HERMON LABORATORIES

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+ 972 4 628 8001
Fax.+ 972 4 628 8277
e-mail: mail@hermonlabs.com

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

Report Number. .....:	COMSAF_EN.40652
Date of issue.....:	January 10, 2021
Total number of pages .....:	71
Applicant's name.....:	CompuLab Ltd.
Address .....:	17 HaYetsira Street, Moradot HaCarmel Industrial Park, Yokneam Elite 20692, Israel
Test specification:	
Standard .....:	EN 62368-1:2014+A11:2017 IEC 62368-1:2014 (Second Edition)
Non-standard test method.....:	N/A
Test Report Form No.....:	IEC62368_1B (modified)
Test Report Form(s) Originator .....:	UL(US)
Master TRF.....:	2014-03

Copyright © 2015 Worldwide System for Conformity Testing and Certification of Electrotechnical Equipment and Components (IECEE), Geneva, Switzerland. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.\\'

General disclaimer:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Test item description..... :		Desktop PC with Wi-Fi	
Trade Mark..... :		Compulab	
Manufacturer ..... :		CompuLab Ltd	
Model/Type reference..... :		Airtop 3	
Ratings..... :		17-24VDC, 16.9A form external AC/DC adapter	
Testing procedure and testing location:			
☒	**CB Testing Laboratory:**	Hermon Laboratories Ltd	
Testing location/ address ..... :		HaTachana road, P. O. Box 23, Binyamina 30500, Israel	
☐	**Associated CB Testing Laboratory:**		
Testing location/ address ..... :			
Tested by (name, function, signature)..... :		Mr. Alex Zober Project Manager Product Safety & Security Systems	
Reviewed by (name, function, signature)...:		Mr. Ilan Benihas Site Manager, Product Safety & Security Systems	
Approved by (name, function, signature) .. :		Mr. Michael Brun Product Safety Group Manger	
☐	**Testing procedure: CTF Stage 1:**		
Testing location/ address ..... :			
Tested by (name + signature)..... :			
Approved by (name + signature)..... :			
☐	**Testing procedure: CTF Stage 2:**		
Testing location/ address ..... :			
Tested by (name + signature)..... :			
Witnessed by (name + signature) ..... :			
Approved by (name + signature)..... :			
☐	**Testing procedure: CTF Stage 3**		
☐	**Testing procedure: CTF Stage 4**		
Testing location/ address ..... :			
Tested by (name + signature)..... :			
Approved by (name + signature)..... :			
Supervised by (name + signature)..... :			

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

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

Appendix A – Equipment used for testing (2 page)
Appendix B – Photo Documentation (5 page)

Summary of testing:

Tests performed (name of test and test clause):

Name of test:	Test clause:
Classification and limits of electrical energy sources	5.2
Electrical power sources (PS) measurements for classification	6.2.2
Temperature measurements	5.4.1.4, 6.3.2
Input test	B.2.5
Simulated abnormal operating conditions	B.3
Simulated single fault conditions	B.4
Test for the permanence of markings	F.3.10
Circuits intended for interconnection with building wiring (LPS)	Q.1

Testing location:

Hermon Laboratories Ltd

HaTachana road, P. O. Box 23, Binyamina 30500, Israel

Summary of compliance with National Differences:

List of countries addressed:

EU Group differences, Austria (AT), Denmark (DK), Germany (DE), Finland (FI), United Kingdom (GB), Ireland (IE), Italy (IT), Norway (NO), Poland (PL), Sweden (SE)

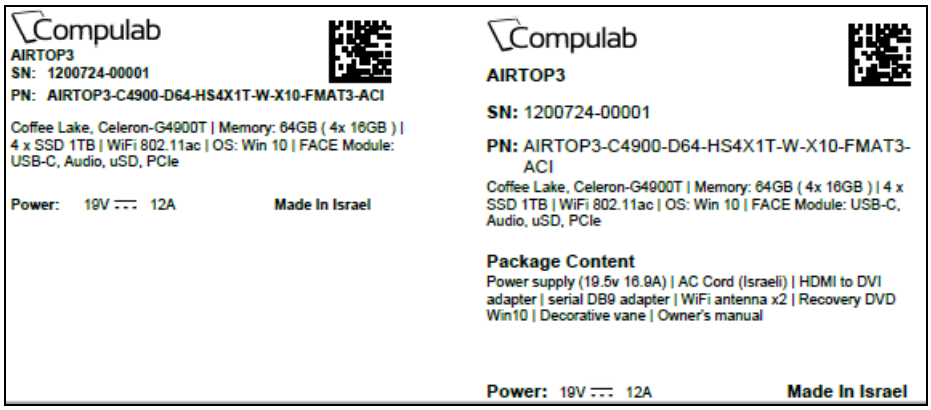
☒ **The product fulfils the requirements of EN 62368-1:2014+A11:2017**

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Copy of marking plates:

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

Unit's label



Hot surface sticker

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

TEST ITEM PARTICULARS:	
Classification of use by.....:	☒ Ordinary person ☒ Instructed person ☒ Skilled person ☒ Children likely to be present
Supply Connection.....:	☐ AC Mains ☐ DC Mains ☒ External Circuit - not Mains connected - ☒ ES1 ☐ ES2 ☐ ES3
Supply % Tolerance.....:	☐ +10%/-10% ☐ +20%/-15% ☒ +5%/-5% ☐ None
Supply Connection – Type.....:	☒ pluggable equipment type A - ☐ non-detachable supply cord ☐ appliance coupler ☐ direct plug-in ☒ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☒ other: DC powered by external AC/DC adapter
Considered current rating of protective device as part of building or equipment installation……..:	Installation location: ☐ building; ☐ equipment
Equipment mobility.....:	☐ movable ☐ hand-held ☐ transportable ☒ stationary ☐ for building-in ☐ direct plug-in ☐ rack-mounting ☐ wall-mounted
Over voltage category (OVC).....:	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV ☒ other: DC powered
Class of equipment ……..…..…:	☐ Class I ☐ Class II ☒ Class III
Access location.....:	☐ restricted access location ☒ N/A
Pollution degree (PD).....:	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maximum operating ambient.....:	40°C
IP protection class.....:	☒ IP20 ☐ IP__
Power Systems.....:	☐ TN ☐ TT ☐ IT - ____ V_{L-L}
Altitude during operation (m).....:	☐ 2000 m or less ☒ 5000 m
Altitude of test laboratory (m)) .....:	☒ 2000 m or less ☐ _____ m
Mass of equipment (kg) ……..…:	☒ <=7kg
POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object……..:	N/A
- test object does meet the requirement……:	P (Pass)

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

- test object does not meet the requirement……:	F (Fail)
TESTING:	
Date of receipt of test item……:	October 8 , 2020
Date (s) of performance of tests……..:	October 8- November 24, 2020

GENERAL REMARKS:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided:	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies)……:	As applicant

GENERAL PRODUCT INFORMATION:

Product Description –

The EUT model, Airtop 3, is a desctop PC with FCC/CE approved Wi-Fi module.
The EUT is a safety class III equipment that powered by 17-24Vdc (±5%), 16.9A from external safety approved AC/DC adapter (FSP GROUP INC model FSP330-AJAN3 or EDAC POWER model EA12501Q-190) that provided with the product.

The EUT has two input connections for power supply, one connection is considered as main connection and the second is a back-up connection.
Both connections can be powered simultaneously from, EDAC POWER model EA12501Q-190, or alternative FSP GROUP INC model FSP330-AJAN3 power adapter in a redundancy method.

In addition the EUT includes CPU clock backup, achieved by internal 3V/120mAh safety approved, non-rechargeable and not user replaceable lithium coin cell.

The EUT is enclosed inside metal enclosure that intend for indoor use up to 40°C, functions as mechanical protection and include circuits which classified as ES1 (not exceed ES1 limits of 60Vdc, 42.4Vpeak under normal and fault conditions).

Product details:

Model	Serial number	Hardware version	Software release
Airtop 3	1200724	1.0	Microsoft Win 10

Model Differences -

None

Additional application considerations – (Considerations used to test a component or sub-assembly) –

- Grill bottom plate with holes of 3 mm diameter, was implemented in the bottom of the equipment in order to maintain the fire enclosure requirements.
- Audio port, S/PDIF classified as RS1 optical port.

