ASMA Ver.	0. 7. 0 zvector-e6-1	3-convertt	odeci mal	(Zvector E6 VRR-g) 02 Jun 2024 16: 00: 27 Page 1
LOC	OBJECT CODE	ADDR1	ADDR2	STMI
				2 ************************************
				4 * Zvector E6 instruction tests for VRR-g encoded:
				6 * E65F VTP - VECTOR TEST DECIMAL
				7 * 8 * James Wekel June 2024 9 ************************************
				10 11 **********************************
				13 * basic instruction tests 14 *
				15 ************************************
				16 * This program tests proper functioning of the z/arch E6 VRR-g vector 17 * test decimal. Exceptions are not tested. 18 *
				19 * PLEASE NOTE that the tests are very SIMPLE TESTS designed to catch 20 * obvious coding errors. None of the tests are thorough. They are 21 * NOT designed to test all aspects of any of the instructions.
				22 * 23 ********************************
				25 * *Testcase zvector-e6-14-testdecimal: VECTOR E6 VRR-g instruction 26 *
				27 * * Zvector E6 tests for VRR-g encoded instruction: 28 * *
				29 * * E65F VTP - VECTOR TEST DECIMAL 30 * *
				31 *
				34 * * # 35 * *
				36 * mainsize 2
				37 * numcpu 1 38 * sysclear 39 * archl vl z/Arch
				40 *
				42 * loadcore "\$(testpath)/zvector-e6-14-testdecimal.core" 0x0
				43 * diag8cmd disable # (reset back to default) 44 * 45 * *Pone
				45 * *Done 46 47 ************************************
00000000		00000000 00000000	000013BB	49 ZVE6TST START 0 50 USING ZVE6TST, RO Low core addressability
		00000140	00000000	51
00000000 000001A0	00000001 80000000	00000000	000001A0	54 ORG ZVE6TST+X' 1A0' z/Architecure RESTART PSW 55 DC X' 0000000180000000'

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
	0000000 00000200		.122.112	56	DC	AD(BEGIN)	
0001B0 0001D0 0001D8	00020001 80000000 0000000 0000DEAD	000001B0	000001D0	58 59 60	ORG DC DC	ZVE6TST+X' 1D0' X' 0002000180000000' AD(X' DEAD')	z/Architecure PROGRAM CHECK PSW
0001E0		000001E0	00000200	62 63	ORG	ZVE6TST+X' 200'	Start of actual test program

ASMA Ver.	0. 7. 0 zvector-e6-	13-convertt	odeci mal	(Zvector E6 VE	(R-g)		02 Jun 2024 16: 00: 27 Page	6
LOC	OBJECT CODE	ADDR1	ADDR2	STMT				
000002D4 000002D8 000002DC 000002E0	5800 821C 5000 8E00 41C0 C004 47F0 802A	000002D4	00000001 0000041C 00001000 00000004 0000022A	175 ******** 176 * contin 177 ******* 178 FAILCONT 179 180 181 182 183	*****	**************************************	**************************************	
				185 ******** 186 * end of 187 ******	****** ` testi	**************************************	**************************************	
000002E4 000002E8	5810 8E00 1211	000002E4	00000001 00001000	188 ENDTEST 189 190	EQU L LTR	* R1, FAILED R1, R1	did a test fail?	
000002EA 000002EE	4780 81F0 47F0 8208		000003F0 00000408	191 192 193	BZ B	EOJ FAI LTEST	No, exit Yes, exit with BAD PSW	

ASMA Ver.	0. 7. 0 zvector-e6-1	3-convertto	odecimal (	Zvector E6 VR	R- g)		02 Jun 2024 16: 00: 27 Page	7
LOC	OBJECT CODE	ADDR1	ADDR2	STMF				
				195 ******* 196 *	* * * * * * <b>RPTER</b>	**************************************	**************************************	
				197 * 198 * 199 ******	*****	$\mathbf{RO} =$	**************************************	
000002F2 000002F6	50F0 8110 5050 8114		00000310 00000314	201 RPTERROR 202 203 *	ST ST	R15, RPTSAVE R5, RPTSVR5	Save return address Save R5	
				204 * 205 *	Use H	ercules Diagnose for	Message to console	
000002FA 000002FE 00000302	9002 8118 4520 8128 9802 8118		00000318 00000328 00000318	206 207 208	STM BAL LM	RO, R2, RPTDWSAV R2, MSG RO, R2, RPTDWSAV	save regs used by MSG call Hercules console MSG display restore regs	
							· · · · · · · · · · · · · · · · · · ·	
00000306	5850 8114		00000314	210	L	R5, RPTSVR5	Restore R5	
0000030A 0000030E	58F0 8110 07FF		00000310	211 212	L BR	R15, RPTSAVE R15	Restore return address Return to caller	
00000310 00000314	00000000 00000000			214 RPTSAVE 215 RPTSVR5	DC DC	F' 0' F' 0'	R15 save area R5 save area	
00000318	00000000 00000000			217 RPTDWSAV	DC	2D' 0'	RO-R2 save area for MSG call	

