Test Report No.:	**LD170707E03**
Client	
Name :	**Hon Hai Precision Industry Co., Ltd.**
Address :	**No.2, Zihyou St., Tucheng Dist., New Taipei City, 236, Taiwan**
Test Item :	**Instant Print Digital Camera**
Identification :	**POP**
Testing laboratory	
Name :	**Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**
Address :	**No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan**
Test specification	
Standard :	**EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013**
Test Result :	The test item passed.
Prepared By :	Signature: Bill Lin Senior Engineer Date: 2017-09-14
Approved By:	Signature: Jazz Kuo Senior Engineer Date: 2017-09-14

This report should not be used by the client to claim product certification, approval, or endorsement by TAF, NVLAP, NIST or any government agencies.

ilac-MRA TAF Testing Laboratory 2021

TEST REPORT

EN 60950-1

Information technology equipment – Safety –

Part 1: General requirements

Report	
Reference No.	LD170707E03
Compiled by (+ signature)	See cover sheet
Approved by (+ signature)	See cover sheet
Date of issue	2017-09-14
Total number of pages	77
Testing laboratory	
Name	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Address	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Testing location	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Address	No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City, TAIWAN
Client	
Name	Hon Hai Precision Industry Co., Ltd.
Address	No.2, Zihyou St., Tucheng Dist., New Taipei City, 236, Taiwan
Test specification	
Standard	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
Test procedure	CE Marking serial in LVD
Non-standard test method	N/A.
Test Report Form/blank test report	
Test Report Form No.	IEC60950_1E
TRF originator.	SGS Fimko Ltd
Master TRF	Dated 2013-07
Test item	
Description	Instant Print Digital Camera
Trademark	Polaroid
Model and/or type reference	POP
Manufacturer	Hon Hai Precision Industry Co., Ltd.
Rating(s)	5Vdc, 2A

Copy of marking plate and summary of test results (information/comments):

These is a reference label. Final label shall be including the content of it.

Test item particulars	
Equipment mobility	[] movable [**X**] hand-held [**X**] transportable [] stationary [] for building-in [] direct plug-in
Connection to the mains	[] pluggable equipment [] type A [] type B [] permanent connection [] detachable power supply cord [] non-detachable power supply cord [**X**] not directly connected to the mains
Operating condition	[**X**] continuous [] rated operating / resting time:
Access location	[**X**] operator accessible [] restricted access location
Over voltage category (OVC)	[] OVC I [] OVC II [] OVC III [] OVC IV [**X**] other: DC Supply
Mains supply tolerance (%) or absolute mains supply values	N/A
Tested for IT power systems	[] Yes [**X**] No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	[] Class I [] Class II [**X**] Class III [] Not classified
Considered current rating (A)	N/A
Pollution degree (PD)	[] PD 1 [**X**] PD 2 [] PD 3
IP protection class	IPX0
Altitude during operation (m)	Up to 2000m
Altitude of test laboratory (m)	Below 2000m
Mass of equipment (kg)	0.42kg
Possible test case verdicts:	
- test case does not apply to the test object	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
Testing	
Date of receipt of test item	2017-08-14
Date(s) of performance of tests	2017-08-14 to 2017-08-22

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

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

General product information:

1. The equipment is a class III Instant Print Digital Camera which is intended to be used with information technology equipment covered by the scope of this standard.
2. For acceptance of the accessory Power Supply Adapter (PSA) output shall comply with LPS requirements, output rating (5Vdc, 2A min.), and maximum temperature 55°C. PSA have to be evaluated according to IEC 60950-1:2005+A1:2009+A2:2013 or EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 and where applicable, according to national differences of countries where they are used e.g.: for international approval procedures.
3. Physical Size: approx.142mm (L) x 120mm (W) x 33mm (H).

Test condition:
Temperature: 25°C
Relative humidity: 60%
Air pressure: 950 mbar

The test sample was a pre-production sample without serial number.

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	**GENERAL**		P
1.5	**Components**		P
1.5.1	General	Components, which were found to affect safety aspects, are conformed to the relevant IEC component standards and/or comply with the requirements of this standard.	P
	Comply with IEC 60950-1 or relevant component standard	(See appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
1.5.3	Thermal controls	No thermal controls used.	N/A
1.5.4	Transformers	Class III equipment, supplied by SELV.	N/A
1.5.5	Interconnecting cables	Interconnecting cable for Interconnection is carrying only SELV voltages with power consumption below 240 VA.	P
1.5.6	Capacitors bridging insulation	Class III equipment, supplied by SELV.	N/A
1.5.7	Resistors bridging insulation	Class III equipment, supplied by SELV.	N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Class III equipment, supplied by SELV.	N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	Class III equipment, supplied by SELV.	N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	Class III equipment, supplied by SELV.	N/A
1.5.8	Components in equipment for IT power systems	Class III equipment, supplied by SELV.	N/A
1.5.9	Surge suppressors	Class III equipment, supplied by SELV.	N/A
1.5.9.1	General	Class III equipment, supplied by SELV.	N/A
1.5.9.2	Protection of VDRs	Class III equipment, supplied by SELV.	N/A

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9.3	Bridging of functional insulation by a VDR	Class III equipment, supplied by SELV.	N/A
1.5.9.4	Bridging of basic insulation by a VDR	Class III equipment, supplied by SELV.	N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR	Class III equipment, supplied by SELV.	N/A
1.6	**Power interface**		P
1.6.1	AC power distribution systems	Class III equipment, supplied by SELV.	N/A
1.6.2	Input current	(See appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	This EUT is not hand-held equipment.	N/A
1.6.4	Neutral conductor	Class III equipment, supplied by SELV.	N/A
1.7	**Marking and instructions**		P
1.7.1	Power rating and identification markings	See below clauses.	P
1.7.1.1	Power rating marking	See below.	P
	Multiple mains supply connections.....:	No such construction.	N/A
	Rated voltage(s) or voltage range(s) (V) .....:	5Vdc	P
	Symbol for nature of supply, for d.c. only .....:	IEC 60417-1, symbol No. 5031 is used on the EUT label. See copy of marking plate for details.	P
	Rated frequency or rated frequency range (Hz) ....:	The EUT is supplied by DC.	N/A
	Rated current (mA or A) .....:	2A	P
1.7.1.2	Identification markings	See below.	P
	Manufacturer's name or trade-mark or identification mark .....:	Trade-mark: Polaroid	P
	Model identification or type reference .....:	POP	P
	Symbol for Class II equipment only .....:	Class III equipment, supplied by SELV.	N/A
	Other markings and symbols .....:	Additional symbols or markings do not give risk to misunderstanding. See copy of marking plate for details.	P
1.7.1.3	Use of graphical symbols	The meaning of the DC symbol marking is obvious. Other marking had been explained in the instruction.	P
1.7.2	Safety instructions and marking	See below.	P

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Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1	General	Safety related information in English has been evaluated. Manufacturer commits to provide them in the language of the countries where the product will be distributed.	P
1.7.2.2	Disconnect devices	Class III equipment, supplied by SELV.	N/A
1.7.2.3	Overcurrent protective device	No such device.	N/A
1.7.2.4	IT power distribution systems	Class III equipment, supplied by SELV.	N/A
1.7.2.5	Operator access with a tool	No tool is necessary to operate this product.	N/A
1.7.2.6	Ozone	This EUT is not intended to produce the ozone.	N/A
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	N/A
1.7.4	Supply voltage adjustment .....:	No such device.	N/A
	Methods and means of adjustment; reference to installation instructions .....:	No such device.	N/A
1.7.5	Power outlets on the equipment .....:	No power outlets.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) .....:	Class III equipment, supplied by SELV.	N/A
1.7.7	Wiring terminals	See below.	N/A
1.7.7.1	Protective earthing and bonding terminals .....:	Class III equipment, no protective earthing.	N/A
1.7.7.2	Terminals for a.c. mains supply conductors	Class III equipment. Not to connect to a.c. mains directly.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors	The EUT is not intended to be connected to the d.c. mains.	N/A
1.7.8	Controls and indicators	See below.	P
1.7.8.1	Identification, location and marking .....:	The function of indicators and controls is clearly identified.	P
1.7.8.2	Colours .....:	Colors are used and safety is not involved.	N/A
1.7.8.3	Symbols according to IEC 60417.....:	No safety relevant switch.	N/A
1.7.8.4	Markings using figures .....:	Not used.	N/A
1.7.9	Isolation of multiple power sources .....:	Not used.	N/A
1.7.10	Thermostats and other regulating devices .....:	No thermostat or other regulating devices.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.7.11	Durability	After this test there was no damage to the label. The marking on the label did not fade. There was no curling or lifting on the label edge.	P
1.7.12	Removable parts	No safety marking placed on removable parts.	P
1.7.13	Replaceable batteries .....:	No such components.	N/A
	Language(s) .....:		—
1.7.14	Equipment for restricted access locations.....:	This product is not intended to be used in the restricted access locations.	N/A
2	**PROTECTION FROM HAZARDS**		P
2.1	**Protection from electric shock and energy hazards**		P
2.1.1	Protection in operator access areas	See below.	P
2.1.1.1	Access to energized parts	Class III equipment, supplied by SELV and no hazard voltage generated inside.	P
	Test by inspection .....:	Class III equipment, supplied by SELV and no hazard voltage generated inside.	N/A
	Test with test finger (Figure 2A) .....:	Class III equipment, supplied by SELV and no hazard voltage generated inside.	N/A
	Test with test pin (Figure 2B) .....:	Class III equipment, supplied by SELV and no hazard voltage generated inside.	N/A
	Test with test probe (Figure 2C) .....:	No TNV circuit in the equipment.	N/A
2.1.1.2	Battery compartments	No such construction.	N/A
2.1.1.3	Access to ELV wiring	No ELV wiring in operator accessible area.	N/A
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N/A
2.1.1.5	Energy hazards .....:	There is no energy hazard inside the EUT.	N/A
2.1.1.6	Manual controls	No such device.	N/A
2.1.1.7	Discharge of capacitors in equipment	Class III equipment, supplied by SELV.	N/A
	Measured voltage (V); time-constant (s) .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
2.1.1.8	Energy hazards – d.c. mains supply	This product is not intended to be connected to d.c. mains supply.	N/A
	a) Capacitor connected to the d.c. mains supply ..:	This product is not intended to be connected to d.c. mains supply.	N/A
	b) Internal battery connected to the d.c. mains supply :	This product is not intended to be connected to d.c. mains supply.	N/A
2.1.1.9	Audio amplifiers .....:	There is no audio output connector in this product.	N/A
2.1.2	Protection in service access areas	No maintenance works necessary in operation mode.	N/A
2.1.3	Protection in restricted access locations	It is not intended to be used in restricted locations.	N/A
2.2	**SELV circuits**		P
2.2.1	General requirements	Class III equipment, supplied by SELV and there is no hazardous voltage inside the EUT.	P
2.2.2	Voltages under normal conditions (V) .....:	Class III equipment, supplied by SELV and there is no hazardous voltage inside the EUT.	P
2.2.3	Voltages under fault conditions (V) .....:	Class III equipment, supplied by SELV and there is no hazardous voltage inside the EUT.	P
2.2.4	Connection of SELV circuits to other circuits .....:	Only the connection to SELV.	P
2.3	**TNV circuits**		N/A
2.3.1	Limits	No TNV circuit inside the EUT.	N/A
	Type of TNV circuits .....:	No TNV circuit inside the EUT.	—
2.3.2	Separation from other circuits and from accessible parts	No TNV circuit inside the EUT.	N/A
2.3.2.1	General requirements	No TNV circuit inside the EUT.	N/A
2.3.2.2	Protection by basic insulation	No TNV circuit inside the EUT.	N/A
2.3.2.3	Protection by earthing	No TNV circuit inside the EUT.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.3.2.4	Protection by other constructions .....:	No TNV circuit inside the EUT.	N/A
2.3.3	Separation from hazardous voltages	No TNV circuit inside the EUT.	N/A
	Insulation employed.....:	No TNV circuit inside the EUT.	—
2.3.4	Connection of TNV circuits to other circuits	No TNV circuit inside the EUT.	N/A
	Insulation employed.....:	No TNV circuit inside the EUT.	—
2.3.5	Test for operating voltages generated externally	No TNV circuit inside the EUT.	N/A
2.4	**Limited current circuits**		N/A
2.4.1	General requirements	The EUT was supplied by SELV. No limited current circuit inside it.	N/A
2.4.2	Limit values	The EUT was supplied by SELV. No limited current circuit inside it.	N/A
	Frequency (Hz).....:		—
	Measured current (mA) .....:		—
	Measured voltage (V) .....:		—
	Measured circuit capacitance (nF or µF).....:		—
2.4.3	Connection of limited current circuits to other circuits	The EUT was supplied by SELV. No limited current circuit inside it.	N/A
2.5	**Limited power sources**		P
	a) Inherently limited output	The outputs of data port (Micro SD, Micro USB) were not intended to supply the power to other accessory.	P
	b) Impedance limited output	Not selected.	N/A
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition		N/A
	Use of integrated circuit (IC) current limiters		N/A
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA) .....:	See appended table 2.5.	—
	Current rating of overcurrent protective device (A) .:		—
2.6	**Provisions for earthing and bonding**		N/A

