ASMA Ver.	0.2.1	bfp-007-c	vttofix64:	Test IEEE	Convert	To Fixed	(int-64)	17 Aug 2022 12:14:03 Page	1
LOC	ОВЈІ	ECT CODE	ADDR1	ADDR2	STMT				
					2	*****	******	**************	
					3	*			
					4 5 6	* Test		FIXED 64 ncludes ieee exceptions trappable and t, FPCR flags, and DXC saved for all tests.	
					7	*		.,	
					8 9	*	***	********	
					10 11 12	*	**	IMPORTANT! ** **********************************	
					13 14 15	*	to display messa	ne Hercules Diagnose X'008' interface ges and thus your .tst runtest script DIAG8CMD ENABLE" statement within it!	
					16 17 18		*******	*************	
							******	*************	
					21 22 23	*	bfį	o-007-cvttofix64.asm	
					24 25 26	* * *	Hercules Binary N	nguage source file is part of the Floating Point Validation Package by Stephen R. Orso	
					29	* Copyrig * Runtes		en R Orso. ency removed by Fish on 2022-08-16 noved by Fish on 2022-08-16	
					33	* Redistr * modific * are me	cation, are permit	in source and binary forms, with or without ted provided that the following conditions	
						* 1. Red: * not:		ource code must retain the above copyright conditions and the following disclaimer.	
					39 40 41	* 2. Red: * not: * the	ice, this list of documentation and	inary form must reproduce the above copyright conditions and the following disclaimer in d/or other materials provided with the	
					42 43	*	tribution.		
					45 46	* process		or may not be used to endorse or promote n this software without specific prior written	
					49 50 51 52 53 54	* DISCLAI * AND AN' * THE IMI * PARTICI * HOLDER * EXEMPLA * PROCURI	Y EXPRESS OR IMPLE PLIED WARRANTIES (ULAR PURPOSE ARE I BE LIABLE FOR ANY ARY, OR CONSEQUENT EMENT OF SUBSTITUT	IS PROVIDED BY THE COPYRIGHT HOLDER "AS IS" IED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, OF MERCHANTABILITY AND FITNESS FOR A DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OF DIRECT, INDIRECT, INCIDENTAL, SPECIAL, IIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, IE GOODS OR SERVICES; LOSS OF USE, DATA, OR IERRUPTION) HOWEVER CAUSED AND ON ANY THEORY	
								CONTRACT, STRICT LIABILITY, OR TORT	

```
ASMA Ver. 0.2.1 bfp-007-cvttofix64: Test IEEE Convert To Fixed (int-64)
                                                                                                17 Aug 2022 12:14:03 Page
 LOC
            OBJECT CODE
                             ADDR1
                                       ADDR2
                                                STMT
                                                  57 * (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
                                                  58 * OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
                                                  62 **************************
                                                  63 *
                                                  64 * Tests the following six conversion instructions
                                                        CONVERT TO FIXED (short BFP to int-64, RRE)
                                                        CONVERT TO FIXED (long BFP to int-64, RRE)
                                                  67 *
                                                        CONVERT TO FIXED (extended BFP to int-64, RRE)
                                                  68 *
                                                        CONVERT TO FIXED (short BFP to int-64, RRF-e)
                                                  69 *
                                                        CONVERT TO FIXED (long BFP to int-64, RRF-e)
                                                  70 *
                                                        CONVERT TO FIXED (extended BFP to int-64, RRF-e)
                                                  71 *
                                                  72 * Test data is compiled into this program. The test script that runs
                                                  73 * this program can provide alternative test data through Hercules R
                                                  74 * commands.
                                                  75 *
                                                  76 * Test Case Order
                                                  77 * 1) Short BFP to Int-64
                                                  78 * 2) Short BFP to Int-64 with all rounding modes
                                                  79 * 3) Long BFP Int-64
                                                  80 * 3) Long BFP Int-64 with all rounding modes
                                                  81 * 4) Extended BFP to Int-64
                                                  82 * 4) Extended BFP to Int-64 with all rounding modes
                                                  83 *
                                                  84 * Provided test data is:
                                                  85 *
                                                            1, 2, 4, -2, QNaN, SNaN, 2 147 483 648, -2 147 483 648.
                                                        The last two values will trigger inexact exceptions when converted
                                                        to int-64. Underflow does not get raised during Convert To Fixed.
                                                  88 * Provided test data for rounding tests:
                                                        -9.5, -5.5, -2.5, -1.5, -0.5, +0.5, +1.5, +2.5, +5.5, +9.5
                                                  90 *
                                                        This data is taken from Table 9-11 on page 9-16 of SA22-7832-10.
                                                        While the table illustrates LOAD FP INTEGER, the same results
                                                  92 *
                                                        should be generated when creating an int-32 or int-64 integer.
                                                        Additional rounding test cases are provided to test boundary cases.
                                                  94 *
                                                  95 * Note that three input test data sets are provided, one each for
                                                  96 *
                                                        short, long, and extended precision BFP. All are converted to
                                                  97 *
                                                        int-64.
                                                  98 *
                                                  99 * Also tests the following floating point support instructions
                                                 100 *
                                                        LOAD (Short)
                                                        LOAD (Long)
                                                 101 *
                                                102 *
                                                        LOAD FPC
                                                 103 *
                                                        SET BFP ROUNDING MODE 2-BIT
                                                 104 *
                                                        SET BFP ROUNDING MODE 3-BIT
                                                 105 *
                                                        STORE (Short)
                                                 106 *
                                                        STORE (Long)
                                                 107 *
                                                        STORE FPC
                                                 108 *
                                                 109 ************************
```

```
ASMA Ver. 0.2.1 bfp-007-cvttofix64: Test IEEE Convert To Fixed (int-64)
                                                                                             17 Aug 2022 12:14:03 Page
 LOC
            OBJECT CODE
                            ADDR1
                                      ADDR2
                                              STMT
                                               111 *
                                               112 *
                                                      Note: for compatibility with the z/CMS test rig, do not change
                                                      or use R11, R14, or R15. Everything else is fair game.
                                               114 *
                                               115 BFPCVTTF START 0
                            00000000
                                     0000B44B
                            00000000
                                     00000001
                                               116 R0
                                                            EOU
                                                                 0
                            00000001
                                     00000001
                                               117 R1
                                                            EQU
                                                                 1
                                               118 R2
                                                            EOU
                                     00000001
                            00000002
                                     00000001
                                               119 R3
                                                            EQU
                                                                 3
                            00000003
                                                                 4
                           00000004
                                     00000001
                                               120 R4
                                                            EQU
                                               121 R5
                                                                 5
                            00000005
                                     00000001
                                                            EQU
                            0000006
                                               122 R6
                                                            EOU
                                                                 6
                                     00000001
                                                                 7
                            00000007
                                     00000001
                                               123 R7
                                                            EQU
                                                                 8
                                     00000001
                                               124 R8
                            80000008
                                                            EQU
                            00000009
                                     00000001
                                               125 R9
                                                            EQU
                                                                 9
                                               126 R10
                                                            EQU
                            A000000A
                                     00000001
                                                                 10
                           0000000B
                                     00000001
                                               127 R11
                                                            EOU
                                                                 11
                            000000C
                                     00000001
                                               128 R12
                                                            EQU
                                                                 12
                                                            EOU
                                     00000001
                                               129 R13
                                                                 13
                            000000D
                                     00000001
                                               130 R14
                                                            EQU
                                                                 14
                            000000E
                                     00000001
                                                                 15
                            000000F
                                               131 R15
                                                            EQU
                                               132 *
                                               133 * Floating Point Register equates to keep the cross reference clean
                                               134 *
                                               135 FPR0
                            00000000
                                     00000001
                                                            EOU
                            00000001
                                     00000001
                                               136 FPR1
                                                            EQU
                                                                 1
                            00000002
                                     00000001
                                               137 FPR2
                                                            EQU
                                                                 2
                           00000003
                                     00000001
                                               138 FPR3
                                                                 3
                                                            EOU
                            00000004
                                     00000001
                                               139 FPR4
                                                            EQU
                                                                 5
                                     00000001
                                               140 FPR5
                                                            EOU
                            00000005
                                                                 6
                            00000006
                                     00000001
                                               141 FPR6
                                                            EQU
                            00000007
                                     00000001
                                               142 FPR7
                                                                 7
                                                            EQU
                            80000008
                                     00000001
                                               143 FPR8
                                                            EQU
                                                                 8
                                                                 9
                           00000009
                                     00000001
                                               144 FPR9
                                                            EQU
                           A000000A
                                     00000001
                                               145 FPR10
                                                            EQU
                                                                 10
                           0000000B
                                     00000001
                                               146 FPR11
                                                            EQU
                                                                 11
                            000000C
                                     00000001
                                               147 FPR12
                                                            EQU
                                                                 12
                                               148 FPR13
                                                            EQU
                            000000D
                                     00000001
                                                                 13
                                               149 FPR14
                                                                 14
                           000000E
                                     00000001
                                                            EOU
                            000000F
                                     00000001
                                               150 FPR15
                                                                 15
                                                            EQU
                                               151 *
0000000
                            00000000
                                               152
                                                            USING *,R15
                            0000B080
                                               153
0000000
                                                            USING HELPERS, R12
                                               154 *
                                               155 * Above works on real iron (R15=0 after sysclear)
                                               156 * and in z/CMS (R15 points to start of load module)
                                               157 *
                                               160 *
                                               161 * Low core definitions, Restart PSW, and Program Check Routine.
                                               162 *
```

