

UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2019-05-09 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Component Recognition
CCN:	NWGQ2, NWGQ8 (Information Technology Equipment Including Electrical Business Equipment)
Complementary CCN:	N/A
Product:	LCD Module
Model:	G121X1-L03, G121X1-L04, G121XCE-LXX, G121ICE-LXX (X=0-9, A-Z or blank, X for marketing purpose and no impact safety related critical components and constructions)
Rating:	(Optional) 3.6Vdc max., 0.65A max. or 5.25Vdc max., 0.48A max. for LCD Panel 13.2Vdc max., 1.07A max. or 17.0Vdcmax., 0.6A max. for DC to DC converter
Applicant Name and Address:	INNOLUX CORP 160 KESYUE RD JHUNAN SCIENCE PARK MIAOLI HSIEN 350 TAIWAN

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

UL authorizes the applicant to reproduce the latest pages of the referenced Test Report consisting of the first page of the Specific Technical Criteria through to the end of the Conditions of Acceptability.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared By: Timothy Lai / Project Handler

Reviewed By: Steven Huang / Reviewer

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

A. Authorization - The Authorization page may include additional Factory Identification Code markings.

B. Generic Inspection Instructions -

- i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
- ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
- iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

Electric components are mounted on PWB incorporated with a 12.1 inch TFT-LCD panel with a LED backlight unit, panel control board with DC/DC Converter circuit.

Model Differences

All models are identical except for model designation.

Test Item Particulars

Mass of equipment (kg)	0.53 kg max.
Equipment mobility	for building-in
Connection to the mains	No direct connection to the mains
Operating condition	continuous
Access location	operator accessible
Over voltage category (OVC)	OVC I
Mains supply tolerance (%) or absolute mains supply values	No direct connection
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class III (supplied by SELV)
Considered current rating of protective device as part of the building installation (A)	20 A
Pollution degree (PD)	PD 2
IP protection class	IP X0
Altitude of operation (m)	Up to 2000 m
Altitude of test laboratory (m)	less than 2000 m

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of : 50 degree C for Panel with control board (A), (B); 70 degree C for Panel with control board (G); 85 degree C for Panel with control board (C), (D), (E), (F); 80 degree C for Panel with control board (H), (I)
- LEDs provided in the product are considered low power devices : Yes

Engineering Conditions of Acceptability

For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC. When installed in an end-product, consideration must be given to the following:

- The power supply terminals and/or connectors are : Suitable for factory wiring only
- The investigated Pollution Degree is : 2
- Proper bonding to the end-product main protective earthing termination is : Not required
- The following end-product enclosures are required : Electrical, Fire, Mechanical
- The following LEDs operate within the exempt group per IEC 62471 : LEDs provided in the product are considered low power devices
- The Heating Test shall be re-conducted in the end-use product

Additional Information

- Project 4788130269,

Employing the alternate:

(1) add one model name G121XCE-LXX (X=0-9, A-Z or blank, X for marketing purpose and no impact safety related critical components and constructions), all models are identical except for model designation.

(2) corrected ratings from "(Optional) 3.6Vdc max., 540 mA max or 5.25Vdc max., 400 mA max. (For Panel), 13.2Vdc max., 1.0 A max. (For DC/DC converter)" to "(Optional) 3.6Vdc max., 0.65A max. or 5.25Vdc max., 0.48A max. for LCD Panel, 13.2Vdc max., 1.07A max. or 17.0Vdcmax., 0.6A max. for DC to DC converter".

(3) add alternative three source of Control board (C), (D) and (E).

(4) upgrade UL Standard from UL 60950-1 2nd to UL 60950-1 2nd, 2014-10-14.

- Project 4788544282,

Employing the alternate one source of panel control board (F).

- Project 4788702085,

Employing the alternate one source of panel control board (G).

- Project 4789031127,

Employing the alternate one source of panel control board (H) with maximum ambient temperature (Tma) is 80 degree C.

- Project 4789254255,

Employing the alternate one source of panel control board (I) and one model G121ICE-LXX.

Additional Standards

The product fulfills the requirements of: CSA CAN/CSA-C22.2 No. 60950-1 2nd Edition, Revised October 14, 2014

Markings and Instructions

Clause Title	Marking or Instruction Details
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Issue Date: 2009-12-21

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Report Reference #

E207943-A221-UL

Revision Date: 2019-12-10

Power rating - Company identification	Listees or Recognized companys name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Special Instructions to UL Representative N/A	

BD1.0	TABLE: Production-Line Testing Requirements					
BD1.1	Electric Strength Test Special Constructions – Refer to Generic Inspection Instructions, Part AC for further information.					
Model	Component	Removable parts	Test probe location	Test V rms	Test V dc	Test Time, s
N/A	--	--	--	--	--	--
BD1.2	Earthing Continuity Test Exemptions – This test is not required for the following models:					
	All Models (See Models and Ratings for detail)					
BD1.3	Electric Strength Test Exemptions – This test is not required for the following models:					
	All Models (See Models and Ratings for detail)					
BD1.4	Electric Strength Test Component Exemptions – The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:					
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BE1.0	Sample and Test Specifics for Follow-Up Tests at UL				
Model	Component	Material	Test	Sample (s)	Test Specifics
N/A	--	--	--	--	--

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950-1 or relevant component standard	(See appended Table 1.5.1)	Pass
1.5.2	Evaluation and testing of components	Components certified to IEC harmonized standard and checked for correct application. Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950-1 and the relevant component Standard. Components, for which no relevant IEC-Standard exist, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950-1.	Pass
1.5.3	Thermal controls		N/A
1.5.4	Transformers		N/A
1.5.5	Interconnecting cables		N/A
1.5.6	Capacitors bridging insulation		N/A
1.5.7	Resistors bridging insulation		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		N/A
1.5.9	Surge suppressors		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

