

Test Report

Applicant: SWIT Electronics Co., Ltd
Address: 10 HengTong Road, Xin'gang, Nanjing Economic and Technological Development Zone Nanjing, 210038, P. R. China.
Product: Professional LED Spot Light
Trademark: N/A
Model No: CLL-4800TDX, S-2320, S-2330


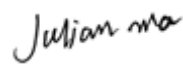
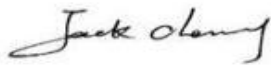
Test report form no: EN 60065
Rev: No.0/201412

Test laboratory: Most Technology Service Co., Limited
No.5, 2nd Langshan Road, North District, Hi-tech Industry Park, Nanshan, Shenzhen, Guangdong, China

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The safety testing has been performed on the submitted samples and found in compliance with the council LVD directive 2014/35/EU.

TEST REPORT EN 60065 Audio, video and similar electronic apparatus - Safety requirements	
Report Number.	MTS/JNM/S16111155/1
Date of issue	2017-01-20
Total number of pages	69 pages
Applicant's name	SWIT Electronics Co., Ltd
Address	10 HengTong Road, Xin'gang, Nanjing Economic and Technological Development Zone Nanjing, 210038, P. R. China.
Test specification:	
Standard	EN 60065:2014
Test procedure	LVD
Non-standard test method	N/A
Test Report Form No.	IEC60065K
Test Report Form(s) Originator	IntertekSemko AB
Master TRF	Dated 2010-10
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Test item description	Professional LED Spot Light
Trade Mark	N/A
Manufacturer	SWIT Electronics Co., Ltd 10 HengTong Road, Xin'gang, Nanjing Economic and Technological Development Zone Nanjing, 210038, P. R. China.
Model/Type reference	CLL-4800TDX, S-2320, S-2330
Ratings	AC220-240V, 50/60Hz, Max480W

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	Testing Laboratory:	Most Technology Service Co., Limited
Testing location/ address		No.5, 2nd Langshan Road, North District, Hi-tech Industry Park, Nanshan, Shenzhen, Guangdong, China
<input type="checkbox"/>	Associated CB Laboratory:	
Testing location/ address		
Tested by (name + signature).....:		Julian Ma
Approved by (name + signature) ..:		Jack Cheng
		  
<input type="checkbox"/>	Testing procedure: TMP	
Testing location/ address		
Tested by (name + signature).....:		
Approved by (name + signature) ..:		
<input type="checkbox"/>	Testing procedure: WMT	
Testing location/ address		
Tested by (name + signature).....:		
Witnessed by (name + signature) ..:		
Approved by (name + signature) ..:		
<input type="checkbox"/>	Testing procedure: SMT	
Testing location/ address		
Tested by (name + signature).....:		
Approved by (name + signature) ..:		
Supervised by (name + signature):		
<input type="checkbox"/>	Testing procedure: RMT	
Testing location/ address		
Tested by (name + signature).....:		
Approved by (name + signature) ..:		
Supervised by (name + signature):		

List of Attachments (including a total number of pages in each attachment):

1. ATTACHMENT TO ADDITIONAL TABLE (2 Pages)
2. European group (24 Pages)
3. Photos(7 pages)

Summary of testing:

From the result of our tests on the submitted samples, we conclude they comply with the requirements of the standards

Instructions (Clause 5.4)

Instructions/user's manual is only in English.
The information shall be given in a language acceptable to the country where the apparatus is intended to be sold.

Tests performed (name of test and test clause):

Clause(s)	Test(s)
4	General test conditions
5	Marking and instructions
7	Heating under normal operating conditions
8	Constructional requirements with regard to the protection against electric shock
9	Electric shock hazard under normal operating conditions
10	Insulation requirements
11	Fault conditions
12	Mechanical strength
13	Clearances and creepage distances
14	components
15	Terminals
16	External flexible cords
17	Electrical connections and mechanical fixings
19	Stability and Mechanical hazards

Testing location:

No.5, 2nd Langshan Road, North District, Hi-tech Industry Park, Nanshan, Shenzhen, Guangdong, China

Summary of compliance with National Differences
List of countries addressed:

European group

☒ **The product fulfils the requirements of EN 60065:2014**

Copy of marking plate

Professional LED Spot Light

Model: CLL-4800TDX

Input: AC220-240V, 50/60Hz, Max480W

FALCON EYES LTD.

Ta: 35°C



Made in China

Test item particulars	Professional LED Spot Light
Classification of installation and use	Class I
Supply Connection	Appliance inlet
Possible test case verdicts:	
- test case does not apply to the test object.....	N/A (Not Applicable)
- test object does meet the requirement.....	P (Pass)
- test object does not meet the requirement.....	F (Fail)
Testing:	
Date of receipt of test item.....	2015-10-16
Date (s) of performance of tests.....	2015-10-16 to 2015-10-29
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 <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator. The related applicable OSM decisions have been considered and the requirements found fulfilled Determination of the test result includes consideration of measurement uncertainty from the test equipment and methods.	
Manufacturer's Declaration per sub-clause 6.2.5 of IEC60335-1: The application for obtaining a test laboratory includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided : <div style="display: flex; justify-content: flex-end;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable </div>	
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)	SWIT Electronics Co., Ltd 10 HengTong Road, Xin'gang, Nanjing Economic and Technological Development Zone Nanjing, 210038, P. R. China.
General product information: The product is Class I Studio Flash which intended to be in indoor use, electronic components mounted on PWB, External enclosure is metal and plastic enclosure of V-0 grade, secured by screws. All models are identical except for model name. Maximum recommended ambient (Tmra): 35°C The report is on the basis of the original report to modify the product name and increase the model;The original report to:MTS/DTW/A15110671 The report is on the basis of the original report to modify the Applicant and model. The original report to:MTS/JNM/S16111155	

EN 60065			
Clause	Requirement + Test	Result - Remark	Verdict

3	General requirements		P
	Safety class of the apparatus	Class I	P

4	General test conditions		P
4.1.4	Ventilation instructions require the use of the test box	Not specified apparatus position in the user's manual. The temperature measured in an open-fronted wooden box.	P

5	Marking and instructions		P
	Comprehensible and easily discernible	Compliance checked.	P
	Permanent durability against water and petroleum spirit	Compliance was checked by rubbing the marking by hand for 15s with cloth soaked with water and cloth soaked with petroleum spirit, it was durable and legible after the test	P
5.1	a) Identification, maker	See marking plate	P
	b) Model number or type reference	CLL-4800TDX, S-2320, S-2330	P
	c) Class II symbol if applicable	Class I equipment	N/A
	d) Nature of supply.....	See marking plate	P
	e) Rated supply voltage	220-240V~	P
	f) Mains frequency if safety dependant	50/60Hz	P
	g) Rated current or power consumption for apparatus supplied by supply apparatus for general use		N/A
	Measured current or power consumption		N/A
	Deviation % (max 10%)		N/A
	h) Rated current or power consumption for apparatus intended for connection to an a.c. mains supply	Max480W	P
	Measured current or power consumption	See appended table	P
	Measured current or power consumption for Television set		N/A
	Deviation % (max 10%)	Not exceed the marked value by more than 10%	P
5.2	a) Earth terminal		P
	b) Hazardous live terminals	No Hazardous live terminals accessible.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	c) Markings on supply output terminals		N/A
5.3	a) Use of triangle with exclamation mark	Such symbol is indicated on circuit diagram for specific components	P
	b) marking on loudspeaker grille, IEC 60417-5036		N/A
5.4	Instructions for use	Reviewed English version	P
5.4.1	a) Mains powered equipment not exposed to dripping or splashing. Warning concerning objects filled with liquid, etc.	Stated in user's manual	P
	b) Hazardous live terminals, instructions for wiring	Not such terminal	N/A
	c) Instructions for replacing lithium battery	No lithium battery	N/A
	d) Class I earth connection warning		P
	e) Instructions for multimedia system connection		P
	f) Special stability warning for attachment of the apparatus to the floor/wall	Not fixed installation	N/A
	g) Warning: battery exposure to heat	Not such equipment.	N/A
	h) Warning: protective film on CRT face	No CRT	N/A
5.4.2	a-b) Disconnect device: plug/coupler or all-pole mains switch location, accessibility and markings	Coupler is considered as the disconnect device.	P
	c) Instructions for permanently connected equipment	Not permanently connected equipment.	N/A
	Marking, signal lamps or similar for completely disconnection from the mains		N/A

6	Hazardous radiation		N/A
6.1	Ionizing radiation < 36 pA/kg (0,5 mR/h)	No ionizing radiation	N/A
	Ionizing radiation under fault condition		N/A
6.2	Laser radiation, emission limits to IEC 60825-1:2007	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; fuse links and other protective devices defeated	See appended table 7.1	P
7.1.1	Temperature rise of accessible parts	See appended table 7.1	P
7.1.2	Temperature rise of parts providing electrical insulation	See appended table 7.1	P
7.1.3	Temperature rise of parts acting as a support or as a mechanical barrier	See appended table 7.1	P

EN 60065			
Clause	Requirement + Test	Result - Remark	Verdict
7.1.4	Temperature rise of windings	See appended table 7.1	P
7.1.5	Parts not subject to a limit under 7.1.1 to 7.1.4	See appended table 7.1	P
7.2	Softening temperature of insulating material supporting parts conductively connected to the mains carrying a current > 0,2 A at least 150oC		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	Considered.	P
8.2	No shock hazard when changing voltage setting device, fuse-links or handling drawers etc.	Operation "by hand" not possible.	N/A
8.3	Insulation of hazardous live parts not provided by hygroscopic material	No hygroscopic material used.	N/A
8.4	No risk of electric shock from accessible parts or from parts rendered accessible following the removal of a cover which can be removed by hand		P
8.5	Class I equipment		P
	Basic insulation between hazardous live parts and earthed accessible parts		P
	Resistors bridging basic insulation complying with 14.1 a)		P
	Capacitors bridging basic insulation complying with 14.2.1 a)		P
	Protective earthing terminal		P
8.6	Class II equipment and Class II constructions within Class I equipment	See below.	P
	Double or reinforced insulation between hazardous live parts and accessible parts	All accessible parts separated from live parts by double or reinforced insulation that was determined to comply with clauses 10 and 13	P
	Components bridging double or reinforced insulation complying with 14.1 a) or 14.3	The apparatus have isolated transformer complies with clause 14.3.	P
	Basic insulation bridged by components complying with 14.3.4.3.		N/A
	Basic and supplementary insulation each being bridged by a capacitor complying with 14.1 a)		N/A
	Double or reinforced insulation being bridged with 2 capacitors in series complying with 14.2.1 a)		N/A
	Double or reinforced insulation being bridged with a single capacitor complying with 14.2.1 b)		P

