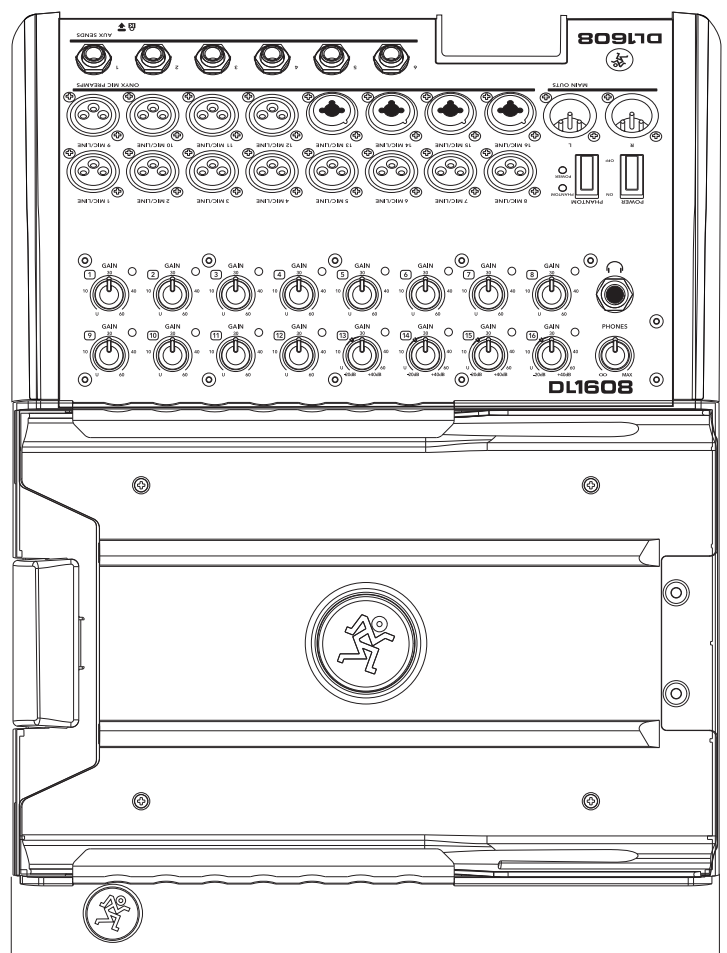
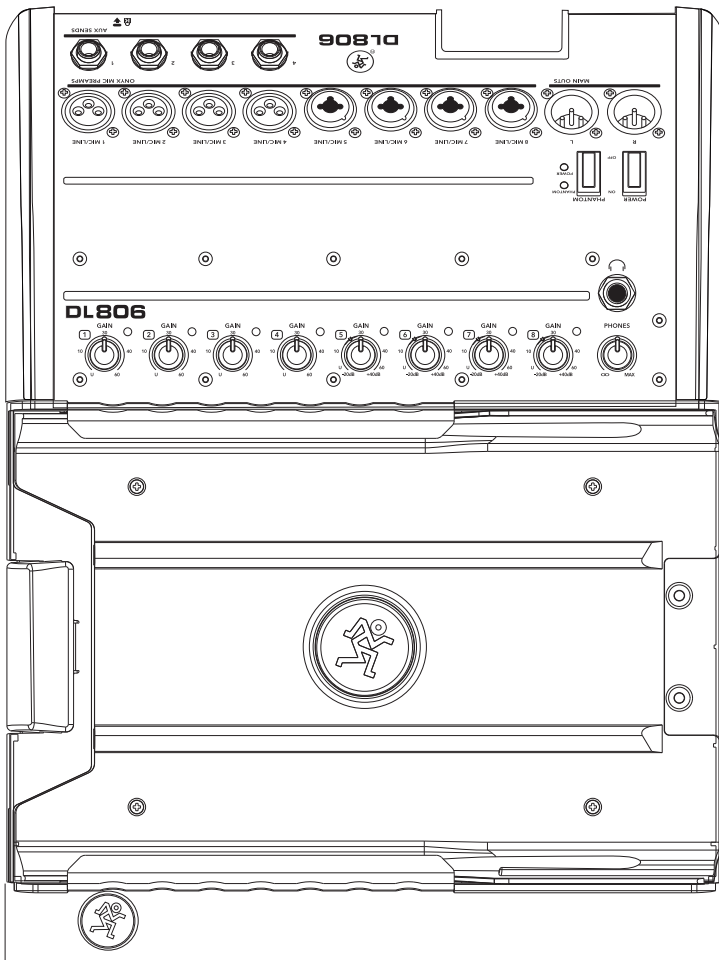


MACKIE.

Service Manual



DL806 - DL1608



CAUTION AVIS

RISK OF ELECTRIC SHOCK. DO NOT OPEN
RISQUE DE CHOC ELECTRIQUE. NE PAS OUVRIR



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL

ATTENTION: POUR EVITER LES RISQUES DE CHOC ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE.
AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER.
CONFIER L'ENTRETIEN AU PERSONNEL QUALIFIE.

AVIS: POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE
A LA PLUIE OU A L'HUMIDITE



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure, that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Le symbole éclair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la présence à l'intérieur du coffret de "voltage dangereux" non isolé d'ampleur suffisante pour constituer un risque d'électrocution.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.

Safety Warning:



Caution! These instructions are for use by qualified personnel only!

To avoid electric shock, do not perform any servicing unless you are qualified to do so.

Refer all service to qualified personnel.

ESD Warning:



To avoid damage by electrostatic discharge all standard ESD precautions must be taken.

Table of Contents

Specifications	5
!!!Service Bulletins / Kits and Modifications (Please Review Before Servicing)!!!.....	7
Block Diagram	8
Quick Parts	9
Assembly and Quick Parts.....	10
Wiring Diagram.....	21
Final Assembly Parts (Includes all parts)	22
2037844-XX PCB ASSY Main (Top)	37
2037844-XX PCB ASSY Main (Bottom)	38
Channel Internal Hardware Naming	39
2037844-XX SCHEMATIC MAIN (Blackfin)	40
2037844-XX SCHEMATIC MAIN (Blackfin GPIO)	41
2037844-XX SCHEMATIC MAIN (Blackfin MEM)	42
2037844-XX SCHEMATIC MAIN (Blackfin ENET)	43
2037844-XX SCHEMATIC MAIN (Interface).....	44
2037844-XX SCHEMATIC MAIN (SHARC).....	45
2037844-XX SCHEMATIC MAIN (ADC8_A)	46
2037844-XX SCHEMATIC MAIN (ADC8_B)	47
2037844-XX SCHEMATIC MAIN (DAC8)	48
2037844-XX SCHEMATIC MAIN (DAC2)	49
2037844-XX SCHEMATIC MAIN (ANALOG_CONN)	50
2037844-XX SCHEMATIC MAIN (POWER).....	51
2037844-XX SCHEMATIC MAIN (ANALOG_POWER)	52
2037844-00 REFERENCE DESIGNATORS AND PART LIST.....	53
2037848-00 PCB ASSY SMALL (Pad Connector)	61
2037848-00 SCHEMATIC SMALL (Pad Connector)	62
2037848-00 REFERENCE DESIGNATORS AND PART LIST.....	63
2037850-00 PCB ASSY ANALOG PREAMP (TOP)	64
2037850-00 PCB ASSY ANALOG PREAMP (BOTTOM)	65
2037850-00 SCHEMATIC ANALOG PREAMP PCB (CH_A1_B1_INTERCONNECT)	66
2037850-00 SCHEMATIC ANALOG PREAMP PCB (CH_A2_B2)	67
2037850-00 SCHEMATIC ANALOG PREAMP PCB (CH_A3_B3)	68
2037850-00 SCHEMATIC ANALOG PREAMP PCB (CH_A4_B4)	69

Table of Contents continued...

2037850-00 SCHEMATIC ANALOG PREAMP PCB (CH_A5_B5)	70
2037850-00 SCHEMATIC ANALOG PREAMP PCB (CH_A6_B6)	71
2037850-00 SCHEMATIC ANALOG PREAMP PCB (CH_A7_B7)	72
2037850-00 SCHEMATIC ANALOG PREAMP PCB (CH_A8_B8)	73
2037850-00 SCHEMATIC ANALOG PREAMP PCB (PHONES)	74
2037850-XX REFERENCE DESIGNATORS AND PARTS LIST	75
2037852-00 PCB ASSY ANALOG IO (Top)	79
2037852-00 PCB SCHEMATIC ANALOG I/O (CH1_4)	80
2037852-00 PCB SCHEMATIC ANALOG I/O (CH5_8)	81
2037852-00 PCB SCHEMATIC ANALOG I/O (OUTPUTS)	82
2037852-XX REFERENCE DESIGNATORS AND PARTS LIST	83
2038247-00 PCB ASSY ANALOG PHONES (Top)	85
2038247-00 PCB ASSY ANALOG PHONES (Bottom)	86
2038247-00 SCHEMATIC (ANALOG PHONES)	87
2038247-00 REFERENCE DESIGNATORS AND PARTS LIST	88

General Digital

Sample Rate: 48 kHz
A/D/A Bit Depth: 24-bit
System Latency: 1.5 ms

Frequency Response

All inputs to all outputs: ± 0 , -1 dB, 20 Hz to 20 kHz

Distortion

THD (mic input to main output, 1 kHz, -1 dBFS): $<0.005\%$

Noise / Dynamic Range / Signal-to-Noise Ratio

EIN (150 Ω termination): -128 dBu

Mic input to Main Output (A-weighted)
Channel and main faders at unity: -79 dBu
Faders down: -90 dBu

Crosstalk (adjacent inputs): <-120 dB @1 kHz
Crosstalk (outputs): <-105 dB @1 kHz

Phones level pot feedthrough @ minimum travel: <-75 dB

Signal-to-Noise Ratio (ref +4 dBu, one channel and main fader at unity, A-weighted): 92 dB

Dynamic Range (One channel and main fader at unity, A-weighted): 109 dB

CMRR: >70 dB @1 kHz (60 dB gain)

Analog Inputs 1–16

Connectors: 1-12: XLR Balanced
13-16: Combo XLR / TRS Balanced

XLR Mic Pre: Onyx
Input Impedance: 1-12: $3\text{k}\Omega$ - 13-16: $3\text{k}\Omega$ mic [XLR], $30\text{k}\Omega$ line [1/4"]
Max Input Level: XLR: $+21$ dBu - 1/4": $+30$ dBu
Gain: XLR: 0 to 60 dB - 1/4": -20 to 40 dB

48V Phantom Power (XLR): 48 VDC, 10 mA max per mic, with up to eight simultaneously.
5 mA max per mic, with up to 16 simultaneously.

Analog Main Out L/R

Connectors: XLR Balanced
Output Impedance: 600Ω
Max Output Level: $+21$ dBu

Analog Aux Sends 1 – 6

Connectors: 1/4" TRS Impedance Balanced (Supports balanced / unbalanced operation)
Output Impedance: 240Ω Balanced, 120Ω Unbalanced
Max Output Level: $+21$ dBu

Analog Headphone Out

Connector: 1/4" TRS Stereo
Max Output Level: $+18.0$ dBu into 600Ω / $+19.5$ dBu max into $100\text{k}\Omega$



Networking

Connector: 100 MB Ethernet
Control: Complete
Simultaneous Control: 10 iOS Devices

Supported Devices

iOS Version Requirement: iOS 5.1 or higher [Master Fader] iOS 6 or higher [My Fader]

DL Series mixer with Lightning Connector

Wired: iPad(4th generation), iPad mini (With iPad mini tray accessory)
Wireless: All iPad models, iPhone (iPhone 4, iPhone 4S and iPhone5), iPod touch (4th and 5th generation)

DL Series mixer with 30-pin Connector

Wired: Original iPad, iPad 2, iPad (3rd generation)
Wireless: All iPad models

Control Application: Mackie Master Fader App, Mackie My Fader App

DSP

Input Channel Processing: HPF, EQ, Comp, Gate
Output Channel Processing: GEQ, Comp/Limiter
FX: Reverb, Delay

Power

External Supply: Yes
External Supply Power Requirements: 100-240 VAC, 50-60 Hz, Universal Supply
Output Voltage: 12 VDC
Current: 4A
DC Connector: 5.5 mm x 2.5 mm barrel with locking ring
Line Cord: User-replaceable IEC
Power Consumption: 48 W max

Dimensions

Width: 11.5 in / 291 mm
Height (Front): 1.6 in / 40 mm
Height (Rear): 3.7 in / 95 mm
Depth: 15.4 in / 391 mm
Weight: 6.9 lb / 3.1 kg
Rack: Nine Rack Spaces
[Needs an additional space or two above to allow for connections]

Environment

Operating Temperature [extended ambient temperature]: 32-104 °F
0- 40 °C



!!!Service Bulletins / Kits and Modifications (Please Review Before Servicing)!!!

Service Bulletins

None as of this document revision.

Service Kits

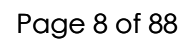
- 30-PIN CONNECTOR WITH TRAY SERVICE KIT (Includes instructions) PN#2039264
- 30-PIN DOCK SERVICE KIT (Includes instructions) PN#2042301
- LIGHTNING CONNECTOR WITH TRAY SERVICE KIT (Includes instructions) PN#2039276
- LIGHTNING DOCK SERVICE KIT (Includes instructions) PN#2042300
- DL iPad MINI TRAY KIT (Includes instructions) PN#2042302

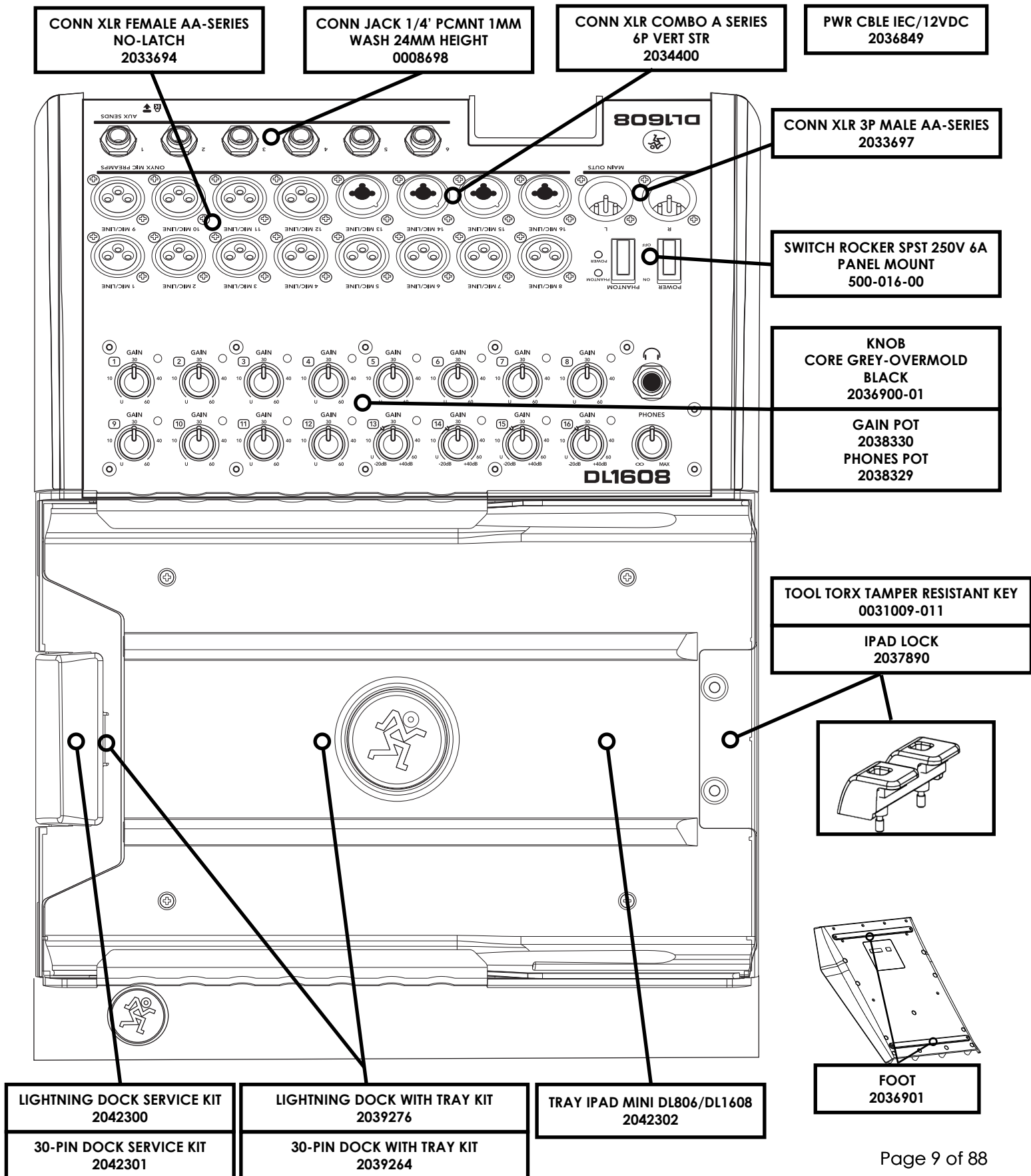
Modifications

None as of this document revision.

NOTES:

[illegible]







INSTALL ITEM 23 BY
SLIDING IT INTO THE
END OF THE TRAY SUBASSY

CLEAN PLASTIC MATING SURFACE
BEFORE ATTACHING

NOTCH ORIENTED TO
THIS END

TRAY SUBASSY

Item	Part Number
10	2037900
22	2037896
23	2037908
26	2033720
48	0000621-10
51	0014713-12

ATTACH TRAY SUBASSY, 2ND TRAY, AND ASSEMBLE
FRONT BEZEL PARTS. INSTALL TRAY SUBASSY BEFORE BEZEL.

ATTACH TWO CABLES FROM DIGITAL PCB SUBASSY TO TRAY SUBASSY
CONNECTORS - SEE WIRING DIAGRAM

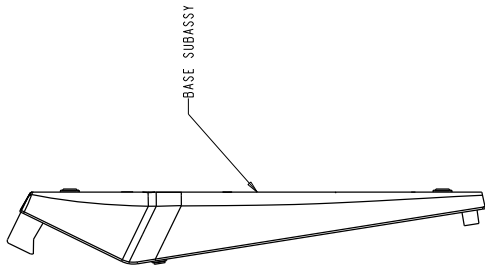
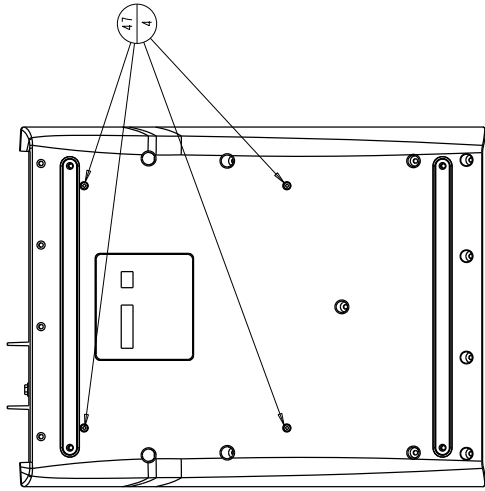
SCALE 0.500

FINAL ASSEMBLY

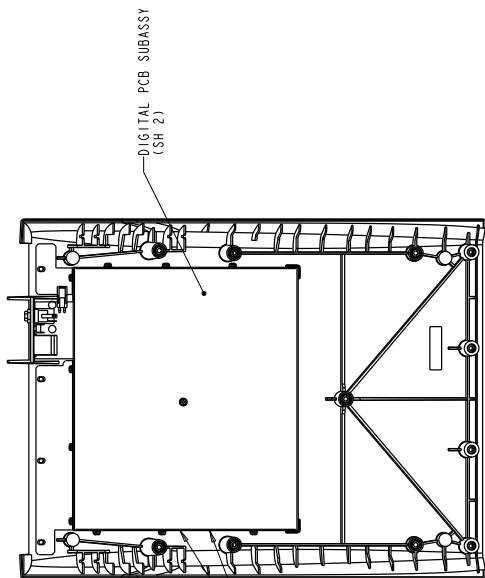
CABLES NOT SHOWN FOR CLARITY



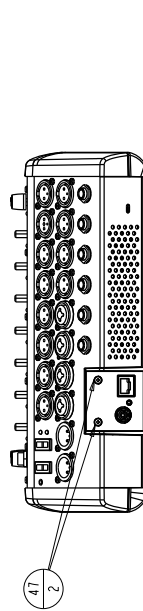
Item	Part Number
44	0007795-06
46	0013717-08
47	0000621-08



SCALE 0.500

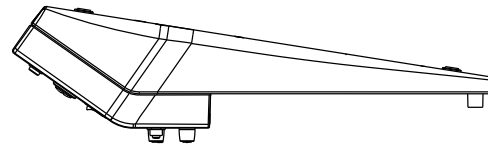


ATTACH CABLES, ITEMS 32 AND 40
THIS SIDE. SEE WIRING DIAGRAM



47
4

46
2

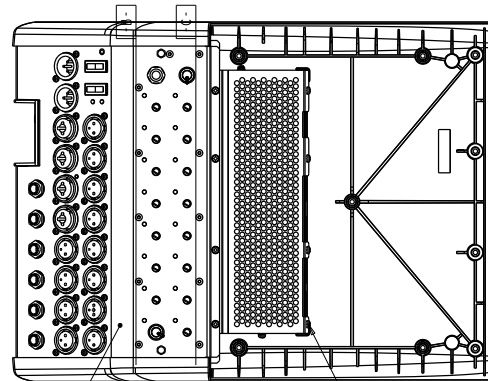


FINAL ASSY

ATTACHING ANALOG PCB SUBASSY

ATTACH CABLES TO DIGITAL PCB SUBASSY AND PLUG IN ENDS
OF ITEM 39 PWR CABLE. NOT SHOWN. SEE WIRING DIAGRAM

SCALE 0.500



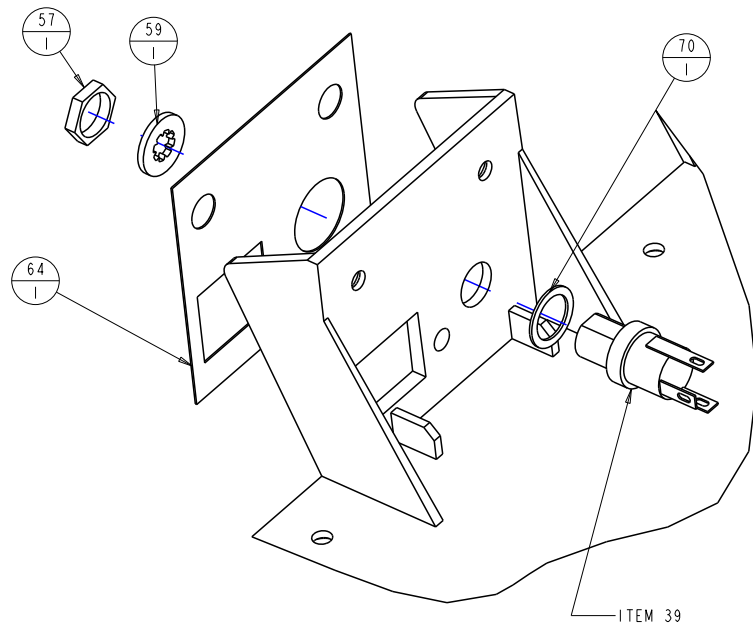
44
4

ANALOG PCB SUBASSY

FINAL ASSEMBLY



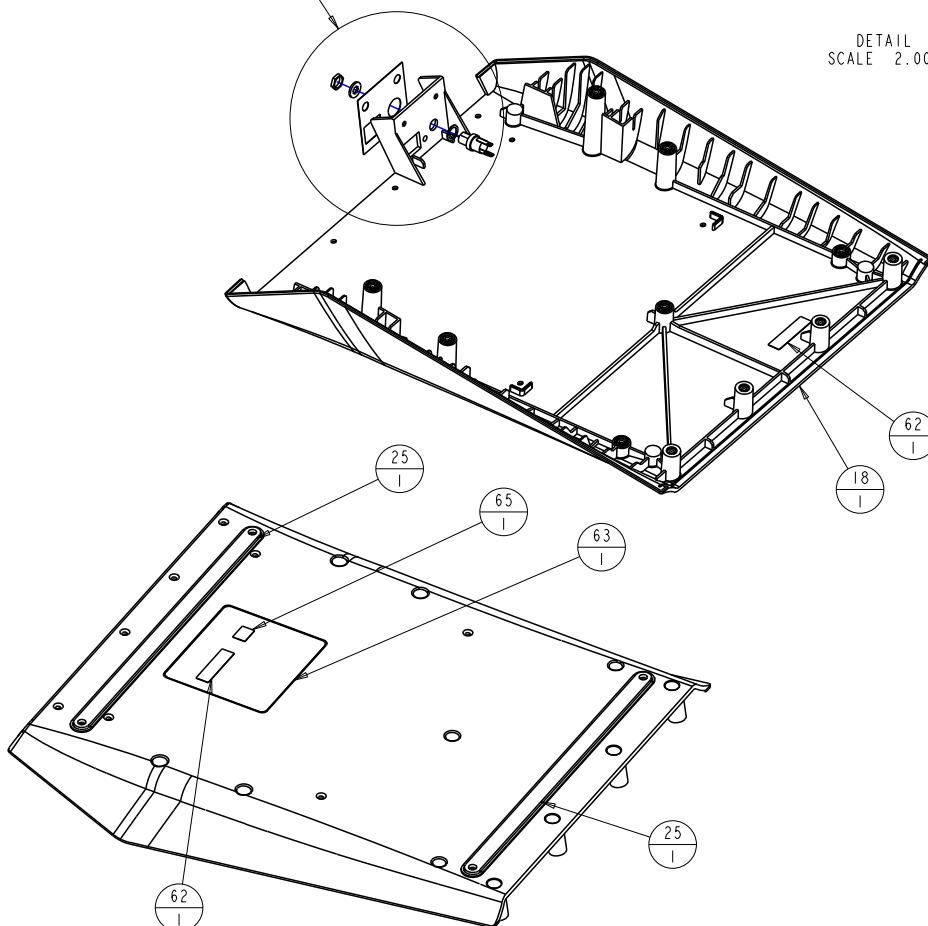
Item	Part Number
18	2037892
25	2036901
57	2036863
59	2036862
62	0032856
63	2036845
64	2036846
65	0033468
70	2040371