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

1.6	Power interface		Pass
1.6.1	AC power distribution systems	The unit is supplied by SELV.	N/A
1.6.2	Input current	The steady state input current of the equipment did not exceed the RATED CURRENT by more than 10% under normal load See appended table 1.6.2 for details	Pass
1.6.3	Voltage limit of hand-held equipment	The unit is not a hand-held equipment.	N/A
1.6.4	Neutral conductor		N/A

1.7	Marking and instructions		Pass
1.7.1	Power rating and identification markings	Product provided with optional DC voltage rating	Pass
1.7.1.1	Power rating marking		Pass
	Multiple mains supply connections.....:		N/A
	Rated voltage(s) or voltage range(s) (V)	(Optional) 3.6 Vdc max. or 5.25Vdc max. (For Panel) 13.2Vdc max. or 17.0Vdcmax. (for DC/DC converter)	Pass
	Symbol for nature of supply, for d.c. only.....:	(Optional) (60417-2-IEC-5031)	Pass
	Rated frequency or rated frequency range (Hz)		N/A
	Rated current (mA or A)	(Optional) 540 mA max. or 400 mA max. (For Panel) 1.07 A max. or 0.6 A max. (For DC/DC converter)	Pass
1.7.1.2	Identification markings		Pass
	Manufacturer's name or trade-mark or identification mark	CHIMEI INNOLUX or CHI MEI OPTOELECTRONICS or INNOLUX or E207943 which is used as identification mark in US/CA deviation.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Model identification or type reference	Refer to the Model information at the beginning of this Test Report.	Pass
	Symbol for Class II equipment only		N/A
	Other markings and symbols	Additional symbols may be provided when submitted for National Approval.	Pass
1.7.1.3	Use of graphical symbols		N/A
1.7.2	Safety instructions and marking	Safety instructions in English. Other languages will be provided when submitted for national approval.	Pass
1.7.2.1	General		N/A
1.7.2.2	Disconnect devices	To be evaluated in the end product.	N/A
1.7.2.3	Overcurrent protective device	To be evaluated in the end product.	N/A
1.7.2.4	IT power distribution systems		N/A
1.7.2.5	Operator access with a tool		N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment		N/A
	Methods and means of adjustment; reference to installation instructions		N/A
1.7.5	Power outlets on the equipment	No power outlet	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)		N/A
1.7.7	Wiring terminals		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		N/A
1.7.8.1	Identification, location and marking		N/A
1.7.8.2	Colours		N/A
1.7.8.3	Symbols according to IEC 60417.....		N/A
1.7.8.4	Markings using figures		N/A
1.7.9	Isolation of multiple power sources		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.7.10	Thermostats and other regulating devices		N/A
1.7.11	Durability	All markings provided on UL Recognized Component labels suitable for surface they are applied upon and meet the durability test.	Pass
1.7.12	Removable parts	No marking is located on (a) removable part(s).	Pass
1.7.13	Replaceable batteries		N/A
	Language(s)		—
1.7.14	Equipment for restricted access locations.....		N/A

2	PROTECTION FROM HAZARDS		Pass
2.1	Protection from electric shock and energy hazards		N/A
2.1.1	Protection in operator access areas	To be determined in the end-product.	N/A
2.1.1.1	Access to energized parts		N/A
	Test by inspection		N/A
	Test with test finger (Figure 2A)		N/A
	Test with test pin (Figure 2B)		N/A
	Test with test probe (Figure 2C)		N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring		N/A
	Working voltage (V _{peak} or V _{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards		N/A
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment		N/A
	Measured voltage (V); time-constant (s).....		—
2.1.1.8	Energy hazards – 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		N/A
2.1.3	Protection in restricted access locations		N/A

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

2.2	SELV circuits		Pass
2.2.1	General requirements	The unit is for build-in and supplied by SELV. The SELV reliability shall be considered in the end product.	Pass
2.2.2	Voltages under normal conditions (V)	All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.	Pass
2.2.3	Voltages under fault conditions (V)		N/A
2.2.4	Connection of SELV circuits to other circuits	SELV circuits are only connected to other SELV circuit	Pass

2.3	TNV circuits		N/A
2.3.1	Limits	No TNV Circuit	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		N/A
2.4.2	Limit values		N/A
	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

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Clause	Requirement + Test	Result - Remark	Verdict

2.5	Limited power sources		N/A
	a) Inherently limited output		N/A
	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		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)		—
	Current rating of overcurrent protective device (A) ..		—

2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing		N/A
2.6.2	Functional earthing		N/A
	Use of symbol for functional earthing		N/A
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		N/A
	Rated current (A), cross-sectional area (mm ²), AWG		—
	Protective current rating (A), cross-sectional area (mm ²), AWG		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min)		N/A
2.6.3.5	Colour of insulation		N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm)		—

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Clause	Requirement + Test	Result - Remark	Verdict
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		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
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 interlocks 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		N/A
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

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Clause	Requirement + Test	Result - Remark	Verdict
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		Pass
2.9.1	Properties of insulating materials	Natural rubber, materials containing asbestos and hygroscopic materials are not used as insulation.	Pass
2.9.2	Humidity conditioning		N/A
	Relative humidity (%), temperature (°C) :		—
2.9.3	Grade of insulation	Functional insulation only. (See 5.3.4)	Pass
2.9.4	Separation from hazardous voltages		N/A
	Method(s) used :		—

2.10	Clearances, creepage distances and distances through insulation		Pass
2.10.1	General	Pollution degree 2 applicable. Unit is for build-in and intend to be supplied by SELV. Only functional insulation required.	Pass
2.10.1.1	Frequency :		N/A
2.10.1.2	Pollution degrees :	Pollution Degree 2 applicable.	Pass
2.10.1.3	Reduced values for functional insulation	There is no minimum CLEARANCE or CREEPAGE DISTANCE for FUNCTIONAL INSULATION.(See 5.3.4)	Pass
2.10.1.4	Intervening unconnected conductive parts		N/A
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	Functional insulation	Pass
2.10.3.1	General	Considered.	Pass

