

APPENDIX A

ASSEMBLY DRAWING, PARTS LIST, AND SCHEMATIC

REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
A	RELEASE PER ECO 94-0657	23 SEP 94	KKH

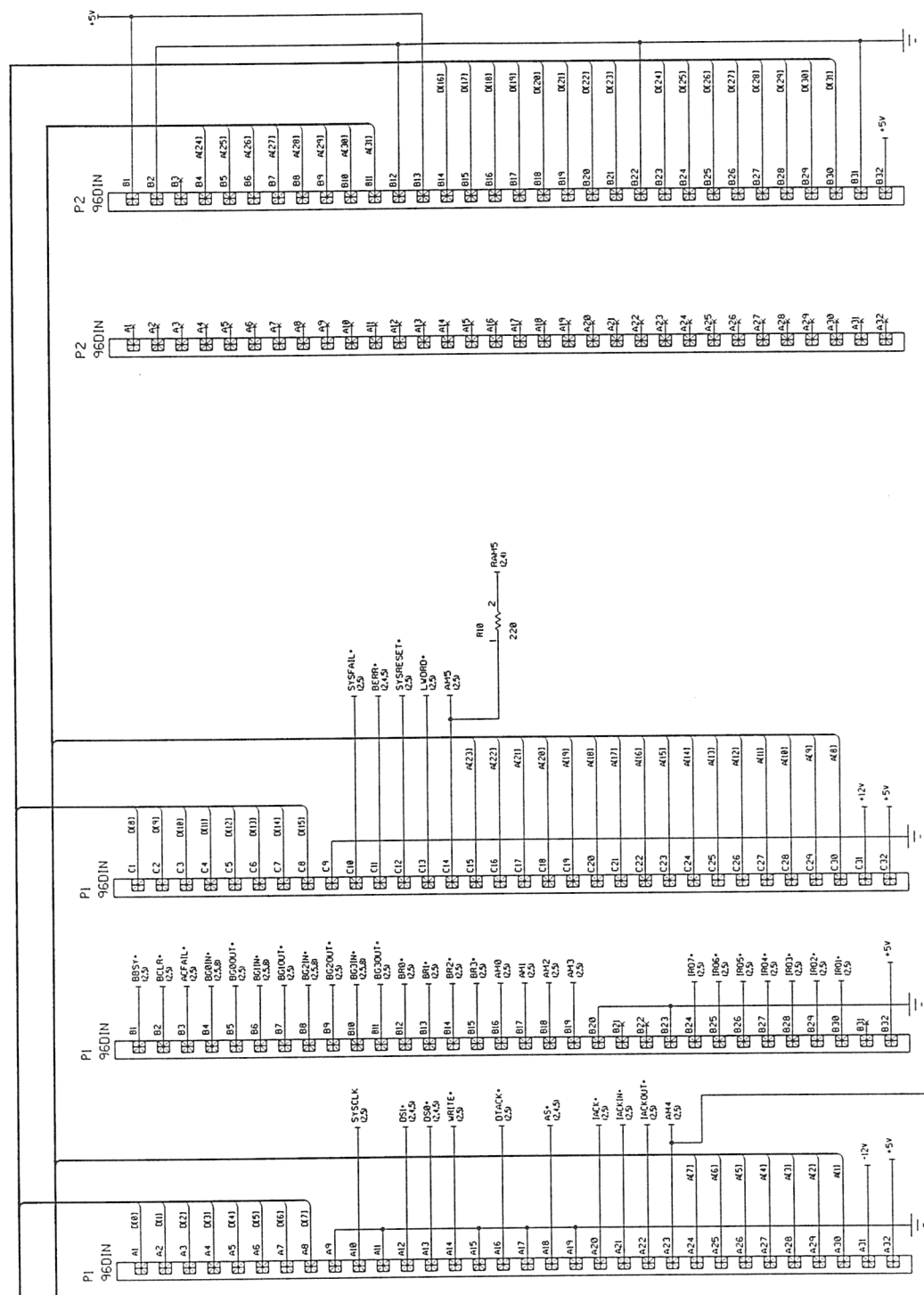
NOTES:

1. ALL RESISTOR VALUES ARE IN OHMS.
2. UNLESS OTHERWISE SPECIFIED:
 - A. ALL RESISTORS ARE 1/4 WATT, 5%.
 - B. ALL CAPACITOR VALUES ARE SHOWN IN MICROFARADS

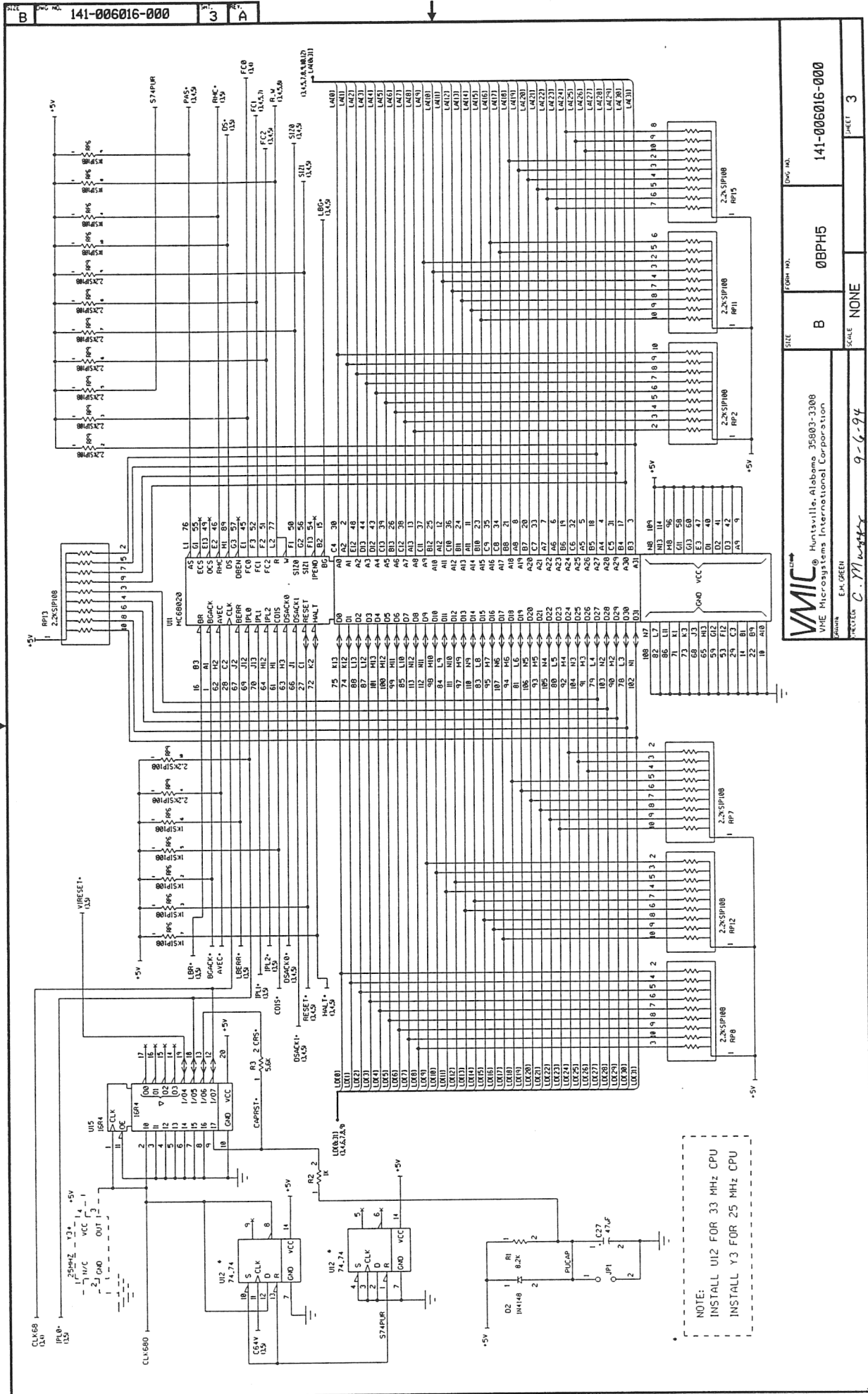
 VMIC® Huntsville, Alabama 35893-3308 VME Microsystems International Corporation		DATE	
		1/5/94	2/1/94
SIGNATURES		DATE	
DESIGNED: E.A. GREEN		2/1/94	
PROD. ENG: E. DORN		2/1/94	
CHECKED: G. SUTHERLAND		2/1/94	
APPROVED: <i>[Signature]</i>		9/26/94	
TITLE		VMIVME - 6016 SCHEMATIC	
SIZE	B	FORM NO.	08PH5
SCALE	NONE	DWG NO.	141-006016-000
SHEET		1	

THIS DRAWING AND SPECIFICATION
 ARE THE PROPERTY OF VMIC. NO
 PARTS MAY BE REPRODUCED OR
 COPIED OR USED IN WHOLE OR IN
 PART WITHOUT THE WRITTEN
 PERMISSION OF VMIC.