ORIENT CONNECTOR AS
SHOWN. WIRES NOT SHOWN

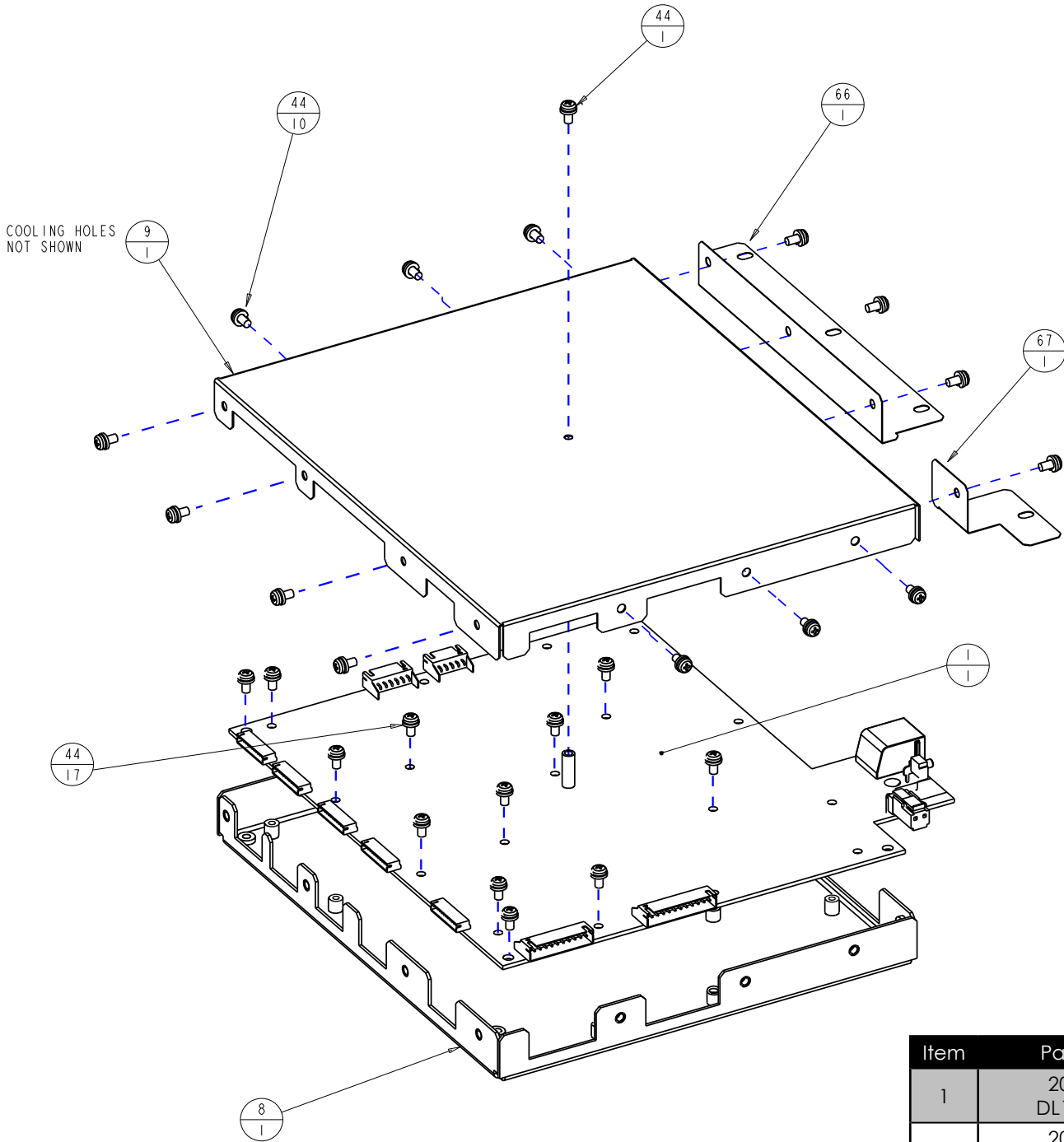
SEE DETAIL A

DETAIL A
SCALE 2.000



BASE SUBASSY

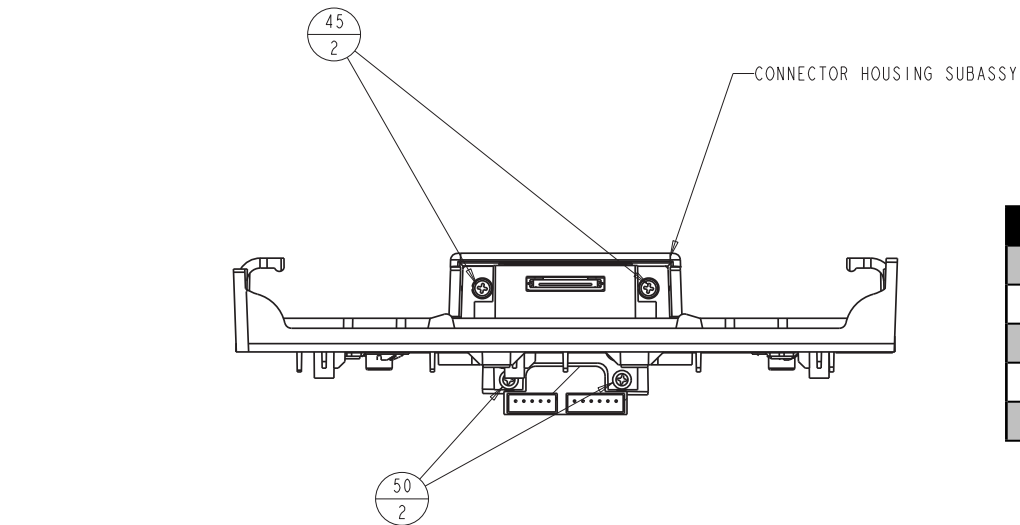
ITEM 39 WIRES NOT SHOWN FOR CLARITY



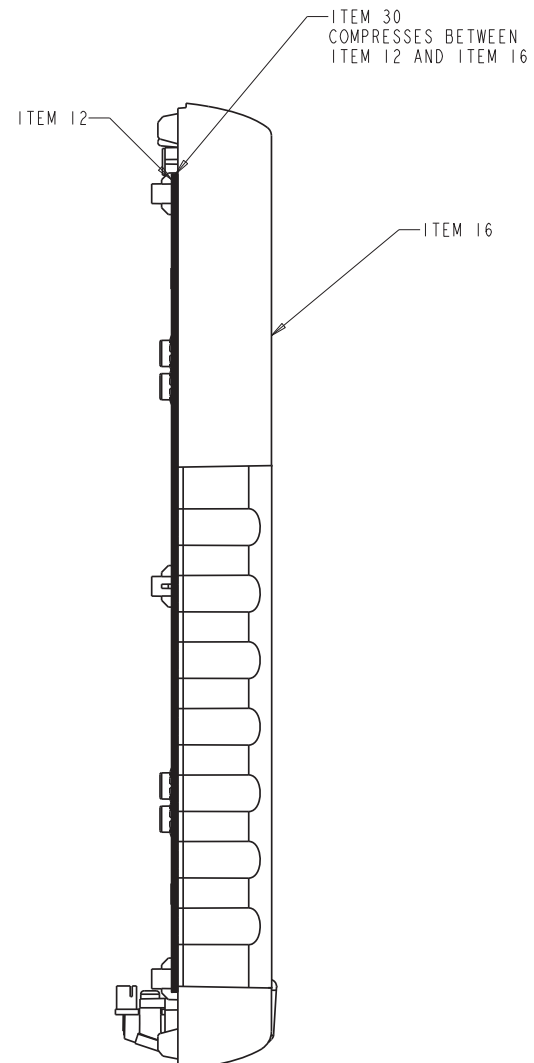
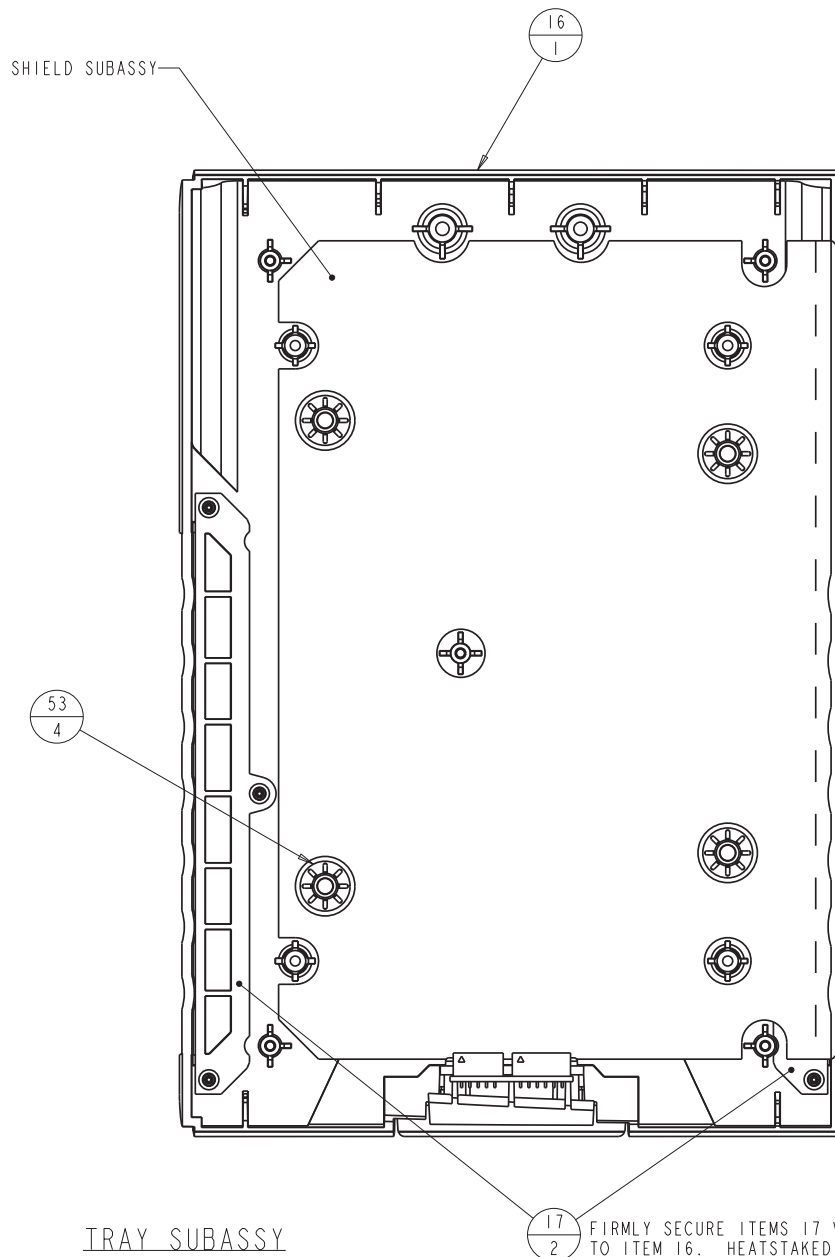
DIGITAL PCB SUBASSY

COOLING HOLES ON COVER NOT
SHOW FOR CLARITY

Item	Part Number
1	2037844-00 DL1608 30-Pin
1	2041831-00 DL1608 Lightning
1	2041831-01 DL806
8	2037898
9	2037899
44	00007795-06
66	2039639
67	2039640



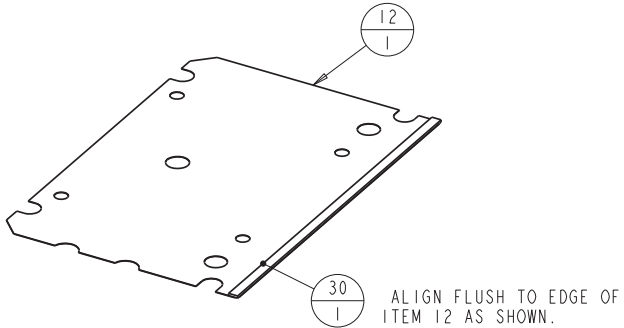
Item	Part Number
16	2037894
17	2037904
45	0007795-08
50	0021204-08
53	2036865



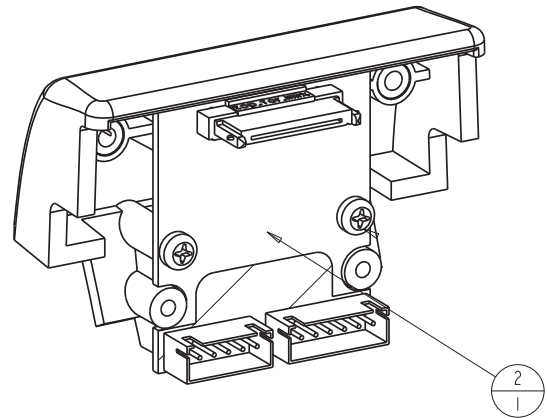
TRAY SUBASSY

SCALE 1.000

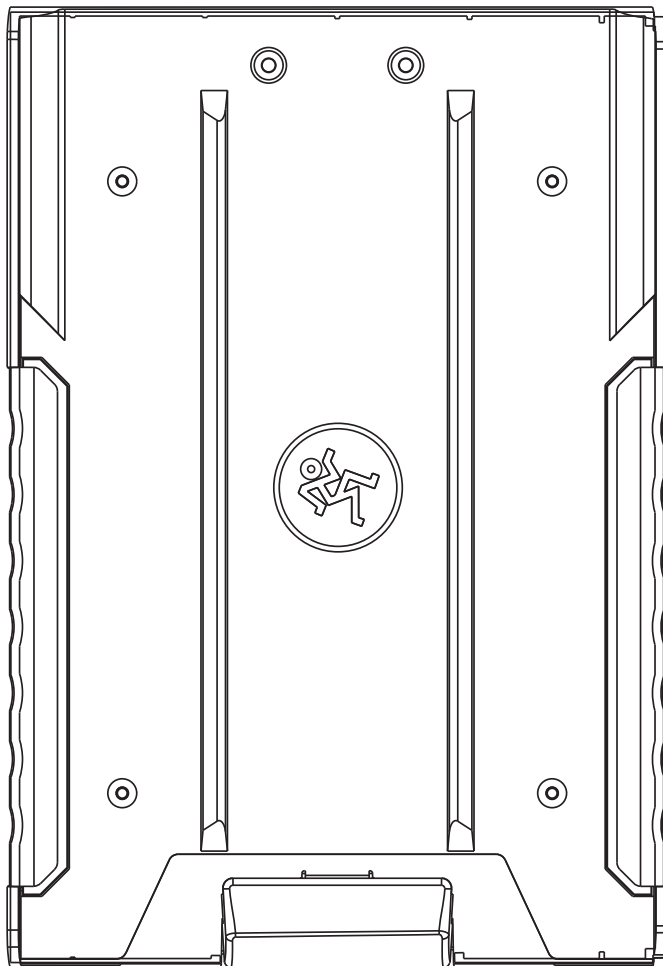
17
2 FIRMLY SECURE ITEMS 17 VIA HEATSTAKING TO ITEM 16. HEATSTAKED HEAD TO BE APPROXIMATELY FLUSH TO ITEM 17



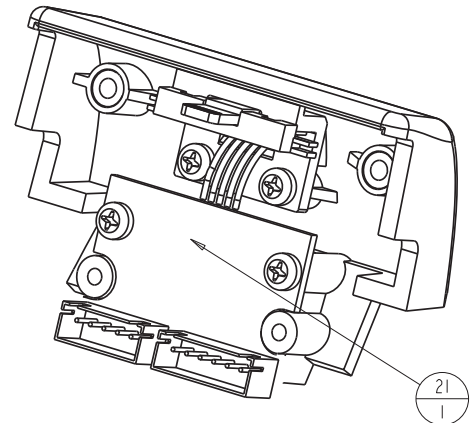
SHIELD SUBASSY
SCALE 0.500



SUBASSY, 30 PIN CONNECTOR,
DL806 / DL1608

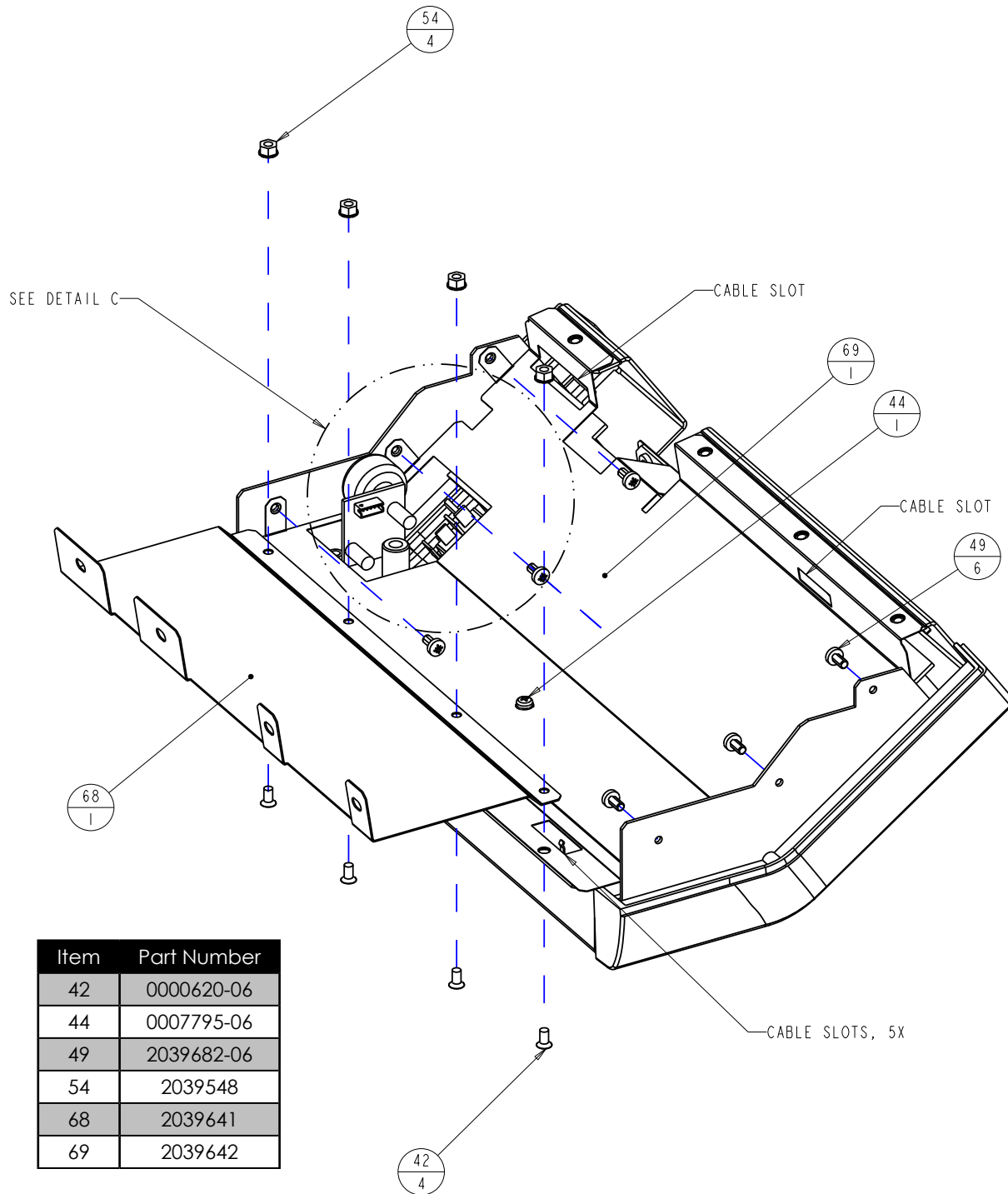


CONNECTOR HOUSING SUBASSY



SUBASSY, LIGHTNING
CONNECTOR, DL806 / DL1608

Item	Part Number
2	2037887
12	2037906
21	2037888
30	2037439

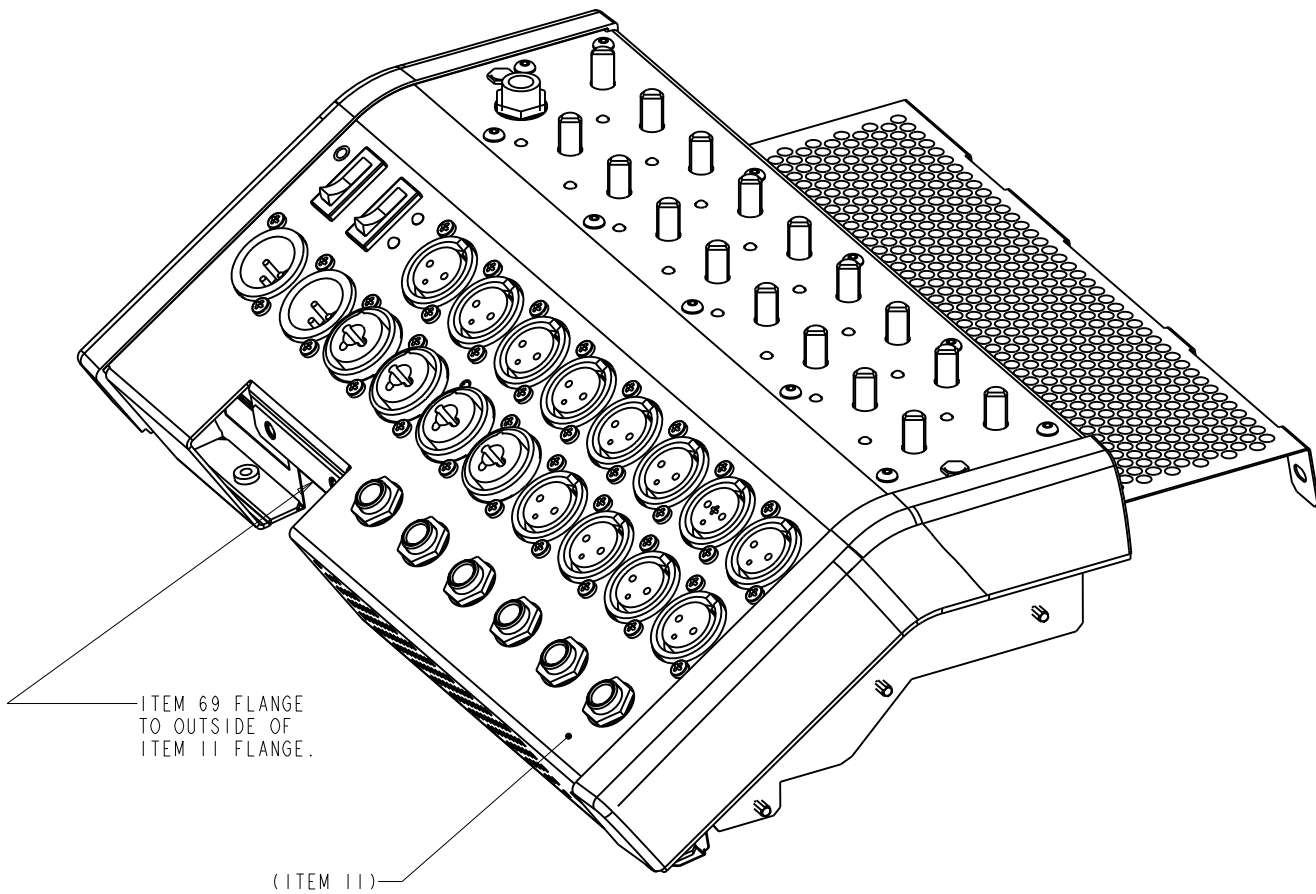


Item	Part Number
42	0000620-06
44	0007795-06
49	2039682-06
54	2039548
68	2039641
69	2039642

ANALOG PCB SUBASSY

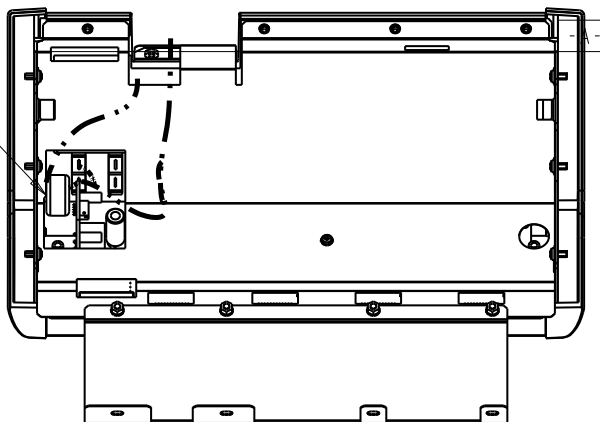
INSTALL SHIELDING
CABLES NOT SHOWN. ROUTE CABLES THRU
SHIELD SLOTS BEFORE INSTALLING HARDWARE

SCALE 1.000

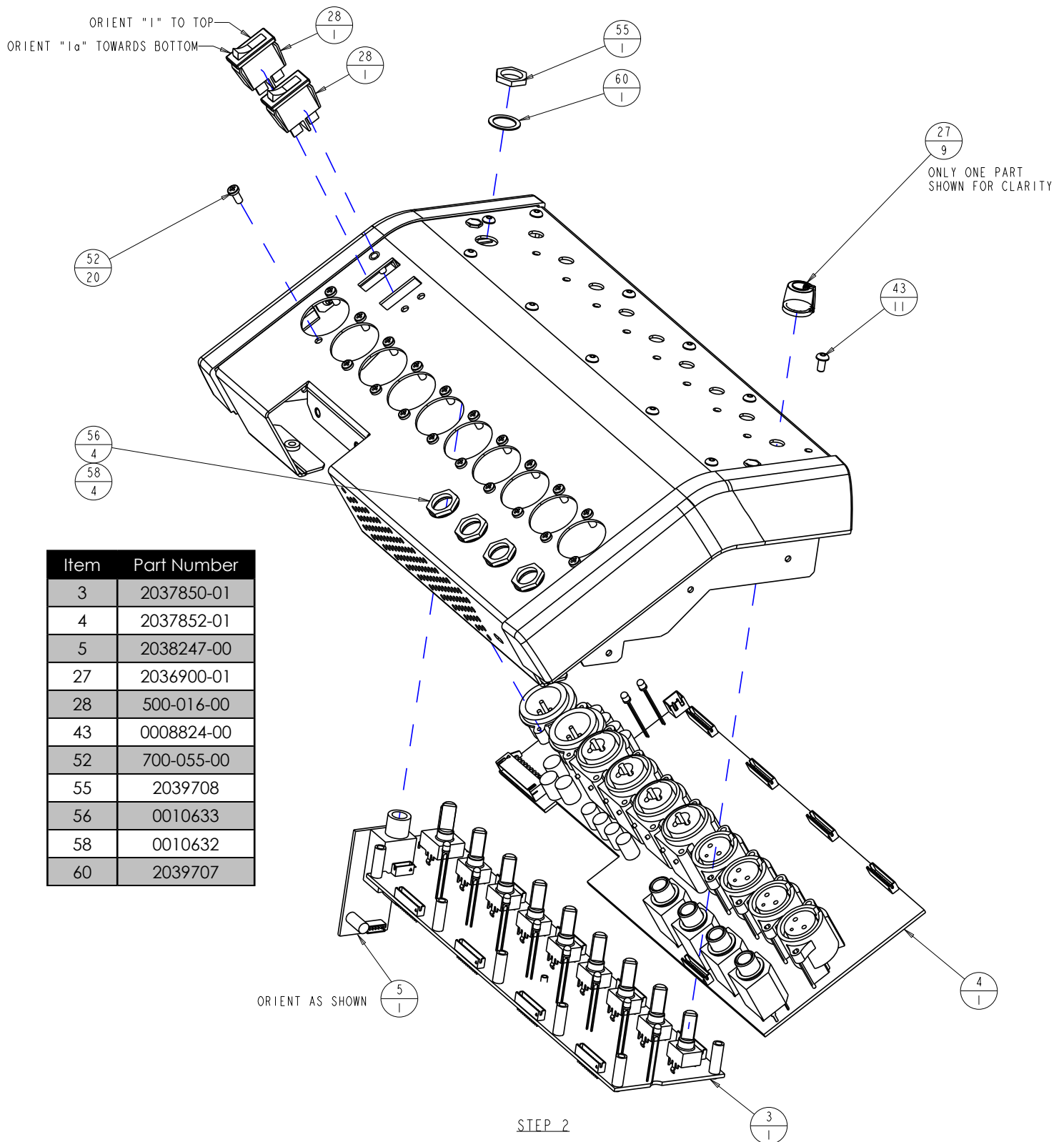


SCALE 1.000

PART OF CABLE ITEM 39.
LOCATE APPROX AS SHOWN.
FITS INTO SLOT OF ITEM 18.



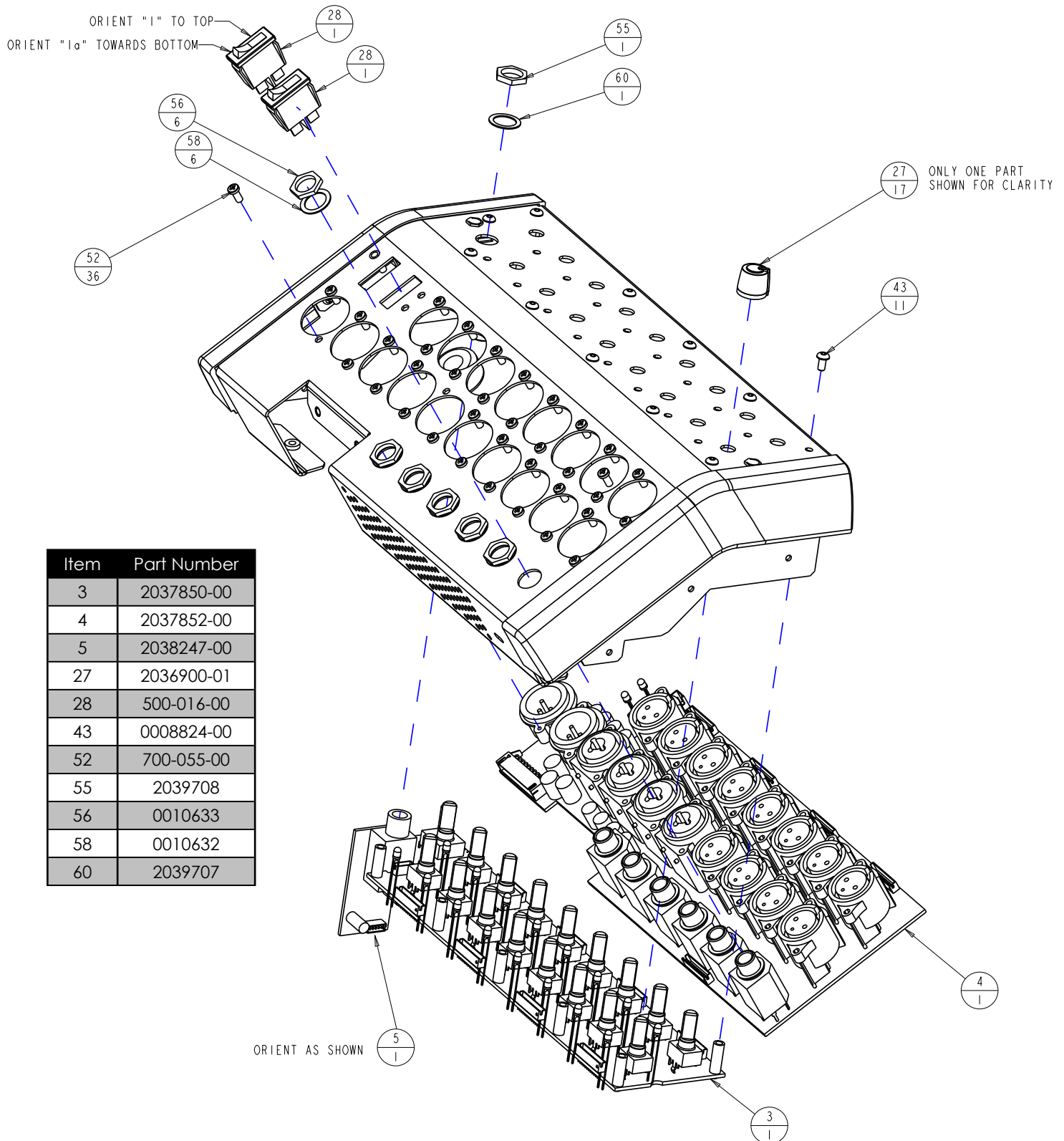
DETAIL C
TORRIOD LOCATION FOR PROPER ASSY FIT
VIEW ROTATED FOR CLARITY
SCALE 0.500



INSTALL ALL PCB CABLES INTO PCBs BEFORE INSTALLING INTO SHEET METAL. SEE WIRING DIAGRAM FOR CABLING.

ANALOG PCB SUBASSY

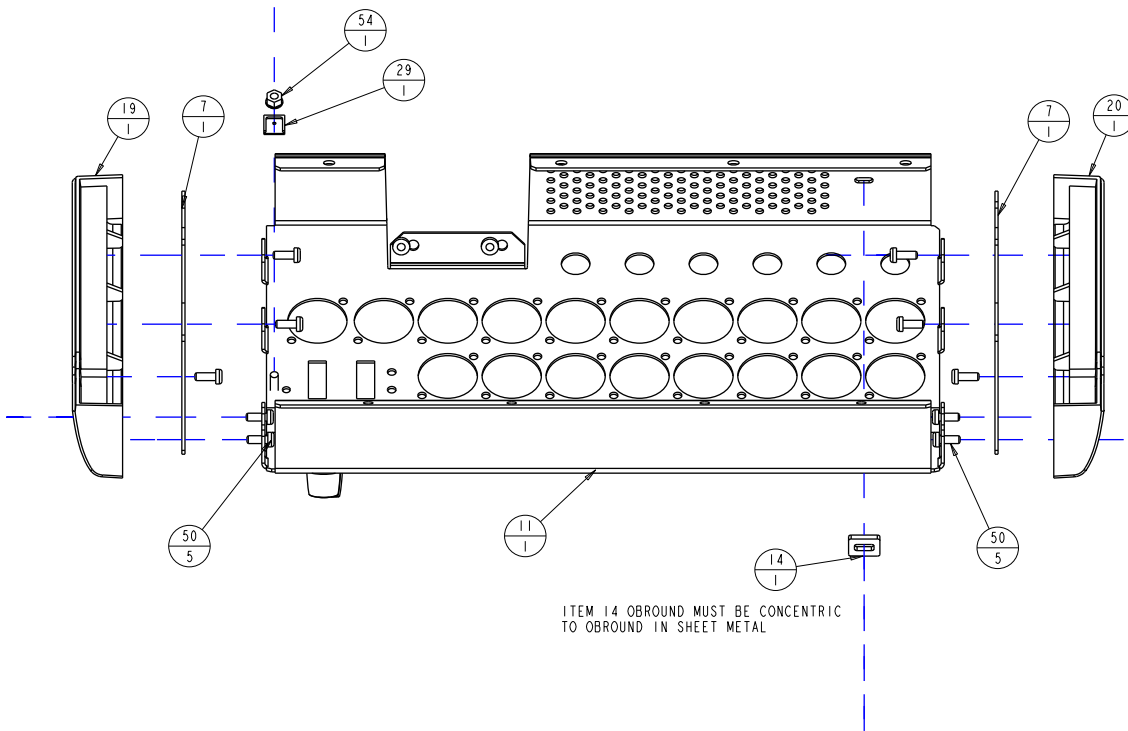
CABLES NOT SHOWN FOR CLARITY
SCALE 1.000



INSTALL ALL PCB CABLES INTO PCBs BEFORE INSTALLING INTO SHEET METAL. SEE WIRING DIAGRAM FOR CABLING.

