

Test Verification of Conformity

On the basis of the referenced test report(s), the sample(s) of the below product has been found to comply with the relevant harmonized standard(s) to the directive(s) listed on this verification at the time the tests were carried out.

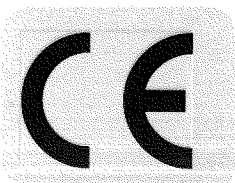
The manufacturer may indicate compliance to said directive(s) by signing a DoC himself and applying the CE-marking to products identical to the tested sample(s). In addition, the manufacturer shall file and keep the documentation according to the rules of the applicable directive(s) and shall consider changes of the standard(s) if relevant. Additional requirements may be applicable such as additional directives or local laws.

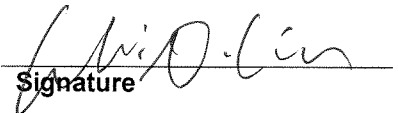
Applicant Name & Address	:	Ashdown Design & Marketing Ltd. The Stables, Stevens Farm, Mashbury Road, Chignal St James, Chelmsford, Essex CM1 4TX
Product(s) Tested	:	Guitar Bass MAG Active Cabinet and Guitar Bass MAG Amplifier
Ratings and principal characteristics	:	AC 230V or 240V ~, 50/60 Hz, 400W, Class I apparatus
Model(s)	:	MAG C115-300 EVO II, MAG C210T-300 EVO II, MAG C410T-300 EVO II, MAG 300H EVO II
Brand name	:	ASHDOWN
Relevant Standard(s) / Specification(s) / Directive(s)	:	EN 60065:2002 + Amd 1: 2006, Audio, video and similar electronic apparatus-Safety requirements Low Voltage Directive 2006/95/EC
Verification Issuing Office Name & Address	:	Same as Intertek Legal Entity
Verification/Report Number(s)	:	GZ08040220-1 / GZ08040220-2

NOTE 1: This verification is part of the full test report(s) and should be read in conjunction with it.

NOTE 2: The 240 V voltage rating just applicable for products sold in UK market only.

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Signature

Name: White Liu

Position: Technical Supervisor

Date: 28 APR 2008



TEST REPORT

IEC/EN 60065

Audio, Video and Similar Electronic Apparatus: Safety Requirements

Report Reference No.....: GZ08040220-2

Tested by (name + signature).....: Francis Yu

Francis

Approved by (name + signature).....: Daniel Yu

Daniel Yu

Date of issue.....: April 28, 2008

CB Testing Laboratory.....: Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

Address.....: 1~8th Floor, Block E2, 11 Cai Pin Road, Science City, Guangzhou Economic Development Zone, Guangzhou, P. R. China

Testing location/ procedure.....: CBTL RMT SMT WMT TMP

Testing location/ address.....: Same as above

Applicant's name.....: Ashdown Design & Marketing Ltd.

Address.....: The Stables, Stevens Farm, Mashbury Road, Chignal St James, Chelmsford, Essex CM1 4 TX

Test specification:

Standard.....: IEC 60065:2001 + Amd 1:2005 / EN 60065:2002 + Amd 1: 2006

Test procedure.....: LVD

Non-standard test method.....: N/A

Test Report Form No.....: IECEN 60065G

Test Report Form(s) Originator.....: ASTABEAB

Master TRF.....: 2006-03

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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description..... :	Guitar Bass MAG Active Cabinet (For model: MAG C115-300 EVO II , MAG C210T-300 EVO II , MAG C410T-300 EVO II) Guitar Bass MAG Amplifier (For model: MAG 300H EVO II)
Trade Mark..... :	ASHDOWN
Manufacturer	Same as applicant
Model/Type reference..... :	MAG C115-300 EVO II , MAG C210T-300 EVO II , MAG C410T-300 EVO II , MAG 300H EVO II
Ratings..... :	AC 230V or 240V ~, 50/ 60Hz, 400W, Class I apparatus;

Copy of marking plate(representative)

OFF POWER ON

CE

50/60Hz ~ 230V

FUSE RATING
100V-120V: T5AL 250V
220V-240V: T3.15AL 250V

POWER CONSUMPTION: 400W

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

WARNING - ATTENTION
THIS APPARATUS MUST BE EARTHED, FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE. UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE ET CALIBRE.

WARNING TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK. DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

SERIAL No:-
MODEL No:-
MAG C115-300 EVOII

Ashdown Engineering

OUTPUT POWER
300 WATTS RMS
500 WATTS PEAK

SPEAKER OUTPUTS
MINIMUM LOAD
4 OHMS
Class 2 Wiring

DESIGN IN U.K. AND MADE IN P.R.C

Remark:

- The above information was silk-printed or labelled on the rear or front enclosure.
- The model name and input voltage rating may be replaced by other ones listed in the report.
- The above markings are the minimum requirements required by the safety standard. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.

Summary of testing:

The sample(s) tested complies with the requirements of EN 60065: 2002 + Amd 1: 2006

5.1	Marking test
4.2.4 & 5	Normal operation
7.1	Temperature rise measurements
8.8	Dielectric strength test for insulation material
9.1.1	Shock hazard under normal operating conditions
9.1.7	External force test to enclosure
10.2	Humidity test
10.3	Insulation resistance and dielectric strength
11.1 & 11.2	Heating under fault conditions
12.1.1	Bump test
12.1.2	Vibration test
12.1.3	Impact test
12.2	Fixing of actuating elements
13.3.2	Operating voltage measurement
15.2	Grounding path Test
17.1	Screw securement test
19.1	Stability test on the 10° plane
19.2	Tip stability test with vertical force


Test item particulars..... : N/A
Classification of installation and use..... : Class I apparatus
Supply connection : Detachable power cordset used
Possible test case verdicts: - test case does not apply to the test object : N/A - test object does meet the requirement..... : Pass (P) - test object does not meet the requirement..... : Fail (F)
Testing: Date of receipt of test items.....: April 07, 2008 Date(s) of performance of tests : April 07, 2008 — April 28, 2008
General remarks: The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report, a point (coma) is used as the decimal separator. List of test equipment must be kept on file and available for review. When determining the test conclusion, the Measurement Uncertainty of test has been considered. This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program. The test report only allows to be revised within the report defined retention period unless further standard or the requirement was noticed. This report consists of: — Pages 1 to 38 for IEC/EN 60065 TRF — Appendix 1 (1 page): Additional Common Modification of A1:2006 to EN 60065:2002 — Appendix 2 (4 pages): Product Photo

General product information:

The products covered in this report were Guitar Bass MAG Active Cabinet (For model: MAG C115-300 EVO II, MAG C210T-300 EVO II, MAG C410T-300 EVO II) and Guitar Bass MAG Amplifier (For model: MAG 300H EVO II), there was no any difference for different input voltage ratings (The 240 V voltage rating just applicable for products sold in UK market only). All the models were identical in circuit diagram, The difference between them is:

1. MAG 300H EVO II was single amplifier module with wooden enclosure(Size: 195 x 525 x 385 mm, Weight: 10.2 kg);
2. For MAG C115-300 EVO II, a 15" speaker with wooden box was constructed additionally to the amplifier module (Size: 768 x 655 x 475 mm, Weight: 30 kg);
3. For MAG C210T-300 EVO II, 2 x 10" speakers with wooden box were constructed additionally to the amplifier module (Size: 768 x 655 x 520 mm, Weight: 34.8 kg);
4. For MAG C410T-300 EVO II, 4 x 10" speakers with wooden box were constructed additionally to the amplifier module (Size: 952 x 795 x 525 mm, Weight: 44.5 kg).

