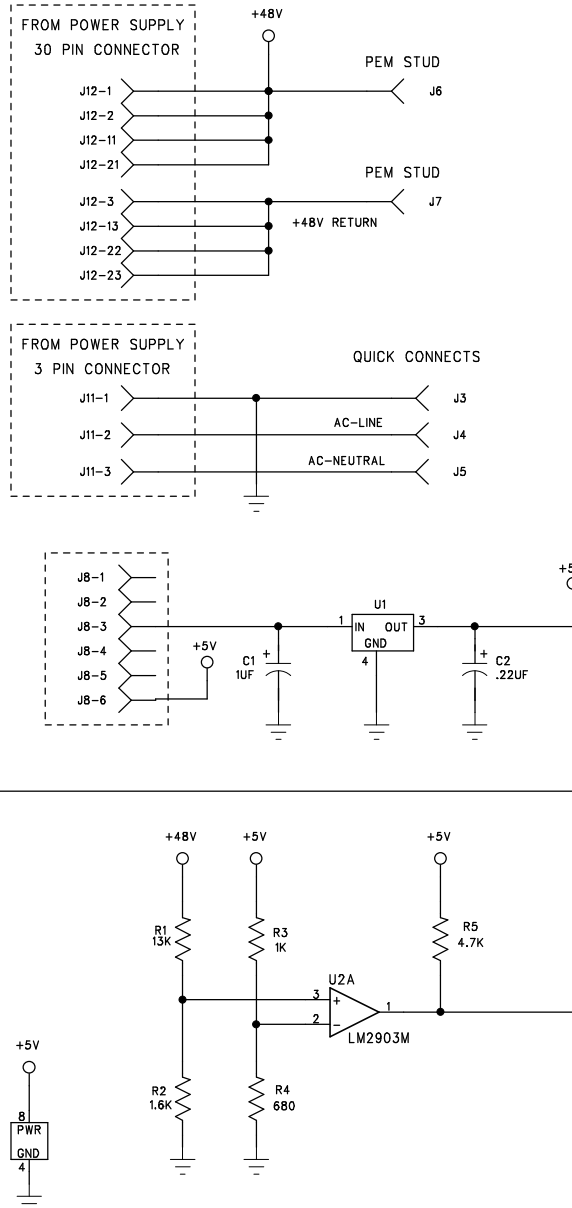
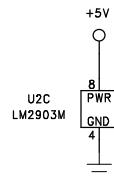
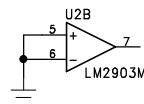
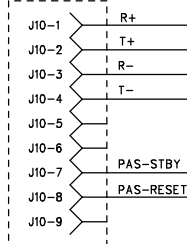
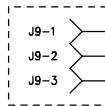
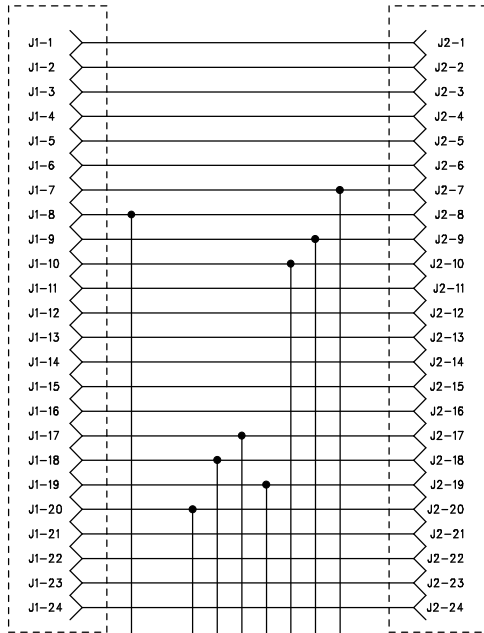


FROM MOTHER BOARD/BACK PANEL



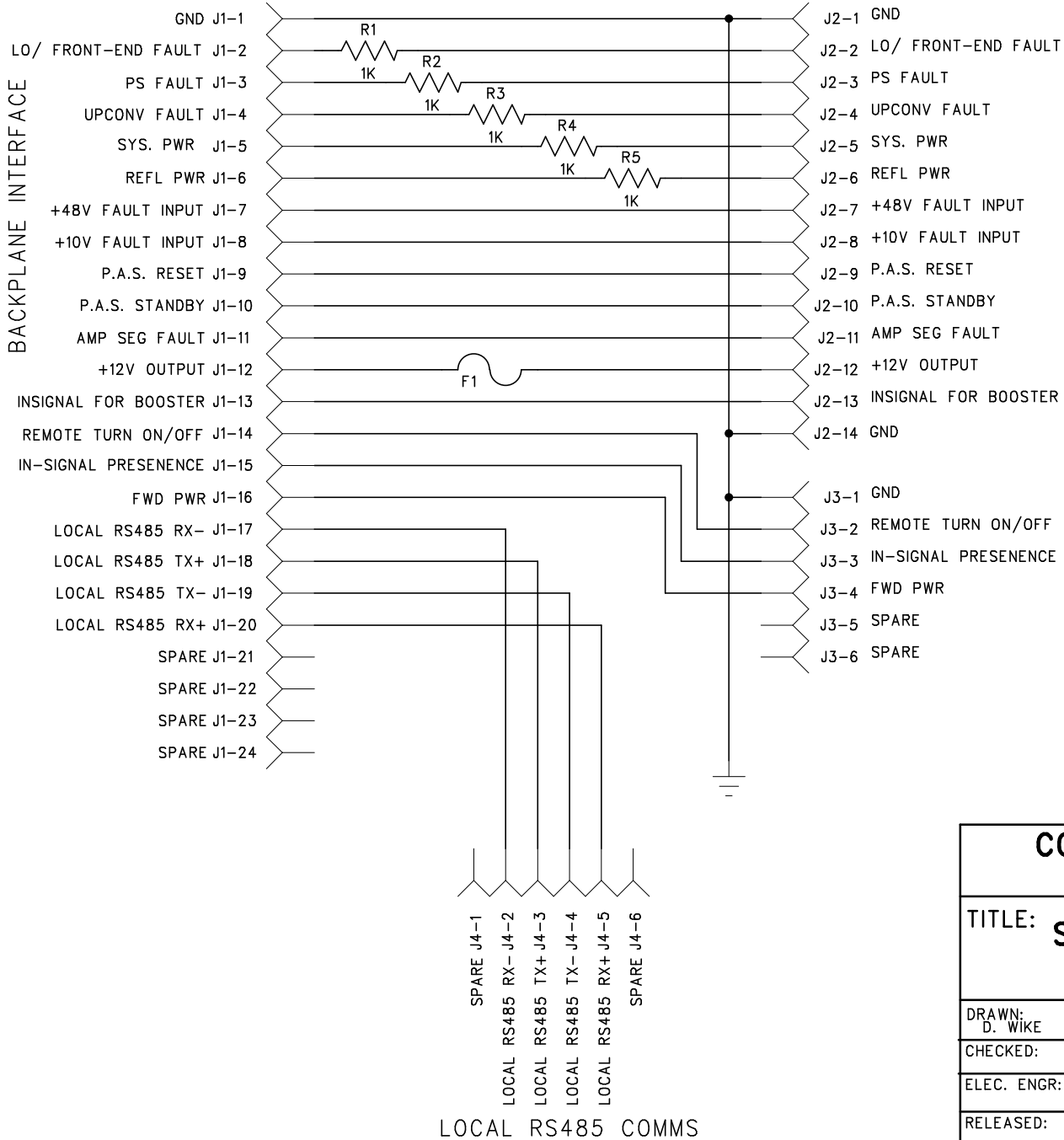
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



TITLE: SCHEMATIC, POWER SUPPLY BACK PLANE, HPSC TX, SECTORIZED

DRAWN: K.HARDING	DATED: 12-21-99	DRAWING NO:
CHECKED: A.BRAGALONE	12-21-99	B-47266165-030
ELEC. ENGR:		SHEET: 1 of 1
RELEASED:		SCALE: REV: P1

BACKPLANE INTERFACE



DIAGNOSTICS CONNECTOR

AGILE CONTROLLER
INTERFACE

REVISION RECORD

LTR	ECO NO:	APPROVED:	DATE:

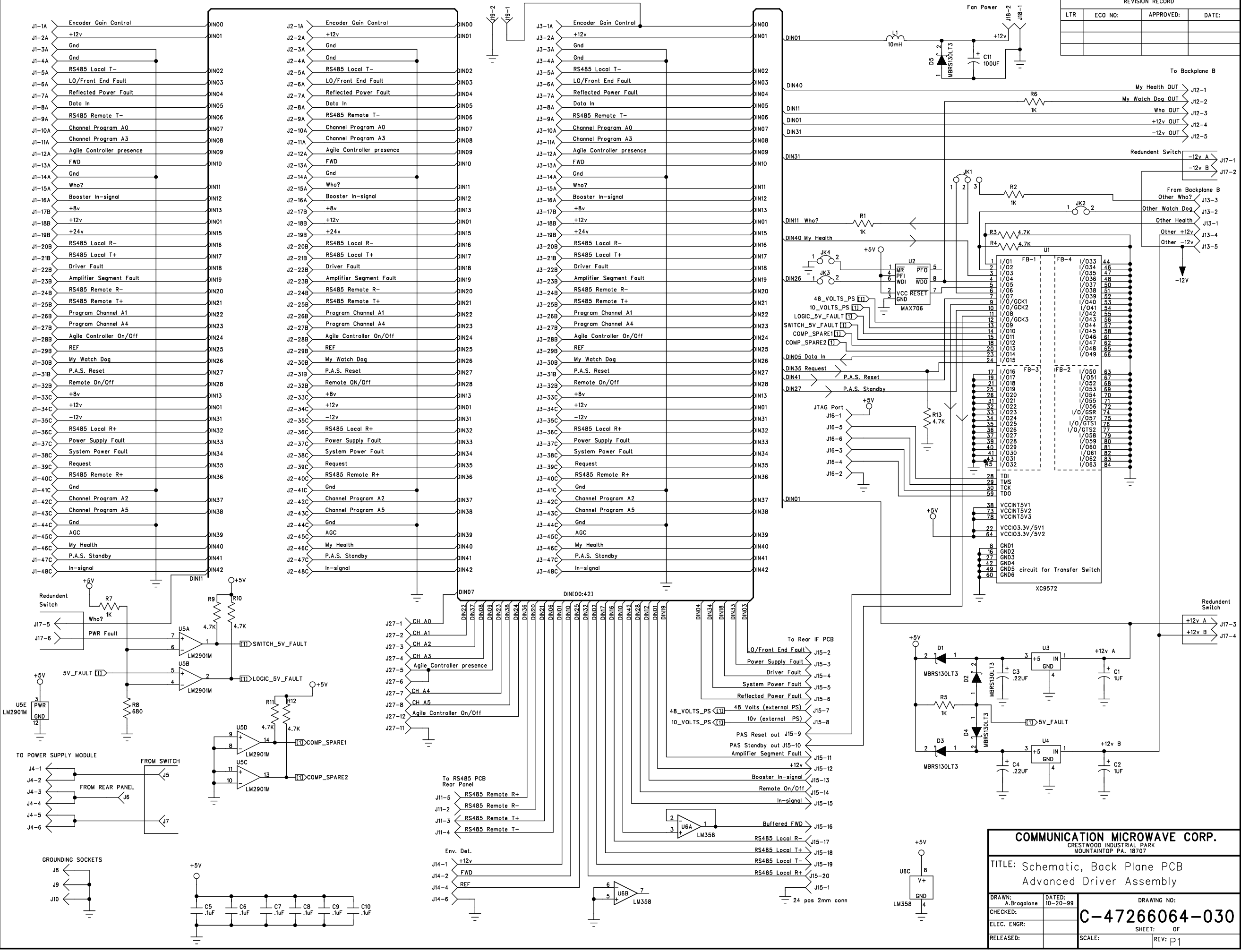
COMMUNICATION MICROWAVE CORP.

