



Certificate of Compliance

Certificate: 2303340

Master Contract: 183136

Project: 2303340

Date Issued: July 15, 2010

Issued to: Logitech, Inc.

4700 NW Camas Meadows Dr
Camas, WA 98607
USA
Attention: Grant Bowen

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Shane Stevenson

Issued by: Shane Stevenson

PRODUCTS

CLASS 3862 13 - INFORMATION TECHNOLOGY EQUIPMENT - (CSA 60950-1-07, Second Edition)

CLASS 3862 93 - INFORMATION TECHNOLOGY EQUIPMENT - (UL 60950-1, Second Edition-Certified to U.S.Stds)

3-Piece 2.1 Powered Speaker System Z623, P/N S-0095, cord-connected, rated 110-120 V, 60 Hz, 900 mA.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No 60950-1-07 - Information Technology Equipment - Safety - Part 1: General Requirements

ANSI/UL 60950-1, Second Edition - Information Technology Equipment - Safety - Part 1: General Requirements



Supplement to Certificate of Compliance

Certificate: 2303340

Master Contract: 183136

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
2303340	July 15, 2010	Speaker System, Model Z623



Descriptive Report and Test Results

MASTER CONTRACT: 183136

REPORT: 2303340

PROJECT: 2303340

Edition 1: July 15, 2010; Project 2303340 - Vancouver
Issued by Shane Stevenson, AScT

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Descriptive Report and Tests - Pages 1 to 5
Attachment 1 - Construction Details and List of Critical Components (4 pages)
Attachment 2 - Photographs (7 pages)
Attachment 3 - Schematics and Layouts (14 pages)*
Attachment 4 - Magnetic Components Specifications (5 pages)
Bi-Nat CSA 60950-1-03/UL 60950-1 Design Manual, Rev. 2.2

** Not for publication (CSAI Engineering use only)*

PRODUCTS

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CLASS 3862 93 - INFORMATION TECHNOLOGY EQUIPMENT - (UL 60950-1, Second Edition - Certified to U.S. Stds)

3-Piece 2.1 Powered Speaker System, model Z623, P/N S-0095, cord-connected, rated 110-120 V, 60 Hz, 900 mA.

BI-NAT CSA 60950-1-03/UL 60950-1, 1st Edition Rev. 2.2 DESIGN MANUAL (ISSUED WITH THIS REPORT) IS AN INTEGRAL PART OF THIS REPORT

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13799 Commerce Parkway, Richmond, BC, Canada V6V 2N9

Telephone: 604.273.4581 1.800.463.6727 Fax: 604.244.6600 www.csa-international.org

APPLICABLE REQUIREMENTS

- | | | |
|---------------------------------|---|--|
| CAN/CSA-C22.2 No 60950-1-07 | – | Information Technology Equipment - Safety - Part 1: General Requirements |
| ANSI/UL 60950-1, Second Edition | – | Information Technology Equipment - Safety - Part 1: General Requirements |

CONDITIONS OF ACCEPTABILITY

None

MARKINGS

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US, or with adjacent indicator 'US' for US only, or without either indicator for Canada only.



PART 1: Minimum Markings: (See Item D1 (a) in Design Manual)

[i] Marking Method: (For Minimum Markings)

1. CSA/UL Approved adhesive nameplate (suitable for surface to which it is applied).

Note: Refer to the Design Manual for other marking options.

[ii] Required Information: (For Minimum Markings)

1. The submitter's name and/or Master Contract number "183136", and factory ID (if applicable);

Note: If only the CSA file number (or CSA Master Contract number) is used as the submitter's identification, the CSA file number (or CSA Master Contract number) is marked at any location adjacent to the CSA Monogram

2. Model or identifying designation;
3. Complete electrical ratings (Cl. 1.7.1) (refer to Design Manual for details)
4. Date of manufacture, serial number or date code traceable to month and year of manufacture;
5. The CSA Monogram or the CSA Monogram with "NRTL" or "NRTL/C" or "US" or "cUS" indicator (at location adjacent to the CSA Monogram, see Appendix A of the Design Manual) as applicable.

Note: Bilingual Markings for products with CSA Mark or CSA Mark and the NRTL/C or cUS indicator.

Jurisdictions in Canada may require these markings to also be in French. It is the responsibility of the Customer to provide bilingual markings, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the Customer to determine this requirement and have bilingual wording added to the "Markings".

ALTERATIONS

1. Secondary wires including speaker wires are dressed away from primary circuit and hot parts.

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

Component Substitution:

- a) Critical components (those identified by mfr name, cat no) are not eligible for substitution without evaluation and report updating.
- b) Component descriptions marked with the identifier "(CT)" are subject to annual pickup and Conformity Testing.
- c) Component descriptions marked with the identifier "(INT)" are the only components that are eligible for substitution at the factory.
- d) Substitution of a CSA Certified component with a component "Certified" or "Listed" by another organization may result in annual sample pickup and Conformity Testing.
- e) Substitution of a "Certified" or "Listed" component with a component that is "Recognized" or "Accepted" is not permitted without evaluation and report updating.

FACTORY TESTS

Warning: The factory test(s) specified may present a hazard of injury to personnel and/or property, and should only be performed by persons knowledgeable of such hazards and under conditions designed to minimize the possibility of injury.

Production-Line Dielectric Voltage-Withstand Test: Clause 5.2.2			
Part under test	Test Voltage	Test Duration (seconds)	Remarks
On Power Supply:			
Primary AC to SELV	2000 V ac	1	
On Isolation Transformer (T1) :			
From Primary to Secondary windings	2000V ac	1	
From Primary windings to core	1000 V ac	1	
From Secondary windings to core	1000 V ac	1	
On End System:			
Primary AC to exposed metal parts	2000 V ac	1	
<u>Notes:</u>			
a) The factory test may be done at existing room temperature.			
b) Transformer manufacturer's written agreement to conduct Dielectric Strength Test on 100 percent production will be acceptable.			

DESCRIPTION

General product information:

The subject equipment is a powered sub-woofer with 2 satellite speakers and a cord-connected remote control. The powered sub-woofer consists of a wooden (MDF) enclosure housing an isolating switching power supply and amplifier circuits. Cord-connected remote operates at less than 35Vpk, less than 0.2A, less than 15W, non-hazardous circuit.

For additional construction details refer to appended Attachments.

Test item particulars:

Equipment mobility	:	Moveable
Connection to the mains	:	Detachable or non-detachable power supply cord (set)
Operating condition	:	Continuous
Access location	:	operator accessible
Over voltage category (OVC)	:	OVC II
Mains supply tolerance (%) or absolute mains supply values	:	+/- 10%
Tested for IT power systems	:	No
IT testing, phase-phase voltage (V)	:	N/A
Class of equipment	:	Class II
Considered current rating (A)	:	Max 20 A (branch circuit protection)
Pollution degree (PD)	:	PD 2
IP protection class	:	IPX0
Altitude during operation (m)	:	2000 max
Altitude of test laboratory (m)	:	MSL
Mass of equipment (kg)	:	6.1 kg (sub woofer) / 0.9 kg (satellite)
Manufacturer's Declared Ambient (°C)	:	35°C

TESTS

The subject equipment was found to be in compliance with the following tests during the evaluation of the referenced report edition(s).

Notes:

1. The complete test results are located in the Engineering File at the CSA International, Vancouver Office and / or in Documentum.
2. Clauses reference both CAN/CSA-C22.2 No. 60950-1-07 and ANSI/UL 60950-1, Second Edition, unless otherwise stated.

Edition: 1 (Project 2303340)

Tests performed:

Clause	Description	Comments
1.6.2	Power Interface (Input) Test	
2.1.1.7	Capacitance Discharge Test	*
2.2	SELV (Single fault Simulation)	Measured 96 V pk at the output of the transformer. Provided with additional voltage limiting components (D13//D14) to reduce the voltage to with SELV limits. In addition, the only operator accessible circuits are at the speaker terminals, which have additional voltage limiting components prior to becoming accessible.
2.10	Creepage/Clearance Distances Through Insulation	*
3.2.6	Cord Anchorage and Strain relief	Before and after 70°C conditioning
4.2	Mechanical Strength	
4.5	Heating Test	Loaded to max 1/8 power per CSA 60065 procedure
5.1	Touch Current	Test also considered acceptable for Cl. 2.4 Limited Current Circuit for a single Y1 bridging cap.
5.2	Electric Strength Test	
5.3	Abnormal – Component Failure	
Annex C	Transformer Overload	
<p><u>Notes:</u></p> <ul style="list-style-type: none"> - The above tests were performed under CB Report 183136-2300651 unless otherwise specified. - Tests denoted with an asterisk * were performed directly under this project. 		

ATTACHMENT 1 – Critical Components List

Component	Manufacturer / Trademark	Type / Model	Value / rating ^{b)}	Standard	Approval / Reference ^{a)}
Non Detachable Power Cord Set: (for 110-120V) (INT)					
Cord	Leoni Kabel Holding GmbH Leoni Cable (Xiamen) Co., Ltd. / Leoni Cable (Changzhou) Co., Ltd.	- / NISPT-2	18AWG / 2	UL 62 CSA-C22.2 No. 49	UL / cUL E179483
Plug	Leoni Kabel Holding GmbH / Leoni Cable (Xiamen) Co., Ltd. Leoni Cable (Changzhou) Co., Ltd.	- / LAP-601W	10A, 125V, NEMA 1-15	UL 817 CSA-C22.2 No. 21, "Cord Sets and Power Supply Cords" CSA-C22.2 No. 42, "General Use Receptacles, Attachment Plugs and Similar Wiring Devices"	UL / cUL E212583
Heat Shrink Tube (at AC inlet)	Changyuan Electronics (Shenzhen) Co Ltd / -	- / Changbao 102	125°C, 600V, VW-1	UL 224	UL
Alternative	Shenzhen Woer Heat-Shrinkable Material Co Ltd / -	- / RSFR	125°C, 600V, VW-1	UL 224	UL
Strain Relief	Heavy Power Company Ltd. / -	- / 4K-4	V-0	UL 635	C, UL
Mains Fuse (F3, F4) (INT)	Conquer Electronics / -	Ceramic / UDA004	Time delay, High Breaking Capacity, T4AH250V	IEC 60127-2, UL 248-14, CSA 248-14	S, V, UR, C, PSE, CCC

ATTACHMENT 1 – Critical Components List

Component	Manufacturer / Trademark	Type / Model	Value / rating ^{b)}	Standard	Approval / Reference ^{a)}	
Across-the-Line Capacitor (INT) (C23)	Vishay / -	X2 / MKP 3382	1.0uF, 275V~, 100°C	IEC 60384-14 2 nd Ed., UL 1414	C, UR, ENEC ₁₆	
(C32)	Alternative	Dongguan Easy-gather Electronics	X2 / MKP	1.0uF, 275V~, 100°C	IEC 60384-14 2 nd Ed., UL 1414	CB, UR, VDE, CQC
		Shenzhen Jinghao Capacitor Co., Ltd.	X2 / CBB62B	1.0uF, 275V~, 100°C	IEC 60384-14 2 nd Ed., UL 1414	UR, VDE, CQC, IEC, SEV
		Carli Electronics / -	X2 / MPX	1.0uF, 275V~, 100°C	IEC 60384-14 2 nd Ed., UL 1414	UR, CSA, VDE, CQC
		Vishay / -	X2 / MKP 3382	0.47uF, 275V ac, 100°C, X2 type	IEC 60384-14 2nd Ed., UL 1414	C, V, FI, S, D, N, +S, K, UR, ENEC ₀₅
	Alternative	Dongguan Easy-gather Electronics	X2 / MKP MKP 338 X2	0.47uF, 275V ac, 100°C, X2 type	IEC 60384-14 2nd Ed., UL 1414	UR, CQC, VDE, CB
		Shenzhen Jinghao Capacitor Co.,Ltd.	X2 / CBB62B CC62B	0.47uF, 275V ac, 100°C, X2 type	IEC 60384-14 2nd Ed., UL 1414	UR, VDE, CQC, IEC, SEV
Inductor (L2) (INT)	Shenzhen Moso Power Supply Technology / -	XLC10*6*4-045	130°C, Bobbin V-0	IEC 60950	Evaluated	
Inductor (L4) (INT)	Epcos / -	B82734-R2232-B30	130°C	IEC 60950	Evaluated	
Alternative	Shenzhen Moso Power Supply Technology / -	LCL-FT32-1831A	130°C	IEC 60950	Evaluated	
Transformer (T1)	Shenzhen Moso Power Supply Technology / -	Switch Mode / XKG39-002 (XFB-ETD39-00006)	Class B, 130°C, Bobbin V-0 Phenolic (PF) PM9820	IEC 60950	Evaluated (refer to Att. 4)	
Bleeder Resistor (R39) (INT)	Various	-	680kΩ, 0.6W	-	-	
Thermistor (TH2) (INT)	Joyin	NTC/ 10S or JNR10S080L	8Ω, 3A	IEC 60730-1 UL 1434, CSA-C22.2 No. 72	UL, cUL	
Surge Suppressor (Z1) (INT)	Panasonic / -	- / ERZ V07D241	395V, 1750A@8/20us	VDE CECC42000, CECC42200, CECC42201, IEC 61051, UL1414, UL1449	UL, V	