ASMA Ver.	0.2.1 bfp-007-cvtt	ofix64: Te	st IEEE Co	nvert	To Fixed	(int-	54)	17 Aug 2022 12:14:03 Page	4
LOC	OBJECT CODE	ADDR1	ADDR2	STMT					
00000000 0000008E	0000	00000000	0000008E		PCINTCD	ORG DS	BFPCVTTF+X'8E' H	Program check interrution code	
		00000150	00000000	167 168 169	PCOLDPSW	EQU	BFPCVTTF+X'150'	z/Arch Program check old PSW	
00000090 000001A0	00000001 80000000	00000090	000001A0	170 171 172	*	ORG DC	BFPCVTTF+X'1A0' X'0000000180000000',	z/Arch Restart PSW ,AD(START)	
000001B0 000001D0	00000000 00000000	000001B0	000001D0	173 174 175		ORG DC	BFPCVTTF+X'1D0' X'00000000000000000',	z/Arch Program check NEW PSW ,AD(PROGCHK)	
				176 177 178	* Program * the ins	struct: d to c	ion following the pro	Exception, continue execution at ogram check. Otherwise, hard wait. teresting DXC stuff is captured	
000001E0		000001E0	00000200	180 181	*	ORG	BFPCVTTF+X'200'		
00000200 00000200 00000204	9507 F08F A774 0004		0000008F 0000020C	182 183 184	PROGCHK	DS CLI JNE	PCINTCD+1,X'07' Dat	ram check occured ta Exception? , hardwait (not sure if R15 is ok)	
00000208	B2B2 F150		00000150	185	DOMOTRE		PCOLDPSWyes	s, resume program execution	
0000020C 00000210 00000214 00000218	900F F23C 58C0 F27C 4DD0 C000 980F F23C		0000023C 0000027C 0000B080 0000023C	187 188 189 190	PCNOTDTA	L BAS LM	R12,AHELPERS Get R13,PGMCK Rep	ve registers t address of helper subroutines port this unexpected program check store registers	
0000021C 0000021E	12EE 077E		00000000	192 193		LTR BNZR	R14 Yes,	rn address provided? return to z/CMS test rig.	
00000220 00000228 00000238	00020000 00000000 B2B2 F2E0		00000228 000002E0	196	PROGPSW FAIL	DC LPSWE	0D'0',X'000200000000 FAILPSW Not	data exception, enter disabled wait 00000',XL6'00',X'DEAD' Abnormal end data exception, enter disabled wait	
0000023C 0000027C	00000000 00000000 0000B080				SAVEREGS AHELPERS			sters save area ess of helper subroutines	

ASMA Ver.	0.2.1	bfp-007-c	vttofix64: To	est IEEE C	onvert	To Fixed	l (int-6	54)	17 Aug 2022 12:14:03 Page	8			
LOC	ОВЈ	ECT CODE	ADDR1	ADDR2	STMT								
							*****	******	***********				
					329		t chant	t PED to into	gons using each possible nounding mode				
					331	* Ten te	est resi	ılts are genei	gers using each possible rounding mode. rated for each input. A 48-byte test result				
					332 333	* section	n is us	sed to keep re	esults sets aligned on a quad-double word.				
							rst fou	ır tests use ı	rounding modes specified in the FPC with the				
					335	* IEEE I	inexact	exception sup	pressed. SRNM (2-bit) is used for the				
						336 * first two FPCR-controlled tests and SRNMB (3-bit) is used for the 337 * last two To get full coverage of that instruction pair.							
					338	*			·				
					339 340		ext six	results use :	instruction-specified rounding modes.				
					341	* The de	fault i	rounding mode	(0 for RNTE) is not tested in this section;				
									ult rounding mode. RNTE is tested mode in this section.				
					344	*	-	•					
					345	*****	*****	******	*************				
000003C0				00000000		CGEBRA	LM		Get count and address of test input values				
000003C4 000003C8		1008		00000008	348 349		LM LTR	R7,R8,8(R10) R2,R2	Get address of result area and flag area. Any test cases?				
000003CA	078D				350		BZR	R13	No, return to caller				
000003CC	0DC0				351 352	*	BASR	R12,0	Set top of loop				
000003CE	7880 3	000		00000000	353		LE	FPR8,0(,R3)	Get short BFP test value				
					354 355		ases us	sing rounding	mode specified in the FPCR				
					356								
000003D2 000003D6				000002F4 00000001			LFPC SRNMB	FPCREGNT	Set exceptions non-trappable, clear flags SET FPCR to RZ, towards zero.				
000003DA				00000001	359				'0100' FPCR ctl'd rounding, inexact masked				
	E310 7 B29C 8	000 0024		00000000 00000000			STG	R1,0*8(,R7)					
000003E4 000003E8	B222 0			0000000	361 362		IPM	0(R8) R1	Store resulting FPCR flags and DXC Get condition code and program mask				
000003EC				0000001C	363		SRL	R1,28	Isolate CC in low order byte				
000003F0	4210 8	8003		00000003	364 365	*	STC	R1,3(,R8)	Save CC as low byte of FPCR				
000003F4				000002F4	366			FPCREGNT	Set exceptions non-trappable, clear flags				
000003F8 000003FC				00000002	367 368		SRNMB CGFBR		SET FPCR to RP, to +infinity '0100' FPCR ctl'd rounding, inexact masked				
00000400	E310 7	008 0024		00000008	369		STG	R1,1*8(,R7)	Store integer-64 result				
00000406 0000040A				00000004	370 371		STFPC IPM	1*4(R8) R1	Store resulting FPCR flags and DXC Get condition code and program mask				
0000040A				0000001C			SRL	R1,28	Isolate CC in low order byte				
00000412	4210 8	007		00000007	373	*	STC		R8) Save cccas low byte of FPCR				
00000416	B29D F	2F4		000002F4	374 375	-p	LFPC	FPCREGNT	Set exceptions non-trappable, clear flags				
0000041A	B2B8 0	003		00000003	376		SRNMB	3	SET FPCR to RM, to -infinity				
0000041E 00000422	B3A8 0 F310 7			00000010	377 378		CGEBRA STG	A R1,0,FPR8,B R1,2*8(,R7)	'0100' FPCR ctl'd rounding, inexact masked Store integer-64 result				
00000428	B29C 8	8008		00000010	379		STFPC	2*4(R8)	Store resulting FPCR flags and DXC				
0000042C 00000430				0000001C	380 381		IPM SRL	R1 R1,28	Get condition code and program mask Isolate CC in low order byte				
00000434				0000001C			STC		R8) Save cccas low byte of FPCR				
									•				

BCTR

BR

R2,R12

R13

Convert next input value.

All converted; return.

