Test Report issued under the responsibility of:

DEKRA

TEST REPORT
IEC 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

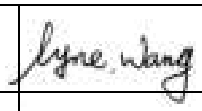
Report Number ..... :	4345842.50
Date of issue..... :	2018-06-05
Total number of pages ..... :	108 pages
Applicant's name..... :	Philips Consumer Lifestyle B.V.
Address ..... :	Building TC, Tussendiepen 4, 9206 AD Drachten, The Netherlands
Test specification:	
Standard ..... :	IEC 62368-1:2014 (Second Edition) IEC 60065:2014 (Eighth Edition) IEC 60950-1:2005 (Second Edition) + A1:2009 + A2:2013
Test procedure ..... :	CB-scheme
Non-standard test method..... :	N/A
Test Report Form No..... :	IEC62368_1&IEC60065&IEC60950_1A
Test Report Form(s) Originator ..... :	UL(US)
Master TRF..... :	2015-06

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

General disclaimer:

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 CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test Item description :	Wake-up light
Trade Mark :	Philips
Manufacturer :	Same as applicant
Model/Type reference :	Wake-up light: HF3500,HF3503, HF3504, HF3505, HF3506, HF3507,HF3508 External switching mode power supply: HQ8505 SSW-2600**-4 (**=EU,UK)
Rating :	Wake-up light: Input: 15 Vdc, 5,4 W External switching mode power supply: Input: 100-240 Vac, 50/60 Hz, 7,5 W Output: 15 Vdc, 5,4 W

Testing procedure and testing location:			
☒	CB Testing Laboratory:	DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch	
Testing location/ address .....:		No.3 Qiyun Road, Science City, Guangzhou Hi-Tech Industrial Development Zone, Guangzhou, China	
☐	Associated CB Testing Laboratory:		
Testing location/ address.....:			
Tested by (name, function, signature)...:		Lyne Wang	
Approved by (name, function, signature) :		Among Chen	
☐	Testing procedure: CTF Stage 1		
Testing location/ address.....:			
Tested by (name, function, signature)...:			
Approved by (name, function, signature) :			
☐	Testing procedure: CTF Stage 2		
Testing location/ address.....:			
Tested by (name, function, signature)...:			
Witnessed by (name, function, signature) .....:			
Approved by (name, function, signature) :			
☐	Testing procedure: CTF Stage 3		
☐	Testing procedure: CTF Stage 4		
Testing location/ address.....:			
Tested by (name, function, signature)...:			
Approved by (name, function, signature) :			
Supervised by (name, function, signature):			

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

This report consists of sub-reports having the same reference number with the following suffixes:

A- Concerning the EU Group/National Differences (10 pages)

B- Product photos(32 pages)

Summary of testing:

The USB adaptor is deemed to comply with the standards listed as below.

IEC 62368-1:2014 and EN 62368-1:2014+A11:2017

IEC 60950-1:2005 (Second Edition)+Am 1:2009+Am 2:2013 and EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

IEC 60065:2014 and EN 60065:2014+A11:2017

Tests performed (name of test and test clause):	**Testing location:**
Full test were made on model HF3507 cl.9 normal temperature test was performed on model HF3508. see report as far as applicable	DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch No.3 Qiyun Road, Science City, Guangzhou Hi-Tech Industrial Development Zone, Guangzhou, China

Summary of compliance with National Differences:

List of countries addressed

Tested according to national requirements for the following countries, no national differences countries are also listed.

Summary of compliance with National Differences (for explanation of codes see below):
AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, HU, IE, IT, NL, NO, PL, SE, TR.

AT=Austria, BE=Belgium, CH=Switzerland, DE=Germany, DK=Denmark, ES=Spain, FI=Finland, FR=France, GB=Great British, GR=Greece, HU=Hungary, IE=Ireland, IT=Italy, NL=The Netherlands, NO=Norway, PL=Poland, SE=Sweden, TR=Turkey.

☒ The product fulfils the requirements of EN 62368-1:2014+A11:2017

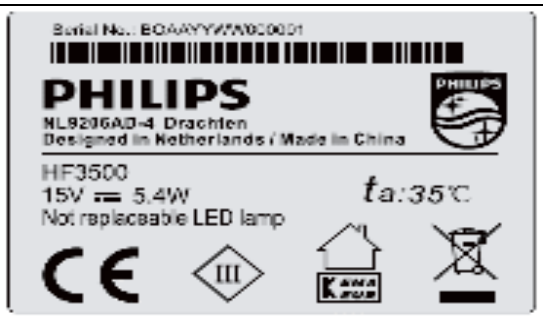
IEC 60950-1:2005 (Second Edition)+Am 1:2009+Am 2:2013 and EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

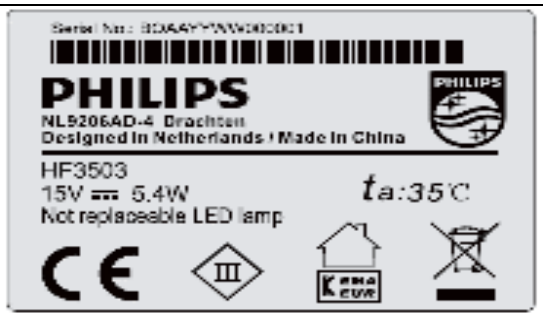
IEC 60065:2014 and EN 60065:2014+A11:2017

Copy of marking plate:

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.

Wake-up light:


PHILIPS
NL9206AD-4 Drachten
Designed in Netherlands / Made in China
HF3500
15V ⎓ 5.4W
Not replaceable LED lamp
ta:35℃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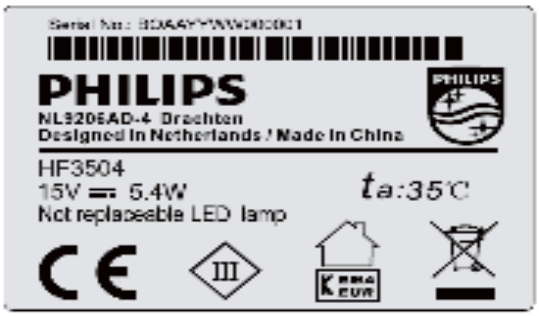
Designed in Netherlands / Made in China
HF3503
15V ⎓ 5.4W
Not replaceable LED lamp
ta:35℃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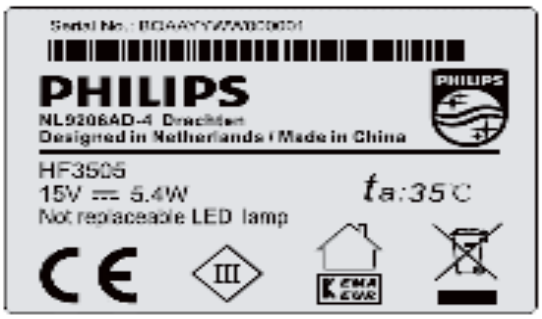
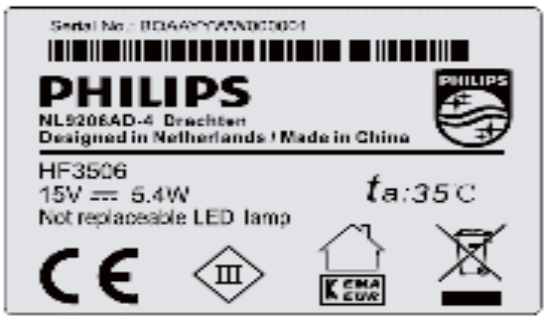
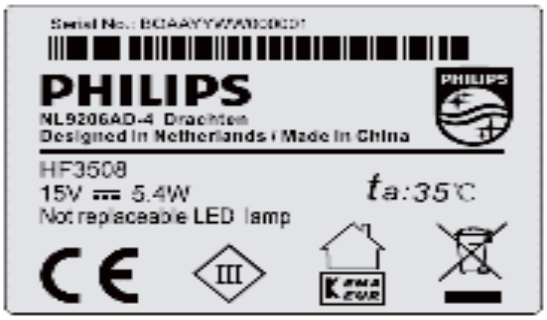
Designed in Netherlands / Made in China
HF3504
15V ⎓ 5.4W
Not replaceable LED lamp
ta:35℃

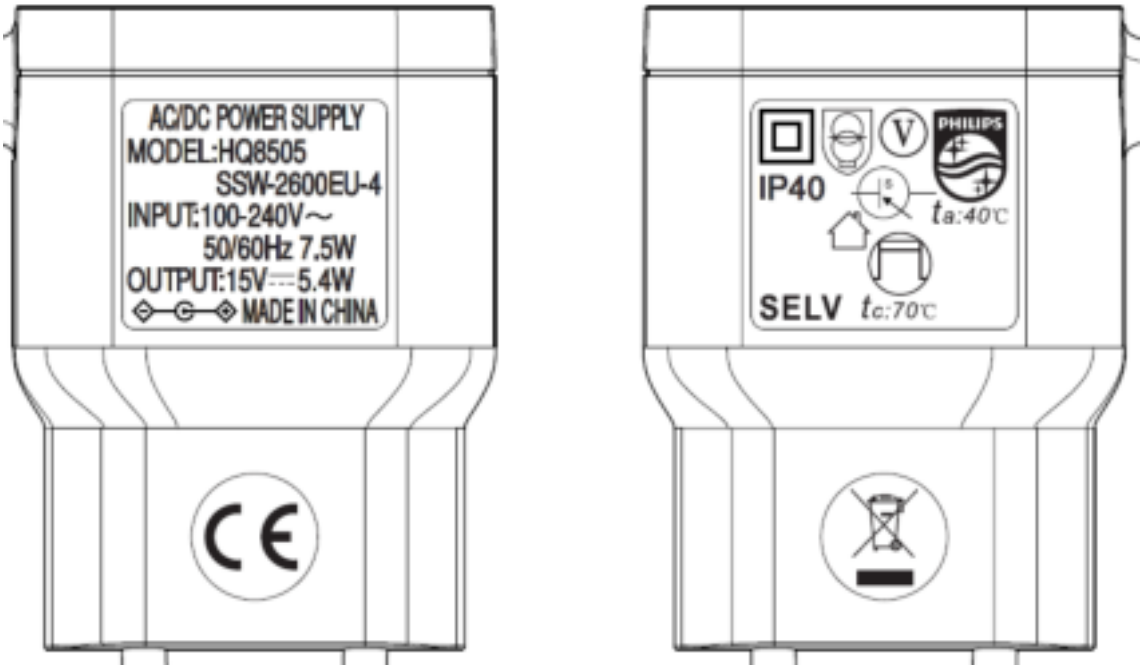

PHILIPS
NL9206AD-4 Drachten
Designed in Netherlands / Made in China
HF3505
15V ⎓ 5.4W
Not replaceable LED lamp
ta:35℃


PHILIPS
NL9206AD-4 Drachten
Designed in Netherlands / Made in China
HF3506
15V ⎓ 5.4W
Not replaceable LED lamp
ta:35℃

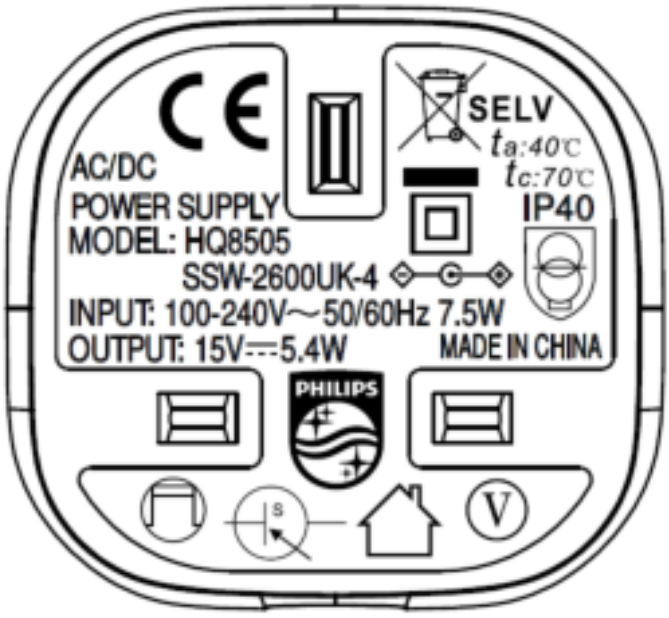

PHILIPS
NL9206AD-4 Drachten
Designed in Netherlands / Made in China
HF3507
15V ⎓ 5.4W
Not replaceable LED lamp
ta:35℃


PHILIPS
NL9206AD-4 Drachten
Designed in Netherlands / Made in China
HF3508
15V ⎓ 5.4W
Not replaceable LED lamp
ta:35℃

External switching mode power supply:



HQ8505 SSW-2600EU-4 rated label



HQ8505 SSW-2600UK-4 rated label

TEST ITEM PARTICULARS:	
Classification of use by ..... :	☒ Ordinary person ☒ Instructed person ☒ Skilled person ☒ Children likely to be present
Supply Connection ..... :	☒ AC Mains(external power supply) ☐ DC Mains ☐ External Circuit - not Mains connected - ☐ ES1 ☐ ES2 ☐ ES3
Supply % Tolerance ..... :	☒ +10%/-10% ☐ +20%/-15% ☐ +____%/ -_____% ☐ None
Supply Connection – Type ..... :	☐ pluggable equipment type A - ☐ non-detachable supply cord ☐ appliance coupler ☒ direct plug-in ☐ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☒ mating connector ☐ other:_____
Considered current rating of protective device as part of building or equipment installation ..... :	16 A Installation location: ☒ building; ☐ equipment
Equipment mobility ..... :	☒ movable ☐ hand-held ☐ transportable ☐ stationary ☐ for building-in ☐ direct plug-in ☐ rack-mounting ☐ wall-mounted
Over voltage category (OVC) ..... :	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other: _____
Class of equipment ..... :	☐ Class I ☐ Class II ☒ Class III
Access location ..... :	☐ restricted access location ☒ N/A
Pollution degree (PD) ..... :	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maximum operating ambient . :	35 °C
IP protection class ..... :	☐ IPX0 ☒ IP20
Power Systems ..... :	☒ TN ☐ TT ☒ IT - 230 V $_{L-L}$
Altitude during operation (m) ..... :	☒ 2000 m or less ☐ _____ m
Altitude of test laboratory (m) ..... :	☒ 2000 m or less ☐ _____ m
Mass of equipment (kg) ..... :	☒ 0,31 kg
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..... :	2018-05-01
Date (s) of performance of tests..... :	2018-05-02 to 2018-05-28
GENERAL REMARKS:	

"(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 ☒ comma / ☐ point is used as the decimal separator.

This Test Report covers test results for IEC 62368-1: 2014 (Second Edition), and additional results for IEC 60065: 2014 (Eighth Edition) and/or IEC 60950-1: 2005 (Second Edition) + Am 1: 2009 + Am 2: 2013.

Where a requirement in IEC 62368-1 addresses the same requirement/principle in IEC 60065 and/or IEC 60950-1, compliance with the IEC 62368-1 requirements covers compliance with the same requirement/principle in IEC 60065 and/or IEC 60950-1, as indicated.

The complete background/rationale behind the considerations in this TRF is outlined in **108/575/INF,** *IEC TC 108 position related to TRFs associated with the transition of IEC 60065 and IEC 60950-1 to IEC 62368-1.* Use of this TRF is intended to allow for a smooth transition from the legacy standards, IEC 60065 and IEC 60950-1, to the state-of-art requirements for safety of audio/video, information and communication technology equipment, IEC 62368-1.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate 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..... :	☐ **Yes** ☒ **Not applicable**
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) ..... :	JDI Electronics Factory Sima Village, Chang Ping Town, Dongguan, Guangdong, China

GENERAL PRODUCT INFORMATION:

Product Description –

This apparatus was combined with lighting function, clock function and radio function, and unless otherwise specified, the lighting part operated at the max. rated load (Lamp level = 10) during the test.

This test report was only cover the safety evaluation for the radio function and clock function as far as applicable. All of the test conditions have been considered the worst case in this test report.
For the lighting part evaluation, see the separate test report: 4345841.50

Assessment of the products related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz) had been evaluated according to the requirements of the EMF standard EN 62311: 2008. Refer to report 4345844.52 for detail.

The all models are similar with each other except for the differences of model number, alarm sound, sound IC and speaker, FM function, front key , sunset, time back up and the colour of back shell, there are six color version for model HF3506, silver, black, yellow,blue, red, copper. Detail see below table:

		HF3500	HF3503 HF3504	HF3505 HF3506	HF3507	HF3508
Function	Lamp	Yes (Non-replaceable LEDs)	Yes (Non-replaceable LEDs)	Yes (Non-replaceable LEDs)	Yes (Non-replaceable LEDs)	Yes (Non-replaceable LEDs)
	Clock and alarm	Yes	Yes	Yes	Yes	Yes
	Alarm sound	Buzzer 1 kind	Buzzer 2 kinds	[Build in sound] and [FM]	[Build in sound] and [FM]	[Build in sound] and [FM]
	Sound IC and Speaker	No	No	Yes	Yes	Yes
	FM	No	No	Yes	Yes	Yes
	Front key	Tactile buttons	Tactile buttons	Touch key	Touch key	Touch key
	Sunset	No	Yes	No	Yes	Yes
	Time back up	No	No	No	Yes	No

Difference between HF3503 and HF3504:

1.They are identical, except housing printing.

