

Low Voltage Directive Test Report

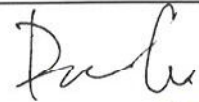
VIVOTEK INC.

Network Camera

**Model
MD8565-N**



**敦吉檢測科技股份有限公司
AUDIX Technology Corporation**

TEST REPORT	
IEC 60950-1/ EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 Information technology equipment – Safety – Part 1: General requirements	
Report Reference No	<AL106011-01>
Projected by (+ signature).....	Ben Lu 
Approved by (+ signature)	Allen Kao 
Date of issue	September 13, 2017
Total number of pages	Total 8 pages
Testing Laboratory	AUDIX TECHNOLOGY CORPORATION.
Address	7FL., NO.8, LANE 120, NEI-HU RD., SEC.1, TAIPEI, TAIWAN. R.O.C.
Applicant's name	VIVOTEK INC.
Address	6F, NO.192, LIEN-CHENG RD., CHUNG-HO , NEW TAIPEI CITY, 235, TAIWAN, R.O.C.
Manufacturer	VIVOTEK INC.
Address	6F, NO.192, LIEN-CHENG RD., CHUNG-HO , NEW TAIPEI CITY, 235, TAIWAN, R.O.C.
Test specification:	
Standard	☒ IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 ☒ EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013
Test procedure	Low Voltage Directive
Non-standard test method	N/A
Test item description	Network Camera
Trade Mark	
Manufacturer	Same as applicant
Model/Type reference	MD8565-N
Ratings	1) PoE 44-57 V _{DC} , 0.12-0.09 A; 2) 7.5-48 V _{DC} , 0.82-0.13 A.

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

Annex A: Photos

Annex B: List of used measuring instruments

Annex C: IEC 62471 test report

Summary of testing:

1.6	Power interface.	All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 1.
4.5	Thermal requirements.	

Report Summary

The product was investigated and complies with the requirements of IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 / EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 (which includes CENELEC COMMON MODIFICATIONS for EN standards differences).

Copy of marking plate:

See Ref. No.: AL106011

Test item particulars..... :	
Equipment mobility.....:	☐ movable ☐ hand-held ☐ transportable ☒ stationary ☐ for building-in ☐ direct plug-in
Connection to the mains.....:	☐ pluggable equipment ☐ type A ☐ type B ☐ permanent connection ☐ detachable power supply cord ☐ non-detachable power supply cord ☒ not directly connected to the mains
Operating condition.....:	☒ continuous ☐ rated operating / resting time:
Access location	☒ operator accessible ☐ restricted access location
Over voltage category (OVC)	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV ☒ other: not directly connected to the mains
Mains supply tolerance (%) or absolute mains supply values	N/A
Tested for IT power systems	☐ Yes ☒ No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	☐ Class I ☐ Class II ☒ Class III ☐ Not classified
Considered current rating of protective device as part of the building installation (A)	N/A
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
IP protection class	IP 66
Altitude during operation (m)	Up to 2000 m
Altitude of test laboratory (m)	Up to 2000 m
Mass of equipment (kg)	approx. 0.41 kg
Possible test case verdicts:	
- test case does not apply to the test object.....: N/A (N/A)	
- test object does meet the requirement.....: P (Pass)	
- test object does not meet the requirement.....: F (Fail)	
Testing.....:	
Date of receipt of test item	2017-08-31
Date (s) of performance of tests	2017-08-31 to 2017-09-11
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.	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.	
Name and address of factory (ies)	
VIVOTEK INC. 5F, No.168, Lien-Cheng Rd., Chung-Ho, New Taipei City, 235, Taiwan, R.O.C.	

General product information:

The equipment is a Class III Network Camera which consists of electronic components mounted on PWB, one Lens module and one IR LED module, houses within metal/ plastic enclosure and provides one I/O terminal block, one DC jack and one internal SD card slot.

Additional information

The product was submitted and tested for use at the maximum ambient temperature (T_{ma}) permitted by the manufacturer's specification of: 55 °C.

The following circuit locations (with circuit/ schematic designation) were investigated as a limited power source (LPS): I/O terminal block (DI+/ DO-)

Based upon the product specification provided by the manufacturer, this equipment is evaluated to be supplied by an approved DC power supply source suitable for use at minimum T_{ma} 55 °C whose output meets LPS, SELV, non-hazardous energy level and output is rated:

- 1) PoE 44-57 Vdc, 0.12-0.09 A;
- 2) 7.5-48 Vdc, 0.82-0.13 A.

The equipment is supplied by the external power adaptor or PoE device which tested by CB-scheme according to IEC/ EN 60950-1.

All interconnection to the equipment is for indoor location, and therefore PoE network interconnected to the equipment is considered as SELV.

The outdoor equipment/enclosure was evaluated for use in an ambient range of: 55 to -25 °C.

History of amendments and modifications:

This report was amend from report no. AL106011 issued on 2017-03-30 with certificate no. 2017-03-31 and modified below items:

- add alternative sources of IR LED board.

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

1.5	Components		P
1.5.1	General	See below.	P
	Comply with IEC 60950-1 or relevant component standard	See appended table 1.5.1.	P
1.5.2	Evaluation and testing of components	Components certified to IEC standards and/or their harmonized standards, are used within their ratings and are checked for correct application. Non-certified components are checked for correct application, used within their ratings, tested as part of the equipment and subjected to applicable tests of the component standard. Components, which no relevant IEC-Standard exists, are used within their ratings and are tested under the conditions occurring in the equipment.	P

1.6	Power interface		P
1.6.2	Input current	See appended table 1.6.2.	P

4.3	Design and construction		P
4.3.13	Radiation	See below.	P
4.3.13.5	Lasers (including laser diodes) and LEDs	See below.	P
4.3.13.5.1	Lasers (including laser diodes)	No lasers.	N/A
	Laser class		—
4.3.13.5.2	Light emitting diodes (LEDs)	The following parts are considered complied without tests: - Indicating lights; - IR LED.	P
4.3.13.6	Other types	The equipment does not generate other types of radiation.	N/A

4.5	Thermal requirements		P
4.5.1	General	No exceeding temperature.	P
4.5.2	Temperature tests	See appended table 4.5.	P

Clause	Requirement + Test	Result - Remark	Verdict
	Normal load condition per Annex L:	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established.	—
4.5.3	Temperature limits for materials	See appended table 4.5.	P
4.5.4	Touch temperature limits	See appended table 4.5.	P
4.5.5	Resistance to abnormal heat:		N/A

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾	
PCB	Interchangeable	Interchangeable	V-1 min., 105 °C min.	UL 796	UL	
IR LED (four provided)	Ligitek Electronics Co Ltd	LG-CU3535NIR-1-T350-LSA	940 nm, Exempt group LED product according to IEC/EN 62471.	--	--	
Supplementary information:						

1.6.2	TABLE: Electrical data (in normal conditions)						P
U (V)	I (A)	I _{rated} (A)	P (W)	Fuse #	I _{fuse} (A)	Condition/status	
44 Vdc	0.12	0.12	5.28	--	--	Maximum normal load	
57 Vdc	0.09	0.09	5.13	--	--	Maximum normal load	
7.5 Vdc	0.55	0.82	4.13	--	--	Maximum normal load	
48 Vdc	0.11	0.13	5.28	--	--	Maximum normal load	
Supplementary information:							
1) Maximum normal load was defined as follows:							
- the equipment normal operated continuously;							
- deposit the file to the SD card.							

4.5	TABLE: Thermal requirements					P		
	Supply voltage (V).....:		See below			—		
	Ambient T _{min} (°C).....:		See below			—		
	Ambient T _{max} (°C).....:		See below			—		
Maximum measured temperature T of part/at.....:			T (°C)			Allowed T _{max} (°C)		
Input			44 Vdc	57 Vdc	7.5 Vdc	48 Vdc	--	
PWB near U4 (Lens board)			84.9	88.0	85.0	85.4	105	
PWB near LD2 (IR LED board)			103.5	104.6	102.8	103.1	105	
PWB near U1 (main board)			81.7	88.7	84.2	82.3	105	
T1 coil			79.8	84.5	80.0	80.3	105	
BT1 body			74.2	76.8	74.3	74.5	85	
Lens cover inside			63.2	66.4	62.9	62.8	115	
Lens cover outside			58.8	60.4	58.5	58.2	95	
Metal enclosure outside			62.1	63.4	62.4	62.3	70	
Ambient			55.0 (25.0)	55.0 (26.0)	55.0 (25.9)	55.0 (25.5)	--	
Temperature T of winding.....:		t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class

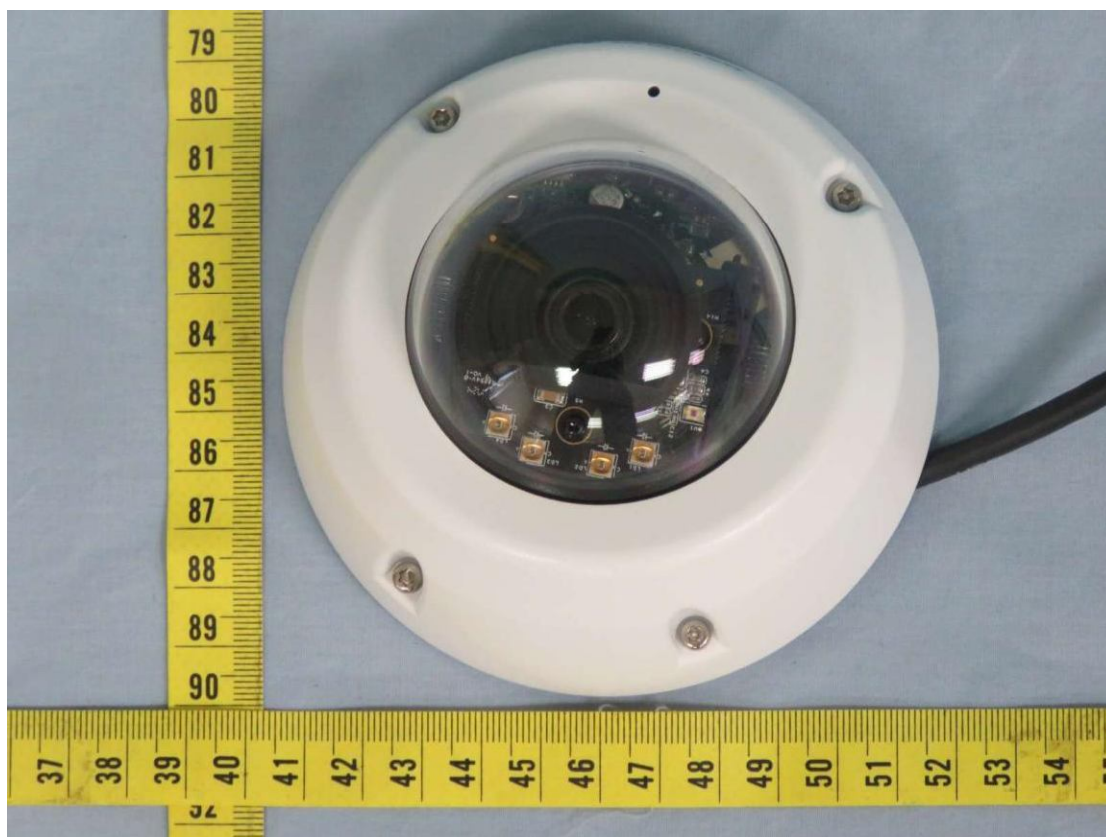
Supplementary information:

- 1) The temperatures were measured under worst case normal mode defined in 1.2.2.1 and as described in 1.6.2 at voltages as described in above.
- 2) Unit specified with maximum of 55 °C ambient temperature and all temperatures were calculated for a maximum ambient temperature of 55 °C.

