```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                     2 ************************************************************************
                                                     3 *
                                                     4 *        Zvector E6 instruction tests for VRI-g encoded:
                                                     5 *
                                                     6 *        E659 VSRP   - VECTOR SHIFT AND ROUND DECIMAL
                                                     7 *        E65B VPSOP  - VECTOR PERFORM SIGN OPERATION DECIMAL
                                                     8 *
                                                     9 *        James Wekel June 2024
                                                    10 *                   April 2026 - packed-decimal-enhancements facility 3
                                                    11 ************************************************************************
                                                    12
                                                    13 ************************************************************************
                                                    14 *
                                                    15 *        basic instruction tests
                                                    16 *
                                                    17 ************************************************************************
                                                    18 *  This program tests proper functioning of the z/arch E6 VRI-g vector
                                                    19 *  shift and round decimal, and perform sign operation decimal
                                                    20 *  instructions. Exceptions are not tested.
                                                    21 *
                                                    22 *  PLEASE NOTE that the tests are very SIMPLE TESTS designed to catch
                                                    23 *  obvious coding errors.  None of the tests are thorough.  They are
                                                    24 *  NOT designed to test all aspects of any of the instructions.
                                                    25 *
                                                    26 ************************************************************************
                                                    27 *
                                                    28 *   *Testcase zvector-e6-16-VSRP-VPSOP
                                                    29 *   *
                                                    30 *   *    Zvector E6 tests for VRI-g encoded instruction:
                                                    31 *   *
                                                    32 *   *    E659 VSRP   - VECTOR SHIFT AND ROUND DECIMAL
                                                    33 *   *    E65B VPSOP  - VECTOR PERFORM SIGN OPERATION DECIMAL
                                                    34 *   *
                                                    35 *   *    # ------------------------------------------------------------
                                                    36 *   *    #  This tests only the basic function of the instruction.
                                                    37 *   *    #  Exceptions are NOT tested.
                                                    38 *   *    # ------------------------------------------------------------
                                                    39 *   *
                                                    40 *   mainsize    2
                                                    41 *   numcpu      1
                                                    42 *   sysclear
                                                    43 *   archlvl     z/Arch
                                                    44 *
                                                    45 *   diag8cmd    enable    # (needed for messages to Hercules console)
                                                    46 *   loadcore    "$(testpath)/zvector-e6-16-VSRP-VPSOP.core" 0x0
                                                    47 *   diag8cmd    disable   # (reset back to default)
                                                    48 *
                                                    49 *   *Done
                                                    50 *
                                                    51 ************************************************************************
```

```
 LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                   53 ************************************************************************
                                                   54 *        FCHECK Macro - Is a Facility Bit set?
                                                   55 *
                                                   56 *        If the facility bit is NOT set, an message is issued and
                                                   57 *        the test is skipped.
                                                   58 *
                                                   59 *        Fcheck uses R0, R1 and R2
                                                   60 *
                                                   61 * eg.    FCHECK 134,'vector-packed-decimal'
                                                   62 ************************************************************************
                                                   63          MACRO
                                                   64          FCHECK &BITNO,&NOTSETMSG
                                                   65 .*                        &BITNO : facility bit number to check
                                                   66 .*                        &NOTSETMSG : 'facility name'
                                                   67          LCLA  &FBBYTE           Facility bit in Byte
                                                   68          LCLA  &FBBIT            Facility bit within Byte
                                                   69
                                                   70          LCLA  &L(8)
                                                   71 &L(1)    SetA  128,64,32,16,8,4,2,1  bit positions within byte
                                                   72
                                                   73 &FBBYTE  SETA  &BITNO/8
                                                   74 &FBBIT   SETA  &L((&BITNO-(&FBBYTE*8))+1)
                                                   75 .*       MNOTE 0,'checking Bit=&BITNO: FBBYTE=&FBBYTE, FBBIT=&FBBIT'
                                                   76
                                                   77          B     X&SYSNDX
                                                   78 *                                        Fcheck data area
                                                   79 *                                        skip message
                                                   80 SKT&SYSNDX DC  C'          Skipping tests: '
                                                   81          DC    C&NOTSETMSG
                                                   82          DC    C' facility (bit &BITNO) is not installed.'
                                                   83 SKL&SYSNDX EQU *-SKT&SYSNDX
                                                   84 *                                        facility bits
                                                   85          DS    FD                        gap
                                                   86 FB&SYSNDX DS   4FD
                                                   87          DS    FD                        gap
                                                   88 *
                                                   89 X&SYSNDX EQU *
                                                   90          LA    R0,((X&SYSNDX-FB&SYSNDX)/8)-1
                                                   91          STFLE FB&SYSNDX                 get facility bits
                                                   92
                                                   93          XGR   R0,R0
                                                   94          IC    R0,FB&SYSNDX+&FBBYTE      get fbit byte
                                                   95          N     R0,=F'&FBBIT'             is bit set?
                                                   96          BNZ   XC&SYSNDX
                                                   97 *
                                                   98 * facility bit not set, issue message and exit
                                                   99 *
                                                  100          LA    R0,SKL&SYSNDX             message length
                                                  101          LA    R1,SKT&SYSNDX             message address
                                                  102          BAL   R2,MSG
                                                  103
                                                  104          B     EOJ
                                                  105 XC&SYSNDX EQU *
                                                  106          MEND
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

                                                   108 ************************************************************************
                                                   109 *        Low core PSWs
                                                   110 ************************************************************************


                             00000000  0000718F   112 ZVE6TST  START 0
00000000                     00000000              113          USING ZVE6TST,R0            Low core addressability
                                                   114
                             00000140  00000000   115 SVOLDPSW EQU   ZVE6TST+X'140'        z/Arch Supervisor call old PSW


00000000                     00000000  000001A0   117          ORG   ZVE6TST+X'1A0'        z/Architecture RESTART PSW
000001A0  00000001 80000000                        118          DC    X'0000000180000000'
000001A8  00000000 00000200                        119          DC    AD(BEGIN)


000001B0                     000001B0  000001D0   121          ORG   ZVE6TST+X'1D0'        z/Architecture PROGRAM CHECK PSW
000001D0  00020001 80000000                        122          DC    X'0002000180000000'
000001D8  00000000 0000DEAD                        123          DC    AD(X'DEAD')


000001E0                     000001E0  00000200   125          ORG   ZVE6TST+X'200'        Start of actual test program...
                                                   126
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                    128 ************************************************************************
                                                    129 *                The actual "ZVE6TST" program itself...
                                                    130 ************************************************************************
                                                    131 *
                                                    132 *  Architecture Mode: z/Arch
                                                    133 *  Register Usage:
                                                    134 *
                                                    135 *   R0       (work)
                                                    136 *   R1-4     (work)
                                                    137 *   R5       Testing control table - current test base
                                                    138 *   R6-R7    (work)
                                                    139 *   R8       First base register
                                                    140 *   R9       Second base register
                                                    141 *   R10      Third base register
                                                    142 *   R11      E6TEST call return
                                                    143 *   R12      E6TESTS register
                                                    144 *   R13      (work)
                                                    145 *   R14      Subroutine call
                                                    146 *   R15      Secondary Subroutine call or work
                                                    147 *
                                                    148 ************************************************************************

00000200                        00000200            150          USING  BEGIN,R8        FIRST Base Register
00000200                        00001200            151          USING  BEGIN+4096,R9   SECOND Base Register
00000200                        00002200            152          USING  BEGIN+8192,R10  THIRD Base Register
                                                    153
00000200  0580                                      154 BEGIN    BALR   R8,0            Initialize FIRST base register
00000202  0680                                      155          BCTR   R8,0            Initialize FIRST base register
00000204  0680                                      156          BCTR   R8,0            Initialize FIRST base register
                                                    157
00000206  4190 8800                     00000800    158          LA     R9,2048(,R8)    Initialize SECOND base register
0000020A  4190 9800                     00000800    159          LA     R9,2048(,R9)    Initialize SECOND base register
                                                    160
0000020E  41A0 9800                     00000800    161          LA     R10,2048(,R9)   Initialize THIRD base register
00000212  41A0 A800                     00000800    162          LA     R10,2048(,R10)  Initialize THIRD base register
                                                    163
00000216  B600 84EC                     000006EC    164          STCTL  R0,R0,CTLR0     Store CR0 to enable AFP
0000021A  9604 84ED                     000006ED    165          OI     CTLR0+1,X'04'   Turn on AFP bit
0000021E  9602 84ED                     000006ED    166          OI     CTLR0+1,X'02'   Turn on Vector bit
00000222  B700 84EC                     000006EC    167          LCTL   R0,R0,CTLR0     Reload updated CR0
                                                    168
                                                    169 ************************************************************************
                                                    170 * Is Vector packed-decimal facility installed  (bit 134)
                                                    171 ************************************************************************
                                                    172
                                                    173          FCHECK 134,'vector-packed-decimal'
00000226  47F0 80B0                     000002B0    174+         B      X0001
                                                    175+*                                   Fcheck data area
                                                    176+*                                   skip message
0000022A  40404040 40404040                         177+SKT0001  DC     C'          Skipping tests: '
00000244  A58583A3 96996097                         178+         DC     C'vector-packed-decimal'
00000259  40868183 899389A3                         179+         DC     C' facility (bit 134) is not installed.'
                                 00000054  00000001 180+SKL0001  EQU    *-SKT0001
                                                    181+*                                   facility bits
00000280  00000000 00000000                         182+         DS     FD                 gap
00000288  00000000 00000000                         183+FB0001   DS     4FD
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

000002A8  00000000 00000000                        184+         DS    FD                      gap
                                                   185+*
                              000002B0  00000001   186+X0001    EQU   *
000002B0  4100 0004                     00000004   187+         LA    R0,((X0001-FB0001)/8)-1
000002B4  B2B0 8088                     00000288   188+         STFLE FB0001                  get facility bits
000002B8  B982 0000                                189+         XGR   R0,R0
000002BC  4300 8098                     00000298   190+         IC    R0,FB0001+16            get fbit byte
000002C0  5400 84F4                     000006F4   191+         N     R0,=F'2'                is bit set?
000002C4  4770 80D8                     000002D8   192+         BNZ   XC0001
                                                   193+*
                                                   194+* facility bit not set, issue message and exit
                                                   195+*
000002C8  4100 0054                     00000054   196+         LA    R0,SKL0001              message length
000002CC  4110 802A                     0000022A   197+         LA    R1,SKT0001              message address
000002D0  4520 8408                     00000608   198+         BAL   R2,MSG
000002D4  47F0 84D0                     000006D0   199+         B     EOJ
                              000002D8  00000001   200+XC0001   EQU   *
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                    202 ************************************************************************
                                                    203 * Is Vector packed-decimal enhancement 1 facility installed  (bit 152)
                                                    204 ************************************************************************
                                                    205
                                                    206          FCHECK 152,'packed-decimal-enhancement 1'
000002D8  47F0 8168                     00000368    207+         B     X0002
                                                    208+*                                     Fcheck data area
                                                    209+*                                     skip message
000002DC  40404040 40404040                         210+SKT0002  DC    C'          Skipping tests: '
000002F6  97818392 85846084                         211+         DC    C'packed-decimal-enhancement 1'
00000312  40868183 899389A3                         212+         DC    C' facility (bit 152) is not installed.'
                            0000005B  00000001      213+SKL0002  EQU   *-SKT0002
                                                    214+*                                     facility bits
00000338  00000000 00000000                         215+         DS    FD                     gap
00000340  00000000 00000000                         216+FB0002   DS    4FD
00000360  00000000 00000000                         217+         DS    FD                     gap
                                                    218+*
                            00000368  00000001      219+X0002    EQU   *
00000368  4100 0004                     00000004    220+         LA    R0,((X0002-FB0002)/8)-1
0000036C  B2B0 8140                     00000340    221+         STFLE FB0002                 get facility bits
00000370  B982 0000                                 222+         XGR   R0,R0
00000374  4300 8153                     00000353    223+         IC    R0,FB0002+19           get fbit byte
00000378  5400 84F8                     000006F8    224+         N     R0,=F'128'             is bit set?
0000037C  4770 8190                     00000390    225+         BNZ   XC0002
                                                    226+*
                                                    227+* facility bit not set, issue message and exit
                                                    228+*
00000380  4100 005B                     0000005B    229+         LA    R0,SKL0002             message length
00000384  4110 80DC                     000002DC    230+         LA    R1,SKT0002             message address
00000388  4520 8408                     00000608    231+         BAL   R2,MSG
0000038C  47F0 84D0                     000006D0    232+         B     EOJ
                            00000390  00000001      233+XC0002   EQU   *
                                                    234
                                                    235 ************************************************************************
                                                    236 * Is Vector packed-decimal enhancement 3 facility installed  (bit 199)
                                                    237 ************************************************************************
                                                    238
                                                    239          FCHECK 199,'packed-decimal-enhancement 3'
00000390  47F0 8220                     00000420    240+         B     X0003
                                                    241+*                                     Fcheck data area
                                                    242+*                                     skip message
00000394  40404040 40404040                         243+SKT0003  DC    C'          Skipping tests: '
000003AE  97818392 85846084                         244+         DC    C'packed-decimal-enhancement 3'
000003CA  40868183 899389A3                         245+         DC    C' facility (bit 199) is not installed.'
                            0000005B  00000001      246+SKL0003  EQU   *-SKT0003
                                                    247+*                                     facility bits
000003F0  00000000 00000000                         248+         DS    FD                     gap
000003F8  00000000 00000000                         249+FB0003   DS    4FD
00000418  00000000 00000000                         250+         DS    FD                     gap
                                                    251+*
                            00000420  00000001      252+X0003    EQU   *
00000420  4100 0004                     00000004    253+         LA    R0,((X0003-FB0003)/8)-1
00000424  B2B0 81F8                     000003F8    254+         STFLE FB0003                 get facility bits
00000428  B982 0000                                 255+         XGR   R0,R0
0000042C  4300 8210                     00000410    256+         IC    R0,FB0003+24           get fbit byte
00000430  5400 84FC                     000006FC    257+         N     R0,=F'1'               is bit set?
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00000434  4770 8248                     00000448   258+         BNZ   XC0003
                                                   259+*
                                                   260+* facility bit not set, issue message and exit
                                                   261+*
00000438  4100 005B                     0000005B   262+         LA    R0,SKL0003              message length
0000043C  4110 8194                     00000394   263+         LA    R1,SKT0003              message address
00000440  4520 8408                     00000608   264+         BAL   R2,MSG
00000444  47F0 84D0                     000006D0   265+         B     EOJ
                              00000448  00000001   266+XC0003   EQU   *
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT
                                                   268 ***********************************************************************
                                                   269 *               Do tests in the E6TESTS table
                                                   270 ***********************************************************************
                                                   271
00000448  58C0 8500                     00000700   272          L     R12,=A(E6TESTS)       get table of test addresses
                                                   273
                                 0000044C  00000001  274 NEXTE6   EQU   *
0000044C  5850 C000                     00000000   275          L     R5,0(0,R12)       get test address
00000450  1255                                     276          LTR   R5,R5                  have a test?
00000452  4780 83BE                     000005BE   277          BZ    ENDTEST                   done?
                                                   278
00000456  B982 0000                                279          XGR   R0,R0             no cc error
                                                   280
0000045A                         00000000          281          USING E6TEST,R5
                                                   282
0000045A  4800 5004                     00000004   283          LH    R0,TNUM           save current test number
0000045E  5000 8E04                     00001004   284          ST    R0,TESTING        for easy reference
                                                   285
00000462  E710 8F28 0006                00001128   286          VL    V1,V1FUDGE
00000468  58B0 5000                     00000000   287          L     R11,TSUB          get address of test routine
0000046C  05BB                                     288          BALR  R11,R11           do test
                                                   289
0000046E  E310 500B 0076                0000000B   290          LB    R1,CCMASK         (failure CC mask)
00000474  8910 0004                     00000004   291          SLL   R1,4              (shift to BC instr CC position)
00000478  4410 8294                     00000494   292          EX    R1,TESTCC            fail if...
                                                   293
                                 0000047C  00000001  294 TESTREST EQU   *
0000047C  E310 5034 0014                00000034   295          LGF   R1,READDR         get address of expected result
00000482  D50F 5018 1000         00000018  00000000  296          CLC   V1OUT,0(R1)         valid?
00000488  4770 8328                     00000528   297          BNE   FAILMSG              no, issue failed message
                                                   298
0000048C  41C0 C004                     00000004   299          LA    R12,4(0,R12)      next test address
00000490  47F0 824C                     0000044C   300          B     NEXTE6
                                                   301
00000494  4700 8298                     00000498   302 TESTCC   BC    0,CCMSG          (fail if unexpected condition code)
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                    304 ************************************************************************
                                                    305 * cc was not as expected
                                                    306 ************************************************************************
                                00000498  00000001  307 CCMSG    EQU   *
00000498  E310 0001 0082                00000001  308         XG    R1,R1
0000049E  E310 5009 0076                00000009  309         LB    R1,M5                   M5 has CS bit
000004A4  5410 84FC                     000006FC  310         N     R1,=F'1'                get CS (CC set) bit
000004A8  4780 827C                     0000047C  311         BZ    TESTREST                    ignore if not set
                                                    312 *
                                                    313 * extract CC extracted PSW
                                                    314 *
000004AC  5810 5028                     00000028  315         L     R1,CCPSW
000004B0  8810 000C                     0000000C  316         SRL   R1,12
000004B4  5410 8504                     00000704  317         N     R1,=XL4'3'
000004B8  4210 8EF2                     000010F2  318         STC   R1,CCFOUND              save cc
                                                    319 *
                                                    320 * FILL IN MESSAGE
                                                    321 *
000004BC  4820 5004                     00000004  322         LH    R2,TNUM                 get test number and convert
000004C0  4E20 8EE2                     000010E2  323         CVD   R2,DECNUM
000004C4  D211 8ECC 8EB6      000010CC  000010B6  324         MVC   PRT3,EDIT
000004CA  DE11 8ECC 8EE2      000010CC  000010E2  325         ED    PRT3,DECNUM
000004D0  D202 8E71 8ED9      00001071  000010D9  326         MVC   CCPRTNUM(3),PRT3+13     fill in message with test #
                                                    327
000004D6  D207 8E8E 5010      0000108E  00000010  328         MVC   CCPRTNAME,OPNAME        fill in message with instruction
                                                    329
000004DC  B982 0022                                 330         XGR   R2,R2                   get CC as U8
000004E0  4320 500A                     0000000A  331         IC    R2,CC
000004E4  4E20 8EE2                     000010E2  332         CVD   R2,DECNUM               and convert
000004E8  D211 8ECC 8EB6      000010CC  000010B6  333         MVC   PRT3,EDIT
000004EE  DE11 8ECC 8EE2      000010CC  000010E2  334         ED    PRT3,DECNUM
000004F4  D200 8EA4 8EDB      000010A4  000010DB  335         MVC   CCPRTEXP(1),PRT3+15     fill in message with CC field
                                                    336
000004FA  B982 0022                                 337         XGR   R2,R2                   get CCFOUND as U8
000004FE  4320 8EF2                     000010F2  338         IC    R2,CCFOUND
00000502  4E20 8EE2                     000010E2  339         CVD   R2,DECNUM               and convert
00000506  D211 8ECC 8EB6      000010CC  000010B6  340         MVC   PRT3,EDIT
0000050C  DE11 8ECC 8EE2      000010CC  000010E2  341         ED    PRT3,DECNUM
00000512  D200 8EB4 8EDB      000010B4  000010DB  342         MVC   CCPRTGOT(1),PRT3+15     fill in message with ccfound
                                                    343
00000518  4100 0055                     00000055  344         LA    R0,CCPRTLNG             message length
0000051C  4110 8E61                     00001061  345         LA    R1,CCPRTLINE            messagfe address
00000520  45F0 83CC                     000005CC  346         BAL   R15,RPTERROR
                                                    347
00000524  47F0 827C                     0000047C  348         B     TESTREST
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                    350 ***********************************************************************
                                                    351 * result not as expected:
                                                    352 *        issue message with test number, instruction under test
                                                    353 *              and instruction m3
                                                    354 ***********************************************************************
                                00000528  00000001  355 FAILMSG  EQU   *
00000528  4820 5004                         00000004  356          LH    R2,TNUM              get test number and convert
0000052C  4E20 8EE2                         000010E2  357          CVD   R2,DECNUM
00000530  D211 8ECC 8EB6        000010CC    000010B6  358          MVC   PRT3,EDIT
00000536  DE11 8ECC 8EE2        000010CC    000010E2  359          ED    PRT3,DECNUM
0000053C  D202 8E18 8ED9        00001018    000010D9  360          MVC   PRTNUM(3),PRT3+13    fill in message with test #
                                                    361
00000542  D207 8E33 5010        00001033    00000010  362          MVC   PRTNAME,OPNAME       fill in message with instruction
                                                    363
00000548  B982 0022                                 364          XGR   R2,R2                get i3 as U8
0000054C  4320 5007                         00000007  365          IC    R2,I3
00000550  4E20 8EE2                         000010E2  366          CVD   R2,DECNUM            and convert
00000554  D211 8ECC 8EB6        000010CC    000010B6  367          MVC   PRT3,EDIT
0000055A  DE11 8ECC 8EE2        000010CC    000010E2  368          ED    PRT3,DECNUM
00000560  D202 8E44 8ED9        00001044    000010D9  369          MVC   PRTI3(3),PRT3+13     fill in message with i3 field
                                                    370
00000566  B982 0022                                 371          XGR   R2,R2                get i4 as U8
0000056A  4320 5008                         00000008  372          IC    R2,I4
0000056E  4E20 8EE2                         000010E2  373          CVD   R2,DECNUM            and convert
00000572  D211 8ECC 8EB6        000010CC    000010B6  374          MVC   PRT3,EDIT
00000578  DE11 8ECC 8EE2        000010CC    000010E2  375          ED    PRT3,DECNUM
0000057E  D202 8E51 8ED9        00001051    000010D9  376          MVC   PRTI4(3),PRT3+13     fill in message with i4 field
                                                    377
00000584  B982 0022                                 378          XGR   R2,R2                get m5 as U8
00000588  4320 5009                         00000009  379          IC    R2,M5                and convert
0000058C  4E20 8EE2                         000010E2  380          CVD   R2,DECNUM
00000590  D211 8ECC 8EB6        000010CC    000010B6  381          MVC   PRT3,EDIT
00000596  DE11 8ECC 8EE2        000010CC    000010E2  382          ED    PRT3,DECNUM
0000059C  D201 8E5E 8EDA        0000105E    000010DA  383          MVC   PRTM5(2),PRT3+14     fill in message with m5 field
                                                    384
000005A2  4100 0059                         00000059  385          LA    R0,PRTLNG            message length
000005A6  4110 8E08                         00001008  386          LA    R1,PRTLINE           messagfe address
000005AA  45F0 83CC                         000005CC  387          BAL   R15,RPTERROR


                                                    389 ***********************************************************************
                                                    390 * continue after a failed test
                                                    391 ***********************************************************************
                                000005AE  00000001  392 FAILCONT EQU   *
000005AE  5800 84FC                         000006FC  393          L     R0,=F'1'          set GLOBAL failed test indicator
000005B2  5000 8E00                         00001000  394          ST    R0,FAILED
                                                    395
000005B6  41C0 C004                         00000004  396          LA    R12,4(0,R12)      next test address
000005BA  47F0 824C                         0000044C  397          B     NEXTE6


                                                    399 ***********************************************************************
                                                    400 * end of testing; set ending psw
                                                    401 ***********************************************************************
                                000005BE  00000001  402 ENDTEST  EQU   *
000005BE  5810 8E00                         00001000  403          L     R1,FAILED         did a test fail?
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

000005C2  1211                                     404          LTR   R1,R1
000005C4  4780 84D0                     000006D0   405          BZ    EOJ                  No, exit
000005C8  47F0 84E8                     000006E8   406          B     FAILTEST             Yes, exit with BAD PSW
                                                   407
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

                                                   409 ************************************************************************
                                                   410 *        RPTERROR          Report instruction test in error
                                                   411 *                              R0 = MESSGAE LENGTH
                                                   412 *                              R1 = ADDRESS OF MESSAGE
                                                   413 ************************************************************************

000005CC  50F0 83EC                     000005EC   415 RPTERROR ST    R15,RPTSAVE          Save return address
000005D0  5050 83F0                     000005F0   416          ST    R5,RPTSVR5           Save R5
                                                   417 *
                                                   418 *        Use Hercules Diagnose for Message to console
                                                   419 *
000005D4  9002 83F8                     000005F8   420          STM   R0,R2,RPTDWSAV       save regs used by MSG
000005D8  4520 8408                     00000608   421          BAL   R2,MSG               call Hercules console MSG display
000005DC  9802 83F8                     000005F8   422          LM    R0,R2,RPTDWSAV       restore regs


000005E0  5850 83F0                     000005F0   424          L     R5,RPTSVR5           Restore R5
000005E4  58F0 83EC                     000005EC   425          L     R15,RPTSAVE          Restore return address
000005E8  07FF                                     426          BR    R15                  Return to caller

000005EC  00000000                                 428 RPTSAVE  DC    F'0'                 R15 save area
000005F0  00000000                                 429 RPTSVR5  DC    F'0'                 R5 save area

000005F8  00000000 00000000                        431 RPTDWSAV DC    2D'0'                R0-R2 save area for MSG call
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

                                                   433 ************************************************************************
                                                   434 *        Issue HERCULES MESSAGE pointed to by R1, length in R0
                                                   435 *              R2 = return address
                                                   436 ************************************************************************
                                                   437
00000608  4900 8508                  00000708      438 MSG      CH    R0,=H'0'                Do we even HAVE a message?
0000060C  07D2                                     439          BNHR  R2                      No, ignore
                                                   440
0000060E  9002 8444                  00000644      441          STM   R0,R2,MSGSAVE           Save registers
                                                   442
00000612  4900 850A                  0000070A      443          CH    R0,=AL2(L'MSGMSG)       Message length within limits?
00000616  47D0 841E                  0000061E      444          BNH   MSGOK                   Yes, continue
0000061A  4100 005F                  0000005F      445          LA    R0,L'MSGMSG             No, set to maximum
                                                   446
0000061E  1820                                     447 MSGOK    LR    R2,R0                   Copy length to work register
00000620  0620                                     448          BCTR  R2,0                    Minus-1 for execute
00000622  4420 8450                  00000650      449          EX    R2,MSGMVC               Copy message to O/P buffer
                                                   450
00000626  4120 200A                  0000000A      451          LA    R2,1+L'MSGCMD(,R2)      Calculate true command length
0000062A  4110 8456                  00000656      452          LA    R1,MSGCMD               Point to true command
                                                   453
0000062E  83120008                                 454          DC    X'83',X'12',X'0008'     Issue Hercules Diagnose X'008'
00000632  4780 843E                  0000063E      455          BZ    MSGRET                  Return if successful
                                                   456
00000636  1222                                     457          LTR   R2,R2                   Is Diag8 Ry (R2) 0?
00000638  4780 843E                  0000063E      458          BZ    MSGRET                    an error occurred but coninue
                                                   459
0000063C  0000                                     460          DC    H'0'                    CRASH for debugging purposes
                                                   461
0000063E  9802 8444                  00000644      462 MSGRET   LM    R0,R2,MSGSAVE           Restore registers
00000642  07F2                                     463          BR    R2                      Return to caller


00000644  00000000 00000000                        465 MSGSAVE  DC    3F'0'                   Registers save area
00000650  D200 845F 1000      0000065F  00000000   466 MSGMVC   MVC   MSGMSG(0),0(R1)          Executed instruction

00000656  D4E2C7D5 D6C8405C                        468 MSGCMD   DC    C'MSGNOH * '            *** HERCULES MESSAGE COMMAND ***
0000065F  40404040 40404040                        469 MSGMSG   DC    CL95' '                 The message text to be displayed
                                                   470
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                    472 ************************************************************************
                                                    473 *        Normal completion or Abnormal termination PSWs
                                                    474 ************************************************************************


000006C0  00020001 80000000                         476 EOJPSW   DC    0D'0',X'0002000180000000',AD(0)

000006D0  B2B2 84C0                       000006C0  478 EOJ      LPSWE EOJPSW               Normal completion


000006D8  00020001 80000000                         480 FAILPSW  DC    0D'0',X'0002000180000000',AD(X'BAD')

000006E8  B2B2 84D8                       000006D8  482 FAILTEST LPSWE FAILPSW              Abnormal termination


                                                    484 ************************************************************************
                                                    485 *        Working Storage
                                                    486 ************************************************************************


000006EC  00000000                                  488 CTLR0    DS    F                    CR0
000006F0  00000000                                  489          DS    F


000006F4                                            491          LTORG ,                    Literals pool
000006F4  00000002                                  492                F'2'
000006F8  00000080                                  493                F'128'
000006FC  00000001                                  494                F'1'
00000700  00006F84                                  495                A(E6TESTS)
00000704  00000003                                  496                XL4'3'
00000708  0000                                      497                H'0'
0000070A  005F                                      498                AL2(L'MSGMSG)
                                                    499
                                                    500 *        some constants
                                                    501
                                 00000400  00000001 502 K        EQU   1024                 One KB
                                 00001000  00000001 503 PAGE     EQU   (4*K)                Size of one page
                                 00010000  00000001 504 K64      EQU   (64*K)               64 KB
                                 00100000  00000001 505 MB       EQU   (K*K)                 1 MB
                                                    506
                                 AABBCCDD  00000001 507 REG2PATT EQU   X'AABBCCDD'    Polluted Register pattern
                                 000000DD  00000001 508 REG2LOW  EQU         X'DD'    (last byte above)
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                    510 *=====================================================================
                                                    511 *
                                                    512 *  NOTE: start data on an address that is easy to display
                                                    513 *        within Hercules
                                                    514 *
                                                    515 *=====================================================================
                                                    516
0000070C                      0000070C  00001000    517          ORG   ZVE6TST+X'1000'
00001000  00000000                                  518 FAILED   DC    F'0'                      some test failed?
00001004  00000000                                  519 TESTING  DC    F'0'                      current test number


                                                    521 ************************************************************************
                                                    522 *        TEST failed : result messgae
                                                    523 ************************************************************************
                                                    524 *
                                                    525 *        failed message and associated editting
                                                    526 *
00001008  40404040 40404040                         527 PRTLINE  DC    C'         Test # '
00001018  A7A7A7                                    528 PRTNUM   DC    C'xxx'
0000101B  40868189 93858440                         529          DC    C' failed for instruction '
00001033  A7A7A7A7 A7A7A7A7                         530 PRTNAME  DC    CL8'xxxxxxxx'
0000103B  40A689A3 884089F3                         531          DC    C' with i3='
00001044  A7A7A7                                    532 PRTI3    DC    C'xxx'
00001047  6B                                        533          DC    C','
00001048  40A689A3 884089F4                         534          DC    C' with i4='
00001051  A7A7A7                                    535 PRTI4    DC    C'xxx'
00001054  6B                                        536          DC    C','
00001055  40A689A3 884094F5                         537          DC    C' with m5='
0000105E  A7A7                                      538 PRTM5    DC    C'xx'
00001060  4B                                        539          DC    C'.'
                              00000059  00000001    540 PRTLNG   EQU   *-PRTLINE


                                                    542 ************************************************************************
                                                    543 *        TEST failed : CC message
                                                    544 ************************************************************************
                                                    545 *
                                                    546 *        failed message and associated editting
                                                    547 *
00001061  40404040 40404040                         548 CCPRTLINE DC   C'         Test # '
00001071  A7A7A7                                    549 CCPRTNUM DC    C'xxx'
00001074  40A69996 95874083                         550          DC    c' wrong cc for instruction '
0000108E  A7A7A7A7 A7A7A7A7                         551 CCPRTNAME DC    CL8'xxxxxxxx'
00001096  4085A797 8583A385                         552          DC    C' expected: cc='
000010A4  A7                                        553 CCPRTEXP DC    C'x'
000010A5  6B                                        554          DC    C','
000010A6  40998583 8589A585                         555          DC    C' received: cc='
000010B4  A7                                        556 CCPRTGOT DC    C'x'
000010B5  4B                                        557          DC    C'.'
                              00000055  00000001    558 CCPRTLNG   EQU   *-CCPRTLINE
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                    560 ************************************************************************
                                                    561 *        TEST failed : message working storge
                                                    562 ************************************************************************
000010B6  40212020 20202020                         563 EDIT     DC    XL18'402120202020202020202020202020202020'
                                                    564
000010C8  7E7E7E6E                                  565          DC    C'===>'
000010CC  40404040 40404040                         566 PRT3     DC    CL18' '
000010DE  4C7E7E7E                                  567          DC    C'<===='
000010E2  00000000 00000000                         568 DECNUM   DS    CL16
                                                    569 *
                                                    570 *        CC extrtaction
                                                    571 *
000010F2  00                                        572 CCFOUND  DS    X           extracted cc

                                                    574 ************************************************************************
                                                    575 *        Vector instruction results, pollution and input
                                                    576 ************************************************************************
000010F8                                            577          DS    0FD
000010F8  00000000 00000000                         578          DS    XL16                                          gap
00001108  00000000 00000000                         579 V1OUTPUT DS    XL16                                       V1 OUTPUT
00001118  00000000 00000000                         580          DS    XL16                                          gap
00001128  FFFFFFFF FFFFFFFF                         581 V1FUDGE  DC    XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF'    V1 FUDGE
00001138  F1F2F3F4 F5F6F7F8                         582 V1INPUT  DC    CL16'1234567890123456'                   V1 input
00001148  F7F8F9F0 F1F2F3F4                         583          DC    CL14'78901234567890'
00001156  D9                                        584          DC    X'D9'
00001157  00000000 00000000                         585          DS    XL16                                          gap
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                    587 ************************************************************************
                                                    588 *        E6TEST DSECT
                                                    589 ************************************************************************


                                                    591 E6TEST   DSECT ,
00000000  00000000                                  592 TSUB     DS    A(0)           pointer  to test
00000004  0000                                      593 TNUM     DS    H'00'          Test Number
00000006  00                                        594          DS    X'00'
00000007  00                                        595 I3       DS    HL1'00'        i3 used
00000008  00                                        596 I4       DS    HL1'00'        i4 used
00000009  00                                        597 M5       DS    HL1'00'        m5 used
0000000A  00                                        598 CC       DS    HL1'00'        cc
0000000B  00                                        599 CCMASK   DS    HL1'00'        not expected CC mask
                                                    600
0000000C  00000000                                  601 V2VALUE  DS    A(0)
                                                    602
00000010  00000000 00000000                         603 OPNAME   DS    CL8' '         E6 name
00000018  00000000 00000000                         604 V1OUT    DS    XL16
00000028  00000000 00000000                         605 CCPSW    DS    2F             extract PSW after test (has CC)
                                                    606
00000030  00000000                                  607 RELEN    DS    A(0)           RESULT LENGTH
00000034  00000000                                  608 READDR   DS    A(0)           expected result address
                                                    609
                                                    610 *        EXPECTED RESULT
                                                    611 **
                                                    612 *        test routine will be here (from VRI_G macro)
```

```
 LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                  614 ***********************************************************************
                                                  615 *     Macros to help build test tables
                                                  616 *---------------------------------------------------------------------
                                                  617 *     VRI_G Macro to help build test tables
                                                  618 ***********************************************************************
                                                  619          MACRO
                                                  620          VRI_G &INST,&I3,&I4,&M5,&CC
                                                  621 .*                                &INST  - VRI-g instruction under test
                                                  622 .*                                &i3    - i3 field
                                                  623 .*                                &i4    - i4 field
                                                  624 .*                                &m5    - m5 field
                                                  625 .*                                &CC    - expected CC
                                                  626 .*
                                                  627          LCLA  &XCC(4)  &CC has mask values for FAILED condition codes
                                                  628 &XCC(1)  SETA  7                  CC != 0
                                                  629 &XCC(2)  SETA  11                 CC != 1
                                                  630 &XCC(3)  SETA  13                 CC != 2
                                                  631 &XCC(4)  SETA  14                 CC != 3
                                                  632 .*
                                                  633          GBLA  &TNUM
                                                  634 &TNUM    SETA  &TNUM+1
                                                  635
                                                  636          DS    0FD
                                                  637          USING *,R5               base for test data and test routine
                                                  638
                                                  639 T&TNUM   DC    A(X&TNUM)          address of test routine
                                                  640          DC    H'&TNUM'           test number
                                                  641          DC    X'00'
                                                  642          DC    HL1'&I3'           i3
                                                  643          DC    HL1'&I4'           i4
                                                  644          DC    HL1'&M5'           m5
                                                  645          DC    HL1'&CC'           cc
                                                  646          DC    HL1'&XCC(&CC+1)'   cc failed mask
                                                  647 V2_&TNUM DC    A(RE&TNUM+16)      address of v2: 16-byte packed decimal
                                                  648          DC    CL8'&INST'         instruction name
                                                  649
                                                  650 V1O&TNUM DC    XL16'00'           V1 OUTPUT
                                                  651 CC&TNUM  DC    2F'0'                 after instruction PWS (ie CC)
                                                  652
                                                  653          DC    A(16)              result length
                                                  654 REA&TNUM DC    A(RE&TNUM)         result address
                                                  655 .*
                                                  656 *                                 INSTRUCTION UNDER TEST ROUTINE
                                                  657
                                                  658 X&TNUM   DS    0F
                                                  659          LGF   R2,V2_&TNUM        get v2
                                                  660          VL    V2,0(R2)
                                                  661
                                                  662          &INST V1,V2,&I3,&I4,&M5  test instruction
                                                  663
                                                  664          VST   V1,V1O&TNUM        save result
                                                  665          EPSW  R2,R0              exptract psw
                                                  666          ST    R2,CC&TNUM             to save CC
                                                  667          BR    R11                return
                                                  668
                                                  669 RE&TNUM  DC    0F
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT

                                                     670          DROP  R5
                                                     671
                                                     672          MEND
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                   674 ************************************************************************
                                                   675 *     PTTABLE Macro to generate table of pointers to individual tests
                                                   676 ************************************************************************
                                                   677
                                                   678          MACRO
                                                   679          PTTABLE
                                                   680          GBLA  &TNUM
                                                   681          LCLA  &CUR
                                                   682 &CUR     SETA  1
                                                   683 .*
                                                   684 TTABLE   DS    0F
                                                   685 .LOOP    ANOP
                                                   686 .*
                                                   687          DC    A(T&CUR)          address of test
                                                   688 .*
                                                   689 &CUR     SETA  &CUR+1
                                                   690          AIF   (&CUR LE &TNUM).LOOP
                                                   691 *
                                                   692          DC    A(0)              END OF TABLE
                                                   693          DC    A(0)
                                                   694 .*
                                                   695          MEND
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

                                                   697 ************************************************************************
                                                   698 *        E6 VRI_G tests
                                                   699 ************************************************************************
                                                   700
                                00000000  0000718F 701 ZVE6TST  CSECT ,
00001167                        00001167  00003000 702          ORG   ZVE6TST+X'3000'
00003000                                           703          DS    0F


                                                   705          PRINT DATA
                                                   706 *
                                                   707 *        E659 VSRP   - VECTOR SHIFT AND ROUND DECIMAL
                                                   708 *        E65B VPSOP  - VECTOR PERFORM SIGN OPERATION DECIMAL
                                                   709 *
                                                   710 *        VRI_G instr,i3,i4,m5,cc
                                                   711 *              followed by
                                                   712 *              v1 - 16 byte expected result
                                                   713 *              v2 - 16 byte zoned decimal (operand)
                                                   714
                                                   715 *-----------------------------------------------------------------
                                                   716 * VSRP  - VECTOR SHIFT AND ROUND DECIMAL REGISTER
                                                   717 *-----------------------------------------------------------------
                                                   718 * VSRP with some I3, I4 and M5's
                                                   719 * I3 tests
                                                   720 *                     i4=129 (iom=1, rdc=1)
                                                   721 *                     i4=132 (iom=1, rdc=4)
                                                   722 *                     i4=135 (iom=1, rdc=7)
                                                   723 *                     i4=142 (iom=1, rdc=14)
                                                   724 *                     i4=159 (iom=1, rdc=31)
                                                   725 * I4
                                                   726 *                     i4=  0 (drd=0, shamt=0)   shift left
                                                   727 *                     i4=  1 (drd=0, shamt=1)   shift left
                                                   728 *                     i4=  4 (drd=0, shamt=4)   shift left
                                                   729 *                     i4=  7 (drd=0, shamt=7)   shift left
                                                   730 *                     i4= 14 (drd=0, shamt=14)  shift left
                                                   731 *                     i4= 30 (drd=0, shamt=30)  shift left
                                                   732 *                     i4= 31 (drd=0, shamt=31)  shift left
                                                   733 *                     i4= 63 (drd=0, shamt=63)  shift left
                                                   734
                                                   735 *                     i4=64  (drd=0, shamt=-64) shift right
                                                   736 *                     i4=96  (drd=0, shamt=-32) shift right
                                                   737 *                     i4=114 (drd=0, shamt=-14) shift right
                                                   738 *                     i4=121 (drd=0, shamt=-7)  shift right
                                                   739 *                     i4=124 (drd=0, shamt=-4)  shift right
                                                   740 *                     i4=127 (drd=0, shamt=-1)  shift right
                                                   741
                                                   742 *                     i4=129 (drd=1, shamt=1)   shift left
                                                   743 *                     i4=132 (drd=1, shamt=4)   shift left
                                                   744 *                     i4=135 (drd=1, shamt=7)   shift left
                                                   745 *                     i4=142 (drd=1, shamt=14)  shift left
                                                   746 *                     i4=159 (drd=1, shamt=31)  shift left
                                                   747 *                     i4=191 (drd=1, shamt=63)  shift left
                                                   748
                                                   749 *                     i4=192 (drd=1, shamt=-64) shift right
                                                   750 *                     i4=224 (drd=1, shamt=-32) shift right
                                                   751 *                     i4=225 (drd=1, shamt=-31) shift right
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                    752 *                     i4=242 (drd=1, shamt=-14) shift right
                                                    753 *                     i4=249 (drd=1, shamt=-7)  shift right
                                                    754 *                     i4=252 (drd=1, shamt=-4)  shift right
                                                    755 *                     i4=255 (drd=1, shamt=-1)  shift right
                                                    756
                                                    757 *
                                                    758 * m5 tests (note: cs is always 1)
                                                    759 *                                   m5=1  (p2=0, p1=0, cs=1)
                                                    760 *                                   m5=3  (p2=0, p1=1, cs=1)
                                                    761 *                                   m5=9  (p2=1, p1=0, cs=1)
                                                    762 *                                   m5=11 (p2=1, p1=1, cs=1)
                                                    763
                                                    764          VRI_G VSRP,159,0,1,2            shamt=0
00003000                                            765+         DS    0FD
00003000                      00003000              766+         USING *,R5              base for test data and test routine
00003000  00003038                                  767+T1       DC    A(X1)             address of test routine
00003004  0001                                      768+         DC    H'1'              test number
00003006  00                                        769+         DC    X'00'
00003007  9F                                        770+         DC    HL1'159'          i3
00003008  00                                        771+         DC    HL1'0'            i4
00003009  01                                        772+         DC    HL1'1'            m5
0000300A  02                                        773+         DC    HL1'2'            cc
0000300B  0D                                        774+         DC    HL1'13'           cc failed mask
0000300C  0000306C                                  775+V2_1     DC    A(RE1+16)         address of v2: 16-byte packed decimal
00003010  E5E2D9D7 40404040                         776+         DC    CL8'VSRP'         instruction name
00003018  00000000 00000000                         777+V1O1     DC    XL16'00'          V1 OUTPUT
00003020  00000000 00000000
00003028  00000000 00000000                         778+CC1      DC    2F'0'                after instruction PWS (ie CC)
00003030  00000010                                  779+         DC    A(16)             result length
00003034  0000305C                                  780+REA1     DC    A(RE1)            result address
