ASMA Ver.	0.7.0	zvector-e6	- 16- VSRP- VP	SOP (Zvecto	r E6	VRI - g)	02 Jun 2024 16: 00: 38 Page 1
LOC	ОВЈЕ	CT CODE	ADDR1	ADDR2	STM		
					2	*****	****************
					J	*	Zvector E6 instruction tests for VRI-g encoded:
					5	*	
					6		E659 VSRP - VECTOR SHIFT AND ROUND DECIMAL E65B VPSOP - VECTOR PERFORM SIGN OPERATION DECIMAL
					8	*	
					10	*****	James Wekel June 2024 ***********************************
					11 12	*****	****************
					13		
					14 15		basic instruction tests
					_	********	**************************************
					17 18	* shift	program tests proper functioning of the z/arch E6 VRI-g vector and round decimal, and perform sign operation decimal
					19 20	* instru	uctions. Exceptions are not tested.
					21	* PLEASE	E NOTE that the tests are very SIMPLE TESTS designed to catch
					22 23	* NOT de	us coding errors. None of the tests are thorough. They are esigned to test all aspects of any of the instructions.
						* * * * * * * * * * * * * * * * * * * *	*************
					26		
					27 28		tcase zvector-e6-16-VSRP-VPSOP: VECTOR E6 VRI-g instructions
					<b>29</b>	* *	Zvector E6 tests for VRI-g encoded instruction:
					31	* *	E659 VSRP - VECTOR SHIFT AND ROUND DECIMAL
					0~		E65B VPSOP - VECTOR PERFORM SIGN OPERATION DECIMAL
					34	* *	
					30	* *	# This tests only the basic function of the instruction. # Exceptions are NOT tested.
					37 38		#
					<b>39</b>	* mains	
					40 41		pu 1 lear
					42	* archl	lvl z/Arch
					44	* di ag8	8cmd enable # (needed for messages to Hercules console)
					45 46		
					47	*	
					49	*	e 
					<b>50</b>		******************
			0000000	0000376В	59	ZVE6TST	START 0
00000000			0000000	3000070 <b>D</b>	<b>53</b>		USING ZVE6TST, RO Low core addressability
			00000140	00000000	54 55	SVOLDPSW	EQU ZVE6TST+X' 140' z/Arch Supervisor call old PSW

	0. 7. 0 zvector- e6	10 VSRI VI	SOI (ZVCCC	or to var-g)			02 Jun 2024 16: 00: 38 Page
LOC	OBJECT CODE	ADDR1	ADDR2	STMI			
000000 00001A0 00001A8	00000001 80000000 00000000 00000200	0000000	000001A0	57 58 59	ORG DC DC	ZVE6TST+X' 1A0' X' 0000000180000000' AD(BEGIN)	z/Architecure RESTART PSW
00001B0 00001D0 00001D8	00020001 80000000 00000000 0000DEAD	000001B0	000001D0	61 62 63	ORG DC DC	ZVE6TST+X' 1D0' X' 0002000180000000' AD(X' DEAD' )	z/Architecure PROGRAM CHECK PSW
00001E0		000001E0	00000200	65	ORG	ZVE6TST+X' 200'	Start of actual test program
				66			

						•			02 Jun 2024 16: 00: 38 Page
LOC	OBJE	CT CODE	ADDR1	ADDR2	STMT				
					108	******	*****	*******	***********
					109	*		Do tests in the	E6TESTS table
						******	*****	******	************
					111		_		
0000226	58C0 82	C <b>4</b>		000004C4	112		L	R12, E6TADR	get table of test addresses
			0000000	0000001	113	NEWELO	TOU	ala.	
0000004	5050 CO	20	0000022A	00000001		NEXTE6	EQU	* Dr 0(0 D10)	
	5850 CO	)U		0000000	115		L	R5, 0(0, R12)	get test address
	1255 4780 819	14		00000394	116 117			R5, R5 ENDTEST	have a test? done?
0000230	4/00 013	74		00000394	118		DŁ	ENDIESI	uone:
0000234	B982 000	00			119		XGR	RO, RO	no cc error
0000204	<b>D</b> 00≈ 000	,0			120		ZIGIV	NO, NO	110 66 61101
0000238			00000000		121		USING	E6TEST, R5	
	E710 8F3	30 0006		00001130	122			V1, V1FUDGE	
000023E	58B0 500	00		00000000	123		L	R11, TSUB	get address of test routine
0000242	<b>05BB</b>				124		<b>BALR</b>	R11, R11	do test
					125				
	E310 500			0000000B	126		LB	R1, CCMASK	(failure CC mask)
	8910 000			00000004	127		SLL	R1, 4	(shift to BC instr CC position)
000024E	4410 80	ĎΑ		0000026A	128		EX	R1, TESTCC	fail if
			00000050	0000001	129	TECTDECT	EOH	*	
0000252	E310 50	IC 0014	00000252	00000001 0000001C	131	TESTREST		R1, READDR	get address of expected result
	D50F 8F		00001110	00000010	132			V10UTPUT, O(R1)	valid?
	4770 80		00001110	00000000 000002FE	133		BNE	FAILMSG	no, issue failed message
0000×0E	1770 30	· <del></del>		UUUUWI L	134		DILL		no, robuc rurred medouge
0000262	41C0 C00	)4		00000004	135		LA	R12, 4(0, R12)	next test address
	47F0 802			0000022A	136		В	NEXTE6	
					137				
400000	4700 80	BE		0000026E	138	TESTCC	BC	O, CCMSG	(fail if unexpected condition code)
000026A	1700 00			000000=				-,	r

LA

LA

В

**BAL** 

RO, CCPRTLNG

R1, CCPRTLINE

R15, RPTERROR

**FAILCONT** 

message length

messagfe address

0000055

0000105D

000003A2

00000384

180

181

182

183

184

000002EE

000002F2

000002F6

4100 0055

4110 8E5D

45F0 81A2

000002FA 47F0 8184

	0. 7. 0	Zvecte	or- e6- 16- VSRP- VF	201 (2100)	201 20	V-V- 6)			02 Jun 2024 16: 00: 38 Page
LOC	OBJEC'	T CODI	E ADDR1	ADDR2	STM				
					186				***********
					187	* result	not a	s expected:	
					188		1 ssue	message with test	number, instruction under test
					189	******	*****	and instruction m	<b>5</b> **************
			000002FE	00000001		FAILMSG	EQU	*	
00002FE	4820 5004	1	OOOOLIE	00000001	191	TAILINDG	LH	R2, TNUM	get test number and convert
0000211	4E20 8ED			00000004 000010DE	193		CVD	R2, DECNUM	get test number and convert
0000302	D211 8EC		000010C8	000010B2	194		MVC	PRT3, EDIT	
000030C	DE11 8EC			000010DE	195		ED	PRT3, DECNUM	
0000312	D202 8E1			000010D5	196		MVC	PRTNUM(3), PRT3+13	fill in message with test #
					197				
0000318	D207 8E2	F 5010	0000102F	00000010	198		MVC	PRTNAME, OPNAME	fill in message with instruction
					199				o .
000031E	B982 002				200		XGR	R2, R2	get i3 as U8
0000322	4320 500			0000007	201		IC	R2, I3	
0000326	4E20 8ED			000010DE	202		CVD	R2, DECNUM	and convert
000032A	D211 8EC			000010B2	203		MVC	PRT3, EDIT	
0000330	DE11 8EC			000010DE	204		ED	PRT3, DECNUM	
0000336	D202 8E40	0 8ED5	00001040	000010D5	205		MVC	PRTI 3(3), PRT3+13	fill in message with i3 field
000000	D000 000	0			206		VCD	no no	and the IIO
000033C	B982 0023			0000000	207		XGR	R2, R2	get i4 as U8
0000340	4320 5008 4E20 8ED			00000008	208 209		I C CVD	R2, I4	and convent
0000344 0000348	D211 8EC		000010C8	000010DE 000010B2	210		MVC	R2, DECNUM PRT3, EDIT	and convert
0000348 000034E	DE11 8EC			000010B2	211		ED	PRT3, EDIT PRT3, DECNUM	
000034E	D202 8E4			000010DE	212		MVC	PRTI 4(3), PRT3+13	fill in message with i4 field
0000334	Daua GLA	D OLD	0000104D	000010D3	213		IVIV C	1 K114(3), 1 K13+13	1111 In message with 14 field
000035A	B982 002	2			214		XGR	R2, R2	get m5 as U8
000035E	4320 5009			00000009	215		IC	R2, M5	and convert
0000362	4E20 8ED			000010DE	216		CVD	R2, DECNUM	
0000366	D211 8EC		000010C8	000010B2	217		MVC	PRT3, EDIT	
000036C	DE11 8EC	8 8EDI	000010C8	000010DE	218		ED	PRT3, DECNUM	
0000372	D201 8E5	A 8ED6	0000105A	000010D6	219		MVC	PRTM5(2), PRT3+14	fill in message with m5 field
					220				<b>G</b>
	4100 0059			00000059	221		LA	RO, PRTLNG_	message length
	4110 8E0			00001004	222		LA	R1, PRTLINE	messagfe address
0000380	45F0 81A	2		000003A2	223		BAL	R15, RPTERROR	
					225	******	*****	******	***********
					226	* contin	ue aft	er a failed test	
					227	*****	*****	*****	***********
			00000384	0000001	228	<b>FAILCONT</b>	<b>EQU</b>	*	
0000384	5800 82C	8		000004C8	229		L	RO, =F' 1'	set GLOBAL failed test indicator
0000388	5000 8E0			00001000	230		ST	RO, FAILED	
					231			·	
	41C0 C004			00000004	232		LA	R12, 4(0, R12)	next test address
0000390	47F0 802	A		0000022A	233		В	NEXTE6	
									************
					236	* end of	` testi	ng; set ending psw	
					200	Ciid Oi		<del></del>	
					237	*****	*****	******	***********
0000394	5810 8E00		00000394	00000001 00001000	237	******* ENDTEST	*****	**************************************	**************************************

	0. 7. 0 zvector- e						02 Jun 2024 16: 00: 38 Page	7
LOC	OBJECT CODE	ADDR1	ADDR2	STM				
000398	1211		000004A0 000004B8	240	LTR	R1, R1 EOJ FAI LTEST	No ovit	
)00039A )00039E	4780 82A0 47F0 82B8		000004A0 000004B8	241 242	B B	FAI LTEST	No, exit Yes, exit with BAD PSW	
,000002	1110 0420		00000120	243	_		res, enre wren 2.12 rs.	

DC

C' MSGNOH \* '

CL95' '

300 MSGCMD

**301 MSGMSG** 

302

00000422 D4E2C7D5 D6C8405C

0000042B 40404040 40404040

\*\*\* HERCULES MESSAGE COMMAND \*\*\*

The message text to be displayed

ASMA Ver.	0. 7. 0 zvector- e6-	16- VSRP- VP	SOP (Zvecto	or E6 V	/RI - g)			02 Jun 2024 16: 00: 38 Page	10
LOC	OBJECT CODE	ADDR1	ADDR2	STM					
				304 * 305 * 306 *	******** : :*****	****** Normal *****	**************************************	**************************************	
0000490	00020001 80000000			308 E	EOJPSW	DC	OD' O' , X' 000200	00180000000', AD(0)	
)00004A0	B2B2 8290		00000490	310 E	<b>EOJ</b>	LPSWE	<b>E0JPSW</b>	Normal completion	
)00004A8	00020001 80000000			312 F	FAI LPSW	DC	OD' O' , X' 000200	00180000000', AD(X'BAD')	
000004B8	B2B2 82A8		000004A8	314 F	FAI LTEST	LPSWE	FAILPSW	Abnormal termination	
				316 * 317 * 318 *	******* : :*****	****** <b>Worki 1</b> *****	**************************************	· ************************************	
000004C0				320 C 321 322		DS DS	F F	CRO	
000004C4	000035D8			323 E	E6TADR	DC	A(E6TESTS)	address of E6 test table	
000004CC 000004D0	00000001 00000003 0000 005F			325 326 327 328 329		LTORG	, =F'1' =XL4'3' =H'0' =AL2(L'MSGMSG)	Literals pool	
				330 331 * 332	:	some o	constants		
		00000400	00000001	333 K		EQU	1024	One KB	
		00001000 00010000 00100000	00000001 00000001 00000001	334 P 335 K 336 M	64	EQU EQU EQU	(4*K) (64*K) (K*K)	Size of one page 64 KB 1 MB	
		AABBCCDD OOOOOODD	00000001 00000001		REG2PATT REG2LOW		X' AABBCCDD' X' DD'	Polluted Register pattern (last byte above)	

```
ASMA Ver. 0.7.0 zvector-e6-16-VSRP-VPSOP (Zvector E6 VRI-g)
                                                                                             02 Jun 2024 16: 00: 38 Page
                                                                                                                          16
 LOC
           OBJECT CODE
                            ADDR1
                                      ADDR2
                                               STM
                                               523 *
                                                            E6 VRI G tests
                                                525
                            0000000 0000376B
                                                526 ZVE6TST CSECT,
                                                            DS OF
00001170
                                                527
                                                            PRINT DATA
                                                529
                                                530 *
                                               531 *
                                                            E659 VSRP
                                                                      - VECTOR SHIFT AND ROUND DECIMAL
                                                532 *
                                                            E65B VPSOP - VECTOR PERFORM SIGN OPERATION DECIMAL
                                                533 *
                                                534 *
                                                            VRI_G instr, i3, i4, m5, cc
                                               535 *
                                                                 followed by
                                                536 *
                                                                 v1 - 16 byte expected result
                                                537 *
                                                                 v2 - 16 byte zoned decimal (operand)
                                                538
                                                539 *-----
                                                540 * VSRP - VECTOR SHIFT AND ROUND DECIMAL REGISTER
                                                542 * VSRP with some I3, I4 and M5's
                                                543 * I3 tests
                                                544 *
                                                                        i4=129 (iom=1, rdc=1)
                                                545 *
                                                                        i4=132 (iom=1, rdc=4)
                                                546 *
                                                                        i4=135 (iom=1, rdc=7)
                                                547 *
                                                                        i4=142 (iom=1, rdc=14)
                                               548 *
                                                                        i4=159 (iom=1, rdc=31)
                                                549 * I4
                                                550 *
                                                                        i4=0 (drd=0, shamt=0)
                                                                                                shift left
                                               551 *
                                                                        i4=1 (drd=0, shamt=1)
                                                                                                shift left
                                                552 *
                                                                        i4=4 (drd=0, shamt=4)
                                                                                                shift left
                                                553 *
                                                                        i4=7 (drd=0, shamt=7)
                                                                                                shift left
                                                                        i4 = 14 (drd = 0, shamt = 14)
                                                                                                shift left
                                                554 *
                                               555 *
                                                                        i4=30 (drd=0, shamt=30)
                                                                                                shift left
                                                                        i4= 31 (drd=0, shamt=31)
                                                556 *
                                                                                                shift left
                                                557
                                                558 *
                                                                        i4=96 (drd=0, shamt=-32) shift right
                                                                        i4=114 (drd=0, shamt=-14) shift right
                                                559 *
                                                                                                shift right
                                                560 *
                                                                        i4=121 (drd=0, shamt=-7)
                                                561 *
                                                                        i4=124 (drd=0, shamt=-4)
                                                                                                shift right
                                                562 *
                                                                        i4=127 (drd=0, shamt=-1)
                                                                                                shift right
                                                563
                                                564 *
                                                                        i4=129 (drd=1, shamt=1)
                                                                                                shift left
                                                                        i4=132 (drd=1, shamt=4)
                                                                                                shift left
                                                565 *
                                                566 *
                                                                        i4=135 (drd=1, shamt=7)
                                                                                                shift left
                                                567 *
                                                                        i4=142 (drd=1, shamt=14)
                                                                                                shift left
                                                568 *
                                                                        i4=159 (drd=1, shamt=31)
                                                                                                shift left
                                                569
                                                570 *
                                                                        i4=224 (drd=1, shamt=-32) shift right
                                                571 *
                                                                        i4=225 (drd=1, shamt=-31) shift right
                                                572 *
                                                                        i4=242 (drd=1, shamt=-14) shift right
                                                                        i4=249 (drd=1, shamt=-7)
                                                573 *
                                                                                                shift right
                                                574 *
                                                                        i4=252 (drd=1, shamt=-4) shift right
                                                575 *
                                                                        i4=255 (drd=1, shamt=-1) shift right
                                                576
```