CRESTWOOD INDUSTRIAL PARK
MOUNTAINTOP PA. 18707

TITLE: SCHEMATIC,REAR PANEL INTERFACE

DRAWN: D. WIKE	DATED: 10/15/99	DRAWING NO: A-47266066-030	
CHECKED:		SHEET: 1 OF 1	
ELEC. ENGR:		SCALE: NONE	REV: P1
RELEASED:			

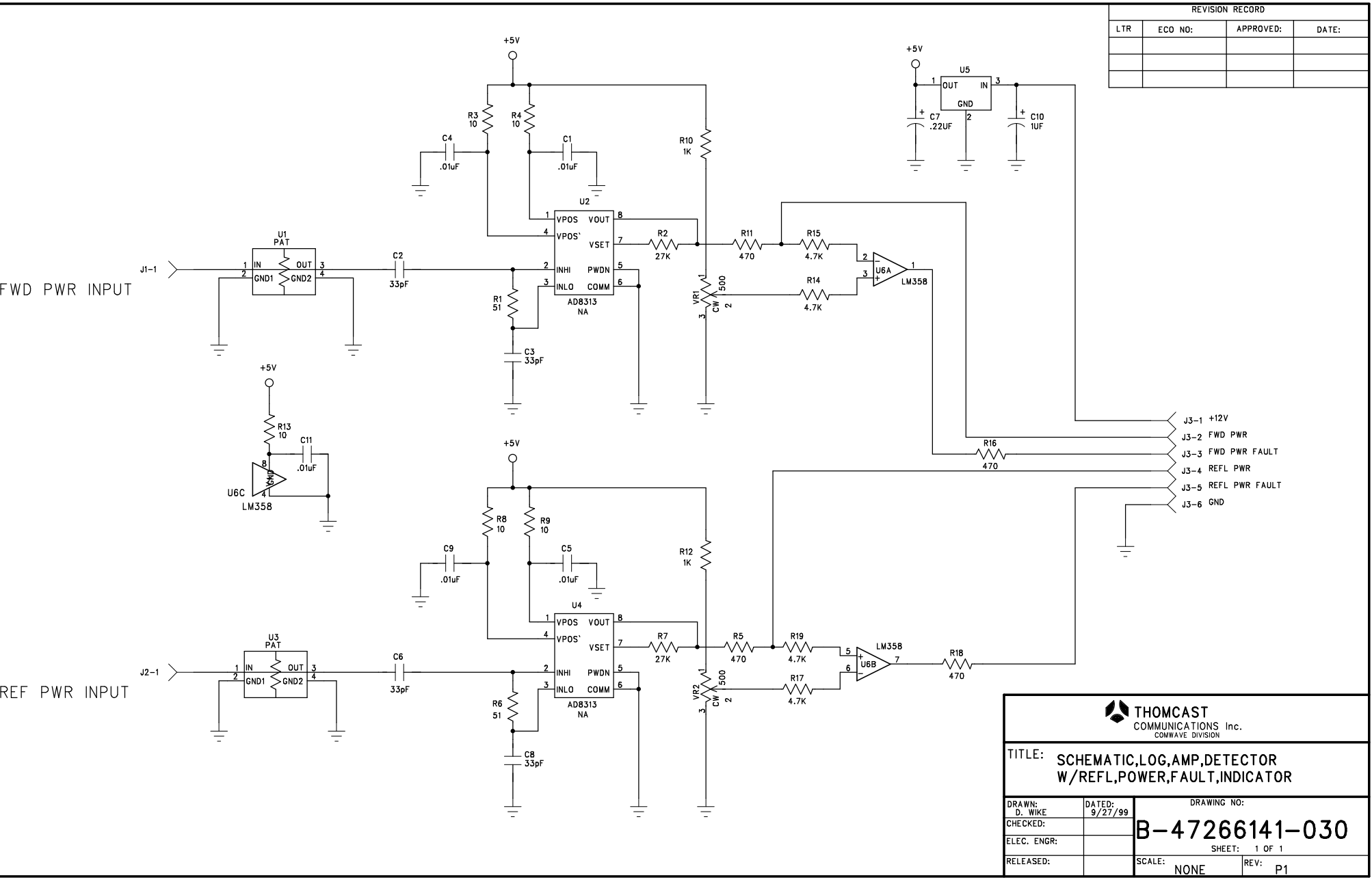
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

FWD PWR INPUT

REF PWR INPUT





THOMCAST

COMMUNICATIONS Inc.

COMWAVE DIVISION

TITLE:

SCHEMATIC,LOG,AMP,DETECTOR
W/REFL,POWER,FAULT,INDICATOR

DRAWN:

DATED:

CHECKED:

ELEC. ENGR:

RELEASED:

D. WIKE

9/27/99

DRAWING NO:

SHEET:

SCALE:

REV:

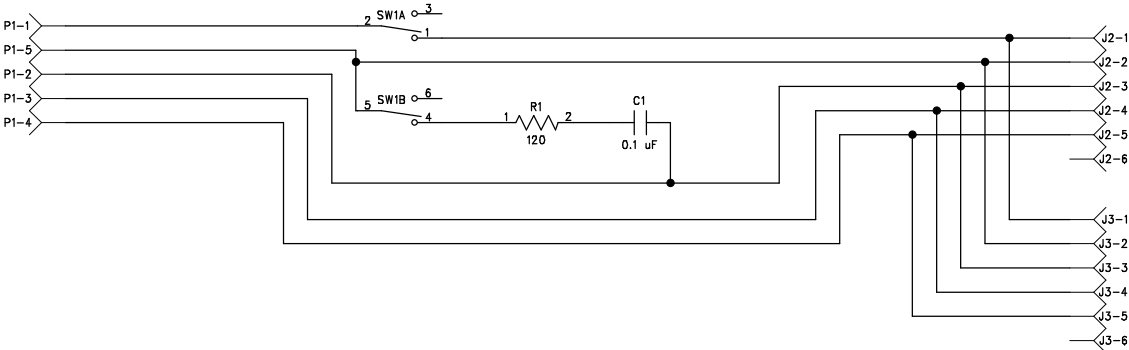
B-47266141-030

1 OF 1

NONE

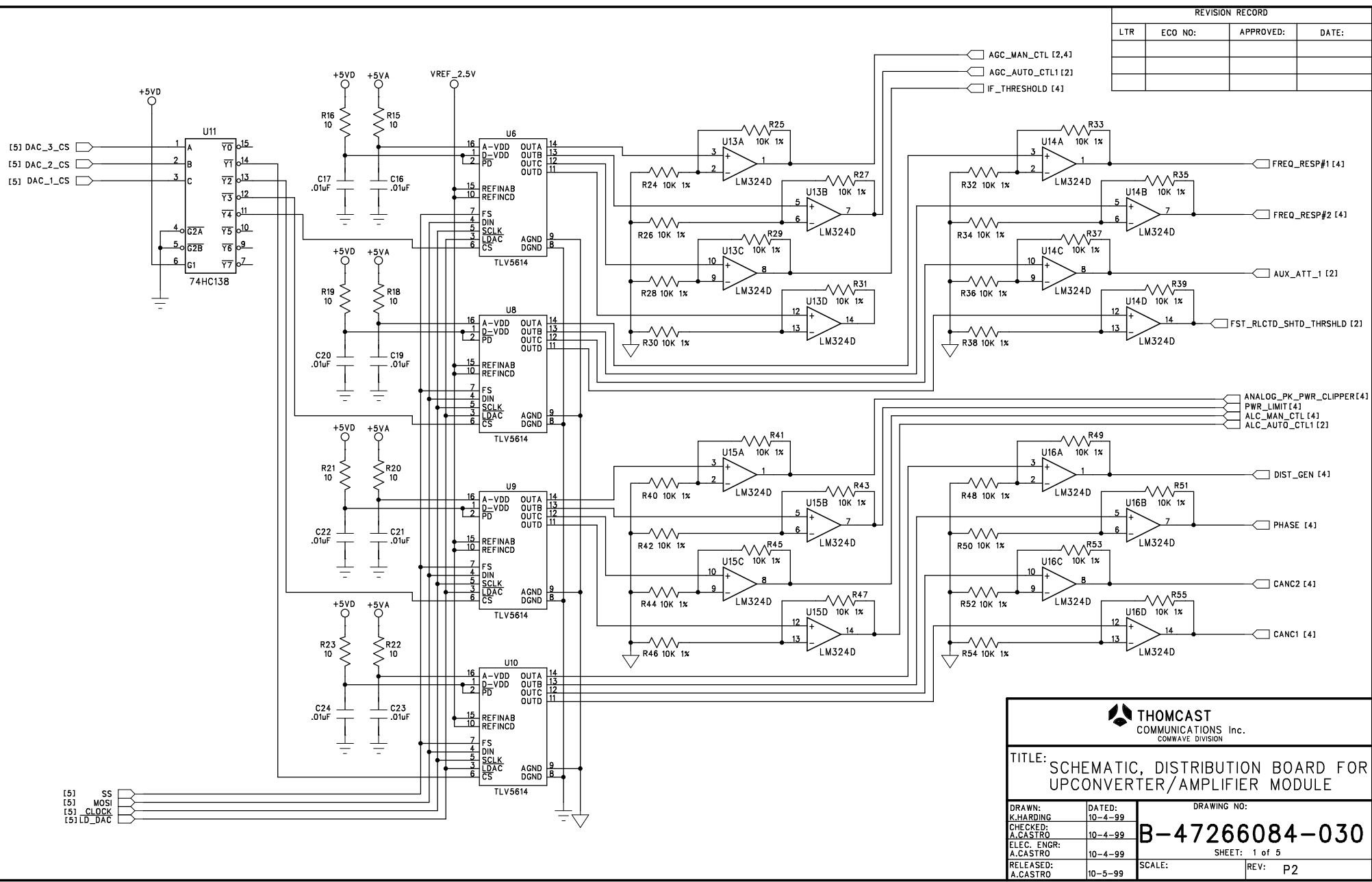
P1

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



- NOTES:
- 1. DPDT SWITCH SW1 IS CLOSED ONLY AT LAST UNIT IN NETWORK TO TERMINATE PC TX NET & PROVIDE FRAME GND.
 - 2. SCHEMATIC OF ISSUE 1 PC BOARD.

COMMUNICATION MICROWAVE CORP. CRESTWOOD INDUSTRIAL PARK MOUNTAINTOP PA. 18707			
TITLE: RS-485 COMMUNICATIONS INTERFACE, SB050B PS CHASSIS			
DRAWN: D. PAJSKI	DATED: 6-20-95	DRAWING NO: B-33-304-01	
CHECKED:			
ELEC. ENGR:			
RELEASED:			
SHEET: 1 OF 1		SCALE:	REV: A

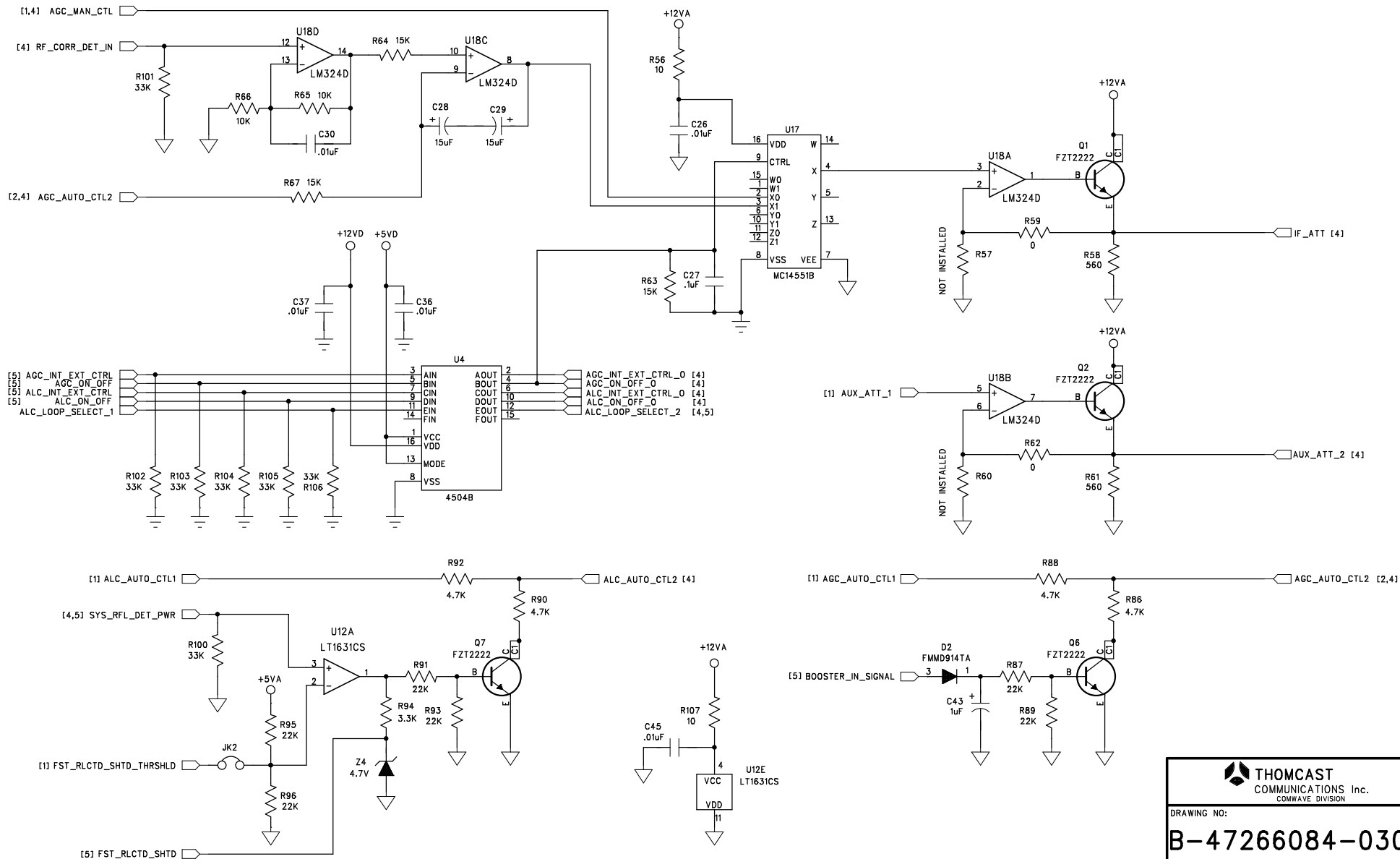


REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

**THOMCAST**
COMMUNICATIONS Inc.
COMWAVE DIVISION

TITLE: SCHEMATIC, DISTRIBUTION BOARD FOR
UPCONVERTER/AMPLIFIER MODULE

DRAWN: K.HARDING	DATED: 10-4-99	DRAWING NO: B-47266084-030	
CHECKED: A.CASTRO	10-4-99	SHEET: 1 of 5	
ELEC. ENGR: A.CASTRO	10-4-99	REV: P2	
RELEASED: A.CASTRO	10-5-99	SCALE:	