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.2	Mains transient voltages	OC I	Pass
	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	Built-In unit, it should be considered in end product.	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
2.10.4	Creepage distances	Functional insulation	N/A
2.10.4.1	General		N/A
2.10.4.2	Material group and comparative tracking index		N/A
	CTI tests..... :	Material group IIIb, $100 \leq CTI < 175$	—
2.10.4.3	Minimum creepage distances	Only function insulation	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
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

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Clause	Requirement + Test	Result - Remark	Verdict
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure		N/A
	Electric strength test		—
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		N/A
	b) Basic, supplementary, reinforced insulation		N/A
	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		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage		N/A
	- Basic insulation not under stress		N/A
	- Supplementary, reinforced insulation		N/A
2.10.6	Construction of printed boards	No special coating is used.	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		N/A
	Number of insulation layers (pcs)		N/A
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		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.9	Thermal cycling		N/A
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		Pass
3.1	General		N/A
3.1.1	Current rating and overcurrent protection		N/A
3.1.2	Protection against mechanical damage		N/A
3.1.3	Securing of internal wiring		N/A
3.1.4	Insulation of conductors		N/A
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections		N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors		N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring		N/A

3.2	Connection to a mains supply		N/A
3.2.1	Means of connection	Evaluated on end product	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
	Number of conductors, diameter of cable and conduits (mm)		—
3.2.4	Appliance inlets		N/A
3.2.5	Power supply cords		N/A
3.2.5.1	AC power supply cords		N/A
	Type		—
	Rated current (A), cross-sectional area (mm²), AWG		—
3.2.5.2	DC power supply cords		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
3.4.11	Multiple power sources		N/A

3.5	Interconnection of equipment		Pass
3.5.1	General requirements		Pass
3.5.2	Types of interconnection circuits	Interconnection circuits are SELV	Pass
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment		N/A

4	PHYSICAL REQUIREMENTS		Pass
4.1	Stability		N/A
	Angle of 10°		N/A
	Test force (N)		N/A

4.2	Mechanical strength		N/A
4.2.1	General	Class III product	N/A
	Rack-mounted equipment.		N/A
4.2.2	Steady force test, 10 N		N/A
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N		N/A
4.2.5	Impact test		N/A
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test; height (mm)		N/A
4.2.7	Stress relief test		N/A
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified		N/A
4.2.9	High pressure lamps		N/A
4.2.10	Wall or ceiling mounted equipment; force (N)		N/A

4.3	Design and construction		Pass
4.3.1	Edges and corners	To be evaluated for the final system.	N/A
4.3.2	Handles and manual controls; force (N)..... :		N/A
4.3.3	Adjustable controls		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.4	Securing of parts		N/A
4.3.5	Connection by plugs and sockets		N/A
4.3.6	Direct plug-in equipment		N/A
	Torque		—
	Compliance with the relevant mains plug standard		N/A
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
4.3.9	Oil and grease		N/A
4.3.10	Dust, powders, liquids and gases		N/A
4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids		N/A
	Quantity of liquid (l)		N/A
	Flash point (°C)		N/A
4.3.13	Radiation		Pass
4.3.13.1	General		N/A
4.3.13.2	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		N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation		N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	LED used as backlight	Pass
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class		—

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.5.2	Light emitting diodes (LEDs)	For LED backlight, the luminance is far less than 10000 cd/m2. With reference to subclause 4.1 of IEC 62471:2006 no further test is necessary.	Pass
4.3.13.6	Other types		N/A

4.4	Protection against hazardous moving parts		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas		N/A
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations		N/A
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).....		N/A
	Is considered to cause pain, not injury. b)		N/A
	Considered to cause injury. c)		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning		N/A

4.5	Thermal requirements		Pass
4.5.1	General		Pass
4.5.2	Temperature tests	The equipment and its component parts did not attain excessive temperatures during normal operation. (see appended table 4.5)	Pass
	Normal load condition per Annex L	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established.	—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.5.3	Temperature limits for materials	The equipment and its components or parts did not attain excessive temperatures during normal operation. (See appended table 4.5)	Pass
4.5.4	Touch temperature limits		Pass
4.5.5	Resistance to abnormal heat		N/A

4.6	Openings in enclosures		N/A
4.6.1	Top and side openings	To be evaluated in the end product.	N/A
	Dimensions (mm)		—
4.6.2	Bottoms of fire enclosures		N/A
	Construction of the bottom, dimensions (mm)		—
4.6.3	Doors or covers in fire enclosures		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		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks)		—

4.7	Resistance to fire		Pass
4.7.1	Reducing the risk of ignition and spread of flame	Method 1: Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	Pass
	Method 1, selection and application of components wiring and materials		Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	Investigated in end product.	N/A
4.7.2.1	Parts requiring a fire enclosure		N/A
4.7.2.2	Parts not requiring a fire enclosure		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.3	Materials		Pass
4.7.3.1	General	See below.	Pass
4.7.3.2	Materials for fire enclosures		N/A
4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better. Internal wiring is UL Recognized, rated VW-1 or FT-1. (See appended table 1.5.1)	Pass
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Pass
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)		N/A
5.1.2.1	Single connection to an a.c. mains supply	Built-In unit, it should be considered in end product.	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		N/A
5.1.5	Test procedure		N/A
5.1.6	Test measurements		N/A
	Supply voltage (V)		—
	Measured touch current (mA)		—
	Max. allowed touch current (mA)		—
	Measured protective conductor current (mA)		—
	Max. allowed protective conductor current (mA) ..		—
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
	Supply voltage (V)		—
	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		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A
5.2	Electric strength		N/A
5.2.1	General	Class III equipment	N/A
5.2.2	Test procedure		N/A
5.3	Abnormal operating and fault conditions		Pass
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	Functional insulation complies with the requirements. (Method C)	Pass
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE		N/A
5.3.7	Simulation of faults		N/A
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions		N/A
5.3.9.1	During the tests		N/A
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