734 +

00001356

00

X' 00'

R2, CCPSW

**R11** 

0F

to save CC

return

ST

BR

DC

000014AA

000014AE

000014B0

5020 8EF0

07FB

000010F0

838+

839+

840+RE9

DC

943+

944 +

000015F6

000015F7

00

9F

X' 00'

HL1' 159'

i 3

SMA Ver.	0. 7. 0 zvector- e6-	16- VSRP- VP	SOP (Zvect	tor E6 VRI-g)			<b>02 Jun 202</b> 4	1 16: 00: 38 Page	2
LOC	OBJECT CODE	ADDR1	ADDR2	STMI					
00015F8	FF			945+	DC	HL1' 255'	i <u>4</u>		
	09			946+	DC	HL1'9'	mб		
00015FA	02 on			947+	DC	HL1'2'	CC		
00015FB 00015FC	OD 00001640			948+ 949+V2_13	DC DC	HL1' 13' A(RE13+16)	cc failed mask address of v2: 16-byte	nacked decimal	
00015FC	E5E2D9D7 40404040			949+V2_13 950+	DC	CL8' VSRP'	instruction name	раскей цестны	
001608	00000010			951+	DC	A(16)	result length		
	00001630			952+REA13	DC	A(RE13)	result address		
	00001000			953+*		()	INSTRUCTION UNDER TEST	ROUTINE	
0001610				954+X13	DS	<b>OF</b>			
0001610	5820 500C		000015FC	955+	L	R2, V2_13	get v2		
0001614	E722 0000 0006		0000000	956+	VL	V2, 0(R2)			
000161A	E612 FF99 F059		00001110	957+	VSRP	V1, V2, 159, 255, 9	test instruction		
0001620 0001626	E710 8F10 000E		00001110	958+	VST	V1, V10UTPUT	save result		
001626 000162A	B98D 0020 5020 8EF0		000010F0	959+ 960+	EPSW ST	R2, R0 R2, CCPSW	exptract psw to save CC		
00162A	07FB		000010F0	961+	BR	R11	return		
0001621	0/1B			962+RE13	DC	0F	Tecuin		
0001630				963+	DROP	R5			
0001630	0000000 00000000			964	DC		000000000000000000000C'	V1	
0001638	00000000 0000003C								
0001640 0001648	00000000 00000000 0000000 0000028D			965	DC	XL16' 000000000000	0000000000000000028D'	V2	
001010	00000000 0000020D			966					
				967	VRI G	VSRP, 159, 255, 11, 2	shamt=-1 (right) dro	d=1 p2=1 p1=1	
001650				<b>968</b> +	DS	OFD	<b>\ B</b> /		
0001650		00001650		<b>969</b> +	USING	*, <b>R5</b>	base for test data and		
0001650	00001670			970+T14	DC	$\mathbf{A}(\mathbf{X}14)$	address of test routine	9	
0001654	000E			971+	DC	H' 14'	test number		
0001656	00			972+	DC	X' 00'	: 0		
0001657 0001658	9F FF			973+ 974+	DC DC	HL1' 159' HL1' 255'	i 3 i 4		
001659				974+ 975+	DC	HL1' 11'	m5		
				976+	DC	HL1' 2'	CC		
00165B	OD			977+	DC	HL1' 13'	cc failed mask		
000165C	000016A0			978+V2_14	DC	A(RE14+16)	address of v2: 16-byte	packed decimal	
0001660	E5E2D9D7 40404040			979+	DC	CL8' VSRP'	instruction name		
0001668	0000010			980+	DC	A(16)	result length		
000166C	00001690			981+REA14	DC	A(RE14)	result address	D. O. V. W. L	
0001070				982+*	DC	O.E.	INSTRUCTION UNDER TEST	ROUTINE	
0001670	E990 E00C		00001050	983+X14	DS	0F			
0001670	5820 500C		0000165C	984+	L	R2, V2_14	get v2		
0001674 000167A	E722 0000 0006 E612 FFB9 F059		00000000	985+ 986+	VL VSRP	V2, 0(R2) V1, V2, 159, 255, 11	test instruction		
000167A	E710 8F10 000E		00001110	980+ 987+	VSRP	V1, V2, 159, 255, 11 V1, V10UTPUT	save result		
0001686	B98D 0020		00001110	988+	FPSW	R2, R0	exptract psw		
00168A	5020 8EF0		000010F0	989+	ST	R2, CCPSW	to save CC		
000168E	07FB			990+	BR	R11	return		
0001690				991+RE14	DC	<b>OF</b>			
0001690				992+	DROP	R5			
0001690	00000000 00000000			993	DC	XL16' 0000000000000	00000000000000003F'	V1	
0001698	00000000 0000003F			001		•••			
00016A0 00016A8	00000000 00000000 0000000 0000028D			994	DC	XL16' 0000000000000	000000000000000028D'	V2	
JUUTUAO	OUUUUUU UUUULAD			995					
				996	VRT G	VSRP, 159, 0, 3, 2	shamt=0	p2=0 p1=1	
				000	u		Similar - U	h~ 2 h	

ISM VEI.			•	O.			02 Juli 2024 10.00.30 Tage	~
LOC	OBJECT CODE	ADDR1	ADDR2	STMT				
00016B0				997+	DS	OFD		
00016B0		000016B0		998+	USING		base for test data and test routine	
00016B0	000016D0			999+T15	DC	A(X15)	address of test routine	
00016B4	000F			1000+	DC	H' 15'	test number	
	00			1001+	DC	X' 00'		
00016B7				1002+	DC	HL1' 159'	i 3	
00016B8	00			1003+	DC	HL1' 0'	i 4	
00016B9	03			1004+	DC	HL1'3'	m5	
00016BA 00016BB	02 0D			1005+ 1006+	DC DC	HL1' 2' HL1' 13'	cc cc failed mask	
0016BC	00001700			1000+ 1007+V2_15	DC DC	A(RE15+16)	address of v2: 16-byte packed decimal	
0016EC	E5E2D9D7 40404040			1007+72_13	DC	CL8' VSRP'	instruction name	
0016C8	00000010			1009+	DC	A(16)	result length	
0016CC				1010+REA15	DC	A(RE15)	result address	
,001000	00001010			1011+*	DU	n(RL10)	INSTRUCTION UNDER TEST ROUTINE	
00016D0				1012+X15	DS	<b>0F</b>		
0016D0	5820 500C		000016BC	1013+	Ĺ	R2, V2_15	get v2	
0016D4	E722 0000 0006		00000000	1014+	VL	V2, O(R2)		
00016DA	E612 0039 F059			1015+	<b>VSRP</b>	V1, V2, 159, 0, 3	test instruction	
0016E0	E710 8F10 000E		00001110	1016+	VST	V1, V10UTPUT	save result	
00016E6	B98D 0020			1017+		R2, R0	exptract psw	
00016EA	5020 8EF0		000010F0	1018+	ST	R2, CCPSW	to save CC	
0016EE	O7FB			1019+	BR	R11	return	
00016F0				1020+RE15	DC	<b>0F</b>		
00016F0				1021+	DROP	R5	<del>-</del>	
00016F0	00000000 00000000			1022	DC	XL16' 0000000000000	000000000000000022F' V1	
00016F8	00000000 0000022F			1000	D.C	VI 161 000000000000	00000000000000000000000000000000000000	
0001700 0001708	00000000 00000000 0000000 0000022C			1023	DC	XL16 000000000000	000000000000000022C' V2	
001708	0000000 00000220			1024				
				1025	VRT C	VSRP, 159, 1, 9, 2	shamt=1 (left)	
0001710				1026+	DS DS	0FD		
001710		00001710		1027+	USING		base for test data and test routine	
001710	00001730	00001710		1028+T16	DC	A(X16)	address of test routine	
001714				1029+	DC	H' 16'	test number	
0001716				1030+	DC	X' 00'		
0001717	9F			1031+	DC	HL1' 159'	i3	
0001718				1032+	DC	HL1' 1'	i 4	
0001719				1033+	DC	HL1' 9'	m5	
000171A				1034+	DC	HL1'2'	cc	
000171B				1035+	DC	HL1' 13'	cc failed mask	
	00001760			1036+V2_16	DC	A(RE16+16)	address of v2: 16-byte packed decimal	
	E5E2D9D7 40404040			1037+	DC	CL8' VSRP'	instruction name	
	0000010			1038+	DC	A(16)	result length	
JUU172C	00001750			1039+REA16	DC	A(RE16)	result address	
)///179A				1040+*	nc	OE	INSTRUCTION UNDER TEST ROUTINE	
0001730 0001730	5820 500C		0000171C	1041+X16 1042+	DS L	0F R2, V2_16	act v2	
	E722 0000 0006			1042+ 1043+	VL	V2, O(R2)	get v2	
	E612 0199 F059		0000000	1043+		V2, U(N2) V1, V2, 159, 1, 9	test instruction	
	E710 8F10 000E		00001110	1044+	VSKF	V1, V2, 139, 1, 9 V1, V10UTPUT	save result	
001740			00001110	1045+ 1046+		R2, R0	exptract psw	
001740 00174A	5020 8EF0		000010F0	1040+ 1047+	ST	R2, CCPSW	to save CC	
00174A				1048+	BR	R11	return	
001750				1049+RE16	DC	0F		
0001750				1050+	DROP	R5		

```
ASMA Ver. 0.7.0 zvector-e6-16-VSRP-VPSOP (Zvector E6 VRI-g)
                                                                                                  02 Jun 2024 16: 00: 38 Page
                                                                                                                                26
 L<sub>O</sub>C
            OBJECT CODE
                              ADDR1
                                        ADDR2
                                                 STM
         0000000 00000000
00001750
                                                 1051
                                                               DC
                                                                     V1
00001758
         0000000 0000220C
                                                 1052
                                                               DC
                                                                                                              V2
00001760 00000000 00000000
                                                                    XL16' 0000000000000000000000000000022D'
00001768
         00000000 0000022D
                                                 1053
                                                 1054
                                                               VRI G VSRP, 159, 7, 11, 2
                                                                                              shamt=7 (left)
                                                                                                               p2=1 p1=1
00001770
                                                 1055+
                                                               DS
                                                                     0FD
00001770
                             00001770
                                                 1056+
                                                               USING *, R5
                                                                                      base for test data and test routine
00001770 00001790
                                                 1057+T17
                                                                     A(X17)
                                                               DC
                                                                                      address of test routine
                                                                                      test number
00001774
         0011
                                                 1058+
                                                               DC
                                                                     H' 17'
                                                               DC
                                                                    X' 00'
00001776
         00
                                                 1059 +
00001777
                                                               DC
                                                                     HL1' 159'
                                                                                      i 3
         9F
                                                 1060+
00001778 07
                                                 1061+
                                                               DC
                                                                     HL1'7'
                                                                                      i 4
                                                                     HL1' 11'
00001779 OB
                                                 1062+
                                                               DC
                                                                                      mБ
                                                                     HL1' 2'
0000177A 02
                                                 1063+
                                                               DC
                                                                                      \mathbf{cc}
                                                                    HL1' 13'
0000177B
         OD.
                                                 1064+
                                                               DC
                                                                                      cc failed mask
                                                 1065+V2 17
                                                               DC
                                                                     A(RE17+16)
0000177C
         000017C0
                                                                                      address of v2: 16-byte packed decimal
00001780 E5E2D9D7 40404040
                                                 1066+
                                                               DC
                                                                     CL8' VSRP'
                                                                                      instruction name
         00000010
00001788
                                                 1067+
                                                               DC
                                                                     A(16)
                                                                                      result length
                                                                    A(RE17)
                                                                                      result address
         000017B0
                                                 1068+REA17
                                                               DC
0000178C
                                                 1069+*
                                                                                      INSTRUCTION UNDER TEST ROUTINE
                                                 1070+X17
00001790
                                                               DS
                                                                     0F
00001790
         5820 500C
                                       0000177C
                                                1071+
                                                               L
                                                                     R2. V2 17
                                                                                      get v2
         E722 0000 0006
                                       00000000
                                                1072+
                                                               VL
                                                                     V2, O(R2)
00001794
                                                                    V1, V2, 159, 7, 11
                                                 1073+
                                                              VSRP
0000179A
         E612 07B9 F059
                                                                                       test instruction
         E710 8F10 000E
                                       00001110
                                                1074+
                                                               VST
                                                                     V1, V10UTPUT
000017A0
                                                                                      save result
         B98D 0020
                                                               EPSW R2, R0
000017A6
                                                 1075+
                                                                                      exptract psw
000017AA
         5020 8EF0
                                       000010F0
                                                1076+
                                                               ST
                                                                     R2, CCPSW
                                                                                          to save CC
000017AE
                                                               BR
                                                                     R11
         07FB
                                                 1077+
                                                                                      return
000017B0
                                                 1078+RE17
                                                               DC
                                                                     0F
000017B0
                                                               DROP
                                                                    R5
                                                 1079 +
000017B0
         0000000 00000000
                                                 1080
                                                               DC
                                                                     XL16' 00000000000000000000220000000F'
                                                                                                              V1
000017B8
         00000022 0000000F
                                                 1081
                                                               DC
                                                                    000017C0
         0000000 00000000
         00000000 0000022D
000017C8
                                                 1082
                                                 1083 *-----
                                                 1084 * VPSOP - VECTOR PERFORM SIGN OPERATION DECIMAL
                                                 1086 * VPSOP with some I3, I4 and M5's
                                                 1087 * I3 tests
                                                 1088 *
                                                                           i4=129 (iom=1, rdc=1)
                                                 1089 *
                                                                           i4=132 (iom=1, rdc=4)
                                                 1090 *
                                                                           i4=135 (iom=1, rdc=7)
                                                 1091 *
                                                                           i4=142 (iom=1, rdc=14)
                                                 1092 *
                                                                           i4=159 (iom=1, rdc=31)
                                                 1093 * I4 : so=00
                                                 1094 *
                                                              i4=128 (nv=1, nz=0, //, so=00, pc=0, sv=0)
                                                 1095 *
                                                              i4=130 \text{ (nv=1, nz=0, //, so=00, pc=1, sv=0)}
                                                 1096 *
                                                 1097 *
                                                              i4=192 (nv=1, nz=1, //, so=00, pc=0, sv=0)
                                                 1098 *
                                                              i4=194 (nv=1, nz=1, //, so=00, pc=1, sv=0)
                                                 1099
                                                 1100 * I4 : so=01
                                                 1101 *
                                                              i4=132 (nv=1, nz=0, //, so=01, pc=0, sv=0)
                                                 1102 *
                                                              i4=134 (nv=1, nz=0, //, so=01, pc=1, sv=0)
```