                                                    781+*                                  INSTRUCTION UNDER TEST ROUTINE
00003038                                            782+X1       DS    0F
00003038  E320 500C 0014                0000300C    783+         LGF   R2,V2_1           get v2
0000303E  E722 0000 0006                00000000    784+         VL    V2,0(R2)
00003044  E612 0019 F059                            785+         VSRP  V1,V2,159,0,1      test instruction
0000304A  E710 5018 000E                00003018    786+         VST   V1,V1O1           save result
00003050  B98D 0020                                 787+         EPSW  R2,R0             exptract psw
00003054  5020 5028                     00003028    788+         ST    R2,CC1                 to save CC
00003058  07FB                                      789+         BR    R11               return
0000305C                                            790+RE1      DC    0F
0000305C                                            791+         DROP  R5
0000305C  00000000 00000000                         792          DC    XL16'0000000000000000000000000000022C'    V1
00003064  00000000 0000022C
0000306C  00000000 00000000                         793          DC    XL16'0000000000000000000000000000022C'    V2
00003074  00000000 0000022C
                                                    794
                                                    795          VRI_G VSRP,159,1,1,2            shamt=1 (left)
00003080                                            796+         DS    0FD
00003080                      00003080              797+         USING *,R5              base for test data and test routine
00003080  000030B8                                  798+T2       DC    A(X2)             address of test routine
00003084  0002                                      799+         DC    H'2'              test number
00003086  00                                        800+         DC    X'00'
00003087  9F                                        801+         DC    HL1'159'          i3
00003088  01                                        802+         DC    HL1'1'            i4
00003089  01                                        803+         DC    HL1'1'            m5
0000308A  02                                        804+         DC    HL1'2'            cc
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

0000308B  0D                                      805+         DC    HL1'13'           cc failed mask
0000308C  000030EC                                806+V2_2     DC    A(RE2+16)         address of v2: 16-byte packed decimal
00003090  E5E2D9D7 40404040                       807+         DC    CL8'VSRP'         instruction name
00003098  00000000 00000000                       808+V1O2     DC    XL16'00'          V1 OUTPUT
000030A0  00000000 00000000
000030A8  00000000 00000000                       809+CC2      DC    2F'0'                after instruction PWS (ie CC)
000030B0  00000010                                810+         DC    A(16)             result length
000030B4  000030DC                                811+REA2     DC    A(RE2)            result address
                                                  812+*                                  INSTRUCTION UNDER TEST ROUTINE
000030B8                                          813+X2       DS    0F
000030B8  E320 500C 0014                0000308C  814+         LGF   R2,V2_2           get v2
000030BE  E722 0000 0006                00000000  815+         VL    V2,0(R2)
000030C4  E612 0119 F059                          816+         VSRP  V1,V2,159,1,1      test instruction
000030CA  E710 5018 000E                00003098  817+         VST   V1,V1O2           save result
000030D0  B98D 0020                               818+         EPSW  R2,R0             exptract psw
000030D4  5020 5028                     000030A8  819+         ST    R2,CC2                 to save CC
000030D8  07FB                                    820+         BR    R11               return
000030DC                                          821+RE2      DC    0F
000030DC                                          822+         DROP  R5
000030DC  00000000 00000000                       823          DC    XL16'0000000000000000000000000000220C'    V1
000030E4  00000000 0000220C
000030EC  00000000 00000000                       824          DC    XL16'0000000000000000000000000000022C'    V2
000030F4  00000000 0000022C
                                                  825
                                                  826          VRI_G VSRP,159,7,1,2            shamt=7 (left)
00003100                                          827+         DS    0FD
00003100                        00003100          828+         USING *,R5              base for test data and test routine
00003100  00003138                                829+T3       DC    A(X3)             address of test routine
00003104  0003                                    830+         DC    H'3'              test number
00003106  00                                      831+         DC    X'00'
00003107  9F                                      832+         DC    HL1'159'          i3
00003108  07                                      833+         DC    HL1'7'            i4
00003109  01                                      834+         DC    HL1'1'            m5
0000310A  02                                      835+         DC    HL1'2'            cc
0000310B  0D                                      836+         DC    HL1'13'           cc failed mask
0000310C  0000316C                                837+V2_3     DC    A(RE3+16)         address of v2: 16-byte packed decimal
00003110  E5E2D9D7 40404040                       838+         DC    CL8'VSRP'         instruction name
00003118  00000000 00000000                       839+V1O3     DC    XL16'00'          V1 OUTPUT
00003120  00000000 00000000
00003128  00000000 00000000                       840+CC3      DC    2F'0'                after instruction PWS (ie CC)
00003130  00000010                                841+         DC    A(16)             result length
00003134  0000315C                                842+REA3     DC    A(RE3)            result address
                                                  843+*                                  INSTRUCTION UNDER TEST ROUTINE
00003138                                          844+X3       DS    0F
00003138  E320 500C 0014                0000310C  845+         LGF   R2,V2_3           get v2
0000313E  E722 0000 0006                00000000  846+         VL    V2,0(R2)
00003144  E612 0719 F059                          847+         VSRP  V1,V2,159,7,1      test instruction
0000314A  E710 5018 000E                00003118  848+         VST   V1,V1O3           save result
00003150  B98D 0020                               849+         EPSW  R2,R0             exptract psw
00003154  5020 5028                     00003128  850+         ST    R2,CC3                 to save CC
00003158  07FB                                    851+         BR    R11               return
0000315C                                          852+RE3      DC    0F
0000315C                                          853+         DROP  R5
0000315C  00000000 00000000                       854          DC    XL16'0000000000000000000000220000000C'    V1
00003164  00000022 0000000C
0000316C  00000000 00000000                       855          DC    XL16'0000000000000000000000000000022C'    V2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003174  00000000 0000022C
                                                   856
                                                   857          VRI_G VSRP,159,30,1,3            shamt=30 (left) (overflow)
00003180                                           858+         DS    0FD
00003180                       00003180            859+         USING *,R5               base for test data and test routine
00003180  000031B8                                 860+T4       DC    A(X4)              address of test routine
00003184  0004                                     861+         DC    H'4'               test number
00003186  00                                       862+         DC    X'00'
00003187  9F                                       863+         DC    HL1'159'           i3
00003188  1E                                       864+         DC    HL1'30'            i4
00003189  01                                       865+         DC    HL1'1'             m5
0000318A  03                                       866+         DC    HL1'3'             cc
0000318B  0E                                       867+         DC    HL1'14'            cc failed mask
0000318C  000031EC                                 868+V2_4     DC    A(RE4+16)          address of v2: 16-byte packed decimal
00003190  E5E2D9D7 40404040                        869+         DC    CL8'VSRP'          instruction name
00003198  00000000 00000000                        870+V1O4     DC    XL16'00'           V1 OUTPUT
000031A0  00000000 00000000
000031A8  00000000 00000000                        871+CC4      DC    2F'0'                 after instruction PWS (ie CC)
000031B0  00000010                                 872+         DC    A(16)              result length
000031B4  000031DC                                 873+REA4     DC    A(RE4)             result address
                                                   874+*                                   INSTRUCTION UNDER TEST ROUTINE
000031B8                                           875+X4       DS    0F
000031B8  E320 500C 0014                0000318C   876+         LGF   R2,V2_4            get v2
000031BE  E722 0000 0006                00000000   877+         VL    V2,0(R2)
000031C4  E612 1E19 F059                           878+         VSRP  V1,V2,159,30,1      test instruction
000031CA  E710 5018 000E                00003198   879+         VST   V1,V1O4            save result
000031D0  B98D 0020                                880+         EPSW  R2,R0              exptract psw
000031D4  5020 5028                     000031A8   881+         ST    R2,CC4                 to save CC
000031D8  07FB                                     882+         BR    R11                return
000031DC                                           883+RE4      DC    0F
000031DC                                           884+         DROP  R5
000031DC  20000000 00000000                        885          DC    XL16'20000000000000000000000000000000C'    V1
000031E4  00000000 0000000C
000031EC  00000000 00000000                        886          DC    XL16'00000000000000000000000000000022C'    V2
000031F4  00000000 0000022C
                                                   887
                                                   888          VRI_G VSRP,159,31,1,3            shamt=31 (left) (overflow)
00003200                                           889+         DS    0FD
00003200                       00003200            890+         USING *,R5               base for test data and test routine
00003200  00003238                                 891+T5       DC    A(X5)              address of test routine
00003204  0005                                     892+         DC    H'5'               test number
00003206  00                                       893+         DC    X'00'
00003207  9F                                       894+         DC    HL1'159'           i3
00003208  1F                                       895+         DC    HL1'31'            i4
00003209  01                                       896+         DC    HL1'1'             m5
0000320A  03                                       897+         DC    HL1'3'             cc
0000320B  0E                                       898+         DC    HL1'14'            cc failed mask
0000320C  0000326C                                 899+V2_5     DC    A(RE5+16)          address of v2: 16-byte packed decimal
00003210  E5E2D9D7 40404040                        900+         DC    CL8'VSRP'          instruction name
00003218  00000000 00000000                        901+V1O5     DC    XL16'00'           V1 OUTPUT
00003220  00000000 00000000
00003228  00000000 00000000                        902+CC5      DC    2F'0'                 after instruction PWS (ie CC)
00003230  00000010                                 903+         DC    A(16)              result length
00003234  0000325C                                 904+REA5     DC    A(RE5)             result address
                                                   905+*                                   INSTRUCTION UNDER TEST ROUTINE
00003238                                           906+X5       DS    0F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00003238  E320 500C 0014                0000320C   907+         LGF   R2,V2_5           get v2
0000323E  E722 0000 0006                00000000   908+         VL    V2,0(R2)
00003244  E612 1F19 F059                           909+         VSRP  V1,V2,159,31,1     test instruction
0000324A  E710 5018 000E                00003218   910+         VST   V1,V1O5           save result
00003250  B98D 0020                                911+         EPSW  R2,R0             exptract psw
00003254  5020 5028                     00003228   912+         ST    R2,CC5                 to save CC
00003258  07FB                                     913+         BR    R11               return
0000325C                                           914+RE5      DC    0F
0000325C                                           915+         DROP  R5
0000325C  00000000 00000000                        916          DC    XL16'0000000000000000000000000000000C'    V1
00003264  00000000 0000000C
0000326C  00000000 00000000                        917          DC    XL16'0000000000000000000000000000022D'    V2
00003274  00000000 0000022D
                                                   918
                                                   919          VRI_G VSRP,159,63,1,3            shamt=63 (left) (overflow)
00003280                                           920+         DS    0FD
00003280                        00003280           921+         USING *,R5              base for test data and test routine
00003280  000032B8                                 922+T6       DC    A(X6)             address of test routine
00003284  0006                                     923+         DC    H'6'              test number
00003286  00                                       924+         DC    X'00'
00003287  9F                                       925+         DC    HL1'159'          i3
00003288  3F                                       926+         DC    HL1'63'           i4
00003289  01                                       927+         DC    HL1'1'            m5
0000328A  03                                       928+         DC    HL1'3'            cc
0000328B  0E                                       929+         DC    HL1'14'           cc failed mask
0000328C  000032EC                                 930+V2_6     DC    A(RE6+16)         address of v2: 16-byte packed decimal
00003290  E5E2D9D7 40404040                        931+         DC    CL8'VSRP'         instruction name
00003298  00000000 00000000                        932+V1O6     DC    XL16'00'          V1 OUTPUT
000032A0  00000000 00000000
000032A8  00000000 00000000                        933+CC6      DC    2F'0'                after instruction PWS (ie CC)
000032B0  00000010                                 934+         DC    A(16)             result length
000032B4  000032DC                                 935+REA6     DC    A(RE6)            result address
                                                   936+*                                  INSTRUCTION UNDER TEST ROUTINE
000032B8                                           937+X6       DS    0F
000032B8  E320 500C 0014                0000328C   938+         LGF   R2,V2_6           get v2
000032BE  E722 0000 0006                00000000   939+         VL    V2,0(R2)
000032C4  E612 3F19 F059                           940+         VSRP  V1,V2,159,63,1     test instruction
000032CA  E710 5018 000E                00003298   941+         VST   V1,V1O6           save result
000032D0  B98D 0020                                942+         EPSW  R2,R0             exptract psw
000032D4  5020 5028                     000032A8   943+         ST    R2,CC6                 to save CC
000032D8  07FB                                     944+         BR    R11               return
000032DC                                           945+RE6      DC    0F
000032DC                                           946+         DROP  R5
000032DC  00000000 00000000                        947          DC    XL16'0000000000000000000000000000000C'    V1
000032E4  00000000 0000000C
000032EC  90000000 00000000                        948          DC    XL16'9000000000000000000000000000022C'    V2
000032F4  00000000 0000022C
                                                   949
                                                   950          VRI_G VSRP,159,191,1,3           shamt=63 (left) drd=1 (overflow)
00003300                                           951+         DS    0FD
00003300                        00003300           952+         USING *,R5              base for test data and test routine
00003300  00003338                                 953+T7       DC    A(X7)             address of test routine
00003304  0007                                     954+         DC    H'7'              test number
00003306  00                                       955+         DC    X'00'
00003307  9F                                       956+         DC    HL1'159'          i3
00003308  BF                                       957+         DC    HL1'191'          i4
```

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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00003309  01                                      958+         DC    HL1'1'            m5
0000330A  03                                      959+         DC    HL1'3'            cc
0000330B  0E                                      960+         DC    HL1'14'           cc failed mask
0000330C  0000336C                                961+V2_7     DC    A(RE7+16)         address of v2: 16-byte packed decimal
00003310  E5E2D9D7 40404040                       962+         DC    CL8'VSRP'         instruction name
00003318  00000000 00000000                       963+V1O7     DC    XL16'00'          V1 OUTPUT
00003320  00000000 00000000
00003328  00000000 00000000                       964+CC7      DC    2F'0'                after instruction PWS (ie CC)
00003330  00000010                                965+         DC    A(16)             result length
00003334  0000335C                                966+REA7     DC    A(RE7)            result address
                                                  967+*                                  INSTRUCTION UNDER TEST ROUTINE
00003338                                          968+X7       DS    0F
00003338  E320 500C 0014                0000330C  969+         LGF   R2,V2_7           get v2
0000333E  E722 0000 0006                00000000  970+         VL    V2,0(R2)
00003344  E612 BF19 F059                          971+         VSRP  V1,V2,159,191,1    test instruction
0000334A  E710 5018 000E                00003318  972+         VST   V1,V1O7           save result
00003350  B98D 0020                               973+         EPSW  R2,R0             exptract psw
00003354  5020 5028                     00003328  974+         ST    R2,CC7                 to save CC
00003358  07FB                                    975+         BR    R11               return
0000335C                                          976+RE7      DC    0F
0000335C                                          977+         DROP  R5
0000335C  00000000 00000000                       978          DC    XL16'00000000000000000000000000000000'    V1
00003364  00000000 0000000C
0000336C  90000000 00000000                       979          DC    XL16'90000000000000000000000000000022'    V2
00003374  00000000 0000022C
                                                  980
                                                  981
                                                  982          VRI_G VSRP,159,127,1,2          shamt=-1 (right)
00003380                                          983+         DS    0FD
00003380                        00003380          984+         USING *,R5              base for test data and test routine
00003380  000033B8                                985+T8       DC    A(X8)             address of test routine
00003384  0008                                    986+         DC    H'8'              test number
00003386  00                                      987+         DC    X'00'
00003387  9F                                      988+         DC    HL1'159'          i3
00003388  7F                                      989+         DC    HL1'127'          i4
00003389  01                                      990+         DC    HL1'1'            m5
0000338A  02                                      991+         DC    HL1'2'            cc
0000338B  0D                                      992+         DC    HL1'13'           cc failed mask
0000338C  000033EC                                993+V2_8     DC    A(RE8+16)         address of v2: 16-byte packed decimal
00003390  E5E2D9D7 40404040                       994+         DC    CL8'VSRP'         instruction name
00003398  00000000 00000000                       995+V1O8     DC    XL16'00'          V1 OUTPUT
000033A0  00000000 00000000
000033A8  00000000 00000000                       996+CC8      DC    2F'0'                after instruction PWS (ie CC)
000033B0  00000010                                997+         DC    A(16)             result length
000033B4  000033DC                                998+REA8     DC    A(RE8)            result address
                                                  999+*                                  INSTRUCTION UNDER TEST ROUTINE
000033B8                                         1000+X8       DS    0F
000033B8  E320 500C 0014                0000338C 1001+         LGF   R2,V2_8           get v2
000033BE  E722 0000 0006                00000000 1002+         VL    V2,0(R2)
000033C4  E612 7F19 F059                         1003+         VSRP  V1,V2,159,127,1    test instruction
000033CA  E710 5018 000E                00003398 1004+         VST   V1,V1O8           save result
000033D0  B98D 0020                              1005+         EPSW  R2,R0             exptract psw
000033D4  5020 5028                     000033A8 1006+         ST    R2,CC8                 to save CC
000033D8  07FB                                   1007+         BR    R11               return
000033DC                                         1008+RE8      DC    0F
000033DC                                         1009+         DROP  R5
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000033DC  00000000 00000000                        1010          DC    XL16'00000000000000000000000000000002C'    V1
000033E4  00000000 0000002C
000033EC  00000000 00000000                        1011          DC    XL16'00000000000000000000000000000022C'    V2
000033F4  00000000 0000022C
                                                   1012
                                                   1013          VRI_G VSRP,159,255,1,2           shamt=-1 (right) drd=1
00003400                                           1014+         DS    0FD
00003400                          00003400         1015+         USING *,R5              base for test data and test routine
00003400  00003438                                 1016+T9       DC    A(X9)             address of test routine
00003404  0009                                     1017+         DC    H'9'              test number
00003406  00                                       1018+         DC    X'00'
00003407  9F                                       1019+         DC    HL1'159'          i3
00003408  FF                                       1020+         DC    HL1'255'          i4
00003409  01                                       1021+         DC    HL1'1'            m5
0000340A  02                                       1022+         DC    HL1'2'            cc
0000340B  0D                                       1023+         DC    HL1'13'           cc failed mask
0000340C  0000346C                                 1024+V2_9     DC    A(RE9+16)         address of v2: 16-byte packed decimal
00003410  E5E2D9D7 40404040                        1025+         DC    CL8'VSRP'         instruction name
00003418  00000000 00000000                        1026+V1O9     DC    XL16'00'          V1 OUTPUT
00003420  00000000 00000000
00003428  00000000 00000000                        1027+CC9      DC    2F'0'                after instruction PWS (ie CC)
00003430  00000010                                 1028+         DC    A(16)             result length
00003434  0000345C                                 1029+REA9     DC    A(RE9)            result address
                                                   1030+*                                  INSTRUCTION UNDER TEST ROUTINE
00003438                                           1031+X9       DS    0F
00003438  E320 500C 0014                0000340C   1032+         LGF   R2,V2_9           get v2
0000343E  E722 0000 0006                00000000   1033+         VL    V2,0(R2)
00003444  E612 FF19 F059                           1034+         VSRP  V1,V2,159,255,1    test instruction
0000344A  E710 5018 000E                00003418   1035+         VST   V1,V1O9           save result
00003450  B98D 0020                                1036+         EPSW  R2,R0             exptract psw
00003454  5020 5028                     00003428   1037+         ST    R2,CC9                 to save CC
00003458  07FB                                     1038+         BR    R11               return
0000345C                                           1039+RE9      DC    0F
0000345C                                           1040+         DROP  R5
0000345C  00000000 00000000                        1041          DC    XL16'00000000000000000000000000000003C'    V1
00003464  00000000 0000003C
0000346C  00000000 00000000                        1042          DC    XL16'00000000000000000000000000000028C'    V2
00003474  00000000 0000028C
                                                   1043
                                                   1044          VRI_G VSRP,159,252,1,1           shamt=-4 (right) drd=1
00003480                                           1045+         DS    0FD
00003480                          00003480         1046+         USING *,R5              base for test data and test routine
00003480  000034B8                                 1047+T10      DC    A(X10)            address of test routine
00003484  000A                                     1048+         DC    H'10'             test number
00003486  00                                       1049+         DC    X'00'
00003487  9F                                       1050+         DC    HL1'159'          i3
00003488  FC                                       1051+         DC    HL1'252'          i4
00003489  01                                       1052+         DC    HL1'1'            m5
0000348A  01                                       1053+         DC    HL1'1'            cc
0000348B  0B                                       1054+         DC    HL1'11'           cc failed mask
0000348C  000034EC                                 1055+V2_10    DC    A(RE10+16)        address of v2: 16-byte packed decimal
00003490  E5E2D9D7 40404040                        1056+         DC    CL8'VSRP'         instruction name
00003498  00000000 00000000                        1057+V1O10    DC    XL16'00'          V1 OUTPUT
000034A0  00000000 00000000
000034A8  00000000 00000000                        1058+CC10     DC    2F'0'                after instruction PWS (ie CC)
000034B0  00000010                                 1059+         DC    A(16)             result length
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000034B4  000034DC                                 1060+REA10    DC    A(RE10)            result address
                                                   1061+*                                 INSTRUCTION UNDER TEST ROUTINE
000034B8                                           1062+X10      DS    0F
000034B8  E320 500C 0014                 0000348C  1063+         LGF   R2,V2_10           get v2
000034BE  E722 0000 0006                 00000000  1064+         VL    V2,0(R2)
000034C4  E612 FC19 F059                           1065+         VSRP  V1,V2,159,252,1     test instruction
000034CA  E710 5018 000E                 00003498  1066+         VST   V1,V1O10           save result
000034D0  B98D 0020                                1067+         EPSW  R2,R0              exptract psw
000034D4  5020 5028                      000034A8  1068+         ST    R2,CC10                 to save CC
000034D8  07FB                                     1069+         BR    R11                return
000034DC                                           1070+RE10     DC    0F
000034DC                                           1071+         DROP  R5
000034DC  00000000 00000000                        1072          DC    XL16'00000000000000000000000000000002D'    V1
000034E4  00000000 0000002D
000034EC  00000000 00000000                        1073          DC    XL16'00000000000000000000000000015028D'    V2
000034F4  00000000 0015028D
                                                   1074
                                                   1075          VRI_G VSRP,159,249,1,0          shamt=-7 (right) drd=1
00003500                                           1076+         DS    0FD
00003500                         00003500          1077+         USING *,R5               base for test data and test routine
00003500  00003538                                 1078+T11      DC    A(X11)             address of test routine
00003504  000B                                     1079+         DC    H'11'              test number
00003506  00                                       1080+         DC    X'00'
00003507  9F                                       1081+         DC    HL1'159'           i3
00003508  F9                                       1082+         DC    HL1'249'           i4
00003509  01                                       1083+         DC    HL1'1'             m5
0000350A  00                                       1084+         DC    HL1'0'             cc
0000350B  07                                       1085+         DC    HL1'7'             cc failed mask
0000350C  0000356C                                 1086+V2_11    DC    A(RE11+16)         address of v2: 16-byte packed decimal
00003510  E5E2D9D7 40404040                        1087+         DC    CL8'VSRP'          instruction name
00003518  00000000 00000000                        1088+V1O11    DC    XL16'00'           V1 OUTPUT
00003520  00000000 00000000
00003528  00000000 00000000                        1089+CC11     DC    2F'0'                 after instruction PWS (ie CC)
00003530  00000010                                 1090+         DC    A(16)              result length
00003534  0000355C                                 1091+REA11    DC    A(RE11)            result address
                                                   1092+*                                 INSTRUCTION UNDER TEST ROUTINE
00003538                                           1093+X11      DS    0F
00003538  E320 500C 0014                 0000350C  1094+         LGF   R2,V2_11           get v2
0000353E  E722 0000 0006                 00000000  1095+         VL    V2,0(R2)
00003544  E612 F919 F059                           1096+         VSRP  V1,V2,159,249,1     test instruction
0000354A  E710 5018 000E                 00003518  1097+         VST   V1,V1O11           save result
00003550  B98D 0020                                1098+         EPSW  R2,R0              exptract psw
00003554  5020 5028                      00003528  1099+         ST    R2,CC11                 to save CC
00003558  07FB                                     1100+         BR    R11                return
0000355C                                           1101+RE11     DC    0F
0000355C                                           1102+         DROP  R5
0000355C  00000000 00000000                        1103          DC    XL16'00000000000000000000000000000000C'    V1 (note: C)
00003564  00000000 0000000C
0000356C  00000000 00000000                        1104          DC    XL16'00000000000000000000000000000028D'    V2
00003574  00000000 0000028D
                                                   1105
                                                   1106          VRI_G VSRP,159,225,1,1          shamt=-31 (right) drd=1
00003580                                           1107+         DS    0FD
00003580                         00003580          1108+         USING *,R5               base for test data and test routine
00003580  000035B8                                 1109+T12      DC    A(X12)             address of test routine
00003584  000C                                     1110+         DC    H'12'              test number
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003586  00                                       1111+         DC    X'00'
00003587  9F                                       1112+         DC    HL1'159'          i3
00003588  E1                                       1113+         DC    HL1'225'          i4
00003589  01                                       1114+         DC    HL1'1'            m5
0000358A  01                                       1115+         DC    HL1'1'            cc
0000358B  0B                                       1116+         DC    HL1'11'           cc failed mask
0000358C  000035EC                                 1117+V2_12    DC    A(RE12+16)        address of v2: 16-byte packed decimal
00003590  E5E2D9D7 40404040                        1118+         DC    CL8'VSRP'         instruction name
00003598  00000000 00000000                        1119+V1O12    DC    XL16'00'          V1 OUTPUT
000035A0  00000000 00000000
000035A8  00000000 00000000                        1120+CC12     DC    2F'0'                after instruction PWS (ie CC)
000035B0  00000010                                 1121+         DC    A(16)             result length
000035B4  000035DC                                 1122+REA12    DC    A(RE12)           result address
                                                   1123+*                                  INSTRUCTION UNDER TEST ROUTINE
000035B8                                           1124+X12      DS    0F
000035B8  E320 500C 0014                0000358C   1125+         LGF   R2,V2_12          get v2
000035BE  E722 0000 0006                00000000   1126+         VL    V2,0(R2)
000035C4  E612 E119 F059                           1127+         VSRP  V1,V2,159,225,1    test instruction
000035CA  E710 5018 000E                00003598   1128+         VST   V1,V1O12          save result
000035D0  B98D 0020                                1129+         EPSW  R2,R0             exptract psw
000035D4  5020 5028                     000035A8   1130+         ST    R2,CC12               to save CC
000035D8  07FB                                     1131+         BR    R11               return
000035DC                                           1132+RE12     DC    0F
000035DC                                           1133+         DROP  R5
000035DC  00000000 00000000                        1134          DC    XL16'00000000000000000000000000000001D'    V1 (note: C)
000035E4  00000000 0000001D
000035EC  99990000 00000000                        1135          DC    XL16'99990000000000000000000000000028D'    V2
000035F4  00000000 0000028D
                                                   1136
                                                   1137          VRI_G VSRP,159,224,1,0          shamt=-32 (right) drd=1
00003600                                           1138+         DS    0FD
00003600                        00003600           1139+         USING *,R5              base for test data and test routine
00003600  00003638                                 1140+T13      DC    A(X13)            address of test routine
00003604  000D                                     1141+         DC    H'13'             test number
00003606  00                                       1142+         DC    X'00'
00003607  9F                                       1143+         DC    HL1'159'          i3
00003608  E0                                       1144+         DC    HL1'224'          i4
00003609  01                                       1145+         DC    HL1'1'            m5
0000360A  00                                       1146+         DC    HL1'0'            cc
0000360B  07                                       1147+         DC    HL1'7'            cc failed mask
0000360C  0000366C                                 1148+V2_13    DC    A(RE13+16)        address of v2: 16-byte packed decimal
00003610  E5E2D9D7 40404040                        1149+         DC    CL8'VSRP'         instruction name
00003618  00000000 00000000                        1150+V1O13    DC    XL16'00'          V1 OUTPUT
00003620  00000000 00000000
00003628  00000000 00000000                        1151+CC13     DC    2F'0'                after instruction PWS (ie CC)
00003630  00000010                                 1152+         DC    A(16)             result length
00003634  0000365C                                 1153+REA13    DC    A(RE13)           result address
                                                   1154+*                                  INSTRUCTION UNDER TEST ROUTINE
00003638                                           1155+X13      DS    0F
00003638  E320 500C 0014                0000360C   1156+         LGF   R2,V2_13          get v2
0000363E  E722 0000 0006                00000000   1157+         VL    V2,0(R2)
00003644  E612 E019 F059                           1158+         VSRP  V1,V2,159,224,1    test instruction
0000364A  E710 5018 000E                00003618   1159+         VST   V1,V1O13          save result
00003650  B98D 0020                                1160+         EPSW  R2,R0             exptract psw
00003654  5020 5028                     00003628   1161+         ST    R2,CC13               to save CC
00003658  07FB                                     1162+         BR    R11               return
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000365C                                           1163+RE13     DC    0F
0000365C                                           1164+         DROP  R5
0000365C  00000000 00000000                        1165          DC    XL16'000000000000000000000000000000C'    V1 (note: C)
00003664  00000000 0000000C
0000366C  90000000 00000000                        1166          DC    XL16'900000000000000000000000000028D'    V2
00003674  00000000 0000028D
                                                   1167
                                                   1168          VRI_G VSRP,159,64,1,0            shamt=-64  (right) drd=0
00003680                                           1169+         DS    0FD
00003680                      00003680             1170+         USING *,R5              base for test data and test routine
00003680  000036B8                                 1171+T14      DC    A(X14)            address of test routine
00003684  000E                                     1172+         DC    H'14'             test number
00003686  00                                       1173+         DC    X'00'
00003687  9F                                       1174+         DC    HL1'159'          i3
00003688  40                                       1175+         DC    HL1'64'           i4
00003689  01                                       1176+         DC    HL1'1'            m5
0000368A  00                                       1177+         DC    HL1'0'            cc
0000368B  07                                       1178+         DC    HL1'7'            cc failed mask
0000368C  000036EC                                 1179+V2_14    DC    A(RE14+16)        address of v2: 16-byte packed decimal
00003690  E5E2D9D7 40404040                        1180+         DC    CL8'VSRP'         instruction name
00003698  00000000 00000000                        1181+V1O14    DC    XL16'00'          V1 OUTPUT
000036A0  00000000 00000000
000036A8  00000000 00000000                        1182+CC14     DC    2F'0'                after instruction PWS (ie CC)
000036B0  00000010                                 1183+         DC    A(16)             result length
000036B4  000036DC                                 1184+REA14    DC    A(RE14)           result address
                                                   1185+*                                  INSTRUCTION UNDER TEST ROUTINE
000036B8                                           1186+X14      DS    0F
000036B8  E320 500C 0014                 0000368C  1187+         LGF   R2,V2_14          get v2
000036BE  E722 0000 0006                 00000000  1188+         VL    V2,0(R2)
000036C4  E612 4019 F059                           1189+         VSRP  V1,V2,159,64,1     test instruction
000036CA  E710 5018 000E                 00003698  1190+         VST   V1,V1O14          save result
000036D0  B98D 0020                                1191+         EPSW  R2,R0             exptract psw
000036D4  5020 5028                      000036A8  1192+         ST    R2,CC14                to save CC
000036D8  07FB                                     1193+         BR    R11               return
000036DC                                           1194+RE14     DC    0F
000036DC                                           1195+         DROP  R5
000036DC  00000000 00000000                        1196          DC    XL16'000000000000000000000000000000C'    V1
000036E4  00000000 0000000C
000036EC  90000000 00000000                        1197          DC    XL16'900000000000000000000000000022C'    V2
000036F4  00000000 0000022C
                                                   1198
                                                   1199          VRI_G VSRP,159,192,1,0           shamt=-64  (right) drd=1
00003700                                           1200+         DS    0FD
00003700                      00003700             1201+         USING *,R5              base for test data and test routine
00003700  00003738                                 1202+T15      DC    A(X15)            address of test routine
00003704  000F                                     1203+         DC    H'15'             test number
00003706  00                                       1204+         DC    X'00'
00003707  9F                                       1205+         DC    HL1'159'          i3
00003708  C0                                       1206+         DC    HL1'192'          i4
00003709  01                                       1207+         DC    HL1'1'            m5
0000370A  00                                       1208+         DC    HL1'0'            cc
0000370B  07                                       1209+         DC    HL1'7'            cc failed mask
0000370C  0000376C                                 1210+V2_15    DC    A(RE15+16)        address of v2: 16-byte packed decimal
00003710  E5E2D9D7 40404040                        1211+         DC    CL8'VSRP'         instruction name
00003718  00000000 00000000                        1212+V1O15    DC    XL16'00'          V1 OUTPUT
00003720  00000000 00000000
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003728  00000000 00000000                        1213+CC15     DC    2F'0'                 after instruction PWS (ie CC)
00003730  00000010                                 1214+         DC    A(16)               result length
00003734  0000375C                                 1215+REA15    DC    A(RE15)             result address
                                                   1216+*                                    INSTRUCTION UNDER TEST ROUTINE
00003738                                           1217+X15      DS    0F
00003738  E320 500C 0014                0000370C   1218+         LGF   R2,V2_15            get v2
0000373E  E722 0000 0006                00000000   1219+         VL    V2,0(R2)
00003744  E612 C019 F059                           1220+         VSRP  V1,V2,159,192,1    test instruction
0000374A  E710 5018 000E                00003718   1221+         VST   V1,V1O15            save result
00003750  B98D 0020                                1222+         EPSW  R2,R0               exptract psw
00003754  5020 5028                     00003728   1223+         ST    R2,CC15                 to save CC
00003758  07FB                                     1224+         BR    R11                 return
0000375C                                           1225+RE15     DC    0F
0000375C                                           1226+         DROP  R5
0000375C  00000000 00000000                        1227          DC    XL16'0000000000000000000000000000000C'    V1
00003764  00000000 0000000C
0000376C  90000000 00000000                        1228          DC    XL16'90000000000000000000000000000022C'    V2
00003774  00000000 0000022C
                                                   1229
                                                   1230 * m5 tests (note: cs is always 1)
                                                   1231 *                                    m5=1  (p2=0, p1=0, cs=1)
                                                   1232 *                                    m5=3  (p2=0, p1=1, cs=1)
                                                   1233 *                                    m5=9  (p2=1, p1=0, cs=1)
                                                   1234 *                                    m5=11 (p2=1, p1=1, cs=1)
                                                   1235
                                                   1236          VRI_G VSRP,159,255,3,2    shamt=-1 (right) drd=1 p1=1
00003780                                           1237+         DS    0FD
00003780                        00003780           1238+         USING *,R5                base for test data and test routine
00003780  000037B8                                 1239+T16      DC    A(X16)              address of test routine
00003784  0010                                     1240+         DC    H'16'               test number
00003786  00                                       1241+         DC    X'00'
00003787  9F                                       1242+         DC    HL1'159'            i3
00003788  FF                                       1243+         DC    HL1'255'            i4
00003789  03                                       1244+         DC    HL1'3'              m5
0000378A  02                                       1245+         DC    HL1'2'              cc
0000378B  0D                                       1246+         DC    HL1'13'             cc failed mask
0000378C  000037EC                                 1247+V2_16    DC    A(RE16+16)          address of v2: 16-byte packed decimal
00003790  E5E2D9D7 40404040                        1248+         DC    CL8'VSRP'           instruction name
00003798  00000000 00000000                        1249+V1O16    DC    XL16'00'            V1 OUTPUT
000037A0  00000000 00000000
000037A8  00000000 00000000                        1250+CC16     DC    2F'0'                 after instruction PWS (ie CC)
000037B0  00000010                                 1251+         DC    A(16)               result length
000037B4  000037DC                                 1252+REA16    DC    A(RE16)             result address
                                                   1253+*                                    INSTRUCTION UNDER TEST ROUTINE
000037B8                                           1254+X16      DS    0F
000037B8  E320 500C 0014                0000378C   1255+         LGF   R2,V2_16            get v2
000037BE  E722 0000 0006                00000000   1256+         VL    V2,0(R2)
000037C4  E612 FF39 F059                           1257+         VSRP  V1,V2,159,255,3    test instruction
000037CA  E710 5018 000E                00003798   1258+         VST   V1,V1O16            save result
000037D0  B98D 0020                                1259+         EPSW  R2,R0               exptract psw
000037D4  5020 5028                     000037A8   1260+         ST    R2,CC16                 to save CC
000037D8  07FB                                     1261+         BR    R11                 return
000037DC                                           1262+RE16     DC    0F
000037DC                                           1263+         DROP  R5
000037DC  00000000 00000000                        1264          DC    XL16'0000000000000000000000000000003F'    V1
000037E4  00000000 0000003F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000037EC  00000000 00000000                        1265          DC    XL16'000000000000000000000000000028D'    V2
000037F4  00000000 0000028D
                                                   1266
                                                   1267          VRI_G VSRP,159,255,9,2    shamt=-1 (right) drd=1  p2=1 p1=0
00003800                                           1268+         DS    0FD
00003800                      00003800             1269+         USING *,R5              base for test data and test routine
00003800  00003838                                 1270+T17      DC    A(X17)            address of test routine
00003804  0011                                     1271+         DC    H'17'             test number
00003806  00                                       1272+         DC    X'00'
00003807  9F                                       1273+         DC    HL1'159'          i3
00003808  FF                                       1274+         DC    HL1'255'          i4
00003809  09                                       1275+         DC    HL1'9'            m5
0000380A  02                                       1276+         DC    HL1'2'            cc
0000380B  0D                                       1277+         DC    HL1'13'           cc failed mask
0000380C  0000386C                                 1278+V2_17    DC    A(RE17+16)        address of v2: 16-byte packed decimal
00003810  E5E2D9D7 40404040                        1279+         DC    CL8'VSRP'         instruction name
00003818  00000000 00000000                        1280+V1O17    DC    XL16'00'          V1 OUTPUT
00003820  00000000 00000000
00003828  00000000 00000000                        1281+CC17     DC    2F'0'                after instruction PWS (ie CC)
00003830  00000010                                 1282+         DC    A(16)             result length
00003834  0000385C                                 1283+REA17    DC    A(RE17)           result address
                                                   1284+*                                  INSTRUCTION UNDER TEST ROUTINE
00003838                                           1285+X17      DS    0F
00003838  E320 500C 0014                0000380C   1286+         LGF   R2,V2_17          get v2
0000383E  E722 0000 0006                00000000   1287+         VL    V2,0(R2)
00003844  E612 FF99 F059                           1288+         VSRP  V1,V2,159,255,9    test instruction
0000384A  E710 5018 000E                00003818   1289+         VST   V1,V1O17          save result
00003850  B98D 0020                                1290+         EPSW  R2,R0             exptract psw
00003854  5020 5028                     00003828   1291+         ST    R2,CC17                to save CC
00003858  07FB                                     1292+         BR    R11               return
0000385C                                           1293+RE17     DC    0F
0000385C                                           1294+         DROP  R5
0000385C  00000000 00000000                        1295          DC    XL16'000000000000000000000000000003C'    V1
00003864  00000000 0000003C
0000386C  00000000 00000000                        1296          DC    XL16'000000000000000000000000000028D'    V2
00003874  00000000 0000028D
                                                   1297
                                                   1298          VRI_G VSRP,159,255,11,2    shamt=-1 (right) drd=1 p2=1 p1=1
00003880                                           1299+         DS    0FD
00003880                      00003880             1300+         USING *,R5              base for test data and test routine
00003880  000038B8                                 1301+T18      DC    A(X18)            address of test routine
00003884  0012                                     1302+         DC    H'18'             test number
00003886  00                                       1303+         DC    X'00'
00003887  9F                                       1304+         DC    HL1'159'          i3
00003888  FF                                       1305+         DC    HL1'255'          i4
00003889  0B                                       1306+         DC    HL1'11'           m5
0000388A  02                                       1307+         DC    HL1'2'            cc
0000388B  0D                                       1308+         DC    HL1'13'           cc failed mask
0000388C  000038EC                                 1309+V2_18    DC    A(RE18+16)        address of v2: 16-byte packed decimal
00003890  E5E2D9D7 40404040                        1310+         DC    CL8'VSRP'         instruction name
00003898  00000000 00000000                        1311+V1O18    DC    XL16'00'          V1 OUTPUT
000038A0  00000000 00000000
000038A8  00000000 00000000                        1312+CC18     DC    2F'0'                after instruction PWS (ie CC)
000038B0  00000010                                 1313+         DC    A(16)             result length
000038B4  000038DC                                 1314+REA18    DC    A(RE18)           result address
                                                   1315+*                                  INSTRUCTION UNDER TEST ROUTINE
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000038B8                                           1316+X18      DS    0F
000038B8  E320 500C 0014                0000388C   1317+         LGF   R2,V2_18          get v2
000038BE  E722 0000 0006                00000000   1318+         VL    V2,0(R2)
000038C4  E612 FFB9 F059                           1319+         VSRP  V1,V2,159,255,11   test instruction
000038CA  E710 5018 000E                00003898   1320+         VST   V1,V1O18          save result
000038D0  B98D 0020                                1321+         EPSW  R2,R0             exptract psw
000038D4  5020 5028                     000038A8   1322+         ST    R2,CC18                to save CC
000038D8  07FB                                     1323+         BR    R11               return
000038DC                                           1324+RE18     DC    0F
000038DC                                           1325+         DROP  R5
000038DC  00000000 00000000                        1326          DC    XL16'0000000000000000000000000000003F'    V1
000038E4  00000000 0000003F
000038EC  00000000 00000000                        1327          DC    XL16'0000000000000000000000000000028D'    V2
000038F4  00000000 0000028D
                                                   1328
                                                   1329          VRI_G VSRP,159,0,3,2            shamt=0          p2=0 p1=1
00003900                                           1330+         DS    0FD
00003900                        00003900           1331+         USING *,R5              base for test data and test routine
00003900  00003938                                 1332+T19      DC    A(X19)            address of test routine
00003904  0013                                     1333+         DC    H'19'             test number
00003906  00                                       1334+         DC    X'00'
00003907  9F                                       1335+         DC    HL1'159'          i3
00003908  00                                       1336+         DC    HL1'0'            i4
00003909  03                                       1337+         DC    HL1'3'            m5
0000390A  02                                       1338+         DC    HL1'2'            cc
0000390B  0D                                       1339+         DC    HL1'13'           cc failed mask
0000390C  0000396C                                 1340+V2_19    DC    A(RE19+16)        address of v2: 16-byte packed decimal
00003910  E5E2D9D7 40404040                        1341+         DC    CL8'VSRP'         instruction name
00003918  00000000 00000000                        1342+V1O19    DC    XL16'00'          V1 OUTPUT
00003920  00000000 00000000
00003928  00000000 00000000                        1343+CC19     DC    2F'0'                after instruction PWS (ie CC)
00003930  00000010                                 1344+         DC    A(16)             result length
00003934  0000395C                                 1345+REA19    DC    A(RE19)           result address
                                                   1346+*                                  INSTRUCTION UNDER TEST ROUTINE
00003938                                           1347+X19      DS    0F
00003938  E320 500C 0014                0000390C   1348+         LGF   R2,V2_19          get v2
0000393E  E722 0000 0006                00000000   1349+         VL    V2,0(R2)
00003944  E612 0039 F059                           1350+         VSRP  V1,V2,159,0,3      test instruction
0000394A  E710 5018 000E                00003918   1351+         VST   V1,V1O19          save result
00003950  B98D 0020                                1352+         EPSW  R2,R0             exptract psw
00003954  5020 5028                     00003928   1353+         ST    R2,CC19                to save CC
00003958  07FB                                     1354+         BR    R11               return
0000395C                                           1355+RE19     DC    0F
0000395C                                           1356+         DROP  R5
0000395C  00000000 00000000                        1357          DC    XL16'0000000000000000000000000000022F'    V1
00003964  00000000 0000022F
0000396C  00000000 00000000                        1358          DC    XL16'0000000000000000000000000000022C'    V2
00003974  00000000 0000022C
                                                   1359
                                                   1360          VRI_G VSRP,159,1,9,2            shamt=1 (left)   p2=1 p1=0
00003980                                           1361+         DS    0FD
00003980                        00003980           1362+         USING *,R5              base for test data and test routine
00003980  000039B8                                 1363+T20      DC    A(X20)            address of test routine
00003984  0014                                     1364+         DC    H'20'             test number
00003986  00                                       1365+         DC    X'00'
00003987  9F                                       1366+         DC    HL1'159'          i3
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003988  01                                       1367+         DC    HL1'1'            i4
00003989  09                                       1368+         DC    HL1'9'            m5
0000398A  02                                       1369+         DC    HL1'2'            cc
0000398B  0D                                       1370+         DC    HL1'13'           cc failed mask
0000398C  000039EC                                 1371+V2_20    DC    A(RE20+16)        address of v2: 16-byte packed decimal
00003990  E5E2D9D7 40404040                        1372+         DC    CL8'VSRP'         instruction name
00003998  00000000 00000000                        1373+V1O20    DC    XL16'00'          V1 OUTPUT
000039A0  00000000 00000000
000039A8  00000000 00000000                        1374+CC20     DC    2F'0'                after instruction PWS (ie CC)
000039B0  00000010                                 1375+         DC    A(16)             result length
000039B4  000039DC                                 1376+REA20    DC    A(RE20)           result address
                                                   1377+*                                  INSTRUCTION UNDER TEST ROUTINE
000039B8                                           1378+X20      DS    0F
000039B8  E320 500C 0014                 0000398C  1379+         LGF   R2,V2_20          get v2
000039BE  E722 0000 0006                 00000000  1380+         VL    V2,0(R2)
000039C4  E612 0199 F059                           1381+         VSRP  V1,V2,159,1,9      test instruction
000039CA  E710 5018 000E                 00003998  1382+         VST   V1,V1O20          save result
000039D0  B98D 0020                                1383+         EPSW  R2,R0             exptract psw
000039D4  5020 5028                      000039A8  1384+         ST    R2,CC20                to save CC
000039D8  07FB                                     1385+         BR    R11               return
000039DC                                           1386+RE20     DC    0F
000039DC                                           1387+         DROP  R5
000039DC  00000000 00000000                        1388          DC    XL16'0000000000000000000000000000220C'    V1
000039E4  00000000 0000220C
000039EC  00000000 00000000                        1389          DC    XL16'0000000000000000000000000000022D'    V2
000039F4  00000000 0000022D
                                                   1390
                                                   1391          VRI_G VSRP,159,7,11,2          shamt=7 (left)   p2=1 p1=1
00003A00                                           1392+         DS    0FD
00003A00                         00003A00          1393+         USING *,R5              base for test data and test routine
00003A00  00003A38                                 1394+T21      DC    A(X21)            address of test routine
00003A04  0015                                     1395+         DC    H'21'             test number
00003A06  00                                       1396+         DC    X'00'
00003A07  9F                                       1397+         DC    HL1'159'          i3
00003A08  07                                       1398+         DC    HL1'7'            i4
00003A09  0B                                       1399+         DC    HL1'11'           m5
00003A0A  02                                       1400+         DC    HL1'2'            cc
00003A0B  0D                                       1401+         DC    HL1'13'           cc failed mask
00003A0C  00003A6C                                 1402+V2_21    DC    A(RE21+16)        address of v2: 16-byte packed decimal
00003A10  E5E2D9D7 40404040                        1403+         DC    CL8'VSRP'         instruction name
00003A18  00000000 00000000                        1404+V1O21    DC    XL16'00'          V1 OUTPUT
00003A20  00000000 00000000
00003A28  00000000 00000000                        1405+CC21     DC    2F'0'                after instruction PWS (ie CC)
00003A30  00000010                                 1406+         DC    A(16)             result length
00003A34  00003A5C                                 1407+REA21    DC    A(RE21)           result address
                                                   1408+*                                  INSTRUCTION UNDER TEST ROUTINE
00003A38                                           1409+X21      DS    0F
00003A38  E320 500C 0014                 00003A0C  1410+         LGF   R2,V2_21          get v2
00003A3E  E722 0000 0006                 00000000  1411+         VL    V2,0(R2)
00003A44  E612 07B9 F059                           1412+         VSRP  V1,V2,159,7,11     test instruction
00003A4A  E710 5018 000E                 00003A18  1413+         VST   V1,V1O21          save result
00003A50  B98D 0020                                1414+         EPSW  R2,R0             exptract psw
00003A54  5020 5028                      00003A28  1415+         ST    R2,CC21                to save CC
00003A58  07FB                                     1416+         BR    R11               return
00003A5C                                           1417+RE21     DC    0F
00003A5C                                           1418+         DROP  R5
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003A5C  00000000 00000000                        1419          DC    XL16'00000000000000000000000220000000F'    V1
00003A64  00000022 0000000F
00003A6C  00000000 00000000                        1420          DC    XL16'000000000000000000000000000000022D'    V2
00003A74  00000000 0000022D
                                                   1421
                                                   1422 *-----------------------------------------------------------------
                                                   1423 * VPSOP - VECTOR PERFORM SIGN OPERATION DECIMAL
                                                   1424 *-----------------------------------------------------------------
                                                   1425 * VPSOP with some I3, I4 and M5's
                                                   1426 * I3 tests
                                                   1427 *                      i4=129 (iom=1, rdc=1)
                                                   1428 *                      i4=132 (iom=1, rdc=4)
                                                   1429 *                      i4=135 (iom=1, rdc=7)
                                                   1430 *                      i4=142 (iom=1, rdc=14)
                                                   1431 *                      i4=159 (iom=1, rdc=31)
                                                   1432 * I4 : so=00
                                                   1433 *        i4=128 (nv=1, nz=0, //, so=00, pc=0, sv=0)
                                                   1434 *        i4=130 (nv=1, nz=0, //, so=00, pc=1, sv=0)
                                                   1435 *
                                                   1436 *        i4=192 (nv=1, nz=1, //, so=00, pc=0, sv=0)
                                                   1437 *        i4=194 (nv=1, nz=1, //, so=00, pc=1, sv=0)
                                                   1438
                                                   1439 * I4 : so=01
                                                   1440 *        i4=132 (nv=1, nz=0, //, so=01, pc=0, sv=0)
                                                   1441 *        i4=134 (nv=1, nz=0, //, so=01, pc=1, sv=0)
                                                   1442 *
                                                   1443 *        i4=196 (nv=1, nz=1, //, so=01, pc=0, sv=0)
                                                   1444 *        i4=198 (nv=1, nz=1, //, so=01, pc=1, sv=0)
                                                   1445
                                                   1446
                                                   1447 * I4 : so=10
                                                   1448 *        i4=136 (nv=1, nz=0, //, so=10, pc=0, sv=0)
                                                   1449 *        i4=138 (nv=1, nz=0, //, so=10, pc=1, sv=0)
                                                   1450 *
                                                   1451 *        i4=200 (nv=1, nz=1, //, so=10, pc=0, sv=0)
                                                   1452 *        i4=202 (nv=1, nz=1, //, so=10, pc=1, sv=0)
                                                   1453
                                                   1454 * I4 : so=11
                                                   1455 *        i4=140 (nv=1, nz=0, //, so=11, pc=0, sv=0)
                                                   1456 *        i4=142 (nv=1, nz=0, //, so=11, pc=1, sv=0)
                                                   1457 *
                                                   1458 *        i4=204 (nv=1, nz=1, //, so=11, pc=0, sv=0)
                                                   1459 *        i4=206 (nv=1, nz=1, //, so=11, pc=1, sv=0)
                                                   1460
                                                   1461 * m5 tests (note: cs is always 1)
                                                   1462 *                                m5=1  (cs=1)
                                                   1463 *
                                                   1464 * z/Architecture Principles of Operation, SA22-7832-12.