ATTACHMENT 1 – Critical Components List

Component	Manufacturer / Trademark	Type / Model	Value / rating ^{b)}	Standard	Approval / Reference ^{a)}
Bridging Capacitor (INT) (C152, C155) Alternative	TDK-EPC Corp / -	Y1 / CD	470pF, 250V~	IEC 60384-14 2nd Ed., UL 1414	C, UR, B, V,+S
	Matsushita or Panasonic / -	Y1 / NS-A	470pF, 250V~	IEC 60384-14 2nd Ed., UL 1414	C, UR, B, V, +S, KTL
	Dongguan Easy-gather Electronics	Y1 / DCF	470pF, 250V~	IEC 60384-14 2nd Ed., UL 1414	C, UR,V, CB, CQC
(C153, 156) Alternative	TDK-EPC Corp / -	Y1 / CD	150pF, 250V~	IEC 60384-14 2nd Ed., UL 1414	C, UR, B, V,+S
	Matsushita or Panasonic / -	Y1 / NS-A	150pF, 250V~	IEC 60384-14 2nd Ed., UL 1414	C, UR, B, V, +S, KTL
	Dongguan Easy-gather Electronics	Y1 / DCF	150pF, 250V~	IEC 60384-14 2nd Ed., UL 1414	C, UR, V, CB, CQC
(C154) Alternative	TDK-EPC Corp / -	Y1 / CD	1000pF, 250V~	IEC 60384-14 2nd Ed., UL 1414	C, UR, B, V, +S
	Matsushita or Panasonic / -	Y1 / NS-A	1000pF, 250V~	IEC 60384-14 2nd Ed., UL 1414	C, UR, B, V, +S, KTL
	Dongguan Easy-gather Electronics	Y1 / DCF	1000pF, 250V~	IEC 60384-14 2nd Ed., UL 1414	C, UR, V, CB, CQC
Optocoupler (U22) (INT)	Lite-On / -	- / LTV-817-8	Distance through insulation = 0.4mm External creepage distance ≥ 7 mm	IEC 60747-5-2 IEC 60950-1 IEC 60065	C, UR, T, F, N, S, D
Rectifier Diodes (D1, D9, D10, D11) (INT)	Various	-	3A, 400V dc	-	-
Bulk Electrolytic Capacitor (C1) (INT)	Various	-	150uF, 400V dc, 105°C	-	-
Transistor (Q1) (INT)	Various	N Channel MOSFET / -	12A, 600V dc	-	-
NTC Thermistor (TH4) (INT)	U.S. Sensor / -	- / USUR1000-104H	100 k Ω , insulation resistance 100 M Ω , 500V dc, 3% tolerance	UL 1434	UL
Note: Both Q1 and TH4 are mounted on the heatsink and secured with nut and screw.					
Sleeve (INT) (tubing for primary terminals)	Wenzhou Zhucheng Electrical Co Ltd / -	PVC / SR25-30-25.	600V, 105°C.	UL 224, UL746C	UL
Secondary & Speaker Wires (INT)	Lee Yuen Electrical / -	PVC / AWM, 1015	105°C , 300 V, FT-1, VW-1	CSA 127 UL 758	CSA, UR

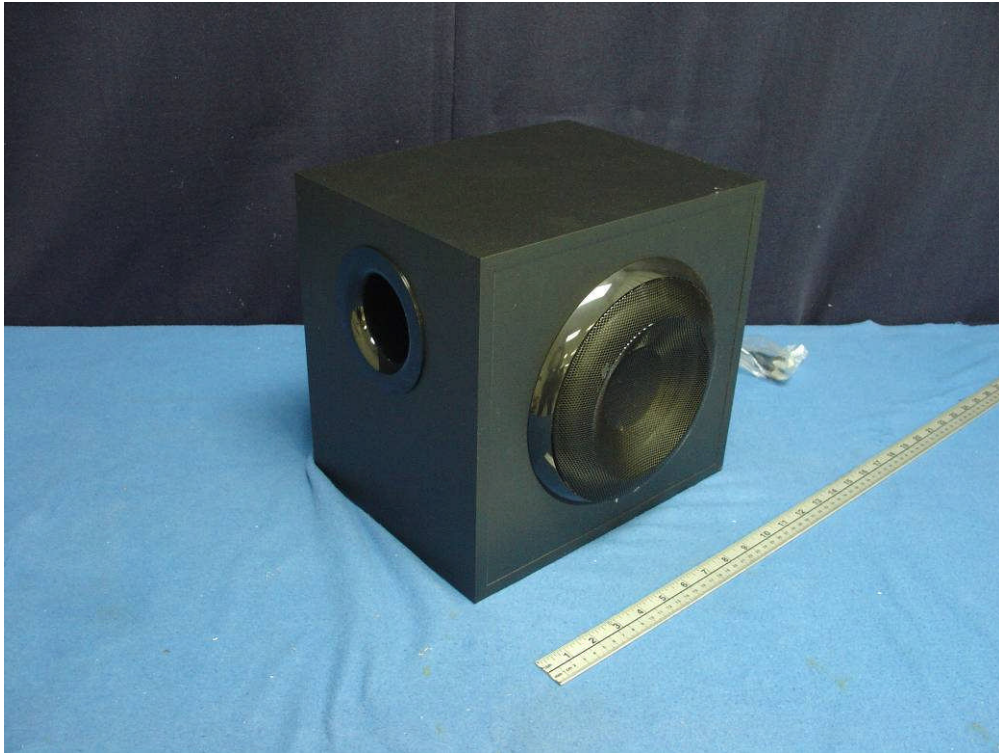
ATTACHMENT 1 – Critical Components List

Component	Manufacturer / Trademark	Type / Model	Value / rating ^{b)}	Standard	Approval / Reference ^{a)}
Printed Circuit Board (INT)	Foshan Chengde Printed Circuits Co Ltd / -	- / D2	V-0, 130°C	UL 796	UR
Primary Fast-on Insulated Connector (J10, J11) (INT)	Wenzhou Zhucheng Electrical Co Ltd / -	Zuch TP25011K-2 (Female)	16-20 AWG, 250V, Brass	UL 310	UR
Primary Pin Terminal (J10, J11) (INT)	Zhejiang Yueqing Changdechong Electronic Co Ltd / -	Quick Connect / 250 (Male)	16-20 AWG, 250V, Tin Plated Brass	UL 310	C, UL
Secondary Connector (J2) (INT)	Molex / -	- / 22-27-2041	4A, 250Vmax.	UL 1977, CSA 182.3	C, UL
Internal Speaker (INT) Woofer	GGEC / -	- / 352-000067	8Ω, 90 W	-	-
Satellite	I.S.T. / -	- / 352-000073	6Ω, 10 W	-	-
Adhesive – main enclosure	National Starch & Chemical / -	Vinyl Acetate (VAC)/Wood-Lok 494	-	CSA E60065-00 UL 6500-99	Adhesive Securement tests performed with acceptable results under reports 183136-1340137 and 183136-1455254.
<u>Alternatives</u>	KS Bond / -	Polyvinyl Acetate (PVA) / CE15	-		
	Higher Chemical/-	Cloropene Rubber/HB-160 AFR	-		
Acoustic Port	Chi Mei Corp.	Polystyrene / PH-88E	V-0 / 1.5 mm	UL 94	UL
Note: Passed Mold Stress Relief under CSA Project 2117715					

^{a)} An asterisk indicates a mark which assures the agreed level of surveillance and that the NCB mark is visible on the component.

^{b)} Description to include adjacent markings for critical fuse/s.

ATTACHMENT 2 – Photographs



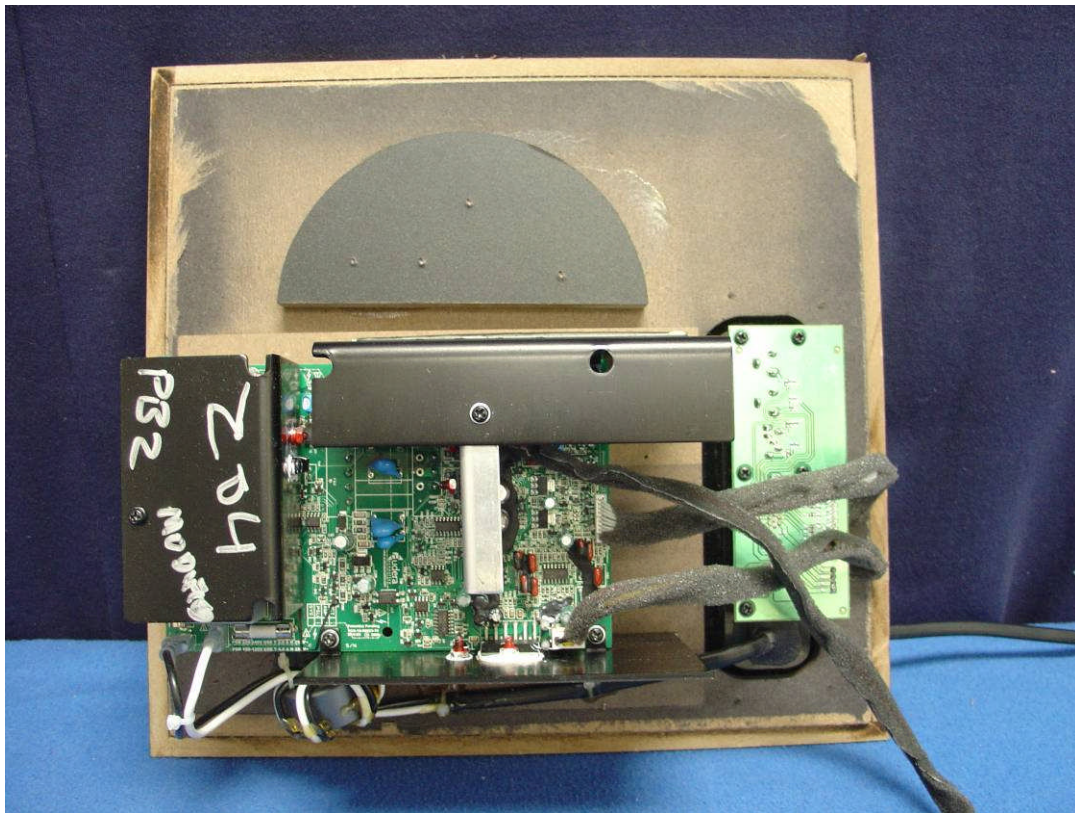
ATTACHMENT 2 – Photographs



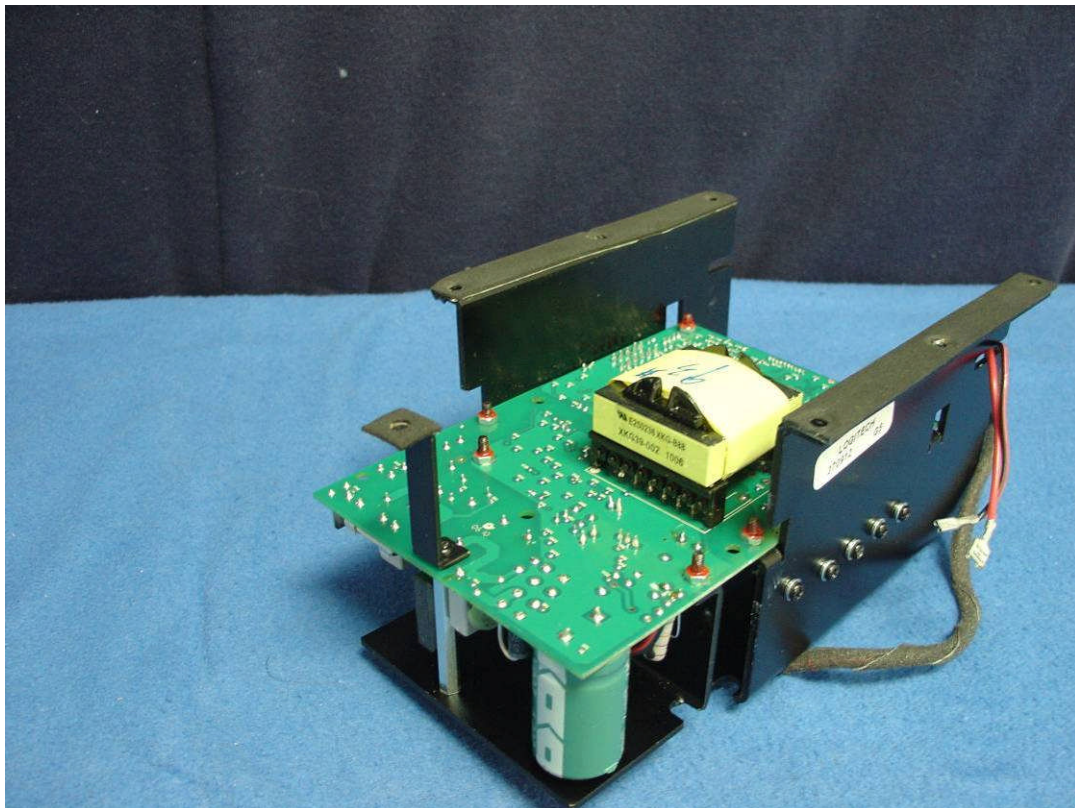
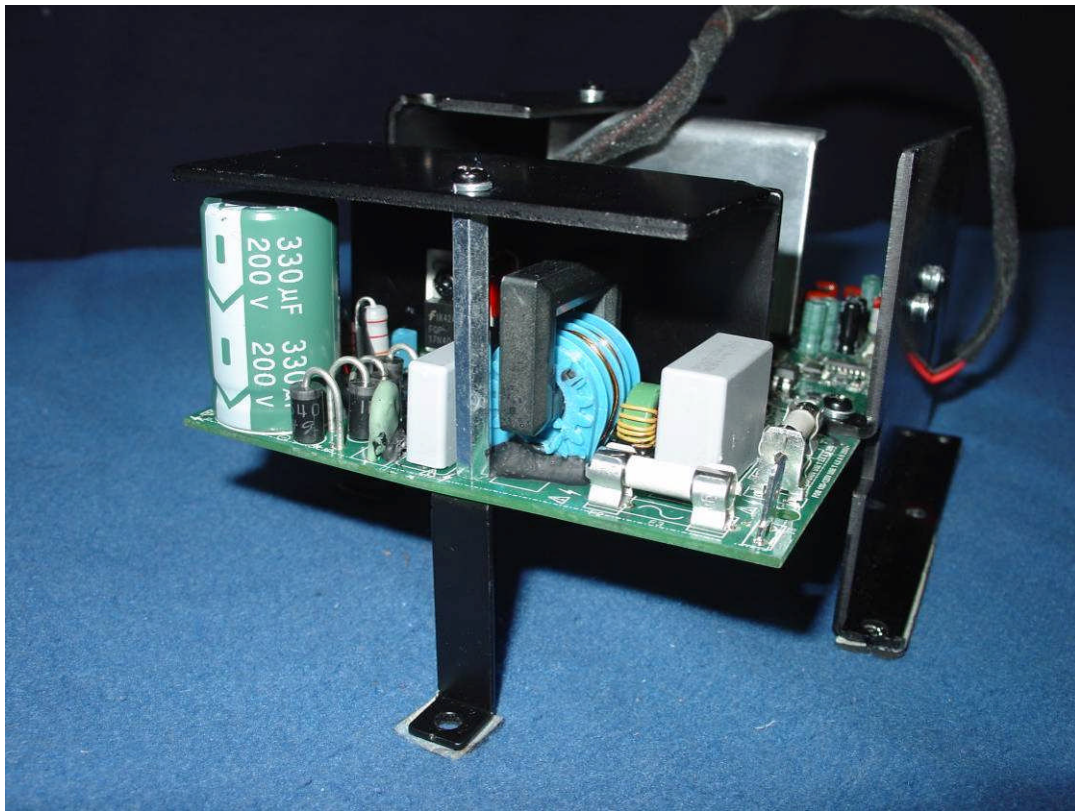
ATTACHMENT 2 – Photographs