TOC		ADDD4	ADDDO	CTNT					age
LOC	OBJECT CODE	ADDR1	ADDR2	STMI					
0001810 0001818	00000000 00000000 00000022 0000000C			1159	DC	XL16' 0000000000000	000000000022000000C'	V1	
001820 001828	00000000 00000000 00000022 0000000F			1160	DC	XL16' 00000000000000	0000000000220000000F'	V2	
001020	00000022 00000001			1161					
				1162	VRI G	VPSOP, 159, 192, 1, 2	nz=1		
001830				1163+	DS DS	OFD			
001830		00001830		1164+	USING		base for test data and	tast routina	
001830	00001850	00001030		1165+T19	DC	A(X19)	address of test routine		
					DC DC				
001834	0013			1166+		H' 19'	test number		
001836	00			1167+	DC	X' 00'	• •		
001837	9F			1168+	DC	HL1' 159'	i 3		
001838	CO			1169+	DC	HL1' 192'	i 4		
001839	01			1170+	DC	HL1' 1'	m5		
00183A	02			1171+	DC	HL1' 2'	cc		
00183B	OD			1172+	DC	HL1' 13'	cc failed mask		
00183C	00001880			1173+V2_19	DC	A(RE19+16)	address of v2: 16-byte	nacked decim	nl
001840	E5D7E2D6 D7404040			1174+	DC	CL8' VPSOP'	instruction name	pucheu ucern	
001848	00000010			1175+	DC	A(16)	result length		
00184C	00001870			1176+REA19	DC	A(RE19)	result address	DATITE ME	
				1177+*			INSTRUCTION UNDER TEST	KUUTINE	
001850				1178+X19	DS	<b>OF</b>			
001850	5820 500C		0000183C	1179+	L	R2, V2_19	get v2		
001854	E722 0000 0006		00000000	1180+	VL	V2, O(R2)			
00185A	E612 C019 F05B			1181+		V1, V2, 159, 192, 1	test instruction		
001860	E710 8F10 000E		00001110	1182+	VST	V1, V10UTPUT	save result		
001866	B98D 0020		00001110	1183+		R2, R0	exptract psw		
00186A	5020 8EF0		000010F0	1184+	ST	R2, CCPSW	to save CC		
			UUUUTUFU						
00186E	07FB			1185+	BR	R11	return		
001870				1186+RE19	DC	0F			
001870				1187+	DROP	R5			
001870	0000000 00000000			1188	DC	XL16' 00000000000000	00000000022000000C'	V1	
001878	00000022 0000000C								
001880 001888	00000000 00000000 00000022 0000000F			1189	DC	XL16' 0000000000000	000000000022000000F'	V2	
				1190					
					zero V	2: positive PC='1'	NZ=' â€"'	V1_sign=F C	C=2
				1192	VRI G	VPSOP, 159, 130, 1, 2	nz=0		-
001890				1193+	DS DS	0FD	III-V		
001890		00001890		1194+	USING		base for test data and	tast routing	
001890	000018B0	00001090		1194+ 1195+T20			address of test routine		
					DC	A(X20)			
001894	0014			1196+	DC	H' 20'	test number		
001896	00			1197+	DC	X' 00'			
001897	9F			1198+	DC	HL1' 159'	<b>i</b> 3		
001898	82			1199+	DC	HL1' 130'	i 4		
001899	01			1200+	DC	HL1' 1'	m5		
00189A	02			1201+	DC	HL1' 2'	cc		
00189B	OD			1202+	DC	HL1' 13'	cc failed mask		
00189C	000018E0			1203+V2_20	DC	A(RE20+16)	address of v2: 16-byte	packed decim	nl
0018A0	E5D7E2D6 D7404040			1204+	DC	CL8' VPSOP'	instruction name	ra doorn	
0018A8	00000010			1205+	DC	A(16)			
							result length		
	000018D0			1206+REA20	DC	A(RE20)	result address	DATITET VE	
UUTSAC				1207+*			INSTRUCTION UNDER TEST	KUUIINE	
00018AC					D.C.	AT			
0018B0				1208+X20	DS	OF	<u>.</u>		
	5820 500C E722 0000 0006		0000189C		DS L VL	0F R2, V2_20 V2, O(R2)	get v2		

1262+V2 22

DC

A(RE22+16)

address of v2: 16-byte packed decimal

000019A0

0000195C

1314 +

00001A16

00

X' 00'

ASNA VEI.	u. 7. u zvector- e	0-10-VSRF-VF	SUF (ZVECT	or Eo var-g)			02 Jun 2024 10: 00: 38 Pag	ge 32
LOC	OBJECT CODE	ADDR1	ADDR2	STMT				
00001AD0				1367 * V1: non 1368 1369+	VRI_G	2: invalid PC=' - ' VPS0P, 159, 128, 1, 2		=2
00001AD0		00001AD0		1370+	DS USING	OFD *, R5	base for test data and test routine	
00001AD0	00001AF0			1371+T26	DC	A(X26)	address of test routine	
00001AD4	001A			1372+	DC	H' 26'	test number	
00001AD6 00001AD7	00 9F			1373+ 1374+	DC DC	X' 00' HL1' 159'	i3	
00001AD7	80			1375+	DC	HL1' 128'	i 4	
00001AD9	01			1376+	DC	HL1' 1'	m5	
00001ADA	02 op			1377+	DC	HL1'2'	CC	
00001ADB 00001ADC	OD 00001B20			1378+ 1379+V2_26	DC DC	HL1' 13' A(RE26+16)	cc failed mask address of v2: 16-byte packed decimal	1
00001AE0	E5D7E2D6 D7404040			1380+	DC	CL8' VPSOP'	instruction name	•
00001AE8	0000010			1381+	DC	A(16)	result length	
00001AEC	00001B10			1382+REA26 1383+*	DC	A(RE26)	result address INSTRUCTION UNDER TEST ROUTINE	
00001AF0 00001AF0	5820 500C		00001ADC	1384+X26 1385+	DS L	OF R2, V2_26	get v2	
00001AF4	E722 0000 0006		00001ADC	1386+	ΫL	V2, 0(R2)	get va	
00001AFA	E612 8019 F05B			1387+	<b>VPSOP</b>	V1, V2, 159, 128, 1	test instruction	
00001B00	E710 8F10 000E		00001110	1388+	VST	V1, V10UTPUT	save result	
00001B06 00001B0A	B98D 0020 5020 8EF0		000010F0	1389+ 1390+	ST EPSW	R2, R0 R2, CCPSW	exptract psw to save CC	
00001B0A	07FB		00001010	1391+	BR	R11	return	
00001B10				1392+RE26	DC	<b>OF</b>		
00001B10	0000000 00000000			1393+	DROP	R5	00000000000000000000000000000000000000	
00001B10 00001B18	00000000 00000000 00000022 00000009			1394	DC	VIIO OOOOOOOOOO	000000000220000009' V1	
00001B20	0000000 00000000			1395	DC	XL16' 0000000000000	000000000220000009' V2	
00001B28	00000022 00000009			1000				
				1396 1397	VRI G	VPS0P, 159, 130, 1, 2	nz=0 pc=1	
00001B30				1398+	DS DS	0FD	nz-0 pc-1	
00001B30		00001B30		1399+	<b>USI NG</b>	*, <b>R</b> 5	base for test data and test routine	
00001B30	00001B50			1400+T27	DC	A(X27)	address of test routine	
00001B34 00001B36	001B 00			1401+ 1402+	DC DC	H' 27' X' 00'	test number	
00001B37	9F			1403+	DC	HL1' 159'	i 3	
00001B38	82			1404+	DC	HL1' 130'	i 4	
00001B39 00001B3A	01 02			1405+ 1406+	DC DC	HL1' 1' HL1' 2'	m5 cc	
00001B3B	02 0D			1400+ 1407+	DC DC	HL1' 13'	cc failed mask	
00001B3C	00001B80			1408+V2_27	DC	A(RE27+16)	address of v2: 16-byte packed decimal	l
00001B40	E5D7E2D6 D7404040			1409+	DC	CL8' VPSOP'	instruction name	
00001B48 00001B4C	00000010 00001B70			1410+ 1411+REA27	DC DC	A(16) A(RE27)	result length result address	
00001B4C	00001070			1411+KEA27 1412+*	DC	A(RE&I)	INSTRUCTION UNDER TEST ROUTINE	
00001B50				1413+X27	DS	<b>0F</b>		
00001B50	5820 500C		00001B3C	1414+	L	R2, V2_27	get v2	
00001B54 00001B5A	E722 0000 0006 E612 8219 F05B		00000000	1415+ 1416+	VL VPSOP	V2, 0(R2) V1, V2, 159, 130, 1	test instruction	
00001B3A	E710 8F10 000E		00001110	1410+ 1417+	VISOI	V1, V2, 139, 130, 1 V1, V10UTPUT	save result	
00001B66	B98D 0020			1418+	<b>EPSW</b>	R2, R0	exptract psw	
00001B6A	5020 8EF0		000010F0	1419+	ST	R2, CCPSW	to save CC	
00001B6E	07FB			1420+	BR	R11	return	

HL1'7'

cc failed mask

1524 +

00001CBB

00001E18

00000000 0000000C

1734 +

CL8' VPSOP'

instruction name

E5D7E2D6 D7404040

00001F60

DC

X' 00'

HL1' 159'

i 3

1785 +

1786+

00002016

00002017

00

9F

			(	or E6 VRI-g)				l 16: 00: 38 Pag	e 40
LOC	OBJECT CODE	ADDR1	ADDR2	STMI					
0002018				1787+	DC	HL1' 192'	i 4		
0002019				1788+	DC	HL1' 1'	m5		
	00 07			1789+ 1790+	DC DC	HL1'0' HL1'7'	cc cc failed mask		
	00002060			1790+ 1791+V2_40	DC DC	A(RE40+16)	address of v2: 16-byte	nacked decimal	
	E5D7E2D6 D7404040			1792+	DC	CL8' VPSOP'	instruction name	puckeu ucermar	
	0000010			1793+	DC	A(16)	result length		
000202C	00002050			1794+REA40	DC	A(RE40)	result address		
000000				1795+*	DC	OF	INSTRUCTION UNDER TEST	ROUTINE	
0002030 0002030	5820 500C		0000201C	1796+X40 1797+	DS L	0F R2, V2_40	got v9		
	E722 0000 0006		00002010	1797+	VL	$V2, V2_40$ V2, O(R2)	get v2		
	E612 C019 F05B		0000000	1799+		V2, 0(N2) V1, V2, 159, 192, 1	test instruction		
	E710 8F10 000E		00001110		VST	V1, V10UTPUT	save result		
	B98D 0020			1801+	<b>EPSW</b>	R2, R0	exptract psw		
	5020 8EF0		000010F0	1802+	ST	R2, CCPSW	to save CC		
000204E 0002050	07FB			1803+ 1804+RE40	BR DC	R11 OF	return		
0002050				1804+kE40 1805+	DROP	R5			
	0000000 00000000			1806	DC		000000000000000000000000000000000000000	V1	
	0000000 00000009				-				
	00000000 00000000 0000000 00000009			1807	DC	XL16' 000000000000	00000000000000000009'	V2	
				1808					
0000070				1809	VRI_G	VPSOP, 159, 194, 1, 0	nz=1 pc=1		
0002070 0002070		00002070		1810+ 1811+	DS USI NG	<b>OFD</b> * <b>D</b> 5	base for test data and	tost routino	
	00002090	00002070		1811+ 1812+T41	DC	A(X41)	address of test routine		
	0029			1813+	DC	H' 41'	test number		
	00			1814+	DC	X' 00'			
	9 <b>F</b>			1815+	DC	HL1' 159'	i 3		
	C2			1816+	DC	HL1' 194'	i 4		
0002079 000207A				1817+ 1818+	DC DC	HL1' 1' HL1' 0'	шб		
	07			1819+	DC DC	HL1' 7'	cc cc failed mask		
	000020C0			1820+V2_41	DC	A(RE41+16)	address of v2: 16-byte	packed decimal	
0002080	E5D7E2D6 D7404040			1821+	DC	CL8' VPSOP'	instruction name	1	
	00000010			1822+	DC	A(16)	result length		
000208C	000020B0			1823+REA41	DC	A(RE41)	result address	DOUTE NE	
0002090				1824+* 1825+X41	DS	<b>OF</b>	INSTRUCTION UNDER TEST	KUUIINE	
	5820 500C		0000207C	1826+	L L	R2, V2_41	get v2		
	E722 0000 0006		00000000		ΫL	V2, O(R2)	8 17		
000209A	E612 C219 F05B			1828+	<b>VPSOP</b>	V1, V2, 159, 194, 1	test instruction		
	E710 8F10 000E		00001110		VST	V1, V10UTPUT	save result		
	B98D 0020 5020 8EF0		000010F0	1830+ 1831+	EPSW ST	R2, R0 R2, CCPSW	exptract psw		
	07FB		OUUUIUFU	1831+ 1832+	BR	R2, CCPSW	to save CC return		
00020AE	0,1 D			1833+RE41	DC	OF	1 CCUI II		
00020B0				1834+	DROP	R5			
00020B0	0000000 00000000			1835	DC		000000000000000000000000000000000000000	V1	
	00000000 00000009 0000000 00000000			1836	DC	XL16' 000000000000	000000000000000000009'	V2	
	00000000 00000009			1837					