                                                   1465 * Figure 25-4. Operation of VECTOR PERFORM SIGN OPERATION DECIMAL
                                                   1466 * tests
                                                   1467 *
                                                   1468 *-----------------------------------------------
                                                   1469 * SC=00 (maintain): nv=1 to avoid data exceptions
                                                   1470 *-----------------------------------------------
                                                   1471 * V1:nonzero V2:positive   PC='0' NZ='â€“'              V1_sign=C  CC=2
                                                   1472          VRI_G VPSOP,159,128,1,2         nz=0
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003A80                                           1473+         DS    0FD
00003A80                     00003A80              1474+         USING *,R5              base for test data and test routine
00003A80  00003AB8                                 1475+T22      DC    A(X22)            address of test routine
00003A84  0016                                     1476+         DC    H'22'             test number
00003A86  00                                       1477+         DC    X'00'
00003A87  9F                                       1478+         DC    HL1'159'          i3
00003A88  80                                       1479+         DC    HL1'128'          i4
00003A89  01                                       1480+         DC    HL1'1'            m5
00003A8A  02                                       1481+         DC    HL1'2'            cc
00003A8B  0D                                       1482+         DC    HL1'13'           cc failed mask
00003A8C  00003AEC                                 1483+V2_22    DC    A(RE22+16)        address of v2: 16-byte packed decimal
00003A90  E5D7E2D6 D7404040                        1484+         DC    CL8'VPSOP'        instruction name
00003A98  00000000 00000000                        1485+V1O22    DC    XL16'00'          V1 OUTPUT
00003AA0  00000000 00000000
00003AA8  00000000 00000000                        1486+CC22     DC    2F'0'                after instruction PWS (ie CC)
00003AB0  00000010                                 1487+         DC    A(16)             result length
00003AB4  00003ADC                                 1488+REA22    DC    A(RE22)           result address
                                                   1489+*                                  INSTRUCTION UNDER TEST ROUTINE
00003AB8                                           1490+X22      DS    0F
00003AB8  E320 500C 0014                00003A8C   1491+         LGF   R2,V2_22          get v2
00003ABE  E722 0000 0006                00000000   1492+         VL    V2,0(R2)
00003AC4  E612 8019 F05B                           1493+         VPSOP V1,V2,159,128,1    test instruction
00003ACA  E710 5018 000E                00003A98   1494+         VST   V1,V1O22          save result
00003AD0  B98D 0020                                1495+         EPSW  R2,R0             exptract psw
00003AD4  5020 5028                     00003AA8   1496+         ST    R2,CC22                to save CC
00003AD8  07FB                                     1497+         BR    R11               return
00003ADC                                           1498+RE22     DC    0F
00003ADC                                           1499+         DROP  R5
00003ADC  00000000 00000000                        1500          DC    XL16'0000000000000000000000220000000C'    V1
00003AE4  00000022 0000000C
00003AEC  00000000 00000000                        1501          DC    XL16'0000000000000000000000220000000F'    V2
00003AF4  00000022 0000000F
                                                   1502
                                                   1503          VRI_G VPSOP,159,192,1,2       nz=1
00003B00                                           1504+         DS    0FD
00003B00                     00003B00              1505+         USING *,R5              base for test data and test routine
00003B00  00003B38                                 1506+T23      DC    A(X23)            address of test routine
00003B04  0017                                     1507+         DC    H'23'             test number
00003B06  00                                       1508+         DC    X'00'
00003B07  9F                                       1509+         DC    HL1'159'          i3
00003B08  C0                                       1510+         DC    HL1'192'          i4
00003B09  01                                       1511+         DC    HL1'1'            m5
00003B0A  02                                       1512+         DC    HL1'2'            cc
00003B0B  0D                                       1513+         DC    HL1'13'           cc failed mask
00003B0C  00003B6C                                 1514+V2_23    DC    A(RE23+16)        address of v2: 16-byte packed decimal
00003B10  E5D7E2D6 D7404040                        1515+         DC    CL8'VPSOP'        instruction name
00003B18  00000000 00000000                        1516+V1O23    DC    XL16'00'          V1 OUTPUT
00003B20  00000000 00000000
00003B28  00000000 00000000                        1517+CC23     DC    2F'0'                after instruction PWS (ie CC)
00003B30  00000010                                 1518+         DC    A(16)             result length
00003B34  00003B5C                                 1519+REA23    DC    A(RE23)           result address
                                                   1520+*                                  INSTRUCTION UNDER TEST ROUTINE
00003B38                                           1521+X23      DS    0F
00003B38  E320 500C 0014                00003B0C   1522+         LGF   R2,V2_23          get v2
00003B3E  E722 0000 0006                00000000   1523+         VL    V2,0(R2)
00003B44  E612 C019 F05B                           1524+         VPSOP V1,V2,159,192,1    test instruction
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003B4A  E710 5018 000E                00003B18  1525+         VST   V1,V1O23          save result
00003B50  B98D 0020                               1526+         EPSW  R2,R0             exptract psw
00003B54  5020 5028                     00003B28  1527+         ST    R2,CC23               to save CC
00003B58  07FB                                   1528+         BR    R11               return
00003B5C                                         1529+RE23     DC    0F
00003B5C                                         1530+         DROP  R5
00003B5C  00000000 00000000                      1531          DC    XL16'0000000000000000000000220000000C'    V1
00003B64  00000022 0000000C
00003B6C  00000000 00000000                      1532          DC    XL16'0000000000000000000000220000000F'    V2
00003B74  00000022 0000000F
                                                 1533
                                                 1534 * V1:nonzero V2:positive   PC='1' NZ='â€“'              V1_sign=F  CC=2
                                                 1535          VRI_G VPSOP,159,130,1,2         nz=0
00003B80                                         1536+         DS    0FD
00003B80                        00003B80         1537+         USING *,R5              base for test data and test routine
00003B80  00003BB8                               1538+T24      DC    A(X24)            address of test routine
00003B84  0018                                   1539+         DC    H'24'             test number
00003B86  00                                     1540+         DC    X'00'
00003B87  9F                                     1541+         DC    HL1'159'          i3
00003B88  82                                     1542+         DC    HL1'130'          i4
00003B89  01                                     1543+         DC    HL1'1'            m5
00003B8A  02                                     1544+         DC    HL1'2'            cc
00003B8B  0D                                     1545+         DC    HL1'13'           cc failed mask
00003B8C  00003BEC                               1546+V2_24    DC    A(RE24+16)        address of v2: 16-byte packed decimal
00003B90  E5D7E2D6 D7404040                      1547+         DC    CL8'VPSOP'        instruction name
00003B98  00000000 00000000                      1548+V1O24    DC    XL16'00'          V1 OUTPUT
00003BA0  00000000 00000000
00003BA8  00000000 00000000                      1549+CC24     DC    2F'0'                 after instruction PWS (ie CC)
00003BB0  00000010                               1550+         DC    A(16)             result length
00003BB4  00003BDC                               1551+REA24    DC    A(RE24)           result address
                                                 1552+*                                  INSTRUCTION UNDER TEST ROUTINE
00003BB8                                         1553+X24      DS    0F
00003BB8  E320 500C 0014                00003B8C 1554+         LGF   R2,V2_24          get v2
00003BBE  E722 0000 0006                00000000 1555+         VL    V2,0(R2)
00003BC4  E612 8219 F05B                         1556+         VPSOP V1,V2,159,130,1    test instruction
00003BCA  E710 5018 000E                00003B98 1557+         VST   V1,V1O24          save result
00003BD0  B98D 0020                              1558+         EPSW  R2,R0             exptract psw
00003BD4  5020 5028                     00003BA8 1559+         ST    R2,CC24               to save CC
00003BD8  07FB                                   1560+         BR    R11               return
00003BDC                                         1561+RE24     DC    0F
00003BDC                                         1562+         DROP  R5
00003BDC  00000000 00000000                      1563          DC    XL16'0000000000000000000000220000000F'    V1
00003BE4  00000022 0000000F
00003BEC  00000000 00000000                      1564          DC    XL16'0000000000000000000000220000000A'    V2
00003BF4  00000022 0000000A
                                                 1565
                                                 1566          VRI_G VPSOP,159,194,1,2         nz=1
00003C00                                         1567+         DS    0FD
00003C00                        00003C00         1568+         USING *,R5              base for test data and test routine
00003C00  00003C38                               1569+T25      DC    A(X25)            address of test routine
00003C04  0019                                   1570+         DC    H'25'             test number
00003C06  00                                     1571+         DC    X'00'
00003C07  9F                                     1572+         DC    HL1'159'          i3
00003C08  C2                                     1573+         DC    HL1'194'          i4
00003C09  01                                     1574+         DC    HL1'1'            m5
00003C0A  02                                     1575+         DC    HL1'2'            cc
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003C0B  0D                                      1576+         DC    HL1'13'           cc failed mask
00003C0C  00003C6C                                1577+V2_25    DC    A(RE25+16)        address of v2: 16-byte packed decimal
00003C10  E5D7E2D6 D7404040                       1578+         DC    CL8'VPSOP'        instruction name
00003C18  00000000 00000000                       1579+V1O25    DC    XL16'00'          V1 OUTPUT
00003C20  00000000 00000000
00003C28  00000000 00000000                       1580+CC25     DC    2F'0'                after instruction PWS (ie CC)
00003C30  00000010                                1581+         DC    A(16)             result length
00003C34  00003C5C                                1582+REA25    DC    A(RE25)           result address
                                                  1583+*                                  INSTRUCTION UNDER TEST ROUTINE
00003C38                                          1584+X25      DS    0F
00003C38  E320 500C 0014                00003C0C  1585+         LGF   R2,V2_25          get v2
00003C3E  E722 0000 0006                00000000  1586+         VL    V2,0(R2)
00003C44  E612 C219 F05B                          1587+         VPSOP V1,V2,159,194,1    test instruction
00003C4A  E710 5018 000E                00003C18  1588+         VST   V1,V1O25          save result
00003C50  B98D 0020                               1589+         EPSW  R2,R0             exptract psw
00003C54  5020 5028                     00003C28  1590+         ST    R2,CC25               to save CC
00003C58  07FB                                    1591+         BR    R11               return
00003C5C                                          1592+RE25     DC    0F
00003C5C                                          1593+         DROP  R5
00003C5C  00000000 00000000                       1594          DC    XL16'0000000000000000000000220000000F'    V1
00003C64  00000022 0000000F
00003C6C  00000000 00000000                       1595          DC    XL16'00000000000000000000000220000000A'    V2
00003C74  00000022 0000000A
                                                  1596
                                                  1597 * V1:nonzero V2:negative   PC='-' NZ='â€“'              V1_sign=D  CC=1
                                                  1598          VRI_G VPSOP,159,128,1,1         nz=0  pc=0
00003C80                                          1599+         DS    0FD
00003C80                        00003C80          1600+         USING *,R5              base for test data and test routine
00003C80  00003CB8                                1601+T26      DC    A(X26)            address of test routine
00003C84  001A                                    1602+         DC    H'26'             test number
00003C86  00                                      1603+         DC    X'00'
00003C87  9F                                      1604+         DC    HL1'159'          i3
00003C88  80                                      1605+         DC    HL1'128'          i4
00003C89  01                                      1606+         DC    HL1'1'            m5
00003C8A  01                                      1607+         DC    HL1'1'            cc
00003C8B  0B                                      1608+         DC    HL1'11'           cc failed mask
00003C8C  00003CEC                                1609+V2_26    DC    A(RE26+16)        address of v2: 16-byte packed decimal
00003C90  E5D7E2D6 D7404040                       1610+         DC    CL8'VPSOP'        instruction name
00003C98  00000000 00000000                       1611+V1O26    DC    XL16'00'          V1 OUTPUT
00003CA0  00000000 00000000
00003CA8  00000000 00000000                       1612+CC26     DC    2F'0'                after instruction PWS (ie CC)
00003CB0  00000010                                1613+         DC    A(16)             result length
00003CB4  00003CDC                                1614+REA26    DC    A(RE26)           result address
                                                  1615+*                                  INSTRUCTION UNDER TEST ROUTINE
00003CB8                                          1616+X26      DS    0F
00003CB8  E320 500C 0014                00003C8C  1617+         LGF   R2,V2_26          get v2
00003CBE  E722 0000 0006                00000000  1618+         VL    V2,0(R2)
00003CC4  E612 8019 F05B                          1619+         VPSOP V1,V2,159,128,1    test instruction
00003CCA  E710 5018 000E                00003C98  1620+         VST   V1,V1O26          save result
00003CD0  B98D 0020                               1621+         EPSW  R2,R0             exptract psw
00003CD4  5020 5028                     00003CA8  1622+         ST    R2,CC26               to save CC
00003CD8  07FB                                    1623+         BR    R11               return
00003CDC                                          1624+RE26     DC    0F
00003CDC                                          1625+         DROP  R5
00003CDC  00000000 00000000                       1626          DC    XL16'0000000000000000000000220000000D'    V1
00003CE4  00000022 0000000D
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003CEC  00000000 00000000                        1627          DC    XL16'00000000000000000000000220000000B'    V2
00003CF4  00000022 0000000B
                                                   1628
                                                   1629          VRI_G VPSOP,159,130,1,1         nz=0  pc=1
00003D00                                           1630+         DS    0FD
00003D00                          00003D00         1631+         USING *,R5               base for test data and test routine
00003D00  00003D38                                 1632+T27      DC    A(X27)             address of test routine
00003D04  001B                                     1633+         DC    H'27'              test number
00003D06  00                                       1634+         DC    X'00'
00003D07  9F                                       1635+         DC    HL1'159'           i3
00003D08  82                                       1636+         DC    HL1'130'           i4
00003D09  01                                       1637+         DC    HL1'1'             m5
00003D0A  01                                       1638+         DC    HL1'1'             cc
00003D0B  0B                                       1639+         DC    HL1'11'            cc failed mask
00003D0C  00003D6C                                 1640+V2_27    DC    A(RE27+16)         address of v2: 16-byte packed decimal
00003D10  E5D7E2D6 D7404040                        1641+         DC    CL8'VPSOP'         instruction name
00003D18  00000000 00000000                        1642+V1O27    DC    XL16'00'           V1 OUTPUT
00003D20  00000000 00000000
00003D28  00000000 00000000                        1643+CC27     DC    2F'0'                 after instruction PWS (ie CC)
00003D30  00000010                                 1644+         DC    A(16)              result length
00003D34  00003D5C                                 1645+REA27    DC    A(RE27)            result address
                                                   1646+*                                   INSTRUCTION UNDER TEST ROUTINE
00003D38                                           1647+X27      DS    0F
00003D38  E320 500C 0014                 00003D0C  1648+         LGF   R2,V2_27           get v2
00003D3E  E722 0000 0006                 00000000  1649+         VL    V2,0(R2)
00003D44  E612 8219 F05B                           1650+         VPSOP V1,V2,159,130,1    test instruction
00003D4A  E710 5018 000E                 00003D18  1651+         VST   V1,V1O27           save result
00003D50  B98D 0020                                1652+         EPSW  R2,R0              exptract psw
00003D54  5020 5028                      00003D28  1653+         ST    R2,CC27                 to save CC
00003D58  07FB                                     1654+         BR    R11                return
00003D5C                                           1655+RE27     DC    0F
00003D5C                                           1656+         DROP  R5
00003D5C  00000000 00000000                        1657          DC    XL16'00000000000000000000000220000000D'    V1
00003D64  00000022 0000000D
00003D6C  00000000 00000000                        1658          DC    XL16'00000000000000000000000220000000B'    V2
00003D74  00000022 0000000B
                                                   1659
                                                   1660          VRI_G VPSOP,159,192,1,1         nz=1  pc=0
00003D80                                           1661+         DS    0FD
00003D80                          00003D80         1662+         USING *,R5               base for test data and test routine
00003D80  00003DB8                                 1663+T28      DC    A(X28)             address of test routine
00003D84  001C                                     1664+         DC    H'28'              test number
00003D86  00                                       1665+         DC    X'00'
00003D87  9F                                       1666+         DC    HL1'159'           i3
00003D88  C0                                       1667+         DC    HL1'192'           i4
00003D89  01                                       1668+         DC    HL1'1'             m5
00003D8A  01                                       1669+         DC    HL1'1'             cc
00003D8B  0B                                       1670+         DC    HL1'11'            cc failed mask
00003D8C  00003DEC                                 1671+V2_28    DC    A(RE28+16)         address of v2: 16-byte packed decimal
00003D90  E5D7E2D6 D7404040                        1672+         DC    CL8'VPSOP'         instruction name
00003D98  00000000 00000000                        1673+V1O28    DC    XL16'00'           V1 OUTPUT
00003DA0  00000000 00000000
00003DA8  00000000 00000000                        1674+CC28     DC    2F'0'                 after instruction PWS (ie CC)
00003DB0  00000010                                 1675+         DC    A(16)              result length
00003DB4  00003DDC                                 1676+REA28    DC    A(RE28)            result address
                                                   1677+*                                   INSTRUCTION UNDER TEST ROUTINE
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00003DB8                                          1678+X28      DS    0F
00003DB8  E320 500C 0014                00003D8C  1679+         LGF   R2,V2_28          get v2
00003DBE  E722 0000 0006                00000000  1680+         VL    V2,0(R2)
00003DC4  E612 C019 F05B                          1681+         VPSOP V1,V2,159,192,1    test instruction
00003DCA  E710 5018 000E                00003D98  1682+         VST   V1,V1O28          save result
00003DD0  B98D 0020                               1683+         EPSW  R2,R0             exptract psw
00003DD4  5020 5028                     00003DA8  1684+         ST    R2,CC28                to save CC
00003DD8  07FB                                    1685+         BR    R11               return
00003DDC                                          1686+RE28     DC    0F
00003DDC                                          1687+         DROP  R5
00003DDC  00000000 00000000                       1688          DC    XL16'0000000000000000000000220000000D'    V1
00003DE4  00000022 0000000D
00003DEC  00000000 00000000                       1689          DC    XL16'0000000000000000000000220000000B'    V2
00003DF4  00000022 0000000B
                                                  1690
                                                  1691          VRI_G VPSOP,159,194,1,1         nz=1  pc=1
00003E00                                          1692+         DS    0FD
00003E00                        00003E00          1693+         USING *,R5              base for test data and test routine
00003E00  00003E38                                1694+T29      DC    A(X29)            address of test routine
00003E04  001D                                    1695+         DC    H'29'             test number
00003E06  00                                      1696+         DC    X'00'
00003E07  9F                                      1697+         DC    HL1'159'          i3
00003E08  C2                                      1698+         DC    HL1'194'          i4
00003E09  01                                      1699+         DC    HL1'1'            m5
00003E0A  01                                      1700+         DC    HL1'1'            cc
00003E0B  0B                                      1701+         DC    HL1'11'           cc failed mask
00003E0C  00003E6C                                1702+V2_29    DC    A(RE29+16)        address of v2: 16-byte packed decimal
00003E10  E5D7E2D6 D7404040                       1703+         DC    CL8'VPSOP'        instruction name
00003E18  00000000 00000000                       1704+V1O29    DC    XL16'00'          V1 OUTPUT
00003E20  00000000 00000000
00003E28  00000000 00000000                       1705+CC29     DC    2F'0'                after instruction PWS (ie CC)
00003E30  00000010                                1706+         DC    A(16)             result length
00003E34  00003E5C                                1707+REA29    DC    A(RE29)           result address
                                                  1708+*                                  INSTRUCTION UNDER TEST ROUTINE
00003E38                                          1709+X29      DS    0F
00003E38  E320 500C 0014                00003E0C  1710+         LGF   R2,V2_29          get v2
00003E3E  E722 0000 0006                00000000  1711+         VL    V2,0(R2)
00003E44  E612 C219 F05B                          1712+         VPSOP V1,V2,159,194,1    test instruction
00003E4A  E710 5018 000E                00003E18  1713+         VST   V1,V1O29          save result
00003E50  B98D 0020                               1714+         EPSW  R2,R0             exptract psw
00003E54  5020 5028                     00003E28  1715+         ST    R2,CC29                to save CC
00003E58  07FB                                    1716+         BR    R11               return
00003E5C                                          1717+RE29     DC    0F
00003E5C                                          1718+         DROP  R5
00003E5C  00000000 00000000                       1719          DC    XL16'0000000000000000000000220000000D'    V1
00003E64  00000022 0000000D
00003E6C  00000000 00000000                       1720          DC    XL16'0000000000000000000000220000000B'    V2
00003E74  00000022 0000000B
                                                  1721
                                                  1722 * V1:nonzero V2:invalid   PC='-' NZ='â€“'              V1_sign=V2  CC=2
                                                  1723          VRI_G VPSOP,159,128,1,2         nz=0  pc=0
00003E80                                          1724+         DS    0FD
00003E80                        00003E80          1725+         USING *,R5              base for test data and test routine
00003E80  00003EB8                                1726+T30      DC    A(X30)            address of test routine
00003E84  001E                                    1727+         DC    H'30'             test number
00003E86  00                                      1728+         DC    X'00'
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003E87  9F                                       1729+         DC    HL1'159'          i3
00003E88  80                                       1730+         DC    HL1'128'          i4
00003E89  01                                       1731+         DC    HL1'1'            m5
00003E8A  02                                       1732+         DC    HL1'2'            cc
00003E8B  0D                                       1733+         DC    HL1'13'           cc failed mask
00003E8C  00003EEC                                 1734+V2_30    DC    A(RE30+16)        address of v2: 16-byte packed decimal
00003E90  E5D7E2D6 D7404040                        1735+         DC    CL8'VPSOP'        instruction name
00003E98  00000000 00000000                        1736+V1O30    DC    XL16'00'          V1 OUTPUT
00003EA0  00000000 00000000
00003EA8  00000000 00000000                        1737+CC30     DC    2F'0'                after instruction PWS (ie CC)
00003EB0  00000010                                 1738+         DC    A(16)             result length
00003EB4  00003EDC                                 1739+REA30    DC    A(RE30)           result address
                                                   1740+*                                  INSTRUCTION UNDER TEST ROUTINE
00003EB8                                           1741+X30      DS    0F
00003EB8  E320 500C 0014                00003E8C   1742+         LGF   R2,V2_30          get v2
00003EBE  E722 0000 0006                00000000   1743+         VL    V2,0(R2)
00003EC4  E612 8019 F05B                           1744+         VPSOP V1,V2,159,128,1    test instruction
00003ECA  E710 5018 000E                00003E98   1745+         VST   V1,V1O30          save result
00003ED0  B98D 0020                                1746+         EPSW  R2,R0             exptract psw
00003ED4  5020 5028                     00003EA8   1747+         ST    R2,CC30                to save CC
00003ED8  07FB                                     1748+         BR    R11               return
00003EDC                                           1749+RE30     DC    0F
00003EDC                                           1750+         DROP  R5
00003EDC  00000000 00000000                        1751          DC    XL16'00000000000000000000002200000009'    V1
00003EE4  00000022 00000009
00003EEC  00000000 00000000                        1752          DC    XL16'00000000000000000000002200000009'    V2
00003EF4  00000022 00000009
                                                   1753
                                                   1754          VRI_G VPSOP,159,130,1,2         nz=0  pc=1
00003F00                                           1755+         DS    0FD
00003F00                        00003F00           1756+         USING *,R5              base for test data and test routine
00003F00  00003F38                                 1757+T31      DC    A(X31)            address of test routine
00003F04  001F                                     1758+         DC    H'31'             test number
00003F06  00                                       1759+         DC    X'00'
00003F07  9F                                       1760+         DC    HL1'159'          i3
00003F08  82                                       1761+         DC    HL1'130'          i4
00003F09  01                                       1762+         DC    HL1'1'            m5
00003F0A  02                                       1763+         DC    HL1'2'            cc
00003F0B  0D                                       1764+         DC    HL1'13'           cc failed mask
00003F0C  00003F6C                                 1765+V2_31    DC    A(RE31+16)        address of v2: 16-byte packed decimal
00003F10  E5D7E2D6 D7404040                        1766+         DC    CL8'VPSOP'        instruction name
00003F18  00000000 00000000                        1767+V1O31    DC    XL16'00'          V1 OUTPUT
00003F20  00000000 00000000
00003F28  00000000 00000000                        1768+CC31     DC    2F'0'                after instruction PWS (ie CC)
00003F30  00000010                                 1769+         DC    A(16)             result length
00003F34  00003F5C                                 1770+REA31    DC    A(RE31)           result address
                                                   1771+*                                  INSTRUCTION UNDER TEST ROUTINE
00003F38                                           1772+X31      DS    0F
00003F38  E320 500C 0014                00003F0C   1773+         LGF   R2,V2_31          get v2
00003F3E  E722 0000 0006                00000000   1774+         VL    V2,0(R2)
00003F44  E612 8219 F05B                           1775+         VPSOP V1,V2,159,130,1    test instruction
00003F4A  E710 5018 000E                00003F18   1776+         VST   V1,V1O31          save result
00003F50  B98D 0020                                1777+         EPSW  R2,R0             exptract psw
00003F54  5020 5028                     00003F28   1778+         ST    R2,CC31                to save CC
00003F58  07FB                                     1779+         BR    R11               return
00003F5C                                           1780+RE31     DC    0F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003F5C                                           1781+         DROP  R5
00003F5C  00000000 00000000                        1782          DC    XL16'00000000000000000000002200000009'    V1
00003F64  00000022 00000009
00003F6C  00000000 00000000                        1783          DC    XL16'00000000000000000000002200000009'    V2
00003F74  00000022 00000009
                                                   1784
                                                   1785          VRI_G VPSOP,159,192,1,2         nz=1  pc=0
00003F80                                           1786+         DS    0FD
00003F80                       00003F80            1787+         USING *,R5              base for test data and test routine
00003F80  00003FB8                                 1788+T32      DC    A(X32)            address of test routine
00003F84  0020                                     1789+         DC    H'32'             test number
00003F86  00                                       1790+         DC    X'00'
00003F87  9F                                       1791+         DC    HL1'159'          i3
00003F88  C0                                       1792+         DC    HL1'192'          i4
00003F89  01                                       1793+         DC    HL1'1'            m5
00003F8A  02                                       1794+         DC    HL1'2'            cc
00003F8B  0D                                       1795+         DC    HL1'13'           cc failed mask
00003F8C  00003FEC                                 1796+V2_32    DC    A(RE32+16)        address of v2: 16-byte packed decimal
00003F90  E5D7E2D6 D7404040                        1797+         DC    CL8'VPSOP'        instruction name
00003F98  00000000 00000000                        1798+V1O32    DC    XL16'00'          V1 OUTPUT
00003FA0  00000000 00000000
00003FA8  00000000 00000000                        1799+CC32     DC    2F'0'                   after instruction PWS (ie CC)
00003FB0  00000010                                 1800+         DC    A(16)             result length
00003FB4  00003FDC                                 1801+REA32    DC    A(RE32)           result address
                                                   1802+*                                  INSTRUCTION UNDER TEST ROUTINE
00003FB8                                           1803+X32      DS    0F
00003FB8  E320 500C 0014                00003F8C   1804+         LGF   R2,V2_32          get v2
00003FBE  E722 0000 0006                00000000   1805+         VL    V2,0(R2)
00003FC4  E612 C019 F05B                           1806+         VPSOP V1,V2,159,192,1    test instruction
00003FCA  E710 5018 000E                00003F98   1807+         VST   V1,V1O32          save result
00003FD0  B98D 0020                                1808+         EPSW  R2,R0             exptract psw
00003FD4  5020 5028                     00003FA8   1809+         ST    R2,CC32                 to save CC
00003FD8  07FB                                     1810+         BR    R11               return
00003FDC                                           1811+RE32     DC    0F
00003FDC                                           1812+         DROP  R5
00003FDC  00000000 00000000                        1813          DC    XL16'00000000000000000000002200000009'    V1
00003FE4  00000022 00000009
00003FEC  00000000 00000000                        1814          DC    XL16'00000000000000000000002200000009'    V2
00003FF4  00000022 00000009
                                                   1815
                                                   1816          VRI_G VPSOP,159,194,1,2         nz=1  pc=1
00004000                                           1817+         DS    0FD
00004000                       00004000            1818+         USING *,R5              base for test data and test routine
00004000  00004038                                 1819+T33      DC    A(X33)            address of test routine
00004004  0021                                     1820+         DC    H'33'             test number
00004006  00                                       1821+         DC    X'00'
00004007  9F                                       1822+         DC    HL1'159'          i3
00004008  C2                                       1823+         DC    HL1'194'          i4
00004009  01                                       1824+         DC    HL1'1'            m5
0000400A  02                                       1825+         DC    HL1'2'            cc
0000400B  0D                                       1826+         DC    HL1'13'           cc failed mask
0000400C  0000406C                                 1827+V2_33    DC    A(RE33+16)        address of v2: 16-byte packed decimal
00004010  E5D7E2D6 D7404040                        1828+         DC    CL8'VPSOP'        instruction name
00004018  00000000 00000000                        1829+V1O33    DC    XL16'00'          V1 OUTPUT
00004020  00000000 00000000
00004028  00000000 00000000                        1830+CC33     DC    2F'0'                   after instruction PWS (ie CC)
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004030  00000010                                 1831+         DC    A(16)              result length
00004034  0000405C                                 1832+REA33    DC    A(RE33)            result address
                                                   1833+*                                   INSTRUCTION UNDER TEST ROUTINE
00004038                                           1834+X33      DS    0F
00004038  E320 500C 0014                 0000400C  1835+         LGF   R2,V2_33           get v2
0000403E  E722 0000 0006                 00000000  1836+         VL    V2,0(R2)
00004044  E612 C219 F05B                           1837+         VPSOP V1,V2,159,194,1    test instruction
0000404A  E710 5018 000E                 00004018  1838+         VST   V1,V1O33           save result
00004050  B98D 0020                                1839+         EPSW  R2,R0              exptract psw
00004054  5020 5028                      00004028  1840+         ST    R2,CC33                to save CC
00004058  07FB                                     1841+         BR    R11                return
0000405C                                           1842+RE33     DC    0F
0000405C                                           1843+         DROP  R5
0000405C  00000000 00000000                        1844          DC    XL16'00000000000000000000002200000009'    V1
00004064  00000022 00000009
0000406C  00000000 00000000                        1845          DC    XL16'00000000000000000000002200000009'    V2
00004074  00000022 00000009
                                                   1846
                                                   1847 * V1:zero  V2:positive   PC='0' NZ='â€“'              V1_sign=C  CC=0
                                                   1848          VRI_G VPSOP,159,128,1,0         nz=0  pc=0
00004080                                           1849+         DS    0FD
00004080                         00004080          1850+         USING *,R5               base for test data and test routine
00004080  000040B8                                 1851+T34      DC    A(X34)             address of test routine
00004084  0022                                     1852+         DC    H'34'              test number
00004086  00                                       1853+         DC    X'00'
00004087  9F                                       1854+         DC    HL1'159'           i3
00004088  80                                       1855+         DC    HL1'128'           i4
00004089  01                                       1856+         DC    HL1'1'             m5
0000408A  00                                       1857+         DC    HL1'0'             cc
0000408B  07                                       1858+         DC    HL1'7'             cc failed mask
0000408C  000040EC                                 1859+V2_34    DC    A(RE34+16)         address of v2: 16-byte packed decimal
00004090  E5D7E2D6 D7404040                        1860+         DC    CL8'VPSOP'         instruction name
00004098  00000000 00000000                        1861+V1O34    DC    XL16'00'           V1 OUTPUT
000040A0  00000000 00000000
000040A8  00000000 00000000                        1862+CC34     DC    2F'0'                 after instruction PWS (ie CC)
000040B0  00000010                                 1863+         DC    A(16)              result length
000040B4  000040DC                                 1864+REA34    DC    A(RE34)            result address
                                                   1865+*                                   INSTRUCTION UNDER TEST ROUTINE
000040B8                                           1866+X34      DS    0F
000040B8  E320 500C 0014                 0000408C  1867+         LGF   R2,V2_34           get v2
000040BE  E722 0000 0006                 00000000  1868+         VL    V2,0(R2)
000040C4  E612 8019 F05B                           1869+         VPSOP V1,V2,159,128,1    test instruction
000040CA  E710 5018 000E                 00004098  1870+         VST   V1,V1O34           save result
000040D0  B98D 0020                                1871+         EPSW  R2,R0              exptract psw
000040D4  5020 5028                      000040A8  1872+         ST    R2,CC34                to save CC
000040D8  07FB                                     1873+         BR    R11                return
000040DC                                           1874+RE34     DC    0F
000040DC                                           1875+         DROP  R5
000040DC  00000000 00000000                        1876          DC    XL16'0000000000000000000000000000000C'    V1
000040E4  00000000 0000000C
000040EC  00000000 00000000                        1877          DC    XL16'0000000000000000000000000000000F'    V2
000040F4  00000000 0000000F
                                                   1878
                                                   1879          VRI_G VPSOP,159,192,1,0         nz=1  pc=0
00004100                                           1880+         DS    0FD
00004100                         00004100          1881+         USING *,R5               base for test data and test routine
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004100  00004138                                 1882+T35      DC    A(X35)            address of test routine
00004104  0023                                     1883+         DC    H'35'             test number
00004106  00                                       1884+         DC    X'00'
00004107  9F                                       1885+         DC    HL1'159'          i3
00004108  C0                                       1886+         DC    HL1'192'          i4
00004109  01                                       1887+         DC    HL1'1'            m5
0000410A  00                                       1888+         DC    HL1'0'            cc
0000410B  07                                       1889+         DC    HL1'7'            cc failed mask
0000410C  0000416C                                 1890+V2_35    DC    A(RE35+16)        address of v2: 16-byte packed decimal
00004110  E5D7E2D6 D7404040                        1891+         DC    CL8'VPSOP'        instruction name
00004118  00000000 00000000                        1892+V1O35    DC    XL16'00'          V1 OUTPUT
00004120  00000000 00000000
00004128  00000000 00000000                        1893+CC35     DC    2F'0'                after instruction PWS (ie CC)
00004130  00000010                                 1894+         DC    A(16)             result length
00004134  0000415C                                 1895+REA35    DC    A(RE35)           result address
                                                   1896+*                                  INSTRUCTION UNDER TEST ROUTINE
00004138                                           1897+X35      DS    0F
00004138  E320 500C 0014                0000410C   1898+         LGF   R2,V2_35          get v2
0000413E  E722 0000 0006                00000000   1899+         VL    V2,0(R2)
00004144  E612 C019 F05B                           1900+         VPSOP V1,V2,159,192,1    test instruction
0000414A  E710 5018 000E                00004118   1901+         VST   V1,V1O35          save result
00004150  B98D 0020                                1902+         EPSW  R2,R0             exptract psw
00004154  5020 5028                     00004128   1903+         ST    R2,CC35                to save CC
00004158  07FB                                     1904+         BR    R11               return
0000415C                                           1905+RE35     DC    0F
0000415C                                           1906+         DROP  R5
0000415C  00000000 00000000                        1907          DC    XL16'0000000000000000000000000000000C'    V1
00004164  00000000 0000000C
0000416C  00000000 00000000                        1908          DC    XL16'0000000000000000000000000000000F'    V2
00004174  00000000 0000000F
                                                   1909
                                                   1910 * V1:zero  V2:positive   PC='1' NZ='â€“'              V1_sign=F  CC=0
                                                   1911          VRI_G VPSOP,159,130,1,0         nz=0  pc=1
00004180                                           1912+         DS    0FD
00004180                        00004180           1913+         USING *,R5              base for test data and test routine
00004180  000041B8                                 1914+T36      DC    A(X36)            address of test routine
00004184  0024                                     1915+         DC    H'36'             test number
00004186  00                                       1916+         DC    X'00'
00004187  9F                                       1917+         DC    HL1'159'          i3
00004188  82                                       1918+         DC    HL1'130'          i4
00004189  01                                       1919+         DC    HL1'1'            m5
0000418A  00                                       1920+         DC    HL1'0'            cc
0000418B  07                                       1921+         DC    HL1'7'            cc failed mask
0000418C  000041EC                                 1922+V2_36    DC    A(RE36+16)        address of v2: 16-byte packed decimal
00004190  E5D7E2D6 D7404040                        1923+         DC    CL8'VPSOP'        instruction name
00004198  00000000 00000000                        1924+V1O36    DC    XL16'00'          V1 OUTPUT
000041A0  00000000 00000000
000041A8  00000000 00000000                        1925+CC36     DC    2F'0'                after instruction PWS (ie CC)
000041B0  00000010                                 1926+         DC    A(16)             result length
000041B4  000041DC                                 1927+REA36    DC    A(RE36)           result address
                                                   1928+*                                  INSTRUCTION UNDER TEST ROUTINE
000041B8                                           1929+X36      DS    0F
000041B8  E320 500C 0014                0000418C   1930+         LGF   R2,V2_36          get v2
000041BE  E722 0000 0006                00000000   1931+         VL    V2,0(R2)
000041C4  E612 8219 F05B                           1932+         VPSOP V1,V2,159,130,1    test instruction
000041CA  E710 5018 000E                00004198   1933+         VST   V1,V1O36          save result
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000041D0  B98D 0020                                1934+         EPSW  R2,R0              exptract psw
000041D4  5020 5028                       000041A8 1935+         ST    R2,CC36                 to save CC
000041D8  07FB                                     1936+         BR    R11                return
000041DC                                           1937+RE36     DC    0F
000041DC                                           1938+         DROP  R5
000041DC  00000000 00000000                        1939          DC    XL16'0000000000000000000000000000000F'    V1
000041E4  00000000 0000000F
000041EC  00000000 00000000                        1940          DC    XL16'0000000000000000000000000000000C'    V2
000041F4  00000000 0000000C
                                                   1941
                                                   1942          VRI_G VPSOP,159,194,1,0         nz=1  pc=1
00004200                                           1943+         DS    0FD
00004200                       00004200            1944+         USING *,R5               base for test data and test routine
00004200  00004238                                 1945+T37      DC    A(X37)             address of test routine
00004204  0025                                     1946+         DC    H'37'              test number
00004206  00                                       1947+         DC    X'00'
00004207  9F                                       1948+         DC    HL1'159'           i3
00004208  C2                                       1949+         DC    HL1'194'           i4
00004209  01                                       1950+         DC    HL1'1'             m5
0000420A  00                                       1951+         DC    HL1'0'             cc
0000420B  07                                       1952+         DC    HL1'7'             cc failed mask
0000420C  0000426C                                 1953+V2_37    DC    A(RE37+16)         address of v2: 16-byte packed decimal
00004210  E5D7E2D6 D7404040                        1954+         DC    CL8'VPSOP'         instruction name
00004218  00000000 00000000                        1955+V1O37    DC    XL16'00'           V1 OUTPUT
00004220  00000000 00000000
00004228  00000000 00000000                        1956+CC37     DC    2F'0'                 after instruction PWS (ie CC)
00004230  00000010                                 1957+         DC    A(16)              result length
00004234  0000425C                                 1958+REA37    DC    A(RE37)            result address
                                                   1959+*                                   INSTRUCTION UNDER TEST ROUTINE
00004238                                           1960+X37      DS    0F
00004238  E320 500C 0014                 0000420C  1961+         LGF   R2,V2_37           get v2
0000423E  E722 0000 0006                 00000000  1962+         VL    V2,0(R2)
00004244  E612 C219 F05B                           1963+         VPSOP V1,V2,159,194,1    test instruction
0000424A  E710 5018 000E                 00004218  1964+         VST   V1,V1O37           save result
00004250  B98D 0020                                1965+         EPSW  R2,R0              exptract psw
00004254  5020 5028                      00004228  1966+         ST    R2,CC37                 to save CC
00004258  07FB                                     1967+         BR    R11                return
0000425C                                           1968+RE37     DC    0F
0000425C                                           1969+         DROP  R5
0000425C  00000000 00000000                        1970          DC    XL16'0000000000000000000000000000000F'    V1
00004264  00000000 0000000F
0000426C  00000000 00000000                        1971          DC    XL16'0000000000000000000000000000000C'    V2
00004274  00000000 0000000C
                                                   1972
                                                   1973 * V1:zero  V2:negative   PC='0' NZ='0'              V1_sign=C  CC=0
                                                   1974          VRI_G VPSOP,159,128,1,0         nz=0  pc=0
00004280                                           1975+         DS    0FD
00004280                       00004280            1976+         USING *,R5               base for test data and test routine
00004280  000042B8                                 1977+T38      DC    A(X38)             address of test routine
00004284  0026                                     1978+         DC    H'38'              test number
00004286  00                                       1979+         DC    X'00'
00004287  9F                                       1980+         DC    HL1'159'           i3
00004288  80                                       1981+         DC    HL1'128'           i4
00004289  01                                       1982+         DC    HL1'1'             m5
0000428A  00                                       1983+         DC    HL1'0'             cc
0000428B  07                                       1984+         DC    HL1'7'             cc failed mask
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000428C  000042EC                                 1985+V2_38    DC    A(RE38+16)        address of v2: 16-byte packed decimal
00004290  E5D7E2D6 D7404040                        1986+         DC    CL8'VPSOP'        instruction name
00004298  00000000 00000000                        1987+V1O38    DC    XL16'00'          V1 OUTPUT
000042A0  00000000 00000000
000042A8  00000000 00000000                        1988+CC38     DC    2F'0'                after instruction PWS (ie CC)
000042B0  00000010                                 1989+         DC    A(16)             result length
000042B4  000042DC                                 1990+REA38    DC    A(RE38)           result address
                                                   1991+*                                  INSTRUCTION UNDER TEST ROUTINE
000042B8                                           1992+X38      DS    0F
000042B8  E320 500C 0014                0000428C   1993+         LGF   R2,V2_38          get v2
000042BE  E722 0000 0006                00000000   1994+         VL    V2,0(R2)
000042C4  E612 8019 F05B                           1995+         VPSOP V1,V2,159,128,1    test instruction
000042CA  E710 5018 000E                00004298   1996+         VST   V1,V1O38          save result
000042D0  B98D 0020                                1997+         EPSW  R2,R0             exptract psw
000042D4  5020 5028                     000042A8   1998+         ST    R2,CC38                to save CC
000042D8  07FB                                     1999+         BR    R11               return
000042DC                                           2000+RE38     DC    0F
000042DC                                           2001+         DROP  R5
000042DC  00000000 00000000                        2002          DC    XL16'00000000000000000000000000000000C'    V1
000042E4  00000000 0000000C
000042EC  00000000 00000000                        2003          DC    XL16'00000000000000000000000000000000D'    V2
000042F4  00000000 0000000D
                                                   2004
                                                   2005 * V1:zero  V2:negative   PC='1' NZ='0'               V1_sign=F  CC=0
                                                   2006          VRI_G VPSOP,159,130,1,0         nz=0  pc=1
00004300                                           2007+         DS    0FD
00004300                        00004300           2008+         USING *,R5              base for test data and test routine
00004300  00004338                                 2009+T39      DC    A(X39)            address of test routine
00004304  0027                                     2010+         DC    H'39'             test number
00004306  00                                       2011+         DC    X'00'
00004307  9F                                       2012+         DC    HL1'159'          i3
00004308  82                                       2013+         DC    HL1'130'          i4
00004309  01                                       2014+         DC    HL1'1'            m5
0000430A  00                                       2015+         DC    HL1'0'            cc
0000430B  07                                       2016+         DC    HL1'7'            cc failed mask
0000430C  0000436C                                 2017+V2_39    DC    A(RE39+16)        address of v2: 16-byte packed decimal
00004310  E5D7E2D6 D7404040                        2018+         DC    CL8'VPSOP'        instruction name
00004318  00000000 00000000                        2019+V1O39    DC    XL16'00'          V1 OUTPUT
00004320  00000000 00000000
00004328  00000000 00000000                        2020+CC39     DC    2F'0'                after instruction PWS (ie CC)
00004330  00000010                                 2021+         DC    A(16)             result length
00004334  0000435C                                 2022+REA39    DC    A(RE39)           result address
                                                   2023+*                                  INSTRUCTION UNDER TEST ROUTINE
00004338                                           2024+X39      DS    0F
00004338  E320 500C 0014                0000430C   2025+         LGF   R2,V2_39          get v2
0000433E  E722 0000 0006                00000000   2026+         VL    V2,0(R2)
00004344  E612 8219 F05B                           2027+         VPSOP V1,V2,159,130,1    test instruction
0000434A  E710 5018 000E                00004318   2028+         VST   V1,V1O39          save result
00004350  B98D 0020                                2029+         EPSW  R2,R0             exptract psw
00004354  5020 5028                     00004328   2030+         ST    R2,CC39                to save CC
00004358  07FB                                     2031+         BR    R11               return
0000435C                                           2032+RE39     DC    0F
0000435C                                           2033+         DROP  R5
0000435C  00000000 00000000                        2034          DC    XL16'00000000000000000000000000000000F'    V1
00004364  00000000 0000000F
0000436C  00000000 00000000                        2035          DC    XL16'00000000000000000000000000000000D'    V2
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004374  00000000 0000000D
                                                   2036
                                                   2037 * V1:zero  V2:negative   PC='-' NZ='1'              V1_sign=D  CC=0
                                                   2038          VRI_G VPSOP,159,192,1,0         nz=1  pc=0
00004380                                           2039+         DS    0FD
00004380                      00004380             2040+         USING *,R5              base for test data and test routine
00004380  000043B8                                 2041+T40      DC    A(X40)            address of test routine
00004384  0028                                     2042+         DC    H'40'             test number
00004386  00                                       2043+         DC    X'00'
00004387  9F                                       2044+         DC    HL1'159'          i3
00004388  C0                                       2045+         DC    HL1'192'          i4
00004389  01                                       2046+         DC    HL1'1'            m5
0000438A  00                                       2047+         DC    HL1'0'            cc
0000438B  07                                       2048+         DC    HL1'7'            cc failed mask
0000438C  000043EC                                 2049+V2_40    DC    A(RE40+16)        address of v2: 16-byte packed decimal
00004390  E5D7E2D6 D7404040                        2050+         DC    CL8'VPSOP'        instruction name
00004398  00000000 00000000                        2051+V1O40    DC    XL16'00'          V1 OUTPUT
000043A0  00000000 00000000
000043A8  00000000 00000000                        2052+CC40     DC    2F'0'                after instruction PWS (ie CC)
000043B0  00000010                                 2053+         DC    A(16)             result length
000043B4  000043DC                                 2054+REA40    DC    A(RE40)           result address
                                                   2055+*                                  INSTRUCTION UNDER TEST ROUTINE
000043B8                                           2056+X40      DS    0F
000043B8  E320 500C 0014                0000438C   2057+         LGF   R2,V2_40          get v2
000043BE  E722 0000 0006                00000000   2058+         VL    V2,0(R2)
000043C4  E612 C019 F05B                           2059+         VPSOP V1,V2,159,192,1    test instruction
000043CA  E710 5018 000E                00004398   2060+         VST   V1,V1O40          save result
000043D0  B98D 0020                                2061+         EPSW  R2,R0             exptract psw
000043D4  5020 5028                     000043A8   2062+         ST    R2,CC40                to save CC
000043D8  07FB                                     2063+         BR    R11               return
000043DC                                           2064+RE40     DC    0F
000043DC                                           2065+         DROP  R5
000043DC  00000000 00000000                        2066          DC    XL16'00000000000000000000000000000000'    V1
000043E4  00000000 0000000D
000043EC  00000000 00000000                        2067          DC    XL16'00000000000000000000000000000000'    V2
000043F4  00000000 0000000B
                                                   2068
                                                   2069          VRI_G VPSOP,159,194,1,0         nz=1  pc=1
00004400                                           2070+         DS    0FD
00004400                      00004400             2071+         USING *,R5              base for test data and test routine
00004400  00004438                                 2072+T41      DC    A(X41)            address of test routine
00004404  0029                                     2073+         DC    H'41'             test number
00004406  00                                       2074+         DC    X'00'
00004407  9F                                       2075+         DC    HL1'159'          i3
00004408  C2                                       2076+         DC    HL1'194'          i4
00004409  01                                       2077+         DC    HL1'1'            m5
0000440A  00                                       2078+         DC    HL1'0'            cc
0000440B  07                                       2079+         DC    HL1'7'            cc failed mask
0000440C  0000446C                                 2080+V2_41    DC    A(RE41+16)        address of v2: 16-byte packed decimal
00004410  E5D7E2D6 D7404040                        2081+         DC    CL8'VPSOP'        instruction name
00004418  00000000 00000000                        2082+V1O41    DC    XL16'00'          V1 OUTPUT
00004420  00000000 00000000
00004428  00000000 00000000                        2083+CC41     DC    2F'0'                after instruction PWS (ie CC)
00004430  00000010                                 2084+         DC    A(16)             result length
00004434  0000445C                                 2085+REA41    DC    A(RE41)           result address
                                                   2086+*                                  INSTRUCTION UNDER TEST ROUTINE
```

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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00004438                                          2087+X41      DS    0F
00004438  E320 500C 0014                0000440C  2088+         LGF   R2,V2_41          get v2
0000443E  E722 0000 0006                00000000  2089+         VL    V2,0(R2)
00004444  E612 C219 F05B                          2090+         VPSOP V1,V2,159,194,1    test instruction
0000444A  E710 5018 000E                00004418  2091+         VST   V1,V1O41          save result
00004450  B98D 0020                               2092+         EPSW  R2,R0             exptract psw
00004454  5020 5028                     00004428  2093+         ST    R2,CC41                to save CC
00004458  07FB                                    2094+         BR    R11               return
0000445C                                          2095+RE41     DC    0F
0000445C                                          2096+         DROP  R5
0000445C  00000000 00000000                       2097          DC    XL16'0000000000000000000000000000000D'    V1
00004464  00000000 0000000D
0000446C  00000000 00000000                       2098          DC    XL16'0000000000000000000000000000000B'    V2
00004474  00000000 0000000B
                                                  2099
                                                  2100 * V1:zero  V2:invalid   PC='-' NZ='â€“'              V1_sign=V2  CC=0
                                                  2101          VRI_G VPSOP,159,128,1,0         nz=0  pc=0
00004480                                          2102+         DS    0FD
00004480                        00004480          2103+         USING *,R5              base for test data and test routine
00004480  000044B8                                2104+T42      DC    A(X42)            address of test routine
00004484  002A                                    2105+         DC    H'42'             test number
00004486  00                                      2106+         DC    X'00'
00004487  9F                                      2107+         DC    HL1'159'          i3
00004488  80                                      2108+         DC    HL1'128'          i4
00004489  01                                      2109+         DC    HL1'1'            m5
0000448A  00                                      2110+         DC    HL1'0'            cc
0000448B  07                                      2111+         DC    HL1'7'            cc failed mask
0000448C  000044EC                                2112+V2_42    DC    A(RE42+16)        address of v2: 16-byte packed decimal
00004490  E5D7E2D6 D7404040                       2113+         DC    CL8'VPSOP'        instruction name
00004498  00000000 00000000                       2114+V1O42    DC    XL16'00'          V1 OUTPUT
000044A0  00000000 00000000
000044A8  00000000 00000000                       2115+CC42     DC    2F'0'                after instruction PWS (ie CC)
000044B0  00000010                                2116+         DC    A(16)             result length
000044B4  000044DC                                2117+REA42    DC    A(RE42)           result address
                                                  2118+*                                  INSTRUCTION UNDER TEST ROUTINE
000044B8                                          2119+X42      DS    0F
000044B8  E320 500C 0014                0000448C  2120+         LGF   R2,V2_42          get v2
000044BE  E722 0000 0006                00000000  2121+         VL    V2,0(R2)
000044C4  E612 8019 F05B                          2122+         VPSOP V1,V2,159,128,1    test instruction
000044CA  E710 5018 000E                00004498  2123+         VST   V1,V1O42          save result
000044D0  B98D 0020                               2124+         EPSW  R2,R0             exptract psw
000044D4  5020 5028                     000044A8  2125+         ST    R2,CC42                to save CC
000044D8  07FB                                    2126+         BR    R11               return
000044DC                                          2127+RE42     DC    0F
000044DC                                          2128+         DROP  R5
000044DC  00000000 00000000                       2129          DC    XL16'0000000000000000000000000000009'    V1
000044E4  00000000 00000009
000044EC  00000000 00000000                       2130          DC    XL16'0000000000000000000000000000009'    V2
000044F4  00000000 00000009
                                                  2131
                                                  2132          VRI_G VPSOP,159,130,1,0         nz=0  pc=1
00004500                                          2133+         DS    0FD
00004500                        00004500          2134+         USING *,R5              base for test data and test routine
00004500  00004538                                2135+T43      DC    A(X43)            address of test routine
00004504  002B                                    2136+         DC    H'43'             test number
00004506  00                                      2137+         DC    X'00'
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004507  9F                                       2138+         DC    HL1'159'          i3
00004508  82                                       2139+         DC    HL1'130'          i4
00004509  01                                       2140+         DC    HL1'1'            m5
0000450A  00                                       2141+         DC    HL1'0'            cc
0000450B  07                                       2142+         DC    HL1'7'            cc failed mask
0000450C  0000456C                                 2143+V2_43    DC    A(RE43+16)        address of v2: 16-byte packed decimal
00004510  E5D7E2D6 D7404040                        2144+         DC    CL8'VPSOP'        instruction name
00004518  00000000 00000000                        2145+V1O43    DC    XL16'00'          V1 OUTPUT
00004520  00000000 00000000
00004528  00000000 00000000                        2146+CC43     DC    2F'0'                after instruction PWS (ie CC)
00004530  00000010                                 2147+         DC    A(16)             result length
00004534  0000455C                                 2148+REA43    DC    A(RE43)           result address
                                                   2149+*                                  INSTRUCTION UNDER TEST ROUTINE
00004538                                           2150+X43      DS    0F
00004538  E320 500C 0014                0000450C   2151+         LGF   R2,V2_43          get v2
0000453E  E722 0000 0006                00000000   2152+         VL    V2,0(R2)
00004544  E612 8219 F05B                           2153+         VPSOP V1,V2,159,130,1    test instruction
0000454A  E710 5018 000E                00004518   2154+         VST   V1,V1O43          save result
00004550  B98D 0020                                2155+         EPSW  R2,R0             exptract psw
00004554  5020 5028                     00004528   2156+         ST    R2,CC43                to save CC
00004558  07FB                                     2157+         BR    R11               return
0000455C                                           2158+RE43     DC    0F
0000455C                                           2159+         DROP  R5
0000455C  00000000 00000000                        2160          DC    XL16'00000000000000000000000000000009'    V1
00004564  00000000 00000009
0000456C  00000000 00000000                        2161          DC    XL16'00000000000000000000000000000009'    V2
00004574  00000000 00000009
                                                   2162
                                                   2163          VRI_G VPSOP,159,192,1,0         nz=1  pc=0
00004580                                           2164+         DS    0FD
00004580                        00004580           2165+         USING *,R5              base for test data and test routine
00004580  000045B8                                 2166+T44      DC    A(X44)            address of test routine
00004584  002C                                     2167+         DC    H'44'             test number
00004586  00                                       2168+         DC    X'00'
00004587  9F                                       2169+         DC    HL1'159'          i3
00004588  C0                                       2170+         DC    HL1'192'          i4
00004589  01                                       2171+         DC    HL1'1'            m5
0000458A  00                                       2172+         DC    HL1'0'            cc
0000458B  07                                       2173+         DC    HL1'7'            cc failed mask
0000458C  000045EC                                 2174+V2_44    DC    A(RE44+16)        address of v2: 16-byte packed decimal
00004590  E5D7E2D6 D7404040                        2175+         DC    CL8'VPSOP'        instruction name
00004598  00000000 00000000                        2176+V1O44    DC    XL16'00'          V1 OUTPUT
000045A0  00000000 00000000
000045A8  00000000 00000000                        2177+CC44     DC    2F'0'                after instruction PWS (ie CC)
000045B0  00000010                                 2178+         DC    A(16)             result length
000045B4  000045DC                                 2179+REA44    DC    A(RE44)           result address
                                                   2180+*                                  INSTRUCTION UNDER TEST ROUTINE
000045B8                                           2181+X44      DS    0F
000045B8  E320 500C 0014                0000458C   2182+         LGF   R2,V2_44          get v2
000045BE  E722 0000 0006                00000000   2183+         VL    V2,0(R2)
000045C4  E612 C019 F05B                           2184+         VPSOP V1,V2,159,192,1    test instruction
000045CA  E710 5018 000E                00004598   2185+         VST   V1,V1O44          save result
000045D0  B98D 0020                                2186+         EPSW  R2,R0             exptract psw
000045D4  5020 5028                     000045A8   2187+         ST    R2,CC44                to save CC
000045D8  07FB                                     2188+         BR    R11               return
000045DC                                           2189+RE44     DC    0F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000045DC                                           2190+         DROP  R5
000045DC  00000000 00000000                        2191          DC    XL16'00000000000000000000000000000009'    V1
000045E4  00000000 00000009
000045EC  00000000 00000000                        2192          DC    XL16'00000000000000000000000000000009'    V2
000045F4  00000000 00000009
                                                   2193
                                                   2194          VRI_G VPSOP,159,194,1,0         nz=1  pc=1
00004600                                           2195+         DS    0FD
00004600                      00004600             2196+         USING *,R5              base for test data and test routine
00004600  00004638                                 2197+T45      DC    A(X45)            address of test routine
00004604  002D                                     2198+         DC    H'45'             test number
00004606  00                                       2199+         DC    X'00'
00004607  9F                                       2200+         DC    HL1'159'          i3
00004608  C2                                       2201+         DC    HL1'194'          i4
00004609  01                                       2202+         DC    HL1'1'            m5
0000460A  00                                       2203+         DC    HL1'0'            cc
0000460B  07                                       2204+         DC    HL1'7'            cc failed mask
0000460C  0000466C                                 2205+V2_45    DC    A(RE45+16)        address of v2: 16-byte packed decimal
00004610  E5D7E2D6 D7404040                        2206+         DC    CL8'VPSOP'        instruction name
00004618  00000000 00000000                        2207+V1O45    DC    XL16'00'          V1 OUTPUT
00004620  00000000 00000000
00004628  00000000 00000000                        2208+CC45     DC    2F'0'                after instruction PWS (ie CC)
00004630  00000010                                 2209+         DC    A(16)             result length
00004634  0000465C                                 2210+REA45    DC    A(RE45)           result address
                                                   2211+*                                  INSTRUCTION UNDER TEST ROUTINE
00004638                                           2212+X45      DS    0F
00004638  E320 500C 0014                0000460C   2213+         LGF   R2,V2_45          get v2
0000463E  E722 0000 0006                00000000   2214+         VL    V2,0(R2)
00004644  E612 C219 F05B                           2215+         VPSOP V1,V2,159,194,1    test instruction
0000464A  E710 5018 000E                00004618   2216+         VST   V1,V1O45          save result
00004650  B98D 0020                                2217+         EPSW  R2,R0             exptract psw
00004654  5020 5028                     00004628   2218+         ST    R2,CC45                to save CC
00004658  07FB                                     2219+         BR    R11               return
0000465C                                           2220+RE45     DC    0F
0000465C                                           2221+         DROP  R5
0000465C  00000000 00000000                        2222          DC    XL16'00000000000000000000000000000009'    V1
00004664  00000000 00000009
0000466C  00000000 00000000                        2223          DC    XL16'00000000000000000000000000000009'    V2
00004674  00000000 00000009
                                                   2224
                                                   2225 *-------------------------------------------------
                                                   2226 * SC=01 (complement): nv=1 to avoid data exceptions
                                                   2227 *-------------------------------------------------
                                                   2228
                                                   2229 * V1:nonzero V2:positive   PC='-' NZ='â€“'              V1_sign=D  CC=1
                                                   2230          VRI_G VPSOP,159,132,1,1         nz=0  pc=0
00004680                                           2231+         DS    0FD
00004680                      00004680             2232+         USING *,R5              base for test data and test routine
00004680  000046B8                                 2233+T46      DC    A(X46)            address of test routine
00004684  002E                                     2234+         DC    H'46'             test number
00004686  00                                       2235+         DC    X'00'
00004687  9F                                       2236+         DC    HL1'159'          i3
00004688  84                                       2237+         DC    HL1'132'          i4
00004689  01                                       2238+         DC    HL1'1'            m5
0000468A  01                                       2239+         DC    HL1'1'            cc
0000468B  0B                                       2240+         DC    HL1'11'           cc failed mask
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000468C  000046EC                                2241+V2_46    DC    A(RE46+16)        address of v2: 16-byte packed decimal
00004690  E5D7E2D6 D7404040                       2242+         DC    CL8'VPSOP'        instruction name
00004698  00000000 00000000                       2243+V1O46    DC    XL16'00'          V1 OUTPUT
000046A0  00000000 00000000
000046A8  00000000 00000000                       2244+CC46     DC    2F'0'                after instruction PWS (ie CC)
000046B0  00000010                                2245+         DC    A(16)             result length
000046B4  000046DC                                2246+REA46    DC    A(RE46)           result address
                                                  2247+*                                  INSTRUCTION UNDER TEST ROUTINE
000046B8                                          2248+X46      DS    0F
000046B8  E320 500C 0014                0000468C  2249+         LGF   R2,V2_46          get v2
000046BE  E722 0000 0006                00000000  2250+         VL    V2,0(R2)
000046C4  E612 8419 F05B                          2251+         VPSOP V1,V2,159,132,1    test instruction
000046CA  E710 5018 000E                00004698  2252+         VST   V1,V1O46          save result
000046D0  B98D 0020                               2253+         EPSW  R2,R0             exptract psw
000046D4  5020 5028                     000046A8  2254+         ST    R2,CC46               to save CC
000046D8  07FB                                    2255+         BR    R11               return
000046DC                                          2256+RE46     DC    0F
000046DC                                          2257+         DROP  R5
000046DC  00000000 00000000                       2258          DC    XL16'00000000000000000000000220000000D'    V1
000046E4  00000022 0000000D
000046EC  00000000 00000000                       2259          DC    XL16'00000000000000000000000220000000C'    V2
000046F4  00000022 0000000C
                                                  2260
                                                  2261          VRI_G VPSOP,159,134,1,1         nz=0  pc=1
00004700                                          2262+         DS    0FD
00004700                        00004700          2263+         USING *,R5              base for test data and test routine
00004700  00004738                                2264+T47      DC    A(X47)            address of test routine
00004704  002F                                    2265+         DC    H'47'             test number
00004706  00                                      2266+         DC    X'00'
00004707  9F                                      2267+         DC    HL1'159'          i3
00004708  86                                      2268+         DC    HL1'134'          i4
00004709  01                                      2269+         DC    HL1'1'            m5
0000470A  01                                      2270+         DC    HL1'1'            cc
0000470B  0B                                      2271+         DC    HL1'11'           cc failed mask
0000470C  0000476C                                2272+V2_47    DC    A(RE47+16)        address of v2: 16-byte packed decimal
00004710  E5D7E2D6 D7404040                       2273+         DC    CL8'VPSOP'        instruction name
00004718  00000000 00000000                       2274+V1O47    DC    XL16'00'          V1 OUTPUT
00004720  00000000 00000000
00004728  00000000 00000000                       2275+CC47     DC    2F'0'                after instruction PWS (ie CC)
00004730  00000010                                2276+         DC    A(16)             result length
00004734  0000475C                                2277+REA47    DC    A(RE47)           result address
                                                  2278+*                                  INSTRUCTION UNDER TEST ROUTINE
00004738                                          2279+X47      DS    0F
00004738  E320 500C 0014                0000470C  2280+         LGF   R2,V2_47          get v2
0000473E  E722 0000 0006                00000000  2281+         VL    V2,0(R2)
00004744  E612 8619 F05B                          2282+         VPSOP V1,V2,159,134,1    test instruction
0000474A  E710 5018 000E                00004718  2283+         VST   V1,V1O47          save result
00004750  B98D 0020                               2284+         EPSW  R2,R0             exptract psw
00004754  5020 5028                     00004728  2285+         ST    R2,CC47               to save CC
00004758  07FB                                    2286+         BR    R11               return
0000475C                                          2287+RE47     DC    0F
0000475C                                          2288+         DROP  R5
0000475C  00000000 00000000                       2289          DC    XL16'00000000000000000000000220000000D'    V1
00004764  00000022 0000000D
0000476C  00000000 00000000                       2290          DC    XL16'00000000000000000000000220000000A'    V2
00004774  00000022 0000000A
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                   2291
                                                   2292          VRI_G VPSOP,159,196,1,1         nz=1  pc=0
00004780                                           2293+         DS    0FD
00004780                     00004780              2294+         USING *,R5              base for test data and test routine
00004780  000047B8                                 2295+T48      DC    A(X48)            address of test routine
00004784  0030                                     2296+         DC    H'48'             test number
00004786  00                                       2297+         DC    X'00'
00004787  9F                                       2298+         DC    HL1'159'          i3
00004788  C4                                       2299+         DC    HL1'196'          i4
00004789  01                                       2300+         DC    HL1'1'            m5
0000478A  01                                       2301+         DC    HL1'1'            cc
0000478B  0B                                       2302+         DC    HL1'11'           cc failed mask
0000478C  000047EC                                 2303+V2_48    DC    A(RE48+16)        address of v2: 16-byte packed decimal
00004790  E5D7E2D6 D7404040                        2304+         DC    CL8'VPSOP'        instruction name
00004798  00000000 00000000                        2305+V1O48    DC    XL16'00'          V1 OUTPUT
000047A0  00000000 00000000
000047A8  00000000 00000000                        2306+CC48     DC    2F'0'                after instruction PWS (ie CC)
000047B0  00000010                                 2307+         DC    A(16)             result length
000047B4  000047DC                                 2308+REA48    DC    A(RE48)           result address
                                                   2309+*                                  INSTRUCTION UNDER TEST ROUTINE
000047B8                                           2310+X48      DS    0F
000047B8  E320 500C 0014               0000478C    2311+         LGF   R2,V2_48          get v2
000047BE  E722 0000 0006               00000000    2312+         VL    V2,0(R2)
000047C4  E612 C419 F05B                           2313+         VPSOP V1,V2,159,196,1    test instruction
000047CA  E710 5018 000E               00004798    2314+         VST   V1,V1O48          save result
000047D0  B98D 0020                                2315+         EPSW  R2,R0             exptract psw
000047D4  5020 5028                    000047A8    2316+         ST    R2,CC48                to save CC
000047D8  07FB                                     2317+         BR    R11               return
000047DC                                           2318+RE48     DC    0F
000047DC                                           2319+         DROP  R5
000047DC  00000000 00000000                        2320          DC    XL16'00000000000000000000000220000000D'    V1
000047E4  00000022 0000000D
000047EC  00000000 00000000                        2321          DC    XL16'00000000000000000000000220000000F'    V2
000047F4  00000022 0000000F
                                                   2322
                                                   2323          VRI_G VPSOP,159,198,1,1         nz=1  pc=1
00004800                                           2324+         DS    0FD
00004800                     00004800              2325+         USING *,R5              base for test data and test routine
00004800  00004838                                 2326+T49      DC    A(X49)            address of test routine
00004804  0031                                     2327+         DC    H'49'             test number
00004806  00                                       2328+         DC    X'00'
00004807  9F                                       2329+         DC    HL1'159'          i3
00004808  C6                                       2330+         DC    HL1'198'          i4
00004809  01                                       2331+         DC    HL1'1'            m5
0000480A  01                                       2332+         DC    HL1'1'            cc
0000480B  0B                                       2333+         DC    HL1'11'           cc failed mask
0000480C  0000486C                                 2334+V2_49    DC    A(RE49+16)        address of v2: 16-byte packed decimal
00004810  E5D7E2D6 D7404040                        2335+         DC    CL8'VPSOP'        instruction name
00004818  00000000 00000000                        2336+V1O49    DC    XL16'00'          V1 OUTPUT
00004820  00000000 00000000
00004828  00000000 00000000                        2337+CC49     DC    2F'0'                after instruction PWS (ie CC)
00004830  00000010                                 2338+         DC    A(16)             result length
00004834  0000485C                                 2339+REA49    DC    A(RE49)           result address
                                                   2340+*                                  INSTRUCTION UNDER TEST ROUTINE
00004838                                           2341+X49      DS    0F
00004838  E320 500C 0014               0000480C    2342+         LGF   R2,V2_49          get v2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

0000483E  E722 0000 0006                00000000  2343+         VL    V2,0(R2)
00004844  E612 C619 F05B                          2344+         VPSOP V1,V2,159,198,1    test instruction
0000484A  E710 5018 000E                00004818  2345+         VST   V1,V1O49          save result
00004850  B98D 0020                               2346+         EPSW  R2,R0             exptract psw
00004854  5020 5028                     00004828  2347+         ST    R2,CC49                to save CC
00004858  07FB                                    2348+         BR    R11               return
0000485C                                          2349+RE49     DC    0F
0000485C                                          2350+         DROP  R5
0000485C  00000000 00000000                       2351          DC    XL16'0000000000000000000000220000000D'    V1
00004864  00000022 0000000D
0000486C  00000000 00000000                       2352          DC    XL16'0000000000000000000000220000000E'    V2
00004874  00000022 0000000E
                                                  2353
                                                  2354 * V1:nonzero V2:negative   PC='0' NZ='â€“'              V1_sign=C  CC=2
                                                  2355          VRI_G VPSOP,159,132,1,2         nz=0  pc=0
00004880                                          2356+         DS    0FD
00004880                        00004880          2357+         USING *,R5              base for test data and test routine
00004880  000048B8                                2358+T50      DC    A(X50)            address of test routine
00004884  0032                                    2359+         DC    H'50'             test number
00004886  00                                      2360+         DC    X'00'
00004887  9F                                      2361+         DC    HL1'159'          i3
00004888  84                                      2362+         DC    HL1'132'          i4
00004889  01                                      2363+         DC    HL1'1'            m5
0000488A  02                                      2364+         DC    HL1'2'            cc
0000488B  0D                                      2365+         DC    HL1'13'           cc failed mask
0000488C  000048EC                                2366+V2_50    DC    A(RE50+16)        address of v2: 16-byte packed decimal
00004890  E5D7E2D6 D7404040                       2367+         DC    CL8'VPSOP'        instruction name
00004898  00000000 00000000                       2368+V1O50    DC    XL16'00'          V1 OUTPUT
000048A0  00000000 00000000
000048A8  00000000 00000000                       2369+CC50     DC    2F'0'                after instruction PWS (ie CC)
000048B0  00000010                                2370+         DC    A(16)             result length
000048B4  000048DC                                2371+REA50    DC    A(RE50)           result address
                                                  2372+*                                  INSTRUCTION UNDER TEST ROUTINE
000048B8                                          2373+X50      DS    0F
000048B8  E320 500C 0014                0000488C  2374+         LGF   R2,V2_50          get v2
000048BE  E722 0000 0006                00000000  2375+         VL    V2,0(R2)
000048C4  E612 8419 F05B                          2376+         VPSOP V1,V2,159,132,1    test instruction
000048CA  E710 5018 000E                00004898  2377+         VST   V1,V1O50          save result
000048D0  B98D 0020                               2378+         EPSW  R2,R0             exptract psw
000048D4  5020 5028                     000048A8  2379+         ST    R2,CC50                to save CC
000048D8  07FB                                    2380+         BR    R11               return
000048DC                                          2381+RE50     DC    0F
000048DC                                          2382+         DROP  R5
000048DC  00000000 00000000                       2383          DC    XL16'0000000000000000000000220000000C'    V1
000048E4  00000022 0000000C
000048EC  00000000 00000000                       2384          DC    XL16'0000000000000000000000220000000D'    V2
000048F4  00000022 0000000D
                                                  2385
                                                  2386          VRI_G VPSOP,159,196,1,2         nz=1  pc=0
00004900                                          2387+         DS    0FD
00004900                        00004900          2388+         USING *,R5              base for test data and test routine
00004900  00004938                                2389+T51      DC    A(X51)            address of test routine
00004904  0033                                    2390+         DC    H'51'             test number
00004906  00                                      2391+         DC    X'00'
00004907  9F                                      2392+         DC    HL1'159'          i3
00004908  C4                                      2393+         DC    HL1'196'          i4
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004909  01                                       2394+         DC    HL1'1'            m5
0000490A  02                                       2395+         DC    HL1'2'            cc
0000490B  0D                                       2396+         DC    HL1'13'           cc failed mask
0000490C  0000496C                                 2397+V2_51    DC    A(RE51+16)        address of v2: 16-byte packed decimal
00004910  E5D7E2D6 D7404040                        2398+         DC    CL8'VPSOP'        instruction name
00004918  00000000 00000000                        2399+V1O51    DC    XL16'00'          V1 OUTPUT
00004920  00000000 00000000
00004928  00000000 00000000                        2400+CC51     DC    2F'0'                after instruction PWS (ie CC)
00004930  00000010                                 2401+         DC    A(16)             result length
00004934  0000495C                                 2402+REA51    DC    A(RE51)           result address
                                                   2403+*                                  INSTRUCTION UNDER TEST ROUTINE
00004938                                           2404+X51      DS    0F
00004938  E320 500C 0014                0000490C   2405+         LGF   R2,V2_51          get v2
0000493E  E722 0000 0006                00000000   2406+         VL    V2,0(R2)
00004944  E612 C419 F05B                           2407+         VPSOP V1,V2,159,196,1    test instruction
0000494A  E710 5018 000E                00004918   2408+         VST   V1,V1O51          save result
00004950  B98D 0020                                2409+         EPSW  R2,R0             exptract psw
00004954  5020 5028                     00004928   2410+         ST    R2,CC51               to save CC
00004958  07FB                                     2411+         BR    R11               return
0000495C                                           2412+RE51     DC    0F
0000495C                                           2413+         DROP  R5
0000495C  00000000 00000000                        2414          DC    XL16'00000000000000000000000220000000C'    V1
00004964  00000022 0000000C
0000496C  00000000 00000000                        2415          DC    XL16'00000000000000000000000220000000D'    V2
00004974  00000022 0000000D
                                                   2416
                                                   2417 * V1:nonzero V2:negative   PC='1' NZ='â€“'              V1_sign=F  CC=2
                                                   2418          VRI_G VPSOP,159,134,1,2         nz=0  pc=1
00004980                                           2419+         DS    0FD
00004980                        00004980           2420+         USING *,R5              base for test data and test routine
00004980  000049B8                                 2421+T52      DC    A(X52)            address of test routine
00004984  0034                                     2422+         DC    H'52'             test number
00004986  00                                       2423+         DC    X'00'
00004987  9F                                       2424+         DC    HL1'159'          i3
00004988  86                                       2425+         DC    HL1'134'          i4
00004989  01                                       2426+         DC    HL1'1'            m5
0000498A  02                                       2427+         DC    HL1'2'            cc
0000498B  0D                                       2428+         DC    HL1'13'           cc failed mask
0000498C  000049EC                                 2429+V2_52    DC    A(RE52+16)        address of v2: 16-byte packed decimal
00004990  E5D7E2D6 D7404040                        2430+         DC    CL8'VPSOP'        instruction name
00004998  00000000 00000000                        2431+V1O52    DC    XL16'00'          V1 OUTPUT
000049A0  00000000 00000000
000049A8  00000000 00000000                        2432+CC52     DC    2F'0'                after instruction PWS (ie CC)
000049B0  00000010                                 2433+         DC    A(16)             result length
000049B4  000049DC                                 2434+REA52    DC    A(RE52)           result address
                                                   2435+*                                  INSTRUCTION UNDER TEST ROUTINE
000049B8                                           2436+X52      DS    0F
000049B8  E320 500C 0014                0000498C   2437+         LGF   R2,V2_52          get v2
000049BE  E722 0000 0006                00000000   2438+         VL    V2,0(R2)
000049C4  E612 8619 F05B                           2439+         VPSOP V1,V2,159,134,1    test instruction
000049CA  E710 5018 000E                00004998   2440+         VST   V1,V1O52          save result
000049D0  B98D 0020                                2441+         EPSW  R2,R0             exptract psw
000049D4  5020 5028                     000049A8   2442+         ST    R2,CC52               to save CC
000049D8  07FB                                     2443+         BR    R11               return
000049DC                                           2444+RE52     DC    0F
000049DC                                           2445+         DROP  R5
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000049DC  00000000 00000000                        2446          DC    XL16'000000000000000000000220000000F'    V1
000049E4  00000022 0000000F
000049EC  00000000 00000000                        2447          DC    XL16'000000000000000000000220000000D'    V2
000049F4  00000022 0000000D
                                                   2448
                                                   2449          VRI_G VPSOP,159,198,1,2         nz=1  pc=1
00004A00                                           2450+         DS    0FD
00004A00                           00004A00        2451+         USING *,R5              base for test data and test routine
00004A00  00004A38                                 2452+T53      DC    A(X53)            address of test routine
00004A04  0035                                     2453+         DC    H'53'             test number
00004A06  00                                       2454+         DC    X'00'
00004A07  9F                                       2455+         DC    HL1'159'          i3
00004A08  C6                                       2456+         DC    HL1'198'          i4
00004A09  01                                       2457+         DC    HL1'1'            m5
00004A0A  02                                       2458+         DC    HL1'2'            cc
00004A0B  0D                                       2459+         DC    HL1'13'           cc failed mask
00004A0C  00004A6C                                 2460+V2_53    DC    A(RE53+16)        address of v2: 16-byte packed decimal
00004A10  E5D7E2D6 D7404040                        2461+         DC    CL8'VPSOP'        instruction name
00004A18  00000000 00000000                        2462+V1O53    DC    XL16'00'          V1 OUTPUT
00004A20  00000000 00000000
00004A28  00000000 00000000                        2463+CC53     DC    2F'0'                after instruction PWS (ie CC)
00004A30  00000010                                 2464+         DC    A(16)             result length
00004A34  00004A5C                                 2465+REA53    DC    A(RE53)           result address
                                                   2466+*                                  INSTRUCTION UNDER TEST ROUTINE
00004A38                                           2467+X53      DS    0F
00004A38  E320 500C 0014                00004A0C   2468+         LGF   R2,V2_53          get v2
00004A3E  E722 0000 0006                00000000   2469+         VL    V2,0(R2)
00004A44  E612 C619 F05B                           2470+         VPSOP V1,V2,159,198,1    test instruction
00004A4A  E710 5018 000E                00004A18   2471+         VST   V1,V1O53          save result
00004A50  B98D 0020                                2472+         EPSW  R2,R0             exptract psw
00004A54  5020 5028                     00004A28   2473+         ST    R2,CC53                to save CC
00004A58  07FB                                     2474+         BR    R11               return
00004A5C                                           2475+RE53     DC    0F
00004A5C                                           2476+         DROP  R5
00004A5C  00000000 00000000                        2477          DC    XL16'000000000000000000000220000000F'    V1
00004A64  00000022 0000000F
00004A6C  00000000 00000000                        2478          DC    XL16'000000000000000000000220000000D'    V2
00004A74  00000022 0000000D
                                                   2479
                                                   2480 * V1:------ V2:invalid   PC='-' NZ='â€“'               V1_sign=-  CC=-
                                                   2481 *        ???? test without exceptions?
