```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                      2 ************************************************************************
                                                      3 *
                                                      4 *        Zvector E6 instruction tests for VRI-f encoded:
                                                      5 *
                                                      6 *        E671 VAP    - VECTOR ADD DECIMAL
                                                      7 *        E673 VSP    - VECTOR SUBTRACT DECIMAL
                                                      8 *        E678 VMP    - VECTOR MULTIPLY DECIMAL
                                                      9 *        E679 VSDP   - VECTOR MULTIPLY AND SHIFT DECIMAL
                                                     10 *        E67A VDP    - VECTOR DIVIDE DECIMAL
                                                     11 *        E67B VRP    - VECTOR REMAINDER DECIMAL
                                                     12 *        E67E VSDP   - VECTOR SHIFT AND DIVIDE DECIMAL
                                                     13 *
                                                     14 *        James Wekel June 2024
                                                     15 ************************************************************************
                                                     16
                                                     17 ************************************************************************
                                                     18 *
                                                     19 *        basic instruction tests
                                                     20 *
                                                     21 ************************************************************************
                                                     22 *  This program tests proper functioning of the z/arch E6 VRI-f vector
                                                     23 *  packed decimal arithmetic instructions. Exceptions are not tested.
                                                     24 *
                                                     25 *  PLEASE NOTE that the tests are very SIMPLE TESTS designed to catch
                                                     26 *  obvious coding errors.  None of the tests are thorough.  They are
                                                     27 *  NOT designed to test all aspects of any of the instructions.
                                                     28 *
                                                     29 ************************************************************************
                                                     30 *
                                                     31 *  *Testcase VECTOR E6 VRI-f packed arithmetic instructions
                                                     32 *  *
                                                     33 *  *   Zvector E6 tests for VRI-f encoded packed decimal
                                                     34 *  *   arithmetic instructions:
                                                     35 *  *
                                                     36 *  *   E671 VAP    - VECTOR ADD DECIMAL
                                                     37 *  *   E673 VSP    - VECTOR SUBTRACT DECIMAL
                                                     38 *  *   E678 VMP    - VECTOR MULTIPLY DECIMAL
                                                     39 *  *   E679 VMSP   - VECTOR MULTIPLY AND SHIFT DECIMAL
                                                     40 *  *   E67A VDP    - VECTOR DIVIDE DECIMAL
                                                     41 *  *   E67B VRP    - VECTOR REMAINDER DECIMAL
                                                     42 *  *   E67E VSDP   - VECTOR SHIFT AND DIVIDE DECIMAL
                                                     43 *  *
                                                     44 *  *   # ---------------------------------------------------------
                                                     45 *  *   #  This tests only the basic function of the instruction.
                                                     46 *  *   #  Exceptions are NOT tested.
                                                     47 *  *   # ---------------------------------------------------------
                                                     48 *  *
                                                     49 *  mainsize    2
                                                     50 *  numcpu      1
                                                     51 *  sysclear
                                                     52 *  archlvl     z/Arch
                                                     53 *
                                                     54 *  loadcore    "$(testpath)/zvector-e6-05-packarith.core" 0x0
                                                     55 *
                                                     56 *  diag8cmd    enable    # (needed for messages to Hercules console)
                                                     57 *  runtest     2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                      58 *  diag8cmd    disable   # (reset back to default)
                                                      59 *
                                                      60 *  *Done
                                                      61 ********************************************************************************


                                00000000  00004EEF    63 ZVE6TST  START 0
00000000                        00000000              64          USING ZVE6TST,R0            Low core addressability
                                                      65
                                00000140  00000000    66 SVOLDPSW EQU   ZVE6TST+X'140'        z/Arch Supervisor call old PSW

00000000                        00000000  000001A0    68          ORG   ZVE6TST+X'1A0'        z/Architecure RESTART PSW
000001A0  00000001 80000000                           69          DC    X'0000000180000000'
000001A8  00000000 00000200                           70          DC    AD(BEGIN)

000001B0                        000001B0  000001D0    72          ORG   ZVE6TST+X'1D0'        z/Architecure PROGRAM CHECK PSW
000001D0  00020001 80000000                           73          DC    X'0002000180000000'
000001D8  00000000 0000DEAD                           74          DC    AD(X'DEAD')



000001E0                        000001E0  00000200    76          ORG   ZVE6TST+X'200'        Start of actual test program...
                                                      77
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                                     79 ************************************************************************
                                                     80 *               The actual "ZVE6TST" program itself...
                                                     81 ************************************************************************
                                                     82 *
                                                     83 *  Architecture Mode: z/Arch
                                                     84 *  Register Usage:
                                                     85 *
                                                     86 *   R0       (work)
                                                     87 *   R1-4     (work)
                                                     88 *   R5       Testing control table - current test base
                                                     89 *   R6-R7    (work)
                                                     90 *   R8       First base register
                                                     91 *   R9       Second base register
                                                     92 *   R10      Third base register
                                                     93 *   R11      E6TEST call return
                                                     94 *   R12      E6TESTS register
                                                     95 *   R13      (work)
                                                     96 *   R14      Subroutine call
                                                     97 *   R15      Secondary Subroutine call or work
                                                     98 *
                                                     99 ************************************************************************

00000200                        00000200            101          USING  BEGIN,R8        FIRST Base Register
00000200                        00001200            102          USING  BEGIN+4096,R9   SECOND Base Register

00000200  0580                                      104 BEGIN    BALR  R8,0             Initalize FIRST base register
00000202  0680                                      105          BCTR  R8,0             Initalize FIRST base register
00000204  0680                                      106          BCTR  R8,0             Initalize FIRST base register

00000206  4190 8800                      00000800   108          LA    R9,2048(,R8)     Initalize SECOND base register
0000020A  4190 9800                      00000800   109          LA    R9,2048(,R9)     Initalize SECOND base register

0000020E  41A0 9800                      00000800   111          LA    R10,2048(,R9)    Initalize THIRD base register
00000212  41A0 A800                      00000800   112          LA    R10,2048(,R10)   Initalize THIRD base register
                                                    113
00000216  B600 82A4                      000004A4   114          STCTL R0,R0,CTLR0      Store CR0 to enable AFP
0000021A  9604 82A5                      000004A5   115          OI    CTLR0+1,X'04'    Turn on AFP bit
0000021E  9602 82A5                      000004A5   116          OI    CTLR0+1,X'02'    Turn on Vector bit
00000222  B700 82A4                      000004A4   117          LCTL  R0,R0,CTLR0      Reload updated CR0
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    119 ********************************************************************************
                                                    120 *               Do tests in the E6TESTS table
                                                    121 ********************************************************************************
                                                    122
00000226  58C0 82AC                      000004AC   123           L     R12,E6TADR       get table of test addresses
                                                    124
                                0000022A  00000001  125 NEXTE6    EQU   *
0000022A  5850 C000                      00000000   126           L     R5,0(0,R12)       get test address
0000022E  1255                                      127           LTR   R5,R5                have a test?
00000230  4780 8176                      00000376   128           BZ    ENDTEST                 done?
                                                    129
00000234  B982 0000                                 130           XGR   R0,R0              no cc error
                                                    131
00000238                                 00000000   132           USING E6TEST,R5
00000238  E710 8F20 0006                 00001120   133           VL    V1,V1FUDGE
0000023E  58B0 5000                      00000000   134           L     R11,TSUB           get address of test routine
00000242  05BB                                      135           BALR  R11,R11            do test
                                                    136
00000244  E310 500A 0076                 0000000A   137           LB    R1,CCMASK          (failure CC mask)
0000024A  8910 0004                      00000004   138           SLL   R1,4               (shift to BC instr CC position)
0000024E  4410 806A                      0000026A   139           EX    R1,TESTCC             fail if...
                                                    140
                                00000252  00000001  141 TESTREST EQU   *
00000252  E310 502C 0014                 0000002C   142           LGF   R1,READDR          get address of expected result
00000258  D50F 8F00 1000       00001100  00000000   143           CLC   V1OUTPUT,0(R1)     valid?
0000025E  4770 80FE                      000002FE   144           BNE   FAILMSG               no, issue failed message
                                                    145
00000262  41C0 C004                      00000004   146           LA    R12,4(0,R12)        next test address
00000266  47F0 802A                      0000022A   147           B     NEXTE6
                                                    148
0000026A  4700 806E                      0000026E   149 TESTCC    BC    0,CCMSG          (fail if unexpected condition code)
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT
                                                    151 ********************************************************************************
                                                    152 * cc was not as expected
                                                    153 ********************************************************************************
                               0000026E  00000001   154 CCMSG    EQU   *
0000026E  E310 0001 0082                 00000001   155          XG    R1,R1
00000274  E310 5008 0076                 00000008   156          LB    R1,M5           M5 has CS bit
0000027A  5410 82B0                      000004B0   157          N     R1,=F'1'        get CS (CC set) bit
0000027E  4780 8052                      00000252   158          BZ    TESTREST           ignore if not set
                                                    159 *
                                                    160 * extract CC extracted PSW
                                                    161 *
00000282  5810 8EE4                      000010E4   162          L     R1,CCPSW
00000286  8810 000C                      0000000C   163          SRL   R1,12
0000028A  5410 82B4                      000004B4   164          N     R1,=XL4'3'
0000028E  4210 8EEC                      000010EC   165          STC   R1,CCFOUND      save cc
                                                    166 *
                                                    167 * FILL IN MESSAGE
                                                    168 *
00000292  4820 5004                      00000004   169          LH    R2,TNUM                  get test number and convert
00000296  4E20 8ED1                      000010D1   170          CVD   R2,DECNUM
0000029A  D211 8EBB 8EA5       000010BB  000010A5   171          MVC   PRT3,EDIT
000002A0  DE11 8EBB 8ED1       000010BB  000010D1   172          ED    PRT3,DECNUM
000002A6  D202 8E60 8EC8       00001060  000010C8   173          MVC   CCPRTNUM(3),PRT3+13      fill in message with test #
                                                    174
000002AC  D207 8E7D 5020       0000107D  00000020   175          MVC   CCPRTNAME,OPNAME         fill in message with instruction
                                                    176
000002B2  B982 0022                                 177          XGR   R2,R2                    get CC as U8
000002B6  4320 5009                      00000009   178          IC    R2,CC
000002BA  4E20 8ED1                      000010D1   179          CVD   R2,DECNUM                and convert
000002BE  D211 8EBB 8EA5       000010BB  000010A5   180          MVC   PRT3,EDIT
000002C4  DE11 8EBB 8ED1       000010BB  000010D1   181          ED    PRT3,DECNUM
000002CA  D200 8E93 8ECA       00001093  000010CA   182          MVC   CCPRTEXP(1),PRT3+15      fill in message with CC field
                                                    183
000002D0  B982 0022                                 184          XGR   R2,R2                    get CCFOUND as U8
000002D4  4320 8EEC                      000010EC   185          IC    R2,CCFOUND
000002D8  4E20 8ED1                      000010D1   186          CVD   R2,DECNUM                and convert
000002DC  D211 8EBB 8EA5       000010BB  000010A5   187          MVC   PRT3,EDIT
000002E2  DE11 8EBB 8ED1       000010BB  000010D1   188          ED    PRT3,DECNUM
000002E8  D200 8EA3 8ECA       000010A3  000010CA   189          MVC   CCPRTGOT(1),PRT3+15    fill in message with ccfound
                                                    190
000002EE  4100 0055                      00000055   191          LA    R0,CCPRTLNG              message length
000002F2  4110 8E50                      00001050   192          LA    R1,CCPRTLINE             messagfe address
000002F6  45F0 8184                      00000384   193          BAL   R15,RPTERROR
                                                    194
000002FA  47F0 8166                      00000366   195          B     FAILCONT
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT
                                                   197 ************************************************************************
                                                   198 * result not as expected:
                                                   199 *        issue message with test number, instruction under test
                                                   200 *              and instruction m3
                                                   201 ************************************************************************
                               000002FE  00000001  202 FAILMSG  EQU   *
000002FE  4820 5004                    00000004    203          LH    R2,TNUM              get test number and convert
00000302  4E20 8ED1                    000010D1    204          CVD   R2,DECNUM
00000306  D211 8EBB 8EA5       000010BB  000010A5  205          MVC   PRT3,EDIT
0000030C  DE11 8EBB 8ED1       000010BB  000010D1  206          ED    PRT3,DECNUM
00000312  D202 8E14 8EC8       00001014  000010C8  207          MVC   PRTNUM(3),PRT3+13    fill in message with test #
                                                   208
00000318  D207 8E2F 5020       0000102F  00000020  209          MVC   PRTNAME,OPNAME       fill in message with instruction
                                                   210
0000031E  B982 0022                                211          XGR   R2,R2                get i4 as U8
00000322  4320 5007                    00000007    212          IC    R2,I4
00000326  4E20 8ED1                    000010D1    213          CVD   R2,DECNUM            and convert
0000032A  D211 8EBB 8EA5       000010BB  000010A5  214          MVC   PRT3,EDIT
00000330  DE11 8EBB 8ED1       000010BB  000010D1  215          ED    PRT3,DECNUM
00000336  D202 8E40 8EC8       00001040  000010C8  216          MVC   PRTI4(3),PRT3+13     fill in message with i4 field
                                                   217
0000033C  B982 0022                                218          XGR   R2,R2                get m5 as U8
00000340  4320 5008                    00000008    219          IC    R2,M5                and convert
00000344  4E20 8ED1                    000010D1    220          CVD   R2,DECNUM
00000348  D211 8EBB 8EA5       000010BB  000010A5  221          MVC   PRT3,EDIT
0000034E  DE11 8EBB 8ED1       000010BB  000010D1  222          ED    PRT3,DECNUM
00000354  D201 8E4D 8EC9       0000104D  000010C9  223          MVC   PRTM5(2),PRT3+14     fill in message with m5 field
                                                   224
0000035A  4100 004C                    0000004C    225          LA    R0,PRTLNG            message length
0000035E  4110 8E04                    00001004    226          LA    R1,PRTLINE           messagfe address
00000362  45F0 8184                    00000384    227          BAL   R15,RPTERROR


                                                   229 ************************************************************************
                                                   230 * continue after a failed test
                                                   231 ************************************************************************
                               00000366  00000001  232 FAILCONT EQU   *
00000366  5800 82B0                    000004B0    233          L     R0,=F'1'           set GLOBAL failed test indicator
0000036A  5000 8E00                    00001000    234          ST    R0,FAILED
                                                   235
0000036E  41C0 C004                    00000004    236          LA    R12,4(0,R12)       next test address
00000372  47F0 802A                    0000022A    237          B     NEXTE6


                                                   239 ************************************************************************
                                                   240 * end of testing; set ending psw
                                                   241 ************************************************************************
                               00000376  00000001  242 ENDTEST  EQU   *
00000376  5810 8E00                    00001000    243          L     R1,FAILED            did a test fail?
0000037A  1211                                     244          LTR   R1,R1
0000037C  4780 8288                    00000488    245          BZ    EOJ                  No, exit
00000380  47F0 82A0                    000004A0    246          B     FAILTEST             Yes, exit with BAD PSW
                                                   247
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    249 ************************************************************************
                                                    250 *        RPTERROR          Report instruction test in error
                                                    251 *                             R0 = MESSGAE LENGTH
                                                    252 *                             R1 = ADDRESS OF MESSAGE
                                                    253 ************************************************************************

00000384  50F0 81A4                 000003A4    255 RPTERROR ST    R15,RPTSAVE          Save return address
00000388  5050 81A8                 000003A8    256          ST    R5,RPTSVR5           Save R5
                                                    257 *
                                                    258 *        Use Hercules Diagnose for Message to console
                                                    259 *
0000038C  9002 81B0                 000003B0    260          STM   R0,R2,RPTDWSAV     save regs used by MSG
00000390  4520 81C0                 000003C0    261          BAL   R2,MSG             call Hercules console MSG display
00000394  9802 81B0                 000003B0    262          LM    R0,R2,RPTDWSAV     restore regs


00000398  5850 81A8                 000003A8    264          L     R5,RPTSVR5         Restore R5
0000039C  58F0 81A4                 000003A4    265          L     R15,RPTSAVE        Restore return address
000003A0  07FF                                  266          BR    R15                Return to caller

000003A4  00000000                              268 RPTSAVE  DC    F'0'               R15 save area
000003A8  00000000                              269 RPTSVR5  DC    F'0'               R5 save area

000003B0  00000000 00000000                     271 RPTDWSAV DC    2D'0'              R0-R2 save area for MSG call
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    273 ************************************************************************
                                                    274 *        Issue HERCULES MESSAGE pointed to by R1, length in R0
                                                    275 *              R2 = return address
                                                    276 ************************************************************************
                                                    277
000003C0  4900 82B8                  000004B8     278 MSG      CH    R0,=H'0'                 Do we even HAVE a message?
000003C4  07D2                                    279          BNHR  R2                       No, ignore
                                                  280
000003C6  9002 81F8                  000003F8     281          STM   R0,R2,MSGSAVE            Save registers
                                                  282
000003CA  4900 82BA                  000004BA     283          CH    R0,=AL2(L'MSGMSG)        Message length within limits?
000003CE  47D0 81D6                  000003D6     284          BNH   MSGOK                    Yes, continue
000003D2  4100 005F                  0000005F     285          LA    R0,L'MSGMSG              No, set to maximum
                                                  286
000003D6  1820                                    287 MSGOK    LR    R2,R0                    Copy length to work register
000003D8  0620                                    288          BCTR  R2,0                     Minus-1 for execute
000003DA  4420 8204                  00000404     289          EX    R2,MSGMVC                Copy message to O/P buffer
                                                  290
000003DE  4120 200A                  0000000A     291          LA    R2,1+L'MSGCMD(,R2)       Calculate true command length
000003E2  4110 820A                  0000040A     292          LA    R1,MSGCMD                Point to true command
                                                  293
000003E6  83120008                                294          DC    X'83',X'12',X'0008'      Issue Hercules Diagnose X'008'
000003EA  4780 81F0                  000003F0     295          BZ    MSGRET                   Return if successful
000003EE  0000                                    296          DC    H'0'                     CRASH for debugging purposes
                                                  297
000003F0  9802 81F8                  000003F8     298 MSGRET   LM    R0,R2,MSGSAVE            Restore registers
000003F4  07F2                                    299          BR    R2                       Return to caller


000003F8  00000000 00000000                       301 MSGSAVE  DC    3F'0'                    Registers save area
00000404  D200 8213 1000      00000413  00000000  302 MSGMVC   MVC   MSGMSG(0),0(R1)          Executed instruction


0000040A  D4E2C7D5 D6C8405C                       304 MSGCMD   DC    C'MSGNOH * '             *** HERCULES MESSAGE COMMAND ***
00000413  40404040 40404040                       305 MSGMSG   DC    CL95' '                  The message text to be displayed
                                                  306
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
                                                      308 ************************************************************************
                                                      309 *        Normal completion or Abnormal termination PSWs
                                                      310 ************************************************************************


00000478  00020001 80000000                           312 EOJPSW   DC    0D'0',X'0002000180000000',AD(0)

00000488  B2B2 8278                   00000478        314 EOJ      LPSWE EOJPSW               Normal completion


00000490  00020001 80000000                           316 FAILPSW  DC    0D'0',X'0002000180000000',AD(X'BAD')

000004A0  B2B2 8290                   00000490        318 FAILTEST LPSWE FAILPSW              Abnormal termination


                                                      320 ************************************************************************
                                                      321 *        Working Storage
                                                      322 ************************************************************************

000004A4  00000000                                    324 CTLR0    DS    F                    CR0
000004A8  00000000                                    325          DS    F
                                                      326
000004AC  00004D04                                    327 E6TADR   DC    A(E6TESTS)           address of E6 test table


000004B0                                              329          LTORG ,                    Literals pool
000004B0  00000001                                    330                =F'1'
000004B4  00000003                                    331                =XL4'3'
000004B8  0000                                        332                =H'0'
000004BA  005F                                        333                =AL2(L'MSGMSG)
                                                      334
                                                      335 *        some constants
                                                      336
                          00000400  00000001          337 K        EQU   1024                 One KB
                          00001000  00000001          338 PAGE     EQU   (4*K)                Size of one page
                          00010000  00000001          339 K64      EQU   (64*K)               64 KB
                          00100000  00000001          340 MB       EQU   (K*K)                 1 MB
                                                      341
                          AABBCCDD  00000001          342 REG2PATT EQU   X'AABBCCDD'      Polluted Register pattern
                          000000DD  00000001          343 REG2LOW  EQU         X'DD'      (last byte above)
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    345 *=====================================================================
                                                    346 *
                                                    347 *  NOTE: start data on an address that is easy to display
                                                    348 *        within Hercules
                                                    349 *
                                                    350 *=====================================================================
                                                    351
000004BC                      000004BC  00001000    352          ORG   ZVE6TST+X'1000'
00001000  00000000                                  353 FAILED   DC    F'0'                      some test failed?


                                                    355 ***************************************************************************
                                                    356 *        TEST failed : result messgae
                                                    357 ***************************************************************************
                                                    358 *
                                                    359 *        failed message and associated editting
                                                    360 *
00001004  40404040 40404040                         361 PRTLINE  DC    C'         Test # '
00001014  A7A7A7                                    362 PRTNUM   DC    C'xxx'
00001017  40868189 93858440                         363          DC    C' failed for instruction '
0000102F  A7A7A7A7 A7A7A7A7                         364 PRTNAME  DC    CL8'xxxxxxxx'
00001037  40A689A3 884089F4                         365          DC    C' with i4='
00001040  A7A7A7                                    366 PRTI4    DC    C'xxx'
00001043  6B                                        367          DC    C','
00001044  40A689A3 884094F5                         368          DC    C' with m5='
0000104D  A7A7                                      369 PRTM5    DC    C'xx'
0000104F  4B                                        370          DC    C'.'
                                0000004C  00000001  371 PRTLNG   EQU   *-PRTLINE


                                                    373 ***************************************************************************
                                                    374 *        TEST failed : CC message
                                                    375 ***************************************************************************
                                                    376 *
                                                    377 *        failed message and associated editting
                                                    378 *
00001050  40404040 40404040                         379 CCPRTLINE DC   C'         Test # '
00001060  A7A7A7                                    380 CCPRTNUM DC    C'xxx'
00001063  40A69996 95874083                         381          DC    c' wrong cc for instruction '
0000107D  A7A7A7A7 A7A7A7A7                         382 CCPRTNAME DC    CL8'xxxxxxxx'
00001085  4085A797 8583A385                         383          DC    C' expected: cc='
00001093  A7                                        384 CCPRTEXP DC    C'x'
00001094  6B                                        385          DC    C','
00001095  40998583 8589A585                         386          DC    C' received: cc='
000010A3  A7                                        387 CCPRTGOT DC    C'x'
000010A4  4B                                        388          DC    C'.'
                                00000055  00000001  389 CCPRTLNG   EQU   *-CCPRTLINE
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    391 ************************************************************************
                                                    392 *        TEST failed : message working storge
                                                    393 ************************************************************************
000010A5  40212020 20202020                         394 EDIT     DC    XL18'40212020202020202020202020202020'
                                                    395
000010B7  7E7E7E6E                                  396          DC    C'===>'
000010BB  40404040 40404040                         397 PRT3     DC    CL18' '
000010CD  4C7E7E7E                                  398          DC    C'<==='
000010D1  00000000 00000000                         399 DECNUM   DS    CL16
                                                    400 *
                                                    401 *        CC extrtaction
                                                    402 *
000010E4  00000000 00000000                         403 CCPSW    DS    2F          extract PSW after test (has CC)
000010EC  00                                        404 CCFOUND  DS    X           extracted cc

                                                    406 ************************************************************************
                                                    407 *        Vector instruction results, pollution and input
                                                    408 ************************************************************************
000010F0                                            409          DS    0FD
000010F0  00000000 00000000                         410          DS    XL16                                    gap
00001100  00000000 00000000                         411 V1OUTPUT DS    XL16                                  V1 OUTPUT
00001110  00000000 00000000                         412          DS    XL16                                    gap
00001120  FFFFFFFF FFFFFFFF                         413 V1FUDGE  DC    XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF'  V1 FUDGE
00001130  F1F2F3F4 F5F6F7F8                         414 V1INPUT  DC    CL16'1234567890123456'                  V1 input
00001140  F7F8F9F0 F1F2F3F4                         415          DC    CL14'78901234567890'
0000114E  D9                                        416          DC    X'D9'
0000114F  00000000 00000000                         417 V2PACKED DS    XL16                  packed version of macro v2
0000115F  00000000 00000000                         418 V3PACKED DS    XL16                  packed version of macro v3
0000116F  00000000 00000000                         419          DS    XL16
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                     421 ********************************************************************************
                                                     422 *        E6TEST DSECT
                                                     423 ********************************************************************************


                                                     425 E6TEST   DSECT ,
00000000  00000000                                   426 TSUB     DC    A(0)              pointer  to test
00000004  0000                                       427 TNUM     DC    H'00'             Test Number
00000006  00                                         428          DC    X'00'
00000007  00                                         429 I4       DC    HL1'00'           I4 used
00000008  00                                         430 M5       DC    HL1'00'           M5 used
00000009  00                                         431 CC       DC    HL1'00'           cc
0000000A  00                                         432 CCMASK   DC    HL1'00'           not expected CC mask
                                                     433
00000010  00000000 00000000                          434 V2VALUE  DC    FD'0'
00000018  00000000 00000000                          435 V3VALUE  DC    FD'0'
                                                     436
00000020  40404040 40404040                          437 OPNAME   DC    CL8' '            E6 name
                                                     438
00000028  00000000                                   439 RELEN    DC    A(0)              result length
0000002C  00000000                                   440 READDR   DC    A(0)              expected result address
                                                     441
                                                     442 *        EXPECTED RESULT
                                                     443 **
                                                     444 *        test routine will be here (from VRI_F macro)
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT

                                                      446 ************************************************************************
                                                      447 *     Macros to help build test tables
                                                      448 *----------------------------------------------------------------------
                                                      449 *     VRI_F Macro to help build test tables
                                                      450 ************************************************************************
                                                      451          MACRO
                                                      452          VRI_F &INST,&V2,&V3,&I4,&M5,&CC
                                                      453 .*                                 &INST - VRI-f instruction under test
                                                      454 .*                                 &v2   - binary DW value for V2
                                                      455 .*                                 &v3   - binary DW value for V3
                                                      456 .*                                 &i4   - i4 field
                                                      457 .*                                 &m5   - m5 field
                                                      458 .*                                 &CC   - expected CC
                                                      459 .*
                                                      460          LCLA  &XCC(4)  &CC has mask values for FAILED condition codes
                                                      461 &XCC(1)  SETA  7                   CC != 0
                                                      462 &XCC(2)  SETA  11                  CC != 1
                                                      463 &XCC(3)  SETA  13                  CC != 2
                                                      464 &XCC(4)  SETA  14                  CC != 3
                                                      465
                                                      466          GBLA  &TNUM
                                                      467 &TNUM    SETA  &TNUM+1
                                                      468
                                                      469          DS    0FD
                                                      470          USING *,R5               base for test data and test routine
                                                      471
                                                      472 T&TNUM   DC    A(X&TNUM)          address of test routine
                                                      473          DC    H'&TNUM'           test number
                                                      474          DC    X'00'
                                                      475          DC    HL1'&I4'           i4
                                                      476          DC    HL1'&M5'           m5
                                                      477          DC    HL1'&CC'           cc
                                                      478          DC    HL1'&XCC(&CC+1)'   cc failed mask
                                                      479 V2_&TNUM DC    FD'&V2'            binary value for v2 packed decimal
                                                      480 V3_&TNUM DC    FD'&V3'            binary value for v3 packed decimal
                                                      481          DC    CL8'&INST'         instruction name
                                                      482          DC    A(16)              result length
                                                      483 REA&TNUM DC    A(RE&TNUM)         result address
                                                      484 .*
                                                      485 *                                 INSTRUCTION UNDER TEST ROUTINE
                                                      486 X&TNUM   DS    0F
                                                      487          LG    R2,V2_&TNUM        convert v2
                                                      488          CVDG  R2,V2PACKED
                                                      489          VL    V2,V2PACKED
                                                      490
                                                      491          LG    R2,V3_&TNUM        convert v3
                                                      492          CVDG  R2,V3PACKED
                                                      493          VL    V3,V3PACKED
                                                      494
                                                      495          &INST V1,V2,V3,&I4,&M5   test instruction
                                                      496
                                                      497          VST   V1,V1OUTPUT        save result
                                                      498          EPSW  R2,R0              exptract psw
                                                      499          ST    R2,CCPSW               to save CC
                                                      500          BR    R11                return
                                                      501
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT

                                                      502 RE&TNUM  DC    0F
                                                      503
                                                      504          DROP  R5
                                                      505          MEND
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT

                                                      507 ************************************************************************
                                                      508 *     PTTABLE Macro to generate table of pointers to individual tests
                                                      509 ************************************************************************
                                                      510
                                                      511          MACRO
                                                      512          PTTABLE
                                                      513          GBLA  &TNUM
                                                      514          LCLA  &CUR
                                                      515 &CUR     SETA  1
                                                      516 .*
                                                      517 TTABLE   DS    0F
                                                      518 .LOOP    ANOP
                                                      519 .*
                                                      520          DC    A(T&CUR)          address of test
                                                      521 .*
                                                      522 &CUR     SETA  &CUR+1
                                                      523          AIF   (&CUR LE &TNUM).LOOP
                                                      524 *
                                                      525          DC    A(0)              END OF TABLE
                                                      526          DC    A(0)
                                                      527 .*
                                                      528          MEND
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
                                                      530 ********************************************************************************
                                                      531 *        E6 VRI_F tests
                                                      532 ********************************************************************************
                              00000000  00004EEF    533 ZVE6TST  CSECT ,
00001180                                            534          DS    0F


                                                      536          PRINT DATA
                                                      537 *
                                                      538 *        E671 VAP    - VECTOR ADD DECIMAL
                                                      539 *        E673 VSP    - VECTOR SUBTRACT DECIMAL
                                                      540 *        E678 VMP    - VECTOR MULTIPLY DECIMAL
                                                      541 *        E679 VMSP   - VECTOR MULTIPLY AND SHIFT DECIMAL
                                                      542 *        E67A VDP    - VECTOR DIVIDE DECIMAL
                                                      543 *        E67B VRP    - VECTOR REMAINDER DECIMAL
                                                      544 *        E67E VSDP   - VECTOR SHIFT AND DIVIDE DECIMAL
                                                      545
                                                      546 *        VRI_F instr,v2,v3,i4,m5,cc
                                                      547 *              followed by 16 byte expected result
                                                      548
                                                      549 *-------------------------------------------------------------------
                                                      550 *  VAP    - VECTOR ADD DECIMAL
                                                      551 *-------------------------------------------------------------------
                                                      552 * VAP simple + CC checks
                                                      553          VRI_F VAP,+10,+12,7,1,2
00001180                                            554+         DS    0FD
00001180                              00001180      555+         USING *,R5          base for test data and test routine
00001180  000011B0                                  556+T1       DC    A(X1)         address of test routine
00001184  0001                                      557+         DC    H'1'          test number
00001186  00                                        558+         DC    X'00'
00001187  07                                        559+         DC    HL1'7'        i4
00001188  01                                        560+         DC    HL1'1'        m5
00001189  02                                        561+         DC    HL1'2'        cc
0000118A  0D                                        562+         DC    HL1'13'       cc failed mask
00001190  00000000 0000000A                        563+V2_1     DC    FD'+10'       binary value for v2 packed decimal
00001198  00000000 0000000C                        564+V3_1     DC    FD'+12'       binary value for v3 packed decimal
000011A0  E5C1D740 40404040                        565+         DC    CL8'VAP'      instruction name
000011A8  00000010                                  566+         DC    A(16)         result length
000011AC  000011EC                                  567+REA1     DC    A(RE1)        result address
                                                    568+*                            INSTRUCTION UNDER TEST ROUTINE
000011B0                                            569+X1       DS    0F
000011B0  E320 5010 0004                 00001190   570+         LG    R2,V2_1       convert v2
000011B6  E320 8F4F 002E                 0000114F   571+         CVDG  R2,V2PACKED
000011BC  E720 8F4F 0006                 0000114F   572+         VL    V2,V2PACKED
000011C2  E320 5018 0004                 00001198   573+         LG    R2,V3_1       convert v3
000011C8  E320 8F5F 002E                 0000115F   574+         CVDG  R2,V3PACKED
000011CE  E730 8F5F 0006                 0000115F   575+         VL    V3,V3PACKED
000011D4  E612 3010 7071                            576+         VAP   V1,V2,V3,7,1  test instruction
000011DA  E710 8F00 000E                 00001100   577+         VST   V1,V1OUTPUT   save result
000011E0  B98D 0020                                 578+         EPSW  R2,R0         exptract psw
000011E4  5020 8EE4                      000010E4   579+         ST    R2,CCPSW          to save CC
000011E8  07FB                                      580+         BR    R11           return
000011EC                                            581+RE1      DC    0F
000011EC                                            582+         DROP  R5
000011EC  00000000 00000000                        583          DC    XL16'0000000000000000000000000000022C'
000011F4  00000000 0000022C
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                     584
                                                     585          VRI_F VAP,-10,+12,7,1,2
00001200                                             586+         DS    0FD
00001200                       00001200              587+         USING *,R5              base for test data and test routine
00001200  00001230                                   588+T2       DC    A(X2)             address of test routine
00001204  0002                                       589+         DC    H'2'              test number
00001206  00                                         590+         DC    X'00'
00001207  07                                         591+         DC    HL1'7'            i4
00001208  01                                         592+         DC    HL1'1'            m5
00001209  02                                         593+         DC    HL1'2'            cc
0000120A  0D                                         594+         DC    HL1'13'           cc failed mask
00001210  FFFFFFFF FFFFFFF6                          595+V2_2     DC    FD'-10'           binary value for v2 packed decimal
00001218  00000000 0000000C                          596+V3_2     DC    FD'+12'           binary value for v3 packed decimal
00001220  E5C1D740 40404040                          597+         DC    CL8'VAP'          instruction name
00001228  00000010                                   598+         DC    A(16)             result length
0000122C  0000126C                                   599+REA2     DC    A(RE2)            result address
                                                     600+*                                INSTRUCTION UNDER TEST ROUTINE
00001230                                             601+X2       DS    0F
00001230  E320 9010 0004                 00001210    602+         LG    R2,V2_2           convert v2
00001236  E320 8F4F 002E                 0000114F    603+         CVDG  R2,V2PACKED
0000123C  E720 8F4F 0006                 0000114F    604+         VL    V2,V2PACKED
00001242  E320 9018 0004                 00001218    605+         LG    R2,V3_2           convert v3
00001248  E320 8F5F 002E                 0000115F    606+         CVDG  R2,V3PACKED
0000124E  E730 8F5F 0006                 0000115F    607+         VL    V3,V3PACKED
00001254  E612 3010 7071                             608+         VAP   V1,V2,V3,7,1      test instruction
0000125A  E710 8F00 000E                 00001100    609+         VST   V1,V1OUTPUT       save result
00001260  B98D 0020                                  610+         EPSW  R2,R0             exptract psw
00001264  5020 8EE4                      000010E4    611+         ST    R2,CCPSW              to save CC
00001268  07FB                                       612+         BR    R11               return
0000126C                                             613+RE2      DC    0F
0000126C                                             614+         DROP  R5
0000126C  00000000 00000000                          615          DC    XL16'00000000000000000000000000000002C'
00001274  00000000 0000002C
                                                     616
                                                     617          VRI_F VAP,+10,-12,7,1,1
00001280                                             618+         DS    0FD
00001280                       00001280              619+         USING *,R5              base for test data and test routine
00001280  000012B0                                   620+T3       DC    A(X3)             address of test routine
00001284  0003                                       621+         DC    H'3'              test number
00001286  00                                         622+         DC    X'00'
00001287  07                                         623+         DC    HL1'7'            i4
00001288  01                                         624+         DC    HL1'1'            m5
00001289  01                                         625+         DC    HL1'1'            cc
0000128A  0B                                         626+         DC    HL1'11'           cc failed mask
00001290  00000000 0000000A                          627+V2_3     DC    FD'+10'           binary value for v2 packed decimal
00001298  FFFFFFFF FFFFFFF4                          628+V3_3     DC    FD'-12'           binary value for v3 packed decimal
000012A0  E5C1D740 40404040                          629+         DC    CL8'VAP'          instruction name
000012A8  00000010                                   630+         DC    A(16)             result length
000012AC  000012EC                                   631+REA3     DC    A(RE3)            result address
                                                     632+*                                INSTRUCTION UNDER TEST ROUTINE
000012B0                                             633+X3       DS    0F
000012B0  E320 5010 0004                 00001290    634+         LG    R2,V2_3           convert v2
000012B6  E320 8F4F 002E                 0000114F    635+         CVDG  R2,V2PACKED
000012BC  E720 8F4F 0006                 0000114F    636+         VL    V2,V2PACKED
000012C2  E320 5018 0004                 00001298    637+         LG    R2,V3_3           convert v3
000012C8  E320 8F5F 002E                 0000115F    638+         CVDG  R2,V3PACKED
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

000012CE  E730 8F5F 0006                 0000115F   639+         VL    V3,V3PACKED
000012D4  E612 3010 7071                            640+         VAP   V1,V2,V3,7,1      test instruction
000012DA  E710 8F00 000E                 00001100   641+         VST   V1,V1OUTPUT       save result
000012E0  B98D 0020                                 642+         EPSW  R2,R0             exptract psw
000012E4  5020 8EE4                      000010E4   643+         ST    R2,CCPSW              to save CC
000012E8  07FB                                      644+         BR    R11               return
000012EC                                            645+RE3      DC    0F
000012EC                                            646+         DROP  R5
000012EC  00000000 00000000                         647          DC    XL16'00000000000000000000000000000002D'
000012F4  00000000 0000002D
                                                    648
                                                    649          VRI_F VAP,-10,-12,7,1,1
00001300                                            650+         DS    0FD
00001300                         00001300           651+         USING *,R5              base for test data and test routine
00001300  00001330                                  652+T4       DC    A(X4)             address of test routine
00001304  0004                                      653+         DC    H'4'              test number
00001306  00                                        654+         DC    X'00'
00001307  07                                        655+         DC    HL1'7'            i4
00001308  01                                        656+         DC    HL1'1'            m5
00001309  01                                        657+         DC    HL1'1'            cc
0000130A  0B                                        658+         DC    HL1'11'           cc failed mask
00001310  FFFFFFFF FFFFFFF6                         659+V2_4     DC    FD'-10'           binary value for v2 packed decimal
00001318  FFFFFFFF FFFFFFF4                         660+V3_4     DC    FD'-12'           binary value for v3 packed decimal
00001320  E5C1D740 40404040                         661+         DC    CL8'VAP'          instruction name
00001328  00000010                                  662+         DC    A(16)             result length
0000132C  0000136C                                  663+REA4     DC    A(RE4)            result address
                                                    664+*                                INSTRUCTION UNDER TEST ROUTINE
00001330                                            665+X4       DS    0F
00001330  E320 5010 0004                 00001310   666+         LG    R2,V2_4           convert v2
00001336  E320 8F4F 002E                 0000114F   667+         CVDG  R2,V2PACKED
0000133C  E720 8F4F 0006                 0000114F   668+         VL    V2,V2PACKED
00001342  E320 5018 0004                 00001318   669+         LG    R2,V3_4           convert v3
00001348  E320 8F5F 002E                 0000115F   670+         CVDG  R2,V3PACKED
0000134E  E730 8F5F 0006                 0000115F   671+         VL    V3,V3PACKED
00001354  E612 3010 7071                            672+         VAP   V1,V2,V3,7,1      test instruction
0000135A  E710 8F00 000E                 00001100   673+         VST   V1,V1OUTPUT       save result
00001360  B98D 0020                                 674+         EPSW  R2,R0             exptract psw
00001364  5020 8EE4                      000010E4   675+         ST    R2,CCPSW              to save CC
00001368  07FB                                      676+         BR    R11               return
0000136C                                            677+RE4      DC    0F
0000136C                                            678+         DROP  R5
0000136C  00000000 00000000                         679          DC    XL16'00000000000000000000000000000022D'
00001374  00000000 0000022D
                                                    680
                                                    681          VRI_F VAP,-10,+10,7,1,0
00001380                                            682+         DS    0FD
00001380                         00001380           683+         USING *,R5              base for test data and test routine
00001380  000013B0                                  684+T5       DC    A(X5)             address of test routine
00001384  0005                                      685+         DC    H'5'              test number
00001386  00                                        686+         DC    X'00'
00001387  07                                        687+         DC    HL1'7'            i4
00001388  01                                        688+         DC    HL1'1'            m5
00001389  00                                        689+         DC    HL1'0'            cc
0000138A  07                                        690+         DC    HL1'7'            cc failed mask
00001390  FFFFFFFF FFFFFFF6                         691+V2_5     DC    FD'-10'           binary value for v2 packed decimal
00001398  00000000 0000000A                         692+V3_5     DC    FD'+10'           binary value for v3 packed decimal
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
000013A0  E5C1D740 40404040                          693+          DC    CL8'VAP'           instruction name
000013A8  00000010                                   694+          DC    A(16)              result length
000013AC  000013EC                                   695+REA5      DC    A(RE5)             result address
                                                     696+*                                  INSTRUCTION UNDER TEST ROUTINE
000013B0                                             697+X5        DS    0F
000013B0  E320 5010 0004                 00001390    698+          LG    R2,V2_5            convert v2
000013B6  E320 8F4F 002E                 0000114F    699+          CVDG  R2,V2PACKED
000013BC  E720 8F4F 0006                 0000114F    700+          VL    V2,V2PACKED
000013C2  E320 5018 0004                 00001398    701+          LG    R2,V3_5            convert v3
000013C8  E320 8F5F 002E                 0000115F    702+          CVDG  R2,V3PACKED
000013CE  E730 8F5F 0006                 0000115F    703+          VL    V3,V3PACKED
000013D4  E612 3010 7071                             704+          VAP   V1,V2,V3,7,1       test instruction
000013DA  E710 8F00 000E                 00001100    705+          VST   V1,V1OUTPUT        save result
000013E0  B98D 0020                                  706+          EPSW  R2,R0              exptract psw
000013E4  5020 8EE4                      000010E4    707+          ST    R2,CCPSW                 to save CC
000013E8  07FB                                       708+          BR    R11                return
000013EC                                             709+RE5       DC    0F
000013EC                                             710+          DROP  R5
000013EC  00000000 00000000                          711           DC    XL16'0000000000000000000000000000000C'
000013F4  00000000 0000000C
                                                     712
                                                     713           VRI_F VAP,+10000000000,+10,135,1,3     i4=135(iom=1 & rdc=7)
00001400                                             714+          DS    0FD
00001400                         00001400            715+          USING *,R5               base for test data and test routine
00001400  00001430                                   716+T6        DC    A(X6)              address of test routine
00001404  0006                                       717+          DC    H'6'               test number
00001406  00                                         718+          DC    X'00'
00001407  87                                         719+          DC    HL1'135'           i4
00001408  01                                         720+          DC    HL1'1'             m5
00001409  03                                         721+          DC    HL1'3'             cc
0000140A  0E                                         722+          DC    HL1'14'            cc failed mask
00001410  00000002 540BE400                         723+V2_6      DC    FD'+10000000000'   binary value for v2 packed decimal
00001418  00000000 0000000A                         724+V3_6      DC    FD'+10'            binary value for v3 packed decimal
00001420  E5C1D740 40404040                         725+          DC    CL8'VAP'           instruction name
00001428  00000010                                   726+          DC    A(16)              result length
0000142C  0000146C                                   727+REA6      DC    A(RE6)             result address
                                                     728+*                                  INSTRUCTION UNDER TEST ROUTINE
00001430                                             729+X6        DS    0F
00001430  E320 5010 0004                 00001410    730+          LG    R2,V2_6            convert v2
00001436  E320 8F4F 002E                 0000114F    731+          CVDG  R2,V2PACKED
0000143C  E720 8F4F 0006                 0000114F    732+          VL    V2,V2PACKED
00001442  E320 5018 0004                 00001418    733+          LG    R2,V3_6            convert v3
00001448  E320 8F5F 002E                 0000115F    734+          CVDG  R2,V3PACKED
0000144E  E730 8F5F 0006                 0000115F    735+          VL    V3,V3PACKED
00001454  E612 3018 7071                             736+          VAP   V1,V2,V3,135,1     test instruction
0000145A  E710 8F00 000E                 00001100    737+          VST   V1,V1OUTPUT        save result
00001460  B98D 0020                                  738+          EPSW  R2,R0              exptract psw
00001464  5020 8EE4                      000010E4    739+          ST    R2,CCPSW                 to save CC
00001468  07FB                                       740+          BR    R11                return
0000146C                                             741+RE6       DC    0F
0000146C                                             742+          DROP  R5
0000146C  00000000 00000000                          743           DC    XL16'0000000000000000000000000000010C'
00001474  00000000 0000010C
                                                     744
                                                     745 * VAP larger #'s , i4=159(iom=1 & rdc=31)
                                                     746           VRI_F VAP,+99999999999999999,+1,159,1,2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001480                                             747+          DS    0FD
00001480                      00001480               748+          USING *,R5              base for test data and test routine
00001480  000014B0                                   749+T7        DC    A(X7)             address of test routine
00001484  0007                                       750+          DC    H'7'              test number
00001486  00                                         751+          DC    X'00'
00001487  9F                                         752+          DC    HL1'159'          i4
00001488  01                                         753+          DC    HL1'1'            m5
00001489  02                                         754+          DC    HL1'2'            cc
0000148A  0D                                         755+          DC    HL1'13'           cc failed mask
                                                     756+V2_7      DC    FD'+99999999999999999' \
00001490  01634578 5D89FFFF                           +                                     binary value for v2 packed decimal
00001498  00000000 00000001                          757+V3_7      DC    FD'+1'            binary value for v3 packed decimal
000014A0  E5C1D740 40404040                          758+          DC    CL8'VAP'          instruction name
000014A8  00000010                                   759+          DC    A(16)             result length
000014AC  000014EC                                   760+REA7      DC    A(RE7)            result address
                                                     761+*                                 INSTRUCTION UNDER TEST ROUTINE
000014B0                                             762+X7        DS    0F
000014B0  E320 5010 0004                 00001490    763+          LG    R2,V2_7           convert v2
000014B6  E320 8F4F 002E                 0000114F    764+          CVDG  R2,V2PACKED
000014BC  E720 8F4F 0006                 0000114F    765+          VL    V2,V2PACKED
000014C2  E320 5018 0004                 00001498    766+          LG    R2,V3_7           convert v3
000014C8  E320 8F5F 002E                 0000115F    767+          CVDG  R2,V3PACKED
000014CE  E730 8F5F 0006                 0000115F    768+          VL    V3,V3PACKED
000014D4  E612 3019 F071                             769+          VAP   V1,V2,V3,159,1    test instruction
000014DA  E710 8F00 000E                 00001100    770+          VST   V1,V1OUTPUT       save result
000014E0  B98D 0020                                  771+          EPSW  R2,R0             exptract psw
000014E4  5020 8EE4                      000010E4    772+          ST    R2,CCPSW                to save CC
000014E8  07FB                                       773+          BR    R11               return
000014EC                                             774+RE7       DC    0F
000014EC                                             775+          DROP  R5
000014EC  00000000 00000100                          776           DC    XL16'0000000000001000000000000000000C'
000014F4  00000000 0000000C
                                                     777
                                                     778           VRI_F VAP,+99999999999999999,+10000000000000000,159,1,2
00001500                                             779+          DS    0FD
00001500                      00001500               780+          USING *,R5              base for test data and test routine
00001500  00001530                                   781+T8        DC    A(X8)             address of test routine
00001504  0008                                       782+          DC    H'8'              test number
00001506  00                                         783+          DC    X'00'
00001507  9F                                         784+          DC    HL1'159'          i4
00001508  01                                         785+          DC    HL1'1'            m5
00001509  02                                         786+          DC    HL1'2'            cc
0000150A  0D                                         787+          DC    HL1'13'           cc failed mask
                                                     788+V2_8      DC    FD'+99999999999999999' \
00001510  01634578 5D89FFFF                           +                                     binary value for v2 packed decimal
                                                     789+V3_8      DC    FD'+10000000000000000' \
00001518  002386F2 6FC10000                          +                                     binary value for v3 packed decimal
00001520  E5C1D740 40404040                          790+          DC    CL8'VAP'          instruction name
00001528  00000010                                   791+          DC    A(16)             result length
0000152C  0000156C                                   792+REA8      DC    A(RE8)            result address
                                                     793+*                                 INSTRUCTION UNDER TEST ROUTINE
00001530                                             794+X8        DS    0F
00001530  E320 5010 0004                 00001510    795+          LG    R2,V2_8           convert v2
00001536  E320 8F4F 002E                 0000114F    796+          CVDG  R2,V2PACKED
0000153C  E720 8F4F 0006                 0000114F    797+          VL    V2,V2PACKED
00001542  E320 5018 0004                 00001518    798+          LG    R2,V3_8           convert v3
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT

00001548  E320 8F5F 002E                 0000115F   799+         CVDG  R2,V3PACKED
0000154E  E730 8F5F 0006                 0000115F   800+         VL    V3,V3PACKED
00001554  E612 3019 F071                            801+         VAP   V1,V2,V3,159,1    test instruction
0000155A  E710 8F00 000E                 00001100   802+         VST   V1,V1OUTPUT       save result
00001560  B98D 0020                                 803+         EPSW  R2,R0             exptract psw
00001564  5020 8EE4                      000010E4   804+         ST    R2,CCPSW              to save CC
00001568  07FB                                      805+         BR    R11               return
0000156C                                            806+RE8      DC    0F
0000156C                                            807+         DROP  R5
0000156C  00000000 00000109                         808          DC    XL16'00000000000001099999999999999999C'
00001574  99999999 9999999C
                                                    809
                                                    810          VRI_F VAP,-9999999999999999,-1,159,1,1
00001580                                            811+         DS    0FD
00001580                         00001580           812+         USING *,R5              base for test data and test routine
00001580  000015B0                                  813+T9       DC    A(X9)             address of test routine
00001584  0009                                      814+         DC    H'9'              test number
00001586  00                                        815+         DC    X'00'
00001587  9F                                        816+         DC    HL1'159'          i4
00001588  01                                        817+         DC    HL1'1'            m5
00001589  01                                        818+         DC    HL1'1'            cc
0000158A  0B                                        819+         DC    HL1'11'           cc failed mask
                                                    820+V2_9     DC    FD'-9999999999999999' \
00001590  FFDC790D 903F0001                           +                                  binary value for v2 packed decimal
00001598  FFFFFFFF FFFFFFFF                         821+V3_9     DC    FD'-1'            binary value for v3 packed decimal
000015A0  E5C1D740 40404040                         822+         DC    CL8'VAP'          instruction name
000015A8  00000010                                  823+         DC    A(16)             result length
000015AC  000015EC                                  824+REA9     DC    A(RE9)            result address
                                                    825+*                                INSTRUCTION UNDER TEST ROUTINE
000015B0                                            826+X9       DS    0F
000015B0  E320 5010 0004                 00001590   827+         LG    R2,V2_9           convert v2
000015B6  E320 8F4F 002E                 0000114F   828+         CVDG  R2,V2PACKED
000015BC  E720 8F4F 0006                 0000114F   829+         VL    V2,V2PACKED
000015C2  E320 5018 0004                 00001598   830+         LG    R2,V3_9           convert v3
000015C8  E320 8F5F 002E                 0000115F   831+         CVDG  R2,V3PACKED
000015CE  E730 8F5F 0006                 0000115F   832+         VL    V3,V3PACKED
000015D4  E612 3019 F071                            833+         VAP   V1,V2,V3,159,1    test instruction
000015DA  E710 8F00 000E                 00001100   834+         VST   V1,V1OUTPUT       save result
000015E0  B98D 0020                                 835+         EPSW  R2,R0             exptract psw
000015E4  5020 8EE4                      000010E4   836+         ST    R2,CCPSW              to save CC
000015E8  07FB                                      837+         BR    R11               return
000015EC                                            838+RE9      DC    0F
000015EC                                            839+         DROP  R5
000015EC  00000000 00000010                         840          DC    XL16'00000000000001000000000000000D'
000015F4  00000000 0000000D
                                                    841
                                                    842 * VAP larger #'s , i4=159(iom=1 & rdc=31)              CS=1 for all m5
                                                    843 * check forced positive
                                                    844          VRI_F VAP,-99999999999999999,+1,159,9,2      m5=9(P2=1)
00001600                                            845+         DS    0FD
00001600                         00001600           846+         USING *,R5              base for test data and test routine
00001600  00001630                                  847+T10      DC    A(X10)            address of test routine
00001604  000A                                      848+         DC    H'10'             test number
00001606  00                                        849+         DC    X'00'
00001607  9F                                        850+         DC    HL1'159'          i4
00001608  09                                        851+         DC    HL1'9'            m5
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT
00001609  02                                       852+          DC    HL1'2'              cc
0000160A  0D                                       853+          DC    HL1'13'             cc failed mask
                                                   854+V2_10     DC    FD'-9999999999999999' \
00001610  FE9CBA87 A2760001                           +                                    binary value for v2 packed decimal
00001618  00000000 00000001                        855+V3_10     DC    FD'+1'              binary value for v3 packed decimal
00001620  E5C1D740 40404040                        856+          DC    CL8'VAP'            instruction name
00001628  00000010                                 857+          DC    A(16)               result length
0000162C  0000166C                                 858+REA10     DC    A(RE10)             result address
                                                   859+*                                   INSTRUCTION UNDER TEST ROUTINE
00001630                                           860+X10       DS    0F
00001630  E320 5010 0004                 00001610  861+          LG    R2,V2_10            convert v2
00001636  E320 8F4F 002E                 0000114F  862+          CVDG  R2,V2PACKED
0000163C  E720 8F4F 0006                 0000114F  863+          VL    V2,V2PACKED
00001642  E320 5018 0004                 00001618  864+          LG    R2,V3_10            convert v3
00001648  E320 8F5F 002E                 0000115F  865+          CVDG  R2,V3PACKED
0000164E  E730 8F5F 0006                 0000115F  866+          VL    V3,V3PACKED
00001654  E612 3099 F071                           867+          VAP   V1,V2,V3,159,9      test instruction
0000165A  E710 8F00 000E                 00001100  868+          VST   V1,V1OUTPUT         save result
00001660  B98D 0020                                869+          EPSW  R2,R0               exptract psw
00001664  5020 8EE4                      000010E4  870+          ST    R2,CCPSW                to save CC
00001668  07FB                                     871+          BR    R11                 return
0000166C                                           872+RE10      DC    0F
0000166C                                           873+          DROP  R5
0000166C  00000000 00000100                        874           DC    XL16'00000000000001000000000000000C'
00001674  00000000 0000000C
                                                   875
                                                   876           VRI_F VAP,-99999999999999999,-10000000000000000,159,13,2
00001680                                           877+          DS    0FD
00001680                           00001680        878+          USING *,R5                base for test data and test routine
00001680  000016B0                                 879+T11       DC    A(X11)              address of test routine
00001684  000B                                     880+          DC    H'11'               test number
00001686  00                                       881+          DC    X'00'
00001687  9F                                       882+          DC    HL1'159'            i4
00001688  0D                                       883+          DC    HL1'13'             m5
00001689  02                                       884+          DC    HL1'2'              cc
0000168A  0D                                       885+          DC    HL1'13'             cc failed mask
                                                   886+V2_11     DC    FD'-99999999999999999' \
00001690  FE9CBA87 A2760001                           +                                    binary value for v2 packed decimal
                                                   887+V3_11     DC    FD'-10000000000000000' \
00001698  FFDC790D 903F0000                           +                                    binary value for v3 packed decimal
000016A0  E5C1D740 40404040                        888+          DC    CL8'VAP'            instruction name
000016A8  00000010                                 889+          DC    A(16)               result length
000016AC  000016EC                                 890+REA11     DC    A(RE11)             result address
                                                   891+*                                   INSTRUCTION UNDER TEST ROUTINE
000016B0                                           892+X11       DS    0F
000016B0  E320 5010 0004                 00001690  893+          LG    R2,V2_11            convert v2
000016B6  E320 8F4F 002E                 0000114F  894+          CVDG  R2,V2PACKED
000016BC  E720 8F4F 0006                 0000114F  895+          VL    V2,V2PACKED
000016C2  E320 5018 0004                 00001698  896+          LG    R2,V3_11            convert v3
000016C8  E320 8F5F 002E                 0000115F  897+          CVDG  R2,V3PACKED
000016CE  E730 8F5F 0006                 0000115F  898+          VL    V3,V3PACKED
000016D4  E612 30D9 F071                           899+          VAP   V1,V2,V3,159,13     test instruction
000016DA  E710 8F00 000E                 00001100  900+          VST   V1,V1OUTPUT         save result
000016E0  B98D 0020                                901+          EPSW  R2,R0               exptract psw
000016E4  5020 8EE4                      000010E4  902+          ST    R2,CCPSW                to save CC
000016E8  07FB                                     903+          BR    R11                 return
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
000016EC                                           904+RE11     DC    0F
000016EC                                           905+         DROP  R5
000016EC  00000000 00000109                        906          DC    XL16'0000000000000109999999999999999C' m5=13(P2=1,P3=1)
000016F4  99999999 9999999C
                                                   907
                                                   908          VRI_F VAP,-9999999999999999,-1,159,3,2       m5=3(P1=1)
00001700                                           909+         DS    0FD
00001700                     00001700              910+         USING *,R5               base for test data and test routine
00001700  00001730                                 911+T12      DC    A(X12)             address of test routine
00001704  000C                                     912+         DC    H'12'              test number
00001706  00                                       913+         DC    X'00'
00001707  9F                                       914+         DC    HL1'159'           i4
00001708  03                                       915+         DC    HL1'3'             m5
00001709  02                                       916+         DC    HL1'2'             cc
0000170A  0D                                       917+         DC    HL1'13'            cc failed mask
                                                   918+V2_12    DC    FD'-9999999999999999' \
00001710  FFDC790D 903F0001                          +                                  binary value for v2 packed decimal
00001718  FFFFFFFF FFFFFFFF                        919+V3_12    DC    FD'-1'             binary value for v3 packed decimal
00001720  E5C1D740 40404040                        920+         DC    CL8'VAP'           instruction name
00001728  00000010                                 921+         DC    A(16)              result length
0000172C  0000176C                                 922+REA12    DC    A(RE12)            result address
                                                   923+*                                 INSTRUCTION UNDER TEST ROUTINE
00001730                                           924+X12      DS    0F
00001730  E320 5010 0004                 00001710  925+         LG    R2,V2_12           convert v2
00001736  E320 8F4F 002E                 0000114F  926+         CVDG  R2,V2PACKED
0000173C  E720 8F4F 0006                 0000114F  927+         VL    V2,V2PACKED
00001742  E320 5018 0004                 00001718  928+         LG    R2,V3_12           convert v3
00001748  E320 8F5F 002E                 0000115F  929+         CVDG  R2,V3PACKED
0000174E  E730 8F5F 0006                 0000115F  930+         VL    V3,V3PACKED
00001754  E612 3039 F071                           931+         VAP   V1,V2,V3,159,3     test instruction
0000175A  E710 8F00 000E                 00001100  932+         VST   V1,V1OUTPUT        save result
00001760  B98D 0020                                933+         EPSW  R2,R0              exptract psw
00001764  5020 8EE4                      000010E4  934+         ST    R2,CCPSW               to save CC
00001768  07FB                                     935+         BR    R11                return
0000176C                                           936+RE12     DC    0F
0000176C                                           937+         DROP  R5
0000176C  00000000 00000010                        938          DC    XL16'00000000000000100000000000000000F'
00001774  00000000 0000000F
                                                   939
                                                   940 *-------------------------------------------------------------------
                                                   941 *  VSP    - VECTOR SUBTRACT DECIMAL
                                                   942 *-------------------------------------------------------------------
                                                   943 * VSP simple + CC checks
                                                   944          VRI_F VSP,+10,+12,7,1,1
00001780                                           945+         DS    0FD
00001780                     00001780              946+         USING *,R5               base for test data and test routine
00001780  000017B0                                 947+T13      DC    A(X13)             address of test routine
00001784  000D                                     948+         DC    H'13'              test number
00001786  00                                       949+         DC    X'00'
00001787  07                                       950+         DC    HL1'7'             i4
00001788  01                                       951+         DC    HL1'1'             m5
00001789  01                                       952+         DC    HL1'1'             cc
0000178A  0B                                       953+         DC    HL1'11'            cc failed mask
00001790  00000000 0000000A                        954+V2_13    DC    FD'+10'            binary value for v2 packed decimal
00001798  00000000 0000000C                        955+V3_13    DC    FD'+12'            binary value for v3 packed decimal
000017A0  E5E2D740 40404040                        956+         DC    CL8'VSP'           instruction name
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT
000017A8  00000010                            957+          DC    A(16)              result length
000017AC  000017EC                            958+REA13     DC    A(RE13)            result address
                                              959+*                                  INSTRUCTION UNDER TEST ROUTINE
000017B0                                      960+X13       DS    0F
000017B0  E320 5010 0004                00001790  961+          LG    R2,V2_13           convert v2
000017B6  E320 8F4F 002E                0000114F  962+          CVDG  R2,V2PACKED
000017BC  E720 8F4F 0006                0000114F  963+          VL    V2,V2PACKED
000017C2  E320 5018 0004                00001798  964+          LG    R2,V3_13           convert v3
000017C8  E320 8F5F 002E                0000115F  965+          CVDG  R2,V3PACKED
000017CE  E730 8F5F 0006                0000115F  966+          VL    V3,V3PACKED
000017D4  E612 3010 7073                          967+          VSP   V1,V2,V3,7,1       test instruction
000017DA  E710 8F00 000E                00001100  968+          VST   V1,V1OUTPUT        save result
000017E0  B98D 0020                               969+          EPSW  R2,R0              exptract psw
000017E4  5020 8EE4                     000010E4  970+          ST    R2,CCPSW               to save CC
000017E8  07FB                                    971+          BR    R11                return
000017EC                                      972+RE13      DC    0F
000017EC                                      973+          DROP  R5
000017EC  00000000 00000000                   974           DC    XL16'00000000000000000000000000000002D'
000017F4  00000000 0000002D
                                              975
                                              976           VRI_F VSP,-10,+12,7,1,1
00001800                                      977+          DS    0FD
00001800                        00001800      978+          USING *,R5               base for test data and test routine
00001800  00001830                            979+T14       DC    A(X14)             address of test routine
00001804  000E                                980+          DC    H'14'              test number
00001806  00                                  981+          DC    X'00'
00001807  07                                  982+          DC    HL1'7'             i4
00001808  01                                  983+          DC    HL1'1'             m5
00001809  01                                  984+          DC    HL1'1'             cc
0000180A  0B                                  985+          DC    HL1'11'            cc failed mask
00001810  FFFFFFFF FFFFFFF6                   986+V2_14     DC    FD'-10'            binary value for v2 packed decimal
00001818  00000000 0000000C                   987+V3_14     DC    FD'+12'            binary value for v3 packed decimal
00001820  E5E2D740 40404040                   988+          DC    CL8'VSP'           instruction name
00001828  00000010                            989+          DC    A(16)              result length
0000182C  0000186C                            990+REA14     DC    A(RE14)            result address
                                              991+*                                  INSTRUCTION UNDER TEST ROUTINE
00001830                                      992+X14       DS    0F
00001830  E320 5010 0004                00001810  993+          LG    R2,V2_14           convert v2
00001836  E320 8F4F 002E                0000114F  994+          CVDG  R2,V2PACKED
0000183C  E720 8F4F 0006                0000114F  995+          VL    V2,V2PACKED
00001842  E320 5018 0004                00001818  996+          LG    R2,V3_14           convert v3
00001848  E320 8F5F 002E                0000115F  997+          CVDG  R2,V3PACKED
0000184E  E730 8F5F 0006                0000115F  998+          VL    V3,V3PACKED
00001854  E612 3010 7073                          999+          VSP   V1,V2,V3,7,1       test instruction
0000185A  E710 8F00 000E                00001100 1000+          VST   V1,V1OUTPUT        save result
00001860  B98D 0020                               1001+         EPSW  R2,R0              exptract psw
00001864  5020 8EE4                     000010E4 1002+          ST    R2,CCPSW               to save CC
00001868  07FB                                    1003+         BR    R11                return
0000186C                                      1004+RE14     DC    0F
0000186C                                      1005+         DROP  R5
0000186C  00000000 00000000                   1006          DC    XL16'00000000000000000000000000000022D'
00001874  00000000 0000022D
                                              1007
                                              1008          VRI_F VSP,+10,-12,1,1,3
00001880                                      1009+         DS    0FD
00001880                        00001880      1010+         USING *,R5               base for test data and test routine
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001880  000018B0                          1011+T15      DC    A(X15)            address of test routine
00001884  000F                              1012+         DC    H'15'             test number
00001886  00                                1013+         DC    X'00'
00001887  01                                1014+         DC    HL1'1'            i4
00001888  01                                1015+         DC    HL1'1'            m5
00001889  03                                1016+         DC    HL1'3'            cc
0000188A  0E                                1017+         DC    HL1'14'           cc failed mask
00001890  00000000 0000000A                 1018+V2_15    DC    FD'+10'           binary value for v2 packed decimal
00001898  FFFFFFFF FFFFFFF4                 1019+V3_15    DC    FD'-12'           binary value for v3 packed decimal
000018A0  E5E2D740 40404040                 1020+         DC    CL8'VSP'          instruction name
000018A8  00000010                          1021+         DC    A(16)             result length
000018AC  000018EC                          1022+REA15    DC    A(RE15)           result address
                                            1023+*                                INSTRUCTION UNDER TEST ROUTINE
000018B0                                    1024+X15      DS    0F
000018B0  E320 5010 0004            00001890 1025+         LG    R2,V2_15          convert v2
000018B6  E320 8F4F 002E            0000114F 1026+         CVDG  R2,V2PACKED
000018BC  E720 8F4F 0006            0000114F 1027+         VL    V2,V2PACKED
000018C2  E320 5018 0004            00001898 1028+         LG    R2,V3_15          convert v3
000018C8  E320 8F5F 002E            0000115F 1029+         CVDG  R2,V3PACKED
000018CE  E730 8F5F 0006            0000115F 1030+         VL    V3,V3PACKED
000018D4  E612 3010 1073                     1031+         VSP   V1,V2,V3,1,1      test instruction
000018DA  E710 8F00 000E            00001100 1032+         VST   V1,V1OUTPUT       save result
000018E0  B98D 0020                          1033+         EPSW  R2,R0             exptract psw
000018E4  5020 8EE4                 000010E4 1034+         ST    R2,CCPSW              to save CC
000018E8  07FB                               1035+         BR    R11               return
000018EC                                     1036+RE15     DC    0F
000018EC                                     1037+         DROP  R5
000018EC  00000000 00000000                  1038          DC    XL16'00000000000000000000000000000000002C'
000018F4  00000000 0000002C
                                             1039
                                             1040          VRI_F VSP,+10,-12,7,1,2
00001900                                     1041+         DS    0FD
00001900                    00001900         1042+         USING *,R5              base for test data and test routine
00001900  00001930                           1043+T16      DC    A(X16)            address of test routine
00001904  0010                               1044+         DC    H'16'             test number
00001906  00                                 1045+         DC    X'00'
00001907  07                                 1046+         DC    HL1'7'            i4
00001908  01                                 1047+         DC    HL1'1'            m5
00001909  02                                 1048+         DC    HL1'2'            cc
0000190A  0D                                 1049+         DC    HL1'13'           cc failed mask
00001910  00000000 0000000A                  1050+V2_16    DC    FD'+10'           binary value for v2 packed decimal
00001918  FFFFFFFF FFFFFFF4                  1051+V3_16    DC    FD'-12'           binary value for v3 packed decimal
00001920  E5E2D740 40404040                  1052+         DC    CL8'VSP'          instruction name
00001928  00000010                           1053+         DC    A(16)             result length
0000192C  0000196C                           1054+REA16    DC    A(RE16)           result address
                                             1055+*                                INSTRUCTION UNDER TEST ROUTINE
00001930                                     1056+X16      DS    0F
00001930  E320 5010 0004            00001910 1057+         LG    R2,V2_16          convert v2
00001936  E320 8F4F 002E            0000114F 1058+         CVDG  R2,V2PACKED
0000193C  E720 8F4F 0006            0000114F 1059+         VL    V2,V2PACKED
00001942  E320 5018 0004            00001918 1060+         LG    R2,V3_16          convert v3
00001948  E320 8F5F 002E            0000115F 1061+         CVDG  R2,V3PACKED
0000194E  E730 8F5F 0006            0000115F 1062+         VL    V3,V3PACKED
00001954  E612 3010 7073                     1063+         VSP   V1,V2,V3,7,1      test instruction
0000195A  E710 8F00 000E            00001100 1064+         VST   V1,V1OUTPUT       save result
00001960  B98D 0020                          1065+         EPSW  R2,R0             exptract psw
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001964  5020 8EE4                     000010E4  1066+          ST    R2,CCPSW              to save CC
00001968  07FB                                     1067+          BR    R11                 return
0000196C                                           1068+RE16      DC    0F
0000196C                                           1069+          DROP  R5
0000196C  00000000 00000000                        1070           DC    XL16'0000000000000000000000000000022C'
00001974  00000000 0000022C
                                                   1071
                                                   1072           VRI_F VSP,-10,-12,7,1,2
00001980                                           1073+          DS    0FD
00001980                  00001980                 1074+          USING *,R5                base for test data and test routine
00001980  000019B0                                 1075+T17       DC    A(X17)              address of test routine
00001984  0011                                     1076+          DC    H'17'               test number
00001986  00                                       1077+          DC    X'00'
00001987  07                                       1078+          DC    HL1'7'              i4
00001988  01                                       1079+          DC    HL1'1'              m5
00001989  02                                       1080+          DC    HL1'2'              cc
0000198A  0D                                       1081+          DC    HL1'13'             cc failed mask
00001990  FFFFFFFF FFFFFFF6                        1082+V2_17     DC    FD'-10'             binary value for v2 packed decimal
00001998  FFFFFFFF FFFFFFF4                        1083+V3_17     DC    FD'-12'             binary value for v3 packed decimal
000019A0  E5E2D740 40404040                        1084+          DC    CL8'VSP'            instruction name
000019A8  00000010                                 1085+          DC    A(16)               result length
000019AC  000019EC                                 1086+REA17     DC    A(RE17)             result address
                                                   1087+*                                   INSTRUCTION UNDER TEST ROUTINE
000019B0                                           1088+X17       DS    0F
000019B0  E320 5010 0004                00001990   1089+          LG    R2,V2_17            convert v2
000019B6  E320 8F4F 002E                0000114F   1090+          CVDG  R2,V2PACKED
000019BC  E720 8F4F 0006                0000114F   1091+          VL    V2,V2PACKED
000019C2  E320 5018 0004                00001998   1092+          LG    R2,V3_17            convert v3
000019C8  E320 8F5F 002E                0000115F   1093+          CVDG  R2,V3PACKED
000019CE  E730 8F5F 0006                0000115F   1094+          VL    V3,V3PACKED
000019D4  E612 3010 7073                           1095+          VSP   V1,V2,V3,7,1        test instruction
000019DA  E710 8F00 000E                00001100   1096+          VST   V1,V1OUTPUT         save result
000019E0  B98D 0020                                1097+          EPSW  R2,R0               exptract psw
000019E4  5020 8EE4                     000010E4   1098+          ST    R2,CCPSW              to save CC
000019E8  07FB                                     1099+          BR    R11                 return
000019EC                                           1100+RE17      DC    0F
000019EC                                           1101+          DROP  R5
000019EC  00000000 00000000                        1102           DC    XL16'0000000000000000000000000000002C'
000019F4  00000000 0000002C
                                                   1103
                                                   1104           VRI_F VSP,-10,-10,7,1,0
00001A00                                           1105+          DS    0FD
00001A00                  00001A00                 1106+          USING *,R5                base for test data and test routine
00001A00  00001A30                                 1107+T18       DC    A(X18)              address of test routine
00001A04  0012                                     1108+          DC    H'18'               test number
00001A06  00                                       1109+          DC    X'00'
00001A07  07                                       1110+          DC    HL1'7'              i4
00001A08  01                                       1111+          DC    HL1'1'              m5
00001A09  00                                       1112+          DC    HL1'0'              cc
00001A0A  07                                       1113+          DC    HL1'7'              cc failed mask
00001A10  FFFFFFFF FFFFFFF6                        1114+V2_18     DC    FD'-10'             binary value for v2 packed decimal
00001A18  FFFFFFFF FFFFFFF6                        1115+V3_18     DC    FD'-10'             binary value for v3 packed decimal
00001A20  E5E2D740 40404040                        1116+          DC    CL8'VSP'            instruction name
00001A28  00000010                                 1117+          DC    A(16)               result length
00001A2C  00001A6C                                 1118+REA18     DC    A(RE18)             result address
                                                   1119+*                                   INSTRUCTION UNDER TEST ROUTINE
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001A30                                           1120+X18      DS    0F
00001A30  E320 5010 0004                 00001A10  1121+          LG    R2,V2_18          convert v2
00001A36  E320 8F4F 002E                 0000114F  1122+          CVDG  R2,V2PACKED
00001A3C  E720 8F4F 0006                 0000114F  1123+          VL    V2,V2PACKED
00001A42  E320 5018 0004                 00001A18  1124+          LG    R2,V3_18          convert v3
00001A48  E320 8F5F 002E                 0000115F  1125+          CVDG  R2,V3PACKED
00001A4E  E730 8F5F 0006                 0000115F  1126+          VL    V3,V3PACKED
00001A54  E612 3010 7073                           1127+          VSP   V1,V2,V3,7,1      test instruction
00001A5A  E710 8F00 000E                 00001100  1128+          VST   V1,V1OUTPUT       save result
00001A60  B98D 0020                                1129+          EPSW  R2,R0             exptract psw
00001A64  5020 8EE4                      000010E4  1130+          ST    R2,CCPSW              to save CC
00001A68  07FB                                     1131+          BR    R11               return
00001A6C                                           1132+RE18     DC    0F
00001A6C                                           1133+          DROP  R5
00001A6C  00000000 00000000                        1134           DC    XL16'0000000000000000000000000000000C'
00001A74  00000000 0000000C
                                                   1135
                                                   1136           VRI_F VSP,+10000000000,+10,135,1,3     i4=135(iom=1 & rdc=7)
00001A80                                           1137+          DS    0FD
00001A80                       00001A80            1138+          USING *,R5              base for test data and test routine
00001A80  00001AB0                                 1139+T19      DC    A(X19)            address of test routine
00001A84  0013                                     1140+          DC    H'19'             test number
00001A86  00                                       1141+          DC    X'00'
00001A87  87                                       1142+          DC    HL1'135'          i4
00001A88  01                                       1143+          DC    HL1'1'            m5
00001A89  03                                       1144+          DC    HL1'3'            cc
00001A8A  0E                                       1145+          DC    HL1'14'           cc failed mask
00001A90  00000002 540BE400                        1146+V2_19     DC    FD'+10000000000'  binary value for v2 packed decimal
00001A98  00000000 0000000A                        1147+V3_19     DC    FD'+10'           binary value for v3 packed decimal
00001AA0  E5E2D740 40404040                        1148+          DC    CL8'VSP'          instruction name
00001AA8  00000010                                 1149+          DC    A(16)             result length
00001AAC  00001AEC                                 1150+REA19    DC    A(RE19)           result address
                                                   1151+*                                 INSTRUCTION UNDER TEST ROUTINE
00001AB0                                           1152+X19      DS    0F
00001AB0  E320 5010 0004                 00001A90  1153+          LG    R2,V2_19          convert v2
00001AB6  E320 8F4F 002E                 0000114F  1154+          CVDG  R2,V2PACKED
00001ABC  E720 8F4F 0006                 0000114F  1155+          VL    V2,V2PACKED
00001AC2  E320 5018 0004                 00001A98  1156+          LG    R2,V3_19          convert v3
00001AC8  E320 8F5F 002E                 0000115F  1157+          CVDG  R2,V3PACKED
00001ACE  E730 8F5F 0006                 0000115F  1158+          VL    V3,V3PACKED
00001AD4  E612 3018 7073                           1159+          VSP   V1,V2,V3,135,1    test instruction
00001ADA  E710 8F00 000E                 00001100  1160+          VST   V1,V1OUTPUT       save result
00001AE0  B98D 0020                                1161+          EPSW  R2,R0             exptract psw
00001AE4  5020 8EE4                      000010E4  1162+          ST    R2,CCPSW              to save CC
00001AE8  07FB                                     1163+          BR    R11               return
00001AEC                                           1164+RE19     DC    0F
00001AEC                                           1165+          DROP  R5
00001AEC  00000000 00000000                        1166           DC    XL16'0000000000000000000009999990C'  note RDC
00001AF4  00000000 9999990C
                                                   1167
                                                   1168 * VSP larger #'s , i4=159(iom=1 & rdc=31)
                                                   1169           VRI_F VSP,+99999999999999999,+1,159,1,2
00001B00                                           1170+          DS    0FD
00001B00                       00001B00            1171+          USING *,R5              base for test data and test routine
00001B00  00001B30                                 1172+T20      DC    A(X20)            address of test routine
00001B04  0014                                     1173+          DC    H'20'             test number
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00001B06  00                                       1174+          DC    X'00'
00001B07  9F                                       1175+          DC    HL1'159'          i4
00001B08  01                                       1176+          DC    HL1'1'            m5
00001B09  02                                       1177+          DC    HL1'2'            cc
00001B0A  0D                                       1178+          DC    HL1'13'           cc failed mask
                                                   1179+V2_20     DC    FD'+9999999999999999' \
00001B10  01634578 5D89FFFF                            +                                  binary value for v2 packed decimal
00001B18  00000000 00000001                        1180+V3_20     DC    FD'+1'            binary value for v3 packed decimal
00001B20  E5E2D740 40404040                        1181+          DC    CL8'VSP'          instruction name
00001B28  00000010                                 1182+          DC    A(16)             result length
00001B2C  00001B6C                                 1183+REA20     DC    A(RE20)           result address
                                                   1184+*                                 INSTRUCTION UNDER TEST ROUTINE
00001B30                                           1185+X20       DS    0F
00001B30  E320 5010 0004                 00001B10  1186+          LG    R2,V2_20          convert v2
00001B36  E320 8F4F 002E                 0000114F  1187+          CVDG  R2,V2PACKED
00001B3C  E720 8F4F 0006                 0000114F  1188+          VL    V2,V2PACKED
00001B42  E320 5018 0004                 00001B18  1189+          LG    R2,V3_20          convert v3
00001B48  E320 8F5F 002E                 0000115F  1190+          CVDG  R2,V3PACKED
00001B4E  E730 8F5F 0006                 0000115F  1191+          VL    V3,V3PACKED
00001B54  E612 3019 F073                           1192+          VSP   V1,V2,V3,159,1    test instruction
00001B5A  E710 8F00 000E                 00001100  1193+          VST   V1,V1OUTPUT       save result
00001B60  B98D 0020                                1194+          EPSW  R2,R0             exptract psw
00001B64  5020 8EE4                      000010E4  1195+          ST    R2,CCPSW              to save CC
00001B68  07FB                                     1196+          BR    R11               return
00001B6C                                           1197+RE20      DC    0F
00001B6C                                           1198+          DROP  R5
00001B6C  00000000 00000099                        1199           DC    XL16'0000000000000099999999999999998C'
00001B74  99999999 9999998C
                                                   1200
                                                   1201           VRI_F VSP,+9999999999999999,+1000000000000000,159,1,2
00001B80                                           1202+          DS    0FD
00001B80                      00001B80             1203+          USING *,R5              base for test data and test routine
00001B80  00001BB0                                 1204+T21       DC    A(X21)            address of test routine
00001B84  0015                                     1205+          DC    H'21'             test number
00001B86  00                                       1206+          DC    X'00'
00001B87  9F                                       1207+          DC    HL1'159'          i4
00001B88  01                                       1208+          DC    HL1'1'            m5
00001B89  02                                       1209+          DC    HL1'2'            cc
00001B8A  0D                                       1210+          DC    HL1'13'           cc failed mask
                                                   1211+V2_21     DC    FD'+9999999999999999' \
00001B90  01634578 5D89FFFF                            +                                  binary value for v2 packed decimal
                                                   1212+V3_21     DC    FD'+1000000000000000' \
00001B98  002386F2 6FC10000                            +                                  binary value for v3 packed decimal
00001BA0  E5E2D740 40404040                        1213+          DC    CL8'VSP'          instruction name
00001BA8  00000010                                 1214+          DC    A(16)             result length
00001BAC  00001BEC                                 1215+REA21     DC    A(RE21)           result address
                                                   1216+*                                 INSTRUCTION UNDER TEST ROUTINE
00001BB0                                           1217+X21       DS    0F
00001BB0  E320 5010 0004                 00001B90  1218+          LG    R2,V2_21          convert v2
00001BB6  E320 8F4F 002E                 0000114F  1219+          CVDG  R2,V2PACKED
00001BBC  E720 8F4F 0006                 0000114F  1220+          VL    V2,V2PACKED
00001BC2  E320 5018 0004                 00001B98  1221+          LG    R2,V3_21          convert v3
00001BC8  E320 8F5F 002E                 0000115F  1222+          CVDG  R2,V3PACKED
00001BCE  E730 8F5F 0006                 0000115F  1223+          VL    V3,V3PACKED
00001BD4  E612 3019 F073                           1224+          VSP   V1,V2,V3,159,1    test instruction
00001BDA  E710 8F00 000E                 00001100  1225+          VST   V1,V1OUTPUT       save result
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00001BE0  B98D 0020                            1226+          EPSW  R2,R0              exptract psw
00001BE4  5020 8EE4                 000010E4   1227+          ST    R2,CCPSW                to save CC
00001BE8  07FB                                 1228+          BR    R11               return
00001BEC                                       1229+RE21      DC    0F
00001BEC                                       1230+          DROP  R5
00001BEC  00000000 00000089                    1231           DC    XL16'00000000000000899999999999999999C'
00001BF4  99999999 9999999C
                                               1232
                                               1233           VRI_F VSP,-9999999999999999,-1,159,1,1
00001C00                                       1234+          DS    0FD
00001C00                    00001C00           1235+          USING *,R5              base for test data and test routine
00001C00  00001C30                             1236+T22       DC    A(X22)            address of test routine
00001C04  0016                                 1237+          DC    H'22'             test number
00001C06  00                                   1238+          DC    X'00'
00001C07  9F                                   1239+          DC    HL1'159'          i4
00001C08  01                                   1240+          DC    HL1'1'            m5
00001C09  01                                   1241+          DC    HL1'1'            cc
00001C0A  0B                                   1242+          DC    HL1'11'           cc failed mask
                                               1243+V2_22     DC    FD'-9999999999999999' \
00001C10  FFDC790D 903F0001                        +                                  binary value for v2 packed decimal
00001C18  FFFFFFFF FFFFFFFF                    1244+V3_22     DC    FD'-1'            binary value for v3 packed decimal
00001C20  E5E2D740 40404040                    1245+          DC    CL8'VSP'          instruction name
00001C28  00000010                             1246+          DC    A(16)             result length
00001C2C  00001C6C                             1247+REA22     DC    A(RE22)           result address
                                               1248+*                                 INSTRUCTION UNDER TEST ROUTINE
00001C30                                       1249+X22       DS    0F
00001C30  E320 5010 0004            00001C10   1250+          LG    R2,V2_22          convert v2
00001C36  E320 8F4F 002E            0000114F   1251+          CVDG  R2,V2PACKED
00001C3C  E720 8F4F 0006            0000114F   1252+          VL    V2,V2PACKED
00001C42  E320 5018 0004            00001C18   1253+          LG    R2,V3_22          convert v3
00001C48  E320 8F5F 002E            0000115F   1254+          CVDG  R2,V3PACKED
00001C4E  E730 8F5F 0006            0000115F   1255+          VL    V3,V3PACKED
00001C54  E612 3019 F073                       1256+          VSP   V1,V2,V3,159,1    test instruction
00001C5A  E710 8F00 000E            00001100   1257+          VST   V1,V1OUTPUT       save result
00001C60  B98D 0020                            1258+          EPSW  R2,R0             exptract psw
00001C64  5020 8EE4                 000010E4   1259+          ST    R2,CCPSW              to save CC
00001C68  07FB                                 1260+          BR    R11               return
00001C6C                                       1261+RE22      DC    0F
00001C6C                                       1262+          DROP  R5
00001C6C  00000000 00000009                    1263           DC    XL16'00000000000000099999999999999998D'
00001C74  99999999 9999998D
                                               1264
                                               1265           VRI_F VSP,-9999999999999999,-1,135,1,3  i4=135(iom=1 & rdc=7)
00001C80                                       1266+          DS    0FD
00001C80                    00001C80           1267+          USING *,R5              base for test data and test routine
00001C80  00001CB0                             1268+T23       DC    A(X23)            address of test routine
00001C84  0017                                 1269+          DC    H'23'             test number
00001C86  00                                   1270+          DC    X'00'
00001C87  87                                   1271+          DC    HL1'135'          i4
00001C88  01                                   1272+          DC    HL1'1'            m5
00001C89  03                                   1273+          DC    HL1'3'            cc
00001C8A  0E                                   1274+          DC    HL1'14'           cc failed mask
                                               1275+V2_23     DC    FD'-9999999999999999' \
00001C90  FFDC790D 903F0001                        +                                  binary value for v2 packed decimal
00001C98  FFFFFFFF FFFFFFFF                    1276+V3_23     DC    FD'-1'            binary value for v3 packed decimal
00001CA0  E5E2D740 40404040                    1277+          DC    CL8'VSP'          instruction name
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001CA8  00000010                                1278+          DC    A(16)              result length
00001CAC  00001CEC                                1279+REA23     DC    A(RE23)            result address
                                                  1280+*                                  INSTRUCTION UNDER TEST ROUTINE
00001CB0                                          1281+X23       DS    0F
00001CB0  E320 5010 0004                 00001C90 1282+          LG    R2,V2_23           convert v2
00001CB6  E320 8F4F 002E                 0000114F 1283+          CVDG  R2,V2PACKED
00001CBC  E720 8F4F 0006                 0000114F 1284+          VL    V2,V2PACKED
00001CC2  E320 5018 0004                 00001C98 1285+          LG    R2,V3_23           convert v3
00001CC8  E320 8F5F 002E                 0000115F 1286+          CVDG  R2,V3PACKED
00001CCE  E730 8F5F 0006                 0000115F 1287+          VL    V3,V3PACKED
00001CD4  E612 3018 7073                          1288+          VSP   V1,V2,V3,135,1     test instruction
00001CDA  E710 8F00 000E                 00001100 1289+          VST   V1,V1OUTPUT        save result
00001CE0  B98D 0020                               1290+          EPSW  R2,R0              exptract psw
00001CE4  5020 8EE4                      000010E4 1291+          ST    R2,CCPSW               to save CC
00001CE8  07FB                                    1292+          BR    R11                return
00001CEC                                          1293+RE23      DC    0F
00001CEC                                          1294+          DROP  R5
00001CEC  00000000 00000000                       1295           DC    XL16'0000000000000000000000009999998D'
00001CF4  00000000 9999998D
                                                  1296
                                                  1297 * VSP larger #'s , i4=159(iom=1 & rdc=31)            CS=1 for all m5
                                                  1298 * check forced positive
                                                  1299           VRI_F VSP,-99999999999999999,+1,159,9,2    m5=9(P2=1)
00001D00                                          1300+          DS    0FD
00001D00                  00001D00                1301+          USING *,R5               base for test data and test routine
00001D00  00001D30                                1302+T24       DC    A(X24)             address of test routine
00001D04  0018                                    1303+          DC    H'24'              test number
00001D06  00                                      1304+          DC    X'00'
00001D07  9F                                      1305+          DC    HL1'159'           i4
00001D08  09                                      1306+          DC    HL1'9'             m5
00001D09  02                                      1307+          DC    HL1'2'             cc
00001D0A  0D                                      1308+          DC    HL1'13'            cc failed mask
                                                  1309+V2_24     DC    FD'-99999999999999999' \
00001D10  FE9CBA87 A2760001                           +                                  binary value for v2 packed decimal
00001D18  00000000 00000001                       1310+V3_24     DC    FD'+1'             binary value for v3 packed decimal
00001D20  E5E2D740 40404040                       1311+          DC    CL8'VSP'           instruction name
00001D28  00000010                                1312+          DC    A(16)              result length
00001D2C  00001D6C                                1313+REA24     DC    A(RE24)            result address
                                                  1314+*                                  INSTRUCTION UNDER TEST ROUTINE
00001D30                                          1315+X24       DS    0F
00001D30  E320 5010 0004                 00001D10 1316+          LG    R2,V2_24           convert v2
00001D36  E320 8F4F 002E                 0000114F 1317+          CVDG  R2,V2PACKED
00001D3C  E720 8F4F 0006                 0000114F 1318+          VL    V2,V2PACKED
00001D42  E320 5018 0004                 00001D18 1319+          LG    R2,V3_24           convert v3
00001D48  E320 8F5F 002E                 0000115F 1320+          CVDG  R2,V3PACKED
00001D4E  E730 8F5F 0006                 0000115F 1321+          VL    V3,V3PACKED
00001D54  E612 3099 F073                          1322+          VSP   V1,V2,V3,159,9     test instruction
00001D5A  E710 8F00 000E                 00001100 1323+          VST   V1,V1OUTPUT        save result
00001D60  B98D 0020                               1324+          EPSW  R2,R0              exptract psw
00001D64  5020 8EE4                      000010E4 1325+          ST    R2,CCPSW               to save CC
00001D68  07FB                                    1326+          BR    R11                return
00001D6C                                          1327+RE24      DC    0F
00001D6C                                          1328+          DROP  R5
00001D6C  00000000 00000099                       1329           DC    XL16'0000000000000099999999999999998C'
00001D74  99999999 9999998C
                                                  1330
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                   1331          VRI_F VSP,-99999999999999999,-10000000000000000,159,13,2
00001D80                                           1332+         DS    0FD
00001D80                             00001D80      1333+         USING *,R5              base for test data and test routine
00001D80  00001DB0                                 1334+T25      DC    A(X25)            address of test routine
00001D84  0019                                     1335+         DC    H'25'             test number
00001D86  00                                       1336+         DC    X'00'
00001D87  9F                                       1337+         DC    HL1'159'          i4
00001D88  0D                                       1338+         DC    HL1'13'           m5
00001D89  02                                       1339+         DC    HL1'2'            cc
00001D8A  0D                                       1340+         DC    HL1'13'           cc failed mask
                                                   1341+V2_25    DC    FD'-99999999999999999' \
00001D90  FE9CBA87 A2760001                           +                                  binary value for v2 packed decimal
                                                   1342+V3_25    DC    FD'-10000000000000000' \
00001D98  FFDC790D 903F0000                           +                                  binary value for v3 packed decimal
00001DA0  E5E2D740 40404040                        1343+         DC    CL8'VSP'          instruction name
00001DA8  00000010                                 1344+         DC    A(16)             result length
00001DAC  00001DEC                                 1345+REA25    DC    A(RE25)           result address
                                                   1346+*                                 INSTRUCTION UNDER TEST ROUTINE
00001DB0                                           1347+X25      DS    0F
00001DB0  E320 5010 0004                 00001D90  1348+         LG    R2,V2_25          convert v2
00001DB6  E320 8F4F 002E                 0000114F  1349+         CVDG  R2,V2PACKED
00001DBC  E720 8F4F 0006                 0000114F  1350+         VL    V2,V2PACKED
00001DC2  E320 5018 0004                 00001D98  1351+         LG    R2,V3_25          convert v3
00001DC8  E320 8F5F 002E                 0000115F  1352+         CVDG  R2,V3PACKED
00001DCE  E730 8F5F 0006                 0000115F  1353+         VL    V3,V3PACKED
00001DD4  E612 30D9 F073                           1354+         VSP   V1,V2,V3,159,13   test instruction
00001DDA  E710 8F00 000E                 00001100  1355+         VST   V1,V1OUTPUT       save result
00001DE0  B98D 0020                                1356+         EPSW  R2,R0             exptract psw
00001DE4  5020 8EE4                      000010E4  1357+         ST    R2,CCPSW              to save CC
00001DE8  07FB                                     1358+         BR    R11               return
00001DEC                                           1359+RE25     DC    0F
00001DEC                                           1360+         DROP  R5
00001DEC  00000000 00000089                        1361          DC    XL16'0000000000000089999999999999999C' m5=13(P2=1,P3=1)
00001DF4  99999999 9999999C
                                                   1362
                                                   1363          VRI_F VSP,-9999999999999999,-1,159,3,2       m5=3(P1=1)
00001E00                                           1364+         DS    0FD
00001E00                             00001E00      1365+         USING *,R5              base for test data and test routine
00001E00  00001E30                                 1366+T26      DC    A(X26)            address of test routine
00001E04  001A                                     1367+         DC    H'26'             test number
00001E06  00                                       1368+         DC    X'00'
00001E07  9F                                       1369+         DC    HL1'159'          i4
00001E08  03                                       1370+         DC    HL1'3'            m5
00001E09  02                                       1371+         DC    HL1'2'            cc
00001E0A  0D                                       1372+         DC    HL1'13'           cc failed mask
                                                   1373+V2_26    DC    FD'-9999999999999999' \
00001E10  FFDC790D 903F0001                           +                                  binary value for v2 packed decimal
00001E18  FFFFFFFF FFFFFFFF                        1374+V3_26    DC    FD'-1'            binary value for v3 packed decimal
00001E20  E5E2D740 40404040                        1375+         DC    CL8'VSP'          instruction name
00001E28  00000010                                 1376+         DC    A(16)             result length
00001E2C  00001E6C                                 1377+REA26    DC    A(RE26)           result address
                                                   1378+*                                 INSTRUCTION UNDER TEST ROUTINE
00001E30                                           1379+X26      DS    0F
00001E30  E320 5010 0004                 00001E10  1380+         LG    R2,V2_26          convert v2
00001E36  E320 8F4F 002E                 0000114F  1381+         CVDG  R2,V2PACKED
00001E3C  E720 8F4F 0006                 0000114F  1382+         VL    V2,V2PACKED
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00001E42  E320 5018 0004                 00001E18  1383+         LG    R2,V3_26          convert v3
00001E48  E320 8F5F 002E                 0000115F  1384+         CVDG  R2,V3PACKED
00001E4E  E730 8F5F 0006                 0000115F  1385+         VL    V3,V3PACKED
00001E54  E612 3039 F073                           1386+         VSP   V1,V2,V3,159,3    test instruction
00001E5A  E710 8F00 000E                 00001100  1387+         VST   V1,V1OUTPUT       save result
00001E60  B98D 0020                                1388+         EPSW  R2,R0             exptract psw
00001E64  5020 8EE4                      000010E4  1389+         ST    R2,CCPSW              to save CC
00001E68  07FB                                     1390+         BR    R11               return
00001E6C                                           1391+RE26     DC    0F
00001E6C                                           1392+         DROP  R5
00001E6C  00000000 00000009                        1393          DC    XL16'00000000000000099999999999999F'
00001E74  99999999 9999998F
                                                   1394
                                                   1395          VRI_F VSP,-9999999999999999,-1,135,3,3  i4=135(iom=1 & rdc=7)
00001E80                                           1396+         DS    0FD
00001E80                           00001E80        1397+         USING *,R5              base for test data and test routine
00001E80  00001EB0                                 1398+T27      DC    A(X27)            address of test routine
00001E84  001B                                     1399+         DC    H'27'             test number
00001E86  00                                       1400+         DC    X'00'
00001E87  87                                       1401+         DC    HL1'135'          i4
00001E88  03                                       1402+         DC    HL1'3'            m5
00001E89  03                                       1403+         DC    HL1'3'            cc
00001E8A  0E                                       1404+         DC    HL1'14'           cc failed mask
                                                   1405+V2_27    DC    FD'-9999999999999999' \
00001E90  FFDC790D 903F0001                           +                                 binary value for v2 packed decimal
00001E98  FFFFFFFF FFFFFFFF                        1406+V3_27    DC    FD'-1'            binary value for v3 packed decimal
00001EA0  E5E2D740 40404040                        1407+         DC    CL8'VSP'          instruction name
00001EA8  00000010                                 1408+         DC    A(16)             result length
00001EAC  00001EEC                                 1409+REA27    DC    A(RE27)           result address
                                                   1410+*                                INSTRUCTION UNDER TEST ROUTINE
00001EB0                                           1411+X27      DS    0F
00001EB0  E320 5010 0004                 00001E90  1412+         LG    R2,V2_27          convert v2
00001EB6  E320 8F4F 002E                 0000114F  1413+         CVDG  R2,V2PACKED
00001EBC  E720 8F4F 0006                 0000114F  1414+         VL    V2,V2PACKED
00001EC2  E320 5018 0004                 00001E98  1415+         LG    R2,V3_27          convert v3
00001EC8  E320 8F5F 002E                 0000115F  1416+         CVDG  R2,V3PACKED
00001ECE  E730 8F5F 0006                 0000115F  1417+         VL    V3,V3PACKED
00001ED4  E612 3038 7073                           1418+         VSP   V1,V2,V3,135,3    test instruction
00001EDA  E710 8F00 000E                 00001100  1419+         VST   V1,V1OUTPUT       save result
00001EE0  B98D 0020                                1420+         EPSW  R2,R0             exptract psw
00001EE4  5020 8EE4                      000010E4  1421+         ST    R2,CCPSW              to save CC
00001EE8  07FB                                     1422+         BR    R11               return
00001EEC                                           1423+RE27     DC    0F
00001EEC                                           1424+         DROP  R5
00001EEC  00000000 00000000                        1425          DC    XL16'00000000000000000000000009999998F' m5=3(P1=1)
00001EF4  00000000 9999998F
                                                   1426
                                                   1427 *-------------------------------------------------------------------
                                                   1428 *  VMP    - VECTOR MULTIPLY DECIMAL
                                                   1429 *-------------------------------------------------------------------
                                                   1430 * VMP simple + CC checks
                                                   1431          VRI_F VMP,+10,+12,7,1,2
00001F00                                           1432+         DS    0FD
00001F00                           00001F00        1433+         USING *,R5              base for test data and test routine
00001F00  00001F30                                 1434+T28      DC    A(X28)            address of test routine
00001F04  001C                                     1435+         DC    H'28'             test number
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001F06  00                                      1436+         DC    X'00'
00001F07  07                                      1437+         DC    HL1'7'            i4
00001F08  01                                      1438+         DC    HL1'1'            m5
00001F09  02                                      1439+         DC    HL1'2'            cc
00001F0A  0D                                      1440+         DC    HL1'13'           cc failed mask
00001F10  00000000 0000000A                       1441+V2_28    DC    FD'+10'           binary value for v2 packed decimal
00001F18  00000000 0000000C                       1442+V3_28    DC    FD'+12'           binary value for v3 packed decimal
00001F20  E5D4D740 40404040                       1443+         DC    CL8'VMP'          instruction name
00001F28  00000010                                1444+         DC    A(16)             result length
00001F2C  00001F6C                                1445+REA28    DC    A(RE28)           result address
                                                  1446+*                                INSTRUCTION UNDER TEST ROUTINE
00001F30                                          1447+X28      DS    0F
00001F30  E320 5010 0004                 00001F10 1448+         LG    R2,V2_28          convert v2
00001F36  E320 8F4F 002E                 0000114F 1449+         CVDG  R2,V2PACKED
00001F3C  E720 8F4F 0006                 0000114F 1450+         VL    V2,V2PACKED
00001F42  E320 5018 0004                 00001F18 1451+         LG    R2,V3_28          convert v3
00001F48  E320 8F5F 002E                 0000115F 1452+         CVDG  R2,V3PACKED
00001F4E  E730 8F5F 0006                 0000115F 1453+         VL    V3,V3PACKED
00001F54  E612 3010 7078                          1454+         VMP   V1,V2,V3,7,1      test instruction
00001F5A  E710 8F00 000E                 00001100 1455+         VST   V1,V1OUTPUT       save result
00001F60  B98D 0020                               1456+         EPSW  R2,R0             exptract psw
00001F64  5020 8EE4                      000010E4 1457+         ST    R2,CCPSW              to save CC
00001F68  07FB                                    1458+         BR    R11               return
00001F6C                                          1459+RE28     DC    0F
00001F6C                                          1460+         DROP  R5
00001F6C  00000000 00000000                       1461          DC    XL16'0000000000000000000000000000120C'
00001F74  00000000 0000120C
                                                  1462
                                                  1463          VRI_F VMP,-10,+12,7,1,1
00001F80                                          1464+         DS    0FD
00001F80                  00001F80                1465+         USING *,R5              base for test data and test routine
00001F80  00001FB0                                1466+T29      DC    A(X29)            address of test routine
00001F84  001D                                    1467+         DC    H'29'             test number
00001F86  00                                      1468+         DC    X'00'
00001F87  07                                      1469+         DC    HL1'7'            i4
00001F88  01                                      1470+         DC    HL1'1'            m5
00001F89  01                                      1471+         DC    HL1'1'            cc
00001F8A  0B                                      1472+         DC    HL1'11'           cc failed mask
00001F90  FFFFFFFF FFFFFFF6                       1473+V2_29    DC    FD'-10'           binary value for v2 packed decimal
00001F98  00000000 0000000C                       1474+V3_29    DC    FD'+12'           binary value for v3 packed decimal
00001FA0  E5D4D740 40404040                       1475+         DC    CL8'VMP'          instruction name
00001FA8  00000010                                1476+         DC    A(16)             result length
00001FAC  00001FEC                                1477+REA29    DC    A(RE29)           result address
                                                  1478+*                                INSTRUCTION UNDER TEST ROUTINE
00001FB0                                          1479+X29      DS    0F
00001FB0  E320 5010 0004                 00001F90 1480+         LG    R2,V2_29          convert v2
00001FB6  E320 8F4F 002E                 0000114F 1481+         CVDG  R2,V2PACKED
00001FBC  E720 8F4F 0006                 0000114F 1482+         VL    V2,V2PACKED
00001FC2  E320 5018 0004                 00001F98 1483+         LG    R2,V3_29          convert v3
00001FC8  E320 8F5F 002E                 0000115F 1484+         CVDG  R2,V3PACKED
00001FCE  E730 8F5F 0006                 0000115F 1485+         VL    V3,V3PACKED
00001FD4  E612 3010 7078                          1486+         VMP   V1,V2,V3,7,1      test instruction
00001FDA  E710 8F00 000E                 00001100 1487+         VST   V1,V1OUTPUT       save result
00001FE0  B98D 0020                               1488+         EPSW  R2,R0             exptract psw
00001FE4  5020 8EE4                      000010E4 1489+         ST    R2,CCPSW              to save CC
00001FE8  07FB                                    1490+         BR    R11               return
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00001FEC                                          1491+RE29     DC    0F
00001FEC                                          1492+         DROP  R5
00001FEC  00000000 00000000                       1493          DC    XL16'00000000000000000000000000000120D'
00001FF4  00000000 0000120D
                                                  1494
                                                  1495          VRI_F VMP,+10,-12,1,1,3                      note rdc=1
00002000                                          1496+         DS    0FD
00002000                      00002000            1497+         USING *,R5              base for test data and test routine
00002000  00002030                                1498+T30      DC    A(X30)            address of test routine
00002004  001E                                    1499+         DC    H'30'             test number
00002006  00                                      1500+         DC    X'00'
00002007  01                                      1501+         DC    HL1'1'            i4
00002008  01                                      1502+         DC    HL1'1'            m5
00002009  03                                      1503+         DC    HL1'3'            cc
0000200A  0E                                      1504+         DC    HL1'14'           cc failed mask
00002010  00000000 0000000A                       1505+V2_30    DC    FD'+10'           binary value for v2 packed decimal
00002018  FFFFFFFF FFFFFFF4                       1506+V3_30    DC    FD'-12'           binary value for v3 packed decimal
00002020  E5D4D740 40404040                       1507+         DC    CL8'VMP'          instruction name
00002028  00000010                                1508+         DC    A(16)             result length
0000202C  0000206C                                1509+REA30    DC    A(RE30)           result address
                                                  1510+*                                INSTRUCTION UNDER TEST ROUTINE
00002030                                          1511+X30      DS    0F
00002030  E320 5010 0004                00002010  1512+         LG    R2,V2_30          convert v2
00002036  E320 8F4F 002E                0000114F  1513+         CVDG  R2,V2PACKED
0000203C  E720 8F4F 0006                0000114F  1514+         VL    V2,V2PACKED
00002042  E320 5018 0004                00002018  1515+         LG    R2,V3_30          convert v3
00002048  E320 8F5F 002E                0000115F  1516+         CVDG  R2,V3PACKED
0000204E  E730 8F5F 0006                0000115F  1517+         VL    V3,V3PACKED
00002054  E612 3010 1078                          1518+         VMP   V1,V2,V3,1,1      test instruction
0000205A  E710 8F00 000E                00001100  1519+         VST   V1,V1OUTPUT       save result
00002060  B98D 0020                               1520+         EPSW  R2,R0             exptract psw
00002064  5020 8EE4                     000010E4  1521+         ST    R2,CCPSW              to save CC
00002068  07FB                                    1522+         BR    R11               return
0000206C                                          1523+RE30     DC    0F
0000206C                                          1524+         DROP  R5
0000206C  00000000 00000000                       1525          DC    XL16'00000000000000000000000000000000D'
00002074  00000000 0000000D
                                                  1526
                                                  1527          VRI_F VMP,+10,-12,7,1,1
00002080                                          1528+         DS    0FD
00002080                      00002080            1529+         USING *,R5              base for test data and test routine
00002080  000020B0                                1530+T31      DC    A(X31)            address of test routine
00002084  001F                                    1531+         DC    H'31'             test number
00002086  00                                      1532+         DC    X'00'
00002087  07                                      1533+         DC    HL1'7'            i4
00002088  01                                      1534+         DC    HL1'1'            m5
00002089  01                                      1535+         DC    HL1'1'            cc
0000208A  0B                                      1536+         DC    HL1'11'           cc failed mask
00002090  00000000 0000000A                       1537+V2_31    DC    FD'+10'           binary value for v2 packed decimal
00002098  FFFFFFFF FFFFFFF4                       1538+V3_31    DC    FD'-12'           binary value for v3 packed decimal
000020A0  E5D4D740 40404040                       1539+         DC    CL8'VMP'          instruction name
000020A8  00000010                                1540+         DC    A(16)             result length
000020AC  000020EC                                1541+REA31    DC    A(RE31)           result address
                                                  1542+*                                INSTRUCTION UNDER TEST ROUTINE
000020B0                                          1543+X31      DS    0F
000020B0  E320 5010 0004                00002090  1544+         LG    R2,V2_31          convert v2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000020B6  E320 8F4F 002E                 0000114F  1545+          CVDG  R2,V2PACKED
000020BC  E720 8F4F 0006                 0000114F  1546+          VL    V2,V2PACKED
000020C2  E320 5018 0004                 00002098  1547+          LG    R2,V3_31           convert v3
000020C8  E320 8F5F 002E                 0000115F  1548+          CVDG  R2,V3PACKED
000020CE  E730 8F5F 0006                 0000115F  1549+          VL    V3,V3PACKED
000020D4  E612 3010 7078                           1550+          VMP   V1,V2,V3,7,1       test instruction
000020DA  E710 8F00 000E                 00001100  1551+          VST   V1,V1OUTPUT        save result
000020E0  B98D 0020                                1552+          EPSW  R2,R0              exptract psw
000020E4  5020 8EE4                      000010E4  1553+          ST    R2,CCPSW               to save CC
000020E8  07FB                                     1554+          BR    R11                return
000020EC                                           1555+RE31      DC    0F
000020EC                                           1556+          DROP  R5
000020EC  00000000 00000000                        1557           DC    XL16'0000000000000000000000000000120D'
000020F4  00000000 0000120D
                                                   1558
                                                   1559           VRI_F VMP,-10,-12,7,1,2
00002100                                           1560+          DS    0FD
00002100                         00002100          1561+          USING *,R5               base for test data and test routine
00002100  00002130                                 1562+T32       DC    A(X32)             address of test routine
00002104  0020                                     1563+          DC    H'32'              test number
00002106  00                                       1564+          DC    X'00'
00002107  07                                       1565+          DC    HL1'7'             i4
00002108  01                                       1566+          DC    HL1'1'             m5
00002109  02                                       1567+          DC    HL1'2'             cc
0000210A  0D                                       1568+          DC    HL1'13'            cc failed mask
00002110  FFFFFFFF FFFFFFF6                        1569+V2_32     DC    FD'-10'            binary value for v2 packed decimal
00002118  FFFFFFFF FFFFFFF4                        1570+V3_32     DC    FD'-12'            binary value for v3 packed decimal
00002120  E5D4D740 40404040                        1571+          DC    CL8'VMP'           instruction name
00002128  00000010                                 1572+          DC    A(16)              result length
0000212C  0000216C                                 1573+REA32     DC    A(RE32)            result address
                                                   1574+*                                  INSTRUCTION UNDER TEST ROUTINE
00002130                                           1575+X32       DS    0F
00002130  E320 5010 0004                 00002110  1576+          LG    R2,V2_32           convert v2
00002136  E320 8F4F 002E                 0000114F  1577+          CVDG  R2,V2PACKED
0000213C  E720 8F4F 0006                 0000114F  1578+          VL    V2,V2PACKED
00002142  E320 5018 0004                 00002118  1579+          LG    R2,V3_32           convert v3
00002148  E320 8F5F 002E                 0000115F  1580+          CVDG  R2,V3PACKED
0000214E  E730 8F5F 0006                 0000115F  1581+          VL    V3,V3PACKED
00002154  E612 3010 7078                           1582+          VMP   V1,V2,V3,7,1       test instruction
0000215A  E710 8F00 000E                 00001100  1583+          VST   V1,V1OUTPUT        save result
00002160  B98D 0020                                1584+          EPSW  R2,R0              exptract psw
00002164  5020 8EE4                      000010E4  1585+          ST    R2,CCPSW               to save CC
00002168  07FB                                     1586+          BR    R11                return
0000216C                                           1587+RE32      DC    0F
0000216C                                           1588+          DROP  R5
0000216C  00000000 00000000                        1589           DC    XL16'0000000000000000000000000000120C'
00002174  00000000 0000120C
                                                   1590
                                                   1591           VRI_F VMP,-10,-10,7,1,2
00002180                                           1592+          DS    0FD
00002180                         00002180          1593+          USING *,R5               base for test data and test routine
00002180  000021B0                                 1594+T33       DC    A(X33)             address of test routine
00002184  0021                                     1595+          DC    H'33'              test number
00002186  00                                       1596+          DC    X'00'
00002187  07                                       1597+          DC    HL1'7'             i4
00002188  01                                       1598+          DC    HL1'1'             m5
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00002189  02                                      1599+          DC    HL1'2'              cc
0000218A  0D                                      1600+          DC    HL1'13'             cc failed mask
00002190  FFFFFFFF FFFFFFF6                       1601+V2_33     DC    FD'-10'             binary value for v2 packed decimal
00002198  FFFFFFFF FFFFFFF6                       1602+V3_33     DC    FD'-10'             binary value for v3 packed decimal
000021A0  E5D4D740 40404040                       1603+          DC    CL8'VMP'            instruction name
000021A8  00000010                                1604+          DC    A(16)               result length
000021AC  000021EC                                1605+REA33     DC    A(RE33)             result address
                                                  1606+*                                   INSTRUCTION UNDER TEST ROUTINE
000021B0                                          1607+X33       DS    0F
000021B0  E320 5010 0004                 00002190 1608+          LG    R2,V2_33            convert v2
000021B6  E320 8F4F 002E                 0000114F 1609+          CVDG  R2,V2PACKED
000021BC  E720 8F4F 0006                 0000114F 1610+          VL    V2,V2PACKED
000021C2  E320 5018 0004                 00002198 1611+          LG    R2,V3_33            convert v3
000021C8  E320 8F5F 002E                 0000115F 1612+          CVDG  R2,V3PACKED
000021CE  E730 8F5F 0006                 0000115F 1613+          VL    V3,V3PACKED
000021D4  E612 3010 7078                          1614+          VMP   V1,V2,V3,7,1        test instruction
000021DA  E710 8F00 000E                 00001100 1615+          VST   V1,V1OUTPUT         save result
000021E0  B98D 0020                               1616+          EPSW  R2,R0               exptract psw
000021E4  5020 8EE4                      000010E4 1617+          ST    R2,CCPSW                to save CC
000021E8  07FB                                    1618+          BR    R11                 return
000021EC                                          1619+RE33      DC    0F
000021EC                                          1620+          DROP  R5
000021EC  00000000 00000000                       1621           DC    XL16'0000000000000000000000000000100C'
000021F4  00000000 0000100C
                                                  1622
                                                  1623           VRI_F VMP,+10000000010,+10,135,1,3     i4=135(iom=1 & rdc=7)
00002200                                          1624+          DS    0FD
00002200                       00002200           1625+          USING *,R5                base for test data and test routine
00002200  00002230                                1626+T34       DC    A(X34)              address of test routine
00002204  0022                                    1627+          DC    H'34'               test number
00002206  00                                      1628+          DC    X'00'
00002207  87                                      1629+          DC    HL1'135'            i4
00002208  01                                      1630+          DC    HL1'1'              m5
00002209  03                                      1631+          DC    HL1'3'              cc
0000220A  0E                                      1632+          DC    HL1'14'             cc failed mask
00002210  00000002 540BE40A                       1633+V2_34     DC    FD'+10000000010'    binary value for v2 packed decimal
00002218  00000000 0000000A                       1634+V3_34     DC    FD'+10'             binary value for v3 packed decimal
00002220  E5D4D740 40404040                       1635+          DC    CL8'VMP'            instruction name
00002228  00000010                                1636+          DC    A(16)               result length
0000222C  0000226C                                1637+REA34     DC    A(RE34)             result address
                                                  1638+*                                   INSTRUCTION UNDER TEST ROUTINE
00002230                                          1639+X34       DS    0F
00002230  E320 5010 0004                 00002210 1640+          LG    R2,V2_34            convert v2
00002236  E320 8F4F 002E                 0000114F 1641+          CVDG  R2,V2PACKED
0000223C  E720 8F4F 0006                 0000114F 1642+          VL    V2,V2PACKED
00002242  E320 5018 0004                 00002218 1643+          LG    R2,V3_34            convert v3
00002248  E320 8F5F 002E                 0000115F 1644+          CVDG  R2,V3PACKED
0000224E  E730 8F5F 0006                 0000115F 1645+          VL    V3,V3PACKED
00002254  E612 3018 7078                          1646+          VMP   V1,V2,V3,135,1      test instruction
0000225A  E710 8F00 000E                 00001100 1647+          VST   V1,V1OUTPUT         save result
00002260  B98D 0020                               1648+          EPSW  R2,R0               exptract psw
00002264  5020 8EE4                      000010E4 1649+          ST    R2,CCPSW                to save CC
00002268  07FB                                    1650+          BR    R11                 return
0000226C                                          1651+RE34      DC    0F
0000226C                                          1652+          DROP  R5
0000226C  00000000 00000000                       1653           DC    XL16'0000000000000000000000000000100C'  note RDC
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00002274  00000000 0000100C                        1654
                                                   1655 * VMP larger #'s , i4=159(iom=1 & rdc=31)
                                                   1656          VRI_F VMP,+99999999999999999,+1,159,1,2
00002280                                           1657+         DS    0FD
00002280                      00002280             1658+         USING *,R5              base for test data and test routine
00002280  000022B0                                 1659+T35      DC    A(X35)            address of test routine
00002284  0023                                     1660+         DC    H'35'             test number
00002286  00                                       1661+         DC    X'00'
00002287  9F                                       1662+         DC    HL1'159'          i4
00002288  01                                       1663+         DC    HL1'1'            m5
00002289  02                                       1664+         DC    HL1'2'            cc
0000228A  0D                                       1665+         DC    HL1'13'           cc failed mask
                                                   1666+V2_35    DC    FD'+99999999999999999' \
00002290  01634578 5D89FFFF                           +                                 binary value for v2 packed decimal
00002298  00000000 00000001                        1667+V3_35    DC    FD'+1'            binary value for v3 packed decimal
000022A0  E5D4D740 40404040                        1668+         DC    CL8'VMP'          instruction name
000022A8  00000010                                 1669+         DC    A(16)             result length
000022AC  000022EC                                 1670+REA35    DC    A(RE35)           result address
                                                   1671+*                                INSTRUCTION UNDER TEST ROUTINE
000022B0                                           1672+X35      DS    0F
000022B0  E320 5010 0004                00002290   1673+         LG    R2,V2_35          convert v2
000022B6  E320 8F4F 002E                0000114F   1674+         CVDG  R2,V2PACKED
000022BC  E720 8F4F 0006                0000114F   1675+         VL    V2,V2PACKED
000022C2  E320 5018 0004                00002298   1676+         LG    R2,V3_35          convert v3
000022C8  E320 8F5F 002E                0000115F   1677+         CVDG  R2,V3PACKED
000022CE  E730 8F5F 0006                0000115F   1678+         VL    V3,V3PACKED
000022D4  E612 3019 F078                           1679+         VMP   V1,V2,V3,159,1    test instruction
000022DA  E710 8F00 000E                00001100   1680+         VST   V1,V1OUTPUT       save result
000022E0  B98D 0020                                1681+         EPSW  R2,R0             exptract psw
000022E4  5020 8EE4                     000010E4   1682+         ST    R2,CCPSW              to save CC
000022E8  07FB                                     1683+         BR    R11               return
000022EC                                           1684+RE35     DC    0F
000022EC                                           1685+         DROP  R5
000022EC  00000000 00000099                        1686          DC    XL16'0000000000000099999999999999999C'
000022F4  99999999 9999999C
                                                   1687
                                                   1688          VRI_F VMP,+99999999999999999,+10000000000000000,159,1,3
00002300                                           1689+         DS    0FD
00002300                      00002300             1690+         USING *,R5              base for test data and test routine
00002300  00002330                                 1691+T36      DC    A(X36)            address of test routine
00002304  0024                                     1692+         DC    H'36'             test number
00002306  00                                       1693+         DC    X'00'
00002307  9F                                       1694+         DC    HL1'159'          i4
00002308  01                                       1695+         DC    HL1'1'            m5
00002309  03                                       1696+         DC    HL1'3'            cc
0000230A  0E                                       1697+         DC    HL1'14'           cc failed mask
                                                   1698+V2_36    DC    FD'+99999999999999999' \
00002310  01634578 5D89FFFF                           +                                 binary value for v2 packed decimal
                                                   1699+V3_36    DC    FD'+10000000000000000' \
00002318  002386F2 6FC10000                           +                                 binary value for v3 packed decimal
00002320  E5D4D740 40404040                        1700+         DC    CL8'VMP'          instruction name
00002328  00000010                                 1701+         DC    A(16)             result length
0000232C  0000236C                                 1702+REA36    DC    A(RE36)           result address
                                                   1703+*                                INSTRUCTION UNDER TEST ROUTINE
00002330                                           1704+X36      DS    0F
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00002330  E320 5010 0004                 00002310  1705+         LG    R2,V2_36          convert v2
00002336  E320 8F4F 002E                 0000114F  1706+         CVDG  R2,V2PACKED
0000233C  E720 8F4F 0006                 0000114F  1707+         VL    V2,V2PACKED
00002342  E320 5018 0004                 00002318  1708+         LG    R2,V3_36          convert v3
00002348  E320 8F5F 002E                 0000115F  1709+         CVDG  R2,V3PACKED
0000234E  E730 8F5F 0006                 0000115F  1710+         VL    V3,V3PACKED
00002354  E612 3019 F078                           1711+         VMP   V1,V2,V3,159,1    test instruction
0000235A  E710 8F00 000E                 00001100  1712+         VST   V1,V1OUTPUT       save result
00002360  B98D 0020                                1713+         EPSW  R2,R0             exptract psw
00002364  5020 8EE4                      000010E4  1714+         ST    R2,CCPSW              to save CC
00002368  07FB                                     1715+         BR    R11               return
0000236C                                           1716+RE36     DC    0F
0000236C                                           1717+         DROP  R5
0000236C  99999999 99999990                        1718          DC    XL16'9999999999999990000000000000000C'    overflowed
00002374  00000000 0000000C
                                                   1719
                                                   1720          VRI_F VMP,-9999999999999999,-1,159,1,2
00002380                                           1721+         DS    0FD
00002380                           00002380        1722+         USING *,R5              base for test data and test routine
00002380  000023B0                                 1723+T37      DC    A(X37)            address of test routine
00002384  0025                                     1724+         DC    H'37'             test number
00002386  00                                       1725+         DC    X'00'
00002387  9F                                       1726+         DC    HL1'159'          i4
00002388  01                                       1727+         DC    HL1'1'            m5
00002389  02                                       1728+         DC    HL1'2'            cc
0000238A  0D                                       1729+         DC    HL1'13'           cc failed mask
                                                   1730+V2_37    DC    FD'-9999999999999999' \
00002390  FFDC790D 903F0001                           +                                 binary value for v2 packed decimal
00002398  FFFFFFFF FFFFFFFF                        1731+V3_37    DC    FD'-1'            binary value for v3 packed decimal
000023A0  E5D4D740 40404040                        1732+         DC    CL8'VMP'          instruction name
000023A8  00000010                                 1733+         DC    A(16)             result length
000023AC  000023EC                                 1734+REA37    DC    A(RE37)           result address
                                                   1735+*                                  INSTRUCTION UNDER TEST ROUTINE
000023B0                                           1736+X37      DS    0F
000023B0  E320 5010 0004                 00002390  1737+         LG    R2,V2_37          convert v2
000023B6  E320 8F4F 002E                 0000114F  1738+         CVDG  R2,V2PACKED
000023BC  E720 8F4F 0006                 0000114F  1739+         VL    V2,V2PACKED
000023C2  E320 5018 0004                 00002398  1740+         LG    R2,V3_37          convert v3
000023C8  E320 8F5F 002E                 0000115F  1741+         CVDG  R2,V3PACKED
000023CE  E730 8F5F 0006                 0000115F  1742+         VL    V3,V3PACKED
000023D4  E612 3019 F078                           1743+         VMP   V1,V2,V3,159,1    test instruction
000023DA  E710 8F00 000E                 00001100  1744+         VST   V1,V1OUTPUT       save result
000023E0  B98D 0020                                1745+         EPSW  R2,R0             exptract psw
000023E4  5020 8EE4                      000010E4  1746+         ST    R2,CCPSW              to save CC
000023E8  07FB                                     1747+         BR    R11               return
000023EC                                           1748+RE37     DC    0F
000023EC                                           1749+         DROP  R5
000023EC  00000000 00000009                        1750          DC    XL16'00000000000000099999999999999999C'
000023F4  99999999 9999999C
                                                   1751
                                                   1752          VRI_F VMP,-9999999999999999,-1,135,1,3  i4=135(iom=1 & rdc=7)
00002400                                           1753+         DS    0FD
00002400                           00002400        1754+         USING *,R5              base for test data and test routine
00002400  00002430                                 1755+T38      DC    A(X38)            address of test routine
00002404  0026                                     1756+         DC    H'38'             test number
00002406  00                                       1757+         DC    X'00'
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00002407  87                                       1758+          DC    HL1'135'           i4
00002408  01                                       1759+          DC    HL1'1'             m5
00002409  03                                       1760+          DC    HL1'3'             cc
0000240A  0E                                       1761+          DC    HL1'14'            cc failed mask
                                                   1762+V2_38     DC    FD'-9999999999999999' \
00002410  FFDC790D 903F0001                            +                                   binary value for v2 packed decimal
00002418  FFFFFFFF FFFFFFFF                         1763+V3_38     DC    FD'-1'             binary value for v3 packed decimal
00002420  E5D4D740 40404040                         1764+          DC    CL8'VMP'           instruction name
00002428  00000010                                 1765+          DC    A(16)              result length
0000242C  0000246C                                 1766+REA38     DC    A(RE38)            result address
                                                   1767+*                                  INSTRUCTION UNDER TEST ROUTINE
00002430                                           1768+X38       DS    0F
00002430  E320 5010 0004                 00002410  1769+          LG    R2,V2_38           convert v2
00002436  E320 8F4F 002E                 0000114F  1770+          CVDG  R2,V2PACKED
0000243C  E720 8F4F 0006                 0000114F  1771+          VL    V2,V2PACKED
00002442  E320 5018 0004                 00002418  1772+          LG    R2,V3_38           convert v3
00002448  E320 8F5F 002E                 0000115F  1773+          CVDG  R2,V3PACKED
0000244E  E730 8F5F 0006                 0000115F  1774+          VL    V3,V3PACKED
00002454  E612 3018 7078                           1775+          VMP   V1,V2,V3,135,1     test instruction
0000245A  E710 8F00 000E                 00001100  1776+          VST   V1,V1OUTPUT        save result
00002460  B98D 0020                                1777+          EPSW  R2,R0              exptract psw
00002464  5020 8EE4                      000010E4  1778+          ST    R2,CCPSW               to save CC
00002468  07FB                                     1779+          BR    R11                running
0000246C                                           1780+RE38      DC    0F
0000246C                                           1781+          DROP  R5
0000246C  00000000 00000000                        1782           DC    XL16'0000000000000000000000009999999C'    overflow RDC
00002474  00000000 9999999C
                                                   1783
                                                   1784           VRI_F VMP,+9999999999999,+10000000000000,159,1,2
00002480                                           1785+          DS    0FD
00002480                      00002480             1786+          USING *,R5               base for test data and test routine
00002480  000024B0                                 1787+T39       DC    A(X39)             address of test routine
00002484  0027                                     1788+          DC    H'39'              test number
00002486  00                                       1789+          DC    X'00'
00002487  9F                                       1790+          DC    HL1'159'           i4
00002488  01                                       1791+          DC    HL1'1'             m5
00002489  02                                       1792+          DC    HL1'2'             cc
0000248A  0D                                       1793+          DC    HL1'13'            cc failed mask
                                                   1794+V2_39     DC    FD'+9999999999999' \
00002490  00000918 4E729FFF                            +                                   binary value for v2 packed decimal
                                                   1795+V3_39     DC    FD'+10000000000000' \
00002498  00000918 4E72A000                            +                                   binary value for v3 packed decimal
000024A0  E5D4D740 40404040                        1796+          DC    CL8'VMP'           instruction name
000024A8  00000010                                 1797+          DC    A(16)              result length
000024AC  000024EC                                 1798+REA39     DC    A(RE39)            result address
                                                   1799+*                                  INSTRUCTION UNDER TEST ROUTINE
000024B0                                           1800+X39       DS    0F
000024B0  E320 5010 0004                 00002490  1801+          LG    R2,V2_39           convert v2
000024B6  E320 8F4F 002E                 0000114F  1802+          CVDG  R2,V2PACKED
000024BC  E720 8F4F 0006                 0000114F  1803+          VL    V2,V2PACKED
000024C2  E320 5018 0004                 00002498  1804+          LG    R2,V3_39           convert v3
000024C8  E320 8F5F 002E                 0000115F  1805+          CVDG  R2,V3PACKED
000024CE  E730 8F5F 0006                 0000115F  1806+          VL    V3,V3PACKED
000024D4  E612 3019 F078                           1807+          VMP   V1,V2,V3,159,1     test instruction
000024DA  E710 8F00 000E                 00001100  1808+          VST   V1,V1OUTPUT        save result
000024E0  B98D 0020                                1809+          EPSW  R2,R0              exptract psw
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000024E4  5020 8EE4                     000010E4  1810+         ST    R2,CCPSW              to save CC
000024E8  07FB                                    1811+         BR    R11                 return
000024EC                                          1812+RE39     DC    0F
000024EC                                          1813+         DROP  R5
000024EC  00000999 99999999                       1814          DC    XL16'0000099999999999990000000000000C'
000024F4  99000000 0000000C
                                                  1815
                                                  1816 * VMP larger #'s , i4=159(iom=1 & rdc=31)            CS=1 for all m5
                                                  1817 * check forced positive
                                                  1818          VRI_F VMP,-99999999999999999,+1,159,9,2     m5=9(P2=1)
00002500                                          1819+         DS    0FD
00002500                  00002500                1820+         USING *,R5                base for test data and test routine
00002500  00002530                                1821+T40      DC    A(X40)              address of test routine
00002504  0028                                    1822+         DC    H'40'               test number
00002506  00                                      1823+         DC    X'00'
00002507  9F                                      1824+         DC    HL1'159'            i4
00002508  09                                      1825+         DC    HL1'9'              m5
00002509  02                                      1826+         DC    HL1'2'              cc
0000250A  0D                                      1827+         DC    HL1'13'             cc failed mask
                                                  1828+V2_40    DC    FD'-99999999999999999' \
00002510  FE9CBA87 A2760001                          +                                 binary value for v2 packed decimal
00002518  00000000 00000001                       1829+V3_40    DC    FD'+1'              binary value for v3 packed decimal
00002520  E5D4D740 40404040                       1830+         DC    CL8'VMP'            instruction name
00002528  00000010                                1831+         DC    A(16)               result length
0000252C  0000256C                                1832+REA40    DC    A(RE40)             result address
                                                  1833+*                                  INSTRUCTION UNDER TEST ROUTINE
00002530                                          1834+X40      DS    0F
00002530  E320 5010 0004                00002510  1835+         LG    R2,V2_40            convert v2
00002536  E320 8F4F 002E                0000114F  1836+         CVDG  R2,V2PACKED
0000253C  E720 8F4F 0006                0000114F  1837+         VL    V2,V2PACKED
00002542  E320 5018 0004                00002518  1838+         LG    R2,V3_40            convert v3
00002548  E320 8F5F 002E                0000115F  1839+         CVDG  R2,V3PACKED
0000254E  E730 8F5F 0006                0000115F  1840+         VL    V3,V3PACKED
00002554  E612 3099 F078                          1841+         VMP   V1,V2,V3,159,9      test instruction
0000255A  E710 8F00 000E                00001100  1842+         VST   V1,V1OUTPUT         save result
00002560  B98D 0020                               1843+         EPSW  R2,R0               exptract psw
00002564  5020 8EE4                     000010E4  1844+         ST    R2,CCPSW              to save CC
00002568  07FB                                    1845+         BR    R11                 return
0000256C                                          1846+RE40     DC    0F
0000256C                                          1847+         DROP  R5
0000256C  00000000 00000099                       1848          DC    XL16'0000000000000099999999999999999C'
00002574  99999999 9999999C
                                                  1849
                                                  1850 *                                                   m5=13(P2=1,P3=1)
                                                  1851          VRI_F VMP,-99999999999999999,-10000000000000000,159,13,3
00002580                                          1852+         DS    0FD
00002580                  00002580                1853+         USING *,R5                base for test data and test routine
00002580  000025B0                                1854+T41      DC    A(X41)              address of test routine
00002584  0029                                    1855+         DC    H'41'               test number
00002586  00                                      1856+         DC    X'00'
00002587  9F                                      1857+         DC    HL1'159'            i4
00002588  0D                                      1858+         DC    HL1'13'             m5
00002589  03                                      1859+         DC    HL1'3'              cc
0000258A  0E                                      1860+         DC    HL1'14'             cc failed mask
                                                  1861+V2_41    DC    FD'-99999999999999999' \
00002590  FE9CBA87 A2760001                          +                                 binary value for v2 packed decimal
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                   1862+V3_41    DC    FD'-10000000000000000' \
00002598  FFDC790D 903F0000                             +                          binary value for v3 packed decimal
000025A0  E5D4D740 40404040                        1863+          DC    CL8'VMP'           instruction name
000025A8  00000010                                 1864+          DC    A(16)              result length
000025AC  000025EC                                 1865+REA41     DC    A(RE41)            result address
                                                   1866+*                                  INSTRUCTION UNDER TEST ROUTINE
000025B0                                           1867+X41       DS    0F
000025B0  E320 5010 0004                 00002590  1868+          LG    R2,V2_41           convert v2
000025B6  E320 8F4F 002E                 0000114F  1869+          CVDG  R2,V2PACKED
000025BC  E720 8F4F 0006                 0000114F  1870+          VL    V2,V2PACKED
000025C2  E320 5018 0004                 00002598  1871+          LG    R2,V3_41           convert v3
000025C8  E320 8F5F 002E                 0000115F  1872+          CVDG  R2,V3PACKED
000025CE  E730 8F5F 0006                 0000115F  1873+          VL    V3,V3PACKED
000025D4  E612 30D9 F078                           1874+          VMP   V1,V2,V3,159,13    test instruction
000025DA  E710 8F00 000E                 00001100  1875+          VST   V1,V1OUTPUT        save result
000025E0  B98D 0020                                1876+          EPSW  R2,R0              exptract psw
000025E4  5020 8EE4                      000010E4  1877+          ST    R2,CCPSW               to save CC
000025E8  07FB                                     1878+          BR    R11                return
000025EC                                           1879+RE41      DC    0F
000025EC                                           1880+          DROP  R5
000025EC  99999999 99999990                        1881           DC    XL16'9999999999999990000000000000000C'    overflowed
000025F4  00000000 0000000C
                                                   1882
                                                   1883           VRI_F VMP,-9999999999999999,-1,159,3,2       m5=3(P1=1)
00002600                                           1884+          DS    0FD
00002600                         00002600          1885+          USING *,R5               base for test data and test routine
00002600  00002630                                 1886+T42       DC    A(X42)             address of test routine
00002604  002A                                     1887+          DC    H'42'              test number
00002606  00                                       1888+          DC    X'00'
00002607  9F                                       1889+          DC    HL1'159'           i4
00002608  03                                       1890+          DC    HL1'3'             m5
00002609  02                                       1891+          DC    HL1'2'             cc
0000260A  0D                                       1892+          DC    HL1'13'            cc failed mask
                                                   1893+V2_42     DC    FD'-9999999999999999' \
00002610  FFDC790D 903F0001                             +                          binary value for v2 packed decimal
00002618  FFFFFFFF FFFFFFFF                        1894+V3_42     DC    FD'-1'             binary value for v3 packed decimal
00002620  E5D4D740 40404040                        1895+          DC    CL8'VMP'           instruction name
00002628  00000010                                 1896+          DC    A(16)              result length
0000262C  0000266C                                 1897+REA42     DC    A(RE42)            result address
                                                   1898+*                                  INSTRUCTION UNDER TEST ROUTINE
00002630                                           1899+X42       DS    0F
00002630  E320 5010 0004                 00002610  1900+          LG    R2,V2_42           convert v2
00002636  E320 8F4F 002E                 0000114F  1901+          CVDG  R2,V2PACKED
0000263C  E720 8F4F 0006                 0000114F  1902+          VL    V2,V2PACKED
00002642  E320 5018 0004                 00002618  1903+          LG    R2,V3_42           convert v3
00002648  E320 8F5F 002E                 0000115F  1904+          CVDG  R2,V3PACKED
0000264E  E730 8F5F 0006                 0000115F  1905+          VL    V3,V3PACKED
00002654  E612 3039 F078                           1906+          VMP   V1,V2,V3,159,3     test instruction
0000265A  E710 8F00 000E                 00001100  1907+          VST   V1,V1OUTPUT        save result
00002660  B98D 0020                                1908+          EPSW  R2,R0              exptract psw
00002664  5020 8EE4                      000010E4  1909+          ST    R2,CCPSW               to save CC
00002668  07FB                                     1910+          BR    R11                return
0000266C                                           1911+RE42      DC    0F
0000266C                                           1912+          DROP  R5
0000266C  00000000 00000009                        1913           DC    XL16'0000000000000009999999999999999F'
00002674  99999999 9999999F
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                    1914
                                                    1915          VRI_F VMP,-9999999999999999,-1,135,13,3  i4=135(iom=1 & rdc=7)
00002680                                            1916+         DS    0FD
00002680                      00002680              1917+         USING *,R5              base for test data and test routine
00002680  000026B0                                  1918+T43      DC    A(X43)            address of test routine
00002684  002B                                      1919+         DC    H'43'             test number
00002686  00                                        1920+         DC    X'00'
00002687  87                                        1921+         DC    HL1'135'          i4
00002688  0D                                        1922+         DC    HL1'13'           m5
00002689  03                                        1923+         DC    HL1'3'            cc
0000268A  0E                                        1924+         DC    HL1'14'           cc failed mask
                                                    1925+V2_43    DC    FD'-9999999999999999' \
00002690  FFDC790D 903F0001                           +                                   binary value for v2 packed decimal
00002698  FFFFFFFF FFFFFFFF                         1926+V3_43    DC    FD'-1'            binary value for v3 packed decimal
000026A0  E5D4D740 40404040                         1927+         DC    CL8'VMP'          instruction name
000026A8  00000010                                  1928+         DC    A(16)             result length
000026AC  000026EC                                  1929+REA43    DC    A(RE43)           result address
                                                    1930+*                                INSTRUCTION UNDER TEST ROUTINE
000026B0                                            1931+X43      DS    0F
000026B0  E320 5010 0004                00002690    1932+         LG    R2,V2_43          convert v2
000026B6  E320 8F4F 002E                0000114F    1933+         CVDG  R2,V2PACKED
000026BC  E720 8F4F 0006                0000114F    1934+         VL    V2,V2PACKED
000026C2  E320 5018 0004                00002698    1935+         LG    R2,V3_43          convert v3
000026C8  E320 8F5F 002E                0000115F    1936+         CVDG  R2,V3PACKED
000026CE  E730 8F5F 0006                0000115F    1937+         VL    V3,V3PACKED
000026D4  E612 30D8 7078                            1938+         VMP   V1,V2,V3,135,13   test instruction
000026DA  E710 8F00 000E                00001100    1939+         VST   V1,V1OUTPUT       save result
000026E0  B98D 0020                                 1940+         EPSW  R2,R0             exptract psw
000026E4  5020 8EE4                     000010E4    1941+         ST    R2,CCPSW              to save CC
000026E8  07FB                                      1942+         BR    R11               return
000026EC                                            1943+RE43     DC    0F
000026EC                                            1944+         DROP  R5
                                                    1945 *                                                    m5=13(P2=1,P3=1)
000026EC  00000000 00000000                         1946          DC    XL16'0000000000000000000000009999999C'    overflow RDC
000026F4  00000000 9999999C
                                                    1947
                                                    1948          VRI_F VMP,+9999999999999,+10000000000000,159,3,2  m5=3(P1=1)
00002700                                            1949+         DS    0FD
00002700                      00002700              1950+         USING *,R5              base for test data and test routine
00002700  00002730                                  1951+T44      DC    A(X44)            address of test routine
00002704  002C                                      1952+         DC    H'44'             test number
00002706  00                                        1953+         DC    X'00'
00002707  9F                                        1954+         DC    HL1'159'          i4
00002708  03                                        1955+         DC    HL1'3'            m5
00002709  02                                        1956+         DC    HL1'2'            cc
0000270A  0D                                        1957+         DC    HL1'13'           cc failed mask
                                                    1958+V2_44    DC    FD'+9999999999999' \
00002710  00000918 4E729FFF                           +                                   binary value for v2 packed decimal
                                                    1959+V3_44    DC    FD'+10000000000000' \
00002718  00000918 4E72A000                         1960+          +                      binary value for v3 packed decimal
00002720  E5D4D740 40404040                         1961+         DC    CL8'VMP'          instruction name
00002728  00000010                                  1962+         DC    A(16)             result length
0000272C  0000276C                                  1963+REA44    DC    A(RE44)           result address
                                                    1964+*                                INSTRUCTION UNDER TEST ROUTINE
00002730                                            1965+X44      DS    0F
00002730  E320 5010 0004                00002710    1966+         LG    R2,V2_44          convert v2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2    STMT
00002736  E320 8F4F 002E                0000114F  1966+         CVDG  R2,V2PACKED
0000273C  E720 8F4F 0006                0000114F  1967+         VL    V2,V2PACKED
00002742  E320 5018 0004                00002718  1968+         LG    R2,V3_44          convert v3
00002748  E320 8F5F 002E                0000115F  1969+         CVDG  R2,V3PACKED
0000274E  E730 8F5F 0006                0000115F  1970+         VL    V3,V3PACKED
00002754  E612 3039 F078                          1971+         VMP   V1,V2,V3,159,3    test instruction
0000275A  E710 8F00 000E                00001100  1972+         VST   V1,V1OUTPUT       save result
00002760  B98D 0020                               1973+         EPSW  R2,R0             exptract psw
00002764  5020 8EE4                     000010E4  1974+         ST    R2,CCPSW              to save CC
00002768  07FB                                    1975+         BR    R11               return
0000276C                                          1976+RE44     DC    0F
0000276C                                          1977+         DROP  R5
0000276C  00000999 99999999                       1978          DC    XL16'00000999999999999900000000000000F'
00002774  99000000 0000000F
                                                  1979
                                                  1980 *-------------------------------------------------------------------
                                                  1981 *  VDP    - VECTOR DIVIDE DECIMAL
                                                  1982 *-------------------------------------------------------------------
                                                  1983 * VDP simple + CC checks
                                                  1984          VRI_F VDP,+10,+12,7,1,0
00002780                                          1985+         DS    0FD
00002780                  00002780                1986+         USING *,R5              base for test data and test routine
00002780  000027B0                                1987+T45      DC    A(X45)            address of test routine
00002784  002D                                    1988+         DC    H'45'             test number
00002786  00                                      1989+         DC    X'00'
00002787  07                                      1990+         DC    HL1'7'            i4
00002788  01                                      1991+         DC    HL1'1'            m5
00002789  00                                      1992+         DC    HL1'0'            cc
0000278A  07                                      1993+         DC    HL1'7'            cc failed mask
00002790  00000000 0000000A                      1994+V2_45    DC    FD'+10'           binary value for v2 packed decimal
00002798  00000000 0000000C                      1995+V3_45    DC    FD'+12'           binary value for v3 packed decimal
000027A0  E5C4D740 40404040                      1996+         DC    CL8'VDP'          instruction name
000027A8  00000010                               1997+         DC    A(16)             result length
000027AC  000027EC                               1998+REA45    DC    A(RE45)           result address
                                                 1999+*                                INSTRUCTION UNDER TEST ROUTINE
000027B0                                         2000+X45      DS    0F
000027B0  E320 5010 0004                00002790 2001+         LG    R2,V2_45          convert v2
000027B6  E320 8F4F 002E                0000114F 2002+         CVDG  R2,V2PACKED
000027BC  E720 8F4F 0006                0000114F 2003+         VL    V2,V2PACKED
000027C2  E320 5018 0004                00002798 2004+         LG    R2,V3_45          convert v3
000027C8  E320 8F5F 002E                0000115F 2005+         CVDG  R2,V3PACKED
000027CE  E730 8F5F 0006                0000115F 2006+         VL    V3,V3PACKED
000027D4  E612 3010 707A                         2007+         VDP   V1,V2,V3,7,1      test instruction
000027DA  E710 8F00 000E                00001100 2008+         VST   V1,V1OUTPUT       save result
000027E0  B98D 0020                              2009+         EPSW  R2,R0             exptract psw
000027E4  5020 8EE4                     000010E4 2010+         ST    R2,CCPSW              to save CC
000027E8  07FB                                   2011+         BR    R11               return
000027EC                                         2012+RE45     DC    0F
000027EC                                         2013+         DROP  R5
000027EC  00000000 00000000                      2014          DC    XL16'0000000000000000000000000000000C'
000027F4  00000000 0000000C
                                                 2015
                                                 2016          VRI_F VDP,-100,+12,7,1,1
00002800                                         2017+         DS    0FD
00002800                  00002800               2018+         USING *,R5              base for test data and test routine
00002800  00002830                               2019+T46      DC    A(X46)            address of test routine
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00002804  002E                                     2020+          DC    H'46'              test number
00002806  00                                       2021+          DC    X'00'
00002807  07                                       2022+          DC    HL1'7'             i4
00002808  01                                       2023+          DC    HL1'1'             m5
00002809  01                                       2024+          DC    HL1'1'             cc
0000280A  0B                                       2025+          DC    HL1'11'            cc failed mask
00002810  FFFFFFFF FFFFFF9C                        2026+V2_46     DC    FD'-100'           binary value for v2 packed decimal
00002818  00000000 0000000C                        2027+V3_46     DC    FD'+12'            binary value for v3 packed decimal
00002820  E5C4D740 40404040                        2028+          DC    CL8'VDP'           instruction name
00002828  00000010                                 2029+          DC    A(16)              result length
0000282C  0000286C                                 2030+REA46     DC    A(RE46)            result address
                                                   2031+*                                  INSTRUCTION UNDER TEST ROUTINE
00002830                                           2032+X46       DS    0F
00002830  E320 5010 0004                 00002810  2033+          LG    R2,V2_46           convert v2
00002836  E320 8F4F 002E                 0000114F  2034+          CVDG  R2,V2PACKED
0000283C  E720 8F4F 0006                 0000114F  2035+          VL    V2,V2PACKED
00002842  E320 5018 0004                 00002818  2036+          LG    R2,V3_46           convert v3
00002848  E320 8F5F 002E                 0000115F  2037+          CVDG  R2,V3PACKED
0000284E  E730 8F5F 0006                 0000115F  2038+          VL    V3,V3PACKED
00002854  E612 3010 707A                           2039+          VDP   V1,V2,V3,7,1       test instruction
0000285A  E710 8F00 000E                 00001100  2040+          VST   V1,V1OUTPUT        save result
00002860  B98D 0020                                2041+          EPSW  R2,R0              exptract psw
00002864  5020 8EE4                      000010E4  2042+          ST    R2,CCPSW               to save CC
00002868  07FB                                     2043+          BR    R11                return
0000286C                                           2044+RE46      DC    0F
0000286C                                           2045+          DROP  R5
0000286C  00000000 00000000                        2046           DC    XL16'000000000000000000000000000008D'
00002874  00000000 0000008D
                                                   2047
                                                   2048           VRI_F VDP,+100,-12,1,1,1                      note rdc=1
00002880                                           2049+          DS    0FD
00002880                         00002880          2050+          USING *,R5               base for test data and test routine
00002880  000028B0                                 2051+T47       DC    A(X47)             address of test routine
00002884  002F                                     2052+          DC    H'47'              test number
00002886  00                                       2053+          DC    X'00'
00002887  01                                       2054+          DC    HL1'1'             i4
00002888  01                                       2055+          DC    HL1'1'             m5
00002889  01                                       2056+          DC    HL1'1'             cc
0000288A  0B                                       2057+          DC    HL1'11'            cc failed mask
00002890  00000000 00000064                        2058+V2_47     DC    FD'+100'           binary value for v2 packed decimal
00002898  FFFFFFFF FFFFFFF4                        2059+V3_47     DC    FD'-12'            binary value for v3 packed decimal
000028A0  E5C4D740 40404040                        2060+          DC    CL8'VDP'           instruction name
000028A8  00000010                                 2061+          DC    A(16)              result length
000028AC  000028EC                                 2062+REA47     DC    A(RE47)            result address
                                                   2063+*                                  INSTRUCTION UNDER TEST ROUTINE
000028B0                                           2064+X47       DS    0F
000028B0  E320 5010 0004                 00002890  2065+          LG    R2,V2_47           convert v2
000028B6  E320 8F4F 002E                 0000114F  2066+          CVDG  R2,V2PACKED
000028BC  E720 8F4F 0006                 0000114F  2067+          VL    V2,V2PACKED
000028C2  E320 5018 0004                 00002898  2068+          LG    R2,V3_47           convert v3
000028C8  E320 8F5F 002E                 0000115F  2069+          CVDG  R2,V3PACKED
000028CE  E730 8F5F 0006                 0000115F  2070+          VL    V3,V3PACKED
000028D4  E612 3010 107A                           2071+          VDP   V1,V2,V3,1,1       test instruction
000028DA  E710 8F00 000E                 00001100  2072+          VST   V1,V1OUTPUT        save result
000028E0  B98D 0020                                2073+          EPSW  R2,R0              exptract psw
000028E4  5020 8EE4                      000010E4  2074+          ST    R2,CCPSW               to save CC
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000028E8  07FB                                     2075+         BR    R11               return
000028EC                                           2076+RE47     DC    0F
000028EC                                           2077+         DROP  R5
000028EC  00000000 00000000                        2078          DC    XL16'0000000000000000000000000000008D'
000028F4  00000000 0000008D
                                                   2079
                                                   2080          VRI_F VDP,+100,-12,7,1,1
00002900                                           2081+         DS    0FD
00002900                      00002900             2082+         USING *,R5              base for test data and test routine
00002900  00002930                                 2083+T48      DC    A(X48)            address of test routine
00002904  0030                                     2084+         DC    H'48'             test number
00002906  00                                       2085+         DC    X'00'
00002907  07                                       2086+         DC    HL1'7'            i4
00002908  01                                       2087+         DC    HL1'1'            m5
00002909  01                                       2088+         DC    HL1'1'            cc
0000290A  0B                                       2089+         DC    HL1'11'           cc failed mask
00002910  00000000 00000064                       2090+V2_48    DC    FD'+100'          binary value for v2 packed decimal
00002918  FFFFFFFF FFFFFFF4                        2091+V3_48    DC    FD'-12'           binary value for v3 packed decimal
00002920  E5C4D740 40404040                       2092+         DC    CL8'VDP'          instruction name
00002928  00000010                                 2093+         DC    A(16)             result length
0000292C  0000296C                                 2094+REA48    DC    A(RE48)           result address
                                                   2095+*                                INSTRUCTION UNDER TEST ROUTINE
00002930                                           2096+X48      DS    0F
00002930  E320 5010 0004                00002910   2097+         LG    R2,V2_48          convert v2
00002936  E320 8F4F 002E                0000114F   2098+         CVDG  R2,V2PACKED
0000293C  E720 8F4F 0006                0000114F   2099+         VL    V2,V2PACKED
00002942  E320 5018 0004                00002918   2100+         LG    R2,V3_48          convert v3
00002948  E320 8F5F 002E                0000115F   2101+         CVDG  R2,V3PACKED
0000294E  E730 8F5F 0006                0000115F   2102+         VL    V3,V3PACKED
00002954  E612 3010 707A                           2103+         VDP   V1,V2,V3,7,1      test instruction
0000295A  E710 8F00 000E                00001100   2104+         VST   V1,V1OUTPUT       save result
00002960  B98D 0020                                2105+         EPSW  R2,R0             exptract psw
00002964  5020 8EE4                     000010E4   2106+         ST    R2,CCPSW              to save CC
00002968  07FB                                     2107+         BR    R11               return
0000296C                                           2108+RE48     DC    0F
0000296C                                           2109+         DROP  R5
0000296C  00000000 00000000                        2110          DC    XL16'0000000000000000000000000000008D'
00002974  00000000 0000008D
                                                   2111
                                                   2112          VRI_F VDP,-100,-12,7,1,2
00002980                                           2113+         DS    0FD
00002980                      00002980             2114+         USING *,R5              base for test data and test routine
00002980  000029B0                                 2115+T49      DC    A(X49)            address of test routine
00002984  0031                                     2116+         DC    H'49'             test number
00002986  00                                       2117+         DC    X'00'
00002987  07                                       2118+         DC    HL1'7'            i4
00002988  01                                       2119+         DC    HL1'1'            m5
00002989  02                                       2120+         DC    HL1'2'            cc
0000298A  0D                                       2121+         DC    HL1'13'           cc failed mask
00002990  FFFFFFFF FFFFFF9C                        2122+V2_49    DC    FD'-100'          binary value for v2 packed decimal
00002998  FFFFFFFF FFFFFFF4                        2123+V3_49    DC    FD'-12'           binary value for v3 packed decimal
000029A0  E5C4D740 40404040                       2124+         DC    CL8'VDP'          instruction name
000029A8  00000010                                 2125+         DC    A(16)             result length
000029AC  000029EC                                 2126+REA49    DC    A(RE49)           result address
                                                   2127+*                                INSTRUCTION UNDER TEST ROUTINE
000029B0                                           2128+X49      DS    0F
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000029B0  E320 5010 0004                 00002990  2129+          LG    R2,V2_49          convert v2
000029B6  E320 8F4F 002E                 0000114F  2130+          CVDG  R2,V2PACKED
000029BC  E720 8F4F 0006                 0000114F  2131+          VL    V2,V2PACKED
000029C2  E320 5018 0004                 00002998  2132+          LG    R2,V3_49          convert v3
000029C8  E320 8F5F 002E                 0000115F  2133+          CVDG  R2,V3PACKED
000029CE  E730 8F5F 0006                 0000115F  2134+          VL    V3,V3PACKED
000029D4  E612 3010 707A                           2135+          VDP   V1,V2,V3,7,1      test instruction
000029DA  E710 8F00 000E                 00001100  2136+          VST   V1,V1OUTPUT       save result
000029E0  B98D 0020                                2137+          EPSW  R2,R0             exptract psw
000029E4  5020 8EE4                      000010E4  2138+          ST    R2,CCPSW              to save CC
000029E8  07FB                                     2139+          BR    R11               return
000029EC                                           2140+RE49      DC    0F
000029EC                                           2141+          DROP  R5
000029EC  00000000 00000000                        2142           DC    XL16'00000000000000000000000000000008C'
000029F4  00000000 0000008C
                                                   2143
                                                   2144           VRI_F VDP,-100,-10,7,1,2
00002A00                                           2145+          DS    0FD
00002A00                         00002A00          2146+          USING *,R5              base for test data and test routine
00002A00  00002A30                                 2147+T50       DC    A(X50)            address of test routine
00002A04  0032                                     2148+          DC    H'50'             test number
00002A06  00                                       2149+          DC    X'00'
00002A07  07                                       2150+          DC    HL1'7'            i4
00002A08  01                                       2151+          DC    HL1'1'            m5
00002A09  02                                       2152+          DC    HL1'2'            cc
00002A0A  0D                                       2153+          DC    HL1'13'           cc failed mask
00002A10  FFFFFFFF FFFFFF9C                        2154+V2_50     DC    FD'-100'          binary value for v2 packed decimal
00002A18  FFFFFFFF FFFFFFF6                        2155+V3_50     DC    FD'-10'           binary value for v3 packed decimal
00002A20  E5C4D740 40404040                        2156+          DC    CL8'VDP'          instruction name
00002A28  00000010                                 2157+          DC    A(16)             result length
00002A2C  00002A6C                                 2158+REA50     DC    A(RE50)           result address
                                                   2159+*                                 INSTRUCTION UNDER TEST ROUTINE
00002A30                                           2160+X50       DS    0F
00002A30  E320 5010 0004                 00002A10  2161+          LG    R2,V2_50          convert v2
00002A36  E320 8F4F 002E                 0000114F  2162+          CVDG  R2,V2PACKED
00002A3C  E720 8F4F 0006                 0000114F  2163+          VL    V2,V2PACKED
00002A42  E320 5018 0004                 00002A18  2164+          LG    R2,V3_50          convert v3
00002A48  E320 8F5F 002E                 0000115F  2165+          CVDG  R2,V3PACKED
00002A4E  E730 8F5F 0006                 0000115F  2166+          VL    V3,V3PACKED
00002A54  E612 3010 707A                           2167+          VDP   V1,V2,V3,7,1      test instruction
00002A5A  E710 8F00 000E                 00001100  2168+          VST   V1,V1OUTPUT       save result
00002A60  B98D 0020                                2169+          EPSW  R2,R0             exptract psw
00002A64  5020 8EE4                      000010E4  2170+          ST    R2,CCPSW              to save CC
00002A68  07FB                                     2171+          BR    R11               return
00002A6C                                           2172+RE50      DC    0F
00002A6C                                           2173+          DROP  R5
00002A6C  00000000 00000000                        2174           DC    XL16'00000000000000000000000000000010C'
00002A74  00000000 0000010C
                                                   2175
                                                   2176           VRI_F VDP,+10000000010,+10,135,1,3     i4=135(iom=1 & rdc=7)
00002A80                                           2177+          DS    0FD
00002A80                         00002A80          2178+          USING *,R5              base for test data and test routine
00002A80  00002AB0                                 2179+T51       DC    A(X51)            address of test routine
00002A84  0033                                     2180+          DC    H'51'             test number
00002A86  00                                       2181+          DC    X'00'
00002A87  87                                       2182+          DC    HL1'135'          i4
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00002A88  01                                       2183+          DC    HL1'1'             m5
00002A89  03                                       2184+          DC    HL1'3'             cc
00002A8A  0E                                       2185+          DC    HL1'14'            cc failed mask
00002A90  00000002 540BE40A                        2186+V2_51     DC    FD'+10000000010'   binary value for v2 packed decimal
00002A98  00000000 0000000A                        2187+V3_51     DC    FD'+10'            binary value for v3 packed decimal
00002AA0  E5C4D740 40404040                        2188+          DC    CL8'VDP'           instruction name
00002AA8  00000010                                 2189+          DC    A(16)              result length
00002AAC  00002AEC                                 2190+REA51     DC    A(RE51)            result address
                                                   2191+*                                  INSTRUCTION UNDER TEST ROUTINE
00002AB0                                           2192+X51       DS    0F
00002AB0  E320 5010 0004                 00002A90  2193+          LG    R2,V2_51           convert v2
00002AB6  E320 8F4F 002E                 0000114F  2194+          CVDG  R2,V2PACKED
00002ABC  E720 8F4F 0006                 0000114F  2195+          VL    V2,V2PACKED
00002AC2  E320 5018 0004                 00002A98  2196+          LG    R2,V3_51           convert v3
00002AC8  E320 8F5F 002E                 0000115F  2197+          CVDG  R2,V3PACKED
00002ACE  E730 8F5F 0006                 0000115F  2198+          VL    V3,V3PACKED
00002AD4  E612 3018 707A                           2199+          VDP   V1,V2,V3,135,1     test instruction
00002ADA  E710 8F00 000E                 00001100  2200+          VST   V1,V1OUTPUT        save result
00002AE0  B98D 0020                                2201+          EPSW  R2,R0              exptract psw
00002AE4  5020 8EE4                      000010E4  2202+          ST    R2,CCPSW               to save CC
00002AE8  07FB                                     2203+          BR    R11                return
00002AEC                                           2204+RE51      DC    0F
00002AEC                                           2205+          DROP  R5
00002AEC  00000000 00000000                        2206           DC    XL16'00000000000000000000000000000001C'  note RDC
00002AF4  00000000 0000001C
                                                   2207
                                                   2208 * VDP larger #'s , i4=159(iom=1 & rdc=31)
                                                   2209           VRI_F VDP,+99999999999999999,+1,159,1,2
00002B00                                           2210+          DS    0FD
00002B00                       00002B00            2211+          USING *,R5               base for test data and test routine
00002B00  00002B30                                 2212+T52       DC    A(X52)             address of test routine
00002B04  0034                                     2213+          DC    H'52'              test number
00002B06  00                                       2214+          DC    X'00'
00002B07  9F                                       2215+          DC    HL1'159'           i4
00002B08  01                                       2216+          DC    HL1'1'             m5
00002B09  02                                       2217+          DC    HL1'2'             cc
00002B0A  0D                                       2218+          DC    HL1'13'            cc failed mask
                                                   2219+V2_52     DC    FD'+99999999999999999' \
00002B10  01634578 5D89FFFF                            +                                   binary value for v2 packed decimal
00002B18  00000000 00000001                        2220+V3_52     DC    FD'+1'             binary value for v3 packed decimal
00002B20  E5C4D740 40404040                        2221+          DC    CL8'VDP'           instruction name
00002B28  00000010                                 2222+          DC    A(16)              result length
00002B2C  00002B6C                                 2223+REA52     DC    A(RE52)            result address
                                                   2224+*                                  INSTRUCTION UNDER TEST ROUTINE
00002B30                                           2225+X52       DS    0F
00002B30  E320 5010 0004                 00002B10  2226+          LG    R2,V2_52           convert v2
00002B36  E320 8F4F 002E                 0000114F  2227+          CVDG  R2,V2PACKED
00002B3C  E720 8F4F 0006                 0000114F  2228+          VL    V2,V2PACKED
00002B42  E320 5018 0004                 00002B18  2229+          LG    R2,V3_52           convert v3
00002B48  E320 8F5F 002E                 0000115F  2230+          CVDG  R2,V3PACKED
00002B4E  E730 8F5F 0006                 0000115F  2231+          VL    V3,V3PACKED
00002B54  E612 3019 F07A                           2232+          VDP   V1,V2,V3,159,1     test instruction
00002B5A  E710 8F00 000E                 00001100  2233+          VST   V1,V1OUTPUT        save result
00002B60  B98D 0020                                2234+          EPSW  R2,R0              exptract psw
00002B64  5020 8EE4                      000010E4  2235+          ST    R2,CCPSW               to save CC
00002B68  07FB                                     2236+          BR    R11                return
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00002B6C                                           2237+RE52     DC    0F
00002B6C                                           2238+         DROP  R5
00002B6C  00000000 00000099                        2239          DC    XL16'00000000000000999999999999999999C'
00002B74  99999999 9999999C
                                                   2240
                                                   2241          VRI_F VDP,-99999999999999999,+1000,159,1,1
00002B80                                           2242+         DS    0FD
00002B80                     00002B80              2243+         USING *,R5              base for test data and test routine
00002B80  00002BB0                                 2244+T53      DC    A(X53)            address of test routine
00002B84  0035                                     2245+         DC    H'53'             test number
00002B86  00                                       2246+         DC    X'00'
00002B87  9F                                       2247+         DC    HL1'159'          i4
00002B88  01                                       2248+         DC    HL1'1'            m5
00002B89  01                                       2249+         DC    HL1'1'            cc
00002B8A  0B                                       2250+         DC    HL1'11'           cc failed mask
                                                   2251+V2_53    DC    FD'-99999999999999999' \
00002B90  FE9CBA87 A2760001                            +                                 binary value for v2 packed decimal
00002B98  00000000 000003E8                        2252+V3_53    DC    FD'+1000'         binary value for v3 packed decimal
00002BA0  E5C4D740 40404040                        2253+         DC    CL8'VDP'          instruction name
00002BA8  00000010                                 2254+         DC    A(16)             result length
00002BAC  00002BEC                                 2255+REA53    DC    A(RE53)           result address
                                                   2256+*                                 INSTRUCTION UNDER TEST ROUTINE
00002BB0                                           2257+X53      DS    0F
00002BB0  E320 5010 0004           00002B90        2258+         LG    R2,V2_53          convert v2
00002BB6  E320 8F4F 002E           0000114F        2259+         CVDG  R2,V2PACKED
00002BBC  E720 8F4F 0006           0000114F        2260+         VL    V2,V2PACKED
00002BC2  E320 5018 0004           00002B98        2261+         LG    R2,V3_53          convert v3
00002BC8  E320 8F5F 002E           0000115F        2262+         CVDG  R2,V3PACKED
00002BCE  E730 8F5F 0006           0000115F        2263+         VL    V3,V3PACKED
00002BD4  E612 3019 F07A                           2264+         VDP   V1,V2,V3,159,1    test instruction
00002BDA  E710 8F00 000E           00001100        2265+         VST   V1,V1OUTPUT       save result
00002BE0  B98D 0020                                2266+         EPSW  R2,R0             exptract psw
00002BE4  5020 8EE4                000010E4        2267+         ST    R2,CCPSW              to save CC
00002BE8  07FB                                     2268+         BR    R11               return
00002BEC                                           2269+RE53     DC    0F
00002BEC                                           2270+         DROP  R5
00002BEC  00000000 00000000                        2271          DC    XL16'00000000000000000099999999999999D'
00002BF4  09999999 9999999D
                                                   2272
                                                   2273          VRI_F VDP,-9999999999999999,-1,159,1,2
00002C00                                           2274+         DS    0FD
00002C00                     00002C00              2275+         USING *,R5              base for test data and test routine
00002C00  00002C30                                 2276+T54      DC    A(X54)            address of test routine
00002C04  0036                                     2277+         DC    H'54'             test number
00002C06  00                                       2278+         DC    X'00'
00002C07  9F                                       2279+         DC    HL1'159'          i4
00002C08  01                                       2280+         DC    HL1'1'            m5
00002C09  02                                       2281+         DC    HL1'2'            cc
00002C0A  0D                                       2282+         DC    HL1'13'           cc failed mask
                                                   2283+V2_54    DC    FD'-9999999999999999' \
00002C10  FFDC790D 903F0001                            +                                 binary value for v2 packed decimal
00002C18  FFFFFFFF FFFFFFFF                        2284+V3_54    DC    FD'-1'            binary value for v3 packed decimal
00002C20  E5C4D740 40404040                        2285+         DC    CL8'VDP'          instruction name
00002C28  00000010                                 2286+         DC    A(16)             result length
00002C2C  00002C6C                                 2287+REA54    DC    A(RE54)           result address
                                                   2288+*                                 INSTRUCTION UNDER TEST ROUTINE
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00002C30                                           2289+X54      DS    0F
00002C30  E320 5010 0004                 00002C10  2290+          LG    R2,V2_54          convert v2
00002C36  E320 8F4F 002E                 0000114F  2291+          CVDG  R2,V2PACKED
00002C3C  E720 8F4F 0006                 0000114F  2292+          VL    V2,V2PACKED
00002C42  E320 5018 0004                 00002C18  2293+          LG    R2,V3_54          convert v3
00002C48  E320 8F5F 002E                 0000115F  2294+          CVDG  R2,V3PACKED
00002C4E  E730 8F5F 0006                 0000115F  2295+          VL    V3,V3PACKED
00002C54  E612 3019 F07A                           2296+          VDP   V1,V2,V3,159,1    test instruction
00002C5A  E710 8F00 000E                 00001100  2297+          VST   V1,V1OUTPUT       save result
00002C60  B98D 0020                                2298+          EPSW  R2,R0             exptract psw
00002C64  5020 8EE4                      000010E4  2299+          ST    R2,CCPSW              to save CC
00002C68  07FB                                     2300+          BR    R11               return
00002C6C                                           2301+RE54     DC    0F
00002C6C                                           2302+          DROP  R5
00002C6C  00000000 00000009                        2303           DC    XL16'0000000000000009999999999999999C'
00002C74  99999999 9999999C
                                                   2304
                                                   2305           VRI_F VDP,-9999999999999999,-1,135,1,3  i4=135(iom=1 & rdc=7)
00002C80                                           2306+          DS    0FD
00002C80                           00002C80        2307+          USING *,R5              base for test data and test routine
00002C80  00002CB0                                 2308+T55      DC    A(X55)            address of test routine
00002C84  0037                                     2309+          DC    H'55'             test number
00002C86  00                                       2310+          DC    X'00'
00002C87  87                                       2311+          DC    HL1'135'          i4
00002C88  01                                       2312+          DC    HL1'1'            m5
00002C89  03                                       2313+          DC    HL1'3'            cc
00002C8A  0E                                       2314+          DC    HL1'14'           cc failed mask
                                                   2315+V2_55    DC    FD'-9999999999999999' \
00002C90  FFDC790D 903F0001                           +                                  binary value for v2 packed decimal
00002C98  FFFFFFFF FFFFFFFF                        2316+V3_55    DC    FD'-1'            binary value for v3 packed decimal
00002CA0  E5C4D740 40404040                        2317+          DC    CL8'VDP'          instruction name
00002CA8  00000010                                 2318+          DC    A(16)             result length
00002CAC  00002CEC                                 2319+REA55    DC    A(RE55)           result address
                                                   2320+*                                 INSTRUCTION UNDER TEST ROUTINE
00002CB0                                           2321+X55      DS    0F
00002CB0  E320 5010 0004                 00002C90  2322+          LG    R2,V2_55          convert v2
00002CB6  E320 8F4F 002E                 0000114F  2323+          CVDG  R2,V2PACKED
00002CBC  E720 8F4F 0006                 0000114F  2324+          VL    V2,V2PACKED
00002CC2  E320 5018 0004                 00002C98  2325+          LG    R2,V3_55          convert v3
00002CC8  E320 8F5F 002E                 0000115F  2326+          CVDG  R2,V3PACKED
00002CCE  E730 8F5F 0006                 0000115F  2327+          VL    V3,V3PACKED
00002CD4  E612 3018 707A                           2328+          VDP   V1,V2,V3,135,1    test instruction
00002CDA  E710 8F00 000E                 00001100  2329+          VST   V1,V1OUTPUT       save result
00002CE0  B98D 0020                                2330+          EPSW  R2,R0             exptract psw
00002CE4  5020 8EE4                      000010E4  2331+          ST    R2,CCPSW              to save CC
00002CE8  07FB                                     2332+          BR    R11               return
00002CEC                                           2333+RE55     DC    0F
00002CEC                                           2334+          DROP  R5
00002CEC  00000000 00000000                        2335           DC    XL16'00000000000000000000000009999999C'    overflow RDC
00002CF4  00000000 9999999C
                                                   2336
                                                   2337           VRI_F VDP,+9999999999999,+1234,159,1,2
00002D00                                           2338+          DS    0FD
00002D00                           00002D00        2339+          USING *,R5              base for test data and test routine
00002D00  00002D30                                 2340+T56      DC    A(X56)            address of test routine
00002D04  0038                                     2341+          DC    H'56'             test number
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00002D06  00                                       2342+          DC    X'00'
00002D07  9F                                       2343+          DC    HL1'159'          i4
00002D08  01                                       2344+          DC    HL1'1'            m5
00002D09  02                                       2345+          DC    HL1'2'            cc
00002D0A  0D                                       2346+          DC    HL1'13'           cc failed mask
                                                   2347+V2_56     DC    FD'+9999999999999' \
00002D10  00000918 4E729FFF                            +                                  binary value for v2 packed decimal
00002D18  00000000 000004D2                        2348+V3_56     DC    FD'+1234'         binary value for v3 packed decimal
00002D20  E5C4D740 40404040                        2349+          DC    CL8'VDP'          instruction name
00002D28  00000010                                 2350+          DC    A(16)             result length
00002D2C  00002D6C                                 2351+REA56     DC    A(RE56)           result address
                                                   2352+*                                 INSTRUCTION UNDER TEST ROUTINE
00002D30                                           2353+X56       DS    0F
00002D30  E320 5010 0004                00002D10   2354+          LG    R2,V2_56          convert v2
00002D36  E320 8F4F 002E                0000114F   2355+          CVDG  R2,V2PACKED
00002D3C  E720 8F4F 0006                0000114F   2356+          VL    V2,V2PACKED
00002D42  E320 5018 0004                00002D18   2357+          LG    R2,V3_56          convert v3
00002D48  E320 8F5F 002E                0000115F   2358+          CVDG  R2,V3PACKED
00002D4E  E730 8F5F 0006                0000115F   2359+          VL    V3,V3PACKED
00002D54  E612 3019 F07A                           2360+          VDP   V1,V2,V3,159,1    test instruction
00002D5A  E710 8F00 000E                00001100   2361+          VST   V1,V1OUTPUT       save result
00002D60  B98D 0020                                2362+          EPSW  R2,R0             exptract psw
00002D64  5020 8EE4                     000010E4   2363+          ST    R2,CCPSW              to save CC
00002D68  07FB                                     2364+          BR    R11               return
00002D6C                                           2365+RE56      DC    0F
00002D6C                                           2366+          DROP  R5
00002D6C  00000000 00000000                        2367           DC    XL16'00000000000000000000008103727714C'
00002D74  00000810 3727714C
                                                   2368
                                                   2369           VRI_F VDP,+999999999999999999,+1234,159,1,2
00002D80                                           2370+          DS    0FD
00002D80                        00002D80           2371+          USING *,R5              base for test data and test routine
00002D80  00002DB0                                 2372+T57       DC    A(X57)            address of test routine
00002D84  0039                                     2373+          DC    H'57'             test number
00002D86  00                                       2374+          DC    X'00'
00002D87  9F                                       2375+          DC    HL1'159'          i4
00002D88  01                                       2376+          DC    HL1'1'            m5
00002D89  02                                       2377+          DC    HL1'2'            cc
00002D8A  0D                                       2378+          DC    HL1'13'           cc failed mask
                                                   2379+V2_57     DC    FD'+999999999999999999' \
00002D90  0DE0B6B3 A763FFFF                            +                                  binary value for v2 packed decimal
00002D98  00000000 000004D2                        2380+V3_57     DC    FD'+1234'         binary value for v3 packed decimal
00002DA0  E5C4D740 40404040                        2381+          DC    CL8'VDP'          instruction name
00002DA8  00000010                                 2382+          DC    A(16)             result length
00002DAC  00002DEC                                 2383+REA57     DC    A(RE57)           result address
                                                   2384+*                                 INSTRUCTION UNDER TEST ROUTINE
00002DB0                                           2385+X57       DS    0F
00002DB0  E320 5010 0004                00002D90   2386+          LG    R2,V2_57          convert v2
00002DB6  E320 8F4F 002E                0000114F   2387+          CVDG  R2,V2PACKED
00002DBC  E720 8F4F 0006                0000114F   2388+          VL    V2,V2PACKED
00002DC2  E320 5018 0004                00002D98   2389+          LG    R2,V3_57          convert v3
00002DC8  E320 8F5F 002E                0000115F   2390+          CVDG  R2,V3PACKED
00002DCE  E730 8F5F 0006                0000115F   2391+          VL    V3,V3PACKED
00002DD4  E612 3019 F07A                           2392+          VDP   V1,V2,V3,159,1    test instruction
00002DDA  E710 8F00 000E                00001100   2393+          VST   V1,V1OUTPUT       save result
00002DE0  B98D 0020                                2394+          EPSW  R2,R0             exptract psw
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00002DE4  5020 8EE4                    000010E4  2395+         ST    R2,CCPSW              to save CC
00002DE8  07FB                                   2396+         BR    R11                 return
00002DEC                                         2397+RE57     DC    0F
00002DEC                                         2398+         DROP  R5
00002DEC  00000000 00000000                      2399          DC    XL16'00000000000000008103727714748 78C'
00002DF4  81037277 1474878C
                                                 2400
                                                 2401 * VDP larger #'s , i4=159(iom=1 & rdc=31)            CS=1 for all m5
                                                 2402 * check forced positive
                                                 2403          VRI_F VDP,-9999999999999999,+1,159,9,2     m5=9(P2=1)
00002E00                                         2404+         DS    0FD
00002E00                  00002E00               2405+         USING *,R5                base for test data and test routine
00002E00  00002E30                               2406+T58      DC    A(X58)              address of test routine
00002E04  003A                                   2407+         DC    H'58'               test number
00002E06  00                                     2408+         DC    X'00'
00002E07  9F                                     2409+         DC    HL1'159'            i4
00002E08  09                                     2410+         DC    HL1'9'              m5
00002E09  02                                     2411+         DC    HL1'2'              cc
00002E0A  0D                                     2412+         DC    HL1'13'             cc failed mask
                                                 2413+V2_58    DC    FD'-9999999999999999' \
00002E10  FE9CBA87 A2760001                          +                                 binary value for v2 packed decimal
00002E18  00000000 00000001                      2414+V3_58    DC    FD'+1'              binary value for v3 packed decimal
00002E20  E5C4D740 40404040                      2415+         DC    CL8'VDP'            instruction name
00002E28  00000010                               2416+         DC    A(16)               result length
00002E2C  00002E6C                               2417+REA58    DC    A(RE58)             result address
                                                 2418+*                                  INSTRUCTION UNDER TEST ROUTINE
00002E30                                         2419+X58      DS    0F
00002E30  E320 5010 0004               00002E10  2420+         LG    R2,V2_58            convert v2
00002E36  E320 8F4F 002E               0000114F  2421+         CVDG  R2,V2PACKED
00002E3C  E720 8F4F 0006               0000114F  2422+         VL    V2,V2PACKED
00002E42  E320 5018 0004               00002E18  2423+         LG    R2,V3_58            convert v3
00002E48  E320 8F5F 002E               0000115F  2424+         CVDG  R2,V3PACKED
00002E4E  E730 8F5F 0006               0000115F  2425+         VL    V3,V3PACKED
00002E54  E612 3099 F07A                         2426+         VDP   V1,V2,V3,159,9      test instruction
00002E5A  E710 8F00 000E               00001100  2427+         VST   V1,V1OUTPUT         save result
00002E60  B98D 0020                              2428+         EPSW  R2,R0               exptract psw
00002E64  5020 8EE4                    000010E4  2429+         ST    R2,CCPSW              to save CC
00002E68  07FB                                   2430+         BR    R11                 return
00002E6C                                         2431+RE58     DC    0F
00002E6C                                         2432+         DROP  R5
00002E6C  00000000 00000099                      2433          DC    XL16'00000000000000999999999999999 9C'
00002E74  99999999 9999999C
                                                 2434
                                                 2435          VRI_F VDP,+9999999999999999,-1000,159,13,2 m5=13(P2=1,P3=1)
00002E80                                         2436+         DS    0FD
00002E80                  00002E80               2437+         USING *,R5                base for test data and test routine
00002E80  00002EB0                               2438+T59      DC    A(X59)              address of test routine
00002E84  003B                                   2439+         DC    H'59'               test number
00002E86  00                                     2440+         DC    X'00'
00002E87  9F                                     2441+         DC    HL1'159'            i4
00002E88  0D                                     2442+         DC    HL1'13'             m5
00002E89  02                                     2443+         DC    HL1'2'              cc
00002E8A  0D                                     2444+         DC    HL1'13'             cc failed mask
                                                 2445+V2_59    DC    FD'+9999999999999999' \
00002E90  01634578 5D89FFFF                          +                                 binary value for v2 packed decimal
00002E98  FFFFFFFF FFFFFC18                      2446+V3_59    DC    FD'-1000'           binary value for v3 packed decimal
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00002EA0  E5C4D740 40404040                        2447+          DC    CL8'VDP'           instruction name
00002EA8  00000010                                 2448+          DC    A(16)              result length
00002EAC  00002EEC                                 2449+REA59     DC    A(RE59)            result address
                                                   2450+*                                  INSTRUCTION UNDER TEST ROUTINE
00002EB0                                           2451+X59       DS    0F
00002EB0  E320 5010 0004                 00002E90  2452+          LG    R2,V2_59           convert v2
00002EB6  E320 8F4F 002E                 0000114F  2453+          CVDG  R2,V2PACKED
00002EBC  E720 8F4F 0006                 0000114F  2454+          VL    V2,V2PACKED
00002EC2  E320 5018 0004                 00002E98  2455+          LG    R2,V3_59           convert v3
00002EC8  E320 8F5F 002E                 0000115F  2456+          CVDG  R2,V3PACKED
00002ECE  E730 8F5F 0006                 0000115F  2457+          VL    V3,V3PACKED
00002ED4  E612 30D9 F07A                           2458+          VDP   V1,V2,V3,159,13    test instruction
00002EDA  E710 8F00 000E                 00001100  2459+          VST   V1,V1OUTPUT        save result
00002EE0  B98D 0020                                2460+          EPSW  R2,R0              exptract psw
00002EE4  5020 8EE4                      000010E4  2461+          ST    R2,CCPSW                 to save CC
00002EE8  07FB                                     2462+          BR    R11                return
00002EEC                                           2463+RE59      DC    0F
00002EEC                                           2464+          DROP  R5
00002EEC  00000000 00000000                        2465           DC    XL16'0000000000000000099999999999999C'
00002EF4  09999999 9999999C
                                                   2466
                                                   2467           VRI_F VDP,-9999999999999999,-1,159,3,2       m5=3(P1=1)
00002F00                                           2468+          DS    0FD
00002F00                         00002F00          2469+          USING *,R5               base for test data and test routine
00002F00  00002F30                                 2470+T60       DC    A(X60)             address of test routine
00002F04  003C                                     2471+          DC    H'60'              test number
00002F06  00                                       2472+          DC    X'00'
00002F07  9F                                       2473+          DC    HL1'159'           i4
00002F08  03                                       2474+          DC    HL1'3'             m5
00002F09  02                                       2475+          DC    HL1'2'             cc
00002F0A  0D                                       2476+          DC    HL1'13'            cc failed mask
                                                   2477+V2_60     DC    FD'-9999999999999999' \
00002F10  FFDC790D 903F0001                           +                                    binary value for v2 packed decimal
00002F18  FFFFFFFF FFFFFFFF                        2478+V3_60     DC    FD'-1'             binary value for v3 packed decimal
00002F20  E5C4D740 40404040                        2479+          DC    CL8'VDP'           instruction name
00002F28  00000010                                 2480+          DC    A(16)              result length
00002F2C  00002F6C                                 2481+REA60     DC    A(RE60)            result address
                                                   2482+*                                  INSTRUCTION UNDER TEST ROUTINE
00002F30                                           2483+X60       DS    0F
00002F30  E320 5010 0004                 00002F10  2484+          LG    R2,V2_60           convert v2
00002F36  E320 8F4F 002E                 0000114F  2485+          CVDG  R2,V2PACKED
00002F3C  E720 8F4F 0006                 0000114F  2486+          VL    V2,V2PACKED
00002F42  E320 5018 0004                 00002F18  2487+          LG    R2,V3_60           convert v3
00002F48  E320 8F5F 002E                 0000115F  2488+          CVDG  R2,V3PACKED
00002F4E  E730 8F5F 0006                 0000115F  2489+          VL    V3,V3PACKED
00002F54  E612 3039 F07A                           2490+          VDP   V1,V2,V3,159,3     test instruction
00002F5A  E710 8F00 000E                 00001100  2491+          VST   V1,V1OUTPUT        save result
00002F60  B98D 0020                                2492+          EPSW  R2,R0              exptract psw
00002F64  5020 8EE4                      000010E4  2493+          ST    R2,CCPSW                 to save CC
00002F68  07FB                                     2494+          BR    R11                return
00002F6C                                           2495+RE60      DC    0F
00002F6C                                           2496+          DROP  R5
00002F6C  00000000 00000009                        2497           DC    XL16'0000000000000009999999999999999F'
00002F74  99999999 9999999F
                                                   2498
                                                   2499 *                                                    m5=13(P2=1,P3=1)
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                   2500          VRI_F VDP,+9999999999999999,-1,135,13,3  i4=135(iom=1 & rdc=7)
00002F80                                           2501+         DS    0FD
00002F80                       00002F80            2502+         USING *,R5              base for test data and test routine
00002F80  00002FB0                                 2503+T61      DC    A(X61)            address of test routine
00002F84  003D                                     2504+         DC    H'61'             test number
00002F86  00                                       2505+         DC    X'00'
00002F87  87                                       2506+         DC    HL1'135'          i4
00002F88  0D                                       2507+         DC    HL1'13'           m5
00002F89  03                                       2508+         DC    HL1'3'            cc
00002F8A  0E                                       2509+         DC    HL1'14'           cc failed mask
                                                   2510+V2_61    DC    FD'+9999999999999999' \
00002F90  002386F2 6FC0FFFF                           +                                 binary value for v2 packed decimal
00002F98  FFFFFFFF FFFFFFFF                        2511+V3_61    DC    FD'-1'            binary value for v3 packed decimal
00002FA0  E5C4D740 40404040                        2512+         DC    CL8'VDP'          instruction name
00002FA8  00000010                                 2513+         DC    A(16)             result length
00002FAC  00002FEC                                 2514+REA61    DC    A(RE61)           result address
                                                   2515+*                                INSTRUCTION UNDER TEST ROUTINE
00002FB0                                           2516+X61      DS    0F
00002FB0  E320 5010 0004                00002F90   2517+         LG    R2,V2_61          convert v2
00002FB6  E320 8F4F 002E                0000114F   2518+         CVDG  R2,V2PACKED
00002FBC  E720 8F4F 0006                0000114F   2519+         VL    V2,V2PACKED
00002FC2  E320 5018 0004                00002F98   2520+         LG    R2,V3_61          convert v3
00002FC8  E320 8F5F 002E                0000115F   2521+         CVDG  R2,V3PACKED
00002FCE  E730 8F5F 0006                0000115F   2522+         VL    V3,V3PACKED
00002FD4  E612 30D8 707A                           2523+         VDP   V1,V2,V3,135,13   test instruction
00002FDA  E710 8F00 000E                00001100   2524+         VST   V1,V1OUTPUT       save result
00002FE0  B98D 0020                                2525+         EPSW  R2,R0             exptract psw
00002FE4  5020 8EE4                     000010E4   2526+         ST    R2,CCPSW              to save CC
00002FE8  07FB                                     2527+         BR    R11               return
00002FEC                                           2528+RE61     DC    0F
00002FEC                                           2529+         DROP  R5
00002FEC  00000000 00000000                        2530          DC    XL16'0000000000000000000000009999999C'    overflow RDC
00002FF4  00000000 9999999C
                                                   2531
                                                   2532          VRI_F VDP,+9999999999999,+1234,159,3,2        m5=3(P1=1)
00003000                                           2533+         DS    0FD
00003000                       00003000            2534+         USING *,R5              base for test data and test routine
00003000  00003030                                 2535+T62      DC    A(X62)            address of test routine
00003004  003E                                     2536+         DC    H'62'             test number
00003006  00                                       2537+         DC    X'00'
00003007  9F                                       2538+         DC    HL1'159'          i4
00003008  03                                       2539+         DC    HL1'3'            m5
00003009  02                                       2540+         DC    HL1'2'            cc
0000300A  0D                                       2541+         DC    HL1'13'           cc failed mask
                                                   2542+V2_62    DC    FD'+9999999999999' \
00003010  00000918 4E729FFF                           +                                 binary value for v2 packed decimal
00003018  00000000 000004D2                        2543+V3_62    DC    FD'+1234'         binary value for v3 packed decimal
00003020  E5C4D740 40404040                        2544+         DC    CL8'VDP'          instruction name
00003028  00000010                                 2545+         DC    A(16)             result length
0000302C  0000306C                                 2546+REA62    DC    A(RE62)           result address
                                                   2547+*                                INSTRUCTION UNDER TEST ROUTINE
00003030                                           2548+X62      DS    0F
00003030  E320 5010 0004                00003010   2549+         LG    R2,V2_62          convert v2
00003036  E320 8F4F 002E                0000114F   2550+         CVDG  R2,V2PACKED
0000303C  E720 8F4F 0006                0000114F   2551+         VL    V2,V2PACKED
00003042  E320 5018 0004                00003018   2552+         LG    R2,V3_62          convert v3
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003048  E320 8F5F 002E                 0000115F  2553+         CVDG  R2,V3PACKED
0000304E  E730 8F5F 0006                 0000115F  2554+         VL    V3,V3PACKED
00003054  E612 3039 F07A                           2555+         VDP   V1,V2,V3,159,3    test instruction
0000305A  E710 8F00 000E                 00001100  2556+         VST   V1,V1OUTPUT       save result
00003060  B98D 0020                                2557+         EPSW  R2,R0             exptract psw
00003064  5020 8EE4                      000010E4  2558+         ST    R2,CCPSW              to save CC
00003068  07FB                                     2559+         BR    R11               return
0000306C                                           2560+RE62     DC    0F
0000306C                                           2561+         DROP  R5
0000306C  00000000 00000000                        2562          DC    XL16'00000000000000000000008103727714F'
00003074  00000810 3727714F
                                                   2563
                                                   2564 *                                m5=15(P1=1,P2=1,P3=1)
                                                   2565          VRI_F VDP,-99999999999999999,-1234,159,15,2
00003080                                           2566+         DS    0FD
00003080                         00003080          2567+         USING *,R5              base for test data and test routine
00003080  000030B0                                 2568+T63      DC    A(X63)            address of test routine
00003084  003F                                     2569+         DC    H'63'             test number
00003086  00                                       2570+         DC    X'00'
00003087  9F                                       2571+         DC    HL1'159'          i4
00003088  0F                                       2572+         DC    HL1'15'           m5
00003089  02                                       2573+         DC    HL1'2'            cc
0000308A  0D                                       2574+         DC    HL1'13'           cc failed mask
                                                   2575+V2_63    DC    FD'-99999999999999999' \
00003090  F21F494C 589C0001                           +                                 binary value for v2 packed decimal
00003098  FFFFFFFF FFFFFB2E                        2576+V3_63    DC    FD'-1234'         binary value for v3 packed decimal
000030A0  E5C4D740 40404040                        2577+         DC    CL8'VDP'          instruction name
000030A8  00000010                                 2578+         DC    A(16)             result length
000030AC  000030EC                                 2579+REA63    DC    A(RE63)           result address
                                                   2580+*                                INSTRUCTION UNDER TEST ROUTINE
000030B0                                           2581+X63      DS    0F
000030B0  E320 5010 0004                 00003090  2582+         LG    R2,V2_63          convert v2
000030B6  E320 8F4F 002E                 0000114F  2583+         CVDG  R2,V2PACKED
000030BC  E720 8F4F 0006                 0000114F  2584+         VL    V2,V2PACKED
000030C2  E320 5018 0004                 00003098  2585+         LG    R2,V3_63          convert v3
000030C8  E320 8F5F 002E                 0000115F  2586+         CVDG  R2,V3PACKED
000030CE  E730 8F5F 0006                 0000115F  2587+         VL    V3,V3PACKED
000030D4  E612 30F9 F07A                           2588+         VDP   V1,V2,V3,159,15   test instruction
000030DA  E710 8F00 000E                 00001100  2589+         VST   V1,V1OUTPUT       save result
000030E0  B98D 0020                                2590+         EPSW  R2,R0             exptract psw
000030E4  5020 8EE4                      000010E4  2591+         ST    R2,CCPSW              to save CC
000030E8  07FB                                     2592+         BR    R11               return
000030EC                                           2593+RE63     DC    0F
000030EC                                           2594+         DROP  R5
000030EC  00000000 00000000                        2595          DC    XL16'00000000000000008103727714748 78F'
000030F4  81037277 1474878F
                                                   2596
                                                   2597 *-------------------------------------------------------------------
                                                   2598 *  VRP    - VECTOR REMAINDER DECIMAL
                                                   2599 *-------------------------------------------------------------------
                                                   2600 * VRP simple + CC checks
                                                   2601          VRI_F VRP,+10,+12,7,1,2
00003100                                           2602+         DS    0FD
00003100                         00003100          2603+         USING *,R5              base for test data and test routine
00003100  00003130                                 2604+T64      DC    A(X64)            address of test routine
00003104  0040                                     2605+         DC    H'64'             test number
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00003106  00                                       2606+          DC    X'00'
00003107  07                                       2607+          DC    HL1'7'             i4
00003108  01                                       2608+          DC    HL1'1'             m5
00003109  02                                       2609+          DC    HL1'2'             cc
0000310A  0D                                       2610+          DC    HL1'13'            cc failed mask
00003110  00000000 0000000A                        2611+V2_64     DC    FD'+10'            binary value for v2 packed decimal
00003118  00000000 0000000C                        2612+V3_64     DC    FD'+12'            binary value for v3 packed decimal
00003120  E5D9D740 40404040                        2613+          DC    CL8'VRP'           instruction name
00003128  00000010                                 2614+          DC    A(16)              result length
0000312C  0000316C                                 2615+REA64     DC    A(RE64)            result address
                                                   2616+*                                  INSTRUCTION UNDER TEST ROUTINE
00003130                                           2617+X64       DS    0F
00003130  E320 5010 0004                 00003110  2618+          LG    R2,V2_64           convert v2
00003136  E320 8F4F 002E                 0000114F  2619+          CVDG  R2,V2PACKED
0000313C  E720 8F4F 0006                 0000114F  2620+          VL    V2,V2PACKED
00003142  E320 5018 0004                 00003118  2621+          LG    R2,V3_64           convert v3
00003148  E320 8F5F 002E                 0000115F  2622+          CVDG  R2,V3PACKED
0000314E  E730 8F5F 0006                 0000115F  2623+          VL    V3,V3PACKED
00003154  E612 3010 707B                           2624+          VRP   V1,V2,V3,7,1       test instruction
0000315A  E710 8F00 000E                 00001100  2625+          VST   V1,V1OUTPUT        save result
00003160  B98D 0020                                2626+          EPSW  R2,R0              exptract psw
00003164  5020 8EE4                      000010E4  2627+          ST    R2,CCPSW                 to save CC
00003168  07FB                                     2628+          BR    R11                return
0000316C                                           2629+RE64      DC    0F
0000316C                                           2630+          DROP  R5
0000316C  00000000 00000000                        2631           DC    XL16'00000000000000000000000000000010C'
00003174  00000000 0000010C
                                                   2632
                                                   2633           VRI_F VRP,-100,+12,7,1,1
00003180                                           2634+          DS    0FD
00003180                       00003180            2635+          USING *,R5               base for test data and test routine
00003180  000031B0                                 2636+T65       DC    A(X65)             address of test routine
00003184  0041                                     2637+          DC    H'65'              test number
00003186  00                                       2638+          DC    X'00'
00003187  07                                       2639+          DC    HL1'7'             i4
00003188  01                                       2640+          DC    HL1'1'             m5
00003189  01                                       2641+          DC    HL1'1'             cc
0000318A  0B                                       2642+          DC    HL1'11'            cc failed mask
00003190  FFFFFFFF FFFFFF9C                        2643+V2_65     DC    FD'-100'           binary value for v2 packed decimal
00003198  00000000 0000000C                        2644+V3_65     DC    FD'+12'            binary value for v3 packed decimal
000031A0  E5D9D740 40404040                        2645+          DC    CL8'VRP'           instruction name
000031A8  00000010                                 2646+          DC    A(16)              result length
000031AC  000031EC                                 2647+REA65     DC    A(RE65)            result address
                                                   2648+*                                  INSTRUCTION UNDER TEST ROUTINE
000031B0                                           2649+X65       DS    0F
000031B0  E320 5010 0004                 00003190  2650+          LG    R2,V2_65           convert v2
000031B6  E320 8F4F 002E                 0000114F  2651+          CVDG  R2,V2PACKED
000031BC  E720 8F4F 0006                 0000114F  2652+          VL    V2,V2PACKED
000031C2  E320 5018 0004                 00003198  2653+          LG    R2,V3_65           convert v3
000031C8  E320 8F5F 002E                 0000115F  2654+          CVDG  R2,V3PACKED
000031CE  E730 8F5F 0006                 0000115F  2655+          VL    V3,V3PACKED
000031D4  E612 3010 707B                           2656+          VRP   V1,V2,V3,7,1       test instruction
000031DA  E710 8F00 000E                 00001100  2657+          VST   V1,V1OUTPUT        save result
000031E0  B98D 0020                                2658+          EPSW  R2,R0              exptract psw
000031E4  5020 8EE4                      000010E4  2659+          ST    R2,CCPSW               to save CC
000031E8  07FB                                     2660+          BR    R11                return
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000031EC                                         2661+RE65     DC    0F
000031EC                                         2662+         DROP  R5
000031EC  00000000 00000000                      2663          DC    XL16'0000000000000000000000000000004D'
000031F4  00000000 0000004D
                                                 2664
                                                 2665          VRI_F VRP,+100,-12,1,1,2                    note rdc=1
00003200                                         2666+         DS    0FD
00003200                          00003200       2667+         USING *,R5              base for test data and test routine
00003200  00003230                               2668+T66      DC    A(X66)            address of test routine
00003204  0042                                   2669+         DC    H'66'             test number
00003206  00                                     2670+         DC    X'00'
00003207  01                                     2671+         DC    HL1'1'            i4
00003208  01                                     2672+         DC    HL1'1'            m5
00003209  02                                     2673+         DC    HL1'2'            cc
0000320A  0D                                     2674+         DC    HL1'13'           cc failed mask
00003210  00000000 00000064                      2675+V2_66    DC    FD'+100'          binary value for v2 packed decimal
00003218  FFFFFFFF FFFFFFF4                      2676+V3_66    DC    FD'-12'           binary value for v3 packed decimal
00003220  E5D9D740 40404040                      2677+         DC    CL8'VRP'          instruction name
00003228  00000010                               2678+         DC    A(16)             result length
0000322C  0000326C                               2679+REA66    DC    A(RE66)           result address
                                                 2680+*                                INSTRUCTION UNDER TEST ROUTINE
00003230                                         2681+X66      DS    0F
00003230  E320 5010 0004                00003210 2682+         LG    R2,V2_66          convert v2
00003236  E320 8F4F 002E                0000114F 2683+         CVDG  R2,V2PACKED
0000323C  E720 8F4F 0006                0000114F 2684+         VL    V2,V2PACKED
00003242  E320 5018 0004                00003218 2685+         LG    R2,V3_66          convert v3
00003248  E320 8F5F 002E                0000115F 2686+         CVDG  R2,V3PACKED
0000324E  E730 8F5F 0006                0000115F 2687+         VL    V3,V3PACKED
00003254  E612 3010 107B                         2688+         VRP   V1,V2,V3,1,1      test instruction
0000325A  E710 8F00 000E                00001100 2689+         VST   V1,V1OUTPUT       save result
00003260  B98D 0020                              2690+         EPSW  R2,R0             exptract psw
00003264  5020 8EE4                     000010E4 2691+         ST    R2,CCPSW              to save CC
00003268  07FB                                   2692+         BR    R11               return
0000326C                                         2693+RE66     DC    0F
0000326C                                         2694+         DROP  R5
0000326C  00000000 00000000                      2695          DC    XL16'0000000000000000000000000000004C'
00003274  00000000 0000004C
                                                 2696
                                                 2697          VRI_F VRP,+100,-12,7,1,2
00003280                                         2698+         DS    0FD
00003280                          00003280       2699+         USING *,R5              base for test data and test routine
00003280  000032B0                               2700+T67      DC    A(X67)            address of test routine
00003284  0043                                   2701+         DC    H'67'             test number
00003286  00                                     2702+         DC    X'00'
00003287  07                                     2703+         DC    HL1'7'            i4
00003288  01                                     2704+         DC    HL1'1'            m5
00003289  02                                     2705+         DC    HL1'2'            cc
0000328A  0D                                     2706+         DC    HL1'13'           cc failed mask
00003290  00000000 00000064                      2707+V2_67    DC    FD'+100'          binary value for v2 packed decimal
00003298  FFFFFFFF FFFFFFF4                      2708+V3_67    DC    FD'-12'           binary value for v3 packed decimal
000032A0  E5D9D740 40404040                      2709+         DC    CL8'VRP'          instruction name
000032A8  00000010                               2710+         DC    A(16)             result length
000032AC  000032EC                               2711+REA67    DC    A(RE67)           result address
                                                 2712+*                                INSTRUCTION UNDER TEST ROUTINE
000032B0                                         2713+X67      DS    0F
000032B0  E320 5010 0004                00003290 2714+         LG    R2,V2_67          convert v2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000032B6  E320 8F4F 002E                 0000114F  2715+         CVDG  R2,V2PACKED
000032BC  E720 8F4F 0006                 0000114F  2716+         VL    V2,V2PACKED
000032C2  E320 5018 0004                 00003298  2717+         LG    R2,V3_67          convert v3
000032C8  E320 8F5F 002E                 0000115F  2718+         CVDG  R2,V3PACKED
000032CE  E730 8F5F 0006                 0000115F  2719+         VL    V3,V3PACKED
000032D4  E612 3010 707B                           2720+         VRP   V1,V2,V3,7,1      test instruction
000032DA  E710 8F00 000E                 00001100  2721+         VST   V1,V1OUTPUT       save result
000032E0  B98D 0020                                2722+         EPSW  R2,R0             exptract psw
000032E4  5020 8EE4                      000010E4  2723+         ST    R2,CCPSW              to save CC
000032E8  07FB                                     2724+         BR    R11               return
000032EC                                           2725+RE67     DC    0F
000032EC                                           2726+         DROP  R5
000032EC  00000000 00000000                        2727          DC    XL16'00000000000000000000000000000004C'
000032F4  00000000 0000004C
                                                   2728
                                                   2729          VRI_F VRP,-100,-12,7,1,1
00003300                                           2730+         DS    0FD
00003300                         00003300          2731+         USING *,R5              base for test data and test routine
00003300  00003330                                 2732+T68      DC    A(X68)            address of test routine
00003304  0044                                     2733+         DC    H'68'             test number
00003306  00                                       2734+         DC    X'00'
00003307  07                                       2735+         DC    HL1'7'            i4
00003308  01                                       2736+         DC    HL1'1'            m5
00003309  01                                       2737+         DC    HL1'1'            cc
0000330A  0B                                       2738+         DC    HL1'11'           cc failed mask
00003310  FFFFFFFF FFFFFF9C                        2739+V2_68    DC    FD'-100'          binary value for v2 packed decimal
00003318  FFFFFFFF FFFFFFF4                        2740+V3_68    DC    FD'-12'           binary value for v3 packed decimal
00003320  E5D9D740 40404040                       2741+         DC    CL8'VRP'          instruction name
00003328  00000010                                 2742+         DC    A(16)             result length
0000332C  0000336C                                 2743+REA68    DC    A(RE68)           result address
                                                   2744+*                                INSTRUCTION UNDER TEST ROUTINE
00003330                                           2745+X68      DS    0F
00003330  E320 5010 0004                 00003310  2746+         LG    R2,V2_68          convert v2
00003336  E320 8F4F 002E                 0000114F  2747+         CVDG  R2,V2PACKED
0000333C  E720 8F4F 0006                 0000114F  2748+         VL    V2,V2PACKED
00003342  E320 5018 0004                 00003318  2749+         LG    R2,V3_68          convert v3
00003348  E320 8F5F 002E                 0000115F  2750+         CVDG  R2,V3PACKED
0000334E  E730 8F5F 0006                 0000115F  2751+         VL    V3,V3PACKED
00003354  E612 3010 707B                           2752+         VRP   V1,V2,V3,7,1      test instruction
0000335A  E710 8F00 000E                 00001100  2753+         VST   V1,V1OUTPUT       save result
00003360  B98D 0020                                2754+         EPSW  R2,R0             exptract psw
00003364  5020 8EE4                      000010E4  2755+         ST    R2,CCPSW              to save CC
00003368  07FB                                     2756+         BR    R11               return
0000336C                                           2757+RE68     DC    0F
0000336C                                           2758+         DROP  R5
0000336C  00000000 00000000                        2759          DC    XL16'00000000000000000000000000000004D'
00003374  00000000 0000004D
                                                   2760
                                                   2761          VRI_F VRP,-100,-10,7,1,0
00003380                                           2762+         DS    0FD
00003380                         00003380          2763+         USING *,R5              base for test data and test routine
00003380  000033B0                                 2764+T69      DC    A(X69)            address of test routine
00003384  0045                                     2765+         DC    H'69'             test number
00003386  00                                       2766+         DC    X'00'
00003387  07                                       2767+         DC    HL1'7'            i4
00003388  01                                       2768+         DC    HL1'1'            m5
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00003389  00                                       2769+          DC    HL1'0'             cc
0000338A  07                                       2770+          DC    HL1'7'             cc failed mask
00003390  FFFFFFFF FFFFFF9C                        2771+V2_69     DC    FD'-100'           binary value for v2 packed decimal
00003398  FFFFFFFF FFFFFFF6                        2772+V3_69     DC    FD'-10'            binary value for v3 packed decimal
000033A0  E5D9D740 40404040                        2773+          DC    CL8'VRP'           instruction name
000033A8  00000010                                 2774+          DC    A(16)              result length
000033AC  000033EC                                 2775+REA69     DC    A(RE69)            result address
                                                   2776+*                                  INSTRUCTION UNDER TEST ROUTINE
000033B0                                           2777+X69       DS    0F
000033B0  E320 5010 0004                 00003390  2778+           LG    R2,V2_69           convert v2
000033B6  E320 8F4F 002E                 0000114F  2779+           CVDG  R2,V2PACKED
000033BC  E720 8F4F 0006                 0000114F  2780+           VL    V2,V2PACKED
000033C2  E320 5018 0004                 00003398  2781+           LG    R2,V3_69           convert v3
000033C8  E320 8F5F 002E                 0000115F  2782+           CVDG  R2,V3PACKED
000033CE  E730 8F5F 0006                 0000115F  2783+           VL    V3,V3PACKED
000033D4  E612 3010 707B                           2784+           VRP   V1,V2,V3,7,1       test instruction
000033DA  E710 8F00 000E                 00001100  2785+           VST   V1,V1OUTPUT        save result
000033E0  B98D 0020                                2786+           EPSW  R2,R0              exptract psw
000033E4  5020 8EE4                      000010E4  2787+           ST    R2,CCPSW               to save CC
000033E8  07FB                                     2788+           BR    R11                return
000033EC                                           2789+RE69      DC    0F
000033EC                                           2790+          DROP  R5
000033EC  00000000 00000000                        2791           DC    XL16'0000000000000000000000000000000D'   NOTE MINUS 0
000033F4  00000000 0000000D
                                                   2792
                                                   2793           VRI_F VRP,+1000001111,+10,135,1,2    i4=135(iom=1 & rdc=7)
00003400                                           2794+          DS    0FD
00003400                           00003400        2795+          USING *,R5               base for test data and test routine
00003400  00003430                                 2796+T70       DC    A(X70)             address of test routine
00003404  0046                                     2797+          DC    H'70'              test number
00003406  00                                       2798+          DC    X'00'
00003407  87                                       2799+          DC    HL1'135'           i4
00003408  01                                       2800+          DC    HL1'1'             m5
00003409  02                                       2801+          DC    HL1'2'             cc
0000340A  0D                                       2802+          DC    HL1'13'            cc failed mask
00003410  00000000 3B9ACE57                        2803+V2_70     DC    FD'+1000001111'    binary value for v2 packed decimal
00003418  00000000 0000000A                        2804+V3_70     DC    FD'+10'            binary value for v3 packed decimal
00003420  E5D9D740 40404040                        2805+          DC    CL8'VRP'           instruction name
00003428  00000010                                 2806+          DC    A(16)              result length
0000342C  0000346C                                 2807+REA70     DC    A(RE70)            result address
                                                   2808+*                                  INSTRUCTION UNDER TEST ROUTINE
00003430                                           2809+X70       DS    0F
00003430  E320 5010 0004                 00003410  2810+           LG    R2,V2_70           convert v2
00003436  E320 8F4F 002E                 0000114F  2811+           CVDG  R2,V2PACKED
0000343C  E720 8F4F 0006                 0000114F  2812+           VL    V2,V2PACKED
00003442  E320 5018 0004                 00003418  2813+           LG    R2,V3_70           convert v3
00003448  E320 8F5F 002E                 0000115F  2814+           CVDG  R2,V3PACKED
0000344E  E730 8F5F 0006                 0000115F  2815+           VL    V3,V3PACKED
00003454  E612 3018 707B                           2816+           VRP   V1,V2,V3,135,1     test instruction
0000345A  E710 8F00 000E                 00001100  2817+           VST   V1,V1OUTPUT        save result
00003460  B98D 0020                                2818+           EPSW  R2,R0              exptract psw
00003464  5020 8EE4                      000010E4  2819+           ST    R2,CCPSW               to save CC
00003468  07FB                                     2820+           BR    R11                return
0000346C                                           2821+RE70      DC    0F
0000346C                                           2822+          DROP  R5
0000346C  00000000 00000000                        2823           DC    XL16'0000000000000000000000000000001C'  note RDC
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00003474  00000000 0000001C                        2824
                                                   2825 * VRP larger #'s , i4=159(iom=1 & rdc=31)
                                                   2826          VRI_F VRP,+99999999999999999,+13,159,1,2
00003480                                           2827+         DS    0FD
00003480                    00003480               2828+         USING *,R5              base for test data and test routine
00003480  000034B0                                 2829+T71      DC    A(X71)            address of test routine
00003484  0047                                     2830+         DC    H'71'             test number
00003486  00                                       2831+         DC    X'00'
00003487  9F                                       2832+         DC    HL1'159'          i4
00003488  01                                       2833+         DC    HL1'1'            m5
00003489  02                                       2834+         DC    HL1'2'            cc
0000348A  0D                                       2835+         DC    HL1'13'           cc failed mask
                                                   2836+V2_71    DC    FD'+99999999999999999' \
00003490  01634578 5D89FFFF                           +                                 binary value for v2 packed decimal
00003498  00000000 0000000D                        2837+V3_71    DC    FD'+13'           binary value for v3 packed decimal
000034A0  E5D9D740 40404040                        2838+         DC    CL8'VRP'          instruction name
000034A8  00000010                                 2839+         DC    A(16)             result length
000034AC  000034EC                                 2840+REA71    DC    A(RE71)           result address
                                                   2841+*                                INSTRUCTION UNDER TEST ROUTINE
000034B0                                           2842+X71      DS    0F
000034B0  E320 5010 0004                00003490   2843+         LG    R2,V2_71          convert v2
000034B6  E320 8F4F 002E                0000114F   2844+         CVDG  R2,V2PACKED
000034BC  E720 8F4F 0006                0000114F   2845+         VL    V2,V2PACKED
000034C2  E320 5018 0004                00003498   2846+         LG    R2,V3_71          convert v3
000034C8  E320 8F5F 002E                0000115F   2847+         CVDG  R2,V3PACKED
000034CE  E730 8F5F 0006                0000115F   2848+         VL    V3,V3PACKED
000034D4  E612 3019 F07B                           2849+         VRP   V1,V2,V3,159,1    test instruction
000034DA  E710 8F00 000E                00001100   2850+         VST   V1,V1OUTPUT       save result
000034E0  B98D 0020                                2851+         EPSW  R2,R0             exptract psw
000034E4  5020 8EE4                     000010E4   2852+         ST    R2,CCPSW              to save CC
000034E8  07FB                                     2853+         BR    R11               return
000034EC                                           2854+RE71     DC    0F
000034EC                                           2855+         DROP  R5
000034EC  00000000 00000000                        2856          DC    XL16'0000000000000000000000000000003C'
000034F4  00000000 0000003C                        
                                                   2857
                                                   2858          VRI_F VRP,-99999999999999999,+1000,159,1,1
00003500                                           2859+         DS    0FD
00003500                    00003500               2860+         USING *,R5              base for test data and test routine
00003500  00003530                                 2861+T72      DC    A(X72)            address of test routine
00003504  0048                                     2862+         DC    H'72'             test number
00003506  00                                       2863+         DC    X'00'
00003507  9F                                       2864+         DC    HL1'159'          i4
00003508  01                                       2865+         DC    HL1'1'            m5
00003509  01                                       2866+         DC    HL1'1'            cc
0000350A  0B                                       2867+         DC    HL1'11'           cc failed mask
                                                   2868+V2_72    DC    FD'-99999999999999999' \
00003510  FE9CBA87 A2760001                           +                                 binary value for v2 packed decimal
00003518  00000000 000003E8                        2869+V3_72    DC    FD'+1000'         binary value for v3 packed decimal
00003520  E5D9D740 40404040                        2870+         DC    CL8'VRP'          instruction name
00003528  00000010                                 2871+         DC    A(16)             result length
0000352C  0000356C                                 2872+REA72    DC    A(RE72)           result address
                                                   2873+*                                INSTRUCTION UNDER TEST ROUTINE
00003530                                           2874+X72      DS    0F
00003530  E320 5010 0004                00003510   2875+         LG    R2,V2_72          convert v2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003536  E320 8F4F 002E                 0000114F  2876+         CVDG  R2,V2PACKED
0000353C  E720 8F4F 0006                 0000114F  2877+         VL    V2,V2PACKED
00003542  E320 5018 0004                 00003518  2878+         LG    R2,V3_72          convert v3
00003548  E320 8F5F 002E                 0000115F  2879+         CVDG  R2,V3PACKED
0000354E  E730 8F5F 0006                 0000115F  2880+         VL    V3,V3PACKED
00003554  E612 3019 F07B                           2881+         VRP   V1,V2,V3,159,1    test instruction
0000355A  E710 8F00 000E                 00001100  2882+         VST   V1,V1OUTPUT       save result
00003560  B98D 0020                                2883+         EPSW  R2,R0             exptract psw
00003564  5020 8EE4                      000010E4  2884+         ST    R2,CCPSW              to save CC
00003568  07FB                                     2885+         BR    R11               return
0000356C                                           2886+RE72     DC    0F
0000356C                                           2887+         DROP  R5
0000356C  00000000 00000000                        2888          DC    XL16'0000000000000000000000000000999D'
00003574  00000000 0000999D
                                                   2889
                                                   2890          VRI_F VRP,-9999999999999999,-47,159,1,1
00003580                                           2891+         DS    0FD
00003580                           00003580        2892+         USING *,R5              base for test data and test routine
00003580  000035B0                                 2893+T73      DC    A(X73)            address of test routine
00003584  0049                                     2894+         DC    H'73'             test number
00003586  00                                       2895+         DC    X'00'
00003587  9F                                       2896+         DC    HL1'159'          i4
00003588  01                                       2897+         DC    HL1'1'            m5
00003589  01                                       2898+         DC    HL1'1'            cc
0000358A  0B                                       2899+         DC    HL1'11'           cc failed mask
                                                   2900+V2_73    DC    FD'-9999999999999999' \
00003590  FFDC790D 903F0001                           +                                 binary value for v2 packed decimal
00003598  FFFFFFFF FFFFFFD1                        2901+V3_73    DC    FD'-47'           binary value for v3 packed decimal
000035A0  E5D9D740 40404040                        2902+         DC    CL8'VRP'          instruction name
000035A8  00000010                                 2903+         DC    A(16)             result length
000035AC  000035EC                                 2904+REA73    DC    A(RE73)           result address
                                                   2905+*                                INSTRUCTION UNDER TEST ROUTINE
000035B0                                           2906+X73      DS    0F
000035B0  E320 5010 0004                 00003590  2907+         LG    R2,V2_73          convert v2
000035B6  E320 8F4F 002E                 0000114F  2908+         CVDG  R2,V2PACKED
000035BC  E720 8F4F 0006                 0000114F  2909+         VL    V2,V2PACKED
000035C2  E320 5018 0004                 00003598  2910+         LG    R2,V3_73          convert v3
000035C8  E320 8F5F 002E                 0000115F  2911+         CVDG  R2,V3PACKED
000035CE  E730 8F5F 0006                 0000115F  2912+         VL    V3,V3PACKED
000035D4  E612 3019 F07B                           2913+         VRP   V1,V2,V3,159,1    test instruction
000035DA  E710 8F00 000E                 00001100  2914+         VST   V1,V1OUTPUT       save result
000035E0  B98D 0020                                2915+         EPSW  R2,R0             exptract psw
000035E4  5020 8EE4                      000010E4  2916+         ST    R2,CCPSW              to save CC
000035E8  07FB                                     2917+         BR    R11               return
000035EC                                           2918+RE73     DC    0F
000035EC                                           2919+         DROP  R5
000035EC  00000000 00000000                        2920          DC    XL16'0000000000000000000000000000023D'
000035F4  00000000 0000023D
                                                   2921
                                                   2922          VRI_F VRP,-999999999999,-123456,135,1,1  i4=135(iom=1 & rdc=7)
00003600                                           2923+         DS    0FD
00003600                           00003600        2924+         USING *,R5              base for test data and test routine
00003600  00003630                                 2925+T74      DC    A(X74)            address of test routine
00003604  004A                                     2926+         DC    H'74'             test number
00003606  00                                       2927+         DC    X'00'
00003607  87                                       2928+         DC    HL1'135'          i4
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00003608  01                                       2929+          DC    HL1'1'             m5
00003609  01                                       2930+          DC    HL1'1'             cc
0000360A  0B                                       2931+          DC    HL1'11'            cc failed mask
00003610  FFFFFF17 2B5AF001                        2932+V2_74     DC    FD'-999999999999'  binary value for v2 packed decimal
00003618  FFFFFFFF FFFE1DC0                        2933+V3_74     DC    FD'-123456'        binary value for v3 packed decimal
00003620  E5D9D740 40404040                       2934+          DC    CL8'VRP'           instruction name
00003628  00000010                                 2935+          DC    A(16)              result length
0000362C  0000366C                                 2936+REA74     DC    A(RE74)            result address
                                                   2937+*                                  INSTRUCTION UNDER TEST ROUTINE
00003630                                           2938+X74       DS    0F
00003630  E320 5010 0004                 00003610  2939+          LG    R2,V2_74           convert v2
00003636  E320 8F4F 002E                 0000114F  2940+          CVDG  R2,V2PACKED
0000363C  E720 8F4F 0006                 0000114F  2941+          VL    V2,V2PACKED
00003642  E320 5018 0004                 00003618  2942+          LG    R2,V3_74           convert v3
00003648  E320 8F5F 002E                 0000115F  2943+          CVDG  R2,V3PACKED
0000364E  E730 8F5F 0006                 0000115F  2944+          VL    V3,V3PACKED
00003654  E612 3018 707B                           2945+          VRP   V1,V2,V3,135,1     test instruction
0000365A  E710 8F00 000E                 00001100  2946+          VST   V1,V1OUTPUT        save result
00003660  B98D 0020                                2947+          EPSW  R2,R0              exptract psw
00003664  5020 8EE4                      000010E4  2948+          ST    R2,CCPSW               to save CC
00003668  07FB                                     2949+          BR    R11                return
0000366C                                           2950+RE74      DC    0F
0000366C                                           2951+          DROP  R5
0000366C  00000000 00000000                        2952           DC    XL16'0000000000000000000000000103743D'
00003674  00000000 0103743D
                                                   2953
                                                   2954           VRI_F VRP,+9999999999999,+1234,159,1,2
00003680                                           2955+          DS    0FD
00003680                           00003680        2956+          USING *,R5               base for test data and test routine
00003680  000036B0                                 2957+T75       DC    A(X75)             address of test routine
00003684  004B                                     2958+          DC    H'75'              test number
00003686  00                                       2959+          DC    X'00'
00003687  9F                                       2960+          DC    HL1'159'           i4
00003688  01                                       2961+          DC    HL1'1'             m5
00003689  02                                       2962+          DC    HL1'2'             cc
0000368A  0D                                       2963+          DC    HL1'13'            cc failed mask
                                                   2964+V2_75     DC    FD'+9999999999999' \
00003690  00000918 4E729FFF                           +                                    binary value for v2 packed decimal
00003698  00000000 000004D2                        2965+V3_75     DC    FD'+1234'          binary value for v3 packed decimal
000036A0  E5D9D740 40404040                        2966+          DC    CL8'VRP'           instruction name
000036A8  00000010                                 2967+          DC    A(16)              result length
000036AC  000036EC                                 2968+REA75     DC    A(RE75)            result address
                                                   2969+*                                  INSTRUCTION UNDER TEST ROUTINE
000036B0                                           2970+X75       DS    0F
000036B0  E320 5010 0004                 00003690  2971+          LG    R2,V2_75           convert v2
000036B6  E320 8F4F 002E                 0000114F  2972+          CVDG  R2,V2PACKED
000036BC  E720 8F4F 0006                 0000114F  2973+          VL    V2,V2PACKED
000036C2  E320 5018 0004                 00003698  2974+          LG    R2,V3_75           convert v3
000036C8  E320 8F5F 002E                 0000115F  2975+          CVDG  R2,V3PACKED
000036CE  E730 8F5F 0006                 0000115F  2976+          VL    V3,V3PACKED
000036D4  E612 3019 F07B                           2977+          VRP   V1,V2,V3,159,1     test instruction
000036DA  E710 8F00 000E                 00001100  2978+          VST   V1,V1OUTPUT        save result
000036E0  B98D 0020                                2979+          EPSW  R2,R0              exptract psw
000036E4  5020 8EE4                      000010E4  2980+          ST    R2,CCPSW               to save CC
000036E8  07FB                                     2981+          BR    R11                return
000036EC                                           2982+RE75      DC    0F
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000036EC                                           2983+          DROP  R5
000036EC  00000000 00000000                        2984           DC    XL16'0000000000000000000000000000923C'
000036F4  00000000 0000923C
                                                   2985
                                                   2986           VRI_F VRP,+999999999999999999,+1234,159,1,2
00003700                                           2987+          DS    0FD
00003700                     00003700              2988+          USING *,R5              base for test data and test routine
00003700  00003730                                 2989+T76       DC    A(X76)            address of test routine
00003704  004C                                     2990+          DC    H'76'             test number
00003706  00                                       2991+          DC    X'00'
00003707  9F                                       2992+          DC    HL1'159'          i4
00003708  01                                       2993+          DC    HL1'1'            m5
00003709  02                                       2994+          DC    HL1'2'            cc
0000370A  0D                                       2995+          DC    HL1'13'           cc failed mask
                                                   2996+V2_76     DC    FD'+999999999999999999' \
00003710  0DE0B6B3 A763FFFF                           +                                   binary value for v2 packed decimal
00003718  00000000 000004D2                        2997+V3_76     DC    FD'+1234'         binary value for v3 packed decimal
00003720  E5D9D740 40404040                        2998+          DC    CL8'VRP'          instruction name
00003728  00000010                                 2999+          DC    A(16)             result length
0000372C  0000376C                                 3000+REA76     DC    A(RE76)           result address
                                                   3001+*                                 INSTRUCTION UNDER TEST ROUTINE
00003730                                           3002+X76       DS    0F
00003730  E320 5010 0004                00003710   3003+          LG    R2,V2_76          convert v2
00003736  E320 8F4F 002E                0000114F   3004+          CVDG  R2,V2PACKED
0000373C  E720 8F4F 0006                0000114F   3005+          VL    V2,V2PACKED
00003742  E320 5018 0004                00003718   3006+          LG    R2,V3_76          convert v3
00003748  E320 8F5F 002E                0000115F   3007+          CVDG  R2,V3PACKED
0000374E  E730 8F5F 0006                0000115F   3008+          VL    V3,V3PACKED
00003754  E612 3019 F07B                           3009+          VRP   V1,V2,V3,159,1    test instruction
0000375A  E710 8F00 000E                00001100   3010+          VST   V1,V1OUTPUT       save result
00003760  B98D 0020                                3011+          EPSW  R2,R0             exptract psw
00003764  5020 8EE4                     000010E4   3012+          ST    R2,CCPSW              to save CC
00003768  07FB                                     3013+          BR    R11               return
0000376C                                           3014+RE76      DC    0F
0000376C                                           3015+          DROP  R5
0000376C  00000000 00000000                        3016           DC    XL16'0000000000000000000000000000547C'
00003774  00000000 0000547C
                                                   3017
                                                   3018 * VRP larger #'s , i4=159(iom=1 & rdc=31)              CS=1 for all m5
                                                   3019 * check forced positive
                                                   3020           VRI_F VRP,-99999999999999999,+13,159,9,2      m5=9(P2=1)
00003780                                           3021+          DS    0FD
00003780                     00003780              3022+          USING *,R5              base for test data and test routine
00003780  000037B0                                 3023+T77       DC    A(X77)            address of test routine
00003784  004D                                     3024+          DC    H'77'             test number
00003786  00                                       3025+          DC    X'00'
00003787  9F                                       3026+          DC    HL1'159'          i4
00003788  09                                       3027+          DC    HL1'9'            m5
00003789  02                                       3028+          DC    HL1'2'            cc
0000378A  0D                                       3029+          DC    HL1'13'           cc failed mask
                                                   3030+V2_77     DC    FD'-99999999999999999' \
00003790  FE9CBA87 A2760001                          +                                   binary value for v2 packed decimal
00003798  00000000 0000000D                        3031+V3_77     DC    FD'+13'           binary value for v3 packed decimal
000037A0  E5D9D740 40404040                        3032+          DC    CL8'VRP'          instruction name
000037A8  00000010                                 3033+          DC    A(16)             result length
000037AC  000037EC                                 3034+REA77     DC    A(RE77)           result address
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                          3035+*                                INSTRUCTION UNDER TEST ROUTINE
000037B0                                  3036+X77      DS    0F
000037B0  E320 5010 0004                  00003790  3037+          LG    R2,V2_77          convert v2
000037B6  E320 8F4F 002E                  0000114F  3038+          CVDG  R2,V2PACKED
000037BC  E720 8F4F 0006                  0000114F  3039+          VL    V2,V2PACKED
000037C2  E320 5018 0004                  00003798  3040+          LG    R2,V3_77          convert v3
000037C8  E320 8F5F 002E                  0000115F  3041+          CVDG  R2,V3PACKED
000037CE  E730 8F5F 0006                  0000115F  3042+          VL    V3,V3PACKED
000037D4  E612 3099 F07B                            3043+          VRP   V1,V2,V3,159,9    test instruction
000037DA  E710 8F00 000E                  00001100  3044+          VST   V1,V1OUTPUT       save result
000037E0  B98D 0020                               3045+          EPSW  R2,R0             exptract psw
000037E4  5020 8EE4                       000010E4  3046+          ST    R2,CCPSW              to save CC
000037E8  07FB                                    3047+          BR    R11               return
000037EC                                  3048+RE77     DC    0F
000037EC                                  3049+         DROP  R5
000037EC  00000000 00000000               3050          DC    XL16'0000000000000000000000000000003C'
000037F4  00000000 0000003C
                                          3051
                                          3052          VRI_F VRP,-99999999999999999,-1000,159,13,2   m5=13(P2=1,P3=1)
00003800                                  3053+         DS    0FD
00003800                  00003800        3054+         USING *,R5              base for test data and test routine
00003800  00003830                        3055+T78      DC    A(X78)            address of test routine
00003804  004E                            3056+         DC    H'78'             test number
00003806  00                              3057+         DC    X'00'
00003807  9F                              3058+         DC    HL1'159'          i4
00003808  0D                              3059+         DC    HL1'13'           m5
00003809  02                              3060+         DC    HL1'2'            cc
0000380A  0D                              3061+         DC    HL1'13'           cc failed mask
                                          3062+V2_78    DC    FD'-99999999999999999' \
00003810  FE9CBA87 A2760001                   +                                 binary value for v2 packed decimal
00003818  FFFFFFFF FFFFFC18               3063+V3_78    DC    FD'-1000'         binary value for v3 packed decimal
00003820  E5D9D740 40404040               3064+         DC    CL8'VRP'          instruction name
00003828  00000010                        3065+         DC    A(16)             result length
0000382C  0000386C                        3066+REA78    DC    A(RE78)           result address
                                          3067+*                                INSTRUCTION UNDER TEST ROUTINE
00003830                                  3068+X78      DS    0F
00003830  E320 5010 0004                  00003810  3069+          LG    R2,V2_78          convert v2
00003836  E320 8F4F 002E                  0000114F  3070+          CVDG  R2,V2PACKED
0000383C  E720 8F4F 0006                  0000114F  3071+          VL    V2,V2PACKED
00003842  E320 5018 0004                  00003818  3072+          LG    R2,V3_78          convert v3
00003848  E320 8F5F 002E                  0000115F  3073+          CVDG  R2,V3PACKED
0000384E  E730 8F5F 0006                  0000115F  3074+          VL    V3,V3PACKED
00003854  E612 30D9 F07B                            3075+          VRP   V1,V2,V3,159,13   test instruction
0000385A  E710 8F00 000E                  00001100  3076+          VST   V1,V1OUTPUT       save result
00003860  B98D 0020                               3077+          EPSW  R2,R0             exptract psw
00003864  5020 8EE4                       000010E4  3078+          ST    R2,CCPSW              to save CC
00003868  07FB                                    3079+          BR    R11               return
0000386C                                  3080+RE78     DC    0F
0000386C                                  3081+         DROP  R5
0000386C  00000000 00000000               3082          DC    XL16'0000000000000000000000000000999C'
00003874  00000000 0000999C
                                          3083
                                          3084          VRI_F VRP,-9999999999999999,-47,159,3,2       m5=3(P1=1)
00003880                                  3085+         DS    0FD
00003880                  00003880        3086+         USING *,R5              base for test data and test routine
00003880  000038B0                        3087+T79      DC    A(X79)            address of test routine
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003884  004F                                     3088+          DC    H'79'              test number
00003886  00                                       3089+          DC    X'00'
00003887  9F                                       3090+          DC    HL1'159'           i4
00003888  03                                       3091+          DC    HL1'3'             m5
00003889  02                                       3092+          DC    HL1'2'             cc
0000388A  0D                                       3093+          DC    HL1'13'            cc failed mask
                                                   3094+V2_79     DC    FD'-9999999999999999' \
00003890  FFDC790D 903F0001                            +                                   binary value for v2 packed decimal
00003898  FFFFFFFF FFFFFFD1                        3095+V3_79     DC    FD'-47'            binary value for v3 packed decimal
000038A0  E5D9D740 40404040                        3096+          DC    CL8'VRP'           instruction name
000038A8  00000010                                 3097+          DC    A(16)              result length
000038AC  000038EC                                 3098+REA79     DC    A(RE79)            result address
                                                   3099+*                                  INSTRUCTION UNDER TEST ROUTINE
000038B0                                           3100+X79       DS    0F
000038B0  E320 5010 0004                 00003890  3101+           LG    R2,V2_79           convert v2
000038B6  E320 8F4F 002E                 0000114F  3102+           CVDG  R2,V2PACKED
000038BC  E720 8F4F 0006                 0000114F  3103+           VL    V2,V2PACKED
000038C2  E320 5018 0004                 00003898  3104+           LG    R2,V3_79           convert v3
000038C8  E320 8F5F 002E                 0000115F  3105+           CVDG  R2,V3PACKED
000038CE  E730 8F5F 0006                 0000115F  3106+           VL    V3,V3PACKED
000038D4  E612 3039 F07B                           3107+           VRP   V1,V2,V3,159,3     test instruction
000038DA  E710 8F00 000E                 00001100  3108+           VST   V1,V1OUTPUT        save result
000038E0  B98D 0020                                3109+           EPSW  R2,R0              exptract psw
000038E4  5020 8EE4                      000010E4  3110+           ST    R2,CCPSW               to save CC
000038E8  07FB                                     3111+           BR    R11                return
000038EC                                           3112+RE79      DC    0F
000038EC                                           3113+          DROP  R5
000038EC  00000000 00000000                        3114           DC    XL16'0000000000000000000000000000023F'
000038F4  00000000 0000023F
                                                   3115
                                                   3116 *                                                  m5=13(P2=1,P3=1)
                                                   3117           VRI_F VRP,-999999999999,-123456,135,13,2 i4=135(iom=1 & rdc=7)
00003900                                           3118+          DS    0FD
00003900                       00003900            3119+          USING *,R5               base for test data and test routine
00003900  00003930                                 3120+T80       DC    A(X80)             address of test routine
00003904  0050                                     3121+          DC    H'80'              test number
00003906  00                                       3122+          DC    X'00'
00003907  87                                       3123+          DC    HL1'135'           i4
00003908  0D                                       3124+          DC    HL1'13'            m5
00003909  02                                       3125+          DC    HL1'2'             cc
0000390A  0D                                       3126+          DC    HL1'13'            cc failed mask
00003910  FFFFFF17 2B5AF001                        3127+V2_80     DC    FD'-999999999999'  binary value for v2 packed decimal
00003918  FFFFFFFF FFFE1DC0                        3128+V3_80     DC    FD'-123456'        binary value for v3 packed decimal
00003920  E5D9D740 40404040                        3129+          DC    CL8'VRP'           instruction name
00003928  00000010                                 3130+          DC    A(16)              result length
0000392C  0000396C                                 3131+REA80     DC    A(RE80)            result address
                                                   3132+*                                  INSTRUCTION UNDER TEST ROUTINE
00003930                                           3133+X80       DS    0F
00003930  E320 5010 0004                 00003910  3134+           LG    R2,V2_80           convert v2
00003936  E320 8F4F 002E                 0000114F  3135+           CVDG  R2,V2PACKED
0000393C  E720 8F4F 0006                 0000114F  3136+           VL    V2,V2PACKED
00003942  E320 5018 0004                 00003918  3137+           LG    R2,V3_80           convert v3
00003948  E320 8F5F 002E                 0000115F  3138+           CVDG  R2,V3PACKED
0000394E  E730 8F5F 0006                 0000115F  3139+           VL    V3,V3PACKED
00003954  E612 30D8 707B                           3140+           VRP   V1,V2,V3,135,13    test instruction
0000395A  E710 8F00 000E                 00001100  3141+           VST   V1,V1OUTPUT        save result
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003960  B98D 0020                        000010E4 3142+         EPSW  R2,R0              exptract psw
00003964  5020 8EE4                        000010E4 3143+         ST    R2,CCPSW             to save CC
00003968  07FB                                      3144+         BR    R11                 return
0000396C                                            3145+RE80     DC    0F
0000396C                                            3146+         DROP  R5
0000396C  00000000 00000000                         3147          DC    XL16'0000000000000000000000000103743C'
00003974  00000000 0103743C
                                                    3148
                                                    3149          VRI_F VRP,+9999999999999,+1234,159,3,2        m5=3(P1=1)
00003980                                            3150+         DS    0FD
00003980                           00003980         3151+         USING *,R5                base for test data and test routine
00003980  000039B0                                  3152+T81      DC    A(X81)              address of test routine
00003984  0051                                      3153+         DC    H'81'               test number
00003986  00                                        3154+         DC    X'00'
00003987  9F                                        3155+         DC    HL1'159'            i4
00003988  03                                        3156+         DC    HL1'3'              m5
00003989  02                                        3157+         DC    HL1'2'              cc
0000398A  0D                                        3158+         DC    HL1'13'             cc failed mask
                                                    3159+V2_81    DC    FD'+9999999999999' \
00003990  00000918 4E729FFF                             +                                 binary value for v2 packed decimal
00003998  00000000 000004D2                         3160+V3_81    DC    FD'+1234'           binary value for v3 packed decimal
000039A0  E5D9D740 40404040                         3161+         DC    CL8'VRP'            instruction name
000039A8  00000010                                  3162+         DC    A(16)               result length
000039AC  000039EC                                  3163+REA81    DC    A(RE81)             result address
                                                    3164+*                                  INSTRUCTION UNDER TEST ROUTINE
000039B0                                            3165+X81      DS    0F
000039B0  E320 5010 0004                   00003990 3166+         LG    R2,V2_81            convert v2
000039B6  E320 8F4F 002E                   0000114F 3167+         CVDG  R2,V2PACKED
000039BC  E720 8F4F 0006                   0000114F 3168+         VL    V2,V2PACKED
000039C2  E320 5018 0004                   00003998 3169+         LG    R2,V3_81            convert v3
000039C8  E320 8F5F 002E                   0000115F 3170+         CVDG  R2,V3PACKED
000039CE  E730 8F5F 0006                   0000115F 3171+         VL    V3,V3PACKED
000039D4  E612 3039 F07B                            3172+         VRP   V1,V2,V3,159,3      test instruction
000039DA  E710 8F00 000E                   00001100 3173+         VST   V1,V1OUTPUT         save result
000039E0  B98D 0020                                 3174+         EPSW  R2,R0               exptract psw
000039E4  5020 8EE4                        000010E4 3175+         ST    R2,CCPSW             to save CC
000039E8  07FB                                      3176+         BR    R11                 return
000039EC                                            3177+RE81     DC    0F
000039EC                                            3178+         DROP  R5
000039EC  00000000 00000000                         3179          DC    XL16'0000000000000000000000000000923F'
000039F4  00000000 0000923F
                                                    3180
                                                    3181          VRI_F VRP,+999999999999999999,+1234,159,3,2   m5=3(P1=1)
00003A00                                            3182+         DS    0FD
00003A00                           00003A00         3183+         USING *,R5                base for test data and test routine
00003A00  00003A30                                  3184+T82      DC    A(X82)              address of test routine
00003A04  0052                                      3185+         DC    H'82'               test number
00003A06  00                                        3186+         DC    X'00'
00003A07  9F                                        3187+         DC    HL1'159'            i4
00003A08  03                                        3188+         DC    HL1'3'              m5
00003A09  02                                        3189+         DC    HL1'2'              cc
00003A0A  0D                                        3190+         DC    HL1'13'             cc failed mask
                                                    3191+V2_82    DC    FD'+999999999999999999' \
00003A10  0DE0B6B3 A763FFFF                             +                                 binary value for v2 packed decimal
00003A18  00000000 000004D2                         3192+V3_82    DC    FD'+1234'           binary value for v3 packed decimal
00003A20  E5D9D740 40404040                         3193+         DC    CL8'VRP'            instruction name
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2     STMT
00003A28  00000010                                  3194+          DC    A(16)              result length
00003A2C  00003A6C                                  3195+REA82     DC    A(RE82)            result address
                                                    3196+*                                  INSTRUCTION UNDER TEST ROUTINE
00003A30                                            3197+X82       DS    0F
00003A30  E320 5010 0004                 00003A10   3198+           LG    R2,V2_82           convert v2
00003A36  E320 8F4F 002E                 0000114F   3199+           CVDG  R2,V2PACKED
00003A3C  E720 8F4F 0006                 0000114F   3200+           VL    V2,V2PACKED
00003A42  E320 5018 0004                 00003A18   3201+           LG    R2,V3_82           convert v3
00003A48  E320 8F5F 002E                 0000115F   3202+           CVDG  R2,V3PACKED
00003A4E  E730 8F5F 0006                 0000115F   3203+           VL    V3,V3PACKED
00003A54  E612 3039 F07B                            3204+           VRP   V1,V2,V3,159,3     test instruction
00003A5A  E710 8F00 000E                 00001100   3205+           VST   V1,V1OUTPUT        save result
00003A60  B98D 0020                                 3206+           EPSW  R2,R0              exptract psw
00003A64  5020 8EE4                      000010E4   3207+           ST    R2,CCPSW               to save CC
00003A68  07FB                                      3208+           BR    R11                return
00003A6C                                            3209+RE82      DC    0F
00003A6C                                            3210+          DROP  R5
00003A6C  00000000 00000000                         3211           DC    XL16'0000000000000000000000000000547F'
00003A74  00000000 0000547F
                                                    3212
                                                    3213 *-------------------------------------------------------------------
                                                    3214 *  VMSP   - VECTOR MULTIPLY AND SHIFT DECIMAL
                                                    3215 *-------------------------------------------------------------------
                                                    3216 * VMSP simple + CC checks
                                                    3217 *                                                  i4=128(iom=1 & shamt=0)
                                                    3218 *                                                  i4=129(iom=1 & shamt=1)
                                                    3219 *                                                  i4=132(iom=1 & shamt=4)
                                                    3220 *                                                  i4=135(iom=1 & shamt=7)
                                                    3221 *                                                  i4=142(iom=1 & shamt=14)
                                                    3222 *                                                  i4=159(iom=1 & shamt=31)
                                                    3223
                                                    3224           VRI_F VMSP,+10,+12,129,1,2                        shamt=1
00003A80                                            3225+          DS    0FD
00003A80                         00003A80           3226+          USING *,R5               base for test data and test routine
00003A80  00003AB0                                  3227+T83       DC    A(X83)             address of test routine
00003A84  0053                                      3228+          DC    H'83'              test number
00003A86  00                                        3229+          DC    X'00'
00003A87  81                                        3230+          DC    HL1'129'           i4
00003A88  01                                        3231+          DC    HL1'1'             m5
00003A89  02                                        3232+          DC    HL1'2'             cc
00003A8A  0D                                        3233+          DC    HL1'13'            cc failed mask
00003A90  00000000 0000000A                         3234+V2_83     DC    FD'+10'            binary value for v2 packed decimal
00003A98  00000000 0000000C                         3235+V3_83     DC    FD'+12'            binary value for v3 packed decimal
00003AA0  E5D4E2D7 40404040                         3236+          DC    CL8'VMSP'          instruction name
00003AA8  00000010                                  3237+          DC    A(16)              result length
00003AAC  00003AEC                                  3238+REA83     DC    A(RE83)            result address
                                                    3239+*                                  INSTRUCTION UNDER TEST ROUTINE
00003AB0                                            3240+X83       DS    0F
00003AB0  E320 5010 0004                 00003A90   3241+           LG    R2,V2_83           convert v2
00003AB6  E320 8F4F 002E                 0000114F   3242+           CVDG  R2,V2PACKED
00003ABC  E720 8F4F 0006                 0000114F   3243+           VL    V2,V2PACKED
00003AC2  E320 5018 0004                 00003A98   3244+           LG    R2,V3_83           convert v3
00003AC8  E320 8F5F 002E                 0000115F   3245+           CVDG  R2,V3PACKED
00003ACE  E730 8F5F 0006                 0000115F   3246+           VL    V3,V3PACKED
00003AD4  E612 3018 1079                            3247+           VMSP  V1,V2,V3,129,1     test instruction
00003ADA  E710 8F00 000E                 00001100   3248+           VST   V1,V1OUTPUT        save result
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003AE0  B98D 0020                            3249+          EPSW  R2,R0              exptract psw
00003AE4  5020 8EE4                  000010E4  3250+          ST    R2,CCPSW                to save CC
00003AE8  07FB                                 3251+          BR    R11               return
00003AEC                                       3252+RE83      DC    0F
00003AEC                                       3253+          DROP  R5
00003AEC  00000000 00000000                    3254           DC    XL16'0000000000000000000000000000012C'
00003AF4  00000000 0000012C
                                               3255
                                               3256           VRI_F VMSP,-100,+12,129,1,1                     shamt=1
00003B00                                       3257+          DS    0FD
00003B00                     00003B00          3258+          USING *,R5              base for test data and test routine
00003B00  00003B30                             3259+T84       DC    A(X84)            address of test routine
00003B04  0054                                 3260+          DC    H'84'             test number
00003B06  00                                   3261+          DC    X'00'
00003B07  81                                   3262+          DC    HL1'129'          i4
00003B08  01                                   3263+          DC    HL1'1'            m5
00003B09  01                                   3264+          DC    HL1'1'            cc
00003B0A  0B                                   3265+          DC    HL1'11'           cc failed mask
00003B10  FFFFFFFF FFFFFF9C                    3266+V2_84     DC    FD'-100'          binary value for v2 packed decimal
00003B18  00000000 0000000C                    3267+V3_84     DC    FD'+12'           binary value for v3 packed decimal
00003B20  E5D4E2D7 40404040                    3268+          DC    CL8'VMSP'         instruction name
00003B28  00000010                             3269+          DC    A(16)             result length
00003B2C  00003B6C                             3270+REA84     DC    A(RE84)           result address
                                               3271+*                                 INSTRUCTION UNDER TEST ROUTINE
00003B30                                       3272+X84       DS    0F
00003B30  E320 5010 0004             00003B10  3273+          LG    R2,V2_84          convert v2
00003B36  E320 8F4F 002E             0000114F  3274+          CVDG  R2,V2PACKED
00003B3C  E720 8F4F 0006             0000114F  3275+          VL    V2,V2PACKED
00003B42  E320 5018 0004             00003B18  3276+          LG    R2,V3_84          convert v3
00003B48  E320 8F5F 002E             0000115F  3277+          CVDG  R2,V3PACKED
00003B4E  E730 8F5F 0006             0000115F  3278+          VL    V3,V3PACKED
00003B54  E612 3018 1079                       3279+          VMSP  V1,V2,V3,129,1    test instruction
00003B5A  E710 8F00 000E             00001100  3280+          VST   V1,V1OUTPUT       save result
00003B60  B98D 0020                            3281+          EPSW  R2,R0             exptract psw
00003B64  5020 8EE4                  000010E4  3282+          ST    R2,CCPSW                to save CC
00003B68  07FB                                 3283+          BR    R11               return
00003B6C                                       3284+RE84      DC    0F
00003B6C                                       3285+          DROP  R5
00003B6C  00000000 00000000                    3286           DC    XL16'0000000000000000000000000000120D'
00003B74  00000000 0000120D
                                               3287
                                               3288           VRI_F VMSP,+100,-12,128,1,1                     shamt=0
00003B80                                       3289+          DS    0FD
00003B80                     00003B80          3290+          USING *,R5              base for test data and test routine
00003B80  00003BB0                             3291+T85       DC    A(X85)            address of test routine
00003B84  0055                                 3292+          DC    H'85'             test number
00003B86  00                                   3293+          DC    X'00'
00003B87  80                                   3294+          DC    HL1'128'          i4
00003B88  01                                   3295+          DC    HL1'1'            m5
00003B89  01                                   3296+          DC    HL1'1'            cc
00003B8A  0B                                   3297+          DC    HL1'11'           cc failed mask
00003B90  00000000 00000064                    3298+V2_85     DC    FD'+100'          binary value for v2 packed decimal
00003B98  FFFFFFFF FFFFFFF4                    3299+V3_85     DC    FD'-12'           binary value for v3 packed decimal
00003BA0  E5D4E2D7 40404040                    3300+          DC    CL8'VMSP'         instruction name
00003BA8  00000010                             3301+          DC    A(16)             result length
00003BAC  00003BEC                             3302+REA85     DC    A(RE85)           result address
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                   3303+*                                INSTRUCTION UNDER TEST ROUTINE
00003BB0                                           3304+X85      DS    0F
00003BB0  E320 5010 0004                 00003B90  3305+          LG    R2,V2_85          convert v2
00003BB6  E320 8F4F 002E                 0000114F  3306+          CVDG  R2,V2PACKED
00003BBC  E720 8F4F 0006                 0000114F  3307+          VL    V2,V2PACKED
00003BC2  E320 5018 0004                 00003B98  3308+          LG    R2,V3_85          convert v3
00003BC8  E320 8F5F 002E                 0000115F  3309+          CVDG  R2,V3PACKED
00003BCE  E730 8F5F 0006                 0000115F  3310+          VL    V3,V3PACKED
00003BD4  E612 3018 0079                           3311+          VMSP  V1,V2,V3,128,1    test instruction
00003BDA  E710 8F00 000E                 00001100  3312+          VST   V1,V1OUTPUT       save result
00003BE0  B98D 0020                                3313+          EPSW  R2,R0             exptract psw
00003BE4  5020 8EE4                      000010E4  3314+          ST    R2,CCPSW              to save CC
00003BE8  07FB                                     3315+          BR    R11               return
00003BEC                                           3316+RE85      DC    0F
00003BEC                                           3317+          DROP  R5
00003BEC  00000000 00000000                        3318           DC    XL16'00000000000000000000000000001200D'
00003BF4  00000000 0001200D
                                                   3319
                                                   3320           VRI_F VMSP,+100,-12,7,1,0                     shamt=7
00003C00                                           3321+          DS    0FD
00003C00                         00003C00          3322+          USING *,R5              base for test data and test routine
00003C00  00003C30                                 3323+T86       DC    A(X86)            address of test routine
00003C04  0056                                     3324+          DC    H'86'             test number
00003C06  00                                       3325+          DC    X'00'
00003C07  07                                       3326+          DC    HL1'7'            i4
00003C08  01                                       3327+          DC    HL1'1'            m5
00003C09  00                                       3328+          DC    HL1'0'            cc
00003C0A  07                                       3329+          DC    HL1'7'            cc failed mask
00003C10  00000000 00000064                        3330+V2_86     DC    FD'+100'          binary value for v2 packed decimal
00003C18  FFFFFFFF FFFFFFF4                        3331+V3_86     DC    FD'-12'           binary value for v3 packed decimal
00003C20  E5D4E2D7 40404040                        3332+          DC    CL8'VMSP'         instruction name
00003C28  00000010                                 3333+          DC    A(16)             result length
00003C2C  00003C6C                                 3334+REA86     DC    A(RE86)           result address
                                                   3335+*                                INSTRUCTION UNDER TEST ROUTINE
00003C30                                           3336+X86       DS    0F
00003C30  E320 5010 0004                 00003C10  3337+          LG    R2,V2_86          convert v2
00003C36  E320 8F4F 002E                 0000114F  3338+          CVDG  R2,V2PACKED
00003C3C  E720 8F4F 0006                 0000114F  3339+          VL    V2,V2PACKED
00003C42  E320 5018 0004                 00003C18  3340+          LG    R2,V3_86          convert v3
00003C48  E320 8F5F 002E                 0000115F  3341+          CVDG  R2,V3PACKED
00003C4E  E730 8F5F 0006                 0000115F  3342+          VL    V3,V3PACKED
00003C54  E612 3010 7079                           3343+          VMSP  V1,V2,V3,7,1      test instruction
00003C5A  E710 8F00 000E                 00001100  3344+          VST   V1,V1OUTPUT       save result
00003C60  B98D 0020                                3345+          EPSW  R2,R0             exptract psw
00003C64  5020 8EE4                      000010E4  3346+          ST    R2,CCPSW              to save CC
00003C68  07FB                                     3347+          BR    R11               return
00003C6C                                           3348+RE86      DC    0F
00003C6C                                           3349+          DROP  R5
00003C6C  00000000 00000000                        3350           DC    XL16'00000000000000000000000000000000D'    NOTE MINUS 0
00003C74  00000000 0000000D
                                                   3351
                                                   3352           VRI_F VMSP,-100,-12,0,1,2                     shamt=0
00003C80                                           3353+          DS    0FD
00003C80                         00003C80          3354+          USING *,R5              base for test data and test routine
00003C80  00003CB0                                 3355+T87       DC    A(X87)            address of test routine
00003C84  0057                                     3356+          DC    H'87'             test number
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00003C86  00                                       3357+         DC    X'00'
00003C87  00                                       3358+         DC    HL1'0'            i4
00003C88  01                                       3359+         DC    HL1'1'            m5
00003C89  02                                       3360+         DC    HL1'2'            cc
00003C8A  0D                                       3361+         DC    HL1'13'           cc failed mask
00003C90  FFFFFFFF FFFFFF9C                        3362+V2_87    DC    FD'-100'          binary value for v2 packed decimal
00003C98  FFFFFFFF FFFFFFF4                        3363+V3_87    DC    FD'-12'           binary value for v3 packed decimal
00003CA0  E5D4E2D7 40404040                        3364+         DC    CL8'VMSP'         instruction name
00003CA8  00000010                                 3365+         DC    A(16)             result length
00003CAC  00003CEC                                 3366+REA87    DC    A(RE87)           result address
                                                   3367+*                                INSTRUCTION UNDER TEST ROUTINE
00003CB0                                           3368+X87      DS    0F
00003CB0  E320 5010 0004                 00003C90  3369+         LG    R2,V2_87          convert v2
00003CB6  E320 8F4F 002E                 0000114F  3370+         CVDG  R2,V2PACKED
00003CBC  E720 8F4F 0006                 0000114F  3371+         VL    V2,V2PACKED
00003CC2  E320 5018 0004                 00003C98  3372+         LG    R2,V3_87          convert v3
00003CC8  E320 8F5F 002E                 0000115F  3373+         CVDG  R2,V3PACKED
00003CCE  E730 8F5F 0006                 0000115F  3374+         VL    V3,V3PACKED
00003CD4  E612 3010 0079                           3375+         VMSP  V1,V2,V3,0,1      test instruction
00003CDA  E710 8F00 000E                 00001100  3376+         VST   V1,V1OUTPUT       save result
00003CE0  B98D 0020                                3377+         EPSW  R2,R0             exptract psw
00003CE4  5020 8EE4                      000010E4  3378+         ST    R2,CCPSW              to save CC
00003CE8  07FB                                     3379+         BR    R11               return
00003CEC                                           3380+RE87     DC    0F
00003CEC                                           3381+         DROP  R5
00003CEC  00000000 00000000                        3382          DC    XL16'00000000000000000000000000001200C'
00003CF4  00000000 0001200C
                                                   3383
                                                   3384          VRI_F VMSP,-100,-10,0,1,2                    shamt=0
00003D00                                           3385+         DS    0FD
00003D00                 00003D00                  3386+         USING *,R5              base for test data and test routine
00003D00  00003D30                                 3387+T88      DC    A(X88)            address of test routine
00003D04  0058                                     3388+         DC    H'88'             test number
00003D06  00                                       3389+         DC    X'00'
00003D07  00                                       3390+         DC    HL1'0'            i4
00003D08  01                                       3391+         DC    HL1'1'            m5
00003D09  02                                       3392+         DC    HL1'2'            cc
00003D0A  0D                                       3393+         DC    HL1'13'           cc failed mask
00003D10  FFFFFFFF FFFFFF9C                        3394+V2_88    DC    FD'-100'          binary value for v2 packed decimal
00003D18  FFFFFFFF FFFFFFF6                        3395+V3_88    DC    FD'-10'           binary value for v3 packed decimal
00003D20  E5D4E2D7 40404040                        3396+         DC    CL8'VMSP'         instruction name
00003D28  00000010                                 3397+         DC    A(16)             result length
00003D2C  00003D6C                                 3398+REA88    DC    A(RE88)           result address
                                                   3399+*                                INSTRUCTION UNDER TEST ROUTINE
00003D30                                           3400+X88      DS    0F
00003D30  E320 5010 0004                 00003D10  3401+         LG    R2,V2_88          convert v2
00003D36  E320 8F4F 002E                 0000114F  3402+         CVDG  R2,V2PACKED
00003D3C  E720 8F4F 0006                 0000114F  3403+         VL    V2,V2PACKED
00003D42  E320 5018 0004                 00003D18  3404+         LG    R2,V3_88          convert v3
00003D48  E320 8F5F 002E                 0000115F  3405+         CVDG  R2,V3PACKED
00003D4E  E730 8F5F 0006                 0000115F  3406+         VL    V3,V3PACKED
00003D54  E612 3010 0079                           3407+         VMSP  V1,V2,V3,0,1      test instruction
00003D5A  E710 8F00 000E                 00001100  3408+         VST   V1,V1OUTPUT       save result
00003D60  B98D 0020                                3409+         EPSW  R2,R0             exptract psw
00003D64  5020 8EE4                      000010E4  3410+         ST    R2,CCPSW              to save CC
00003D68  07FB                                     3411+         BR    R11               return
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00003D6C                                           3412+RE88     DC    0F
00003D6C                                           3413+         DROP  R5
00003D6C  00000000 00000000                        3414          DC    XL16'0000000000000000000000000001000C'
00003D74  00000000 0001000C
                                                   3415
                                                   3416          VRI_F VMSP,+1000001111,+10,135,1,2              shamt=7
00003D80                                           3417+         DS    0FD
00003D80                     00003D80              3418+         USING *,R5              base for test data and test routine
00003D80  00003DB0                                 3419+T89      DC    A(X89)            address of test routine
00003D84  0059                                     3420+         DC    H'89'             test number
00003D86  00                                       3421+         DC    X'00'
00003D87  87                                       3422+         DC    HL1'135'          i4
00003D88  01                                       3423+         DC    HL1'1'            m5
00003D89  02                                       3424+         DC    HL1'2'            cc
00003D8A  0D                                       3425+         DC    HL1'13'           cc failed mask
00003D90  00000000 3B9ACE57                        3426+V2_89    DC    FD'+1000001111'   binary value for v2 packed decimal
00003D98  00000000 0000000A                        3427+V3_89    DC    FD'+10'           binary value for v3 packed decimal
00003DA0  E5D4E2D7 40404040                        3428+         DC    CL8'VMSP'         instruction name
00003DA8  00000010                                 3429+         DC    A(16)             result length
00003DAC  00003DEC                                 3430+REA89    DC    A(RE89)           result address
                                                   3431+*                                INSTRUCTION UNDER TEST ROUTINE
00003DB0                                           3432+X89      DS    0F
00003DB0  E320 5010 0004                 00003D90  3433+         LG    R2,V2_89          convert v2
00003DB6  E320 8F4F 002E                 0000114F  3434+         CVDG  R2,V2PACKED
00003DBC  E720 8F4F 0006                 0000114F  3435+         VL    V2,V2PACKED
00003DC2  E320 5018 0004                 00003D98  3436+         LG    R2,V3_89          convert v3
00003DC8  E320 8F5F 002E                 0000115F  3437+         CVDG  R2,V3PACKED
00003DCE  E730 8F5F 0006                 0000115F  3438+         VL    V3,V3PACKED
00003DD4  E612 3018 7079                           3439+         VMSP  V1,V2,V3,135,1    test instruction
00003DDA  E710 8F00 000E                 00001100  3440+         VST   V1,V1OUTPUT       save result
00003DE0  B98D 0020                                3441+         EPSW  R2,R0             exptract psw
00003DE4  5020 8EE4                      000010E4  3442+         ST    R2,CCPSW              to save CC
00003DE8  07FB                                     3443+         BR    R11               return
00003DEC                                           3444+RE89     DC    0F
00003DEC                                           3445+         DROP  R5
00003DEC  00000000 00000000                        3446          DC    XL16'0000000000000000000000000001000C'
00003DF4  00000000 0001000C
                                                   3447
                                                   3448 * VMSP larger #'s
                                                   3449          VRI_F VMSP,+99999999999999999,+1,142,1,2        shamt=14
00003E00                                           3450+         DS    0FD
00003E00                     00003E00              3451+         USING *,R5              base for test data and test routine
00003E00  00003E30                                 3452+T90      DC    A(X90)            address of test routine
00003E04  005A                                     3453+         DC    H'90'             test number
00003E06  00                                       3454+         DC    X'00'
00003E07  8E                                       3455+         DC    HL1'142'          i4
00003E08  01                                       3456+         DC    HL1'1'            m5
00003E09  02                                       3457+         DC    HL1'2'            cc
00003E0A  0D                                       3458+         DC    HL1'13'           cc failed mask
                                                   3459+V2_90    DC    FD'+99999999999999999' \
00003E10  01634578 5D89FFFF                           +                                  binary value for v2 packed decimal
00003E18  00000000 00000001                        3460+V3_90    DC    FD'+1'            binary value for v3 packed decimal
00003E20  E5D4E2D7 40404040                        3461+         DC    CL8'VMSP'         instruction name
00003E28  00000010                                 3462+         DC    A(16)             result length
00003E2C  00003E6C                                 3463+REA90    DC    A(RE90)           result address
                                                   3464+*                                INSTRUCTION UNDER TEST ROUTINE
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003E30                                           3465+X90      DS    0F
00003E30  E320 5010 0004                 00003E10  3466+          LG    R2,V2_90          convert v2
00003E36  E320 8F4F 002E                 0000114F  3467+          CVDG  R2,V2PACKED
00003E3C  E720 8F4F 0006                 0000114F  3468+          VL    V2,V2PACKED
00003E42  E320 5018 0004                 00003E18  3469+          LG    R2,V3_90          convert v3
00003E48  E320 8F5F 002E                 0000115F  3470+          CVDG  R2,V3PACKED
00003E4E  E730 8F5F 0006                 0000115F  3471+          VL    V3,V3PACKED
00003E54  E612 3018 E079                           3472+          VMSP  V1,V2,V3,142,1    test instruction
00003E5A  E710 8F00 000E                 00001100  3473+          VST   V1,V1OUTPUT       save result
00003E60  B98D 0020                                3474+          EPSW  R2,R0             exptract psw
00003E64  5020 8EE4                      000010E4  3475+          ST    R2,CCPSW              to save CC
00003E68  07FB                                     3476+          BR    R11               return
00003E6C                                           3477+RE90      DC    0F
00003E6C                                           3478+          DROP  R5
00003E6C  00000000 00000000                        3479           DC    XL16'0000000000000000000000000000999C'
00003E74  00000000 0000999C
                                                   3480
                                                   3481 *                                                  shamt=14
                                                   3482           VRI_F VMSP,+99999999999999999,+10000000000000000,142,1,2
00003E80                                           3483+          DS    0FD
00003E80                         00003E80          3484+          USING *,R5              base for test data and test routine
00003E80  00003EB0                                 3485+T91       DC    A(X91)            address of test routine
00003E84  005B                                     3486+          DC    H'91'             test number
00003E86  00                                       3487+          DC    X'00'
00003E87  8E                                       3488+          DC    HL1'142'          i4
00003E88  01                                       3489+          DC    HL1'1'            m5
00003E89  02                                       3490+          DC    HL1'2'            cc
00003E8A  0D                                       3491+          DC    HL1'13'           cc failed mask
                                                   3492+V2_91     DC    FD'+99999999999999999' \
00003E90  01634578 5D89FFFF                            +                                 binary value for v2 packed decimal
                                                   3493+V3_91     DC    FD'+10000000000000000' \
00003E98  002386F2 6FC10000                            +                                 binary value for v3 packed decimal
00003EA0  E5D4E2D7 40404040                        3494+          DC    CL8'VMSP'         instruction name
00003EA8  00000010                                 3495+          DC    A(16)             result length
00003EAC  00003EEC                                 3496+REA91     DC    A(RE91)           result address
                                                   3497+*                                  INSTRUCTION UNDER TEST ROUTINE
00003EB0                                           3498+X91       DS    0F
00003EB0  E320 5010 0004                 00003E90  3499+          LG    R2,V2_91          convert v2
00003EB6  E320 8F4F 002E                 0000114F  3500+          CVDG  R2,V2PACKED
00003EBC  E720 8F4F 0006                 0000114F  3501+          VL    V2,V2PACKED
00003EC2  E320 5018 0004                 00003E98  3502+          LG    R2,V3_91          convert v3
00003EC8  E320 8F5F 002E                 0000115F  3503+          CVDG  R2,V3PACKED
00003ECE  E730 8F5F 0006                 0000115F  3504+          VL    V3,V3PACKED
00003ED4  E612 3018 E079                           3505+          VMSP  V1,V2,V3,142,1    test instruction
00003EDA  E710 8F00 000E                 00001100  3506+          VST   V1,V1OUTPUT       save result
00003EE0  B98D 0020                                3507+          EPSW  R2,R0             exptract psw
00003EE4  5020 8EE4                      000010E4  3508+          ST    R2,CCPSW              to save CC
00003EE8  07FB                                     3509+          BR    R11               return
00003EEC                                           3510+RE91      DC    0F
00003EEC                                           3511+          DROP  R5
00003EEC  00000000 00009999                        3512           DC    XL16'0000000000009999999999999999900C'
00003EF4  99999999 9999900C
                                                   3513
                                                   3514           VRI_F VMSP,-9999999999999999,-1,159,1,0         shamt=31
00003F00                                           3515+          DS    0FD
00003F00                         00003F00          3516+          USING *,R5              base for test data and test routine
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00003F00  00003F30                        3517+T92      DC    A(X92)            address of test routine
00003F04  005C                            3518+         DC    H'92'             test number
00003F06  00                              3519+         DC    X'00'
00003F07  9F                              3520+         DC    HL1'159'          i4
00003F08  01                              3521+         DC    HL1'1'            m5
00003F09  00                              3522+         DC    HL1'0'            cc
00003F0A  07                              3523+         DC    HL1'7'            cc failed mask
                                          3524+V2_92    DC    FD'-9999999999999999' \
00003F10  FFDC790D 903F0001                  +                                 binary value for v2 packed decimal
00003F18  FFFFFFFF FFFFFFFF               3525+V3_92    DC    FD'-1'            binary value for v3 packed decimal
00003F20  E5D4E2D7 40404040               3526+         DC    CL8'VMSP'         instruction name
00003F28  00000010                        3527+         DC    A(16)             result length
00003F2C  00003F6C                        3528+REA92    DC    A(RE92)           result address
                                          3529+*                                INSTRUCTION UNDER TEST ROUTINE
00003F30                                  3530+X92      DS    0F
00003F30  E320 5010 0004          00003F10 3531+         LG    R2,V2_92          convert v2
00003F36  E320 8F4F 002E          0000114F 3532+         CVDG  R2,V2PACKED
00003F3C  E720 8F4F 0006          0000114F 3533+         VL    V2,V2PACKED
00003F42  E320 5018 0004          00003F18 3534+         LG    R2,V3_92          convert v3
00003F48  E320 8F5F 002E          0000115F 3535+         CVDG  R2,V3PACKED
00003F4E  E730 8F5F 0006          0000115F 3536+         VL    V3,V3PACKED
00003F54  E612 3019 F079                   3537+         VMSP  V1,V2,V3,159,1    test instruction
00003F5A  E710 8F00 000E          00001100 3538+         VST   V1,V1OUTPUT       save result
00003F60  B98D 0020                        3539+         EPSW  R2,R0             exptract psw
00003F64  5020 8EE4               000010E4 3540+         ST    R2,CCPSW              to save CC
00003F68  07FB                             3541+         BR    R11               return
00003F6C                                  3542+RE92     DC    0F
00003F6C                                  3543+         DROP  R5
00003F6C  00000000 00000000               3544          DC    XL16'0000000000000000000000000000000C'
00003F74  00000000 0000000C
                                          3545
                                          3546          VRI_F VMSP,-9999999999999999,-1,135,1,2         shamt=7
00003F80                                  3547+         DS    0FD
00003F80                  00003F80        3548+         USING *,R5              base for test data and test routine
00003F80  00003FB0                        3549+T93      DC    A(X93)            address of test routine
00003F84  005D                            3550+         DC    H'93'             test number
00003F86  00                              3551+         DC    X'00'
00003F87  87                              3552+         DC    HL1'135'          i4
00003F88  01                              3553+         DC    HL1'1'            m5
00003F89  02                              3554+         DC    HL1'2'            cc
00003F8A  0D                              3555+         DC    HL1'13'           cc failed mask
                                          3556+V2_93    DC    FD'-9999999999999999' \
00003F90  FFDC790D 903F0001                  +                                 binary value for v2 packed decimal
00003F98  FFFFFFFF FFFFFFFF               3557+V3_93    DC    FD'-1'            binary value for v3 packed decimal
00003FA0  E5D4E2D7 40404040               3558+         DC    CL8'VMSP'         instruction name
00003FA8  00000010                        3559+         DC    A(16)             result length
00003FAC  00003FEC                        3560+REA93    DC    A(RE93)           result address
                                          3561+*                                INSTRUCTION UNDER TEST ROUTINE
00003FB0                                  3562+X93      DS    0F
00003FB0  E320 5010 0004          00003F90 3563+         LG    R2,V2_93          convert v2
00003FB6  E320 8F4F 002E          0000114F 3564+         CVDG  R2,V2PACKED
00003FBC  E720 8F4F 0006          0000114F 3565+         VL    V2,V2PACKED
00003FC2  E320 5018 0004          00003F98 3566+         LG    R2,V3_93          convert v3
00003FC8  E320 8F5F 002E          0000115F 3567+         CVDG  R2,V3PACKED
00003FCE  E730 8F5F 0006          0000115F 3568+         VL    V3,V3PACKED
00003FD4  E612 3018 7079                   3569+         VMSP  V1,V2,V3,135,1    test instruction
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00003FDA  E710 8F00 000E                 00001100  3570+          VST   V1,V1OUTPUT       save result
00003FE0  B98D 0020                                3571+          EPSW  R2,R0             exptract psw
00003FE4  5020 8EE4                      000010E4  3572+          ST    R2,CCPSW              to save CC
00003FE8  07FB                                     3573+          BR    R11               return
00003FEC                                           3574+RE93      DC    0F
00003FEC                                           3575+          DROP  R5
00003FEC  00000000 00000000                        3576           DC    XL16'0000000000000000000000999999999C'
00003FF4  00000099 9999999C
                                                   3577
                                                   3578           VRI_F VMSP,-9999999999999,+10000000000000,159,1,0 shamt=31
00004000                                           3579+          DS    0FD
00004000                         00004000          3580+          USING *,R5              base for test data and test routine
00004000  00004030                                 3581+T94       DC    A(X94)            address of test routine
00004004  005E                                     3582+          DC    H'94'             test number
00004006  00                                       3583+          DC    X'00'
00004007  9F                                       3584+          DC    HL1'159'          i4
00004008  01                                       3585+          DC    HL1'1'            m5
00004009  00                                       3586+          DC    HL1'0'            cc
0000400A  07                                       3587+          DC    HL1'7'            cc failed mask
                                                   3588+V2_94     DC    FD'-9999999999999' \
00004010  FFFFF6E7 B18D6001                            +                                  binary value for v2 packed decimal
                                                   3589+V3_94     DC    FD'+10000000000000' \
00004018  00000918 4E72A000                            +                                  binary value for v3 packed decimal
00004020  E5D4E2D7 40404040                        3590+          DC    CL8'VMSP'         instruction name
00004028  00000010                                 3591+          DC    A(16)             result length
0000402C  0000406C                                 3592+REA94     DC    A(RE94)           result address
                                                   3593+*                                 INSTRUCTION UNDER TEST ROUTINE
00004030                                           3594+X94       DS    0F
00004030  E320 5010 0004                 00004010  3595+          LG    R2,V2_94          convert v2
00004036  E320 8F4F 002E                 0000114F  3596+          CVDG  R2,V2PACKED
0000403C  E720 8F4F 0006                 0000114F  3597+          VL    V2,V2PACKED
00004042  E320 5018 0004                 00004018  3598+          LG    R2,V3_94          convert v3
00004048  E320 8F5F 002E                 0000115F  3599+          CVDG  R2,V3PACKED
0000404E  E730 8F5F 0006                 0000115F  3600+          VL    V3,V3PACKED
00004054  E612 3019 F079                           3601+          VMSP  V1,V2,V3,159,1    test instruction
0000405A  E710 8F00 000E                 00001100  3602+          VST   V1,V1OUTPUT       save result
00004060  B98D 0020                                3603+          EPSW  R2,R0             exptract psw
00004064  5020 8EE4                      000010E4  3604+          ST    R2,CCPSW              to save CC
00004068  07FB                                     3605+          BR    R11               return
0000406C                                           3606+RE94      DC    0F
0000406C                                           3607+          DROP  R5
0000406C  00000000 00000000                        3608           DC    XL16'0000000000000000000000000000000D'  NOTE MINUS 0
00004074  00000000 0000000D
                                                   3609
                                                   3610 * VMSP larger #'s , i4=159(iom=1 & rdc=31)            CS=1 for all m5
                                                   3611 * check forced positive
                                                   3612 *                                                     shamt=1
                                                   3613           VRI_F VMSP,-99999999999999999,+1,129,9,2    m5=9(P2=1)
00004080                                           3614+          DS    0FD
00004080                         00004080          3615+          USING *,R5              base for test data and test routine
00004080  000040B0                                 3616+T95       DC    A(X95)            address of test routine
00004084  005F                                     3617+          DC    H'95'             test number
00004086  00                                       3618+          DC    X'00'
00004087  81                                       3619+          DC    HL1'129'          i4
00004088  09                                       3620+          DC    HL1'9'            m5
00004089  02                                       3621+          DC    HL1'2'            cc
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
0000408A  0D                                       3622+          DC    HL1'13'             cc failed mask
                                                   3623+V2_95     DC    FD'-99999999999999999' \
00004090  FE9CBA87 A2760001                            +                                    binary value for v2 packed decimal
00004098  00000000 00000001                        3624+V3_95     DC    FD'+1'              binary value for v3 packed decimal
000040A0  E5D4E2D7 40404040                        3625+          DC    CL8'VMSP'           instruction name
000040A8  00000010                                 3626+          DC    A(16)               result length
000040AC  000040EC                                 3627+REA95     DC    A(RE95)             result address
                                                   3628+*                                   INSTRUCTION UNDER TEST ROUTINE
000040B0                                           3629+X95       DS    0F
000040B0  E320 5010 0004                 00004090  3630+          LG    R2,V2_95            convert v2
000040B6  E320 8F4F 002E                 0000114F  3631+          CVDG  R2,V2PACKED
000040BC  E720 8F4F 0006                 0000114F  3632+          VL    V2,V2PACKED
000040C2  E320 5018 0004                 00004098  3633+          LG    R2,V3_95            convert v3
000040C8  E320 8F5F 002E                 0000115F  3634+          CVDG  R2,V3PACKED
000040CE  E730 8F5F 0006                 0000115F  3635+          VL    V3,V3PACKED
000040D4  E612 3098 1079                           3636+          VMSP  V1,V2,V3,129,9      test instruction
000040DA  E710 8F00 000E                 00001100  3637+          VST   V1,V1OUTPUT         save result
000040E0  B98D 0020                                3638+          EPSW  R2,R0               exptract psw
000040E4  5020 8EE4                      000010E4  3639+          ST    R2,CCPSW                to save CC
000040E8  07FB                                     3640+          BR    R11                 return
000040EC                                           3641+RE95      DC    0F
000040EC                                           3642+          DROP  R5
000040EC  00000000 00000009                        3643           DC    XL16'0000000000000009999999999999999C'
000040F4  99999999 9999999C
                                                   3644
                                                   3645 *                                                                  shamt=7
                                                   3646 *                                                                  m5=13(P2=1,P3=1)
                                                   3647           VRI_F VMSP,-99999999999999999,-10000000000000000,135,13,2
00004100                                           3648+          DS    0FD
00004100                       00004100            3649+          USING *,R5                base for test data and test routine
00004100  00004130                                 3650+T96       DC    A(X96)              address of test routine
00004104  0060                                     3651+          DC    H'96'               test number
00004106  00                                       3652+          DC    X'00'
00004107  87                                       3653+          DC    HL1'135'            i4
00004108  0D                                       3654+          DC    HL1'13'             m5
00004109  02                                       3655+          DC    HL1'2'              cc
0000410A  0D                                       3656+          DC    HL1'13'             cc failed mask
                                                   3657+V2_96     DC    FD'-99999999999999999' \
00004110  FE9CBA87 A2760001                            +                                    binary value for v2 packed decimal
                                                   3658+V3_96     DC    FD'-10000000000000000' \
00004118  FFDC790D 903F0000                            +                                    binary value for v3 packed decimal
00004120  E5D4E2D7 40404040                        3659+          DC    CL8'VMSP'           instruction name
00004128  00000010                                 3660+          DC    A(16)               result length
0000412C  0000416C                                 3661+REA96     DC    A(RE96)             result address
                                                   3662+*                                   INSTRUCTION UNDER TEST ROUTINE
00004130                                           3663+X96       DS    0F
00004130  E320 5010 0004                 00004110  3664+          LG    R2,V2_96            convert v2
00004136  E320 8F4F 002E                 0000114F  3665+          CVDG  R2,V2PACKED
0000413C  E720 8F4F 0006                 0000114F  3666+          VL    V2,V2PACKED
00004142  E320 5018 0004                 00004118  3667+          LG    R2,V3_96            convert v3
00004148  E320 8F5F 002E                 0000115F  3668+          CVDG  R2,V3PACKED
0000414E  E730 8F5F 0006                 0000115F  3669+          VL    V3,V3PACKED
00004154  E612 30D8 7079                           3670+          VMSP  V1,V2,V3,135,13     test instruction
0000415A  E710 8F00 000E                 00001100  3671+          VST   V1,V1OUTPUT         save result
00004160  B98D 0020                                3672+          EPSW  R2,R0               exptract psw
00004164  5020 8EE4                      000010E4  3673+          ST    R2,CCPSW                to save CC
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00004168  07FB                           3674+          BR    R11               return
0000416C                                 3675+RE96      DC    0F
0000416C                                 3676+          DROP  R5
0000416C  00000999 99999999              3677           DC    XL16'0000099999999999999999000000000C'
00004174  99999900 0000000C
                                         3678
                                         3679 *                                                    shamt=7
                                         3680           VRI_F VMSP,-9999999999999999,-1,135,3,2    m5=3(P1=1)
00004180                                 3681+          DS    0FD
00004180                  00004180       3682+          USING *,R5              base for test data and test routine
00004180  000041B0                       3683+T97       DC    A(X97)            address of test routine
00004184  0061                           3684+          DC    H'97'             test number
00004186  00                             3685+          DC    X'00'
00004187  87                             3686+          DC    HL1'135'          i4
00004188  03                             3687+          DC    HL1'3'            m5
00004189  02                             3688+          DC    HL1'2'            cc
0000418A  0D                             3689+          DC    HL1'13'           cc failed mask
                                         3690+V2_97     DC    FD'-9999999999999999' \
00004190  FFDC790D 903F0001                  +                                 binary value for v2 packed decimal
00004198  FFFFFFFF FFFFFFFF              3691+V3_97     DC    FD'-1'            binary value for v3 packed decimal
000041A0  E5D4E2D7 40404040              3692+          DC    CL8'VMSP'         instruction name
000041A8  00000010                       3693+          DC    A(16)             result length
000041AC  000041EC                       3694+REA97     DC    A(RE97)           result address
                                         3695+*                                 INSTRUCTION UNDER TEST ROUTINE
000041B0                                 3696+X97       DS    0F
000041B0  E320 5010 0004       00004190  3697+          LG    R2,V2_97          convert v2
000041B6  E320 8F4F 002E       0000114F  3698+          CVDG  R2,V2PACKED
000041BC  E720 8F4F 0006       0000114F  3699+          VL    V2,V2PACKED
000041C2  E320 5018 0004       00004198  3700+          LG    R2,V3_97          convert v3
000041C8  E320 8F5F 002E       0000115F  3701+          CVDG  R2,V3PACKED
000041CE  E730 8F5F 0006       0000115F  3702+          VL    V3,V3PACKED
000041D4  E612 3038 7079                 3703+          VMSP  V1,V2,V3,135,3    test instruction
000041DA  E710 8F00 000E       00001100  3704+          VST   V1,V1OUTPUT       save result
000041E0  B98D 0020                      3705+          EPSW  R2,R0             exptract psw
000041E4  5020 8EE4            000010E4  3706+          ST    R2,CCPSW              to save CC
000041E8  07FB                           3707+          BR    R11               return
000041EC                                 3708+RE97      DC    0F
000041EC                                 3709+          DROP  R5
000041EC  00000000 00000000              3710           DC    XL16'0000000000000000000000999999999F'
000041F4  00000099 9999999F
                                         3711
                                         3712 *                                                    shamt=4
                                         3713 *                                                    m5=13(P2=1,P3=1)
                                         3714           VRI_F VMSP,-9999999999999999,-1,132,13,2
00004200                                 3715+          DS    0FD
00004200                  00004200       3716+          USING *,R5              base for test data and test routine
00004200  00004230                       3717+T98       DC    A(X98)            address of test routine
00004204  0062                           3718+          DC    H'98'             test number
00004206  00                             3719+          DC    X'00'
00004207  84                             3720+          DC    HL1'132'          i4
00004208  0D                             3721+          DC    HL1'13'           m5
00004209  02                             3722+          DC    HL1'2'            cc
0000420A  0D                             3723+          DC    HL1'13'           cc failed mask
                                         3724+V2_98     DC    FD'-9999999999999999' \
00004210  FFDC790D 903F0001                  +                                 binary value for v2 packed decimal
00004218  FFFFFFFF FFFFFFFF              3725+V3_98     DC    FD'-1'            binary value for v3 packed decimal
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004220  E5D4E2D7 40404040                        3726+          DC    CL8'VMSP'          instruction name
00004228  00000010                                 3727+          DC    A(16)              result length
0000422C  0000426C                                 3728+REA98     DC    A(RE98)            result address
                                                   3729+*                                  INSTRUCTION UNDER TEST ROUTINE
00004230                                           3730+X98       DS    0F
00004230  E320 5010 0004                 00004210  3731+          LG    R2,V2_98           convert v2
00004236  E320 8F4F 002E                 0000114F  3732+          CVDG  R2,V2PACKED
0000423C  E720 8F4F 0006                 0000114F  3733+          VL    V2,V2PACKED
00004242  E320 5018 0004                 00004218  3734+          LG    R2,V3_98           convert v3
00004248  E320 8F5F 002E                 0000115F  3735+          CVDG  R2,V3PACKED
0000424E  E730 8F5F 0006                 0000115F  3736+          VL    V3,V3PACKED
00004254  E612 30D8 4079                           3737+          VMSP  V1,V2,V3,132,13    test instruction
0000425A  E710 8F00 000E                 00001100  3738+          VST   V1,V1OUTPUT        save result
00004260  B98D 0020                                3739+          EPSW  R2,R0              exptract psw
00004264  5020 8EE4                      000010E4  3740+          ST    R2,CCPSW               to save CC
00004268  07FB                                     3741+          BR    R11                return
0000426C                                           3742+RE98      DC    0F
0000426C                                           3743+          DROP  R5
0000426C  00000000 00000000                        3744           DC    XL16'0000000000000000000999999999999C'
00004274  00099999 9999999C
                                                   3745
                                                   3746 *                                                      shamt=31
                                                   3747 *                                                      m5=3(P1=1)
                                                   3748           VRI_F VMSP,+99999999999999999,+10000000000000000,159,3,2
00004280                                           3749+          DS    0FD
00004280                      00004280             3750+          USING *,R5               base for test data and test routine
00004280  000042B0                                 3751+T99       DC    A(X99)             address of test routine
00004284  0063                                     3752+          DC    H'99'              test number
00004286  00                                       3753+          DC    X'00'
00004287  9F                                       3754+          DC    HL1'159'           i4
00004288  03                                       3755+          DC    HL1'3'             m5
00004289  02                                       3756+          DC    HL1'2'             cc
0000428A  0D                                       3757+          DC    HL1'13'            cc failed mask
                                                   3758+V2_99     DC    FD'+99999999999999999' \
00004290  01634578 5D89FFFF                           +                                   binary value for v2 packed decimal
                                                   3759+V3_99     DC    FD'+10000000000000000' \
00004298  002386F2 6FC10000                           +                                   binary value for v3 packed decimal
000042A0  E5D4E2D7 40404040                        3760+          DC    CL8'VMSP'          instruction name
000042A8  00000010                                 3761+          DC    A(16)              result length
000042AC  000042EC                                 3762+REA99     DC    A(RE99)            result address
                                                   3763+*                                  INSTRUCTION UNDER TEST ROUTINE
000042B0                                           3764+X99       DS    0F
000042B0  E320 5010 0004                 00004290  3765+          LG    R2,V2_99           convert v2
000042B6  E320 8F4F 002E                 0000114F  3766+          CVDG  R2,V2PACKED
000042BC  E720 8F4F 0006                 0000114F  3767+          VL    V2,V2PACKED
000042C2  E320 5018 0004                 00004298  3768+          LG    R2,V3_99           convert v3
000042C8  E320 8F5F 002E                 0000115F  3769+          CVDG  R2,V3PACKED
000042CE  E730 8F5F 0006                 0000115F  3770+          VL    V3,V3PACKED
000042D4  E612 3039 F079                           3771+          VMSP  V1,V2,V3,159,3     test instruction
000042DA  E710 8F00 000E                 00001100  3772+          VST   V1,V1OUTPUT        save result
000042E0  B98D 0020                                3773+          EPSW  R2,R0              exptract psw
000042E4  5020 8EE4                      000010E4  3774+          ST    R2,CCPSW               to save CC
000042E8  07FB                                     3775+          BR    R11                return
000042EC                                           3776+RE99      DC    0F
000042EC                                           3777+          DROP  R5
000042EC  00000000 00000000                        3778           DC    XL16'0000000000000000000000000000099F'
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
000042F4  00000000 0000099F                        3779
                                                   3780 *-------------------------------------------------------------------
                                                   3781 * VSDP   - VECTOR SHIFT AND DIVIDE DECIMAL
                                                   3782 *-------------------------------------------------------------------
                                                   3783 * VSDP simple + CC checks
                                                   3784 *                                          i4=128(iom=1 & shamt=0)
                                                   3785 *                                          i4=129(iom=1 & shamt=1)
                                                   3786 *                                          i4=132(iom=1 & shamt=4)
                                                   3787 *                                          i4=135(iom=1 & shamt=7)
                                                   3788 *                                          i4=142(iom=1 & shamt=14)
                                                   3789 *                                          i4=159(iom=1 & shamt=31)
                                                   3790
                                                   3791          VRI_F VSDP,+10,+12,128,1,0                  shamt=0
00004300                                           3792+         DS    0FD
00004300                          00004300         3793+         USING *,R5              base for test data and test routine
00004300  00004330                                 3794+T100     DC    A(X100)           address of test routine
00004304  0064                                     3795+         DC    H'100'            test number
00004306  00                                       3796+         DC    X'00'
00004307  80                                       3797+         DC    HL1'128'          i4
00004308  01                                       3798+         DC    HL1'1'            m5
00004309  00                                       3799+         DC    HL1'0'            cc
0000430A  07                                       3800+         DC    HL1'7'            cc failed mask
00004310  00000000 0000000A                       3801+V2_100   DC    FD'+10'           binary value for v2 packed decimal
00004318  00000000 0000000C                       3802+V3_100   DC    FD'+12'           binary value for v3 packed decimal
00004320  E5E2C4D7 40404040                       3803+         DC    CL8'VSDP'         instruction name
00004328  00000010                                 3804+         DC    A(16)             result length
0000432C  0000436C                                 3805+REA100   DC    A(RE100)          result address
                                                   3806+*                                 INSTRUCTION UNDER TEST ROUTINE
00004330                                           3807+X100     DS    0F
00004330  E320 5010 0004                 00004310  3808+         LG    R2,V2_100         convert v2
00004336  E320 8F4F 002E                 0000114F  3809+         CVDG  R2,V2PACKED
0000433C  E720 8F4F 0006                 0000114F  3810+         VL    V2,V2PACKED
00004342  E320 5018 0004                 00004318  3811+         LG    R2,V3_100         convert v3
00004348  E320 8F5F 002E                 0000115F  3812+         CVDG  R2,V3PACKED
0000434E  E730 8F5F 0006                 0000115F  3813+         VL    V3,V3PACKED
00004354  E612 3018 007E                           3814+         VSDP  V1,V2,V3,128,1    test instruction
0000435A  E710 8F00 000E                 00001100  3815+         VST   V1,V1OUTPUT       save result
00004360  B98D 0020                                3816+         EPSW  R2,R0             exptract psw
00004364  5020 8EE4                      000010E4  3817+         ST    R2,CCPSW              to save CC
00004368  07FB                                     3818+         BR    R11               return
0000436C                                           3819+RE100    DC    0F
0000436C                                           3820+         DROP  R5
0000436C  00000000 00000000                        3821          DC    XL16'0000000000000000000000000000000C'
00004374  00000000 0000000C
                                                   3822
                                                   3823          VRI_F VSDP,+10,+12,129,1,2                  shamt=1
00004380                                           3824+         DS    0FD
00004380                          00004380         3825+         USING *,R5              base for test data and test routine
00004380  000043B0                                 3826+T101     DC    A(X101)           address of test routine
00004384  0065                                     3827+         DC    H'101'            test number
00004386  00                                       3828+         DC    X'00'
00004387  81                                       3829+         DC    HL1'129'          i4
00004388  01                                       3830+         DC    HL1'1'            m5
00004389  02                                       3831+         DC    HL1'2'            cc
0000438A  0D                                       3832+         DC    HL1'13'           cc failed mask
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004390  00000000 0000000A                        3833+V2_101   DC    FD'+10'           binary value for v2 packed decimal
00004398  00000000 0000000C                        3834+V3_101   DC    FD'+12'           binary value for v3 packed decimal
000043A0  E5E2C4D7 40404040                        3835+         DC    CL8'VSDP'         instruction name
000043A8  00000010                                 3836+         DC    A(16)             result length
000043AC  000043EC                                 3837+REA101   DC    A(RE101)          result address
                                                   3838+*                                INSTRUCTION UNDER TEST ROUTINE
000043B0                                           3839+X101     DS    0F
000043B0  E320 5010 0004                 00004390  3840+         LG    R2,V2_101         convert v2
000043B6  E320 8F4F 002E                 0000114F  3841+         CVDG  R2,V2PACKED
000043BC  E720 8F4F 0006                 0000114F  3842+         VL    V2,V2PACKED
000043C2  E320 5018 0004                 00004398  3843+         LG    R2,V3_101         convert v3
000043C8  E320 8F5F 002E                 0000115F  3844+         CVDG  R2,V3PACKED
000043CE  E730 8F5F 0006                 0000115F  3845+         VL    V3,V3PACKED
000043D4  E612 3018 107E                           3846+         VSDP  V1,V2,V3,129,1    test instruction
000043DA  E710 8F00 000E                 00001100  3847+         VST   V1,V1OUTPUT       save result
000043E0  B98D 0020                                3848+         EPSW  R2,R0             exptract psw
000043E4  5020 8EE4                      000010E4  3849+         ST    R2,CCPSW              to save CC
000043E8  07FB                                     3850+         BR    R11               return
000043EC                                           3851+RE101    DC    0F
000043EC                                           3852+         DROP  R5
000043EC  00000000 00000000                        3853          DC    XL16'0000000000000000000000000000008C'
000043F4  00000000 0000008C
                                                   3854
                                                   3855          VRI_F VSDP,-100,+12,129,1,1                     shamt=1
00004400                                           3856+         DS    0FD
00004400                          00004400         3857+         USING *,R5              base for test data and test routine
00004400  00004430                                 3858+T102     DC    A(X102)           address of test routine
00004404  0066                                     3859+         DC    H'102'            test number
00004406  00                                       3860+         DC    X'00'
00004407  81                                       3861+         DC    HL1'129'          i4
00004408  01                                       3862+         DC    HL1'1'            m5
00004409  01                                       3863+         DC    HL1'1'            cc
0000440A  0B                                       3864+         DC    HL1'11'           cc failed mask
00004410  FFFFFFFF FFFFFF9C                        3865+V2_102   DC    FD'-100'          binary value for v2 packed decimal
00004418  00000000 0000000C                        3866+V3_102   DC    FD'+12'           binary value for v3 packed decimal
00004420  E5E2C4D7 40404040                        3867+         DC    CL8'VSDP'         instruction name
00004428  00000010                                 3868+         DC    A(16)             result length
0000442C  0000446C                                 3869+REA102   DC    A(RE102)          result address
                                                   3870+*                                INSTRUCTION UNDER TEST ROUTINE
00004430                                           3871+X102     DS    0F
00004430  E320 5010 0004                 00004410  3872+         LG    R2,V2_102         convert v2
00004436  E320 8F4F 002E                 0000114F  3873+         CVDG  R2,V2PACKED
0000443C  E720 8F4F 0006                 0000114F  3874+         VL    V2,V2PACKED
00004442  E320 5018 0004                 00004418  3875+         LG    R2,V3_102         convert v3
00004448  E320 8F5F 002E                 0000115F  3876+         CVDG  R2,V3PACKED
0000444E  E730 8F5F 0006                 0000115F  3877+         VL    V3,V3PACKED
00004454  E612 3018 107E                           3878+         VSDP  V1,V2,V3,129,1    test instruction
0000445A  E710 8F00 000E                 00001100  3879+         VST   V1,V1OUTPUT       save result
00004460  B98D 0020                                3880+         EPSW  R2,R0             exptract psw
00004464  5020 8EE4                      000010E4  3881+         ST    R2,CCPSW              to save CC
00004468  07FB                                     3882+         BR    R11               return
0000446C                                           3883+RE102    DC    0F
0000446C                                           3884+         DROP  R5
0000446C  00000000 00000000                        3885          DC    XL16'0000000000000000000000000000083D'
00004474  00000000 0000083D
                                                   3886
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

                                         3887          VRI_F VSDP,+100,-12,132,1,1                    shamt=4
00004480                                 3888+         DS    0FD
00004480                   00004480      3889+         USING *,R5              base for test data and test routine
00004480  000044B0                       3890+T103     DC    A(X103)           address of test routine
00004484  0067                           3891+         DC    H'103'            test number
00004486  00                             3892+         DC    X'00'
00004487  84                             3893+         DC    HL1'132'          i4
00004488  01                             3894+         DC    HL1'1'            m5
00004489  01                             3895+         DC    HL1'1'            cc
0000448A  0B                             3896+         DC    HL1'11'           cc failed mask
00004490  00000000 00000064             3897+V2_103   DC    FD'+100'          binary value for v2 packed decimal
00004498  FFFFFFFF FFFFFFF4             3898+V3_103   DC    FD'-12'           binary value for v3 packed decimal
000044A0  E5E2C4D7 40404040             3899+         DC    CL8'VSDP'         instruction name
000044A8  00000010                       3900+         DC    A(16)             result length
000044AC  000044EC                       3901+REA103   DC    A(RE103)          result address
                                         3902+*                                INSTRUCTION UNDER TEST ROUTINE
000044B0                                 3903+X103     DS    0F
000044B0  E320 5010 0004                 3904+         LG    R2,V2_103         convert v2
000044B6  E320 8F4F 002E                 3905+         CVDG  R2,V2PACKED
000044BC  E720 8F4F 0006                 3906+         VL    V2,V2PACKED
000044C2  E320 5018 0004                 3907+         LG    R2,V3_103         convert v3
000044C8  E320 8F5F 002E                 3908+         CVDG  R2,V3PACKED
000044CE  E730 8F5F 0006                 3909+         VL    V3,V3PACKED
000044D4  E612 3018 407E                 3910+         VSDP  V1,V2,V3,132,1    test instruction
000044DA  E710 8F00 000E                 3911+         VST   V1,V1OUTPUT       save result
000044E0  B98D 0020                      3912+         EPSW  R2,R0             exptract psw
000044E4  5020 8EE4                      3913+         ST    R2,CCPSW                to save CC
000044E8  07FB                           3914+         BR    R11               return
000044EC                                 3915+RE103    DC    0F
000044EC                                 3916+         DROP  R5
000044EC  00000000 00000000             3917          DC    XL16'0000000000000000000000000083333D'
000044F4  00000000 0083333D
                                         3918
                                         3919          VRI_F VSDP,+100,-12,128,1,1                    shamt=0
00004500                                 3920+         DS    0FD
00004500                   00004500      3921+         USING *,R5              base for test data and test routine
00004500  00004530                       3922+T104     DC    A(X104)           address of test routine
00004504  0068                           3923+         DC    H'104'            test number
00004506  00                             3924+         DC    X'00'
00004507  80                             3925+         DC    HL1'128'          i4
00004508  01                             3926+         DC    HL1'1'            m5
00004509  01                             3927+         DC    HL1'1'            cc
0000450A  0B                             3928+         DC    HL1'11'           cc failed mask
00004510  00000000 00000064             3929+V2_104   DC    FD'+100'          binary value for v2 packed decimal
00004518  FFFFFFFF FFFFFFF4             3930+V3_104   DC    FD'-12'           binary value for v3 packed decimal
00004520  E5E2C4D7 40404040             3931+         DC    CL8'VSDP'         instruction name
00004528  00000010                       3932+         DC    A(16)             result length
0000452C  0000456C                       3933+REA104   DC    A(RE104)          result address
                                         3934+*                                INSTRUCTION UNDER TEST ROUTINE
00004530                                 3935+X104     DS    0F
00004530  E320 5010 0004                 3936+         LG    R2,V2_104         convert v2
00004536  E320 8F4F 002E                 3937+         CVDG  R2,V2PACKED
0000453C  E720 8F4F 0006                 3938+         VL    V2,V2PACKED
00004542  E320 5018 0004                 3939+         LG    R2,V3_104         convert v3
00004548  E320 8F5F 002E                 3940+         CVDG  R2,V3PACKED
0000454E  E730 8F5F 0006                 3941+         VL    V3,V3PACKED
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004554  E612 3018 007E                          3942+         VSDP  V1,V2,V3,128,1    test instruction
0000455A  E710 8F00 000E                00001100  3943+         VST   V1,V1OUTPUT        save result
00004560  B98D 0020                               3944+         EPSW  R2,R0              exptract psw
00004564  5020 8EE4                     000010E4  3945+         ST    R2,CCPSW               to save CC
00004568  07FB                                    3946+         BR    R11                return
0000456C                                          3947+RE104    DC    0F
0000456C                                          3948+         DROP  R5
0000456C  00000000 00000000                       3949          DC    XL16'0000000000000000000000000000008D'
00004574  00000000 0000008D
                                                  3950
                                                  3951          VRI_F VSDP,-100,-12,129,1,2                    shamt=1
00004580                                          3952+         DS    0FD
00004580                  00004580                3953+         USING *,R5               base for test data and test routine
00004580  000045B0                                3954+T105     DC    A(X105)            address of test routine
00004584  0069                                    3955+         DC    H'105'             test number
00004586  00                                      3956+         DC    X'00'
00004587  81                                      3957+         DC    HL1'129'           i4
00004588  01                                      3958+         DC    HL1'1'             m5
00004589  02                                      3959+         DC    HL1'2'             cc
0000458A  0D                                      3960+         DC    HL1'13'            cc failed mask
00004590  FFFFFFFF FFFFFF9C                       3961+V2_105   DC    FD'-100'           binary value for v2 packed decimal
00004598  FFFFFFFF FFFFFFF4                       3962+V3_105   DC    FD'-12'            binary value for v3 packed decimal
000045A0  E5E2C4D7 40404040                       3963+         DC    CL8'VSDP'          instruction name
000045A8  00000010                                3964+         DC    A(16)              result length
000045AC  000045EC                                3965+REA105   DC    A(RE105)           result address
                                                  3966+*                                 INSTRUCTION UNDER TEST ROUTINE
000045B0                                          3967+X105     DS    0F
000045B0  E320 5010 0004                00004590  3968+         LG    R2,V2_105          convert v2
000045B6  E320 8F4F 002E                0000114F  3969+         CVDG  R2,V2PACKED
000045BC  E720 8F4F 0006                0000114F  3970+         VL    V2,V2PACKED
000045C2  E320 5018 0004                00004598  3971+         LG    R2,V3_105          convert v3
000045C8  E320 8F5F 002E                0000115F  3972+         CVDG  R2,V3PACKED
000045CE  E730 8F5F 0006                0000115F  3973+         VL    V3,V3PACKED
000045D4  E612 3018 107E                          3974+         VSDP  V1,V2,V3,129,1    test instruction
000045DA  E710 8F00 000E                00001100  3975+         VST   V1,V1OUTPUT        save result
000045E0  B98D 0020                               3976+         EPSW  R2,R0              exptract psw
000045E4  5020 8EE4                     000010E4  3977+         ST    R2,CCPSW               to save CC
000045E8  07FB                                    3978+         BR    R11                return
000045EC                                          3979+RE105    DC    0F
000045EC                                          3980+         DROP  R5
000045EC  00000000 00000000                       3981          DC    XL16'0000000000000000000000000000083C'
000045F4  00000000 0000083C
                                                  3982
                                                  3983          VRI_F VSDP,-100,-10,135,1,2                    shamt=7
00004600                                          3984+         DS    0FD
00004600                  00004600                3985+         USING *,R5               base for test data and test routine
00004600  00004630                                3986+T106     DC    A(X106)            address of test routine
00004604  006A                                    3987+         DC    H'106'             test number
00004606  00                                      3988+         DC    X'00'
00004607  87                                      3989+         DC    HL1'135'           i4
00004608  01                                      3990+         DC    HL1'1'             m5
00004609  02                                      3991+         DC    HL1'2'             cc
0000460A  0D                                      3992+         DC    HL1'13'            cc failed mask
00004610  FFFFFFFF FFFFFF9C                       3993+V2_106   DC    FD'-100'           binary value for v2 packed decimal
00004618  FFFFFFFF FFFFFFF6                       3994+V3_106   DC    FD'-10'            binary value for v3 packed decimal
00004620  E5E2C4D7 40404040                       3995+         DC    CL8'VSDP'          instruction name
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00004628  00000010                          3996+          DC    A(16)              result length
0000462C  0000466C                          3997+REA106    DC    A(RE106)           result address
                                            3998+*                                  INSTRUCTION UNDER TEST ROUTINE
00004630                                    3999+X106      DS    0F
00004630  E320 5010 0004              00004610  4000+          LG    R2,V2_106          convert v2
00004636  E320 8F4F 002E              0000114F  4001+          CVDG  R2,V2PACKED
0000463C  E720 8F4F 0006              0000114F  4002+          VL    V2,V2PACKED
00004642  E320 5018 0004              00004618  4003+          LG    R2,V3_106          convert v3
00004648  E320 8F5F 002E              0000115F  4004+          CVDG  R2,V3PACKED
0000464E  E730 8F5F 0006              0000115F  4005+          VL    V3,V3PACKED
00004654  E612 3018 707E                        4006+          VSDP  V1,V2,V3,135,1     test instruction
0000465A  E710 8F00 000E              00001100  4007+          VST   V1,V1OUTPUT        save result
00004660  B98D 0020                             4008+          EPSW  R2,R0              exptract psw
00004664  5020 8EE4                   000010E4  4009+          ST    R2,CCPSW               to save CC
00004668  07FB                                  4010+          BR    R11                return
0000466C                                    4011+RE106     DC    0F
0000466C                                    4012+          DROP  R5
0000466C  00000000 00000000                 4013           DC    XL16'00000000000000000000000100000000C'
00004674  00000010 0000000C
                                            4014
                                            4015           VRI_F VSDP,+10000000010,+10,135,1,2             shamt=7
00004680                                    4016+          DS    0FD
00004680                    00004680        4017+          USING *,R5               base for test data and test routine
00004680  000046B0                          4018+T107      DC    A(X107)            address of test routine
00004684  006B                              4019+          DC    H'107'             test number
00004686  00                                4020+          DC    X'00'
00004687  87                                4021+          DC    HL1'135'           i4
00004688  01                                4022+          DC    HL1'1'             m5
00004689  02                                4023+          DC    HL1'2'             cc
0000468A  0D                                4024+          DC    HL1'13'            cc failed mask
00004690  00000002 540BE40A                 4025+V2_107    DC    FD'+10000000010'   binary value for v2 packed decimal
00004698  00000000 0000000A                 4026+V3_107    DC    FD'+10'            binary value for v3 packed decimal
000046A0  E5E2C4D7 40404040                 4027+          DC    CL8'VSDP'          instruction name
000046A8  00000010                          4028+          DC    A(16)              result length
000046AC  000046EC                          4029+REA107    DC    A(RE107)           result address
                                            4030+*                                  INSTRUCTION UNDER TEST ROUTINE
000046B0                                    4031+X107      DS    0F
000046B0  E320 5010 0004              00004690  4032+          LG    R2,V2_107          convert v2
000046B6  E320 8F4F 002E              0000114F  4033+          CVDG  R2,V2PACKED
000046BC  E720 8F4F 0006              0000114F  4034+          VL    V2,V2PACKED
000046C2  E320 5018 0004              00004698  4035+          LG    R2,V3_107          convert v3
000046C8  E320 8F5F 002E              0000115F  4036+          CVDG  R2,V3PACKED
000046CE  E730 8F5F 0006              0000115F  4037+          VL    V3,V3PACKED
000046D4  E612 3018 707E                        4038+          VSDP  V1,V2,V3,135,1     test instruction
000046DA  E710 8F00 000E              00001100  4039+          VST   V1,V1OUTPUT        save result
000046E0  B98D 0020                             4040+          EPSW  R2,R0              exptract psw
000046E4  5020 8EE4                   000010E4  4041+          ST    R2,CCPSW               to save CC
000046E8  07FB                                  4042+          BR    R11                return
000046EC                                    4043+RE107     DC    0F
000046EC                                    4044+          DROP  R5
000046EC  00000000 00000010                 4045           DC    XL16'00000000000000100000000010000000C'
000046F4  00000001 0000000C
                                            4046
                                            4047 * VSDP larger #'s
                                            4048           VRI_F VSDP,+99999999999999999,+1,132,1,2        shamt=4
00004700                                    4049+          DS    0FD
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004700                     00004700               4050+          USING *,R5              base for test data and test routine
00004700  00004730                                  4051+T108      DC    A(X108)           address of test routine
00004704  006C                                      4052+          DC    H'108'            test number
00004706  00                                        4053+          DC    X'00'
00004707  84                                        4054+          DC    HL1'132'          i4
00004708  01                                        4055+          DC    HL1'1'            m5
00004709  02                                        4056+          DC    HL1'2'            cc
0000470A  0D                                        4057+          DC    HL1'13'           cc failed mask
                                                    4058+V2_108    DC    FD'+9999999999999999' \
00004710  01634578 5D89FFFF                           +                                    binary value for v2 packed decimal
00004718  00000000 00000001                         4059+V3_108    DC    FD'+1'            binary value for v3 packed decimal
00004720  E5E2C4D7 40404040                         4060+          DC    CL8'VSDP'         instruction name
00004728  00000010                                  4061+          DC    A(16)             result length
0000472C  0000476C                                  4062+REA108    DC    A(RE108)          result address
                                                    4063+*                                 INSTRUCTION UNDER TEST ROUTINE
00004730                                            4064+X108      DS    0F
00004730  E320 5010 0004                 00004710   4065+          LG    R2,V2_108         convert v2
00004736  E320 8F4F 002E                 0000114F   4066+          CVDG  R2,V2PACKED
0000473C  E720 8F4F 0006                 0000114F   4067+          VL    V2,V2PACKED
00004742  E320 5018 0004                 00004718   4068+          LG    R2,V3_108         convert v3
00004748  E320 8F5F 002E                 0000115F   4069+          CVDG  R2,V3PACKED
0000474E  E730 8F5F 0006                 0000115F   4070+          VL    V3,V3PACKED
00004754  E612 3018 407E                            4071+          VSDP  V1,V2,V3,132,1    test instruction
0000475A  E710 8F00 000E                 00001100   4072+          VST   V1,V1OUTPUT       save result
00004760  B98D 0020                                 4073+          EPSW  R2,R0             exptract psw
00004764  5020 8EE4                      000010E4   4074+          ST    R2,CCPSW              to save CC
00004768  07FB                                      4075+          BR    R11               return
0000476C                                            4076+RE108     DC    0F
0000476C                                            4077+          DROP  R5
0000476C  00000000 00999999                         4078           DC    XL16'0000000000999999999999999990000C'
00004774  99999999 9990000C
                                                    4079
                                                    4080           VRI_F VSDP,-99999999999999999,+1000,128,1,1     shamt=0
00004780                                            4081+          DS    0FD
00004780                         00004780           4082+          USING *,R5              base for test data and test routine
00004780  000047B0                                  4083+T109      DC    A(X109)           address of test routine
00004784  006D                                      4084+          DC    H'109'            test number
00004786  00                                        4085+          DC    X'00'
00004787  80                                        4086+          DC    HL1'128'          i4
00004788  01                                        4087+          DC    HL1'1'            m5
00004789  01                                        4088+          DC    HL1'1'            cc
0000478A  0B                                        4089+          DC    HL1'11'           cc failed mask
                                                    4090+V2_109    DC    FD'-9999999999999999' \
00004790  FE9CBA87 A2760001                           +                                    binary value for v2 packed decimal
00004798  00000000 000003E8                         4091+V3_109    DC    FD'+1000'         binary value for v3 packed decimal
000047A0  E5E2C4D7 40404040                         4092+          DC    CL8'VSDP'         instruction name
000047A8  00000010                                  4093+          DC    A(16)             result length
000047AC  000047EC                                  4094+REA109    DC    A(RE109)          result address
                                                    4095+*                                 INSTRUCTION UNDER TEST ROUTINE
000047B0                                            4096+X109      DS    0F
000047B0  E320 5010 0004                 00004790   4097+          LG    R2,V2_109         convert v2
000047B6  E320 8F4F 002E                 0000114F   4098+          CVDG  R2,V2PACKED
000047BC  E720 8F4F 0006                 0000114F   4099+          VL    V2,V2PACKED
000047C2  E320 5018 0004                 00004798   4100+          LG    R2,V3_109         convert v3
000047C8  E320 8F5F 002E                 0000115F   4101+          CVDG  R2,V3PACKED
000047CE  E730 8F5F 0006                 0000115F   4102+          VL    V3,V3PACKED
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

000047D4  E612 3018 007E                           4103+         VSDP  V1,V2,V3,128,1    test instruction
000047DA  E710 8F00 000E                 00001100  4104+         VST   V1,V1OUTPUT        save result
000047E0  B98D 0020                                4105+         EPSW  R2,R0              exptract psw
000047E4  5020 8EE4                      000010E4  4106+         ST    R2,CCPSW               to save CC
000047E8  07FB                                     4107+         BR    R11                return
000047EC                                           4108+RE109    DC    0F
000047EC                                           4109+         DROP  R5
000047EC  00000000 00000000                        4110          DC    XL16'0000000000000000099999999999999D'
000047F4  09999999 9999999D
                                                   4111
                                                   4112          VRI_F VSDP,-9999999999999999,-1,128,1,2         shamt=0
00004800                                           4113+         DS    0FD
00004800                 00004800                  4114+         USING *,R5               base for test data and test routine
00004800  00004830                                 4115+T110     DC    A(X110)            address of test routine
00004804  006E                                     4116+         DC    H'110'             test number
00004806  00                                       4117+         DC    X'00'
00004807  80                                       4118+         DC    HL1'128'           i4
00004808  01                                       4119+         DC    HL1'1'             m5
00004809  02                                       4120+         DC    HL1'2'             cc
0000480A  0D                                       4121+         DC    HL1'13'            cc failed mask
                                                   4122+V2_110   DC    FD'-9999999999999999' \
00004810  FFDC790D 903F0001                           +                                  binary value for v2 packed decimal
00004818  FFFFFFFF FFFFFFFF                        4123+V3_110   DC    FD'-1'             binary value for v3 packed decimal
00004820  E5E2C4D7 40404040                       4124+         DC    CL8'VSDP'          instruction name
00004828  00000010                               4125+         DC    A(16)              result length
0000482C  0000486C                               4126+REA110   DC    A(RE110)           result address
                                                   4127+*                                 INSTRUCTION UNDER TEST ROUTINE
00004830                                           4128+X110     DS    0F
00004830  E320 5010 0004                 00004810  4129+         LG    R2,V2_110          convert v2
00004836  E320 8F4F 002E                 0000114F  4130+         CVDG  R2,V2PACKED
0000483C  E720 8F4F 0006                 0000114F  4131+         VL    V2,V2PACKED
00004842  E320 5018 0004                 00004818  4132+         LG    R2,V3_110          convert v3
00004848  E320 8F5F 002E                 0000115F  4133+         CVDG  R2,V3PACKED
0000484E  E730 8F5F 0006                 0000115F  4134+         VL    V3,V3PACKED
00004854  E612 3018 007E                           4135+         VSDP  V1,V2,V3,128,1     test instruction
0000485A  E710 8F00 000E                 00001100  4136+         VST   V1,V1OUTPUT        save result
00004860  B98D 0020                                4137+         EPSW  R2,R0              exptract psw
00004864  5020 8EE4                      000010E4  4138+         ST    R2,CCPSW               to save CC
00004868  07FB                                     4139+         BR    R11                return
0000486C                                           4140+RE110    DC    0F
0000486C                                           4141+         DROP  R5
0000486C  00000000 00000009                        4142          DC    XL16'0000000000000009999999999999999C'
00004874  99999999 9999999C
                                                   4143
                                                   4144          VRI_F VSDP,-9999999999999999,-1,142,1,2         shamt=14
00004880                                           4145+         DS    0FD
00004880                 00004880                  4146+         USING *,R5               base for test data and test routine
00004880  000048B0                                 4147+T111     DC    A(X111)            address of test routine
00004884  006F                                     4148+         DC    H'111'             test number
00004886  00                                       4149+         DC    X'00'
00004887  8E                                       4150+         DC    HL1'142'           i4
00004888  01                                       4151+         DC    HL1'1'             m5
00004889  02                                       4152+         DC    HL1'2'             cc
0000488A  0D                                       4153+         DC    HL1'13'            cc failed mask
                                                   4154+V2_111   DC    FD'-9999999999999999' \
00004890  FFDC790D 903F0001                           +                                  binary value for v2 packed decimal
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004898  FFFFFFFF FFFFFFFF                        4155+V3_111   DC    FD'-1'              binary value for v3 packed decimal
000048A0  E5E2C4D7 40404040                        4156+         DC    CL8'VSDP'           instruction name
000048A8  00000010                                 4157+         DC    A(16)               result length
000048AC  000048EC                                 4158+REA111   DC    A(RE111)            result address
                                                   4159+*                                  INSTRUCTION UNDER TEST ROUTINE
000048B0                                           4160+X111     DS    0F
000048B0  E320 5010 0004                 00004890  4161+         LG    R2,V2_111           convert v2
000048B6  E320 8F4F 002E                 0000114F  4162+         CVDG  R2,V2PACKED
000048BC  E720 8F4F 0006                 0000114F  4163+         VL    V2,V2PACKED
000048C2  E320 5018 0004                 00004898  4164+         LG    R2,V3_111           convert v3
000048C8  E320 8F5F 002E                 0000115F  4165+         CVDG  R2,V3PACKED
000048CE  E730 8F5F 0006                 0000115F  4166+         VL    V3,V3PACKED
000048D4  E612 3018 E07E                           4167+         VSDP  V1,V2,V3,142,1      test instruction
000048DA  E710 8F00 000E                 00001100  4168+         VST   V1,V1OUTPUT         save result
000048E0  B98D 0020                                4169+         EPSW  R2,R0               exptract psw
000048E4  5020 8EE4                      000010E4  4170+         ST    R2,CCPSW                to save CC
000048E8  07FB                                     4171+         BR    R11                 return
000048EC                                           4172+RE111    DC    0F
000048EC                                           4173+         DROP  R5
000048EC  09999999 99999999                        4174          DC    XL16'09999999999999999000000000000000C'
000048F4  90000000 0000000C
                                                   4175
                                                   4176          VRI_F VSDP,+9999999999999,+1234,129,1,2         shamt=1
00004900                                           4177+         DS    0FD
00004900                         00004900          4178+         USING *,R5                base for test data and test routine
00004900  00004930                                 4179+T112     DC    A(X112)             address of test routine
00004904  0070                                     4180+         DC    H'112'              test number
00004906  00                                       4181+         DC    X'00'
00004907  81                                       4182+         DC    HL1'129'            i4
00004908  01                                       4183+         DC    HL1'1'              m5
00004909  02                                       4184+         DC    HL1'2'              cc
0000490A  0D                                       4185+         DC    HL1'13'             cc failed mask
                                                   4186+V2_112   DC    FD'+9999999999999' \
00004910  00000918 4E729FFF                           +                                   binary value for v2 packed decimal
00004918  00000000 000004D2                        4187+V3_112   DC    FD'+1234'           binary value for v3 packed decimal
00004920  E5E2C4D7 40404040                        4188+         DC    CL8'VSDP'           instruction name
00004928  00000010                                 4189+         DC    A(16)               result length
0000492C  0000496C                                 4190+REA112   DC    A(RE112)            result address
                                                   4191+*                                  INSTRUCTION UNDER TEST ROUTINE
00004930                                           4192+X112     DS    0F
00004930  E320 5010 0004                 00004910  4193+         LG    R2,V2_112           convert v2
00004936  E320 8F4F 002E                 0000114F  4194+         CVDG  R2,V2PACKED
0000493C  E720 8F4F 0006                 0000114F  4195+         VL    V2,V2PACKED
00004942  E320 5018 0004                 00004918  4196+         LG    R2,V3_112           convert v3
00004948  E320 8F5F 002E                 0000115F  4197+         CVDG  R2,V3PACKED
0000494E  E730 8F5F 0006                 0000115F  4198+         VL    V3,V3PACKED
00004954  E612 3018 107E                           4199+         VSDP  V1,V2,V3,129,1      test instruction
0000495A  E710 8F00 000E                 00001100  4200+         VST   V1,V1OUTPUT         save result
00004960  B98D 0020                                4201+         EPSW  R2,R0               exptract psw
00004964  5020 8EE4                      000010E4  4202+         ST    R2,CCPSW                to save CC
00004968  07FB                                     4203+         BR    R11                 return
0000496C                                           4204+RE112    DC    0F
0000496C                                           4205+         DROP  R5
0000496C  00000000 00000000                        4206          DC    XL16'00000000000000000000810372771470'
00004974  00008103 7277147C
                                                   4207
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                   4208          VRI_F VSDP,+999999999999999,+12345,129,1,2      shamt=1
00004980                                           4209+         DS    0FD
00004980                     00004980              4210+         USING *,R5              base for test data and test routine
00004980  000049B0                                 4211+T113     DC    A(X113)           address of test routine
00004984  0071                                     4212+         DC    H'113'            test number
00004986  00                                       4213+         DC    X'00'
00004987  81                                       4214+         DC    HL1'129'          i4
00004988  01                                       4215+         DC    HL1'1'            m5
00004989  02                                       4216+         DC    HL1'2'            cc
0000498A  0D                                       4217+         DC    HL1'13'           cc failed mask
                                                   4218+V2_113   DC    FD'+999999999999999' \
00004990  00038D7E A4C67FFF                           +                                 binary value for v2 packed decimal
00004998  00000000 00003039                        4219+V3_113   DC    FD'+12345'        binary value for v3 packed decimal
000049A0  E5E2C4D7 40404040                        4220+         DC    CL8'VSDP'         instruction name
000049A8  00000010                                 4221+         DC    A(16)             result length
000049AC  000049EC                                 4222+REA113   DC    A(RE113)          result address
                                                   4223+*                                INSTRUCTION UNDER TEST ROUTINE
000049B0                                           4224+X113     DS    0F
000049B0  E320 5010 0004                 00004990  4225+         LG    R2,V2_113         convert v2
000049B6  E320 8F4F 002E                 0000114F  4226+         CVDG  R2,V2PACKED
000049BC  E720 8F4F 0006                 0000114F  4227+         VL    V2,V2PACKED
000049C2  E320 5018 0004                 00004998  4228+         LG    R2,V3_113         convert v3
000049C8  E320 8F5F 002E                 0000115F  4229+         CVDG  R2,V3PACKED
000049CE  E730 8F5F 0006                 0000115F  4230+         VL    V3,V3PACKED
000049D4  E612 3018 107E                           4231+         VSDP  V1,V2,V3,129,1    test instruction
000049DA  E710 8F00 000E                 00001100  4232+         VST   V1,V1OUTPUT       save result
000049E0  B98D 0020                                4233+         EPSW  R2,R0             exptract psw
000049E4  5020 8EE4                      000010E4  4234+         ST    R2,CCPSW              to save CC
000049E8  07FB                                     4235+         BR    R11               return
000049EC                                           4236+RE113    DC    0F
000049EC                                           4237+         DROP  R5
000049EC  00000000 00000000                        4238          DC    XL16'0000000000000000000810044552450C'
000049F4  00081004 4552450C
                                                   4239
                                                   4240 * VSDP larger #'s                                  CS=1 for all m5
                                                   4241 * check forced positive
                                                   4242 *                                                   shamt=1
                                                   4243          VRI_F VSDP,-99999999999999999,+1,129,9,2   m5=9(P2=1)
00004A00                                           4244+         DS    0FD
00004A00                     00004A00              4245+         USING *,R5              base for test data and test routine
00004A00  00004A30                                 4246+T114     DC    A(X114)           address of test routine
00004A04  0072                                     4247+         DC    H'114'            test number
00004A06  00                                       4248+         DC    X'00'
00004A07  81                                       4249+         DC    HL1'129'          i4
00004A08  09                                       4250+         DC    HL1'9'            m5
00004A09  02                                       4251+         DC    HL1'2'            cc
00004A0A  0D                                       4252+         DC    HL1'13'           cc failed mask
                                                   4253+V2_114   DC    FD'-99999999999999999' \
00004A10  FE9CBA87 A2760001                            +                                 binary value for v2 packed decimal
00004A18  00000000 00000001                        4254+V3_114   DC    FD'+1'            binary value for v3 packed decimal
00004A20  E5E2C4D7 40404040                        4255+         DC    CL8'VSDP'         instruction name
00004A28  00000010                                 4256+         DC    A(16)             result length
00004A2C  00004A6C                                 4257+REA114   DC    A(RE114)          result address
                                                   4258+*                                INSTRUCTION UNDER TEST ROUTINE
00004A30                                           4259+X114     DS    0F
00004A30  E320 5010 0004                 00004A10  4260+         LG    R2,V2_114         convert v2
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004A36  E320 8F4F 002E                 0000114F  4261+         CVDG  R2,V2PACKED
00004A3C  E720 8F4F 0006                 0000114F  4262+         VL    V2,V2PACKED
00004A42  E320 5018 0004                 00004A18  4263+         LG    R2,V3_114          convert v3
00004A48  E320 8F5F 002E                 0000115F  4264+         CVDG  R2,V3PACKED
00004A4E  E730 8F5F 0006                 0000115F  4265+         VL    V3,V3PACKED
00004A54  E612 3098 107E                           4266+         VSDP  V1,V2,V3,129,9     test instruction
00004A5A  E710 8F00 000E                 00001100  4267+         VST   V1,V1OUTPUT        save result
00004A60  B98D 0020                                4268+         EPSW  R2,R0              exptract psw
00004A64  5020 8EE4                      000010E4  4269+         ST    R2,CCPSW               to save CC
00004A68  07FB                                     4270+         BR    R11                return
00004A6C                                           4271+RE114    DC    0F
00004A6C                                           4272+         DROP  R5
00004A6C  00000000 00000999                        4273          DC    XL16'0000000000000999999999999999990C'
00004A74  99999999 9999990C
                                                   4274
                                                   4275 *                                                  shamt=3
                                                   4276          VRI_F VSDP,+99999999999999999,-1000,131,13,2  m5=13(P2=1,P3=1)
00004A80                                           4277+         DS    0FD
00004A80                           00004A80        4278+         USING *,R5               base for test data and test routine
00004A80  00004AB0                                 4279+T115     DC    A(X115)            address of test routine
00004A84  0073                                     4280+         DC    H'115'             test number
00004A86  00                                       4281+         DC    X'00'
00004A87  83                                       4282+         DC    HL1'131'           i4
00004A88  0D                                       4283+         DC    HL1'13'            m5
00004A89  02                                       4284+         DC    HL1'2'             cc
00004A8A  0D                                       4285+         DC    HL1'13'            cc failed mask
                                                   4286+V2_115   DC    FD'+99999999999999999' \
00004A90  01634578 5D89FFFF                           +                                  binary value for v2 packed decimal
00004A98  FFFFFFFF FFFFFC18                        4287+V3_115   DC    FD'-1000'          binary value for v3 packed decimal
00004AA0  E5E2C4D7 40404040                        4288+         DC    CL8'VSDP'          instruction name
00004AA8  00000010                                 4289+         DC    A(16)              result length
00004AAC  00004AEC                                 4290+REA115   DC    A(RE115)           result address
                                                   4291+*                                   INSTRUCTION UNDER TEST ROUTINE
00004AB0                                           4292+X115     DS    0F
00004AB0  E320 5010 0004                 00004A90  4293+         LG    R2,V2_115          convert v2
00004AB6  E320 8F4F 002E                 0000114F  4294+         CVDG  R2,V2PACKED
00004ABC  E720 8F4F 0006                 0000114F  4295+         VL    V2,V2PACKED
00004AC2  E320 5018 0004                 00004A98  4296+         LG    R2,V3_115          convert v3
00004AC8  E320 8F5F 002E                 0000115F  4297+         CVDG  R2,V3PACKED
00004ACE  E730 8F5F 0006                 0000115F  4298+         VL    V3,V3PACKED
00004AD4  E612 30D8 307E                           4299+         VSDP  V1,V2,V3,131,13    test instruction
00004ADA  E710 8F00 000E                 00001100  4300+         VST   V1,V1OUTPUT        save result
00004AE0  B98D 0020                                4301+         EPSW  R2,R0              exptract psw
00004AE4  5020 8EE4                      000010E4  4302+         ST    R2,CCPSW               to save CC
00004AE8  07FB                                     4303+         BR    R11                return
00004AEC                                           4304+RE115    DC    0F
00004AEC                                           4305+         DROP  R5
00004AEC  00000000 00000099                        4306          DC    XL16'0000000000000099999999999999990C'
00004AF4  99999999 9999999C
                                                   4307
                                                   4308 *                                                  shamt=3
                                                   4309          VRI_F VSDP,-9999999999999999,-1,131,3,2   m5=3(P1=1)
00004B00                                           4310+         DS    0FD
00004B00                           00004B00        4311+         USING *,R5               base for test data and test routine
00004B00  00004B30                                 4312+T116     DC    A(X116)            address of test routine
00004B04  0074                                     4313+         DC    H'116'             test number
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
00004B06  00                                       4314+          DC    X'00'
00004B07  83                                       4315+          DC    HL1'131'          i4
00004B08  03                                       4316+          DC    HL1'3'            m5
00004B09  02                                       4317+          DC    HL1'2'            cc
00004B0A  0D                                       4318+          DC    HL1'13'           cc failed mask
                                                   4319+V2_116    DC    FD'-9999999999999999' \
00004B10  FFDC790D 903F0001                            +                                  binary value for v2 packed decimal
00004B18  FFFFFFFF FFFFFFFF                        4320+V3_116    DC    FD'-1'            binary value for v3 packed decimal
00004B20  E5E2C4D7 40404040                        4321+          DC    CL8'VSDP'         instruction name
00004B28  00000010                                 4322+          DC    A(16)             result length
00004B2C  00004B6C                                 4323+REA116    DC    A(RE116)          result address
                                                   4324+*                                 INSTRUCTION UNDER TEST ROUTINE
00004B30                                           4325+X116      DS    0F
00004B30  E320 5010 0004                 00004B10  4326+          LG    R2,V2_116         convert v2
00004B36  E320 8F4F 002E                 0000114F  4327+          CVDG  R2,V2PACKED
00004B3C  E720 8F4F 0006                 0000114F  4328+          VL    V2,V2PACKED
00004B42  E320 5018 0004                 00004B18  4329+          LG    R2,V3_116         convert v3
00004B48  E320 8F5F 002E                 0000115F  4330+          CVDG  R2,V3PACKED
00004B4E  E730 8F5F 0006                 0000115F  4331+          VL    V3,V3PACKED
00004B54  E612 3038 307E                           4332+          VSDP  V1,V2,V3,131,3    test instruction
00004B5A  E710 8F00 000E                 00001100  4333+          VST   V1,V1OUTPUT       save result
00004B60  B98D 0020                                4334+          EPSW  R2,R0             exptract psw
00004B64  5020 8EE4                      000010E4  4335+          ST    R2,CCPSW              to save CC
00004B68  07FB                                     4336+          BR    R11               return
00004B6C                                           4337+RE116     DC    0F
00004B6C                                           4338+          DROP  R5
00004B6C  00000000 00009999                        4339           DC    XL16'0000000000009999999999999999000F'
00004B74  99999999 9999000F
                                                   4340
                                                   4341 *                                                 shamt=7
                                                   4342 *                                                 m5=13(P2=1,P3=1)
                                                   4343           VRI_F VSDP,+9999999999999999,-1,135,13,2
00004B80                                           4344+          DS    0FD
00004B80                         00004B80          4345+          USING *,R5              base for test data and test routine
00004B80  00004BB0                                 4346+T117      DC    A(X117)           address of test routine
00004B84  0075                                     4347+          DC    H'117'            test number
00004B86  00                                       4348+          DC    X'00'
00004B87  87                                       4349+          DC    HL1'135'          i4
00004B88  0D                                       4350+          DC    HL1'13'           m5
00004B89  02                                       4351+          DC    HL1'2'            cc
00004B8A  0D                                       4352+          DC    HL1'13'           cc failed mask
                                                   4353+V2_117    DC    FD'+9999999999999999' \
00004B90  002386F2 6FC0FFFF                            +                                  binary value for v2 packed decimal
00004B98  FFFFFFFF FFFFFFFF                        4354+V3_117    DC    FD'-1'            binary value for v3 packed decimal
00004BA0  E5E2C4D7 40404040                        4355+          DC    CL8'VSDP'         instruction name
00004BA8  00000010                                 4356+          DC    A(16)             result length
00004BAC  00004BEC                                 4357+REA117    DC    A(RE117)          result address
                                                   4358+*                                 INSTRUCTION UNDER TEST ROUTINE
00004BB0                                           4359+X117      DS    0F
00004BB0  E320 5010 0004                 00004B90  4360+          LG    R2,V2_117         convert v2
00004BB6  E320 8F4F 002E                 0000114F  4361+          CVDG  R2,V2PACKED
00004BBC  E720 8F4F 0006                 0000114F  4362+          VL    V2,V2PACKED
00004BC2  E320 5018 0004                 00004B98  4363+          LG    R2,V3_117         convert v3
00004BC8  E320 8F5F 002E                 0000115F  4364+          CVDG  R2,V3PACKED
00004BCE  E730 8F5F 0006                 0000115F  4365+          VL    V3,V3PACKED
00004BD4  E612 30D8 707E                           4366+          VSDP  V1,V2,V3,135,13   test instruction
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004BDA  E710 8F00 000E                 00001100  4367+          VST   V1,V1OUTPUT       save result
00004BE0  B98D 0020                               4368+          EPSW  R2,R0             exptract psw
00004BE4  5020 8EE4                      000010E4 4369+          ST    R2,CCPSW              to save CC
00004BE8  07FB                                    4370+          BR    R11               return
00004BEC                                          4371+RE117     DC    0F
00004BEC                                          4372+          DROP  R5
00004BEC  00000000 99999999                       4373           DC    XL16'0000000099999999999999990000000C'
00004BF4  99999999 0000000C
                                                  4374
                                                  4375 *                                                 shamt=14
                                                  4376           VRI_F VSDP,+9999999999999,+3,142,3,2    m5=3(P1=1)
00004C00                                          4377+          DS    0FD
00004C00                 00004C00                 4378+          USING *,R5              base for test data and test routine
00004C00  00004C30                                4379+T118      DC    A(X118)           address of test routine
00004C04  0076                                    4380+          DC    H'118'            test number
00004C06  00                                      4381+          DC    X'00'
00004C07  8E                                      4382+          DC    HL1'142'          i4
00004C08  03                                      4383+          DC    HL1'3'            m5
00004C09  02                                      4384+          DC    HL1'2'            cc
00004C0A  0D                                      4385+          DC    HL1'13'           cc failed mask
                                                  4386+V2_118    DC    FD'+9999999999999' \
00004C10  00000918 4E729FFF                           +                                 binary value for v2 packed decimal
00004C18  00000000 00000003                       4387+V3_118    DC    FD'+3'            binary value for v3 packed decimal
00004C20  E5E2C4D7 40404040                       4388+          DC    CL8'VSDP'         instruction name
00004C28  00000010                                4389+          DC    A(16)             result length
00004C2C  00004C6C                                4390+REA118    DC    A(RE118)          result address
                                                  4391+*                                  INSTRUCTION UNDER TEST ROUTINE
00004C30                                          4392+X118      DS    0F
00004C30  E320 5010 0004                 00004C10 4393+          LG    R2,V2_118         convert v2
00004C36  E320 8F4F 002E                 0000114F 4394+          CVDG  R2,V2PACKED
00004C3C  E720 8F4F 0006                 0000114F 4395+          VL    V2,V2PACKED
00004C42  E320 5018 0004                 00004C18 4396+          LG    R2,V3_118         convert v3
00004C48  E320 8F5F 002E                 0000115F 4397+          CVDG  R2,V3PACKED
00004C4E  E730 8F5F 0006                 0000115F 4398+          VL    V3,V3PACKED
00004C54  E612 3038 E07E                          4399+          VSDP  V1,V2,V3,142,3    test instruction
00004C5A  E710 8F00 000E                 00001100 4400+          VST   V1,V1OUTPUT       save result
00004C60  B98D 0020                               4401+          EPSW  R2,R0             exptract psw
00004C64  5020 8EE4                      000010E4 4402+          ST    R2,CCPSW              to save CC
00004C68  07FB                                    4403+          BR    R11               return
00004C6C                                          4404+RE118     DC    0F
00004C6C                                          4405+          DROP  R5
00004C6C  00003333 33333333                       4406           DC    XL16'0000333333333333300000000000000F'
00004C74  30000000 0000000F
                                                  4407
                                                  4408 *                                                 shamt=31
                                                  4409 *                                              m5=15(P1=1,P2=1,P3=1)
                                                  4410           VRI_F VSDP,-99999999999999999,-3,159,15,3
00004C80                                          4411+          DS    0FD
00004C80                 00004C80                 4412+          USING *,R5              base for test data and test routine
00004C80  00004CB0                                4413+T119      DC    A(X119)           address of test routine
00004C84  0077                                    4414+          DC    H'119'            test number
00004C86  00                                      4415+          DC    X'00'
00004C87  9F                                      4416+          DC    HL1'159'          i4
00004C88  0F                                      4417+          DC    HL1'15'           m5
00004C89  03                                      4418+          DC    HL1'3'            cc
00004C8A  0E                                      4419+          DC    HL1'14'           cc failed mask
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT
                                                   4420+V2_119   DC    FD'-999999999999999999' \
00004C90  F21F494C 589C0001                            +                          binary value for v2 packed decimal
00004C98  FFFFFFFF FFFFFFFD                        4421+V3_119   DC    FD'-3'                     binary value for v3 packed decimal
00004CA0  E5E2C4D7 40404040                        4422+         DC    CL8'VSDP'                  instruction name
00004CA8  00000010                                 4423+         DC    A(16)                      result length
00004CAC  00004CEC                                 4424+REA119   DC    A(RE119)                   result address
                                                   4425+*                                         INSTRUCTION UNDER TEST ROUTINE
00004CB0                                           4426+X119     DS    0F
00004CB0  E320 5010 0004                 00004C90  4427+         LG    R2,V2_119                  convert v2
00004CB6  E320 8F4F 002E                 0000114F  4428+         CVDG  R2,V2PACKED
00004CBC  E720 8F4F 0006                 0000114F  4429+         VL    V2,V2PACKED
00004CC2  E320 5018 0004                 00004C98  4430+         LG    R2,V3_119                  convert v3
00004CC8  E320 8F5F 002E                 0000115F  4431+         CVDG  R2,V3PACKED
00004CCE  E730 8F5F 0006                 0000115F  4432+         VL    V3,V3PACKED
00004CD4  E612 30F9 F07E                           4433+         VSDP  V1,V2,V3,159,15            test instruction
00004CDA  E710 8F00 000E                 00001100  4434+         VST   V1,V1OUTPUT                save result
00004CE0  B98D 0020                                4435+         EPSW  R2,R0                      exptract psw
00004CE4  5020 8EE4                      000010E4  4436+         ST    R2,CCPSW                       to save CC
00004CE8  07FB                                     4437+         BR    R11                        return
00004CEC                                           4438+RE119    DC    0F
00004CEC                                           4439+         DROP  R5
00004CEC  00000000 00000000                        4440          DC    XL16'0000000000000000000000000000000F'
00004CF4  00000000 0000000F
                                                   4441
                                                   4442
00004CFC  00000000                                 4443          DC    F'0'     END OF TABLE
00004D00  00000000                                 4444          DC    F'0'
                                                   4445 *
                                                   4446 * table of pointers to individual load test
                                                   4447 *
00004D04                                           4448 E6TESTS  DS    0F
                                                   4449          PTTABLE
00004D04                                           4450+TTABLE   DS    0F
00004D04  00001180                                 4451+         DC    A(T1)                      address of test
00004D08  00001200                                 4452+         DC    A(T2)                      address of test
00004D0C  00001280                                 4453+         DC    A(T3)                      address of test
00004D10  00001300                                 4454+         DC    A(T4)                      address of test
00004D14  00001380                                 4455+         DC    A(T5)                      address of test
00004D18  00001400                                 4456+         DC    A(T6)                      address of test
00004D1C  00001480                                 4457+         DC    A(T7)                      address of test
00004D20  00001500                                 4458+         DC    A(T8)                      address of test
00004D24  00001580                                 4459+         DC    A(T9)                      address of test
00004D28  00001600                                 4460+         DC    A(T10)                     address of test
00004D2C  00001680                                 4461+         DC    A(T11)                     address of test
00004D30  00001700                                 4462+         DC    A(T12)                     address of test
00004D34  00001780                                 4463+         DC    A(T13)                     address of test
00004D38  00001800                                 4464+         DC    A(T14)                     address of test
00004D3C  00001880                                 4465+         DC    A(T15)                     address of test
00004D40  00001900                                 4466+         DC    A(T16)                     address of test
00004D44  00001980                                 4467+         DC    A(T17)                     address of test
00004D48  00001A00                                 4468+         DC    A(T18)                     address of test
00004D4C  00001A80                                 4469+         DC    A(T19)                     address of test
00004D50  00001B00                                 4470+         DC    A(T20)                     address of test
00004D54  00001B80                                 4471+         DC    A(T21)                     address of test
00004D58  00001C00                                 4472+         DC    A(T22)                     address of test
00004D5C  00001C80                                 4473+         DC    A(T23)                     address of test
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004D60  00001D00                        4474+         DC    A(T24)            address of test
00004D64  00001D80                        4475+         DC    A(T25)            address of test
00004D68  00001E00                        4476+         DC    A(T26)            address of test
00004D6C  00001E80                        4477+         DC    A(T27)            address of test
00004D70  00001F00                        4478+         DC    A(T28)            address of test
00004D74  00001F80                        4479+         DC    A(T29)            address of test
00004D78  00002000                        4480+         DC    A(T30)            address of test
00004D7C  00002080                        4481+         DC    A(T31)            address of test
00004D80  00002100                        4482+         DC    A(T32)            address of test
00004D84  00002180                        4483+         DC    A(T33)            address of test
00004D88  00002200                        4484+         DC    A(T34)            address of test
00004D8C  00002280                        4485+         DC    A(T35)            address of test
00004D90  00002300                        4486+         DC    A(T36)            address of test
00004D94  00002380                        4487+         DC    A(T37)            address of test
00004D98  00002400                        4488+         DC    A(T38)            address of test
00004D9C  00002480                        4489+         DC    A(T39)            address of test
00004DA0  00002500                        4490+         DC    A(T40)            address of test
00004DA4  00002580                        4491+         DC    A(T41)            address of test
00004DA8  00002600                        4492+         DC    A(T42)            address of test
00004DAC  00002680                        4493+         DC    A(T43)            address of test
00004DB0  00002700                        4494+         DC    A(T44)            address of test
00004DB4  00002780                        4495+         DC    A(T45)            address of test
00004DB8  00002800                        4496+         DC    A(T46)            address of test
00004DBC  00002880                        4497+         DC    A(T47)            address of test
00004DC0  00002900                        4498+         DC    A(T48)            address of test
00004DC4  00002980                        4499+         DC    A(T49)            address of test
00004DC8  00002A00                        4500+         DC    A(T50)            address of test
00004DCC  00002A80                        4501+         DC    A(T51)            address of test
00004DD0  00002B00                        4502+         DC    A(T52)            address of test
00004DD4  00002B80                        4503+         DC    A(T53)            address of test
00004DD8  00002C00                        4504+         DC    A(T54)            address of test
00004DDC  00002C80                        4505+         DC    A(T55)            address of test
00004DE0  00002D00                        4506+         DC    A(T56)            address of test
00004DE4  00002D80                        4507+         DC    A(T57)            address of test
00004DE8  00002E00                        4508+         DC    A(T58)            address of test
00004DEC  00002E80                        4509+         DC    A(T59)            address of test
00004DF0  00002F00                        4510+         DC    A(T60)            address of test
00004DF4  00002F80                        4511+         DC    A(T61)            address of test
00004DF8  00003000                        4512+         DC    A(T62)            address of test
00004DFC  00003080                        4513+         DC    A(T63)            address of test
00004E00  00003100                        4514+         DC    A(T64)            address of test
00004E04  00003180                        4515+         DC    A(T65)            address of test
00004E08  00003200                        4516+         DC    A(T66)            address of test
00004E0C  00003280                        4517+         DC    A(T67)            address of test
00004E10  00003300                        4518+         DC    A(T68)            address of test
00004E14  00003380                        4519+         DC    A(T69)            address of test
00004E18  00003400                        4520+         DC    A(T70)            address of test
00004E1C  00003480                        4521+         DC    A(T71)            address of test
00004E20  00003500                        4522+         DC    A(T72)            address of test
00004E24  00003580                        4523+         DC    A(T73)            address of test
00004E28  00003600                        4524+         DC    A(T74)            address of test
00004E2C  00003680                        4525+         DC    A(T75)            address of test
00004E30  00003700                        4526+         DC    A(T76)            address of test
00004E34  00003780                        4527+         DC    A(T77)            address of test
00004E38  00003800                        4528+         DC    A(T78)            address of test
00004E3C  00003880                        4529+         DC    A(T79)            address of test
```

```
  LOC        OBJECT CODE       ADDR1     ADDR2     STMT

00004E40  00003900                          4530+          DC    A(T80)            address of test
00004E44  00003980                          4531+          DC    A(T81)            address of test
00004E48  00003A00                          4532+          DC    A(T82)            address of test
00004E4C  00003A80                          4533+          DC    A(T83)            address of test
00004E50  00003B00                          4534+          DC    A(T84)            address of test
00004E54  00003B80                          4535+          DC    A(T85)            address of test
00004E58  00003C00                          4536+          DC    A(T86)            address of test
00004E5C  00003C80                          4537+          DC    A(T87)            address of test
00004E60  00003D00                          4538+          DC    A(T88)            address of test
00004E64  00003D80                          4539+          DC    A(T89)            address of test
00004E68  00003E00                          4540+          DC    A(T90)            address of test
00004E6C  00003E80                          4541+          DC    A(T91)            address of test
00004E70  00003F00                          4542+          DC    A(T92)            address of test
00004E74  00003F80                          4543+          DC    A(T93)            address of test
00004E78  00004000                          4544+          DC    A(T94)            address of test
00004E7C  00004080                          4545+          DC    A(T95)            address of test
00004E80  00004100                          4546+          DC    A(T96)            address of test
00004E84  00004180                          4547+          DC    A(T97)            address of test
00004E88  00004200                          4548+          DC    A(T98)            address of test
00004E8C  00004280                          4549+          DC    A(T99)            address of test
00004E90  00004300                          4550+          DC    A(T100)           address of test
00004E94  00004380                          4551+          DC    A(T101)           address of test
00004E98  00004400                          4552+          DC    A(T102)           address of test
00004E9C  00004480                          4553+          DC    A(T103)           address of test
00004EA0  00004500                          4554+          DC    A(T104)           address of test
00004EA4  00004580                          4555+          DC    A(T105)           address of test
00004EA8  00004600                          4556+          DC    A(T106)           address of test
00004EAC  00004680                          4557+          DC    A(T107)           address of test
00004EB0  00004700                          4558+          DC    A(T108)           address of test
00004EB4  00004780                          4559+          DC    A(T109)           address of test
00004EB8  00004800                          4560+          DC    A(T110)           address of test
00004EBC  00004880                          4561+          DC    A(T111)           address of test
00004EC0  00004900                          4562+          DC    A(T112)           address of test
00004EC4  00004980                          4563+          DC    A(T113)           address of test
00004EC8  00004A00                          4564+          DC    A(T114)           address of test
00004ECC  00004A80                          4565+          DC    A(T115)           address of test
00004ED0  00004B00                          4566+          DC    A(T116)           address of test
00004ED4  00004B80                          4567+          DC    A(T117)           address of test
00004ED8  00004C00                          4568+          DC    A(T118)           address of test
00004EDC  00004C80                          4569+          DC    A(T119)           address of test
                                            4570+*
00004EE0  00000000                          4571+          DC    A(0)              END OF TABLE
00004EE4  00000000                          4572+          DC    A(0)
                                            4573
00004EE8  00000000                          4574           DC    F'0'      END OF TABLE
00004EEC  00000000                          4575           DC    F'0'
```

```
  LOC         OBJECT CODE       ADDR1     ADDR2    STMT
                                                    4577 ********************************************************************************
                                                    4578 *        Register equates
                                                    4579 ********************************************************************************


                                00000000  00000001  4581 R0       EQU   0
                                00000001  00000001  4582 R1       EQU   1
                                00000002  00000001  4583 R2       EQU   2
                                00000003  00000001  4584 R3       EQU   3
                                00000004  00000001  4585 R4       EQU   4
                                00000005  00000001  4586 R5       EQU   5
                                00000006  00000001  4587 R6       EQU   6
                                00000007  00000001  4588 R7       EQU   7
                                00000008  00000001  4589 R8       EQU   8
                                00000009  00000001  4590 R9       EQU   9
                                0000000A  00000001  4591 R10      EQU   10
                                0000000B  00000001  4592 R11      EQU   11
                                0000000C  00000001  4593 R12      EQU   12
                                0000000D  00000001  4594 R13      EQU   13
                                0000000E  00000001  4595 R14      EQU   14
                                0000000F  00000001  4596 R15      EQU   15


                                                    4598 ********************************************************************************
                                                    4599 *        Register equates
                                                    4600 ********************************************************************************


                              00000000  00000001  4602 V0       EQU   0
                              00000001  00000001  4603 V1       EQU   1
                              00000002  00000001  4604 V2       EQU   2
                              00000003  00000001  4605 V3       EQU   3
                              00000004  00000001  4606 V4       EQU   4
                              00000005  00000001  4607 V5       EQU   5
                              00000006  00000001  4608 V6       EQU   6
                              00000007  00000001  4609 V7       EQU   7
                              00000008  00000001  4610 V8       EQU   8
                              00000009  00000001  4611 V9       EQU   9
                              0000000A  00000001  4612 V10      EQU   10
                              0000000B  00000001  4613 V11      EQU   11
                              0000000C  00000001  4614 V12      EQU   12
                              0000000D  00000001  4615 V13      EQU   13
                              0000000E  00000001  4616 V14      EQU   14
                              0000000F  00000001  4617 V15      EQU   15
                              00000010  00000001  4618 V16      EQU   16
                              00000011  00000001  4619 V17      EQU   17
                              00000012  00000001  4620 V18      EQU   18
                              00000013  00000001  4621 V19      EQU   19
                              00000014  00000001  4622 V20      EQU   20
                              00000015  00000001  4623 V21      EQU   21
```

```
  LOC         OBJECT CODE        ADDR1     ADDR2     STMT
                                                     4624 V22       EQU   22
                                 00000016  00000001  4625 V23       EQU   23
                                 00000017  00000001  4626 V24       EQU   24
                                 00000018  00000001  4627 V25       EQU   25
                                 00000019  00000001  4628 V26       EQU   26
                                 0000001A  00000001  4629 V27       EQU   27
                                 0000001B  00000001  4630 V28       EQU   28
                                 0000001C  00000001  4631 V29       EQU   29
                                 0000001D  00000001  4632 V30       EQU   30
                                 0000001E  00000001  4633 V31       EQU   31
                                 0000001F  00000001  4634
                                                     4635           END
```

