

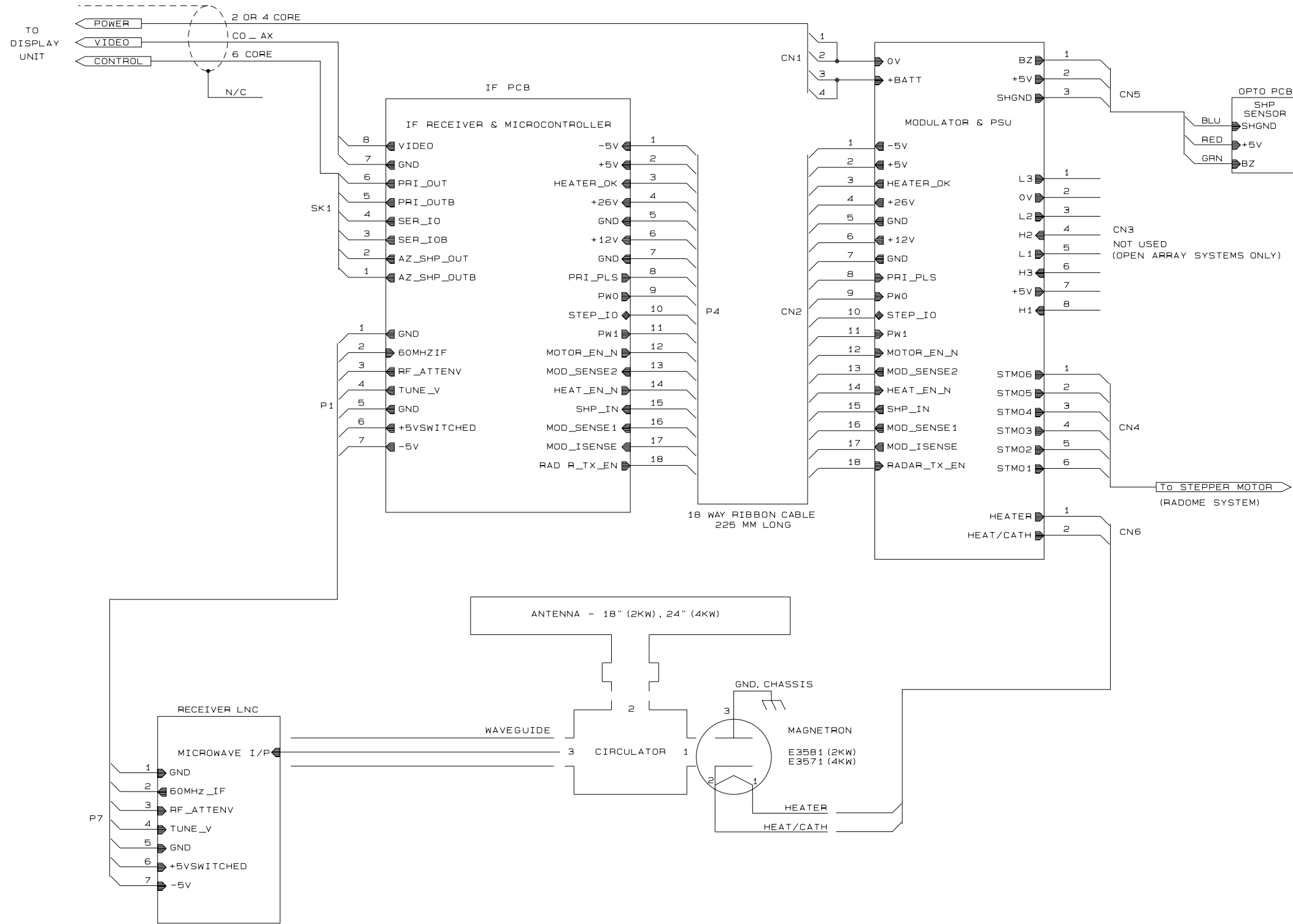
## Chapter 8. Drawings

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18" (2kW) and 24" (4kW) Scanner Interconnections

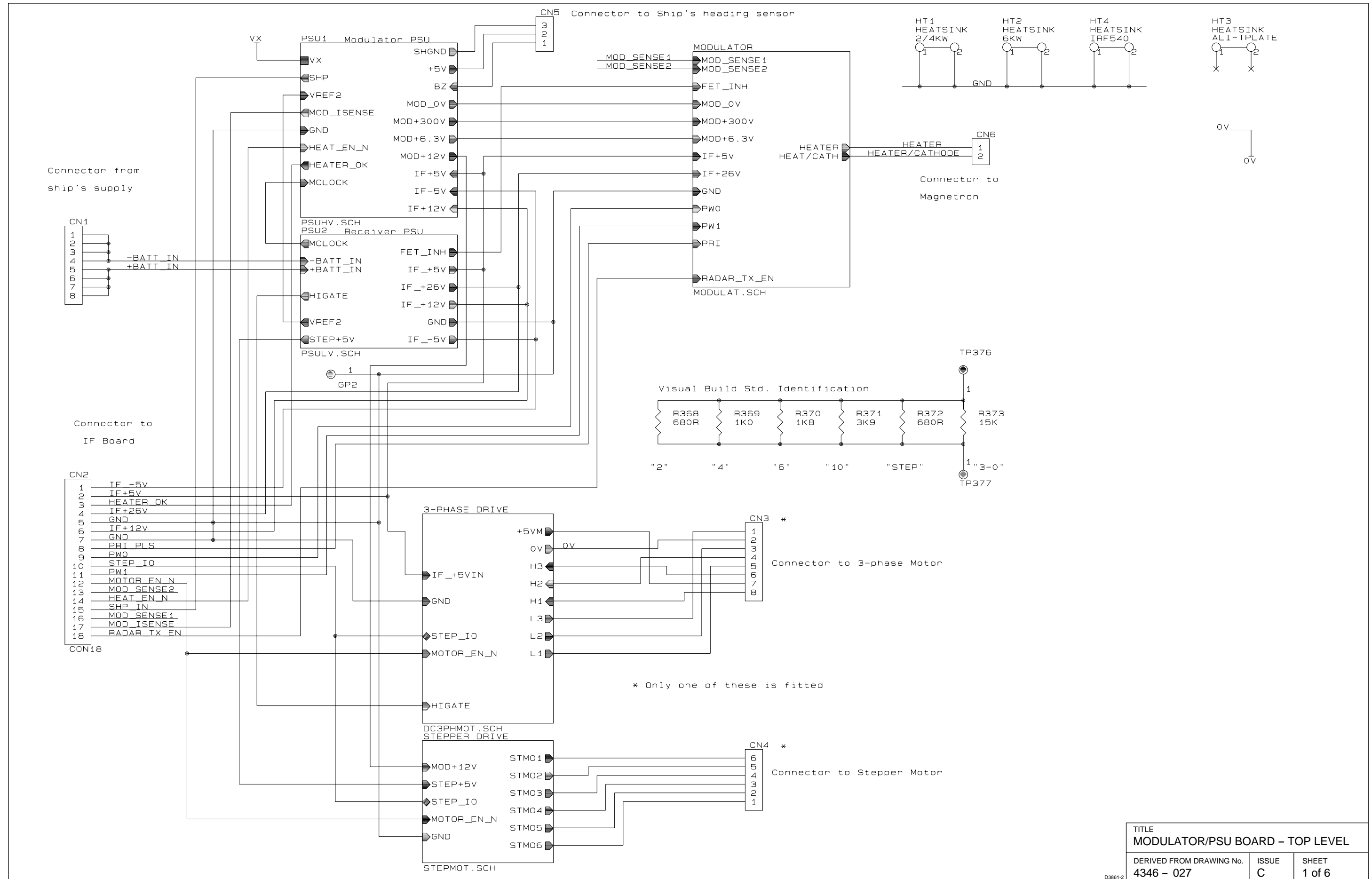
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TITLE		
18"(2KW) and 24"(4KW) SCANNER INTERCONNECTIONS		
DERIVED FROM DRAWING No.	ISSUE	
4346 - 027	A	

