CSA INTERNATIONAL

Certificate of Compliance

Certificate: 1757296 (LR 104684) **Master Contract:** 162507

Project: 2500673 **Date Issued:** February 23, 2012

Issued to: **Bosch Security Systems, Inc.**

12000 Portland Ave S
Burnsville, MN 55337
USA
Attention: Mr. Bill Scott

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.

C US

Sam Tam

Issued by: Sam Tam

PRODUCTS

CLASS 2226 51 - AUDIO AND VIDEO EQUIPMENT - Commercial Audio Equipment
CLASS 2226 81 - AUDIO AND VIDEO EQUIPMENT - Commercial Audio Equipment - Certified to US Standards

Power Amplifier, cord-connected, Class I grounded.

Models TG-7 and H5000, rated 100-240V~, 50-60Hz, 1450W.

Models TG-5 and H2500, rated 100-240V~, 50-60Hz, 1000W.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 60065-03 Incl. AM1 - Audio, Video and Similar Electronic Apparatus - Safety Requirements

UL Std. No. 60065-2007 - Audio, Video and Similar Electronic Apparatus - Safety Requirements

CSA INTERNATIONAL

Supplement to Certificate of Compliance

Certificate: 1757296 **Master Contract:** 162507

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
2500673	February 23, 2012	Alternative remote module RCM-28
2431640	June 15, 2011	Update to include minor report corrections.
2418252	May 13, 2011	No-Charge update to file 1757296 to include corrections to CB certificates listed Name and address of the factory.
2401509	March 16, 2011	Update to include alternative components.
2210389	February 1, 2010	Alternate switch
1905638	June 11, 2007	Update to include alternative transformer T400 and Y capacitors C7, C8, C515, C123.
1820072	September 12, 2006	Update to include lower power models TG-5 and H2500.
1757296	June 22, 2006	Original Certification.

CSA INTERNATIONAL

Descriptive Report and Test Results

MASTER CONTRACT: 162507
REPORT: 1757296
PROJECT: 2500673

Edition 1: June 22, 2006; Project 1757296 – Toronto
Issued by Gianni Tanzi

Edition 7: June 15, 2011; Project 2431640 – Toronto
Issued by Gianni Tanzi

Edition 8: February 23, 2012; Project 2500673 – Toronto
Issued by Sam Tam

Report pages reissued

Contents: Certificate of Compliance - Page 1
Supplement to Certificate of Compliance – Page 1
Description and Tests - Pages 1 to 14
Photographs – Pages 1 to 15
Attachments - CB Report 162507-1757296

PRODUCTS

CLASS 2226 51 - AUDIO AND VIDEO EQUIPMENT - Commercial Audio Equipment
CLASS 2226 81 - AUDIO AND VIDEO EQUIPMENT - Commercial Audio Equipment - CERTIFIED TO U.S. STANDARDS

Power Amplifier, cord-connected, Class I grounded.
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UL Std. No. 60065-2007 - Audio, Video and Similar Electronic Apparatus - Safety Requirements

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MARKINGS

Markings as given below and/or described in the report appear on each unit:

- Submittor's name, CSA registered tradename ElectroVoice or Dynacord, trademark or file number "LR 104684", or Master Contract No. 162507.
- Model designation;
- Electrical rating in volts, hertz, amperes or watts;
- Period of manufacture; date code / S/N (3 mo min period)
- "CAUTION - RISK OF ELECTRIC SHOCK - DO NOT OPEN. AVIS: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR" together with the two graphical symbols - a lightning flash with arrow-point within an equilateral triangle, and an exclamation point within an equilateral triangle, appears on the removable cover to gain access;
- Other covers: Lightning Flash in triangle symbol;
- (Leakage 0.75 - 3.5mA) Hang Tag on Cord or marked on unit: 'CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, GROUNDING OF THE CENTRE PIN OF THIS PLUG MUST BE MAINTAINED".

