

SERVICE MANUAL



POWER AMPLIFIER

DPX11500

FEATURES

- 500 Watts of Maximum Music Power
- 800W × 1 Into 4 Ohms, 20Hz-20kHz @ < 0.05%THD
- 1500W×1 Into 1/ 2 Ohms, 20Hz-20kHz @ < 0.1%THD
- Adjustable Subsonic Filter, 10-80Hz
- Remote Control Included
- Input Voltage Selector
- Precise Frequency Selector
- Variable Bass Boost; 0-15dB @ 30-125Hz
- Adjustable -12db/Oct. Low Pass Crossover, 50-250Hz
- Gold Plated Connectors; RCA/Speaker/Power Speaker Level Input
- Dimensions 21 1/4" × 12" × 2 7/8"

SPECIFICATION

● Frequency Response -3dB	12Hz-200Hz
● Crossover Range	24Hz-200Hz
● Subsonic Range	12Hz-80Hz
● Bass Boost	0-15dB@30-125Hz
● S/N Ratio (Awtg) ref 1W 4ohm	>72dB
● Damping 25W out 4ohm	>1000
● Low level input sensitivity	0.2-0.6V, 0.6-2V, 2-6V
● High level input sensitivity	0.4-1.2V, 1.2-4V, 4-12V
● Input impedance Low level(RCA)	12K ohms
High level	392 ohms
● Efficiency at 1%2ohm	66%
● Idle Current	2.2A

TO ENGINEERS IN CHARGE OF REPAIR OR INSPECTION OF OUR PRODUCTS:

BEFORE REPAIR OR INSPECTION, MAKE SURE TO FOLLOW THE INSTRUCTIONS SO THAT CUSTOMERS AND ENGINEERS IN CHARGE OF REPAIR OR INSPECTION CAN AVOID SUFFERING ANY RISK OR INJURY. REMODELING FOR WHICH WE SHALL NOT BE LIABLE. THE ONUS OF PRODUCT LIABILITY (PL) SHALL NOT BE OUR RESPONSIBILITY IN CASES WHERE AN ACCIDENT OR FAILURE IS AS A RESULT OF UNSPECIFIED PARTS BEING USED OR DUE TO NEGLIGENCE DURING REPAIR.

1. USE SPECIFIED PARTS.
THE SYSTEM USES PARTS WITH SPECIAL SAFETY FEATURES AGAINST FIRE AND VOLTAGE. USE ONLY PARTS WITH EQUIVALENT CHARACTERISTICS WHEN REPLACING THEM.
2. PLACE THE PARTS AND WIRING BACK IN THEIR ORIGINAL POSITIONS AFTER REPLACEMENT OR REWIRING.
FOR PROPER CIRCUIT CONSTRUCTION, USE OF INSULATION TUBES, BONDING, GAPS TO PWB, ETC, IS INVOLVED. THE WIRING CONNECTION AND ROUTING TO THE PWB ARE SPECIALLY PLANNED USING CLAMPS TO KEEP AWAY FROM HEATED AND HIGH VOLTAGE PARTS. ENSURE THAT THEY ARE PLACED BACK IN THEIR ORIGINAL POSITIONS AFTER REPAIR OR INSPECTION.
3. CHECK FOR SAFETY AFTER REPAIR.
CHECK THAT THE SCREWS, PARTS AND WIRES ARE PUT BACK SECURELY IN THEIR ORIGINAL POSITION AFTER REPAIR. ENSURE FOR SAFETY REASONS THERE IS NO POSSIBILITY OF SECONDARY PROBLEMS AROUND THE REPAIRED SPOTS.
4. CAUTION IN REMOVAL AND MAKING WIRING CONNECTION TO THE PARTS FOR THE AUTOMOBILE.
DISCONNECT THE BATTERY TERMINAL AFTER TURNING THE IGNITION KEY OFF. IF WRONG WIRING CONNECTIONS ARE MADE WITH THE BATTERY CONNECTED, A SHORT CIRCUIT AND/OR FIRE MAY OCCUR.
5. CAUTIONS REGARDING CHIPS.
DO NOT REUSE REMOVED CHIPS EVEN WHEN NO ABNORMALITY IS OBSERVED IN THEIR APPEARANCE. ALWAYS REPLACE THEM WITH NEW ONES. (THE CHIP PARTS INCLUDE RESISTORS, CAPACITORS, DIODES, TRANSISTORS, ETC). THE NEGATIVE POLE OF TANTALUM CAPACITORS IS HIGHLY SUSCEPTIBLE TO HEAT, SO USE SPECIAL CARE WHEN REPLACING THEM AND CHECK THE OPERATION AFTERWARDS.
6. CAUTIONS IN HANDLING FLEXIBLE PWB BEFORE WORKING WITH A SOLDERING IRON MAKE SURE THAT THE IRON TIP TEMPERATURE IS AROUND 270 °C. TAKE CARE NOT TO APPLY THE IRON TIP REPEATEDLY (MORE THAN THREE TIMES) TO THE SAME PATTERNS. ALSO TAKE CARE NOT TO APPLY THE TIP WITH FORCE.
7. TURN THE UNIT OFF DURING DISASSEMBLY AND PARTS REPLACEMENT. RECHECK ALL WORK BEFORE YOU APPLY POWER TO THE UNIT.

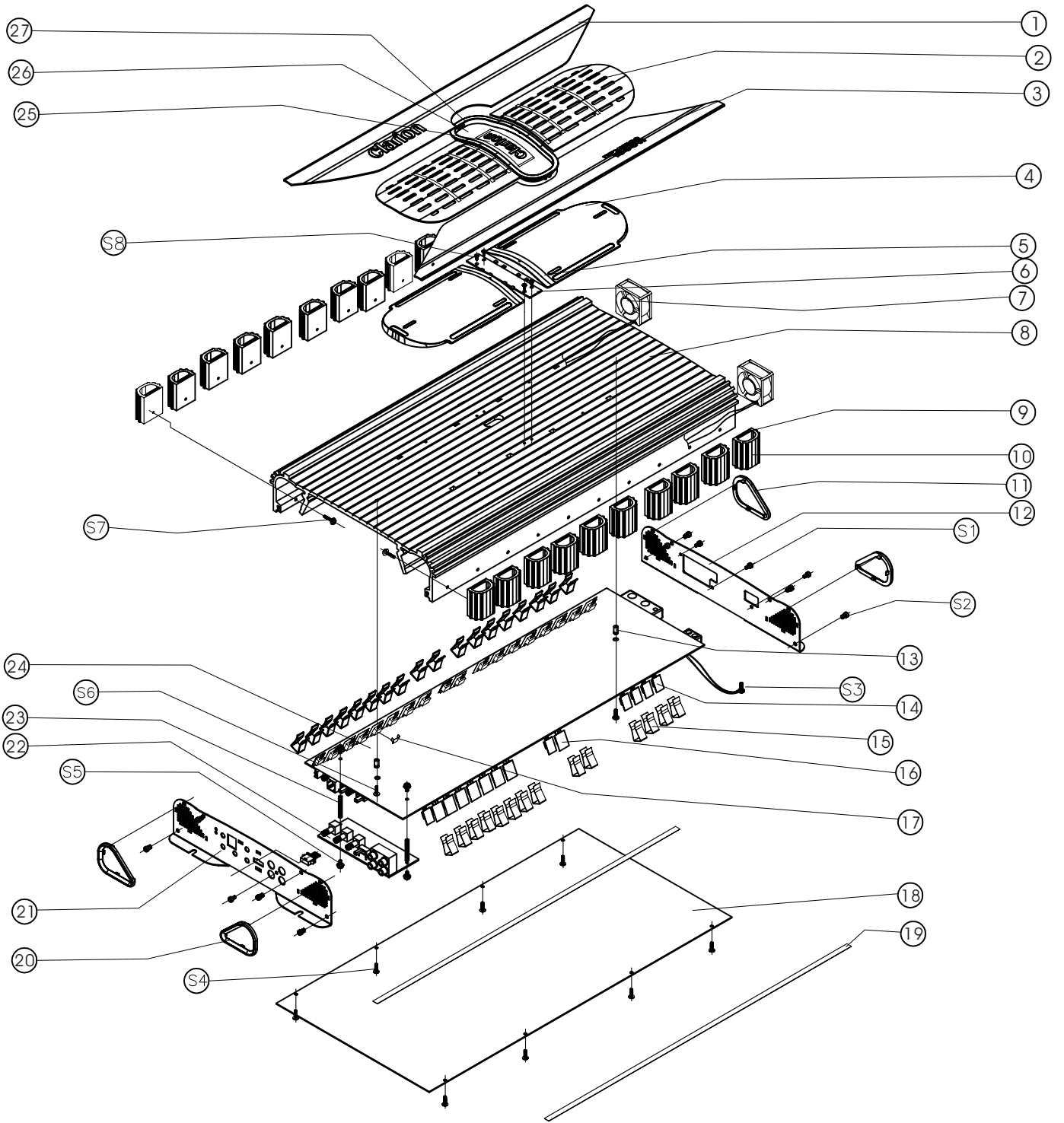
NOTE: FOR FURTHER IMPROVEMENT, SPECIFICATIONS AND DESIGN ARE SUBJECT TO CHANGE WITHOUT NOTICE.

■ TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
NO AUDIO	LOW OR NO REMOTE TURN-ON VOLTAGE	CHECK REMOTE CONNECTIONS AT AMPLIFIER AND SOURCE UNIT.
	BLOWN AMPLIFIER FUSE	REPLACE WITH NEW FAST-BLOW FUSE (SAME RATING).
	POWER WIRES NOT CONNECTED	CHECK BATTERY AND GROUND WIRING AT AMPLIFIER; ALSO CHECK BATTERY CONNECTIONS.
	SPEAKER LEADS SHORTED	CHECK SPEAKER CONTINUITY TO GROUND, IT SHOULD NOT SHOW A COMMON GROUND.
	SPEAKERS NOT CONNECTED OR ARE BLOWN	CHECK SPEAKER CONNECTIONS AT AMPLIFIER, MEASURE COIL IMPEDANCE.
AUDIO CYCLES ON AND OFF	THERMAL PROTECTION CIRCUITS ARE SHUTTING AMPLIFIER OFF	CHECK LOCATION FOR ADEQUATE VENTILATION; CONSULT AN AUTHORIZED CLARION AUDIO DEALER.
DISTORTED AUDIO.	GAIN IS NOT SET PROPERLY, OR DAMAGED SPEAKER CONES	REVIEW SETTING GAIN; INSPECT EACH SPEAKER CONE FOR SIGNS OF DAMAGE (I.E., FROZEN CONE, BURNING SMELL, ETC.)
AMPLIFIER FUSE KEEPS BLOWING	INCORRECT WIRING OR SHORT CIRCUIT	REVIEW INSTALLATION AND CHECK ALL WIRING CONNECTION.
WHINING OR TICKING NOISE IN THE AUDIO WITH ENGINE ON.	AMPLIFIER IS PICKING UP ALTERNATION NOISE OR RADIATED NOISE	TURN DOWN INPUT GAIN AND MOVE AUDIO CABLES AWAY FROM POWER WIRES. CHECK POWER AND GROUND CONNECTIONS ON AMPLIFIER AND INSTALL AN IN-LINE NOISE FILTER ON SOURCE UNIT'S POWER WIRE. ALSO CHECK THE ALTERNATOR AND /OR VOLTAGE. TEST FOR WEAK BATTERY OR ADD WATER TO BATTERY.

■ EXPLODED VIEW / PARTS LIST

REF.	PART NO.	DESCRIPTION	SPECIFICATION	UNIT	QTY
1	UB MG-DPX11500-01	TOP COVER	ALUMI 508mm LOGO	PCS	1
1-1	UB PE-6015-05GG	PROTECT COVER	LOGO 60*156mm *0.05-0.1mm	PCS	2
2	UB MG-DPX1800-03	TOP COVER	ALUMI	PCS	2
3	UB MG-DPX11500-02	TOP COVER	ALUMI 508mm MODEL NO.	PCS	1
4	UB MM-DPX1800	DISPLAY LANS	PC, WHITE	PCS	2
5	UB 29-1011-0100-PD	TINFOIL SHEET	106*11 TAK0.1MM	PCS	4
6	UB DPX11500-05	LED BOARD	DPX11500	PCS	1
7	UB HSP-000FAN-03	FAN	NMB 1608KL-04W-B50 DC12V L=260mm	PCS	2
8	UB 93-DB50-0000	HEATSINK	AL6063 L=508mm BLACK	PCS	1
9	UB 29-1010-2500-DA-01	FIBER SHEET	100mm*100mm*0.25mm , RED 94v0	PCS	1
10	UB 93-DB38-0000	2NDARY HEATSINK	AL6063 L=38mm BLACK	PCS	20
11	UB MM-DPX2250-02	RIGHT PANEL RING	ABS BLACK	PCS	2
12	UB MG-DPX11500-R	RIGHT PANEL	BLACK	PCS	1
13	UB MM-3264-6500	SPACE BAR	Φ3.2*Φ6.4*H6.5MM (NYLON)	PCS	2
14	UB TIN-AMIT2-017	MIKA	18.5*13*0.1MM	PCS	8
15	UB JJ-FB24-1001	TR CLIP	1*10.2*24.2MM BLACK	PCS	32
16	UB TIN-AMIT2-013	MIKA	25*18*0.1t/mm	PCS	24
17	UB JJ-GS20-4506	CLIP	THERMISTOR CLIP	PCS	1
18	UB MG-DPX11500	BOTTOM COVER	BLACK	PCS	1
19	UB 29-5008-0500-DA	BOTTOM COVER SHEET	Non woven cloth, 506*8*0.5mm	PCS	2
20	UB MM-DPX2250-01	LEFT PANEL RING	ABS BLACK	PCS	2
21	UB MG-DPX1800-L	LEFT PANEL	BLACK	PCS	1
22	UB DPX11500-06	RCA PCB	DPX11500	PCS	1
23	UB BSC-H300B-001	HEXAGON COLUMN	HEX M3*30mm(H)	PCS	2
24	UB DPX11500-01	MAIN PCB	DPX11500	PCS	1
25	UB 29-0100-0000-PD-UB	DISPLAY LENS SHEET	WHITE 0.1mm	PCS	1
26	UB MG-DPX2250-04	DISPLAY COVER	ABS SILVER	PCS	1
27	UB MG-DPX2250-05	DISPLAY COVER RING	PC SILVER	PCS	1
S1	UB LS-FBLO-0308	SCREW	HEX Φ3*8MM BLACK	PCS	4
S2	UB LS-FBLO-0406	SCREW	HEXΦ4*6mmBLACK	PCS	8
S3	UB LS-FSDG-0306-04	SCREW	PHILLIPS ROUND TAPPING NI Φ3*6mm	PCS	1
S4	UB LS-FBCG-0306	SCREW	PHILLIPS BIG ROUND Φ3*6MM BLACK	PCS	8
S5	UB LS-FSDO-0308	SCREW	PHILLIPS SMALL ROUND W/WASHER NI, M3*8mm	PCS	4
S6	UB LS-FBDO-0312	SCREW	PHILLIPS BIG ROUND M3*12mm BLACK	PCS	2
S7	UB LS-FBDO-0317	SCREW	PHILLIPS BIG ROUND WWASHER M3*17mm BLACK	PCS	20
S8	UB LS-FSGG-0205	SCREW	PHILLIPS NI, M2*5mm	PCS	4