0.0031
0.0031
0.0031



VMEC Huntsville, Alabama 35803-3308 VME Microsystems International Corporation		FORM NO. B	08PH5	DWG NO. 141-006016-000
NAME E.A. GREEN		SCALE NONE	SHEET 2	



141-006016-000

08PH5

B

141-006016-000

VMIC

Monteville, Alabama 35803-3300

VME Microsystems International Corporation

GREEN E.K. GREEN

9-6-94

C.M. WATKINS

9-6-94

9-6-94

141-006016-000

08PH5

B

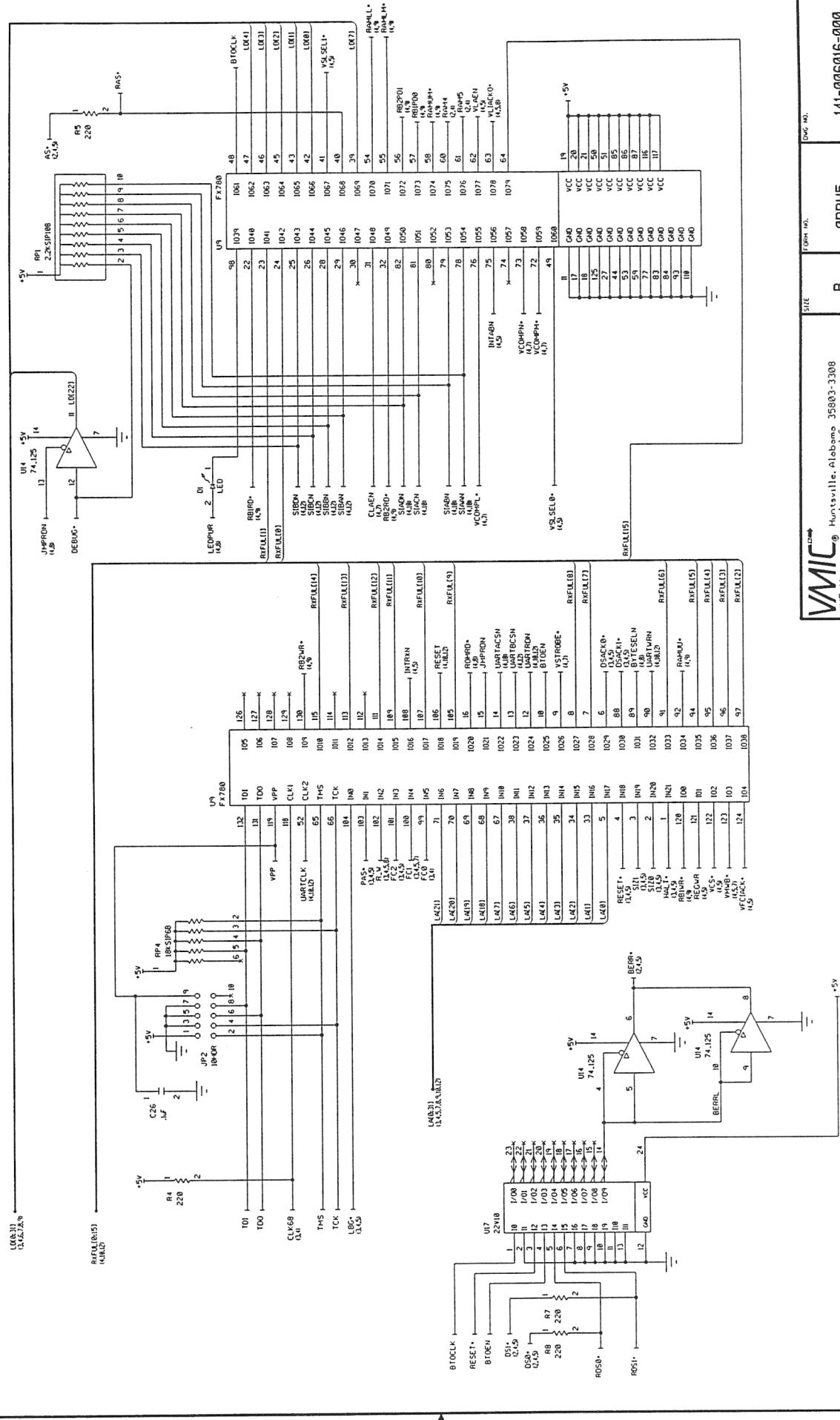
141-006016-000

141-006016-000

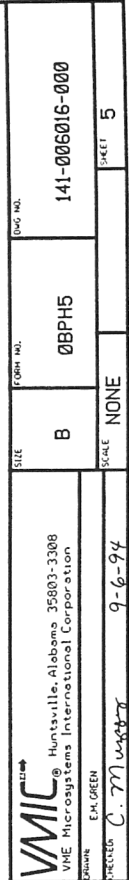
08PH5

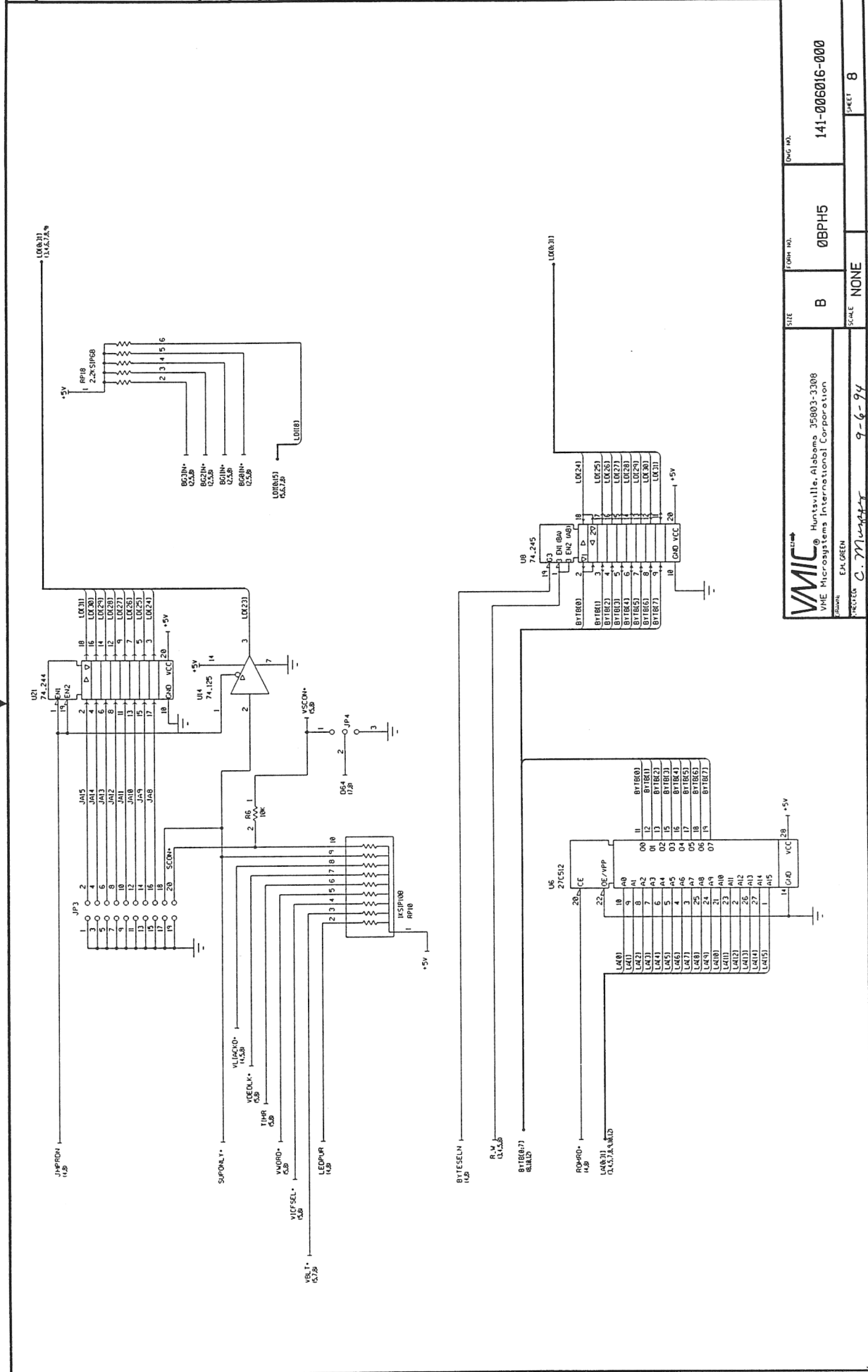
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141-006016-000