                                                   2482
                                                   2483
                                                   2484 * V1:zero   V2:positive   PC='0' NZ='0'               V1_sign=C  CC=0
                                                   2485          VRI_G VPSOP,159,132,1,0         nz=0  pc=0
00004A80                                           2486+         DS    0FD
00004A80                           00004A80        2487+         USING *,R5              base for test data and test routine
00004A80  00004AB8                                 2488+T54      DC    A(X54)            address of test routine
00004A84  0036                                     2489+         DC    H'54'             test number
00004A86  00                                       2490+         DC    X'00'
00004A87  9F                                       2491+         DC    HL1'159'          i3
00004A88  84                                       2492+         DC    HL1'132'          i4
00004A89  01                                       2493+         DC    HL1'1'            m5
00004A8A  00                                       2494+         DC    HL1'0'            cc
00004A8B  07                                       2495+         DC    HL1'7'            cc failed mask
00004A8C  00004AEC                                 2496+V2_54    DC    A(RE54+16)        address of v2: 16-byte packed decimal
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004A90  E5D7E2D6 D7404040                        2497+         DC    CL8'VPSOP'        instruction name
00004A98  00000000 00000000                        2498+V1O54    DC    XL16'00'          V1 OUTPUT
00004AA0  00000000 00000000
00004AA8  00000000 00000000                        2499+CC54     DC    2F'0'                after instruction PWS (ie CC)
00004AB0  00000010                                 2500+         DC    A(16)             result length
00004AB4  00004ADC                                 2501+REA54    DC    A(RE54)           result address
                                                   2502+*                                  INSTRUCTION UNDER TEST ROUTINE
00004AB8                                           2503+X54      DS    0F
00004AB8  E320 500C 0014                00004A8C   2504+         LGF   R2,V2_54          get v2
00004ABE  E722 0000 0006                00000000   2505+         VL    V2,0(R2)
00004AC4  E612 8419 F05B                           2506+         VPSOP V1,V2,159,132,1    test instruction
00004ACA  E710 5018 000E                00004A98   2507+         VST   V1,V1O54          save result
00004AD0  B98D 0020                                2508+         EPSW  R2,R0             exptract psw
00004AD4  5020 5028                     00004AA8   2509+         ST    R2,CC54               to save CC
00004AD8  07FB                                     2510+         BR    R11               return
00004ADC                                           2511+RE54     DC    0F
00004ADC                                           2512+         DROP  R5
00004ADC  00000000 00000000                        2513          DC    XL16'0000000000000000000000000000000C'    V1
00004AE4  00000000 0000000C
00004AEC  00000000 00000000                        2514          DC    XL16'0000000000000000000000000000000A'    V2
00004AF4  00000000 0000000A
                                                   2515
                                                   2516 * V1:zero   V2:positive   PC='1' NZ='0'               V1_sign=F  CC=0
                                                   2517          VRI_G VPSOP,159,134,1,0         nz=0  pc=1
00004B00                                           2518+         DS    0FD
00004B00                        00004B00           2519+         USING *,R5              base for test data and test routine
00004B00  00004B38                                 2520+T55      DC    A(X55)            address of test routine
00004B04  0037                                     2521+         DC    H'55'             test number
00004B06  00                                       2522+         DC    X'00'
00004B07  9F                                       2523+         DC    HL1'159'          i3
00004B08  86                                       2524+         DC    HL1'134'          i4
00004B09  01                                       2525+         DC    HL1'1'            m5
00004B0A  00                                       2526+         DC    HL1'0'            cc
00004B0B  07                                       2527+         DC    HL1'7'            cc failed mask
00004B0C  00004B6C                                 2528+V2_55    DC    A(RE55+16)        address of v2: 16-byte packed decimal
00004B10  E5D7E2D6 D7404040                        2529+         DC    CL8'VPSOP'        instruction name
00004B18  00000000 00000000                        2530+V1O55    DC    XL16'00'          V1 OUTPUT
00004B20  00000000 00000000
00004B28  00000000 00000000                        2531+CC55     DC    2F'0'                after instruction PWS (ie CC)
00004B30  00000010                                 2532+         DC    A(16)             result length
00004B34  00004B5C                                 2533+REA55    DC    A(RE55)           result address
                                                   2534+*                                  INSTRUCTION UNDER TEST ROUTINE
00004B38                                           2535+X55      DS    0F
00004B38  E320 500C 0014                00004B0C   2536+         LGF   R2,V2_55          get v2
00004B3E  E722 0000 0006                00000000   2537+         VL    V2,0(R2)
00004B44  E612 8619 F05B                           2538+         VPSOP V1,V2,159,134,1    test instruction
00004B4A  E710 5018 000E                00004B18   2539+         VST   V1,V1O55          save result
00004B50  B98D 0020                                2540+         EPSW  R2,R0             exptract psw
00004B54  5020 5028                     00004B28   2541+         ST    R2,CC55               to save CC
00004B58  07FB                                     2542+         BR    R11               return
00004B5C                                           2543+RE55     DC    0F
00004B5C                                           2544+         DROP  R5
00004B5C  00000000 00000000                        2545          DC    XL16'0000000000000000000000000000000F'    V1
00004B64  00000000 0000000F
00004B6C  00000000 00000000                        2546          DC    XL16'0000000000000000000000000000000A'    V2
00004B74  00000000 0000000A
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                   2547
                                                   2548 * V1:zero   V2:positive   PC='-' NZ='1'               V1_sign=D  CC=0
                                                   2549          VRI_G VPSOP,159,196,1,0         nz=1  pc=0
00004B80                                           2550+         DS    0FD
00004B80                       00004B80            2551+         USING *,R5              base for test data and test routine
00004B80  00004BB8                                 2552+T56      DC    A(X56)            address of test routine
00004B84  0038                                     2553+         DC    H'56'             test number
00004B86  00                                       2554+         DC    X'00'
00004B87  9F                                       2555+         DC    HL1'159'          i3
00004B88  C4                                       2556+         DC    HL1'196'          i4
00004B89  01                                       2557+         DC    HL1'1'            m5
00004B8A  00                                       2558+         DC    HL1'0'            cc
00004B8B  07                                       2559+         DC    HL1'7'            cc failed mask
00004B8C  00004BEC                                 2560+V2_56    DC    A(RE56+16)        address of v2: 16-byte packed decimal
00004B90  E5D7E2D6 D7404040                        2561+         DC    CL8'VPSOP'        instruction name
00004B98  00000000 00000000                        2562+V1O56    DC    XL16'00'          V1 OUTPUT
00004BA0  00000000 00000000
00004BA8  00000000 00000000                        2563+CC56     DC    2F'0'                after instruction PWS (ie CC)
00004BB0  00000010                                 2564+         DC    A(16)             result length
00004BB4  00004BDC                                 2565+REA56    DC    A(RE56)           result address
                                                   2566+*                                  INSTRUCTION UNDER TEST ROUTINE
00004BB8                                           2567+X56      DS    0F
00004BB8  E320 500C 0014                00004B8C   2568+         LGF   R2,V2_56          get v2
00004BBE  E722 0000 0006                00000000   2569+         VL    V2,0(R2)
00004BC4  E612 C419 F05B                           2570+         VPSOP V1,V2,159,196,1    test instruction
00004BCA  E710 5018 000E                00004B98   2571+         VST   V1,V1O56          save result
00004BD0  B98D 0020                                2572+         EPSW  R2,R0             exptract psw
00004BD4  5020 5028                     00004BA8   2573+         ST    R2,CC56                to save CC
00004BD8  07FB                                     2574+         BR    R11               return
00004BDC                                           2575+RE56     DC    0F
00004BDC                                           2576+         DROP  R5
00004BDC  00000000 00000000                        2577          DC    XL16'0000000000000000000000000000000D'    V1
00004BE4  00000000 0000000D
00004BEC  00000000 00000000                        2578          DC    XL16'0000000000000000000000000000000A'    V2
00004BF4  00000000 0000000A
                                                   2579
                                                   2580          VRI_G VPSOP,159,198,1,0         nz=1  pc=1
00004C00                                           2581+         DS    0FD
00004C00                       00004C00            2582+         USING *,R5              base for test data and test routine
00004C00  00004C38                                 2583+T57      DC    A(X57)            address of test routine
00004C04  0039                                     2584+         DC    H'57'             test number
00004C06  00                                       2585+         DC    X'00'
00004C07  9F                                       2586+         DC    HL1'159'          i3
00004C08  C6                                       2587+         DC    HL1'198'          i4
00004C09  01                                       2588+         DC    HL1'1'            m5
00004C0A  00                                       2589+         DC    HL1'0'            cc
00004C0B  07                                       2590+         DC    HL1'7'            cc failed mask
00004C0C  00004C6C                                 2591+V2_57    DC    A(RE57+16)        address of v2: 16-byte packed decimal
00004C10  E5D7E2D6 D7404040                        2592+         DC    CL8'VPSOP'        instruction name
00004C18  00000000 00000000                        2593+V1O57    DC    XL16'00'          V1 OUTPUT
00004C20  00000000 00000000
00004C28  00000000 00000000                        2594+CC57     DC    2F'0'                after instruction PWS (ie CC)
00004C30  00000010                                 2595+         DC    A(16)             result length
00004C34  00004C5C                                 2596+REA57    DC    A(RE57)           result address
                                                   2597+*                                  INSTRUCTION UNDER TEST ROUTINE
00004C38                                           2598+X57      DS    0F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00004C38  E320 500C 0014                00004C0C  2599+         LGF   R2,V2_57          get v2
00004C3E  E722 0000 0006                00000000  2600+         VL    V2,0(R2)
00004C44  E612 C619 F05B                          2601+         VPSOP V1,V2,159,198,1    test instruction
00004C4A  E710 5018 000E                00004C18  2602+         VST   V1,V1O57          save result
00004C50  B98D 0020                               2603+         EPSW  R2,R0             exptract psw
00004C54  5020 5028                     00004C28  2604+         ST    R2,CC57                to save CC
00004C58  07FB                                    2605+         BR    R11               return
00004C5C                                          2606+RE57     DC    0F
00004C5C                                          2607+         DROP  R5
00004C5C  00000000 00000000                       2608          DC    XL16'00000000000000000000000000000000D'    V1
00004C64  00000000 0000000D
00004C6C  00000000 00000000                       2609          DC    XL16'00000000000000000000000000000000C'    V2
00004C74  00000000 0000000C
                                                  2610
                                                  2611 * V1:zero   V2:negative   PC='0' NZ='-'               V1_sign=C  CC=0
                                                  2612          VRI_G VPSOP,159,132,1,0         nz=0  pc=0
00004C80                                          2613+         DS    0FD
00004C80                        00004C80          2614+         USING *,R5              base for test data and test routine
00004C80  00004CB8                                2615+T58      DC    A(X58)            address of test routine
00004C84  003A                                    2616+         DC    H'58'             test number
00004C86  00                                      2617+         DC    X'00'
00004C87  9F                                      2618+         DC    HL1'159'          i3
00004C88  84                                      2619+         DC    HL1'132'          i4
00004C89  01                                      2620+         DC    HL1'1'            m5
00004C8A  00                                      2621+         DC    HL1'0'            cc
00004C8B  07                                      2622+         DC    HL1'7'            cc failed mask
00004C8C  00004CEC                                2623+V2_58    DC    A(RE58+16)        address of v2: 16-byte packed decimal
00004C90  E5D7E2D6 D7404040                       2624+         DC    CL8'VPSOP'        instruction name
00004C98  00000000 00000000                       2625+V1O58    DC    XL16'00'          V1 OUTPUT
00004CA0  00000000 00000000
00004CA8  00000000 00000000                       2626+CC58     DC    2F'0'                after instruction PWS (ie CC)
00004CB0  00000010                                2627+         DC    A(16)             result length
00004CB4  00004CDC                                2628+REA58    DC    A(RE58)           result address
                                                  2629+*                                  INSTRUCTION UNDER TEST ROUTINE
00004CB8                                          2630+X58      DS    0F
00004CB8  E320 500C 0014                00004C8C  2631+         LGF   R2,V2_58          get v2
00004CBE  E722 0000 0006                00000000  2632+         VL    V2,0(R2)
00004CC4  E612 8419 F05B                          2633+         VPSOP V1,V2,159,132,1    test instruction
00004CCA  E710 5018 000E                00004C98  2634+         VST   V1,V1O58          save result
00004CD0  B98D 0020                               2635+         EPSW  R2,R0             exptract psw
00004CD4  5020 5028                     00004CA8  2636+         ST    R2,CC58                to save CC
00004CD8  07FB                                    2637+         BR    R11               return
00004CDC                                          2638+RE58     DC    0F
00004CDC                                          2639+         DROP  R5
00004CDC  00000000 00000000                       2640          DC    XL16'00000000000000000000000000000000C'    V1
00004CE4  00000000 0000000C
00004CEC  00000000 00000000                       2641          DC    XL16'00000000000000000000000000000000D'    V2
00004CF4  00000000 0000000D
                                                  2642
                                                  2643          VRI_G VPSOP,159,196,1,0         nz=1  pc=0
00004D00                                          2644+         DS    0FD
00004D00                        00004D00          2645+         USING *,R5              base for test data and test routine
00004D00  00004D38                                2646+T59      DC    A(X59)            address of test routine
00004D04  003B                                    2647+         DC    H'59'             test number
00004D06  00                                      2648+         DC    X'00'
00004D07  9F                                      2649+         DC    HL1'159'          i3
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004D08  C4                                       2650+         DC    HL1'196'          i4
00004D09  01                                       2651+         DC    HL1'1'            m5
00004D0A  00                                       2652+         DC    HL1'0'            cc
00004D0B  07                                       2653+         DC    HL1'7'            cc failed mask
00004D0C  00004D6C                                 2654+V2_59    DC    A(RE59+16)        address of v2: 16-byte packed decimal
00004D10  E5D7E2D6 D7404040                        2655+         DC    CL8'VPSOP'        instruction name
00004D18  00000000 00000000                        2656+V1O59    DC    XL16'00'          V1 OUTPUT
00004D20  00000000 00000000
00004D28  00000000 00000000                        2657+CC59     DC    2F'0'                after instruction PWS (ie CC)
00004D30  00000010                                 2658+         DC    A(16)             result length
00004D34  00004D5C                                 2659+REA59    DC    A(RE59)           result address
                                                   2660+*                                  INSTRUCTION UNDER TEST ROUTINE
00004D38                                           2661+X59      DS    0F
00004D38  E320 500C 0014                 00004D0C  2662+         LGF   R2,V2_59          get v2
00004D3E  E722 0000 0006                 00000000  2663+         VL    V2,0(R2)
00004D44  E612 C419 F05B                           2664+         VPSOP V1,V2,159,196,1    test instruction
00004D4A  E710 5018 000E                 00004D18  2665+         VST   V1,V1O59          save result
00004D50  B98D 0020                                 2666+         EPSW  R2,R0             exptract psw
00004D54  5020 5028                      00004D28  2667+         ST    R2,CC59               to save CC
00004D58  07FB                                     2668+         BR    R11               return
00004D5C                                           2669+RE59     DC    0F
00004D5C                                           2670+         DROP  R5
00004D5C  00000000 00000000                        2671          DC    XL16'00000000000000000000000000000000C'    V1
00004D64  00000000 0000000C
00004D6C  00000000 00000000                        2672          DC    XL16'00000000000000000000000000000000B'    V2
00004D74  00000000 0000000B
                                                   2673
                                                   2674 * V1:zero   V2:negative   PC='1' NZ='-'               V1_sign=F  CC=0
                                                   2675          VRI_G VPSOP,159,134,1,0         nz=0  pc=1
00004D80                                           2676+         DS    0FD
00004D80                         00004D80          2677+         USING *,R5              base for test data and test routine
00004D80  00004DB8                                 2678+T60      DC    A(X60)            address of test routine
00004D84  003C                                     2679+         DC    H'60'             test number
00004D86  00                                       2680+         DC    X'00'
00004D87  9F                                       2681+         DC    HL1'159'          i3
00004D88  86                                       2682+         DC    HL1'134'          i4
00004D89  01                                       2683+         DC    HL1'1'            m5
00004D8A  00                                       2684+         DC    HL1'0'            cc
00004D8B  07                                       2685+         DC    HL1'7'            cc failed mask
00004D8C  00004DEC                                 2686+V2_60    DC    A(RE60+16)        address of v2: 16-byte packed decimal
00004D90  E5D7E2D6 D7404040                        2687+         DC    CL8'VPSOP'        instruction name
00004D98  00000000 00000000                        2688+V1O60    DC    XL16'00'          V1 OUTPUT
00004DA0  00000000 00000000
00004DA8  00000000 00000000                        2689+CC60     DC    2F'0'                after instruction PWS (ie CC)
00004DB0  00000010                                 2690+         DC    A(16)             result length
00004DB4  00004DDC                                 2691+REA60    DC    A(RE60)           result address
                                                   2692+*                                  INSTRUCTION UNDER TEST ROUTINE
00004DB8                                           2693+X60      DS    0F
00004DB8  E320 500C 0014                 00004D8C  2694+         LGF   R2,V2_60          get v2
00004DBE  E722 0000 0006                 00000000  2695+         VL    V2,0(R2)
00004DC4  E612 8619 F05B                           2696+         VPSOP V1,V2,159,134,1    test instruction
00004DCA  E710 5018 000E                 00004D98  2697+         VST   V1,V1O60          save result
00004DD0  B98D 0020                                2698+         EPSW  R2,R0             exptract psw
00004DD4  5020 5028                      00004DA8  2699+         ST    R2,CC60               to save CC
00004DD8  07FB                                     2700+         BR    R11               return
00004DDC                                           2701+RE60     DC    0F
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004DDC                                           2702+         DROP  R5
00004DDC  00000000 00000000                        2703          DC    XL16'000000000000000000000000000000F'    V1
00004DE4  00000000 0000000F
00004DEC  00000000 00000000                        2704          DC    XL16'000000000000000000000000000000D'    V2
00004DF4  00000000 0000000D
                                                   2705
                                                   2706          VRI_G VPSOP,159,198,1,0         nz=1  pc=1
00004E00                                           2707+         DS    0FD
00004E00                      00004E00             2708+         USING *,R5              base for test data and test routine
00004E00  00004E38                                 2709+T61      DC    A(X61)            address of test routine
00004E04  003D                                     2710+         DC    H'61'             test number
00004E06  00                                       2711+         DC    X'00'
00004E07  9F                                       2712+         DC    HL1'159'          i3
00004E08  C6                                       2713+         DC    HL1'198'          i4
00004E09  01                                       2714+         DC    HL1'1'            m5
00004E0A  00                                       2715+         DC    HL1'0'            cc
00004E0B  07                                       2716+         DC    HL1'7'            cc failed mask
00004E0C  00004E6C                                 2717+V2_61    DC    A(RE61+16)        address of v2: 16-byte packed decimal
00004E10  E5D7E2D6 D7404040                        2718+         DC    CL8'VPSOP'        instruction name
00004E18  00000000 00000000                        2719+V1O61    DC    XL16'00'          V1 OUTPUT
00004E20  00000000 00000000
00004E28  00000000 00000000                        2720+CC61     DC    2F'0'                after instruction PWS (ie CC)
00004E30  00000010                                 2721+         DC    A(16)             result length
00004E34  00004E5C                                 2722+REA61    DC    A(RE61)           result address
                                                   2723+*                                  INSTRUCTION UNDER TEST ROUTINE
00004E38                                           2724+X61      DS    0F
00004E38  E320 500C 0014              00004E0C     2725+         LGF   R2,V2_61          get v2
00004E3E  E722 0000 0006              00000000     2726+         VL    V2,0(R2)
00004E44  E612 C619 F05B                           2727+         VPSOP V1,V2,159,198,1    test instruction
00004E4A  E710 5018 000E              00004E18     2728+         VST   V1,V1O61          save result
00004E50  B98D 0020                                2729+         EPSW  R2,R0             exptract psw
00004E54  5020 5028                   00004E28     2730+         ST    R2,CC61                to save CC
00004E58  07FB                                     2731+         BR    R11               return
00004E5C                                           2732+RE61     DC    0F
00004E5C                                           2733+         DROP  R5
00004E5C  00000000 00000000                        2734          DC    XL16'000000000000000000000000000000F'    V1
00004E64  00000000 0000000F
00004E6C  00000000 00000000                        2735          DC    XL16'000000000000000000000000000000B'    V2
00004E74  00000000 0000000B
                                                   2736
                                                   2737 *-------------------------------------------------------
                                                   2738 * SC=10 (force positive): nv=1 to avoid data exceptions
                                                   2739 *-------------------------------------------------------
                                                   2740
                                                   2741 * V1:nonzero V2:------   PC='0' NZ='â€“'              V1_sign=C  CC=2
                                                   2742 * V2:positive
                                                   2743          VRI_G VPSOP,159,136,1,2         nz=0  pc=0
00004E80                                           2744+         DS    0FD
00004E80                      00004E80             2745+         USING *,R5              base for test data and test routine
00004E80  00004EB8                                 2746+T62      DC    A(X62)            address of test routine
00004E84  003E                                     2747+         DC    H'62'             test number
00004E86  00                                       2748+         DC    X'00'
00004E87  9F                                       2749+         DC    HL1'159'          i3
00004E88  88                                       2750+         DC    HL1'136'          i4
00004E89  01                                       2751+         DC    HL1'1'            m5
00004E8A  02                                       2752+         DC    HL1'2'            cc
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004E8B  0D                                      2753+         DC    HL1'13'           cc failed mask
00004E8C  00004EEC                                2754+V2_62    DC    A(RE62+16)        address of v2: 16-byte packed decimal
00004E90  E5D7E2D6 D7404040                       2755+         DC    CL8'VPSOP'        instruction name
00004E98  00000000 00000000                       2756+V1O62    DC    XL16'00'          V1 OUTPUT
00004EA0  00000000 00000000
00004EA8  00000000 00000000                       2757+CC62     DC    2F'0'                after instruction PWS (ie CC)
00004EB0  00000010                                2758+         DC    A(16)             result length
00004EB4  00004EDC                                2759+REA62    DC    A(RE62)           result address
                                                  2760+*                                  INSTRUCTION UNDER TEST ROUTINE
00004EB8                                          2761+X62      DS    0F
00004EB8  E320 500C 0014                 00004E8C 2762+         LGF   R2,V2_62          get v2
00004EBE  E722 0000 0006                 00000000 2763+         VL    V2,0(R2)
00004EC4  E612 8819 F05B                          2764+         VPSOP V1,V2,159,136,1    test instruction
00004ECA  E710 5018 000E                 00004E98 2765+         VST   V1,V1O62          save result
00004ED0  B98D 0020                               2766+         EPSW  R2,R0             exptract psw
00004ED4  5020 5028                      00004EA8 2767+         ST    R2,CC62                to save CC
00004ED8  07FB                                    2768+         BR    R11               return
00004EDC                                          2769+RE62     DC    0F
00004EDC                                          2770+         DROP  R5
00004EDC  00000000 00000000                       2771          DC    XL16'0000000000000000000000220000000C'    V1
00004EE4  00000022 0000000C
00004EEC  00000000 00000000                       2772          DC    XL16'0000000000000000000000220000000A'    V2
00004EF4  00000022 0000000A
                                                  2773
                                                  2774          VRI_G VPSOP,159,200,1,2         nz=1  pc=0
00004F00                                          2775+         DS    0FD
00004F00                 00004F00                 2776+         USING *,R5              base for test data and test routine
00004F00  00004F38                                2777+T63      DC    A(X63)            address of test routine
00004F04  003F                                    2778+         DC    H'63'             test number
00004F06  00                                      2779+         DC    X'00'
00004F07  9F                                      2780+         DC    HL1'159'          i3
00004F08  C8                                      2781+         DC    HL1'200'          i4
00004F09  01                                      2782+         DC    HL1'1'            m5
00004F0A  02                                      2783+         DC    HL1'2'            cc
00004F0B  0D                                      2784+         DC    HL1'13'           cc failed mask
00004F0C  00004F6C                                2785+V2_63    DC    A(RE63+16)        address of v2: 16-byte packed decimal
00004F10  E5D7E2D6 D7404040                       2786+         DC    CL8'VPSOP'        instruction name
00004F18  00000000 00000000                       2787+V1O63    DC    XL16'00'          V1 OUTPUT
00004F20  00000000 00000000
00004F28  00000000 00000000                       2788+CC63     DC    2F'0'                after instruction PWS (ie CC)
00004F30  00000010                                2789+         DC    A(16)             result length
00004F34  00004F5C                                2790+REA63    DC    A(RE63)           result address
                                                  2791+*                                  INSTRUCTION UNDER TEST ROUTINE
00004F38                                          2792+X63      DS    0F
00004F38  E320 500C 0014                 00004F0C 2793+         LGF   R2,V2_63          get v2
00004F3E  E722 0000 0006                 00000000 2794+         VL    V2,0(R2)
00004F44  E612 C819 F05B                          2795+         VPSOP V1,V2,159,200,1    test instruction
00004F4A  E710 5018 000E                 00004F18 2796+         VST   V1,V1O63          save result
00004F50  B98D 0020                               2797+         EPSW  R2,R0             exptract psw
00004F54  5020 5028                      00004F28 2798+         ST    R2,CC63                to save CC
00004F58  07FB                                    2799+         BR    R11               return
00004F5C                                          2800+RE63     DC    0F
00004F5C                                          2801+         DROP  R5
00004F5C  00000000 00000000                       2802          DC    XL16'0000000000000000000000220000000C'    V1
00004F64  00000022 0000000C
00004F6C  00000000 00000000                       2803          DC    XL16'0000000000000000000000220000000A'    V2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004F74  00000022 0000000A
                                                   2804 * V2:negative
                                                   2805          VRI_G VPSOP,159,136,1,2         nz=0  pc=0
00004F80                                           2806+         DS    0FD
00004F80                       00004F80            2807+         USING *,R5              base for test data and test routine
00004F80  00004FB8                                 2808+T64      DC    A(X64)            address of test routine
00004F84  0040                                     2809+         DC    H'64'             test number
00004F86  00                                       2810+         DC    X'00'
00004F87  9F                                       2811+         DC    HL1'159'          i3
00004F88  88                                       2812+         DC    HL1'136'          i4
00004F89  01                                       2813+         DC    HL1'1'            m5
00004F8A  02                                       2814+         DC    HL1'2'            cc
00004F8B  0D                                       2815+         DC    HL1'13'           cc failed mask
00004F8C  00004FEC                                 2816+V2_64    DC    A(RE64+16)        address of v2: 16-byte packed decimal
00004F90  E5D7E2D6 D7404040                        2817+         DC    CL8'VPSOP'        instruction name
00004F98  00000000 00000000                        2818+V1O64    DC    XL16'00'          V1 OUTPUT
00004FA0  00000000 00000000
00004FA8  00000000 00000000                        2819+CC64     DC    2F'0'                  after instruction PWS (ie CC)
00004FB0  00000010                                 2820+         DC    A(16)             result length
00004FB4  00004FDC                                 2821+REA64    DC    A(RE64)           result address
                                                   2822+*                                  INSTRUCTION UNDER TEST ROUTINE
00004FB8                                           2823+X64      DS    0F
00004FB8  E320 500C 0014                00004F8C   2824+         LGF   R2,V2_64          get v2
00004FBE  E722 0000 0006                00000000   2825+         VL    V2,0(R2)
00004FC4  E612 8819 F05B                           2826+         VPSOP V1,V2,159,136,1    test instruction
00004FCA  E710 5018 000E                00004F98   2827+         VST   V1,V1O64          save result
00004FD0  B98D 0020                                2828+         EPSW  R2,R0             exptract psw
00004FD4  5020 5028                     00004FA8   2829+         ST    R2,CC64                to save CC
00004FD8  07FB                                     2830+         BR    R11               return
00004FDC                                           2831+RE64     DC    0F
00004FDC                                           2832+         DROP  R5
00004FDC  00000000 00000000                        2833          DC    XL16'0000000000000000000000220000000C'    V1
00004FE4  00000022 0000000C
00004FEC  00000000 00000000                        2834          DC    XL16'0000000000000000000000220000000D'    V2
00004FF4  00000022 0000000D
                                                   2835
                                                   2836          VRI_G VPSOP,159,200,1,2         nz=1  pc=0
00005000                                           2837+         DS    0FD
00005000                       00005000            2838+         USING *,R5              base for test data and test routine
00005000  00005038                                 2839+T65      DC    A(X65)            address of test routine
00005004  0041                                     2840+         DC    H'65'             test number
00005006  00                                       2841+         DC    X'00'
00005007  9F                                       2842+         DC    HL1'159'          i3
00005008  C8                                       2843+         DC    HL1'200'          i4
00005009  01                                       2844+         DC    HL1'1'            m5
0000500A  02                                       2845+         DC    HL1'2'            cc
0000500B  0D                                       2846+         DC    HL1'13'           cc failed mask
0000500C  0000506C                                 2847+V2_65    DC    A(RE65+16)        address of v2: 16-byte packed decimal
00005010  E5D7E2D6 D7404040                        2848+         DC    CL8'VPSOP'        instruction name
00005018  00000000 00000000                        2849+V1O65    DC    XL16'00'          V1 OUTPUT
00005020  00000000 00000000
00005028  00000000 00000000                        2850+CC65     DC    2F'0'                  after instruction PWS (ie CC)
00005030  00000010                                 2851+         DC    A(16)             result length
00005034  0000505C                                 2852+REA65    DC    A(RE65)           result address
                                                   2853+*                                  INSTRUCTION UNDER TEST ROUTINE
00005038                                           2854+X65      DS    0F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00005038  E320 500C 0014                0000500C  2855+         LGF   R2,V2_65          get v2
0000503E  E722 0000 0006                00000000  2856+         VL    V2,0(R2)
00005044  E612 C819 F05B                          2857+         VPSOP V1,V2,159,200,1    test instruction
0000504A  E710 5018 000E                00005018  2858+         VST   V1,V1O65          save result
00005050  B98D 0020                               2859+         EPSW  R2,R0             exptract psw
00005054  5020 5028                     00005028  2860+         ST    R2,CC65                to save CC
00005058  07FB                                    2861+         BR    R11               return
0000505C                                          2862+RE65     DC    0F
0000505C                                          2863+         DROP  R5
0000505C  00000000 00000000                       2864          DC    XL16'0000000000000000000000220000000C'    V1
00005064  00000022 0000000C
0000506C  00000000 00000000                       2865          DC    XL16'0000000000000000000000220000000B'    V2
00005074  00000022 0000000B
                                                  2866
                                                  2867 * V1:nonzero V2:------   PC='1' NZ='â€“'              V1_sign=F  CC=2
                                                  2868 * V2:positive
                                                  2869          VRI_G VPSOP,159,138,1,2         nz=0  pc=1
00005080                                          2870+         DS    0FD
00005080                        00005080          2871+         USING *,R5              base for test data and test routine
00005080  000050B8                                2872+T66      DC    A(X66)            address of test routine
00005084  0042                                    2873+         DC    H'66'             test number
00005086  00                                      2874+         DC    X'00'
00005087  9F                                      2875+         DC    HL1'159'          i3
00005088  8A                                      2876+         DC    HL1'138'          i4
00005089  01                                      2877+         DC    HL1'1'            m5
0000508A  02                                      2878+         DC    HL1'2'            cc
0000508B  0D                                      2879+         DC    HL1'13'           cc failed mask
0000508C  000050EC                                2880+V2_66    DC    A(RE66+16)        address of v2: 16-byte packed decimal
00005090  E5D7E2D6 D7404040                       2881+         DC    CL8'VPSOP'        instruction name
00005098  00000000 00000000                       2882+V1O66    DC    XL16'00'          V1 OUTPUT
000050A0  00000000 00000000
000050A8  00000000 00000000                       2883+CC66     DC    2F'0'                after instruction PWS (ie CC)
000050B0  00000010                                2884+         DC    A(16)             result length
000050B4  000050DC                                2885+REA66    DC    A(RE66)           result address
                                                  2886+*                                  INSTRUCTION UNDER TEST ROUTINE
000050B8                                          2887+X66      DS    0F
000050B8  E320 500C 0014                0000508C  2888+         LGF   R2,V2_66          get v2
000050BE  E722 0000 0006                00000000  2889+         VL    V2,0(R2)
000050C4  E612 8A19 F05B                          2890+         VPSOP V1,V2,159,138,1    test instruction
000050CA  E710 5018 000E                00005098  2891+         VST   V1,V1O66          save result
000050D0  B98D 0020                               2892+         EPSW  R2,R0             exptract psw
000050D4  5020 5028                     000050A8  2893+         ST    R2,CC66                to save CC
000050D8  07FB                                    2894+         BR    R11               return
000050DC                                          2895+RE66     DC    0F
000050DC                                          2896+         DROP  R5
000050DC  00000000 00000000                       2897          DC    XL16'0000000000000000000000220000000F'    V1
000050E4  00000022 0000000F
000050EC  00000000 00000000                       2898          DC    XL16'0000000000000000000000220000000A'    V2
000050F4  00000022 0000000A
                                                  2899
                                                  2900          VRI_G VPSOP,159,202,1,2         nz=1  pc=1
00005100                                          2901+         DS    0FD
00005100                        00005100          2902+         USING *,R5              base for test data and test routine
00005100  00005138                                2903+T67      DC    A(X67)            address of test routine
00005104  0043                                    2904+         DC    H'67'             test number
00005106  00                                      2905+         DC    X'00'
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005107  9F                                       2906+         DC    HL1'159'          i3
00005108  CA                                       2907+         DC    HL1'202'          i4
00005109  01                                       2908+         DC    HL1'1'            m5
0000510A  02                                       2909+         DC    HL1'2'            cc
0000510B  0D                                       2910+         DC    HL1'13'           cc failed mask
0000510C  0000516C                                 2911+V2_67    DC    A(RE67+16)        address of v2: 16-byte packed decimal
00005110  E5D7E2D6 D7404040                        2912+         DC    CL8'VPSOP'        instruction name
00005118  00000000 00000000                        2913+V1O67    DC    XL16'00'          V1 OUTPUT
00005120  00000000 00000000
00005128  00000000 00000000                        2914+CC67     DC    2F'0'                after instruction PWS (ie CC)
00005130  00000010                                 2915+         DC    A(16)             result length
00005134  0000515C                                 2916+REA67    DC    A(RE67)           result address
                                                   2917+*                                  INSTRUCTION UNDER TEST ROUTINE
00005138                                           2918+X67      DS    0F
00005138  E320 500C 0014                0000510C   2919+         LGF   R2,V2_67          get v2
0000513E  E722 0000 0006                00000000   2920+         VL    V2,0(R2)
00005144  E612 CA19 F05B                           2921+         VPSOP V1,V2,159,202,1    test instruction
0000514A  E710 5018 000E                00005118   2922+         VST   V1,V1O67          save result
00005150  B98D 0020                                2923+         EPSW  R2,R0             exptract psw
00005154  5020 5028                     00005128   2924+         ST    R2,CC67                to save CC
00005158  07FB                                     2925+         BR    R11               return
0000515C                                           2926+RE67     DC    0F
0000515C                                           2927+         DROP  R5
0000515C  00000000 00000000                        2928          DC    XL16'00000000000000000000000220000000F'    V1
00005164  00000022 0000000F
0000516C  00000000 00000000                        2929          DC    XL16'00000000000000000000000220000000A'    V2
00005174  00000022 0000000A
                                                   2930 * V2:negative
                                                   2931          VRI_G VPSOP,159,138,1,2         nz=0  pc=1
00005180                                           2932+         DS    0FD
00005180                        00005180           2933+         USING *,R5              base for test data and test routine
00005180  000051B8                                 2934+T68      DC    A(X68)            address of test routine
00005184  0044                                     2935+         DC    H'68'             test number
00005186  00                                       2936+         DC    X'00'
00005187  9F                                       2937+         DC    HL1'159'          i3
00005188  8A                                       2938+         DC    HL1'138'          i4
00005189  01                                       2939+         DC    HL1'1'            m5
0000518A  02                                       2940+         DC    HL1'2'            cc
0000518B  0D                                       2941+         DC    HL1'13'           cc failed mask
0000518C  000051EC                                 2942+V2_68    DC    A(RE68+16)        address of v2: 16-byte packed decimal
00005190  E5D7E2D6 D7404040                        2943+         DC    CL8'VPSOP'        instruction name
00005198  00000000 00000000                        2944+V1O68    DC    XL16'00'          V1 OUTPUT
000051A0  00000000 00000000
000051A8  00000000 00000000                        2945+CC68     DC    2F'0'                after instruction PWS (ie CC)
000051B0  00000010                                 2946+         DC    A(16)             result length
000051B4  000051DC                                 2947+REA68    DC    A(RE68)           result address
                                                   2948+*                                  INSTRUCTION UNDER TEST ROUTINE
000051B8                                           2949+X68      DS    0F
000051B8  E320 500C 0014                0000518C   2950+         LGF   R2,V2_68          get v2
000051BE  E722 0000 0006                00000000   2951+         VL    V2,0(R2)
000051C4  E612 8A19 F05B                           2952+         VPSOP V1,V2,159,138,1    test instruction
000051CA  E710 5018 000E                00005198   2953+         VST   V1,V1O68          save result
000051D0  B98D 0020                                2954+         EPSW  R2,R0             exptract psw
000051D4  5020 5028                     000051A8   2955+         ST    R2,CC68                to save CC
000051D8  07FB                                     2956+         BR    R11               return
000051DC                                           2957+RE68     DC    0F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000051DC                                           2958+         DROP  R5
000051DC  00000000 00000000                        2959          DC    XL16'0000000000000000000000220000000F'    V1
000051E4  00000022 0000000F
000051EC  00000000 00000000                        2960          DC    XL16'00000000000000000000000220000000D'    V2
000051F4  00000022 0000000D
                                                   2961
                                                   2962          VRI_G VPSOP,159,202,1,2         nz=1  pc=1
00005200                                           2963+         DS    0FD
00005200                      00005200             2964+         USING *,R5              base for test data and test routine
00005200  00005238                                 2965+T69      DC    A(X69)            address of test routine
00005204  0045                                     2966+         DC    H'69'             test number
00005206  00                                       2967+         DC    X'00'
00005207  9F                                       2968+         DC    HL1'159'          i3
00005208  CA                                       2969+         DC    HL1'202'          i4
00005209  01                                       2970+         DC    HL1'1'            m5
0000520A  02                                       2971+         DC    HL1'2'            cc
0000520B  0D                                       2972+         DC    HL1'13'           cc failed mask
0000520C  0000526C                                 2973+V2_69    DC    A(RE69+16)        address of v2: 16-byte packed decimal
00005210  E5D7E2D6 D7404040                        2974+         DC    CL8'VPSOP'        instruction name
00005218  00000000 00000000                        2975+V1O69    DC    XL16'00'          V1 OUTPUT
00005220  00000000 00000000
00005228  00000000 00000000                        2976+CC69     DC    2F'0'                after instruction PWS (ie CC)
00005230  00000010                                 2977+         DC    A(16)             result length
00005234  0000525C                                 2978+REA69    DC    A(RE69)           result address
                                                   2979+*                                  INSTRUCTION UNDER TEST ROUTINE
00005238                                           2980+X69      DS    0F
00005238  E320 500C 0014                0000520C   2981+         LGF   R2,V2_69          get v2
0000523E  E722 0000 0006                00000000   2982+         VL    V2,0(R2)
00005244  E612 CA19 F05B                           2983+         VPSOP V1,V2,159,202,1    test instruction
0000524A  E710 5018 000E                00005218   2984+         VST   V1,V1O69          save result
00005250  B98D 0020                                2985+         EPSW  R2,R0             exptract psw
00005254  5020 5028                     00005228   2986+         ST    R2,CC69                to save CC
00005258  07FB                                     2987+         BR    R11               return
0000525C                                           2988+RE69     DC    0F
0000525C                                           2989+         DROP  R5
0000525C  00000000 00000000                        2990          DC    XL16'0000000000000000000000220000000F'    V1
00005264  00000022 0000000F
0000526C  00000000 00000000                        2991          DC    XL16'00000000000000000000000220000000B'    V2
00005274  00000022 0000000B
                                                   2992
                                                   2993 * V1:zero V2:------   PC='0' NZ='â€“'              V1_sign=C  CC=0
                                                   2994 * V2:positive
                                                   2995          VRI_G VPSOP,159,136,1,0         nz=0  pc=0
00005280                                           2996+         DS    0FD
00005280                      00005280             2997+         USING *,R5              base for test data and test routine
00005280  000052B8                                 2998+T70      DC    A(X70)            address of test routine
00005284  0046                                     2999+         DC    H'70'             test number
00005286  00                                       3000+         DC    X'00'
00005287  9F                                       3001+         DC    HL1'159'          i3
00005288  88                                       3002+         DC    HL1'136'          i4
00005289  01                                       3003+         DC    HL1'1'            m5
0000528A  00                                       3004+         DC    HL1'0'            cc
0000528B  07                                       3005+         DC    HL1'7'            cc failed mask
0000528C  000052EC                                 3006+V2_70    DC    A(RE70+16)        address of v2: 16-byte packed decimal
00005290  E5D7E2D6 D7404040                        3007+         DC    CL8'VPSOP'        instruction name
00005298  00000000 00000000                        3008+V1O70    DC    XL16'00'          V1 OUTPUT
```

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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

000052A0  00000000 00000000
000052A8  00000000 00000000                        3009+CC70     DC    2F'0'                 after instruction PWS (ie CC)
000052B0  00000010                                 3010+         DC    A(16)             result length
000052B4  000052DC                                 3011+REA70    DC    A(RE70)           result address
                                                   3012+*                                  INSTRUCTION UNDER TEST ROUTINE
000052B8                                           3013+X70      DS    0F
000052B8  E320 500C 0014                 0000528C  3014+         LGF   R2,V2_70          get v2
000052BE  E722 0000 0006                 00000000  3015+         VL    V2,0(R2)
000052C4  E612 8819 F05B                           3016+         VPSOP V1,V2,159,136,1    test instruction
000052CA  E710 5018 000E                 00005298  3017+         VST   V1,V1O70          save result
000052D0  B98D 0020                                3018+         EPSW  R2,R0             exptract psw
000052D4  5020 5028                      000052A8  3019+         ST    R2,CC70               to save CC
000052D8  07FB                                     3020+         BR    R11               return
000052DC                                           3021+RE70     DC    0F
000052DC                                           3022+         DROP  R5
000052DC  00000000 00000000                        3023          DC    XL16'0000000000000000000000000000000C'    V1
000052E4  00000000 0000000C
000052EC  00000000 00000000                        3024          DC    XL16'0000000000000000000000000000000A'    V2
000052F4  00000000 0000000A
                                                   3025
                                                   3026          VRI_G VPSOP,159,200,1,0         nz=1  pc=0
00005300                                           3027+         DS    0FD
00005300                         00005300          3028+         USING *,R5              base for test data and test routine
00005300  00005338                                 3029+T71      DC    A(X71)            address of test routine
00005304  0047                                     3030+         DC    H'71'             test number
00005306  00                                       3031+         DC    X'00'
00005307  9F                                       3032+         DC    HL1'159'          i3
00005308  C8                                       3033+         DC    HL1'200'          i4
00005309  01                                       3034+         DC    HL1'1'            m5
0000530A  00                                       3035+         DC    HL1'0'            cc
0000530B  07                                       3036+         DC    HL1'7'            cc failed mask
0000530C  0000536C                                 3037+V2_71    DC    A(RE71+16)        address of v2: 16-byte packed decimal
00005310  E5D7E2D6 D7404040                        3038+         DC    CL8'VPSOP'        instruction name
00005318  00000000 00000000                        3039+V1O71    DC    XL16'00'          V1 OUTPUT
00005320  00000000 00000000
00005328  00000000 00000000                        3040+CC71     DC    2F'0'                 after instruction PWS (ie CC)
00005330  00000010                                 3041+         DC    A(16)             result length
00005334  0000535C                                 3042+REA71    DC    A(RE71)           result address
                                                   3043+*                                  INSTRUCTION UNDER TEST ROUTINE
00005338                                           3044+X71      DS    0F
00005338  E320 500C 0014                 0000530C  3045+         LGF   R2,V2_71          get v2
0000533E  E722 0000 0006                 00000000  3046+         VL    V2,0(R2)
00005344  E612 C819 F05B                           3047+         VPSOP V1,V2,159,200,1    test instruction
0000534A  E710 5018 000E                 00005318  3048+         VST   V1,V1O71          save result
00005350  B98D 0020                                3049+         EPSW  R2,R0             exptract psw
00005354  5020 5028                      00005328  3050+         ST    R2,CC71               to save CC
00005358  07FB                                     3051+         BR    R11               return
0000535C                                           3052+RE71     DC    0F
0000535C                                           3053+         DROP  R5
0000535C  00000000 00000000                        3054          DC    XL16'0000000000000000000000000000000C'    V1
00005364  00000000 0000000C
0000536C  00000000 00000000                        3055          DC    XL16'0000000000000000000000000000000A'    V2
00005374  00000000 0000000A
                                                   3056 * V2:negative
                                                   3057          VRI_G VPSOP,159,136,1,0         nz=0  pc=0
00005380                                           3058+         DS    0FD
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005380                     00005380             3059+         USING *,R5              base for test data and test routine
00005380  000053B8                                3060+T72      DC    A(X72)            address of test routine
00005384  0048                                    3061+         DC    H'72'             test number
00005386  00                                      3062+         DC    X'00'
00005387  9F                                      3063+         DC    HL1'159'          i3
00005388  88                                      3064+         DC    HL1'136'          i4
00005389  01                                      3065+         DC    HL1'1'            m5
0000538A  00                                      3066+         DC    HL1'0'            cc
0000538B  07                                      3067+         DC    HL1'7'            cc failed mask
0000538C  000053EC                                3068+V2_72    DC    A(RE72+16)        address of v2: 16-byte packed decimal
00005390  E5D7E2D6 D7404040                       3069+         DC    CL8'VPSOP'        instruction name
00005398  00000000 00000000                       3070+V1O72    DC    XL16'00'          V1 OUTPUT
000053A0  00000000 00000000
000053A8  00000000 00000000                       3071+CC72     DC    2F'0'                after instruction PWS (ie CC)
000053B0  00000010                                3072+         DC    A(16)             result length
000053B4  000053DC                                3073+REA72    DC    A(RE72)           result address
                                                  3074+*                                  INSTRUCTION UNDER TEST ROUTINE
000053B8                                          3075+X72      DS    0F
000053B8  E320 500C 0014               0000538C   3076+         LGF   R2,V2_72          get v2
000053BE  E722 0000 0006               00000000   3077+         VL    V2,0(R2)
000053C4  E612 8819 F05B                          3078+         VPSOP V1,V2,159,136,1    test instruction
