



For Question,
Please Contact with WSCT
www.wsct-cert.com

EMC TEST REPORT

for

Cablecard Multi-Functional Wireless Charger

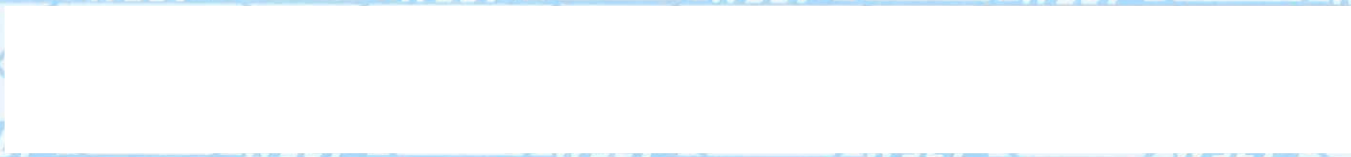
MODEL: [REDACTED]

Trade Mark: N/A

Test Report Number: WSCT-R&E200300047A-EMC

Issued Date: 31 March 2020

Issued for



Issued By

World Standardization Certification & Testing Group (Shenzhen) Co., Ltd.

**Building A-B, Baoshi Science & Technology Park, Baoshi Road,
Bao'an District, Shenzhen, Guangdong, China**

TEL: +86-755-26996192

FAX: +86-755-86376605



Note: This report shall not be reproduced except in full, without the written approval of World Standardization Certification & Testing Group (Shenzhen) Co., Ltd. This document may be altered or revised by World Standardization Certification & Testing Group (Shenzhen) Co., Ltd. personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample.



世标检测认证股份

World Standardization Certification & Testing Group Co., Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Revision History Of Report

Rev.	Issue No.	Revisions	Effect Page	Revised By
00	WSCT-R&E200300047A-EMC	Initial Issue	ALL	Wang Fengbing



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

TABLE OF CONTENTS

1	TEST CERTIFICATION	4
2	TEST RESULT SUMMARY	5
3	EUT DESCRIPTION.....	6
4	TEST METHODOLOGY	7
4.1.	DECISION OF FINAL TEST MODE.....	7
4.2.	OBJECTIVE.....	8
4.3.	EUT SYSTEM OPERATION	8
4.4.	SUMMARY OF TEST RESULTS.....	9
5	SETUP OF EQUIPMENT UNDER TEST	10
5.1.	DESCRIPTION OF SUPPORT UNITS.....	10
5.2.	CONFIGURATION OF SYSTEM UNDER TEST	10
6	FACILITIES AND ACCREDITATIONS	11
6.1.	FACILITIES.....	11
6.2.	ACCREDITATIONS.....	11
7	EMISSION TEST	12
7.1.	CONDUCTED EMISSION MEASUREMENT	12
7.2.	RADIATED EMISSION MEASUREMENT	17
7.3.	VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT.....	24
7.4	HARMONICS CURRENT MEASUREMENT	27
8	IMMUNITY TEST	28
8.1.	GENERAL DESCRIPTION	28
8.2.	GENERAL PERFORMANCE CRITERIA DESCRIPTION	29
8.3.	ELECTROSTATIC DISCHARGE (ESD)	30
8.4.	RADIATED, RADIO-FREQUENCY, ELECTROMAGNETIC FIELD (RS)	35
8.5.	ELECTRICAL FAST TRANSIENT (EFT)	39
8.6.	SURGE IMMUNITY TEST	42
8.7.	CONDUCTED RADIO FREQUENCY IMMUNITY (CS).....	45
8.8.	VOLTAGE DIPS & VOLTAGE INTERRUPTIONS.....	48
9	PHOTOGRAPHS OF THE TEST CONFIGURATION	50
10	PHOTOGRAPHS OF EUT	52



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

1 TEST CERTIFICATION

Product: Cablecard Multi-Functional Wireless Charger

Model:

Trade Mark: N/A

Applicant:

Manufacturer:

Tested: 13 March 2020 ~ 28 March 2020

APPLICABLE STANDARDS

STANDARD	TEST RESULT
ETSI EN 301 489-1 V2.2.3 (2019-11)	No non-compliance noted
ETSI EN 301 489-3 V2.1.1 (2019-03)	No non-compliance noted
Deviation from Applicable Standard	
None	

The above equipment has been tested by World Standardization Certification & Testing Group (Shenzhen) Co., Ltd. And found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Tested By:

Meng Zhenxi
(Meng Zhenxi)

Date:

31 March 2020

Check By:

Sol Qin
(Sol Qin)

Date:

31 March 2020

Approved By:

Wang Fengbing
(Wang Fengbing)

Date:

31. March. 2020



世标检测认证股份
World Standardization Certification & Testing Group Co., Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



2 TEST RESULT SUMMARY

Test Item	Test Result
Conduct Emission	PASS
Radiation Emission	PASS
Harmonic Current Test	N/A(rated power <75W)
Voltage Fluctuations And Flicker	N/A
Electrostatic Discharge Immunity	PASS
Radiated Electromagnetic Field Immunity	PASS
Fast transients Transient/Burst Immunity	N/A
Surge Immunity	N/A
Conducted Radio Frequency Immunity	N/A
Voltage dips and interruptions Test	N/A

- Note:** 1. The test result judgment is decided by the limit of test standard.
 2. The information of measurement uncertainty is available upon the customer's request.
 3. N/A stands for no applicable
 4. The test result of EMS is the worst case for all of the adapter

MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency		Uncertainty
Conducted emissions	150kHz~30MHz		+/- 3.20dB
Radiated emissions	Horizontal	30MHz ~ 230MHz	+/- 4.77dB
		230MHz ~1000MHz	+/- 4.93dB
		1000MHz~25000 MHz	+/- 5.01dB
	Vertical	30MHz ~ 230MHz	+/- 5.04dB
		230MHz ~1000MHz	+/- 4.93dB
		1000MHz~25000 MHz	+/- 5.01dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.





For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

3 EUT DESCRIPTION

Product	Cablecard Multi-Functional Wireless Charger
Model	
Trade Mark	N/A
Software Version	N/A
Hardware Version	N/A
Housing material	Plastic
EUT Type	<input checked="" type="checkbox"/> Engineering Sample. <input type="checkbox"/> Product Sample, <input type="checkbox"/> Mass Product Sample.
EUT Power Rating	Micro USB Input: 5V $\overline{\text{---}}$ 2A Wireless Output: 5W
Antenna Type	Coil Antenna
Type of the Equipment	Portable Equipment
Operation Frequency	110KHZ-205KHZ
Modulation mode	MSK



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



4 TEST METHODOLOGY

4.1. DECISION OF FINAL TEST MODE

The EUT was tested together with the below additional components, and configuration, which produced the worst emission levels, was selected and recorded in this report.

The measurement was performed at 3 axis for lie orientation, side orientation and stand orientation. The lie orientation is the worst mode, so only the worst mode test data was reported.

the following test mode was recorded in this report.

EMI TEST MODE		
Mode No.:	Mode	Description
EMI Mode 1	Wireless charging mode	EUT connected with Mobile phone
EMS TEST MODE		
EMS Mode 1	Wireless charging mode	EUT connected with Mobile phone





4.2.OBJECTIVE

ETSI EN 301 489-1 V2.2.3 (2019-11), Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU and the essential requirements of article 6 of Directive 2014/30/EU.