EN 60065			
Clause	Requirement + Test	Result - Remark	Verdict
8.7	This clause is void		—
8.8	Basic or supplementary insulation > 0,4 mm (mm) :		N/A
	Reinforced insulation > 0,4 mm (mm) :	Transformer bobbin: min. 0.75mm.	P
	Thin sheet insulation (excluding non-separable thin sheet insulation. See 8.22)	Thin sheet insulation used on transformer (see appended table 10.3)	P
	Basic or supplementary insulation, at least two layers, each meeting 10.3		P
	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	Two layers insulation tape used outside of transformer	P
	Reinforced insulation, three layers any two which meet 10.3		N/A
8.9	Adequate insulation between internal hazardous live conductors and accessible parts	Reinforced insulation	P
	Adequate insulation between internal hazardous live parts and conductors connected to accessible parts	Secondary wires safely secured away from hazardous live parts	P
8.10	Double insulation between conductors connected to the mains and accessible parts.	Double or reinforced insulation	P
	Double insulation between internal hazardous live parts and conductors connected to accessible parts.	Double or reinforced insulation	P
8.11	Detaching of wires	No risk of any wire becoming detached.	P
	No undue reduction of creepages or clearance distances if wires become detached	Internal wirings were well routed and secured	P
	Vibration test carried out :		P
8.12	This clause is void		—
8.13	Adequate fastening of windows, lenses, lamp covers etc. (pull test 20 N for 10 s)	No such windows, lenses, lamp covers etc.	N/A
8.14	Adequate fastening of covers (push/pull test 50 N for 10 s)	Covers adequately fastened Pull test complied.	P
8.15	No risk of damage to the insulation of internal wiring due to hot parts or sharp edges	No risk of damage to the insulation of internal wiring due to high temperature, sharp edges or pinches	P
8.16	Only special supply equipment can be used	Not supplied by a supply apparatus specified by the manufacturer	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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	See below.	P
8.19.1	Disconnect device	Appliance coupler used as disconnect device	P
	All-pole switch or circuit breaker with >3mm contact separation	No such parts.	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 components	N/A
8.22	Non-separable thin sheet material	No such material used	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 parts with voltages exceeding 1000V AC or 1500V DC.	N/A
9.1.1.1	a) Open circuit voltages	Mains input voltage >35V, refer to below.	P
	b) Touch current measured from terminal devices using the network in annex D :	See table 9.1.1.1	P
	c) Discharge not exceeding 45 μ C	No part or contact of a terminal with stored voltages between 60V – 15kV	N/A
	d) Energy of discharge not exceeding 350 mJ	No part or contact of a terminal with stored voltages exceeding 15kV	N/A
9.1.1.2	Test with test finger and test probe	No accesses of hazardous live with the test finger and test probe	P
9.1.2	No hazardous live shafts of knobs, handles or levers	No hazardous.	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	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
9.1.6	No shock hazard due to stored charge on withdrawal of the mains plug; voltage (V) after 2 s :	20V	P
	If C is not greater than 0,1 μ F no test needed	<0.1 μ F	N/A
9.1.7	Resistance to external forces	Refer to below.	P
	a) Test probe 11 of IEC 61032 for 10 s (50 N)	No damage to the enclosure and no hazardous live parts became accessible	P
	b) Test hook of fig. 4 for 10 s (20 N)	No holes in apparatus.	N/A
	c) 30 mm diameter test tool for 5 s (100 or 250 N)		P
9.2	No hazard after removing a cover by hand		P

10	Insulation requirements		P
10.1	Insulation resistance (M Ω) at least 2 M Ω min. after surge test for basic and 4 M Ω min. for reinforced insulation :		N/A
10.2	Humidity treatment 48 h or 120 h :	Performed for 48 hours at temperature 40°C and relative humidity 95%.	P
10.3	Insulation resistance and dielectric strength between mains terminals	See appended table 10.3	P
	Insulation Resistance and dielectric strength across BASIC or SUPPLEMENTARY insulation (Class I)	See appended table 10.3	P
	Insulation resistance and dielectric strength across REINFORCED insulation (Class II)		P

11	Fault conditions		P
11.1	No shock hazard under fault condition	No electric shock hazard under fault conditions	P
11.2	Heating under fault condition	See appended table 11.2	P
	Flames extinguish within 10 seconds	No any flames during fault conditions testing	P
	No hazard from softening solder	Solder did not become softened or fluid during fault conditions testing.	P
	Soldered terminations not used as protective mechanism	No soldered terminations become lose.	P
11.2.1	Measurement of temperature rises	See appended table 11.2	P
11.2.2	Temperature rise of accessible parts	See appended table 11.2	P
11.2.3	Temperature rise of parts, other than windings and printed boards, providing electrical insulation	See appended table 11.2	P

EN 60065			
Clause	Requirement + Test	Result - Remark	Verdict
11.2.4	Temperature rise of parts acting as a support or mechanical barrier		P
11.2.5	Temperature rise of windings	No exceed the limits of table 3 See appended table 11.2	P
11.2.6	Temperature rise of printed boards shall not exceed the limits of table 3 by max. 100 K for max. 5 min	The PCB temperature not exceeds the limit on table 3.	N/A
	Printed circuit boards (PCB) classified as V-0 according to 60695-11-10 or Clause G.1 may exceed the limit in table 3 in case a) and b):		N/A
	a) Temperature rise of printed circuit boards exceeding the limits of table 3 by not more than 100 K for an area not greater than 2 cm ²		N/A
	b) Temperature rise of printed circuit boards exceeding the limits of table 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
11.2.7	Temperature rise of parts not subject to the limits of 11.2.1 to 11.2.6 shall not exceed the limits in table 3, item e), "Fault conditions".	See appended table 11.2	P

12	Mechanical strength		P
12.1.1	Bump test where mass >7 kg		P
12.1.2	Vibration test		P
12.1.3	Impact hammer test		P
	Steel ball test		P
12.1.4	Drop test for portable apparatus where mass ≤ 7 kg	>7Kg	N/A
12.1.5	Thermoplastic enclosures stress relief test		P
12.2	Fixing of knobs, push buttons, keys and levers		P
12.3	Remote controls with hazardous live parts		N/A
12.4	Drawers (pull test 50 N, 10 s)	No drawer	N/A
12.5	Antenna coaxial sockets providing isolation		N/A
12.6	Telescoping or rod antennas construction		N/A
12.6.1	Telescoping or rod antennas securement		N/A

13	Clearances and creepage distances		P
13.1	Clearances in accordance with 13.3	See appended table 13	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Creepage distances in accordance with 13.4	See appended table 13	P
13.2	Determination of working voltage	The unit was connected to a 240V TN power system, working voltage see appended table 13.2.	P
13.3	Clearances	See appended table 13.3	P
13.3.1	General		P
13.3.2	Circuits conductively connected to the mains comply with table 8 and, where applicable, table 9 :	See appended table 13.3	P
13.3.3	Circuits not conductively connected to the mains comply with table 10		P
13.3.4	Measurement of transient voltages		N/A
13.4	Creepage distances	See appended table 13.3	P
	Creepage distances greater than table 11 minimum values	See appended table 13.3	P
13.5	Printed boards	No such PCB	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		N/A
13.5.2	Type B coated printed circuit boards complying with IEC 60664-3 (basic insulation only)	No such PCB	N/A
13.6	Conductive parts along uncemented joints clearances and creepage distances comply with 13.3 and 13.4		P
	Conductive parts along reliably cemented joints comply with 8.8		N/A
	Temperature cycle test and dielectric strength test		N/A
	500V test for transformers, magnetic coupler and similar devices, if insulation is relied upon for safety		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	No such component used	N/A

14	Components		P
14.1	Resistors	See below	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

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Clause	Requirement + Test	Result - Remark	Verdict
	Resistors separately approved :		N/A
14.2	Capacitors and RC units		P
	Capacitors separately approved :		N/A
14.2.1	Y capacitors tested to IEC 60384-14:2005 :		P
14.2.2	X capacitors tested to IEC 60384-14:2005 :		P
14.2.3	Capacitors operating at mains frequency but not connected to the mains: tests for X2 :		P
14.2.5	Capacitors with volume exceeding 1750 mm ³ , where short-circuit current exceeds 0,2 A: compliance with IEC 60384-1, 4.38 category B or better :	No such capacitor used.	N/A
	Capacitors with volume exceeding 1750 mm ³ , mounted closer to a potential ignition source than table 5 permits: compliance with IEC 60384-1, 4.38 category B or better :	No such capacitor	N/A
	Shielded by a barrier acc. to 20.1.4/ table 21 or metal :	No such capacitor	N/A
14.3	Inductors and windings	See below	P
	Comply with IEC 61558-1, IEC 61558-2 (as relevant) and clause 20.1.4	Inductors and windings comply with relative clauses of 14.3.1 – 14.3.5	N/A
14.3.1	Transformers and inductors marked with manufacturer's name and type :	Adequate marking applied.	P
	Transformers and inductors separately approved :	Tested with appliance	N/A
14.3.2	General	Isolating transformer.	P
	Insulation material complies with clause 20.1.4	The insulation material of isolating transformers complies with flammability category of Table 21.	P
14.3.3	Constructional requirements	See below.	P
14.3.3.1	Clearances and creepage distances comply with clause 13	Transformers complied with clause 13.	P
14.3.3.2	Transformers meet the constructional requirements	Complied, refer to appended table 14.3.3.	P
14.3.4	Separation between windings		P
14.3.4.1	Class II transformers have adequate separation between hazardous live parts and accessible parts (double or reinforced insulation) :	Double or reinforced insulation used between hazardous live parts and accessible parts	P
	Coil formers and partition walls > 0,4 mm	Measured thickness of transformer bobbin is min.0.75mm	P

EN 60065			
Clause	Requirement + Test	Result - Remark	Verdict
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	Transformer is evaluated with Class II construction.	N/A
14.3.4.3	Separating transformers with at least basic insulation	Class II construction used	N/A
14.3.5	Insulation between HAZARDOUS LIVE parts and ACCESSIBLE parts	Double or reinforced insulation used between hazardous live parts and accessible parts	P
14.3.5.1	Class II transformers have adequate insulation between hazardous live parts and accessible parts (double or reinforced insulation)	Double or reinforced insulation used between hazardous live parts and accessible parts	P
	Coil formers and partition walls > 0,4 mm	Measured thickness of transformer bobbin is min.0.75mm	P
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	Class II construction used	N/A
	Winding wires connected to protective earth have adequate current-carrying capacity		N/A
14.4	High voltage components		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	See below	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	See appended table 13	P
14.5.1.1	a) Thermal cut-outs separately approved	No such component used.	N/A
	b) Thermal cut-outs tested as part of the submission		N/A
14.5.1.2	a) Thermal links separately approved	No such component used.	N/A
	b) Thermal links tested as part of the submission		N/A
14.5.1.3	Thermal devices re-settable by soldering	No such component used	N/A
14.5.2.1	Fuse-links in the mains circuit according to IEC 60127	The fuse have provided by VDE Approved	P

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Clause	Requirement + Test	Result - Remark	Verdict
14.5.2.2	Correct marking of fuse-links adjacent to holder :	T10AL, 250V	P
14.5.2.3	Not possible to connect fuses in parallel :	No possible to connect fuses in parallel.	N/A
14.5.2.4	Not possible to touch hazardous live parts when replacing fuse-links without the use of a tool :	Tool required	N/A
14.5.3	PTC thermistors comply with IEC 60730-1:2007		P
	PTC 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
14.6	Switches	VDE approved switch used	P
14.6.1 a)	Separate testing to IEC 61058-1 including: - 10 000 operations - Normal pollution suitability - 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 61058-1		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 IEC60065-1		N/A
14.8	Voltage setting devices and the like	No such device used	N/A
	Voltage setting device not likely to be changed accidentally	No such device used	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
14.9	Motors	No motor 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 IEC60065-1, Annex B		N/A
14.10	Batteries		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 device used	P
	a) Comply with 13.6 (jointed insulation) and N.2.1		N/A
	b) Comply with IEC 60747-5-5:2007		P
	Alternative to a) and b) optocoupler comply with 13.8		N/A
	a) Comply with 13.6 (jointed insulation) and N.2.1		N/A
14.12	Surge suppression varistors	VDE approved varistors used	P
	Comply with IEC 61051-2		P
	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

