



## TEST REPORT IEC 62368-1

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

Report Number	1807042-1-CB-M2
Date of issue:	2018-09-17
Total number of pages	21
Applicant's name:	3Y POWER TECHNOLOGY (TAIWAN) INC
Address:	2nd FI 576,578 Minsheng N Rd Sec 1, Gueishan District, TAOYUAN
	333, TAIWAN
Test specification:	
Standard:	IEC 62368-1:2014 (Second Edition)
Test procedure:	CB Scheme
Non-standard test method:	N/A
Test Report Form No:	IEC62368_1B
Test Report Form(s) Originator:	UL(US)
Master TRF:	2014-03

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### General disclaimer:

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Test Item description:	Power Supply				
Trade Mark:	or 3Y Power Technology Inc.				
Manufacturer:	Same as applicant				
Model/Type reference:	YM-2112J, YM-2851H, <b>YM-2851J</b>				
Ratings:					
	Madal Na		Ou	tput rati	ing
	Model No:	input rating	+12V	+5Vsb	Total
		-3672V===, 32-	754	30	Q10\//
	YM-2112J	15A	737	57	31000
		-4072V <del></del> , 34- 20A	90.5A	ЗA	1100W
	YM-2851H, <b>YM-2851J</b>	-3672V <del></del> , 28- 14A	70A	ЗA	850W
Testing procedure and testing location:	1				
CB Testing Laboratory:					
Testing location/ address:	Superior Produc Lane 235 Pao C	t Consulting, Inc (SPC hiao Rd Hsin-Tien Ch	C) / 3rd F inese Ta	FI, 10 All aipei	ey 6,
Associated CB Testing Laboratory:					
Testing location/ address					
Tested by (name + signature):	Grace Tan Project Han	ng/ dler	June	J.y	Ζ,
Approved by (name + signature):	Allen Huar Reviewe	ng/ Ad	llend	then	Ŧ
Testing procedure: TMP/CTF Stage 1					
Testing location/ address:		I			
Tested by (name + signature):					
Approved by (name + signature):					
Testing procedure: WMT/CTF Stage 2					
Testing location/ address					
Tested by (name + signature):					
Witnessed by (name + signature):					
Approved by (name + signature):					
Image: Testing procedure: SMT/CTF Stage 3           or 4					
Testing location/ address:					

Tested by (name + signature):	
Approved by (name + signature):	
Supervised by (name + signature):	

List of Attachments (including a total number of pa	ges in each attachment):			
Attachment 1- National Difference (11 Pages)				
Attachment 2- Photo (8 pages)				
Summary of testing:				
See below for summary and applicable clauses.				
All tests were conducted under rated normal load cond	ition, if not specified elsewhere.			
For Model YM-2851J, metal chassis near Input side block) was considered Temperature Measurements	is slightly different (opening reduce for Terminal 3.			
Layout of Input board only trace slightly change wa	as considered Annex R.			
Layout of Main board only trace slightly change for component side was considered Electric Strength	<sup>r</sup> changing components from solder side to (5.4.9.1).			
Adding one additional plastic handle and new Mode	el YM-2851J.			
Tests performed (name of test and test clause):	Testing location:			
<ul> <li>Tests performed (name of test and test clause):</li> <li>Temperature Tests (5.4.1.4, 6.3.2, 9)</li> <li>Ball Pressure Test (5.4.1.10.3)</li> <li>Electric Strength (5.4.9.1)</li> <li>Protective Bonding Conductors: Limited Short Circuit Test (5.6.4, 5.6.5, Annex R)*</li> <li>Testing location: Unless otherwise indicated, all tests were conducted at Superior Product Consulting, Inc (SPC) / 3rd Fl, 1 Alley 6, Lane 235 Pao Chiao Rd Hsin-Tien Chinese Taipei</li> <li>*: Test at Subcontractor's laboratory Underwriters Laboratories Taiwan Co., Ltd. / 260 Da-Yeh Road, TW-112 Peitou Taipei City, Chinese Taipei</li> </ul>				
Summary of compliance with National Differences:	L			
List of countries addressed				
EU group differences, Canada and United States, Den	mark, Australia And New Zealand.			
<ul> <li>☑ The product fulfils the requirements of CAN/CSA C22.2 No. 62368-1-14.</li> <li>☑ The product fulfils the requirements of EN 62368-1:2014 + A11:2017.</li> <li>☑ The product fulfils the requirements of UL 62368-1, Second Edition.</li> <li>☑ The product fulfils the requirements of AS/NZS 62368.1:2018.</li> </ul>				

#### Copy of marking plate: The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks. POWER SUPPLY(电源供应器) POWER HNOLOGY MODEL(型号): YM-2112J DATE CODE: FSP GROUP OPTION: FR REV: B YYWW INPUT:(输入) AAAAMM -36 — -72V === 32-15A DC OUTPUT (直流输出) 910W MAX.: +12V/75A +5Vsb/3A -40 — -72V === 34-20A DC OUTPUT (直流输出) 1100W MAX.: +12V/90.5A +5Vsb/3A CAUTION! HAZARDOUS AREA: Do not remove this cover. Trained service people only. No serviceable components inside. (警告! 请勿打开盒盖,内有危险高压,请退回代理商维修。) US 警告:此为A级产品,在生活环境中,该产品可能会造成无线电干扰。在这种情况下, 42723 可能需要用户对干扰采取切实可行的措施。 사용자 안내문: 이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다. WARNING : Do not open the enclosure without permission. APPLICANT NAME: 3Y Power Technology Inc. MANUFACTURER NAME: Shenzhen Hull Electronics CO., LTD. Assembled from C tested components A/S Tel. No : 82-2-571-6680 Complete system not tested ATE HI-POT R-REM-3YP-YM-2112J PASS PASS Made in China (中国制造) FACTORY "F" 6LL1827504GP 制造商:3Y电力科技公司 \*\* POWER SUPPLY (电源供应器) MODEL (型号): YM-2851H DATE CODE: (e)/// OPTION: CR REV: A YYWW DC OUTPUT (直流输出): +12V/70A +5Vsb/ 3A **FSP GROUP** TOTAL DC OUTPUT (最大总功率): 850W -36 — -72V === 28-14A CAUTION! HAZARDOUS AREA: Do not remove this cover. Trained service people only. No serviceable components inside. (警告! 请勿打开盒盖,内有危险高压,请退回代理商维修。) WARNING! For continued protection against risk of fire, replace only with same type and ratings of fuse. INPUT (为了防止持续性危险,仅限用同类型及额定值之保险丝替换。) (输入) ATE ́н**і**-рот PASS PASS Made in China (中国制造) 6LL1832501GP 制造商:3Y电力科技公司 FACTORY "F" \*\*