ETSI EN 301 489-3 V2.1.1 (2019-03) Electro Magnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short-Range Devices (SRD) operating on frequencies between 9 kHz and 246 GHz; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU The objective is to determine compliance with ETSI EN 301 489-1 V2.2.3 (2019-11), Draft ETSI EN 301 489-3 V2.1.1 (2017-03)

4.3. EUT SYSTEM OPERATION

1. Set up EUT with the support equipments.
2. Make sure the EUT work normally during the test.





4.4. SUMMARY OF TEST RESULTS

	Description of Test	Result
§7	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §8.4 AC mains power input/output ports	Compliance
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §8.3 DC power input/output ports	Not Applicable
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §8.2 Enclosure of ancillary equipment measured on a standalone basis	Compliance
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §8.5 Harmonic current emissions (AC mains input port)	Not Applicable
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §8.6 Voltage fluctuations and flicker (AC mains input port)	Not Applicable
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §8.7 Wired network ports	Not Applicable
§8	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §9.2 Radio frequency electromagnetic field (80 MHz to 6000 MHz) (EN 61000-4-3:2006+A1: 2008+A2: 2010)	Compliance
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §9.3 Electrostatic discharge (EN 61000-4-2:2009)	Compliance
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §9.4 Fast transients, common mode (EN 61000-4-4:2012)	Not Applicable
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §9.5 Radio frequency, common mode (EN 61000-4-6:2009)	Not Applicable
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §9.6 Transients and surges in the vehicular environment (ISO 7637-2:2004)	Not Applicable
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §9.8 Surges (EN 61000-4-5:2006)	Not Applicable
	Reference to clauses ETSI EN 301 489-1 V2.2.3 (2019-11) §9.7 Voltage dips and interruptions (EN 61000-4-11:2004)	Not Applicable

Not Applicable: Please refer to Applicability overview tables in sections 7 and 8 of ETSI EN 301 489-1 V2.2.3 (2019-11) requirements for Radio and ancillary equipment for portable use (e.g. portable equipment)





5 SETUP OF EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF SUPPORT UNITS

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.

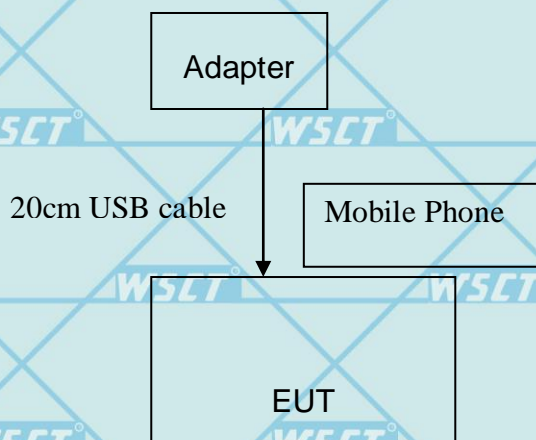
No.	Equipment	Model No.	Serial No.	Trade Name
1	AC ADAPTER	CL-43YI	/	itel
2	USB CABLE	1m shielded	/	/
3	Mobile phone	Galaxy S7	/	SAMSUNG

Note:

- 1) All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
- 2) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
- 3) USB Cable is provided by the customer along with mobile phone.

5.2. CONFIGURATION OF SYSTEM UNDER TEST

Configuration Setup :



(EUT: Cablecard Multi-Functional Wireless Charger)





6 FACILITIES AND ACCREDITATIONS

6.1. FACILITIES

All measurement facilities used to collect the measurement data are located at **World Standardization Certification & Testing Group (Shenzhen) Co., Ltd. Building A-B, Baoshi Science & Technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China**

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

6.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA

Japan

Canada

China

NVLAP (The certificate registration number is NVLAP LAB CODE:600142-0)

VCCI (The certificate registration number is C-4790, R-3684, G-837)

INDUSTRY CANADA

(The certificated registration number is 7700A-1)

CNAS (The certificated registration number is L3732)

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.wsct-cert.com>





7 EMISSION TEST

7.1. CONDUCTED EMISSION MEASUREMENT

7.1.1. LIMITS

FREQUENCY (MHz)	Class B (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	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 of 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.

7.1.2. TEST INSTRUMENTS

Conducted Emission Shielding Room Test Site (843)						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date	Use or Not
EMI Test Receiver	R&S	ESCI	100005	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
EXG Analog Signal Generator	Agilent	N5171B	40060472	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
LISN	AFJ	LS16	16010222119	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
LISN(EUT)	Mestec	AN3016	04/10040	2019-11-05	2020-11-04	<input type="checkbox"/>
Universal Radio Communication Tester	R&S	CMU 200	1100.0008.02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Coaxial cable	Megalon	LMR400	N/A	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMW500	103974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPIO cable	Megalon	GPIO	N/A	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Pulse clipper 10dB attenuation	rflight	BAT-6H	--	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).
 2. N.C.R = No Calibration Request.



7.1.3. TEST PROCEDURES

Procedure of Preliminary Test

The EUT and Support equipment, if needed, was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane. When the EUT is a floor standing equipment, it is placed on the ground plane, which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

The EUT test program was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT. The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes. During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in Item 4.1 were scanned during the preliminary test.

After the preliminary scan, we found the test mode described in Item 4.1 producing the highest emission level.

The EUT configuration and cable configuration of the above highest emission levels were recorded for reference of the final test.

Procedure of Final Test

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

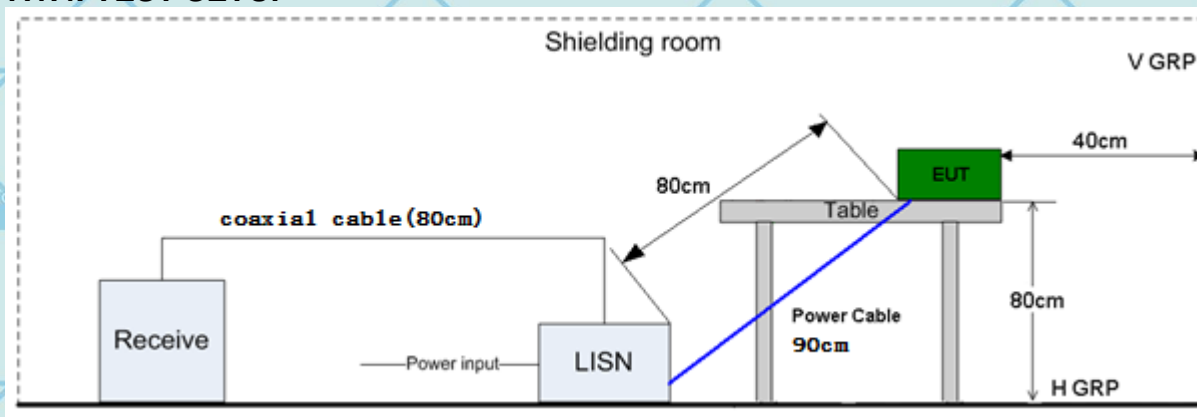




For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

7.1.4. TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

7.1.5. TEST RESULTS

Model No.	BM3016	6dB Bandwidth	9 KHz
Environmental Conditions	26°C, 60% RH	Test Mode	Wireless charging mode
Detector Function	Peak/Quasi-peak/AV	Test Result	Pass

NOTE: 1. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).

2. “---” denotes the emission level was or more than 2dB below the Average limit, so no re-check anymore.