ELECTRICAL PART LIST

PART NO.	DESCRIPTION	SPECIFICATION	UNIT	QTY	LOCATION NO.
UB CEP108M1EHRCP	E/ CAPACITOR	1000UF/25V 105°C 20% 10*20*5mmLS	PCS	2	C1-2
UB CML-103J1HOAT-UB	MEF/ CAPACITOR	0.01uF/50V 5% 5mm LS	PCS	1	C100
UB CML-393J1HOAT-UB	MEF/ CAPACITOR	0.039uF/50V 5% 5mm LS	PCS	2	C107-108
UB CML-150J1HOAT-UB	MEF/ CAPACITOR	150pF/50V 5% 5mm LS	PCS	1	C111
UB CEP105M1HHR5P	E/ CAPACITOR	1UF/50V 105°C 20% 5*11*2mmLS	PCS	1	C116
UB CEP476J1EHR5P-02	E/ CAPACITOR	0.47uF/25V 105°C	PCS	4	C13C10 C79 C114
UB CML-152J1HOAT-UB	MEF/ CAPACITOR	0.0015uF/50V 5% 5mmLS	PCS	1	C14
UB CCL-100J1HOAT-01UB	MC/ CAPACITOR	10pF/50V 5mm LS	PCS	1	C16
UB CML-471J1HOAT-UB	MEF/ CAPACITOR	470pF/50V 5% 5mm LS	PCS	3	C17 C29 C66
UB CML-105K2AOAP	MEF/ CAPACITOR	1uF/100V 10% 15mm LS	PCS	2	C18 C110
UB CML-472J1HOAT-UB	MEF/ CAPACITOR	0.0047uF/50V 5% 5mm LS	PCS	1	C22
UB CML-682J1HOAT-UB	MEF/ CAPACITOR	0.0068uF/50V 5% 5mm LS	PCS	1	C23
UB CML-474J1HOAT-UB	MEF/ CAPACITOR	0.47uF/50V 5% 5mm LS	PCS	4	C24 C98-99 C15
UB CML-473J1HOAT-UB	MEF/ CAPACITOR	0.047uF/50V 5% 5mm LS	PCS	1	C25
UB CEP106J1HHRAP-06	E/ CAPACITOR	10UF/50V 105°C	PCS	3	C26 C97 C300 2mm LS
UB CEP108J1HHRAP-01	E/ CAPACITOR	1000UF/63V105°C 16*31.5*7.5mmLS	PCS	8	C27 C28 C44 C45 C60 C61 C75 C76
UB CML-104J1HOAT-UB	MEF/ CAPACITOR	0.1uF/50V 5% 5mm LS	PCS	33	C3 C7-8 C11 C32-33 C37 C40-41 C49-50 C52 C54 C57-59 C65 C73 C77-78 C81-84 C91 C93-96 C101 C109 C113 C115
UB CML-153J1HOAT-UB	MEF/ CAPACITOR	0.015uF/50V 5% 5mm LS	PCS	1	C31
UB CEP338J1EHRAP-01	E/ CAPACITOR	3300U/25V105°C 20%18*31.5*7.5mmLS	PCS	10	C35-36 C55-56 C69-70 C87-88 C105-106
UB CEP477J1EHRAP-02	E/ CAPACITOR	470UF/25V105°C 10*16*5mmLS	PCS	3	C38 C51 C86
UB CCL-680J1HOAT-UB	MC/ CAPACITOR	68pF/50V 5mm LS	PCS	2	C39 C85
UB CML-224J2AOAT-01UB	MEF/ CAPACITOR	0.22uF/100V 5% 7.5mm LS	PCS	1	C43
UB CEP108J2HHRAP	E/ CAPACITOR	1000UF/100V105°C 18*40*7.5mmLS	PCS	12	C4-6 C19-21 C46-48 C62-64
UB CEP227J1EHRAP-03	E/ CAPACITOR	220uF/25V105°C 20%φ8*11.5*3.5mmLS	PCS	1	C53
UB CML-334J1HOAT-UB	MEF/ CAPACITOR	0.33uF/50V 5% 5mm LS	PCS	4	C71-72 C89-90
UB CEN104J1HYR5T	E/ CAPACITOR	0.1uF/50V 5*11*2mmLS NP	PCS	1	C80
UB CML-104J2AOAT-UB	MEF/ CAPACITOR	0.1uF/100V 5% 5mm LS	PCS	7	C9 C30 C34 C67-68 C104 C112
UB CML-272J1HOAT-UB	MEF/ CAPACITOR	0.0027uF/50V 5% 5mm LS	PCS	1	C92
UB DS-D0DES16D-P	DIODE	FES16DT 16A 200V	PCS	2	D1 D29
UB DR-D0IN4001-T-01	RECTIFIER DIODE	IN4001 1A 50V	PCS	2	D11-12
UB DS-D0DIODE6-P	DIODE	DIODE-6A2 DIP 6A 200V	PCS	2	D14 D23
UB DR-D01620CC-T	FAST RECO RECTIFIER	U16C20C	PCS	2	D2-3
UB DS-D0IN4934-T	FAST RECO RECTIFIER	IN4934 DO-41 1A 200V	PCS	3	D20-22
UB DR-D01620CA-T	FAST RECO RECTIFIER	U16C20A	PCS	2	D4-5
UB DS-D0IN4936-T	RECTIFIER DIODE	IN4936 DO-41 1A 200V	PCS	2	D6 D28
UB DS-D0IN4148-T-03	DIODE	DO-35 IN4148 500mA 100V DIP	PCS	14	D7-10 D13 D15-19 D24-27
UB DS-DIN5248B-T	ZENER DIODE	IN5248B-18V DO-35 500mW	PCS	2	DZ1 DZ9
UB DS-DIN5231B-T	ZENER DIODE	IN5231B 5.1V DO-35 500mW	PCS	2	DZ2 DZ6
UB DS-DIN5240B-T	ZENER DIODE	IN5240B 10V DO-35 500mW	PCS	1	DZ3
UB DS-DIN5233B-T	ZENER DIODE	IN5233B 6V DO-35 500mW	PCS	1	DZ4
UB DS-DIN5262B-T	ZENER DIODE	IN5262B-51V DO-35 500mW	PCS	2	DZ7-8
UB FUSE-HDC-M003	FUSE HOLDER	200AMP	PCS	1	FH1
UB PB-10RN-03	TERMINAL BLOCK	1*2 2PIN 90° 10mm BLACK	PCS	1	J1
UB PW-00SN-ZZZ06-01	NET CONNECTOR	RJ41 6P 180° BLACK	PCS	1	J2
UB PB-25SN-03	JST TERMINAL	WHITE 1*3*2.54*3PIN 180°	PCS	1	J3
UB PW-00RN-ZZZ06	NET CONNECTOR	RJ41 6P 90° BLACK	PCS	1	J6
UB PB-23RN-03-01	TERMINAL BLOCK	1*3 3PIN 90° BLACK	PCS	1	J7
UB PB-20SN-02-01	JST TERMINAL	WHITE 1*2*2.54*2PIN 180°	PCS	1	J8
UB 61-R039-1015	CABLE	RED CABLE 12#AWG 1015 L=390mm	PCS	2	JP1 JP2
UB 61-B038-1015	CABLE	BLACK CABLE 12#AWG 1015 L=380mm	PCS	2	JP3 JP4
UB CML-224J1HOAP	MEF/ CAPACITOR	0.22UF/50V	PCS	1	JUMP ICU18 PIN9&10
UB LC-FX11-3590	INDUCTOR	BEAD 3.50*9.0mm 110 OHM@100MHz	PCS	2	L1 L4
UB LC-FX00-1012-01	INDUCTOR	SPEAKER OUT-PUT Φ1.5mm(15#)*12Ts	PCS	1	L2
UB LC-FX44-1010	INDUCTOR	Drawing NO:dpx1800-1010Φ44*23mm	PCS	1	L3
UB LD-ROU30-011E	LED	φ3*4.8mm BLUE	PCS	1	LED1
UB LD-ROU30-005R	LED	φ3*4.8mm RED	PCS	1	LED2
UB ST1-75344GH	FET	HUF75344G3 75A 55V TO-247	PCS	10	M1-10
UB 61-B010-6500	GND	BLACK Φ6.5mm CABLE 1007 20# L=100mm	PCS	1	P3
UB ST1-TIP107H-UB	TRANSISTOR	ST TIP107 100V 8A TO220	PCS	1	Q1
UB ST1-MPSA56H	TRIODO	MPSA56	PCS	4	Q11 Q13 Q28 Q29

PART NO.	DESCRIPTION	SPECIFICATION	UNIT	Q'TY	LOCATION NO.
UB ST1-MPSA56H	TRIODO	MPSA56	PCS	1	Q12
UB ST1-2N5551H-01	TRIODO	2N5551 TO-92 "F" "GR" NPN	PCS	2	Q16 Q17
UB ST1-2N6715T	TRANSISTOR	Semi 2N6715 NPN 2A TO-237	PCS	3	Q18 Q27 Q31
UB ST1-2N5401H	TRIODO	2N5401 TO-92 "F" "GR" PNP	PCS	2	Q19 Q20
UB ST1-MJE340T-UB	TRANSISTOR	Motorola MJE340 NPN 5A 300V	PCS	2	Q2 Q33
UB ST1-2N6726T	TRANSISTOR	Semi 2N6726 PNP 2A TO-237	PCS	3	Q22 Q26 Q30
UB ST1-MPSA06H	TRIODO	MPSA06	PCS	9	Q25 Q38 Q14 Q15 Q21 Q23 Q24 Q43 Q44
UB ST1-MJE350T-UB	TRANSISTOR	Motorola MJE350 PNP 5A 300V	PCS	2	Q3 Q34
UB ST1-TIP102H-UB	TRANSISTOR	ST TIP102 100V 8A TO220	PCS	1	Q32
UB ST1-2SC3263T	TRIODO	2SC3263 15 AMP 230 Volt NPN	PCS	7	Q35 Q36 Q37 Q39-41 Q42
UB ST1-2SA1294T	TRIODO	2SA1294 15 AMP 230 Volt PNP	PCS	7	Q4-9 Q10
UB RN3650FW8-MLT	P/ CAPACITOR	36.5Ω 1/8W 1%	PCS	2	R1 R165
UB RN2492FW8-MLT	P/ CAPACITOR	24.9K 1/8W 1%	PCS	1	R10
UB RN1210FW8-MLT	P/ CAPACITOR	121Ω 1/8W 1%	PCS	1	R101
UB RN2003FW8-MLT	P/ CAPACITOR	200Ω 1/8W 1%	PCS	2	R104 R106
UB RN7871FW8-MLT	P/ CAPACITOR	7.87K 1/8W 1%	PCS	1	R105
UB RN3900FW8-MLT	P/ CAPACITOR	390Ω 1/8W 1%	PCS	1	R107
UB RN5R11FW8-MLT	P/ CAPACITOR	5.11Ω 1/8W 1%	PCS	9	R108 R175-182
UB RN4532FW8-MLT	P/ CAPACITOR	45.3K 1/8W 1%	PCS	1	R11
UB RN9311FW8-MLT	P/ CAPACITOR	9.31K 1/8W 1%	PCS	1	R110
UB RN1501FW8-MLT	P/ CAPACITOR	1.5K 1/8W 1%	PCS	1	R113
UB RN3922FW8-MLT-01	P/ CAPACITOR	3.92K 1/8W 1%	PCS	2	R115 R127
UB RN1000FW8-MLT	P/ CAPACITOR	100Ω 1/8W 1%	PCS	10	R12 R19-20 R43 R139 R146-147 R154 R157 R164
UB RN3321FW8-MLT-01	P/ CAPACITOR	3.32K 1/8W 1%	PCS	1	R128
UB RN8250FW8-MLT	P/ CAPACITOR	825R 1/8W 1%	PCS	1	R129
UB RN1R00J02-MLT	MF/ RESISTOR	0.1Ω 2W 5%	PCS	12	R13-17 R167-171 R18 R172
UB RN7500FW8-MLT	P/ CAPACITOR	750Ω 1/8W 1%	PCS	1	R132
UB RN9090FW8-MLT	P/ CAPACITOR	909Ω 1/8W 1%	PCS	1	R136
UB RN3011FW8-MLT	P/ CAPACITOR	3.01K 1/8W 1%	PCS	1	R137
UB RC-1R1J01-MLT	CF/ CAPACITOR	1.1Ω 1W 5%	PCS	2	R141 R142
UB RN1000FW4-MLT	P/ CAPACITOR	100Ω 1/4W 1%	PCS	1	R166
UB RN10R0FW4-MLT	P/ CAPACITOR	10R 1/4W 1%	PCS	1	R184
UB RN2002FW4-MLT	P/ CAPACITOR	20K 1/4W 1%	PCS	2	R2 R160
UB RN1001FW4-MLT	P/ CAPACITOR	1K 1/4W 1%	PCS	2	R21 R138
UB RN4751FW8-MLT	P/ CAPACITOR	4.75K 1/8W 1%	PCS	20	R22-23 R27-28 R33-35 R39 R52-53 R80 R81 R82 R89 R125 R131 R144 R149 R155 R173
UB RN1582FW8-MLT	P/ CAPACITOR	15.8K 1/8W 1%	PCS	1	R24
UB RN1002FW8-MLT	P/ CAPACITOR	10K 1/8W 1%	PCS	9	R25 R46-47 R65 R74 R85 R87 R109 R140
UB RN1302FW8-MLT	P/ CAPACITOR	13K 1/8W 1%	PCS	2	R26 R152
UB RN1210FW4-MLT	P/ CAPACITOR	1.21K 1/4W 1%	PCS	2	R29 R159
UB RN1000FW8-MLT-01	P/ CAPACITOR	10Ω 1/8W 1%	PCS	2	R3 R161
UB RN6812FW8-MLT	P/ CAPACITOR	68.1K 1/8W 1%	PCS	4	R30-31 R134 R153
UB RN30R0J02-MLT	MF/ RESISTOR	30Ω 2W 5%	PCS	2	R32 R41
UB RN4753FW8-MLT	P/ CAPACITOR	475Ω 1/8W 1%	PCS	7	R36-37 R50 R123 R135 R143 R148
UB RN1001FW8-MLT	P/ CAPACITOR	1K 1/8W 1%	PCS	11	R4 R38 R44 R56 R72 R98 R111 R130 R151 R158 R174
UB RN1502FW4-MLT	P/ CAPACITOR	15K 1/4W 1%	PCS	2	R40 R48
UB RN4752FW8-MLT	P/ CAPACITOR	47.5K 1/8W 1%	PCS	3	R42 R55 R103
UB RN4750FW4-MLT	P/ CAPACITOR	475Ω 1/4W 1%	PCS	1	R49
UB RN10R0FW4-MLT	P/ CAPACITOR	10R 1/4W 1%	PCS	2	R5 R162
UB RN3012FW8-MLT	P/ CAPACITOR	30.1K 1/8W 1%	PCS	3	R51 R54 R88
UB RN4121FW8-MLT	P/ CAPACITOR	41.2K 1/8W 1%	PCS	2	R57 DZ5
UB RN2002JW8-MLT-02	P/ CAPACITOR	20K 1/8W 1%	PCS	5	R58 R99 R100 R133 R124
UB RN5100FW4-MLT	P/ CAPACITOR	510Ω 1/4W 1%	PCS	2	R59-60
UB RN1R10FW4-MLT	P/ CAPACITOR	1.1Ω 1/4W 1%	PCS	2	R6 R150
UB RN1622FW8-MLT	P/ CAPACITOR	1.62K 1/8W 1%	PCS	2	R61 R73
UB RN1742FW8-MLT	P/ CAPACITOR	17.4K 1/8W 1%	PCS	2	R62 R76
UB RN6811FW8-MLT	P/ CAPACITOR	6.81K 1/8W 1%	PCS	4	R63 R77 R83 R102
UB RN3320FW8-MLT	P/ CAPACITOR	332Ω 1/8W 1%	PCS	2	R66 R78
UB RN0R51J01-MLT	P/ CAPACITOR	0.51Ω 1W 5%	PCS	1	R67
UB RN56R2FW8-MLT	P/ CAPACITOR	56.2Ω 1/8W 1%	PCS	2	R68 R70