V1, V10UTPUT

save result

00001110

1892+

E710 8F10 000E

DC

A(16)

A(RE45)

result length

result address

1943+

1944+REA45

00002208

0000220C

00000010

X' 00'

HL1' 159'

HL1' 196'

i3

i 4

DC DC

DC

1994+

1995+

1996 +

000022B6

000022B7

000022B8

00

9F

**C4** 

00022C0 E5 00022CC 00 00022CC 00 00022D0 58 00022D4 E7 00022DA E6 00022E0 E7 00022E6 B9 00022EA 50 00022EA 07 00022F0 00 00022F0 00 00022F0 00 00022F0 00 0002300 00 0002300 00	2	ADDR1	ADDR2  000022BC 0000000  00001110  000010F0	1997+ 1998+ 1999+ 2000+V2_47 2001+ 2002+ 2003+REA47 2004+* 2005+X47 2006+ 2007+ 2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+ 2015	VST EPSW ST BR DC DROP	HL1' 1' HL1' 2' HL1' 13' A(RE47+16) CL8' VPS0P' A(16) A(RE47)  OF R2, V2_47 V2, O(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF R5	m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name result length result address INSTRUCTION UNDER TEST ROUTINE  get v2  test instruction save result exptract psw to save CC return	
00022BA 02 00022BC 00 00022CC 00 00022CC 00 00022CC 00 00022D0 58 00022D4 E7 00022DA E6 00022EA 50 00022EA 50 00022EA 50 00022EA 50 00022F0 00022F0 00022F0 00022F0 00022F0 00022F0 00022F0 00022F0 00022F0 000020 0002310	2 D 0002300 5D7E2D6 D7404040 0000010 00022F0 820 500C 722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB		00000000	1998+ 1999+ 2000+V2_47 2001+ 2002+ 2003+REA47 2004+* 2005+X47 2006+ 2007+ 2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	DC DC DC DC DC DC DC DS L VL VPSOP VST EPSW ST BR DC DROP	HL1' 2' HL1' 13' A(RE47+16) CL8' VPSOP' A(16) A(RE47)  OF R2, V2_47 V2, O(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	cc cc failed mask address of v2: 16-byte packed decimal instruction name result length result address INSTRUCTION UNDER TEST ROUTINE  get v2  test instruction save result exptract psw to save CC	
00022BB	D 0002300 5D7E2D6 D7404040 0000010 00022F0  820 500C 722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB  0000000 00000000 0000022 0000000C 0000000 00000000		00000000	1999+ 2000+V2_47 2001+ 2002+ 2003+REA47 2004+* 2005+X47 2006+ 2007+ 2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	DC DC DC DC DS L VL VPSOP VST EPSW ST BR DC DROP	HL1' 13' A(RE47+16) CL8' VPSOP' A(16) A(RE47)  OF R2, V2_47 V2, O(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	cc failed mask address of v2: 16-byte packed decimal instruction name result length result address INSTRUCTION UNDER TEST ROUTINE  get v2  test instruction save result exptract psw to save CC	
00022BC 00 00022C8 00 00022C8 00 00022CC 00 00022D0 58 00022D4 E7 00022DA E6 00022E0 E7 00022E6 B9 00022EA 50 00022F0 00022F0 00022F0 00022F0 00022F0 00022F0 00022F0 0002310	0002300 5D7E2D6 D7404040 0000010 00022F0 820 500C 722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB 0000000 000000000 0000022 0000000C 0000000 00000000		00000000	2000+V2_47 2001+ 2002+ 2003+REA47 2004+* 2005+X47 2006+ 2007+ 2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	DC DC DC DS L VL VPSOP VST EPSW ST BR DC DROP	A(RE47+16) CL8' VPS0P' A(16) A(RE47) OF R2, V2_47 V2, 0(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	address of v2: 16-byte packed decimal instruction name result length result address INSTRUCTION UNDER TEST ROUTINE get v2  test instruction save result exptract psw to save CC	
00022C0 E5 00022CC 00 00022CC 00 00022D0 58 00022D4 E7 00022DA E6 00022E0 E7 00022E6 B9 00022EA 50 00022EA 07 00022F0 00 00022F0 00 00022F0 00 00022F0 00 0002300 00 0002300 00	5D7E2D6 D7404040 0000010 000022F0  820 500C 722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB  0000000 00000000 0000022 0000000C 0000000 00000000		00000000	2001+ 2002+ 2003+REA47 2004+* 2005+X47 2006+ 2007+ 2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	DC DC DS L VL VPSOP VST EPSW ST BR DC DROP	CL8' VPSOP' A(16) A(RE47)  OF R2, V2_47 V2, O(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	instruction name result length result address INSTRUCTION UNDER TEST ROUTINE  get v2  test instruction save result exptract psw to save CC	
00022CC 00 00022CC 00 00022D0 58 00022D4 E7 00022DA E6 00022E0 E7 00022EA 50 00022EA 50 00022F0 00022F0 00022F0 00022F0 00022F0 00022F8 00 0002300 00 0002310	0000010 00022F0 820 500C 722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB		00000000	2002+ 2003+REA47 2004+* 2005+X47 2006+ 2007+ 2008+ 2010+ 2011+ 2012+ 2013+RE47 2014+	DC DS L VL VPSOP VST EPSW ST BR DC DROP	A(16) A(RE47) OF R2, V2_47 V2, O(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	result length result address INSTRUCTION UNDER TEST ROUTINE  get v2  test instruction save result exptract psw to save CC	
00022CC 00 00022D0 58 00022D4 E7 00022DA E6 00022E0 E7 00022EA 50 00022EE 07 00022F0 00022F0 00022F0 00022F0 00022F0 0002300 00 0002300 00	00022F0  820 500C 722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB  0000000 00000000 0000022 0000000C 0000000 00000000		00000000	2003+REA47 2004+* 2005+X47 2006+ 2007+ 2008+ 2010+ 2011+ 2012+ 2013+RE47 2014+	DC DS L VL VPSOP VST EPSW ST BR DC DROP	A(RE47)  OF R2, V2_47 V2, O(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	result address INSTRUCTION UNDER TEST ROUTINE  get v2  test instruction save result exptract psw to save CC	
00022D0 00022D0 58 00022D4 E7 00022DA E6 00022E0 E7 00022E6 B9 00022EA 50 00022EB 07 00022F0 00022F0 00022F0 00022F0 00022F0 00022F8 00 0002300 00	820 500C 722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB 0000000 00000000 0000022 0000000C 0000000 00000000		00000000	2004+* 2005+X47 2006+ 2007+ 2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	DS L VL VPSOP VST EPSW ST BR DC DROP	OF R2, V2_47 V2, O(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	INSTRUCTION UNDER TEST ROUTINE  get v2  test instruction save result exptract psw to save CC	
00022D0 58 00022D4 E7 00022DA E6 00022E0 E7 00022E6 B9 00022EA 50 00022ED 07 00022F0 00 00022F0 00 00022F0 00 00022F0 00 0002300 00 0002300 00	722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB 0000000 00000000 0000022 0000000C 0000000 00000000		00000000	2005+X47 2006+ 2007+ 2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	L VL VPSOP VST EPSW ST BR DC DROP	R2, V2_47 V2, O(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	get v2  test instruction save result exptract psw to save CC	
00022D0 58 00022D4 E7 00022DA E6 00022E0 E7 00022E6 B9 00022EA 50 00022ED 07 00022F0 00 00022F0 00 00022F0 00 00022F0 00 0002300 00 0002300 00	722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB 0000000 00000000 0000022 0000000C 0000000 00000000		00000000	2006+ 2007+ 2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	L VL VPSOP VST EPSW ST BR DC DROP	R2, V2_47 V2, O(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	test instruction save result exptract psw to save CC	
00022D4 E7 00022DA E6 00022E0 E7 00022E6 B9 00022EA 50 00022EC 07 00022F0 00022F0 00022F0 00022F0 00022F8 00 0002300 00 0002308 00	722 0000 0006 612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB 0000000 00000000 0000022 0000000C 0000000 00000000		00000000	2007+ 2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	VL VPSOP VST EPSW ST BR DC DROP	V2, 0(R2) V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	test instruction save result exptract psw to save CC	
00022DA E6 00022E0 E7 00022E6 B9 00022EA 50 00022E0 07 00022F0 00 00022F0 00 00022F8 00 0002300 00 0002308 00	612 C419 F05B 710 8F10 000E 98D 0020 020 8EF0 7FB 0000000 00000000 0000022 0000000C 0000000 00000000		00001110	2008+ 2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	VPSOP VST EPSW ST BR DC DROP	V1, V2, 159, 196, 1 V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	save result exptract psw to save CC	
00022E0 E7 00022E6 B9 00022EA 50 00022EE 07 00022F0 00022F0 00 00022F8 00 0002300 00 0002308 00	710 8F10 000E 98D 0020 020 8EF0 7FB 0000000 00000000 0000022 0000000C 0000000 00000000			2009+ 2010+ 2011+ 2012+ 2013+RE47 2014+	VST EPSW ST BR DC DROP	V1, V10UTPUT R2, R0 R2, CCPSW R11 OF	save result exptract psw to save CC	
00022E6 B9 00022EA 50 00022EE 07 00022F0 00022F0 00022F8 00 0002300 00 0002308 00	98D 0020 020 8EF0 7FB 0000000 00000000 0000022 0000000C 0000000 00000000			2010+ 2011+ 2012+ 2013+RE47 2014+	EPSW ST BR DC DROP	R2, R0 R2, CCPSW R11 OF	exptract psw to save CC	
00022EA 50 00022EE 07 00022F0 00022F0 00022F0 00 00022F8 00 0002300 00 0002308 00	020 8EF0 7FB 0000000 00000000 0000022 0000000C 0000000 00000000		000010F0	2011+ 2012+ 2013+RE47 2014+	ST BR DC DROP	R2, CCPSW R11 OF	to save CC	
00022EE 07 00022F0 00022F0 00022F8 00 0002300 00 0002308 00	7FB 0000000 00000000 0000022 0000000C 0000000 00000000			2012+ 2013+RE47 2014+	BR DC DROP	R11 0F		
00022F0 00022F0 00022F0 00022F8 0002300 0002308 0002310	0000000 00000000 0000022 0000000C 0000000 00000000			2013+RE47 2014+	DC DROP	<b>OF</b>		
00022F0 00 00022F8 00 0002300 00 0002308 00	0000022 0000000C 0000000 00000000					R5		
00022F8 00 0002300 00 0002308 00	0000022 0000000C 0000000 00000000			2015	DC			
0002300 00 0002308 00 0002310	0000000 00000000				DC	XL16' 0000000000000	00000000022000000C' V1	
0002308 00								
0002310				2016	DC	XL16' 0000000000000	00000000022000000D' V2	
				2017				
				2018 * V1: non	zero V	2: negati ve PC=' 1'	' NZ='â€"' V1_sign=F CC=2	
				2019	VRI_G	VPSOP, 159, 134, 1, 2	nz=0 $pc=1$	
				2020+	DS	OFD	•	
0002310		00002310		2021+	USING	*, <b>R5</b>	base for test data and test routine	
	0002330			2022+T48	DC	A(X48)	address of test routine	
	030			2023+	DC	H' 48'	test number	
0002316 00				2024+	DC	X' 00'		
0002317 9F				2025+	DC	HL1' 159'	i3	
0002318 86				2026+	DC	HL1' 134'	i <u>4</u>	
0002319 01				2027+	DC	HL1' 1'	шб	
000231A 02				2028+	DC	HL1'2'	CC	
000231B 0D				2029+	DC	HL1' 13'	cc failed mask	
	0002360			2030+V2_48	DC	A(RE48+16)	address of v2: 16-byte packed decimal	
	5D7E2D6 D7404040			2031+	DC	CL8' VPSOP'	instruction name	
	0000010			2032+	DC	A(16)	result length result address	
000232C 00	0002350			2033+REA48 2034+*	DC	A(RE48)	INSTRUCTION UNDER TEST ROUTINE	
0002330				2035+X48	DS	<b>0</b> F	INSTRUCTION UNDER TEST RUUTINE	
	820 500C		0000231C	2036+	L	R2, V2_48	get v2	
	722 0000 0006		00002310	2037+	VL	$V2, V2_40$ V2, O(R2)	Sec An	
	612 8619 F05B		3000000	2038+		V2, U(R2) V1, V2, 159, 134, 1	test instruction	
	710 8F10 000E		00001110	2039+	VISOI	V1, V2, 100, 104, 1 V1, V10UTPUT	save result	
	98D 0020		5000110	2040+	EPSW	R2, R0	exptract psw	
	020 8EF0		000010F0	2041+	ST	R2, CCPSW	to save CC	
	7FB		3 2 2 2 2 2 2 2	2042+	BR	R11	return	
0002350				2043+RE48	DC	0F		
0002350				2044+	DROP	R5		
	0000000 00000000			2045	DC		00000000022000000F' V1	
	0000022 0000000F						-	
	0000000 00000000			2046	DC	XL16' 0000000000000	00000000022000000D' V2	
0002368 00	0000022 0000000D							
				2047				
				2048	VRI_G	VPSOP, 159, 198, 1, 2	nz=1 pc=1	