ASMA Ver.	0. 7. 0 zvector-e6-1	13- convertt	odeci mal	(Zvecto	or E6 VRI	R- g)		02 Jun 2024 16: 00: 27 Page	9
LOC	OBJECT CODE	ADDR1	ADDR2	STMT					
				254 * 255 * 256 *	******* * ******	****** Normal *****	**************   <b>completion or</b> *******	**************************************	
00003E0	00020001 80000000			258 I	EOJPSW	DC	0D' 0' , X' 000200	018000000', AD(0)	
)00003F0	B2B2 81E0		000003E0	260 I	ЕОЈ	LPSWE	E0JPSW	Normal completion	
00000F0	0000001 0000000			000 1		D.C.	ODLOL VIOLOGO	OA OO O	
)00003F8	00020001 80000000			262 1	FAI LPSW	DC	ОD' O' , X' 000200	018000000', AD(X'BAD')	
)0000408	B2B2 81F8		000003F8	264 I	FAI LTEST	LPSWE	FAILPSW	Abnormal termination	
				266 * 267 *	*******	****** Worki 1	**************************************	************** ***********	
				268 *	******	*****	***********	************	
	00000000			270 ( 271 272	CTLRO	DS DS	F F	CRO	
00000414	0000138C			273 I	E6TADR	DC	A(E6TESTS)	address of E6 test table	
	00000003 00000001			275 276 277		LTORG	=XL4' 3' =F' 1'	Literals pool	
	0000 005F			278 279 280			=H' 0' =AL2(L' MSGMSG)		
				281 <sup>3</sup> 282	k	some (	constants		
		00000400 00001000	00000001 00000001	283 I 284 I		EQU	1024 (4*K)	One KB	
		0001000 00010000 00100000	0000001 00000001 00000001	285 H 286 M	<b>K64</b>	EQU EQU EQU	(4*K) (64*K) (K*K)	Size of one page 64 KB 1 MB	
		AADDGGD	0000000	287 288	NEGOF 1	FOU	W. AADDGGDD		
		AABBCCDD 000000DD	00000001 00000001		REG2PATT REG2LOW		X' AABBCCDD' X' DD'	Polluted Register pattern (last byte above)	
						·			

ASMA Ver.	0. 7. 0 zvector-e6-1	3- converttodeci mal	(Zvector E6 VR	R-g)	02 Jun 202	24 16: 00: 27	Page	11
LOC	OBJECT CODE	ADDR1 ADDR2	STMT					
			320 ******	*****	***************	*****	k * * * *	
			321 *	TEST				
			322 ******	*****	failed : message working storge	*****	****	
00001059	40212020 20202020		323 EDIT 324	DC	XL18' 4021202020202020202020202020202020202020	<b>20</b> '		
0000106B	7E7E7E6E		325	DC	C' ===>'			
0000106F 00001081	40404040 40404040 4C7E7E7E		326 PRT3 327	DC DC	CL18' ' C' <==='			
00001081	00000000 00000000		328 DECNUM	DS	C <=== CL16			
00001000			329 *	DO	CLIG			
			<b>330</b> *	CC ex	ktrtaction			
			331 *		27	~ ~\		
00001098 000010A0	00000000 00000000 00		332 CCPSW 333 CCFOUND	DS DS	2F extract PSW after test (has extracted cc	CC)		
UUUUTUAU	00		333 CCFUUND	אמ	X extracted cc			
			335 ******	*****	**************	******	****	
			336 * 337 ******	<b>Vecto</b>	or instruction results, pollution and inpu	ı <b>t</b> :******	****	
000010A8			338	DS	OFD			
000010A8	AABBCCDD EEFFAABB		339 R1FUDGE	DC	XL8' AABBCCDDEEFFAABB'	R1 FUDGE		
000010B0	0000000 00000000		340	DS	XL16	gap V1 OUTPUT		
000010C0	00000000 00000000		341 V10UTPUT		XL16			
000010D0 000010E0	00000000 00000000 0000000 00000000		342 343 R10UTPUT	DS	XL16 FD	gap R1 OUTPUT		
000010E0 000010E8	0000000 0000000		343 KIUUIPUI 344	DS DS	XL16			
000010E8	FFFFFFF FFFFFFF		345 V1FUDGE	DC	XL16' FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	gap V1 FUDGE		
00001108	BBBBBBBB BBBBBBBB		346 V1FUDGEB	DC	XL16' BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	V1 FUDGE l	b	
00001118	F1F2F3F4 F5F6F7F8		347 V1INPUT	DC	CL16' 1234567890123456'	V1 input		
00001128	F7F8F9F0 F1F2F3F4		348	DC	CL14' 78901234567890'			
00001136 00001137	D9 00000000 00000000		349 350	DC DS	X' D9' XL16	ďan		
0001137			330	טט	VIII	gap		