PART NO.	DESCRIPTION	SPECIFICATION	UNIT	Q'TY	LOCATION NO.
UB RN5101JW8-MLT-01	P/ CAPACITOR	5.1K 1/8W 1%	PCS	1	R69
UB RN22R1FW8-MLT	P/ CAPACITOR	22.1Ω 1/8W 1%	PCS	9	R7 R45 R64 R71 R75 R86 R112 R114 R145
UB RN7501FW8-MLT	P/ CAPACITOR	7.5K 1/8W 1%	PCS	1	R79
UB RN1003FW8-MLT	P/ CAPACITOR	100K 1/8W 1%	PCS	3	R84 R163 R183
UB RN2R20FW4-MLT	P/ CAPACITOR	2.2Ω 1/4W 1%	PCS	1	R9
UB RN2001FW8-MLT	P/ CAPACITOR	2K 1/8W 1%	PCS	10	R90 R92-93 R96 R116-118 R120 R122 R126
UB RN1431FW8-MLT	P/ CAPACITOR	1.43K 1/8W 1%	PCS	2	R91 R119
UB RN5R10FW4-MLT	P/ CAPACITOR	5.1Ω 1/4W 1%	PCS	2	R94-95
UB RN3481FW8-MLT	P/ CAPACITOR	3.48K 1/8W 1%	PCS	2	R97 R121
UB SW-PL22X-13	SWITCH	SK-22D06-G4 L=3.80mm	PCS	2	SW1-2
UB TMS-PTD1003-001	THERMISTOR	100K	PCS	2	TH1-2
UB IA-00TL072CNH-01	IC	TL072	PCS	3	U1 U6 U12
UB IA-000078L12H	IC	(ON)78L12 100mA+12V TO92	PCS	1	U15
UB IA-0LM431ACZH-UB	IC	National LM431ACZ TO-92	PCS	1	U17
UB IA-00KA3525AH	IC	KA3525A	PCS	1	U18
UB IA-000NE5532H-01	IC	5532DD	PCS	4	U2 U7 U9~10
UB IA-00TL074CNH-01	IC	TL074 DIP14	PCS	2	U3 U11
UB IA-0000PC817H	OPTOCOUPLER	PC817 DIP4 PHOPTOCOUPCER	PCS	5	U4 U8 U13~14 U16
UB IA-PIC18F122H	IC	PIC18F1220-I/P 10-bit A/D DIP18	PCS	1	U5
UB VR-R2B220-UB	VR	BLUE 220Ω	PCS	2	V1 VR2
UB VR-R1C503-04-01	VR	C50K*4 (41WAVE-BAND) L=15mm	PCS	1	VR1
UB VR-R1C503-04-03	VR	C50K*4 L=15mm	PCS	1	VR3
UB BYQ-A000-4700	TRANSFORMER	Drawing NO:11500-1000 Φ47*30mm	PCS	1	X1
UB SK-FWSD-2516	CABLE TIE	2.5*160mm	PCS	2	
UB PW-25RN-ZZZ10-01	CONNECTOR	90° 1*10Pin 2.54mm	PCS	1	
UB LD-R0G10-001D	LED HOLDER	10*8.2*4.3mm	PCS	1	
UB CML-102J1HOAT-UB	MEF/ CAPACITOR	0.001uF/50V 5% 5mmLS	PCS	2	
UB PCB-5015-16FR	PCB	508*153*1.6mm FRZ-4	PCS	1	
UB LS-FWDG-0305-01	SCREW	PHILLIPS MINI ROUND M3*5mm NI	PCS	2	
UB RSG-1001-WT	SILICON TUBE	Φ1.0*10MM WHITE	PCS	28	
UB RSG-2007-WT-01	SILICON TUBE	Φ2.0*7mm WHITE	PCS	44	
UB RSG-2040-BR	THERMISTOR	2.0*40mm	PCS	2	

CONTROL PCB

PART NO.	DESCRIPTION	SPECIFICATION	UNIT	Q'TY	LOCATION NO.
UB 84-1562-03XK	CARD BOARD	153*62*3mm	PCS	1	
UB 84-3723-03XK	CARD BOARD	370*231*3mm	PCS	1	
UB 61-B061-0000	CTRL WIRE	L=6100mm BLACK	PCS	1	
UB PCB-2431-16HB	PCB	24*31*1.6mm94V-0 SINGLE BLUE	PCS	1	
UB PE-1080-06PE	PE BAG	100*80*0.06mm	PCS	1	
UB LS-FBD3-0305-02	SCREW	B-HEAD PHILLIPS BLACK M3*5mm	PCS	1	
UB VR-R2B501-01	VR	L=25mm B500Ω2	PCS	1	
UB NP-DPX1800	VR BADGE	40*23*0.4mm BLACK	PCS	2	
UB JJ-FB40-3924	VR BRECKET	40*39*24mm BLACK	PCS	1	
UB 04-1717-00PP	VR CAP	CPP-AA18-5B6-T18W6 17.5*17.5mm BLACK 白點	PCS	1	
UB 23-WS12-3010	WASHER	120*300*10mm	PCS	1	
UB PW-00RN-ZZZ06	NET CONNECTOR	RJ41 6P 90° BLACK	PCS	1	

LED BOARD

PART NO.	DESCRIPTION	SPECIFICATION	UNIT	Q'TY	LOCATION NO.
UB LD-R0U30-008E-01	LED	3.2*1.8mm BLUE	PCS	8	LED1 LED2 LED3 LED4 LED5 LED6 LED7 LED8
UB 61-RB40-0300	CABLE	3PIN CABLE 26# 1007# L=400mm 2.54mm	PCS	1	
UB 61-RB25-0200-01	CABLE	3PIN CABLE 26# 1007# L=250mm 2.54mm	PCS	1	
UB PCB-1020-10HB	PCB	106*20*1.0t/mm 94V0 BLUE	PCS	1	
UB RSG-0314-BR	THERMISTOR	Φ3*140mm UL	PCS	1	
UB RSG-0003-BR-01	THERMISTOR	Φ3*40mm	PCS	2	

