

TEST REPORT	
Report Number	WUX251231005E01
Date of Test	January 05, 2026 to January 20, 2026
Date of issue	January 27, 2026
Name of Testing Laboratory preparing the Report	Shenzhen Wuxiang Testing (Group) Co., Ltd Building B, Xinbaosheng, No.233, Xixiang Street, Bao'an District, Shenzhen, China
Applicant's name	Wenzhou Yijie Electric Co., Ltd
Address	4th Floor, No. 3808 Binhai 3rd Road, Tianhe Street, Longwan District, Wenzhou City, Zhejiang Province, China
Test specification:	
Standard	EN IEC 61000-6-3:2021 EN IEC 61000-6-1:2019 EN IEC 61000-3-2:2019 + A1:2021 + A2:2024 EN 61000-3-3:2013 + A1:2019 + A2:2021
Test procedure	/
Non-standard test method	/
Test Report Form No	CE/EMC_1M
Test Report Form(s) Originator	LCIE
Master TRF	Dated 2020-01
This device described above has been tested by WUXIANG, and the test results show that the equipment under test (EUT) is in compliance with the 2014/30/EU Directive requirements. And it is applicable only to the tested sample identified in the report. This report shall not be reproduced except in full, without the written approval of WUXIANG, this document may be altered or revised by WUXIANG, personal only, and shall be noted in the revision of the document.	
Test item description	Smart Socket
Trade Mark	ETTROI
Manufacturer	Wenzhou Yijie Electric Co., Ltd 4th Floor, No. 3808 Binhai 3rd Road, Tianhe Street, Longwan District, Wenzhou City, Zhejiang Province, China
Model/Type reference	MTWF2102 EVWF2102, LNWF2102, LBWF2102, LGWF2102, MTZB2102, EVZB2102, LNGB2102, LBZB2102, LGZB2102, ETB2102, ETG2102, ET4001, ETWF4001
Ratings	Input: 240 V~, 50/60 Hz, 16 A

*******Modified History*******

Revision	Description	Issued Data	Remark
Revision 1.0	Initial Test Report Release	January 27, 2026	Candy Zheng



WUXIANG

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	Testing Laboratory:	Shenzhen Wuxiang Testing (Group) Co., Ltd.
Testing location/ address.....:		Building B, Xinbaosheng, No.233, Xixiang Street, Bao'an District, Shenzhen, China
Tested by (name + signature).....:		Test Engineer Candy Zheng
Approved by (name + signature).....:		Manager Tony Bi





1. Test Summary

Emission			
Requirement - Test	Test Method		Result
Conducted Emission	EN IEC 61000-6-3:2021		N/A
Radiated Emission	EN IEC 61000-6-3:2021		PASS
Immunity			
Requirement - Test	Test Method	Performance criteria	Result
Electrostatic discharges	EN 61000-4-2:2009	B	PASS
Radio-frequency electromagnetic field	EN IEC 61000-4-3:2020	A	PASS
Fast transients	EN 61000-4-4:2012	B	N/A
Surges	EN 61000-4-5:2014 + A1:2017	B	N/A
Radio-frequency common mode	EN IEC 61000-4-6:2023	A	N/A
Power frequency magnetic field	EN 61000-4-8:2010	A	N/A
Voltage Dips and Voltage interruptions	EN IEC 61000-4-11:2020	B &B & C & C	N/A

Requirement - Test	Test Method	Limit	Result
Harmonic current emissions	EN IEC 61000-3-2:2019 + A1:2021 + A2:2024	Class A	N/A
Voltage changes, voltage fluctuations and flicker	EN 61000-3-3:2013 + A1:2019 + A2:2021	Clause 5	N/A

Remark: N/A is abbreviation for Not Applicable.



2. GENERAL INFORMATION

2.1 Description of Device (EUT)

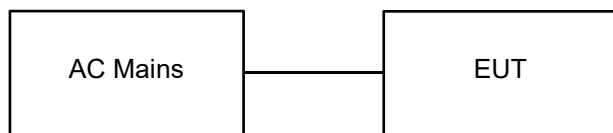
EUT:	Smart Socket
Model Number:	MTWF2102
Model Difference:	/
Power Supply:	AC240V
Testing Voltage:	AC240V
Highest Frequency Generated:	Below 108 MHz

2.2 Other Accessory Device List and Details

Description	Manufacturer	Model	Note
/	/	/	/
/	/	/	/

2.3 Block diagram of EUT configuration

Mode 1



2.4 Test Mode

Pretest mode	Mode 1: Working mode		
Worst-case Test mode	Conducted Emission		N/A
	Radiated Emission	Below 1 GHz	Mode 1
		Above 1 GHz	N/A
	Harmonic current emissions		N/A
	Voltage changes, voltage fluctuations and flicker		N/A
	Electrostatic discharges		Mode 1
	Radio-frequency electromagnetic fields		Mode 1
	Fast transients		N/A
	Surges		N/A
	Injected currents		N/A
	Power frequency magnetic field		N/A
	Voltage dips and short interruptions		N/A

* Only the worst-case data is represented in the report.

2.5 Test Site Environment

Test Item	Required		Actual
Radiated Emission	Temperature (°C)	15-35	24.0
	Humidity (%RH)	25-75	54
	Barometric pressure (mbar)	860-1060	1014
Electrostatic discharges	Temperature (°C)	15-35	24.0
	Humidity (%RH)	30-60	52.0
	Barometric pressure (mbar)	860-1060	1014
Continuous RF electromagnetic field disturbances	Temperature (°C)	15-35	24.1
	Humidity (%RH)	25-75	53.9
	Barometric pressure (mbar)	860-1060	1014

2.6 Test Instrument Used

Radiated emissions Test (966 chamber)

Equipment	Manufacturer	Model	Last Cal.	Next Cal.
Receiver	R&S	ESCI	June 19, 2025	June 18, 2026
Amplifier	Schwarzbeck	BBV 9743 B	June 19, 2025	June 18, 2026
Amplifier	Schwarzbeck	BBV 9718 B	June 19, 2025	June 18, 2026
Bilog Antenna	Schwarzbeck	VULB9162	June 19, 2025	June 18, 2026
Horn Antenna	Schwarzbeck	BBHA9120D	June 19, 2025	June 18, 2026
Spectrum Analyzer	R&S	FSV40	June 19, 2025	June 18, 2026

Electrostatic discharge immunity Test

Equipment	Manufacturer	Model	Last Cal.	Next Cal.
ESD TEST Generator	HTEC	HESD16	June 19, 2025	June 18, 2026