15	Terminals		P
15.1.1	Mains plug, appliance inlet, interconnection couplers and mains socket-outlet meet the appropriate standard	Appliance inlet meet the appropriate standard.	P
	Overloading of plugs or appliance inlets prevented if the apparatus has mains socket outlets	Not provide mains socket outlets to other apparatus.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Overloading of internal wiring prevented if the apparatus has mains socket outlets	No mains socket-outlets.	N/A
15.1.2	Connectors for antenna, earth, audio, video or data	No such devices used.	N/A
	No risk of insertion in mains socket-outlets	Output connector is so designed that insertion into mains socket-outlet or appliance coupler is unlikely to occur	P
	No risk of insertion into audio- or video- outlets marked with the symbol of 5.2	No such outlets	N/A
15.1.3	Output terminals of a.c. adaptors or similar devices not compatible with household mains socket-outlets	Equipment has standard output connector not compatible with those specified for household and similar general purpose.	P
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	Yellow-green	P
	Equipment with non-detachable mains cord provided with separate protective earth terminal near mains input		P
	Protective earth terminal resistant to corrosion		P
	Earth resistance test: $< 0,1 \Omega$ at 25 A :	0.01Ω	P
15.3	Terminals for external flexible cords and for permanent connection to the mains supply	Pluggable equipment, No such Terminals	N/A
15.3.1	Adequate terminals for connection of permanent wiring	Not permanently connected equipment	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	No such screws and nuts	N/A
15.3.4	Soldered conductors wrapped around terminal prior to soldering or held in place by additional means	No terminals used.	N/A
	Clamping of conductor and insulation if not soldered or held by screws		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
15.3.5	Terminals allow connection of appropriate cross-sectional area of conductors, for the rated current of the equipment		N/A
15.3.6	Terminals to 15.3.3 have sizes required by table 16	No terminals used.	N/A
15.3.7	Terminals clamp conductors between metal and have adequate pressure		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		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		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 :		P
	Non-detachable cords for Class I have green/yellow core for protective earth		P
16.2	Mains cords conductors have adequate cross-sectional area for rated current consumption of the equipment	0.75mm ² x 3	P
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		N/A
	b) Flexible cords not complying with 16.1, withstand bending and mechanical stress (3.2 of IEC 60227-2)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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		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		N/A
	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	1.2Nm	P
	- screws into non-metallic material: 10 times		N/A
17.2	Correct introduction into female threads in non-metallic material		P
17.3	Cover fixing screws: captive		P
	Non-captive fixing screws: no hazard when replaced by a screw whose length is 10 times its diameter		P
17.4	No loosening of conductive parts carrying a current > 0,2 A		N/A
17.5	Contact pressure not transmitted through plastic other than ceramic for connections carrying a current > 0,2 A		P
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	No such screws used	N/A
17.8	Fixing devices for detachable legs or stands provided	No detachable legs or stands provided	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
17.9	Internal pluggable connections, affecting safety, unlikely to become disconnected		N/A

18	Mechanical strength of picture tubes and protection against the effects of implosion		N/A
18.1	Picture tube separately approved to IEC 61965 ..:	No picture tube provided	N/A
	Picture tube separately approved to 18.2:		N/A
18.2	Non-intrinsically protected tubes tested to 18.2		N/A

19	Stability and mechanical hazards		P
	Mass of the equipment exceeding 7 kg		P
	Apparatus intended to be fastened in place – suitable instructions		P
19.1	Test on a plane, inclined at 10° to the horizontal		P
19.2	100 N force applied vertically downwards		P
19.3	100 N force, or 13% of weight, applied horizontally to point of least stability		P
19.4	Edges or corners not hazardous	All edges and corners are judged to be sufficiently well rounded so as not to constitute a hazard	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	No glass surfaces	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	The apparatus enclosure is regarded as fire enclosure, made of min. V-1 (UL approval). No flammability requirements for the internal components. No openings provided.	P
	b) Exemption for small components as defined in 20.1	Some small components mounted on UL approved PCB with flammability of V-0	P
20.1.1	Electrical components meet the requirements of Clause 14 or 20.1.4		P

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Clause	Requirement + Test	Result - Remark	Verdict
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 wires working at voltages > 4kV, Insulation of all wires is PVC material	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 IEC 60707, unless used in a fire enclosure	PCB base material is of flammability category V-0	P
	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	PCB base material is of flammability category V-0	P
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		N/A
	Components and parts as above but shielded from a potential ignition source, with the barrier area in accordance with Table 21 and fig. 13	No barrier used	N/A
	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 voltages exceeding 4kV	N/A
20.2	Fire enclosure		P
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		N/A
20.2.2	Internal fire enclosures with openings not exceeding 1 mm in width and with openings for wires completely filled	No internal fire enclosure	N/A
20.2.3	Requirements of 20.2.1 and 20.2.2 met by an internal fire enclosure		N/A

A	Annex A, Additional requirements for apparatus with protection against splashing water		N/A
A.5	Marking and instructions	Indoor used only	N/A
A.5.1	j) Marked with IPX4 (IEC 60529), 5.4.1 a) does not apply		N/A
A.10	Insulation requirements		N/A
A.10.2	Splash and humidity treatment		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

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Clause	Requirement + Test	Result - Remark	Verdict

B	Annex B, Apparatus to be connected to the TELECOMMUNICATION NETWORKS		N/A
	Complies with IEC 62151 clause 1	The apparatus not intended for connection to telecommunication networks.	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 clause 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	ANNEX L, Additional requirements for electronic flash apparatus for photographic purposes		N/A
L. 5	Marking and instructions	No such apparatus	N/A
L. 5.4	Instructions for battery chargers and Supply apparatus indicating type or model number of flash apparatus with which it is to be used		N/A
	Instructions for flash apparatus indicating type or model number of battery chargers or Supply apparatus with which it is to be used		N/A
L. 7	Heating under normal operating conditions		N/A
L7.1.5 & L11.2.7	Lithium batteries meet permissible temp rise in Table 3, unless comply with 6.2.2.1 or 6.2.2.2 of IEC 60086-4		N/A
L. 9	Electric shock hazard under normal operating conditions		N/A
L. 9.1.1	Terminals to connection to synchroniser not HAZARDOUS LIVE		N/A
L.10	Insulation requirements		N/A
L. 10.3.2	High frequency puls ignition		N/A
L. 12	Mechanical strength		N/A
L. 12.1.3	Windows for flash tubes are excluded from steel ball impact test		N/A
L. 14	Components		N/A

EN 60065			
Clause	Requirement + Test	Result - Remark	Verdict
L14.6.6	Mains switch characteristics appropriate to its function under normal conditions		N/A
L. 20	Resistance to fire		N/A
L. 20.1 c)	Trigger coil for discharge purpose is not considered to be a POTENTIAL IGNITION SOURCE		N/A

7.1	TABLE: temperature rise measurements:						P
	Power consumption in the OFF/Stand-by mode of the functional switch (W)				Standby:--		
Cond.	Un (V)	Hz	In (A)	Pn (W)	Uout (V)	Pout (W)	Operating Condition / Status
1	198	50	0.76	188.6	--	--	--
2	198	60	0.77	189.9	--	--	--
3	220	50	0.68	189.3	--	--	--
4	220	60	0.68	188.4	--	--	--
5	240	50	0.63	190.2	--	--	--
6	240	60	0.63	189.8	--	--	--
7	264	50	0.58	191.2	--	--	--
8	264	60	0.57	190.5	--	--	--
Remark: The measured consumption at rated supply voltage shall not exceed the marked value by more than 10%.							

	Loudspeaker impedance (Ω):	--	—	
	Several loudspeaker systems:	--	--	
	Marking of loudspeaker terminals:	--	N/A	
Temperature Rise dT of Part		dT (K)		Limit max dT (K)
Test Condition No.		No. 2	No. 7	--
Power cord		5.2	5.5	60
Appliance inlet		5.9	6.2	50
Metal enclosure		10.1	10.4	40
Plastic enclosure		13.2	14.5	60
Switch		8.0	8.9	50(85-35)
Internal wire		9.5	10.8	70(105-35)
Fuse holder		9.2	10.1	
On FE-048.PCB				
PCB near D1		14.3	15.3	95(130-35)
C1 body		8.1	8.8	70(105-35)
U1 body		11.5	12.2	95(130-35)
T1 winding		30.2	31.8	95(130-35)
T1 bobbin		25.6	26.5	95(130-35)
PCB near T1		24.8	25.3	95(130-35)
Y-capacitor(C0)		22.7	23.6	50(85-35)
U2 body		24.1	25.2	95(130-35)
PCB near D3		32.9	34.5	95(130-35)
L1 winding		30.0	31.2	40

PCB near U4	25.1	27.3	95(130-35)		
Relay body(JJ1)	6.0	6.3	Ref.		
On FE-035.PCB1					
PCB near F1	15.8	17.3	95(130-35)		
RV1 body	17.8	18.6	95(130-35)		
NTC body	18.9	20.3	95(130-35)		
PCB near D1	25.1	27.3	95(130-35)		
CX1 body	18.9	20.7	75(110-35)		
Inductance(L1) winding	25.3	26.1	95(130-35)		
E-capacitor(C3)	22.2	25.2	70(105-35)		
Transformer(A3) winding	38.5	40.5	95(130-35)		
Transformer(A3) bobbin	35.4	37.3	95(130-35)		
PCB near transformer(A3)	35.0	35.5	95(130-35)		
Transformer(A1) winding	38.6	40.6	95(130-35)		
Transformer(A1) bobbin	35.9	37.5	95(130-35)		
PCB near transformer(A1)	35.1	35.9	95(130-35)		
Y-capacitor(C9)	25.2	27.3	50(85-35)		
IC1 body	29.5	30.9	95(130-35)		
Inductance(B4) winding	22.5	23.7	95(130-35)		
Inductance(B1) winding	22.6	22.9	95(130-35)		
PCB near R13	30.0	31.7	95(130-35)		
PCB near IC2	28.7	30.1	95(130-35)		
Connector(J3)	9.5	10.2	Ref.		
PCB near Q1	24.1	25.5	95(130-35)		
PCB near D10	28.6	31.1	95(130-35)		
Enclosure near heatsink	33.6	35.0	45(80-35)		
Enclosure of Fan	25.6	27.2	45(80-35)		
Ambient(°C)	35.0	35.0	--		
Winding temperature rise measurements					
Ambient temperature t1 (°C)	--		—		
Ambient temperature t2 (°C)	--		—		
Temperature rise dT of winding: $dT = \frac{(R_2 - R_1)}{R_1} \times (234.5 + t_1) - (t_2 - t_1)$	R ₁ (Ω)	R ₂ (Ω)	dT (K)	Limit max (K)	Insulation class
--	--	--	--	--	--
Remark:--					

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

10.3	TABLE: insulation resistance measurements		P
Insulation resistance R between:		R (MΩ)	Required R (MΩ)
Between mains poles (primary fuse disconnected) (Basic insulation)		>100	2
Input and Metal enclosure (Basic insulation)		>100	2
Input and Plastic enclosure with metal foil (Reinforced insulation)		>100	4
Transformer(T1) primary winding and secondary winding (Reinforced insulation)		>100	4
Transformer(T1) core and primary winding (Basic insulation)		>100	4
Transformer(T1) core and secondary winding (Basic insulation)		>100	2
Transformer(A1) primary winding and secondary winding (Reinforced insulation)		>100	4
Transformer(A1) core and primary winding (Basic insulation)		>100	2
Transformer(A1) core and secondary winding (Basic insulation)		>100	2
Transformer(A2) primary winding and secondary winding (Reinforced insulation)		>100	4
Transformer(A2) core and primary winding (Basic insulation)		>100	2
Transformer(A2) core and secondary winding (Basic insulation)		>100	2
Two layers of insulated tape outside of transformer (Reinforced insulation), tested with one layer		>100	4
Remark:			

10.3	TABLE: electric strength measurements		P
Test voltage applied between:		Test voltage (V)	Breakdown
Between mains poles (primary fuse disconnected) (Basic insulation)		1500 Vac	No
Input and Metal enclosure (Basic insulation)		1500 Vac	No
Input and Plastic enclosure with metal foil (Reinforced insulation)		3000 Vac	No
Transformer(T1) primary winding and secondary winding (Reinforced insulation)		3000 Vac	No