D3853-2

Modulator/PSU Board - Top level

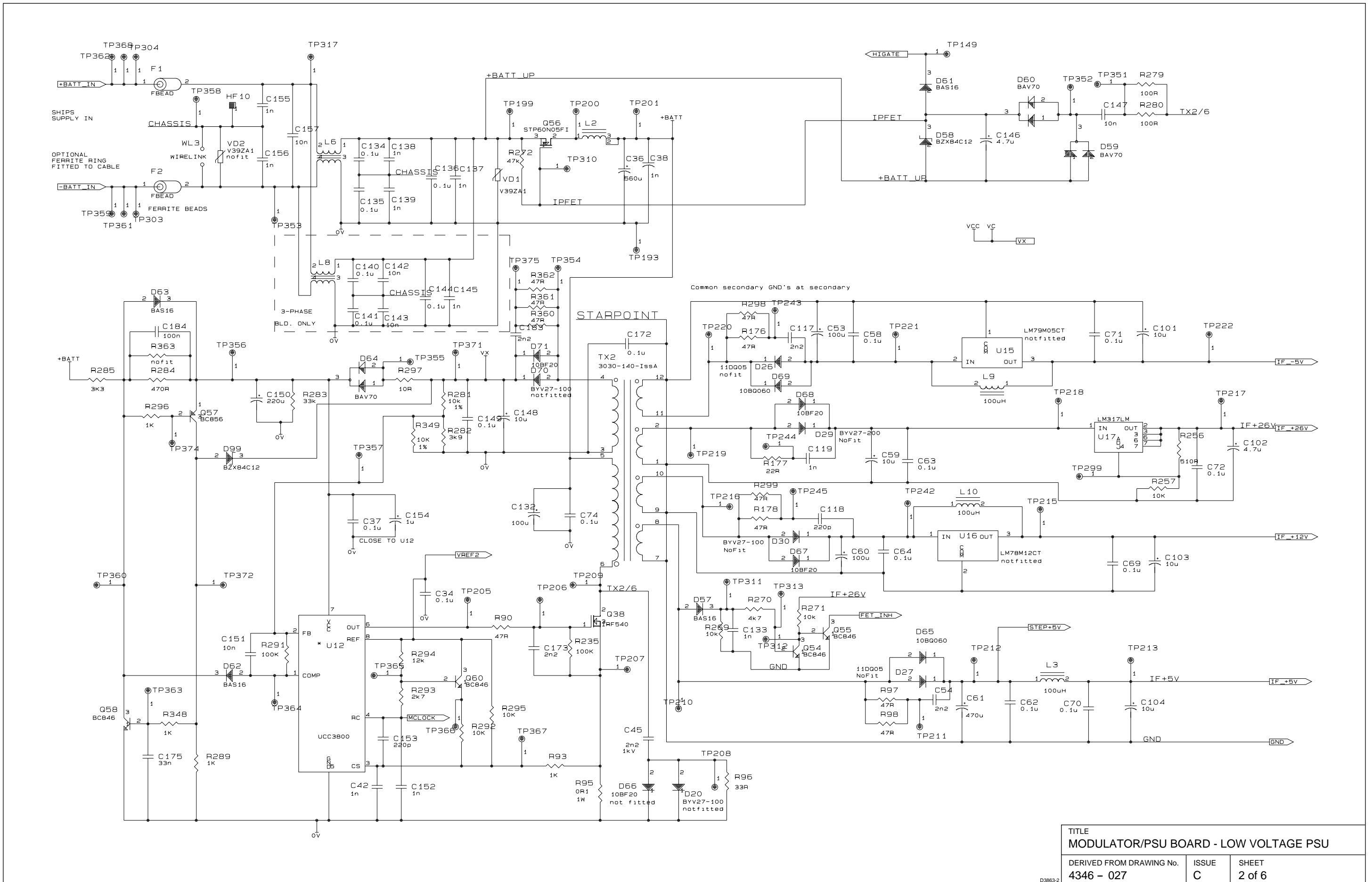


TITLE MODULATOR/PSU BOARD - TOP LEVEL		
DERIVED FROM DRAWING No. 4346 - 027	ISSUE C	SHEET 1 of 6

D3861-2

Modulator/PSU Board - Low Voltage PSU

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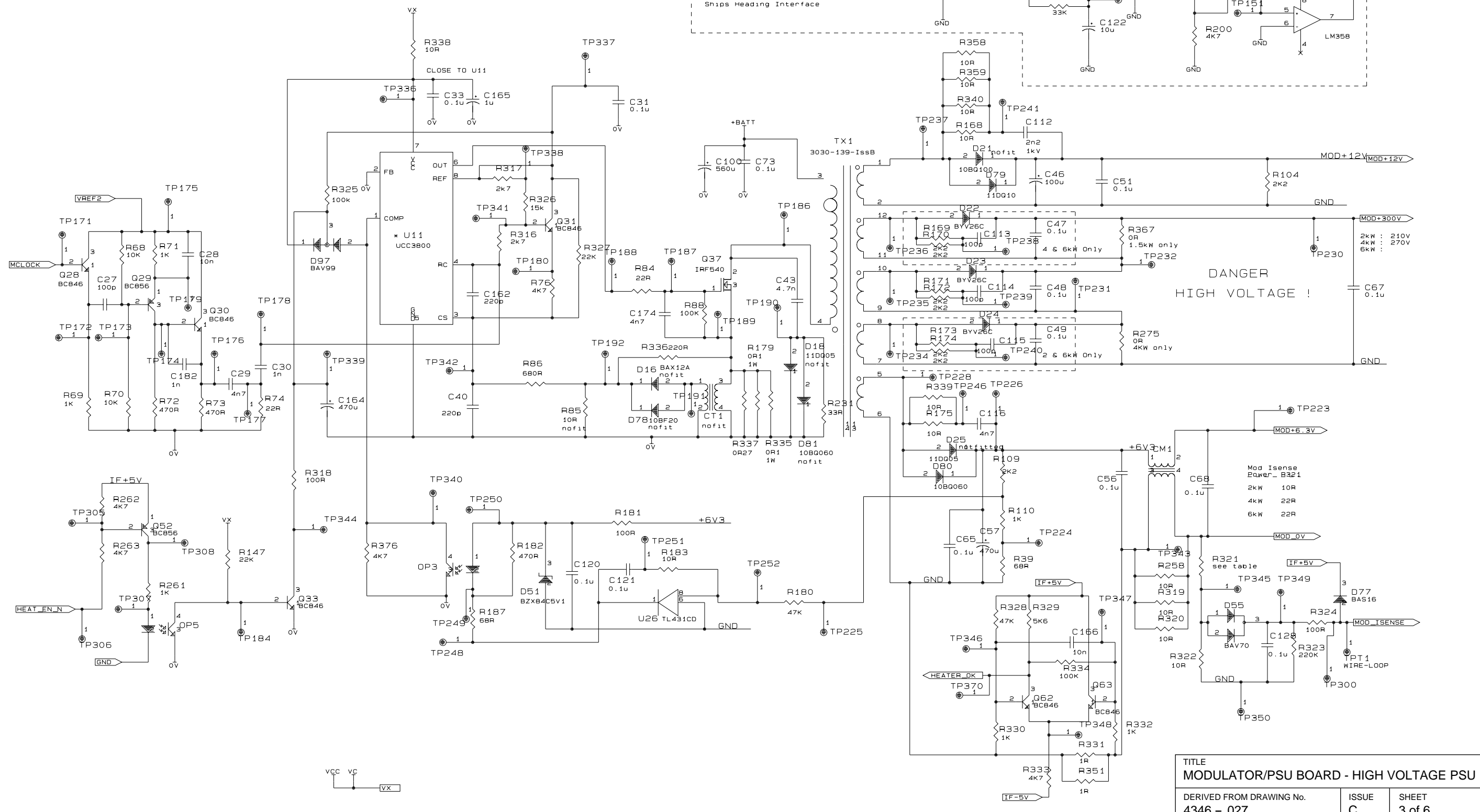
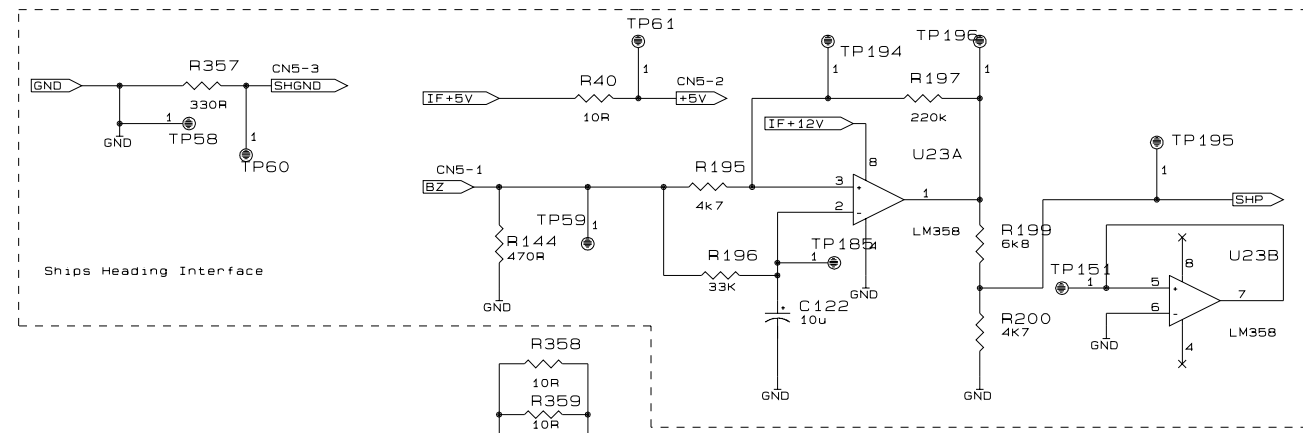