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
BEGIN	I	00000200	2	104	70 101 102
CC	U	00000009	1	431	178
CCFOUND	X	000010EC	1	404	165 185
CCMASK	U	0000000A	1	432	137
CCMSG	U	0000026E	1	154	149
CCPRTEXP	C	00001093	1	384	182
CCPRTGOT	C	000010A3	1	387	189
CCPRTLINE	C	00001050	16	379	389 192
CCPRTLNG	U	00000055	1	389	191
CCPRTNAME	C	0000107D	8	382	175
CCPRTNUM	C	00001060	3	380	173
CCPSW	F	000010E4	4	403	162 579 611 643 675 707 739 772 804 836 870 902 934 970 1002 1034 1066 1098 1130 1162 1195 1227 1259 1291 1325 1357 1389 1421 1457 1489 1521 1553 1585 1617 1649 1682 1714 1746 1778 1810 1844 1877 1909 1941 1974 2010 2042 2074 2106 2138 2170 2202 2235 2267 2299 2331 2363 2395 2429 2461 2493 2526 2558 2591 2627 2659 2691 2723 2755 2787 2819 2852 2884 2916 2948 2980 3012 3046 3078 3110 3143 3175 3207 3250 3282 3314 3346 3378 3410 3442 3475 3508 3540 3572 3604 3639 3673 3706 3740 3774 3817 3849 3881 3913 3945 3977 4009 4041 4074 4106 4138 4170 4202 4234 4269 4302 4335 4369 4402 4436
CTLR0	F	000004A4	4	324	114 115 116 117
DECNUM	C	000010D1	16	399	170 172 179 181 186 188 204 206 213 215 220 222
E6TADR	A	000004AC	4	327	123
E6TEST	4	00000000	48	425	132
E6TESTS	F	00004D04	4	4448	327
EDIT	X	000010A5	18	394	171 180 187 205 214 221
ENDTEST	U	00000376	1	242	128
EOJ	I	00000488	4	314	245
EOJPSW	D	00000478	8	312	314
FAILCONT	U	00000366	1	232	195
FAILED	F	00001000	4	353	234 243
FAILMSG	U	000002FE	1	202	144
FAILPSW	D	00000490	8	316	318
FAILTEST	I	000004A0	4	318	246
I4	U	00000007	1	429	212
IMAGE	1	00000000	20208	0	
K	U	00000400	1	337	338 339 340
K64	U	00010000	1	339	
M5	U	00000008	1	430	156 219
MB	U	00100000	1	340	
MSG	I	000003C0	4	278	261
MSGCMD	C	0000040A	9	304	291 292
MSGMSG	C	00000413	95	305	285 302 283
MSGMVC	I	00000404	6	302	289
MSGOK	I	000003D6	2	287	284
MSGRET	I	000003F0	4	298	295
MSGSAVE	F	000003F8	4	301	281 298
NEXTE6	U	0000022A	1	125	147 237
OPNAME	C	00000020	8	437	175 209
PAGE	U	00001000	1	338	
PRT3	C	000010BB	18	397	171 172 173 180 181 182 187 188 189 205 206 207 214 215 216 221 222 223
PRTI4	C	00001040	3	366	216
PRTLINE	C	00001004	16	361	371 226
PRTLNG	U	0000004C	1	371	225