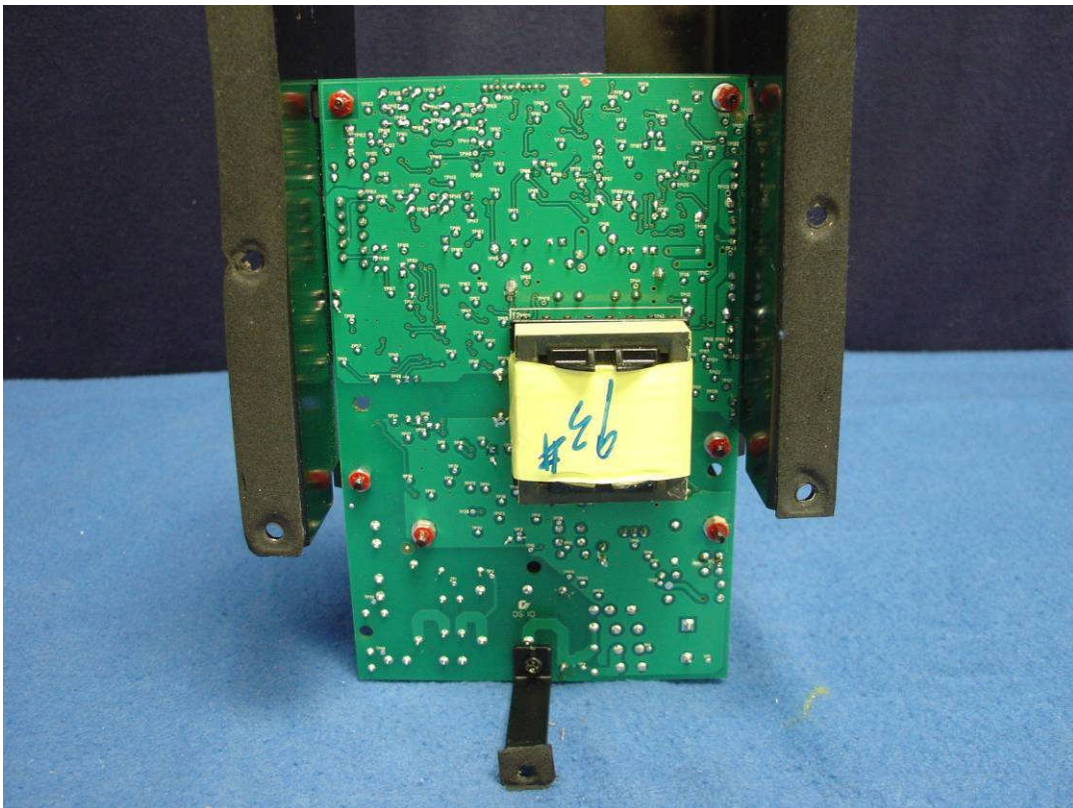
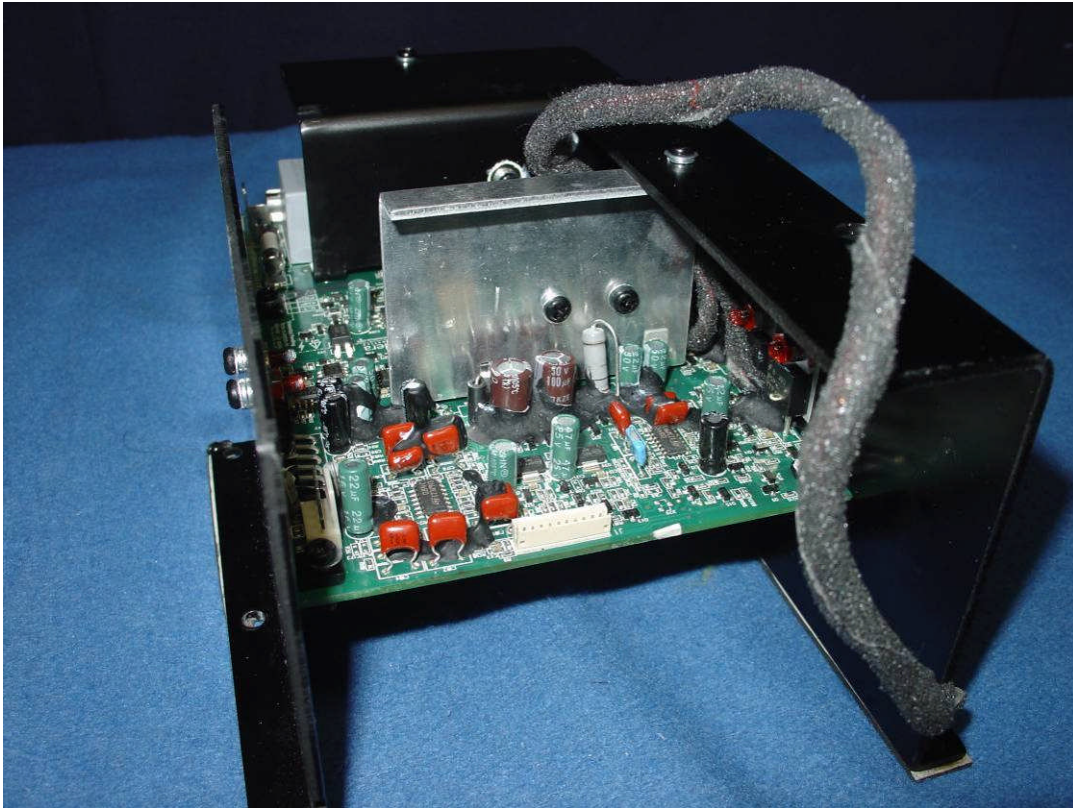
ATTACHMENT 2 – Photographs



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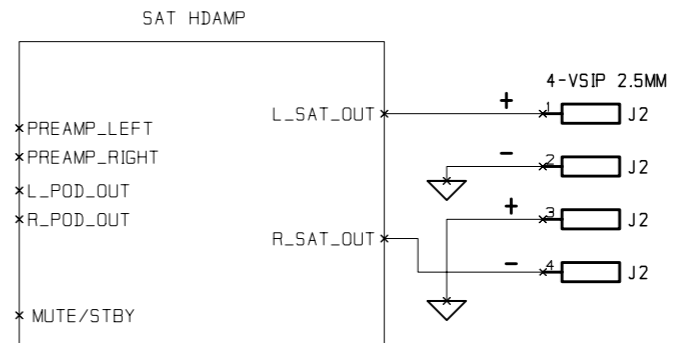
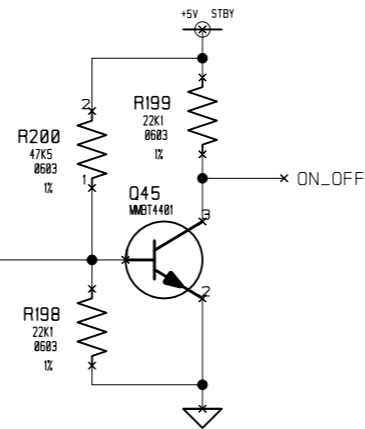
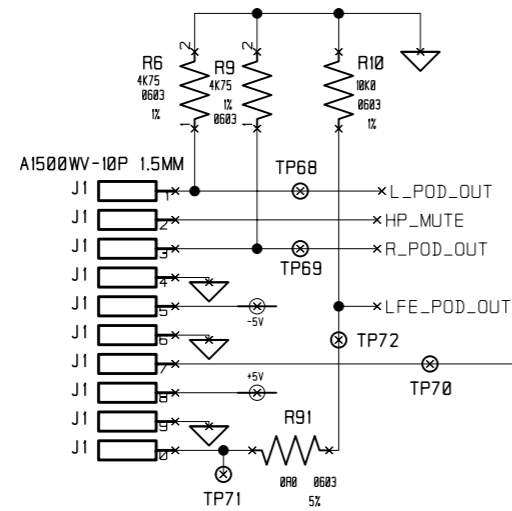


ATTACHMENT 2 – Photographs



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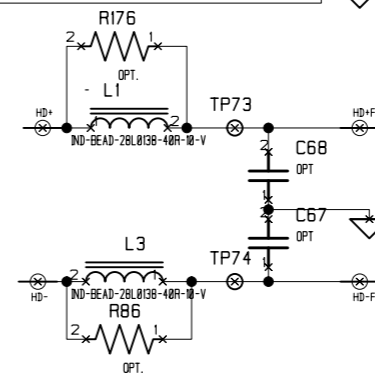
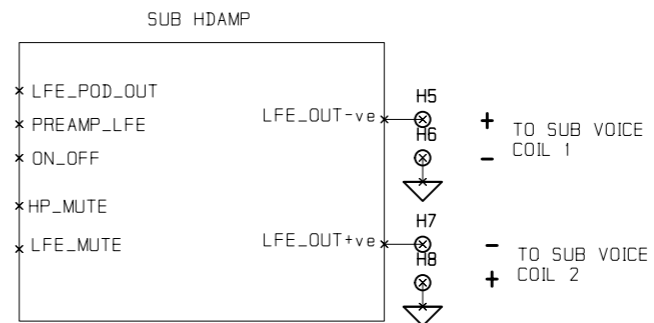
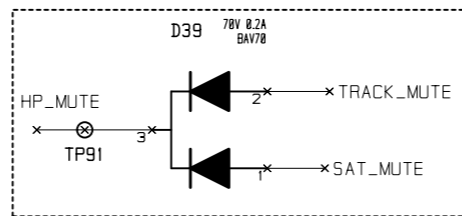
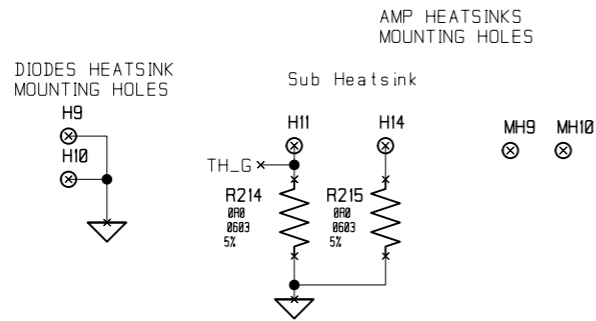




FD1 FD2
⊗ ⊗

Holes for PCB fixing in SMT machine
MH2 MH3 MH4 MH5
⊗ ⊗ ⊗ ⊗

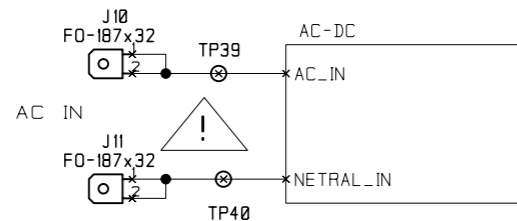
Points for SMT machine alignment
FD3 FD4
⊗ ⊗



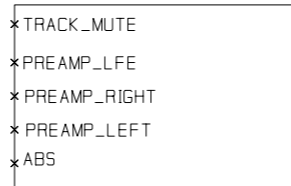
Holes for PCB fixing on test J16
MH7 MH8 MH11
⊗ ⊗ ⊗

