TEST REPORT

On Behalf of

Azlan Logistics Limited

HDMI Splitter

Model: TC-HDMI12

Prepared For : **Azlan Logistics Limited**

Redwood 2, Chineham Business Park, Crockford Lane,Basing stoke, Hampshire, RG24 8WQ, United Kingdom

Prepared By : **Shenzhen Anbotek Compliance Laboratory Limited**

1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China

Tel: (86)755-26066544
Fax: (86)755-26014772

Date of Test: Jun.19, 2017 to Jun. 23, 2017
Date of Report: Jun. 23, 2017
Report Number: R0317060135S

TEST REPORT

IEC 60065

Audio, video and similar electronic apparatus – Safety requirements

Report

Report reference No.	R0317060135S
Tested by (+ signature)	Tim Luo
Approved by (+ signature)	Jason Xia
Date of issue	Jun.23, 2017
Contents	41 pages

Testing laboratory

Name	Shenzhen Anbotek Compliance Laboratory Limited
Address	1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road，Nanshan District, Shenzhen, Guangdong, China
Testing location	As above

Applicant

Name	Azlan Logistics Limited
Address	Redwood 2, Chineham Business Park, Crockford Lane,Basingstoke, Hampshire, RG24 8WQ, United Kingdom

Test specification

Standard	IEC 60065: 2014
Test procedure	Compliance with IEC 60065: 2014
Non-standard test method	N.A.

Test item

Description	HDMI Splitter
Trademark	VISION
Model/type reference	TC-HDMI12
Manufacturer	Azlan Logistics Limited
Address	Redwood 2, Chineham Business Park, Crockford Lane,Basingstoke, Hampshire, RG24 8WQ, United Kingdom
Factory	Azlan Logistics Limited
Address	Redwood 2, Chineham Business Park, Crockford Lane,Basingstoke, Hampshire, RG24 8WQ, United Kingdom
Rating	Input:5V⎓1A, 5W (Adapter: 100-240VAC, 50/60Hz,0.4A)

Particulars: test item vs. test requirements	
Equipment mobility	: Portable apparatus
Operating condition	: Continuous operation
Tested for IT power systems	: N.A.
IT testing, phase-phase voltage (V)	: N.A.
Class of equipment	: Neither class Ⅰ equipment nor class Ⅱ equipment
Protection against ingress of water	: IPX0
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	: Jun. 19, 2017
Data of performance of test	: Jun. 19, 2017 to Jun.23 , 2017

General remarks

"(See remark #)" refers to a remark appended to the report.

"(See appended table)" refers to a table appended to the report.

Throughout this report a dot is used as the decimal separator.

The test results presented in this report relate only to the object tested.

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Procedure deviation

N.A.

Comments

N.A.

General product information

1. Clearance was evaluated for altitude up to 2000m above sea level.

2. HDMI Splitter, used indoor only and the maximum operating temperature is 35℃.

3. Adapter:
input:100-240VAC, 50/60Hz,0.4A, output: 5VDC, 2A

Copy of marking plate(s)

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

HDMI Splitter **VISION**
Model: TC-HDMI12
Input: 5V⎓1A, 5W

Azlan Logistics Limited
Made in China

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
3	**GENERAL REQUIREMENTS**		
	Safety class of the apparatus ..... :	Neither class Ⅰ equipment nor class Ⅱ equipment	P
4	**GENERAL TEST CONDITIONS**		
4.1.4	Ventilation instructions require the use of the test box	Tested according to user manual	N/A
5	**MARKING AND INSTRUCTIONS**		
5.1	**General requirements**		**P**
	Comprehensible and easily discernible		P
	Permanent durability against water and petroleum spirit		P
5.2	**Identification and supply rating**		**P**
	a) Identification, maker .....:	Azlan Logistics Limited	P
	b) Model number or type reference.....:	TC-HDMI12	P
	c) Class II symbol or Class II with functional earth symbol if applicable .....:	Not class Ⅱ equipment	N/A
	d) Nature of supply.....:	⎓	P
	e) Rated supply voltage .....:	5V	P
	f) Mains frequency if safety dependant .....:		N/A
	g) Rated current or power consumption for apparatus supplied by supply apparatus for general use, on apparatus or in instruction manual..... :	1A, 5W	P
	Measured current or power consumption .....:	(see appended table 7.1)	P
	Deviation % (max 10%) .....:	(see appended table 7.1)	P
	h) Rated current or power consumption for apparat-us intended for connection to an a.c. mains supply. :		N/A
	Measured current or power consumption .....:		N/A
	Measured current or power consumption for Television set .....:		P
	Deviation % (max 10%) .....:		N/A
	Symbols explained in the user manual		N/A
5.3	**Terminals**		**N/A**
	a) Earth terminal	No earth terminal	N/A
	b) Hazardous live terminals		N/A
	c) Markings on supply output terminals		N

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
5.4	**Caution marking**		**P**
	a) Use of triangle with exclamation mark		P
	b) Marking on loudspeaker grille, IEC 60417-5036		N/A
	c) User-replaceable coin / button cell battery marking	No battery	N/A
5.5	**Instructions**		**P**
5.5.1	Safety relevant information	English	P
5.5.2	a) Mains powered equipment not exposed to dripping or splashing. Warning concerning objects filled with liquid, etc.	Mentioned in user manual	N/A
	b) Hazardous live terminals, instructions for wiring		N/A
	c) Instructions for replacing lithium battery		N/A
	d) Class I earth connection warning		N/A
	e) Instructions for multimedia system connection		P
	f) Special stability warning for attachment of the apparatus to the floor/wall		N/A
	g) Warning: battery exposure to heat		N/A
	h) Warning: protective film on CRT face	No CRT	N/A
	i) Warning: Non-floor standing TV >7kg		N/A
	j) Warning: User replaceable coin / button cell battery		N/A
5.5.3	a-b) Disconnect device: plug/coupler or all-pole mains switch location, accessibility and markings		N/A
	c) Instructions for permanently connected equipment		N/A
	Marking, signal lamps or similar for completely disconnection from the mains		N/A
6	**HAZARDOUS RADIATION**		
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
6.3	Light emiting diodes (LEDs) according to IEC 62471		N/A
7	**HEATING UNDER NORMAL OPERATING CONDITIONS**		
7.1	**General**		**P**

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
7.1.1	Temperature rises not exceeding specified values; fuse links and other protective devices defeated	(see appended table 7.1)	P
7.1.2	Temperature rise of accessible parts	(see appended table 7.1)	P
7.1.3	Temperature rise of parts providing electrical insulation	(see appended table 7.1)	P
7.1.4	Temperature rise of parts acting as a support or as a mechanical barrier	(see appended table 7.1)	P
7.1.5	Temperature rise of windings	(see appended table 7.1)	P
7.1.6	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 150 °C		N/A
8	**CONSTRUCTIONAL REQUIREMENTS WITH REGARD TO THE PROTECTION AGAINST ELECTRIC SHOCK**		
8.1	Conductive parts covered by lacquer, paper, untreated textile oxide films and beads etc. considered to be bare		N/A
8.2	No shock hazard when changing voltage setting device, fuse-links or handling drawers etc.	No such components are replaced by hand	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	No cover removable barely by hand. Tools are required.	N/A
8.5	**Class I apparatus**		**N/A**
	Basic insulation between hazardous live parts and earthed accessible parts	Not class I apparatus	N/A
	Resistors bridging basic insulation complying with 14.2 a)		N/A
	Capacitors bridging basic insulation complying with 14.3.2 a)		N/A
	Protective earthing terminal		N/A
8.6	**Class II apparatus**		**N/A**
	a) Basic and supplementary insulation between hazardous live parts and accessible parts	Not class Ⅱ apparatus	N/A
	b) Reinforced insulation between hazardous live parts and accessible parts		N/A
8.7	**Components bridging insulation**		**N/A**
	Basic insulation bridged by components complying with 14.4.5.3		N/A