All these differences were considered during the evaluation.

IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
3	GENERAL REQUIREMENTS		P
	Safety class of the apparatus	Class I apparatus	P
4	GENERAL CONDITIONS OF TESTS		P
4.1.4	Ventilation instructions require the use of the test box	Test box not used	N/A
5	MARKING		P
	Comprehensible and easily discernible	Located on the front and rear enclosure	P
	Permanent durability against water and petroleum spirit	Silk-screen printed or labelled on the enclosure	P
5.1	Identification, maker, model	Refer to page 2	P
	Class II symbol if applicable	Class I apparatus	N/A
	Rated supply voltage and symbol	230V or 240V ~	P
	Frequency if safety dependant	50/60 Hz	P
	Rated current or power consumption	400W	P
5.2	Earth terminal	Appliance inlet used	N/A
	Hazardous live terminals	No such terminals	N/A
	Supply output terminals (other than mains)	No such terminals	N/A
5.3	Use of triangle with exclamation mark	 used in circuit diagram	P
5.4	Instructions for use	English version user manual was provided	P
5.4.1	Mains powered equipment not exposed to dripping or splashing. Warning concerning objects filled with liquid, etc.	Mentioned in user manual	P
	Hazardous live terminals, instructions for wiring		N/A
	Instructions for replacing lithium battery	No such batteries used	N/A
	Instructions for modem if fitted	No modem used	N/A
	Class I earth connection warning	Shown in user manual	P
	Instructions for multimedia system connection	No such system	N/A
	Special stability warning for fixed installation	Not such apparatus	N/A
	Warning: battery exposure to heat	Not such apparatus	N/A

TRF No. IECEN60065G

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

1~8th Floor, Block E2, 11 Cai Pin Road, Science City, Guangzhou Economic Development Zone, Guangzhou, P. R. China

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IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Warning: protective film on CRT face	No such device	N/A
5.4.2	Disconnect device: plug/coupler or all-pole mains switch location, accessibility and markings	Mains plug was used as disconnect device and mentioned in user manual	P
	Instructions for permanently connected equipment	Not permanently connected equipment	N/A

6	HAZARDOUS RADIATION		N/A
6.1	Ionizing radiation < 36 pA/kg (0,5 mR/h)	No ionizing radiation	N/A
6.1 EN 60065	European Council Directive 96/29/Euratom of 13 May 1996 10cm from outer surface of apparatus <1µSv/h (0,1mR/h)		N/A
6.2	Laser radiation, emission limits to IEC 60825-1 :	No laser radiation	N/A
	Emission limits under fault conditions :		N/A

7	HEATING UNDER NORMAL OPERATING CONDITIONS		P
7.1	Temperature rises not exceeding specified values, no operation of fuse links	(see appended table)	P
7.1.1	Temperature rise of accessible parts	(see appended table)	P
7.1.2	Temperature rise of parts providing electrical insulation	(see appended table)	P
7.1.3	Temperature rise of parts acting as a support or as a mechanical barrier		N/A
7.1.4	Temperature rise of windings	(see appended table)	P
7.1.5	Parts not subject to a limit under 7.1.1 to 7.1.4		N/A
7.2	Softening temperature of insulating material supporting parts conductively connected to the mains carrying a current > 0,2 A at least 150 °C		N/A

8	CONSTRUCTIONAL REQUIREMENTS WITH REGARD TO THE PROTECTION AGAINST ELECTRIC SHOCK		P
8.1	Conductive parts covered by lacquer, paper, untreated textile oxide films and beads etc. considered to be bare	Not used	P

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IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
8.2	No shock hazard when changing voltage setting device, fuse-links or handling drawers etc.	Tools are required	N/A
8.3	Insulation of hazardous live parts not provided by hygroscopic material	Not used	P
8.4	No risk of electric shock following the removal of a cover which can be removed by hand	Tools are required	N/A
8.5	Class I equipment		P
	Basic insulation between hazardous live parts and earthed accessible parts	Creepage distance between: 1. Connection poles of appliance inlet and enclosure: 8,7 mm 2. Connection poles of switch to enclosure: 12,7 mm Clearance between: 1. Connection poles of appliance inlet and enclosure: 9,8 mm 2. Connection poles of switch to enclosure: 12,7 mm (Measured working voltage: 240 Vrms, 340 Vpeak, Clearance Limit \geq 2,0 mm, Creepage distance limit \geq 2,5 mm)	P
	Resistors bridging basic insulation complying with 14.1 a)	No such component	N/A
8.6	Class II equipment and Class II constructions within Class I equipment	Class II construction within class I equipment	P
	Reinforced or double insulation between hazardous live parts and accessible parts		P
	Components bridging reinforced or double insulation complying with 14.1 a) or 14.3	Mains Transformer complied with clause 14.3	P
	Basic and supplementary insulation each being bridged by a capacitor complying with 14.2.1 a)	No such components	N/A
	Reinforced or double insulation being bridged with 2 capacitors in series complying with 14.2.1 a)	No such components	N/A

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IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Reinforced or double insulation being bridged with a single capacitor complying with 14.2.1 b)	No such components	N/A
	Basic insulation bridged by components complying with 14.3.4.3	No such windings	N/A
8.7	This clause is void		Noted
8.8	Basic or supplementary insulation > 0,4 mm (mm) :		N/A
	Reinforced insulation > 0,4 mm (mm) :		N/A
	Thin sheet insulation (excluding non-separable thin sheet insulation. See 8.22)		P
	Basic or supplementary insulation, at least two layers, each meeting 10.3		N/A
	Basic or supplementary insulation, three layers any two of which meet 10.3		N/A
	Reinforced insulation, two layers each of which meet 10.3		N/A
	Reinforced insulation, three layers any two which meet 10.3	Four layers of insulating tape used as reinforced insulation between primary winding and secondary winding with one layer thickness: 0,04mm Any of two layers were complied with 4240Vpeak of clause 10.3	P
8.9	Adequate insulation between internal hazardous live conductors and accessible parts	The insulation thickness of internal live wire: 0.77 mm	P
	Adequate insulation between internal hazardous live parts and conductors connected to accessible parts		P
8.10	Double insulation between conductors connected to the mains and accessible parts. Double insulation between internal hazardous live parts and conductors connected to accessible parts.	No secondary wires can come into contact with live parts	P
8.11	Detaching of wires		P

IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	No undue reduction of creepages or clearance distances if wires become detached	1. Connector and cable tie used to fix the primary wires 2. Inserted into hole before soldering and cable tie, connector used to fix the secondary wires	P
	Vibration test carried out	No need, see above	N/A
8.12	This clause is void		N/A
8.13	Adequate fastening of windows, lenses, lamp covers etc. (pull test 20 N for 10 s)		P
8.14	Adequate fastening of covers (pull test 50 N for 10 s)		N/A
8.15	No risk of damage to the insulation of internal wiring due to hot parts or sharp edges		P
8.16	Only special supply equipment can be used	Not such apparatus	N/A
8.17	Insulated winding wire without additional interleaved insulation		N/A
8.18	Endurance test as required by 8.17		N/A
8.19	Disconnection from the mains		P
8.19.1	Disconnect device	Type: Mains Plug used as disconnect device	P
	All-pole switch or circuit breaker with >3mm contact separation	No such devices	N/A
8.19.2	Mains switch ON indication		N/A
8.20	Switch not fitted in the mains cord		P
8.21	Bridging components comply with clause 14	No such component	N/A
8.22	Non-separable thin sheet material		N/A