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TEST ITEM PARTICULARS:	
Classification of use by:	Ordinary person
	Instructed person
	Skilled person
	Children likely to be present
Supply Connection	AC Mains DC Mains
	External Circuit - not Mains connected
Supply % Tolerance	L +10%/-10%
	□ +%% ⊠ None
Supply Connection Type	
	non-detachable supply cord
	appliance coupler
	☐ direct plug-in
	mating connector
	pluggable equipment type B
	non-detachable supply cord
	appliance coupler
	Experiment connection
of building or equipment installation	1) 40A for building (By client required)
	(r,r) 40A for equipment fuse (r,r)
Equipment mobility	
	☐ stationary ⊠ for building-in ☐ direct plug-in ☐ rack-mounting ☐ wall-mounted
Over voltage category (OVC)	OVC I     OVC II     OVC III     OVC IV     other:
Class of equipment	Class I Class II Class III
Access location	□ restricted access location
Pollution degree (PD)	□ PD 1
Manufacturer's specified maxium operating ambient :	50°C
IP protection class	
Power Systems	□ TN □ TT □ IT - 230 V <sub>L-L</sub>
Altitude during operation (m)	□ 2000 m or less ⊠ 5000 m
Altitude of test laboratory (m)	⊠ 2000 m or less □ m
Mass of equipment (kg)	Approx. 0.97 kg
POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement:	F (Fail)

TESTING:	
Date of receipt of test item:	2018-07-30
Date (s) of performance of tests	2018-07-30 to 2018-09-17
GENERAL REMARKS:	
"(See Enclosure #)" refers to additional information "(See appended table)" refers to a table appended t Throughout this report a	n appended to the report. o the report. sed as the decimal separator.
Manufacturer's Declaration per sub-clause 4.2.5 of	IECEE 02:
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	⊠ Yes □ Not applicable
When differences exist; they shall be identified in the	ne General product information section.
Name and address of factory (ies) :	<ol> <li>ShenZhen HuiLi Electronics CO., LTD. Block C, Building 4,6,7,8,9,10,11, County 73, Xin'an, Bao'an, ShenZhen, Guangdong, P.R. China</li> <li>ShenZhen HuiLi Electronics CO., LTD Block A, Building 3,No. 5185, YeeYuan Rd., County 74, Xin'an, Bao'an, Shenzhen, Guangdong, P.R. China</li> <li>ShenZhen HuiLi Electronics CO., LTD Building B &amp; G, Peace Hi-tech Industrial Zone, Peace Village, FuHai Town, Bao'an, Shenzhen, Guangdong, P.R. China</li> <li>Zhonghan Electronics (Shenzhen) Co., Ltd. Building A2 in Section A,Building 4,6,7 in Section C,JuYuan Industrial Zone, TangWei Village, FuHai Town, BaoAn Dist., ShenZhen City, Guangdong, P.R. China</li> <li>Wuxi SPI Technology Co., Ltd. No. 96, XinmeiRoad, New District, Wuxi city, Jiangsu, P.R. China</li> <li>ZHONGHAN SCIENCE &amp; TECH CO. LTD Building 9, Section B, JuYuan Industrial Zone, TangWei Village, FuYong Town, BaoAn District. ShenZhen City, Guangdong, China</li> <li>Wuxi ZhongHan Technology Co., Ltd. Block 106-E, Wuxi Nation HI-TECH Industrial, Development Zone, Wuxi City, Jiangsu, Province, P.R. China</li> </ol>
GENERAL PRODUCT INFORMATION:	
Product Description	

This test report should be read in conjunction with the original report No.: CB2051712134B issued on 2018-03-09, with CB Certificate No. DK-71340-UL issued on 2018-03-14. 1805014-1-CB-M1 issued on 2018-06-26, with CB Certificate No. DK-71340-M1-UL issued on 2018-06-28.

This Test Report were deemed to amendment (Technical Modification), due to:

- Added new model YM-2851J, see Model Differences for detail.
- Alternate AUSTRALIA / NEW ZEALAND National Difference.

The equipment is a build-in type power supply which is intended to use within audio/video, information and communication technology equipment.

This equipment consists of electronic components mounted on PCB, and housed with metal chassis.

Top chassis and bottom chassis are secured together by screws.

The airflow in the fan direction includes the inward and outward directions in the direction of the fan, see the photo.

Power cord complying with national standard must be provided when shipment.

As client request, this power supply is declared to be supplied from earthed DC source. As extensive use, this power supply shall be separated from building mains by double/reinforced insulation.

The output circuits are classified as earthed ES1 and are separated from input circuits (as well classified as unearthed hazardous voltage secondary circuits) by basic insulation.

The further evaluation and testing must be checked and performed in the final system for this equipment.

No any operator accessible area is located inside the equipment.

This label drawing is a draft of an artwork for marking plates pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.

The product was investigated to the following additional standards: EN 62368-1:2014+A11:2017 (which includes all European national differences, including those specified in this test report)

### Model Differences

Model YM-2851H is similar to Model YM-2112J except for Input/output rating shape of handle and deletes components (Q11A, Q12A, Q19 and Q20A).

### Model YM-2851J is similar to Model YM-2851H with the following difference:

 Layout of main board and Input board only trace slightly change for changing components from solder side to component side and the clearances and creepage distances are same between primary and secondary side.

