

# EU Declaration of Conformity



to EMC Directive 2014/30/EU  
Low Voltage Directive 2014/35/EU  
RoHS Directive 2011/65/EU  
UKCA, FCC, CE

**Manufacturer:** Dongguan Wontravel Electric Co., Ltd

**Address:** No.1, Yuanshanzai Road, Henggangtou, Xin'an District, Chang'an Town,  
Dongguan City, Guangdong Province, China

**Designed and manufactured for:** E-COM SELL LTD under HULGO trademark

**Product / Apparatus:** USB Travel Adapter

**Type Number:** JY-305PLUS

**Product Image:**



**Technical Data:** Input:100-240V~ 50/60Hz 0.8A  
Single USB Output:5V $\overline{=}$  2.4A  
Type-C port Output:5V $\overline{=}$  3A MAX  
Total Output:5V $\overline{=}$  5.6A MAX

## Declaration

I declare that this declaration is issued under the sole responsibility of Wontravel and that the above product(s) conforms to all the applicable requirements of EU Directives 2014/30/EU, 2014/35/EU, 2011/65/EU and is UKCA, FCC and CE marked accordingly:

### Essential Requirements:

- Standard(s) used to show compliance – **Low Voltage Directive**  
EN 62368-1:2014+A11:2017  
-Reference to Report number.: SA21070212L01001
- Standard(s) used to show compliance – **EMC Directive**  
EN 55032:2015/A11:2020, EN 55035:2017/A11:2020, EN 61000-3-2:2019  
EN 61000-3-3:2013/A1:2019  
-Reference to Report number.: EA21070212E02001
- Standard(s) used to show compliance – **RoHS Directive**  
IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013,  
IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-8:2017  
-Reference to Report number.: SFT21071222573E
- Standard(s) used to show compliance – **UKCA Directive**  
BS EN IEC 62368-1:2020+A11:2020, BS 8546:2016+A1:2018  
-Reference to Report number.:LCSA10183093S
- Standard(s) used to show compliance – **FCC Directive**  
47 CFR FCC Part 15, Subpart B  
ANSI C63.4: 2014  
-Reference to Report number.:EA21070212F06001

Signature :   
Name : Stanley Feng  
Title : Manager  
Date : 19 Feb 2024  
Company :  (Stamp)



# Attestation of Compliance

**Reference No.** : LCSA10183093S

**Applicant** : Dongguan Wontravel Electric Co., Ltd

**Address** : No.1 Yuanshanzai Road, Henggangtou, Xin'an, Chang'an Town, Dongguan city, China

**Product** : 70W GaN TRAVEL ADAPTER

**Trade Mark** : Wontravel

**Model(s)** : JJY-305MAX, JY-305S MAX, JY-305 PLUS, JY-305, JY-305A, JY-305B, JY-305C, JY-305C3, JY-305B-C3, JY-303S-PD, JY-303B-PD, JY-303A-PD, JY-303A, JY-303B, JY-303B-C, JY-303B-C2, JY-303C, JY-303S, JY-303PD, JY-302S, JY-302C, JY-302PD, JY-302MAX, JY-302PRO, JY-301S

**Parameters** : 100-240V~ Max. 10A 50/60Hz  
MAX. Power: 1000W at 100V~, 2400W at 240V~  
USB-C1 Output: 3.3-11V===5A (PPS)  
5V/9V/12V/15V===3A, 20V===3.5A  
USB-C2/C3 Output: 5V===3A (15W Max)  
USB-A1/A2 Output: 5V===2.4A  
USB-C1+C2/C3/A1/A2 Output: 45W+15W (60W Max)  
USB-C2+USB-C3/A1/A2 Output: 5V===3A (15W Max)

**Tested according to** : BS EN IEC 62368-1:2020+A11:2020;  
BS 8546:2016+A1:2018

The submitted products have been tested by us with the listed standards.

This Attestation of Compliance is issued according to the UK legislation: Electrical Equipment (Safety) Regulations 2016, Referred to as the UK safety regulation. It confirms that the listed product complies with all essential requirements of the Electrical Equipment (Safety) Regulations 2016 and applies only to the sample and its technical documentation submitted to Shenzhen LCS Compliance Testing Laboratory Ltd. for testing.

After preparation of the necessary technical documentation (Which must be kept for up to 10 years after the product is placed on the GB market) as well as the UK declaration of conformity, the required UKCA marking can be affixed on the product. Other relevant Regulations have to be observed.

# UK CA

**Date of issue: November 16, 2023**



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<b>TEST REPORT</b>	
<b>BS 8546</b>	
<b>Travel adaptors compatible with UK plug and socket system - Specification</b>	
<b>Report Number</b> .....	LCSA10183093S
<b>Date of issue</b> .....	2023-11-16
<b>Total number of pages</b> .....	74 pages
<b>Name of Testing Laboratory preparing the Report</b> .....	Shenzhen LCS Compliance Testing Laboratory Ltd. Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
<b>Applicant's name</b> .....	Dongguan Wontravel Electric Co., Ltd
<b>Address</b> .....	No.1 Yuanshanzai Road, Henggangtou, Xin'an, Chang'an Town, Dongguan city, China
<b>Test specification</b>	
<b>Standard</b> .....	BS 8546:2016+A1:2018
<b>Test procedure</b> .....	Type test
<b>Non-standard test method</b> .....	N/A
<b>Test Report Form</b>	
<b>Test Report Form No</b> .....	BS 8546_1A
<b>TRF originator</b> .....	LCS
<b>Master TRF</b> .....	dated 2019-01
<b>Test item Description</b> .....	70W GaN TRAVEL ADAPTER
<b>Trademark</b> .....	Wontravel
<b>Model and/or type reference</b> .....	JY-305MAX, JY-305S MAX, JY-305 PLUS, JY-305, JY-305A, JY-305B, JY-305C, JY-305C3, JY-305B-C3, JY-303S-PD, JY-303B-PD, JY-303A-PD, JY-303A, JY-303B, JY-303B-C, JY-303B-C2, JY-303C, JY-303S, JY-303PD, JY-302S, JY-302C, JY-302PD, JY-302MAX, JY-302PRO, JY-301S
<b>Manufacturer</b> .....	Dongguan Jingya Electric Co.,Ltd
<b>Address</b> .....	Room 201, Unit 1, No. 25, Xin 'an Shangxin Road, Chang 'an Town, Dongguan City, Guangdong Province
<b>Rating(s)</b> .....	100-240V~ Max. 10A 50/60Hz MAX. Power: 1000W at 100V~, 2400W at 240V~ USB-C1 Output: 3.3-11V===5A (PPS) 5V/9V/12V/15V===3A, 20V===3.5A USB-C2/C3 Output: 5V===3A (15W Max) USB-A1/A2 Output: 5V===2.4A USB-C1+C2/C3/A1/A2 Output: 45W+15W (60W Max) USB-C2+USB-C3/A1/A2 Output: 5V===3A (15W Max)

**TRF No. BS 8546 1A**



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<b>Testing procedure and testing location:</b>	
<b>Testing Laboratory:</b>	Shenzhen LCS Compliance Testing Laboratory Ltd.
<b>Testing location/ address .....</b>	Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
<b>Tested by.....</b>	Cassie Ling / Test engineer <i>Cassie Ling</i>
<b>Checked by.....</b>	Tim Liu / Project engineer <i>Tim Liu</i>
<b>Approved by.....</b>	Hart Qiu / Technical manager <i>Hart Qiu</i>
<b>List of Attachments (including a total number of pages in each attachment):</b>	
Attachment No.1: Components list (1 page)	
Attachment No.2: Photo documentation (10 pages)	
<b>Summary of testing:</b>	
<b>Tests performed (name of test and test clause):</b> The submitted samples were found to comply with the requirements of: ➢ Electrical safety BS 8546:2016+A1:2018	<b>Testing location:</b> Shenzhen LCS Compliance Testing Laboratory Ltd. Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
<b>Summary of compliance with National Differences (List of countries addressed):</b>	
N/A	

TRF No. BS 8546\_1A



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**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.

FUSE

**Wontravel**

**100-240V~ Max. 10A 50/60Hz**

Model: JY-305MAX      70W GaN TRAVEL ADAPTER  
Max Power: 1000W at 100V~, 2400W at 240V~, Fuse Rating: 10A  
USB-C1 Out: 3.3-11V~-5A(PPS)/5V/9V/12V/15V~-3A, 20V~-3.5A  
USB-C2/C3 Out: 5V~-3A(15W Max), USB-A1/A2 Out: 5V~-2.4A  
USB-C1+USB-C2/C3/A1/A2 Out: 45W+15W(60W Max)  
USB-C2+USB-C3/A1/A2 Out: 5V~-3A(15W Max)

CAUTION: This Adapter does not convert voltage. No grounding.  
Do not use with appliances requiring earth connection.  
Do not expose to liquid or moisture, indoor use only.  
Unplug adapter when not in use, Keep out of reach of children.



**BS 8546**

For use with unearthed appliances only.

**USB outlet:**

**Remark:**

1. Representative markings of above model: JY-305MAX, markings of all models are identical except for model name.
2. The height dimension of CE mark and UKCA mark should not less than 5mm, the height dimension of WEEE symbol should not less than 7mm.
3. Name and address of the Importer and Manufacturer must be affixed on the product when the product placed on the EU market.

**TRF No. BS 8546\_1A**



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**Possible test case verdicts:**

- test case does not apply to the test object.....: N/A (Not Applicable)
- test object does meet the requirement.....: P (Pass)
- test object does not meet the requirement.....: F (Fail)

**Testing**

Date of receipt of test item .....: 2023-10-18  
 Date(s) of performance of test.....: 2023-10-18 to 2023-11-16

**General remarks:**

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

Throughout this report a  comma /  (point) is used as the decimal separator.

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

**Name and address of factory (ies) .....** : Dongguan Wontravel Electric Co., Ltd  
 No.1 Yuanshanzai Road, Henggangtou, Xin'an,  
 Chang'an Town, Dongguan city, China

**General product information:**

1. The sample(s) tested complies with the requirements of BS 8546:2016+A1:2018.
2. When determining the test conclusion, the Measurement Uncertainty of test has been considered.
3. This report only considers the travel adaptor portions, for USB module, details see the test report No. LCSA09143063S.
4. All models are the same except for the model name, and all tests are conducted on the model JY-305MAX.

**Test Sequence Summary:**

Sequence No.	Clause number
1	5, 6, 7, 8, 9, 11.1 to 11.9, 12, 13.1 (inspection only), 13.3, 13.4, 13.7, 13.8, 14.3, 13.9, 13.10, 13.11, 13.14, 13.18, 13.19, 13.21, 14.1, 14.2, 10
2	5, 6, 11.10, 13.12
3	5, 6, 15, 16, 17, 13.6, 11.4, 18
4	5, 6, 15, 13.5, 19, 17, 18
5	5, 6, 13.15, 13.16
6	5, 6, 13.17
7	5, 6, 15, 16, 17, 13.13
8	5, 6, 13.2, 20
9	5, 6, 21
10	5, 6, 22

**TRF No. BS 8546\_1A**



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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
<b>Sequence no.1 Inspection, measurement, gauging and manipulation</b>			
<b>5</b>	<b>General conditions for type testing</b>		--
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--
	Travel adaptors incorporating plug pins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of (20 ±5) °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--
<b>7</b>	<b>Rating</b>		P

## TRF No. BS 8546\_1A



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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Travel adaptors shall have a rated voltage not exceeding 250 V a.c. and a rated current not lower than 5 A and not exceeding 13 A. The rated voltage shall not be lower than that of the socket-outlet which can accept the adaptor. The rated current of a travel adaptor shall be the lowest of the following:	10A	P
	a) equal to the sum of the rated currents of the socket-outlet portions if this is lower than 13 A;	10A	P
	b) the rated current of the lowest plug portion but not exceeding 13 A;		N/A
	c) the rating of the fuse-link fitted but not exceeding 13 A.	10A	P
<b>8</b>	<b>Marking</b>		P
<b>8.1</b>	<b>Requirements for marking</b>		P
<b>8.1.1</b>	<b>Information to be marked on travel adaptors</b>		P
	Travel adaptors shall be marked with the information given in items a) to e) and if relevant, the information listed in f) to i):		P
	a) the name or trademark of the manufacturer or responsible vendor;	See label	P
	b) the number of this British Standard, i.e. BS 8546	BS 8546 (See label)	P
	c) the rated current;	See label	P
	d) the rated voltage;	See label	P
	e) the nature of supply;	~	P
	f) for fused travel adaptors, the word "FUSE" or "FUSED", or the appropriate symbol specified in 8.1.4 marked on the external accessible surface of the travel adaptor;	See label	P
	g) for travel adaptors which are intended for use with unearthed supply systems marked, " Caution: For use with unearth appliances only";		P
	h) "This adaptor does not covert voltage"; and	See label	P
	i) symbol for USB outlet.	See label	P
<b>8.1.2</b>	<b>Safety information</b>		P
	Where it is necessary for safe operation that the user is aware of any particular characteristics of the travel adaptor, the necessary information shall be given by markings on the travel adaptor itself or, where this is not practicable, on the packaging and/or in instructions which accompany it.		P


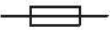

## TRF No. BS 8546\_1A



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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Safety information shall include the manufacturer's declared compatible plug and socket systems.		P
<b>8.1.3</b>	<b>Visibility of marking</b>		P
	The marking specified in 8.1.1 c), d), g) and h) shall be visible when the travel adaptor is engaged in a socket-outlet.		P
<b>8.1.4</b>	<b>Symbols for marking travel adaptors</b>		P
	If symbols are used they shall be as follows:		--
	Amperes A	A	P
	Volts V	V	P
	Power W (max)	W (max)	P
	Alternating current*	~	P
	Line L	L	N/A
	Neutral N	N	N/A
	Earth*		N/A
	Fuse*		P
	USB outlet		P
<b>8.1.5</b>	<b>Marking of rated current and/or power and voltage</b>		P
	If a symbol for nature of supply is used, it shall be placed next to the marking for rated current and rated voltage.	See label	P
<b>8.1.6</b>	<b>Legibility and durability</b>		P
	Marking on the travel adaptor shall be legible and durable.		P
	Marking shall not be placed on screws, washers or other easily removable parts.		P
<b>8.2</b>	<b>Test methods</b>		P
<b>8.2.1</b>	<b>Visual inspection</b>		P
	Conformity to the requirements of 8.1.1 to 8.1.6 shall be checked by visual inspection.		P
<b>8.2.2</b>	<b>Test for legibility</b>		P
	Conformity shall be checked by inspection, using normal or corrected vision without additional magnification.		P
<b>8.2.3</b>	<b>Test for durability</b>		P
	Marking made by engraving, moulding or a similar permanent process shall meet the requirement for durability, without the need for testing.		P
<b>9</b>	<b>Dimensions and dispositions</b>		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Dimensional requirements, which are important for safety and interchangeability with plugs and socket-outlets conforming to other standards, shall be in accordance with the tolerances specified in the relevant standards sheets except as permitted below.		P
	It shall not be possible, within the declared compatible plug and socket systems, to engage:		P
	a) the plug portion of a travel adaptor with a socket-outlet having a higher voltage rating;		P
	b) a live pin of a plug with an earthing contact of the socket-outlet portion of the travel adaptor;		N/A
	c) an earthing pin of a plug with a current-carrying contact of the socket-outlet portion of the travel adaptor;		N/A
	d) a plug with the socket-outlet portion of the travel adaptor in such a way that the earthing circuit is interrupted.		N/A
	Travel adaptors shall conform to the dimensions and dispositions specified in the relevant standard sheets except for deviations which permit compatibility with multiple plug and socket systems and do not affect the safety of travel adaptors.		P
	Travel adaptors with such deviations shall conform to all other requirements of this British Standard.		P
	Conformity shall be checked by inspection, measurement or gauges as specified in the relevant standard sheets.		P
<b>11</b>	<b>Accessibility of live parts</b>		P
<b>11.1</b>	<b>Requirement</b>		P
	Live parts of travel adaptors shall not be accessible.		P
	For configurable travel adaptors, live parts shall not be accessible even when partially configured or with any moveable/removable parts in all possible positions.		P
	There shall be no contact between the test probe and any live part.		P
<b>11.2</b>	<b>Test method</b>		P
	Test probe 11 of BS EN 61032:1998, using a force of $5^{0}_{-1}$ N, shall be applied in every possible position when:		P
	a) the travel adaptor or any component part is in partial or complete engagement with a socket-outlet;		P

## TRF No. BS 8546\_1A



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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	b) plugs are in partial or complete engagement with the travel adaptor.		P
	An electrical indicator with a voltage of (45 ±5) V shall be used to show contact with live parts.		P
<b>11.3</b>	<b>Travel adaptors with detachable plug-pin portions</b>		N/A
<b>11.3.1</b>	<b>Requirement</b>		N/A
	travel adaptors having detachable plug-pin portions shall not have live parts accessible to test probe 13 of BS EN 61032:1998 when the plug-pin portion is engaged in a socket-outlet.		N/A
<b>11.3.2</b>	<b>Test method</b>		N/A
	Test probe 13 of BS EN 61032:1998 shall be applied without appreciable force in every possible position.		N/A
	An electrical indicator with a voltage of (45 ±5) V shall be used to show contact with live parts.		N/A
<b>11.4</b>	<b>Socket apertures with protection by shutters</b>		P
<b>11.4.1</b>	<b>Requirements</b>		P
	Travel adaptors which incorporate shutters to provide increased protection against electric shock shall be constructed such that live parts protected by the shutters are not accessible and the shutters do not operate.		P
	The travel adaptors shall be constructed such that, live parts are automatically screened by a shutter, or shutters, which are not operated solely by the insertion of one current-carrying plug pin.		P
<b>11.4.2</b>	<b>Test method</b>		P
	The test pin of Figure 1 shall be applied with a force of 5 N perpendicularly to the engagement surface of the socket-outlet portion of the travel adaptor.		P
	Plug pins of the appropriate types shall be applied individually with a force of 20 N to the socket-outlet contacts of the travel adaptor.		P
<b>11.5</b>	<b>Socket apertures without shutters</b>		N/A
<b>11.5.1</b>	<b>Requirements</b>		N/A
	The live parts of travel adaptors having socket apertures without shutters shall not be accessible.		N/A
<b>11.5.2</b>	<b>Test method</b>		N/A
	Test probe 13 of BS EN 61032:1998 shall be applied without appreciable force in every possible position.		N/A
	An electrical indicator with a voltage of (45 ±5) V shall be used to show contact with live parts.		N/A
<b>11.6</b>	<b>Single pin insertion</b>		P

## TRF No. BS 8546\_1A



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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
<b>11.6.1</b>	<b>Requirements</b>		P
	Travel adaptors shall be so constructed such that:		P
	a) any earthing plug-pin of the travel adaptor or of a plug intended to be engaged with the travel adaptor does not make contact with a current-carrying socket-contact; and/or		P
	b) any current-carrying plug-pin of the travel adaptor or of a plug intended to be engaged with the travel adaptor does not make contact with a current-carrying socket-contact while any other plug-pin is accessible.		P
<b>11.6.2</b>	<b>Test method</b>		P
	Conformity shall be checked by visual inspection. An electrical indicator with a voltage of (45 ±5) V shall be used to show contact with live parts.		P
<b>11.7</b>	<b>Earthing contact</b>		N/A
<b>11.7.1</b>	<b>Requirement</b>		N/A
	Earthing plug-pins or contacts shall make and break contact with the earthing socket-contact respectively before and after the current-carrying plug-pins make and break contact with the current-carrying socket-contacts.		N/A
	For earthed configurations, it shall not be possible to engage the current-carrying pins in a socket-outlet without the corresponding earth becoming engaged.		N/A
<b>11.7.2</b>	<b>Test method</b>		N/A
	An electrical test shall be performed with the travel adaptor pins in all possible positions.		N/A
	Conformity shall be checked by inspection.		N/A
<b>11.8</b>	<b>Fused travel adaptors</b>		P
	In fused travel adaptors it shall not be possible to gain access to the fuse-link whilst the travel adaptor is in engagement with a socket-outlet.		P
	Conformity shall be checked by inspection.		P
<b>11.9</b>	<b>Dismantling</b>		P
	Apart from user configurable parts, it shall not be possible to dismantle travel adaptors by hand or by using a general purpose tool, e.g. a screwdriver.		P
	Conformity shall be checked by inspection.		P
<b>12</b>	<b>Provision for earthing</b>		N/A
<b>12.1</b>	<b>Requirements</b>		N/A

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	there shall be effective earthing of all metal parts that might become live in the event of failure of the insulation of the travel adaptor, and which are capable of being touched during normal operation.		N/A
	The connection between the earthing pin or contact and parts required to be connected thereto shall be of low resistance.		N/A
	the resistance between the earthing pin or contact and any other nominated part shall not exceed 0.05 $\Omega$ .		N/A
<b>12.2</b>	<b>Test method</b>		N/A
	A current of (25 $\pm$ 0.75) A derived from an a.c. source having a no-load voltage not exceeding 12 V shall be passed for (60 +5) s as follows:		N/A
	a) between the earthing pin or contact and any accessible metal parts intended to be earthed; and/or		N/A
	b) between any corresponding earthing plug-pin inserted fully into an earthing socket-contact and the remote end of the earthing plug-pin of the travel adaptor.		N/A
<b>12.3</b>	<b>Insulated metal parts</b>		N/A
<b>12.3.1</b>	<b>Requirements</b>		N/A
	The requirements of 12.1 shall not apply to travel adaptors having accessible metal parts, such as removable covers or cover plates, where such parts are not intended to be earthed, provided that:		N/A
	a) such accessible metal parts are separated from live parts by doubled or reinforced insulation; and		N/A
	b) such parts cannot be removed and replaced in an incorrect position; and		N/A
	c) there is no risk of accidental contact between live parts and metal covers or cover plates, for example through fixing screws; and		N/A
	d) precautions are taken to prevent creepage distances or clearances becoming less than the values specified in Clause 10.		N/A
<b>12.3.2</b>	<b>Test method</b>		N/A
	Conformity shall be checked by visual inspection and in accordance with the tests in Clause 17 at a test voltage of (4 000 $\pm$ 120) V.		N/A
<b>13</b>	<b>Construction</b>		P
<b>13.1</b>	<b>Current-carrying parts</b>		P
<b>13.1.1</b>	<b>Requirements</b>		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Current-carrying parts and parts of the earthing contacts shall be made of brass, copper or phosphor-bronze.	Copper	P
	Materials other than brass containing at least 50% copper shall not be used in the construction of travel adaptor plug pins except for sleeves of pins and ISODs.		P
<b>13.1.2</b>	<b>Test method</b>		P
	Conformity shall be checked by visual inspection and in accordance with the tests for normal operation (13.6.2), temperature rise (Clause 18) and resistance to rust (Clause 22).		P
<b>13.3</b>	<b>Plug portion</b>		P
	The plug portion of the travel adaptor shall be provided with earthing plug pins or contacts		P
	Travel adaptors for use in polarized socket-outlets shall be designed so that the plug pins and socket contacts maintain the same polarity as the input and output portions of the travel adaptor.		P
<b>13.4</b>	<b>Fuses</b>		P
	Travel adaptors incorporating BS 1363-1 type plug pins shall be provided with a fuse link in accordance with BS 1362.		P
	Fused travel adaptors only incorporating non-BS 1363 type plug pins shall be provided with a fuse with a minimum breaking capacity of 1 500 A in accordance with BS 1362, BS EN 60269 or BS EN 60127.		P
	The fuse link shall be mounted between the line plug pin and the corresponding socket-outlet contact.		P
	It shall not be possible to remove or replace a fuse whilst the adaptor is engaged in a socket-outlet.		P
<b>13.7</b>	<b>Torque imposed on a socket-outlet and provision for withdrawal of travel adaptors</b>		P
<b>13.7.1</b>	<b>Requirements</b>		P
	Travel adaptors with associated plugs and cords shall not impose undue strains on fixed socket-outlets.		P
<b>13.7.2</b>	<b>Test method</b>		P
	Socket-outlet portions of travel adaptors fitted with a plug fitted with 1 m of flexible cord suitable for the current rating of the plug. The total mass shall not exceed 800 g.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	The travel adaptor with plugs and flexible cords shall be inserted into an appropriate socket-outlet.		P
	The socket-outlet shall be pivoted about its horizontal axis, 8 mm behind the engagement face and parallel with it, with its centre equidistant from pin centres.		P
	The additional torque to be applied to the socket-outlet to maintain the engagement face in the vertical plane shall be not greater than 0.7 Nm for BS 1363 type socket-outlets and 0.25 Nm in all other cases.	Max. 0.05Nm	P
	Flexible cords, if any, shall hang freely during the test.		N/A
	The test shall be repeated for all configurations.		P
<b>13.7.3</b>	<b>Provision for withdrawal of travel adaptors</b>		P
	Travel adaptors shall be shaped such that they can be easily withdrawn by hand from the relevant socket-outlet.		P
	The travel adaptor shall meet one of the following characteristics:		P
	a) the travel adaptor has a usable length for gripping of at least 55 mm in the axial direction; or		P
	b) the travel adaptor has indents or a ridge such that Test Probe B of BS EN 61032:1998 can penetrate into that indent or past the edge of the ridge by at least 2 mm from two opposite directions or at least 4 mm from one direction; or		N/A
	c) the travel adaptor has special means for withdrawal (e.g. hooks, rings).		N/A
<b>13.8</b>	<b>Socket contacts</b>		P
<b>13.8.1</b>	<b>Requirements</b>		P
	Socket contacts shall have metallic contact on at least two opposing sides of each pin.		P
	Socket contacts shall be self-adjusting with regard to contact making and each socket contact shall be such as to make and maintain, in normal use, effective electrical and mechanical contact with a corresponding plug pin.		P
	The means for producing the contact pressure shall be associated with each socket contact independently and shall not be dependent on insulating material.		P
	Earthing contacts shall, irrespective of the number, be considered as one pole.		P
	The socket contact shall meet the maximum and minimum withdrawal force.		P

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Clause	Requirement – Test	Result – Remark	Verdict
<b>13.8.2</b>	<b>Test method</b>		P
	Conformity shall be checked by visual inspection and the tests of 13.9.2 and 13.10.2.		P
<b>14.3</b>	<b>Electrical connections and current-carrying parts</b>		P
	Electrical connections shall be so designed that contact pressure is not transmitted through insulating material other than ceramic or pure mica, unless there is sufficient resiliency in the metallic parts to compensate for any possible shrinkage or yielding of the insulating material.		P
	Connections to plug pins, fuse clips and socket contacts shall not be made by screws.		P
	Internal connections shall be permanently made except for parts which are intended to be connected or disconnected during configuration of the travel adaptor by the user.		P
	Current-carrying parts shall be of a metal having, under the conditions occurring in the travel adaptor, mechanical strength, electrical conductivity and resistance to corrosion adequate for their intended use and in accordance with Clause 22.		P
	Metals showing a great difference of electrochemical potential with respect to each other, under moist conditions and where corrosion might result, shall not be used in contact with each other.		P
	Screws shall not be used for the connection of current-carrying parts.		P
<b>13.9</b>	<b>Verification of the maximum withdrawal force</b>		P
<b>13.9.1</b>	<b>Requirements</b>		P
	The maximum withdrawal force of a plug from the travel adaptor shall be not greater than the values specified in Table 5.		P
<b>13.9.2</b>	<b>Test method</b>		P
	The travel adaptor shall be mechanically fixed to the appropriate socket-outlet such that the travel adaptor does not fall out of the fixed socket-outlet.		P
	The axes of the socket-contacts of the travel adaptor shall be vertical and the entry holes for the pins of the appropriate plug shall face downwards.		P
	An appropriate plug, having the maximum size pins which the socket-outlet is designed to accept and with pins of the dimensions specified in the relevant standard sheet, shall be used for this test.		P
	The pins of the plug shall be wiped free of grease before each test, using a cold chemical degreaser.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	The plug shall be inserted into and withdrawn from the socket-outlet portion of the travel adaptor ten times.		P
	The plug shall again be fully inserted into the socket-outlet portion of the travel adaptor and the maximum withdrawal force measured.		P
<b>13.10</b>	<b>Verification of the minimum withdrawal force</b>		P
<b>13.10.1</b>	<b>Requirements</b>		P
	The minimum withdrawal force of a plug pin from the travel adaptor shall be not less than the minimum value given in Table 5.		P
<b>13.10.2</b>	<b>Test method</b>		P
	If the travel adaptor is intended to accept plugs having pins with different nominal dimensions, the smallest appropriate ones shall be used for the test. In this case, the rating in Table 5 shall be the rating of the plug.		P
	A plug pin with the dimensions specified in the relevant standard sheet of the appropriate plug shall be applied to each individual socket-contact of the travel adaptor with the travel adaptor held in such a way that the plug pin is hanging downwards.		P
	Shutters, if any, shall be rendered inoperative so as not to affect the test. Care shall be taken to ensure that the insulating material surrounding the socket contact does not influence the test.		P
	The pin shall be wiped free from grease before each test, using a cold chemical degreaser.		P
	The plug shall be inserted into and withdrawn from the socket-outlet portion of the travel adaptor ten times.		P
	The plug shall again be fully inserted into the socket-outlet portion of the travel adaptor and the minimum withdrawal force measured.		P
<b>13.11</b>	<b>Rotation of plug pins</b>		N/A
<b>13.11.1</b>	<b>Requirements</b>		N/A
	plug pins of travel adaptors shall:		N/A
	a) be locked against rotation, except where the pin is designed to be rotated in order to fit more than one socket-outlet type, in which case the amount of rotation shall be limited to that required to engage with the socket-outlet;		N/A
	b) not be removable without permanently rendering the travel adaptor useless.		N/A

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	After the test, the travel adaptor shall conform to the dimensional requirements of Clause 9. Conformity shall be checked by inspection and manipulation.		N/A
<b>13.11.2</b>	<b>Test method</b>		N/A
	The travel adaptor shall be clamped and each pin twisted about its longitudinal axis by applying a torque of 1 Nm $\pm$ 10% for 60 <sup>0</sup> <sub>+5</sub> s for BS 1363 type pins and 0.4 Nm $\pm$ 10% for 60 05 +s for other pin types.		N/A
<b>13.14</b>	<b>Travel adaptor plug pins and ISODs</b>		P
<b>13.14.1</b>	<b>Requirements</b>		P
13.14.1.1	Travel adaptor plug pins and ISODs shall conform to 13.14.1.3. In addition, ISODs shall conform to the dimensional requirements of BS 1363-1:1995, Figure 4a and Figure 4b.		P
13.14.1.2	Non-solid pins shall conform to 13.14.1.4 and 13.14.1.5.		P
13.14.1.3	All exposed surfaces of the plug pins shall be smooth and free from burrs or sharp edges and other irregularities which could cause damage or excessive wear to corresponding socket contacts or shutters.		P
13.14.1.4	Those surfaces of the non-solid plug pins which are visible when the adaptor is correctly assembled shall be free of apertures.		P
13.14.1.5	All seams and joints of non-solid adaptor plug pins shall be closed over their entire length.		P
<b>13.14.2</b>	<b>Test method</b>		P
	Conformity shall be checked by measurement and visual inspection.		P
	In case of doubt, a steel probe of 0.2 mm diameter, conforming to BS EN 10270-1:2001, Table 1, shall be pushed into all seams and joints.		P
	The test probe shall not enter into any seam or joint to a depth greater than the thickness of the material from which the plug pin is formed.		P
<b>13.18</b>	<b>Configurable travel adaptors</b>		P
<b>13.18.1</b>	<b>Requirements</b>		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	When tested for the strength and effectiveness of connections in accordance with 13.18.2.1 to 13.18.2.4, configurable travel adaptors having moveable or removable parts shall show no deterioration affecting further use and any mechanical interlocks shall remain operational.		P
	When tested in accordance with 13.18.2.5, plug pins shall remain locked in their deployed position.		P
<b>13.18.2</b>	<b>Test method</b>		P
13.18.2.1	The voltage drop between each individual line or neutral pin and corresponding socket contact shall be measured whilst carrying a rated current of $\pm 0.4$ A at rated voltage $\pm 10$ V. The voltage drop shall not exceed 40 mV.		P
13.18.2.2	Each moveable part shall be operated through its complete range of movement for 300 cycles.		P
13.18.2.3	Each removable part shall be assembled and removed 300 times.		P
13.18.2.4	The voltage drop measured shall be not more than 1.5 times the value measured in the initial test of 13.18.2.1.		P
13.18.2.5	When tested at a load of $10 \text{ } 0 \pm 10$ N for $60 \text{ } 0 \pm 5$ s applied to each plug pin in an axial direction, plug pins shall remain locked in their deployed position.		P
<b>13.19</b>	<b>Travel adaptors incorporating USB outlets</b>		P
	Travel adaptors incorporating USB outlets shall conform to Annex F.		P
<b>14</b>	<b>Screws, current-carrying parts and connections</b>		P
<b>14.1</b>	<b>General</b>		P
	Connections, electrical or mechanical, shall withstand the mechanical stresses occurring in normal use.		P
<b>14.2</b>	<b>Screws, nuts, rivets and similar features</b>		N/A
<b>14.2.1</b>	<b>Requirements</b>		N/A
	Screws, nuts and similar features intended to be operated by a user shall have adequate strength.		N/A
	Tested in accordance with suitable test screwdriver or a suitable tool, applying a torque as specified in Table 6, there shall be no deterioration affecting further use.		N/A
	Rivets which serve as electrical as well as mechanical connections shall be locked against loosening or turning.		N/A
<b>14.2.2</b>	<b>Test method</b>		N/A

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Clause	Requirement – Test	Result – Remark	Verdict
	The test shall be made by means of a suitable test screwdriver or a suitable tool, applying a torque as specified in Table 6.		N/A
	The shape of the blade of the test screwdriver shall suit the head of the screw to be tested.		N/A
	The screws or nuts or other similar features shall be tightened and loosened five times without jerks.		N/A
	Rivets shall be checked by visual inspection.		N/A
<b>10</b>	<b>Clearances, creepage distances and solid insulation</b>		P
<b>10.1</b>	<b>General</b>		P
	Travel adaptors energized directly from the low-voltage supply shall be classified as Overvoltage Category III in accordance with Annex A of BS 8546.		P
	Travel adaptors shall be constructed so that the clearances, creepage distances and solid insulation are adequate to withstand the electrical stresses taking into account the environmental influences that might occur.		P
	Clearances, creepage distances and solid insulation shall conform to the relevant requirements of 10.2, 10.3 and 10.4.		P
	The distance between lead wires in the pinch of a neon lamp with external resistor shall be a minimum of 1 mm.		N/A
	Travel adaptors shall conform to the requirements for basic insulation in 10.2.3 and 10.3.3 and for functional insulation in 10.2.4 and 10.3.4. If the manufacturer declares an insulation level exceeding basic insulation then the accessory shall be tested accordingly.		P
<b>10.2</b>	<b>Clearances</b>		P
<b>10.2.1</b>	<b>Requirements</b>		P
	Clearances shall be dimensioned to withstand the rated impulse voltage.		P
<b>10.2.2</b>	<b>Test method</b>		P
	All parts that can be removed without the use of a tool shall be removed.		P
	All moveable parts that can be assembled in different orientations shall be placed in the most unfavourable position.		P
<b>10.2.3</b>	<b>Clearances for basic insulation</b>		N/A
	The clearances for basic insulation shall be not less than the values given in Table 2 of BS 8546.		N/A

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Smaller unspecified clearances shall only be used if the accessory passed the impulse withstand voltage of Annex C of BS 8546.		N/A
<b>10.2.4</b>	<b>Clearances for functional insulation</b>		P
	The clearances for functional insulation shall be not less than the values specified for basic insulation in 10.2.3.		P
	Conformity shall be checked by inspection, and if necessary by measurement, or by the test in Annex C.		P
<b>10.2.5</b>	<b>Clearances for supplementary insulation</b>		N/A
	The clearances for supplementary insulation shall be not less than the values specified for basic insulation in 10.2.3.		N/A
	Conformity shall be checked by inspection, and if necessary by measurement, or by the test in Annex C.		N/A
<b>10.2.6</b>	<b>Clearances for reinforced insulation</b>		P
	The clearances for reinforced insulation shall be not less than the values specified for basic insulation in 10.2.3, but using the next higher step for rated impulse withstand voltage given in Table 2.		P
	Conformity shall be checked by inspection and by measurement, or by the test in Annex C.		P
<b>10.3</b>	<b>Creepage distances</b>		P
<b>10.3.1</b>	<b>Requirements</b>		P
	The creepage distances shall be dimensioned for the voltage which is expected to occur in normal use, and shall be in accordance with the pollution degrees in Annex B and the material group, as declared by the manufacturer.		P
<b>10.3.2</b>	<b>Test method</b>		P
	All parts which can be removed without the use of a tool shall be removed		P
	All moveable parts which can be assembled in different orientations shall be placed in the most unfavourable position.		P
<b>10.3.3</b>	<b>Creepage distances for basic insulation</b>		N/A
	The creepage distances for basic insulation shall be not less than the values given in Table 3.		N/A
<b>10.3.4</b>	<b>Creepage distances for functional insulation</b>		P
	The creepage distances for functional insulation shall be not less than the values specified for basic insulation in 10.2.3.		P

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Clause	Requirement – Test	Result – Remark	Verdict
<b>10.3.5</b>	<b>Creepage distances for supplementary insulation</b>		N/A
	The creepage distances for supplementary insulation shall be not less than the values specified for basic insulation in 10.2.3.		N/A
<b>10.3.6</b>	<b>Creepage distances for reinforced insulation</b>		P
	The creepage distances for reinforced insulation shall be not less than twice the distances specified for basic insulation in Table 3 of BS 8546.		P
<b>10.4</b>	<b>Solid insulation</b>		P
<b>10.4.1</b>	<b>General</b>		P
	Solid insulation for basic, supplementary, reinforced and functional insulation shall be capable of withstanding electrical stresses which might occur in normal use.		P
<b>10.4.2</b>	<b>Basic, supplementary and functional solid insulation</b>		P
	Basic, supplementary and functional solid insulation shall each withstand the required impulse voltage declared by the manufacturer of the accessory.		P
<b>10.4.3</b>	<b>Reinforced solid insulation</b>		P
	Reinforced solid insulation shall be dimensioned to withstand the required impulse voltage, but one step higher than that specified for basic insulation in 10.2.3.		P
<b>10.5</b>	<b>Requirements for printed wiring boards and equivalent construction</b>		N/A
	Wiring boards and equivalent shall conform to the constructional requirements of BS EN 60664-5.		N/A
	Where coating, potting or moulding is used, these shall conform to BS EN 60664-3.		N/A

#### Sequence no.2 General resilient covers and pin sleeves

<b>5</b>	<b>General conditions for type testing</b>		--
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Travel adaptors incorporating plugpins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of (20 ±5) °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--
<b>11.10</b>	<b>Resilient covers</b>		N/A
<b>11.10.1</b>	<b>Requirement</b>		N/A
	Resilient covers of travel adaptors shall be so designed and constructed that there is no risk that live parts could penetrate the cover or become so disposed.		N/A
	After the test in 11.10.2 it shall not be possible to touch live parts with test probe 11 of BS EN 61032:1998, applied with a force of 30 <sup>0</sup> <sub>-2</sub> N.		N/A
<b>11.10.2</b>	<b>Test method</b>		N/A
	A steady force of <240 <sup>0</sup> <sub>-10</sub> N shall be applied to those places where the possibility of a failure exists, the force being applied through a metal test pressure block as shown in Figure 2.		N/A

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Clause	Requirement – Test	Result – Remark	Verdict
	Each sample shall be subjected to the force at each chosen place in turn.		N/A
	During each application of force, a test voltage of (2 000 ±60) V, 50 Hz of substantially sinusoidal waveform shall be applied for (60 +5) s between all live parts bonded together and the earthed test pressure block.		N/A
	During the test no flashover or breakdown shall occur.		N/A
<b>13.12</b>	<b>Abrasion of plug pin sleeves</b>		P
<b>13.12.1</b>	<b>Requirement</b>		P
	Sleeves of plug pins of travel adaptors shall have adequate electric strength and resistance to abrasion.		P
	The sleeved plug pins shall not break down and a flashover shall not occur.		P
	The sleeved plug pins shall show no damage which might impair further use and the sleeve shall not have been penetrated or creased.		P
<b>13.12.2</b>	<b>Test method</b>		P
13.12.2.1	A 50 Hz voltage of substantially sinusoidal waveform shall be applied between each line and neutral plug pin, and a thin metal strip of between 5.5 mm and 6 mm width wrapped around the base of the plug pin sleeve adjacent to the base of the plug portion of the travel adaptor. Initially not more than 500 V shall be applied, the voltage then being raised to (1 250 ±30) V and maintained for (60 +5) s.		P
13.12.2.2	The test apparatus for resistance to abrasion shall comprise a horizontally disposed beam pivoted about its centre point. A short length of steel wire (1 ±0.02) mm in diameter and bent into a U-shape, the base of the U being straight with no surface defected, shall be rigidly attached at both ends to one end of the beam so that the straight part of the wire projects below the beam and is parallel to the axis of the beam pivot.		P
13.12.2.3	The travel adaptor shall be held in a suitable clamp in in such a position that the straight part of the steel wire rests upon the plug pin of the travel adaptor at right angles to it and the plug pin slopes downward at an angle between 5° and 10° to the horizontal. The beam shall be loaded so that the wire exerts a force on the pin.		P

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Clause	Requirement – Test	Result – Remark	Verdict
13.12.2.4	The travel adaptor shall be moved backwards and forwards in a horizontal direction in the plane of the axis of the beam so that the wire rubs along the plug pin of the travel adaptor. The length of plug pin thus abraded shall be approximately 9 mm, of which approximately 7 mm is over the insulating sleeve.		P
13.12.2.5	The travel adaptor shall be moved 5 000 times in each direction (10 000 movements) at a rate of 25 movements to 30 movements per minute.		P
13.12.2.6	The test shall be made on one plug pin of each plug portion of the travel adaptor.		P
13.12.2.7	Any abraded brass contamination on the sleeve shall be removed and 13.12.2.1 repeated.		P

**Sequence no.3 General ageing, humidity, normal operation, insulation resistance (IR), electric strength (ES), temperature rise**

<b>5</b>	<b>General conditions for type testing</b>		--
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--
	Travel adaptors incorporating plug pins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of (20 ±5) °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--

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Clause	Requirement – Test	Result – Remark	Verdict
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--
<b>15</b>	<b>Resistance to ageing</b>		P
<b>15.1</b>	<b>Requirements</b>		P
	Travel adaptors shall be resistant to ageing.		P
	The samples shall show no cracks or damage visible.		P
	The samples shall subsequently pass the remaining tests in the series as specified.		P
<b>15.2</b>	<b>Test method</b>		P
	Travel adaptors, mounted as in normal use, shall be placed in a heating cabinet with an atmosphere having the composition and pressure of the ambient air, and ventilated by natural circulation or fan assistance.		P
	The temperature in the cabinet shall be (70 ±5) °C.	70°C	P
	The samples shall be kept in the cabinet for (168 +2) h.	168h	P
	After the treatment, the samples shall be removed from the cabinet and kept at room temperature and relative humidity for 1 h, following which they shall be examined.		P
<b>16</b>	<b>Resistance to humidity</b>		P
<b>16.1</b>	<b>General</b>		P
	Travel adaptors shall be resistant to humidity which might occur in normal use.		P
<b>16.2</b>	<b>Requirements</b>		P
	When tested in accordance with 16.3 followed immediately by the measurement of the insulation resistance and by the electric strength test specified in Clause 17, the samples shall show no signs of damage.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
<b>16.3</b>	<b>Test method</b>		P
	Parts which can be removed without the aid of a tool shall be removed and tested with the main part of the travel adaptor.		P
	Any spring lids shall be kept open during the test.		P
	The humidity test shall be carried out in a humidity cabinet containing air with a relative humidity maintained between 85% r.h. and 95% r.h.	93% r.h.	P
	The temperature of the air in which the samples are placed shall be maintained within $\pm 2$ °C of an appropriate temperature t between 20 °C and 30 °C.	25°C	P
	Before being placed in the humidity cabinet, the samples shall be brought to a temperature between t and t + 4 °C.		P
	The samples shall be kept in the cabinet for (48 +1) h.	48h	P
<b>17</b>	<b>Insulation resistance and electric strength</b>		P
<b>17.1</b>	<b>Insulation resistance</b>		P
<b>17.1.1</b>	<b>Requirement</b>		P
	When tested in accordance with 17.1.2, the insulation resistance shall be not less than the following:		P
	a) 5 M $\Omega$ between parts of opposite polarity;		P
	b) 5 M $\Omega$ between parts of opposite polarity connected together and other parts insulated therefrom, including earthed metal.		P
	When tested in accordance with 17.1.2 no breakdown shall occur.		P
<b>17.2</b>	<b>Test method</b>		P
	The test shall be performed in a humidity cabinet in accordance with 16.3, or immediately after removal of the travel adaptor from the cabinet in a room where the specified temperature is maintained.		P
	Having disconnected one pole of any neon indicator, or similar, the insulation resistance shall be measured using a d.c. voltage of 500 <sup>+250</sup> <sub>0</sub> V.		P
	The measurement shall be for 60 <sup>+5</sup> <sub>0</sub> s after application of the voltage. The insulation resistance shall be measured consecutively between:		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	a) live parts of opposite polarity; and		P
	b) parts of opposite polarity connected together, and:		P
	1) other parts insulated therefrom, including earthed metal;		P
	2) a sheet of metal foil in contact with the entire accessible external surface.		P
	The test specimens shall be examined for conformity to 17.1.1.		P
<b>13.6</b>	<b>Socket-outlet portions of the travel adaptor</b>		P
<b>13.6.1</b>	<b>Requirements</b>		P
	The socket-outlet portions of the travel adaptor shall withstand, without excessive wear or other harmful effects, the electrical and mechanical stresses occurring in use.		P
	Socket-outlet portions of the travel adaptor shall have shutters, the travel adaptor shall not show any wear impairing its operation.		P
	Shutters, if fitted, shall still be operating satisfactorily and the socket-contacts safely shielded.		P
	After the test, the travel adaptor shall meet the insulation resistance and electric strength requirements of Clause 17 and Clause 19 when tested with the plugs used for the insertion and withdrawal test.		P
<b>13.6.2</b>	<b>Test method</b>		
	A combination of appropriate plugs and each socket-outlet portion of the travel adaptor under test shall be operated by mechanically withdrawing and inserting the appropriate plug 5 000 times (10 000 movements).		P
	The most onerous plug type shall be used and, where the socket-outlet portion of the travel adaptor accepts multiple sizes of plug pins, at least the smallest and the largest size shall be tested.		P
	Where the travel adaptor accepts round and flat plug pins, at least one of each type shall be tested.		P
	The plug-pins and socket-contacts, when engaged, shall carry the rated current $\pm 2\%$ of the plug but not exceed the rated current $\pm 2\%$ of the travel adaptor at the rated voltage $\pm 5\%$ in a substantially non-inductive circuit.		P

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Clause	Requirement – Test	Result – Remark	Verdict
	Each plug shall be inserted into and withdrawn from the accessory under test at a rate of approximately six insertions and six withdrawals per minute, the speed of travel of the plug being approximately 150 mm/s. The periods during which the plug is inserted and withdrawn shall be approximately equal.		P
	For the purpose of this test no lubrication shall be applied to the plug or socket-contacts under test.		P
<b>11.4</b>	<b>Socket apertures with protection by shutters</b>		P
<b>11.4.1</b>	<b>Requirements</b>		P
	Travel adaptors which incorporate shutters to provide increased protection against electric shock shall be constructed such that, when tested in accordance with 11.4.2.		P
	Live parts protected by the shutters are not accessible and the shutters do not operate.		P
	The travel adaptors shall be constructed such that, when tested in accordance with 11.4.2, live parts are automatically screened by a shutter, or shutters, which are not operated solely by the insertion of one current-carrying plug pin.		P
<b>11.4.2</b>	<b>Test method</b>		P
	The test pin of Figure 1 shall be applied with a force of 5 N perpendicularly to the engagement surface of the socket-outlet portion of the travel adaptor.		P
	Plug pins of the appropriate types shall be applied individually with a force of 20 N to the socket-outlet contacts of the travel adaptor.		P
<b>18</b>	<b>Temperature rise</b>		P
<b>18.1</b>	<b>Requirements</b>		P
	Travel adaptors shall be constructed and measured at clamping units fitted to the pins and the accessible external surface of the travel adaptor. such that, when tested in accordance with 18.2 and 18.3, the temperature rise shall not exceed the following limits:		P
	a) at line and neutral pin spacers if applicable (see 18.3.2 and Figure 8): 37 K;	Max. 33.6K	P
	b) at clamping units for non-BS 1363 type pins: 45 K;		N/A
	c) at the terminals or terminations of the test plug (non-BS 1363): 45 K;	Max. 38.7K	P
	d) at the terminals or terminations of the test plug (BS 1363): 52 K;		N/A

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	e) at the accessible external surface: 52 K.	Max. 21.9K	P
<b>18.2</b>	<b>Test conductors</b>		P
	Test conductors shall conform to the nominal cross-sectional areas given in Table 7 appropriate to the current-rating of the travel adaptor being tested.		P
	Solid or stranded rigid conductors conforming to Table 7 shall be fitted to represent the fixed supply wiring.		P
	Non-BS 1363 type plugs used for testing shall be fitted with flexible cords or cables in accordance with Table 7.		N/A
	Cables used for tests shall conform to BS 6004 or BS EN 50525-1, as appropriate.		P
	Test conductors shall have a length of at least 1 m.		P
<b>18.3</b>	<b>Mounting procedures for travel adaptors with a non-BS 1363 type plug pin portion</b>		N/A
<b>18.3.1</b>	<b>General</b>		N/A
	Travel adaptors with non-BS 1363 type plug pin portions shall be mounted on a flat insulating plate		N/A
	The supply conductors shall be attached to the line and neutral pins by means of clamps in accordance with Figure 9, which also serve to retain the travel adaptor in position.		N/A
	The clamp screws shall be tightened to a torque of between 0.8 Nm and 1.0 Nm.		N/A
	The assembly shall be mounted with the plate in a vertical position.		N/A
<b>18.3.2</b>	<b>Mounting procedures for travel adaptors with a BS 1363 type plug pin portion</b>		P
	A travel adaptor with a BS 1363 type plug pin portion shall be mounted in the test apparatus.		P
	The temperature rise of the line and neutral pins of the plug pin portion of the travel adaptor shall be measured by means of thermocouples using the apparatus.		P
	The travel adaptor shall then be mounted in a flat insulating plate.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	The supply conductors shall be attached to the line and neutral pins of the plug pin portion of the travel adaptor by means of clamps which also serve to retain the travel adaptor in position.		P
	The clamp screws shall be tightened to a torque of between 0.8 Nm and 1.2 Nm.		P
	The assembly shall be mounted by means of screws in a standard steel, flush-mounted socket-outlet box as shown in BS 4662:2006+A1:2009, Figure 1, having a nominal internal depth of 35 mm which shall be mounted in a test cabinet as shown in Figure 10.		P
	The incoming cable and outgoing flexible cord(s) shall enter the test cabinet through holes in the top surface which shall then be sealed to prevent circulation of air.		P
	The length of cable and flexible cord within the Figure 10 enclosure shall be a maximum of 600 mm and 850 mm, respectively.		P
	The cable and flexible cord shall be positioned away from the reference temperature measuring point so as not to influence the derivation of plug temperature rise values.		P
	The incoming cable shall be 2.5 mm <sup>2</sup> PVC insulated and sheathed cable, as specified in BS 6004:2012, Table 4, and shall enter the socket-outlet mounting box through the standard knock-out provided.		P
	The knock-out shall be fitted with a suitable rubber grommet, the point of entry being sealed to prevent the circulation of air.		P
	The length of cable within the socket-outlet box shall be (150 ±5) mm and the outer sheath and the circuit protective conductor shall be removed to within 20 mm of the point of entry.		P
	The test cabinet (Figure 10) shall be placed in an environment having an ambient temperature of (20 ±5) °C.		P
	The test current shall be passed through the travel adaptor and through a load connected to the flexible cord of the appropriate plug.		P
<b>18.3.3</b>	<b>Test method</b>		P