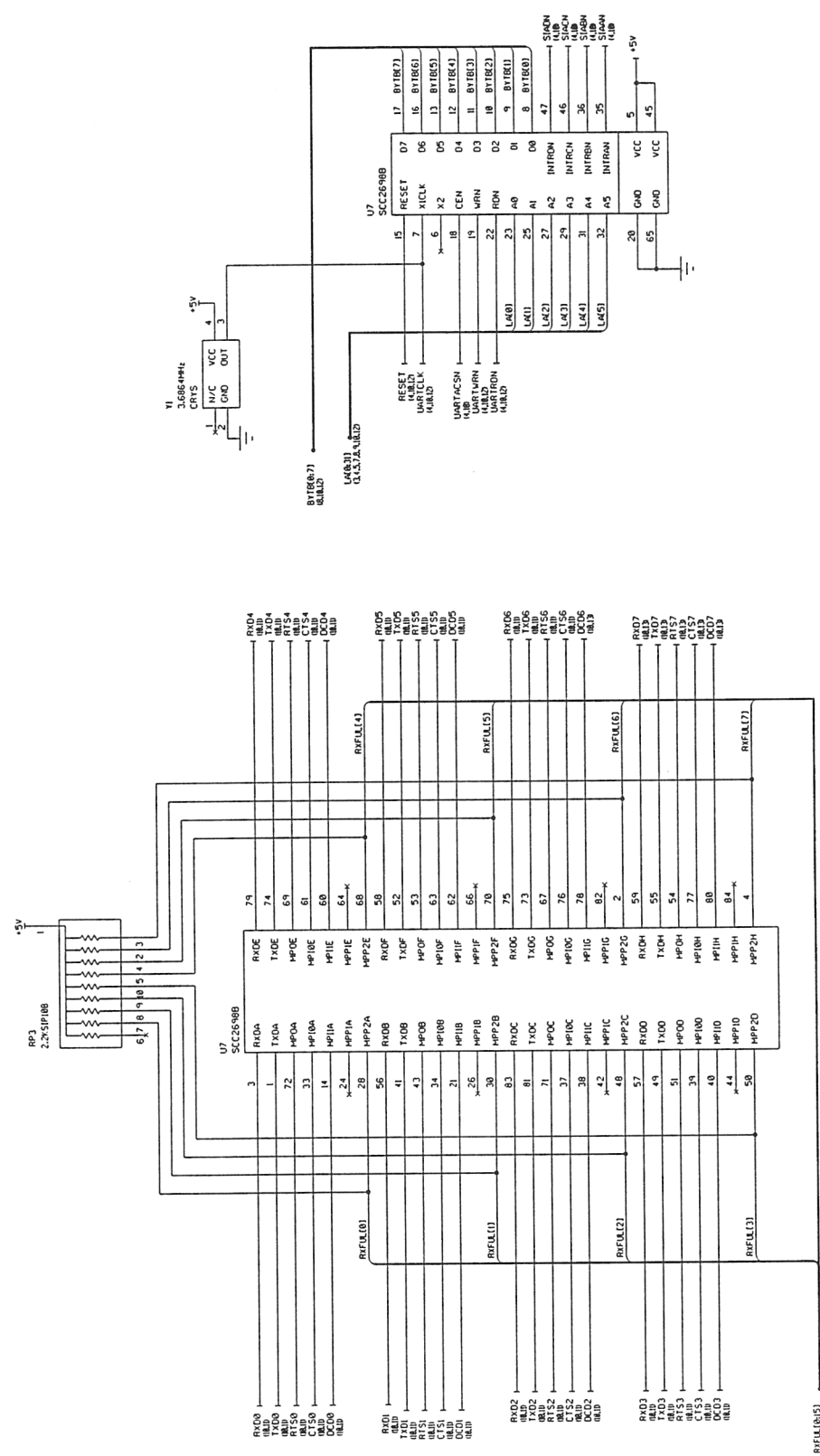


141-006016-000	
08PH5	
NONE	
9-6-94	
C. M. WATKINS	
E. M. GREEN	
Huntsville, Alabama 35893-3308	
VME Microsystems International Corporation	
VME	
SHEET NUMBER: 4 DATE: Sep 6, 1994	