484

485

0000057E 062C

07FD

```
ASMA Ver. 0.2.1 bfp-007-cvttofix64: Test IEEE Convert To Fixed (int-64)
                                                                                                                                  19
                                                                                                    17 Aug 2022 12:14:03 Page
 LOC
            OBJECT CODE
                              ADDR1
                                        ADDR2
                                                  STMT
                                                   771 * Floating point inputs for Convert From Fixed testing. The same test
                                                  772 * values in the appropriate input format are used for short, long,
                                                  773 * and extended format tests. The last four values should generate
                                                   774 * exceptions.
                                                   775 *
                                                   778 *
                                                   779 * Inputs for basic tests of short BFP to int-64
                                                   780 *
000008AC
                                                   781 SBFPIN
                                                               DS
                                                                                        Inputs for short BFP testing
000008AC
         3F800000
                                                   782
                                                                \mathsf{DC}
                                                                      X'3F800000'
                                                                                   +1.0
                                                   783
                                                                DC
000008B0
         40000000
                                                                      X'40000000'
                                                                                   +2.0
000008B4
         40800000
                                                   784
                                                                DC
                                                                      X'40800000'
                                                                                   +4.0
000008B8 C0000000
                                                   785
                                                                DC
                                                                      X'C0000000'
                                                                                   -2.0
000008BC 7F810000
                                                   786
                                                                DC
                                                                      X'7F810000'
                                                                                   SNaN
000008C0 7FC10000
                                                   787
                                                                DC
                                                                      X'7FC10000'
                                                                                   QNaN
000008C4 5F000000
                                                   788
                                                                      X'5F000000'
                                                                DC
                                                                                   +max int-64 + 1
                                                   789 *
                                                                                          +9,223,372,036,854,775,807 + 1
                                                   790
                                                                DC
                                                                                   -max int-64 - 2
000008C8 DF000001
                                                                      X'DF000001'
                                                   791 *
                                                                                          -9,223,372,036,854,775,807 - 2
000008CC 5EFFFFF
                                                   792
                                                                DC
                                                                      X'5EFFFFFF'
                                                                                   Largest short BFP that fits in int-64
                                                   793 *
                                                                                          +9,223,371,487,098,961,920
                                                   794 *
                                                                                          = 0x7FFFFF80000000000
                              00000024 00000001
                                                  795 SBFPCT
                                                                EOU
                                                                      *-SBFPIN
                                                                                   Count of short BFP in list * 4
                                                   796
                                                   797 * Inputs for exhaustive rounding mode tests of short BFP to int-64
                                                   798 *
000008D0
                                                   799 SBFPINRM DS
000008D0 C1180000
                                                                     X'C1180000'
                                                   800
                                                                DC
                                                                                          -9.5
                                                                                          -5.5
000008D4
         C0B00000
                                                   801
                                                                DC
                                                                      X'C0B00000'
000008D8 C0200000
                                                   802
                                                                DC
                                                                     X'C0200000'
                                                                                          -2.5
000008DC
         BFC00000
                                                   803
                                                                DC
                                                                      X'BFC00000'
                                                                                          -1.5
000008E0
         BF000000
                                                   804
                                                                DC
                                                                      X'BF000000'
                                                                                          -0.5
         3F000000
                                                   805
                                                                DC
000008E4
                                                                     X'3F000000'
                                                                                          +0.5
                                                   806
000008E8 3FC00000
                                                                DC
                                                                      X'3FC00000'
                                                                                          +1.5
000008EC 40200000
                                                   807
                                                                \mathsf{DC}
                                                                      X'40200000'
                                                                                          +2.5
000008F0 40B00000
                                                   808
                                                                \mathsf{DC}
                                                                     X'40B00000'
                                                                                          +5.5
000008F4 41180000
                                                   809
                                                                DC
                                                                      X'41180000'
                                                                                          +9.5
000008F8 3F400000
                                                   810
                                                                DC
                                                                      X'3F400000'
                                                                                          +0.75
000008FC 3E800000
                                                                DC
                                                                      X'3E800000'
                                                   811
                                                                                          +0.25
                                                                                          -0.75
00000900
         BF400000
                                                   812
                                                                DC
                                                                      X'BF400000'
00000904
         BE800000
                                                   813
                                                                DC
                                                                      X'BE800000'
                                                                                          -0.25
                                                                                   Count of short BFP * 4 for rounding tests
                              00000038 00000001
                                                   814 SBFPRMCT EOU
                                                                     *-SBFPINRM
                                                   815
                                                   816 * Inputs for basic tests of long BFP to int-64
                                                   817 *
00000908
                                                   818 LBFPIN
                                                                DS
                                                                                        Inputs for long BFP testing
00000908
         3FF00000 00000000
                                                   819
                                                                DC
                                                                      X'3FF00000000000000'
                                                                                             +1.0
         4000000 00000000
                                                   820
                                                                DC
                                                                                             +2.0
00000910
                                                                     X'40000000000000000'
                                                   821
                                                                DC
                                                                                             +4.0
00000918 40100000 00000000
                                                                      X'40100000000000000'
                                                                                             -2.0
00000920
         C0000000 00000000
                                                   822
                                                                DC
                                                                      X'C00000000000000000'
                                                   823
00000928 7FF01000 00000000
                                                                DC
                                                                      X'7FF01000000000000'
                                                                                             SNaN
```

```
ASMA Ver. 0.2.1 bfp-007-cvttofix64: Test IEEE Convert To Fixed (int-64)
                                                                                        17 Aug 2022 12:14:03 Page
                                                                                                                  20
 LOC
           OBJECT CODE
                           ADDR1
                                    ADDR2
                                            STMT
                                             824
                                                        DC
00000930 7FF81000 00000000
                                                             X'7FF81000000000000'
                                                                                  ONaN
00000938
        43E00000 00000000
                                            825
                                                        DC
                                                             X'43E00000000000000'
                                                                                 +max int-64 + 1.
                                            826 *
                                                                        (+9,223,372,036,854,775,807+1)
00000940
        C3E00000 00100000
                                             827
                                                        DC
                                                             X'C3E0000000100000'
                                                                                -max int-64 - 2
                                                                        (-9,223,372,036,854,775,807 - 2)
                                             828 *
                                                             X'43DFFFFFFFFFFF
                                                                                Largest long BFP that fits in
                                             829
00000948 43DFFFFF FFFFFFF
                                                                        ..int-64: 9,223,372,036,854,774,784,
                                             830 *
                                             831 *
                                                                        .. 0x7FFFFFFFFFF800
                                                             *-LBFPIN
                                                                         Count of long BFP in list * 8
                          00000048 00000001
                                            832 LBFPCT
                                                        EQU
                                             833 *
                                             834 * Inputs for exhaustive rounding mode tests of long BFP to int-64
00000950
                                             836 LBFPINRM DS
00000950
        C0230000 00000000
                                                             X'C0230000000000000'
                                                                                      -9.5
                                             837
                                                        DC
00000958
        C0160000 00000000
                                            838
                                                        \mathsf{DC}
                                                             X'C0160000000000000'
                                                                                      -5.5
                                            839
                                                        DC
                                                             X'C0040000000000000'
                                                                                      -2.5
00000960
        C0040000 00000000
00000968
        BFF80000 00000000
                                            840
                                                        DC
                                                             X'BFF80000000000000'
                                                                                      -1.5
                                            841
00000970
        BFE00000 00000000
                                                        DC
                                                             X'BFE00000000000000'
                                                                                      -0.5
                                            842
00000978
        3FE00000 00000000
                                                        DC
                                                                                      +0.5
                                                             X'3FE00000000000000'
00000980
        3FF80000 00000000
                                            843
                                                        DC
                                                             X'3FF80000000000000'
                                                                                      +1.5
00000988
        40040000 00000000
                                             844
                                                        DC
                                                             X'40040000000000000'
                                                                                      +2.5
00000990
        40160000 00000000
                                            845
                                                        DC
                                                             X'40160000000000000'
                                                                                      +5.5
        40230000 00000000
                                                        DC
                                                                                      +9.5
00000998
                                             846
                                                             X'40230000000000000'
        3FE80000 00000000
                                             847
000009A0
                                                        DC
                                                             X'3FE80000000000000'
                                                                                      +0.75
        3FD00000 00000000
                                             848
                                                        DC
                                                                                      +0.25
000009A8
                                                             X'3FD00000000000000'
000009B0
        BFE80000 00000000
                                             849
                                                        DC
                                                             X'BFE80000000000000'
                                                                                      -0.75
000009B8
        BFD00000 00000000
                                             850
                                                        DC
                                                             X'BFD00000000000000'
                                                                                      -0.25
                          00000070 00000001
                                            851 LBFPRMCT EOU
                                                            *-LBFPINRM Count of long BFP * 8 for rounding tests
                                             852 *
                                             853 * Inputs for basic tests of extended BFP to int-64
                                             854 *
000009C0
                                             855 XBFPIN
                                                        DS
                                                                             Inputs for long BFP testing
000009C0
                                                             3FFF0000 00000000
                                             856
                                                        \mathsf{DC}
                                                                                                +1.0
                                                        DC
000009D0
        4000000 00000000
                                             857
                                                             +2.0
        40010000 00000000
000009E0
                                            858
                                                        DC
                                                             +4.0
000009F0
        C000000 00000000
                                            859
                                                        DC
                                                             -2.0
00000A00
        7FF0100 00000000
                                            860
                                                        DC
                                                             SNaN
        7FF8100 00000000
                                             861
                                                        DC
00000A10
                                                             X'7FFF81000000000000000000000000000000000
                                                                                                QNaN
        403E0000 00000000
                                                             00000A20
                                             862
                                                        \mathsf{DC}
                                                                                               +max int-64 + 1
                                            863 *
                                                                                      (+9223372036854775807 + 1)
                                                        DC
                                                             X'C03E00000010000000000000000000000000000
                                                                                               -max int-64 - 2
00000A30
        C03E0000 00010000
                                             864
                                             865 *
                                                                                      (-9223372036854775807 - 2)
                                                        DC
                                                             X'403DFFFFFFFFFFFFFC0000000000000000
00000A40 403DFFFF FFFFFFF
                                             866
                                                                                               +max int-64
                                             867 XBFPCT
                                                        EQU
                                                            *-XBFPIN
                                                                     Count of extended BFP in list * 16
                          00000090 00000001
                                             868
                                             869 * Inputs for exhaustive rounding mode tests of extended BFP to int-64
                                             870 *
00000A50
                                             871 XBFPINRM DS
                                                             -9.5
00000A50
        C0023000 00000000
                                             872
                                                        DC
                                            873
                                                                                                    -5.5
00000A60
        C0016000 00000000
                                                        DC
                                                             00000A70
        C0004000 00000000
                                            874
                                                        \mathsf{DC}
                                                             -2.5
00000A80
        BFFF8000 00000000
                                            875
                                                        \mathsf{DC}
                                                             -1.5
00000A90
        BFFE0000 00000000
                                             876
                                                        DC
                                                             -0.5
        3FFE0000 00000000
                                            877
                                                        DC
                                                             +0.5
00000AA0
                                             878
00000AB0
        3FFF8000 00000000
                                                        DC
                                                             +1.5
                                             879
00000AC0
        40004000 00000000
                                                             +2.5
```

```
ASMA Ver. 0.2.1 bfp-007-cvttofix64: Test IEEE Convert To Fixed (int-64)
                                                                               17 Aug 2022 12:14:03 Page
 LOC
          OBJECT CODE
                        ADDR1
                                ADDR2
                                       STMT
                                        926 *
                                                            EXPECTED results
                                        928 *
                                                       BFPCVTTF+X'5000'
00000B40
                       00000B40
                               00005000
                                        929
                                                   ORG
                                                                      (past end of actual results)
                                        930 *
                       00005000 00000001
                                        931 SINTOUT GOOD EQU *
00005000 C3C7C5C2 D9409985
                                        932 DC CL48'CGEBR result pair 1'
00005030
       00000000 00000001
                                        933 DC XL16'000000000000001000000000000001'
00005040 C3C7C5C2 D9409985
                                        934 DC CL48'CGEBR result pair 2'
       00000000 00000002
                                        00005070
00005080
       C3C7C5C2 D9409985
                                        936 DC CL48'CGEBR result pair 3'
                                        937 DC XL16'000000000000000400000000000000004'
000050B0 00000000 00000004
                                        938 DC CL48'CGEBR result pair 4'
000050C0 C3C7C5C2 D9409985
000050F0 FFFFFFFF FFFFFFE
                                        940 DC CL48'CGEBR result pair 5'
       C3C7C5C2 D9409985
00005100
00005130 80000000 00000000
                                       942 DC CL48'CGEBR result pair 6'
00005140 C3C7C5C2 D9409985
00005170 80000000 00000000
                                        00005180 C3C7C5C2 D9409985
                                       944 DC CL48'CGEBR result pair 7'
                                        945 DC XL16'7FFFFFFFFFFFFFF000000000000000000
000051B0 7FFFFFF FFFFFFF
000051C0 C3C7C5C2 D9409985
                                        946 DC CL48'CGEBR result pair 8'
       8000000 00000000
                                        947
                                            000051F0
                                        948 DC CL48'CGEBR result pair 9'
00005200 C3C7C5C2 D9409985
                                        949 DC XL16'7FFFFF8000000007FFFFF8000000000'
00005230 7FFFFF80 00000000
                                        950 SINTOUT NUM EQU (*-SINTOUT_GOOD)/64
                       00000009 00000001
                                        951 *
                                        952 *
                       00005240 00000001
                                        953 SINTFLGS GOOD EQU *
00005240 C3C7C5C2 D940C6D7
                                        954 DC CL48'CGEBR FPCR pairs 1-2'
00005270 00000002 F8000002
                                        955 DC XL16'00000002F800000200000002F8000002'
00005280 C3C7C5C2 D940C6D7
                                        956 DC CL48'CGEBR FPCR pairs 3-4'
000052B0 00000002 F8000002
                                        957 DC XL16'00000002F800000200000001F8000001'
000052C0 C3C7C5C2 D940C6D7
                                        958 DC CL48'CGEBR FPCR pairs 5-6'
000052F0 00880003 F8008000
                                        959 DC XL16'00880003F800800000880003F8008000'
00005300 C3C7C5C2 D940C6D7
                                        960 DC CL48'CGEBR FPCR pairs 7-8'
00005330
       00880003 F8008000
                                        961 DC XL16'00880003F800800000880003F8008000'
00005340 C3C7C5C2 D940C6D7
                                        962 DC CL48'CGEBR FPCR pair 9'
       00000002 F8000002
00005370
                                        963 DC XL16'00000002F80000020000000000000000000000
                                        964 SINTFLGS NUM EQU (*-SINTFLGS GOOD)/64
                       00000005 00000001
                                        965 *
                                        966 *
                                        967 SINTRMO GOOD EQU *
                        00005380 00000001
00005380 C3C7C5C2 D9C14060
                                        968 DC CL48'CGEBRA -9.5 FPCR modes 1, 2'
000053B0
       FFFFFFF FFFFFF7
                                            000053C0 C3C7C5C2 D9C14060
                                        970
                                            DC CL48'CGEBRA -9.5 FPCR modes 3, 7'
000053F0 FFFFFFF FFFFFF6
                                        971
                                            00005400 C3C7C5C2 D9C14060
                                        972 DC CL48'CGEBRA -9.5 M3 modes 1, 3'
00005430
       FFFFFFF FFFFFF6
                                        974 DC CL48'CGEBRA -9.5 M3 modes 4, 5'
00005440 C3C7C5C2 D9C14060
00005470 FFFFFFF FFFFFF6
                                        00005480
       C3C7C5C2 D9C14060
                                        976
                                            DC CL48'CGEBRA -9.5 M3 modes 6, 7'
       FFFFFFF FFFFFF7
                                        977
                                            000054B0
                                        978 DC CL48'CGEBRA -5.5 FPCR modes 1, 2'
000054C0 C3C7C5C2 D9C14060
000054F0
       FFFFFFFF FFFFFFB
                                        00005500 C3C7C5C2 D9C14060
                                        980
                                            DC CL48'CGEBRA -5.5 FPCR modes 3, 7'
```