Hole for AC cable
MH1
⊗

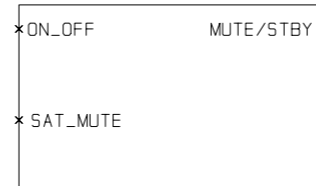
PLASTIC STAND MOUNTING HOLE
MH6
⊗



AC-DC AND MAIN DC-DC



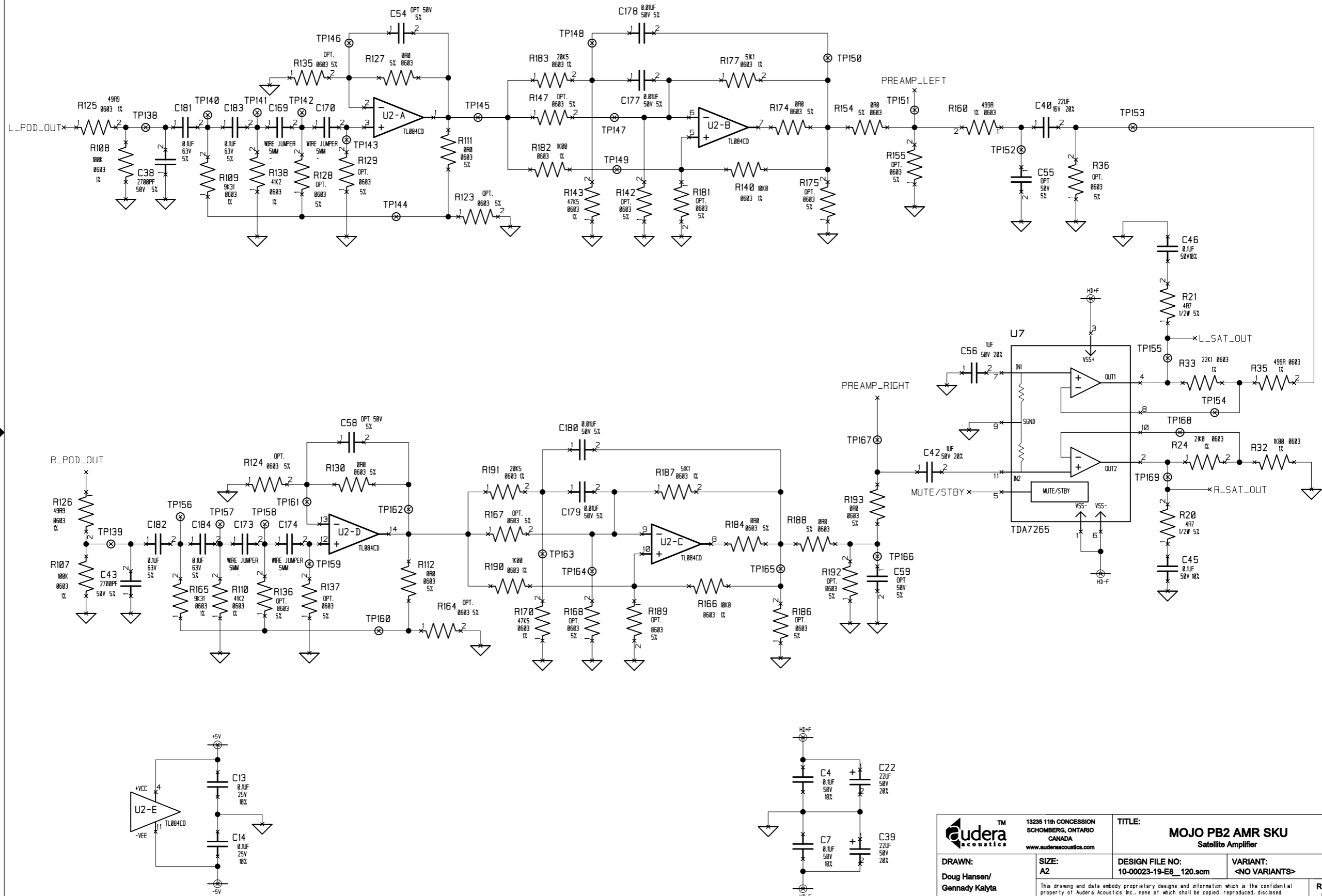
HOUSEKEEPING AND AMP-ON



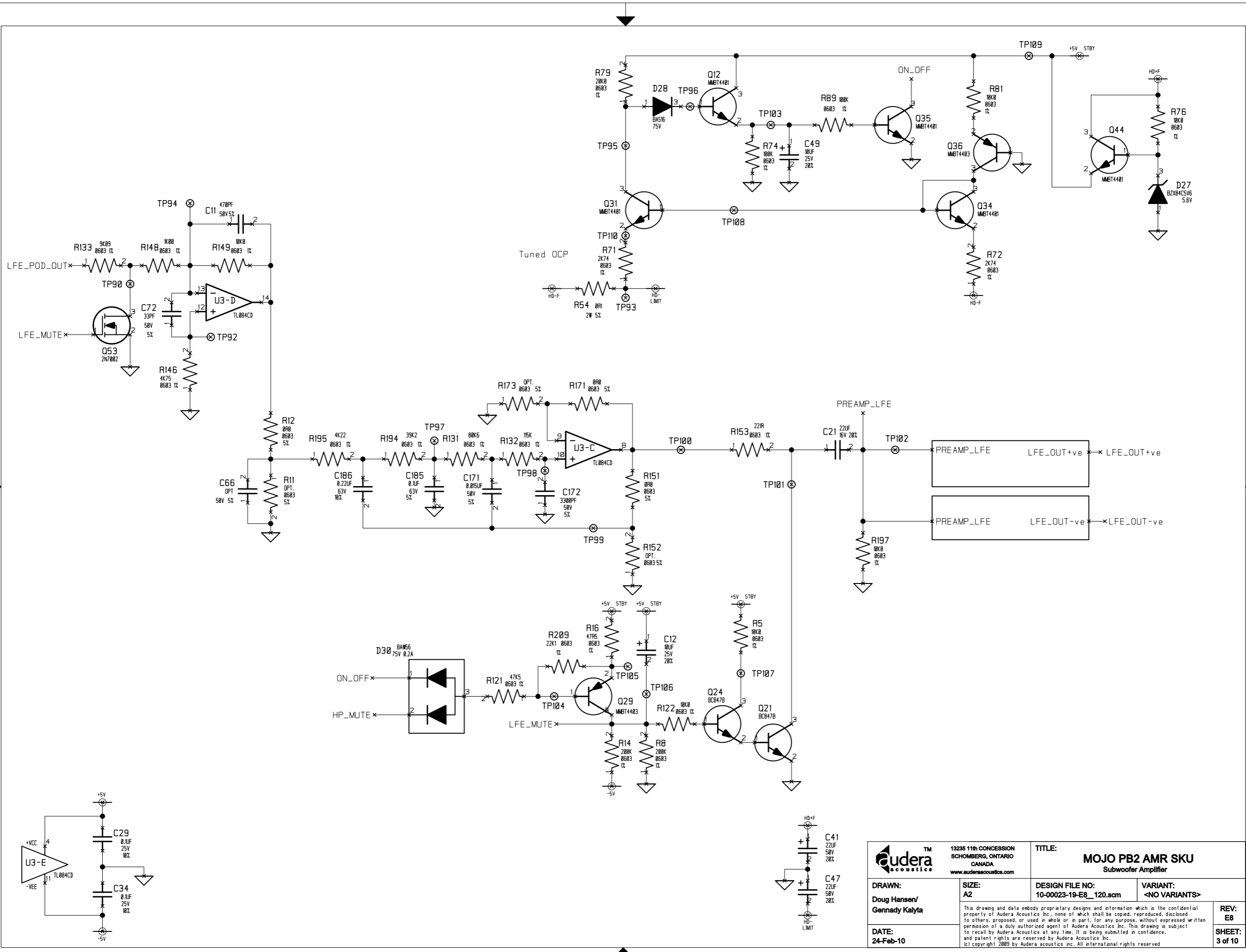
EQ CHANGES FROM LOGITECH IMPLEMENTED

ON/OFF POP PARTS CHANGES PARTIALLY IMPLEMENTED
(only WITHOUT CHANGING LAYOUT)

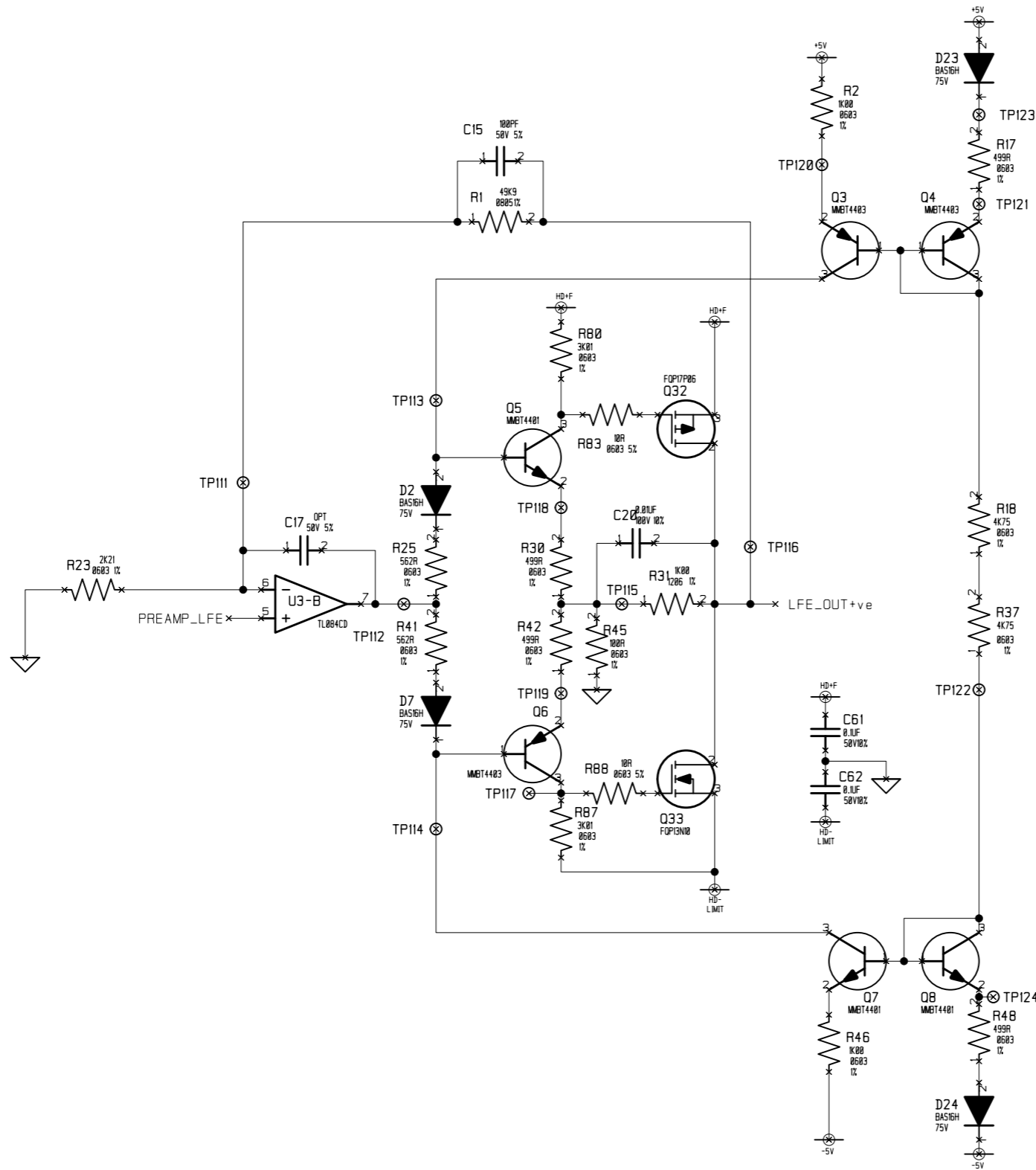
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DATE: 24-Feb-10	This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved.			SHEET: 1 of 10	




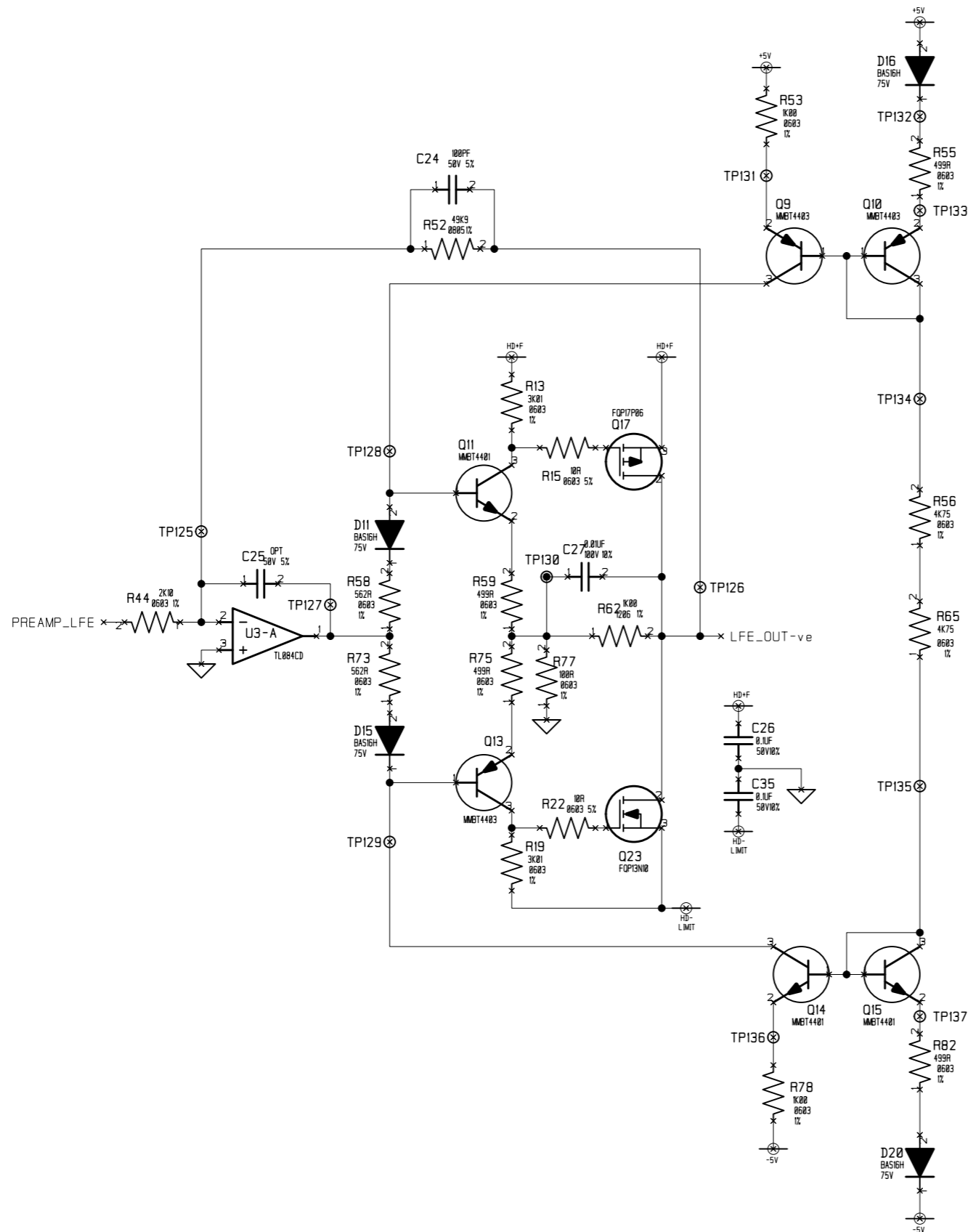
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DRAWN: Doug Hansen/ Gennady Kalyta	SIZE: A2	DESIGN FILE NO: 10-00023-19-E8_120.scm	VARIANT: <NO VARIANTS>		
DATE: 24-Feb-10	<small>This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved</small>				REV: E8 SHEET: 2 of 10