ACIM V	0.7.0			(7 . FO V			00 7 000		<b>.</b>	10
ASMA Ver.	0. 7. 0 zvector-e6-1	3-convertto	odeci mal	(Zvector E6 VI	RR-g)		02 Jun 202	24 16: 00: 27	Page	12
LOC	OBJECT CODE	ADDR1	ADDR2	STMI						
				352 ************************************		**************************************	********			
				354 ******	·	***	**************************************	* * * * * * * * * * * * * * *	ጥ ጥ ጥ ጥ	
00000000 00000004				356 E6TEST 357 TSUB 358 TNUM	DSECT DC DC	, A(0) H' 00'	pointer to test Test Number			
00000006 00000007 00000008	00			359 360 CC 361 CCMASK	DC DC DC	XL1' 00' HL1' 00' HL1' 00'	cc not expected CC mask			
	40404040 40404040			362 363 OPNAME 364	DC	CL8' '	E6 name			
00000014 00000018				365 RELEN 366 READDR 367	DC DC	A(0) A(0)	RESULT LENGTH expected result address			
				368 ** 369 * 370 * follow	ved by		be here (from VRR_G macro)			
				371 * 372 *	16- by 8- byt	te EXPECTED e byte sour	RESULT ce			

ASMA Ver.	0. 7. 0 zvector- e6-	13-convertt	odeci mal	(Zvector E6 VRI	R- g)		02 Jun 2024 16: 00: 27 Page	13
LOC	OBJECT CODE	ADDR1	ADDR2	STMF				
				<b>271</b> *******	*****	******	**********	
						help build test		
				376 *		Î		
				378 *******	*****	cro to help build ***********	Test tables ************************************	
				379 380	MACRO VRR G	&I NST, &CC		
				381 .*	V1010_G	dilibi, doc	&INST - instruction under test	
				382 .*			&CC - expected CC	
				383 .* 384	I.CI.A	&XCC(4) &CC has	mask values for FAILED condition codes	
				385 &XCC(1)	SETA	7	CC != 0 CC != 1	
				386 &XCC(2)	SETA	11	CC != 1	
				387 &XCC(3) 388 &XCC(4)	SETA SETA	13	CC != 2 CC != 3	
				389	<b>JLI</b> II			
				390	GBLA	&TNUM		
				391 &TNUM 392	SETA	&TNUM+1		
					DS	OFD		
				394	USING	*, <b>R</b> 5	base for test data and test routine	
				395 396 T&TNUM	DC	A(X&TNUM)	address of test routine	
				397	DC	H' &TNUM	test number	
				398	DC	XL1' 00'		
				399 400	DC DC	HL1' &CC' HL1' &XCC(&CC+1)'	cc cc failed mask	
				401			ce fuffed mask	
				402	DC	CL8' &INST'	instruction name	
				403 404	DC	A(16)	result length	
				405 REA&TNUM		A(RE&TNUM)	result address	
				406 . *			INCEDICEION UNDER TECT DOUBLINE	
				407 * 408 X&TNUM	DS	<b>0F</b>	INSTRUCTION UNDER TEST ROUTINE	
				409	VL	V1, RE&TNUM	get V1 source	
				410 411	&INST	V1	test instruction	
				411	WINO1	V I	test Thisti ucti on	
				413		R2, R0	exptract psw	
				414 415	ST	R2, CCPSW	to save CC	
				416	BR	R11	return	
				417				
				418 RE&TNUM 419	DC DROP	OF R5		
				419 420	DRUI	N.J		
				421	MEND			

