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IDENTIFICATION

PRODUCT CODE: AC-E812B-MC
PRODUCT NAME: CXBTAB0 BUS TESTER MODULE B
PRODUCT DATE: SEPTEMBER 1978
MAINTAINER: DEC/X11 SUPPORT GROUP

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1. ABSTRACT

THE BTA MODULE IS AN IOMODR THAT EXERCISES THE FIRST TWO ADDRESSES AND FIRST TWO VECTORS OF THE BUS TESTER. BOTH CSR'S ARE TESTED AND STEPPED THROUGH FOUR BR LEVELS.

2. REQUIREMENTS

HARDWARE: ONE UNIBUS TESTER

STORAGE:: BTA REQUIRES:

1. DECIMAL WORDS: 279
2. OCTAL WORDS: 0427
3. OCTAL BYTES: 1056

3. PASS DEFINITION

ONE PASS CONSISTS OF CYCLING THROUGH THE CODE 100,000 TIMES WHICH CHECKS THE INTERRUPT ON FOUR BR LEVELS.

4. EXECUTION TIME

ONE PASS TAKES APPROXIMATELY 1 MINUTE.

5. CONFIGURATION REQUIREMENTS

DEFAULT PARAMETERS: DVA:170000 VCT:510 BR1:0 BR2:0 DVC:1 SR1:0
REQUIRED PARAMETERS: NONE
MEANING OF SR1: NONE

6. DEVICE/OPTION SETUP

CONNECT THE BUS TESTER AND POWER UP.

7. MODULE OPERATION

SETS UP THE FIRST TWO CSR'S, ONE FOR A TRANSFER AND THE OTHER FOR AN INTERRUPT. WHEN THE OPERATION HAS COMPLETED ERROR CHECKING IS DONE AND THE BR LEVEL IS CHANGED, TESTING IS THEN CONTINUED.

8. OPERATION OPTIONS

NONE

9. NON-STANDARD PRINTOUTS

NONE


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212 000474 010067 000336      MOV      R0,ABWC      ;SET WORD COUNT FOR SECTION 1
213 000500 005020             CLR      (R0)+        ;SET CSR FOR SECTION 1
214 000502 010067 000332      MOV      R0,ABCSR    ;SET CSR FOR SECTION 1
215 000506 005020             CLR      (R0)+        ;SET CSR FOR SECTION 1
216 000510 010067 000326      MOV      R0,ABDBR    ;SET DATA BUFFER IN SECTION 2
217 000512 005020             CLR      (R0)+        ;SET DATA BUFFER IN SECTION 2
218 000516 010067 000322      MOV      R0,ABCA     ;SET ADDRESS REG IN SECTION 2
219 000522 005020             CLR      (R0)+        ;SET ADDRESS REG IN SECTION 2
220 000524 010067 000316      MOV      R0,ABWC     ;SET WORD COUNT IN SECTION 2
221 000530 005020             CLR      (R0)+        ;SET WORD COUNT IN SECTION 2
222 000532 010067 000312      MOV      R0,ABCSR    ;SET CSR IN SECTION 2
223 000536 000205             RTS
224
225 000540 016700 177244      MOV      VECTOR,R0   ;POINT TO FIRST VECTOR
226 000544 012720 000322      MOV      BRUST1,(R0)+;POINT TO FIRST INTERRUPT
227 000550 010067 000056      MOV      R0,SAVA     ;SET BR LOCATION
228 000554 042777 000340      BIC      #340,BSAVA  ;CLEAR BR BITS
229 000558 052777 000200      BIC      #200,BSAVA  ;SET BR LEVEL OF 4
230 000570 005720             BIC      #60,BSAVA   ;SET BR LEVEL OF 4
231 000572 012720 000442      MOV      BRUST2,(R0)+;POINT TO SECOND INTERRUPT
232 000576 010067 000032      MOV      R0,SAVB     ;SAVE BR LOCATION
233 000580 042777 000340      BIC      #340,BSAVB  ;CLEAR BR BITS
234 000584 052777 000200      BIC      #200,BSAVB  ;SET BR LEVEL OF 4
235 000616 000205             RTS
236
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239
240 000620 000000             SENDIA: 0             ;SENT
241 000624 000000             RECI1: 0             ;DECLINED
242 000628 000000             EXPIA: 0            ;EXPECTED
243 000632 000000             TOT: 0
244 000636 000000             TCTR: 0
245 000640 000000             SAVA: 0
246 000644 000000             SAVB: 0
247
248 000648 022767 000003 177762  BRA:    CMP      #3,TOT      ;CHECK ALL BR LEVELS.
249 000652 022767 000000             BRQ      #3,TOT      ;ALL BR'S DONE
250 000656 062767 000040 000176  ADD     #40,FPUNC     ;CHANGE BR LEVEL
251 000660 062767 000040 000172  ADD     #40,BPUNC     ;CHANGE BR LEVEL
252 000664 062777 000040 177742  ADD     #40,BSAVA    ;STEP BR LEVEL
253 000668 062777 000040 177736  ADD     #40,BSAVB    ;STEP BR LEVEL
254 000672 005267 177724             INC     TOT
255 000700 000205             RTS
256 000704 012767 045411 000140  IS:    MOV      #45411,FPUNC ;SET 1ST BR LEVEL
257 000708 012767 000033 000134  MOV     #33,BPUNC     ;SET 1ST BR LEVEL
258 000712 042777 000340 177704  BIC     #340,BSAVA   ;CLEAR BR BITS
259 000716 042777 000340 177700  BIC     #340,BSAVB   ;CLEAR BR BITS
260 000720 052777 000200 177670  BIC     #200,BSAVA   ;SET BR TO 4
261 000724 052777 000200 177664  BIC     #200,BSAVB   ;SET BR TO 4
262 000750 005067 177652             CLR     TOT
263 000754 000205             RTS
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266
267 000756 010067 177116      ERR1:  MOV     R0,CSRA  ;LOAD CSR ADDRESS