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Components bridging basic, supplementary, double or reinforced insulation complying with 14.2 a) or 14.4		N/A
	Basic and supplementary insulation each being bridged by a capacitor or RC-unit complying with 14.3.2 a)		N/A
	Double or reinforced insulation being bridged with 2 capacitors or RC-units in series complying with 14.3.2 a)		N/A
	Double or reinforced insulation being bridged with a single capacitor or RC-unit complying with 14.3.2 b)		N/A
8.8	**Insulation thickness and thin sheet materials**		**N/A**
	Basic or supplementary insulation > 0,4 mm (mm) :		N/A
	Reinforced insulation > 0,4 mm (mm) ..... :		N/A
	Thin sheet material used inside the equipment		N/A
	Basic or supplementary insulation, at least two layers, each meeting 10.4		N/A
	Basic or supplementary insulation, three layers any two of which meet 10.4		N/A
	Reinforced insulation, two layers each of which meet 10.4		N/A
	Reinforced insulation, three layers any two which meet 10.4		N/A
8.9	Adequate insulation between internal hazardous live conductors and accessible parts, or between internal hazardous live parts and conductors connected to accessible parts		N/A
8.10	Double insulation between accessible parts and conductors connected to the mains		N/A
	Double insulation between conductors connected to accessible parts and parts connected to the mains		N/A
8.11	**Detaching of wires**		**N/A**
	No undue reduction of creepage or clearance distances if wires become detached		N/A
	Vibration test carried out ..... :		N/A
8.12	Adequate fastening of windows, lenses, lamp covers etc. (pull test 20 N for 10 s)		N/A
8.13	Adequate fastening of covers (push/pull test 50 N for 10 s)		N/A
8.14	No risk of damage to the insulation of internal wiring due to hot parts or sharp edges		N/A
8.15	Only special supply equipment can be used		N/A

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
8.16	Insulated winding wire without additional interleaved insulation		N/A
8.17	Endurance test as required by 8.16		N/A
8.18	**Disconnection from the mains**		**N/A**
	Disconnect device		N/A
	All-pole switch or circuit breaker with >3mm contact separation	No such device within the EUT	N/A
	Mains switch ON indication		N/A
8.19	Switch not fitted in the mains cord		N/A
8.20	Bridging components comply with clause 14	No such component used to bridge	N/A
8.21	Non-separable thin sheet material	No such material	N/A
9	**ELECTRIC SHOCK HAZARD UNDER NORMAL OPERATING CONDITION**		
9.1	**Testing on the outside**		**N/A**
9.1.1	**General**		**N/A**
9.1.1.1	**Requirements**		**N/A**
	Accessible parts shall not be hazardous live		N/A
	Inaccessible terminals are not accessible or comply with relevant requirements		N/A
	For voltages >1000 V ac or >1500 V dc complies with clause 13.3.1 for basic insulation..... :		N/A
9.1.1.2	**Determination of hazardous live parts**		**N/A**
	a) Open circuit voltages		N/A
	b) Touch current measured from terminal devices using the network in annex D ..... :		N/A
	c) Discharge not exceeding 45 µC		N/A
	d) Energy of discharge not exceeding 350 mJ		N/A
9.1.1.3	Test with test finger and test probe		N/A
9.1.2	No hazardous live shafts of knobs, handles or levers		N/A
9.1.3	Ventilation holes and other holes tested by means of 4 mm x 100 mm test pin		N/A
9.1.4	Terminal devices tested with 1 mm x 20 mm test pin (10 N); test probe D of IEC 61032		N/A
	Terminal devices tested with 1 mm x 100 mm straight wire (1 N); test probe D of IEC 61032		N/A
9.1.5	Pre- set controls tested with 2.5 mm x 100 mm test pin (10 N); test probe C of IEC 61032		N/A

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Clause	Requirement – Test	Result - Remark	Verdict
9.1.6	**Withdrawal of the mains plug**		**N/A**
	No shock hazard due to stored charge after 2 s ....:	No X-cap. used	N/A
	Bleeder resistor(s) comply with 14.2 or no shock hazard when open circuited		N/A
	If C is not greater than 0,1 µF no test needed		N/A
9.1.7	**Resistance to external force**		**N/A**
	a) Test probe 11 of IEC 61032 for 10 s (50 N)		N/A
	b) Test hook of fig. 4 for 10 s (20 N)		N/A
	c) 30 mm diameter test tool for 5 s (100 or 250 N)		N/A
9.2	No hazard after removing a cover by hand	No such cover can be removed by hand	N/A
10	**INSULATION REQUIREMENTS**		
10.2	Insulation resistance (MΩ) at least 2 MΩ min. after surge test for basic and 4 MΩ min. for reinforced insulation .....:		N/A
10.3	Humidity treatment 48 h or 120 h .....:	48 h	P
10.4	**Insulation resistance and dielectric strength**		**P**
	Between parts of different polarity directly connected to the mains	(see appended table 10.3)	N/A
	Between parts separated by BASIC or SUPPLEMENTARY insulation	(see appended table 10.3)	P
	Between parts separated by REINFORCED insulation	(see appended table 10.3)	N/A
11	**FAULT CONDITIONS**		
11.1	No shock hazard under fault condition		P
11.2	**Heating**		**P**
11.2.1	**Requirements**		**P**
	No danger of fire to the surroundings		P
	Safety not impaired by abnormal heat		P
	Flames extinguish within 10 seconds		N/A
	No hazard from softening solder		N/A
	Soldered terminations not used as protective mechanism		P
11.2.2	Measurement of temperature rises	(see appended table 11.2)	P
11.2.3	Temperature rise of accessible parts	(see appended table 11.2)	P

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
11.2.4	Temperature rise of parts, other than windings and printed boards, providing electrical insulation	(see appended table 11.2)	N/A
11.2.5	Temperature rise of parts acting as a support or mechanical barrier		P
11.2.6	Temperature rise of windings	(see appended table 11.2)	N/A
11.2.7	**Printed boards**		**P**
	Temperature rise does not exceed the limits of table 3 or exceed the limits of table 3 by max. 100 K for max. 5 min	(see appended table 11.2)	P
	a) Temperature rise of V-0 or VTM-0 printed circuit boards exceeding the limits of table 3 by not more than 100 K for an area not greater than 2 cm²		N/A
	b) Temperature rise of V-0 or VTM-0 printed circuit boards exceeding the limits of table 3 up to 300 K for an area not greater than 2 cm² 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		N/A
11.2.8	Temperature rise of parts not subject to the limits of 11.2.2 to 11.2.7 shall not exceed the limits in table 3, item e), "Fault conditions".	(see appended table 11.2)	P
12	**MECHNICAL STRENGTH**		
12.1	**Complete apparatus**		**P**
12.1.1	The apparatus have adequate mechanical strength		P
12.1.2	Bump test where mass >7 kg	<7Kg	N/A
12.1.3	Vibration test		P
12.1.4	Impact hammer test		P
	Steel ball test		P
12.1.5	Drop test for portable apparatus where mass ≤ 7 kg	1000mm, 3 times	P
12.1.6	Thermoplastic enclosures stress relief test	Metal enclosure	N
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)		N/A
12.5	Antenna coaxial sockets providing isolation		N/A
12.6	**Telescoping or rod antennas**		**N/A**
12.6.1	6,0mm diameter end		N/A
	Prevented from falling into the apparatus		N/A