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
PRTM5	C	0000104D	2	369	223
PRTNAME	C	0000102F	8	364	209
PRTNUM	C	00001014	3	362	207
R0	U	00000000	1	4581	64 114 117 130 191 225 233 234 260 262 278 281 283 285 287 298 578 610 642 674 706 738 771 803 835 869 901 933 969 1001 1033 1065 1097 1129 1161 1194 1226 1258 1290 1324 1356 1388 1420 1456 1488 1520 1552 1584 1616 1648 1681 1713 1745 1777 1809 1843 1876 1908 1940 1973 2009 2041 2073 2105 2137 2169 2201 2234 2266 2298 2330 2362 2394 2428 2460 2492 2525 2557 2590 2626 2658 2690 2722 2754 2786 2818 2851 2883 2915 2947 2979 3011 3045 3077 3109 3142 3174 3206 3249 3281 3313 3345 3377 3409 3441 3474 3507 3539 3571 3603 3638 3672 3705 3739 3773 3816 3848 3880 3912 3944 3976 4008 4040 4073 4105 4137 4169 4201 4233 4268 4301 4334 4368 4401 4435
R1	U	00000001	1	4582	137 138 139 142 143 155 156 157 162 163 164 165 192 226 243 244 292 302
R10	U	0000000A	1	4591	111 112
R11	U	0000000B	1	4592	134 135 580 612 644 676 708 740 773 805 837 871 903 935 971 1003 1035 1067 1099 1131 1163 1196 1228 1260 1292 1326 1358 1390 1422 1458 1490 1522 1554 1586 1618 1650 1683 1715 1747 1779 1811 1845 1878 1910 1942 1975 2011 2043 2075 2107 2139 2171 2203 2236 2268 2300 2332 2364 2396 2430 2462 2494 2527 2559 2592 2628 2660 2692 2724 2756 2788 2820 2853 2885 2917 2949 2981 3013 3047 3079 3111 3144 3176 3208 3251 3283 3315 3347 3379 3411 3443 3476 3509 3541 3573 3605 3640 3674 3707 3741 3775 3818 3850 3882 3914 3946 3978 4010 4042 4075 4107 4139 4171 4203 4235 4270 4303 4336 4370 4403 4437
R12	U	0000000C	1	4593	123 126 146 236
R13	U	0000000D	1	4594	
R14	U	0000000E	1	4595	
R15	U	0000000F	1	4596	193 227 255 265 266
R2	U	00000002	1	4583	169 170 177 178 179 184 185 186 203 204 211 212 213 218 219 220 260 261 262 279 281 287 288 289 291 298 299 570 571 573 574 578 579 602 603 605 606 610 611 634 635 637 638 642 643 666 667 669 670 674 675 698 699 701 702 706 707 730 731 733 734 738 739 763 764 766 767 771 772 795 796 798 799 803 804 827 828 830 831 835 836 861 862 864 865 869 870 893 894 896 897 901 902 925 926 928 929 933 934 961 962 964 965 969 970 993 994 996 997 1001 1002 1025 1026 1028 1029 1033 1034 1057 1058 1060 1061 1065 1066 1089 1090 1092 1093 1097 1098 1121 1122 1124 1125 1129 1130 1153 1154 1156 1157 1161 1162 1186 1187 1189 1190 1194 1195 1218 1219 1221 1222 1226 1227 1250 1251 1253 1254 1258 1259 1282 1283 1285 1286 1290 1291 1316 1317 1319 1320 1324 1325 1348 1349 1351 1352 1356 1357 1380 1381 1383 1384 1388 1389 1412 1413 1415 1416 1420 1421 1448 1449 1451 1452 1456 1457 1480 1481 1483 1484 1488 1489 1512 1513 1515 1516 1520 1521 1544 1545 1547 1548 1552 1553 1576 1577 1579 1580 1584 1585 1608 1609 1611 1612 1616 1617 1640 1641 1643 1644 1648 1649 1673 1674 1676 1677 1681 1682 1705 1706 1708 1709 1713 1714 1737 1738 1740 1741 1745 1746 1769 1770 1772 1773 1777 1778 1801 1802 1804 1805 1809 1810 1835 1836 1838 1839 1843 1844 1868 1869 1871 1872 1876 1877 1900 1901 1903 1904 1908 1909 1932 1933 1935 1936 1940 1941 1965 1966 1968 1969 1973 1974 2001 2002 2004 2005 2009 2010 2033 2034 2036 2037 2041 2042 2065 2066 2068 2069 2073 2074 2097 2098 2100 2101 2105 2106 2129 2130 2132 2133 2137 2138 2161 2162 2164 2165