ASMA Ver.	0. 7. 0 zvector-e6-1	3- convertt	odeci mal	(Zvector E6 VR	R-g)		02 Jun 2024 16: 00: 27 Page	15
LOC	OBJECT CODE	ADDR1	ADDR2	STM				
	020202 0022				<b>**</b> ****		***********	
				446 ******* 447 *	F6 VP	R C tests		
		0000000	00001000	448 ******	*****	************	***********	
00001148		00000000	000013BB	449 ZVE6TST 450	CSECT DS	, OF		
				-00		<u></u>		
				452	PRINT	DATA		
				<b>453</b> *				
				454 * 455 *	E65F VRR G	VTP - VECTOR T instr, cc	TEST DECIMAL	
				<b>456</b> *	V 1010_G	followed by		
				457 * 458		v1 - 16 byte	source	
				459 *				
				460 * VTP 461 *	- VE	CTOR TEST DECIMAL		
				462 * VTP si	mple			
				463 464 * digits	valid	, sign valid		
				465	VRR_G	VTP, Ō		
00001148 00001148		00001148		466+ 467+	DS USING	OFD * R5	base for test data and test routine	
00001148	00001164	00001110		468+T1	DC	A(X1)	address of test routine	
0000114C 0000114E	0001 00			469+ 470+	DC DC	H' 1' XL1' 00'	test number	
0000114F	00			471+	DC	HL1' 0'	cc	
00001150 00001151	07 E5E3D740 40404040			472+ 473+	DC DC	HL1' 7' CL8' VTP'	cc failed mask instruction name	
0000115C	0000010			474+	DC	A(16)	result length	
00001160	0000117C			475+REA1 476+*	DC	A(RE1)	result address INSTRUCTION UNDER TEST ROUTINE	
00001164	<b></b>			477+X1	DS	0F		
00001164 0000116A	E710 5034 0006 E601 0000 005F		0000117C	478+ 479+	VL VTP	V1, RE1 V1	get V1 source test instruction	
00001170	B98D 0020		00004000	480+	<b>EPSW</b>	R2, R0	exptract psw	
00001174 00001178	5020 8E98 07FB		00001098	481+ 482+	ST BR	R2, CCPSW R11	to save CC return	
0000117C				483+RE1	DC	<b>OF</b>		
0000117C 0000117C	0000000 00000000			484+ 485	DROP DC	R5 XL16' 0000000000000	0000000000000000000C' V1 source	
00001184	00000000 0000000C				_			
				486 487	VRR G	VTP, 0		
00001190		00001100		488+	DS	OFD		
00001190 00001190	000011AC	00001190		489+ 490+T2	USI NG DC	*, R5 A(X2)	base for test data and test routine address of test routine	
00001194	0002			491+	DC	H' 2'	test number	
00001196 00001197	00 00			492+ 493+	DC DC	XL1' 00' HL1' 0'	cc	
00001198	07			494+	DC	HL1' 7'	cc failed mask	
00001199 000011A4	E5E3D740 40404040 00000010			495+ 496+	DC DC	CL8' VTP' A(16)	instruction name result length	
000011A8	000011C4			497+REA2	DC	A(RE2)	result address	
000011AC				498+* 499+X2	DS	0F	INSTRUCTION UNDER TEST ROUTINE	

	0. 7. 0 zvector- e6-1			(Zvector E6	VRR-g)		02 Jun 20	24 16: 00: 27	Page	16
LOC	OBJECT CODE	ADDR1	ADDR2	STMI						
000011AC 000011B2	E710 5034 0006 E601 0000 005F		000011C4	500+ 501+	VL VTP	V1, RE2 V1	get V1 source test instruction			
000011B8	B98D 0020			<b>502</b> +	<b>EPSW</b>	R2, R0	exptract psw			
00011BC	5020 8E98		00001098	503+	ST	R2, CCPSW	to save CC			
00011C0 00011C4	07FB			504+ 505+RE2	BR DC	R11 OF	return			
00011C4				506+ 506+	DROP	R5				
00011C4	0000000 00000000			507	DC		00000000000123450000000D'	V1 source		
00011CC	00123450 0000000D			500						
				508 509 * dig	its valid	sign invali	i d			
				510	VRR_G	VTP, 1				
00011D8				511+	DS	OFD				
000011D8 000011D8	000011F4	000011D8		512+ 513+T3	USI NG DC		base for test data an address of test routi		ne	
00011D8	0003			513+13 514+	DC DC	A(X3) H' 3'	test number	ne		
00011DE	00			<b>515</b> +	DC	XL1' 00'	cese number			
000011DF	01			516+	DC	<b>IL1'1'</b>	cc			
000011E0 000011E1	OB E5E3D740 40404040			517+ 518+	DC DC	HL1' 11' CL8' VTP'	cc failed mask instruction name			
00011E1	00000010			519+	DC DC	A(16)	result length			
00011F0	0000120C			520+REA3	DC	A(RE3)	result address			
0001151				521+*	D.C.	OF.	INSTRUCTION UNDER TES	T ROUTINE		
000011F4 000011F4	E710 900C 0006		0000120C	522+X3 523+	DS VL	0F V1, RE3	get V1 source			
00011FA	E601 0000 005F		00001200	524+	VTP	V1, KES V1	test instruction			
0001200	B98D 0020			<b>525</b> +	<b>EPSW</b>	R2, R0	exptract psw			
0001204	5020 8E98		00001098	<b>526</b> +	ST	R2, CCPSW	to save CC			
00001208 0000120C	07FB			527+ 528+RE3	BR DC	R11 OF	return			
000120C				529+	DROP	R5				
0000120C	00000000 00000000			530	DC	XL16' 0000000	000000000000000000000000000000000000000	V1 source		
0001214	0000000 00000009			531						
				531 532	VRR_G	VTP. 1				
0001220				533+	DS	OFD				
0001220		00001220		<b>534</b> +	USING		base for test data an		ne	
0001220 0001224	0000123C 0004			535+T4 536+	DC DC	A(X4) H' 4'	address of test routi	ne		
0001224	0004			537+	DC DC	XL1' 00'	test number			
0001227	01			<b>538</b> +	DC	HL1' 1'	cc			
0001228	OB			539+	DC DC	HL1' 11'	cc failed mask			
00001229 00001234	E5E3D740 40404040 00000010			540+ 541+	DC DC	CL8' VTP' A(16)	instruction name result length			
0001234	000010			542+REA4	DC	A(RE4)	result address			
				<b>543</b> +*			INSTRUCTION UNDER TES	T ROUTINE		
0000123C 0000123C	E710 5094 0000		00001954	544+X4	DS VI	OF V1 DEA	got V1 course			
0001230	E710 5034 0006 E601 0000 005F		00001254	545+ 546+	VL VTP	V1, RE4 V1	get V1 source test instruction			
0001248	B98D 0020			<b>547</b> +	<b>EPSW</b>	R2, R0	exptract psw			
000124C	5020 8E98		00001098	<b>548</b> +	ST	R2, CCPSW	to save CC			
0001250 0001254	07FB			549+ 550+RE4	BR DC	R11 OF	return			
0001254				551+	DROP	R5				
00001254	00000000 00000000			552	DC		000000000012345000000000	V1 source		
000125C	00123450 00000000									