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
12.6.2	Physical securement, removal prevented		N/A
12.7	**Apparatus containing coin / button cell batteries**		**N/A**
12.7.2	Reduced possibility for children to remove battery		N/A
12.7.3	**Tests**		**N/A**
12.7.3.2	Stress relief test		N/A
12.7.3.3	Battery replacement test		N/A
12.7.3.4	Drop test		N/A
12.7.3.5	Impact test		N/A
12.7.4	Battery not accessible; or not removable		N/A
13	**CLEARANCES AND CREEPAGE DISTANCES**		
13.1	Clearances in accordance with 13.3		N/A
	Creepage distances in accordance with 13.4		N/A
13.2	Determination of working voltage		N/A
13.3	**Clearances**		**N/A**
13.3.1	Comply with 13.3 or Annex J		N/A
13.3.2	Circuits conductively connected to the mains comply with table 8 and, where applicable, table 9.....:		N/A
13.3.3	Circuits not conductively connected to the mains comply with table 10		N/A
13.3.4	Measurement of transient voltages		N/A
13.4	Creepage distances not less than appropriate table 11 minimum values		N/A
13.5	**Printed boards**		**N/A**
13.5.1	Conductors complying with pull-of and peel strength requirements, one of which may be conductively connected to the mains, as in fig. 10	Certified PCB used	N/A
13.5.2	Type B coated printed circuit boards complying with IEC 60664-3 (basic insulation only)		N/A
13.6	Conductive parts along uncemented joints clearances and creepage distances comply with 13.3 and 13.4		N/A
	Conductive parts along reliably cemented joints comply with 8.8		N/A
	Temperature cycle test and dielectric strength test		N/A
	500V test for transformers, magnetic coupler and similar devices, if insulation is relied upon for safety		N/A

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
13.7	Enclosed, enveloped or hermetically sealed parts not conductively connected to the mains, clearances and creepage distances as in table 12		N/A
13.8	Parts filled with insulating compound, meeting the requirements of 8.8		N/A
14	**COMPONENTS**		
14.1	Flammability according to IEC 60695-11-10 or annex G, or 20.2.5		P
14.2	**Resistors**		**N/A**
	Resistors separately approved .....:		N/A
	a) Resistors between hazardous live parts and accessible metal parts		N/A
	b) Resistors, other than between hazardous live parts and accessible parts		N/A
14.3	**Capacitors and RC units**		N/A
	Capacitors separately approved :		N/A
14.3.1	Damp heat test duration 21 days		N/A
14.3.2	Y capacitors tested to IEC 60384-14:2005 .....:	No Y-cap. used	N/A
14.3.3	X capacitors tested to IEC 60384-14:2005 .....:	No X-cap. used	N/A
14.3.4	Capacitors operating at mains frequency but not connected to the mains: tests for X2 .....:		N/A
14.3.6	Capacitors with volume exceeding 1750 mm³, where short-circuit current exceeds 0,2 A: compliance with IEC 60384-1, 4.38 category B or better .....:		N/A
	Capacitors with volume exceeding 1750 mm³, mounted closer to a potential ignition source than table 13 permits: compliance with IEC 60384-1, 4.38 category B or better .....:		N/A
14.4	**Inductors and windings**		N/A
14.4.1	Comply with IEC 61558-1, IEC 61558-2 (as relevant) and clause 20.2.5		N/A
	Transformers and inductors separately approved .:		N/A
14.4.2	Transformers and inductors marked with manufacturer's name and type .....:		N/A
14.4.3	General		N/A
	1.1.1.1 Insulation material complies with clause 20.2.5		N/A
14.4.4	**Constructional requirements**		**N/A**
14.4.4.1	Clearances and creepage distances comply with clause 13		N/A

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
14.4.4.2	Transformers meet the constructional requirements		N/A
14.4.5	**Separation between windings**		**N/A**
14.4.5.1	Class II transformers have adequate separation between hazardous live parts and accessible parts (double or reinforced insulation)..... :		N/A
	Coil formers and partition walls > 0,4 mm		N/A
14.4.5.2	Class I transformers, with basic insulation and protective screening only if all 7 conditions are met		N/A
14.4.5.3	Separating transformers with at least basic insulation		N/A
14.4.6	**Insulation between hazardous live parts and accessible parts**		**N/A**
14.4.6.1	Class II transformers have adequate insulation between hazardous live parts and accessible parts (double or reinforced insulation)		N/A
	Coil formers and partition walls > 0,4 mm		N/A
14.4.6.2	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		N/A
	Winding wires connected to protective earth have adequate current-carrying capacity		N/A
14.5	**High voltage components and assemblies (U > 4kV peak)**		**N/A**
14.5.1	Component meets category V-1 of IEC 60695-11-10		N/A
14.5.2	High voltage transformers and multipliers		N/A
14.5.3	High voltage assemblies and other parts		N/A
14.6	**Protective devices**		**N/A**
14.6.1	Protective devices used within their ratings		N/A
	External clearances and creepage distances meet requirement of clause 13 for the voltage across the device when opened		N/A
14.6.2	**Thermal releases**		**N/A**
14.6.2.1	Comply with 14.6.2.2, 14.6.2.3 or 14.6.2.4		N/A
14.6.2.2	a) Thermal cut-outs separately approved		N/A
	b) Thermal cut-outs tested as part of the submission		N/A
14.6.2.3	a) Thermal links separately approved		N/A
	b) Thermal links tested as part of the submission		N/A
14.6.2.4	Thermal devices re-settable by soldering		N/A
14.6.3	**Fuses and fuse holders**		**N/A**

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
14.6.3.1	Fuse-links in the mains circuit according to IEC 60127		N/A
14.6.3.2	Correct marking of fuse-links adjacent to holder ....:		N/A
14.6.3.3	Not possible to connect fuses in parallel		N/A
14.6.3.4	Not possible to touch hazardous live parts when replacing fuse-links without the use of a tool .....:		N/A
14.6.4	PTC thermistors comply with IEC 60730-1:2010		N/A
	PTC devices (>15 W) category V-1 or better		N/A
14.6.5	Circuit protectors have adequate breaking capacity and their position is correctly marked		N/A
14.7	**Switches**		**N/A**
14.7.1 a)	Separate testing to IEC 61058-1 including: - 10 000 operations - Normal pollution suitability - For CRT TV's, make and break speed independent of speed of actuation - V-0 or compliance with G.1.1		N/A
14.7.1 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 or 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 or 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 or G.1.1		N/A
14.7.2	Switch tested to 14.7.1 b) checked according to IEC 61058-1 clause 13.1 and 10 000 operation test		N/A
14.7.3	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
14.7.4	Switch tested to 14.6.1 b) has adequate dielectric strength		N/A
14.7.5	Mains switch controlling mains socket outlets additional tests to IEC 61058-1		N/A
14.8	Safety interlocks according to 2.8 of IEC 60950-1		N/A
14.9	Voltage setting device and the like are not likely to be changed accidentally		N/A
14.10	**Motors**		**N/A**
14.10.1	a) Endurance test on motors		N/A
	b) Motor start test		N/A

