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DDDDDDDD  EEEEEEEEE  CCCCCCCC  000000  DDDDDDDD  EEEEEEEEE  CCCCCCCC  CCCCCCCC
DDDDDDDD  EEEEEEEEE  CCCCCCCC  000000  DDDDDDDD  EEEEEEEEE  CCCCCCCC  CCCCCCCC
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DD      DD  EE      CC      00      00  DD      DD  EE      CC      CC
DD      DD  EE      CC      00      00  DD      DD  EE      CC      CC
DD      DD  EE      CC      00      00  DD      DD  EE      CC      CC
DD      DD  EEEEEEE  CC      00      00  DD      DD  EEEEEEE  CC      CC
DD      DD  EEEEEEE  CC      00      00  DD      DD  EEEEEEE  CC      CC
DD      DD  EE      CC      00      00  DD      DD  EE      CC      CC
DD      DD  EE      CC      00      00  DD      DD  EE      CC      CC
DD      DD  EE      CC      00      00  DD      DD  EE      CC      CC
DD      DD  EE      CC      00      00  DD      DD  EE      CC      CC
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DDDDDDDD  EEEEEEEEE  CCCCCCCC  000000  DDDDDDDD  EEEEEEEEE  CCCCCCCC  CCCCCCCC
      .
LL      111111  SSSSSSSS
LL      111111  SSSSSSSS
LL      11      SS
LL      11      SS
LL      11      SS
LL      11      SS
LL      11      SSSSSS
LL      11      SSSSSS
LL      11      SS
LL      11      SS
LL      11      SS
LL      11      SS
LLLLLLLLLL  111111  SSSSSSSS
LLLLLLLLLL  111111  SSSSSSSS
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0173
0174      data      ms780e_syndrome(29)    /'6d'x/
0175
0176      data      ms780e_syndrome(30)    /'70'x/
0177
0178      data      ms780e_syndrome(31)    /'75'x/
0179
0180      data      ms780e_syndrome(32)    /'01'x/
0181
0182      data      ms780e_syndrome(33)    /'04'x/
0183
0184      data      ms780e_syndrome(34)    /'02'x/
0185
0186      data      ms780e_syndrome(35)    /'08'x/
0187
0188      data      ms780e_syndrome(36)    /'10'x/
0189
0190      data      ms780e_syndrome(37)    /'20'x/
0191
0192      data      ms780e_syndrome(38)    /'40'x/
0193
0194      byte      mx780_syndrome(0:71)
0195
0196      data      mx780_syndrome(0)      /'38'x/
0197
0198      data      mx780_syndrome(1)      /'19'x/
0199
0200      data      mx780_syndrome(2)      /'1a'x/
0201
0202      data      mx780_syndrome(3)      /'3b'x/
0203
0204      data      mx780_syndrome(4)      /'1c'x/
0205
0206      data      mx780_syndrome(5)      /'3d'x/
0207
0208      data      mx780_syndrome(6)      /'3e'x/
0209
0210      data      mx780_syndrome(7)      /'1f'x/
0211
0212      data      mx780_syndrome(8)      /'68'x/
0213
0214      data      mx780_syndrome(9)      /'49'x/
0215
0216      data      mx780_syndrome(10)     /'4a'x/
0217
0218      data      mx780_syndrome(11)     /'6b'x/
0219
0220      data      mx780_syndrome(12)     /'4c'x/
0221
0222      data      mx780_syndrome(13)     /'6d'x/
0223
0224      data      mx780_syndrome(14)     /'6e'x/
0225
0226      data      mx780_syndrome(15)     /'4f'x/
0227
0228      data      mx780_syndrome(16)     /'70'x/
0229
    
```

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0230	data	mx780_syndrome(17)	/'51'x/
0231			
0232	data	mx780_syndrome(18)	/'52'x/
0233			
0234	data	mx780_syndrome(19)	/'73'x/
0235			
0236	data	mx780_syndrome(20)	/'54'x/
0237			
0238	data	mx780_syndrome(21)	/'75'x/