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LOC	OBJECT CODE	ADDR1	ADDR2	STMT				
				553				
				554 * a dig	git inva. VRR C	lid, sign valid VTP,2		
00001268				55 <b>6</b> +	DS DS	OFD		
00001268		00001268		557+	USING	*, <b>R</b> 5	base for test data and test routine	
00001268	00001284			558+T5	DC	A(X5)	address of test routine	
0000126C 0000126E	0005 00			559+ 560+	DC DC	H' 5' XL1' 00'	test number	
000126E	02			561+	DC	HL1' 2'	cc	
00001270	OD			<b>562</b> +	DC	HL1' 13'	cc failed mask	
00001271 0000127C	E5E3D740 40404040 00000010			563+ 564+	DC DC	CL8' VTP' A(16)	instruction name	
0001270	0000010 0000129C			565+REA5	DC	A(RE5)	result length result address	
70002200	33332733			<b>566</b> +*			INSTRUCTION UNDER TEST ROUTINE	
00001284	T740 F004 0000		00001000	567+X5	DS	OF	. 774	
00001284 0000128A	E710 5034 0006 E601 0000 005F		0000129C	568+ 569+	VL VTP	V1, RE5 V1	get V1 source test instruction	
0001284	B98D 0020			570+	EPSW	R2, R0	exptract psw	
00001294	5020 8E98		00001098	<b>571</b> +	ST	R2, CCPSW	to save CC	
00001298	07FB			572+	BR	R11	return	
0000129C 0000129C				573+RE5 574+	DC DROP	0F <b>R</b> 5		
000129C	00000000 0FF00000			575	DC		FF00000000000000000000C' V1 source	
000012A4	0000000 000000C							
				576	VDD C	TWD O		
000012B0				577 578+	VKK_G DS	VTP, 2 OFD		
00012B0		000012B0		579+	USING		base for test data and test routine	
000012B0	000012CC			580+T6	DC	A(X6)	address of test routine	
000012B4	0006			581+ 582+	DC	H' 6'	test number	
000012B6 000012B7	00 02			582+ 583+	DC DC	XL1' 00' HL1' 2'	cc	
00012B8	OD			584+	DC	HL1' 13'	cc failed mask	
	E5E3D740 40404040			<b>585</b> +	DC	CL8' VTP'	instruction name	
000012C4 000012C8				586+ 587+REA6	DC DC	A(16) A(RE6)	result length result address	
00012C0	000012E4			588+*	ЪС	A(REU)	INSTRUCTION UNDER TEST ROUTINE	
000012CC				589+X6	DS	OF		
000012CC	E710 5034 0006		000012E4	590+	VL VTD	V1, RE6	get V1 source	
000012D2 000012D8	E601 0000 005F B98D 0020			591+ 592+	VTP FPSW	V1 R2, R0	test instruction exptract psw	
000012DC			00001098	593+	ST	R2, CCPSW	to save CC	
00012E0	07FB			<b>594</b> +	BR	R11	return	
00012E4				595+RE6	DC	OF D5		
000012E4 000012E4	F0F00000 00000000			596+ 597	DROP DC	R5 XL16' F0F000000	00000000123450000000F' V1 source	
00012EC				001	20		JUDICUTAL TOUR OF THE SOUTH	
					git inva	lid, sign inva	lid	
00012F8				600 601+	VKK_G DS	VTP, 3 OFD		
00012F8		000012F8		<b>602</b> +	USING		base for test data and test routine	
00012F8	00001314			603+T7	DC	A(X7)	address of test routine	
000012FC 000012FE	0007			604+ 605+	DC DC	H' 7' XL1' 00'	test number	
00012FE				606+	DC DC	HL1'3'	cc	
JUUIMII	<b>3</b>			0001	<b>D</b> U			