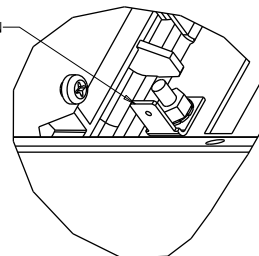
ANALOG PCB SUBASSY

CABLES NOT SHOWN FOR CLARITY
SCALE 1.000

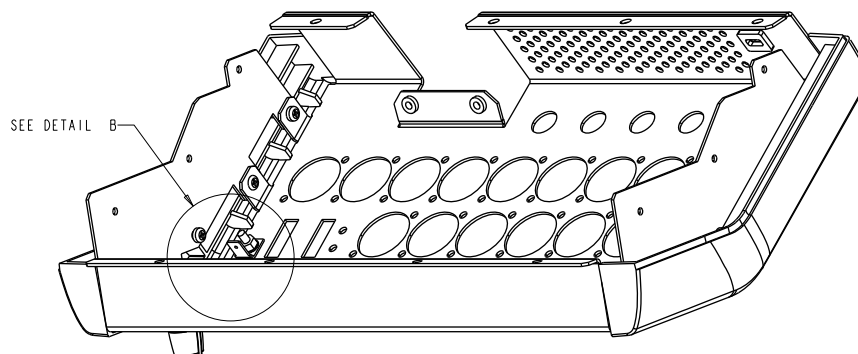


Item	Part Number
7	2037850-00
11	2037852-00
14	20338247-00
19	2036900-01
20	500-016-00
29	0008820-00
50	700-055-00
54	2039708

ORIENT ITEM 29 AS SHOWN

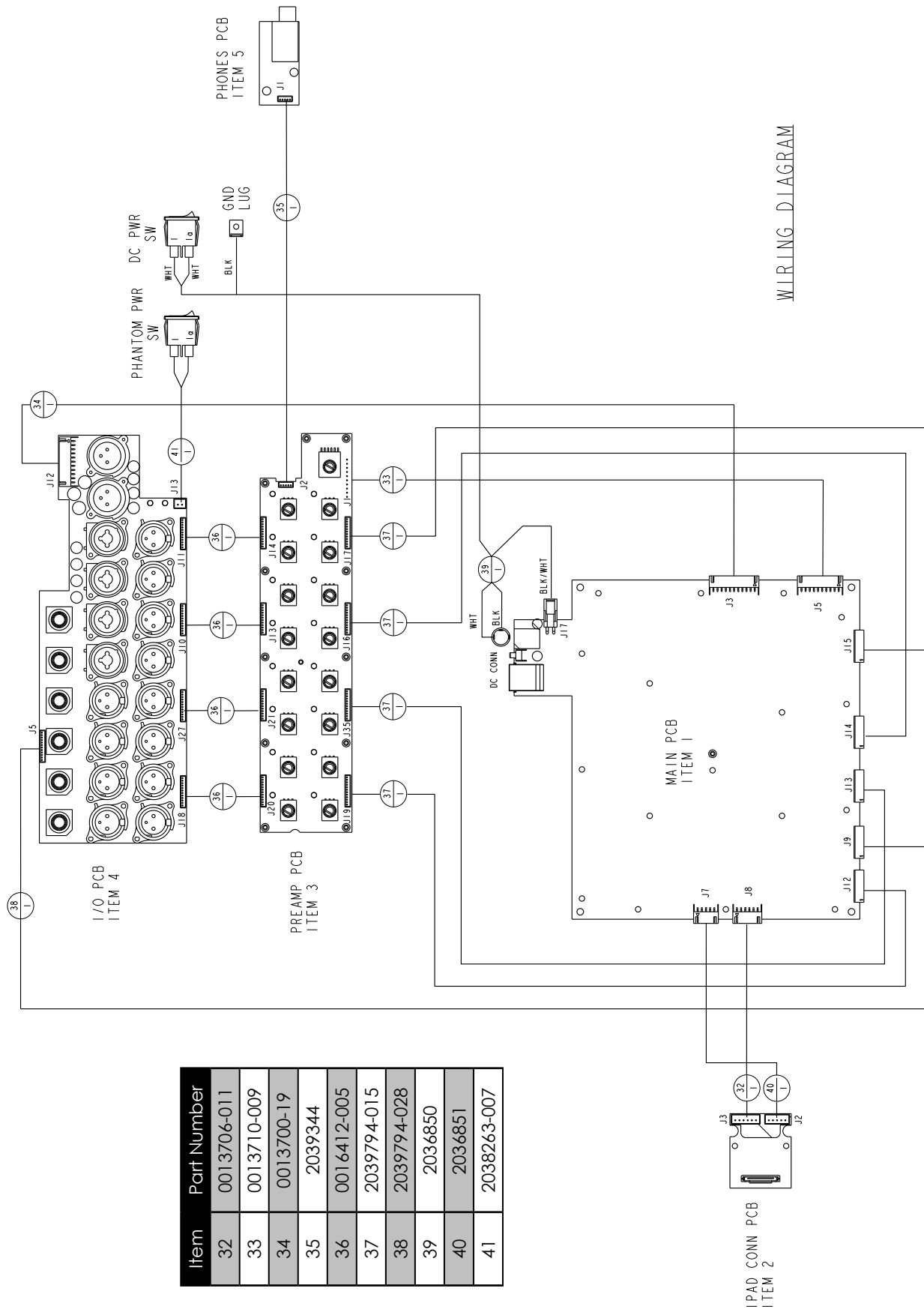


DETAIL B
SCALE 2.000



REF VIEW - STEP 1 ASSEMBLED

SCALE 1.000





Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	712-070-00	A	BATTERY HOLDER 20mm COIN CELL	BT1	
6	0017943	A00	CAP NPO 18PF 50V 5% 0603	C1,C2,C122,C143,C527,C528	
27	223-004-00	B11	CAP LYT 10UF 20% 16V SM	C3,C14,C44,C53,C114,C115,C118,C123,C144,C145,C161,C164,C172,C174,C207,C210,C305,C313,C314,C327,C349,C350,C358,C369,C471,C542,C543	
157	0002946	A00	CAP .1UF X7R 10% 25V 0603	C4,C10,C11,C12,C19,C22,C23,C24,C28,C32,C36,C41,C47,C49,C51,C52,C54,C55,C56,C57,C58,C59,C60,C61,C62,C63,C64,C65,C66,C67,C68,C69,C70,C71,C72,C73,C74,C75,C76,C77,C78,C80,C84,C88,C92,C94,C97,C101,C105,C109,C110,C113,C120,C124,C132,C135,C137,C138,C139,C141,C147,C156,C157,C163,C165,C166,C169,C170,C171,C173,C175,C176,C180,C181,C182,C196,C200,C201,C206,C209,C214,C215,C225,C231,C236,C249,C251,C254,C281,C282,C283,C284,C286,C287,C288,C289,C307,C309,C312,C315,C316,C326,C329,C331,C332,C333,C334,C335,C336,C345,C347,C351,C352,C355,C356,C357,C361,C366,C370,C371,C372,C373,C381,C382,C383,C385,C386,C387,C388,C389,C391,C396,C398,C466,C470,C476,C483,C494,C495,C496,C497,C498,C499,C500,C501,C518,C519,C520,C521,C522,C523,C524,C525,C540,C541,C54,C545	
16	0013123	A00	CAP 3300PF 5% 50V NPO 0805	C5,C15,C25,C29,C33,C37,C50,C79,C85,C89,C93,C98,C102,C106,C197,C221	
44	0006478	A00	CAP 680PF 2% 50V NPO 0603	C6,C7,C16,C17,C26,C27,C30,C31,C34,C35,C38,C39,C40,C48,C81,C83,C86,C87,C90,C91,C95,C96,C99,C100,C103,C104,C107,C108,C125,C128,C198,C199,C223,C224,C257,C262,C265,C268,C271,C274,C277,C280,C394,C530	
40	0000017	A00	CAP X7R .01uF 5% 25V SMT	C8,C9,C18,C20,C42,C45,C82,C111,C146,C149,C150,C151,C155,C158,C159,C162,C185,C186,C195,C202,C205,C306,C308,C310,C311,C318,C323,C324,C328,C330,C337,C338,C339,C344,C346,C359,C362,C365,C368,C459	
2	0009131	A01	CAP LYTIC 220UF 16V 20% SMT	C13,C167	
14	0017670	A00	CAP CER 1UF 10V 10% X7R 0603	C21,C43,C46,C112,C131,C134,C136,C142,C177,C178,C183,C384,C390,C402	
6	223-006-00	A11	CAP LYT 10UF 20% 50V SM	C117,C119,C121,C304,C468,C469	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
35	0000014	A00	CAP X7R 1000PF 10% 50V 0603	C133,C140,C148,C152,C153,C160,C168,C226,C227,C228,C229,C250,C252,C317,C319,C320,C321,C322,C340,C341,C342,C343,C353,C360,C363,C364,C367,C392,C395,C397,C399,C404,C408,C409,C546	
53	212-036-00	B11	CAP CER 470PF 2% 50V NPO SMT	C184,C191,C401,C420,C421,C422,C423,C424,C425,C426,C427,C428,C429,C430,C431,C432,C433,C434,C435,C436,C437,C438,C439,C440,C441,C442,C443,C444,C445,C446,C447,C448,C449,C450,C451,C452,C453,C454,C460,C461,C462,C463,C465,C472,C473,C474,C475,C534,C535,C536,C537,C538,C539	
16	0032725	A00	CAP 10UF 25V 10% X7R 1206	C203,C204,C237,C255,C258,C285,C300,C301,C400,C410,C412,C526,C529,C531,C532,C533	
4	0018984	A00	CAP CER X7R 1UF 16V 10% 0805	C238,C239,C290,C291	
4	0009147	A00	CAP 100PF NPO 5% 50V 0603	C240,C241,C293,C297	
3	0009130	A00	CAP .01UF X7R 10% 50V 0603 SMT	C242,C243,C292	
4	0026125	A00	CAP 0.1UF 50V 5% X7R 0603	C244,C294,C298,C299	
8	0026175	A00	CAP 1UF 50V 10% X7R 1206	C245,C246,C247,C248,C295,C296,C302,C303	
2	0003100	A00	CAP CER 10PF 5% 100V NPO SM 0603	C253,C411	
52	0000013	A00	CAP 100PF NPO 2% 50V 0603	C126,C127,C129,C130,C256,C259,C260,C261,C263,C264,C266,C267,C269,C270,C272,C273,C275,C276,C278,C279,C477,C478,C479,C480,C481,C482,C484,C485,C486,C487,C488,C489,C490,C491,C492,C493,C502,C503,C504,C505,C506,C507,C508,C509,C510,C511,C512,C513,C514,C515,C516,C517	
1	0019244	A00	CAP 0.47UF Y5V 16V 20% SMT 0805	C325	
2	212-032-00	A11	CAP CER 2200PF 10% 50V X7R	C393,C403	
2	2038301	A00	CAP 100UF 6.3V 20% X5R SMT 1210	C405,C413	
1	212-002-00	A11	CAP CER 22PF 5% 100V NPO SM	C406	
1	0000012	A00	CAP 68PF NPO 2% 50V 0603	C407	
1	223-009-00	B11	CAP LYT 100UF 20% 25V SMT	C467	
1	0002117	A00	OSC X-TAL 25MHZ HC49/S LOW PROF. CL:20PF 50PPM P:5.08	CR1	
6	0004125	A01	DIODE SMT 1N4148W 75V FAST SWITCHING SOD123	D1,D2,D3,D20,D21,D22	
5	304-065-03	A	LED GREEN SM 0805	D4,D12,D15,D17,D62	
2	304-066-03	A	LED YELLOW SM 0805	D5,D11	
3	0019339	A00	DIODE SCHOTTKY BARRIER 100V 1A	D6,D7,D8	
3	304-064-03	A	LED RED SM 0805	D9,D10,D24	
3	0006864	A00	DIODE SCHOTTKY 0.5A 30V	D13,D14,D16	
1	0000532	A00	DIODE TVS SMAJ5.0A-TR 400W SMT SMA	D18	
1	0017952	A00	DIODE SCHOTTKY 2A 20V SMA	D19	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	0000531	A00	DIODE TVS SMAJ12A-TR 400W SMT SMA	D23	
1	2038211	A00	FUSE POLYSWITCH 2.6A 6V SMT 1812	F1	
1	0005169-11	B00	CONN HDR 11P .098X1 SHRD RTA TJC3	J3	
1	2038392	A00	CONN HDR 4P .100X1 STR SIP	J4	
1	0005169-10	B00	CONN HDR 10P .098X1 SHRD RTA TJC3	J5	
1	0005169-05	B00	CONN HDR 5P .098X1 SHRD RTA TJC3	J7	
1	0005169-06	B00	CONN HDR 6P .098X1 SHRD RTA TJC3	J8	
5	0019393-12	A00	CONN HEADER 12 CONTACT 1.5MM PITCH LOW PROFILE RA ZH SERIES JST	J9,J12,J13,J14,J15	
1	400-340-00	A	CONN MODULAR JACK WITH SHLD RJ45	J11	
1	0022336-02	A00	CONN HDR 7A 2P 3.96MM RTA	J17	
1	400-171-00	A01	CONN HDR 2P .100X1 STR	J32	
66	0000094	A00	IND FERRITE 120OHM 200MA 0.15DCR 0805 SMT	L1,L2,L3,L7,L8,L10,L11,L12,L17,L18,L19,L20,L21,L25,L27,L28,L32,L33,L34,L35,L36,L37,L38,L39,L40,L41,L42,L43,L44,L45,L46,L47,L48,L49,L50,L51,L52,L53,L54,L55,L56,L57,L58,L59,L60,L61,L62,L64,L65,L66,L67,L68,L69,L70,L71,L72,L73,L74,L75,L76,L77,L78,L79,L80,L81,L88	
1	2038209	A00	IND SHIELDED POWER 6.8UH 30% 4A SMT	L4	
8	0017955	A00	IND FERRITE 600 OHM 200MA 0.5DCR 0603 SMT	L5,L6,L82,L83,L84,L85,L86,L87	
1	2038241	A00	IND PWR 100UH 20% 1A 0.30OHM DCR SHIELDED SMT	L9	
1	2038195	A00	IND PWR 15UH 20% 2.1A 0.076OHM DCR SMT	L13	
1	2038194	A00	IND PWR 3.3UH 30% 4.7A 0.017OHM DCR SMT	L14	
1	2038196	A00	IND PWR 33UH 20% 1.4A 0.15 OHM DCR SMT	L15	
3	2038242	A00	IND PWR 100UH 20% 2.2A 0.135OHM DCR SHIELDED SMT	L22,L23,L24	
1	0015028	A00	IND CM CHOKE EMI 90OHM @100MHZ 0805	L26	
3	0008403	A00	IND SW 0.56UH 20% 6A SMT	L29,L30,L31	
3	2040310	A00	XSTR MOSFET DUAL N-CH 30V 1.5W 3.4A IRLHS6376TRPBF	Q1,Q5,Q7	
1	2038266	A00	XSTR MOSFET N-CH 100V 2.3A 0.2 RDS SOT-223 IRFM120ATF	Q3	
1	2038249	A00	XSTR MOSFET P-CH SOT-23 FDV304P	Q4	
2	0001464	A00	XSTR MOSFET FDV301N N-CH SOT-23	Q6,Q8	
1	142-171-00	A00	RES TF 10M 5% 0.1W SMT	R1	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
81	143-389-00	A1	RES TF 10.0K 1% 0.1W SMT	R2,R3,R4,R5,R6,R9,R10,R33,R34,R35, R37,R45,R148,R151,R152,R156,R179, R197,R210,R212,R213,R237,R248,R253, R254,R255,R258,R324,R333,R355,R356, R368,R369,R370,R395,R396,R397,R398, R399,R400,R401,R402,R403,R404,R405, R406,R412,R433,R453,R458,R480,R481, R482,R486,R497,R516,R517,R524,R575, R595,R632,R633,R641,R650,R651,R652, R655,R656,R657,R658,R659,R660,R662, R663,R664,R665,R666,R682,R683,R684, R685	
12	143-289-00	A1	RES TF 1.00K 1% 0.1W SMT	R7,R8,R189,R252,R278,R286,R318,R320, R321,R442,R518,R643	
11	143-258-00	A1	RES TF 475 1% 0.1W SMT	R11,R216,R238,R242,R243,R394,R409, R431,R589,R680,R681	
25	0000718	A00	RES CHIP ARRAY 4RES CONVEX 22 OHM	R12,R21,R25,R53,R54,R63,R65,R66,R67, R68,R70,R72,R73,R74,R75,R76,R174, R214,R239,R240,R241,R376,R449,R531, R579	
32	143-390-00	A1	RES TF 10.2K 1% 0.1W SMT	R13,R17,R20,R28,R32,R43,R51,R56,R59, R77,R82,R83,R88,R91,R98,R103,R106, R109,R114,R117,R122,R125,R130,R132, R137,R140,R145,R149,R158,R162,R167, R170	
129	143-318-00	A1	RES TF 2.00K 1% 0.1W SMT	R14,R15,R24,R26,R27,R29,R30,R31,R41, R42,R49,R50,R52,R55,R57,R58,R62,R64, R69,R71,R80,R81,R86,R87,R89,R90,R94, R95,R96,R97,R101,R102,R104,R10,R107, R108,R112,R113,R115,R116,R120,R121, R123,R124,R127,R129,R131,R135,R136, R138,R139,R143,R144,R146,R147,R154, R157,R160,R161,R165,R166,R168,R169, R173,R245,R378,R379,R380,R381,R382, R383,R384,R385,R386,R387,R388,R389, R390,R391,R392,R393,R408,R410,R411, R413,R414,R415,R416,R417,R418,R419, R420,R421,R422,R423,R424,R427,R428, R429,R432,R434,R436,R437,R438,R439, R440,R441,R446,R448,R450,R451,R452, R454,R456,R457,R459,R460,R461,R462, R463,R464,R465,R466,R467,R468,R469, R470,R471,R472	
56	143-193-00	A01	RES TF 100 1% 0.1W SMT	R16,R22,R39,R40,R46,R47,R48,R60, R61,R78,R79,R84,R85,R92,R93,R99,R100, R110,R111,R118,R119,R126,R128,R133, R134,R141,R142,R150,R153,R163,R164, R171,R172,R191,R192,R193,R194,R262, R263,R271,R302,R353,R357,R358,R359, R360,R361,R362,R363,R364,R365,R366, R367,R483,R577,R578	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
137	143-000-00	A01	RES TF 0.00 1% 0.1W SMT	R18,R23,R36,R38,R155,R159,R177,R180, R181,R182,R183,R187,R188,R211,R217, R218,R219,R222,R226,R227,R228,R229, R230,R233,R235,R236,R250,R310,R322, R354,R371,R372,R374,R375,R377,R407, R425,R426,R435,R444,R476,R477,R478, R479,R484,R491,R503,R507,R509,R510, R511,R525,R526,R527,R528,R529,R530, R532,R533,R534,R535,R536,R537,R538, R539,R540,R541,R542,R543,R544,R545, R546,R547,R548,R549,R550,R551,R552, R553,R554,R555,R556,R557,R558,R559, R560,R561,R562,R563,R564,R565,R566, R567,R568,R569,R571,R572,R573,R574, R576,R580,R581,R582,R583,R584,R585, R586,R587,R590,R592,R593,R594,R614, R615,R616,R617,R618,R619,R620,R621, R622,R623,R624,R626,R634,R639,R642, R645,R647,R648,R649,R653,R654,R661, R667,R668,R672	
3	143-337-00	A1	RES 2K87 1% 1/10W 0603	R190,R443,R644	
1	143-260-00	A1	RES TF 499 1% 0.1W SMT	R195	
1	143-261-00	A1	RES TF 511 1% 0.1W SMT	R196	
33	143-149-00	A01	RES TF 34.8 1% 0.1W SMT	R44,R176,R215,R220,R221,R223,R224, R225,R231,R232,R234,R261,R313,R328, R329,R430,R445,R447,R455,R508,R591, R625,R627,R628,R629,R630,R631,R635, R636,R637,R638,R640,R646	
1	143-303-00	A1	RES TF 1.40K 1% 0.1W SMT	R244	
1	143-307-00	A1	RES TF 1.54K 1% 0.1W SMT	R485	
3	143-349-00	A1	RES TF 3.83K 1% 0.1W SMT	R251,R287,R311	
1	143-444-00	A1	RES TF 37.4K 1% 0.1W SMT	R270	
2	145-001-00	D00	RES MF SM .1W 1% 1R00 OHM	R279,R295	
2	143-437-00	A1	RES TF 31.6K 1% 0.1W SMT	R303,R327	
1	2038262	A00	RES TF 0.1 1% 1W SMT 2512	R319	
1	143-489-00	A1	RES TF 110K 1% 0.1W SMT	R323	
6	143-097-00	A01	RES TF 10.0 1% 0.1W SMT	R331,R337,R339,R342,R345,R348	
4	143-380-00	A1	RES TF 8.06K 1% 0.1W SMT	R332,R338,R340,R346	
1	143-448-00	A1	RES TF 41.2K 1% 0.1W SMT	R334	
1	143-428-00	A1	RES TF 25.5K 1% 0.1W SMT	R335	
1	2038199	A00	RES TF 0.043 5% 1/2W SMT 1206	R336	
1	2038198	A00	RES TF 0.022 5% 1/2W SMT 1206	R341	
5	143-339-00	A1	RES TF 3.01K 1% 0.1W SMT	R198,R201,R204,R207,R343	
1	143-427-00	A1	RES 24K9 1% 1/10W 0603	R344	
1	2038200	A00	RES TF 0.082 5% 1/2W SMT 1206	R347	
1	143-465-00	A1	RES TF 61.9K 1% 0.1W SMT	R349	
4	142-046-00	A1	RES TF 75 5% 0.1W SMT	R473,R474,R475,R498	
2	143-130-00	A01	RES TF 22.1 1% 0.1W SMT	R512,R513	
1	143-514-00	A1	RES TF 200K 1% 0.1W SMT	R519	
1	143-418-00	A1	RES TF 20.0K 1% 0.1W SMT	R520	
1	143-464-00	A1	RES TF 60.4K 1% 0.1W SMT	R521	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	143-559-00	A1	RES TF 590K 1% 0.1W SMT	R522	
1	2038216	A00	RES TF 0.050 1% 0.5W SMT 1206	R523	
1	143-169-00	A01	RES TF 56.2 1% 0.1W SMT	R588	
2	145-000-00	B	RES TF SM .1W 0 OHM	R669,R673	
1	0008320-01	L00	STDF SWAGE M3 X 13.8MM 4.7 DIA	SO1	
1	2038277	A00	SWITCH TACT SPST 12VDC 50MA RTA FOR USE AS HIDDEN RESET	SW1	
1	2037923	A00	IC DSP BLACKFIN BF516 400MHZ NO FLASH 70C 168-CSP-BGA	U1	
1	2037597	A00	IC DSP SHARC ADSP-21488 400MHZ 70C 176-LQFP-EP	U2	
1	2038081	A00	IC NOR-FLASH 256MBIT 16MX16 LOWEST PROTECTED 90NS 85C 56-PIN TSOP SPANSION S29GL256P	U3	
3	0009705	A00	IC SINGLE 2-INPUT POSITIVE AND GATE SN74LVC1G08DBVR	U4,U45,U46	
4	0026338	A00	IC LDO 1117 ADJ 800mA SOT-223	U26,U40,U57,U63	
2	0025252	A00	IC ADC 114dB 192kHz 8 CHANNEL A/D CONVERTER LQFP48	U6,U10	
29	0006956	B00	IC OP AMP NJM4580 DUAL SO-8	U7,U8,U9,U11,U12,U13,U14,U15,U16,U17 ,U18,U19,U20,U23,U24,U25,U27,U31, U34,U35,U37,U52,U53,U54,U55,U56,U58, U59,U60	
1	0029206	A00	IC DAC 24-BIT 192KHZ 8 CH DAC 114dB DR LQFP48	U22	
1	0018629	A00	IC AK4396 120DB DAC	U28	
0	0006636 or 2039675	A00	OSC 24.576 MHZ SM 3.3V 25 PPM	U29	
1	2039675	A00	OSC 24.576 MHZ SM 3.3V 35 PPM OR BETTER	U29	
2	0000722	B00	IC 74LVC541 OCTAL BUF LINE DV	U30,U32	
1	0009648-00	A00	IC 74LVC573 TSSOP	U33	
1	0000723	A00	IC 74LVC574 OCTAL D FF	U36	
1	0005035	A00	IC 74LVC32 QUAD OR GATE SO14	U38	
1	2037003	A00	IC DIGI SUPERVISOR TPS3106K33 ULTRA-LOW VOLTAGE	U41	
2	2037865	A00	IC DC-DC CONVERTER SWITCHING BOOST SEPIC 60V LM5022 MSOP-10	U42,U43	
1	2038042	A00	IC DIGITAL PSOC3 64K FLASH FSUSB NOLCD 48P-QFN CY8C3446LTI-073	U44	
1	2038092	A00	IC SDRAM 256MBIT 16MX16 143MHZ 70C 54-PIN TSOP(II) ISSI	U47	
1	0030784	A00	IC SDRAM 64MBIT 4MX16 143MHZ 70C 54-PIN TSOP(II) ISSI	U48	
1	2037868	A00	IC DC-DC CONVERTER SWITCHING TRIPLE BUCK SYNCHRONOUS 24V LTC3853 QFN-40	U49	
1	2038189	A00	IC DCDC STEPDOWN 2.2A 2.8MHZ LT1938 DFN-10	U61	
1	2038212	A00	IC HIGH-SIDE CURRENT MONITOR 2.5V-20V SOT23	U62	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	0000075	A00	OSC CRYSTAL 32.768KHZ SMT	X1	
1	712-060-00	A	BTRY LITHIUM 3V	XBT1	
1	2038232	A00	OSC CRYSTAL 24MHZ 18PF 50PPM SMT	Y1	
1	0011133	A02	CAP LYT 47UF 20% 25V SMT	C154	
1	0010010	A00	CAP 1000 PF 10% 2KV X7R SMD	C455	
1	2038937	A00	XSTR MOSFET N-CH 60V 6A 0.043RDS 6-PIN SMT CPH6442	Q2	
17	143-397-00	A1	RES TF 12.1K 1% 0.1W SMT	R184,R185,R266,R269,R274,R277,R282, R285,R290,R293,R298,R301,R306,R309, R314,R317,R570	
16	143-368-00	A1	RES TF 6.04K 1% 0.1W SMT	R186,R257,R260,R265,R268,R273,R276, R281,R284,R289,R292,R297,R300,R305, R308,R316	
4	143-358-00	A1	RES TF 4.75K 1% 0.1W SMT	R199,R203,R205,R209	
4	143-407-00	A1	RES TF 15.4K 1% 0.1W SMT	R200,R202,R206,R208	
16	143-336-00	A1	RES TF 2.80K 1% 0.1W SMT	R256,R259,R264,R267,R272,R275,R280, R283,R288,R291,R296,R299,R304,R307, R312,R315	
4	143-164-00	A01	RES TF 49.9 1% 0.1W SMT	R499,R500,R501,R502	
1	2038954	A00	XFMR 10/100BASE-T IEEE802.3 SINGLE SMT SOIC 16PIN MDIX SUPPORT	T1	
1	321-015-03	A00	IC REG LM1117MPX-ADJ SOT 223	U5	
1	2038936	A00	IC ETHERNET PHY 10/100 3.3V MII/RMII 32PIN QFN LAN8710A	U67	
1	2037848-00	B01	PCB ASSY DL1608 SMALL PAD CONNECTOR		
1	2037849-01	B00	PCB FAB DL1608 SMALL PAD CONNECTOR	PCB1	
1	0005168-05	B00	CONN HDR 5P .098X1 SHRD TJC3	J2	
1	0005168-06	B00	CONN HDR 6P .098X1 SHRD TJC3	J3	
1	143-201-00	A01	RES TF 121 1% 0.1W SMT	R1	
1	143-432-00	A1	RES TF 28.0K 1% 0.1W SMT	R2	
4	143-000-00	A01	RES TF 0.00 1% 0.1W SMT	R3,R4,R5,R6	
1	2037850-00	C02	PCB ASSY DL1608 ANALOG PREAMP		
1	2037850-01	D01	PCB ASSY DL806 ANALOG PREAMP		
1	2037851-03	D00	PCB FAB DL1608 SMALL ANALOG PREAMP	PCB1	
4	212-003-00	B11	CAP CER 100PF 5% 50V 0805 SMT	C1,C2,C362,C393	
2	212-001-00	B11	CAP CER .01UF 10% 50V X7R SM	C3,C4	
4	2033954	A00	CAP LYTIC 220UF 25V 20% STRAIGHT LEADS 3.5MM	C35,C36,C37,C38	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
80	0000017	A00	CAP X7R .01uF 5% 25V SMT	C55,C56,C67,C70,C80,C82,C113, C115,C124,C125,C126,C127,C128, C129,C130,C131,C144,C146,C148, C149,C150,C152,C154,C156,C157, C159,C168,C169,C170,C171,C172, C173,C174,C175,C184,C185,C186, C187,C188,C189,C210,C211,C212, C213,C214,C215,C220,C221,C222, C223,C248,C249,C250,C251,C266, C267,C268,C269,C270,C271,C290, C291,C292,C293,C308,C309,C310, C311,C312,C313,C332,C333,C334, C335,C350,C351,C352,C353,C354, C355	
32	0009289	A00	CAP 0.1UF X7R 10% 25V 0603	C57,C58,C71,C74,C110,C111,C112, C114,C138,C139,C145,C147,C151, C153,C155,C158,C216,C217,C218, C219,C244,C245,C246,C247,C286, C287,C288,C289,C328,C329,C330, C331	
18	220-002-02	A1	CAP LYT 47UF 20% 25V RAD TR	C59,C60,C77,C78,C83,C86,C95,C96, C230,C231,C258,C259,C300,C301, C342,C343,C356,C357	
16	220-030-00	B11	CAP LYT 1000UF 20% 6.3V RAD	C61,C62,C63,C64,C91,C92,C93,C94, C142,C200,C203,C237,C272,C279, C314,C321	
32	212-004-00	C11	CAP CER 220PF 5% 50V NPO SM	C65,C66,C68,C69,C72,C73,C75,C76, C79,C81,C84,C85,C87,C88,C89,C90, C191,C192,C206,C207,C233,C234, C240,C241,C275,C276,C282,C283, C317,C318,C324,C325	
4	212-025-00	D11	CAP CER .1UF 50V 10% X7R	C106,C107,C108,C109	
16	0025966	A01	LED BICOLOR RED/GREEN W/.425 SPACER	D18,D19,D20,D21,D22,D23,D24,D25, D46,D47,D56,D57,D66,D67,D76,D77	
1	0005168-10	B00	CONN HDR 10P .098X1 SHRD TJC3	J1	
8	0009393-12	A00	CONN HEADER 12 CONTACT 1.5MM PITCH LOW PROFILE ZH SERIES JST	J13,J14,J16,J17,J19,J20,J21,J35	
4	0006488	A00	IND 22UH AX	L1,L3,L38,L41	
16	311-002-00	A01	XSTR PNP MMST4403 SMT	Q1,Q3,Q5,Q7,Q9,Q10,Q14,Q16,Q38, Q40,Q46,Q48,Q54,Q56,Q62,Q64	
16	311-001-00	B01	XSTR NPN IMBT4401 SMT	Q2,Q4,Q6,Q8,Q11,Q12,Q13,Q15,Q37, Q39,Q45,Q47,Q53,Q55,Q61,Q63	
32	0031329	A00	XSTR LN 2SA1163 PNP SOT-23	Q17,Q18,Q19,Q20,Q21,Q22,Q23,Q24, Q25,Q26,Q27,Q28,Q29,Q30,Q31,Q32, Q33,Q34,Q35,Q36,Q41,Q42,Q43,Q44, Q49,Q50,Q51,Q52,Q57,Q58,Q59,Q60	
9	143-097-00	A01	RES TF 10.0 1% 0.1W SMT	R1,R2,R3,R4,R5,R6,R7,R8,R59	
16	143-389-00	A1	RES TF 10.0K 1% 0.1W SMT	R10,R27,R89,R94,R159,R165,R172,R228, R269,R277,R324,R332,R376,R384,R428, R436	
16	143-193-00	A01	RES TF 100 1% 0.1W SMT	R11,R28,R90,R95,R160,R166,R173,R229, R270,R278,R325,R333,R377,R385,R429, R437	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
32	143-457-00	A1	RES TF 51.1K 1% 0.1W SMT	R12,R13,R29,R81,R82,R84,R85,R98,R139, R146,R161,R168,R175,R223,R230,R231, R271,R272,R279,R280,R326,R327,R334, R335,R378,R379,R386,R387,R430,R431, R438,R439	
32	142-139-00	A10	RES TF 470K 5% 0.1W SMT	R14,R16,R83,R86,R87,R92,R99,R138, R145,R152,R167,R174,R224,R225,R232, R233,R273,R274,R281,R282,R328,R329, R336,R337,R380,R381,R388,R389,R432, R433,R440,R441	
16	146-326-00	A01	RES MF SM .25W 1% 2K2 OHM 1206	R17,R96,R97,R140,R147,R153,R226, R234,R275,R283,R330,R338,R382,R390, R434,R442	
16	143-051-00	A01	RES TF 3.32 1% 0.1W SMT	R18,R19,R32,R33,R118,R119,R200,R201, R247,R266,R307,R321,R359,R373,R411, R425	
16	2038330	A00	POT RTRY 10KZY 9MM SNGL 25MM HT NO DTNT	R20,R21,R22,R23,R34,R35,R36,R37,R248, R267,R308,R322,R360,R374,R412,R426	
80	143-331-00	A1	RES TF 2.49K 1% 0.1W SMT	R24,R25,R30,R31,R101,R104,R106,R108, R110,R112,R120,R122,R124,R126,R129, R132,R134,R141,R148,R151,R155,R158, R162,R169,R176,R179,R180,R183,R185, R188,R191,R194,R202,R204,R210,R212, R214,R216,R218,R220,R240,R241,R242, R244,R245,R259,R260,R261,R263,R264, R300,R301,R302,R304,R305,R314,R315, R316,R318,R319,R352,R353,R354,R356, R357,R366,R367,R368,R370,R371,R404, R405,R406,R408,R409,R418,R419,R420, R422,R423	
32	143-201-00	A01	RES TF 121 1% 0.1W SMT	R38,R40,R41,R43,R44,R46,R47,R49,R50, R51,R52,R53,R206,R207,R208,R209, R289,R290,R291,R292,R293,R294,R295, R296,R451,R452,R453,R454,R455,R456, R457,R458	
8	143-361-00	A1	RES TF 5.11K 1% 0.1W SMT	R55,R56,R57,R58,R461,R499,R500,R501	
32	143-354-00	A1	RES TF 4.32K 1% 0.1W SMT	R100,R103,R107,R111,R121,R125,R128, R131,R184,R187,R190,R193,R203,R211, R215,R219,R237,R238,R252,R253,R256, R257,R311,R312,R349,R350,R363,R364, R401,R402,R415,R416	
32	143-318-00	A1	RES TF 2.00K 1% 0.1W SMT	R102,R105,R109,R113,R123,R127,R130, R133,R186,R189,R192,R195,R205,R213, R217,R221,R235,R236,R250,R251,R254, R255,R309,R310,R347,R348,R361,R362, R399,R400,R413,R414	
16	143-438-00	A1	RES TF 32.4K 1% 0.1W SMT	R114,R115,R116,R117,R196,R197,R198, R199,R239,R258,R299,R313,R351,R365, R403,R417	
32	143-346-00	A1	RES TF 3.57K 1% 0.1W SMT	R135,R136,R142,R143,R149,R150,R156, R157,R163,R164,R170,R171,R177,R178, R181,R182,R243,R246,R262,R265,R303, R306,R317,R320,R355,R358,R369,R372, R407,R410,R421,R424	
1	2038329	A00	POT RTRY 50KG 12MM DUAL 25MM HEIGHT NO DETENT	R460	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
11	0008320-01	L00	STDF SWAGE M3 X 13.8MM 4.7 DIA	SO1,SO2,SO3,SO4,SO5,SO6,SO7,SO8,SO9,SO10,SO11	
16	323-002-00	D00	IC LM339D QUAD COMP SM	U1,U2,U4,U6,U17,U18,U19,U20,U24,U25,U29,U30,U37,U38,U45,U46	
25	0006956	B00	IC OP AMP NJM4580 DUAL SO-8	U3,U5,U7,U8,U9,U10,U11,U12,U13,U14,U15,U16,U21,U22,U23,U26,U27,U28,U31,U34,U35,U36,U42,U43,U44	
1	0009393-05	A00	CONN HEADER 5 CONTACT 1.5MM PITCH LOW PROFILE ZH SERIES JST	J2	
1	0008320-07	L00	STDF SWAGE M3 X 16MM 4.7 DIA	SO12	
32	212-015-00	B11	CAP CER 33PF 5% 50V NPO SM	C116,C118,C120,C122,C132,C134,C136,C140,C143,C160,C162,C164,C166,C176,C178,C180,C182,C190,C201,C202,C204,C205,C238,C239,C273,C274,C280,C281,C315,C316,C322,C323	
16	143-418-00	A1	RES TF 20.0K 1% 0.1W SMT	R9,R26,R88,R93,R137,R144,R154,R227,R268,R276,R323,R331,R375,R383,R427,R435	
32	143-427-00	A1	RES 24K9 1% 1/10W 0603	R15,R39,R42,R45,R48,R54,R60,R61,R62,R63,R64,R65,R66,R67,R68,R69,R70,R71,R72,R73,R74,R75,R91,R222,R297,R298,R342,R343,R394,R395,R446,R447	
1	2037852-00	C02	PCB ASSY DL1608 ANALOG IO		
1	2037852-01	D00	PCB ASSY DL806 ANALOG IO		
1	2037853-02	C00	PCB FAB DL1608 SMALL ANALOG IO	PCB1	
32	220-003-02	B	CAP LYT 47UF 20% 50V RAD TR	C1,C3,C5,C7,C21,C22,C23,C24,C25,C39,C44,C45,C50,C51,C52,C53,C54,C199,C224,C229,C252,C257,C260,C265,C294,C299,C302,C307,C336,C341,C344,C349	
32	212-036-00	B11	CAP CER 470PF 2% 50V NPO SMT	C2,C4,C6,C8,C17,C18,C19,C20,C97,C98,C99,C100,C101,C102,C103,C104,C196,C197,C226,C227,C254,C255,C262,C263,C296,C297,C304,C305,C338,C339,C346,C347	
32	212-042-00	A11	CAP CER 470PF 5% 50V NPO SM	C9,C10,C11,C12,C13,C14,C15,C16,C26,C27,C28,C29,C30,C31,C32,C33,C195,C198,C225,C228,C253,C256,C261,C264,C295,C298,C303,C306,C337,C340,C345,C348	
2	0007923	A00	CAP LYTIC 220UF 25V 20%	C34,C37	
1	0001149	A00	CAP CER 0.1UF 100V 10% X7R 1206	C35	
1	0007877	A00	CAP LYT 47UF 63V 20% 8x11.5MM LOWLEAKAGE RAD	C36	
8	220-002-02	A1	CAP LYT 47UF 20% 25V RAD TR	C40,C41,C42,C43,C46,C47,C48,C49	
10	220-011-02	A11	CAP LYT 100UF 20% 25V RAD	C358,C359,C360,C361,C365,C367,C369,C371,C377,C379	
31	212-003-00	B11	CAP CER 100PF 5% 50V 0805 SMT	C38,C55,C56,C57,C58,C59,C60,C61,C62,C63,C64,C65,C66,C362,C363,C364,C366,C368,C370,C372,C373,C374,C375,C376,C378,C380,C381,C382,C393,C394,C744	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
10	0000017	A00	CAP X7R .01uF 5% 25V SMT	C383,C384,C385,C386,C387,C388, C389,C390,C391,C392	
2	0002946	A00	CAP .1UF X7R 10% 25V 0603	C436,C439	
64	0004136	A00	DIODE RECTIFIER 1A GLASS PASSIVATED S1B	D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11, D12,D13,D14,D15,D16,D17,D26,D27, D28,D29,D30,D31,D32,D33,D34,D35, D36,D37,D38,D39,D40,D41,D42,D43, D44,D45,D48,D49,D50,D51,D53,D54, D55,D58,D59,D60,D61,D62,D63,D64, D65,D68,D69,D70,D71,D72,D73,D74, D75,D78,D79,D80,D81	
1	0029689	A00	LED GREEN DIFFUSED T1 28MM LEADS	D18	
1	0029691	A00	LED RED HI-EFF DIFFUSED T1 28MM LEADS	D19	
12	2033694	A00	CONN XLR 4P FEMALE AA-SERIES NO-LATCH SHELL & PANEL TIED TO SEPARATE GROUND (PIN 4)	J1,J2,J3,J4,J21,J22,J25,J26,J29,J30,J33, J34	
5	0009393-12	A00	CONN HEADER 12 CONTACT 1.5MM PITCH LOW PROFILE ZH SERIES JST	J5,J10,J11,J18,J27	
4	2034400	A00	CONN XLR COMBO A SERIES 6P VERT STR	J6,J7,J8,J9	
1	0005169-11	B00	CONN HDR 11P .098X1 SHRD RTA TJC3	J12	
1	0005168-02	B00	CONN HDR 2P .098X1 SHRD TJC3	J13	
2	2033697	A00	CONN XLR 3P MALE AA-SERIES SHELL & PANEL TIED TO SEPARATE GROUND (PIN 4)	J37,J38	
6	0008698	A00	CONN JACK 1/4" PCMNT 1MM WASH 24MM HEIGHT	J41,J42,J43,J44,J45,J46	
64	0028137	A00	IND FERRITE BEAD 1100 OHMS HF SMT	L1,L2,L3,L4,L5,L6,L7,L8,L9,L10,L11,L12, L13,L14,L15,L16,L25,L26,L27,L28,L29,L30, L31,L32,L33,L34,L35,L36,L37,L38,L39, L40,L57,L59,L61,L62,L63,L65,L67,L69,L70, L71,L73,L74,L75,L77,L79,L80,L81,L83,L85, L86,L87,L89,L91,L92,L93,L95,L97,L98,L99, L101,L103,L104	
32	0028138	A00	IND FERRITE BEAD 3000 OHMS LF SMT	L17,L18,L19,L20,L21,L22,L23,L24,L41,L42, L43,L44,L45,L46,L47,L48,L58,L60,L64,L66, L68,L72,L76,L78,L82,L84,L88,L90,L94,L96, L100,L102	
8	0000094	A00	IND FERRITE 120OHM 200MA 0.15DCR 0805 SMT	L49,L50,L51,L52,L53,L54,L55,L56	
3	0006488	A00	IND 22UH AX	L105,L107,L109	
16	143-277-00	A1	RES TF 750 1% 0.1W SMT	R1,R2,R3,R4,R5,R6,R7,R8,R63,R284, R339,R344,R391,R396,R443,R448	
2	140-092-00	A00	RES TF SM .1W 5% 6K2 OHM	R9,R10	
2	142-087-00	A1	RES TF 3.9K 5% 0.1W SMT	R11,R12	
32	146-373-00	A01	RES MF SM .25W 1% 6K81 OHM 1206	R55,R56,R57,R58,R59,R60,R61,R62,R64, R65,R66,R67,R68,R69,R70,R71,R72,R249, R285,R286,R340,R341,R345,R346,R392, R393,R397,R398,R444,R445,R449,R450	
8	143-402-00	A1	RES 13K7 1% 1/10W 0603	R73,R74,R75,R76,R77,R78,R79,R80	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
32	143-361-00	A1	RES TF 5.11K 1% 0.1W SMT	R461,R465,R466,R468,R475,R476,R477, R478,R479,R480,R481,R482,R483,R484, R485,R486,R487,R488,R489,R490,R491, R492,R493,R494,R495,R496,R497,R498, R500,R503,R1100,R1112	
26	142-115-00	A1	RES TF 51K 5% 0.1W SMT	R13,R14,R15,R16,R17,R18,R19,R20,R21, R22,R23,R24,R25,R26,R27,R28,R462, R463,R469,R472,R990,R991,R1031, R1032,R1048,R1079	
6	141-051-00	B	RES TF SM .25W 5% 120 OHM	R470,R473,R987,R988,R1024,R1025	
6	142-051-00	A1	RES TF 120 5% 0.1W SMT	R471,R474,R1000,R1001,R1034,R1035	
2	706-111-00	A01	SPCR PVC .850 LED	SO1,SO2	
5	0006956	B00	IC OP AMP NJM4580 DUAL SO-8	U31,U32,U33,U50,U51	
4	143-390-00	A1	RES TF 10.2K 1% 0.1W SMT	R499,R501,R502,R504	
9	2036367	A00	IND FERRITE BEAD 1500 OHMS HF SMT 0603	L106,L108,L110,L111,L112,L113,L114, L115,L116	
8	145-210-00	B01	RES MF SM 150 OHM 1% 0.1W 0805	R29,R30,R31,R32,R464,R467,R1106, R1107	
1	2038247-00	C01	PCB ASSY DL1608 SMALL ANALOG PHONES		
1	2038248-02	C00	PCB FAB DL1608 SMALL ANALOG PHONES	PCB1	
4	212-001-00	B11	CAP CER .01UF 10% 50V X7R SM	C1,C5,C6,C10	
4	212-005-00	B11	CAP CER 20PF 5% 50V NPO SM	C2,C4,C7,C8	
8	143-318-00	A1	RES TF 2.00K 1% 0.1W SMT	R1,R3,R6,R8,R9,R10,R17,R18	
4	141-057-00	B00	RES MF SM .25W 5% 220 OHM	R2,R4,R7,R12	
2	142-104-00	A1	RES TF 20K 5% 0.1W SMT	R5,R11	
2	0006956	B00	IC OP AMP NJM4580 DUAL SO-8	U1,U2	
7	0009147	A00	CAP 100PF NPO 5% 50V 0603	C11,C12,C13,C14,C15,C16,C17	
5	2036367	A00	IND FERRITE BEAD 1500 OHMS HF SMT 0603	L1,L2,L3,L4,L5	
2	145-268-00	B	RES MF SM 604 OHM 1% 0.1W 0805	R13,R14	
1	0009393-05	A00	CONN HEADER 5 CONTACT 1.5MM PITCH LOW PROFILE ZH SERIES JST	J1	
2	220-002-02	A1	CAP LYT 47UF 20% 25V RAD TR	C3,C9	
1	2039416	A00	CONN JACK 1/4 HRZ PCMNT STEREO - METAL NOSE	J2	
2	143-000-00	A01	RES TF 0.00 1% 0.1W SMT	R15,R16	
12	0009185	A00	CAP 10PF NPO 5% 50V 0603	C18,C19,C20,C21,C22,C23,C24,C25, C26,C31,C32,C33	
2	2037897	C00	BRACKET CORNER REINFORCEMENT DL1608		
1	2037898	B00	BASE DIGITAL SHIELD DL1608		
1	2037899	A00	TOP DIGITAL SHIELD DL1608		
1	2037900	C00	SCREEN FRONT DL1608		
1	2037901	G00	TOP DL1608 16		
1	2037906	A00	SHIELD TRAY DL1608		
1	2039639	A00	BRACKET LONG REAR SHIELD DL1608		
1	2039640	A00	BRACKET SHORT REAR SHIELD DL1608		
1	2039641	B00	BRACKET FRONT TDMA DL1608		