Method: A CSA Mark with the **C-US or NRTL/C** indicator and other required information appears on a durable adhesive nameplate (CSA Accepted/UL recognized for commercial equipment) or moulded or silk-screened onto the enclosure.

Note: (Bilingual Markings)
Jurisdictions in Canada may require markings to be also in French. It is the responsibility of the Customer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities.

Owner's Manual

(a) Mandatory

1. Heading: "IMPORTANT SAFETY INSTRUCTIONS", before operating instructions.
2. Explanation of graphical symbols (Lightning Flash and Exclamation Mark, Fig 15 DU) as follows, or equivalent,
   (a) Lightning Flash Symbol, with "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 enclosure that may be of sufficient magnitude to constitute a risk of shock to persons".
   (b) Exclamation Point Symbol, with "The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product".

3. "WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS".

(b) Optional as needed.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that product heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where thy exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over (and Fig 17 Tipping Cart Symbol).
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. If Service Instruction in Owner's Manual: "CAUTION - THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO".

ALTERATIONS

1. Markings as detailed above.
2. Primary Wiring from the AC inlet PWB to the main PWB shall be sleeved as described in this report to prevent contact with bare secondary components.
3. The owners manual shall include the description of risks, precautions and instructions when connecting a speaker.
4. As required by UL60065-03 clause 5.4, the ”IMPORTANT SAFETY INSTRUCTIONS” shall be verbatim in the owners manual or on a separate sheet.
5. The Earthing wire connected from the ac inlet ground pin to the chassis is a minimum 1.5mm^2 and is either a) mechanically secured by locking spade type connectors (which are soldered in place for Canada), or b) mechanically secured by a closed loop connector, screw with locking starwashers, and nut insert.
6. The primary wires at the mains switch will be mechanically secured and soldered.
7. The bottom access panel has a lightning bolt graphical symbol within a triangle marked (IEC 60417-5036).

8. The detachable power supply cord set provided with the unit shall be an approved type acceptable to the authorities in the country where the unit is sold. Cord shall be rated 3 x 14 AWG (minimum) SJ, SJT, or SJE, shall be marked VW-1 with a 24A (minimum) plug and a 20A (minimum) connector, and shall be 7.5m (maximum) in length.
9. For North American Models "CAUTION: To reduce the risk of shock of electrical shock, grounding of the centre pin of this plug must be maintained " is marked on the unit or on a hang tag affixed to the cord.
10. The bushing on the Neutrik AG Power Con NAC3FCA connector on ac cord to be torqued to 1.8lb-ft/ 2.5Nm.
11. The alternative bonding method shall include a screw thread diameter which is at least 3.5mm, include an additional star washer placed between the screw head and the closed loop connector, and the thickness of the portion of the metal nut which is inserted into the sheet metal shall not be thicker than the sheet metal it is pressed into.

FACTORY TESTS

(a) Basic Dielectric: The equipment at the conclusion of manufacture, before shipment, shall withstand for one sec, without breakdown, the application of:
(a) Nominal 120V: 800V ac or 1130V dc
(b) Nominal 240V: 1500V ac or 2120V dc between live parts and exposed non-current-carrying metal parts. The factory test may be made at existing room temperature.

The product factory tests shall not exceed 2000V ac.

Each transformer connected to the ac supply shall be subjected to the following dielectric strength tests for a period of one sec, without breakdown:

An ac potential applied between each winding and the core and metal enclosure, with all other windings grounded to the core and metal enclosure. The test potential shall be:
(a) For windings rated 30V and less, 500V ac.
(b) For windings rated over 30V, 800/1500V ac.

(b) Ground Continuity: The equipment with protective grounding shall be tested, as a routine production-line test, to determine that there is electrical continuity between the grounding pin of the attachment plug and the accessible dead metal parts of the equipment. Alternatively, a visual check may be made.

(d) Polarization Verification.

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.

Note: Transformer tests may be performed by the transformer manufacturer.

