

INTERCONNECTION DIAGRAM.....25

SITEPRO SHELF ASSEMBLY EA101209V1.....107

INTERCONNECT BOARD (A1) CB101073V1.....108

CONTROLLER BOARD CB101069V1.....109

MODEM DAUGHTER BOARD CB101074V1.....110

ROCKWELL MODEM INTERFACE CARD (A3) ROA 117 2247.....111

ROCKWELL MODEM RYTUZ 921 01/1.....112

ANALOG BOARD (A4) CB101070V1.....113

POWER SUPPLY MODULE (A6) CB101077V1.....114

DISPLAY MODULE (A6) MA101082V1.....115

DISPLAY BOARD (A6-A1) CB101077V1.....116

INTERCONNECT BOARD (A1) CB101073V1.....118

CONTROLLER BOARD (A2) CB101069V1.....126

 Block Diagram.....126

 System I/O.....128

 Backplane.....129

 CPU.....138

 Daughter Board Connector.....141

 EPLD.....143

 Ethernet 10 (10 Mbit PHY).....145

 Ethernet 10/100 (10/100 Mbit PHY).....147

 I2C Bus.....149

 Memory.....151

 QUART.....155

MODEM DAUGHTER BOARD CB101074V1.....157

MODEM DAUGHTER BOARD CB101074V1.....159

ROCKWELL MODEM INTERFACE CARD (A3).....160

ROCKWELL MODEM RYTUZ 921 01/1.....161

ANALOG FILTER BOARD (A4) CB101070V1.....163

POWER SUPPLY (A5) CONDOR DP1719.....168

DISPLAY MODULE (A6) MA101082V1.....169

DISPLAY BOARD (A6-A1) CB101077V1.....171

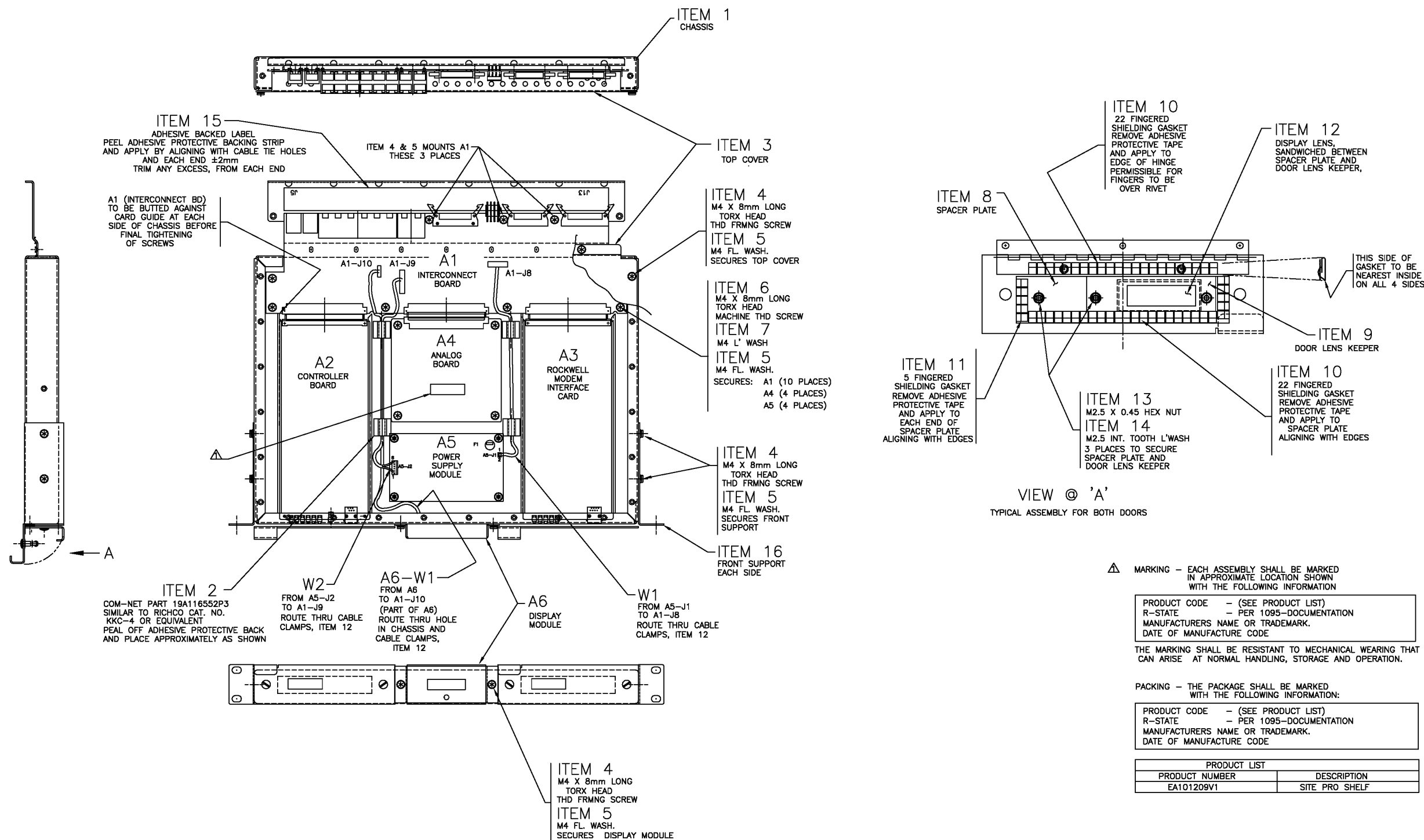
DISPLAY BOARD CABLE (A6-A1) CA101222V1.....172

+13.8V INPUT POWER CABLE (W1) (Input) CA101211V1.....174

POWER CABLE (W2) (Output) CA101212V1.....175

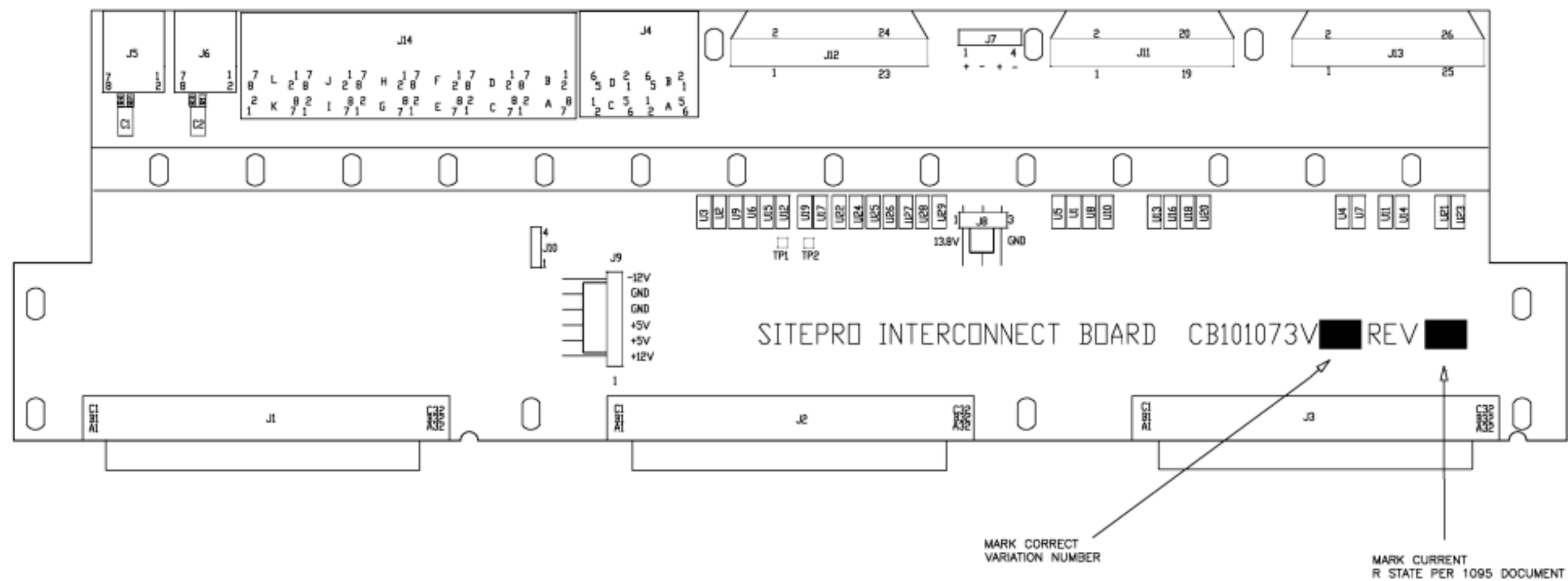
DATA CABLE CV101213V1.....177

ASSEMBLY DIAGRAM



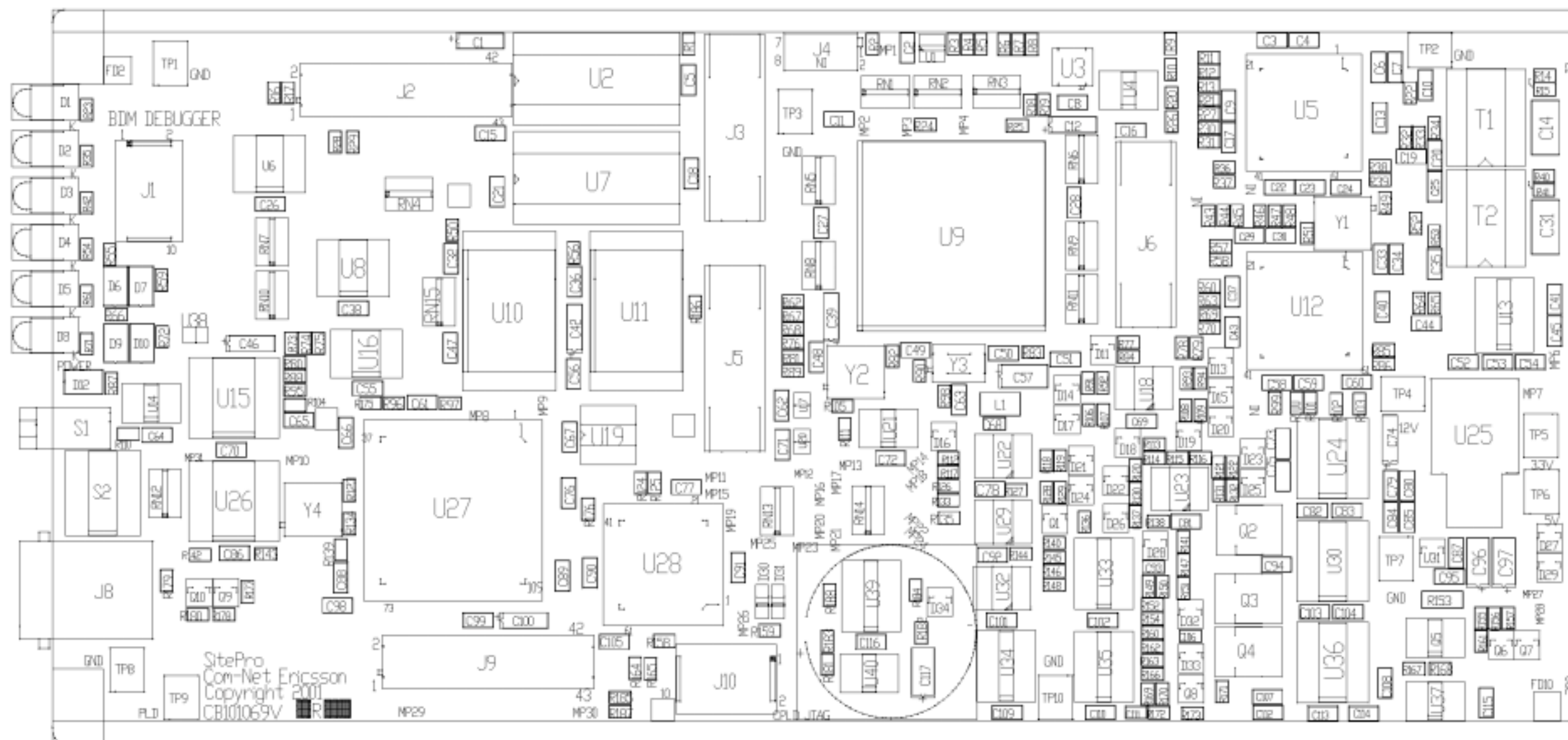
SITEPRO SHELF ASSEMBLY EA101209V1

(PS-EA101209V1, Rev. #)



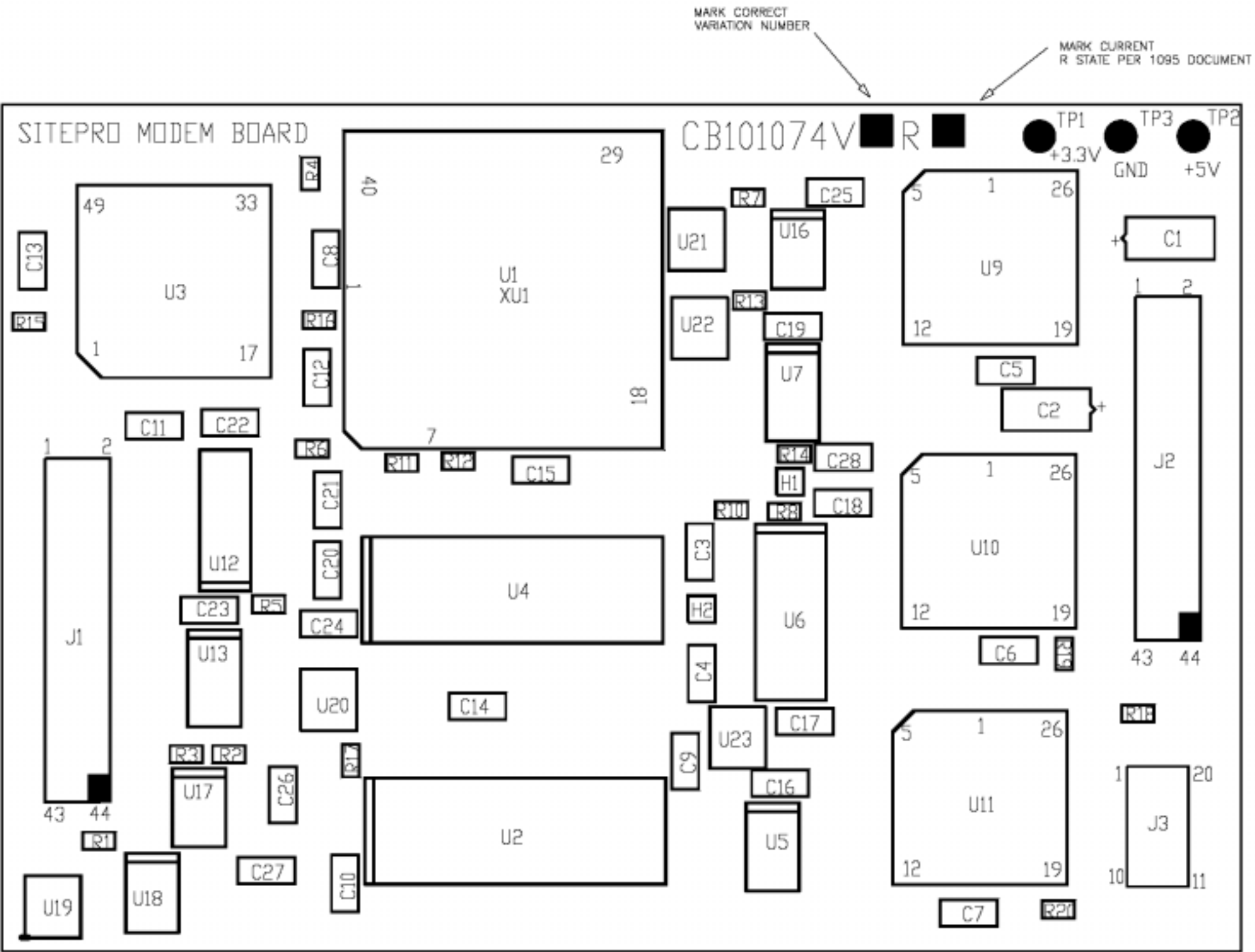
INTERCONNECT BOARD (A1) CB101073V1

(PS-CB101073V1, Rev. #)



CONTROLLER BOARD CB101069V1

(PS-CB101069V1, Rev. #)