	0. 7. 0 zvector-e6			(Zvector E6 VR	RR-g)		02 Jun 20	024 16: 00: 27	Page	18
LOC	OBJECT CODE	ADDR1	ADDR2	STMI						
00001300	0E			607+	DC	HL1' 14'	cc failed mask			
00001301	E5E3D740 40404040			608+	DC	CL8' VTP'	instruction name			
0000130C	0000010			609+ 610+REA7	DC DC	A(16)	result length result address			
00001310	0000132C			610+ <b>REA</b> 7 611+*	DC	A(RE7)	INSTRUCTION UNDER TE	T ROUTINE		
00001314				612+X7	DS	<b>OF</b>	INSTRUCTION UNDER TE	or ROUTINE		
00001314	E710 5034 0006		0000132C	613+	VL	V1, RE7	get V1 source			
0000131A	E601 0000 005F			614+	VTP	V1	test instruction			
00001320	B98D 0020		00001000	615+	<b>EPSW</b>	R2, RO	exptract psw			
00001324 00001328	5020 8E98 07FB		00001098	616+ 617+	ST BR	R2, CCPSW R11	to save CC return			
00001328 0000132C	UTTD			618+RE7	DC	OF	recurn			
0000132C				619+	DROP	R5				
0000132C	00000000 0FF00000			620	DC	XL16' 0000	00000FF0000000000000000000000000000000	V1 source		
00001334	00000000 00000009			004						
				621 622	VDD C	VTP, 3				
00001340				623+	DS	OFD				
00001310		00001340		624+	USING		base for test data a	nd test routin	e	
00001340	0000135C			625+T8	DC	A(X8)	address of test routi	ne		
00001344	0008			626+	DC	H' 8'	test number			
00001346	00			627+	DC	XL1' 00'				
00001347 00001348	03 0E			628+ 629+	DC DC	HL1'3' HL1'14'	cc cc failed mask			
00001348	E5E3D740 40404040			630+	DC	CL8' VTP'	instruction name			
00001354	00000010			631+	DC	A(16)	result length			
00001358	00001374			632+REA8	DC	A(RE8)	result address			
00001250				633+* 634+X8	DC	0F	INSTRUCTION UNDER TES	ST ROUTINE		
0000135C 0000135C	E710 5034 0006		00001374	635+	DS VL	V1, RE8	get V1 source			
00001362	E601 0000 005F		00001074	636+	VTP	V1, REO V1	test instruction			
00001368	B98D 0020			637+	<b>EPSW</b>	R2, R0	exptract psw			
			00001098	638+	ST	R2, CCPSW	to save CC			
00001370	07FB			639+ 640+ <b>RE</b> 8	BR	R11	return			
00001374 00001374				641+	DC DROP	OF R5				
	F0F00000 00000000			642	DC		000000000000012345000000002	V1 source		
	00123450 00000002									
00001001	0000000			643	DC	El Ol	END OF TABLE			
00001384 00001388	00000000 00000000			644 645	DC DC	F' 0' ] F' 0'	END OF TABLE			
00001388	0000000			646 *	DC	r U				
					of poi	nters to i	ndi vi dual load test			
				<b>648</b> *	•					
0000138C				<b>649 E6TESTS</b>	DS	OF				
00001290				650 651+TTABLE	PTTAB	LE OF				
0000138C 0000138C	00001148			652+	DS DC	A(T1)	address of test			
00001380	00001140			653+	DC	A(T2)	address of test			
00001394	000011D8			<b>654</b> +	DC	A(T3)	address of test			
00001398	00001220			655+	DC	A(T4)	address of test			
0000139C	00001268			656+	DC	A(T5)	address of test			
000013A0 000013A4	000012B0 000012F8			657+ 658+	DC DC	A(T6) A(T7)	address of test address of test			
000013A4 000013A8	00001218			659+	DC DC	A(17) A(T8)	address of test			
300010/10	3301010			660+*	20	(10)	undi CDD VI CCDC			

	0. 7. 0 zvector- e6				6 VRR-g)			02 Jun 2024 16: 00: 27	Page	19
LOC	OBJECT CODE	ADDR1	ADDR2	STMT		1 (2)		_		
0013AC 0013B0	00000000 00000000			661+ 662+	DC DC	A(0) A(0)	END OF TABLE	E		
0013B4	00000000			663 664	DC DC	F' 0' F' 0'	END OF TABLE			
001388	0000000			665	DC	F U				