VPS0P V1, V2, 159, 132, 1

V1, V10UTPUT

**VST** 

test instruction

save result

2101+

00001110 2102+

000023FA E612 8419 F05B

E710 8F10 000E

CL8' VPSOP'

instruction name

2154+

E5D7E2D6 D7404040

000024A0

X' 00'

2206+

00002556

**VST** 

ST

BR

EPSW R2, R0

**R11** 

R2, CCPSW

save result

return

exptract psw

to save CC

2309+

2310+

2311+

2312 +

00001110

000010F0

E710 8F10 000E

B98D 0020

5020 8EF0

07FB

000026A0

000026A6

000026AA

000026AE

2416+

000027F6

00

X' 00'

LOC	OBJECT CODE	ADDR1	ADDR2	STM			
00028A8	00000022 0000000A	ADDKI	ADDK2	SIM			
UUUZOAO	UUUUUUZZ UUUUUUA			2470			
				2471		VPS0P, 159, 202, 1, 2	nz=1 pc=1
00028B0				2472+	DS	OFD	-
00028B0		000028B0		2473+	USING		base for test data and test routine
00028B0	000028D0			2474+T63	DC	A(X63)	address of test routine
00028B4	003F			2475+	DC	H' 63'	test number
00028B6 00028B7	00 9F			2476+ 2477+	DC DC	X' 00' HL1' 159'	i3
00028B8	CA			2478+	DC DC	HL1' 202'	i 4
00028B9	01			2479+	DC	HL1' 1'	m5
00028BA	02			2480+	DC	HL1' 2'	CC
00028BB	OD			2481+	DC	HL1' 13'	cc failed mask
00028BC	00002900			2482+V2_63	DC	A(RE63+16)	address of v2: 16-byte packed decimal
00028C0	E5D7E2D6 D7404040			2483+	DC	CL8' VPSOP'	instruction name
00028C8	0000010			2484+	DC	A(16)	result length
00028CC	000028F0			2485+REA63	DC	A(RE63)	result address
				2486+*			INSTRUCTION UNDER TEST ROUTINE
00028D0			00000000	2487+X63	DS	OF	
00028D0	5820 500C		000028BC	2488+	L	R2, V2_63	get v2
00028D4	E722 0000 0006		0000000	2489+	VL VDCOD	V2, 0(R2)	test instruction
	E612 CA19 F05B E710 8F10 000E		00001110	2490+ 2491+	VPSUP	V1, V2, 159, 202, 1 V1, V10UTPUT	test instruction save result
	B98D 0020		00001110	2492+		R2, R0	exptract psw
00028EA	5020 8EF0		000010F0	2493+	ST	R2, CCPSW	to save CC
00028EE	07FB		00001010	2494+	BR	R11	return
00028F0	0,12			2495+RE63	DC	0F	T C C UT II
00028F0				2496+		R5	
00028F0	0000000 00000000			2497	DC	XL16' 00000000000000	00000000022000000F' V1
00028F8	00000022 0000000F						
0002900 0002908	00000000 00000000 00000022 0000000A			2498	DC	XL16' 0000000000000	00000000022000000A' V2
				2499 * V2: neg	ative		
				2500	VRI_G	VPSOP, 159, 138, 1, 2	nz=0 pc=1
0002910				2501+	DS	OFD	
0002910	0000000	00002910		2502+	USING		base for test data and test routine
	00002930 0040			2503+T64	DC	A(X64)	address of test routine
				2504+ 2505+	DC DC	H' 64'	test number
0002916	00			2505+	DC	X' 00'	
0002916 0002917	00 9F			2505+ 2506+	DC DC	X' 00' HL1' 159'	i 3
0002916 0002917 0002918	00 9F 8A			2505+ 2506+ 2507+	DC DC DC	X' 00' HL1' 159' HL1' 138'	i 3 i 4
0002916 0002917 0002918 0002919	00 9F 8A 01			2505+ 2506+ 2507+ 2508+	DC DC DC DC	X' 00' HL1' 159' HL1' 138' HL1' 1'	i 3 i 4 m5
0002916 0002917 0002918 0002919 000291A 000291B	00 9F 8A 01			2505+ 2506+ 2507+	DC DC DC	X' 00' HL1' 159' HL1' 138'	i 3 i 4
0002916 0002917 0002918 0002919 000291A 000291B 000291C	00 9F 8A 01 02 0D 00002960			2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64	DC DC DC DC DC DC	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16)	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal
0002916 0002917 0002918 0002919 000291A 000291B 000291C 0002920	00 9F 8A 01 02 0D 00002960 E5D7E2D6 D7404040			2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64 2512+	DC DC DC DC DC DC DC	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16) CL8' VPS0P'	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name
0002916 0002917 0002918 0002919 000291A 000291B 000291C 0002920	00 9F 8A 01 02 0D 00002960 E5D7E2D6 D7404040 00000010			2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64 2512+ 2513+	DC DC DC DC DC DC DC DC	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16) CL8' VPS0P' A(16)	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name result length
0002916 0002917 0002918 0002919 000291A 000291B 000291C 0002920	00 9F 8A 01 02 0D 00002960 E5D7E2D6 D7404040			2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64 2512+ 2513+ 2514+REA64	DC DC DC DC DC DC DC	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16) CL8' VPS0P'	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name result length result address
0002916 0002917 0002918 0002919 000291A 000291B 000291C 0002920 0002928	00 9F 8A 01 02 0D 00002960 E5D7E2D6 D7404040 00000010			2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64 2512+ 2513+ 2514+REA64 2515+*	DC DC DC DC DC DC DC DC DC	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16) CL8' VPS0P' A(16) A(RE64)	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name result length
0002916 0002917 0002918 0002919 000291A 000291B 000291C 0002920 0002928 000292C	00 9F 8A 01 02 0D 00002960 E5D7E2D6 D7404040 00000010 00002950		00002010	2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64 2512+ 2513+ 2514+REA64 2515+* 2516+X64	DC	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16) CL8' VPS0P' A(16) A(RE64)	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name result length result address INSTRUCTION UNDER TEST ROUTINE
0002916 0002917 0002918 0002919 000291A 000291B 000291C 0002920 0002928 000292C	00 9F 8A 01 02 0D 00002960 E5D7E2D6 D7404040 00000010 00002950		0000291C	2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64 2512+ 2513+ 2514+REA64 2515+* 2516+X64 2517+	DC	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16) CL8' VPS0P' A(16) A(RE64) OF R2, V2_64	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name result length result address
0002914 0002916 0002917 0002918 0002919 000291A 000291C 0002920 000292C 000292C 0002930 0002934 000293A	00 9F 8A 01 02 0D 00002960 E5D7E2D6 D7404040 00000010 00002950 5820 500C E722 0000 0006		0000291C 00000000	2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64 2512+ 2513+ 2514+REA64 2515+* 2516+X64 2517+ 2518+	DC L DC DC DC	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16) CL8' VPSOP' A(16) A(RE64) OF R2, V2_64 V2, O(R2)	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name result length result address INSTRUCTION UNDER TEST ROUTINE get v2
0002916 0002917 0002918 0002919 000291A 000291C 0002920 0002920 000292C 0002930 0002930 0002934 000293A	00 9F 8A 01 02 0D 00002960 E5D7E2D6 D7404040 00000010 00002950 5820 500C E722 0000 0006 E612 8A19 F05B		00000000	2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64 2512+ 2513+ 2514+REA64 2515+* 2516+X64 2517+ 2518+ 2519+	DC DC DC DC DC DC DC DC DC L VL VPSOP	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16) CL8' VPS0P' A(16) A(RE64) OF R2, V2_64 V2, O(R2) V1, V2, 159, 138, 1	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name result length result address INSTRUCTION UNDER TEST ROUTINE get v2 test instruction
0002916 0002917 0002918 0002919 000291A 000291C 0002920 0002920 000292C 0002930 0002930 0002934 000293A	00 9F 8A 01 02 0D 00002960 E5D7E2D6 D7404040 00000010 00002950 5820 500C E722 0000 0006			2505+ 2506+ 2507+ 2508+ 2509+ 2510+ 2511+V2_64 2512+ 2513+ 2514+REA64 2515+* 2516+X64 2517+ 2518+	DC DC DC DC DC DC DC DC VC DC	X' 00' HL1' 159' HL1' 138' HL1' 1' HL1' 2' HL1' 13' A(RE64+16) CL8' VPSOP' A(16) A(RE64) OF R2, V2_64 V2, O(R2)	i3 i4 m5 cc cc failed mask address of v2: 16-byte packed decimal instruction name result length result address INSTRUCTION UNDER TEST ROUTINE get v2

2574+REA66

DC

A(RE66)

result address

000029EC

00002A10

ASMA Ver.	0. 7. 0 zvector- e6-	16- VSRP- VP	SOP (Zvect	or E6 VRI-g)			02 Jun 2024	16: 00: 38	Page	<b>55</b>
LOC	OBJECT CODE	ADDR1	ADDR2	STMI						
				2575+*			INSTRUCTION UNDER TEST	ROUTINE		
000029F0				2576+X66	DS	0F	INSTRUCTION UNDER TEST	MOUTTAL		
000029F0	5820 500C		000029DC	2577+	L	R2, V2_66	get v2			
000029F4	E722 0000 0006		0000000	2578+	VL	V2, 0(R2)				
000029FA 00002A00	E612 8819 F05B E710 8F10 000E		00001110	2579+ 2580+	VPSUP	V1, V2, 159, 136, 1 V1, V10UTPUT	test instruction save result			
00002A00	B98D 0020		00001110	2581+		R2, R0	exptract psw			
00002A0A	5020 8EF0		000010F0	2582+	ST	R2, CCPSW	to save CC			
00002A0E	07FB			2583+	BR	R11	return			
00002A10 00002A10				2584+RE66 2585+	DC DROP	OF R5				
00002A10	00000000 00000000			2586	DC		00000000000000000C'	V1		
00002A18	0000000 000000C			2000	20			•-		
00002A20	0000000 00000000			2587	DC	XL16' 0000000000000	000000000000000000A'	V2		
00002A28	0000000 0000000A			2500						
				2588 2589	VRT G	VPS0P, 159, 200, 1, 0	nz=1 $pc=0$			
00002A30				2590+	DS DS	0FD	112-1 pc-0			
00002A30		00002A30		2591+	USING	*, <b>R</b> 5	base for test data and		e	
00002A30	00002A50			2592+T67	DC	A(X67)	address of test routine			
00002A34 00002A36	0043 00			2593+ 2594+	DC DC	H' 67' X' 00'	test number			
00002A30	9F			2595+	DC DC	HL1' 159'	i3			
00002A38	C8			2596+	DC	HL1' 200'	i 4			
00002A39	01			2597+	DC	HL1' 1'	m5			
00002A3A 00002A3B	00 07			2598+ 2599+	DC DC	HL1'0' HL1'7'	cc cc failed mask			
00002A3B	00002A80			2600+V2_67	DC DC	A(RE67+16)	address of v2: 16-byte	packed deci	mal	
00002A40	E5D7E2D6 D7404040			2601+	DC	CL8' VPSOP'	instruction name			
00002A48	00000010			2602+	DC	A(16)	result length			
00002A4C	00002A70			2603+REA67 2604+*	DC	A(RE67)	result address INSTRUCTION UNDER TEST	ROUTI NE		
00002A50				2605+X67	DS	0F	INSTRUCTION UNDER TEST	ROUTINE		
00002A50	5820 500C		00002A3C	2606+	L	R2, V2_67	get v2			
00002A54	E722 0000 0006		0000000	2607+	VL	V2, 0(R2)	44			
00002A5A 00002A60	E612 C819 F05B E710 8F10 000E		00001110	2608+ 2609+	VPSUP	V1, V2, 159, 200, 1 V1, V10UTPUT	test instruction save result			
00002A66	B98D 0020		00001110	2610+		R2, R0	exptract psw			
00002A6A	5020 8EF0		000010F0	2611+	ST	R2, CCPSW	to save CC			
00002A6E	07FB			2612+	BR	R11	return			
00002A70 00002A70				2613+RE67 2614+	DC DROP	OF R5				
00002A70	00000000 00000000			2615	DC		00000000000000000C'	V1		
00002A78	00000000 0000000C									
00002A80	00000000 00000000			2616	DC	XL16' 0000000000000	000000000000000000A'	V2		
00002A88	0000000 000000A			2617 * V2: neg	ativo					
				2618 Vz. neg	VRI G	VPS0P, 159, 136, 1, 0	nz=0 pc=0			
00002A90				2619+	DS	OFD	•			
00002A90	00000100	00002A90		2620+	USING		base for test data and		e	
00002A90 00002A94	00002AB0 0044			2621+T68 2622+	DC DC	A(X68) H' 68'	address of test routine test number			
00002A94	0044			2623+	DC DC	X' 00'	CCSC Humbel			
00002A97	9F			2624+	DC	HL1' 159'	i3			
00002A98	88			2625+	DC	HL1' 136'	i 4			
00002A99	01			2626+	DC	HL1' 1'	mб			