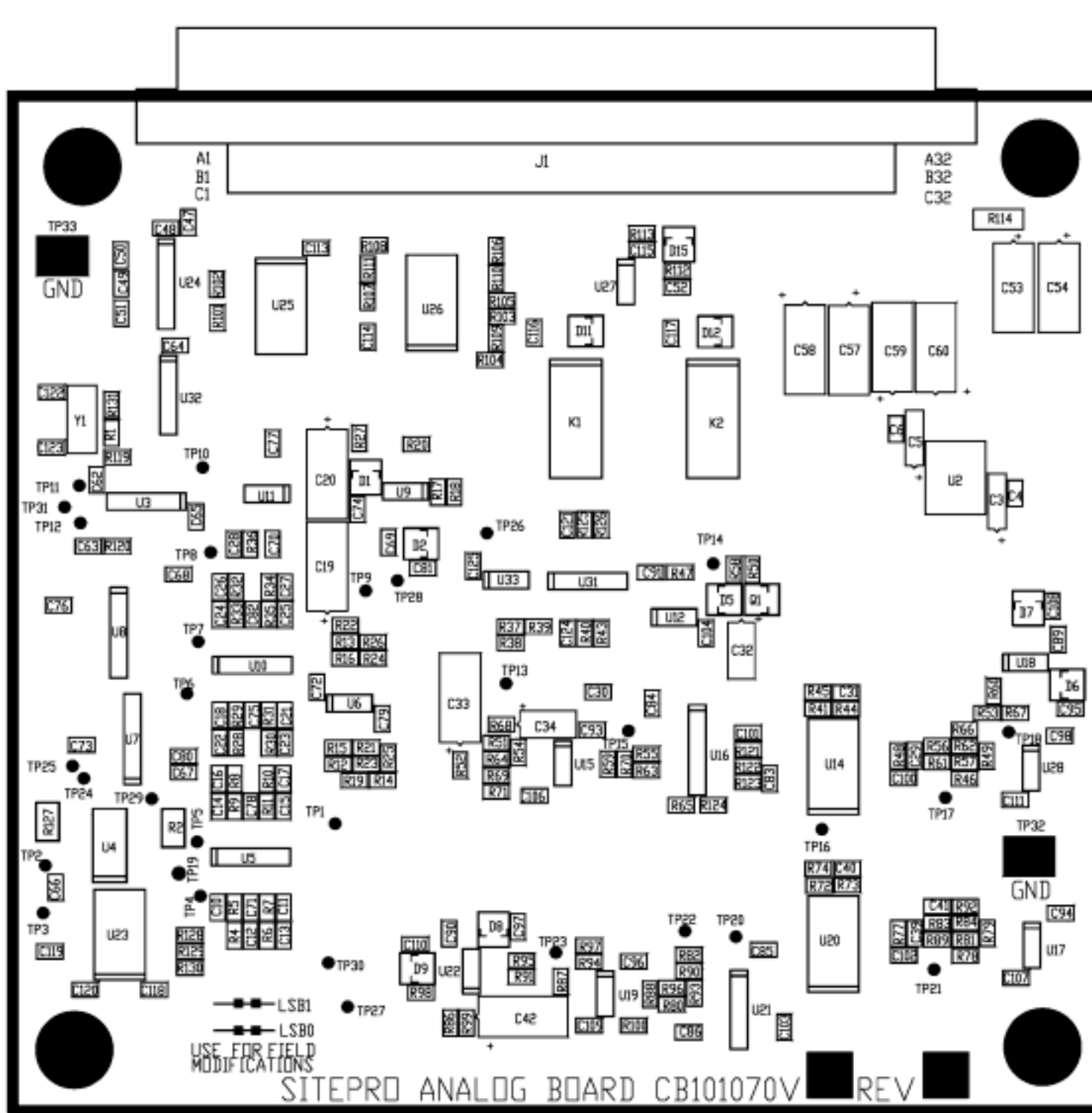


MODEM DAUGHTER BOARD CB101074V1

(PS-CB101074V1, Rev. #)

ROCKWELL MODEM INTERFACE CARD (A3) ROA 117 2247

(1078-ROA 117 2247, Rev. #)



ANALOG BOARD (A4) CB101070V1

(PS-CB101070V1, Rev. #)

POWER SUPPLY MODULE (A6) CB101077V1

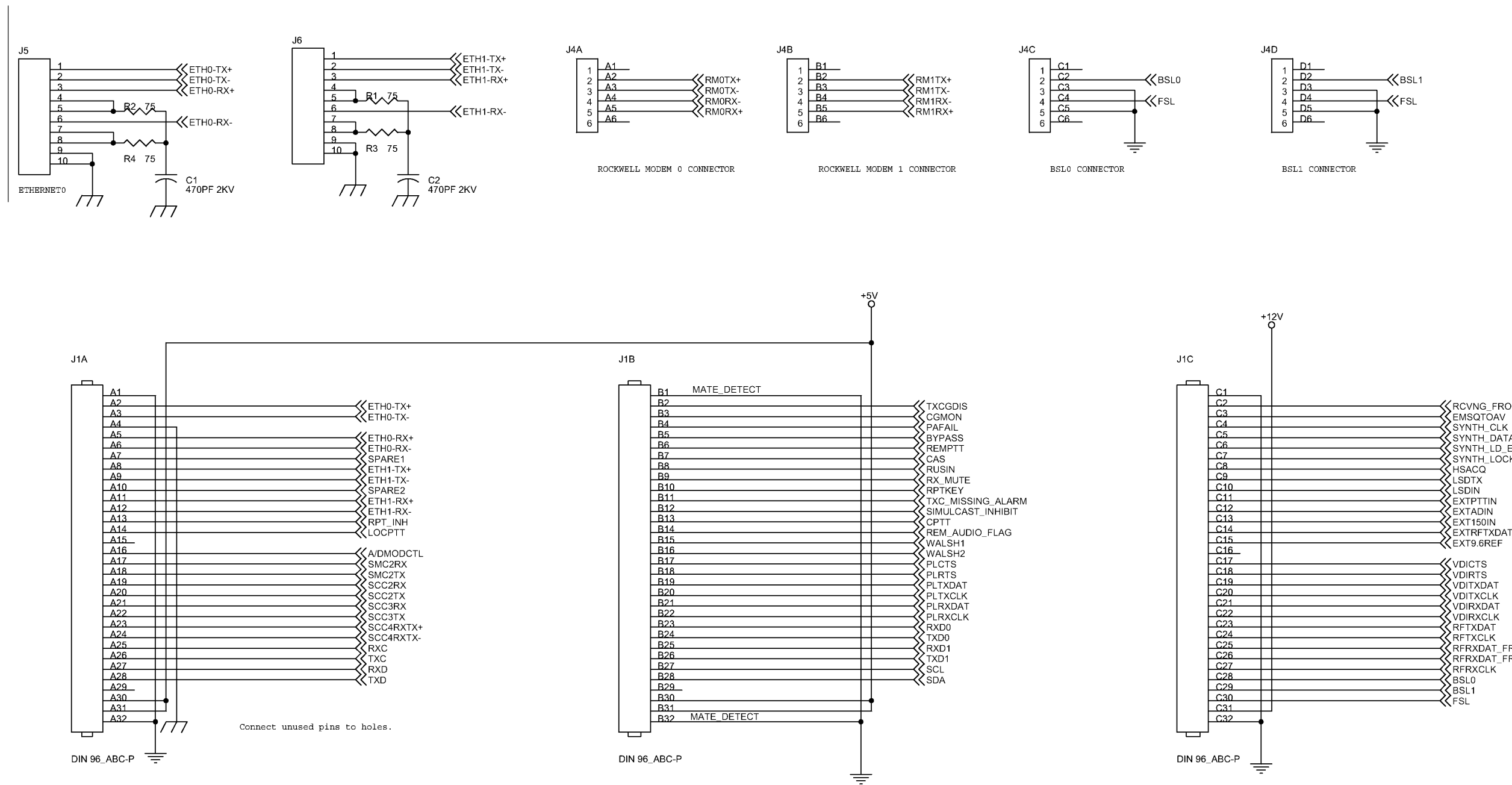
(PS-CB101077V1, Rev. #)

DISPLAY MODULE (A6) MA101082V1

(PS-MA101082V1, Rev. #)

DISPLAY BOARD (A6-A1) CB101077V1

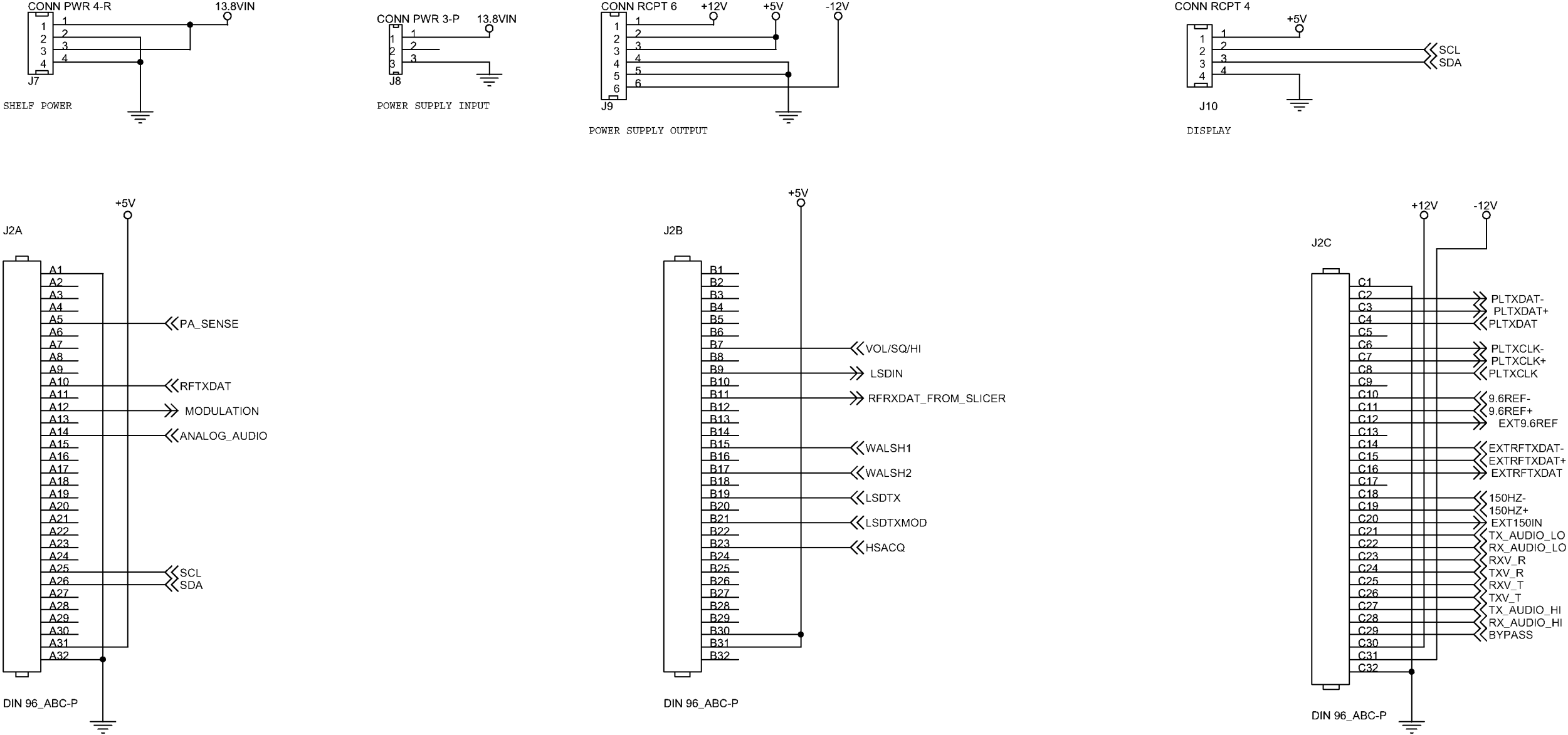
(PS-CB101077V1, Rev. #)



NUC CONNECTOR

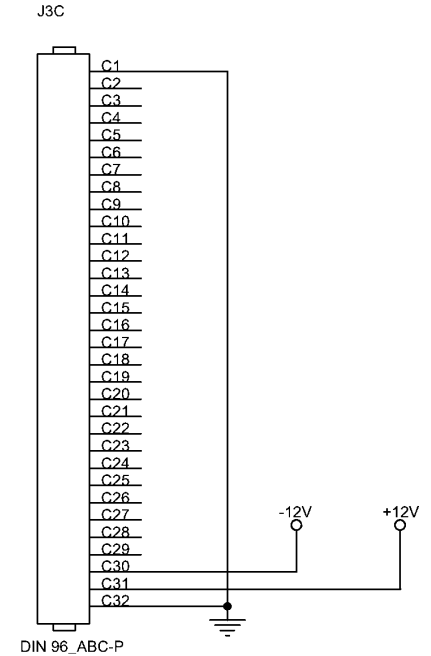
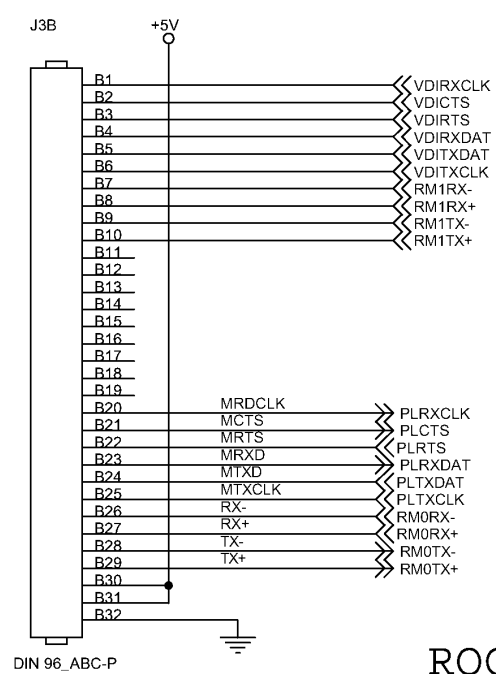
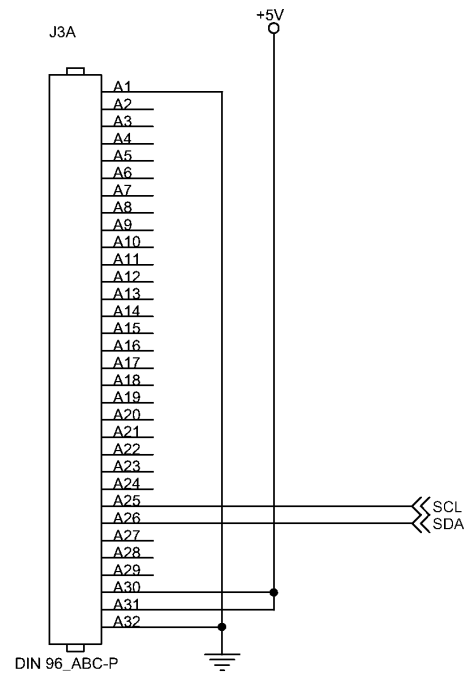
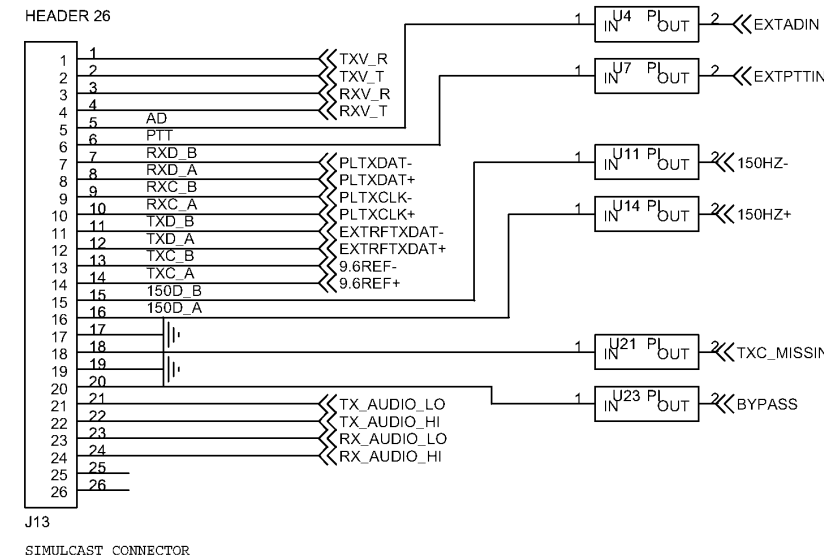
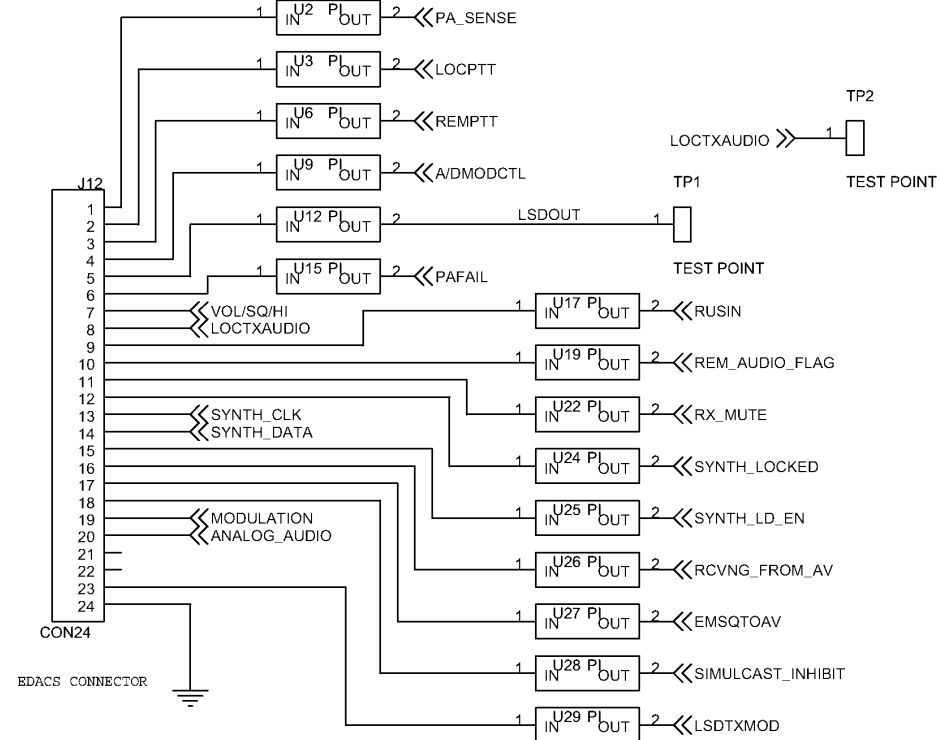
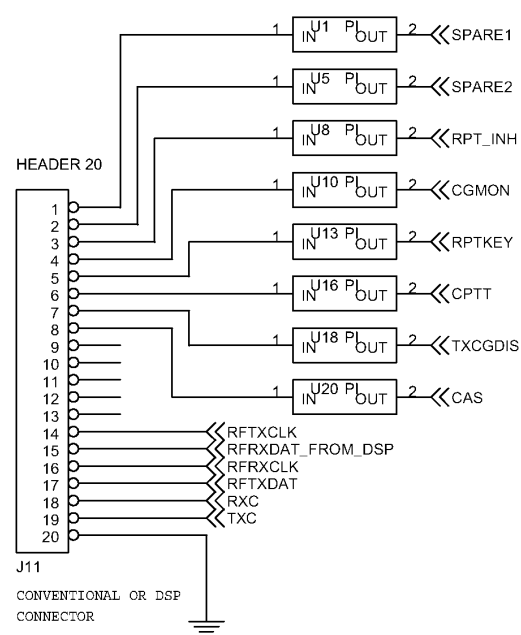
INTERCONNECT BOARD (A1) CB101073V1