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
					2169 2170 2193 2194 2196 2197 2201 2202 2226 2227 2229 2230 2234
					2235 2258 2259 2261 2262 2266 2267 2290 2291 2293 2294 2298 2299
					2322 2323 2325 2326 2330 2331 2354 2355 2357 2358 2362 2363 2386
					2387 2389 2390 2394 2395 2420 2421 2423 2424 2428 2429 2452 2453
					2455 2456 2460 2461 2484 2485 2487 2488 2492 2493 2517 2518 2520
					2521 2525 2526 2549 2550 2552 2553 2557 2558 2582 2583 2585 2586
					2590 2591 2618 2619 2621 2622 2626 2627 2650 2651 2653 2654 2658
					2659 2682 2683 2685 2686 2690 2691 2714 2715 2717 2718 2722 2723
					2746 2747 2749 2750 2754 2755 2778 2779 2781 2782 2786 2787 2810
					2811 2813 2814 2818 2819 2843 2844 2846 2847 2851 2852 2875 2876
					2878 2879 2883 2884 2907 2908 2910 2911 2915 2916 2939 2940 2942
					2943 2947 2948 2971 2972 2974 2975 2979 2980 3003 3004 3006 3007
					3011 3012 3037 3038 3040 3041 3045 3046 3069 3070 3072 3073 3077
					3078 3101 3102 3104 3105 3109 3110 3134 3135 3137 3138 3142 3143
					3166 3167 3169 3170 3174 3175 3198 3199 3201 3202 3206 3207 3241
					3242 3244 3245 3249 3250 3273 3274 3276 3277 3281 3282 3305 3306
					3308 3309 3313 3314 3337 3338 3340 3341 3345 3346 3369 3370 3372
					3373 3377 3378 3401 3402 3404 3405 3409 3410 3433 3434 3436 3437
					3441 3442 3466 3467 3469 3470 3474 3475 3499 3500 3502 3503 3507
					3508 3531 3532 3534 3535 3539 3540 3563 3564 3566 3567 3571 3572
					3595 3596 3598 3599 3603 3604 3630 3631 3633 3634 3638 3639 3664
					3665 3667 3668 3672 3673 3697 3698 3700 3701 3705 3706 3731 3732
					3734 3735 3739 3740 3765 3766 3768 3769 3773 3774 3808 3809 3811
					3812 3816 3817 3840 3841 3843 3844 3848 3849 3872 3873 3875 3876
					3880 3881 3904 3905 3907 3908 3912 3913 3936 3937 3939 3940 3944
					3945 3968 3969 3971 3972 3976 3977 4000 4001 4003 4004 4008 4009
					4032 4033 4035 4036 4040 4041 4065 4066 4068 4069 4073 4074 4097
					4098 4100 4101 4105 4106 4129 4130 4132 4133 4137 4138 4161 4162
					4164 4165 4169 4170 4193 4194 4196 4197 4201 4202 4225 4226 4228
					4229 4233 4234 4260 4261 4263 4264 4268 4269 4293 4294 4296 4297
					4301 4302 4326 4327 4329 4330 4334 4335 4360 4361 4363 4364 4368
					4369 4393 4394 4396 4397 4401 4402 4427 4428 4430 4431 4435 4436
R3	U	00000003	1	4584	
R4	U	00000004	1	4585	
R5	U	00000005	1	4586	126 127 132 256 264 555 582 587 614 619 646 651 678
					683 710 715 742 748 775 780 807 812 839 846 873 878
					905 910 937 946 973 978 1005 1010 1037 1042 1069 1074 1101
					1106 1133 1138 1165 1171 1198 1203 1230 1235 1262 1267 1294 1301
					1328 1333 1360 1365 1392 1397 1424 1433 1460 1465 1492 1497 1524
					1529 1556 1561 1588 1593 1620 1625 1652 1658 1685 1690 1717 1722
					1749 1754 1781 1786 1813 1820 1847 1853 1880 1885 1912 1917 1944
					1950 1977 1986 2013 2018 2045 2050 2077 2082 2109 2114 2141 2146
					2173 2178 2205 2211 2238 2243 2270 2275 2302 2307 2334 2339 2366
					2371 2398 2405 2432 2437 2464 2469 2496 2502 2529 2534 2561 2567
					2594 2603 2630 2635 2662 2667 2694 2699 2726 2731 2758 2763 2790
					2795 2822 2828 2855 2860 2887 2892 2919 2924 2951 2956 2983 2988
					3015 3022 3049 3054 3081 3086 3113 3119 3146 3151 3178 3183 3210
					3226 3253 3258 3285 3290 3317 3322 3349 3354 3381 3386 3413 3418
					3445 3451 3478 3484 3511 3516 3543 3548 3575 3580 3607 3615 3642
					3649 3676 3682 3709 3716 3743 3750 3777 3793 3820 3825 3852 3857
					3884 3889 3916 3921 3948 3953 3980 3985 4012 4017 4044 4050 4077
					4082 4109 4114 4141 4146 4173 4178 4205 4210 4237 4245 4272 4278
					4305 4311 4338 4345 4372 4378 4405 4412 4439
R6	U	00000006	1	4587	
R7	U	00000007	1	4588	
R8	U	00000008	1	4589	101 104 105 106 108