ASMA Ver.	0. 7. 0 zvector- e6-	- 13- convertt	odeci mal	(Zvector E6	VRR-g)		02 Jun 2024 16: 0	0: 27 Page	20
LOC	OBJECT CODE	ADDR1	ADDR2	STM					
				667 ***** 668 * 669 *****			********		
		00000000 00000001 00000002	00000001 00000001 00000001	671 R0 672 R1 673 R2	EQU 0 EQU 1 EQU 2				
		0000003 0000004 0000005 0000006 0000007	00000001 00000001 00000001 00000001	674 R3 675 R4 676 R5 677 R6 678 R7	EQU 3 EQU 4 EQU 5 EQU 6				
		0000007 00000008 00000009 0000000A 0000000B	00000001 00000001 00000001 00000001	679 R8 680 R9 681 R10 682 R11	EQU 7 EQU 8 EQU 9 EQU 10 EQU 11				
		000000C 000000D 000000E 000000F	00000001 00000001 00000001 00000001	683 R12 684 R13 685 R14 686 R15	EQU 12 EQU 13 EQU 14 EQU 15				
				688 ***** 689 * 690 *****	**************************************	tes	**************************************		
		00000000 00000001	00000001 00000001	692 V0 693 V1	EQU 0 EQU 1				
		0000002 0000003 0000004 0000005	00000001 00000001 00000001	694 V2 695 V3 696 V4 697 V5	EQU 2 EQU 3 EQU 4 EQU 5				
		0000006 0000007 0000008 0000009	00000001 00000001 00000001 00000001	698 V6 699 V7 700 V8 701 V9	EQU 6 EQU 7 EQU 8				
		000000A 000000B 000000C	00000001 00000001 00000001	702 V10 703 V11 704 V12	EQU 10 EQU 11 EQU 12				
		0000000D 0000000E 0000000F 00000010	00000001 00000001 00000001	705 V13 706 V14 707 V15 708 V16	EQU 13 EQU 14 EQU 15 EQU 16				
		$\begin{array}{c} 00000011 \\ 00000012 \\ 00000013 \\ 00000014 \end{array}$	00000001 00000001 00000001 00000001	709 V17 710 V18 711 V19 712 V20	EQU 17 EQU 18 EQU 19 EQU 20				
		00000014	00000001	712 V20 713 V21	EQU 21				

	0. 7. 0 zvector- e6				vkk-g)			02 Jun 2024	10:00:27	rage	21
LOC	OBJECT CODE	ADDR1	ADDR2	STMI							
		00000016 00000017	00000001 00000001	714 V22 715 V23	EQU FOU	22 23					
		00000018	00000001	716 V24	EQU	24					
		00000019 0000001A	00000001 00000001	717 V25 718 V26	EQU EQU	25 26					
		0000001B 0000001C	00000001 00000001	715 V23 716 V24 717 V25 718 V26 719 V27 720 V28 721 V29	EQU EQU	27 28					
		0000001D 0000001E	00000001	721 V29 722 V30	EQU EQU EQU EQU EQU EQU EQU EQU EQU	22 23 24 25 26 27 28 29 30 31					
		0000001E	00000001	723 V31 724	EQU	31					
				724 725	END						