ASMA Ver.	0.2.1 bfp-007-cvttc	ofix64:	Test IEEE	Convert	To Fixe	ed (int-64)	17 Aug 2022 12:14:03	Page	24
LOC	OBJECT CODE	ADDR1	ADDR2	STMT					
00005530	FFFFFFF FFFFFFA			981		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C5C2 D9C14060			982	DC CL4	48'CGEBRA -5.5 M3 modes 1, 3'			
	FFFFFFF FFFFFFA			983		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
00005580	C3C7C5C2 D9C14060			984	DC CL4	48'CGEBRA -5.5 M3 modes 4, 5'			
000055B0	FFFFFFF FFFFFFA			985	DC XL:	16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
000055C0	C3C7C5C2 D9C14060			986	DC CL4	48'CGEBRA -5.5 M3 modes 6, 7'			
000055F0	FFFFFFFF FFFFFFB			987	DC XL:	16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFA'			
00005600	C3C7C5C2 D9C14060			988	DC CL4	48'CGEBRA -2.5 FPCR modes 1, 2'			
00005630	FFFFFFF FFFFFFE			989		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
00005640				990		48'CGEBRA -2.5 FPCR modes 3, 7'			
00005670	FFFFFFF FFFFFFD			991		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFD'			
	C3C7C5C2 D9C14060			992		48'CGEBRA -2.5 M3 modes 1, 3'			
000056B0	FFFFFFF FFFFFFD			993		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFD'			
	C3C7C5C2 D9C14060			994		48'CGEBRA -2.5 M3 modes 4, 5'			
000056F0	FFFFFFF FFFFFFE			995		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C5C2 D9C14060			996		48'CGEBRA -2.5 M3 modes 6, 7'			
00005730	FFFFFFF FFFFFFE			997		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C5C2 D9C14060			998		48'CGEBRA -1.5 FPCR modes 1, 2'			
00005770	FFFFFFF FFFFFFF			999		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C5C2 D9C14060			1000		48'CGEBRA -1.5 FPCR modes 3, 7'			
000057B0	FFFFFFF FFFFFFE			1001		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C5C2 D9C14060			1002		48'CGEBRA -1.5 M3 modes 1, 3'			
000057F0	FFFFFFF FFFFFFE			1003		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
00005800	C3C7C5C2 D9C14060			1004		48'CGEBRA -1.5 M3 modes 4, 5'			
00005830	FFFFFFF FFFFFFE			1005		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
00005840	C3C7C5C2 D9C14060			1006		48'CGEBRA -1.5 M3 modes 6, 7'			
00005870	FFFFFFF FFFFFFF			1007		16'FFFFFFFFFFFFFFFFFFFFFFFFFFFF			
00005880 000058B0	C3C7C5C2 D9C14060 00000000 00000000			1008		48'CGEBRA -0.5 FPCR modes 1, 2' 16'00000000000000000000000000000000000			
				1009					
000058C0 000058F0	C3C7C5C2 D9C14060 FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			1010 1011		48'CGEBRA -0.5 FPCR modes 3, 7' 16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C5C2 D9C14060			1011		48'CGEBRA -0.5 M3 modes 1, 3'			
	FFFFFFF FFFFFFF					16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C5C2 D9C14060					48'CGEBRA -0.5 M3 modes 4, 5'			
	0000000 00000000			1015		16'000000000000000000000000000000000000			
	C3C7C5C2 D9C14060			1016		48'CGEBRA -0.5 M3 modes 6, 7'			
	0000000 00000000			1017		16'0000000000000000FFFFFFFFFFFFF			
	C3C7C5C2 D9C140F0			1018		48'CGEBRA 0.5 FPCR modes 1, 2'			
	00000000 00000000			1019		16'000000000000000000000000000000000000			
	C3C7C5C2 D9C140F0			1020		48'CGEBRA 0.5 FPCR modes 3, 7'			
				1021		16'000000000000000000000000000000000000			
	C3C7C5C2 D9C140F0			1022		48'CGEBRA 0.5 M3 modes 1, 3'			
	00000000 00000001			1023		16'0000000000000001000000000000000001'			
	C3C7C5C2 D9C140F0			1024		48'CGEBRA 0.5 M3 modes 4, 5'			
	0000000 00000000			1025		16'000000000000000000000000000000000000			
	C3C7C5C2 D9C140F0					48'CGEBRA 0.5 M3 modes 6, 7'			
				1027	DC XL:	16'000000000000000100000000000000000000			
	C3C7C5C2 D9C140F1			1028		48'CGEBRA 1.5 FPCR modes 1, 2'			
				1029		16'000000000000000100000000000000000000			
	C3C7C5C2 D9C140F1			1030		48'CGEBRA 1.5 FPCR modes 3, 7'			
				1031		16'0000000000000000100000000000000001'			
	C3C7C5C2 D9C140F1					48'CGEBRA 1.5 M3 modes 1, 3'			
				1033		16'000000000000000000000000000000000000			
	C3C7C5C2 D9C140F1			1034		48'CGEBRA 1.5 M3 modes 4, 5'			
	00000000 00000002			1035		16'0000000000000000000000000000000001'			
00005000	C3C7C5C2 D9C140F1			1036	DC CL	48'CGEBRA 1.5 M3 modes 6, 7'			