Continuous RF electromagnetic field disturbance

Equipment	Manufacturer	Model	Last Cal.	Next Cal.
Signal Generator	R&S	SMB100A	June 19, 2025	June 18, 2026
Signal Generator	R&S	SMR40	June 19, 2025	June 18, 2026
Power Amplifier	A&R	250W1000A	June 19, 2025	June 18, 2026
Power Amplifier	A&R	1150A100B	June 19, 2025	June 18, 2026
Power Amplifier	A&R	60S1G4	June 19, 2025	June 18, 2026
Communication antenna	Schwarzbeck	FPA3-0.8-6.0R/1329	June 19, 2025	June 18, 2026

2.7 Testing software

Project	Software name	Edition
Radiated Emission	EZ-EMC	FA-03A2 RE+

2.8 Measurement uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Value (dB)
Conducted Emission (150kHz-30MHz)	2.60
Radiated Emission(30MHz~1GHz)	4.60
Radiated Emission(1GHz~6GHz)	4.30

Decision Rule

- ☒ Uncertainty is not included
☐ Uncertainty is included

3. Conducted Emission

3.1 .Limit

A.C. Mains Conducted Interference Limit

Frequency (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

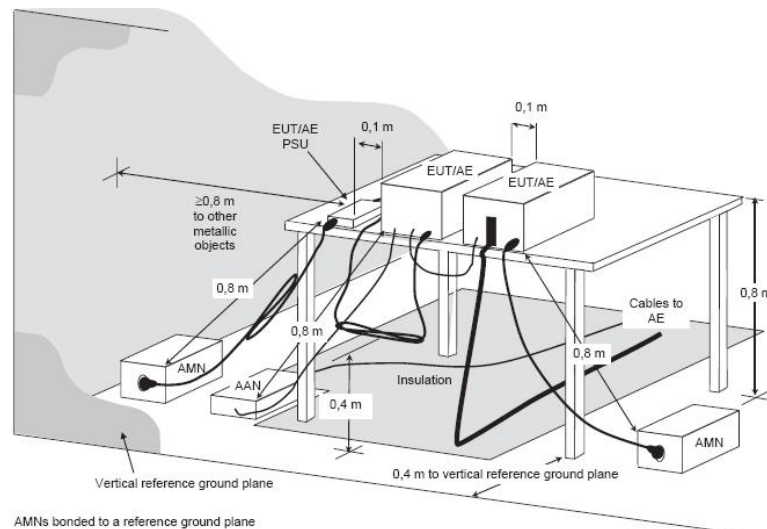
Note:

- (1) The lower limit shall apply at the transition frequencies.
- (2) The limit decreases in line with the logarithm of the frequency in the range 0.15 to 0.50 MHz.
- (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

Telecommunication Port Asymmetric mode Conducted Interference Limit

Requirement (MHz)	Class A Equipment				Class B Equipment			
	Voltage Limit (dBμV)		Current Limit (dBμA)		Voltage Limit (dBμV)		Current Limit (dBμA)	
	QP	Avg.	QP	Avg.	QP	Avg.	QP	Avg.
0.15 to 0.50	95 to 85	84 to 74	54 to 45	43 to 32	85 to 76	75 to 53	42 to 33	32 to 23
0.50 to 30	84	74	46	33	75	62	32	22

3.2 Test setup



3.3 Test Procedure

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

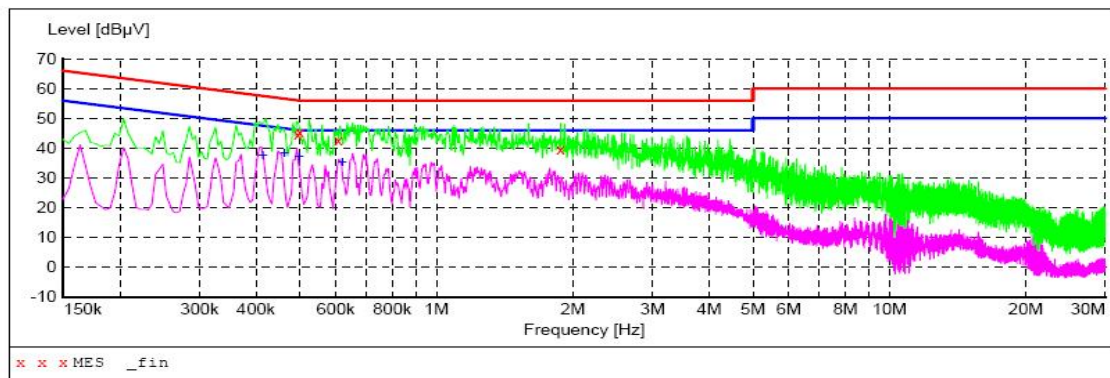
c. The test results of conducted emissions at mains ports are recorded of six worst margins for quasi-peak(mandatory) [and average (if necessary)] values against the limits at frequencies of interest unless the margin is 20 dB or greater.

Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

3.4 Test Result

Pass.

SCAN TABLE: "Voltage (9K-30M) FIN"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT:

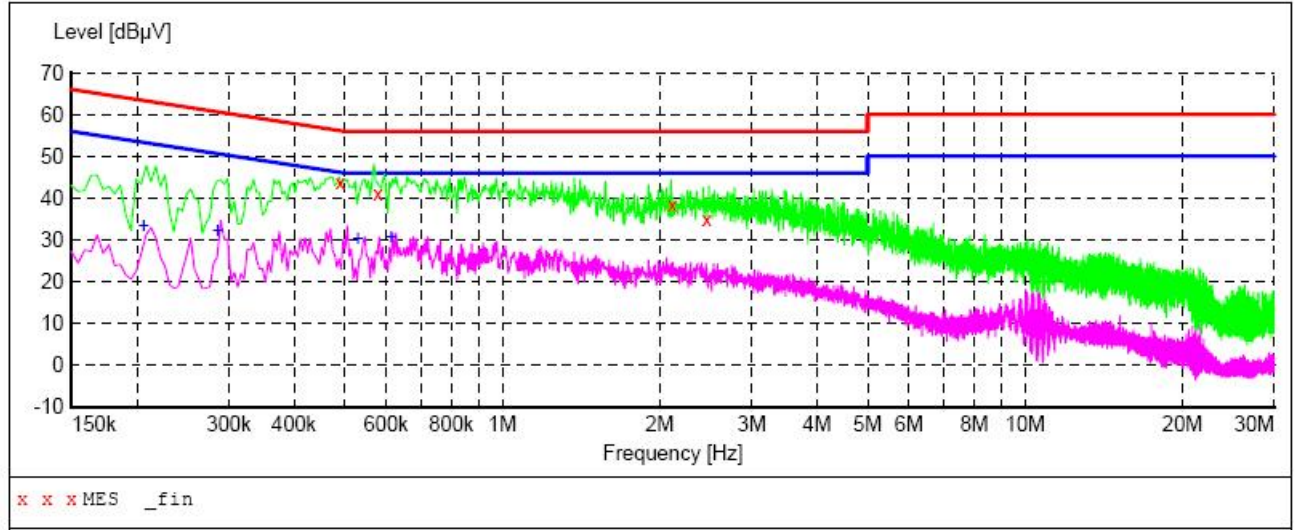
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.494000	44.60	10.2	56	11.5	QP	L1	GND
0.500000	45.40	10.2	56	10.6	QP	L1	GND
0.608000	42.60	10.2	56	13.4	QP	L1	GND
1.880000	39.40	10.3	56	16.6	QP	L1	GND