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.1	Protective earthing	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.2	Functional earthing	Class III equipment, no protective earthing inside the EUT.	N/A
	Use of symbol for functional earthing .....:	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.3	Protective earthing and protective bonding conductors	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.3.1	General	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.3.2	Size of protective earthing conductors	Class III equipment, no protective earthing inside the EUT.	N/A
	Rated current (A), cross-sectional area (mm^2), AWG.....:		—
2.6.3.3	Size of protective bonding conductors	Class III equipment, no protective earthing inside the EUT.	N/A
	Rated current (A), cross-sectional area (mm^2), AWG.....:		—
	Protective current rating (A), cross-sectional area (mm^2), AWG.....:		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min) .....:	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.3.5	Colour of insulation.....:	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.4	Terminals	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.4.1	General	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.4.2	Protective earthing and bonding terminals	Class III equipment, no protective earthing inside the EUT.	N/A
	Rated current (A), type, nominal thread diameter (mm).....:		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Class III equipment, no protective earthing inside the EUT.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.6.5	Integrity of protective earthing	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.5.1	Interconnection of equipment	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.5.3	Disconnection of protective earth	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.5.4	Parts that can be removed by an operator	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.5.5	Parts removed during servicing	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.5.6	Corrosion resistance	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.5.7	Screws for protective bonding	Class III equipment, no protective earthing inside the EUT.	N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system	Class III equipment, no protective earthing inside the EUT.	N/A
2.7	**Overcurrent and earth fault protection in primary circuits**		N/A
2.7.1	Basic requirements	Class III equipment. Not connect to a.c. mains directly.	N/A
	Instructions when protection relies on building installation	Class III equipment. Not connect to a.c. mains directly.	N/A
2.7.2	Faults not simulated in 5.3.7	Class III equipment. Not connect to a.c. mains directly.	N/A
2.7.3	Short-circuit backup protection	Class III equipment. Not connect to a.c. mains directly.	N/A
2.7.4	Number and location of protective devices .....:	Class III equipment. Not connect to a.c. mains directly.	N/A
2.7.5	Protection by several devices	Class III equipment. Not connect to a.c. mains directly.	N/A
2.7.6	Warning to service personnel.....:	No service work is necessary.	N/A
2.8	**Safety interlocks**		N/A
2.8.1	General principles	No safety interlocks inside the EUT.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.8.2	Protection requirements	No safety interlocks inside the EUT.	N/A
2.8.3	Inadvertent reactivation	No safety interlocks inside the EUT.	N/A
2.8.4	Fail-safe operation	No safety interlocks inside the EUT.	N/A
	Protection against extreme hazard	No safety interlocks inside the EUT.	N/A
2.8.5	Moving parts	No safety interlocks inside the EUT.	N/A
2.8.6	Overriding	No safety interlocks inside the EUT.	N/A
2.8.7	Switches, relays and their related circuits	No safety interlocks inside the EUT.	N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm) .....:	No safety interlocks inside the EUT.	N/A
2.8.7.2	Overload test	No safety interlocks inside the EUT.	N/A
2.8.7.3	Endurance test	No safety interlocks inside the EUT.	N/A
2.8.7.4	Electric strength test	No safety interlocks inside the EUT.	N/A
2.8.8	Mechanical actuators	No safety interlocks inside the EUT.	N/A
2.9	**Electrical insulation**		P
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic materials are not used.	P
2.9.2	Humidity conditioning	Class III equipment, no critical insulation in the EUT.	N/A
	Relative humidity (%), temperature (°C) .....:		—
2.9.3	Grade of insulation	Only functional insulation	P
2.9.4	Separation from hazardous voltages	Class III equipment, no critical insulation in the EUT.	N/A
	Method(s) used .....:		—
2.10	**Clearances, creepage distances and distances through insulation**		P
2.10.1	General	Class III equipment, supplied by SELV and no critical insulation inside EUT.	P
2.10.1.1	Frequency .....:	Class III equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.1.2	Pollution degrees .....:	Class III equipment, supplied by SELV and no critical insulation inside EUT.	N/A
2.10.1.3	Reduced values for functional insulation	Considered in the Clause 5.3.4 c).	P
2.10.1.4	Intervening unconnected conductive parts	Class III equipment, no critical insulation in the EUT.	N/A
2.10.1.5	Insulation with varying dimensions	Class III equipment, no critical insulation in the EUT.	N/A
2.10.1.6	Special separation requirements	Class III equipment, no critical insulation in the EUT.	N/A
2.10.1.7	Insulation in circuits generating starting pulses	No such circuit in the equipment.	N/A
2.10.2	Determination of working voltage	Class III equipment. Not connect to a.c. mains directly.	N/A
2.10.2.1	General	Class III equipment. Not connect to a.c. mains directly.	N/A
2.10.2.2	RMS working voltage	Class III equipment. Not connect to a.c. mains directly.	N/A
2.10.2.3	Peak working voltage	Class III equipment. Not connect to a.c. mains directly.	N/A
2.10.3	Clearances	Class III equipment, no critical insulation in the EUT. Only the functional Insulation inside the EUT.	N/A
2.10.3.1	General	See below.	N/A
2.10.3.2	Mains transient voltages	Class III equipment. Not connect to a.c. mains directly.	N/A
	a) AC mains supply .....:	Class III equipment. Not connect to a.c. mains directly.	N/A
	b) Earthed d.c. mains supplies .....:	The equipment is not intended to be supplied by d.c. mains.	N/A
	c) Unearthed d.c. mains supplies .....:	The EUT is not intended to be supplied by d.c. mains.	N/A
	d) Battery operation .....:	No such construction.	N/A
2.10.3.3	Clearances in primary circuits	Class III equipment, no critical insulation in the EUT.	N/A
2.10.3.4	Clearances in secondary circuits	Class III equipment, no critical insulation in the EUT. Only the functional Insulation inside the EUT.	N/A
2.10.3.5	Clearances in circuits having starting pulses	No such circuit.	N/A
2.10.3.6	Transients from a.c. mains supply .....:	Class III equipment. Not connect to a.c. mains directly.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.7	Transients from d.c. mains supply .....:	The EUT is not intended to be connected to the d.c. mains.	N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems .....:	No connection to the telecommunication network and cable distribution system.	N/A
2.10.3.9	Measurement of transient voltage levels	Class III equipment. Not connect to mains directly.	N/A
	a) Transients from a mains supply	Class III equipment. Not connect to mains directly.	N/A
	For an a.c. mains supply .....:	Class III equipment. Not connect to a.c. mains directly.	N/A
	For a d.c. mains supply .....:	Class III equipment. Not connect to d.c. mains directly.	N/A
	b) Transients from a telecommunication network :	No such construction.	N/A
2.10.4	Creepage distances	Class III equipment, no critical insulation in the EUT. Only the functional Insulation inside the EUT.	N/A
2.10.4.1	General	Class III equipment, no critical insulation in the EUT. Only the functional Insulation inside the EUT.	N/A
2.10.4.2	Material group and comparative tracking index	Class III equipment, no critical insulation in the EUT. Only the functional Insulation inside the EUT.	N/A
	CTI tests .....:		—
2.10.4.3	Minimum creepage distances	Class III equipment, no critical insulation in the EUT. Only the functional Insulation inside the EUT.	N/A
2.10.5	Solid insulation	No such construction.	N/A
2.10.5.1	General	No such construction.	N/A
2.10.5.2	Distances through insulation	No such construction.	N/A
2.10.5.3	Insulating compound as solid insulation	No such construction.	N/A
2.10.5.4	Semiconductor devices	No such construction.	N/A
2.10.5.5.	Cemented joints	No such construction.	N/A
2.10.5.6	Thin sheet material – General	No such construction.	N/A
2.10.5.7	Separable thin sheet material	No such construction.	N/A
	Number of layers (pcs) .....:		—
2.10.5.8	Non-separable thin sheet material	No such construction.	N/A
2.10.5.9	Thin sheet material – standard test procedure	No such construction.	N/A
	Electric strength test		—

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.10	Thin sheet material – alternative test procedure	No such construction.	N/A
	Electric strength test		—
2.10.5.11	Insulation in wound components	No such construction.	N/A
2.10.5.12	Wire in wound components	No such construction.	N/A
	Working voltage .....:	No such construction.	N/A
	a) Basic insulation not under stress .....:	No such construction.	N/A
	b) Basic, supplementary, reinforced insulation .....:	No such construction.	N/A
	c) Compliance with Annex U .....:	No such construction.	N/A
	Two wires in contact inside wound component; angle between 45° and 90° .....:	No such construction.	N/A
2.10.5.13	Wire with solvent-based enamel in wound components	No such construction.	N/A
	Electric strength test		—
	Routine test	No such construction.	N/A
2.10.5.14	Additional insulation in wound components	No such construction.	N/A
	Working voltage .....:	No such construction.	N/A
	- Basic insulation not under stress .....:	No such construction.	N/A
	- Supplementary, reinforced insulation .....:	No such construction.	N/A
2.10.6	Construction of printed boards	See below.	N/A
2.10.6.1	Uncoated printed boards	Class III equipment, no critical insulation in the EUT. Only the functional Insulation inside the EUT.	N/A
2.10.6.2	Coated printed boards	No coated printed boards.	N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	No such construction.	N/A
2.10.6.4	Insulation between conductors on different layers of a printed board	No such construction.	N/A
	Distance through insulation	No such construction.	N/A
	Number of insulation layers (pcs).....:	No such construction.	N/A
2.10.7	Component external terminations	No such construction.	N/A
2.10.8	Tests on coated printed boards and coated components	No such construction.	N/A
2.10.8.1	Sample preparation and preliminary inspection	No such construction.	N/A
2.10.8.2	Thermal conditioning	No such construction.	N/A
2.10.8.3	Electric strength test	No such construction.	N/A
2.10.8.4	Abrasion resistance test	No such construction.	N/A
2.10.9	Thermal cycling	No such construction.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.10	Test for Pollution Degree 1 environment and insulating compound	No such construction. Pollution degree 2 is considered.	N/A
2.10.11	Tests for semiconductor devices and cemented joints	No such construction.	N/A
2.10.12	Enclosed and sealed parts	No hermetically sealed component.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3	**WIRING, CONNECTIONS AND SUPPLY**		P
3.1	**General**		P
3.1.1	Current rating and overcurrent protection	Internal wiring gauge is suitable for current intended to be carried.	P
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges and heatsinks which could damage the insulation and cause hazard.	P
3.1.3	Securing of internal wiring	The wires are secured by solder pins so that a loosening of the terminal connection is unlikely.	P
3.1.4	Insulation of conductors	The insulation of the individual conductors is suitable for the application and the working voltage.	P
3.1.5	Beads and ceramic insulators	Not used.	N/A
3.1.6	Screws for electrical contact pressure	No screws of insulating material for electrical connections, it shall be evaluated in the end product.	N/A
3.1.7	Insulating materials in electrical connections	No non-metallic materials in electrical connections.	N/A
3.1.8	Self-tapping and spaced thread screws	No self tapping screws are used.	N/A
3.1.9	Termination of conductors	All conductors are reliable secured.	P
	10 N pull test	10 N pull tests performed for all relevant conductors. No hazards caused hereby.	P
3.1.10	Sleeving on wiring	No sleeve was used.	N/A

3.2	**Connection to a mains supply**		N/A
3.2.1	Means of connection	See below.	N/A
3.2.1.1	Connection to an a.c. mains supply	Class III equipment, not directly connect to mains.	N/A
3.2.1.2	Connection to a d.c. mains supply	Class III equipment, not directly connect to mains.	N/A
3.2.2	Multiple supply connections	Class III equipment, not directly connect to mains.	N/A
3.2.3	Permanently connected equipment	Not a permanently connected equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Number of conductors, diameter of cable and conduits (mm) .....:		—
3.2.4	Appliance inlets	Class III equipment; not directly connect to the mains.	N/A
3.2.5	Power supply cords	Class III equipment; not directly connect to the mains.	N/A
3.2.5.1	AC power supply cords	Class III equipment; not directly connect to the mains.	N/A
	Type .....:		—
	Rated current (A), cross-sectional area (mm^2), AWG .....:		—
3.2.5.2	DC power supply cords	Class III equipment, not directly connect to d.c. mains.	N/A
3.2.6	Cord anchorages and strain relief	Class III equipment, not directly connect to mains.	N/A
	Mass of equipment (kg), pull (N) .....:		—
	Longitudinal displacement (mm) .....:		—
3.2.7	Protection against mechanical damage	Class III equipment; not directly connect to the mains.	N/A
3.2.8	Cord guards	Class III equipment; not directly connect to the mains.	N/A
	Diameter or minor dimension D (mm); test mass (g) .....:		—
	Radius of curvature of cord (mm).....:		—
3.2.9	Supply wiring space	Class III equipment; not directly connect to the mains.	N/A
3.3	**Wiring terminals for connection of external conductors**		N/A
3.3.1	Wiring terminals	Class III equipment; not directly connect to the mains.	N/A
3.3.2	Connection of non-detachable power supply cords	Class III equipment; not directly connect to the mains.	N/A
3.3.3	Screw terminals	Class III equipment; not directly connect to the mains.	N/A
3.3.4	Conductor sizes to be connected	Class III equipment; not directly connect to the mains.	N/A
	Rated current (A), cord/cable type, cross-sectional area (mm^2) .....:		—
3.3.5	Wiring terminal sizes	Class III equipment; not directly connect to the mains.	N/A
	Rated current (A), type, nominal thread diameter (mm) .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
3.3.6	Wiring terminal design	Class III equipment; not directly connect to the mains.	N/A
3.3.7	Grouping of wiring terminals	Class III equipment; not directly connect to the mains.	N/A
3.3.8	Stranded wire	Class III equipment; not directly connect to the mains.	N/A
3.4	**Disconnection from the mains supply**		N/A
3.4.1	General requirement	Class III equipment; not directly connect to the mains.	N/A
3.4.2	Disconnect devices	Class III equipment; not directly connect to the mains.	N/A
3.4.3	Permanently connected equipment	The EUT is not permanently connected equipment.	N/A
3.4.4	Parts which remain energized	Class III equipment; not directly connect to the mains.	N/A
3.4.5	Switches in flexible cords	No switch and no flexible cords provided.	N/A
3.4.6	Number of poles - single-phase and d.c. equipment	Class III equipment; not directly connect to the mains.	N/A
3.4.7	Number of poles - three-phase equipment	Class III equipment; not directly connect to the mains.	N/A
3.4.8	Switches as disconnect devices	Class III equipment; not directly connect to the mains.	N/A
3.4.9	Plugs as disconnect devices	Class III equipment; not directly connect to the mains.	N/A
3.4.10	Interconnected equipment	Class III equipment; not directly connect to the mains.	N/A
3.4.11	Multiple power sources	Class III equipment; not directly connect to the mains.	N/A
3.5	**Interconnection of equipment**		P
3.5.1	General requirements	See below.	P
3.5.2	Types of interconnection circuits .....:	SELV circuits interconnected only to SELV circuit.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection circuits.	N/A
3.5.4	Data ports for additional equipment	Data ports (Micro SD, Micro USB) were not intended to supply the power to other accessory.	P