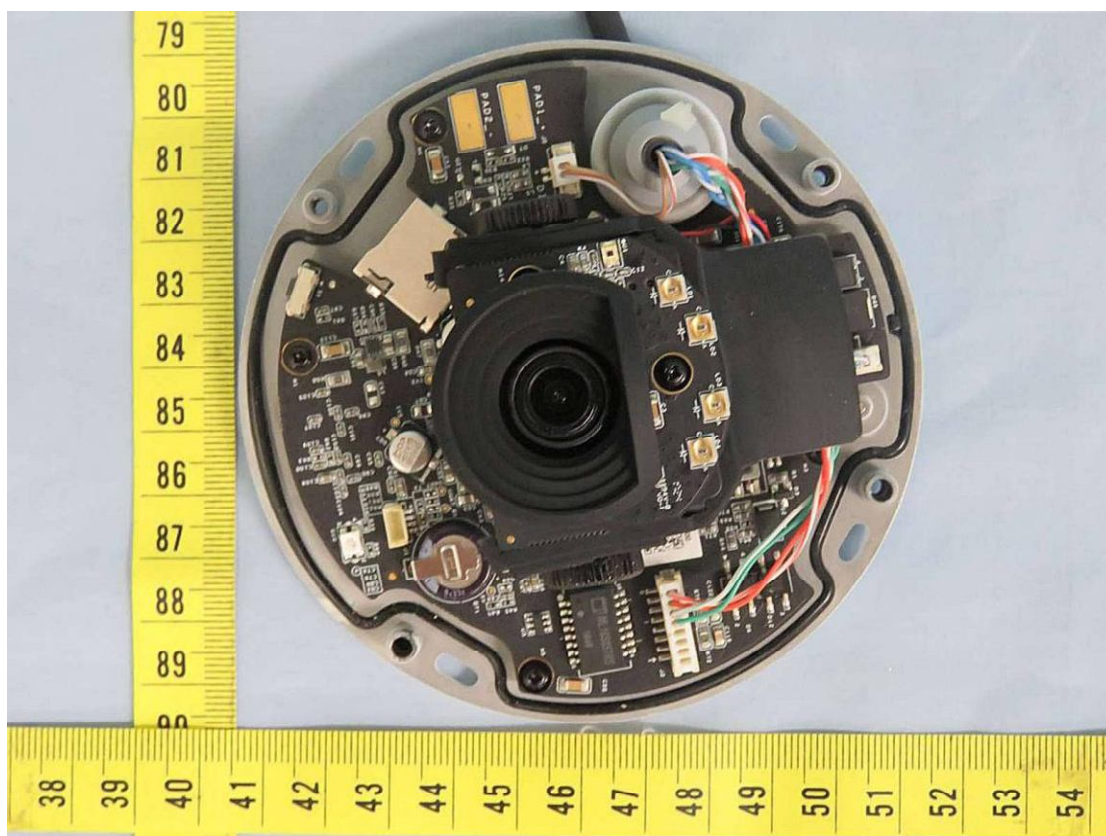
Annex A

Photos

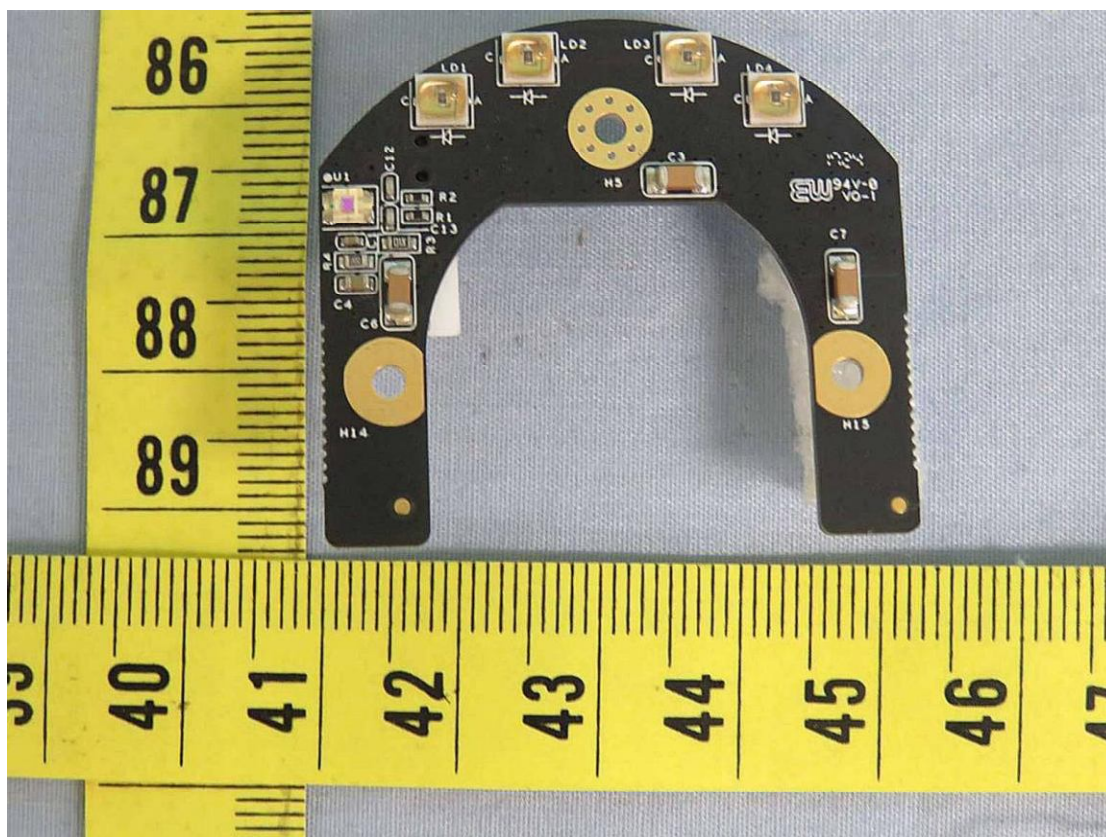
Internal View



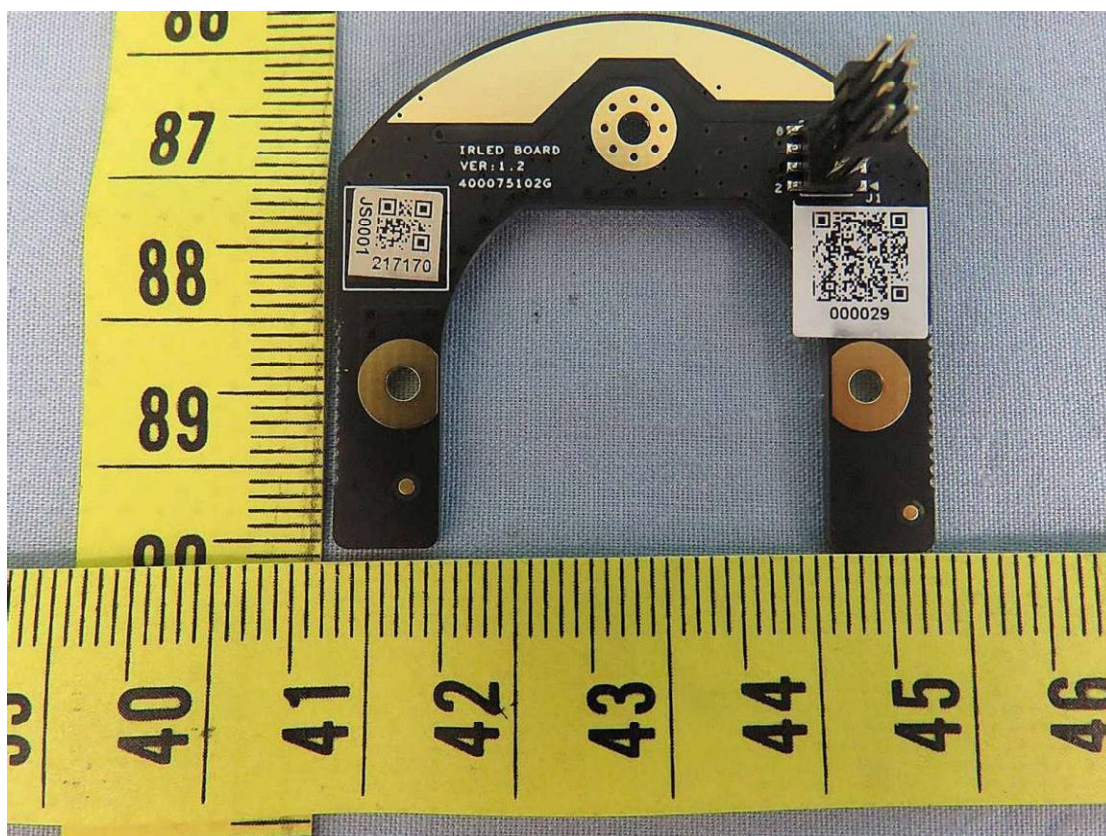
Internal View



Top View of IR LED Board



Bottom View of IR LED Board



Annex B

List of Used Measuring Instruments

Instruments List

NO.	Device	Range (Cal. Point) / <State>	Brand	Model No.:	Next Cal. Date	Cal. Date	Last Cal. Date	Cal. House
B02	Clamp Meter	DC Volt(V): 400(10,100,200,300,390) DC Current(A): 4000m(10, 100, 1000, 3000), 30(5, 10, 20, 30)	PROVA	11	2017/11/8	2016/11/9	2015/11/10	E.T.C
E09	Hybrid Recorder	Temperature Linearly: J Type: (10-300°C)<CH1-20>	Yokogawa	DR130	2017/10/16	2016/10/17	2015/10/21	E.T.C.
O01	DC Power Supply	DC Volt(V): (1, 5, 10, 20, 50, 80) DC Current(A): (1, 2, 5, 10, 20, 30, 35)	Chroma	6230K-80	2017/10/13	2016/10/24	2015/10/12	E.T.C.
V01	True rms. Multimeter	DC Volt(V): (10m, 100m, 1, 10, 100, 1000) AC Volt(V): (40m, 100m, 1, 10, 100, 1000) <50/60Hz> DC Current(A): (1000μ, 10m, 100m, 1000m, 10) AC Current(A): (10m, 100m, 1000m, 10) <50/60Hz> Resis.(Ω): (100, 1k, 10k, 100k,1M,10M) Freq.(Hz): (50, 60, 1000, 100k) Capacitance(F) : (1n, 0.01μ, 0.1μ, 1μ)	Fluke	87	2018/3/2	2017/3/3	2016/3/9	Tai Yi
X02	LED Number Clock	Time Deviation: 4.7ppm / <32768Hz>	HoTai	A129	2017/10/3	2016/10/4	2015/9/16	E.T.C

Annex C

IEC 62471 test report

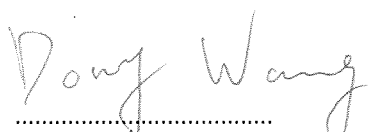
Laboratory Measurements

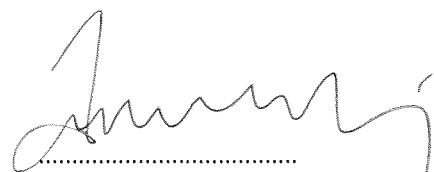
Test Engineer	Dony Wang	Client	VIVOTEK INC.
Subject	Network Camera	Address	6F, No.192, Lien-Cheng Rd., Chung-Ho , New Taipei City, 235, Taiwan, R.O.C.
Application Date	2017-09-14	Model No.	MD8565-N
Issue Date	2017-09-21	Rating	1) 7.5-48V, 0.82-0.13A 2) 44-57V, 0.12-0.09A
Full-test	☒	Sample No.	Engineering Sample
Re-test/ Modification	☐	Standard	IEC 62471:2006, EN 62471:2008
Add Test after review	☐	Project No.	611061725201

*	Clause(s)	Test(s)	Result
✓		Hazard of total irradiance	P
✓		Hazard of spectral radiance of the source	P

* Select the test(s) to be done.

Remark: 1 pcs of each color temperature for each model, carry out the tests after aging. Aging time for LED lamp is 1 hours, for halogen lamp is 24 hours.


.....
Signature
Testing Engineer


.....
Signature
Approved by

General product information:

Equipment manufacturer information (Data Sheet) about the containing LED component	
Manufacturer	Lextar Electronics Corporation.
LED Part No.	PR88F31
Emitted Wavelength	940 nm

Equipment manufacturer information (Data Sheet) about the containing LED component	
Manufacturer	LIGITEK ELECTRONICS CO., LTD..
LED Part No.	LG-CU3535NIR-1-T350-LSA
Emitted Wavelength	940 nm

1. All tests were performed according to IEC/EN 62471
2. The LED output power was measured under normal conditions noted in details of measurement procedure and measurement results
3. The product was complied with the requirements of Exempt group LED product according to IEC/EN 62471

Hazard of total irradiance (IEC 62471)

Hazard name: irradiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: PR88F31)
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m²)	10/ 33/ 100	3.8 x 10⁻⁶
E_{eff}: Actinic UV skin & eye: 200-400nm (Actinic UV hazard for skin and eye) (W/ m²)	0.001/ 0.003/ 0.03	6.9 x 10⁻¹⁰
E_B : Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m²)	1/ 1/ 400	N/A
E_{IR}: Retinal thermal hazard (W/ m²)	100/ 570/ 3200	1.9
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.0365

Hazard of spectral radiance of the source (IEC 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: PR88F31)
L_B: Retinal blue light hazard: 300-700nm (W.m⁻².sr⁻¹)	100/ 10000/ 4000000	7.3 x 10⁻⁴
L_R: Retinal thermal : 380-1400nm (W.m⁻².sr⁻¹)	(28000/ α) / (28000/ α) / (71000/ α)	9 x 10³
L_{IR}: Retinal thermal(weak visual stimulus) : 780-1400nm (W.m⁻².sr⁻¹)	6000/ α	4.4 x 10⁴
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.0365

Hazard of total irradiance (IEC 62471)

Hazard name: irradiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m²)	10/ 33/ 100	2.7 x 10⁻⁵
E_{eff}: Actinic UV skin & eye: 200-400nm (Actinic UV hazard for skin and eye) (W/ m²)	0.001/ 0.003/ 0.03	4.4 x 10⁻⁵
E_B : Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m²)	1/ 1/ 400	N/A
E_{IR}: Retinal thermal hazard (W/ m²)	100/ 570/ 3200	1.4
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.053

Hazard of spectral radiance of the source (IEC 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)
L_B: Retinal blue light hazard: 300-700nm (W.m⁻².sr⁻¹)	100/ 10000/ 4000000	1.3 x 10⁻⁴
L_R: Retinal thermal : 380-1400nm (W.m⁻².sr⁻¹)	(28000/ α) / (28000/ α) / (71000/ α)	3.1 x 10²
L_{IR}: Retinal thermal(weak visual stimulus) : 780-1400nm (W.m⁻².sr⁻¹)	6000/ α	1.8 x 10³
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.053

Hazard of total irradiance (EN 62471)

Hazard name: irradiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: PR88F31)
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m²)	0.33	3.8 x 10⁻⁶
E_{eff}: Actinic UV skin & eye: 180-400nm (Actinic UV hazard for skin and eye) (W/ m²)	0.001	6.9 x 10⁻¹⁰
E_B : Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m²)	0.01/ 1/ 400	N/A
E_{IR}: Retinal thermal hazard (W/ m²)	100/ 570/ 3200	1.9
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.0365

Hazard of spectral radiance of the source (EN 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: PR88F31)
L_B: Retinal blue light hazard: 300-700nm (W.m⁻².sr⁻¹)	100/ 10000/ 4000000	7.3 x 10⁻⁴
L_R: Retinal thermal : 380-1400nm (W.m⁻².sr⁻¹)	(28000/ α) / (28000/ α) / (71000/ α)	9 x 10³
L_{IR}: Retinal thermal(weak visual stimulus) : 780-1400nm (W.m⁻².sr⁻¹)	6000/ α	4.4 x 10⁴
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.0365

Hazard of total irradiance (EN 62471)

Hazard name: irradiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)
E_{UVA}: Eye UV-A: 315-400nm (Near-UV hazard for eye) (W/ m²)	0.33	2.7 x 10⁻⁵
E_{eff}: Actinic UV skin & eye: 180-400nm (Actinic UV hazard for skin and eye) (W/ m²)	0.001	4.4 x 10⁻⁵
E_B : Blue-light small source: 300-700nm (Retinal blue light hazard) (W/ m²)	0.01/ 1/ 400	N/A
E_{IR}: Retinal thermal hazard (W/ m²)	100/ 570/ 3200	1.4
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.053

Hazard of spectral radiance of the source (EN 62471)

Hazard name: radiance based values	Limit for Exempt level/ low risk/ mod risk	MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)
L_B: Retinal blue light hazard: 300-700nm (W.m⁻².sr⁻¹)	100/ 10000/ 4000000	1.3 x 10⁻⁴
L_R: Retinal thermal : 380-1400nm (W.m⁻².sr⁻¹)	(28000/ α) / (28000/ α) / (71000/ α)	3.1 x 10²
L_{IR}: Retinal thermal(weak visual stimulus) : 780-1400nm (W.m⁻².sr⁻¹)	6000/ α	1.8 x 10³
Measurement distance(cm)	-	20
Voltage (Vdc)	-	57
Angular subtense (rad)	α	0.053

Photo:

MD8565-N (LED: PR88F31)



MD8565-N (LED: LG-CU3535NIR-1-T350-LSA)



TEST REPORT	
IEC 60950-1/ EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 Information technology equipment – Safety – Part 1: General requirements	
Report Reference No	<AL106011>
Projected by (+ signature).....	Ben Lu
Approved by (+ signature)	Allan Yu
Date of issue	March 30, 2017
Total number of pages	Total 53 pages
Testing Laboratory	AUDIX TECHNOLOGY CORPORATION.
Address	7FL., NO.8, LANE 120, NEI-HU RD., SEC.1, TAIPEI, TAIWAN. R.O.C.
Applicant's name	VIVOTEK INC.
Address	6F, NO.192, LIEN-CHENG RD., CHUNG-HO , NEW TAIPEI CITY, 235, TAIWAN, R.O.C.
Manufacturer	VIVOTEK INC.
Address	6F, NO.192, LIEN-CHENG RD., CHUNG-HO , NEW TAIPEI CITY, 235, TAIWAN, R.O.C.
Test specification:	
Standard	☒ IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 ☒ EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013
Test procedure	Low Voltage Directive
Non-standard test method	N/A
Test item description	Network Camera
Trade Mark	 VIVOTEK
Manufacturer	Same as applicant
Model/Type reference	MD8565-N
Ratings	1) PoE 44-57 V _{DC} , 0.12-0.09 A; 2) 7.5-48 V _{DC} , 0.82-0.13 A.

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

Annex A: Photos

Annex B: List of used measuring instruments

Annex C IEC 60950-22 test report

Annex D: IEC 60529 test report

Summary of testing:

1.6	Power interface.	All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 1.
1.7	Marking and instructions.	
2.2	SELV circuits	
2.5	Limited power sources.	
4.2	Mechanical strength	
4.3	Design and construction.	
4.5	Thermal requirements.	
5.2	Electric strength	
5.3	Abnormal operating and fault conditions.	

Report Summary

The product was investigated and complies with the requirements of IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 / EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 (which includes CENELEC COMMON MODIFICATIONS for EN standards differences).

Copy of marking plate:



The warning caution "Use only power supplies listed in the user instructions" or "For applicable power supplies see user instructions" shall be marked on the outer enclosure of the product by suitable regional language, and it must be legible and durable.

Test item particulars..... :	
Equipment mobility.....:	☐ movable ☐ hand-held ☐ transportable ☒ stationary ☐ for building-in ☐ direct plug-in
Connection to the mains.....:	☐ pluggable equipment ☐ type A ☐ type B ☐ permanent connection ☐ detachable power supply cord ☐ non-detachable power supply cord ☒ not directly connected to the mains
Operating condition.....:	☒ continuous ☐ rated operating / resting time:
Access location: ☒ operator accessible ☐ restricted access location	
Over voltage category (OVC):	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV ☒ other: not directly connected to the mains
Mains supply tolerance (%) or absolute mains supply values:	N/A
Tested for IT power systems:	☐ Yes ☒ No
IT testing, phase-phase voltage (V):	N/A
Class of equipment:	☐ Class I ☐ Class II ☒ Class III ☐ Not classified
Considered current rating of protective device as part of the building installation (A):	N/A
Pollution degree (PD):	☐ PD 1 ☒ PD 2 ☐ PD 3
IP protection class:	IP 66
Altitude during operation (m):	Up to 2000 m
Altitude of test laboratory (m):	Up to 2000 m
Mass of equipment (kg):	approx. 0.41 kg
Possible test case verdicts:	
- test case does not apply to the test object.....: N/A (N/A) - test object does meet the requirement.....: P (Pass) - test object does not meet the requirement.....: F (Fail)	
Testing.....:	
Date of receipt of test item:	2017-01-11
Date (s) of performance of tests:	2017-01-13 to 2017-01-21
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. The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.	
Name and address of factory (ies) :	
VIVOTEK INC. 5F, No.168, Lien-Cheng Rd., Chung-Ho, New Taipei City, 235, Taiwan, R.O.C.	

General product information:

The equipment is a Class III Network Camera which consists of electronic components mounted on PWB, one Lens module and one IR LED module, houses within metal/ plastic enclosure and provides one I/O terminal block, one DC jack and one internal SD card slot.

Additional information

The product was submitted and tested for use at the maximum ambient temperature (T_{ma}) permitted by the manufacturer's specification of: 55 °C.