MEASUREMENT RESULT:

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.414000	37.70	10.2	48	9.9	AV	L1	GND
0.462000	38.40	10.2	47	8.3	AV	L1	GND
0.498000	37.30	10.2	46	8.7	AV	L1	GND
0.620000	35.20	10.2	46	10.8	AV	L1	GND

SCAN TABLE: "Voltage (9K-30M) FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT:

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.490000	43.80	10.2	56	12.4	QP	N	GND
0.578000	41.00	10.2	56	15.0	QP	N	GND
2.114000	38.40	10.4	56	17.6	QP	N	GND
2.462000	34.90	10.4	56	21.1	QP	N	GND

MEASUREMENT RESULT:

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.206000	33.60	10.2	53	19.8	AV	N	GND
0.286000	32.50	10.2	51	18.1	AV	N	GND
0.530000	30.50	10.2	46	15.5	AV	N	GND
0.614000	30.60	10.2	46	15.4	AV	N	GND

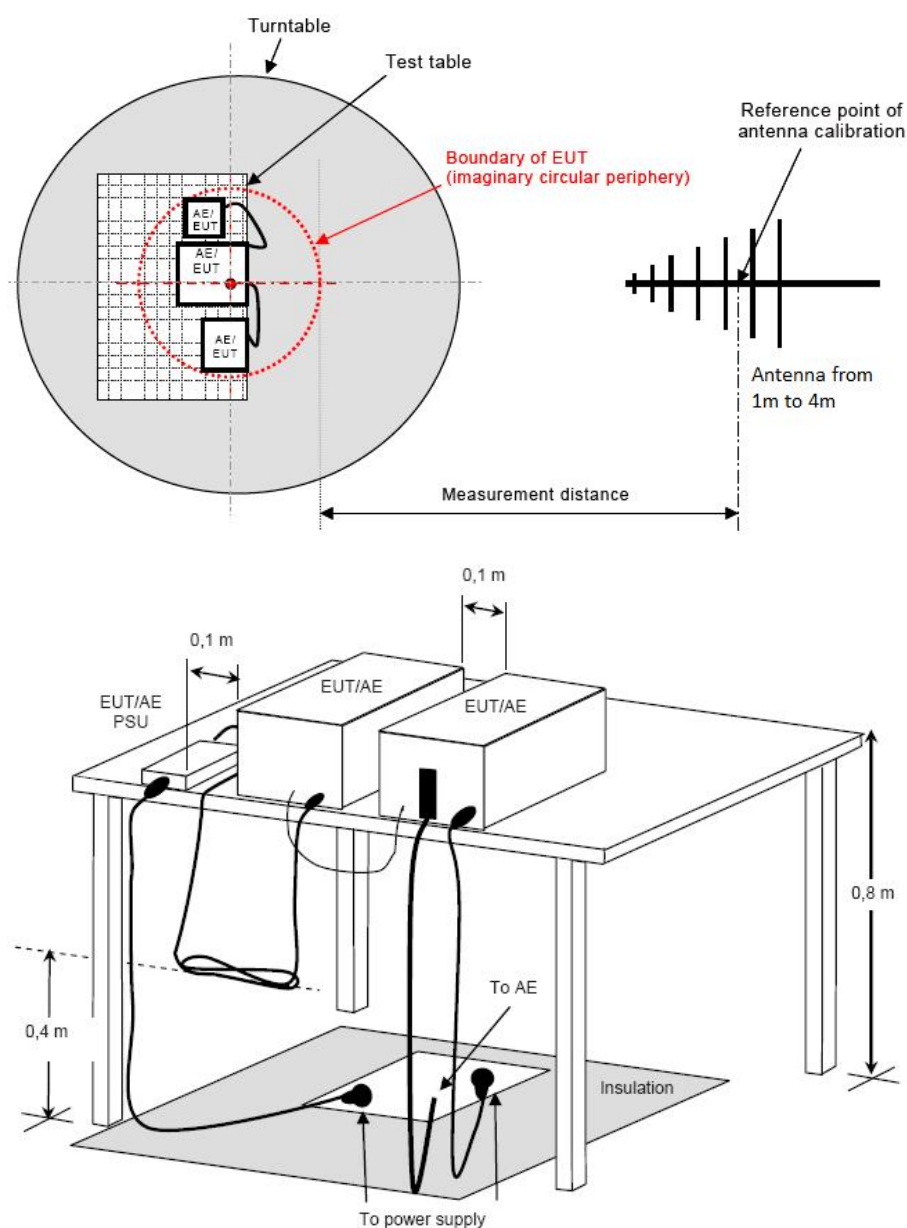
4. Radiated emission test

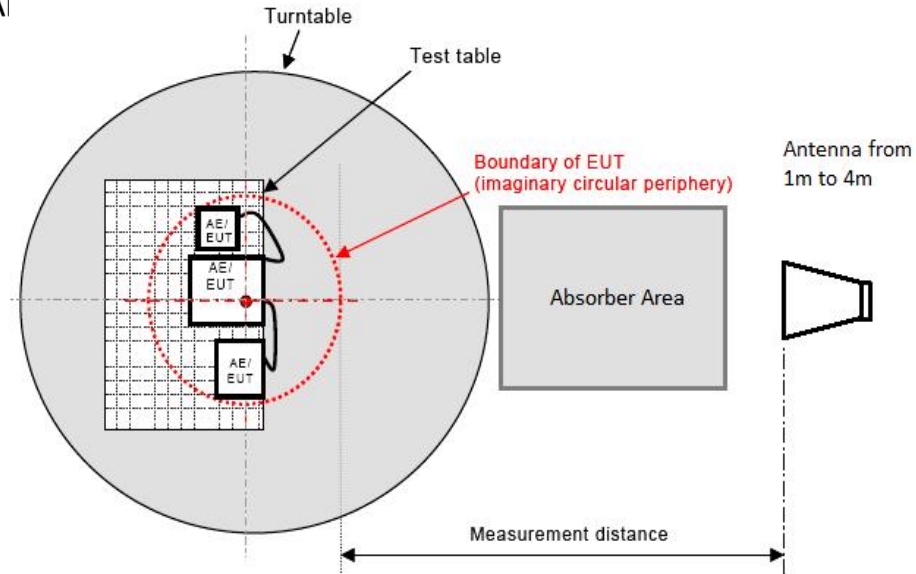
4.1 Limit

Frequency (MHz)	dBuV/m (Distance 3m)
30 ~ 230	40
230 ~ 1000	47

Note: The lower limit shall apply at the transition frequencies.