ASMA Ver.	0.2.1 bfp-007-cvtto	ofix64:	Test IEEE	Convert	To Fi	ixed	(int-64)	17 Aug 2022 12:14:03	Page	25
LOC	OBJECT CODE	ADDR1	ADDR2	STMT						
00005C30	00000000 00000002			1037	DC X	(L16'	000000000000000200000000000000000001'			
00005C40	C3C7C5C2 D9C140F2			1038	DC C	CL48'	CGEBRA 2.5 FPCR modes 1, 2'			
00005C70	00000000 00000002			1039			000000000000000200000000000000000000000			
00005C80	C3C7C5C2 D9C140F2			1040	DC C	CL48'	CGEBRA 2.5 FPCR modes 3, 7'			
00005CB0	00000000 00000002			1041	DC X	(L16'	000000000000000200000000000000000000000			
00005CC0	C3C7C5C2 D9C140F2			1042	DC C	CL48'	CGEBRA 2.5 M3 modes 1, 3'			
00005CF0	00000000 00000003			1043	DC X	(L16'	000000000000000300000000000000003'			
00005D00	C3C7C5C2 D9C140F2			1044	DC C	CL48'	CGEBRA 2.5 M3 modes 4, 5'			
00005D30	00000000 00000002			1045	DC X	(L16'	000000000000000200000000000000000000000			
00005D40	C3C7C5C2 D9C140F2			1046	DC C	CL48'	CGEBRA 2.5 M3 modes 6, 7'			
00005D70	00000000 00000003			1047			000000000000000300000000000000000000000			
00005D80	C3C7C5C2 D9C140F5			1048			CGEBRA 5.5 FPCR modes 1, 2'			
00005DB0	00000000 00000005			1049			000000000000000500000000000000006'			
00005DC0	C3C7C5C2 D9C140F5			1050			CGEBRA 5.5 FPCR modes 3, 7'			
00005DF0	00000000 00000005			1051			000000000000000500000000000000005'			
00005E00				1052			CGEBRA 5.5 M3 modes 1, 3'			
00005E30	00000000 00000006			1053			0000000000000006000000000000000000005'			
00005E40	C3C7C5C2 D9C140F5			1054			CGEBRA 5.5 M3 modes 4, 5'			
00005E70	00000000 00000006			1055			000000000000000000000000000000000000000			
	C3C7C5C2 D9C140F5			1056			CGEBRA 5.5 M3 modes 6, 7'			
00005EB0	00000000 00000006			1057			000000000000000000000000000000000000000			
				1058			CGEBRA 9.5 FPCR modes 1, 2'			
00005EF0	00000000 00000009			1059			00000000000000000000000000000000000000			
00005F00	C3C7C5C2 D9C140F9			1060			CGEBRA 9.5 FPCR modes 3, 7'			
00005F30	00000000 00000009			1061			000000000000000000000000000000000000000			
00005F40	C3C7C5C2 D9C140F9			1062			CGEBRA 9.5 M3 modes 1, 3'			
00005F70	00000000 0000000A C3C7C5C2 D9C140F9			1063			00000000000000000000000000000000000000			
00005F80 00005FB0	00000000 0000000A			1064 1065			CGEBRA 9.5 M3 modes 4, 5' 000000000000000000000000000000000000			
00005FC0	C3C7C5C2 D9C140F9			1066			CGEBRA 9.5 M3 modes 6, 7'			
00005FF0				1067			00000000000000000000000000000000000000			
	C3C7C5C2 D9C1404E			1068			CGEBRA +0.75 FPCR modes 1, 2'			
	00000000 00000000						000000000000000000000000000000000000000			
	C3C7C5C2 D9C1404E			1070			CGEBRA +0.75 FPCR modes 3, 7'			
00006070				1071			000000000000000000000000000000000000000			
	C3C7C5C2 D9C1404E			1072			CGEBRA +0.75 M3 modes 1, 3'			
	00000000 00000001			1073			0000000000000001000000000000000001'			
000060C0	C3C7C5C2 D9C1404E			1074			CGEBRA +0.75 M3 modes 4, 5'			
000060F0				1075			000000000000001000000000000000000000			
	C3C7C5C2 D9C1404E			1076			CGEBRA +0.75 M3 modes 6, 7'			
00006130				1077			00000000000000100000000000000000000000			
	C3C7C5C2 D9C1404E			1078			CGEBRA +0.25 FPCR modes 1, 2'			
	00000000 00000000			1079			000000000000000000000000000000000000000			
	C3C7C5C2 D9C1404E			1080			CGEBRA +0.25 FPCR modes 3, 7'			
	00000000 00000000			1081			000000000000000000000000000000000000000			
	C3C7C5C2 D9C1404E			1082			CGEBRA +0.25 M3 modes 1, 3'			
000061F0				1083			000000000000000000000000000000000000000			
	C3C7C5C2 D9C1404E			1084			CGEBRA +0.25 M3 modes 4, 5'			
	00000000 00000000			1085			000000000000000000000000000000000000000			
	C3C7C5C2 D9C1404E			1086			CGEBRA +0.25 M3 modes 6, 7'			
00006270				1087			000000000000000100000000000000000000000			
	C3C7C5C2 D9C14060			1088			CGEBRA -0.75 FPCR modes 1, 2'			
000062B0				1089			00000000000000000000000000000000000000			
	C3C7C5C2 D9C14060			1090			CGEBRA -0.75 FPCR modes 3, 7'			
	FFFFFFF FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			1091			CCERRA Q 75 M2 modes 1 2'			
00000300	C3C7C5C2 D9C14060			1092	של (L48	CGEBRA -0.75 M3 modes 1, 3'			

```
ASMA Ver. 0.2.1 bfp-007-cvttofix64: Test IEEE Convert To Fixed (int-64)
                                                                                        17 Aug 2022 12:14:03 Page
                           ADDR1
                                    ADDR2
 LOC
           OBJECT CODE
                                            STMT
                        00006330
        FFFFFFF FFFFFFF
00006340
       C3C7C5C2 D9C14060
00006370 FFFFFFF FFFFFFF
00006380
        C3C7C5C2 D9C14060
        0000000 0000000
000063B0
000063C0 C3C7C5C2 D9C14060
000063F0 00000000 00000000
00006400 C3C7C5C2 D9C14060
00006430 FFFFFFF FFFFFFF
00006440 C3C7C5C2 D9C14060
00006470 00000000 00000000
00006480 C3C7C5C2 D9C14060
000064B0 00000000 00000000
000064C0 C3C7C5C2 D9C14060
                                            1107 DC XL16'000000000000000FFFFFFFFFFFFFFF
000064F0 00000000 00000000
                          00000046 00000001 1108 SINTRMO_NUM EQU (*-SINTRMO_GOOD)/64
                                            1109 *
                                            1110 *
                          00006500 00000001 1111 SINTRMOF GOOD EQU *
                         1112 DC CL48 CGEBRA -9.5 FPCR modes 1-3, 7 FPCR'
00006500 C3C7C5C2 D9C14060
00006530 00000001 00000001
                                            1113 DC XL16'0000000100000010000000100000001'
00006540 C3C7C5C2 D9C14060
00006570
        00080001 00080001
00006580 C3C7C5C2 D9C14060
000065B0 00080001 00080001
000065C0 C3C7C5C2 D9C14060
000065F0
        00000001 00000001
00006600 C3C7C5C2 D9C14060
00006630
        00080001 00080001
        C3C7C5C2 D9C14060
00006640
00006670 00080001 00080001
00006680 C3C7C5C2 D9C14060
000066B0 00000001 00000001
000066C0 C3C7C5C2 D9C14060
000066F0 00080001 00080001
00006700 C3C7C5C2 D9C14060
00006730
        00080001 00080001
00006740 C3C7C5C2 D9C14060
00006770 00000001 00000001
00006780 C3C7C5C2 D9C14060
000067B0 00080001 00080001
000067C0 C3C7C5C2 D9C14060
000067F0 00080001 00080001
00006800 C3C7C5C2 D9C14060
00006830
        00000001 00000001
00006840 C3C7C5C2 D9C14060
        00080001 00080001
00006870
00006880 C3C7C5C2 D9C14060
        00080001 00080001
000068B0
000068C0 C3C7C5C2 D9C1404E
000068F0
        00000002 00000002
00006900
        C3C7C5C2 D9C1404E
00006930
        00080002 00080002
00006940 C3C7C5C2 D9C1404E
00006970 00080002 00080002
00006980 C3C7C5C2 D9C1404E
```

```
ASMA Ver. 0.2.1 bfp-007-cvttofix64: Test IEEE Convert To Fixed (int-64)
                                                                                      17 Aug 2022 12:14:03 Page
                          ADDR1
                                   ADDR2
 LOC
           OBJECT CODE
                                           STMT
                        000069B0
        00000002 00000002
000069C0
        C3C7C5C2 D9C1404E
000069F0
        00080002 00080002
00006A00
        C3C7C5C2 D9C1404E
00006A30
        00080002 00080002
00006A40 C3C7C5C2 D9C1404E
00006A70 00000002 00000002
00006A80 C3C7C5C2 D9C1404E
00006AB0
        00080002 00080002
00006AC0 C3C7C5C2 D9C1404E
00006AF0 00080002 00080002
00006B00 C3C7C5C2 D9C1404E
00006B30 00000002 00000002
00006B40 C3C7C5C2 D9C1404E
00006B70
        00080002 00080002
00006B80
        C3C7C5C2 D9C1404E
00006BB0 00080002 00080002
00006BC0 C3C7C5C2 D9C1404E
00006BF0
        00000002 00000002
00006C00 C3C7C5C2 D9C1404E
00006C30 00080002 00080002
00006C40 C3C7C5C2 D9C1404E
00006C70
        00080002 00080002
00006C80 C3C7C5C2 D9C1404E
00006CB0 00000002 00000002
00006CC0 C3C7C5C2 D9C1404E
00006CF0
        00080002 00080002
00006D00 C3C7C5C2 D9C1404E
                        00080002 00080002
00006D30
        C3C7C5C2 D9C1404E
00006D40
00006D70
        00000002 00000002
00006D80 C3C7C5C2 D9C1404E
00006DB0 00080002 00080002
00006DC0 C3C7C5C2 D9C1404E
00006DF0 00080002 00080002
00006E00 C3C7C5C2 D9C14060
00006E30
        00000001 00000001
        C3C7C5C2 D9C14060
00006E40
00006E70 00080001 00080001
00006E80 C3C7C5C2 D9C14060
00006EB0 00080001 00080001
00006EC0 C3C7C5C2 D9C14060
00006EF0 00000001 00000001
00006F00 C3C7C5C2 D9C14060
                                          1193 DC XL16'00080001000800010008000100080001'
        00080001 00080001
00006F30
00006F40 C3C7C5C2 D9C14060
                                          1194 DC CL48'CGEBRA -0.25 M3 modes 6-7 FPCR'
                                           00006F70 00080001 00080001
                         0000002A 00000001 1196 SINTRMOF_NUM EQU (*-SINTRMOF_GOOD)/64
                                           1197 *
                                           1198 *
                         00006F80 00000001 1199 LINTOUT GOOD EQU *
                                           1200 DC CL48'CGDBR result pair 1'
00006F80 C3C7C4C2 D9409985
        00000000 00000001
                                          1201 DC XL16'0000000000000010000000000000001'
00006FB0
00006FC0 C3C7C4C2 D9409985
                                          1202 DC CL48'CGDBR result pair 2'
00006FF0 00000000 00000002
                                          1204 DC CL48'CGDBR result pair 3'
00007000 C3C7C4C2 D9409985
```