000053CA  E710 5018 000E               00005398   3079+         VST   V1,V1O72          save result
000053D0  B98D 0020                               3080+         EPSW  R2,R0             exptract psw
000053D4  5020 5028                    000053A8   3081+         ST    R2,CC72                to save CC
000053D8  07FB                                    3082+         BR    R11               return
000053DC                                          3083+RE72     DC    0F
000053DC                                          3084+         DROP  R5
000053DC  00000000 00000000                       3085          DC    XL16'0000000000000000000000000000000C'    V1
000053E4  00000000 0000000C
000053EC  00000000 00000000                       3086          DC    XL16'0000000000000000000000000000000D'    V2
000053F4  00000000 0000000D
                                                  3087
                                                  3088          VRI_G VPSOP,159,200,1,0         nz=1  pc=0
00005400                                          3089+         DS    0FD
00005400                     00005400             3090+         USING *,R5              base for test data and test routine
00005400  00005438                                3091+T73      DC    A(X73)            address of test routine
00005404  0049                                    3092+         DC    H'73'             test number
00005406  00                                      3093+         DC    X'00'
00005407  9F                                      3094+         DC    HL1'159'          i3
00005408  C8                                      3095+         DC    HL1'200'          i4
00005409  01                                      3096+         DC    HL1'1'            m5
0000540A  00                                      3097+         DC    HL1'0'            cc
0000540B  07                                      3098+         DC    HL1'7'            cc failed mask
0000540C  0000546C                                3099+V2_73    DC    A(RE73+16)        address of v2: 16-byte packed decimal
00005410  E5D7E2D6 D7404040                       3100+         DC    CL8'VPSOP'        instruction name
00005418  00000000 00000000                       3101+V1O73    DC    XL16'00'          V1 OUTPUT
00005420  00000000 00000000
00005428  00000000 00000000                       3102+CC73     DC    2F'0'                after instruction PWS (ie CC)
00005430  00000010                                3103+         DC    A(16)             result length
00005434  0000545C                                3104+REA73    DC    A(RE73)           result address
                                                  3105+*                                  INSTRUCTION UNDER TEST ROUTINE
00005438                                          3106+X73      DS    0F
00005438  E320 500C 0014               0000540C   3107+         LGF   R2,V2_73          get v2
0000543E  E722 0000 0006               00000000   3108+         VL    V2,0(R2)
00005444  E612 C819 F05B                          3109+         VPSOP V1,V2,159,200,1    test instruction
0000544A  E710 5018 000E               00005418   3110+         VST   V1,V1O73          save result
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005450  B98D 0020                               3111+         EPSW  R2,R0              exptract psw
00005454  5020 5028                     00005428  3112+         ST    R2,CC73                 to save CC
00005458  07FB                                    3113+         BR    R11                return
0000545C                                          3114+RE73     DC    0F
0000545C                                          3115+         DROP  R5
0000545C  00000000 00000000                       3116          DC    XL16'0000000000000000000000000000000C'    V1
00005464  00000000 0000000C
0000546C  00000000 00000000                       3117          DC    XL16'0000000000000000000000000000000B'    V2
00005474  00000000 0000000B
                                                  3118
                                                  3119 * V1:zero V2:------   PC='1' NZ='â€“'              V1_sign=F  CC=0
                                                  3120 * V2:positive
                                                  3121          VRI_G VPSOP,159,138,1,0         nz=0  pc=1
00005480                                          3122+         DS    0FD
00005480                        00005480          3123+         USING *,R5               base for test data and test routine
00005480  000054B8                                3124+T74      DC    A(X74)             address of test routine
00005484  004A                                    3125+         DC    H'74'              test number
00005486  00                                      3126+         DC    X'00'
00005487  9F                                      3127+         DC    HL1'159'           i3
00005488  8A                                      3128+         DC    HL1'138'           i4
00005489  01                                      3129+         DC    HL1'1'             m5
0000548A  00                                      3130+         DC    HL1'0'             cc
0000548B  07                                      3131+         DC    HL1'7'             cc failed mask
0000548C  000054EC                                3132+V2_74    DC    A(RE74+16)         address of v2: 16-byte packed decimal
00005490  E5D7E2D6 D7404040                       3133+         DC    CL8'VPSOP'         instruction name
00005498  00000000 00000000                       3134+V1O74    DC    XL16'00'           V1 OUTPUT
000054A0  00000000 00000000
000054A8  00000000 00000000                       3135+CC74     DC    2F'0'                 after instruction PWS (ie CC)
000054B0  00000010                                3136+         DC    A(16)              result length
000054B4  000054DC                                3137+REA74    DC    A(RE74)            result address
                                                  3138+*                                   INSTRUCTION UNDER TEST ROUTINE
000054B8                                          3139+X74      DS    0F
000054B8  E320 500C 0014                0000548C  3140+         LGF   R2,V2_74           get v2
000054BE  E722 0000 0006                00000000  3141+         VL    V2,0(R2)
000054C4  E612 8A19 F05B                          3142+         VPSOP V1,V2,159,138,1    test instruction
000054CA  E710 5018 000E                00005498  3143+         VST   V1,V1O74           save result
000054D0  B98D 0020                               3144+         EPSW  R2,R0              exptract psw
000054D4  5020 5028                     000054A8  3145+         ST    R2,CC74                 to save CC
000054D8  07FB                                    3146+         BR    R11                return
000054DC                                          3147+RE74     DC    0F
000054DC                                          3148+         DROP  R5
000054DC  00000000 00000000                       3149          DC    XL16'0000000000000000000000000000000F'    V1
000054E4  00000000 0000000F
000054EC  00000000 00000000                       3150          DC    XL16'0000000000000000000000000000000A'    V2
000054F4  00000000 0000000A
                                                  3151
                                                  3152          VRI_G VPSOP,159,202,1,0         nz=1  pc=1
00005500                                          3153+         DS    0FD
00005500                        00005500          3154+         USING *,R5               base for test data and test routine
00005500  00005538                                3155+T75      DC    A(X75)             address of test routine
00005504  004B                                    3156+         DC    H'75'              test number
00005506  00                                      3157+         DC    X'00'
00005507  9F                                      3158+         DC    HL1'159'           i3
00005508  CA                                      3159+         DC    HL1'202'           i4
00005509  01                                      3160+         DC    HL1'1'             m5
0000550A  00                                      3161+         DC    HL1'0'             cc
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000550B  07                                      3162+         DC    HL1'7'            cc failed mask
0000550C  0000556C                                3163+V2_75    DC    A(RE75+16)        address of v2: 16-byte packed decimal
00005510  E5D7E2D6 D7404040                       3164+         DC    CL8'VPSOP'        instruction name
00005518  00000000 00000000                       3165+V1O75    DC    XL16'00'          V1 OUTPUT
00005520  00000000 00000000
00005528  00000000 00000000                       3166+CC75     DC    2F'0'                after instruction PWS (ie CC)
00005530  00000010                                3167+         DC    A(16)             result length
00005534  0000555C                                3168+REA75    DC    A(RE75)           result address
                                                  3169+*                                  INSTRUCTION UNDER TEST ROUTINE
00005538                                          3170+X75      DS    0F
00005538  E320 500C 0014                0000550C  3171+         LGF   R2,V2_75          get v2
0000553E  E722 0000 0006                00000000  3172+         VL    V2,0(R2)
00005544  E612 CA19 F05B                          3173+         VPSOP V1,V2,159,202,1    test instruction
0000554A  E710 5018 000E                00005518  3174+         VST   V1,V1O75          save result
00005550  B98D 0020                               3175+         EPSW  R2,R0             exptract psw
00005554  5020 5028                     00005528  3176+         ST    R2,CC75               to save CC
00005558  07FB                                    3177+         BR    R11               return
0000555C                                          3178+RE75     DC    0F
0000555C                                          3179+         DROP  R5
0000555C  00000000 00000000                       3180          DC    XL16'0000000000000000000000000000000F'    V1
00005564  00000000 0000000F
0000556C  00000000 00000000                       3181          DC    XL16'0000000000000000000000000000000A'    V2
00005574  00000000 0000000A
                                                  3182 * V2:negative
                                                  3183          VRI_G VPSOP,159,138,1,0         nz=0  pc=1
00005580                                          3184+         DS    0FD
00005580                      00005580            3185+         USING *,R5              base for test data and test routine
00005580  000055B8                                3186+T76      DC    A(X76)            address of test routine
00005584  004C                                    3187+         DC    H'76'             test number
00005586  00                                      3188+         DC    X'00'
00005587  9F                                      3189+         DC    HL1'159'          i3
00005588  8A                                      3190+         DC    HL1'138'          i4
00005589  01                                      3191+         DC    HL1'1'            m5
0000558A  00                                      3192+         DC    HL1'0'            cc
0000558B  07                                      3193+         DC    HL1'7'            cc failed mask
0000558C  000055EC                                3194+V2_76    DC    A(RE76+16)        address of v2: 16-byte packed decimal
00005590  E5D7E2D6 D7404040                       3195+         DC    CL8'VPSOP'        instruction name
00005598  00000000 00000000                       3196+V1O76    DC    XL16'00'          V1 OUTPUT
000055A0  00000000 00000000
000055A8  00000000 00000000                       3197+CC76     DC    2F'0'                after instruction PWS (ie CC)
000055B0  00000010                                3198+         DC    A(16)             result length
000055B4  000055DC                                3199+REA76    DC    A(RE76)           result address
                                                  3200+*                                  INSTRUCTION UNDER TEST ROUTINE
000055B8                                          3201+X76      DS    0F
000055B8  E320 500C 0014                0000558C  3202+         LGF   R2,V2_76          get v2
000055BE  E722 0000 0006                00000000  3203+         VL    V2,0(R2)
000055C4  E612 8A19 F05B                          3204+         VPSOP V1,V2,159,138,1    test instruction
000055CA  E710 5018 000E                00005598  3205+         VST   V1,V1O76          save result
000055D0  B98D 0020                               3206+         EPSW  R2,R0             exptract psw
000055D4  5020 5028                     000055A8  3207+         ST    R2,CC76               to save CC
000055D8  07FB                                    3208+         BR    R11               return
000055DC                                          3209+RE76     DC    0F
000055DC                                          3210+         DROP  R5
000055DC  00000000 00000000                       3211          DC    XL16'0000000000000000000000000000000F'    V1
000055E4  00000000 0000000F
000055EC  00000000 00000000                       3212          DC    XL16'0000000000000000000000000000000D'    V2
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000055F4  00000000 0000000D
                                                   3213
                                                   3214          VRI_G VPSOP,159,202,1,0         nz=1  pc=1
00005600                                           3215+         DS    0FD
00005600                       00005600            3216+         USING *,R5              base for test data and test routine
00005600  00005638                                 3217+T77      DC    A(X77)            address of test routine
00005604  004D                                     3218+         DC    H'77'             test number
00005606  00                                       3219+         DC    X'00'
00005607  9F                                       3220+         DC    HL1'159'          i3
00005608  CA                                       3221+         DC    HL1'202'          i4
00005609  01                                       3222+         DC    HL1'1'            m5
0000560A  00                                       3223+         DC    HL1'0'            cc
0000560B  07                                       3224+         DC    HL1'7'            cc failed mask
0000560C  0000566C                                 3225+V2_77    DC    A(RE77+16)        address of v2: 16-byte packed decimal
00005610  E5D7E2D6 D7404040                        3226+         DC    CL8'VPSOP'        instruction name
00005618  00000000 00000000                        3227+V1O77    DC    XL16'00'          V1 OUTPUT
00005620  00000000 00000000
00005628  00000000 00000000                        3228+CC77     DC    2F'0'                after instruction PWS (ie CC)
00005630  00000010                                 3229+         DC    A(16)             result length
00005634  0000565C                                 3230+REA77    DC    A(RE77)           result address
                                                   3231+*                                  INSTRUCTION UNDER TEST ROUTINE
00005638                                           3232+X77      DS    0F
00005638  E320 500C 0014                0000560C   3233+         LGF   R2,V2_77          get v2
0000563E  E722 0000 0006                00000000   3234+         VL    V2,0(R2)
00005644  E612 CA19 F05B                           3235+         VPSOP V1,V2,159,202,1    test instruction
0000564A  E710 5018 000E                00005618   3236+         VST   V1,V1O77          save result
00005650  B98D 0020                                3237+         EPSW  R2,R0             exptract psw
00005654  5020 5028                     00005628   3238+         ST    R2,CC77                to save CC
00005658  07FB                                     3239+         BR    R11               return
0000565C                                           3240+RE77     DC    0F
0000565C                                           3241+         DROP  R5
0000565C  00000000 00000000                        3242          DC    XL16'0000000000000000000000000000000F'    V1
00005664  00000000 0000000F
0000566C  00000000 00000000                        3243          DC    XL16'0000000000000000000000000000000B'    V2
00005674  00000000 0000000B
                                                   3244
                                                   3245 *-------------------------------------------------------
                                                   3246 * SC=11 (force negative): nv=1 to avoid data exceptions
                                                   3247 *-------------------------------------------------------
                                                   3248
                                                   3249 * V1:nonzero V2:------   PC='-' NZ='â€“'              V1_sign=D  CC=1
                                                   3250 * V2:positive  PC=0
                                                   3251          VRI_G VPSOP,159,140,1,1         nz=0  pc=0
00005680                                           3252+         DS    0FD
00005680                       00005680            3253+         USING *,R5              base for test data and test routine
00005680  000056B8                                 3254+T78      DC    A(X78)            address of test routine
00005684  004E                                     3255+         DC    H'78'             test number
00005686  00                                       3256+         DC    X'00'
00005687  9F                                       3257+         DC    HL1'159'          i3
00005688  8C                                       3258+         DC    HL1'140'          i4
00005689  01                                       3259+         DC    HL1'1'            m5
0000568A  01                                       3260+         DC    HL1'1'            cc
0000568B  0B                                       3261+         DC    HL1'11'           cc failed mask
0000568C  000056EC                                 3262+V2_78    DC    A(RE78+16)        address of v2: 16-byte packed decimal
00005690  E5D7E2D6 D7404040                        3263+         DC    CL8'VPSOP'        instruction name
00005698  00000000 00000000                        3264+V1O78    DC    XL16'00'          V1 OUTPUT
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000056A0  00000000 00000000
000056A8  00000000 00000000                         3265+CC78     DC    2F'0'                 after instruction PWS (ie CC)
000056B0  00000010                                  3266+         DC    A(16)               result length
000056B4  000056DC                                  3267+REA78    DC    A(RE78)             result address
                                                    3268+*                                  INSTRUCTION UNDER TEST ROUTINE
000056B8                                            3269+X78      DS    0F
000056B8  E320 500C 0014                 0000568C   3270+         LGF   R2,V2_78            get v2
000056BE  E722 0000 0006                 00000000   3271+         VL    V2,0(R2)
000056C4  E612 8C19 F05B                            3272+         VPSOP V1,V2,159,140,1    test instruction
000056CA  E710 5018 000E                 00005698   3273+         VST   V1,V1O78            save result
000056D0  B98D 0020                                 3274+         EPSW  R2,R0               exptract psw
000056D4  5020 5028                      000056A8   3275+         ST    R2,CC78                 to save CC
000056D8  07FB                                      3276+         BR    R11                 return
000056DC                                            3277+RE78     DC    0F
000056DC                                            3278+         DROP  R5
000056DC  00000000 00000000                         3279          DC    XL16'000000000000000000000220000000D'    V1
000056E4  00000022 0000000D
000056EC  00000000 00000000                         3280          DC    XL16'000000000000000000000220000000A'    V2
000056F4  00000022 0000000A
                                                    3281
                                                    3282          VRI_G VPSOP,159,204,1,1         nz=1  pc=0
00005700                                            3283+         DS    0FD
00005700                         00005700           3284+         USING *,R5                base for test data and test routine
00005700  00005738                                  3285+T79      DC    A(X79)              address of test routine
00005704  004F                                      3286+         DC    H'79'               test number
00005706  00                                        3287+         DC    X'00'
00005707  9F                                        3288+         DC    HL1'159'            i3
00005708  CC                                        3289+         DC    HL1'204'            i4
00005709  01                                        3290+         DC    HL1'1'              m5
0000570A  01                                        3291+         DC    HL1'1'              cc
0000570B  0B                                        3292+         DC    HL1'11'             cc failed mask
0000570C  0000576C                                  3293+V2_79    DC    A(RE79+16)          address of v2: 16-byte packed decimal
00005710  E5D7E2D6 D7404040                         3294+         DC    CL8'VPSOP'          instruction name
00005718  00000000 00000000                         3295+V1O79    DC    XL16'00'            V1 OUTPUT
00005720  00000000 00000000
00005728  00000000 00000000                         3296+CC79     DC    2F'0'                 after instruction PWS (ie CC)
00005730  00000010                                  3297+         DC    A(16)               result length
00005734  0000575C                                  3298+REA79    DC    A(RE79)             result address
                                                    3299+*                                  INSTRUCTION UNDER TEST ROUTINE
00005738                                            3300+X79      DS    0F
00005738  E320 500C 0014                 0000570C   3301+         LGF   R2,V2_79            get v2
0000573E  E722 0000 0006                 00000000   3302+         VL    V2,0(R2)
00005744  E612 CC19 F05B                            3303+         VPSOP V1,V2,159,204,1    test instruction
0000574A  E710 5018 000E                 00005718   3304+         VST   V1,V1O79            save result
00005750  B98D 0020                                 3305+         EPSW  R2,R0               exptract psw
00005754  5020 5028                      00005728   3306+         ST    R2,CC79                 to save CC
00005758  07FB                                      3307+         BR    R11                 return
0000575C                                            3308+RE79     DC    0F
0000575C                                            3309+         DROP  R5
0000575C  00000000 00000000                         3310          DC    XL16'000000000000000000000220000000D'    V1
00005764  00000022 0000000D
0000576C  00000000 00000000                         3311          DC    XL16'000000000000000000000220000000A'    V2
00005774  00000022 0000000A
                                                    3312 * V2:negative  PC=0
                                                    3313          VRI_G VPSOP,159,140,1,1         nz=0  pc=0
00005780                                            3314+         DS    0FD
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005780                     00005780             3315+         USING *,R5              base for test data and test routine
00005780  000057B8                                3316+T80      DC    A(X80)            address of test routine
00005784  0050                                    3317+         DC    H'80'             test number
00005786  00                                      3318+         DC    X'00'
00005787  9F                                      3319+         DC    HL1'159'          i3
00005788  8C                                      3320+         DC    HL1'140'          i4
00005789  01                                      3321+         DC    HL1'1'            m5
0000578A  01                                      3322+         DC    HL1'1'            cc
0000578B  0B                                      3323+         DC    HL1'11'           cc failed mask
0000578C  000057EC                                3324+V2_80    DC    A(RE80+16)        address of v2: 16-byte packed decimal
00005790  E5D7E2D6 D7404040                       3325+         DC    CL8'VPSOP'        instruction name
00005798  00000000 00000000                       3326+V1O80    DC    XL16'00'          V1 OUTPUT
000057A0  00000000 00000000
000057A8  00000000 00000000                       3327+CC80     DC    2F'0'                after instruction PWS (ie CC)
000057B0  00000010                                3328+         DC    A(16)             result length
000057B4  000057DC                                3329+REA80    DC    A(RE80)           result address
                                                  3330+*                                  INSTRUCTION UNDER TEST ROUTINE
000057B8                                          3331+X80      DS    0F
000057B8  E320 500C 0014               0000578C   3332+         LGF   R2,V2_80          get v2
000057BE  E722 0000 0006               00000000   3333+         VL    V2,0(R2)
000057C4  E612 8C19 F05B                          3334+         VPSOP V1,V2,159,140,1    test instruction
000057CA  E710 5018 000E               00005798   3335+         VST   V1,V1O80          save result
000057D0  B98D 0020                               3336+         EPSW  R2,R0             exptract psw
000057D4  5020 5028                    000057A8   3337+         ST    R2,CC80                to save CC
000057D8  07FB                                    3338+         BR    R11               return
000057DC                                          3339+RE80     DC    0F
000057DC                                          3340+         DROP  R5
000057DC  00000000 00000000                       3341          DC    XL16'00000000000000000000000220000000D'    V1
000057E4  00000022 0000000D
000057EC  00000000 00000000                       3342          DC    XL16'00000000000000000000000220000000D'    V2
000057F4  00000022 0000000D
                                                  3343
                                                  3344          VRI_G VPSOP,159,204,1,1         nz=1  pc=0
00005800                                          3345+         DS    0FD
00005800                     00005800             3346+         USING *,R5              base for test data and test routine
00005800  00005838                                3347+T81      DC    A(X81)            address of test routine
00005804  0051                                    3348+         DC    H'81'             test number
00005806  00                                      3349+         DC    X'00'
00005807  9F                                      3350+         DC    HL1'159'          i3
00005808  CC                                      3351+         DC    HL1'204'          i4
00005809  01                                      3352+         DC    HL1'1'            m5
0000580A  01                                      3353+         DC    HL1'1'            cc
0000580B  0B                                      3354+         DC    HL1'11'           cc failed mask
0000580C  0000586C                                3355+V2_81    DC    A(RE81+16)        address of v2: 16-byte packed decimal
00005810  E5D7E2D6 D7404040                       3356+         DC    CL8'VPSOP'        instruction name
00005818  00000000 00000000                       3357+V1O81    DC    XL16'00'          V1 OUTPUT
00005820  00000000 00000000
00005828  00000000 00000000                       3358+CC81     DC    2F'0'                after instruction PWS (ie CC)
00005830  00000010                                3359+         DC    A(16)             result length
00005834  0000585C                                3360+REA81    DC    A(RE81)           result address
                                                  3361+*                                  INSTRUCTION UNDER TEST ROUTINE
00005838                                          3362+X81      DS    0F
00005838  E320 500C 0014               0000580C   3363+         LGF   R2,V2_81          get v2
0000583E  E722 0000 0006               00000000   3364+         VL    V2,0(R2)
00005844  E612 CC19 F05B                          3365+         VPSOP V1,V2,159,204,1    test instruction
0000584A  E710 5018 000E               00005818   3366+         VST   V1,V1O81          save result
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005850  B98D 0020                               3367+         EPSW  R2,R0              exptract psw
00005854  5020 5028                     00005828  3368+         ST    R2,CC81                 to save CC
00005858  07FB                                    3369+         BR    R11                return
0000585C                                          3370+RE81     DC    0F
0000585C                                          3371+         DROP  R5
0000585C  00000000 00000000                       3372          DC    XL16'0000000000000000000000220000000D'    V1
00005864  00000022 0000000D
0000586C  00000000 00000000                       3373          DC    XL16'0000000000000000000000220000000B'    V2
00005874  00000022 0000000B
                                                  3374 * V2:positive  PC=1
                                                  3375          VRI_G VPSOP,159,142,1,1         nz=0  pc=1
00005880                                          3376+         DS    0FD
00005880                        00005880          3377+         USING *,R5               base for test data and test routine
00005880  000058B8                                3378+T82      DC    A(X82)             address of test routine
00005884  0052                                    3379+         DC    H'82'              test number
00005886  00                                      3380+         DC    X'00'
00005887  9F                                      3381+         DC    HL1'159'           i3
00005888  8E                                      3382+         DC    HL1'142'           i4
00005889  01                                      3383+         DC    HL1'1'             m5
0000588A  01                                      3384+         DC    HL1'1'             cc
0000588B  0B                                      3385+         DC    HL1'11'            cc failed mask
0000588C  000058EC                                3386+V2_82    DC    A(RE82+16)         address of v2: 16-byte packed decimal
00005890  E5D7E2D6 D7404040                       3387+         DC    CL8'VPSOP'         instruction name
00005898  00000000 00000000                       3388+V1O82    DC    XL16'00'           V1 OUTPUT
000058A0  00000000 00000000
000058A8  00000000 00000000                       3389+CC82     DC    2F'0'                 after instruction PWS (ie CC)
000058B0  00000010                                3390+         DC    A(16)              result length
000058B4  000058DC                                3391+REA82    DC    A(RE82)            result address
                                                  3392+*                                   INSTRUCTION UNDER TEST ROUTINE
000058B8                                          3393+X82      DS    0F
000058B8  E320 500C 0014                0000588C  3394+         LGF   R2,V2_82           get v2
000058BE  E722 0000 0006                00000000  3395+         VL    V2,0(R2)
000058C4  E612 8E19 F05B                          3396+         VPSOP V1,V2,159,142,1    test instruction
000058CA  E710 5018 000E                00005898  3397+         VST   V1,V1O82           save result
000058D0  B98D 0020                               3398+         EPSW  R2,R0              exptract psw
000058D4  5020 5028                     000058A8  3399+         ST    R2,CC82                 to save CC
000058D8  07FB                                    3400+         BR    R11                return
000058DC                                          3401+RE82     DC    0F
000058DC                                          3402+         DROP  R5
000058DC  00000000 00000000                       3403          DC    XL16'0000000000000000000000220000000D'    V1
000058E4  00000022 0000000D
000058EC  00000000 00000000                       3404          DC    XL16'0000000000000000000000220000000A'    V2
000058F4  00000022 0000000A
                                                  3405
                                                  3406          VRI_G VPSOP,159,206,1,1         nz=1  pc=1
00005900                                          3407+         DS    0FD
00005900                        00005900          3408+         USING *,R5               base for test data and test routine
00005900  00005938                                3409+T83      DC    A(X83)             address of test routine
00005904  0053                                    3410+         DC    H'83'              test number
00005906  00                                      3411+         DC    X'00'
00005907  9F                                      3412+         DC    HL1'159'           i3
00005908  CE                                      3413+         DC    HL1'206'           i4
00005909  01                                      3414+         DC    HL1'1'             m5
0000590A  01                                      3415+         DC    HL1'1'             cc
0000590B  0B                                      3416+         DC    HL1'11'            cc failed mask
0000590C  0000596C                                3417+V2_83    DC    A(RE83+16)         address of v2: 16-byte packed decimal
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005910  E5D7E2D6 D7404040                        3418+         DC    CL8'VPSOP'        instruction name
00005918  00000000 00000000                        3419+V1O83    DC    XL16'00'          V1 OUTPUT
00005920  00000000 00000000
00005928  00000000 00000000                        3420+CC83     DC    2F'0'                after instruction PWS (ie CC)
00005930  00000010                                 3421+         DC    A(16)             result length
00005934  0000595C                                 3422+REA83    DC    A(RE83)           result address
                                                   3423+*                                  INSTRUCTION UNDER TEST ROUTINE
00005938                                           3424+X83      DS    0F
00005938  E320 500C 0014                0000590C   3425+         LGF   R2,V2_83          get v2
0000593E  E722 0000 0006                00000000   3426+         VL    V2,0(R2)
00005944  E612 CE19 F05B                           3427+         VPSOP V1,V2,159,206,1    test instruction
0000594A  E710 5018 000E                00005918   3428+         VST   V1,V1O83          save result
00005950  B98D 0020                                3429+         EPSW  R2,R0             exptract psw
00005954  5020 5028                     00005928   3430+         ST    R2,CC83               to save CC
00005958  07FB                                     3431+         BR    R11               return
0000595C                                           3432+RE83     DC    0F
0000595C                                           3433+         DROP  R5
0000595C  00000000 00000000                        3434          DC    XL16'00000000000000000000000220000000D'    V1
00005964  00000022 0000000D
0000596C  00000000 00000000                        3435          DC    XL16'00000000000000000000000220000000A'    V2
00005974  00000022 0000000A
                                                   3436 * V2:negative  PC=1
                                                   3437          VRI_G VPSOP,159,142,1,1         nz=0  pc=1
00005980                                           3438+         DS    0FD
00005980                        00005980           3439+         USING *,R5              base for test data and test routine
00005980  000059B8                                 3440+T84      DC    A(X84)            address of test routine
00005984  0054                                     3441+         DC    H'84'             test number
00005986  00                                       3442+         DC    X'00'
00005987  9F                                       3443+         DC    HL1'159'          i3
00005988  8E                                       3444+         DC    HL1'142'          i4
00005989  01                                       3445+         DC    HL1'1'            m5
0000598A  01                                       3446+         DC    HL1'1'            cc
0000598B  0B                                       3447+         DC    HL1'11'           cc failed mask
0000598C  000059EC                                 3448+V2_84    DC    A(RE84+16)        address of v2: 16-byte packed decimal
00005990  E5D7E2D6 D7404040                        3449+         DC    CL8'VPSOP'        instruction name
00005998  00000000 00000000                        3450+V1O84    DC    XL16'00'          V1 OUTPUT
000059A0  00000000 00000000
000059A8  00000000 00000000                        3451+CC84     DC    2F'0'                after instruction PWS (ie CC)
000059B0  00000010                                 3452+         DC    A(16)             result length
000059B4  000059DC                                 3453+REA84    DC    A(RE84)           result address
                                                   3454+*                                  INSTRUCTION UNDER TEST ROUTINE
000059B8                                           3455+X84      DS    0F
000059B8  E320 500C 0014                0000598C   3456+         LGF   R2,V2_84          get v2
000059BE  E722 0000 0006                00000000   3457+         VL    V2,0(R2)
000059C4  E612 8E19 F05B                           3458+         VPSOP V1,V2,159,142,1    test instruction
000059CA  E710 5018 000E                00005998   3459+         VST   V1,V1O84          save result
000059D0  B98D 0020                                3460+         EPSW  R2,R0             exptract psw
000059D4  5020 5028                     000059A8   3461+         ST    R2,CC84               to save CC
000059D8  07FB                                     3462+         BR    R11               return
000059DC                                           3463+RE84     DC    0F
000059DC                                           3464+         DROP  R5
000059DC  00000000 00000000                        3465          DC    XL16'00000000000000000000000220000000D'    V1
000059E4  00000022 0000000D
000059EC  00000000 00000000                        3466          DC    XL16'00000000000000000000000220000000D'    V2
000059F4  00000022 0000000D
                                                   3467
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                   3468          VRI_G VPSOP,159,206,1,1         nz=1  pc=1
00005A00                                           3469+         DS    0FD
00005A00                     00005A00              3470+         USING *,R5              base for test data and test routine
00005A00  00005A38                                 3471+T85      DC    A(X85)            address of test routine
00005A04  0055                                     3472+         DC    H'85'             test number
00005A06  00                                       3473+         DC    X'00'
00005A07  9F                                       3474+         DC    HL1'159'          i3
00005A08  CE                                       3475+         DC    HL1'206'          i4
00005A09  01                                       3476+         DC    HL1'1'            m5
00005A0A  01                                       3477+         DC    HL1'1'            cc
00005A0B  0B                                       3478+         DC    HL1'11'           cc failed mask
00005A0C  00005A6C                                 3479+V2_85    DC    A(RE85+16)        address of v2: 16-byte packed decimal
00005A10  E5D7E2D6 D7404040                        3480+         DC    CL8'VPSOP'        instruction name
00005A18  00000000 00000000                        3481+V1085    DC    XL16'00'          V1 OUTPUT
00005A20  00000000 00000000
00005A28  00000000 00000000                        3482+CC85     DC    2F'0'                after instruction PWS (ie CC)
00005A30  00000010                                 3483+         DC    A(16)             result length
00005A34  00005A5C                                 3484+REA85    DC    A(RE85)           result address
                                                   3485+*                                  INSTRUCTION UNDER TEST ROUTINE
00005A38                                           3486+X85      DS    0F
00005A38  E320 500C 0014                00005A0C   3487+         LGF   R2,V2_85          get v2
00005A3E  E722 0000 0006                00000000   3488+         VL    V2,0(R2)
00005A44  E612 CE19 F05B                           3489+         VPSOP V1,V2,159,206,1    test instruction
00005A4A  E710 5018 000E                00005A18   3490+         VST   V1,V1085          save result
00005A50  B98D 0020                                3491+         EPSW  R2,R0             exptract psw
00005A54  5020 5028                     00005A28   3492+         ST    R2,CC85                to save CC
00005A58  07FB                                     3493+         BR    R11               return
00005A5C                                           3494+RE85     DC    0F
00005A5C                                           3495+         DROP  R5
00005A5C  00000000 00000000                        3496          DC    XL16'00000000000000000000000220000000D'    V1
00005A64  00000022 0000000D
00005A6C  00000000 00000000                        3497          DC    XL16'00000000000000000000000220000000B'    V2
00005A74  00000022 0000000B
                                                   3498
                                                   3499 * V1:zero    V2:------   PC='0' NZ='0'              V1_sign=C  CC=0
                                                   3500 * V2:positive
                                                   3501          VRI_G VPSOP,159,140,1,0         nz=0  pc=0
00005A80                                           3502+         DS    0FD
00005A80                     00005A80              3503+         USING *,R5              base for test data and test routine
00005A80  00005AB8                                 3504+T86      DC    A(X86)            address of test routine
00005A84  0056                                     3505+         DC    H'86'             test number
00005A86  00                                       3506+         DC    X'00'
00005A87  9F                                       3507+         DC    HL1'159'          i3
00005A88  8C                                       3508+         DC    HL1'140'          i4
00005A89  01                                       3509+         DC    HL1'1'            m5
00005A8A  00                                       3510+         DC    HL1'0'            cc
00005A8B  07                                       3511+         DC    HL1'7'            cc failed mask
00005A8C  00005AEC                                 3512+V2_86    DC    A(RE86+16)        address of v2: 16-byte packed decimal
00005A90  E5D7E2D6 D7404040                        3513+         DC    CL8'VPSOP'        instruction name
00005A98  00000000 00000000                        3514+V1086    DC    XL16'00'          V1 OUTPUT
00005AA0  00000000 00000000
00005AA8  00000000 00000000                        3515+CC86     DC    2F'0'                after instruction PWS (ie CC)
00005AB0  00000010                                 3516+         DC    A(16)             result length
00005AB4  00005ADC                                 3517+REA86    DC    A(RE86)           result address
                                                   3518+*                                  INSTRUCTION UNDER TEST ROUTINE
00005AB8                                           3519+X86      DS    0F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00005AB8  E320 500C 0014                00005A8C  3520+         LGF   R2,V2_86          get v2
00005ABE  E722 0000 0006                00000000  3521+         VL    V2,0(R2)
00005AC4  E612 8C19 F05B                          3522+         VPSOP V1,V2,159,140,1    test instruction
00005ACA  E710 5018 000E                00005A98  3523+         VST   V1,V1O86          save result
00005AD0  B98D 0020                               3524+         EPSW  R2,R0             exptract psw
00005AD4  5020 5028                     00005AA8  3525+         ST    R2,CC86                to save CC
00005AD8  07FB                                    3526+         BR    R11               return
00005ADC                                          3527+RE86     DC    0F
00005ADC                                          3528+         DROP  R5
00005ADC  00000000 00000000                       3529          DC    XL16'00000000000000000000000000000000C'    V1
00005AE4  00000000 0000000C
00005AEC  00000000 00000000                       3530          DC    XL16'00000000000000000000000000000000A'    V2
00005AF4  00000000 0000000A
                                                  3531 * V2:negative
                                                  3532          VRI_G VPSOP,159,140,1,0         nz=0  pc=0
00005B00                                          3533+         DS    0FD
00005B00                        00005B00          3534+         USING *,R5              base for test data and test routine
00005B00  00005B38                                3535+T87      DC    A(X87)            address of test routine
00005B04  0057                                    3536+         DC    H'87'             test number
00005B06  00                                      3537+         DC    X'00'
00005B07  9F                                      3538+         DC    HL1'159'          i3
00005B08  8C                                      3539+         DC    HL1'140'          i4
00005B09  01                                      3540+         DC    HL1'1'            m5
00005B0A  00                                      3541+         DC    HL1'0'            cc
00005B0B  07                                      3542+         DC    HL1'7'            cc failed mask
00005B0C  00005B6C                                3543+V2_87    DC    A(RE87+16)        address of v2: 16-byte packed decimal
00005B10  E5D7E2D6 D7404040                       3544+         DC    CL8'VPSOP'        instruction name
00005B18  00000000 00000000                       3545+V1O87    DC    XL16'00'          V1 OUTPUT
00005B20  00000000 00000000
00005B28  00000000 00000000                       3546+CC87     DC    2F'0'                after instruction PWS (ie CC)
00005B30  00000010                                3547+         DC    A(16)             result length
00005B34  00005B5C                                3548+REA87    DC    A(RE87)           result address
                                                  3549+*                                  INSTRUCTION UNDER TEST ROUTINE
00005B38                                          3550+X87      DS    0F
00005B38  E320 500C 0014                00005B0C  3551+         LGF   R2,V2_87          get v2
00005B3E  E722 0000 0006                00000000  3552+         VL    V2,0(R2)
00005B44  E612 8C19 F05B                          3553+         VPSOP V1,V2,159,140,1    test instruction
00005B4A  E710 5018 000E                00005B18  3554+         VST   V1,V1O87          save result
00005B50  B98D 0020                               3555+         EPSW  R2,R0             exptract psw
00005B54  5020 5028                     00005B28  3556+         ST    R2,CC87                to save CC
00005B58  07FB                                    3557+         BR    R11               return
00005B5C                                          3558+RE87     DC    0F
00005B5C                                          3559+         DROP  R5
00005B5C  00000000 00000000                       3560          DC    XL16'00000000000000000000000000000000C'    V1
00005B64  00000000 0000000C
00005B6C  00000000 00000000                       3561          DC    XL16'00000000000000000000000000000000D'    V2
00005B74  00000000 0000000D
                                                  3562
                                                  3563 * V1:zero    V2:------   PC='1' NZ='0'              V1_sign=F  CC=0
                                                  3564 * V2:positive
                                                  3565          VRI_G VPSOP,159,142,1,0         nz=0  pc=1
00005B80                                          3566+         DS    0FD
00005B80                        00005B80          3567+         USING *,R5              base for test data and test routine
00005B80  00005BB8                                3568+T88      DC    A(X88)            address of test routine
00005B84  0058                                    3569+         DC    H'88'             test number
00005B86  00                                      3570+         DC    X'00'
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005B87  9F                                       3571+         DC    HL1'159'          i3
00005B88  8E                                       3572+         DC    HL1'142'          i4
00005B89  01                                       3573+         DC    HL1'1'            m5
00005B8A  00                                       3574+         DC    HL1'0'            cc
00005B8B  07                                       3575+         DC    HL1'7'            cc failed mask
00005B8C  00005BEC                                 3576+V2_88    DC    A(RE88+16)        address of v2: 16-byte packed decimal
00005B90  E5D7E2D6 D7404040                        3577+         DC    CL8'VPSOP'        instruction name
00005B98  00000000 00000000                        3578+V1O88    DC    XL16'00'          V1 OUTPUT
00005BA0  00000000 00000000
00005BA8  00000000 00000000                        3579+CC88     DC    2F'0'                after instruction PWS (ie CC)
00005BB0  00000010                                 3580+         DC    A(16)             result length
00005BB4  00005BDC                                 3581+REA88    DC    A(RE88)           result address
                                                   3582+*                                  INSTRUCTION UNDER TEST ROUTINE
00005BB8                                           3583+X88      DS    0F
00005BB8  E320 500C 0014                00005B8C   3584+         LGF   R2,V2_88          get v2
00005BBE  E722 0000 0006                00000000   3585+         VL    V2,0(R2)
00005BC4  E612 8E19 F05B                           3586+         VPSOP V1,V2,159,142,1    test instruction
00005BCA  E710 5018 000E                00005B98   3587+         VST   V1,V1O88          save result
00005BD0  B98D 0020                                3588+         EPSW  R2,R0             exptract psw
00005BD4  5020 5028                     00005BA8   3589+         ST    R2,CC88                to save CC
00005BD8  07FB                                     3590+         BR    R11               return
00005BDC                                           3591+RE88     DC    0F
00005BDC                                           3592+         DROP  R5
00005BDC  00000000 00000000                        3593          DC    XL16'0000000000000000000000000000000F'    V1
00005BE4  00000000 0000000F
00005BEC  00000000 00000000                        3594          DC    XL16'00000000000000000000000000000000A'    V2
00005BF4  00000000 0000000A
                                                   3595 * V2:negative
                                                   3596          VRI_G VPSOP,159,142,1,0         nz=0  pc=1
00005C00                                           3597+         DS    0FD
00005C00                        00005C00           3598+         USING *,R5              base for test data and test routine
00005C00  00005C38                                 3599+T89      DC    A(X89)            address of test routine
00005C04  0059                                     3600+         DC    H'89'             test number
00005C06  00                                       3601+         DC    X'00'
00005C07  9F                                       3602+         DC    HL1'159'          i3
00005C08  8E                                       3603+         DC    HL1'142'          i4
00005C09  01                                       3604+         DC    HL1'1'            m5
00005C0A  00                                       3605+         DC    HL1'0'            cc
00005C0B  07                                       3606+         DC    HL1'7'            cc failed mask
00005C0C  00005C6C                                 3607+V2_89    DC    A(RE89+16)        address of v2: 16-byte packed decimal
00005C10  E5D7E2D6 D7404040                        3608+         DC    CL8'VPSOP'        instruction name
00005C18  00000000 00000000                        3609+V1O89    DC    XL16'00'          V1 OUTPUT
00005C20  00000000 00000000
00005C28  00000000 00000000                        3610+CC89     DC    2F'0'                after instruction PWS (ie CC)
00005C30  00000010                                 3611+         DC    A(16)             result length
00005C34  00005C5C                                 3612+REA89    DC    A(RE89)           result address
                                                   3613+*                                  INSTRUCTION UNDER TEST ROUTINE
00005C38                                           3614+X89      DS    0F
00005C38  E320 500C 0014                00005C0C   3615+         LGF   R2,V2_89          get v2
00005C3E  E722 0000 0006                00000000   3616+         VL    V2,0(R2)
00005C44  E612 8E19 F05B                           3617+         VPSOP V1,V2,159,142,1    test instruction
00005C4A  E710 5018 000E                00005C18   3618+         VST   V1,V1O89          save result
00005C50  B98D 0020                                3619+         EPSW  R2,R0             exptract psw
00005C54  5020 5028                     00005C28   3620+         ST    R2,CC89                to save CC
00005C58  07FB                                     3621+         BR    R11               return
00005C5C                                           3622+RE89     DC    0F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005C5C                                           3623+         DROP  R5
00005C5C  00000000 00000000                        3624          DC    XL16'000000000000000000000000000000F'    V1
00005C64  00000000 0000000F
00005C6C  00000000 00000000                        3625          DC    XL16'000000000000000000000000000000D'    V2
00005C74  00000000 0000000D
                                                   3626
                                                   3627 * V1:zero    V2:------   PC='-' NZ='1'              V1_sign=d  CC=0
                                                   3628 * V2:positive
                                                   3629          VRI_G VPSOP,159,204,1,0         nz=1  pc=0
00005C80                                           3630+         DS    0FD
00005C80                        00005C80           3631+         USING *,R5              base for test data and test routine
00005C80  00005CB8                                 3632+T90      DC    A(X90)            address of test routine
00005C84  005A                                     3633+         DC    H'90'             test number
00005C86  00                                       3634+         DC    X'00'
00005C87  9F                                       3635+         DC    HL1'159'          i3
00005C88  CC                                       3636+         DC    HL1'204'          i4
00005C89  01                                       3637+         DC    HL1'1'            m5
00005C8A  00                                       3638+         DC    HL1'0'            cc
00005C8B  07                                       3639+         DC    HL1'7'            cc failed mask
00005C8C  00005CEC                                 3640+V2_90    DC    A(RE90+16)        address of v2: 16-byte packed decimal
00005C90  E5D7E2D6 D7404040                        3641+         DC    CL8'VPSOP'        instruction name
00005C98  00000000 00000000                        3642+V1O90    DC    XL16'00'          V1 OUTPUT
00005CA0  00000000 00000000
00005CA8  00000000 00000000                        3643+CC90     DC    2F'0'                after instruction PWS (ie CC)
00005CB0  00000010                                 3644+         DC    A(16)             result length
00005CB4  00005CDC                                 3645+REA90    DC    A(RE90)           result address
                                                   3646+*                                  INSTRUCTION UNDER TEST ROUTINE
00005CB8                                           3647+X90      DS    0F
00005CB8  E320 500C 0014                00005C8C   3648+         LGF   R2,V2_90          get v2
00005CBE  E722 0000 0006                00000000   3649+         VL    V2,0(R2)
00005CC4  E612 CC19 F05B                           3650+         VPSOP V1,V2,159,204,1    test instruction
00005CCA  E710 5018 000E                00005C98   3651+         VST   V1,V1O90          save result
00005CD0  B98D 0020                                3652+         EPSW  R2,R0             exptract psw
00005CD4  5020 5028                     00005CA8   3653+         ST    R2,CC90                to save CC
00005CD8  07FB                                     3654+         BR    R11               return
00005CDC                                           3655+RE90     DC    0F
00005CDC                                           3656+         DROP  R5
00005CDC  00000000 00000000                        3657          DC    XL16'000000000000000000000000000000D'    V1
00005CE4  00000000 0000000D
00005CEC  00000000 00000000                        3658          DC    XL16'000000000000000000000000000000A'    V2
00005CF4  00000000 0000000A
                                                   3659 * V2:negative
                                                   3660          VRI_G VPSOP,159,204,1,0         nz=1  pc=0
00005D00                                           3661+         DS    0FD
00005D00                        00005D00           3662+         USING *,R5              base for test data and test routine
00005D00  00005D38                                 3663+T91      DC    A(X91)            address of test routine
00005D04  005B                                     3664+         DC    H'91'             test number
00005D06  00                                       3665+         DC    X'00'
00005D07  9F                                       3666+         DC    HL1'159'          i3
00005D08  CC                                       3667+         DC    HL1'204'          i4
00005D09  01                                       3668+         DC    HL1'1'            m5
00005D0A  00                                       3669+         DC    HL1'0'            cc
00005D0B  07                                       3670+         DC    HL1'7'            cc failed mask
00005D0C  00005D6C                                 3671+V2_91    DC    A(RE91+16)        address of v2: 16-byte packed decimal
00005D10  E5D7E2D6 D7404040                        3672+         DC    CL8'VPSOP'        instruction name
00005D18  00000000 00000000                        3673+V1O91    DC    XL16'00'          V1 OUTPUT
```

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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00005D20  00000000 00000000
00005D28  00000000 00000000                        3674+CC91     DC    2F'0'                 after instruction PWS (ie CC)