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

1. 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.

COMPONENT SPECIAL PICKUP – N/A

DESCRIPTION

Notes:

1. The term "(INT)", following the component name, denotes a certified component that can be replaced by one from another certified source (approved by OSHA/SCC accredited body for the same application) provided that it has an equivalent rating, configuration (size, orientation, mounting) and that applicable minimum creepage and clearance distances are maintained from live parts to bonded metal parts and secondary parts.

2. The term "(CT)", following the component name, denotes a component that is subject to periodic re-testing unless evidence of re-testing equivalent to the CSA program is available.

3. This report is supplemented by the attached IEC 60065 checklist.

4. Approval codes: (all components are suitable for the application)

C or C▲	=	CSA Certified
C/US or NRTL/C	=	CSA Certified to CSA/US requirements
US or NRTL	=	CSA Certified to US requirements
UL	=	UL Listed equipment/sub-system
cUL	=	UL Listed equipment/sub-system to CSA requirements
UR	=	UL Recognized component/ sub-system
cUR	=	UL Recognized component/sub-system to CSA requirements

A	=	SAA;	B	=	BSI;	CEB	=	CEBEC
D	=	DEMKO;	FI	=	FIMKO;	I	=	IMQ
K	=	KEMA;	N	=	NEMKO	O	=	OVE
S	=	SEMKO;	+S	=	SEV;	T	=	TUV
V	=	VDE						

Note: An asterisk "*" following the Approval Code denotes a component marked with the Agency's approval mark, as applicable.

General: The subject models are power amplifiers intended for commercial use. The TG-7 and H5000 are the same electrically, the differences are cosmetic changes and trademark. The TG-5 and H2500 are lower power versions of the TG-7 and H5000. The optional Remote Module RCM-26 was installed during testing, and was evaluated in this report.

Weight of Equipment: 14.82kg (TG-7, H5000)
14.26kg (TG-5, H2500)

Pollution Degree: 2

Maximum Rated Ambient Temperature: 40 °C.

Circuit:
AC Line Coupling: Inductive through a step-down transformer.

Enclosure: Table/ Rack mount style, combustion-resistant. Secured together by screws.

Overall Dimensions: 498mm (L) by 442mm (W) by 87mm (H).

General Construction: See Critical Components list.

Ventilation Openings: See attached photos.

Grounding, Bonding and Double Isolation: One end of the green/yellow insulated grounding conductor connects to the AC input receptacle via a double crimped locking spade connector and is soldered in place. The other end of the conductor either a) terminates with a double crimp spade connector which connects to it's mate which is riveted to the chassis, which is soldered in place, or b) terminates with a closed loop connector which is secured by an M4 screw to the chassis with locking starwashers and a nut insert.

The IEC 417 #5019 "⏚" symbol is marked adjacent to the connection on the chassis.

Connectors (INT): See Critical Components list.

Insulating Barrier/Sleeving/Tape: Accepted/UR/Evaluated. See Critical Components list.

External Speaker Terminals: See Critical Components list.

Markings	(a) 4 ohm Dual Mode and 8 ohm Bridge Mode Class 3 wiring (b) Lightning Symbol, IEC 5036 (>71V at max out, no load) (c) User manual instructions for speaker wiring.

Critical Components:

Object/Part No.	Manufacturer /Trademark	Type/Model	Technical Data[2])	Standard	Mark(s) of Conformity[1])
AC inlet	Neutrik	NAC 3 MPA	20A, 250V	DIN VDE 0627	SEV, UR
Mains cord plug (INT)	Pass & Seymour	L5-30P	30A, 125V	CSA 42, UL 498	CSA, UL
Mains cord connector	Neutrik	NAC 3 FCA	20A, 250V	DIN, VDE 0627	SEV, UR,VDE
Mains Switch (Double pole only 1 pole used)	Canal	a) PSD-1	a) CSA/UR-TV-8 8A 250V, - IEC – 10A 250V - Tested to 14.6.1b - V-0 materials Note: Located inside enclosure and baffled by metal. Inrush: 16.26Apk @ 264V, 60Hz ; 7.1Apk@ 90V,60Hz normal current through switch : 0.128A @ 120V, 60Hz; 1/3 output power bridged mode. 0.140A @ 100V, 60Hz 1/8 output power bridged mode.	CSA No. 55, UL1054	CSA,UR, CQC
		b) PS268 L-N-M	b) CSA/UR-TV-8, 117Apk, 250		
Across-the-Line Resistors R1,R2,R3	Various Source	Surface mount	120K Ohm 0.25W (R1, R2 and R3 are in series)	Evaluated	-
Mains Relay E2 (relay contacts and coil both in mains circuitry)	SONG CHUAN	832HA-1A-F-C	- 40A 277Vac: - 12Vdc Coil - This relay does not see the initial inrush current as relay contacts are in parallel with primary thermistors R4 & R5 - Relay contacts do not close until the power transformer has been energized. - V-O materials	UL508	cURus, CQC
Mains Relay E1 and E3 (relay contacts and coil both in mains circuitry)	SONG CHUAN	832HA-1A-F-C	40A 277Vac; 12Vdc Coil Inrush: -38.6Apk@264V,60Hz - 20. 3Apk@90V,60Hz - Tested 10,000 cycles endurance at 264V, 60Hz ,23.03Arms and 38.6Apk - V-0 materials	UL508	cURus, CQC
NTC Thermistor R4, R5, R401 (INT)	EPCOS (Siemans Matsushita)	NTC 10	10 ohms 8.5A	-	-

Object/Part No.	Manufacturer /Trademark	Type/Model	Technical Data[2])	Standard	Mark(s) of Conformity[1])
Across-the-Line Capacitor C1, C2, C3 (INT)	BC Components	MKP 3382	1.0µF 250V x 2	CSA No.1-94, UL 1414, IEC 384-14	CSA, UR, ENEC 02
Alternative Across-the-Line Capacitor C1, C2, C3 (INT)	Arcotronics (Kemet)	R-46	1.0µF 250V x 2	CSA E384-14, UL 1414, IEC 384-14	CSA, UR, ENEC 93
Line to Ground Capacitors C7, C8 (INT)	1) Murata	1)KX	3900pF 250V Y1	CSA E384-14, UL 1414, IEC 384-14	1)CSA, UR, BSI, S, VDE, FI, N 2)cURus, IMQ 3) cURus, VDE Note: Considered to be acceptable for the application without conformity tests.
	2) Arcotronics (Kemet)	2)KJN			
	3) Vishay	3) WKP			
Primary-to-Secondary Capacitor C515 (INT)	1) Murata	1)KX	1500pF 250V Y1	1)CSA E384-14, UL 1414, IEC 384-14 2)CSA No.1-94, UL 1414, IEC 384-14	1)CSA, UR, BSI, S, VDE, FI, N 2)cURus, IMQ Note: Considered to be acceptable for the application without conformity tests.
	2)Arcotronics (Kemet)	2)KJN			
Primary-to-Secondary Capacitors C123 (INT)	1) Murata	1)KX	3900pF 250V Y1	CSA E384-14, UL 1414, IEC 384-14	1)CSA, UR, BSI, S, VDE, FI, N 2)cURus, IMQ 3) cURus, VDE Note: Considered to be acceptable for the application without conformity tests.
	2) Arcotronics (Kemet)	2)KJN			
	3) Vishay	3) WKP			
TG-7, H5000: Isolating Power Transformer T200& T250	1) Zollner	1) 365 459 (Z/70080605)	-	Evaluated IEC60065 7th Ed.	-
	2) Noratel	2) 365 459 (190159)			
TG-5, H2500: Isolating Power Transformer T200& T250	1) Zollner	1) 365 709 (Z/1370558-00)	-	Evaluated IEC60065 7th Ed.	-
	2) Noratel	2) 365 709 (190163)			
Isolating Power Transformer T400	1) Zollner	1) 365524-C (BV70161005)	-	Evaluated IEC60065 7th Ed.	-
	2) Vogt	2) 365524-C (UL0510281103)			
	3) Noratel	3) 365524-C (190160)			