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	2039642	A00	SHIELD TDMA DL1608		
1	0015763-00	A00	METAL BACKING - KENSINGTON LOCK		
1	2037894	C01	TRAY IPAD DL1608		
4	2039194	A00	INSERT BRASS PRESS-IN FLANGED PLASTIC MOLDING M3 X 5.6		
2	2039193	A00	INSERT BRASS PRESS-IN FLANGED PLASTIC MOLDING M4 X 7.9		
2	2037904	B00	COVER TRAY OPENING DL1608		
1	2037892	D01	BASE DL1608		
4	0028714-2	A00	INSERT PLASTIC FLANGED PRESSED-IN M4 X 7		
1	2037893-00	B00	CORNER TOP RIGHT DL1608		
1	2037893-01	B00	CORNER TOP LEFT DL1608		
1	2037895	C01	BACK CONNECTOR HOUSING DL1608		
2	0028612	A00	INSERT PLASTIC FLANGED M3 X 4		
1	2037896	C00	BEZEL FRONT DL1608		
1	2037908	D00	TRAY IPAD 2 - IPAD3 DL1608		
2	2036901	B00	FOOT DL1608		
1	2033720	C00	LOGO BADGE RUNNING MAN 22mm DIAMETER		
17	2036900-01	C00	KNOB DL1608 (CORE GRAY - OVERMOLD BLACK)		
2	500-016-00	A01	SWITCH ROCKER SPST 250V 6A PANEL- MNT		1-DC Pwr, 1-Phantom Pwr
1	2036860-02	A00	CONN QDISK RA TAB (.250 WIDE x .032 THICK) M4 MNT HOLE		
1	0013706-011	A00	ASSY CBL 6 POS 2.5MM TJC3 SINGLE ROW 11 CM LEN		Main PCB to iPad Conn PCB
1	0013710-009	A01	ASSY CBL 10 PIN 2.5MM TJC3 SINGLE ROW 9 CM LEN		Main PCB to Preamp PCB
1	0013711-019	A00	ASSY CBL 11 PIN 2.5MM TJC3 SINGLE ROW 19 CM LEN		IO PCB to Main PCB
1	2039344	B01	ASSY CBL 5 PIN 1.5MM JST SINGLE ROW WITH FERRITE 5 CM LEN		Preamp PCB to Phone PCB
4	0016412-005	A01	ASSY CBL 12 PIN 1.5MM JST SINGLE ROW 5 CM LEN		Preamp PCB to IO PCB
4	2039794-015	A00	ASSY CBL 12 PIN RIBBON 1.5MM JST SINGLE ROW 15 CM LEN		Preamp PCB to Main PCB
1	2039794-028	A00	ASSY CBL 12 PIN RIBBON 1.5MM JST SINGLE ROW 28 CM LEN		IO PCB to Main PCB
1	2036850	D00	ASSY CBL DC PWR DL1608 SMALL WITH 2039905 CM CHOKE		DC Pwr Conn to Pwr Sw to Main PCB
1	2036851	A00	ASSY CBL USB 2.0 UL 2725 COMPLIANT 5 POS 2.5MM TJC3 SINGLE ROW 16CM LEN		Main PCB to iPad Conn PCB
1	2038263-007	A00	ASSY CBL TCJ3 2P CONN 22 GA WIRE TO (2) .187 X .032 QDISC 7CM		IO PCB to Phantom Pwr Sw

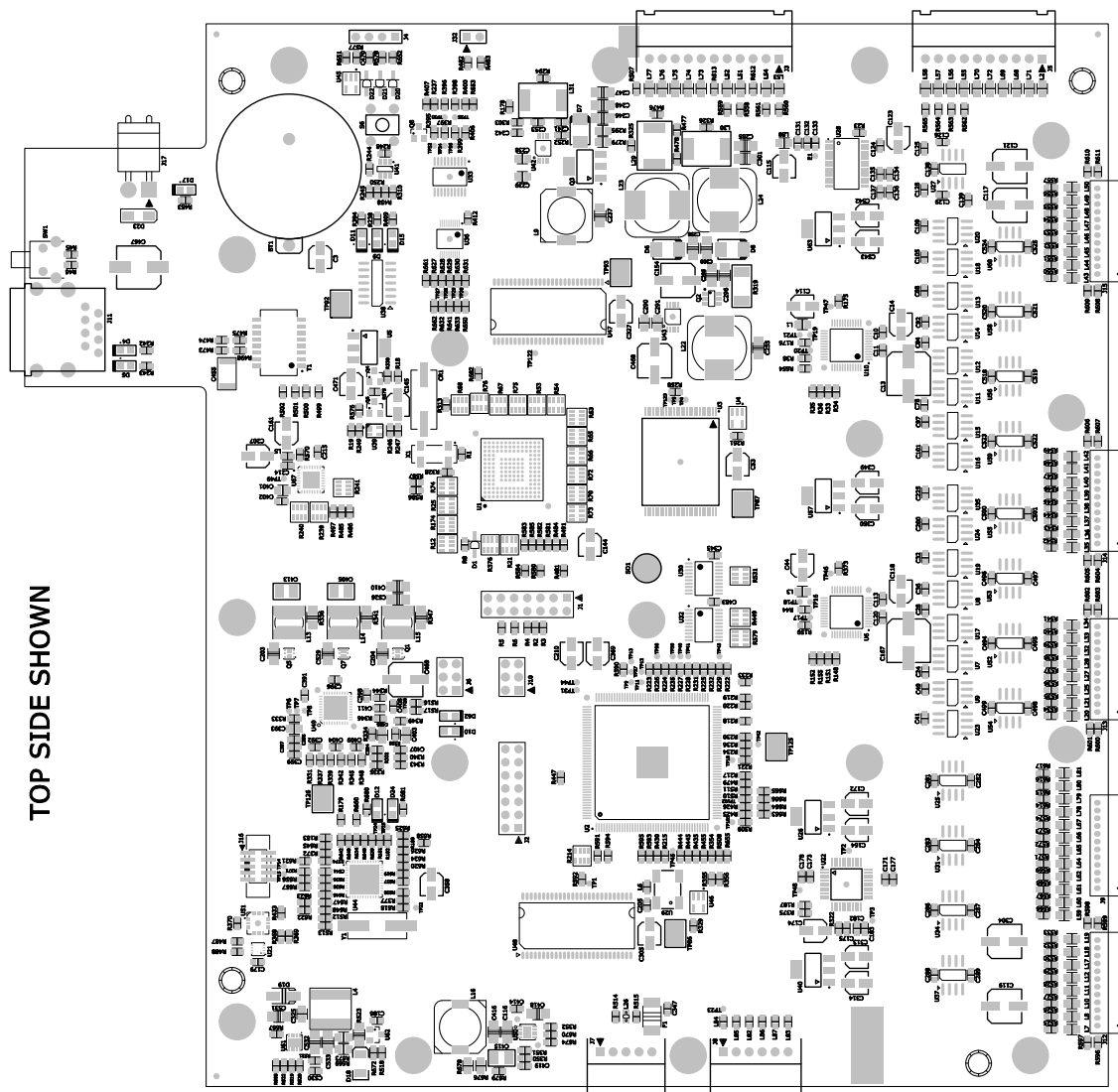


Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
4	0000620-06	C00	SCR M3 X 6MM FLT 90 DEG MCH PH STL CLRZC		front tdma shield to top metal
11	0008824-00	C00	SCR M3 X 5MM BTN MCH 2.0 HEX SST BLKOX		Preamp PCB Mtg.
0	0008824-XX	C00	SCR M3 X L BTN MCH 2.0 HEX SST BLKOX		
33	0007795-06	B00	SCR M3 X 0.5 X 6MM PAN MCH SEMS HSLW PH STL BLKZC		17-Main PCB to Shield Mtg Plate, 10-Shield Top to Shield Mtg Plate, 1-Shield Top to Main PCB, 1- TDMA Shield to Preamp PCB, 4-Front TDMA Shield to Shield Top
2	0007795-08	B00	SCR M3 X 0.5 X 8MM PAN MCH SEMS HSLW PH BLKZC		IPad Housing Top Clamping
2	0013717-08	B00	SCR M3 X 0.5 X 8MM PAN MCH SEMS ITLW PH STL BLKZC		Top Sht Metal to Base Bosses
10	0000621-08	C00	SCR M3 X 0.5 X 8MM FLT 90 DEG MCH PH STL BLKZC		4-Btm Rear Sht.Mtl. Flng to Base, 4-Main PCB Mtg Plate to Base, 2-Sht Mtl to Base rear Conn Wall
0	0000621-00	C00	SCR M3 X 0.5 X XXMM FLT 90 DEG MCH PH STL BLKZC		
4	0000621-10	C00	SCR M3 X 0.5 X 10MM FLT 90 DEG MCH PH STL BLKZC		iPad 2 Tray
0	0000621-00	C00	SCR M3 X 0.5 X XXMM FLT 90 DEG MCH PH STL BLKZC		
6	2039682-06	A00	SCREW M3 X 0.5 X 6 PAN HD DIN 7500C TRILOBULAR POZIDRIVE CLR ZINC		tdma shield to side reinforcement bracket
14	0021204-08	A00	SCR M3 X 8MM TF - PLASTITE 45 PAN PH BLKZC STEEL		10-Corners to metal, 2-iPad Conn PCB, 2-iPad Housing Btm Clamping
0	0021204-00	A00	SCREW M3 TF - PLASTITE 45 PAN PH BLKZC STEEL		
9	0014713-12	A00	SCR M3X12MM PLASTITE 45 PAN HD PHIL STEEL BLK ZINC		5-Tray, 4-Front Bezel