4.2 Block diagram of test setup





4.3 Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to EN55015 on radiated emission test.

The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120kHz.

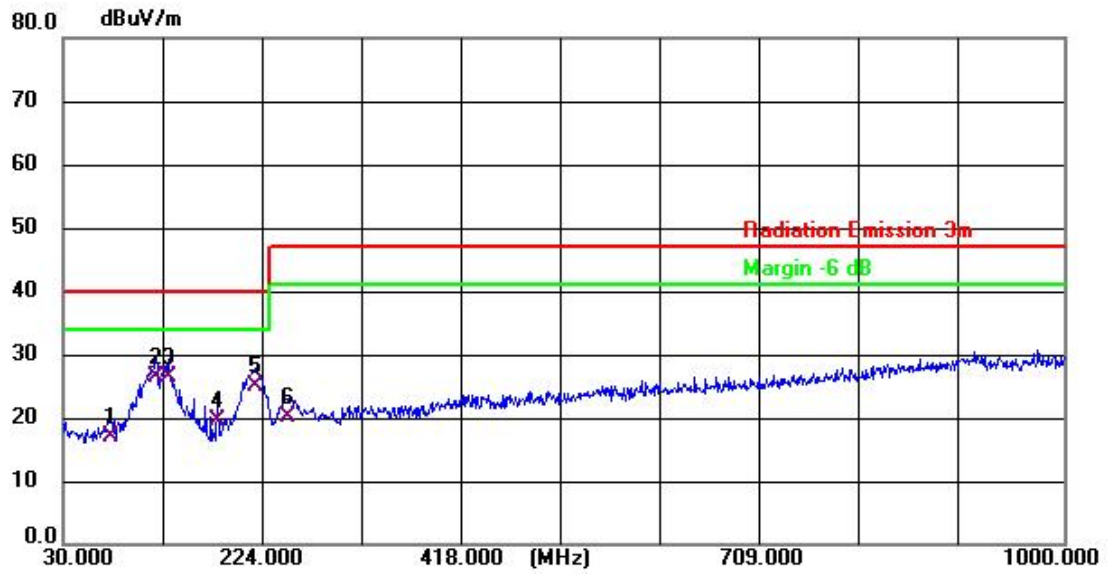
The frequency range from 30MHz to 1000MHz is checked.

4.4 Test Result

PASS

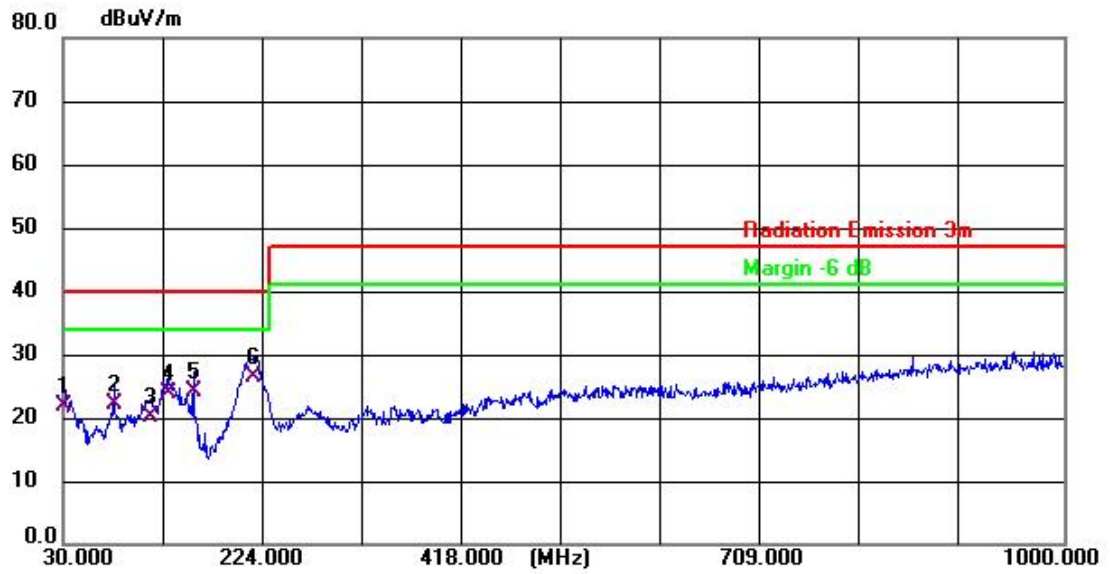
Please refer to the following page. Only the Worst-case test mode is shown in the report.

Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	75.590	37.04	-20.16	16.88	40.00	-23.12	QP			P	
2 *	120.210	45.29	-18.72	26.57	40.00	-13.43	QP			P	
3	131.850	45.47	-19.08	26.39	40.00	-13.61	QP			P	
4	180.350	38.33	-18.76	19.57	40.00	-20.43	QP			P	
5	216.240	41.30	-16.40	24.90	40.00	-15.10	QP			P	
6	247.280	35.63	-15.53	20.10	47.00	-26.90	QP			P	

Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	30.970	36.26	-14.33	21.93	40.00	-18.07	QP			P	
2	79.470	42.93	-20.87	22.06	40.00	-17.94	QP			P	
3	114.390	38.30	-18.22	20.08	40.00	-19.92	QP			P	
4	131.850	42.94	-19.08	23.86	40.00	-16.14	QP			P	
5	156.100	43.99	-19.81	24.18	40.00	-15.82	QP			P	
6 *	214.300	42.95	-16.45	26.50	40.00	-13.50	QP			P	

5. HARMONIC CURRENT EMISSION TEST

5.1 .Limit

Class A Harmonics Currents

Harmonics Order n	Maximum Permissible harmonic current (A)	Harmonics Order n	Maximum Permissible harmonic current (A)
Odd harmonics		Even harmonics	
3	2.30	2	1.08
5	1.14	4	0.43
7	0.77	6	0.30
9	0.40	$8 \leq n \leq 40$	$0.23 * 8/n$
11	0.33		
13	0.21		
$15 \leq n \leq 39$	$0.15 * 15/n$		

Class B Harmonics Currents

For Class B equipment, the harmonic of the input current shall not exceed the maximum permissible values given in table which is the limit of Class A multiplied by a factor of 1.5.