Difference between HF3505 and HF3506

1.They are identical only except housing printing.

Difference between HF3507 and HF3508:

1. they are identical only except HF3508 exclude time back up function.

Unless otherwise specified, the approved external switching mode power supply was tested together with the apparatus.

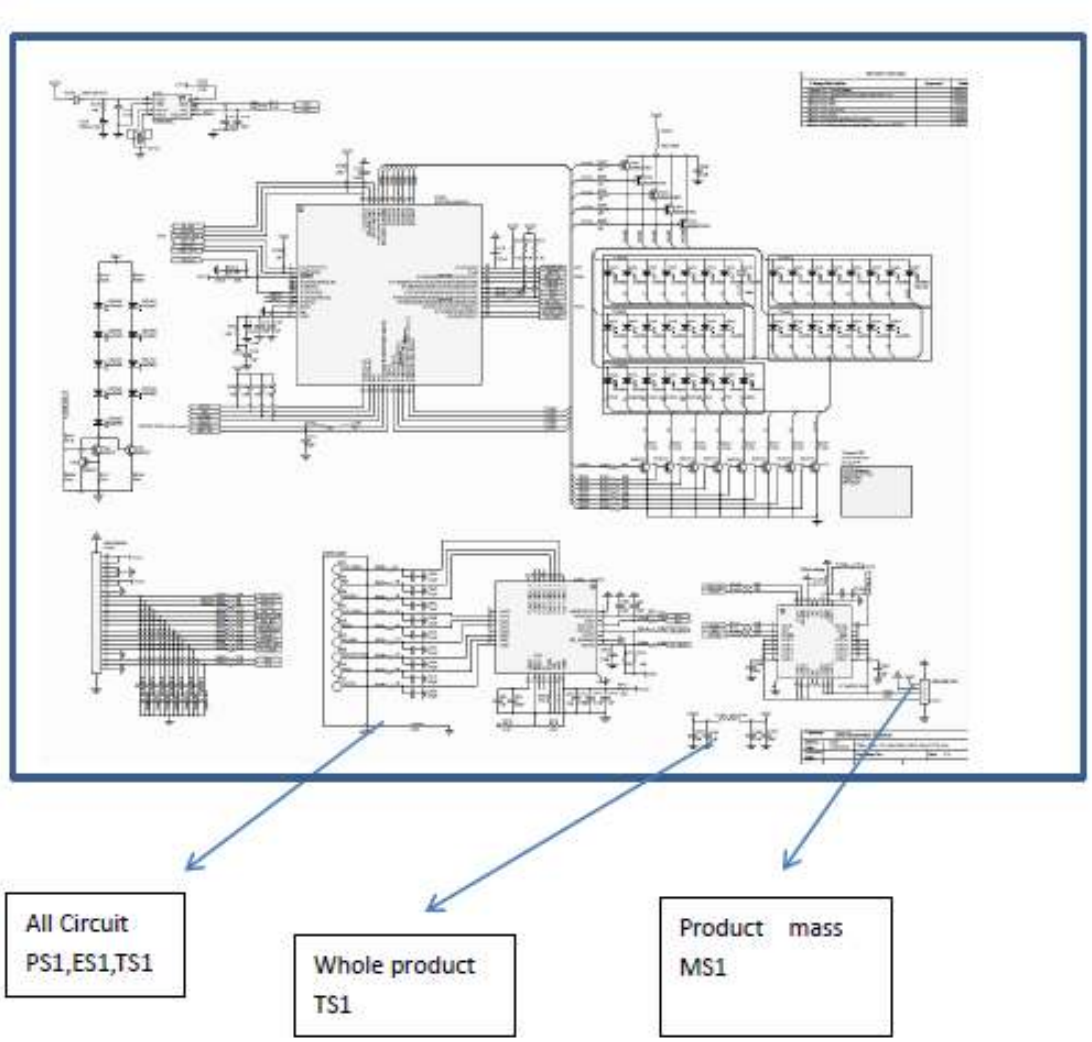
This apparatus was supplied by an external switching mode power supply, which was approved by DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou Branch according to IEC 60065:2014 (eight Edition) and EN 60065:2014 (report no. 4327114.51, issued date 2016-07-21, CB cert no. NL-42434, issued date 2016-07-25). Details see table 14.

HQ8505 SSW-2600**-4 (**= EU, UK) Character ** can be EU, denote with the European plug complied with EN 50075, details see table 14. Character ** can be UK, denote with the United Kingdom plug complied with BS 1363, details see table 14. All external switching mode power supplies are identical to each other except for the model name, plug portion and exported market. Unless otherwise specified, the approved external switching mode power supply was tested together with the apparatus. Maximum ambient temperature of 35 ºC was considered and complied. Circuit characteristics: The apparatus contains ES1 circuits.
Model Differences –The all models are similar with each other except for the differences of model number, alarm sound, sound IC and speaker, FM function, front key , sunset, time back up and the colour of back shell
Additional application considerations – (Considerations used to test a component or sub-assembly) –

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.	
Electrically-caused injury (Clause 5): (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input ES1	
Source of electrical energy	**Corresponding classification (ES)**
All circuit	ES1
Electrically-caused fire (Clause 6): (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2	
Source of power or PIS	**Corresponding classification (PS)**
All circuit	PS1
Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component Glycol	
Source of hazardous substances	**Corresponding chemical**
N/A	N/A
Mechanically-caused injury (Clause 8) (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit MS2	
Source of kinetic/mechanical energy	**Corresponding classification (MS)**
Enclosure (sharp edges and corners)	MS1
Equipment mass	MS1
Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1	
Source of thermal energy	**Corresponding classification (TS)**
Enclosure	TS1
Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1	
Type of radiation	**Corresponding classification (RS)**
N/A	N/A

ENERGY SOURCE DIAGRAM
Indicate which energy sources are included in the energy source diagram. Insert diagram below

☒ ES ☒ PS ☒ MS ☒ TS ☐ RS



OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	**Possible Hazard**			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	ES1	--	--	--
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
All circuits	PS1	--	--	--
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3: High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	MS1 (Enclosure, no sharp edges and corners)	--	--	--
Ordinary	MS1 (Weight of appliance)	--	--	--
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	TS1 (the whole enclosure of the product)	--	--	--
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
Supplementary Information: (1) See attached energy source diagram for additional details. (2) “N” – Normal Condition; “A” – Abnormal Condition; “S” Single Fault				

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
4	**GENERAL REQUIREMENTS**		P
4.1.1	Acceptance of materials, components and subassemblies (IEC 60065, 3.4) & (IEC 60950-1, 1.5.1)		P
4.1.2	Use of components (IEC 60065, 3.4, 14.1) & (IEC 60950-1, 1.5.2)	(See appended table 4.1.2)	P
4.1.3	Equipment design and construction (IEC 60065, 3.1) & (IEC 60950-1, 1.3.2)		P
4.1.15	Markings and instructions.....: (IEC 60065, 5.1) & (IEC 60950-1, 1.7)	(See Annex F)	—
4.4.4	Safeguard robustness		N/A
4.4.4.2	Steady force tests.....: (IEC 60065, 9.1.1.7 c), 13.3.1) & (IEC 60950-1, 4.2.4)	(See Annex T.4, T.5)	—
4.4.4.3	Drop tests .....: (IEC 60065, 12.1.5) & (IEC 60950-1, 4.2.6)	(See Annex T.7)	—
4.4.4.4	Impact tests .....: (IEC 60065, 12.1.4) & (IEC 60950-1, 4.2.5)	(See Annex T.6)	—
4.4.4.5	Internal accessible safeguard enclosure and barrier tests .....: (IEC 60950-1, 4.2.3)	(See Annex T.3)	—
4.4.4.6	Glass Impact tests.....: (IEC 60065, 19.6) & (IEC 60950-1, 4.2.5)	(See Annex T.9, Annex U)	—
4.4.4.7	Thermoplastic material tests .....: (IEC 60065, 12.1.6) & (IEC 60950-1, 4.2.7)	(See Annex T.8)	—
4.4.4.8	Air comprising a safeguard.....: (IEC 60065, 9.1.7) & (IEC 60950-1, 4.2)	(See Annex T)	—
4.4.4.9	Accessibility and safeguard effectiveness (IEC 60065, 9.1.7) & (IEC 60950-1, 4.2.1)	No damage, no hazard accessible, Safeguards remains effective	P
4.5	Explosion		N/A
4.6	Fixing of conductors (IEC 60065, 8.14) & (IEC 60950-1, 3.1.9)		N/A
4.6.1	Fix conductors not to defeat a safeguard (IEC 60065, 8.14) & (IEC 60950-1, 3.1.9)		N/A
4.6.2	10 N force test applied to .....: (IEC 60065, 8.14) & (IEC 60950-1, 3.1.9)		—
4.7	Equipment for direct insertion into mains socket – outlets (IEC 60065, 15.4) & (IEC 60950-1, 4.3.6)	Approved external power supply	P

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.2	Mains plug part complies with the relevant standard .....: (IEC 60065, 15.4.2) & (IEC 60950-1, 4.3.6)		—
4.7.3	Torque (Nm) .....: (IEC 60065, 15.4.1) & (IEC 60950-1, 4.3.6)		—
4.8	Products containing coin/button cell batteries (IEC 60065, 12.7)	No such products	N/A
4.8.2	Instructional safeguard (IEC 60065, 5.4 c), 5.5.2 j))		N/A
4.8.3	Battery Compartment Construction (IEC 60065, 12.7.2)		N/A
	Means to reduce the possibility of children removing the battery.....:		—
4.8.4	Battery Compartment Mechanical Tests .....: (IEC 60065, 12.7.3)	(See Table 4.8.4)	—
4.8.5	Battery Accessibility (IEC 60065, 12.7.4)		N/A
4.9	Likelihood of fire or shock due to entry of conductive object.....: (IEC 60065, 9.1.3, 20.3.2) & (IEC 60950-1, 4.6.1)	(See Annex P)	—
5	**ELECTRICALLY-CAUSED INJURY**		P
5.2.1	Electrical energy source classifications.....:	(See appended table 5.2)	—
5.2.2	ES1, ES2 and ES3 limits	ES1(Approved external power supply)	P
5.2.2.2	Steady-state voltage and current .....: (IEC 60065, 9.1.1.2) & (IEC 60950-1, 2.2, 2.3, 2.4)	See appended table 5.2)	—
5.2.2.3	Capacitance limits.....: (IEC 60065, 9.1.1.2) & (IEC 60950-1, 2.4)	(See appended table 5.2)	—
5.2.2.4	Single pulse limits .....: (IEC 60950-1, 2.2)	(See appended table 5.2)	—
5.2.2.5	Limits for repetitive pulses .....: (IEC 60950-1, 2.2)	(See appended table 5.2)	—
5.2.2.6	Ringing signals .....: (IEC 60950-1, 2.3, Annex M)	(See Annex H)	—
5.2.2.7	Audio signals .....: (IEC 60065, 9.1.1.2) & (IEC 60950-1, 2.1.1.9)	(See Clause E.1)	—
5.3	Protection against electrical energy sources (IEC 60065, 9.1.1) & (IEC 60950-1, 2.1)	ES1	P