Transformer(T1) core and primary winding (Basic insulation)	1500 Vac	No
Transformer(T1) core and secondary winding (Basic insulation)	1500 Vac	No
Transformer(A1) primary winding and secondary winding (Reinforced insulation)	3000 Vac	No
Transformer(A1) core and primary winding (Basic insulation)	1500 Vac	No
Transformer(A1) core and secondary winding (Basic insulation)	1500 Vac	No
Transformer(A2) primary winding and secondary winding (Reinforced insulation)	3000 Vac	No
Transformer(A2) core and primary winding (Basic insulation)	1500 Vac	No
Transformer(A2) core and secondary winding (Basic insulation)	1500 Vac	No
Two layers of insulated tape outside of transformer (Reinforced insulation), tested with one layer	3000 Vac	No
Remark:		

11.2		TABLE: summary of fault condition tests		P
	Voltage (V) 0,9 or 1,1 times rated voltage	264V		—
	Frequency (Hz)	50Hz		—
	Ambient temperature (°C)	25°C, if not mentioned		—
No.	Component	Fault	dT (K)/ Component	Other results (include description and test duration)
1	Q1 S-D	S-C	--	Fuse open, no hazard
2	Q1 S-G	S-C	--	Fuse open, no hazard
3	Q1 D-S	S-C	--	Unit shut down immediately, no hazard.
4	Big capacitor EC1	S-C	--	The unit shut down
5	T1 pin 10-6/8	S-C	--	The unit shut down. No hazard. Non-recoverable
6	D1	S-C		The unit shut down
7	C1	S-C		No hazard. Non-recoverable
8	D3	S-C		The unit shut down
9	Output	S-C		The unit shut down No hazard. Non-recoverable
10	A1 pin 5-6	S-C		The unit shut down No hazard. Non-recoverable
11	A2 pin 5-6	S-C		The unit shut down No hazard. Non-recoverable
	Winding temperature rise measurements			

	Ambient temperature t1 (°C)	--	
	Ambient temperature t2 (°C)	--	
Notes: Fuse opened for Fault condition is considered for all source of appended table 14 for details of fuse link S-C: short circuit			

13	TABLES: clearances and creepage distances					P
Rated supply voltage:	240Vac	Pollution degree . :	II	Material Group ...:	IIIb	
2 N force on internal parts applied:	Component					--
30 N force on outside of conductive enclosure applied:	plastic enclosure					--

Location	Working Voltage		Clearance (mm)		Creepage (mm)	
	V rms	V peak	Min	Actual	Min	Actual
Across mains fuse (B)	240	340	2.0	3.4	2.5	3.4
L-N before fuse(B)	240	340	2.0	>10	2.5	>10
Optocoupler input to output IC1(R)	302	520	2.0	3.0	2.5	3.0
Optocoupler input to output U2 (R)	282	530	4.4	6.0	5.8	6.0
Y1 capacitor input to output C0(R)	282	530	4.4	6.0	5.8	6.0
Y1 capacitor input to output C9(R)	302	520	4.4	7.0	5.8	7.0
Primary and secondary trace on PCB under transformer T1 (R)	282	530	4.4	>10	5.8	>10
Primary winding and secondary winding of transformer T1 (R)	282	530	4.4	6.4	5.8	6.4
Primary winding and core of transformer T1(B)	282	530	2.2	3.2	2.9	3.2
Secondary winding and core of transformer T1 (B)	282	530	2.2	3.2	2.9	3.2
Primary and secondary trace on PCB under transformer A1(R)	302	520	4.4	>10	6.2	>10
Primary winding and secondary winding of transformer A1 (R)	302	520	4.4	5.4	6.6	7.4
Primary winding and core of transformer A1(B)	302	520	2.2	4.2	3.3	4.2
Secondary winding and core of transformer A1 (B)	302	520	2.2	4.2	3.3	4.2
Primary and secondary trace on PCB under transformer A2(R)	302	520	4.4	>10	6.2	>10
Primary winding and secondary winding of transformer A2 (R)	302	520	4.4	5.4	6.6	7.4
Primary winding and core of transformer A2(B)	302	520	2.2	4.2	3.3	4.2
Secondary winding and core of transformer A2 (B)	302	520	2.2	4.2	3.3	4.2
Circuits conductively connected to the mains (use Tables 8, 9 and 11): see note below.						
Notes: "Min" = minimum required. "Actual" = Actual dimensions measured.						

14	TABLE: list of critical components and materials					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾	
Power cord	Shenzhen Yunxin Electrical Appliances Co., Ltd.	H05VV-F	3x0.75mm ²	DIN VDE 0281-5	VDE 40012386	
Plug	Shenzhen Yunxin Electrical Appliances Co., Ltd.	YX-201	16A, 250V~	VDE 0281	VDE 40001445	
Fuse(on appliance inlet)	XC Electronics (Shenzhen) Corp. Ltd.	5T-Series	10AL/250V	EN 60127-2 EN 60127-1	VDE 40009610	
Appliance inlet	Hongju(Dongguan) Electronic & Metal Products Co., Ltd.	S-03-11	10A, 250V~	EN 60320-1	VDE 40026087	
Power switch	Hongju(Dongguan) Electronic & Metal Products Co., Ltd.	MR	6A, 250V~	IEC/EN 61058-1 IEC/EN 61058-2-5	VDE 40024094	
Fan switch	Hongju(Dongguan) Electronic & Metal Products Co., Ltd.	MR	6A, 250V~	IEC/EN 61058-1 IEC/EN 61058-2-5	VDE 40024094	
Internal wire	Dongguan Chengxing Electronic Co., Ltd.	1005, 1017	80°C, 300V	UL 758	UL E249743	
PCB	Shenzhen Jinxiang Electronic Co., Ltd.	SS6160	1.6mm	UL 94 UL 796	UL E300052	
Shrinkable tube	Shenzhen Woer Heat-Shrinkable Material Co., Ltd.	RSFR-S	125°C, 600V	UL 224	UL E203950	
Transformer	Various	EE19-392-160T18	Class B	EN 60065	Test with appliance	
- Bobbin	Chang chun plastics co ltd	Eel-19 (10pin) phenolic t375j	150°C, min. thick: 0.75mm	UL 94 UL 746	UL E59481	
- Copper wire	Hoi luen electrical mfr Co. Ltd	Uew	130°C	UL 1446	UL E164409	
- Margin tape	Jingjiang yahua pressure sensitive glue co ltd	Nonwoven cloth (wf-6.4mm)	130°C	UL 510	UL E165111	

Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾
- Tape	Jingjiang yahua pressure sensitive glue co ltd	Polyester film ct-yellow)	130°C	UL 510	UL E165111
- Bushing	Shen zhen woer heat shrinkable material co., ltd	Teflon/wf	200°C	UL 224	UL E203950
-Varnish	Wujiang taihu insulating material co ltd	T-4260(a)	130°C	UL 1446	UL E228349
X Capacitor	Sichuan Zhongxing Electronic Co.,Ltd	MKP61 series	0.22 μ F, 110°C	IEC/EN 60384-14	VDE 40032626
Y capacitor	Xiamen Sino Faith Electronic	HCY	1500 pF, Y1,	EN 60384-14	VDE 40034792
Opto-coupler	Everlight	EL817B-F	5V, -55°C _105°C, 6V, 80mA,150mW, 50mA, CTR130-260	DIN VDE 0884	VDE 132249
Inductance(L 1)	XIANYOU TONGNENGDA ELECTRONICS CO.,LTD.	0608-CND 10UH	10uH, \pm 20%, 6*8mm	EN 60065	Test with appliance
-Magnet Wire	DONG GUAN YIDA INDUSTRIAL CO LTD	MW75	130°C	UL 1446	UL E344055
-TUBING	DONGGUAN SALIPT CO LTD	SALIPT S-901-300	300V BLACK	UL 224	UL E209436
Transformer(A1, A2, A3, A4)	FALCON EYES LTD.	EE19-392-160T18	Class B	EN 60065	Test with appliacne
- Bobbin	Chang chun plastics co ltd	Eel-19 (10pin) phenolic t375j	150°C, min. thick: 0.75mm	UL 94 UL 746	UL E59481
- Copper wire	Hoi luen electrical mfr Co. Ltd	Uew	130°C	UL 1446	UL E164409
- Margin tape	Jingjiang yahua pressure sensitive glue co ltd	Nonwoven cloth (wf-6.4mm)	130°C	UL 510	UL E165111
- Tape	Jingjiang yahua pressure sensitive glue co ltd	Polyester film ct-yellow)	130°C	UL 510	UL E165111

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-Varnish	Wujiang taihu insulating material co ltd	T-4260(a)	130°C	UL 1446	UL E228349
PCB	Hongkong treasure investment ltd	T-d, t-m1	V-0, 130°C	UL 94 UL 796	UL E254667
Heating-shrinkable	Shenzhen woer heat-shrinkable material co.,ltd	Various	RSFR-X, 600V,BLACK	UL 224	UL E203950
Internal wire	Shenzhen dong ju wire & cable co ltd	1617	22AWG 600V, 105°C	UL 758	UL E189674
Fan	Tyj	YD121425LB	DC12V,0.10A	EN 60065	CE
Plastic enclosure	ChiMei Corporation	PA-765(+)	Rated V-0, 80°C	UL 94 UL 746	UL E56070
Mylar sheet	Shenzhen Bronsun Industrial Co., Ltd.	BN-FP	V-0, 130°C, min 0.5mm	UL 94	UL E256822
Thermal Resistance (NTC)	Shenzhen Weilin Hi-Tech Co., Ltd.	WMF21-3D15	240V, 6A	UL 1434	UL E232204
Variator (RV1)	HONGZHI ENTERPRISES LTD	STE14D561K	561K	UL 1449 IEC 61051-1 IEC 61051-2 IEC 61051-2-2	UL E330837 VDE 40023049
The following components only control technical data: Electrolytic Capacitor: Min. 330µF, 450Vdc, 105°C					

ATTACHMENT TO ADDITIONAL TABLE

9.1.1.1	Touch current expressed as voltages U1 and U2 in Annex D				P
Location	Measured U1 V(Peak)	Measured U1 V (DC)	Measured U2 V (peak)	Limits : U1 Max 35V (peak) U1 Max 1.0V (DC) U2 Max 0.35V (peak)	
Mains pole L/N – Plastic enclosure (with foil metal)	0.089	--	0.05	--	
Mains pole L/N – metal enclosure	0.522	--	0.10	--	
Mains pole L/N – output terminal	0.522	--	0.10	--	
supplementary information:					
Input: 253V/50Hz,					

13.2	TABLES: Operating voltage measurements				P
Location	Peak voltage (V)	RMS voltage (V)	Comments		
T1 pin 1-6/8	434	272	--		
T1 pin 1-10	422	265	--		
T1 pin 3/5-6/8	530	282	Max.Vrms and Vpeak for T1		
T1 pin 3/5-10	486	270	--		
A1 pin 1-5	344	159	--		
A1 pin 1-6	368	170	--		
A1 pin 2-5	352	174	--		
A1 pin 2-6	368	171	--		
A1 pin 3-5	440	211	--		
A1 pin 3-6	440	200	--		
A1 pin 4-5	544	227	--		
A1 pin 4-6	520	302	Max.Vrms and Vpeak for A1		
A2 pin 1-5	344	159	--		
A2 pin 1-6	368	170	--		
A2 pin 2-5	352	174	--		
A2 pin 2-6	368	171	--		
A2 pin 3-5	440	211	--		
A2 pin 3-6	440	200	--		
A2 pin 4-5	544	227	--		
A2 pin 4-6	520	302	Max.Vrms and Vpeak for A2		
Opto-coupler U2 Pin1-3	360	211	--		
Opto-coupler U2 Pin1-4	360	209	--		