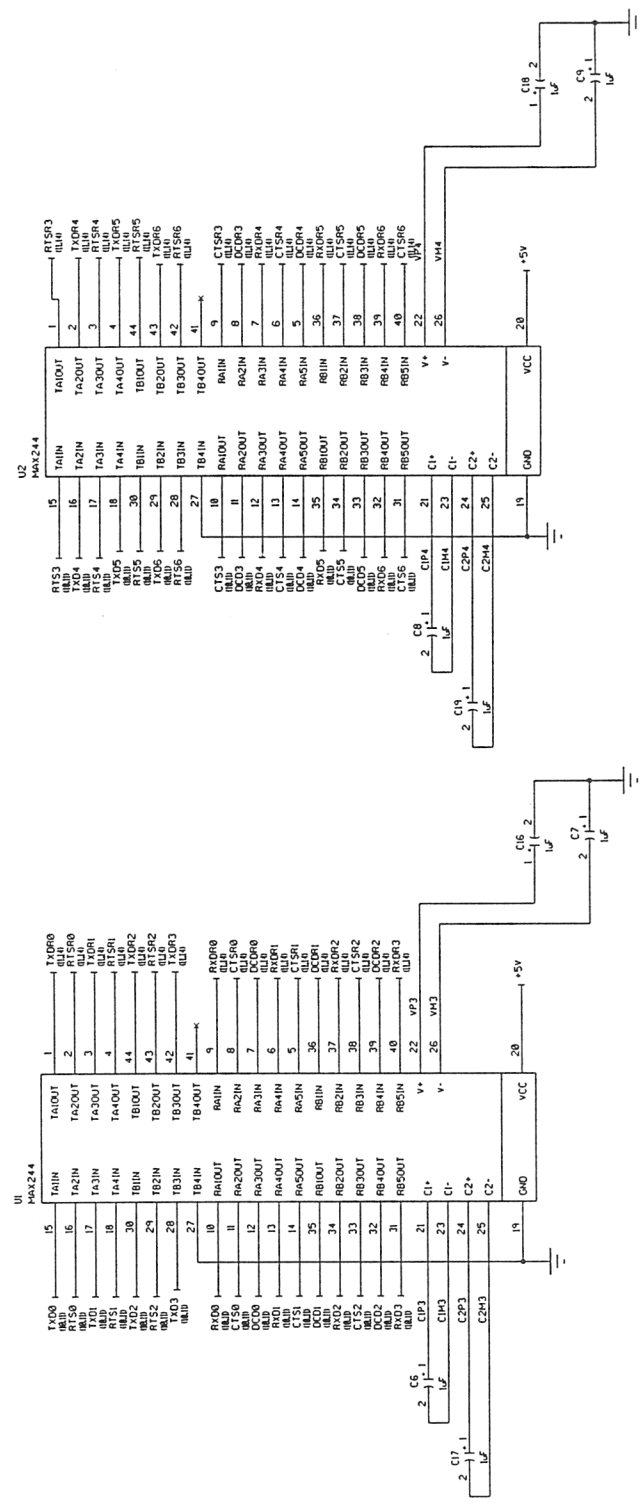




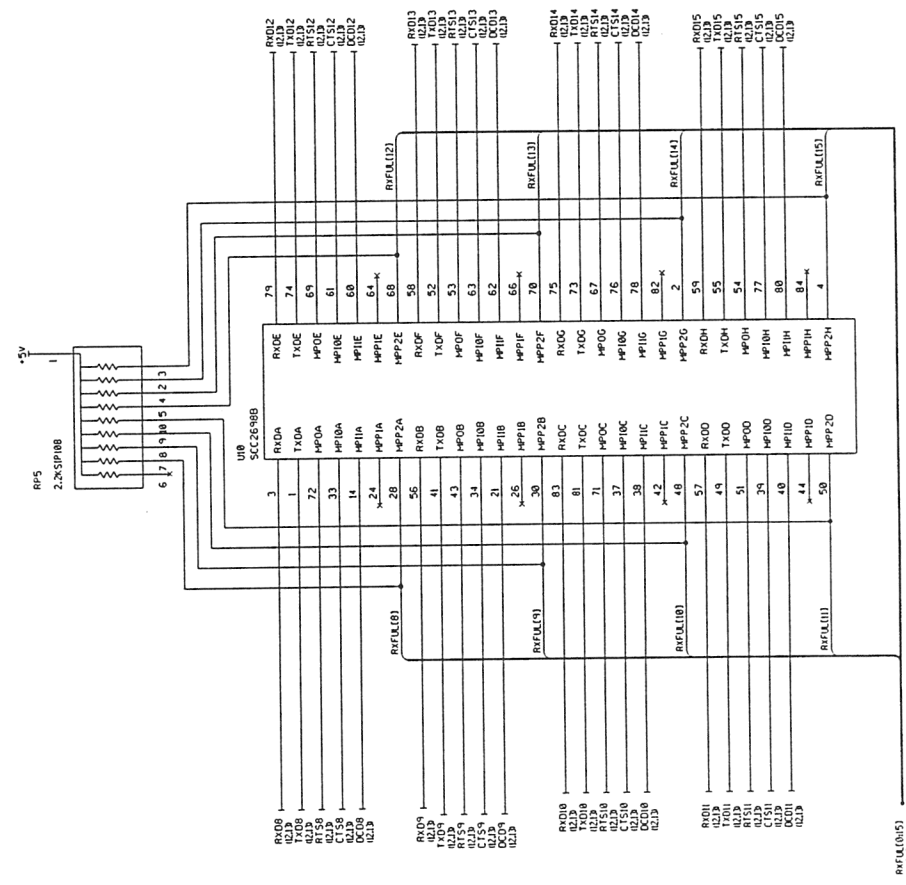




VME Monteville, Alabama 35893-3308 VME Microsystems International Corporation		141-006016-000	
C. Murphy		9-6-94	
EAGLE		NONE	
SHEET 10		SHEET 10	



VMEC		Huntsville, Alabama 35893-3308		141-006016-000	
VME Microsystems International Corporation		B		08PH5	
E.A. GREEN		NONE		SHEET 11	
C. Murphy		9-6-94			

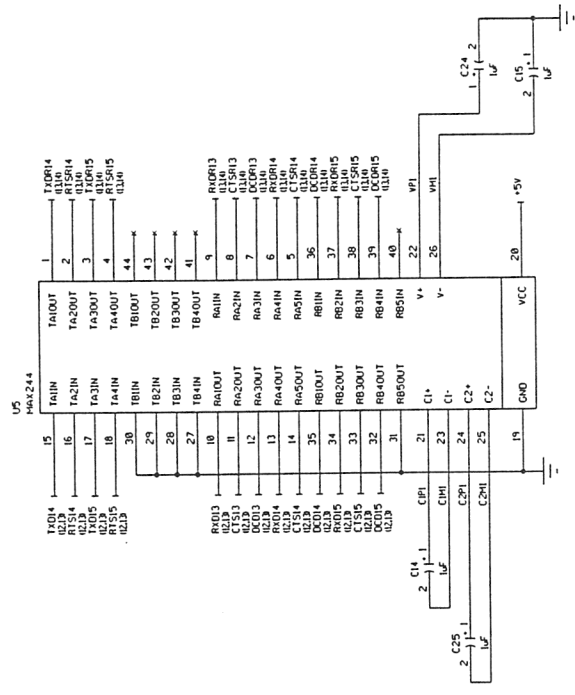
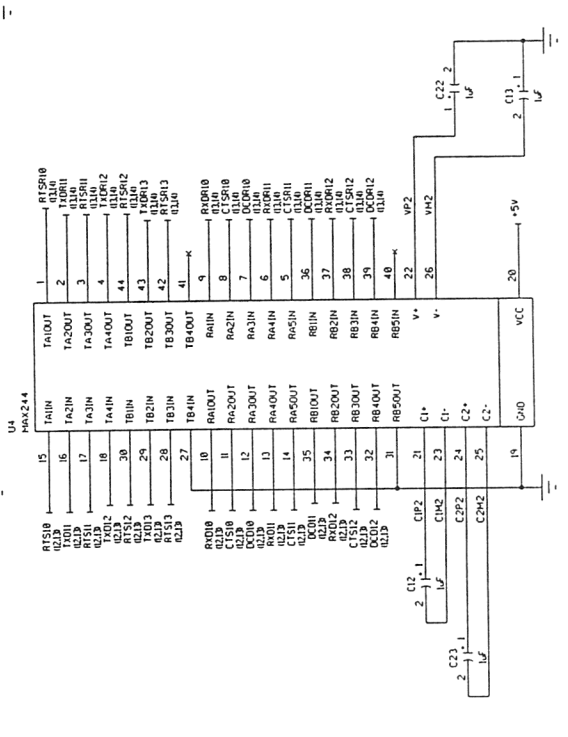
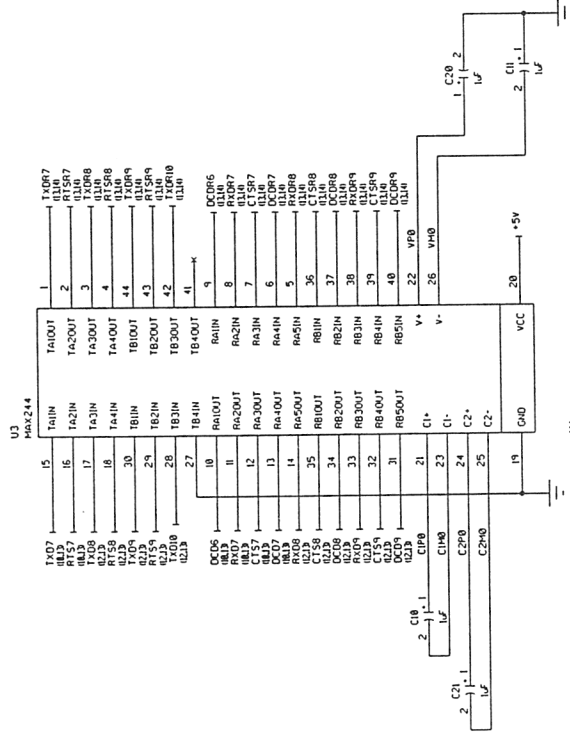


VMIC Huntsville, Alabama 35893-3308
VME Microsystems International Corporation
EXTRA EX GREEN