ionii vei.		10 (51)1	201 (2000	01 20 (11 8)			
LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
0002B50				2679+	DS	<b>OFD</b>	
0002B50		00002B50		2680+	<b>USING</b>		base for test data and test routine
0002B50	00002B70	0000200		2681+T70	DC	A(X70)	address of test routine
0002B54	0046			2682+	DC	H' 70'	test number
0002B56	00			2683+	DC	X' 00'	cese number
002B57	9F			2684+	DC	HL1' 159'	i3
0002B58	8A			2685+	DC	HL1' 138'	i4
002B59	01			2686+	DC	HL1' 1'	m5
002B5A	00			2687+	DC	HL1' 0'	cc
002B5B	07			2688+	DC	HL1'7'	cc failed mask
002B5C	00002BA0			2689+V2_70	DC	A(RE70+16)	address of v2: 16-byte packed decimal
002B60	E5D7E2D6 D7404040			2690+	DC	CL8' VPSOP'	instruction name
002B68	0000010			2691+	DC	A(16)	result length
002B6C	00002B90			2692+REA70	DC	A(RE70)	result address
				2693+*		,	INSTRUCTION UNDER TEST ROUTINE
002B70				2694+X70	DS	<b>OF</b>	· · · · · · · · · · · · · · · · · · ·
002B70	5820 500C		00002B5C	2695+	L	R2, V2_70	get v2
002B74	E722 0000 0006		00000000	2696+	VL	V2, O(R2)	D
002B7A	E612 8A19 F05B		0000000	2697+		V2, U(K2) V1, V2, 159, 138, 1	test instruction
002B7A	E710 8F10 000E		00001110	2698+			
			00001110		VST	V1, V10UTPUT	save result
002B86	B98D 0020		00001000	2699+		R2, R0	exptract psw
002B8A	5020 8EF0		000010F0	2700+	ST	R2, CCPSW	to save CC
002B8E	07FB			2701+	BR	R11	return
002B90				2702+RE70	DC	<b>OF</b>	
002B90				2703+	DROP	R5	
002B90	0000000 00000000			2704	DC	XL16' 0000000000000	000000000000000000F' V1
002B98	0000000 000000F						
0002BA0	0000000 00000000			2705	DC	XL16' 0000000000000	0000000000000000000A' V2
0002BA8	0000000 000000A						
				2706			
				2707	VRI G	VPS0P, 159, 202, 1, 0	nz=1 pc=1
0002BB0				2708+	DS _	OFD	•
0002BB0		00002BB0		2709+	USING	*. <b>R</b> 5	base for test data and test routine
0002BB0	00002BD0			2710+T71	DC	A(X71)	address of test routine
002BB4	0047			2711+	DC	H' 71'	test number
002BB6	00			2712+	DC	X' 00'	cose number
002BB7	9F			2713+	DC	HL1' 159'	i3
002BB8	CA			2714+	DC	HL1' 202'	i 4
002BB9	01			2715+		HL1' 1'	
					DC DC		m5
002BBA	00			2716+	DC DC	HL1'0'	CC
002BBB	07			2717+	DC	HL1'7'	cc failed mask
002BBC	00002C00			2718+V2_71	DC	A(RE71+16)	address of v2: 16-byte packed decimal
002BC0	E5D7E2D6 D7404040			2719+	DC	CL8' VPSOP'	instruction name
002BC8	00000010			2720+	DC	A(16)	result length
<b>002BCC</b>	00002BF0			2721+REA71	DC	A(RE71)	result address
				2722+*			INSTRUCTION UNDER TEST ROUTINE
002BD0				2723+X71	DS	<b>OF</b>	
002BD0	5820 500C		00002BBC	2724+	L	R2, V2_71	get v2
002BD4	E722 0000 0006		00000000	2725+	VL	$V2, O(\overline{R}2)$	
002BDA	E612 CA19 F05B			2726+		V1, V2, 159, 202, 1	test instruction
002BE0	E710 8F10 000E		00001110	2727+	VST	V1, V2, 100, 202, 1 V1, V10UTPUT	save result
002BE6	B98D 0020		50001110	2728+		R2, R0	exptract psw
002BEA	5020 8EF0		000010F0	2729+	ST	R2, CCPSW	to save CC
OO2BEE	07FB		OUUTUFU	2730+	BR	R11	
	U/FD						return
002BF0				2731+RE71	DC	OF	
0002BF0				2732+	DROP	R5	

ASMA Ver.	0. 7. 0 zvector- e6-	16- VSRP- VP	SOP (Zvect	or E6 VRI-g)			02 Jun 2024	16: 00: 38	Page	58
LOC	OBJECT CODE	ADDR1	ADDR2	STM						
00002BF0 00002BF8	00000000 00000000 0000000 0000000F			2733	DC	XL16' 0000000000000	000000000000000000F'	V1		
0002C00 0002C08	00000000 00000000 0000000 0000000A			2734	DC	XL16' 0000000000000	000000000000000000A'	V2		
				2735 * V2: neg	ati ve					
				2736	VRI G	VPS0P, 159, 138, 1, 0	nz=0 $pc=1$			
0002C10				2737+	DS _	OFD	•			
0002C10		00002C10		2738+	<b>USING</b>	*, <b>R</b> 5	base for test data and	test routi	ne	
0002C10	00002C30			2739+T72	DC	A(X72)	address of test routine			
0002C14	0048			2740+	DC	H' 72'	test number			
0002C16	00			2741+	DC	X' 00'				
0002C17	9F			2742+	DC	HL1' 159'	i3			
0002C18	8A			2743+	DC	HL1' 138'	i 4			
0002C19	01			2744+	DC	HL1' 1'	m5			
0002C1A	00			2745+	DC	HL1' 0'	cc			
0002C1B	07			2746+	DC	HL1' 7'	cc failed mask			
0002C1C	00002C60			2747+V2_72	DC	A(RE72+16)	address of v2: 16-byte	packed dec	i mal	
0002C20	E5D7E2D6 D7404040			2748+	DC	CL8' VPSOP'	instruction name			
0002C28	0000010			2749+	DC	A(16)	result length			
0002C2C	00002C50			2750+REA72	DC	A(RE72)	result address			
				2751+*			INSTRUCTION UNDER TEST	ROUTINE		
0002C30				2752+X72	DS	0F				
0002C30	5820 500C		00002C1C	2753+	L	R2, V2_72	get v2			
0002C34	E722 0000 0006		00000000	2754+	VL	V2, O(R2)				
0002C3A	E612 8A19 F05B			2755+	<b>VPSOP</b>	V1, V2, 159, 138, 1	test instruction			
0002C40	E710 8F10 000E		00001110	2756+	VST	V1, V10UTPUT	save result			
0002C46	B98D 0020			2757+		R2, R0	exptract psw			
00002C4A	5020 8EF0		000010F0	2758+	ST	R2, CCPSW	to save CC			
00002C4E	07FB			2759+	BR	R11	return			
00002C50				2760+RE72	DC	OF				
00002C50 00002C50	0000000 00000000			2761+ 2762	DROP DC	R5	00000000000000000000F'	V1		
0002C50 0002C58	0000000 0000000F			2/02	DC	XL10 00000000000000000000000000000000000	JUUUUUUUUUUUUUU	V I		
0002C38	0000000 0000000000000000000000000000000			2763	DC	XI.16' 00000000000000	0000000000000000D'	V2		
0002C68	00000000 0000000D							, ~		
				2764 2765	VDT C	V/DCOD 150 909 1 0	nz_1 no_1			
0002C70				2766+	DS DS	VPSOP, 159, 202, 1, 0 OFD	nz=1 pc=1			
0002C70		00002C70		2767+	USING		base for test data and	test routi	ne	
0002C70	00002C90	30002010		2768+T73	DC	A(X73)	address of test routine			
0002C74	0049			2769+	DC	H' 73'	test number			
0002C76	00			2770+	DC	X' 00'				
0002C77	9F			2771+	DC	HL1' 159'	i3			
0002C78	CA			2772+	DC	HL1' 202'	i 4			
0002C79	01			2773+	DC	HL1' 1'	m5			
0002C7A	00			2774+	DC	HL1' 0'	cc			
00002C7B	07			2775+	DC	HL1' 7'	cc failed mask			
00002C7C	00002CC0			2776+V2_73	DC	A(RE73+16)	address of v2: 16-byte	packed dec	i mal	
00002C80	E5D7E2D6 D7404040			2777+	DC	CL8' VPSOP'	instruction name			
00002C88	00000010			2778+	DC	A(16)	result length			
00002C8C	00002CB0			2779+REA73 2780+*	DC	A(RE73)	result address INSTRUCTION UNDER TEST	ROUTINE		
0002C90				2781+X73	DS	<b>0F</b>		, <del></del>		
0002C90	5820 500C		00002C7C	2782+	L	R2, V2_73	get v2			
0002C94	E722 0000 0006		00000000	2783+	$\overline{\mathbf{V}}\mathbf{L}$	$\overline{V2}, \overline{O(R2)}$				
0002C9A	E612 CA19 F05B			2784+		V1, V2, 159, 202, 1	test instruction			
						, . , , . , <del>_</del> -				

2836+

HL1' 204'

i 4

00002D38

CC

ASMA Ver.	0. 7. 0 zvector- e6-	16- VSRP- VP	SOP (Zvecto	or E6 VRI-g)			02 Jun 2024	16: 00: 38	Page	60
LOC	OBJECT CODE	ADDR1	ADDR2	STMT						
00002D39 00002D3A 00002D3B				2837+ 2838+ 2839+	DC DC DC	HL1' 1' HL1' 1' HL1' 11'	m5 cc cc failed mask			
00002D3C 00002D40	00002D80 E5D7E2D6 D7404040			2840+V2_75 2841+	DC DC	A(RE75+16) CL8' VPS0P'	address of v2: 16-byte instruction name	packed deci	mal	
00002D4C	00000010 00002D70			2842+ 2843+REA75 2844+*	DC DC	A(16) A(RE75)	result length result address INSTRUCTION UNDER TEST	ROUTI NE		
00002D50 00002D50 00002D54	5820 500C E722 0000 0006		00002D3C 00000000	2845+X75 2846+ 2847+	DS L VL	0F R2, V2_75 V2, 0(R2)	get v2			
00002D5A 00002D60 00002D66	E612 CC19 F05B E710 8F10 000E B98D 0020		00001110	2848+ 2849+ 2850+	VST	V1, V2, 159, 204, 1 V1, V10UTPUT R2, R0	test instruction save result exptract psw			
00002D6A 00002D6E 00002D70	5020 8EF0 07FB		000010F0	2851+ 2852+ 2853+RE75	ST BR DC	R2, CCPSW R11 OF	to save CC return			
00002D70 00002D70 00002D70 00002D78	0000000 0000000 00000022 0000000D			2854+ 2855	DROP DC	<b>R5</b>	000000000022000000D'	V1		
00002D78 00002D80 00002D88	00000022 000000D 00000000 00000000 00000022 0000000A			2856	DC		000000000022000000A'	V2		
				2857 * V2: neg 2858	VRI G	VPSOP, 159, 140, 1, 1	nz=0 pc=0			
00002D90 00002D90		00002D90		2859+ 2860+	DS USING	OFD *. R5	base for test data and	test routin	e	
00002D90 00002D94	00002DB0 004C			2861+T76 2862+	DC DC	A(X76) H' 76'	address of test routine test number		.0	
00002D96 00002D97 00002D98	9F 8C			2863+ 2864+ 2865+	DC DC DC	X' 00' HL1' 159' HL1' 140'	i 3 i 4			
00002D9A	01 01 0B			2866+ 2867+ 2868+	DC DC DC	HL1' 1' HL1' 1' HL1' 11'	m5 cc cc failed mask			
00002D9C 00002DA0	00002DE0 E5D7E2D6 D7404040			2869+V2_76 2870+	DC DC	A(RE76+16) CL8' VPS0P'	address of v2: 16-byte instruction name	packed deci	mal	
00002DA8 00002DAC	00000010 00002DD0			2871+ 2872+REA76 2873+*	DC DC	A(16) A(RE76)	result length result address INSTRUCTION UNDER TEST	ROUTI NE		
00002DB0 00002DB0 00002DB4	5820 500C E722 0000 0006		00002D9C 00000000	2874+X76 2875+ 2876+	DS L VL	0F R2, V2_76 V2, O(R2)	get v2			
00002DBA 00002DC0	E612 8C19 F05B E710 8F10 000E		00001110	2877+ 2878+	VPSOP VST	V1, V2, 159, 140, 1 V1, V10UTPUT	test instruction save result			
00002DC6 00002DCA 00002DCE	B98D 0020 5020 8EF0 07FB		000010F0	2879+ 2880+ 2881+	EPSW ST BR	R2, R0 R2, CCPSW R11	exptract psw to save CC return			
00002DD0 00002DD0 00002DD0	00000000 00000000			2882+RE76 2883+ 2884	DC DROP DC	OF R5	000000000022000000D'	V1		
00002DD0 00002DD8 00002DE0 00002DE8	0000000 0000000 00000022 00000000 00000022 0000000D			2885	DC		00000000022000000D'	V2		
00002DE0	000000			2886 2887 2888+	VRI_G DS	VPSOP, 159, 204, 1, 1 OFD	nz=1 pc=0			