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Clause	Requirement – Test	Result – Remark	Verdict
	For travel adaptors designed to be used with more than one type of socket-outlet the most onerous socket-outlet type shall be used.		P
	Travel adaptors which accept plugs with both round and flat pins shall be tested using at least one of each type of plug.		P
	Travel adaptors shall be tested with test plugs with brass pins having the minimum dimensions 05 +specified in the appropriate standard sheet and shall be fitted with (1 000 ±50) mm of PVC insulated flexible cable to suit the maximum current rating of the plug.		P
	Travel adaptors incorporating BS 1362 fuses shall be fitted with a calibrated link constructed and calibrated in accordance with BS 1363-1:1995+A4:2012, Annex A.		P
	BS 1363 test plugs shall have the BS 1362 fuse replaced with a calibrated link as specified in BS 1363-1:1995+A4:2012, Annex A.		P
	Multiway travel adaptors shall be tested with a plug engaged in one socket portion only. The most onerous arrangements shall be tested. Plug and socket portions of the same system shall not be tested in that configuration.		P
	Temperature rise shall be determined by means of fine-wire thermocouples, having wires not exceeding 0.3 mm in diameter, so chosen and positioned that they have minimum effect on the temperature of the part under test.		P
	Thermocouples shall be attached by soldering, or by means of a mixture of equal parts of resin adhesive and zinc oxide, or by other equally effective means.		P
	If soldering is used, heat from the soldering process shall not affect the performance of the accessory and no electrical connections shall be bridged by solder.		N/A
	All tests shall be carried out as follows:		P
	a) in a draught-free environment;		P
	b) at an ambient temperature of (20 ±5) °C;		P
	c) for a period of (60 +5) min;	60 min	P
	d) at any convenient voltage up to rated +10%;	Rated voltage	P
	e) for travel adaptors rated at 13 A, at a test current of (14 ±0.4) A;		N/A

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Clause	Requirement – Test	Result – Remark	Verdict
	f) for travel adaptors other than in e), at a test current at $1.25 \times$ the rated current +50 % of the travel adaptors but not exceeding $(14 \pm 0.4)$ A; and		P
	g) USB circuits where fitted shall be loaded to their maximum rated current.		P
	The temperature rise shall be measured at clamping units fitted to the pins and the accessible external surface of the travel adaptor.		P
	In addition, for travel adaptors with a BS 1363 type plug pin portion, the temperature rise of the line and neutral pins of the plug pin portion of the travel adaptor shall be measured.		P

#### Sequence no.4 Mechanical strength

<b>5</b>	<b>General conditions for type testing</b>		--
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--
	Travel adaptors incorporating plug pins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of $(20 \pm 5)$ °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--
<b>15</b>	<b>Resistance to ageing</b>		P
<b>15.1</b>	<b>Requirements</b>		P
	Travel adaptors shall be resistant to ageing.		P
	The samples shall show no cracks or damage visible.		P
	The samples shall subsequently pass the remaining tests in the series as specified.		P
<b>15.2</b>	<b>Test method</b>		P
	Travel adaptors, mounted as in normal use, shall be placed in a heating cabinet with an atmosphere having the composition and pressure of the ambient air, and ventilated by natural circulation or fan assistance.		P
	The temperature in the cabinet shall be (70 ±5) °C.	70°C	P
	The samples shall be kept in the cabinet for (168 +2) h.	168 h	P
	After the treatment, the samples shall be removed from the cabinet and kept at room temperature and relative humidity for 1 h, following which they shall be examined.		P
<b>13.5</b>	<b>Fuse contacts</b>		P
<b>13.5.1</b>	<b>Requirements</b>		P
	Fuse contacts shall have sufficient resiliency for the safe operation of the travel adaptor.		P
	Fuse contacts shall conform to 14.3.		P
	When tested in accordance with 13.5.2, the fuse contacts shall not become detached or broken and be in suitable condition for subsequent tests.		P
<b>13.5.2</b>	<b>Test method</b>		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	A solid link shall be manufactured from stainless steel as follows:		P
	a) for travel adaptors fitted with fuse-links conforming to BS 1362, the dimensions shall be as shown in Figure 3;		P
	b) for travel adaptors fitted with fuse-links conforming to other standards, the dimensions shall be the maximum shown		P
	1) fuse cap diameters: $\leq 0.01$ mm;		P
	2) lengths: $\leq 0.04$ mm.		P
	The solid link shall be inserted in and withdrawn from the fuseclips of the fused accessory 10 times in succession (20 movements) in a normal manner, at a rate of approximately 10 insertions per minute.		P
	After the test, the stainless steel solid test link shall be replaced by the original fuse-link fitted to the travel adaptor for subsequent tests.		P
<b>15</b>	<b>Resistance to ageing</b>		P
<b>15.1</b>	<b>Requirements</b>		P
	Travel adaptors shall be resistant to ageing.		P
	The samples shall show no cracks or damage visible.		P
	The samples shall subsequently pass the remaining tests in the series as specified.		P
<b>15.2</b>	<b>Test method</b>		P
	Travel adaptors, mounted as in normal use, shall be placed in a heating cabinet with an atmosphere having the composition and pressure of the ambient air, and ventilated by natural circulation or fan assistance.		P
	The temperature in the cabinet shall be $(70 \pm 5) ^\circ\text{C}$ .	70°C	P
	The samples shall be kept in the cabinet for $(168 \pm 2)$ h.	168 h	P
	After the treatment, the samples shall be removed from the cabinet and kept at room temperature and relative humidity for 1 h, following which they shall be examined.		P
<b>19</b>	<b>Mechanical strength</b>		P
<b>19.1</b>	<b>Requirements</b>		P
	Travel adaptors shall have adequate mechanical strength and shall be so constructed as to withstand such handling as might be expected in normal use.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	When a travel adaptor is tested in accordance with 19.2 and 19.3:		P
	a) it shall show no damage which might affect safety;		P
	b) live parts shall not have become accessible;		P
	c) small chips or dents which do not affect the protection against electric shock shall be ignored; and		P
	d) cracks not visible to the naked eye, using normal or corrected vision without additional magnification, and surface cracks in fibre-reinforced mouldings shall be ignored.		P
	The travel adaptor shall conform to clause 10, clause 11 and clause 17.		P
	It shall not be possible to touch live parts using the test pin.		P
<b>19.2</b>	<b>Tumbling barrel test method</b>		P
	Travel adaptors shall be tested in the tumbling barrel shown in Figure 11.		P
	The travel adaptor shall be dropped from a height of approximately 500 mm onto a plywood base with a nominal thickness of 9 mm.		P
	The plywood base shall have an impact face of birch of a nominal thickness of 1.4 mm and be of 5-ply construction.		P
	The barrel shall be turned at a rate of approximately 5 r.p.m. so that 10 falls per minute take place.		P
	Only one travel adaptor shall be tested at a time. Each travel adaptor shall be dropped 25 times.		P
	Configurable adaptors shall be tested in the most onerous configuration.		P
	Additional samples shall be tested to confirm the performance of all detachable parts.		N/A
<b>19.3</b>	<b>Pendulum impact test method</b>		P
	Travel adaptors shall be tested with the impact test apparatus shown in Figure 12 a) when mounted in a socket-outlet.		P
	The pendulum shall consist of a steel tube with an external diameter of 9 mm and a wall thickness of 0.5 mm, suspended in such a way that it only swings in a vertical plane. A hammer shall be rigidly fixed to the lower end.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	The striking element shall have a hemispherical face made of polyamide having a Rockwell hardness of (100 ±5) HR, or hornbeam, and a radius of (10 ±0.5) mm [see Figure 12 b)].		P
	The design of the apparatus shall be such that a force of between 1.9 N and 2 N has to be applied to the face of the hammer to maintain the pendulum in a horizontal position.		P
	A flush socket-outlet conforming to BS 1363-2 shall be mounted with its associated box, which is placed in a block of hardwood which is itself fixed to a sheet of plywood. The wood used shall have the direction of the wood fibres perpendicular to the direction of impact.		P
	To simulate the condition of normal use, the rear of the plate shall be flush with the surface of the block. The front edge of the box shall be between 2.5 mm and 5 mm behind the face of the block.		P
	The mounting support [see Figure 12 c)], having a mass of (10 ±1) kg, shall be mounted on a rigid bracket by means of pivots. The bracket shall be mounted on a frame which is fixed to a solid wall.		P
	The design of the mounting assembly shall be such that:		--
	a) the specimen can be so placed that the point of impact lies in the vertical plane through the axis of the pivot of the pendulum;		P
	b) the specimen can be moved horizontally and turned about an axis perpendicular to the surface of the plywood; and		P
	c) the plywood can be turned about a vertical axis.		P
	The travel adaptor shall be inserted into the socket-outlet so that the point of impact lies in the vertical plane through the axis of the pivot of the pendulum.		P
	For all tests the hammer shall fall from a height of 150 <sup>0.5</sup> mm measured vertically between the point of impact on the specimen and the face of the hammer at the point of release. Ten blows shall be applied to points evenly distributed over the adaptor, and any lens shall receive one blow of the hammer at a point approximately in its centre.		P
<b>19.4</b>	<b>Plug pin retention</b>		<b>P</b>
<b>19.4.1</b>	<b>Requirements</b>		<b>P</b>

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Travel adaptors shall be so designed that when fully assembled, the pins are adequately retained in position such that there is no likelihood of them becoming detached from the travel adaptor during normal use.		P
	The travel adaptor pins shall satisfy the dimensional requirements of Clause 9.		P
<b>19.4.2</b>	<b>Test method</b>		P
	Upon completion of the tumbling barrel test (see 19.2), each pin shall be subjected for (60+5) s to a pull of 100 <sup>0</sup> <sub>-2</sub> N in one smooth and continuous movement in the direction of the major axis.		P
	The adaptor shall be mounted using the steel plate shown in Figure 13.		P
	The apparatus shall be placed within an oven with the pull applied 1 h after the travel adaptor body has attained the test temperature of (70 ±5) °C and while maintained at this temperature.		P
<b>19.4.3</b>	<b>Accessories which pass shall repeat the tests in Clause 17 and Clause 18.</b>		P
<b>17</b>	<b>Insulation resistance and electric strength</b>		P
<b>17.1</b>	<b>Insulation resistance</b>		P
<b>17.1.1</b>	<b>Requirement</b>		P
	When tested in accordance with 17.1.2, the insulation resistance shall be not less than the following:		P
	a) 5 MΩ between parts of opposite polarity;		P
	b) 5 MΩ between parts of opposite polarity connected together and other parts insulated therefrom, including earthed metal.		P
	When tested in accordance with 17.1.2 no breakdown shall occur.		P
<b>17.2</b>	<b>Test method</b>		P
	The test shall be performed in a humidity cabinet in accordance with 16.3, or immediately after removal of the travel adaptor from the cabinet in a room where the specified temperature is maintained.		P
	Having disconnected one pole of any neon indicator, or similar, the insulation resistance shall be measured using a d.c. voltage of 500 <sup>+250</sup> <sub>0</sub> V.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	The measurement shall be for 60 <sup>+5</sup> <sub>0</sub> s after application of the voltage. The insulation resistance shall be measured consecutively between:		P
	a) live parts of opposite polarity; and		P
	b) parts of opposite polarity connected together, and:		P
	1) other parts insulated therefrom, including earthed metal;		P
	2) a sheet of metal foil in contact with the entire accessible external surface.		P
	The test specimens shall be examined for conformity to 17.1.1.		P
<b>18.1</b>	<b>Requirements</b>		P
	Travel adaptors shall be constructed and measured at clamping units fitted to the pins and the accessible external surface of the travel adaptor such that, when tested in accordance with 18.2 and 18.3, the temperature rise shall not exceed the following limits:		P
	a) at line and neutral pin spacers if applicable (see 18.3.2 and Figure 8): 37 K;	Max. 32.8K	P
	b) at clamping units for non-BS 1363 type pins: 45 K;		N/A
	c) at the terminals or terminations of the test plug (non-BS 1363): 45 K;	Max. 37.5K	P
	d) at the terminals or terminations of the test plug (BS 1363): 52 K;		N/A
	e) at the accessible external surface: 52 K.	Max. 20.4K	P
<b>18.2</b>	<b>Test conductors</b>		P
	Test conductors shall conform to the nominal cross-sectional areas given in Table 7 appropriate to the current-rating of the travel adaptor being tested.		P
	Solid or stranded rigid conductors conforming to Table 7 shall be fitted to represent the fixed supply wiring.		P
	Non-BS 1363 type plugs used for testing shall be fitted with flexible cords or cables in accordance with Table 7.		N/A
	Cables used for tests shall conform to BS 6004 or BS EN 50525-1, as appropriate.		P
	Test conductors shall have a length of at least 1 m.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
<b>18.3</b>	<b>Mounting procedures for travel adaptors with a non-BS 1363 type plug pin portion</b>		N/A
<b>18.3.1</b>	<b>General</b>		N/A
	Travel adaptors with non-BS 1363 type plugpin portions shall be mounted on a flat insulating plate		N/A
	The supply conductors shall be attached to the line and neutral pins by means of clamps in accordance with Figure 9, which also serve to retain the travel adaptor in position.		N/A
	The clamp screws shall be tightened to a torque of between 0.8 Nm and 1.0 Nm.		N/A
	The assembly shall be mounted with the plate in a vertical position.		N/A
<b>18.3.2</b>	<b>Mounting procedures for travel adaptors with a BS 1363 type plug pin portion</b>		P
	A travel adaptor with a BS 1363 type plug pin portion shall be mounted in the test apparatus.		P
	The temperature rise of the line and neutral pins of the plug pin portion of the travel adaptor shall be measured by means of thermocouples using the apparatus.		P
	The travel adaptor shall then be mounted in a flat insulating plate.		P
	The supply conductors shall be attached to the line and neutral pins of the plug pin portion of the travel adaptor by means of clamps which also serve to retain the travel adaptor in position.		P
	The clamp screws shall be tightened to a torque of between 0.8 Nm and 1.2 Nm.		N/A
	The assembly shall be mounted by means of screws in a standard steel, flush-mounted socket-outlet box as shown in BS 4662:2006+A1:2009, Figure 1, having a nominal internal depth of 35 mm which shall be mounted in a test cabinet as shown in Figure 10.		P
	The incoming cable and outgoing flexible cord(s) shall enter the test cabinet through holes in the top surface which shall then be sealed to prevent circulation of air.		P
	The length of cable and flexible cord within the Figure 10 enclosure shall be a maximum of 600 mm and 850 mm, respectively.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	The cable and flexible cord shall be positioned away from the reference temperature measuring point so as not to influence the derivation of plug temperature rise values.		P
	The incoming cable shall be 2.5 mm <sup>2</sup> PVC insulated and sheathed cable, as specified in BS 6004:2012, Table 4, and shall enter the socket-outlet mounting box through the standard knock-out provided.		P
	The knock-out shall be fitted with a suitable rubber grommet, the point of entry being sealed to prevent the circulation of air.		P
	The length of cable within the socket-outlet box shall be (150 ±5) mm and the outer sheath and the circuit protective conductor shall be removed to within 20 mm of the point of entry.		P
	The test cabinet (Figure 10) shall be placed in an environment having an ambient temperature of (20 ±5) °C.		P
	The test current shall be passed through the travel adaptor and through a load connected to the flexible cord of the appropriate plug.		P
<b>18.3.3</b>	<b>Test method</b>		P
	For travel adaptors designed to be used with more than one type of socket-outlet the most onerous socket-outlet type shall be used.		P
	Travel adaptors which accept plugs with both round and flat pins shall be tested using at least one of each type of plug.		P
	Travel adaptors shall be tested with test plugs with brass pins having the minimum dimensions 05 +specified in the appropriate standard sheet and shall be fitted with (1 000 ±50) mm of PVC insulated flexible cable to suit the maximum current rating of the plug.		P
	Travel adaptors incorporating BS 1362 fuses shall be fitted with a calibrated link constructed and calibrated in accordance with BS 1363-1:1995+A4:2012, Annex A.		N/A
	BS 1363 test plugs shall have the BS 1362 fuse replaced with a calibrated link as specified in BS 1363-1:1995+A4:2012, Annex A.		N/A

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Multiway travel adaptors shall be tested with a plug engaged in one socket portion only. The most onerous arrangements shall be tested. Plug and socket portions of the same system shall not be tested in that configuration.		N/A
	Temperature rise shall be determined by means of fine-wire thermocouples, having wires not exceeding 0.3 mm in diameter, so chosen and positioned that they have minimum effect on the temperature of the part under test.		P
	Thermocouples shall be attached by soldering, or by means of a mixture of equal parts of resin adhesive and zinc oxide, or by other equally effective means.		P
	If soldering is used, heat from the soldering process shall not affect the performance of the accessory and no electrical connections shall be bridged by solder.		N/A
	All tests shall be carried out as follows:		P
	a) in a draught-free environment;		P
	b) at an ambient temperature of (20 ±5) °C;		P
	c) for a period of (60 +5) min;	60 min	P
	d) at any convenient voltage up to rated +10%;	Rated voltage	P
	e) for travel adaptors rated at 13 A, at a test current of (14 ±0.4) A;		N/A
	f) for travel adaptors other than in e), at a test current at 1.25 × the rated current +50 % of the travel adaptors but not exceeding (14 ±0.4) A; and		P
	g) USB circuits where fitted shall be loaded to their maximum rated current.		P
	The temperature rise shall be measured at clamping units fitted to the pins and the accessible external surface of the travel adaptor.		P
	In addition, for travel adaptors with a BS 1363 type plug pin portion, the temperature rise of the line and neutral pins of the plug pin portion of the travel adaptor shall be measured.		P
Sequence no.5 Pin strength			
5	General conditions for type testing		--

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--
	Travel adaptors incorporating plug pins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of (20 ±5) °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--
<b>13.15</b>	<b>Strength of plug pins</b>		P
<b>13.15.1</b>	<b>Solid plug pins</b>		P
<b>13.15.1.1</b>	<b>Requirements</b>		P
	Travel adaptor plug pins shall have adequate strength to withstand the stresses of normal use.		P
	After this test the adaptor shall conform to the dimensional requirements of Clause 9.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
<b>13.15.1.2</b>	<b>Test method</b>		P
	A pin shall be positioned on the fixed anvil of the apparatus, as shown in Figure 7, with its contact surfaces in the horizontal plane.		P
	A force of $1100^{0}_{-10}$ N shall be applied to the moveable anvil by any convenient method such that the pin is strained at a rate not exceeding 10 mm/min.		P
	The test shall be made separately on the line, neutral and earth pins, applying the load perpendicular to the major axis surfaces of the pins.		P
	After test the adaptor shall conform to the dimensional requirements of Clause 9.		P
<b>13.15.2</b>	<b>Non-solid plug pins</b>		N/A
<b>13.15.2.1</b>	<b>Requirement</b>		N/A
	The strength of non-solid pins having dimensions in accordance with BS 1363-3 shall be tested in accordance with 13.15.2.2 and 13.15.2.3.		N/A
	After the tests the adaptor plug pins shall conform to the dimensional requirements of Clause 9.		N/A
<b>13.15.2.2</b>	<b>Test method part one</b>		N/A
	The test shall be made separately on the line, neutral and earth pins, applying the load perpendicular to the major axis surfaces of the pins.		N/A
	A pin shall be positioned on the fixed anvil of the apparatus, as shown in Figure 7, with its contact surfaces in the horizontal plane.		N/A
	The moveable anvil shall rest against the upper surface of the pin.		N/A
	A force of $800^{0}_{-10}$ N shall be applied to the moveable anvil 50 times without impact.		N/A
	If there is a joint or seam in one of the major axis surfaces of a pin then the test shall be made twice.		N/A
	The seam or joint shall face the moving anvil for the first test and shall face the fixed anvil for the second test.		N/A
<b>13.15.2.3</b>	<b>Test method part two</b>		N/A
	Separate specimens shall then be measured in accordance with the following test.		N/A
	A pin shall be positioned on the fixed anvil of the apparatus, as shown in Figure 7, with the widest surface in the horizontal plane.		N/A

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	The moveable anvil shall rest against the upper surface of the pin.		N/A
	This quiescent position shall be taken as the datum point.		N/A
	A force shall be applied to the moveable anvil by any convenient method such that the pin is strained at a rate not exceeding 10 mm/min.		N/A
	The applied force shall be measured when the movement of the anvil from the datum point reaches $1.5^{+0}_{-0.1}$ mm.		N/A
	The test shall be made separately on the line, neutral and earth pins, applying the load perpendicular to the major axis surfaces of the pins.		N/A
	If there is a joint or seam in one of the major axis surfaces of a pin then the test shall be made twice.		N/A
	The seam or joint shall face the moving anvil for the test and shall face the fixed anvil for the second test. The force applied shall be not less than 1100 N.		N/A
<b>13.16</b>	<b>Insulated shutter opening device</b>		P
<b>13.16.1</b>	<b>Requirement</b>		P
	ISOD shall not break or show cracks that are visible with normal or corrected vision without additional magnification.		P
	Any measured deflection shall not exceed 1.5 mm.		P
	The adaptor plug pins shall satisfy the dimensional requirements of Clause 9.		P
<b>13.16.2</b>	<b>Test method</b>		P
	The ISOD shall be positioned on the fixed anvil of the apparatus, as shown in Figure 7, with the widest surface in the horizontal plane.		P
	A force shall be applied to the moveable anvil by any convenient method such that the ISOD is strained at a rate of $(10 \pm 2)$ mm/min.		P
	A force of $400^{+0}_{-10}$ N applied.		P
	Where alignment cannot be maintained, the test of BS 1363-2:1995+A4:2012, 13.8, shall be applied and the maximum withdrawal force from a socket-outlet conforming to BS 1363-2 shall not exceed 36 N.		P
	For non-solid plug pins other than those conforming to BS 1363-3, the test in 13.18.2 shall be performed with a force of $100^{+0}_{-10}$ N applied.		P
<b>Sequence no.6 Effect of pins on socket contacts (plated pins and ISODs only)</b>			

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
<b>5</b>	<b>General conditions for type testing</b>		--
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--
	Travel adaptors incorporating plug pins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of (20 ±5) °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--
<b>13.17</b>	<b>Travel adaptors with BS 1363-style non-solid and/or nickel plated pins and/or ISODs</b>		P
<b>13.17.1</b>	<b>Requirements</b>		P
<b>13.17.1.1</b>	<b>General</b>		P

## TRF No. BS 8546\_1A



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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	When tested in accordance with 13.17.1.2, travel adaptors with non-solid and/or nickel plated pins shall not cause excessive wear to socket contacts or shutters of socket-outlets.		P
	The shutters of the socket-outlets shall be operating satisfactorily, the socket contacts shall be safely shielded and the socket-outlets shall be in accordance with BS 1363-2:1995+A4:2012, 9.1, 10.2, 13.6 and 13.7.		P
	The pins of the travel adaptor shall remain intact with no openings in the surface, joints or seams which can accept a probe of 0.2 mm diameter.		P
	There shall be no visible evidence of peeling or flaking of the plating.		P
	When tested in accordance with 13.17.1.3, travel adaptors with ISODs shall not cause excessive wear to socket contacts or shutters of socket-outlets.		P
	The socket-outlets shall be examined and shall show no sign of damage that could impair further use.		P
	The travel adaptors under test shall show no damage and shall conform to the dimensional requirements of Clause 9.		P
	The shutters of the socket-outlets shall operate satisfactorily and the socket contacts shall be safely shielded.		P
<b>13.17.1.2</b>	<b>Test method for travel adaptors with non-solid and/or nickel plated pins</b>		N/A
	Travel adaptors with non-solid and/or nickel plated pins shall be tested with three different types of new socket-outlets which conform to BS 1363-2. One type of socket-outlet shall have the shutters operated by the earth pin, one shall be operated by live and neutral pins only, and the third preferably operated by all three pins.		N/A
	This combination of travel adaptors and socket-outlets shall make and break rated current and voltage $\pm 10$ V a.c. 300 times (600 movements) in a substantially non-inductive circuit.		N/A

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Each travel adaptor shall be inserted into and withdrawn from the socket-outlet at a rate of six insertions and six withdrawals per minute, the speed of travel of the adaptor being approximately 150 mm/s. The periods during which the travel adaptor is inserted and withdrawn shall be approximately equal.		N/A
<b>13.17.1.3</b>	<b>Test method for travel adaptors with ISODs</b>		P
	The test shall be made using a separate sample of travel adaptor plug with ISOD for each type of socket-outlet, with each sample being inserted into and withdrawn from the socket-outlet at a rate of six insertions and six withdrawals per minute, the speed of travel of the adaptor plug being approximately 150 mm/s. The periods during which the travel adaptor is inserted and withdrawn shall be approximately equal.		P
	After 300 insertions and withdrawals, the standard rewirable plugs used prior to the test for each type of socket-outlet shall be reinserted and the earth resistance test repeated.		P
	The earth resistance between the earthing plug pin and the earthing socket contact of the socket-outlets shall conform to BS 1363-2:1995+A4:2012, 10.2.1 b).		P

**Sequence no.7 Pin sleeves (if fitted)**

<b>5</b>	<b>General conditions for type testing</b>		--
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--
	Travel adaptors incorporating plug pins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of (20 ±5) °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--
<b>15</b>	<b>Resistance to ageing</b>		P
<b>15.1</b>	<b>Requirements</b>		P
	Travel adaptors shall be resistant to ageing.		P
	The samples shall show no cracks or damage visible.		P
	The samples shall subsequently pass the remaining tests in the series as specified.		P
<b>15.2</b>	<b>Test method</b>		P
	Travel adaptors, mounted as in normal use, shall be placed in a heating cabinet with an atmosphere having the composition and pressure of the ambient air, and ventilated by natural circulation or fan assistance.		P
	The temperature in the cabinet shall be (70 ±5) °C.	70°C	P
	The samples shall be kept in the cabinet for (168 +2) h.	168h	P
	After the treatment, the samples shall be removed from the cabinet and kept at room temperature and relative humidity for 1 h, following which they shall be examined.		P
<b>16</b>	<b>Resistance to humidity</b>		P
<b>16.1</b>	<b>General</b>		P
	Travel adaptors shall be resistant to humidity which might occur in normal use.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
<b>16.2</b>	<b>Requirements</b>		P
	When tested in accordance with 16.3 followed immediately by the measurement of the insulation resistance and by the electric strength test specified in Clause 17, the samples shall show no signs of damage.		P
<b>16.3</b>	<b>Test method</b>		P
	Parts which can be removed without the aid of a tool shall be removed and tested with the main part of the travel adaptor.		P
	Any spring lids shall be kept open during the test.		P
	The humidity test shall be carried out in a humidity cabinet containing air with a relative humidity maintained between 85% r.h. and 95% r.h.	93% r.h.	P
	The temperature of the air in which the samples are placed shall be maintained within $\pm 2$ °C of an appropriate temperature t between 20 °C and 30 °C.	25°C	P
	Before being placed in the humidity cabinet, the samples shall be brought to a temperature between t and t + 4 °C.		P
	The samples shall be kept in the cabinet for (48 +1) h.	48h	P
<b>17</b>	<b>Insulation resistance and electric strength</b>		P
<b>17.1</b>	<b>Insulation resistance</b>		P
<b>17.1.1</b>	<b>Requirement</b>		P
	When tested in accordance with 17.1.2, the insulation resistance shall be not less than the following:		P
	a) 5 M $\Omega$ between parts of opposite polarity;		P
	b) 5 M $\Omega$ between parts of opposite polarity connected together and other parts insulated therefrom, including earthed metal.		P
	When tested in accordance with 17.1.2 no breakdown shall occur.		P
<b>17.2</b>	<b>Test method</b>		P
	The test shall be performed in a humidity cabinet in accordance with 16.3, or immediately after removal of the travel adaptor from the cabinet in a room where the specified temperature is maintained.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Having disconnected one pole of any neon indicator, or similar, the insulation resistance shall be measured using a d.c. voltage of $500^{+250}_0$ V.		P
	The measurement shall be for $60^{+5}_0$ s after application of the voltage. The insulation resistance shall be measured consecutively between:		P
	a) live parts of opposite polarity; and		P
	b) parts of opposite polarity connected together, and:		P
	1) other parts insulated therefrom, including earthed metal;		P
	2) a sheet of metal foil in contact with the entire accessible external surface.		P
	The test specimens shall be examined for conformity to 17.1.1.		P
<b>13.13</b>	<b>Resistance of plug pin sleeves to heat and pressure</b>		P
<b>13.13.1</b>	<b>Requirements</b>		P
	Plug pin sleeves shall be resistant to heat and pressure.		P
	When tested in accordance with 13.13.2, the thickness of the insulation remaining at the point of impression shall not have been reduced by more than 50%.		P
<b>13.13.2</b>	<b>Test method</b>		P
	A set of three specimen pins shall be tested by means of the apparatus shown in Figure 6.		P
	A specimen pin shall be positioned as shown in Figure 6 and the apparatus loaded so that the blade exerts a force of $2.5^0_{-1}$ N on the specimen.		P
	The apparatus complete with specimen shall then be placed in a heating cabinet at $(200 \pm 5)$ °C for a period of $120^{+0.05}_0$ min, after which the specimen shall be removed and immediately cooled by immersion in water at approximately room temperature.	200°C, 2h	P
<b>Sequence no.8 Materials (normal heat)</b>			
<b>5</b>	<b>General conditions for type testing</b>		--
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--
	Travel adaptors incorporating plug pins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of (20 ±5) °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--
13.2	<b>Sealing compounds</b>		P
	Sealing compounds of travel adaptors shall be resistant to heat and shall be of insulating material capable of maintaining a satisfactory seal under service conditions.		P
	Conformity shall be checked by the test in 20.1.2.		P
	Bituminous filling compounds shall conform to BS 1858.		P
<b>20</b>	<b>Resistance to heat</b>		P
20.1.1	When tested in accordance with 20.1.2, travel adaptors shall not undergo any change impairing their further use and any sealing compound shall not flow to such an extent that live parts are exposed.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	Travel adaptors shall be kept for (60 ±5) min in a heating cabinet maintained at (70 ±5) °C.		P
	After the test		--
	- the travel adaptor shall conform to Clause 11 and Clause 17.		P
<b>20.2</b>	<b>Resilient materials</b>		N/A
20.2.1	When tested in accordance with 20.2.2, travel adaptors shall not undergo any change impairing their further use and the adaptors shall conform to Clause 17 and the dimensional requirements of Clause 9		N/A
20.2.2	Travel adaptors with external parts of resilient material, e.g. rubber or elastomeric, shall be subjected to a pressure test by means of an apparatus similar to that shown in Figure 14.		N/A
	The test shall be made in a heating cabinet at a temperature of (70 ±5) °C.		N/A
	The adaptor shall be clamped between the jaws in such a way that these press against it in the area where it is gripped in normal use, the centre line of the jaws coinciding as nearly as possible with the center of this area.		N/A
	The force applied through, and including the effect of, the jaws shall be 20 <sup>0</sup> <sub>-1</sub> N.		N/A
	After (60 +5) min, the jaws shall be removed.		N/A
<b>20.3</b>	<b>Non-resilient insulating materials</b>		P
20.3.1	Parts of insulating material other than those tested in accordance with 20.2.2 shall be sufficiently resistant to heat, having particular regard for their location and function in the complete travel adaptor.		P
	When tested in accordance with 20.3.2, the diameter of the impression caused by the ball shall not exceed 2 mm.		P
	Conformity shall be checked as follows:		--
	a) parts of ceramic material shall be deemed to conform without test;		P
	b) Text deleted parts of insulating material necessary to retain in position, current-carrying parts, ISODs if fitted, and parts of the earthing circuit shall be subjected to the ball pressure test in accordance with BS EN 60695-10-2;		P
	c) all other parts of insulating material shall be subjected to the ball pressure test in accordance		P
20.3.2	For 20.3.1 b), the test shall be made in a heating cabinet maintained at a temperature of (125 ±5) °C.		P

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	For 20.3.1 c), the test shall be made in a heating cabinet at a temperature of (75 ±5) °C.		P
	After the test the diameter of the impression caused by the ball shall be measured.		P

Sequence no.9 Materials (glow wire)			
<b>5</b>	<b>General conditions for type testing</b>		--
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--
	Travel adaptors incorporating plug pins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of (20 ±5) °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
<b>21</b>	<b>Resistance of insulating material to abnormal heat, and to fire</b>		P
<b>21.1</b>	<b>Requirements</b>		P
	Parts of insulating material which might be exposed to thermal stresses due to electric effects and whose deterioration might impair the safety of the travel adaptor, shall satisfy one of the following criteria.		P
	a) There shall be no visible flame and no sustained glowing.		P
	b) Flames and glowing shall extinguish within 30 s after the removal of the glow-wire, with no ignition of the wrapping tissue or scorching of the board.		N/A
21.2	Glow-wire test method		--
	The test shall be performed in accordance with BS EN 60695-2-11:2014, Clause 5 to Clause 11, under the following conditions:		P
	a) for parts of insulating material necessary to retain current-carrying parts in position, by the test made at a temperature of $(750 \pm 10)$ °C;		P
	b) for parts of insulating material not necessary to retain current-carrying parts in position, although they might be in contact with them, by the test made at a temperature of $(650 \pm 10)$ °C.		P

#### Sequence no.10 Materials (metals)

<b>5</b>	<b>General conditions for type testing</b>		--
5.1	Travel adaptors shall be so designed and constructed that, in normal use, their performance is reliable and minimizes risk of danger to the user or surroundings		--
5.2	Travel adaptors incorporating plug pins and/or socket-outlets for use with a country's specific standard sheets shall conform to the dimensional requirements of those relevant standards sheets.		--
	Travel adaptors incorporating plug pins and/or socket-outlets for use with more than one country's standard sheets shall conform to those standard sheets as far as they reasonably apply.		--
<b>6</b>	<b>Type testing</b>		--
6.1	Unless otherwise specified, travel adaptors shall be tested as delivered in accordance with normal use at an ambient temperature of $(20 \pm 5)$ °C, after being conditioned at normal laboratory temperature and humidity levels for at least four days.		--
6.2	Travel adaptors used for the tests shall be representative of production items in respect of all details which might affect the test results.		--

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
6.3	Travel adaptors shall be submitted to inspection and tests in accordance with Table 1.		--
6.4	Travel adaptors shall be deemed to conform if no travel adaptor fails in the complete series of tests given in Table 1. If one travel adaptor fails in any group in the complete series of tests specified in Table 1, then travel adaptors of that type shall be deemed to have failed to conform to this British Standard, unless that travel adaptor is shown to be not representative of normal production or design, in which case a further set of travel adaptors shall be submitted to the test or tests in that group. If there is no failure in this retest then travel adaptors of that type shall be deemed to conform to this British Standard.		--
6.5	If more than one travel adaptor fails in the complete series of tests given in Table 1 then travel adaptors of that type shall be deemed to have failed to conform to this British Standard.		--
<b>22</b>	<b>Resistance to excessive residual stresses and rusting</b>		P
<b>22.1</b>	<b>Current-carrying parts of copper alloy: resistance to excessive residual stresses</b>		P
<b>22.1.1</b>	<b>Requirements</b>		P
	Current-carrying parts of copper alloy containing less than 80% of copper, which are press-formed or produced in a similar manner and which could induce excessive internal stresses, shall be resistant to failure in use due to brittleness.		P
	there shall be no cracks visible with normal or corrected vision without additional magnification.		P
<b>22.1.2</b>	<b>Test method</b>		P
	The sample shall then be immersed in an aqueous solution of mercurous nitrate containing 10 g of Hg <sub>2</sub> (NO <sub>3</sub> ) <sub>2</sub> and 10 mL of HNO <sub>3</sub> (relative density 1.42) per litre of solution for (30 ±1) min at a temperature of (20 ±5) °C.		P
	After the treatment the sample shall be washed in running water, any excess mercury wiped off, and the sample immediately examined.		P
<b>22.2</b>	<b>Ferrous parts: resistance to corrosion/rust</b>		N/A
<b>22.2.1</b>	<b>Requirements</b>		N/A
	When tested in accordance with 22.2.2, ferrous parts, including covers and boxes, shall show no signs of rust.		N/A
<b>22.2.2</b>	<b>Test method</b>		N/A

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BS 8546			
Clause	Requirement – Test	Result – Remark	Verdict
	The sample shall be degreased in a suitable alkaline degreasing solution or organic solvent.		N/A
	The sample shall then be immersed for (10 ±0.5) min in a 10% (m/m) solution of ammonium chloride in water at a temperature of (20 ±5) °C.		N/A
	On removal of the sample from the solution, excess solution shall be shaken off without drying.		N/A
	The sample shall then be placed for (10 ±0.5) min in a box containing air saturated with moisture at a temperature of (20 ±5) °C.		N/A
	The sample shall be dried for (10 ±0.5) min in a heating cabinet at a temperature of (100 ±5) °C.		N/A

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<b>10.2, 10.3</b>	<b>TABLE: Clearances and creepage distances measurements in test sequence one</b>			P
Clearances (cl) and creepage distance (cr) at/of/between:	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
L to N (functional insulation)	☒3.0	> 3.0	☒2.5	> 3.0
L or N and accessible surface (reinforced insulation)	☒5.5	> 6.0	☒5.0	> 6.0
supplementary information:				
<b>10.4</b>	<b>TABLE: Solid insulation test in test sequence one</b> Test voltage: 1500V/3000V			P
Test between parts:	Test voltage (V <sub>peak</sub> or V d.c.)	Flashover / Breakdown (Yes/No)		
Line and neutral	1500	No		
Line, neutral connected together and				
Metal foil in contact with the entire accessible external surface	3000	No		
supplementary information:				
<b>17.1</b>	<b>TABLE: Insulation resistance test in test sequence Three</b>			P
Test between parts:	Measured (M☒)	Required (M☒)		
Live parts of opposite polarity	> 100	☒5		
Parts of opposite polarity connected together and				
a sheet of metal foil in contact with the entire accessible external surface.	> 100	☒5		
supplementary information:				
<b>17.2</b>	<b>TABLE: Electric Strength in test sequence Three</b>			P
Test between parts:	Test voltage (V <sub>peak</sub> or V d.c.)	Flashover / Breakdown (Yes/No)		
Live parts of opposite polarity	2000	No		
Parts of opposite polarity connected together and				
a sheet of metal foil in contact with the entire accessible external surface.	2000	No		
supplementary information:				
<b>20.3.2</b>	<b>TABLE: ball pressure test in test sequence eight</b>			P
	allowed impression diameter (mm) .....	☒2 mm		—
Part	test temperature (☒)	impression diameter (mm)		

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Live parts carrier	125	1.5
Shutter	75	0.9
Fuse cover	75	0.8
Enclosure	75	0.8
supplementary information:		
<b>21.2</b>	<b>TABLE: glow-wire test in test sequence nine</b>	
		P
Part	test temperature ( $\bar{X}$ )	remarks
Live parts carrier	750	No flame, no drops
Pin sleeve	750	No flame, no drops
Shutter	650	No flame, no drops
Fuse cover	650	No flame, no drops
Enclosure	650	No flame, no drops
supplementary information:		

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9	TABLE: Dimensional measurement for UK plug of BS 1363-1					P
Locations	Size (mm)	Tolerance (mm)	Measured (for both L and N pins, if applicable) (mm)			
--	--	--	Sample No.: 1	Sample No.: 2	Sample No.: 3	
a1	25.37	max.	Pass	Pass	Pass	
a2	25.37	max.	Pass	Pass	Pass	
b1	11.05 – 11.18		Pass	Pass	Pass	
b2	11.05 – 11.18		Pass	Pass	Pass	
c	34.6	max.	Pass	Pass	Pass	
d	R 15	min.	Pass	Pass	Pass	
e	9.5	min.	10.35	10.38	10.42	
f	17.7	±0.5	17.87 / 17.82	17.81 / 17.83	17.79 / 17.81	
g	1.6	±0.25	1.57	1.55	1.54	
h	22.73	±0.5	22.82	22.84	22.85	
i	22.23	±0.13	Pass	Pass	Pass	
j	9.5	max.	9.02 / 9.06	8.98 / 9.01	8.95 / 8.97	
k	9.2	max.	8.84 / 8.86	8.82 / 8.85	8.80 / 8.82	
l	7.75 – 8.05		7.86	7.82	7.84	
m	3.90 – 4.05		3.99 / 3.97	3.96 / 3.95	3.96 / 3.95	
n	3.90 – 4.05		3.98	3.96	3.95	
o1	6.35	±0.13	6.26 – 6.29	6.26 – 6.30	6.26 – 6.29	
o2	6.35	±0.13	6.27 – 6.31	6.27 – 6.31	6.27 – 6.31	
q	1.2 – 2.0		1.42 / 1.55 / 1.57	1.43 / 1.58 / 1.57	1.42 / 1.56 / 1.58	
r	1.6	±0.25	1.62 / 1.73 / 1.71	1.63 / 1.75 / 1.74	1.64 / 1.74 / 1.73	
s	R 0.1 – 1.0		Pass	Pass	Pass	
u	60°–80°		76.55 / 75.59 / 73.48	76.35 / 74.11 / 72.65	76.57 / 74.66 / 70.08	
t	60°	±2°	60.46	60.42	60.41	
(I) Permitted additional chamfers on L and N pins used? (Yes/No)					Yes	
A	60°	±2°	59.76 / 60.47	58.91 / 59.28	60.12 / 59.85	
B	1.6	±0.25	1.61 / 1.64	1.63 / 1.61	1.62 / 1.63	
(II) Alt. method of forming main chamfer on pin ends used? (Yes/No)					Yes	
C	60°	±2°	59.74 / 60.48	58.92 / 59.27	60.12 / 59.85	
D	1.6	±0.25	1.61 / 1.64	1.63 / 1.61	1.62 / 1.63	

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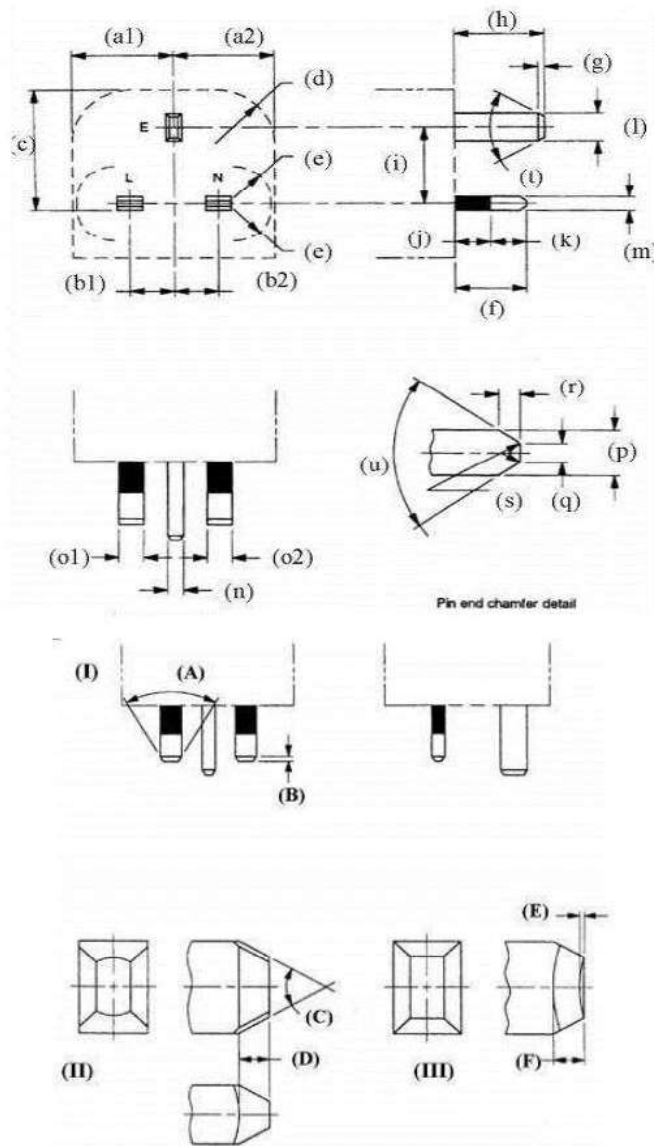


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(III)					--
E	0.2	max.	--	--	--
F	1.6	±0.25	--	--	--



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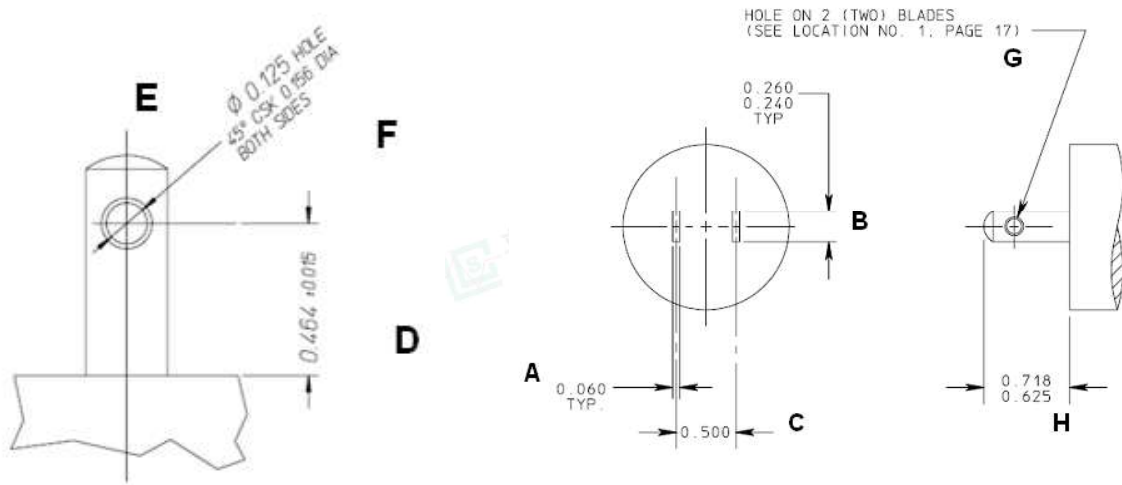


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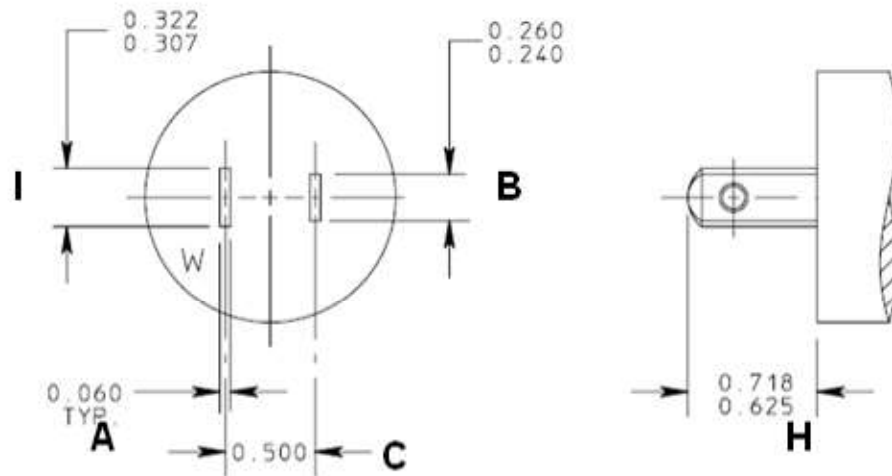


US plug dimensions measurement according to ANSI/NEMA WD 6, NEMA 1-15P:

Unit: inch



NON-POLARIZED PLUG



POLARIZED PLUG

TRF No. BS 8546\_1A



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## North American integrated plug according to ANSI/NEMA WD 6, FIGURE 1-15

<u>Part No.</u>	<u>Dimensions</u>	<u>Measurement (mm)</u>	<u>Limit (mm)</u>	<u>Verdict</u>
<input checked="" type="checkbox"/> Non Polarity only				
A.	Thickness of live pin	1.49	1.52 (TYP.) (1.393 – 1.647)	P
B.	Width of live pin	6.35	6.10 – 6.60	P
C.	Distance between two live pins (centre)	12.63	12.7 (12.573 – 12.827)	P
D.	Distance between hole centre and plug face (if hole used)	11.52	11.405 – 12.167	P
E.	Outer diameter of hole (if hole used)	3.92	3.962 (3.835 – 4.089)	P
F.	Inner diameter of hole (if hole used)	3.09	3.175 (3.048 – 3.302)	P
G.	Configurations using	--	Standard Sheet 1-15	P
H.	Length of live pins	17.14	15.88 – 18.24	P
<input type="checkbox"/> Polarity only				
A.	Thickness of live pin	---	1.52 (TYP.) (1.393 – 1.647)	N/A
B.	Width of live pin	---	6.10 – 6.60	N/A
C.	Distance between two live pins (centre)	---	12.7 (12.573 – 12.827)	N/A
D.	Distance between hole and plug face (if hole used)	---	11.405 – 12.167	N/A
E.	Outer diameter of hole (if hole used)	---	3.962 (3.835 – 4.089)	N/A
F.	Inner diameter of hole (if hole used)	---	3.175 (3.048 – 3.302)	N/A
G.	Configurations using	---	Standard Sheet 1-15	N/A
H.	Length of live pins	---	15.88 – 18.24	N/A
I.	Width of live pin	---	7.80 – 8.18	N/A

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7 Table: Dimension of EU plug of EN 50075					P
Location	Sample A	Sample B	Sample C	Limit (mm)	
A	26.09	26.07	26.05	26.1	$\pm 0.5$
B	13.04	13.05	13.04	13.7	$\pm 0.7$
C	35.28	35.27	35.31	35.3	$\pm 0.7$
D	19.19	19.18	19.17	19	$\pm 0.5$
E	3.98	4.01	4.01	$\varnothing 4.0$	$\pm 0.06$
F	3.80	3.79	3.79	$\varnothing 3.8$	Max.
F	3.81	3.83	3.84	$\varnothing 4.0$	Max. <sup>*3</sup>
F	3.81	3.82	3.84	4	Max. <sup>*3</sup>
G	10.37	10.35	10.38	10-11	
a1	18.20	18.16	18.17	18-19.2	<sup>*2</sup>
a2	17.41	17.38	17.34	17-18	<sup>*2</sup>
H	--	--	--	4	Min.
I	5.32	5.30	5.28	R5-R6	
J	45.0	45.0	45.0	---	
Alternative for end of pins					
K	--	--	--	$\varnothing 0.7 - \varnothing 1.7$	
L	--	--	--	90°	Max.
M	--	--	--	2	Max.