The following circuit locations (with circuit/ schematic designation) were investigated as a limited power source (LPS): I/O terminal block (DI+/ DO-)

Based upon the product specification provided by the manufacturer, this equipment is evaluated to be supplied by an approved DC power supply source suitable for use at minimum T_{ma} 55 °C whose output meets LPS, SELV, non-hazardous energy level and output is rated:

- 1) PoE 44-57 Vdc, 0.12-0.09 A;
- 2) 7.5-48 Vdc, 0.82-0.13 A.

The equipment is supplied by the external power adaptor or PoE device which tested by CB-scheme according to IEC/ EN 60950-1.

All interconnection to the equipment is for indoor location, and therefore PoE network interconnected to the equipment is considered as SELV.

The outdoor equipment/enclosure was evaluated for use in an ambient range of: 55 to -25 °C.

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

1	GENERAL		P
----------	----------------	--	---

1.5	Components		P
1.5.1	General	See below.	P
	Comply with IEC 60950-1 or relevant component standard	See appended table 1.5.1.	P
1.5.2	Evaluation and testing of components	Components certified to IEC standards and/or their harmonized standards, are used within their ratings and are checked for correct application. Non-certified components are checked for correct application, used within their ratings, tested as part of the equipment and subjected to applicable tests of the component standard. Components, which no relevant IEC-Standard exists, are used within their ratings and are tested under the conditions occurring in the equipment.	P
1.5.3	Thermal controls	No thermal controls provided.	N/A
1.5.4	Transformers	Class III equipment.	N/A
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of this standard.	P
1.5.6	Capacitors bridging insulation	Class III equipment.	N/A
1.5.7	Resistors bridging insulation	Class III equipment.	N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N/A
1.5.8	Components in equipment for IT power systems	Class III equipment.	N/A
1.5.9	Surge suppressors	Class III equipment.	N/A
1.5.9.1	General		N/A
1.5.9.2	Protection of VDRs		N/A
1.5.9.3	Bridging of functional insulation by a VDR		N/A
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A

Clause	Requirement + Test	Result - Remark	Verdict
1.6	Power interface		P
1.6.1	AC power distribution systems	Equipment is not directly connected to the mains supply.	N/A
1.6.2	Input current	See appended table 1.6.2.	P
1.6.3	Voltage limit of hand-held equipment	The equipment is not handheld.	N/A
1.6.4	Neutral conductor	Equipment is not directly connected to the mains supply.	N/A
1.7	Marking and instructions		P
1.7.1	Power rating and identification markings	The power rating marking is provided and is readily visible in operator access area.	P
1.7.1.1	Power rating marking	See below.	P
	Multiple mains supply connections	Equipment is not directly connected to the mains supply.	N/A
	Rated voltage(s) or voltage range(s) (V)	1) PoE 44-57 V $\overline{=}$; 2) 7.5-48 V $\overline{=}$	—
	Symbol for nature of supply, for d.c. only	The DC symbol is marked $\overline{=}$ complies with IEC 60417-5031.	P
	Rated frequency or rated frequency range (Hz)		—
	Rated current (mA or A)	1) 0.12-0.09 A; 2) 0.82-0.13 A	—
1.7.1.2	Identification markings	See below.	P
	Manufacturer's name or trade-mark or identification mark		—
	Model identification or type reference	MD8565-N	—
	Symbol for Class II equipment only	Class III equipment.	N/A
	Other markings and symbols	Other markings and symbols do not give rise to misunderstanding.	P
1.7.1.3	Use of graphical symbols	The graphical symbols used is not cause any misunderstanding in this standard.	N/A
1.7.2	Safety instructions and marking	Relevant safety caution texts and installation instruction are available to the user in user's manual.	P
1.7.2.1	General	See below.	P
1.7.2.2	Disconnect devices	Class III equipment.	N/A
1.7.2.3	Overcurrent protective device	Class III equipment.	N/A
1.7.2.4	IT power distribution systems	Class III equipment.	N/A

Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.5	Operator access with a tool	All areas containing hazard are inaccessible to the operator.	N/A
1.7.2.6	Ozone	The equipment not containing Ozone.	N/A
1.7.3	Short duty cycles	The equipment is intended for continuous operation.	N/A
1.7.4	Supply voltage adjustment	No supply voltage adjustment.	N/A
	Methods and means of adjustment; reference to installation instructions		—
1.7.5	Power outlets on the equipment	No standard power outlet.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	Class III equipment.	N/A
1.7.7	Wiring terminals	Class III equipment.	N/A
1.7.7.1	Protective earthing and bonding terminals		N/A
1.7.7.2	Terminals for a.c. mains supply conductors		N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators	See below.	—
1.7.8.1	Identification, location and marking	The function of controls affecting safety is obvious without knowledge of language.	P
1.7.8.2	Colours	For functional indication a LED lights when the equipment is operating.	N/A
1.7.8.3	Symbols according to IEC 60417		N/A
1.7.8.4	Markings using figures	No indicators for different positions of control.	N/A
1.7.9	Isolation of multiple power sources		N/A
1.7.10	Thermostats and other regulating devices	No thermostats or other regulating devices.	N/A
1.7.11	Durability	After rubbing test by water and petroleum spirit, the marking still legible; it is not easily possible to remove the marking plate and show no curling.	P
1.7.12	Removable parts	No marking is placed on removable parts.	P
1.7.13	Replaceable batteries		N/A
	Language(s)		—
1.7.14	Equipment for restricted access locations	Equipment not intended for installation in a RESTRICTED ACCESS LOCATION.	N/A
2	PROTECTION FROM HAZARDS		P

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

2.1	Protection from electric shock and energy hazards		P
2.1.1	Protection in operator access areas	See below.	—
2.1.1.1	Access to energized parts	Energized parts are not accessible.	P
	Test by inspection	All accessible circuits are SELV circuits.	P
	Test with test finger (Figure 2A)		P
	Test with test pin (Figure 2B)		P
	Test with test probe (Figure 2C)	Not applicable.	N/A
2.1.1.2	Battery compartments	No TNV circuits in the battery compartments.	N/A
2.1.1.3	Access to ELV wiring	No internal wiring at ELV.	N/A
	Working voltage (V _{peak} or V _{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring	No internal wiring accessible to the user.	N/A
2.1.1.5	Energy hazards	No energy hazard in operator access area.	P
2.1.1.6	Manual controls	No conductive shafts of operating knobs, handles or levers used.	N/A
2.1.1.7	Discharge of capacitors in equipment	Class III equipment.	N/A
	Measured voltage (V); time-constant (s).....		—
2.1.1.8	Energy hazards – d.c. mains supply	The equipment is not connected to d.c. mains supply.	N/A
	a) Capacitor connected to the d.c. mains supply		N/A
	b) Internal battery connected to the d.c. mains supply		N/A
2.1.1.9	Audio amplifiers		N/A
2.1.2	Protection in service access areas	Checked by inspection, unintentional contact is unlikely during service operations.	P
2.1.3	Protection in restricted access locations	Equipment not intended for installation in a RESTRICTED ACCESS LOCATION.	N/A

2.2	SELV circuits		P
2.2.1	General requirements	See below.	P
2.2.2	Voltages under normal conditions (V)	See appended table 2.2.	P
2.2.3	Voltages under fault conditions (V)	See appended table 2.2.	P
2.2.4	Connection of SELV circuits to other circuits	Complied with clauses 2.2.2 and 2.2.3.	P

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

2.3	TNV circuits		N/A
2.3.1	Limits	No TNV circuits.	N/A
	Type of TNV circuits.....:		—
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed		—
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed		—
2.3.5	Test for operating voltages generated externally		N/A

2.4	Limited current circuits		N/A
2.4.1	General requirements	Class III equipment.	N/A
2.4.2	Limit values		—
	Frequency (Hz)		—
	Measured current (mA)		—
	Measured voltage (V)		—
	Measured circuit capacitance (nF or μ F)		—
2.4.3	Connection of limited current circuits to other circuits		N/A

2.5	Limited power sources		P
	a) Inherently limited output	- I/O terminal block (DI+/ DO-) are inherently limited, only for signal transmission.	P
	b) Impedance limited output		N/A
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition		N/A
	Use of integrated circuit (IC) current limiters		N/A
	d) Overcurrent protective device limited output	No such parts used.	N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)	See appended table 2.5.	—
	Current rating of overcurrent protective device (A) ..	No such parts used.	N/A

2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing	Class III equipment.	N/A

Clause	Requirement + Test	Result - Remark	Verdict
2.6.2	Functional earthing		N/A
	Use of symbol for functional earthing		—
2.6.3	Protective earthing and protective bonding conductors		N/A
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG		—
2.6.3.3	Size of protective bonding conductors		—
	Rated current (A), cross-sectional area (mm ²), AWG		—
	Protective current rating (A), cross-sectional area (mm ²), AWG.....		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min).....		N/A
2.6.3.5	Colour of insulation		N/A
2.6.4	Terminals		—
2.6.4.1	General		—
2.6.4.2	Protective earthing and bonding terminals		—
	Rated current (A), type, nominal thread diameter (mm).....		N/A
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth		N/A
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance		N/A
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A
2.7	Overcurrent and earth fault protection in primary circuits		N/A
2.7.1	Basic requirements	Class III equipment.	N/A
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not simulated in 5.3.7		N/A
2.7.3	Short-circuit backup protection		N/A
2.7.4	Number and location of protective devices		N/A

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel		N/A

2.8	Safety interlocks		N/A
2.8.1	General principles	No safety interlock provided.	N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
	Protection against extreme hazard		—
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm)		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A

2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	Natural rubber, hygroscopic materials or asbestos are not used.	P
2.9.2	Humidity conditioning	Class III equipment with approved external power adapter.	N/A
	Relative humidity (%), temperature (°C)		—
2.9.3	Grade of insulation	Functional insulation.	P
2.9.4	Separation from hazardous voltages	SELV circuits separated from primary by double/reinforce insulation in approved external power adapter.	P
	Method(s) used		—

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General	Functional insulation only. See 5.3.4 c).	P
2.10.1.1	Frequency		N/A
2.10.1.2	Pollution degrees	Pollution 2.	P
2.10.1.3	Reduced values for functional insulation	See 5.3.4.	P
2.10.1.4	Intervening unconnected conductive parts		N/A

Clause	Requirement + Test	Result - Remark	Verdict
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage		N/A
2.10.2.1	General		N/A
2.10.2.2	RMS working voltage		N/A
2.10.2.3	Peak working voltage		N/A
2.10.3	Clearances		N/A
2.10.3.1	General		—
2.10.3.2	Mains transient voltages		N/A
	a) AC mains supply		N/A
	b) Earthed d.c. mains supplies		N/A
	c) Unearthed d.c. mains supplies		N/A
	d) Battery operation		N/A
2.10.3.3	Clearances in primary circuits		N/A
2.10.3.4	Clearances in secondary circuits		N/A
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply		N/A
2.10.3.7	Transients from d.c. mains supply		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems		N/A
2.10.3.9	Measurement of transient voltage levels		—
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network :		N/A
2.10.4	Creepage distances		N/A
2.10.4.1	General		N/A
2.10.4.2	Material group and comparative tracking index		N/A
	CTI tests.....		—
2.10.4.3	Minimum creepage distances		N/A
2.10.5	Solid insulation		N/A
2.10.5.1	General		N/A
2.10.5.2	Distances through insulation		N/A
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices		N/A
2.10.5.5.	Cemented joints		N/A
2.10.5.6	Thin sheet material – General		N/A

Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.7	Separable thin sheet material		N/A
	Number of layers (pcs)		—
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure		N/A
	Electric strength test		N/A
2.10.5.11	Insulation in wound components		N/A
2.10.5.12	Wire in wound components		N/A
	Working voltage		N/A
	a) Basic insulation not under stress		—
	b) Basic, supplementary, reinforced insulation		—
	c) Compliance with Annex U		N/A
	Two wires in contact inside wound component; angle between 45° and 90°		N/A
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test		—
	Routine test		—
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage		—
	- Basic insulation not under stress		—
	- Supplementary, reinforced insulation		—
2.10.6	Construction of printed boards		N/A
2.10.6.1	Uncoated printed boards		N/A
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		—
	Number of insulation layers (pcs)		—
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		—
2.10.8.2	Thermal conditioning		—
2.10.8.3	Electric strength test		—
2.10.8.4	Abrasion resistance test		—
2.10.9	Thermal cycling		N/A

Clause	Requirement + Test	Result - Remark	Verdict
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A

3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	Adequate cross sectional areas.	P
3.1.2	Protection against mechanical damage	Wireways are smooth and free from edges. Wires are adequately fixed to prevent excessive strain on wire and terminals and avoiding damage to the insulation of the conductors.	P
3.1.3	Securing of internal wiring	Internal wiring is secured against excessive strain, loosening of terminals and damage to the conductor insulation.	P
3.1.4	Insulation of conductors	Insulation on internal conductors is considered to be of adequate quality and suitable for the application and the working voltage involved.	P
3.1.5	Beads and ceramic insulators	No beads or similar ceramic insulators on conductors.	N/A
3.1.6	Screws for electrical contact pressure	No such screws.	N/A
3.1.7	Insulating materials in electrical connections	No electrical contact pressure.	N/A
3.1.8	Self-tapping and spaced thread screws	No contact pressure through insulating material.	N/A
3.1.9	Termination of conductors	No such device used in equipment.	N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring	No sleeving used as supplementary insulation.	N/A

3.2	Connection to a mains supply		N/A
3.2.1	Means of connection	Class III equipment.	N/A
3.2.1.1	Connection to an a.c. mains supply		N/A
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

	Number of conductors, diameter of cable and conduits (mm)		—
3.2.4	Appliance inlets		N/A
3.2.5	Power supply cords		—
3.2.5.1	AC power supply cords		N/A
	Type		—
	Rated current (A), cross-sectional area (mm ²), AWG		—
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N)		—
	Longitudinal displacement (mm)		—
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards		N/A
	Diameter or minor dimension D (mm); test mass (g):		—
	Radius of curvature of cord (mm)		—
3.2.9	Supply wiring space		N/A

3.3	Wiring terminals for connection of external conductors		N/A
3.3.1	Wiring terminals	Class III equipment.	N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm ²)		—
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type, nominal thread diameter (mm)		—
3.3.6	Wiring terminal design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A

3.4	Disconnection from the mains supply		N/A
3.4.1	General requirement	Class III equipment.	N/A
3.4.2	Disconnect devices		N/A
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords		N/A
3.4.6	Number of poles - single-phase and d.c. equipment		N/A
3.4.7	Number of poles - three-phase equipment		N/A

Clause	Requirement + Test	Result - Remark	Verdict
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A

3.5	Interconnection of equipment		P
3.5.1	General requirements	See below.	P
3.5.2	Types of interconnection circuits	Interconnection circuits are SELV.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnections.	N/A
3.5.4	Data ports for additional equipment	The SELV circuit of data ports is supplied by a limited power source that complies with clause 2.5.	P

4	PHYSICAL REQUIREMENTS		P
4.1	Stability		N/A
	Angle of 10°		N/A
	Test force (N)	The unit is not floor-standing.	N/A

4.2	Mechanical strength		P
4.2.1	General	After following tests, the sample continues to comply relevant requirements.	P
	Rack-mounted equipment.	Equipment not intended for rack-mounted.	N/A
4.2.2	Steady force test, 10 N		N/A
4.2.3	Steady force test, 30 N	No such internal enclosure.	N/A
4.2.4	Steady force test, 250 N	No hazard, the test is performed at enclosure near battery pack.	P
4.2.5	Impact test	No damage to the plastic/ metal enclosure from the steel ball impact test.	P
	Fall test	See above.	P
	Swing test	See above.	P
4.2.6	Drop test; height (mm)		N/A
4.2.7	Stress relief test	82.2 °C / 7 hours, no risk of shrinkage or distortion on enclosures due to release of internal stresses.	P
4.2.8	Cathode ray tubes	CRT not used in the equipment.	N/A

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

	Picture tube separately certified		N/A
4.2.9	High pressure lamps	No high pressure lamps in the equipment.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N)	50 N (unit weight is 0.41 kg). Applied to apparatus and mounting means still remains secure during the test.	P