Modulator/PSU Board - High Voltage PSU

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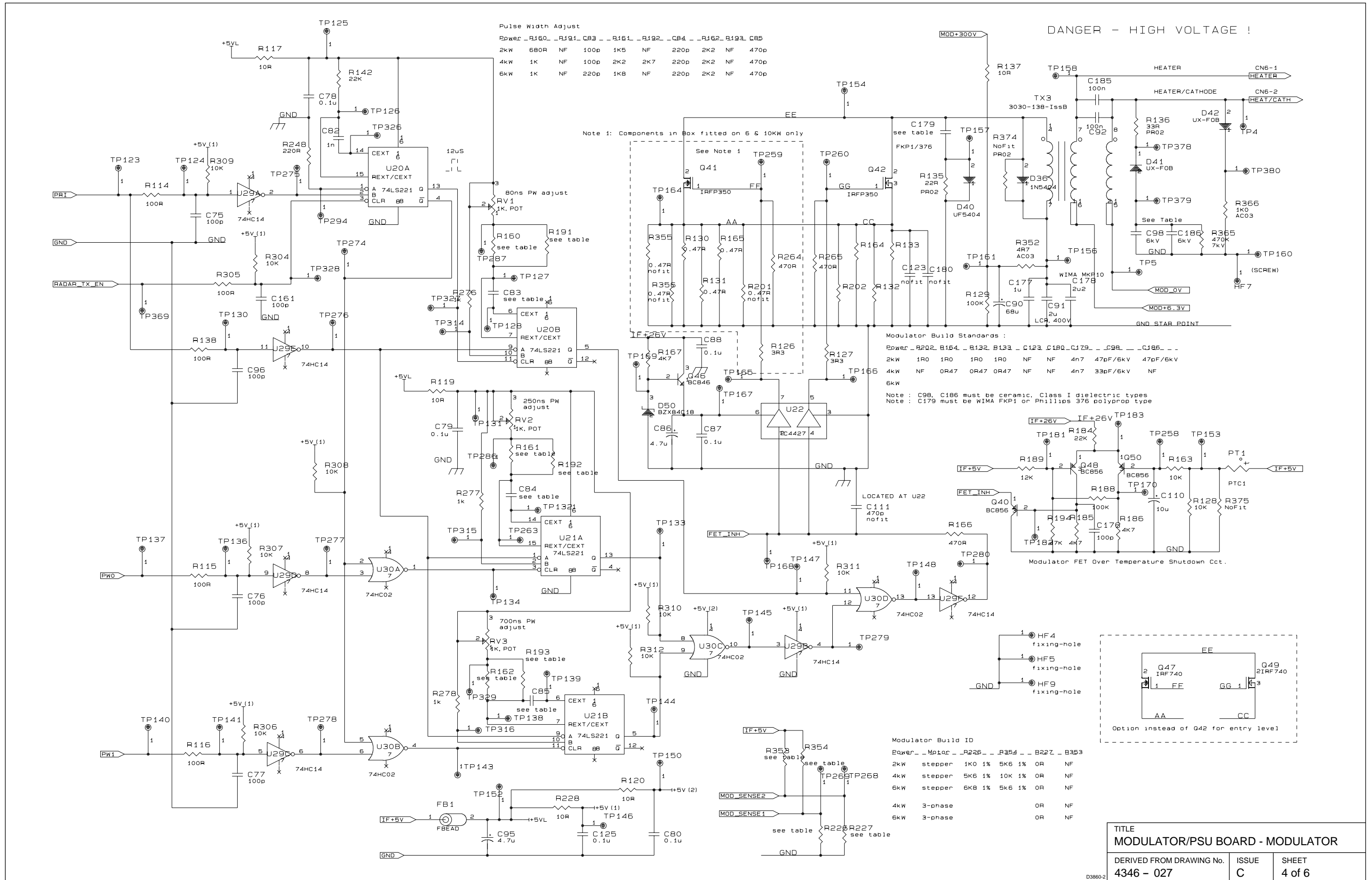
NOTE: CT1, D16, R85 fitted on 6 and 10kW versions only  
R179 fitted on entry level only (JP14 linked)

\* NOTE 2: For entry level fit JP1  
- do not fit D24, R173, R174, C49, C115  
For 6 and 10kW fit JP2 and above components