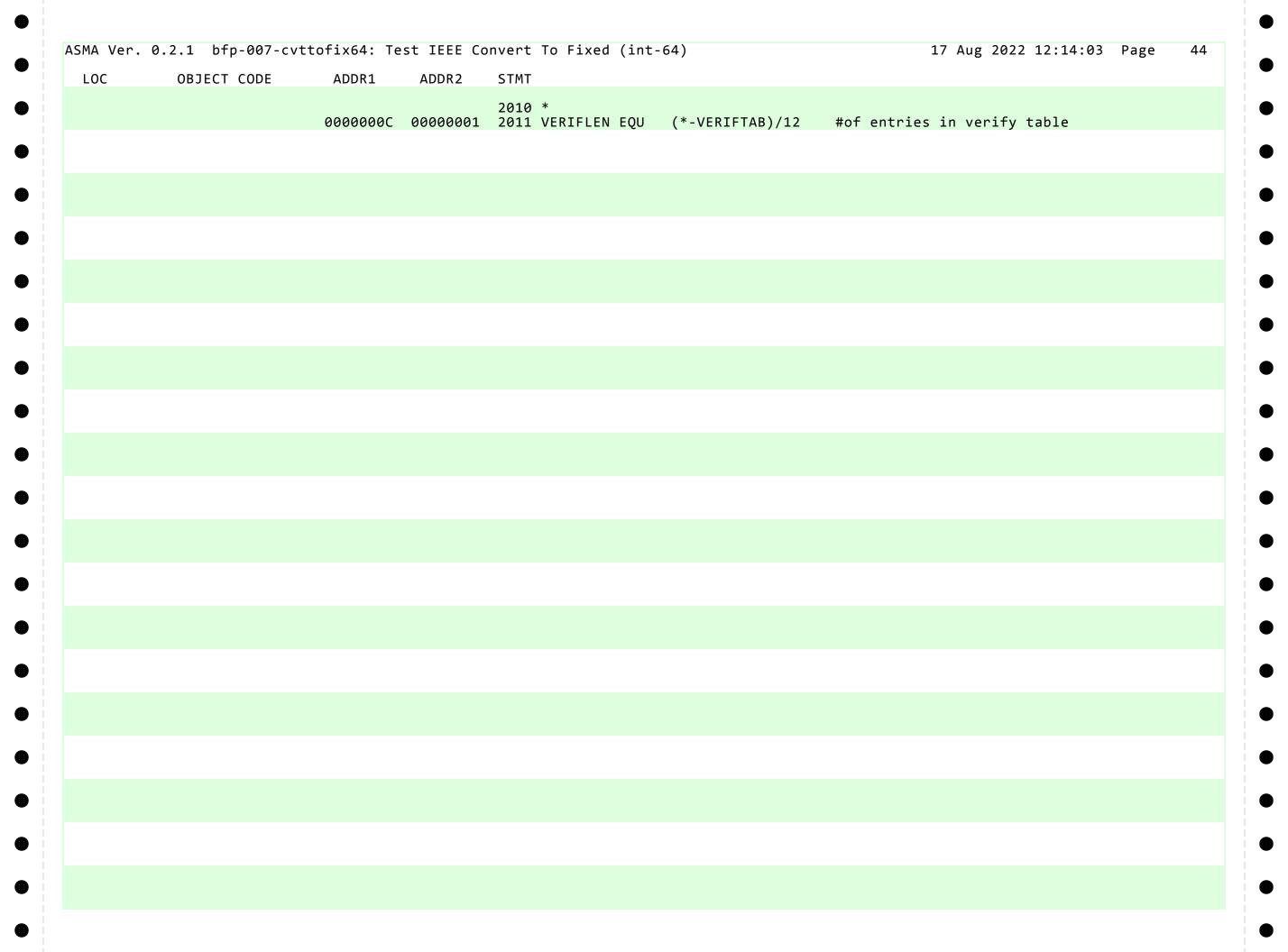
ASMA Ver.	0.2.1 bfp-007-cvt	tofix64: Te	st IEEE Co	nvert	To Fixed (int-64)	17 Aug 2022 12:14:03	Page	28
LOC	OBJECT CODE	ADDR1	ADDR2	STMT				
00007030					DC XL16'0000000000000004000000000000000000000			
	C3C7C4C2 D9409985				DC CL48'CGDBR result pair 4'			
	FFFFFFFF FFFFFFE				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C4C2 D9409985 80000000 00000000				DC CL48'CGDBR result pair 5' DC XL16'8000000000000000000000000000000000000			
	C3C7C4C2 D9409985				DC CL48'CGDBR result pair 6'			
	8000000 00000000				DC XL16'800000000000000000000000000000000000			
	C3C7C4C2 D9409985				DC CL48'CGDBR result pair 7'			
	7FFFFFFF FFFFFFF			1213	DC XL16'7FFFFFFFFFFFFFFFF00000000000000000000			
	C3C7C4C2 D9409985				DC CL48'CGDBR result pair 8'			
	80000000 00000000				DC XL16'8000000000000000000000000000000000000			
	C3C7C4C2 D9409985 7FFFFFFF FFFFC00				DC CL48'CGDBR result pair 8' DC XL16'7FFFFFFFFFFFC007FFFFFFFFFFC00'			
00007100	71111111 111111000	00000009	00000001		LINTOUT NUM EQU (*-LINTOUT GOOD)/64			
		0000000	0000001	1219				
				1220	*			
		000071C0	00000001	1221	LINTFLGS_GOOD EQU *			
	C3C7C4C2 D940C6D7				DC CL48 CGDBR FPCR pairs 1-2'			
000071F0					DC XL16'00000002F800000200000002F8000002'			
00007200	C3C7C4C2 D940C6D7 000000002 F8000002				DC CL48'CGDBR FPCR pairs 3-4' DC XL16'00000002F800000200000001F8000001'			
	C3C7C4C2 D940C6D7				DC CL48'CGDBR FPCR pairs 5-6'			
	00880003 F8008000				DC XL16'00880003F800800000880003F8008000'			
00007280	C3C7C4C2 D940C6D7				DC CL48'CGDBR FPCR pairs 7-8'			
	00880003 F8008000				DC XL16'00880003F800800000880003F8008000'			
	C3C7C4C2 D940C6D7				DC CL48'CGDBR FPCR pair 9'			
000072F0	00000002 F8000002	00000005	00000001		DC XL16'00000002F800000200000000000000000000000			
		00000003	0000001	1232				
				1234				
		00007300	00000001	1235	LINTRMO_GOOD EQU *			
	C3C7C4C2 D9C14060				DC CL48'CGDBRA -9.5 FPCR modes 1, 2'			
	FFFFFFFF FFFFFFF				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C4C2 D9C14060				DC CL48'CGDBRA -9.5 FPCR modes 3, 7'			
	FFFFFFFF FFFFFF6 C3C7C4C2 D9C14060				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	FFFFFFF FFFFFF6				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C4C2 D9C14060				DC CL48'CGDBRA -9.5 M3 modes 4, 5'			
000073F0	FFFFFFF FFFFFF6			1243	DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C4C2 D9C14060				DC CL48'CGDBRA -9.5 M3 modes 6, 7'			
	FFFFFFF FFFFFF7				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C4C2 D9C14060 FFFFFFFF FFFFFB				DC CL48'CGDBRA -5.5 FPCR modes 1, 2' DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C4C2 D9C14060				DC CL48'CGDBRA -5.5 FPCR modes 3, 7'			
	FFFFFFF FFFFFFA				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
000074C0	C3C7C4C2 D9C14060				DC CL48'CGDBRA -5.5 M3 modes 1, 3'			
	FFFFFFF FFFFFFA				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C4C2 D9C14060				DC CL48'CGDBRA -5.5 M3 modes 4, 5'			
	FFFFFFFF FFFFFFA C3C7C4C2 D9C14060				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	FFFFFFF FFFFFFB				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7C4C2 D9C14060				DC CL48'CGDBRA -2.5 FPCR modes 1, 2'			
	FFFFFFF FFFFFFE				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
000075C0	C3C7C4C2 D9C14060			1258	DC CL48'CGDBRA -2.5 FPCR modes 3, 7'			
	FFFFFFF FFFFFFD				DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
00007600	C3C7C4C2 D9C14060			1260	DC CL48'CGDBRA -2.5 M3 modes 1, 3'			

```
ASMA Ver. 0.2.1 bfp-007-cvttofix64: Test IEEE Convert To Fixed (int-64)
                                                                                                      17 Aug 2022 12:14:03 Page
  LOC
             OBJECT CODE
                               ADDR1
                                         ADDR2
                                                   STMT
00008430
          0000000 00000000
                                                  1374 DC CL48'CGDBRA -0.25 M3 modes 6, 7'
00008440 C3C7C4C2 D9C14060
                                                  1375 DC XL16'000000000000000FFFFFFFFFFFFFFF
00008470 00000000 00000000
                              00000046 00000001 1376 LINTRMO_NUM EQU (*-LINTRMO_GOOD)/64
                                                   1377 *
                                                   1378 *
                              00008480 00000001 1379 LINTRMOF GOOD EQU *
                                                   1380 DC CL48 CGDBRA -9.5 FPCR modes 1-3, 7 FPCR'
00008480 C3C7C4C2 D9C14060
000084B0
          00000001 00000001
                                                   1381 DC XL16'0000000100000010000000100000001'
000084C0 C3C7C4C2 D9C14060
                                                  1382 DC CL48'CGDBRA -9.5 M3 modes 1, 3-5 FPCR'
                             000084F0 00080001 00080001
                                                  1383 DC XL16'00080001000800010008000100080001'
00008500
          C3C7C4C2 D9C14060
00008530 00080001 00080001
00008540 C3C7C4C2 D9C14060
00008570
          00000001 00000001
00008580 C3C7C4C2 D9C14060
000085B0 00080001 00080001
000085C0 C3C7C4C2 D9C14060
          00080001 00080001
000085F0
00008600 C3C7C4C2 D9C14060
00008630 00000001 00000001
00008640 C3C7C4C2 D9C14060
00008670
          00080001 00080001
00008680 C3C7C4C2 D9C14060
000086B0 00080001 00080001
000086C0 C3C7C4C2 D9C14060
000086F0
          00000001 00000001
00008700 C3C7C4C2 D9C14060
00008730
          00080001 00080001
                              00008740 C3C7C4C2 D9C14060
00008770 00080001 00080001
00008780 C3C7C4C2 D9C14060
000087B0 00000001 00000001
000087C0 C3C7C4C2 D9C14060
000087F0 00080001 00080001
                              1407 DC XL16'000800010008000100080001'
1408 DC CL48'CGDBRA -0.5 M3 modes 6-7 FPCR'
1409 DC XL16'0008000100080001000000000000'
1410 DC CL48'CGDBRA +0.5 FPCR modes 1-3, 7 FPCR'
1411 DC XL16'0000002000000020000000200000002'
1412 DC CL48'CGDBRA +0.5 M3 modes 1, 3-5 FPCR'
1413 DC XL16'00080002000800020008000200080002'
1414 DC CL48'CGDBRA +0.5 M3 modes 6-7 FPCR'
1415 DC XL16'00080002000800020000000000000'
1416 DC CL48'CGDBRA +1.5 FPCR modes 1-3, 7 FPCR'
00008800 C3C7C4C2 D9C14060
00008830
          00080001 00080001
          C3C7C4C2 D9C1404E
00008840
00008870
          00000002 00000002
00008880 C3C7C4C2 D9C1404E
          00080002 00080002
000088B0
000088C0 C3C7C4C2 D9C1404E
000088F0 00080002 00080002
                                           1416 DC CL48'CGDBRA +1.5 FPCR modes 1-3, 7 FPCR'
00008900
         C3C7C4C2 D9C1404E
                                                  1417 DC XL16'0000000200000020000000200000002'
00008930
          00000002 00000002
00008940 C3C7C4C2 D9C1404E
                                                  1418 DC CL48'CGDBRA +1.5 M3 modes 1, 3-5 FPCR'
                              00080002 00080002
                                                  1419 DC XL16'00080002000800020008000200080002'
00008970
00008980
          C3C7C4C2 D9C1404E
          00080002 00080002
000089B0
000089C0 C3C7C4C2 D9C1404E
000089F0
          00000002 00000002
0008A00
          C3C7C4C2 D9C1404E
00008A30
          00080002 00080002
00008A40 C3C7C4C2 D9C1404E
00008A70 00080002 00080002
00008A80 C3C7C4C2 D9C1404E
```

	0.2.1 bfp-007-cvt	tofix64: Te ADDR1		onvert To Fixed (int-64)	17 Aug 2022 12:14:03	Page	33
LOC	OBJECT CODE	ADDRI	ADDR2	STMT			
00009130	7FFFFFF FFFFFFF			1485 DC XL16'7FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
		00000009	00000001	1486 XINTOUT_NUM EQU (*-XINTOUT_GOOD)/64			
				1487 *			
		00000140	00000001	1488 *			
0009140	C3C7E7C2 D940C6D7	00009140	00000001	1489 XINTFLGS_GOOD EQU * 1490 DC CL48'CGXBR FPCR pairs 1-2'			
0009140	00000002 F8000002			1491 DC XL16'00000002F800000200000002F8000002'			
0009170	C3C7E7C2 D940C6D7			1492 DC CL48'CGXBR FPCR pairs 3-4'			
00091B0				1493 DC XL16'00000002F800000200000001F8000001'			
00091C0				1494 DC CL48'CGXBR FPCR pairs 5-6'			
00091F0				1495 DC XL16'00880003F800800000880003F8008000'			
0009200				1496 DC CL48'CGXBR FPCR pairs 7-8'			
	00880003 F8008000			1497 DC XL16'00880003F800800000880003F8008000'			
	C3C7E7C2 D940C6D7			1498 DC CL48'CGXBR FPCR pair 9'			
00009270	00000002 F8000002			1499 DC XL16'00000002F8000002000000000000000000000			
		00000005	00000001	1500 XINTFLGS_NUM EQU (*-XINTFLGS_GOOD)/64			
				1501 *			
		00009280	00000001	1502 * 1503 XINTRMO GOOD EQU *			
0009280	C3C7E7C2 D9C14060	00005200	00000001	1504 DC CL48'CGXBRA -9.5 FPCR modes 1, 2'			
	FFFFFFF FFFFFF7			1505 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
00092C0				1506 DC CL48'CGXBRA -9.5 FPCR modes 3, 7'			
	FFFFFFF FFFFFF6			1507 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1508 DC CL48'CGXBRA -9.5 M3 modes 1, 3'			
0009330	FFFFFFFF FFFFFF6			1509 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1510 DC CL48'CGXBRA -9.5 M3 modes 4, 5'			
	FFFFFFFF FFFFFF6			1511 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1512 DC CL48'CGXBRA -9.5 M3 modes 6, 7'			
	FFFFFFF FFFFFF7			1513 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1514 DC CL48'CGXBRA -5.5 FPCR modes 1, 2'			
000093F0 00009400	FFFFFFFF FFFFFFB C3C7E7C2 D9C14060			1515 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	FFFFFFF FFFFFFA			1516 DC CL48'CGXBRA -5.5 FPCR modes 3, 7' 1517 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1518 DC CL48'CGXBRA -5.5 M3 modes 1, 3'			
	FFFFFFF FFFFFFA			1519 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1520 DC CL48'CGXBRA -5.5 M3 modes 4, 5'			
	FFFFFFF FFFFFFA			1521 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1522 DC CL48'CGXBRA -5.5 M3 modes 6, 7'			
	FFFFFFFF FFFFFFB			1523 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1524 DC CL48'CGXBRA -2.5 FPCR modes 1, 2'			
	FFFFFFF FFFFFFE			1525 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1526 DC CL48'CGXBRA -2.5 FPCR modes 3, 7'			
	FFFFFFFF FFFFFFD			1527 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1528 DC CL48'CGXBRA -2.5 M3 modes 1, 3'			
	FFFFFFFF FFFFFFD C3C7E7C2 D9C14060			1529 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	FFFFFFF FFFFFFE			1530 DC CL48 CGXBRA -2.3 M3 MODES 4, 3 1531 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1532 DC CL48'CGXBRA -2.5 M3 modes 6, 7'			
	FFFFFFF FFFFFFE			1533 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1534 DC CL48'CGXBRA -1.5 FPCR modes 1, 2'			
	FFFFFFF FFFFFFF			1535 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
00009680	C3C7E7C2 D9C14060			1536 DC CL48'CGXBRA -1.5 FPCR modes 3, 7'			
	FFFFFFFF FFFFFFE			1537 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
	C3C7E7C2 D9C14060			1538 DC CL48'CGXBRA -1.5 M3 modes 1, 3'			
	FFFFFFF FFFFFFE			1539 DC XL16'FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF			
0009700	C3C7E7C2 D9C14060			1540 DC CL48'CGXBRA -1.5 M3 modes 4, 5'			