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = Attenuation factor + Cable loss

Level (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

Margin (dB) = Level (dBμV) – Limits (dBμV)

Q.P. =Quasi-Peak



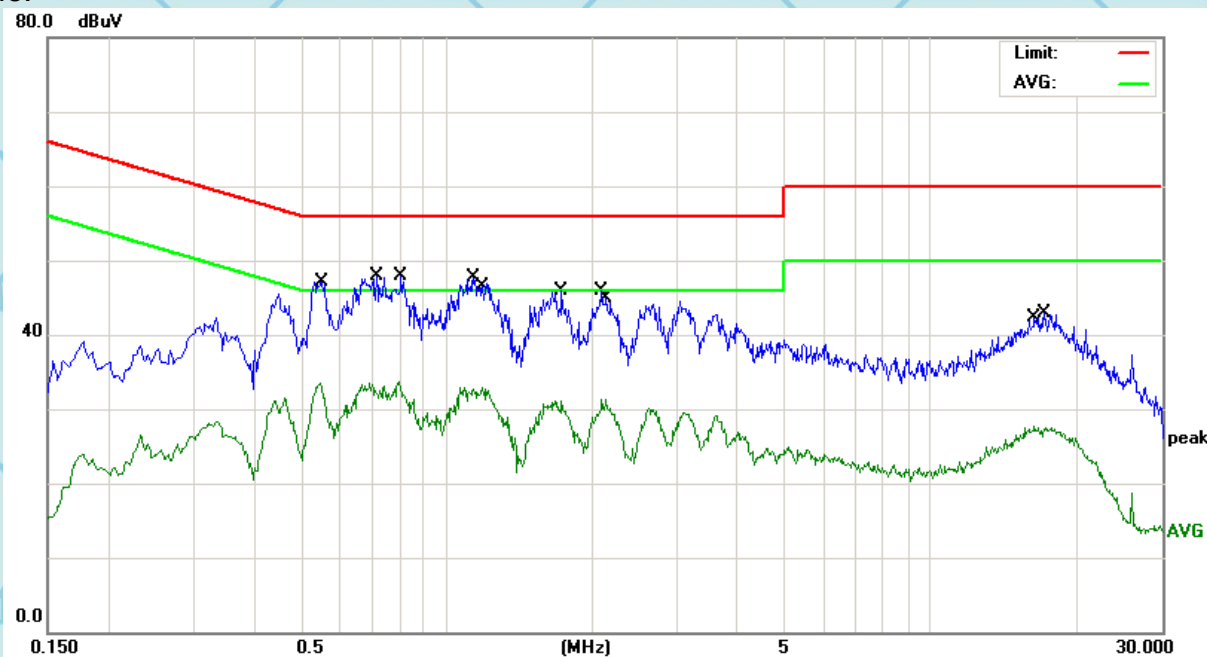


For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Please refer to following diagram for individual

Line:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.5500	23.19	10.39	33.58	46.00	-12.42	AVG
2		0.5540	31.90	10.39	42.29	56.00	-13.71	QP
3		0.7180	31.88	10.37	42.25	56.00	-13.75	QP
4	*	0.7980	23.40	10.36	33.76	46.00	-12.24	AVG
5		1.1380	32.37	10.33	42.70	56.00	-13.30	QP
6		1.1860	22.52	10.33	32.85	46.00	-13.15	AVG
7		1.7340	29.95	10.30	40.25	56.00	-15.75	QP
8		1.7340	20.83	10.30	31.13	46.00	-14.87	AVG
9		2.0900	29.97	10.29	40.26	56.00	-15.74	QP
10		2.1340	21.01	10.29	31.30	46.00	-14.70	AVG
11		16.3460	17.57	10.14	27.71	50.00	-22.29	AVG
12		17.1380	25.55	10.14	35.69	60.00	-24.31	QP



世标检测认证股份
World Standardization Certification & Testing Group Co., Ltd.

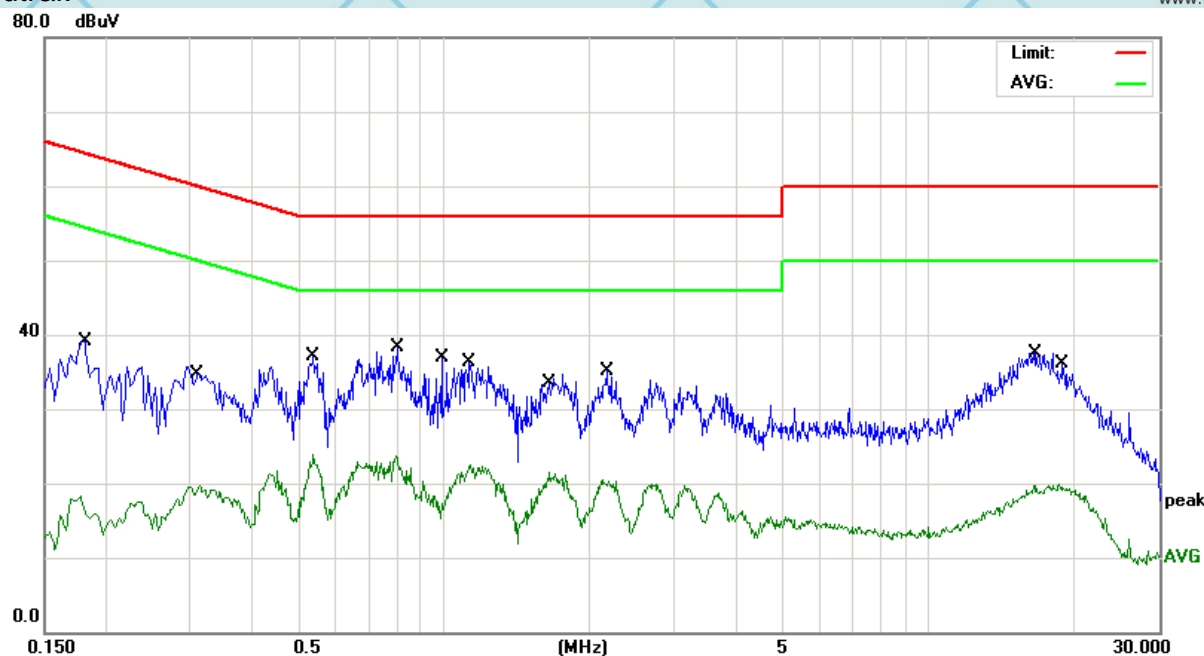
ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Neutral:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1819	20.83	10.44	31.27	64.39	-33.12	QP
2		0.3140	9.26	10.42	19.68	49.86	-30.18	AVG
3		0.5380	21.83	10.40	32.23	56.00	-23.77	QP
4	*	0.5380	13.42	10.40	23.82	46.00	-22.18	AVG
5		0.7980	13.33	10.36	23.69	46.00	-22.31	AVG
6		0.8020	21.52	10.36	31.88	56.00	-24.12	QP
7		0.9900	14.44	10.34	24.78	56.00	-31.22	QP
8		1.1380	12.13	10.33	22.46	46.00	-23.54	AVG
9		1.6620	11.25	10.31	21.56	46.00	-24.44	AVG
10		2.1780	17.71	10.29	28.00	56.00	-28.00	QP
11		16.7099	19.99	10.14	30.13	60.00	-29.87	QP
12		18.6540	9.69	10.13	19.82	50.00	-30.18	AVG



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



7.2. RADIATED EMISSION MEASUREMENT

7.2.1. LIMITS

FREQUENCY (MHz)	dB μ V /m (At 3m)
	Limit
30 ~ 230	40
230 ~ 1000	47

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)
1000 ~ 3000	50	70
3000 ~ 6000	54	74

NOTE: (1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dB μ V /m) = 20 log Emission level (μ V /m).





For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

7.2.2. TEST INSTRUMENTS

Radiated Emission Test Site (966)						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date	Use or Not
EMI Test Receiver	R&S	ESCI	100005	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
EXG Analog Signal Generator	Agilent	N5171B	40060472	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPS signal generator	Spirent	GSS4100	931	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
HORN ANTENNA	COMPLIANCE ENGINEERING	CE18000	--	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Bi-log Antenna	SUNOL Sciences	JB3	A021907	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Spectrum Analyzer	R&S	FSU	100114	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Pre Amplifier	H.P.	HP8447E	2945A02715	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Pre-Amplifier	CDSI	PAP-1G18-38	--	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
System-Controller	CCS	N/A	N/A	N.C.R	N.C.R	<input checked="" type="checkbox"/>
Turn Table	CCS	N/A	N/A	N.C.R	N.C.R	<input checked="" type="checkbox"/>
Antenna Tower	CCS	N/A	N/A	N.C.R	N.C.R	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMU200	1100.0008.02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Coaxial cable	Megalon	LMR400	N/A	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMW500	103974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Anechoic chamber	SAEMC	966		2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPIB cable	Megalon	GPIB	N/A	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

2. N.C.R = No Calibration Request.



世标检测认证股份
World Standardization Certification & Testing Group Co., Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



7.2.3. TEST PROCEDURE

Procedure of Preliminary Test

The equipment was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane. When the EUT is a floor standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

Support equipment, if needed, was placed as per EN 55032:2015.