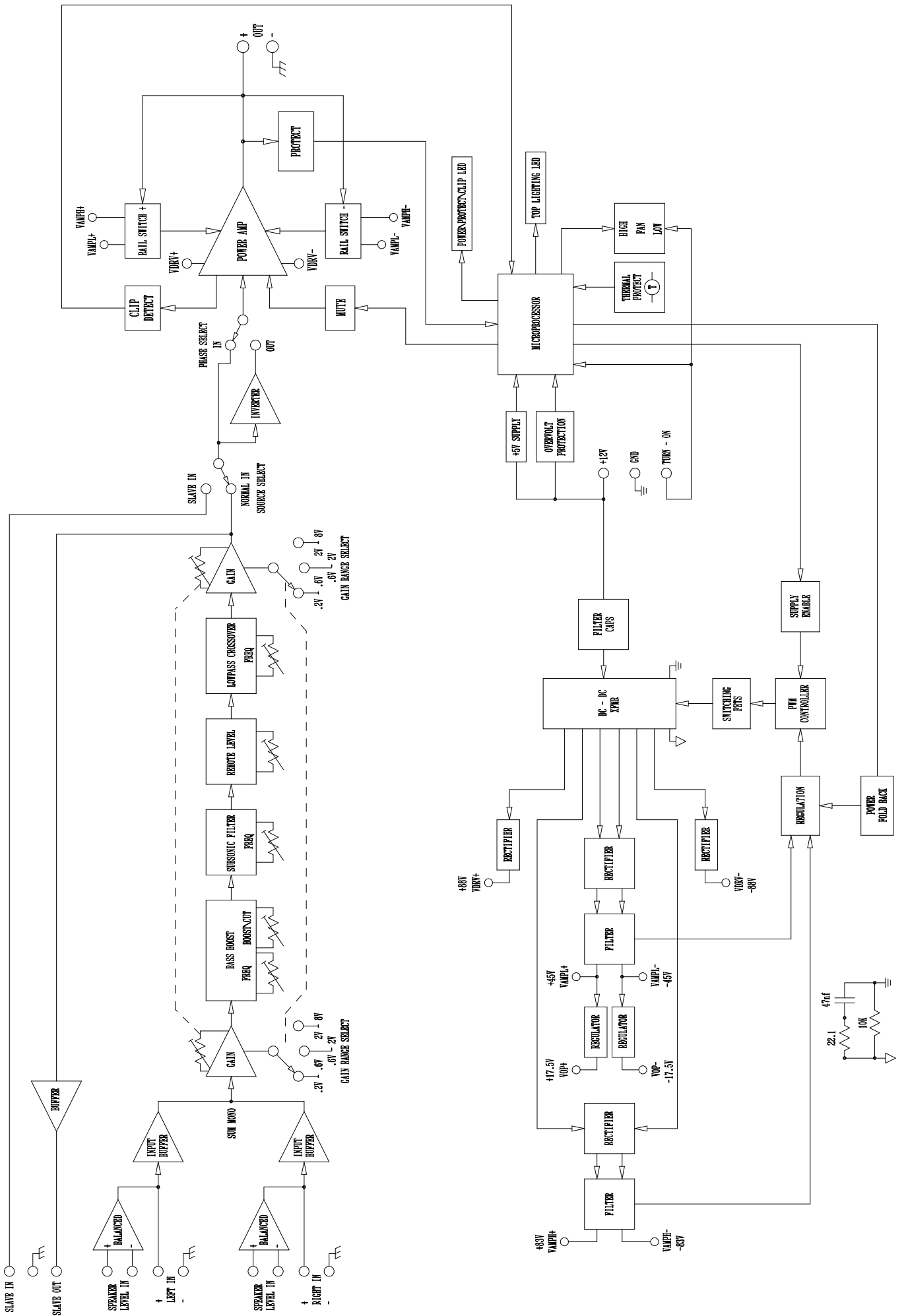
RCA BOARD

PART NO.	DESCRIPTION	SPECIFICATION	UNIT	Q'TY	LOCATION NO.
UB CCL-680J1HOAT-UB	MC/ CAPACITOR	68pF/50V 5mm LS	PCS	1	C1
UB CEP106J1HHRAP-06	E/ CAPACITOR	10uF/50V 105°C 5*11*2mm	PCS	6	C1 C2 C5 C7 C12 C13
UB CML-104J1HOAT-UB	MEF/ CAPACITOR	0.1uF/50V 5% 5mm LS	PCS	4	C2 C10 C11 C14
UB CML-823J1HOAT-UB	MEF/ CAPACITOR	0.082uF/50V 5% 5mmLS	PCS	2	C6 C17
UB CCL-330J1HOAT-UB	MC/ CAPACITOR	33pF/50V 5mm LS	PCS	6	C8 C9 C15 C16 C18 C19
UB JR-24XHC-002Z	RCA HOLDER	4P GOLD PLATED WHITE/RED	PCS	1	J1
UB 61-CC80-1000-01	CABLE	GRAY 10*13*3*3 2.54mm L=80mm	PCS	1	J2
UB 61-BW10-0500	HI-LEVEL IN-PUT	5PIN CABLE 1007 22# 110mm	PCS	1	J3
UB PCB-1149-16FR-01	PCB	119*49*1.6mm DOUBLE	PCS	1	PCB1
UB RN2151FW8-MLT	P/ CAPACITOR	2.15K 1/8W 1%	PCS	2	R1 R2
UB RN2002JW8-MLT-02	P/ CAPACITOR	20K 1/8W 1%	PCS	9	R11 R17 R18 R19 R22 R28 R30 R32 R34
UB RN1402FW8-MLT	P/ CAPACITOR	14K 1/8W 1%	PCS	5	R12 R16 R23 R27 R31
UB RN1002FW8-MLT	P/ CAPACITOR	10K 1/8W 1%	PCS	2	R13 R14
UB RN3920FW4-MLT	P/ CAPACITOR	392R 1/4W 1%	PCS	2	R24 R26
UB RN6812FW8-MLT	P/ CAPACITOR	68.1K 1/8W 1%	PCS	2	R25 R36
UB RN2212FW8-MLT	P/ CAPACITOR	22.1K 1/8W 1%	PCS	2	R29 R35
UB RN7321FW8-MLT	P/ CAPACITOR	7.32K1/8W 1%	PCS	2	R3 R4
UB RN7502FW8-MLT	P/ CAPACITOR	75K1/8W 1%	PCS	1	R33
UB RN3652FW8-MLT	P/ CAPACITOR	36.5K1/8W 1%	PCS	1	R37
UB RN6041FW8-MLT	P/ CAPACITOR	6.04K1/8W 1%	PCS	2	R5 R6
UB RN22R1FW8-MLT	P/ CAPACITOR	22.1Ω 1/8W 1%	PCS	1	R7
UB RN1502FW8-MLT	P/ CAPACITOR	15K 1/8W 1%	PCS	4	R8 R15 R20 R21
UB RN1692FW8-MLT	P/ CAPACITOR	16.9K 1/8W 1%	PCS	2	R9 R10
UB SW-PL23X-011	SWITCH	SK-23D07-G6 L=6mm	PCS	1	S1
UB IA-000NE5532H-01	IC	5532DD	PCS	1	U1
UB IA-00TL074CNH-01	IC	TL074 DIP14	PCS	1	U2
UB IA-00TL072CNH-01	IC	TL072	PCS	2	U3 U4
UB VR-R2B203-022	VR	B20K*2 L=15mm	PCS	2	VR1 VR2
UB VR-R1C503-002	VR	C50K*2 L=15MM GREEN	PCS	1	VR3