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons (IEC 60065, 9.1.1) & (IEC 60950-1, 2.1)	ES1 accessible only	P
5.3.2.1	Accessibility to electrical energy sources and safeguards (IEC 60065, 9.1.1.3, 9.1.2, 9.1.3, 9.1.4, 9.1.5) & (IEC 60950-1, 2.1.1.1)	ES1 accessible only	P
5.3.2.2	Contact requirements (IEC 60065, 9.1.1.1) & (IEC 60950-1, 2.1.1.1)	No ES3 can be accessible	P
	a) Test with test probe from Annex V..... :	Test with figure V.1 No access to ES3 parts	—
	b) Electric strength test potential (V)..... :	(See appended table 5.4.9)	—
	c) Air gap (mm) ..... :	No air gap	—
5.3.2.4	Terminals for connecting stripped wire (IEC 60065, 9.1.1.4)		N/A
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material (IEC 60065, 8.3) & (IEC 60950-1, 2.9.1)	Approved external power supply	N/A
5.4.1.3	Humidity conditioning ..... : (IEC 60065, 10.3) (IEC 60950-1, 2.9.1)	(See sub-clause 5.4.8)	—
5.4.1.4	Maximum operating temperature for insulating materials ..... : (IEC 60065, 7.1) & (IEC 60950-1, 4.5)	(See appended table 5.4.1.4)	—
5.4.1.5	Pollution degree..... : (IEC 60065, 13.1) & (IEC 60950-1, 2.10.1.2)	Pollution degree 2	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound (IEC 60065, 13.6, 13.7) & (IEC 60950-1, 2.10.10)		N/A
5.4.1.5.3	Thermal cycling (IEC 60065, 13.6) & (IEC 60950-1, 2.10.9)		N/A
5.4.1.6	Insulation in transformers with varying dimensions (IEC 60065, 13.2) & (IEC 60950-1, 2.10.1.5)	No applied	N/A
5.4.1.7	Insulation in circuits generating starting pulses (IEC 60950-1, 2.10.3.5)	No discharge lamp used.	N/A
5.4.1.8	Determination of working voltage (IEC 60065, 13.2) & (IEC 60950-1, 2.10.2)	Approved external power supply	N/A
5.4.1.9	Insulating surfaces (IEC 60065, 13.3.1) & (IEC 60950-1, 2.10.3.1)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted (IEC 60065, 7.2) & (IEC 60950-1, 4.5.5)		N/A
5.4.1.10.2	Vicat softening temperature..... : (IEC 60065, 7.2)	(See appended table 5.4.1.10.2)	—
5.4.1.10.3	Ball pressure ..... : (IEC 60950-1, 4.5.5)	(See appended table 5.4.1.10.3)	—
5.4.2	Clearances (IEC 60065, 13.3, Annex J) & (IEC 60950-1, 2.10.3, Annex G)	Approved external power supply	N/A
5.4.2.2	Determining clearance using peak working voltage	(See appended table 5.4.2.2)	N/A
5.4.2.3	Determining clearance using required withstand voltage ..... :	(See appended table 5.4.2.3)	—
	a) a.c. mains transient voltage..... :	Approved external power supply	—
	b) d.c. mains transient voltage ..... :	No	—
	c) external circuit transient voltage..... :	No	—
	d) transient voltage determined by measurement ..... :	No	—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	(See appended table 5.4.2.4)	N/A
5.4.2.5	Multiplication factors for clearances and test voltages ..... :	No	—
5.4.3	Creepage distances..... : (IEC 60065, 13.4) & (IEC 60950-1, 2.10.4)	(See appended table 5.4.3)	—
5.4.3.1	General		N/A
5.4.3.3	Material Group ..... : (IEC 60065, 13.4) & (IEC 60950-1, 2.10.4.2)	IIIa or IIIb	—
5.4.4	Solid insulation (IEC 60065, 8.8) & (IEC 60950-1, 2.10.5)		N/A
5.4.4.2	Minimum distance through insulation ..... : (IEC 60065, 8.8) & (IEC 60950-1, 2.10.5.2)	(See appended table 5.4.4.2)	N/A
5.4.4.3	Insulation compound forming solid insulation (IEC 60065, 13.6, 13.7, 13.8) & (IEC 60950-1, 2.10.5.3)		N/A
5.4.4.4	Solid insulation in semiconductor devices (IEC 60065, 13.6, 13.8) & (IEC 60950-1, 2.10.5.4)		N/A
5.4.4.5	Cemented joints (IEC 60065, 13.6) & (IEC 60950-1, 2.10.5.5)	No such construction	N/A
5.4.4.6	Thin sheet material (IEC 60065, 8.8) & (IEC 60950-1, 2.10.5.6)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.6.1	General requirements (IEC 60065, 8.8)		N/A
5.4.4.6.2	Separable thin sheet material (IEC 60065, 8.8) & (IEC 60950-1, 2.10.5.7)		N/A
	Number of layers (pcs) ..... :		—
5.4.4.6.3	Non-separable thin sheet material (IEC 60065, 8.21) & (IEC 60950-1, 2.10.5.8)	No such construction	N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material..... : (IEC 60950-1, 2.10.5.9)	(See appended Table 5.4.9)	—
5.4.4.6.5	Mandrel test (IEC 60065, 8.21) & (IEC 60950-1, Annex AA)		N/A
5.4.4.7	Solid insulation in wound components (IEC 60065, 8.16) & (IEC 60950-1, 2.10.5.11)		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz ..... :	(See appended Table 5.4.4.9)	—
5.4.5	Antenna terminal insulation (IEC 60065, 10.2) & (IEC 60950-1, 7.4)	No antenna	N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test (IEC 60065, 10.2) & (IEC 60950-1, 7.4.2)		N/A
	Insulation resistance (MΩ) ..... :		—
5.4.6	Insulation of internal wire as part of supplementary safeguard..... : (IEC 60065, 8.9) & (IEC 60950-1, 2.1.1.3)	(See appended table 5.4.4.2)	—
5.4.7	Tests for semiconductor components and for cemented joints (IEC 60065, 13.6, 13.7, 13.8) & (IEC 60950-1, 2.10.11)		N/A
5.4.8	Humidity conditioning (IEC 60065, 10.3) & (IEC 60950-1, 2.9.2)	Approved external power supply	N/A
	Relative humidity (%) ..... :		—
	Temperature (°C) ..... :		—
	Duration (h) ..... :		—
5.4.9	Electric strength test..... : (IEC 60065, 10.4) & (IEC 60950-1, 5.2)		—
5.4.9.1	Test procedure for a solid insulation type test (IEC 60065, 10.4) & (IEC 60950-1, 5.2)	Approved external power supply	N/A
5.4.9.2	Test procedure for routine tests (IEC 60065, N.3.2) & (IEC 60950-1, 5.2.2)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.10	Protection against transient voltages between external circuit (IEC 60065, Annex B) & (IEC 60950-1, 6.2)	No from external circuit	N/A
5.4.10.1	Parts and circuits separated from external circuits (IEC 60950-1, 6.2.1)	(See appended table 5.4.9)	N/A
5.4.10.2	Test methods (IEC 60950-1, 6.2.2)		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test ..... : (IEC 60950-1, 6.2.2.1)		—
5.4.10.2.3	Steady-state test ..... : (IEC 60950-1, 6.2.2.2)		—
5.4.11	Insulation between external circuits and earthed circuitry ..... : (IEC 60065, Annex B) & (IEC 60950-1, 6.1)		—
5.4.11.1	Exceptions to separation between external circuits and earth (IEC 60950-1, 6.1.2.2)		N/A
5.4.11.2	Requirements (IEC 60950-1, 6.1.2.1)		N/A
	Rated operating voltage U_{op} (V) ..... :		—
	Nominal voltage U_{peak} (V) ..... :		—
	Max increase due to variation U_{sp} ..... :		—
	Max increase due to ageing ΔU_{sa} ..... :		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ ..... :		—
5.5	Components as safeguards		P
5.5.1	General		P
5.5.2	Capacitors and RC units (IEC 60065, 14.3)	Approved external power supply	P
5.5.2.1	General requirement (IEC 60065, 14.3) & (IEC 60950-1, 1.5.6)	Approved external power supply	P
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector ..... : (IEC 60065, 9.1.6) & (IEC 60950-1, 2.1.1.7)	(See appended table 5.5.2.2)	—
5.5.3	Transformers (IEC 60065, 14.4) & (IEC 60950-1, 1.5.4, Annex C)	Approved external power supply	P
5.5.4	Optocouplers (IEC 60065, 14.12) & (IEC 60950-1, 2.10.5.3, 2.10.5.4)	Approved external power supply	P
5.5.5	Relays	(See Annex G.2)	N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
5.5.6	Resistors (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7)	(See Annex G.10)	N/A
5.5.7	SPD's (IEC 60065, 14.13) & (IEC 60950-1, 1.5.9)	(See Annex G.8)	N/A
5.5.7.1	Use of an SPD connected to reliable earthing (IEC 60065, 14.13) & (IEC 60950-1, 1.5.9.4)		N/A
5.5.7.2	Use of an SPD between mains and protective earth (IEC 60065, 14.13) & (IEC 60950-1, 1.5.9.4)		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable .....: (IEC 60065, 10.2) & (IEC 60950-1, 1.5.7.3, 7.4)	(See Annex G.10.3)	—
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3, 2.6.5)		N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.5)		N/A
5.6.3	Requirement for protective earthing conductors (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.2)		N/A
	Protective earthing conductor size (mm^2) .....:		—
5.6.4	Requirement for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors (IEC 60950-1, 2.6.3.3)		N/A
	Protective bonding conductor size (mm^2).....:		—
	Protective current rating (A) ..... :		—
5.6.4.3	Current limiting and overcurrent protective devices (IEC 60950-1, 2.6.5.2)		N/A
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Requirement (IEC 60065, 15.2) & (IEC 60950-1, 2.6.4.2)		N/A
	Conductor size (mm^2), nominal thread diameter (mm). .....:		—
5.6.5.2	Corrosion (IEC 60065, 15.2) & (IEC 60950-1, 2.6.5.6)		N/A
5.6.6	Resistance of the protective system (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.4)		N/A
5.6.6.1	Requirements (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.4)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
5.6.6.2	Test Method Resistance (Ω) .....: (IEC 60065, 15.2) & (IEC 60950-1, 2.6.3.4)	(See appended table 5.6.6.2)	—
5.6.7	Reliable earthing (IEC 60065, 14.13) & (IEC 60950-1, 1.5.9.4, 5.1.7.1)		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		N/A
5.7.2	Measuring devices and networks	Approved external power supply	N/A
5.7.2.1	Measurement of touch current .....: (IEC 60065, 9.1.1.2) & (IEC 60950-1, 5.1.4)		—
5.7.2.2	Measurement of prospective touch voltage (IEC 60065, 9.1.1.2) & (IEC 60950-1, 1.4.9)		N/A
5.7.3	Equipment set-up, supply connections and earth connections (IEC 60065, 9.1.1.2) & (IEC 60950-1, 5.1.3)		N/A
	System of interconnected equipment (separate connections/single connection) .....:		—
	Multiple connections to mains (one connection at a time/simultaneous connections).....:		—
5.7.4	Earthed conductive accessible parts.....: (IEC 60065, 9.1.1.2) & (IEC 60950-1, 5.1.6)		N/A
5.7.5	Protective conductor current (IEC 60950-1, 5.1.7)		N/A
	Supply Voltage (V) .....:		—
	Measured current (mA) .....:		—
	Instructional Safeguard .....:		—
5.7.6	Prospective touch voltage and touch current due to external circuits (IEC 60950-1, 5.1.8)		N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits (IEC 60950-1, 5.1.8.1)		N/A
5.7.7	Summation of touch currents from external circuits (IEC 60950-1, 5.1.8.2)		N/A
	a) Equipment with earthed external circuits Measured current (mA) .....:		—
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA).....:		—
6	**ELECTRICALLY- CAUSED FIRE**		P

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	The wake-up light is PS1, the external power supply is approved type.	P
6.2.2.1	General		P
6.2.2.2	Power measurement for worst-case load fault ... : (IEC 60065, 4.3.1) & (IEC 60950-1, 2.5)	(See appended table 6.2.2)	—
6.2.2.3	Power measurement for worst-case power source fault ..... : (IEC 60065, 4.3.1) & (IEC 60950-1, 2.5)	(See appended table 6.2.2)	—
6.2.2.4	PS1 ..... :	(See appended table 6.2.2)	—
6.2.2.5	PS2 ..... :	(See appended table 6.2.2)	—
6.2.2.6	PS3 ..... :	(See appended table 6.2.2)	—
6.2.3	Classification of potential ignition sources		N/A
6.2.3.1	Arcing PIS ..... :	(See appended table 6.2.3.1)	—
6.2.3.2	Resistive PIS ..... :	(See appended table 6.2.3.2)	—
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials ..... : (IEC 60065, 7.1) & (IEC 60950-1, 4.5.3)	(See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	—
6.3.1 (b)	Combustible materials outside fire enclosure (IEC 60950-1, 4.7.3.3)		N/A
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method (IEC 60950-1, 4.7.1)	Method of “control of fire spread” is used	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		P
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits (IEC 60065, 11.2, 20.2)	No PS2 or PS3 in equipment The external power supply were approved already.	N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards (IEC 60065, 20.2)		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions ..... : (IEC 60065, 11.2)	(See appended table 6.4.3)	—
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		P

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
6.4.5	Control of fire spread in PS2 circuits (IEC 60950-1, 4.7.3.4)	No PS2.	N/A
6.4.5.2	Supplementary safeguards .....: (IEC 60950-1, 4.7.3.4)	(See appended tables 4.1.2 and Annex G)	—
6.4.6	Control of fire spread in PS3 circuit (IEC 60950-1, 4.7.3.4)	No PS3 circuit	N/A
6.4.7	Separation of combustible materials from a PIS (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.4)		N/A
6.4.7.1	General.....:	(See tables 6.2.3.1 and 6.2.3.2)	—
6.4.7.2	Separation by distance (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.4)		N/A
6.4.7.3	Separation by a fire barrier (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.4)		N/A
6.4.8	Fire enclosures and fire barriers (IEC 60065, 20.2.5, 20.3) & (IEC 60950-1, 4.7.2, 4.7.3)		N/A
6.4.8.1	Fire enclosure and fire barrier material properties (IEC 60065, 20.2.5, 20.3) & (IEC 60950-1, 4.7.3.2, 4.7.3.4)		N/A
6.4.8.2.1	Requirements for a fire barrier (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.4)		N/A
6.4.8.2.2	Requirements for a fire enclosure (IEC 60065, 20.3) & (IEC 60950-1, 4.7.3.2)		N/A
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		N/A
6.4.8.3.1	Fire enclosure and fire barrier openings (IEC 60065, 20.3) & (IEC 60950-1, 4.6.1, 4.6.2)		N/A
6.4.8.3.2	Fire barrier dimensions (IEC 60065, 20.2.5) & (IEC 60950-1, 4.6.2)		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm) .....: (IEC 60065, 20.3) & (IEC 60950-1, 4.6.1)		—
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm) .....: (IEC 60065, 20.3) & (IEC 60950-1, 4.6.2)		—
	Flammability tests for the bottom of a fire enclosure .....:		—
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c) .....: (IEC 60950-1, 4.6.3)		—

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating.....: (IEC 60065, 20.2.5) & (IEC 60950-1, 4.7.3.1, 4.7.3.2)		—
6.5	Internal and external wiring		P
6.5.1	Requirements (IEC 60065, 16.3, 20.2.3) & (IEC 60950-1, 4.7.3.3, 4.7.3.4)	All circuit are PS1 circuit.	N/A
6.5.2	Cross-sectional area (mm^2) .....:	(See appended table 4.1.2)	—
6.5.3	Requirements for interconnection to building wiring .....: (IEC 60950-1, 2.5, 6.3)	(See Annex Q)	—
6.6	Safeguards against fire due to connection to additional equipment (IEC 60950-1, 3.5.4)	No connection to other equipment.	N/A
	External port limited to PS2 or complies with Clause Q.1		N/A
7	**INJURY CAUSED BY HAZARDOUS SUBSTANCES**		N/A
7.2	Reduction of exposure to hazardous substances		N/A
7.3	Ozone exposure (IEC 60950-1, 1.7.2.6)	Not produce Ozone	N/A
7.4	Use of personal safeguards (PPE)		N/A
	Personal safeguards and instructions .....:		—
7.5	Use of instructional safeguards and instructions		N/A
	Instructional safeguard (ISO 7010) .....:		—
7.6	Batteries .....: (IEC 60065, 14.10) & (IEC 60950-1, 4.3.8)	(See Annex M)	—
8	**MECHANICALLY-CAUSED INJURY**		P
8.1	General		P
8.2	Mechanical energy source classifications		P
8.3	Safeguards against mechanical energy sources		P
8.4	Safeguards against parts with sharp edges and corners (IEC 60065, 19.5) & (IEC 60950-1, 4.3.1)	Edges and corners of the enclosure are rounded and smooth	P
8.4.1	Safeguards (IEC 60950-1, 4.3.1)		P
8.5	Safeguards against moving parts		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment (IEC 60065, 14.10.3) & (IEC 60950-1, 4.4)	MS1	N/A
8.5.2	Instructional Safeguard..... : (IEC 60950-1, 4.4.5.2)		—
8.5.4	Special categories of equipment comprising moving parts	No moving parts	N/A
8.5.4.1	Large data storage equipment (IEC 60950-23)		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media (IEC 60950-1, Annex EE)		N/A
8.5.4.2.1	Safeguards and Safety Interlocks .....: (IEC 60950-1, EE.3)	(See Annex F.4 and Annex K)	—
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard.....: (IEC 60950-1, EE.2)		—
8.5.4.2.3	Disconnection from the supply (IEC 60950-1, EE.4)		N/A
8.5.4.2.4	Probe type and force (N) .....: (IEC 60950-1, EE.5)		—
8.5.5	High Pressure Lamps (IEC 60950-1, 4.2.9)	No such lamp	N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test.....:	(See appended table 8.5.5.2)	—
8.6	Stability (IEC 60065, 19) & (IEC 60950-1, 4.1)	mass ≤ 7 kg	N/A
8.6.1	Product classification		N/A
	Instructional Safeguard.....: (IEC 60065, 5.5.2)		—
8.6.2	Static stability (IEC 60065, 19.1) & (IEC 60950-1, 4.1)		N/A
8.6.2.2	Static stability test (IEC 60065, 19.2) & (IEC 60950-1, 4.1)		N/A
	Applied Force.....:		—
8.6.2.3	Downward Force Test (IEC 60065, 19.3) & (IEC 60950-1, 4.1)		N/A
8.6.3	Relocation stability test (IEC 60065, 19.2)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
	Unit configuration during 10° tilt .....:		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force).....: (IEC 60065, 19.4)		—
	Position of feet or movable parts.....:		—
8.7	Equipment mounted to wall or ceiling (IEC 60065, 19.7) & (IEC 60950-1, 4.2.10)	Not intended for wall or ceiling mounting	N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface) .....: (IEC 60065, 19.7)		—
8.7.2	Direction and applied force.....: (IEC 60065, 19.7) & (IEC 60950-1, 4.2.10)		—
8.8	Handles strength	No handle	N/A
8.8.1	Classification		N/A
8.8.2	Applied Force .....:		—
8.9	Wheels or casters attachment requirements	No such parts	N/A
8.9.1	Classification		N/A
8.9.2	Applied force .....:		—
8.10	Carts, stands and similar carriers	No such parts	N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard.....:		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force .....:		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N).....:		—
8.10.6	Thermoplastic temperature stability (°C).....:		—
8.11	Mounting means for rack mounted equipment (IEC 60950-1, Annex DD)	No such means	N/A
8.11.1	General (IEC 60950-1, DD.1)		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable *N* .....: (IEC 60950-1, DD.2)		—
8.11.4	Mechanical strength test 250N, including end stops (IEC 60950-1, DD.3)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
8.12	Telescoping or rod antennas.....: (IEC 60065, 12.6)	(See Annex T)	—
	Button/Ball diameter (mm).....:	No antenna	—
9	**THERMAL BURN INJURY**		P
9.2	Thermal energy source classifications (IEC 60065, 7.1, 11.2) & (IEC 60950-1, 4.5.4)	(See appended table 9.0)	P
9.3	Safeguard against thermal energy sources (IEC 60065, 7.1, 11.2) & (IEC 60950-1, 4.5.4)	All touchable surface are TS1, no safeguard is needed	N/A
9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard (IEC 60065, 7.1, 11.2) & (IEC 60950-1, 4.5.4)	All touchable surface are TS1, no safeguard is needed	N/A
9.4.2	Instructional safeguard .....: (IEC 60065, 7.1, 11.2) & (IEC 60950-1, 4.5.4)	See manual	—
10	**RADIATION**		N/A
10.2	Radiation energy source classification	No radiation	N/A
10.2.1	General classification		N/A
10.3	Protection against laser radiation (IEC 60065, 6.2) & (IEC 60950-1, 4.3.13.5.1)		N/A
	Laser radiation that exists equipment..... :		—
	Normal, abnormal, single-fault ..... :	(See attached laser test report)	—
	Instructional safeguard ..... :		—
	Tool..... :		—
10.4	Protection against visible, infrared, and UV radiation (IEC 60065, 6.3) & (IEC 60950-1, 4.3.13.4, 4.3.13.5.2)	No ultraviolet (UV) radiation	N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons..... :		—
10.4.1.b)	RS3 accessible to a skilled person ..... :		—
	Personal safeguard (PPE) instructional safeguard ..... :		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1:		—
10.4.1.d)	Normal, abnormal, single-fault conditions ..... :	(See appended table B.3 & B.4)	—
10.4.1.e)	Enclosure material employed as safeguard is opaque..... :		—
10.4.1.f)	UV attenuation..... :		—