SYMBOL	TYPE	VALUE	LENGTH	<b>DEFN</b>	REFE	RENCE	S													
EGI N	I	00000200	2	90	<b>56</b>	87	88													
CEOUND	U	00000007	1	360	156	100														
CFOUND	X	000010A0	1	333	143	163														
CMASK	U	00000008	1	361	123															
CMSG	U	00000258	1	136	130															
CPRTEXP	C	00001047	1	313	160															
CPRTGOT	C	00001057	1	316	167															
CPRTLI NE	C	00001004	16	308	318	170														
CPRTLNG	U	00000055	1	318	169															
CPRTNAME	C	00001031	8	311	153															
CPRTNUM	Č	00001014	3	309	151															
CPSW	F	00001098	4	332	140	481	<b>503</b>	<b>526</b>	548	571	593	616	638							
TLRO	F	00001030 0000040C	4	270	100	101	102	103	340	371	000	010	000							
ECNUM						150			164	166										
	C	00001085	16	328	148	130	157	159	104	100										
6TADR	A	00000414	4	273 256	109															
6TEST	4	0000000	28	356	118															
6TESTS	F	0000138C	4	649	273	4	40-													
DIT	X	00001059	18	323	149	158	165													
NDTEST	U	000002E4	1	188	114															
<b>0</b> J	I	000003F0	4	260	191															
<b>OJPSW</b>	D	000003E0	8	258	260															
AI LCONT	U	000002D4	1	178	173															
AI LED	F	00001000	4	300	180	189														
AILPSW	D	000003F8	8	262	264	100														
AILTEST	Ť	00000408	4	264	192															
MAGE	1	00000000	5052	0	102															
WHOL	Ū	0000000	JUJ2 1	283	284	285	286													
	U		1		204	200	200													
64	U	00010000	1	285																
B	U	00100000	1	286	007															
<b>S</b> G	l	00000328	4	224	207	000														
SGCMD	C	00000372	9	250	237	238														
<b>SGMSG</b>	C	0000037B	95	251	231	248	229													
<b>SGM/C</b>	I	0000036C	6	248	235															
<b>SGOK</b>	I	0000033E	2	233	230															
<b>SGRET</b>	I	00000358	4	244	<b>241</b>															
<b>SGSAVE</b>	F	00000360	4	247	227	244														
EXTE6	Ū	0000022A	<u></u>	111	128	183														
PNAME	Č	00000000	8	363	153	100														
AGE	Ŭ	00001000	1	284	100															
RT3	Č	00001000 0000106F	18	326	149	150	151	158	159	160	165	166	167							
	Ü		10	671			103			179		206		991	227	990	231	233	911	
0	U	0000000	1	0/1	50	100		116	169		180		208	224	221	229	۵SI	233	244	
4	<b>T</b> T	0000001		070	480	502	525	547	570	592	615	637	100	100	000	0.40				
1	U	00000001	1	672	123	124	125	140	141	142	143	170	189	190	238	248				
10	Ü	000000A	1	681	97	98							0.1-	00-						
11	U 	000000B	1	682	120	121	482	<b>504</b>	<b>527</b>	<b>549</b>	<b>572</b>	<b>594</b>	617	639						
12	U	000000C	1	683	109	112	127	182												
13	U	000000D	1	<b>684</b>																
14	U	000000E	1	685																
15	U	000000F	1	686	171	201	211	212												
1FUDGE	X	000010A8	8	339		•														
10UTPUT	F	000010H0	8	343																
2	Ü	00001020	1	673	147	148	155	156	157	162	163	164	206	207	208	225	227	233	234	
~	U	0000000£	1	0/3	235	237			480	481		503		526		548	570	233 571		
							244	245		401	502	<b>303</b>	525	J20	547	J48	370	3/1	592	
	**	0000000		0~4	<b>593</b>	615	616	637	638											
3	U U	00000003 00000004	1	674 675																
4				4077																

SYMB0L	TYPE	VALUE	LENGTH	DEFN	REFE	RENCE	S													
5	U	00000005	1	676	112 579	113 596	118 602	202 619	210 624		484	489	506	512	529	534	551	557	574	
6	U	00000006	1	677																
7	U	0000007	1	678	~~															
8	U	00000008	1	679	87	90	91	92	94											
9 E1	U	00000009	1	680	88	94	95	97												
E1	F	0000117C	4	483	475	478														
E2 E3	F F	000011C4 0000120C	4	505 528	497 520	500 523														
E4	F	00001200	4	550	542	545														
E5	F	00001234 0000129C	4	573	565	568														
E6	F	0000125C	4	595	587	590														
E7	F	0000132C	$\overline{4}$	618	610	613														
E8	F	00001374	$\bar{4}$	640	632	635														
EA1	A	00001160	4	475																
EA2	A	000011A8	4	497																
EA3	A	000011F0	4	<b>520</b>																
EA4	A	00001238	4	542																
EA5	A	00001280	4	565																
EA6	A	000012C8	4	587																
EA7	A	00001310	4	610																
EA8 EADDR	A A	00001358 00000018	4	632 366																
EG2LOW	A U	00000018	4	290																
EG2PATT	II	AABBCCDD	1	289																
ELEN	Ä	00000014	4	365																
PTDWSAV	Ď	00000318	8	217	206	208														
PTERROR	Ī	000002F2	4	201	171															
PTSAVE	F	00000310	4	214	201	211														
PTSVR5	F	00000314	4	215	202	210														
VOLDPSW	U	00000140	0	<b>52</b>																
1	A	00001148	4	468	652															
2	A	00001190	4	490	653															
3	A	000011D8	4	513	654															
4	A	00001220	4	535	655															
5 6	A	00001268 000012B0	4	558 580	656 657															
7	A. A	000012B0 000012F8	4	603	658															
8	A	00001218	4	625	659															
ESTCC	Ť	00001340	4	130	125															
'NUM	Ĥ	00000004	$\hat{\mathbf{z}}$	358	147															
SUB	Ā	00000000	4	357	120															
TABLE	F	0000138C	4	651																
0	U	00000000	1	692																
1	U	0000001	1	693	478	479	<b>500</b>	<b>501</b>	<b>523</b>	<b>524</b>	<b>545</b>	<b>546</b>	<b>568</b>	<b>569</b>	<b>590</b>	<b>591</b>	613	614	635	
10	<b>T</b> T	0000004	4	700	636															
10	U	0000000A	I	702																
11 12	I	0000000B 000000C	1	703 704																
13	II	000000C	1	704 705																
14	II	0000000B	1	705																
15	Ŭ	000000E	1	707																
16	Ŭ	0000001	ī	708																
17	Ū	00000011	$\bar{1}$	709																
18	U	00000012	1	710																
19	U	0000013	1	711																