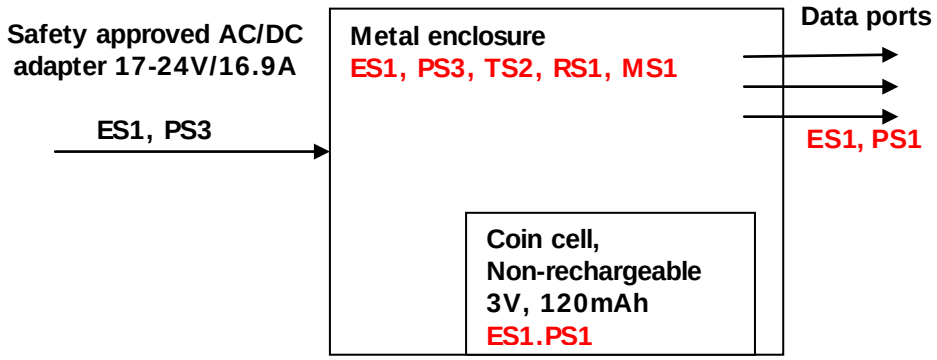
Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.	
Electrically-caused injury (Clause 5): (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input ES1	
Source of electrical energy	**Corresponding classification (ES)**
Internal secondary circuits which powered by 17-24Vdc from external AC/DC adapter	ES1
Internal CPU clock backup coin battery (3Vdc, 210mAh)	ES1
Data input / output ports	ES1
Electrically-caused fire (Clause 6): (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2	
Source of power or PIS	**Corresponding classification (PS)**
External AC/DC adapter which provide 17-24Vdc / 16.9A max.	PS3
Internal coin battery which provides 3Vdc / 120mA max	PS1
Data input / output ports (Less than 15W under normal and single faults conditions)	PS1
Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component Glycol	
Source of hazardous substances	**Corresponding chemical**
Internal coin battery	Lithium
Mechanically-caused injury (Clause 8) (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35) Example: Wall mount unit MS2	
Source of kinetic/mechanical energy	**Corresponding classification (MS)**
Equipment mass	MS1
Sharp edges and corners	MS1
Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1	
Source of thermal energy	**Corresponding classification (TS)**
Accessible surfaces which is touched occasionally for very short periods	TS2

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Radiation (Clause 10)	
(Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1	
Type of radiation	**Corresponding classification (RS)**
LED indicators	RS1
Optical port S/PDIF	RS1

ENERGY SOURCE DIAGRAM
Indicate which energy sources are included in the energy source diagram. Insert diagram below
[X] ES [X] PS [X] MS [X] TS [X] RS



Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	**Possible Hazard**			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary person / Instructed person / Skilled person	ES1: Internal secondary circuits, powered by 17-24Vdc from AC/DC adapter, ES1: Internal coin battery which provides 3Vdc to CPU ES1: Data input / output ports	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Enclosure and internal Components	PS3: External AC/DC adapter, 17-24Vdc / 16.9A max	Normal temperatures below ignition temperatures	Metal Fire enclosure	N/A
Coin Cell	PS1: Internal coin battery, 3V, 120mAh PS1: Data input / output ports	N/A	N/A	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person / Instructed person / Skilled person	Internal coin battery	-	-	Fire Enclosure
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary person / Instructed person / Skilled person	MS1: Equipment mass less than 7kg MS1: Sharp edges and corners	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person / Instructed person / Skilled person	TS2: Accessible enclosure surfaces, which are used as heatsink	Instructional safeguard: Warning label	N/A	N/A
10.1	Radiation			

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person / Instructed person / Skilled person	RS1: LED indicators RS1: Optical port S/PDIF	N/A	N/A	N/A
Supplementary Information: (1) See attached energy source diagram for additional details. (2) “N” – Normal Condition; “A” – Abnormal Condition; “S” Single Fault				

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	**GENERAL REQUIREMENTS**		P
4.1.1	Acceptance of materials, components and subassemblies	See appended table 4.1.2	P
4.1.2	Use of components	All safety critical components are certified or were tested according to this standard. Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this standard.	P
4.1.3	Equipment design and construction	Considered	P
4.1.15	Markings and instructions ..... :	See Annex F	P
4.4.4	Safeguard robustness	EUT is class III equipment powered by 17-24Vdc, 16.9A max from external safety approved AC/DC adapter, considered as ES1/PS3. Internal coin cell is ES1/PS1. Rigid metal enclosure provided adequate mechanical strength and covers all parts carrying hazardous energy. Robustness tests were waived by engineering considerations	P
4.4.4.2	Steady force tests ..... :	As above	N/A
4.4.4.3	Drop tests ..... :	As above	N/A
4.4.4.4	Impact tests ..... :	As above	N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests ..... :	As above	N/A
4.4.4.6	Glass Impact tests ..... :	No glass parts	N/A
4.4.4.7	Thermoplastic material tests ..... :	No such thermoplastic parts	N/A
4.4.4.8	Air comprising a safeguard ..... :	No such parts	N/A
4.4.4.9	Accessibility and safeguard effectiveness	Rigid metal enclosure provided adequate mechanical strength and covers all parts carrying hazardous energy.	N/A
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions	P
4.6	Fixing of conductors	All the conductors are adequate terminated	P

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.6.1	Fix conductors not to defeat a safeguard	No such conductors that displacement can defeat the safeguards.	N/A
4.6.2	10 N force test applied to ..... :	As above	N/A
4.7	Equipment for direct insertion into mains socket - outlets	Not a direct plug-in equipment	N/A
4.7.2	Mains plug part complies with the relevant standard ..... :		N/A
4.7.3	Torque (Nm) ..... :		N/A
4.8	Products containing coin/button cell batteries		P
4.8.2	Instructional safeguard	Internal coin battery can be replaced. Appropriate instructional safeguard is provided	P
4.8.3	Battery Compartment Construction	The battery compartment was tested.	P
	Means to reduce the possibility of children removing the battery ..... :	To get access to the battery compartment there Is a need to turn a particular switch to an open stated and then to push a particular button.	—
4.8.4	Battery Compartment Mechanical Tests ..... :	See appended table 4.8.4	P
4.8.5	Battery Accessibility	See appended table 4.8.4	P
4.9	Likelihood of fire or shock due to entry of conductive object ..... :	No top and side No ES2 / ES3 circuits	N/A