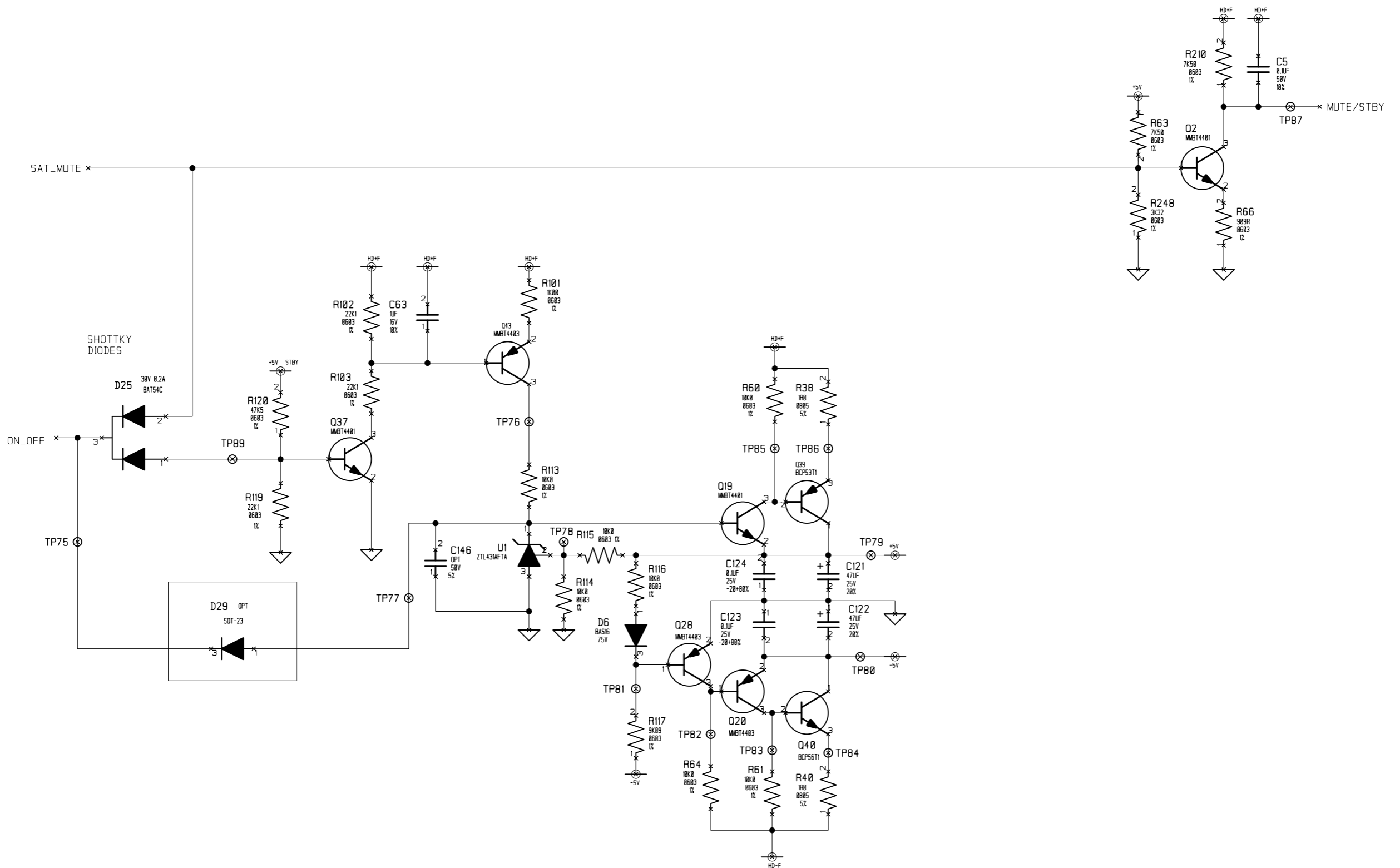
		19235 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: MOJO PB2 AMR SKU Subwoofer Amplifier	
DRAWN: Doug Hansen/ Gennady Kalyta	SIZE: A2	DESIGN FILE NO: 10-00023-19-E8_120.scm	VARIANT: <NO VARIANTS>		
DATE: 24-Feb-10	This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved			REV: E8	SHEET: 3 of 10




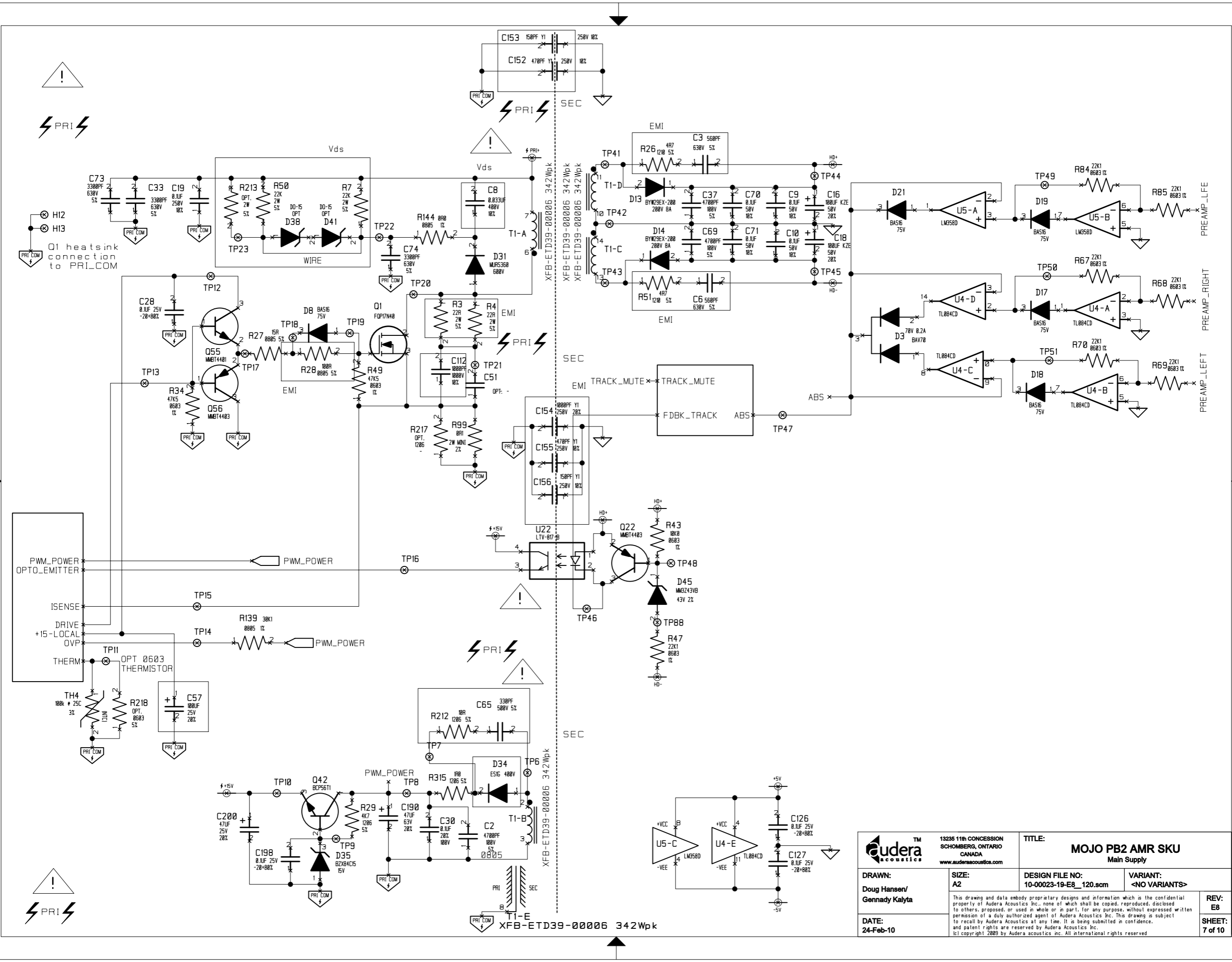
		13235 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: MOJO PB2 AMR SKU	
DRAWN: Doug Hansen/ Gennady Kalyta	SIZE: A2	DESIGN FILE NO: 10-00023-19-E8_120.scm	VARIANT: <NO VARIANTS>		
DATE: 24-Feb-10	<small>This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved</small>				REV: E8 SHEET: 4 of 10



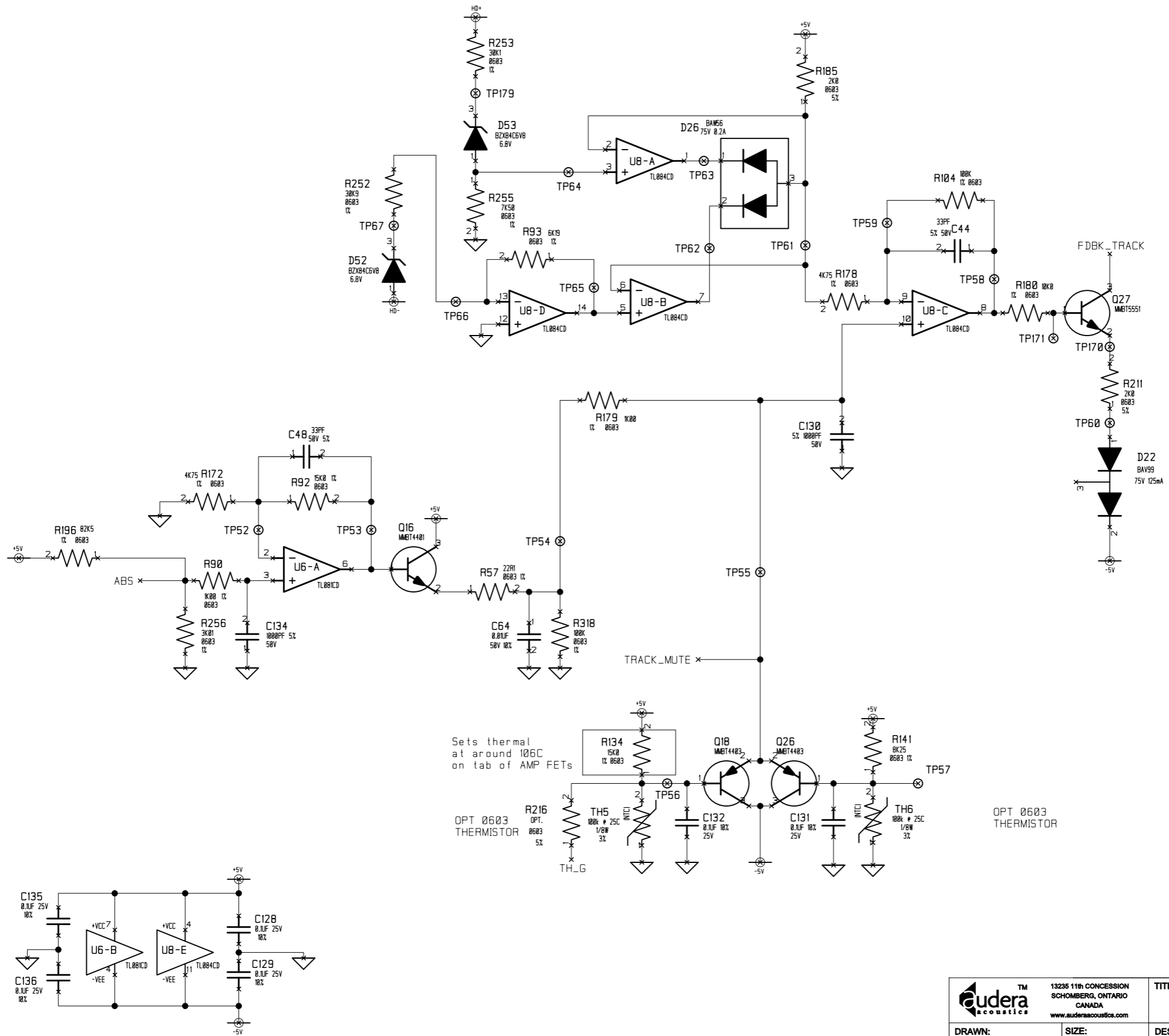
		13235 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: MOJO PB2 AMR SKU	
DRAWN: Doug Hansen/ Gennady Kalyta	SIZE: A2	DESIGN FILE NO: 10-00023-19-E8_120.scm	VARIANT: <NO VARIANTS>		
DATE: 24-Feb-10	<small>This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved</small>				REV: E8 SHEET: 5 of 10