4.3	Design and construction		P
4.3.1	Edges and corners	All edges or corners accessible to operator are rounded and smoothed.	P
4.3.2	Handles and manual controls; force (N)	No handles or controls.	N/A
4.3.3	Adjustable controls	No hazardous adjustable controls.	N/A
4.3.4	Securing of parts	No loosening of parts impairing creepage distances or clearances is likely to occur.	P
4.3.5	Connection by plugs and sockets	No mismatch of connectors, plugs or sockets possible.	P
4.3.6	Direct plug-in equipment	Not intended to plug directly into a wall socket-outlet.	N/A
	Torque		—
	Compliance with the relevant mains plug standard :		N/A
4.3.7	Heating elements in earthed equipment	No heating elements.	N/A
4.3.8	Batteries	See below for Electric Double Layer Capacitors (BT1)	P
	- Overcharging of a rechargeable battery	See appended table 4.3.8.	P
	- Unintentional charging of a non-rechargeable battery		P
	- Reverse charging of a rechargeable battery	Reverse charging is prevented by its construction.	N/A
	- Excessive discharging rate for any battery	See appended table 4.3.8.	P
4.3.9	Oil and grease	Insulation is intended use not considered to be exposed to oil or grease.	N/A
4.3.10	Dust, powders, liquids and gases	The equipment is intended use not considered to be exposed to dust, powders, liquids and gases.	N/A
4.3.11	Containers for liquids or gases	No container for liquids or gases provided.	N/A
4.3.12	Flammable liquids	No flammable liquids provided.	N/A
	Quantity of liquid (l)		N/A
	Flash point (°C)		N/A

Clause	Requirement + Test	Result - Remark	Verdict
4.3.13	Radiation	See below.	P
4.3.13.1	General		P
4.3.13.2	Ionizing radiation	The equipment does not generate ionizing radiation.	N/A
	Measured radiation (pA/kg)		—
	Measured high-voltage (kV)		—
	Measured focus voltage (kV)		—
	CRT markings		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	The equipment does not produce significant UV radiation.	N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation	The equipment does not produce significant UV radiation.	N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	See below.	P
4.3.13.5.1	Lasers (including laser diodes)	No lasers.	N/A
	Laser class		—
4.3.13.5.2	Light emitting diodes (LEDs)	The following parts are considered complied without tests: - Indicating lights; - IR LED.	P
4.3.13.6	Other types	The equipment does not generate other types of radiation.	N/A

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

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning		—

4.5	Thermal requirements		P
4.5.1	General	No exceeding temperature.	P
4.5.2	Temperature tests	See appended table 4.5.	P
	Normal load condition per Annex L	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established.	—
4.5.3	Temperature limits for materials	See appended table 4.5.	P
4.5.4	Touch temperature limits	See appended table 4.5.	P
4.5.5	Resistance to abnormal heat		N/A

4.6	Openings in enclosures		P
4.6.1	Top and side openings	No openings	N/A
	Dimensions (mm)		—
4.6.2	Bottoms of fire enclosures	No openings	N/A
	Construction of the bottom, dimensions (mm)		—
4.6.3	Doors or covers in fire enclosures	No door or cover.	N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm)		—
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts	No such construction.	P
4.6.5	Adhesives for constructional purposes	No barrier secured by adhesive inside enclosure.	N/A
	Conditioning temperature (°C), time (weeks)		—

4.7	Resistance to fire		P
4.7.1	Reducing the risk of ignition and spread of flame	The equipment is supplied by power adapter whose output complied with LPS. No fire enclosures required.	N/A
	Method 1, selection and application of components wiring and materials		N/A
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	See below.	P
4.7.2.1	Parts requiring a fire enclosure		N/A

Clause	Requirement + Test	Result - Remark	Verdict
4.7.2.2	Parts not requiring a fire enclosure	No fire enclosure required.	P
4.7.3	Materials		P
4.7.3.1	General	Components and materials have adequate flammability classification. See appended table 1.5.1.	P
4.7.3.2	Materials for fire enclosures	No fire enclosure required.	N/A
4.7.3.3	Materials for components and other parts outside fire enclosures	No parts outside the fire enclosure.	P
4.7.3.4	Materials for components and other parts inside fire enclosures	The material is made of V-2 or HF-2 or better material.	P
4.7.3.5	Materials for air filter assemblies	No air filter provided.	N/A
4.7.3.6	Materials used in high-voltage components	No parts exceeding 4kV.	N/A

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		N/A
5.1.1	General	Class III equipment.	N/A
5.1.2	Configuration of equipment under test (EUT)		—
5.1.2.1	Single connection to an a.c. mains supply		N/A
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit		N/A
5.1.4	Application of measuring instrument		—
5.1.5	Test procedure		—
5.1.6	Test measurements		—
	Supply voltage (V)		—
	Measured touch current (mA)		N/A
	Max. allowed touch current (mA)		—
	Measured protective conductor current (mA)		—
	Max. allowed protective conductor current (mA)		—
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General		—
5.1.7.2	Simultaneous multiple connections to the supply		—
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		—
	Supply voltage (V)		—

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

	Measured touch current (mA)		—
	Max. allowed touch current (mA)		—
5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports		—
	b) EUT whose telecommunication ports have no reference to protective earth		—

5.2	Electric strength		P
5.2.1	General	See appended table 5.2.	P
5.2.2	Test procedure		P

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation		N/A
5.3.2	Motors		N/A
5.3.3	Transformers		N/A
5.3.4	Functional insulation	Complies with c).	P
5.3.5	Electromechanical components	No electromechanical components in secondary circuits.	N/A
5.3.6	Audio amplifiers in ITE		N/A
5.3.7	Simulation of faults	See appended table 5.3.	P
5.3.8	Unattended equipment	No thermostats, temperature limiters or thermal cut-outs.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	See below.	P
5.3.9.1	During the tests	No fire or molten metal occurred and no deformation of enclosure during the tests.	P
5.3.9.2	After the tests		N/A

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements	Not connected to telecommunication networks.	N/A
	Supply voltage (V)		—
	Current in the test circuit (mA)		—
6.1.2.2	Exclusions		N/A

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1	Separation requirements	Not connected to telecommunication networks.	N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A

6.3	Protection of the telecommunication wiring system from overheating		N/A
	Max. output current (A)	Not connected to telecommunication networks.	—
	Current limiting method		—

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
7.1	General		N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	Not connected to cable distribution systems.	N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18kg, and of stationary equipment (see 4.7.3.2)	Product mass <18kg	N/A
A.1.1	Samples		N/A
	Wall thickness (mm).....		—
A.1.2	Conditioning of samples; temperature (°C)		N/A
A.1.3	Mounting of samples		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D		—
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s).....		—
	Sample 2 burning time (s).....		—

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

	Sample 3 burning time (s).....:		—
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N/A
A.2.1	Samples, material		N/A
	Wall thickness (mm).....:		—
A.2.2	Conditioning of samples; temperature (°C)		N/A
A.2.3	Mounting of samples		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C		—
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s).....:		—
	Sample 2 burning time (s).....:		—
	Sample 3 burning time (s).....:		—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s).....:		—
	Sample 2 burning time (s).....:		—
	Sample 3 burning time (s).....:		—
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements		N/A
	Position		—
	Manufacturer		—
	Type		—
	Rated values		—
B.2	Test conditions		N/A
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days)		—
	Electric strength test: test voltage (V)		—
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.6.1	General		N/A

Clause	Requirement + Test	Result - Remark	Verdict
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V)		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V)		N/A
B.8	Test for motors with capacitors		N/A
B.9	Test for three-phase motors		N/A
B.10	Test for series motors		N/A
	Operating voltage (V)		—
C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N/A
	Position	Class III equipment.	—
	Manufacturer		—
	Type		—
	Rated values		—
	Method of protection		—
C.1	Overload test		N/A
C.2	Insulation		N/A
	Protection from displacement of windings		N/A
D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		N/A
D.1	Measuring instrument		N/A
D.2	Alternative measuring instrument		N/A
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		N/A
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Clearances		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V)		N/A

Clause	Requirement + Test	Result - Remark	Verdict
G.2.1	AC mains supply		N/A
G.2.2	Earthed d.c. mains supplies		N/A
G.2.3	Unearthed d.c. mains supplies		N/A
G.2.4	Battery operation		N/A
G.3	Determination of telecommunication network transient voltage (V)		N/A
G.4	Determination of required withstand voltage (V)		N/A
G.4.1	Mains transients and internal repetitive peaks		N/A
G.4.2	Transients from telecommunication networks		N/A
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A
G.5	Measurement of transient voltages (V)		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
G.6	Determination of minimum clearances		N/A
H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N/A
	Metal(s) used :		—
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V)		N/A
K.3	Thermostat endurance test; operating voltage (V) :		N/A
K.4	Temperature limiter endurance; operating voltage (V)		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		P
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

L.7	Other business equipment	The equipment is operated according to the most unfavorable way of operation given in the operating instructions.	P
-----	--------------------------	---	---

M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.1	Introduction		N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringing signal		N/A
M.3.1.1	Frequency (Hz)		—
M.3.1.2	Voltage (V)		—
M.3.1.3	Cadence; time (s), voltage (V)		—
M.3.1.4	Single fault current (mA)		—
M.3.2	Tripping device and monitoring voltage		N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A
M.3.2.3	Monitoring voltage (V)		N/A

N	ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A

P	ANNEX P, NORMATIVE REFERENCES		P
----------	--------------------------------------	--	---

Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		N/A
	- Preferred climatic categories		N/A
	- Maximum continuous voltage		N/A
	- Combination pulse current		N/A
	Body of the VDR Test according to IEC60695-11-5.....		N/A
	Body of the VDR. Flammability class of material (min V-1).....		N/A

R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)	The quality control programmes are not used.	N/A
R.2	Reduced clearances (see 2.10.3)		N/A

Clause	Requirement + Test	Result - Remark	Verdict
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment	The impulse testing is not used.	N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
			—
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
			N/A
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		N/A
V.1	Introduction		N/A
V.2	TN power distribution systems		N/A
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N/A
X.1	Determination of maximum input current		N/A
X.2	Overload test procedure		N/A
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N/A
Y.1	Test apparatus	No ultraviolet light.	N/A
Y.2	Mounting of test samples		N/A
Y.3	Carbon-arc light-exposure apparatus		N/A
Y.4	Xenon-arc light exposure apparatus		N/A
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		—
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

--

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

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

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

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

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹⁾	
External Power Adapter	Interchangeable	Interchangeable	O/P: 0.12-0.09 A, 44-57 Vdc or 0.82-0.13 A, 7.5-48 Vdc. Tma 55 °C min., L.P.S.	IEC 60950-1: 2005+A1+A2, EN 60950-1: 2006+A11+A1+A12+A2	Verified by other certificate body	
Enclosure	--	--	Metal.	--	--	
Plastic Cover	Teijin Limited Resin And Plastic	L-1225Z(#1)(f1)	HB min., 2.5 mm thick min., 115 °C min.	UL 94	UL	
PCB	Interchangeable	Interchangeable	V-1 min., 105 °C min.	UL 796	UL	
PoE Transformer (T1)	Interchangeable	Interchangeable	105 °C min.	--	--	
Electric Double Layer Capacitors (BT1)	Various	Various	0.33 F, 5.5 Vdc.	--	--	
O-ring (between plastic cover and metal enclosure)	Momentive Performance Materials Japan L L C	TSE2186U(aq)	Vivotek part No. 612063300G.	UL 94	UL	
O-ring (between metal cover and metal enclosure)	Momentive Performance Materials Japan L L C	TSE2186U(aq)	Vivotek part No. 612063400G.	UL 94	UL	
Cable Gland	AVC Industrial Corp	SE93160H(AVC)	Vivotek part No. 612049200G.	UL 157	UL	
IR LED (four provided)	Lextar	PR88F31	940 nm, Exempt group LED product according to IEC/EN 62471.	--	--	
Supplementary information:						

1.5.1	TABLE: Opto Electronic Devices	N/A
Manufacturer..... Type..... Separately tested..... Bridging insulation..... External creepage distance..... Internal creepage distance..... Distance through insulation..... Tested under the following conditions..... Input..... Output.....		
Supplementary information:		

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
44 Vdc	0.12	0.12	5.28	--	--	Maximum normal load
57 Vdc	0.09	0.09	5.13	--	--	Maximum normal load
7.5 Vdc	0.77	0.82	5.77	--	--	Maximum normal load
48 Vdc	0.11	0.13	5.28	--	--	Maximum normal load
Supplementary information: 1) Maximum normal load was defined as follows: - the equipment normal operated continuously; - deposit the file to the SD card.						

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

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

2.2	TABLE: Evaluation of voltage limiting components in SELV circuits			P
Component (measured between)		max. voltage (V) (normal operation)		Voltage Limiting Components
		V peak	V d.c.	
T1 pin 5, 6 to T1 pin 7, 8		9	--	--
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		

Supplementary information:	

2.5	TABLE: Limited power sources					P
Circuit output tested:						
Note: Measured Uoc (V) with all load circuits disconnected:						
Components	Sample No.	Uoc (V)	I _{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
DI+	Normal	0	0	8	0	100
DI-	Normal	2.8	--	8	--	100
Supplementary information:						

2.10.2	Table: Working voltage measurement			N/A
Location		RMS voltage (V)	Peak voltage (V)	Comments
Supplementary information: Evaluate in certified adapter.				

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

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

4.3.8	TABLE: Batteries								P
The tests of 4.3.8 are applicable only when appropriate battery data is not available						Appropriate battery data is available.		P	
Is it possible to install the battery in a reverse polarity position?						No. The reverse polarity installation is prevented by construction.		P	
	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.

Test results:		Verdict
- Chemical leaks	There are no chemical leaks.	P
- Explosion of the battery	The battery did not explode resulting in injury to a user.	P
- Emission of flame or expulsion of molten metal	There was no emission of flame or expulsion of molten metal outside the battery operated product.	P
- Electric strength tests of equipment after completion of tests		N/A

[illegible]

MARKINGS AND INSTRUCTIONS (1.7.13)	
Location of replaceable battery	--
Language(s).....:	--
Close to the battery.....:	--
In the servicing instructions.....:	--
In the operating instructions.....:	--

4.5	TABLE: Thermal requirements					P		
	Supply voltage (V).....:		See below			—		
	Ambient T _{min} (°C).....:		See below			—		
	Ambient T _{max} (°C).....:		See below			—		
Maximum measured temperature T of part/at.....:			T (°C)			Allowed T _{max} (°C)		
Input			44 Vdc	57 Vdc	7.5 Vdc	48 Vdc	--	
PWB near U3 (Lens board)			88.2	88.3	87.6	87.3	105	
PWB near LD2 (IR board)			89.5	89.5	88.9	88.8	105	
PWB near U1(main board)			89.3	89.4	88.6	88.4	105	
T1 coil			105.0	104.7	83.1	82.5	105	
BT1 body			--	--	84.2	84.0	85	
Lens cover inside			71.9	72.2	71.8	72.1	115	
Lens cover outside			69.0	69.4	68.8	69.3	95	
Metal enclosure outside			67.8	67.6	67.0	67.3	70	
Ambient			55.0 (23.2)	55.0 (23.2)	55.0 (22.0)	55.0 (22.1)	--	
BT1 body			75.8	--			85	
Ambient			55.0 (54.1)	--	--	--	--	
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:								
1) The temperatures were measured under worst case normal mode defined in 1.2.2.1 and as described in 1.6.2 at voltages as described in above.								
2) Unit specified with maximum of 55 °C ambient temperature and all temperatures were calculated for a maximum ambient temperature of 55 °C.								

4.5.5	TABLE: Ball pressure test of thermoplastic parts			N/A
	Allowed impression diameter (mm).....:	≤ 2 mm		—
Part		Test temperature (°C)	Impression diameter (mm)	
Supplementary information:				

4.6.1, 4.6.2	Table: Enclosure opening measurements		N/A
Location		Size (mm)	Comments
Supplementary information:			

4.7	TABLE: Resistance to fire					N/A
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence	
Supplementary information:						

5.1	TABLE: Touch current measurement			N/A
Measured between:		Measured (mA)	Limit (mA)	Comments/conditions
Supplementary information:				

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
T1 input to output		AC	1500 V	No
Supplementary information: For customer's requirement.				

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)			25 °C, if nothing else specified.		--
	Power source for EUT: Manufacturer, model/type, output rating			See appended table 1.5.1 for details.		--
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
D23	short	57 Vdc	7.1 hrs	--	--	Overcharge, NC, NT, no hazard. BT1= 50.5 °C, Ambient= 20.6 °C.
D23	short	57 Vdc	7.2 hrs	--	--	Over discharge, NC, NT, no hazard. BT1= 21.6 °C, Ambient= 21.0 °C.
R145	short	57 Vdc	11.1 hrs	--	--	Overcharge, NC, NT, no hazard. BT1= 54.4 °C, Ambient= 23.0 °C.
R145	short	57 Vdc	11.9 hrs	--	--	Over discharge, NC, NT, no hazard. BT1= 22.5 °C, Ambient= 19.9 °C.
BT1	short	57 Vdc	10 mins	--	--	NC, NT, unit normal operation, no hazard.