EPSW R2, R0

**R11** 

0F

**R5** 

ST

BR

DC

DC

**DROP** 

R2, CCPSW

exptract psw

return

XL16' 000000000000000000000220000000D'

to save CC

**V1** 

2937+

2938+

2939+

2941+

2942

2940+RE78

000010F0

00002E86

00002E8A

00002E8E

00002E90

00002E90

00002E90

B98D 0020

5020 8EF0

0000000 00000000

07FB

CL8' VPSOP'

instruction name

3046+

E5D7E2D6 D7404040

00002FE0

H' 84'

test number

3098 +

00003094

exptract psw

BR

DC

**R11** 

0F

return

3361+

3362+RE92

000033CE

000033D0

07FB

ASMA Ver.	0. 7. 0 zvector- e6-	- 16- VSRP- VP	SOP (Zvect	or E6 VRI-g)			02 Jun 2024	16: 00: 38 Page	72
LOC	OBJECT CODE	ADDR1	ADDR2	STM					
				3467	VRI G	VPSOP, 135, 136, 1, 3	nz=0 pc=0		
00003510				3468+	DS	OFD	v Pv v		
00003510		00003510		3469+	USING	*, <b>R5</b>	base for test data and	test routine	
00003510	00003530			3470+T96	DC	A(X96)	address of test routine	•	
00003514	0060			3471+	DC	Н' 96'	test number		
00003516	00			3472+	DC	X' 00'			
00003517	87			3473+	DC	HL1' 135'	i 3		
00003518	88			3474+	DC	HL1' 136'	i 4		
00003519	01			3475+	DC	HL1' 1'	m5		
0000351A 0000351B	03 0E			3476+ 3477+	DC	HL1'3' HL1'14'	CC		
0000351E				3477+ 3478+V2_96	DC DC	A(RE96+16)	cc failed mask address of v2: 16-byte	nacked decimal	
00003510	E5D7E2D6 D7404040			3479+	DC DC	CL8' VPSOP'	instruction name	packed decinal	
00003528	00000010			3480+	DC	A(16)	result length		
0000352C	00003550			3481+REA96	DC	A(RE96)	result address		
00000020				3482+*	20	11(11200)	INSTRUCTION UNDER TEST	ROUTINE	
00003530				3483+X96	DS	<b>OF</b>		- <del>-</del>	
00003530	5820 500C		0000351C	3484+	L	R2, V2_96	get v2		
00003534	E722 0000 0006		00000000	3485+	VL	V2, O(R2)			
0000353A	E612 8818 705B			3486+	<b>VPSOP</b>	V1, V2, 135, 136, 1	test instruction		
00003540	E710 8F10 000E		00001110	3487+	VST	V1, V10UTPUT	save result		
00003546	B98D 0020			3488+	<b>EPSW</b>	R2, R0	exptract psw		
0000354A	5020 8EF0		000010F0	3489+	ST	R2, CCPSW	to save CC		
0000354E	07FB			3490+	BR	R11	return		
00003550				3491+RE96	DC DROP	OF R5			
00003550 00003550	0000000 00000000			3492+ 3493	DROP		000000000000200000C'	V1	
00003558	0000000 0000000 00000000 2000000C			3433	DC	ALIO 000000000000000000000000000000000000	00000000000020000000	VI	
00003560	00000000 00000000			3494	DC	XI.16' 0000000000000	000000000022200000A'	V2	
00003568	00000022 2000000A			0101	<b>D</b> 0	ALIO OUUUUUU		, ~	
				3495					
				3496 * SC=11	(force	negative): nv=1 to	o avoid data exceptions		
				3497 * V1: non	zero V	2: PC=' - ' ]		_si gn=D CC=1	
				3498 * V2: pos	si ti ve	PC=0			
				3499		VPS0P, 135, 140, 1, 3	nz=0 pc=0		
00003570		00000570		3500+	DS	OFD			
00003570	00000700	00003570		3501+	USING	*, <b>K</b> 5	base for test data and		
00003570	00003590			3502+T97	DC	A(X97)	address of test routine	,	
$00003574 \\ 00003576$	0061 00			3503+ 3504+	DC DC	H' 97' X' 00'	test number		
00003576	87			3505+	DC DC	HL1' 135'	i3		
00003578	8C			3505+ 3506+	DC	HL1' 140'	i4		
00003579	01			3507+	DC	HL1' 1'	m5		
0000357A	03			3508+	DC	HL1' 3'	cc		
0000357B	0E			3509+	DC	HL1' 14'	cc failed mask		
0000357C	000035C0			3510+V2_97	DC	A(RE97+16)	address of v2: 16-byte	packed decimal	
00003580	E5D7E2D6 D7404040			3511+	DC	CL8' VPSOP'	instruction name		
00003588	00000010			3512+	DC	A(16)	result length		
0000358C	000035В0			3513+REA97	DC	A(RE97)	result address	DOUGLAG	
00000500				3514+*	DC	OF	INSTRUCTION UNDER TEST	KUUTINE	
00003590	5090 500C		00000570	3515+X97	DS	0F	act vo		
00003590 00003594	5820 500C E722 0000 0006		0000357C 00000000	3516+ 3517+	L VL	R2, V2_97 V2, O(R2)	get v2		
0000359A	E612 8C18 705B		0000000	3517+ 3518+		V2, U(R2) V1, V2, 135, 140, 1	test instruction		
000035A0	E710 8F10 000E		00001110	3519+		V1, V2, 133, 140, 1 V1, V10UTPUT	save result		
000035A6	B98D 0020		00001110	3520+		R2, R0	exptract psw		
000000110	2002 0080					2.2, 20	onperace pour		

ASMA Ver.	0. 7. 0 zvector- e6-	- 16- VSRP- VP	PSOP (Zvec	tor E6 VRI-g)			02 Jun 2024 16: 00: 38 Page	75
LOC	OBJECT CODE	ADDR1	ADDR2	STMT				
00003748	000033F0			3631+	DC	A(T93)	address of test	
0000374C	00003450			3632+	DC	A(T94)	address of test	
00003750	000034B0			3633+	DC	A(T95)	address of test	
00003754	00003510			3634+	DC	A(T96)	address of test	
00003758	00003570			3635+	DC	A(T97)	address of test	
				3636+*				
0000375C	0000000			3637+	DC	A(0)	END OF TABLE	
00003760	0000000			3638+	DC	A(0)		
				3639				
00003764	0000000			3640	DC	F' 0'	END OF TABLE	
00003768	0000000			3641	DC	F' 0'		

			-	or E6 VRI-g)		02 Jun 2024 16: 00: 38 Pag	e 7
LOC	OBJECT CODE	ADDR1	ADDR2	STMI			
				3643 *****	******	*************	*
				3644 *	Register equates		
				3645 *****	************	****************	*
					<b></b>		
		0000000 0000001	00000001 00000001	3647 R0 3648 R1	EQU 0 EQU 1		
		0000001	0000001	3649 R2	EQU 2		
		0000003	0000001	3650 R3	EQU 3		
		0000004	00000001	3651 R4	EQU 4		
		00000005 00000006	00000001 00000001	3652 R5 3653 R6	EQU 4 EQU 5 EQU 6 EQU 7 EQU 8 EQU 9 EQU 10		
		00000007	0000001	3654 R7	EQU 7		
		00000008	0000001	3655 R8	EQU 8 EQU 9		
		00000009	00000001	3656 R9	EQU 9		
		0000000A 0000000B	00000001 00000001	3657 R10 3658 R11	EQU 10 FOU 11		
		0000000B	0000001	3659 R12	EQU 11 EQU 12 EQU 13		
		000000D	0000001	3660 R13	EQU 13		
		000000E	00000001	3661 R14	EQU 14		
		000000F	0000001	3662 R15	EQU 15		
				3664 *****	*******	**************	*
				<b>3665</b> *	**************************************	**************************************	
					**************************************		
		0000000	0000001	3665 * 3666 *****	************		
		00000000 00000001	00000001 00000001	<b>3665</b> *	**************************************		
		00000001 00000002	00000001 00000001	3665 * 3666 ******  3668 V0 3669 V1 3670 V2	EQU 0 EQU 1 EQU 2		
		00000001 00000002 00000003	00000001 00000001 00000001	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3	EQU 0 EQU 1 EQU 2 EQU 3		
		00000001 00000002 00000003 00000004	00000001 00000001 00000001 00000001	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4		
		00000001 00000002 00000003	00000001 00000001 00000001	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6		
		00000001 00000002 00000003 00000004 00000005 00000006	00000001 00000001 00000001 00000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7		
		00000001 00000002 00000003 00000004 00000005 00000006 00000007 00000008	0000001 00000001 00000001 00000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 8		
		00000001 00000002 00000003 00000004 00000005 00000006 00000007 00000008 00000009	0000001 0000001 0000001 0000001 0000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8 3677 V9	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 7 EQU 8 EQU 9		
		00000001 00000002 00000003 00000004 00000005 00000006 00000007 00000008	0000001 00000001 00000001 00000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 8 EQU 9 EQU 10 EQU 11		
		00000001 00000002 00000003 00000005 00000006 00000007 00000008 00000009 0000000A 0000000B	0000001 0000001 0000001 0000001 0000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8 3677 V9 3678 V10 3679 V11 3680 V12	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 8 EQU 9 EQU 9 EQU 10 EQU 11 EQU 12		
		00000001 00000002 00000003 00000004 00000005 00000006 00000007 00000008 00000009 0000000A 0000000B 0000000D	0000001 0000001 0000001 0000001 0000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8 3677 V9 3678 V10 3679 V11 3680 V12 3681 V13	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 8 EQU 9 EQU 9 EQU 10 EQU 11 EQU 12 EQU 12		
		00000001 00000002 00000003 00000004 00000005 00000006 00000007 00000008 00000009 0000000A 0000000B 0000000C 0000000D	0000001 0000001 0000001 0000001 0000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8 3677 V9 3678 V10 3679 V11 3680 V12 3681 V13 3682 V14	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 8 EQU 9 EQU 10 EQU 11 EQU 12 EQU 12 EQU 13 EQU 13		
		00000001 00000002 00000003 00000004 00000005 00000006 00000007 00000008 00000009 0000000A 0000000B 0000000D	0000001 0000001 0000001 0000001 0000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8 3677 V9 3678 V10 3679 V11 3680 V12 3681 V13	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 8 EQU 9 EQU 9 EQU 10 EQU 11 EQU 12 EQU 12		
		00000001 00000003 00000004 00000005 00000006 00000008 00000009 0000000A 0000000B 0000000C 0000000D 0000000E 0000000F 00000010 00000011	0000001 0000001 0000001 0000001 0000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8 3677 V9 3678 V10 3679 V11 3680 V12 3681 V13 3682 V14 3683 V15 3684 V16 3685 V17	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 8 EQU 9 EQU 10 EQU 11 EQU 12 EQU 12 EQU 13 EQU 14 EQU 15 EQU 15 EQU 17		
		00000001 00000003 00000004 00000005 00000006 00000008 00000009 0000000A 0000000B 0000000C 0000000D 000000D 0000000F 00000010 00000011	0000001 0000001 0000001 0000001 0000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8 3677 V9 3678 V10 3679 V11 3680 V12 3681 V13 3682 V14 3683 V15 3684 V16 3685 V17 3686 V18	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 8 EQU 9 EQU 10 EQU 11 EQU 12 EQU 12 EQU 13 EQU 14 EQU 15 EQU 17 EQU 17 EQU 18		
		00000001 00000003 00000004 00000005 00000006 00000008 00000009 0000000A 0000000B 0000000C 0000000D 0000000E 0000000F 00000010 00000011	0000001 0000001 0000001 0000001 0000001 000000	3665 * 3666 ******  3668 V0 3669 V1 3670 V2 3671 V3 3672 V4 3673 V5 3674 V6 3675 V7 3676 V8 3677 V9 3678 V10 3679 V11 3680 V12 3681 V13 3682 V14 3683 V15 3684 V16 3685 V17	EQU 0 EQU 1 EQU 2 EQU 3 EQU 4 EQU 5 EQU 6 EQU 7 EQU 8 EQU 9 EQU 10 EQU 11 EQU 12 EQU 12 EQU 13 EQU 14 EQU 15 EQU 15 EQU 17		

A Ver.	UB IECT CUDE	A NND 1	4 DDD 9	STMT					
.0C	OBJECT CODE	ADDR1 00000016	ADDR2 00000001	STMF 3690 V22	EOU	22			
		0000017	00000001	3691 V23	EQU EQU EQU EQU EQU EQU EQU	22 23 24 25 26 27 28 29			
		00000018 00000019	00000001	3692 V24 3693 V25	EQU FOII	24 25			
		000001A	00000001	3694 V26	EQU	26			
		0000001B 0000001C	00000001	3695 V27 3696 V28	EQU FOU	27 28			
		0000001D	00000001	3697 V29	EQU	29			
		0000001E	00000001 00000001	3698 V30 3699 V31	EQU EQU	30 31			
		0000011	0000001	3700					
				3701	END				

SYMB0L	TYPE	VALUE	LENGTH	DEFN	REFER	ENCES											
	_																
EGI N	I	00000200	2	93	59	90	91										
C	U	000000A	1	429	167												
CFOUND	X	000010F8	1	403	154	174											
CMASK	U	000000B	1	430	126												
CMSG	U	0000026E	1	143	138												
CPRTEXP	C	000010A0	1	383	171												
CPRTGOT	C	000010B0	1	386	178												
CPRTLI NE	C	0000105D	16	378	388	181											
CPRTLNG	U	00000055	1	388	180												
CPRTNAME	C	0000108A	8	381	164												
CPRTNUM	C	0000106D	3	379	162												
CPSW	F	000010F0	4	402	151	606	635	664	693	722	751	780	809	838	867	896	931
~-~ <b>.</b> .	_	00001010	_		960	989	1018	1047	1076	1155	1184	1214	1243	1273	1302	1331	1360
					1390	1419	1448	1477	1507	1536	1566	1595	1625	1655	1685	1714	1744
					1773	1802	1831	1865	1894	1923	1952	1982	2011	2041	2070	2104	2134
					2164	2193	2223	2252	2282	2311	2346	2375	2404	2433	2464	2493	2522
					2551	2582	2611	2640	2669	2700	2729	2758	2787	2822	2851	2880	2909
					2938	2967	2996	3025	3056	3085	3116	3145	3176	3205	3235	3264	3297
					3328	3360	3392	3023 3426	3457	3489	3521	3143	3170	JAUJ	JAJJ	J&U4	3231
TLRO	F	000004BC	1	320	103	104	3392 105	106	3437	3400	JJ&1						
			4						175	177	193	105	202	204	209	911	916
ECNUM	C	000010DE	16	398	159	161	168	170	173	177	193	195	202	204	209	211	216
OTA DD	<b>A</b>	00000464		000	218												
6TADR	A	000004C4	4	323	112												
6TEST	4	00000000	32	422	121												
6TESTS	F	000035D8	4	3536	323	4.0.0					~						
DIT	X	000010B2	18	393	160	169	176	194	203	210	217						
NDTEST	U	00000394	1	238	117												
<b>0</b> J	Ι	000004A0	4	310	<b>241</b>												
OJPSW	D	00000490	8	308	310												
AILCONT	U	00000384	1	228	184												
'AI LED	F	00001000	4	349	230	239											
AILMSG	U	000002FE	1	191	133												
AILPSW	D	000004A8	8	312	314												
AILTEST	Ī	000004B8	4	314	242												
3	Ū	00000007	1	426	201												
4	Ü	00000008	1	427	208												
MAGE	ĭ	00000000	14188	0	200												
	τÎ	00000400	14100	333	334	335	336										
64	II	00010000	1	335	JUT	333	550										
<b>5</b>	II	00010000	1	428	145	215											
B	U Ti	00100009	1	336	143	۵13											
BG	T	000003D8	1	274	957												
	C		4		257 287	200											
SGCMD SCMSC	C	00000422	9	300	287	288	070										
SGMSG SCM/C	Ļ	0000042B	95	301	281	298	279										
SGM/C	Ť	0000041C	6	298	285												
SGOK SGDETE	Ţ	000003EE	2	283	280												
SGRET	Ī	00000408	4	294	291	00.											
<b>BGSAVE</b>	<u>F</u>	00000410	4	297	277	294											
EXTE6	U	0000022A	1	114	136	233											
PNAME	C	00000010	8	434	164	198											
AGE	U	00001000	1	334													
RT3	C	000010C8	18	396	160	161	162	169	170	171	176	177	178	194	195	196	203
					204	205	210	211	212	217	218	219					
RTI3	C	00001040	3	362	205												
		0000104D	3	365	212												
RTI 4	C	VVVV1V41		200	& I &												