All I/O cables were positioned to simulate typical usage as per EN 55032:2015.

Mains cables, telephone lines or other connections to auxiliary equipment located outside the test are shall drape to the floor, be fitted with ferrite clamps or ferrite tubes placed on the floor at the point where the cable reaches the floor and then routed to the place where they leave the turntable. No extension cords shall be used to mains receptacle.

The antenna was placed at 3 meter away from the EUT as stated in EN 55032:2015. The antenna connected to the Spectrum Analyzer via a cable and at times a pre-amplifier would be used.

The Analyzer / Receiver quickly scanned from 30MHz to 6000MHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.

The test mode(s) described in Item 4.1 were scanned during the preliminary test:

After the preliminary scan, we found the test mode described in Item 4.1 producing the highest emission level. The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.

Procedure of Final Test

EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.

The Analyzer / Receiver scanned from 30MHz to 6000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.

Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and only Q.P. reading is presented.

The test data of the worst-case condition(s) was recorded.



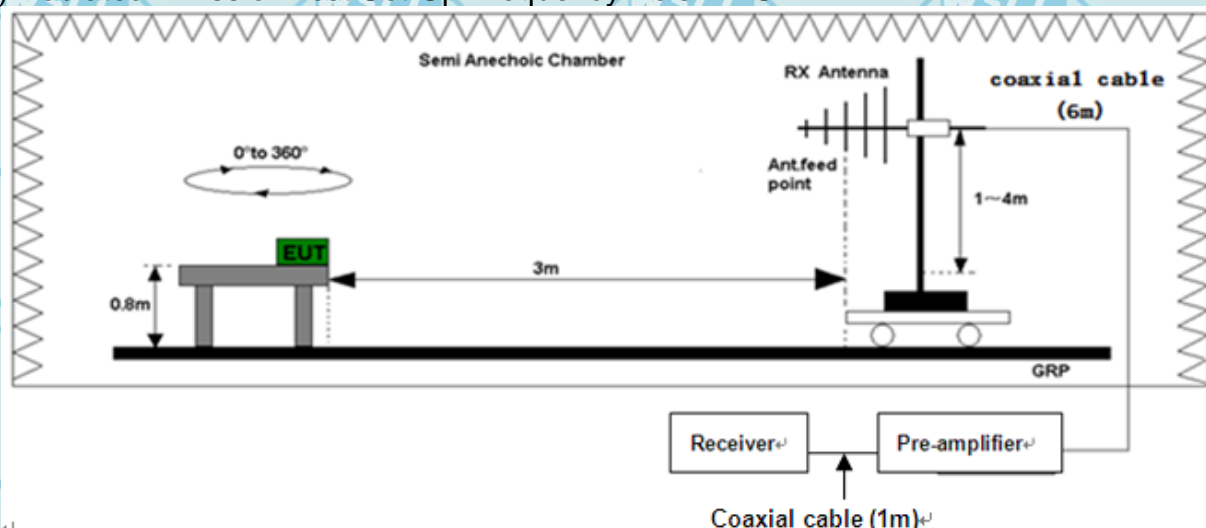


For Question,
Please Contact with WSCT
www.wsct-cert.com

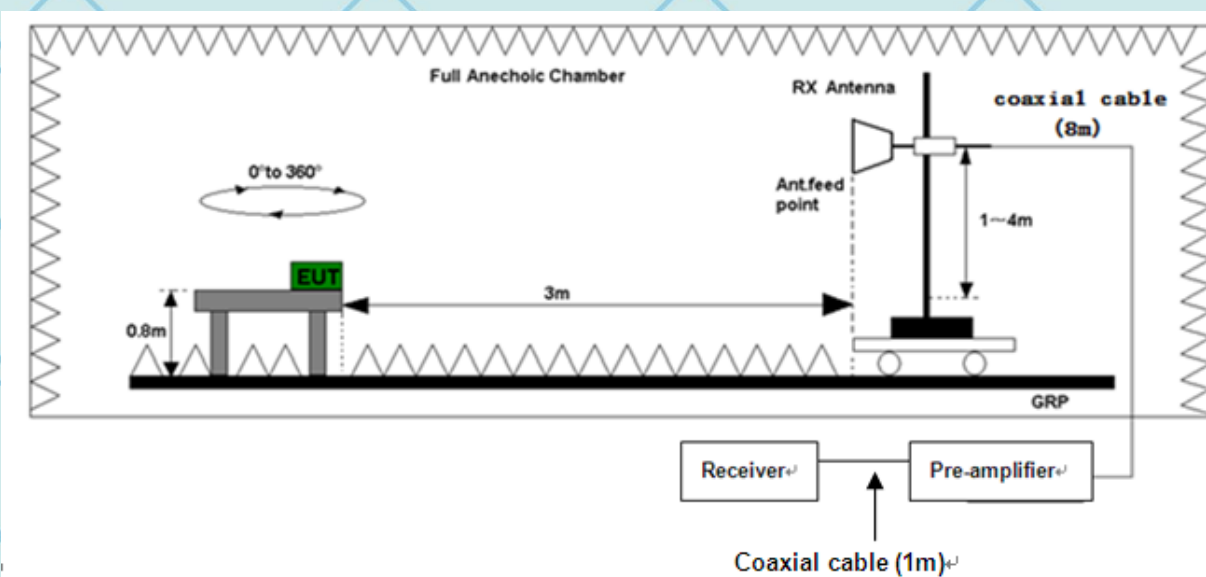
Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

7.2.4. TEST SETUP

(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



7.2.5 TEST RESULTS

Model No.	BM3016	Bandwidth	100 KHz for 30-1000MHz, 1MHz for 1-6GHz
Environmental Conditions	26°C, 60% RH	Test Mode	Wireless charging mode
Detector Function	Peak/Quasi-peak/AV	Test Result	Pass

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = Antenna factor + Cable loss - Amplifier factor.

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

Margin (dB) = Measurement (dBμV) – Limits (dBμV)



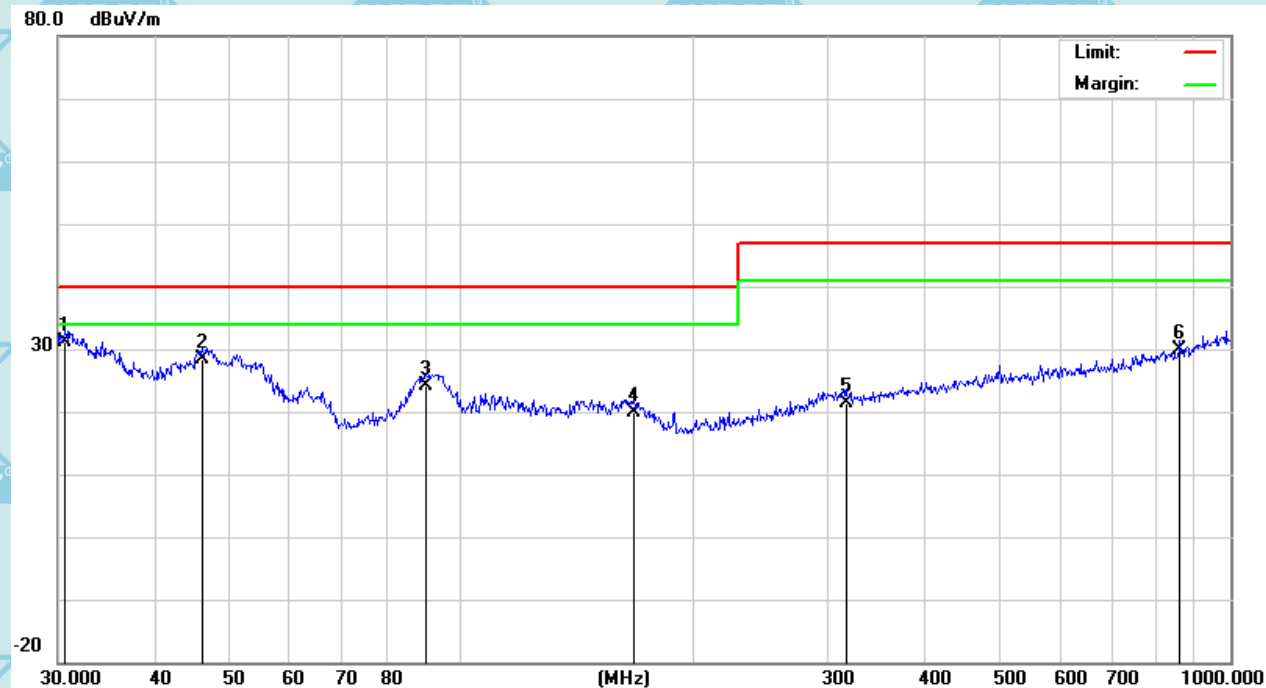


For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Below 1GHz: (Wireless charging mode)