Object/Part No.	Manufacturer /Trademark	Type/Model	Technical Data[2])	Standard	Mark(s) of Conformity[1])
T2: Current sensor	Talema	AC1030	Polycarbonate case 1mm thick; 3Kvac dielectric test pins to case passed Note: Pick-up coil is approved reinforced wire (0.8mm)	-	-
Line Chokes L1, L2, L3	VAC (Vacuum Schmelze)	362030 (marked X033)	2 x 6mH 250V 16A Polymeric materials – Mfr: BAST (E41871) Cat No A3X2G5 Rating: UL 90V-0/0.81mm 3mm creepage/ clearance line to line	-	-
Pri-Sec Optoisolators: I402, I600, I601, I602, I603, I604, I605	Vishay	SFH6186-2	- 0.5mm through insulation - >4.9mm internal/ creepage & clearance	UL1577 (Double Protected), FIMKO EN0950, CSA No. 1	UR, CSA, VDE, FI
Pri-Sec Optoisolator :I1	Vishay	IL300	- 0.4mm through insulation - 5.4mm internal/ creepage & clearance	UL1577 (Double Protected), BSI :EN60065:2002I EC60065:2001, CSA No. 1	UR, CSA, BSI, VDE
Mains Varistor R400 (Optional use)	Epcos	1) S10V series (S14K300E2)	1) 300Vrms 385Vdc, 6000A surge, 125J/2ms, 0.6W	CSA No. 1, UL 1449, CECC 42200 Note: The combination of UL1449 & CECC42200 is deemed equivalent to IEC 61051-2 for this application	VDE, CECC, CSA, UR
		2) S10V series (S14K460E2)	2) 460Vrms 615Vdc, 5000A surge, 150J/2ms, 0.6W		
Primary Wiring	Various approved sources	TR32/TEW	105C 600V 16Awg VW-1	CSA 127/210	CSA, UR
Internal Speaker and secondary Wiring	Various approved sources	TEW	105C 600V VW-1	CSA 127/210	CSA, UR
Secondary Ribbon Cable	Various approved sources	AWM	105C 300V 26AWG VW-1	CSA 127/210	CSA, UR
Secondary Wiring	Various approved sources	TR-64, AWM	80C 300V, 22 and 28 AWG VW-1	CSA 127/210	CSA, UR