5	**ELECTRICALLY-CAUSED INJURY**		P
5.2.1	Electrical energy source classifications .....:	EUT is powered by an external safety approved AC/DC adapter which provides 17-24VDC (±5%)	P
5.2.2	ES1, ES2 and ES3 limits	As above	P
5.2.2.2	Steady-state voltage and current .....:	See appended table 5.2	P
5.2.2.3	Capacitance limits .....:	Electrical energy source is not a capacitor	N/A
5.2.2.4	Single pulse limits .....:	Electrical energy source is not a single pulse	N/A
5.2.2.5	Limits for repetitive pulses .....:	Electrical energy source is not a repetitive pulses	N/A
5.2.2.6	Ringing signals .....:	Electrical energy source is not an analogue telephone ringing signal	N/A
5.2.2.7	Audio signals .....:	No audio amplifiers. Electrical energy source is not comprised of audio signals	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.3	Protection against electrical energy sources	Powered by 17-24Vdc from safety approved AC/DC adapter (ES1). Safeguards are not required	N/A
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons		N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards		N/A
5.3.2.2	Contact requirements		N/A
	a) Test with test probe from Annex V .....:		N/A
	b) Electric strength test potential (V).....:		N/A
	c) Air gap (mm) .....:		N/A
5.3.2.4	Terminals for connecting stripped wire		N/A
5.4	Insulation materials and requirements		N/A
5.4.1.2	Properties of insulating material	Electrical energy source classified as ES1 – Safeguards are not required. Functional insulation only provided in EUT	N/A
5.4.1.3	Humidity conditioning..... :	Hygroscopic materials are not used as insulation	N/A
5.4.1.4	Maximum operating temperature for insulating materials .....:	Insulation materials not in use	N/A
5.4.1.5	Pollution degree.....:	Pollution degree 2	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	Pollution degree 2 applies	N/A
5.4.1.5.3	Thermal cycling	As above	N/A
5.4.1.6	Insulation in transformers with varying dimensions	No such transformers	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No such circuits	N/A
5.4.1.8	Determination of working voltage	Max 24Vdc	N/A
5.4.1.9	Insulating surfaces	No insulating surfaces which accessible	N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	No such parts	N/A
5.4.1.10.2	Vicat softening temperature .....:		N/A
5.4.1.10.3	Ball pressure .....:		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.2	Clearances	Electrical energy source classified as ES1 – Safeguards are not required (no basic, supplementary or reinforced insulation) All circuits are secondary, provided with functional insulation. No special requirements for clearances at functional insulation	N/A
5.4.2.2	Determining clearance using peak working voltage		N/A
5.4.2.3	Determining clearance using required withstand voltage .....:		N/A
	a) a.c. mains transient voltage .....:		—
	b) d.c. mains transient voltage .....:		—
	c) external circuit transient voltage .....:		—
	d) transient voltage determined by measurement :		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test		N/A
5.4.2.5	Multiplication factors for clearances and test voltages.....:	< 2000m	N/A
5.4.3	Creepage distances .....:	Same as clearances above	N/A
5.4.3.1	General		N/A
5.4.3.3	Material Group .....:	Material group IIIb is assumed to be used	—
5.4.4	Solid insulation	Electrical energy source classified as ES1 – Safeguards are not required (no basic, supplementary or reinforced insulation). Functional insulation only provided in EUT	N/A
5.4.4.2	Minimum distance through insulation .....:		N/A
5.4.4.3	Insulation compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices		N/A
5.4.4.5	Cemented joints		N/A
5.4.4.6	Thin sheet material		N/A
5.4.4.6.1	General requirements		N/A
5.4.4.6.2	Separable thin sheet material		N/A
	Number of layers (pcs) .....:		N/A
5.4.4.6.3	Non-separable thin sheet material		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material..... :		N/A
5.4.4.6.5	Mandrel test		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.7	Solid insulation in wound components		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz ..... :		N/A
5.4.5	Antenna terminal insulation	Equipment considered as indoor and its antenna terminals are not exposed to external transients Insulation not required.	N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance (MΩ) ..... :		—
5.4.6	Insulation of internal wire as part of supplementary safeguard ..... :	No supplementary safeguards are in use	N/A
5.4.7	Tests for semiconductor components and for cemented joints	No such devices or cemented joints	N/A
5.4.8	Humidity conditioning	Hygroscopic materials are not used as insulation	N/A
	Relative humidity (%) ..... :		—
	Temperature (°C) .....:		—
	Duration (h) ..... :		—
5.4.9	Electric strength test..... :	Electrical energy source classified as ES1 – Safeguards are not required (no basic, supplementary or reinforced insulation). Functional insulation only provided in EUT	N/A
5.4.9.1	Test procedure for a solid insulation type test		N/A
5.4.9.2	Test procedure for routine tests		N/A
5.4.10	Protection against transient voltages between external circuit	EUT is an indoor equipment which is not connected to telecommunication networks (external circuits) Paired conductors connected to Ethernet installed wholly within the same building structure: transients are not taken into account	N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test..... :		N/A
5.4.10.2.3	Steady-state test ..... :		N/A
5.4.11	Insulation between external circuits and earthed circuitry..... :	No such parts	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage U_{op} (V) ..... :		—
	Nominal voltage U_{peak} (V) ..... :		—
	Max increase due to variation U_{sp} ..... :		—
	Max increase due to ageing ΔU_{sa} ..... :		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ ..... :		—
5.5	Components as safeguards		N/A
5.5.1	General	Electrical energy source classified as ES1 – Safeguards are not required (no basic, supplementary or reinforced insulation). Components not used as safeguard	N/A
5.5.2	Capacitors and RC units	No such capacitors and RC units which used as safeguards	N/A
5.5.2.1	General requirement		N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector ..... :		N/A
5.5.3	Transformers	No such transformers which used as safeguards	N/A
5.5.4	Optocouplers	No such components which used as safeguards	N/A
5.5.5	Relays	As above	N/A
5.5.6	Resistors	As above	N/A
5.5.7	SPD's	As above	N/A
5.5.7.1	Use of an SPD connected to reliable earthing		N/A
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable ..... :	EUT not connected to mains or to external circuit consisting of a coaxial cable	N/A
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors	No use of protective conductor as a safeguard. Electrical energy source classified as ES1 – Safeguards not required	N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.6.3	Requirement for protective earthing conductors	Protective earthing conductor is not required. No provision for earthing. Electrical energy source classified as ES1 – Safeguards not required	N/A
	Protective earthing conductor size (mm^2) .....:		—
5.6.4	Requirement for protective bonding conductors	No use of Protective bonding	N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm^2).....:		—
	Protective current rating (A) ..... :		—
5.6.4.3	Current limiting and overcurrent protective devices	No such devices	N/A
5.6.5	Terminals for protective conductors	No Protective earthing terminals	N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm^2), nominal thread diameter (mm).....:		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system	No Protective earthing and bonding	N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test Method Resistance (Ω).....:		N/A
5.6.7	Reliable earthing	No earthing requirement	N/A
5.7	Prospective touch voltage, touch current and protective conductor current		N/A
5.7.2	Measuring devices and networks	DC powered no connection to the mains supply, no earth connection and no connection to external circuits from coaxial cables	N/A
5.7.2.1	Measurement of touch current.....:		N/A
5.7.2.2	Measurement of prospective touch voltage		N/A
5.7.3	Equipment set-up, supply connections and earth connections	As above	N/A
	System of interconnected equipment (separate connections/single connection).....:		—
	Multiple connections to mains (one connection at a time/simultaneous connections).....:		—
5.7.4	Earthed conductive accessible parts .....:		N/A
5.7.5	Protective conductor current	As above	N/A
	Supply Voltage (V) .....:		—
	Measured current (mA) .....:		—
	Instructional Safeguard .....:		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6	Prospective touch voltage and touch current due to external circuits	As above	N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits	As above	N/A
	a) Equipment with earthed external circuits Measured current (mA) .....:		N/A
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA) .....:		N/A
6	**ELECTRICALLY- CAUSED FIRE**		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	EUT is powered by 17-24Vdc, 13.15A max from an external safety approved AC/DC adapter,	P
6.2.2.1	General		P
6.2.2.2	Power measurement for worst-case load fault....:	See appended table 6.2.2	P
6.2.2.3	Power measurement for worst-case power source fault .....:	See appended table 6.2.2	P
6.2.2.4	PS1 .....:	Internal coin cell evaluated as not exceed 15W under normal and single fault conditions	P
6.2.2.5	PS2 .....:	No PS2	N/A
6.2.2.6	PS3 .....:	External AC/DC adapter available power is greater than 100W	P
6.2.3	Classification of potential ignition sources	Internal circuits powered by 17-24Vdc, 13.15A max from an external safety approved AC/DC adapter	P
6.2.3.1	Arcing PIS .....:	Less than 50V. No arcing PIS	N/A
6.2.3.2	Resistive PIS .....:	All resistive PIS located inside the fire enclosure in the secondary power input circuit. See appended table 6.2.3.2	P
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials ..... :	See appended table 5.4.1.5, 6.3.2, 9.0, B.2.6	P
6.3.1 (b)	Combustible materials outside fire enclosure	No such parts	N/A
6.4	Safeguards against fire under single fault conditions		P

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.4.1	Safeguard Method	Method by control of fire spread applied, Fire enclosure provided.	N/A
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits	This method not used	N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	As above	P
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions ..... :		N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits	Internal coin battery (3Vdc, 210mAh) located inside fire enclosure	P
6.4.5	Control of fire spread in PS2 circuits	No PS2 circuits	N/A
6.4.5.2	Supplementary safeguards ..... :	As above	N/A
6.4.6	Control of fire spread in PS3 circuit	- Rigid metal Fire enclosure is use - All components mounted on V-1 or better class material - All components comply with the requirements of the relevant IEC component standard	P
6.4.7	Separation of combustible materials from a PIS	No combustible materials	N/A
6.4.7.1	General ..... :		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers	Fire enclosure is provided	P
6.4.8.2	Fire enclosure and fire barrier material properties	Rigid metal fire enclosure in use	P
6.4.8.2.1	Requirements for a fire barrier	No fire barriers	N/A
6.4.8.2.2	Requirements for a fire enclosure	Rigid metal fire enclosure in use	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.3.1	Fire enclosure and fire barrier openings	Considered	P
6.4.8.3.2	Fire barrier dimensions	No fire barriers	N/A
6.4.8.3.3	Top openings in fire enclosure: dimensions (mm).....	No top opening	P
	Needle Flame test	Test not required	N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm) ..... :	Grill metal plate with holes diameter of 3mm max are provided and comply with fire enclosure requirements	P
	Flammability tests for the bottom of a fire enclosure ..... :	Test not required	N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c)..... :	Ordinary person not supposed to open the door cover, only a skilled person.	P
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating ..... :	Metal fire enclosure is used. The fire enclosure not made of combustible material.	N/A
6.5	Internal and external wiring		P
6.5.1	Requirements	External AC/DC adapter wiring covered under certified adapter evaluation. Internal wiring considered adequate for their application use. Internal flat cable provided with insulation that rated as VW-1.	P
6.5.2	Cross-sectional area (mm^2) ..... :		—
6.5.3	Requirements for interconnection to building wiring.....	All the interconnect to building wiring not supposed to provide power	N/A
6.6	Safeguards against fire due to connection to additional equipment		P
	External port limited to PS2 or complies with Clause Q.1	All data ports (USB, Ethernet, HDMI) complies with Clause Q.1.	P

7	**INJURY CAUSED BY HAZARDOUS SUBSTANCES**		P
7.2	Reduction of exposure to hazardous substances	No hazardous substances, except internal safety approved Lithium coin battery	P
7.3	Ozone exposure	No produced ozone by EUT	N/A
7.4	Use of personal safeguards (PPE)	Not required	N/A
	Personal safeguards and instructions.....:		—
7.5	Use of instructional safeguards and instructions	Not required	N/A
	Instructional safeguard (ISO 7010).....:		—