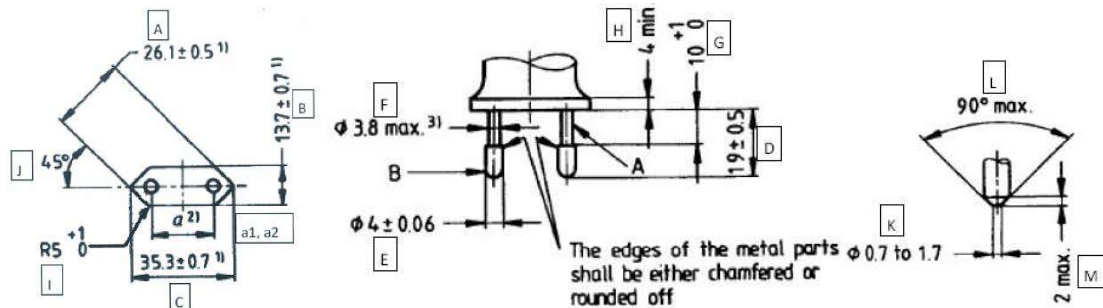
**Note**

\*1: These dimension shall not exceeded within a distance of 18mm from the engagement face of plug.

\*2: a1: in the plane of the engagement face, a2: at the ends of pins.

\*3: This dimension maybe increased to 4mm within a distance of 4mm from engagement face of plug.

Remark: see diagram 1 for details of location of measurement.

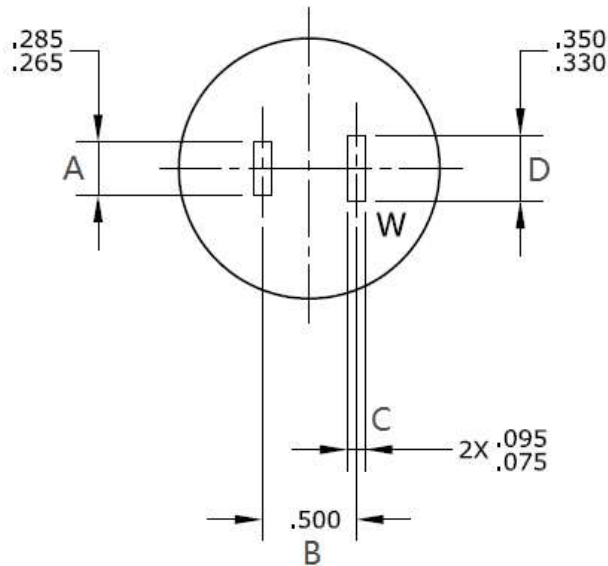
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## Socket-outlet dimensions measurement according to ANSI/NEMA WD 6, FIGURE 1-15:

Unit: inch



## RECEPTACLE

Location	Required (mm)	Measured (mm)
A	6.731~7.239	6.95
B	12.573~12.827	12.59
C	1.905~2.413	1.99
D	8.382~8.89	8.76

## Socket-outlet dimensions measurement according to AS/NZS 3112:

Location		Requirement (mm)	Measured(mm)	Verdict
Flat live pin aperture L	Major axis	7.3mm Max.	6.66	Pass
	Minor axis	2.3mm Max.	1.92	Pass
Flat live pin aperture N	Major axis	7.3mm Max.	6.70	Pass
	Minor axis	2.3mm Max.	1.93	Pass
Flat earthing pin aperture	Major axis	7.0mm Max.	N/A	N/A
	Minor axis	2.1mm Max.	N/A	N/A
The distance from the edge of the live pin aperture to the extremity of the socket-outlet face or faceplate profile		≥11.7mm	14.31	Pass

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**Attachment No.1 Components list**

Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Mark(s) of conformity
Enclosure	Covestro Deutschland AG [PC Resins]	6555+(z)(f2)	PC,V-0	UL (E41613) Tested with appliance
Fuse	Dongguan Ubill Electrical Co., Ltd	UBL8808	10 A 240V a.c.	ASTA Licence No.: 1204
Plug pins	DongGuan ZhengHao Electric Co., Ltd	H59	Contains 62.58% Cu	Tested with appliance
Pin sleeve	NANTONG ORIENT PLASTICS CO LTD	PBT 3080 G30	PBT	UL (E332375) Tested with appliance
Socket contacts	Dongguan xinwei hardware products Co., Ltd	C5191	Contains 93% Cu	Tested with appliance
Live parts carrier	HUAFON GROUP CO LTD	EP158	PA66, V-2	UL (E355539) Tested with appliance
Shutter	HUAFON GROUP CO LTD	EP158	PA66, V-2	UL (E355539) Tested with appliance
Fuse cover	NANTONG ORIENT PLASTICS CO LTD	Fe+PA6 G00	PA6	UL (E332375) Tested with appliance
USB power supply unit	Dongguan Jingya Electric Co.,Ltd	JY-305MAX, JY-305S MAX	Input: 100-240V~, 50/60Hz, 1500mA Output: See BS EN IEC 62368-1 test report	Ref. test report No.: LCSA09143063S
Remark:				

**TRF No. BS 8546 1A**

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Figure 1 External View



Figure 2 External View

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Figure 3 External View



Figure 4 External View

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Figure 5 External View



Figure 6 Internal View

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Figure 7 Internal View

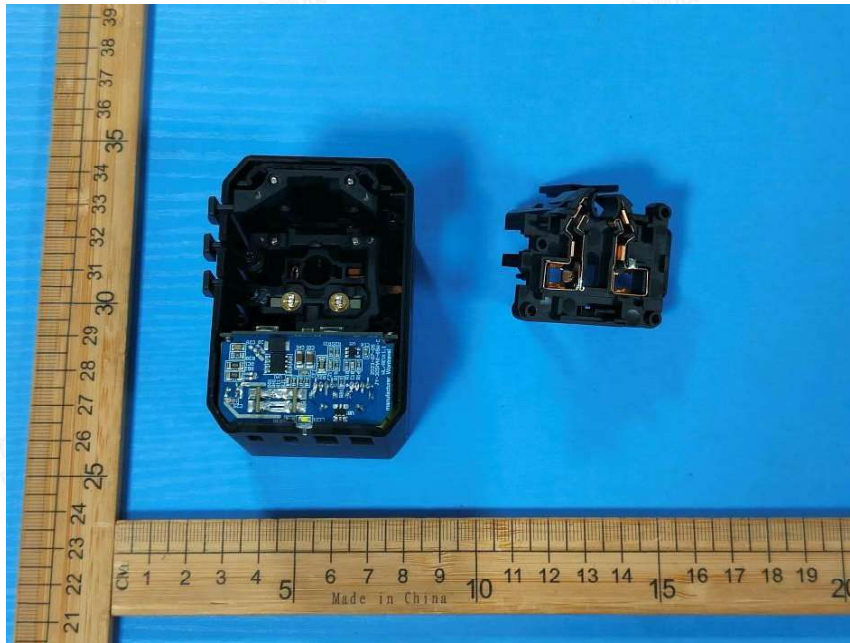


Figure 8 Internal View

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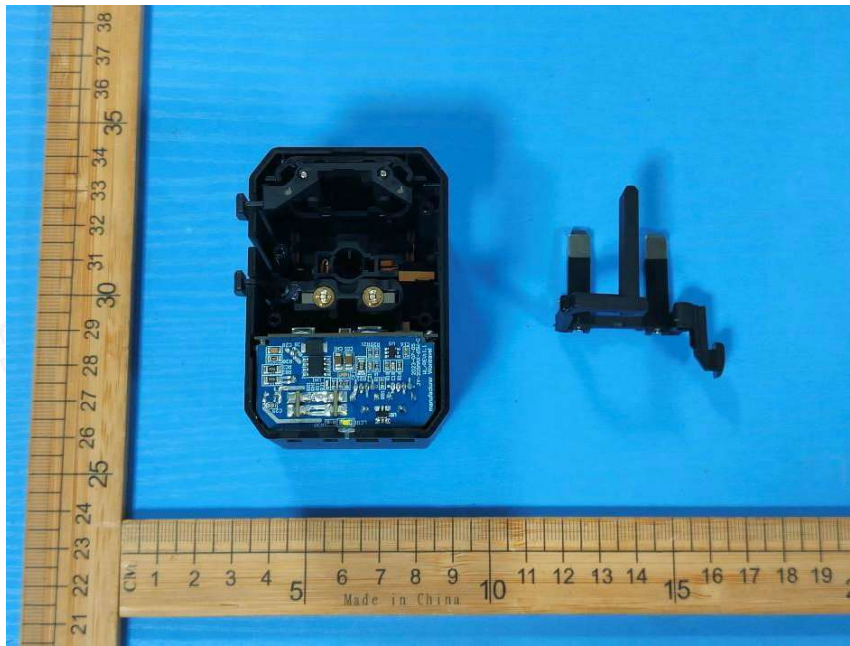


Figure 9 Internal View

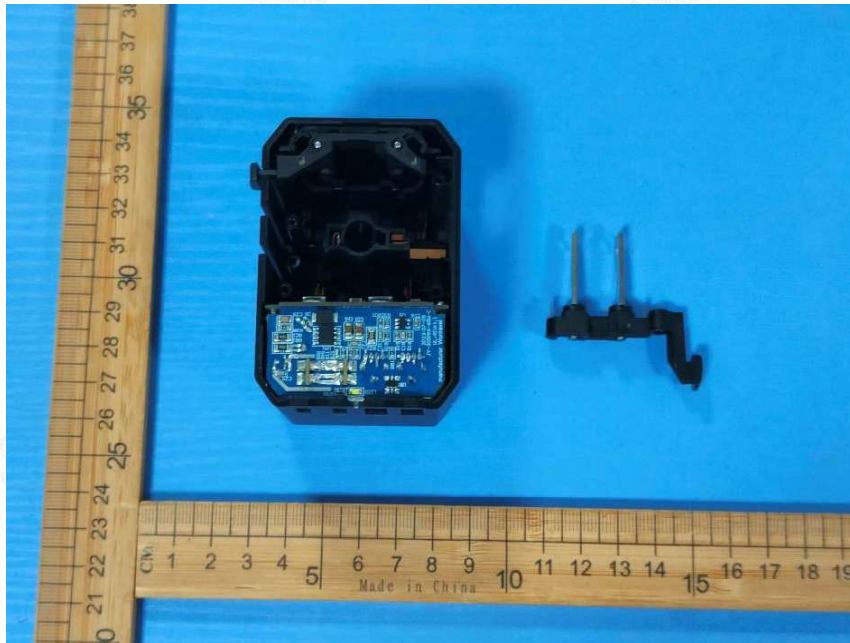


Figure 10 Internal View

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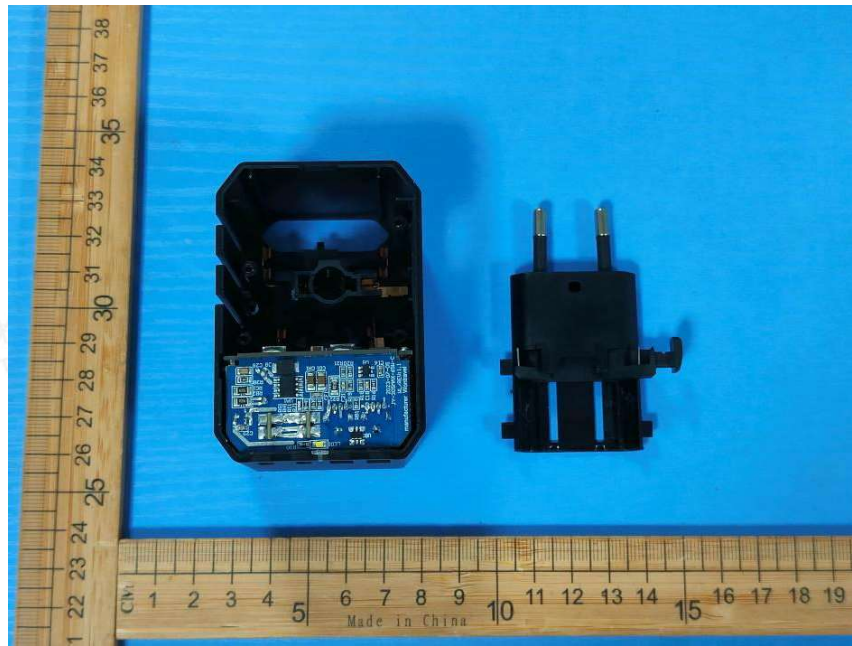


Figure 11 Internal View



Figure 12 Internal View

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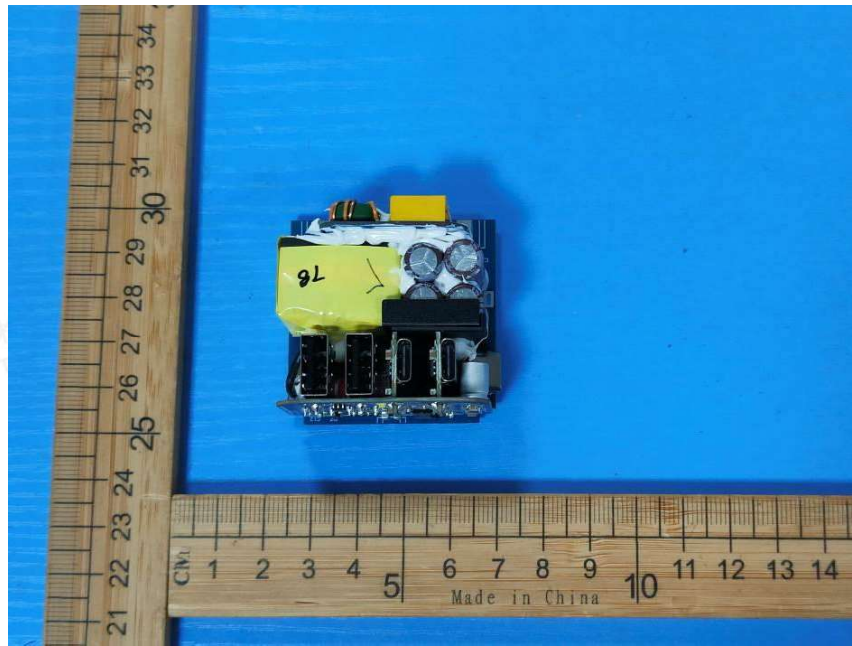


Figure 13 PCB View for USB power supply



Figure 14 PCB View for USB power supply

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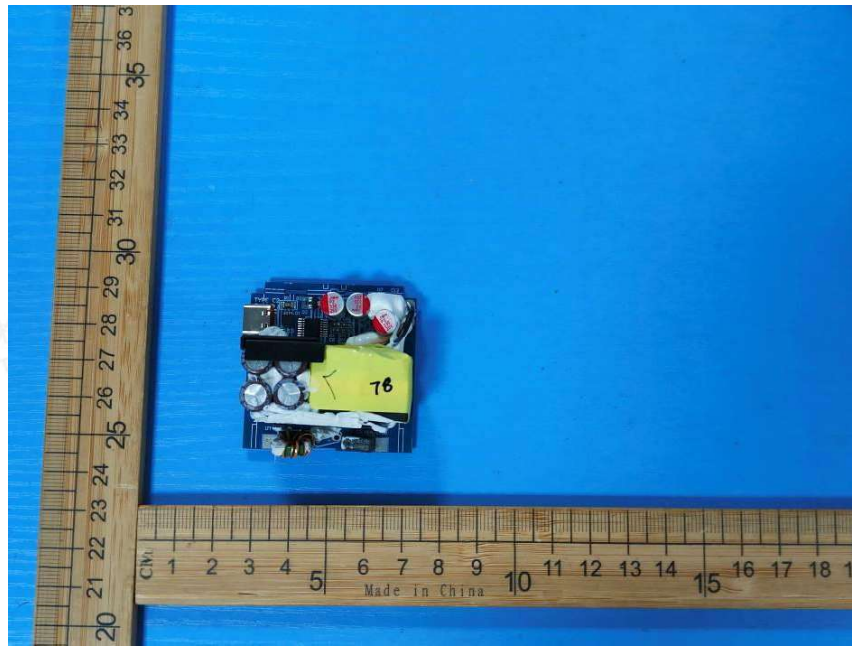


Figure 15 PCB View for USB power supply

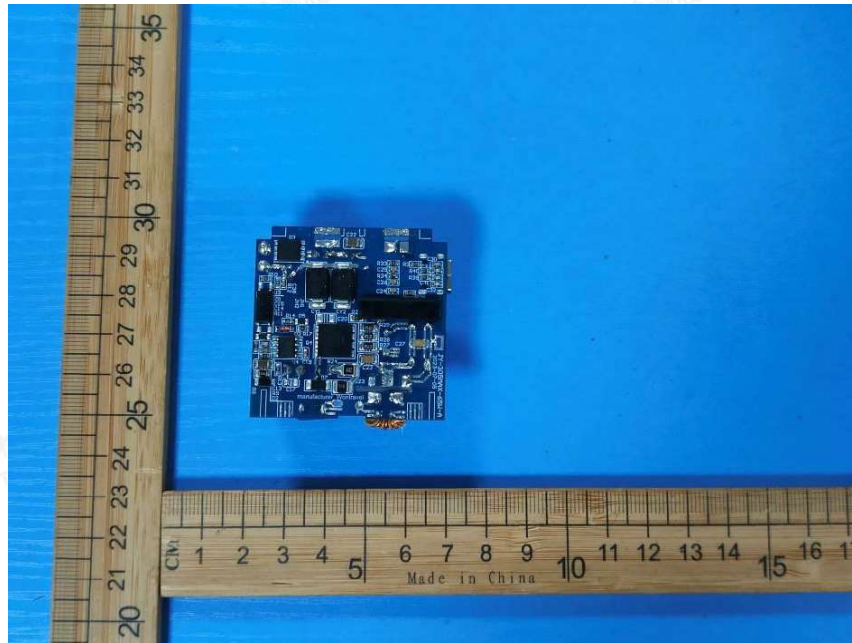


Figure 16 PCB View for USB power supply

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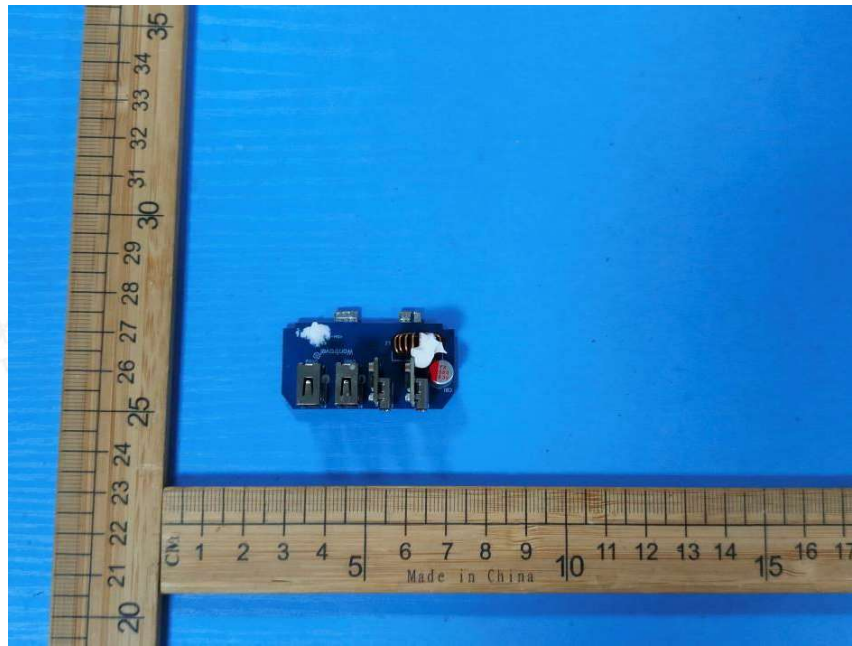


Figure 17 PCB View for USB power supply

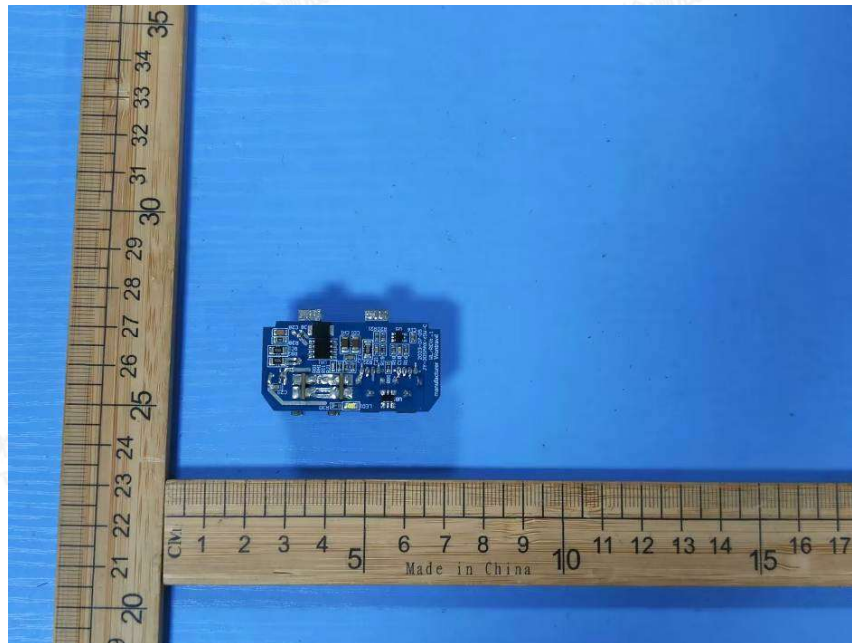


Figure 18 PCB View for USB power supply

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Figure 19 PCB View for USB power supply

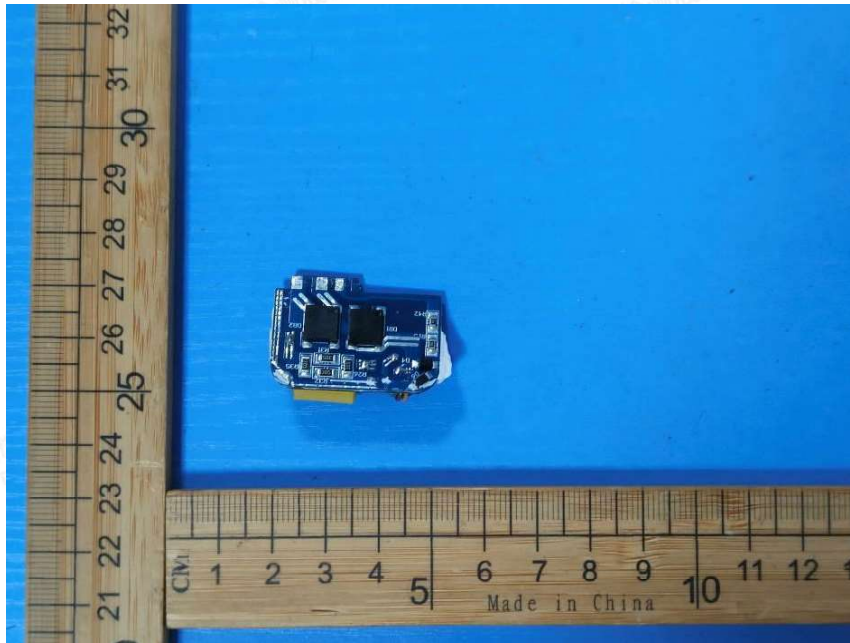


Figure 20 PCB View for USB power supply

--- END OF TEST REPORT---

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 Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.  
 Tel: 86 -769 -8507 5888 Fax: 86 -769 -8507 5898 Web: www.anci.com

# CERTIFICATE OF CONFORMITY

**Certificate No. 21AS070212L368A001**

The submitted sample of below equipment has been tested in according to **EC Council Directive of 2014/35/EU** with the following standards. The test report(s) show that the product complies with standard(s) recognized as giving presumption of compliance with the principal protection requirement of the **EC Council Directive of 2014/35/EU**.

**Report No.** : SA21070212L01001  
**Applicant** : Dongguan Wontravel Electric Co., Ltd  
**Address** : No.1 Yuanshanzai Road, Henggangtou, Xin'an, Chang'an Town, Dongguan city, China  
**Manufacturer** : Dongguan Wontravel Electric Co., Ltd  
**Address** : No.1 Yuanshanzai Road, Henggangtou, Xin'an, Chang'an Town, Dongguan city, China  
**Description of Product** : USB TRAVEL ADAPTER  
**Model No.** : JY-305PLUS, JY-309, JY-308PRO, JY-307, JY-307R, JY-306, JY-305A, JY-305B, JY-305AL, JY-304B, JY-303B, JY-304S, JY-304C, JY-303S, JY-303C, JY-303PD, JY-303S-C2, JY-302S, JY-302C, JY-301S, JY-505PD, JY-504PD, JY-504C, JY-505C2, G520, G63, G63-PD, G63B, G63B-PD, WL-07, WL-07-C3U, WL-033, WL-033-C3U  
 100-240V~ 50/60Hz 800mA  
**Input Rating** : Single USB: 5V  $\overline{=}$  2.4A MAX.  
**Output Rating** : Type-C port: 5V  $\overline{=}$  3A MAX.  
 Total output: 5V  $\overline{=}$  5.6A MAX.  
**Test Standards** : EN 62368-1:2014+A11:2017

After preparation of the necessary technical documentation as well as the EU declaration of conformity, the CE marking as below can be affixed on the product if all relevant effective EU-directives or regulations related to CE marking have been complied with. The EU declaration of conformity is issued under the sole responsibility of the applicant or manufacturer.

**Test Laboratory**



This attestation of conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the production of the products.



Test Report issued under the responsibility of:



<b>TEST REPORT</b> <b>EN 62368-1</b> <b>Audio/video, information and communication technology equipment</b> <b>Part 1: Safety requirements</b>	
<b>Report Number</b> .....	SA21070212L01001
<b>Date of issue</b> .....	2021-07-30
<b>Total number of pages</b> .....	76
<b>Applicant's name</b> .....	Dongguan Wontravel Electric Co., Ltd
<b>Address</b> .....	No.1 Yuanshanzai Road, Henggangtou, Xin'an, Chang'an Town, Dongguan city, China
<b>Test specification:</b>	
<b>Standard</b> .....	EN 62368-1:2014+ A11:2017
<b>Test procedure</b> .....	CE Scheme
<b>Non-standard test method</b> .....	N/A
<b>Test Report Form No.</b> .....	IEC62368_1B
<b>Test Report Form(s) Originator</b> .....	UL(US)
<b>Master TRF</b> .....	2014-03
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Test Item description .....	USB TRAVEL ADAPTER	
Trade Mark .....	N/A	
Manufacturer .....	Same as applicant	
Model/Type reference .....	JY-305PLUS, JY-309, JY-308PRO, JY-307, JY-307R, JY-306, JY-305A, JY-305B, JY-305AL, JY-304B, JY-303B, JY-304S, JY-304C, JY-303S, JY-303C, JY-303PD, JY-303S-C2, JY-302S, JY-302C, JY-301S, JY-505PD, JY-504PD, JY-504C, JY-505C2, G520, G63, G63-PD, G63B, G63B-PD, WL-07, WL-07-C3U, WL-033, WL-033-C3U	
Ratings .....	Input: 100-240V~ 50/60Hz 800mA Output: Single USB: 5V $\equiv$ 2.4A MAX. Type-C port: 5V $\equiv$ 3A MAX. Total output: 5V $\equiv$ 5.6A MAX.	
Testing procedure and testing location:		
<input checked="" type="checkbox"/>	Testing Laboratory:	Dongguan Anci Electronic Technology Co., Ltd.
	Testing location/ address .....	1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr. China
<input type="checkbox"/>	Associated CB Testing Laboratory:	N/A
	Testing location/ address .....	N/A
	Tested by (name + signature).....	Linn Zheng Project handler
	Approved by (name + signature) .....	Bruce Yu Reviewer
<input type="checkbox"/>	Testing procedure: TMP/CTF Stage 1	
	Testing location/ address .....	
	Tested by (name + signature).....	
	Approved by (name + signature) .....	
<input type="checkbox"/>	Testing procedure: WMT/CTF Stage 2	
	Testing location/ address .....	
	Tested by (name + signature).....	
	Witnessed by (name + signature) .....	
	Approved by (name + signature) .....	
<input type="checkbox"/>	Testing procedure: SMT/CTF Stage 3 or 4	
	Testing location/ address .....	
	Tested by (name + signature).....	
	Approved by (name + signature) .....	
	Supervised by (name + signature).....	



*Linn Zheng*  
*Bruce Yu*

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

- Attachment 1: National difference (9 pages)
- Attachment 8: Photograph (5 pages)

**Summary of testing:**

Unless otherwise indicated, all tests were conducted at Dongguan Anci Electronic Technology Co., Ltd.  
1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone,  
Dongguan City, Guangdong Pr. China

If not otherwise specified, tests were performed on model JY-305PLUS.

**Tests performed (name of test and test clause):**

STRESS RELIEF TEST (4.4.4.7, ANNEX T.8)  
STEADY FORCE TESTS, 100N (4.4.4.2, ANNEX T.4)  
DROP TESTS (4.4.4.3, ANNEX T.7)  
EQUIPMENT FOR DIRECT INSERTION INTO MAINS SOCKET-OUTLETS (4.7)  
CLASSIFICATION OF ELECTRICAL ENERGY SOURCES (5.2)  
MAXIMUM OPERATING TEMPERATURE FOR MATERIALS, COMPONENTS AND SYSTEMS (5.4.1.4, 6.3.2, 9.0, Annex B.2)  
DETERMINATION OF WORKING VOLTAGE (5.4.1.8)  
BALL PRESSURE TEST (5.4.1.10.3)  
ANTENNA TERMINAL INSULATION – VOLTAGE SURGE (5.4.5, G.10.3.2)  
HUMIDITY CONDITIONING (5.4.8)  
ELECTRIC STRENGTH TEST (5.4.9)  
SEPARABLE THIN SHEET MATERIAL (5.4.4.6.2)  
POWER MEASUREMENTS (6.2.2.2, 6.2.2.3)  
INPUT TEST: SINGLE PHASE (B.2.5)  
SIMULATED ABNORMAL OPERATING CONDITIONS (B.3)  
SIMULATED SINGLE FAULT CONDITIONS (B.4)  
TEST FOR PERMANENCE OF MARKINGS (F.3.10)  
LIMITED POWER SOURCE (ANNEX Q.1)  
STEADY FORCE TEST, 10 N (ANNEX T.2 , 5.4.2.6, 5.4.3.2, G.15.3.6)

**Testing location:**

Dongguan Anci Electronic Technology Co., Ltd.  
1-2 Floor, Building A, No.11, Headquarters 2 Road,  
Songshan Lake Hi-tech Industrial Development Zone,  
Dongguan City, Guangdong Pr. China

**Summary of compliance with National Differences:**

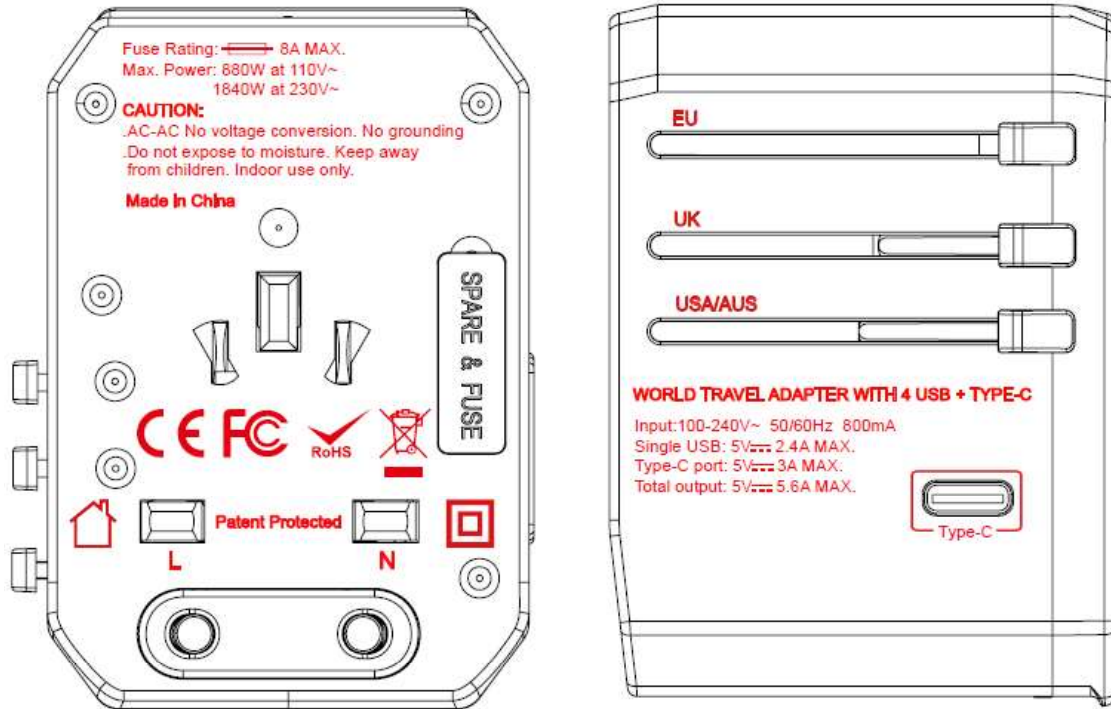
**List of countries addressed: EU**

EU=EU Group Differences

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

**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.



Importer:xxx.....  
Importer Address:xxx.....

**Notes:**

- The above markings are the min. requirements required by the safety standard. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.
- The height of CE marking should be minimum 5mm high and WEEE symbol should be minimum 7mm high.
- According to the EU directives which have been aligned with EU NLF (new legislative framework), both of manufacturer and importer's name and address shall be affixed on the product or, where that is not possible, on its packaging or in a document accompanying the product before the product is placed on the EU market.

<b>TEST ITEM PARTICULARS:</b>	
Classification of use by .....	<input checked="" type="checkbox"/> Ordinary person <input type="checkbox"/> Instructed person <input type="checkbox"/> Skilled person <input checked="" type="checkbox"/> Children likely to be present
Supply Connection .....	<input checked="" type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input type="checkbox"/> External Circuit - not Mains connected - <input type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3
Supply % Tolerance .....	<input checked="" type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> + ___ % / - ___ % <input type="checkbox"/> None
Supply Connection – Type .....	<input checked="" type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input checked="" type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input type="checkbox"/> other: _____
Considered current rating of protective device as part of building or equipment installation .....	<u>16</u> A (13A for UK); Installation location: <input checked="" type="checkbox"/> building; <input type="checkbox"/> equipment
Equipment mobility .....	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input checked="" type="checkbox"/> direct plug-in <input type="checkbox"/> rack-mounting <input type="checkbox"/> wall-mounted
Over voltage category (OVC) .....	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other: _____
Class of equipment .....	<input type="checkbox"/> Class I <input checked="" type="checkbox"/> Class II <input type="checkbox"/> Class III
Access location .....	<input type="checkbox"/> restricted access location <input checked="" type="checkbox"/> N/A
Pollution degree (PD) .....	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
Manufacturer's specified maximum operating ambient:	<u>25</u> °C
IP protection class .....	<input type="checkbox"/> IPX0 <input checked="" type="checkbox"/> IP20
Power Systems .....	<input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input type="checkbox"/> IT - ___ V <sub>L-L</sub>
Altitude during operation (m) .....	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> ___ m
Altitude of test laboratory (m) .....	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> ___ m
Mass of equipment (kg) .....	<input checked="" type="checkbox"/> <u>Max. 0.15</u> kg
<b>POSSIBLE TEST CASE VERDICTS:</b>	
- 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)

<b>TESTING:</b>	
Date of receipt of test item .....	: 2021-07-12
Date (s) of performance of tests.....	: 2021-07-12 to 2021-07-26
<b>GENERAL REMARKS:</b>	
<p>"(See Enclosure #)" refers to additional information appended to the report.  "(See appended table)" refers to a table appended to the report.</p> <p>Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</p>	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60068-2-1:</b>	
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 .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
<b>When differences exist; they shall be identified in the General product information section.</b>	
Name and address of factory (ies).....	: Same as applicant
<b>GENERAL PRODUCT INFORMATION:</b>	
<b>Product Description –</b>	
<p>1. The product is an USB TRAVEL ADAPTER (direct plug-in) for use with audio/video, information technology equipment.</p> <p>2. The top enclosure is sealed with bottom enclosure by fixed ultrasonic welding.</p> <p>3. Clearance was evaluated for operating altitude up to 2000m above sea level.</p> <p>4. The maximum operating temperature is 25°C.</p> <p>5. Before placing the products in the different countries, the manufacturer must ensure that:  Operating instructions, ratings labels and warnings labels are in an accepted or official language of the country in question; The equipment complies with the national standards and/or electrical codes of the country, province or city or in question.</p>	
<b>Model Differences –</b>	
All models are identical, except for the model name.	
<b>Additional application considerations – (Considerations used to test a component or sub-assembly) –</b>	



<b>ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:</b>	
(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.)	
<b>Electrically-caused injury (Clause 5):</b> (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input	
	ES1
<b>Source of electrical energy</b>	<b>Corresponding classification (ES)</b>
All circuitry except output	ES3
Output circuit	ES1
<b>Electrically-caused fire (Clause 6):</b> (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts):	
	PS2
<b>Source of power or PIS</b>	<b>Corresponding classification (PS)</b>
All circuits except output	PS3, Arcing PIS, Resistive PIS
Output circuit	PS2
<b>Injury caused by hazardous substances (Clause 7)</b> (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component	
	Glycol
<b>Source of hazardous substances</b>	<b>Corresponding chemical</b>
N/A	N/A
<b>Mechanically-caused injury (Clause 8)</b> (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit	
	MS2
<b>Source of kinetic/mechanical energy</b>	<b>Corresponding classification (MS)</b>
Edges and corners of enclosure	MS1
Equipment Mass	MS1
<b>Thermal burn injury (Clause 9)</b> (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure	
	TS1
<b>Source of thermal energy</b>	<b>Corresponding classification (TS)</b>
External surface	TS1
<b>Radiation (Clause 10)</b> (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product	
	RS1
<b>Type of radiation</b>	<b>Corresponding classification (RS)</b>
N/A	N/A

<b>ENERGY SOURCE DIAGRAM</b>
Indicate which energy sources are included in the energy source diagram. Insert diagram below
<p style="text-align: center;"><input checked="" type="checkbox"/> ES    <input checked="" type="checkbox"/> PS    <input checked="" type="checkbox"/> MS    <input checked="" type="checkbox"/> TS    <input type="checkbox"/> RS</p> <p style="text-align: center;"><b>(Refer to ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE for DETAIL)</b></p>

<b>OVERVIEW OF EMPLOYED SAFEGUARDS</b>				
<b>Clause</b>	<b>Possible Hazard</b>			
5.1	Electrically-caused injury			
Body Part (e.g. skilled)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary person	ES3: primary circuit	N/A	N/A	Enclosure, See 5.4.2, 5.4.3, 5.5.3
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Enclosure	PS3 circuits	See 6.3	V-0	N/A
PCB	PS3 circuits	See 6.3	V-1 or better	N/A
Plastic materials not part of PS3 circuits	PS3 circuits	See 6.3	V-2 or better	N/A
The other components/materials	PS3 circuits	See 6.3	See 6.4.5, 6.4.6	N/A
Primary lead wire	PS3 circuits	See 6.3	See 6.5	N/A
Output circuit	PS2 circuits	See 6.3	See 6.4.5, 6.4.6	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
N/A	N/A	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
Supplementary Information:				
(1) See attached energy source diagram for additional details.				
(2) "N" – Normal Condition; "A" – Abnormal Condition; "S" Single Fault				

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Clause	Requirement + Test	Result - Remark	Verdict
<b>4</b>	<b>GENERAL REQUIREMENTS</b>		P
4.1.1	Acceptance of materials, components and subassemblies	See appended table 4.1.2	P
4.1.2	Use of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment. See also Annex G	P
4.1.3	Equipment design and construction	Evaluation of safeguards regarding limiting the outputs to fulfill ES1 and protection in regard to risk of spread of fire, mechanical and thermal burninjury considered.	P
4.1.15	Markings and instructions .....	(See Annex F)	P
4.4.4	Safeguard robustness	See below.	P
4.4.4.2	Steady force tests.....	See Annex T.2, T.4	P
4.4.4.3	Drop tests.....	See Annex T.7	P
4.4.4.4	Impact tests.....		N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests .....	The external enclosure cannot be opened without damaging the product.	N/A
4.4.4.6	Glass Impact tests .....	No such glass used.	N/A
4.4.4.7.4	Thermoplastic material tests .....	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard .....		N/A
4.4.4.9	Accessibility and safeguard effectiveness		P
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions	P
4.6	Fixing of conductors		P
4.6.1	Fix conductors not to defeat a safeguard	Complied.	P
4.6.2	10 N force test applied to .....	Internal components and input wire	P
4.7	Equipment for direct insertion into mains socket - outlets		P
4.7.2	Mains plug part complies with the relevant standard .....	Should be evaluated when submitted national approval.	N/A
4.7.3	Torque (Nm).....	0.066Nm Max. for EU plug; 0.045Nm Max. for UK plug	P
4.8	Products containing coin/button cell batteries	No coin/button cell batteries used.	N/A
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Means to reduce the possibility of children removing the battery .....		—
4.8.4	Battery Compartment Mechanical Tests.....		N/A
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object.....	No openings	N/A

<b>5</b>	<b>ELECTRICALLY-CAUSED INJURY</b>		P
5.2.1	Electrical energy source classifications .....	(See appended table 5.2)	P
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current .....	(See appended table 5.2)	P
5.2.2.3	Capacitance limits.....	(See appended table 5.2)	P
5.2.2.4	Single pulse limits .....	No such single pulses generated in the EUT or applied to it.	N/A
5.2.2.5	Limits for repetitive pulses .....	No such repetitive pulses within the EUT	N/A
5.2.2.6	Ringling signals .....	No such ringling signals within the EUT	N/A
5.2.2.7	Audio signals .....	No such audio signals	N/A
5.3	Protection against electrical energy sources	See below	P
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	See only 4.3 and 5.3 to 5.5 which applies to protection between the accessible parts and hazardous parts of other circuits. Except for the model assembled with AC mains bare conductor.	P
5.3.2.1	Accessibility to electrical energy sources and safeguards	Only ES1 circuit can be accessed for this product. Except for the model assembled with AC bare conductor wire.	P
5.3.2.2	Contact requirements		P
	a) Test with test probe from Annex V .....	Checked by V.1.2 (figure V.1)	P
	b) Electric strength test potential (V).....	See appended table 5.4.9	P
	c) Air gap (mm) .....		N/A
5.3.2.4	Terminals for connecting stripped wire	No such terminals.	N/A
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material	The choice and application have taken into account as specified in this Clause 5 and Annex T and natural rubber, hygroscopic materials or asbestos are not used as insulation.	P
5.4.1.3	Humidity conditioning .....	See Sub-clause 5.4.8	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.4	Maximum operating temperature for insulating materials .....	(See appended table 5.4.1.4)	P
5.4.1.5	Pollution degree .....	2	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	Pollution degree 2 is applied. No insulating compound applied (however see 5.5.4).	N/A
5.4.1.5.3	Thermal cycling	See above	N/A
5.4.1.6	Insulation in transformers with varying dimensions	No such transformer within the EUT	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No such starting pulses within the EUT	N/A
5.4.1.8	Determination of working voltage	Max. 568V peak, Max.270V rms	P
5.4.1.9	Insulating surfaces		P
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		P
5.4.1.10.2	Vicat softening temperature .....		N/A
5.4.1.10.3	Ball pressure .....	Phenolic bobbin material used in transformer which is acceptable without test. For other parts see appended table 5.4.1.10.3	P
5.4.2	Clearances		P
5.4.2.2	Determining clearance using peak working voltage	See appended table 5.4.2.2, 5.4.2.4 and 5.4.3	P
5.4.2.3	Determining clearance using required withstand voltage .....	See appended table 5.4.2.2, 5.4.2.4 and 5.4.3	P
	a) a.c. mains transient voltage.....	2500V for Overvoltage Cat. II	—
	b) d.c. mains transient voltage .....	No such transient	—
	c) external circuit transient voltage .....	No such transient	—
	d) transient voltage determined by measurement .....		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	Using procedure 2 to determine the clearance according to 5.4.2.3	N/A
5.4.2.5	Multiplication factors for clearances and test voltages .....		N/A
5.4.3	Creepage distances .....	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
5.4.3.1	General		P
5.4.3.3	Material Group .....	IIIb	—
5.4.4	Solid insulation	See below	P
5.4.4.2	Minimum distance through insulation .....	(See appended table 5.4.4.2)	P
5.4.4.3	Insulation compound forming solid insulation	No such component used in the EUT	N/A
5.4.4.4	Solid insulation in semiconductor devices		P



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Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.5	Cemented joints	No such construction within the EUT	N/A
5.4.4.6	Thin sheet material	See below	P
5.4.4.6.1	General requirements	Two layers of insulation tape between winding and core of transformer is used for reinforced insulation and are not expected to be subject to handling or abrasion during ordinary or instructed person servicing.	P
5.4.4.6.2	Separable thin sheet material	Where two layers are provided as reinforced insulation any one layer passed the electric strength test for reinforced insulation	P
	Number of layers (pcs) .....	2	P
5.4.4.6.3	Non-separable thin sheet material	No such thin sheet material within the EUT	N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material.....	See above	N/A
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components	See G.5.1 and G.6	P
5.4.4.9	Solid insulation at frequencies >30 kHz.....	(See appended table 5.4.4.9)	P
5.4.5	Antenna terminal insulation	Performed between mains and output connector which may be connected to an equipment with antenna terminal	P
5.4.5.1	General		P
5.4.5.2	Voltage surge test	Surge test with 50 discharges at a maximum rate of 12/min from a 1nF capacitor charged to 10kV performed. Measured insulation resistance between mains supply to output terminals after the surge test, see below for details.	P
	Insulation resistance (M $\Omega$ ).....	100 M $\Omega$	P
5.4.6	Insulation of internal wire as part of supplementary safeguard .....	No such insulation of internal wire as part of supplementary safeguard.	N/A
5.4.7	Tests for semiconductor components and for cemented joints	No tests necessary –see only 5.4.4.4.	N/A
5.4.8	Humidity conditioning	see below	P
	Relative humidity (%).....	95%	—
	Temperature (°C) .....	30°C	—
	Duration (h) .....	48h	—
5.4.9	Electric strength test .....	(See appended table 5.4.9)	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.9.1	Test procedure for a solid insulation type test	Compliance was checked immediately following temperature test in 5.4.1.4 and on a sample of the transformer raised to the relevant temperature as measured during that test.	P
5.4.9.2	Test procedure for routine tests	No routine tests considered. To be considered during the relevant national approval.	N/A
5.4.10	Protection against transient voltages between external circuit	No such external circuits	N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test..... :		N/A
5.4.10.2.3	Steady-state test ..... :		N/A
5.4.11	Insulation between external circuits and earthed circuitry..... :	No such connections for external circuit applied within the EUT	N/A
5.4.11.1	Exceptions to separation between external circuits and earth	No such connections to external circuit as above.	N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage $U_{op}$ (V) ..... :		—
	Nominal voltage $U_{peak}$ (V)..... :		—
	Max increase due to variation $U_{sp}$ ..... :		—
	Max increase due to ageing $\Delta U_{sa}$ ..... :		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ ..... :		—
5.5	Components as safeguards		
5.5.1	General	See the following details.	P
5.5.2	Capacitors and RC units	Approved Y1 type capacitors provided. See G.11.1 for compliance and their application.	P
5.5.2.1	General requirement		P
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector ..... :		N/A
5.5.3	Transformers	(See Annex G.5.3)	P
5.5.4	Optocouplers		N/A
5.5.5	Relays	No such component provided	N/A
5.5.6	Resistors		N/A
5.5.7	SPD's		N/A
5.5.7.1	Use of an SPD connected to reliable earthing	No such construction.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable .....	No such external circuits.	N/A
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors	Class II equipment	N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation		N/A
5.6.3	Requirement for protective earthing conductors		N/A
	Protective earthing conductor size (mm <sup>2</sup> ) .....		—
5.6.4	Requirement for protective bonding conductors	Not such construction	N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm <sup>2</sup> ). .....		—
	Protective current rating (A) .....		—
5.6.4.3	Current limiting and overcurrent protective devices		N/A
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm <sup>2</sup> ), nominal thread diameter (mm). .....		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test Method Resistance ( $\Omega$ ) .....		N/A
5.6.7	Reliable earthing		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		P
5.7.2	Measuring devices and networks	Figure 4 of IEC 60990 was used in determining of the limit of ES1.	P
5.7.2.1	Measurement of touch current .....	(See appended table 5.2)	P
5.7.2.2	Measurement of prospective touch voltage		P
5.7.3	Equipment set-up, supply connections and earth connections	Clause 4.5.3 and 5.4 of IEC 60990:1999 applied.	P
	System of interconnected equipment (separate connections/single connection) .....	Single equipment.	—
	Multiple connections to mains (one connection at a time/simultaneous connections) .....	Single connection.	—
5.7.4	Earthed conductive accessible parts .....		N/A
5.7.5	Protective conductor current		N/A
	Supply Voltage (V) .....		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Measured current (mA).....:		—
	Instructional Safeguard.....:		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits	No external circuits.	N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits	No external circuits.	N/A
	a) Equipment with earthed external circuits Measured current (mA).....:		N/A
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA).....:		N/A

<b>6</b>	<b>ELECTRICALLY- CAUSED FIRE</b>		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	PS (power source) classification determined by measuring the maximum power in Figures 34 and 35 for load and power source circuits.	P
6.2.2.1	General	See the following details.	P
6.2.2.2	Power measurement for worst-case load fault ... :	(See appended table 6.2.2)	P
6.2.2.3	Power measurement for worst-case power source fault.....:	(See appended table 6.2.2)	P
6.2.2.4	PS1 .....		N/A
6.2.2.5	PS2 .....	(See appended table 6.2.2)	P
6.2.2.6	PS3 .....	The primary circuit considered as PS3	P
6.2.3	Classification of potential ignition sources		P
6.2.3.1	Arcing PIS .....	See note to appended table 6.2.3.1	P
6.2.3.2	Resistive PIS .....	All components considered as PIS, see also note to appended table 6.2.3.2	P
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials .....	No ignition and no such temperature attained within the equipment. (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	P
6.3.1 (b)	Combustible materials outside fire enclosure	Only output connector complying with 6.4.6.	P
6.4	Safeguards against fire under single fault conditions		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.1	Safeguard Method	Method of control fire spread used. Fire enclosure provided.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions .....		N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		N/A
6.4.5	Control of fire spread in PS2 circuits		P
6.4.5.2	Supplementary safeguards .....	See Table 4.1.2 and Annex G	P
6.4.6	Control of fire spread in PS3 circuit	Compliance detailed as follows: - Printed board: rated min. V-1 - All other components: at least V-2 except for parts mounted on min. V-1 material or small parts of combustible material) with mass less than 4g) or components complying to relevant IEC standard. - Isolating transformer: complying with G.5.3. - Fire enclosure rated V-0 used.	P
6.4.7	Separation of combustible materials from a PIS	Fire enclosure is provided.	P
6.4.7.1	General .....		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers	Fire enclosure used	P
6.4.8.1	Fire enclosure and fire barrier material properties	V-0 fire enclosure used.	P
6.4.8.2.1	Requirements for a fire barrier		N/A
6.4.8.2.2	Requirements for a fire enclosure	Enclosure material: V-0	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		N/A
6.4.8.3.1	Fire enclosure and fire barrier openings		N/A
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm) .....	No openings	N/A
	Needle Flame test		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm) .....		N/A
	Flammability tests for the bottom of a fire enclosure .....		N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c) .....		N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating .....	V-0 fire enclosure used.	P
6.5	Internal and external wiring		P
6.5.1	Requirements		P
6.5.2	Cross-sectional area (mm <sup>2</sup> ) .....	See appended table 4.1.2	—
6.5.3	Requirements for interconnection to building wiring .....		N/A
6.6	Safeguards against fire due to connection to additional equipment		P
	External port limited to PS2 or complies with Clause Q.1	Output complies with Clause Q.1.	P