(WD-CB101073V1, Sh. 1, Rev. #)



ANALOG
BOARD
CONNECTOR

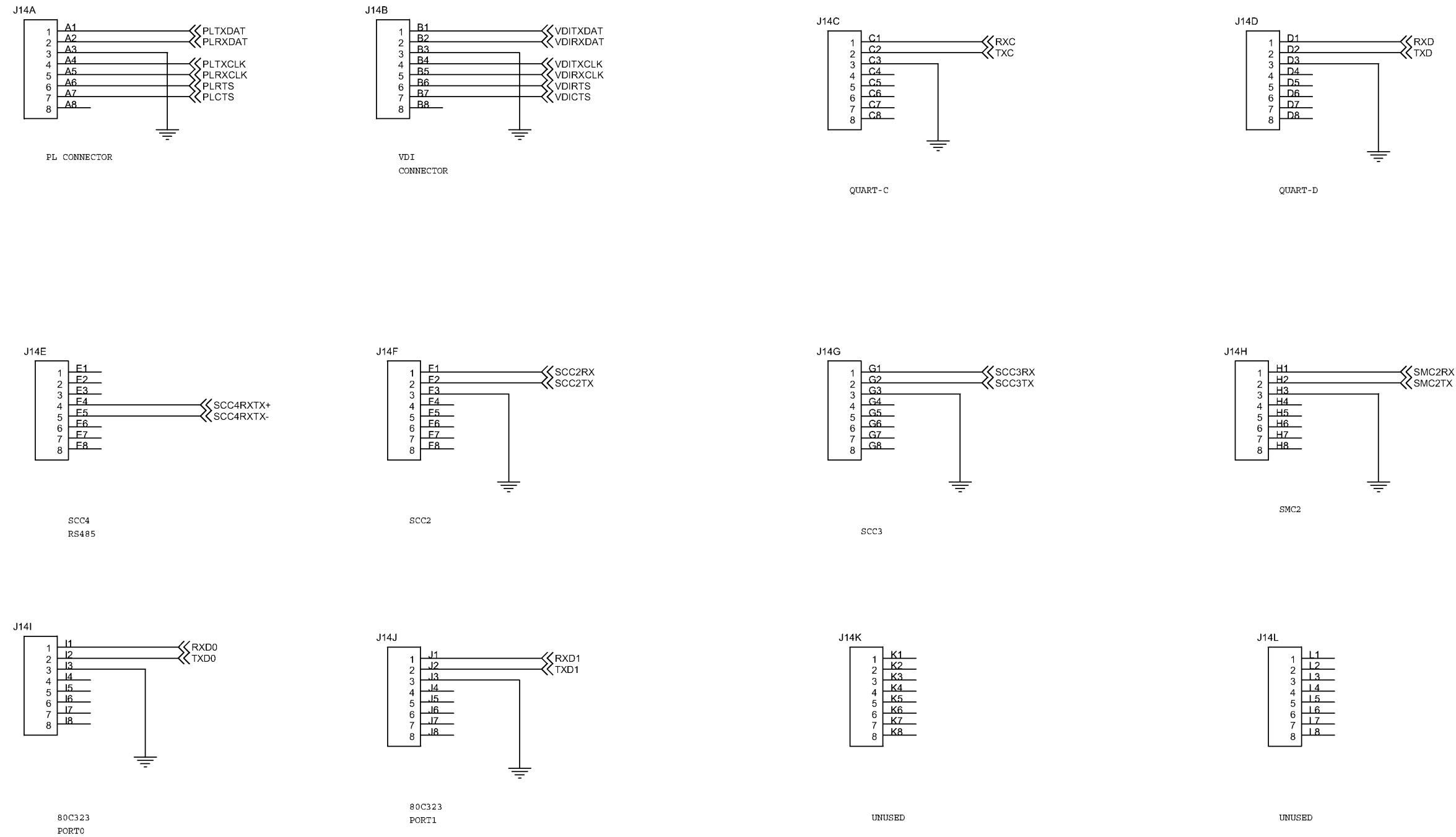
INTERCONNECT BOARD (A1) CB101073V1



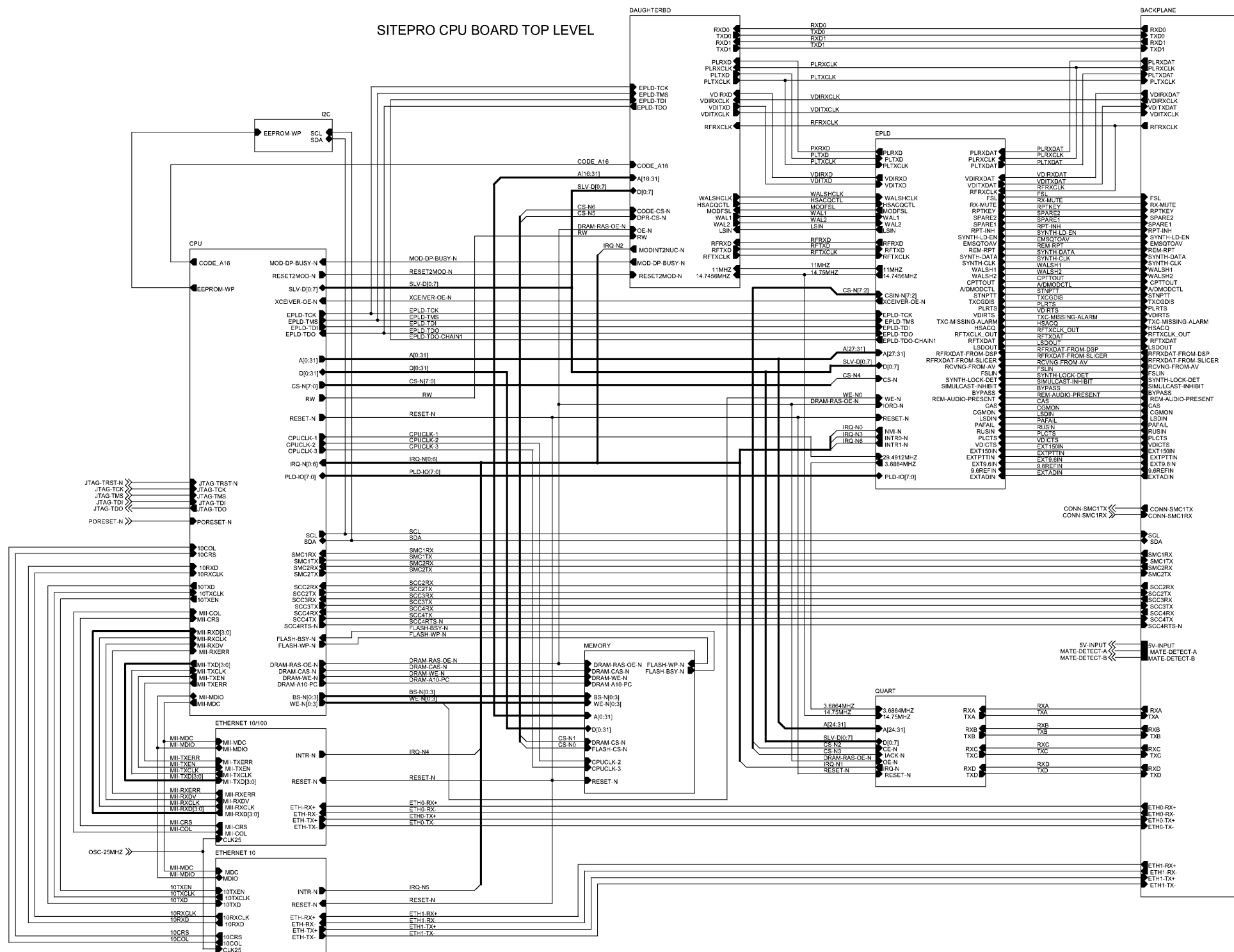
ROCKWELL MODEM CONNECTOR

SCHEMATIC DIAGRAM

(WD-CB101073V1, Sh. 3, Rev. #)