9	ELECTRIC SHOCK HAZARD UNDER NORMAL OPERATING CONDITIONS		P
9.1	Testing on the outside		P
9.1.1	For voltages >1000 V ac or >1500 V dc complies with clause 13.3.1 for basic insulation	No such high voltage existed	N/A
9.1.1.1	a) Open circuit voltages		Noted

IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	b) Touch current measured from terminal devices using the network in annex D	U1: 164 mVpeak U2: 36 mVpeak	P
	c) Discharge not exceeding 45 µC	0,19 µC	P
	d) Energy of discharge not exceeding 350 mJ	< 15 kV	N/A
9.1.1.2	Test with test finger and test probe		P
9.1.2	No hazardous live shafts of knobs, handles or levers		P
9.1.3	Ventilation holes and other holes tested by means of 4 mm x 100 mm test pin		P
9.1.4	Terminal devices tested with 1 mm x 20 mm test pin (10 N); test probe D of IEC 61032		P
	Terminal devices tested with 1 mm x 100 mm straight wire (1 N); test probe D of IEC 61032		P
9.1.5	Pre-set controls tested with 2.5 mm x 100 mm test pin (10 N); test probe C of IEC 61032	No pre-set controls used	N/A
9.1.6	No shock hazard due to stored charge on withdrawal of the mains plug; voltage (V) after 2 s		N/A
	If C is not greater than 0,1 µF no test needed	No mains capacitance measured	N/A
9.1.7	a) Enclosure sufficiently resistant to external force		P
	Test probe 11 of IEC 61032 for 10 s (50 N)		P
	b) Test hook of fig. 4 for 10 s (20 N)	After the test (20N, 10s), no hazardous parts can be accessible	P
	c) 30 mm diameter test tool for 5 s (100 or 250 N) :	Force used: 100 N for metal rear enclosure	P
9.2	No hazard after removing a cover by hand	Tools are required	N/A

10	INSULATION REQUIREMENTS		P
10.1	Insulation resistance (MΩ) at least 2 MΩ min. after surge test for basic and 4 MΩ min. for reinforced insulation		N/A
10.2	Humidity treatment 48 h or 120 h	48h, 30 °C, 93%RH	P
10.3	Insulation resistance and dielectric strength between mains terminals	(see appended table)	P

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IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Insulation Resistance and dielectric strength across BASIC or SUPPLEMENTARY insulation (Class I)		P
	Insulation resistance and dielectric strength across REINFORCED insulation (Class II)		P

11	FAULT CONDITIONS		P
11.1	No shock hazard under fault condition		P
11.2	Heating under fault condition		P
	No hazard from softening solder		P
	Flames extinguish within 10 seconds	No flame occurred	N/A
	Soldered terminations not used as protective mechanism		P
11.2.1	Measurement of temperature rises	(see appended table)	P
11.2.2	Temperature rise of accessible parts	(see appended table)	P
11.2.3	Temperature rise of parts, other than windings, providing electrical insulation	(see appended table)	P
	Temperature rise of printed circuit boards (PCB) exceeding the limits of table 3 by max. 100 K for max. 5 min	(see appended table)	P
	a) Temperature rise of printed circuit boards (PCB) to 20.1.3, exceeding the limits of table 3 by not more than 100 K for an area not greater than 2 cm ²		P
	b) Temperature rise of printed circuit boards (PCB) to 20.1.3 up to 300 K for an area not greater than 2 cm ² for a maximum of 5 min		N/A
	Meets all the special conditions if conductors on printed circuit boards are interrupted		N/A
	Class I protective earthing maintained		P
11.2.4	Temperature rise of parts acting as a support or mechanical barrier		N/A
11.2.5	Temperature rise of windings	(see appended table)	P
11.2.6	Temperature rise of parts not subject to the limits of 11.2.1 to 11.2.5		N/A

IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
12	MECHANICAL STRENGTH		P
12.1.1	Bump test where mass >7 kg	No damage	P
12.1.2	Vibration test	No damage	P
12.1.3	Impact hammer test	No damage	P
	Steel ball test		P
12.1.4	Drop test for portable apparatus where mass < 7 kg	Not such apparatus	N/A
12.1.5	Thermoplastic enclosures strain relief test		N/A
12.2	Fixing of knobs, push buttons, keys and levers		P
12.3	Remote controls with hazardous live parts	No such remote controls	N/A
12.4	Drawers (pull test 50 N, 10 s)	No drawers used	N/A
12.5	Antenna coaxial sockets providing isolation	No such device	N/A
12.6	Telescoping or rod antennas construction	No such antenna used	N/A
12.6.1	Telescoping or rod antennas securement		N/A

13	CLEARANCE AND CREEPAGE DISTANCES		P
13.1	Clearances in accordance with 13.3	Pollution degree 2	P
	Creepage distances in accordance with 13.4	Pollution degree 2 and material group IIIb	P
13.2	Determination of operating voltage		P
13.3	Clearances		P
13.3.1	General		P
13.3.2	Circuits conductively connected to the mains comply with table 8 and, where applicable, table 9	The clearance between different polarity on mains transformer: 3,7 mm (Measured working voltage: 240 Vrms, 340 Vpeak, Clearance Limit ≥ 2,0 mm)	P
13.3.3	Circuits not conductively connected to the mains comply with table 10		N/A
13.3.4	Measurement of transient voltages		N/A
13.4	Creepage distances		P
	Creepage distances greater than table 11 minima	The creepage distance between different polarity on mains transformer: 3,7 mm	P

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IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
		(Measured working voltage: 240 Vrms, 340 Vpeak, Creepage distance Limit ≥ 2,5 mm)	
13.5	Printed boards		N/A
13.5.1	Clearances and creepage distances between conductors on printed circuit boards, one of which may be conductively connected to the mains, as in fig. 10	No such PCB used	N/A
13.5.2	Type B coated printed circuit boards complying with IEC 60664-3 (basic insulation only)		N/A
13.6	Conductive parts along uncemented joints clearances and creepage distances comply with 13.3 and 13.4		N/A
	Conductive parts along reliably cemented joints comply with 8.8		N/A
	Temperature cycle test and dielectric strength test		N/A
13.7	Enclosed, enveloped or hermetically sealed parts: not conductively connected to the mains: clearances and creepage distances as in table 12		N/A
13.8	Parts filled with insulating compound, meeting the requirements of 8.8		N/A

14	COMPONENTS		P
14.1	Resistors		N/A
	a) Resistors between hazardous live parts and accessible metal parts	No such resistors	N/A
	b) Resistors, other than between hazardous live parts and accessible parts		N/A
	Resistors separately approved		N/A
14.2	Capacitors and RC units		N/A
	Capacitors separately approved		N/A
14.2.1	Y capacitors tested to IEC 60384-14, 2nd edition .. :		N/A
14.2.2	X capacitors tested to IEC 60384-14, 2 nd edition ... :		N/A
14.2.3	Capacitors operating at mains frequency but not connected to the mains: tests for X2	No such capacitor used	N/A

IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
14.2.5	Capacitors with volume exceeding 1750 mm ³ , where short-circuit current exceeds 0,2 A: compliance with IEC60384-1, 4.38 category B or better	Electrolytic type capacitor with metal enclosure	N/A
	Capacitors with volume exceeding 1750 mm ³ , mounted closer to a potential ignition source than table 5 permits: compliance with IEC 60 384-1, 4.38 category B or better		N/A
	Shielded by a barrier acc. to 20.1.4/ table 21 or metal		N/A
14.3	Inductors and windings		P
	Comply with IEC 61558-1, IEC 61558-2 (as relevant) and clause 20.1.4	Tested with appliance	N/A
14.3.1	Transformers and inductors marked with manufacturer's name and type	Manufacturer: Top Cheers Model: MAG300-230	P
	Transformers and inductors separately approved .:	Tested with appliance	N/A
14.3.2	General		P
	Insulation material complies with clause 20.1.4		P
14.3.3	Constructional requirements		P
14.3.3.1	Clearances and creepage distances comply with clause 13		P
14.3.3.2	Transformers meet the constructional requirements		P
14.3.4.1	Class II transformers have adequate separation between hazardous live parts and accessible parts (double or reinforced insulation)	Clearance and creepage distance between primary winding and secondary winding: 15,2 mm (Measured working voltage: 288 Vrms, 407 Vpeak, Clearance Limit ≥ 4,0 mm, Creepage distance limit ≥ 6,0 mm)	P
	Coil formers and partition walls > 0,4 mm		N/A
14.3.4.2	Class I transformers, with basic insulation and protective screening only if all 7 conditions of 14.3.4.2 are met	No such transformer used	N/A
14.3.4.3	Separating transformers with at least basic insulation		N/A

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Clause	Requirement – Test	Result - Remark	Verdict
14.3.5.1	Class II transformers have adequate insulation between hazardous live parts and accessible parts (double or reinforced insulation)	Insulation between primary winding and secondary winding of switching mode transformer complied with reinforced insulation (4240Vpeak)	P
	Coil formers and partition walls > 0,4 mm		N/A
14.3.5.2	Class I transformers have adequate insulation between hazardous live parts and accessible conductive parts or those conductive parts or protective screens connected to a protective earth terminal	No such transformer used	N/A
	Winding wires connected to protective earth have adequate current-carrying capacity		N/A
14.4	High voltage components	No high voltage components used	N/A
	High-voltage components and assemblies: U > 4 kV (peak) separately approved		N/A
	Component meets category V-1 of IEC 60707		N/A
14.4.1	High voltage transformers and multipliers tested as part of the submission		N/A
14.4.2	High voltage assemblies and other parts tested as part of the submission		N/A
14.5	Protective devices		P
	Protective devices used within their ratings		P
	External clearances and creepage distances meet requirement of clause 13 for the voltage across the device when opened	<p>Clearance and creepage distance between different polarity of thermal cut-off: 16,0 mm</p> <p>Clearance and creepage distance between different pole of mains current fuse: 9,0 mm</p> <p>(Measured working voltage: 240 Vrms, 340 Vpeak, Clearance Limit ≥ 2,0 mm, Creepage distance limit ≥ 2,5 mm)</p>	P

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Clause	Requirement – Test	Result - Remark	Verdict
(cont'd)	External clearances and creepage distances meet requirement of clause 13 for the voltage across the device when opened	Clearance and creepage distance between different pole of current fuse(FS1): 2,2 mm Clearance and creepage distance between different pole of current fuse(FS2): 3,4 mm Clearance and creepage distance between different pole of current fuse(FS3): 1,7 mm Clearance and creepage distance between different pole of current fuse(FS4): 4,8 mm (Measured working voltage ≤ 50 Vrms, Clearance Limit ≥ 1,0 mm, Creepage distance limit ≥ 1,2 mm)	
14.5.1.1	a) Thermal cut-outs separately approved		P
	b) Thermal cut-outs tested as part of the submission		N/A
14.5.1.2	a) Thermal links separately approved	No such components used	N/A
	b) Thermal links tested as part of the submission		N/A
14.5.1.3	Thermal devices re-settable by soldering		N/A
14.5.2.1	Fuse-links in the mains circuit according to IEC 60127	Approved mains fuse used	P
14.5.2.2	Correct marking of fuse-links adjacent to holder ... :	Mains Fuse: T3,15AL 250V FS1: T1AL 250V FS2: T1AL 250V FS3: T10AL 250V FS4: T10AL 250V	P
14.5.2.3	Not possible to connect fuses in parallel :		P
14.5.2.4	Not possible to touch hazardous live parts when replacing fuse-links without the use of a tool :	Tools are required	N/A
14.5.3	PTC-S thermistors comply with IEC 60730-1	No such component used	N/A
	PTC-S devices (15 W) category V-1 or better		N/A
14.5.4	Circuit protectors have adequate breaking capacity and their position is correctly marked		N/A

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Clause	Requirement – Test	Result - Remark	Verdict
14.6	Switches		P
14.6.1 a)	Separate testing to IEC 61058 including: 10 000 operations Normal pollution suitability Resistance to heat and fire level 3 and Make and break speed independent of speed of actuation V-0 compliance with annex G, G.1.1		P
14.6.1 b)	Tested in the apparatus:		N/A
	Switch controlling > 0.2A with open contact voltage > 35 V (peak)/24 V dc complying with 14.6.3, 14.6.4 and V-0 in annex G, G.1.1		N/A
	Switch controlling > 0.2A with open contact voltage < 35 V (peak)/24 V dc complying with 14.6.3 and V-0 in annex G, G.1.1		N/A
	Switch controlling < 0.2A with open contact voltage > 35 V (peak)/24 V dc complying with 14.6.4 and V-0 in annex G, G.1.1		N/A
14.6.2	Switch tested to 14.6.1 b) constructed to IEC 61058-1 subclause 13.1 and has making/breaking action independent of speed of actuation		N/A
14.6.3	Switch tested to 14.6.1 b) compliant with IEC 61058-1 subclause 16.2.2 d) and m) not attaining excessive temperatures in use		N/A
14.6.4	Switch tested to 14.6.1 b) has adequate dielectric strength		N/A
14.6.5	Mains switch controlling mains socket outlets additional tests to IEC 60058-1		N/A
	Socket outlet current marking correct		N/A
14.7	Safety interlocks	No safety interlocks used	N/A
	Safety interlocks to 2.8 of IEC 60950		N/A
14.8	Voltage setting devices and the like	No voltage setting devices used	N/A

IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Voltage setting device not likely to be changed accidentally		N/A
14.9	Motors	No motors used	N/A
14.9.1	Endurance test on motors		N/A
	Motor start test		N/A
	Dielectric strength test		N/A
14.9.2	Not adversely affected by oil or grease etc.		N/A
14.9.3	Protection against moving parts		N/A
14.9.4	Motors with phase-shifting capacitors, three-phase motors and series motors meet clause. B.8, B.9 and B.10 of IEC 60950, Annex B		N/A
14.10	Batteries	No battery used	N/A
14.10.1	Batteries mounted with no risk of accumulation of flammable gases		N/A
14.10.2	No possibility of recharging non-rechargeable batteries		N/A
14.10.3	Recharging currents and times within manufacturers limits		N/A
	Lithium batteries discharge and reverse currents within the manufacturers limits		N/A
14.10.4	Battery mould stress relief		N/A
14.10.5	Battery drop test		N/A
14.11	Optocouplers	No such component	N/A
	Optocouplers comply with Cl. 8		N/A
	Internal and external dimensions to 13.1. or alternatively 13.6 (jointed insulation)		N/A
14.12	Surge suppression varistors	No such components used	N/A
	Comply with IEC 61051-2		N/A
	Not connected between mains and accessible parts except for earthed parts of permanently connected apparatus		N/A
	Complies with the current pulse, fire hazard and thermal stress requirements of 14.12		N/A

IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict
15	TERMINALS		P
15.1.1	Mains plug, appliance inlet, interconnection couplers and mains socket-outlet meet the appropriate standard		P
	Overloading of plugs or appliance inlets prevented if the apparatus has mains socket outlets	No socket outlets	N/A
	Overloading of internal wiring prevented if the apparatus has mains socket outlets		N/A
15.1.2	Connectors for antenna, earth, audio, video or data:		P
	No risk of insertion in mains socket-outlets		P
	No risk of insertion into audio or video: outlets marked with the symbol of 5.2		N/A
15.1.3	Output terminals of a.c. adaptors or similar devices not compatible with household mains socket-outlets	No such output terminals	N/A
15.2	Provision for protective earthing		P
	Accessible conductive parts of Class I equipment reliably connected to earth terminal, within equipment		P
	Protective earth conductors correctly coloured		P
	Equipment with non-detachable mains cord provided with separate protective earth terminal near mains input		N/A
	Protective earth terminal resistant to corrosion		N/A
	Earth resistance test: < 0,1 Ω at 25 A	0,02 Ω	P
15.3	Terminals for external flexible cords and for permanent connection to the mains supply	Detachable cord used	N/A
15.3.1	Adequate terminals for connection of permanent wiring	Not permanently connected apparatus	N/A
15.3.2	Reliable connection of non-detachable cords:		N/A
	Not soldered to conductors of a printed circuit board		N/A
	Adequate clearances and creepage distances between connections should a wire break away		N/A
	Wire secured by additional means to the conductor		N/A
15.3.3	Screws and nuts clamping conductors have adequate threads: ISO 261, ISO 262 or similar		N/A

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Clause	Requirement – Test	Result - Remark	Verdict
15.3.4	Soldered conductors wrapped around terminal prior to soldering or held in place by additional means		N/A
	Clamping of conductor and insulation if not soldered or held by screws		N/A
15.3.5	Terminals allow connection of appropriate cross-sectional area of conductors, for the rated current of the equipment	No such terminals	N/A
15.3.6	Terminals to 15.3.3 have sizes required by table 16		N/A
15.3.7	Terminals clamp conductors between metal and have adequate pressure	No such terminals	N/A
	Terminals designed to avoid conductor slipping out when tightened or loosened		N/A
	Terminals adequately fixed to avoid loosening when the clamping is tightened or loosened and stress on internal wiring is avoided		N/A
15.3.8	Terminals carrying a current more than 0,2 A: contact pressure not transmitted by insulating material except ceramic	No such terminals	N/A
15.3.9	Termination of non-detachable cords: wires terminated near to each other		N/A
	Terminals located and shielded: test with 8 mm strand		N/A
15.4	Devices forming a part of the mains plug	Cord connected apparatus	N/A
15.4.1	No undue strain on mains socket-outlets		N/A
15.4.2	Device complies with standard for dimensions of mains plugs		N/A
15.4.3	Device has adequate mechanical strength (tests a,b,c)		N/A

16	EXTERNAL FLEXIBLE CORDS		P
16.1	Mains cords sheathed type, complying with IEC 60227 for PVC or IEC 60245 for synthetic rubber cords ... :	PVC	P
	Non-detachable cords for Class I have green/yellow core for protective earth	Detachable cord used	N/A
16.2	Mains cords conductors have adequate cross-sectional area for rated current consumption of the equipment	3 x 0,75 mm ²	P

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Clause	Requirement – Test	Result - Remark	Verdict
16.3	a) Flexible cords not complying with 16.1, used for interconnections between separate units of equipment used in combination and carrying hazardous live voltages, have adequate dielectric strength	No such flexible cord used	N/A
	b) Flexible cords not complying with 16.1, withstand bending and mechanical stress (3.2 of IEC 60227-2)	No such flexible cord used	N/A
16.4	Flexible cords used for connection between equipment have adequate cross-sectional areas to avoid temperature rise under normal and fault conditions		N/A
16.5	Adequate strain relief on external flexible cords	Appliance inlet used	N/A
	Not possible to push cord back into equipment		N/A
	Strain relief device unlikely to damage flexible cord		N/A
	For mains cords of Class I equipment, hazardous live conductors become taut before earth conductor		N/A
16.6	Apertures for external flexible cord: no risk of damage to the cord during assembly or movement in use		N/A
16.7	Transportable musical instruments and amplifiers fitted with detachable cord set with appliance inlet to IEC 60320-1	Appliance inlet used	P
	Transportable musical instruments and amplifiers fitted with detachable cord sets or with means of stowage to protect the cord		N/A

17	ELECTRICAL CONNECTIONS AND MECHANICAL FIXINGS		P
17.1	Torque test to table 20:		P
	- screws into metal: 5 times	Torque applied: 2,5 Nm	P
	- screws into non-metallic material: 10 times		N/A
17.2	Correct introduction into female threads in non-metallic material		N/A
17.3	Cover fixing screws: captive		N/A
	Non-captive fixing screws: no hazard when replaced by a screw whose length is 10 times its diameter	Checked by Ø x 10 screw	P
17.4	No loosening of conductive parts carrying a current > 0,2 A		P

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Clause	Requirement – Test	Result - Remark	Verdict
17.5	Contact pressure not transmitted through plastic other than ceramic for connections carrying a current > 0,2 A		N/A
17.6	Stranded conductors of flexible supply cords carrying a current > 0,2 A with screw terminals not consolidated by solder		N/A
17.7	Cover fixing devices other than screws have adequate strength and their positioning is unambiguous		N/A
17.8	Fixing devices for detachable legs or stands provided	No such device	N/A
17.9	Internal pluggable connections, affecting safety, unlikely to become disconnected		P

18	MECHANICAL STRENGTH OF PICTURE TUBES AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		N/A
	Picture tube separately approved to IEC 61965:	No picture tube used	N/A
	Picture tube separately approved to 18.1		N/A
18.1	Picture tubes > 16 cm intrinsically protected		N/A
	Non-intrinsically protected tubes > 16 cm used with protective screen		N/A
	Protective film as part of implosion protection: edges covered by enclosure		N/A
18.2	Intrinsically protected tubes: tests on 12 samples		N/A
18.2.1	Samples subject to ageing: 6		N/A
18.2.2	Samples subject to implosion test: 6		N/A
18.2.3	Samples subject to mechanical strength test (steel ball): 6		N/A
18.3	Non-intrinsically protected tubes tested to 18.3		N/A

19	STABILITY AND MECHANICAL HAZARDS		P
	Mass of the equipment exceeding 7 kg		Noted
	Apparatus intended to be fastened in place – suitable instructions		N/A
19.1	Test on a plane, inclined at 10° to the horizontal		P
19.2	100 N force applied vertically downwards		P

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Clause	Requirement – Test	Result - Remark	Verdict
19.3	100 N force, or 13% of weight, applied horizontally to point of least stability.		P
19.4	Edges or corners not hazardous		P
19.5	Glass surfaces (exc.laminated) with an area exceeding 0,1 m ² or maximum dimension > 450 mm, pass the test of 19.5.1		N/A
19.6	Wall or ceiling mountings adequate		N/A

20	RESISTANCE TO FIRE		P
20.1	Electrical components and mechanical parts		P
	a) Exemption for components contained in an enclosure of material V-0 to IEC 60695-11-10 with openings not exceeding 1 mm in width		N/A
	b) Exemption for small components as defined in 20.1		P
20.1.1	Electrical components meet the requirements of Clause 14 or 20.1.4		P
20.1.2	Insulation of internal wiring working at voltages > 4 Kv or leaving an internal fire enclosure, or located within the areas mentioned in Table 21, not contributing to the spread of fire	No voltage > 4kV	N/A
20.1.3	Material of printed circuit boards on which the available power exceeds 15 W at a voltage between 50 V and 400 V (peak) a.c. or d.c. meets V-1 or better to IEC60707, unless used in a fire enclosure		N/A
	Material of printed circuit boards on which the available power exceeds 15 W at a voltage >400 V (peak) a.c. or d.c. meets V-0 to IEC 60707		N/A
20.1.4	Components and parts not covered by 20.1.1, 20.1.2 and 20.1.3 (other than fire enclosures) mounted nearer to a potential ignition source than the distances in Table 21 comply with the relevant flammability category in Table 21	(see appended table)	P
	Components and parts as above but shielded from a potential ignition source, with the barrier area in accordance with Table 21 and fig. 13		N/A