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Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
	Supply voltage (V) :		—
	Current in the test circuit (mA) :		—
6.1.2.2	Exclusions :		N/A
6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1	Separation requirements		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) :		—
	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		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		Pass
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples :		—

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

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Clause	Requirement + Test	Result - Remark	Verdict
B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N/A
B.1	General requirements		N/A
	Position		—
	Manufacturer		—
	Type		—
	Rated values		—
B.2	Test conditions		N/A
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days)		—
	Electric strength test: test voltage (V)		—
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V)		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V)		N/A
B.8	Test for motors with capacitors		N/A
B.9	Test for three-phase motors		N/A
B.10	Test for series motors		N/A
	Operating voltage (V)		—
C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N/A
	Position		—
	Manufacturer		—
	Type		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	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
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F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		Pass
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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
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

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Clause	Requirement + Test	Result - Remark	Verdict
	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)		Pass
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
L.7	Other business equipment		Pass
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	Ringling signal		N/A
M.3.1.1	Frequency (Hz)		—

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Clause	Requirement + Test	Result - Remark	Verdict
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		—
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)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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
			—

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		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)		Pass
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AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

BB	ANNEX BB, CHANGES IN THE SECOND EDITION	—	
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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		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		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols.....:		N/A
	Information of user instructions, maintenance and/or servicing instructions.....:		N/A
EE.3	Inadvertent reactivation test.....:		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A
	Use of markings or symbols.....:		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A):		N/A
	Test with wedge probe (Figure EE1 and EE2):		N/A

1.5.1	TABLE: List of critical components					Pass
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Product Category CCN(s)	Mark(s) of conformity	Supplement ID
01. LCD Panel	--	--	12.1", TFT type, LED Backlight	--	--	
02. Printed Wiring Board (Optional)	Interchangeable	Interchangeable	V-1 minimum, 105 degree C minimum	ZPMV2	UL	
03. Plastic Material of Flexible Printed Wiring (Optional)	Interchangeable	Interchangeable	Rated V-2 minimum or VTM-2 minimum, when no components mounted on surface	QMFZ2, QMTS2	UL	
03a. Flexible Printed Wiring (Optional) (Alternate)	Interchangeable	Interchangeable	Rated V-2 minimum or VTM-2 minimum, when no components mounted on surface	ZPKX2, ZPMV2	UL	
03b. Flexible Printed Wiring (Optional) (Alternate)	Interchangeable	Interchangeable	If components mounted on surface, it should be minimum V-1 or VTM- 1, 90 degree C minimum	ZPKX2, ZPMV2	UL	
03c. Flexible Printed Wiring with Integrated circuit package (Optional) (Alternate)	--	--	Flammability level is ignored, When small parts (4g max. or 1750 mm ³ maximum.) are separated from electrical parts (other than insulated wires and cables) by at least 13 mm of air or by a solid barrier of V-1 or VTM-1 class material	--	--	
04. Internal Plastic (Frame)	Interchangeable	Interchangeable	Rated V-2 minimum or VTM-2 minimum	QMFZ2	UL	

04a. Internal Plastic (Frame) (alternate)	--	--	Flammability level is ignored, when small parts (4g max. or 1750mm ³ max.) are separated from electrical parts (other than insulated wires and cables) by at least 13 mm of air or by a solid barrier of V-1 or VTM-1 class material	--	--	
04a. Internal Plastic (Frame) (Alternate)	CHI LIN TECHNOLOGY COLTD	FG-0110(+)	Rate V-2, min. 0.5mm thickness (evaluated 50W (20mm) Vertical Burning Test, UL 94)	--	--	
05.Connectors and Receptacles (Secondary SELV circuit)	Interchangeable	Metal / Plastic	Copper alloy pins housed in bodies of plastic rated V-2 or VTM-2 minimum	QMFZ2	UL	
05a. Connectors and Receptacles (Secondary SELV circuit) (alternate)	Interchangeable	Interchangeable	--	ECBT2	UL	
05b. Connectors and Receptacles (secondary SELV circuits) (alternate)	--	--	Flammability level is ignored, when small parts (4g max. or 1750mm ³ max.) are mounted on V-1 or VTM-1 class material	--	--	

05c. Connectors and Receptacles (secondary SELV circuits) (alternate)	--	--	Flammability level is ignored, when small parts (4g max. or 1750mm ³ max.) are separated from electrical parts (other than insulated wires and cables) by at least 13 mm of air or by a solid barrier of V-1 or VTM-1 class material	--	--	
06. Module Label	Interchangeable	Interchangeable	95 degree C min. if maximum surface temperature not specified	PGDQ2, PGJ12	UL	

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

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)					Pass
U (V)	I (A)	I _{rated} (A)	P (W)	Fuse #	I _{fuse} (A)	Condition/status
--	--	--	--	--	--	Test with Model G121X1-L03
3.6	0.58	0.54	2.11	--	--	Max Normal Load
5.25	0.43	0.4	2.23	--	--	Max Normal Load
13.2	0.85	1.0	11.2	--	--	Max Normal Load
--	--	--	--	--	--	Test with Model G121X1-L04
3.6	0.57	0.54	2.06	--	--	Max Normal Load
5.25	0.42	0.4	2.18	--	--	Max Normal Load
13.2	0.51	1.0	6.67	--	--	Max Normal Load
Supplementary information:						
(1) Maximum normal load was defined as follows: Input 3.6Vdc or 5.25Vdc for LCD Panel and 13.2Vdc for DC/DC converter and operated continuously (Unit connected to Personal Computer and with maximum brightness and contrast).						
(2) Comments:						
LCD Panel : 3.6Vdc max., 540mA max. or 5.25Vdc max., 410mA max.						
DC to DC Converter: 13.2Vdc max., 1.0A max. or 17.0Vdcmax., 0.6A max.						
(3) Other tests results refer to CB report.						