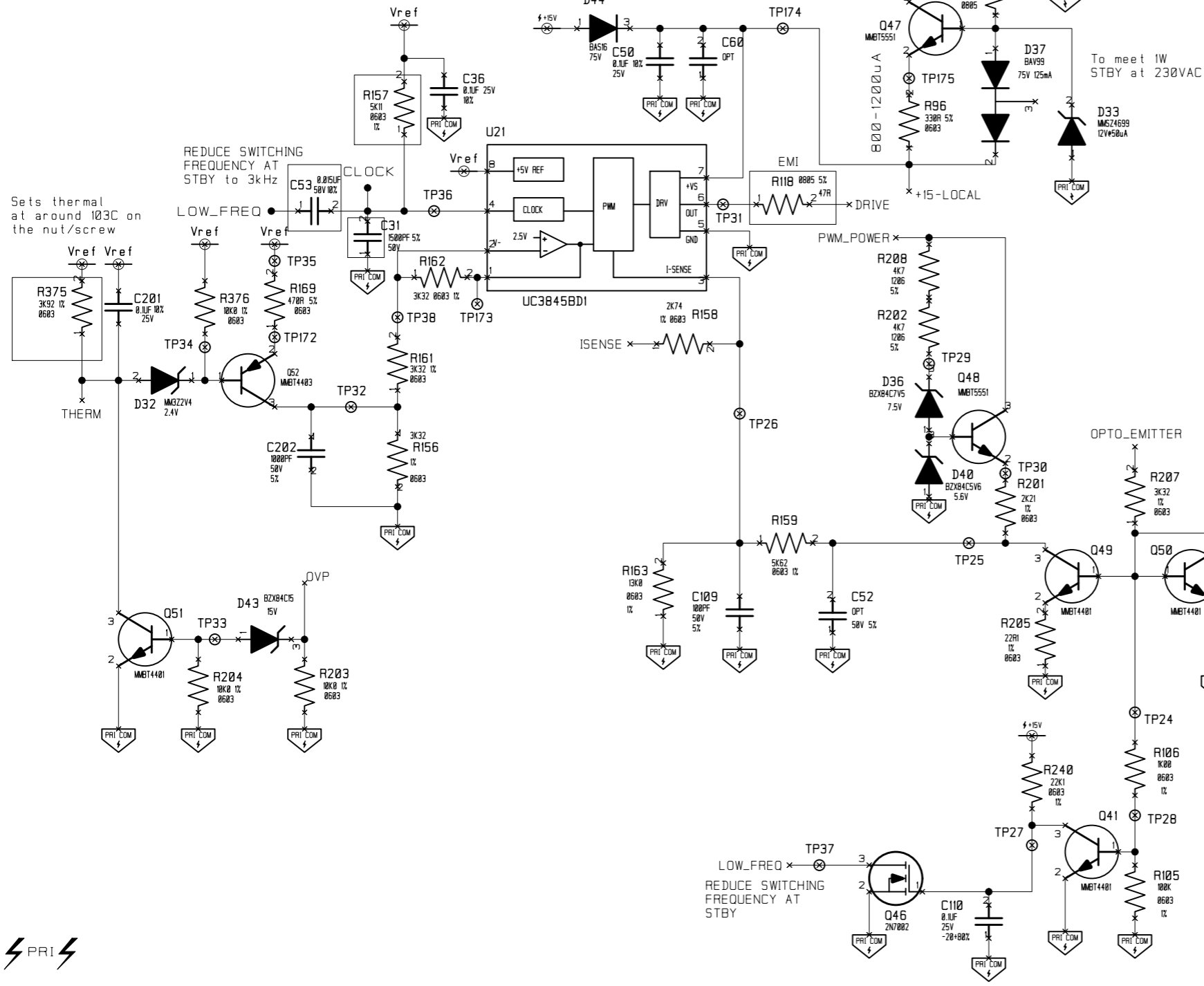
		19235 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: MOJO PB2 AMR SKU Housekeeping Supply	
DRAWN: Doug Hansen/ Gennady Kalyta	SIZE: A2	DESIGN FILE NO: 10-00023-19-E8_120.scm	VARIANT: <NO VARIANTS>		
DATE: 24-Feb-10	<small>This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved</small>				REV: E8 SHEET: 6 of 10



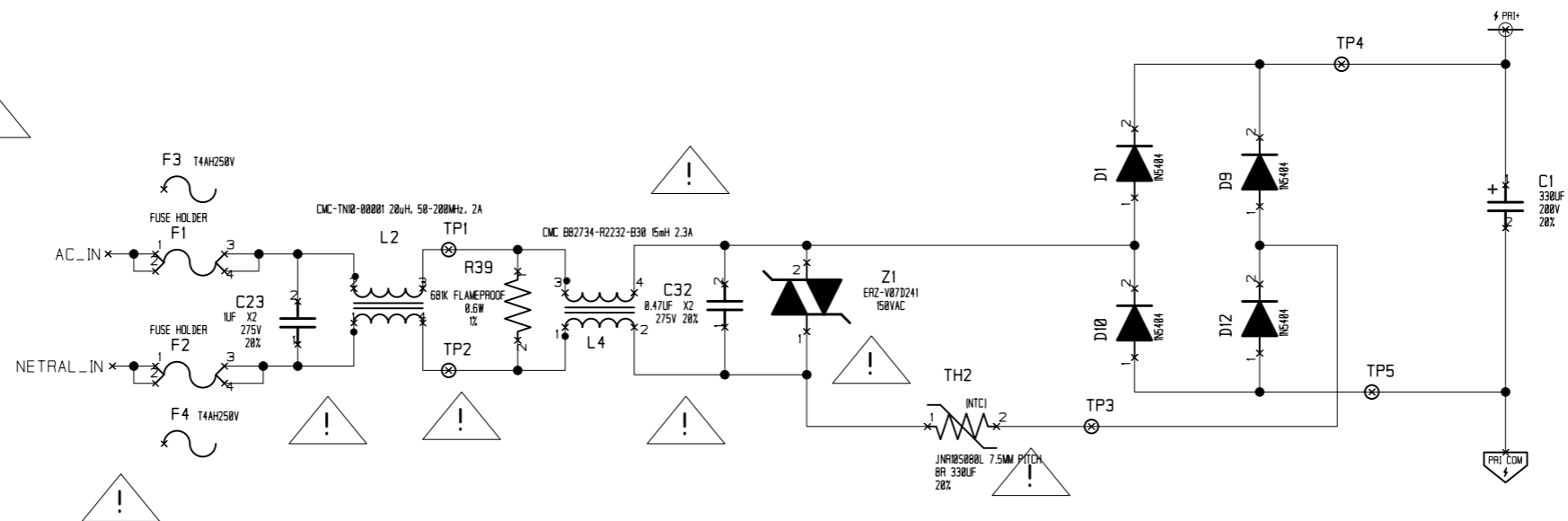
		19235 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: MOJO PB2 AMR SKU Main Supply	
DRAWN: Doug Hansen/ Gennady Kalyta	SIZE: A2	DESIGN FILE NO: 10-00023-19-E8_120.scm	VARIANT: <NO VARIANTS>	REV: E8	
DATE: 24-Feb-10	This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved.				SHEET: 7 of 10




		19235 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: MOJO PB2 AMR SKU	
DRAWN: Doug Hansen/ Gennady Kalyta	SIZE: A2	DESIGN FILE NO: 10-00023-19-E8_120.scm	VARIANT: <NO VARIANTS>		
DATE: 24-Feb-10	This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved				REV: E8 SHEET: 8 of 10



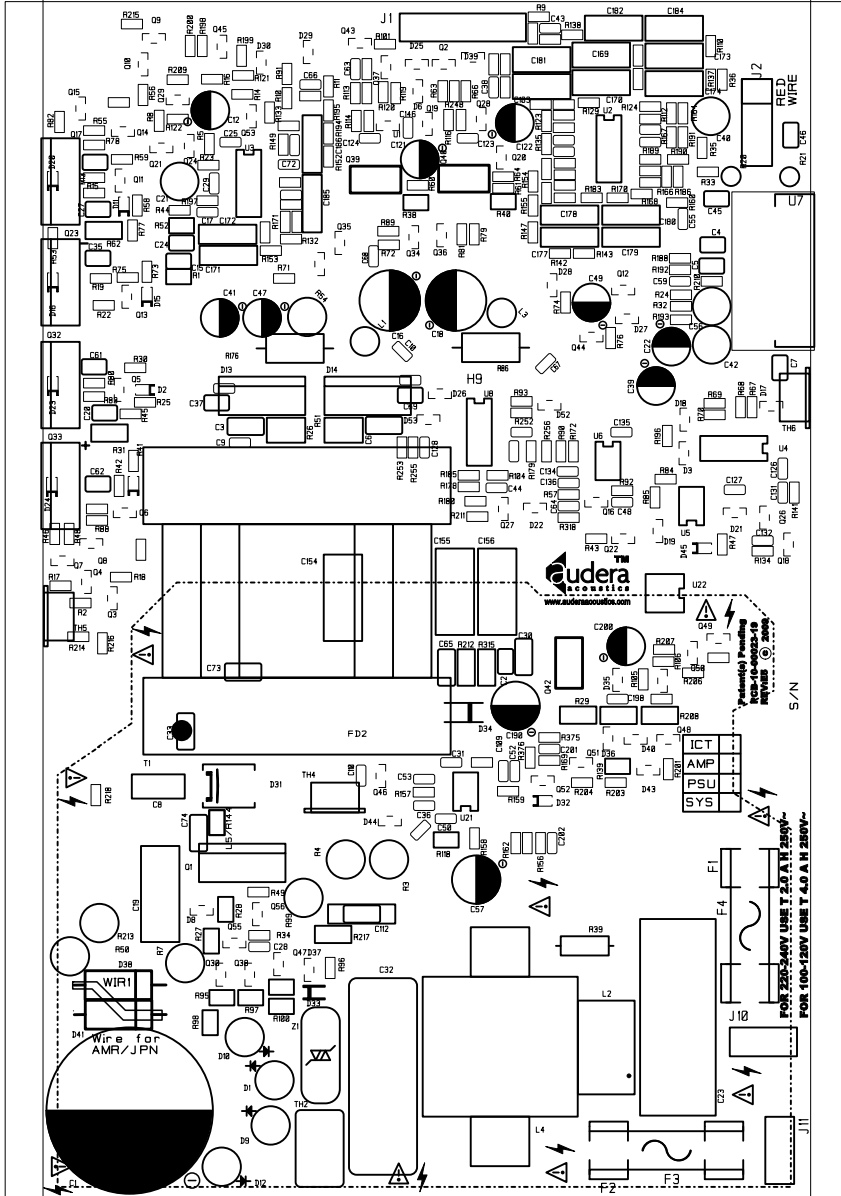
		19235 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: MOJO PB2 AMR SKU	
DRAWN: Doug Hansen/ Gennady Kalyta	SIZE: A2	DESIGN FILE NO: 10-00023-19-E8_120.scm	VARIANT: <NO VARIANTS>		
DATE: 24-Feb-10	<small>This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved</small>				REV: E8 SHEET: 9 of 10



		19235 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: MOJO PB2 AMR SKU Main AC input	
DRAWN: Doug Hansen/ Gennady Kalyta	SIZE: A2	DESIGN FILE NO: 10-00023-19-E8_120.scm	VARIANT: <NO VARIANTS>		
DATE: 24-Feb-10	<small>This drawing and data embody proprietary designs and information which is the confidential property of Audera Acoustics Inc. none of which shall be copied, reproduced, disclosed to others, proposed, or used in whole or in part, for any purpose, without expressed written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc. (c) copyright 2009 by Audera acoustics inc. All international rights reserved</small>				REV: E8 SHEET: 10 of 10

LAYER STACK:		PCB MATERIAL:
#	NAME	LAMINATE:
1	TOP SILKSCREEN	S1170 Guangdong Shengyi
2	TOP SOLDER RESIST	Tg >170 High temp FR4 1.6mm thickness
3	TOP COPPER	UL 94V-0 2-layer
4	BOTTOM COPPER	COPPER WEIGHT:
5	BOTTOM SOLDER RESIST	1 Oz Before Plating 2 oz After Plating (HAL Solder ROHS)
6		PLATE THROUGH HOLE THICKNESS:
7		>25um / 1000u-inch
8		Lead Free, ROHS Compliant

ALL PCBs MUST BE 100% OPEN/SHORT TESTED

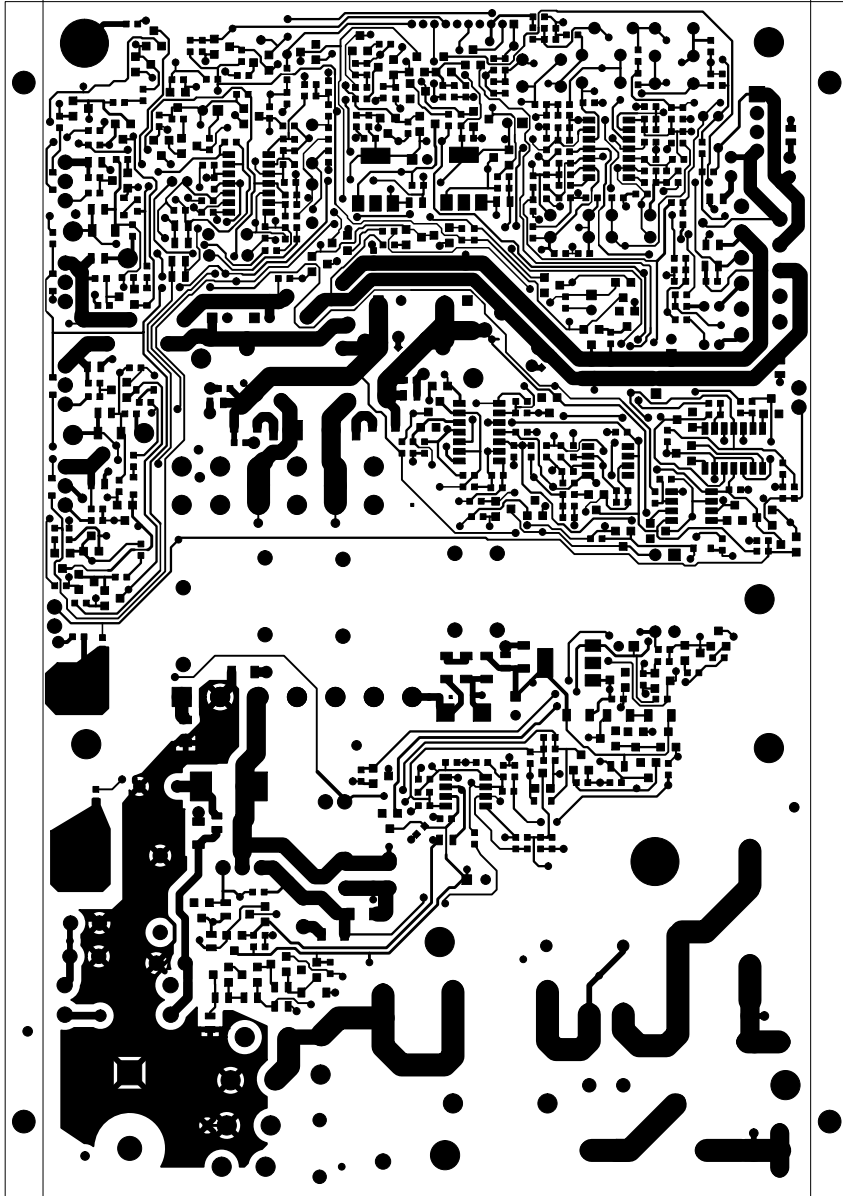


H13 H12

 13236 11th CONCESSION SCARBOROUGH, ONTARIO CANADA www.auderaacoustics.com	TITLE: MOJO PB2			
	DRAWN: DOUG HANSEN/GENNADY KALYTA	SCM NO: 10-00023-19-E5-230	PCB NO: 10-00023-19-E5-230	LAYER: TOP SILKSCREEN
APPROVED:	This drawing and data embody proprietary designs and information, which is the confidential property of Audera Acoustics Inc. None of which shall be copied, reproduced, disclosed to others, proposed or used in whole or in part, for any purpose without express written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc.			REV: E5
DATE:				