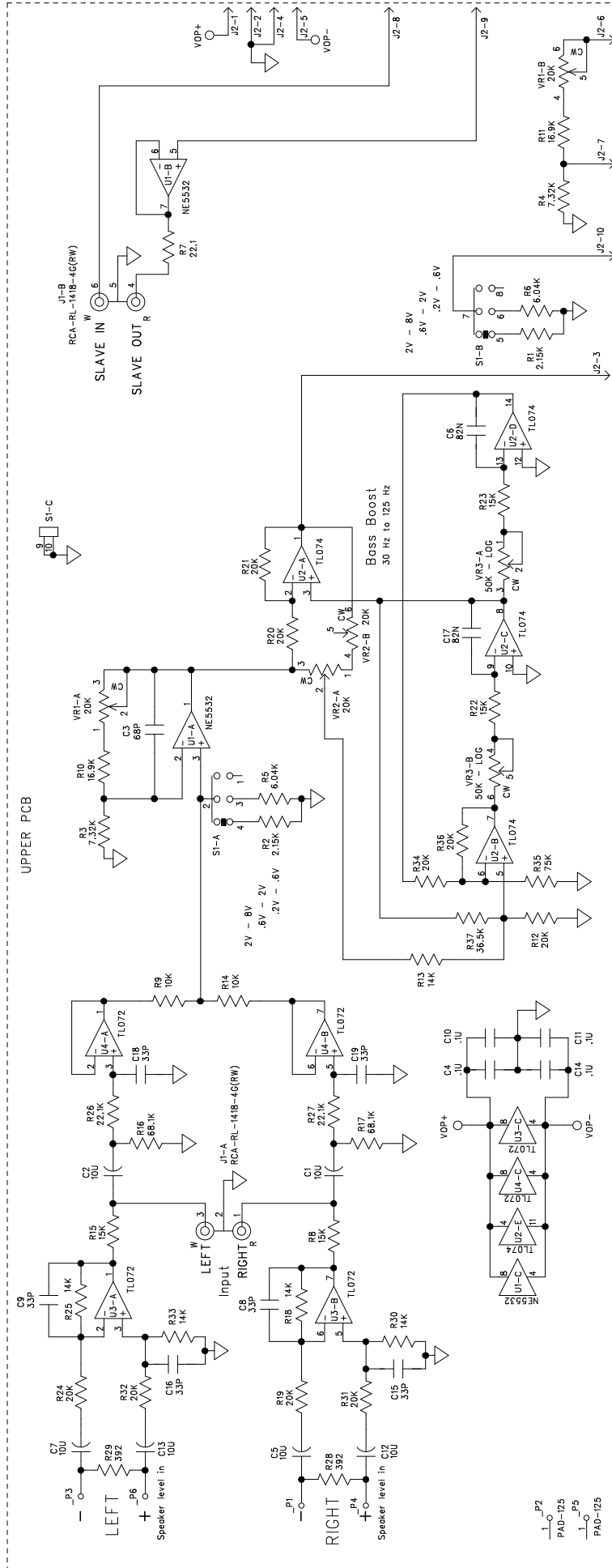
2ND PCB

PART NO.	DESCRIPTION	SPECIFICATION	UNIT	Q'TY	LOCATION NO.
UB CML-104J1HOAT-UB	MEF/ CAPACITOR	0.1uF/50V 5% 5mm LS	PCS	6	C20 C21 C22 C23 C24 C26
UB CML-474J1HOAT-UB	MEF/ CAPACITOR	0.47uF/50V 5% 5mm LS	PCS	2	C25 C27
UB CCL-101J1HOAT	MC/ CAPACITOR	100P/50V 5% LS 5mm	PCS	2	C28C29
UB CML-103J1HOAT-UB	MEF/ CAPACITOR	0.01uF/50V 5% 5mm	PCS	1	C30
UB DS-DOIN4148-T-01	DIODE	IN4148	PCS	8	D1 D2 D3 D4 D5 D6 D7 D8
UB PW-25RN-ZZZ10-01	CONNECTOR	90° 1*10Pin 2.54mm	PCS	1	J3
UB PCB-7134-16FR-01	PCB	71*34*1.6mm FR-4	PCS	1	PCB1
UB RN3321FW8-MLT-01	P/ CAPACITOR	3.32K 1/8W 1%	PCS	2	R38 R44
UB RN7321FW8-MLT	P/ CAPACITOR	7.32K1/8W 1%	PCS	1	R39
UB RN1002FW8-MLT	P/ CAPACITOR	10K 1/8W 1%	PCS	7	R40 R46 R51 R52 R54 R57 R59
UB RC-125JW8-MLT-01	CF/ CAPACITOR	1.2M 1/8W 5%	PCS	3	R41 R43 R61
UB RN2002JW8-MLT-02	P/ CAPACITOR	20K 1/8W 1%	PCS	2	R42 R53
UB RN2002FW4-MLT	P/ CAPACITOR	20K 1/4W 1%	PCS	1	R45
UB RC-684JW8-MLT	CF/ CAPACITOR	6.8M 1/8W 5%	PCS	1	R47
UB RN3323FW8-MLT	P/ CAPACITOR	332K 1/8W 1%	PCS	1	R48
UB RN4992FW8-MLT	P/ CAPACITOR	49.9K 1/8W 1%	PCS	2	R49 R50
UB RN1002FW8-MLT	P/ CAPACITOR	10K 1/8W 1%	PCS	1	R54
UB RN1501FW8-MLT	P/ CAPACITOR	1.5K 1/8W 1%	PCS	1	R54&R63
UB RN1501FW8-MLT	P/ CAPACITOR	1.5K 1/8W 1%	PCS	2	R55 R56
UB RN2210FW8-MLT	P/ CAPACITOR	221R 1/8W 1%	PCS	1	R58
UB RN1101FW8-MLT	P/ CAPACITOR	1.1K 1/8W 1%	PCS	1	R60
UB RN4750FW8-MLT	P/ CAPACITOR	475Ω 1/8W 1%	PCS	1	R62
UB RN1002FW4-MLT	P/ CAPACITOR	10K 1/4W 1%	PCS	2	R63 R64
UB IA-00TL072CNH-01	IC	TL072	PCS	1	U5
UB IA-000LM393NH-UB	IC	ST LM393 DIP 8pin	PCS	1	U6
UB IA-000NE5532H-01	IC	5532DD	PCS	1	U7
UB IA-0000PC817H	OPTOCOUPLER	PC817 DIP4 PHOPT0COUPLER	PCS	2	U8 U9

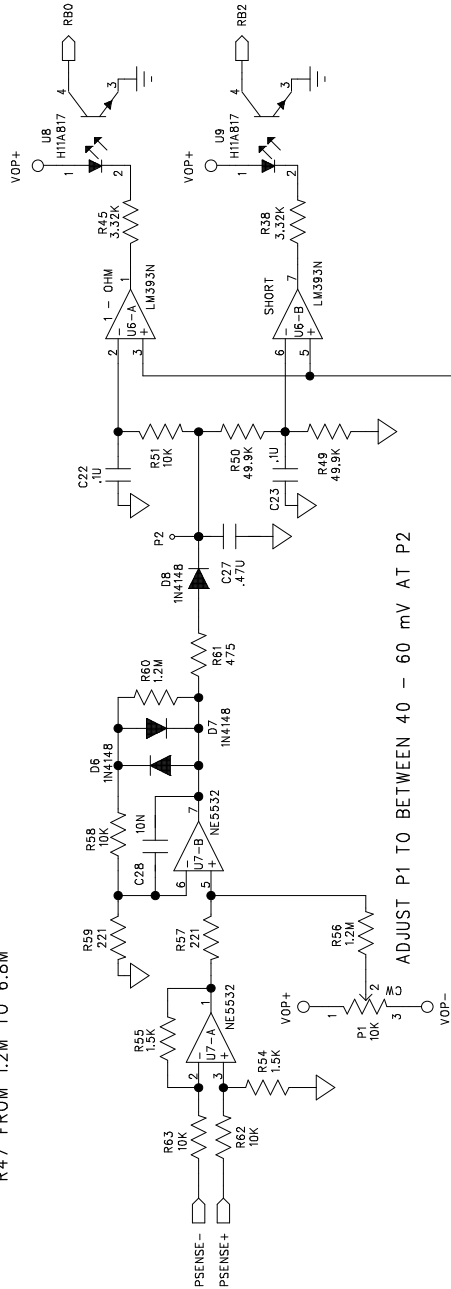
BLOCK DIAGRAM



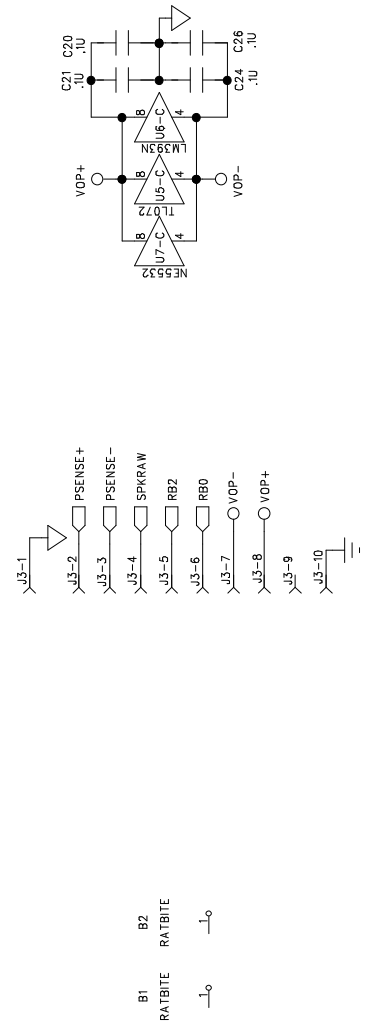
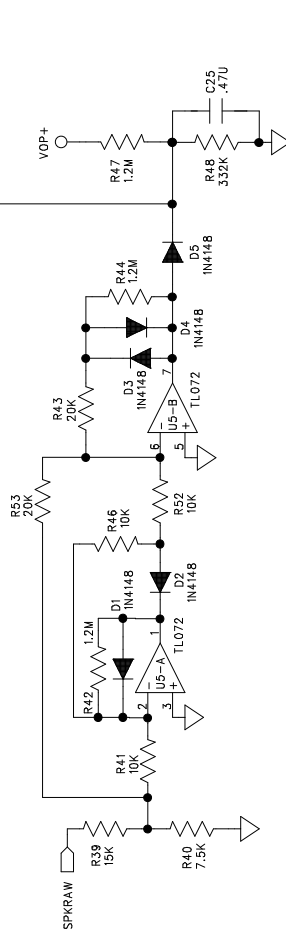
CIRCUIT DIAGRAM



FOR DPX1800 USE VALUES AS SHOWN
 FOR DPX11500 CHANGE VALUES AS LISTED
 R59 FROM 221 OHM TO 162 OHM
 R39 FROM 15K TO 20K
 R40 FROM 7.5K TO 7.32K
 R47 FROM 1.2M TO 6.8M