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Clause	Requirement + Test	Result - Remark	Verdict
4	**PHYSICAL REQUIREMENTS**		P
4.1	**Stability**		N/A
	Angle of 10°	For the EUT, the mass is less than 7kg.	N/A
	Test force (N) .....:		N/A
4.2	**Mechanical strength**		P
4.2.1	General	See below.	P
	Rack-mounted equipment.	No such construction.	N/A
4.2.2	Steady force test, 10 N	No safety relevant damages after test.	P
4.2.3	Steady force test, 30 N	No door or cover in the operator access area.	N/A
4.2.4	Steady force test, 250 N	250N applied to the internal battery. No safety relevant damages after test.	P
4.2.5	Impact test	There is no hazardous voltage and energy inside it. The test is not considered necessary.	N/A
	Fall test	There is no hazardous voltage and energy inside it. The test is not considered necessary.	N/A
	Swing test	There is no hazardous voltage and energy inside it. The test is not considered necessary.	N/A
4.2.6	Drop test; height (mm) .....:	The height of drop is 1m.	P
4.2.7	Stress relief test	Tested to the internal battery, after 7 hours at 84.0°C and cooling down to room temperature, no shrinkage, distortion or loosening.	P
4.2.8	Cathode ray tubes	No CRT inside the EUT.	N/A
	Picture tube separately certified .....:	No CRT inside the EUT.	N/A
4.2.9	High pressure lamps	No high pressure lamps.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N) .....:	No such construction.	N/A
4.3	**Design and construction**		P
4.3.1	Edges and corners	Edges and corners of the enclosure are rounded.	P
4.3.2	Handles and manual controls; force (N)..... :	No such device.	N/A
4.3.3	Adjustable controls	No such device.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.4	Securing of parts	Electrical and mechanical connections and parts expected to withstand usual mechanical stress.	P
4.3.5	Connection by plugs and sockets	No mismatch of connectors, plugs or sockets possible.	N/A
4.3.6	Direct plug-in equipment	No such construction.	N/A
	Torque .....:		—
	Compliance with the relevant mains plug standard .....:	No such construction.	N/A
4.3.7	Heating elements in earthed equipment	No heating element.	N/A
4.3.8	Batteries	See *b*elow.	P
	- Overcharging of a rechargeable battery	Battery pack is IEC 62133 certified, see append table 4.3.8.	P
	- Unintentional charging of a non-rechargeable battery	No such component.	N/A
	- Reverse charging of a rechargeable battery	Battery pack is used within their specified rating and no reverse polarity installation could be happened due to design of pack.	N/A
	- Excessive discharging rate for any battery	Battery pack is IEC 62133 certified, see append table 4.3.8.	P
4.3.9	Oil and grease	No oil and grease inside the equipment.	N/A
4.3.10	Dust, powders, liquids and gases	The equipment is not intended to be exposed to dust, powers, liquids and gases.	N/A
4.3.11	Containers for liquids or gases	No container for liquids or gases provided.	N/A
4.3.12	Flammable liquids .....:	No flammable liquids in the equipment.	N/A
	Quantity of liquid (l) .....:	No flammable liquids in the equipment.	N/A
	Flash point (°C) .....:	No flammable liquids in the equipment.	N/A
4.3.13	Radiation	See below.	P
4.3.13.1	General	Diffuser LEDs are used as indicator.	P
4.3.13.2	Ionizing radiation	No ionizing radiation.	N/A
	Measured radiation (pA/kg) .....:		—
	Measured high-voltage (kV) .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Measured focus voltage (kV) .....:		—
	CRT markings .....:		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	No UV radiation.	N/A
	Part, property, retention after test, flammability classification .....:	No UV radiation.	N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation .....:	No UV radiation.	N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	Diffuser LEDs are used as indicator.	P
4.3.13.5.1	Lasers (including laser diodes)	No laser.	N/A
	Laser class .....:		—
4.3.13.5.2	Light emitting diodes (LEDs)	Diffuser LEDs are used as indicator.	—
4.3.13.6	Other types .....:	No other type of source inside the EUT.	N/A

4.4	**Protection against hazardous moving parts**		N/A
4.4.1	General	No hazardous moving part in operator access areas.	N/A
4.4.2	Protection in operator access areas .....:	No hazardous moving part in operator access areas.	N/A
	Household and home/office document/media shredders	No hazardous moving part in operator access areas.	N/A
4.4.3	Protection in restricted access locations .....:	No hazardous moving part in operator access areas.	N/A
4.4.4	Protection in service access areas	No hazardous moving part in operator access areas.	N/A
4.4.5	Protection against moving fan blades	No hazardous moving part in operator access areas.	N/A
4.4.5.1	General	No hazardous moving part in operator access areas.	N/A
	Not considered to cause pain or injury. a)……:	No hazardous moving part in operator access areas.	N/A
	Is considered to cause pain, not injury. b) ……..:	No hazardous moving part in operator access areas.	N/A
	Considered to cause injury. c) ……:	No hazardous moving part in operator access areas.	N/A
4.4.5.2	Protection for users	No hazardous moving part in operator access areas.	N/A
	Use of symbol or warning ……..:	No hazardous moving part in operator access areas.	N/A
4.4.5.3	Protection for service persons	No hazardous moving part in operator access areas.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Use of symbol or warning ……..:	No hazardous moving part in operator access areas.	N/A

4.5	**Thermal requirements**		P
4.5.1	General	See below.	P
4.5.2	Temperature tests	(See appended table 4.5)	P
	Normal load condition per Annex L .....:		—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat .....:	No such construction inside the EUT.	N/A

4.6	**Openings in enclosures**		P
4.6.1	Top and side openings	The EUT is transportable equipment, see Clause 4.6.4.	N/A
	Dimensions (mm) .....:		—
4.6.2	Bottoms of fire enclosures	The EUT is transportable equipment, see Clause 4.6.4.	N/A
	Construction of the bottom, dimensions (mm) .....:		—
4.6.3	Doors or covers in fire enclosures	No such doors or covers.	N/A
4.6.4	Openings in transportable equipment	No opening provided.	P
4.6.4.1	Constructional design measures	No opening provided.	P
	Dimensions (mm) .....:		—
4.6.4.2	Evaluation measures for larger openings	No opening provided.	N/A
4.6.4.3	Use of metallized parts	No metalized parts.	N/A
4.6.5	Adhesives for constructional purposes	No adhesives for construction purposes.	N/A
	Conditioning temperature (°C), time (weeks) .....:	The EUT is transportable equipment, see Clause 4.6.4.	—

4.7	**Resistance to fire**		P
4.7.1	Reducing the risk of ignition and spread of flame	See below.	P
	Method 1, selection and application of components wiring and materials	Method 1 considered. Selection of the components for simulation faults and use of materials with the required flammability class.	P
	Method 2, application of all of simulated fault condition tests	Method 1 used.	N/A
4.7.2	Conditions for a fire enclosure	See below.	P
4.7.2.1	Parts requiring a fire enclosure	See clause 4.7.2.2	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.2.2	Parts not requiring a fire enclosure	For the EUT, the components in the secondary circuits supplied by Limited Power Sources and the components are mounted on PCB material of flammability class V-1 or better, thus the fire enclosure construction is not required. The battery pack body covered by plastic material of flammability class V-0 or better and internal metal chassis.	P
4.7.3	Materials		P
4.7.3.1	General	See appended table 1.5.1 for PCB.	P
4.7.3.2	Materials for fire enclosures	See clause 4.7.2.2	P
4.7.3.3	Materials for components and other parts outside fire enclosures	HB or better.	P
4.7.3.4	Materials for components and other parts inside fire enclosures	Electronics components are mounted on V-1 PCB. No internal parts can produce temperature that could cause ignition, and all others parts are not concerned by the first three requirements of this clause.	P
4.7.3.5	Materials for air filter assemblies	No air filter provided.	N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage component inside the equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		P
5.1	**Touch current and protective conductor current**		N/A
5.1.1	General	See below.	N/A
5.1.2	Configuration of equipment under test (EUT)	Class III equipment, supplied by SELV.	N/A
5.1.2.1	Single connection to an a.c. mains supply	Class III equipment. Not to connect to a.c. mains directly.	N/A
5.1.2.2	Redundant multiple connections to an a.c. mains supply	No such construction.	N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply	No such construction.	N/A
5.1.3	Test circuit	Class III equipment, supplied by SELV.	N/A
5.1.4	Application of measuring instrument	Class III equipment, supplied by SELV.	N/A
5.1.5	Test procedure	Class III equipment, supplied by SELV.	N/A
5.1.6	Test measurements	Class III equipment, supplied by SELV.	N/A
	Supply voltage (V) ..... :		—
	Measured touch current (mA) ..... :		—
	Max. allowed touch current (mA) ..... :		—
	Measured protective conductor current (mA) ..... :		—
	Max. allowed protective conductor current (mA) ... :		—
5.1.7	Equipment with touch current exceeding 3,5 mA	Class III equipment, supplied by SELV.	N/A
5.1.7.1	General ..... :	Class III equipment, supplied by SELV.	N/A
5.1.7.2	Simultaneous multiple connections to the supply	No such construction.	N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	EUT is not connected to a telecommunication system and a cable distribution system.	N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system	EUT is not connected to a telecommunication system and a cable distribution system.	N/A
	Supply voltage (V) ..... :		—
	Measured touch current (mA) ..... :		—
	Max. allowed touch current (mA) ..... :		—

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Clause	Requirement + Test	Result - Remark	Verdict
5.1.8.2	Summation of touch currents from telecommunication networks	EUT is not connected to a telecommunication system and a cable distribution system.	N/A
	a) EUT with earthed telecommunication ports .....:	EUT is not connected to a telecommunication system and a cable distribution system.	N/A
	b) EUT whose telecommunication ports have no reference to protective earth	EUT is not connected to a telecommunication system and a cable distribution system.	N/A
5.2	**Electric strength**		N/A
5.2.1	General	Class III equipment, supplied by SELV.	N/A
5.2.2	Test procedure	Class III equipment, supplied by SELV.	N/A
5.3	**Abnormal operating and fault conditions**		P
5.3.1	Protection against overload and abnormal operation	See below.	P
5.3.2	Motors	Stepping motor used.	N/A
5.3.3	Transformers	Class III equipment, supplied by SELV.	N/A
5.3.4	Functional insulation.....:	Method c) used. Result see appended table 5.3.	P
5.3.5	Electromechanical components	No electromechanical component.	N/A
5.3.6	Audio amplifiers in ITE .....:	There is no audio output connector in this product.	N/A
5.3.7	Simulation of faults	See appended table 5.3.	P
5.3.8	Unattended equipment	No such component.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	No flame in the equipment. No molten metal was emitted.	P
5.3.9.1	During the tests	No flame in the equipment. No molten metal was emitted.	P
5.3.9.2	After the tests		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		N/A
6.1	**Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment**		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements	No connection to the telecommunication network.	N/A
	Supply voltage (V) .....:		—
	Current in the test circuit (mA) .....:		—
6.1.2.2	Exclusions .....:	No connection to the telecommunication network.	N/A
6.2	**Protection of equipment users from overvoltages on telecommunication networks**		N/A
6.2.1	Separation requirements	No connection to the telecommunication network.	N/A
6.2.2	Electric strength test procedure	No connection to the telecommunication network.	N/A
6.2.2.1	Impulse test	No connection to the telecommunication network.	N/A
6.2.2.2	Steady-state test	No connection to the telecommunication network.	N/A
6.2.2.3	Compliance criteria	No connection to the telecommunication network.	N/A
6.3	**Protection of the telecommunication wiring system from overheating**		N/A
	Max. output current (A) .....:		—
	Current limiting method .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
7	**CONNECTION TO CABLE DISTRIBUTION SYSTEMS**		N/A
7.1	**General**	No cable distribution systems inside the equipment.	N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	No cable distribution systems inside the equipment.	N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system	No cable distribution systems inside the equipment.	N/A
7.4	Insulation between primary circuits and cable distribution systems	No cable distribution systems inside the equipment.	N/A
7.4.1	General	No cable distribution systems inside the equipment.	N/A
7.4.2	Voltage surge test	No cable distribution systems inside the equipment.	N/A
7.4.3	Impulse test	No cable distribution systems inside the equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
A	**ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
A.1	**Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)**		N/A
A.1.1	Samples .....:		—
	Wall thickness (mm).....:		—
A.1.2	Conditioning of samples; temperature (°C) .....:		N/A
A.1.3	Mounting of samples .....:		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D .....:		—
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.2	**Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)**		N/A
A.2.1	Samples, material.....:		—
	Wall thickness (mm).....:		—
A.2.2	Conditioning of samples; temperature (°C) .....:		N/A
A.2.3	Mounting of samples .....:		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C .....:		—
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s) .....:		—
	Sample 2 burning time (s) .....:		—
	Sample 3 burning time (s) .....:		—
A.3	**Hot flaming oil test (see 4.6.2)**		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B	**ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)**		N/A
B.1	**General requirements**	Stepping motor used.	N/A
	Position .....:		—
	Manufacturer .....:		—
	Type .....:		—
	Rated values .....:		—
B.2	**Test conditions**		N/A
B.3	**Maximum temperatures**		N/A
B.4	**Running overload test**		N/A
B.5	**Locked-rotor overload test**		N/A
	Test duration (days) .....:		—
	Electric strength test: test voltage (V) .....:		—
B.6	**Running overload test for d.c. motors in secondary circuits**		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V) .....:		N/A
B.7	**Locked-rotor overload test for d.c. motors in secondary circuits**		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V) .....:		N/A
B.8	**Test for motors with capacitors**		N/A
B.9	**Test for three-phase motors**		N/A
B.10	**Test for series motors**		N/A
	Operating voltage (V) .....:		—

C	**ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		N/A
	Position .....:	Class III equipment, supplied by SELV.	—
	Manufacturer .....:	Class III equipment, supplied by SELV.	—
	Type .....:	Class III equipment, supplied by SELV.	—
	Rated values .....:	Class III equipment, supplied by SELV.	—