- Metal chassis is slightly different (opening reduce for Terminal block).
- Provided with Terminal Block.
- Update schematic of main board and Input board only prat no. different.

- Adding one additional plastic handle.

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

Tests were performed with min. airflow of DC fan details see table 4.1.2.

Specified the equipment to be operated up to 5000m above sea level. Therefore, the required clearance is multiplied by the multiplication factor 1.48 according to table 17 of IEC 62368-1.

The product was submitted and tested for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: +50°C.

The following secondary output circuits are ES1: all outputs.

Except enclosure of DC input connector side. Other side enclosure shall be provided and evaluated electrical enclosure (for ES safeguard), fire enclosure (for PS safeguard), mechanical enclosure (for MS safeguard), and safeguard for thermal burn injury (for TS safeguard) in end product investigation.

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ENERGY SOURCE IDENTIFICATION AND CLASSIFICAT	ION TABLE:			
(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.				
Electrically-caused injury (Clause 5):				
(Note: Identify type of source, list sub-assembly or circuit d	lesignation and corresponding energy source			
Example: +5 V dc input	ES1			
Source of electrical energy	Corresponding classification (ES)			
All circuits except for output terminals	ES2			
Accessible part of DC inlet connector (X-Cap.: CX12)	ES2			
Output terminals	ES1			
Electrically-caused fire (Clause 6):				
(Note: List sub-assembly or circuit designation and corres Example: Battery pack (maximum 85 watts):	ponding energy source classification) PS2			
Source of power or PIS	Corresponding classification (PS)			
Input circuits (circuits supplied by the DC source)	PS3			
Output circuits (circuit isolated from the DC source)	PS3			
Injury caused by hazardous substances (Clause 7)				
(Note: Specify hazardous chemicals, whether produces oz part of the component evaluation.) Example: Liquid in filled component	one or other chemical construction not addressed as Glycol			
Source of hazardous substances Corresponding chemical				
N/A	N/A			
Mechanically-caused injury (Clause 8)				
(Note: List moving part(s), fan, special installations, etc. & Example: Wall mount unit	corresponding MS classification based on Table 35.) MS2			
Source of kinetic/mechanical energy	Corresponding classification (MS)			
Sharp edges and corners	MS1: the evaluated to the side of DC connector. However, the equipment is for building-in. Overall compliance shall be evaluated for the final system.			
DC Fan	MS3			
Equipment mass	MS1			
Thermal burn injury (Clause 9)				
(Note: Identify the surface or support, and corresponding en location, operating temperature and contact time in Table 38 Example: Hand-held scanner – thermoplastic enclosure	ergy source classification based on type of part, 3.) TS1			
Source of thermal energy	Corresponding classification (TS)			
Internal parts	TS3			
DC input connector side of metal chassis, handle	TS1			
Metal chassis except dc input connector side It shall be evaluated in the end product.				
Radiation (Clause 10)				
(Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1				
Type of radiation	Corresponding classification (RS)			

### ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:

LED (used as indicating lights)

RS1

ENERGY SOURCE DIAGRAM					
Indicate which energy source	s are included in the	energy sour	ce diagram.	Insert diag	ram below
DC input connector side. Metal chassis	DC Fan 4 (MS3),				
Input circuits (ES2, PS3).	Internal parts + (TS3)		Outp (ES2,	put circuits + , PS3),-	→ Output Terminals + (ES1, PS3),-
LED (used as indicating lights) (RS1)	Equipment mass			1	J
	(MS1)-	MS	⊠тѕ	RS	

OVERVIEW OF EMPLOYED SAFEGUARDS						
Clause	Possible Hazard					
5.1	Electrically-caused injury					
Body Part	Energy Source	Safeguards				
(e.g. Ordinary)	(ES3: Primary Filter circuit)	Basic	Supplementary	Reinforced (Enclosure)		
Ordinary	ES2: All internal circuit except output terminals	See 5.4.2, 5.4.3, 5.4.4, 5.5.3, and 5.5.4	N/A	N/A		
Ordinary	ES2: X-Cap. (CX12)	) See N/A N/A 5.5.2.2		N/A		
6.1	Electrically-caused fire					
Material part	Energy Source		Safeguards			
(e.g. mouse enclosure)	(PS2: 100 Watt circuit)	Basic	Supplementary	Reinforced		
Chassis	PS3	See 6.3	See 6.4	N/A		
PWB	PS3	See 6.3	V-1 or better	N/A		
Internal Wiring	PS3	N/A	N/A	See 6.5		
The other Components/Materials	PS3	See 6.3	See 6.4.6, 6.4.5	N/A		
7.1	Injury caused by hazardous substances					

Body Part	Energy Source	Safeguards			
(e.g., skilled)	(hazardous material)	Basic	Supplementary	Reinforced	
N/A	N/A	N/A	N/A	N/A	
8.1	Mechanically-caused injury				
Body Part	Energy Source	Safeguards			
(e.g. Ordinary)	(MS3:High Pressure Lamp)	Basic	Supplementary	Reinforced (Enclosure)	
Ordinary	MS3: DC Fan	N/A	N/A	Metal Chassis	
9.1	Thermal Burn				
Body Part	Energy Source	Safeguards			
(e.g., Ordinary)	(152)	Basic	Supplementary	Reinforced	
N/A	TS3: Internal parts	N/A	N/A	Metal Chassis	
10.1	Radiation				
Body Part	Energy Source	Safeguards			
(e.g., Ordinary)	(Output from audio port)	Basic	Supplementary	Reinforced	
N/A	N/A	N/A	N/A	N/A	
Supplementary Information:					
(1) See attached energy source diagram	for additional details				

(1) See attached energy source diagram for additional details.