SERIAL
PORTS

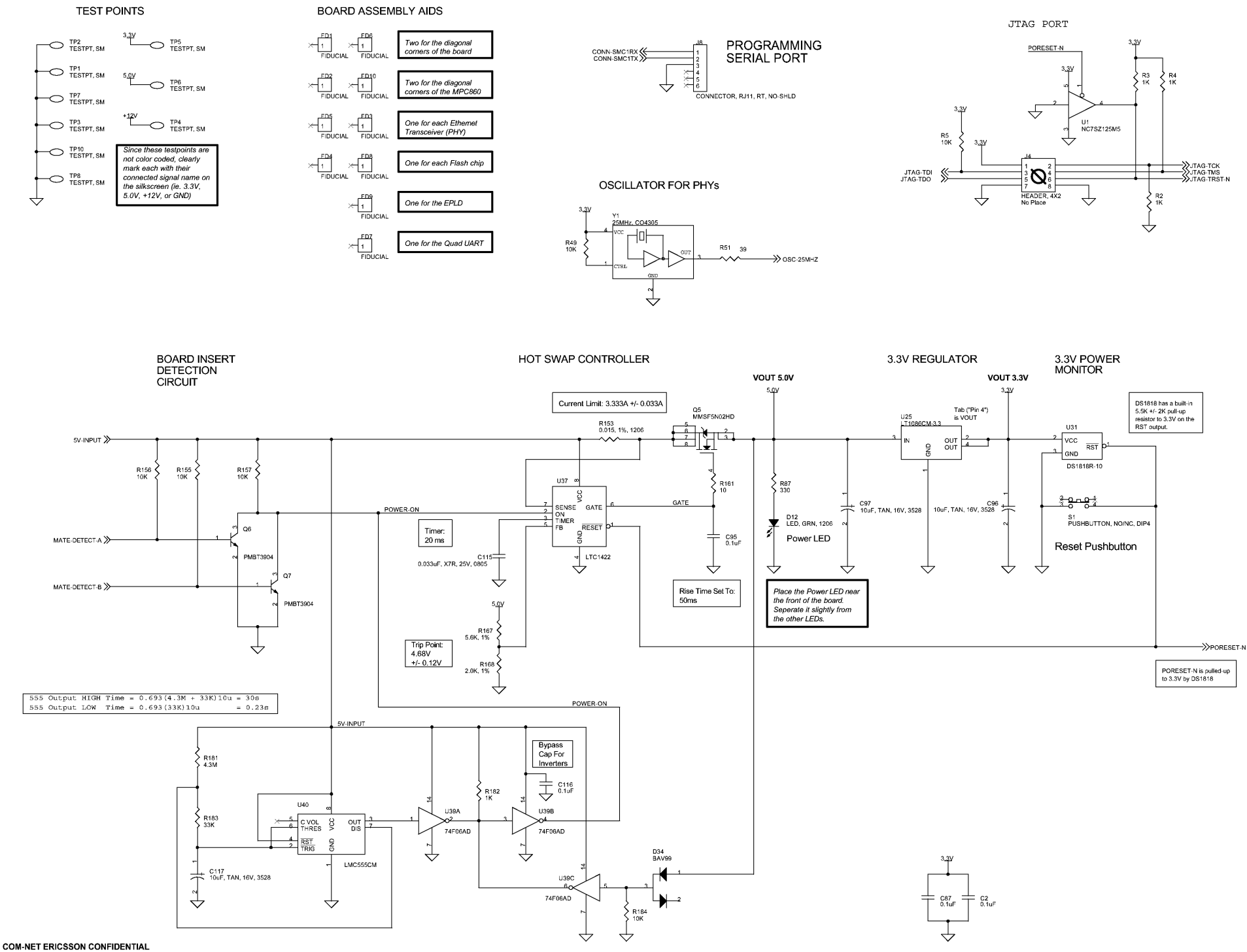


SCHEMATIC DIAGRAM

CONTROLLER BOARD (A2) CB101069V1

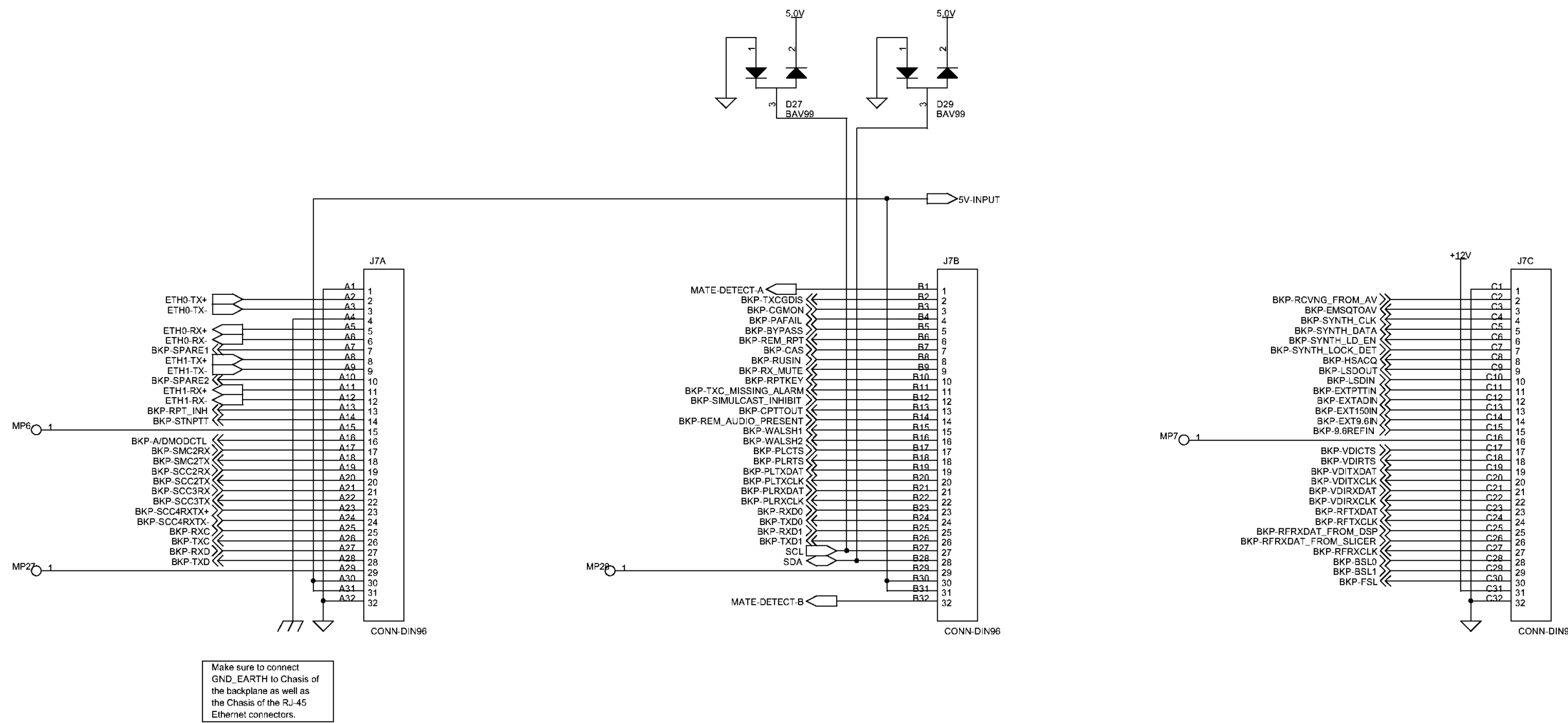
Block Diagram

(WD-CB101069V1, Sh. 2, Rev. 1.03)



CONTROLLER BOARD (A2) CB101069V1

CPU I/O SIGNAL PROTECTION DIODES



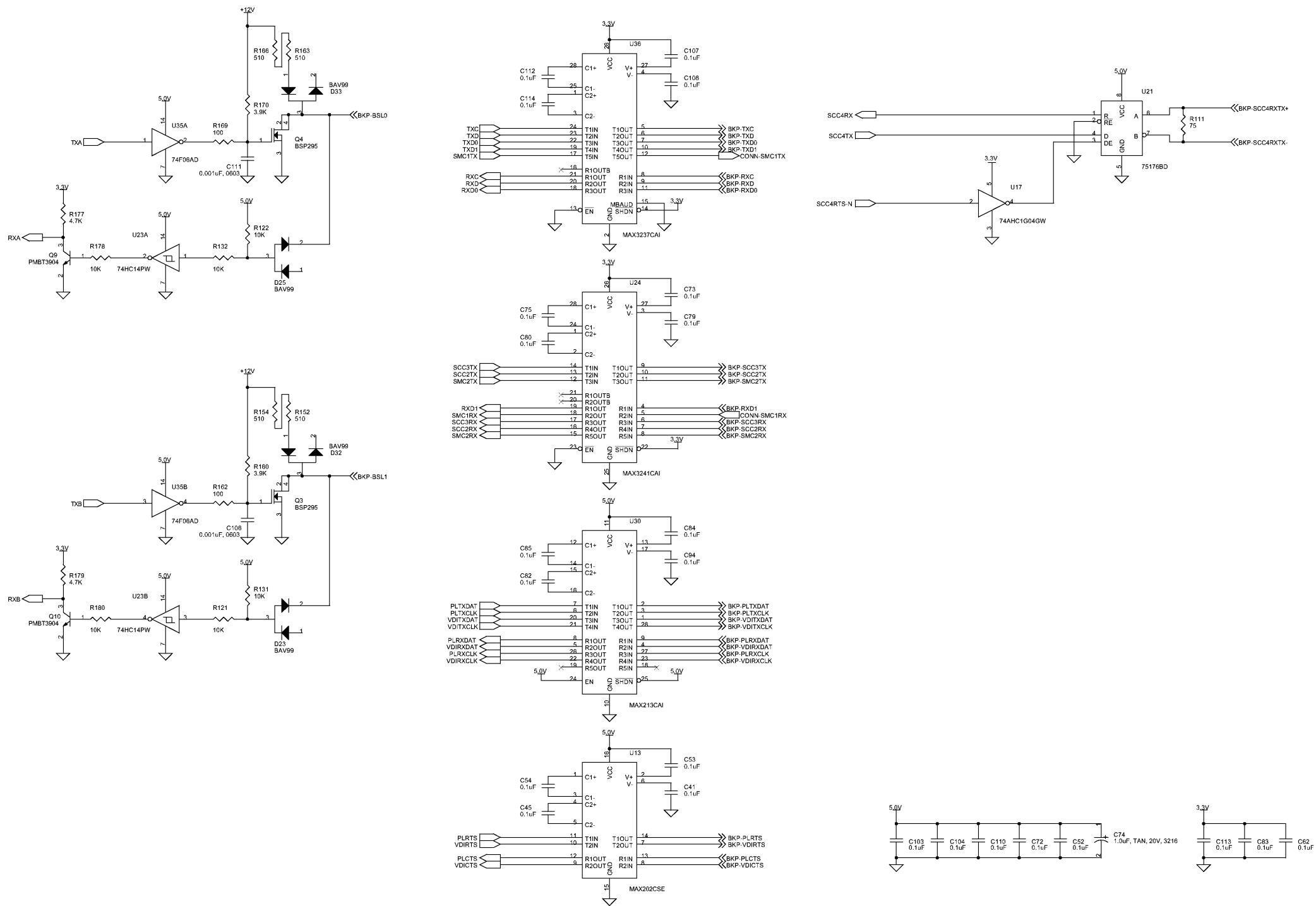
CONTROLLER BOARD (A2) CB101069V1

Backplane

Board Connections

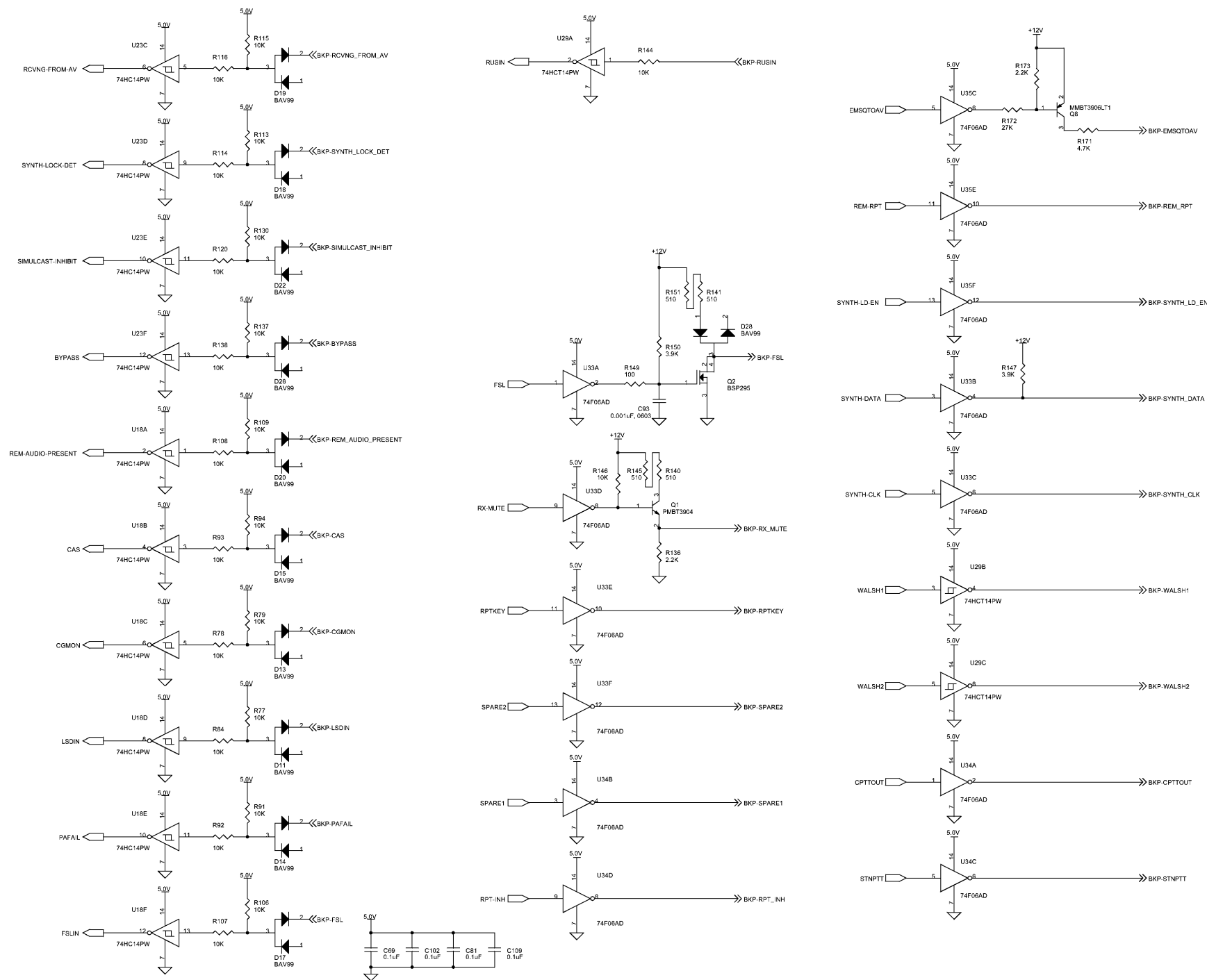
OUTLINE DIAGRAM

(PS-CB101069V1, Sh. 4, Rev.1.03)



CONTROLLER BOARD (A2) CB101069V1

Backplane



CONTROLLER BOARD (A2) CB101069V1

Backplane

OUTLINE DIAGRAM

I/O

(PS-CB101069V1, Sh. 6, Rev. 1.03)



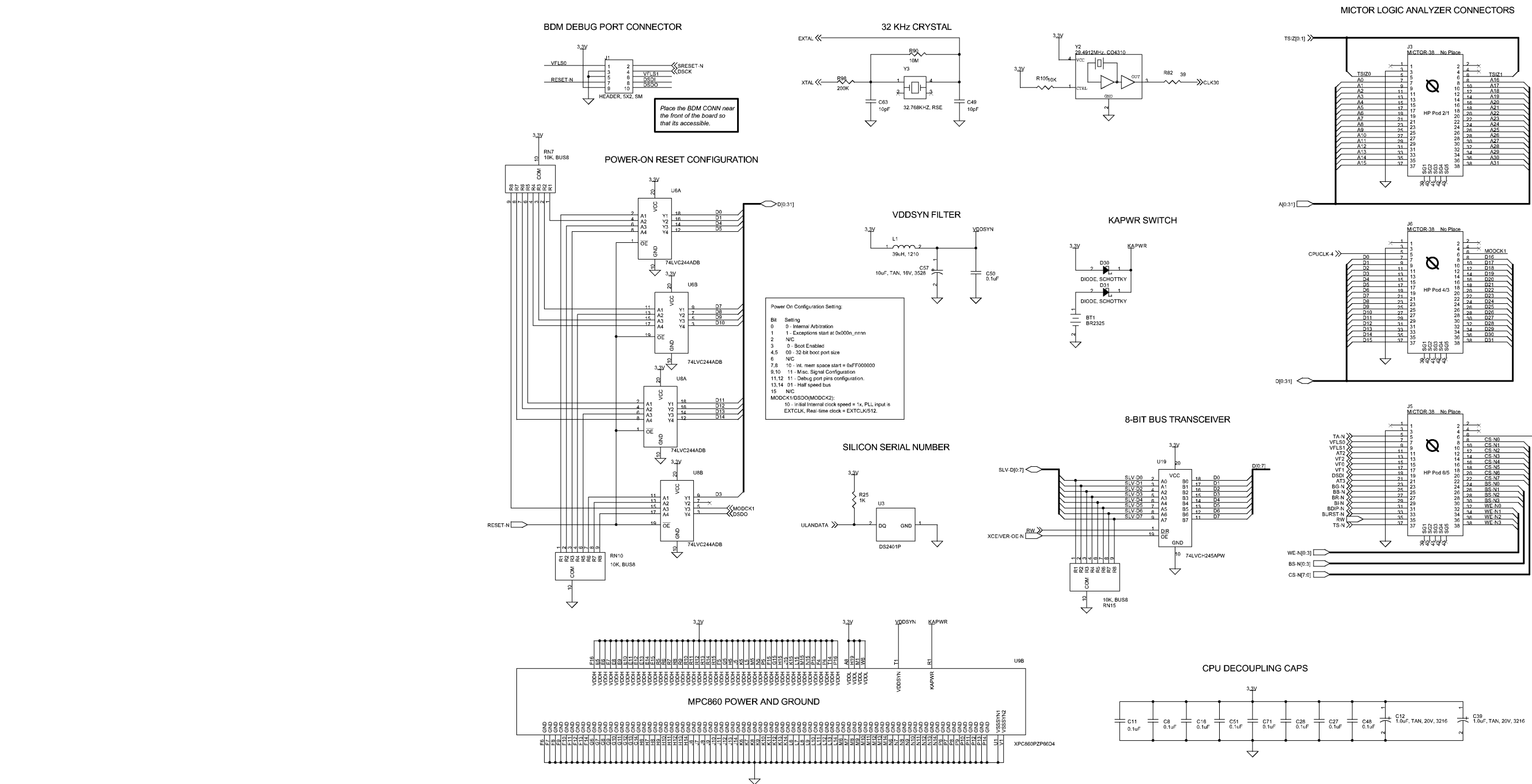
MM101271V1 R1A

CPU

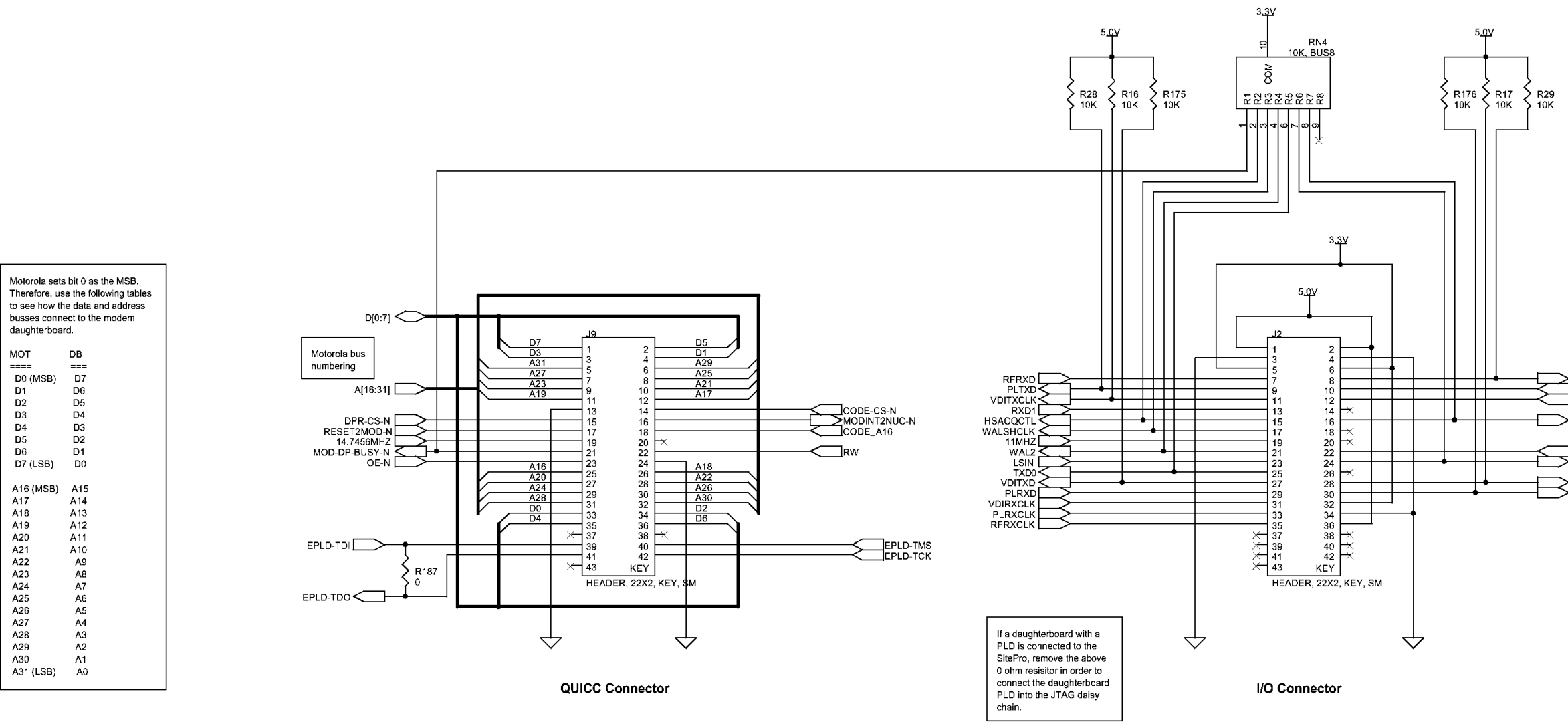
Processor

(PS-CB101069V1, Sh. 8, Rev. 1.03)