<b>7</b>	<b>INJURY CAUSED BY HAZARDOUS SUBSTANCES</b>		N/A
7.2	Reduction of exposure to hazardous substances		N/A
7.3	Ozone exposure		N/A
7.4	Use of personal safeguards (PPE)		N/A
	Personal safeguards and instructions .....		—
7.5	Use of instructional safeguards and instructions		N/A
	Instructional safeguard (ISO 7010) .....		—
7.6	Batteries.....		N/A

<b>8</b>	<b>MECHANICALLY-CAUSED INJURY</b>		P
8.1	General		P
8.2	Mechanical energy source classifications	MS1	P
8.3	Safeguards against mechanical energy sources		N/A
8.4	Safeguards against parts with sharp edges and corners	Edges and corners of the enclosure are rounded and classification as MS1	P
8.4.1	Safeguards		N/A
8.5	Safeguards against moving parts	No moving parts.	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
8.5.2	Instructional Safeguard .....		—

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Clause	Requirement + Test	Result - Remark	Verdict
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A
8.5.4.2.1	Safeguards and Safety Interlocks .....		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard .....		—
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N) .....		N/A
8.5.5	High Pressure Lamps		N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test .....		N/A
8.6	Stability	Classification MS1 according to table 35, line 5 and no stability requirements.	N/A
8.6.1	Product classification		N/A
	Instructional Safeguard .....		—
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force .....		—
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt .....		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force) .....		N/A
	Position of feet or movable parts .....		—
8.7	Equipment mounted to wall or ceiling	No wall or ceiling mounted	N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface) .....		N/A
8.7.2	Direction and applied force .....		N/A
8.8	Handles strength	No handles provided.	N/A
8.8.1	Classification		N/A
8.8.2	Applied Force .....		N/A
8.9	Wheels or casters attachment requirements	No wheels or casters.	N/A
8.9.1	Classification		N/A
8.9.2	Applied force .....		—
8.10	Carts, stands and similar carriers	No carts, stands or similar carriers.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard .....		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force.....		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N) .....		—
8.10.6	Thermoplastic temperature stability (°C).....		N/A
8.11	Mounting means for rack mounted equipment	Not such equipment.	N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable <i>N</i> .....		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas .....	No such parts.	N/A
	Button/Ball diameter (mm).....		—

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	No part considered to be accessible other than enclosure. The equipment evaluated by temperature test (see table 5.4.1.4).	P
9.3	Safeguard against thermal energy sources	Temperature of enclosure classed as TS1.	P
9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard	Enclosure provided to limit the transfer of thermal energy of internal parts under normal operating conditions and abnormal operating conditions.	P
9.4.2	Instructional safeguard .....	Instructional safeguard is not required.	N/A

10	RADIATION		N/A
10.2	Radiation energy source classification		N/A
10.2.1	General classification		N/A
10.3	Protection against laser radiation	No laser radiation	N/A
	Laser radiation that exists equipment:		—
	Normal, abnormal, single-fault .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Instructional safeguard .....		—
	Tool.....		—
10.4	Protection against visible, infrared, and UV radiation		N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons .....		N/A
10.4.1.b)	RS3 accessible to a skilled person.....		N/A
	Personal safeguard (PPE) instructional safeguard .....		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1 . :		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions .....		N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque .....		N/A
10.4.1.f)	UV attenuation.....		N/A
10.4.1.g)	Materials resistant to degradation UV .....		N/A
10.4.1.h)	Enclosure containment of optical radiation .....		N/A
10.4.1.i)	Exempt Group under normal operating conditions .....		N/A
10.4.2	Instructional safeguard .....		N/A
10.5	Protection against x-radiation	No such x-radiation generated from the equipment	N/A
10.5.1	X- radiation energy source that exists equipment:		N/A
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards.....		N/A
	Instructional safeguard for skilled person .....		N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation .....		—
	Abnormal and single-fault condition .....		N/A
	Maximum radiation (pA/kg).....		N/A
10.6	Protection against acoustic energy sources	Not such equipment.	N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A).....		N/A
	Output voltage, unweighted r.m.s.....		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards.....		N/A
	Equipment safeguard prevent ordinary person to RS2.....		—
	Means to actively inform user of increase sound		—

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Clause	Requirement + Test	Result - Remark	Verdict
	pressure .....		
	Equipment safeguard prevent ordinary person to RS2.....		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) $L_{Aeq}$ acoustic pressure output .....		—
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A).....		—
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A).....		—

<b>B</b>	<b>NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS</b>		P
B.2	Normal Operating Conditions	See the following details.	P
B.2.1	General requirements.....	Maximum rated output applied (See appended table)	P
	Audio Amplifiers and equipment with audio amplifiers .....	Not such equipment.	N/A
B.2.3	Supply voltage and tolerances	Rated voltage $\pm 10\%$	P
B.2.5	Input test.....	(See appended table B.2.5)	P
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements.....	(See appended table B.3 & B.4)	P
B.3.2	Covering of ventilation openings	No ventilation openings.	N/A
B.3.3	D.C. mains polarity test	The EUT is not connected to a D.C. mains	N/A
B.3.4	Setting of voltage selector .....	No setting of voltage selector within the EUT	N/A
B.3.5	Maximum load at output terminals .....	(See appended table B.3 & B.4)	P
B.3.6	Reverse battery polarity	No battery within the EUT	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	Not such equipment.	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effective.	P
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited .....	No such device used.	N/A
B.4.3	Motor tests	No motors used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature .....		N/A
B.4.4	Short circuit of functional insulation	See the following details.	P
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.3 & B.4)	P
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.3 & B.4)	P
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	(See appended table B.3 & B.4 for faults on electronic components)	P
B.4.6	Short circuit or disconnect of passive components	(See appended table B.3 & B.4)	P
B.4.7	Continuous operation of components	The EUT is continuous operating type and no such components intended for short time operation or intermittent operation	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	No change to circuits classified in 5.3.	P
B.4.9	Battery charging under single fault conditions .....	No battery involved in the EUT	N/A
<b>C</b>	<b>UV RADIATION</b>		N/A
C.1	Protection of materials in equipment from UV radiation	No such UV generated from the equipment.	N/A
C.1.2	Requirements	See above.	N/A
C.1.3	Test method	See above.	N/A
C.2	UV light conditioning test	See above.	N/A
C.2.1	Test apparatus	See above.	N/A
C.2.2	Mounting of test samples	See above.	N/A
C.2.3	Carbon-arc light-exposure apparatus	See above.	N/A
C.2.4	Xenon-arc light exposure apparatus	See above.	N/A
<b>D</b>	<b>TEST GENERATORS</b>		P
D.1	Impulse test generators		N/A
D.2	Antenna interface test generator		P
D.3	Electronic pulse generator	See above.	N/A
<b>E</b>	<b>TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS</b>		N/A
E.1	Audio amplifier normal operating conditions	Not such equipment.	N/A
	Audio signal voltage (V)..... :	See above.	—
	Rated load impedance ( $\Omega$ ) .....	See above.	—
E.2	Audio amplifier abnormal operating conditions	See above.	N/A
<b>F</b>	<b>EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS</b>		P
F.1	General requirements	See the following details.	P
	Instructions – Language .....	English.	—



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Clause	Requirement + Test	Result - Remark	Verdict
F.2	Letter symbols and graphical symbols	See the following details.	P
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010.	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Equipment marking is located on the enclosure surface and is easily visible.	P
F.3.2	Equipment identification markings	See the following details.	P
F.3.2.1	Manufacturer identification .....	See page 2	—
F.3.2.2	Model identification .....	See page 2	—
F.3.3	Equipment rating markings	See the following details.	P
F.3.3.1	Equipment with direct connection to mains	The equipment is connected to AC mains supply.	P
F.3.3.2	Equipment without direct connection to mains	See above.	N/A
F.3.3.3	Nature of supply voltage.....	~	—
F.3.3.4	Rated voltage.....	100-240V	—
F.3.3.4	Rated frequency.....	50/60Hz	—
F.3.3.6	Rated current or rated power .....	800mA	—
F.3.3.7	Equipment with multiple supply connections	Only one supply connection.	N/A
F.3.4	Voltage setting device	Auto range and no voltage selector provide within the equipment.	N/A
F.3.5	Terminals and operating devices	See below.	P
F.3.5.1	Mains appliance outlet and socket-outlet markings .....		N/A
F.3.5.2	Switch position identification marking.....		N/A
F.3.5.3	Replacement fuse identification and rating markings .....	The fuses are located within the equipment and not replaceable by an ordinary person or an instructed person. The fuse rating marked on PCB with F1: T2A/250Vac	P
F.3.5.4	Replacement battery identification marking.....	No such battery on the equipment. See sub-clause F.5	N/A
F.3.5.5	Terminal marking location		P
F.3.6	Equipment markings related to equipment classification	See below.	P
F.3.6.1	Class I Equipment	Class II Equipment	N/A
F.3.6.1.1	Protective earthing conductor terminal		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.6.1.2	Neutral conductor terminal	Not such construction	N/A
F.3.6.1.3	Protective bonding conductor terminals		N/A
F.3.6.2	Class II equipment (IEC60417-5172)		P
F.3.6.2.1	Class II equipment with or without functional earth	<input type="checkbox"/> used	P
F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A
F.3.7	Equipment IP rating marking .....	IP20	—
F.3.8	External power supply output marking	See copy of marking	P
F.3.9	Durability, legibility and permanence of marking	Marking is considered to be legible and easily discernible. See also the following details.	P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec. With the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade.  After each test, the marking remained legible.	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking		N/A
	b) Instructions given for installation or initial use		P
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1	No such terminals provided.	N/A
	f) Protective earthing employed as safeguard		N/A
	g) Protective earthing conductor current exceeding ES 2 limits		N/A
	h) Symbols used on equipment	No such symbols used as a safeguard considered.	N/A
	i) Permanently connected equipment not provided with all-pole mains switch	Not permanently connected equipment.	N/A
	j) Replaceable components or modules providing safeguard function	No such markings.	N/A
F.5	Instructional safeguards	No instructional safeguard is considered as necessary.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction	No instructional safeguard required in the equipment.	N/A
<b>G</b>	<b>COMPONENTS</b>		P
<b>G.1</b>	<b>Switches</b>		N/A
G.1.1	General requirements		N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
<b>G.2</b>	<b>Relays</b>		N/A
G.2.1	General requirements	No such relay provided within the equipment.	N/A
G.2.2	Overload test	See above.	N/A
G.2.3	Relay controlling connectors supply power	See above.	N/A
G.2.4	Mains relay, modified as stated in G.2	See above.	N/A
<b>G.3</b>	<b>Protection Devices</b>		P
G.3.1	Thermal cut-offs	No thermal cut-off provided within the equipment.	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	See above.	N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)	See above.	N/A
G.3.1.2	Thermal cut-off connections maintained and secure	See above.	N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691	No thermal link provided within the equipment.	N/A
G.3.2.1b)	Thermal links tested as part of the equipment	See above.	N/A
	Aging hours (H) .....		—
	Single Fault Condition .....		—
	Test Voltage (V) and Insulation Resistance ( $\Omega$ )..:		—
G.3.3	PTC Thermistors	No PTC thermistor provided within the equipment.	N/A
G.3.4	Overcurrent protection devices		P
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.5		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided		N/A
G.3.5.2	Single faults conditions .....		P
<b>G.4</b>	<b>Connectors</b>		P
G.4.1	Spacings	No such connector with insulated surfaces accessible within the EUT	N/A
G.4.2	Mains connector configuration .....	Main plug used	P

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Clause	Requirement + Test	Result - Remark	Verdict
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely	Output connector with a shape that insertion into a mains connector or socket is unlikely to occur.	P
<b>G.5</b>	<b>Wound Components</b>		P
G.5.1	Wire insulation in wound components.....	Approved TIW used for secondary winding of transformer	P
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	Separated by tube and insulation tape between winding	P
G.5.1.2 b)	Construction subject to routine testing	The routine tests are to be considered for the production based on the relevant approval.	N/A
G.5.2	Endurance test on wound components	Not applied for.	N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Time (s)..... :		—
	Temperature (°C)..... :		—
G.5.2.3	Wound Components supplied by mains	See above.	N/A
<b>G.5.3</b>	<b>Transformers</b>		P
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1)..... :	The transformers meet the requirements given in G.5.3.2 and G.5.3.3.	P
	Position..... :	T1	—
	Method of protection ..... :	See G.5.3.3.	—
G.5.3.2	Insulation	Primary windings and secondary windings are separated by Reinforced insulation (The core is considered as primary part as it is not isolated from Primary)	P
	Protection from displacement of windings ..... :	The end-turn of each winding is fixed by insulating tape	—
G.5.3.3	Overload test..... :	The Transformer overload test is not conducted due to the test condition is equivalent to output overload test.	N/A
G.5.3.3.1	Test conditions		N/A
G.5.3.3.2	Winding Temperatures testing in the unit		N/A
G.5.3.3.3	Winding Temperatures - Alternative test method	Alternative test method was not considered.	N/A
<b>G.5.4</b>	<b>Motors</b>		N/A
G.5.4.1	General requirements	No motors used.	N/A
	Position ..... :		—
G.5.4.2	Test conditions		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days) .....		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V) .....		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h) .....		N/A
	Electric strength test (V) .....		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature .....		N/A
	Electric strength test (V) .....		N/A
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h) .....		N/A
	Electric strength test (V) .....		N/A
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage .....		—
<b>G.6</b>	<b>Wire Insulation</b>		P
G.6.1	General	Triple insulated winding in T1 secondary windings used as reinforced safeguard in the isolating transformer that has separately complied with Annex J. See Appended table 4.1.2. No other wires used in the EUT.	P
G.6.2	Solvent-based enamel wiring insulation	Insulation does not rely on solvent-based enamel.	N/A
<b>G.7</b>	<b>Mains supply cords</b>		N/A
G.7.1	General requirements		N/A
	Type .....		—
	Rated current (A) .....		—
	Cross-sectional area (mm <sup>2</sup> ), (AWG) .....		—
G.7.2	Compliance and test method		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N)..... :		—
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm) ... :		—
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry..... :		N/A
G.7.5	Non-detachable cord bend protection	Not hand-held equipment	N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g) ..... :		—
	Diameter (m)..... :		—
	Temperature (°C) ..... :		—
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Test with 8 mm strand		N/A
<b>G.8</b>	<b>Varistors</b>		N/A
G.8.1	General requirements		N/A
G.8.2	Safeguard against shock		N/A
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test ..... :		N/A
G.8.3.3	Temporary overvoltage..... :		N/A
<b>G.9</b>	<b>Integrated Circuit (IC) Current Limiters</b>		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.	No IC current limiter provided within the equipment.	N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA ..... :		—
G.9.1 d)	IC limiter output current (max. 5A) ..... :		—
G.9.1 e)	Manufacturers' defined drift ..... :		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
<b>G.10</b>	<b>Resistors</b>		N/A
G.10.1	General requirements	No such component used.	N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
<b>G.11</b>	<b>Capacitor and RC units</b>		P
G.11.1	General requirements	Approval Y1 type capacitor provide, see table 4.1.2 for details.	P
G.11.2	Conditioning of capacitors and RC units		P
G.11.3	Rules for selecting capacitors		P
<b>G.12</b>	<b>Optocouplers</b>		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results)..... :		N/A
	Type test voltage Vini .....		—
	Routine test voltage, Vini,b .....		—
<b>G.13</b>	<b>Printed boards</b>		P
G.13.1	General requirements	See the following details.	P
G.13.2	Uncoated printed boards	The insulation between conductors on the outer surfaces of an uncoated printed board or over the outer surface of coated printed boards complied with the minimum clearance and creepage requirements of 5.4.2 and 5.4.3.	P
G.13.3	Coated printed boards	No coated printed board or multilayer board applied for within the equipment.	N/A
G.13.4	Insulation between conductors on the same inner surface	See above.	N/A
	Compliance with cemented joint requirements (Specify construction)..... :		—
G.13.5	Insulation between conductors on different surfaces	See above.	N/A
	Distance through insulation .....		N/A
	Number of insulation layers (pcs) .....		—
G.13.6	Tests on coated printed boards	See above.	N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
<b>G.14</b>	<b>Coating on components terminals</b>		N/A
G.14.1	Requirements .....		N/A
<b>G.15</b>	<b>Liquid filled components</b>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.15.1	General requirements	No such device provided within the equipment.	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
<b>G.16</b>	<b>IC including capacitor discharge function (ICX)</b>		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours		N/A
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage .....		N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage .....		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance .....		—
D3)	Resistance .....		—
<b>H</b>	<b>CRITERIA FOR TELEPHONE RINGING SIGNALS</b>		N/A
H.1	General	No telephone ringing signal generated within the equipment.	N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz) .....		—
H.3.1.2	Voltage (V) .....		—
H.3.1.3	Cadence; time (s) and voltage (V) .....		—
H.3.1.4	Single fault current (mA): .....		—
H.3.2	Tripping device and monitoring voltage.....		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V) .....		—

<b>IEC 62368-1</b>			
Clause	Requirement + Test	Result - Remark	Verdict
<b>J</b>	<b>INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION</b>		P
	General requirements	Triple insulated winding wiring used as reinforced safeguard in the isolating transformer that has been evaluated to Annex J as follows: Requirements of Annex U of IEC 60950-1/A2 or IEC 62368-1 are identical to Annex J of this standard (for wires providing Reinforced insulation). See Table 4.1.2.	P
<b>K</b>	<b>SAFETY INTERLOCKS</b>		N/A
K.1	General requirements	No safety interlock provided within the equipment.	N/A
K.2	Components of safety interlock safeguard mechanism .....		N/A
K.3	Inadvertent change of operating mode		N/A
K.4	Interlock safeguard override		N/A
K.5	Fail-safe		N/A
	Compliance.....:		N/A
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method.....:		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location) .....		N/A
K.7.2	Overload test, Current (A) .....		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test .....		N/A
<b>L</b>	<b>DISCONNECT DEVICES</b>		P
L.1	General requirements	Main plug used to disconnect from AC mains.	P
L.2	Permanently connected equipment	Not permanently connected equipment.	N/A
L.3	Parts that remain energized	When Main plug is disconnected no hazardous voltage in the equipment.	P
L.4	Single phase equipment	The Main plug disconnects both poles simultaneously.	P
L.5	Three-phase equipment		N/A
L.6	Switches as disconnect devices		N/A
L.7	Plugs as disconnect devices	Direct plug-in equipment.	N/A
L.8	Multiple power sources	Only one a.c. mains connection.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>M</b>	<b>EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS</b>		N/A
M.1	General requirements	No battery used.	N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) .. :		N/A
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance .....		N/A
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature..... :		—
M.4.2.2 b)	Single faults in charging circuitry .....		—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method) .....		N/A
M.6.2	Leakage current (mA) .....		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume $V_z$ ( $m^3/s$ ) .....		—
M.8.2.3	Correction factors.....		—
M.8.2.4	Calculation of distance $d$ (mm) .....		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) .....		N/A
<b>N</b>	<b>ELECTROCHEMICAL POTENTIALS</b>		N/A
	Metal(s) used .....		—
<b>O</b>	<b>MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES</b>		P
	Figures O.1 to O.20 of this Annex applied .....		—
<b>P</b>	<b>SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS</b>		N/A
P.1	General requirements		N/A
P.2.2	Safeguards against entry of foreign object		N/A
	Location and Dimensions (mm) .....		—
P.2.3	Safeguard against the consequences of entry of foreign object	See above.	N/A
P.2.3.1	Safeguards against the entry of a foreign object	See above.	N/A
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) ..... :		N/A
P.3	Safeguards against spillage of internal liquids	No such liquids.	N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts	No such construction.	N/A
P.4.2 a)	Conditioning testing		N/A
	Tc (°C)..... :		—
	Tr (°C)..... :		—
	Ta (°C)..... :		—
P.4.2 b)	Abrasion testing ..... :		N/A
P.4.2 c)	Mechanical strength testing..... :		N/A
<b>Q</b>	<b>CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING</b>		P
Q.1	Limited power sources	See appended table Annex Q.1	P
Q.1.1 a)	Inherently limited output		N/A
Q.1.1 b)	Impedance limited output		P
	- Regulating network limited output under normal operating and simulated single fault condition	A regulating network limits the output in compliance with table Q.1 both under normal operating conditions and after any single fault.	P
Q.1.1 c)	Overcurrent protective device limited output		N/A
Q.1.1 d)	IC current limiter complying with G.9		N/A
Q.1.2	Compliance and test method	See appended table Annex Q.1	P
Q.2	Test for external circuits – paired conductor cable	No such circuit for connection to the EUT	N/A
	Maximum output current (A) ..... :		—
	Current limiting method ..... :		—
<b>R</b>	<b>LIMITED SHORT CIRCUIT TEST</b>		N/A
R.1	General requirements		N/A
R.2	Determination of the overcurrent protective device and circuit	See above.	N/A
R.3	Test method Supply voltage (V) and short-circuit current (A). ..... :	See above.	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
<b>S</b>	<b>TESTS FOR RESISTANCE TO HEAT AND FIRE</b>		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material .....		—
	Wall thickness (mm).....		—
	Conditioning (°C).....		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A
	Samples, material .....		—
	Wall thickness (mm).....		—
	Conditioning (°C).....		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material .....		—
	Wall thickness (mm).....		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material .....		—
	Wall thickness (mm).....		—
	Conditioning (test condition), (°C).....		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A
<b>T</b>	<b>MECHANICAL STRENGTH TESTS</b>		<b>P</b>
T.1	General requirements		P

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Clause	Requirement + Test	Result - Remark	Verdict
T.2	Steady force test, 10 N .....	(See appended table T.2)	P
T.3	Steady force test, 30 N .....		N/A
T.4	Steady force test, 100 N .....	(See appended table T.4)	P
T.5	Steady force test, 250 N .....		N/A
T.6	Enclosure impact test		N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test .....	(See appended table T.7)	P
T.8	Stress relief test .....	(See appended table T.8)	P
T.9	Impact Test (glass)	No glass used.	N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J).....		—
	Height (m).....		—
T.10	Glass fragmentation test .....		N/A
T.11	Test for telescoping or rod antennas	No such antennas provided within the equipment.	N/A
	Torque value (Nm) .....	See above.	—
<b>U</b>	<b>MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION</b>		N/A
U.1	General requirements	No CRT provided within the equipment.	N/A
U.2	Compliance and test method for non-intrinsically protected CRTs	See above.	N/A
U.3	Protective Screen .....	See above.	N/A
<b>V</b>	<b>DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)</b>		P
V.1	Accessible parts of equipment	No access with test probes to any hazardous parts.	P
V.2	Accessible part criterion		P

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Clause	Requirement + Test		Result - Remark		Verdict
<b>4.1.2</b>	<b>Table: List of critical components</b>				<b>P</b>
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1</sup>
Plastic enclosure and plug holder	LG CHEM LTD	LUPOY EF- 1006F(m)(f2)	V-0, 120°C, Min. thickness 1.5mm	UL 94, UL 746C IEC/EN 62368-1	UL Tested with appliance
(Alternative)	SABIC INNOVATIVE PLASTICS US L L C	940 (f1)	V-0, 120°C, Min. thickness 1.5mm	UL 94, UL 746C IEC/EN 62368-1	UL Tested with appliance
PCB	Interchangeable	Interchangeabl e	Min. V-1, 130°C	UL 796, UL 94, IEC/EN 62368-1	UL Tested with appliance
Fuse (F1)	Shenzhen Lanson Electronics Co. Ltd.	SMT (UL) SMT T2A250V (VDE)	T2A, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	UL VDE
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	5TE	T2A, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	UL VDE
(Alternative)	Dongguan Chevron Electronic Technology Co., Ltd.	SET	T2A, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	UL VDE
(Alternative)	Dongguan Anlu Electronics Technology Co. Ltd.	AMT	T2A, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	UL VDE
Inductor (L1)	Interchangeable	Interchangeabl e	130°C	IEC/EN 62368-1	Tested with appliance
Heat- shrinkable tube (use for L1)	DONGGUAN SALIPT CO LTD	SALIPT S-901- 600	VW-1,125°C, 600V	UL 224, IEC/EN 62368-1	UL, Test with appliance
(Alternative)	Interchangeable	Interchangeabl e	VW-1,125°C, 600V	UL 224, IEC/EN 62368-1	UL, Test with appliance
Electrolytic Capacitor (C1, C2, C3)	Interchangeable	Interchangeabl e	Max. 15uF, min. 400V, 105°C	IEC/EN 62368-1	Tested with appliance
Y- Capacitor (CY1)	Hongzhi Enterprises Ltd.	X1Y1 Series	Max. 1000pF, min. 250VAC, 125°C, Y1 type	IEC/EN 60384- 14 UL 60384-14	VDE UL
(Alternative)	Jyh Chung Electronic Co., Ltd.	JD	Max. 1000pF, min. 250VAC, 125°C, Y1 type	IEC/EN 60384- 14 UL 60384-14	VDE UL
(Alternative)	Dongguan QinHong (QNR) Electronic Technology Co., LTD	CT7 series	Max. 1000pF, min. 250VAC, 125°C, Y1 type	IEC/EN 60384- 14 UL 60384-14	VDE UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Transformer (T1)	XIANGHU Electronics Co., Ltd	RM8	Class B	IEC/EN 62368-1	Tested with appliance
-Bobbin	CHANG CHUN PLASTICS CO LTD	T375J T373J	Phenolic, V-0, 150°C, min. thick: 0.7mm	UL 94, UL 746C	UL
-Magnet wire (primary winding)	Interchangeable	Interchangeable	Min. 130°C	UL 1446	UL
-Tube	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	200°C, VW-1, 150V	UL 224	UL
-Triple insulated wire (secondary winding)	shenzhen hedong new material co ltd	TIW-B	130°C	UL 2353 IEC/EN 62368-1	UL VDE
(Alternate)	SHANGHAI SURAN ELECTRONICS FACTORY	TIW-B	130°C	UL 2353 IEC/EN 62368-1	UL VDE
(Alternate)	Guangzhou city zhi chang electronic technology co,ltd	TLSTIW	130°C	UL 2353 IEC/EN 62368-1	UL VDE
- Insulation tape	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1 (b)	130°C	UL 510A	UL
Glue(fixed on position)	Interchangeable	Interchangeable	Min. V-2	UL 94, UL 746C	UL
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039. 2) The manufactures of the component list has been verified by the CBTL.					

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

4.8.4, 4.8.5	<b>TABLE: Lithium coin/button cell batteries mechanical tests</b>		N/A
-----------------	---	--	-----

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

4.8.4.2	<b>TABLE: Stress Relief test</b>		—
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Part	Material	Oven Temperature (°C)	Comments

4.8.4.3	<b>TABLE: Battery replacement test</b>		—
---------	--	--	---

Battery part no..... :			—
------------------------	--	--	---

Battery Installation/withdrawal	Battery Installation/Removal Cycle	Comments
	1	
	2	
	3	
	4	
	5	
	6	
	8	
	9	
	10	

4.8.4.4	<b>TABLE: Drop test</b>		—
---------	-------------------------	--	---

Impact Area	Drop Distance	Drop No.	Observations
		1	
		2	
		3	

4.8.4.5	<b>TABLE: Impact</b>		—
---------	----------------------	--	---

Impacts per surface	Surface tested	Impact energy (Nm)	Comments

4.8.4.6	<b>TABLE: Crush test</b>		—
---------	--------------------------	--	---

Test position	Surface tested	Crushing Force (N)	Duration force applied (s)

Supplementary information:

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.8.5	TABLE: Lithium coin/button cell batteries mechanical test result		N/A
Test position	Surface tested	Force (N)	Duration force applied (s)
Supplementary information:			

5.2	Table: Classification of electrical energy sources						P
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
Model: JY-305PLUS							
1	264	Output "+" to "-"	Normal: Rated load	5.11Vdc	--	--	ES1
			Abnormal: output overload	4.96Vdc	--	--	
			Single fault :DB1 SC	0Vdc	--	--	
			Single fault: Q2 D to G SC	0Vdc	--	--	
			Single fault: Q2 D to S SC	0Vdc	--	--	
			Single fault: Q2 G to G SC	0Vdc	--	--	
			Single fault : R14 SC	0Vdc	--	--	
			Single fault : R11 SC	0Vdc	--	--	
			Single fault : R16 SC	0Vdc	--	--	
2	264	Output to Earth (due to primary-output coupling by CY1)	Normal: Rated load	--	0.188mApk	60	ES1
			Abnormal: output overload	--	0.190mApk	60	
			Single fault :DB1 SC	--	0.210mApk	60	
			Single fault: Q2 D to G SC	--	0.210mApk	60	
			Single fault: Q2 D to S SC	--	0.210mApk	60	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
			Single fault: Q2 G to G SC	--	0.190mApk	60	
			Single fault : R11 SC	--	0.190mApk	60	
			Single fault : R16 SC	--	0.190mApk	60	
			Single fault : R14 SC	--	0.210mApk	60	

## 5.2.2.3 - Capacitance Limits

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

## 5.2.2.4 - Single Pulses

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

## 5.2.2.5 - Repetitive Pulses

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

## Test Conditions:

Normal –

Abnormal –

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



IEC 62368-1						
Clause	Requirement + Test	Result - Remark				Verdict
<b>5.4.1.4, 6.3.2, 9.0, B.2.6</b>	<b>TABLE: Temperature measurements</b>					<b>P</b>
	Supply voltage (V) .....	90V/60Hz Vertical	90V/60Hz Horizontal	264V/ 50Hz Vertical	264V/ 50Hz Horizontal	—
	Ambient T <sub>min</sub> (°C) .....	See below	See below	See below	See below	—
	Ambient T <sub>max</sub> (°C) .....	See below	See below	See below	See below	—
	T <sub>ma</sub> (°C) .....	25.0	25.0	25.0	25.0	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T <sub>max</sub> (°C)
Model: JY-305PLUS (Type-C load with 5V3A, Each USB load with: 5V0.65A)		--	--	--	--	--
Plug holder		65.1	66.9	56.9	59.0	120-(25-24.4)=119.4
C1		98.5	99.1	90.3	91.2	105-(25-24.4)=104.4
C3		97.6	98.7	89.4	90.8	105-(25-24.4)=104.4
T1 winding		104.3	105.2	96.1	97.3	110-(25-24.4)=109.4
T1 core		103.2	103.6	95.0	95.7	110-(25-24.4)=109.4
L1 winding		105.6	106.8	97.4	98.9	130-(25-24.4)=129.4
CY1		99.2	101.6	91.0	93.7	130-(25-24.4)=129.4
C4		90.1	93.2	81.9	85.3	105-(25-24.4)=104.4
PCB near DB1		107.2	109.3	99.0	101.4	130-(25-24.4)=129.4
PCB near U3		108.2	110.6	100.0	102.7	130-(25-24.4)=129.4
PCB near Q2		112.3	114.2	104.1	106.3	130-(25-24.4)=129.4
PCB near Q1		104.2	106.8	96.0	98.9	130-(25-24.4)=129.4
Enclosure inside near T1 top		80.2	82.6	72.0	75.3	120-(25-24.4)=119.4
Enclosure inside near T1 bottom		74.3	75.6	66.1	67.7	120-(25-24.4)=119.4
Enclosure outside near T1 top		63.2	65.3	55.0	57.4	77-(25-24.4)=76.4
Enclosure outside near T1 bottom		57.3	60.1	49.1	52.2	77-(25-24.4)=76.4

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
Ambient	24.5	24.4	24.6	24.5	--		
Supplementary information:							
Temperature T of winding:	T <sub>2</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: T <sub>ma</sub> should be considered as directed by applicable requirement							
Note 2: T <sub>ma</sub> is not included in assessment of Touch Temperatures (Clause 9)							
Note 3: Thermocouple method used							
Note 4: The maximum ambient temperature specified by manufacturer is 25°C							

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics			N/A
Penetration (mm) .....	:			—
Object/ Part No./Material	Manufacturer/t rademark	T softening (°C)		
--	--	--		
--	--	--		
supplementary information:				

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics			P
Allowed impression diameter (mm) .....	≤ 2 mm			—
Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm)	
Plug holder/type: LUPOY EF-1006F(m)(f2)	LG CHEM LTD	125	1.2	
Plug holder/type: 940 (f1)	SABIC INNOVATIVE PLASTICS US L L C	125	1.2	
Supplementary information:				
Phenolic bobbin material used in transformer which is acceptable without test.				

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						P
Clearance (cl) and creepage distance (cr) at/of/between:	U <sub>p</sub> (V)	U r.m.s. (V)	Frequenc y (kHz) <sup>1</sup>	Required cl (mm)	cl (mm) <sup>2</sup>	Required <sup>3</sup> cr (mm)	cr (mm)
Primary component to accessible part via the gap of enclosure (RI)	420	240	0.06	3.0	8.0	4.8	8.0
L to N before F1(BI)	420	240	0.06	1.5	2.6	2.4	2.6
Two terminals of F1(BI)	420	240	0.06	1.5	2.6	2.4	2.6
Two terminals of CY1(RI)	420	240	0.06	3.0	7.5	4.8	7.5

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
Primary trace to secondary trace under T1(RI)	568	270	59.3	3.0	5.8	5.4	5.8
Primary winding to secondary pin of transformer T1(RI)	568	270	59.3	3.0	10.0	5.4	10.0
Core of transformer T1 to Secondary pin (RI)	568	270	59.3	3.0	10.0	5.4	10.0
Core of transformer T1 to Secondary USB (RI)	568	270	59.3	3.0	9.0	5.4	9.0
Supplementary information: Note 1: Only for frequency above 30 kHz Note 2: See table 5.4.2.4 if this is based on electric strength test Note 3: Provide Material Group: IIIb 1) Core of transformer T1 is considered as primary part. 2) The secondary winding wire of T1 is approved reinforced insulation wire 3) If no specified, the worst condition was considered.							

<b>5.4.2.3</b>	<b>TABLE: Minimum Clearances distances using required withstand voltage</b>			P
	<b>Overvoltage Category (OV):</b>			II
	<b>Pollution Degree:</b>			2
Clearance distanced between:	Required withstand voltage	Required cl (mm)	Measured cl (mm)	
Refer Table 5.4.2.2, 5.4.2.4 and 5.4.3	2500Vpeak	Refer Table 5.4.2.2, 5.4.2.4 and 5.4.3	Refer Table 5.4.2.2, 5.4.2.4 and 5.4.3	
Supplementary information:				

<b>5.4.2.4</b>	<b>TABLE: Clearances based on electric strength test</b>			N/A
Test voltage applied between:	Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No	
--	--	--	--	
Supplementary information: Not used the alternative method to determine the clearances.				

<b>5.4.4.2, 5.4.4.5 c) 5.4.4.9</b>	<b>TABLE: Distance through insulation measurements</b>					P
Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)	
Enclosure *	420	0.06	Plastic	0.4	1.5	
Bobbin of transformer *	568	59.3	Plastic	0.4	0.7	
Insulation tape of transformer *	568	59.3	Plastic	Min. 2 layers	Min. 2 layers	
Supplementary information: (* ) the material of enclosure refer to table 4.1.2.						

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

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No	
Functional:				
--	--	--	--	
Basic/supplementary:				
Line to Neutral (with F1 opened)	DC	2500	No	
Reinforced:				
Unit: Primary circuit to secondary circuit	DC	4000	No	
Unit: Primary circuit to enclosure(with metal foil)	DC	4000	No	
Transformer T1: Primary winding to secondary winding	DC	4000	No	
Transformer T1: Core to secondary winding	DC	4000	No	
From Enclosure inside to Enclosure outside	DC	4000	No	
One layer insulation tape#	DC	4000	No	
Routine Tests:				
--	--	--	--	
--	--	--	--	
Supplementary information:				
1) # Test repeated for all alternate materials listed in table 4.1.2.				
2) The routine test would be conducted in the factory.				
3) Alternating polarity for electric strength test of dc voltage.				
4) Core of transformer T1 is considered as primary part.				

5.5.2.2	TABLE: Stored discharge on capacitors					N/A
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification	
--	--	--	--	--	--	
--	--	--	--	--	--	
Supplementary information:						
X-capacitors installed for testing are:						
<input type="checkbox"/> bleeding resistor rating:						
<input type="checkbox"/> ICX:						
Notes:						
A. Test Location:						
Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth						
B. Operating condition abbreviations:						
N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition						

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

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

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part		N/A
Supply voltage .....			—
Location	Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7		Touch current (mA)
	1		--
	2		--
	3		--
	4		--
	5		--
	6		--
	7		--
Supplementary Information:			
Notes:			
[1] Supply voltage is the anticipated maximum Touch Voltage			
[2] Earthed neutral conductor [Voltage differences less than 1% or more]			
[3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3			
[4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.			
[5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.			

6.2.2	Table: Electrical power sources (PS) measurements for classification				P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s <sup>*</sup>	PS Classification
Model: JY-305PLUS					
Type-C Output	Normal condition	Power (W) :	17.51	17.51	PS2
		V <sub>A</sub> (V) :	4.92	4.92	
		I <sub>A</sub> (A) :	3.56	3.56	
USB Output	Normal condition	Power (W) :	29.45	29.45	PS2
		V <sub>A</sub> (V) :	4.75	4.75	

IEC 62368-1					
Clause	Requirement + Test			Result - Remark	Verdict
		$I_A$ (A) :	6.20	6.20	
R14	Short circuit^	Power (W) :	0	0	PS1
		$V_A$ (V) :	0	0	
		$I_A$ (A) :	0	0	
U3 Pin 8 to pin 7	Short circuit#	Power (W) :	0	0	PS1
		$V_A$ (V) :	0	0	
		$I_A$ (A) :	0	0	
U3 Pin 8 to pin 5	Short circuit#	Power (W) :	0	0	PS1
		$V_A$ (V) :	0	0	
		$I_A$ (A) :	0	0	
Q2 D to G	Short circuit^	Power (W) :	0	0	PS1
		$V_A$ (V) :	0	0	
		$I_A$ (A) :	0	0	
Q2 D to S	Short circuit^	Power (W) :	0	0	PS1
		$V_A$ (V) :	0	0	
		$I_A$ (A) :	0	0	
Q2 G to S	Short circuit#	Power (W) :	0	0	PS1
		$V_A$ (V) :	0	0	
		$I_A$ (A) :	0	0	
R11	Short circuit#	Power (W) :	0	0	PS1
		$V_A$ (V) :	0	0	
		$I_A$ (A) :	0	0	
R16	Short circuit#	Power (W) :	0	0	PS1
		$V_A$ (V) :	0	0	
		$I_A$ (A) :	0	0	

Supplementary Information:

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

(#) Unit shut-down immediately;

(^) F1 open immediately, U1 damaged.

6.2.3.1	Table: Determination of Potential Ignition Sources (Arcing PIS)			P
Location	Open circuit voltage After 3 s ( $V_p$ )	Measured r.m.s current (Irms)	Calculated value ( $V_p \times I_{rms}$ )	Arcing PIS? Yes / No
All circuits (exclude the output terminal)	--	--	--	Yes

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

**Supplementary information:**

All primary circuit/components were considered as arcing PIS, the open circuit of all secondary components/ circuit were not exceeded 50V.

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

6.2.3.2	Table: Determination of Potential Ignition Sources (Resistive PIS)				P
Circuit Location (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No
All circuits (include output terminal)	--	--	--	--	Yes

**Supplementary Information:**

All primary components were considered as resistive PIS, the output circuits/ components were considered as resistive PIS.

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

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

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

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



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

B.2.5	TABLE: Input test							P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status	
Model:JY-305PLUS (USB load with: 5V2.4A)								
90Vac, 50Hz	0.282	-	14.6	-	F1	0.282	load with 5V2.4A	
90Vac, 60Hz	0.282	-	14.6	-	F1	0.282	load with 5V2.4A	
100Vac, 50Hz	0.258	0.8	14.5	-	F1	0.258	load with 5V2.4A	
100Vac, 60Hz	0.258	0.8	14.5	-	F1	0.258	load with 5V2.4A	
240Vac, 50Hz	0.124	0.8	14.5	-	F1	0.124	load with 5V2.4A	
240Vac, 60Hz	0.123	0.8	14.5	-	F1	0.123	load with 5V2.4A	
264Vac, 50Hz	0.116	-	14.5	-	F1	0.116	load with 5V2.4A	
264Vac, 60Hz	0.115	-	14.5	-	F1	0.115	load with 5V2.4A	
Model:JY-305PLUS (Type-C load with: 5V3A)								
90Vac, 50Hz	0.343	-	18.2	-	F1	0.343	load with 5V3A	
90Vac, 60Hz	0.347	-	18.2	-	F1	0.347	load with 5V3A	
100Vac, 50Hz	0.318	0.8	17.9	-	F1	0.318	load with 5V3A	
100Vac, 60Hz	0.319	0.8	18.0	-	F1	0.319	load with 5V3A	
240Vac, 50Hz	0.154	0.8	17.7	-	F1	0.154	load with 5V3A	
240Vac, 60Hz	0.151	0.8	17.7	-	F1	0.151	load with 5V3A	
264Vac, 50Hz	0.143	-	17.7	-	F1	0.143	load with 5V3A	
264Vac, 60Hz	0.141	-	17.8	-	F1	0.141	load with 5V3A	
Model:JY-305PLUS (Type-C load with 5V3A, Each USB load with: 5V0.65A)								
90Vac, 50Hz	0.600	-	33.2	-	F1	0.600	Type-C load with 5V3A, Each USB load with: 5V0.65A	
90Vac, 60Hz	0.608	-	33.2	-	F1	0.608	Type-C load with 5V3A, Each USB load with: 5V0.65A	
100Vac, 50Hz	0.542	0.8	33.0	-	F1	0.542	Type-C load with 5V3A, Each USB load with: 5V0.65A	
100Vac, 60Hz	0.552	0.8	33.1	-	F1	0.552	Type-C load with 5V3A, Each USB load with: 5V0.65A	
240Vac, 50Hz	0.259	0.8	32.2	-	F1	0.259	Type-C load with 5V3A, Each USB load with: 5V0.65A	

IEC 62368-1							
Clause	Requirement + Test				Result - Remark		Verdict
240Vac, 60Hz	0.254	0.8	32.2	-	F1	0.254	Type-C load with 5V3A, Each USB load with: 5V0.65A
264Vac, 50Hz	0.240	-	32.3	-	F1	0.240	Type-C load with 5V3A, Each USB load with: 5V0.65A
264Vac, 60Hz	0.236	-	32.3	-	F1	0.236	Type-C load with 5V3A, Each USB load with: 5V0.65A
Model:JY-305PLUS (USB1 load with: 5V2.4A, USB2 load with: 5V2.4A, USB3 load with: 5V0.8A)							
90Vac, 50Hz	0.592	-	32.8	-	F1	0.592	USB1 load with: 5V2.4A, USB2 load with: 5V2.4A, USB3 load with: 5V0.8A
90Vac, 60Hz	0.595	-	32.8	-	F1	0.595	USB1 load with: 5V2.4A, USB2 load with: 5V2.4A, USB3 load with: 5V0.8A
100Vac, 50Hz	0.538	0.8	32.5	-	F1	0.538	USB1 load with: 5V2.4A, USB2 load with: 5V2.4A, USB3 load with: 5V0.8A
100Vac, 60Hz	0.545	0.8	32.5	-	F1	0.545	USB1 load with: 5V2.4A, USB2 load with: 5V2.4A, USB3 load with: 5V0.8A
240Vac, 50Hz	0.246	0.8	31.8	-	F1	0.246	USB1 load with: 5V2.4A, USB2 load with: 5V2.4A, USB3 load with: 5V0.8A
240Vac, 60Hz	0.242	0.8	31.8	-	F1	0.242	USB1 load with: 5V2.4A, USB2 load with: 5V2.4A, USB3 load with: 5V0.8A
264Vac, 50Hz	0.232	-	32.7	-	F1	0.232	USB1 load with: 5V2.4A, USB2 load with: 5V2.4A, USB3 load with: 5V0.8A
264Vac, 60Hz	0.229	-	32.7	-	F1	0.229	USB1 load with: 5V2.4A, USB2 load with: 5V2.4A, USB3 load with: 5V0.8A

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Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

Equipment may be have rated current or rated power or both. Both should be measured

B.3		TABLE: Abnormal operating condition tests						P
Ambient temperature (°C) .....					See below			—
Power source for EUT: Manufacturer, model/type, output rating ...:					--			—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
Model:JY-305PLUS (Type-C load with 5V3A, Each USB load with: 5V0.65A)								
Type-C Output terminal	OL	264	5h46min	F1	0.240A to 0.247A to 0.256A to 0.006A	1.T1 winding, 2.T1 core, 3.Enclosure outside near T1 top, 4.Enclosure outside near T1 bottom, 5.Ambient	1.110.3 °C 2.109.6 °C 3.86.2° C 4.80.5° C 5.24.4° C	Type-C Output current 3.50A, circuit protect operated. The Max temperature obtained at 3.40A. NB, NC. Output:0.2 Vpk Output to earth:0.188 mApk
USB Output terminal	OL	264	5h30min	F1	0.240A to 0.256A to 0.265A to 0.006A	1.T1 winding, 2.T1 core, 3.Enclosure outside near T1 top, 4.Enclosure outside near T1 bottom, 5.Ambient	1.112.6 °C 2.111.9 °C 3.87.9° C 4.82.5° C 5.24.6° C	USB1 Output current 3.1A, circuit protect operated. The Max temperature obtained at 3.0A. NB, NC. Output:0.2 Vpk Output to earth:0.188 mApk

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
Type-C Output terminal	SC	264Vac	10min	F1	0.240A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2 Vpk Output to earth:0.190 mApk
USB Output terminal	SC	264Vac	10min	F1	0.240A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2 Vpk Output to earth:0.190 mApk

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

## Supplementary information:

Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column "Abnormal/Fault." Specify if test condition by indicating "Abnormal" then the condition for a Clause B.3 test or "Single Fault" then the condition for Clause B.4.

The Transformer overload test was not conducted due to the test condition is considered the same as Output Overload Test.

SC – Short Circuit

OL - Overload

NB - No indication of dielectric breakdown

NC – Cheesecloth remained intact

NT - Tissue paper remained intact

Output circuit is under ES1 limit.

Transformer winding and core temperature limit is  $164.4^{\circ}\text{C}=(175-10-(25-24.4))^{\circ}\text{C}$ .

Enclosure outside surface temperature limit is  $86.4^{\circ}\text{C}=87-(25-24.4)$ .