(2) "N" – Normal Condition; "A" – Abnormal Condition; "S" Single Fault

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

5	ELECTRICALLY-CAUSED INJURY		Р
5.4.1.4	Maximum operating temperature for insulating materials:	See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6.	Р
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	Phenolic bobbin materials used in T201 without further test.	Р
		For others, see appended table 5.4.1.10.3.	
5.4.1.10.2	Vicat softening temperature:	No such consideration.	N/A
5.4.1.10.3	Ball pressure:	See appended table 5.4.1.10.3	Р
5.4.2	Clearances	Procedure 2 is higher. Hence the determination of clearances is followed by Procedure 2.	Р
		See below for details.	
5.4.2.2	Determining clearance using peak working voltage	Procedure 1:	
		Fundamental frequencies up to 30kHz:	
		- Steady state voltage (194Vp)	
		- 1.1 times mains voltage (No such consideration.)	
		- Temporary overvoltage (No such consideration.)	
			Р
		Basic: 0.2 x 1.48 = 0.3mm	
		Fundamental frequencies higher than 30kHz:	
		- Steady state voltage (194Vp)	
		- 1.1 times mains voltage (No such consideration.)	
		Basic: 0.07 x 1.48 = 0.11mm	
5.4.2.3	Determining clearance using required withstand	Procedure 2:	Р
	voltage:	Basic: 0.5 x 1.48 = 0.8mm	
		See appended table 5.4.2.2, 5.4.2.4 and 5.4.3.	
	a) a.c. mains transient voltage	DC source supply.	_
	b) d.c. mains transient voltage:	DC source supply.	
		The transient voltage was considered as 1500 Vpk due to client request.	—
	c) external circuit transient voltage:	No such consideration.	
	d) transient voltage determined by measurement	No such consideration.	—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	No such consideration.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict	
5.4.2.5	Multiplication factors for clearances and test voltages:	Specified the equipment to be operated up to 5000m above sea level. Therefore, the required clearance is multiplied by the multiplication factor 1.48 according to table 17 of IEC 62368-1.	Ρ	
5.4.3	Creepage distances	See below.	Р	
5.4.3.1	General	Fundamental frequencies up to 30kHz: RMS working voltage (108Vrms): Basic: 1.5mm Fundamental frequencies higher than 30kHz: Peak working voltage (194Vp): Basic: 0.043 x 1.2 = 0.0516mm See appended table 5.4.2.2, 5.4.2.4 and 5.4.3.	Ρ	
5.4.3.3	Material Group:	Material group IIIb is assumed.		
5.4.9	Electric strength test:	Method 1 is higher, and needs to be applied. See below and appended table 5.4.9 for details.	Р	
5.6	Protective conductor		Р	
5.6.2	Requirement for protective conductors	See below.	Р	
5.6.2.1	General requirements	No switch or overcurrent protective device provided in earthing conductors and protective bonding conductors. The protective earthing connection is made earlier and broken later than the supply connection.	Ρ	
5.6.2.2	Colour of insulation	No such consideration.	N/A	
5.6.3	Requirement for protective earthing conductors	No power cord provided.	N/A	
	Protective earthing conductor size (mm <sup>2</sup> )	No such consideration.		
5.6.4	Requirement for protective bonding conductors		Р	
5.6.4.1	Protective bonding conductors		Р	
	Protective bonding conductor size (mm <sup>2</sup> ):	Protective bonding trace and screw complies with Annex R Protective Bonding Conductors: Limited Short Circuit Test.	_	
	Protective current rating (A) :	40A (By client required)	_	
5.6.4.3	Current limiting and overcurrent protective devices	No such consideration.	N/A	
5.6.5	Terminals for protective conductors	See below.	Р	

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Clause	Requirement + Test	Result - Remark	Verdict		

5.6.5.1	Requirement	The earthing terminal in the Terminal block is regarded as the main protective earthing terminal.	Р
	Conductor size (mm <sup>2</sup> ), nominal thread diameter (mm).	Screw size not smaller than the conductors supplying power to the component.	Ρ
5.6.5.2	Corrosion	No combination above the line in annex N is used.	Р
5.6.6	Resistance of the protective system	See below.	Р
5.6.6.1	Requirements	The protective bonding conductor is connected to the approved DC input connector.	Ρ
5.6.6.2	Test Method Resistance (Ω)	See appended table 5.6.6.2.	Р
5.6.7	Reliable earthing	The equipment is for building- in and shall be evaluated for the final system.	N/A
5.7	Prospective touch voltage, touch current and prote	ctive conductor current	N/A
5.7.2	Measuring devices and networks	See below.	N/A
5.7.2.1	Measurement of touch current:	Instrument indicating peak voltage used. See sub-clause 5.2.2.2 for details.	N/A
5.7.2.2	Measurement of prospective touch voltage	See appended table 5.2.	Р
5.7.3	Equipment set-up, supply connections and earth connections	Considered.	Р
	System of interconnected equipment (separate connections/single connection)	The EUT has only one source connection.	
	Multiple connections to mains (one connection at a time/simultaneous connections)	No such consideration.	_

9	THERMAL BURN INJURY	
9.2	Thermal energy source classifications	Р
9.3	Safeguard against thermal energy sources	
9.4	Requirements for safeguards	Р
9.4.1	Equipment safeguard	Р
9.4.2	Instructional safeguard:	N/A

Р	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS				
P.1	General requirements	See P.2.3	Р		
P.2.2	Safeguards against entry of foreign object				
	Location and Dimensions (mm)		—		
P.2.3	Safeguard against the consequences of entry of foreign object				

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Clause	Requirement + Test	Result - Remark	Verdict
P.2.3.1	Safeguards against the entry of a foreign object	Within the projected volume as depicted in Figure P.3, there were no PIS, nor bare conductive parts at PS3.	Ρ
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts:		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard):		N/A

R	LIMITED SHORT CIRCUIT TEST		Р
R.1	General requirements		Р
R.2	Determination of the overcurrent protective device and circuit		Р
R.3	Test method Supply voltage (V) and short-circuit current (A)):	240Vac, 1500A	Р