SIZE: B FORM: 141-006016-000 SHEET: 12

SCALE: NONE

DATE: 9-6-94

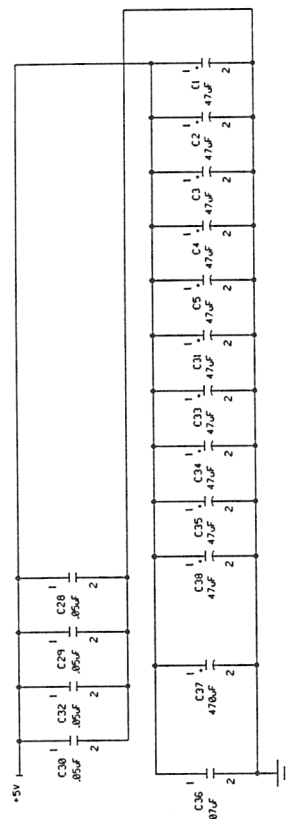
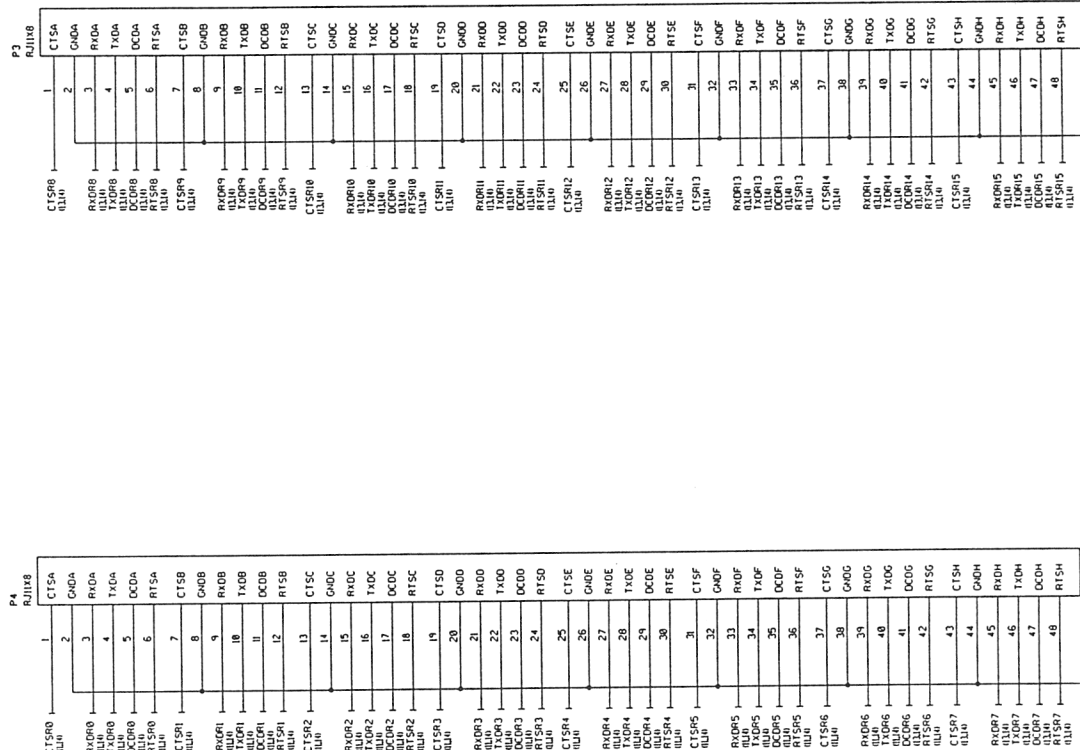


VMIC Huntsville, Alabama 35893-3308
VME Microsystems International Corporation

141-006016-000

08PH5

13

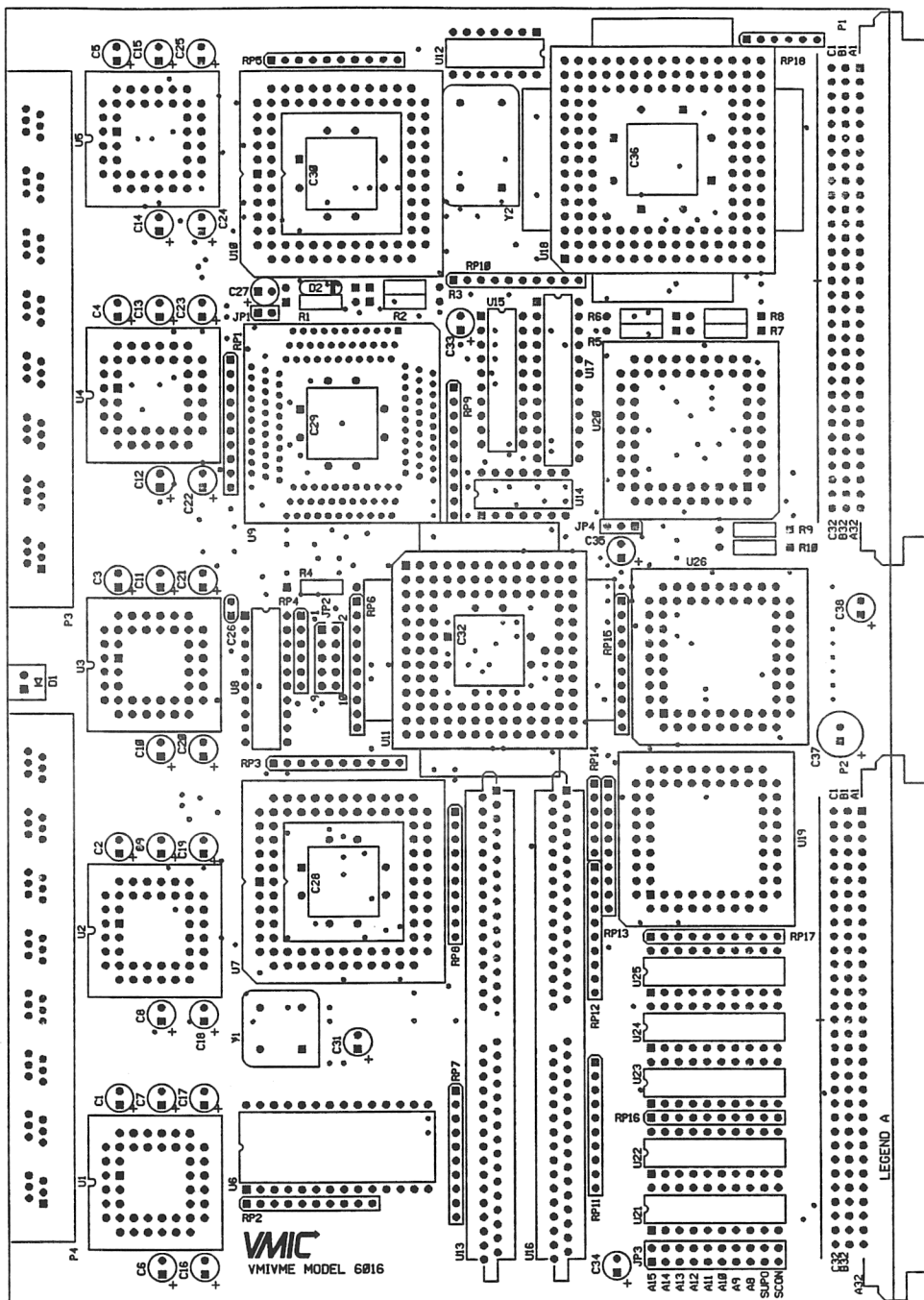


NOTES:

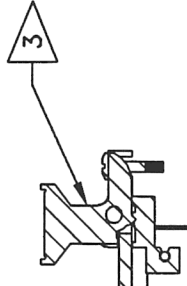
1. FOR SCHEMATIC DIAGRAM SEE 141-006016-000.
2. FOR TEST PROCEDURE SEE 510-006016-000.
3. FOR DOCUMENT SET SEE 110-006016-000.

SIZE	DWG NO	SH	REV
A	132-006016-000	1	A
REVISIONS			
REVISION STATUS OF 332	DESCRIPTION	DATE	APPROVED
A	RELEASE PER ECO 95-0023	21 MAR 95	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 2 PL DECIMALS ± 3 PL DECIMALS ± ANGLES ± FRACTIONS ±	SIGNATURES DRAWN: E. JORY PROJECT: K. DUNN ENG. MOR.: G.L. SUTHERLAND PROD.: <i>[Signature]</i> Q.A.: <i>[Signature]</i>	DATE 2/28/94 3/9/94 3/9/94 3/23/95 3/24/95	VMIC® HUNTSVILLE, ALABAMA 35803-3308 VME MICROSYSTEMS INTERNATIONAL CORPORATION	
			ASSEMBLY DRAWING VMIVME-6016	
THIS DRAWING AND SPECIFICATION HEREIN ARE THE PROPERTY OF VMIC AND SHALL NOT BE REPRODUCED OR COPIED OR USED IN WHOLE OR IN PART AS A BASIS FOR THE MANU- FACTURE OR SALE OF ITEMS WITH- OUT WRITTEN PERMISSION.	MAGNETIC MEDIA FILENAME FOR PACKAGE: A006016A.EXE		SIZE A	FSCM NO. OBPH5
	SCALE NONE		DWG NO. 132-006016-000	SHEET 1 OF 7



SIZE A DWG NO 132-006016-000 SH 2A REV A



ASSY NO. 332-006016-

DETAIL "A"

110000-122.0M1224

SEE DETAIL "A"



HUNTSVILLE, AL 35803-3308
VME MICROSYSTEMS INTERNATIONAL CORP.