Opto-coupler U2 Pin2-3	360	210	--
Opto-coupler U2 Pin2-4	360	207	--
Opto-coupler IC1 Pin1-3	360	211	--
Opto-coupler IC1 Pin1-4	360	209	--
Opto-coupler IC1 Pin2-3	360	210	--
Opto-coupler IC1 Pin2-4	360	207	--
C0 primary pin to secondary	360	172	--
C9 primary pin to secondary	360	210	--
supplementary information:			
Vin = 240Vac, 50Hz			

14.3.3	TABLE: Transformer/Inductors, constructional requirements							P
Loc.	Tested insulation	Working voltage		Required insul. Res. M Ohms (10.3)	Required electric strength (10.3)	Required Distance		
		peak / V (13.2)	rms / V (13.2)			clearance / mm (13.3)	creepage distance / mm (13.4)	distance ethr. insul. (8.8)
T1 primary to secondary winding	Reinforced insulation	530	282	4	4240VDC	4.4	5.8	*
T1 secondary winding to core	Basic insulation	530	282	2	2120VDC	2.2	2.9	*
T1 primary winding to core	Basic insulation	530	282	2	2120VDC	2.2	2.9	*
A1 primary to secondary winding	Reinforced insulation	520	302	4	4240VDC	4.4	6.6	*
A1 secondary winding to core	Basic insulation	520	302	2	2120VDC	2.2	3.3	*
A1 primary winding to core	Basic insulation	520	302	2	2120VDC	2.2	3.3	*
A2 primary to secondary winding	Reinforced insulation	520	302	4	4240VDC	4.4	6.6	*
A2 secondary winding to core	Basic insulation	520	302	2	2120VDC	2.2	3.3	*
A2 primary winding to core	Basic insulation	520	302	2	2120VDC	2.2	3.3	*
Loc.	Tested insulation			Measure d insul. Res. M Ohms	Tested electric strength	Measureddistance		
						clearance / mm	creepage distance / mm	distanc ethr. insul.
T1 primary to secondary winding	Reinforced insulation			>100	4240VDC	6.4	6.4	*
T1 secondary winding to core	Basic insulation			>100	2120VDC	3.2	3.2	*
T1 primary winding to core	Basic insulation			>100	2120VDC	3.2	3.2	*

A1 primary to secondary winding	Reinforced insulation	>100	4240VDC	5.4	7.4	*
A1 secondary winding to core	Basic insulation	>100	2120VDC	4.2	4.2	*
A1 primary winding to core	Basic insulation	>100	2120VDC	4.2	4.2	*
A2 primary to secondary winding	Reinforced insulation	>100	4240VDC	5.4	7.4	*
A2 secondary winding to core	Basic insulation	>100	2120VDC	4.2	4.2	*
A2 primary winding to core	Basic insulation	>100	2120VDC	4.2	4.2	*
supplementary information:						
* 2 or 3 layers / 0.4mm / Annex H						

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60065 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Audio, video and similar electronic apparatus – Safety requirements			
Differences according to : EN 60065:2002 + A1:2006 + A11:2008 + A2:2010			
Attachment Form No..... : EU_GD_IEC60065K			
Attachment Originator : Intertek Semko AB			
Master Attachment : Date (2011-09)			
Copyright © 2010 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			
IEC 60065, GROUP DIFFERENCES (CENELEC common modifications (EN))			
Clause	Requirement + Test	Result - Remark	Verdict
Contents	Add the following annexes: Annex ZA (normative) Other international publications quoted in this standard with the references of the relevant European publications (See the CB Bulletin) Annex ZB (nominative) Special national conditions Annex ZC (informative) A-deviations		P
Definition 2.2.Z1 (A11:2008)	Add after the definition 2.2.12 the following new definition: PORTABLE SOUND SYSTEM small battery powered audio equipment: <ul style="list-style-type: none"> whose prime purpose is to listen to recorded or broadcasted sound; and that uses headphones or earphones that can be worn in or on or around the ears; and that allows the user to walk around NOTE Examples are mini-disc or CD players, MP3 audio players or similar equipment.		N/A
3.1	Add the following indent at the end of the list <ul style="list-style-type: none"> Exposure to excessive sound pressures from headphones or earphones NOTE A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment – Maximum sound pressure level measurement methodology and limit considerations – Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment – Maximum sound pressure level measurement methodology and limit considerations – Part 2: Guidelines to associate sets with headphones coming from different manufacturers.		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.Z1 (A2:2010)	<p>After 3.2 add a new clause 3.Z1:</p> <p>To protect against excessive current, short-circuits and earth faults in MAINS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):</p> <p>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 11 shall be included as parts of the equipment;</p> <p>b) for components in series or parallel with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p> <p>c) it is permitted for equipment supplied via an industrial mains plug or for</p> <p>PERMANENTLY CONNECTED APPARATUS, to rely on dedicated over current and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for not via an industrial mains plug or for PERMANENTLY CONNECTED APPARATUS the building installation shall be regarded</p>		P
4.1.1	Replace the text of the note by: NOTE For ROUTINE TEST reference is made to EN 50333.		—
5.4.1 za) (A11:2008)	<p>Modify indent za) as follows:</p> <p>za) For a PORTABLE SOUND SYSTEM, a warning that excessive sound pressure from earphones and headphones can cause hearing loss.</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.1 (A11:2008)	<p>Replace the entire subclause in EN 60065:2002 and EN 60065:2002/A1:2006 by:</p> <p>Ionizing radiation</p> <p>Apparatus including a potential source of ionizing radiation shall be so constructed that personal protection against ionizing radiation is provided under normal operating conditions and under fault conditions.</p> <p>Compliance is checked by measurement under the following conditions:</p> <p>In addition to the normal operating conditions, all controls adjustable from the outside BY HAND, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.</p> <p>NOTE 1 Soldered joints and paint lockings are examples of adequate locking.</p> <p>The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.</p> <p>Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.</p> <p>The dose-rate shall not exceed 1μSv/h (0,1 mR/h) taking account of the background level.</p> <p>NOTE 2 These values appear in Directive 96/29/Euratom of 13th May 1996.</p> <p>A picture is considered to be intelligible if the following conditions are met:</p> <ul style="list-style-type: none"> - a scanning amplitude of at least 70 % of the usable screen width; - a minimum luminance of 50 cd/m² with locked blank raster provided by a test generator; - a horizontal resolution corresponding to at least 1,5 MHz in the centre, with a similar vertical degradation; - not more than one flashover per 5 min. 		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Z1 (A11:2008)	<p>Add the following new clause after Clause 20:</p> <p>Z1 Resistance to candle flame ignition</p> <p>A television set shall be so designed that the likelihood of ignition and the spread of fire caused by a candle flame is reduced.</p> <p>NOTE 1 An apparatus with a viewing screen is not regarded to be a television set if it is declared not to be so by the manufacturer.</p> <p>This requirement does not apply to the display screen of rear projection TV's.</p> <p>NOTE 2 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.</p> <p>NOTE 3 The frame around the screen is not exempted from the requirements.</p> <p>Wood and WOOD-BASED MATERIAL with a thickness of at least 6 mm is considered to fulfil the V-1 requirement when applying CLC/TS 62441.</p> <p>Compliance is checked according to CLC/TS 62441.</p> <p>NOTE 4 The term vertical, as used in the first dash of clause 5.2 of CLC/TS 62441, does not mean a perfectly vertical position. It should be interpreted as any surface that can be touched by the flame of a candle of 150 mm height and 20mm diameter while the candle is still touching the supporting surface. A typical candle used in the home is assumed to be 20 mm diameter.</p> <p>NOTE 5 It is expected that CLC/TS 62441 will in the future be replaced by a standard, at which time that standard will become applicable, subject to a vote by National Committees at the time.</p>		N/A
General	<p>13.3.1 Delete note 4.</p> <p>14 Delete note 4 and note 5.</p> <p>15.1.1 Delete notes 1 and 2.</p> <p>15.2 Delete note 2.</p> <p>16.1 Delete note 1.</p> <p>16.2 Delete the note.</p> <p>20 Delete note 2.</p> <p>Annex B Replace note 1 by: In the CENELEC countries listed in IEC 62151, special national conditions apply.</p> <p>Annex G Delete the note.</p> <p>Annex J.2 Delete the notes of Table J.1.</p> <p>Annex N Add after the introduction: For ROUTINE TEST reference is made to EN 50333.</p>		—

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
General (A2:2010)	In IEC 60065:2001/A2 Delete all the “country” notes according to the following list: 5.3 Note 5.4.1 Note 20 Note For special national conditions, see Annex ZB.		—
Bibliography	Additional EN standards.		—

ZA	Normative references to international publications with their corresponding European publications	P
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ZB	ANNEX ZB TO EN 60065, SPECIAL NATIONAL CONDITIONS (EN)	P
2.6.1	DK: The following is added : 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 Justification: Heavy Current Regulations, Section 107.	N/A
3.Z1 (A2:2010)	Denmark Add to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. Justification: In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.	N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.3 (A2:2010)	<p>Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>CLASS I apparatus which is intended for connection to the building installation wiring via a plug or an appliance coupler, or both and in addition is intended for connection to other apparatus or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network TERMINALS and ACCESSIBLE parts, have a marking stating that the apparatus must be connected to anearthed MAINS socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p>	Shall be evaluated when submitted for national approval	N/A
5.4 (A11:2008)	<p>Finland, Norway and Sweden</p> <p>To the end of 5.4 the following is added:</p> <p>CLASS I apparatus which is intended for connection to the building installation wiring via a plug or an appliance coupler, or both and in addition is intended for connection to other apparatus or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network TERMINALS and ACCESSIBLE parts, have a marking stating that the apparatus must be connected to an MAINS socket-outlet with protective earth.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In Finland: "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p>	Shall be evaluated when submitted for national approval	N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.1 (A11:2008)	<p>Norway and Sweden</p> <p>To the end of 5.4.1 (after the compliance statement) the following is added:</p> <p>The screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system.</p> <p>It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer.</p> <p>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:</p> <p>“Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing – and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)”</p> <p>NOTE In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Utstyr som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av utstyret til kabel-TV nettet installeres en galvanisk isolator mellom utstyret og kabel-TV nettet.”</p> <p>Translation to Swedish:</p> <p>”Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet.”</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
13.3.1	<p>NO: To the second paragraph the following is added:</p> <p>In Norway, due to the 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 230 V in case of a single earth fault.</p> <p>Justification: Based on a use in Norway of an IT power distribution system where the neutral is not provided.</p>	Shall be evaluated when submitted for national approval	N/A
15.1.1 (A11:2008)	<p>Denmark</p> <p>The text of the Danish SNC in EN 60065:2002 has been modified as follows:</p> <p>To the first paragraph the following is added:</p> <p>In Denmark, supply cords of single-phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations Section 107-2-D1.</p> <p>Appliances of CLASS I provided with socket-outlets with earth contact or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with the Heavy Current Regulations, Section 107-2-D1 standard sheet DK 2-1a.</p> <p>To the second paragraph the following is added:</p> <p>Socket outlets intended for providing power to CLASS II apparatus with a rated current of 2,5 A shall be in accordance with the Heavy Current Regulation, Section 107-2-D1 standard sheet DKA 1-4a.</p> <p>Other current ratings socket outlets shall be in compliance with the Heavy Current Regulation, Section 107-2-D1 standard sheet DKA 1-3a or DKA 1-3b.</p> <p>To the third paragraph the following is added:</p> <p>Mains socket-outlets with earthing contact shall be in compliance with the Heavy Current Regulation, Section 107-2-D1 standard sheet DK 1-3a, DK 1-5a or DK 1-7a.</p> <p>Justification: Heavy Current Regulations, Section 107-2-D1</p>		N/A
15.1.1	<p>IE: Apparatus which is fitted with a flexible cable or cord shall be provided with a 13 A plug in accordance with Statutory Instrument 525:97, "13 A Plugs and Conversion Adapters for Domestic Use Regulations:1997.</p> <p>Justification: SI 525: 1997</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
15.1.1	<p>NO: Mains socket-outlets mounted on CLASS II apparatus shall comply with the specifications given in CEE Publ. 7 as far as applicable, with the following amendments:</p> <p>§ 8 Dimensions</p> <p>a 2.5 A 250 V two-pole socket-outlets for electronic apparatus shall comply with the enclosed Standard Sheet I.</p> <p>Mains socket-outlets mounted on CLASS II apparatus shall comply with the specifications given in CEE Publ. 7 as far as applicable, with the following amendments:</p> <p>§ 8 Dimensions</p> <p>a 2.5 A 250 V two-pole socket-outlets for electronic apparatus shall comply with the enclosed Standard Sheet I.</p> <p>§ 24 Mechanical strength</p> <p>a 2.5 A, 250 V socket-outlets for CLASS II electronic apparatus are tested as specified in 12.1.3 of EN 60065. Also the protecting rim shall be tested.</p> <p>§ 24 Mechanical strength</p> <p>A 2,5 A 250 V socket-outlets for CLASS II electronic apparatus are tested as specified in 12.1.3 of EN 60065. Also the protecting rim shall be tested</p> <p>Justification: Act of 24 May 1929 relating to supervision of electrical installation (TEA 1929/FEL 1998).</p>		N/A
15.1.1	<p>UK: Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket-outlet conforming to BS 1363 by means of a flexible cable or cord and plug shall be fitted with a "standard plug" in accordance with Statutory Instrument 1768: 1994: The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those Regulations.</p> <p>NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p> <p>Justification: SI 1768: 1994</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
J.2	<p>NO: After Table J.1 the following is added: In Norway, due to the 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 230 V in case of a single earth fault. Justification: Based on a use in Norway of an IT power distribution system where the neutral is not provided.</p>	Shall be evaluated when submitted for national approval	N/A
ZC	ANNEX ZC TO EN60065, A-DEVIATIONS (EN)		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
6.1	<p>DE: The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking. Justification: German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de</p>		N/A
14	<p>SE: Switches containing mercury such as thermostats, relays and level controllers are not allowed. Justification: Ordinance (1990:944) on Prohibition in Connection with handling. Importation and exportation of Chemical Products (Certain Cases)</p>		N/A


ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60065 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Audio, video and similar electronic apparatus – Safety requirements			
Differences according to : EN 60065:2002 + A1:2006 + A11:2008 + A2:2010+A12:2011			
Attachment Form No..... : EU_GD_IEC60065K_II			
Attachment Originator : IntertekSemko AB			
Master Attachment : Date (2011-08)			
Copyright © 2010 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			
IEC 60065, GROUP DIFFERENCES (CENELEC common modifications (EN))			
Clause	Requirement + Test	Result - Remark	Verdict
Contents	Add the following annexes: Annex ZA (normative) Other international publications quoted in this standard with the references of the relevant European publications (See the CB Bulletin) Annex ZB (nominative) Special national conditions Annex ZC (informative) A-deviations		P
Definition 2.2.Z1 (A11:2008)	Add after the definition 2.2.12 the following new definition: PORTABLE SOUND SYSTEM small battery powered audio equipment: <ul style="list-style-type: none"> whose prime purpose is to listen to recorded or broadcasted sound; and that uses headphones or earphones that can be worn in or on or around the ears; and that allows the user to walk around NOTE Examples are mini-disc or CD players, MP3 audio players or similar equipment.		N/A
2.2 (A12:2011)	In EN 60065:2002/A11:2008 Delete the definition 2.2.Z1		N/A
3.1	Add the following indent at the end of the list <ul style="list-style-type: none"> Exposure to excessive sound pressures from headphones or earphones NOTE A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment – Maximum sound pressure level measurement methodology and limit considerations – Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment – Maximum sound pressure level measurement methodology and limit considerations – Part 2: Guidelines to associate sets with headphones coming from different manufacturers.		N/A
3.1 (A12:2011)	In EN 60065:2002 Delete the addition of indent regarding sound pressure excessive		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.Z1 (A2:2010)	<p>After 3.2 add a new clause 3.Z1:</p> <p>To protect against excessive current, short-circuits and earth faults in MAINS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):</p> <p>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 11 shall be included as parts of the equipment;</p> <p>b) for components in series or parallel with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p> <p>c) it is permitted for equipment supplied via an industrial mains plug or for</p> <p>PERMANENTLY CONNECTED APPARATUS, to rely on dedicated over current and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for not via an industrial mains plug or for PERMANENTLY CONNECTED APPARATUS the building installation shall be regarded</p>	Protective device integral in the equipment.	P
4.1.1	Replace the text of the note by: NOTE For ROUTINE TEST reference is made to EN 50333.		—
5.4.1 za) (A11:2008)	Modify indent za) as follows: za) For a PORTABLE SOUND SYSTEM, a warning that excessive sound pressure from earphones and headphones can cause hearing loss.		N/A
5.4.1 (A12:2011)	In EN 60065:2002/A1:2006 and EN 60065:2002/A11:2008 Delete the modification in indent za) Add the following clause and annex to the existing standard and amendments		N/A
	Zx Protection against excessive sound pressure from personal music players		
	<p>Zx.1 General</p> <p>This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players.</p> <p>A personal music player is a portable equipment for personal use, that:</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>is designed to allow the user to listen to recorded or broadcast sound or video; and primarily uses headphones or earphones that can be worn in or on or around the ears; and allows the user to walk around while in use.</p> <p>NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment.</p> <p>A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause.</p> <p>The requirements in this sub-clause are valid for music or video mode only.</p> <p>The requirements do not apply:</p> <ul style="list-style-type: none"> while the personal music player is connected to an external amplifier; or while the headphones or earphones are not used. <p>NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player.</p> <p>The requirements do not apply to:</p> <ul style="list-style-type: none"> hearing aid equipment and professional equipment; <p>NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.</p> <ul style="list-style-type: none"> analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015. <p>NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.</p> <p>For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.</p>		
Cont.	<p>Zx.2 Equipment requirements</p> <p>No safety provision is required for equipment that complies with the following:</p> <ul style="list-style-type: none"> equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,Tis} \leq 85$ dBA measured while playing the fixed "programme simulation noise" as described in EN 50332-1; and a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" 		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>as described in EN 50332-1.</p> <p>NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $L_{Aeq,TIS}$ meant. See also Zx.5 and Annex Zx.</p> <p>All other equipment shall:</p> <p>a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and</p> <p>b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and</p> <p>c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and</p> <p>NOTE 2 Examples of means include visual or audible signals. Action from the user is always required.</p> <p>NOTE 3 The 20 h listening time is the accumulative listening time, independent how often and how long the personal music player has been switched off.</p> <p>d) have a warning as specified in Zx.3; and</p> <p>e) not exceed the following:</p> <p>1) equipment provided as a package (player with its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed "programme simulation noise" described in EN 50332-1; and</p> <p>2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" described in EN 50332-1.</p>		
	<p>For music where the average sound pressure (long term $L_{Aeq,T}$) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song.</p> <p>NOTE 4 Classical music typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>as the average sound pressure of the song is below the basic limit of 85 dBA.</p> <p>For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.</p>		
	<p>Zx.3 Warning</p> <p>The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:</p> <ul style="list-style-type: none"> the symbol of Figure 1 with a minimum height of 5 mm; and the following wording, or similar: <p>“To prevent possible hearing damage, do not listen at high volume levels for long periods.”</p>  <p>Figure 1 – Warning label (IEC 60417-6044)</p> <p>Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.</p>		N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		
Cont.	<p>Zx.4.1 Wired listening devices with analogue input</p> <p>With 94 dBA sound pressure output $L_{Aeq,T}$, the input voltage of the fixed “programme simulation noise” described in EN 50332-2 shall be ≥ 75 mV.</p> <p>This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control).</p> <p>NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.</p>		N/A
	<p>Zx.4.2 Wired listening devices with digital input</p> <p>With any playing device playing the fixed “programme simulation noise” described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA.</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.).</p> <p>NOTE An example of a wired listening device with digital input is a USB headphone.</p>		
	<p>Zx.4.3 Wireless listening devices In wireless mode: with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the above-mentioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA.</p> <p>NOTE An example of a wireless listening device is a Bluetooth headphone.</p>		N/A
	<p>Zx.5 Measurement methods Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s.</p> <p>NOTE Test method for wireless equipment provided without listening device should be defined.</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.1 (A11:2008)	<p>Replace the entire subclause in EN 60065:2002 and EN 60065:2002/A1:2006 by:</p> <p>Ionizing radiation</p> <p>Apparatus including a potential source of ionizing radiation shall be so constructed that personal protection against ionizing radiation is provided under normal operating conditions and under fault conditions.</p> <p>Compliance is checked by measurement under the following conditions:</p> <p>In addition to the normal operating conditions, all controls adjustable from the outside BY HAND, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.</p> <p>NOTE 1 Soldered joints and paint lockings are examples of adequate locking.</p> <p>The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.</p> <p>Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.</p> <p>The dose-rate shall not exceed 1μSv/h (0,1mR/h) taking account of the background level.</p> <p>NOTE 2 These values appear in Directive 96/29/Euratom of 13th May 1996.</p> <p>A picture is considered to be intelligible if the following conditions are met:</p> <ul style="list-style-type: none"> - a scanning amplitude of at least 70 % of the usable screen width; - a minimum luminance of 50 cd/m² with locked blank raster provided by a test generator; - a horizontal resolution corresponding to at least 1,5 MHz in the centre, with a similar vertical degradation; - not more than one flashover per 5 min. 		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Z1 (A11:2008)	<p>Add the following new clause after Clause 20:</p> <p>Z1 Resistance to candle flame ignition</p> <p>A television set shall be so designed that the likelihood of ignition and the spread of fire caused by a candle flame is reduced.</p> <p>NOTE 1 An apparatus with a viewing screen is not regarded to be a television set if it is declared not to be so by the manufacturer.</p> <p>This requirement does not apply to the display screen of rear projection TV's.</p> <p>NOTE 2 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.</p> <p>NOTE 3 The frame around the screen is not exempted from the requirements.</p> <p>Wood and WOOD-BASED MATERIAL with a thickness of at least 6 mm is considered to fulfil the V-1 requirement when applying CLC/TS 62441.</p> <p>Compliance is checked according to CLC/TS 62441.</p> <p>NOTE 4 The term vertical, as used in the first dash of clause 5.2 of CLC/TS 62441, does not mean a perfectly vertical position. It should be interpreted as any surface that can be touched by the flame of a candle of 150 mm height and 20mm diameter while the candle is still touching the supporting surface. A typical candle used in the home is assumed to be 20 mm diameter.</p> <p>NOTE 5 It is expected that CLC/TS 62441 will in the future be replaced by a standard, at which time that standard will become applicable, subject to a vote by National Committees at the time.</p>		N/A
General	<p>13.3.1 Delete note 4.</p> <p>14 Delete note 4 and note 5.</p> <p>15.1.1 Delete notes 1 and 2.</p> <p>15.2 Delete note 2.</p> <p>16.1 Delete note 1.</p> <p>16.2 Delete the note.</p> <p>20 Delete note 2.</p> <p>Annex B Replace note 1 by: In the CENELEC countries listed in IEC 62151, special national conditions apply.</p> <p>Annex G Delete the note.</p> <p>Annex J.2 Delete the notes of Table J.1.</p> <p>Annex N Add after the introduction: For ROUTINE TEST reference is made to EN 50333.</p>		—

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
General (A2:2010)	In IEC 60065:2001/A2 Delete all the “country” notes according to the following list: 5.3 Note 5.4.1 Note 20 Note For special national conditions, see Annex ZB.		—
Bibliography	Additional EN standards.		—