2.1.1.5 c) 1)	TABLE: max. V, A, VA test	N/A
----------------------	----------------------------------	-----

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

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			Pass
Component (measured between)		max. voltage (V) (normal operation)		Voltage Limiting Components
		V peak	V d.c.	
--		--	--	--
Fault test performed on voltage limiting components		Voltage measured (V) in SELV circuits (V peak or V d.c.)		
--		--		
Supplementary information:				
Tests results refer to CB report.				

2.5	TABLE: Limited power sources					N/A	
Circuit output tested:							
Note: Measured Uoc (V) with all load circuits disconnected:							
Components	Test condition (Single fault)	Uoc (V)	I _{sc} (A)		VA		
			Meas.	Limit	Meas.	Limit	
Supplementary information:							
Sc=Short circuit, Oc=Open circuit							

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.2	Table: working voltage measurement				N/A
Location		RMS voltage (V)	Peak voltage (V)	Comments	
Supplementary information:					

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements						Pass
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
--	--	--	--	--	--	--	
Functional:							
Basic/supplementary:							
Reinforced:							
Supplementary information:							
This component is Class III (supplied by SELV) and merely functional insulation required.							

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

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Clause	Requirement + Test	Result - Remark	Verdict

4.3.8	TABLE: Batteries								N/A
The tests of 4.3.8 are applicable only when appropriate battery data is not available									
Is it possible to install the battery in a reverse polarity position?									
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition									
Max. current during fault condition									
Test results:									Verdict
- Chemical leaks									
- Explosion of the battery									
- Emission of flame or expulsion of molten metal									
- Electric strength tests of equipment after completion of tests									
Supplementary information:									

4.3.8	TABLE: Batteries			N/A
Battery category(Lithium, NiMh, NiCad, Lithium Ion, Etc.)				
Manufacturer				
Type / model				
Voltage				
Capacity (mAh)				
Tested and Certified by (incl. Ref. No.)				
Circuit protection diagram (refer to indicated supplement of Enclosure – Miscellaneous)				
MARKINGS AND INSTRUCTIONS (1.7.13)				

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

Location of replaceable battery			
Language(s)			
Close to the battery			
In the servicing instructions			
In the operating instructions			
In the operating instructions			
Supplementary information:			
Additional devices may be described in Enclosure - Miscellaneous			

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

4.5	TABLE: Thermal requirements						Pass
	Supply voltage (V)	See below	See below	--	--	--	—
	Ambient T_{min} (°C)	--	--	--	--	--	—
	Ambient T_{max} (°C)	--	--	--	--	--	—
Maximum measured temperature T of part/at.....:		T (°C) #1	T (°C) #2	T (°C) #3	T (°C) #4	T (°C) #5	Allowed T_{max} (°C)
With LCD Panel G121X1-L03		Test condition: 3.6 Vdc / 13.2 Vdc Maximum normal load, 2 hrs 00 min (Original)	Test condition: 3.6 Vdc / 13.2 Vdc Maximum normal load, 2 hrs 00 min (Shift to 50 degree C)	--	--	--	--
1. Ambient		22.5	50.0	--	--	--	--
2. L1 coil		42.2	69.7	--	--	--	105
3. U2 near PCB		44.2	71.7	--	--	--	105
4. L2 coil		49.5	77.0	--	--	--	105
5. L3 coil		50.1	77.6	--	--	--	105
6. U1 near PCB		50.7	78.2	--	--	--	105
7. LCD Panel rear near Label		40.8	68.3	--	--	--	70
8. LCD Panel Front		36.5	64.0	--	--	--	95

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

With LCD Panel G121X1-L04		Test condition: 3.6 Vdc / 13.2 Vdc Maximum normal load, 2 hrs 00 min (Original)	Test condition: 3.6 Vdc / 13.2 Vdc Maximum normal load, 2 hrs 00 min (Shift to 50 degree C)	--	--	--	--
1. Ambient		22.8	50.0	--	--	--	--
2. L1 coil		37.3	64.5	--	--	--	105
3. U2 near PCB		40.2	67.4	--	--	--	105
4. L2 coil		37.5	64.7	--	--	--	105
5. L3 coil		38.2	65.4	--	--	--	105
6. U1 near PCB		39.3	66.5	--	--	--	105
7. LCD Panel rear near Label		34.7	61.9	--	--	--	70
8. LCD Panel Front		32.3	59.5	--	--	--	95
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 1.6.1 at voltages as described in 1.6.2. (2) With a specified ambient temperature of 50 degree C (for LCD Panel G121X1-L03 (type a) and G121X1-L04 (type a), the max. temperature is calculated as follows: Components with: - maximum temperature of (Choke), Tmax(°C) = 105 de gree C. - maximum temperature of (PCB), Tmax(°C) = 105 degr ee C. - maximum temperature of (Panel), Tmax (°C) = 95 de gree C. - when no class of insulation is given, min. insulation 105 degree C assumed. Accessible part: - Enclosure is plastic: 95 degree C. (3) Other tests results refer to CB report.							

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

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

4.7	TABLE: Resistance to fire					Pass
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence	
--	--	--	--	--		
Supplementary information:						
See Critical Component Table (1.5.1).						

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			N/A
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Functional:				
Basic/supplementary:				
Reinforced:				
Supplementary information:				

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests					Pass
	Ambient temperature (°C)				--	—
	Power source for EUT: Manufacturer, model/type, output rating					—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
--	--	--	--	--	--	--
Supplementary information:						
See Clause 5.3.4 for functional insulation.						