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Dielectric strength test		N/A
14.10.2	Not adversely affected by oil or grease etc.		N/A
14.10.3	Protection against moving parts		N/A
14.10.4	Motors with phase-shifting capacitors, three-phase motors and series motors meet clause. B.8, B.9 and B.10 of IEC 60950-1, Annex B		N/A
14.11	**Batteries**		**N/A**
14.11.1	Comply with IEC 62133 if applicable		N/A
	Batteries mounted with no risk of accumulation of flammable gases		N/A
14.11.2	No possibility of recharging user replaceable non-rechargeable batteries		N/A
14.11.3	Recharging currents and times within manufacturers limits		N/A
	Lithium batteries discharge and reverse currents within the manufacturers limits		N/A
14.11.4	Battery mould stress relief		N/A
14.11.5	Battery drop test		N/A
14.12	**Optocouplers**		**N/A**
	Comply with constructional requirements of clause 8	No such component	N/A
	External clearances and creepage comply with 13.1		N/A
	Compound completely filling the casing or internal clearances and creepage comply with 13.1.....:		N/A
	a) Complies with 13.6 (jointed insulation) and N.3.2		N/A
	b) Complies with IEC 60747-5-5:2007		N/A
	c) Complies with 13.8		N/A
14.13	**Surge suppression varistors**		**N/A**
	Comply with IEC 61051-2		N/A
	Not connected between mains and accessible parts except for earthed parts of permanently connected apparatus		N/A
	GDT bridging basic insulation complies with electric strength and distance requirements		N/A
	Complies with the climatic, voltage, current pulse, fire hazard and thermal stress requirements of 14.13		N/A

15	**TERMINALS**	
15.1	**Plugs and sockets**	**N/A**

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
15.1.1	Mains plug, appliance inlet, interconnection couplers and mains socket-outlet meet the appropriate standard	(see appended table 14)	N/A
	Overloading of plugs or appliance inlets prevented if the apparatus has mains socket outlets		N/A
	Overloading of internal wiring prevented if the apparatus has mains socket outlets		N/A
15.1.2	Design of connectors other than for mains power		N/A
	Design of sockets with symbol of 5.3 b) design		N/A
15.1.3	Design of terminals and connectors used in output circuits of supply apparatus		N/A
15.2	**Provision for protective earthing**		**N/A**
	Accessible conductive parts of Class I equipment reliably connected to earth terminal, within equipment	Not class Ⅰ equipment	N/A
	Protective earth conductors correctly fixed and coloured		N/A
	Separate protective earth terminal near mains terminal and comply with 15.3		N/A
	Protective earth terminal resistant to corrosion		N/A
	Earth resistance test: < 0,1 Ω at 25 A .....:		N/A
15.3	**Terminals for external flexible cords and for permanent connection to the mains supply**		N/A
15.3.1	Adequate terminals for connection of permanent wiring		N/A
15.3.2	Reliable connection of non-detachable cords		N/A
	Not soldered to conductors of a printed circuit board		N/A
	Adequate clearances and creepage distances between connections should a wire break away		N/A
	Wire secured by additional means to the conductor		N/A
15.3.3	Screws and nuts clamping conductors have adequate threads: ISO 261, ISO 262 or similar		N/A
15.3.4	Conductors adequately fixed (two independent fixings)		N/A
15.3.5	Terminals allow connection of conductors having appropriate cross-sectional area		N/A
15.3.6	Terminals to 15.3.3 have sizes required by table 16		N/A
15.3.7	Terminals clamp conductors between metal and have adequate pressure		N/A

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Terminals designed to avoid conductor slipping out when tightened		N/A
	Terminals adequately fixed when tightened or loosened (no loosening, wiring not stressed, distances not reduced)		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**		
16.1	Mains cords sheathed type, complying with IEC 60227 for PVC or IEC 60245 for synthetic rubber cords .....:	No such EXTERNAL FLEXIBLE CORDS	N/A
	Non-detachable cords for Class I have green/yellow core for protective earth		N/A
16.2	Mains cords conductors have adequate cross-sectional area for rated current consumption of the equipment		N/A
16.3	Flexible cords not complying with 16.1, used for interconnections between separate units of equipment used in combination and carrying hazardous live voltages comply with a) and b)		N/A
16.4	Flexible cords used for connection between equipment have adequate cross-sectional areas to avoid temperature rise under normal and fault conditions		N/A
16.5	Adequate strain relief on external flexible cords		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

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
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 apparatus have appliance inlet according to IEC 60320-1 or means of stowage to protect the cord		N/A
17	**ELECTRICAL CONNECTIONS AND MECHANICAL FIXINGS**		
17.1	Table 20 torque test metal thread, 5 times.....:	Screws for fixing enclosure: Diameter: 2,95 mm Torque: 0,5 Nm	P
	Table 20 torque test non-metallic thread, 10 times... :		N/A
17.2	Correct introduction into female threads in non-metallic material		P
17.3	Cover fixing screws captive or 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		P
17.5	Contact pressure not transmitted through insulating material other than ceramic for connections carrying a current > 0,2 A		N/A
17.6	Stranded conductors of flexible supply cords carrying a current > 0,2 A with screw terminals not consolidated by solder		N/A
17.7	Cover fixing devices have adequate strength and their positioning is unambiguous		N/A
17.8	Fixing means for detachable legs or stands provided		N/A
17.9	Internal pluggable connections, affecting safety, unlikely to become disconnected		P
18	**MECHANICAL STRENGTH OF PICTURE TUBES AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION**		
18.1	Comply with IEC 61965 or 18.2		N/A
18.2	Non-intrinsically protected tubes		N/A
19	**STABILITY AND MECHANICAL HAZARDS**		
19.1	Apparatus > 7kg have adequate stability or is required to be fastened in place and provided with the warning of 5.5.2 f) .....:		N/A
19.2	Test at 10° to the horizontal		N/A

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
19.3	Vertical force test 100 N applied downwards		N/A
19.4	Horizontal force test, 100 N or 13% of weight, applied horizontally to point of least stability		N/A
19.5	Edges or corners not hazardous		P
19.6	**Mechanical strength of glass**		N/A
19.6.1	Glass surfaces (exc.laminated) with an area exceeding 0,1 m² or major dimension > 450 mm, pass the test of 12.1.4		N/A
19.6.2	Fragmentation test		N/A
19.7	**Wall or ceiling mounting means**		N/A
19.7.1 - 19.7.3	Not dislodged and remain mechanically intact after test according to 19.7.2 Test 1, Test 2 or Test 3.....:		N/A
20	**RESISTANCE TO FIRE**		
20.1	Start and spread of fire is prevented		P
20.2	**Electrical components and mechanical parts**		**N/A**
20.2.1	a) Exemption for components contained in an enclosure of material V-0 to IEC 60695-11-10 with openings not exceeding 1 mm in width		N/A
	b) Exemption for small components		P
20.2.2	Electrical components meet the requirements of Clause 14 or 20.2.5		P
20.2.3	Insulation of internal wiring working at voltages > 4 kV or leaving an internal fire enclosure, or located within the areas mentioned in Table 21, comply with G.2		N/A
20.2.4	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 60695-11-10, unless used in a fire enclosure	PWB is of V-0 material	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 60695-11-10.	PWB is of V-0 material	P
20.2.5	Components and parts not covered by 20.1.1, 20.1.2 and 20.1.3 (other than fire enclosures) mounted nearer to a potential ignition source than the distances in Table 21 comply with the relevant flammability category in Table 21	(see appended table 14)	P
	Components and parts as above but shielded from a potential ignition source, with the barrier area in accordance with Table 21 and fig. 13		N/A