Supplementary information:

Results Key:

IP = Internal protection operated Component indicated).

CT = Constant temperatures were obtained.

TW = Transformer winding opened.

CD = Components damaged (damaged components indicated).

NB = No indication of dielectric breakdown.

YB = Dielectric breakdown (time and location indicated).

NC = Cheesecloth remained intact.

YC = Cheesecloth charred or flamed.

NT = Tissue paper remained intact.

YT = Tissue paper charred or flamed.

C.2		TABLE: Transformers					N/A
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
Loc.	Tested insulation		Test voltage / V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers	
Supplementary information:							

C.2.	TABLE: Transformer	N/A
Transformer		

ATTACHMENT TO TEST REPORT IEC 60950-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements	
Differences according to	EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013
Attachment Form No.	EU_GD_IEC60950_1F
Attachment Originator	SGS Fimko Ltd
Master Attachment	Date 2014-02
Copyright © 2014 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.	

EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 – CENELEC COMMON MODIFICATIONS

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test		Verdict
	Clauses, subclauses, notes, tables and figures which are additional to those in IEC60950-1 and it's amendmets are prefixed "Z"		P
Contents (A2:2013)	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZD (informative) IEC and CENELEC code designations for flexible cords		P
General	Delete all the "country" notes in the reference document (IEC 60950-1:2005) according to the following list: 1.4.8 Note 2 1.5.1 Note 2 & 3 1.5.7.1 Note 1.5.8 Note 2 1.5.9.4 Note 1.7.2.1 Note 4, 5 & 6 2.2.3 Note 2.2.4 Note 2.3.2 Note 2.3.2.1 Note 2 2.3.4 Note 2 2.6.3.3 Note 2 & 3 2.7.1 Note 2.10.3.2 Note 2 2.10.5.13 Note 3 3.2.1.1 Note 3.2.4 Note 3. 2.5.1 Note 2 4.3.6 Note 1 & 2 4.7 Note 4 4.7.2.2 Note 4.7.3.1 Note 2 5.1.7.1 Note 3 & 4 5.3.7 Note 1 6 Note 2 & 5 6.1.2.1 Note 2 6.1.2.2 Note 6.2.2 Note 6.2.2.1 Note 2 6.2.2.2 Note 7.1 Note 3 7.2 Note 7.3 Note 1 & 2 G.2.1 Note 2 Annex H Note 2		P
General (A1:2010)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note 6.1.2.1 Note 2 6.2.2.1 Note 2 EE.3 Note		P
General (A2:2013)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note * 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		P
1.1.1 (A1:2010)	Replace the text of NOTE 3 by the following. NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television sets EN 60065 applies.		P

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.	Not a portable sound system.	N/A
(A12:2011)	In EN 60950-1:2006/A12:2011 Delete the addition of 1.3.Z1 / EN 60950-1:2006 Delete the definition 1.2.3.Z1 / EN 60950-1:2006 /A1:2010	Delete.	P
1.5.1 (Added info*)	Add the following NOTE: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC. New Directive 2011/65/11 *	Considered.	P
1.7.2.1 (A1:2010)	In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.	Not a portable sound system.	N/A
1.7.2.1 (A12:2011)	In EN 60950-1:2006/A12:2011 Delete NOTE Z1 and the addition for Portable Sound System. Add the following clause and annex to the existing standard and amendments.	Not a portable sound system.	N/A
	Zx Protection against excessive sound pressure from personal music players		N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.1 General This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players. A personal music player is a portable equipment for personal use, that: - is designed to allow the user to listen to recorded or broadcast sound or video; and primarily uses headphones or earphones that can be worn in or on or around the ears; and allows the user to walk around while in use. NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment. A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause. The requirements in this sub-clause are valid for music or video mode only. The requirements do not apply: - while the personal music player is connected to an external amplifier; or - while the headphones or earphones are not used. NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player. The requirements do not apply to: - hearing aid equipment and professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.	Not a portable equipment.	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015. NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies. For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.		N/A
	Zx.2 Equipment requirements No safety provision is required for equipment that complies with the following: equipment provided as a package (personal music player with its listening device), where the acoustic output $LA_{eq,T}$ is ≤ 85 dBA measured while playing the fixed "programme simulation noise" as described in EN 50332-1; and a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" as described in EN 50332-1. NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $LA_{eq,T}$ is meant. See also Zx.5 and Annex Zx. All other equipment shall: a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and	This equipment is not a personal music player.	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and NOTE 2 Examples of means include visual or audible signals. Action from the user is always required. NOTE 3 The 20 h listening time is the accumulative listening time, independent how often and how long the personal music player has been switched off. d) have a warning as specified in Zx.3; and e) not exceed the following: 1) equipment provided as a package (player with its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed "programme simulation noise" described in EN 50332-1; and 2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed "programme simulation noise" described in EN 50332-1. For music where the average sound pressure (long term LAeq,T) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song. NOTE 4 Classical music typically has an average sound pressure (long term LAeq,T) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.		N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.3 Warning The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following: the symbol of Figure 1 with a minimum height of 5 mm; and the following wording, or similar: “To prevent possible hearing damage, do not listen at high volume levels for long periods.” Figure 1 – Warning label (IEC 60417-6044) Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.	Not a portable sound system.	N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	Zx.4.1 Wired listening devices with analogue input With 94 dBA sound pressure output LAeq,T, the input voltage of the fixed “programme simulation noise” described in EN 50332-2 shall be ≥ 75 mV. This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control). NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.	Not a portable sound system.	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.4.2 Wired listening devices with digital input With any playing device playing the fixed “programme simulation noise” described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.). NOTE An example of a wired listening device with digital input is a USB headphone.	Not a portable sound system.	N/A
	Zx.4.3 Wireless listening devices In wireless mode: with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. NOTE An example of a wireless listening device is a Bluetooth headphone.	Not a portable sound system.	N/A
	Zx.5 Measurement methods Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s. NOTE Test method for wireless equipment provided without listening device should be defined.	Not a portable sound system.	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	Class III equipment, not direct connected to the AC mains.	N/A
2.7.2	This subclause has been declared 'void'.	Class III equipment, not direct connected to the AC mains.	N/A
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.	Class III equipment.	N/A
3.2.5.1	Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2". In Table 3B, replace the first four lines by the following: Up to and including 6 0,75 ^{a)} Over 6 up to and including 10 (0,75) ^{b)} 1,0 Over 10 up to and including 16 (1,0) ^{c)} 1,5 In the conditions applicable to Table 3B delete the words "in some countries" in condition ^{a)}. In NOTE 1, applicable to Table 3B, delete the second sentence.	Class III equipment.	N/A
3.2.5.1 (A2:2013)	NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD	Class III equipment.	N/A

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.3.4	In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: Over 10 up to and including 16 1,5 to 2,5 1,5 to 4 Delete the fifth line: conductor sizes for 13 to 16 A	Class III equipment.	N/A
4.3.13.6 (A1:2010)	Replace the existing NOTE by the following: NOTE Z1 Attention is drawn to: 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz, and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation).	The equipment does not generate other types of radiation.	N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.	Not applicable.	N/A
Annex H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.	Replace.	N/A
Bibliography	Additional EN standards.		—

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In Denmark , certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.	No power supply cord provided.	N/A
1.2.13.14 (A11:2009)	In Norway and Sweden , for requirements see 1.7.2.1 and 7.3 of this annex.	The equipment is not connected to the cable distribution systems.	N/A
1.5.7.1 (A11:2009)	In Finland , Norway and Sweden , resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.	No such resistors.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.8	In Norway , due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	Class III equipment.	N/A
1.5.9.4	In Finland, Norway and Sweden , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.	No TNV circuits.	N/A
1.7.2.1	In Finland, Norway and Sweden, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In Norway: "Apparatet må tilkoples jordet stikkontakt" In Sweden: "Apparaten skall anslutas till jordat uttag"	Class III equipment.	N/A
1.7.2.1 (A11:2009)	In Norway and Sweden, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: "Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing – and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)."		

TRF No. IECEN60950 1F

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5 (A2:2013)	In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011. For class I equipment the following Standard Sheets are applicable: DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a, with the exception for STATIONARY EQUIPMENT where the socket-outlets shall be in accordance with Standard Sheet DK 1-1b, DK 1-1c, DK 1-1d or DK 1-5a. Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with by DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-3b. Justification the Heavy Current Regulations, 6c		N/A
2.2.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV circuit	N/A
2.3.2	In Finland, Norway and Sweden there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.	No TNV circuit	N/A
2.3.4	In Norway , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV circuit	N/A
2.6.3.3	In the United Kingdom , the current rating of the circuit shall be taken as 13 A, not 16 A.	No TNV circuit	N/A
2.7.1	In the United Kingdom , to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.	The equipment is not direct plug-in equipment.	N/A
2.10.5.13	In Finland, Norway and Sweden , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.	No TNV circuit	N/A
3.2.1.1	In Switzerland, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2:1991 Plug Type 15 3P+N+PE 250/400 V, 10 A	Class III equipment.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998: SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998: Plug Type 21, L+N, 250 V, 16A SEV 5934-2.1998: Plug Type 23, L+N+PE 250 V, 16 A		N/A
3.2.1.1	In Denmark, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.	Class III equipment.	N/A
3.2.1.1 (A2:2013)	In Denmark, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Justification the Heavy Current Regulations, 6c	Class III equipment.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In Spain, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.	Class III equipment.	N/A
3.2.1.1	In the United Kingdom, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.	Class III equipment.	N/A
3.2.1.1	In Ireland, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.	Class III equipment.	N/A
3.2.4	In Switzerland, for requirements see 3.2.1.1 of this annex.	Class III equipment.	N/A
3.2.5.1	In the United Kingdom, a power supply cord with conductor of 1,25 mm² is allowed for equipment with a rated current over 10 A and up to and including 13 A.	Class III equipment.	N/A
3.3.4	In the United Kingdom, the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: • 1,25 mm² to 1,5 mm² nominal cross-sectional area.	Class III equipment.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.6	In the United Kingdom , the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.	The equipment is not direct plug-in equipment.	N/A
4.3.6	In Ireland , DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.	The equipment is not direct plug-in equipment.	N/A
5.1.7.1	In Finland, Norway and Sweden TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: • STATIONARY PLUGGABLE EQUIPMENT TYPE A that is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT.	Class III equipment.	N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.1 (A1:2010)	In Finland, Norway and Sweden, add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. Alternatively for components, there is no distance through insulation requirements for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.	No TNV circuits.	N/A
	It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 60384-14: - the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.		N/A

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.2	In Finland, Norway and Sweden , the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.	No TNV circuits.	N/A
7.2	In Finland, Norway and Sweden , for requirements see 6.1.2.1 and 6.1.2.2 of this annex. The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.	The equipment is not connected to the distribution systems.	N/A
7.3 (A11:2009)	In Norway and Sweden , for requirements see 1.2.13.14 and 1.7.2.1 of this annex.	The equipment is not connected to the distribution systems.	N/A

Annex ZD (informative)

IEC and CENELEC code designations for flexible cords

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

Annex A

Photos

Overall View (1)



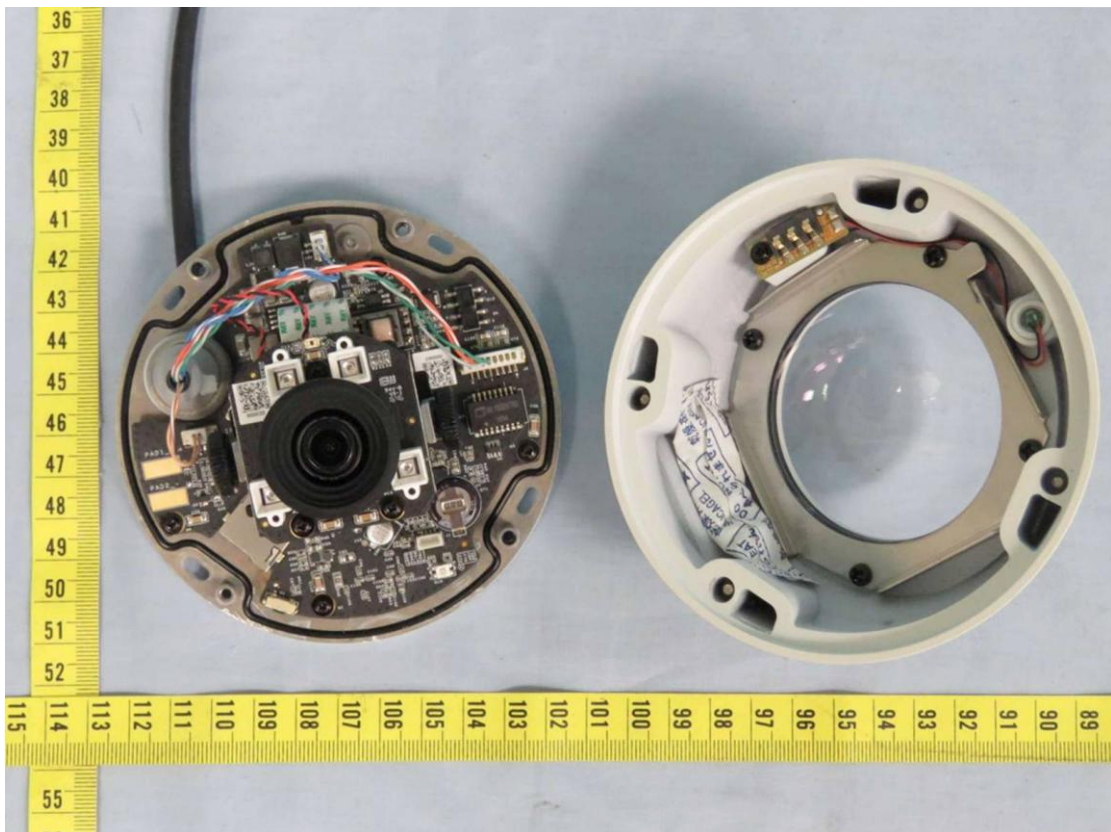
Overall View (2)