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268 000762 011067 177114      MOV      (R0),ACSR    ;LOAD CONTENTS OF CSR
269 000766 012767 000011 177112  MOV     #11,ERR1     ;ILLEGAL INTERRUPT
270
271 000774 104405 000000 000000  ;*****
272 001002 000205             BRDRS,REGIN,NULL    ;*****
273
274
275
276 001004 010067 177070      ERR2:  MOV      R0,CSRA  ;LOAD CSR ADDRESS
277 001010 011067 177066      MOV     (R0),ACSR    ;LOAD CONTENTS OF CSR
278 001014 012767 000001 177064  MOV     #1,ERR2     ;DATA ERROR
279
280 001022 104405 000000 000000  ;*****
281 001030 000205             BRDRS,REGIN,NULL    ;*****
282
283
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286
287 001032 000000             ;SECTION 1 REGISTERS
288 001034 000000             BRDR:  0
289 001036 000000             BRCA:  0
290 001040 000000             BRWC:  0
291 001042 000000             BRCSR: 0
292
293
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297 001052 000000             ;SECTION 2 REGISTERS
298 001054 000000             BRDR:  0
299 001056 000000             BRCA:  0
300 001058 000000             BRWC:  0
301 001060 000000             BRCSR: 0
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STAT	000026R	120#			
SVRO	000062#	135#			
SVR1	000064#	136#			
SVR2	000066#	137#			
SVR3	000070R	138#			
SVR4	000072R	139#			
SVR5	000074R	140#			
SVR6	000076R	141#			
SYSCNT	000052R	130#			
TOT	000626R	166#	243#	248	254*
TOTR	000630R	165#	244#		262*
TOPDFD-	000027	162#			
VCC	000540R	168	225#		
VECTUP	000010R	111#	225		
MASADR	000104R	135#			
WDFR	000116R	152#	164*		
WOTO	000114R	151#	163*		
XFLAG	000005R	109#			

- ARS. 000000 000
001058 001

ERRORS DETECTED: 0
DEFAULT GLOBALS GENERATED: 0
XRTABO, XRTABO/SUL/CRP: SYM=DUXCON, XRTABO
RUN-TIME: 11.3 SECONDS
RUN-TIME RATIO: 9/2=3.4
CORE USED: 7K (13 PAGES)