SCHEMATIC DIAGRAM



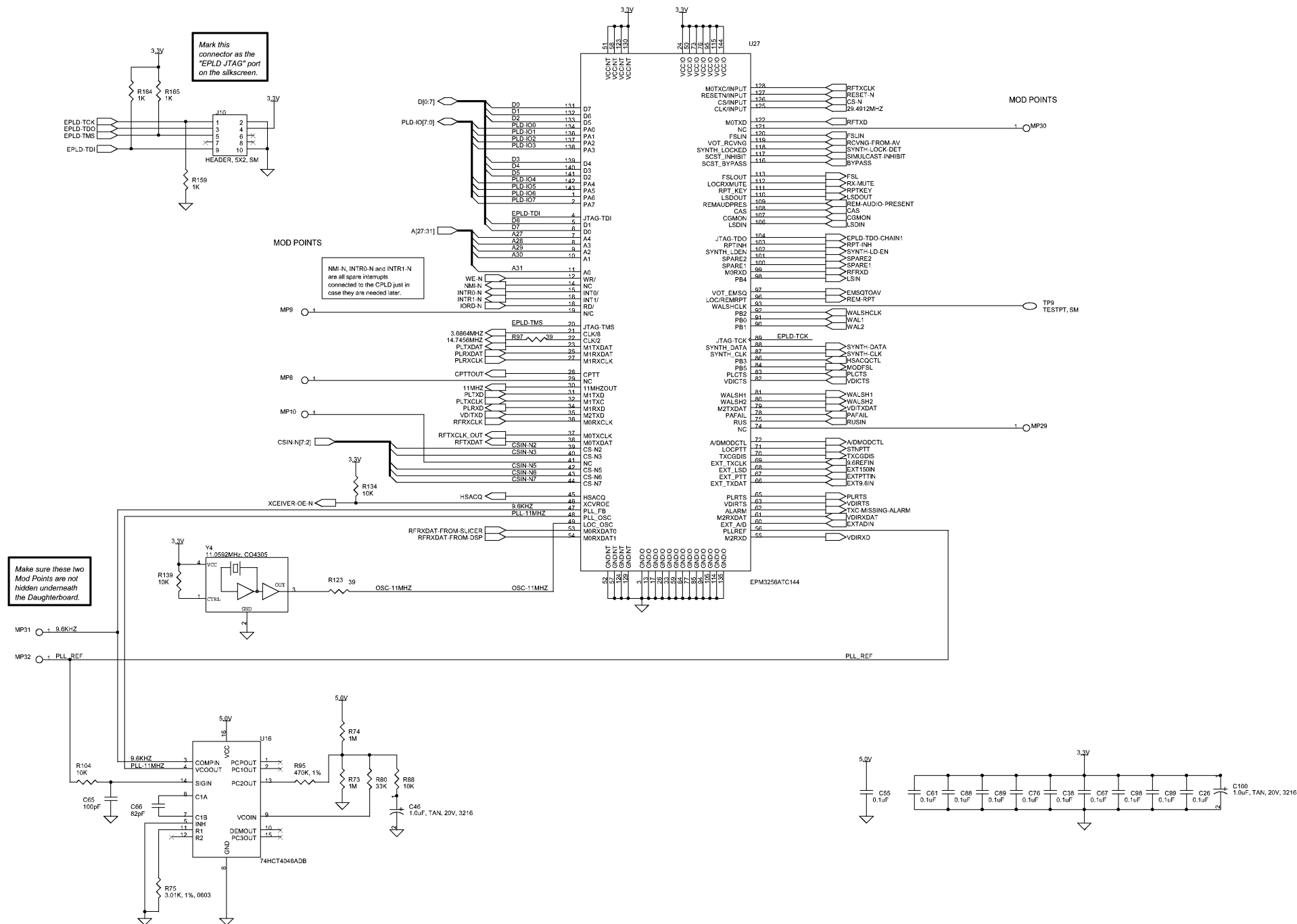
CONTROLLER BOARD (A2) CB1010



CONTROLLER BOARD (A2) CB101069V1

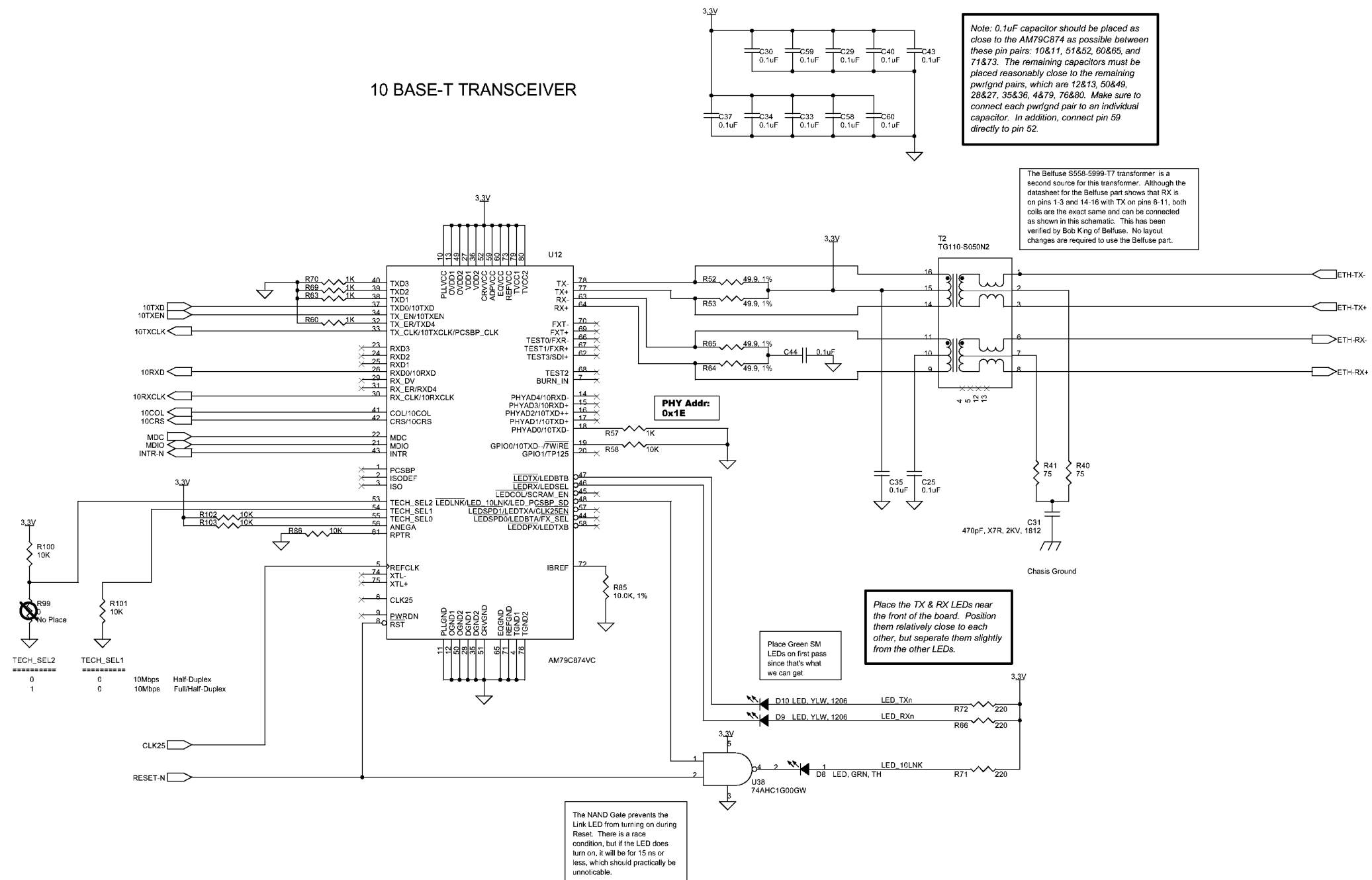
Daughter Board Connector

(PS-CB101069V1, Sh. 10, Rev. 1.03)



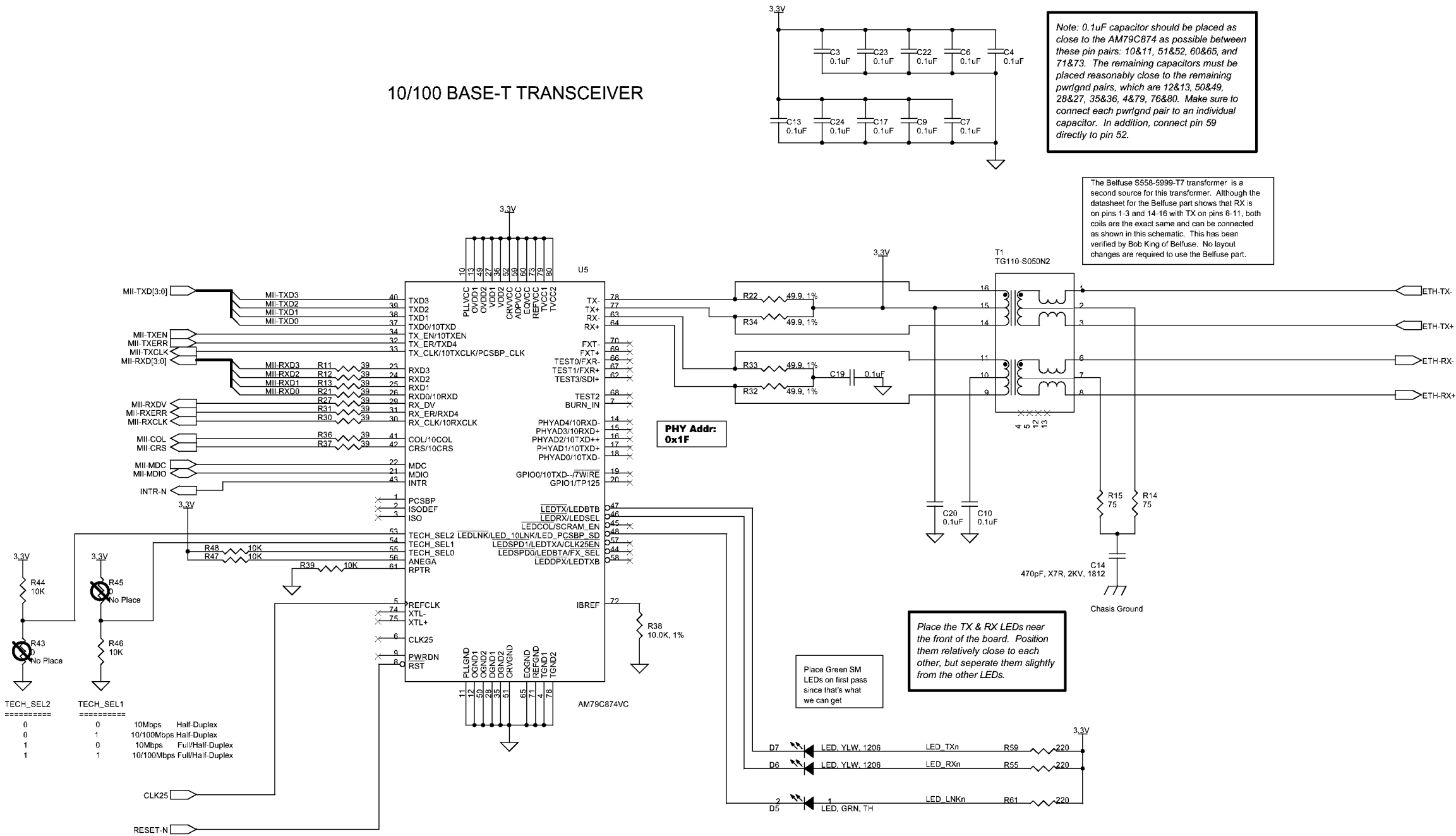
CONTROLLER BOARD (A2) CB101069V1

SCHEMATIC DIAGRAM



Ethernet 10 (10 Mbit PHY)

(PS-CB101069V1, Sh. 12, Rev. 1.03)

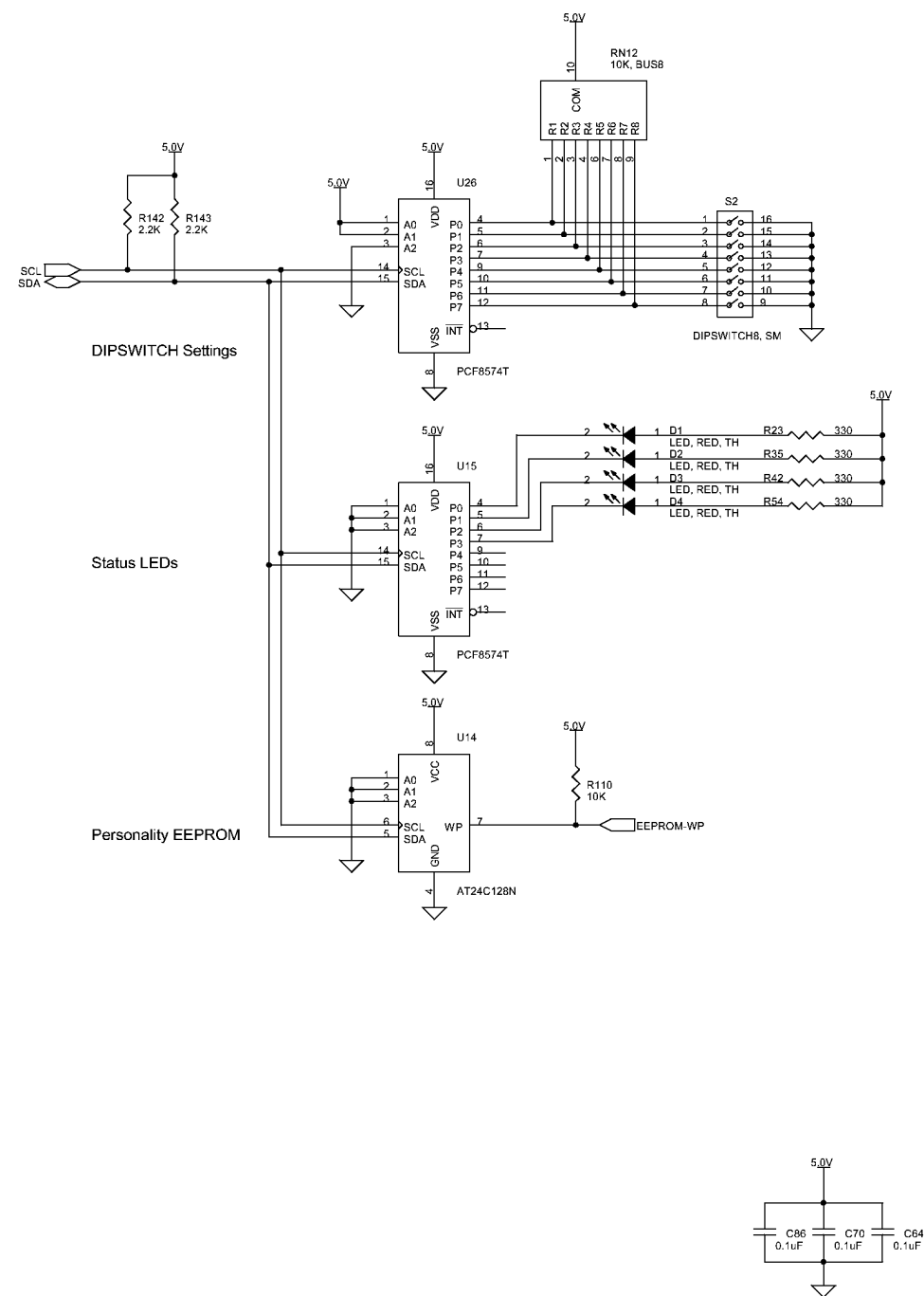


CONTROLLER BOARD (A2) CB101069V1

Ethernet 10/100 (10/100 Mbit PHY)