TITLE MODULATOR/PSU BOARD - HIGH VOLTAGE PSU		
DERIVED FROM DRAWING No. 4346 - 027	ISSUE C	SHEET 3 of 6

Modulator/PSU Board - Modulator



TITLE MODULATOR/PSU BOARD - MODULATOR		
DERIVED FROM DRAWING No. 4346 - 027	ISSUE C	SHEET 4 of 6

D38602

Modulator/PSU Board - 3 Phase DC brushless motor drive

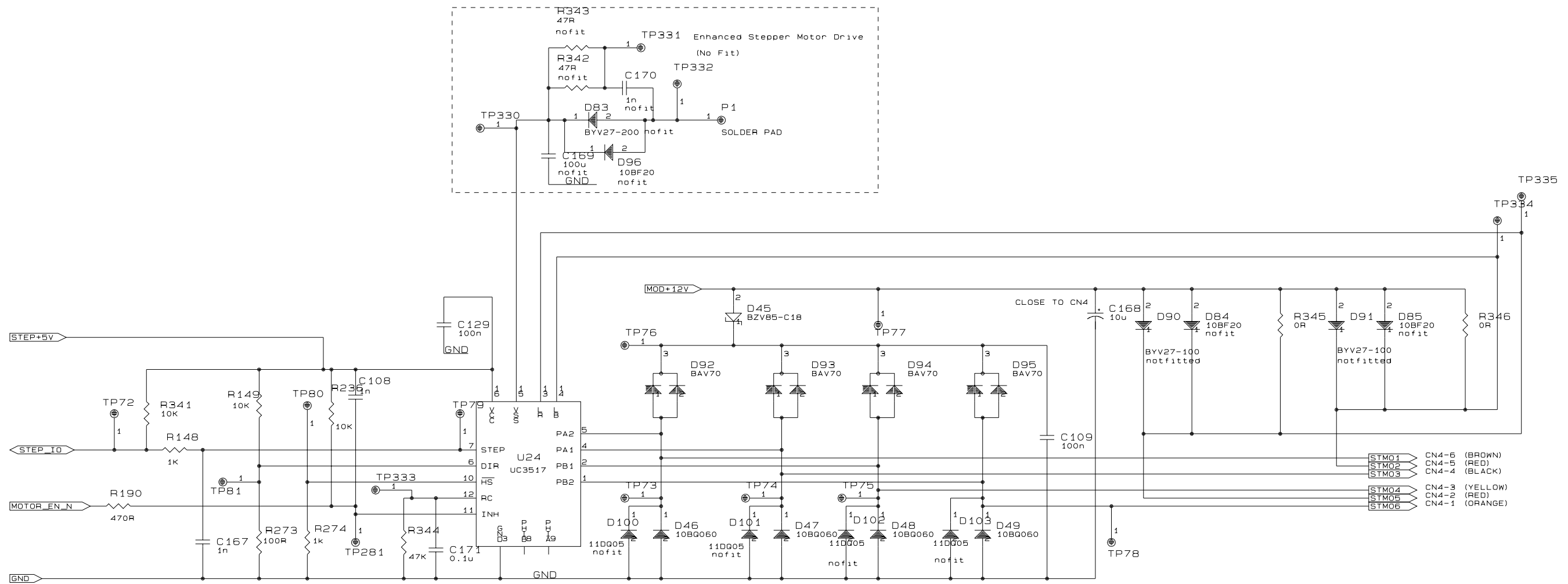
Not applicable  
to SL72/74 Radars

TITLE MODULATOR/PSU BOARD - 3 PHASE DC BRUSHLESS MOTOR DRIVE		
DERIVED FROM DRAWING No. 4346 - 027	ISSUE C	SHEET 5 of 6

D3909-2

Modulator/PSU Board – Stepper Motor Drive

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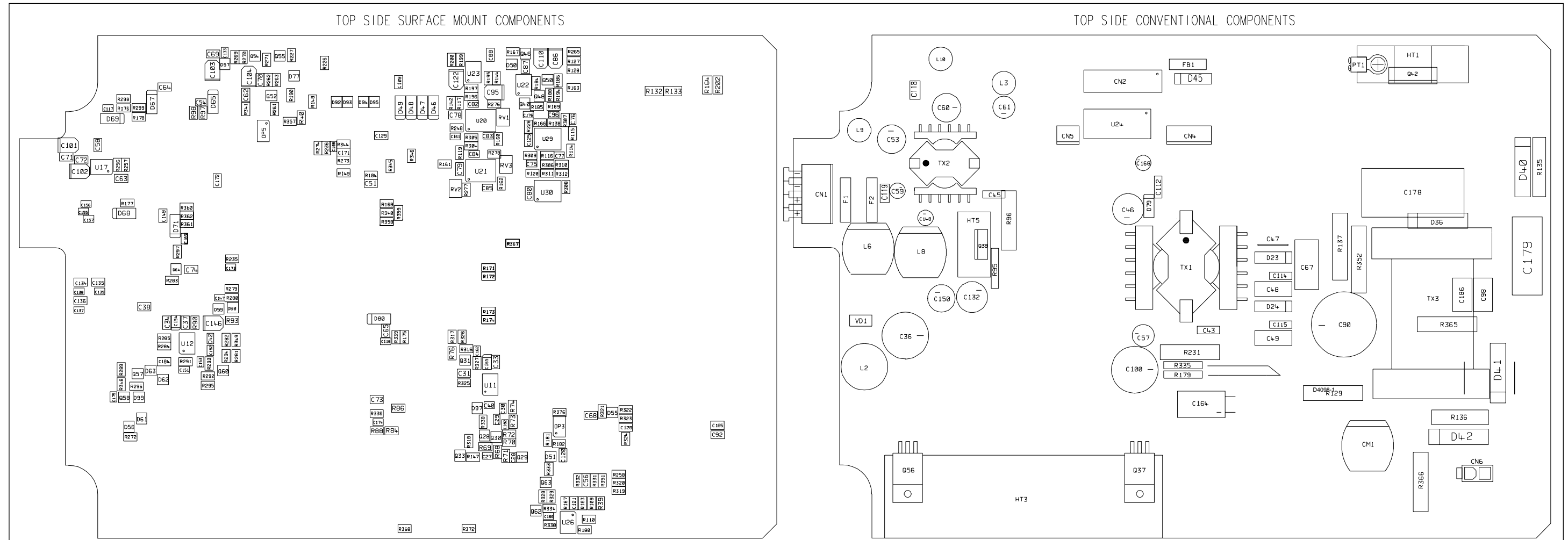
This circuit fitted for stepper motor based system only

TITLE MODULATOR/PSU BOARD – STEPPER MOTOR DRIVE		
DERIVED FROM DRAWING No. 4346 - 027	ISSUE C	SHEET 6 of 6

D3864-2



Modulator/PSU Board – PCB layout (2kW, stepper motor)



TOP SIDE SURFACE MOUNT COMPONENTS

1	P.C.B DETAIL	3015-127	31a	RESISTOR 1206 3R3 5x 0.125W	R127
2	RESISTOR 1206 1K5 5x 0.125W		32	RESISTOR VARIABLE 1K	RV1-3
3	RESISTOR 1206 1R0 5x 0.125W	R331,351	33	CAPACITOR COG 0805 100pF 10x 50V	C27,75-77,83,96,161,176
4	RESISTOR 1206 10R 1x 0.125W	R40,117,119,120,	34	CAPACITOR COG 0805 220pF 10x 50V	C40,84,153,162
		168,175,183,228,258,297,319,320-322,338-340,358,359	35	CAPACITOR COG 0805 470pF 10x 50V	C85
5	RESISTOR 1206 22R 5x 0.125W	R74,84,177	36	CAPACITOR X7R 0805 1000pF 10x 50V	C30,42,82,108,133,
6	RESISTOR 1206 47R 5x 0.125W	R90,97,98,176,178,			137,138,139,152,155,156,167,182
		298,299,360-362	37	CAPACITOR X7R 0805 2.2nF 10x 50V	C54,117,173,183
7	RESISTOR 1206 68R 5x 0.125W	R39,187	38	CAPACITOR X7R 0805 4.7nF 10x 50V	C29,116,174
8	RESISTOR 1206 100R 1x 0.125W	R114-116,138,181,273,279,	39	CAPACITOR X7R 0805 10nF 10x 50V	C28,147,151,157,166
		280,305,318,324	40	CAPACITOR X7R 0805 33nF 10x 50V	C175
9	RESISTOR 1206 220R 5x 0.125W	R248,336	41	CAPACITOR X7R 1206 100nF 20x 50V	C31,33,34,37,51,56,
10	RESISTOR 1206 330R 5x 0.125W	R357			58,62-65,68-74,78-80,87,88,92,109,120,121,125,128,129,134-136,149,171,172,184,185
11	RESISTOR 1206 470R 5x 0.125W	R72,73,166,144,182,	42	CAPACITOR TANTA 1uF 10x 16V	C154,165
		190,265,284	43	CAPACITOR ELEC 4.7uF 20x 25V	C86,95,102,146
12	RESISTOR 1206 510R 1x 0.125W	R256	44	CAPACITOR ECE-V1CA100SR 10uF 20x	16V C101,103,104,110,122
13	RESISTOR 1206 680R 5x 0.125W	R86,160,368,372	45	CAPACITOR ECE-V0JA101SP 100uF 20x 6.3V	(C163,164)
14	RESISTOR 1206 1K 1x 0.125W	R69,71,93,110,148,	45a	CAPACITOR 1206 1nF	C38
		226,261,276-278,289,296,330,332,348	46	DIODE SOT23 BAS16	D57,61-63,77
15	RESISTOR 1210 1R0 5x 0.5W	R132,133,164,202	47	DIODE SOT23 BAV70	D55,59,60,64,92-95
16	RESISTOR 1206 2K2 5x 0.125W	R104,109,162,164,171-174	48	DIODE SOT23 BAV99	D97
17	RESISTOR 1206 2K7 5x 0.125W	R293,316,317	49	DIODE ZENER SOT23 BZX84C12	D58,99
18	RESISTOR 1206 3K3 5x 0.125W	R285	50	DIODE ZENER SOT23 BZX84C18	D50
19	RESISTOR 1206 3K9 5x 0.125W	R282	51	DIODE ZENER SOT23 BZX84C5V1	D51
20	RESISTOR 1206 4K7 5x 0.125W	R76,167,185,186,195,200,	52	DIODE SMB 10BQ060TR	D46-49,65,69,80
		262,263,270,333,376	53	DIODE SMB 10BF10	D67,68,71
21	RESISTOR 1206 5K6 1x 0.125W	R329,354	54	TRANSISTOR SOT23 BC846	Q28,30,31,33,46,54,55,58,60,62,63
22	RESISTOR 1206 6K8 1x 0.125W	R199	55	TRANSISTOR SOT23 BC856	Q29,40,48,50,52,57
23	RESISTOR 1206 10K 1x 0.125W	R68,70,128,149,163,236,257,	56	IC LOW POWER PWM UCC3800 S08	U11,12
		269,271,281,292,295,304,306-312,341,349	57	IC ADJUSTABLE REGULATOR LM317 S08	U17
24	RESISTOR 1206 12K 5x 0.125W	R189,294	58	IC MONOSTABLE 74LS221 S014	U20,21
25	RESISTOR 1206 15K 5x 0.125W	R326	59	IC DUAL MOSFET DRIVER MIC4427CM S08	U22
26	RESISTOR 1206 22K 5x 0.125W	R142,147,327,184	60	IC DUAL OPAMP LM358M S08	U23
27	RESISTOR 1206 33K 1x 0.125W	R196,283	61	IC TL431CD S08	U26
28	RESISTOR 1206 47K 5x 0.125W	R180,194,272,328,344	62	IC HEX INVERTER MM74HC14M S014	U29
29	RESISTOR 1206 100K 5x 0.125W	R88,188,235,291,325,334	63	IC QUAD NOR GATE 74HC02 S014	U30
30	RESISTOR 1206 220K 5x 0.125W	R197,323	64	IC OPTO ISOLATOR PC357	OP3,5
31	RESISTOR 1206 0R0 0.125W	R227,345,346,367			