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
10.4.1.g)	Materials resistant to degradation UV ..... :		—
10.4.1.h)	Enclosure containment of optical radiation ..... :		—
10.4.1.i)	Exempt Group under normal operating conditions ..... :		—
10.4.2	Instructional safeguard ..... :		—
10.5	Protection against x-radiation (IEC 60065, 6.1) & (IEC 60950-1, 4.3.13.2)	No x-radiation	N/A
10.5.1	X- radiation energy source that exists equipment :	(See appended table B.3 & B.4)	—
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards ..... :		—
	Instructional safeguard for skilled person..... :		—
10.5.3	Most unfavourable supply voltage to give maximum radiation ..... : (IEC 60950-1, Annex H)		—
	Abnormal and single-fault condition ..... :	(See appended table B.3 & B.4)	—
	Maximum radiation (pA/kg) ..... :		—
10.6	Protection against acoustic energy sources	No such device	N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A)..... :		—
	Output voltage, unweighted r.m.s. ..... :		—
10.6.4	Protection of persons		N/A
	Instructional safeguards ..... :		—
	Equipment safeguard prevent ordinary person to RS2..... :		—
	Means to actively inform user of increase sound pressure..... :		—
	Equipment safeguard prevent ordinary person to RS2..... :		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analogue input		N/A
	Input voltage with 94 dB(A) LAeq acoustic pressure output ..... :		—
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A)..... :		—
10.6.5.3	Cordless listening device		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
	Maximum dB(A)..... :		—
B	**NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS**		P
B.2	Normal Operating Conditions		P
B.2.1	General requirements..... : (IEC 60065, 4.2.1) & (IEC 60950-1, 1.4.4)	(See Test Item Particulars and appended test tables)	—
	Audio Amplifiers and equipment with audio amplifiers ..... : (IEC 60065, 4.2.5) & (IEC 60950-1, 4.4)	(See Annex E)	—
B.2.3	Supply voltage and tolerances (IEC 60065, 4.2.2) & (IEC 60950-1, 1.4.5)		P
B.2.5	Input test..... : (IEC 60065, 4.2, 5.2 g), h)) & (IEC 60950-1, 1.6.2)	(See appended table B.2.5)	—
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements..... : (IEC 60065, 4.3) & (IEC 60950-1, 5.3.1)	(See appended table B.3)	—
B.3.2	Covering of ventilation openings (IEC 60065, 4.3.11) & (IEC 60950-1, 5.3.1)		N/A
B.3.3	D.C. mains polarity test (IEC 60065, 4.2.2) & (IEC 60950-1, 5.3.1)		N/A
B.3.4	Setting of voltage selector..... : (IEC 60065, 4.3.14) & (IEC 60950-1, 5.3.1)	No such selector	—
B.3.5	Maximum load at output terminals .....: (IEC 60065, 4.3.10) & (IEC 60950-1, 5.3.7)	(See appended table B.3 and B.4)	—
B.3.6	Reverse battery polarity (IEC 60065, 4.3.12) & (IEC 60950-1, 4.3.8)		N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2. (IEC 60065, 4.3.6) & (IEC 60950-1, 5.3.6)		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions (IEC 60065, 11) & (IEC 60950-1, 5.3.9)		P
B.4	Simulated single fault conditions (IEC 60065, 4.3) & (IEC 60950-1, 1.4.14)		P
B.4.2	Temperature controlling device open or short-circuited ..... :	(See appended table B.4)	—
B.4.3	Motor tests (IEC 60065, 4.3.7) & (IEC 60950-1, 5.3.2)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature ..... : (IEC 60065, 4.3.7) & (IEC 60950-1, 5.3.2)	(See Clause G.5)	—
B.4.4	Short circuit of functional insulation (IEC 60950-1, 5.3.4)	(See appended table B.4)	P
B.4.4.1	Short circuit of clearances for functional insulation		P
B.4.4.2	Short circuit of creepage distances for functional insulation		P
B.4.4.3	Short circuit of functional insulation on coated printed boards		P
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors (IEC 60065, 4.3.4) & (IEC 60950-1, 5.3.7)		P
B.4.6	Short circuit or disconnect of passive components (IEC 60065, 4.3.5) & (IEC 60950-1, 5.3.7)		P
B.4.7	Continuous operation of components (IEC 60065, 4.3.8) & (IEC 60950-1, 5.3.5)		N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions (IEC 60065, 11) & (IEC 60950-1, 5.3.9)		P
B.4.9	Battery charging under single fault conditions ... : (IEC 60065, 14.11.3) & (IEC 60950-1, 4.3.8)	(See Annex M)	—
C	**UV RADIATION**		N/A
C.1	Protection of materials in equipment from UV radiation (IEC 60950-1, 4.3.13.3)	No ultraviolet (UV) radiation	N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test (IEC 60950-1, Annex Y)		N/A
C.2.1	Test apparatus (IEC 60950-1, Y.1)		N/A
C.2.2	Mounting of test samples (IEC 60950-1, Y.2)		N/A
C.2.3	Carbon-arc light-exposure apparatus (IEC 60950-1, Y.3)		N/A
C.2.4	Xenon-arc light exposure apparatus (IEC 60950-1, Y.4)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
D	**TEST GENERATORS**		N/A
D.1	Impulse test generators (IEC 60065, Annex K) & (IEC 60950-1, N.1)		N/A
D.2	Antenna interface test generator (IEC 60950-1, N.2)		N/A
D.3	Electronic pulse generator		N/A
E	**TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS**		P
E.1	Audio amplifier normal operating conditions (IEC 60065, 4.2.5) & (IEC 60950-1, 4.5.1)		P
	Audio signal voltage (V) .....:	5	—
	Rated load impedance (Ω) .....:	4	—
E.2	Audio amplifier abnormal operating conditions (IEC 60065, 4.3.6) & (IEC 60950-1, 5.3.6)		P
F	**EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS**		P
F.1	General requirements (IEC 60065, 5.1, 5.2, 5.3) & (IEC 60950-1, 1.7.2.1)	See below	P
	Instructions – Language .....:	English	—
F.2	Letter symbols and graphical symbols (IEC 60065, 5.1)	See marking plate	P
F.2.1	Letter symbols according to IEC60027-1 (IEC 60065, 5.1)		P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific (IEC 60065, 5.1) & (IEC 60950-1, 1.7.1.1)		P
F.3	Equipment markings		P
F.3.1	Equipment marking locations (IEC 60065, 5.1) & (IEC 60950-1, 1.7.1.2)	On surface of enclosure	P
F.3.2	Equipment identification markings (IEC 60065, 5.2) & (IEC 60950-1, 1.7.1.2)		P
F.3.2.1	Manufacturer identification .....: (IEC 60065, 5.2 a)) & (IEC 60950-1, 1.7.1.2)	Philips	—
F.3.2.2	Model identification .....: (IEC 60065, 5.2 b)) & (IEC 60950-1, 1.7.1.2)	See page 2	—
F.3.3	Equipment rating markings (IEC 60065, 5.2) & (IEC 60950-1, 1.7.1.1)		P

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
F.3.3.1	Equipment with direct connection to mains (IEC 60065, 5.2 e)) & (IEC 60950-1, 1.7.1.1)	External power supply	N/A
F.3.3.2	Equipment without direct connection to mains (IEC 60065, 5.2 e)) & (IEC 60950-1, 1.7.1.1)		P
F.3.3.3	Nature of supply voltage .....: (IEC 60065, 5.2 d)) & (IEC 60950-1, 1.7.1.1)	DC symbol	—
F.3.3.4	Rated voltage .....: (IEC 60065, 5.2 e)) & (IEC 60950-1, 1.7.1.1)	15V	—
F.3.3.4	Rated frequency .....: (IEC 60065, 5.2 f)) & (IEC 60950-1, 1.7.1.1)		—
F.3.3.6	Rated current or rated power .....: (IEC 60065, 5.2 g), h)) & (IEC 60950-1, 1.7.1.1)	5,4 W	—
F.3.3.7	Equipment with multiple supply connections (IEC 60950-1, 1.7.1.1)	Single	N/A
F.3.4	Voltage setting device (IEC 60065, 5.2 e)) & (IEC 60950-1, 1.7.4)		N/A
F.3.5	Terminals and operating devices		N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings..... : (IEC 60065, 5.3 c)) & (IEC 60950-1, 1.7.5)		—
F.3.5.2	Switch position identification marking ..... : (IEC 60065, 5.5.3) & (IEC 60950-1, 1.7.8.3)	No switch	—
F.3.5.3	Replacement fuse identification and rating markings..... : (IEC 60065, 14.6.3.2) & (IEC 60950-1, 1.7.6)		—
F.3.5.4	Replacement battery identification marking ..... : (IEC 60065, 5.5.2 c)) & (IEC 60950-1, 1.7.13)	No battery	—
F.3.5.5	Terminal marking location (IEC 60950-1, 1.7.7.1)		N/A
F.3.6	Equipment markings related to equipment classification		N/A
F.3.6.1	Class I Equipment		N/A
F.3.6.1.1	Protective earthing conductor terminal (IEC 60065, 5.3 a)) & (IEC 60950-1, 1.7.7.1)		N/A
F.3.6.1.2	Neutral conductor terminal (IEC 60950-1, 1.7.7.2)		N/A
F.3.6.1.3	Protective bonding conductor terminals (IEC 60950-1, 1.7.7.1)		N/A
F.3.6.2	Class II equipment (IEC60417-5172)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
F.3.6.2.1	Class II equipment with or without functional earth (IEC 60065, 5.2 c)) & (IEC 60950-1, 1.7.7.2)		N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking (IEC 60950-1, 2.6.2)		N/A
F.3.7	Equipment IP rating marking .....: (IEC 60065, A.5)	IP20	—
F.3.8	External power supply output marking (IEC 60065, 5.3 c))	Approved external power supply	N/A
F.3.9	Durability, legibility and permanence of marking (IEC 60065, 5.1) & (IEC 60950-1, 1.7.11)		P
F.3.10	Test for permanence of markings (IEC 60065, 5.1) & (IEC 60950-1, 1.7.11)		P
F.4	Instructions (IEC 60065, 5.4, 5.5.2) & (IEC 60950-1, 1.7.2.1, 1.7.14, 5.1.7, 3,4,3)		P
	a) Equipment for use in locations where children not likely to be present – marking		N/A
	b) Instructions given for installation or initial use		N/A
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area	Not intended for restricted access location	N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N/A
	f) Protective earthing employed as safeguard		N/A
	g) Protective earthing conductor current exceeding ES 2 limits		N/A
	h) Symbols used on equipment	Mentioned in manual	P
	i) Permanently connected equipment not provided with all-pole mains switch		N/A
	j) Replaceable components or modules providing safeguard function		N/A
F.5	Instructional safeguards (IEC 60065, 5.4, 5.5)		N/A
	Where “instructional safeguard” is referenced in the test report it specifies the required elements, location of marking and/or instruction		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

G	**COMPONENTS**		P
G.1	**Switches** (IEC 60950-1, 2.8.7)		N/A
G.1.1	General requirements (IEC 60065, 14.7)		N/A
G.1.2	Ratings, endurance, spacing, maximum load (IEC 60065, 14.7)		N/A
G.2	**Relays** (IEC 60065, 14.4.3) & (IEC 60950-1, 2.8.7)		N/A
G.2.1	General requirements		N/A
G.2.2	Overload test (IEC 60950-1, 2.8.7.2)		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	**Protection Devices**		P
G.3.1	Thermal cut-offs (IEC 60065, 14.6.2.2)		N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b) (IEC 60065, 14.6.2.2 a))		N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c) (IEC 60065, 14.6.2.2 b))		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links (IEC 60065, 14.6.2.3)		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691 (IEC 60065, 14.6.2.3 a))		N/A
G.3.2.1b)	Thermal links tested as part of the equipment (IEC 60065, 14.6.2.3 b))		N/A
	Aging hours (H) ..... :		—
	Single Fault Condition ..... :		—
	Test Voltage (V) and Insulation Resistance (Ω). :		—
G.3.3	PTC Thermistors (IEC 60065, 14.6.4) & (IEC 60950-1, 2.5)		N/A
G.3.4	Overcurrent protection devices (IEC 60065, 14.6.3) & (IEC 60950-1, 2.7)	Approved external power supply	P

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
G.3.5	Safeguards components not mentioned in G.3.5 (IEC 60065, 14.6.5)		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided (IEC 60065, 14.6.5)		N/A
G.3.5.2	Single faults conditions.....: (IEC 60065, 14.6.5)	(See appended Table B.4)	—
G.4	**Connectors**		P
G.4.1	Spacings (IEC 60950-1, 2.10.3.1, 2.10.4.3)	(See appended table 5.4.2.2)	P
G.4.2	Mains connector configuration .....: (IEC 60065, 15.1) & (IEC 60950-1, 3.2.4)	Approved external power supply	—
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely (IEC 60065, 15.1.2) & (IEC 60950-1, 4.3.5)		N/A
G.5	**Wound Components**		P
G.5.1	Wire insulation in wound components.....	(See Annex J)	—
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90° (IEC 60065, 8.16) & (IEC 60950-1, 2.10.5.12)		P
G.5.1.2 b)	Construction subject to routine testing (IEC 60950-1, 2.10.5.11)	Approved external power supply	P
G.5.2	Endurance test on wound components (IEC 60065, 8.17)		P
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test (IEC 60065, 8.17 a))		N/A
	Time (s) .....:		—
	Temperature (°C) .....:		—
G.5.2.3	Wound Components supplied by mains (IEC 60065, 8.17 d))		N/A
G.5.3	**Transformers** (IEC 60950-1, 1.5.4)		P
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1) .....: (IEC 60065, 14.4.3)	Approved external power supply	—
	Position.....:		—
	Method of protection .....:		—
G.5.3.2	Insulation		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
	Protection from displacement of windings.....: (IEC 60065, 14.4) & (IEC 60950-1, C.2)	Approved external power supply	—
G.5.3.3	Overload test ..... :	(See appended table B.3)	—
G.5.3.3.1	Test conditions (IEC 60950-1, C.1)	Approved external power supply	N/A
G.5.3.3.2	Winding Temperatures testing in the unit (IEC 60065, 11.2) & (IEC 60950-1, C.1)		N/A
G.5.3.3.3	Winding Temperatures - Alternative test method		N/A
G.5.4	**Motors**		N/A
G.5.4.1	General requirements (IEC 60065, 4.3.7, 14.10) & (IEC 60950-1, B.1)		N/A
	Position .....:		—
G.5.4.2	Test conditions (IEC 60065, 4.3.7, 14.10) & (IEC 60950-1, B.2)		N/A
G.5.4.3	Running overload test (IEC 60950-1, B.4)		N/A
G.5.4.4	Locked-rotor overload test (IEC 60065, 4.3.7) & (IEC 60950-1, B.5)		N/A
	Test duration (days) .....:		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits (IEC 60950-1, B.6)		N/A
G.5.4.5.2	Tested in the unit (IEC 60950-1, B.6.2)		N/A
	Electric strength test (V).....:		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h) .....: (IEC 60950-1, B.6.3)		—
	Electric strength test (V).....:		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits (IEC 60065, 4.3.7) & (IEC 60950-1, B.7)		N/A
G.5.4.6.2	Tested in the unit (IEC 60950-1, B.7.2)		N/A
	Maximum Temperature .....:		—
	Electric strength test (V) .....:		—
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h) .....: (IEC 60950-1, B.7.3)		—

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
	Electric strength test (V).....:		—
G.5.4.7	Motors with capacitors (IEC 60950-1, B.8)		N/A
G.5.4.8	Three-phase motors (IEC 60950-1, B.9)		N/A
G.5.4.9	Series motors (IEC 60950-1, B.10)		N/A
	Operating voltage .....:		—
G.6	**Wire Insulation**		P
G.6.1	General (IEC 60065, 8.16) & (IEC 60950-1, 2.10.5.12)	Approved external power supply	P
G.6.2	Solvent-based enamel wiring insulation (IEC 60065, 8.1) & (IEC 60950-1, 2.10.5.13)		N/A
G.7	**Mains supply cords**		N/A
G.7.1	General requirements (IEC 60065, 16.1, 16.2) & (IEC 60950-1, 3.2.5.1)		N/A
	Type.....:		—
	Rated current (A).....:		—
	Cross-sectional area (mm^2), (AWG) ..... :		—
G.7.2	Compliance and test method (IEC 60065, 16.2) & (IEC 60950-1, 3.2.5.1)		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements (IEC 60065, 16.5) & (IEC 60950-1, 3.2.6)		N/A
	Strain relief test force (N) .....:		—
G.7.3.2.2	Strain relief mechanism failure (IEC 60950-1, 3.2.6)		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm)....: (IEC 60065, 16.5) & (IEC 60950-1, 3.2.7)		—
G.7.3.2.4	Strain relief comprised of polymeric material (IEC 60065, 16.5) & (IEC 60950-1, 3.2.6, 3.2.7)		N/A
G.7.4	Cord Entry ..... : (IEC 60950-1, 3.1.4, 3.2.7)	(See appended table 5.4.11.1)	—
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements (IEC 60950-1, 3.2.8)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
G.7.5.2	Mass (g) .....:		—
	Diameter (m) .....:		—
	Temperature (°C) .....:		—
G.7.6	Supply wiring space (IEC 60950-1, 3.2.9)		N/A
G.7.6.2	Stranded wire (IEC 60950-1, 3.3.8)		N/A
G.7.6.2.1	Test with 8 mm strand (IEC 60950-1, 3.3.8)		N/A
G.8	**Varistors**		N/A
G.8.1	General requirements		N/A
G.8.2	Safeguard against shock (IEC 60065, 14.13) & (IEC 60950-1, Annex Q)		N/A
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test .....: (IEC 60065, 14.13)	(See appended table B.3)	—
G.8.3.3	Temporary overvoltage .....:	(See appended table B.3)	—
G.9	**Integrated Circuit (IC) Current Limiters** (IEC 60950-1, Annex CC)		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A. (IEC 60950-1, CC.1)		N/A
G.9.1 b)	Limiters do not have manual operator or reset (IEC 60950-1, CC.1)		N/A
G.9.1 c)	Supply source does not exceed 250 VA .....: (IEC 60950-1, CC.1)		—
G.9.1 d)	IC limiter output current (max. 5A) .....: (IEC 60950-1, CC.1)		—
G.9.1 e)	Manufacturers' defined drift .....: (IEC 60950-1, CC.1)		—
G.9.2	Test Program 1 (IEC 60950-1, CC.2)		N/A
G.9.3	Test Program 2 (IEC 60950-1, CC.3)		N/A
G.9.4	Test Program 3 (IEC 60950-1, CC.4)		N/A
G.10	**Resistors** (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7)		N/A
G.10.1	General requirements (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7.1)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
G.10.2	Resistor test (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7.2)		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable (IEC 60065, 14.2) & (IEC 60950-1, 1.5.7.3)		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test (IEC 60950-1, 1.5.7.3)		N/A
G.11	**Capacitor and RC units** (IEC 60065, 14.3) & (IEC 60950-1, 1.5.6)		N/A
G.11.1	General requirements (IEC 60065, 14.3.1) & (IEC 60950-1, 1.5.6)		N/A
G.11.2	Conditioning of capacitors and RC units (IEC 60065, 14.3.1) & (IEC 60950-1, 1.5.6)		N/A
G.11.3	Rules for selecting capacitors (IEC 60065, 14.3.2) & (IEC 60950-1, 1.5.6)		N/A
G.12	**Optocouplers**		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results).....: (IEC 60065, 14.12) & (IEC 60950-1, 2.10.5.4)		N/A
	Type test voltage Vini .....:		—
	Routine test voltage, Vini,b .....:		—
G.13	**Printed boards** (IEC 60065, 13.5) & (IEC 60950-1, 2.10.6)		P
G.13.1	General requirements	Approved external power supply	P
G.13.2	Uncoated printed boards (IEC 60065, 13.5.1) & (IEC 60950-1, 2.10.6.1)		P
G.13.3	Coated printed boards (IEC 60065, 13.5.2) & (IEC 60950-1, 2.10.6.2)		N/A
G.13.4	Insulation between conductors on the same inner surface (IEC 60950-1, 2.10.6.3)		N/A
	Compliance with cemented joint requirements (Specify construction).....: (IEC 60065, 13.5.2, 13.6, 13.7) & (IEC 60950-1, 2.10.5.5)		—