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
	Apparatus with voltages >4kV under normal operating conditions and distances to the enclosure exceed those specified Table 21, flammability classification HB40 or better is required for the enclosure		N/A
20.3	**Fire enclosure**		**N/A**
20.3.1	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
20.3.2	Internal fire enclosures with openings not exceeding 1 mm in width and with openings for wires completely filled		N/A
20.3.3	Requirements of 20.2.1 and 20.2.2 met by an internal fire enclosure		N/A
ANNEX A	**ADDITIONAL REQUIREMENTS FOR APPARATUS WITH PROTECTION AGAINST SPLASHING WATER**		
A.5	**Marking and instructions**		**N/A**
A.5.1	A.5.2 i) Marked with at least IPX4 (IEC 60529) 5.5.2 a) does not apply		N/A
A.10	**Insulation requirements**		**N/A**
A.10.3	**Splash and humidity treatment**		**N/A**
A.10.3.1	The enclosure provide adequate protection against splashing water		N/A
A.10.3.2	Complies with 10.3,duration of the test is 168h		N/A
ANNEX B	**APPARATUS TO BE CONNECTED TO TELECOMUNICATION THE TELECOMMUNICATION NETWORKS**		
	Complies with IEC 62151 clause 1		N/A
	Complies with IEC 62151 clause 2		N/A
	Complies with IEC 62151 clause 3 modified		N/A
	Complies with IEC 62151 clause 4 modified		N/A
	Complies with IEC 62151 cause 5 modified		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
ANNEX L	**ADDITIONAL REQUIREMENTS FOR ELECTRONIC FLASH APPARATUS FOR PHOTOGRAPHIC PURPOSES**		

IEC 60065			
Clause	Requirement – Test	Result - Remark	Verdict
L.5	**Marking and instructions**		**N/A**
L.5.5.1	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**
L.7.1.6	Lithium batteries meet permissible temp rise in Table 3		N/A
L.9	**Electric shock hazard under normal operating conditions**		**N/A**
L. 9.1.1.1	Terminals for connection to synchroniser not hazardous live		N/A
L.14	**Components**		**N/A**
L.14.6.7	Mains switch characteristics appropriate to its function under normal conditions		N/A

ATTACHMENT TO TEST REPORT IEC 60065
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES
(Audio, video and similar electronic apparatus – Safety requirements)

Differences according to.....:	EN 60065:2014
Attachment Form No..... :	EU_GD_IEC60065L
Attachment Originator.....:	Intertek Semko AB
Master Attachment.....:	Date 2015-03

	CENELEC COMMON MODIFICATIONS (EN)		
General	1.1.3 Note 2 13.3.1 Note 4 15.2 Note 2 20 Note 5.4 Note 14.1 Note 1 and Note 2 16.1 Note 2 J.3 Note 1 and Table J.1 Note 2 5.5.2 Note 1 and Note 2 15.1.1 Note 1 and Note 2 16.2 Note		P
1.2	**Normative references**		
	Add the following: EN 71-1, *Safety of toys – Part 1: Mechanical and physical properties* EN 50332-1, *Sound system equipment: Headphones and earphones associated with personal music players – Maximum sound pressure level measurement methodology – Part 1: General method for "one package equipment"* EN 50332-2, *Sound system equipment: Headphones and earphones associated with personal music players – Maximum sound pressure level measurement methodology – Part 2: Matching of sets with headphones if either or both are offered separately, or are offered as one package equipment but with standardised connectors between the two allowing to combine components of different manufacturers or different design*		N/A
3	**General requirements**		
3.Z1	**Protective devices** 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): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of Clause 11 shall be included as parts of the equipment; 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; c) it is permitted for equipment supplied via an		P

	industrial mains plug or for 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. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for apparatus not supplied via an industrial mains plug or for PERMANENTLY CONNECTED APPARATUS the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		
4	**General test conditions**		
4.1.1	**Replace** the text of the note by: NOTE For ROUTINE TEST, reference is made to EN 50514:2008.		N/A
6	**Hazardous radiations**		
6.1	**Replace** the entire subclause by the following: 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. *Compliance is checked by measurement under the following conditions*: *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.* NOTE 1 Soldered joints and paint lockings are examples of adequate locking. *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* *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.* *The dose-rate shall not exceed 1 µSv/h (0,1 mR/h) taking account of the background level.* NOTE 2 These values appear in Council Directive 96/29/Euratom of 13 May 1996. *A picture is considered to be intelligible if the following conditions are met*: *- 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*		N/A

	degradation; *- not more than one flashover per 5 min.*		
16	**External flexible cords**		
16.1	**Add** the following note after the first paragraph: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.		N/A

1.2 Z1	**1.3 Protection against excessive sound pressure from personal music players**		
Z1.1	**General** This subclause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. Requirements for earphones and headphones intended for use with personal music players are also covered. A personal music player is a portable equipment for personal use, that: − is designed to allow the user to listen to recorded or broadcast sound or video; and − uses a listening device, such as headphones or earphones that can be worn in or on or around the ears; and − is body worn (of a size suitable to be carried in a clothing pocket) and is intended for the user to walk around while in use. EXAMPLES CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment. A personal music player shall comply with the requirements of this subclause. NOTE 1 Protection against acoustic energy sources from telecom terminal equipment is referenced to ITU-T Recommendation P.360. The requirements in this subclause are valid for music or video mode only. The requirements do not apply to: − professional equipment; NOTE 2 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment. − hearing aid equipment and other devices for assistive listening; − the following types of analogue personal music players: • long distance radio receiver (for example, a multiband radio receiver or a world band radio receiver, an AM radio receiver) and • cassette player/recorder; NOTE 3 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. − player while connected to an external amplifier that does not allow the user to walk around while in use. For equipment clearly designed or intended for		N/A

	use by young children, the limits of EN 71-1 apply.		
Z1.2	**Equipment requirements** No safety provision is required for equipment that complies with the following: − equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dB(A) measured while playing the fixed “programme simulation noise” as described in EN 50332-1; and − 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” as described in EN 50332-1. NOTE 1 Wherever the term acoustic output is used in this subclause, the 30 s A-weighted equivalent sound pressure level *L*Aeq,T is meant. See also Z1.5 and Annex ZE. All other equipment shall: a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and 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 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 NOTE 2 Examples of means include visual or audible signals. Action from the user is always required. 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. d) have a warning as specified in Z1.3; and e) not exceed the following: 1) equipment provided as a package (player with its listening device), the acoustic output shall be ≤ 100 dB(A) measured while playing the fixed “programme simulation noise” described in EN 50332-1; and 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. 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 does not exceed the basic limit of 85 dB(A). In this case, *T* becomes		N/A