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Clause	Requirement – Test	Result - Remark	Verdict
	Apparatus with voltages >4kV under normal operating conditions and distances to the enclosure exceed those specified Table 21, flammability classification HB40 or better is required for the enclosure.	No voltage > 4kV	N/A
20.2	Fire enclosure		N/A
20.2.1	Potential ignition sources with open circuit voltage > 4 kV (peak) a.c. or d.c. contained in a fire enclosure to V-1	No such high voltage exist	N/A
20.2.2	Internal fire enclosures with openings not exceeding 1 mm in width and with openings for wires completely filled		N/A
20.2.3	Requirements of 20.2.1 and 20.2.2 met by an internal fire enclosure		N/A

IEC/EN 60065			
Clause	Requirement – Test	Result - Remark	Verdict

A	APPENDIX A, ADDITIONAL REQUIREMENTS FOR APPARATUS WITH PROTECTION AGAINST SPLASHING WATER		N/A
A.5.1	j) Marked with IPX4 (IEC 60529), 5.4.1 a) does not apply		N/A
A.10.2.1	Enclosure provides protection against splashing water		N/A
A.10.2.2	Humidity treatment carried out for 7 days		N/A

B	APPENDIX B, APPARATUS TO BE CONNECTED TO THE TELECOMMUNICATION NETWORKS		N/A
	Complies with IEC 62151 clause 1		N/A
	Complies with IEC 62151 clause 2		N/A
	Complies with IEC 62151 clause 3 but with 3.5.4 modified to 2.4.10 of this standard		N/A
	Complies with IEC 62151 clause 4 but with 4.1.2, 4.1.3 and 4.2.1.2 modified in accordance with annex B of this standard		N/A
	Complies with IEC 62151 cause 5 but with 5.3.1 modified in accordance with annex B of this standard		N/A
	Complies with IEC 62151 clause 6		N/A
	Complies with IEC 62151 clause 7		N/A
	Complies with IEC 62151 annex A, B and C		N/A

L	APPENDIX L, ADDITIONAL REQUIREMENTS FOR ELECTRONIC FLASH APPARATUS FOR PHOTOGRAPHIC PURPOSES.		N/A
L5.4	Marking and Instructions		N/A
L9.1.1	Terminals to connection to synchroniser not HAZARDOUS LIVE		N/A
L7.1.5 & L11.2.6	Lithium batteries meet permissible temp rise in Table 3 , unless comply with 6.3.2 of IEC 60086-4		N/A
L14.6.6	Mains switch characteristics appropriate to its function under normal conditions		N/A

7.1	TABLE: temperature rise measurements			P		
	Power consumption in the OFF	0W		—		
	Position of the functional switch (W)	—		—		
Operating conditions						
1/8 of max. non clipping output power with standard signal input						
	Un (V)	In (mA)	Pn (W)	Pout (W)		
	264,0	1440	278	52,6		
	240,0	1430	250	52,6		
Fuse-link current : I(main fuse) = 1,44A, I(FS3) = I(FS4) = 2,77A, I(FS1) = I(FS2) = 0,28A						
	Loudspeaker impedance (Ω)	4 Ω		—		
	Several loudspeaker systems	4 Ω x1		—		
	Marking of loudspeaker terminals	—		—		
Monitored point:			dT (K)	Limit dT (K)		
Winding surface of mains transformer			50	85		
Primary lead wire of mains transformer			30	60		
Secondary lead wire of mains transformer			32	60		
PCB Surface (near DR1)			52	85		
PCB Surface (near TR3)			35	85		
PCB Surface (near R19)			36	85		
PCB Surface (near R23)			33	85		
PCB Surface (near TR17)			60	85		
PCB Surface (near TR15)			38	85		
Enclosure (front)			13	40		
Enclosure (top)			12	40		
Enclosure (side)			15	40		
Enclosure (rear)			22	40		
Winding temperature rise measurements						
	Ambient temperature t1 (°C)	24		—		
	Ambient temperature t2 (°C)	24		—		
Temperature rise dT of winding:		R ₁ (Ω)	R ₂ (Ω)	dT (K)	Limit dT (K)	Insulation class
Pri. winding surface of mains transformer		5,6	6,9	63	85	Polyurethane resins

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7.2	TABLE: softening temperature of thermoplastics			N/A
Temperature T of part	T - normal conditions (°C)	T - fault conditions (°C)	T softening (°C)	
—	—	—	—	

10.3	TABLE: insulation resistance measurements		P
Insulation resistance R between:	R (MΩ)	Required R (MΩ)	
Between mains poles (primary fuse disconnected)	>100	2	
Between parts separated by basic or supplementary insulation	>100	2	
Between parts separated by double or reinforced insulation	>100	4	

10.3	TABLE: electric strength measurements		P
Test voltage applied between:	Test voltage (V)	Breakdown	
Mains poles (primary fuse disconnected)	2120	No	
Between parts separated by basic or supplementary insulation	2120	No	
Between parts separated by double or reinforced insulation	4240	No	

11.2	TABLE: summary of fault condition tests		P
	Voltage (V) 0,9 or 1,1 times rated voltage	Rated voltage: 230V or 240V ac	—
	Ambient temperature (°C)	21 °C – 25 °C	—
Monitored point:	dT (K)	Limit dT (K)	
Under fault conditions specified below			
100% of max. non clipping output power with standard signal input Un (V) = 264,0; Pn (W) = 490,0; In (mA) = 2050,0;	—	—	
Winding surface of mains transformer	98	150	
Primary lead wire	60	100	
PCB Surface (near DR1)	125	210	
PCB Surface (near R23)	83	210	
Enclosure	36	65	
Result: No Hazard; Test time = 2.5 hrs V-0 grade PCB used, the temperature rise of PCB can reach to 210K, and the total area does not exceed 2 cm ² .			

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Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Lock fan Un (V) = 264;Pn W = 170;In mA = 870	—	—
Winding surface of mains transformer	56	150
Primary lead wire	46	100
PCB Surface (near TR17)	177	210
PCB Surface (near TR15)	152	210
Enclosure	31	65

Result: No Hazard; Test time = 2 hrs

V-0 grade PCB used, the temperature rise of PCB can reach to 210K, and the total area does not exceed 2 cm².

After 1.5 hrs, the fuse of FS3 was opened, and the fuse current when opened was 29A.

Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Lock fan Un (V) = 198;Pn W = 215;In mA = 1370	—	—
Winding surface of mains transformer	2	150
Primary lead wire	2	100
PCB Surface (near TR17)	68	210
PCB Surface (near TR3)	24	210
Enclosure	2	65

Result: No Hazard; Test time = 2 hrs

After 6 minutes, the fuse of FS3 was opened, and the fuse current when opened was 26A.

Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short audio signal output terminal Un (V) = 264;Pn W = 12.8;In mA = 65;	—	—
Winding surface of mains transformer	23	150
Primary lead wire	25	100
PCB Surface (near TR17)	65	110
PCB Surface (near DR1)	59	110
Enclosure	24	65

Result: No Hazard; Test time = 0.7 hr

The component TR3 and TR17 was broken and the apparatus catch fire but extinguish within 10 seconds.