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

4.1.2	TABLE: List of critical components					
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1</sup>	
Terminal Block (For Model YM- 2851J)	Anytek Technology Corp	YK50A	300V, 30A, 115 degree C	UL 1059	UL	
	Dinkle Enterprise Co Ltd	DT-7C-B14W-XX	300V, 40A, 130 degree C	UL 1059	UL	
	DINKLE ENTERPRISE CO LTD	DT-66-C11W	300V, 40A, 130 degree C	UL 1059	UL	

Supplementary information:

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

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

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Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					Pass			
	Supply voltage (V	)	See below	See be	low				_
	Ambient T <sub>min</sub> (°C)		. —		-	-			
	Ambient T <sub>max</sub> (°C)		. —		-	-			
	Tma (°C)		. —		-	-			
Maximum m	neasured temperature	Γ of part/at:			T (°(	C)			Allowed T <sub>max</sub> (°C)
Test on Mod	del YM-2851J								
(a)36Vd	c, Fan Inward, Cond	ition A	(a)	(b)	)				
(b)36Vd	c, Fan Outward, Con	dition A							
Terminal Bl	ock		51.4	67.	5				115
Input wire "	+"		53.4	62.	8				85
VAR11 bod	у		51.2	68.	0				85
CT12 coil			57.0	78.	5				130
L11 coil		62.8	78.	4				130	
T11 coil			80.3	80.	0				110
L14 coil			73.6	71.	4				105
PCB near D	020 and D21		66.1	82.	5				130
CT501 coil			60.5	53.	1				90
T201 coil			60.9	50.	5				110
Ambient			50.0	50.	0				
Test on Mod	del YM-2851J		(0)						
(c)36Vdc,	Fan Outward, Conditi	on A, 25°C	(0)						
Metal chassis near Fan		37.3	37.	6				60	
Plastic Handle body		40.9	41.	2	•			77	
Ambient		24.7	Shift 25.	to 0					
Temperatur	e T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω)	t <sub>2</sub> (°C)	R <sub>2</sub> (	Ω)	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class
						-			
Supplementary information: Note 1: Tma should be considered as directed by appliable requirement.									

Note 2: Max. normal load Condition A: +12V/69.59A, +5Vsb/3A

### IEC 62368-1

Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.10.3 TABLE: Ball pressure test of thermoplastics					Р
Allowed imp	Allowed impression diameter (mm)		≤ 2 mm		
Object/Part	No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm	
Terminal Block		Anytek Technology Corp., Type YK50A	125	1.1	
Terminal Block		Dinkle Enterprise Co Ltd., Type DT-7C-B14W-02	125	1.5	
Terminal Block		DINKLE ENTERPRISE CO LTD., Type DT-66-C01W	125	1.2	
Supplementary information:					

5.4.2.2, TABLE: Minimum Clearances/Creepage distance 5.4.2.4 and 5.4.3					Р		
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequen cy (kHz) <sup>1</sup>	Required cl (mm)	cl (mm) <sup>2</sup>	Required <sup>3</sup> cr (mm)	cr (mm)
Following measure on Inlet Board for Model YM-2851J							
Distance under fuse or Distance before fuse which between "+" and "-"	72	72		0.8 (0.5*1.48)	See belo w	1.3	See below
Component side							
- Trace under "+" to "-" before fuse of PCB (inlet board)	72	72		0.8 (0.5* 1.48)	3.0	1.3	3.0
- Trace before fuse of under R01 (inlet board)	72	72		0.8 (0.5* 1.48)	2.6	1.3	2.6
Solder side		-					
- Trace under "+" to "-" before fuse of PCB (inlet board)	72	72		0.8 (0.5* 1.48)	3.0	1.3	3.0
- Trace before fuse of under R01 (inlet board)	72	72		0.8 (0.5* 1.48)	3.0	1.3	3.0
Following measure on Inlet Board for Model YM-2851J	-						
Terminal Block	72	72		0.8 (0.5* 1.48)	6.7	1.3	6.7
Input parts components (with 10N) to earthed component	72	72		0.8 (0.5* 1.48)	See belo w	1.3	See below

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	IEC 62368-1							
Clause	Requi	rement + T	est		Result - Remark			Verdict
- "+" pin to metal chassis (inlet board)		72	72		0.8 (0.5* 1.48)	2.5	1.3	2.5
Input parts trace to earthed trace		72	72		0.8 (0.5* 1.48)	See belo w	1.3	See below
Component	side							
- Under CY0	)1 (inlet board)	72	72		0.8 (0.5* 1.48)	2.9	1.3	2.9
- Under CY02 (inlet board)		72	72		0.8 (0.5* 1.48)	2.6	1.3	2.6
- R01 to ear	th trace (inlet board)	72	72		0.8 (0.5*	2.6	1.3	2.6

1.48)

--

0.8

(0.5\* 1.48)

0.8

(0.5\* 1.48) ---

2.8

2.6

--

1.3

1.3

--

2.8

2.6

Supplementary information:

- Under CY01 (inlet board)

- Under CY02 (inlet board)

Note 1: Only for frequency above 30k.Hz

Note 2: (See Table 5.4.2.4) if this is based on Electric Strength Test.

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72

72

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72

72

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Note 3: Provide Material Group

Note 4:

Solder side

1) Functional insulation shorted, see sub-clause B.4.4.

2) Specified the equipment to be operated up to 5000m above sea level. Therefore, the required clearance is multiplied by the multiplication factor 1.48 according to table 17 of IEC 62368-1.

3) The min. creepage distance derived from Table 18 is less than the applicable min. clearance, that value of min. clearance shall be applied as the min. creepage distance.

5.4.9	TABLE: Electric strength tests					
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No		
Functional:	Functional:					
Basic/supplementary:						
Reinforced	:					
EUT: input circuit to output circuit		DC	1608 # No			
EUT: input circuit to earth		DC	1608 #	No		
Routine Te	Routine Tests:					

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### IEC 62368-1

Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

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1. By applying an d.c. voltage in one polarity and then repeat it in reverse polarity.