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Clause	Requirement + Test	Result - Remark	Verdict
	Method of protection.....:	Class III equipment, supplied by SELV.	—
C.1	**Overload test**	Class III equipment, supplied by SELV.	N/A
C.2	**Insulation**	Class III equipment, supplied by SELV.	N/A
	Protection from displacement of windings.....:		N/A
D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)**		N/A
D.1	**Measuring instrument**	Class III equipment, supplied by SELV and no direct connection to the mains.	N/A
D.2	**Alternative measuring instrument**		N/A
E	**ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)**		N/A
F	**ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)**		N/A
G	**ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES**		N/A
G.1	**Clearances**	Not used.	N/A
G.1.1	General	Not used.	N/A
G.1.2	Summary of the procedure for determining minimum clearances	Not used.	N/A
G.2	**Determination of mains transient voltage (V)**	Not used.	N/A
G.2.1	AC mains supply .....:	Not used.	N/A
G.2.2	Earthed d.c. mains supplies .....:	Not used.	N/A
G.2.3	Unearthed d.c. mains supplies .....:	Not used.	N/A
G.2.4	Battery operation .....:	Not used.	N/A
G.3	**Determination of telecommunication network transient voltage (V) .....:**	Not used.	N/A
G.4	**Determination of required withstand voltage (V)**	Not used.	N/A
G.4.1	Mains transients and internal repetitive peaks .....:	Not used.	N/A
G.4.2	Transients from telecommunication networks .....:	Not used.	N/A
G.4.3	Combination of transients	Not used.	N/A
G.4.4	Transients from cable distribution systems	Not used.	N/A
G.5	**Measurement of transient voltages (V)**	Not used.	N/A
	a) Transients from a mains supply	Not used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	For an a.c. mains supply	Not used.	N/A
	For a d.c. mains supply	Not used.	N/A
	b) Transients from a telecommunication network	Not used.	N/A
G.6	**Determination of minimum clearances .....:**	Not used.	N/A
H	**ANNEX H, IONIZING RADIATION (see 4.3.13)**		N/A
J	**ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)**		N/A
	Metal(s) used .....:		—
K	**ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)**		N/A
K.1	Making and breaking capacity	No thermal control in the EUT.	N/A
K.2	Thermostat reliability; operating voltage (V) .....:	No thermal control in the EUT.	N/A
K.3	Thermostat endurance test; operating voltage (V) .....:	No thermal control in the EUT.	N/A
K.4	Temperature limiter endurance; operating voltage (V) .....:	No thermal control in the EUT.	N/A
K.5	Thermal cut-out reliability	No thermal control in the EUT.	N/A
K.6	Stability of operation	No thermal control in the EUT.	N/A
L	**ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)**		P
L.1	Typewriters	No such device in the EUT.	N/A
L.2	Adding machines and cash registers	No such device in the EUT.	N/A
L.3	Erasers	No such device in the EUT.	N/A
L.4	Pencil sharpeners	No such device in the EUT.	N/A
L.5	Duplicators and copy machines	No such device in the EUT.	N/A
L.6	Motor-operated files	No such device in the EUT.	N/A
L.7	Other business equipment		P
M	**ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)**		N/A
M.1	Introduction	No phone ringing was generated in the EUT.	N/A
M.2	Method A	No phone ringing was generated in the EUT.	N/A
M.3	Method B	No phone ringing was generated in the EUT.	N/A
M.3.1	Ringing signal	No phone ringing was generated in the EUT.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.3.1.1	Frequency (Hz) .....:	No phone ringing was generated in the EUT.	—
M.3.1.2	Voltage (V) .....:	No phone ringing was generated in the EUT.	—
M.3.1.3	Cadence; time (s), voltage (V) .....:	No phone ringing was generated in the EUT.	—
M.3.1.4	Single fault current (mA) .....:	No phone ringing was generated in the EUT.	—
M.3.2	Tripping device and monitoring voltage .....:	No phone ringing was generated in the EUT.	N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage	No phone ringing was generated in the EUT.	N/A
M.3.2.2	Tripping device	No phone ringing was generated in the EUT.	N/A
M.3.2.3	Monitoring voltage (V) .....:	No phone ringing was generated in the EUT.	N/A
N	**ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)**		N/A
N.1	ITU-T impulse test generators	Not used.	N/A
N.2	IEC 60065 impulse test generator	Not used.	N/A
P	**ANNEX P, NORMATIVE REFERENCES**		—
Q	**ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)**		N/A
	- Preferred climatic categories .....:		N/A
	- Maximum continuous voltage .....:		N/A
	- Combination pulse current .....:		N/A
	Body of the VDR Test according to IEC60695-11-5.....:		N/A
	Body of the VDR. Flammability class of material (min V-1).....:		N/A
R	**ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES**		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)	Not used.	N/A
R.2	Reduced clearances (see 2.10.3)	Not used.	N/A
S	**ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)**		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
S.3	Examples of waveforms during impulse testing		N/A
T	**ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)**		N/A
		IPX0 product.	—
U	**ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)**		N/A
		No such construction.	—
V	**ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)**		N/A
V.1	Introduction	Class III equipment, no direct connection to the mains.	N/A
V.2	TN power distribution systems	Class III equipment, no direct connection to the mains.	N/A
W	**ANNEX W, SUMMATION OF TOUCH CURRENTS**		N/A
W.1	Touch current from electronic circuits	No touch current summation.	N/A
W.1.1	Floating circuits	No touch current summation.	N/A
W.1.2	Earthed circuits	No touch current summation.	N/A
W.2	Interconnection of several equipments	No touch current summation.	N/A
W.2.1	Isolation	No touch current summation.	N/A
W.2.2	Common return, isolated from earth	No touch current summation.	N/A
W.2.3	Common return, connected to protective earth	No touch current summation.	N/A
X	**ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)**		N/A
X.1	Determination of maximum input current		N/A
X.2	Overload test procedure		N/A
Y	**ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)**		N/A
Y.1	Test apparatus .....:	Not used.	N/A
Y.2	Mounting of test samples .....:	Not used.	N/A
Y.3	Carbon-arc light-exposure apparatus .....:	Not used.	N/A
Y.4	Xenon-arc light exposure apparatus .....:	Not used.	N/A
Z	**ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)**		N/A
AA	**ANNEX AA, MANDREL TEST (see 2.10.5.8)**		N/A

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BB	**ANNEX BB, CHANGES IN THE SECOND EDITION**	—

CC	**ANNEX CC, Evaluation of integrated circuit (IC) current limiters**		N/A
CC.1	General		N/A
CC.2	Test program 1……..:		N/A
CC.3	Test program 2……..:		N/A
CC.4	Test program 3.....:		N/A
CC.5	Compliance.....:		N/A

DD	**ANNEX DD, Requirements for the mounting means of rack-mounted equipment**		N/A
DD.1	General	Not such equipment.	N/A
DD.2	Mechanical strength test, variable N……..:		N/A
DD.3	Mechanical strength test, 250N, including end stops……:		N/A
DD.4	Compliance……. :		N/A

EE	**ANNEX EE, Household and home/office document/media shredders**		N/A
EE.1	General	Not such equipment.	N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols……:		N/A
	Information of user instructions, maintenance and/or servicing instructions……:		N/A
EE.3	Inadvertent reactivation test……:		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A
	Use of markings or symbols……:		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A) ……:		N/A
	Test with wedge probe (Figure EE1 and EE2) ……:		N/A

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EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 – CENELEC COMMON MODIFICATIONS			
Clause	Requirement + Test	Result - Remark	Verdict
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 ZD (informative) IEC and CENELEC code designations for flexible cords		P
General	Delete all the "country" notes in the reference document (IEC 60950-1:2005) according to the following list: 1.4.8 Note 2; 1.5.1 Note 2 & 3; 1.5.7.1 Note 1.5.8 Note 2; 1.5.9.4 Note; 1.7.2.1 Note 4, 5 & 6 2.2.3 Note; 2.2.4 Note; 2.3.2 Note 2.3.2.1 Note 2; 2.3.4 Note 2; 2.6.3.3 Note 2 & 3 2.7.1 Note; 2.10.3.2 Note 2; 2.10.5.13 Note 3 3.2.1.1 Note; 3.2.4 Note 3.; 2.5.1 Note 2 4.3.6 Note 1 & 2; 4.7 Note 4; 4.7.2.2 Note 4.7.3.1 Note 2; 5.1.7.1 Note 3 & 4; 5.3.7 Note 1 6 Note 2 & 5; 6.1.2.1 Note 2; 6.1.2.2 Note 6.2.2 Note 6.; 2.2.1 Note 2; 6.2.2.2 Note 7.1 Note 3; 7.2 Note; 7.3 Note 1 & 2 G.2.1 Note 2; Annex H Note 2		P
General (A1:2010)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note; 6.1.2.1 Note 2 6.2.2.1 Note 2; EE.3 Note		P
General (A2:2013)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note *; 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		N/A
1.1.1 (A1:2010)	**Replace** the text of NOTE 3 by the following. NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television sets EN 60065 applies.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.		N/A
(A12:2011)	In EN 60950-1:2006/A12:2011 Delete the addition of 1.3.Z1 / EN 60950-1:2006 Delete the definition 1.2.3.Z1 / EN 60950-1:2006 /A1:2010		N/A
1.5.1 (Added info*)	Add the following NOTE: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC New Directive 2011/65/11 *		N/A
1.7.2.1 (A1:2010)	In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.		N/A
1.7.2.1 (A12.2011)	In EN 60950-1:2006/A12:2011 Delete NOTE Z1 and the addition for Portable Sound System. Add the following clause and annex to the existing standard and amendments.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Zx Protection against excessive sound pressure from personal music players		N/A
	Zx.1 General This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players. A personal music player is a portable equipment for personal use, which is designed to allow the user to listen to recorded or broadcast sound or video; and primarily uses headphones or earphones that can be worn in or on or around the ears; and allows the user to walk around while in use. NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment. A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause. The requirements in this sub-clause are valid for music or video mode only. The requirements do not apply: while the personal music player is connected to an external amplifier; or while the headphones or earphones are not used. NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player. The requirements do not apply to: hearing aid equipment and professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.		N/A
	Analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015. NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies. For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Zx.2 Equipment requirements No safety provision is required for equipment that complies with the following: equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dBA measured while playing the fixed "programme simulation noise" as described in EN 50332-1; and a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" as described in EN 50332-1. NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $L_{Aeq,T}$ is meant. See also Zx.5 and Annex Zx. All other equipment shall: a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and NOTE 2 Examples of means include visual or audible signals. Action from the user is always required. NOTE 3 The 20 h listening time is the accumulative listening time, independent how often and how long the personal music player has been switched off. d) have a warning as specified in Zx.3; and e) not exceed the following: 1) equipment provided as a package (player with Its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed "programme simulation noise" described in EN 50332-1; and 2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" described in EN 50332-1. For music where the average sound pressure (long term $L_{Aeq,T}$) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song. NOTE 4 Classical music typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Zx.3 Warning The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following: the symbol of Figure 1 with a minimum height of 5 mm; and the following wording, or similar: "To prevent possible hearing damage, do not listen at high volume levels for long periods."  **Figure 1 – Warning label (IEC 60417-6044)** Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.		N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	Zx.4.1 Wired listening devices with analogue input With 94 dBA sound pressure output $L_{Aeq,T}$, the input voltage of the fixed "programme simulation noise" described in EN 50332-2 shall be ≥ 75 mV. This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control). NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.		N/A
	Zx.4.2 Wired listening devices with digital input With any playing device playing the fixed "programme simulation noise" described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.). NOTE An example of a wired listening device with digital input is a USB headphone.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Zx.4.3 Wireless listening devices In wireless mode: with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for theabovementioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. NOTE An example of a wireless listening device is a Bluetooth headphone.		N/A
	Zx.5 Measurement methods Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s. NOTE Test method for wireless equipment provided without listening device should be defined.		N/A
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, 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 5.3 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.		N/A
2.7.2	This subclause has been declared ‘void’.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.		N/A
3.2.5.1	Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2". In Table 3B, replace the first four lines by the following: Up to and including 6 | 0,75 [a] | Over 6 up to and including 10| (0,75) [b] 1,0 | Over 10 up to and including 16| (1,0) [c] 1,5 | In the conditions applicable to Table 3B delete the words "in some countries" in condition [a]. In NOTE 1, applicable to Table 3B, delete the second sentence.		N/A
3.2.5.1 (A2:2013)	NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD		N/A
3.3.4	In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: Over 10 up to and including 16 | 1,5 to 2,5 | 1,5 to 4 | Delete the fifth line: conductor sizes for 13 to 16 A		N/A
4.3.13.6 (A1:2010)	Replace the existing NOTE by the following: NOTE Z1 Attention is drawn to: 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz, and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artifical optical radiation).		N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
Annex H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.		N/A
Bibliography	Additional EN standards.		—

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Clause	Requirement + Test	Result - Remark	Verdict

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

Publication	Year	Title	EN/HD	Year
IEC 60065 (mod) A1 A2	2001 2005 - [1]	Audio, video and similar electronic apparatus - Safety requirements	EN 60065 A1 + A11 A2	2002 2006 2008 - [1]
IEC 60068-2-78	- [2]	Environmental testing Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	2001 [3]
IEC 60073	- [2]	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indication devices and actuators	EN 60073	2002 [3]
IEC 60083	- [2]	Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC	-	-
IEC 60085	2004	Electrical insulation - Thermal classification	EN 60085	2004
IEC 60112	- [2]	Method for determining the proof and comparative tracking indices of insulating materials	EN 60112	2003 [3]
IEC 60216-4-1	- [2]	Guide for the determination of thermal endurance properties of electrical insulating materials Part 4: Ageing ovens Section 1: Single-chamber ovens	EN 60216-4-1	2006 [3]
IEC 60227 (mod)	Series	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V	HD 21 [4]	Series
IEC 60245 (mod)	Series	Rubber insulated cables of rated voltages up to and including 450/750V	HD 22 [5]	Series

[1] At draft stage.
[2] Undated reference.
[3] Valid edition at date of issue.
[4] The HD 21 series is related to, but not directly equivalent with the IEC 60227 series.
[5] The HD 22 series is related to, but not directly equivalent with the IEC 60245 series.

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Clause	Requirement + Test	Result - Remark	Verdict

Publication	Year	Title	EN/HD	Year
IEC 60309 (mod)	Series	Plugs, socket-outlets and couplers for industrial purposes	EN 60309	Series
IEC 60317	Series	Specifications for particular types of winding wires	EN 60317	Series
IEC 60317-43	- [2)]	Part 43: Aromatic polyimide tape wrapped round copper wire, class 240	EN 60317-43	1997 [3)]
IEC 60320 (mod)	Series	Appliance couplers for household and similar general purposes	EN 60320	Series
IEC 60364-1 (mod)	2001	Electrical installations of buildings Part 1: Fundamental principles, assessment of general characteristics, definitions	HD 384.1 S2	2001
IEC 60384-14 A1	1993 1995	Fixed capacitors for use in electronic equipment Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	EN 132400 [6)]	1994
IEC 60417	Data-base	Graphical symbols for use on equipment	-	-
IEC 60664-1 + A1 + A2	1992 2000 2002	Insulation coordination for equipment within low-voltage systems Part 1: Principles, requirements and tests	EN 60664-1	2003
IEC 60695-2-11	- [2)]	Fire hazard testing Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products	EN 60695-2-11	2001 [3)]
IEC 60695-2-20	- [2)]	Part 2-20: Glowing/hot-wire based test methods - Hot-wire coil ignitability - Apparatus, test method and guidance	-	-
IEC 60695-10-2	- [2)]	Part 10-2: Guidance and test methods for the minimization of the effects of abnormal heat on electrotechnical products involved in fires - Method for testing products made from non-metallic materials for resistance to heat using the ball pressure test	EN 60695-10-2	2003 [3)]
IEC 60695-11-3	- [2)]	Part 11-3: Test flames - 500 W flames - Apparatus and confirmational test methods	-	-
IEC 60695-11-4	- [2)]	Part 11-4: Test flames - 50 W flames - Apparatus and confirmational test methods	-	-
IEC 60695-11-10 A1	- [2)]	Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10 A1	1999 [3)] 2003 [3)]

[6)] EN 132400, *Sectional Specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (Assessment level D)*, and its amendments are related to, but not directly equivalent to IEC 60384-14. They are superseded by EN 60384-14:2005, which is based on IEC 60384-14:2005.