Object/Part No.	Manufacturer /Trademark	Type/Model	Technical Data[2])	Standard	Mark(s) of Conformity[1])
Primary/ Secondary insulated spade connectors	AMP	G	UL94V-2min	UL94	-
PWB'S	Various approved sources	Various approved types	UL94V-0	UL94	-
Secondary speaker relays E1 right & E1 left (INT)	SONG CHUAN	832HA-1C-F-C-B (24 or 20VDC)	40A, 277V,	UL508	cURus, CQC
Sleeving over primary wire from mains switch to primary electrolytic capacitor C213 (INT)	Federal Mogul Systems	Textilver S	- Silicone rubber coated fibreglass sleeving - 0.9mm thick - 200C 600V VW-1	UL 1441	-
Barrier below primary/secondary heatsinks	G.E. Electric (E61257)	Polycarbonate/ (Lexan) FR700	0.23mm thick min. UL94V-0/0.23mm	UL94	-
Alternative barrier below primary/secondary heatsinks.	G.E. Plastics	XH6050B Polyetherimide	0.05mm thick min. UL94VTM-0 at 0.05mm, Natural colour used only.	UL94	-
Alternative barrier below primary/secondary heatsinks.	G.E. Plastics	Valox FR-1 Polybutylene Terephthalate	0.25mm thick min. UL94VTM-0 at 0.25mm,	UL94	-
Alternative barrier below primary/secondary heatsinks.	Formex	Formex-GK Polypropylene	0.05mm thick min. UL94VTM-0 at 0.05mm,	UL94	-
Alternative barrier below primary/secondary heatsinks. Note: Not applicable to Australian Models.	Mitsubishi Polyester Film GmbH	Pet/ (Hostaphan) WN	0.12mm thick min. UL 94VTM-2/0.12mm	UL94	-
Barrier attached to heatsinks and covering fans	G.E. Electric (E61257)	Polycarbonate/ (Lexan) FR700	0.23mm thick min. UL94V-0/0.23mm	UL94	-
Alternative Barrier attached to heatsinks and covering fans.	G.E. Plastics	XH6050B Polyetherimide	0.05mm thick min. UL94VTM-0 at 0.05mm, Natural colour used only.	UL94	-
Alternative Barrier attached to heatsinks and covering fans.	G.E. Plastics	Valox FR-1 Polybutylene Terephthalate	0.25mm thick min. UL94VTM-0 at 0.25mm,	UL94	-
Alternative Barrier attached to heatsinks and covering fans.	Formex	Formex-GK Polypropylene	0.05mm thick min. UL94VTM-0 at 0.05mm,	UL94	-

Object/Part No.	Manufacturer /Trademark	Type/Model	Technical Data[2])	Standard	Mark(s) of Conformity[1])
Alternative barrier attached to heatsinks and covering fans. Note: Not applicable to Australian Models.	Mitsubishi Polyester Film GmbH	Pet (Hostaphan) WN	0.12mm thick min. UL 94VTM-2/0.12mm	UL94	-
Optional airguide over switchmode power supply heatsinks	G.E. Electric (E61257)	Polycarbonate/ (Lexan) FR700	0.23mm thick min. UL94V-0/0.23mm	UL94	-
Alternative Optional airguide over switchmode power supply heatsinks.	G.E. Plastics	XH6050B Polyetherimide	0.05mm thick min. UL94VTM-0 at 0.05mm, Natural colour used only.	UL94	-
Alternative Optional airguide over switchmode power supply heatsinks.	G.E. Plastics	Valox FR-1 Polybutylene Terephthalate	0.25mm thick min. UL94VTM-0 at 0.25mm,	UL94	-
Alternative Optional airguide over switchmode power supply heatsinks.	Formex	Formex-GK Polypropylene	0.05mm thick min. UL94VTM-0 at 0.05mm,	UL94	-
Primary Bridge Rectifier D1, D2	Ixys	DSP45	1200V, 70A heatsink mounted	-	-
Primary Transistors Q100, Q102, Q103, & Q104	Fairchild	FGH50N6S2D	Heatsink mounted 600V 25A	-	-
Output Transistors: 12 pairs x 2	ON Semiconductor	MJW21196 MJW21195	Heatsink Mounted 250V, 16A	-	-
Secondary Fan (One used at rear)	Y.S. Tech	FD248032EB	24Vdc 0.33A	-	cURus, TUV
Secondary Fans (Two used at front)	Matsushita	FBA08A24H	24Vdc, 0.15A, 39.6CFM	CSA No.113-M1984, UL 507	CSA UR
Alternative Secondary Fans (Two used at front)	NMB	3110SB-05W-B50	24Vdc, 0.09A, 41.3CFM	CSA No.113-M1984, UL 507	cURus
Speaker Terminals	Neutrik	NL4MP	30A 250V	-	CSA UR
Binding Post Speaker Terminals	Cliff	FCR 159706P	Material Polyamide V-2	-	-
Secondary thermal sensors (NTC) R54, R55, R635	BC Components	2322-641-66123	-12K ohm R54, 55 mounted on output heatsink; R635 on primary heatsink	-	-
Rear panel rating label	3M Hillington	HP 250	Transcan PT50 matt silver void	CSA No 0.15, UL 969	-