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
G.13.5	Insulation between conductors on different surfaces (IEC 60065, 13.5.1) & (IEC 60950-1, 2.10.6.4)		N/A
	Distance through insulation.....:	(See appended table 5.4.4.5)	—
	Number of insulation layers (pcs) .....:	One layer	—
G.13.6	Tests on coated printed boards (IEC 60065, 13.5.2) & (IEC 60950-1, 2.10.8)		N/A
G.13.6.1	Sample preparation and preliminary inspection (IEC 60950-1, 2.10.8.1)		N/A
G.13.6.2a)	Thermal conditioning (IEC 60950-1, 2.10.8.2)		N/A
G.13.6.2b)	Electric strength test (IEC 60950-1, 2.10.8.3)		N/A
G.13.6.2c)	Abrasion resistance test (IEC 60950-1, 2.10.8.4)		N/A
G.14	**Coating on components terminals**		N/A
G.14.1	Requirements .....: (IEC 60950-1, 2.10.7)	(See G.13)	—
G.15	**Liquid filled components**		N/A
G.15.1	General requirements	No liquid filled components	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	**IC including capacitor discharge function (ICX)**		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours		N/A
b)	Impulse test using circuit 2 with Uc = to transient voltage .....:		—
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage .....:		—

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance .....:		—
D3)	Resistance .....:		—
H	**CRITERIA FOR TELEPHONE RINGING SIGNALS**		N/A
H.1	General (IEC 60950-1, M.1)	No TNV circuits	N/A
H.2	Method A (IEC 60950-1, M.2)		N/A
H.3	Method B (IEC 60950-1, M.3)		N/A
H.3.1	Ringing signal (IEC 60950-1, M.3.1)		N/A
H.3.1.1	Frequency (Hz) .....: (IEC 60950-1, M.3.1.1)		—
H.3.1.2	Voltage (V) .....: (IEC 60950-1, M.3.1.2)		—
H.3.1.3	Cadence; time (s) and voltage (V) .....: (IEC 60950-1, M.3.1.3)		—
H.3.1.4	Single fault current (mA):.....: (IEC 60950-1, M.3.1.4)		—
H.3.2	Tripping device and monitoring voltage .....: (IEC 60950-1, M.3.2)		—
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with (IEC 60950-1, M.3.2.1)		N/A
H.3.2.2	Tripping device (IEC 60950-1, M.3.2.2)		N/A
H.3.2.3	Monitoring voltage (V) .....: (IEC 60950-1, M.3.2.3)		—
J	**INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION**		P
	General requirements (IEC 60065, Annex H) & (IEC 60950-1, Annex U)	Approved external power supply	—

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
K	**SAFETY INTERLOCKS**		N/A
K.1	General requirements (IEC 60065, 14.8) & (IEC 60950-1, 2.8.1, 2.8.2)	No safety interlocks	N/A
K.2	Components of safety interlock safeguard mechanism ..... (IEC 60950-1, 2.8.7)	(See Annex G)	—
K.3	Inadvertent change of operating mode (IEC 60950-1, 2.8.3)		N/A
K.4	Interlock safeguard override (IEC 60950-1, 2.8.6)		N/A
K.5	Fail-safe (IEC 60950-1, 2.8.4)		N/A
	Compliance .....:	(See appended table B.4)	—
K.6	Mechanically operated safety interlocks (IEC 60950-1, 2.8.5)		N/A
K.6.1	Endurance requirement (IEC 60950-1, 2.8.5)		N/A
K.6.2	Compliance and Test method .....: (IEC 60950-1, 2.8.5)		—
K.7	Interlock circuit isolation (IEC 60950-1, 2.8.7)		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location) .....: (IEC 60950-1, 2.8.7.1, 2.8.7.3)		—
K.7.2	Overload test, Current (A).....: (IEC 60950-1, 2.8.7.2)		—
K.7.3	Endurance test (IEC 60950-1, 2.8.7.3)		N/A
K.7.4	Electric strength test .....: (IEC 60950-1, 2.8.7.4)	(See appended table 5.4.11)	—

L	**DISCONNECT DEVICES**		P
L.1	General requirements (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.1, 3.4.2)	The plug of Approved external power supply is used as disconnect device.	P
L.2	Permanently connected equipment (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.3)		N/A
L.3	Parts that remain energized (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.4)		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
L.4	Single phase equipment (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.6)	The plug disconnects both poles simultaneously	P
L.5	Three-phase equipment (IEC 60065, 8.18) & (IEC 60950-1, 3.4.7)	Single phase equipment	N/A
L.6	Switches as disconnect devices (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.8)	No switch	N/A
L.7	Plugs as disconnect devices (IEC 60065, 5.5.3) & (IEC 60950-1, 3.4.9)	Plug of external power supply	P
L.8	Multiple power sources (IEC 60950-1, 3.4.11)	Single supply connection	N/A
M	**EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS**		N/A
M.1	General requirements (IEC 60065, 5.5.2 c)) & (IEC 60950-1, 1.7.13)	No battery	N/A
M.2	Safety of batteries and their cells (IEC 60065, 14.11.1) & (IEC 60950-1, 4.3.8)		N/A
M.2.1	Requirements (IEC 60950-1, 4.3.8)		N/A
M.2.2	Compliance and test method (identify method) .. : (IEC 60950-1, 4.3.8)		—
M.3	Protection circuits (IEC 60950-1, 4.3.8)		N/A
M.3.1	Requirements (IEC 60950-1, 4.3.8)		N/A
M.3.2	Tests (IEC 60950-1, 4.3.8)		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance .....: (IEC 60950-1, 4.3.8)	(See appended Tables and Annex M and M.4)	—
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
M.4.2.2a)	Charging voltage, current and temperature .....: (IEC 60065, 14.11.3)	(See Table M.4)	—
M.4.2.2 b)	Single faults in charging circuitry .....: (IEC 60065, 14.11.3)	(See Annex B.4)	—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests (IEC 60065, 14.11.5)		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method) ..... :		—
M.6.2	Leakage current (mA) ..... :		—
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume Vz (m^3/s)..... :		—
M.8.2.3	Correction factors..... :		—

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
M.8.2.4	Calculation of distance *d* (mm) ..... :		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) ..... : (IEC 60065, 5.5.1)		—
N	**ELECTROCHEMICAL POTENTIALS**		N/A
	Metal(s) used ..... : (IEC 60065, Annex F) & (IEC 60950-1, Annex J)		—
O	**MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES**		P
	Figures O.1 to O.20 of this Annex applied..... : (IEC 60065, Annex E) & (IEC 60950-1, Annex F)	Approved external power supply	—
P	**SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS**		P
P.1	General requirements	Approved external power supply	P
P.2.2	Safeguards against entry of foreign object (IEC 60065, 9.1.3) & (IEC 60950-1, 4.6.1)		N/A
	Location and Dimensions (mm) ..... :		—
P.2.3	Safeguard against the consequences of entry of foreign object		N/A
P.2.3.1	Safeguards against the entry of a foreign object (IEC 60950-1, 4.6.1, 4.6.4.3)		N/A
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts ..... :		—
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) ..... : (IEC 60950-1, 4.6.4.2, 4.6.4.3)		—
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
P.4	Metallized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing (IEC 60950-1, 4.6.5)		N/A
	Tc (°C)..... :		—
	Tr (°C) ..... :		—
	Ta (°C)..... :		—
P.4.2 b)	Abrasion testing ..... :	(See G.13.6.2)	—
P.4.2 c)	Mechanical strength testing ..... :	(See Annex T)	—
Q	**CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING**		N/A
Q.1	Limited power sources (IEC 60950-1, 2.5)		N/A
Q.1.1 a)	Inherently limited output (IEC 60950-1, 2.5)		N/A
Q.1.1 b)	Impedance limited output (IEC 60950-1, 2.5)		N/A
	- Regulating network limited output under normal operating and simulated single fault condition		N/A
Q.1.1 c)	Overcurrent protective device limited output (IEC 60950-1, 2.5)		N/A
Q.1.1 d)	IC current limiter complying with G.9 (IEC 60950-1, 2.5)		N/A
Q.1.2	Compliance and test method (IEC 60950-1, 2.5)		P
Q.2	Test for external circuits – paired conductor cable (IEC 60950-1, 6.3)		N/A
	Maximum output current (A) ..... :		—
	Current limiting method..... :		—
R	**LIMITED SHORT CIRCUIT TEST**		N/A
R.1	General requirements		N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A)). ..... :		—

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
S	**TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material .....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C).....:		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A
	Samples, material .....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C).....:		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure (IEC 60950-1, A.3)		N/A
	Samples, material .....:		—
	Wall thickness (mm).....:		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material .....:		—
	Wall thickness (mm).....:		—
	Conditioning (test condition), (°C).....:		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
T	**MECHANICAL STRENGTH TESTS**		**P**
T.1	General requirements	Approved external power supply	P
T.2	Steady force test, 10 N .....: (IEC 60065, 13.3.1) & (IEC 60950-1, 4.2.2)		—
T.3	Steady force test, 30 N .....: (IEC 60065, 13.3.1) & (IEC 60950-1, 4.2.3)		—
T.4	Steady force test, 100 N .....: (IEC 60065, 9.1.7)		—
T.5	Steady force test, 250 N .....: (IEC 60065, 9.1.7) & (IEC 60950-1, 4.2.4)		—
T.6	Enclosure impact test (IEC 60065, 12.1.4) & (IEC 60950-1, 4.2.5)		N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test .....: (IEC 60065, 12.1.5) & (IEC 60950-1, 4.2.6)		—
T.8	Stress relief test .....: (IEC 60065, 12.1.6) & (IEC 60950-1, 4.2.7)		—
T.9	Impact Test (glass) (IEC 60065, 19.6.1) & (IEC 60950-1, 4.2.5)		N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J).....:		—
	Height (m) .....:		—
T.10	Glass fragmentation test .....: (IEC 60065, 19.6.2)		—
T.11	Test for telescoping or rod antennas (IEC 60065, 12.6)		N/A
	Torque value (Nm) .....:		—

U	**MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFECTS OF IMPLOSION**		N/A
U.1	General requirements (IEC 60065, 18.1) & (IEC 60950-1, 4.2.8)	No CRT	N/A
U.2	Compliance and test method for non-intrinsically protected CRTs (IEC 60065, 18.2)		N/A
U.3	Protective Screen.....:	(See Annex T)	—

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

V	**DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)**		P
V.1	Accessible parts of equipment (IEC 60065, 9.1.1.3, 9.1.3, 9.1.4) & (IEC 60950-1, 1.7.2.5, 2.1.1.1, EE.5)	External enclosure and terminal can be accessible as ES1. Approved external power supply	P
V.2	Accessible part criterion		P

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

4.1.2	TABLE: List of critical components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity[1]
Switching mode power supply	PHILIPS	HQ8505 SSW-2600**-4 (**=EU,UK)	Input: 100-240 Vac, 50/60 Hz, 7,5 W Output: 15 Vdc, 5,4 W	IEC/EN 60065	Dekra Report no. 4327114.51, CB cert no. NL-42434)
PCB material (main PCB)	Shenzhen Shi Chang Dong Xin PCB Co., Ltd.	CDX-1	V-0, 130 °C	IEC/EN 62368-1	Tested in appliance
PCB material (main PCB), alternative	Interchangeable	Interchangeable	Min. V-1, Min. 105 °C	UL 94	UL
Speaker	Interchangeable	Interchangeable	4 Ω, 1 W	IEC62368-1	Test in the appliance
Supplementary information: [1)] Provided evidence ensures the agreed level of compliance. See OD-CB2039. [2)] Description line content is optional. Main line description needs to clearly detail the component used for testing					
Remark: N/A					

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

4.8.4, 4.8.5	TABLE: Lithium coin/button cell batteries mechanical tests		N/A
(The following mechanical tests are conducted in the sequence noted.)			
4.8.4.2	TABLE: Stress relief test		—

Part	Material	Oven Temperature (°C)	Comments
--	--	--	--

4.8.4.3	TABLE: Battery replacement test		—
Battery part no. ..... :		--	—
Battery Installation/withdrawal		Battery Installation/Removal Cycle	Comments
--		1	--
		2	--
		3	--
		4	--
		5	--
		6	--
		8	--
		9	--
		10	--

4.8.4.4	TABLE: Drop test			—
Impact Area		Drop Distance	Drop No.	Observations
--		--	1	--
--		--	2	--
--		--	3	--

4.8.4.5	TABLE: Impact			—
Impacts per surface		Surface tested	Impact energy (Nm)	Comments
--		--	--	--

4.8.4.6	TABLE: Crush test			—
Test position		Surface tested	Crushing Force (N)	Duration force applied (s)
--		--	--	--

Supplementary information:

4.8.5	TABLE: Lithium coin/button cell batteries mechanical test result			N/A
Test position		Surface tested	Force (N)	Duration force applied (s)

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
--	--	--	--
Supplementary information:			

5.2	TABLE: Classification of electrical energy sources	P

5.2.2.2 – Steady State Voltage and Current conditions

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
1	264 Vac	Transformer sec. pins in external power supply	Normal	45,9 Vpk	0,1 mA	166,8 K	ES1
			Abnormal	44,7 Vpk	0,1 mA	33,45 K	
			Single fault – SC/OC	--	--	--	
2	264 Vac	External power supply output	Normal	15,3 Vdc	--	--	ES1
			Abnormal	18,3 Vdc	--	--	
			Single fault – SC D201	0	0	0	
3	15 Vdc	Main unit	Normal	--	--	--	ES1
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

5.2.2.3 - Capacitance Limits

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class
				Capacitance, nF	Upk (V)	
--	--	--	Normal	--	--	--
			Abnormal	--	--	
			Single fault – SC/OC	--	--	
--	--	--	Normal	--	--	--
			Abnormal	--	--	
			Single fault – SC/OC	--	--	

5.2.2.4 - Single Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Duration (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

			Single fault – SC/OC	--	--	--	

5.2.2.5 - Repetitive Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Off time (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

Test Conditions: *) Equipment shuts down
Normal – Normal operation
Abnormal – Overload output
Supplementary information: SC=Short Circuit, OC=Short Circuit: Apparatus shuts down

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements (HF3507)			P
	Supply voltage (V) ..... :	90 Vac	264 Vac	—
	Ambient T_{min} (°C) ..... :	35	35	—
	Ambient T_{max} (°C) ..... :	35	35	—
	Tma (°C) ..... :	35	35	—

Maximum measured temperature T of part/at:	T (°C)		Allowed T_{max} (°C)
Wake up light part			
DC input connector (J1)	39,2	37,8	Ref.
Capacitor C6 surface	46,0	45,0	105
PCB under TRAN1	43,8	42,6	105
PCB under U1	48,7	47,9	105
PCB under U500	45,4	44,7	105
Capacitor C14 surface	45,6	44,8	105
PCB under IC1000	62,2	62,2	105
Internal enclosure	56,0	55,5	Ref.
External enclosure (above U500)	41,3	40,8	77*
External enclosure (above LED light)	41,6	41,4	77*
External switching mode power supply			
Pin support	41,6	41,1	Ref
External enclosure (top)	37,0	36,0	77*

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

External enclosure (side)	37,4	37,2	77*
External enclosure (back)	47,0	46,3	77*
Ambient	35,0	35,0	Ref

Supplementary information:
*) TS1 (the enclosure can be touch for very short period <10s).
Test conditions:
The unit was tested together with the approved external power supply.
1/8 of max attainable output power with standard signal and 10 level of the lamp.