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
7.6	Batteries ..... :	Comply, see Annex M	P
8	**MECHANICALLY-CAUSED INJURY**		P
8.1	General	Considered	P
8.2	Mechanical energy source classifications	EUT mass less than 7 kg. Classified as MS1	P
8.3	Safeguards against mechanical energy sources	Safeguards are not required	P
8.4	Safeguards against parts with sharp edges and corners	All edges and corners are judged to be well rounded and do not present any hazard	P
8.4.1	Safeguards	MS1 classification, safeguards are not required	N/A
8.5	Safeguards against moving parts	No moving parts	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
8.5.2	Instructional Safeguard ..... :		—
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A
8.5.4.2.1	Safeguards and Safety Interlocks ..... :		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard ..... :		—
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N) ..... :		N/A
8.5.5	High Pressure Lamps	No such lamps	N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test ..... :		N/A
8.6	Stability	Mass of unit is less than 7kg Classified as MS1.	N/A
8.6.1	Product classification	No stability requirements for such equipment	N/A
	Instructional Safeguard ..... :		—
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force..... :		—
8.6.2.3	Downward Force Test		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt ..... :		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force) ..... :		N/A
	Position of feet or movable parts ..... :		—
8.7	Equipment mounted to wall or ceiling	No wall or ceiling mounted	N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface) ..... :		N/A
8.7.2	Direction and applied force ..... :		N/A
8.8	Handles strength	No handles	N/A
8.8.1	Classification		N/A
8.8.2	Applied Force ..... :		N/A
8.9	Wheels or casters attachment requirements	No wheels or casters	N/A
8.9.1	Classification		N/A
8.9.2	Applied force..... :		—
8.10	Carts, stands and similar carriers	No carts, stands and similar carriers	N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard ..... :		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force..... :		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N)..... :		—
8.10.6	Thermoplastic temperature stability (°C) ..... :		N/A
8.11	Mounting means for rack mounted equipment	No mounting means for rack mounted	N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable *N* .....:		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas ..... :	No telescoping or rod antennas	N/A
	Button/Ball diameter (mm) ..... :		—

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
9	**THERMAL BURN INJURY**		P
9.2	Thermal energy source classifications	Thermal energy is calssified as TS2 for accesible surface which are also using as a heatsink	P
9.3	Safeguard against thermal energy sources	Instructional safeguard. When EUT is to be installed	P
9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard		P
9.4.2	Instructional safeguard ..... :	Provided as warning on the equipment and at the manual	P

10	**RADIATION**		P
10.2	Radiation energy source classification	The EUT does not include laser, visible, infra-red, ultraviolet, x-ray. The equipment is not considered as personal music player closely coupled to the ear. LEDs are used for indication only	P
10.2.1	General classification	Classified as RS1	P
10.3	Protection against laser radiation		N/A
	Laser radiation that exists equipment:		—
	Normal, abnormal, single-fault .....:		N/A
	Instructional safeguard .....:		—
	Tool.....:		—
10.4	Protection against visible, infrared, and UV radiation	No visible, infrared and UV radiation	N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons.....:		N/A
10.4.1.b)	RS3 accessible to a skilled person .....:		N/A
	Personal safeguard (PPE) instructional safeguard .....:		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1 .....:		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions.....:		N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque .....:		N/A
10.4.1.f)	UV attenuation.....:		N/A
10.4.1.g)	Materials resistant to degradation UV .....:		N/A
10.4.1.h)	Enclosure containment of optical radiation .....:		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
10.4.1.i)	Exempt Group under normal operating conditions……..:		N/A
10.4.2	Instructional safeguard……:		N/A
10.5	Protection against x-radiation	No x-radiation	N/A
10.5.1	X- radiation energy source that exists equipment .....:		N/A
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards .....:		N/A
	Instructional safeguard for skilled person .....:		N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation.....:		—
	Abnormal and single-fault condition.....:		N/A
	Maximum radiation (pA/kg) .....:		N/A
10.6	Protection against acoustic energy sources	The EUT not defined as personal music player and not closely coupled to the ear or earphones and headphones intended for use with personal music players	N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A) .....:		N/A
	Output voltage, unweighted r.m.s. .....:		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards .....:		N/A
	Equipment safeguard prevent ordinary person to RS2.....:		—
	Means to actively inform user of increase sound pressure .....:		—
	Equipment safeguard prevent ordinary person to RS2.....:		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) L_{Aeq} acoustic pressure output ..... :		—
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A)..... :		—
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A)..... :		—

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
B	**NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS**		P
B.2	Normal Operating Conditions		P
B.2.1	General requirements .....:	See Test Item particulars and appended test tables	P
	Audio amplifiers and equipment with audio amplifiers.....:	No audio amplifiers that used at personal music players closely coupled to the ear	N/A
B.2.3	Supply voltage and tolerances	Considered	P
B.2.5	Input test .....:	Not connected to the mains. However test performed per external PS rating declaration. See appended table B.2.5	P
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements .....:	Considered	P
B.3.2	Covering of ventilation openings	No top, sides and back ventilation openings	N/A
B.3.3	D.C. mains polarity test	Not connected to mains	N/A
B.3.4	Setting of voltage selector.....:	As above	N/A
B.3.5	Maximum load at output terminals.....:	Tested for data ports	P
B.3.6	Reverse battery polarity	Internal coin battery not replaceable by ordinary person	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	No audio amplifiers that used at personal music players closely coupled to the ear	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	Safeguards remain effective.	P
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited.....:	No such device	N/A
B.4.3	Motor tests	No motors	N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature .....:		N/A
B.4.4	Short circuit of functional insulation	See appended table B.4	P
B.4.4.1	Short circuit of clearances for functional insulation		P
B.4.4.2	Short circuit of creepage distances for functional insulation		P
B.4.4.3	Short circuit of functional insulation on coated printed boards	Uncoated	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	No such components	N/A
B.4.6	Short circuit or disconnect of passive components	See appended table B.4	P
B.4.7	Continuous operation of components	No such parts	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	Accessible parts not exceed their energy source class. No hazards or flames were noted during the tests	P
B.4.9	Battery charging under single fault conditions ....:	See Annex M	P
C	**UV RADIATION**		N/A
C.1	Protection of materials in equipment from UV radiation	EUT not produce UV radiation	N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
C.2.1	Test apparatus		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure apparatus		N/A
C.2.4	Xenon-arc light exposure apparatus		N/A
D	**TEST GENERATORS**		N/A
D.1	Impulse test generators	Not required to test	N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A
E	**TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS**		N/A
E.1	Audio amplifier normal operating conditions	No audio amplifiers that used at personal music players closely coupled to the ear	N/A
	Audio signal voltage (V) ..... :		—
	Rated load impedance (Ω) ..... :		—
E.2	Audio amplifier abnormal operating conditions		N/A
F	**EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS**		P
F.1	General requirements		P

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Instructions – Language .....:	English	—
F.2	Letter symbols and graphical symbols		P
F.2.1	Letter symbols according to IEC60027-1	No such letters	N/A
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Appropriate Hot surface symbol provided	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Marking on equipment enclosure	P
F.3.2	Equipment identification markings	Provided	P
F.3.2.1	Manufacturer identification .....:	CompuLab Ltd	—
F.3.2.2	Model identification .....:	Airtop 3	—
F.3.3	Equipment rating markings	See below	P
F.3.3.1	Equipment with direct connection to mains	No direct connection to AC or DC mains, no power rating label is required	N/A
F.3.3.2	Equipment without direct connection to mains	External PS rating is marked on the label - Comply with B.2.5	P
F.3.3.3	Nature of supply voltage .....:	DC	—
F.3.3.4	Rated voltage .....:	17-24Vdc	—
F.3.3.4	Rated frequency.....:	DC product	—
F.3.3.6	Rated current or rated power .....:	-	—
F.3.3.7	Equipment with multiple supply connections	The EUT has two supply connections, appropriate marking is provided on the equipment.	P
F.3.4	Voltage setting device	No voltage setting device	N/A
F.3.5	Terminals and operating devices	See below	N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings.....:	No appliance outlet and socket-outlet	N/A
F.3.5.2	Switch position identification marking .....:	The On/Off button not used as a disconnect device	N/A
F.3.5.3	Replacement fuse identification and rating markings.....:	No replacement fuse	N/A
F.3.5.4	Replacement battery identification marking .....:	No hazards	N/A
F.3.5.5	Terminal marking location	No terminals for mains supply	N/A
F.3.6	Equipment markings related to equipment classification	Class III equipment	N/A
F.3.6.1	Class I Equipment	As above	N/A
F.3.6.1.1	Protective earthing conductor terminal		N/A
F.3.6.1.2	Neutral conductor terminal		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
F.3.6.1.3	Protective bonding conductor terminals		N/A
F.3.6.2	Class II equipment (IEC60417-5172)	As above	N/A
F.3.6.2.1	Class II equipment with or without functional earth		N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A
F.3.7	Equipment IP rating marking ..... :	IPX0 considered	—
F.3.8	External power supply output marking	Not such outputs	N/A
F.3.9	Durability, legibility and permanence of marking	Inspected	P
F.3.10	Test for permanence of markings	Tested	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking	No such locations	N/A
	b) Instructions given for installation or initial use	Provided	P
	c) Equipment intended to be fastened in place	No such parts	N/A
	d) Equipment intended for use only in restricted access area	Not intended for restricted access area	N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1	No such parts	N/A
	f) Protective earthing employed as safeguard	Class III equipment – no earth	N/A
	g) Protective earthing conductor current exceeding ES2 limits	As above	N/A
	h) Symbols used on equipment	Not effecting safety	N/A
	i) Permanently connected equipment not provided with all-pole mains switch	No such parts	N/A
	j) Replaceable components or modules providing safeguard function	No such parts	N/A
F.5	Instructional safeguards		P
	Where “instructional safeguard” is referenced in the test report it specifies the required elements, location of marking and/or instruction	Provided as warning on the equipment and at the manual.	P