	the duration of the song. 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 as the average sound pressure of the song is below the basic limit of 85 dB(A). NOTE 5 For example, if the player is set with the programme simulation noise to 85 dB(A), but the average music level of the song is only 65 dB(A), 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 dB(A).		
Z1.3	The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following: − the symbol of Figure Z1 with a minimum height of 5 mm; and − the following wording, or similar: To prevent possible hearing damage, do not listen at high volume levels for long periods.  **Figure Z1 – Warning label (IEC 60417-6044)** 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.		N/A
Z1.4	**Requirements for listening devices (headphones, earphones, etc.)**		
Z1.4.1	**Corded passive listening devices with analogue input** With 94 dB(A) sound pressure output $L_{Aeq,T}$, the input voltage of the fixed "programme simulation noise" described in EN 50332-2 shall be ≥ 75 mV. This requirement is applicable in any mode where the headphones can operate including any available setting (for example built-in volume level control, an additional sound feature like equalization, etc.). NOTE The values of 94 dB(A) – 75 mV correspond with 85 dB(A) – 27 mV and 100 dB(A) – 150 mV.		N/A
Z1.4.3	**Cordless 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 dB(A).		N/A
Z1.5	**Measurement methods**		N/A

	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. NOTE Test method for cordless equipment provided without listening device should be defined.		

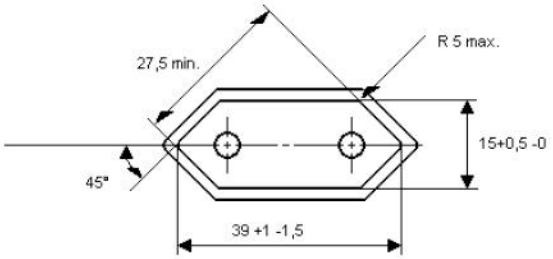
1.4	**1.5 ANNEXES**		
Annex B	**Replace** the text of Note 1 by the following: In the CENELEC countries listed in IEC 62151, special national conditions apply.		N/A
Annex N	After the note in N.1, **add** the following: For ROUTINE TEST, reference is made to EN 50514:2008.		N/A

ZA	**NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS**	—

1.6 ZB	**1.7 ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		
2.6.1	**Denmark** 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 6c		N/A
3.Z1	**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
5.4	**Denmark, Finland, Norway and Sweden** 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 **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.” In **Finland**: "Laite on liitettävä suojakoskettimilla		N/A

	varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”		
5.5.2	**Norway and Sweden** **Add** to the end of 5.5.2 (after the compliance statement) the following: The screen of the coaxial cable of the television 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 coaxial cable based television distribution system. It is however accepted to provide the insulation external to the apparatus by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the apparatus is intended to be used in: “Apparatus connected to the protective earthing of the building installation through the MAINS connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)” NOTE In Norway, due to regulation for installations of CATV-installations, 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. Translation to Norwegian (the Swedish text will also be accepted in Norway): “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.” Translation to Swedish: ”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.”		N/A
13.3.1	**Norway**		P

	Add to the second paragraph the following: 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		
15.1.1	**Denmark** To the first paragraph the following is added: In Denmark, supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1. 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 which assure earth continuity with the socket-outlet in accordance with DS 60884-2-D1. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-1. To the second paragraph the following is added: Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-1c. To the third paragraph the following is added: Mains socket-outlets with earthing contact shall be in compliance with DS 60884-2-D1, Standard sheet DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a *Justification*: Heavy Current Regulations, Section 6c		N/A
15.1.1	**Ireland** Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, “13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. *Justification*: SI 525: 1997		N/A
15.1.1	**Norway** 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: § 8 Dimensions		N/A

	a) 2,5 A 250 V two-pole socket-outlets for electronic apparatus shall comply with the enclosed Standard Sheet I. STANDARD SHEET I 2,5 A/250 V SOCKET-OUTLET FOR ELECTRONIC APPLIANCES OF CLASS II  Dimensions in mm Other dimensions according to CEE Publication 7 Standard Sheet I "Portable Single-Way Socket-Outlets". § 24 Mechanical strength a) 2,5 A, 250 V socket-outlets for Class II electronic apparatus are tested as specified in EN 60065:2014, 12.1.3. Also the protecting rim shall be tested. *Justification*: Act of 24 May 1929 relating to supervision of electrical installation (TEA 1929/FEL 1998).		
15.1.1	**United Kingdom** 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. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug. *Justification*: SI 1768: 1994		N/A
Annex B	**Finland, Norway and Sweden** All sub clauses given below are sub clauses of IEC 62151 (ref. corrigenda 1 and 2 to IEC 62151). **Subclause 4.1.1 (corrigendum 2):** **Add** after the first paragraph: NOTE In **Finland**, **Norway** and **Sweden**, CLASS I equipment which is intended for connection to the building installation via a non-industrial plug or a non-industrial appliance coupler, or both and in addition is intended for connection to other equipment 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, has a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In Finland: “ Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan ” In Norway: “Apparatet må tilkoples jordet stikkontakt” In Sweden: "Apparaten skall anslutas till jordat uttag"		N/A

	Subclause 4.1.4 (corrigendum 1) **Add** at the end of the subclause: NOTE In **Norway**, for requirements see 4.1.1, note and 5.3.1, note 1. **Subclause 4.2.1.2 (corrigendum 1)** **Add** at the end of the subclause: NOTE 3 In **Norway**, for requirements see 5.3.1, note 1. **Subclause 4.2.1.3 (corrigendum 2)** **Add** at the end of the subclause: NOTE In **Norway**, for requirements see 4.1.1, note and 5.3.1, note 1. **Subclause 4.2.1.4 (corrigendum 1)** **Number** the existing note as NOTE 1 and **add** at the end of the subclause the following NOTE 2: NOTE 2 In **Norway**, for requirements see 4.1.1, note and 5.3.1, note 1. **Subclause 5.3.1 (corrigendum 1)** **Add** after the first test specifications paragraph: NOTE 1 In **Finland**, **Norway** and **Sweden**, there are additional requirements for the insulation. **Renumber** the existing note as NOTE 2. For additional requirements for the insulation in Finland, Norway and Sweden in NOTE 1 the following text is added between the first and the second paragraph (this text is identical to the corresponding EN 60950-1:2001): NOTE 1 In **Finland**, **Norway** and **Sweden**, if this insulation is solid, including insulation forming part of a component, it shall at least consist of either • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in the accordance with the compliance clause below and in addition: • passes the test and inspection criteria of 13.6 with an electric strength test of 10.3 using the test voltage of 1,5 kV multiplied by 1,6, and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5 kV (for performance of the test see N.2.1). It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions: • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in IEC 62151:2000, 6.2.1; • the additional testing shall be performed on all the test specimens as described in EN 132400; • the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 in the sequence of tests as described in EN 132400. **Subclause 5.3.2 (corrigendum 1)** **Add** after the fourth dash: NOTE In **Finland**, **Norway** and **Sweden**, exclusions are applicable for equipment which is intended for connection to the building installation wiring using screw terminals or other reliable means, and for equipment which is intended for connection to the building installation wiring via an industrial plug and socket -outlet or an appliance coupler, or both, complying with EN 60309 or with a comparable national standard.		
J.2	**Norway** After Table J.1 the following is added: 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