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Clause	Requirement + Test	Result - Remark	Verdict

Publication	Year	Title	EN/HD	Year
IEC 60695-11-20 A1	- [2)]	Part 11-20: Test flames - 500 W flame test methods	EN 60695-11-20 A1	1999 [3)] 2003 [3)]
IEC 60730-1 (mod) A1 A2	1999 2003 2007	Automatic electrical controls for household and similar use Part 1: General requirements	EN 60730-1 A1 + A12 + A13 + A14 + A16 A2	2000 2004 2003 2004 2005 2007 2008
IEC 60747-5-5	2007	Semiconductor devices - Discrete devices Part 5-5: Optoelectronic devices - Photocouplers	EN 60747-5-5	- [1)]
IEC 60825-1	- [2)]	Safety of laser products Part 1: Equipment classification, requirements and user's guide	EN 60825-1	2007 [3)]
IEC 60825-2	- [2)]	Part 2: Safety of optical fibre communication systems	EN 60825-2 A1	2004 [3)] 2007 [3)]
IEC/TR 60825-9	- [2)]	Part 9: Compilation of maximum permissible exposure to incoherent optical radiation	-	-
IEC 60825-12	- [2)]	Part 12: Safety of free space optical communication systems used for transmission of information	EN 60825-12	2004 [3)]
IEC 60851-3 A1	1996 1997	Winding wires - Test methods Part 3: Mechanical properties	EN 60851-3 A1	1996 1997
IEC 60851-5 A1 A2	1996 1997 2004	Part 5: Electrical properties	EN 60851-5 A1 A2	1996 1997 2004
IEC 60851-6	1996	Part 6: Thermal properties	EN 60851-6	1996
IEC 60885-1	1987	Electrical test methods for electric cables Part 1: Electrical tests for cables, cords and wires for voltages up to and including 450/750 V	-	-
IEC 60906-1	- [2)]	IEC System of plugs and socket-outlet for household and similar purposes Part 1: Plugs and socket-outlets 16 A 250 V a.c.	-	-
IEC 60906-2	- [2)]	Part 2: Plugs and socket-outlets 15 A 125 V a.c.	-	-
IEC 60947-1	2004	Low voltage switchgear and control gear Part 1: General rules	EN 60947-1	2004
IEC 60990	1999	Methods of measurement of touch current and protective conductor current	EN 60990	1999

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Clause	Requirement + Test	Result - Remark	Verdict

Publication	Year	Title	EN/HD	Year
IEC 61051-2	1991	Varistors for use in electronic equipment Part 2: Sectional specification for surge suppression varistors	-	-
IEC 61058-1 (mod)	2000	Switches for appliances Part 1: General requirements	EN 61058-1 [7)]	2002
ISO 178	- [2)]	Plastics - Determination of flexural properties	EN ISO 178	2003 [3)]
ISO 179	Series	Plastics - Determination of Charpy impact strength	EN ISO 179	Series
ISO 180	- [2)]	Plastics - Determination of Izod impact strength	EN ISO 180	2000 [3)]
ISO 261	- [2)]	ISO general-purpose metric screw threads - General plan	-	-
ISO 262	- [2)]	ISO general-purpose metric screw threads - Selected sizes for screws, bolts and nuts		-
ISO 527	Series	Plastics - Determination of tensile properties	EN ISO 527	Series
ISO 3864	Series	Safety colours and safety signs	-	-
ISO 4892-1	- [2)]	Plastics - Methods of exposure to laboratory light sources Part 1: General guidance	EN ISO 4892-1	2000 [3)]
ISO 4892-2	- [2)]	Part 2: Xenon-arc sources	EN ISO 4892-2	2006 [3)]
ISO 4892-4	- [2)]	Part 4: Open-flame carbon-arc lamps	-	-
ISO 7000	Data-base	Graphical symbols for use on equipment - Index and synopsis	-	-
ISO 8256	- [2)]	Plastics - Determination of tensile-impact strength	EN ISO 8256	2004 [3)]
ISO 9772	- [2)]	Cellular plastics - Determination of horizontal burning characteristics of small specimens subjected to a small flame	-	-
ISO 9773	- [2)]	Plastics - Determination of burning behaviour of thin flexible vertical specimens in contact with a small-flame ignition source	EN ISO 9773	1998 [3)]
ITU-T Recommendation K.44	- [2)]	Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents - Basic Recommendation	-	-

[7)] EN 61058-1:2002 includes A1:2001 to IEC 61058-1:2000.

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Clause	Requirement + Test	Result - Remark	Verdict

ZB ANNEX (normative) **SPECIAL NATIONAL CONDITIONS (EN)**			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In **Denmark**, certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.		N/A
1.2.13.14 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.7.2.1 and 7.3 of this annex.		N/A
1.5.7.1 (A11:2009)	In **Finland, Norway** and **Sweden**, resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.8	In **Norway**, due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		N/A
1.5.9.4	In **Finland**, **Norway** and **Sweden**, the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	In **Finland**, **Norway** and **Sweden**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In Norway: “Apparatet må tilkoples jordet stikkontakt” In Sweden: “Apparaten skall anslutas till jordat uttag”		N/A

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1 (A11:2009)	In **Norway** and **Sweden**, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer. 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: “Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing – and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11).”		N/A
	NOTE In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Norwegian (the Swedish text will also be accepted in Norway): “Utstyr som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av utstyret til kabel-TV nettet installeres en galvanisk isolator mellom utstyret og kabel- TV nettet.” Translation to Swedish: ”Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet.”		N/A

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1 (A2:2013)	In **Denmark**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in **Denmark** shall be as follows: In **Denmark**: "Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord."		N/A
1.7.5	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a. For **CLASS II EQUIPMENT** the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.		N/A
1.7.5 (A2:2013)	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011. For class I equipment the following Standard Sheets are applicable: DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a, with the exception for STATIONARY EQUIPMENT where the socket-outlets shall be in accordance with Standard Sheet DK 1-1b, DK 1-1c, DK 1-1d or DK 1-5a. Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with by DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-3b. Justification the Heavy Current Regulations, 6c		N/A
2.2.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.3.2	In **Finland**, **Norway** and **Sweden** there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.3.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.6.3.3	In the **United Kingdom**, the current rating of the circuit shall be taken as 13 A, not 16 A.		N/A

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	In the **United Kingdom**, to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A
2.10.5.13	In **Finland**, **Norway** and **Sweden**, there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A
3.2.1.1	In **Switzerland**, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998: SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998:Plug Type 21, L+N, 250 V, 16A SEV 5934-2.1998: Plug Type 23, L+N+PE . 250 V, 16 A		N/A
3.2.1.1	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. 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 poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.		N/A

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1 (A2:2013)	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1. 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. Justification the Heavy Current Regulations, 6c		N/A
3.2.1.1	In **Spain**, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. 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 UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.		N/A
3.2.1.1	In the **United Kingdom**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
3.2.1.1	In **Ireland**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.		N/A

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.4	In **Switzerland**, for requirements see 3.2.1.1 of this annex.		N/A
3.2.5.1	In the **United Kingdom**, a power supply cord with conductor of 1,25 mm2 is allowed for equipment with a rated current over 10 A and up to and including 13 A.		N/A
3.3.4	In the **United Kingdom**, the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: • 1,25 mm^2 to 1,5 mm^2 nominal cross-sectional area.		N/A
4.3.6	In the **United Kingdom**, the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and 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
4.3.6	In **Ireland**, DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.		N/A
5.1.7.1	In **Finland**, **Norway** and **Sweden** TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: • STATIONARY PLUGGABLE EQUIPMENT TYPE A that is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; andis provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT.		N/A

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.1 (A1:2010)	In **Finland**, **Norway** and **Sweden**, add the following text between the first and second paragraph of the compliance clause: 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. Alternatively for components, there is no distance through insulation requirements 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 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.		N/A
	It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). 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 EN 60950-1:2006, 6.2.2.1; - 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

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.2	In **Finland**, **Norway** and **Sweden**, the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.		N/A
7.2	In **Finland**, **Norway** and **Sweden**, for requirements see 6.1.2.1 and 6.1.2.2 of this annex. The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
7.3 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.2.13.14 and 1.7.2.1 of this annex.		N/A

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Annex ZD
(informative)

IEC and CENELEC code designations for flexible cords

Type of flexible cord	Code designations	
	IEC	CENELEC
PVC insulated cords		
Flat twin tinsel cord	60227 IEC 41	H03VH-Y
Light polyvinyl chloride sheathed flexible cord	60227 IEC 52	H03VV-F H03VVH2-F
Ordinary polyvinyl chloride sheathed flexible cord	60277 IEC 53	H05VV-F H05VVH2-F
Rubber insulated cords		
Braided cord	60245 IEC 51	H03RT-F
Ordinary tough rubber sheathed flexible cord	60245 IEC 53	H05RR-F
Ordinary polychloroprene sheathed flexible cord	60245 IEC 57	H05RN-F
Heavy polychloroprene sheathed flexible cord	60245 IEC 66	H07RN-F
Cords having high flexibility		
Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H
Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	H03RV4-H
Crosslinked PVC insulated and sheathed cord	60245 IEC 88	H03V4V4-H

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components				P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
LCD Panel with LED backlight design	SHENZHEN TONGXINGDA TECHNOLOGY CO., LTD	TXDY400NWV PC-22	3.97" TFT LCD	IEC 60950-1	Tested in the appliance.
Plastic enclosure material (covering battery pack)	HONGFUJIN PRECISION INDUSTRY (SZ) CO LTD	C2400E	V-0, 80°C, request thickness is min. 1.6mm, measured thickness is min.2.5mm	UL 94	UL (UL ref. no.: E323548)
Plastic enclosure material (decorated part)	TEIJIN LIMITED RESIN AND PLASTIC	L-1250Z	V-2,115°C, request thickness is min. 0.84mm, measured thickness is min.1.1mm	UL 94	UL (UL ref. no.: E50075)
- Alternate use	Interchangeable	Interchangeable	HB min., 75°C min. Required thickness shall comply with the minimum requirement of its certification.	UL 94	UL
- Description: Interchangeability based on standardized dimensions and specified rating					
PCB material	GULTECH (WUXI) ELECTRONICS CO LTD	17	V-0, 130°C	UL 796	UL (UL ref. no.: E244417)
- Alternate use	Interchangeable	Interchangeable	V-1 min., 105°C min.	UL 796	UL
- Description: Interchangeability based on standardized dimensions and specified rating					
Vibrator	ALPS ELECTRIC CO., LTD	2CJ-00017AA	5Vdc max., 105°C, Rated current: 90mA max.	IEC 60950-1	Tested in the appliance.
Flash LED	Lite-On Technology Optoelectronics	LTPL-C0698DAYD	DC 150mA, Risk 1 Group	IEC 62471	Test report (Issued by TUV/SUD, report No. 611061723601)

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Battery pack	Energy Master Limited	FT605056P-2S	7.4Vdc, 2000mAh, 14.8Wh	IEC 62133: 2012 The requirements of IEC 60950-1: 2005 (Second Edition) + Am 1: 2009 + Am 2: 2013 also tested in the EUT report.	UL CB CB cert. DK-65971-UL
Supplementary information: **[1] Provided evidence ensures the agreed level of compliance. See OD-CB2039**.					

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1.6.2	**TABLE: Electrical data (in normal conditions)**					P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
5Vdc	1.38	2.0	6.90	--	--	Maximum normal load (The EUT was supplied by external power supply when charging the completed discharged built-in battery pack.)
7.4Vdc	0.49	--	3.62	--	--	Maximum normal load (The EUT was supplied by completed charged built-in battery pack.)
Supplementary information:						

2.1.1.5 c) 1)	**TABLE: max. V, A, VA test**				N/A
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
--	--	--	--	--	
Supplementary information:					

2.1.1.5 c) 2)	**TABLE: stored energy**		N/A
Capacitance C (µF)	Voltage U (V)	Energy E (J)	
--	--	--	
Supplementary information:			

2.1.1.7	**TABLE: discharge test**				N/A
Condition	τ calculated (s)	τ measured (s)	t u→0V	Comments	
--	--	--	--	--	
Supplementary information:					

2.2	**TABLE: evaluation of voltage limiting components in SELV circuits**		N/A
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V peak	V d.c.	
--	--	--	--
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)		
--	--		

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

2.4	TABLE: limited current circuit measurement			N/A
Location		Voltage (V)	Current (mA)	Comments
--		--	--	--
Supplementary information:				

2.5	TABLE: Limited power sources						P
Circuit output tested:							
Note: Measured Uoc (V) with all load circuits disconnected:							
Components	Sample No.	Uoc (V)	I_{sc} (A)		VA		
			Meas.	Limit	Meas.	Limit	
Micro SD(J5)	POP	0	0	≤ 8	0	≤ 100	
Micro USB(J1)	POP	0	0	≤ 8	0	≤ 100	
supplementary information:							
Sc=Short circuit, Oc=Open circuit							

2.6.3.4 and 2.6.1	TABLE: ground continue test		N/A
Location		resistant measures (Ω)	comments
--		--	--
Supplementary information:			

2.10.2	TABLE: working voltage measurement test			N/A
Location		rms voltage	peak voltage (V)	Comments
--		--	--	--
Supplementary information:				

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.10.3 and 2.10.4	**TABLE: Clearance and creepage distance measurements**						N/A
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
Functional:							
--	--	--	--	--	--	--	
Basic/supplementary:							
--	--	--	--	--	--	--	
Reinforced:							
--	--	--	--	--	--	--	
Supplementary information:							

2.10.5	**TABLE: Distance through insulation measurements**				N/A
Distance through insulation (DTI) at/of:	U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
--	--	--	--	--	--
Supplementary information:					

4.3.8	**TABLE: Batteries**									P
The tests of 4.3.8 are applicable only when appropriate battery data is not available				--						P
Is it possible to install the battery in a reverse polarity position?				No						N/A
	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	--	--	--	0.386A	1.95A	0.489A	3.90A	--	--	
Max. current during fault condition (EUT main board IC (U6) Pin A2-D4 short)	--	--	--	0A	1.95A	--	--	--	--	

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Clause	Requirement + Test	Result - Remark	Verdict

4.3.8	**TABLE: Batteries**		P
The tests of 4.3.8 are applicable only when appropriate battery data is not available		--	P
Is it possible to install the battery in a reverse polarity position?		No	N/A

	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 fault condition (EUT main board IC (U6) Pin D4-B2 short)	--	--	--	--	--	0.490A	3.90A	--	--
Max. current during fault condition (Battery pack main board IC (Q2) Pin 1-3 short)	--	--	--	0.013A	1.95A	--	--	--	--
Max. current during fault condition (Battery pack main board IC (Q1) Pin 1-3 short)	--	--	--	--	--	0.490A	3.90A	--	--

Test results:	--	Verdict
- Chemical leaks	No chemical leaks.	P
- Explosion of the battery	No explosion.	P
- Emission of flame or expulsion of molten metal	No emission of flame or expulsion of molten metal	P
- Electric strength tests of equipment after completion of tests	No isolation requirement.	N/A
Supplementary information:		