Class C Harmonics Currents

Harmonics 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
* λ is the circuit power factor	

Class D Harmonics Currents



Harmonics 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
$11 \leq n \leq 39$ (odd harmonics only)	3.85/n	See limit of Class A

5.2 Test Procedure

The EUT was placed on the top of a wooden table 0.8 meters above the ground and the EUT is supplied in series with power analyzer from a power source having the same normal voltage and frequency as the rated supply voltage and the equipment under test. And the rated voltage at the supply voltage of EUT of 0.94 times and 1.06 times shall be performed.

A definition of the normal load or of the conditions for adequate heat discharge can usually be found in the EN publication corresponding to the equipment under test.

Equipment may have several separately controlled circuits. Each circuit is considered as a single piece of equipment if it can be operated independently and separately from the other circuits.

5.3 Test Results

N/A

6. VOLTAGE FLUCTUATIONS & FLICKER TEST

6.1 Limit

Test Item	Limit
Pst (Short-term flicker indicator.)	1.0
Plt (Long-term flicker indicator.)	0.65
Td(t)(ms) (Maximum time that d(t) exceeds 3.3%)	500
dmax(%) (Maximum relative voltage change.)	4
dc(%) (Relative steady-state voltage change)	3.3

6.2 Test Procedure

The power cord of the EUT is connected to the output of the test system.

Turn on the power of the EUT and use the test system to test the harmonic current level.

6.3 Test Results

N/A

This product is powered by DC and is not applicable to this item.

7. Electrostatic Discharge immunity Test

7.1 Test Specification

Test Port	:	Enclosure port
Discharge Impedance	:	330 ohm / 150 pF
Discharge Mode	:	Single Discharge
Discharge Period	:	one second between each discharge

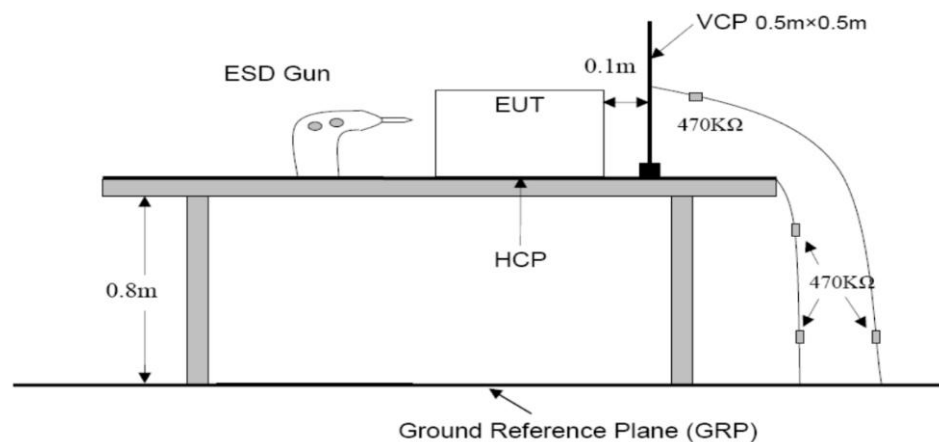
7.2 Test Standard

EN IEC 61000-6-1:2019
(EN 61000-4-2:2009)

Level	Test Voltage Contact Discharge (KV)	Test Voltage Air Discharge (KV)
1.	±2	±2
2.	±4	±4
3.	±6	±8
4.	±8	±15
X	Special	Special

Performance criterion: **B**

7.3 Test setup



7.4 Test Procedure

Air Discharge:

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the E.U.T.. After each discharge, the discharge electrode shall be removed from the E.U.T.. The generator is then re-triggered for a new single discharge and repeated (10 of each polarity) for each pre-selected test point. This procedure shall be repeated until all the air discharge completed.

Contact Discharge:

All the procedure shall be same as Section Air Discharge except that the tip of the discharge electrode shall touch the E.U.T..

Indirect discharge for horizontal coupling plane:

At least 10 single discharges(in the most sensitive polarity) shall be applied at the front edge of each HCP opposite the center point of each unit(if applicable) of the E.U.T. and 0.1m from the front of the E.U.T.. The long axis of the discharge electrode shall be in the plane of the HCP and perpendicular to its front edge during the discharge.

Indirect discharge for vertical coupling plane:

At least 10 single discharge (in the most sensitive polarity) shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the E.U.T.. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the E.U.T. are completely illuminated.

7.5 Test Results

PASS

ESD Test Data				
Air Discharge: $\pm 8KV$ Contact Discharge: $\pm 4KV$				
Test Points	Air Discharge	Contact Discharge	Performance Criterion	Result
Enclosure	$\pm 2,4,8KV$	N/A	B	PASS
Slit	$\pm 2,4,8KV$	N/A	B	PASS
Metal Part	N/A	$\pm 2,4 KV$	B	PASS
VCP	N/A	$\pm 2,4 KV$	B	PASS
HCP	N/A	$\pm 2,4 KV$	B	PASS
Note: N/A means not applicable				

8. RF FIELD STRENGTH SUSCEPTIBILITY TEST

8.1 Test Specification

Test Port	:	Enclosure port
Step Size	:	1%
Modulation	:	1kHz, 80% AM
Dwell Time	:	1 second
Polarization	:	Horizontal & Vertical

8.2 Test Levels and Performance Criterion

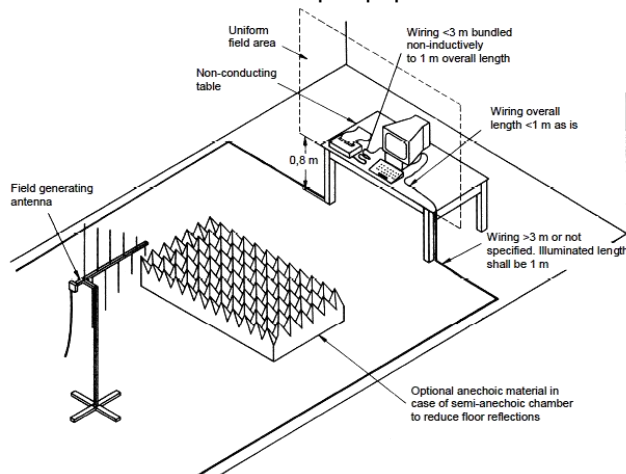
EN IEC 61000-6-1:2019
(EN IEC 61000-4-3:2020)