C.2	TABLE: Transformers							N/A
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Require d 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	Measure d clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers	
Transformer type number					Enclosure – Miscellaneous ID			
Supplementary information:								

Enclosure

National Differences

Canada

USA

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 with A1:2009 and A2:2013**CANADA NATIONAL DIFFERENCES**

Information technology equipment – Safety – Part 1: General requirements

Differences according to	CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014
Attachment Form No	CA_ND_IEC60950_1g
Attachment Originator	CSA
Master Attachment	Date (2015-05)
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1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.		Pass
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A:		N/A
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the CEC/NEC. For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the CEC/NEC are required to have special construction features and identification markings.		N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and if it is part of a range that extends into the Table 2 "Normal Operating Conditions." Likewise, a voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with CEC Part 1 or NEC shall be marked with the voltage rating and "Class 2" or equivalent. Marking shall		N/A

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	be located adjacent to the terminals and shall be visible during wiring.		
2.5	Where a fuse is used to provide Class 2, Limited Power Source, or TNV current limiting, it shall not be operator-accessible unless it is not interchangeable.		N/A
2.6	Equipment with isolated ground (earthing) receptacles are required to comply with NEC 250.146(D) and CEC 10-112 and 10-906(8).		N/A
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable. Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains shall be in accordance with the NEC/CEC.		N/A
3.2.1	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.		N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instruction requirements.		N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length. Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
3.2.9	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0		N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).		N/A

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for US/Canadian wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified (1.7.7).		N/A
3.3.5	First column of Table 3E revised to require "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		N/A
3.4.2	Motor control devices are required for cord-connected equipment with a motor if the equipment is rated more than 12 A, or if the motor has a nominal voltage rating greater than 120 V, or is rated more than 1/3 hp (locked rotor current over 43 A).		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position.		N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the computer room remote power-off circuit.		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.		N/A
4.3.13.5.1	Equipment with lasers is required to meet the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less. For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A
	Non-metallic enclosures of equipment for use in spaces used for environmental air (plenums) are required to comply with UL 2043.		N/A
Annex H	Equipment that produces ionizing radiation is required to comply with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
OTHER DIFFERENCES			
The following key national differences are based on requirements other than national regulatory requirements.			
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have		Pass

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements. These components include: attachment plugs, battery packs (rechargeable type, used with transportable equipment), cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cutoffs, thermostats, (multi-layer) transformer winding wire, transient voltage surge suppressors, tubing, wire connectors, and wire and cables.		
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as either a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply. This maximum operating voltage shall include consideration of the battery charging "float voltage" associated with the intended supply system, regardless of the marked power rating of the equipment.		N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 V _{peak} or 60 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.		N/A
2.6.2	Equipment with functional earthing is required to be marked with the functional earthing symbol (IEC 60417-6092).		N/A
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.		N/A
4.3.2	Equipment with handles is required to comply with special loading tests.		N/A
4.3.8	Battery packs for both portable and stationary applications are required to comply with special component requirements.		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current		N/A

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	measurement tests.		
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are to be overloaded. During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test shall be repeated twice (three tests total) using new components as necessary.		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.		N/A
Annex EE	UL articulated accessibility probe (Fig EE.3) required for assessing accessibility to document/media shredders instead of the Figure 2A test finger.		N/A
M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		N/A

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 with A1: 2009 and A2:2013**U.S.A. NATIONAL DIFFERENCES**

Information technology equipment – Safety – Part 1: General requirements

Differences according to:	UL 60950-1-07(Second Edition) + A1: 2011 + A2: 2014
Attachment Form No	US_ND_IEC60950_1G
Attachment Originator	UL
Master Attachment	Date 2014-07

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	Special national conditions	Pass
1.1.1	All equipment is designed as to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and if applicable, the National Electrical Safety Code, IEEE C2	Pass
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75	Pass
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors	N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A	N/A
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the /NEC	N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC are required to have special construction features and identification markings	N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings	N/A
	A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and	N/A
	- if it is part of a range that extends into the Table 2 "Normal Operating Conditions"	N/A
	Likewise, a voltage rating is not to be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions"	N/A

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with NEC or CEC Part 1 or NEC are marked with the voltage rating and "Class 2" or equivalent		N/A
	- Marking is located adjacent to the terminals		N/A
	- Marking is visible during wiring		N/A
2.5	Fuse providing Class 2, Limited Power Source, or TNV current limiting is not operator-accessible unless it is not interchangeable		N/A
2.6	Equipment with isolated ground (earthing) receptacles is in compliance with NEC 250.146(D) and CEC 10-112 and 10-906(8)		N/A
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is provided for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.		N/A
	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, provided with special transformer overcurrent protection		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains is in accordance with the NEC/CEC		N/A
3.2.1	Attachment plugs of power supply cords are rated not less than 125 percent of the rated current of the equipment		N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment comply with special earthing, wiring, marking and installation instruction requirements		N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs		N/A
3.2.5	Power supply cords are no longer than 4.5 m in length		N/A
	Minimum cord length is 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement		N/A
	Flexible power supply cords are compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC		N/A
3.2.9	Permanently connected equipment has a suitable wiring compartment and wire bending space		N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0		N/A
3.3.3	Wire binding screws are not attached with conductors larger than 10 AWG (5.3 mm ²)		N/A

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are		N/A
	- rated 125 per cent of the equipment rating, and		N/A
	- are specially marked when specified (1.7.7)		N/A
3.3.5	Revise first column of Table 3E to "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration"		N/A
3.4.2	Motor control devices are provided for cord-connected equipment with a motor if the equipment is rated more than 12 A,		N/A
	- or if the motor has a nominal voltage rating greater than 120 V		N/A
	- or is rated more than 1/3 hp (locked rotor current over 43 A)		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position		N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the computer room remote power-off circuit		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30		N/A
4.3.13.5.1	Equipment with lasers meets the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge		N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less		N/A
	For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less		N/A
4.7.3.1	Non-metallic enclosures of equipment for use in spaces used for environmental air (plenums) are required to comply with UL 2043		N/A
Annex H	Equipment that produces ionizing radiation complies with U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370)		N/A
	Other National Differences		Pass

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements. These components include: attachment plugs, battery backup systems, battery packs, cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultracapacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cut-offs, thermostats, (multi-layer) transformer winding wire, surge protective devices, tubing, vehicle battery adapters, wire connectors, and wire and cables		Pass
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply		N/A
	This maximum operating voltage includes consideration of the battery charging "float voltage" associated with the intended supply system, regardless of the marked power rating of the equipment		N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding $42.4 V_{peak}$ or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions		N/A
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts		N/A
2.6.2	Equipment with functional earthing marked with the functional earthing symbol (IEC 60417-6092)		N/A
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more reduce the risk of injury due to the implosion of the CRT		N/A
4.3.2	Equipment with handles complies with special loading tests		N/A
4.3.8	Battery packs for both portable and stationary applications comply with special component requirements		N/A