G	**COMPONENTS**		N/A
G.1	**Switches**		N/A
G.1.1	General requirements	No such parts which affect safety	N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	**Relays**		N/A
G.2.1	General requirements	No such parts	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	**Protection Devices**		N/A
G.3.1	Thermal cut-offs	No such parts	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691		N/A
G.3.2.1b)	Thermal links tested as part of the equipment		N/A
	Aging hours (H) .....:		—
	Single Fault Condition .....:		—
	Test Voltage (V) and Insulation Resistance (Ω) .:		—
G.3.3	PTC Thermistors		N/A
G.3.4	Overcurrent protection devices		N/A
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.5		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided		N/A
G.3.5.2	Single faults conditions .....:		N/A
G.4	**Connectors**		N/A
G.4.1	Spacings	Classified as ES1 No mains	N/A
G.4.2	Mains connector configuration .....:		N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		N/A
G.5	**Wound Components**		N/A
G.5.1	Wire insulation in wound components	No transformers used as safeguards	N/A
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°		N/A
G.5.1.2 b)	Construction subject to routine testing		N/A
G.5.2	Endurance test on wound components		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Time (s) ..... :		—
	Temperature (°C) ..... :		—
G.5.2.3	Wound Components supplied by mains		N/A
G.5.3	**Transformers**		N/A
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1) ..... :	No transformers	N/A
	Position ..... :		—
	Method of protection ..... :		—
G.5.3.2	Insulation		N/A
	Protection from displacement of windings ..... :		—
G.5.3.3	Overload test..... :		N/A
G.5.3.3.1	Test conditions		N/A
G.5.3.3.2	Winding Temperatures testing in the unit		N/A
G.5.3.3.3	Winding Temperatures - Alternative test method		N/A
G.5.4	**Motors**		N/A
G.5.4.1	General requirements	No motors	N/A
	Position ..... :		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days) ..... :		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V)..... :		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h) ..... :		N/A
	Electric strength test (V)..... :		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature ..... :		N/A
	Electric strength test (V) ..... :		N/A
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h) ..... :		N/A
	Electric strength test (V)..... :		N/A
G.5.4.7	Motors with capacitors		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage ..... :		—
G.6	**Wire Insulation**		N/A
G.6.1	General	No such wires	N/A
G.6.2	Solvent-based enamel wiring insulation		N/A
G.7	**Mains supply cords**		N/A
G.7.1	General requirements	Not connected to mains	N/A
	Type ..... :		—
	Rated current (A)..... :		—
	Cross-sectional area (mm^2), (AWG) ..... :		—
G.7.2	Compliance and test method		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N) ..... :		—
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm) ... :		—
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry ..... :		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g) ..... :		—
	Diameter (m) ..... :		—
	Temperature (°C) ..... :		—
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Test with 8 mm strand		N/A
G.8	**Varistors**		N/A
G.8.1	General requirements	No Varistors	N/A
G.8.2	Safeguard against shock		N/A
G.8.3	Safeguard against fire		
G.8.3.2	Varistor overload test ..... :		N/A
G.8.3.3	Temporary overvoltage ..... :		N/A
G.9	**Integrated Circuit (IC) Current Limiters**		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.9.1 a)	Manufacturer defines limit at max. 5A.	Not current limited circuits	N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA .....:		—
G.9.1 d)	IC limiter output current (max. 5A) .....:		—
G.9.1 e)	Manufacturers' defined drift .....:		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
G.10	**Resistors**		N/A
G.10.1	General requirements	No resistors used as safeguards	N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
G.11	**Capacitor and RC units**		N/A
G.11.1	General requirements	No such components used as safeguards	N/A
G.11.2	Conditioning of capacitors and RC units		N/A
G.11.3	Rules for selecting capacitors		N/A
G.12	**Optocouplers**		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results).....:	No optocouplers	N/A
	Type test voltage Vini .....:		—
	Routine test voltage, Vini,b .....:		—
G.13	**Printed boards**		N/A
G.13.1	General requirements	Electrical energy source classified as ES1 – Safeguards not required (no basic, supplementary or reinforced insulation). Functional insulation only provided in EUT	N/A
G.13.2	Uncoated printed boards		N/A
G.13.3	Coated printed boards		N/A
G.13.4	Insulation between conductors on the same inner surface		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Compliance with cemented joint requirements (Specify construction)..... :		—
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation..... :		N/A
	Number of insulation layers (pcs) ..... :		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
G.14	**Coating on components terminals**		N/A
G.14.1	Requirements .....:	No such components	N/A
G.15	**Liquid filled components**		N/A
G.15.1	General requirements	No such components	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	**IC including capacitor discharge function (ICX)**		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	No such components	N/A
b)	Impulse test using circuit 2 with Uc = to transient voltage ..... :		N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage ..... :		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance ..... :		—
D3)	Resistance ..... :		—

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
H	**CRITERIA FOR TELEPHONE RINGING SIGNALS**		N/A
H.1	General	No telephone ringing signals	N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz) .....:		—
H.3.1.2	Voltage (V) .....:		—
H.3.1.3	Cadence; time (s) and voltage (V) .....:		—
H.3.1.4	Single fault current (mA): .....:		—
H.3.2	Tripping device and monitoring voltage .....:		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V) .....:		—
J	**INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION**		N/A
	General requirements	No such windings wires	N/A
K	**SAFETY INTERLOCKS**		N/A
K.1	General requirements	No safety interlocks	N/A
K.2	Components of safety interlock safeguard mechanism		N/A
K.3	Inadvertent change of operating mode		N/A
K.4	Interlock safeguard override		N/A
K.5	Fail-safe		N/A
	Compliance .....:		N/A
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method .....:		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location) .....:		N/A
K.7.2	Overload test, Current (A) .....:		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test .....:		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
L	**DISCONNECT DEVICES**		N/A
L.1	General requirements	The EUT powered by 17-24Vdc, 16.9A max from external safety approved AC/DC adapter, classified as ES1/PS3, and 3V, 120mAh from internal battery. No disconnect device required	N/A
L.2	Permanently connected equipment		N/A
L.3	Parts that remain energized		N/A
L.4	Single phase equipment		N/A
L.5	Three-phase equipment		N/A
L.6	Switches as disconnect devices		N/A
L.7	Plugs as disconnect devices		N/A
L.8	Multiple power sources	The EUT has two different connections for input power. However, the equipment is powered by 17-24Vdc and considered as ES1 power source. No disconnect device required	N/A
M	**EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS**		P
M.1	General requirements	Safety approved low power coin battery. Battery not considered as hazardous and considered to comply with this annex without further evaluation other than to give consideration to the appropriate use	P
M.2	Safety of batteries and their cells	Tests were waived by egineering considerations	N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) .. :		N/A
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance ..... :		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature .....:		—
M.4.2.2 b)	Single faults in charging circuitry .....:		—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method) ..... :		N/A
M.6.2	Leakage current (mA) ..... :		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.8.2.2	Estimation of hypothetical volume *Vz* (m^3/s) ..... :		—
M.8.2.3	Correction factors..... :		—
M.8.2.4	Calculation of distance *d* (mm) ..... :		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) .... :		N/A
N	**ELECTROCHEMICAL POTENTIALS**		P
	Metal(s) used ..... :	Considered	—
O	**MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES**		N/A
	Figures O.1 to O.20 of this Annex applied..... :	Not required	—
P	**SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS**		N/A
P.1	General requirements	No top and side No ES2 / ES3 circuits	N/A
P.2.2	Safeguards against entry of foreign object		N/A
	Location and Dimensions (mm) ..... :		—
P.2.3	Safeguard against the consequences of entry of foreign object		N/A
P.2.3.1	Safeguards against the entry of a foreign object		N/A
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts ..... :		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) ..... :		N/A
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Tc (°C)..... :		—
	Tr (°C) ..... :		—
	Ta (°C) ..... :		—
P.4.2 b)	Abrasion testing ..... :		N/A
P.4.2 c)	Mechanical strength testing……..:		N/A
Q	**CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING**		P
Q.1	Limited power sources	All signals and outputs evaluated to comply as LPS.	P
Q.1.1 a)	Inherently limited output	See appended table Q.1	P
Q.1.1 b)	Impedance limited output		N/A
	- Regulating network limited output under normal operating and simulated single fault condition		N/A
Q.1.1 c)	Overcurrent protective device limited output		N/A
Q.1.1 d)	IC current limiter complying with G.9		N/A
Q.1.2	Compliance and test method		N/A
Q.2	Test for external circuits – paired conductor cable		N/A
	Maximum output current (A) ..... :		—
	Current limiting method..... :		—
R	**LIMITED SHORT CIRCUIT TEST**		N/A
R.1	General requirements	No such parts	N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A)). ..... :		N/A
S	**TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	Rigid metal enclosure provided at fire enclosure	N/A
	Samples, material ..... :		—
	Wall thickness (mm)..... :		—
	Conditioning (°C) ..... :		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