Characteristics	Test levels
Frequency range	80 MHz to 1 000 MHz
Test level	3 V/m (unmodulated)
Modulation	1 kHz, 80 % AM, sine wave

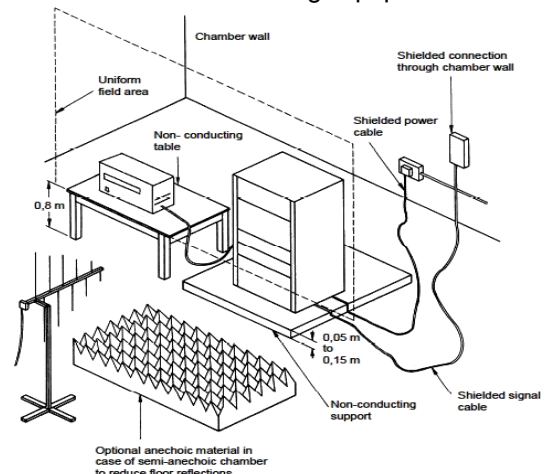
Performance criterion: **A**

8.3 Test setup

For table-top equipment



For floor standing equipment





8.4 Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. EUT is set 3 meter away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna are set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually.

All the scanning conditions are as follows :

Condition of Test	Remarks
1. Fielded Strength	3 V/m (Severity Level 2)
2. Radiated Signal	Modulated
3. Scanning Frequency	80 – 1000 MHz
4. Dwell time of radiated	0.0015 decade/s
5. Waiting Time	1 Sec.

8.5 Test Results

PASS

Please refer to the following page.

RS Test Data			
Field Strength: 3 V/m		Criterion: A	
Frequency Range: 80 MHz to 1000 MHz			
Modulation: ☒ AM ☐ Pulse ☐ none 1 kHz 80%			
Steps	1 %		
	Horizontal	Vertical	Result
Front	A	A	PASS
Right	A	A	PASS
Rear	A	A	PASS
Left	A	A	PASS
Note: N/A means not applicable			

9. Electrical Fast Transient/Burst Immunity Test

9.1 Test Specification

Test Port	:	input d.c. power port
Impulse Frequency	:	5 kHz
Impulse Wave-shape	:	5/50 ns
Burst Duration	:	15 ms
Burst Period	:	300 ms
Test Duration	:	2 minutes per polarity

9.2 Test Levels and Performance Criterion

EN IEC 61000-6-1:2019

(EN 61000-4-4:2012)

Open circuit output test voltage and repetition rate of the impulses				
Level	On power port, PE		On I/O (Input/Output) Signal data and control ports	
	Voltage peak KV	Repetition rate KHz	Voltage peak KV	Repetition rate KHz
1.	0.5	5 or 100	0.25	5 or 100
2.	1.0	5 or 100	0.5	5 or 100
3.	2.0	5 or 100	1.0	5 or 100
4.	4.0	5 or 100	2.0	5 or 100
X	Special	Special	Special	Special

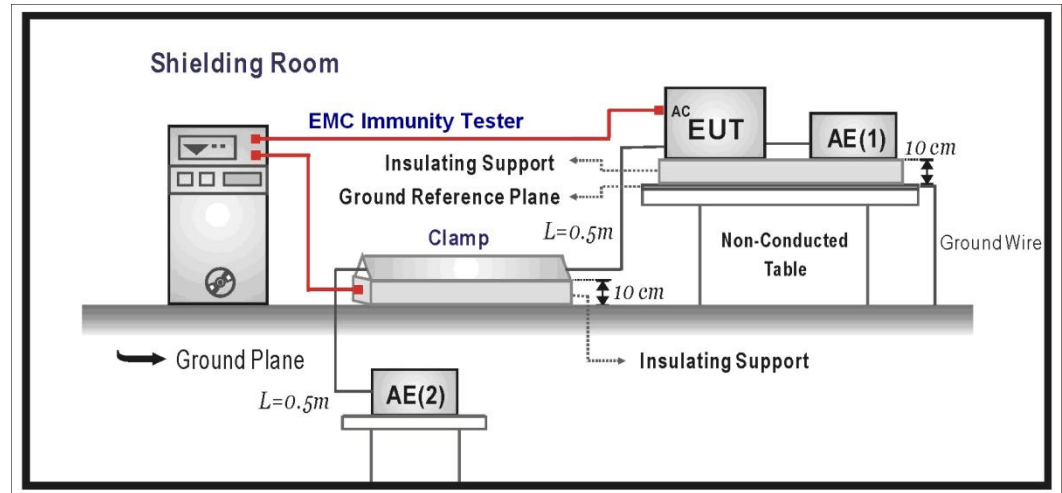
Note 1 Use of 5 KHz repetition rates is traditional; however, 100 KHz is closer to reality. Product committees should determine which frequencies are relevant for specific products or product types.

Note 2 With some products, there may be no clear distinction, between power ports and I/O ports, in which case it is up to product committees to make this determination for test purposes.

Note 3 "X" is an open level. The level has to be specified in the dedicated equipment specification.

Performance criterion: **B**

9.3 Test setup



9.4 Test Procedure

The E.U.T. is put on the table which is 0.8 meter high above the ground. This reference ground plane shall project beyond the E.U.T. by at least 0.1m on all sides and the minimum distance between E.U.T. and all other conductive structure, except the ground plane beneath the E.U.T., shall be more than 0.5m.

For AC mains power ports:

The E.U.T. is connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test is 2 minus.

For analogue/digital data ports:

The E.U.T. is connected to the power mains by using a coupling device which couples the EFT interference signal to Signal lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test is 2 minus.

For DC network power ports:

Applicable only to ports which, according to the manufacturer's specification, support cable lengths greater than 3 m.