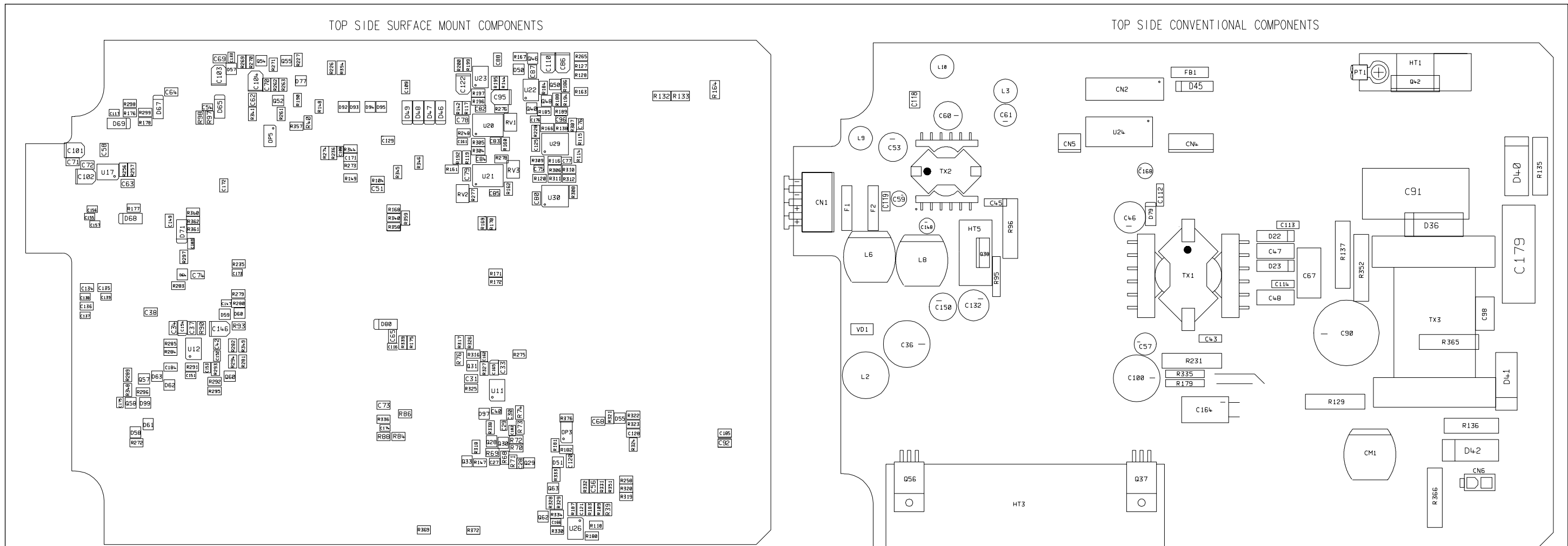
TOP SIDE CONVENTIONAL COMPONENTS

65	RESISTOR 0.1R 1W PRO1 SERIES	R95,179,335	89	TRANSISTOR POWER 'ISOLATED' MOSFET IRF1540N	Q37,38
66	RESISTOR WIREWOUND 4R7 2.5W +/-10%	R352	90	TRANSISTOR POWER MOSFET 'HEXFET' IRFP350	Q42
67	RESISTOR WIREWOUND 10R 2.5W +/-5%	R137	91	TRANSISTOR ISOWATT MOSFET STP60N05F1	Q56
68	RESISTOR 470K 1W 20x 7kV	R365	92	IC STEPPER MOTOR DRIVE UC3517N D1L16	U24
69	RESISTOR 33R 2W PRO2 SERIES	R96,136,231	93	CHOKE 10uH 10A	L2
70	RESISTOR 100K 2W PRO2	R129	94	CHOKE 100uH 5mm PITCH	L3,9,10
70a	RESISTOR 22R 2W PRO2	R135	95	INDUCTOR FERRITE BEAD BLO1RN1A62	FB1, F1,2
70b	RESISTOR 1K 2.5W 5%	R366	96	TRANSFORMER T300V (REV. B)	TX1
71	CAPACITOR RADIAL 47pF 6KV	C98,186	97	TRANSFORMER LOW VOLT SUPPLY	TX2
72	CAPACITOR CERAMIC DISC 100pF 1KV	C114,115	98	TRANSFORMER MODULATOR PULSE (REV. B)	TX3
73	CAPACITOR CERAMIC 220pF 100V 2.54mm PITCH	C118	99	CONNECTOR CLAMP 4WAY WAGO	CN1
74	CAPACITOR CERAMIC 1nF 1KV +/-10%	C119	100	HEADER 18WAY MOLEX 'PICOFLEX'	CN2
75	CAPACITOR RADIAL 4.7nF 400V 10mm PITCH	C43	101	HEADER 6WAY MOLEX 'KK' VERTICLE 0.1" PITCH	CN4
75a	CAPACITOR POLYPROPYLENE RADIAL 4.7nF 2kV	C179	102	HEADER 3WAY MOLEX 'KK' VERTICLE 0.1" PITCH	CN5
76	CAPACITOR CERAMIC DISC 2.2nF 1KV	C45,112	103	HEADER 2WAY MOLEX-MINI	CN6
77	CAPACITOR POLYESTER 100nF 250V +/-10%	C48,49	104	INDUCTOR RN112-4/02	CM1,L6
78	CAPACITOR POLYESTER 100nF 400V +/-10%	C67	105	THERMISTOR PTH9M04BC222T52	PT1
79	CAPACITOR MKP10 1uF 400V	C178	106	SCREW PAD HEAD STAINLESS STEEL 4x1/2" P021	SC1
80	CAPACITOR ELECTROLYTIC 10uF 60V +80-20%	C59,148,168	107	WASHER M3 SINGLE COIL	W1
81	CAPACITOR ELECTROLYTIC 68uF 400V +/-20%	C90	108	SLEEVEING SILICONE RUBBER 1mm DIA. BLK 2x25mm LONG	SL1,2
82	CAPACITOR ELECTROLYTIC 100uF 35V	C46,53,60,132	109	WIRE LINK	C47,WL1
83	CAPACITOR ELECTROLYTIC 220uF 25V +/-20% 3.5mm PITCH	C150	110	WIRE LOOP	TP11
84	CAPACITOR ELECTROLYTIC 470uF 10V +/-20%	C57,61,164	111	SIL PAD 19x25	
85	CAPACITOR ELECTROLYTIC 560uF 35V +/-10%	C36,100	112	HEATSINK FET	HT3
86	DIODE RECTIFIER 11D010 100V 1.1A	D79	113	HEATSINK SW25-4	HT1
87	DIODE BYV26C	D23,24	114	HEATSINK REDPOINT PTF750	HT5
88	DIODE UF5404	D29	115	HEATSINK RETAINER CLIP 5901	HC1
88a	DIODE POWER 1N5404	D36	116	VARIABLE RESISTOR METAL OXIDE V392A1	VD1
88b	DIODE ZENER BZVCL18	D45	117	VARNISH ANTI TAMPER RED	
88c	DIODE HIGH VOLTAGE SANKEN UX-F08	D41,42			

TITLE MODULATOR/PSU BOARD - PCB LAYOUT (2kW, STEPPER MOTOR)		
DERIVED FROM DRAWING No. 4346 - 017	ISSUE M	SHEET 1 of 2

Modulator/PSU Board – PCB layout (4kW, stepper motor)

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TOP SIDE SURFACE MOUNT COMPONENTS