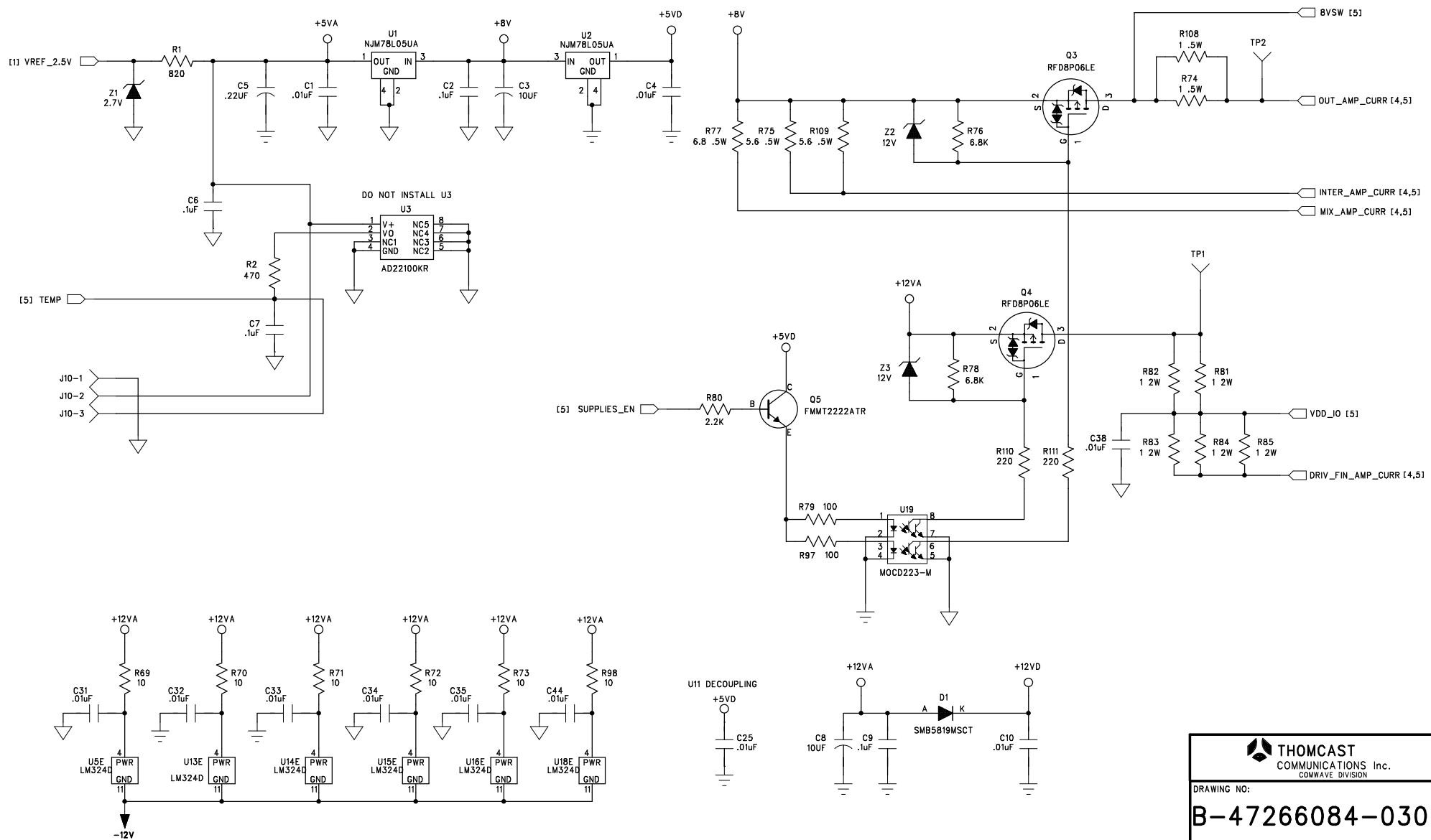
THOMCAST
COMMUNICATIONS Inc.
COMWAVE DIVISION

DRAWING NO:

B-47266084-030

SHEET: 2 of 5

SEE SHEET ONE



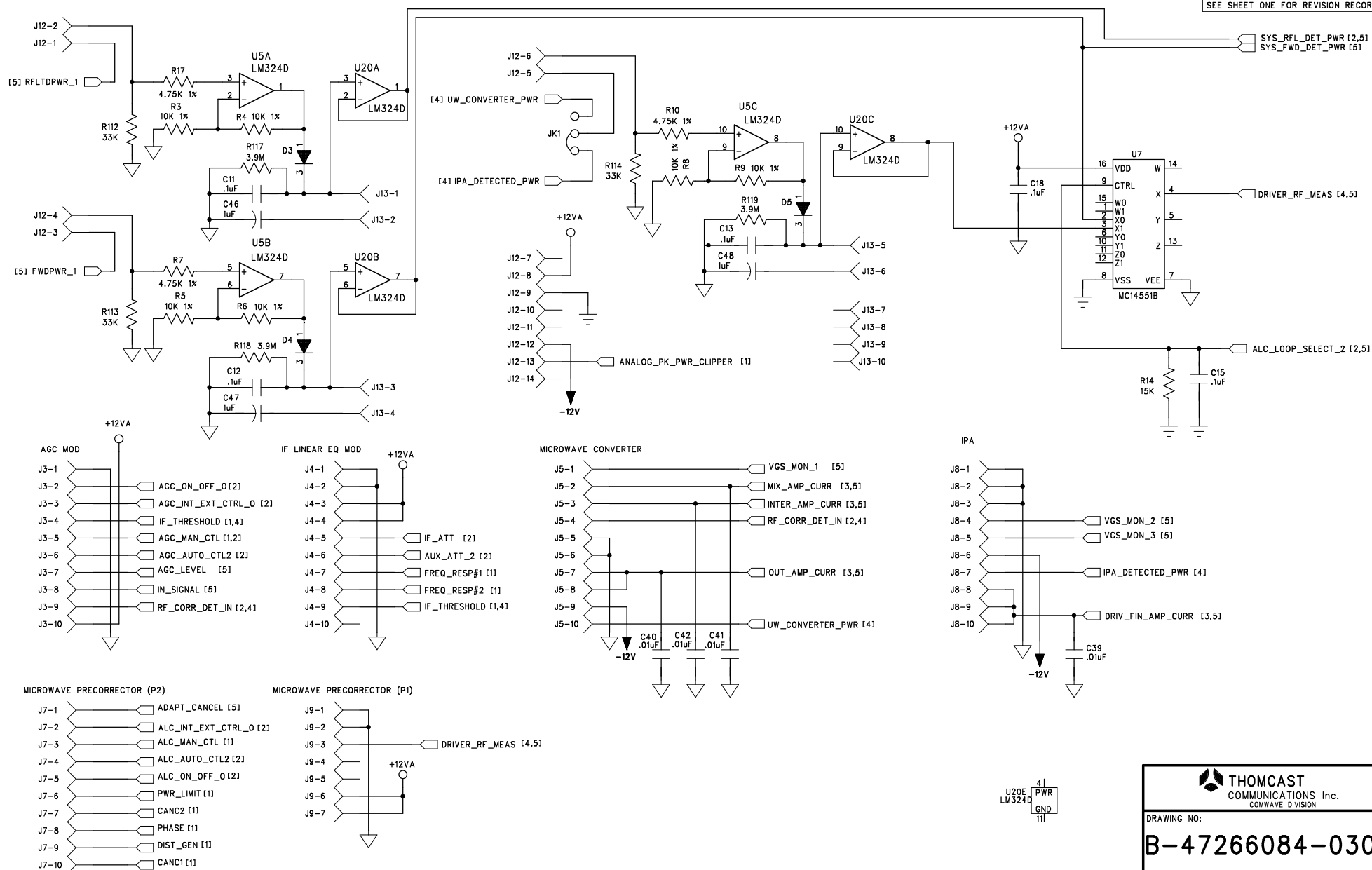
THOMCAST
COMMUNICATIONS Inc.
COMWAVE DIVISION

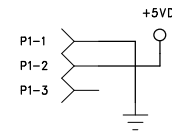
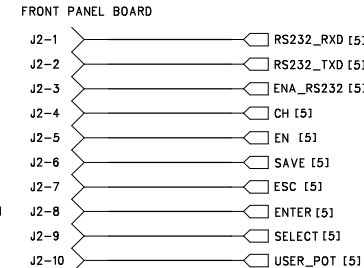
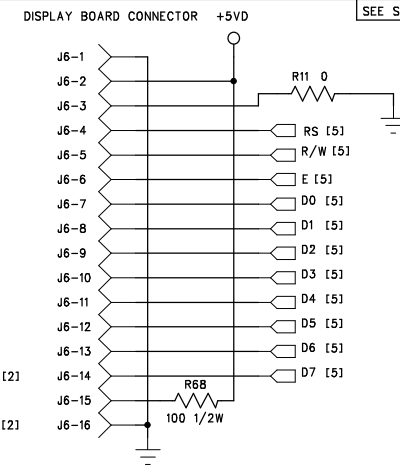
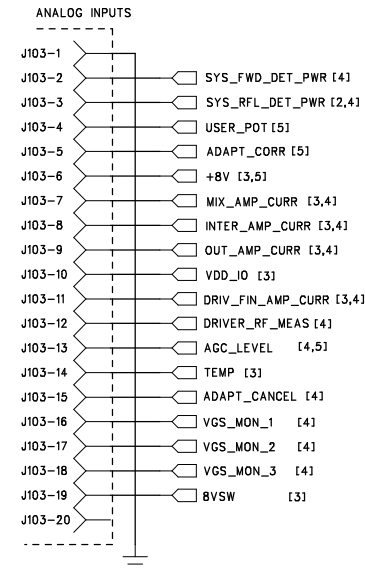
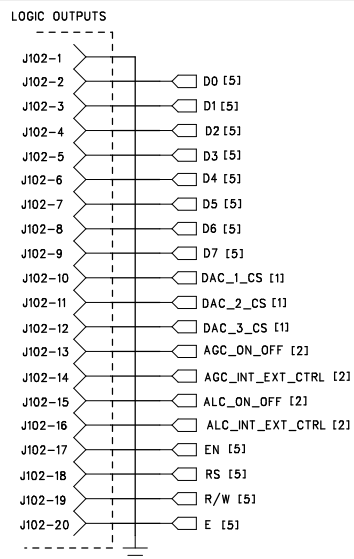
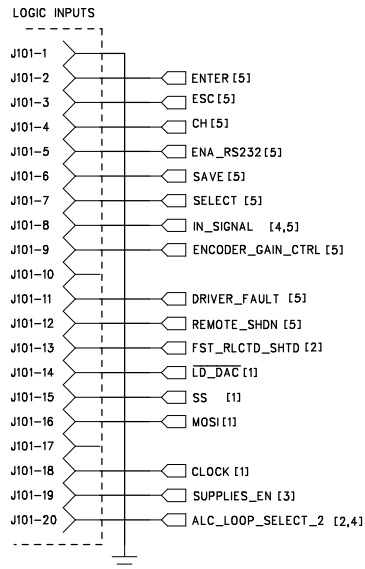
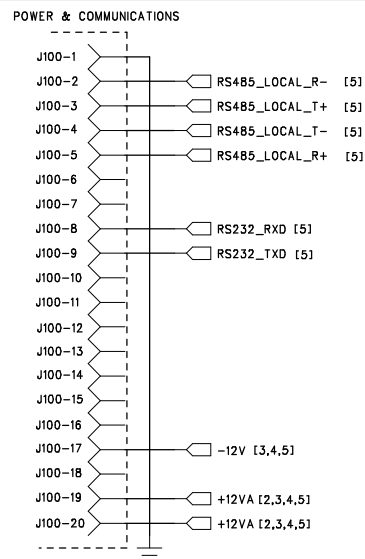
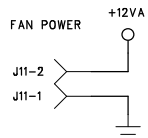
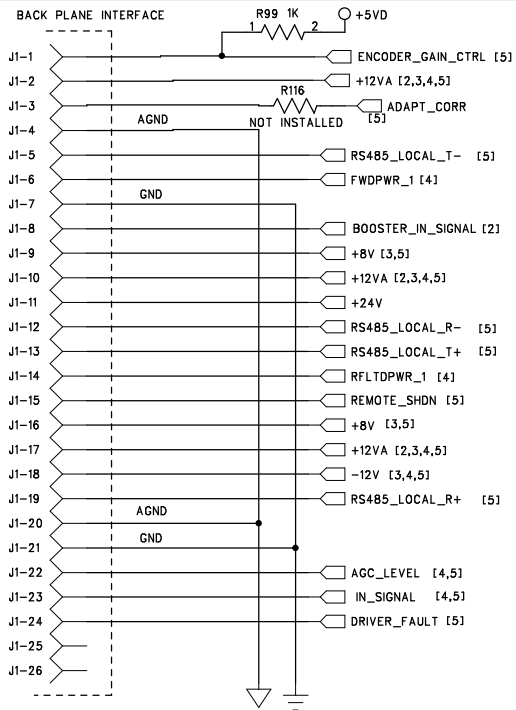
DRAWING NO:

B-47266084-030

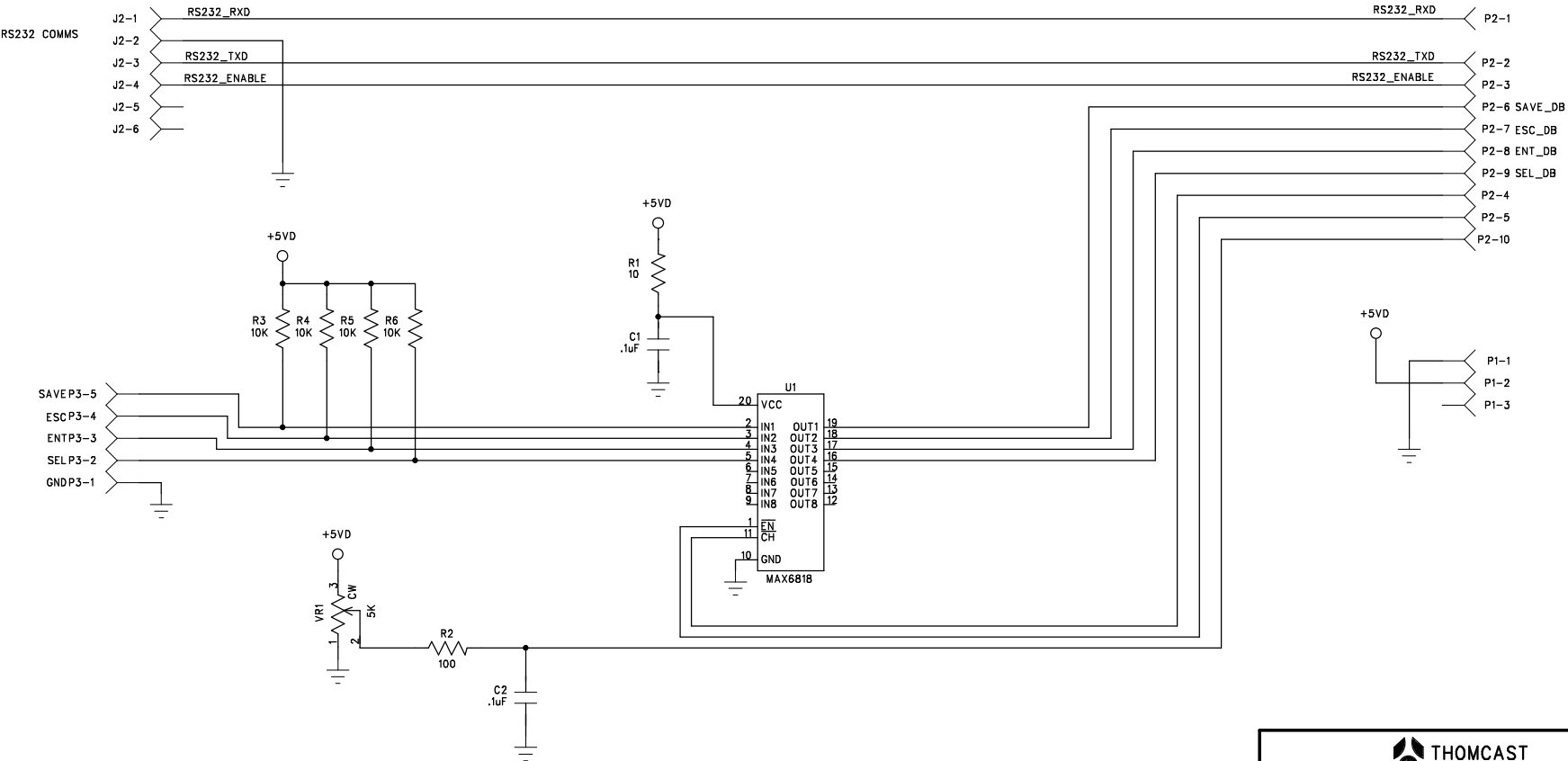
SHEET: 3 of 5

SEE SHEET ONE





REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:





THOMCAST

COMMUNICATIONS Inc.

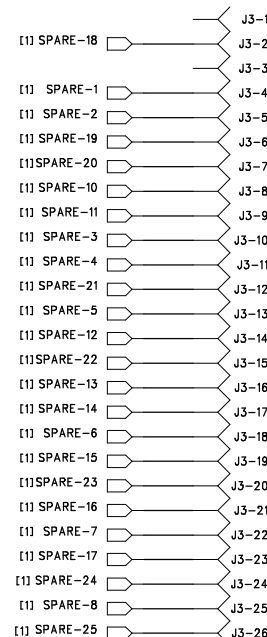
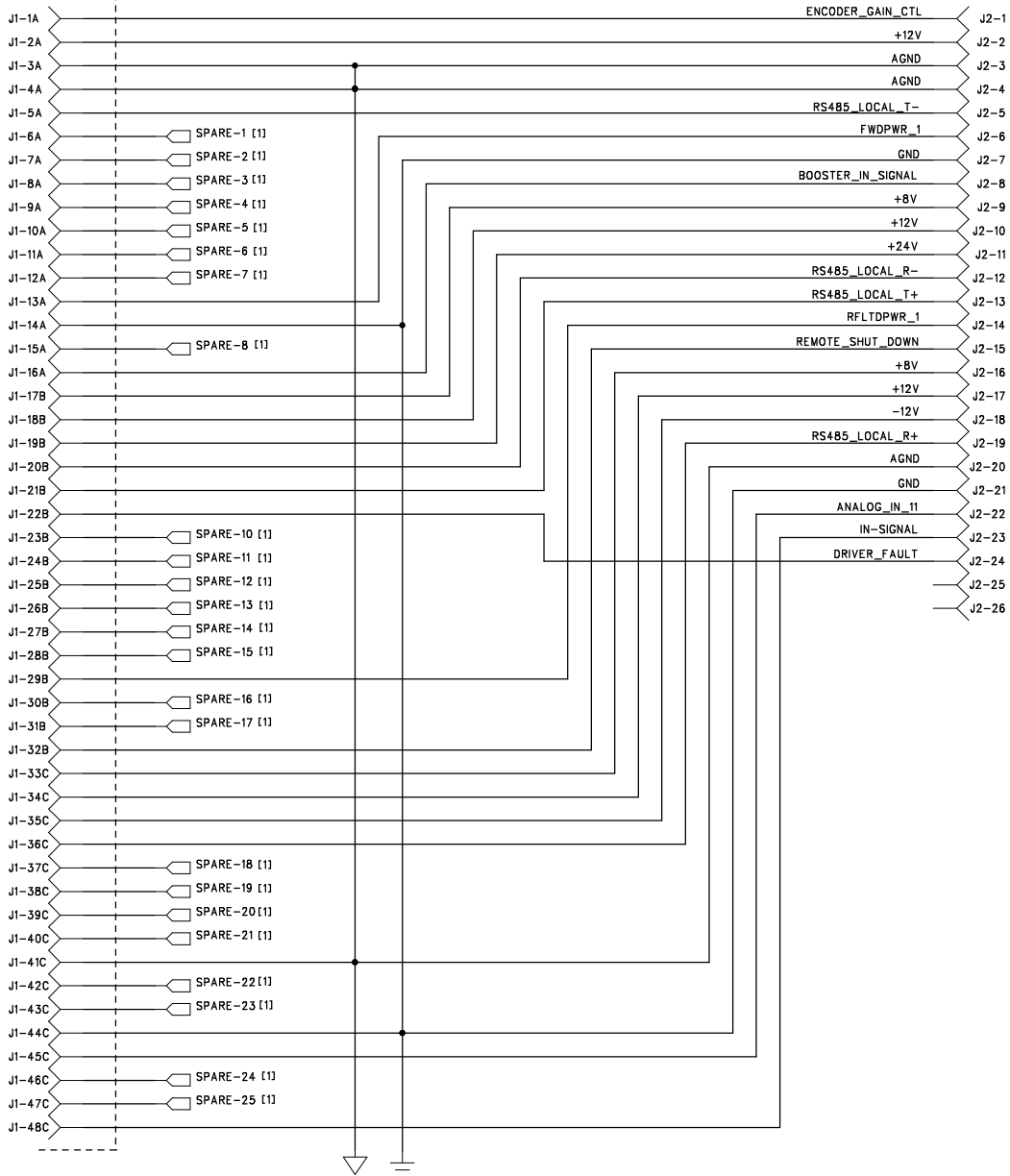
COMWAYE DIVISION

TITLE:

SCHEMATIC, FRONT PANEL
UPCONVERTER PLUG-IN

DRAWN: K.HARDING	DATED: 9-29-99	DRAWING NO: B-47266086-030
CHECKED: A.CASTRO	9-30-99	
ELEC. ENGR: A.CASTRO	9-30-99	
RELEASED: A.CASTRO	9-30-99	
SCALE:		REV: P1

BACK PLANE INTERFACE



REVISION RECORD			
LTR	ECD NO:	APPROVED:	DATE:



THOMCAST
COMMUNICATIONS Inc.
COMM-WAVE DIVISION

TITLE: SCHEMATIC, UPCONVERTER
CONNECTOR INTERFACE

DRAWN:
K.HARDING

CHECKED:
A.CASTRO

ELEC. ENGR:
A.CASTRO

RELEASED:
A.CASTRO

DATED:
10-22-99

10-22-99

10-22-99

10-22-99

DRAWING NO:

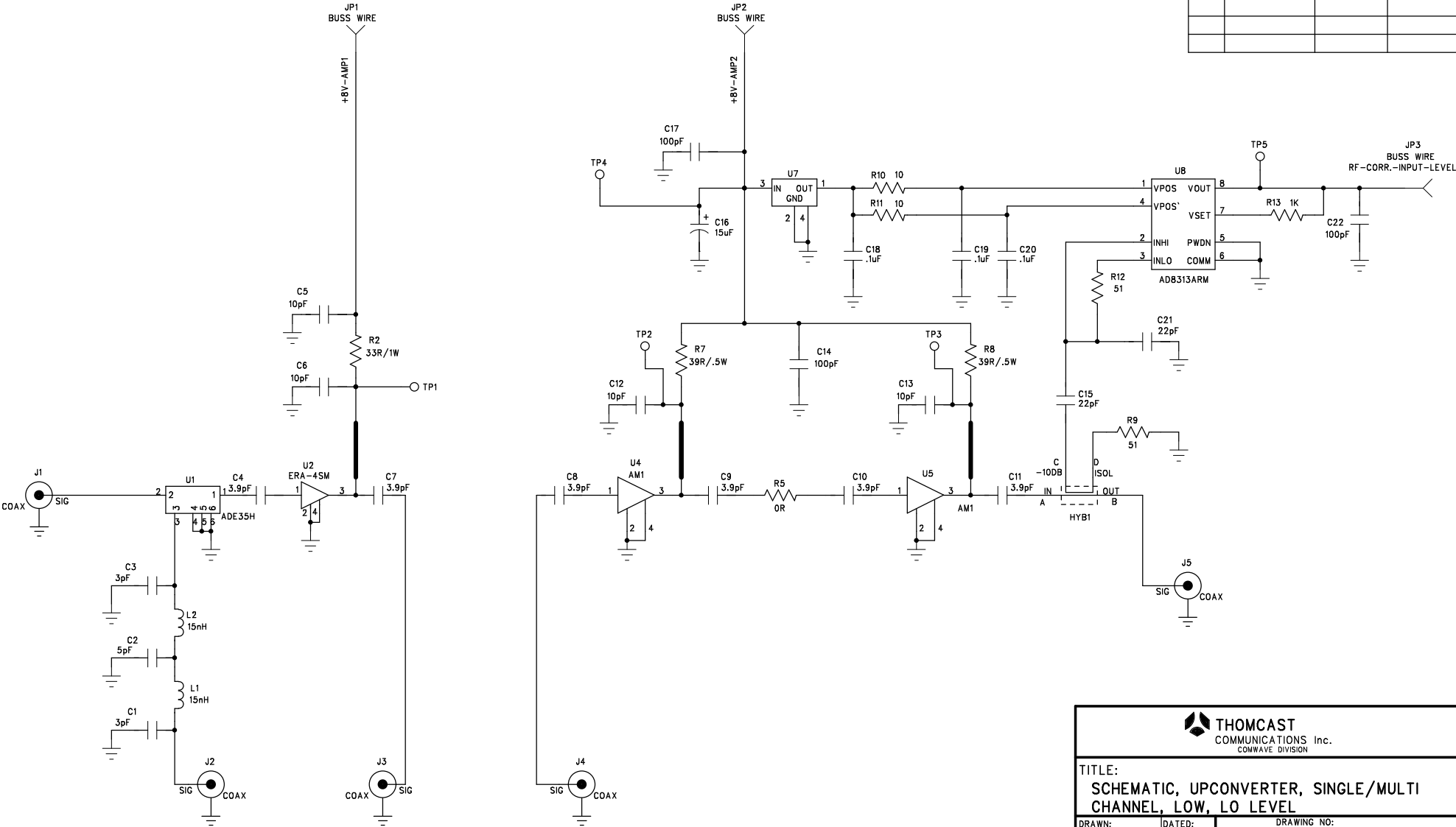
B-47266149-030

SHEET: 1 OF 1

SCALE:

REV: P1

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:





THOMCAST

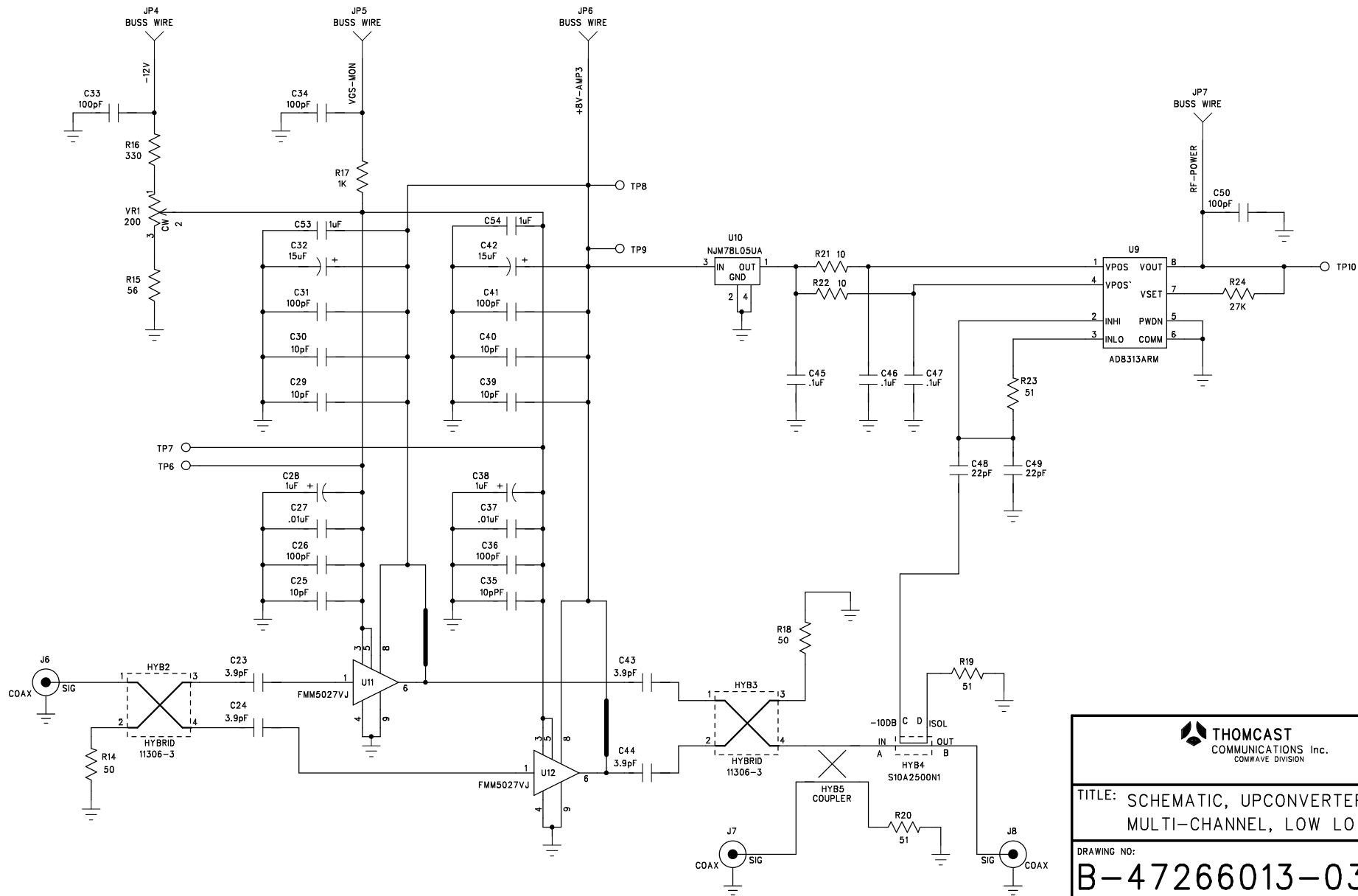
COMMUNICATIONS Inc.