1.8 ZC	**1.9 ANNEX ZC, NATIONAL DEVIATIONS (EN)**		
5.1	**Italy**		N/A

	The following requirements shall be fulfilled: - The power consumption in Watts (W) shall be indicated on TV receivers and in their instruction for use (Measurement according to IEC 60107-1) NOTE EN 60555-2 has since been replaced by IEC 60107-1:1997. - TV receivers shall be provided with an instruction for use, schematic diagrams and adjustments procedure in Italian language. - Marking for controls and terminals shall be in Italian language. Abbreviation and international symbols are allowed provided that they are explained in the instruction for use. - The ECC manufacturers are bound to issue a conformity declaration according to the above requirements in the instruction manual. The correct statement for conformity to be written in the instruction manual, shall be: Questo apparecchio è fabbricato nella CEE nel rispetto delle disposizioni del D.M. marzo 1992 ed è in particolare conforme alle prescrizioni dell'art. 1 dello stesso D.M. - The first importers of TV receivers manufactured outside EEC are bound to submit the TV receivers for previous conformity certification to the Italian Post Ministry (PP.TT). The TV receivers shall have on the backcover the certification number in the following form: D.M. 26/03/1992 xxxxx/xxxxx/S or T or pT S for stereo T for teletext pT for retrofitable teletext *Justification:* Ministerial Decree of 26 March 1992: National rules for television receivers trade. NOTE The ministerial decree above contains additional, but not safety relevant requirements.		
6.1	**Germany** 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 Council Directive 96/29/Euratom in Germany. NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de		N/A
14.1	**Sweden** The following requirements shall be fulfilled: Switches containing mercury such as thermostats, relays and level controllers are not allowed.		N/A

Test Tables

7.1	TABLE: Temperature rise measurement						P
	Power consumption in the OFF/Stand-by……:	--					--
	Position of the functional switch (W)……:	--					--
Operating conditons							
Un (V)	Hz	In (A)	Pn (W)	Uout (V)	Pout (W)	Operating Condition/Status	
5	--	0.297	1.49	--	--	Normal working	
	Loudspeaker impedance (Ω)……:	--					
	Several loudspeaker systems……:	--					
	Marking of loudspeaker terminals……:	--					

Monitored point:	dT (K)	Limit max. dT (K)
Test condition	5Vd.c.	--
PCB near IC2	28.2	95
DC input terminal	10.9	60
Enclosure inside	12.3	40
Enclosure outside	8.6	40
Ambient	35℃	--

Comments:
For components with temperature marking, allowed Tmax = Tmax- Tma (Tma = 35 ° C)

	Winding temperature rise measurements					--
	Ambient temperature t1 (℃) ……:	--				--
	Ambient temperature t2 (℃)……:	--				--
Temperature rise dT of winding: $dT = \frac{(R_2 - R_1)}{R_1} \times (234.5 + t1) - (t2 - t1)$		R_1 (Ω)	R_2 (Ω)	dT (K)	Limit max. (K)	Insulation class
--		--	--	--	--	--

Note: According to the user manual, the appliance is intended to be used in moderate climate, so the basic ambient temperature is 35℃.

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)	
--	--	--	--	
Note:				

Test Tables

10.4	TABLE: Insulation resistance measurements	N/A
Insulation resistance R between	R (MΩ)	Required R (MΩ)
--	--	--
Note: 1) BI: Basic insulation; SI: Supplementary insulation; DI: Double insulation; RI: Reinforced insulation		

10.3	TABLE: Electric strength measurements	P
Test voltage applied between	Test voltage (V)	Breakdown
Input and enclosure	DC 500	No
Input and output terminals	DC 500	No
Note: 1) BI: Basic insulation; SI: Supplementary insulation; DI: Double insulation; RI: Reinforced insulation		

11	TABLE: Fault Conditions			P
No.	Component	Fault	dT (K) / Component	Test conditions, test duration, test result
4.	C13	SC	--	After SC, unit shut down immediately. No damaged, no hazard.
5.	R2	SC	--	After SC, unit shut down immediately. No damaged, no hazard.
Supplementary information: 1) SC: short circuit				

13.3/13.4	TABLE: Clearances and creepage distances					N/A
	Operating Voltage [V]		Clearance [mm]		Creepage [mm]	
Location	Urms [V]	Upeak [V]	Minimum	Actual	Minimum	Actual
Test conditions: - Pollution degree: II - Material group: IIIb - Main transient voltage: 2,50KV Note: (RI) ≡ Reinforced insulation, (SI) ≡ Supplementary insulation, (BI) ≡ Basic insulation						

14	TABLE: List of critical components				P
Object/part No.	Manufacturer/trademark	Type/model	Technical data	Standard	Mark(s) of conformity[1)]

Test Tables

14	TABLE: List of critical components				P
Object/part No.	Manufacturer/trademark	Type/model	Technical data	Standard	Mark(s) of conformity[1)]
PCB	Interchangeable	Interchangeable	V-0, 130℃	UL 94 UL 746	UL
Adapter	Shenzheng Mingxin Power Technologies Co.,Ltd.	MX15Z-0502000VX	Input: 100-240V 50/60Hz, 0.4A Output: 5Vd.c., 2A	IEC/EN 60950-1	CE UL
Note: [1)] an asterisk indicates a mark which assures the agreed level of surveillance					

Photos

Photo 1 [ ] front [ ] rear [ ] right side [ ] left side [√] top [ ] bottom [ ] internal	

Photo 2 [ ] front [ ] rear [ ] right side [ ] left side [ ] top [√] bottom [ ] internal	

Photos

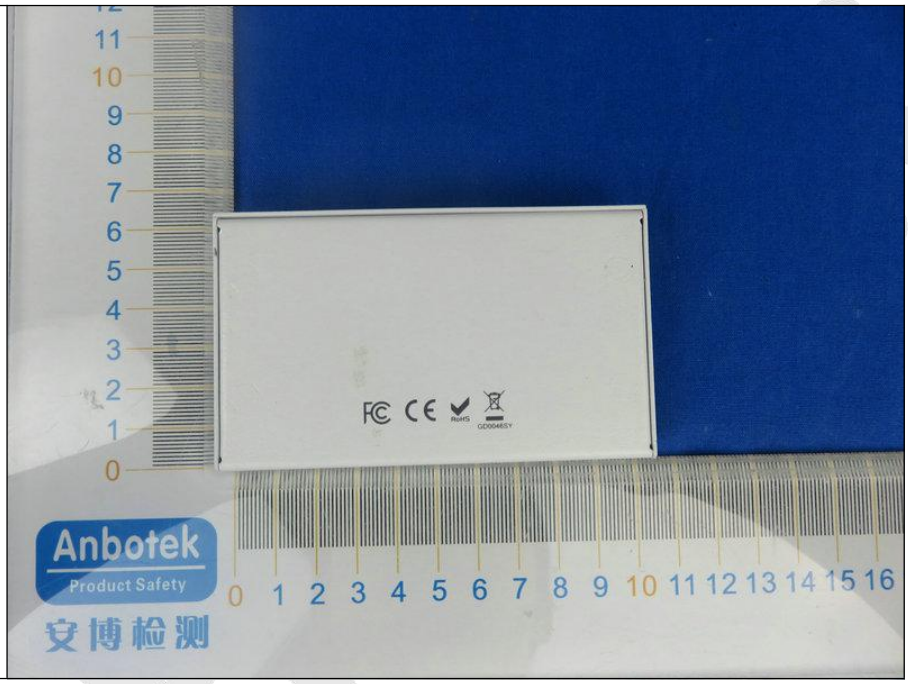
Photo 3 [ ] front [√] rear [ ] right side [ ] left side [ ] top [ ] bottom [√] internal	