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

T	**MECHANICAL STRENGTH TESTS**		N/A
T.1	General requirements	EUT is powered by 17-24Vdc, 16.9A max from external safety approved AC/DC adapter, classified as ES1/PS3, Rigid metal enclosure provided adequate mechanical strength and covers all parts carrying hazardous energy. Robustness tests were waived by engineering considerations	N/A
T.2	Steady force test, 10 N ..... :		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
T.3	Steady force test, 30 N .....:		N/A
T.4	Steady force test, 100 N .....:		N/A
T.5	Steady force test, 250 N .....:		N/A
T.6	Enclosure impact test		N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test .....:		N/A
T.8	Stress relief test .....:		N/A
T.9	Impact Test (glass)		N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J) .....:		—
	Height (m) .....:		—
T.10	Glass fragmentation test .....:		N/A
T.11	Test for telescoping or rod antennas		N/A
	Torque value (Nm) .....:		—

U	**MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFECTS OF IMPLOSION**		N/A
U.1	General requirements	No CRT	N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen .....:		N/A

V	**DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)**		P
V.1	Accessible parts of equipment	Considered	N/A
V.2	Accessible part criterion		N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Summary of Group & National Differences

List of Countries:	Group Differences	National Differences	List of Countries:	Group Differences	National Differences
AU=Australia	--	--	IL=Israel	--	--
AT=Austria	--	YES[1)]	IS=Iceland	--	--
BE=Belgium	--	--	IT=Italy	--	YES[7)]
BG=Bulgaria	--	--	JP=Japan	--	--
CA=Canada	--	--	KR=Korea, Republic	--	--
CH=Switzerland	--	--	LT=Lithuania	--	--
CN=China	--	--	LU=Luxembourg	--	--
CZ=Czech Republic	--	--	LV=Latvia	--	--
DK=Denmark	--	YES[2)]	MT=Malta	--	--
DE=Germany	--	YES[3)]	NL=The Netherlands	--	--
EE=Estonia	--	--	NO=Norway	--	YES[8)]
ES=Spain	--	--	NZ=New Zealand	--	--
FI=Finland	--	YES[4)]	PL=Poland	--	YES[9)]
FR=France	--	--	PT=Portugal	--	--
GB=United Kingdom	--	YES[5)]	RO=Romania	--	--
GR=Greece	--	--	SE=Sweden	--	YES[10)]
HU=Hungary	--	--	SK=Slovakia	--	--
HR=Croatia	--	--	SI=Slovenia	--	--
IE=Ireland	--	YES[6)]	US=United States	--	--

Notes:

1) Shown on IECEE website as national difference. Austria national standard (EN 62368-1:2014)

2) National differences from latest attachment to test report. Denmark national standard (DS/EN 62368-1:2014)

3) National differences from latest attachment to test report. Germany national standard (EN 62368-1:2014)

4) National differences from latest attachment to test report. Finland national standard (EN 62368-1:2014)

5) National differences from latest attachment to test report. United Kingdom national standard (EN 62368-1:2014)

6) National differences from latest attachment to test report. Ireland national standard (EN 62368-1:2014)

7) National differences from latest attachment to test report. Italy national standard (CEI EN 62368-1:2016)

8) Shown on IECEE website as national difference. Norway national standard (IEC 62368-1(ed.2))

9) Shown on IECEE website as national difference. Poland national standard (PN-EN 62368-1:2015-03/A11:2017-09 (EN 62368-1:2014/A11:2017 [IDT]) PN-EN 62368-1:2015-03 (EN 62368-1:2014 [IDT], IEC 62368-1:2014 [MOD]))

10) National differences from latest attachment to test report. Sweden national standard (SS-EN 62368-1:2014 + AC1:2015 + AC2:2017 + A11:2017)

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Audio/video, information and communication technology equipment – Part 1: Safety requirements

Differences according to.....:	EN 62368-1:2014+A11:2017
Attachment Form No.....:	EU_GD_IEC62368_1B_II
Attachment Originator .....:	Nemko AS
Master Attachment .....:	Date (2017-09-22)

Copyright © 2017 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.

	CENELEC COMMON MODIFICATIONS (EN)		P
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z".		P
CONTENTS	**Add** the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords		P
	Delete all the "country" notes in the reference document (IEC 62368-1:2014) according to the following list:		P
	For special national conditions, see Annex ZB.		P
1	**Add** the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.	Added	P

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

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.Z1	**Add** the following new subclause after 4.9: To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. **mains**, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for **pluggable equipment type B** or **permanently connected equipment**, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for **pluggable equipment type A** the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	No connection to mains	N/A
5.4.2.3.2.4	**Add** the following to the end of this subclause: The requirement for interconnection with **external circuit** is in addition given in EN 50491-3:2009.	No external circuits	N/A
10.2.1	Add the following to [c] and [d] in table 39: For additional requirements, see 10.5.1.	Added	P

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
10.5.1	**Add** the following after the first paragraph: *For RS 1 compliance is checked by measurement under the following conditions:* *In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or presets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.* NOTE Z1 Soldered joints and paint lockings are examples of adequate locking. *The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.* *Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.* *For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.* NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.	No such radiation	N/A
10.6.1	**Add** the following paragraph to the end of the subclause: EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.	The EUT not defined as personal music player and not closely coupled to the ear or earphones and headphones intended for use with personal music players	N/A
10.Z1	**Add** the following new subclause after 10.6.5. **10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz** The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566	See separate EMC/RADIO test report	P
G.7.1	**Add** the following note: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.	Added	P

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
Bibliography	**Add** the following standards: **Add** the following notes for the standards indicated: IEC 60130-9 NOTE Harmonized as EN 60130-9. IEC 60269-2 NOTE Harmonized as HD 60269-2. IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series. IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4. IEC 60664-5 NOTE Harmonized as EN 60664-5. IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified). IEC 61508-1 NOTE Harmonized as EN 61508-1. IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4. IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6. IEC 61643-1 NOTE Harmonized as EN 61643-1. IEC 61643-21 NOTE Harmonized as EN 61643-21. IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321. IEC 61643-331 NOTE Harmonized as EN 61643-331.		P
ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		N/A
4.1.15	**Denmark, Finland, Norway** and **Sweden** To the end of the subclause the following is added: **Class I pluggable equipment type A** intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and **accessible** parts, have a marking stating that the equipment shall be connected to an earthed **mains** socket-outlet. The marking text in the applicable countries shall be as follows: In **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.” In **Finland**: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”	Class III equipment	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3	**United Kingdom** To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex	Not direct plug-in equipment	N/A
5.2.2.2	**Denmark** After the 2nd paragraph add the following: A warning (marking **safeguard**) for high **touch current** is required if the **touch current** exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	Class III equipment	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.11.1 and Annex G	**Finland and Sweden** To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.	No telecommunication networks	N/A
5.5.2.1	**Norway** After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).	Class III equipment	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.5.6	**Finland, Norway** and **Sweden** To the end of the subclause the following is added: Resistors used as **basic safeguard** or bridging **basic insulation** in **class I pluggable equipment type A** shall comply with G.10.1 and the test of G.10.2.	No such resistors	N/A
5.6.1	**Denmark** **Add** to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. *Justification:* In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.	No socket-outlets	N/A
5.6.4.2.1	**Ireland and United Kingdom** After the indent for **pluggable equipment type A**, the following is added: – the **protective current rating** is taken to be 13 A, this being the largest rating of fuse used in the **mains** plug.	Class III equipment	N/A
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm^2 to 1,5 mm^2 in cross-sectional area.	As above	N/A
5.7.5	**Denmark** To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the **protective conductor current** exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	Class III equipment	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.1	**Norway and Sweden** To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: “Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)” NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Norwegian (the Swedish text will also be accepted in Norway): “Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.” Translation to Swedish: ”Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.	Not such equipment	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.2	**Denmark** To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .	Class III equipment	N/A
B.3.1 and B.4	**Ireland and United Kingdom** The following is applicable: To protect against excessive currents and short-circuits in the primary circuit of **direct plug-in equipment**, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the **direct plug-in equipment**, until the requirements of Annexes B.3.1 and B.4 are met	Not direct plug-in equipment	N/A
G.4.2	**Denmark** To the end of the subclause the following is added: Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a *Justification:* Heavy Current Regulations, Section 6c	Class III equipment No socket-outlets	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2	**United Kingdom** To the end of the subclause the following is added: The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.	Not direct plug-in equipment	N/A
G.7.1	**United Kingdom** To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.	Class III equipment	N/A
G.7.1	**Ireland** To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard	As above	N/A
G.7.2	**Ireland and United Kingdom** To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm^2 is allowed for equipment which is rated over 10 A and up to and including 13 A.	Class III equipment	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN)**		N/A
10.5.2	**Germany** The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking. *Justification:* German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. **NOTE** Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de	No cathode ray tube	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1
ITALY NATIONAL DIFFERENCES

Audio/video, information and communication technology equipment – Part 1: Safety requirements

Differences according to.....: CEI EN 62368-1:2016
Attachment Form No.....: IT_ND_IEC62368_1B
Attachment Originator .....: IMQ S.p.A.
Master Attachment .....: Date 2020-01-31

Copyright © 2020 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.