COMWAVE DIVISION

TITLE:

SCHEMATIC, UPCONVERTER, SINGLE/MULTI CHANNEL, LOW, LO LEVEL

DRAWN: K.HARDING	DATED: 8-26-99	DRAWING NO: B-47266013-030
CHECKED: A.CASTRO	8-30-99	
ELEC. ENGR: A.CASTRO	8-30-99	
RELEASED: A.CASTRO	8-30-99	
SHEET: 1 OF 2		REV: P1



THOMCAST
COMMUNICATIONS Inc.
COMWAVE DIVISION

TITLE: SCHEMATIC, UPCONVERTER, SINGLE/
MULTI-CHANNEL, LOW LO LEVEL

DRAWING NO:

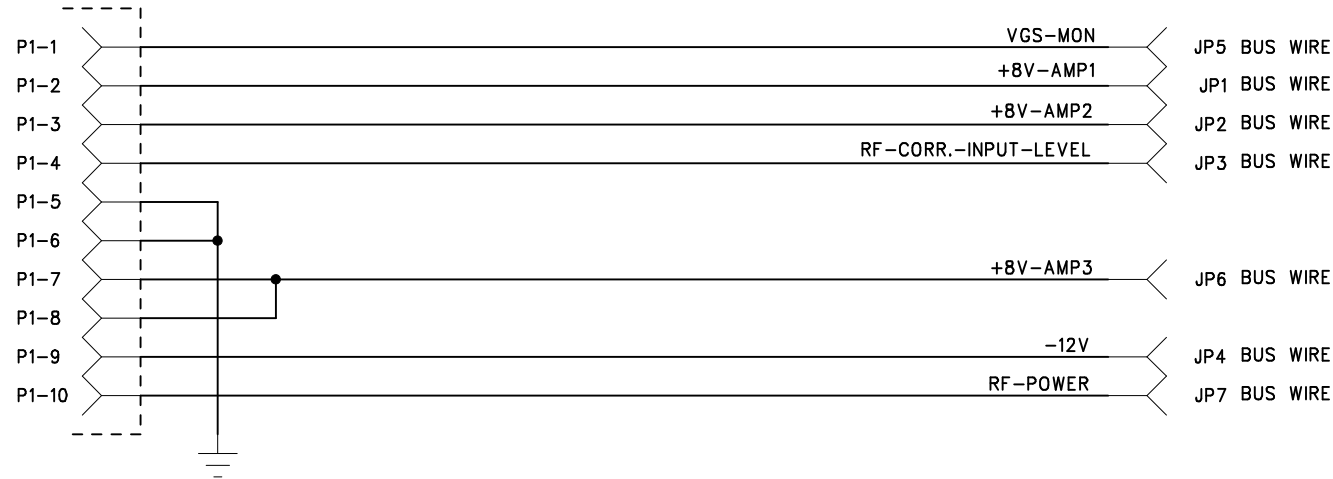
B-47266013-030

SHEET: 2 OF 2

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

MODULE CONNECTOR

BUSS WIRE FEED-THRU'S
TO UPCONVERTER BOARD

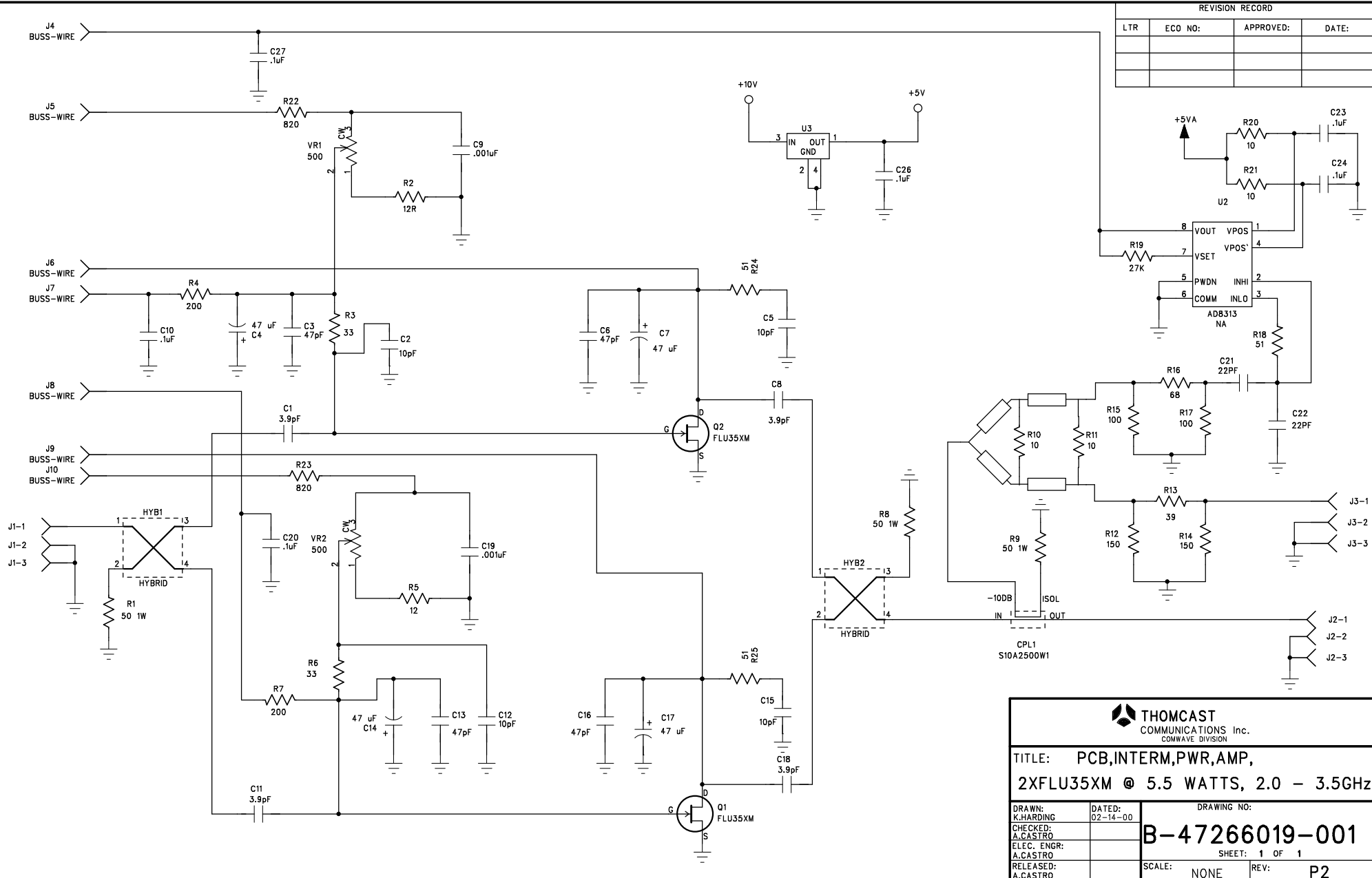


THOMCAST
COMMUNICATIONS Inc.
COMWAVE DIVISION

TITLE:

SCHEMATIC, DISTRIBUTION FOR UPCONVERTER

DRAWN: K.HARDING	DATED: 9-01-99	DRAWING NO:	
CHECKED: A.CASTRO	9-02-99	A-47266011-030	
ELEC. ENGR: A.CASTRO	9-02-99		
RELEASED: A.CASTRO	9-02-99	SCALE:	REV: P1



REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

**THOMCAST**
COMMUNICATIONS Inc.
COMM.WAVE DIVISION

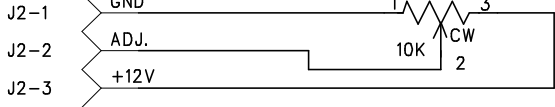
TITLE: PCB,INTERM,PWR,AMP,
2XFLU35XM @ 5.5 WATTS, 2.0 - 3.5GHz

DRAWN: K.HARDING	DATED: 02-14-00	DRAWING NO:
CHECKED: A.CASTRO		B-47266019-001
ELEC. ENGR: A.CASTRO		
RELEASED: A.CASTRO		

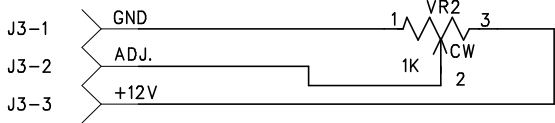
SCALE: NONE	REV: P2
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SHEET: 1 OF 1

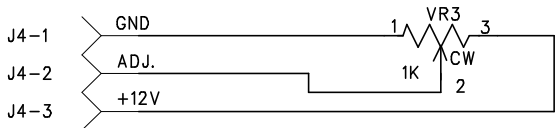
TO P12 ON 33-435-02
IF DETECTOR
THRESHOLD CONTROL



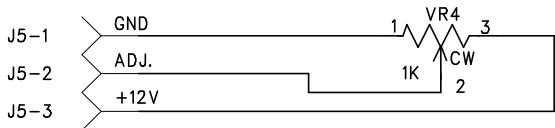
TO P13 ON 33-435-02
IF ATTEN CONTROL



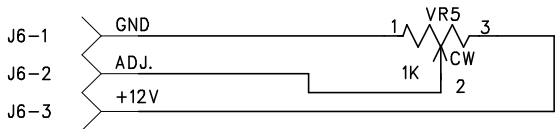
TO P7 ON 33-435-02
FREQ. RESPONSE
CONTROL #1



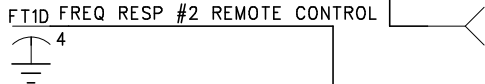
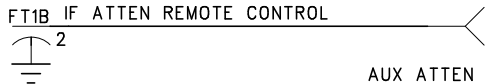
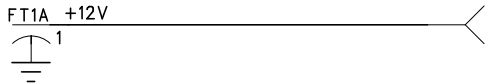
TO P9 ON 33-435-02
FREQ. RESPONSE
CONTROL #2



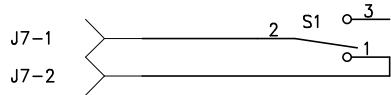
TO P11 ON 33-435-02
AUX ATTEN CONTROL



TO P8 ON 33-435-02
POWER & CONTROL INTERFACE



TO JK21 ON 33-435-02
AUTO/MANUAL ALC SWITCH



REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

COMMUNICATION MICROWAVE CORP.