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
--	--	--	--	--	--	--	--

Supplementary information:
Note 1: Tma should be considered as directed by appliable requirement
Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements (HF3508)			P
	Supply voltage (V) ..... :	90 Vac	264 Vac	—
	Ambient T_{min} (°C) ..... :	35	35	—
	Ambient T_{max} (°C) ..... :	35	35	—
	Tma (°C) ..... :	35	35	—
Maximum measured temperature T of part/at:		T (°C)		Allowed T_{max} (°C)
Wake up light part				
DC input connector (J1)		43,1	42,0	Ref.
Capacitor C6 surface		47,4	45,9	105
PCB under TRAN1		47,6	45,8	105
PCB under U1		50,9	49,0	105
PCB under U500		47,5	45,1	105
Capacitor C14 surface		47,3	45,3	105
PCB under IC1000		75,1	73,3	105
Internal enclosure		61,6	59,5	Ref.
External enclosure (above U500)		41,8	40,1	77*
External enclosure (above LED light)		43,3	41,1	77*

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

External switching mode power supply			
Pin support	41,6	41,1	Ref
External enclosure (top)	37,0	36,0	77*
External enclosure (side)	37,4	37,2	77*
External enclosure (back)	47,0	46,3	77*
Ambient	35,0	35,0	Ref

Supplementary information:
*) TS1 (the enclosure can be touch for very short period <10s).
Test conditions:
The unit was tested together with the approved external power supply.
1/8 of max attainable output power with standard signal and 10 level of the lamp.

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
--	--	--	--	--	--	--	--

Supplementary information:
Note 1: Tma should be considered as directed by appliable requirement
Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics		N/A
Penetration (mm)..... :	--		—
Object/ Part No./Material	Manufacturer/trademark	T softening (°C)	
--	--	--	

Supplementary information:
--

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics			N/A
Allowed impression diameter (mm) ..... :	≤ 2 mm			—
Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm)	
--	--	--		
--	--	--		

Supplementary information:
Approved external power supply

5.4.2.2,	TABLE: Minimum Clearances/Creepage distance	N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.2.4 and 5.4.3							
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz)[1]	Required cl (mm)	cl (mm)[2]	Required[3] cr (mm)	cr (mm)
Supplementary information: Approved external power supply							

5.4.2.3	**TABLE: Minimum Clearances distances using required withstand voltage**	**N/A**
	Overvoltage Category (OV) ..... :	II
	Pollution Degree..... :	2

Clearance distanced between:	Required withstand voltage	Required cl (mm)	Measured cl (mm)
Supplementary information: Approved external power supply			

5.4.2.4	**TABLE: Clearances based on electric strength test**		**N/A**
Test voltage applied between:	Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No
--	--	--	--
Supplementary information: --			

5.4.4.2, 5.4.4.5 c) 5.4.4.9	**TABLE: Distance through insulation measurements**				**N/A**
Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)
Supplementary information: Approved external power supply					

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.9	TABLE: Electric strength tests			N/A
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (kV peak)	Breakdown Yes / No
--		--	--	--
Supplementary information: Approved external power supply				

5.5.2.2	TABLE: Stored discharge on capacitors				N/A
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification
Supplementary information: Approved external power supply					

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

5.6.6.2	TABLE: Resistance of protective conductors and terminations				N/A
Accessible part		Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)
--		--	--	--	-
Supplementary information:					

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part	N/A
Supply voltage .....:		—
Location	Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	Touch current (mA peak)

Supplementary Information:

Approved external power supply

Notes:

[1] Supply voltage is the anticipated maximum Touch Voltage

[2] Earthed neutral conductor [Voltage differences less than 1% or more]

[3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3

[4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.

[5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

6.2.2	TABLE: Electrical power sources (PS) measurements for classification				P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s*)	PS Classification
Power supply Output	Normal	Power (W)..... :	11,06	11,06	PS1
		VA (V) ..... :	15,18	15,18	
		IA (A)..... :	0,73	0,73	
Power supply Output	SC R107	Power (W)..... :	0	0	PS1
		VA (V)..... :	0	0	
		IA (A) ..... :	0	0	
Power supply Output	SC R110	Power (W)..... :	9,35	9,35	PS1
		VA (V)..... :	14,63	14,63	
		IA (A) ..... :	0,64	0,64	
Supplementary Information: For External power supply output terminal					

6.2.3.1	TABLE: Determination of Potential Ignition Sources (Arcing PIS)			P
Location	Open circuit voltage After 3 s (Vp)	Measured r.m.s current (Irms)	Calculated value (Vp x Irms)	Arcing PIS? Yes / No
All circuits/components	15Vdc	--	--	No
Supplementary information: Approved external power supply An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (V_p) and normal operating condition rms current (I_{rms}) is greater than 15.				

6.2.3.2	TABLE: Determination of Potential Ignition Sources (Resistive PIS)				P
Circuit Location (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No
All circuits/components	--	--	--	--	No

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary Information:

Approved external power supply

A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter.

If a separate voltmeter and ammeter are used, the product of (VA x IA) is used to determine Resistive PIS classification.

A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, or (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured 30 s after introduction of the fault.

8.5.5	TABLE: High Pressure Lamp		N/A
Description		Values	Energy Source Classification
Lamp type .....:		--	—
Manufacturer .....:		--	—
Cat no. .....:		--	—
Pressure (cold) (MPa).....:		--	MS_
Pressure (operating) (MPa).....:		--	MS_
Operating time (minutes).....:		--	—
Explosion method .....:		--	—
Max particle length escaping enclosure (mm) .:		--	MS_
Max particle length beyond 1 m (mm).....:		--	MS_
Overall result .....:			
Supplementary information: --			

B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W) (lamp)	P rated (W) (lamp)	Fuse No	I fuse (A)	Condition/status
90	0,073	--	3,85	--	--	0,073	50Hz
100	0,067	--	3,83	5,4	--	0,067	50Hz
240	0,037	--	3,75	5,4	--	0,037	50Hz
264	0,035	--	3,80	--	--	0,035	50Hz
90	0,073	--	3,87	--	--	0,073	60Hz
100	0,068	--	3,85	5,4	--	0,068	60Hz
240	0,037	--	3,76	5,4	--	0,037	60Hz
264	0,035	--	3,81	--	--	0,035	60Hz

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W) (lamp)	P rated (W) (lamp)	Fuse No	I fuse (A)	Condition/status

Supplementary information:
Test conditions:
The unit was tested together with the approved external power supply.
1/8 of max attainable output power with standard signal and 10 level of the lamp.
Usb output was loaded as max. normal load.

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

B.3	TABLE: Abnormal operating condition tests							P
Ambient temperature (°C) .....:				35				—
Power source for EUT: Manufacturer, model/type, output rating .:				See page 2				—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Limit
100% of max non-clipping output power with standard signal input	Full load	264 Vac, 50 Hz	4 h	F1	0,054	Yes	46,1 °C, Enclosure accessiable	104 °C
	Obseration: No temperature exceeded limit. No hazard.							
Supplementary information: full load. Result is dT + 35 ◦C Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column “Abnormal/Fault.” Specify if test condition by indicating “Abnormal” then the condition for a Clause B.3 test or “Single Fault” then the condition for Clause B.4.								

B.3	TABLE: Abnormal operating condition tests							P
Ambient temperature (°C) .....:				35				—
Power source for EUT: Manufacturer, model/type, output rating .:				See page 2				—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Limit
Speaker	SC	264 Vac, 50 Hz	4 h	F1	0,035	Yes	42,3 °C, Enclosure accessiable	104 °C
	Obseration:. No temperature exceeded limit. No hazard.							
Supplementary information: Result is dT + 35 ◦C Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column “Abnormal/Fault.” Specify if test condition by indicating “Abnormal” then the condition for a Clause B.3 test or “Single Fault” then the condition for Clause B.4.								

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

B.4 (6.4.3)	TABLE: Fault condition tests							P
Ambient temperature (°C) .....:				35				—
Power source for EUT: Manufacturer, model/type, output rating .:				Philips , HF20, 24V18W				—
Component No.	Fault Condition	Supply voltage, (V)	Test time	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
C6	Shorted circuit	264	30 m	F1	0,005	YES	--	No hazards. The appliance protected immediately.
T1	Shorted circuit	264	30 m	F1	0,005	YES	--	No hazards. The appliance operated as normal.
U500 (pin 4 - pin 6)	Shorted circuit	264	30 m	F1	0,027	YES	--	No hazards. The appliance protected immediately.
U500 (pin 4 - pin 8)	Shorted circuit	264	30 m	F1	0,01	YES	--	No hazards. The appliance protected immediately, no audio output on the speaker.
U200 (pin 2 - pin 3)	Shorted circuit	264	30 m	F1	0,01	YES	--	No hazards. The appliance operated as normal.
Supplementary information:								

Annex M	TABLE: Batteries									N/A
The tests of Annex M are applicable only when appropriate battery data is not available										--
Is it possible to install the battery in a reverse polarity position? .....:										--
	Non-rechargeable batteries			Rechargeable batteries						
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging		
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	
Max. current during normal condition	--	--	--	--	--	--	--	--	--	
Max. current during fault condition	--	--	--	--	--	--	--	--	--	

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

Test results:	--	Verdict
- Chemical leaks	--	--
- Explosion of the battery	--	--
- Emission of flame or expulsion of molten metal	--	--
- Electric strength tests of equipment after completion of tests	--	--
Supplementary information: No battery		

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

Annex M.4	**TABLE: Additional safeguards for equipment containing secondary lithium batteries**	**N/A**

Battery/Cell No.	Test conditions	Measurements			Observation
		U	I (A)	Temp (C)	
--	Normal	--	--	--	--
--	Abnormal	--	--	--	--
--	Single fault –SC/OC	--	--	--	--
--	Normal	--	--	--	--
--	Abnormal	--	--	--	--
--	Single fault – SC/OC	--	--	--	--

Supplementary Information:

Battery identification	Charging at T_{lowest} (°C)	Observation	Charging at $T_{highest}$ (°C)	Observation
--	--	--	--	--

Supplementary Information:

Annex Q.1	**TABLE: Circuits intended for interconnection with building wiring (LPS)**	**N/A**

Note: Measured UOC (V) with all load circuits disconnected:

Output Circuit	Components	U_{oc} (V)	I_{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--
--	--	--	--	--	--	--

Supplementary Information:
SC=Short circuit, OC=Open circuit

T.2, T.3, T.4, T.5	**TABLE: Steady force test**	**N/A**

Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation

Supplementary information:

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

T.6, T.9	TABLE: Impact tests				N/A
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
--	--	--	--	--	
Supplementary information:					

T.7	TABLE: Drop tests				N/A
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
Supplementary information:					

T.8	TABLE: Stress relief test					N/A
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Supplementary information: Approved external power supply						

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT

IEC 62368-1

EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

(Audio/video, information and communication technology equipment - Part 1: Safety requirements)

Differences according to ..... : EN 62368-1:2014+A11:2017

Attachment Form No. ..... : EU_GD_IEC62368_1B_II

Attachment Originator..... : Nemko AS

Master Attachment..... : Date 2017-09-22

	CENELEC COMMON MODIFICATIONS (EN)	
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z".	P
CONTENTS	**Add** the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords	P
	Delete all the "country" notes in the reference document (IEC 62368-1:2014) according to the following list:	P

0.2.1	Note	1	Note 3	4.1.15	Note
4.7.3	Note 1 and 2	5.2.2.2	Note	5.4.2.3.2.2 Table 13	Note c
5.4.2.3.2.4	Note 1 and 3	5.4.2.5	Note 2	5.4.5.1	Note
5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3
5.7.5	Note	5.7.6.1	Note 1 and 2	10.2.1 Table 39	Note 2, 3 and 4
10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3

	For special national conditions, see Annex ZB.		P
1	**Add** the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.		P

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
4.Z1	**Add** the following new subclause after 4.9: To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. **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 B.3.1 and B.4 shall be included as parts of the equipment; b) for components in series 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 **pluggable equipment type B** or **permanently connected equipment**, to rely on dedicated overcurrent 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 **pluggable equipment type A** the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	Approved external power supply	P
5.4.2.3.2.4	**Add** the following to the end of this subclause: The requirement for interconnection with **external circuit** is in addition given in EN 50491-3:2009.		N/A
10.2.1	Add the following to [c] and [d] in table 39: For additional requirements, see 10.5.1.		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
10.5.1	**Add** the following after the first paragraph: *For RS 1 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 presets 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 Z1 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.* *For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.* NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.		N/A
10.6.1	**Add** the following paragraph to the end of the subclause: EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.		N/A
10.Z1	**Add** the following new subclause after 10.6.5. **10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz** The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566		N/A
G.7.1	**Add** the following note: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

Bibliography	**Add** the following standards: **Add** the following notes for the standards indicated: IEC 60130-9 NOTE Harmonized as EN 60130-9. IEC 60269-2 NOTE Harmonized as HD 60269-2. IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series. IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4. IEC 60664-5 NOTE Harmonized as EN 60664-5. IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified). IEC 61508-1 NOTE Harmonized as EN 61508-1. IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4. IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6. IEC 61643-1 NOTE Harmonized as EN 61643-1. IEC 61643-21 NOTE Harmonized as EN 61643-21. IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321. IEC 61643-331 NOTE Harmonized as EN 61643-331.		P
ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		P
4.1.15	**Denmark, Finland, Norway** and **Sweden** To the end of the subclause the following is added: **Class I pluggable equipment type A** intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and **accessible** parts, have a marking stating that the equipment shall 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 varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”		N/A
4.7.3	**United Kingdom** To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

5.2.2.2	**Denmark** After the 2nd paragraph add the following: A warning (marking **safeguard**) for high **touch current** is required if the **touch current** exceeds the limits of 3,5 mA a.c. or 10 mA d.c.		N/A
5.4.11.1 and Annex G	**Finland and Sweden** To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: 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 accordance with the compliance clause below and in addition • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.		N/A
5.5.2.1	**Norway** After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).		P

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

5.5.6	**Finland, Norway** and **Sweden** To the end of the subclause the following is added: Resistors used as **basic safeguard** or bridging **basic insulation** in **class I pluggable equipment type A** shall comply with G.10.1 and the test of G.10.2.		N/A
5.6.1	**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.		P
5.6.4.2.1	**Ireland and United Kingdom** After the indent for **pluggable equipment type A**, the following is added: – the **protective current rating** is taken to be 13 A, this being the largest rating of fuse used in the **mains** plug.		N/A
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm^2 to 1,5 mm^2 in cross-sectional area.		N/A
5.7.5	**Denmark** To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the **protective conductor current** exceeds the limits of 3,5 mA a.c. or 10 mA d.c.		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.1	**Norway and Sweden** To the end of the subclause the following is added: The screen 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 needs to be isolated from the screen of a cable distribution system. 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 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 equipment 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 therefore has 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 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): “Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.” Translation to Swedish: ”Apparater 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 apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

5.7.6.2	**Denmark** To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .		N/A
B.3.1 and B.4	**Ireland and United Kingdom** The following is applicable: To protect against excessive currents and short-circuits in the primary circuit of **direct plug-in equipment**, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the **direct plug-in equipment**, until the requirements of Annexes B.3.1 and B.4 are met		N/A
G.4.2	**Denmark** To the end of the subclause the following is added: 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-D1:2011. CLASS I EQUIPMENT provided with socket-outlets with earth contacts 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 standard sheet DK 2-1a or DK 2-5a. 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 60309-2. Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a *Justification:* Heavy Current Regulations, Section 6c		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

G.4.2	**United Kingdom** To the end of the subclause the following is added: The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A
G.7.1	**United Kingdom** To the first paragraph the following is added: Equipment 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 shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, 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.		N/A
G.7.1	**Ireland** To the first paragraph the following is added: 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. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard		N/A
G.7.2	**Ireland and United Kingdom** To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm^2 is allowed for equipment which is rated over 10 A and up to and including 13 A.		N/A

IEC 62368-1 (ed.2) & IEC 60065 (ed.8) & IEC 60950-1 (ed.2), am1; am2			
Clause	Requirement + Test	Result - Remark	Verdict

ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		P
10.5.2	**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 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		N/A

Circuit diagram:

Overview (HF3505)

Overview (HF3505)

Overview (HF3505)

Overview (HF3505)

Overview (HF3500)

Overview (HF3500)