DRAWN: E. JORY

CHECKED: C. Muggs

3-9-95

DWG NO.

FSCM NO.

SIZE

OBPH5

A

132-006016-000

SCALE .75=1

SHEET 2A

NOTE:
IF USING AMP SOCKET FOR QFP DEVICE U9, SEE
DETAIL "B", SHEET 2B. IF USING 3M SOCKET,
SEE DETAIL "C", SHEET 2C.

NOTE:
DO NOT REMOVE THE QFP CARRIER FROM THE DEVICE
UNTIL INSTALLATION INTO THE BOARD SOCKET.

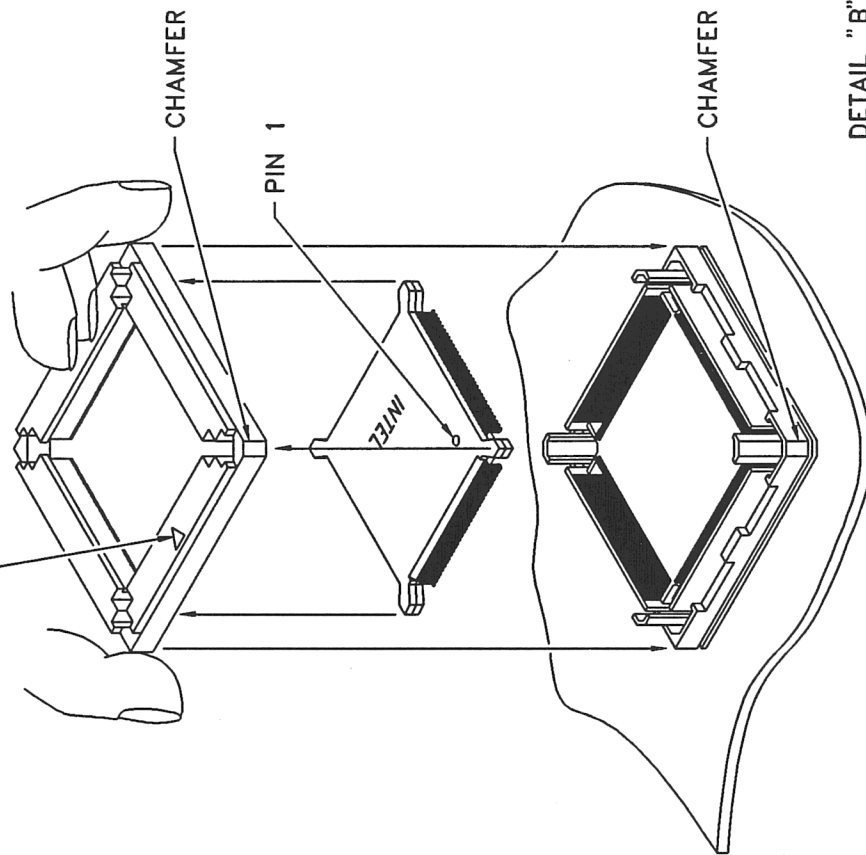
STEP 1
INSTALL QFP DEVICE COVER, ITEM 29.
PUSH THE DEVICE INTO THE COVER. DO NOT ATTEMPT
TO PUSH THE COVER ONTO THE DEVICE. BE CAREFUL
TO INSURE THAT PIN ONE ORIENTATION OF THE DEVICE
AND COVER ARE AS SHOWN.

CAUTION:
WHEN INSTALLING THE DEVICE COVER INSURE THAT
PIN 1 ORIENTATION OF THE COVER AND DEVICE ARE
AS SHOWN.

STEP 2
AFTER THE COVER IS SNAPPED ON THE THE DEVICE,
LIFT THE COVER WITH THE DEVICE AND INSURE THE
UNDERSIDE DEVICE PINS ARE PROPERLY ALIGNED
AND SEATED WITHIN THE COVER GUIDES.

STEP 3
INSERT DEVICE WITH COVER INTO THE PROPER BOARD
SOCKET. INSURE PIN 1 ORIENTATION IS CORRECT AND
THAT THE ORIENTATION OF THE CHAMFER ON THE
DEVICE COVER MATCHES THE CHAMFER ON THE SOCKET.
THE DEVICE AND COVER ASSEMBLY SHOULD SNAP
ONTO THE SOCKET AT ALL FOUR CORNERS.

PIN 1 INDICATOR



DETAIL "B"
AMP SOCKET

VMIC

HUNTSVILLE, AL 35803-3308
VME MICROSYSTEMS INTERNATIONAL CORP.

DRAWN: E. JORY

CHECKED: C. Murphy

3-9-95

SCALE NONE

FSCM NO. OBPH5

DWG NO.

SHEET 2B

132-006016-000

SIZE A DWG NO. 132-006016-000 SH 2B REV A

NOTE:
DO NOT REMOVE THE QFP CARRIER FROM THE DEVICE
UNTIL INSTALLATION INTO THE BOARD SOCKET.

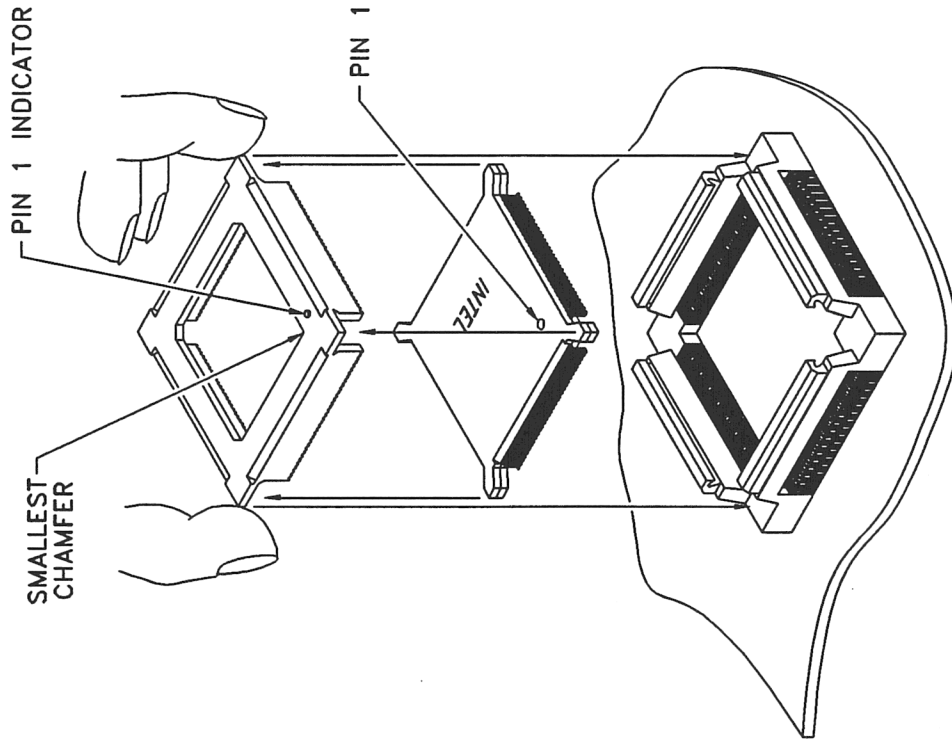
STEP 1
INSTALL QFP DEVICE COVER, ITEM 29.
PUSH THE DEVICE INTO THE COVER. DO NOT ATTEMPT
TO PUSH THE COVER ONTO THE DEVICE. BE CAREFUL
TO INSURE THAT PIN ONE ORIENTATION OF THE DEVICE
AND COVER ARE AS SHOWN.

CAUTION:
WHEN INSTALLING THE DEVICE COVER INSURE THAT
PIN 1 ORIENTATION OF THE COVER AND DEVICE ARE
AS SHOWN.

STEP 2
AFTER THE COVER IS SNAPPED ON THE THE DEVICE,
LIFT THE COVER WITH THE DEVICE AND INSURE THE
UNDERSIDE DEVICE PINS ARE PROPERLY ALIGNED
AND SEATED WITHIN THE COVER GUIDES.