CRESTWOOD INDUSTRIAL PARK
MOUNTAINTOP PA. 18707

TITLE: SCHEMATIC,CONTROL PANEL IF
LINEAR PROCESSOR

DRAWN:
D. WIKE

DATED:
09/08/98

DRAWING NO:

CHECKED:
K. HARDING

11/24/98

ELEC. ENGR:

RELEASED:
D. WIKE

11/24/98

A-33-472-01

SHEET: 1 OF 1

SCALE: NONE

REV: A

MICROCONTROLLER INTERFACE

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

ANALOG OUTPUTS

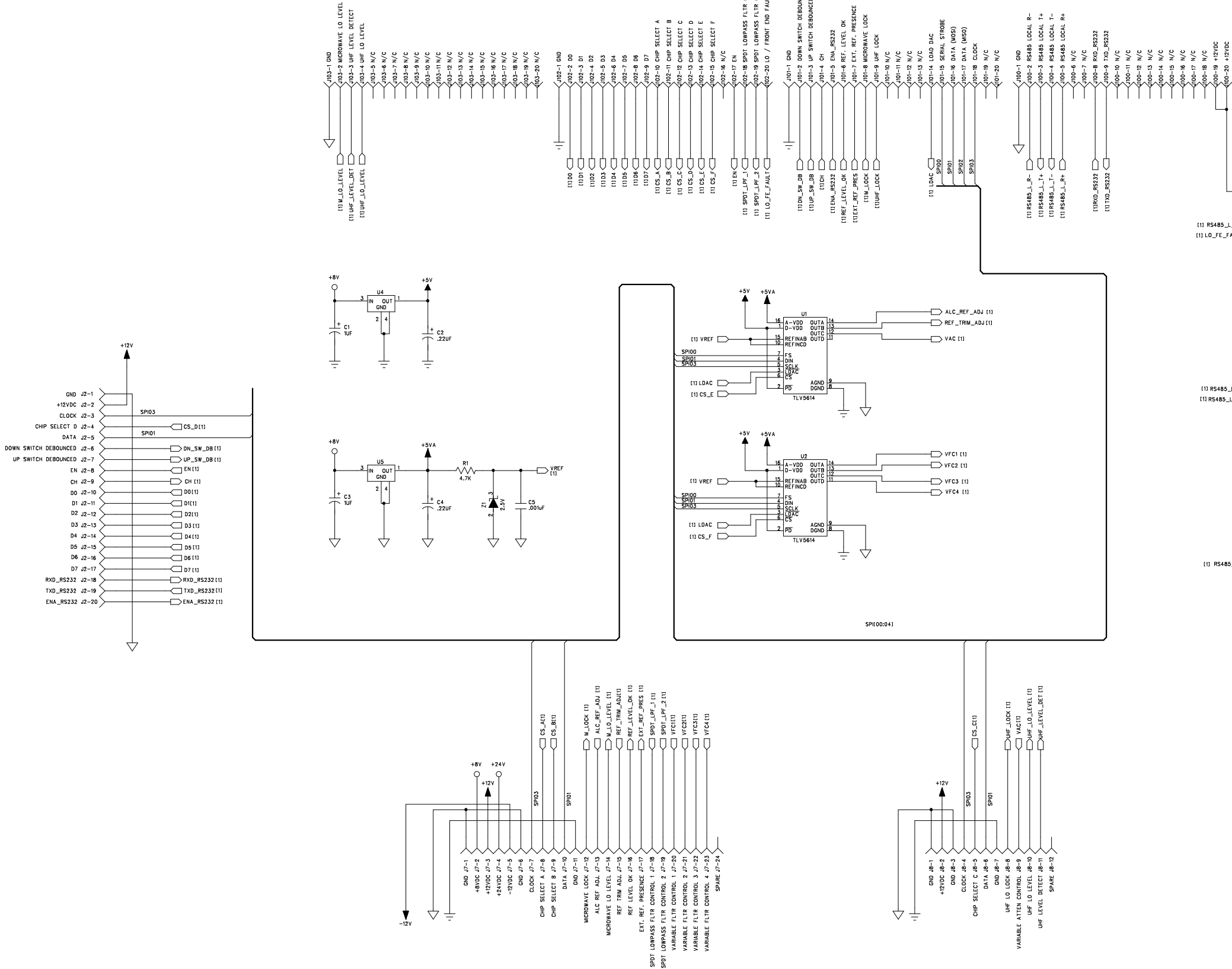
DIGITAL INPUTS

DIGITAL OUTPUTS / SPI BUSS

POWER / COMMS

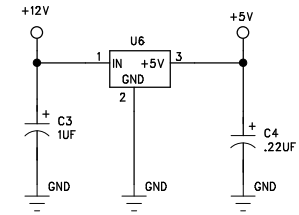
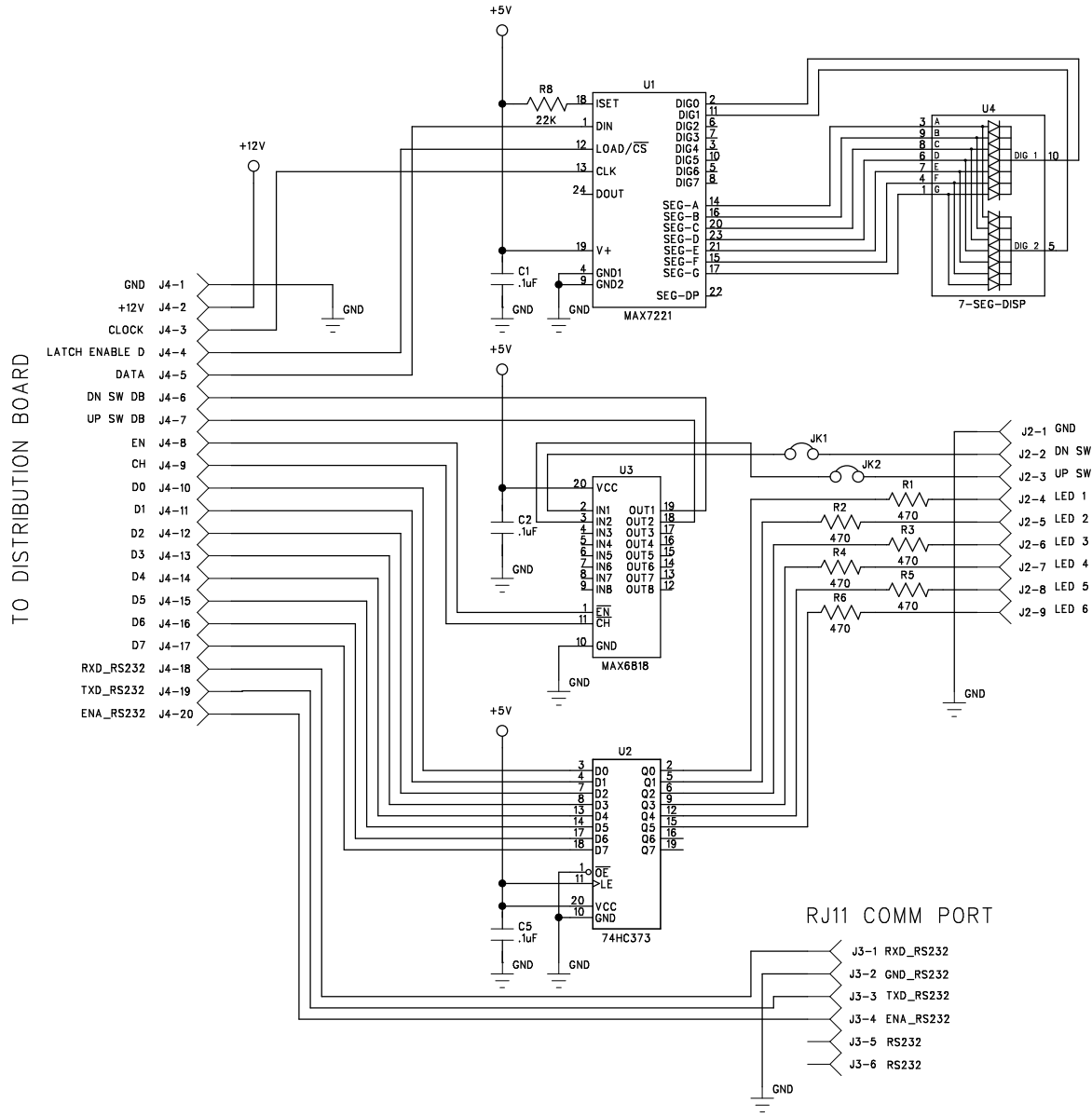
DISPLAY BOARD INTERFACE

BACKPLANE INTERFACE



COMMUNICATION MICROWAVE CORP. CRESTWOOD INDUSTRIAL PARK MOUNTAINTOP, PA. 18707			
TITLE: SCHEMATIC, DISTRIBUTION, BOARD, LO, PLUG-IN, MODULE			
DRAWN: D. WIKÉ	DATED: 8/31/99	DRAWING NO: D-47266027-030	
CHECKED:		SHEET: 1 OF 1	
ELEC. ENGR:		SCALE: NONE	
RELEASED:		REV: P3	

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:
X	XXXX	XXXX	XXX
X	XXXX	XXXX	XXX



TO FRONT PANEL OVERLAY

COMMUNICATION MICROWAVE CORP.
 CRESTWOOD INDUSTRIAL PARK
 MOUNTAINTOP PA. 18707

TITLE: SCHEMATIC,LO PLUG-IN
 DISPLAY BOARD

DRAWN: D. WIKE
 CHECKED: xxx
 ELEC. ENGR:
 RELEASED: xxx

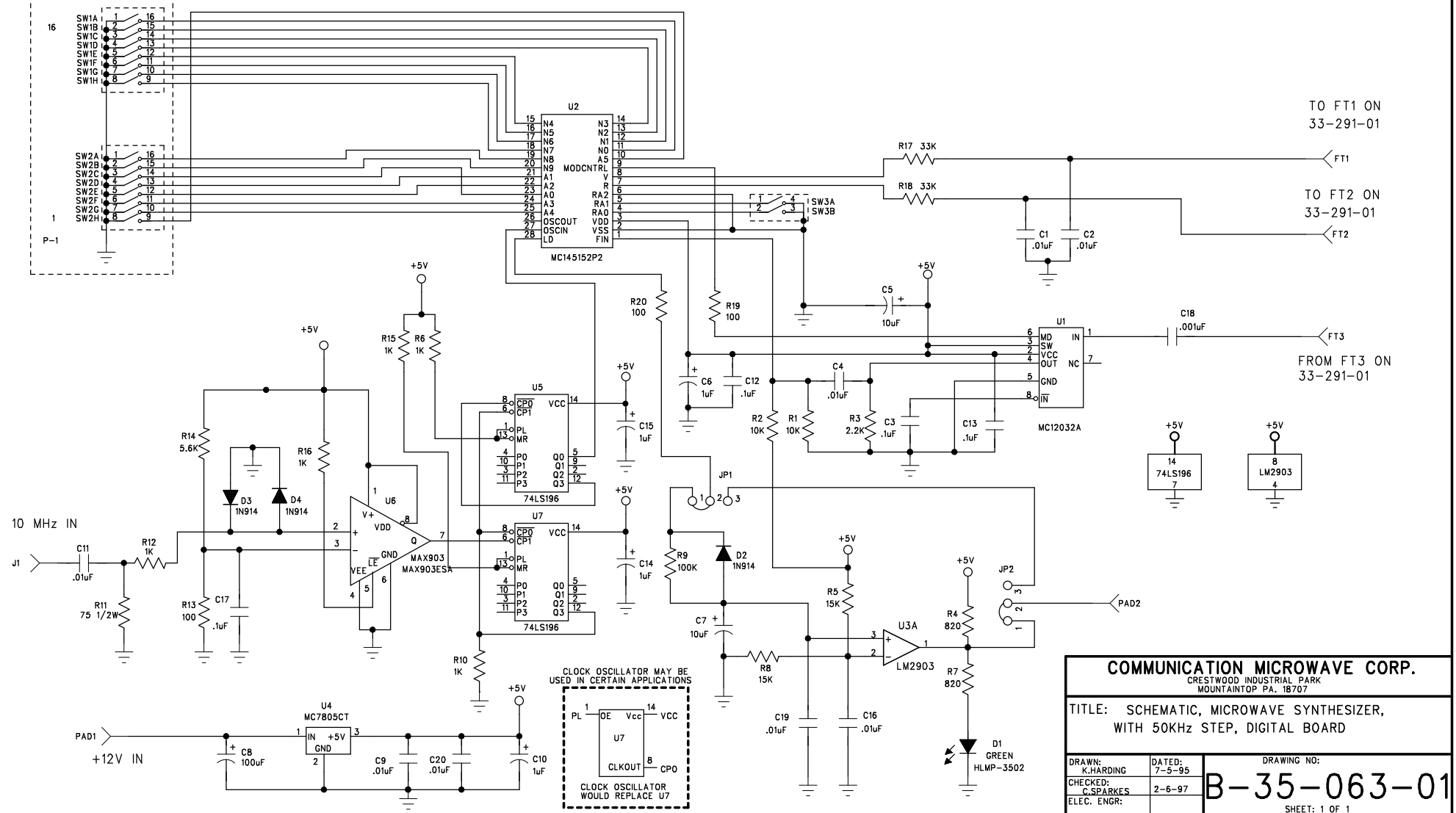
DATED: 08/17/99
 xxx
 xxx

DRAWING NO:
 B-47266023-030
 SHEET: 1 OF 1
 SCALE: NONE
 REV: P1

FOR AGILE CONTROLLER
16 POS. CONNECTOR IS
USED INSTEAD OF SW1 & SW2

NOTE: UNLESS OTHERWISE SPECIFIED
1. ALL RESISTORS ARE IN OHM'S, 1/8W CHIP

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:
E	96-210	C.SPARKES	6-26-96
F	97-007	D.SCHOCK	2-3-97
D	95-404	L.HANEY	12-27-95