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	30.6379	26.70	4.54	31.24	40.00	-8.76	QP
2		46.1779	31.20	-2.74	28.46	40.00	-11.54	QP
3		90.2205	30.00	-5.87	24.13	40.00	-15.87	QP
4		167.8243	26.21	-6.32	19.89	40.00	-20.11	QP
5		316.5890	23.52	-2.04	21.48	47.00	-25.52	QP
6		860.0352	24.97	4.91	29.88	47.00	-17.12	QP



世标检测认证股份
World Standardization Certification & Testing Group Co., Ltd.

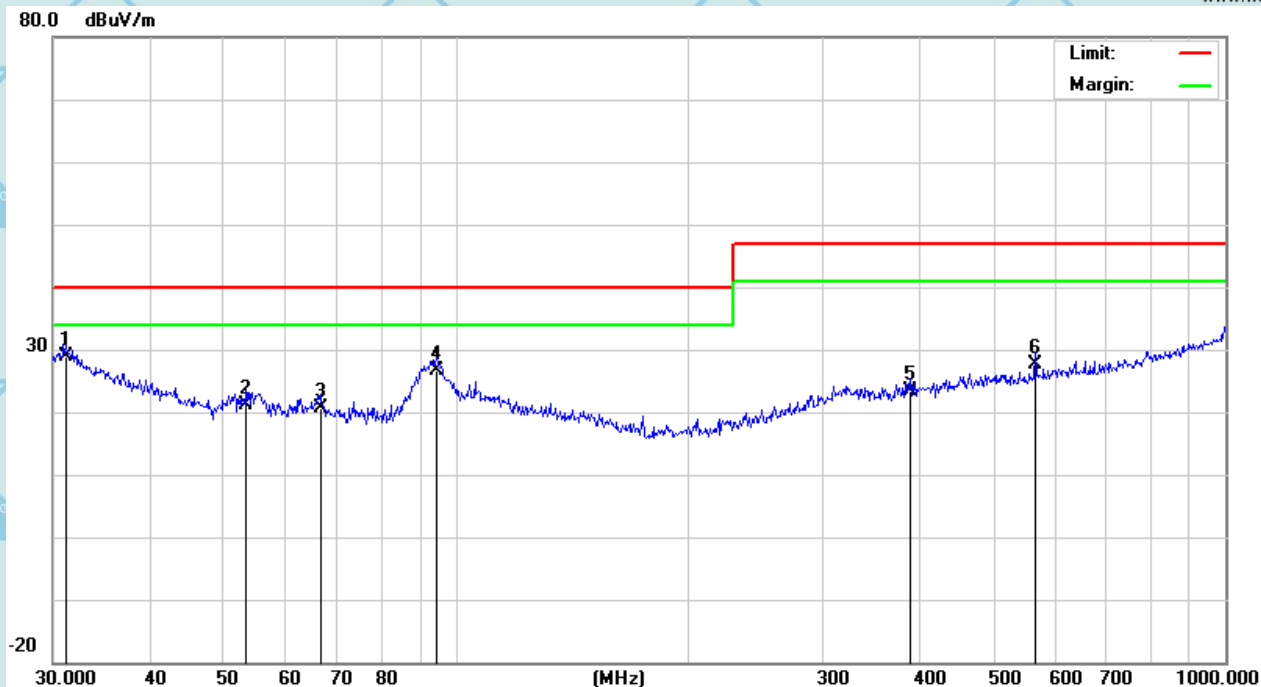
ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	31.1798	24.42	4.34	28.76	40.00	-11.24	QP
2		53.5052	26.54	-5.44	21.10	40.00	-18.90	QP
3		66.7325	27.49	-6.74	20.75	40.00	-19.25	QP
4		94.4284	31.57	-4.98	26.59	40.00	-13.41	QP
5		389.3549	25.05	-1.57	23.48	47.00	-23.52	QP
6		566.6223	27.20	0.49	27.69	47.00	-19.31	QP



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



7.3. VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT

7.3.1. LIMITS OF VOLTAGE FLUCTUATION AND FLICKS MEASUREMENT

TEST ITEM	LIMIT	REMARK
P_{st}	1.0	P_{st} means short-term flicker indicator.
P_{lt}	0.65	P_{lt} means long-term flicker indicator.
T_{dt} (ms)	500	T_{dt} means maximum time that dt exceeds 3 %.
D_{max} (%)	4%	d_{max} means maximum relative voltage change.
Dc (%)	3.3%	dc means relative steady-state voltage change

7.3.2. TEST INSTRUMENTS

IMMUNITY SHIELDED ROOM						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date	Use or Not
Harmonic & Flicker Tester	Laplace	AC2000A	311220	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
AC Power Source	Sop	PHF-5010	630970	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPIO cable	Megalon	GPIO	N/A	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMU200	1100.0008.02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMW500	103974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

7.3.3. TEST PROCEDURE

The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the most unfavorable sequence of voltage changes under Normal operating conditions.

During the flick measurement, the measure time shall include that part of whole operation cycle in which the EUT produce the most unfavorable sequence of voltage changes. The observation period for short-term flicker indicator is 10 minutes and the observation period for long-term flicker indicator is 2 hours.

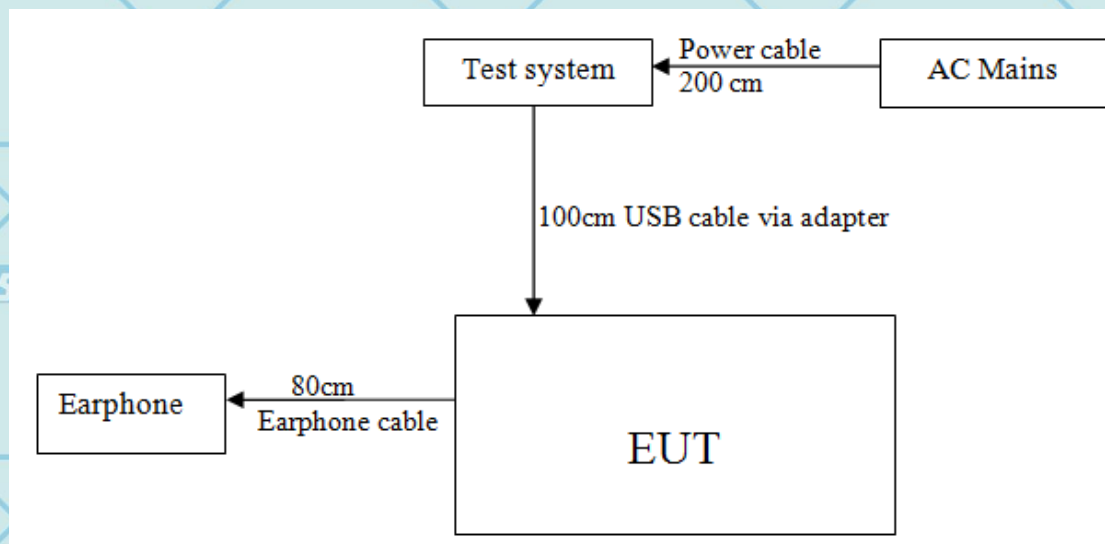




For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

7.3.4. TEST SETUP



For the actual test configuration, please refer to the related item.