(PS-CB101069V1, Sh. 13, Rev. 1.03)

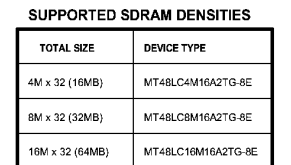
OUTLINE DIAGRAM



CONTROLLER BOARD (A2) CB101069V1

I²C Bus

(PS-CB101069V1, Sh. 14, Rev. 1.03)



Memory

DRAM

(PS-CB101069V1, Sh. 15, Rev. 1.03)

SCHEMATIC DIAGRAM



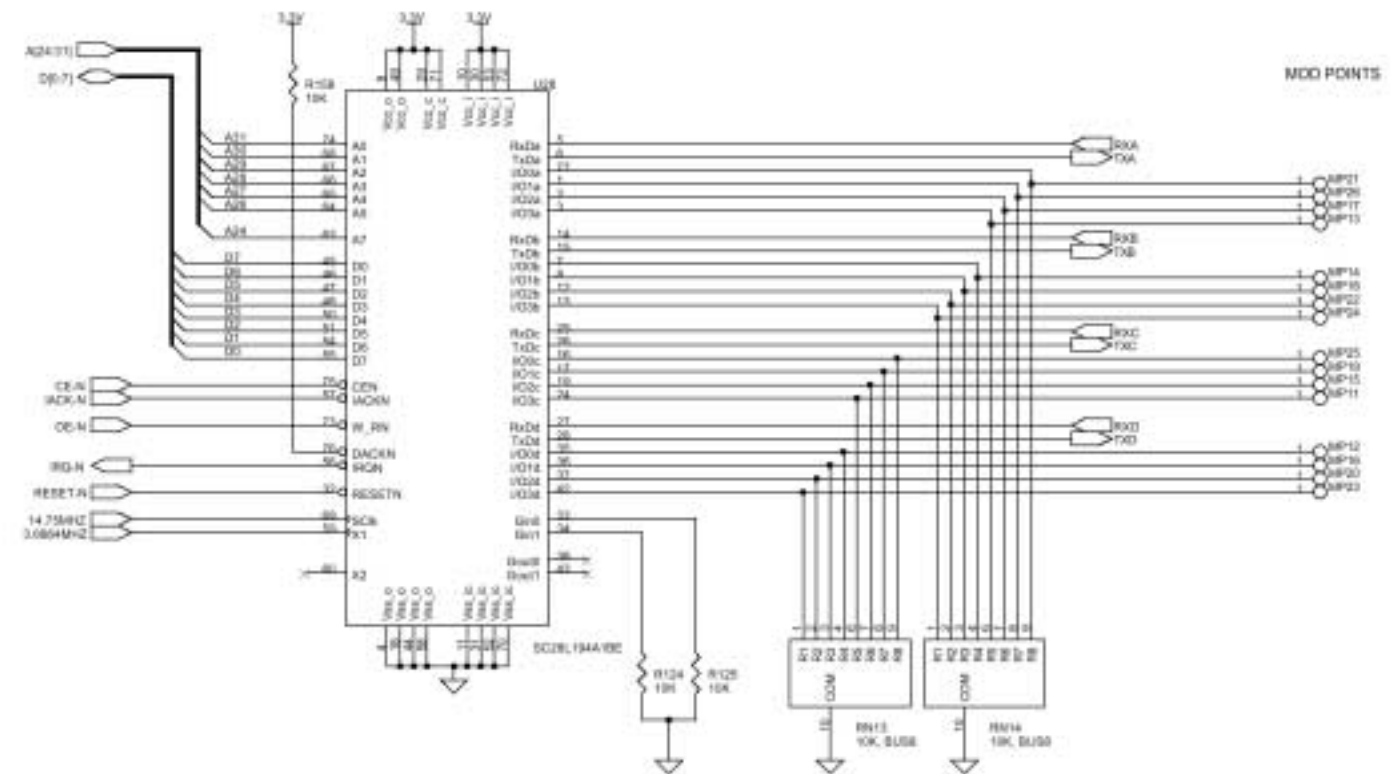
TOTAL FLASH SIZE	DEVICE TYPE
1M x 32 (4MB)	AM29DL162D/163D/164D
2M x 32 (8MB)	AM29DL322D/323D/324D
4M x 32 (16MB)	<i>Does Not Exist</i>

CONTROLLER BOARD (A2) CB101069V1

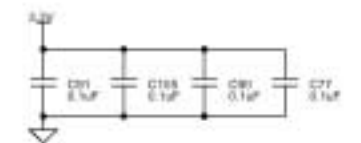
Memory

Flash

(PS-CB101069V1, Sh. 16, Rev. 1.03)



These are the least important Mod Points. Do not place them if not enough space.



CONTROLLER BOARD (A2) CB101069V1

QUART

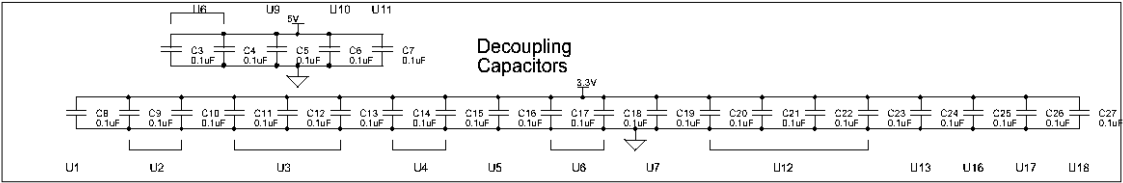
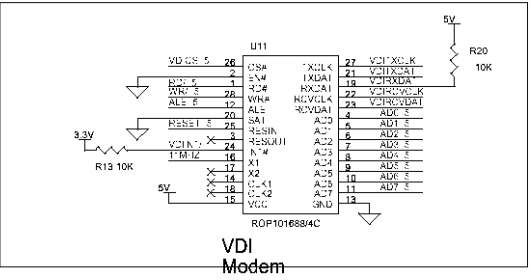
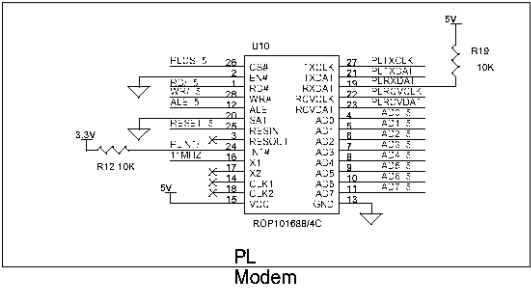
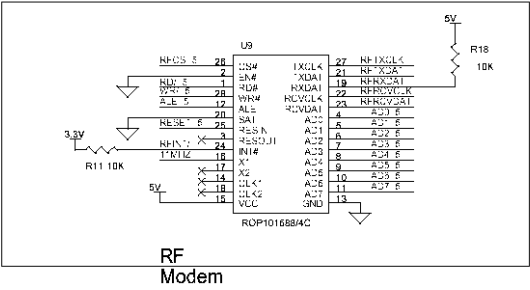
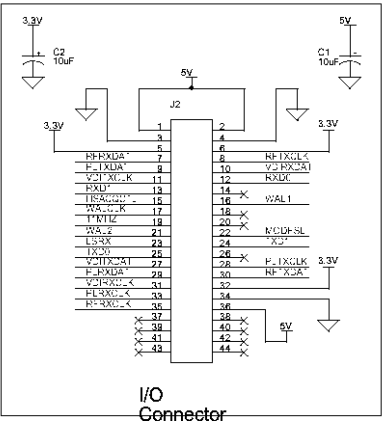
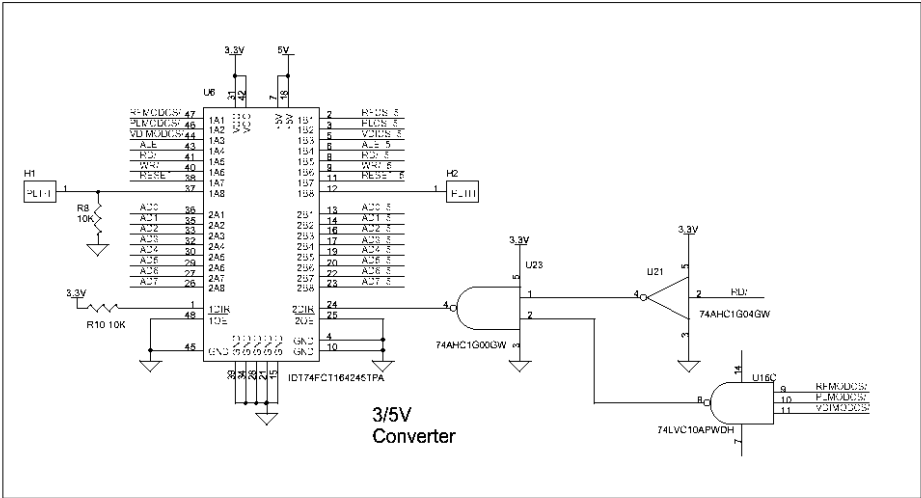
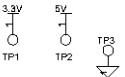
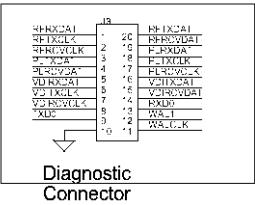
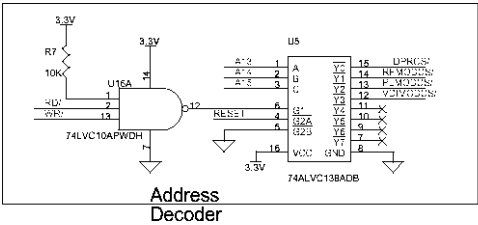
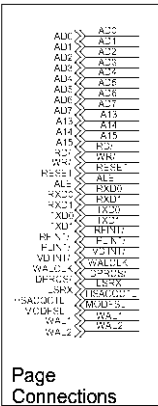
(PS-CB101069V1, Sh. 17, Rev. 1.03)

SCHEMATIC DIAGRAM



MODEM DAUGHTER BOARD CB101074V1

(WD-CB101074V1, Sheet 1, Rev. #)



MODEM DAUGHTER BOARD CB101074V1

(WD-CB101074V1, Sheet 2, Rev. #)

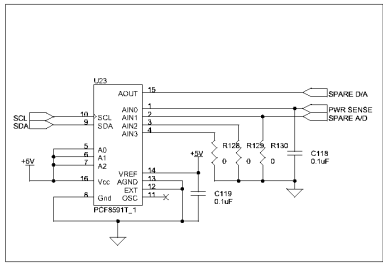
ROCKWELL MODEM INTERFACE CARD (A3)

(1911-ROA 117 2247, Rev. #)

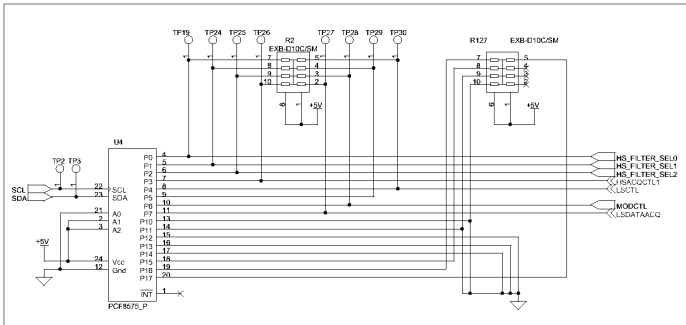
ROCKWELL MODEM RYTUZ 921 01/1

(1911-RYTUZ 921 01/1, Rev. #)

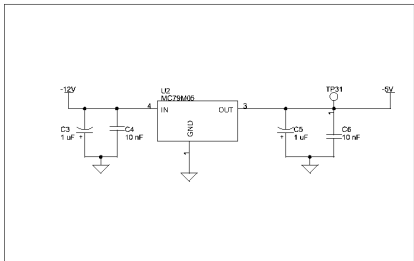
SCHEMATIC DIAGRAM



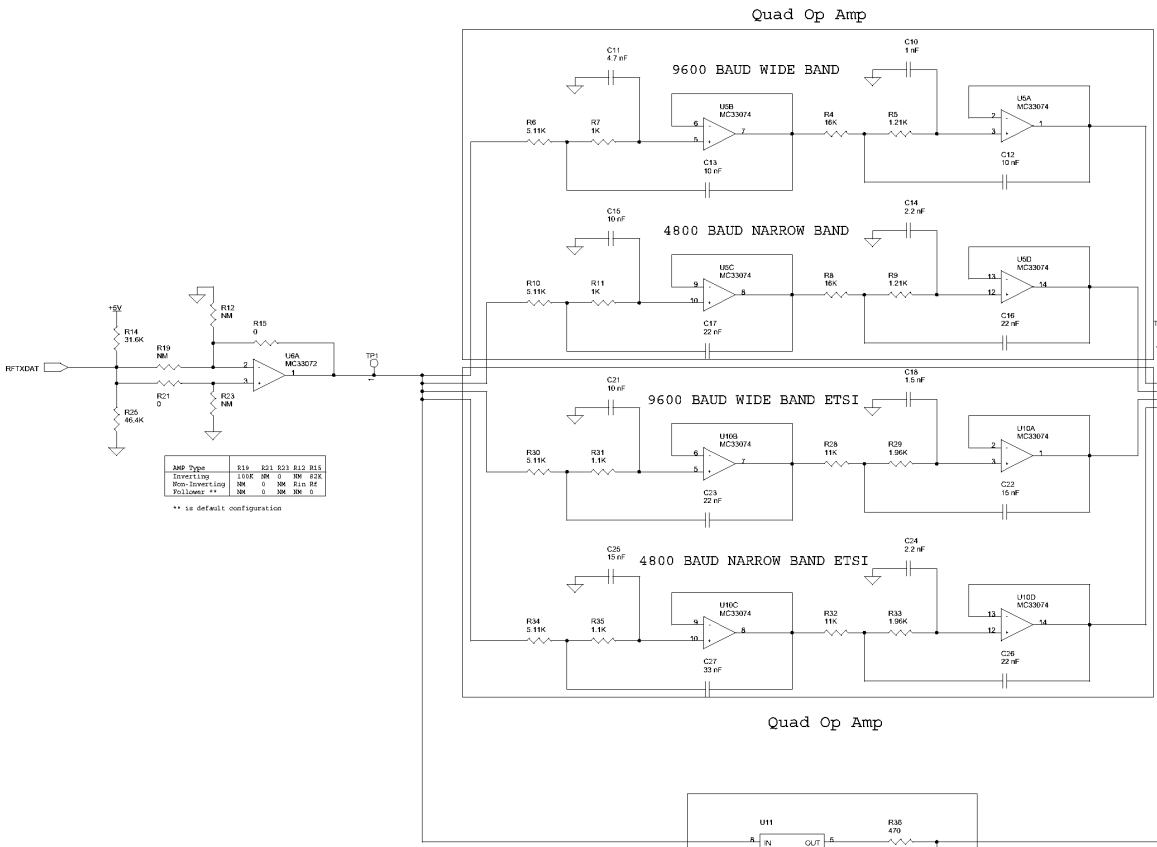
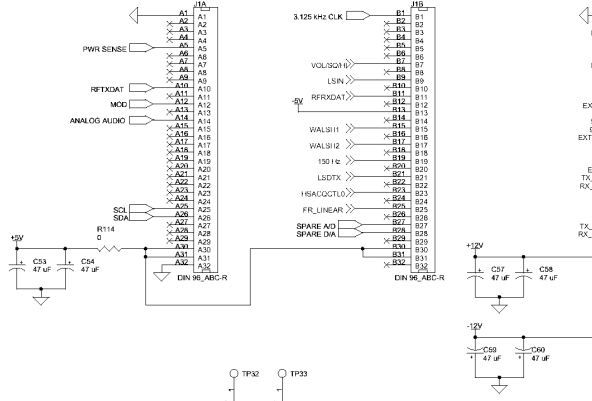
Quad ADC and Single DAC