Photo 4 [√] front [ ] rear [ ] right side [ ] left side [ ] top [ ] bottom [ ] internal	

Photos

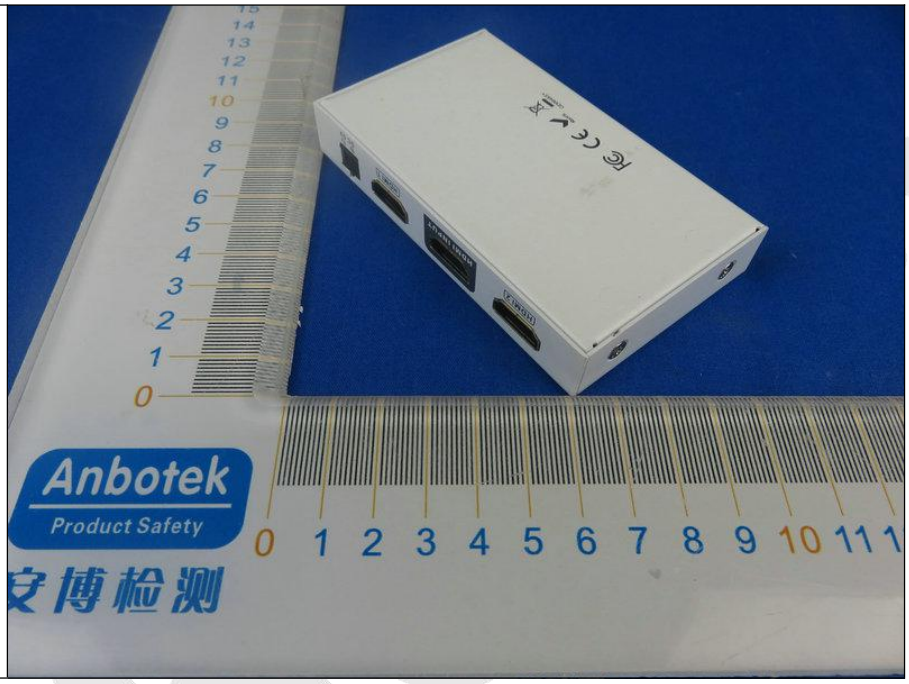
Photo 5 [ ] front [ ] rear [ ] right side [ ] left side [ ] top [ ] bottom [√] internal	

Photo 6 [ ] front [ ] rear [ ] right side [ ] left side [ ] top [ ] bottom [√] internal	

Photos

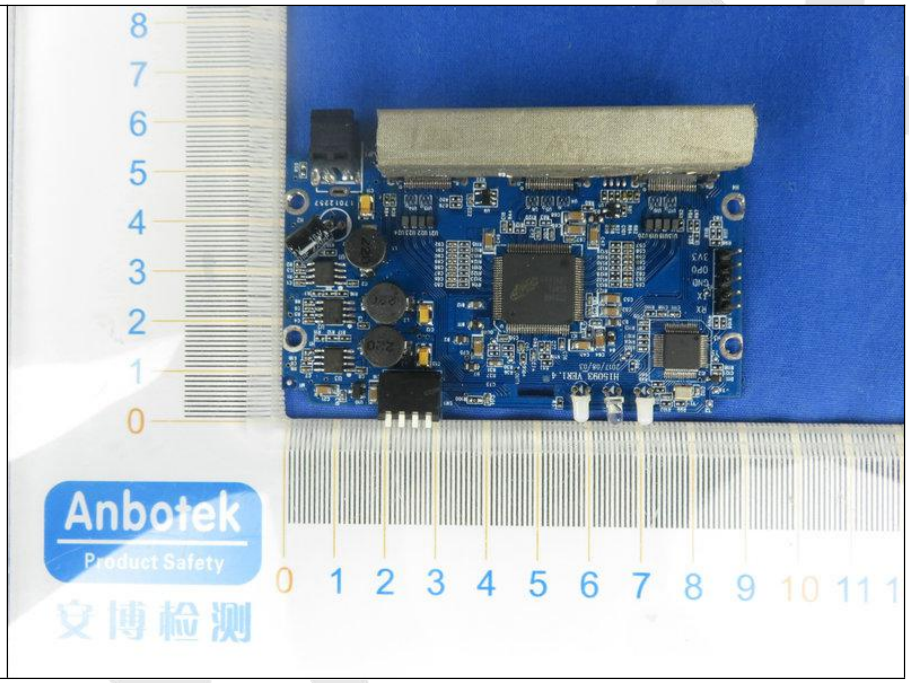
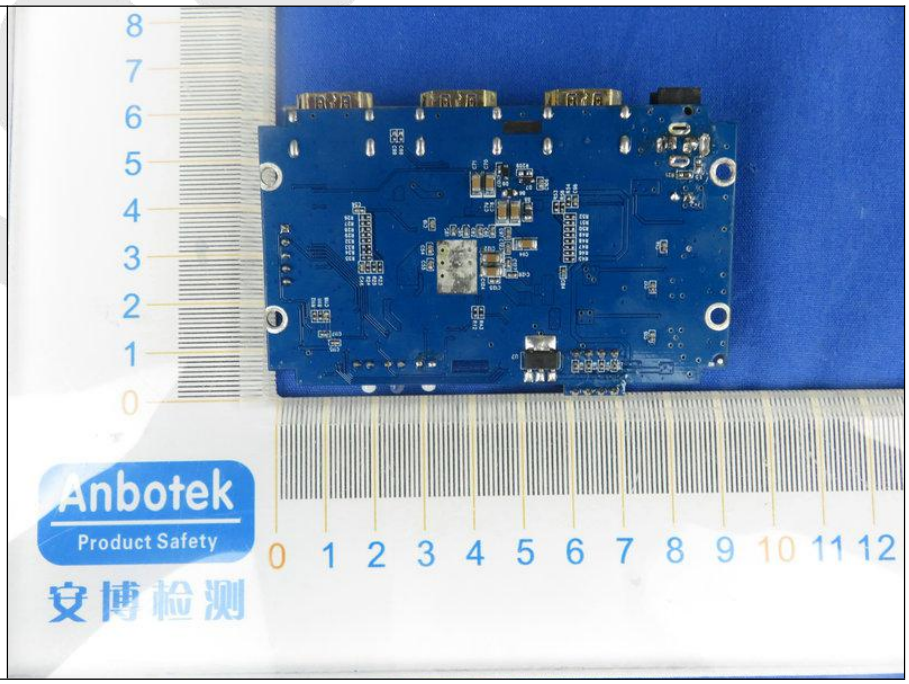
Photo 7 [ ] front [ ] rear [ ] right side [ ] left side [ ] top [ ] bottom [√] internal	

Photo 8 [ ] front [ ] rear [ ] right side [ ] left side [ ] top [ ] bottom [√] internal	

End of the report