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

7.3.5. TEST RESULTS

N/A (Only where equipment has AC mains power input ports)



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

7.4 HARMONICS CURRENT MEASUREMENT

7.4.1. TEST RESULTS

N/A(rated power <75W)



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



8 IMMUNITY TEST

8.1. GENERAL DESCRIPTION

Basic Standard, Specification, and Performance Criterion required	Test Type	Minimum Requirement
	EN 61000-4-2	Electrostatic Discharge – ESD: ± 2 kV, ± 4 kV, ± 8 kV air discharge, ± 4 kV Contact discharge, Performance Criterion B
	EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test – RS: 80~6000 MHz 3V/m, 80% AM(1kHz), Performance Criterion A
	EN 61000-4-4	Electrical Fast Transient/Burst - EFT, Power line: 1kV, Signal line: 0.5kV, Performance Criterion B
	EN 61000-4-5	Surge Immunity Test: 1.2/50 us Open Circuit Voltage, 8 /20 us Short Circuit Current, Power Port ~ Line to line: 1kV, Line to ground: 2kV Signal Port ~ Lines to ground : 1kV Performance Criterion B
	EN 61000-4-6	Conducted Radio Frequency immunity Test –CS: 0.15 ~ 80 MHz, 3Vrms, 80% AM, 1kHz, Performance Criterion A
	EN 61000-4-11	voltage dip: 0 % residual voltage for 0,5 cycle; voltage dip: 70 % residual voltage for 0,5 cycle; voltage dip: 0 % residual voltage for 1 cycle; voltage dip: 70 % residual voltage for 25 cycles (at 50 Hz); voltage interruption: 0 % residual voltage for 250 cycles (at 50 Hz).





8.2. GENERAL PERFORMANCE CRITERIA DESCRIPTION

ETSI EN 301 489-3 V2.1.1 (2019-03):

- performance criterion A applies for immunity tests with phenomena of a continuous nature;
- performance criterion B applies for immunity tests with phenomena of a transient nature.

NOTE: Whether a phenomenon is considered transient, continuous or otherwise is indicated in the test procedures for the phenomenon in ETSI EN 301 489-1 [1], clause 9.

Table 2: Performance Requirements

Criterion	During test	After test
A	Operate as intended No loss of function No unintentional responses	Operate as intended No loss of function No degradation of performance No loss of stored data or user programmable functions
B	May show loss of function No unintentional responses	Operate as intended Lost function(s) shall be self-recoverable No degradation of performance No loss of stored data or user programmable functions

Where "operate as intended" or "no loss of function" is specified, the EUT shall demonstrate correct functioning as described in clause 5

Where the EUT has more than one mode of operation (see clause 4.5.2), an unplanned transition from one mode to another is considered as an unintentional response. The EUT shall be tested in sufficient modes to confirm there are no such unintentional responses.





For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.3. ELECTROSTATIC DISCHARGE (ESD)

8.3.1. TEST SPECIFICATION

Basic Standard: EN 61000-4-2
Discharge Impedance: 330 ohm
Charging Capacity: 150pF
Discharge Voltage: Air Discharge: ± 2 kV, ± 4 kV, ± 8 kV (Direct)
 Contact Discharge: ± 4 kV (Direct/Indirect)
Polarity: Positive & Negative
Number of Discharge: Minimum 10 times at each test point
Discharge Mode: 1 s/time
Performance Criterion: B

8.3.2. TEST INSTRUMENT

IMMUNITY SHIELDED ROOM						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date	Use or Not
Electrostatic Discharge Simulator	Haefely	ONYX 30	175974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPS signal generator	Spirent	GSS4100	931	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMU200	1100.0008.02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMW500	103974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).





8.3.3. TEST PROCEDURE

The discharges shall be applied in two ways:

a) Contact discharges to the conductive surfaces and coupling planes:

Twenty dischargers (10 with positive and 10 with negative polarity) shall be applied on each accessible metallic part of the enclosure, terminals are excluded. In case of a non-conductive enclosure, dischargers shall be applied on the horizontal or vertical coupling planes. Test shall be performed at a maximum repetition rate of one discharge per second.

b) Air discharges at slots and apertures and insulating surfaces:

On those parts of the EUT where it is not possible to perform contact discharge testing, the equipment should be investigated to identify user accessible points where breakdown may occur. Such points are tested using the air discharge method. This investigation should be restricted to those area normally handled by the user. A minimum of 10 single air discharges shall be applied to the selected test point for each such area.

The basic test procedure was in accordance with IEC 61000-4-2:

- The EUT was located 0.1 m minimum from all side of the **HCP** (dimensions 1.6m x 0.8m).
- The support units were located another table 30 cm away from the EUT, but direct support unit was/were located at same location as EUT on the HCP and keep at a distance of 10 cm with EUT.
- The time interval between two successive single discharges was at least 1 second.
- Contact discharges were applied to the non-insulating coating, with the pointed tip of the generator penetrating the coating and contacting the conducting substrate.
- Air discharges were applied with the round discharge tip of the discharge electrode approaching the EUT as fast as possible (without causing mechanical damage) to touch the EUT. After each discharge, the ESD generator was removed from the EUT and re-triggered for a new single discharge. The test was repeated until all discharges were complete.
- At least ten single discharges (in the most sensitive polarity) were applied at the front edge of each **HCP** opposite the center point of each unit of the EUT and 0.1 meters from the front of the EUT. The long axis of the discharge electrode was in the plane of the **HCP** and perpendicular to its front edge during the discharge.
- At least ten single discharges (in the most sensitive polarity) were applied to the center of one vertical edge of the **Vertical Coupling Plane (VCP)** in sufficiently different positions that the four faces of the EUT were completely illuminated. The **VCP** (dimensions 0.5m x 0.5m) was placed vertically to and 0.1 meters from the EUT.

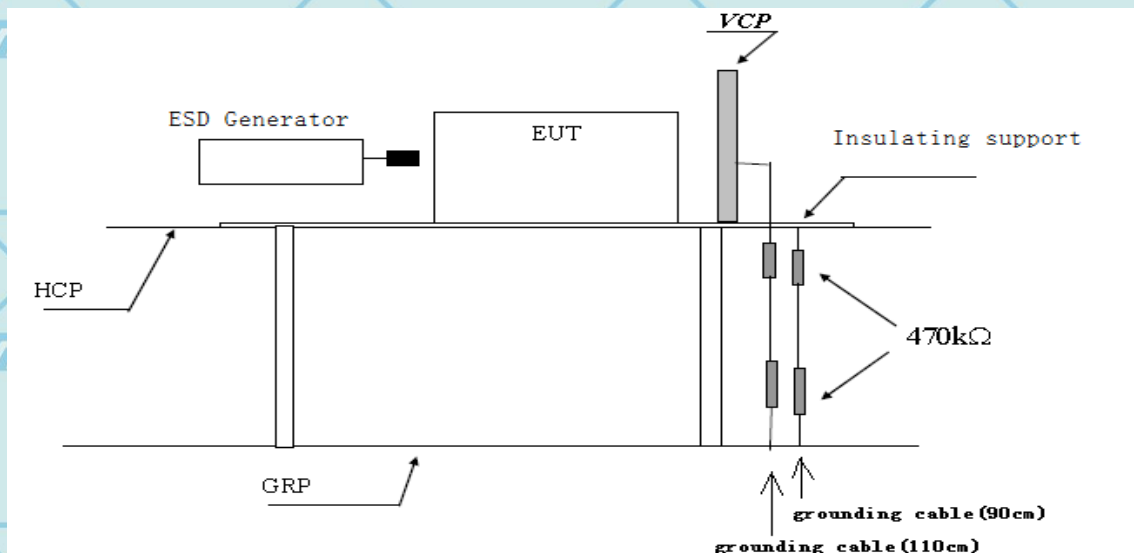




For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.3.4. TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

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 Ω total impedance. The equipment under test, was installed in a representative system as described in section 7 of 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 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 2.5 meters square connected to the protective grounding system and extended at least 0.5 meters from the EUT on all sides.