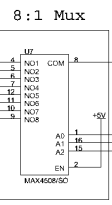
8-Bit I/O Expander for I2C



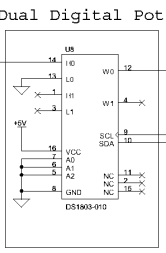
-5V Voltage Generation



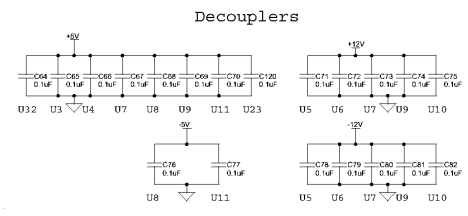
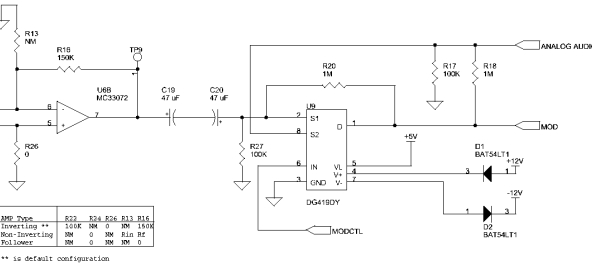
Quad Op Amp



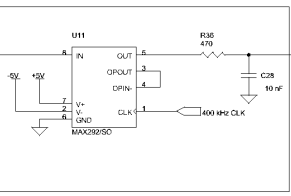
8:1 Mux



Dual Digital Pot

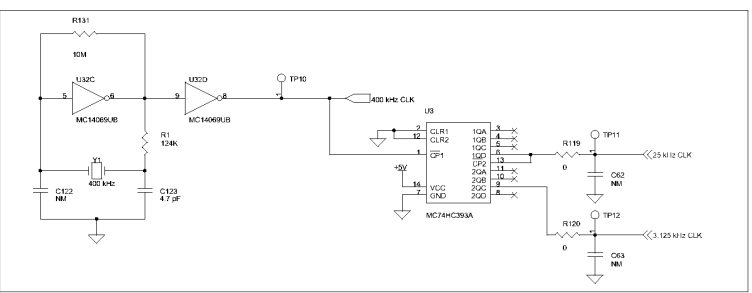


Decouplers



9600 BAUD NARROW BAND

Component	Pin #	Net
U5	4	+12V
U5	11	+12V
U6	4	+12V
U6	8	+12V
U7	3	+12V
U7	13	+12V
U10	14	+12V
U10	4	+12V
U10	11	+12V
U10	7	+12V
U12	14	+12V

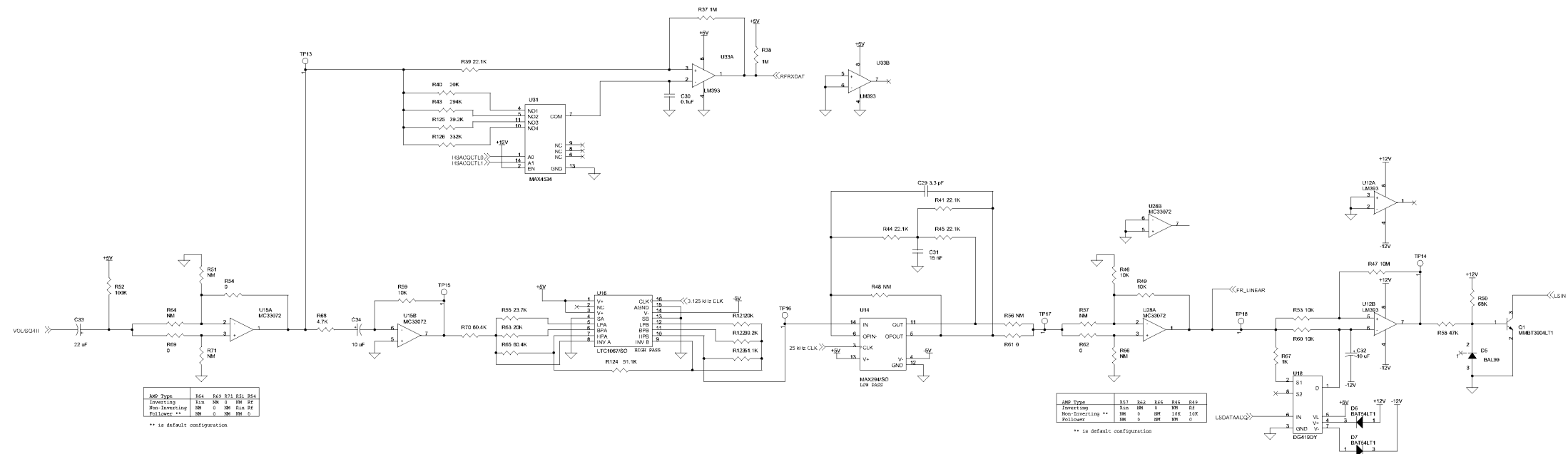


CLOCK GENERATION

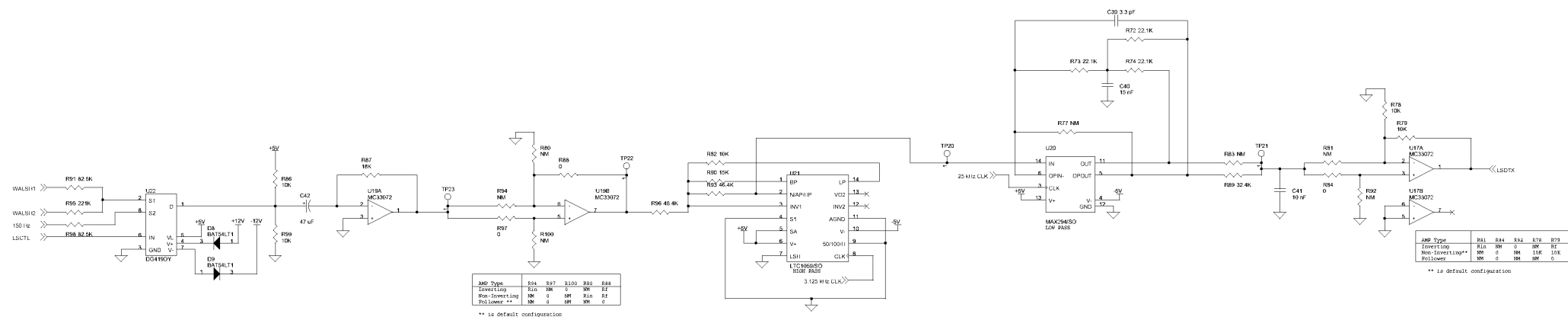
ANALOG FILTER BOARD (A4) CB101070V1

(WD-CB101070V1, Sh. 1, Rev. 0)

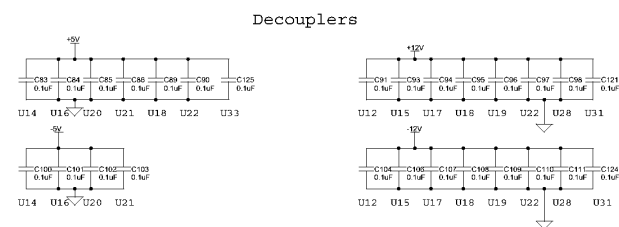
SCHEMATIC DIAGRAM



Low Speed Data Decode Filter



Low Speed Data Encode Filter



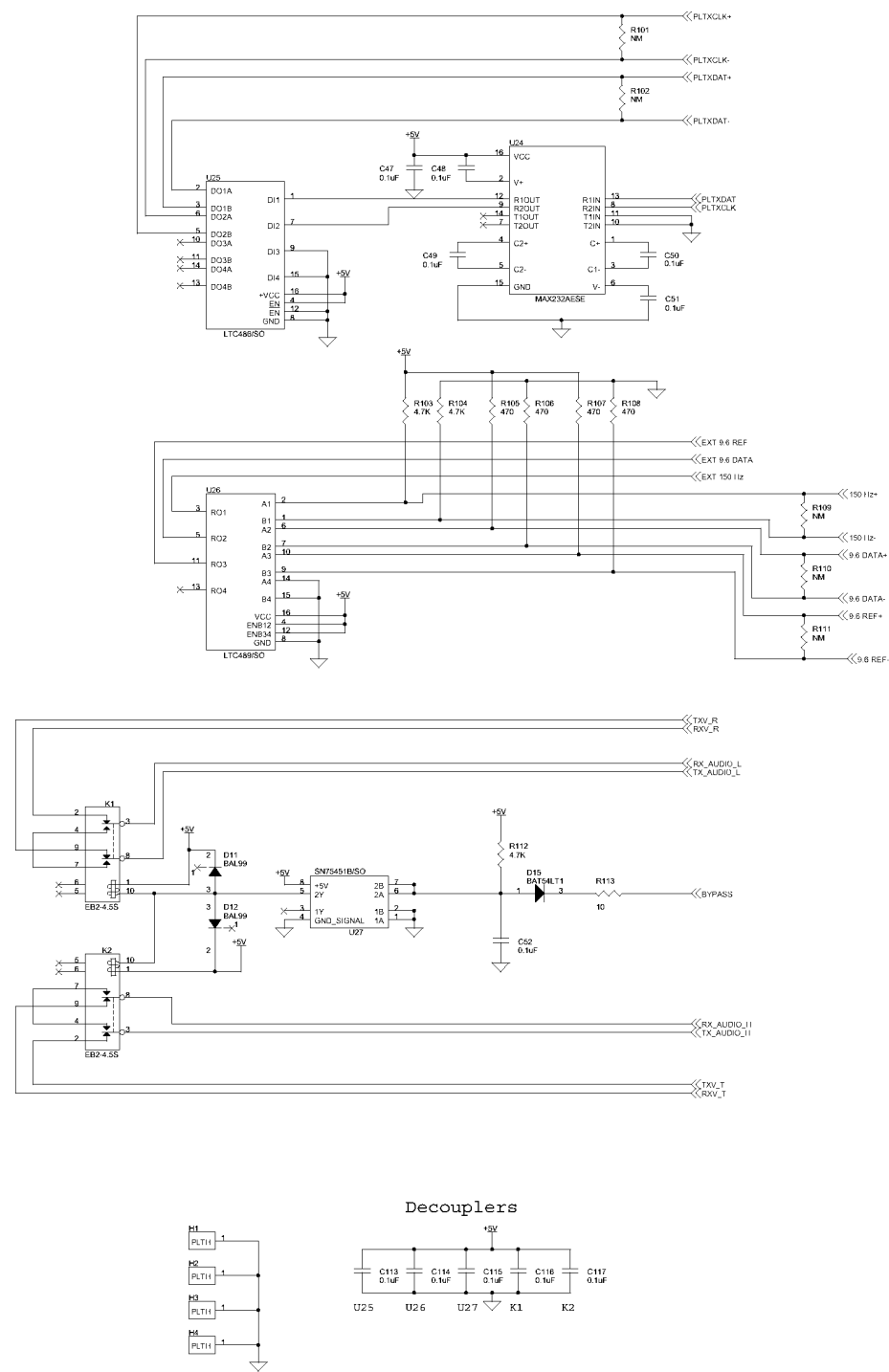
Decouplers

Power Connections

Component	Pin #	Net
U15	8	+12V
U16	4	-12V
U17	8	+12V
U17	4	-12V
U19	8	+12V
U19	4	-12V
U28	8	+12V

Power Connections

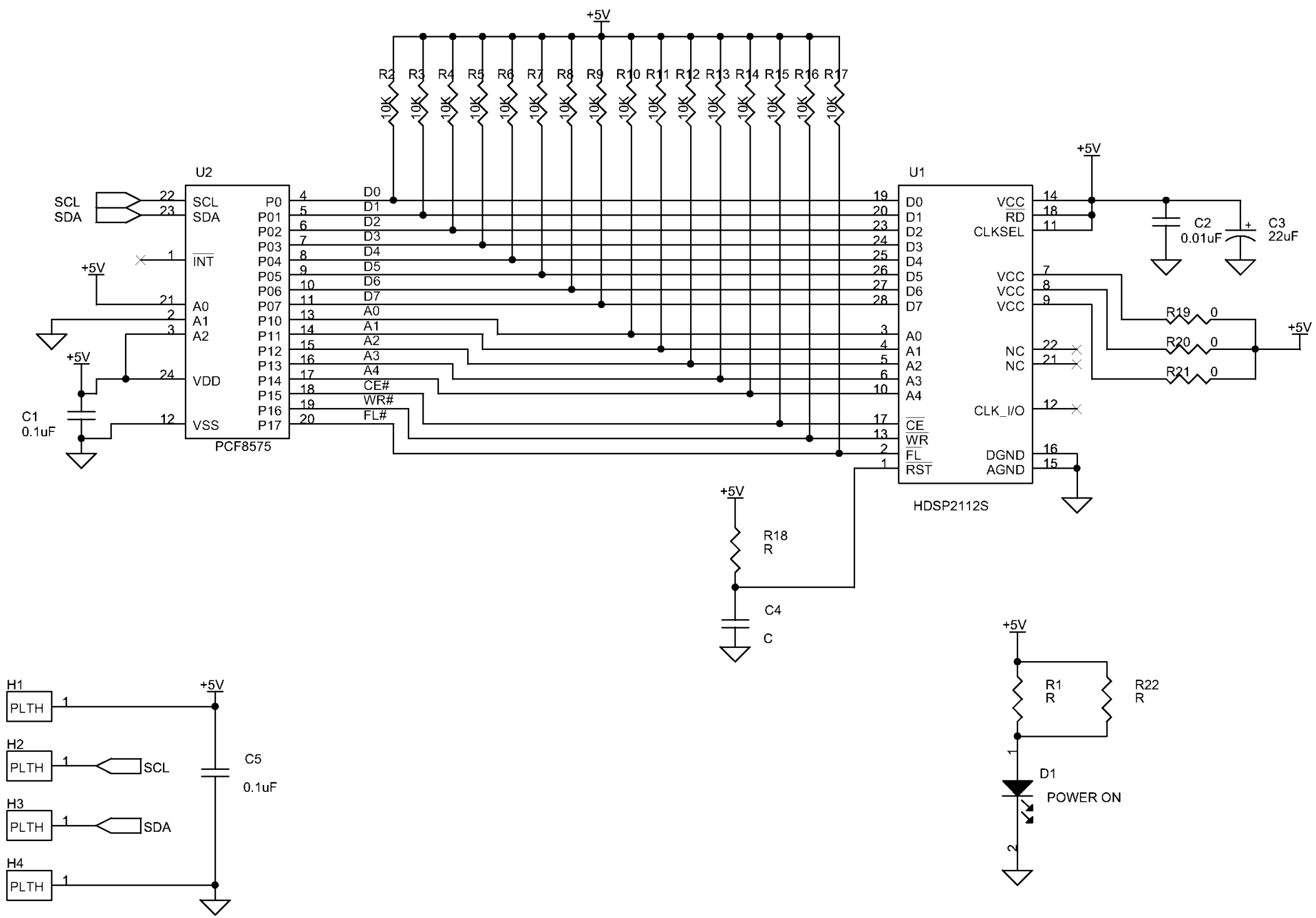
SCHEMATIC DIAGRAM



ANALOG FILTER BOARD (A4) CB101070V1

DISPLAY MODULE (A6) MA101082V1

(WD-MA101082V1, Rev. #)