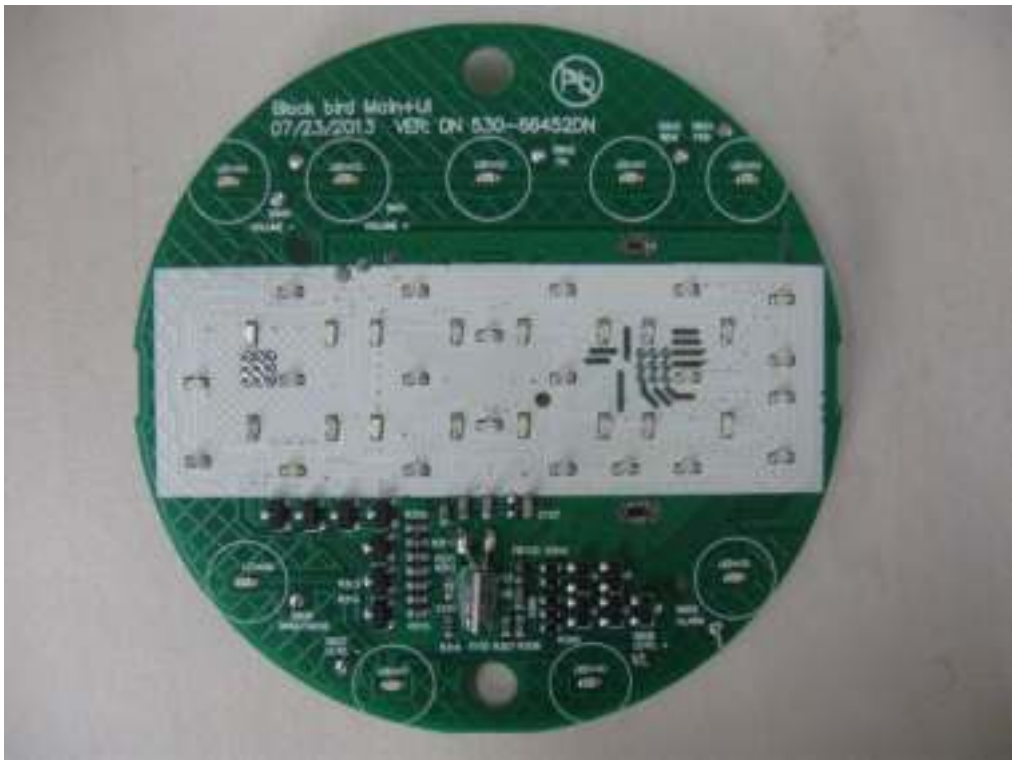
External switching power supply (EU type) view

External switching power supply (UK type) view

Internal view (HF3505)

Internal view (HF3505)

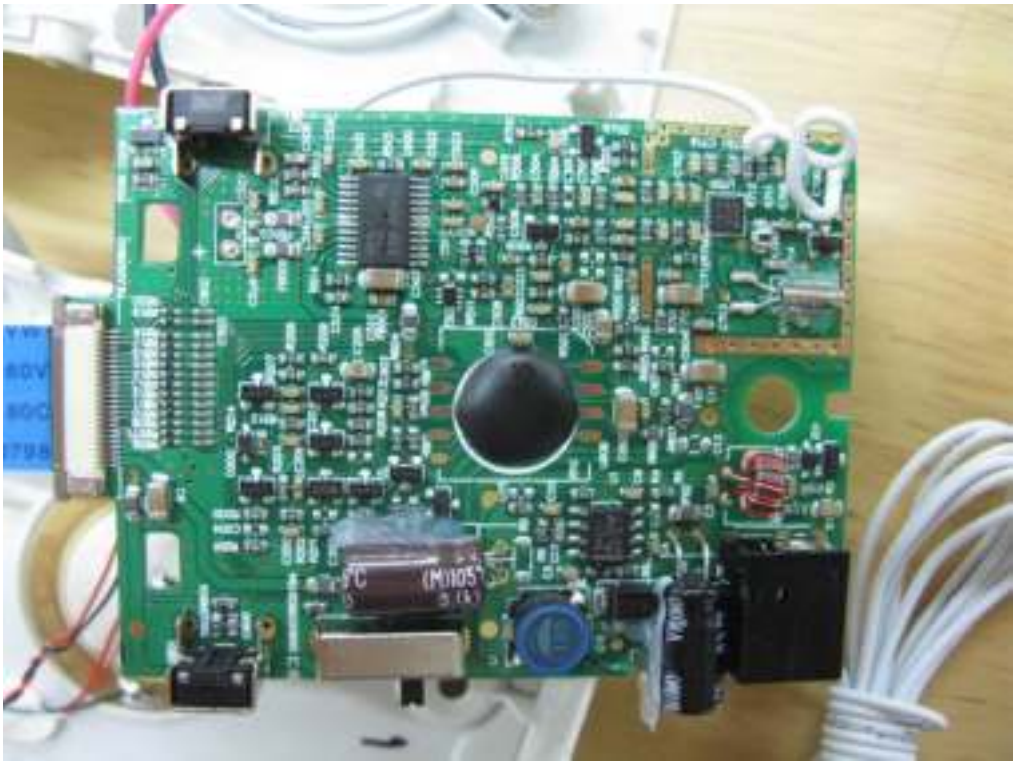
LED board view (HF3505)



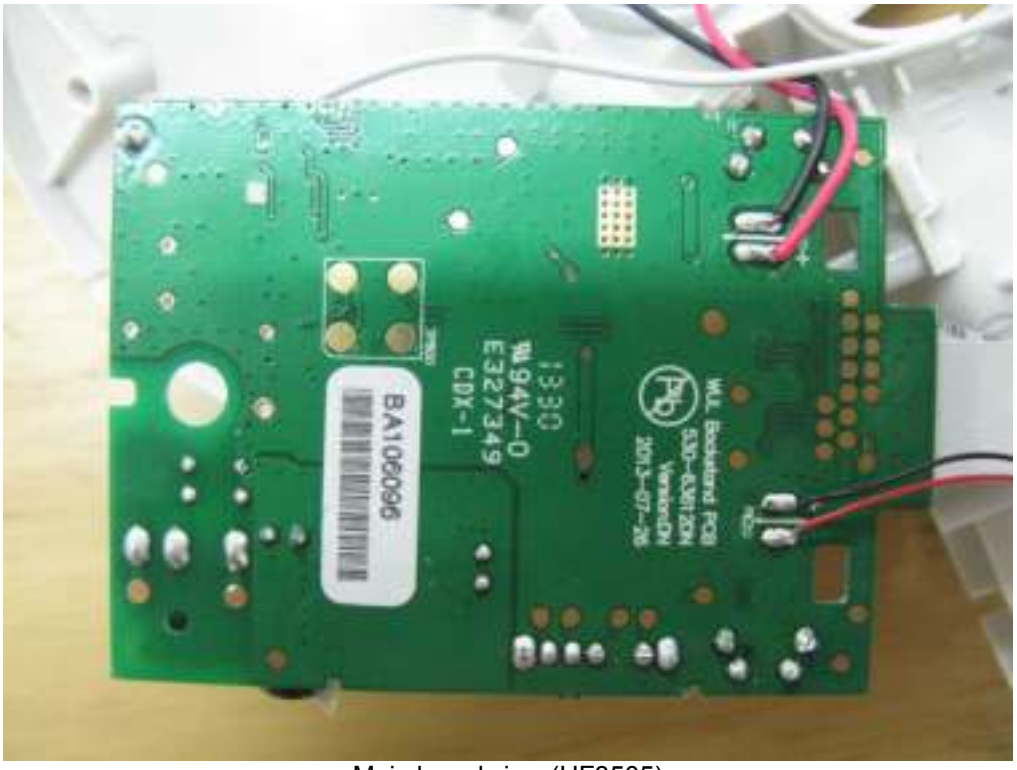
LED board view (HF3505)

LED board view (HF3505)

Main board view (HF3505)
(Speaker is fixed by screws)



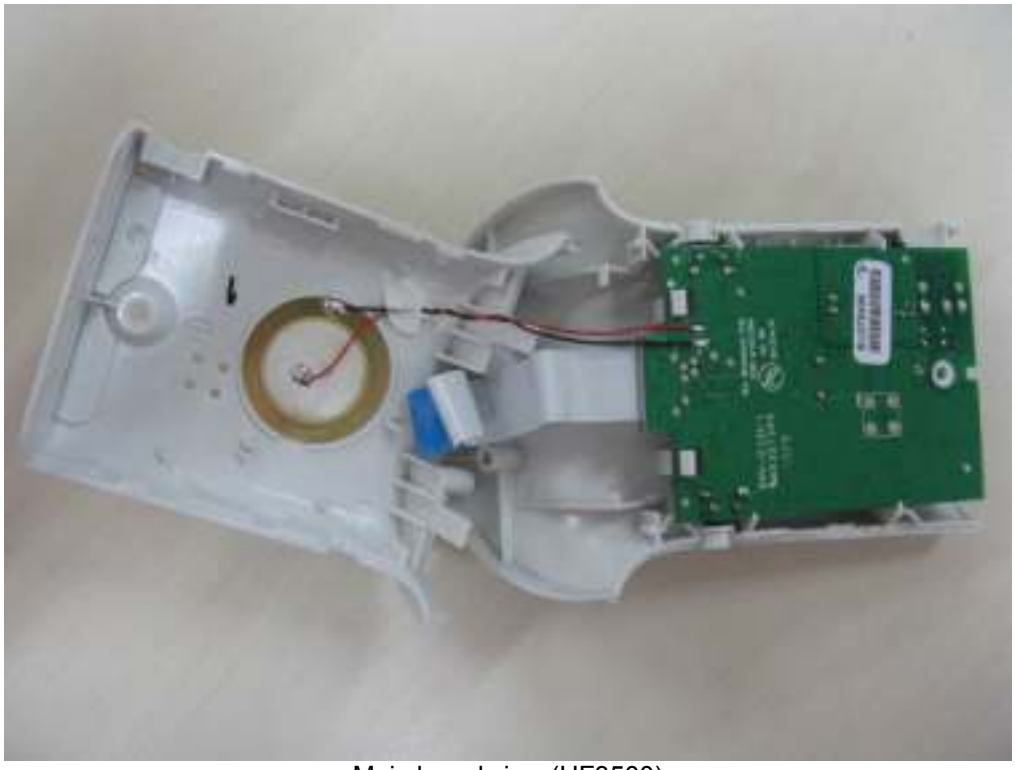
Main board view (HF3505)



Main board view (HF3505)

LED board view (HF3500)

LED board view (HF3500)



Main board view (HF3500)

Main board view (HF3500)

Speaker is fixed by glue as an alternative fix method

Aluminum heat sink view

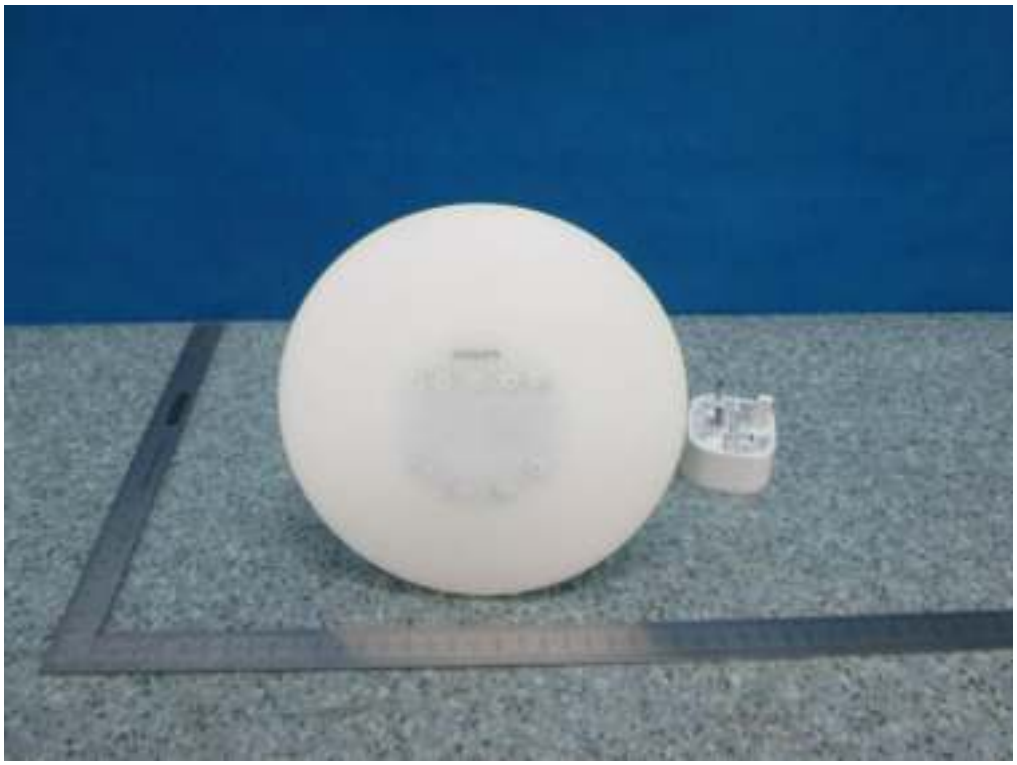
Plastic heat sink view

HF3506 (Silver) Front view

HF3506 (Silver) Rear view

HF3506 (Black) Front view

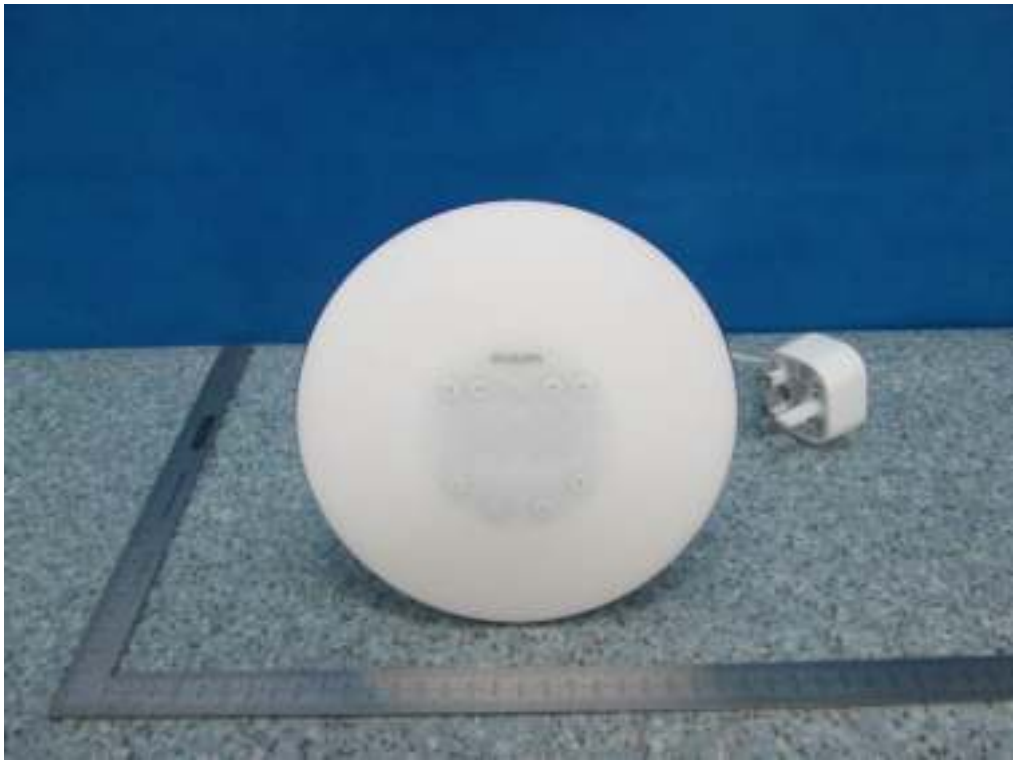
HF3506 (Black) Rear view



Overview, HF3506 (Yellow)

Overview, HF3506 (Yellow)

Overview, HF3506 (Yellow)



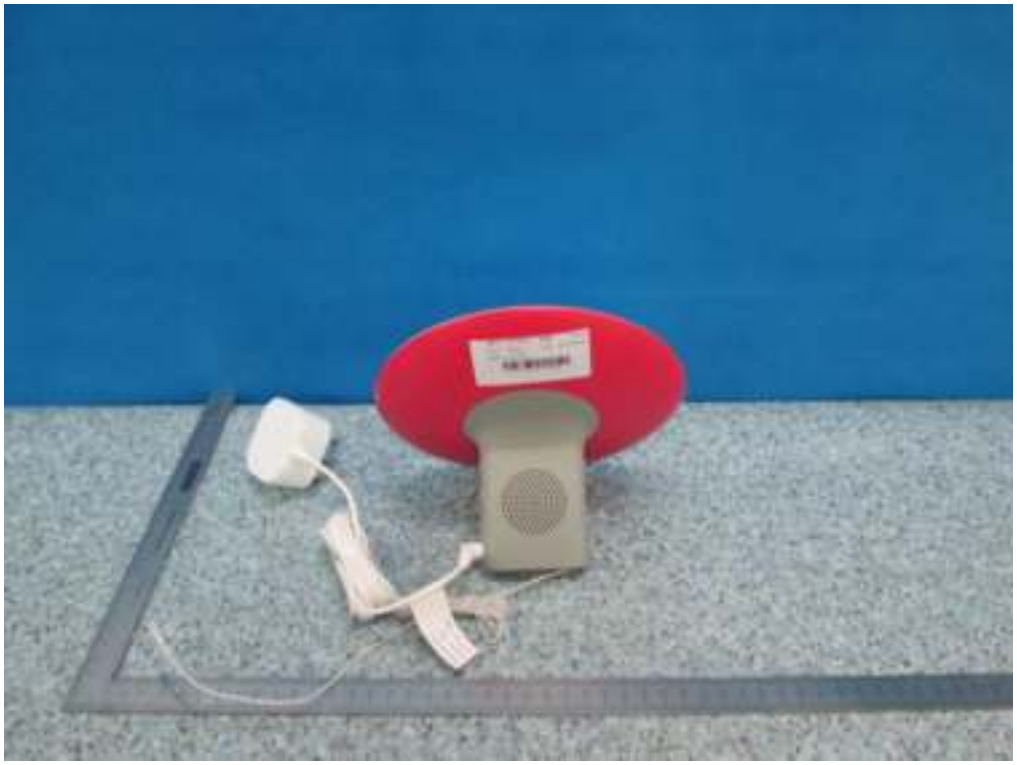
Overview, HF3506 (Blue)