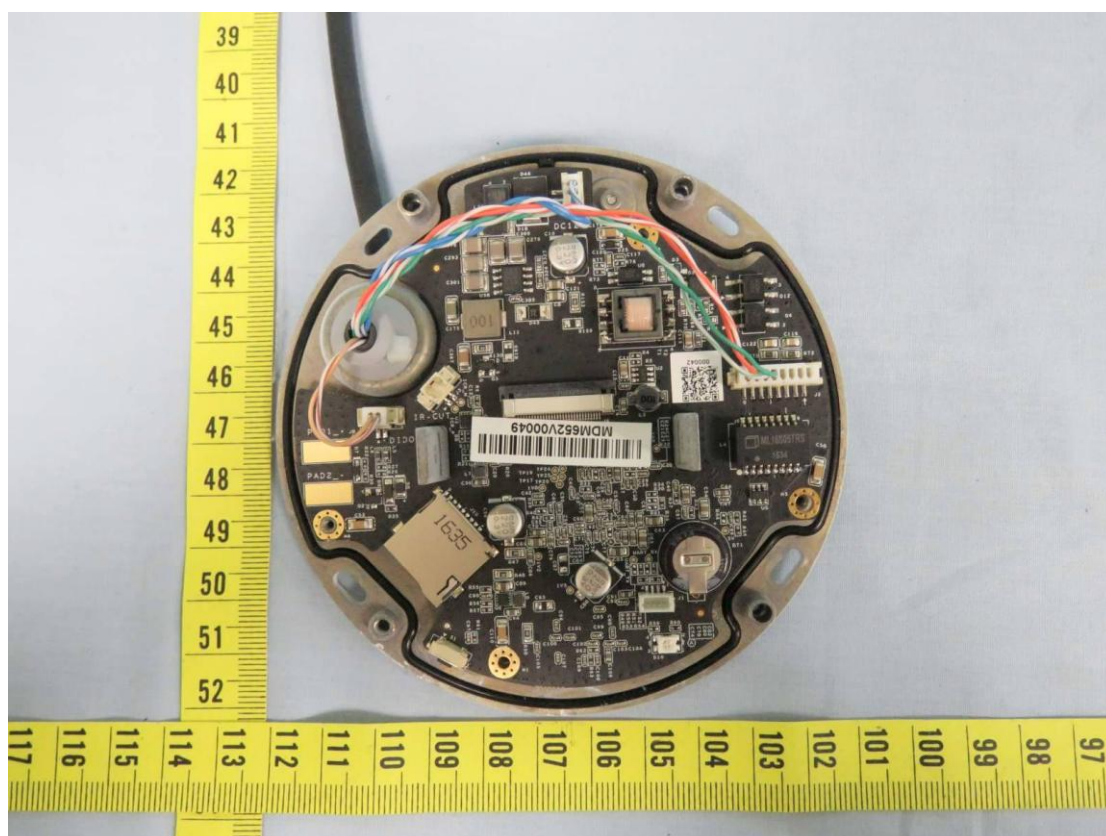
I/O View With Mounting Kit



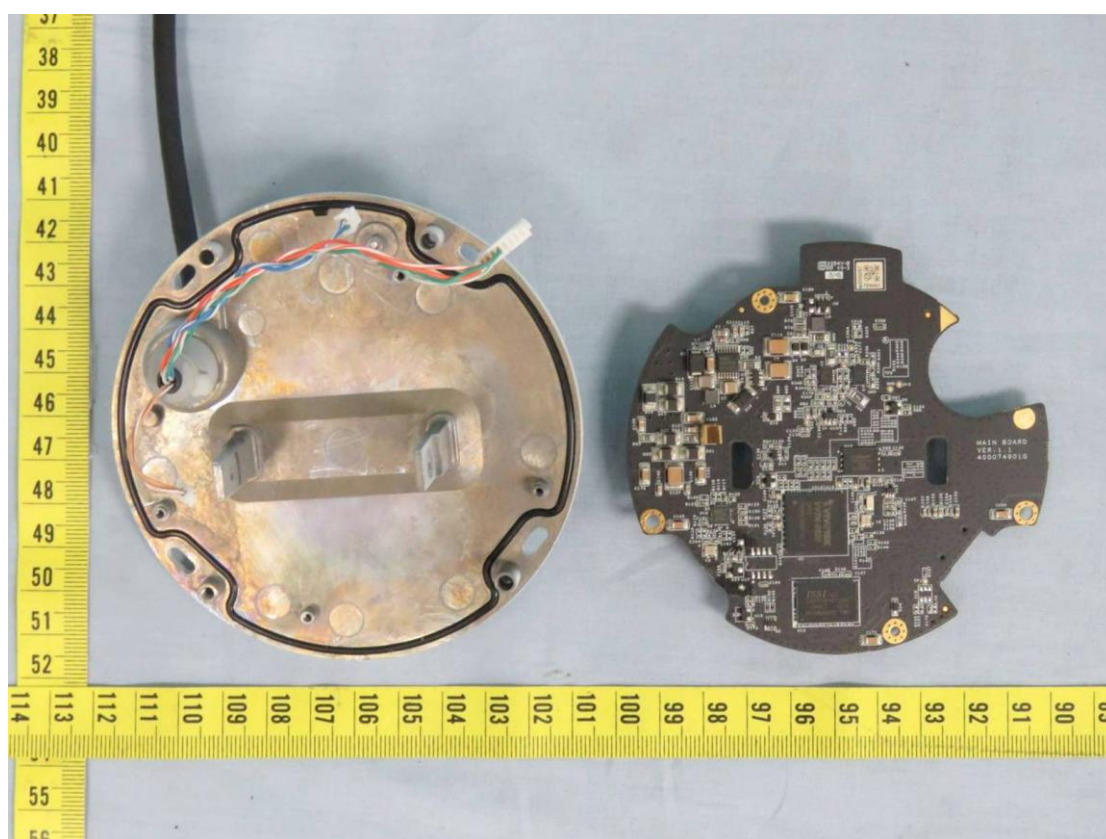
Internal View (1)



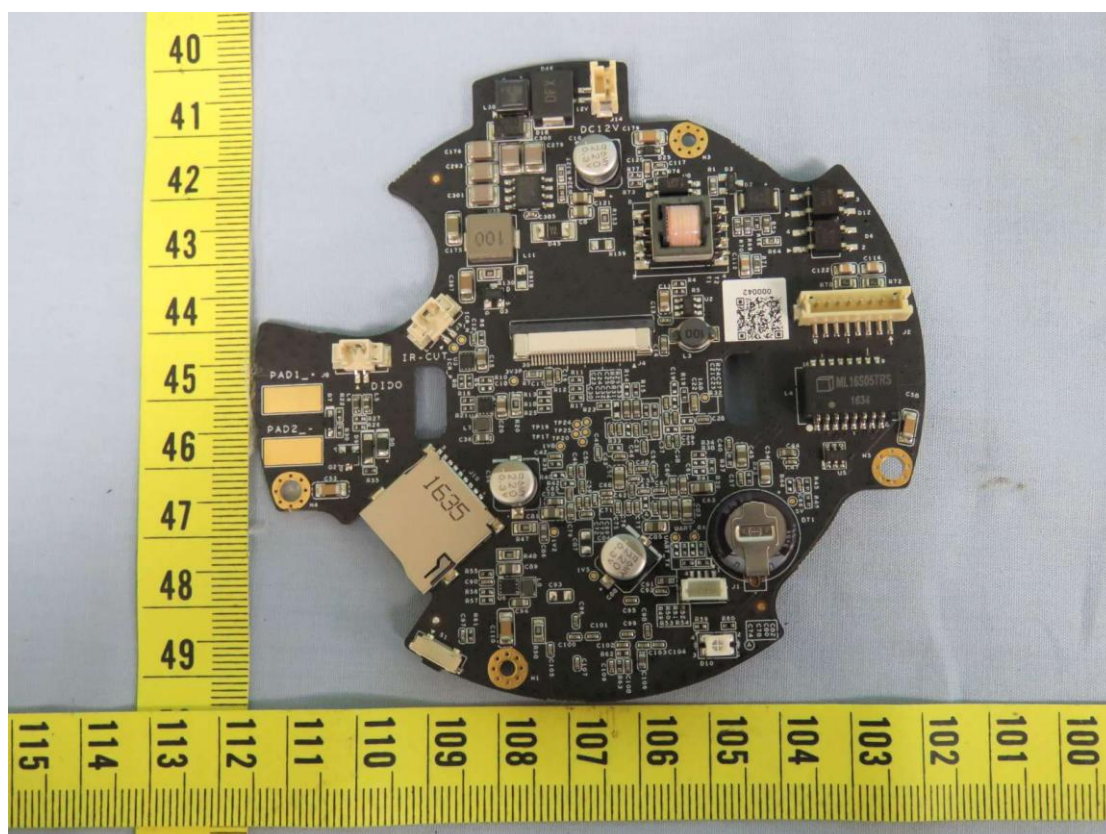
Internal View (2)



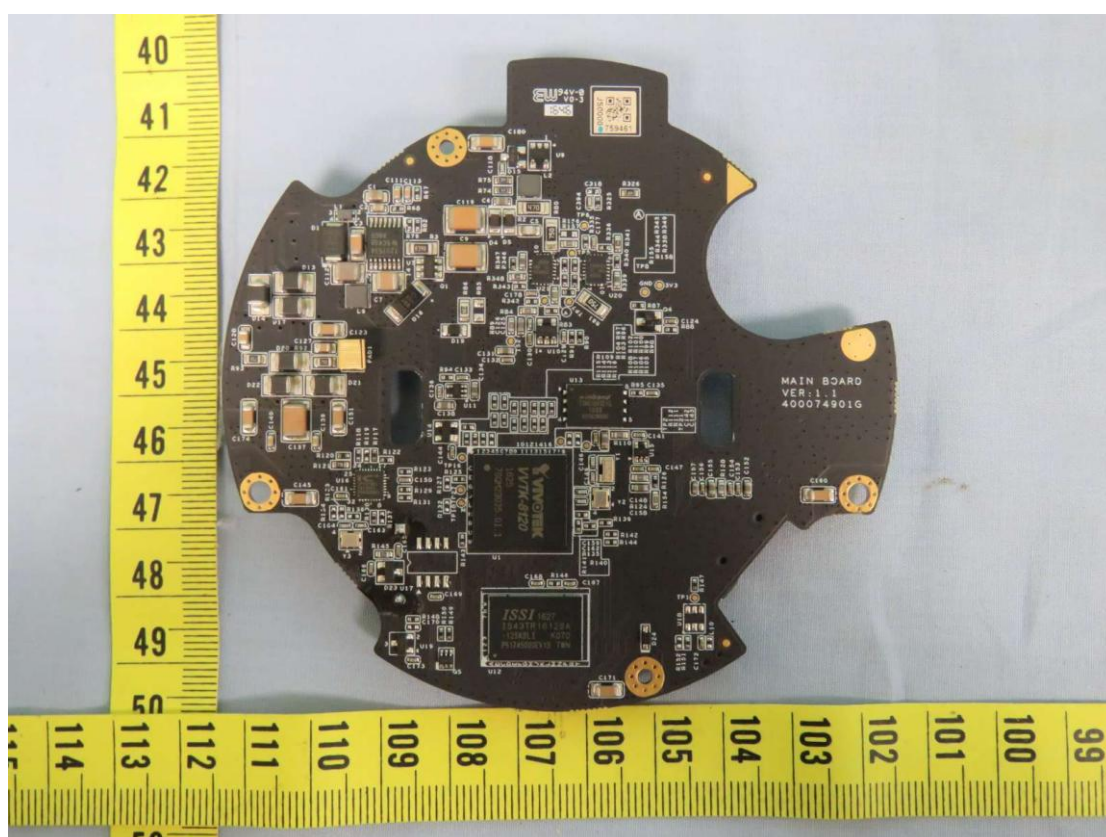
Internal View (3)