1	P.C.B DETAIL	31a	RESISTOR 1206 3R3 5% 0.125W	R127
2	RESISTOR 1210 0.47R ±0.25W	R132,133,164	RESISTOR VARIABLE 1K	RV1-3
3	RESISTOR 1206 1R0 5% 0.125W	R331,351	CAPACITOR COG 0805 100pF 10% 50V	C27,75-77,83,96,161,176
4	RESISTOR 1206 10R 1% 0.125W	R40,117,119,120,168,175,183,228,258,297,319,320,322,338-340,358,359	CAPACITOR COG 0805 220pF 10% 50V	C40,84,153,162
5	RESISTOR 1206 22R 5% 0.125W	R74,84,177,321	CAPACITOR COG 0805 470pF 10% 50V	C85
6	RESISTOR 1206 47R 5% 0.125W	R90,97,98,176,178,298,299,360-362	CAPACITOR X7R 0805 1000pF 10% 50V	C30,42,82,108,133,137,138,139,152,155,156,167,182
7	RESISTOR 1206 68R 5% 0.125W	R39,187	CAPACITOR X7R 0805 2.2nF 10% 50V	C54,117,173,183
8	RESISTOR 1206 100R 1% 0.125W	R114-116,138,181,273,279,280,305,318,324	CAPACITOR X7R 0805 4.7nF 10% 50V	C29,116,174
9	RESISTOR 1206 330R 5% 0.125W	R357	CAPACITOR X7R 0805 10nF 10% 50V	C28,147,157,166
10	RESISTOR 1206 220R 5% 0.125W	R248,336	CAPACITOR X7R 0805 33nF 10% 50V	C175
11	RESISTOR 1206 470R 5% 0.125W	R72,73,144,166,182,190,265,284	CAPACITOR X7R 1206 100nF 20% 50V	C31,33,34,37,51,56,68-74,78-80,87,88,92,109,120,121,125,128,129,134-136,149,171,172,184,185
12	RESISTOR 1206 510R 1% 0.125W	R256	CAPACITOR TANTA 1uF 10% 16V	C154,165
13	RESISTOR 1206 680R 5% 0.125W	R86,372	CAPACITOR ELEC 4.7uF 20% 25V	C86,95,102,146
14	RESISTOR 1206 1K 1% 0.125W	R69,71,93,110,148,160,261,274,276-278,289,296,330,332,348,369	CAPACITOR ECE-VICA100SR 10uF 20% 16V	C101,103,104,110,122
16	RESISTOR 1206 2K2 5% 0.125W	R104,109,161,162,169-172	CAPACITOR 1206 1nF	C38
17	RESISTOR 1206 2K7 5% 0.125W	R192,293,316,317	DIODE SOT23 BAS16	D57,61-63,77
18	RESISTOR 1206 3K3 5% 0.125W	R285	DIODE SOT23 BAV70	D55,59,60,64,92-95
19	RESISTOR 1206 3K9 5% 0.125W	R282	DIODE SOT23 BAV99	D97
20	RESISTOR 1206 4K7 5% 0.125W	R76,167,185,186,195,200,262,263,270,333,376	DIODE ZENER SOT23 BZX84C12	D58,99
21	RESISTOR 1206 5K6 1% 0.125W	R226,329	DIODE ZENER SOT23 BZX84C18	D50
22	RESISTOR 1206 6K8 1% 0.125W	R199	DIODE ZENER SOT23 BZX84C5V1	D51
23	RESISTOR 1206 10K 1% 0.125W	R68,70,128,149,163,236,257,269,271,281,292,295,304,306-312,341,349,354	DIODE SMB 10B0060TR	D46-49,65,69,80
24	RESISTOR 1206 12K 5% 0.125W	R189,294	DIODE SMB 10B10	D67,68,71
25	RESISTOR 1206 15K 5% 0.125W	R326	DIODE SOT23 BC846	Q28,30,31,33,46,54,55,58,60,62,63
26	RESISTOR 1206 22K 5% 0.125W	R142,147,184,327	TRANSISTOR SOT23 BC856	Q29,40,48,50,52,57
27	RESISTOR 1206 33K 1% 0.125W	R196,283	IC LOW POWER PWM UCC3800 S08	U11,12
28	RESISTOR 1206 47K 5% 0.125W	R180,194,272,328,344	IC ADJUSTABLE REGULATOR LM317 S08	U17
29	RESISTOR 1206 100K 5% 0.125W	R88,188,235,291,325,334	IC MONOSTABLE 74LS221 S014	U20,21
30	RESISTOR 1206 220K 5% 0.125W	R197,323	IC DUAL MOSFET DRIVER MIC4427CM S08	U22
31	RESISTOR 1206 0R0 0.125W	R227,275,345,346	IC DUAL OPAMP LM358M S08	U23