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
R9	U	00000009	1	4590	102 108 109 111
RE1	F	000011EC	4	581	567
RE10	F	0000166C	4	872	858
RE100	F	0000436C	4	3819	3805
RE101	F	000043EC	4	3851	3837
RE102	F	0000446C	4	3883	3869
RE103	F	000044EC	4	3915	3901
RE104	F	0000456C	4	3947	3933
RE105	F	000045EC	4	3979	3965
RE106	F	0000466C	4	4011	3997
RE107	F	000046EC	4	4043	4029
RE108	F	0000476C	4	4076	4062
RE109	F	000047EC	4	4108	4094
RE11	F	000016EC	4	904	890
RE110	F	0000486C	4	4140	4126
RE111	F	000048EC	4	4172	4158
RE112	F	0000496C	4	4204	4190
RE113	F	000049EC	4	4236	4222
RE114	F	00004A6C	4	4271	4257
RE115	F	00004AEC	4	4304	4290
RE116	F	00004B6C	4	4337	4323
RE117	F	00004BEC	4	4371	4357
RE118	F	00004C6C	4	4404	4390
RE119	F	00004CEC	4	4438	4424
RE12	F	0000176C	4	936	922
RE13	F	000017EC	4	972	958
RE14	F	0000186C	4	1004	990
RE15	F	000018EC	4	1036	1022
RE16	F	0000196C	4	1068	1054
RE17	F	000019EC	4	1100	1086
RE18	F	00001A6C	4	1132	1118
RE19	F	00001AEC	4	1164	1150
RE2	F	0000126C	4	613	599
RE20	F	00001B6C	4	1197	1183
RE21	F	00001BEC	4	1229	1215
RE22	F	00001C6C	4	1261	1247
RE23	F	00001CEC	4	1293	1279
RE24	F	00001D6C	4	1327	1313
RE25	F	00001DEC	4	1359	1345
RE26	F	00001E6C	4	1391	1377
RE27	F	00001EEC	4	1423	1409
RE28	F	00001F6C	4	1459	1445
RE29	F	00001FEC	4	1491	1477
RE3	F	000012EC	4	645	631
RE30	F	0000206C	4	1523	1509
RE31	F	000020EC	4	1555	1541
RE32	F	0000216C	4	1587	1573
RE33	F	000021EC	4	1619	1605
RE34	F	0000226C	4	1651	1637
RE35	F	000022EC	4	1684	1670
RE36	F	0000236C	4	1716	1702
RE37	F	000023EC	4	1748	1734
RE38	F	0000246C	4	1780	1766
RE39	F	000024EC	4	1812	1798
RE4	F	0000136C	4	677	663
RE40	F	0000256C	4	1846	1832