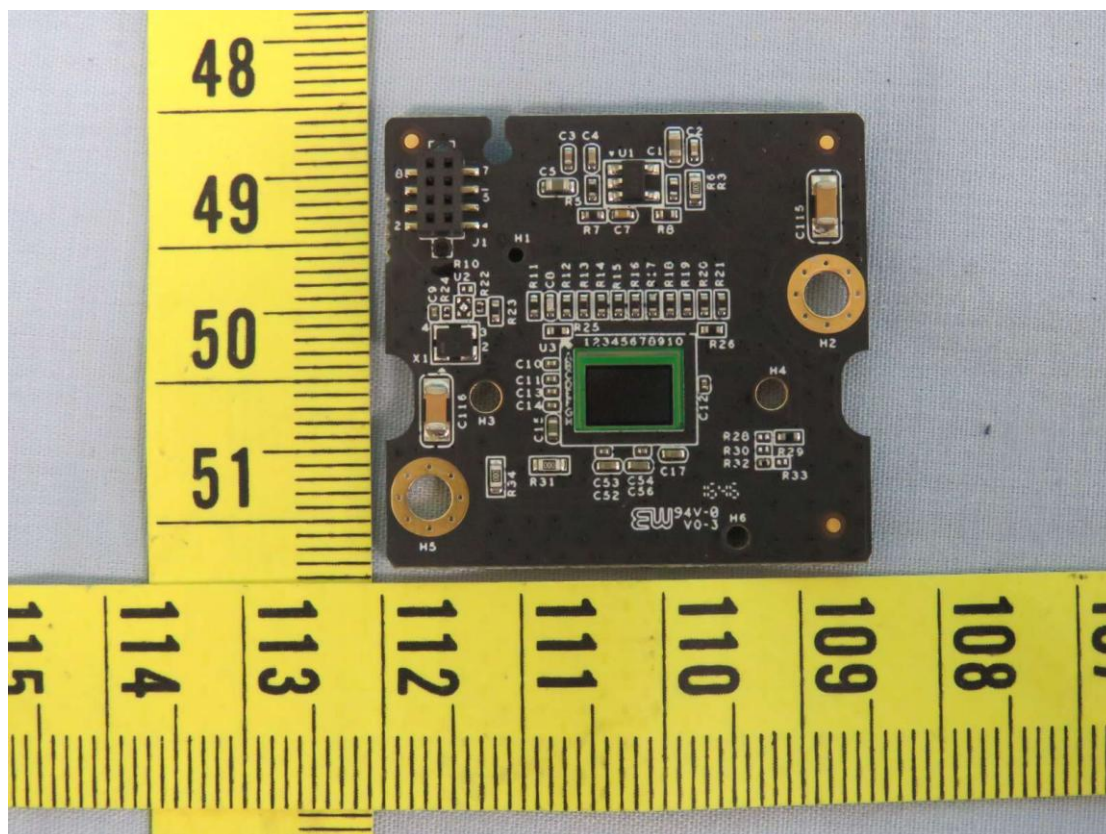
Top View of Main Board



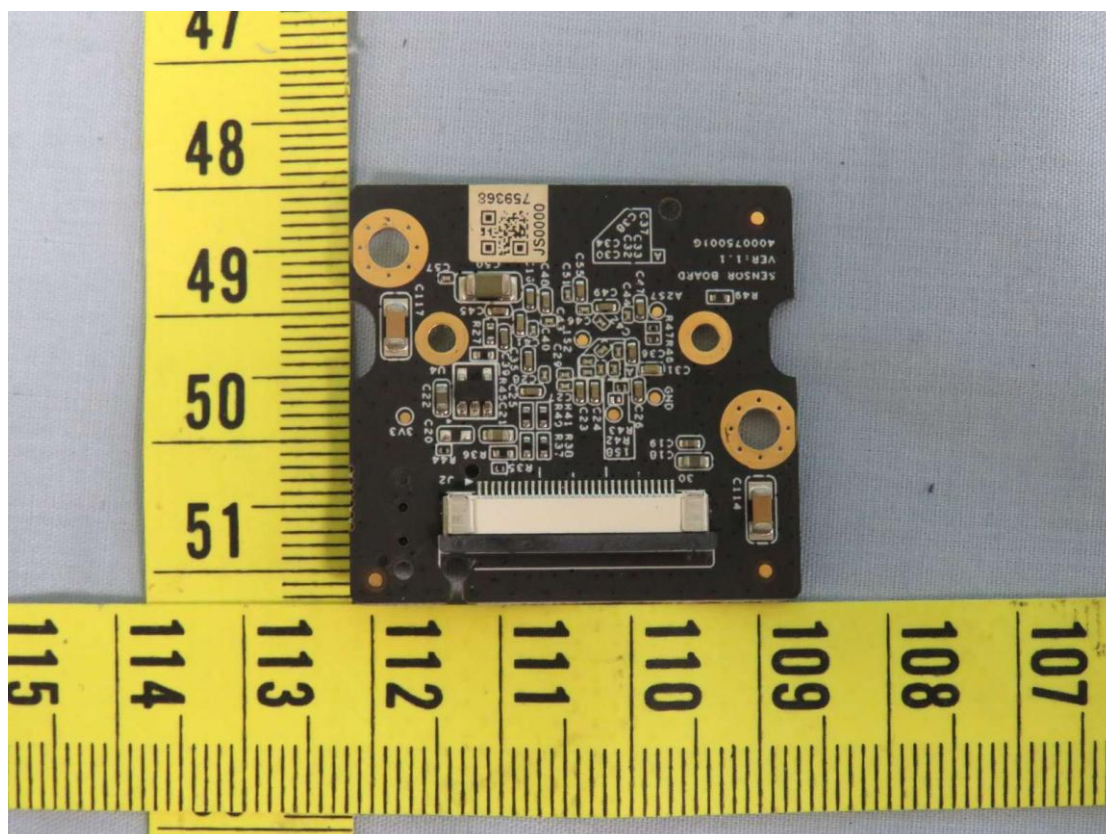
Bottom View of Main Board



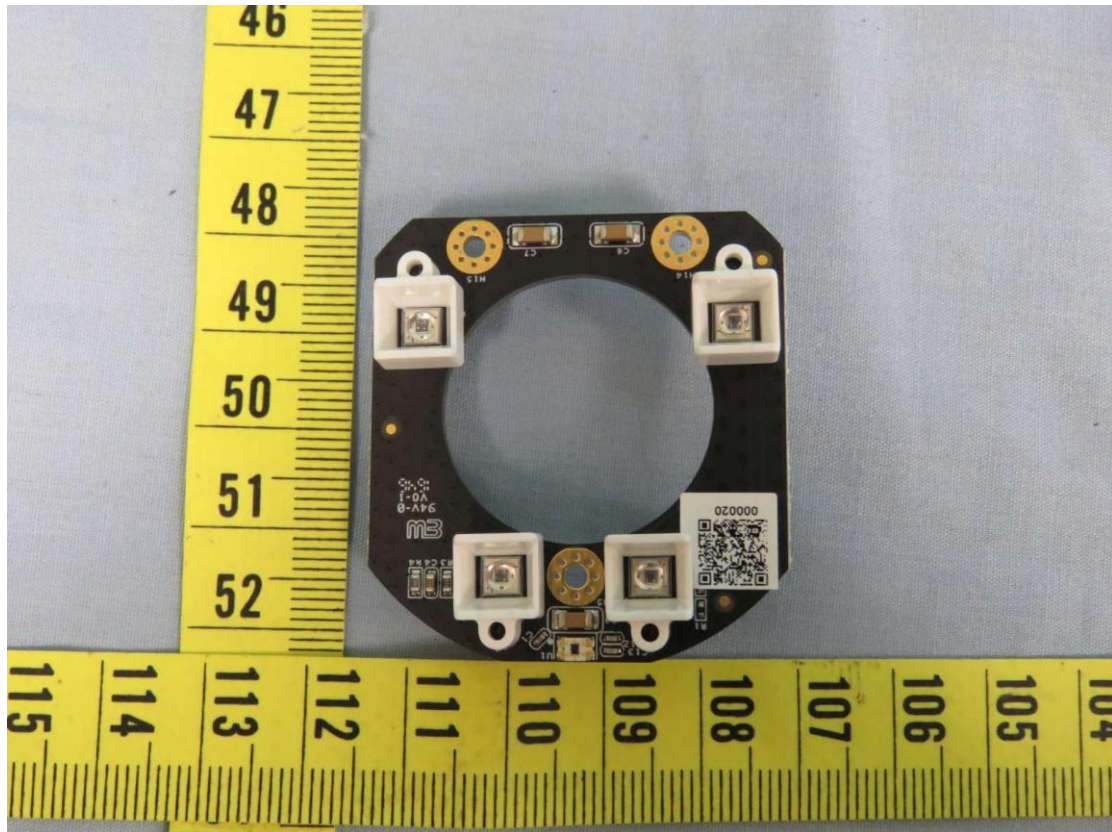
Top View of SELV Board



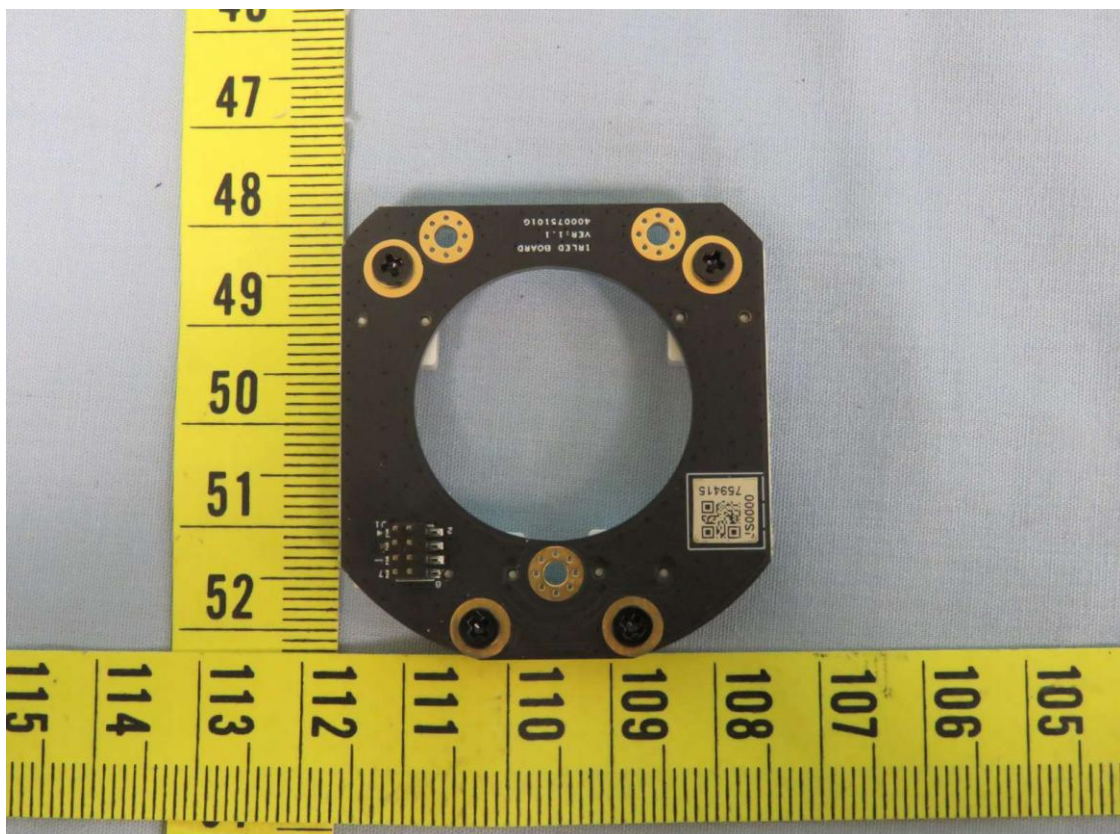
Bottom View of SELV Board



Top View of IR LED Board



Bottom View of IR LED Board



Annex B

List of Used Measuring Instruments

Instruments List

NO.	Device	Range (Cal. Point) / <State>	Brand	Model No.:	Next Cal. Date	Cal. Date	Last Cal. Date	Cal. House
B02	Clamp Meter	DC Volt(V): 400(10,100,200,300,390) DC Current(A): 4000m(10, 100, 1000, 3000), 30(5, 10, 20, 30)	PROVA	11	2017/11/8	2016/11/9	2015/11/10	E.T.C
D03	Digital Phosphor Oscilloscope	Vertical Gain:(5mV-10V)<CH2 / Volt/Div, 1KHz,AC,1MΩ> Sweep Timebase:5ns-5s<Time/Div> AC Voltage(RMS):1,2,5,10(1,2,5,10)<50,60,1KHz/CH2> AC Voltage (1/1000,@RMS): 1000V<47-63Hz/CH2>	Yokogawa	DL1620	2017/4/24	2016/4/25	2015/4/27	E.T.C
E09	Hybrid Recorder	Temperature Linearly: J Type: (10-300°C)<CH1-20>	Yokogawa	DR130	2017/10/16	2016/10/17	2015/10/21	E.T.C.
H01	High Temperature Chamber	Temperature(°C):(50, 100, 150, 200)	Giant Fore	GPO-036	2017/7/13	2016/7/14	2015/7/4	UL
J01	Withstanding Voltage Tester	AC Volt(KV): 5(1, 3, 5) / <50-60Hz> DC Volt(KV): 5(1, 3, 5) AC Cut-off Current(mA): (1,10,100) / <50-60Hz> DC Cut-off Current(mA): (1, 5, 10) Timer:(60s)	Kikusui	TOS-8750	2018/2/6	2017/2/7	2016/1/21	E.T.C
N06-CH1	Electronic Load	DC Volt(V): (1, 5, 10, 15,20, 25, 30, 45, 60) DC Current(A): (1.5, 3, 6, 15, 30, 60)	Chroma	63030	2017/6/22	2016/6/23	2015/7/1	UL
O01	DC Power Supply	DC Volt(V): (1, 5, 10, 20, 50, 80) DC Current(A): (1, 2, 5, 10, 20, 30, 35)	Chroma	6230K-80	2017/10/13	2016/10/24	2015/10/12	E.T.C.
V01	True rms. Multimeter	DC Volt(V): (10m, 100m, 1, 10, 100, 1000) AC Volt(V): (40m, 100m, 1, 10, 100, 1000) <50/60Hz> DC Current(A): (1000μ, 10m, 100m, 1000m, 10) AC Current(A): (10m, 100m, 1000m, 10) <50/60Hz> Resis.(Ω): (100, 1k, 10k, 100k,1M,10M) Freq.(Hz): (50, 60, 1000, 100k) Capacitance(F) : (1n, 0.01μ, 0.1μ, 1μ)	Fluke	87	2018/3/2	2017/3/3	2016/3/9	Tai Yi
W06	Digital Caliper	Length Outside / Inside / Deep (mm): (0, 20, 50, 100, 150)	Mitutoyo	500-196	2017/9/20	2016/9/21	2015/9/22	Tai Yi
W26	Electronic Scale	Weight(g): (0.5 - 150)	HENGX	HXB-150	2018//3/21	2017/3/22	2016/3/23	E.T.C
W28	Push-Pull Gauge	Pull/Push(kgf): (5 - 44.8) Note: ∵ 1kg ≡ 9.8N, ∴ 1N ≡ 0.1021kgf (10N ≡ 1.03kgf, 20N ≡ 2.05Kgf, 50N ≡ 5.2kgf, 100N ≡ 10.3Kgf, 250N ≡ 25.6Kgf)	ALGOL	NK-500	2017/6/2	2016/6/3	2015/6/9	UL
	Circular plan Surface (W03)	Dimension:30mm	Aikoh	AE-50	2019/1/18	2016/1/19	2013/10/22	

X02	LED Number Clock	Time Deviation: 4.7ppm / <32768Hz>	HoTai	A129	2017/10/3	2016/10/4	2015/9/16	E.T.C
X03	Timer	Time Deviation:(+0.5ppm)<32768.0Hz>	Casio	HS-3	2017/11/17	2016/11/18	2015/11/6	E.T.C

Annex C

IEC 60950-22 test report



TEST REPORT IEC 60 950-22 Information technology equipment Safety – Part 22: Equipment to be installed outdoors	
Report Reference No.	<AL106011>
Date of issue	March 31, 2017
Total number of pages	Total 19 pages
CB Testing Laboratory	UNDERWRITERS LABORATORIES TAIWAN CO LTD
Address	1ST FI, 260 DA-YEH RD, PEI TOU DISTRICT, TAIPEI CITY, TAIWAN 112
Applicant's name	VIVOTEK INC.
Address	6F, NO.192, LIEN-CHENG RD., CHUNG-HO , NEW TAIPEI CITY, 235, TAIWAN, R.O.C.
Test specification:	
Standard	IEC 60 950-22 : 2005 (1 st Edition)
Test procedure	CB / CCA
Non-standard test method	N/A
Test Report Form No.	IEC60950_22A
Test Report Form(s) Originator	The Standards Institution of Israel Ltd.
Master TRF	Dated 2007-03
Copyright © 2007 IEC System for Conformity Testing and Certification of Electrical Equipment (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.	
If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.	
This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	
Test item description	Network Camera
Trade Mark	
Manufacturer	Same as applicant
Model/Type reference	MD8565-N
Ratings	1) PoE 44-57 Vdc, 0.12-0.09 A; 2) 7.5-48 Vdc, 0.82-0.13 A.

Testing procedure and testing location:	
☐ CB Testing Laboratory: Testing location/ address :	
☒ Associated CB Test Laboratory: Testing location/ address : Tested by (name + signature) : Approved by (+ signature) :	UNDERWRITERS LABORATORIES TAIWAN CO LTD 1ST FI, 260 DA-YEH RD, PEI TOU DISTRICT, TAIPEI CITY, TAIWAN 112
☐ Testing procedure: TMP Tested by (name + signature) : Approved by (+ signature) : Testing location/ address :	
☐ Testing procedure: WMT Tested by (name + signature) : Witnessed by (+ signature) : Approved by (+ signature) : Testing location/ address :	
☐ Testing procedure: SMT Tested by (name + signature) : Approved by (+ signature) : Supervised by (+ signature) : Testing location/ address :	
☐ Testing procedure: RMT Tested by (name + signature) : Approved by (+ signature) : Supervised by (+ signature) : Testing location/ address :	

Summary of testing:	
The manufacturer submitted representative production sample of Network Camera, model MD8565-N. The unit was considered exposed SELV circuit. The following tests were conducted according to CSA C22.2 NO. 60950-22-07 Edition 1, Revision Date 2011/12/01 & UL 60950-22 Edition 1, Revision Date 2011/12/19. - 4.2.5, 4.2.1, PART 22 10.2 – IMPACT TEST - PART 22 9.1, ANNEX B – WATER SPRAY TEST The following tests were waived: PART 22, 8.5, ANNEX D.2 – TENSILE STRENGTH AND ELONGATION (Refer E324690-A58)	
Tests performed (name of test and test clause):	Testing location:
Tests performed (name of test and test clause): 4.2.5, 4.2.1, PART 22 10.2 – IMPACT TEST PART 22 9.1, ANNEX B – WATER SPRAY TEST	UNDERWRITERS LABORATORIES TAIWAN CO LTD/ 1ST FL, 260 DA-YEH RD, PEI TOU DISTRICT, TAIPEI CITY, TAIWAN 112.
Summary of compliance with National Differences:	
Countries outside the CB Scheme membership may also accept this report. List of countries addressed: CA, US, EU. The product fulfils the requirements of: EN 60950-22:2006 +A11:2008.	
Copy of marking plate	
N/A	

Test item particulars	
Temperature range.....	-25 to 55 °C
Overvoltage category.....	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV [x] other: not directly connected to the mains
IP protection class	IP 66
Possible test case verdicts:	
- test case does not apply to the test object.....	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
Testing	
Date of receipt of test item	2016-01-25
Date (s) of performance of tests	2016-02-26
General remarks:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a comma (point) is used as the decimal separator. This Test Report Form is intended for the investigation of safety of equipment to be installed outdoors in accordance with IEC 60950-22. It can only be used together with the IEC 60950-1 requirements.	
General product information:	
N/A	



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
4	CONDITIONS FOR OUTDOOR EQUIPMENT		P
4.1	Ambient air temperature		P
	Suitability for use at any temperature in the range specified by the manufacturer. If not specified by the manufacturer, the range is taken as -33°C to +40°C	-25 to 55 °C.	P
4.2	AC mains supply		N/A
	Suitability for the highest Overvoltage Category expected in the installation location	Class III equipment.	N/A
	Components used to reduce the Overvoltage Category comply with IEC 61643-series		N/A
	Reference to installation instructions		N/A
4.3	Rise of earth potential		N/A
	Special earthing conditions	Class III equipment.	N/A
	Reference to installation instructions		N/A
5	MARKING AND INSTRUCTIONS		P
	Special installation features for protection from conditions in the OUTDOOR LOCATION (see 1.7.2 of IEC 60950-1)	Precautions in the installation instruction.	P
	OUTDOOR ENCLOSURE classification according to IEC 60529 (IP Code)	The unit is considered as outdoor equipment.	N/A
6	PROTECTION FROM ELECTRICAL SHOCK IN AN OUTDOOR LOCATION		P
6.1	Voltage limits of user-accessible parts in OUTDOOR LOCATIONS (2.2.2 and 2.2.3 of IEC 60950-1 with voltage limits of IEC60950-22)		P
	Voltages under normal conditions (V).....	Accessible parts are less than 21.2 Vp or 30Vdc and are classified as SELV.	P
	Voltages under fault conditions (V)	Single fault did not cause excessive voltage in accessible SELV circuits. Limits of 15 V a.c., 21,2 V peak, or 30 V d.c. for longer than 0,2 s under single fault conditions.	P
6.2	Limited current circuits in outdoor locations		N/A
	The requirements of 2.4 of IEC60950-1 apply without change	(see separate test report IEC 60950-1)	N/A



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
7	WIRING TERMINALS FOR CONNECTION OF EXTERNAL CONDUCTORS		N/A
	The mains supply terminations powered via the normal building installation wiring are as specified in 3.3 of IEC 60950-1	Not directly connected to mains.	N/A
	The mains supply terminations powered directly from the mains distribution system are as specified in IEC 60364	Not directly connected to mains.	N/A
8	CONSTRUCTION REQUIREMENTS FOR OUTDOOR ENCLOSURES		P
8.1	General		P
	Protection against corrosion by use of suitable materials or by application of a protective coating	Metallic enclosure was made of aluminium.	P
	Parts serving as a functional part of an OUTDOOR ENCLOSURE (e.g., dials, connectors, etc.) comply with the same environmental protection requirements as for the OUTDOOR ENCLOSURE	All relevant parts comply with applicable requirements	P
	Use of OUTDOOR ENCLOSURE to carry current during normal operation	Outdoor enclosure does not carry current during normal operation.	P
	Connection of a conductive part of an OUTDOOR ENCLOSURE to protective earth for carrying fault currents (see 2.6 of IEC 60950-1 and 8.3 of this standard)		N/A
8.2	Resistance to ultra-violet radiation		N/A
	Resistance of non-metallic parts of an OUTDOOR ENCLOSURE to degradation by ultra-violet (UV) radiation		N/A
	Parts providing mechanical support:		N/A
	Tensile strength test (ISO 527)		N/A
	Flexural strength test (ISO 178)		N/A
	Parts providing impact resistance:		N/A
	Charpy impact test (ISO 179)		N/A
	Izod impact test (ISO 180)		N/A
	Tensile impact test (ISO 8256)		N/A
	All parts:		N/A
	Flammability classification (1.2.12 and annex A of IEC 60950-1)		N/A
8.3	Resistance to corrosion		P