IEC 60950_1G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests		N/A
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are overloaded		N/A
	During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test is repeated twice (three tests total) using new components as necessary		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC		N/A
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger		N/A
Annex M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions		N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear comply with special acoustic pressure requirements		N/A

Enclosures

Type	Supplement Id	Description
Photographs	03-01	Overall View - top side-1 for Model G121X1-L03 (type a)
Photographs	03-02	Overall View - bottom side-1 for Model G121X1-L03 (type a)
Photographs	03-03	Overall View - bottom side-2 for Model G121X1-L03 (type a)
Photographs	03-04	Overall View - bottom side-3 for Model G121X1-L03 (type a)
Photographs	03-05	Overall View - top side-1 for Model G121X1-L04 (type a)
Photographs	03-06	Overall View - bottom side-1 for Model G121X1-L04 (type a)
Photographs	03-07	Overall View - bottom side-2 for Model G121X1-L04 (type a)
Photographs	03-08	Overall View - bottom side-3 for Model G121X1-L04 (type a)
Photographs	03-09	Overall rear view for Model G121XCE-L01
Photographs	03-10	Control board (C) top side
Photographs	03-11	Control board (C) bottom side
Photographs	03-12	Overall rear view for Model G121X1-L03 (type b)
Photographs	03-13	Control board (D) top side
Photographs	03-14	Control board (D) bottom side
Photographs	03-15	Overall rear view for Model G121X1-L04 (type b)
Photographs	03-16	Control board (E) top side
Photographs	03-17	Control board (E) bottom side
Photographs	03-18	Overall Rear View for Model G121XCE-LXX
Photographs	03-19	Control board (F) top side
Photographs	03-20	Control board (F) bottom side
Photographs	03-21	Overall Rear View for Model G121X1-L04 (type c)
Photographs	03-22	Control board (G) top side
Photographs	03-23	Control board (G) bottom side
Photographs	03-24	Overall Rear View for Model G121X1-L03 (type c)
Photographs	03-25	Control board (H) top side
Photographs	03-26	Control board (H) bottom side
Photographs	03-27	Overall Rear View for Model G121ICE-L01
Photographs	03-28	Control board (I) top side
Photographs	03-29	Control board (I) bottom side

Test Record No. 1

--The manufacturer submitted representative production sample of LCD Module, Models G121X1-L03, G121X1-L04.

-- The results reported relate only to the items tested.

--Only the tests checked in "List of Tests" pages were deemed necessary.

--All tests were conducted by International Standards Laboratory, Lung-Tan Hsiang, Tao Yuan Hsien, Taiwan and witnessed by a member of the UL staff under WTDP program.

--The results of this investigation, including construction review and testing, indicated that the products evaluated comply with the applicable requirements in U. S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment, CAN/CSA C22-2 No. 60950-1-07, UL60950-1 Second Edition, published date March 27, 2007.

--The following tests conducted in accordance with UL60950-1, 2nd Edition, published Date March 27, 2007, Information Technology Equipment-Safety-Part 1: General Requirements were considered representative of the same tests required by Canadian Standards, CAN/CSA-C22.2 No.60950-1-07, 2nd Edition, published Date March 2007, Information Technology Equipment-Safety-Part 1: General Requirements.

The following tests were conducted:

Tests performed (name of test and test clause): None	Testing location: None
The following tests were waived: None	Rationale for Waiving
Input: Single-Phase (1.6.2)	CB
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	CB
Heating (4.5.1, 1.4.12, 1.4.13)	CB

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

Type	Supplement Id	Description
Attachment	02-01	CRD
Datasheet	02-02	Datasheet

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Test Record No. 2

- No samples were required and no tests were performed on LCD Module, Models G121X1-L03, G121X1-L04 employing the modification of trade name.

- No test was performed on Models G121X1-L03, G121X1-L04 employing the modification of trade name due to testing previously performed on the subject unit.

The following tests were conducted:

Tests performed (name of test and test clause): None	Testing location: None
The following tests were waived: None	Rationale for Waiving
Input: Single-Phase (1.6.2)	CB
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	CB
Heating (4.5.1, 1.4.12, 1.4.13)	CB

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

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Revision Date: 2019-12-10

Test Record No. 3

-The manufacturer submitted representative production sample of LCD Module, Models G121X1-L03, G121X1-L04 employing the following:

1. Alternate Internal Plastic Part, CHI LIN TECHNOLOGY CO LTD, type: FG-0110(+) is evaluated 50W (20 mm) Vertical Burning Test, UL 94.

The following tests were conducted:

Tests performed (name of test and test clause): None	Testing location: None
The following tests were waived: None	Rationale for Waiving
Input: Single-Phase (1.6.2)	CB
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	CB
Heating (4.5.1, 1.4.12, 1.4.13)	CB

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

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Type	Supplement Id	Description

Revision Date: 2019-12-10

Test Record No. 4

- The manufacturer submitted representative production samples of LCD Module, G121X1-L03, G121X1-L04, G121XCE-LXX employing the alternate:

(1) add one model name G121XCE-LXX, all models are identical except for model designation.

(2) corrected ratings from "(Optional) 3.6Vdc max., 540 mA max or 5.25Vdc max., 400 mA max. (For Panel), 13.2Vdc max., 1.0 A max. (For DC/DC converter)" to "(Optional) 3.6Vdc max., 0.65A max. or 5.25Vdc max., 0.48A max. for LCD Panel, 13.2Vdc max., 1.07A max. or 17.0Vdcmax., 0.6A max. for DC to DC converter".

(3) add alternative three source of Control board (C), (D) and (E).