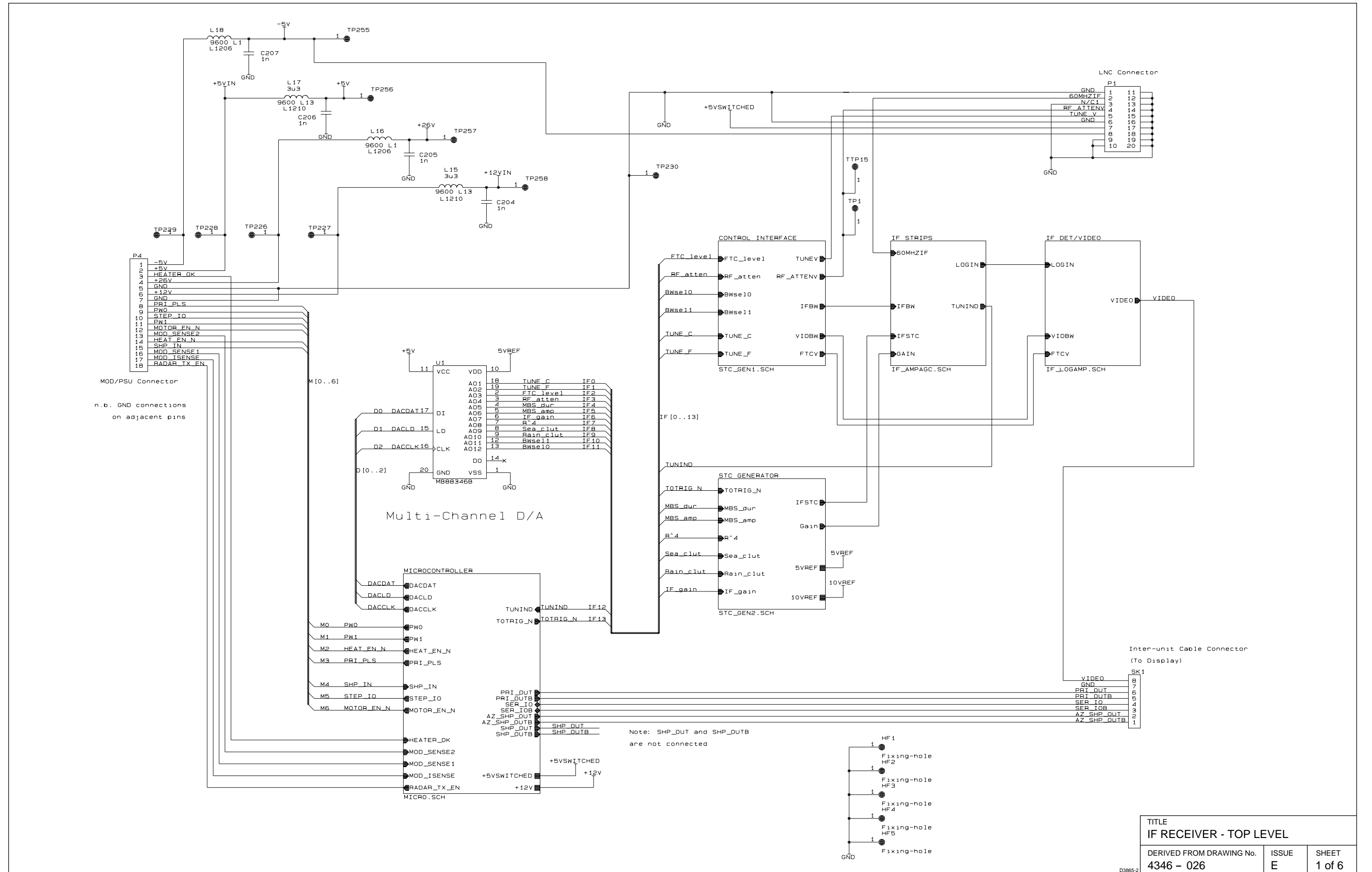
TOP SIDE CONVENTIONAL COMPONENTS

65	RESISTOR 0.1R 1W PRO1 SERIES	R95,179,335	88c	DIODE HIGH VOLTAGE SANKENUX-F08	D41,42
66	RESISTOR WIREWOUND 4R7 2.5W +/-10%	R352	89	TRANSISTOR POWER 'ISOLATED' MOSFET IRF1540N	Q37,38
67	RESISTOR WIREWOUND 10R 2.5W +/-5%	R137	90	TRANSISTOR POWER MOSFET 'HEXFET' IRFP350	Q42
68	RESISTOR 100K 2W PRO2	R129	91	TRANSISTOR ISOWATT MOSFET STP6N05F1	Q56
69	RESISTOR 33R 2W PRO2 SERIES	R96,136,231	92	IC STEPPER MOTOR DRIVE UC3517N DIL16	U24
69a	RESISTOR 22R 2W PRO2	R135	93	CHOKE 10uH 10A	L2
69b	RESISTOR 470K 1W 20% 7kV	R365	94	CHOKE 100uH 5mm PITCH	L3,9,10
69c	RESISTOR 1K 2.5W 5%	R366	95	INDUCTOR FERRITE BEAD BLO1RN1A62	FB1,F1,2
70	CAPACITOR CERAMIC DISC 2.2nF 1KV	C45,112	96	TRANSFORMER T300V (REV. B)	TX1
71	CAPACITOR RADIAL 33pF 6KV 10mm PITCH	C98	97	TRANSFORMER LOW VOLT SUPPLY	TX2
72	CAPACITOR CERAMIC DISC 100pF 1KV	C113,114	98	TRANSFORMER MODULATOR PULSE (REV. B)	TX3
73	CAPACITOR CERAMIC 220pF 100V 2.54mm PITCH	C118	99	CONNECTOR CLAMP 4WAY WAGO	CN1
74	CAPACITOR CERAMIC 1nF 1KV +/-10%	C119	100	HEADER 18WAY MOLEX 'PICOFLEX'	CN2
75	CAPACITOR RADIAL 4.7nF 400V 10mm PITCH	C43	101	HEADER 6WAY MOLEX 'KK' VERTICLE 0.1" PITCH	CN4
76	CAPACITOR CERAMIC 220pF 100V 2.54mm PITCH	C179	102	HEADER 3WAY MOLEX 'KK' VERTICLE 0.1" PITCH	CN5
77	CAPACITOR POLYESTER 100nF 250V +/-10%	C47,48	103	HEADER 2WAY MOLEX-MINI	CN6
78	CAPACITOR POLYESTER 100nF 400V +/-10%	C67	104	INDUCTOR RN112-4/02	CM1,L6
79	DIODE SMB 10B10	D67,68,71	105	THERMISTOR PTH9M04C222T52	PT1
80	CAPACITOR ELECTROLYTIC 10uF 60V +80-20%	C59,148,168	106	SCREW PAN HEAD STAINLESS STEEL 4x1/2" P021	SC1
81	CAPACITOR ELECTROLYTIC 68uF 400V +/-20%	C90	107	WASHER M3 SINGLE COIL	W1
82	CAPACITOR ELECTROLYTIC 100uF 35V	C46,53,60,132	108	SLEEVING SILICONE RUBBER 1mm DIA. BLK 2x25mm LONG	SL1,2
83	CAPACITOR ELECTROLYTIC 220uF 25V +/-20% 3.5mm PITCH	C150	109	WIRE LINK	WL1
84	CAPACITOR ELECTROLYTIC 470uF 10V +/-20%	C57,61,164	110	WIRE LOOP	TPT1
85	CAPACITOR ELECTROLYTIC 560uF 35V +/-10%	C36,100	111	SIL PAD 19x25	
86	DIODE RECTIFIER 11DQ10 100V 1.1A	D79	112	HEATSINK FET	HT3
87	DIODE BYV26C	D22,23	113	HEATSINK SW25-4	HT1
88	DIODE UF5404	D40	114	HEATSINK REDPOINT PTF750	HT5
88a	DIODE POWER 1N5404	D36	115	HEATSINK RETAINER CLIP 5901	HC1
88b	DIODE ZENER BZV618	D45	116	VARIABLE METAL OXIDE V39ZA1	VD1

TITLE MODULATOR/PSU BOARD - PCB LAYOUT (4kW, STEPPER MOTOR)		
DERIVED FROM DRAWING No. 4346 - 005	ISSUE K	SHEET 1 of 2

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IF Receiver - Top level



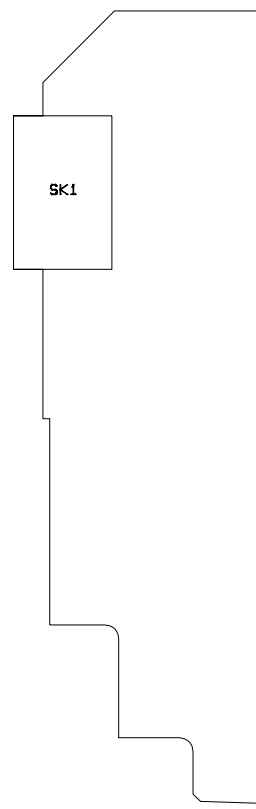
TITLE <b>IF RECEIVER - TOP LEVEL</b>		
DERIVED FROM DRAWING No. 4346 - 026	ISSUE E	SHEET 1 of 6

IF Receiver - PCB Layout

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TOP SIDE SURFACE MOUNT COMPONENTS		
P.C.B DETAIL		3015-129
1	RESISTOR 1206 27K 1% 0.125W	R146
2	RESISTOR 1206 1K 1% 0.125W R1-4,13,20,33,34,63,64,87,101,104,113-115,122,134,142,143,145,202,322	
3	RESISTOR 1206 68K 1% 0.125W	R49
4	RESISTOR 1206 5K6 1% 0.125W	R212
5	RESISTOR 1206 10R 1% 0.125W	R210,332,338
6	RESISTOR 1206 33K 1% 0.125W	R162,331
7	RESISTOR 1206 560R 1% 0.125W R24,59,105,125,201,218,310	
8	RESISTOR 1206 6K8 1% 0.125W	R136
9	RESISTOR 1206 100R 1% 0.125W R79,97,103,(157),216,319-321	
10	RESISTOR 1206 1K5 5% 0.125W	R9,138,220,302
11	RESISTOR 1206 0R0 0.125W R56-58,62,66-(68,69,335),337	
12	RESISTOR 1206 220K 5% 0.125W	R140
13	RESISTOR 1206 22K 5% 0.125W	R123,124,213,214
14	RESISTOR 1206 4K7 5% 0.125W	R71,78,90,309,311
15	RESISTOR 1206 68R 5% 0.125W	R23,29
16	RESISTOR 1206 2K2 5% 0.125W	R5,15,35,52,65,139,206
17	RESISTOR 1206 100K 5% 0.125W	R9,300,324,326
18	RESISTOR 1206 10K 1% 0.125W R22,32,36,41,42,44-48,75,137,163,209,301,312,314,316-318,327,330	
19	RESISTOR 1206 15K 5% 0.125W	R91,94,98,303,306
20	RESISTOR 1206 330R 5% 0.125W	R7,30,73,144,211
21	RESISTOR 1206 180R 5% 0.125W	R17,155
22	RESISTOR 1206 220R 5% 0.125W	R31,334
23	RESISTOR 1206 330K 5% 0.125W	R37,50,119
24	RESISTOR 1206 680R 5% 0.125W R18,89,93,106,141,217,307,308	
25	RESISTOR 1206 1K8 5% 0.125W	R11,51,53,55,60,74,96,215
26	RESISTOR 1206 470R 5% 0.125W	R6,12,26-28,70,72,131,203
27	RESISTOR 1206 3K9 5% 0.125W	R100,136
28	RESISTOR 1206 120R 5% 0.125W	R102
29	RESISTOR 1206 22R 5% 0.125W	R111,112,116,126,127,129
30	RESISTOR 1206 47K 5% 0.125W	R128,304,305,328,329
31	RESISTOR 1206 470K 5% 0.125W (R161)	
32	RESISTOR 1206 390R 5% 0.25W	R25,118,130,208
33	RESISTOR 1206 47R 5% 0.125W	R14,21
34	RESISTOR 1206 3K3 1% 0.25W	R8,10,54,76,117,315,219
34a	RESISTOR 1206 2K7 5% 0.125W	R16
35	CAPACITOR X7R 0805 1000pF 10% 50V C4,21,22,47,52,71,82,88,89,103,104,209,210,215,217,218	
36	CAPACITOR COG 0805 1.5pF 5% 50V	C67
37	-	-
38	CAPACITOR COG 0805 12pF 5% 50V	C1,90
39	CAPACITOR ECE-V1CA100SR 10uF 20% 16V C3,9,18-20,24,46,51,81,102,110,128,212,213	
40	CAPACITOR ECE-V0JA101SP 100uF 20% 6.3V C16,111,114,225	
41	CAPACITOR X7R 1206 100nF 20% 50V C5,7,12,29,39,73,112,113,(122),125,129,200-203,224,(226,227)	
42	CAPACITOR X7R 0805 10nF 10% 50V	C25,38,42,69,75,208
43	CAPACITOR COG 0805 100pF 10% 50V	C23,43,85,95,219,221
44	CAPACITOR COG 0805 220pF 10% 50V	C44
45	CAPACITOR COG 0805 22pF 5% 50V C45,48,50,53,55,74,80,92,94,119,120	
46	CAPACITOR COG 0805 27pF 5% 50V	C56,65,97
47	CAPACITOR COG 0805 18pF 5% 50V	C2,83
48	CAPACITOR COG 0805 15pF 5% 50V	C63,64,220
49	CAPACITOR COG 0805 470pF 10% 50V	C8,40
49a	CAPACITOR 1206 1000pF C6,13,15,17,32,87,93,123,204-207,211,214,223,228	
50	DIODE SOT23 BAS16	D1,3,5,11,12,16,18,22,26-28
51	DIODE SOT23 BAV99	D19
52	DIODE SOT23 H5MP-3830 T31	D17
53	DIODE SOT23 BAV70	D7,8
54	DIODE ZENER SOT23 BZX84C12V	(D32)
55	DIODE VARACTOR SOD123 BB512	D4
56	DIODE MOSFET SOT23 BF999	Q31,32,34,35
57	TRANSISTOR SOT23 FMMT3906CTR-ND SC-59	Q2,8,11,12,15,16,19,23,33,38
58	TRANSISTOR SOT23 FMMT3904CTR-ND ZETEX	Q1,3-7,9,10,13,14,18,21,22,36,37,43
59	TRANSISTOR POWER MOSFET 2SK2103	Q39,41
59a	TRANSISTOR BC817	Q40,42
60	IC DIGITAL/ANALOGUE CONVERTER 8-BIT 20PIN S5OP	U1
61	IC AMPLIFIER SL1613/C/MPTC S08	U2-5
62	IC OPAMP QUAD TL084CD S014	U6-8,11,21
63	IC AMPLIFIER IF MC1350D S08	U9,10
64	IC QUAD TRI-STATE DIFF. LINE DRIVER DS34C87 S016	U12
65	IC MICROPROCESSOR uPD78P054GC-3B9 FP80	U13
66	IC RS485/422 TRANSCEIVER DS75176 S08	U17