	National Differences		
F.1	**Italy** The following requirements shall be fulfilled: • The power consumption in Watts (W) shall be indicated on TV receivers and in their instruction for use (Measurement according to EN 60555-2). Note: EN 60555-2 has since been replaced by IEC 60107-1:1997. • TV receivers shall be provided with an instruction for use, schematic diagrams and adjustments procedure in Italian language. • Marking for controls and terminals shall be in Italian language. Abbreviation and international symbols are allowed provided that they are explained in the instruction for use. • The ECC manufacturers are bound to issue a conformity declaration according to the above requirements in the instruction manual. The correct statement for conformity to be written in the instruction manual, shall be: *Questo apparecchio è fabbricato nella CEE nel rispetto delle disposizioni del D.M. marzo 1992 ed è in particolare conforme alle prescrizioni dell'art. 1 dello stesso D.M.* • The first importers of TV receivers manufactured outside EEC are bound to submit the TV receivers for previous conformity certification to the Italian Post Ministry (PP.TT). The TV receivers shall have on the backcover the certification number in the following form: D.M. 26/03/1992 xxxxx/xxxxx/S or T or pT S for stereo T for Teletext pT for retrofitable teletext Justification: Ministerial Decree of 26 March 1992: National rules for television receivers trade. NOTE/: Ministerial decree above contains additional, but not safety relevant requirements	No TV receivers	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.1.2	TABLE: List of critical components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity[1]
- Description[2] :					
Enclosure	Various	Metal	Fire enclosure Dimensions: Width: 10 cm Depth: 25.5 cm Height: 30 cm Thickness: xxx mm The bottom side provided by grill plate with ventilation openings	IEC/UL/CSA 62368-1	Evaluated and accepted
AC/DC adapter	EDAC POWER ELECTRONICS CO LTD	EA12501Q-190	Input: 100-240VAC, 50-60HZ, 3.5-2.5A max. Output: 17-24VDC (±5%), 13.15A max. Altitude up to 5000m Operating temp: 0 to 40°C	UL 60950-1 UL 60950-22	UL (E209833)
AC/DC adapter Alternative	FSP GROUP INC (or equivalent)	FSP330-AJAN3	Input: 100-240VAC, 50-60HZ, 4.2A max. Output: 17-24VDC, 16.9A max. Altitude up to 5000m Operating temp: 0 to 70°C	UL 62368-1 CB 60950-1	UL (E190414)
Coin battery	Panasonic (or equivalent)	BR1632A (or equivalent)	Lithium, 3Vdc, 120mAh. Operation temp: -40 to 125°C	UL 1642 (or equivalent)	UL (MH12210) or equivalent
PCB	Various	Various	Flammability rating V-1 or better	UL 94	UL or equivalent

Supplementary information:

1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.

2) Description line content is optional. Main line description needs to clearly detail the component used for testing

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

4.8.4, 4.8.5	**TABLE: Lithium coin/button cell batteries mechanical tests**	P

(The following mechanical tests are conducted in the sequence noted.)

4.8.4.2	**TABLE: Stress relief test**		—
Part	Material	Oven Temperature (°C)	Comments

4.8.4.3	**TABLE: Battery replacement test**	—
Battery part no.....:		—
Battery Installation/withdrawal	Battery Installation/Removal Cycle	Comments
Battery compartment cover opened and closed for ten times and the battery removed and replaced ten times.	1	No damage
	2	No damage
	3	No damage
	4	No damage
	5	No damage
	6	No damage
	8	No damage
	9	No damage
	10	No damage

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

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

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

Supplementary information:

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

Supplementary information: metal enclosure

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.2	TABLE: Classification of electrical energy sources						P
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
1	24VDC	Internal secondary circuits	Normal	24Vdc	-	-	ES1
			Abnormal	24Vdc	-	-	
			Single fault – SC/OC	24Vdc	-	-	
2	3VDC	CPU clock backup	Normal	3Vdc	-	-	ES1
			Abnormal	3Vdc	-	-	
			Single fault – SC/OC	3Vdc	-	-	

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

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

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

Test Conditions:

Normal –

Abnormal –

Supplementary information: SC=Short Circuit, OC=Short Circuit

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 6.3.2, 9.0, B.2.6	**TABLE: Temperature measurements**	P

Supply voltage (V) ..... :	19.5Vdc				—
Ambient T_{min} (°C) ..... :	23.8				—
Ambient T_{max} (°C) ..... :	24.1		Calculated to		—
Tma (°C) ..... :			40		—
Maximum measured temperature T of part/at:	T (°C)				Allowed T_{max} (°C)
Enclosure	58		74		100
PCB	71		87		105
battery	60		76		125
ambient inside	67		83		125

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

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

5.4.1.10.2	**TABLE: Vicat softening temperature of thermoplastics**	N/A

Penetration (mm)		—
Object/ Part No./Material	Manufacturer/ trademark	T softening (°C)

Supplementary information:

5.4.1.10.3	**TABLE: Ball pressure test of thermoplastics**	N/A
Allowed impression diameter (mm) ..... :	≤ 2 mm	—

Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm)

Supplementary information:

5.4.2.2, 5.4.2.4 and 5.4.3	**TABLE: Minimum Clearances/Creepage distance**	N/A

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz)[1]	Required cl (mm)	cl (mm)[2]	Required[3] cr (mm)	cr (mm)

Supplementary information:

Note 1: Only for frequency above 30 kHz
Note 2: See table 5.4.2.4 if this is based on electric strength test

Note 3: Provide Material Group

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

Clearance distanced between:	Required withstand voltage	Required cl (mm)	Measured cl (mm)

Supplementary information:

5.4.2.4	TABLE: Clearances based on electric strength test	N/A

Test voltage applied between:	Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No

Supplementary information:

5.4.4.2, 5.4.4.5 c) 5.4.4.9	TABLE: Distance through insulation measurements	N/A

Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)

Supplementary information:

5.4.9	TABLE: Electric strength tests	N/A

Test voltage applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Functional:			
Basic/supplementary:			
Reinforced:			

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Routine Tests:			
Supplementary information:			

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

Supplementary information:

X-capacitors installed for testing are:

☐ bleeding resistor rating:

☐ ICX:

Notes:

A. Test Location:

Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth

B. Operating condition abbreviations:

N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition

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

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part	N/A
Supply voltage:		—
Location	Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	Touch current (mA)
	1	
	2*	
	3	
	4	
	5	
	6	
	8	

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary Information:

Notes:
[1] Supply voltage is the anticipated maximum Touch Voltage

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

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

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

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

6.2.2	TABLE: Electrical power sources (PS) measurements for classification				P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s*)	PS Classification
A	Power adapter	Power (VA) ... :	-	>100VA	PS3
		V_A (Vdc)..... :	-	24V	
		I_A (A)..... :	-	16.9A	
B	Internal coin cell	Power (W)..... :	0.63VA	-	PS1
		V_A (Vdc)..... :	3Vdc	-	
		I_A (A)..... :	0.21A	-	
C	I/O signals (HDMI,USB,ETH)	Power (W)..... :	<15VA	-	PS1
		V_A (Vdc)..... :	5V	-	
		I_A (A)..... :	1.5A	-	

Supplementary Information:

(*) Measurement taken only when limits at 3 seconds exceed PS1 limits

6.2.3.1	TABLE: Determination of Potential Ignition Sources (Arcing PIS)			N/A
Location	Open circuit voltage After 3 s (Vp)	Measured r.m.s current (Irms)	Calculated value (V_p x I_{rms})	Arcing PIS? Yes / No

Supplementary information:

An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (V_p) and normal operating condition rms current (I_{rms}) is greater than 15.