00005D30  00000010                                 3675+         DC    A(16)               result length
00005D34  00005D5C                                 3676+REA91    DC    A(RE91)             result address
                                                   3677+*                                    INSTRUCTION UNDER TEST ROUTINE
00005D38                                           3678+X91      DS    0F
00005D38  E320 500C 0014                 00005D0C  3679+         LGF   R2,V2_91            get v2
00005D3E  E722 0000 0006                 00000000  3680+         VL    V2,0(R2)
00005D44  E612 CC19 F05B                           3681+         VPSOP V1,V2,159,204,1      test instruction
00005D4A  E710 5018 000E                 00005D18  3682+         VST   V1,V1O91            save result
00005D50  B98D 0020                                3683+         EPSW  R2,R0               exptract psw
00005D54  5020 5028                      00005D28  3684+         ST    R2,CC91                 to save CC
00005D58  07FB                                     3685+         BR    R11                 return
00005D5C                                           3686+RE91     DC    0F
00005D5C                                           3687+         DROP  R5
00005D5C  00000000 00000000                        3688          DC    XL16'0000000000000000000000000000000D'    V1
00005D64  00000000 0000000D
00005D6C  00000000 00000000                        3689          DC    XL16'0000000000000000000000000000000B'    V2
00005D74  00000000 0000000B
                                                   3690
                                                   3691 * V2:positive
                                                   3692          VRI_G VPSOP,159,206,1,0         nz=1  pc=1
00005D80                                           3693+         DS    0FD
00005D80                         00005D80          3694+         USING *,R5                base for test data and test routine
00005D80  00005DB8                                 3695+T92      DC    A(X92)              address of test routine
00005D84  005C                                     3696+         DC    H'92'               test number
00005D86  00                                       3697+         DC    X'00'
00005D87  9F                                       3698+         DC    HL1'159'            i3
00005D88  CE                                       3699+         DC    HL1'206'            i4
00005D89  01                                       3700+         DC    HL1'1'              m5
00005D8A  00                                       3701+         DC    HL1'0'              cc
00005D8B  07                                       3702+         DC    HL1'7'              cc failed mask
00005D8C  00005DEC                                 3703+V2_92    DC    A(RE92+16)          address of v2: 16-byte packed decimal
00005D90  E5D7E2D6 D7404040                        3704+         DC    CL8'VPSOP'          instruction name
00005D98  00000000 00000000                        3705+V1O92    DC    XL16'00'            V1 OUTPUT
00005DA0  00000000 00000000
00005DA8  00000000 00000000                        3706+CC92     DC    2F'0'                 after instruction PWS (ie CC)
00005DB0  00000010                                 3707+         DC    A(16)               result length
00005DB4  00005DDC                                 3708+REA92    DC    A(RE92)             result address
                                                   3709+*                                    INSTRUCTION UNDER TEST ROUTINE
00005DB8                                           3710+X92      DS    0F
00005DB8  E320 500C 0014                 00005D8C  3711+         LGF   R2,V2_92            get v2
00005DBE  E722 0000 0006                 00000000  3712+         VL    V2,0(R2)
00005DC4  E612 CE19 F05B                           3713+         VPSOP V1,V2,159,206,1      test instruction
00005DCA  E710 5018 000E                 00005D98  3714+         VST   V1,V1O92            save result
00005DD0  B98D 0020                                3715+         EPSW  R2,R0               exptract psw
00005DD4  5020 5028                      00005DA8  3716+         ST    R2,CC92                 to save CC
00005DD8  07FB                                     3717+         BR    R11                 return
00005DDC                                           3718+RE92     DC    0F
00005DDC                                           3719+         DROP  R5
00005DDC  00000000 00000000                        3720          DC    XL16'0000000000000000000000000000000D'    V1
00005DE4  00000000 0000000D
00005DEC  00000000 00000000                        3721          DC    XL16'0000000000000000000000000000000A'    V2
00005DF4  00000000 0000000A
                                                   3722 * V2:negative
                                                   3723          VRI_G VPSOP,159,206,1,0         nz=1  pc=1
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005E00                                           3724+         DS    0FD
00005E00                     00005E00              3725+         USING *,R5              base for test data and test routine
00005E00  00005E38                                 3726+T93      DC    A(X93)            address of test routine
00005E04  005D                                     3727+         DC    H'93'             test number
00005E06  00                                       3728+         DC    X'00'
00005E07  9F                                       3729+         DC    HL1'159'          i3
00005E08  CE                                       3730+         DC    HL1'206'          i4
00005E09  01                                       3731+         DC    HL1'1'            m5
00005E0A  00                                       3732+         DC    HL1'0'            cc
00005E0B  07                                       3733+         DC    HL1'7'            cc failed mask
00005E0C  00005E6C                                 3734+V2_93    DC    A(RE93+16)        address of v2: 16-byte packed decimal
00005E10  E5D7E2D6 D7404040                        3735+         DC    CL8'VPSOP'        instruction name
00005E18  00000000 00000000                        3736+V1O93    DC    XL16'00'          V1 OUTPUT
00005E20  00000000 00000000
00005E28  00000000 00000000                        3737+CC93     DC    2F'0'                after instruction PWS (ie CC)
00005E30  00000010                                 3738+         DC    A(16)             result length
00005E34  00005E5C                                 3739+REA93    DC    A(RE93)           result address
                                                   3740+*                                  INSTRUCTION UNDER TEST ROUTINE
00005E38                                           3741+X93      DS    0F
00005E38  E320 500C 0014                00005E0C   3742+         LGF   R2,V2_93          get v2
00005E3E  E722 0000 0006                00000000   3743+         VL    V2,0(R2)
00005E44  E612 CE19 F05B                           3744+         VPSOP V1,V2,159,206,1    test instruction
00005E4A  E710 5018 000E                00005E18   3745+         VST   V1,V1O93          save result
00005E50  B98D 0020                                3746+         EPSW  R2,R0             exptract psw
00005E54  5020 5028                     00005E28   3747+         ST    R2,CC93                to save CC
00005E58  07FB                                     3748+         BR    R11               return
00005E5C                                           3749+RE93     DC    0F
00005E5C                                           3750+         DROP  R5
00005E5C  00000000 00000000                        3751          DC    XL16'00000000000000000000000000000000D'    V1
00005E64  00000000 0000000D
00005E6C  00000000 00000000                        3752          DC    XL16'00000000000000000000000000000000B'    V2
00005E74  00000000 0000000B
                                                   3753
                                                   3754 *-------------------------------------------------
                                                   3755 * SOME cc=3 (overflow) tests with rdc=4
                                                   3756 *-------------------------------------------------
                                                   3757 * V1:zero  V2:positive   PC='0' NZ='â€“'              V1_sign=C  CC=0
                                                   3758          VRI_G VPSOP,132,128,1,3         nz=0  pc=0
00005E80                                           3759+         DS    0FD
00005E80                     00005E80              3760+         USING *,R5              base for test data and test routine
00005E80  00005EB8                                 3761+T94      DC    A(X94)            address of test routine
00005E84  005E                                     3762+         DC    H'94'             test number
00005E86  00                                       3763+         DC    X'00'
00005E87  84                                       3764+         DC    HL1'132'          i3
00005E88  80                                       3765+         DC    HL1'128'          i4
00005E89  01                                       3766+         DC    HL1'1'            m5
00005E8A  03                                       3767+         DC    HL1'3'            cc
00005E8B  0E                                       3768+         DC    HL1'14'           cc failed mask
00005E8C  00005EEC                                 3769+V2_94    DC    A(RE94+16)        address of v2: 16-byte packed decimal
00005E90  E5D7E2D6 D7404040                        3770+         DC    CL8'VPSOP'        instruction name
00005E98  00000000 00000000                        3771+V1O94    DC    XL16'00'          V1 OUTPUT
00005EA0  00000000 00000000
00005EA8  00000000 00000000                        3772+CC94     DC    2F'0'                after instruction PWS (ie CC)
00005EB0  00000010                                 3773+         DC    A(16)             result length
00005EB4  00005EDC                                 3774+REA94    DC    A(RE94)           result address
                                                   3775+*                                  INSTRUCTION UNDER TEST ROUTINE
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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00005EB8                                          3776+X94      DS    0F
00005EB8  E320 500C 0014                00005E8C  3777+         LGF   R2,V2_94          get v2
00005EBE  E722 0000 0006                00000000  3778+         VL    V2,0(R2)
00005EC4  E612 8018 405B                          3779+         VPSOP V1,V2,132,128,1    test instruction
00005ECA  E710 5018 000E                00005E98  3780+         VST   V1,V1O94          save result
00005ED0  B98D 0020                               3781+         EPSW  R2,R0             exptract psw
00005ED4  5020 5028                     00005EA8  3782+         ST    R2,CC94                to save CC
00005ED8  07FB                                    3783+         BR    R11               return
00005EDC                                          3784+RE94     DC    0F
00005EDC                                          3785+         DROP  R5
00005EDC  00000000 00000000                       3786          DC    XL16'00000000000000000000000000000000C'    V1
00005EE4  00000000 0000000C
00005EEC  00000000 00009990                       3787          DC    XL16'00000000000099900000000000000000F'    V2
00005EF4  00000000 0000000F
                                                  3788
                                                  3789 * SC=01 (complement): nv=1 to avoid data exceptions
                                                  3790 * V1:zero   V2:positive   PC='0' NZ='0'            V1_sign=C  CC=0
                                                  3791          VRI_G VPSOP,132,132,1,3         nz=0  pc=0
00005F00                                          3792+         DS    0FD
00005F00                        00005F00          3793+         USING *,R5              base for test data and test routine
00005F00  00005F38                                3794+T95      DC    A(X95)            address of test routine
00005F04  005F                                    3795+         DC    H'95'             test number
00005F06  00                                      3796+         DC    X'00'
00005F07  84                                      3797+         DC    HL1'132'          i3
00005F08  84                                      3798+         DC    HL1'132'          i4
00005F09  01                                      3799+         DC    HL1'1'            m5
00005F0A  03                                      3800+         DC    HL1'3'            cc
00005F0B  0E                                      3801+         DC    HL1'14'           cc failed mask
00005F0C  00005F6C                                3802+V2_95    DC    A(RE95+16)        address of v2: 16-byte packed decimal
00005F10  E5D7E2D6 D7404040                       3803+         DC    CL8'VPSOP'        instruction name
00005F18  00000000 00000000                       3804+V1O95    DC    XL16'00'          V1 OUTPUT
00005F20  00000000 00000000
00005F28  00000000 00000000                       3805+CC95     DC    2F'0'                after instruction PWS (ie CC)
00005F30  00000010                                3806+         DC    A(16)             result length
00005F34  00005F5C                                3807+REA95    DC    A(RE95)           result address
                                                  3808+*                                  INSTRUCTION UNDER TEST ROUTINE
00005F38                                          3809+X95      DS    0F
00005F38  E320 500C 0014                00005F0C  3810+         LGF   R2,V2_95          get v2
00005F3E  E722 0000 0006                00000000  3811+         VL    V2,0(R2)
00005F44  E612 8418 405B                          3812+         VPSOP V1,V2,132,132,1    test instruction
00005F4A  E710 5018 000E                00005F18  3813+         VST   V1,V1O95          save result
00005F50  B98D 0020                               3814+         EPSW  R2,R0             exptract psw
00005F54  5020 5028                     00005F28  3815+         ST    R2,CC95                to save CC
00005F58  07FB                                    3816+         BR    R11               return
00005F5C                                          3817+RE95     DC    0F
00005F5C                                          3818+         DROP  R5
00005F5C  00000000 00000000                       3819          DC    XL16'00000000000000000000000000000000C'    V1
00005F64  00000000 0000000C
00005F6C  00000000 00009990                       3820          DC    XL16'00000000000099900000000000000000A'    V2
00005F74  00000000 0000000A
                                                  3821
                                                  3822 * SC=10 (force positive): nv=1 to avoid data exceptions
                                                  3823 * V1:zero V2:------   PC='0' NZ='â€“'                V1_sign=C  CC=0
                                                  3824 * V2:positive
                                                  3825          VRI_G VPSOP,132,136,1,3         nz=0  pc=0
00005F80                                          3826+         DS    0FD
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00005F80                     00005F80             3827+         USING *,R5              base for test data and test routine
00005F80  00005FB8                                3828+T96      DC    A(X96)            address of test routine
00005F84  0060                                    3829+         DC    H'96'             test number
00005F86  00                                      3830+         DC    X'00'
00005F87  84                                      3831+         DC    HL1'132'          i3
00005F88  88                                      3832+         DC    HL1'136'          i4
00005F89  01                                      3833+         DC    HL1'1'            m5
00005F8A  03                                      3834+         DC    HL1'3'            cc
00005F8B  0E                                      3835+         DC    HL1'14'           cc failed mask
00005F8C  00005FEC                                3836+V2_96    DC    A(RE96+16)        address of v2: 16-byte packed decimal
00005F90  E5D7E2D6 D7404040                       3837+         DC    CL8'VPSOP'        instruction name
00005F98  00000000 00000000                       3838+V1O96    DC    XL16'00'          V1 OUTPUT
00005FA0  00000000 00000000
00005FA8  00000000 00000000                       3839+CC96     DC    2F'0'                after instruction PWS (ie CC)
00005FB0  00000010                                3840+         DC    A(16)             result length
00005FB4  00005FDC                                3841+REA96    DC    A(RE96)           result address
                                                  3842+*                                  INSTRUCTION UNDER TEST ROUTINE
00005FB8                                          3843+X96      DS    0F
00005FB8  E320 500C 0014               00005F8C   3844+         LGF   R2,V2_96          get v2
00005FBE  E722 0000 0006               00000000   3845+         VL    V2,0(R2)
00005FC4  E612 8818 405B                          3846+         VPSOP V1,V2,132,136,1    test instruction
00005FCA  E710 5018 000E               00005F98   3847+         VST   V1,V1O96          save result
00005FD0  B98D 0020                               3848+         EPSW  R2,R0             exptract psw
00005FD4  5020 5028                    00005FA8   3849+         ST    R2,CC96                to save CC
00005FD8  07FB                                    3850+         BR    R11               return
00005FDC                                          3851+RE96     DC    0F
00005FDC                                          3852+         DROP  R5
00005FDC  00000000 00000000                       3853          DC    XL16'0000000000000000000000000000000C'    V1
00005FE4  00000000 0000000C
00005FEC  00000000 00000999                       3854          DC    XL16'000000000000099900000000000000000A'    V2
00005FF4  00000000 0000000A
                                                  3855
                                                  3856 * SC=11 (force negative): nv=1 to avoid data exceptions
                                                  3857 * V1:zero    V2:------   PC='0' NZ='0'              V1_sign=C  CC=0
                                                  3858 * V2:positive
                                                  3859          VRI_G VPSOP,132,140,1,3         nz=0  pc=0
00006000                                          3860+         DS    0FD
00006000                     00006000             3861+         USING *,R5              base for test data and test routine
00006000  00006038                                3862+T97      DC    A(X97)            address of test routine
00006004  0061                                    3863+         DC    H'97'             test number
00006006  00                                      3864+         DC    X'00'
00006007  84                                      3865+         DC    HL1'132'          i3
00006008  8C                                      3866+         DC    HL1'140'          i4
00006009  01                                      3867+         DC    HL1'1'            m5
0000600A  03                                      3868+         DC    HL1'3'            cc
0000600B  0E                                      3869+         DC    HL1'14'           cc failed mask
0000600C  0000606C                                3870+V2_97    DC    A(RE97+16)        address of v2: 16-byte packed decimal
00006010  E5D7E2D6 D7404040                       3871+         DC    CL8'VPSOP'        instruction name
00006018  00000000 00000000                       3872+V1O97    DC    XL16'00'          V1 OUTPUT
00006020  00000000 00000000
00006028  00000000 00000000                       3873+CC97     DC    2F'0'                after instruction PWS (ie CC)
00006030  00000010                                3874+         DC    A(16)             result length
00006034  0000605C                                3875+REA97    DC    A(RE97)           result address
                                                  3876+*                                  INSTRUCTION UNDER TEST ROUTINE
00006038                                          3877+X97      DS    0F
00006038  E320 500C 0014               0000600C   3878+         LGF   R2,V2_97          get v2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

0000603E  E722 0000 0006                00000000  3879+         VL    V2,0(R2)
00006044  E612 8C18 405B                          3880+         VPSOP V1,V2,132,140,1    test instruction
0000604A  E710 5018 000E                00006018  3881+         VST   V1,V1O97          save result
00006050  B98D 0020                               3882+         EPSW  R2,R0             exptract psw
00006054  5020 5028                     00006028  3883+         ST    R2,CC97                to save CC
00006058  07FB                                    3884+         BR    R11               return
0000605C                                          3885+RE97     DC    0F
0000605C                                          3886+         DROP  R5
0000605C  00000000 00000000                       3887          DC    XL16'00000000000000000000000000000000C'    V1
00006064  00000000 0000000C
0000606C  00000000 00000000                       3888          DC    XL16'00000000000000009990000000000000A'    V2
00006074  99900000 0000000A
                                                  3889
                                                  3890 *-------------------------------------------------
                                                  3891 * SOME cc=3 (overflow) tests with rdc=7
                                                  3892 *-------------------------------------------------
                                                  3893 * SC=00 (maintain): nv=1 to avoid data exceptions
                                                  3894 * V1:nonzero V2:positive   PC='0' NZ='â€“'            V1_sign=C  CC=2
                                                  3895          VRI_G VPSOP,135,128,1,3         nz=0
00006080                                          3896+         DS    0FD
00006080                        00006080          3897+         USING *,R5              base for test data and test routine
00006080  000060B8                                3898+T98      DC    A(X98)            address of test routine
00006084  0062                                    3899+         DC    H'98'             test number
00006086  00                                      3900+         DC    X'00'
00006087  87                                      3901+         DC    HL1'135'          i3
00006088  80                                      3902+         DC    HL1'128'          i4
00006089  01                                      3903+         DC    HL1'1'            m5
0000608A  03                                      3904+         DC    HL1'3'            cc
0000608B  0E                                      3905+         DC    HL1'14'           cc failed mask
0000608C  000060EC                                3906+V2_98    DC    A(RE98+16)        address of v2: 16-byte packed decimal
00006090  E5D7E2D6 D7404040                       3907+         DC    CL8'VPSOP'        instruction name
00006098  00000000 00000000                       3908+V1O98    DC    XL16'00'          V1 OUTPUT
000060A0  00000000 00000000
000060A8  00000000 00000000                       3909+CC98     DC    2F'0'                after instruction PWS (ie CC)
000060B0  00000010                                3910+         DC    A(16)             result length
000060B4  000060DC                                3911+REA98    DC    A(RE98)           result address
                                                  3912+*                                  INSTRUCTION UNDER TEST ROUTINE
000060B8                                          3913+X98      DS    0F
000060B8  E320 500C 0014                0000608C  3914+         LGF   R2,V2_98          get v2
000060BE  E722 0000 0006                00000000  3915+         VL    V2,0(R2)
000060C4  E612 8018 705B                          3916+         VPSOP V1,V2,135,128,1    test instruction
000060CA  E710 5018 000E                00006098  3917+         VST   V1,V1O98          save result
000060D0  B98D 0020                               3918+         EPSW  R2,R0             exptract psw
000060D4  5020 5028                     000060A8  3919+         ST    R2,CC98                to save CC
000060D8  07FB                                    3920+         BR    R11               return
000060DC                                          3921+RE98     DC    0F
000060DC                                          3922+         DROP  R5
000060DC  00000000 00000000                       3923          DC    XL16'0000000000000000000000002000000C'    V1
000060E4  00000000 2000000C
000060EC  00000000 00000000                       3924          DC    XL16'00000000000000000000000222000000F'    V2
000060F4  00000022 2000000F
                                                  3925
                                                  3926 * SC=01 (complement): nv=1 to avoid data exceptions
                                                  3927 * V1:nonzero V2:positive   PC='-' NZ='â€“'            V1_sign=D  CC=1
                                                  3928          VRI_G VPSOP,135,132,1,3         nz=0  pc=0
00006100                                          3929+         DS    0FD
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006100                     00006100             3930+         USING *,R5              base for test data and test routine
00006100  00006138                                3931+T99      DC    A(X99)            address of test routine
00006104  0063                                    3932+         DC    H'99'             test number
00006106  00                                      3933+         DC    X'00'
00006107  87                                      3934+         DC    HL1'135'          i3
00006108  84                                      3935+         DC    HL1'132'          i4
00006109  01                                      3936+         DC    HL1'1'            m5
0000610A  03                                      3937+         DC    HL1'3'            cc
0000610B  0E                                      3938+         DC    HL1'14'           cc failed mask
0000610C  0000616C                                3939+V2_99    DC    A(RE99+16)        address of v2: 16-byte packed decimal
00006110  E5D7E2D6 D7404040                       3940+         DC    CL8'VPSOP'        instruction name
00006118  00000000 00000000                       3941+V1O99    DC    XL16'00'          V1 OUTPUT
00006120  00000000 00000000
00006128  00000000 00000000                       3942+CC99     DC    2F'0'                after instruction PWS (ie CC)
00006130  00000010                                3943+         DC    A(16)             result length
00006134  0000615C                                3944+REA99    DC    A(RE99)           result address
                                                  3945+*                                  INSTRUCTION UNDER TEST ROUTINE
00006138                                          3946+X99      DS    0F
00006138  E320 500C 0014               0000610C   3947+         LGF   R2,V2_99          get v2
0000613E  E722 0000 0006               00000000   3948+         VL    V2,0(R2)
00006144  E612 8418 705B                          3949+         VPSOP V1,V2,135,132,1    test instruction
0000614A  E710 5018 000E               00006118   3950+         VST   V1,V1O99          save result
00006150  B98D 0020                               3951+         EPSW  R2,R0             exptract psw
00006154  5020 5028                    00006128   3952+         ST    R2,CC99                to save CC
00006158  07FB                                    3953+         BR    R11               return
0000615C                                          3954+RE99     DC    0F
0000615C                                          3955+         DROP  R5
0000615C  00000000 00000000                       3956          DC    XL16'0000000000000000000000002000000D'    V1
00006164  00000000 2000000D
0000616C  00000000 00000000                       3957          DC    XL16'00000000000000000000000222000000C'    V2
00006174  00000022 2000000C
                                                  3958
                                                  3959 * SC=10 (force positive): nv=1 to avoid data exceptions
                                                  3960 * V1:nonzero V2:------   PC='0' NZ='â€“'              V1_sign=C  CC=2
                                                  3961 * V2:positive
                                                  3962          VRI_G VPSOP,135,136,1,3         nz=0  pc=0
00006180                                          3963+         DS    0FD
00006180                     00006180             3964+         USING *,R5              base for test data and test routine
00006180  000061B8                                3965+T100     DC    A(X100)           address of test routine
00006184  0064                                    3966+         DC    H'100'            test number
00006186  00                                      3967+         DC    X'00'
00006187  87                                      3968+         DC    HL1'135'          i3
00006188  88                                      3969+         DC    HL1'136'          i4
00006189  01                                      3970+         DC    HL1'1'            m5
0000618A  03                                      3971+         DC    HL1'3'            cc
0000618B  0E                                      3972+         DC    HL1'14'           cc failed mask
0000618C  000061EC                                3973+V2_100   DC    A(RE100+16)       address of v2: 16-byte packed decimal
00006190  E5D7E2D6 D7404040                       3974+         DC    CL8'VPSOP'        instruction name
00006198  00000000 00000000                       3975+V1O100   DC    XL16'00'          V1 OUTPUT
000061A0  00000000 00000000
000061A8  00000000 00000000                       3976+CC100    DC    2F'0'                after instruction PWS (ie CC)
000061B0  00000010                                3977+         DC    A(16)             result length
000061B4  000061DC                                3978+REA100   DC    A(RE100)          result address
                                                  3979+*                                  INSTRUCTION UNDER TEST ROUTINE
000061B8                                          3980+X100     DS    0F
000061B8  E320 500C 0014               0000618C   3981+         LGF   R2,V2_100         get v2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

000061BE  E722 0000 0006                00000000  3982+         VL    V2,0(R2)
000061C4  E612 8818 705B                          3983+         VPSOP V1,V2,135,136,1    test instruction
000061CA  E710 5018 000E                00006198  3984+         VST   V1,V1O100         save result
000061D0  B98D 0020                               3985+         EPSW  R2,R0             exptract psw
000061D4  5020 5028                     000061A8  3986+         ST    R2,CC100               to save CC
000061D8  07FB                                    3987+         BR    R11               return
000061DC                                          3988+RE100    DC    0F
000061DC                                          3989+         DROP  R5
000061DC  00000000 00000000                       3990          DC    XL16'00000000000000000000000002000000C'    V1
000061E4  00000000 2000000C
000061EC  00000000 00000000                       3991          DC    XL16'00000000000000000000000222000000A'    V2
000061F4  00000022 2000000A
                                                  3992
                                                  3993 * SC=11 (force negative): nv=1 to avoid data exceptions
                                                  3994 * V1:nonzero V2:------   PC='-' NZ='â€“'              V1_sign=D  CC=1
                                                  3995 * V2:positive  PC=0
                                                  3996          VRI_G VPSOP,135,140,1,3         nz=0  pc=0
00006200                                          3997+         DS    0FD
00006200                        00006200          3998+         USING *,R5              base for test data and test routine
00006200  00006238                                3999+T101     DC    A(X101)           address of test routine
00006204  0065                                    4000+         DC    H'101'            test number
00006206  00                                      4001+         DC    X'00'
00006207  87                                      4002+         DC    HL1'135'          i3
00006208  8C                                      4003+         DC    HL1'140'          i4
00006209  01                                      4004+         DC    HL1'1'            m5
0000620A  03                                      4005+         DC    HL1'3'            cc
0000620B  0E                                      4006+         DC    HL1'14'           cc failed mask
0000620C  0000626C                                4007+V2_101   DC    A(RE101+16)       address of v2: 16-byte packed decimal
00006210  E5D7E2D6 D7404040                       4008+         DC    CL8'VPSOP'        instruction name
00006218  00000000 00000000                       4009+V1O101   DC    XL16'00'          V1 OUTPUT
00006220  00000000 00000000
00006228  00000000 00000000                       4010+CC101    DC    2F'0'                after instruction PWS (ie CC)
00006230  00000010                                4011+         DC    A(16)             result length
00006234  0000625C                                4012+REA101   DC    A(RE101)          result address
                                                  4013+*                                  INSTRUCTION UNDER TEST ROUTINE
00006238                                          4014+X101     DS    0F
00006238  E320 500C 0014                0000620C  4015+         LGF   R2,V2_101         get v2
0000623E  E722 0000 0006                00000000  4016+         VL    V2,0(R2)
00006244  E612 8C18 705B                          4017+         VPSOP V1,V2,135,140,1    test instruction
0000624A  E710 5018 000E                00006218  4018+         VST   V1,V1O101         save result
00006250  B98D 0020                               4019+         EPSW  R2,R0             exptract psw
00006254  5020 5028                     00006228  4020+         ST    R2,CC101               to save CC
00006258  07FB                                    4021+         BR    R11               return
0000625C                                          4022+RE101    DC    0F
0000625C                                          4023+         DROP  R5
0000625C  00000000 00000000                       4024          DC    XL16'00000000000000000000000002000000D'    V1
00006264  00000000 2000000D
0000626C  00000000 00000000                       4025          DC    XL16'00000000000000000000000222000000A'    V2
00006274  00000022 2000000A
                                                  4026
                                                  4027 *-------------------------------------------------------------------
                                                  4028 * VPSOP - VECTOR PERFORM SIGN OPERATION DECIMAL
                                                  4029 *    packed-decimal-enhamcement facility 3
                                                  4030 *    Preserve Sign = 1
                                                  4031 *-------------------------------------------------------------------
                                                  4032 * VPSOP with some I3, I4 and M5's
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                   4033 * I3 tests
                                                   4034 *                     i4=129 (iom=1, rdc=1)
                                                   4035 *                     i4=132 (iom=1, rdc=4)
                                                   4036 *                     i4=135 (iom=1, rdc=7)
                                                   4037 *                     i4=142 (iom=1, rdc=14)
                                                   4038 *                     i4=159 (iom=1, rdc=31)
                                                   4039 * I4 : so=00                                        (ps =  0)
                                                   4040 *        i4=144 (nv=1, nz=0, /, ps=1, so=00, pc=0, sv=0)  (was 128)
                                                   4041 *        i4=146 (nv=1, nz=0, /, ps=1, so=00, pc=1, sv=0)  (was 130)
                                                   4042 *
                                                   4043 *        i4=208 (nv=1, nz=1, /, ps=1, so=00, pc=0, sv=0)  (was 192)
                                                   4044 *        i4=210 (nv=1, nz=1, /, ps=1, so=00, pc=1, sv=0)  (was 194)
                                                   4045 *-----------------------------------------------
                                                   4046 * SC=00 (maintain): nv=1 to avoid data exceptions
                                                   4047 *-----------------------------------------------
                                                   4048 * V1:nonzero V2:positive   PC='0' NZ='â€“'              V1_sign=C  CC=2
                                                   4049          VRI_G VPSOP,159,144,1,2         nz=0
00006280                                           4050+         DS    0FD
00006280                          00006280         4051+         USING *,R5              base for test data and test routine
00006280  000062B8                                 4052+T102     DC    A(X102)           address of test routine
00006284  0066                                     4053+         DC    H'102'            test number
00006286  00                                       4054+         DC    X'00'
00006287  9F                                       4055+         DC    HL1'159'          i3
00006288  90                                       4056+         DC    HL1'144'          i4
00006289  01                                       4057+         DC    HL1'1'            m5
0000628A  02                                       4058+         DC    HL1'2'            cc
0000628B  0D                                       4059+         DC    HL1'13'           cc failed mask
0000628C  000062EC                                 4060+V2_102   DC    A(RE102+16)       address of v2: 16-byte packed decimal
00006290  E5D7E2D6 D7404040                        4061+         DC    CL8'VPSOP'        instruction name
00006298  00000000 00000000                        4062+V1O102   DC    XL16'00'          V1 OUTPUT
000062A0  00000000 00000000
000062A8  00000000 00000000                        4063+CC102    DC    2F'0'                after instruction PWS (ie CC)
000062B0  00000010                                 4064+         DC    A(16)             result length
000062B4  000062DC                                 4065+REA102   DC    A(RE102)          result address
                                                   4066+*                                  INSTRUCTION UNDER TEST ROUTINE
000062B8                                           4067+X102     DS    0F
000062B8  E320 500C 0014                 0000628C  4068+         LGF   R2,V2_102         get v2
000062BE  E722 0000 0006                 00000000  4069+         VL    V2,0(R2)
000062C4  E612 9019 F05B                           4070+         VPSOP V1,V2,159,144,1    test instruction
000062CA  E710 5018 000E                 00006298  4071+         VST   V1,V1O102         save result
000062D0  B98D 0020                                4072+         EPSW  R2,R0             exptract psw
000062D4  5020 5028                      000062A8  4073+         ST    R2,CC102               to save CC
000062D8  07FB                                     4074+         BR    R11               return
000062DC                                           4075+RE102    DC    0F
000062DC                                           4076+         DROP  R5
000062DC  00000000 00000000                        4077          DC    XL16'0000000000000000000000220000000F'    V1
000062E4  00000022 0000000F
000062EC  00000000 00000000                        4078          DC    XL16'0000000000000000000000220000000F'    V2
000062F4  00000022 0000000F
                                                   4079
                                                   4080          VRI_G VPSOP,159,208,1,2         nz=1
00006300                                           4081+         DS    0FD
00006300                          00006300         4082+         USING *,R5              base for test data and test routine
00006300  00006338                                 4083+T103     DC    A(X103)           address of test routine
00006304  0067                                     4084+         DC    H'103'            test number
00006306  00                                       4085+         DC    X'00'
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006307  9F                                       4086+         DC    HL1'159'          i3
00006308  D0                                       4087+         DC    HL1'208'          i4
00006309  01                                       4088+         DC    HL1'1'            m5
0000630A  02                                       4089+         DC    HL1'2'            cc
0000630B  0D                                       4090+         DC    HL1'13'           cc failed mask
0000630C  0000636C                                 4091+V2_103   DC    A(RE103+16)       address of v2: 16-byte packed decimal
00006310  E5D7E2D6 D7404040                        4092+         DC    CL8'VPSOP'        instruction name
00006318  00000000 00000000                        4093+V1O103   DC    XL16'00'          V1 OUTPUT
00006320  00000000 00000000
00006328  00000000 00000000                        4094+CC103    DC    2F'0'                after instruction PWS (ie CC)
00006330  00000010                                 4095+         DC    A(16)             result length
00006334  0000635C                                 4096+REA103   DC    A(RE103)          result address
                                                   4097+*                                  INSTRUCTION UNDER TEST ROUTINE
00006338                                           4098+X103     DS    0F
00006338  E320 500C 0014                0000630C   4099+         LGF   R2,V2_103         get v2
0000633E  E722 0000 0006                00000000   4100+         VL    V2,0(R2)
00006344  E612 D019 F05B                           4101+         VPSOP V1,V2,159,208,1    test instruction
0000634A  E710 5018 000E                00006318   4102+         VST   V1,V1O103         save result
00006350  B98D 0020                                4103+         EPSW  R2,R0             exptract psw
00006354  5020 5028                     00006328   4104+         ST    R2,CC103               to save CC
00006358  07FB                                     4105+         BR    R11               return
0000635C                                           4106+RE103    DC    0F
0000635C                                           4107+         DROP  R5
0000635C  00000000 00000000                        4108          DC    XL16'00000000000000000000000220000000F'    V1
00006364  00000022 0000000F
0000636C  00000000 00000000                        4109          DC    XL16'00000000000000000000000220000000F'    V2
00006374  00000022 0000000F
                                                   4110
                                                   4111 * V1:nonzero V2:positive   PC='1' NZ='â€“'              V1_sign=F  CC=2
                                                   4112          VRI_G VPSOP,159,146,1,2         nz=0
00006380                                           4113+         DS    0FD
00006380                        00006380           4114+         USING *,R5              base for test data and test routine
00006380  000063B8                                 4115+T104     DC    A(X104)           address of test routine
00006384  0068                                     4116+         DC    H'104'            test number
00006386  00                                       4117+         DC    X'00'
00006387  9F                                       4118+         DC    HL1'159'          i3
00006388  92                                       4119+         DC    HL1'146'          i4
00006389  01                                       4120+         DC    HL1'1'            m5
0000638A  02                                       4121+         DC    HL1'2'            cc
0000638B  0D                                       4122+         DC    HL1'13'           cc failed mask
0000638C  000063EC                                 4123+V2_104   DC    A(RE104+16)       address of v2: 16-byte packed decimal
00006390  E5D7E2D6 D7404040                        4124+         DC    CL8'VPSOP'        instruction name
00006398  00000000 00000000                        4125+V1O104   DC    XL16'00'          V1 OUTPUT
000063A0  00000000 00000000
000063A8  00000000 00000000                        4126+CC104    DC    2F'0'                after instruction PWS (ie CC)
000063B0  00000010                                 4127+         DC    A(16)             result length
000063B4  000063DC                                 4128+REA104   DC    A(RE104)          result address
                                                   4129+*                                  INSTRUCTION UNDER TEST ROUTINE
000063B8                                           4130+X104     DS    0F
000063B8  E320 500C 0014                0000638C   4131+         LGF   R2,V2_104         get v2
000063BE  E722 0000 0006                00000000   4132+         VL    V2,0(R2)
000063C4  E612 9219 F05B                           4133+         VPSOP V1,V2,159,146,1    test instruction
000063CA  E710 5018 000E                00006398   4134+         VST   V1,V1O104         save result
000063D0  B98D 0020                                4135+         EPSW  R2,R0             exptract psw
000063D4  5020 5028                     000063A8   4136+         ST    R2,CC104               to save CC
000063D8  07FB                                     4137+         BR    R11               return
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000063DC                                           4138+RE104    DC    0F
000063DC                                           4139+         DROP  R5
000063DC  00000000 00000000                        4140          DC    XL16'00000000000000000000000220000000A'    V1
000063E4  00000022 0000000A
000063EC  00000000 00000000                        4141          DC    XL16'00000000000000000000000220000000A'    V2
000063F4  00000022 0000000A
                                                   4142
                                                   4143          VRI_G VPSOP,159,210,1,2        nz=1
00006400                                           4144+         DS    0FD
00006400                      00006400             4145+         USING *,R5              base for test data and test routine
00006400  00006438                                 4146+T105     DC    A(X105)           address of test routine
00006404  0069                                     4147+         DC    H'105'            test number
00006406  00                                       4148+         DC    X'00'
00006407  9F                                       4149+         DC    HL1'159'          i3
00006408  D2                                       4150+         DC    HL1'210'          i4
00006409  01                                       4151+         DC    HL1'1'            m5
0000640A  02                                       4152+         DC    HL1'2'            cc
0000640B  0D                                       4153+         DC    HL1'13'           cc failed mask
0000640C  0000646C                                 4154+V2_105   DC    A(RE105+16)       address of v2: 16-byte packed decimal
00006410  E5D7E2D6 D7404040                        4155+         DC    CL8'VPSOP'        instruction name
00006418  00000000 00000000                        4156+V1O105   DC    XL16'00'          V1 OUTPUT
00006420  00000000 00000000
00006428  00000000 00000000                        4157+CC105    DC    2F'0'                after instruction PWS (ie CC)
00006430  00000010                                 4158+         DC    A(16)             result length
00006434  0000645C                                 4159+REA105   DC    A(RE105)          result address
                                                   4160+*                                  INSTRUCTION UNDER TEST ROUTINE
00006438                                           4161+X105     DS    0F
00006438  E320 500C 0014                0000640C   4162+         LGF   R2,V2_105         get v2
0000643E  E722 0000 0006                00000000   4163+         VL    V2,0(R2)
00006444  E612 D219 F05B                           4164+         VPSOP V1,V2,159,210,1    test instruction
0000644A  E710 5018 000E                00006418   4165+         VST   V1,V1O105         save result
00006450  B98D 0020                                4166+         EPSW  R2,R0             exptract psw
00006454  5020 5028                     00006428   4167+         ST    R2,CC105               to save CC
00006458  07FB                                     4168+         BR    R11               return
0000645C                                           4169+RE105    DC    0F
0000645C                                           4170+         DROP  R5
0000645C  00000000 00000000                        4171          DC    XL16'00000000000000000000000220000000A'    V1
00006464  00000022 0000000A
0000646C  00000000 00000000                        4172          DC    XL16'00000000000000000000000220000000A'    V2
00006474  00000022 0000000A
                                                   4173
                                                   4174 * V1:nonzero V2:negative   PC='-' NZ='â€“'              V1_sign=D  CC=1
                                                   4175          VRI_G VPSOP,159,144,1,1        nz=0  pc=0
00006480                                           4176+         DS    0FD
00006480                      00006480             4177+         USING *,R5              base for test data and test routine
00006480  000064B8                                 4178+T106     DC    A(X106)           address of test routine
00006484  006A                                     4179+         DC    H'106'            test number
00006486  00                                       4180+         DC    X'00'
00006487  9F                                       4181+         DC    HL1'159'          i3
00006488  90                                       4182+         DC    HL1'144'          i4
00006489  01                                       4183+         DC    HL1'1'            m5
0000648A  01                                       4184+         DC    HL1'1'            cc
0000648B  0B                                       4185+         DC    HL1'11'           cc failed mask
0000648C  000064EC                                 4186+V2_106   DC    A(RE106+16)       address of v2: 16-byte packed decimal
00006490  E5D7E2D6 D7404040                        4187+         DC    CL8'VPSOP'        instruction name
00006498  00000000 00000000                        4188+V1O106   DC    XL16'00'          V1 OUTPUT
```

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  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

000064A0  00000000 00000000
000064A8  00000000 00000000                        4189+CC106    DC    2F'0'                 after instruction PWS (ie CC)
000064B0  00000010                                 4190+         DC    A(16)             result length
000064B4  000064DC                                 4191+REA106   DC    A(RE106)          result address
                                                   4192+*                                  INSTRUCTION UNDER TEST ROUTINE
000064B8                                           4193+X106     DS    0F
000064B8  E320 500C 0014                 0000648C  4194+         LGF   R2,V2_106         get v2
000064BE  E722 0000 0006                 00000000  4195+         VL    V2,0(R2)
000064C4  E612 9019 F05B                           4196+         VPSOP V1,V2,159,144,1    test instruction
000064CA  E710 5018 000E                 00006498  4197+         VST   V1,V1O106         save result
000064D0  B98D 0020                                4198+         EPSW  R2,R0             exptract psw
000064D4  5020 5028                      000064A8  4199+         ST    R2,CC106               to save CC
000064D8  07FB                                     4200+         BR    R11               return
000064DC                                           4201+RE106    DC    0F
000064DC                                           4202+         DROP  R5
000064DC  00000000 00000000                        4203          DC    XL16'00000000000000000000000220000000B'    V1
000064E4  00000022 0000000B
000064EC  00000000 00000000                        4204          DC    XL16'00000000000000000000000220000000B'    V2
000064F4  00000022 0000000B
                                                   4205
                                                   4206          VRI_G VPSOP,159,146,1,1         nz=0  pc=1
00006500                                           4207+         DS    0FD
00006500                         00006500          4208+         USING *,R5              base for test data and test routine
00006500  00006538                                 4209+T107     DC    A(X107)           address of test routine
00006504  006B                                     4210+         DC    H'107'            test number
00006506  00                                       4211+         DC    X'00'
00006507  9F                                       4212+         DC    HL1'159'          i3
00006508  92                                       4213+         DC    HL1'146'          i4
00006509  01                                       4214+         DC    HL1'1'            m5
0000650A  01                                       4215+         DC    HL1'1'            cc
0000650B  0B                                       4216+         DC    HL1'11'           cc failed mask
0000650C  0000656C                                 4217+V2_107   DC    A(RE107+16)       address of v2: 16-byte packed decimal
00006510  E5D7E2D6 D7404040                        4218+         DC    CL8'VPSOP'        instruction name
00006518  00000000 00000000                        4219+V1O107   DC    XL16'00'          V1 OUTPUT
00006520  00000000 00000000
00006528  00000000 00000000                        4220+CC107    DC    2F'0'                 after instruction PWS (ie CC)
00006530  00000010                                 4221+         DC    A(16)             result length
00006534  0000655C                                 4222+REA107   DC    A(RE107)          result address
                                                   4223+*                                  INSTRUCTION UNDER TEST ROUTINE
00006538                                           4224+X107     DS    0F
00006538  E320 500C 0014                 0000650C  4225+         LGF   R2,V2_107         get v2
0000653E  E722 0000 0006                 00000000  4226+         VL    V2,0(R2)
00006544  E612 9219 F05B                           4227+         VPSOP V1,V2,159,146,1    test instruction
0000654A  E710 5018 000E                 00006518  4228+         VST   V1,V1O107         save result
00006550  B98D 0020                                4229+         EPSW  R2,R0             exptract psw
00006554  5020 5028                      00006528  4230+         ST    R2,CC107               to save CC
00006558  07FB                                     4231+         BR    R11               return
0000655C                                           4232+RE107    DC    0F
0000655C                                           4233+         DROP  R5
0000655C  00000000 00000000                        4234          DC    XL16'00000000000000000000000220000000B'    V1
00006564  00000022 0000000B
0000656C  00000000 00000000                        4235          DC    XL16'00000000000000000000000220000000B'    V2
00006574  00000022 0000000B
                                                   4236
                                                   4237          VRI_G VPSOP,159,208,1,1         nz=1  pc=0
00006580                                           4238+         DS    0FD
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006580                     00006580             4239+         USING *,R5              base for test data and test routine
00006580  000065B8                                4240+T108     DC    A(X108)           address of test routine
00006584  006C                                    4241+         DC    H'108'            test number
00006586  00                                      4242+         DC    X'00'
00006587  9F                                      4243+         DC    HL1'159'          i3
00006588  D0                                      4244+         DC    HL1'208'          i4
00006589  01                                      4245+         DC    HL1'1'            m5
0000658A  01                                      4246+         DC    HL1'1'            cc
0000658B  0B                                      4247+         DC    HL1'11'           cc failed mask
0000658C  000065EC                                4248+V2_108   DC    A(RE108+16)       address of v2: 16-byte packed decimal
00006590  E5D7E2D6 D7404040                       4249+         DC    CL8'VPSOP'        instruction name
00006598  00000000 00000000                       4250+V1O108   DC    XL16'00'          V1 OUTPUT
000065A0  00000000 00000000
000065A8  00000000 00000000                       4251+CC108    DC    2F'0'                after instruction PWS (ie CC)
000065B0  00000010                                4252+         DC    A(16)             result length
000065B4  000065DC                                4253+REA108   DC    A(RE108)          result address
                                                  4254+*                                  INSTRUCTION UNDER TEST ROUTINE
000065B8                                          4255+X108     DS    0F
000065B8  E320 500C 0014               0000658C   4256+         LGF   R2,V2_108         get v2
000065BE  E722 0000 0006               00000000   4257+         VL    V2,0(R2)
000065C4  E612 D019 F05B                          4258+         VPSOP V1,V2,159,208,1    test instruction
000065CA  E710 5018 000E               00006598   4259+         VST   V1,V1O108         save result
000065D0  B98D 0020                               4260+         EPSW  R2,R0             exptract psw
000065D4  5020 5028                    000065A8   4261+         ST    R2,CC108               to save CC
000065D8  07FB                                    4262+         BR    R11               return
000065DC                                          4263+RE108    DC    0F
000065DC                                          4264+         DROP  R5
000065DC  00000000 00000000                       4265          DC    XL16'00000000000000000000000220000000B'    V1
000065E4  00000022 0000000B
000065EC  00000000 00000000                       4266          DC    XL16'00000000000000000000000220000000B'    V2
000065F4  00000022 0000000B
                                                  4267
                                                  4268          VRI_G VPSOP,159,210,1,1         nz=1  pc=1
00006600                                          4269+         DS    0FD
00006600                     00006600             4270+         USING *,R5              base for test data and test routine