ASMA Ver	0.2.1 bfp-007-cvtt	ofix64. T	est TFFF Co	nvert To Fixed	(int-	64)	17 Aug 2022 12:14:03 Page 42
	·				(~·,	1/ Aug 2022 12:17:00 1 ugc 72
LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
				1921 ******	****	*******	*********
				1922 *	Issue	HERCULES MESSAGE poir	nted to by R1, length in R0
				1923 ******	*****	******	**********
0000B2FA	4900 C3BC		0000B43C	1925 MSG	СН	R0,=H'0'	Do we even HAVE a message?
0000B2FE	07D2			1926	BNHR	R2	No, ignore
0000B300	9002 C2B0		0000B330	1928	STM	R0,R2,MSGSAVE	Save registers
00000004	4000 6385		00000435	1020	CII	DO ALOCALONS	Managar lawath within limital
0000B304 0000B308	4900 C3BE 47D0 C290		0000B43E 0000B310	1930 1931	CH BNH	R0,=AL2(L'MSGMSG) MSGOK	Message length within limits? Yes, continue
	4100 005F			1932	LA	RØ,L'MSGMSG	No, set to maximum
0000B310	1820			1934 MSGOK	LR	R2,R0	Convilonath to work negister
				1934 M3GOK		R2,0	Copy length to work register Minus-1 for execute
0000B314	4420 C2BC		0000B33C	1936	EX	R2,MSGMVC	Copy message to O/P buffer
0000B318	4120 200A		000000A	1938	LA	R2,1+L'MSGCMD(,R2)	Calculate true command length
0000B31C	4110 C2C2		0000B342	1939	LA	R1,MSGCMD	Point to true command
0000B320	83120008			1941	DC	X'83',X'12',X'0008'	Issue Hercules Diagnose X'008'
	4780 C2AA		0000B32A	1942	BZ	MSGRET	Return if successful
0000B328	0000			1943	DC	H'0'	CRASH for debugging purposes
	9802 C2B0		0000B330	1945 MSGRET	LM	R0,R2,MSGSAVE	Restore registers
0000B32E	07F2			1946	BR	R2	Return to caller
0000B330	00000000 00000000			1948 MSGSAVE	DC	3F'0'	Registers save area
	D200 C2CB 1000	0000B34B	00000000			MSGMSG(0),0(R1)	Executed instruction
	D4E2C7D5 D6C8405C			1951 MSGCMD	DC	C'MSGNOH * '	*** HERCULES MESSAGE COMMAND ***
0000B34B	40404040 40404040			1952 MSGMSG	DC	CL95' '	The message text to be displayed

ASMA Ver.	0.2.1 bf	p-007-cvttof	ix64:	Test IEEE	Convert	To Fixed	(int-	64)	17 Aug 2022 12:14:03 Page	43
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT					
LOC	OBJECT	CODE	ADDRI	ADDITZ	Jimi					
					_		*****		**********	
					1955			VERIFY TABL		
							*****	******	**********	
					1957					
					1958		A(act	ual results), A(expecte	d results), A(#of results)	
					1959					
					1960	****	*	****	***********	
0000B3AC					1962	VERIFTAB	DC	0F'0'		
0000B3AC	00001000				1963		DC	A(SINTOUT)		
0000B3B0	00005000				1964		DC	A(SINTOUT_GOOD)		
0000B3B4	00000009				1965		DC	A(SINTOUT_NUM)		
					1966	*				
0000B3B8	00001200				1967		DC	A(SINTFLGS)		
0000B3BC	00005240				1968		DC	A(SINTFLGS_GOOD)		
0000B3C0	00000005				1969		DC	A(SINTFLGS_NUM)		
					1970	*				
0000B3C4	00001300				1971		DC	A(SINTRMO)		
0000B3C8	00005380				1972		DC	A(SINTRMO_GOOD)		
0000B3CC	00000046				1973		DC	A(SINTRMO_NUM)		
					1974	*				
0000B3D0	00001800				1975		DC	A(SINTRMOF)		
0000B3D4	00006500				1976		DC	A(SINTRMOF_GOOD)		
0000B3D8	0000002A				1977		DC	A(SINTRMOF_NUM)		
					1978	*				
0000B3DC	00002000				1979		DC	A(LINTOUT)		
0000B3E0	00006F80				1980		DC	A(LINTOUT_GOOD)		
0000B3E4	00000009				1981	4	DC	A(LINTOUT_NUM)		
00000000	00000000				1982	*	D.C	A/LINTELCC)		
0000B3E8	00002200				1983		DC	A(LINTFLGS)		
0000B3EC	000071C0				1984		DC	A(LINTFLGS_GOOD)		
0000B3F0	00000005				1985	*	DC	A(LINTFLGS_NUM)		
00000254	00000000				1986	Τ	DC	A / L TNTDMO \		
0000B3F4	00002300				1987		DC	A(LINTRMO)		
0000B3F8	00007300				1988		DC	A(LINTRMO_GOOD)		
0000B3FC	00000046				1989 1990	*	DC	A(LINTRMO_NUM)		
0000B400	00002800				1990		DC	A(LINTRMOF)		
0000B404	00002800				1991		DC	A(LINTRMOF) A(LINTRMOF GOOD)		
0000B404	00000480 0000002A				1993		DC	A(LINTRMOF_GOOD) A(LINTRMOF_NUM)		
00000400	000000ZA				1994	*	DC	A(ETHIRMOI _NON)		
0000B40C	00003000				1995		DC	A(XINTOUT)		
0000B40C	00003000 00008F00				1996		DC	A(XINTOUT GOOD)		
0000B414	00000000				1997		DC	A(XINTOUT NUM)		
					1998	*		(,		
0000B418	00003200				1999		DC	A(XINTFLGS)		
0000B41C	00009140				2000		DC	A(XINTFLGS GOOD)		
0000B420	00000005				2001		DC	A(XINTFLGS_NUM)		
					2002	*		• – /		
0000B424	00003300				2003		DC	A(XINTRMO)		
0000B428	00009280				2004		DC	A(XINTRMO_GOOD)		
0000B42C	0000004B				2005		DC	A(XINTRMO_NUM)´		
					2006	*		<u> </u>		
0000B430	00003800				2007		DC	A(XINTRMOF)		
0000B434	0000A540				2008		DC	A(XINTRMOF_GOOD)		
0000B438	0000002D				2009		DC	A(XINTRMOF_NUM)		



MA Ver.	0.2.1 bfp-007-cv	ttofix64: T	est IEEE C	Convert To F	ixed (int-	-64)	17 Aug 2022 12:14:03	Page	45
_OC	OBJECT CODE	ADDR1	ADDR2	STMT					
00B43C				2013	END				
0B43C	0000			2014		=H'0'			
0B43E	005F E68195A3 7A40			2015 2016		=AL2(L'MSGMSG) =CL6'Want: '			
000446 008446	C796A37A 4040			2017		=CL6'Got: '			
05110	C7507/5777 1010			2017		220 000.			