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Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short TR12 C-E Un (V) = 264;Pn W = 946;In mA = 4030	—	—
Winding surface of mains transformer	47	150
Primary lead wire	27	100
PCB Surface (near TR17)	99	110
PCB Surface (near DR1)	86	110
Enclosure	20	65
Result: No Hazard; Test time = 0.5 hr After 5 minutes, the fuse of FS3 was opened, and the fuse current when opened was 28A.		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short TR17 B-C Un (V) = 264;Pn W = --;In mA = --	—	—
Result: No Hazard; Fuse of FS3 was opened. Fuse of FS4 was opened. Current of Fuse link of FS3 when opened was 29A. Current of Fuse link of FS4 when opened was 29A. Marking on the current fuse of FS3 was 10A. Marking on the current fuse of FS4 was 10A.		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short TR17 B-C Un (V) = 207;Pn W = --;In mA = --	—	—
Result: No Hazard; Fuse of FS3 was opened. Fuse of FS4 was opened. Current of Fuse link of FS3 when opened was 26A. Current of Fuse link of FS4 when opened was 26A. Marking on the current fuse of FS3 was 10A. Marking on the current fuse of FS4 was 10A.		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)

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Short TR17 C-E Un (V) = 264;Pn W = --;In mA = --	—	—
Result: No Hazard; Fuse of FS1 was opened. Fuse of FS2 was opened. Current of Fuse link of FS3 when opened was 29A. Current of Fuse link of FS4 when opened was 29A. Marking on the current fuse of FS3 was 10A. Marking on the current fuse of FS4 was 10A.		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short TR17 C-E Un (V) = 198;Pn W = --;In mA = --	—	—
Result: No Hazard; Fuse of FS3 was opened. Fuse of FS4 was opened. Current of Fuse link of FS3 when opened was 26A. Current of Fuse link of FS4 when opened was 26A. Marking on the current fuse of FS3 was 10A. Marking on the current fuse of FS4 was 10A.		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short DR1 Un (V) = 264;Pn W = --;In mA = --	—	—
Result: No Hazard; Fuse of FS3 was opened. Fuse of FS4 was opened. Current of Fuse link of FS3 when opened was 26A. Current of Fuse link of FS4 when opened was 26A. Marking on the current fuse of FS3 was 10A. Marking on the current fuse of FS4 was 10A.		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short DR1 Un (V) = 198;Pn W = --;In mA = --	—	—

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<p>Result: No Hazard; Fuse of FS3 was opened. Fuse of FS4 was opened. Current of Fuse link of FS3 when opened was 23A. Current of Fuse link of FS4 when opened was 23A. Marking on the current fuse of FS3 was 10A. Marking on the current fuse of FS4 was 10A.</p>		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short C16 Un (V) = 264;Pn W = --;In mA = --	—	—
<p>Result: No Hazard; Fuse of FS3 was opened. Fuse of FS4 was opened. Current of Fuse link of FS3 when opened was 28A. Current of Fuse link of FS4 when opened was 28A. Marking on the current fuse of FS3 was 10A. Marking on the current fuse of FS4 was 10A.</p>		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short C16 Un (V) = 198;Pn W = --;In mA = --	—	—
<p>Result: No Hazard; Fuse of FS3 was opened. Fuse of FS4 was opened. Current of Fuse link of FS3 when opened was 24A. Current of Fuse link of FS4 when opened was 24A. Marking on the current fuse of FS3 was 10A. Marking on the current fuse of FS4 was 10A.</p>		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short C15 Un (V) = 264;Pn W = --;In mA = --	—	—

<p>Result: No Hazard; Fuse of FS1 was opened. Fuse of FS2 was opened. Current of Fuse link of FS1 when opened was 6A. Current of Fuse link of FS2 when opened was 6A. Marking on the current fuse of FS1 was 1A. Marking on the current fuse of FS2 was 1A.</p>		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short C15 Un (V) = 198;Pn W = --;In mA = --	—	—
<p>Result: No Hazard; Fuse of FS1 was opened. Fuse of FS2 was opened. Current of Fuse link of FS1 when opened was 5A. Current of Fuse link of FS2 when opened was 5A. Marking on the current fuse of FS1 was 1A. Marking on the current fuse of FS2 was 1A.</p>		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short D7 Un (V) = 264;Pn W = --;In mA = --	—	—
<p>Result: No Hazard; Fuse of FS1 was opened. Fuse of FS2 was opened. Current of Fuse link of FS1 when opened was 5A. Current of Fuse link of FS2 when opened was 5A. Marking on the current fuse of FS1 was 1A. Marking on the current fuse of FS2 was 1A.</p>		
Monitored point: Under fault conditions specified below	dT (K)	Limit dT (K)
Short D7 Un (V) = 198;Pn W = --;In mA = --	—	—

Result: No Hazard;
Fuse of FS1 was opened.
Fuse of FS2 was opened.
Current of Fuse link of FS1 when opened was 4A.
Current of Fuse link of FS2 when opened was 4A.
Marking on the current fuse of FS1 was 1A.
Marking on the current fuse of FS2 was 1A.

After fault condition tests, the apparatus complied with insulation resistance and dielectric strength test as described in clause 10.3.

14	TABLE: list of critical components and materials				P
Component	Manufacturer/ trademark	Type/model	Value / rating	Standard	Approval/ Reference
Power cordset (EU type)	Lian Dung Electric Wire Co., Ltd.	LT-312 H05VV-F LT-501	AC 250V 16A 3 x 0.75 mm ² AC 250V 10A	IEC 60799	VDE
Power Cord (EU type) (Alternative)	Shenzhen Tongyuan Ind., Co., Ltd.	H05VV-F	3 x 0.75 mm ²	IEC 60227	VDE
Power Cord (EU type) (Alternative)	Lucky United Electric Wire & Cable Co., Ltd.	H05VV-F	3 x 0.75 mm ²	IEC 60227	VDE
Power cordset (EU type) (Alternative)	Various	Various H05VV-F Various	AC 250V 16A 3 x 0.75 mm ² AC 250V 10A	IEC 60799	S or other EU certification marks
Appliance Inlet	Rong Feng Industrial Co., Ltd.	RF-2004	AC 250V 10A	IEC 60320	VDE
Appliance Inlet (Alternative)	Various	Various	AC 250V 10A	IEC 60320	S or other EU certification marks
Fuse inside appliance inlet	Walter Electronic Co., Ltd.	TSD	T3.15AL AC 250V 5 x 20 mm	IEC 60127	VDE
Fuse inside appliance inlet (Alternative)	Various	Various	T3.15AL AC 250V 5 x 20 mm	IEC 60127	S or other EU certification marks
Switch	Light Country Co., Ltd.	R5	AC 250V 15A	IEC61058	SEMKO
Plastic material of mains switch	LG Chemical Ltd.	AF-310G	V-0	IEC 60707	Tested in appliance
Mains Transformer	Top Cheers Electric Mfg., Co.(China)	MAG300- 230	AC 230V 50/60Hz	IEC 60065	Tested in appliance