2. See supplementary information of appended table 5.4.4.9.

### # By the client's request

5.6.6.2	TABLE: Resistance of protective conductors and terminations					Р
Accessible part		Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)	
Earthing screw of Terminal block to rear chassis		68 (by client required)	2	0.7072 0.01		.0104
Supplement	ary information:					

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Attachment 1

IEC 62368-1\_1B - ATTACHMENT

Clause

Requirement + Test

**Result - Remark** 

Verdict

ATTACHMENT TO TEST REPORT				
	IEC 62368-1			
	(AUSTRALIA / NEW ZEALAND) NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment)			
Differences a	ccording to: AS/NZS 62368.1:2018			
Attachment F	orm No AU_NZ_ND_IEC62368_1B			
Attachment C	Driginator JAS-ANZ			
Master Attach	nment: 2018-02			
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	National Differences			
Appendix ZZ	Variations to IEC 62368-1:2014 (ED. 2.0) for Australia and New Zealand	Р		
ZZ1 Scope	This Appendix lists the normative variations to IEC 62368-1:2014 (ED. 2.0)	Р		
ZZ2 Variations	The following modifications are required for Australian/New Zealand conditions:	Р		
	The following to the list of normative references: The following normative documents are referenced in Appendix ZZ: -AS/INZS 3112, Approval and test specification— Plugs and socket-outlets -AS/INZS 3123, Approval and test specification— Plugs, socket-outlets and couplers for general industrial application -AS/INZS 60065, Audio, video and similar electronic apparatus—Safety requirements (IEC 60065:2015 (ED.8.0) MOD) -AS/INZS 60020.1, Appliance couplers for household and similar general purposes, Part 1: General requirements (IEC 60320-1, Ed.2.1 (2007) MOD) -AS/INZS 60320.2.2, Appliance couplers for household and similar general purposes Part 2.2: Interconnection couplers for household and similar equipment (IEC 60320-2- 2, Ed.2.0 (198) MOD) -AS/INZS 60695.2.11, Fire hazard testing, Part 2.11: Glowing/hot wire based test methods—Glow- wire flammability test method for end-products -AS/INZS 60695.1.15, Fire hazard testing, Part 11.5: Test flames—Needle-flame test method— Apparatus, confirmatory test arrangement and guidance -AS/INZS 60895.1.10, Fire hazard testing, Part 11.10: Test flames—50 W horizontal and vertical flame test methods -AS/INZS 60884.1, Plugs and socket-outlets for household and similar purposes, Part 1: General requirements -AS/INZS 60884.1, Plugs and socket-outlets for household and similar purposes, Part 1: General requirements -AS/INZS 60884.1, Plugs and socket-outlets for household and similar purposes, Part 1: General requirements -AS/INZS 60950.1:2015. Information technology	Р		

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		INT		
	Clause	Requirement + Test	Result - Remark	Verdict
		equipment—Safety, Part 1: General requirements (IEC 60950-1, Ed.2.2 (2013), MOD) IEC 61032:1997, Protection of persons and equipment by enclosures—Probes for verification -AS/NZS 61558.1:2008 (including Amendment 2:2015), Safety of Power Transformers, Power Supplies, Reactors and Similar Products, Part 1: General requirements and tests (IEC 61558-1 Ed 2.1, MOD) -AS/NZS 61558.2.16, Safety of transformers, reactors, power supply units and similar products for voltages up to 1 100 V, Part 2.16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units.		
	4.1.1	<ul> <li>Application of requirements and acceptance of materials, components and subassemblies</li> <li>1 Replace the text 'IEC 60950-1' with 'AS/NZS 60950.1:2015'.</li> <li>2 Replace the text 'IEC 60065' with 'AS/NZS 60065'.</li> </ul>		Ρ
1	4.7	Equipment for direct insertion into mains socket	outlets	N/A
	4.7.2	<b>Requirements</b> <i>Delete</i> the text of the second paragraph and <i>replace</i> with the following: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets. <b>Compliance Criteria</b>		N/A
		Delete the first paragraph and Note 1 and Note 2 and replace with the following: Compliance is checked by inspection and, if necessary, by the tests in AS/NZS 3112.		N/A
	4.8	<i>Delete</i> existing clause title and <i>replace</i> with the follo <b>4.8 Products containing coin/button cell batterie</b>	wing: s	N/A

#### IEC 62368 1B ATTACHMENT Clause Requirement + Test Result - Remark Verdict 4.8.1 General 1 Second dashed point, delete the text and replace with the following: - include coin/button cell batteries with a diameter of 32 mm or less. N/A 2 After the second dashed point, insert the following Note: NOTE 1: Batteries are specified in IEC 60086-2. 3 After the third dashed point, renumber the existing Note as 'NOTE 2'. 4 Fifth dashed point, delete the word 'lithium'. 4.8.2 Instructional Safeguard N/A First line, delete the word 'lithium'. Construction 4.8.3 First line, after the word 'Equipment' insert the N/A words 'containing one or more coin/button batteries and' 4.8.5 **Compliance criteria** Delete the first paragraph and replace with the followina: Compliance is checked by applying a force of 30 N +/-1 N for 10 s to the battery compartment N/A door/cover by a rigid test finger according to test probe 11 of IEC 61032:1997 at the most unfavourable place and in the most unfavourable direction. The force shall be applied in one direction at a time. 5.4.10.2 Test methods N/A 5.4.10.2.1 General Delete the first paragraph and replace with the followina: In Australia only, the separation is checked by the N/A test of both Clause 5.4.10.2.2 and Clause 5.4.10.2.3. In New Zealand, the separation is checked by the test of either Clause 5.4.10.2.2 or Clause 5.4.10.2.3. Table 29 Replace the table with the following: N/A Parts Impulse test Steady state test New New Austral Zealand Zealand Australia ia 7.0 kV for hand-held 2.5 kV telephones 1.5 kV 3 kV Parts indicated in Clause 5.4.10.1 a) a 10/700 µs and headsets, 2.5 kV for other equipment. 10/700 µs Parts indicated in 1.5 kV 10/700 µs <sup>c</sup> 1.0 kV 1.5 kV Clause 5.4.10.1 b) and c) <sup>b</sup> <sup>a</sup> Surge suppressors shall not be removed. <sup>b</sup> Surge suppressors may be removed, provided that such devices pass the impulse test of Clause 5.4.10.2.2 when tested as components outside the equipment.