ZA	Normative references to international publications with their corresponding European publications	P
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ZB	ANNEX ZB TO EN 60065, SPECIAL NATIONAL CONDITIONS (EN)		
2.6.1	DK: The following is added : 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 Justification: Heavy Current Regulations, Section 107.	Class II equipment.	N/A
3.Z1 (A2:2010)	Denmark Add to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. Justification: In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.	The protective device on the internal of equipment. No socket-outlets.	N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.3 (A2:2010)	<p>Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added: CLASS I apparatus which is intended for connection to the building installation wiring via a plug or an appliance coupler, or both and in addition is intended for connection to other apparatus or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network TERMINALS and ACCESSIBLE parts, have a marking stating that the apparatus must be connected to an earthed MAINS socket-outlet. The marking text in the applicable countries shall be as follows: In Finland: "Laite on liitettäväsuojakoskettimillavarustettuunpistorasiaan" In Norway: "Apparatetmåtilkoplesjordetstikkontakt" In Sweden: "Apparatenskillanslutas till jordatuttag"</p>		N/A
5.4 (A11:2008)	<p>Finland, Norway and Sweden</p> <p>To the end of 5.4 the following is added: CLASS I apparatus which is intended for connection to the building installation wiring via a plug or an appliance coupler, or both and in addition is intended for connection to other apparatus or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network TERMINALS and ACCESSIBLE parts, have a marking stating that the apparatus must be connected to an MAINS socket-outlet with protective earth. The marking text in the applicable countries shall be as follows: In Finland: "Laite on liitettäväsuojamaadoituskoskettimillavarustettuunpistorasiaan" In Norway: "Apparatetmåtilkoplesjordetstikkontakt" In Sweden: "Apparatenskillanslutas till jordatuttag"</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.1 (A11:2008)	<p>Norway and Sweden</p> <p>To the end of 5.4.1 (after the compliance statement) the following is added:</p> <p>The screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system.</p> <p>It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer.</p> <p>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:</p> <p>“Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing – and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)”</p> <p>NOTE In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Utstyrsmerkoplettilbeskyttelsesjord via nettpluggog/eller via annetjordtilkopletutstyr – ogertilkoplet et kabel-TV nett, kanforårsakebrannfare. For å unngådetteskaldetvedtilkoplingavutstyrettilkabel-TV nettetinstalleres en galvanisk isolator mellomutstyretogkabel-TV nettet.”</p> <p>Translation to Swedish:</p> <p>”Utrustningsomärkopplad till skyddsjord via jordatvägguttagoch/eller via annanutrustningochsamtidigtärkopplad till kabel-TV nätkanivissa fall medföra risk för brand.</p> <p>Förattundvikadettaskall vid anslutningavutrustningen till kabel-TV nätgalvanisk isolator finnas mellanutrustningen och kabel-TV nätet.”</p>		N/A

Most Technology Service Co., Limited

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
13.3.1	<p>NO: To the second paragraph the following is added:</p> <p>In Norway, due to the 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 230 V in case of a single earth fault.</p> <p>Justification: Based on a use in Norway of an IT power distribution system where the neutral is not provided.</p>		N/A
15.1.1 (A11:2008)	<p>Denmark</p> <p>The text of the Danish SNC in EN 60065:2002 has been modified as follows:</p> <p>To the first paragraph the following is added:</p> <p>In Denmark, supply cords of single-phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations Section 107-2-D1.</p> <p>Appliances of CLASS I provided with socket-outlets with earth contact or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with the Heavy Current Regulations, Section 107-2-D1 standard sheet DK 2-1a.</p> <p>To the second paragraph the following is added:</p> <p>Socket outlets intended for providing power to CLASS II apparatus with a rated current of 2,5 A shall be in accordance with the Heavy Current Regulation, Section 107-2-D1 standard sheet DKA 1-4a.</p> <p>Other current ratings socket outlets shall be in compliance with the Heavy Current Regulation, Section 107-2-D1 standard sheet DKA 1-3a or DKA 1-3b.</p> <p>To the third paragraph the following is added:</p> <p>Mains socket-outlets with earthing contact shall be in compliance with the Heavy Current Regulation, Section 107-2-D1 standard sheet DK 1-3a, DK 1-5a or DK 1-7a.</p> <p>Justification: Heavy Current Regulations, Section 107-2-D1</p>	<p>No socket-outlets.</p> <p>No socket-outlets.</p> <p>No socket-outlets.</p>	--
15.1.1	<p>IE: Apparatus which is fitted with a flexible cable or cord shall be provided with a 13 A plug in accordance with Statutory Instrument 525:97, "13 A Plugs and Conversion Adapters for Domestic Use Regulations:1997.</p> <p>Justification: SI 525: 1997</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
15.1.1	<p>NO: Mains socket-outlets mounted on CLASS II apparatus shall comply with the specifications given in CEE Publ. 7 as far as applicable, with the following amendments:</p> <p>§ 8 Dimensions</p> <p>a 2.5 A 250 V two-pole socket-outlets for electronic apparatus shall comply with the enclosed Standard Sheet I.</p> <p>Mains socket-outlets mounted on CLASS II apparatus shall comply with the specifications given in CEE Publ. 7 as far as applicable, with the following amendments:</p> <p>§ 8 Dimensions</p> <p>a 2.5 A 250 V two-pole socket-outlets for electronic apparatus shall comply with the enclosed Standard Sheet I.</p> <p>§ 24 Mechanical strength</p> <p>a 2.5 A, 250 V socket-outlets for CLASS II electronic apparatus are tested as specified in 12.1.3 of EN 60065. Also the protecting rim shall be tested.</p> <p>§ 24 Mechanical strength</p> <p>A 2,5 A 250 V socket-outlets for CLASS II electronic apparatus are tested as specified in 12.1.3 of EN 60065. Also the protecting rim shall be tested</p> <p>Justification: Act of 24 May 1929 relating to supervision of electrical installation (TEA 1929/FEL 1998).</p>	No socket-outlets.	N/A
15.1.1	<p>UK: Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug shall be fitted with a "standard plug" in accordance with Statutory Instrument 1768: 1994: The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those Regulations.</p> <p>NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p> <p>Justification: SI 1768: 1994</p>		N/A

ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
J.2	<p>NO: After Table J.1 the following is added: In Norway, due to the 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 230 V in case of a single earth fault. Justification: Based on a use in Norway of an IT power distribution system where the neutral is not provided.</p>		N/A
ZC	ANNEXZC TO EN60065, A-DEVIATIONS (EN)		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
6.1	<p>DE: The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking. Justification: German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de</p>		N/A
14	<p>SE: Switches containing mercury such as thermostats, relays and level controllers are not allowed. Justification: Ordinance (1990:944) on Prohibition in Connection with handling. Importation and exportation of Chemical Products (Certain Cases)</p>	No Switch.	N/A