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFER	FNCFS												
						-140-5												
AACTUAL	F	00B2CC	4	1915	1842	1877												
AEXPECT	F	00B2C8	4	1914	1844	1849												
AHELPERS	Α	00027C	4	198	188	235												
BFPCVTTF	J	000000	46156	115	165	168	170	173	181	898	900	902	904	907	909	911	913	916
					918	920	922	929										
BLANKEQ	C	00B29E	3	1911	1850	1878												
CGDBR	I	00051E	4	456	220													
CGDBRA	I	000582	4	506	222													
CGEBR	I	00035C	4	297	213													
CGEBRA	I	0003C0	4	347	215													
CGXBR	I	0006E0	4	617	227													
CGXBRA	I	000748	4	668	229													
CHARHEX	C	00B2E8	16	1917	1918													
CTLR0	F	0002F0	4	245	206	207	208											
EXTDS	F	00031C	4	267	226													
FAIL	I	000238	4	196	1810													
AILADR	C	00B296	8	1910	1849	1851	1877	1879										
AILDESC	C	00B260	48	1906	1835													
AILFLAG	X	00B2F8	1	1919	1808	1831												
AILMSG1	С	00B24C	68	1904	1836	1837												
AILMSG2	Č	00B290	53	1908	1869	1870	1897	1898										
FAILPSW	X	0002E0	8	243	196	- -												
AILVALS	Ĉ	00B2A1	36	1912	1853	1854	1855	1857	1858	1859	1861	1862	1863	1865	1866	1867	1881	1882
	-				1883	1885	1886	1887	1889	1890	1891	1893	1894	1895				
PCREGNT	Χ	0002F4	4	246	304	357	366	375	384	393	401	409	417	425	433	463	518	527
					536	545	554	562	570	578	586	594	625	679	688	697	706	715
					723	731	739	747	755									
PCREGTR	Χ	0002F8	4	247	312	471	633											
PR0	U	000000	1	135														
PR1	Ü	000001	1	136														
PR10	Ü	00000A	$\bar{1}$	145	624	675												
PR11	Ü	00000B	$\bar{1}$	146	V = .													
PR12	Ü	00000C	1	147														
PR13	Ü	00000C	1	148														
PR14	Ü	00000E	1	149														
PR15	Ü	00000F	1	150														
PR2	Ü	000001	1	137														
PR3	Ü	000002	1	138														
PR4	Ü	000003	1	139														
PR5	Ü	000005	1	140														
PR6	Ü	000005	1	141														
PR7	Ü	000007	1	142														
PR8	Ü	000007	1	143	303	305	315	353	359	368	377	386	394	402	410	418	426	434
			-		462	464	474	512	520	529	538	547	555	563	571	579	587	595
					623	626	636	674	681	690	699	708	716	724	732	740	748	756
PR9	U	000009	1	144	023	320		J, 1		0,0			, 10	,	, , , _	, 10	, 10	, 50
GOODPSW	X	0002D0	8	242	239													
HELPERS	Н	00B080	2	1750	153	198												
HEXTRTAB	Ü	00B1F8	16	1918	1759	1763	1767	1771	1775	1851	1855	1859	1863	1867	1879	1883	1887	1891
	J	000110	10	1710	1895	1,05	1,0,	 ,,_	1,75	1001	1000	1000	1005	1007	10,5	1005	1007	1001
IMAGE	1	000000	46156	0	1000													
BFPCT	Ū	000008	-0130 1	832	262													
DEPLI			1	818	832	263												
	F	ииичих	/1															
_BFPIN	F	000908	4 4															
	F F U	000908 000950 000070	4 4 1	836 851	851 278	279												

CVMDOL	TVDF	\/\!!!	LENCTU	DEEN	DEEED	ENCEC												
SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFER	ENCES												
NTFLGS_GOOD	U	0071C0	1	1221	1232	1984												
NTFLGS_NUM	U	000005	1	1232	1985													
NTOUT	U	002000	0	907	264	1979												
NTOUT_GOOD	U	006F80	1	1199	1218	1980												
NTOUT_NUM	U	000009	1	1218	1981													
NTRMO	U	002300	0	911	280	1987												
NTRMOF	U	002800	0	913	281	1991												
NTRMOF GOOD	U	008480	1	1379	1464	1992												
NTRMOF NUM	U	00002A	1	1464	1993													
NTRMO_GOOD	U	007300	1	1235	1376	1988												
NTRMO NUM	Ū	000046	1	1376	1989													
NGS	F	00030C	4	261	219													
ĵ	Ť	00B2FA	4	1925	1779	1838	1871	1899										
GCMD	Ċ	00B342	9	1951	1938	1939	10,1	1033										
GMSG	C	00B34B	95	1952	1932	1949	1930											
GMVC	T	00B34B	6	1949	1936	1) 1)	1750											
30K	Ť	00B33C	2	1949	1931													
GRET		00B310	4	1934	1942													
GSAVE	T	00B32A 00B330	4	1945	1942	1945												
	F																	
INTCD	H	00008E	2	166	183	1757												
NOTDTA	1	00020C	4	187	184	1761	1765	1760	1770									
DLDPSW	U	000150	0	168	185	1761	1765	1769	1//3									
MCK	Н	00B080	2	1756	189													
MCOMMA	C	00B0F6	1	1786	1758													
MPSW	C	00B0FC	36	1788	1761	1762	1763	1765	1766	1767	1769	1770	1771	1773	1774	1775		
OGCHK	Н	000200	2	182	174													
OGCODE	C	00B0F2	4	1785	1757	1759												
OGMSG	C	00B0DE	66	1783	1777	1778												
OGPSW	D	000228	8	195	194													
	U	000000	1	116	187	190	206	208	1777	1830	1836	1869	1897	1901	1925	1928	1930	1932
					1934	1945												
	U	000001	1	117	305	306	308	309	310	313	314	315	316	318	319	320	359	360
					362	363	364	368	369	371	372	373	377	378	380	381	382	386
					387	389	390	391	394	395	397	398	399	402	403	405	406	407
					410	411	413	414	415	418	419	421	422	423	426	427	429	430
					431	434	435	437	438	439	464	465	467	468	469	472	473	474
					475	477	478	479	520	521	523	524	525	529	530	532	533	534
					538	539	541	542	543	547	548	550	551	552	555	556	558	559
					560	563	564	566	567	568	571	572	574	575	576	579	580	582
					583	584	587	588	590	591	592	595	596	598	599	600	626	627
					629	630	631	634	635	636	637	639	640	641	681	682	684	685
					686	690	691	693	694	695	699	700	702	703	704	708	709	711
					712	713	716	717	719	720	721	724	725	727	728	729	732	733
					735	736	737	740	741	743	744	745	748	749	751	752	753	756
					757	759	760	761	1778	1799	1803	1805	1837	1870	1898	1939	1949	750
0	U	A00000	1	126	212	214	219	221	226	228	297	298	347	348	456	457	506	507
U	U	AGGGGG	т	120					220	220	231	270	34/	340	430	43/	סשכ	ושכ
1	- 11	AAAAAA	1	127	617	618	668	669										
1	U	00000B	1	127	153	100	225	201	225	254	4.4.4	460	404	F10	COF	C 2 4	C 1 C	673
2	U	00000C	1	128	153	188	235	301	325	351	444	460	484	510	605	621	646	672
2		00000		400	766	040	04 -	222	000		202	22.5	200	20.5	252		4 = 0	40-
3	U	0000D	1	129	189	213	215	220	222	227	229	236	300	326	350	445	459	485
_					509	606	620	647	671	767	1781	1809						
4	U	00000E	1	130	192	193	237	238										
5	U	00000F	1	131	152	187	190											
	U	000002	1	118	297	299	325	347	349	444	456	458	484	506	508	605	617	619
					646	668	670	766	1779	1800	1806	1838	1871	1899	1926	1928	1934	1935

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFER	FNCFS													
JINDOL	111	VALUE	LLINGIII	PLIN															
3		00000	4	110	1936	1938	1945	1946	252	4.4.1	456	460	401	F06	F4.2	602	647	622	
13	U	000003	1	119	297 624	303 643	322 668	347 674	353 675	441 763	456 1801	462 1806	481	506	512	602	617	623	
44	U	000004	1	120	1803	1818	1820	1842	1881	1885	1889	1893							
15	Ü	000005	1	121	1818	1821	1830	1835	1843	1844	1853	1857	1861	1865	1901				
16	U	000006	1	122	1803	1822													
17	U	000007	1	123	298	306	316	323	348	360	369	378	387	395	403	411	419	427	
					435	442	457	465	475	482	507	521	530	539	548	556	564	572	
					580 725	588 733	596 741	603 749	618 757	627 764	637 1804	644 1824	669	682	691	700	709	717	
18	U	000008	1	124	298	307	310	317	320	324	348	361	364	370	373	379	382	388	
		00000		447	391	396	399	404	407	412	415	420	423	428	431	436	439	443	
					457	466	469	476	479	483	507	522	525	531	534	540	543	549	
					552	557	560	565	568	573	576	581	584	589	592	597	600	604	
					618	628	631	638	641	645	669	683	686	692	695	701	704	710	
					713	718	721	726	729	734	737	742	745	750	753	758	761	765	
19	U	000009	1	125	1816	1822													
RMEXTDS	A	00034C	4	283	228														
RMLONGS	A	00033C	4	278	221														
MSHORTS	Α	00032C	4	273	214														
AVERØR5	F	00B2D0	4	1916	1830	1901													
AVEREGS	F	00023C	4	197	187	190													
BFPCT	U	000024	1	795	256 705	257													
BFPIN BFPINRM	F	0008AC 0008D0	4 4	781 799	795 814	257 274													
BFPRMCT	Ü	000038	1	814	273	2/7													
SHORTS	F	0002FC	4	255	212														
SINTFLGS	U	001200	0	900	259	1967													
INTFLGS_GOOD	U	005240	1	953	964	1968													
SINTFLGS_NUM	U	000005	1	964	1969	1063													
INTOUT INTOUT_GOOD	U U	001000 005000	0 1	898 931	258 950	1963 1964													
SINTOUT_GOOD	U	000009	1	950	1965	1904													
INTRMO	Ü	001300	ō	902	275	1971													
INTRMOF	Ū	001800	0	904	276	1975													
INTRMOF_GOOD	U	006500	1	1111	1196	1976													
INTRMOF_NUM	U	00002A	1	1196	1977	4070													
INTRMO_GOOD	U	005380	1	967	1108	1972													
SINTRMO_NUM START	U	000046 000280	1 4	1108 206	1973 171														
'ERIFAIL	I	000280 00B15A	4	1830	1819														
ERIFLEN	Ū	00000C	i	2011	1800														
ERIFTAB	F	00B3AC	4	1962	2011	1799													
ERIFY	I	00B142	2	1816	1804														
ERINEXT	I	00B14E	4	1820	1902														
ERISUB	Н	00B120	2	1794 1909	236 1848	1076													
ANTGOT BFPCT	C U	00B290 000090	6 1	867	1848 268	1876													
BFPIN	D	0009C0	8	855	867	269													
BFPINRM	D	0003C0	8	871	889	284													
BFPRMCT	Ū	0000F0	1	889	283														
INTFLGS	U	003200	0	918	271	1999													
INTFLGS_GOOD	U	009140	1	1489	1500	2000													
INTFLGS NUM	U	000005	1	1500	2001														

MA Ver. 0.2.1	L bfp-007	7-cvttofi	x64: Tes	t IEEE	Convei	rt To Fixed (int-64)	17 Aug 2022 12:14:03	Page	49
SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERI	ENCES			
NTOUT_GOOD	U	008F00			1486	1996			
NTOUT_NUM	U	000009	1	1486	1997	2002			
ITRMO	U	003300	0	920	285	2003			
ITRMOF	U	003800	0	922		2007			
ITRMOF_GOOD ITRMOF_NUM	U	00A540			1748	2008			
ITRMOF_NUM	U	00002D	1	1748	2009				
ITRMO_GOOD	U	009280	1	1503		2004			
ITRMO_NUM	U	00004B		1654					
.2(L'MSGMSG)	R	00B43E	2	2015					
_6'Got: '	C	00B446	6		1876				
6'Want: '	С	00B440	6	2016	1848				
0'	Н	00B43C	2	2014	1925				

CRO DEFN REFERENCES	
defined macros	