SMA Ver. 0.7.0		r- e6- 16- VSR	•			O <sup>z</sup>							uz Jun	2024	16: 00:	38 Pa	ge	7
SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFER	ENCES												
RTLNG RTM5	U C	00000059 0000105A	1	370 2 368	221 219													
TNAME	C	0000103A 0000102F	2		198													
RTNUM	$\ddot{\mathbf{c}}$	00001014	3	358	196													
)	U	0000000	1	3647	53	103	106	119	180	221	229	230	256	258	274	277	279	
					281 895	283 930	294 959	605 988	634 1017	663 1046	692 1075	721 1154	750 1183	779 1213	808 1242	837 1272	866 1301	
					1330	1359	1389	1418	1447	1476	1506	1535	1565	1594	1624	1654	1684	
					1713	1743	1772	1801	1830	1864	1893	1922	1951	1981	2010	2040	2069	
					2103	2133	2163	2192	2222	2251	2281	2310	2345	2374	2403	2432	2463	
					2492 2879	2521 2908	2550 2937	2581 2966	2610 2995	2639 3024	2668 3055	2699 3084	2728 3115	2757 3144	2786 3175	2821 3204	2850 3234	
					3263	3296	3327	3359	3391	3425	3456	3488	3520	0111	0170	0201	0201	
	U	0000001	1	3648	126	127	128	131	132	144	145	146	151	152	153	154	181	
O	TT	0000004	1	3657	222 100	239 101	240	288	298									
.0 .1	U U	0000000A 0000000B	<u>.</u> 1	3658	100 123	101 124	607	636	665	694	723	752	781	810	839	868	897	
_		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		. 5555	932	961	990	1019	1048	1077	1156	1185	1215	1244	1274	1303	1332	
					1361	1391	1420	1449	1478	1508	1537	1567	1596	1626	1656	1686	1715	
					1745 2135	1774 2165	1803 2194	1832 2224	1866 2253	1895 2283	1924 2312	1953 2347	1983 2376	2012 2405	2042 2434	2071 2465	2105 2494	
					2523	2552	2583	2612	2641	2670	2701	2730	2759	2788	2823	2852	2881	
					2910	2939	2968	2997	3026	3057	3086	3117	3146	3177	3206	3236	3265	
	**	0000000	_		3298	3329	3361	3393	3427	3458	3490	3522						
.2 .3	U U	000000C 000000D	]	3659 3660	112	115	135	232										
4	Ü	0000000B	1	3661														
5	U	000000F	1	3662	182	223	251	261	262									
2	U	00000002	1	3649	158	159	166	167	168	173	174	175	192	193	200	201	202	
					207 285	208 287	209 294	214 295	215 601	216 602	256 605	257 606	258 630	275 631	277 634	283 635	284 659	
					660	663	664	688	689	692	693	717	718	721	722	<b>746</b>	747	
					750	751	775	776	779	780	804	805	808	809	833	834	837	
					838 955	862 956	863 959	866 960	867 984	891 985	892 988	895 989	896 1013	926 1014	927 1017	930 1018	931 1042	
					1043	1046	1047	1071	1072	1075	1076	1150	1151	1154	1155	1179	1180	
					1183	1184	1209	1210	1213	1214	1238	1239	1242	1243	1268	1269	1272	
					1273	1297	1298	1301	1302	1326	1327	1330	1331	1355	1356	1359	1360	
					1385 1473	1386 1476	1389 1477	1390 1502	1414 1503	1415 1506	1418 1507	1419 1531	1443 1532	1444 1535	1447 1536	1448 1561	1472 1562	
					1565	1566	1590	1502	1503 1594	1595	1620	1621	1624	1625	1650	1651	1654	
					1655	1680	1681	1684	1685	1709	1710	1713	1714	1739	1740	1743	1744	
					1768	1769	1772	1773	1797	1798	1801	1802	1826	1827	1830	1831	1860	
					1861 1951	1864 1952	1865 1977	1889 1978	1890 1981	1893 1982	1894 2006	1918 2007	1919 2010	1922 2011	1923 2036	1947 2037	1948 2040	
					2041	2065	2066	2069	2070	2099	2100	2103	2104	2129	2130	2133	2134	
					2159	2160	2163	2164	2188	2189	2192	2193	2218	2219	2222	2223	2247	
					2248	2251	2252	2277	2278	2281	2282	2306	2307	2310	2311	2341	2342	
					2345 2433	2346 2459	2370 2460	2371 2463	2374 2464	2375 2488	2399 2489	2400 2492	2403 2493	2404 2517	2428 2518	2429 2521	2432 2522	
					2546	2547	2550	2551	2577	2578	2581	2582	2606	2607	2610	2611	2635	
					2636	2639	2640	2664	2665	2668	2669	2695	2696	2699	2700	2724	2725	
					2728 2822	2729 2846	2753	2754	2757 2851	2758	2782	2783	2786 2880	2787 2904	2817 2905	2818 2908	2821	
					2822 2933	2846 2934	2847 2937	2850 2938	2851 2962	2875 2963	2876 2966	2879 2967	2880 2991	2904 2992	2905 2995	2908 2996	2909 3020	
					3021	3024	3025	3051	3052	3055	3056	3080	~ ~ ~ _	3084	3085	3111	3112	

ASMA Ver. 0.7.0	zvecto	r- e6- 16- VSR	P-VPSOP (Z	vector	E6 VRI	- g)							02 Jun	2024	16: 00:	38 Pa	ge	80
SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFER	ENCES												
R3	Ū	00000003	1	3650	3115 3205 3323 3422 3520	3116 3230 3324 3425 3521	3140 3231 3327 3426	3141 3234 3328 3452	3144 3235 3355 3453	3145 3259 3356 3456	3171 3260 3359 3457	3172 3263 3360 3484	3175 3264 3387 3485	3176 3292 3388 3488	3200 3293 3391 3489	3201 3296 3392 3516	3204 3297 3421 3517	
R4 R5	U U	0000004 0000005	1	3651 3652	115 702 899 1135 1334 1516 1717 1903 2107	116 725 911 1158 1340 1539 1724 1926 2114	121 731 934 1164 1363 1546 1747 1932 2137	252 754 940 1187 1370 1569 1753 1955 2144	260 760 963 1194 1393 1575 1776 1962 2167	586 783 969 1217 1399 1598 1782 1985 2173	609 789 992 1223 1422 1605 1805 1991 2196	615 812 998 1246 1428 1628 1811 2014 2203	638 818 1021 1253 1451 1635 1834 2021 2226	644 841 1027 1276 1457 1658 1845 2044 2232	667 847 1050 1282 1480 1665 1868 2050 2255	673 870 1056 1305 1487 1688 1874 2073 2262	696 876 1079 1311 1510 1694 1897 2084 2285	
R6	U	00000006	1	3653 3654	2291 2496 2680 2883 3065 3267 3469	2314 2502 2703 2889 3088 3277 3492	2326 2525 2709 2912 3096 3300 3501	2349 2531 2732 2918 3119 3308 3524	2355 2554 2738 2941 3125 3331	2378 2562 2761 2947 3148 3340	2384 2585 2767 2970 3156 3363	2407 2591 2790 2976 3179 3372	2413 2614 2802 2999 3185 3395	2436 2620 2825 3005 3208 3406	2444 2643 2831 3028 3215 3429	2467 2649 2854 3036 3238 3437	2473 2672 2860 3059 3244 3460	
R7 R8 R9	U U U	00000007 00000008 00000009	1	3654 3655 3656	90 91	93 97	94 98	95 100	97									
RE1 RE10 RE11 RE12 RE13 RE14 RE15 RE16	F F F F F F	000011B0 00001510 00001570 000015D0 00001630 00001690 000016F0 00001750	4 4 4 4 4 4 4	608 869 898 933 962 991 1020 1049	595 856 885 920 949 978 1007 1036	598 859 888 923 952 981 1010 1039												
RE17 RE18 RE19 RE2 RE20 RE21 RE22	F F F F F	000017B0 00001810 00001870 00001210 000018D0 00001930 00001990	4 4 4 4 4 4	1078 1157 1186 637 1216 1245 1275	1065 1144 1173 624 1203 1232 1262	1068 1147 1176 627 1206 1235 1265												
RE23 RE24 RE25 RE26 RE27 RE28	F F F F	000019F0 00001A50 00001AB0 00001B10 00001B70 00001BD0	4 4 4 4 4	1304 1333 1362 1392 1421 1450	1291 1320 1349 1379 1408 1437	1294 1323 1352 1382 1411 1440												
RE29 RE3 RE30 RE31 RE32 RE33 RE34	F F F F F	00001C30 00001270 00001C90 00001CF0 00001D50 00001DB0 00001E10	4 4 4 4 4	1479 666 1509 1538 1568 1597 1627	1466 653 1496 1525 1555 1584 1614	1469 656 1499 1528 1558 1587 1617												
RE35	F	00001E10 00001E70	4	1657	1644	1647												

ASMA Ver. 0.7.0	zvecto	r- e6- 16- VSR	P-VPSOP (Zv	ector	E6 VRI	- g)							02 Jun	2024	16: 00:	38 Pa	ge	86
SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFER	ENCES												
					1211 1388 1592 1771 1979 2162	1212 1416 1593 1799 1980 2190	1240 1417 1622 1800 2008 2191	1241 1445 1623 1828 2009 2220	1270 1446 1652 1829 2038 2221	1271 1474 1653 1862 2039 2249	1299 1475 1682 1863 2067 2250	1300 1504 1683 1891 2068 2279	1328 1505 1711 1892 2101 2280	1329 1533 1712 1920 2102 2308	1357 1534 1741 1921 2131 2309	1358 1563 1742 1949 2132 2343	1387 1564 1770 1950 2161 2344	
					2372 2549 2755 2936 3142 3326	2373 2579 2756 2964 3143 3357	2401 2580 2784 2965 3173 3358	2402 2608 2785 2993 3174 3389	2430 2609 2819 2994 3202 3390	2431 2637 2820 3022 3203 3423	2461 2638 2848 3023 3232 3424	2462 2666 2849 3053 3233 3454	2490 2667 2877 3054 3261 3455	2491 2697 2878 3082 3262 3486	2519 2698 2906 3083 3294 3487	2520 2726 2907 3113 3295 3518	2548 2727 2935 3114 3325 3519	
V10 V11 V12 V13 V14	U U U U	0000000A 0000000B 0000000C 0000000D 0000000E	1 1 1 1	3678 3679 3680 3681 3682														
V15 V16 V17 V18 V19 V1FUDGE	U U U U X	0000000F 00000010 00000011 00000012 00000013 00001130	1 1 1 1 1 16	3683 3684 3685 3686 3687 412	122													
V11NPUT V10UTPUT	C X	00001140 00001110	16 16	413 410	132 958 1388 1771 2162 2549 2936	604 987 1417 1800 2191 2580 2965	633 1016 1446 1829 2221 2609 2994	662 1045 1475 1863 2250 2638 3023	691 1074 1505 1892 2280 2667 3054	720 1153 1534 1921 2309 2698 3083	749 1182 1564 1950 2344 2727 3114	778 1212 1593 1980 2373 2756 3143	807 1241 1623 2009 2402 2785 3174	836 1271 1653 2039 2431 2820 3203	865 1300 1683 2068 2462 2849 3233	894 1329 1712 2102 2491 2878 3262	929 1358 1742 2132 2520 2907 3295	
V2	U	0000002	1	3670	3326 602 777 985 1211 1415 1592	3358 603 805 986 1239 1416 1621	3390 631 806 1014 1240 1444 1622	3424 632 834 1015 1269 1445 1651	3455 660 835 1043 1270 1473 1652	3487 661 863 1044 1298 1474 1681	3519 689 864 1072 1299 1503 1682	690 892 1073 1327 1504 1710	718 893 1151 1328 1532 1711	719 927 1152 1356 1533 1740	747 928 1180 1357 1562 1741	748 956 1181 1386 1563 1769	776 957 1210 1387 1591 1770	
					1798 1979 2189 2372 2578 2755 2963	1799 2007 2190 2400 2579 2783 2964	1827 2008 2219 2401 2607 2784 2992	1828 2037 2220 2429 2608 2818 2993	1861 2038 2248 2430 2636 2819 3021	1862 2066 2249 2460 2637 2847 3022	1890 2067 2278 2461 2665 2848 3052	1891 2100 2279 2489 2666 2876 3053	1919 2101 2307 2490 2696 2877 3081	1920 2130 2308 2518 2697 2905 3082	1948 2131 2342 2519 2725 2906 3112	1949 2160 2343 2547 2726 2934 3113	1978 2161 2371 2548 2754 2935 3141	
V20	U	00000014	1	3688	3142 3356	3172 3357	3173 3388	3201 3389	3202 3422	3231 3423	3232 3453	3260 3454	3261 3485	3293 3486	3294 3517	3324 3518	3325	
V21 V22 V23 V24 V25	U U U U	00000015 00000016 00000017 00000018 00000019	1 1 1 1	3689 3690 3691 3692 3693														
V26 V27 V28	U U U	0000001A 0000001B 0000001C	1 1 1	3694 3695 3696														

MACRO	DEFN	REFEREN	ICES															
TABLE I_G	504 449	3537 584 1133 1633 2142 2647 3154	613 1162 1663 2171 2678 3183	642 1192 1692 2201 2707 3213	671 1221 1722 2230 2736 3242	700 1251 1751 2260 2765 3275	729 1280 1780 2289 2800 3306	758 1309 1809 2324 2829 3338	787 1338 1843 2353 2858 3370	816 1368 1872 2382 2887 3404	845 1397 1901 2411 2916 3435	874 1426 1930 2442 2945 3467	909 1455 1960 2471 2974 3499	938 1485 1989 2500 3003	967 1514 2019 2529 3034	996 1544 2048 2560 3063	1025 1573 2082 2589 3094	1054 1603 2112 2618 3123
		3134	3103	<i>3213</i>	JATA	<i>3213</i>	3300	3330	3370	3101	<b>0400</b>	3407	<b>34</b> 33					