NOTE:
THE 3M SOCKET HAS NO PIN 1 INDICATOR, THEREFORE
THE SOCKET MAY BE INSTALLED IN ANY OF FOUR
POSSIBLE POSITIONS AND THE INSTALLATION WILL
STILL BE CORRECT. NOTE HOWEVER, THAT BOTH
THE DEVICE AND COVER DO HAVE PIN 1 INDICATORS.
THE PIN 1 INDICATORS ON BOTH THE DEVICE AND
COVER MUST BE ALIGNED WITH THE PIN 1 CHAMFER
ON THE U9 BOARD SILKSCREEN.

STEP 3
INSERT DEVICE WITH COVER INTO THE PROPER BOARD
SOCKET. INSURE PIN 1 ORIENTATION IS CORRECT AND
THAT THE ORIENTATION OF THE CHAMFER ON THE
DEVICE COVER MATCHES THE CHAMFER ON THE BOARD
SILKSCREEN. THE DEVICE AND COVER ASSEMBLY
SHOULD SNAP ONTO THE SOCKET AT ALL FOUR
CORNERS.



DETAIL "C"
3M SOCKET



HUNTSVILLE, AL 35803-3308
VME MICROSYSTEMS INTERNATIONAL CORP.

DRAWN: E. JORY

CHECKED: C. M. Wright

3-9-95

DWG NO.

132-006016-000

FSCM NO.

OBPH5

SIZE

A

SCALE .375=1

SHEET 2C

SIZE A DWG NO. 132-006016-000 SH 2C REV A

REWORK LEGEND:

- A. REWORK INSTRUCTIONS SHALL BE ACCOMPLISHED ON THE COPPER REVISION(S) INDICATED AND WILL BECOME A PART OF THE ASSEMBLED BOARD.
- B. REWORK INSTRUCTION SYMBOLS:
 - 1. PIN ONE DOT ■
 - 2. DRILL HOLE ●
 - 3. DISCONNECT TRACE ×
 - 4. TRACE ON INTERNAL LAYER -----
 - 5. TRACE ON EXTERNAL LAYER _____

INSTRUCTIONS:
NOTES:

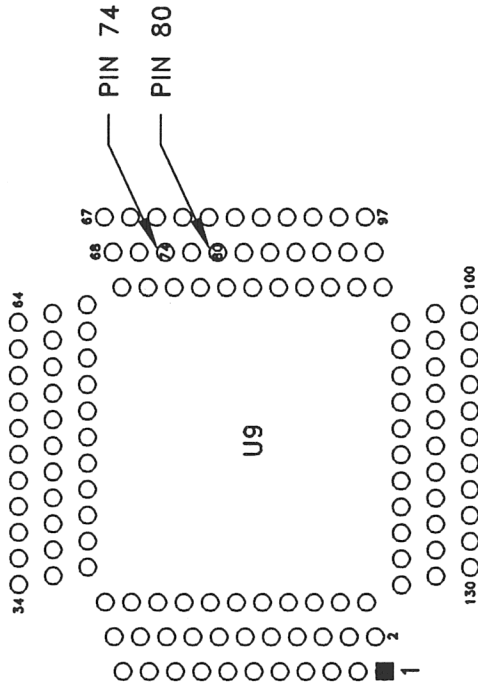
- 1. A. ALL ASSEMBLED BOARDS SHALL BE IDENTIFIED WITH THE ASSEMBLED BOARD PART NUMBER. THIS NUMBER INCLUDES THE CURRENT REVISION LETTER LISTED IN THE "REVISION STATUS OF 332" BLOCK (SEE SHEET 1). THE RESULTING PART SHALL BECOME A 332-006016-ABC (REV).
- 2. B. THE PART NUMBER FIELDS "ABC" WILL COINCIDE WITH THE OPTIONAL PARTS INSTALLED IN THE COMPLETED ASSEMBLY. IF NO OPTIONAL PARTS ARE USED IN A FIELD, THAT FIELD WILL DEFAULT TO "0".
- 3. C. IF NECESSARY, REMOVE AND REPLACE 332 REVISION LETTER WITH CURRENT REVISION LETTER USING EITHER A REMOVABLE NON-SMEARING BLACK INK OR A LABEL.
SOLDER COMPOSITION COMPLIES WITH MIL-STD-2000.
SEE DRAWING 150-000022-000 FOR THE ASSEMBLY AND INSTALLATION OF THE FRONT PANEL.

VMIC HUNTSVILLE, AL 35803-3308 VME MICROSYSTEMS INTERNATIONAL CORP.		SIZE A	FSCM NO. OBPH5	DWG NO. 132-006016-000
DRAWN: E. JORY		SCALE		SHEET 3
CHECKED: C. MURPHY		3-9-95		

EFFECTIVITY: DCO V-6016 (333-006016-000 REV A)

INSTRUCTIONS: REWORK

- STEP 1 (SOLDER SIDE)
 CONNECT U9 PIN 74 TO RP10 PIN 5.
STEP 2 (SOLDER SIDE)
 CONNECT U9 PIN 80 TO RP6 PIN 10.



END OF REWORK INSTRUCTIONS

VMIC HUNTSVILLE, AL 35803-3308 VME MICROSYSTEMS INTERNATIONAL CORP.	SIZE	FSCM NO.	DWG NO.
	A	OBPH5	132-006016-000
DRAWN: E. JORY		SHEET 3A	
CHECKED: C. Mung		3-9-95	

OPT.		Q U A N T I T Y	I T E M #	P A R T S L I S T		CODE	REV.	DRAWING NUMBER	CHECKED	SH NO.	
				REFERENCE DESIGNATOR	PART NO.						
A	B	C				OBPH5	A	132-006016-000	C. Muzger	4	
									DATE	3/20/95	
						NOMENCLATURE OR DESCRIPTION			MANUFACTURER'S PART NO.		
			1	1	333-006016-000	BOARD: PC, RAW, 8 LAYERS					
			1	2	317-000179-000	PANEL: EXTRUDED EJECTOR, SINGLE SLOT, 2 MODULAR JACK CUTOUPS, LED (SEE NOTE 3)					
			1	3	324-006016-100	LABEL: ID, 6016, FRONT PANEL (SEE NOTE 3)					
			1	4	302-000011-350	BOARD: MODULE, 35ns, 720mA OPERATING & 160mA STAND BY CURRENT, 4 SRAMS & 8-64K IN SOJ ON EPOXY BOARD					CYM1831PZ-35C (CYPRESS SEMI)
			1	5	303-001075-000	PROGRAMMED EPLD: FILE: 6016U09A.PDS A PROGRAMMED KUF780-15 (331-300157-115) (SEE SHEET 2B)					
			1	6	303-001076-000	PROGRAMMED PAL: FILE: 6016-15A.PLD A PROGRAMMED 16R4BCN (331-300101-200)					
			1	7	303-001077-000	PROGRAMMED PAL: FILE: 6016-17A.PLD A PROGRAMMED 22V10H-25 (331-300143-250)					
			1	8	303-001112-000	PROGRAMMED PAL: FILE: 6016-06A.SR A PROGRAMMED M27C512-20F1 (331-309064-200)					
			11	9	315-101001-476	CAP: 47uF, .100 LEAD SPACE, RADIAL, +/-20% 10V, TANTALUM					T35(0,1)H476H010AS (KEMET)
			20	10	315-102001-105	CAP: 1uF, .100 LEAD SPACE, 20%, 25V, TANTALUM					T35(0,1)A105H025AS (KEMET)
			1	11	315-210000-104	CAP: .1uF, .100 LEAD SPACE, 10%, 100V, X7R, CERAMIC MONOLITHIC					C315C104K1R5CA (KEMET)
			4	12	DELETED	**DO NOT LOAD**					
			1	13	DELETED	**DO NOT LOAD**					