B.4		TABLE: Fault condition tests							P
Ambient temperature (°C) .....					20 - 25			—	
Power source for EUT: Manufacturer, model/type, output rating ..					--			—	
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation	
Model:JY-305PLUS (Type-C load with 5V3A, Each USB load with: 5V0.65A)									
DB1 (Condition 1)	SC	264Vac	1S	F1	0.240A to 0.006A	--	--	F1 opened immediately, NB/NC, no hazards. Output:0Vpk Output to earth:0.210m Apk	
C1 (Condition 1)	SC	264Vac	1S	F1	0.240A to 0A	--	--	F1 opened immediately, NB/NC, no hazards. Output:0Vpk Output to earth:0.210m Apk	
C2 (Condition 1)	SC	264Vac	1S	F1	0.240A to 0A	--	--	F1 opened immediately, NB/NC, no hazards. Output:0Vpk Output to earth:0.210m Apk	

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
R14 (Condition 1)	SC	264Vac	1S	F1	0.240A to 0A	--	--	F1 opened immediately, U1 damaged, NB, NC Output:0Vpk Output to earth:0.210m Apk
U3 Pin 8 to Pin 5	SC	264Vac	1S	F1	0.240A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2Vpk Output to errth:0.190mA pk
U3 Pin 8 to Pin 7	SC	264Vac	1S	F1	0.240A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2Vpk Output to errth:0.190mA pk

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
R11	SC	264Vac	10min	F1	0.240A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2Vpk Output to earth:0.190mA pk
Q2 D to S (Condition 1)	SC	264Vac	1S	F1	0.240A to 0A	--	--	F1 opened immediately, U1 damaged, NB, NC Output:0Vpk Output to earth:0.210m Apk
Q2 D to G (Condition 1)	SC	264Vac	1S	F1	0.240A to 0A	--	--	F1 opened immediately, U1 damaged, NB, NC Output:0Vpk Output to earth:0.210m Apk
Q2 G to S	SC	264Vac	10min	F1	0.240A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2Vpk Output to earth:0.190mA pk



IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
T1 Pin A to Pin B	SC	264Vac	10min	F1	0.240A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2Vpk Output to errth:0.190mA pk
T1 Pin 3 to Pin 4	SC	264Vac	10min	F1	0.240A A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2Vpk Output to errth:0.190mA pk

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
T1 Pin 7 to Pin 12	SC	264Vac	10min	F1	0.240A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2Vpk Output to errth:0.190mA pk
Q1 D to S	SC	264Vac	10min	F1	0.240A to 0.006A	--	--	EUT shutdown immediately, recoverable. Input power and output power was less than normal operation, no temperature was recorded. NB, NC Output:0.2Vpk Output to errth:0.190mA pk
<p>Condition 1: F1: Rated T2A 250Vac, All tests which fuse opened were repeated 1 time with each source of fuse and same result observed. SC – Short Circuit            OC – Open Circuit            NB – No indication of dielectric breakdown            NC – Cheesecloth remained intact            Output circuit is under ES1 limit.            After each of above test unit can pass the dielectric strength test specified in table 5.4.9</p>								

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

Annex M	TABLE: Batteries								N/A
The tests of Annex M 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:									
- Chemical leaks									
- Explosion of the battery									
- Emission of flame or expulsion of molten metal									
- Electric strength tests of equipment after completion of tests									
Supplementary information:									

Annex M.4	Table: Additional safeguards for equipment containing secondary lithium batteries					N/A
Battery/Cell No.	Test conditions	Measurements			Observation	
		U	I (A)	Temp (C)		
-	Normal	-	-	-	-	
-	Abnormal	-	-	-	-	
-	Single fault –SC/OC	-	-	-	-	
Supplementary Information:						
Battery identification	Charging at $T_{\text{lowest}}$ (°C)	Observation	Charging at $T_{\text{highest}}$ (°C)	Observation		
-	-	-	-	-	-	
Supplementary Information:						

IEC 62368-1						
Clause	Requirement + Test		Result - Remark		Verdict	
<b>Annex Q.1</b>	<b>TABLE: Circuits intended for interconnection with building wiring (LPS)</b>					<b>P</b>
Note: Measured UOC (V) with all load circuits disconnected:						
Output Circuit	Components	U <sub>oc</sub> (V)	I <sub>sc</sub> (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
Model:JY-305PLUS	--	--	--	--	--	--
Type-C Output	--	5.10	3.56	8	17.53	100
USB Output	--	5.10	6.20	8	29.50	100
Output	R14 SC *	0	0	8	0	100
Output	Q2 D to G SC *	0	0	8	0	100
Output	Q2 D to G SC *	0	0	8	0	100
Output	Q2 G to S SC #	0	0	8	0	100
Output	U3 Pin 8 to 5 SC #	0	0	8	0	100
Output	U3 Pin 8 to 7 SC #	0	0	8	0	100
Output	R11 SC #	0	0	8	0	100
Output	R16 SC #	0	0	8	0	100
Supplementary Information: SC=Short circuit, OC=Open circuit # EUT shutdown immediately * F1 open immediately, U1 damaged						

<b>T.2, T.3, T.4, T.5</b>	<b>TABLE: Steady force test</b>					<b>P</b>
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
Internal Components	--	--	10	5	No reduce the clearance and creepage distances	
Each side of enclosure	*	1.5	100	5	No damaged, no hazard	
Supplementary information: *All the Enclosure material has been tested in table 4.1.2						

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

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
<b>T.7</b>	<b>TABLE: Drop tests</b>				<b>P</b>
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
Each side of enclosure	*	1.5	1000	No damaged, no hazard	
Supplementary information:					
*All the Enclosure material has been tested in table 4.1.2					

<b>T.8</b>	<b>TABLE: Stress relief test</b>					<b>P</b>
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Enclosure	*	1.7	94	7	No damaged, no hazard	
Supplementary information:						
*All the Enclosure material has been tested in table 4.1.2						

IEC62368_1B - ATTACHMENT																																							
Clause	Requirement + Test	Result - Remark	Verdict																																				
<b>ATTACHMENT TO TEST REPORT</b> <b>IEC 62368-1</b> <b>EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES</b> (Audio/video, information and communication technology equipment - Part 1: Safety requirements)																																							
Differences according to..... : EN 62368-1:2014+A11:2017																																							
Attachment Form No..... : EU_GD_IEC62368_1B_II																																							
Attachment Originator..... : Nemko AS																																							
Master Attachment..... : Date 2017-09-22																																							
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<b>CENELEC COMMON MODIFICATIONS (EN)</b>																																							
Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z".																																							
CONTENTS	<b>Add</b> the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords																																						
	<b>Delete</b> all the "country" notes in the reference document (IEC 62368-1:2014) according to the following list:																																						
	<table border="1"> <tr> <td>0.2.1</td> <td>Note</td> <td>1</td> <td>Note 3</td> <td>4.1.15</td> <td>Note</td> </tr> <tr> <td>4.7.3</td> <td>Note 1 and 2</td> <td>5.2.2.2</td> <td>Note</td> <td>5.4.2.3.2.2 Table 13</td> <td>Note c</td> </tr> <tr> <td>5.4.2.3.2.4</td> <td>Note 1 and 3</td> <td>5.4.2.5</td> <td>Note 2</td> <td>5.4.5.1</td> <td>Note</td> </tr> <tr> <td>5.5.2.1</td> <td>Note</td> <td>5.5.6</td> <td>Note</td> <td>5.6.4.2.1</td> <td>Note 2 and 3</td> </tr> <tr> <td>5.7.5</td> <td>Note</td> <td>5.7.6.1</td> <td>Note 1 and 2</td> <td>10.2.1 Table 39</td> <td>Note 2, 3 and 4</td> </tr> <tr> <td>10.5.3</td> <td>Note 2</td> <td>10.6.2.1</td> <td>Note 3</td> <td>F.3.3.6</td> <td>Note 3</td> </tr> </table>			0.2.1	Note	1	Note 3	4.1.15	Note	4.7.3	Note 1 and 2	5.2.2.2	Note	5.4.2.3.2.2 Table 13	Note c	5.4.2.3.2.4	Note 1 and 3	5.4.2.5	Note 2	5.4.5.1	Note	5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3	5.7.5	Note	5.7.6.1	Note 1 and 2	10.2.1 Table 39	Note 2, 3 and 4	10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3
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	For special national conditions, see Annex ZB.																																						
1	<b>Add</b> the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.		P																																				

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.Z1	<p><b>Add</b> the following new subclause after 4.9:</p> <p>To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. <b>mains</b>, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):</p> <p>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment;</p> <p>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p> <p>c) it is permitted for <b>pluggable equipment type B</b> or <b>permanently connected equipment</b>, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for <b>pluggable equipment type A</b> the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.</p>		P
5.4.2.3.2.4	<p><b>Add</b> the following to the end of this subclause:</p> <p>The requirement for interconnection with <b>external circuit</b> is in addition given in EN 50491-3:2009.</p>		N/A
10.2.1	<p>Add the following to <sup>o)</sup> and <sup>d)</sup> in table 39:</p> <p>For additional requirements, see 10.5.1.</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
10.5.1	<p><b>Add</b> the following after the first paragraph:  <i>For RS 1 compliance is checked by measurement under the following conditions:</i>  <i>In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or presets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.</i>            NOTE Z1 Soldered joints and paint lockings are examples of adequate locking.  <i>The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm<sup>2</sup>, at any point 10 cm from the outer surface of the apparatus.</i>  <i>Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.</i>  <i>For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.</i>            NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.</p>		N/A
10.6.1	<p><b>Add</b> the following paragraph to the end of the subclause:            EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.</p>		N/A
10.Z1	<p><b>Add</b> the following new subclause after 10.6.5.  <b>10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz</b>            The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).            For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566</p>		N/A
G.7.1	<p><b>Add</b> the following note:            NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.</p>		N/A



IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Bibliography	<p><b>Add</b> the following standards:</p> <p><b>Add</b> the following notes for the standards indicated:</p> <p>IEC 60130-9 NOTE Harmonized as EN 60130-9.</p> <p>IEC 60269-2 NOTE Harmonized as HD 60269-2.</p> <p>IEC 60309-1 NOTE Harmonized as EN 60309-1.</p> <p>IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series.</p> <p>IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4.</p> <p>IEC 60664-5 NOTE Harmonized as EN 60664-5.</p> <p>IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified).</p> <p>IEC 61508-1 NOTE Harmonized as EN 61508-1.</p> <p>IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1.</p> <p>IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4.</p> <p>IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6.</p> <p>IEC 61643-1 NOTE Harmonized as EN 61643-1.</p> <p>IEC 61643-21 NOTE Harmonized as EN 61643-21.</p> <p>IEC 61643-311 NOTE Harmonized as EN 61643-311.</p> <p>IEC 61643-321 NOTE Harmonized as EN 61643-321.</p> <p>IEC 61643-331 NOTE Harmonized as EN 61643-331.</p>		
<b>ZB</b>	<b>ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)</b>		
4.1.15	<p><b>Denmark, Finland, Norway and Sweden</b></p> <p>To the end of the subclause the following is added:</p> <p><b>Class I pluggable equipment type A</b> intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and <b>accessible</b> parts, have a marking stating that the equipment shall be connected to an earthed <b>mains</b> socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In <b>Denmark</b>: "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord."</p> <p>In <b>Finland</b>: "Laitte on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In <b>Norway</b>: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In <b>Sweden</b>: "Apparaten skall anslutas till jordat uttag"</p>		N/A
4.7.3	<p><b>United Kingdom</b></p> <p>To the end of the subclause the following is added:</p> <p>The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex</p>		P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.2.2.2	<p><b>Denmark</b></p> <p>After the 2nd paragraph add the following:            A warning (marking <b>safeguard</b>) for high <b>touch current</b> is required if the <b>touch current</b> exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p>		N/A
5.4.11.1 and Annex G	<p><b>Finland and Sweden</b></p> <p>To the end of the subclause the following is added:            For separation of the telecommunication network from earth the following is applicable:            If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> <li>• two layers of thin sheet material, each of which shall pass the electric strength test below, or</li> <li>• one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.</li> </ul> <p>If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> <li>• passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and</li> <li>• is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV.</li> </ul> <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> <li>• the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11;</li> <li>• the additional testing shall be performed on all the test specimens as described in EN 60384-14;</li> </ul> <p>the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.</p>		N/A
5.5.2.1	<p><b>Norway</b></p> <p>After the 3rd paragraph the following is added:            Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.5.6	<p><b>Finland, Norway and Sweden</b></p> <p>To the end of the subclause the following is added: Resistors used as <b>basic safeguard</b> or bridging <b>basic insulation</b> in <b>class I pluggable equipment type A</b> shall comply with G.10.1 and the test of G.10.2.</p>		N/A
5.6.1	<p><b>Denmark</b></p> <p><b>Add</b> to the end of the subclause</p> <p>Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment.</p> <p><i>Justification:</i> In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.</p>		N/A
5.6.4.2.1	<p><b>Ireland and United Kingdom</b></p> <p>After the indent for <b>pluggable equipment type A</b>, the following is added:</p> <p>– the <b>protective current rating</b> is taken to be 13 A, this being the largest rating of fuse used in the <b>mains</b> plug.</p>		N/A
5.6.5.1	<p>To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm<sup>2</sup> to 1,5 mm<sup>2</sup> in cross-sectional area.</p>		N/A
5.7.5	<p><b>Denmark</b></p> <p>To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the <b>protective conductor current</b> exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p>		N/A

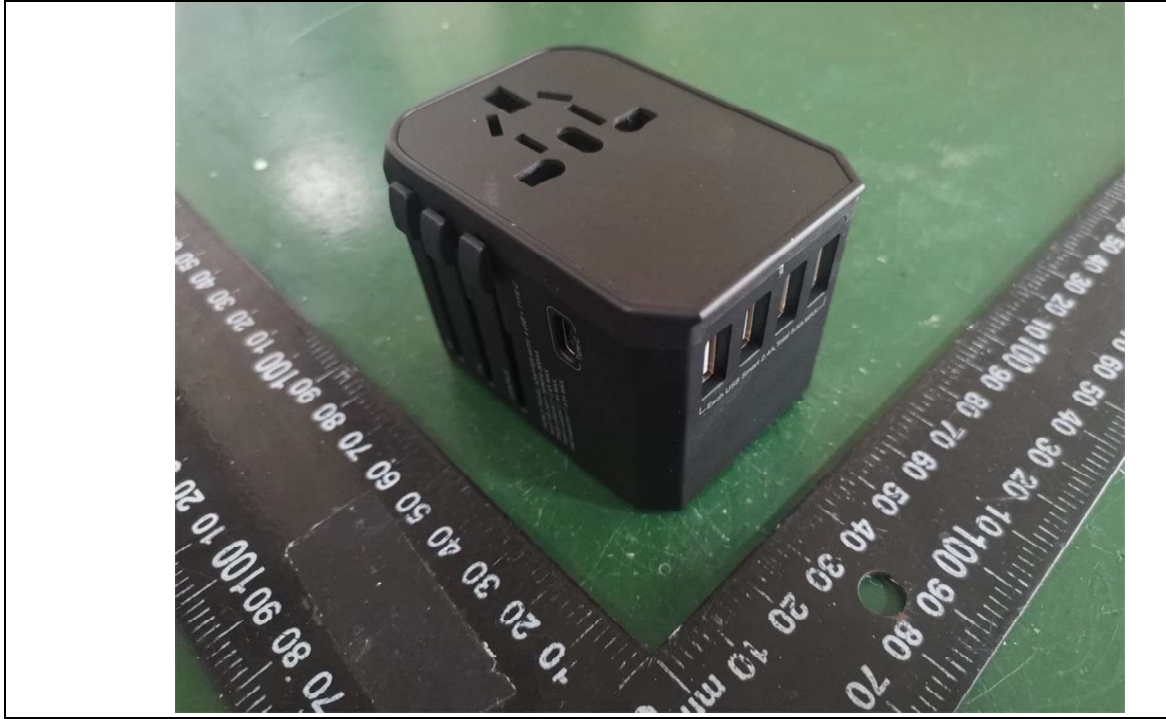
IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.1	<p><b>Norway and Sweden</b></p> <p>To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system.</p> <p>It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example.</p> <p>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:</p> <p>“Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)”</p> <p>NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkøp utstyr – og er tilkøp et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkøp av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.”</p> <p>Translation to Swedish:</p> <p>“Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.</p>		N/A
5.7.6.2	<p><b>Denmark</b></p> <p>To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
B.3.1 and B.4	<p><b>Ireland and United Kingdom</b></p> <p>The following is applicable:</p> <p>To protect against excessive currents and short-circuits in the primary circuit of <b>direct plug-in equipment</b>, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the <b>direct plug-in equipment</b>, until the requirements of Annexes B.3.1 and B.4 are met</p>		N/A
G.4.2	<p><b>Denmark</b></p> <p>To the end of the subclause the following is added:</p> <p>Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.</p> <p>Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.</p> <p>Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a</p> <p><i>Justification:</i> Heavy Current Regulations, Section 6c</p>		N/A
G.4.2	<p><b>United Kingdom</b></p> <p>To the end of the subclause the following is added:</p> <p>The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
G.7.1	<p><b>United Kingdom</b></p> <p>To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations.</p> <p>NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>		N/A
G.7.1	<p><b>Ireland</b></p> <p>To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard</p>		N/A
G.7.2	<p><b>Ireland and United Kingdom</b></p> <p>To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm<sup>2</sup> is allowed for equipment which is rated over 10 A and up to and including 13 A.</p>		N/A
ZC	<b>ANNEX ZC, NATIONAL DEVIATIONS (EN)</b>		
10.5.2	<p><b>Germany</b></p> <p>The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking.</p> <p><i>Justification:</i> German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM.</p> <p><b>NOTE</b> Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: <a href="http://www.ptb.de">http://www.ptb.de</a></p>		N/A

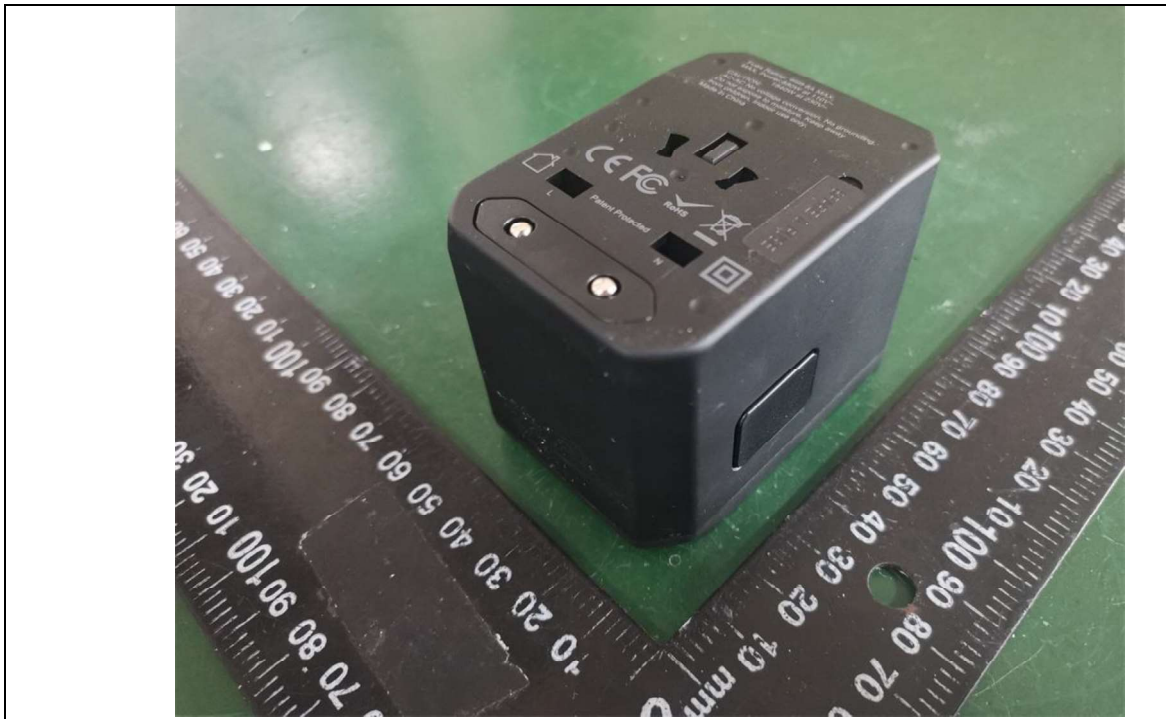
Details of: Overall view- 1

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Details of: Overall view- 2

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Details of: Overall view- 3



Details of: Overall view- 4

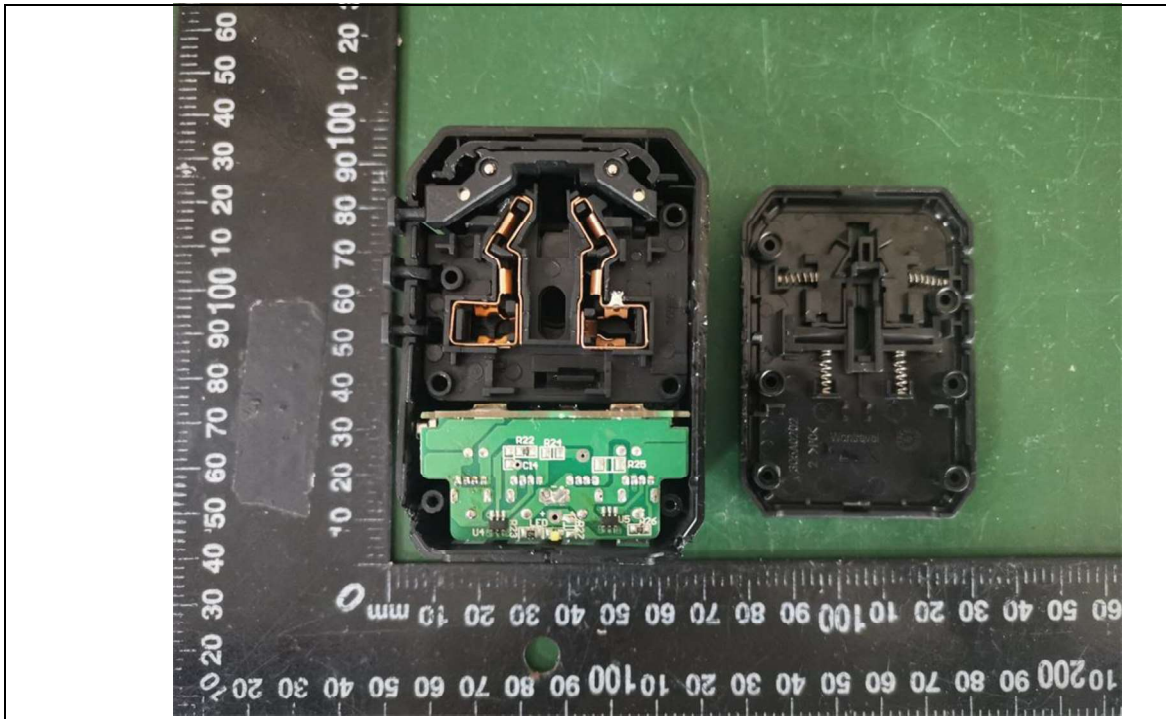




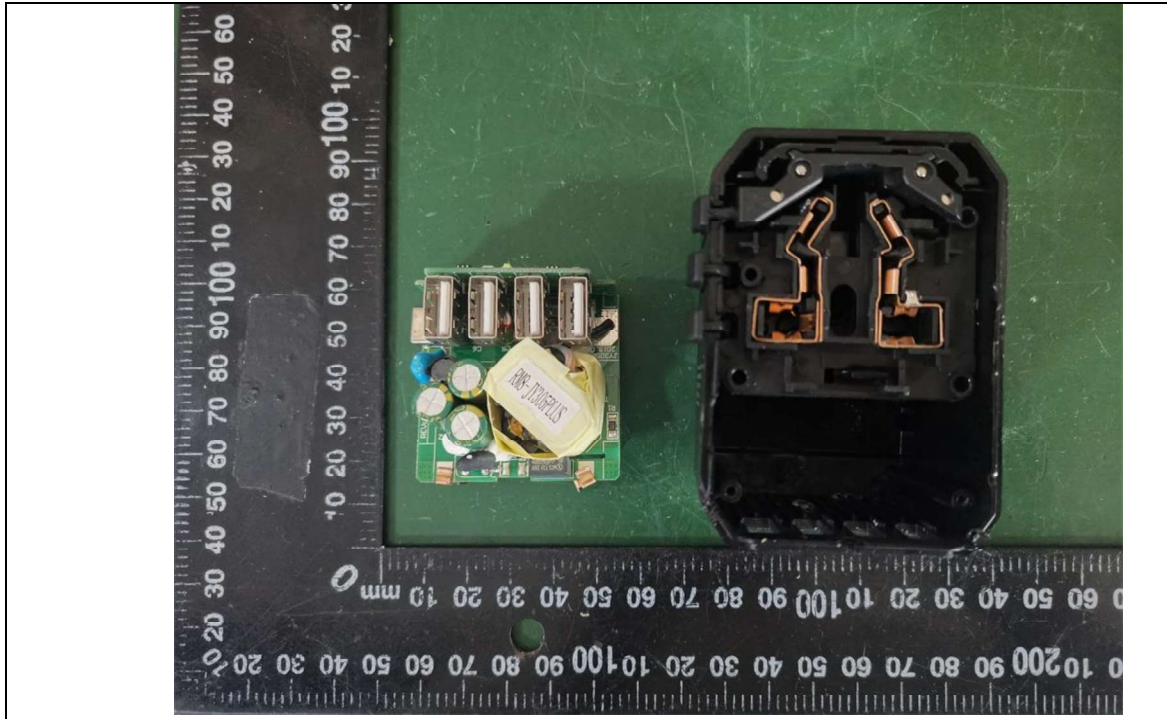
Details of: Overall view- 5



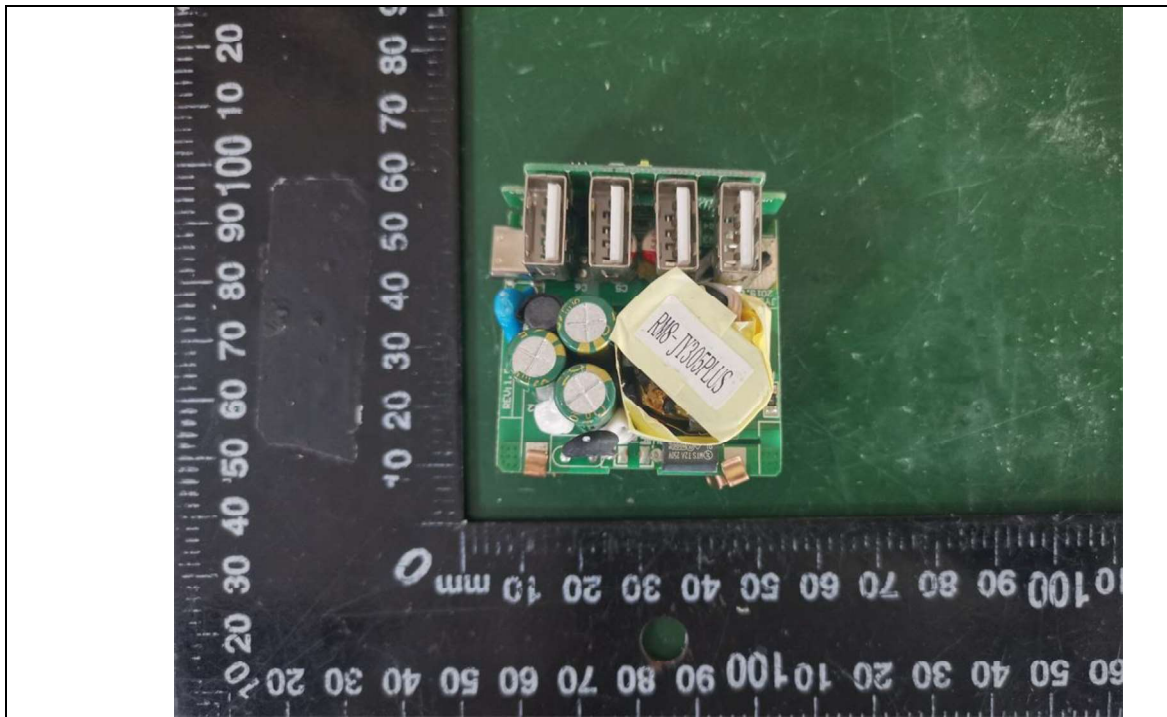
Details of: Internal view- 1



Details of: Internal view- 2

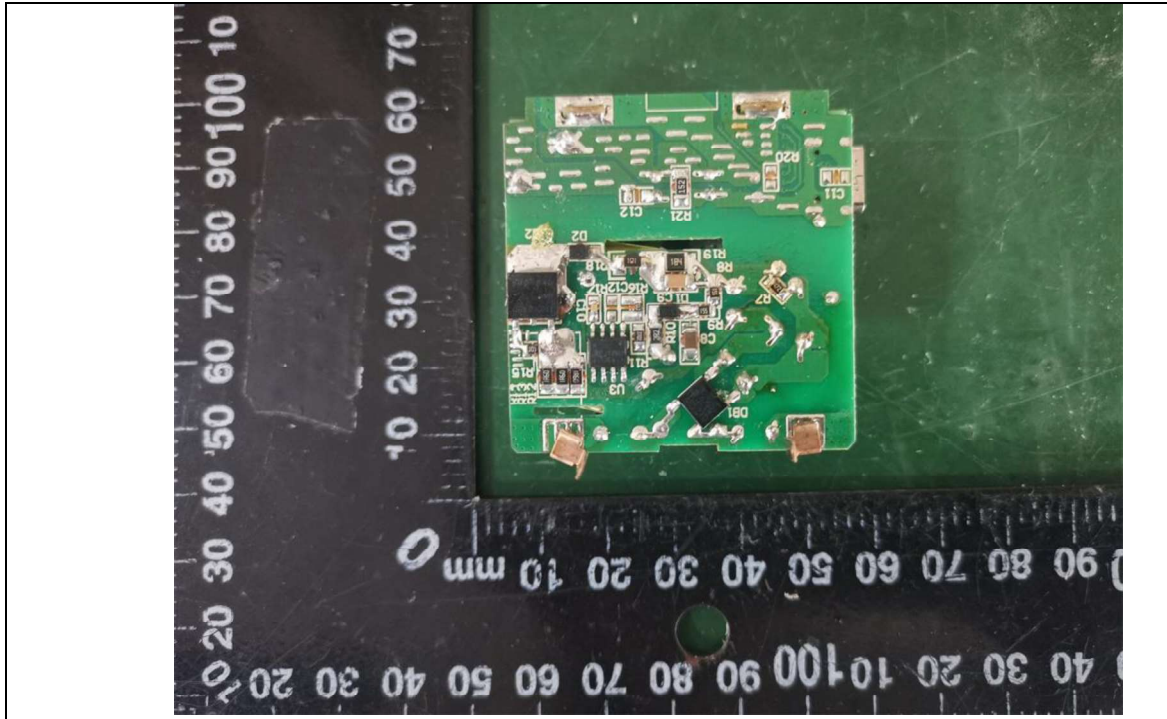


Details of: PCB component view- 1



Details of: PCB component view- 2

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® Dongguan Anci Electronic Technology Co., Ltd.  
Add.: 1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake  
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Tel: 86 -769 -8507 5888 Fax: 86 -769 -8507 5898 Web: www.anci.com

# ATTESTATION OF CONFORMITY

Attestation No.: 21AE070212E002

This Attestation of Conformity is hereby issued to the product designated below

**Report No.** : EA21070212E02001  
**Applicant** : Dongguan Wontravel Electric Co., Ltd  
**Address** : No.1 Yuanshanzai Road,Henggangtou,Xin'an,Chang'an  
Town,Dongguan city,China  
**Manufacturer** : Same as Applicant  
**Address** : Same as Applicant  
**Description of Product** : USB TRAVEL ADAPTER  
**Model No.** : Refer to next page for details  
**Input Rating** : 100-240V~ 50/60Hz ,0.8A Max  
**Output Rating** : Single USB: 5V  $\overline{\text{---}}$  2.4A Max  
Type-C port: 5V  $\overline{\text{---}}$  3A Max  
Total output: 5V  $\overline{\text{---}}$  5.6A Max  
**Test Standards** : EN 55032: 2015/A11:2020  
EN 55035: 2017/A11:2020  
EN IEC 61000-3-2:2019  
EN 61000-3-3:2013/A1:2019

This Attestation of Conformity is based on evaluation of a sample of the above mentioned product. Technical report and documentation are at the license Holder's disposal. This is to certify that the tested sample is in conformity with the Council Directive 2014/30/EU, referred to as the EMC. It is possible to use CE marking to demonstrate the conformity with this EMC Directive.



Test Laboratory

Alan He  
Director  
Date of Issue: Aug 10, 2021

This Attestation of Conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the whole production and other relevant Directives have to be observed.



Dongguan Anci Electronic Technology Co., Ltd.

Add.: 1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake  
Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.

Tel: 86 -769 -8507 5888 Fax: 86 -769 -8507 5898 Web: www.anci.com

# ATTESTATION OF CONFORMITY

Certificate No.: 21AE070212E002

## Attachment

### Model list:

JY-305PLUS, JY-309, JY-308PRO, JY-307, JY-307R, JY-306, JY-305A, JY-305B, JY-305AL, JY-304B,  
JY-303B, JY-304S, JY-304C, JY-303S, JY-303C, JY-303PD, JY-303S-C2, JY-302S, JY-302C, JY-301S,  
JY-505PD, JY-504PD, JY-504C, JY-505C2, G520, G63, G63-PD, G63B, G63B-PD, WL-07, WL-07-C3U,  
WL-033, WL-033-C3U

# EMC TEST REPORT



## For Electromagnetic Interference of

Report Reference No. .... : EA21070212E02001

Engineer (name + signature) ..... : Duke Liu

Reviewed by (name + signature) ..... : Tiger Xu

Approved by (name + signature) ..... : Alan He

Date of Receipt of EUT ..... : July 16,2021

Date of Test ..... : July 16,2021 to July 19,2021

Date of Issue ..... : Aug 10,2021

Testing Laboratory ..... : Dongguan Anci Electronic Technology Co., Ltd.

Address ..... : 1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake  
Hi-tech Industrial Development Zone, Dongguan City, Guangdong,  
China

Laboratory location ..... : EMC Laboratory

Applicant's name ..... : Dongguan Wontravel Electric Co., Ltd

Address ..... : No.1 Yuanshanzai Road,Henggangtou,Xin'an,Chang'an  
Town,Dongguan city,China

Manufacturer ..... : Same as Applicant

Address ..... : Same as Applicant

Factory's name ..... : Same as Applicant

Address ..... : Same as Applicant





Test specification:

EUT description .....	: USB TRAVEL ADAPTER
Trade Mark.....	: N/A
Model/Type reference .....	: JY-305PLUS, JY-309, JY-308PRO, JY-307, JY-307R, JY-306, JY-305A, JY-305B, JY-305AL, JY-304B, JY-303B, JY-304S, JY-304C, JY-303S, JY-303C, JY-303PD, JY-303S-C2, JY-302S, JY-302C, JY-301S, JY-505PD, JY-504PD, JY-504C, JY-505C2, G520, G63, G63-PD, G63B, G63B-PD, WL-07, WL-07-C3U, WL-033, WL-033-C3U
Test Sample.....	: JY-305PLUS
Ratings.....	: Input: 100-240V~ 50/60Hz ,0.8A Max Output: Single USB: 5V  2.4A Max Type-C port: 5V  3A Max Total output: 5V  5.6A Max
Tested Power.....	: Input: 230Vac, 50Hz
Standards .....	: EN 55032: 2015/A11:2020 EN 55035: 2017/A11:2020 EN IEC 61000-3-2:2019 EN 61000-3-3:2013/A1:2019

The device described above was tested by Dong Guan Anci Electronic Technology Co., Ltd. to determine the maximum emission levels emanated from the device and severity levels of the device endure and its performance criterion. The measurement results are contained in this test report and Dong Guan Anci Electronic Technology Co., Ltd. assumes full responsibility for the accuracy and completeness of these measurements. This report shows the EUT is technically compliance with the above official standards.

This report applies to the above sample only and shall not be reproduced in part without written approval of Dong Guan Anci Electronic Technology Co., Ltd.





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## 1. GENERAL INFORMATION

### 1.1 PRODUCT INFORMATION

The product is a USB TRAVEL ADAPTER for use with audio/video, information technology equipment.

The model JY-305PLUS was tested in this report.

All models are identical, except for the model name.

The EUT passed the test.



## 1.2 Details about the Test Laboratory

**Test Site 1**

Company name: Dongguan Anci Electronic Technology Co., Ltd.

Address: 1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake  
Hi-tech Industrial Development Zone, Dongguan City,  
Guangdong Pr., China.

**Test Site 2**

Company name: Guangdong Dongguan Quality Supervision Testing Center

Address: No.2 South Industry Road, Dongguan Songshan Lake  
Sci.&Tech. Industrial Park, Guangdong Province, China

Standard	Test Item	Test Site
EN 55032: 2015/A11:2020	Conducted Emission	1
	Radiated Emission Below 1 GHz	1
	Radiated Emission Above 1 GHz	N/A
EN IEC 61000-3-2:2019	Harmonic Current Emission	N/A
EN 61000-3-3:2013/A1:2019	Voltage Fluctuations & Flicker	1
EN 61000-4-2:2009	Electrostatic Discharge	1
EN 61000-4-3:2006 +A1:2008+A2: 2010	RF electromagnetic field	2
EN 61000-4-4:2012	Fast transients	1
EN 61000-4-5:2014	Surges	1
EN 61000-4-6:2014	Injected Current	2
EN 61000-4-8:2010	Power Frequency Magnetic Field	N/A
EN 61000-4-11:2004	Volt. Interruptions Volt. Dips	1

**2. SUMMARY OF TEST RESULTS**

Test procedures according to the technical standards:

<b>Emission</b>				
Standard	Test Item	Limit	Judgment	Remark
EN 55032: 2015/A11:2020	Conducted Emission	Class B	PASS	
	Radiated Emission Below 1 GHz	Class B	PASS	
	Radiated Emission Above 1 GHz	Class B	N/A	NOTE (1) NOTE (4)
EN IEC 61000-3-2:2019	Harmonic Current Emission	Class A	N/A	
EN 61000-3-3:2013/A1:2019	Voltage Fluctuations & Flicker	Clause 5	PASS	
<b>Immunity (EN 55035: 2017/A11:2020)</b>				
Section	Test Item	Performance Criteria	Judgment	Remark
EN 61000-4-2:2009	Electrostatic Discharge	B	PASS	
EN 61000-4-3:2006 +A1:2008+A2: 2010	RF electromagnetic field	A	PASS	
EN 61000-4-4:2012	Fast transients	B	PASS	
EN 61000-4-5:2014	Surges	B	PASS	
EN 61000-4-6:2014	Injected Current	A	PASS	
EN 61000-4-8:2010	Power Frequency Magnetic Field	A	N/A	
EN 61000-4-11:2004	Volt. Interruptions Volt. Dips	B / C / C <b>NOTE (3)</b>	PASS	

**NOTE:**

- (1) "N/A" denotes test is not applicable in this Test Report
- (2) The power consumption of EUT is less than 75W and no Limits apply.
- (3) Voltage dip: >95% reduction – Performance Criteria **B**  
Voltage dip: 30% reduction – Performance Criteria **C**  
Voltage Interruption: >95% reduction – Performance Criteria **C**
- (4) If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1GHz, measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.

**2.1 MEASUREMENT UNCERTAINTY**

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately **95 %**.

**A. Conducted Measurement :**

Test Site	Method	Measurement Frequency Range	U (dB)	NOTE
C01	ANSI	150 KHz ~ 30MHz	3.19	

**B. Radiated Measurement :**

Test Site	Method	Measurement Frequency Range	Ant. H / V	U(dB)	NOTE
S02	ANSI	30MHz ~ 200MHz	V	3.69	
S02	ANSI	30MHz ~ 200MHz	H	3.69	
S02	ANSI	200MHz ~ 1000MHz	V	3.67	
S02	ANSI	200MHz ~ 1000MHz	H	3.67	

## 2.2 DESCRIPTION OF TEST MODES

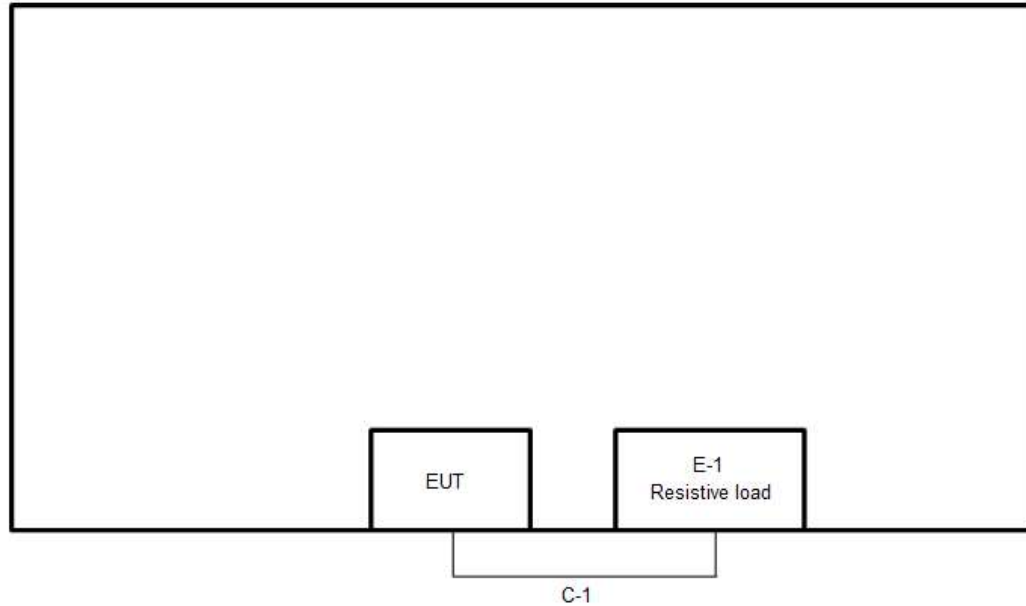
To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

For Emission Test	
Test Mode	Description
Mode 1	USB:5V/2.4A+Type-C:5V/3A

For Immunity Test	
Test Mode	Description
Mode 1	USB:5V/2.4A+Type-C:5V/3A



2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment
E-1	Resistive load

Item	Type of cable
C-1	DC Cable



**3. EMISSION TEST**

**3.1 CONDUCTED EMISSION MEASUREMENT**

**3.1.1 LIMITS OF CONDUCTED EMISSION(MAINS PORT) (Frequency Range 150KHz-30MHz)**

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

(3) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)

Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

**3.1.2 MEASUREMENT INSTRUMENTS LIST**

Item	Instr.Code	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	AN-E010	L.I.S.N	SCHWARZBECK	NSLK 8127	8127-669	2022-05-20
2	AN-E028	TRANSIENT LIMITER	CYBERTEK	EM5010A	E1950100113	2022-05-20
3	AN-E022	RF Cable	N/A	ZT06S-BNCJ-NJ-7.5M	19044020	2022-05-20
4	AN-E020	EMI Test Receiver	ROHDE&SCHWARZ	ESCI	101358	2022-05-20
5	AN-E058	1# Shielded Room	chengyu	8m*4m*3.3m	N/A	2022-05-06
6	AN-E046	Test Software	Farad	EZ-EMC Ver:ANCI-8A1	N/A	N/A

Remark: " N/A" denotes No Model No. , Serial No. or No Calibration specified.

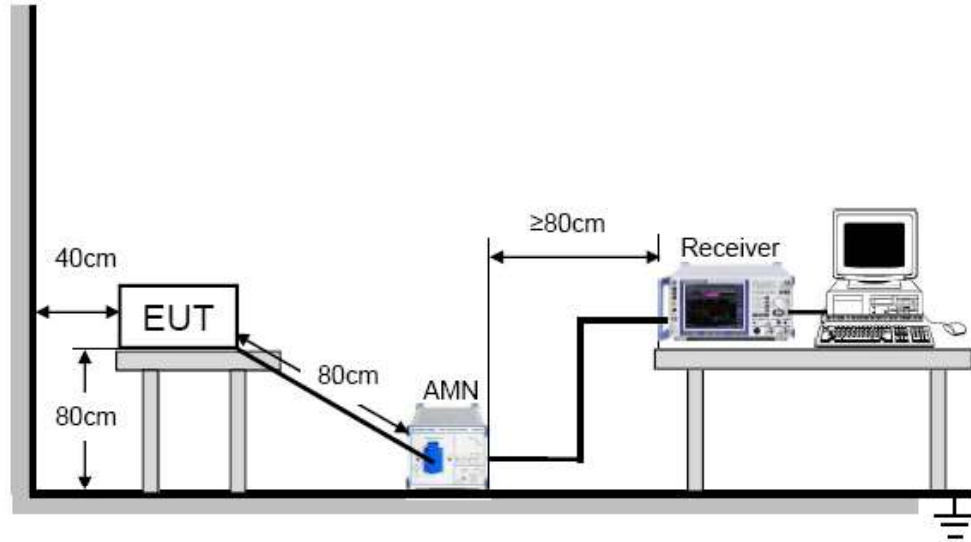
**3.1.3 TEST PROCEDURE**

- a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

**3.1.4 DEVIATION FROM TEST STANDARD**

No deviation

### 3.1.5 TEST SETUP



### 3.1.6 EUT OPERATING CONDITIONS

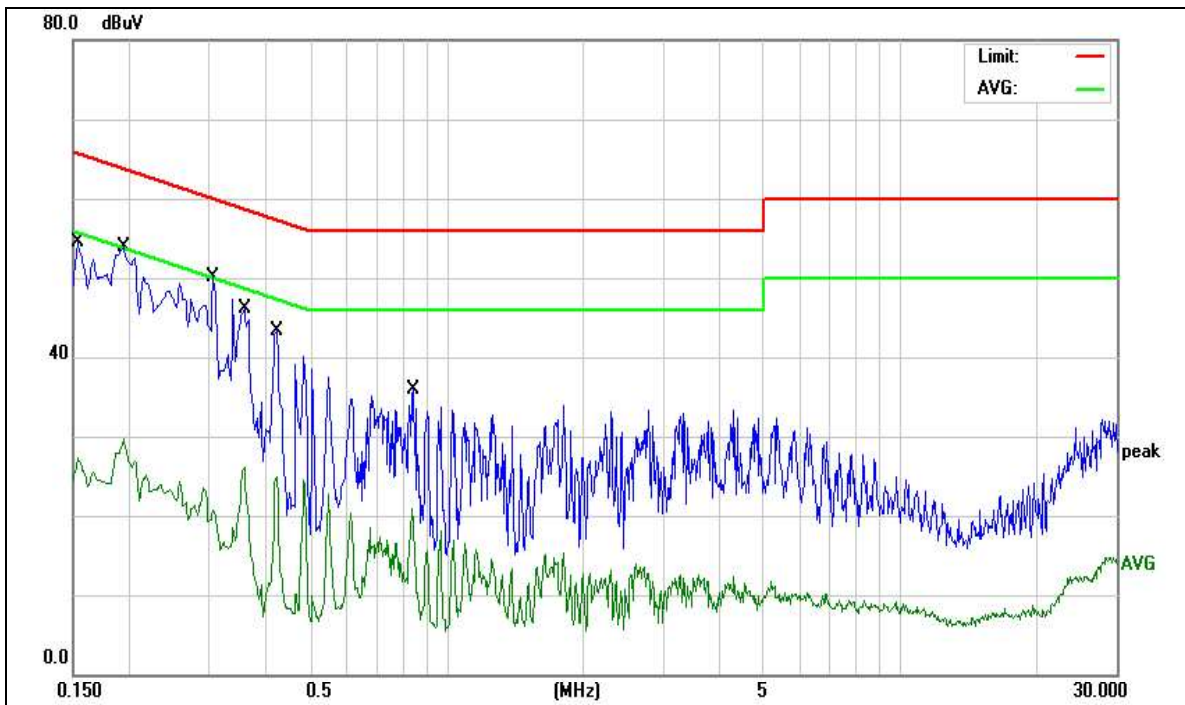
The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use.

**3.1.7 TEST RESULTS**

<b>EUT:</b>	USB TRAVEL ADAPTER	<b>Model No. :</b>	JY-305PLUS
<b>Temperature:</b>	23.5℃	<b>Relative Humidity:</b>	52.6 %
<b>Pressure:</b>	1008 hPa	<b>Test Power :</b>	AC 230V/50Hz
<b>Test Mode :</b>	Mode1		

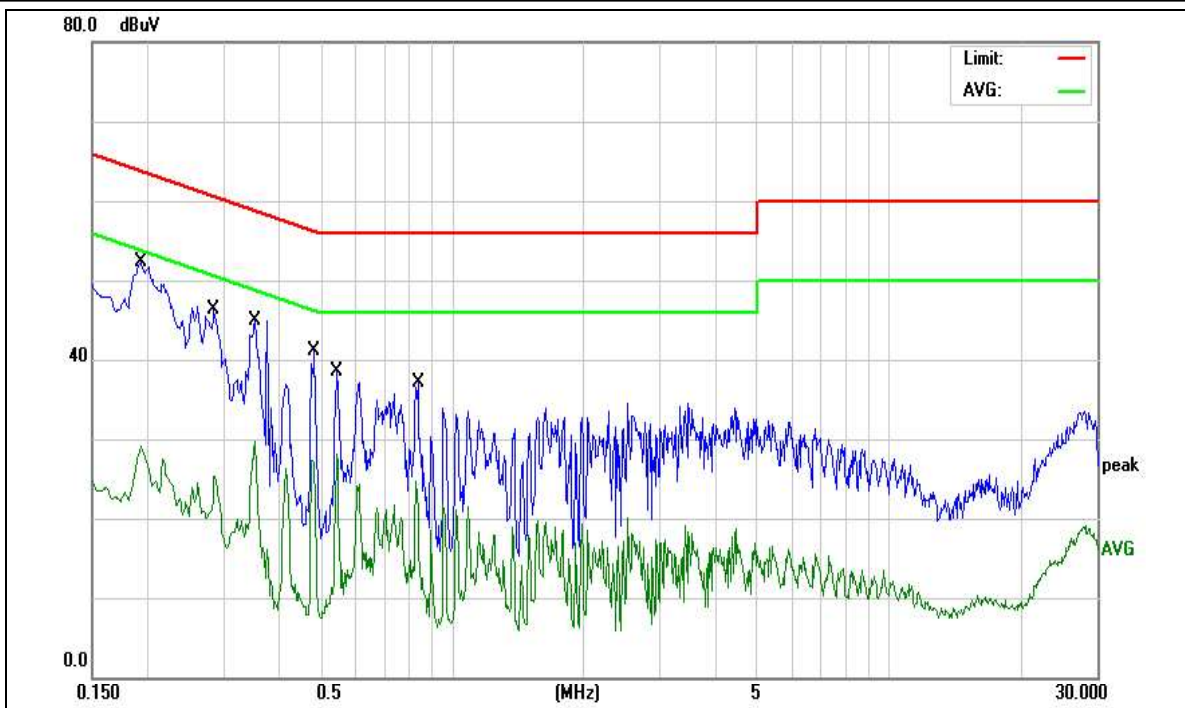
**Remark:**

- (1) Reading in which marked as QP means measurements by using Quasi-Peak Detector, and AV means measurements by using Average Detector.
- (2) All readings are QP Mode value unless otherwise stated AVG in column of 『Note』 . If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a “ \* ” marked in AVG Mode column of Interference Voltage Measured.
- (3) Measuring frequency range from 150KHz to 30MHz.
- (4) This test was carried out in conducted emission shielded room.



<b>Site:</b> 843.3	<b>Phase:</b> L1	<b>Temperature(C):</b> 23.5(C)
<b>Limit:</b> EN55032 Class B Conduction(QP)		<b>Humidity(%):</b> 52.6%
<b>EUT:</b> USB TRAVEL ADAPTER	<b>Test Time:</b>	2021-07-19
<b>M/N.:</b> JY-305PLUS	<b>Power Rating:</b>	AC 230V/50Hz
<b>Mode:</b> Mode1	<b>Test Engineer:</b>	Carney
<b>Note:</b>		

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measurement(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1539	35.62	10.07	45.69	65.78	-20.09	QP	
2	0.1539	14.03	10.07	24.10	55.78	-31.68	AVG	
3	0.1940	39.29	10.08	49.37	63.86	-14.49	QP	
4	0.1940	18.69	10.08	28.77	53.86	-25.09	AVG	
5	0.3060	24.54	10.08	34.62	60.08	-25.46	QP	
6	0.3060	6.15	10.08	16.23	50.08	-33.85	AVG	
7	0.3580	28.21	10.08	38.29	58.77	-20.48	QP	
8	0.3580	12.96	10.08	23.04	48.77	-25.73	AVG	
9	0.4220	25.04	10.08	35.12	57.41	-22.29	QP	
10	0.4220	10.55	10.08	20.63	47.41	-26.78	AVG	
11 *	0.8460	15.75	10.10	25.85	56.00	-30.15	QP	
12	0.8460	3.15	10.10	13.25	46.00	-32.75	AVG	



<b>Site:</b> 843.3	<b>Phase:</b> N	<b>Temperature(C):</b> 23.5(C)
<b>Limit:</b> EN55032 Class B Conduction(QP)		<b>Humidity(%):</b> 52.6%
<b>EUT:</b> USB TRAVEL ADAPTER	<b>Test Time:</b> 2021-07-19	
<b>M/N.:</b> JY-305PLUS	<b>Power Rating:</b> AC 230V/50Hz	
<b>Mode:</b> Full Load	<b>Test Engineer:</b> Carney	
<b>Note:</b>		

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measurement(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1940	37.53	10.08	47.61	63.86	-16.25	QP	
2	0.1940	19.12	10.08	29.20	53.86	-24.66	AVG	
3	0.2860	31.45	10.07	41.52	60.64	-19.12	QP	
4	0.2860	14.75	10.07	24.82	50.64	-25.82	AVG	
5	0.3540	29.61	10.08	39.69	58.87	-19.18	QP	
6	0.3540	17.63	10.08	27.71	48.87	-21.16	AVG	
7	0.4860	25.23	10.09	35.32	56.24	-20.92	QP	
8	0.4860	11.55	10.09	21.64	46.24	-24.60	AVG	
9	0.JY-305PLUS	25.55	10.09	35.64	56.00	-20.36	QP	
10	0.JY-305PLUS	15.87	10.09	25.96	46.00	-20.04	AVG	
11 *	0.8380	20.17	10.10	30.27	56.00	-25.73	QP	
12	0.8380	7.80	10.10	17.90	46.00	-28.10	AVG	

**3.2 RADIATED EMISSION MEASUREMENT**

**3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1000MHz)**

FREQUENCY (MHz)	Class A (at 3m)	Class B (at 3m)
	dBuV/m	dBuV/m
30 – 230	50	40
230 – 1000	57	47

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (GHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
1 ~ 3	76	56	70	50
3 ~ 6	80	60	74	54

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower

NOTE:

- (1) The limit for radiated test was performed according to EN 55032/CISPR 32.
- (2) The tighter limit applies at the band edges;
- (3) Emission level (dBuV/m) = 20log Emission level (uV/m),  
3m Emission level = 10m Emission level + 20log(10m/3m);
- (4) The bandwidth of the Receiver is set at 120 kHz.
- (5) The test result calculated as following:  
Measurement Value = Reading Level + Correct Factor,  
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use),  
Margin Level = Measurement Value - Limit Value.