Object/Part No.	Manufacturer /Trademark	Type/Model	Technical Data[2])	Standard	Mark(s) of Conformity[1])
C270, C271, C220, C221 (Located in Primary)	1) Arcotronics (Kemet)	1) R76	390nF or 470nF 400V >1750mm^3 Cat B. passive flame test- Pass (470nF tested in file 162507-1466084) 1) Body material: a) Mfr: DSM Engineering Plastics BV Cat no: T06 204 SN (Arnite) Thickness: 0.8mm +/- 0.05mm Flame Rating: UL94V-0/0.75mm b) Mfr: Lanxess AG Cat no: KU2-7204 (Pocan) Thickness: 0.8mm +/- 0.05mm Flame Rating: UL94V-0/0.0.38mm	IEC60384-1 Cat B. passive flame test	-
	2) RIFA	2) PHE 450	390nF or 470nF 400V 2) Body material: Mfr: EI Dupont De Nemours Cat no: SK655FR1 (Crastin) Thickness: 0.6mm +/- 0.1mm Flame Rating: UL94V-0/0.4mm		
Enclosure Top/Sides	-	Aluminum	1.5mm thick	-	-
Enclosure Bottom/Inner Front/ Rear	-	Aluminum	1.5mm thick	-	-
Enclosure Outer Front	-	Aluminum	4.0mm thick	-	-
Enclosure Top/ Side/ Rear Screws	-	- Metal - Screw into metal	2.9mm thread dia. 6mm thread length 5x0.5Nm torque Pass	-	-
Enclosure Front Screws	-	- Metal - Screw into metal	3.9mm thread dia. 9mm thread length 5x1.2 Nm torque Pass	-	-
Secondary Fan on Optional Remote Module RCM-26	Sunon	KDE0505PFV2	5Vdc	-	-

Fuses	Manufacturer	Cat. No.	Rating	Adjacent Marking	Mark(s) of Conformity
F1 and F2 Mains Fuses (Power PCB)	Littel Fuse	326	T20AH250V	T20A H 250V	CSA,UR
F400 Mains fuse (Power PCB)	1) Wickmann (Littelfuse)	1) 195	T1AL250V	T1A L 250V	1) cURus, S, VDE, BSI, IMQ, CCC
	2) Littelfuse	2) 213			2) CSA, UR, CCC, PSE, S, BSI
F300 & F301 Secondary Fuses (Power PCB)	1) ELU	1) 179 120	T2.5A L 250V	T2.5A L 250V	1) UR, S, VDE, BSI, SEC
	2) Littelfuse	2) 195			2) cURus, S, VDE, BSI, IMQ, CCC

[1]) An asterisk indicates a mark which assures the agreed level of surveillance. Components marked with (INT) may have alternative sources per (INT) "DESCRIPTION Note 2" above.

[2]) Description to include adjacent markings for critical fuse/s.

[3]) See conditions of acceptability for mains fuse.

TESTS

Project 1757296 (Edition 1): See attached CB report for all test data.

Project 1820072 (Edition 2): Update to include lower power models TG-5 and H2500. See Test Data (Att. 5b).

Project 1905638 (Edition 3): Update to include alternative transformer T400 and Y capacitors C7, C8, C515, C123. See Test Data (Att. 5c).

Project 2210389 (Edition 4): No additional test is deemed necessary.

Project 2401509 (Edition 5): Update to include alternative components. No additional tests necessary.

Project 2418252 (Edition 6): Update to include corrections to CB certificates' listed name and address of the factory

Project 2431640 (Edition 7): Update to include minor report corrections.

Project 2500673 (Edition 8): Alternative Secondary Remote Module RCM-28 (Optional). No tests were deemed necessary due to similar rating of RCM-28 to RCM-26