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
RE41	F	000025EC	4	1879	1865
RE42	F	0000266C	4	1911	1897
RE43	F	000026EC	4	1943	1929
RE44	F	0000276C	4	1976	1962
RE45	F	000027EC	4	2012	1998
RE46	F	0000286C	4	2044	2030
RE47	F	000028EC	4	2076	2062
RE48	F	0000296C	4	2108	2094
RE49	F	000029EC	4	2140	2126
RE5	F	000013EC	4	709	695
RE50	F	00002A6C	4	2172	2158
RE51	F	00002AEC	4	2204	2190
RE52	F	00002B6C	4	2237	2223
RE53	F	00002BEC	4	2269	2255
RE54	F	00002C6C	4	2301	2287
RE55	F	00002CEC	4	2333	2319
RE56	F	00002D6C	4	2365	2351
RE57	F	00002DEC	4	2397	2383
RE58	F	00002E6C	4	2431	2417
RE59	F	00002EEC	4	2463	2449
RE6	F	0000146C	4	741	727
RE60	F	00002F6C	4	2495	2481
RE61	F	00002FEC	4	2528	2514
RE62	F	0000306C	4	2560	2546
RE63	F	000030EC	4	2593	2579
RE64	F	0000316C	4	2629	2615
RE65	F	000031EC	4	2661	2647
RE66	F	0000326C	4	2693	2679
RE67	F	000032EC	4	2725	2711
RE68	F	0000336C	4	2757	2743
RE69	F	000033EC	4	2789	2775
RE7	F	000014EC	4	774	760
RE70	F	0000346C	4	2821	2807
RE71	F	000034EC	4	2854	2840
RE72	F	0000356C	4	2886	2872
RE73	F	000035EC	4	2918	2904
RE74	F	0000366C	4	2950	2936
RE75	F	000036EC	4	2982	2968
RE76	F	0000376C	4	3014	3000
RE77	F	000037EC	4	3048	3034
RE78	F	0000386C	4	3080	3066
RE79	F	000038EC	4	3112	3098
RE8	F	0000156C	4	806	792
RE80	F	0000396C	4	3145	3131
RE81	F	000039EC	4	3177	3163
RE82	F	00003A6C	4	3209	3195
RE83	F	00003AEC	4	3252	3238
RE84	F	00003B6C	4	3284	3270
RE85	F	00003BEC	4	3316	3302
RE86	F	00003C6C	4	3348	3334
RE87	F	00003CEC	4	3380	3366
RE88	F	00003D6C	4	3412	3398
RE89	F	00003DEC	4	3444	3430
RE9	F	000015EC	4	838	824
RE90	F	00003E6C	4	3477	3463
RE91	F	00003EEC	4	3510	3496