00006600  00006638                                4271+T109     DC    A(X109)           address of test routine
00006604  006D                                    4272+         DC    H'109'            test number
00006606  00                                      4273+         DC    X'00'
00006607  9F                                      4274+         DC    HL1'159'          i3
00006608  D2                                      4275+         DC    HL1'210'          i4
00006609  01                                      4276+         DC    HL1'1'            m5
0000660A  01                                      4277+         DC    HL1'1'            cc
0000660B  0B                                      4278+         DC    HL1'11'           cc failed mask
0000660C  0000666C                                4279+V2_109   DC    A(RE109+16)       address of v2: 16-byte packed decimal
00006610  E5D7E2D6 D7404040                       4280+         DC    CL8'VPSOP'        instruction name
00006618  00000000 00000000                       4281+V1O109   DC    XL16'00'          V1 OUTPUT
00006620  00000000 00000000
00006628  00000000 00000000                       4282+CC109    DC    2F'0'                after instruction PWS (ie CC)
00006630  00000010                                4283+         DC    A(16)             result length
00006634  0000665C                                4284+REA109   DC    A(RE109)          result address
                                                  4285+*                                  INSTRUCTION UNDER TEST ROUTINE
00006638                                          4286+X109     DS    0F
00006638  E320 500C 0014               0000660C   4287+         LGF   R2,V2_109         get v2
0000663E  E722 0000 0006               00000000   4288+         VL    V2,0(R2)
00006644  E612 D219 F05B                          4289+         VPSOP V1,V2,159,210,1    test instruction
0000664A  E710 5018 000E               00006618   4290+         VST   V1,V1O109         save result
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006650  B98D 0020                               4291+         EPSW  R2,R0              exptract psw
00006654  5020 5028                     00006628  4292+         ST    R2,CC109                to save CC
00006658  07FB                                    4293+         BR    R11               return
0000665C                                          4294+RE109    DC    0F
0000665C                                          4295+         DROP  R5
0000665C  00000000 00000000                       4296          DC    XL16'00000000000000000000000220000000B'    V1
00006664  00000022 0000000B
0000666C  00000000 00000000                       4297          DC    XL16'00000000000000000000000220000000B'    V2
00006674  00000022 0000000B
                                                  4298
                                                  4299 * V1:nonzero V2:invalid   PC='-' NZ='â€“'              V1_sign=V2  CC=2
                                                  4300          VRI_G VPSOP,159,144,1,2         nz=0  pc=0
00006680                                          4301+         DS    0FD
00006680                        00006680          4302+         USING *,R5              base for test data and test routine
00006680  000066B8                                4303+T110     DC    A(X110)           address of test routine
00006684  006E                                    4304+         DC    H'110'            test number
00006686  00                                      4305+         DC    X'00'
00006687  9F                                      4306+         DC    HL1'159'          i3
00006688  90                                      4307+         DC    HL1'144'          i4
00006689  01                                      4308+         DC    HL1'1'            m5
0000668A  02                                      4309+         DC    HL1'2'            cc
0000668B  0D                                      4310+         DC    HL1'13'           cc failed mask
0000668C  000066EC                                4311+V2_110   DC    A(RE110+16)       address of v2: 16-byte packed decimal
00006690  E5D7E2D6 D7404040                       4312+         DC    CL8'VPSOP'        instruction name
00006698  00000000 00000000                       4313+V1O110   DC    XL16'00'          V1 OUTPUT
000066A0  00000000 00000000
000066A8  00000000 00000000                       4314+CC110    DC    2F'0'                after instruction PWS (ie CC)
000066B0  00000010                                4315+         DC    A(16)             result length
000066B4  000066DC                                4316+REA110   DC    A(RE110)          result address
                                                  4317+*                                  INSTRUCTION UNDER TEST ROUTINE
000066B8                                          4318+X110     DS    0F
000066B8  E320 500C 0014                0000668C  4319+         LGF   R2,V2_110         get v2
000066BE  E722 0000 0006                00000000  4320+         VL    V2,0(R2)
000066C4  E612 9019 F05B                          4321+         VPSOP V1,V2,159,144,1    test instruction
000066CA  E710 5018 000E                00006698  4322+         VST   V1,V1O110         save result
000066D0  B98D 0020                               4323+         EPSW  R2,R0              exptract psw
000066D4  5020 5028                     000066A8  4324+         ST    R2,CC110                to save CC
000066D8  07FB                                    4325+         BR    R11               return
000066DC                                          4326+RE110    DC    0F
000066DC                                          4327+         DROP  R5
000066DC  00000000 00000000                       4328          DC    XL16'00000000000000000000002200000009'    V1
000066E4  00000022 00000009
000066EC  00000000 00000000                       4329          DC    XL16'00000000000000000000002200000009'    V2
000066F4  00000022 00000009
                                                  4330
                                                  4331          VRI_G VPSOP,159,146,1,2         nz=0  pc=1
00006700                                          4332+         DS    0FD
00006700                        00006700          4333+         USING *,R5              base for test data and test routine
00006700  00006738                                4334+T111     DC    A(X111)           address of test routine
00006704  006F                                    4335+         DC    H'111'            test number
00006706  00                                      4336+         DC    X'00'
00006707  9F                                      4337+         DC    HL1'159'          i3
00006708  92                                      4338+         DC    HL1'146'          i4
00006709  01                                      4339+         DC    HL1'1'            m5
0000670A  02                                      4340+         DC    HL1'2'            cc
0000670B  0D                                      4341+         DC    HL1'13'           cc failed mask
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000670C  0000676C                                 4342+V2_111   DC    A(RE111+16)       address of v2: 16-byte packed decimal
00006710  E5D7E2D6 D7404040                        4343+         DC    CL8'VPSOP'        instruction name
00006718  00000000 00000000                        4344+V1O111   DC    XL16'00'          V1 OUTPUT
00006720  00000000 00000000
00006728  00000000 00000000                        4345+CC111    DC    2F'0'                after instruction PWS (ie CC)
00006730  00000010                                 4346+         DC    A(16)             result length
00006734  0000675C                                 4347+REA111   DC    A(RE111)          result address
                                                   4348+*                                  INSTRUCTION UNDER TEST ROUTINE
00006738                                           4349+X111     DS    0F
00006738  E320 500C 0014                0000670C   4350+         LGF   R2,V2_111         get v2
0000673E  E722 0000 0006                00000000   4351+         VL    V2,0(R2)
00006744  E612 9219 F05B                           4352+         VPSOP V1,V2,159,146,1    test instruction
0000674A  E710 5018 000E                00006718   4353+         VST   V1,V1O111         save result
00006750  B98D 0020                                4354+         EPSW  R2,R0             exptract psw
00006754  5020 5028                     00006728   4355+         ST    R2,CC111               to save CC
00006758  07FB                                     4356+         BR    R11               return
0000675C                                           4357+RE111    DC    0F
0000675C                                           4358+         DROP  R5
0000675C  00000000 00000000                        4359          DC    XL16'00000000000000000000002200000009'    V1
00006764  00000022 00000009
0000676C  00000000 00000000                        4360          DC    XL16'00000000000000000000002200000009'    V2
00006774  00000022 00000009
                                                   4361
                                                   4362          VRI_G VPSOP,159,208,1,2         nz=1  pc=0
00006780                                           4363+         DS    0FD
00006780                        00006780           4364+         USING *,R5              base for test data and test routine
00006780  000067B8                                 4365+T112     DC    A(X112)           address of test routine
00006784  0070                                     4366+         DC    H'112'            test number
00006786  00                                       4367+         DC    X'00'
00006787  9F                                       4368+         DC    HL1'159'          i3
00006788  D0                                       4369+         DC    HL1'208'          i4
00006789  01                                       4370+         DC    HL1'1'            m5
0000678A  02                                       4371+         DC    HL1'2'            cc
0000678B  0D                                       4372+         DC    HL1'13'           cc failed mask
0000678C  000067EC                                 4373+V2_112   DC    A(RE112+16)       address of v2: 16-byte packed decimal
00006790  E5D7E2D6 D7404040                        4374+         DC    CL8'VPSOP'        instruction name
00006798  00000000 00000000                        4375+V1O112   DC    XL16'00'          V1 OUTPUT
000067A0  00000000 00000000
000067A8  00000000 00000000                        4376+CC112    DC    2F'0'                after instruction PWS (ie CC)
000067B0  00000010                                 4377+         DC    A(16)             result length
000067B4  000067DC                                 4378+REA112   DC    A(RE112)          result address
                                                   4379+*                                  INSTRUCTION UNDER TEST ROUTINE
000067B8                                           4380+X112     DS    0F
000067B8  E320 500C 0014                0000678C   4381+         LGF   R2,V2_112         get v2
000067BE  E722 0000 0006                00000000   4382+         VL    V2,0(R2)
000067C4  E612 D019 F05B                           4383+         VPSOP V1,V2,159,208,1    test instruction
000067CA  E710 5018 000E                00006798   4384+         VST   V1,V1O112         save result
000067D0  B98D 0020                                4385+         EPSW  R2,R0             exptract psw
000067D4  5020 5028                     000067A8   4386+         ST    R2,CC112               to save CC
000067D8  07FB                                     4387+         BR    R11               return
000067DC                                           4388+RE112    DC    0F
000067DC                                           4389+         DROP  R5
000067DC  00000000 00000000                        4390          DC    XL16'00000000000000000000002200000009'    V1
000067E4  00000022 00000009
000067EC  00000000 00000000                        4391          DC    XL16'00000000000000000000002200000009'    V2
000067F4  00000022 00000009
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                   4392
                                                   4393          VRI_G VPSOP,159,210,1,2         nz=1  pc=1
00006800                                           4394+         DS    0FD
00006800                     00006800              4395+         USING *,R5              base for test data and test routine
00006800  00006838                                 4396+T113     DC    A(X113)           address of test routine
00006804  0071                                     4397+         DC    H'113'            test number
00006806  00                                       4398+         DC    X'00'
00006807  9F                                       4399+         DC    HL1'159'          i3
00006808  D2                                       4400+         DC    HL1'210'          i4
00006809  01                                       4401+         DC    HL1'1'            m5
0000680A  02                                       4402+         DC    HL1'2'            cc
0000680B  0D                                       4403+         DC    HL1'13'           cc failed mask
0000680C  0000686C                                 4404+V2_113   DC    A(RE113+16)       address of v2: 16-byte packed decimal
00006810  E5D7E2D6 D7404040                        4405+         DC    CL8'VPSOP'        instruction name
00006818  00000000 00000000                        4406+V1O113   DC    XL16'00'          V1 OUTPUT
00006820  00000000 00000000
00006828  00000000 00000000                        4407+CC113    DC    2F'0'                after instruction PWS (ie CC)
00006830  00000010                                 4408+         DC    A(16)             result length
00006834  0000685C                                 4409+REA113   DC    A(RE113)          result address
                                                   4410+*                                  INSTRUCTION UNDER TEST ROUTINE
00006838                                           4411+X113     DS    0F
00006838  E320 500C 0014                0000680C   4412+         LGF   R2,V2_113         get v2
0000683E  E722 0000 0006                00000000   4413+         VL    V2,0(R2)
00006844  E612 D219 F05B                           4414+         VPSOP V1,V2,159,210,1    test instruction
0000684A  E710 5018 000E                00006818   4415+         VST   V1,V1O113         save result
00006850  B98D 0020                                4416+         EPSW  R2,R0             exptract psw
00006854  5020 5028                     00006828   4417+         ST    R2,CC113               to save CC
00006858  07FB                                     4418+         BR    R11               return
0000685C                                           4419+RE113    DC    0F
0000685C                                           4420+         DROP  R5
0000685C  00000000 00000000                        4421          DC    XL16'00000000000000000000002200000009'    V1
00006864  00000022 00000009
0000686C  00000000 00000000                        4422          DC    XL16'00000000000000000000002200000009'    V2
00006874  00000022 00000009
                                                   4423
                                                   4424 * V1:zero  V2:positive   PC='0' NZ='â€“'              V1_sign=C  CC=0
                                                   4425          VRI_G VPSOP,159,144,1,0         nz=0  pc=0
00006880                                           4426+         DS    0FD
00006880                     00006880              4427+         USING *,R5              base for test data and test routine
00006880  000068B8                                 4428+T114     DC    A(X114)           address of test routine
00006884  0072                                     4429+         DC    H'114'            test number
00006886  00                                       4430+         DC    X'00'
00006887  9F                                       4431+         DC    HL1'159'          i3
00006888  90                                       4432+         DC    HL1'144'          i4
00006889  01                                       4433+         DC    HL1'1'            m5
0000688A  00                                       4434+         DC    HL1'0'            cc
0000688B  07                                       4435+         DC    HL1'7'            cc failed mask
0000688C  000068EC                                 4436+V2_114   DC    A(RE114+16)       address of v2: 16-byte packed decimal
00006890  E5D7E2D6 D7404040                        4437+         DC    CL8'VPSOP'        instruction name
00006898  00000000 00000000                        4438+V1O114   DC    XL16'00'          V1 OUTPUT
000068A0  00000000 00000000
000068A8  00000000 00000000                        4439+CC114    DC    2F'0'                after instruction PWS (ie CC)
000068B0  00000010                                 4440+         DC    A(16)             result length
000068B4  000068DC                                 4441+REA114   DC    A(RE114)          result address
                                                   4442+*                                  INSTRUCTION UNDER TEST ROUTINE
000068B8                                           4443+X114     DS    0F
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000068B8  E320 500C 0014                0000688C  4444+         LGF   R2,V2_114         get v2
000068BE  E722 0000 0006                00000000  4445+         VL    V2,0(R2)
000068C4  E612 9019 F05B                          4446+         VPSOP V1,V2,159,144,1    test instruction
000068CA  E710 5018 000E                00006898  4447+         VST   V1,V1O114         save result
000068D0  B98D 0020                               4448+         EPSW  R2,R0             exptract psw
000068D4  5020 5028                     000068A8  4449+         ST    R2,CC114               to save CC
000068D8  07FB                                    4450+         BR    R11               return
000068DC                                          4451+RE114    DC    0F
000068DC                                          4452+         DROP  R5
000068DC  00000000 00000000                       4453          DC    XL16'0000000000000000000000000000000F'    V1
000068E4  00000000 0000000F
000068EC  00000000 00000000                       4454          DC    XL16'0000000000000000000000000000000F'    V2
000068F4  00000000 0000000F
                                                  4455
                                                  4456          VRI_G VPSOP,159,208,1,0         nz=1  pc=0
00006900                                          4457+         DS    0FD
00006900                        00006900          4458+         USING *,R5              base for test data and test routine
00006900  00006938                                4459+T115     DC    A(X115)           address of test routine
00006904  0073                                    4460+         DC    H'115'            test number
00006906  00                                      4461+         DC    X'00'
00006907  9F                                      4462+         DC    HL1'159'          i3
00006908  D0                                      4463+         DC    HL1'208'          i4
00006909  01                                      4464+         DC    HL1'1'            m5
0000690A  00                                      4465+         DC    HL1'0'            cc
0000690B  07                                      4466+         DC    HL1'7'            cc failed mask
0000690C  0000696C                                4467+V2_115   DC    A(RE115+16)       address of v2: 16-byte packed decimal
00006910  E5D7E2D6 D7404040                       4468+         DC    CL8'VPSOP'        instruction name
00006918  00000000 00000000                       4469+V1O115   DC    XL16'00'          V1 OUTPUT
00006920  00000000 00000000
00006928  00000000 00000000                       4470+CC115    DC    2F'0'                after instruction PWS (ie CC)
00006930  00000010                                4471+         DC    A(16)             result length
00006934  0000695C                                4472+REA115   DC    A(RE115)          result address
                                                  4473+*                                  INSTRUCTION UNDER TEST ROUTINE
00006938                                          4474+X115     DS    0F
00006938  E320 500C 0014                0000690C  4475+         LGF   R2,V2_115         get v2
0000693E  E722 0000 0006                00000000  4476+         VL    V2,0(R2)
00006944  E612 D019 F05B                          4477+         VPSOP V1,V2,159,208,1    test instruction
0000694A  E710 5018 000E                00006918  4478+         VST   V1,V1O115         save result
00006950  B98D 0020                               4479+         EPSW  R2,R0             exptract psw
00006954  5020 5028                     00006928  4480+         ST    R2,CC115               to save CC
00006958  07FB                                    4481+         BR    R11               return
0000695C                                          4482+RE115    DC    0F
0000695C                                          4483+         DROP  R5
0000695C  00000000 00000000                       4484          DC    XL16'0000000000000000000000000000000F'    V1
00006964  00000000 0000000F
0000696C  00000000 00000000                       4485          DC    XL16'0000000000000000000000000000000F'    V2
00006974  00000000 0000000F
                                                  4486
                                                  4487 * V1:zero  V2:positive   PC='1' NZ='â€“'              V1_sign=F  CC=0
                                                  4488          VRI_G VPSOP,159,146,1,0         nz=0  pc=1
00006980                                          4489+         DS    0FD
00006980                        00006980          4490+         USING *,R5              base for test data and test routine
00006980  000069B8                                4491+T116     DC    A(X116)           address of test routine
00006984  0074                                    4492+         DC    H'116'            test number
00006986  00                                      4493+         DC    X'00'
00006987  9F                                      4494+         DC    HL1'159'          i3
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006988  92                                       4495+         DC    HL1'146'          i4
00006989  01                                       4496+         DC    HL1'1'            m5
0000698A  00                                       4497+         DC    HL1'0'            cc
0000698B  07                                       4498+         DC    HL1'7'            cc failed mask
0000698C  000069EC                                 4499+V2_116   DC    A(RE116+16)       address of v2: 16-byte packed decimal
00006990  E5D7E2D6 D7404040                        4500+         DC    CL8'VPSOP'        instruction name
00006998  00000000 00000000                        4501+V1O116   DC    XL16'00'          V1 OUTPUT
000069A0  00000000 00000000
000069A8  00000000 00000000                        4502+CC116    DC    2F'0'                after instruction PWS (ie CC)
000069B0  00000010                                 4503+         DC    A(16)             result length
000069B4  000069DC                                 4504+REA116   DC    A(RE116)          result address
                                                   4505+*                                  INSTRUCTION UNDER TEST ROUTINE
000069B8                                           4506+X116     DS    0F
000069B8  E320 500C 0014                 0000698C  4507+         LGF   R2,V2_116         get v2
000069BE  E722 0000 0006                 00000000  4508+         VL    V2,0(R2)
000069C4  E612 9219 F05B                           4509+         VPSOP V1,V2,159,146,1    test instruction
000069CA  E710 5018 000E                 00006998  4510+         VST   V1,V1O116         save result
000069D0  B98D 0020                                4511+         EPSW  R2,R0             exptract psw
000069D4  5020 5028                      000069A8  4512+         ST    R2,CC116               to save CC
000069D8  07FB                                     4513+         BR    R11               return
000069DC                                           4514+RE116    DC    0F
000069DC                                           4515+         DROP  R5
000069DC  00000000 00000000                        4516          DC    XL16'0000000000000000000000000000000C'    V1
000069E4  00000000 0000000C
000069EC  00000000 00000000                        4517          DC    XL16'0000000000000000000000000000000C'    V2
000069F4  00000000 0000000C
                                                   4518
                                                   4519          VRI_G VPSOP,159,210,1,0         nz=1  pc=1
00006A00                                           4520+         DS    0FD
00006A00                         00006A00          4521+         USING *,R5              base for test data and test routine
00006A00  00006A38                                 4522+T117     DC    A(X117)           address of test routine
00006A04  0075                                     4523+         DC    H'117'            test number
00006A06  00                                       4524+         DC    X'00'
00006A07  9F                                       4525+         DC    HL1'159'          i3
00006A08  D2                                       4526+         DC    HL1'210'          i4
00006A09  01                                       4527+         DC    HL1'1'            m5
00006A0A  00                                       4528+         DC    HL1'0'            cc
00006A0B  07                                       4529+         DC    HL1'7'            cc failed mask
00006A0C  00006A6C                                 4530+V2_117   DC    A(RE117+16)       address of v2: 16-byte packed decimal
00006A10  E5D7E2D6 D7404040                        4531+         DC    CL8'VPSOP'        instruction name
00006A18  00000000 00000000                        4532+V1O117   DC    XL16'00'          V1 OUTPUT
00006A20  00000000 00000000
00006A28  00000000 00000000                        4533+CC117    DC    2F'0'                after instruction PWS (ie CC)
00006A30  00000010                                 4534+         DC    A(16)             result length
00006A34  00006A5C                                 4535+REA117   DC    A(RE117)          result address
                                                   4536+*                                  INSTRUCTION UNDER TEST ROUTINE
00006A38                                           4537+X117     DS    0F
00006A38  E320 500C 0014                 00006A0C  4538+         LGF   R2,V2_117         get v2
00006A3E  E722 0000 0006                 00000000  4539+         VL    V2,0(R2)
00006A44  E612 D219 F05B                           4540+         VPSOP V1,V2,159,210,1    test instruction
00006A4A  E710 5018 000E                 00006A18  4541+         VST   V1,V1O117         save result
00006A50  B98D 0020                                4542+         EPSW  R2,R0             exptract psw
00006A54  5020 5028                      00006A28  4543+         ST    R2,CC117               to save CC
00006A58  07FB                                     4544+         BR    R11               return
00006A5C                                           4545+RE117    DC    0F
00006A5C                                           4546+         DROP  R5
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006A5C  00000000 00000000                        4547          DC    XL16'00000000000000000000000000000000C'    V1
00006A64  00000000 0000000C
00006A6C  00000000 00000000                        4548          DC    XL16'00000000000000000000000000000000C'    V2
00006A74  00000000 0000000C
                                                   4549
                                                   4550 * V1:zero  V2:negative   PC='0' NZ='0'              V1_sign=C  CC=0
                                                   4551          VRI_G VPSOP,159,144,1,0         nz=0  pc=0
00006A80                                           4552+         DS    0FD
00006A80                       00006A80            4553+         USING *,R5              base for test data and test routine
00006A80  00006AB8                                 4554+T118     DC    A(X118)           address of test routine
00006A84  0076                                     4555+         DC    H'118'            test number
00006A86  00                                       4556+         DC    X'00'
00006A87  9F                                       4557+         DC    HL1'159'          i3
00006A88  90                                       4558+         DC    HL1'144'          i4
00006A89  01                                       4559+         DC    HL1'1'            m5
00006A8A  00                                       4560+         DC    HL1'0'            cc
00006A8B  07                                       4561+         DC    HL1'7'            cc failed mask
00006A8C  00006AEC                                 4562+V2_118   DC    A(RE118+16)       address of v2: 16-byte packed decimal
00006A90  E5D7E2D6 D7404040                        4563+         DC    CL8'VPSOP'        instruction name
00006A98  00000000 00000000                        4564+V1O118   DC    XL16'00'          V1 OUTPUT
00006AA0  00000000 00000000
00006AA8  00000000 00000000                        4565+CC118    DC    2F'0'                after instruction PWS (ie CC)
00006AB0  00000010                                 4566+         DC    A(16)             result length
00006AB4  00006ADC                                 4567+REA118   DC    A(RE118)          result address
                                                   4568+*                                  INSTRUCTION UNDER TEST ROUTINE
00006AB8                                           4569+X118     DS    0F
00006AB8  E320 500C 0014                00006A8C   4570+         LGF   R2,V2_118         get v2
00006ABE  E722 0000 0006                00000000   4571+         VL    V2,0(R2)
00006AC4  E612 9019 F05B                           4572+         VPSOP V1,V2,159,144,1    test instruction
00006ACA  E710 5018 000E                00006A98   4573+         VST   V1,V1O118         save result
00006AD0  B98D 0020                                4574+         EPSW  R2,R0             exptract psw
00006AD4  5020 5028                     00006AA8   4575+         ST    R2,CC118               to save CC
00006AD8  07FB                                     4576+         BR    R11               return
00006ADC                                           4577+RE118    DC    0F
00006ADC                                           4578+         DROP  R5
00006ADC  00000000 00000000                        4579          DC    XL16'00000000000000000000000000000000D'    V1
00006AE4  00000000 0000000D
00006AEC  00000000 00000000                        4580          DC    XL16'00000000000000000000000000000000D'    V2
00006AF4  00000000 0000000D
                                                   4581
                                                   4582 * V1:zero  V2:negative   PC='1' NZ='0'              V1_sign=F  CC=0
                                                   4583          VRI_G VPSOP,159,146,1,0         nz=0  pc=1
00006B00                                           4584+         DS    0FD
00006B00                       00006B00            4585+         USING *,R5              base for test data and test routine
00006B00  00006B38                                 4586+T119     DC    A(X119)           address of test routine
00006B04  0077                                     4587+         DC    H'119'            test number
00006B06  00                                       4588+         DC    X'00'
00006B07  9F                                       4589+         DC    HL1'159'          i3
00006B08  92                                       4590+         DC    HL1'146'          i4
00006B09  01                                       4591+         DC    HL1'1'            m5
00006B0A  00                                       4592+         DC    HL1'0'            cc
00006B0B  07                                       4593+         DC    HL1'7'            cc failed mask
00006B0C  00006B6C                                 4594+V2_119   DC    A(RE119+16)       address of v2: 16-byte packed decimal
00006B10  E5D7E2D6 D7404040                        4595+         DC    CL8'VPSOP'        instruction name
00006B18  00000000 00000000                        4596+V1O119   DC    XL16'00'          V1 OUTPUT
00006B20  00000000 00000000
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006B28  00000000 00000000                        4597+CC119    DC    2F'0'                 after instruction PWS (ie CC)
00006B30  00000010                                 4598+         DC    A(16)               result length
00006B34  00006B5C                                 4599+REA119   DC    A(RE119)            result address
                                                   4600+*                                    INSTRUCTION UNDER TEST ROUTINE
00006B38                                           4601+X119     DS    0F
00006B38  E320 500C 0014                 00006B0C  4602+         LGF   R2,V2_119           get v2
00006B3E  E722 0000 0006                 00000000  4603+         VL    V2,0(R2)
00006B44  E612 9219 F05B                           4604+         VPSOP V1,V2,159,146,1     test instruction
00006B4A  E710 5018 000E                 00006B18  4605+         VST   V1,V1O119           save result
00006B50  B98D 0020                                4606+         EPSW  R2,R0               exptract psw
00006B54  5020 5028                      00006B28  4607+         ST    R2,CC119                to save CC
00006B58  07FB                                     4608+         BR    R11                 return
00006B5C                                           4609+RE119    DC    0F
00006B5C                                           4610+         DROP  R5
00006B5C  00000000 00000000                        4611          DC    XL16'00000000000000000000000000000000D'    V1
00006B64  00000000 0000000D
00006B6C  00000000 00000000                        4612          DC    XL16'00000000000000000000000000000000D'    V2
00006B74  00000000 0000000D
                                                   4613
                                                   4614 * V1:zero  V2:negative   PC='-' NZ='1'              V1_sign=D  CC=0
                                                   4615          VRI_G VPSOP,159,208,1,0         nz=1  pc=0
00006B80                                           4616+         DS    0FD
00006B80                         00006B80          4617+         USING *,R5                base for test data and test routine
00006B80  00006BB8                                 4618+T120     DC    A(X120)             address of test routine
00006B84  0078                                     4619+         DC    H'120'              test number
00006B86  00                                       4620+         DC    X'00'
00006B87  9F                                       4621+         DC    HL1'159'            i3
00006B88  D0                                       4622+         DC    HL1'208'            i4
00006B89  01                                       4623+         DC    HL1'1'              m5
00006B8A  00                                       4624+         DC    HL1'0'              cc
00006B8B  07                                       4625+         DC    HL1'7'              cc failed mask
00006B8C  00006BEC                                 4626+V2_120   DC    A(RE120+16)         address of v2: 16-byte packed decimal
00006B90  E5D7E2D6 D7404040                        4627+         DC    CL8'VPSOP'          instruction name
00006B98  00000000 00000000                        4628+V1O120   DC    XL16'00'            V1 OUTPUT
00006BA0  00000000 00000000
00006BA8  00000000 00000000                        4629+CC120    DC    2F'0'                 after instruction PWS (ie CC)
00006BB0  00000010                                 4630+         DC    A(16)               result length
00006BB4  00006BDC                                 4631+REA120   DC    A(RE120)            result address
                                                   4632+*                                    INSTRUCTION UNDER TEST ROUTINE
00006BB8                                           4633+X120     DS    0F
00006BB8  E320 500C 0014                 00006B8C  4634+         LGF   R2,V2_120           get v2
00006BBE  E722 0000 0006                 00000000  4635+         VL    V2,0(R2)
00006BC4  E612 D019 F05B                           4636+         VPSOP V1,V2,159,208,1     test instruction
00006BCA  E710 5018 000E                 00006B98  4637+         VST   V1,V1O120           save result
00006BD0  B98D 0020                                4638+         EPSW  R2,R0               exptract psw
00006BD4  5020 5028                      00006BA8  4639+         ST    R2,CC120                to save CC
00006BD8  07FB                                     4640+         BR    R11                 return
00006BDC                                           4641+RE120    DC    0F
00006BDC                                           4642+         DROP  R5
00006BDC  00000000 00000000                        4643          DC    XL16'00000000000000000000000000000000B'    V1
00006BE4  00000000 0000000B
00006BEC  00000000 00000000                        4644          DC    XL16'00000000000000000000000000000000B'    V2
00006BF4  00000000 0000000B
                                                   4645
                                                   4646          VRI_G VPSOP,159,210,1,0         nz=1  pc=1
00006C00                                           4647+         DS    0FD
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006C00                     00006C00             4648+         USING *,R5              base for test data and test routine
00006C00  00006C38                                4649+T121     DC    A(X121)           address of test routine
00006C04  0079                                    4650+         DC    H'121'            test number
00006C06  00                                      4651+         DC    X'00'
00006C07  9F                                      4652+         DC    HL1'159'          i3
00006C08  D2                                      4653+         DC    HL1'210'          i4
00006C09  01                                      4654+         DC    HL1'1'            m5
00006C0A  00                                      4655+         DC    HL1'0'            cc
00006C0B  07                                      4656+         DC    HL1'7'            cc failed mask
00006C0C  00006C6C                                4657+V2_121   DC    A(RE121+16)       address of v2: 16-byte packed decimal
00006C10  E5D7E2D6 D7404040                       4658+         DC    CL8'VPSOP'        instruction name
00006C18  00000000 00000000                       4659+V1O121   DC    XL16'00'          V1 OUTPUT
00006C20  00000000 00000000
00006C28  00000000 00000000                       4660+CC121    DC    2F'0'                after instruction PWS (ie CC)
00006C30  00000010                                4661+         DC    A(16)             result length
00006C34  00006C5C                                4662+REA121   DC    A(RE121)          result address
                                                  4663+*                                  INSTRUCTION UNDER TEST ROUTINE
00006C38                                          4664+X121     DS    0F
00006C38  E320 500C 0014               00006C0C   4665+         LGF   R2,V2_121         get v2
00006C3E  E722 0000 0006               00000000   4666+         VL    V2,0(R2)
00006C44  E612 D219 F05B                          4667+         VPSOP V1,V2,159,210,1    test instruction
00006C4A  E710 5018 000E               00006C18   4668+         VST   V1,V1O121         save result
00006C50  B98D 0020                               4669+         EPSW  R2,R0             exptract psw
00006C54  5020 5028                    00006C28   4670+         ST    R2,CC121               to save CC
00006C58  07FB                                    4671+         BR    R11               return
00006C5C                                          4672+RE121    DC    0F
00006C5C                                          4673+         DROP  R5
00006C5C  00000000 00000000                       4674          DC    XL16'00000000000000000000000000000000B'    V1
00006C64  00000000 0000000B
00006C6C  00000000 00000000                       4675          DC    XL16'00000000000000000000000000000000B'    V2
00006C74  00000000 0000000B
                                                  4676
                                                  4677 * V1:zero  V2:invalid   PC='-' NZ='â€“'              V1_sign=V2  CC=0
                                                  4678          VRI_G VPSOP,159,144,1,0         nz=0  pc=0
00006C80                                          4679+         DS    0FD
00006C80                     00006C80             4680+         USING *,R5              base for test data and test routine
00006C80  00006CB8                                4681+T122     DC    A(X122)           address of test routine
00006C84  007A                                    4682+         DC    H'122'            test number
00006C86  00                                      4683+         DC    X'00'
00006C87  9F                                      4684+         DC    HL1'159'          i3
00006C88  90                                      4685+         DC    HL1'144'          i4
00006C89  01                                      4686+         DC    HL1'1'            m5
00006C8A  00                                      4687+         DC    HL1'0'            cc
00006C8B  07                                      4688+         DC    HL1'7'            cc failed mask
00006C8C  00006CEC                                4689+V2_122   DC    A(RE122+16)       address of v2: 16-byte packed decimal
00006C90  E5D7E2D6 D7404040                       4690+         DC    CL8'VPSOP'        instruction name
00006C98  00000000 00000000                       4691+V1O122   DC    XL16'00'          V1 OUTPUT
00006CA0  00000000 00000000
00006CA8  00000000 00000000                       4692+CC122    DC    2F'0'                after instruction PWS (ie CC)
00006CB0  00000010                                4693+         DC    A(16)             result length
00006CB4  00006CDC                                4694+REA122   DC    A(RE122)          result address
                                                  4695+*                                  INSTRUCTION UNDER TEST ROUTINE
00006CB8                                          4696+X122     DS    0F
00006CB8  E320 500C 0014               00006C8C   4697+         LGF   R2,V2_122         get v2
00006CBE  E722 0000 0006               00000000   4698+         VL    V2,0(R2)
00006CC4  E612 9019 F05B                          4699+         VPSOP V1,V2,159,144,1    test instruction
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006CCA  E710 5018 000E                00006C98  4700+         VST   V1,V1O122         save result
00006CD0  B98D 0020                               4701+         EPSW  R2,R0             exptract psw
00006CD4  5020 5028                     00006CA8  4702+         ST    R2,CC122               to save CC
00006CD8  07FB                                    4703+         BR    R11               return
00006CDC                                          4704+RE122    DC    0F
00006CDC                                          4705+         DROP  R5
00006CDC  00000000 00000000                       4706          DC    XL16'00000000000000000000000000000009'    V1
00006CE4  00000000 00000009
00006CEC  00000000 00000000                       4707          DC    XL16'00000000000000000000000000000009'    V2
00006CF4  00000000 00000009
                                                  4708
                                                  4709          VRI_G VPSOP,159,146,1,0         nz=0  pc=1
00006D00                                          4710+         DS    0FD
00006D00                        00006D00          4711+         USING *,R5              base for test data and test routine
00006D00  00006D38                                4712+T123     DC    A(X123)           address of test routine
00006D04  007B                                    4713+         DC    H'123'            test number
00006D06  00                                      4714+         DC    X'00'
00006D07  9F                                      4715+         DC    HL1'159'          i3
00006D08  92                                      4716+         DC    HL1'146'          i4
00006D09  01                                      4717+         DC    HL1'1'            m5
00006D0A  00                                      4718+         DC    HL1'0'            cc
00006D0B  07                                      4719+         DC    HL1'7'            cc failed mask
00006D0C  00006D6C                                4720+V2_123   DC    A(RE123+16)       address of v2: 16-byte packed decimal
00006D10  E5D7E2D6 D7404040                       4721+         DC    CL8'VPSOP'        instruction name
00006D18  00000000 00000000                       4722+V1O123   DC    XL16'00'          V1 OUTPUT
00006D20  00000000 00000000
00006D28  00000000 00000000                       4723+CC123    DC    2F'0'                after instruction PWS (ie CC)
00006D30  00000010                                4724+         DC    A(16)             result length
00006D34  00006D5C                                4725+REA123   DC    A(RE123)          result address
                                                  4726+*                                  INSTRUCTION UNDER TEST ROUTINE
00006D38                                          4727+X123     DS    0F
00006D38  E320 500C 0014                00006D0C  4728+         LGF   R2,V2_123         get v2
00006D3E  E722 0000 0006                00000000  4729+         VL    V2,0(R2)
00006D44  E612 9219 F05B                          4730+         VPSOP V1,V2,159,146,1    test instruction
00006D4A  E710 5018 000E                00006D18  4731+         VST   V1,V1O123         save result
00006D50  B98D 0020                               4732+         EPSW  R2,R0             exptract psw
00006D54  5020 5028                     00006D28  4733+         ST    R2,CC123               to save CC
00006D58  07FB                                    4734+         BR    R11               return
00006D5C                                          4735+RE123    DC    0F
00006D5C                                          4736+         DROP  R5
00006D5C  00000000 00000000                       4737          DC    XL16'00000000000000000000000000000009'    V1
00006D64  00000000 00000009
00006D6C  00000000 00000000                       4738          DC    XL16'00000000000000000000000000000009'    V2
00006D74  00000000 00000009
                                                  4739
                                                  4740          VRI_G VPSOP,159,208,1,0         nz=1  pc=0
00006D80                                          4741+         DS    0FD
00006D80                        00006D80          4742+         USING *,R5              base for test data and test routine
00006D80  00006DB8                                4743+T124     DC    A(X124)           address of test routine
00006D84  007C                                    4744+         DC    H'124'            test number
00006D86  00                                      4745+         DC    X'00'
00006D87  9F                                      4746+         DC    HL1'159'          i3
00006D88  D0                                      4747+         DC    HL1'208'          i4
00006D89  01                                      4748+         DC    HL1'1'            m5
00006D8A  00                                      4749+         DC    HL1'0'            cc
00006D8B  07                                      4750+         DC    HL1'7'            cc failed mask
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006D8C  00006DEC                                 4751+V2_124   DC    A(RE124+16)       address of v2: 16-byte packed decimal
00006D90  E5D7E2D6 D7404040                        4752+         DC    CL8'VPSOP'        instruction name
00006D98  00000000 00000000                        4753+V1O124   DC    XL16'00'          V1 OUTPUT
00006DA0  00000000 00000000
00006DA8  00000000 00000000                        4754+CC124    DC    2F'0'                after instruction PWS (ie CC)
00006DB0  00000010                                 4755+         DC    A(16)             result length
00006DB4  00006DDC                                 4756+REA124   DC    A(RE124)          result address
                                                   4757+*                                  INSTRUCTION UNDER TEST ROUTINE
00006DB8                                           4758+X124     DS    0F
00006DB8  E320 500C 0014                00006D8C   4759+         LGF   R2,V2_124         get v2
00006DBE  E722 0000 0006                00000000   4760+         VL    V2,0(R2)
00006DC4  E612 D019 F05B                           4761+         VPSOP V1,V2,159,208,1    test instruction
00006DCA  E710 5018 000E                00006D98   4762+         VST   V1,V1O124         save result
00006DD0  B98D 0020                                4763+         EPSW  R2,R0             exptract psw
00006DD4  5020 5028                     00006DA8   4764+         ST    R2,CC124               to save CC
00006DD8  07FB                                     4765+         BR    R11               return
00006DDC                                           4766+RE124    DC    0F
00006DDC                                           4767+         DROP  R5
00006DDC  00000000 00000000                        4768          DC    XL16'00000000000000000000000000000009'    V1
00006DE4  00000000 00000009
00006DEC  00000000 00000000                        4769          DC    XL16'00000000000000000000000000000009'    V2
00006DF4  00000000 00000009
                                                   4770
                                                   4771          VRI_G VPSOP,159,210,1,0         nz=1  pc=1
00006E00                                           4772+         DS    0FD
00006E00                        00006E00           4773+         USING *,R5              base for test data and test routine
00006E00  00006E38                                 4774+T125     DC    A(X125)           address of test routine
00006E04  007D                                     4775+         DC    H'125'            test number
00006E06  00                                       4776+         DC    X'00'
00006E07  9F                                       4777+         DC    HL1'159'          i3
00006E08  D2                                       4778+         DC    HL1'210'          i4
00006E09  01                                       4779+         DC    HL1'1'            m5
00006E0A  00                                       4780+         DC    HL1'0'            cc
00006E0B  07                                       4781+         DC    HL1'7'            cc failed mask
00006E0C  00006E6C                                 4782+V2_125   DC    A(RE125+16)       address of v2: 16-byte packed decimal
00006E10  E5D7E2D6 D7404040                        4783+         DC    CL8'VPSOP'        instruction name
00006E18  00000000 00000000                        4784+V1O125   DC    XL16'00'          V1 OUTPUT
00006E20  00000000 00000000
00006E28  00000000 00000000                        4785+CC125    DC    2F'0'                after instruction PWS (ie CC)
00006E30  00000010                                 4786+         DC    A(16)             result length
00006E34  00006E5C                                 4787+REA125   DC    A(RE125)          result address
                                                   4788+*                                  INSTRUCTION UNDER TEST ROUTINE
00006E38                                           4789+X125     DS    0F
00006E38  E320 500C 0014                00006E0C   4790+         LGF   R2,V2_125         get v2
00006E3E  E722 0000 0006                00000000   4791+         VL    V2,0(R2)
00006E44  E612 D219 F05B                           4792+         VPSOP V1,V2,159,210,1    test instruction
00006E4A  E710 5018 000E                00006E18   4793+         VST   V1,V1O125         save result
00006E50  B98D 0020                                4794+         EPSW  R2,R0             exptract psw
00006E54  5020 5028                     00006E28   4795+         ST    R2,CC125               to save CC
00006E58  07FB                                     4796+         BR    R11               return
00006E5C                                           4797+RE125    DC    0F
00006E5C                                           4798+         DROP  R5
00006E5C  00000000 00000000                        4799          DC    XL16'00000000000000000000000000000009'    V1
00006E64  00000000 00000009
00006E6C  00000000 00000000                        4800          DC    XL16'00000000000000000000000000000009'    V2
00006E74  00000000 00000009
```

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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                   4801
                                                   4802 *-------------------------------------------------
                                                   4803 * cc=3 (overflow) tests with rdc=4
                                                   4804 *-------------------------------------------------
                                                   4805 * V1:zero  V2:positive   PC='0' NZ='â€“'             V1_sign=C  CC=0
                                                   4806          VRI_G VPSOP,132,144,1,3         nz=0  pc=0
00006E80                                           4807+         DS    0FD
00006E80                       00006E80            4808+         USING *,R5              base for test data and test routine
00006E80  00006EB8                                 4809+T126     DC    A(X126)           address of test routine
00006E84  007E                                     4810+         DC    H'126'            test number
00006E86  00                                       4811+         DC    X'00'
00006E87  84                                       4812+         DC    HL1'132'          i3
00006E88  90                                       4813+         DC    HL1'144'          i4
00006E89  01                                       4814+         DC    HL1'1'            m5
00006E8A  03                                       4815+         DC    HL1'3'            cc
00006E8B  0E                                       4816+         DC    HL1'14'           cc failed mask
00006E8C  00006EEC                                 4817+V2_126   DC    A(RE126+16)       address of v2: 16-byte packed decimal
00006E90  E5D7E2D6 D7404040                        4818+         DC    CL8'VPSOP'        instruction name
00006E98  00000000 00000000                        4819+V1O126   DC    XL16'00'          V1 OUTPUT
00006EA0  00000000 00000000
00006EA8  00000000 00000000                        4820+CC126    DC    2F'0'                after instruction PWS (ie CC)
00006EB0  00000010                                 4821+         DC    A(16)             result length
00006EB4  00006EDC                                 4822+REA126   DC    A(RE126)          result address
                                                   4823+*                                  INSTRUCTION UNDER TEST ROUTINE
00006EB8                                           4824+X126     DS    0F
00006EB8  E320 500C 0014                00006E8C   4825+         LGF   R2,V2_126         get v2
00006EBE  E722 0000 0006                00000000   4826+         VL    V2,0(R2)
00006EC4  E612 9018 405B                           4827+         VPSOP V1,V2,132,144,1    test instruction
00006ECA  E710 5018 000E                00006E98   4828+         VST   V1,V1O126         save result
00006ED0  B98D 0020                                4829+         EPSW  R2,R0             exptract psw
00006ED4  5020 5028                     00006EA8   4830+         ST    R2,CC126               to save CC
00006ED8  07FB                                     4831+         BR    R11               return
00006EDC                                           4832+RE126    DC    0F
00006EDC                                           4833+         DROP  R5
00006EDC  00000000 00000000                        4834          DC    XL16'000000000000000000000000000000F'    V1
00006EE4  00000000 0000000F
00006EEC  00000000 00009990                        4835          DC    XL16'000000000000999000000000000000F'    V2
00006EF4  00000000 0000000F
                                                   4836
                                                   4837 *-------------------------------------------------
                                                   4838 * cc=3 (overflow) tests with rdc=7
                                                   4839 *-------------------------------------------------
                                                   4840 * SC=00 (maintain): nv=1 to avoid data exceptions
                                                   4841 * V1:nonzero V2:positive   PC='0' NZ='â€“'           V1_sign=C  CC=2
                                                   4842          VRI_G VPSOP,135,144,1,3         nz=0
00006F00                                           4843+         DS    0FD
00006F00                       00006F00            4844+         USING *,R5              base for test data and test routine
00006F00  00006F38                                 4845+T127     DC    A(X127)           address of test routine
00006F04  007F                                     4846+         DC    H'127'            test number
00006F06  00                                       4847+         DC    X'00'
00006F07  87                                       4848+         DC    HL1'135'          i3
00006F08  90                                       4849+         DC    HL1'144'          i4
00006F09  01                                       4850+         DC    HL1'1'            m5
00006F0A  03                                       4851+         DC    HL1'3'            cc
00006F0B  0E                                       4852+         DC    HL1'14'           cc failed mask
00006F0C  00006F6C                                 4853+V2_127   DC    A(RE127+16)       address of v2: 16-byte packed decimal
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006F10  E5D7E2D6 D7404040                         4854+         DC    CL8'VPSOP'        instruction name
00006F18  00000000 00000000                         4855+V1O127   DC    XL16'00'          V1 OUTPUT
00006F20  00000000 00000000
00006F28  00000000 00000000                         4856+CC127    DC    2F'0'                after instruction PWS (ie CC)
00006F30  00000010                                  4857+         DC    A(16)             result length
00006F34  00006F5C                                  4858+REA127   DC    A(RE127)          result address
                                                    4859+*                                  INSTRUCTION UNDER TEST ROUTINE
00006F38                                            4860+X127     DS    0F
00006F38  E320 500C 0014                 00006F0C   4861+         LGF   R2,V2_127         get v2
00006F3E  E722 0000 0006                 00000000   4862+         VL    V2,0(R2)
00006F44  E612 9018 705B                            4863+         VPSOP V1,V2,135,144,1    test instruction
00006F4A  E710 5018 000E                 00006F18   4864+         VST   V1,V1O127         save result
00006F50  B98D 0020                                 4865+         EPSW  R2,R0             exptract psw
00006F54  5020 5028                      00006F28   4866+         ST    R2,CC127               to save CC