9.5 Test Results

The requirements are **Fulfilled**

Performance Criterion: **B**

10. SURGE Test

10.1 Test Specification

Test Port	:	input a.c. power port
Wave-Shape	:	Open Circuit Voltage - 1.2 / 50 us Short Circuit Current - 8 / 20 us
Pulse Repetition Rate	:	1 pulse / min.
Phase Angle	:	0° / 90° / 180° / 270°
Test Events	:	5 pulses (positive & negative) for each polarity

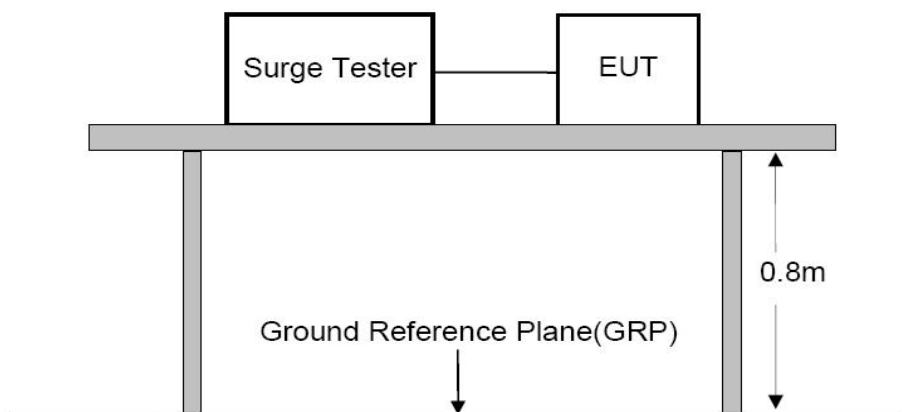
10.2 Test Levels and Performance Criterion

EN IEC 61000-6-1:2019
(EN 61000-4-5:2014 + A1:2017)

Severity Level	Open-Circuit Test Voltage KV
1	0.5
2	1.0
3	2.0
4	4.0
*	Special

Performance criterion: C

10.3 Test setup



10.4 Test Procedure

- 1) Set up the EUT and test generator as shown on section 10.1.
- 2) For line to line coupling mode, provide a 1KV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points.
- 3) At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
- 4) Different phase angles are done individually.
- 5) Repeat procedure 2) to 4) except the open-circuit test voltage change from 1KV to 2KV for line to earth coupling mode test.
- 6) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

10.5 Test Result

The requirements are **Fulfilled**

Performance Criterion: **B**

11. INJECTED CURRENTS SUSCEPTIBILITY TEST

11.1 Test Specification

Test Port	:	input a.c. power port
Step Size	:	1%
Modulation	:	1kHz, 80% AM
Dwell Time	:	1 second

11.2 Test Levels and Performance Criterion

Test Standard

EN IEC 61000-6-1:2019

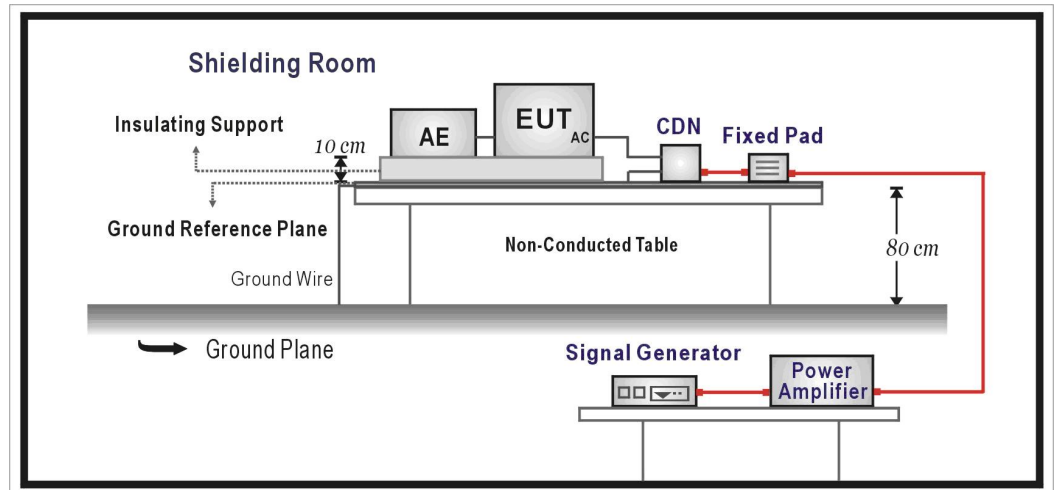
(EN IEC6 1000-4-6:2023)

Frequency ranges MHz	Test level V	Modulation	Performance criterion
0,15 to 80	3	80% AM (1kHz)	A

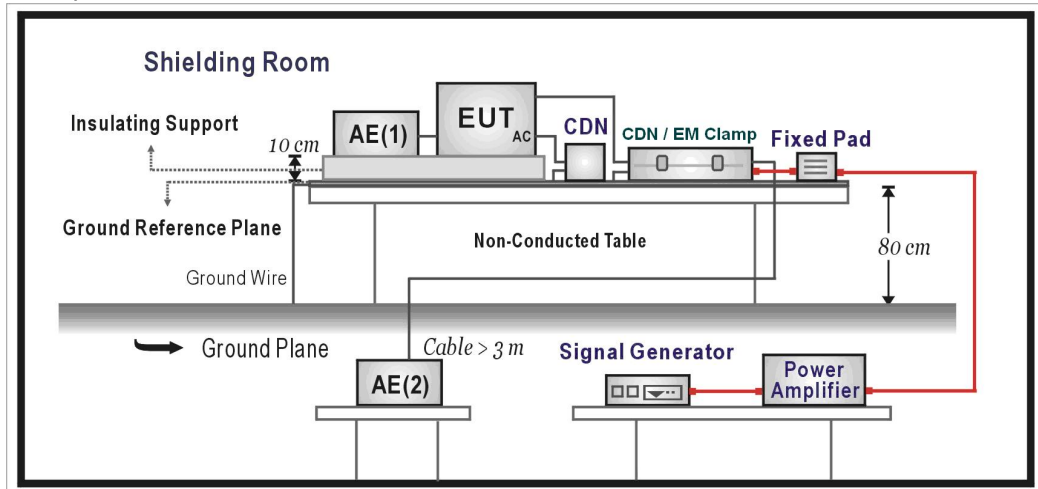
Performance criterion: **A**

11.3 Test setup

CDN Method



EM Clamp Method



11.4 Test Procedure

- 1) Set up the EUT, CDN and test generator as shown on section 11.1
- 2) Let EUT work in test mode and measure.
- 3) The EUT and supporting equipment are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane at above 0.1-0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
- 4) The disturbance signal described below is injected to EUT through CDN.
- 5) The EUT operates within its operational mode(s) under intended climatic conditions after power on.
- 6) The frequency range is swept from 150kHz to 80MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1kHz sine wave
- 7) The rate of sweep shall not exceed 1.5×10^{-3} decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
- 8) Recording the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