TO FT1 ON
33-291-01

TO FT2 ON
33-291-01

FROM FT3 ON
33-291-01

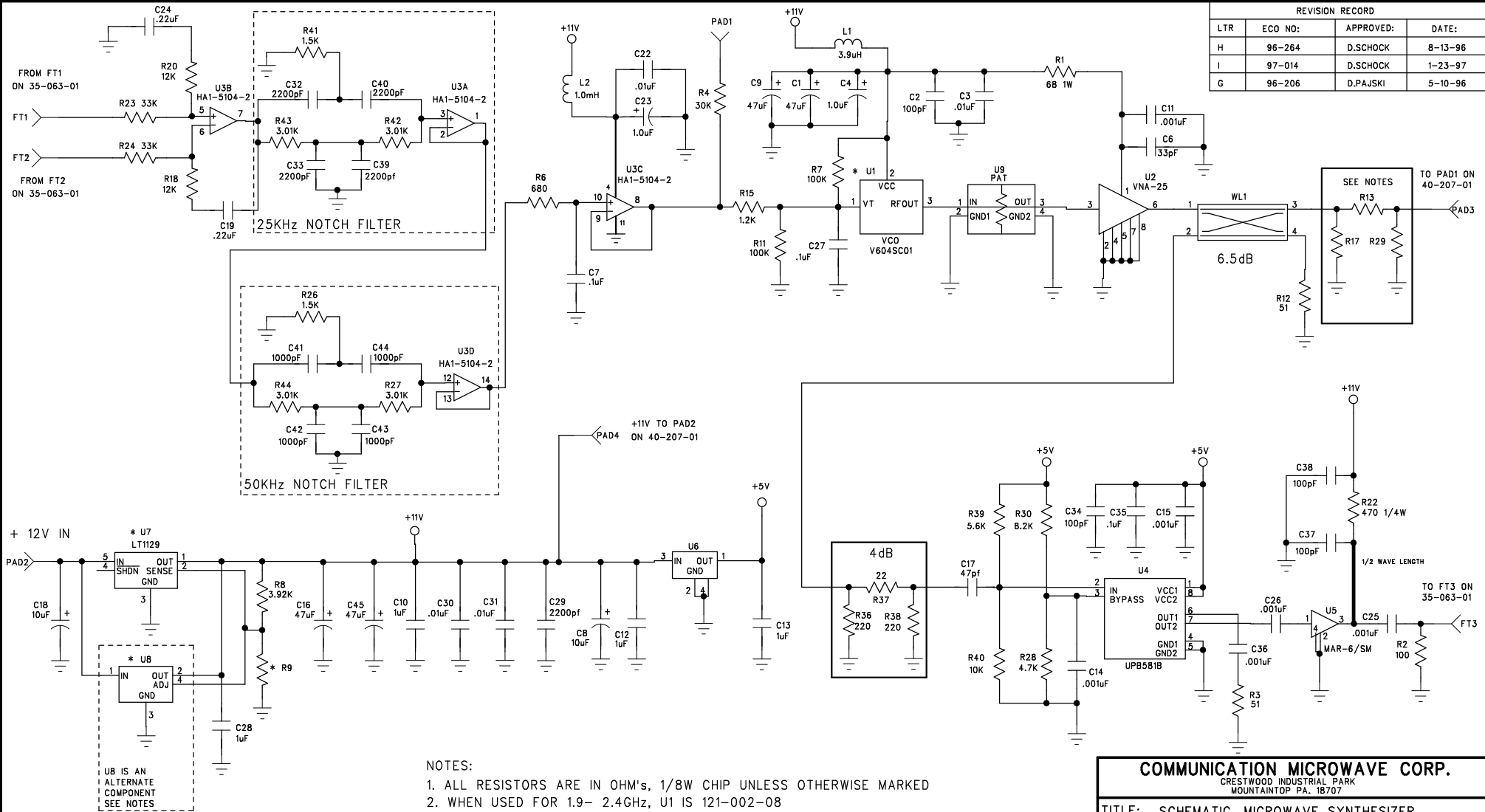
COMMUNICATION MICROWAVE CORP.

CRESTWOOD INDUSTRIAL PARK
MOUNTAINTOP PA. 18707

TITLE: SCHEMATIC, MICROWAVE SYNTHESIZER,
WITH 50KHz STEP, DIGITAL BOARD

DRAWN: K.HARDING	DATED: 7-5-95	DRAWING NO: B-35-063-01	
CHECKED: C.SPARKES	2-6-97		
ELEC. ENGR:		SHEET: 1 OF 1	
RELEASED: A.BRAGALONE	2-6-97	SCALE:	REV: F

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:
H	96-264	D.SCHOCK	8-13-96
I	97-014	D.SCHOCK	1-23-97
G	96-206	D.PAJSKI	5-10-96



NOTES:

- ALL RESISTORS ARE IN OHM's, 1/8W CHIP UNLESS OTHERWISE MARKED
- WHEN USED FOR 1.9- 2.4GHz, U1 IS 121-002-08
R13, R17, R29 ARE DETERMINED BY TEST, R13 IS 0 OHM SHUNT PRIOR TO TESTING.
- WHEN USED FOR 2.35 - 2.75GHz U1 IS V803SE01
R13, R17, R29 ARE DETERMINED BY TEST, R13 IS 0 OHM SHUNT PRIOR TO TESTING.
- U8 P/N PQ30RV11 IS USED AS AN ALTERNATE FOR U7 P/N LT1129CQ
- WHEN U7 (P/N LT1129CQ) IS USED R9 IS 2K
- WHEN U8 (P/N PQ30RV11) IS USED R9 IS 511 OHMS

COMMUNICATION MICROWAVE CORP.			
CRESTWOOD INDUSTRIAL PARK MOUNTAINTOP, PA. 18707			
TITLE: SCHEMATIC, MICROWAVE SYNTHESIZER, WITH 50kHz STEP, ANALOG/VCO BOARD			
DRAWN: K.HARDING	DATED: 8-9-95	DRAWING NO: B-33-291-01	
CHECKED: C.SPARKES	2-6-97	SHEET: 1 OF 1	
ELEC. ENGR:		REV:	
RELEASED: A.BRAGALONE	2-6-97	SCALE:	

6

5

4

3

2

1

D

C

B

A

D

C

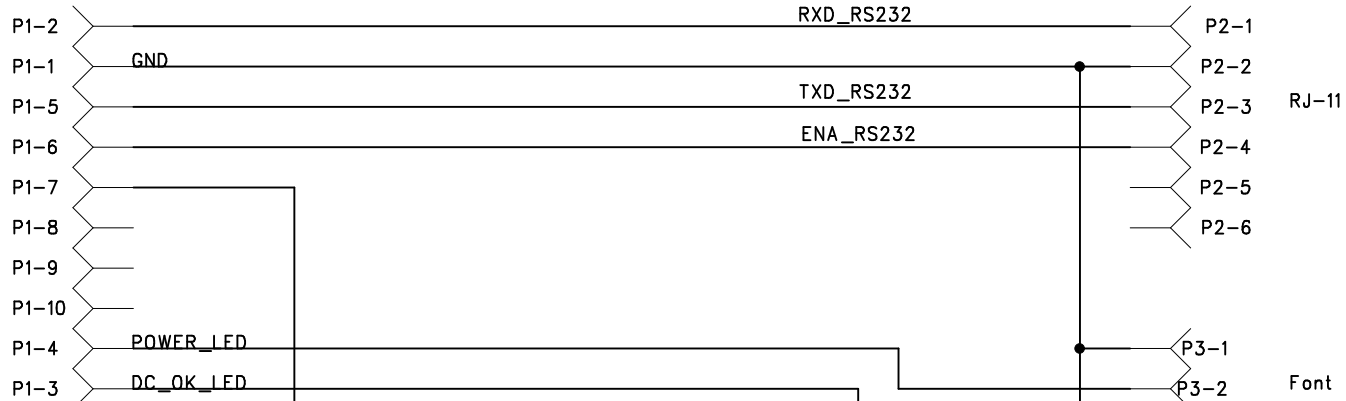
B

A

REVISION RECORD

LTR	ECO NO:	APPROVED:	DATE:

TO DC CONVERTER PCB



Thomcast Communications, INC

CRESTWOOD INDUSTRIAL PARK
MOUNTAINTOP PA. 18707

TITLE:

Display Circuit Card
Power Supply Module

DRAWN:

Chris Smith

DATED:

8/24/99

CHECKED:

Chris Smith

9-8-99

ELEC. ENGR:

Chris Smith

9-8-99

RELEASED:

Chris Smith

9-8-99

DRAWING NO:

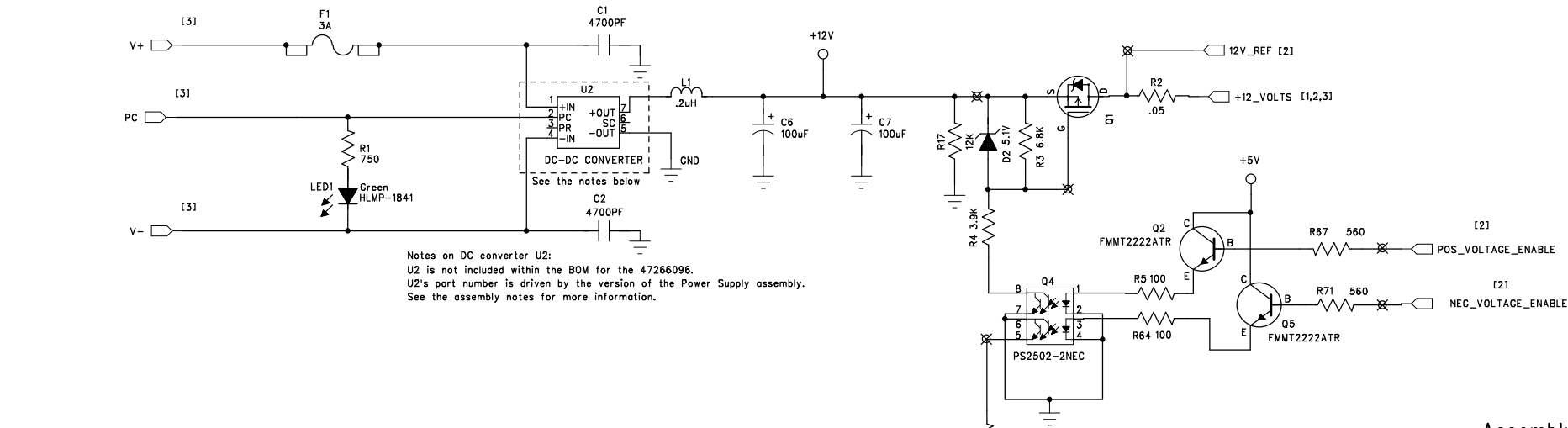
A-47266070-030

SHEET: 1 OF 1

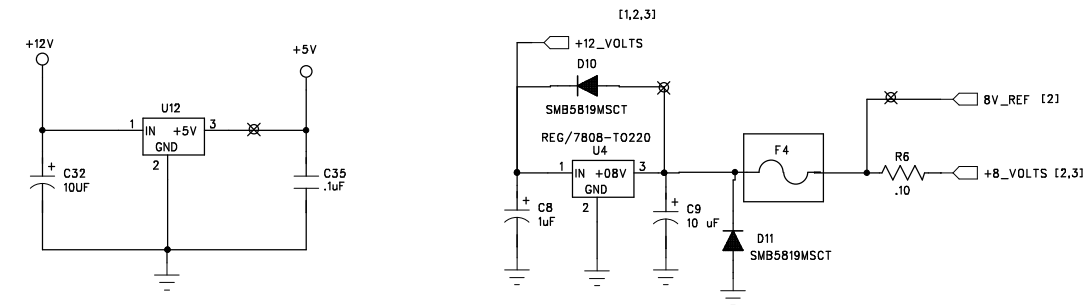
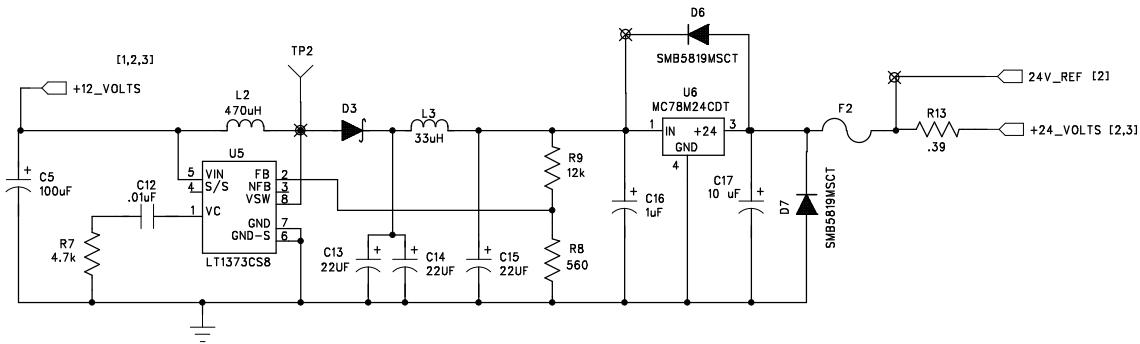
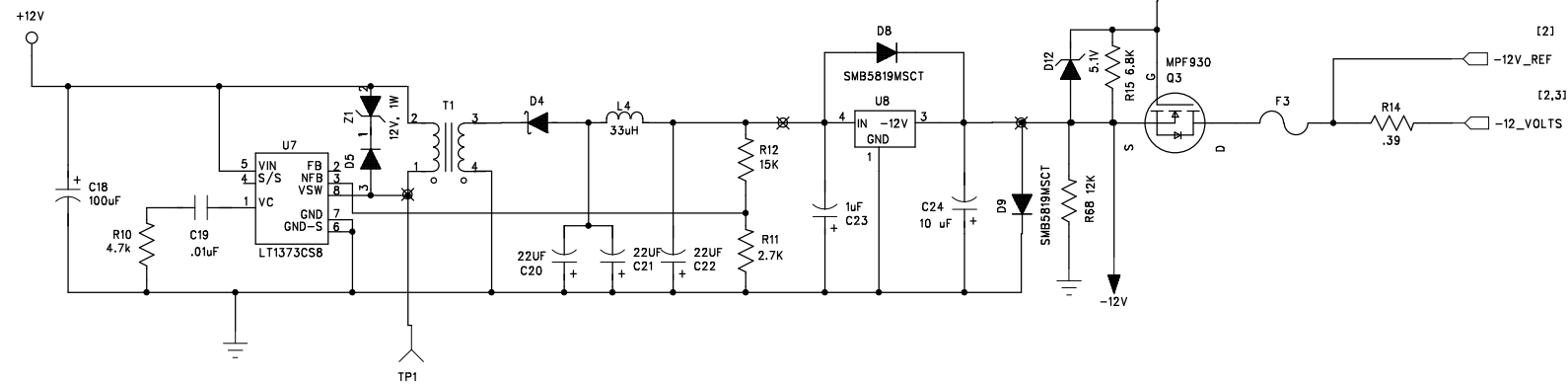
SCALE:

REV: P1

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



Notes on DC converter U2:
U2 is not included within the BOM for the 47266096.
U2's part number is driven by the version of the Power Supply assembly.
See the assembly notes for more information.