**3.2.2 MEASUREMENT INSTRUMENTS LIST**

## 3m Radiated Emission Measurement 30MHz-1GHz

Item	Instr.Code	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	AN-E023	EMI Test Receiver	Rohde & Schwarz	ESPI	100502	2021-11-20
2	AN-E006	Pre-Amplifier	HP	8447D	2727A06172	2022-05-20
3	AN-E009	Bilog Antenna	Schwarzbeck	VULB9163	VULB9163-588	2022-05-21
4	AN-E033	RF Cable	N/A	JCT06S-NJ-NJ-11M	04040071-VI	2022-05-20
5	AN-E007	RF Cable	N/A	ZT06S-NJ-NJ-0.5M	1007290	2022-05-20
6	AN-E087	RF Cable	N/A	ZT06S-NJ-NJ-3M	N/A	2022-05-20
7	AN-E043	3m Semi-anechoic Chamber	chengyu	9m*6m*6m	N/A	2022-05-19
8	AN-E045	Test Software	Farad	EZ-EMC Ver:ANCI-3A1	N/A	N/A

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

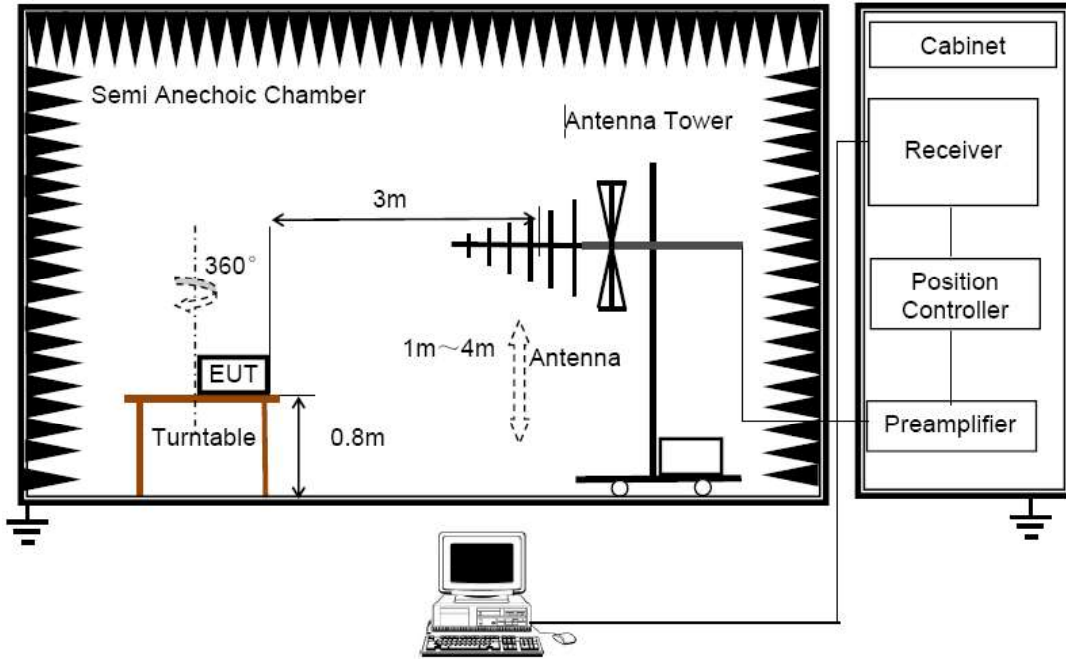
### 3.2.3 TEST PROCEDURE

- a. The measuring distance of at 3m or 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.2.4 DEVIATION FROM TEST STANDARD

No deviation

### 3.2.5 TEST SETUP



### 3.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 3.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.



**3.2.7 TEST RESULTS**

<b>EUT:</b>	USB TRAVEL ADAPTER	<b>Model No. :</b>	JY-305PLUS
<b>Temperature:</b>	24.3℃	<b>Relative Humidity:</b>	53.2%
<b>Pressure:</b>	1008 hPa	<b>Test Power :</b>	AC 230V/50Hz
<b>Test Mode :</b>	Mode1		

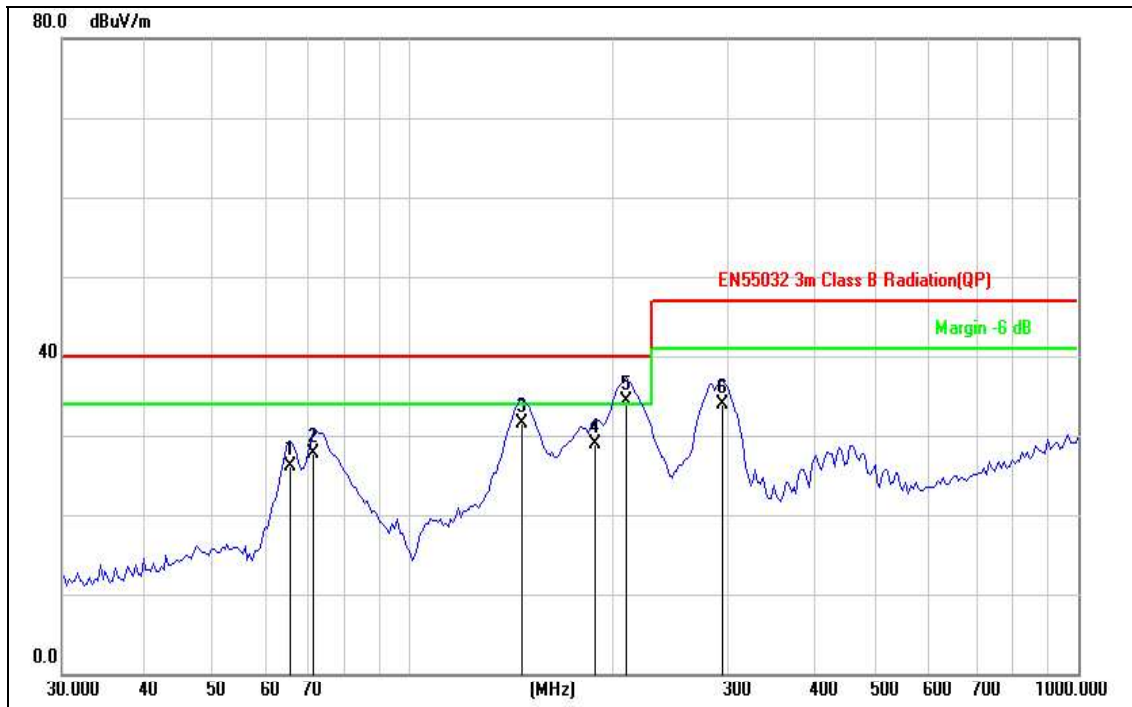
Remark :

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Detector or Peak Detector.
- (2) All readings are Peak unless otherwise stated QP in column of 『Note 』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (3) Measuring frequency range from 30MHz to 1000MHz.
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.
- (5) This test was carried out in 3m anechoic chamber.



<b>Site:</b>	<b>LAB</b>	<b>Antenna::</b>	<b>Vertical</b>	<b>Temperature(C):</b>	<b>24.3(C)</b>
<b>Limit:</b>	<b>EN55032 3m Class B Radiation(QP)</b>			<b>Humidity(%):</b>	<b>53.2%</b>
<b>EUT:</b>	<b>USB TRAVEL ADAPTER</b>	<b>Test Time:</b>		<b>2021/07/19</b>	
<b>M/N.:</b>	<b>JY-305PLUS</b>	<b>Power Rating:</b>		<b>AC 230V/50Hz</b>	
<b>Mode:</b>	<b>Model</b>	<b>Test Engineer:</b>		<b>Sunshine</b>	
<b>Note:</b>					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1 *	66.0342	31.22	-14.24	16.98	40.00	-23.02	QP
2	146.6304	43.83	-14.70	29.13	40.00	-10.87	QP
3	208.2148	40.10	-10.84	29.26	40.00	-10.74	QP
4	266.1419	34.71	-9.76	24.95	47.00	-22.05	QP
5	280.5152	32.20	-9.49	22.71	47.00	-24.29	QP
6	419.8436	30.59	-6.46	24.13	47.00	-22.87	QP



<b>Site:</b> LAB	<b>Antenna::</b> Horizontal	<b>Temperature(C):</b> 24.3(C)
<b>Limit:</b> EN55032 3m Class B Radiation(QP)		<b>Humidity(%):</b> 53.2%
<b>EUT:</b> USB TRAVEL ADAPTER	<b>Test Time:</b>	2021/07/19
<b>M/N.:</b> JY-305PLUS	<b>Power Rating:</b>	AC 230V/50Hz
<b>Mode:</b> Mode1	<b>Test Engineer:</b>	Sunshine
<b>Note:</b>		

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1 *	66.0342	40.35	-14.24	26.11	40.00	-13.89	QP
2	71.4552	42.73	-15.02	27.71	40.00	-12.29	QP
3	146.6304	46.18	-14.70	31.48	40.00	-8.52	QP
4	189.0743	40.44	-11.50	28.94	40.00	-11.06	QP
5	210.0482	45.15	-10.81	34.34	40.00	-5.66	QP
6	293.0842	43.09	-9.26	33.83	47.00	-13.17	QP

### 3.3 HARMONICS CURRENT MEASUREMENT

#### 3.3.1 LIMITS OF HARMONICS CURRENT MEASUREMENT

**Table 1 – Limits for Class A equipment**

Harmonic order n	Maximum permissible harmonic current A
<b>Odd harmonics</b>	
3	2,30
5	1,14
7	0,77
9	0,40
11	0,33
13	0,21
$15 \leq n \leq 39$	$0,15 \frac{15}{n}$
<b>Even harmonics</b>	
2	1,08
4	0,43
6	0,30
$8 \leq n \leq 40$	$0,23 \frac{108}{n}$

**Table 2 – Limits for Class C equipment**

Harmonic order n	Maximum permissible harmonic current expressed as a percentage of the input current at the fundamental frequency %
2	2
3	$30 \cdot \lambda^*$
5	10
7	7
9	5
$11 \leq n \leq 39$ (odd harmonics only)	3

\*  $\lambda$  is the circuit power factor

**Table 3 – Limits for Class D equipment**

Harmonic order n	Maximum permissible harmonic current per watt mA/W	Maximum permissible harmonic current A
3	3,4	2,30
5	1,9	1,14
7	1,0	0,77
9	0,5	0,40
11	0,35	0,33
$13 \leq n \leq 39$ (odd harmonics only)	$\frac{3,85}{n}$	See Table 1

**3.3.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Harmonic Analyzer	EMC PARTNER	Harmonics 1000-1P 230V	0241	2022-05-20

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

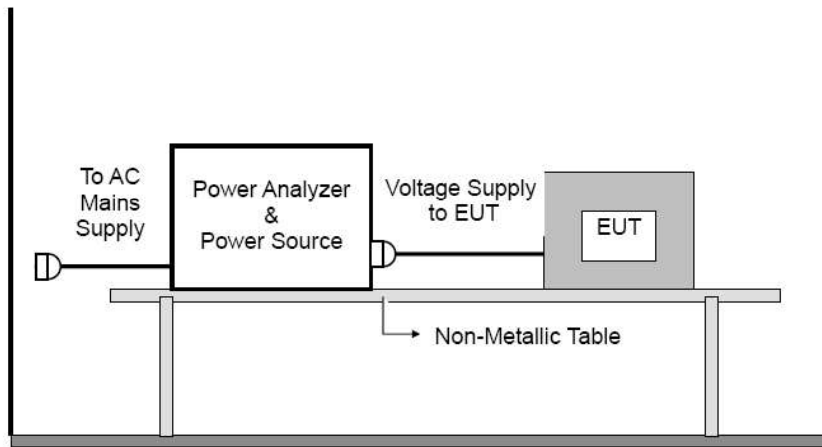
**3.3.3 TEST PROCEDURE**

- a. Test was performed according to the procedures specified in Clause 5.0 of IEC555-2 and/or Sub-clause 6.2 of IEC/EN 61000-3-2 depend on which standard adopted for compliance measurement.
- b. All types of harmonic current and/or voltage fluctuation in this report are assessed by direct measurement using flicker-meter.
- c. For the actual test configuration, please refer to the related Item –EUT Test Photos.

**3.3.4 DEVIATION FROM TEST STANDARD**

No deviation

**3.3.5 TEST SETUP**



**3.3.6 EUT OPERATING CONDITIONS**

The EUT tested system was configured as the statements of 3.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

**3.3.7 TEST RESULTS**

According to clause 7.0 of EN 61000-3-2, for the equipment with a rate power of 75W or less, limits are not specified in this standard.



**3.4 VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT**

**3.4.1 LIMITS OF VOLTAGE FLUCTUATION AND FLICKSMEASUREMENT**

Tests	Limits		Descriptions
	IEC555-3	IEC/EN 61000-3-3	
Pst	≤ 1.0, Tp= 10 min.	≤ 1.0, Tp= 10 min.	Short Term Flicker Indicator
Plt	N/A	≤ 0.65, Tp=2 hr.	Long Term Flicker Indicator
dc	≤ 3 %	≤ 3.3 %	Relative Steady-State V-Chang
dmax	≤ 4 %	≤ 4 %	Maximum Relative V-change
d (t)	N/A	≤ 3.3% for > 500 ms	Relative V-change characteristic

**3.4.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Fliker Analyzer	EMC PARTNER	Harmonics 1000-1P 230V	0241	2022-05-20

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

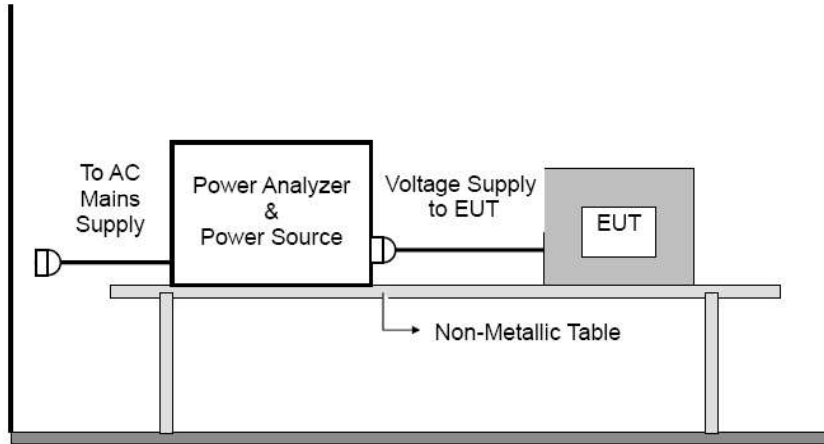
**3.4.3 TEST PROCEDURE**

- a. Fluctuation and Flickers Test:  
Tests was performed according to the Test Conditions/Assessment of Voltage Fluctuations specified in Clause 5.0/6.0 of IEC555-3 and/or Clause 6.0/4.0 of IEC/EN 61000-3-3 depend on which standard adopted for compliance measurement.
- b. All types of harmonic current and/or voltage fluctuation in this report are assessed by direct measurement using flicker-meter.
- c. For the actual test configuration, please refer to the related Item –EUT Test Photos.

**3.4.4 DEVIATION FROM TEST STANDARD**

No deviation

### 3.4.5 TEST SETUP

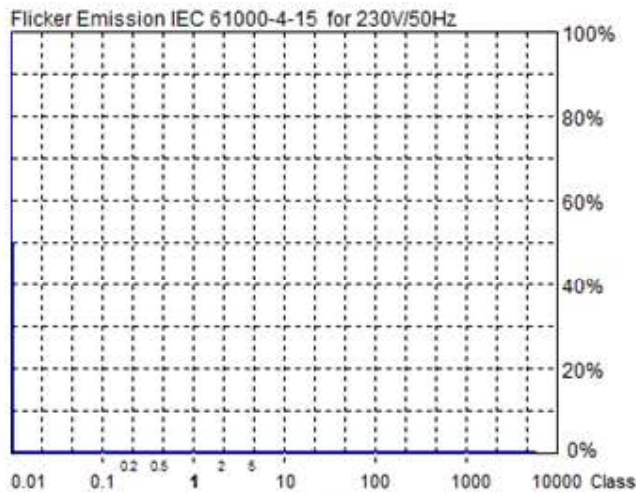


### 3.4.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 3.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

**3.4.7 TEST RESULTS**

<b>EUT:</b>	USB TRAVEL ADAPTER	<b>Model No. :</b>	JY-305PLUS
<b>Temperature:</b>	24°C	<b>Relative Humidity:</b>	56 %
<b>Pressure:</b>	1009 hPa	<b>Test Power :</b>	AC 230V/50Hz
<b>Test Mode :</b>	Mode1		



**Actual Flicker (Fli): 0.00**  
**Short-term Flicker (Pst): 0.07**  
 Limit (Pst): 1.00  
**Long-term Flicker (Plt): 0.07**  
 Limit (Plt): 0.65  
**Maximum Relative Volt. Change (dmax): 0.00%**  
 Limit (dmax): 4.00%  
**Relative Steady-state Voltage Change (dc): 0.04%**  
 Limit (dc): 3.30%  
**Tmax 3.30% (dt): 0.00ms**  
 Limit (dt>Lim): 500ms

Flicker Emission - IEC 61000-3-3, EN 61000-3-3

Urms = 230.9 V P = 31.66 W  
 Irms = 0.327 A pf = 0.419

2021/7/16 19:26:09

Range: 2 A  
 V-nom: 231 V  
 TestTime: 10 min (100%)

Test completed, Result: PASSED

HAR-1000 EMC-Partner

```

Urms = 230.9V Freq = 50.039 Range: 2 A ↵
Irms = 0.327A Ipk = 1.509A cf = 4.612 ↵
P = 31.66W S = 75.54VA pf = 0.419 ↵
  
```

```

↵
Test - Time : 1 x 10min = 10min (100%)↵
  
```

```

LIN (Line Impedance Network) : L: 0.24ohm +j0.15ohm N: 0.16ohm
+j0.10ohm↵
  
```

```

Limits : Plt : 0.65 Pst : 1.00 ↵
          dmax : 4.00 % dc : 3.30 % ↵
          dtLim: 3.30 % dt>Lim: 500ms ↵
  
```

```

↵
Test completed, Result: PASSED↵
  
```

**4. IMMUNITY TEST**
**4.1 STANDARD COMPLIANCE/SERVIRITY LEVEL/CRITERIA**

Tests Standard No.	Test Specification	Test Mode Test Ports	Perform. Criteria	Remark
1. ESD IEC/EN 61000-4-2	8KV air discharge 4KV contact discharge	Direct Mode	B	PASS
	4KV HCP discharge 4KV VCP discharge	Indirect Mode	B	PASS
2. RS IEC/EN 61000-4-3	80 MHz to 1000 MHz, 1800, 2600, 3500, 5000 MHz 3V/m(rms), 1 KHz, 80%, AM modulated	Enclosure	A	PASS
3. EFT/Burst IEC/EN 61000-4-4	1.0KV(peak) 5/50ns Tr/Th 5KHz Repetition Freq.	AC Power Port	B	PASS
	0.5 KV(peak) 5/50ns Tr/Th 5KHz Repetition Freq.	CTL/Signal Data Line Port	B	N/A
4. Surges IEC/EN 61000-4-5	1 KV(5P/5N) 1.2/50(8/20) Tr/Th us	L-N	B	PASS
	2 KV(5P/5N) 1.2/50(8/20) Tr/Th us	L-PE N-PE	B	N/A
5 Injected Current IEC/EN 61000-4-6	0.15 MHz to 10 MHz 3V (rms), 10 MHz to 30 MHz 3V ~1V (rms), 30 MHz to 80 MHz 1V(rms), 1KHz 80%, AM Modulated 150Ω source impedance	CTL/Signal Port	A	N/A
		AC Power Port	A	PASS
		DC Power Port	A	N/A
6. Power Frequency Magnetic Field IEC/EN 61000-4-8	50Hz or 60Hz, 1A/m	Enclosure	A	N/A
7. Volt. Interruptions Volt. Dips IEC/EN 61000-4-11	Voltage dip > 95% / 30% Interruption > 95%	AC Power Port	B / C C	PASS See Remark(2)

**\* Remark:**

- (1) "N/A": denotes test is not applicable in this Test Report.
- (2) Voltage dip: >95% reduction – Performance Criteria **B**  
Voltage dip: 30% reduction – Performance Criteria **C**  
Voltage Interruption: >95% reduction – Performance Criteria **C**
- (3) Test Location: This test was carried out in EMS Test Location.

## 4.2 GENERAL PERFORMANCE CRITERIA

According to **EN55035:2017/A11:2020** standard, the general performance criteria as following:

<p><b>Criterion A</b></p>	<p>The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.</p>
<p><b>Criterion B</b></p>	<p>After the test, the equipment shall continue to operate as intended without operator Intervention. No degradation of performance or loss of function is allowed, after the application of the phenomenon below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is allowed. However, no change of operating state if stored data allowed to persist after the test. If the minimum performance level (or the permissible performance loss) is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.</p>
<p><b>Criterion C</b></p>	<p>Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.</p>

## 4.3 GENERAL PERFORMANCE CRITERIA TEST SETUP

The EUT tested system was configured as the statements of **3.1.6** Unless otherwise a special operating condition is specified in the follows during the testing.

**4.4 ESD TESTING**

**4.4.1 TEST SPECIFICATION**

<b>Basic Standard:</b>	IEC/EN 61000-4-2
<b>Discharge Impedance:</b>	330 ohm / 150 pF
<b>Required Performance</b>	B
<b>Discharge Voltage:</b>	Air Discharge: 2kV/4kV/8kV (Direct) Contact Discharge: 2kV/4kV (Direct/Indirect)
<b>Polarity:</b>	Positive & Negative
<b>Number of Discharge:</b>	Air Discharge: min. 20 times at each test point Contact Discharge: min. 200 times in total
<b>Discharge Mode:</b>	Contact and Air
<b>Discharge Period:</b>	1 second minimum

**4.4.2 MEASUREMENT INSTRUMENTS**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	ESD Simulator	Prima	ESD61002B	PR13012530	2022-05-21

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

**4.4.3 TEST PROCEDURE**

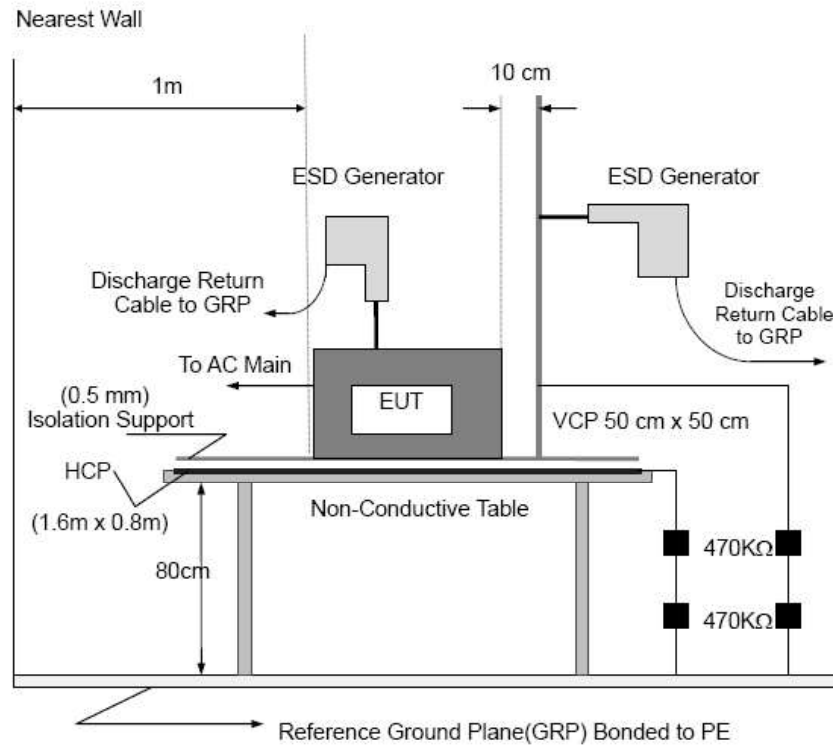
The test generator necessary to perform direct and indirect application of discharges to the EUT in the following manner:

- a. Contact discharge was applied to conductive surfaces and coupling planes of the EUT. During the test, it was performed with single discharges. For the single discharge time between successive single discharges was at least 1 second. The EUT shall be exposed to at least 200 discharges, 100 each at negative and positive polarity, at a minimum of four test points. One of the test points shall be subjected to at least 50 indirect discharges to the center of the front edge of the horizontal coupling plane. The remaining three test points shall each receive at least 50 direct contact discharges. If no direct contact test points are available, then at least 200 indirect discharges shall be applied in the indirect mode. Test shall be performed at a maximum repetition rate of one discharge per second.
  - Vertical Coupling Plane (VCP):  
The coupling plane, of dimensions 0.5m x 0.5m, is placed parallel to, and positioned at a distance 0.1m from, the EUT, with the Discharge Electrode touching the coupling plane. The four faces of the EUT will be performed with electrostatic discharge.
  - Horizontal Coupling Plane (HCP):  
The coupling plane is placed under to the EUT. The generator shall be positioned vertically at a distance of 0.1m from the EUT, with the Discharge Electrode touching the coupling plane. The four faces of the EUT will be performed with electrostatic discharge.
- b. Air discharges at insulation surfaces of the EUT. It was at least ten single discharges with positive and negative at the same selected point.
- c. For the actual test configuration, please refer to the related Item –EUT Test Photos.

**4.4.4 DEVIATION FROM TEST STANDARD**

No deviation

**4.4.5 TEST SETUP**



Note:

**TABLE-TOP EQUIPMENT**

The configuration consisted of a wooden table 0.8 meters high standing on the Ground Reference Plane. The GRP consisted of a sheet of aluminum at least 0.25mm thick, and 2.5 meters square connected to the protective grounding system. A Horizontal Coupling Plane (1.6m x 0.8m) was placed on the table and attached to the GRP by means of a cable with 940k total impedance. The equipment under test, was installed in a representative system as described in section 7 of IEC /EN 61000-4-2, and its cables were placed on the HCP and isolated by an insulating support of 0.5mm thickness. A distance of 1-meter minimum was provided between the EUT and the walls of the laboratory and any other metallic structure.

**FLOOR-STANDING EQUIPMENT**

The equipment under test was installed in a representative system as described in section 7 of IEC/EN 61000-4-2, and its cables were isolated from the Ground Reference Plane by an insulating support of 0.1-meter thickness. The GRP consisted of a sheet of aluminum that is at least 0.25mm thick, and 2.5meters square connected to the protective grounding system and extended at least 0.5 meters from the EUT on all sides.



**4.4.6 TEST RESULTS**

Mode	Air Discharge								Contact Discharge							
	2KV		4KV		8KV		12KV		2KV		4KV		6KV		8KV	
Location	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N
1	--	--	A	A	A	A	--	--	--	--	--	--	--	--	--	--
2	--	--	A	A	A	A	--	--	--	--	--	--	--	--	--	--
3	-	--	--	--	--	--	--	--	A	A	A	A	--	--	--	--
4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	--	--	--	--	-	--	--	--	--	--	--	--	--	--	--	--
9	--	--	--	--	-	--	--	--	--	--	--	--	--	--	--	--
Criteria	<b>B</b>								<b>B</b>							
Result	<b>A</b>								<b>A</b>							
Judgment	<b>PASS</b>								<b>PASS</b>							

Mode	HCP Discharge								VCP Discharge							
	2KV		4KV		6KV		8KV		2KV		4KV		6KV		8KV	
Location	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N
1	-	--	A	A	--	--	--	--	-	--	A	A	--	--	--	--
2	--	--	A	A	--	--	--	--	--	--	A	A	--	--	--	--
3	--	--	A	A	-	--	--	--	--	--	A	A	-	--	--	--
4	-	--	A	A	--	--	--	--	-	--	A	A	--	--	--	--
Criteria	<b>B</b>								<b>B</b>							
Result	<b>A</b>								<b>A</b>							
Judgment	<b>PASS</b>								<b>PASS</b>							

Note:

- 1) P/N denotes the Positive/Negative polarity of the output voltage.
- 2) Test condition:  
 Direct discharges: Minimum 50 times (Positive/Negative) at each point.  
 Air discharges / Indirect (HCP/VCP): Minimum 20 times (Positive/Negative) at each point.
- 3) Test location(s) in which discharge (Air and contact discharge) to be described as following
- 4) The Indirect (HCP/VCP) discharges description of test point as following:  
 1.left side 2.right side 3.front side 4.rear side
- 5) N/A - denotes test is not applicable in this test report
- 7) Criteria B: The EUT function loss during the test, but self-recoverable after the test.

Test location description:

No	Description	No	Description
1	Slot 4points	4	
2	Output 2points	5	
3	Output 2points	6	



**4.5 RS TESTING**

**4.5.1 TEST SPECIFICATION**

<b>Basic Standard:</b>	IEC/EN 61000-4-3
<b>Required Performance</b>	A
<b>Frequency Range:</b>	80 MHz - 1000 MHz, 1800, 2600, 3500, 5000 MHz
<b>Field Strength:</b>	3 V/m
<b>Modulation:</b>	1kHz Sine Wave, 80%, AM Modulation
<b>Frequency Step:</b>	1 % of fundamental
<b>Polarity of Antenna:</b>	Horizontal and Vertical
<b>Test Distance:</b>	3 m
<b>Antenna Height:</b>	1.5 m
<b>Dwell Time:</b>	at least 3 seconds

**4.5.2 MEASUREMENT INSTRUMENTS**

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Signal Generator	Agilent	N5171B-50B	MY53050160	2021-10-11
Amplifier	A&R	150W1000M3	313157	2021-09-20
Amplifier	A&R	50SIG6M1	0342835	2021-09-20
Power Meter	Boonton	4232A	15102	2021-09-20
Isotropic Field Probe	A&R	FL7006	0342652	2021-10-11
Log-periodic Antenna	SCHWARZBECK	STLP 9128E	9128E-012	2021-12-30
Microwave log-periodic antenna	SCHWARZBECK	STLP 9149	9149.222	2021-12-12

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

#### 4.5.3 TEST PROCEDURE

The EUT and support equipment, which are placed on a table that is 0.8 meter above ground and the testing was performed in a fully-anechoic chamber.

The testing distance from antenna to the EUT was 3 meters.

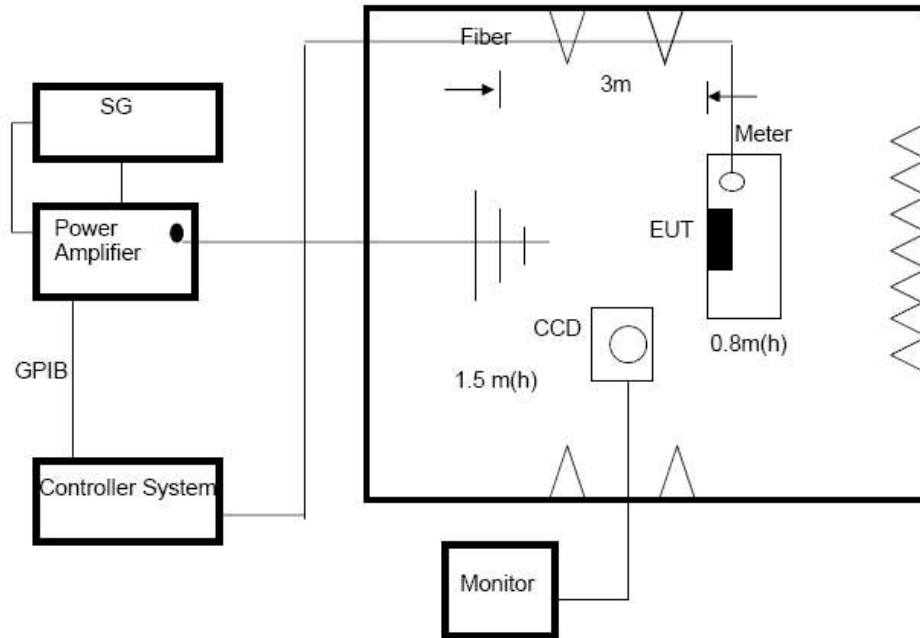
The other condition as following manner:

- a. The field strength level was 3V/m.
- b. The frequency range is swept from 80 MHz to 1000 MHz, 1800 MHz, 2600 MHz, 3500 MHz, 5000 MHz with the signal 80%amplitude modulated with a 1kHz sine wave. The rate of sweep did not exceed 1.5x 10<sup>-3</sup> decade/s. Where the frequency range is swept incrementally, the step size was 1% of fundamental.
- c. The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.
- d. The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 4.5.4 DEVIATION FROM TEST STANDARD

No deviation

**4.5.5 TEST SETUP**



Note:

**TABLE-TOP EQUIPMENT**

The EUT installed in a representative system as described in section 7 of IEC/EN 61000-4-3 was placed on a non-conductive table 0.8 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

**FLOOR-STANDING EQUIPMENT**

The EUT installed in a representative system as described in section 7 of IEC/EN 61000-4-3 was placed on a non-conductive wood support 0.1 meters in height. The system under test was connected to the power and signal wire according to relevant installation instructions.

**4.5.6 TEST RESULTS**

Frequency Range (MHz)	Polarity of Antenna	R.F. Field Strength	Azimuth	Perform. Criteria	Results	Judgment
80MHz - 1000MHz	H / V	3 V/m (rms) AM Modulated 1000Hz, 80%	Front	A	A	PASS
			Rear			
			Left			
			Right			

Frequency Range (MHz)	Polarity of Antenna	R.F. Field Strength	Azimuth	Perform. Criteria	Results	Judgment
1800, 2600, 3500, 5000 MHz	H / V	3 V/m (rms) AM Modulated 1000Hz, 80%	Front	A	A	PASS
			Rear			
			Left			
			Right			

Note:

- 1) H/V denotes the Horizontal/Vertical polarity of Antenna.
- 2) N/A - denotes test is not applicable in this test report.
- 3) Criteria A: There was no change operated with initial operating during the test.
- 4) Criteria B: The EUT function loss during the test, but self-recoverable after the test.
- 5) Criteria C: The system shut down during the test.

**4.6 EFT/BURST TESTING****4.6.1 TEST SPECIFICATION**

<b>Basic Standard:</b>	IEC/EN 61000-4-4
<b>Required Performance</b>	B
<b>Test Voltage:</b>	Power Line: $\pm 0.5$ 、1 kV
<b>Polarity:</b>	Positive & Negative
<b>Impulse Frequency:</b>	5 kHz
<b>Impulse Wave shape :</b>	5/50 ns
<b>Burst Duration:</b>	15 ms
<b>Burst Period:</b>	300 ms
<b>Test Duration:</b>	Not less than 1 min.

**4.6.2 MEASUREMENT INSTRUMENTS**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Electrical Intelligent Transient Generator	Everfine	EMS61000-4B	G114921CA1341115	2022-05-20

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

**4.6.3 TEST PROCEDURE**

The EUT and support equipment, are placed on a table that is 0.8 meter above a metal ground plane measured 1m\*1m min. and 0.65mm thick min.

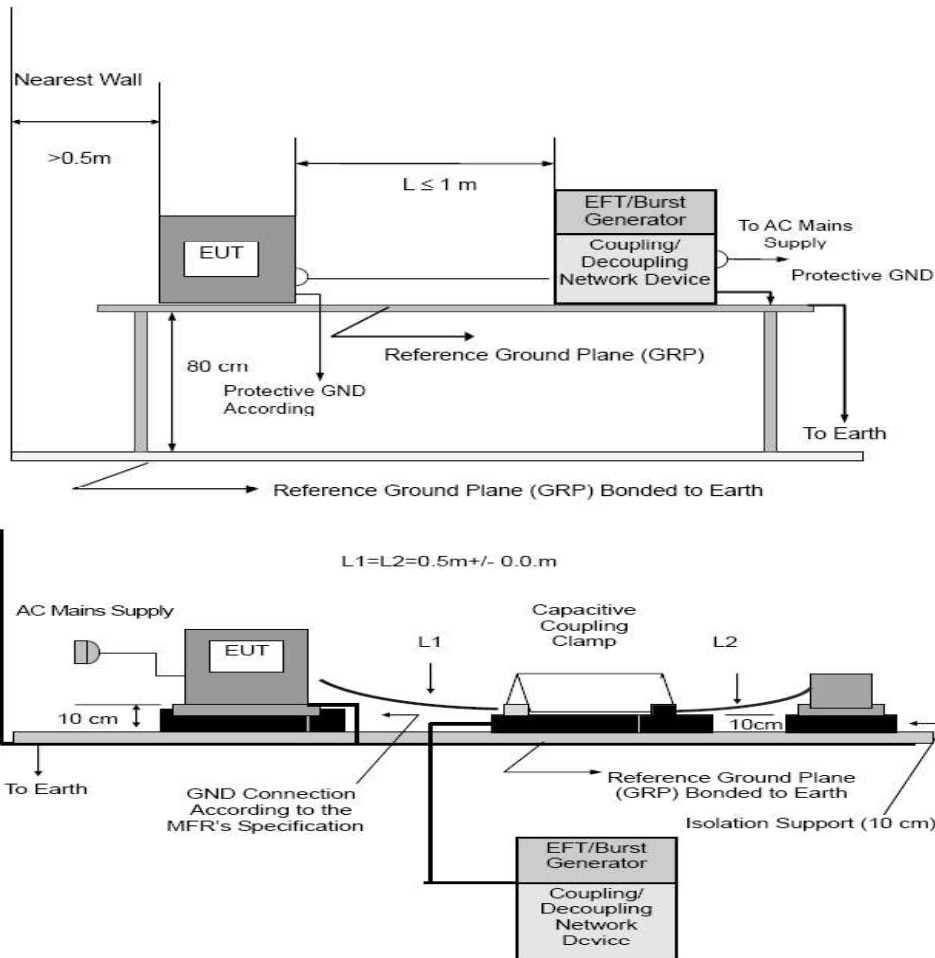
The other condition as following manner:

- The length of power cord between the coupling device and the EUT should not exceed 1 meter.
- Both positive and negative polarity discharges were applied.
- The duration time of each test sequential was 1 minute
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

**4.6.4 DEVIATION FROM TEST STANDARD**

No deviation

**4.6.5 TEST SETUP**



Note:

**TABLE-TOP EQUIPMENT**

The configuration consisted of a wooden table (0.8m high) standing on the Ground Reference Plane. The GRP consisted of a sheet of aluminum (at least 0.25mm thick and 2.5m square) connected to the protective grounding system. A minimum distance of 0.5m was provided between the EUT and the walls of the laboratory or any other metallic structure.

**FLOOR-STANDING EQUIPMENT**

The EUT installed in a representative system as described in section 7 of IEC/EN 61000-4-4 and its cables, were isolated from the Ground Reference Plane by an insulating support that is 0.1-meter thick. The GRP consisted of a sheet of aluminum (at least 0.25mm thick and 2.5m square) connected to the protective grounding system.



**4.6.6 TEST RESULTS**

Mode	AC Power Line		DC Power Line		Signal/Control Line	
Test Level	1KV		0.5KV		0.5KV	
Port(s)	Polarity	Results	Polarity	Results	Polarity	Results
Line (L)	P	A	P		P	
	N	A	N		N	
Neutral (N)	P	A	P		P	
	N	A	N		N	
Ground (PE)	P		P		P	
	N		N		N	
DC Power Line	P		P		P	
	N		N		N	
Signal/Control Line	P		P		P	
	N		N		N	
Criteria	<b>B</b>		<b>B</b>		<b>B</b>	
Result	<b>A</b>		<b>--</b>		<b>--</b>	
Judgment	<b>PASS</b>		<b>N/A</b>		<b>N/A</b>	

- 1) P/N denotes the Positive/Negative polarity of the output voltage.
- 2) N/A - denotes test is not applicable in this test report
- 3) Criteria A: There was no change operated with initial operating during the test.
- 4) Criteria B: The EUT function loss during the test, but self-recoverable after the test.
- 5) Criteria C: The system shut down during the test.

**4.7 SURGE TESTING**

**4.7.1 TEST SPECIFICATION**

<b>Basic Standard:</b>	IEC/EN 61000-4-5
<b>Required Performance</b>	B
<b>Wave-Shape:</b>	Combination Wave 1.2/50 us Open Circuit Voltage 8 /20 us Short Circuit Current
<b>Test Voltage:</b>	Power Line: 0.5 kV, 1 kV, 2 kV
<b>Surge Input/Output:</b>	L-N, L-PE, N-PE
<b>Generator Source:</b>	2 ohm between networks
<b>Impedance:</b>	12 ohm between network and ground
<b>Polarity:</b>	Positive/Negative
<b>Phase Angle:</b>	0° /90° /180° /270°
<b>Pulse Repetition Rate:</b>	1 time / min. (maximum)
<b>Number of Tests:</b>	5 positive and 5 negative at selected points

**4.7.2 MEASUREMENT INSTRUMENTS**

Item	Instr.Code	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	AN-E054	Immunity Test System	EMC PARTNER	IMU3000 S-T	105684-2060	2022-05-21
2	AN-E055	Signal line coupled decoupling network	EMC PARTNER	CDN-UTP8 ED3	1558	2022-05-21

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

**4.7.3 TEST PROCEDURE**

a. For EUT:

The surge is to be applied to the EUT terminals via the capacitive coupling network. Decoupling networks are required in order to avoid possible adverse effects on equipment not under test that may be powered by the same lines, and to provide sufficient decoupling impedance to the surge wave. The power cord between the EUT and the coupling/decoupling networks shall be 2meters in length (or shorter).

b. For test applied to unshielded unsymmetrically operated interconnection lines of EUT:

The surge is applied to the lines via the capacitive coupling. The coupling /decoupling networks shall not influence the specified functional conditions of the EUT. The interconnection line between the EUT and the coupling/decoupling networks shall be 2 meters in length (or shorter).

c. For test applied to unshielded symmetrically operated interconnection /telecommunication lines of EUT:

The surge is applied to the lines via gas arrestors coupling. Test levels below the ignition point of the coupling arrestor cannot be specified. The interconnection line between the EUT and the coupling/decoupling networks shall be 2 meters in length (or shorter).

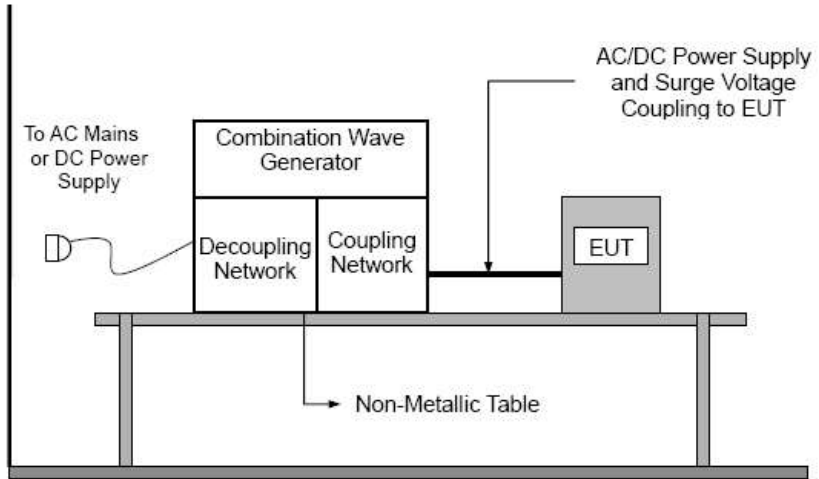
d. For the actual test configuration, please refer to the related Item –EUT Test Photos.



**4.7.4 DEVIATION FROM TEST STANDARD**

No deviation

**4.7.5 TEST SETUP**





**4.7.6 TEST RESULTS**

Wave Form EUT Ports Tested	1.2/50(8/20) us						Criteria	Judgment
	Polarity	Phase	Voltage					
			0.5kV	1kV	1.5kV	2kV		
L - N	+/-	0°		B			B	PASS
	+/-	90°		B				
	+/-	180°		B				
	+/-	270°		B				
L - PE	+/-	0°					B	N/A
	+/-	90°						
	+/-	180°						
	+/-	270°						
N - PE	+/-	0°					B	N/A
	+/-	90°						
	+/-	180°						
	+/-	270°						

Note:

- 1) N/A - denotes test is not applicable in this Test Report

**4.8 INJECTION CURRENT TESTING**

**4.8.1 TEST SPECIFICATION**

<b>Basic Standard:</b>	IEC/EN 61000-4-6
<b>Required Performance</b>	A
<b>Frequency Range:</b>	3V (rms), 0.15MHz ~ 10MHz; 3V ~1V (rms), 10MHz ~ 30MHz; 1V (rms), 30MHz ~ 80MHz;
<b>Field Strength:</b>	3V (rms), 3V ~1V (rms), 1V (rms)
<b>Modulation:</b>	1kHz Sine Wave, 80%, AM Modulation
<b>Frequency Step:</b>	1 % of fundamental
<b>Dwell Time:</b>	at least 3 seconds

**4.8.2 MEASUREMENT INSTRUMENTS**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	CONDUCTED IMMUNITY TEST SYSTEM	FRANKONIA	CIT-10-75	102D1253	2021-10-16
2	CDN	FRANKONIA	CDN M2+M3	A3011059	2021-10-16
3	Electromagnetic clamp	FRANKONIA	KEMZ-801	21044	2021-10-16

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

**4.8.3 TEST PROCEDURE**

The EUT and support equipment, are placed on a table that is 0.8 meter above a metal ground plane measured 1m\*1m min. and 0.65mm thick min.

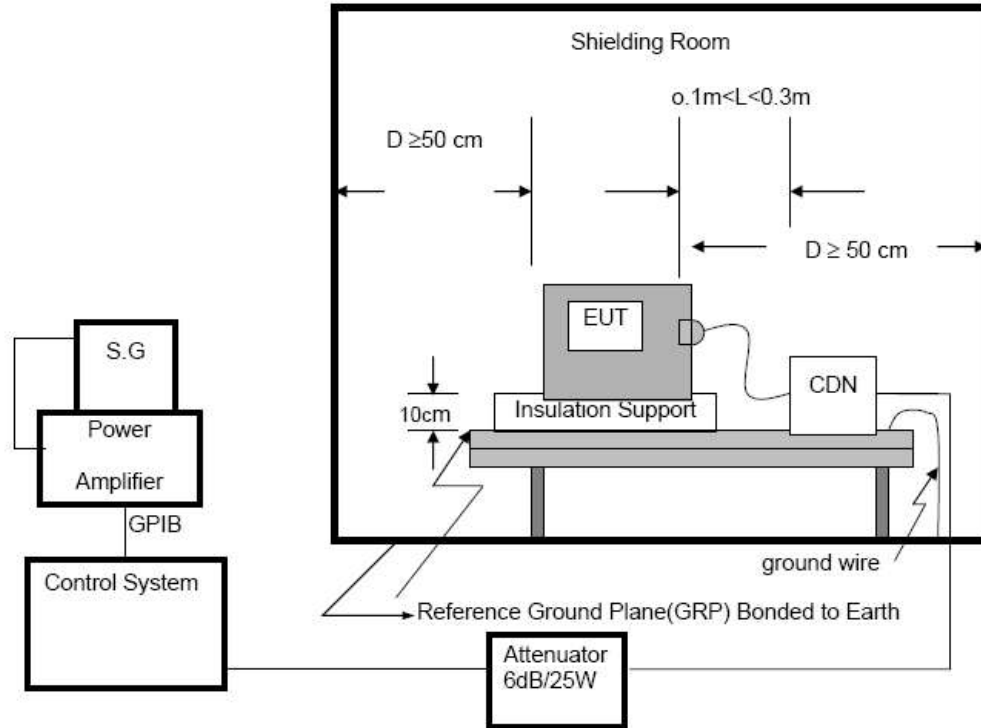
The other condition as following manner:

- a. The field strength level was 3V (rms), 3V ~1V (rms), 1V (rms).
- b. The frequency range is swept from 150 KHz to 80 MHz, with the signal 80%amplitude modulated with a 1kHz sine wave. The rate of sweep did not exceed 1.5x 10<sup>-3</sup> decade/s. Where the frequency range is swept incrementally, the step size was 1% of fundamental.
- c. The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.
- d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

**4.8.4 DEVIATION FROM TEST STANDARD**

No deviation

**4.8.5 TEST SETUP**



For the actual test configuration, please refer to the related Item –EUT Test Photos.

**NOTE:**

**FLOOR-STANDING EQUIPMENT**

The equipment to be tested is placed on an insulating support of 0.1 meters height above a ground reference plane. All relevant cables shall be provided with the appropriate coupling and decoupling devices at a distance between 0.1 meters and 0.3 meters from the projected geometry of the EUT on the ground reference plane.

**4.8.6 TEST RESULTS**

Test Ports (Mode)	Freq. Range (MHz)	Field Strength	Perform. Criteria	Results	Judgment
Input/ Output AC. Power Port	0.15 ---10	3V(rms) AM Modulated	<b>A</b>	<b>A</b>	<b>PASS</b>
	10 ---30	3V~1V (rms) AM Modulated	<b>A</b>	<b>A</b>	<b>PASS</b>
	30 ---80	1V(rms) AM Modulated	<b>A</b>	<b>A</b>	<b>PASS</b>
Input/ Output DC. Power Port	0.15 ---10	3V(rms) AM Modulated	<b>A</b>	--	<b>N/A</b>
	10 ---30	3V~1V (rms) AM Modulated	<b>A</b>	--	<b>N/A</b>
	30 ---80	1V(rms) AM Modulated	<b>A</b>	--	<b>N/A</b>
Signal Line ( N/A )	0.15 ---10	3V(rms) AM Modulated	<b>A</b>	--	<b>N/A</b>
	10 ---30	3V~1V (rms) AM Modulated	<b>A</b>	--	<b>N/A</b>
	30 ---80	1V(rms) AM Modulated	<b>A</b>	--	<b>N/A</b>

Note:

1) N/A - denotes test is not applicable in this Test Report.



#### 4.9 VOLTAGE INTERRUPTION/DIPS TESTING

##### 4.9.1 TEST SPECIFICATION

<b>Basic Standard:</b>	IEC/EN 61000-4-11
<b>Required Performance:</b>	B (For >95% Voltage Dips) C (For 30% Voltage Dips) C (For >95% Voltage Interruptions)
<b>Test Duration Time:</b>	Minimum three test events in sequence
<b>Interval between Event:</b>	Minimum ten seconds
<b>Phase Angle:</b>	0°~360°
<b>Test Cycle:</b>	3 times

##### 4.9.2 MEASUREMENT INSTRUMENTS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Voltage Dips And Interruptions Generator	Everfine	EMS61000-11K	G113317CA8341 117	2022-05-20

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

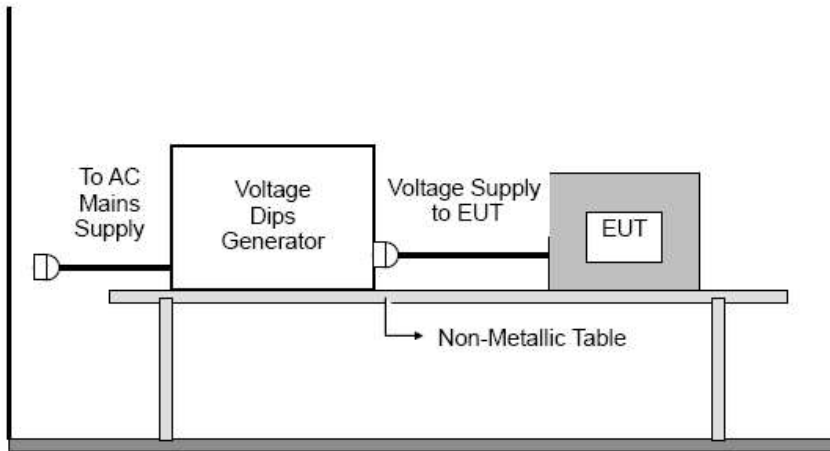
##### 4.9.3 TEST PROCEDURE

The EUT shall be tested for each selected combination of test levels and duration with a sequence of three dips/interruptions with intervals of 10 s minimum (between each test event). Each representative mode of operation shall be tested. Abrupt changes in supply voltage shall occur at zero crossings of the voltage waveform.

##### 4.9.4 DEVIATION FROM TEST STANDARD

No deviation

**4.9.5 TEST SETUP**



For the actual test configuration, please refer to the related Item –EUT Test Photos.