(4) upgrade UL Standard from UL 60950-1 2nd to UL 60950-1 2nd, 2014-10-14.

- Unless otherwise noted, all tests marked with "CB" were conducted by UL (Demko) under the CB Scheme as detailed under CB Certificate Number DK-66598-UL, dated 2017-09-12 and CB Report Reference Number 345-00122-CB, dated 2017-09-08.

- The Construction Review Datasheets were not considered necessary, since the construction review had completed during the CB certification.

The following tests were conducted:

Tests performed (name of test and test clause):	Testing location:
The following tests were waived:	Rationale for Waiving
Input: Single-Phase (1.6.2)	CB
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	CB
Heating (4.5.1, 1.4.12, 1.4.13)	CB

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myULTM Client Portal.

Type	Supplement Id	Description

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Report Reference #

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Revision Date: 2019-12-10

Test Record No. 5

- Revise model name G121XCE-LXX to G121XCE-LXX (X=0-9, A-Z or blank, X for marketing purpose and no impact safety related critical components and constructions).

The following tests were conducted:

Tests performed (name of test and test clause): None	Testing location: None
The following tests were waived: None	Rationale for Waiving
Input: Single-Phase (1.6.2)	Refer to CB report
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	Refer to CB report
Heating (4.5.1, 1.4.12, 1.4.13)	Refer to CB report

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myULTM Client Portal.

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Revision Date: 2019-12-10

Test Record No. 6

- Revise the description of Clause 1.7.1.1 Power rating mark.

The following tests were conducted:

Tests performed (name of test and test clause): None	Testing location: None
The following tests were waived: None	Rationale for Waiving
Input: Single-Phase (1.6.2)	Refer to CB report
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	Refer to CB report
Heating (4.5.1, 1.4.12, 1.4.13)	Refer to CB report

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myULTM Client Portal.

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Test Record No. 7

- The manufacturer submitted representative production samples of LCD Module, G121X1-L03, G121X1-L04, G121XCE-LXX employing alternative one source of panel control board (F)

- Tests of the product were not considered necessary based upon previous evaluation under the CB scheme as detailed under CB Certificate Number DK-66598-M1-UL, dated 2018-06-26 and CB Report Reference Number 345-00122-CB-1, dated 2018-06-26.

- The Construction Review Datasheets were not considered necessary, since the construction review had completed during the CB certification.

The following tests were conducted:

Tests performed (name of test and test clause):	Testing location:
The following tests were waived:	Rationale for Waiving
Input: Single-Phase (1.6.2)	Refer to CB report
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	Refer to CB report
Heating (4.5.1, 1.4.12, 1.4.13)	Refer to CB report

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

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Report Reference #

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Test Record No. 8

The manufacturer submitted representative production sample of LCD Module, models G121X1-L03, G121X1-L04, G121XCE-LXX (X=0-9, A-Z or blank, X for marketing purpose and no impact safety related critical components and constructions) employing the alternate control board (G).

Only limited test were performed due to testing previously performed on the subject unit.

All tests were conducted by International Standards Laboratory (ISL) under the CB Scheme of UL International Demko A/S as detailed under Test Certif. Ref. No. DK-66598-M2-UL, dated 2018-10-09, Test Report Ref. No. 345-00122-CB-2, dated 2018-10-06.

The Construction Review Datasheets were not considered necessary, since the construction review had been completed during the CB certification.

The following tests were conducted:

Tests performed (name of test and test clause):	Testing location:
The following tests were waived:	Rationale for Waiving
Input: Single-Phase (1.6.2)	Refer CB
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	Refer CB
Heating (4.5.1, 1.4.12, 1.4.13)	Refer CB

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

Type	Supplement Id	Description
Attachment	02-03	CRD

Revision Date: 2019-12-10

Test Record No. 9

The manufacturer submitted representative production sample of LCD Module, models G121X1-L03, G121X1-L04, G121XCE-LXX (X=0-9, A-Z or blank, X for marketing purpose and no impact safety related critical components and constructions) employing add one source of panel control board (H) with maximum ambient temperature (Tma) is 80 degree C.

All tests were conducted by International Standards Laboratory (ISL) under the CB Scheme of UL International Demko A/S as detailed under Test Certif. Ref. No. DK-66598-M3-UL, dated 2019-06-20, Test Report Ref. No. 345-00122-CB-3, dated 2019-06-10.

The following tests were conducted:

Tests performed (name of test and test clause):	Testing location:
The following tests were waived:	Rationale for Waiving
Input: Single-Phase (1.6.2)	Refer to CB report
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	Refer to CB report
Heating (4.5.1, 1.4.12, 1.4.13)	Refer to CB report

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myULTM Client Portal.

Type	Supplement Id	Description
Attachment	02-04	CRD

Revision Date: 2019-12-10

Test Record No. 10

The manufacturer submitted representative production sample of LCD Module, models G121X1-L03, G121X1-L04, G121XCE-LXX (X=0-9, A-Z or blank, X for marketing purpose and no impact safety related critical components and constructions) employing the alternate panel control board (I) and model G121ICE-LXX.

Only limited test were performed due to testing previously performed on the subject unit.

All tests were conducted by International Standards Laboratory (ISL) under the CB Scheme of UL International Demko A/S as detailed under Test Certif. Ref. No. DK-90538-UL, dated 2019-12-05, Test Report Ref. No. 345-00269-CB, dated 2019-11-25.

The following tests were conducted:

Tests performed (name of test and test clause):	Testing location: International Standards Laboratory (ISL), No. 120, Lane 180, Hsin Ho Rd., Lung-Tan Dist., Tao Yuan City 325, Taiwan, Chinese Taipei
The following tests were waived:	Rationale for Waiving
Input: Single-Phase (1.6.2)	Refer CB
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	Refer CB
Heating (4.5.1, 1.4.12, 1.4.13)	Refer CB

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as part of this Test Record. NOTE: These supplements are only available to the Applicant via the myUL™ Client Portal.

Type	Supplement Id	Description
Attachment	02-01	CRD