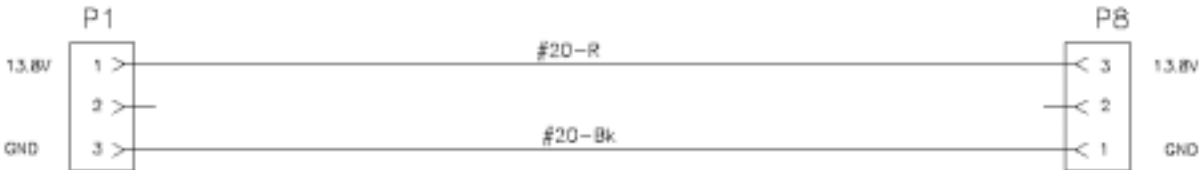
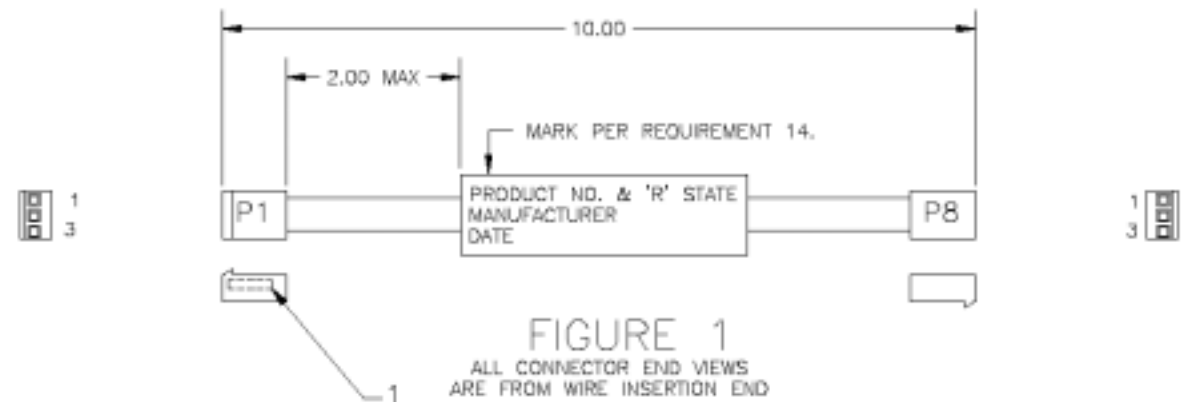


DISPLAY BOARD (A6-A1) CB101077V1

(WD-CB101077V1, Rev. #)

DISPLAY BOARD CABLE (A6-A1) CA101222V1

(PS-CA101222V1, Rev. #)



WIRING DIAGRAM

REQUIREMENTS (** INDICATES REQUIREMENT NOT APPLICABLE TO THIS PRODUCT)

- 1 CABLE ASSEMBLY SHALL BE CONSTRUCTED AS SHOWN IN FIGURE 1.
- 2 LACE OR SPOT TIE AS REQUIRED TO MAINTAIN CABLE SHAPE AND DIMENSIONS.
- 3 ALL CONDUCTORS SHALL BE STRANDED COPPER UNLESS OTHERWISE SPECIFIED.
- 4 WIRE GAUGE AND COLOR SHALL BE AS SPECIFIED IN WIRING DIAGRAM OR CONNECTION LIST.
- 5 WIRING SHALL BE PER WIRING DIAGRAM OR CONNECTION LIST AND 100% INSPECTED.
- 6 ALL WIRE TERMINATIONS SHALL PROVIDE INSULATION SUPPORT
- 7 ALL CONNECTORS TO PROVIDE INSULATION SUPPORT
- 8 UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.
- 9 UNLESS OTHERWISE SPECIFIED, TOLERANCE: FOR ALL DIMENSIONS IS [+/-0.50]
- 10 LIMITING VALUES: RATED VOLTAGE FOR CABLE ASSEMBLY = 300 VAC MIN.
- 11 MARK CONNECTORS AS SHOWN IN FIGURE 1
- 12 MATERIAL LIST

ITEM	Com-Net PART NO. (FOR REF. ONLY)	VENDOR PART NO. (OR EQUIVALENT)	DESCRIPTION	QTY
P1	19A116859P14 ----	MOLEX Pt. No 09-50-3031	3 POSITION MOLDED HOUSING -----	1
P8	19A116859P14 ----	MOLEX Pt. No 09-50-3031	3 POSITION MOLDED HOUSING -----	1
1	19A116781P5 ----	MOLEX Pt. No 08-50-0105 OR MOLEX Pt. No 08-50-0105	LOOSE PIECE CONTACT OR CHAINED PIECE CONTACT	4

- 13 ENVIRONMENTAL RESISTANCE: OPERATING TEMPERATURE RANGE -30 TO +75 DEG. C
MAX CONTINUOUS TEMPERATURE +75 DEG. C
- 14 MARKING - EACH ASSEMBLY AND ITS PACKING CONTAINER
SHALL BE MARKED WITH THE FOLLOWING INFORMATION

PRODUCT CODE - (SEE REQUIREMENT 15 "PRODUCT LIST")
'R' STATE PER DOCUMENT 1095
MANUFACTURERS NAME OR TRADEMARK.
DATE OF MANUFACTURE CODE

THE MARKING SHALL BE RESISTANT TO MECHANICAL WEARING THAT CAN ARISE
AT NORMAL HANDLING, STORAGE AND OPERATION.

PRODUCT LIST	
PRODUCT NUMBER	DESCRIPTION
CA101211V1	13.8 VOLT INPUT POWER CABLE

+13.8V INPUT POWER CABLE (W1) (Input) CA101211V1

(PS-CA101211V1, Rev. A)

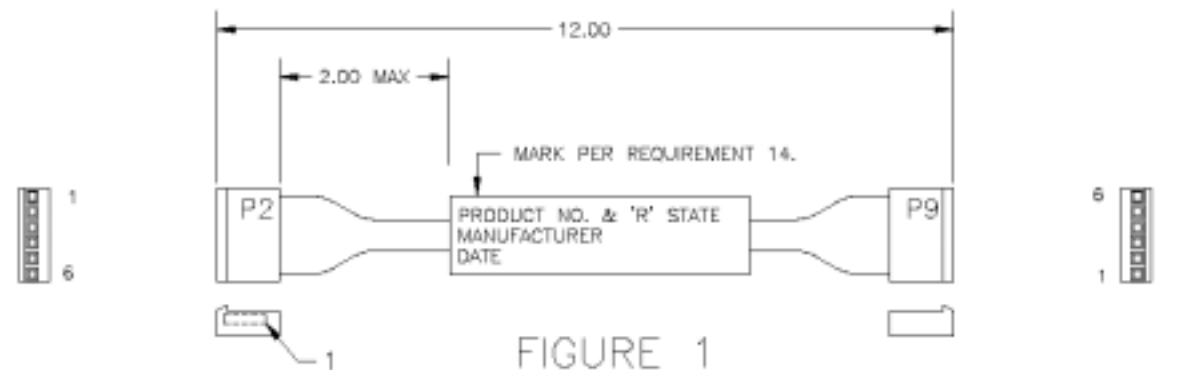
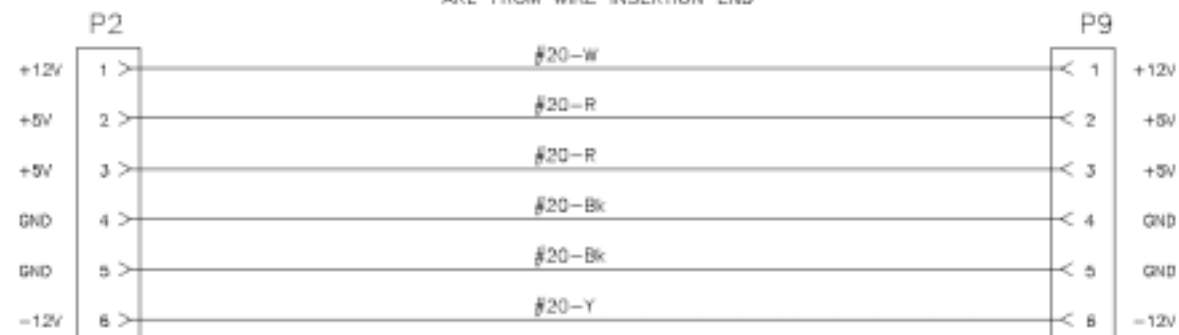


FIGURE 1
ALL CONNECTOR END VIEWS
ARE FROM WIRE INSERTION END



WIRING DIAGRAM

REQUIREMENTS (*• INDICATES REQUIREMENT NOT APPLICABLE TO THIS PRODUCT)

- 1 CABLE ASSEMBLY SHALL BE CONSTRUCTED AS SHOWN IN FIGURE 1.
- 2 LACE OR SPOT TIE AS REQUIRED TO MAINTAIN CABLE SHAPE AND DIMENSIONS.
- 3 ALL CONDUCTORS SHALL BE STRANDED COPPER UNLESS OTHERWISE SPECIFIED.
- 4 WIRE GAUGE AND COLOR SHALL BE AS SPECIFIED IN WIRING DIAGRAM OR CONNECTION LIST.
- 5 WIRING SHALL BE PER WIRING DIAGRAM OR CONNECTION LIST AND 100% INSPECTED.
- 6 ALL WIRE TERMINATIONS SHALL PROVIDE INSULATION SUPPORT.
- 7 ALL CONNECTORS TO PROVIDE INSULATION SUPPORT.
- 8 UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.
- 9 UNLESS OTHERWISE SPECIFIED, TOLERANCE: FOR ALL DIMENSIONS IS $[+/-0.50]$.
- 10 LIMITING VALUES: RATED VOLTAGE FOR CABLE ASSEMBLY = 300 VAC MIN.
- 11 MARK CONNECTORS AS SHOWN IN FIGURE 1.
- 12 MATERIAL LIST

ITEM	Com-Mat PART NO. (FOR REF. ONLY)	VENDOR PART NO. (OR EQUIVALENT)	DESCRIPTION	QTY
P2	19A116039P19 ---	MOLEX Pt. No 09-50-3061	3 POSITION MOLDED HOUSING -----	1
P9	19A116039P19 ---	MOLEX Pt. No 09-50-3061	3 POSITION MOLDED HOUSING -----	1
1	19A116781P5 --- OR 19A116781P3	MOLEX Pt. No 08-50-0108 OR MOLEX Pt. No 08-50-0105	LOOSE PIECE CONTACT OR CHAINED PIECE CONTACT	12

- 13 ENVIRONMENTAL RESISTANCE: OPERATING TEMPERATURE RANGE
MAX CONTINUOUS TEMPERATURE
- 14 MARKING - EACH ASSEMBLY AND ITS PACKING CONTAINER
SHALL BE MARKED WITH THE FOLLOWING INFORMATION

PRODUCT CODE - (SEE REQUIREMENT 15 "PRODUCT LIST")
'R' STATE PER DOCUMENT 1095
MANUFACTURERS NAME OR TRADEMARK.
DATE OF MANUFACTURE CODE

THE MARKING SHALL BE RESISTANT TO MECHANICAL WEARING THAT O
AT NORMAL HANDLING, STORAGE AND OPERATION.

15	PRODUCT LIST
PRODUCT NUMBER	DESCRIPTION
CA101212V1	12 & 5 VOLT OUTPUT POWER CABLE

POWER CABLE (W2) (Output) CA101212V1

(PS-CA101212V1, Rev. A)

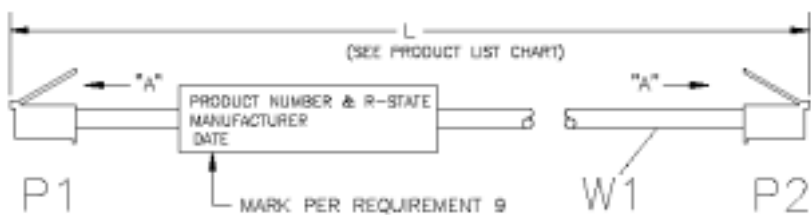
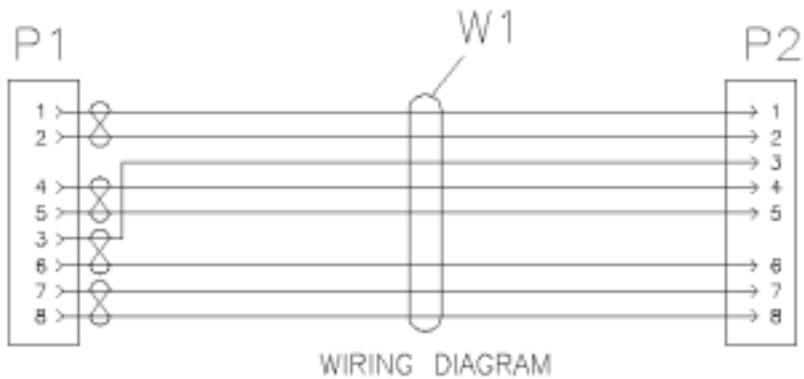


FIGURE 1



WIRING DIAGRAM



REQUIREMENTS ("*" INDICATES REQUIREMENT NOT APPLICABLE TO THIS PRODUCT)

- 1 CABLE ASSEMBLY SHALL BE CONSTRUCTED AS SHOWN IN FIGURE 1.
- 2 LACE OR SPOT TIE AS REQUIRED TO MAINTAIN CABLE SHAPE AND DIMENSIONS.
- 3 ALL CONDUCTORS SHALL BE STRANDED COPPER UNLESS OTHERWISE SPECIFIED.
- 4 WIRE GAUGE AND COLOR SHALL BE AS SPECIFIED IN WIRING DIAGRAM OR CONNECTION LIST.
- 5 WIRING SHALL BE PER WIRING DIAGRAM OR CONNECTION LIST AND 100% INSPECTED.
- 6 ALL WIRE TERMINATIONS SHALL PROVIDE INSULATION SUPPORT.
- 7 ALL CONNECTORS TO PROVIDE INSULATION SUPPORT.
- 8 UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.
- 9 UNLESS OTHERWISE SPECIFIED, TOLERANCE: FOR ALL DIMENSIONS IS [+/-0.50]
- 10 LIMITING VALUES: RATED VOLTAGE FOR CABLE ASSEMBLY = 300 VDC MIN.
- 11 MARK CONNECTORS AS SHOWN IN FIGURE 1
- 12 MATERIAL LIST

ITEM	Cam-Net PART NO. (FOR REF. ONLY)	VENDOR PART NO. (OR EQUIVALENT)	DESCRIPTION	QTY
P1	-----	AMP #5-569550-4	8 POSITION MODULAR CONNECTOR	1
P2	-----	AMP #5-569550-4	8 POSITION MODULAR CONNECTOR	1
W1	-----	BELDEN # 1824H (4) TWISTED PAIR IN A SHIELDED JACKET WITH DRAIN WIRE CATEGORY 5	#24 SOLID WIRE COLOR: SUPPLIERS DISCRETION	PER "L" DIM IN PRODUCT LIST CHART

- 13 ENVIRONMENTAL RESISTANCE: OPERATING TEMPERATURE RANGE -20 TO +75 DEG. C
MAX CONTINUOUS TEMPERATURE +75 DEG. C
- 14 MARKING - EACH ASSEMBLY AND ITS PACKING CONTAINER
SHALL BE MARKED WITH THE FOLLOWING INFORMATION

PRODUCT CODE - (SEE REQUIREMENT 15 "PRODUCT LIST")
"R" STATE PER DOCUMENT 1095
MANUFACTURERS NAME OR TRADEMARK
DATE OF MANUFACTURE CODE

THE MARKING SHALL BE RESISTANT TO MECHANICAL WEARING THAT CAN ARISE
AT NORMAL HANDLING, STORAGE AND OPERATION.

PRODUCT LIST	
PRODUCT NUMBER	DESCRIPTION AND "L" DIM
CA101301V1	CABLE, ETHERNET, "L" DIM = 2 FEET
CA101301V2	CABLE, ETHERNET, "L" DIM = 4 FEET
CA101301V3	CABLE, ETHERNET, "L" DIM = 5 FEET
CA101301V4	CABLE, ETHERNET, "L" DIM = 6 FEET
CA101301V5	CABLE, ETHERNET, "L" DIM = 10 FEET
CA101301V6	CABLE, ETHERNET, "L" DIM = 15 FEET
CA101301V7	CABLE, ETHERNET, "L" DIM = 20 FEET
CA101301V8	CABLE, ETHERNET, "L" DIM = 25 FEET

DATA CABLE CV101213V1

(PS-CV101213V1, Rev. A)

Com-Net Ericsson Critical Radio Systems, Inc.

P.O. Box 2000

Lynchburg, Virginia 24501

Phone: 1-800-431-2345 or (Outside USA, 1-804-592-6100)

www.com-netericsson.com

Printed in U.S.A.