LAYER STACK:		PCB MATERIAL:
#	NAME	LAMINATE:
1	TOP SILKSCREEN	S1170 Guangdong Shengyi
2	TOP SOLDER RESIST	Tg >170 High temp FR4 1.6mm thickness
3	TOP COPPER	UL 94V-0 2-layer
4	BOTTOM COPPER	COPPER WEIGHT:
5	BOTTOM SOLDER RESIST	1 Oz Before Plating 2 oz After Plating (HAL Solder ROHS)
6		PLATE THROUGH HOLE THICKNESS:
7		>25um / 1000u-inch
8		Lead Free, ROHS Compliant

ALL PCBs MUST BE 100% OPEN/SHORT TESTED



This line to be scored

This line to be scored

This line to be scored

This line to be scored

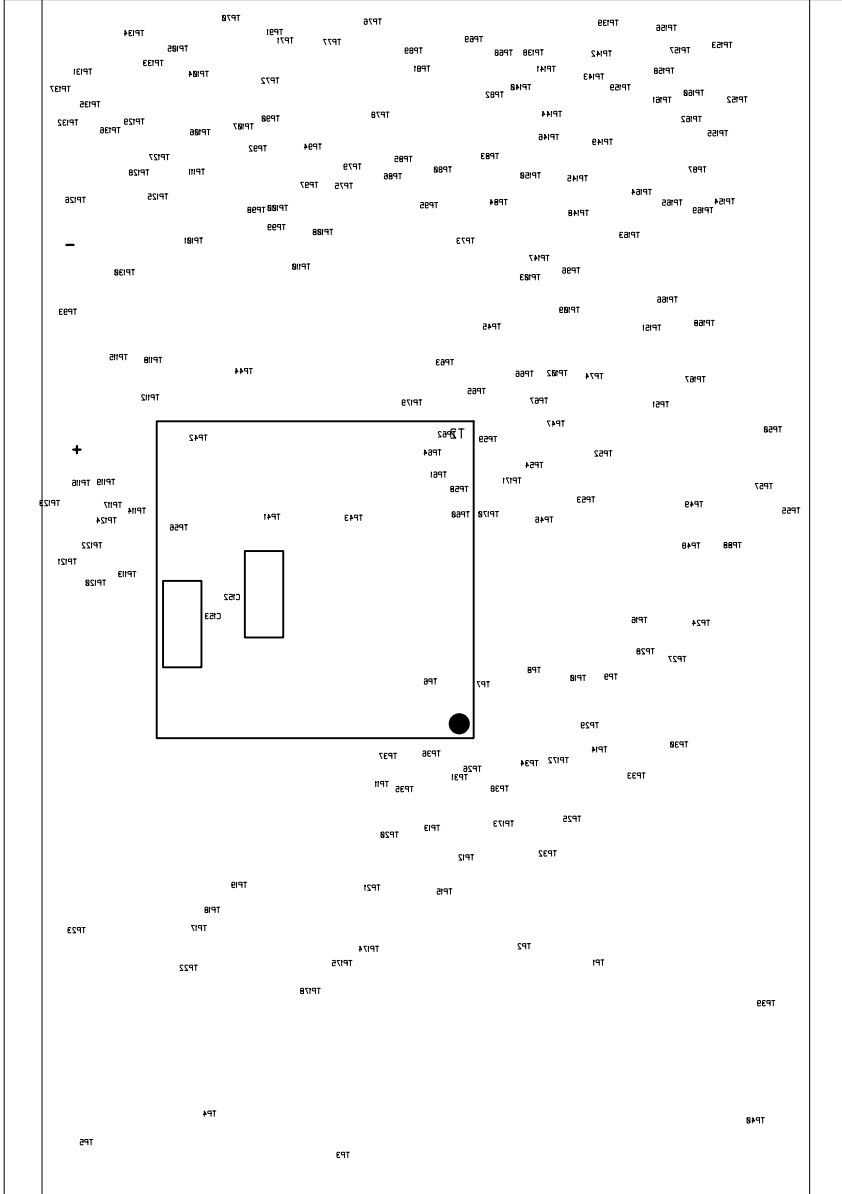
13236 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: <p style="text-align: center;">MOJO PB2</p>	
DRAWN: DOUG HANSEN/GENNADY KALYTA	SCM NO: 10-00023-19-E5_230	PCB NO: 10-00023-19-E5_230	LAYER: TOP COPPER
APPROVED: DATE:	This drawing and data embody proprietary designs and information, which is the confidential property of Audera Acoustics Inc. None of which shall be copied, reproduced, disclosed to others, proposed or used in whole or in part, for any purpose without express written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc.		REV: <p style="text-align: center;">E5</p>

LAYER STACK:		PCB MATERIAL:
#	NAME	LAMINATE:
1	TOP SILKSCREEN	S1170 Guangdong Shengyi
2	TOP SOLDER RESIST	Tg >170 High temp FR4 1.6mm thickness
3	TOP COPPER	UL 94V-0 2-layer
4	BOTTOM COPPER	COPPER WEIGHT:
5	BOTTOM SOLDER RESIST	1 Oz Before Plating 2 oz After Plating (HAL Solder ROHS)
6		PLATE THROUGH HOLE THICKNESS:
7		>25um / 1000u-inch
8		Lead Free, ROHS Compliant

ALL PCBs MUST BE 100% OPEN/SHORT TESTED

This line to be scored

This line to be scored



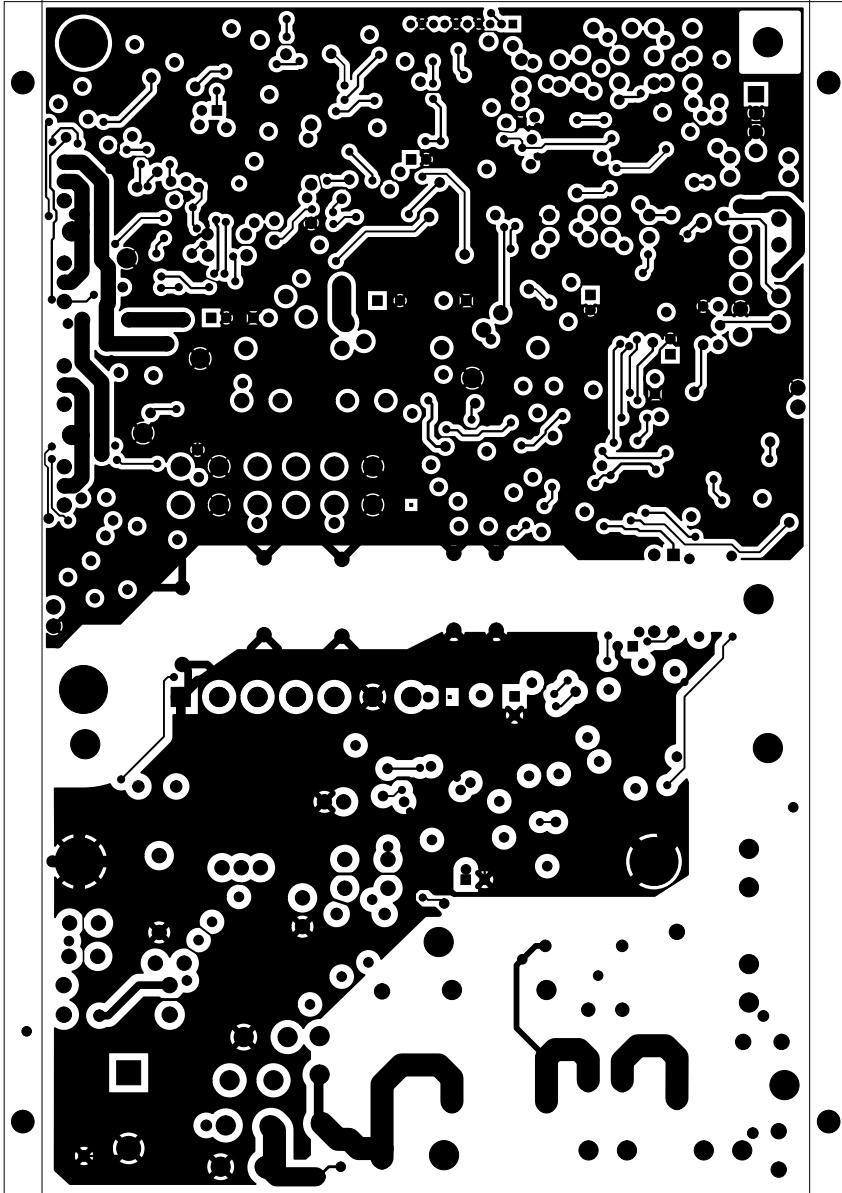
This line to be scored

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13236 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com		TITLE: MOJO PB2		
DRAWN: DOUG HANSEN/GENNADY KALYTA	SCM NO: 10-00023-19-E5_230	PCB NO: 10-00023-19-E5_230	LAYER:	
APPROVED:	This drawing and data embody proprietary designs and information, which is the confidential property of Audera Acoustics Inc. None of which shall be copied, reproduced, disclosed to others, proposed or used in whole or in part, for any purpose without express written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc.			REV: E5
DATE:				

LAYER STACK:		PCB MATERIAL:
#	NAME	LAMINATE:
1	TOP SILKSCREEN	S1170 Guangdong Shengyi
2	TOP SOLDER RESIST	Tg >170 High temp FR4 1.6mm thickness
3	TOP COPPER	UL 94V-0 2-layer
4	BOTTOM COPPER	COPPER WEIGHT:
5	BOTTOM SOLDER RESIST	1 Oz Before Plating 2 oz After Plating (HAL Solder ROHS)
6		PLATE THROUGH HOLE THICKNESS:
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8		Lead Free, ROHS Compliant

ALL PCBs MUST BE 100% OPEN/SHORT TESTED



13236 11th CONCESSION SCHOMBERG, ONTARIO CANADA www.auderaacoustics.com	TITLE: MOJO PB2			
	DRAWN: DOUG HANSEN/GENNADY KALYTA	SCM NO: 10-00023-19-E5_230	PCB NO: 10-00023-19-E5_230	LAYER: BOTTOM COPPER
APPROVED: DATE:	This drawing and data embody proprietary designs and information, which is the confidential property of Audera Acoustics Inc. None of which shall be copied, reproduced, disclosed to others, proposed or used in whole or in part, for any purpose without express written permission of a duly authorized agent of Audera Acoustics Inc. This drawing is subject to recall by Audera Acoustics at any time. It is being submitted in confidence, and patent rights are reserved by Audera Acoustics Inc.			REV: E5



深圳茂硕电源科技股份有限公司
SHENZHEN MOSO POWER SUPPLY TECHNOLOGY CO.,LTD.