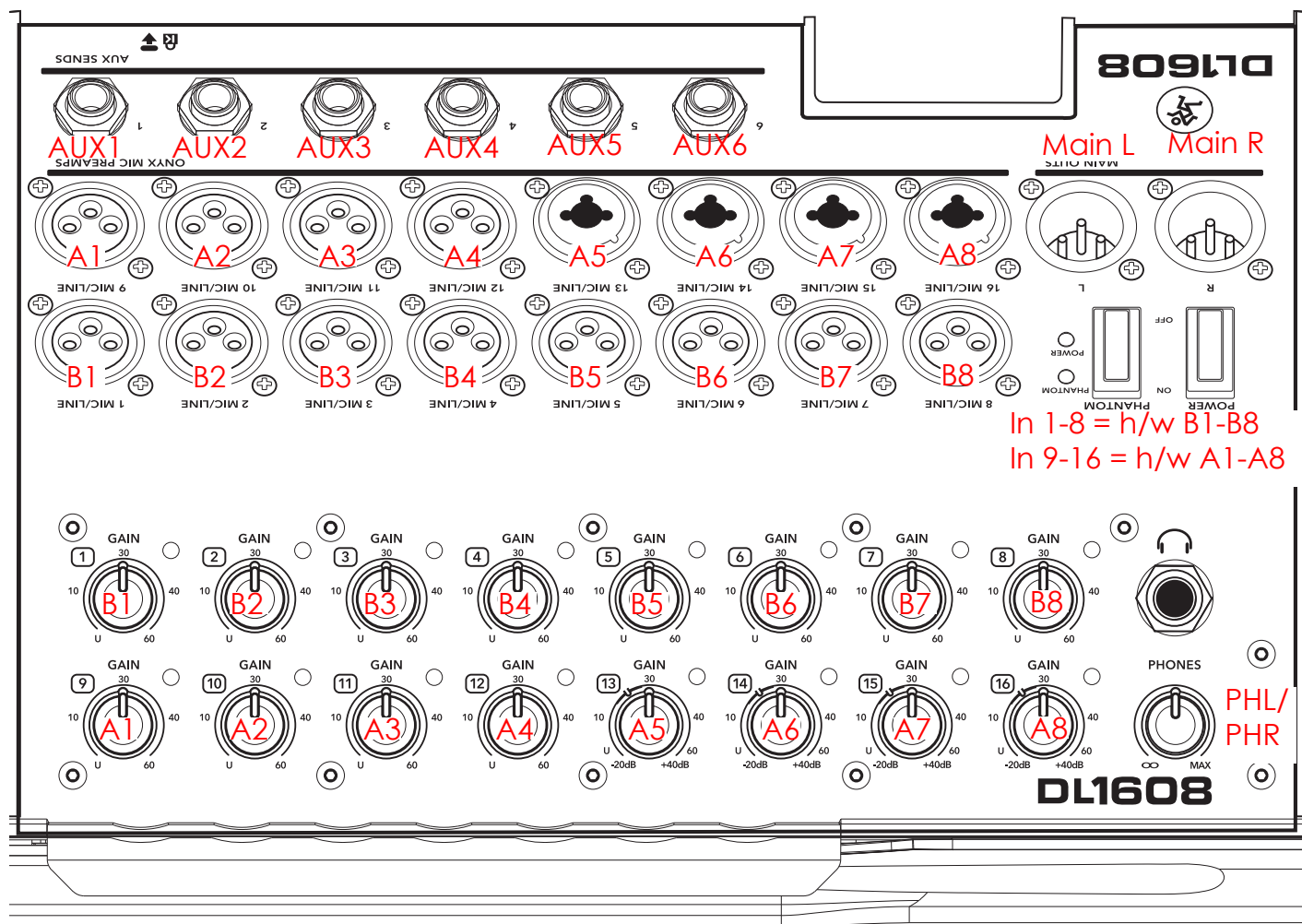
Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
0	0014713-XX	A00	SCREW M3 XXMM PLASTITE 45 PAN HD PHIL STEEL BLK ZINC		
36	700-055-00	A	SCR MCH 4-24X3/8 PHP BLK HILO		XLRs
4	2036865	A00	NUT PUSH FOR 8MM DIA POST		Tray Shield
5	2039548	A00	NUT HEX KEP M3 DIN 267 NUT, WASHER OD 7.30 CLR ZINC		1-QDisc Tab, 4-shield mounting to front flange
1	2039708	A01	NUT 3/8" THD 1/2" FLAT .090" THK FOR 1/4" JACK		Head Phone Jack
0	0010633	A00	NUT JACK W/0008698		Qty: 6 (ea) 1/4" Jack
0	2036863	A00	NUT - 9.5MM HEX x 2.1mm TK x M8x0.75 THD (W/2036861 JACK)		Qty: 1 (ea) DC Pwr Jack (Note: this part is included with the 2036861 Jack used on the 2036850 Cable)
0	0010632	A00	WASHER JACK W/0008698		Qty: 6 (ea) 1/4" Jack
0	2036862	A00	WASHER - M8 ITLW - 11MM OD x 1.2MM TK (W/2036861 JACK)		Qty: 1 (ea) DC Pwr Jack (Note: this part is included with the 2036861 Jack used on the 2036850 Cable)
1	2039707	A00	WASHER FLAT 13.8 MM OD 10.10 ID 0.50 THK FOR 1/4" JACK		Head Phone Jack
1	2040371	A00	WASHER FLAT .314" ID .472"D .022 THK		ac pwr
1	0031009-011	A00	TOOL TORX TAMPER-RESISTANT KEY T15		
1	2036849	A01	PWR SPLY DESKTOP INP=UNIVERSAL IEC OUTP=12VDC 4A PLUG=5.5X2.5 MM M8X0.75 LCK RING L=1.5M		
1	640-001-00	D	CORD PWR IEC US 10A 125V 2.0M		
1	2037890	A00	SA PAD-LOCK DL1608		
1	2037905	C00	CLAMP IPAD DL1608		
2	2036905-20	A00	SCR CAPTIVE SECURITY M4 BTN HD TORX 20MM SHANK 6MM THD LENGTH BLK OXIDE		

TOP SIDE SHOWN



DATE		REVISION		DESCRIPTION		APPROVALS		DATE	
7-12-11		1		PCB ASSY DL806/DL1608 MAIN		DRAWN: KR		7-12-11	
						CHECKED:			
						MFG ENGINEERING:			
						MATERIAL:			
						MANUFACTURING:			
						MFG ENGINEERING:			
						SIGNED:			

Below is an annotated picture of DL1608 and DL806 showing how the channels are named in the hardware (since variations between models are by board no-stuffs, and the same physical channels are not labeled the same between models for the user). So the schematics, and connector pin-out documentation, use these labels as appropriate. H/W inputs A5-A8 are combo jacks. All others are regular XLR



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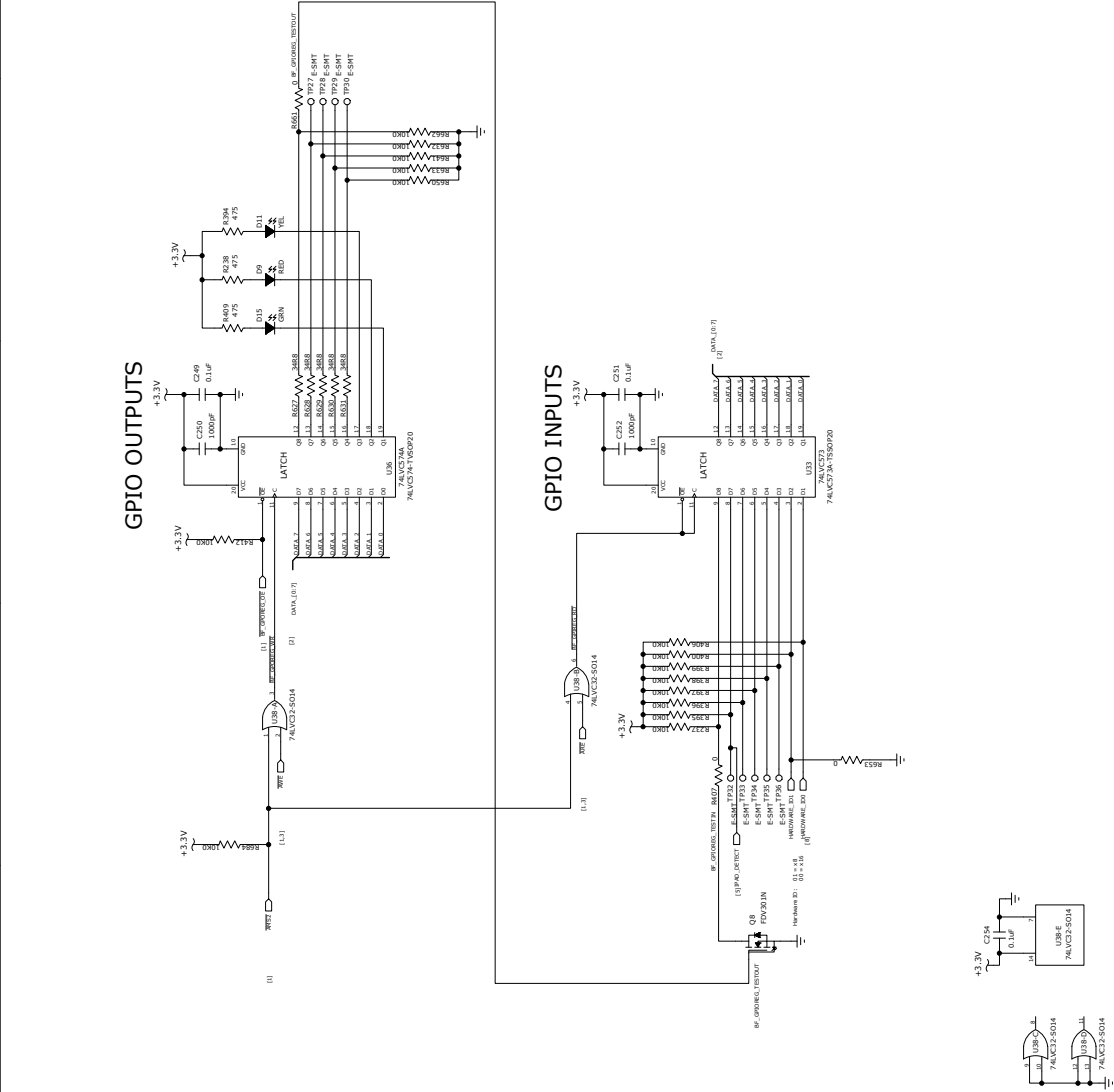
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APPROVALS		DATE
DRAWN		
CHECKED		
IN ENG		
MATERIAL		
PROD		
TRNG ENG		
ISSUED		

LOUD Technologies Inc.
1620 WOOD-RED RD NE WOODBRIDGE, VA 22192
DL806/DL1608 MAIN
BLACKFIN_GPIO

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SIZE	SCALE	DWG NO.	REV.
D	NONE	2037844-XX	C00

SHEET 2 OF 13

8

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6

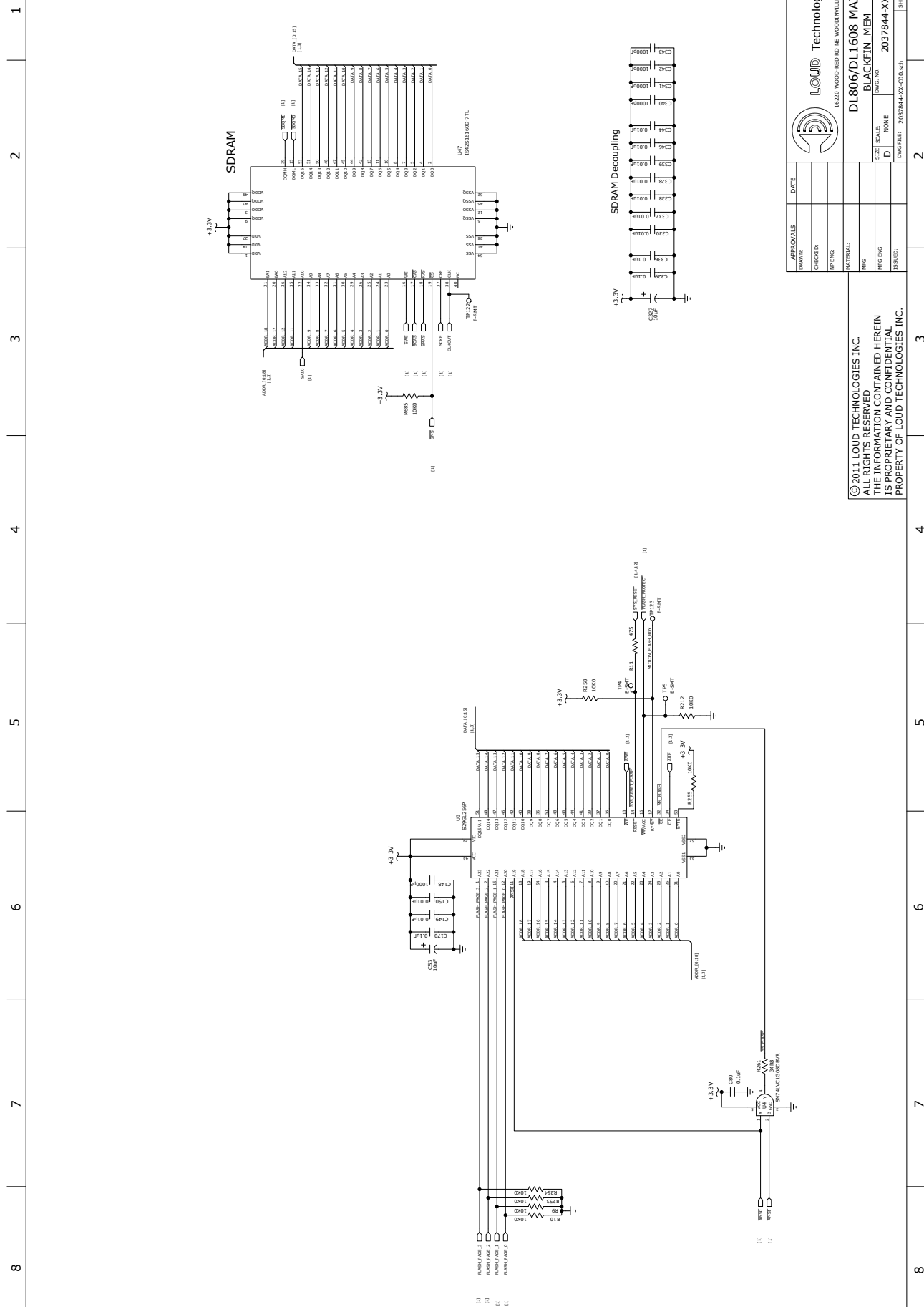
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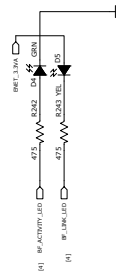
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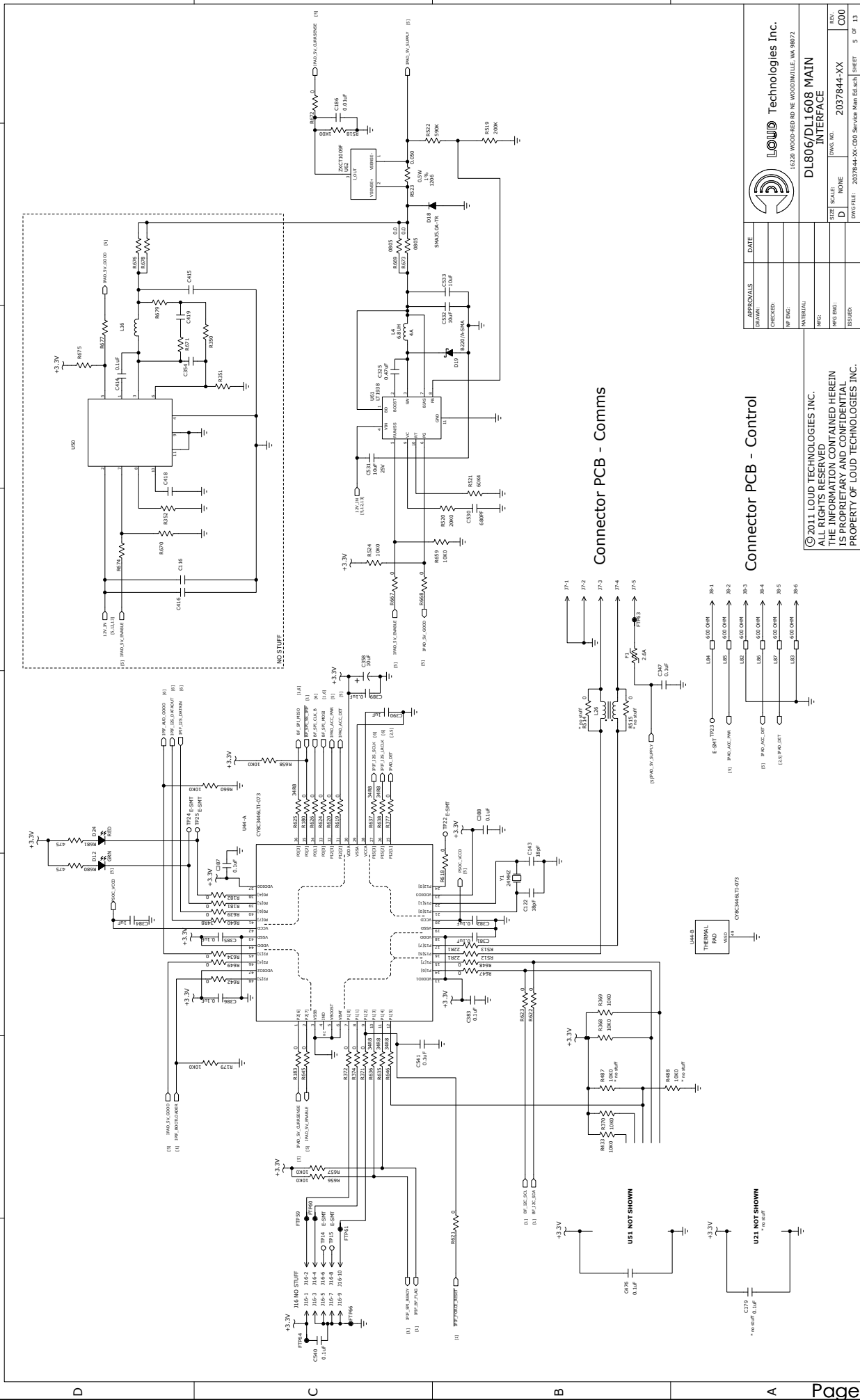




APPROVALS	DATE	 LOUD Technologies Inc. 15320 WOODHEAD RD NW WOODVILLE, WA 98072									
REWORK											
CHECKED:											
BY: []											
DATE: []											
MATERIAL:		BL806/DL1608 MAIN BLACKFIN ENET									
ENG:		<table border="1"> <tr> <td>SIZE</td> <td>SCALE</td> <td>REV</td> </tr> <tr> <td>A0</td> <td>NONE</td> <td>C00</td> </tr> <tr> <td colspan="2">2037844-XX</td> <td></td> </tr> </table>	SIZE	SCALE	REV	A0	NONE	C00	2037844-XX		
SIZE	SCALE	REV									
A0	NONE	C00									
2037844-XX											
ENG:											
ISSUED:											

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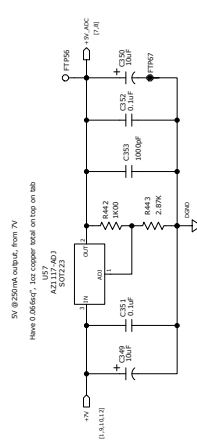
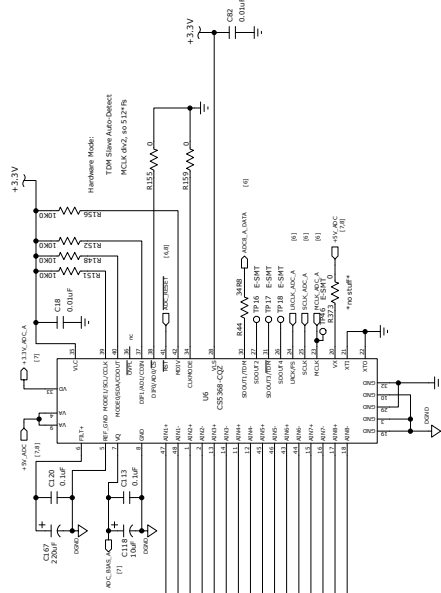
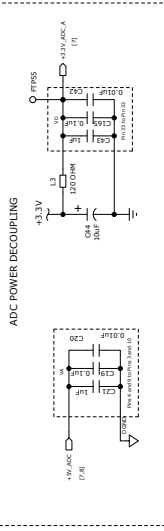
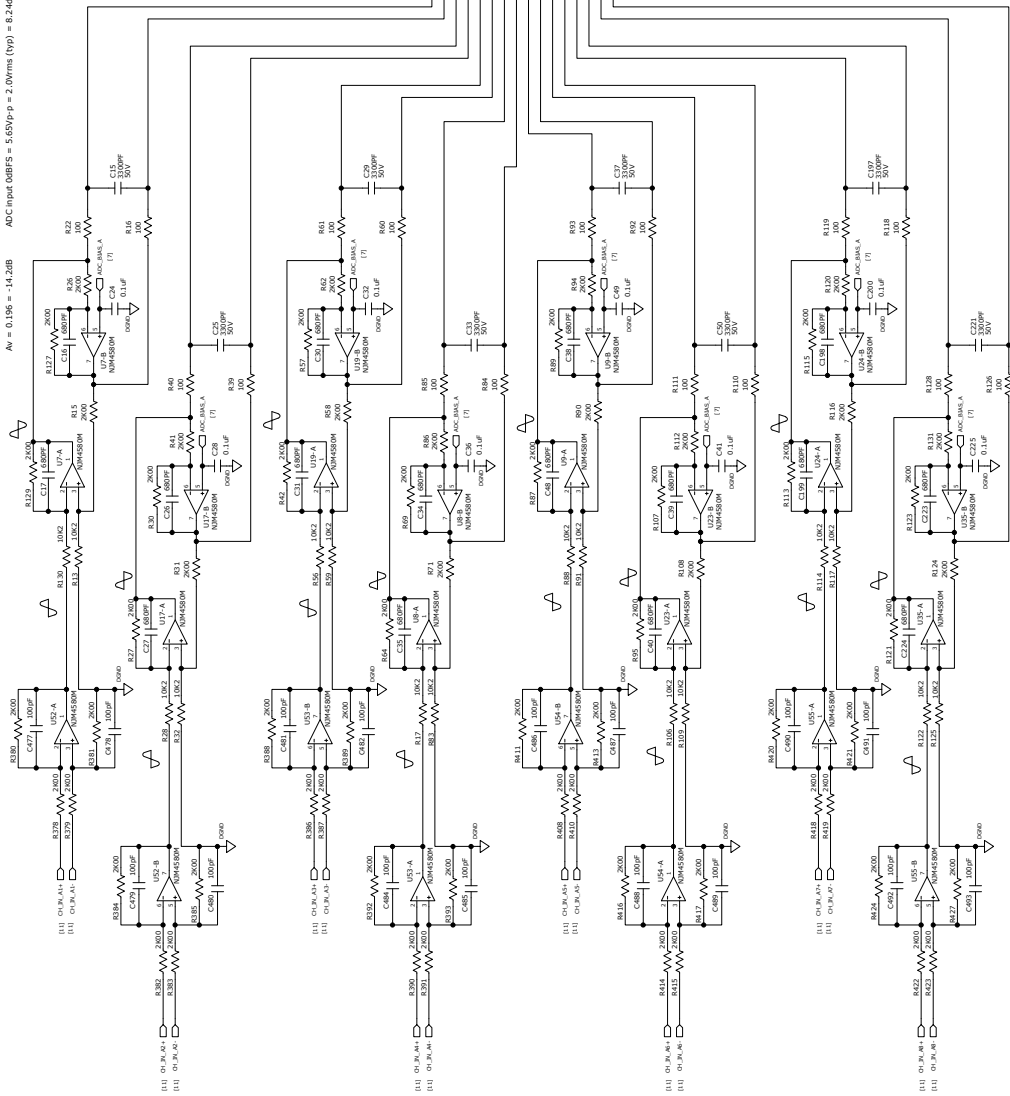
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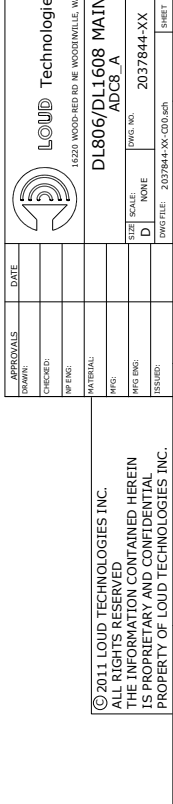
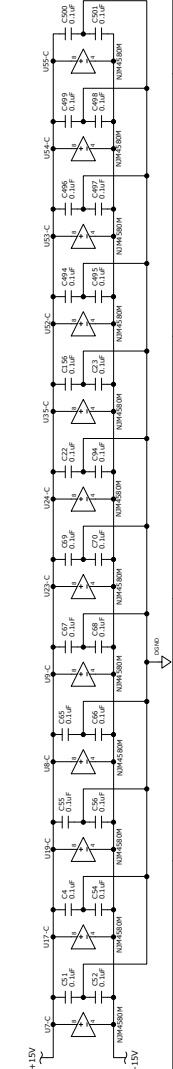


12345678

$$Q_{dBFS} = 2.0V / 0.196 = 10.2V \quad (22-4dB)$$
$$Av = 0.196 = -14.2dB$$
$$AC-Input GDS = 5.05Vp-p = 2.0Vrms \quad (Vp) = 8.24dBu$$



ALL COMPONENTS AND TRACES ON THIS PAGE OVER 'ANALOG GROUND' AREA



APPROVALS	DATE
DESIGNED	
CHECKED	
WIRING	
MATERIAL	
PROD	
TRNG	
ISSUED	

LOUD Technologies Inc.
1620 WOOD-RED RD NE WOODMILLE, WA 98072
DL806/DL1608 MAIN
ADC8_A

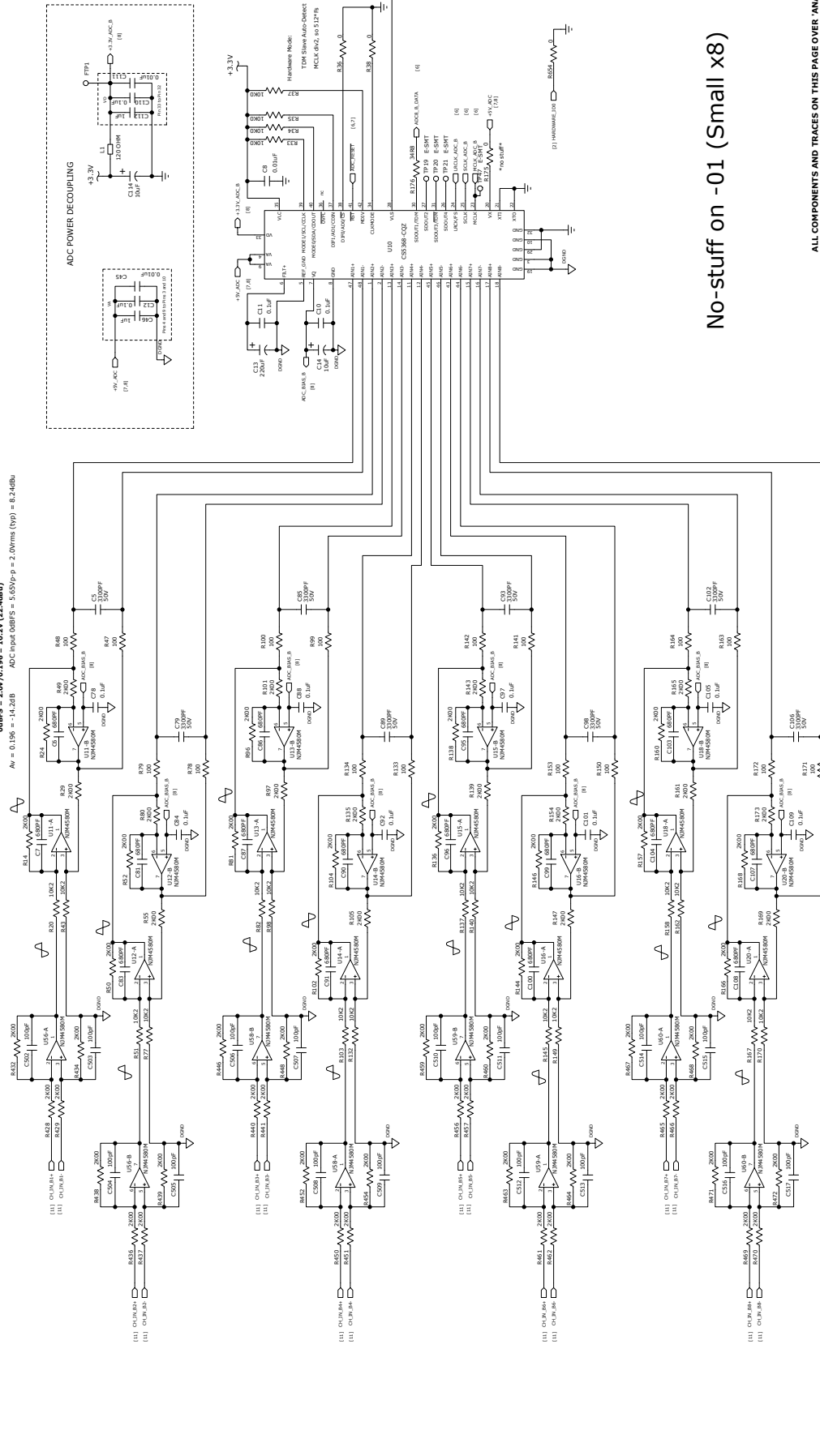
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SIZE: NONE
SCALE: 2037844-XX
DWG FILE: 2037844-XX-000-000

SHEET 7 OF 13

8 7 6 5 4 3 2 1

$0.0895 = 2.0V/0.196 = 10.2V (22.48uJ)$
 $A_v = 0.196 = 14.2dB$ ADC input 0.0895 = 5.65Vpp = 2.0Vrms (typ) = 8.248u



No-stuff on -01 (Small x8)

ALL COMPONENTS AND TRACES ON THIS PAGE OVER ANALOG GROUND AREA



LOUD Technologies Inc.