BOTTOM SIDE CONVENTIONAL COMPONENTS



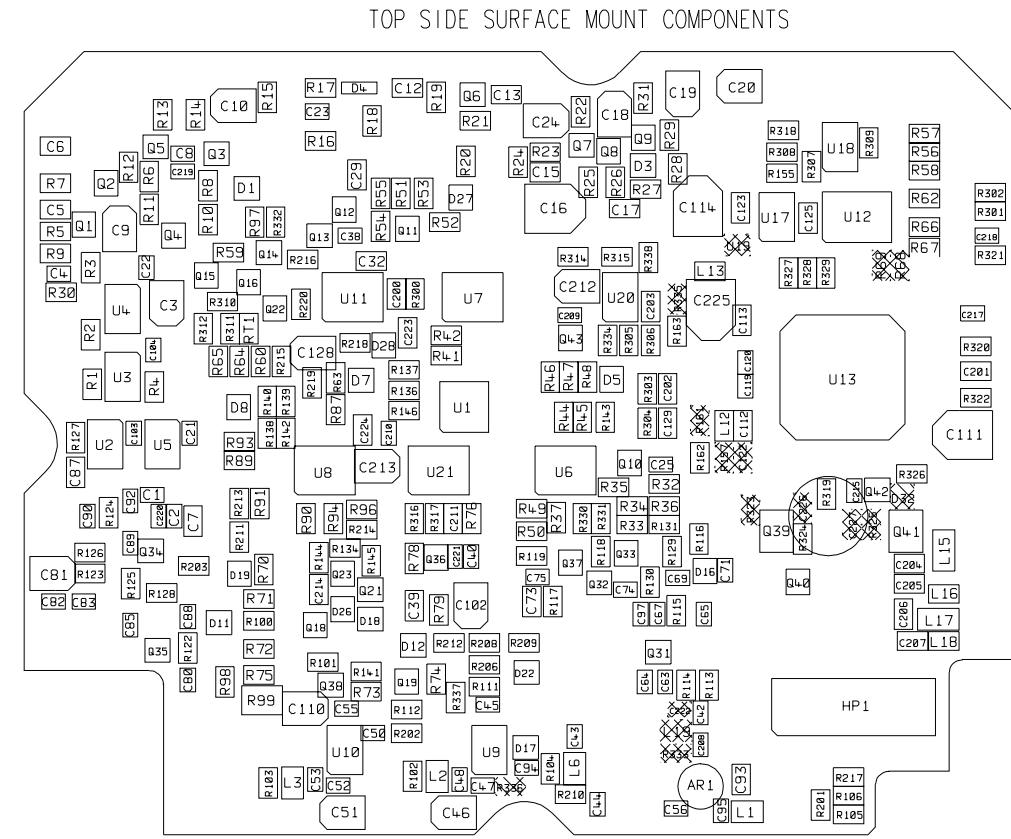
TOP SIDE SURFACE MOUNT COMPONENTS (CONTINUED)		
67	IC EEPROM ST24C01A S08	U18
68	IC MAX823 SOT23-5	(U19)
69	IC TL431CD S08	U20
70	CHIP INDUCTOR 1210 10uH ELJ-FA100KF2	L1,6
71	CHIP INDUCTOR 1210 220nH ELJ-FAR22MF2	L2,3
72	SOLID CHIP INDUCTOR 1206 10uH BLM32A07	L12,13,16,18
73	CHIP INDUCTOR 1210 3.3uH NLC322522T-3R3M	L15,17
74	TRANSISTOR BIPOLAR MSA-1105	AR1
75	CONNECTOR 20WAY CLH-110-F-D-DV-TR	P1
76	THERMISTOR 1206 2K5 10%	R11
77	RESISTOR TRIMMER 1K	R99

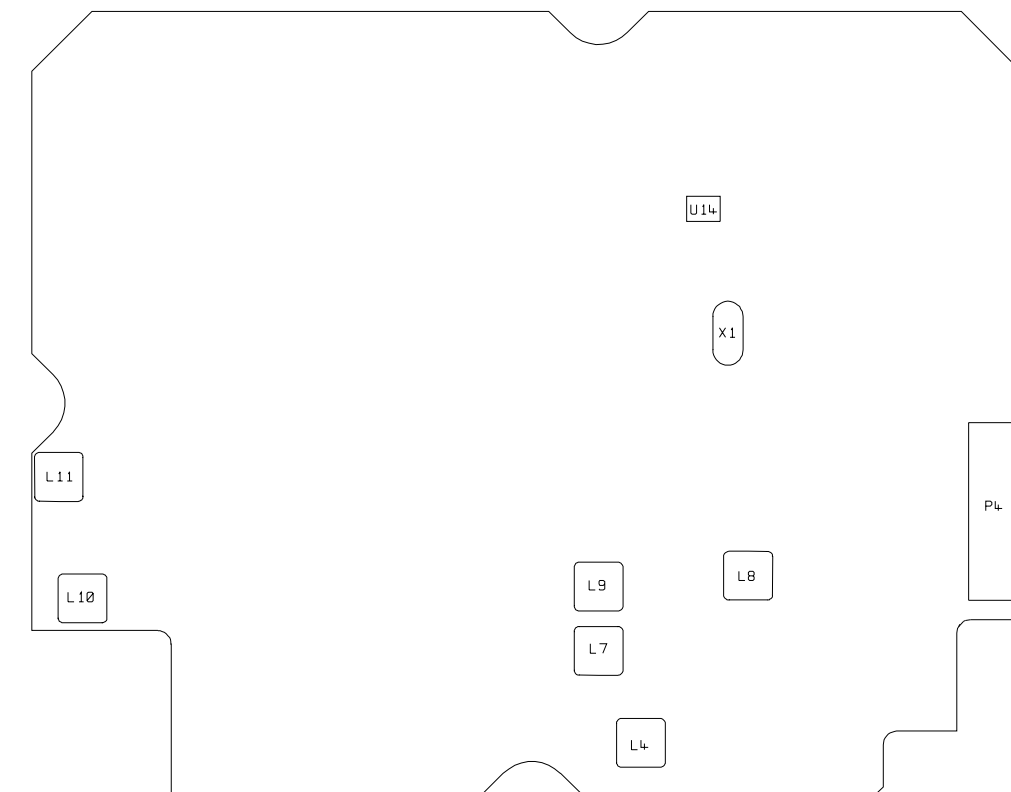
TOP SIDE CONVENTIONAL COMPONENTS		
78	INDUCTOR TOKO7KMM 220nH	L4,7-11
79	-	-
80	HEADER MOLEX 18WAY LOW PROFILE	P4
81	IC RESET CHIP DS1233 5V	U14
82	CRYSTAL 4.9152MHz HC49/4	X1

BOTTOM SIDE CONVENTIONAL COMPONENTS		
83	HEADER MOLEX 8WAY RIGHT-ANGLED	SK1



TOP SIDE CONVENTIONAL COMPONENTS



TITLE IF RECEIVER - PCB LAYOUT		
DERIVED FROM DRAWING No. 4346 - 007	ISSUE H	SHEET 1 of 1

D4097-2