0239			
0240	data	mx780_syndrome(22)	/'76'x/
0241			
0242	data	mx780_syndrome(23)	/'56'x/
0243			
0244	data	mx780_syndrome(24)	/'58'x/
0245			
0246	data	mx780_syndrome(25)	/'79'x/
0247			
0248	data	mx780_syndrome(26)	/'7a'x/
0249			
0250	data	mx780_syndrome(27)	/'5b'x/
0251			
0252	data	mx780_syndrome(28)	/'7c'x/
0253			
0254	data	mx780_syndrome(29)	/'5d'x/
0255			
0256	data	mx780_syndrome(30)	/'5e'x/
0257			
0258	data	mx780_syndrome(31)	/'7f'x/
0259			
0260	data	mx780_syndrome(32)	/'a8'x/
0261			
0262	data	mx780_syndrome(33)	/'89'x/
0263			
0264	data	mx780_syndrome(34)	/'8a'x/
0265			
0266	data	mx780_syndrome(35)	/'ab'x/
0267			
0268	data	mx780_syndrome(36)	/'8c'x/
0269			
0270	data	mx780_syndrome(37)	/'ad'x/
0271			
0272	data	mx780_syndrome(38)	/'ae'x/
0273			
0274	data	mx780_syndrome(39)	/'8f'x/
0275			
0276	data	mx780_syndrome(40)	/'b0'x/
0277			
0278	data	mx780_syndrome(41)	/'91'x/
0279			
0280	data	mx780_syndrome(42)	/'92'x/
0281			
0282	data	mx780_syndrome(43)	/'b3'x/
0283			
0284	data	mx780_syndrome(44)	/'94'x/
0285			
0286	data	mx780_syndrome(45)	/'b5'x/

0287			
0288	data	mx780_syndrome(46)	/'b6'x/
0289			
0290	data	mx780_syndrome(47)	/'97'x/
0291			
0292	data	mx780_syndrome(48)	/'98'x/
0293			
0294	data	mx780_syndrome(49)	/'b9'x/
0295			
0296	data	mx780_syndrome(50)	/'ba'x/
0297			
0298	data	mx780_syndrome(51)	/'9b'x/
0299			
0300	data	mx780_syndrome(52)	/'bc'x/
0301			
0302	data	mx780_syndrome(53)	/'9d'x/
0303			
0304	data	mx780_syndrome(54)	/'9e'x/
0305			
0306	data	mx780_syndrome(55)	/'bf'x/
0307			
0308	data	mx780_syndrome(56)	/'e0'x/
0309			
0310	data	mx780_syndrome(57)	/'c1'x/
0311			
0312	data	mx780_syndrome(58)	/'c2'x/
0313			
0314	data	mx780_syndrome(59)	/'e3'x/
0315			
0316	data	mx780_syndrome(60)	/'c4'x/
0317			
0318	data	mx780_syndrome(61)	/'e5'x/
0319			
0320	data	mx780_syndrome(62)	/'e6'x/
0321			
0322	data	mx780_syndrome(63)	/'c7'x/
0323			
0324	data	mx780_syndrome(64)	/'01'x/
0325			
0326	data	mx780_syndrome(65)	/'02'x/
0327			
0328	data	mx780_syndrome(66)	/'04'x/
0329			
0330	data	mx780_syndrome(67)	/'08'x/
0331			
0332	data	mx780_syndrome(68)	/'10'x/
0333			
0334	data	mx780_syndrome(69)	/'20'x/
0335			
0336	data	mx780_syndrome(70)	/'40'x/
0337			
0338	data	mx780_syndrome(71)	/'80'x/
0339			
0340	byte	ms7x0_syndrome(0:38)	
0341			
0342	data	ms7x0_syndrome(0)	/'58'x/
0343			


```
0401          data          ms7x0_syndrome(30)          /'3e'x/  
0402  
0403  
0404          data          ms7x0_syndrome(31)          /'7f'x/  
0405  
0406          data          ms7x0_syndrome(32)          /'01'x/  
0407  
0408          data          ms7x0_syndrome(33)          /'02'x/  
0409  
0410          data          ms7x0_syndrome(34)          /'04'x/  
0411  
0412          data          ms7x0_syndrome(35)          /'08'x/  
0413  
0414          data          ms7x0_syndrome(36)          /'10'x/  
0415  
0416          data          ms7x0_syndrome(37)          /'20'x/  
0417  
0418          data          ms7x0_syndrome(38)          /'40'x/  
0419  
0420  
0421  
0422  
0423          decode_ecc = -1  
0424  
0425          c  
0426          c          11/780  
0427          c  
0428  
0429          if (  
0430          1 lib$extzv(24,8,emb$l_hd_sid) .eq. 255  
0431          1 .or.  