14200 WOOD-RED RD NE WOODMILLE, WA 98072

DL806/DL1608 MAIN

ADC8_B

REV. C00

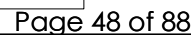
2037844-XX

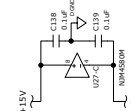
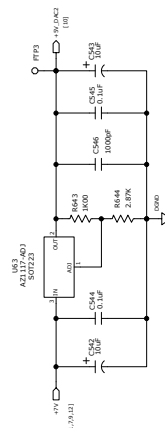
SHEET 8 OF 13

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APPROVALS	DATE
DESIGN	
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ISSUED	

SIZE	SCALE	DWG. NO.	REV.
D	NONE	2037844-XX	C00

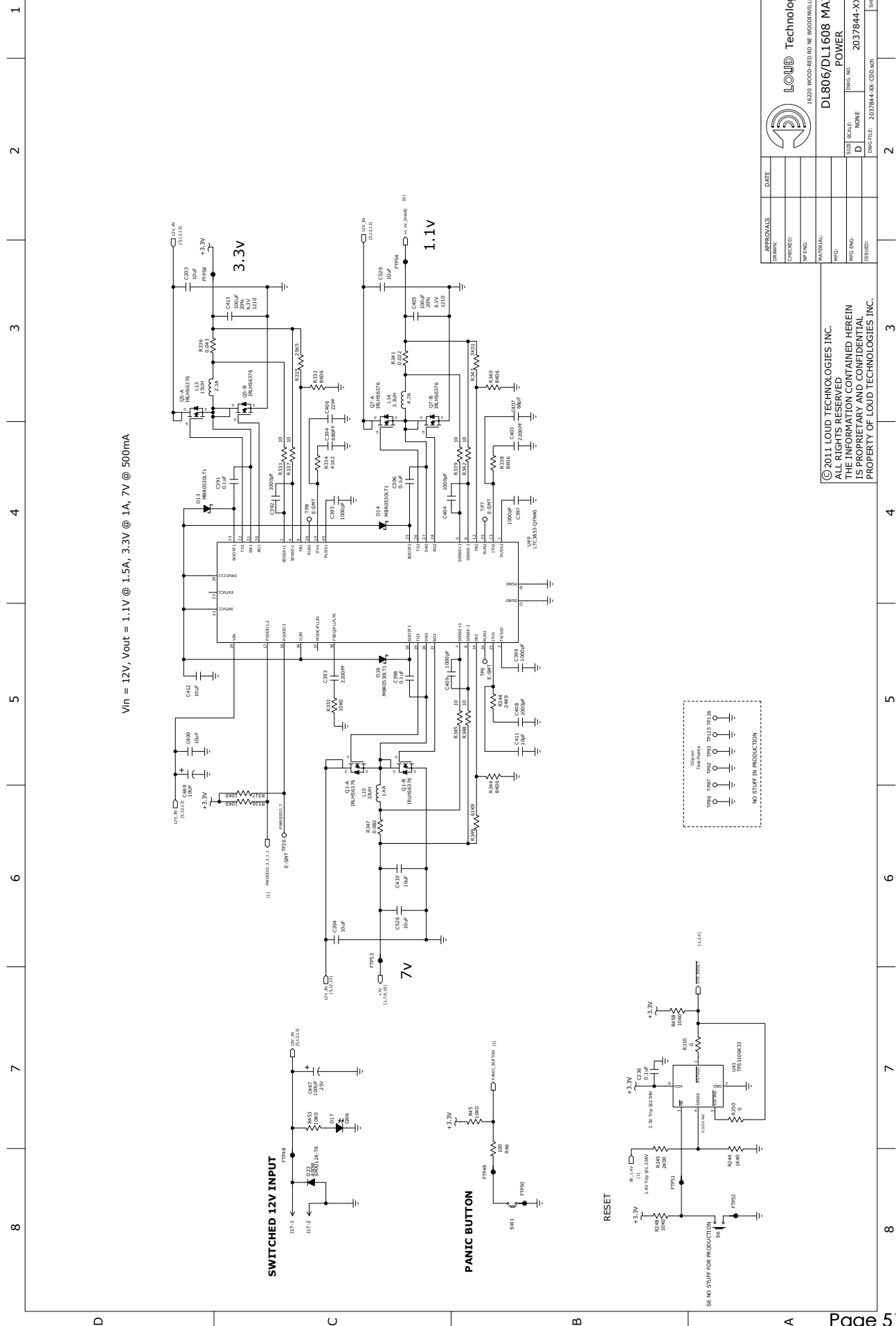


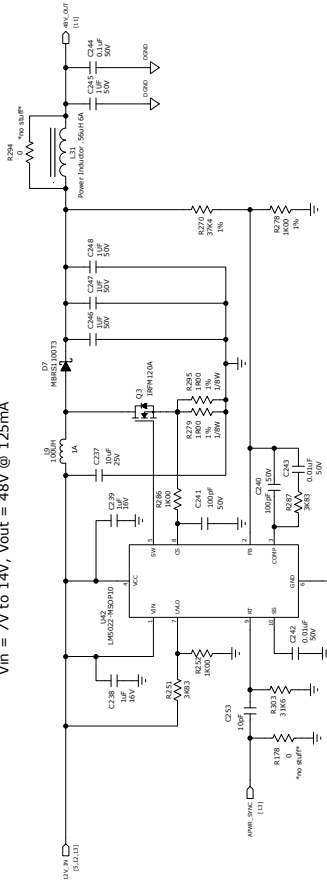
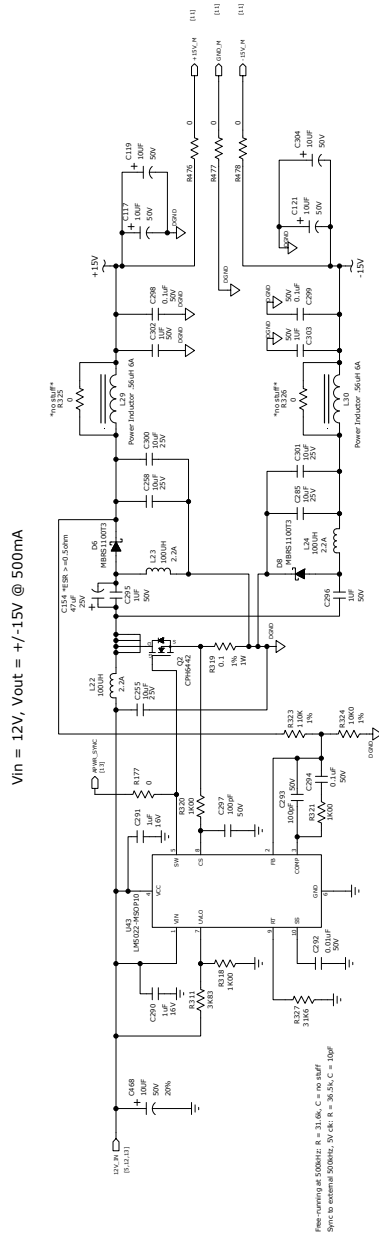


DATE		
APPROVALS	LOUD Technologies Inc. 1620 WOOD-HED RD NE WOODBRIDGE, WA 98072	
DESIGNER	D806/DL1608 MAIN DAC2	
CHECKED		
DATE PLOTTED		
MATERIAL		
REVISIONS		
SIZE	SCALE	REV.
D	NONE	C00
DWG FILE: 2027844-XX-D00.snh		10 OF 13
SHEET NO:		

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ALL COMPONENTS AND TRACES ON THIS PAGE OVER 'ANALOG GROUND' AREA





Free-running at 500kHz: R = 31.6k, C = no stuff
Sync to external 500kHz, 5V clk: R = 36.5k, C = 10pF

APPROVALS		DATE	
DRAWN:			
CHECKED:			
NOTED:			
MATERIAL:			
MFG:			
MFG ENG:			
TESTED:			



LOUD Technologies Inc.

15220 WOOD-BIRD RD. WOODBRIDGE, VA 200972

DL806/DL1608 MAIN

ANALOG POWER

REV: C00

DATE: 13/03/10

REV: C03

DATE: 05/04/10

ITEM	SCALE	NONE	20278444-XX	REV:
D	1			C00
DWG FILE: 20278444-XX-DWG.sch				C03

**2037844-00 REFERENCE DESIGNATORS AND PART LIST**

Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	2037845-01	B01	PCB FAB DL1608 SMALL MAIN	PCB1	
1	712-070-00	A	BATTERY HOLDER 20mm COIN CELL	BT1	
6	0017943	A00	CAP NPO 18PF 50V 5% 0603	C1,C2,C122,C143,C527,C528	
27	223-004-00	B11	CAP LYT 10UF 20% 16V SM	C3,C14,C44,C53,C114,C115, C118,C123,C144,C145,C161, C164,C172,C174,C207,C210, C305,C313,C314,C327,C349, C350,C358,C369,C471,C542 C543	
157	0002946	A00	CAP .1UF X7R 10% 25V 0603	C4,C10,C11,C12,C19,C22,C23, C24,C28,C32,C36,C41,C47, C49,C51,C52,C54,C55,C56, C57,C58,C59,C60,C61,C62, C63,C64,C65,C66,C67,C68, C69,C70,C71,C72,C73,C74, C75,C76,C77,C78,C80,C84, C88,C92,C94,C97,C101,C105, C109,C110,C113,C120,C124, C132,C135,C137,C138,C139, C141,C147,C156,C157,C163, C165,C166,C169,C170,C171, C173,C175,C176,C180,C181, C182,C196,C200,C201,C206, C209,C214,C215,C225,C231, C236,C249,C251,C254,C281, C282,C283,C284,C286,C287, C288,C289,C307,C309,C312, C315,C316,C326,C329,C331, C332,C333,C334,C335,C336, C345,C347,C351,C352,C355, C356,C357,C361,C366,C370, C371,C372,C373,C381,C382, C383,C385,C386,C387,C388, C389,C391,C396,C398,C466, C470,C476,C483,C494,C495, C496,C497,C498,C499,C500, C501,C518,C519,C520,C521, C522,C523,C524,C525,C540, C541,C544,C545	
16	0013123	A00	CAP 3300PF 5% 50V NPO 0805	C5,C15,C25,C29,C33,C37,C50, C79,C85,C89,C93,C98,C102, C106,C197,C221	
44	0006478	A00	CAP 680PF 2% 50V NPO 0603	C6,C7,C16,C17,C26,C27,C30, C31,C34,C35,C38,C39,C40, C48,C81,C83,C86,C87,C90, C91,C95,C96,C99,C100,C103, C104,C107,C108,C125,C128, C198,C199,C223,C224,C257, C262,C265,C268,C271,C274, C277,C280,C394,C530	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
40	0000017	A00	CAP X7R .01uF 5% 25V SMT	C8,C9,C18,C20,C42,C45,C82,C111,C146,C149,C150,C151,C155,C158,C159,C162,C185,C186,C195,C202,C205,C306,C308,C310,C311,C318,C323,C324,C328,C330,C337,C338,C339,C344,C346,C359,C362,C365,C368,C459	
2	0009131	A01	CAP LYTIC 220UF 16V 20% SMT	C13,C167	
14	0017670	A00	CAP CER 1UF 10V 10% X7R 0603	C21,C43,C46,C112,C131,C134,C136,C142,C177,C178,C183,C384,C390,C402	
6	223-006-00	A11	CAP LYT 10UF 20% 50V SM	C117,C119,C121,C304,C468,C469	
35	0000014	A00	CAP X7R 1000PF 10% 50V 0603	C133,C140,C148,C152,C153,C160,C168,C226,C227,C228,C229,C250,C252,C317,C319,C320,C321,C322,C340,C341,C342,C343,C353,C360,C363,C364,C367,C392,C395,C397,-C399,C404,C408,C409,C546	
53	212-036-00	B11	CAP CER 470PF 2% 50V NPO SMT	C184,C191,C401,C420,C421,C422,C423,C424,C425,C426,C427,C428,C429,C430,C431,C432,C433,C434,C435,C436,C437,C438,C439,C440,C441,C442,C443,C444,C445,C446,C447,C448,C449,C450,C451,C452,C453,C454,C460,C461,C462,C463,C465,C472,C473,C474,C475,C534,C535,C536,C537,C538,C539	
16	0032725	A00	CAP 10UF 25V 10% X7R 1206	C203,C204,C237,C255,C258,C285,C300,C301,C400,C410,C350,C358,C369,C471,C542,C543	
4	0018984	A00	CAP CER X7R 1UF 16V 10% 0805	C238,C239,C290,C291	
4	0009147	A00	CAP 100PF NPO 5% 50V 0603	C240,C241,C293,C297	
3	0009130	A00	CAP .01UF X7R 10% 50V 0603 SMT	C242,C243,C292	
4	0026125	A00	CAP 0.1UF 50V 5% X7R 0603	C244,C294,C298,C299	
8	0026175	A00	CAP 1UF 50V 10% X7R 1206	C245,C246,C247,C248,C295,C296,C302,C303	
2	0003100	A00	CAP CER 10PF 5% 100V NPO SM 0603	C253,C411	
52	0000013	A00	CAP 100PF NPO 2% 50V 0603	C126,C127,C129,C130,C256,C259,C260,C261,C263,C264,C266,C267,C269,C270,C272,C273,C275,C276,C278,C279,C477,C478,C479,C480,C481,C482,C484,C485,C486,C487,C488,C489,C490,C491,C492,C493,C502,C503,C504,C505,C506,C507,C508,C509,C510,C511,C512,C513,C514,C515,C516,C517	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	0019244	A00	CAP 0.47UF Y5V 16V 20% SMT 0805	C325	
2	212-032-00	A11	CAP CER 2200PF 10% 50V X7R	C393,C403	
2	2038301	A00	CAP 100UF 6.3V 20% X5R SMT 1210	C405,C413	
1	212-002-00	A11	CAP CER 22PF 5% 100V NPO SM	C406	
1	0000012	A00	CAP 68PF NPO 2% 50V 0603	C407	
1	223-009-00	B11	CAP LYT 100UF 20% 25V SMT	C467	
1	0002117	A00	OSC X-TAL 25MHZ HC49/S LOW PROF. CL:20PF 50PPM P:5.08	CR1	
6	0004125	A01	DIODE SMT 1N4148W 75V FAST SWITCHING SOD123	D1,D2,D3,D20,D21,D22	
5	304-065-03	A	LED GREEN SM 0805	D4,D12,D15,D17,D62	
2	304-066-03	A	LED YELLOW SM 0805	D5,D11	
3	0019339	A00	DIODE SCHOTTKY BARRIER 100V 1A	D6,D7,D8	
3	304-064-03	A	LED RED SM 0805	D9,D10,D24	
3	0006864	A00	DIODE SCHOTTKY 0.5A 30V	D13,D14,D16	
1	0000532	A00	DIODE TVS SMAJ5.0A-TR 400W SMT SMA	D18	
1	0017952	A00	DIODE SCHOTTKY 2A 20V SMA	D19	
1	0000531	A00	DIODE TVS SMAJ12A-TR 400W SMT SMA	D23	
1	2038211	A00	FUSE POLY SWITCH 2.6A 6V SMT 1812	F1	
1	0005169-11	B00	CONN HDR 11P .098X1 SHRD RTA TJC3	J3	
1	2038392	A00	CONN HDR 4P .100X1 STR SIP	J4	
1	0005169-10	B00	CONN HDR 10P .098X1 SHRD RTA TJC3	J5	
1	0005169-05	B00	CONN HDR 5P .098X1 SHRD RTA TJC3	J7	
1	0005169-06	B00	CONN HDR 6P .098X1 SHRD RTA TJC3	J8	
5	0019393-12	A00	CONN HEADER 12 CONTACT 1.5MM PITCH LOW PROFILE RA ZH SERIES JST	J9,J12,J13,J14,J15	
1	400-340-00	A	CONN MODULAR JACK WITH SHLD RJ45	J11	
1	0022336-02	A00	CONN HDR 7A 2P 3.96MM RTA	J17	
1	400-171-00	A01	CONN HDR 2P .100X1 STR	J32	
66	0000094	A00	IND FERRITE 120OHM 200MA 0.15DCR 0805 SMT	L1,L2,L3,L7,L8,L10,L11,L12,L17, L18,L19,L20,L21,L25,L27,L28,L32, L33,L34,L35,L36,L37,L38,L39,L40, L41,L42,L43,L44,L45,L46,L47,L48, L49,L50,L51,L52,L53,L54,L55,L56, L57,L58,L59,L60,L61,L62,L64,L65, L66,L67,L68,L69,L70,L71,L72,L73, L74,L75,L76,L77,L78,L79,L80,L81, L88	
1	2038209	A00	IND SHIELDED POWER 6.8UH 30% 4A SMT	L4	
8	0017955	A00	IND FERRITE 600 OHM 200MA 0.5DCR 0603 SMT	L5,L6,L82,L83,L84,L85,L86,L87	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	2038241	A00	IND PWR 100UH 20% 1A 0.30OHM DCR SHIELDED SMT	L9	
1	2038195	A00	IND PWR 15UH 20% 2.1A 0.076OHM DCR SMT	L13	
1	2038194	A00	IND PWR 3.3UH 30% 4.7A 0.017OHM DCR SMT	L14	
1	2038196	A00	IND PWR 33UH 20% 1.4A 0.15 OHM DCR SMT	L15	
3	2038242	A00	IND PWR 100UH 20% 2.2A 0.135OHM DCR SHIELDED SMT	L22,L23,L24	
1	0015028	A00	IND CM CHOKE EMI 90OHM @100MHZ 0805	L26	
3	0008403	A00	IND SW 0.56UH 20% 6A SMT	L29,L30,L31	
3	2040310	A00	XSTR MOSFET DUAL N-CH 30V 1.5W 3.4A IRLHS6376TRPBF	Q1,Q5,Q7	
1	2038266	A00	XSTR MOSFET N-CH 100V 2.3A 0.2 RDS SOT-223 IRFM120ATF	Q3	
1	2038249	A00	XSTR MOSFET P-CH SOT-23 FDV304P	Q4	
2	0001464	A00	XSTR MOSFET FDV301N N-CH SOT-23	Q6,Q8	
1	142-171-00	A00	RES TF 10M 5% 0.1W SMT	R1	
81	143-389-00	A1	RES TF 10.0K 1% 0.1W SMT	R2,R3,R4,R5,R6,R9,R10,R33,R34, R35,R37,R45,R148,R151,R152, R156,R179,R197,R210,R212, R213,R237,R248,R253,R254, R255,R258,R324,R333,R355, R356,R368,R369,R370,R395, R396,R397,R398,R399,R400, R401,R402,R403,R404,R405, R406,R412,R433,R453,R458, R480,R481,R482,R486,R497, R516,R517,R524,R575,R595, R632,R633,R641,R650,R651, R652,R655,R656,R657,R658, R659,R660,R662,R663,R664,- R665,R666,R682,R683,R684,R685	
12	143-289-00	A1	RES TF 1.00K 1% 0.1W SMT	R7,R8,R189,R252,R278,R286, R318,R320,R321,R442,R518,R643	
11	143-258-00	A1	RES TF 475 1% 0.1W SMT	R11,R216,R238,R242,R243,R394, R409,R431,R589,R680,R681	
25	0000718	A00	RES CHIP ARRAY 4RES CONVEX 22 OHM	R12,R21,R25,R53,R54,R63,R65, R66,R67,R68,R70,R72,R73,R74, R75,R76,R174,R214,R239,R240, R241,R376,R449,R531,R579	
32	143-390-00	A1	RES TF 10.2K 1% 0.1W SMT	R13,R17,R20,R28,R32,R43,R51, R56,R59,R77,R82,R83,R88,R91, R98,R103,R106,R109,R114,R117, R122,R125,R130,R132,R137, R140,R145,R149,R158,R162, R167,R170	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
129	143-318-00	A1	RES TF 2.00K 1% 0.1W SMT	R14,R15,R24,R26,R27,R29,R30, R31,R41,R42,R49,R50,R52,R55, R57,R58,R62,R64,R69,R71,R80, R81,R86,R87,R89,R90,R94,R95, R96,R97,R101,R102,R104,R105, R107,R108,R112,R113,R115, R116,R120,R121,R123,R124, R127,R129,R131,R135,R136, R138,R139,R143,R144,R146, R147,R154,R157,R160,R161, R165,R166,R168,R169,R173, R245,R378,R379,R380,R381, R382,R383,R384,R385,R386, R387,R388,R389,R390,R391, R392,R393,R408,R410,R411, R413,R414,R415,R416,R417, R418,R419,R420,R421,R422, R423,R424,R427,R428,R429, R432,R434,R436,R437,R438, R439,R440,R441,R446,R448, R450,R451,R452,R454,R456, R457,R459,R460,R461,R462, R463,R464,R465,R466,R467,- R468,R469,R470,R471,R472	
56	143-193-00	A01	RES TF 100 1% 0.1W SMT	R16,R22,R39,R40,R46,R47,R48, R60,R61,R78,R79,R84,R85,R92, R93,R99,R100,R110,R111,R118, R119,R126,R128,R133,R134, R141,R142,R150,R153,R163, R164,R171,R172,R191,R192, R193,R194,R262,R263,R271, R302,R353,R357,R358,R359, R360,R361,R362,R363,R364,- R365,R366,R367,R483,R577,R578	



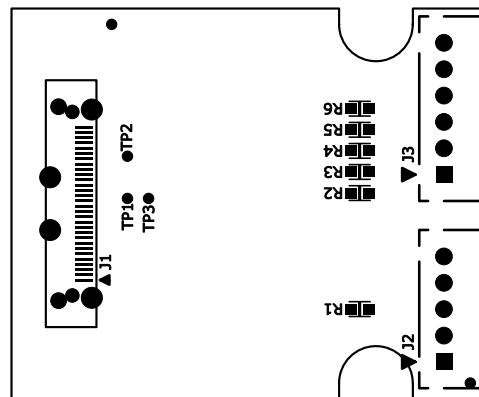
Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
137	143-000-00	A01	RES TF 0.00 1% 0.1W SMT	R18,R23,R36,R38,R155,R159, R177,R180,R181,R182,R183, R187,R188,R211,R217,R218, R219,R222,R226,R227,R228, R229,R230,R233,R235,R236, R250,R310,R322,R354,R371, R372,R374,R375,R377,R407, R425,R426,R435,R444,R476, R477,R478,R479,R484,R491, R503,R507,R509,R510,R511, R525,R526,R527,R528,R529, R530,R532,R533,R534,R535, R536,R537,R538,R539,R540, R541,R542,R543,R544,R545, R546,R547,R548,R549,R550, R551,R552,R553,R554,R555, R556,R557,R558,R559,R560, R561,R562,R563,R564,R565, R566,R567,R568,R569,R571, R572,R573,R574,R576,R580, R581,R582,R583,R584,R585, R586,R587,R590,R592,R593, R594,R614,R615,R616,R617, R618,R619,R620,R621,R622, R623,R624,R626,R634,R639, R642,R645,R647,R648,R649,- R653,R654,R661,R667,R668,R672	
3	143-337-00	A1	RES 2K87 1% 1/10W 0603	R190,R443,R644	
1	143-260-00	A1	RES TF 499 1% 0.1W SMT	R195	
1	143-261-00	A1	RES TF 511 1% 0.1W SMT	R196	
33	143-149-00	A01	RES TF 34.8 1% 0.1W SMT	R44,R176,R215,R220,R221,R223, R224,R225,R231,R232,R234,R261 R313,R328,R329,R430,R445,R447 R455,R508,R591,R625,R627,R628 R629,R630,R631,R635,R636, R637,R638,R640,R646	
1	143-303-00	A1	RES TF 1.40K 1% 0.1W SMT	R244	
1	143-307-00	A1	RES TF 1.54K 1% 0.1W SMT	R485	
3	143-349-00	A1	RES TF 3.83K 1% 0.1W SMT	R251,R287,R311	
1	143-444-00	A1	RES TF 37.4K 1% 0.1W SMT	R270	
2	145-001-00	D00	RES MF SM .1W 1% 1R00 OHM	R279,R295	
2	143-437-00	A1	RES TF 31.6K 1% 0.1W SMT	R303,R327	
1	2038262	A00	RES TF 0.1 1% 1W SMT 2512	R319	
1	143-489-00	A1	RES TF 110K 1% 0.1W SMT	R323	
6	143-097-00	A01	RES TF 10.0 1% 0.1W SMT	R331,R337,R339,R342,R345,R348	
4	143-380-00	A1	RES TF 8.06K 1% 0.1W SMT	R332,R338,R340,R346	
1	143-448-00	A1	RES TF 41.2K 1% 0.1W SMT	R334	
1	143-428-00	A1	RES TF 25.5K 1% 0.1W SMT	R335	
1	2038199	A00	RES TF 0.043 5% 1/2W SMT 1206	R336	
1	2038198	A00	RES TF 0.022 5% 1/2W SMT 1206	R341	
5	143-339-00	A1	RES TF 3.01K 1% 0.1W SMT	R198,R201,R204,R207,R343	
1	143-427-00	A1	RES 24K9 1% 1/10W 0603	R344	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	2038200	A00	RES TF 0.082 5% 1/2W SMT 1206	R347	
1	143-465-00	A1	RES TF 61.9K 1% 0.1W SMT	R349	
4	142-046-00	A1	RES TF 75 5% 0.1W SMT	R473,R474,R475,R498	
2	143-130-00	A01	RES TF 22.1 1% 0.1W SMT	R512,R513	
1	143-514-00	A1	RES TF 200K 1% 0.1W SMT	R519	
1	143-418-00	A1	RES TF 20.0K 1% 0.1W SMT	R520	
1	143-464-00	A1	RES TF 60.4K 1% 0.1W SMT	R521	
1	143-559-00	A1	RES TF 590K 1% 0.1W SMT	R522	
1	2038216	A00	RES TF 0.050 1% 0.5W SMT 1206	R523	
1	143-169-00	A01	RES TF 56.2 1% 0.1W SMT	R588	
2	145-000-00	B	RES TF SM .1W 0 OHM	R669,R673	
1	0008320-01	L00	STDF SWAGE M3 X 13.8MM 4.7 DIA	SO1	
1	2038277	A00	SWITCH TACT SPST 12VDC 50MA RTA FOR USE AS HIDDEN RESET	SW1	
1	2037923	A00	IC DSP BLACKFIN BF516 400MHZ NO FLASH 70C 168-CSP-BGA	U1	
1	2037597	A00	IC DSP SHARC ADSP-21488 400MHZ 70C 176-LQFP-EP	U2	
1	2038081	A00	IC NOR-FLASH 256MBIT 16MX16 LOWEST PROTECTED 90NS 85C 56-PIN TSOP SPANSION S29GL256P	U3	
3	0009705	A00	IC SINGLE 2-INPUT POSITIVE AND GATE SN74LVC1G08DBVR	U4,U45,U46	
4	0026338	A00	IC LDO 1117 ADJ 800mA SOT-223	U26,U40,U57,U63	
2	0025252	A00	IC ADC 114dB 192kHz 8 CHANNEL A/D CONVERTER LQFP48	U6,U10	
29	0006956	B00	IC OP AMP NJM4580 DUAL SO-8	U7,U8,U9,U11,U12,U13,U14,U15,U16,U17,U18,U19,U20,U23,U24,U25,U27,U31,U34,U35,U37,U52,U53,U54,U55,U56,U58,U59,U60	
1	0029206	A00	IC DAC 24-BIT 192KHZ 8 CH DAC 114dB DR LQFP48	U22	
1	0018629	A00	IC AK4396 120DB DAC	U28	
0	0006636	A00	OSC 24.576 MHZ SM 3.3V 25 PPM	U29	
1	2039675	A00	OSC 24.576 MHZ SM 3.3V 35 PPM OR BETTER	U29	
2	0000722	B00	IC 74LVC541 OCTAL BUF LINE DV	U30,U32	
1	0009648-00	A00	IC 74LVC573 TSSOP	U33	
1	0000723	A00	IC 74LVC574 OCTAL D FF	U36	
1	0005035	A00	IC 74LVC32 QUAD OR GATE SO14	U38	
1	2037003	A00	IC DIGI SUPERVISOR TPS3106K33 ULTRA-LOW VOLTAGE	U41	
2	2037865	A00	IC DC-DC CONVERTER SWITCHING BOOST SEPIC 60V LM5022 MSOP-10	U42,U43	
1	2038042	A00	IC DIGITAL PSOC3 64K FLASH FSUSB NOLCD 48P-QFN CY8C3446LTI-073	U44	
1	2038092	A00	IC SDRAM 256MBIT 16MX16 143MHZ 70C 54-PIN TSOP (II) ISSI	U47	



Qty	Item Number	Rev	Item Description	Ref Des	BOM Notes
1	0030784	A00	IC SDRAM 64MBIT 4MX16 143MHZ 70C 54-PIN TSOP (II) ISSI	U48	
1	2037868	A00	IC DC-DC CONVERTER SWITCHING TRIPLE BUCK SYNCHRONOUS 24V LTC3853 QFN-40	U49	
1	2038189	A00	IC DCDC STEPDOWN 2.2A 2.8MHZ LT1938 DFN-10	U61	
1	2038212	A00	IC HIGH-SIDE CURRENT MONITOR 2.5V-20V SOT23	U62	
1	0000075	A00	OSC CRYSTAL 32.768KHZ SMT	X1	
1	712-060-00	A	BTRY LITHIUM 3V	XBT1	
1	2038232	A00	OSC CRYSTAL 24MHZ 18PF 50PPM SMT	Y1	
1	0011133	A02	CAP LYT 47UF 20% 25V SMT	C154	
1	0010010	A00	CAP 1000 PF 10% 2KV X7R SMD	C455	
1	2038937	A00	XSTR MOSFET N-CH 60V 6A 0.043RDS 6-PIN SMT CPH6442	Q2	
17	143-397-00	A1	RES TF 12.1K 1% 0.1W SMT	R184,R185,R266,R269,R274, R277,R282,R285,R290,R293, R298,R301,R306,R309,R314, R317,R570	
16	143-368-00	A1	RES TF 6.04K 1% 0.1W SMT	R186,R257,R260,R265,R268, R273,R276,R281,R284,R289, R292,R297,R300,R305,R308,R316	
4	143-358-00	A1	RES TF 4.75K 1% 0.1W SMT	R199,R203,R205,R209	
4	143-407-00	A1	RES TF 15.4K 1% 0.1W SMT	R200,R202,R206,R208	
16	143-336-00	A1	RES TF 2.80K 1% 0.1W SMT	R256,R259,R264,R267,R272,R275, R280,R283,R288,R291, R296,R299,R304,R307,R312,R315	
4	143-164-00	A01	RES TF 49.9 1% 0.1W SMT	R499,R500,R501,R502	
1	2038954	A00	XFMR 10/100BASE-T IEEE802.3 SINGLE SMT SOIC 16PIN MDIX SUPPORT	T1	
1	321-015-03	A00	IC REG LM1117MPX-ADJ SOT 223	U5	
1	2038936	A00	IC ETHERNET PHY 10/100 3.3V MII/ RMII 32PIN QFN LAN8710A	U67	



LOUD TECHNOLOGIES INC. | 2037849-01
REV B00

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS: DECIMALS: ANGLES: .XX .XX .XX .XX .XX .XX .0000 .0000 .0000 .0000 .0000 .0000	APPROVALS DRAWN: KIR CHECKED: BY: ENGINEERING		DATE 6-16-11		 LOUD TECHNOLOGIES INC. WOODBRIDGE, VA, USA
	METRICAL:		MANUFACTURING:		
	HYD: ENGINEERING:		NO. 100		
	SHEET:		SCALE: NONE		
DO NOT SCALE DRAWING		2037848-XX		SHEET 1 OF 1	



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2037848-00 REFERENCE DESIGNATORS AND PART LIST

Qty	Item Number	Rev	Item Description	Ref Des
1	0005168-05	B00	CONN HDR 5P .098X1 SHRD TJC3	J2
1	0005168-06	B00	CONN HDR 6P .098X1 SHRD TJC3	J3
1	143-201-00	A01	RES TF 121 1% 0.1W SMT	R1
1	143-432-00	A1	RES TF 28.0K 1% 0.1W SMT	R2
4	143-000-00	A01	RES TF 0.00 1% 0.1W SMT	R3,R4,R5,R6