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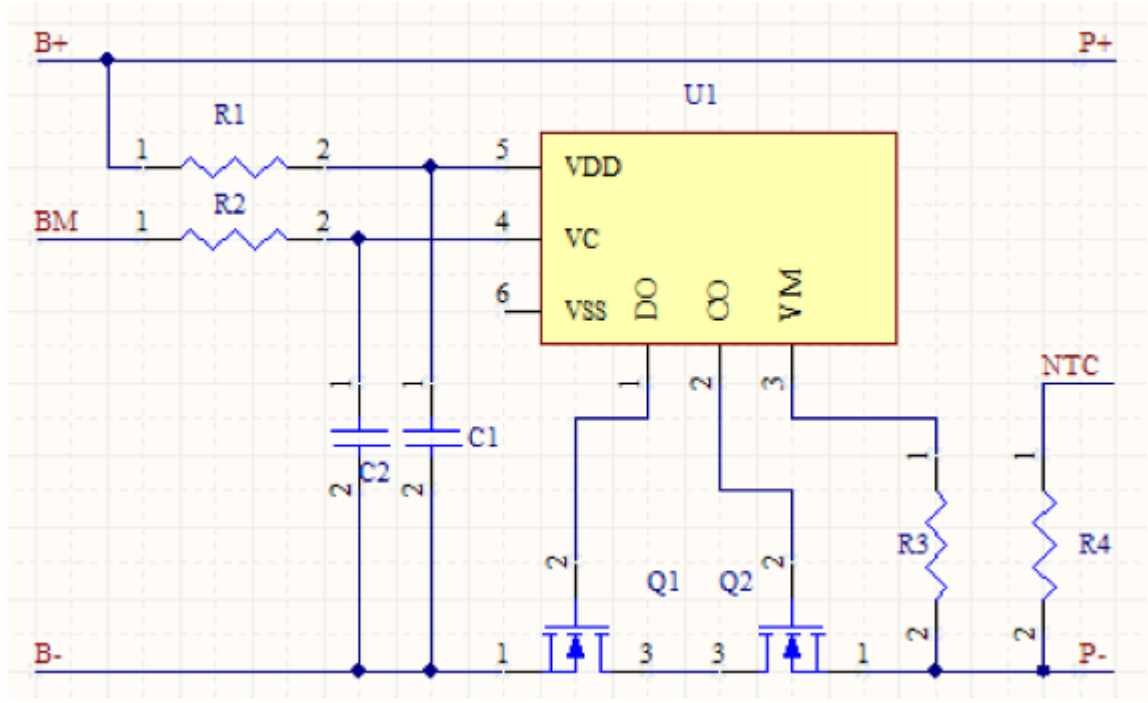
Clause	Requirement + Test	Result - Remark	Verdict

4.3.8	**TABLE: Batteries**	P
Battery category.....:	Lithium-ion	
Manufacturer.....:	Energy Master Limited	
Type / model .....:	FT605056P-2S	
Voltage.....:	7.4Vdc	
Capacity.....:	2000mAh	
Tested and Certified by (incl. Ref. No.).....:	CB certified by UL DEMKO, CB cert. DK-65971-UL	
Circuit protection diagram:	See below	



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Clause	Requirement + Test	Result - Remark	Verdict

MARKINGS AND INSTRUCTIONS (1.7.13)	
Location of replaceable battery	Inside the Instant Print Digital Camera
Language(s) ……..:	English
Close to the battery ……..:	No
In the servicing instructions ……..:	Yes
In the operating instructions ……..:	Yes

4.5	**TABLE: Thermal requirements**			P
	Supply voltage (V) .....:	5Vdc	7.4Vdc	—
	Ambient T_{min} (°C) .....:	24.1	24.5	—
	Ambient T_{max} (°C) .....:	24.2	24.9	—
Maximum measured temperature T of part/at……:		T (°C)		Allowed T_{max} (°C)
Test condition:		The EUT was supplied by external power supply when charging the completed discharged built-in battery pack.	The EUT was supplied by completed charged built-in battery pack.	--
Calculated value for Tma:		55.0	55.0	--
C106 body		74.7	78.5	105
L4 coil		83.2	77.2	105
PWB under IC (U22)		78.8	83.1	105
PWB under IC (U18)		82.1	79.9	105
PWB under IC (U29)		77.7	80.3	105
Vibrator body		68.1	80.4	105
Battery pack body		74.6	72.7	100
Plastic enclosure inside near battery pack		73.5	72.5	--
Plastic enclosure outside near battery pack		68.7	65.4	75
Panel body		59.1	60.8	75

Supplementary information:

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

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Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

1. The temperatures were measured under worst case normal mode defined in summary of testing and as described in 1.6.2 at voltages as above.
2. The maximum permitted temperatures are as follows:

Components with:

- max. absolute temp. of 100 °C (Battery) Tmax(°C) = 100 °C
- max. absolute temp. of 105 °C (PWB, Vibrator, chock, Capacitor) Tmax(°C) = 105 °C

User accessible area:

- Plastic material (75 °C) Tmax(°C)= 75 °C

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Clause	Requirement + Test	Result - Remark	Verdict

4.5.5	TABLE: Ball pressure test of thermoplastic parts		N/A
	Allowed impression diameter (mm) .....:	≤ 2 mm	—

Part	Test temperature (°C)	Impression diameter (mm)
--	--	--
Supplementary information:		

4.7	TABLE: Resistance to fire				P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence
Plastic enclosure(covering battery pack)	HONGFUJIN PRECISION INDUSTRY (SZ) CO LTD	C2400E	Min. 2.5 mm	V-0	UL
Supplementary information:					

5.1.8.1	TABLE: Touch Current Test (Single-Phase Equipment, Figure 5A)				N/A
Terminal A of Measuring Instrument Connected to	Switch "e" Position	Polarity P1/Primary Switch Condition			
		Normal/Tip	Normal/Ring	Reverse/Tip	Reverse/Ring
--	--	--	--	--	--
Supplementary information:					

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			N/A
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No	
Functional:				
--	--	--	--	
Basic/supplementary:				
--	--	--	--	
Reinforced:				
--	--	--	--	
Supplementary information:				

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	**TABLE: Fault condition tests**		P
	Ambient temperature (°C) .....:	25, if not specified.	—
	Power source for EUT: Manufacturer, model/type, output rating .....:	--	—

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
IC (U501) pin 3 – 2	Short	5Vdc	30min.	--	--	Unit shutdown. No hazard, no damage.
IC (U503) pin 3 – 2	Short	5Vdc	30min.	--	--	Unit operated normally. No hazard, no damage.
IC (U504) pin 3 – 2	Short	5Vdc	30min.	--	--	Unit operated normally. No hazard, no damage.
Battery pack V+ to V-	Short	Fully charged battery pack	30min.	--	--	Unit shutdown. No hazard, no damage.
EUT Main Board (IC (U6) Pin A2-D4 short)	Overcharge	5Vdc	7.0hrs	--	--	Charging current= 0A, no hazards
EUT Main Board (IC (U6) Pin D4-B2 short)	Over discharge	Fully charged battery pack	7.0hrs	--	--	Discharging current= 0.490A, no hazards
Battery pack Main Board IC (Q2) Pin 1-3 short	Overcharge	5Vdc	7.0hrs	--	--	Charging current= 0.013A, no hazards
Battery pack Main Board IC (Q1) Pin 1-3 short	Over discharge	Fully charged battery pack	7.0hrs	--	--	Discharging current= 0.490A, no hazards
Supplementary information:						

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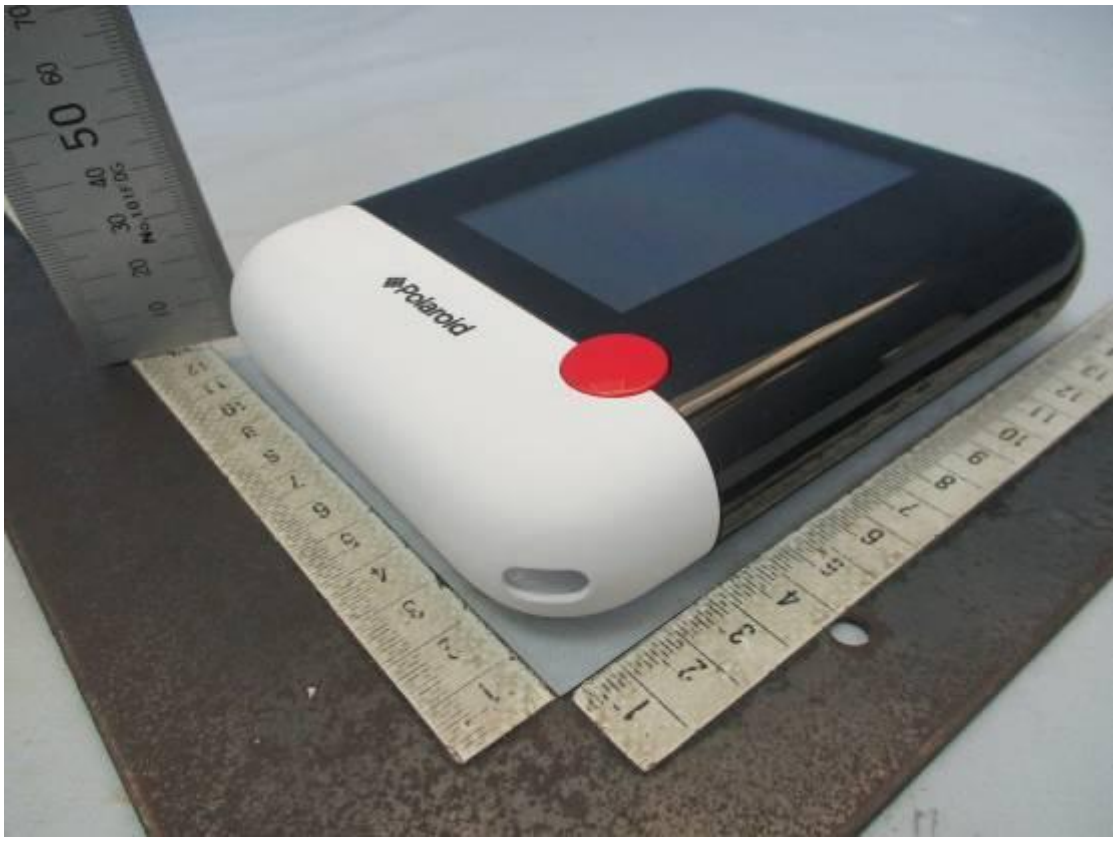
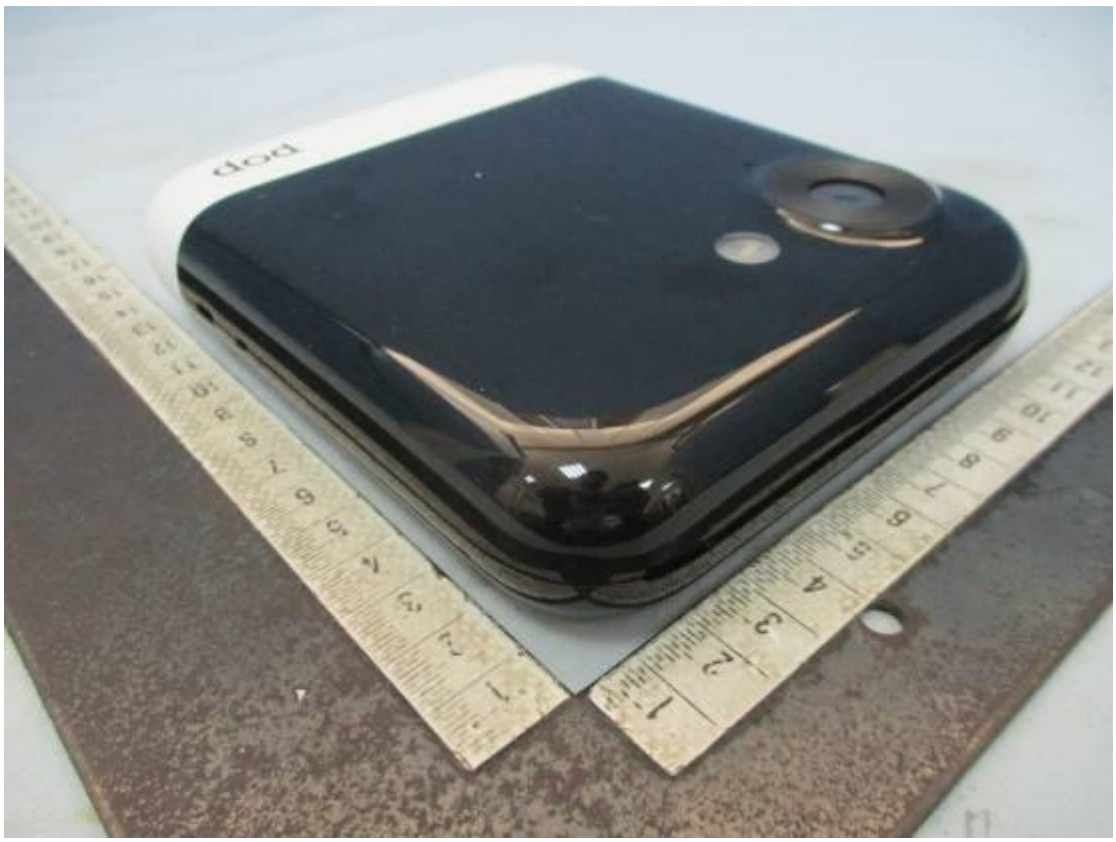
Clause	Requirement + Test	Result - Remark	Verdict

C.2	**TABLE: transformers(T201)**						N/A
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
--	--	--	--	--	--	--	--
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
--	--			--	--	--	--
supplementary information:							
Evaluated in certified transformer report.							