OPT.			Q U A N T I T Y	I T E M #	VME [®] PARTS LIST		CODE	REV.	DRAWING NUMBER	CHECKED	SH NO.
					REFERENCE DESIGNATOR	PART NO.					
	A	B	C			VME MICROSYSTEMS INT'L CORP.	OBPH5	A	132-006016-000	C-Murphy DATE 3/20/95	5
							NOMENCLATURE OR DESCRIPTION			MANUFACTURER'S PART NO.	
				1	14	C37			CAP: 470uF, 20%, 10V, PVC INSULATED SLEEVE, ALUMINUM	ECEA1AU471	(PANASONIC)
				A/R	15	REF. P1,2			LOCTITE: SMALL SCREW THREADLOCKER 222		
					16				(MOVED TO OPTION FIELD)		
				16	17	J1-3			JUMPER: PC BOARD, 2 POSITION, FEMALE, GOLD PLATED CONTACT, BLACK	MSB-2360-G-C-STP	(McKENZIE)
				1	18	J1			TERMINAL: PC BOARD, SINGLE ROW, .025 THICK, GOLD PLATED, TWO POSTS	92983401-02	(PANDUIT)
				1	19	J4			TERMINAL: PC BOARD, SINGLE ROW, .025 THICK, GOLD PLATED, THREE POSTS	92983401-03	(PANDUIT)
				1	20	J2			TERMINAL: PC BOARD, DUAL ROW, .025 THICK, GOLD PLATED, FIVE POST	PEG10DS-(T,F)BR	(CRANE)
				1	21	J3			TERMINAL: PC BOARD, DUAL ROW, .025 THICK, GOLD PLATED, TEN POST	PEG20DS-(T,F)BR	(CRANE)
				1	22	P1			CONNECTOR: DIN, 96 PIN WITH EXTENDED GROUND PINS, TYPE C	536437-6	(AMP)
				1	23	P2			CONNECTOR: DIN, 96 PIN WITH EXTENDED GROUND PINS, TYPE C	536437-5	(AMP)
				5	24	U1-5			CARRIER: CHIP, 44 PIN PLCC	821575-1 (PREFERRED)	(AMP)
				2	25	U7,10			CARRIER: CHIP, 84 PIN PLCC	821573-1	(AMP)
				1	26	U18			SOCKET: 145 PIN GRID ARRAY, 15 X 15, .8" WINDOW	510-91-145-15-081001	(PD)
				1	27	U11			SOCKET: 114 PIN GRID ARRAY, 13 X 13, .6" WINDOW	510-13-114-13-061001	(MIL-MAX)
				1	28	U9			SOCKET: IC, JEDEC, 132-PIN PQFP, .025" CENTERS (SEE SHEET 28)	822064-5	(AMP)

OPT.	QTY	ITEM #	VME MICROSYSTEMS INT'L CORP.		PARTS LIST		CODE	REV.	DRAWING NUMBER	CHECKED	SH NO.
			REFERENCE DESIGNATOR	PART NO.							
A B C							OBPH5	A	132-006016-000	C. Mustard DATE 3/20/95	6
							NOMENCLATURE OR DESCRIPTION				
		29	U9	321-000132-134			SOCKET: COVER, JEDEC, 132-PIN PQFP, .025" CENTERS (SEE SHEET 2B)				
		30	P3,4	321-000133-866			CONNECTOR: RJ11, RIGHT ANGLE, GANGED, 8 PORTS X 6				
		31	U15	321-001320-001			SOCKET: DIP, 20 PIN, .300 ROW, STAMPED & FORMED				
		32	U17	321-001324-001			SOCKET: DIP, 24 PIN, .300 ROW, STAMPED & FORMED				
		33	U6	321-001628-001			SOCKET: DIP, 28 PIN, .600 ROW, STAMPED & FORMED				
		34	Y2	323-000000-640			CRYSTAL: 64 MHZ, 5V, 50/50 SYMMETRY, +-100ppm FREQUENCY STABILITY, 0 TO 70 DEGREES				
		35	Y1	323-000005-036			CRYSTAL: HYBRID, 1/2 SIZE TTL, LEADED PACKAGE, STANDARD OUTPUT, 3.6864MHZ				
		36	Y3	323-000007-250			OSCILLATOR: 25 MHZ, 5V, +-100ppm, HIGH FREQUENCY, -10 TO +70 DEGREES (LOAD IN U12 POSITION)				
		37	P1,2	328-250000-010			SCREW: PAN HEAD, PHILLIPS, M2.5 X 10MM, SS				
		38	P1,2	328-250001-025			NUT: METRIC, 2.5MM, HEX, SS				
		39	U14	331-304125-600			IC: DIGITAL, QUAD GATED BUFFER, PLASTIC DIP				
		40	U21	331-304244-400			IC: DIGITAL, OCTAL BUS DRIVER, NON-INVERTING, FAST, PLASTIC DIP				
		41	U8,22-25	331-304245-400			IC: DIGITAL, OCTAL BUS TRANSCEIVER, PLASTIC DIP				
		42	U11	331-309079-250			IC: MICROPROCESSOR, 25MHZ, -0.3 TO +7.0V, PIN GRID ARRAY				
		43	U1-5	331-309156-000			IC, INTERFACE: 8-TX, 10-RX, RS-232, 44-PIN PLCC				

OPT.		Q U A N T I T Y	I T E M #	VMIC [®] PARTS LIST		CODE	REV.	DRAWING NUMBER	CHECKED	SH NO.
A	B			REFERENCE DESIGNATOR	PART NO.					
						OBPH5	A	132-006016-000	C. Muzzey DATE 3/20/95	7
						NOMENCLATURE OR DESCRIPTION				
		3	44	U19,20,26	331-309157-001	IC, INTERFACE: VMEbus LOGIC, 68-PIN PGA				
		2	45	U7,10	331-309158-000	IC, INTERFACE: ENHANCED OCTAL UART, 84-PIN PLCC				
		1	46	D1	337-000006-000	DIODE: LED, RED, 2mA, LOW POWER, RIGHT ANGLE, WITH HOLDER				
		1	47	R2	347-000000-102	RESISTOR: 1K OHM, 1/4W, 5%, CARBON FILM				
		1	48	R6	347-000000-103	RESISTOR: 10K OHM, 1/4W, 5%, CARBON FILM				
		6	49	R4,5,7,8,9,10	347-000000-221	RESISTOR: 220 OHM, 1/4W, 5%, CARBON FILM				
		1	50	R3	347-000000-562	RESISTOR: 5.6K OHM, 1/4W, 5%, CARBON FILM				
		1	51	R1	347-000000-822	RESISTOR: 8.2K OHM, 1/4W, 5%, CARBON FILM				
		2	52	RP14,18	347-001000-222	SIP: 2.2K OHM, BUSSED, 6 PIN, LOW PROFILE				
		1	53	RP4	347-001000-183	SIP: 18K OHM, BUSSED, 6 PIN, LOW PROFILE				
		2	54	RP6,10	347-001002-102	SIP: 1K OHM, BUSSED, 10 PIN, LOW PROFILE				
		13	55	RP1-3,5,7-9,11-13 RP15-17	347-001002-222	SIP: 2.2K OHM, BUSSED, 10 PIN, LOW PROFILE				
		1	56	D2	348-104148-000	DIODE: SWITCHING, HIGH CONDUCTANCE, ULTRA FAST, DO-35 OUTLINE				
		1	57	U13		**(DO NOT LOAD)**				
			58							
			59							
A	B	0	1	60	U18	CONTROLLER: VIC068				
					320-250016-000	VIC068ABC (CYPRESS)				

OPT.		QTY	ITEM #	MIL [®] PARTS LIST VME MICROSYSTEMS INT'L CORP.		CODE	REV.	DRAWING NUMBER	CHECKED <i>C. Muzzey</i>	SH NO.
A	B	C		REFERENCE DESIGNATOR	PART NO.	OBPH5	A	132-006016-000	DATE 3/20/95	8
						NOMENCLATURE OR DESCRIPTION				
A	B	0	61	J4	321-000015-001	JUMPER: PC BOARD, 2 POSITION, FEMALE, GOLD PLATED CONTACT, BLACK (JUMPER PIN 2 TO PIN 3)				
A	B	1	62	J4	321-000015-001	JUMPER: PC BOARD, 2 POSITION, FEMALE, GOLD PLATED CONTACT, BLACK (JUMPER PIN 1 TO PIN 2)				
A	B	1	63	U18	331-309823-101	IC: VIC64, VMEbus INTERFACE CONTROLLER w/ D64 FUNCTIONALITY, 145-PIN PLASTIC OR CERAMIC PGA				
						VIC64-(B,G)C (CYPRESS SEMI.)				
						MSB-2360-G-C-STP (MCKENZIE)				
						MSB-2360-G-C-STP (MCKENZIE)				