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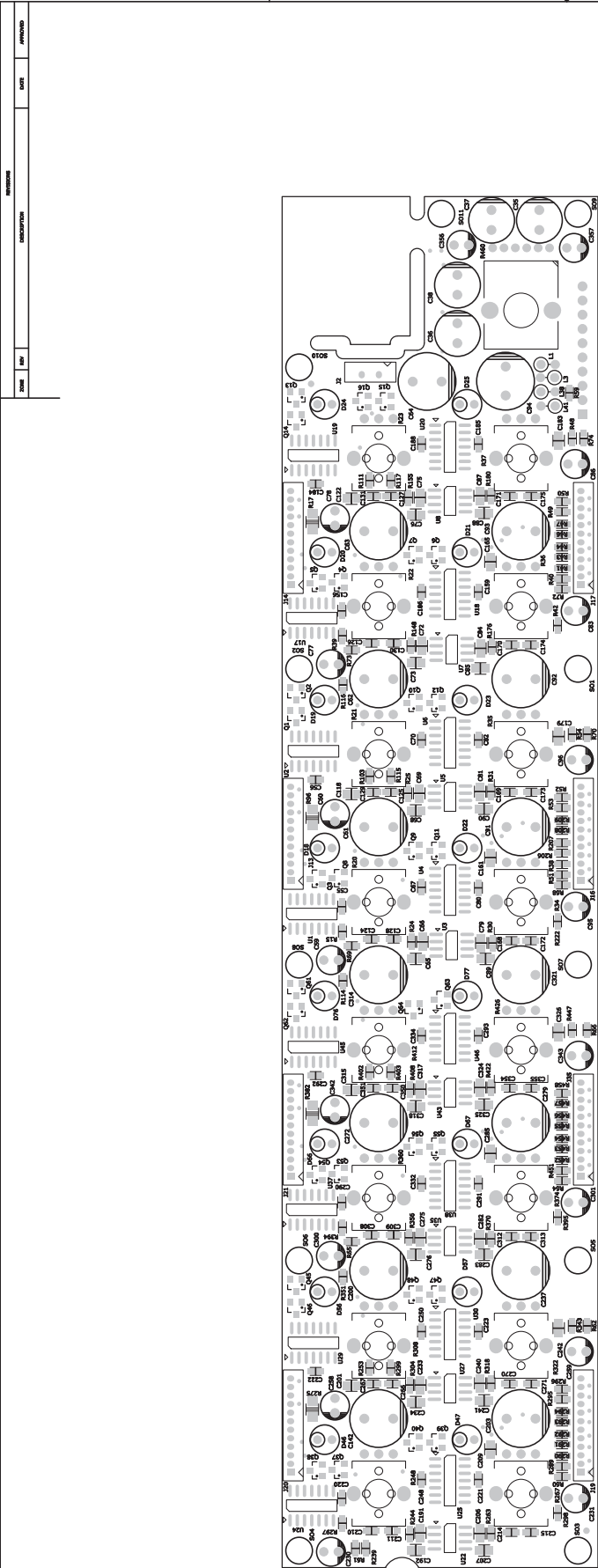
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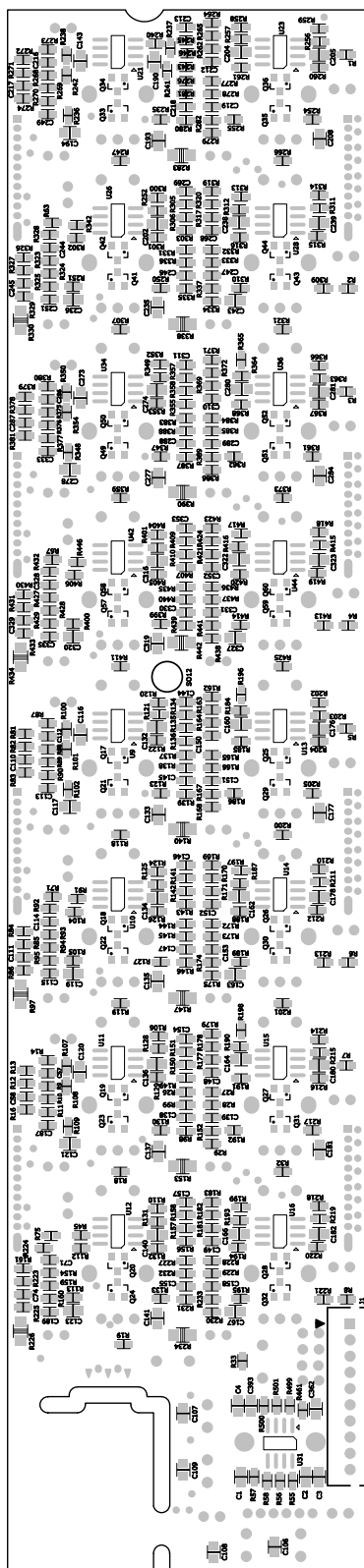
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TOP SIDE SHOWN

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN METRIC TOLERANCES ARE: FRACTIONS: DECIMALS: ANGLES: ± .10 ± .01 ± .01	APPROVALS	DATE	9/9/11			LOUD TECHNOLOGIES INC. WOODBRIDGE, VA, USA						
			TH									
			CHIEFED									
			BY ENGINEERING									
THE INFORMATION CONTAINED HEREIN IS PROPERTY OF LLOUD TECHNOLOGIES INC. DO NOT SCALE DRAWING	MATERIAL	MANUFACTURING	HVS ENGINEERING	NONE	2037850-XX	REV. D00						
DO NOT SCALE DRAWING						SHEET 1 OF 2						



BOTTOM SIDE SHOWN

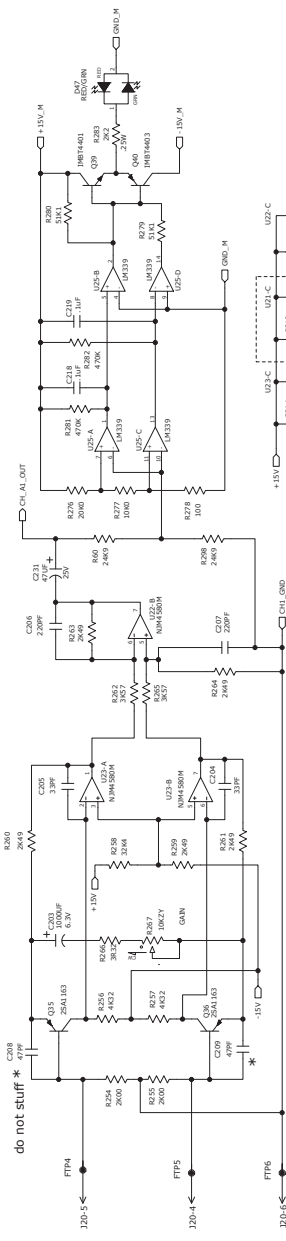
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONS: DECIMALS: ANGLES: .XX .XX .XX .XX .XX .XX .XX .XX .XX .XX .XX .XX	APPROVALS	DATE	 LOUD TECHNOLOGIES INC. WOODBRIDGE, WA, USA	PCB ASSY BEARTOOTH PREAMP	REV.	
	DRAWN: CHECKED: IN PROGRESSING: MATERIAL: MANUFACTURING: PART ENGINEERING: ISSUED:					SIZE D
THE INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL PROPERTY OF LOUD TECHNOLOGIES INC.					SHEET 2 OF 2	
DO NOT SCALE DRAWING						

2037850-00 SCHEMATIC ANALOG PREAMP PCB
(CH_A1_B1_INTERCONNECT)

DL806 - DL1608 SERVICE MANUAL

8 7 6 5 4 3 2 1

CHAN A-1



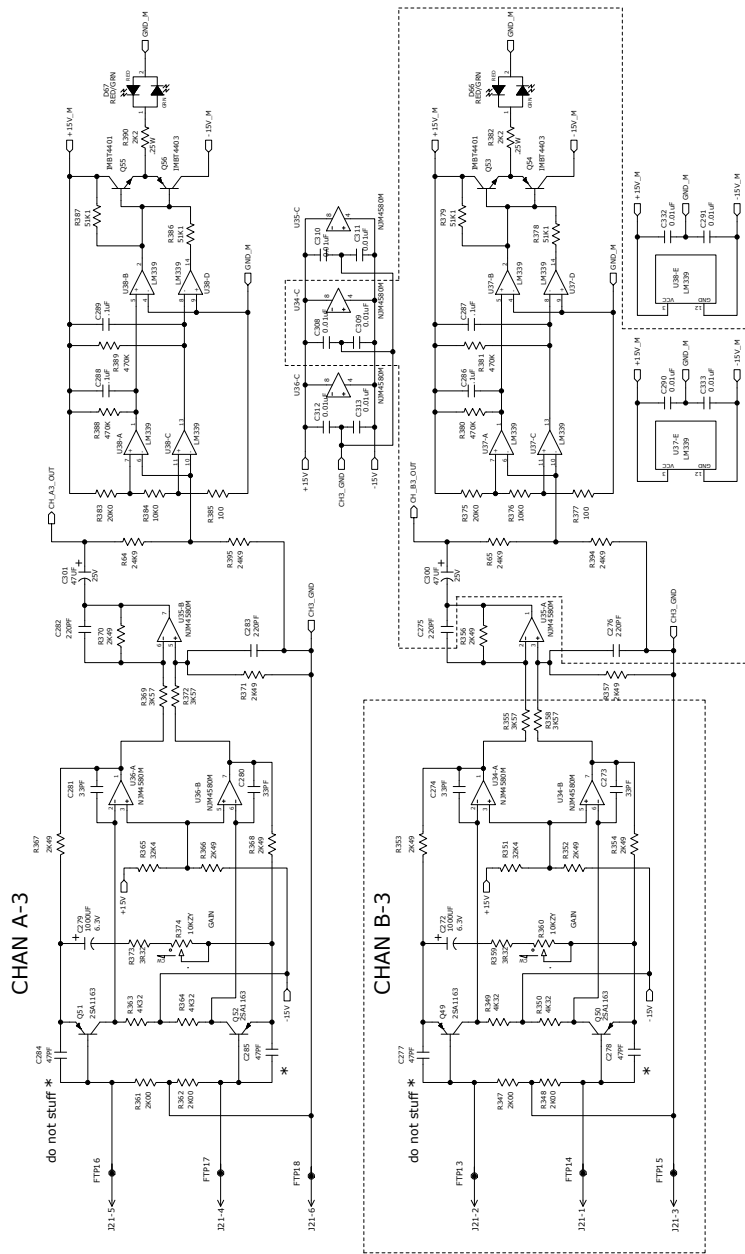
DL806 - DL1608 SERVICE MANUAL



2037850-00 SCHEMATIC ANALOG PREAMP PCB
(CH_A3_B3)

DL806 - DL1608 SERVICE MANUAL

8 7 6 5 4 3 2 1



DL806 (-01): DO NOT STUFF CHANNEL B COMPONENTS.

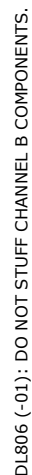


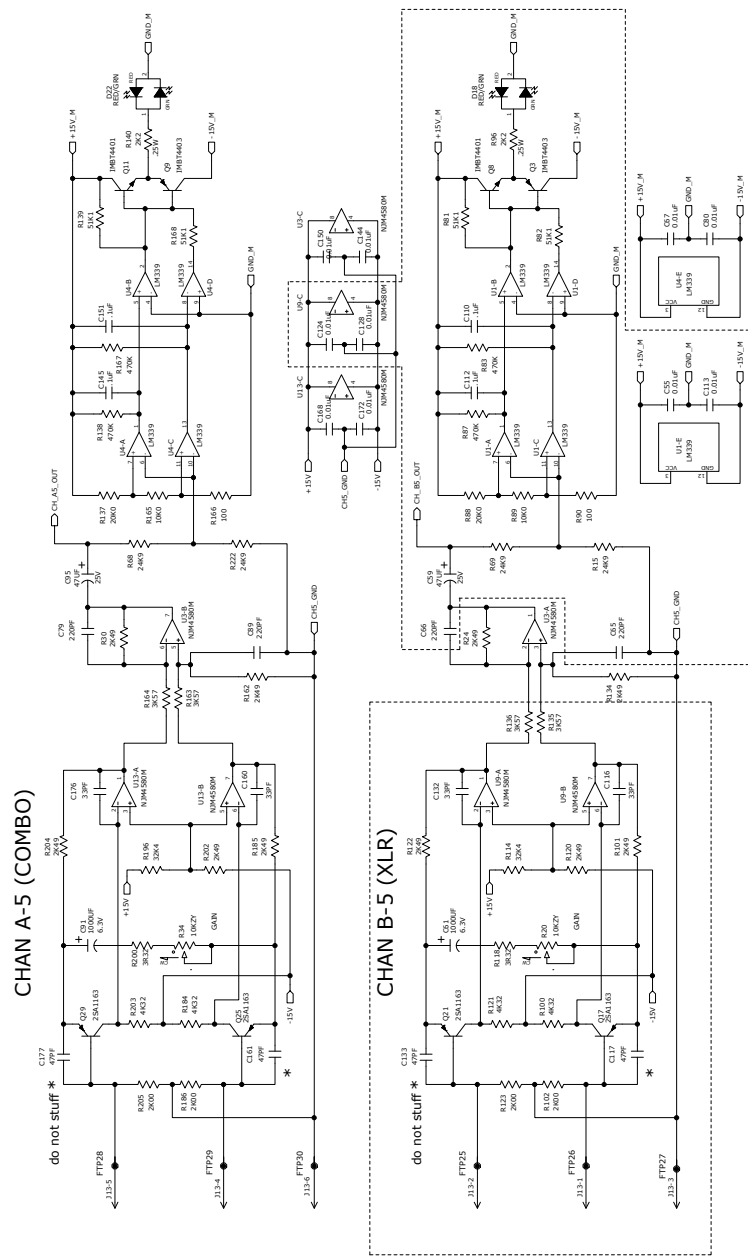
LOUD Technologies Inc.
16220 WOOD-RED RD NE WOODHURST, WA 98072

DL806/DL1608 Analog Preamp PCB
CH_A3_B3

SIZE	SCALE	REV
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DWG FILE: 2037850-XX-001.sch		
SHEET 3 OF 9		

8 7 6 5 4 3 2 1





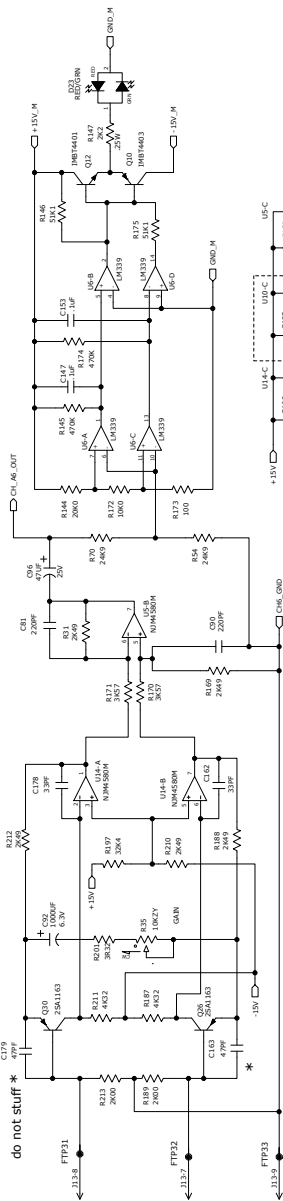
DL806 (-01): DO NOT STUFF CHANNEL B COMPONENTS.

2037850-00 SCHEMATIC ANALOG PREAMP PCB
(CH_A6_B6)

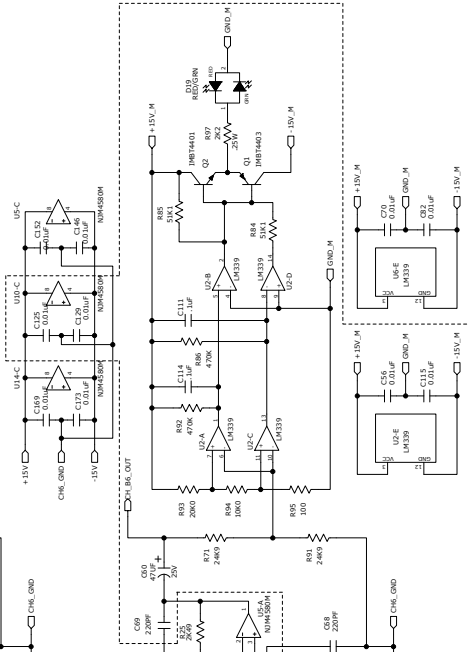
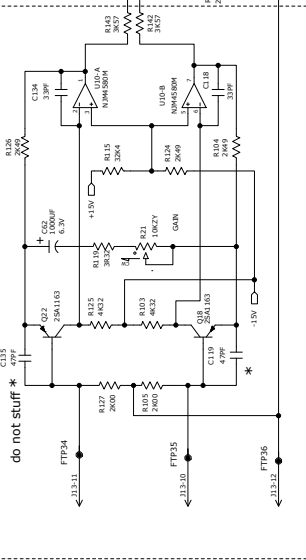
DL806 - DL1608 SERVICE MANUAL

8 7 6 5 4 3 2 1

CHAN A-6 (COMBO)



CHAN B-6 (XLR)



DL806 (-01): DO NOT STUFF CHANNEL B COMPONENTS.



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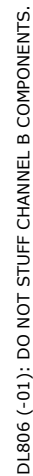
DL806/DL1608 Analog Preamp PCB
CH_A6_B6

SIZE	SCALE	DWG NO.	REV.
D	NONE	2037850-XX	D01

SHEET 6 OF 9

8 7 6 5 4 3 2 1





2037850-00 SCHEMATIC ANALOG PREAMP PCB
(PHONES)

DL806 - DL1608 SERVICE MANUAL

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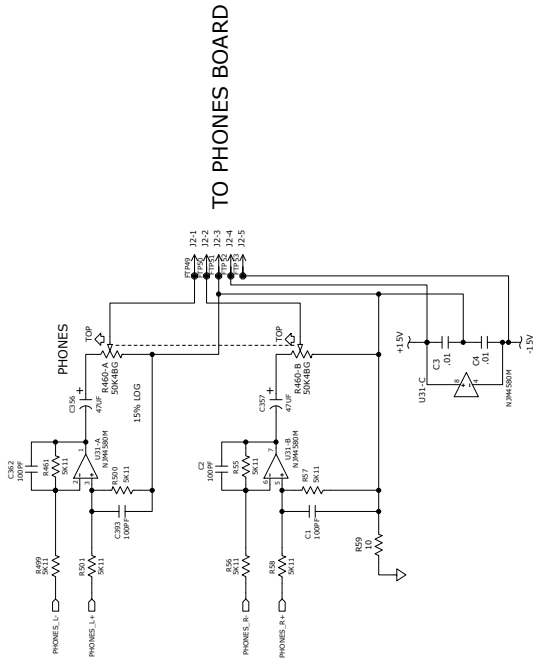
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LOUD Technologies Inc.
16320 WOOD-RED RD NE WOODINVILLE, WA 98072

DL806/DL1608 Analog Preamp PCB

PHONES

SIZE	SCALE	DATE	REV
D	NONE	2037850-XX	D01
DWG FILE: 2037850-XX-D01.sch			SHEET 9 OF 9

8

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**2037850-XX REFERENCE DESIGNATORS AND PARTS LIST**

Qty	Item Number	Rev	Item Description	Ref Des
4	212-003-00	B11	CAP CER 100PF 5% 50V 0805 SMT	C1,C2,C362,C393
2	212-001-00	B11	CAP CER .01UF 10% 50V X7R SM	C3,C4
4	2033954	A00	CAP LYTIC 220UF 25V 20% STRAIGHT LEADS 3.5MM	C35,C36,C37,C38
80	0000017	A00	CAP X7R .01uF 5% 25V SMT	C55,C56,C67,C70,C80,C82, C113,C115,C124,C125,C126, C127,C128,C129,C130,C131, C144,C146,C148,C149,C150, C152,C154,C156,C157,C159, C168,C169,C170,C171,C172, C173,C174,C175,C184,C185, C186,C187,C188,C189,C210, C211,C212,C213,C214,C215, C220,C221,C222,C223,C248, C249,C250,C251,C266,C267, C268,C269,C270,C271,C290, C291,C292,C293,C308,C309, C310,C311,C312,C313,C332, C333,C334,C335,C350,C351, C352,C353,C354,C355
32	0009289	A00	CAP 0.1UF X7R 10% 25V 0603	C57,C58,C71,C74,C110, C111,C112,C114,C138,C139, C145,C147,C151,C153,C155, C158,C216,C217,C218,C219, C244,C245,C246,C247,C286, C287,C288,C289,C328,C329, C330,C331
18	220-002-02	A1	CAP LYT 47UF 20% 25V RAD TR	C59,C60,C77,C78,C83,C86, C95,C96,C230,C231,C258, C259,C300,C301,C342,C343, C356,C357
16	220-030-00	B11	CAP LYT 1000UF 20% 6.3V RAD	C61,C62,C63,C64,C91,C92, C93,C94,C142,C200,C203, C237,C272,C279,C314,C321
32	212-004-00	C11	CAP CER 220PF 5% 50V NPO SM	C65,C66,C68,C69,C72,C73, C75,C76,C79,C81,C84,C85, C87,C88,C89,C90,C191, C192,C206,C207,C233,C234, C240,C241,C275,C276,C282, C283,C317,C318,C324,C325
4	212-025-00	D11	CAP CER .1UF 50V 10% X7R	C106,C107,C108,C109
16	0025966	A01	LED BICOLOR RED/GREEN W/.425 SPACER	D18,D19,D20,D21,D22,D23, D24,D25,D46,D47,D56,D57, D66,D67,D76,D77
1	0005168-10	B00	CONN HDR 10P .098X1 SHRD TJC3	J1
8	0009393-12	A00	CONN HEADER 12 CONTACT 1.5MM PITCH LOW PROFILE ZH SERIES JST	J13,J14,J16,J17,J19,J20,J21, J35
4	0006488	A00	IND 22UH AX	L1,L3,L38,L41
16	311-002-00	A01	XSTR PNP MMST4403 SMT	Q1,Q3,Q5,Q7,Q9,Q10,Q14, Q16,Q38,Q40,Q46,Q48,Q54, Q56,Q62,Q64
16	311-001-00	B01	XSTR NPN IMBT4401 SMT	Q2,Q4,Q6,Q8,Q11,Q12,Q13, Q15,Q37,Q39,Q45,Q47,Q53, Q55,Q61,Q63



Qty	Item Number	Rev	Item Description	Ref Des
32	0031329	A00	XSTR LN 2SA1163 PNP SOT-23	Q17,Q18,Q19,Q20,Q21,Q22,Q23,Q24,Q25,Q26,Q27,Q28,Q29,Q30,Q31,Q32,Q33,Q34,Q35,Q36,Q41,Q42,Q43,Q44,Q49,Q50,Q51,Q52,Q57,Q58,Q59,Q60
9	143-097-00	A01	RES TF 10.0 1% 0.1W SMT	R1,R2,R3,R4,R5,R6,R7,R8,R59
16	143-389-00	A1	RES TF 10.0K 1% 0.1W SMT	R10,R27,R89,R94,R159,R165,R172,R228,R269,R277,R324,R332,R376,R384,R428,R436
16	143-193-00	A01	RES TF 100 1% 0.1W SMT	R11,R28,R90,R95,R160,R166,R173,R229,R270,R278,R325,R333,R377,R385,R429,R437
32	143-457-00	A1	RES TF 51.1K 1% 0.1W SMT	R12,R13,R29,R81,R82,R84,R85,R98,R139,R146,R161,R168,R175,R223,R230,R231,R271,R272,R279,R280,R326,R327,R334,R335,R378,R379,R386,R387,R430,R431,R438,R439
32	142-139-00	A10	RES TF 470K 5% 0.1W SMT	R14,R16,R83,R86,R87,R92,R99,R138,R145,R152,R167,R174,R224,R225,R232,R233,R273,R274,R281,R282,R328,R329,R336,R337,R380,R381,R388,R389,R432,R433,R440,R441
16	146-326-00	A01	RES MF SM .25W 1% 2K2 OHM 1206	R17,R96,R97,R140,R147,R153,R226,R234,R275,R283,R330,R338,R382,R390,R434,R442
16	143-051-00	A01	RES TF 3.32 1% 0.1W SMT	R18,R19,R32,R33,R118,R119,R200,R201,R247,R266,R307,R321,R359,R373,R411,R425
16	2038330	A00	POT RTRY 10KZY 9MM SNGL 25MM HT NO DTNT	R20,R21,R22,R23,R34,R35,R36,R37,R248,R267,R308,R322,R360,R374,R412,R426
80	143-331-00	A1	RES TF 2.49K 1% 0.1W SMT	R24,R25,R30,R31,R101,R104,R106,R108,R110,R112,R120,R122,R124,R126,R129,R132,R134,R141,R148,R151,R155,R158,R162,R169,R176,R179,R180,R183,R185,R188,R191,R194,R202,R204,R210,R212,R214,R216,R218,R220,R240,R241,R242,R244,R245,R259,R260,R261,R263,R264,R300,R301,R302,R304,R305,R314,R315,R316,R318,R319,R352,R353,R354,R356,R357,R366,R367,R368,R370,R371,R404,R405,R406,R408,R409,R418,-R419,R420,R422,R423



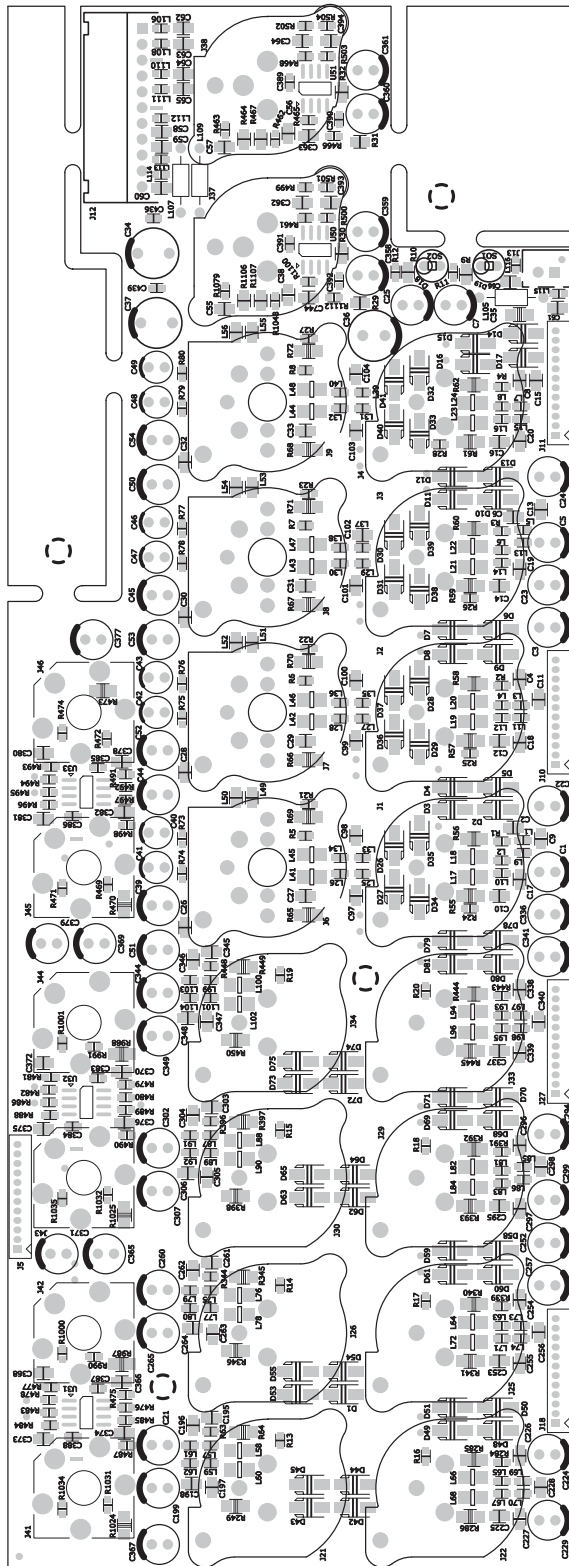
Qty	Item Number	Rev	Item Description	Ref Des
32	143-201-00	A01	RES TF 121 1% 0.1W SMT	R38,R40,R41,R43,R44,R46, R47,R49,R50,R51,R52,R53, R206,R207,R208,R209,R289, R290,R291,R292,R293,R294, R295,R296,R451,R452,R453, R454,R455,R456,R457,R458
8	143-361-00	A1	RES TF 5.11K 1% 0.1W SMT	R55,R56,R57,R58,R461,R499, R500,R501
32	143-354-00	A1	RES TF 4.32K 1% 0.1W SMT	R100,R103,R107,R111,R121, R125,R128,R131,R184,R187, R190,R193,R203,R211,R215, R219,R237,R238,R252,R253, R256,R257,R311,R312,R349, R350,R363,R364,R401,R402, R415,R416
32	143-318-00	A1	RES TF 2.00K 1% 0.1W SMT	R102,R105,R109,R113,R123, R127,R130,R133,R186,R189, R192,R195,R205,R213,R217, R221,R235,R236,R250,R251, R254,R255,R309,R310,R347, R348,R361,R362,R399,R400, R413,R414
16	143-438-00	A1	RES TF 32.4K 1% 0.1W SMT	R114,R115,R116,R117,R196, R197,R198,R199,R239,R258, R299,R313,R351,R365,R403, R417
32	143-346-00	A1	RES TF 3.57K 1% 0.1W SMT	R135,R136,R142,R143,R149, R150,R156,R157,R163,R164, R170,R171,R177,R178,R181, R182,R243,R246,R262,R265, R303,R306,R317,R320,R355, R358,R369,R372,R407,R410, R421,R424
1	2038329	A00	POT RTRY 50KG 12MM DUAL 25MM HEIGHT NO DETENT	R460
11	0008320-01	L00	STDF SWAGE M3 X 13.8MM 4.7 DIA	SO1,SO2,SO3,SO4,SO5,SO6, SO7,SO8,SO9,SO10,SO11
16	323-002-00	D00	IC LM339D QUAD COMP SM	U1,U2,U4,U6,U17,U18,U19, U20,U24,U25,U29,U30,U37, U38,U45,U46
25	0006956	B00	IC OP AMP NJM4580 DUAL SO-8	U3,U5,U7,U8,U9,U10,U11,U12, U13,U14,U15,U16,U21,U22, U23,U26,U27,U28,U31,U34, U35,U36,U42,U43,U44
1	0009393-05	A00	CONN HEADER 5 CONTACT 1.5MM PITCH LOW PROFILE ZH SERIES JST	J2
1	0008320-07	L00	STDF SWAGE M3 X 16MM 4.7 DIA	SO12
32	212-015-00	B11	CAP CER 33PF 5% 50V NPO SM	C116,C118,C120,C122,C132, C134,C136,C140,C143,C160, C162,C164,C166,C176,C178, C180,C182,C190,C201,C202, C204,C205,C238,C239,C273, C274,C280,C281,C315,C316, C322,C323