6.2.3.2	TABLE: Determination of Potential Ignition Sources (Resistive PIS)				P
Circuit Location (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No
Power Input circuit	N	230VA	230VA	No	Yes

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary Information:

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

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

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

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

B.2.5	**TABLE: Input test**						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
18	12.7	16.9	230	300	-	-	Normal condtiond
19	12.1	16.9	230	300	-	-	Normal condtiond
20	11.5	16.9	230	300	-	-	Normal condtiond
24	9.5	16.9	230	300	-	-	Normal condtiond
Supplementary information: the power adaptor output rating is 19.5-24V ±5% according to the manufacturer ducumantation							

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

B.3	TABLE: Abnormal operating condition tests							P
Ambient temperature (°C) .....:				23°C				—
Power source for EUT: Manufacturer, model/type, output rating .:				EDAC power Electronic Co EA12501Q-190, 19Vdc, 13.15A				—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
USB ports	Short	5Vdc	5 min	-	-	-	-	Fault current 1.1A max. No hazards
Supplementary information: Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column “Abnormal/Fault.” Specify if test condition by indicating “Abnormal” then the condition for a Clause B.3 test or “Single Fault” then the condition for Clause B.4.								

B.4	TABLE: Fault condition tests							P
Ambient temperature (°C) .....:				23°C				—
Power source for EUT: Manufacturer, model/type, output rating .:				EDAC power Electronic Co EA12501Q-190, 19.-24Vdc, 13.15A				—
Component No.	Fault Condition	Supply voltage (V)	Test time (h)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
ETH	Short	5VDC	5 min	-	-	-	-	No hazards
USB	Short	5VDC	5 min	-	-	-	-	Fault current 1.1A max. No hazards
C470	Input short	24VDC	1h	-	-	-	-	No hazards
C486	Input short	24VDC	1h					No hazards
Supplementary information:								

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Annex M	**TABLE: Batteries**		P
The tests of Annex M are applicable only when appropriate battery data is not available			Data provided
Is it possible to install the battery in a reverse polarity position? :		Due to coin battery connector design	No

	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition	-	-	-	-	-	-	-	-	-
Max. current during fault condition	-	-	-	-	-	-	-	-	-

Test results:		Verdict
- Chemical leaks		
- Explosion of the battery		
- Emission of flame or expulsion of molten metal		
- Electric strength tests of equipment after completion of tests		
Supplementary information:		

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

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

Supplementary information:

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

Supplementary Information:

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Annex Q.1	**TABLE: Circuits intended for interconnection with building wiring (LPS)**					P
Note: Measured UOC (V) with all load circuits disconnected:						
Output Circuit	Components	U_{oc} (V)	I_{sc} (A)*		S (VA)	
			Meas.	Limit	Meas.	Limit
-	USB output	5Vdc	1.1A	8A	6VA	100VA
-	Ethernet connector	5Vdc	<0.01A	8A	<< 100VA	100VA
-	HDMI	5Vdc	<0.01A	8A	<< 100VA	100VA
-	Battery	3Vdc	1.3A	8A	<<100VA	100VA
Supplementary Information: *Measured after 5 sec SC=Short circuit, OC=Open circuit						

T.2, T.3, T.4, T.5	**TABLE: Steady force test**				N/A
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation
Supplementary information:					

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

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

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

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Appendix A – Equipment used for testing

Equipment calibration

Hermon Laboratories is accredited by A2LA for calibration according to present requirements of ISO/IEC 17025 and NCSL Z540-1. The accreditation is granted to perform calibration of parameters that are listed in the Scope of Hermon Laboratories Accreditation.
Hermon Laboratories calibrates its reference and transfer standards by calibration laboratories accredited to ISO/IEC 17025 by a mutually recognized Accreditation Body or by a recognized national metrology institute. All reference and transfer standards used in the calibration system are traceable to national or international standards.
In-house calibration of all test and measurement equipment is performed on a regular basis according to Hermon Laboratories calibration procedures, manufacturer calibration/verification procedures or procedures defined in the relevant standards. The Hermon Laboratories test and measurement equipment is calibrated within the tolerances specified by the manufacturers and/or by the relevant standards.

HL No	Equipment description	Manufacturer	Model	Ser. No.	Last Cal./Chk.	Next Cal./Chk.
2772	HygroThermometer, Min/Max Memory	Delta TRAK	13301	NA	12-Aug-20	12-Aug-21
5201	Multimeter, TRUE RMS	Fluke	Fluke 287	33500022	05-May-20	05-May-21
5528	Clamp On Ammeter, 40A DC / AC pk	AMPROBE	LH41A	18090054	25-Jun-20	25-Jun-21
3132	Data Logger Hydra	Fluke	2625A	5834602	27-Jan-20	27-Jan-21
5413	Digital Stopwatch	Shenzhen Huibo Industrial & Trading Co. Ltd.	PC396	NA	23-Aug-20	23-Aug-21

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Measurement uncertainty

Expanded uncertainty at 95% confidence in Hermon Labs safety measurements

Test description	Expanded uncertainty
1. Heating test (TC method)	Option 1 ± 1.04% Option 2 ± 1.87%
2. Leakage current	For Options 1, 2 ± 6.2%
3. Input test	AC Input test uncertainty: ±3.02% DC Input test uncertainty: ±1.99%
4. Bonding impedance (Ground continuity) test	Option 1 test uncertainty: ±2.81% Option 1 test uncertainty: ±1.99%
5. Dielectric strength	HYPOTPLUS II, AC/DC Withstand Voltage Tester expanded uncertainty: ±3.55% Electrical Safety Compliance Analyzer expanded uncertainty: ±2.49%
6. Cord Test	± 0.98%
7. Voltage limitation	±1.68%
8. Transformer abnormal test	Voltage/Current method ± 3.9 % Temperature (TC method) ± 2.6 % Temperature (Resistance method) ± 1.93 %
9. Material used in high voltages	Option I uncertainty ±0.98% Option II uncertainty ±0.03%
10. Limited Current Circuit	Option 1 ±2.44% Option 2 ±3.31%
11. Energy hazard test	Option I uncertainty ±1.82% Option II uncertainty ±0.97%
12. Limited power source (2.5)	±3.9%
13. Telecom Steady state test (6.2.2.2)	±2.8%
14. Telecom Impulse test (6.2.2.1)	±3.75%
15. TNV separation from earth (6.1.2)	±2.8%
16. TNV & SELV reliability	±3.30%
17. Ringing signal criteria	Normal test ± 1.68% Leakage test ± 6.2%
18. Component failure	Voltage/ current method ± 3.9 % Temperature method ± 2.6 %
19. Cable distribution impulses	High voltage impulses expanded uncertainty using 4Kv generator ±3.75%. High voltage impulses expanded uncertainty using 10Kv generator ±5%

Note: Pass/Fail decision was based on nominal values

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Appendix B - Photo Documentation

Photograph 1, 2
General view

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

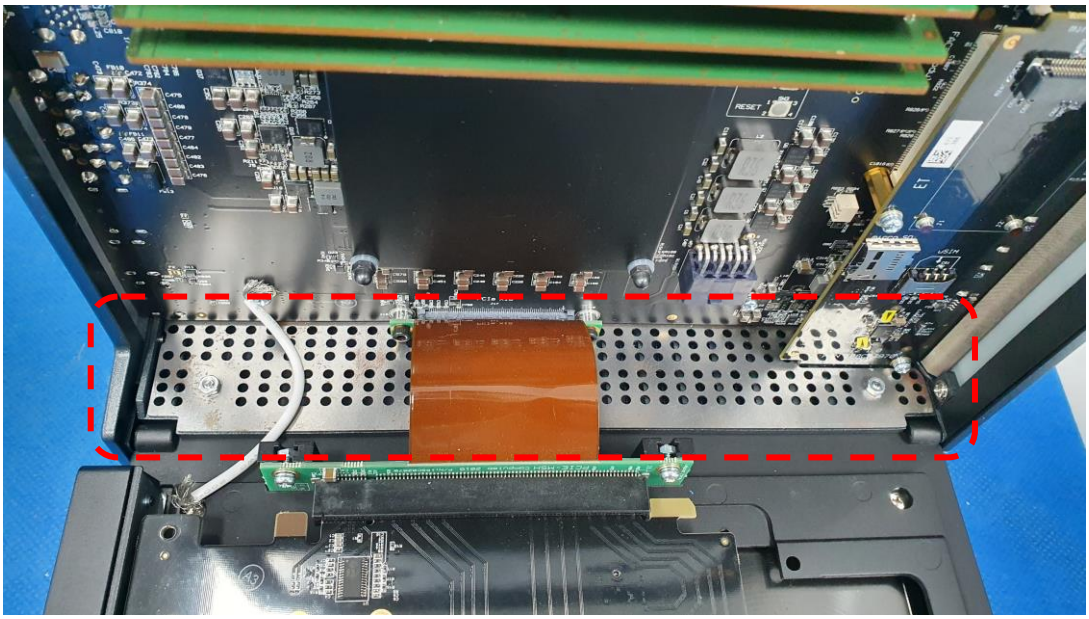
Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Photograph 3
Rear panel view

Photograph 4
Internal view

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Photograph 5
Bottom grill plate view



Photograph 6
External AC-DC power adapter

Hermon Laboratories Ltd.
P.O.Box 23
Binyamina 30500, Israel
Tel.+972 46288001
Fax.+972 46288277
e-mail: mail@hermonlabs.com

Photograph 7
Alternative External AC-DC power adapter

End of Test Report