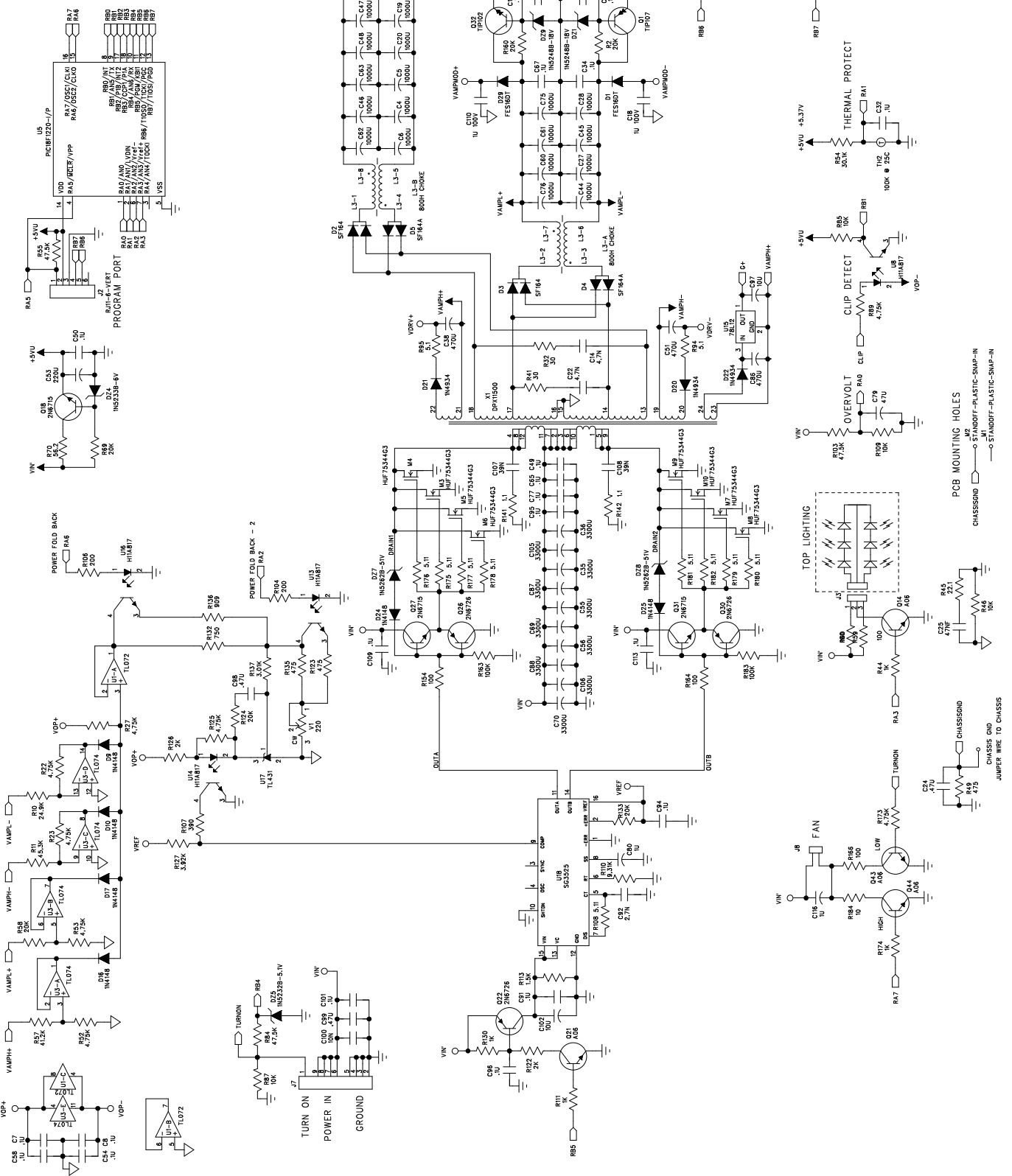


ADJUST P1 TO BETWEEN 40 - 60 mv AT P2



Processor IO Assignments

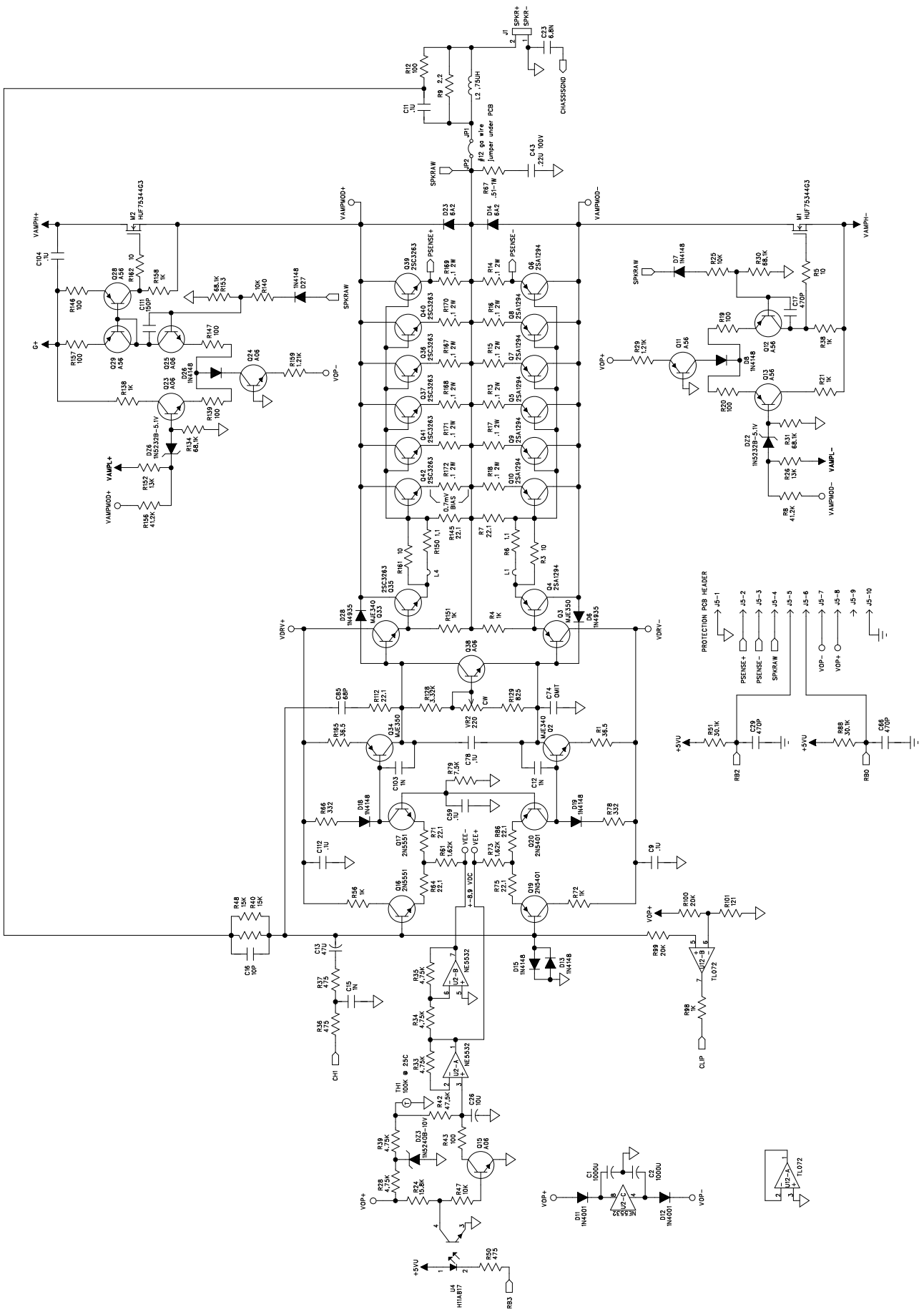
- RA0: Over volt
- RA1: Thermistor
- RA2: Power fold back
- RA3: Top lighting LED's
- RA5: Program Port
- RA6: Power fold back 2
- RA7: Fan High speed
- RB0: Protection 1-ohm
- RB1: Clip
- RB2: Protection-Short
- RB3: Amp Bles
- RB4: Supply Enable
- RB5: Program Port
- RB6: Program Port
- RB7: Program Port / LED