0432          1 lib$extzv(24,8,emb$l_hd_sid) .eq. 1  
0433          1 ) then  
0434  
0435          c  
0436          c          ms780c and ma780  
0437          c  
0438  
0439          if (  
0440          1 lib$extzv(5,3,sbi_configuration_register) .eq. 0  
0441          1 .or.  
0442          1 lib$extzv(5,3,sbi_configuration_register) .eq. 2  
0443          1 ) then  
0444  
0445          do 5,i = 0,71  
0446  
0447          if (error_syndrome .eq. mx780_syndrome(i)) decode_ecc = i  
0448  
0449          5          continue  
0450  
0451          c  
0452          c          ms780e  
0453          c  
0454  
0455          else if (lib$extzv(5,3,sbi_configuration_register) .eq. 3) then  
0456          do 10,i = 0,38  
0457
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0458
0459      if (error_syndrome .eq. ms780e_syndrome(i)) decode_ecc = i
0460
0461      10      continue
0462      endif
0463
0464      c
0465      c      11/750, 11/730
0466      c
0467
0468      else if (
0469      1 lib$extzv(24,8,emb$l_hd_sid) .eq. 2
0470      1 .or.
0471      1 lib$extzv(24,8,emb$l_hd_sid) .eq. 3
0472      1 ) then
0473
0474      do 15,i = 0,38
0475
0476      if (error_syndrome .eq. ms7x0_syndrome(i)) decode_ecc = i
0477
0478      15      continue
0479      endif
0480
0481      return
0482
0483      end
    
```

PROGRAM SECTIONS

Name	Bytes	Attributes
0 \$CODE	195	PIC CON REL LCL SHR EXE RD NOWRT LONG
1 \$pdata	16	PIC CON REL LCL SHR NOEXE RD NOWRT LONG
2 \$LOCAL	208	PIC CON REL LCL NOSHR NOEXE RD WRT LONG
3 EMB	512	PIC OVR REL GBL SHR NOEXE RD WRT LONG
Total Space Allocated		931

ENTRY POINTS

Address	Type	Name
0-00000000	I*4	DECODE_ECC

VARIABLES

Address	Type	Name	Address	Type	Name
3-00000000	I*4	EMB\$L_HD_SID	3-00000004	I*2	EMB\$W_HD_ENTRY
3-0000000E	I*2	EMB\$W_HD_ERRSEQ	AP-00000004@	L*1	ERROR_SYNDROME
2-0000009C	I*4	I	AP-00000008@	I*4	SBI_CONFIGURATION_REGISTER

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ARRAYS

Address	Type	Name	Bytes	Dimensions
3-00000000	L*1	EMB	512	(0:511)
3-00000006	I*4	EMB\$Q HD TIME	8	(2)
2-00000000	L*1	MS780E_SYNDROME	39	(0:38)
2-0000006F	L*1	MS7X0_SYNDROME	39	(0:38)
2-00000027	L*1	MX780_SYNDROME	72	(0:71)

LABELS

Address	Label	Address	Label	Address	Label
**	5	**	10	**	15

FUNCTIONS AND SUBROUTINES REFERENCED

Type Name
I*4 LIB\$EXTZV

COMMAND QUALIFIERS

```
FORTRAN /LIS=LIS$:DECODECC/OBJ=OBJ$:DECODECC MSRCS$:DECODECC
/CHECK=(NOBOUNDS,OVERFLOW,NOUNDERFLOW)
/DEBUG=(NOSYMBOLS,TRACEBACK)
/STANDARD=(NOSYNTAX,NOSOURCE FORM)
/SHOW=(NOPREPROCESSOR,NOINCLUDE,MAP)
/F77 /NOG_FLOATING /I4 /OPTIMIZE /WARNINGS /NOD_LINES /NOCROSS_REFERENCE /NOMACHINE_CODE /CONTINUATIONS=19
```

COMPILATION STATISTICS

Run Time: 3.01 seconds
Elapsed Time: 8.01 seconds
Page Faults: 144
Dynamic Memory: 179 pages

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