00006F58  07FB                                      4867+         BR    R11               return
00006F5C                                            4868+RE127    DC    0F
00006F5C                                            4869+         DROP  R5
00006F5C  00000000 00000000                         4870          DC    XL16'00000000000000000000000002000000F'    V1
00006F64  00000000 2000000F
00006F6C  00000000 00000000                         4871          DC    XL16'00000000000000000000000222000000F'    V2
00006F74  00000022 2000000F
                                                    4872
                                                    4873
                                                    4874
                                                    4875
                                                    4876
                                                    4877
                                                    4878
00006F7C  00000000                                  4879          DC    F'0'     END OF TABLE
00006F80  00000000                                  4880          DC    F'0'
                                                    4881 *
                                                    4882 * table of pointers to individual load test
                                                    4883 *
00006F84                                            4884 E6TESTS  DS    0F
                                                    4885          PTTABLE
00006F84                                            4886+TTABLE   DS    0F
00006F84  00003000                                  4887+         DC    A(T1)             address of test
00006F88  00003080                                  4888+         DC    A(T2)             address of test
00006F8C  00003100                                  4889+         DC    A(T3)             address of test
00006F90  00003180                                  4890+         DC    A(T4)             address of test
00006F94  00003200                                  4891+         DC    A(T5)             address of test
00006F98  00003280                                  4892+         DC    A(T6)             address of test
00006F9C  00003300                                  4893+         DC    A(T7)             address of test
00006FA0  00003380                                  4894+         DC    A(T8)             address of test
00006FA4  00003400                                  4895+         DC    A(T9)             address of test
00006FA8  00003480                                  4896+         DC    A(T10)            address of test
00006FAC  00003500                                  4897+         DC    A(T11)            address of test
00006FB0  00003580                                  4898+         DC    A(T12)            address of test
00006FB4  00003600                                  4899+         DC    A(T13)            address of test
00006FB8  00003680                                  4900+         DC    A(T14)            address of test
00006FBC  00003700                                  4901+         DC    A(T15)            address of test
00006FC0  00003780                                  4902+         DC    A(T16)            address of test
00006FC4  00003800                                  4903+         DC    A(T17)            address of test
00006FC8  00003880                                  4904+         DC    A(T18)            address of test
00006FCC  00003900                                  4905+         DC    A(T19)            address of test
00006FD0  00003980                                  4906+         DC    A(T20)            address of test
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00006FD4  00003A00                          4907+         DC    A(T21)            address of test
00006FD8  00003A80                          4908+         DC    A(T22)            address of test
00006FDC  00003B00                          4909+         DC    A(T23)            address of test
00006FE0  00003B80                          4910+         DC    A(T24)            address of test
00006FE4  00003C00                          4911+         DC    A(T25)            address of test
00006FE8  00003C80                          4912+         DC    A(T26)            address of test
00006FEC  00003D00                          4913+         DC    A(T27)            address of test
00006FF0  00003D80                          4914+         DC    A(T28)            address of test
00006FF4  00003E00                          4915+         DC    A(T29)            address of test
00006FF8  00003E80                          4916+         DC    A(T30)            address of test
00006FFC  00003F00                          4917+         DC    A(T31)            address of test
00007000  00003F80                          4918+         DC    A(T32)            address of test
00007004  00004000                          4919+         DC    A(T33)            address of test
00007008  00004080                          4920+         DC    A(T34)            address of test
0000700C  00004100                          4921+         DC    A(T35)            address of test
00007010  00004180                          4922+         DC    A(T36)            address of test
00007014  00004200                          4923+         DC    A(T37)            address of test
00007018  00004280                          4924+         DC    A(T38)            address of test
0000701C  00004300                          4925+         DC    A(T39)            address of test
00007020  00004380                          4926+         DC    A(T40)            address of test
00007024  00004400                          4927+         DC    A(T41)            address of test
00007028  00004480                          4928+         DC    A(T42)            address of test
0000702C  00004500                          4929+         DC    A(T43)            address of test
00007030  00004580                          4930+         DC    A(T44)            address of test
00007034  00004600                          4931+         DC    A(T45)            address of test
00007038  00004680                          4932+         DC    A(T46)            address of test
0000703C  00004700                          4933+         DC    A(T47)            address of test
00007040  00004780                          4934+         DC    A(T48)            address of test
00007044  00004800                          4935+         DC    A(T49)            address of test
00007048  00004880                          4936+         DC    A(T50)            address of test
0000704C  00004900                          4937+         DC    A(T51)            address of test
00007050  00004980                          4938+         DC    A(T52)            address of test
00007054  00004A00                          4939+         DC    A(T53)            address of test
00007058  00004A80                          4940+         DC    A(T54)            address of test
0000705C  00004B00                          4941+         DC    A(T55)            address of test
00007060  00004B80                          4942+         DC    A(T56)            address of test
00007064  00004C00                          4943+         DC    A(T57)            address of test
00007068  00004C80                          4944+         DC    A(T58)            address of test
0000706C  00004D00                          4945+         DC    A(T59)            address of test
00007070  00004D80                          4946+         DC    A(T60)            address of test
00007074  00004E00                          4947+         DC    A(T61)            address of test
00007078  00004E80                          4948+         DC    A(T62)            address of test
0000707C  00004F00                          4949+         DC    A(T63)            address of test
00007080  00004F80                          4950+         DC    A(T64)            address of test
00007084  00005000                          4951+         DC    A(T65)            address of test
00007088  00005080                          4952+         DC    A(T66)            address of test
0000708C  00005100                          4953+         DC    A(T67)            address of test
00007090  00005180                          4954+         DC    A(T68)            address of test
00007094  00005200                          4955+         DC    A(T69)            address of test
00007098  00005280                          4956+         DC    A(T70)            address of test
0000709C  00005300                          4957+         DC    A(T71)            address of test
000070A0  00005380                          4958+         DC    A(T72)            address of test
000070A4  00005400                          4959+         DC    A(T73)            address of test
000070A8  00005480                          4960+         DC    A(T74)            address of test
000070AC  00005500                          4961+         DC    A(T75)            address of test
000070B0  00005580                          4962+         DC    A(T76)            address of test
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  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000070B4  00005600                          4963+         DC    A(T77)            address of test
000070B8  00005680                          4964+         DC    A(T78)            address of test
000070BC  00005700                          4965+         DC    A(T79)            address of test
000070C0  00005780                          4966+         DC    A(T80)            address of test
000070C4  00005800                          4967+         DC    A(T81)            address of test
000070C8  00005880                          4968+         DC    A(T82)            address of test
000070CC  00005900                          4969+         DC    A(T83)            address of test
000070D0  00005980                          4970+         DC    A(T84)            address of test
000070D4  00005A00                          4971+         DC    A(T85)            address of test
000070D8  00005A80                          4972+         DC    A(T86)            address of test
000070DC  00005B00                          4973+         DC    A(T87)            address of test
000070E0  00005B80                          4974+         DC    A(T88)            address of test
000070E4  00005C00                          4975+         DC    A(T89)            address of test
000070E8  00005C80                          4976+         DC    A(T90)            address of test
000070EC  00005D00                          4977+         DC    A(T91)            address of test
000070F0  00005D80                          4978+         DC    A(T92)            address of test
000070F4  00005E00                          4979+         DC    A(T93)            address of test
000070F8  00005E80                          4980+         DC    A(T94)            address of test
000070FC  00005F00                          4981+         DC    A(T95)            address of test
00007100  00005F80                          4982+         DC    A(T96)            address of test
00007104  00006000                          4983+         DC    A(T97)            address of test
00007108  00006080                          4984+         DC    A(T98)            address of test
0000710C  00006100                          4985+         DC    A(T99)            address of test
00007110  00006180                          4986+         DC    A(T100)           address of test
00007114  00006200                          4987+         DC    A(T101)           address of test
00007118  00006280                          4988+         DC    A(T102)           address of test
0000711C  00006300                          4989+         DC    A(T103)           address of test
00007120  00006380                          4990+         DC    A(T104)           address of test
00007124  00006400                          4991+         DC    A(T105)           address of test
00007128  00006480                          4992+         DC    A(T106)           address of test
0000712C  00006500                          4993+         DC    A(T107)           address of test
00007130  00006580                          4994+         DC    A(T108)           address of test
00007134  00006600                          4995+         DC    A(T109)           address of test
00007138  00006680                          4996+         DC    A(T110)           address of test
0000713C  00006700                          4997+         DC    A(T111)           address of test
00007140  00006780                          4998+         DC    A(T112)           address of test
00007144  00006800                          4999+         DC    A(T113)           address of test
00007148  00006880                          5000+         DC    A(T114)           address of test
0000714C  00006900                          5001+         DC    A(T115)           address of test
00007150  00006980                          5002+         DC    A(T116)           address of test
00007154  00006A00                          5003+         DC    A(T117)           address of test
00007158  00006A80                          5004+         DC    A(T118)           address of test
0000715C  00006B00                          5005+         DC    A(T119)           address of test
00007160  00006B80                          5006+         DC    A(T120)           address of test
00007164  00006C00                          5007+         DC    A(T121)           address of test
00007168  00006C80                          5008+         DC    A(T122)           address of test
0000716C  00006D00                          5009+         DC    A(T123)           address of test
00007170  00006D80                          5010+         DC    A(T124)           address of test
00007174  00006E00                          5011+         DC    A(T125)           address of test
00007178  00006E80                          5012+         DC    A(T126)           address of test
0000717C  00006F00                          5013+         DC    A(T127)           address of test
                                            5014+*
00007180  00000000                          5015+         DC    A(0)              END OF TABLE
00007184  00000000                          5016+         DC    A(0)
                                            5017
00007188  00000000                          5018          DC    F'0'     END OF TABLE
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

0000718C  00000000                            5019          DC    F'0'
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                          5021 ************************************************************************
                                          5022 *        Register equates
                                          5023 ************************************************************************


                             00000000  00000001  5025 R0       EQU   0
                             00000001  00000001  5026 R1       EQU   1
                             00000002  00000001  5027 R2       EQU   2
                             00000003  00000001  5028 R3       EQU   3
                             00000004  00000001  5029 R4       EQU   4
                             00000005  00000001  5030 R5       EQU   5
                             00000006  00000001  5031 R6       EQU   6
                             00000007  00000001  5032 R7       EQU   7
                             00000008  00000001  5033 R8       EQU   8
                             00000009  00000001  5034 R9       EQU   9
                             0000000A  00000001  5035 R10      EQU   10
                             0000000B  00000001  5036 R11      EQU   11
                             0000000C  00000001  5037 R12      EQU   12
                             0000000D  00000001  5038 R13      EQU   13
                             0000000E  00000001  5039 R14      EQU   14
                             0000000F  00000001  5040 R15      EQU   15


                                          5042 ************************************************************************
                                          5043 *        Register equates
                                          5044 ************************************************************************


                             00000000  00000001  5046 V0       EQU   0
                             00000001  00000001  5047 V1       EQU   1
                             00000002  00000001  5048 V2       EQU   2
                             00000003  00000001  5049 V3       EQU   3
                             00000004  00000001  5050 V4       EQU   4
                             00000005  00000001  5051 V5       EQU   5
                             00000006  00000001  5052 V6       EQU   6
                             00000007  00000001  5053 V7       EQU   7
                             00000008  00000001  5054 V8       EQU   8
                             00000009  00000001  5055 V9       EQU   9
                             0000000A  00000001  5056 V10      EQU   10
                             0000000B  00000001  5057 V11      EQU   11
                             0000000C  00000001  5058 V12      EQU   12
                             0000000D  00000001  5059 V13      EQU   13
                             0000000E  00000001  5060 V14      EQU   14
                             0000000F  00000001  5061 V15      EQU   15
                             00000010  00000001  5062 V16      EQU   16
                             00000011  00000001  5063 V17      EQU   17
                             00000012  00000001  5064 V18      EQU   18
                             00000013  00000001  5065 V19      EQU   19
                             00000014  00000001  5066 V20      EQU   20
                             00000015  00000001  5067 V21      EQU   21
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2    STMT

                              00000016  00000001  5068 V22      EQU   22
                              00000017  00000001  5069 V23      EQU   23
                              00000018  00000001  5070 V24      EQU   24
                              00000019  00000001  5071 V25      EQU   25
                              0000001A  00000001  5072 V26      EQU   26
                              0000001B  00000001  5073 V27      EQU   27
                              0000001C  00000001  5074 V28      EQU   28
                              0000001D  00000001  5075 V29      EQU   29
                              0000001E  00000001  5076 V30      EQU   30
                              0000001F  00000001  5077 V31      EQU   31
                                                  5078
                                                  5079          END
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SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
BEGIN	I	00000200	2	154	119 150 151 152
CC	U	0000000A	1	598	331
CC1	F	00003028	4	778	788
CC10	F	000034A8	4	1058	1068
CC100	F	000061A8	4	3976	3986
CC101	F	00006228	4	4010	4020
CC102	F	000062A8	4	4063	4073
CC103	F	00006328	4	4094	4104
CC104	F	000063A8	4	4126	4136
CC105	F	00006428	4	4157	4167
CC106	F	000064A8	4	4189	4199
CC107	F	00006528	4	4220	4230
CC108	F	000065A8	4	4251	4261
CC109	F	00006628	4	4282	4292
CC11	F	00003528	4	1089	1099
CC110	F	000066A8	4	4314	4324
CC111	F	00006728	4	4345	4355
CC112	F	000067A8	4	4376	4386
CC113	F	00006828	4	4407	4417
CC114	F	000068A8	4	4439	4449
CC115	F	00006928	4	4470	4480
CC116	F	000069A8	4	4502	4512
CC117	F	00006A28	4	4533	4543
CC118	F	00006AA8	4	4565	4575
CC119	F	00006B28	4	4597	4607
CC12	F	000035A8	4	1120	1130
CC120	F	00006BA8	4	4629	4639
CC121	F	00006C28	4	4660	4670
CC122	F	00006CA8	4	4692	4702
CC123	F	00006D28	4	4723	4733
CC124	F	00006DA8	4	4754	4764
CC125	F	00006E28	4	4785	4795
CC126	F	00006EA8	4	4820	4830
CC127	F	00006F28	4	4856	4866
CC13	F	00003628	4	1151	1161
CC14	F	000036A8	4	1182	1192
CC15	F	00003728	4	1213	1223
CC16	F	000037A8	4	1250	1260
CC17	F	00003828	4	1281	1291
CC18	F	000038A8	4	1312	1322
CC19	F	00003928	4	1343	1353
CC2	F	000030A8	4	809	819
CC20	F	000039A8	4	1374	1384
CC21	F	00003A28	4	1405	1415
CC22	F	00003AA8	4	1486	1496
CC23	F	00003B28	4	1517	1527
CC24	F	00003BA8	4	1549	1559
CC25	F	00003C28	4	1580	1590
CC26	F	00003CA8	4	1612	1622
CC27	F	00003D28	4	1643	1653
CC28	F	00003DA8	4	1674	1684
CC29	F	00003E28	4	1705	1715
CC3	F	00003128	4	840	850
CC30	F	00003EA8	4	1737	1747
CC31	F	00003F28	4	1768	1778
CC32	F	00003FA8	4	1799	1809

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
CC33	F	00004028	4	1830	1840
CC34	F	000040A8	4	1862	1872
CC35	F	00004128	4	1893	1903
CC36	F	000041A8	4	1925	1935
CC37	F	00004228	4	1956	1966
CC38	F	000042A8	4	1988	1998
CC39	F	00004328	4	2020	2030
CC4	F	000031A8	4	871	881
CC40	F	000043A8	4	2052	2062
CC41	F	00004428	4	2083	2093
CC42	F	000044A8	4	2115	2125
CC43	F	00004528	4	2146	2156
CC44	F	000045A8	4	2177	2187
CC45	F	00004628	4	2208	2218
CC46	F	000046A8	4	2244	2254
CC47	F	00004728	4	2275	2285
CC48	F	000047A8	4	2306	2316
CC49	F	00004828	4	2337	2347
CC5	F	00003228	4	902	912
CC50	F	000048A8	4	2369	2379
CC51	F	00004928	4	2400	2410
CC52	F	000049A8	4	2432	2442
CC53	F	00004A28	4	2463	2473
CC54	F	00004AA8	4	2499	2509
CC55	F	00004B28	4	2531	2541
CC56	F	00004BA8	4	2563	2573
CC57	F	00004C28	4	2594	2604
CC58	F	00004CA8	4	2626	2636
CC59	F	00004D28	4	2657	2667
CC6	F	000032A8	4	933	943
CC60	F	00004DA8	4	2689	2699
CC61	F	00004E28	4	2720	2730
CC62	F	00004EA8	4	2757	2767
CC63	F	00004F28	4	2788	2798
CC64	F	00004FA8	4	2819	2829
CC65	F	00005028	4	2850	2860
CC66	F	000050A8	4	2883	2893
CC67	F	00005128	4	2914	2924
CC68	F	000051A8	4	2945	2955
CC69	F	00005228	4	2976	2986
CC7	F	00003328	4	964	974
CC70	F	000052A8	4	3009	3019
CC71	F	00005328	4	3040	3050
CC72	F	000053A8	4	3071	3081
CC73	F	00005428	4	3102	3112
CC74	F	000054A8	4	3135	3145
CC75	F	00005528	4	3166	3176
CC76	F	000055A8	4	3197	3207
CC77	F	00005628	4	3228	3238
CC78	F	000056A8	4	3265	3275
CC79	F	00005728	4	3296	3306
CC8	F	000033A8	4	996	1006
CC80	F	000057A8	4	3327	3337
CC81	F	00005828	4	3358	3368
CC82	F	000058A8	4	3389	3399
CC83	F	00005928	4	3420	3430

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES										
CC84	F	000059A8	4	3451	3461										
CC85	F	00005A28	4	3482	3492										
CC86	F	00005AA8	4	3515	3525										
CC87	F	00005B28	4	3546	3556										
CC88	F	00005BA8	4	3579	3589										
CC89	F	00005C28	4	3610	3620										
CC9	F	00003428	4	1027	1037										
CC90	F	00005CA8	4	3643	3653										
CC91	F	00005D28	4	3674	3684										
CC92	F	00005DA8	4	3706	3716										
CC93	F	00005E28	4	3737	3747										
CC94	F	00005EA8	4	3772	3782										
CC95	F	00005F28	4	3805	3815										
CC96	F	00005FA8	4	3839	3849										
CC97	F	00006028	4	3873	3883										
CC98	F	000060A8	4	3909	3919										
CC99	F	00006128	4	3942	3952										
CCFOUND	X	000010F2	1	572	318	338									
CCMASK	U	0000000B	1	599	290										
CCMSG	U	00000498	1	307	302										
CCPRTEXP	C	000010A4	1	553	335										
CCPRTGOT	C	000010B4	1	556	342										
CCPRTLINE	C	00001061	16	548	558	345									
CCPRTLNG	U	00000055	1	558	344										
CCPRTNAME	C	0000108E	8	551	328										
CCPRTNUM	C	00001071	3	549	326										
CCPSW	F	00000028	4	605	315										
CTLR0	F	000006EC	4	488	164	165	166	167							
DECNUM	C	000010E2	16	568	323	325	332	334	339	341	357	359	366	368	373	375	380
					382										
E6TEST	4	00000000	56	591	281										
E6TESTS	F	00006F84	4	4884	272										
EDIT	X	000010B6	18	563	324	333	340	358	367	374	381				
ENDTEST	U	000005BE	1	402	277										
EOJ	I	000006D0	4	478	199	232	265	405							
EOJPSW	D	000006C0	8	476	478										
FAILCONT	U	000005AE	1	392											
FAILED	F	00001000	4	518	394	403									
FAILMSG	U	00000528	1	355	297										
FAILPSW	D	000006D8	8	480	482										
FAILTEST	I	000006E8	4	482	406										
FB0001	F	00000288	8	183	187	188	190								
FB0002	F	00000340	8	216	220	221	223								
FB0003	F	000003F8	8	249	253	254	256								
I3	U	00000007	1	595	365										
I4	U	00000008	1	596	372										
IMAGE	1	00000000	29072	0											
K	U	00000400	1	502	503	504	505								
K64	U	00010000	1	504											
M5	U	00000009	1	597	309	379									
MB	U	00100000	1	505											
MSG	I	00000608	4	438	198	231	264	421							
MSGCMD	C	00000656	9	468	451	452									
MSGMSG	C	0000065F	95	469	445	466	443								
MSGMVC	I	00000650	6	466	449										
MSGOK	I	0000061E	2	447	444										

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES												
MSGRET	I	0000063E	4	462	455	458											
MSGSAVE	F	00000644	4	465	441	462											
NEXTE6	U	0000044C	1	274	300	397											
OPNAME	C	00000010	8	603	328	362											
PAGE	U	00001000	1	503													
PRT3	C	000010CC	18	566	324	325	326	333	334	335	340	341	342	358	359	360	367
					368	369	374	375	376	381	382	383					
PRTI3	C	00001044	3	532	369												
PRTI4	C	00001051	3	535	376												
PRTLINE	C	00001008	16	527	540	386											
PRTLNG	U	00000059	1	540	385												
PRTM5	C	0000105E	2	538	383												
PRTNAME	C	00001033	8	530	362												
PRTNUM	C	00001018	3	528	360												
R0	U	00000000	1	5025	113	164	167	187	189	190	191	196	220	222	223	224	229
					253	255	256	257	262	279	283	284	344	385	393	394	420
					422	438	441	443	445	447	462	787	818	849	880	911	942
					973	1005	1036	1067	1098	1129	1160	1191	1222	1259	1290	1321	1352
					1383	1414	1495	1526	1558	1589	1621	1652	1683	1714	1746	1777	1808
					1839	1871	1902	1934	1965	1997	2029	2061	2092	2124	2155	2186	2217
					2253	2284	2315	2346	2378	2409	2441	2472	2508	2540	2572	2603	2635
					2666	2698	2729	2766	2797	2828	2859	2892	2923	2954	2985	3018	3049
					3080	3111	3144	3175	3206	3237	3274	3305	3336	3367	3398	3429	3460
					3491	3524	3555	3588	3619	3652	3683	3715	3746	3781	3814	3848	3882
					3918	3951	3985	4019	4072	4103	4135	4166	4198	4229	4260	4291	4323
					4354	4385	4416	4448	4479	4511	4542	4574	4606	4638	4669	4701	4732
					4763	4794	4829	4865									
R1	U	00000001	1	5026	197	230	263	290	291	292	295	296	308	309	310	315	316
					317	318	345	386	403	404	452	466					
R10	U	0000000A	1	5035	152	161	162										
R11	U	0000000B	1	5036	287	288	789	820	851	882	913	944	975	1007	1038	1069	1100
					1131	1162	1193	1224	1261	1292	1323	1354	1385	1416	1497	1528	1560
					1591	1623	1654	1685	1716	1748	1779	1810	1841	1873	1904	1936	1967
					1999	2031	2063	2094	2126	2157	2188	2219	2255	2286	2317	2348	2380
					2411	2443	2474	2510	2542	2574	2605	2637	2668	2700	2731	2768	2799
					2830	2861	2894	2925	2956	2987	3020	3051	3082	3113	3146	3177	3208
					3239	3276	3307	3338	3369	3400	3431	3462	3493	3526	3557	3590	3621
					3654	3685	3717	3748	3783	3816	3850	3884	3920	3953	3987	4021	4074
					4105	4137	4168	4200	4231	4262	4293	4325	4356	4387	4418	4450	4481
					4513	4544	4576	4608	4640	4671	4703	4734	4765	4796	4831	4867	
R12	U	0000000C	1	5037	272	275	299	396									
R13	U	0000000D	1	5038													
R14	U	0000000E	1	5039													
R15	U	0000000F	1	5040	346	387	415	425	426								
R2	U	00000002	1	5027	198	231	264	322	323	330	331	332	337	338	339	356	357
					364	365	366	371	372	373	378	379	380	420	421	422	439
					441	447	448	449	451	457	462	463	783	784	787	788	814
					815	818	819	845	846	849	850	876	877	880	881	907	908
					911	912	938	939	942	943	969	970	973	974	1001	1002	1005
					1006	1032	1033	1036	1037	1063	1064	1067	1068	1094	1095	1098	1099
					1125	1126	1129	1130	1156	1157	1160	1161	1187	1188	1191	1192	1218
					1219	1222	1223	1255	1256	1259	1260	1286	1287	1290	1291	1317	1318
					1321	1322	1348	1349	1352	1353	1379	1380	1383	1384	1410	1411	1414
					1415	1491	1492	1495	1496	1522	1523	1526	1527	1554	1555	1558	1559
					1585	1586	1589	1590	1617	1618	1621	1622	1648	1649	1652	1653	1679
					1680	1683	1684	1710	1711	1714	1715	1742	1743	1746	1747	1773	1774

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES												
					1777	1778	1804	1805	1808	1809	1835	1836	1839	1840	1867	1868	1871
					1872	1898	1899	1902	1903	1930	1931	1934	1935	1961	1962	1965	1966
					1993	1994	1997	1998	2025	2026	2029	2030	2057	2058	2061	2062	2088
					2089	2092	2093	2120	2121	2124	2125	2151	2152	2155	2156	2182	2183
					2186	2187	2213	2214	2217	2218	2249	2250	2253	2254	2280	2281	2284
					2285	2311	2312	2315	2316	2342	2343	2346	2347	2374	2375	2378	2379
					2405	2406	2409	2410	2437	2438	2441	2442	2468	2469	2472	2473	2504
					2505	2508	2509	2536	2537	2540	2541	2568	2569	2572	2573	2599	2600
					2603	2604	2631	2632	2635	2636	2662	2663	2666	2667	2694	2695	2698
					2699	2725	2726	2729	2730	2762	2763	2766	2767	2793	2794	2797	2798
					2824	2825	2828	2829	2855	2856	2859	2860	2888	2889	2892	2893	2919
					2920	2923	2924	2950	2951	2954	2955	2981	2982	2985	2986	3014	3015
					3018	3019	3045	3046	3049	3050	3076	3077	3080	3081	3107	3108	3111
					3112	3140	3141	3144	3145	3171	3172	3175	3176	3202	3203	3206	3207
					3233	3234	3237	3238	3270	3271	3274	3275	3301	3302	3305	3306	3332
					3333	3336	3337	3363	3364	3367	3368	3394	3395	3398	3399	3425	3426
					3429	3430	3456	3457	3460	3461	3487	3488	3491	3492	3520	3521	3524
					3525	3551	3552	3555	3556	3584	3585	3588	3589	3615	3616	3619	3620
					3648	3649	3652	3653	3679	3680	3683	3684	3711	3712	3715	3716	3742
					3743	3746	3747	3777	3778	3781	3782	3810	3811	3814	3815	3844	3845
					3848	3849	3878	3879	3882	3883	3914	3915	3918	3919	3947	3948	3951
					3952	3981	3982	3985	3986	4015	4016	4019	4020	4068	4069	4072	4073
					4099	4100	4103	4104	4131	4132	4135	4136	4162	4163	4166	4167	4194
					4195	4198	4199	4225	4226	4229	4230	4256	4257	4260	4261	4287	4288
					4291	4292	4319	4320	4323	4324	4350	4351	4354	4355	4381	4382	4385
					4386	4412	4413	4416	4417	4444	4445	4448	4449	4475	4476	4479	4480
					4507	4508	4511	4512	4538	4539	4542	4543	4570	4571	4574	4575	4602
					4603	4606	4607	4634	4635	4638	4639	4665	4666	4669	4670	4697	4698
					4701	4702	4728	4729	4732	4733	4759	4760	4763	4764	4790	4791	4794
					4795	4825	4826	4829	4830	4861	4862	4865	4866				
R3	U	00000003	1	5028													
R4	U	00000004	1	5029													
R5	U	00000005	1	5030	275	276	281	416	424	766	791	797	822	828	853	859	884
					890	915	921	946	952	977	984	1009	1015	1040	1046	1071	1077
					1102	1108	1133	1139	1164	1170	1195	1201	1226	1238	1263	1269	1294
					1300	1325	1331	1356	1362	1387	1393	1418	1474	1499	1505	1530	1537
					1562	1568	1593	1600	1625	1631	1656	1662	1687	1693	1718	1725	1750
					1756	1781	1787	1812	1818	1843	1850	1875	1881	1906	1913	1938	1944
					1969	1976	2001	2008	2033	2040	2065	2071	2096	2103	2128	2134	2159
					2165	2190	2196	2221	2232	2257	2263	2288	2294	2319	2325	2350	2357
					2382	2388	2413	2420	2445	2451	2476	2487	2512	2519	2544	2551	2576
					2582	2607	2614	2639	2645	2670	2677	2702	2708	2733	2745	2770	2776
					2801	2807	2832	2838	2863	2871	2896	2902	2927	2933	2958	2964	2989
					2997	3022	3028	3053	3059	3084	3090	3115	3123	3148	3154	3179	3185
					3210	3216	3241	3253	3278	3284	3309	3315	3340	3346	3371	3377	3402
					3408	3433	3439	3464	3470	3495	3503	3528	3534	3559	3567	3592	3598
					3623	3631	3656	3662	3687	3694	3719	3725	3750	3760	3785	3793	3818
					3827	3852	3861	3886	3897	3922	3930	3955	3964	3989	3998	4023	4051
					4076	4082	4107	4114	4139	4145	4170	4177	4202	4208	4233	4239	4264
					4270	4295	4302	4327	4333	4358	4364	4389	4395	4420	4427	4452	4458
					4483	4490	4515	4521	4546	4553	4578	4585	4610	4617	4642	4648	4673
					4680	4705	4711	4736	4742	4767	4773	4798	4808	4833	4844	4869	
R6	U	00000006	1	5031													
R7	U	00000007	1	5032													
R8	U	00000008	1	5033	150	154	155	156	158								
R9	U	00000009	1	5034	151	158	159	161									

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES	
RE1	F	0000305C	4	790	775	780
RE10	F	000034DC	4	1070	1055	1060
RE100	F	000061DC	4	3988	3973	3978
RE101	F	0000625C	4	4022	4007	4012
RE102	F	000062DC	4	4075	4060	4065
RE103	F	0000635C	4	4106	4091	4096
RE104	F	000063DC	4	4138	4123	4128
RE105	F	0000645C	4	4169	4154	4159
RE106	F	000064DC	4	4201	4186	4191
RE107	F	0000655C	4	4232	4217	4222
RE108	F	000065DC	4	4263	4248	4253
RE109	F	0000665C	4	4294	4279	4284
RE11	F	0000355C	4	1101	1086	1091
RE110	F	000066DC	4	4326	4311	4316
RE111	F	0000675C	4	4357	4342	4347
RE112	F	000067DC	4	4388	4373	4378
RE113	F	0000685C	4	4419	4404	4409
RE114	F	000068DC	4	4451	4436	4441
RE115	F	0000695C	4	4482	4467	4472
RE116	F	000069DC	4	4514	4499	4504
RE117	F	00006A5C	4	4545	4530	4535
RE118	F	00006ADC	4	4577	4562	4567
RE119	F	00006B5C	4	4609	4594	4599
RE12	F	000035DC	4	1132	1117	1122
RE120	F	00006BDC	4	4641	4626	4631
RE121	F	00006C5C	4	4672	4657	4662
RE122	F	00006CDC	4	4704	4689	4694
RE123	F	00006D5C	4	4735	4720	4725
RE124	F	00006DDC	4	4766	4751	4756
RE125	F	00006E5C	4	4797	4782	4787
RE126	F	00006EDC	4	4832	4817	4822
RE127	F	00006F5C	4	4868	4853	4858
RE13	F	0000365C	4	1163	1148	1153
RE14	F	000036DC	4	1194	1179	1184
RE15	F	0000375C	4	1225	1210	1215
RE16	F	000037DC	4	1262	1247	1252
RE17	F	0000385C	4	1293	1278	1283
RE18	F	000038DC	4	1324	1309	1314
RE19	F	0000395C	4	1355	1340	1345
RE2	F	000030DC	4	821	806	811
RE20	F	000039DC	4	1386	1371	1376
RE21	F	00003A5C	4	1417	1402	1407
RE22	F	00003ADC	4	1498	1483	1488
RE23	F	00003B5C	4	1529	1514	1519
RE24	F	00003BDC	4	1561	1546	1551
RE25	F	00003C5C	4	1592	1577	1582
RE26	F	00003CDC	4	1624	1609	1614
RE27	F	00003D5C	4	1655	1640	1645
RE28	F	00003DDC	4	1686	1671	1676
RE29	F	00003E5C	4	1717	1702	1707
RE3	F	0000315C	4	852	837	842
RE30	F	00003EDC	4	1749	1734	1739
RE31	F	00003F5C	4	1780	1765	1770
RE32	F	00003FDC	4	1811	1796	1801
RE33	F	0000405C	4	1842	1827	1832
RE34	F	000040DC	4	1874	1859	1864

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES	
RE35	F	0000415C	4	1905	1890	1895
RE36	F	000041DC	4	1937	1922	1927
RE37	F	0000425C	4	1968	1953	1958
RE38	F	000042DC	4	2000	1985	1990
RE39	F	0000435C	4	2032	2017	2022
RE4	F	000031DC	4	883	868	873
RE40	F	000043DC	4	2064	2049	2054
RE41	F	0000445C	4	2095	2080	2085
RE42	F	000044DC	4	2127	2112	2117
RE43	F	0000455C	4	2158	2143	2148
RE44	F	000045DC	4	2189	2174	2179
RE45	F	0000465C	4	2220	2205	2210
RE46	F	000046DC	4	2256	2241	2246
RE47	F	0000475C	4	2287	2272	2277
RE48	F	000047DC	4	2318	2303	2308
RE49	F	0000485C	4	2349	2334	2339
RE5	F	0000325C	4	914	899	904
RE50	F	000048DC	4	2381	2366	2371
RE51	F	0000495C	4	2412	2397	2402
RE52	F	000049DC	4	2444	2429	2434
RE53	F	00004A5C	4	2475	2460	2465
RE54	F	00004ADC	4	2511	2496	2501
RE55	F	00004B5C	4	2543	2528	2533
RE56	F	00004BDC	4	2575	2560	2565
RE57	F	00004C5C	4	2606	2591	2596
RE58	F	00004CDC	4	2638	2623	2628
RE59	F	00004D5C	4	2669	2654	2659
RE6	F	000032DC	4	945	930	935
RE60	F	00004DDC	4	2701	2686	2691
RE61	F	00004E5C	4	2732	2717	2722
RE62	F	00004EDC	4	2769	2754	2759
RE63	F	00004F5C	4	2800	2785	2790
RE64	F	00004FDC	4	2831	2816	2821
RE65	F	0000505C	4	2862	2847	2852
RE66	F	000050DC	4	2895	2880	2885
RE67	F	0000515C	4	2926	2911	2916
RE68	F	000051DC	4	2957	2942	2947
RE69	F	0000525C	4	2988	2973	2978
RE7	F	0000335C	4	976	961	966
RE70	F	000052DC	4	3021	3006	3011
RE71	F	0000535C	4	3052	3037	3042
RE72	F	000053DC	4	3083	3068	3073
RE73	F	0000545C	4	3114	3099	3104
RE74	F	000054DC	4	3147	3132	3137
RE75	F	0000555C	4	3178	3163	3168
RE76	F	000055DC	4	3209	3194	3199
RE77	F	0000565C	4	3240	3225	3230
RE78	F	000056DC	4	3277	3262	3267
RE79	F	0000575C	4	3308	3293	3298
RE8	F	000033DC	4	1008	993	998
RE80	F	000057DC	4	3339	3324	3329
RE81	F	0000585C	4	3370	3355	3360
RE82	F	000058DC	4	3401	3386	3391
RE83	F	0000595C	4	3432	3417	3422
RE84	F	000059DC	4	3463	3448	3453
RE85	F	00005A5C	4	3494	3479	3484

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES	
RE86	F	00005ADC	4	3527	3512	3517
RE87	F	00005B5C	4	3558	3543	3548
RE88	F	00005BDC	4	3591	3576	3581
RE89	F	00005C5C	4	3622	3607	3612
RE9	F	0000345C	4	1039	1024	1029
RE90	F	00005CDC	4	3655	3640	3645
RE91	F	00005D5C	4	3686	3671	3676
RE92	F	00005DDC	4	3718	3703	3708
RE93	F	00005E5C	4	3749	3734	3739
RE94	F	00005EDC	4	3784	3769	3774
RE95	F	00005F5C	4	3817	3802	3807
RE96	F	00005FDC	4	3851	3836	3841
RE97	F	0000605C	4	3885	3870	3875
RE98	F	000060DC	4	3921	3906	3911
RE99	F	0000615C	4	3954	3939	3944
REA1	A	00003034	4	780		
REA10	A	000034B4	4	1060		
REA100	A	000061B4	4	3978		
REA101	A	00006234	4	4012		
REA102	A	000062B4	4	4065		
REA103	A	00006334	4	4096		
REA104	A	000063B4	4	4128		
REA105	A	00006434	4	4159		
REA106	A	000064B4	4	4191		
REA107	A	00006534	4	4222		
REA108	A	000065B4	4	4253		
REA109	A	00006634	4	4284		
REA11	A	00003534	4	1091		
REA110	A	000066B4	4	4316		
REA111	A	00006734	4	4347		
REA112	A	000067B4	4	4378		
REA113	A	00006834	4	4409		
REA114	A	000068B4	4	4441		
REA115	A	00006934	4	4472		
REA116	A	000069B4	4	4504		
REA117	A	00006A34	4	4535		
REA118	A	00006AB4	4	4567		
REA119	A	00006B34	4	4599		
REA12	A	000035B4	4	1122		
REA120	A	00006BB4	4	4631		
REA121	A	00006C34	4	4662		
REA122	A	00006CB4	4	4694		
REA123	A	00006D34	4	4725		
REA124	A	00006DB4	4	4756		
REA125	A	00006E34	4	4787		
REA126	A	00006EB4	4	4822		
REA127	A	00006F34	4	4858		
REA13	A	00003634	4	1153		
REA14	A	000036B4	4	1184		
REA15	A	00003734	4	1215		
REA16	A	000037B4	4	1252		
REA17	A	00003834	4	1283		
REA18	A	000038B4	4	1314		
REA19	A	00003934	4	1345		
REA2	A	000030B4	4	811		
REA20	A	000039B4	4	1376		

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
REA21	A	00003A34	4	1407	
REA22	A	00003AB4	4	1488	
REA23	A	00003B34	4	1519	
REA24	A	00003BB4	4	1551	
REA25	A	00003C34	4	1582	
REA26	A	00003CB4	4	1614	
REA27	A	00003D34	4	1645	
REA28	A	00003DB4	4	1676	
REA29	A	00003E34	4	1707	
REA3	A	00003134	4	842	
REA30	A	00003EB4	4	1739	
REA31	A	00003F34	4	1770	
REA32	A	00003FB4	4	1801	
REA33	A	00004034	4	1832	
REA34	A	000040B4	4	1864	
REA35	A	00004134	4	1895	
REA36	A	000041B4	4	1927	
REA37	A	00004234	4	1958	
REA38	A	000042B4	4	1990	
REA39	A	00004334	4	2022	
REA4	A	000031B4	4	873	
REA40	A	000043B4	4	2054	
REA41	A	00004434	4	2085	
REA42	A	000044B4	4	2117	
REA43	A	00004534	4	2148	
REA44	A	000045B4	4	2179	
REA45	A	00004634	4	2210	
REA46	A	000046B4	4	2246	
REA47	A	00004734	4	2277	
REA48	A	000047B4	4	2308	
REA49	A	00004834	4	2339	
REA5	A	00003234	4	904	
REA50	A	000048B4	4	2371	
REA51	A	00004934	4	2402	
REA52	A	000049B4	4	2434	
REA53	A	00004A34	4	2465	
REA54	A	00004AB4	4	2501	
REA55	A	00004B34	4	2533	
REA56	A	00004BB4	4	2565	
REA57	A	00004C34	4	2596	
REA58	A	00004CB4	4	2628	
REA59	A	00004D34	4	2659	
REA6	A	000032B4	4	935	
REA60	A	00004DB4	4	2691	
REA61	A	00004E34	4	2722	
REA62	A	00004EB4	4	2759	
REA63	A	00004F34	4	2790	
REA64	A	00004FB4	4	2821	
REA65	A	00005034	4	2852	
REA66	A	000050B4	4	2885	
REA67	A	00005134	4	2916	
REA68	A	000051B4	4	2947	
REA69	A	00005234	4	2978	
REA7	A	00003334	4	966	
REA70	A	000052B4	4	3011	
REA71	A	00005334	4	3042	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES	
REA72	A	000053B4	4	3073		
REA73	A	00005434	4	3104		
REA74	A	000054B4	4	3137		
REA75	A	00005534	4	3168		
REA76	A	000055B4	4	3199		
REA77	A	00005634	4	3230		
REA78	A	000056B4	4	3267		
REA79	A	00005734	4	3298		
REA8	A	000033B4	4	998		
REA80	A	000057B4	4	3329		
REA81	A	00005834	4	3360		
REA82	A	000058B4	4	3391		
REA83	A	00005934	4	3422		
REA84	A	000059B4	4	3453		
REA85	A	00005A34	4	3484		
REA86	A	00005AB4	4	3517		
REA87	A	00005B34	4	3548		
REA88	A	00005BB4	4	3581		
REA89	A	00005C34	4	3612		
REA9	A	00003434	4	1029		
REA90	A	00005CB4	4	3645		
REA91	A	00005D34	4	3676		
REA92	A	00005DB4	4	3708		
REA93	A	00005E34	4	3739		
REA94	A	00005EB4	4	3774		
REA95	A	00005F34	4	3807		
REA96	A	00005FB4	4	3841		
REA97	A	00006034	4	3875		
REA98	A	000060B4	4	3911		
REA99	A	00006134	4	3944		
READDR	A	00000034	4	608	295	
REG2LOW	U	000000DD	1	508		
REG2PATT	U	AABBCCDD	1	507		
RELEN	A	00000030	4	607		
RPTDWSAV	D	000005F8	8	431	420	422
RPTERROR	I	000005CC	4	415	346	387
RPTSAVE	F	000005EC	4	428	415	425
RPTSVR5	F	000005F0	4	429	416	424
SKL0001	U	00000054	1	180	196	
SKL0002	U	0000005B	1	213	229	
SKL0003	U	0000005B	1	246	262	
SKT0001	C	0000022A	26	177	180	197
SKT0002	C	000002DC	26	210	213	230
SKT0003	C	00000394	26	243	246	263
SVOLDPSW	U	00000140	0	115		
T1	A	00003000	4	767	4887	
T10	A	00003480	4	1047	4896	
T100	A	00006180	4	3965	4986	
T101	A	00006200	4	3999	4987	
T102	A	00006280	4	4052	4988	
T103	A	00006300	4	4083	4989	
T104	A	00006380	4	4115	4990	
T105	A	00006400	4	4146	4991	
T106	A	00006480	4	4178	4992	
T107	A	00006500	4	4209	4993	
T108	A	00006580	4	4240	4994	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
T109	A	00006600	4	4271	4995
T11	A	00003500	4	1078	4897
T110	A	00006680	4	4303	4996
T111	A	00006700	4	4334	4997
T112	A	00006780	4	4365	4998
T113	A	00006800	4	4396	4999
T114	A	00006880	4	4428	5000
T115	A	00006900	4	4459	5001
T116	A	00006980	4	4491	5002
T117	A	00006A00	4	4522	5003
T118	A	00006A80	4	4554	5004
T119	A	00006B00	4	4586	5005
T12	A	00003580	4	1109	4898
T120	A	00006B80	4	4618	5006
T121	A	00006C00	4	4649	5007
T122	A	00006C80	4	4681	5008
T123	A	00006D00	4	4712	5009
T124	A	00006D80	4	4743	5010
T125	A	00006E00	4	4774	5011
T126	A	00006E80	4	4809	5012
T127	A	00006F00	4	4845	5013
T13	A	00003600	4	1140	4899
T14	A	00003680	4	1171	4900
T15	A	00003700	4	1202	4901
T16	A	00003780	4	1239	4902
T17	A	00003800	4	1270	4903
T18	A	00003880	4	1301	4904
T19	A	00003900	4	1332	4905
T2	A	00003080	4	798	4888
T20	A	00003980	4	1363	4906
T21	A	00003A00	4	1394	4907
T22	A	00003A80	4	1475	4908
T23	A	00003B00	4	1506	4909
T24	A	00003B80	4	1538	4910
T25	A	00003C00	4	1569	4911
T26	A	00003C80	4	1601	4912
T27	A	00003D00	4	1632	4913
T28	A	00003D80	4	1663	4914
T29	A	00003E00	4	1694	4915
T3	A	00003100	4	829	4889
T30	A	00003E80	4	1726	4916
T31	A	00003F00	4	1757	4917
T32	A	00003F80	4	1788	4918
T33	A	00004000	4	1819	4919
T34	A	00004080	4	1851	4920
T35	A	00004100	4	1882	4921
T36	A	00004180	4	1914	4922
T37	A	00004200	4	1945	4923
T38	A	00004280	4	1977	4924
T39	A	00004300	4	2009	4925
T4	A	00003180	4	860	4890
T40	A	00004380	4	2041	4926
T41	A	00004400	4	2072	4927
T42	A	00004480	4	2104	4928
T43	A	00004500	4	2135	4929
T44	A	00004580	4	2166	4930

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
T45	A	00004600	4	2197	4931
T46	A	00004680	4	2233	4932
T47	A	00004700	4	2264	4933
T48	A	00004780	4	2295	4934
T49	A	00004800	4	2326	4935
T5	A	00003200	4	891	4891
T50	A	00004880	4	2358	4936
T51	A	00004900	4	2389	4937
T52	A	00004980	4	2421	4938
T53	A	00004A00	4	2452	4939
T54	A	00004A80	4	2488	4940
T55	A	00004B00	4	2520	4941
T56	A	00004B80	4	2552	4942
T57	A	00004C00	4	2583	4943
T58	A	00004C80	4	2615	4944
T59	A	00004D00	4	2646	4945
T6	A	00003280	4	922	4892
T60	A	00004D80	4	2678	4946
T61	A	00004E00	4	2709	4947
T62	A	00004E80	4	2746	4948
T63	A	00004F00	4	2777	4949
T64	A	00004F80	4	2808	4950
T65	A	00005000	4	2839	4951
T66	A	00005080	4	2872	4952
T67	A	00005100	4	2903	4953
T68	A	00005180	4	2934	4954
T69	A	00005200	4	2965	4955
T7	A	00003300	4	953	4893
T70	A	00005280	4	2998	4956
T71	A	00005300	4	3029	4957
T72	A	00005380	4	3060	4958
T73	A	00005400	4	3091	4959
T74	A	00005480	4	3124	4960
T75	A	00005500	4	3155	4961
T76	A	00005580	4	3186	4962
T77	A	00005600	4	3217	4963
T78	A	00005680	4	3254	4964
T79	A	00005700	4	3285	4965
T8	A	00003380	4	985	4894
T80	A	00005780	4	3316	4966
T81	A	00005800	4	3347	4967
T82	A	00005880	4	3378	4968
T83	A	00005900	4	3409	4969
T84	A	00005980	4	3440	4970
T85	A	00005A00	4	3471	4971
T86	A	00005A80	4	3504	4972
T87	A	00005B00	4	3535	4973
T88	A	00005B80	4	3568	4974
T89	A	00005C00	4	3599	4975
T9	A	00003400	4	1016	4895
T90	A	00005C80	4	3632	4976
T91	A	00005D00	4	3663	4977
T92	A	00005D80	4	3695	4978
T93	A	00005E00	4	3726	4979
T94	A	00005E80	4	3761	4980
T95	A	00005F00	4	3794	4981

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES												
T96	A	00005F80	4	3828	4982												
T97	A	00006000	4	3862	4983												
T98	A	00006080	4	3898	4984												
T99	A	00006100	4	3931	4985												
TESTCC	I	00000494	4	302	292												
TESTING	F	00001004	4	519	284												
TESTREST	U	0000047C	1	294	311	348											
TNUM	H	00000004	2	593	283	322	356										
TSUB	A	00000000	4	592	287												
TTABLE	F	00006F84	4	4886													
V0	U	00000000	1	5046													
V1	U	00000001	1	5047	286	785	786	816	817	847	848	878	879	909	910	940	941
					971	972	1003	1004	1034	1035	1065	1066	1096	1097	1127	1128	1158
					1159	1189	1190	1220	1221	1257	1258	1288	1289	1319	1320	1350	1351
					1381	1382	1412	1413	1493	1494	1524	1525	1556	1557	1587	1588	1619
					1620	1650	1651	1681	1682	1712	1713	1744	1745	1775	1776	1806	1807
					1837	1838	1869	1870	1900	1901	1932	1933	1963	1964	1995	1996	2027
					2028	2059	2060	2090	2091	2122	2123	2153	2154	2184	2185	2215	2216
					2251	2252	2282	2283	2313	2314	2344	2345	2376	2377	2407	2408	2439
					2440	2470	2471	2506	2507	2538	2539	2570	2571	2601	2602	2633	2634
					2664	2665	2696	2697	2727	2728	2764	2765	2795	2796	2826	2827	2857
					2858	2890	2891	2921	2922	2952	2953	2983	2984	3016	3017	3047	3048
					3078	3079	3109	3110	3142	3143	3173	3174	3204	3205	3235	3236	3272
					3273	3303	3304	3334	3335	3365	3366	3396	3397	3427	3428	3458	3459
					3489	3490	3522	3523	3553	3554	3586	3587	3617	3618	3650	3651	3681
					3682	3713	3714	3744	3745	3779	3780	3812	3813	3846	3847	3880	3881
					3916	3917	3949	3950	3983	3984	4017	4018	4070	4071	4101	4102	4133
					4134	4164	4165	4196	4197	4227	4228	4258	4259	4289	4290	4321	4322
					4352	4353	4383	4384	4414	4415	4446	4447	4477	4478	4509	4510	4540
					4541	4572	4573	4604	4605	4636	4637	4667	4668	4699	4700	4730	4731
					4761	4762	4792	4793	4827	4828	4863	4864					
V10	U	0000000A	1	5056													
V11	U	0000000B	1	5057													
V12	U	0000000C	1	5058													
V13	U	0000000D	1	5059													
V14	U	0000000E	1	5060													
V15	U	0000000F	1	5061													
V16	U	00000010	1	5062													
V17	U	00000011	1	5063													
V18	U	00000012	1	5064													
V19	U	00000013	1	5065													
V1FUDGE	X	00001128	16	581	286												
V1INPUT	C	00001138	16	582													
V1O1	X	00003018	16	777	786												
V1O10	X	00003498	16	1057	1066												
V1O100	X	00006198	16	3975	3984												
V1O101	X	00006218	16	4009	4018												
V1O102	X	00006298	16	4062	4071												
V1O103	X	00006318	16	4093	4102												
V1O104	X	00006398	16	4125	4134												
V1O105	X	00006418	16	4156	4165												
V1O106	X	00006498	16	4188	4197												
V1O107	X	00006518	16	4219	4228												
V1O108	X	00006598	16	4250	4259												
V1O109	X	00006618	16	4281	4290												
V1O11	X	00003518	16	1088	1097												

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V1O110	X	00006698	16	4313	4322
V1O111	X	00006718	16	4344	4353
V1O112	X	00006798	16	4375	4384
V1O113	X	00006818	16	4406	4415
V1O114	X	00006898	16	4438	4447
V1O115	X	00006918	16	4469	4478
V1O116	X	00006998	16	4501	4510
V1O117	X	00006A18	16	4532	4541
V1O118	X	00006A98	16	4564	4573
V1O119	X	00006B18	16	4596	4605
V1O12	X	00003598	16	1119	1128
V1O120	X	00006B98	16	4628	4637
V1O121	X	00006C18	16	4659	4668
V1O122	X	00006C98	16	4691	4700
V1O123	X	00006D18	16	4722	4731
V1O124	X	00006D98	16	4753	4762
V1O125	X	00006E18	16	4784	4793
V1O126	X	00006E98	16	4819	4828
V1O127	X	00006F18	16	4855	4864
V1O13	X	00003618	16	1150	1159
V1O14	X	00003698	16	1181	1190
V1O15	X	00003718	16	1212	1221
V1O16	X	00003798	16	1249	1258
V1O17	X	00003818	16	1280	1289
V1O18	X	00003898	16	1311	1320
V1O19	X	00003918	16	1342	1351
V1O2	X	00003098	16	808	817
V1O20	X	00003998	16	1373	1382
V1O21	X	00003A18	16	1404	1413
V1O22	X	00003A98	16	1485	1494
V1O23	X	00003B18	16	1516	1525
V1O24	X	00003B98	16	1548	1557
V1O25	X	00003C18	16	1579	1588
V1O26	X	00003C98	16	1611	1620
V1O27	X	00003D18	16	1642	1651
V1O28	X	00003D98	16	1673	1682
V1O29	X	00003E18	16	1704	1713
V1O3	X	00003118	16	839	848
V1O30	X	00003E98	16	1736	1745
V1O31	X	00003F18	16	1767	1776
V1O32	X	00003F98	16	1798	1807
V1O33	X	00004018	16	1829	1838
V1O34	X	00004098	16	1861	1870
V1O35	X	00004118	16	1892	1901
V1O36	X	00004198	16	1924	1933
V1O37	X	00004218	16	1955	1964
V1O38	X	00004298	16	1987	1996
V1O39	X	00004318	16	2019	2028
V1O4	X	00003198	16	870	879
V1O40	X	00004398	16	2051	2060
V1O41	X	00004418	16	2082	2091
V1O42	X	00004498	16	2114	2123
V1O43	X	00004518	16	2145	2154
V1O44	X	00004598	16	2176	2185
V1O45	X	00004618	16	2207	2216
V1O46	X	00004698	16	2243	2252

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V1047	X	00004718	16	2274	2283
V1048	X	00004798	16	2305	2314
V1049	X	00004818	16	2336	2345
V105	X	00003218	16	901	910
V1050	X	00004898	16	2368	2377
V1051	X	00004918	16	2399	2408
V1052	X	00004998	16	2431	2440
V1053	X	00004A18	16	2462	2471
V1054	X	00004A98	16	2498	2507
V1055	X	00004B18	16	2530	2539
V1056	X	00004B98	16	2562	2571
V1057	X	00004C18	16	2593	2602
V1058	X	00004C98	16	2625	2634
V1059	X	00004D18	16	2656	2665
V106	X	00003298	16	932	941
V1060	X	00004D98	16	2688	2697
V1061	X	00004E18	16	2719	2728
V1062	X	00004E98	16	2756	2765
V1063	X	00004F18	16	2787	2796
V1064	X	00004F98	16	2818	2827
V1065	X	00005018	16	2849	2858
V1066	X	00005098	16	2882	2891
V1067	X	00005118	16	2913	2922
V1068	X	00005198	16	2944	2953
V1069	X	00005218	16	2975	2984
V107	X	00003318	16	963	972
V1070	X	00005298	16	3008	3017
V1071	X	00005318	16	3039	3048
V1072	X	00005398	16	3070	3079
V1073	X	00005418	16	3101	3110
V1074	X	00005498	16	3134	3143
V1075	X	00005518	16	3165	3174
V1076	X	00005598	16	3196	3205
V1077	X	00005618	16	3227	3236
V1078	X	00005698	16	3264	3273
V1079	X	00005718	16	3295	3304
V108	X	00003398	16	995	1004
V1080	X	00005798	16	3326	3335
V1081	X	00005818	16	3357	3366
V1082	X	00005898	16	3388	3397
V1083	X	00005918	16	3419	3428
V1084	X	00005998	16	3450	3459
V1085	X	00005A18	16	3481	3490
V1086	X	00005A98	16	3514	3523
V1087	X	00005B18	16	3545	3554
V1088	X	00005B98	16	3578	3587
V1089	X	00005C18	16	3609	3618
V109	X	00003418	16	1026	1035
V1090	X	00005C98	16	3642	3651
V1091	X	00005D18	16	3673	3682
V1092	X	00005D98	16	3705	3714
V1093	X	00005E18	16	3736	3745
V1094	X	00005E98	16	3771	3780
V1095	X	00005F18	16	3804	3813
V1096	X	00005F98	16	3838	3847
V1097	X	00006018	16	3872	3881

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V1O98	X	00006098	16	3908	3917
V1O99	X	00006118	16	3941	3950
V1OUT	X	00000018	16	604	296
V1OUTPUT	X	00001108	16	579	
V2	U	00000002	1	5048	784 785 815 816 846 847 877 878 908 909 939 940 970 971 1002 1003 1033 1034 1064 1065 1095 1096 1126 1127 1157 1158 1188 1189 1219 1220 1256 1257 1287 1288 1318 1319 1349 1350 1380 1381 1411 1412 1492 1493 1523 1524 1555 1556 1586 1587 1618 1619 1649 1650 1680 1681 1711 1712 1743 1744 1774 1775 1805 1806 1836 1837 1868 1869 1899 1900 1931 1932 1962 1963 1994 1995 2026 2027 2058 2059 2089 2090 2121 2122 2152 2153 2183 2184 2214 2215 2250 2251 2281 2282 2312 2313 2343 2344 2375 2376 2406 2407 2438 2439 2469 2470 2505 2506 2537 2538 2569 2570 2600 2601 2632 2633 2663 2664 2695 2696 2726 2727 2763 2764 2794 2795 2825 2826 2856 2857 2889 2890 2920 2921 2951 2952 2982 2983 3015 3016 3046 3047 3077 3078 3108 3109 3141 3142 3172 3173 3203 3204 3234 3235 3271 3272 3302 3303 3333 3334 3364 3365 3395 3396 3426 3427 3457 3458 3488 3489 3521 3522 3552 3553 3585 3586 3616 3617 3649 3650 3680 3681 3712 3713 3743 3744 3778 3779 3811 3812 3845 3846 3879 3880 3915 3916 3948 3949 3982 3983 4016 4017 4069 4070 4100 4101 4132 4133 4163 4164 4195 4196 4226 4227 4257 4258 4288 4289 4320 4321 4351 4352 4382 4383 4413 4414 4445 4446 4476 4477 4508 4509 4539 4540 4571 4572 4603 4604 4635 4636 4666 4667 4698 4699 4729 4730 4760 4761 4791 4792 4826 4827 4862 4863
V20	U	00000014	1	5066	
V21	U	00000015	1	5067	
V22	U	00000016	1	5068	
V23	U	00000017	1	5069	
V24	U	00000018	1	5070	
V25	U	00000019	1	5071	
V26	U	0000001A	1	5072	
V27	U	0000001B	1	5073	
V28	U	0000001C	1	5074	
V29	U	0000001D	1	5075	
V2VALUE	A	0000000C	4	601	
V2_1	A	0000300C	4	775	783
V2_10	A	0000348C	4	1055	1063
V2_100	A	0000618C	4	3973	3981
V2_101	A	0000620C	4	4007	4015
V2_102	A	0000628C	4	4060	4068
V2_103	A	0000630C	4	4091	4099
V2_104	A	0000638C	4	4123	4131
V2_105	A	0000640C	4	4154	4162
V2_106	A	0000648C	4	4186	4194
V2_107	A	0000650C	4	4217	4225
V2_108	A	0000658C	4	4248	4256
V2_109	A	0000660C	4	4279	4287
V2_11	A	0000350C	4	1086	1094
V2_110	A	0000668C	4	4311	4319
V2_111	A	0000670C	4	4342	4350
V2_112	A	0000678C	4	4373	4381
V2_113	A	0000680C	4	4404	4412
V2_114	A	0000688C	4	4436	4444
V2_115	A	0000690C	4	4467	4475
V2_116	A	0000698C	4	4499	4507
V2_117	A	00006A0C	4	4530	4538

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V2_118	A	00006A8C	4	4562	4570
V2_119	A	00006B0C	4	4594	4602
V2_12	A	0000358C	4	1117	1125
V2_120	A	00006B8C	4	4626	4634
V2_121	A	00006C0C	4	4657	4665
V2_122	A	00006C8C	4	4689	4697
V2_123	A	00006D0C	4	4720	4728
V2_124	A	00006D8C	4	4751	4759
V2_125	A	00006E0C	4	4782	4790
V2_126	A	00006E8C	4	4817	4825
V2_127	A	00006F0C	4	4853	4861
V2_13	A	0000360C	4	1148	1156
V2_14	A	0000368C	4	1179	1187
V2_15	A	0000370C	4	1210	1218
V2_16	A	0000378C	4	1247	1255
V2_17	A	0000380C	4	1278	1286
V2_18	A	0000388C	4	1309	1317
V2_19	A	0000390C	4	1340	1348
V2_2	A	0000308C	4	806	814
V2_20	A	0000398C	4	1371	1379
V2_21	A	00003A0C	4	1402	1410
V2_22	A	00003A8C	4	1483	1491
V2_23	A	00003B0C	4	1514	1522
V2_24	A	00003B8C	4	1546	1554
V2_25	A	00003C0C	4	1577	1585
V2_26	A	00003C8C	4	1609	1617
V2_27	A	00003D0C	4	1640	1648
V2_28	A	00003D8C	4	1671	1679
V2_29	A	00003E0C	4	1702	1710
V2_3	A	0000310C	4	837	845
V2_30	A	00003E8C	4	1734	1742
V2_31	A	00003F0C	4	1765	1773
V2_32	A	00003F8C	4	1796	1804
V2_33	A	0000400C	4	1827	1835
V2_34	A	0000408C	4	1859	1867
V2_35	A	0000410C	4	1890	1898
V2_36	A	0000418C	4	1922	1930
V2_37	A	0000420C	4	1953	1961
V2_38	A	0000428C	4	1985	1993
V2_39	A	0000430C	4	2017	2025
V2_4	A	0000318C	4	868	876
V2_40	A	0000438C	4	2049	2057
V2_41	A	0000440C	4	2080	2088
V2_42	A	0000448C	4	2112	2120
V2_43	A	0000450C	4	2143	2151
V2_44	A	0000458C	4	2174	2182
V2_45	A	0000460C	4	2205	2213
V2_46	A	0000468C	4	2241	2249
V2_47	A	0000470C	4	2272	2280
V2_48	A	0000478C	4	2303	2311
V2_49	A	0000480C	4	2334	2342
V2_5	A	0000320C	4	899	907
V2_50	A	0000488C	4	2366	2374
V2_51	A	0000490C	4	2397	2405
V2_52	A	0000498C	4	2429	2437
V2_53	A	00004A0C	4	2460	2468

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V2_54	A	00004A8C	4	2496	2504
V2_55	A	00004B0C	4	2528	2536
V2_56	A	00004B8C	4	2560	2568
V2_57	A	00004C0C	4	2591	2599
V2_58	A	00004C8C	4	2623	2631
V2_59	A	00004D0C	4	2654	2662
V2_6	A	0000328C	4	930	938
V2_60	A	00004D8C	4	2686	2694
V2_61	A	00004E0C	4	2717	2725
V2_62	A	00004E8C	4	2754	2762
V2_63	A	00004F0C	4	2785	2793
V2_64	A	00004F8C	4	2816	2824
V2_65	A	0000500C	4	2847	2855
V2_66	A	0000508C	4	2880	2888
V2_67	A	0000510C	4	2911	2919
V2_68	A	0000518C	4	2942	2950
V2_69	A	0000520C	4	2973	2981
V2_7	A	0000330C	4	961	969
V2_70	A	0000528C	4	3006	3014
V2_71	A	0000530C	4	3037	3045
V2_72	A	0000538C	4	3068	3076
V2_73	A	0000540C	4	3099	3107
V2_74	A	0000548C	4	3132	3140
V2_75	A	0000550C	4	3163	3171
V2_76	A	0000558C	4	3194	3202
V2_77	A	0000560C	4	3225	3233
V2_78	A	0000568C	4	3262	3270
V2_79	A	0000570C	4	3293	3301
V2_8	A	0000338C	4	993	1001
V2_80	A	0000578C	4	3324	3332
V2_81	A	0000580C	4	3355	3363
V2_82	A	0000588C	4	3386	3394
V2_83	A	0000590C	4	3417	3425
V2_84	A	0000598C	4	3448	3456
V2_85	A	00005A0C	4	3479	3487
V2_86	A	00005A8C	4	3512	3520
V2_87	A	00005B0C	4	3543	3551
V2_88	A	00005B8C	4	3576	3584
V2_89	A	00005C0C	4	3607	3615
V2_9	A	0000340C	4	1024	1032
V2_90	A	00005C8C	4	3640	3648
V2_91	A	00005D0C	4	3671	3679
V2_92	A	00005D8C	4	3703	3711
V2_93	A	00005E0C	4	3734	3742
V2_94	A	00005E8C	4	3769	3777
V2_95	A	00005F0C	4	3802	3810
V2_96	A	00005F8C	4	3836	3844
V2_97	A	0000600C	4	3870	3878
V2_98	A	0000608C	4	3906	3914
V2_99	A	0000610C	4	3939	3947
V3	U	00000003	1	5049	
V30	U	0000001E	1	5076	
V31	U	0000001F	1	5077	
V4	U	00000004	1	5050	
V5	U	00000005	1	5051	
V6	U	00000006	1	5052	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES	
V7	U	00000007	1	5053		
V8	U	00000008	1	5054		
V9	U	00000009	1	5055		
X0001	U	000002B0	1	186	174	187
X0002	U	00000368	1	219	207	220
X0003	U	00000420	1	252	240	253
X1	F	00003038	4	782	767	
X10	F	000034B8	4	1062	1047	
X100	F	000061B8	4	3980	3965	
X101	F	00006238	4	4014	3999	
X102	F	000062B8	4	4067	4052	
X103	F	00006338	4	4098	4083	
X104	F	000063B8	4	4130	4115	
X105	F	00006438	4	4161	4146	
X106	F	000064B8	4	4193	4178	
X107	F	00006538	4	4224	4209	
X108	F	000065B8	4	4255	4240	
X109	F	00006638	4	4286	4271	
X11	F	00003538	4	1093	1078	
X110	F	000066B8	4	4318	4303	
X111	F	00006738	4	4349	4334	
X112	F	000067B8	4	4380	4365	
X113	F	00006838	4	4411	4396	
X114	F	000068B8	4	4443	4428	
X115	F	00006938	4	4474	4459	
X116	F	000069B8	4	4506	4491	
X117	F	00006A38	4	4537	4522	
X118	F	00006AB8	4	4569	4554	
X119	F	00006B38	4	4601	4586	
X12	F	000035B8	4	1124	1109	
X120	F	00006BB8	4	4633	4618	
X121	F	00006C38	4	4664	4649	
X122	F	00006CB8	4	4696	4681	
X123	F	00006D38	4	4727	4712	
X124	F	00006DB8	4	4758	4743	
X125	F	00006E38	4	4789	4774	
X126	F	00006EB8	4	4824	4809	
X127	F	00006F38	4	4860	4845	
X13	F	00003638	4	1155	1140	
X14	F	000036B8	4	1186	1171	
X15	F	00003738	4	1217	1202	
X16	F	000037B8	4	1254	1239	
X17	F	00003838	4	1285	1270	
X18	F	000038B8	4	1316	1301	
X19	F	00003938	4	1347	1332	
X2	F	000030B8	4	813	798	
X20	F	000039B8	4	1378	1363	
X21	F	00003A38	4	1409	1394	
X22	F	00003AB8	4	1490	1475	
X23	F	00003B38	4	1521	1506	
X24	F	00003BB8	4	1553	1538	
X25	F	00003C38	4	1584	1569	
X26	F	00003CB8	4	1616	1601	
X27	F	00003D38	4	1647	1632	
X28	F	00003DB8	4	1678	1663	
X29	F	00003E38	4	1709	1694	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
X3	F	00003138	4	844	829
X30	F	00003EB8	4	1741	1726
X31	F	00003F38	4	1772	1757
X32	F	00003FB8	4	1803	1788
X33	F	00004038	4	1834	1819
X34	F	000040B8	4	1866	1851
X35	F	00004138	4	1897	1882
X36	F	000041B8	4	1929	1914
X37	F	00004238	4	1960	1945
X38	F	000042B8	4	1992	1977
X39	F	00004338	4	2024	2009
X4	F	000031B8	4	875	860
X40	F	000043B8	4	2056	2041
X41	F	00004438	4	2087	2072
X42	F	000044B8	4	2119	2104
X43	F	00004538	4	2150	2135
X44	F	000045B8	4	2181	2166
X45	F	00004638	4	2212	2197
X46	F	000046B8	4	2248	2233
X47	F	00004738	4	2279	2264
X48	F	000047B8	4	2310	2295
X49	F	00004838	4	2341	2326
X5	F	00003238	4	906	891
X50	F	000048B8	4	2373	2358
X51	F	00004938	4	2404	2389
X52	F	000049B8	4	2436	2421
X53	F	00004A38	4	2467	2452
X54	F	00004AB8	4	2503	2488
X55	F	00004B38	4	2535	2520
X56	F	00004BB8	4	2567	2552
X57	F	00004C38	4	2598	2583
X58	F	00004CB8	4	2630	2615
X59	F	00004D38	4	2661	2646
X6	F	000032B8	4	937	922
X60	F	00004DB8	4	2693	2678
X61	F	00004E38	4	2724	2709
X62	F	00004EB8	4	2761	2746
X63	F	00004F38	4	2792	2777
X64	F	00004FB8	4	2823	2808
X65	F	00005038	4	2854	2839
X66	F	000050B8	4	2887	2872
X67	F	00005138	4	2918	2903
X68	F	000051B8	4	2949	2934
X69	F	00005238	4	2980	2965
X7	F	00003338	4	968	953
X70	F	000052B8	4	3013	2998
X71	F	00005338	4	3044	3029
X72	F	000053B8	4	3075	3060
X73	F	00005438	4	3106	3091
X74	F	000054B8	4	3139	3124
X75	F	00005538	4	3170	3155
X76	F	000055B8	4	3201	3186
X77	F	00005638	4	3232	3217
X78	F	000056B8	4	3269	3254
X79	F	00005738	4	3300	3285
X8	F	000033B8	4	1000	985

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES					
X80	F	000057B8	4	3331	3316					
X81	F	00005838	4	3362	3347					
X82	F	000058B8	4	3393	3378					
X83	F	00005938	4	3424	3409					
X84	F	000059B8	4	3455	3440					
X85	F	00005A38	4	3486	3471					
X86	F	00005AB8	4	3519	3504					
X87	F	00005B38	4	3550	3535					
X88	F	00005BB8	4	3583	3568					
X89	F	00005C38	4	3614	3599					
X9	F	00003438	4	1031	1016					
X90	F	00005CB8	4	3647	3632					
X91	F	00005D38	4	3678	3663					
X92	F	00005DB8	4	3710	3695					
X93	F	00005E38	4	3741	3726					
X94	F	00005EB8	4	3776	3761					
X95	F	00005F38	4	3809	3794					
X96	F	00005FB8	4	3843	3828					
X97	F	00006038	4	3877	3862					
X98	F	000060B8	4	3913	3898					
X99	F	00006138	4	3946	3931					
XC0001	U	000002D8	1	200	192					
XC0002	U	00000390	1	233	225					
XC0003	U	00000448	1	266	258					
ZVE6TST	J	00000000	29072	112	115	117	121	125	517	702	113
=A(E6TESTS)	A	00000700	4	495	272					
=AL2(L'MSGMSG)	R	0000070A	2	498	443					
=F'1'	F	000006FC	4	494	257	310	393			
=F'128'	F	000006F8	4	493	224					
=F'2'	F	000006F4	4	492	191					
=H'0'	H	00000708	2	497	438					
=XL4'3'	X	00000704	4	496	317					

MACRO	DEFN	REFERENCES																
FCHECK	64	173	206	239														
PTTABLE	679	4885																
VRI_G	620	764	795	826	857	888	919	950	982	1013	1044	1075	1106	1137	1168	1199	1236	1267
		1298	1329	1360	1391	1472	1503	1535	1566	1598	1629	1660	1691	1723	1754	1785	1816	1848
		1879	1911	1942	1974	2006	2038	2069	2101	2132	2163	2194	2230	2261	2292	2323	2355	2386
		2418	2449	2485	2517	2549	2580	2612	2643	2675	2706	2743	2774	2805	2836	2869	2900	2931
		2962	2995	3026	3057	3088	3121	3152	3183	3214	3251	3282	3313	3344	3375	3406	3437	3468
		3501	3532	3565	3596	3629	3660	3692	3723	3758	3791	3825	3859	3895	3928	3962	3996	4049
		4080	4112	4143	4175	4206	4237	4268	4300	4331	4362	4393	4425	4456	4488	4519	4551	4583
		4615	4646	4678	4709	4740	4771	4806	4842									

```
   DESC     SYMBOL   SIZE     POS        ADDR

Entry: 0

Image      IMAGE    29072  0000-718F  0000-718F
  Region            29072  0000-718F  0000-718F
    CSECT  ZVE6TST  29072  0000-718F  0000-718F
```

```
   STMT                        FILE NAME
1     /devstor/sharedvfp/tests/zvector-e6-16-VSRP-VPSOP.asm

** NO ERRORS FOUND **
```