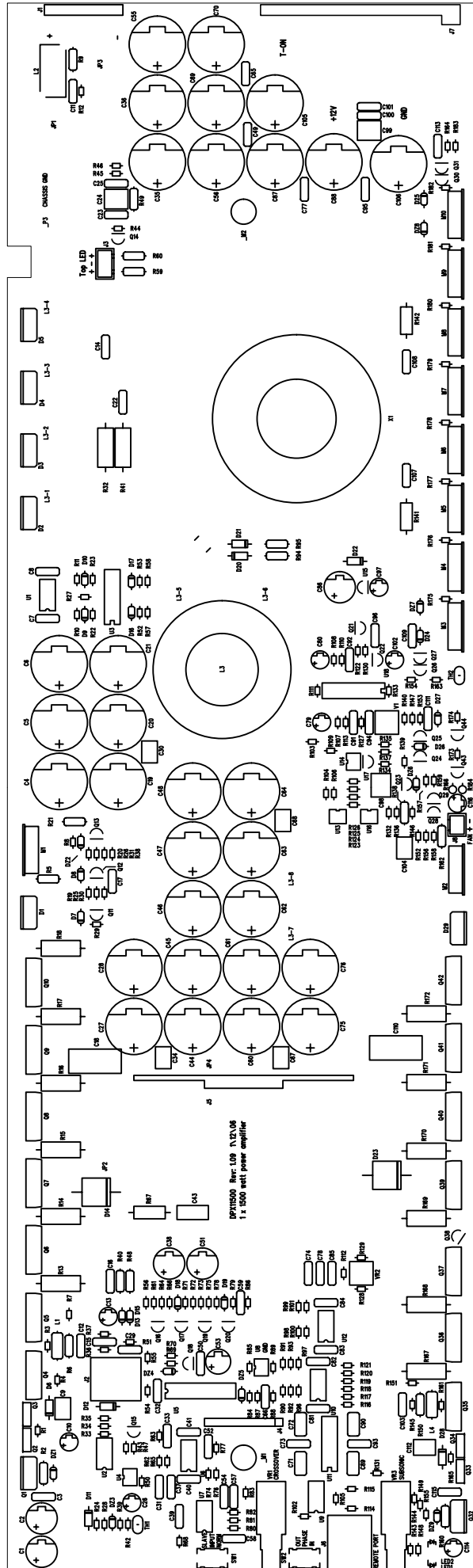
filter cap to
be placed under PCB

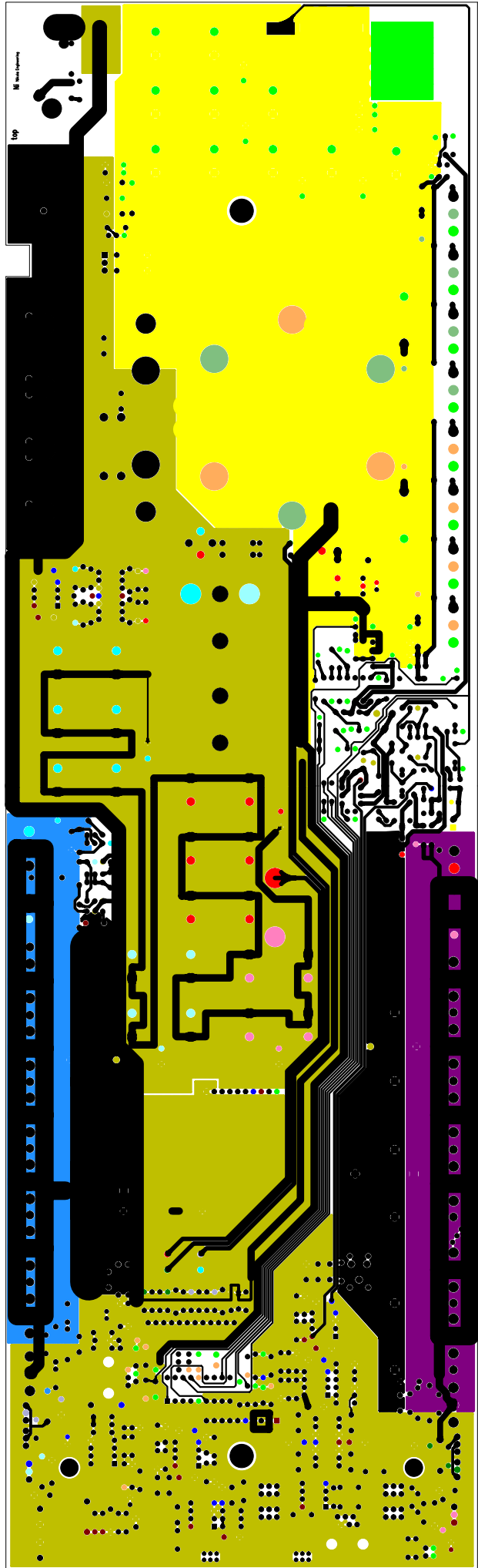
PCB MOUNTING HOLES
CHASSIS GND → STANDOFF-PLASTIC-SMP-IN
→ STANDOFF-PLASTIC-SMP-IN

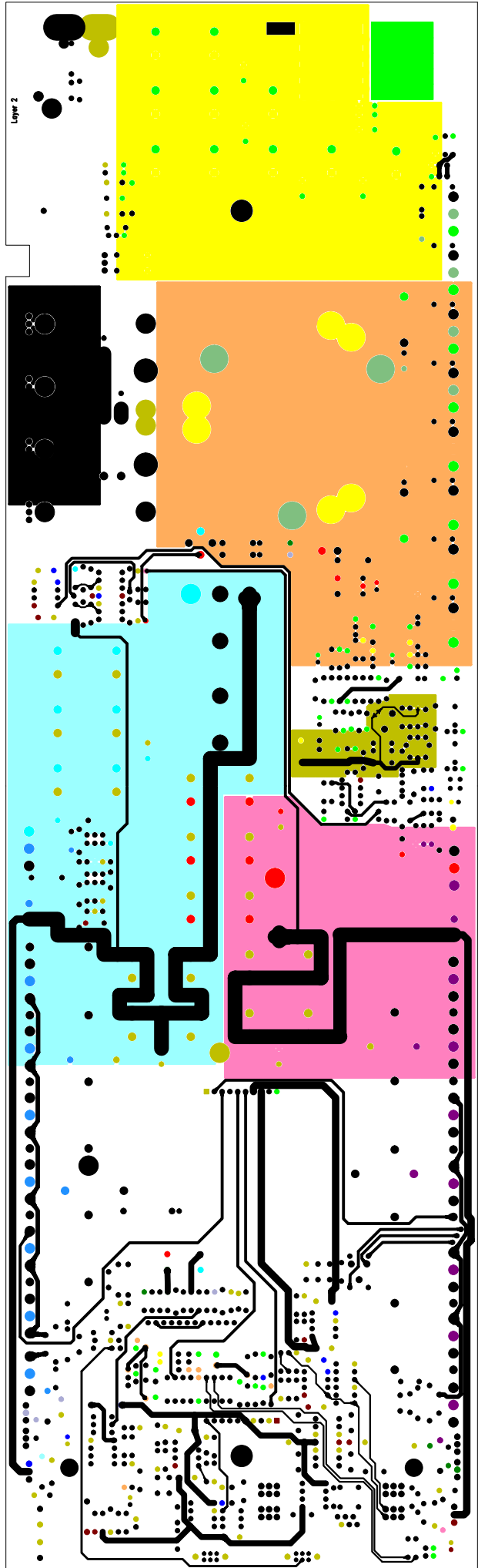
CHASSIS GND
JUMPER WIRE TO CHASSIS

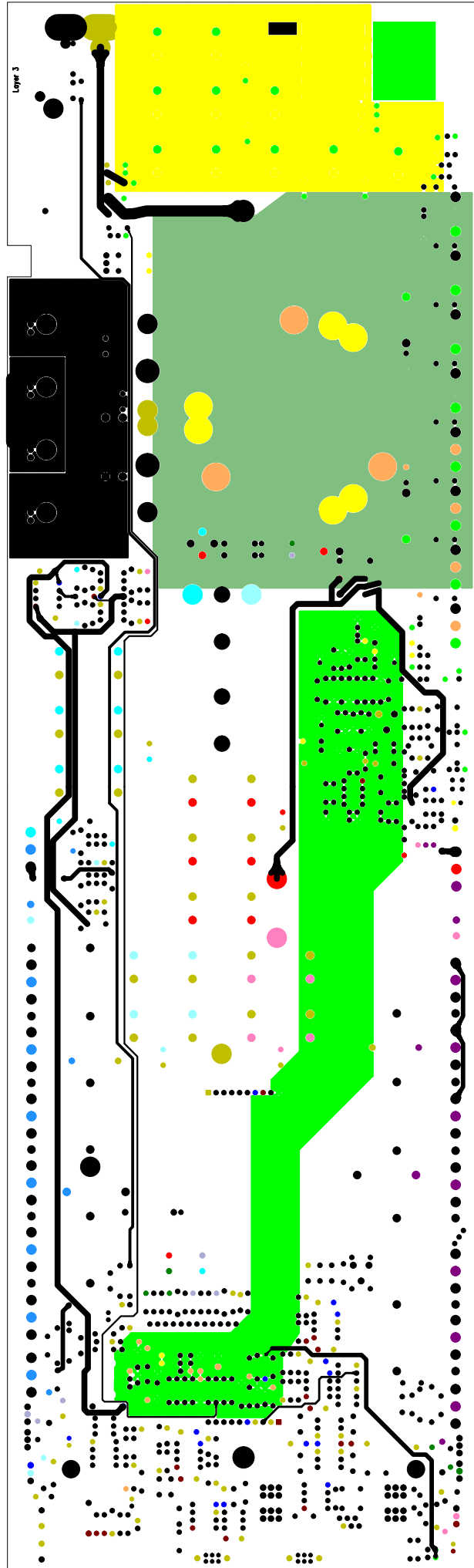


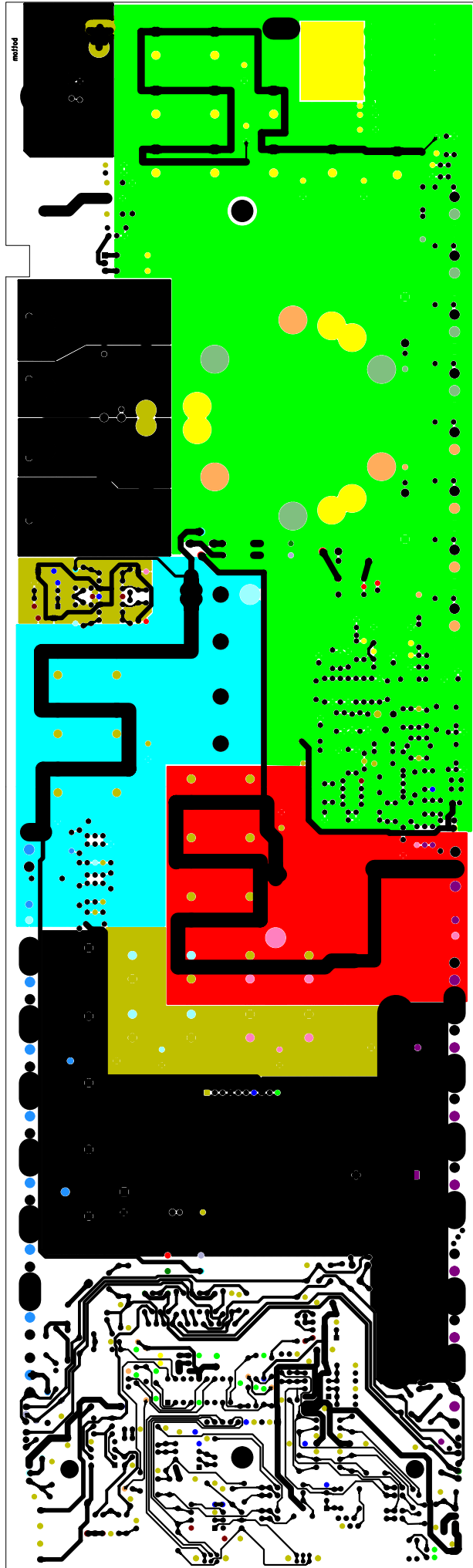
PRINTED WIRING BOARD:











2ND PCB