Qty	Item Number	Rev	Item Description	Ref Des
16	143-418-00	A1	RES TF 20.0K 1% 0.1W SMT	R9,R26,R88,R93,R137,R144, R154,R227,R268,R276,R323, R331,R375,R383,R427,R435
32	143-427-00	A1	RES 24K9 1% 1/10W 0603	R15,R39,R42,R45,R48,R54, R60,R61,R62,R63,R64,R65, R66,R67,R68,R69,R70,R71, R72,R73,R74,R75,R91,R222, R297,R298,R342,R343,R394, R395,R446,R447

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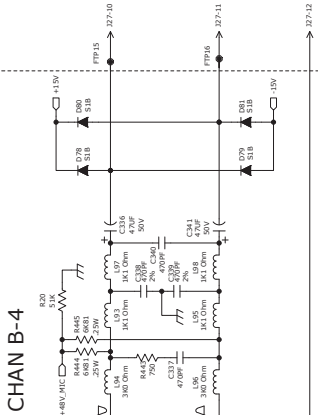
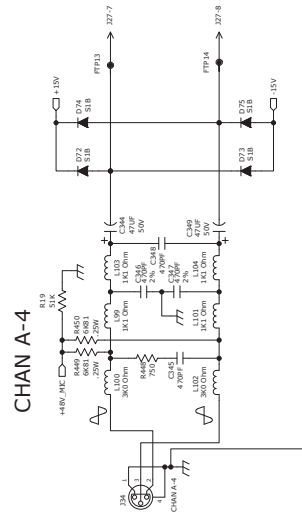
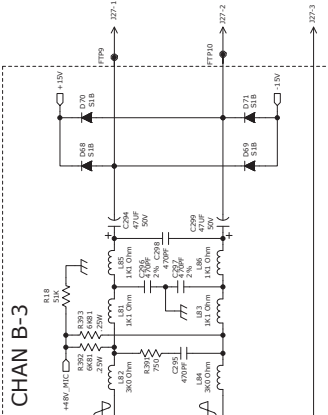
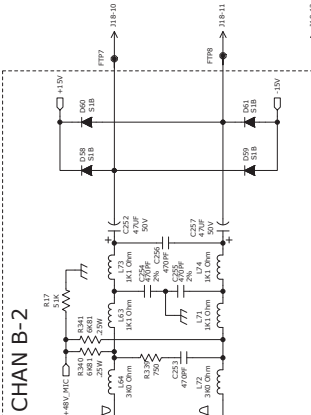
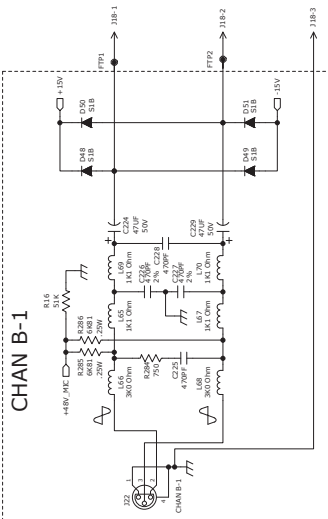
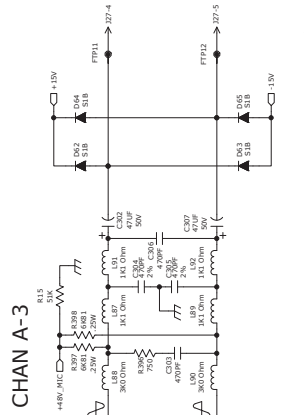
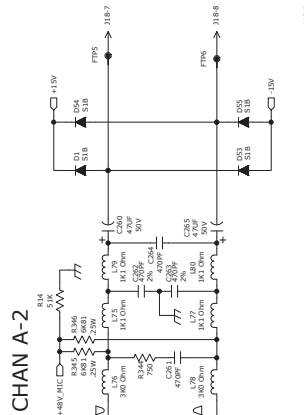
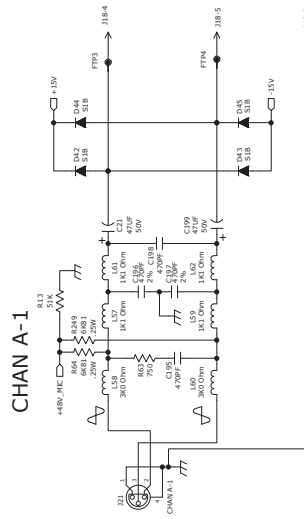
REV	BY	DATE	DESCRIPTION	APPROVED



TOP SIDE SHOWN

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES FRACTIONS: DECIMALS: ANGLES: ± .010 ± .005 ± .010	APPROVALS	DATE	7/21/11	LOUIE LOUIE TECHNOLOGIES INC. WOODBRIDGE, VA, USA					
THE INFORMATION CONTAINED HEREIN IS PROPERTY OF LOUIE TECHNOLOGIES INC.	DO NOT SCALE DRAWING	SCALE	NONE	2037852-XX	REV. 100				
PCB ASSY DL806/DL1608 ANALOG IO									
1 OF 1									

8 7 6 5 4 3 2 1



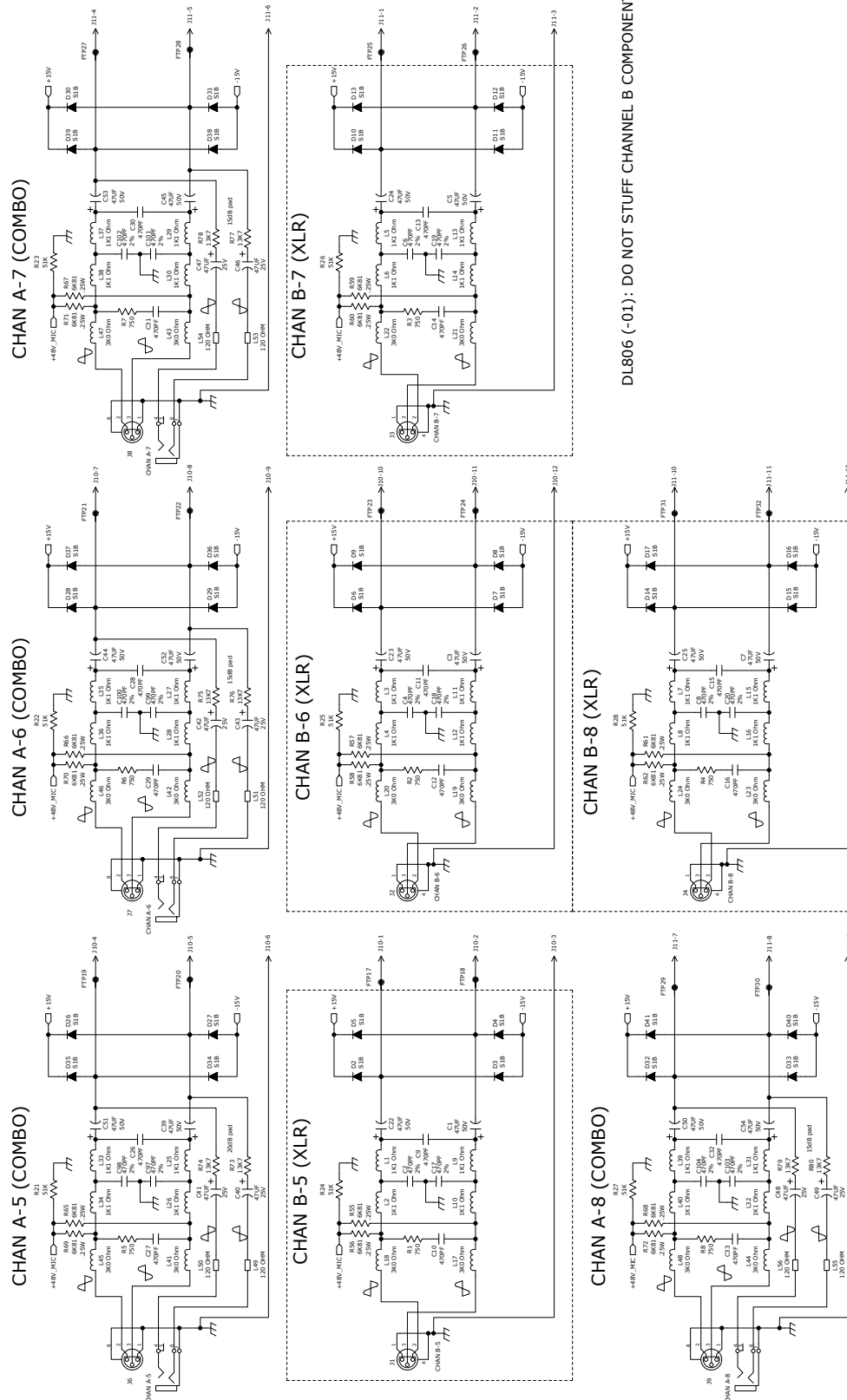
DL806 (-01): DO NOT STUFF CHANNEL B COMPONENTS.

- SO1 ☐ 706-111-00
SPCR PVC .850 LED
- SO2 ☐ 706-111-00
SPCR PVC .850 LED

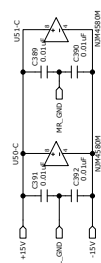
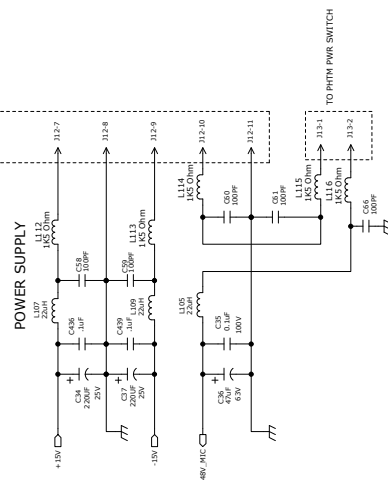
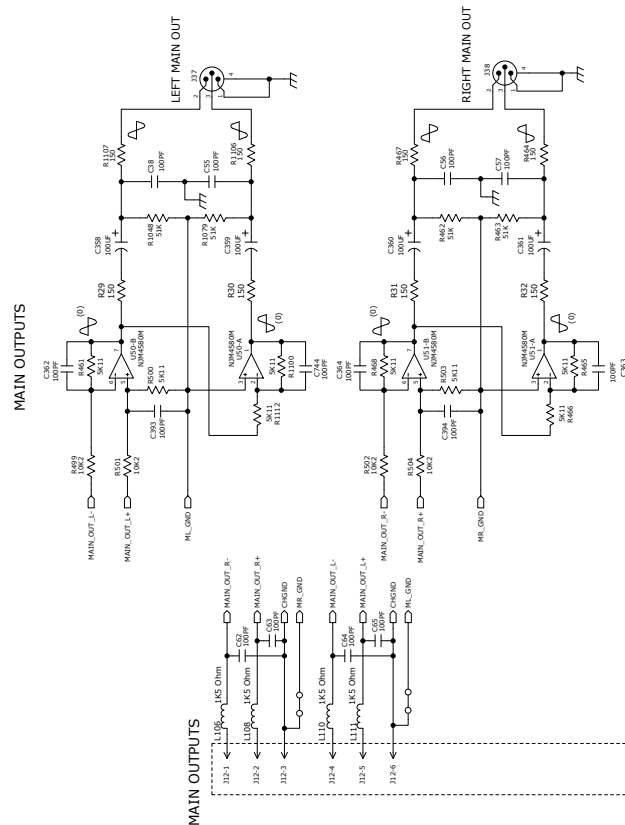
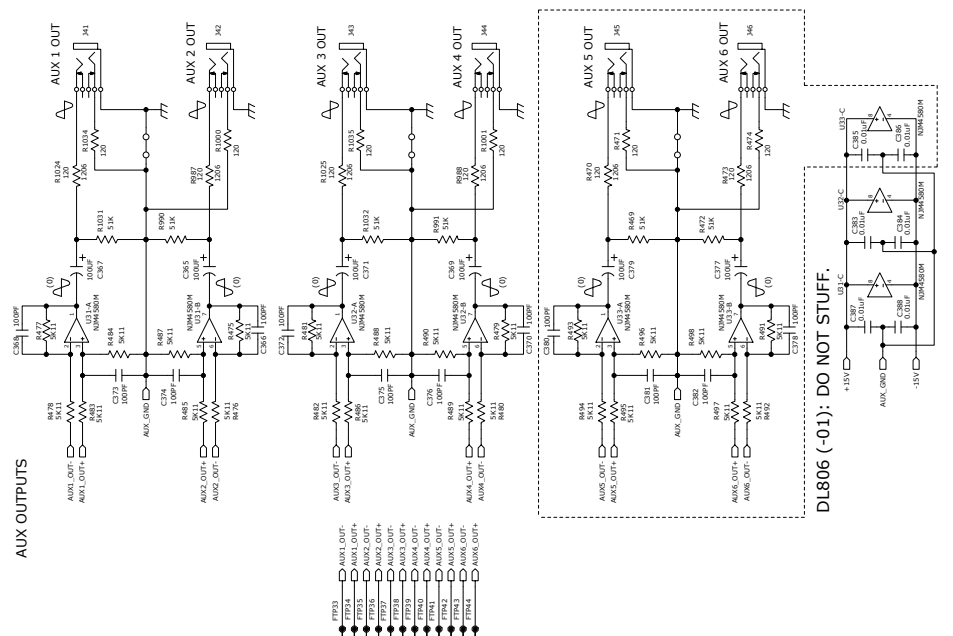
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|------|--------------------------|------------|---|
| PCB1 | ☐ | 2037853-03 | PCB FAB DL806/DL160 8 ANALOG IO |
| SOH1 | ☐ | 2037852-XX | SCHEMATIC PCB ASSY DL806/DL1608 ANALOG IO |

		Loud Technologies Inc. 15228 WOOD-RED RD. THE WOODMILLS, WA 98072	
APPROVALS: _____ DRAWN: DB CHECKED: _____ DATE: 6/13/2011		Schematic Schematic DL806/DL1608 ANALOG TO CH1_4	
MP: RAGL REV: _____ DATE: _____		Schematic Schematic DL806/DL1608 ANALOG TO CH1_4	
REV: (RAGL) REUSED: _____		SCALE: NONE D: NONE DWG FILE: 2037852-XX-000-csh 2037852-XX 1 OF 3	

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DL806 (-01): DO NOT STUFF CHANNEL B COMPONENTS.



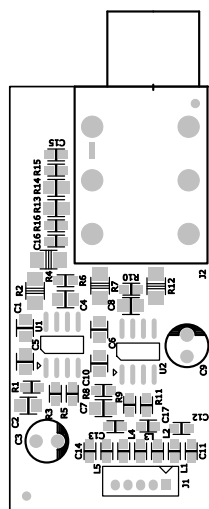
DL806 (-01): DO NOT STUFF.

2037852-XX REFERENCE DESIGNATORS AND PARTS LIST

Qty	Item Number	Rev	Item Description	Ref Des
1	2037853-02	C00	PCB FAB DL1608 SMALL ANALOG IO	PCB1
32	220-003-02	B	CAP LYT 47UF 20% 50V RAD TR	C1,C3,C5,C7,C21,C22,C23,C24,C25,C39, C44,C45,C50,C51,C52,C53,C54,C199, C224,C229,C252,C257,C260,C265,C294, C299,C302,C307,C336,C341,C344,C349
32	212-036-00	B11	CAP CER 470PF 2% 50V NPO SMT	C2,C4,C6,C8,C17,C18,C19,C20,C97,C98, C99,C100,C101,C102,C103,C104,C196, C197,C226,C227,C254,C255,C262,C263, C296,C297,C304,C305,C338,C339,C346, C347
32	212-042-00	A11	CAP CER 470PF 5% 50V NPO SM	C9,C10,C11,C12,C13,C14,C15,C16,C26, C27,C28,C29,C30,C31,C32,C33,C195, C198,C225,C228,C253,C256,C261,C264, C295,C298,C303,C306,C337,C340,C345, C348
2	0007923	A00	CAP LYTIC 220UF 25V 20%	C34,C37
1	0001149	A00	CAP CER 0.1UF 100V 10% X7R 1206	C35
1	0007877	A00	CAP LYT 47UF 63V 20% 8x11.5MM LOWLEAKAGE RAD	C36
8	220-002-02	A1	CAP LYT 47UF 20% 25V RAD TR	C40,C41,C42,C43,C46,C47,C48,C49
10	220-011-02	A11	CAP LYT 100UF 20% 25V RAD	C358,C359,C360,C361,C365,C367,C369, C371,C377,C379
31	212-003-00	B11	CAP CER 100PF 5% 50V 0805 SMT	C38,C55,C56,C57,C58,C59,C60,C61,C62, C63,C64,C65,C66,C362,C363,C364,C366, C368,C370,C372,C373,C374,C375,C376, C378,C380,C381,C382,C393,C394,C744
10	0000017	A00	CAP X7R .01uF 5% 25V SMT	C383,C384,C385,C386,C387,C388,C389, C390,C391,C392
2	0002946	A00	CAP .1UF X7R 10% 25V 0603	C436,C439
64	0004136	A00	DIODE RECTIFIER 1A GLASS PASSIVATED S1B	D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11, D12,D13,D14,D15,D16,D17,D26,D27,D28, D29,D30,D31,D32,D33,D34,D35,D36,D37, D38,D39,D40,D41,D42,D43,D44,D45,D48, D49,D50,D51,D53,D54,D55,D58,D59,D60, D61,D62,D63,D64,D65,D68,D69,D70,D71, D72,D73,D74,D75,D78,D79,D80,D81
1	0029689	A00	LED GREEN DIFFUSED T1 28MM LEADS	D18
1	0029691	A00	LED RED HI-EFF DIFFUSED T1 28MM LEADS	D19
12	2033694	A00	CONN XLR 4P FEMALE AA-SERIES NO-LATCH SHELL & PANEL TIED TO SEPARATE GROUND (PIN 4)	J1,J2,J3,J4,J21,J22,J25,J26,J29,J30,J33,J34
5	0009393-12	A00	CONN HEADER 12 CONTACT 1.5MM PITCH LOW PROFILE ZH SERIES JST	J5,J10,J11,J18,J27
4	2034400	A00	CONN XLR COMBO A SERIES 6P VERT STR	J6,J7,J8,J9
1	0005169-11	B00	CONN HDR 11P .098X1 SHRD RTA TJC3	J12
1	0005168-02	B00	CONN HDR 2P .098X1 SHRD TJC3	J13
2	2033697	A00	CONN XLR 3P MALE AA-SERIES SHELL & PANEL TIED TO SEPARATE GROUND (PIN 4)	J37,J38
6	0008698	A00	CONN JACK 1/4" PCMNT 1MM WASH 24MM HEIGHT	J41,J42,J43,J44,J45,J46

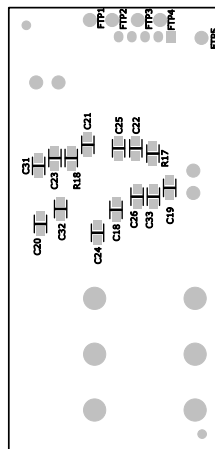


Qty	Item Number	Rev	Item Description	Ref Des
64	0028137	A00	IND FERRITE BEAD 1100 OHMS HF SMT	L1,L2,L3,L4,L5,L6,L7,L8,L9,L10,L11,L12,L13,L14,L15,L16,L25,L26,L27,L28,L29,L30,L3,L32,L33,L34,L35,L36,L37,L38,L39,L40,L57,L59,L61,L62,L63,L65,L67,L69,L70,L71,L73,L74,L75,L77,L79,L80,L81,L83,L85,L86,L87,L89,L91,L92,L93,L95,L97,L98,L99,L101,L103,L104
32	0028138	A00	IND FERRITE BEAD 3000 OHMS LF SMT	L17,L18,L19,L20,L21,L22,L23,L24,L41,L42,L43,L44,L45,L46,L47,L48,L58,L60,L64,L66,L68,L72,L76,L78,L82,L84,L88,L90,L94,L96,L100,L102
8	0000094	A00	IND FERRITE 120OHM 200MA 0.15DCR 0805 SMT	L49,L50,L51,L52,L53,L54,L55,L56
3	0006488	A00	IND 22UH AX	L105,L107,L109
16	143-277-00	A1	RES TF 750 1% 0.1W SMT	R1,R2,R3,R4,R5,R6,R7,R8,R63,R284,R339,R344,R391,R396,R443,R448
2	140-092-00	A00	RES TF SM .1W 5% 6K2 OHM	R9,R10
2	142-087-00	A1	RES TF 3.9K 5% 0.1W SMT	R11,R12
32	146-373-00	A01	RES MF SM .25W 1% 6K81 OHM 1206	R55,R56,R57,R58,R59,R60,R61,R62,R64,R65,R66,R67,R68,R69,R70,R71,R72,R249,R285,R286,R340,R341,R345,R346,R392,R393,R397,R398,R444,R445,R449,R450
8	143-402-00	A1	RES 13K7 1% 1/10W 0603	R73,R74,R75,R76,R77,R78,R79,R80
32	143-361-00	A1	RES TF 5.11K 1% 0.1W SMT	R461,R465,R466,R468,R475,R476,R477,R478,R479,R480,R481,R482,R483,R484,R485,R486,R487,R488,R489,R490,R491,R492,R493,R494,R495,R496,R497,R498,R500,R503,R1100,R1112
26	142-115-00	A1	RES TF 51K 5% 0.1W SMT	R13,R14,R15,R16,R17,R18,R19,R20,R21,R22,R23,R24,R25,R26,R27,R28,R462,R463,R469,R472,R990,R991,R1031,R1032,R1048,R1079
6	141-051-00	B	RES TF SM .25W 5% 120 OHM	R470,R473,R987,R988,R1024,R1025
6	142-051-00	A1	RES TF 120 5% 0.1W SMT	R471,R474,R1000,R1001,R1034,R1035
2	706-111-00	A01	SPCR PVC .850 LED	SO1,SO2
5	0006956	B00	IC OP AMP NJM4580 DUAL SO-8	U31,U32,U33,U50,U51
4	143-390-00	A1	RES TF 10.2K 1% 0.1W SMT	R499,R501,R502,R504
9	2036367	A00	IND FERRITE BEAD 1500 OHMS HF SMT 0603	L106,L108,L110,L111,L112,L113,L114,L115,L116
8	145-210-00	B01	RES MF SM 150 OHM 1% 0.1W 0805	R29,R30,R31,R32,R464,R467,R1106,R1107



TOP SIDE SHOWN

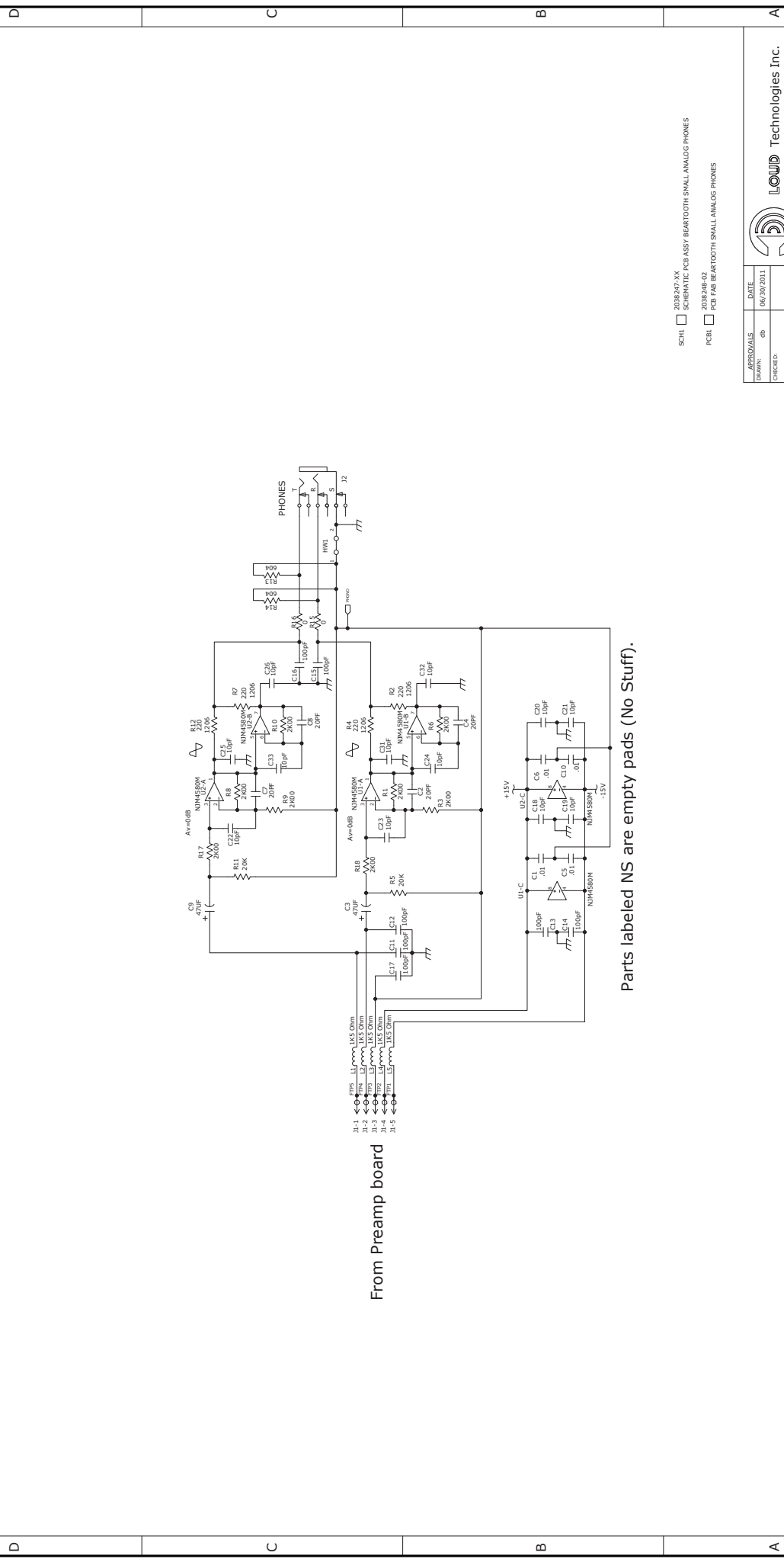
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS: DECIMALS: ANGLES: .XX .XXX .MM .000 .001 .0005 .0005 .001 .0005	APPROVALS			DATE		 LOUD TECHNOLOGIES INC. WOODBRIDGE, WA, USA	PCB ASSY BEARTOOTH PHONES	THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF LOUD TECHNOLOGIES INC.	SIZE: SCALE: NONE	DWG. NO.: 2038247-XX	REV: C00	SHEET 1 OF 2
DO NOT SCALE DRAWING									3			



BOTTOM SIDE SHOWN

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND DECIMAL FRACTIONS: DECIMALS: ANGLES: TOLERANCES ARE: ±.01 ±.01 ±.01 ±.01 ±.01 ±.01 ±.01 ±.01 ±.01 ±.01										APPROVALS										DATE										 LOND TECHNOLOGIES INC. WOODINVILLE, WA, USA																																																																																									
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8 7 6 5 4 3 2 1



From Preamp board

Parts labeled NS are empty pads (No Stuff).

SCH ☐ 2038247-XX SCHEMATIC PCB ASSY BEARTOOTH SMALL ANALOG PHONES
PCB ☐ 2038248-02 PCB FAB BEARTOOTH SMALL ANALOG PHONES

APPROVALS		DATE
DRAWN	db	06/20/2011
CHECKED		
W/ ENG		
MATERIAL		
PFC		
DWG ENG		
ISSUED		



LOUD Technologies Inc.
16208 WOOD RD NE WOODMILLE, WA 98072

BEARTOOTH Small Analog Phones	
SIZE	SCALE
D	NONE
DWG NO.	2038247-XX
REV.	C01
DWG FILE: 2038247-XX-C01.dwg	
SHEET 1 OF 1	

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8 7 6 5 4 3 2 1

**2038247-00 REFERENCE DESIGNATORS AND PARTS LIST**

Qty	Item Number	Rev	Item Description	Ref Des
1	2038248-02	C00	PCB FAB DL1608 SMALL ANALOG PHONES	PCB1
4	212-001-00	B11	CAP CER .01UF 10% 50V X7R SM	C1,C5,C6,C10
4	212-005-00	B11	CAP CER 20PF 5% 50V NPO SM	C2,C4,C7,C8
8	143-318-00	A1	RES TF 2.00K 1% 0.1W SMT	R1,R3,R6,R8,R9,R10,R17,R18
4	141-057-00	B00	RES MF SM .25W 5% 220 OHM	R2,R4,R7,R12
2	142-104-00	A1	RES TF 20K 5% 0.1W SMT	R5,R11
2	0006956	B00	IC OP AMP NJM4580 DUAL SO-8	U1,U2
7	0009147	A00	CAP 100PF NPO 5% 50V 0603	C11,C12,C13,C14,C15,C16,C17
5	2036367	A00	IND FERRITE BEAD 1500 OHMS HF SMT 0603	L1,L2,L3,L4,L5
2	145-268-00	B	RES MF SM 604 OHM 1% 0.1W 0805	R13,R14
1	0009393-05	A00	CONN HEADER 5 CONTACT 1.5MM PITCH LOW PROFILE ZH SERIES JST	J1
2	220-002-02	A1	CAP LYT 47UF 20% 25V RAD TR	C3,C9
1	2039416	A00	CONN JACK 1/4 HRZ PCMNT STEREO - METAL NOSE	J2
2	143-000-00	A01	RES TF 0.00 1% 0.1W SMT	R15,R16
12	0009185	A00	CAP 10PF NPO 5% 50V 0603	C18,C19,C20,C21,C22,C23,C24,C25, C26,C31,C32,C33