Overview, HF3506 (Blue)

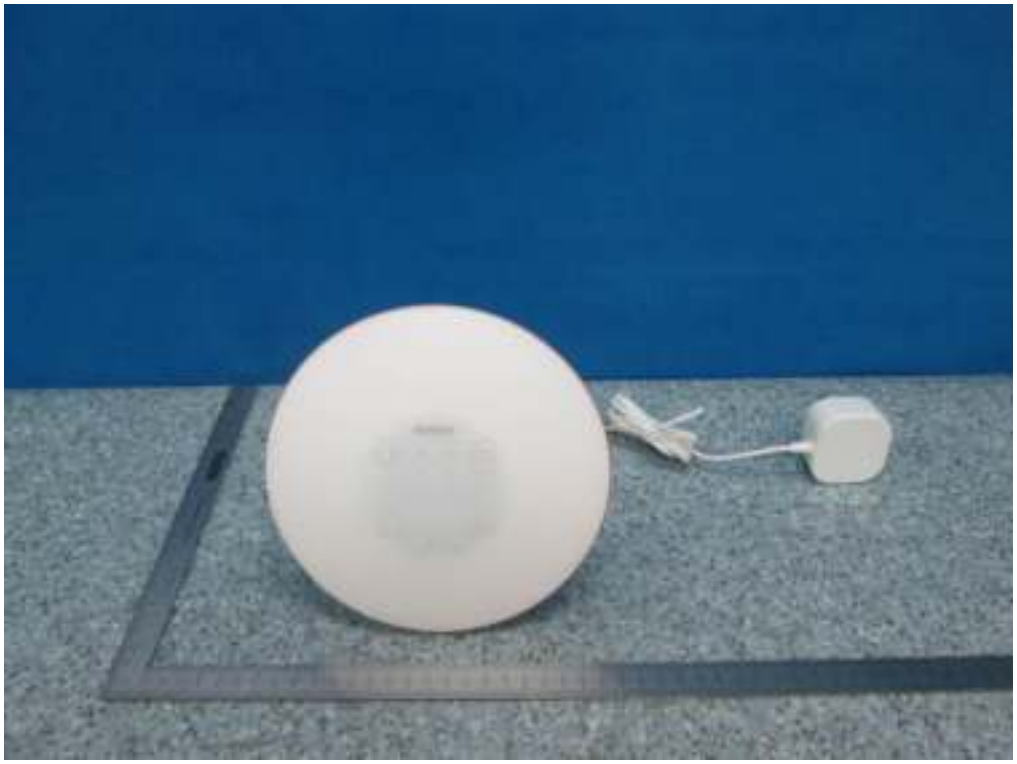
Overview, HF3506 (Blue)

Overview, HF3506 (Red)

Overview, HF3506 (Red)



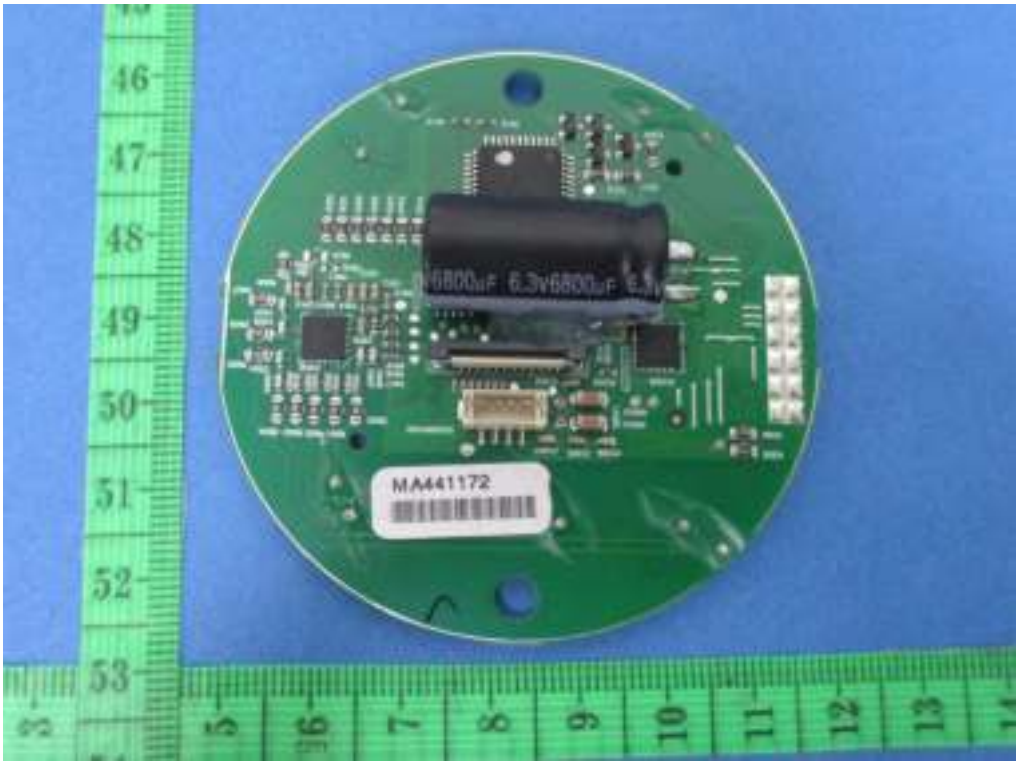
Overview, HF3506 (Red)



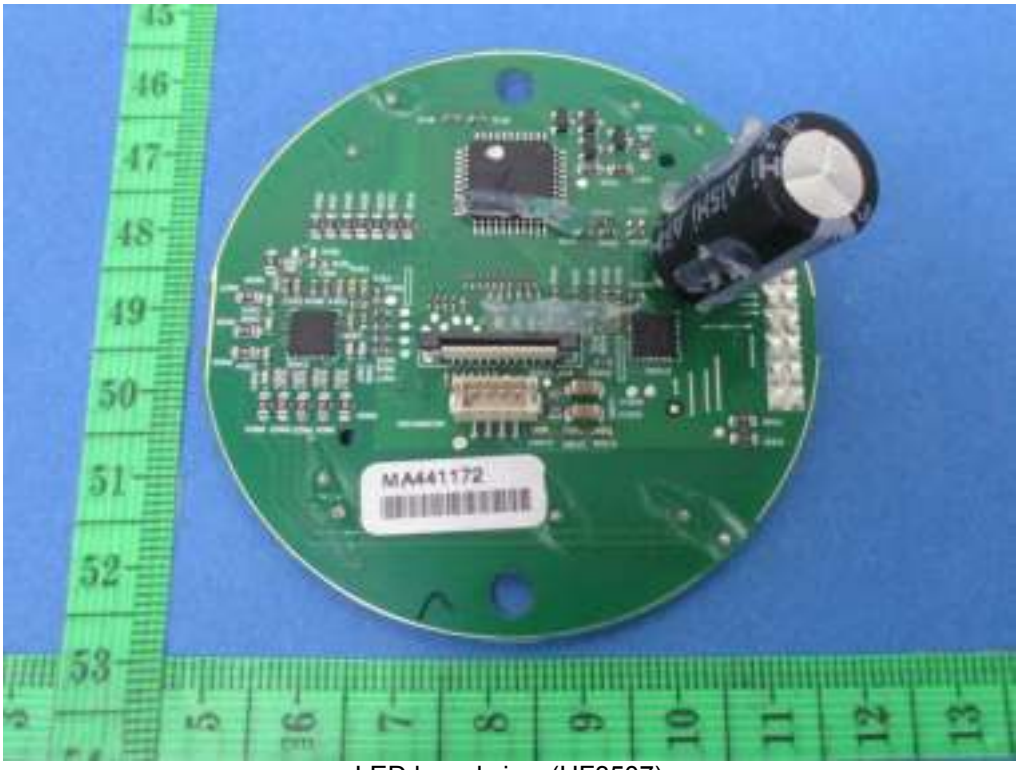
Overview, HF3506 (Copper)

Overview, HF3506 (Copper)

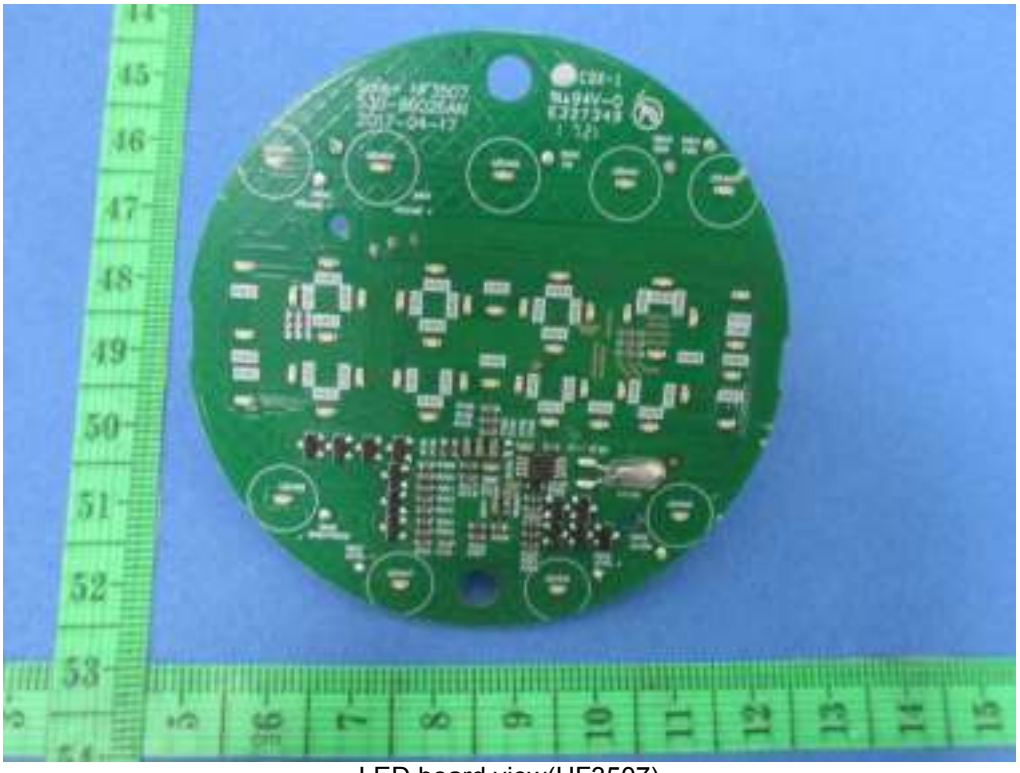
Overview, HF3506 (Copper)



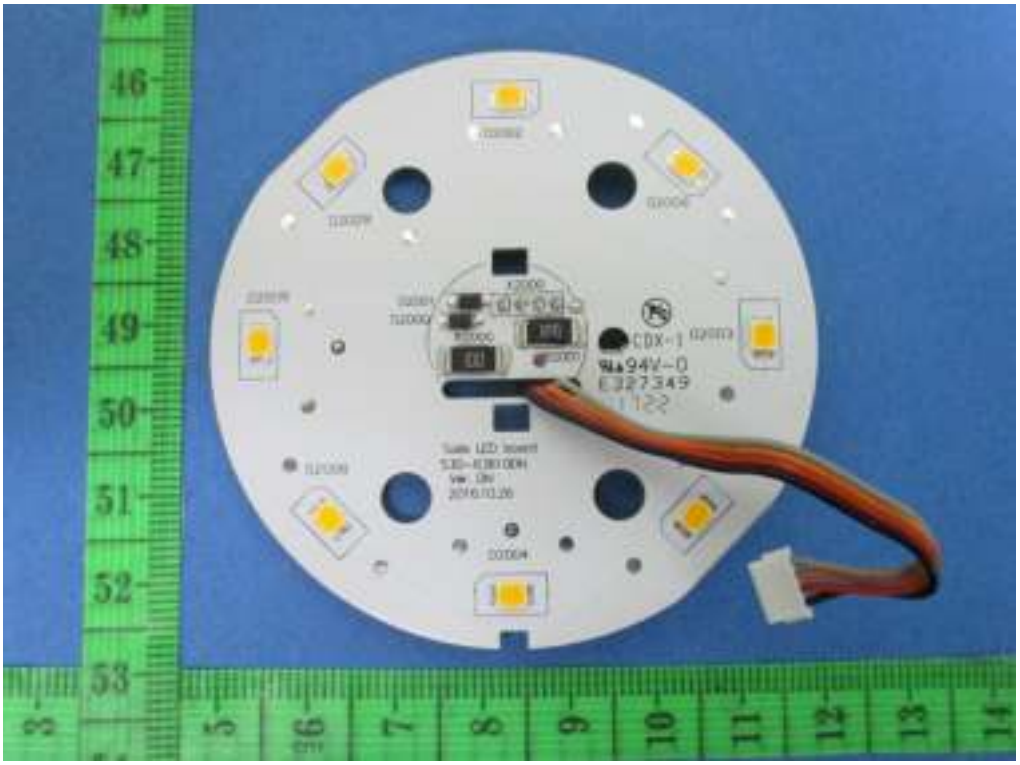
LED board view (HF3507)



LED board view (HF3507)



LED board view(HF3507)



LED board view (HF3507)

Main board view (HF3507)

Main board view (HF3507)

Overview, HF3508

Rear view, HF3508

Internal view, HF3508

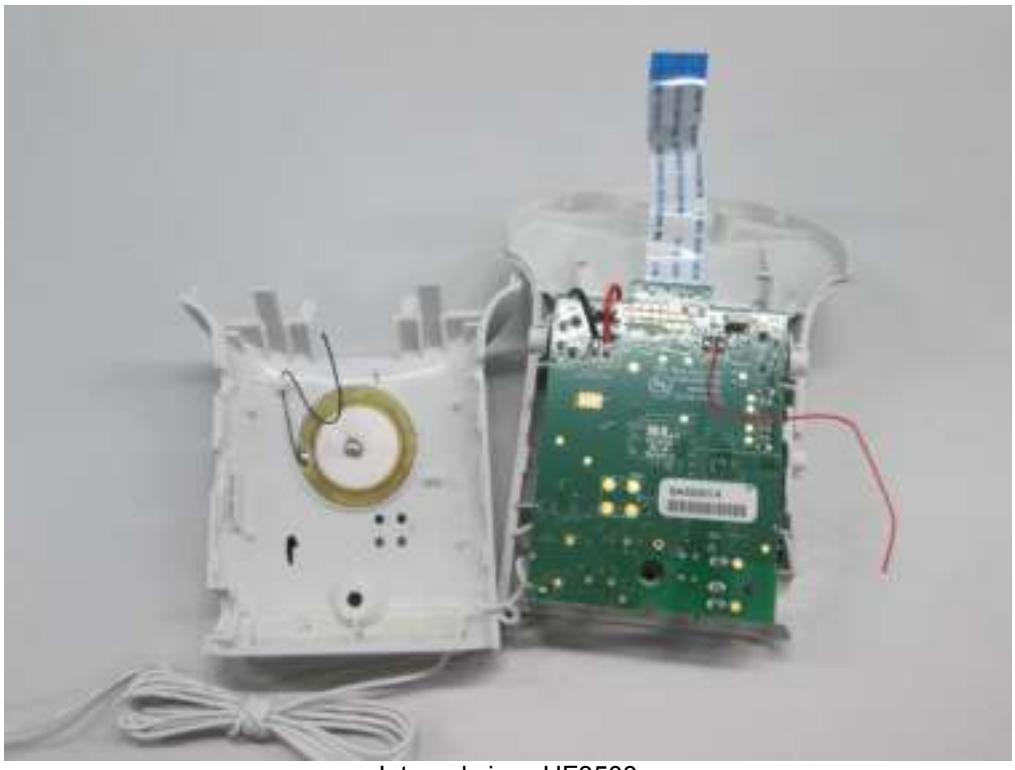
Internal view, HF3508

Internal view, HF3508

Internal view, HF3508

Front view of LED PCB, HF3508

Rear view of LED PCB, HF3508



Internal view, HF3508

Internal view, HF3508

Front view of controller PCB, HF3508

Rear view of controller PCB, HF3508

Front view, HF3504

Rear view, HF3504

Internal view, HF3504

Internal view, HF3504

Internal view, HF3504

Internal view, HF3504

Internal view, HF3504

--END--