11.5 Test Result

N/A

12. MAGNETIC FIELD IMMUNITY TEST

12.1 Test Levels and Performance Criterion

Test Standard

EN IEC 61000-6-1:2019

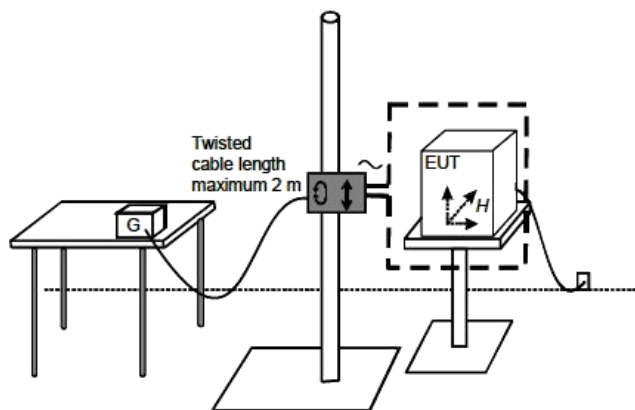
(EN 61000-4-8:2010)

Characteristics	Test levels
Field frequency	50/60 Hz
Test level	1 A/m

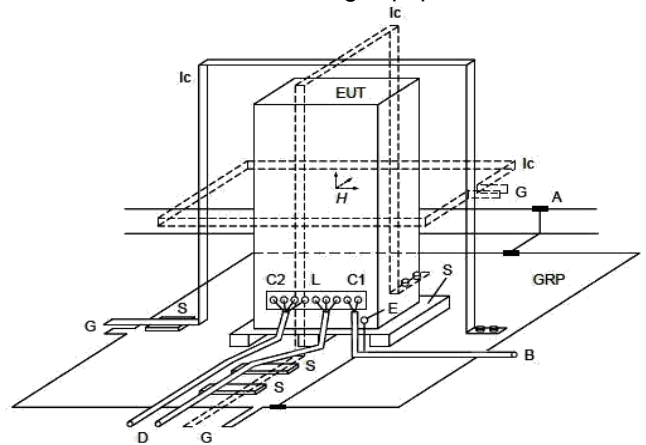
Performance criterion: **A**

12.2 Test setup

For table-top equipment



For floor standing equipment



12.3 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 10.1. The induction coil shall then be rotated by 90° in order to expose the EUT to the test field with different orientations.

12.4 Test Results

N/A

The product is not a magnetically sensitive device.

13. VOLTAGE DIPS AND INTERRUPTIONS TEST

13.1 Test Specification

Test Port	:	input a.c. power port
Phase Angle	:	0°, 180°
Test cycle	:	3 times

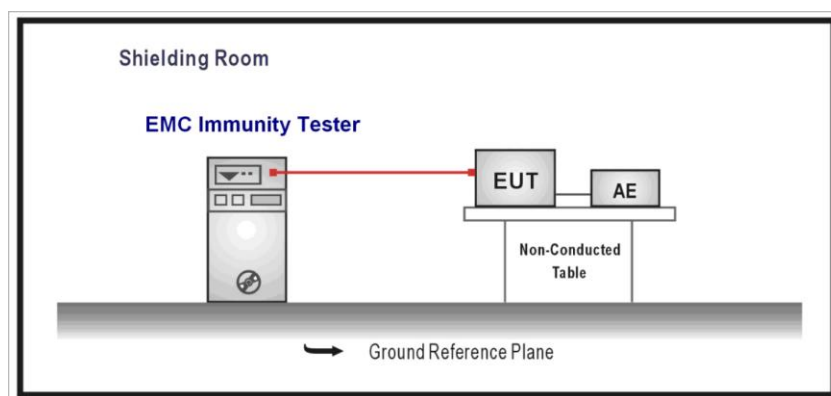
13.2 Test Levels and Performance Criterion

EN IEC 61000-6-1:2019
(EN IEC 61000-4-11: 2020)

Test Level %UT	Voltage dip and short interruptions %UT	Duration (in period)	
		50Hz	60Hz
0	100	0.5	0.5
0	100	1	1
70	30	25	30
0	100	250	300

Performance criterion: **B, C**

13.3 Test setup



13.4 Test Procedure

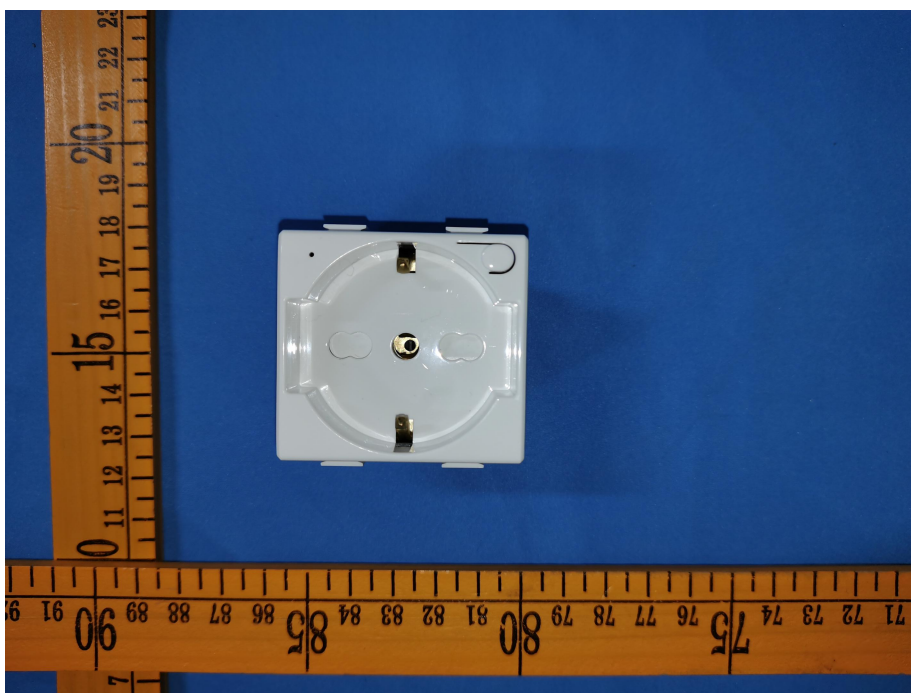
- 1) Set up the EUT and test generator as shown on section 12.1.
- 2) The interruption is introduced at selected phase angles with specified duration. There is a 3mins minimum interval between each test event.
- 3) After each test a full functional check is performed before the next test.
- 4) Repeat procedures 2 & 3 for voltage dips, only the level and duration is changed.
- 5) Record any degradation of performance.

13.5 Test Result

The requirements are **Fulfilled**

Attachment 1: Photos of test samples





*****END OF REPORT*****