世标检测认证股份
World Standardization Certification & Testing Group Co., Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

TEST RESULTS

Temperature:	25°C	Humidity	55% RH
Air Pressure	100.0 kPa	Test result	Pass
Test mode	EMS Mode -1;		

The test results

Air Discharge							
Test locations	Test Levels			Results			
	± 2 kV	± 4 kV	± 8 kV	Pass	Fail	Performance Criterion	Observation
pilot lamp 1Point	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See 7.2	Note <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2
Surface 3Points	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See 7.2	Note <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2

Contact Discharge									
Test locations		Test Levels		Results					
		± 2 kV	± 4 kV	Pass	Fail	Performance Criterion	Observation		
HCP	4Points	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See 7.2	Note	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
VCP	4Points	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See 7.2	Note	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
USB Port	1Point	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See 7.2	Note	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2
Surface	4Points	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See 7.2	Note	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2

NOTE: 1. There was no change compared with initial operation during the test.

2. The loss of function of the EUT during the test, such as screen become dark, and it was recovered by itself operation after the test.





For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None



Air Discharge Point

Contact Discharge Point

ESD Test Operation



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



8.4. RADIATED, RADIO-FREQUENCY, ELECTROMAGNETIC FIELD (RS)

8.4.1. TEST SPECIFICATION

Basic Standard:	EN 61000-4-3
Frequency Range:	80 MHz ~6000 MHz
Field Strength:	3 V/m
Modulation:	1kHz Sine Wave, 80%, AM Modulation
Frequency Step:	1 % of preceding frequency value
Polarity of Antenna:	Horizontal and Vertical
Test Distance:	3 m
Antenna Height:	1.5m
Performance Criterion:	A

8.4.2. TEST INSTRUMENT

RS Test						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date	Use or Not
EXG Analog Signal Generator	Agilent	N5171B	40060472	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPS signal generator	Spirent	GSS4100	931	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMU200	1100.0008.02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMW500	103974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Conditioning Amplifier(80MHz—1GHz)	rflight	NTWPA-008101501	--	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Conditioning Amplifier(1GHz—6GHz)	rflight	NTWPA—1060040E	--	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Coaxial cable	Megalon	LMR400	N/A	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPIO cable	Megalon	GPIO	N/A	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Power Meter	SCHWARZBECK	PM4-6000	--	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Field sensor	PMM	EP-601	--	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Power Amplifier	M2S	A00181-1000	9801-112	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Anechoic chamber	SAEMC	--	-	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Directional coupler	Agilent	S6205A	--	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>





RS Test

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due	Use or Not
Test System for Conducted and Radiated Immunity	TESTQ	NSG4070	24438	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Broadband Antenna	SCHWARZBECK	VULB9161	-	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9120D	-	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
300 WATTS 6dB		300-A-MFN-06	SB1605/02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Audio Analyzer	R&S	UPA	SB4037	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
AF-BOX	R&S	1093 2340.03	338969/002	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).
2. N.C.R.= No Calibration required

8.4.3. TEST PROCEDURE

The test procedure was in accordance with EN 61000-4-3

- The testing was performed in a fully anechoic chamber. The transmit antenna was located at a distance of 3 meters from the EUT.
- The frequency range is swept from 80 MHz to 1000 MHz and 1400 MHz to 2700 MHz, with the signal 80% amplitude modulated with a 1kHz sine-wave. The rate of sweep did not exceed 1.5×10^{-3} decade/s, where the frequency range is swept incrementally, the step size was 1% of preceding frequency value.
- The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.
- The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

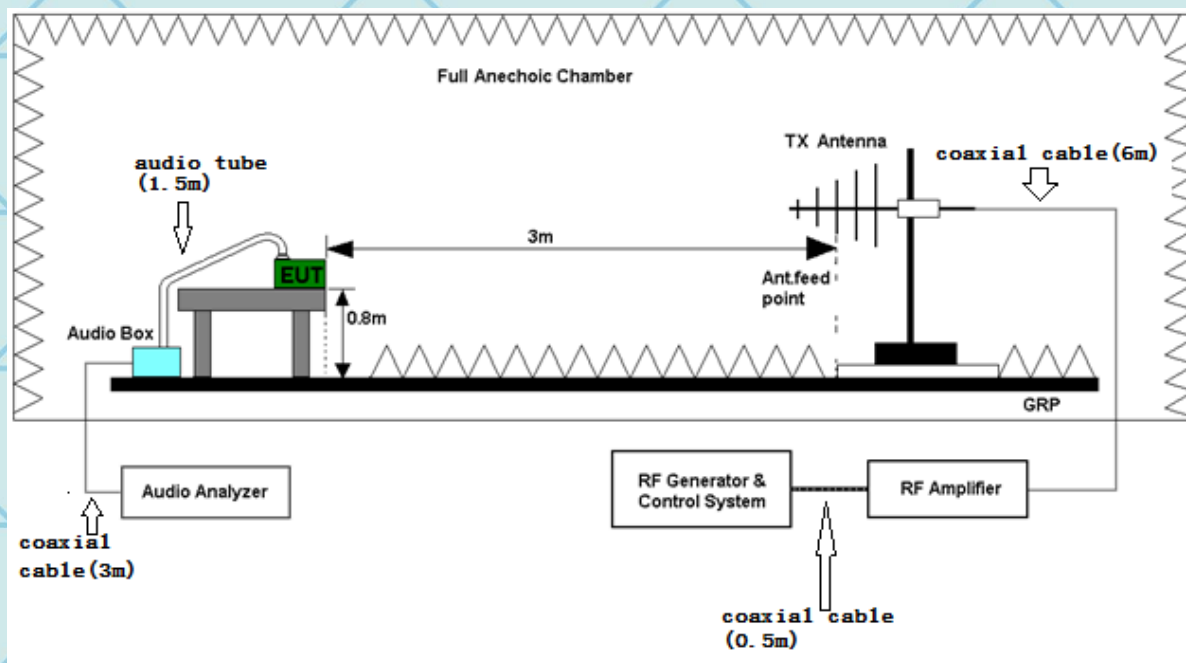




For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.4.4. TEST SETUP



For the actual test configuration, please refer to the related item.

NOTE:

TABLETOP EQUIPMENT

The EUT installed in a representative system as described in section 7 of 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 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.



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.4.5. TEST RESULTS

Temperature:	25°C	Humidity	55% RH
Air Pressure	100.0 kPa	Test result	Pass
Test mode	EMS Mode -1;		

EMS Mode -1

Frequency Range (MHz)	Front Side (3 V/m)		Rear Side (3 V/m)		Left Side (3 V/m)		Right Side (3 V/m)	
	VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-6000	A	A	A	A	A	A	A	A

For all working mode, the EUT continue to operate as intended without operator intervention.
No degradation of performance or loss of function was occurred during and after the test.

NOTE: There was no change compared with the initial operation during the test.



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.5. ELECTRICAL FAST TRANSIENT (EFT)

8.5.1. TEST SPECIFICATION

Basic Standard: EN 61000-4-4
Test Voltage: Power Line: 1 kV
 Signal/Control Line: 0.5 kV
Polarity: Positive & Negative
Impulse Frequency: 5 kHz
Impulse Wave-shape: 5/50 ns
Burst Duration: 15 ms
Burst Period: 300 ms
Test Duration: Not less than 1 min.
Performance Criterion: B

8.5.2. TEST INSTRUMENT

IMMUNITY SHIELDED ROOM						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date	Use or Not
EMC PARTNER TRANSIENT 2000	EMC PARTNER	TRA2000	881	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMU200	1100.0008.02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Coaxial cable	Megalon	LMR400	N/A	2019-11-05	2020-11-04	<input type="checkbox"/>
GPIB cable	Megalon	GPIB	N/A	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPS signal generator	Spirent	GSS4100	931	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMW500	103974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

2. N.C.R. stands for No Calibration required

8.5.3. TEST PROCEDURE

- Both positive and negative polarity discharges were applied.
- The length of the "hot wire" from the coaxial output of the EFT generator to the terminals on the EUT should not exceed 1 meter.
- The duration time of each test sequential was 1 minute.
- The transient/burst waveform was 5/50ns in accordance with EN 61000-4-4, 5/50ns.