**4.9.6 TEST RESULTS**

Input Rating: AC 100V/240V, 50Hz

Voltage Reduction	Periods	Perform Criteria	Results	Judgment
Voltage dip >95%	0.5	B	A	PASS
Voltage dip 30%	25	C	B	PASS
Interruption >95%	250	C	B	PASS

Input Rating: AC 100V/240V, 60Hz

Voltage Reduction	Periods	Perform Criteria	Results	Judgment
Voltage dip >95%	0.5	B	A	PASS
Voltage dip 30%	30	C	B	PASS
Interruption >95%	300	C	B	PASS

Note:

- 1) N/A - denotes test is not applicable in this test report.

**4.10 POWER-FREQUENCY MAGNETIC FILDS**

**4.10.1 MEASUREMENT INSTRUMENTS**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Magnetic Field Tester	EMC-PARTNER	MF1000-1	121	2022-01-21

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

**4.10.2 TEST LEVEL AND PERFORMANCE CRITERION**

Level	Magnetic Field Strength A/m	Performance criterion
1	1	A

Performance criteria A description: During and after the test the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a minimum performance level specified by the manufacturer when the EUT is used as intended

**4.10.3 TEST PROCEDURE**

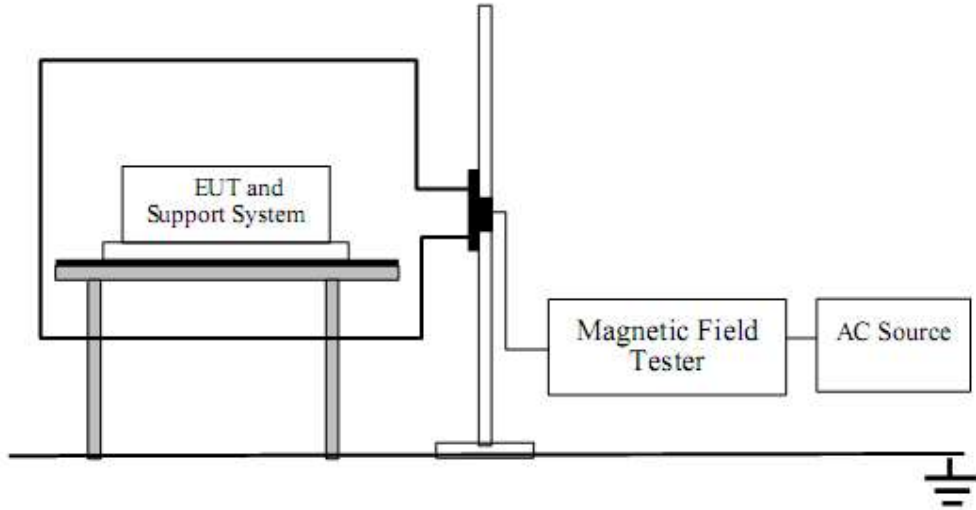
The EUT shall be subjected to the test magnetic field by using the induction coil of standard dimensions (1m\*1m) and shown in Section 13.3 The induction coil shall then be rotated by 90 ein order to expose the EUT to the test field with different orientations. .

**4.10.4 DEVIATION FROM TEST STANDARD**

No deviation



**4.10.5 TEST SETUP**



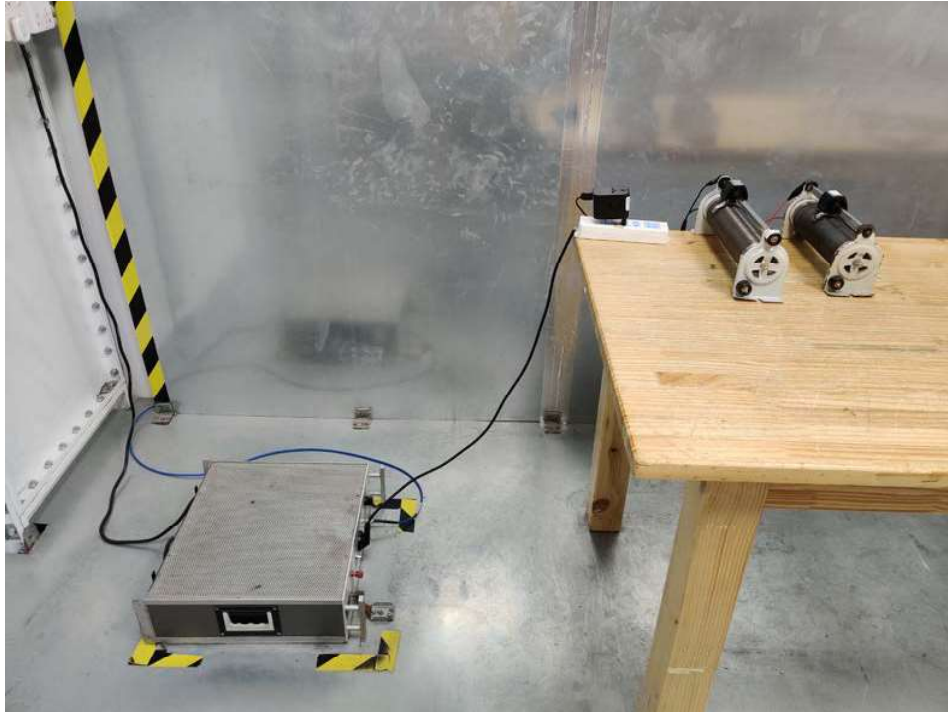
**4.10.6 TEST RESULTS**

N/A

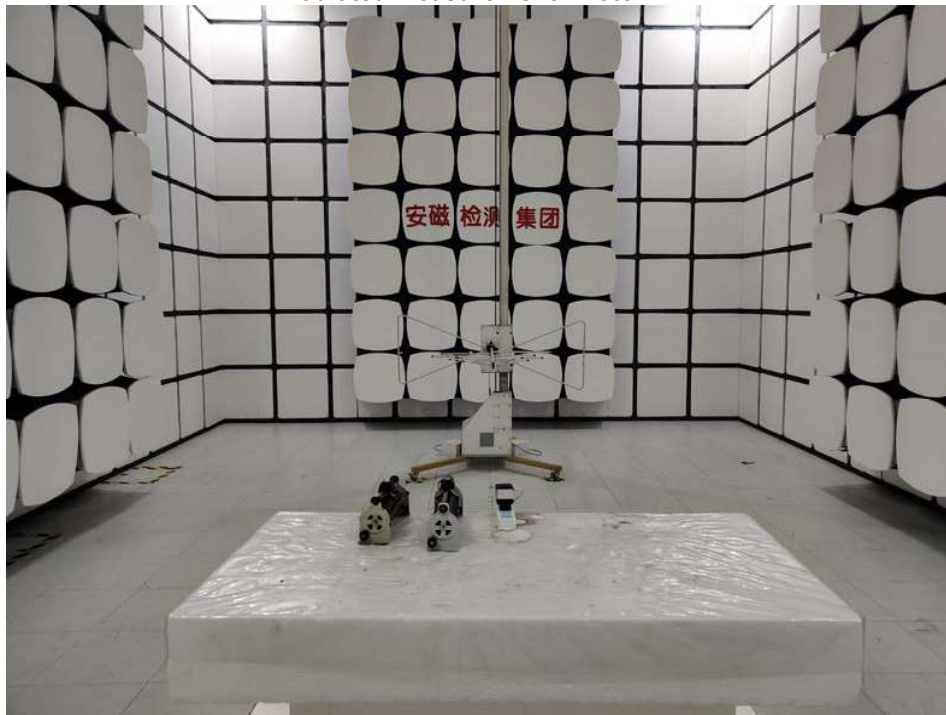
### 5. ATTACHMENT

#### 5.1 EUT TEST PHOTO

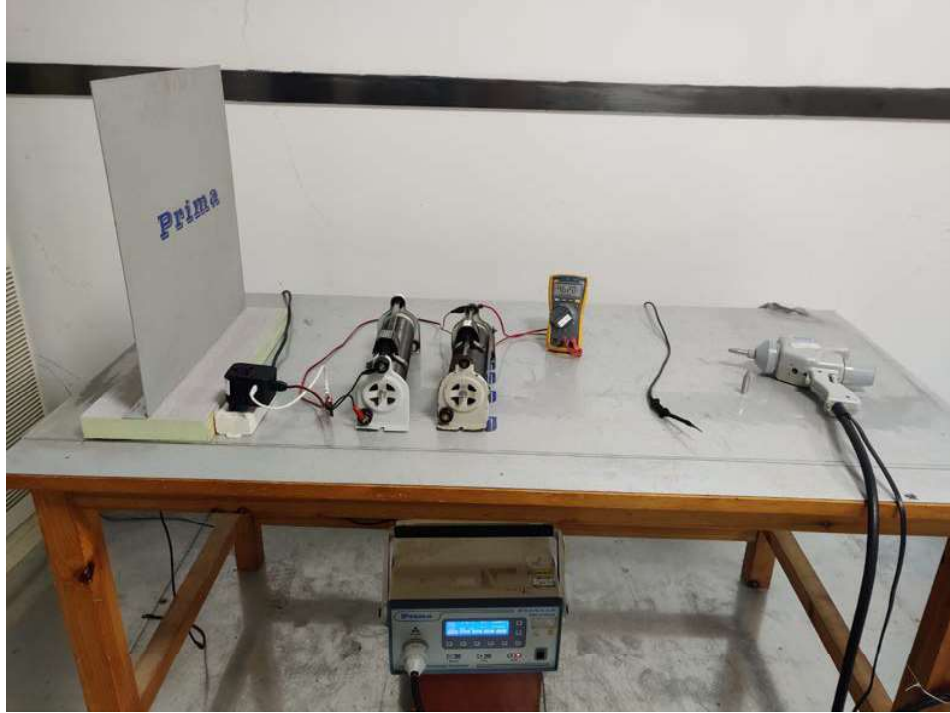
**Conducted Emission Measurement Photo**



**Radiated Measurement Photo**



**ESD Measurement Photo**



**Surge Measurement Photo**



**EFT Measurement Photo**



**DIP Measurement Photo**





**Harmonic / Flicker Measurement Photo**



5.2 EUT PHOTO

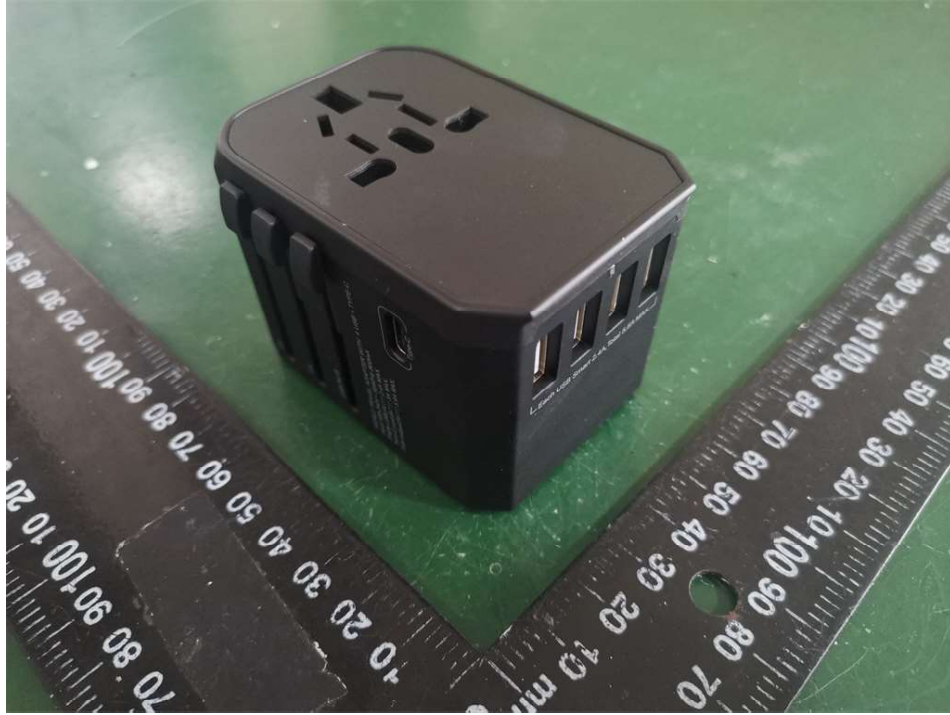


Figure 1. Overall view of unit



Figure 2. Overall view of unit



Figure 3. Overall view of unit

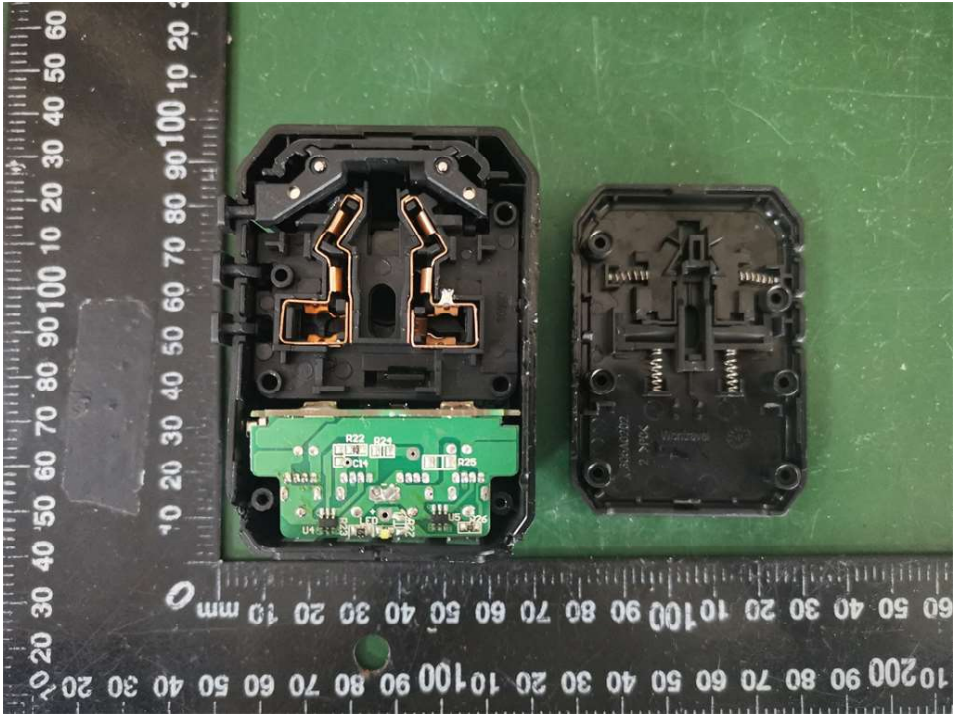


Figure 4. Inside view of unit



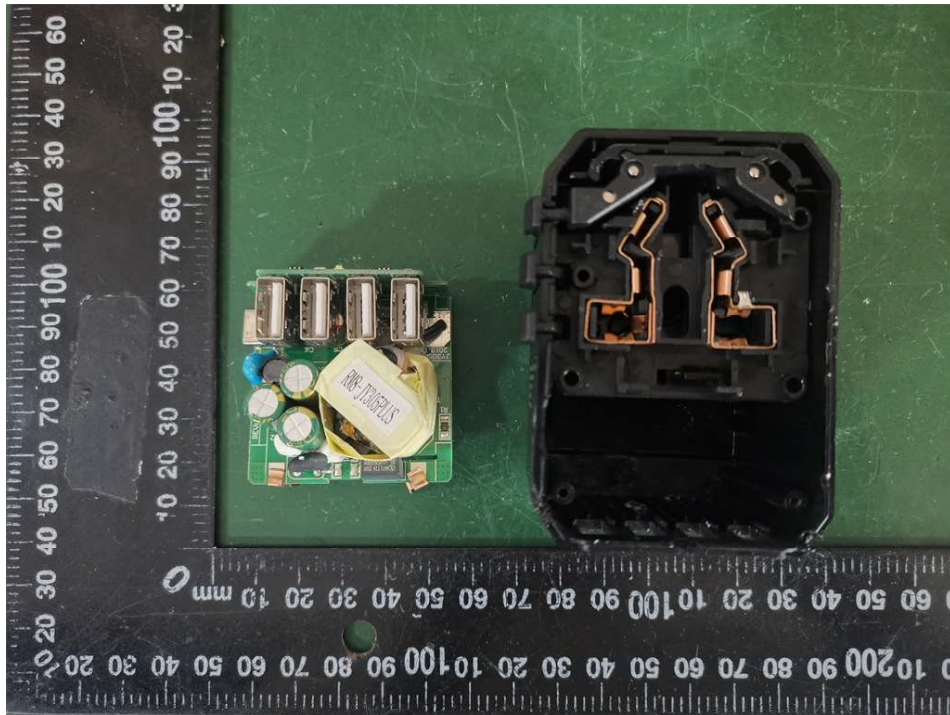


Figure 5. Inside view of unit

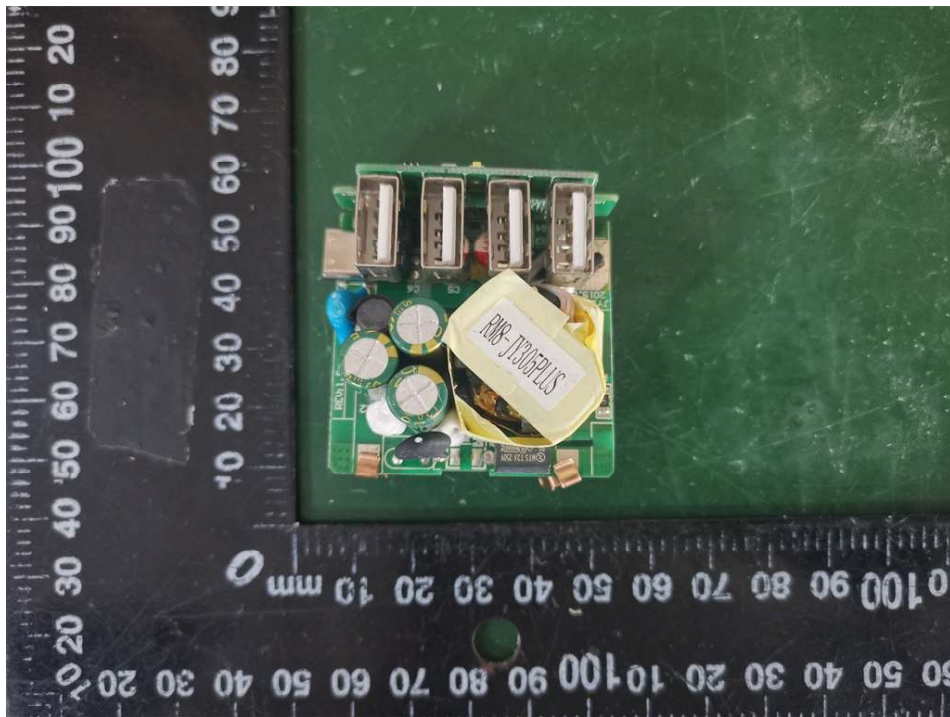


Figure 6. Top view of PCB



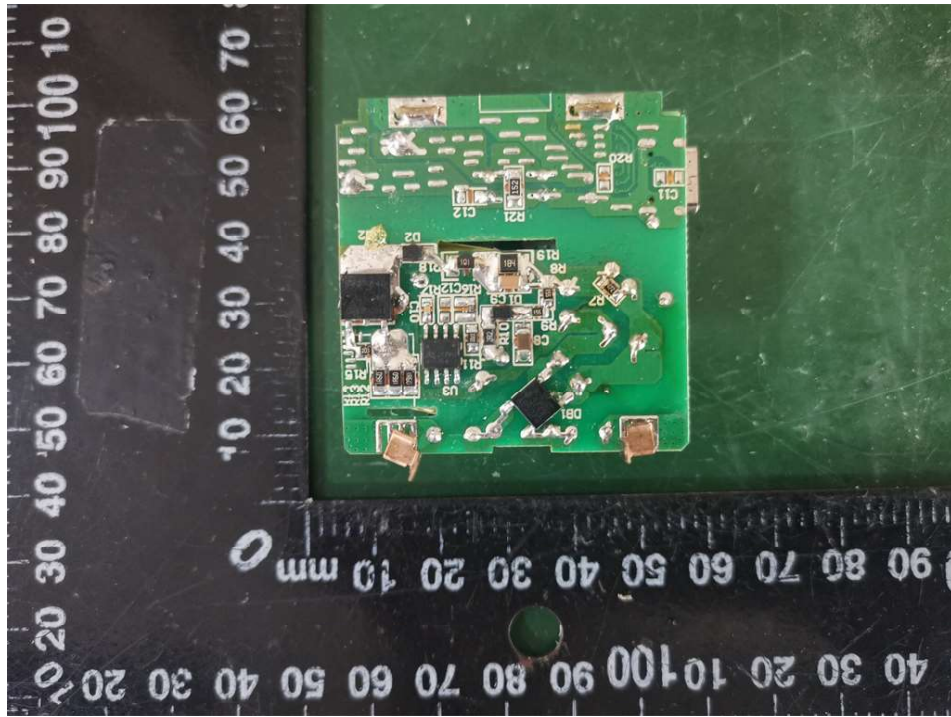


Figure 7. Bottom view of PCB

\*\*\*\*\* End of Page \*\*\*\*\*



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 Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.  
 Tel: 86 -769 -8507 5888 Fax: 86 -769 -8507 5898 Web: www.anci.com

# CERTIFICATE OF CONFORMITY

**Certificate No. SFT21071222573E**

This Verification of Compliance is hereby issued to the product designated below

**Report No.** : SFT21071222573E  
**Applicant** : Dongguan Wontravel Electric Co.,Ltd  
**Address** : NO.1,Yuanshanzai Road, Henggangtou, Xin'an District, Chang'an  
 Town, Dongguan City, China  
**Manufacturer** : Dongguan Wontravel Electric Co.,Ltd  
**Address** : NO.1,Yuanshanzai Road, Henggangtou, Xin'an District, Chang'an  
 Town, Dongguan City, China  
**Description of Product** : USB Travel Adaptor  
**Model No.** : JY-305PLUS,JY-305,JY-304S,JY-303B,JY-302S  
**Conclusion** : Based on the performed tests on submitted sample(s), the results of  
 Lead, Mercury, Cadmium, Hexavalent chromium,  
 Polybrominated biphenyls (PBBs), Polybrominated diphenyl  
 ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate  
 (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) , and  
 Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS  
 Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.  
**Test Standards** : IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC  
 62321-6:2015, IEC 62321--7-1:2015, IEC 62321-7-2:2017,  
 IEC 62321-8:2017

This certificate of conformity is based on evaluation of a sample of the above mentioned product. Technical report and documentation are at the license Holder's disposal. This is to certify that the tested sample is in conformity with all revision of RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU, This certificate does not imply assessment of the series-production of the product. The holder of the certificate is authorized to use this certificate in Connection with the EC declaration of conformity according to Annex IV of the Directive.

# RoHS

**Test Laboratory**

  
 Eric Liu  
 Director  
 Date of Issue: Aug. 04, 2021

This certificate of conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the whole production and other relevant Directives have to be observed.



# Test Report

Report No.: SFT21071222573E

Date: Aug.04, 2021

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**Applicant:** Dongguan Wontravel Electric Co., Ltd

**Address:** No.1 Yuanshanzai Road, Henggangtou, Xin'an, Chang'an Town, Dongguan city, China

The following merchandise was (were) submitted and identified by client as:

Sample Name: USB TRAVEL ADAPTER

Model No.: JY-305PLUS

Additional No.: JY-309, JY-308PRO, JY-307, JY-307R, JY-306, JY-305A, JY-305B, JY-305AL, JY-304B, JY-303B, JY-304S, JY-304C, JY-303S, JY-303C, JY-303PD, JY-303S-C2, JY-302S, JY-302C, JY-301S, JY-505PD, JY-504PD, JY-504C, JY-505C2, G520, G63, G63-PD, G63B, G63B-PD, WL-07, WL-07-C3U, WL-033, WL-033-C3U

Test Period: From Jul.19, 2021 to Jul.22, 2021

## SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION
Heavy Metals , Flame Retardants and Phthalates Content - European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments Commission Delegated Directive (EU) 2015/863	PASS

**Test Result(s):** Please refer to next page(s).

Signed for and on Behalf of SFT



Jack Zhong / Technical Manager  
Guangdong Safety Testing Co., Ltd.

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Guangdong Safety Testing Co., Ltd.

No.1, the 1<sup>st</sup> North Industry Road, Songshan Lake Sci.&Tech. Park, Dongguan,  
Guangdong, China  
Tel:86-769-23105888 Fax: 86-769-22899858 <http://www.sft-cert.com/>



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## Photo of the Submitted Sample



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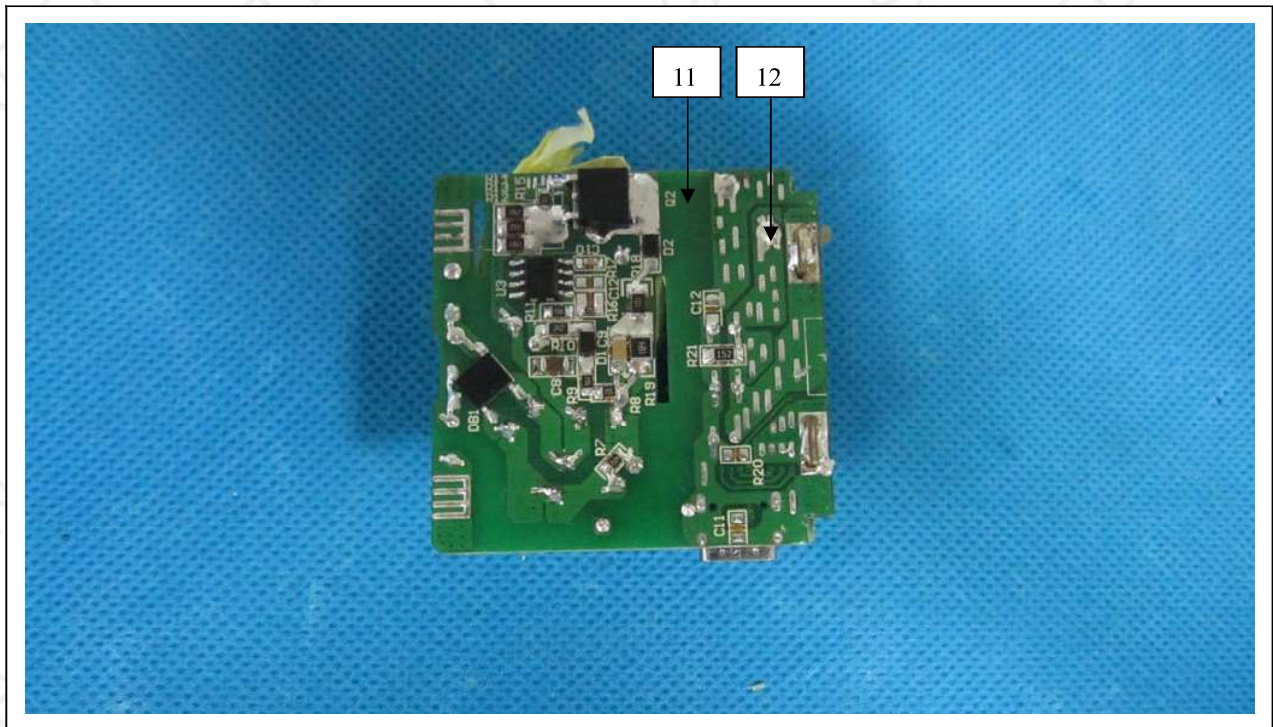
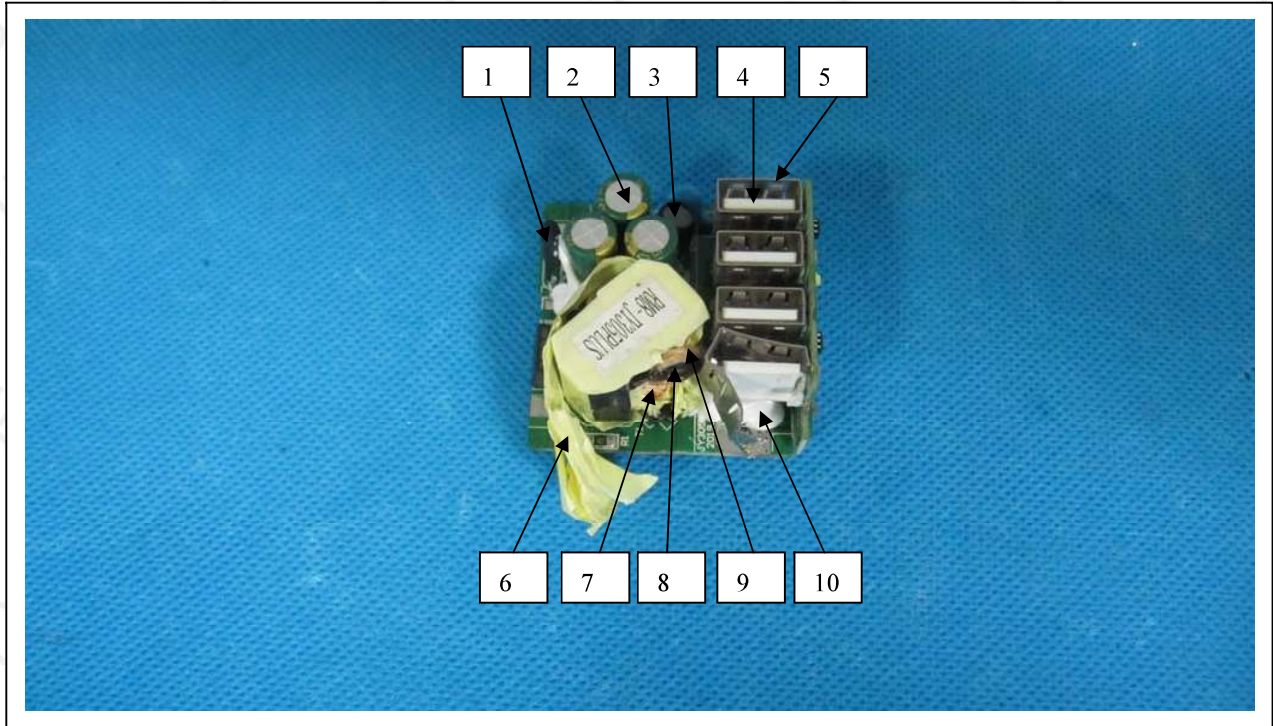
No.1, the 1<sup>st</sup> North Industry Road, Songshan Lake Sci.&Tech. Park, Dongguan,  
Guangdong, China  
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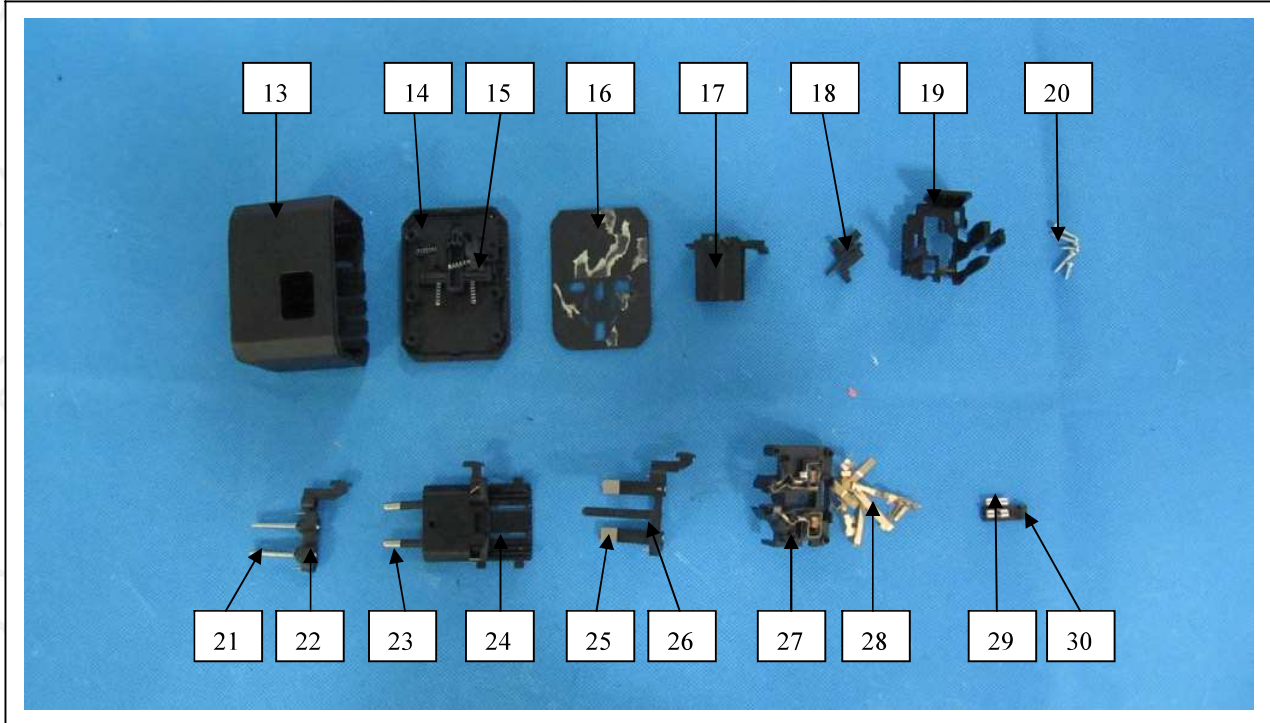


# Test Report

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# Test Report

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<u>Test Item(s)</u>	<u>Component Description(s)</u>	<u>Style</u>
1	Resistance	-
2	Capacitance	-
3	Capacitance	-
4	White plastic	-
5	Silver metal	-
6	Yellow plastic adhesive tape	-
7	Copper wire	-
8	Black soft plastic wire jacket	-
9	Yellow varnished wire	-
10	White glue	-
11	PCB	-
12	Silver solder tin	-
13	Black plastic	-
14	Black plastic	-
15	Black plastic	-
16	Black plastic with adhesive	-
17	Black plastic	-
18	Black plastic	-
19	Black plastic	-
20	Silver metal	-
21	Silver metal	-
22	Black plastic	-
23	Silver metal	-
24	Black plastic	-
25	Silver metal	-
26	Black plastic	-
27	Black plastic	-
28	Copper metal	-
29	Silver metal	-
30	Black plastic	-

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# Test Report

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**Test Result(s):**

**Heavy Metals , Flame Retardants Content - European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments Commission Delegated Directive (EU) 2015/863**

<b>Test Method:</b>	See Appendix.
---------------------	---------------

**See Analytes and their corresponding Maximum Allowable Limit in Appendix**

Parameter	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs	PBDEs	Conclusion
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item(s)	-	-	-	-	-	-	-
001	ND	ND	ND	ND	ND	ND	PASS
002	ND	ND	ND	ND	ND	ND	PASS
003	ND	ND	ND	ND	ND	ND	PASS
004	ND	ND	ND	ND	ND	ND	PASS
005	ND	ND	ND	ND	NA	NA	PASS
006	ND	ND	ND	ND	ND	ND	PASS
007	ND	ND	ND	ND	NA	NA	PASS
008	ND	ND	ND	ND	ND	ND	PASS
009	ND	ND	ND	ND	NA	NA	PASS
010	ND	ND	ND	ND	ND	ND	PASS
011	ND	ND	ND	ND	ND*	ND*	PASS
012	ND	ND	ND	ND	NA	NA	PASS
013	ND	ND	ND	ND	ND	ND	PASS
014	ND	ND	ND	ND	ND	ND	PASS
015	ND	ND	ND	ND	ND*	ND*	PASS
016	ND	ND	ND	ND	ND	ND	PASS
017	ND	ND	ND	ND	ND*	ND*	PASS
018	ND	ND	ND	ND	ND*	ND*	PASS
019	ND	ND	ND	ND	ND	ND	PASS
020	ND	ND	ND	ND	NA	NA	PASS
021	ND	ND	ND	ND	NA	NA	PASS
022	ND	ND	ND	ND	ND*	ND*	PASS
023	25892#	ND	ND	ND	NA	NA	EX-EMPTED
024	ND	ND	ND	ND	ND*	ND*	PASS
025	19739#	ND	ND	ND	NA	NA	EX-EMPTED
026	ND	ND	ND	ND	ND*	ND*	PASS
027	ND	ND	ND	ND	ND*	ND*	PASS
028	ND	ND	ND	ND	NA	NA	PASS
029	ND	ND	ND	ND	NA	NA	PASS
030	ND	ND	ND	ND	ND*	ND*	PASS

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# Test Report

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Note / Key:

ND = Not detected

NA= Not applicable

% = percent

Detection Limit : See Appendix.

“>” = Greater than

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

10000 mg/kg = 1 %

**Phthalates Content - European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments Commission Delegated Directive (EU) 2015/863**

Analyte	Requirement (mg/kg)	Result (mg/kg)		
		Test Item		
		4+13+14	16+17+27	22+24+26
Dibutyl phthalate (DBP)	1000	ND	ND	ND
Di-(2-ethyl hexyl) phthalate (DEHP)	1000	ND	ND	ND
Benzyl butyl phthalate (BBP)	1000	ND	ND	ND
Di-(iso-butyl) phthalate (DIBP)	1000	ND	ND	ND
Conclusion		PASS	PASS	PASS

Note / Key:

ND = Not detected

NA= Not applicable

% = percent

Report Limit: See Appendix.

“>” = Greater than

mg/kg = milligram(s) per kilogram = ppm = part(s) per million

10000 mg/kg = 1 %

Remark:

- The testing approach is listed in table of Appendix.
- \* denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness.
- Only selected example(s) is (are) indicated on the photograph(s) in Comment.
- According to European Council Directive 2011/65/EU, Article 5 “Adaptation of the Annexes to scientific and technical progress”, exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.
- Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Council Directive 2011/65/EU, Article 4(1).

Unless otherwise stated the results shown in this report refer only to the sample(s) tested. This test report cannot be reproduced, except in full. Without prior written permission of the company,

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- a. The sample is positive for Cr<sup>6+</sup> if the Cr<sup>6+</sup> concentration is greater than 0.13µg/cm<sup>2</sup>, The sample coating is considered to contain Cr<sup>6+</sup>.
- b. The sample is negative for Cr<sup>6+</sup> if the Cr<sup>6+</sup> is N.D. (concentration less than 0.10µg/cm<sup>2</sup>), The coating is considered a non-Cr<sup>6+</sup> based coating.
- c. The result between 0.10µg/cm<sup>2</sup> and 0.13µg/cm<sup>2</sup> is considered to be inconclusive-unavoidable coating variations may influence the determination information on storage conditions and production date of the tested sample is unavailable and thus Cr<sup>6+</sup> results represent status of the sample at the time of testing.
- According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 6(c) is reiterated here “Copper alloy containing up to 4 % lead by weight.”. Test Item(s) < 23,25 > was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found lead level should be exempted.

Unless otherwise stated the results shown in this report refer only to the sample(s) tested. This test report cannot be reproduced, except in full. Without prior written permission of the company,

## APPENDIX

List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit [for European Council Directive 2011/65/EU&(EU) 2015/863 ] :						
No.	Name of Analytes	Report Limit (mg/kg)				Maximum Allowable Limit (mg/kg)
		X-ray fluorescence (XRF) <sup>[a]</sup>			Wet Chemistry	
		Plastic	Metallic / glass / ceramic	Others		
1	Lead (Pb)	100	200	200	10 <sup>[b]</sup>	1000
2	Cadmium (Cd)	50	50	50	10 <sup>[b]</sup>	100
3	Mercury (Hg)	100	200	200	10 <sup>[c]</sup>	1000
4	Chromium (Cr)	100	200	200	NA	NA
5	Chromium VI (Cr VI)	NA	NA	NA	10 <sup>[d]</sup> / See <sup>[e]</sup>	1000 / Negative
6	Bromine (Br)	200	NA	200	NA	NA
7	Polybromobiphenyls (PBBs) - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB)	NA	NA	NA	Each 50 <sup>[f]</sup>	Sum 1000
8	Polybromodiphenyl ethers (PBDEs) - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE)	NA	NA	NA	Each 50 <sup>[f]</sup>	Sum 1000
9	Dibutyl phthalate (DBP) Di-(2-ethyl hexyl) phthalate (DEHP) Benzyl butyl phthalate (BBP) Di-(iso-butyl) phthalate (DIBP)	NA	NA	NA	Each 50 <sup>[g]</sup>	Each 1000

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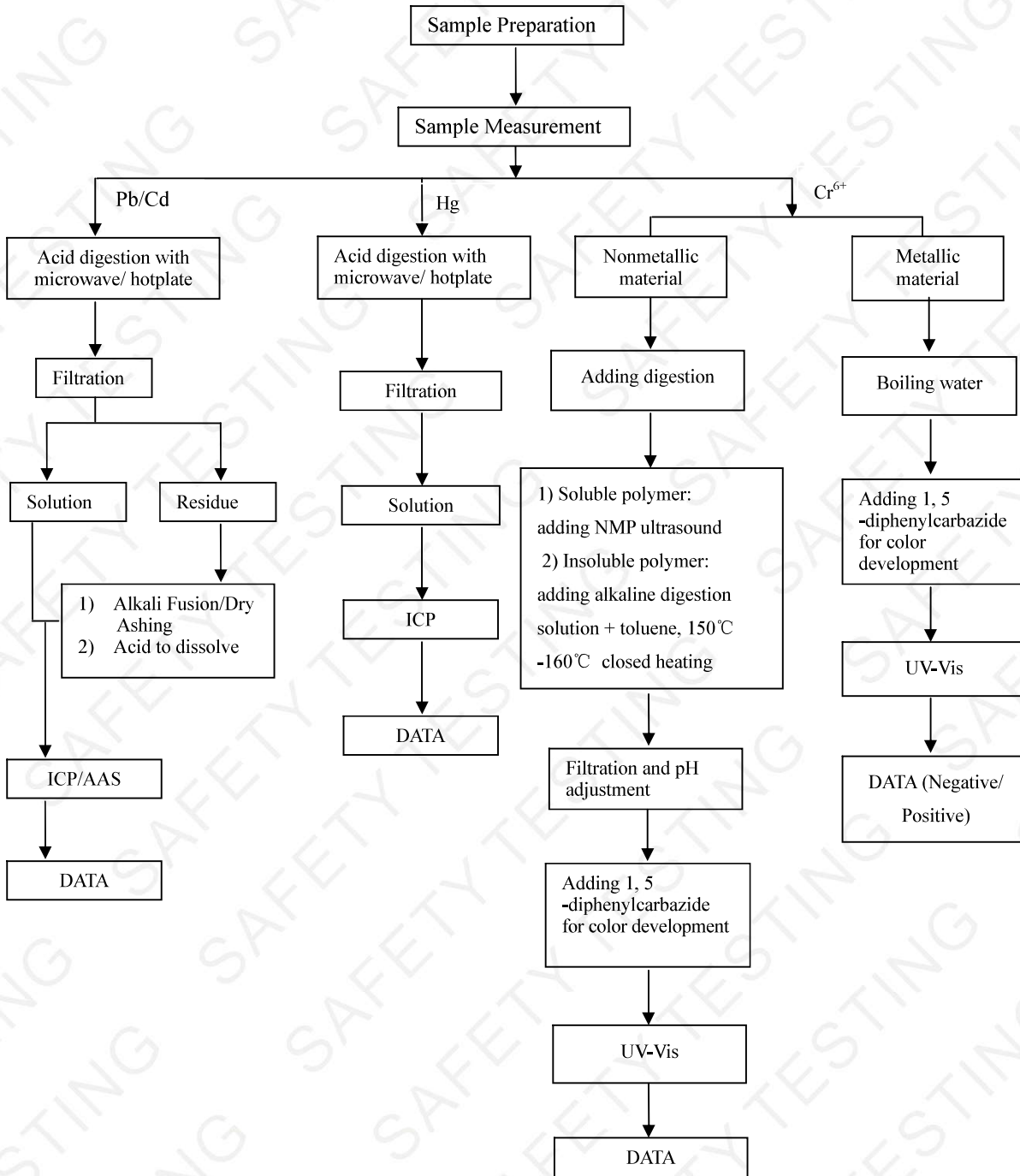
NA = Not applicable

- [a] Test method with reference to IEC 62321-3-1:2013.
- [b] Test method with reference to IEC 62321-5:2013.
- [c] Test method with reference to IEC 62321-4:2013.
- [d] Polymers and Electronic-Test method with reference to European standard IEC 62321-7-2:2017.
- [e] Metal-Test method with reference to European standard IEC 62321-7-1:2015.
- [f] Test method with reference to European standard IEC 62321-6: 2015.
- [g] Test method with reference to IEC 62321-8:2017.

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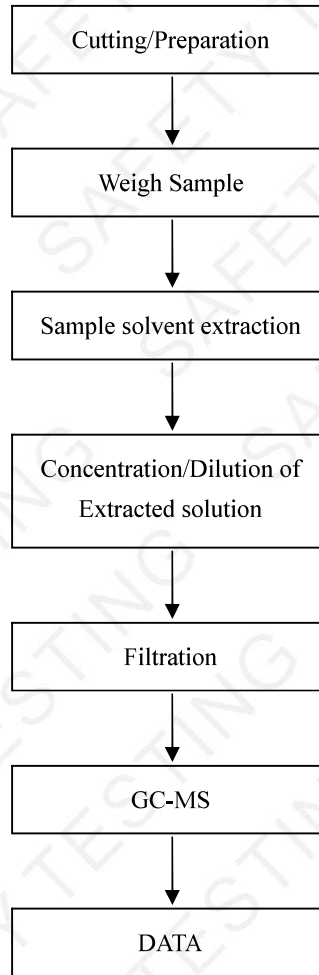


## Pb/Cd/Hg/Cr<sup>6+</sup> Testing Flow Chart



Unless otherwise stated the results shown in this report refer only to the sample(s) tested. This test report cannot be reproduced, except in full. Without prior written permission of the company,

## PBBs/PBDEs Testing Flow Chart



Unless otherwise stated the results shown in this report refer only to the sample(s) tested. This test report cannot be reproduced, except in full. Without prior written permission of the company,

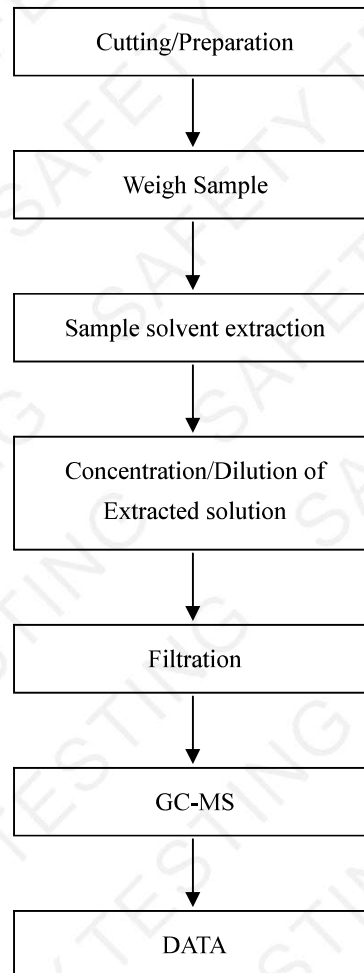
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## Phthalates Testing Flow Chart



\*\*\*End of Report\*\*\*

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Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.

Tel: 86 -769 -8507 5888 Fax: 86 -769 -8507 5898 Web: www.anci.com

# ATTESTATION OF CONFORMITY

**Attestation No.: 21AE070212F006**

This Attestation of Conformity is hereby issued to the product designated below

**Report No.** : EA21070212F06001

**Applicant** : Dongguan Wontravel Electric Co., Ltd




**Address** : No.1 Yuanshanzai Road,Henggangtou,Xin'an,Chang'an  
Town,Dongguan city,China

**Manufacturer** : Same as Applicant

**Address** : Same as Applicant

**Description of Product** : USB TRAVEL ADAPTER

**Model No.** : Refer to next page for details

**Ratings** : Input: 100-240V~ 50/60Hz ,0.8A Max  
Output: Single USB: 5V  2.4A Max  
Type-C port: 5V  3A Max  
Total output: 5V  5.6A Max

**Test Standards** : 47 CFR FCC Part 15, Subpart B  
ANSI C63.4: 2014

The device bearing the trade name and model specified above has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified. (Refer to Test Report if any modifications were made for compliance).

**Test Laboratory**

Alan He

EMC Manager

Date of Issue: Aug 10, 2021

This Attestation of conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the whole production and other relevant Directives have to be observed.



Dongguan Anci Electronic Technology Co., Ltd.

Add.: 1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake  
Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.

Tel: 86 -769 -8507 5888 Fax: 86 -769 -8507 5898 Web: www.anci.com

# ATTESTATION OF CONFORMITY

Certificate No.: 21AE070212F006

## Attachment

### Model list:

JY-305PLUS, JY-309, JY-308PRO, JY-307, JY-307R, JY-306, JY-305A, JY-305B, JY-305AL, JY-304B,  
JY-303B, JY-304S, JY-304C, JY-303S, JY-303C, JY-303PD, JY-303S-C2, JY-302S, JY-302C, JY-301S,  
JY-505PD, JY-504PD, JY-504C, JY-505C2, G520, G63, G63-PD, G63B, G63B-PD, WL-07, WL-07-C3U,  
WL-033, WL-033-C3U

# TEST REPORT



## (Supplier's Declaration of conformity) Under FCC Part15, Subpart B

Report Reference No.....:	EA21070212F06001
Engineer (name + signature).....:	Duke Liu
Reviewed by (name + signature).....:	Tiger Xu
Approved by (name + signature).....:	Alan He
Date of Receipt of EUT.....:	July 16,2021
Date of Test.....:	July 16,2021 to July 19,2021
Date of issue.....:	Aug 10,2021
Testing Laboratory.....:	Dong Guan Anci Electronic Technology Co., Ltd
Address.....:	1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.
Laboratory location.....:	EMC Laboratory
Applicant's name.....:	Dongguan Wontravel Electric Co., Ltd
Address.....:	No.1 Yuanshanzai Road,Henggangtou,Xin'an,Chang'an Town,Dongguan city,China
Manufacturer.....:	Same as Applicant
Address.....:	Same as Applicant
Factory.....:	Same as Applicant
Address.....:	Same as Applicant





Test specification:

EUT Description.....:	USB TRAVEL ADAPTER
Trade Mark.....:	N/A
Model/Type reference .....	JY-305PLUS, JY-309, JY-308PRO, JY-307, JY-307R, JY-306, JY-305A, JY-305B, JY-305AL, JY-304B, JY-303B, JY-304S, JY-304C, JY-303S, JY-303C, JY-303PD, JY-303S-C2, JY-302S, JY-302C, JY-301S, JY-505PD, JY-504PD, JY-504C, JY-505C2, G520, G63, G63-PD, G63B, G63B-PD, WL-07, WL-07-C3U, WL-033, WL-033-C3U
Test Sample .....	JY-305PLUS
Ratings.....:	Input: 100-240V~ 50/60Hz ,0.8A Max Output: Single USB: 5V $\overline{=}$ 2.4A Max Type-C port: 5V $\overline{=}$ 3A Max Total output: 5V $\overline{=}$ 5.6A Max
Tested Power.....:	Input: 230Vac, 50Hz
Standards .....	47 CFR FCC Part 15, Subpart B ANSI C63.4: 2014

The device described above was tested by Dong Guan Anci Electronic Technology Co., Ltd. to determine the maximum emission levels emanated from the device and severity levels of the device endure and its performance criterion. The measurement results are contained in this test report and Dong Guan Anci Electronic Technology Co., Ltd. assumes full responsibility for the accuracy and completeness of these measurements. This report shows the EUT is in compliance with the above official standards.

This report applies to the above sample only and shall not be reproduced in part without the written approval of Dong Guan Anci Electronic Technology Co., Ltd.