請 承 認 書

SPECIFICATION FOR APPROVAL

客 户

CUSTOMER: GGEC 国光电器股份有限公司

产品名称

DESCRIPTION: Hi-Frequency Transformer 高频变压器

客户料号

CUSTOMER PART NO XFB-ETD39-00006A2

公司型号

OUR MODEL NO: XKG39-002 (REV: A/3)

日 期

DATE: 2010-06-22

客户确认签章 APPROVAL SIGNATURE		
DATE:	DATE:	DATE:

客户确认签字，盖章后请返回承认书一份

PLEASE RETURN TO US ONE COPY OF "SPECIFICATION FOR APPROVAL" WITH YOUR APPROVED SIGNATURE

地址：广东省深圳市南山区松白路关外小白芒桑泰工业园 6 楼茂硕科技园

ADD: Moso Technology Park, 6F, Sangtai Industrial Park, Guanwai Xiaobaimang Songbai Road, Nanshan District, Shenzhen, Guangdong, P.R. China P.C.: 518108

TEL: 0755-27657000 27657555 P.C.: 518108

FAX: 0755-27657908 27657599

E-mail: moso@mosopower.com

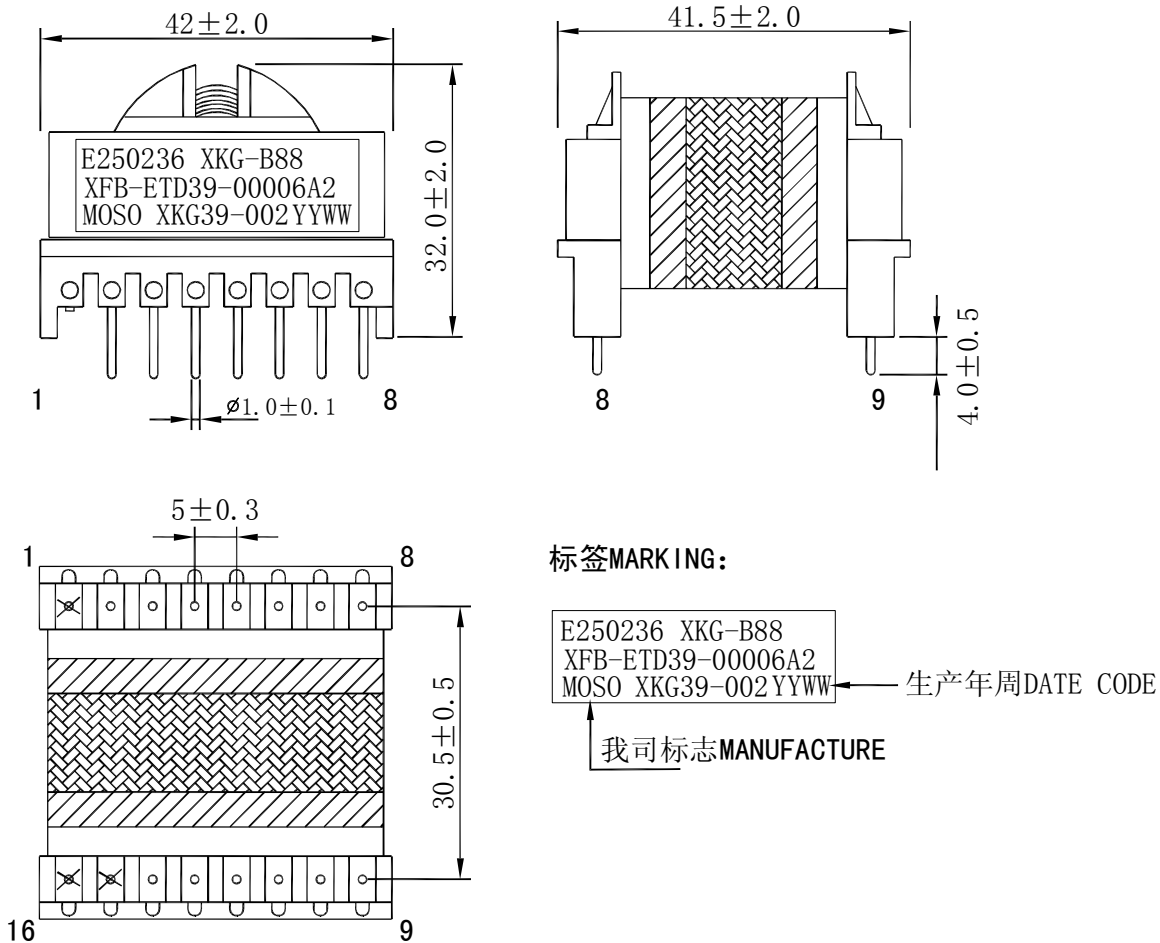
<http://www.mosopower.com>



CUSTOMER 客户	GGEC 国光电器股份有限公司	OUR MODEL NO 公司型号	XKG39-002		
		CUS. PART NO 客户型号	XFB-ETD39-00006A2		
MANUFACTURER 承制方	SHENZHEN MOSO POWER SUPPLY TECHNOLOGY CO LTD 深圳茂硕电源科技股份有限公司	PAGE 页码	1 OF 4	EDITION 版本	A/3

1: MECHANICAL DIMENSION (UNIT: mm) TOLERANCE ± 0.5 mm

外形尺寸(单位:mm)未标注公差范围 ± 0.5 mm



注REMARK:

1. PIN1、15、16拔掉REMOVE PIN1, 15, 16;

2. 成品沿线包方向外包20mm*0.05的背胶

铜箔1.1Ts引线(0.6mm TLW-B)接PIN8; Add polyester tape (34mm*0.05) on shield. (see SECTION DIAGRAM); Solder shield leading wire (0.6mm TLW-B) to Pin8 at turn 1.1;

铜箔前后各包26.5mm胶带二层Both before and after placing shield, add 2 layers tape with width 26.5mm;

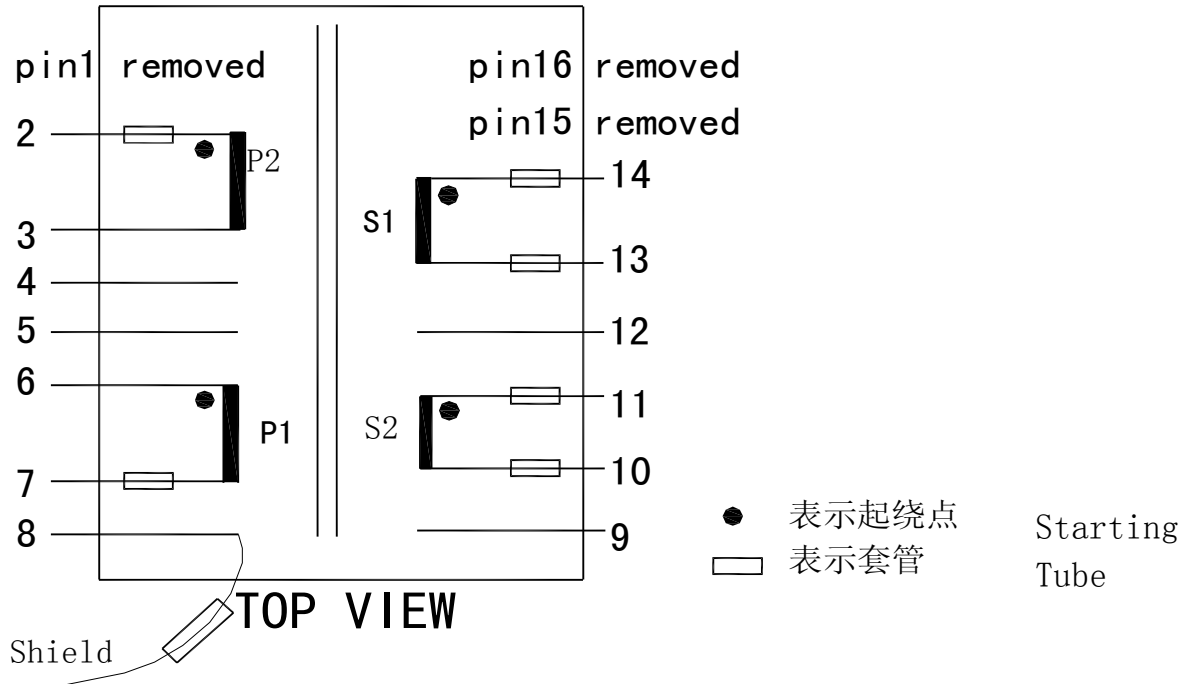
3. 防火标签贴在PIN1-8侧; Label on Pin1-8 side;

DESIGN 拟制		CHECK 审核		APPROVAL 批准	
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FP2010-6-22

CUSTOMER 客户	GGEC 国光电器股份有限公司	OUR MODEL NO公司型号	XKG39-002		
		CUS. PART NO 客户型号	XFB-ETD39-00006A2		
MANUFACTURER 承制方	SHENZHEN MOSO POWER SUPPLY TECHNOLOGY CO LTD 深圳茂硕电源科技股份有限公司	PAGE 页码	2 OF 4	EDITION 版本	A/3

2: CIRCUIT DIAGRAM/电路图



注: 2. 6. 7. 8套管长度为14mm min\10. 11. 13. 14套管长度为25mm min.

Remark: Tube length for Pin 2, 6, 7, 8 is min. 14mm; for Pin 10, 11, 13, 14 is min. 25mm.

3: WINDING LIST/绕线表

NO: 序号	PIN 起头	PIN 尾头	TURNS 圈数	Copper Wire 漆包线	限位带Margin Tape		TAPE LAYERS 胶带层数	Winding Method 绕线方法
					初级 Pri.	次级 Sec.		
P1	6	7	13Ts	MW75 $\Phi 0.40*3P$		3mm	26.5mm*5Ts	密绕 Standard
S1	14	13	4Ts	TEX-E $\Phi 0.60*3P$		3mm	26.5mm*3Ts	六线并绕 Six Wires Bifilar
S2	11	10	4Ts	TEX-E $\Phi 0.60*3P$				
P2	2	3	7Ts	MW75 $\Phi 0.40$	3mm		26.5mm*3Ts	靠初级密绕 Close to Pri. Side

DESIGN 拟制		CHECK 审核		APPROVAL 批准	
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FP2010-6-22

CUSTOMER 客 户	GGEC 国光电器股份有限公司	OUR MODEL NO 公司型号	XKG39-002		
		CUS. PART NO 客户型号	XFB-ETD39-00006A2		
MANUFACTURER 承 制 方	SHENZHEN MOSO POWER SUPPLY TECHNOLOGY CO LTD 深圳茂硕电源科技股份有限公司	PAGE 页码	3 OF 4	EDITION 版本	A/3

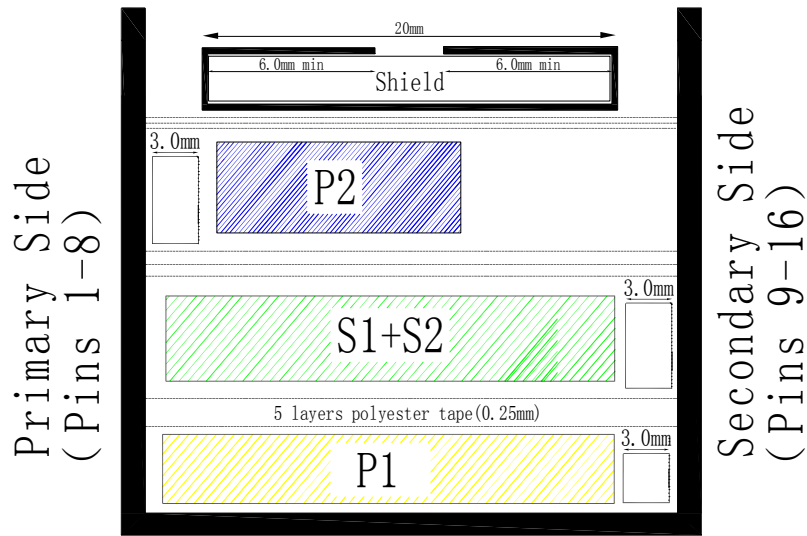
4: ELECTRICAL CHARACTERISTIC/电气特性

NO: 序号	ITEM 项目	TEST PIN 测试端子	SPECIFICATION 规格	CONDITION 条件	TEST EQUIPMENT 测试仪器
1	Inductance 电感量	Lp6-7	27uH±5%	Ta=25°C 100KHz 1.0V _{rm}	Zentech 詮华3302
2	Leakage 漏感	Lk6-7	< 0.8uH		
		Short pins 11-10 and 14-13			
3	DCR IstanceN 直流电阻			Ta=25°C	Zentech 詮华CH-502A
4	layer capacitance 层间电容	6-14	25pF±20%	Ta=25°C 10KHz 1.0V _{rm}	
5	Insulation Hipot 耐压	Pri and Sec	AC 3.0KV 50Hz/60Hz	2mA 2S	Zentech 詮华901
		Sec and Core	AC 3.0KV 50Hz/60Hz		
		Pri and Core	AC 0.5KV 50Hz/60Hz		
		P1 and P2	AC 0.5KV 50Hz/60Hz		
		S1 and S2	AC 0.5KV 50Hz/60Hz		
6	Insulation 绝缘电阻	Pri and Sec	DC 500V ≥100MΩ		
		Sec and Core			

DESIGN 拟制		CHECK 审核		APPROVAL 批准	
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CUSTOMER 客户	GGEC 国光电器股份有限公司	OUR MODEL NO 公司型号	XKG39-002		
		CUS. PART NO 客户型号	XFB-ETD39-00006A2		
MANUFACTURER 承制方	SHENZHEN MOSO POWER SUPPLY TECHNOLOGY CO LTD 深圳茂硕电源科技股份有限公司	PAGE 页码	4 OF 4	EDITION 版本	A/3

5: SECTION DIAGRAM/结构图



6: RAW MATERIAL/结构材料

NO: 序号	NAME 名称	SPECIFICATION 规格	MANUFACTURER 供应商	UL FILE UL编号
1	CORE/磁芯	ETD39 NH2B RM2.3KD JP4 HE4 DTT-P4	HAINING LIANFENG MAGNET INDUSTRY CO.,LTD THE SOFT FRRITE ELEMENTS COMPANY OF YIBIN JINCHUAN ELECTRDNICS CO., LTD A-CORE JIANGMEN ELECTRONICS CO.,LTD RUYUAN DONGYANGGUANG MAGNETICS MATERIALS CO., LTD SHAN DONG DONG TAI ELECTRDNICS CO.,LTD	N/A
2	Bobbin/骨架	ETD39 卧式 PM-9820	SUMITOMO BAKELITE CO LTD	E41429
3	Winding/ 漆包线	MW75 or 130°C Polyurethane	TAI-I ELECTRIC WIRE & CABLE CO LTD XINGNING JINYAN ELECTRICAL CO LTD DONGGUAN DONGWEI MAGNET WIRE CO LTD JIANGMEN CITY JIANG CI ELECTRICAL APPLIANCES ENTERPRISE CO LTD TONGLING NONFERROUS COPPER CROWN ELECTRICAL CO LTD	E85640 E238500 E222363 E192838 E217937
4	Insulation Tape/胶带	1P801	P LEO & CO (B C) LTD	E200050
	Margin Tape/ 限位带	1N012		
5	Wire/ 三层绝缘线	TEX-E Φ0.60mm	FURUKAWA ELECTRIC CO LTD	E230451
6	PIN	Φ1.0mm	ZHANGJIAGANG HONGHUAYIMETAL PRODUCT CO.,LTD	N/A
7	TEFLON TUBE/ 铁弗龙套管	2T-TFL	P LEO & CO (B C) LTD	E200050
8	VARNISH/ 凡立水	WP-2952F-2G	HITACHI CHEMICAL CO LTD	E72979
9	EPOXY	3300A/B	DONGGUAN EATTO ELECTRONIC MATERIAL CO LTD	E218090

DESIGN 拟制	CHECK 审核	APPROVAL 批准
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