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
8.3.1	General	Metallic enclosure was made of aluminum and after evaluated/reviewed the data provided from manufacturer, the construction complied with requirements.	P
	Resistance of metallic parts of an OUTDOOR ENCLOSURE to the effects of water-borne contaminants		N/A
	Alternate method for 8.3.2-8.3.4 (IEC 61587-1)		N/A
8.3.2	Test apparatus		N/A
	Salt-spray test (IEC 60068-2-11)		N/A
	Test in a water-saturated sulphur dioxide atmosphere (water-saturated sulphur dioxide atmosphere as described in Annex A; chamber as described in ISO 3231)		N/A
8.3.3	Test procedure		N/A
8.3.4	Compliance criteria		N/A
8.4	Bottoms of FIRE ENCLOSURES		N/A
	Comply with 4.6.2 of IEC 60950-1		N/A
	Bottom of FIRE ENCLOSURE of OUTDOOR EQUIPMENT mounted directly and permanently on a non-combustible surface (e.g., concrete or metal)		N/A
8.5	Gaskets		P
	If gaskets are used as the method for protection against the ingress of potential contaminants, requirements of 8.5.1 through 8.5.3 apply	Refer to Report No. E324690-A58 for test result in detail.	P
8.5.1	General		N/A
8.5.2	Oil resistance		N/A
8.5.3	Securing means	Mechanical means used.	P
9	PROTECTION OF EQUIPMENT WITHIN AN OUTDOOR ENCLOSURE		P
9.1	Protection from moisture (see Table 2)	After test, no water has entered to enclosure.	P
9.2	Protection from plants and vermin	No openings on the enclosure.	N/A
9.3	Protection from excessive dust		N/A



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
10	MECHANICAL STRENGTH OF ENCLOSURES		P
10.1	General		P
10.2	Impact test (4.2.5 of IEC 60950-1)		P
	Compliance criteria:		P
	- after test the level of protection remains in accordance with 9.1 of this standard		P
	- after test the requirements of 4.2.1 of IEC 60950-1 are met		P
11	OUTDOOR EQUIPMENT CONTAINING VENTED BATTERIES		N/A
	Adequate ventilation in the compartment housing a vented battery, where gassing is possible during normal usage or over-charging	No such battery was provided.	N/A
	Protection against the risk of ignition of local concentrations of hydrogen and oxygen in a compartment containing both a battery and electrical components		N/A
	Hydrogen gas concentration measurement test		N/A
	Measured hydrogen gas concentration (% by volume)		—
	Max. allowed gas concentration for the mixture location in proximity to an ignition source (% by volume)		—
	Max. allowed gas concentration for the mixture location not in proximity to an ignition source (% by volume)		—
	Overcharging of rechargeable battery (see 4.3.8 of IEC 60950-1)		N/A
A	ANNEX A, WATER-SATURATED SULPHUR DIOXIDE ATMOSPHERE (see 8.3.2 and 8.3.3)		N/A
B	ANNEX B, WATER SPRAY TEST (see 9.1)		P
C	ANNEX C, ULTRAVIOLET LIGHT CONDITIONING TEST (see 8.2)		N/A
C.1	Test apparatus.....		N/A
C.2	Mounting of test samples		N/A
C.3	Carbon-arc light-exposure apparatus		N/A



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
C.4	Xenon-arc light-exposure apparatus.....:		N/A

D	ANNEX D, GASKET TESTS (see 8.5)		P
D.1	Gasket tests		P
D.2	Tensile strength and elongation tests (for gaskets that can stretch)	Refer to Report No. E346792-A58 for test result in detail.	P
	Tensile strength (%)		N/A
	Elongation (%)		N/A
	Visible deterioration, deformation, melting, cracking or hardening of the material	There was no visible cracking or other adverse effect of the conditioned material.	P
D.3	Compression test (for gaskets with closed cell construction)		N/A
	Initial thickness of the specimen (mm)		N/A
	Thickness of the specimen after test a) (mm), compression set after test a) (%)		N/A
	Thickness of the specimen after test b) (mm), compression set after test b) (%)		N/A
	Thickness of the specimen after test c) (mm), compression set after test c) (%)		N/A
	Visible cracks or deterioration		N/A
D.4	Oil immersion test		N/A
	Swelling (%)		N/A
	Shrinking (%)		N/A

E	ANNEX E, RATIONALE		—
E.1	General		—
E.2	Electric shock		—
E.3	Energy related hazards		—
E.4	Fire		—
E.5	Mechanical hazards		—
E.6	Heat related hazards		—
E.7	Radiation		—
E.8	Chemical hazards		—
E.9	Biological hazards		—
E.10	Explosion hazards		—



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

IEC 60950-22:2005 – COMMON MODIFICATIONS			
Contents	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions		N/A
General	Delete all the “country” notes in the reference document according to the following list: 4.1 Note 3 4.3 Note 8.5 Note 10.2 Note D.3 Note D.4 Note		N/A

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

ZB	SPECIAL NATIONAL CONDITIONS		N/A
4.1	In Finland, Norway and Sweden , the temperature in winter may be extremely low. For OUTDOOR EQUIPMENT this will demand special design so that the equipment can withstand transport, erection and operation/service at temperatures down to -50°C	This National Condition has been removed in EN 60950-22:2006 + A11:2008.	N/A
10.2	In Finland, Norway and Sweden there are additional requirements for the minimum ambient temperature. See 4.1 of this annex.	This National Condition has been removed in EN 60950-22:2006 + A11:2008.	N/A
D.3	In Finland, Norway and Sweden there are additional requirements for the minimum ambient temperature. See 4.1 of this annex.	This National Condition has been removed in EN 60950-22:2006 + A11:2008.	N/A



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	TABLE: Resistance to ultra-violet radiation		
8.2a)	Tensile strength test (ISO 527)		N/A
Material identification (manufacturer, type designation)			—
Shape and dimensions of test samples			—
Conditioning for Set 1 of samples			—
Conditioning for Set 2 of samples (including Annex C).....			—
Test conditions (T °C, RH %).....			—
Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Tensile strength (MPa)	Test sample #	Tensile strength (MPa)
Arithmetic mean for Set 1 (MPa)			
Arithmetic mean for Set 2 (MPa)			
Retention (%)			
Supplementary information:			



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	TABLE: Resistance to ultra-violet radiation		
8.2b)	Flexural strength test (ISO 178)		N/A
Material identification (manufacturer, type designation)			—
Shape and dimensions of test samples			—
Conditioning for Set 1 of samples			—
Conditioning for Set 2 of samples (including Annex C).....			—
Test conditions (T °C, RH %).....			—
Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Flexural strength (MPa)	Test sample #	Flexural strength (MPa)
Arithmetic mean for Set 1 (MPa)			
Arithmetic mean for Set 2 (MPa)			
Retention (%)			
Supplementary information:			



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	TABLE: Resistance to ultra-violet radiation		
8.2c)	Charpy impact test (ISO 179) - unnotched		N/A
Material identification (manufacturer, type designation)			—
Shape and dimensions of test samples			—
Conditioning for Set 1 of samples.....			—
Conditioning for Set 2 of samples (including Annex C).....			—
Test method (according to Tables 2 and 3 of ISO 179)			—
Test conditions (T °C, RH %).....			—
Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Charpy impact strength (kJ/m ²)	Test sample #	Charpy impact strength (kJ/m ²)
Arithmetic mean for Set 1 (kJ/m ²).....			
Arithmetic mean for Set 2 (kJ/m ²).....			
Retention (%)			
Supplementary information:			



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	TABLE: Resistance to ultra-violet radiation		
8.2d)	Charpy impact test (ISO 179) - notched		N/A
Material identification (manufacturer, type designation)			—
Shape and dimensions of test samples			—
Conditioning for Set 1 of samples			—
Conditioning for Set 2 of samples (including Annex C).....			—
Test method (according to Tables 2 and 3 of ISO 179)			—
Test conditions (T °C, RH %).....			—
Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Charpy impact strength (kJ/m ²)	Test sample #	Charpy impact strength (kJ/m ²)
Arithmetic mean for Set 1 (kJ/m ²).....			
Arithmetic mean for Set 2 (kJ/m ²).....			
Retention (%)			
Supplementary information:			



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	TABLE: Resistance to ultra-violet radiation		
8.2e)	Izod impact test (ISO 180) - unnotched		N/A
Material identification (manufacturer, type designation)			—
Shape and dimensions of test samples			—
Conditioning for Set 1 of samples.....			—
Conditioning for Set 2 of samples (including Annex C).....			—
Test method (according to Table 1 of ISO 180)			—
Test conditions (T °C, RH %).....			—
Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Izod impact strength (kJ/m ²)	Test sample #	Izod impact strength (kJ/m ²)
Arithmetic mean for Set 1 (kJ/m ²).....			
Arithmetic mean for Set 2 (kJ/m ²).....			
Retention (%)			
Supplementary information:			

8.2	TABLE: Resistance to ultra-violet radiation		
8.2f)	Izod impact test (ISO 180) - notched		N/A
Material identification (manufacturer, type designation)			—
Shape and dimensions of test samples			—
Conditioning for Set 1 of samples			—
Conditioning for Set 2 of samples (including Annex C).....			—
Test method (according to Table 1 of ISO 180)			—



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict
Test conditions (T °C, RH %):			—
Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Izod impact strength (kJ/m ²)	Test sample #	Izod impact strength (kJ/m ²)
Arithmetic mean for Set 1 (kJ/m ²):			
Arithmetic mean for Set 2 (kJ/m ²):			
Retention (%) :			
Supplementary information:			



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	TABLE: Resistance to ultra-violet radiation		
8.2g)	Tensile impact test (ISO 8256) - unnotched		N/A
Material identification (manufacturer, type designation)			—
Shape and dimensions of test samples			—
Conditioning for Set 1 of samples			—
Conditioning for Set 2 of samples (including Annex C).....			—
Test method (A or B)			—
Test conditions (T °C, RH %).....			—
Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Tensile impact strength (kJ/m ²)	Test sample #	Tensile impact strength (kJ/m ²)
Arithmetic mean for Set 1 (kJ/m ²).....			
Arithmetic mean for Set 2 (kJ/m ²).....			
Retention (%)			
Supplementary information:			



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

8.2	TABLE: Resistance to ultra-violet radiation		
8.2h)	Tensile impact test (ISO 8256) - notched		N/A
Material identification (manufacturer, type designation)			—
Shape and dimensions of test samples			—
Conditioning for Set 1 of samples			—
Conditioning for Set 2 of samples (including Annex C).....			—
Test method (A or B)			—
Test conditions (T °C, RH %).			—
Set 1 (without Annex C conditioning)		Set 2 (after Annex C conditioning)	
Test sample #	Tensile impact strength (kJ/m ²)	Test sample #	Tensile impact strength (kJ/m ²)
Arithmetic mean for Set 1 (kJ/m ²).....			
Arithmetic mean for Set 2 (kJ/m ²).....			
Retention (%)			
Supplementary information:			



IEC 60950-22			
Clause	Requirement + Test	Result - Remark	Verdict

List of test equipment used:

(Note: This is an example of the required attachment. Other forms with a different layout but containing similar information are also acceptable.)

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Calibration date

Annex D

IEC 60529 test report

TEST REPORT

Report No.: HC20011/2017

Page: 1 of 6

Date: February 16, 2017

VIVOTEK INC.

6F, NO. 192, LIEN-CHENG RD., CHUNG HO,
NEW TAIPEI CITY, TAIWAN, R.O.C.

The following merchandise was submitted and identified by the vendor as:

Product Description: Network Camera
Style/ Item No.: MD8565-N/ No.1
Manufacturer/ Vendor: Vivotek Inc.
Country of Origin: Taiwan
Quantity: Total 1 piece
Testing Period: Feb. 8, 2017 to Feb. 10, 2017
Note: (Client's declaration) The FD8366-V used the identical enclosure.

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Required:

Test for Degrees of Protection Provided by Enclosures (IEC 60529 Edition 2.2: 2013)

IP Code	IP66
First characteristic numeral	Degrees of protection against access to hazardous parts and against solid foreign objects
Second characteristic numeral	Degrees of protection against ingress of water

Test Results:

Conclusion
Submittals sample(s) comply with the requirement and acceptance conditions of IEC 60529 Edition 2.2: 2013 Degrees of Protection Provided by Enclosures -- IP66 The detailed description of test result, please see attached sheet(s).

Signed for and on behalf of
SGS TAIWAN Ltd.

Hank Chiou

Hank Chiou
Supervisor

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC20011/2017

Page: 2 of 6

Test for Degrees of Protection Provided by Enclosures:Test Equipment:

Name	Brand	Model	Serial No.
1.0 mm Test Wire Probe	ED&D	TRP-02	B0050180
Digital Force Gauge	ALGOL	HF-50	HF-106764
Dust Tester	T-MACHINE	TMJ-9723S	T-23-110708
IPX6 Water Jet Hose Nozzle Set	PTL	P03.28	5040045

Lab Environmental Conditions:Ambient temperature: $(25 \pm 3) ^\circ\text{C}$ Ambient humidity: $(55 \pm 20) \% \text{ RH}$ Test Method/ Specification:

Test method: IEC 60529 Edition 2.2: 2013 --IP66

1. Test for protection against access to hazardous parts:

Test method: The test wire with 1.0 mm in diameter and 100 mm long is pushed against or inserted through any openings of the enclosure with designated force. Examine whether the test wire touches the hazardous live parts inside the enclosure or not.

Test force: 1 N $\pm$ 10 %**2. Test for protection against solid foreign objects:**Test method: Dust testSample condition: Non-OperatingType of dust: Talcum powderThe amount of dust: 2 kg per cubic meter of the chamber volumeThe maximum depression: $\leq 20 \text{ mbar}$ Test duration: 8 hours

- Examine the protection against ingress dust of specimen(s) after this test.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC20011/2017

Page: 3 of 6

Test Method/ Specification--Continued:

3. Test for protection against water:

Sample condition: Non-Operating

Internal diameter

of the nozzle: 12.5 mm

Delivery rate: 100 l/minute $\pm 5\%$

Distance from nozzle

to enclosure surface: between 2.5 m and 3 m

Core of the substantial

stream: circle of approximately 120 mm diameter at 2.5 m distance from nozzle

Test duration: Total 3 minutes

- Examine the protection against ingress water of specimen after this test.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC20011/2017

Page: 4 of 6

Specimen:

Style/ Item No.: MD8565-N/ No.1

Quantity: Total 1 piece

Test Result:

A. Degrees of protection against access to hazardous parts and against solid foreign objects (IP6X)

A-1 Test for protection against access to hazardous parts (IP6X)

Test Result		
Check Item		Style/ Item No.
		MD8565-N/ No.1
1	Does the test wire penetrate any openings of the enclosure?	No
2	(followed check item 1) If the test wire penetrates any openings of the enclosure, does the test wire touch any hazardous live parts or any hazardous mechanical parts?	N/A
3	(followed check item 2) Does adequate clearance be kept between the test wire and hazardous live parts or hazardous mechanical parts?	N/A
Note 1: N/A means "Not Applicable".		
Note 2: The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60529 Edition 2.2: 2013 and in accordance with the acceptance conditions specified by client.		

A-2 Test for protection against solid foreign objects (IP6X)

Test Result		
Check Item		Style/ Item No.
		MD8565-N/ No.1
1	Does any dust deposit inside the enclosure?	No
Note 1: N/A means "Not Applicable".		
Note 2: The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60529 Edition 2.2: 2013 and in accordance with the acceptance conditions specified by client.		

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC20011/2017

Page: 5 of 6

Test Result--Continued:

B. Degree of protection against ingress of water (IPX6)

Test Result		
Check Item		Style/ Item No.
		MD8565-N/ No.1
1	Does any water enter the enclosure?	No
2	(followed check item 1) If any water has entered, does the water accumulate near the cable end or live parts?	N/A
2.1	(followed check item 2) Does the water be sufficient to interfere with the correct operation of the equipment or impair safety?	N/A
2.2	(followed check item 2.1) Does the water deposit on insulation parts where it could lead to tracking along the creepage distances?	N/A
2.3	(followed check item 2.2) Does the water reach live parts or windings not designed to operate when wet?	N/A
Note 1: N/A means "Not Applicable".		
Note 2: The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60529 Edition 2.2: 2013 and in accordance with the acceptance conditions specified by client.		

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

Report No.: HC20011/2017

Page: 6 of 6

Test Photos:

	
1. Appearance of specimen	2. Appearance of specimen
	
3. Test for protection against solid foreign objects (Dust test)	4. Test for protection against water

— — — The End of Test Report — — —

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

AUDIX Technology Corporation
敦吉檢測科技股份有限公司

安規部

台北市內湖路一段 120 巷 8 號 7 樓
7th F1., No.8, Lane 120, Nei-Hu Road,
Sec.1, Taipei, Taiwan R.O.C.

TEL : +886-2-8797-6688 FAX : +886-2-2659-4833