 $^{\circ}$  During this test, it is allowed for a surge suppressor to operate and for a sparkover to occur in a GDT.

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IEC 62368_1B ATTACHMENT						
Clause	Requirement + Test	Result - Remark	Verdict			
5.4.10.2.2	<ul> <li>After the first paragraph, <i>insert</i> new Notes 201 and 202 as follows:</li> <li>NOTE 201 For Australia, the 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines.</li> <li>NOTE 202 For Australia, the value of 2.5 kV for Clause 5.4.10.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.</li> </ul>		N/A			
5.4.10.2.3	After the first paragraph, <i>insert</i> new Notes 201 and 202 as follows: NOTE 201 For Australia, where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 The 3 kV and 1.5 kV values for Australia have been determined considering the low frequency induced voltages from the power supply distribution system.		N/A			
6	Electrically-caused fire		Р			
6.1	GeneralAfter the first paragraph, <i>insert</i> the following new paragraph: Alternatively, the requirements of Clauses 6.2 to 6.5.2 are considered to be fulfilled if the equipment complies with the requirements of Clause 6.202		Р			
6.6	After Clause 6.6, <i>add</i> the new Clauses 6.201 and 6. 6.201 External power supplies, docking stations and 6.202 Resistance to fire—Alternative tests (see special national conditions)	202 as follows: and other similar devices	N/A			
8.5.4	Special categories of equipment comprising mo	ving parts	N/A			
8.5.4.1	Large data storage equipment In the first dashed row and the second dashed rows <i>replace</i> 'IEC 60950-1:2005' with 'AS/NZS 60950.1:2015'.		N/A			
8.6	Stability of equipment		N/A			

#### IEC 62368 1B ATTACHMENT Clause Requirement + Test Result - Remark Verdict 8.6.1 and Requirements Table 36 1. Table 36, insert Footnote c at the end of the 'Glass slide' heading, and add a new Footnote c after the text of Footnote b in the last row of Table 36 as follows: <sup>c</sup> The glass slide test is not applicable to floor standing equipment, even though the equipment may have controls or a display. 2. Table 36, fifth row, *insert* <sup>'201'</sup> at the end of 'No stability requirements' 3. Table 36, ninth row, insert '201' at the end of 'No stability requirements' N/A 4. Table 36, add the following new footnote: 201 MS2 and MS3 television sets and display devices, designed only for fixing to a wall, ceiling or equipment rack, are not subjected to stability requirements only if the instructional safeguard of Clause 8.6.1.201 is provided. Otherwise, the glass slide requirements of Clause 8.6.4 and horizontal force requirements of Clause 8.6.5 apply. 5. Second paragraph beneath Table 36, delete the words 'MS2 and MS3 television sets' and replace with 'MS2 and MS3 television sets and display devices' 8.6.1 After Clause 8.6.1 add the following new clauses: 8.6.1.201 Instructional safeguard for fixed-N/A mount television sets (see special national conditions) Annex F Mains appliance outlet and socket-outlet N/A Paragraph markings F.3.5.1 Replace 'IEC 60320-2-2' with 'AS/NZS 60320.2.2'. Annex G Mains connectors Evaluated in National Approval. Paragraph 1 In the second line insert 'or AS/NZS 3123' after G.4.2 'IEC 60906-1'. 2 In the second line insert 'or AS/NZS 60320 series' after 'IEC 60320 series' N/A 3 Add the following new paragraph: 10 A or 15 A 250 V flat pin plugs for the connection of equipment to mains-powered socket-outlets for household or similar general use shall comply with AS/NZS 3112 or AS/NZS 60884.1. Paragraph Transformers, General G.5.3.1 1 In the third dashed point replace 'IEC 61558-1 and the relevant parts of IEC 61558-2' with See G.5.3.2 and G.5.3.3. Ρ 'AS/NZS 61558-1 and the relevant parts of AS/NZS 61558.2' 2 In the fourth dashed point replace 'IEC 61558-2-16' with 'AS/NZS 61558.2.16'. Paragraph Evaluated in National Mains supply cords, General G.7.1 N/A In the fourth dashed paragraph, replace 'IEC Approval. 60320-1' with 'AS/NZS 60320.1'

### IEC 62368\_1B ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
Table G.5	Requirement + 1 est         Sizes of conductors         1 In the second row, first column, delete '6' and replace with '7.5'         2 In the second row, second column, delete '0,75' and replace with '0.75 <sup>b</sup> 3 Delete Note 1.         4 Replace 'NOTE 2' with 'NOTE:'.         5 Delete the text of 'Footnote b' and replace with the following: <sup>b</sup> This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0.5 mm2 three-core supply flexible cords are not permitted; see AS/NZS 3191).         6 In Footnote c replace 'IEC 60320-1' with 'AS/NZS 60320.1'	Evaluated in National Approval.	N/A
Annex M Paragraph M.3.2	<ul> <li>7 In Footnote d <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1'</li> <li>Protection circuits for batteries provided within the equipment, Test method</li> <li>After the first dashed point <i>add</i> the following Note: NOTE 201: In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects of possible single fault conditions in the unassociated equipment. If the power source is unknown then it should be assumed that the maximum limit of SELV may be applied to the source input under assumed single fault conditions in the under assumed single fault conditions in the source when assessing the charging circuit in the equipment under test.</li> </ul>		N/A
	Special national conditions (if any)		

#### IEC 62368 1B ATTACHMENT Clause Requirement + Test Result - Remark Verdict 6.201 External power supplies, docking stations and other similar devices For external power supplies, docking stations and other similar devices, during and after abnormal operating conditions and during single fault conditions the output voltage- at all ES1 outlets or connectors shall not increase by more than 10% of its rated output voltage under normal operating condition; and - of a USB outlet or connector shall not increase by more than 3 V or 10% N/A of its rated output voltage under normal operating conditions, whichever is higher. For equipment with multiple rated output voltages. the requirements apply with the equipment configured for each rated output voltage in turn. NOTE: This is intended to reduce the possibility of battery fire or explosion in attached equipment or accessories when charging secondary lithium batteries. Compliance shall be checked by measurement. taking into account the abnormal operating conditions of Annex B.3 and the simulated single-fault conditions of Annex B.4 6.202 Resistance to fire—Alternative tests N/A 6.202.1 General Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the equipment, or the following: a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length. b) The following parts which would contribute negligible fuel to a fire: N/A - small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; - small electrical components, such as capacitors with a volume not exceeding 1 750 mm3, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10. NOTE: In considering how to minimize propagation of fire and what 'small parts' are. account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another.