C.2	**TABLE: transformers**	N/A

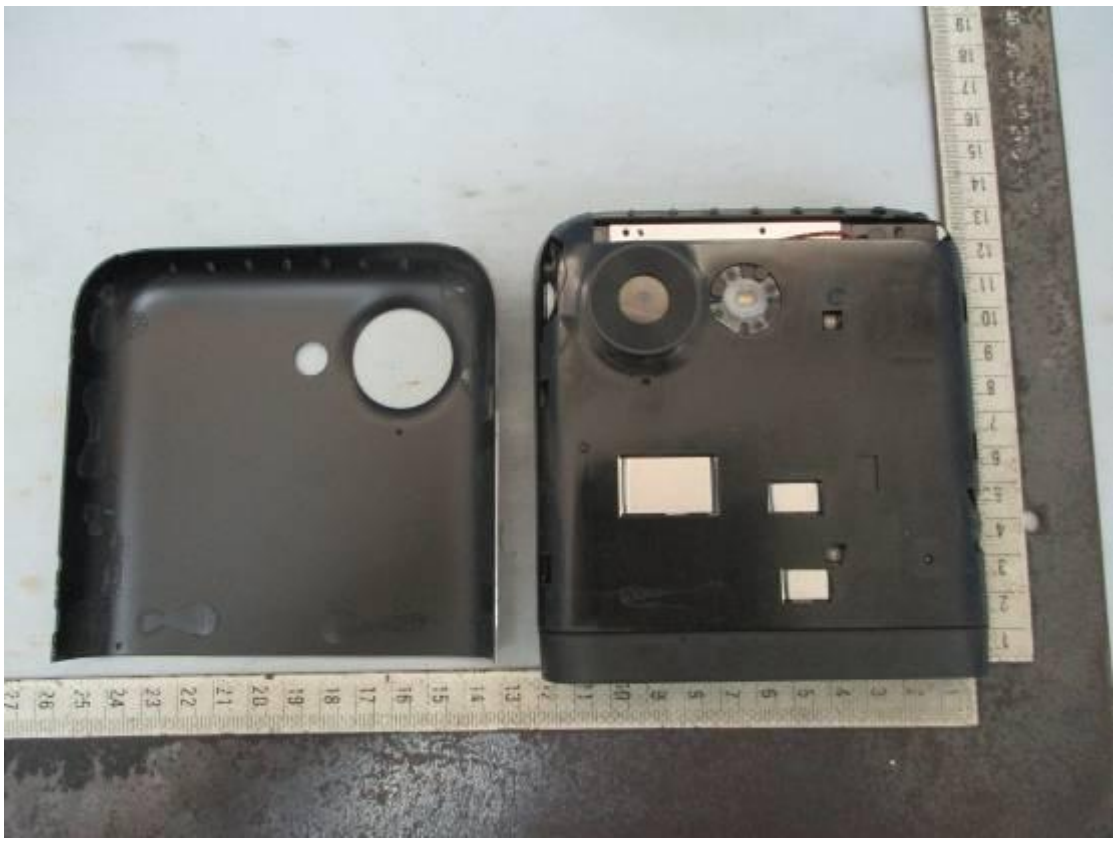


General view - 1

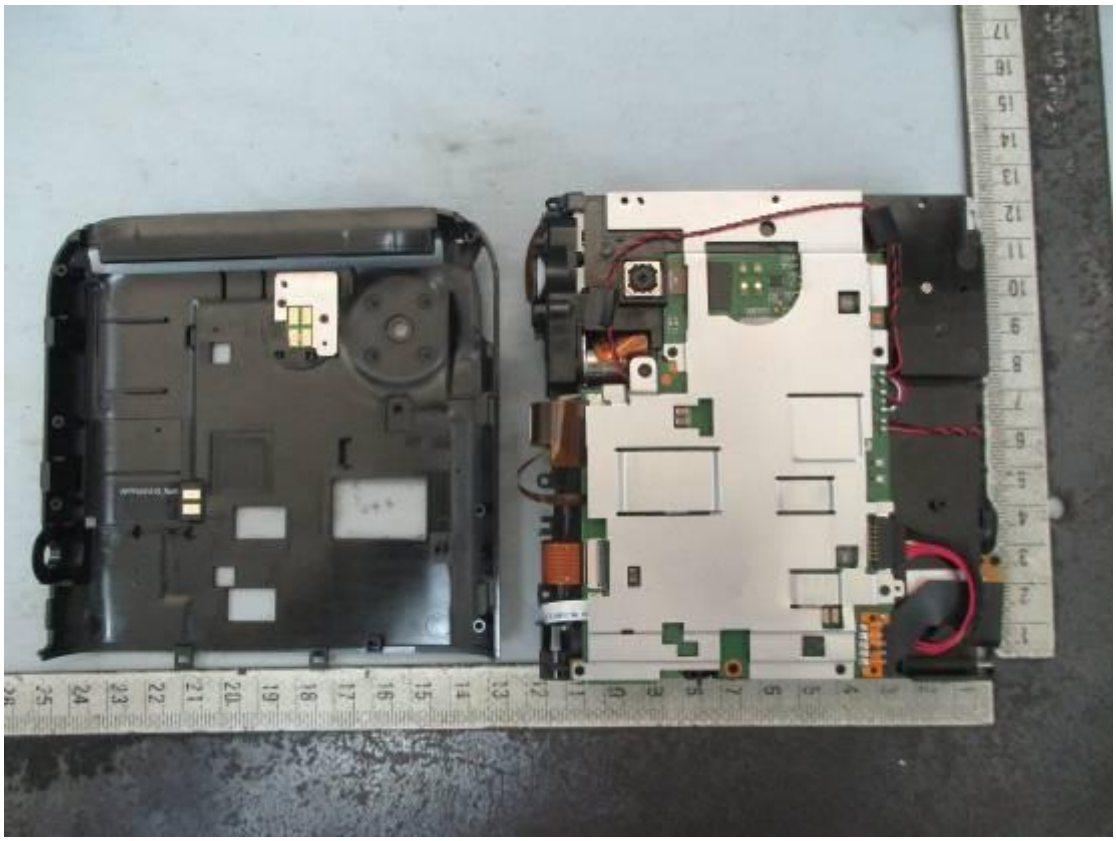


General view - 2

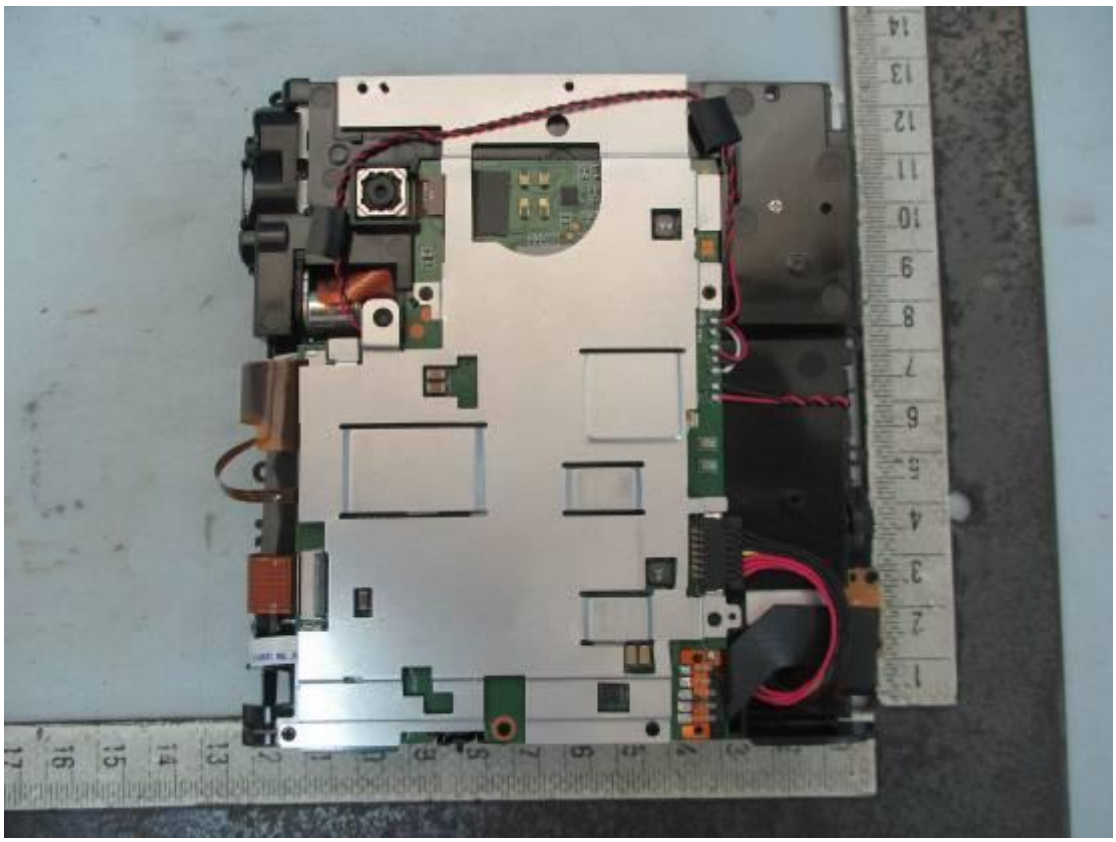
General view - 3



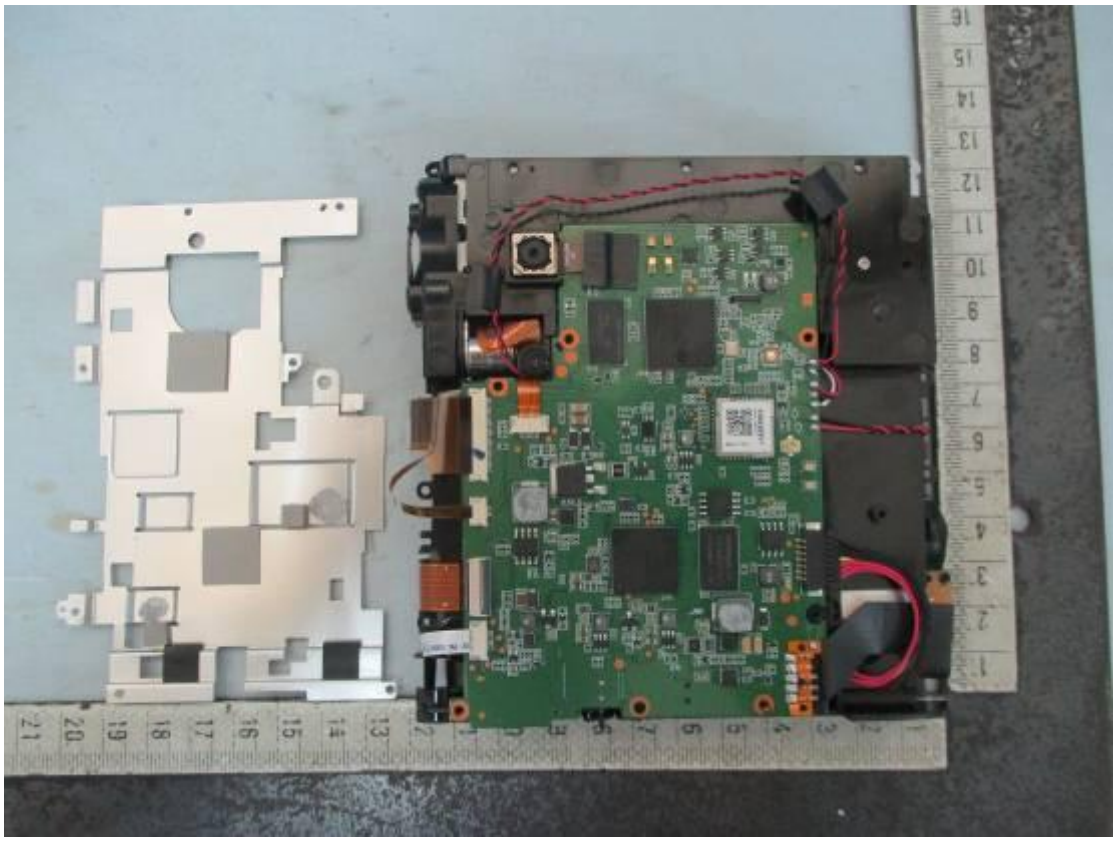
Internal view - 1



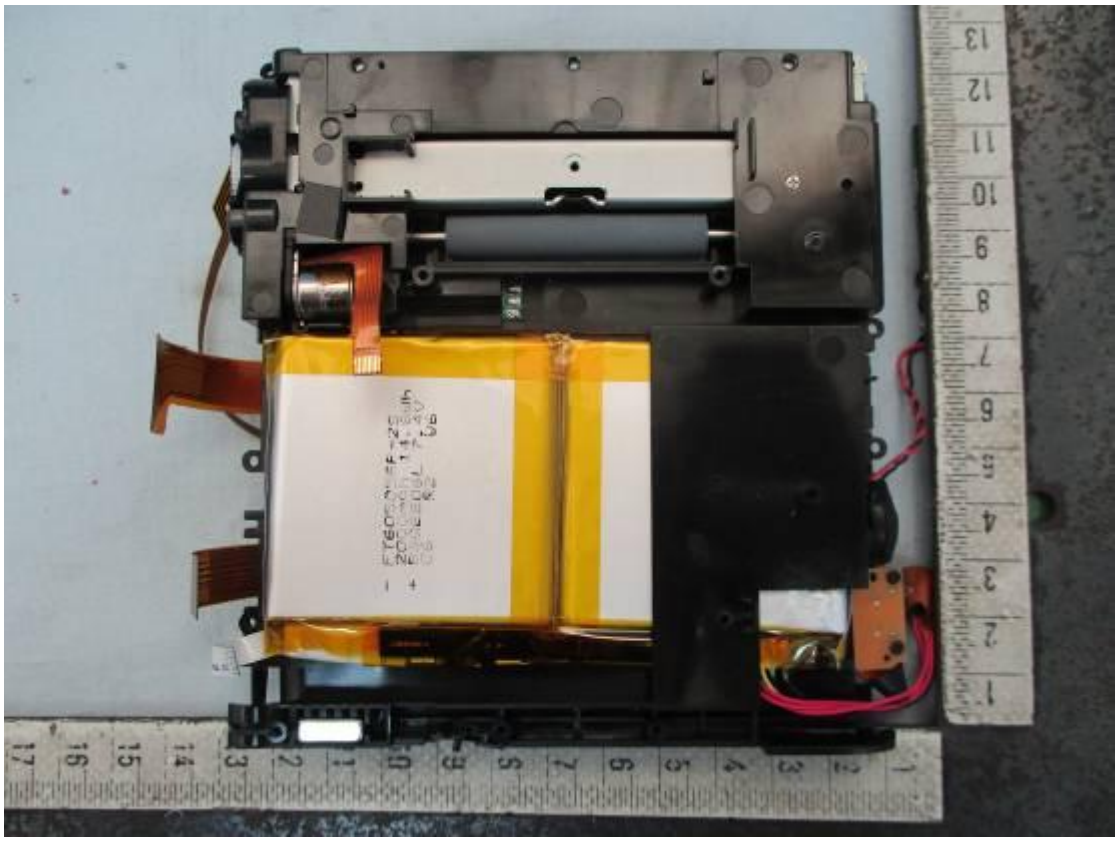
Internal view - 2



Internal view - 3

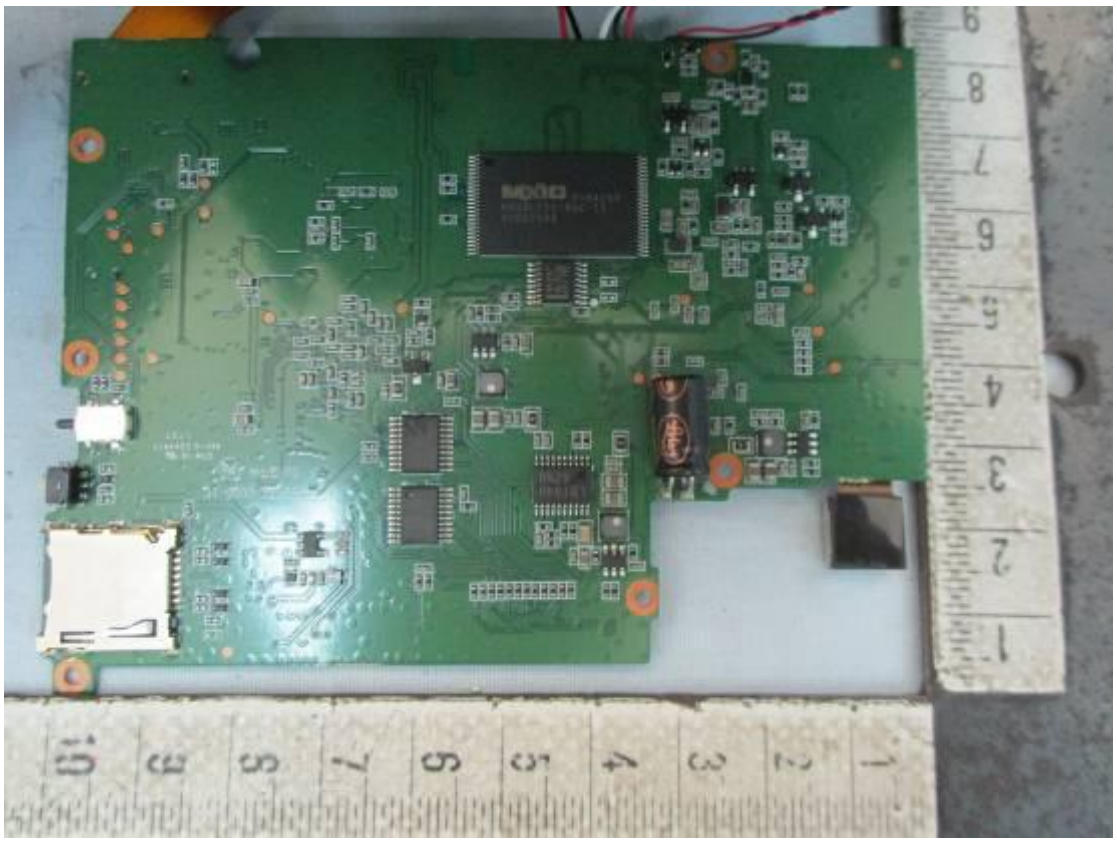