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14	TABLE: list of critical components and materials				P
Component	Manufacturer/ trademark	Type/model	Value / rating	Standard	Approval/ Reference
Thermal cut-out used inside the mains transformer	Texas Instruments Holland BV	17AM	AC 250V 9A 130 °C	IEC 60730	KEMA
Insulation tape between primary winding and secondary winding	Toray Industries Inc. Film Div.	Lumirror X-10	VTM-2	IEC 60707	Tested in appliance
Plastic material of wire connector	Grand Pacific Petrochemical Corp.	D-1000	V-0	IEC 60707	Tested in appliance
Fuse (FS1, FS2)	Walter Electronic Co., Ltd.	TSD	T1AL AC 250V 5 x 20 mm	IEC 60127	VDE
Fuse (FS1, FS2) (Alternative)	Various	Various	T1AL AC 250V 5 x 20 mm	IEC 60127	S or other EU certification marks
Fuse (FS3, FS4)	Walter Electronic Co., Ltd.	MGC 6 x 32 mm	AC 250V T10AL	IEC 60065	Tested in appliance
Thermal cut-out mounted on the heat sink	Light Country Co., Ltd.	T-24	AC 250V 10A 125 °C	IEC 60730-1	VDE
All PCB	Long Chang Printed Circuit Ltd.	LC-04V0	V-0, 130 °C	UL 94	UL
All PCB (Alternative)	EISO Enterprise Co., Ltd.	5	V-0, 130 °C	UL 94	UL
All PCB (Alternative)	Various	Various	V-0, 130 °C	UL 94 IEC 60707	UL, ETL or other EU certification marks

¹⁾ an asterisk indicates a mark which assures the agreed level of surveillance

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ZB	ANNEX ZB TO EN 60 065, SPECIAL NATIONAL CONDITIONS		P
2.6.1	DK: certain types of Class I apparatus, see 15.1.1, may be provided with a plug not establishing earthing continuity when inserted in Danish socket-outlets	Class II apparatus	N/A
13.3.1	NO: In Norway, due to IT power distribution system used, the a.c. MAINS supply voltage is considered to be equal to the line-to-line voltage, and will remain 230V in case of a single earth fault.		N/A
15.1.1	DK: mains cord for single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to Heavy Current Regulations Section 107-2-D1		P
	DK: Class I equipment with socket-outlets with earthing contact, or which are intended to be used in locations where protection against indirect contact is required shall be provided with a plug in compliance with Standard Sheet DK 2-1a	Class II equipment	N/A
	DK: socket-outlets for providing power to Class II equipment with a rated current of 2,5 A shall have dimensions according to the drawing on page 179 of EN 60 065:2002 other dimensions shall be to IEC 60 083 Standard Sheet C 1a for portable socket-outlets	No socket-outlet	N/A
	DK: mains socket-outlets with earthing contact shall comply with Heavy Current Regulations Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a		N/A
	GB: equipment fitted with a flexible cable or cord provided with a 13A BS 1363 plug as in Statutory Instrument 1768:94		N/A
	IE: equipment fitted with a flexible cable or cord provided with a 13 A plug in accordance with Statutory Instrument 525:97		N/A
	NO: mains socket-outlets on Class II equipment meet CEE Publication 7 with the following amendments:		N/A
	- dimensions 2,5 A, 250 V socket-outlets shall comply with Standard Sheet I page 180 of EN 60 065:2002	No socket-outlet	N/A

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	- mechanical strength 2,5 A, 250 V socket-outlets tested as specified in EN 60 065, 12.1.3		N/A
	- protecting rim also tested		N/A
	NO: method b) of 8.1 is not permitted. Double or reinforced insulation is required between parts connected to the mains and parts connected to the public telecommunications network	Not for connection to the public telecommunication network	N/A
J.2	NO: In Norway, due to IT power distribution system used, the a.c. MAINS supply voltage is considered to be equal to the line-to-line voltage, and will remain 230V in case of a single earth fault.		N/A

ZC	ANNEX ZC TO EN 60 065, A-DEVIATIONS		N/A
5	DE: additional markings required in German language:		N/A
	- cathode ray tubes with an accelerating voltage between 20 kV and 30 kV (marking on the tube)		N/A
	- TV receivers whose picture tube has an accelerating voltage between 20 kV and 30 kV		N/A
	- TV receivers whose picture tube has an accelerating voltage greater than 30 kV		N/A
	- TV receivers whose picture tube has an accelerating voltage less than 20 kV		N/A
5.1	IT: additional markings on the outside of the TV receiver in Italian language		N/A
	IT: user instructions in Italian language including a conformity declaration		N/A
	IT: certification number on the back cover		N/A
14	SE: Switches containing mercury such as thermostats, relays and level controllers are not allowed.		N/A

Additional Common Modification of A1:2006 to EN 60065:2002			
Clause	Requirement + Test	Result - Remark	Verdict
5.1 i)	Replace the note that: For rated power consumption measurements of TVs reference is made to EN 62087.		N/A
5.4.1 za)	Warning: excessive sound pressure from earphones and headphones		N/A
6.1	Ionizing radiation measurement operation has been re-specified.		N/A

Annex ZB	Special national condition		N/A
	Annex B (Apparatus to be connected to the telecommunication networks)		N/A
	Subclause 4.1.1 Marking text for Finland, Norway and Sweden		N/A
	Subclause 4.1.4, 4.2.1.4, 4.2.1.3, 4.2.1.4 Add note for Norway correspond to 4.1.1 and 5.3.1		N/A
	Subclause 5.3.1 Add the additional requirements for the insulation in Finland, Norway and Sweden		N/A
	Subclause 5.3.2 Exclusion for Finland, Norway and Sweden		N/A

Photo (representative)



Front View (MAG 300H EVO II)



Front View (MAG C115-300 EVO II)

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Photo (representative)



Front View (MAG C210T-300 EVO II)



Front View (MAG C410T-300 EVO II)

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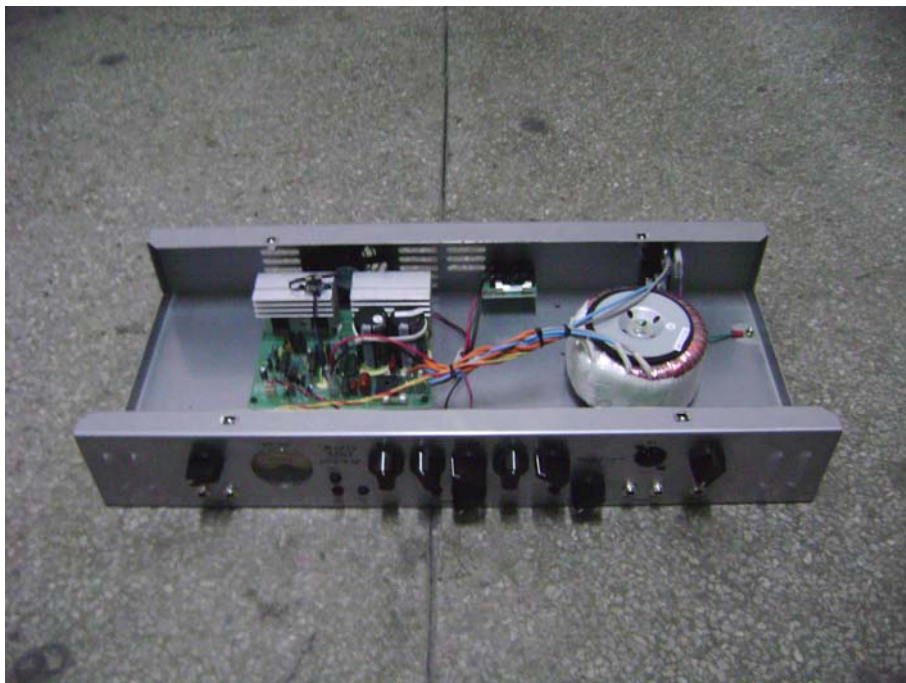
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Photo (representative)



Rear View of Amplifier Module



Internal View of Amplifier Module

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Photo (representative)



Mains Transformer in Amplifier Module



Thermal Link of Mains Transformer in Amplifier Module

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