Assembly Notes

This PCB is configured for both AC and DC front end power supply versions.
For use in the 47266099-01 version, DC front end, ensure:
JK1, and JK2 are added (closed)
U2, part number 750080-01 is installed on the extrusion.
J7 and J8 are unused.

For use in the 47266099-02 version, AC front end, ensure:
JK1, and JK2 are OPEN.
U2, part number 750311-01 is installed on the extrusion.
J7 and J8 are harnessed to the AC Filter board.

Verrify that the correct settings are made prior to module testing or,
damage to the PCB and DC converter modules will occur.

Test Notes

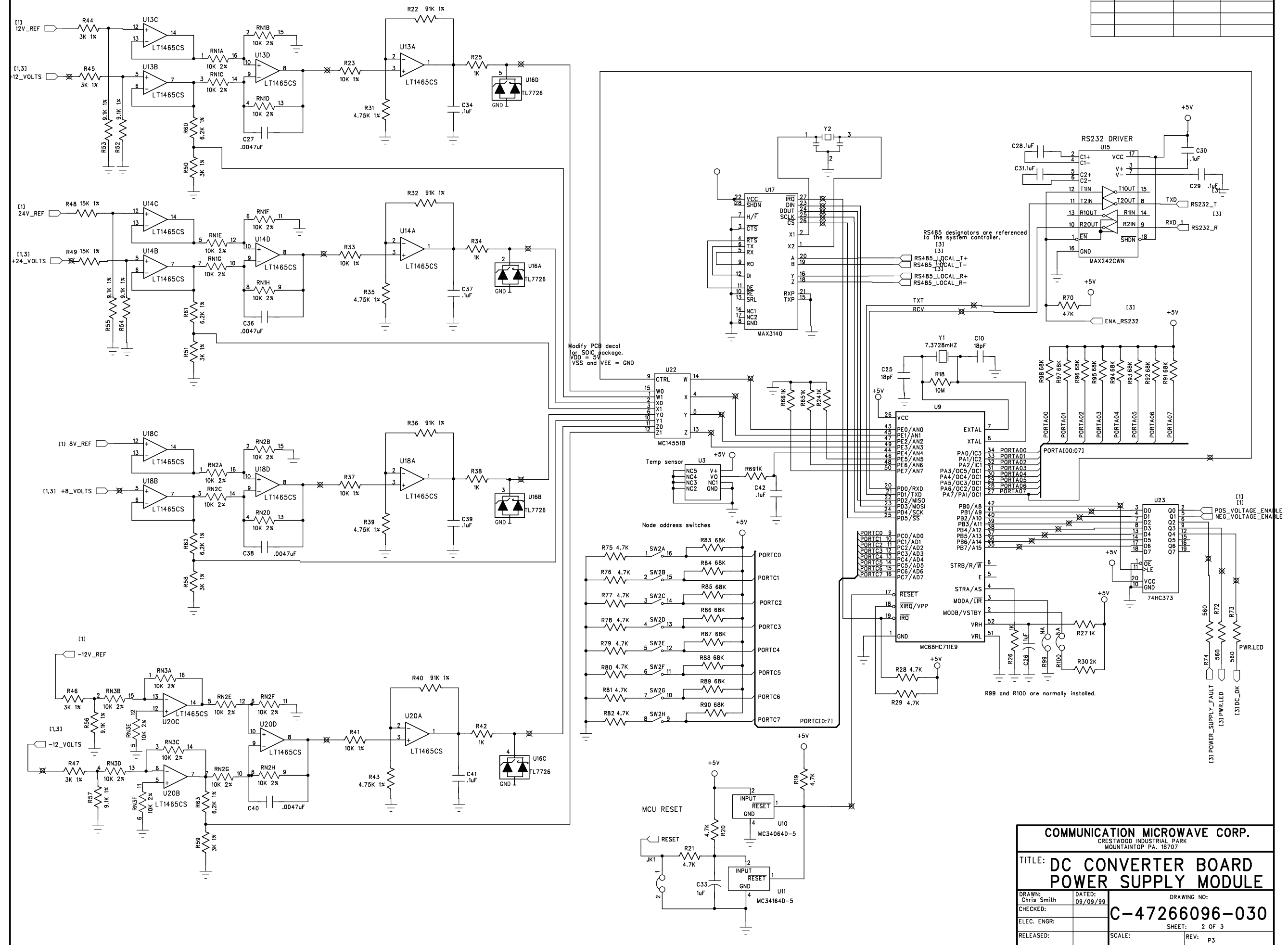
The input and output from the DC converter are isolated from each other.
When using a dual trace oscilloscope, do not connect one probe to the input pins, and the other probe to the output pins simultaneously (without an use of an isolation transformer) or damage to the converter module and oscilloscope will result.

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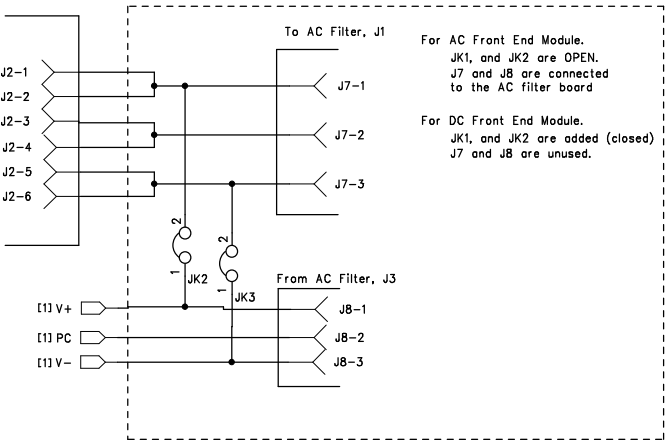
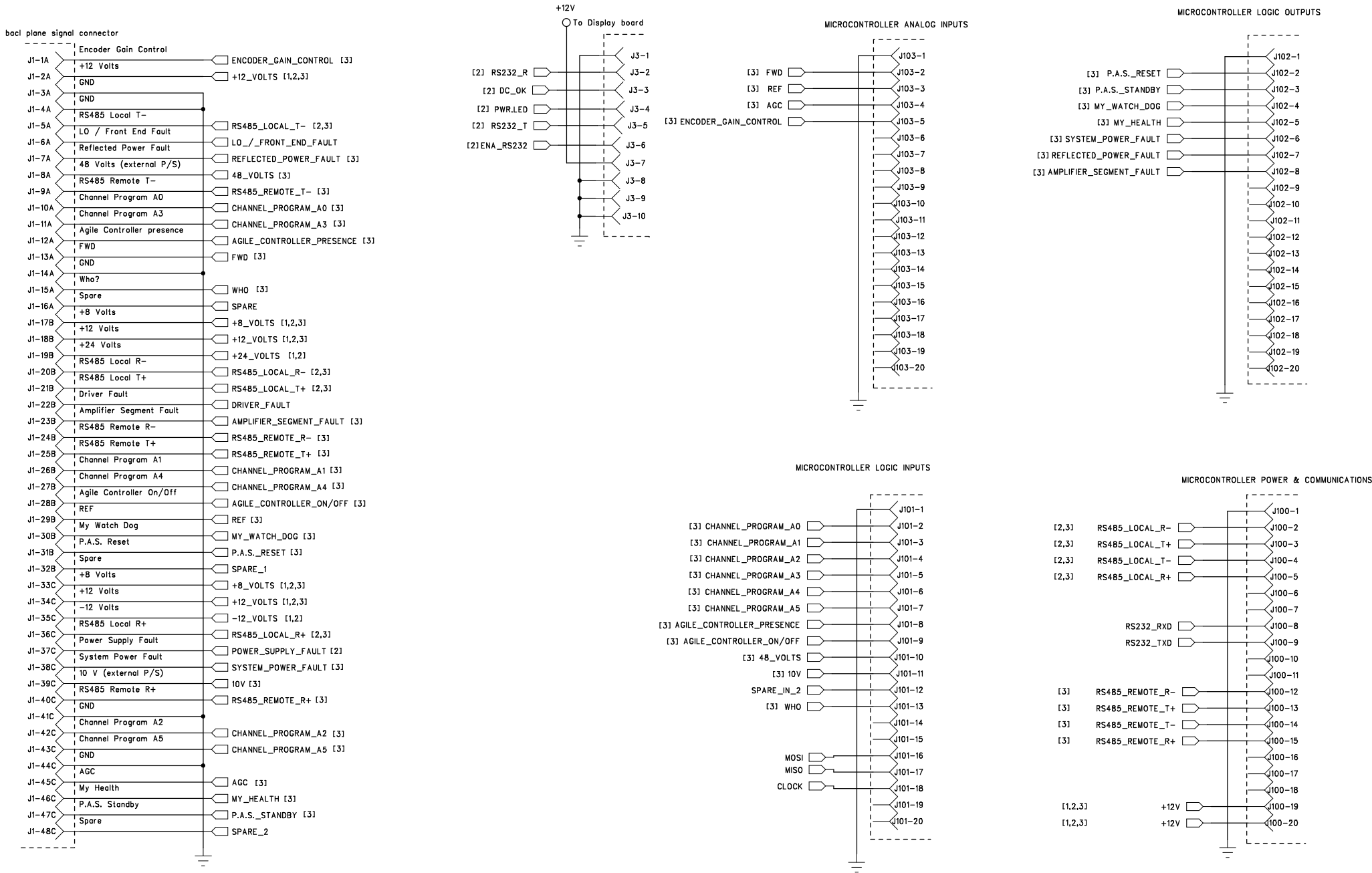
TITLE: DC Converter Board
Power Supply Module

DRAWN: Chris Smith	DATED: 09/09/99	DRAWING NO:
CHECKED:		C-47266096-030
ELEC. ENGR:		SHEET: 1 OF 3
RELEASED:		SCALE: REV: P3

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



COMMUNICATION MICROWAVE CORP.			
CRESTWOOD INDUSTRIAL PARK MOUNTAINTOP PA. 18707			
TITLE: DC CONVERTER BOARD POWER SUPPLY MODULE			
DRAWN: C. Smith	DATED: 09/09/99	DRAWING NO: C-47266096-030	
CHECKED:		SHEET: 3 OF 3	
ELEC. ENGR:		REV: P3	
RELEASED:		SCALE:	

6

5

4

3

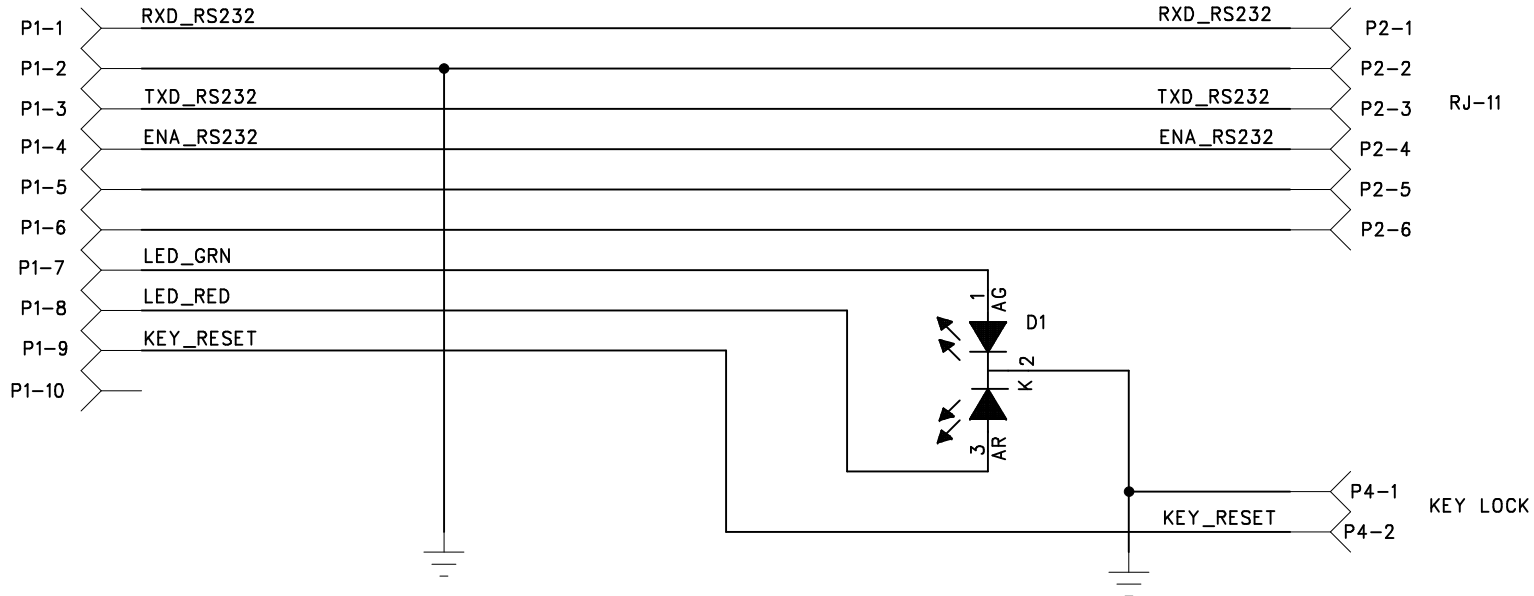
2

1

REVISION RECORD

LTR	ECO NO:	APPROVED:	DATE:

TO MICROCONTROLLER



COMMUNICATION MICROWAVE CORP.

CRESTWOOD INDUSTRIAL PARK
MOUNTAINTOP PA. 18707

TITLE:

SCHEMATIC, FRONT PANEL DISPLAY
WITH DIAGNOSTICS PORT

DRAWN:

K.HARDING

DATED:

4-22-97

CHECKED:

C.UNGVARSKY

4-22-97

ELEC. ENGR:

C.UNGVARSKY

4-22-97

RELEASED:

K.HARDING

8-13-97

DRAWING NO:

A-33-352-01

SHEET: 1 OF 1

SCALE:

REV: A