#### IEC 62368 1B ATTACHMENT Clause Requirement + Test Result - Remark Verdict Compliance shall be checked by the tests of Clauses 6.202.2, 6.202.3 and 6.202.4. For the base material of printed boards, compliance shall be checked by the test of Clause 6.202.5. N/A The tests shall be carried out on parts of nonmetallic material which have been removed from the equipment. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring. 6.202.2 Testing of non-metallic materials Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550°C. Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy N/A material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glowwire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the relevant part is not thinner than the sample tested. 6.202.3 Testing of insulating materials Parts of insulating material supporting Potential Ignition Sources shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750°C. N/A The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection. NOTE: Contacts in components such as switch contacts are considered to be connections For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a N/A diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test need not be tested The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications: Clause of AS/NZS Change 60695.11.5 9 Test procedure N/A 9.2 Application of Delete the first and needle-flame second paragraphs and replace with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as

#### IEC 62368 1B ATTACHMENT Clause Requirement + Test Result - Remark Verdict shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s 1 s 9.3 Number of test Replace with the specimens followina: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test. 11 Evaluation of test Replace with the results following: The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s. The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the relevant part is not thinner than the sample tested. 6.202.4 Testing in the event of non-extinguishing material If parts, other than enclosures, do not withstand the glow wire tests of Clause 6.202.3, by failure to extinguish within 30 s after the removal of the glowwire tip, the needle-flame test detailed in Clause 6.202.3 shall be made on all parts of nonmetallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of Clause 6.202.3. Parts N/A shielded by a separate barrier which meets the needle-flame test need not be tested. NOTE 1: If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing. NOTE 2: If other parts do not withstand the glowwire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have

#### IEC 62368 1B ATTACHMENT Clause Requirement + Test Result - Remark Verdict failed to meet the requirements of Clause 6.202 without the need for consequential testing. NOTE 3: Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections. 6.202.5 Testing of printed boards The base material of printed boards shall be subjected to the needle-flame test of Clause 6.202.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge. consisting of broken perforations, unless the edge is less than 3 mm from a potential ignition source. The test is not carried out if-- the printed board does not carry any potential ianition source: - the base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category N/A V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or - the base material of printed boards, on which the available equipment power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. Conformance shall be determined using the smallest thickness of the material. NOTE: Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximize the apparent power for more than 2 min when the circuit supplied is disconnected. 6.202.6 For open circuit voltages greater than 4 kV Potential ignition sources with open circuit voltages exceeding 4 kV (peak) a.c. or d.c. under N/A normal operating conditions shall be contained in a FIRE ENCLOSURE which shall comply with flammability category V-1 or better according to AS/NZS 60695.11.10.

#### IEC 62368 1B ATTACHMENT Clause Requirement + Test Result - Remark Verdict 8.6.1.201 8.6.1.201 Instructional safeguard for fixedmount television sets MS2 and MS3 television sets and display devices designed only for fixed mounting to a wall of ceiling or equipment rack shall, where required in Table 36, footnote 201, have an instructional safeguard in accordance with Clause F.5 which may be on the equipment or included in the installation instructions or equivalent document accompanying the equipment. N/A The elements of the instructional safeguard shall be as follows: - element 1a: not available; - element 2: 'Stability Hazard' or equivalent wordina: - element 3: 'The television set may fall, causing serious personal injury or death' or equivalent text; - element 4: the following or equivalent text: To prevent injury, this television set must be securely attached to the floor/wall in accordance with the installation instructions 8.6.1.202 Restraining device MS2 and MS3 television sets and display devices that are not solely fixed-mounted should be provided with a restraining device such as a fixing point to facilitate restraining the equipment from toppling forward. The restraining N/A device shall be capable of withstanding a pull of 100 N in all directions without damage. Where a restraining device is provided, instructions shall be provided in the instructions for installation or instructions for use to ensure correct and safe installation.

## **Photo Documentation**

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Report No. 1807042-1-CB-M2

Product: Type Designation:

Power Supply YM-2851J

Long plastic handle



## **Photo Documentation**

Report No. 1807042-1-CB-M2

Product: Type Designation:

Power Supply YM-2851J

Short plastic handle

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## **Photo Documentation**

Report No. 1807042-1-CB-M2

Product: Type Designation: Power Supply YM-2851J

Main board view-3 (For model YM-2851J)

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## **Photo Documentation**

Report No. 1807042-1-CB-M2

Product: Type Designation: Power Supply YM-2851J

Main board view-4 (For model YM-2851J)

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## **Photo Documentation**

Report No. 1807042-1-CB-M2

Product: Type Designation:

Power Supply YM-2851J

Inlet board 3 (For model YM-2851J)

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## **Photo Documentation**

Report No. 1807042-1-CB-M2

Product: Type Designation:

Power Supply YM-2851J

Inlet board 4 (For model YM-2851J)

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## **Photo Documentation**

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Report No. 1807042-1-CB-M2

Product: Type Designation: Power Supply YM-2851J

PCB without components 3 (for model YM-2851J)



## **Photo Documentation**

Report No. 1807042-1-CB-M2

Product: Type Designation: Power Supply YM-2851J

PCB without components 4 (for model YM-2851J)

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