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
RE92	F	00003F6C	4	3542	3528
RE93	F	00003FEC	4	3574	3560
RE94	F	0000406C	4	3606	3592
RE95	F	000040EC	4	3641	3627
RE96	F	0000416C	4	3675	3661
RE97	F	000041EC	4	3708	3694
RE98	F	0000426C	4	3742	3728
RE99	F	000042EC	4	3776	3762
REA1	A	000011AC	4	567	
REA10	A	0000162C	4	858	
REA100	A	0000432C	4	3805	
REA101	A	000043AC	4	3837	
REA102	A	0000442C	4	3869	
REA103	A	000044AC	4	3901	
REA104	A	0000452C	4	3933	
REA105	A	000045AC	4	3965	
REA106	A	0000462C	4	3997	
REA107	A	000046AC	4	4029	
REA108	A	0000472C	4	4062	
REA109	A	000047AC	4	4094	
REA11	A	000016AC	4	890	
REA110	A	0000482C	4	4126	
REA111	A	000048AC	4	4158	
REA112	A	0000492C	4	4190	
REA113	A	000049AC	4	4222	
REA114	A	00004A2C	4	4257	
REA115	A	00004AAC	4	4290	
REA116	A	00004B2C	4	4323	
REA117	A	00004BAC	4	4357	
REA118	A	00004C2C	4	4390	
REA119	A	00004CAC	4	4424	
REA12	A	0000172C	4	922	
REA13	A	000017AC	4	958	
REA14	A	0000182C	4	990	
REA15	A	000018AC	4	1022	
REA16	A	0000192C	4	1054	
REA17	A	000019AC	4	1086	
REA18	A	00001A2C	4	1118	
REA19	A	00001AAC	4	1150	
REA2	A	0000122C	4	599	
REA20	A	00001B2C	4	1183	
REA21	A	00001BAC	4	1215	
REA22	A	00001C2C	4	1247	
REA23	A	00001CAC	4	1279	
REA24	A	00001D2C	4	1313	
REA25	A	00001DAC	4	1345	
REA26	A	00001E2C	4	1377	
REA27	A	00001EAC	4	1409	
REA28	A	00001F2C	4	1445	
REA29	A	00001FAC	4	1477	
REA3	A	000012AC	4	631	
REA30	A	0000202C	4	1509	
REA31	A	000020AC	4	1541	
REA32	A	0000212C	4	1573	
REA33	A	000021AC	4	1605	
REA34	A	0000222C	4	1637	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
REA35	A	000022AC	4	1670	
REA36	A	0000232C	4	1702	
REA37	A	000023AC	4	1734	
REA38	A	0000242C	4	1766	
REA39	A	000024AC	4	1798	
REA4	A	0000132C	4	663	
REA40	A	0000252C	4	1832	
REA41	A	000025AC	4	1865	
REA42	A	0000262C	4	1897	
REA43	A	000026AC	4	1929	
REA44	A	0000272C	4	1962	
REA45	A	000027AC	4	1998	
REA46	A	0000282C	4	2030	
REA47	A	000028AC	4	2062	
REA48	A	0000292C	4	2094	
REA49	A	000029AC	4	2126	
REA5	A	000013AC	4	695	
REA50	A	00002A2C	4	2158	
REA51	A	00002AAC	4	2190	
REA52	A	00002B2C	4	2223	
REA53	A	00002BAC	4	2255	
REA54	A	00002C2C	4	2287	
REA55	A	00002CAC	4	2319	
REA56	A	00002D2C	4	2351	
REA57	A	00002DAC	4	2383	
REA58	A	00002E2C	4	2417	
REA59	A	00002EAC	4	2449	
REA6	A	0000142C	4	727	
REA60	A	00002F2C	4	2481	
REA61	A	00002FAC	4	2514	
REA62	A	0000302C	4	2546	
REA63	A	000030AC	4	2579	
REA64	A	0000312C	4	2615	
REA65	A	000031AC	4	2647	
REA66	A	0000322C	4	2679	
REA67	A	000032AC	4	2711	
REA68	A	0000332C	4	2743	
REA69	A	000033AC	4	2775	
REA7	A	000014AC	4	760	
REA70	A	0000342C	4	2807	
REA71	A	000034AC	4	2840	
REA72	A	0000352C	4	2872	
REA73	A	000035AC	4	2904	
REA74	A	0000362C	4	2936	
REA75	A	000036AC	4	2968	
REA76	A	0000372C	4	3000	
REA77	A	000037AC	4	3034	
REA78	A	0000382C	4	3066	
REA79	A	000038AC	4	3098	
REA8	A	0000152C	4	792	
REA80	A	0000392C	4	3131	
REA81	A	000039AC	4	3163	
REA82	A	00003A2C	4	3195	
REA83	A	00003AAC	4	3238	
REA84	A	00003B2C	4	3270	
REA85	A	00003BAC	4	3302	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES	
REA86	A	00003C2C	4	3334		
REA87	A	00003CAC	4	3366		
REA88	A	00003D2C	4	3398		
REA89	A	00003DAC	4	3430		
REA9	A	000015AC	4	824		
REA90	A	00003E2C	4	3463		
REA91	A	00003EAC	4	3496		
REA92	A	00003F2C	4	3528		
REA93	A	00003FAC	4	3560		
REA94	A	0000402C	4	3592		
REA95	A	000040AC	4	3627		
REA96	A	0000412C	4	3661		
REA97	A	000041AC	4	3694		
REA98	A	0000422C	4	3728		
REA99	A	000042AC	4	3762		
READDR	A	0000002C	4	440	142	
REG2LOW	U	000000DD	1	343		
REG2PATT	U	AABBCCDD	1	342		
RELEN	A	00000028	4	439		
RPTDWSAV	D	000003B0	8	271	260	262
RPTERROR	I	00000384	4	255	193	227
RPTSAVE	F	000003A4	4	268	255	265
RPTSVR5	F	000003A8	4	269	256	264
SVOLDPSW	U	00000140	0	66		
T1	A	00001180	4	556	4451	
T10	A	00001600	4	847	4460	
T100	A	00004300	4	3794	4550	
T101	A	00004380	4	3826	4551	
T102	A	00004400	4	3858	4552	
T103	A	00004480	4	3890	4553	
T104	A	00004500	4	3922	4554	
T105	A	00004580	4	3954	4555	
T106	A	00004600	4	3986	4556	
T107	A	00004680	4	4018	4557	
T108	A	00004700	4	4051	4558	
T109	A	00004780	4	4083	4559	
T11	A	00001680	4	879	4461	
T110	A	00004800	4	4115	4560	
T111	A	00004880	4	4147	4561	
T112	A	00004900	4	4179	4562	
T113	A	00004980	4	4211	4563	
T114	A	00004A00	4	4246	4564	
T115	A	00004A80	4	4279	4565	
T116	A	00004B00	4	4312	4566	
T117	A	00004B80	4	4346	4567	
T118	A	00004C00	4	4379	4568	
T119	A	00004C80	4	4413	4569	
T12	A	00001700	4	911	4462	
T13	A	00001780	4	947	4463	
T14	A	00001800	4	979	4464	
T15	A	00001880	4	1011	4465	
T16	A	00001900	4	1043	4466	
T17	A	00001980	4	1075	4467	
T18	A	00001A00	4	1107	4468	
T19	A	00001A80	4	1139	4469	
T2	A	00001200	4	588	4452	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
T20	A	00001B00	4	1172	4470
T21	A	00001B80	4	1204	4471
T22	A	00001C00	4	1236	4472
T23	A	00001C80	4	1268	4473
T24	A	00001D00	4	1302	4474
T25	A	00001D80	4	1334	4475
T26	A	00001E00	4	1366	4476
T27	A	00001E80	4	1398	4477
T28	A	00001F00	4	1434	4478
T29	A	00001F80	4	1466	4479
T3	A	00001280	4	620	4453
T30	A	00002000	4	1498	4480
T31	A	00002080	4	1530	4481
T32	A	00002100	4	1562	4482
T33	A	00002180	4	1594	4483
T34	A	00002200	4	1626	4484
T35	A	00002280	4	1659	4485
T36	A	00002300	4	1691	4486
T37	A	00002380	4	1723	4487
T38	A	00002400	4	1755	4488
T39	A	00002480	4	1787	4489
T4	A	00001300	4	652	4454
T40	A	00002500	4	1821	4490
T41	A	00002580	4	1854	4491
T42	A	00002600	4	1886	4492
T43	A	00002680	4	1918	4493
T44	A	00002700	4	1951	4494
T45	A	00002780	4	1987	4495
T46	A	00002800	4	2019	4496
T47	A	00002880	4	2051	4497
T48	A	00002900	4	2083	4498
T49	A	00002980	4	2115	4499
T5	A	00001380	4	684	4455
T50	A	00002A00	4	2147	4500
T51	A	00002A80	4	2179	4501
T52	A	00002B00	4	2212	4502
T53	A	00002B80	4	2244	4503
T54	A	00002C00	4	2276	4504
T55	A	00002C80	4	2308	4505
T56	A	00002D00	4	2340	4506
T57	A	00002D80	4	2372	4507
T58	A	00002E00	4	2406	4508
T59	A	00002E80	4	2438	4509
T6	A	00001400	4	716	4456
T60	A	00002F00	4	2470	4510
T61	A	00002F80	4	2503	4511
T62	A	00003000	4	2535	4512
T63	A	00003080	4	2568	4513
T64	A	00003100	4	2604	4514
T65	A	00003180	4	2636	4515
T66	A	00003200	4	2668	4516
T67	A	00003280	4	2700	4517
T68	A	00003300	4	2732	4518
T69	A	00003380	4	2764	4519
T7	A	00001480	4	749	4457
T70	A	00003400	4	2796	4520