Internal view - 4

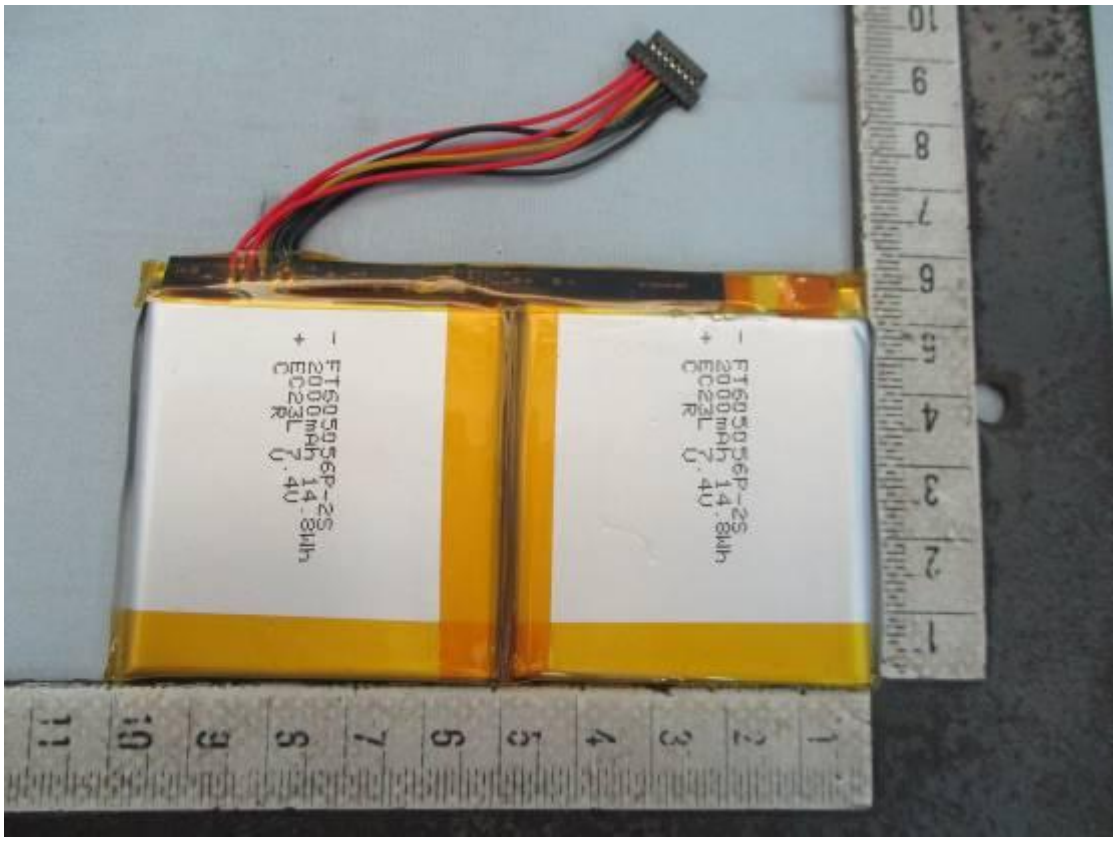


Internal view - 5

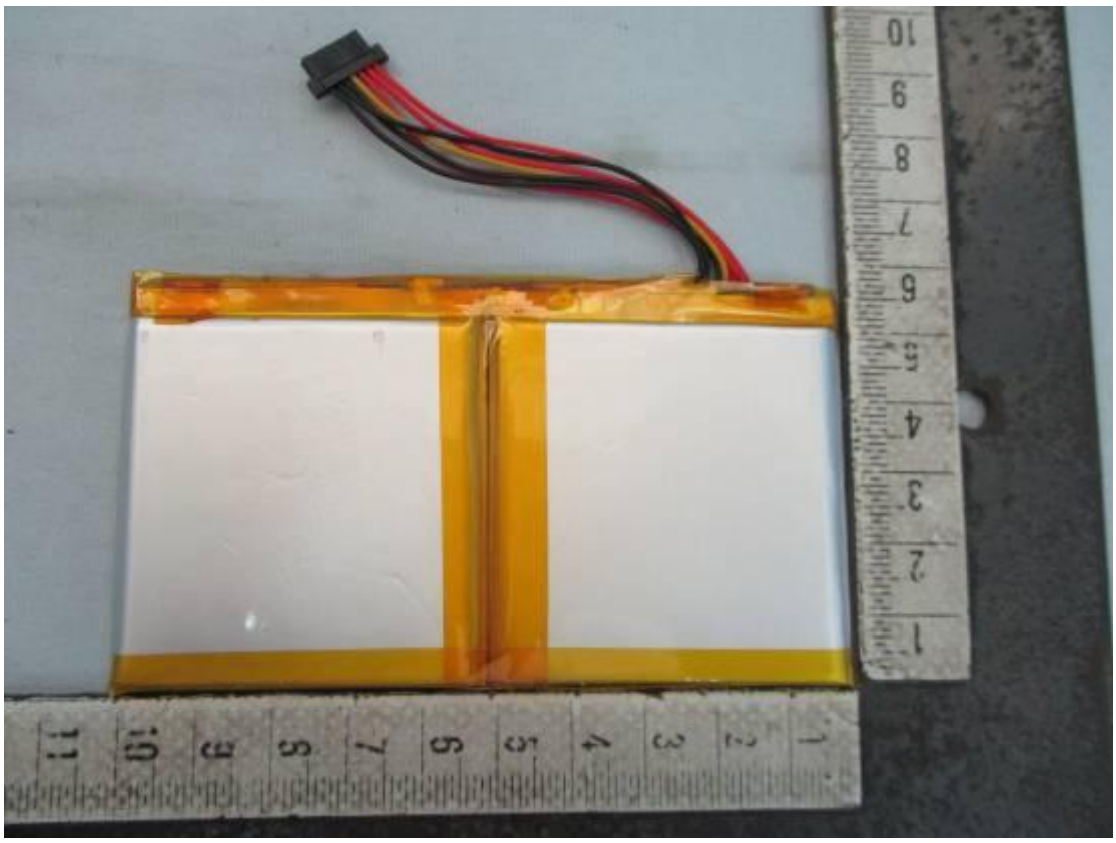
Main board view - 1



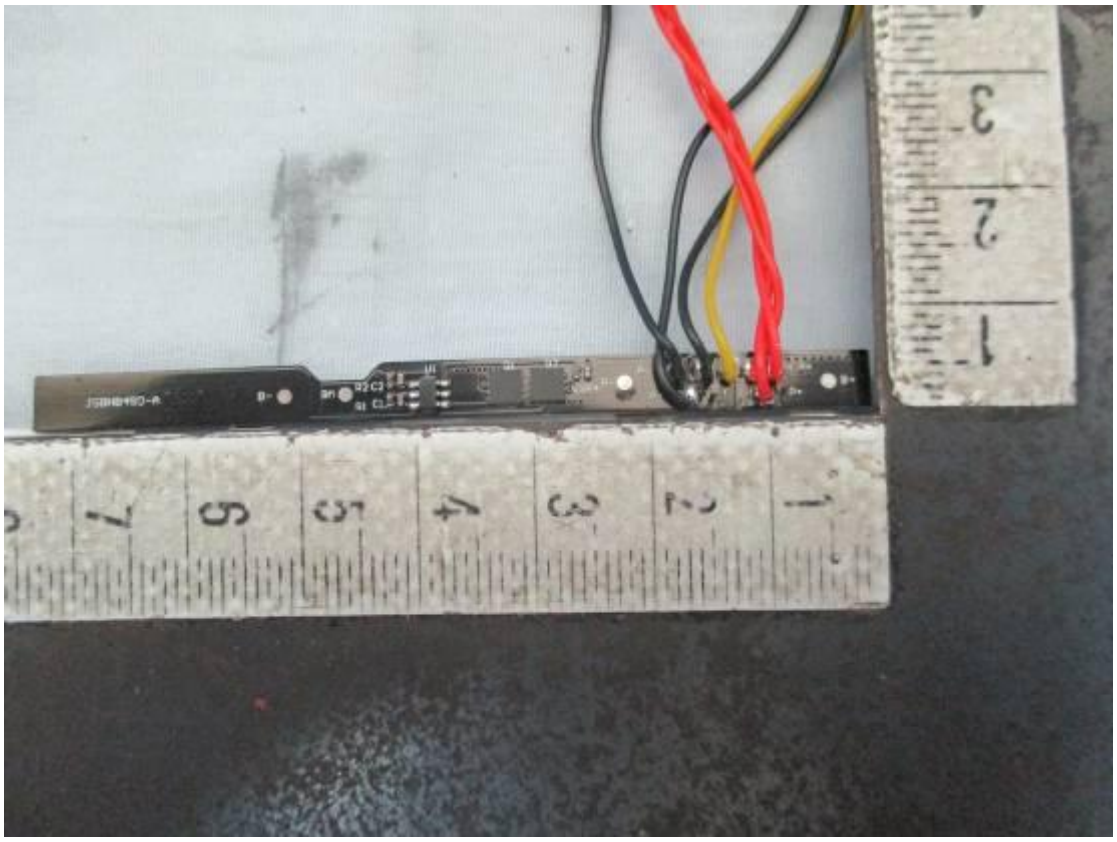
Main board view - 2



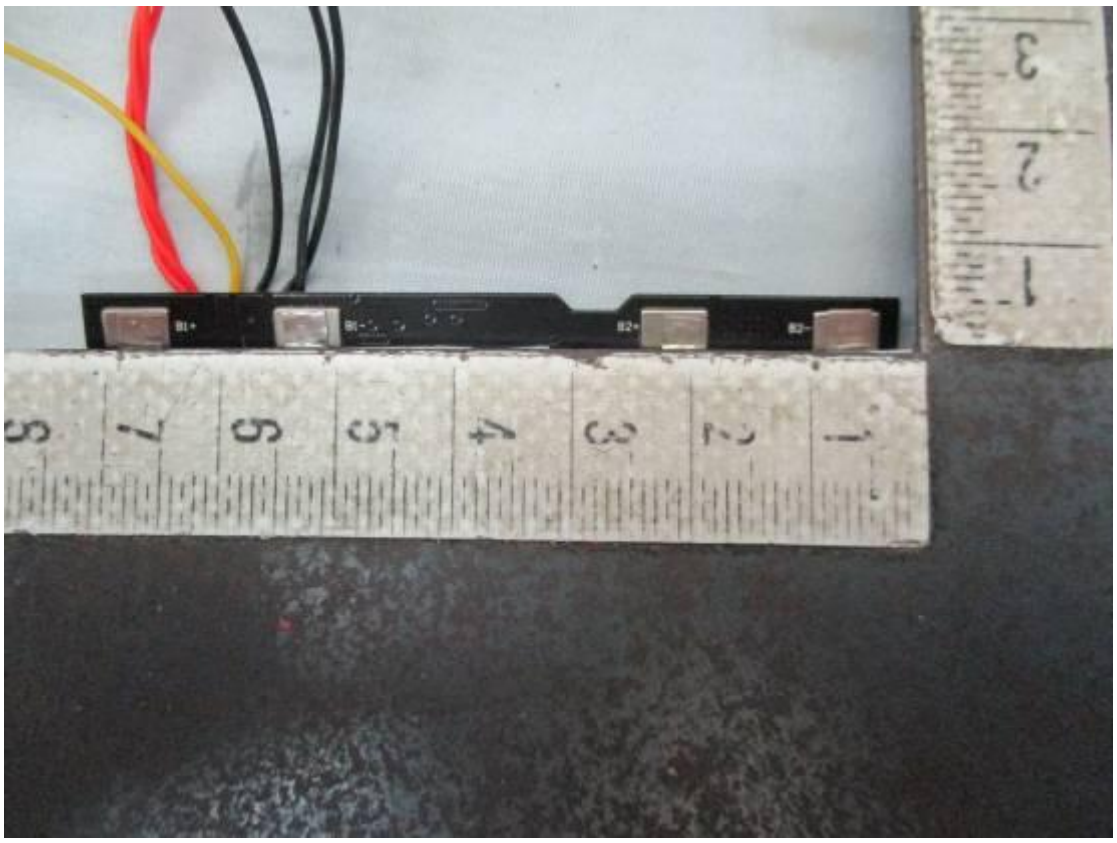
Battery view -1



Battery view - 2



Main board view of Battery Pack- 1



Main board view of Battery Pack- 2