Photos of the product

Photo 1

Description: Overview



Photo 2

Description: Overview



Photo 3

Description: Internal view



Photo 4

Description: Internal view



Photo 5

Description: Internal view



Photo 6

Description: Internal view



Photo 7

Description: Internal view

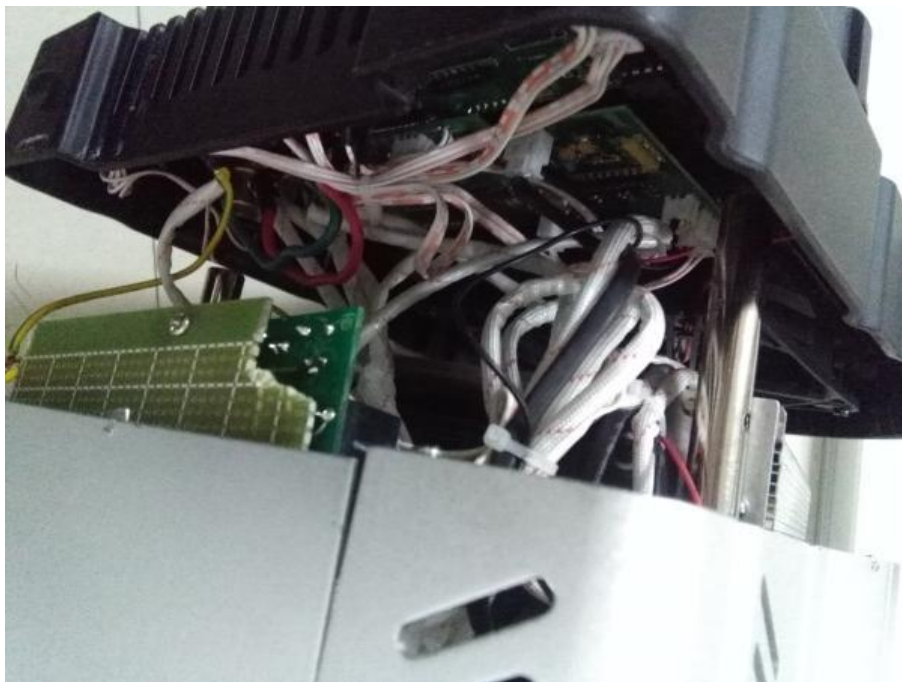


Photo 8

Description: Internal view

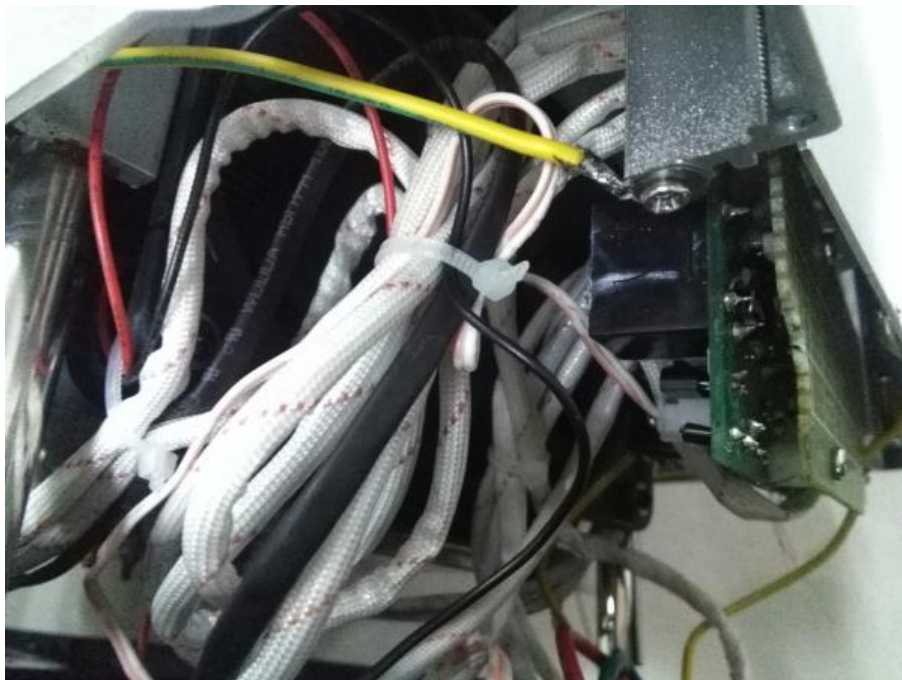


Photo 9

Description: Internal view

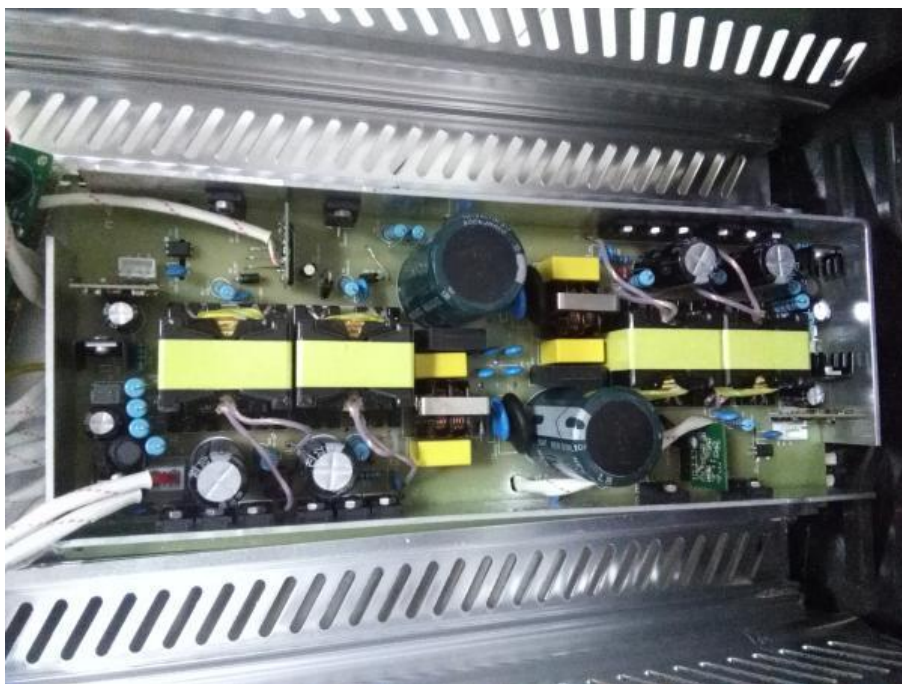


Photo 10

Description: Internal view

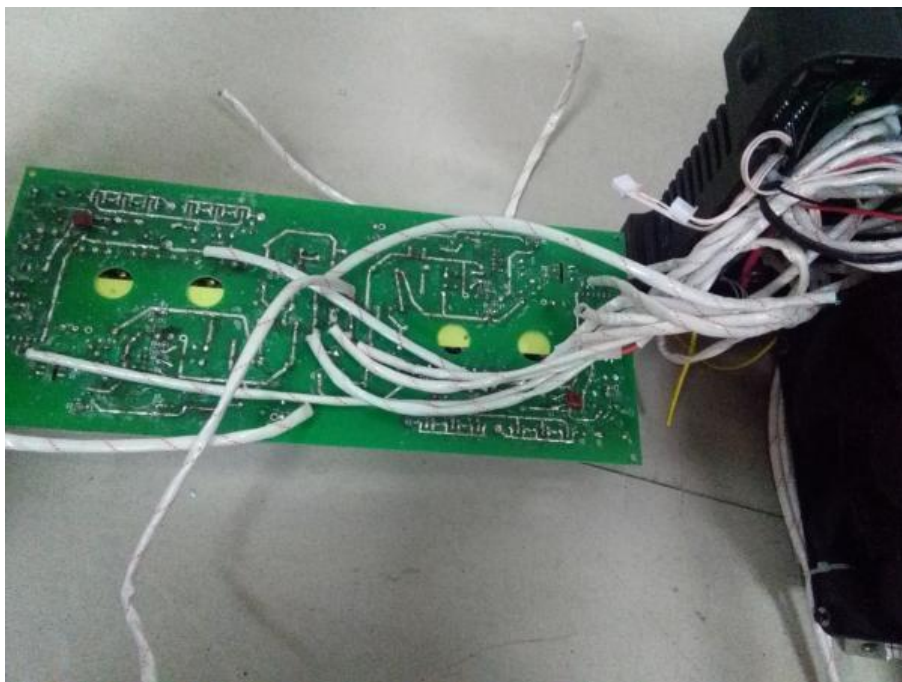


Photo 11

Description: PCB view

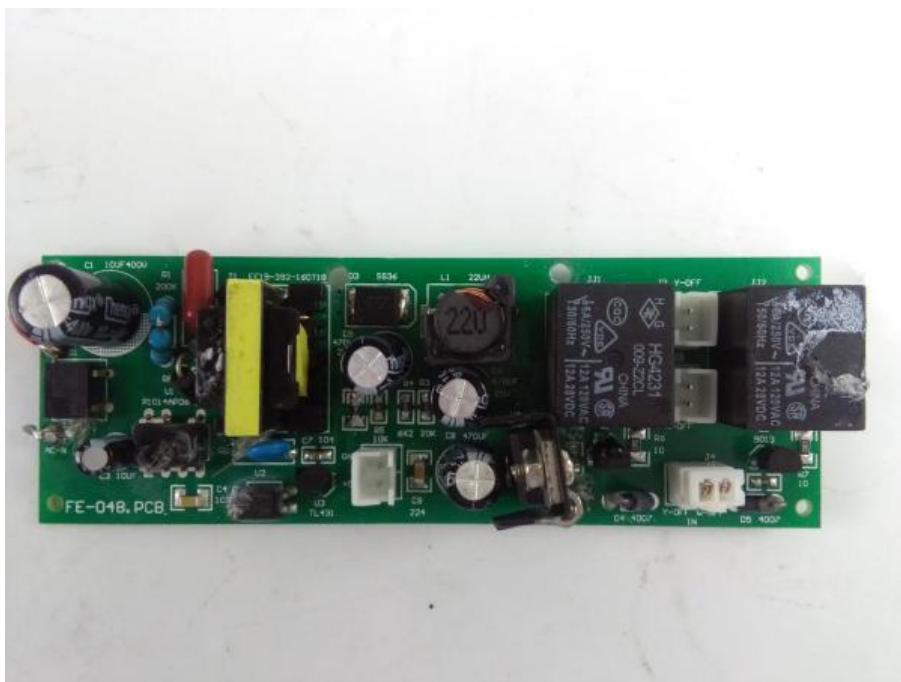


Photo 12

Description: PCB view

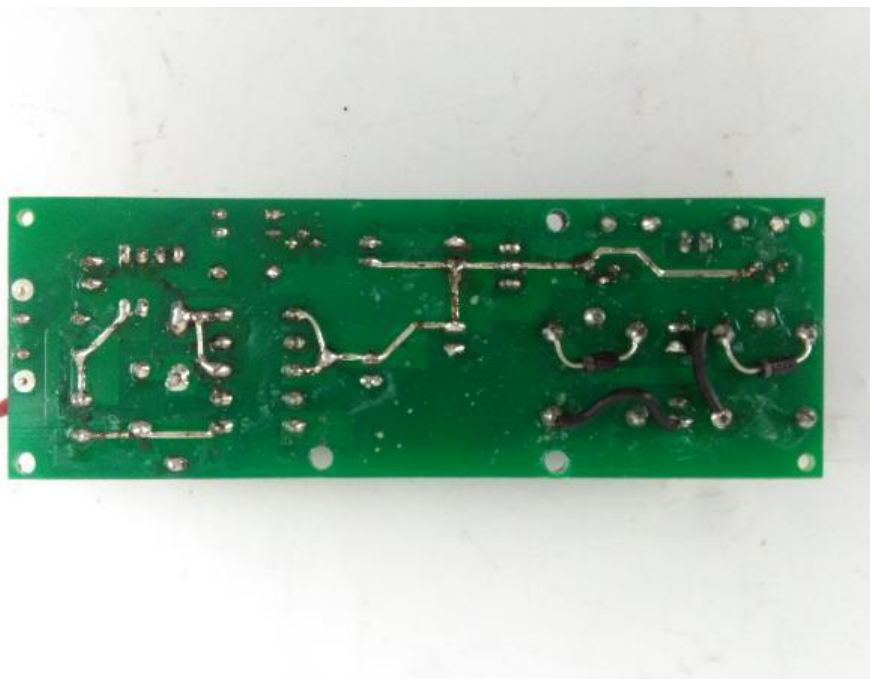


Photo 13

Description: PCB view

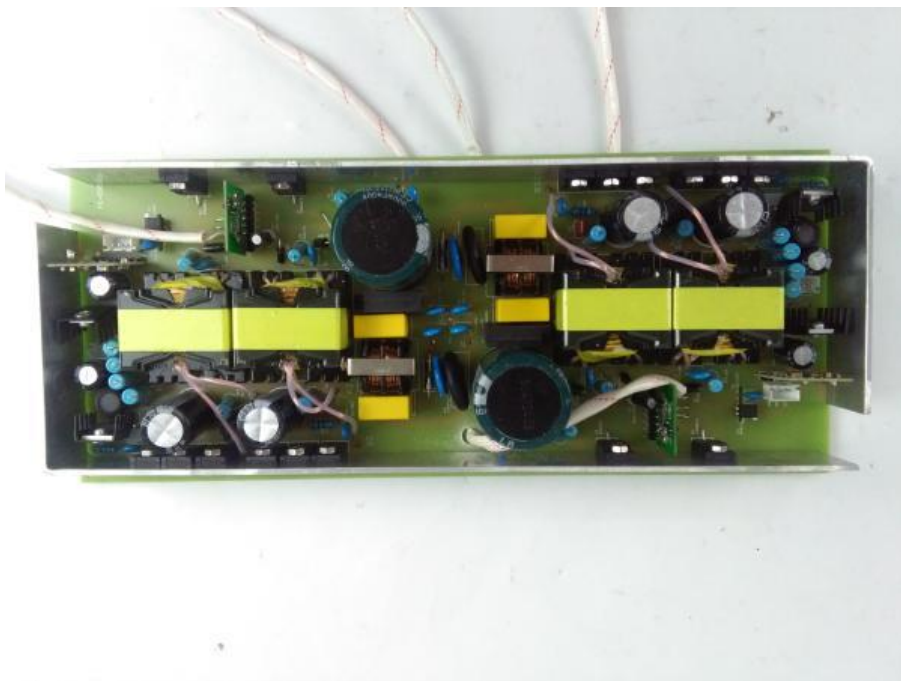
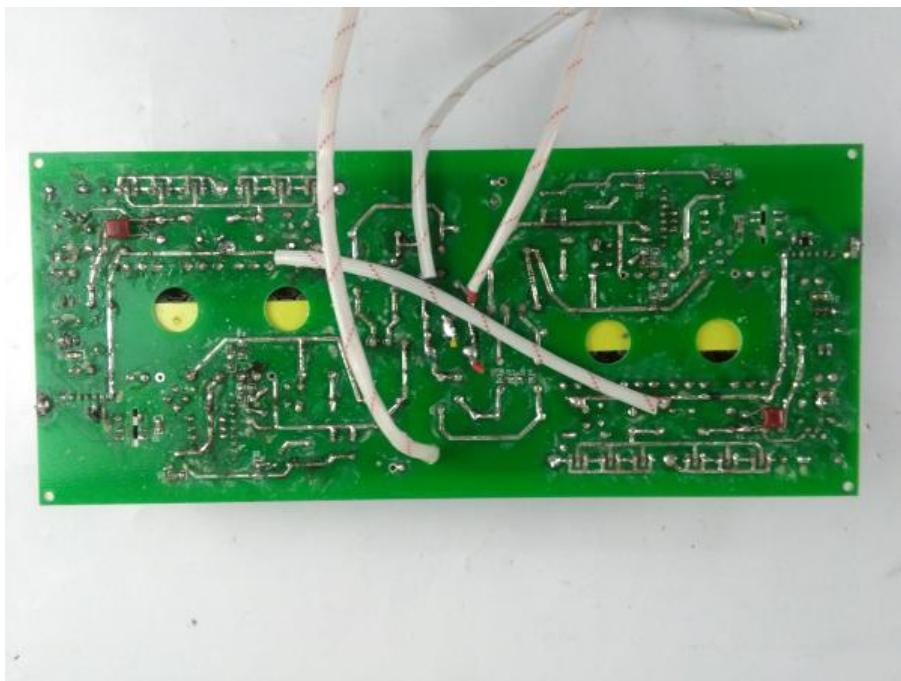


Photo 14

Description:PCB view



---The End of Report---