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## **1. GENERAL INFORMATION**

### **1.1 GENERAL PRODUCT INFORMATION**

The product is a USB TRAVEL ADAPTER for use with audio/video, information technology equipment

The model JY-305PLUS was tested in this report.

All models are identical, except for the model name.

The EUT passed the test.



### 1.2 FACILITIES AND ACCREDITATION

Test Location	Dong Guan Anci Electronic Technology Co., Ltd
Address	1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.
Accreditation Laboratory	The Laboratory has been assessed and proved to be in compliance with FCC, The Registration Number is 991798.
Description	All tests measurement facilities used to collect the measurement data are located at 1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.

### 1.3 NORMATIVE REFERENCES

- [1] **ANSI C63.4:2014** American National Standard for Methods of Measuring of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.
- [2] **FCC 47 CFR Part 2** General Rules and Regulations
- [3] **FCC 47 CFR Part 15** Radio Frequency Devices (Subpart B)



## 2. SUMMARY OF TEST RESULTS

### Test procedures according to the technical standards:

Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC Part15, Subpart B ANSI C63.4-2014	Conducted Emission	Class B	PASS	
	Radiated Emission Below 1 GHz	Class B	PASS	
	Radiated Emission Above 1 GHz	Class B	N/A	NOTE (1) NOTE (2)

#### NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report
- (2) If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1GHz, measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.

### 2.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

#### A. Conducted disturbance at mains terminals ports:

Test Site	Method	Measurement Frequency Range	U · (dB)	NOTE
C01	ANSI	150 KHz ~ 30MHz	3.19	

#### B. Radiated Emission Test :

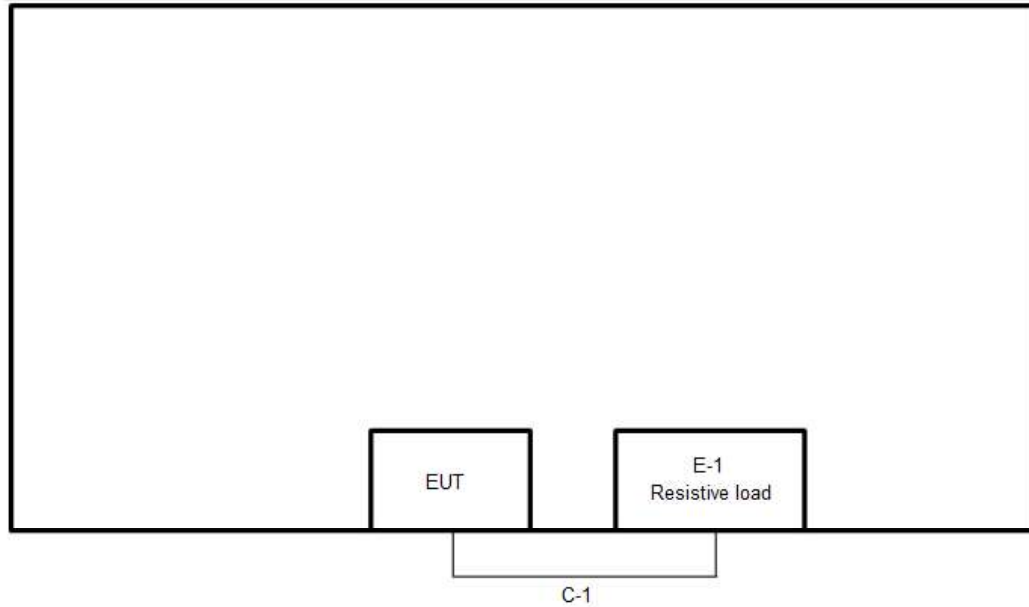
Test Site	Method	Measurement Frequency Range	Ant. H / V	U(dB)	NOTE
S02	ANSI	30MHz ~ 200MHz	V	3.69	
S02	ANSI	30MHz ~ 200MHz	H	3.69	
S02	ANSI	200MHz ~ 1000MHz	V	3.67	
S02	ANSI	200MHz ~ 1000MHz	H	3.67	

**2.2 DESCRIPTION OF TEST MODES**

<b>For Emission Test</b>	
Test Mode	Description
Mode 1	USB:5V/2.4A+Type-C:5V/3A

<b>For Immunity Test</b>	
Test Mode	Description
Mode 1	USB:5V/2.4A+Type-C:5V/3A

### 2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment
E-1	Resistive load

Item	Type of cable
C-1	DC Cable

### 3. CONDUCTED EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 LIMITS OF CONDUCTED EMISSION (MAINS PORT) (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBUV)		Class B (dBUV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:  
 Measurement Value = Reading Level + Correct Factor  
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)  
 Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz



## 3.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Instr.Code	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	AN-E010	L.I.S.N	SCHWARZBECK	NSLK 8127	8127-669	2022-05-20
2	AN-E028	TRANSIENT LIMITER	CYBERTEK	EM5010A	E1950100113	2022-05-20
3	AN-E022	RF Cable	N/A	ZT06S-BNCJ-NJ-7.5M	19044020	2022-05-20
4	AN-E020	EMI Test Receiver	ROHDE&SCHWARZ	ESCI	101358	2022-05-20
5	AN-E058	1# Shielded Room	chengyu	8m*4m*3.3m	N/A	2022-05-06
6	AN-E046	Test Software	Farad	EZ-EMC Ver:ANCI-8A1	N/A	N/A

Remark:" N/A" denotes No Model No. , Serial No. or No Calibration specified.

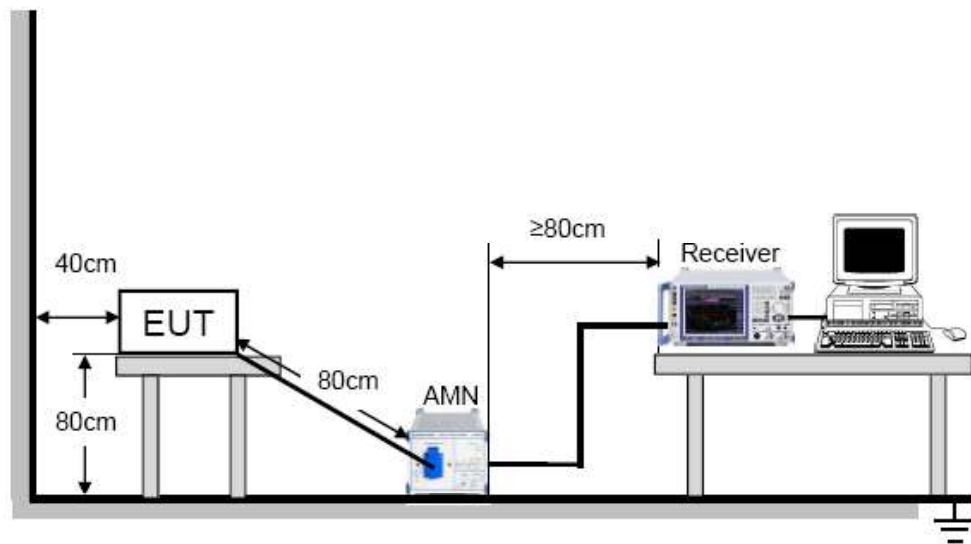
### 3.1.3 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane, with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center, forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from the nearest part of the EUT chassis.
- e. For the actual test configuration, please refer to the related Item: EUT Test Photos.

### 3.1.4 DEVIATION FROM TEST STANDARD

No deviation

### 3.1.5 TEST SETUP



For the actual test configuration, please refer to Appendix: Photographs of the Conducted Emission Test.

### 3.1.6 EUT OPERATING CONDITIONS

The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to typical use.



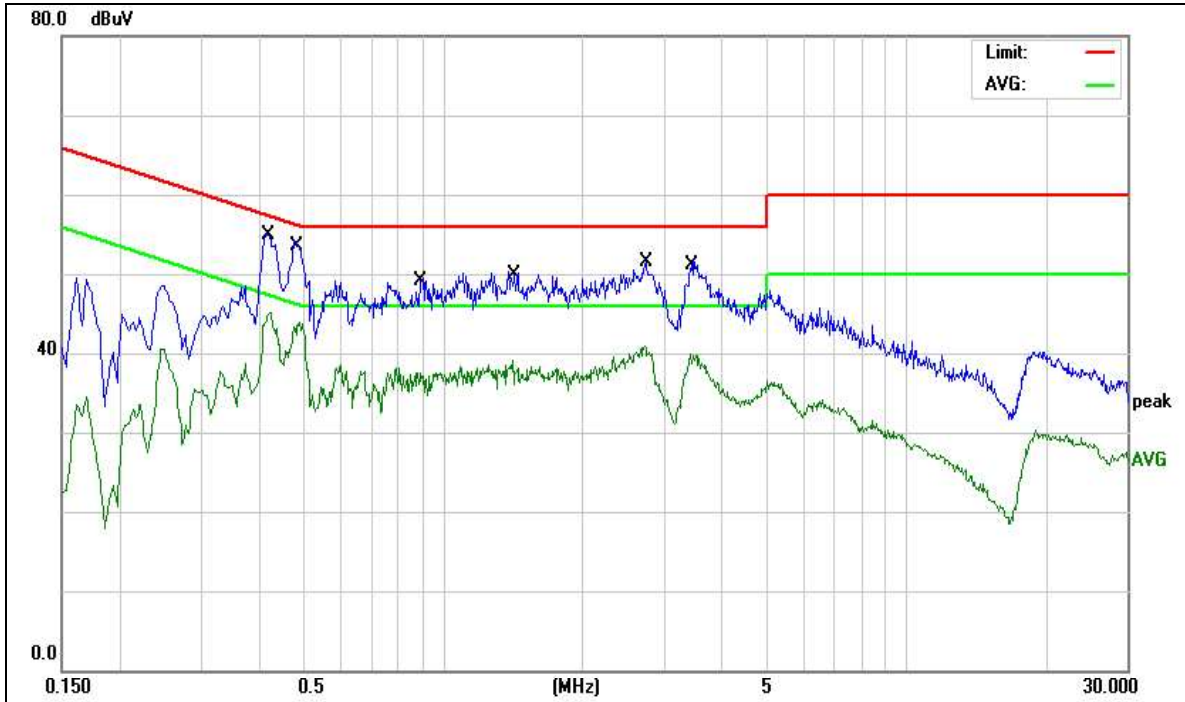
3.1.7 TEST RESULTS

<b>EUT:</b>	USB TRAVEL ADAPTER	<b>Model No. :</b>	JY-305PLUS
<b>Temperature:</b>	23.5°C	<b>Relative Humidity:</b>	52.6 %
<b>Pressure:</b>	1008 hPa	<b>Test Power :</b>	AC 120V/60Hz
<b>Test Mode :</b>	Mode1		

Remark:

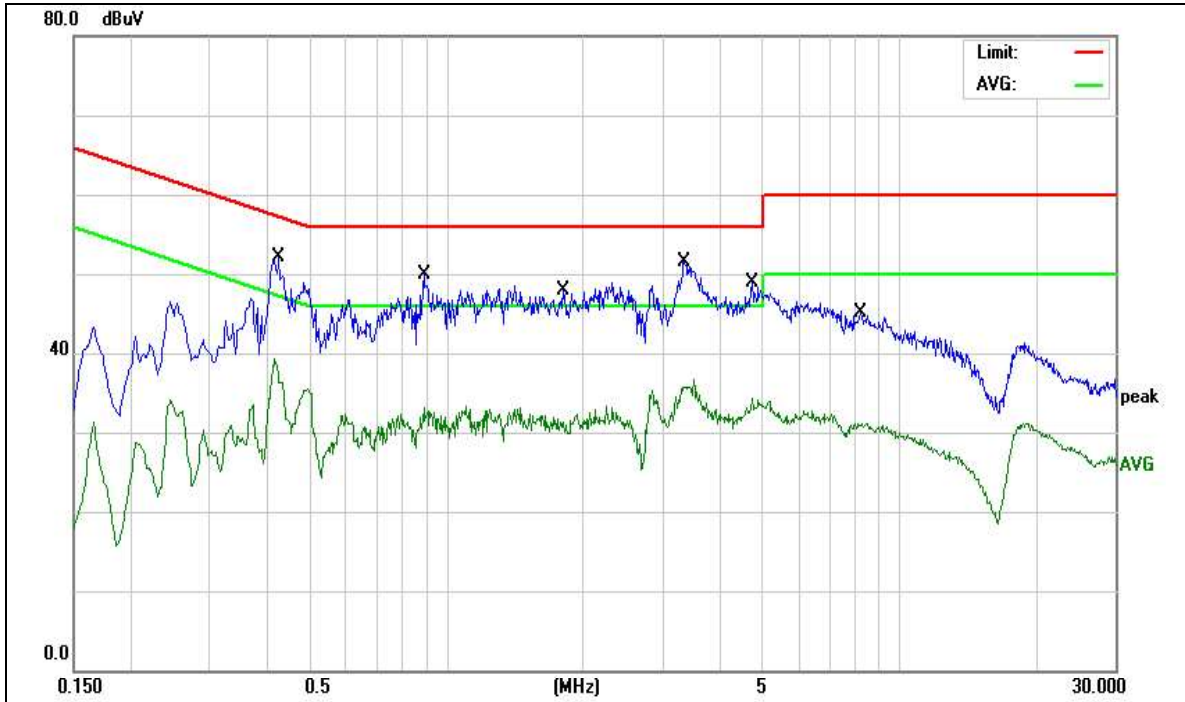
- (1) Reading marked as QP means measurements by using Quasi-Peak Detector, and AV means measurements by using Average Detector.
- (2) All readings are QP Mode values unless otherwise stated AVG in column of 『Note』 . If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits, and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a “ \* ” marked in AVG Mode column of Interference Voltage Measured.
- (3) Measuring frequency range from 150KHz to 30MHz.
- (4) This test was carried out in conducted emission shielded room.





Site:	843.3	Phase:	N	Temperature(C):	23.5(C)
Limit:	FCC Part 15 B Conduction(QP)	Test Time:	2021-07-19	Humidity(%):	52.6%
EUT:	USB TRAVEL ADAPTER	Power Rating:	AC 120V/60Hz		
M/N.:	JY-305PLUS	Test Engineer:	Bast		
Mode:	Mode1				
Note:					

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measurement(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.4219	41.99	10.08	52.07	57.41	-5.34	QP	
2	0.4219	35.12	10.08	45.20	47.41	-2.21	AVG	
3	0.4899	41.09	10.09	51.18	56.17	-4.99	QP	
4	0.4899	33.82	10.09	43.91	46.17	-2.26	AVG	
5	0.8820	36.42	10.10	46.52	56.00	-9.48	QP	
6	0.8820	27.43	10.10	37.53	46.00	-8.47	AVG	
7	1.4179	37.10	10.12	47.22	56.00	-8.78	QP	
8	1.4179	28.96	10.12	39.08	46.00	-6.92	AVG	
9	2.7219	38.27	10.18	48.45	56.00	-7.55	QP	
10 *	2.7219	30.70	10.18	40.88	46.00	-5.12	AVG	
11	3.4220	38.74	10.23	48.97	56.00	-7.03	QP	
12	3.4220	29.69	10.23	39.92	46.00	-6.08	AVG	



<b>Site:</b> 843.3	<b>Phase:</b> L1	<b>Temperature(C):</b> 23.5(C)
<b>Limit:</b> FCC Part 15 B Conduction(QP)		<b>Humidity(%):</b> 52.6%
<b>EUT:</b> USB TRAVEL ADAPTER	<b>Test Time:</b> 2021-07-19	
<b>M/N.:</b> JY-305PLUS	<b>Power Rating:</b> AC 120V/60Hz	
<b>Mode:</b> Mode1	<b>Test Engineer:</b> Bast	
<b>Note:</b>		

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measurement(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.4260	35.47	10.08	45.55	57.33	-11.78	QP	
2	0.4260	25.90	10.08	35.98	47.33	-11.35	AVG	
3	0.8900	32.19	10.10	42.29	56.00	-13.71	QP	
4	0.8900	20.62	10.10	30.72	46.00	-15.28	AVG	
5	1.8140	30.54	10.14	40.68	56.00	-15.32	QP	
6	1.8140	19.76	10.14	29.90	46.00	-16.10	AVG	
7	3.3540	35.28	10.22	45.50	56.00	-10.50	QP	
8 *	3.3540	24.02	10.22	34.24	46.00	-11.76	AVG	
9	4.7380	31.66	10.29	41.95	56.00	-14.05	QP	
10	4.7380	21.36	10.29	31.65	46.00	-14.35	AVG	
11	8.2340	28.17	10.43	38.60	60.00	-21.40	QP	
12	8.2340	19.04	10.43	29.47	50.00	-20.53	AVG	

### 3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1000MHz)

Frequency MHz	Class A (at 10m)		Class B (at 3m)	
	(uV/m)	(dBuV/m)	(uV/m)	(dBuV/m)
	Field strength	Field strength	Field strength	Field strength
30 ~ 88	90	39	100	40
88 ~ 216	150	43.5	150	43.5
216 ~ 960	210	46.4	200	46
960 ~ 1000	300	49.5	500	54

#### LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (GHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000MHz	80	60	74	54

#### FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower

**NOTE:**

- (1) The limit for radiated test was performed according to FCC Part 15;
- (2) The tighter limit applies at the band edges;
- (3) Emission level (dBuV/m) = 20log Emission level (uV/m),  
3m Emission level = 10m Emission level + 20log(10m/3m);
- (4) The bandwidth of the Receiver is set at 120 kHz.
- (5) The test result calculated as following:  
Measurement Value = Reading Level + Correct Factor,  
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use),  
Margin Level = Measurement Value - Limit Value.

3.2.2 MEASUREMENT INSTRUMENTS LIST

3m Radiated Emission Measurement 30MHz-1GHz

Item	Instr.Code	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	AN-E023	EMI Test Receiver	Rohde & Schwarz	ESPI	100502	2021-11-20
2	AN-E006	Pre-Amplifier	HP	8447D	2727A06172	2022-05-20
3	AN-E009	Bilog Antenna	Schwarzbeck	VULB9163	VULB9163-588	2022-05-21
4	AN-E033	RF Cable	N/A	JCT06S-NJ-NJ-11M	04040071-VI	2022-05-20
5	AN-E007	RF Cable	N/A	ZT06S-NJ-NJ-0.5M	1007290	2022-05-20
6	AN-E087	RF Cable	N/A	ZT06S-NJ-NJ-3M	N/A	2022-05-20
7	AN-E043	3m Semi-anechoic Chamber	chengyu	9m*6m*6m	N/A	2022-05-19
8	AN-E045	Test Software	Farad	EZ-EMC Ver:ANCI-3A1	N/A	N/A

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

### 3.2.3 TEST PROCEDURE

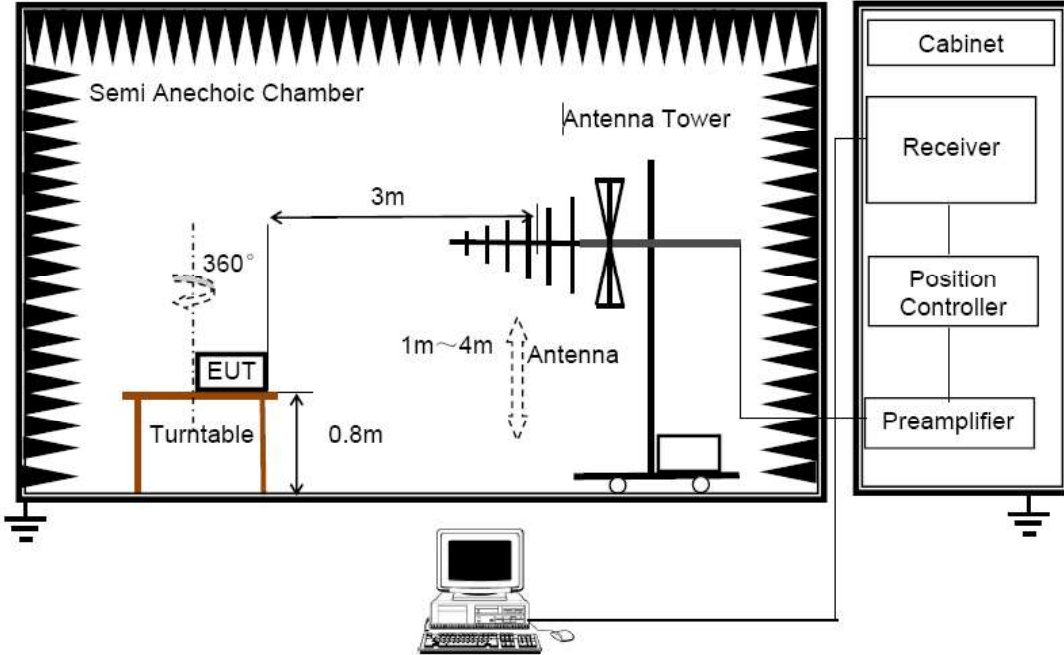
- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.2.4 DEVIATION FROM TEST STANDARD

No deviation

### 3.2.5 TEST SETUP

Radiated Emissions Test Set-Up Frequency 30MHz - 1GHz



For the actual test configuration, please refer to Appendix: Photographs of the Radiated Emission Test.

### 3.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 3.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.



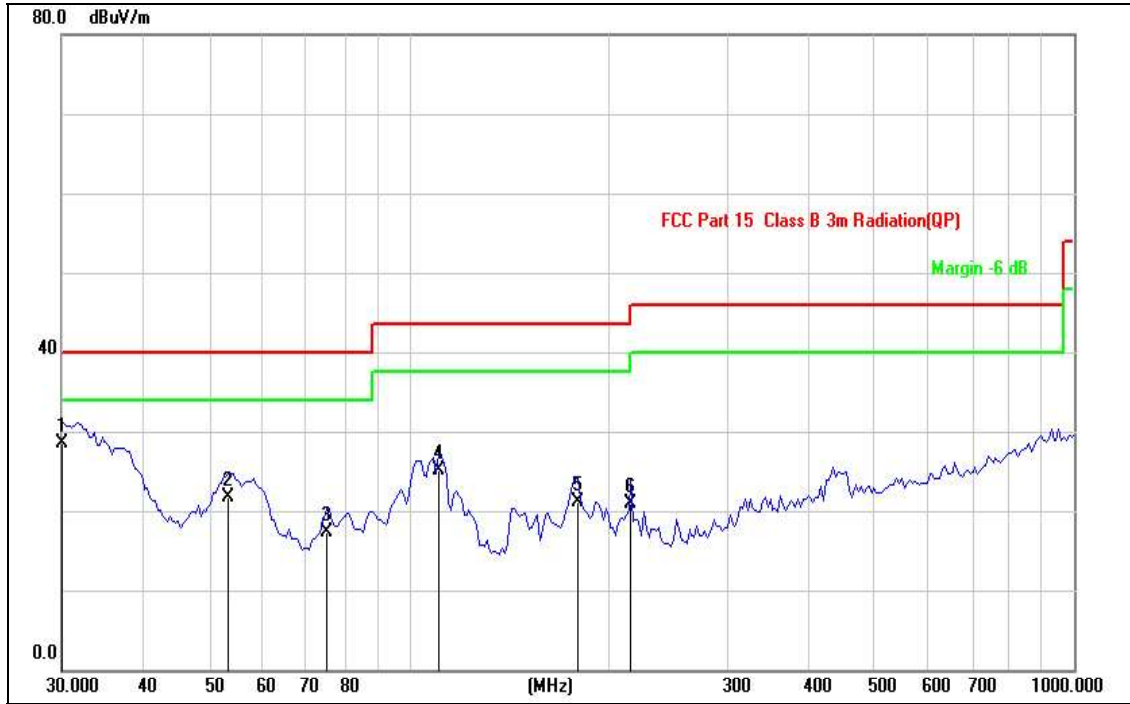
**3.2.7 TEST RESULTS**

<b>EUT :</b>	USB TRAVEL ADAPTER	<b>Model No. :</b>	JY-305PLUS
<b>Temperature :</b>	24.3℃	<b>Relative Humidity:</b>	53.2 %
<b>Pressure :</b>	1008 hPa	<b>Test Power :</b>	AC120V/60Hz,
<b>Test Mode :</b>	Mode1		

**Remark :**

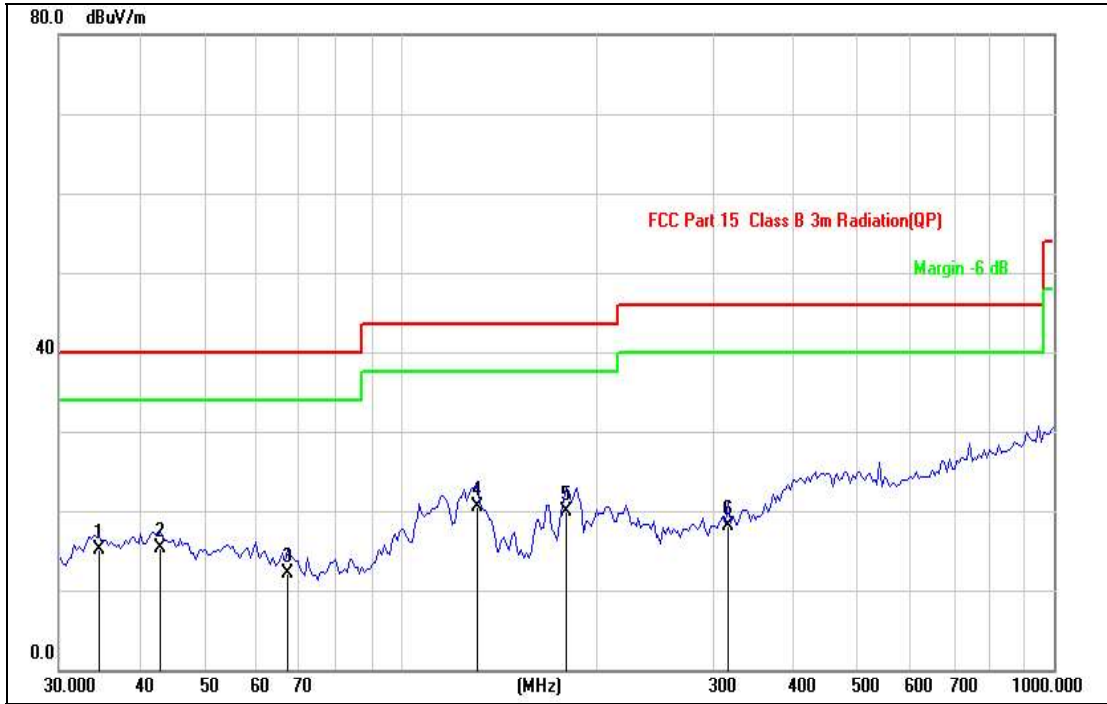
- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Detector or Peak Detector.
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (3) Measuring frequency range from 30MHz to 1000MHz.
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not how in table.
- (5) This test was carried out in 3m anechoic chamber.





<b>Site:</b>	<b>LAB</b>	<b>Antenna::</b>	<b>Vertical</b>	<b>Temperature(C):</b>	<b>24.3(C)</b>
<b>Limit:</b>	<b>FCC Part 15 Class B 3m Radiation(QP)</b>			<b>Humidity(%):</b>	<b>53.2%</b>
<b>EUT:</b>	<b>USB TRAVEL ADAPTER</b>	<b>Test Time:</b>	<b>2021/07/19</b>		
<b>M/N.:</b>	<b>JY-305PLUS</b>	<b>Power Rating:</b>	<b>AC 120V/60Hz</b>		
<b>Mode:</b>	<b>Model</b>	<b>Test Engineer:</b>	<b>Bast</b>		
<b>Note:</b>					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1 *	30.0000	43.13	-14.71	28.42	40.00	-11.58	QP
2	53.5052	33.80	-12.16	21.64	40.00	-18.36	QP
3	75.3142	32.43	-15.17	17.26	40.00	-22.74	QP
4	110.7627	36.96	-11.87	25.09	43.50	-18.41	QP
5	179.3863	33.41	-12.32	21.09	43.50	-22.41	QP
6	215.6456	31.56	-10.71	20.85	43.50	-22.65	QP



<b>Site:</b> LAB	<b>Antenna::</b> Horizontal	<b>Temperature(C):</b> 24.3(C)
<b>Limit:</b> FCC Part 15 Class B 3m Radiation(QP)		<b>Humidity(%):</b> 53.2%
<b>EUT:</b> USB TRAVEL ADAPTER	<b>Test Time:</b>	2021/07/19
<b>M/N.:</b> JY-305PLUS	<b>Power Rating:</b>	AC 120V/60Hz
<b>Mode:</b> Model	<b>Test Engineer:</b>	Bast
<b>Note:</b>		

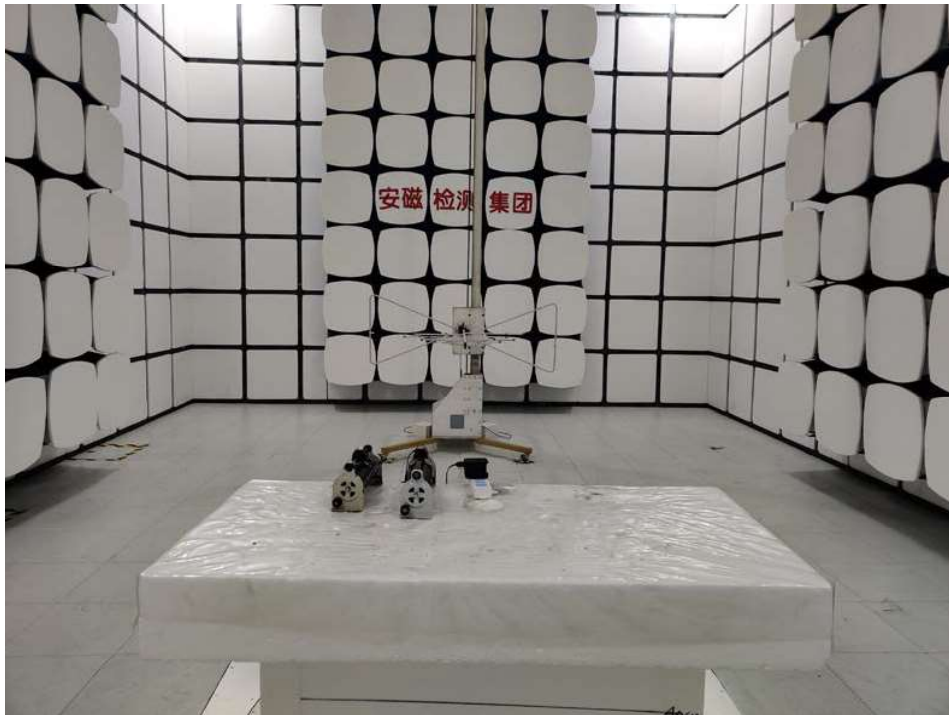
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	34.5173	29.04	-14.00	15.04	40.00	-24.96	QP
2	42.9750	27.93	-12.69	15.24	40.00	-24.76	QP
3 *	67.2022	26.55	-14.45	12.10	40.00	-27.90	QP
4	130.8369	34.75	-14.31	20.44	43.50	-23.06	QP
5	179.3863	32.32	-12.32	20.00	43.50	-23.50	QP
6	317.1445	26.78	-8.72	18.06	46.00	-27.94	QP

**4. ATTACHMENT**  
**4.1 EUT TEST PHOTO**

**Conducted Emission Measurement Photo**



**Radiated Measurement Photo**



#### 4.2 EUT PRODUCT PHOTO

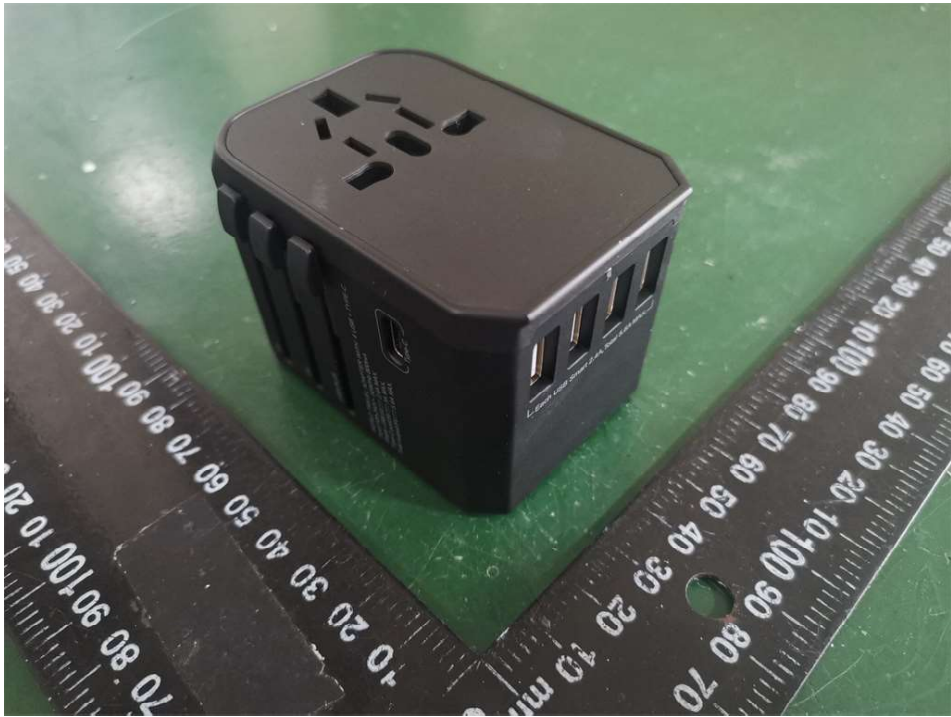


Figure 1. Overall view of unit

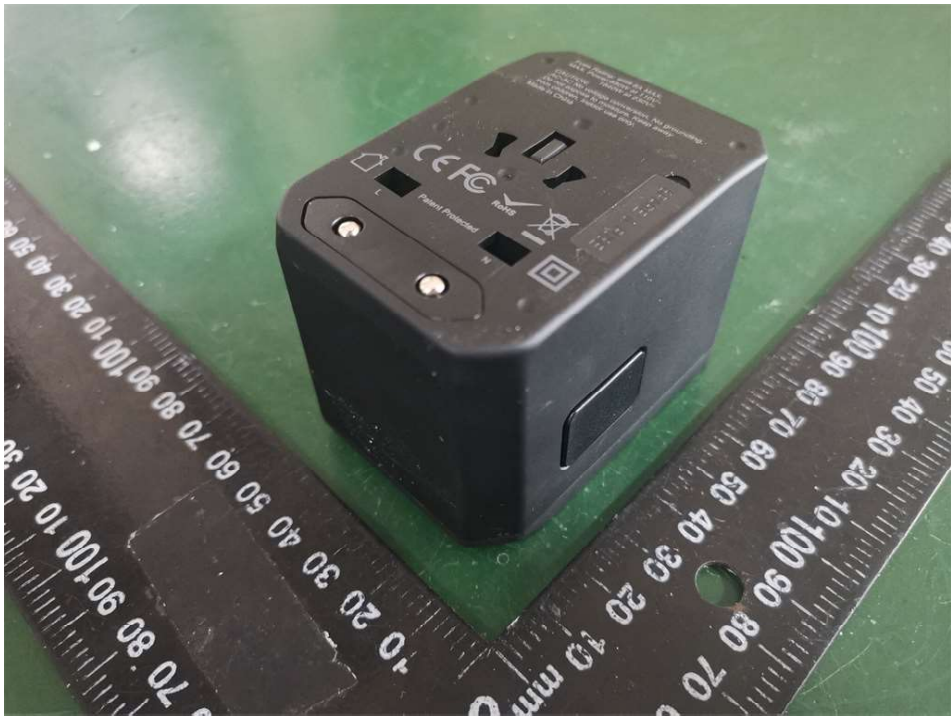


Figure 2. Overall view of unit





Figure 3. Overall view of unit

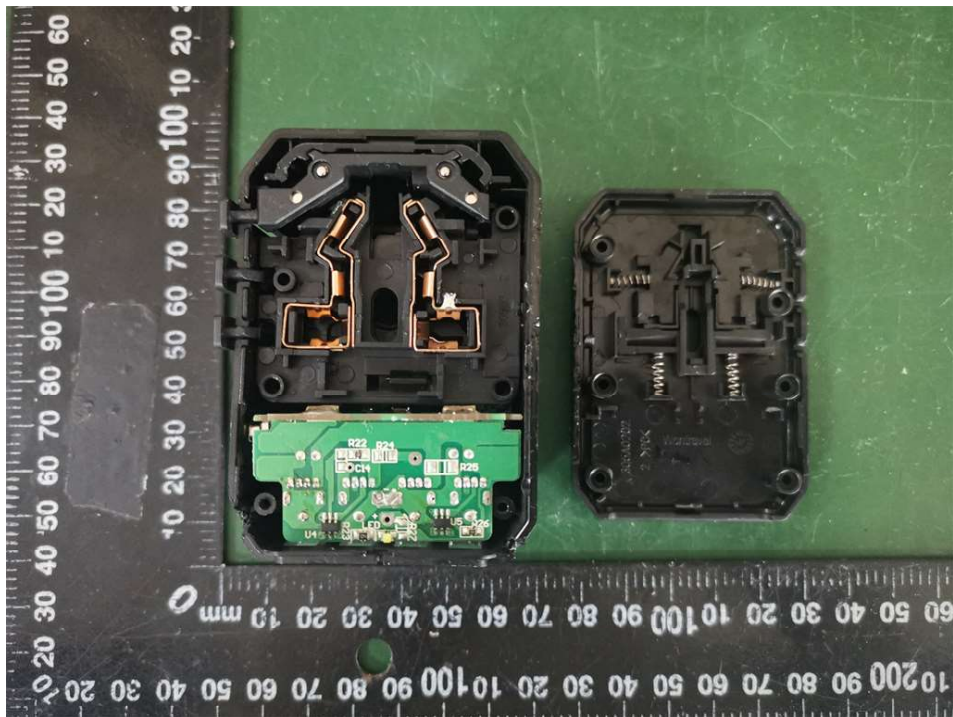


Figure 4. Inside view of unit

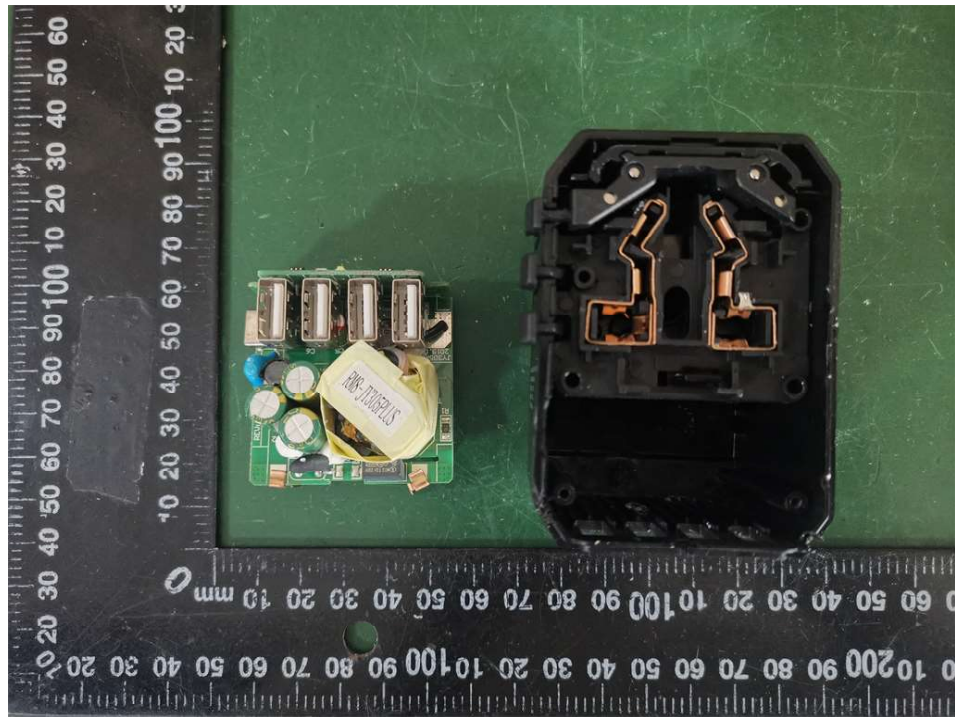


Figure 5. Inside view of unit

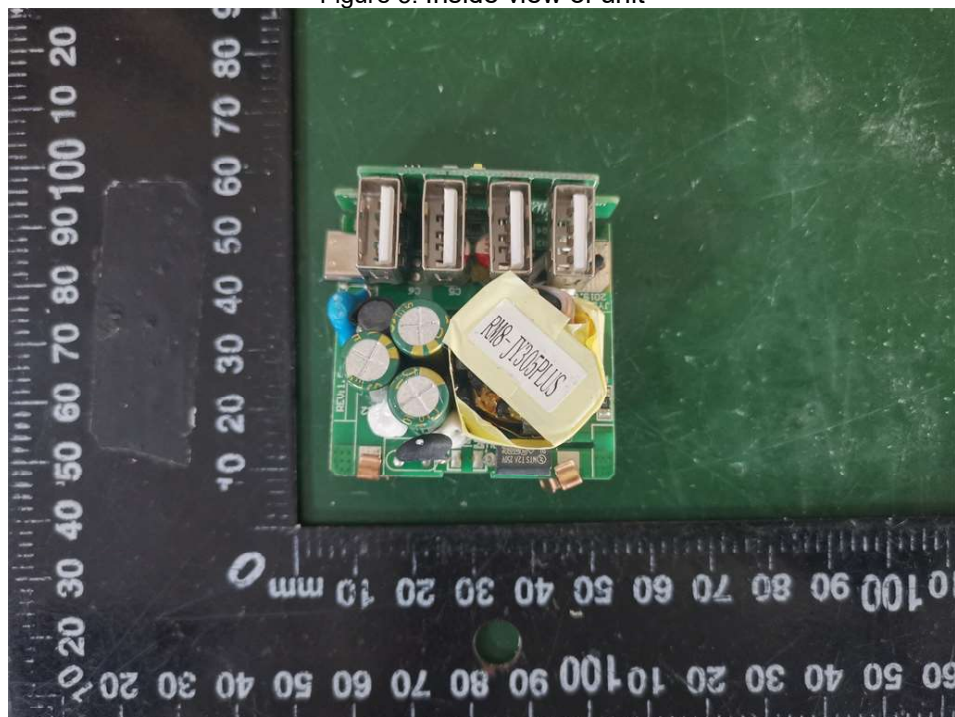


Figure 6. Top view of PCB

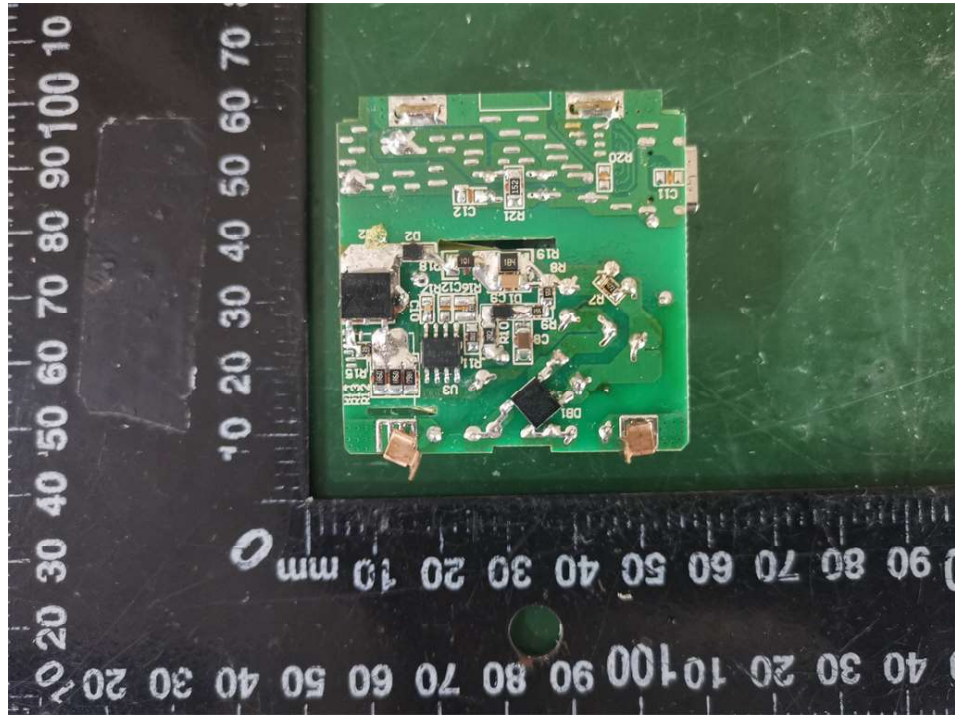


Figure 7. Bottom view of PCB

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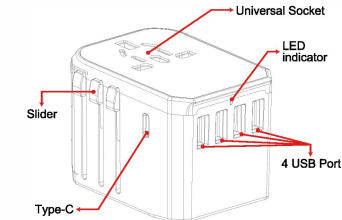


# Model: JY-305A 5600mA-英文常规5折页说明书-双面印刷-Rev1.0- 2019-11-19



## PRODUCT OVERVIEW

### USB Charger

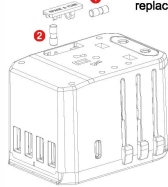


### Adapter



## REPLACEMENT OF THE FUSE

8A overload fuse, fuse will be automatically cut off when overload, replace it with spare fuse.



- 1.Remove the small cover to have access to the replacement fuse ①.
- 2.Remove the old fuse ① and replace with a new one ②. Only use type 8A fuse.

### Specifications:

Input: 100-240V~ 50/60Hz 800mA  
Single USB: 5V=2.4A MAX.  
Type-C port: 5V=3A MAX.  
Total output: 5V=5.6A MAX.

Fuse Rating: 8A MAX.  
MAX Power: 880W at 110V~  
1840W at 230V~

## HOW TO USE THE ADAPTER

Use USA Plug: Slide down the USA/AUS plug completely as Arrow B marked. And make sure the two contact blades are turned to the parallel position. Press the square button and slide back the USA/AUS plug to stop use it.

① America,Canada  
② Japan,Taiwan (Two-corner flat)

Use AUS Plug: Slide down the USA/AUS plug completely as Arrow B marked. And rotate the contact blades to "V" shape. Press the square button and slide back the USA/AUS plug to stop it.

① China(mainland) Australia  
② New Zealand(Octagon Pins)

Use UK Plug: Slide down the UK plug completely as Arrow B marked. Press the square button and side back the UK plug to stop use it.

① UK,HK,Malaysia  
② Singapore(UK three pins)

Use EU Plug: Slide down the EU plug completely as Arrow B marked. Press the square button and side back the EU plug to stop use it.

① Germany,France,Netherlands  
② Belgium(Eu universal round pin)

## COMPATIBILITY



The product is suitable for most electronic devices up to 1840W at 230V and 880W at 110V. It can be used with a multitude of appliances such as: Camera, iPad, iPhone, MacBook, Android smartphone, Power bank, Headset, Game machine, Shaver, GPS etc. Please check the safety data sheet or data plate of the device before using.



## WARNINGS

- The total maximum output of charger is 5600mA, Type-C port is 15W and the maximum of 5 USB ports are 5600mA. If 5 devices are charging at the same time and more than 5600mA, simply remove one device and charge individually.
- This adapter plug does not convert voltage. The input voltage of the appliances you want to connect must match the local power network voltage. No grounding.
- Unplug the adapter from the wall socket while not using.
- Do not use the adapter if the housing is damaged.
- Do not expose to liquid,moisture or humidity.
- Do not handle with wet hands.
- Do not use with electronic devices demanding power over (1840W at 230V; 880W at 110V).
- Keep away from reach of children.
- For indoor use only.

## COMPATIBLE COUNTRIES

### USA PLUG:

- A American Samoa
- Antilles
- Anaba
- B Bahamas
- B Bangladesh
- B Barbados
- B Bermuda
- B Bolivia
- B Brazil
- C Cuba
- C Cambodia
- C Canada
- C Cayman Islands
- C China
- C Colombia
- C Costa Rica
- C Cuba
- E Ecuador
- E El Salvador
- G Guam
- G Guatemala

- Guyana
- H Haiti
- H Honduras
- J Japan
- J Jamaica
- L Laos
- L Lebanon
- L Liberia
- M Maldives
- M Mexico
- M Micronesia
- M Montserrat
- N Netherlands
- N Nicaragua
- N Niger
- O Okinawa
- P Panama
- Peru
- P Philippines
- P Puerto Rico
- S St. Vincent
- S Saudi Arabia
- T Tahiti

### AUS PLUG:

- A American Samoa
- A Argentina
- A Australia
- C China
- E El Salvador
- F Fiji
- G Guatemala
- K Kiribati
- N Nauru
- N New Zealand
- P Panama
- P Papua New Guinea
- S St. Vincent
- T Tajikistan
- T Tonga

### UK PLUG:

- U Uruguay
- M Macau
- B Bahrain
- B Bangladesh
- B Belize
- B Botswana
- B Brunei
- C Cameroon
- C Channel Islands
- D Dominica
- E El Salvador
- G Gambia
- G Ghana
- G Gibraltar
- G Grenada
- G Guatemala
- G Guyana
- H Hong Kong
- I Iraq
- I Ireland
- I Isle of Man
- J Jordan
- K Kuwait

### EU PLUG:

- A Albania
- A Algeria
- A Angola
- A Argentina
- A Austria
- A Azerbaijan
- B Balearic Islands
- B Bangladesh
- B Belgium
- B Bolivia
- B Bosnia
- B Brazil
- B Bulgaria
- B Burkina Faso
- B Burundi
- C Cameroon
- C Canary Islands
- C Cape Verde
- C Central African Republic
- C Channel Islands
- C Chile
- C Comoros
- C Congo
- L Lebanon
- L Laos
- M Malawi
- M Malaysia
- M Maldives
- M Malta
- M Mauritius
- M Myanmar
- N Nigeria
- O Oman
- Q Qatar
- St. Lucia
- St. Vincent
- Saudi Arabia
- Seychelles
- Sierra Leone
- Singapore
- T Tanzania
- U Uganda
- United Arab Emirates
- United Kingdom
- V Vietnam
- Y Yemen
- Z Zambia
- Zimbabwe

- Croatia
- Cote d' Ivoire
- Cyprus
- D Denmark
- D Djibouti
- E Egypt
- E El Salvador
- E Equatorial Guinea
- E Eritrea
- F Faeroe Islands
- F Finland
- F France
- F Gabon
- G Germany
- G Gibraltar
- G Greece
- G Greenland
- G Guadeloupe
- G Guinea
- G Guinea-Bissau
- H Hungary
- I Iceland
- I India
- I Indonesia
- I Iran

- Iraq
- Israel
- I Italy
- K Kazakhstan
- K Korea
- K Kuwait
- L Laos
- L Lebanon
- L Lithuania
- L Luxembourg
- M Macedonia
- M Madagascar
- M Madeira
- M Mali
- M Martinique
- M Mauritania
- M Mauritius
- M Monaco
- M Morocco
- M Mozambique
- M Myanmar
- N Nepal
- N Netherlands
- N Niger
- N Norway

- O Oman
- Pakistan
- P Paraguay
- P Peru
- P Philippines
- P Poland
- P Portugal
- R Romania
- R Russia
- R Rwanda
- S Senegal
- S Somalia
- S Spain
- S Sudan
- S Suriname
- S Sweden
- S Switzerland
- S Syria
- T Thailand
- T Togo
- T Tunisia
- T Turkey
- U Uruguay
- V Vietnam
- Z Zambia