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
T71	A	00003480	4	2829	4521
T72	A	00003500	4	2861	4522
T73	A	00003580	4	2893	4523
T74	A	00003600	4	2925	4524
T75	A	00003680	4	2957	4525
T76	A	00003700	4	2989	4526
T77	A	00003780	4	3023	4527
T78	A	00003800	4	3055	4528
T79	A	00003880	4	3087	4529
T8	A	00001500	4	781	4458
T80	A	00003900	4	3120	4530
T81	A	00003980	4	3152	4531
T82	A	00003A00	4	3184	4532
T83	A	00003A80	4	3227	4533
T84	A	00003B00	4	3259	4534
T85	A	00003B80	4	3291	4535
T86	A	00003C00	4	3323	4536
T87	A	00003C80	4	3355	4537
T88	A	00003D00	4	3387	4538
T89	A	00003D80	4	3419	4539
T9	A	00001580	4	813	4459
T90	A	00003E00	4	3452	4540
T91	A	00003E80	4	3485	4541
T92	A	00003F00	4	3517	4542
T93	A	00003F80	4	3549	4543
T94	A	00004000	4	3581	4544
T95	A	00004080	4	3616	4545
T96	A	00004100	4	3650	4546
T97	A	00004180	4	3683	4547
T98	A	00004200	4	3717	4548
T99	A	00004280	4	3751	4549
TESTCC	I	0000026A	4	149	139
TESTREST	U	00000252	1	141	158
TNUM	H	00000004	2	427	169 203
TSUB	A	00000000	4	426	134
TTABLE	F	00004D04	4	4450	
V0	U	00000000	1	4602	
V1	U	00000001	1	4603	133 576 577 608 609 640 641 672 673 704 705 736 737 769 770 801 802 833 834 867 868 899 900 931 932 967 968 999 1000 1031 1032 1063 1064 1095 1096 1127 1128 1159 1160 1192 1193 1224 1225 1256 1257 1288 1289 1322 1323 1354 1355 1386 1387 1418 1419 1454 1455 1486 1487 1518 1519 1550 1551 1582 1583 1614 1615 1646 1647 1679 1680 1711 1712 1743 1744 1775 1776 1807 1808 1841 1842 1874 1875 1906 1907 1938 1939 1971 1972 2007 2008 2039 2040 2071 2072 2103 2104 2135 2136 2167 2168 2199 2200 2232 2233 2264 2265 2296 2297 2328 2329 2360 2361 2392 2393 2426 2427 2458 2459 2490 2491 2523 2524 2555 2556 2588 2589 2624 2625 2656 2657 2688 2689 2720 2721 2752 2753 2784 2785 2816 2817 2849 2850 2881 2882 2913 2914 2945 2946 2977 2978 3009 3010 3043 3044 3075 3076 3107 3108 3140 3141 3172 3173 3204 3205 3247 3248 3279 3280 3311 3312 3343 3344 3375 3376 3407 3408 3439 3440 3472 3473 3505 3506 3537 3538 3569 3570 3601 3602 3636 3637 3670 3671 3703 3704 3737 3738 3771 3772 3814 3815 3846 3847 3878 3879 3910 3911 3942 3943 3974 3975 4006 4007 4038 4039 4071 4072 4103 4104 4135 4136 4167 4168 4199 4200 4231 4232 4266 4267 4299 4300 4332 4333 4366 4367 4399 4400 4433 4434

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V10	U	0000000A	1	4612	
V11	U	0000000B	1	4613	
V12	U	0000000C	1	4614	
V13	U	0000000D	1	4615	
V14	U	0000000E	1	4616	
V15	U	0000000F	1	4617	
V16	U	00000010	1	4618	
V17	U	00000011	1	4619	
V18	U	00000012	1	4620	
V19	U	00000013	1	4621	
V1FUDGE	X	00001120	16	413	133
V1INPUT	C	00001130	16	414	
V1OUTPUT	X	00001100	16	411	143 577 609 641 673 705 737 770 802 834 868 900 932 968 1000 1032 1064 1096 1128 1160 1193 1225 1257 1289 1323 1355 1387 1419 1455 1487 1519 1551 1583 1615 1647 1680 1712 1744 1776 1808 1842 1875 1907 1939 1972 2008 2040 2072 2104 2136 2168 2200 2233 2265 2297 2329 2361 2393 2427 2459 2491 2524 2556 2589 2625 2657 2689 2721 2753 2785 2817 2850 2882 2914 2946 2978 3010 3044 3076 3108 3141 3173 3205 3248 3280 3312 3344 3376 3408 3440 3473 3506 3538 3570 3602 3637 3671 3704 3738 3772 3815 3847 3879 3911 3943 3975 4007 4039 4072 4104 4136 4168 4200 4232 4267 4300 4333 4367 4400 4434
V2	U	00000002	1	4604	572 576 604 608 636 640 668 672 700 704 732 736 765 769 797 801 829 833 863 867 895 899 927 931 963 967 995 999 1027 1031 1059 1063 1091 1095 1123 1127 1155 1159 1188 1192 1220 1224 1252 1256 1284 1288 1318 1322 1350 1354 1382 1386 1414 1418 1450 1454 1482 1486 1514 1518 1546 1550 1578 1582 1610 1614 1642 1646 1675 1679 1707 1711 1739 1743 1771 1775 1803 1807 1837 1841 1870 1874 1902 1906 1934 1938 1967 1971 2003 2007 2035 2039 2067 2071 2099 2103 2131 2135 2163 2167 2195 2199 2228 2232 2260 2264 2292 2296 2324 2328 2356 2360 2388 2392 2422 2426 2454 2458 2486 2490 2519 2523 2551 2555 2584 2588 2620 2624 2652 2656 2684 2688 2716 2720 2748 2752 2780 2784 2812 2816 2845 2849 2877 2881 2909 2913 2941 2945 2973 2977 3005 3009 3039 3043 3071 3075 3103 3107 3136 3140 3168 3172 3200 3204 3243 3247 3275 3279 3307 3311 3339 3343 3371 3375 3403 3407 3435 3439 3468 3472 3501 3505 3533 3537 3565 3569 3597 3601 3632 3636 3666 3670 3699 3703 3733 3737 3767 3771 3810 3814 3842 3846 3874 3878 3906 3910 3938 3942 3970 3974 4002 4006 4034 4038 4067 4071 4099 4103 4131 4135 4163 4167 4195 4199 4227 4231 4262 4266 4295 4299 4328 4332 4362 4366 4395 4399 4429 4433
V20	U	00000014	1	4622	
V21	U	00000015	1	4623	
V22	U	00000016	1	4624	
V23	U	00000017	1	4625	
V24	U	00000018	1	4626	
V25	U	00000019	1	4627	
V26	U	0000001A	1	4628	
V27	U	0000001B	1	4629	
V28	U	0000001C	1	4630	
V29	U	0000001D	1	4631	
V2PACKED	X	0000114F	16	417	571 572 603 604 635 636 667 668 699 700 731 732 764 765 796 797 828 829 862 863 894 895 926 927 962 963 994 995 1026 1027 1058 1059 1090 1091 1122 1123 1154 1155 1187 1188 1219 1220 1251 1252 1283 1284 1317 1318 1349 1350 1381 1382 1413 1414 1449 1450 1481 1482 1513 1514 1545 1546 1577 1578 1609

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
					1610 1641 1642 1674 1675 1706 1707 1738 1739 1770 1771 1802 1803
					1836 1837 1869 1870 1901 1902 1933 1934 1966 1967 2002 2003 2034
					2035 2066 2067 2098 2099 2130 2131 2162 2163 2194 2195 2227 2228
					2259 2260 2291 2292 2323 2324 2355 2356 2387 2388 2421 2422 2453
					2454 2485 2486 2518 2519 2550 2551 2583 2584 2619 2620 2651 2652
					2683 2684 2715 2716 2747 2748 2779 2780 2811 2812 2844 2845 2876
					2877 2908 2909 2940 2941 2972 2973 3004 3005 3038 3039 3070 3071
					3102 3103 3135 3136 3167 3168 3199 3200 3242 3243 3274 3275 3306
					3307 3338 3339 3370 3371 3402 3403 3434 3435 3467 3468 3500 3501
					3532 3533 3564 3565 3596 3597 3631 3632 3665 3666 3698 3699 3732
					3733 3766 3767 3809 3810 3841 3842 3873 3874 3905 3906 3937 3938
					3969 3970 4001 4002 4033 4034 4066 4067 4098 4099 4130 4131 4162
					4163 4194 4195 4226 4227 4261 4262 4294 4295 4327 4328 4361 4362
					4394 4395 4428 4429
V2VALUE	F	00000010	8	434	
V2_1	F	00001190	8	563	570
V2_10	F	00001610	8	854	861
V2_100	F	00004310	8	3801	3808
V2_101	F	00004390	8	3833	3840
V2_102	F	00004410	8	3865	3872
V2_103	F	00004490	8	3897	3904
V2_104	F	00004510	8	3929	3936
V2_105	F	00004590	8	3961	3968
V2_106	F	00004610	8	3993	4000
V2_107	F	00004690	8	4025	4032
V2_108	F	00004710	8	4058	4065
V2_109	F	00004790	8	4090	4097
V2_11	F	00001690	8	886	893
V2_110	F	00004810	8	4122	4129
V2_111	F	00004890	8	4154	4161
V2_112	F	00004910	8	4186	4193
V2_113	F	00004990	8	4218	4225
V2_114	F	00004A10	8	4253	4260
V2_115	F	00004A90	8	4286	4293
V2_116	F	00004B10	8	4319	4326
V2_117	F	00004B90	8	4353	4360
V2_118	F	00004C10	8	4386	4393
V2_119	F	00004C90	8	4420	4427
V2_12	F	00001710	8	918	925
V2_13	F	00001790	8	954	961
V2_14	F	00001810	8	986	993
V2_15	F	00001890	8	1018	1025
V2_16	F	00001910	8	1050	1057
V2_17	F	00001990	8	1082	1089
V2_18	F	00001A10	8	1114	1121
V2_19	F	00001A90	8	1146	1153
V2_2	F	00001210	8	595	602
V2_20	F	00001B10	8	1179	1186
V2_21	F	00001B90	8	1211	1218
V2_22	F	00001C10	8	1243	1250
V2_23	F	00001C90	8	1275	1282
V2_24	F	00001D10	8	1309	1316
V2_25	F	00001D90	8	1341	1348
V2_26	F	00001E10	8	1373	1380
V2_27	F	00001E90	8	1405	1412
V2_28	F	00001F10	8	1441	1448

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V2_29	F	00001F90	8	1473	1480
V2_3	F	00001290	8	627	634
V2_30	F	00002010	8	1505	1512
V2_31	F	00002090	8	1537	1544
V2_32	F	00002110	8	1569	1576
V2_33	F	00002190	8	1601	1608
V2_34	F	00002210	8	1633	1640
V2_35	F	00002290	8	1666	1673
V2_36	F	00002310	8	1698	1705
V2_37	F	00002390	8	1730	1737
V2_38	F	00002410	8	1762	1769
V2_39	F	00002490	8	1794	1801
V2_4	F	00001310	8	659	666
V2_40	F	00002510	8	1828	1835
V2_41	F	00002590	8	1861	1868
V2_42	F	00002610	8	1893	1900
V2_43	F	00002690	8	1925	1932
V2_44	F	00002710	8	1958	1965
V2_45	F	00002790	8	1994	2001
V2_46	F	00002810	8	2026	2033
V2_47	F	00002890	8	2058	2065
V2_48	F	00002910	8	2090	2097
V2_49	F	00002990	8	2122	2129
V2_5	F	00001390	8	691	698
V2_50	F	00002A10	8	2154	2161
V2_51	F	00002A90	8	2186	2193
V2_52	F	00002B10	8	2219	2226
V2_53	F	00002B90	8	2251	2258
V2_54	F	00002C10	8	2283	2290
V2_55	F	00002C90	8	2315	2322
V2_56	F	00002D10	8	2347	2354
V2_57	F	00002D90	8	2379	2386
V2_58	F	00002E10	8	2413	2420
V2_59	F	00002E90	8	2445	2452
V2_6	F	00001410	8	723	730
V2_60	F	00002F10	8	2477	2484
V2_61	F	00002F90	8	2510	2517
V2_62	F	00003010	8	2542	2549
V2_63	F	00003090	8	2575	2582
V2_64	F	00003110	8	2611	2618
V2_65	F	00003190	8	2643	2650
V2_66	F	00003210	8	2675	2682
V2_67	F	00003290	8	2707	2714
V2_68	F	00003310	8	2739	2746
V2_69	F	00003390	8	2771	2778
V2_7	F	00001490	8	756	763
V2_70	F	00003410	8	2803	2810
V2_71	F	00003490	8	2836	2843
V2_72	F	00003510	8	2868	2875
V2_73	F	00003590	8	2900	2907
V2_74	F	00003610	8	2932	2939
V2_75	F	00003690	8	2964	2971
V2_76	F	00003710	8	2996	3003
V2_77	F	00003790	8	3030	3037
V2_78	F	00003810	8	3062	3069
V2_79	F	00003890	8	3094	3101

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V2_8	F	00001510	8	788	795
V2_80	F	00003910	8	3127	3134
V2_81	F	00003990	8	3159	3166
V2_82	F	00003A10	8	3191	3198
V2_83	F	00003A90	8	3234	3241
V2_84	F	00003B10	8	3266	3273
V2_85	F	00003B90	8	3298	3305
V2_86	F	00003C10	8	3330	3337
V2_87	F	00003C90	8	3362	3369
V2_88	F	00003D10	8	3394	3401
V2_89	F	00003D90	8	3426	3433
V2_9	F	00001590	8	820	827
V2_90	F	00003E10	8	3459	3466
V2_91	F	00003E90	8	3492	3499
V2_92	F	00003F10	8	3524	3531
V2_93	F	00003F90	8	3556	3563
V2_94	F	00004010	8	3588	3595
V2_95	F	00004090	8	3623	3630
V2_96	F	00004110	8	3657	3664
V2_97	F	00004190	8	3690	3697
V2_98	F	00004210	8	3724	3731
V2_99	F	00004290	8	3758	3765
V3	U	00000003	1	4605	575 576 607 608 639 640 671 672 703 704 735 736 768 769 800 801 832 833 866 867 898 899 930 931 966 967 998 999 1030 1031 1062 1063 1094 1095 1126 1127 1158 1159 1191 1192 1223 1224 1255 1256 1287 1288 1321 1322 1353 1354 1385 1386 1417 1418 1453 1454 1485 1486 1517 1518 1549 1550 1581 1582 1613 1614 1645 1646 1678 1679 1710 1711 1742 1743 1774 1775 1806 1807 1840 1841 1873 1874 1905 1906 1937 1938 1970 1971 2006 2007 2038 2039 2070 2071 2102 2103 2134 2135 2166 2167 2198 2199 2231 2232 2263 2264 2295 2296 2327 2328 2359 2360 2391 2392 2425 2426 2457 2458 2489 2490 2522 2523 2554 2555 2587 2588 2623 2624 2655 2656 2687 2688 2719 2720 2751 2752 2783 2784 2815 2816 2848 2849 2880 2881 2912 2913 2944 2945 2976 2977 3008 3009 3042 3043 3074 3075 3106 3107 3139 3140 3171 3172 3203 3204 3246 3247 3278 3279 3310 3311 3342 3343 3374 3375 3406 3407 3438 3439 3471 3472 3504 3505 3536 3537 3568 3569 3600 3601 3635 3636 3669 3670 3702 3703 3736 3737 3770 3771 3813 3814 3845 3846 3877 3878 3909 3910 3941 3942 3973 3974 4005 4006 4037 4038 4070 4071 4102 4103 4134 4135 4166 4167 4198 4199 4230 4231 4265 4266 4298 4299 4331 4332 4365 4366 4398 4399 4432 4433
V30	U	0000001E	1	4632	
V31	U	0000001F	1	4633	
V3PACKED	X	0000115F	16	418	574 575 606 607 638 639 670 671 702 703 734 735 767 768 799 800 831 832 865 866 897 898 929 930 965 966 997 998 1029 1030 1061 1062 1093 1094 1125 1126 1157 1158 1190 1191 1222 1223 1254 1255 1286 1287 1320 1321 1352 1353 1384 1385 1416 1417 1452 1453 1484 1485 1516 1517 1548 1549 1580 1581 1612 1613 1644 1645 1677 1678 1709 1710 1741 1742 1773 1774 1805 1806 1839 1840 1872 1873 1904 1905 1936 1937 1969 1970 2005 2006 2037 2038 2069 2070 2101 2102 2133 2134 2165 2166 2197 2198 2230 2231 2262 2263 2294 2295 2326 2327 2358 2359 2390 2391 2424 2425 2456 2457 2488 2489 2521 2522 2553 2554 2586 2587 2622 2623 2654 2655 2686 2687 2718 2719 2750 2751 2782 2783 2814 2815 2847 2848 2879 2880 2911 2912 2943 2944 2975 2976 3007 3008 3041 3042 3073 3074 3105 3106 3138 3139 3170 3171 3202 3203 3245 3246 3277 3278 3309

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
					3310 3341 3342 3373 3374 3405 3406 3437 3438 3470 3471 3503 3504 3535 3536 3567 3568 3599 3600 3634 3635 3668 3669 3701 3702 3735 3736 3769 3770 3812 3813 3844 3845 3876 3877 3908 3909 3940 3941 3972 3973 4004 4005 4036 4037 4069 4070 4101 4102 4133 4134 4165 4166 4197 4198 4229 4230 4264 4265 4297 4298 4330 4331 4364 4365 4397 4398 4431 4432
V3VALUE	F	00000018	8	435	
V3_1	F	00001198	8	564	573
V3_10	F	00001618	8	855	864
V3_100	F	00004318	8	3802	3811
V3_101	F	00004398	8	3834	3843
V3_102	F	00004418	8	3866	3875
V3_103	F	00004498	8	3898	3907
V3_104	F	00004518	8	3930	3939
V3_105	F	00004598	8	3962	3971
V3_106	F	00004618	8	3994	4003
V3_107	F	00004698	8	4026	4035
V3_108	F	00004718	8	4059	4068
V3_109	F	00004798	8	4091	4100
V3_11	F	00001698	8	887	896
V3_110	F	00004818	8	4123	4132
V3_111	F	00004898	8	4155	4164
V3_112	F	00004918	8	4187	4196
V3_113	F	00004998	8	4219	4228
V3_114	F	00004A18	8	4254	4263
V3_115	F	00004A98	8	4287	4296
V3_116	F	00004B18	8	4320	4329
V3_117	F	00004B98	8	4354	4363
V3_118	F	00004C18	8	4387	4396
V3_119	F	00004C98	8	4421	4430
V3_12	F	00001718	8	919	928
V3_13	F	00001798	8	955	964
V3_14	F	00001818	8	987	996
V3_15	F	00001898	8	1019	1028
V3_16	F	00001918	8	1051	1060
V3_17	F	00001998	8	1083	1092
V3_18	F	00001A18	8	1115	1124
V3_19	F	00001A98	8	1147	1156
V3_2	F	00001218	8	596	605
V3_20	F	00001B18	8	1180	1189
V3_21	F	00001B98	8	1212	1221
V3_22	F	00001C18	8	1244	1253
V3_23	F	00001C98	8	1276	1285
V3_24	F	00001D18	8	1310	1319
V3_25	F	00001D98	8	1342	1351
V3_26	F	00001E18	8	1374	1383
V3_27	F	00001E98	8	1406	1415
V3_28	F	00001F18	8	1442	1451
V3_29	F	00001F98	8	1474	1483
V3_3	F	00001298	8	628	637
V3_30	F	00002018	8	1506	1515
V3_31	F	00002098	8	1538	1547
V3_32	F	00002118	8	1570	1579
V3_33	F	00002198	8	1602	1611
V3_34	F	00002218	8	1634	1643
V3_35	F	00002298	8	1667	1676

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V3_36	F	00002318	8	1699	1708
V3_37	F	00002398	8	1731	1740
V3_38	F	00002418	8	1763	1772
V3_39	F	00002498	8	1795	1804
V3_4	F	00001318	8	660	669
V3_40	F	00002518	8	1829	1838
V3_41	F	00002598	8	1862	1871
V3_42	F	00002618	8	1894	1903
V3_43	F	00002698	8	1926	1935
V3_44	F	00002718	8	1959	1968
V3_45	F	00002798	8	1995	2004
V3_46	F	00002818	8	2027	2036
V3_47	F	00002898	8	2059	2068
V3_48	F	00002918	8	2091	2100
V3_49	F	00002998	8	2123	2132
V3_5	F	00001398	8	692	701
V3_50	F	00002A18	8	2155	2164
V3_51	F	00002A98	8	2187	2196
V3_52	F	00002B18	8	2220	2229
V3_53	F	00002B98	8	2252	2261
V3_54	F	00002C18	8	2284	2293
V3_55	F	00002C98	8	2316	2325
V3_56	F	00002D18	8	2348	2357
V3_57	F	00002D98	8	2380	2389
V3_58	F	00002E18	8	2414	2423
V3_59	F	00002E98	8	2446	2455
V3_6	F	00001418	8	724	733
V3_60	F	00002F18	8	2478	2487
V3_61	F	00002F98	8	2511	2520
V3_62	F	00003018	8	2543	2552
V3_63	F	00003098	8	2576	2585
V3_64	F	00003118	8	2612	2621
V3_65	F	00003198	8	2644	2653
V3_66	F	00003218	8	2676	2685
V3_67	F	00003298	8	2708	2717
V3_68	F	00003318	8	2740	2749
V3_69	F	00003398	8	2772	2781
V3_7	F	00001498	8	757	766
V3_70	F	00003418	8	2804	2813
V3_71	F	00003498	8	2837	2846
V3_72	F	00003518	8	2869	2878
V3_73	F	00003598	8	2901	2910
V3_74	F	00003618	8	2933	2942
V3_75	F	00003698	8	2965	2974
V3_76	F	00003718	8	2997	3006
V3_77	F	00003798	8	3031	3040
V3_78	F	00003818	8	3063	3072
V3_79	F	00003898	8	3095	3104
V3_8	F	00001518	8	789	798
V3_80	F	00003918	8	3128	3137
V3_81	F	00003998	8	3160	3169
V3_82	F	00003A18	8	3192	3201
V3_83	F	00003A98	8	3235	3244
V3_84	F	00003B18	8	3267	3276
V3_85	F	00003B98	8	3299	3308
V3_86	F	00003C18	8	3331	3340

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
V3_87	F	00003C98	8	3363	3372
V3_88	F	00003D18	8	3395	3404
V3_89	F	00003D98	8	3427	3436
V3_9	F	00001598	8	821	830
V3_90	F	00003E18	8	3460	3469
V3_91	F	00003E98	8	3493	3502
V3_92	F	00003F18	8	3525	3534
V3_93	F	00003F98	8	3557	3566
V3_94	F	00004018	8	3589	3598
V3_95	F	00004098	8	3624	3633
V3_96	F	00004118	8	3658	3667
V3_97	F	00004198	8	3691	3700
V3_98	F	00004218	8	3725	3734
V3_99	F	00004298	8	3759	3768
V4	U	00000004	1	4606	
V5	U	00000005	1	4607	
V6	U	00000006	1	4608	
V7	U	00000007	1	4609	
V8	U	00000008	1	4610	
V9	U	00000009	1	4611	
X1	F	000011B0	4	569	556
X10	F	00001630	4	860	847
X100	F	00004330	4	3807	3794
X101	F	000043B0	4	3839	3826
X102	F	00004430	4	3871	3858
X103	F	000044B0	4	3903	3890
X104	F	00004530	4	3935	3922
X105	F	000045B0	4	3967	3954
X106	F	00004630	4	3999	3986
X107	F	000046B0	4	4031	4018
X108	F	00004730	4	4064	4051
X109	F	000047B0	4	4096	4083
X11	F	000016B0	4	892	879
X110	F	00004830	4	4128	4115
X111	F	000048B0	4	4160	4147
X112	F	00004930	4	4192	4179
X113	F	000049B0	4	4224	4211
X114	F	00004A30	4	4259	4246
X115	F	00004AB0	4	4292	4279
X116	F	00004B30	4	4325	4312
X117	F	00004BB0	4	4359	4346
X118	F	00004C30	4	4392	4379
X119	F	00004CB0	4	4426	4413
X12	F	00001730	4	924	911
X13	F	000017B0	4	960	947
X14	F	00001830	4	992	979
X15	F	000018B0	4	1024	1011
X16	F	00001930	4	1056	1043
X17	F	000019B0	4	1088	1075
X18	F	00001A30	4	1120	1107
X19	F	00001AB0	4	1152	1139
X2	F	00001230	4	601	588
X20	F	00001B30	4	1185	1172
X21	F	00001BB0	4	1217	1204
X22	F	00001C30	4	1249	1236
X23	F	00001CB0	4	1281	1268

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
X24	F	00001D30	4	1315	1302
X25	F	00001DB0	4	1347	1334
X26	F	00001E30	4	1379	1366
X27	F	00001EB0	4	1411	1398
X28	F	00001F30	4	1447	1434
X29	F	00001FB0	4	1479	1466
X3	F	000012B0	4	633	620
X30	F	00002030	4	1511	1498
X31	F	000020B0	4	1543	1530
X32	F	00002130	4	1575	1562
X33	F	000021B0	4	1607	1594
X34	F	00002230	4	1639	1626
X35	F	000022B0	4	1672	1659
X36	F	00002330	4	1704	1691
X37	F	000023B0	4	1736	1723
X38	F	00002430	4	1768	1755
X39	F	000024B0	4	1800	1787
X4	F	00001330	4	665	652
X40	F	00002530	4	1834	1821
X41	F	000025B0	4	1867	1854
X42	F	00002630	4	1899	1886
X43	F	000026B0	4	1931	1918
X44	F	00002730	4	1964	1951
X45	F	000027B0	4	2000	1987
X46	F	00002830	4	2032	2019
X47	F	000028B0	4	2064	2051
X48	F	00002930	4	2096	2083
X49	F	000029B0	4	2128	2115
X5	F	000013B0	4	697	684
X50	F	00002A30	4	2160	2147
X51	F	00002AB0	4	2192	2179
X52	F	00002B30	4	2225	2212
X53	F	00002BB0	4	2257	2244
X54	F	00002C30	4	2289	2276
X55	F	00002CB0	4	2321	2308
X56	F	00002D30	4	2353	2340
X57	F	00002DB0	4	2385	2372
X58	F	00002E30	4	2419	2406
X59	F	00002EB0	4	2451	2438
X6	F	00001430	4	729	716
X60	F	00002F30	4	2483	2470
X61	F	00002FB0	4	2516	2503
X62	F	00003030	4	2548	2535
X63	F	000030B0	4	2581	2568
X64	F	00003130	4	2617	2604
X65	F	000031B0	4	2649	2636
X66	F	00003230	4	2681	2668
X67	F	000032B0	4	2713	2700
X68	F	00003330	4	2745	2732
X69	F	000033B0	4	2777	2764
X7	F	000014B0	4	762	749
X70	F	00003430	4	2809	2796
X71	F	000034B0	4	2842	2829
X72	F	00003530	4	2874	2861
X73	F	000035B0	4	2906	2893
X74	F	00003630	4	2938	2925

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
X75	F	000036B0	4	2970	2957
X76	F	00003730	4	3002	2989
X77	F	000037B0	4	3036	3023
X78	F	00003830	4	3068	3055
X79	F	000038B0	4	3100	3087
X8	F	00001530	4	794	781
X80	F	00003930	4	3133	3120
X81	F	000039B0	4	3165	3152
X82	F	00003A30	4	3197	3184
X83	F	00003AB0	4	3240	3227
X84	F	00003B30	4	3272	3259
X85	F	00003BB0	4	3304	3291
X86	F	00003C30	4	3336	3323
X87	F	00003CB0	4	3368	3355
X88	F	00003D30	4	3400	3387
X89	F	00003DB0	4	3432	3419
X9	F	000015B0	4	826	813
X90	F	00003E30	4	3465	3452
X91	F	00003EB0	4	3498	3485
X92	F	00003F30	4	3530	3517
X93	F	00003FB0	4	3562	3549
X94	F	00004030	4	3594	3581
X95	F	000040B0	4	3629	3616
X96	F	00004130	4	3663	3650
X97	F	000041B0	4	3696	3683
X98	F	00004230	4	3730	3717
X99	F	000042B0	4	3764	3751
ZVE6TST	J	00000000	20208	63	66 68 72 76 352 64
=AL2(L'MSGMSG)	R	000004BA	2	333	283
=F'1'	F	000004B0	4	330	157 233
=H'0'	H	000004B8	2	332	278
=XL4'3'	X	000004B4	4	331	164

```
 MACRO    DEFN   REFERENCES

PTTABLE    512    4449
VRI_F      452     553    585    617    649    681    713    746    778    810    844    876    908    944    976   1008   1040   1072
                  1104   1136   1169   1201   1233   1265   1299   1331   1363   1395   1431   1463   1495   1527   1559   1591   1623
                  1656   1688   1720   1752   1784   1818   1851   1883   1915   1948   1984   2016   2048   2080   2112   2144   2176
                  2209   2241   2273   2305   2337   2369   2403   2435   2467   2500   2532   2565   2601   2633   2665   2697   2729
                  2761   2793   2826   2858   2890   2922   2954   2986   3020   3052   3084   3117   3149   3181   3224   3256   3288
                  3320   3352   3384   3416   3449   3482   3514   3546   3578   3613   3647   3680   3714   3748   3791   3823   3855
                  3887   3919   3951   3983   4015   4048   4080   4112   4144   4176   4208   4243   4276   4309   4343   4376   4410
```

```
   DESC      SYMBOL    SIZE      POS         ADDR

Entry: 0

Image       IMAGE     20208   0000-4EEF   0000-4EEF
  Region              20208   0000-4EEF   0000-4EEF
    CSECT   ZVE6TST   20208   0000-4EEF   0000-4EEF
```

```
   STMT                     FILE NAME
1     /devstor/dev/tests/zvector-e6-05-packarith.asm

** NO ERRORS FOUND **
```