世标检测认证股份
World Standardization Certification & Testing Group Co., Ltd.

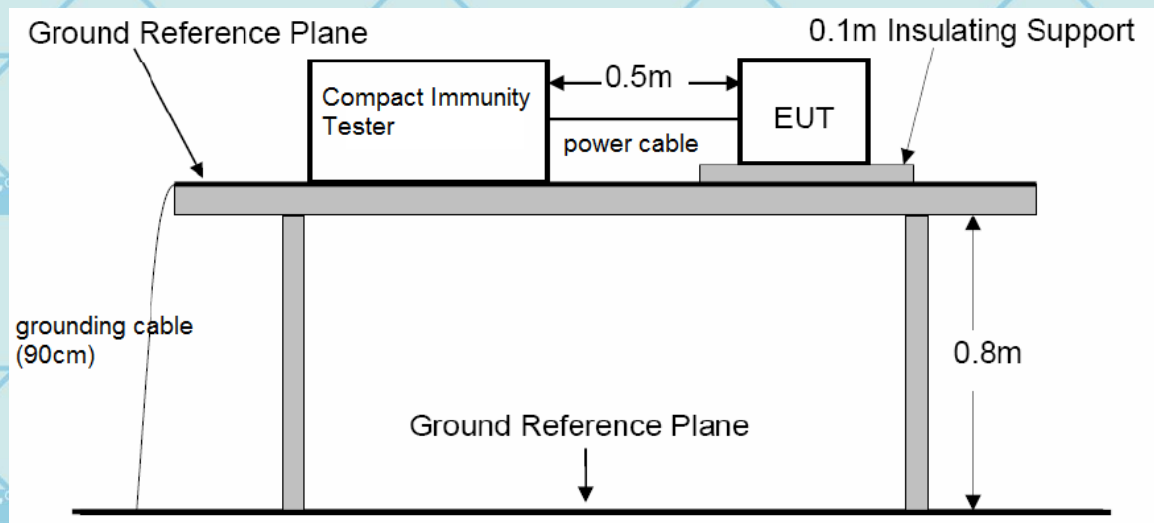
ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
 TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.5.4. TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

NOTE:

TABLETOP 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 61000-4-4 and its cable, 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.



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.5.5. TEST RESULTS

N/A (EUT belongs to portable equipment, and does not have AC mains power)





For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.6. SURGE IMMUNITY TEST

8.6.1 TEST SPECIFICATION

Basic Standard:	EN 61000-4-5
Wave-Shape:	Combination Wave
	1.2/50 us Open Circuit Voltage
	8/20 us Short Circuit Current
Test Voltage:	Power line ~ line to line: 1 kV; line to ground: 2kV Telecommunication line: 1 kV;
Surge Input/Output:	Power Line: L1-L2
Generator Source Impedance:	2 ohm between networks 12 ohm between network and ground
Polarity:	Positive/Negative
Phase Angle:	0 ° /90° /180° /270° □
Pulse Repetition Rate:	1 time / min. (maximum)
Number of Tests:	5 positive and 5 negative
Performance Criterion:	B

8.6.2. TEST INSTRUMENT

IMMUNITY SHIELDED ROOM						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date	Use or Not
EMC PARTNER TRANSIENT 2000	EMC PARTNER	TRA2000	881	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPS signal generator	Spirent	GSS4100	931	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMU200	1100.0008.02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMW500	103974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).
2. N.C.R. stands for No Calibration required



世标检测认证股份
World Standardization Certification & Testing Group Co., Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.6.3. TEST PROCEDURE

a) For EUT power supply:

The surge is applied to the EUT power supply 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 was shorter than 2 meters in length.

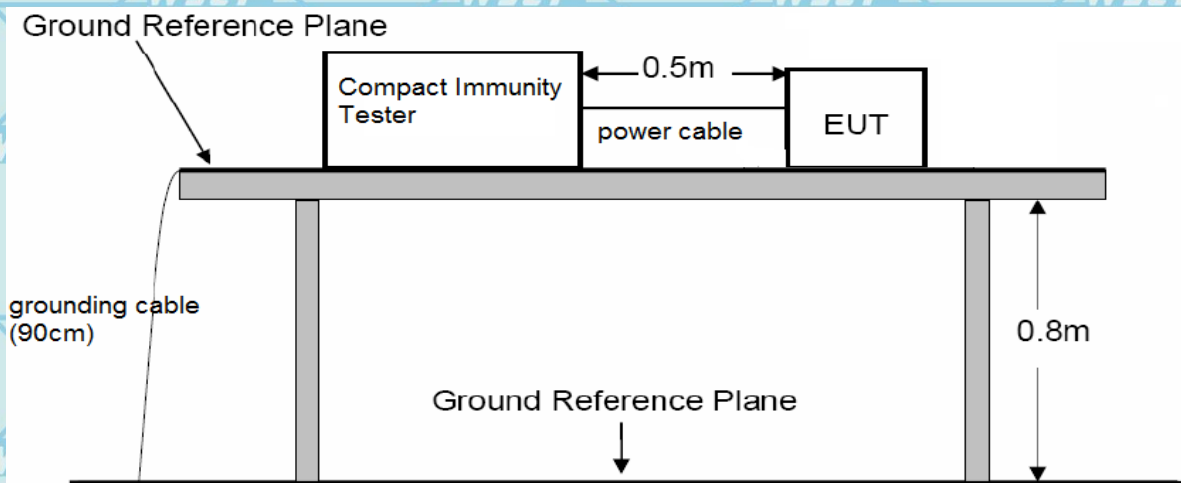
b) For test applied to unshielded un-symmetrically operated interconnection lines of EUT:

The surge was applied to the lines via the capacitive coupling. The coupling / decoupling networks didn't influence the specified functional conditions of the EUT. The interconnection line between the EUT and the coupling/decoupling networks was shorter than 2 meters in length.

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

The surge was applied to the lines via gas arrestors coupling. Test levels below the ignition point of the coupling arrestor were not specified. The interconnection line between the EUT and the coupling/decoupling networks was shorter than 2 meters in length.

8.6.4. TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.





For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.6.5. TEST RESULTS

N/A (Only where equipment has AC mains power input ports and/or wired network ports)



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.7. CONDUCTED RADIO FREQUENCY IMMUNITY (CS)

8.7.1. TEST SPECIFICATION

Basic Standard: EN 61000-4-6
Frequency Range: 0.15 MHz ~ 80 MHz
Field Strength: 3 V/m
Modulation: 1kHz Sine Wave, 80%, AM Modulation
Frequency Step: 1 % of preceding frequency value
Coupled cable: Power Mains, Shielded
Coupling device: CND-M3/2 (2wires)
Performance Criterion: A

8.7.2. TEST INSTRUMENT

CS Test						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due	Use or Not
EXG Analog Signal Generator	Agilent	N5171B	40060472	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Power Amplifier	AR	150W1000	SB3173	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Attenuator	TESTQ	ATN6075	24686	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
CDN	EMTEST	CDN-M2	SB2605/01	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPS signal generator	Spirent	GSS4100	931	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Audio Analyzer	R&S	UPA	SB4037	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMU200	1100.0008.02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMW500	103974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
AF-BOX	R&S	1093 2340.03	338969/002	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

2. N.C.R. stands for No Calibration required



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.7.3. TEST PROCEDURE

The EUT shall be tested within its intended operating and climatic conditions.

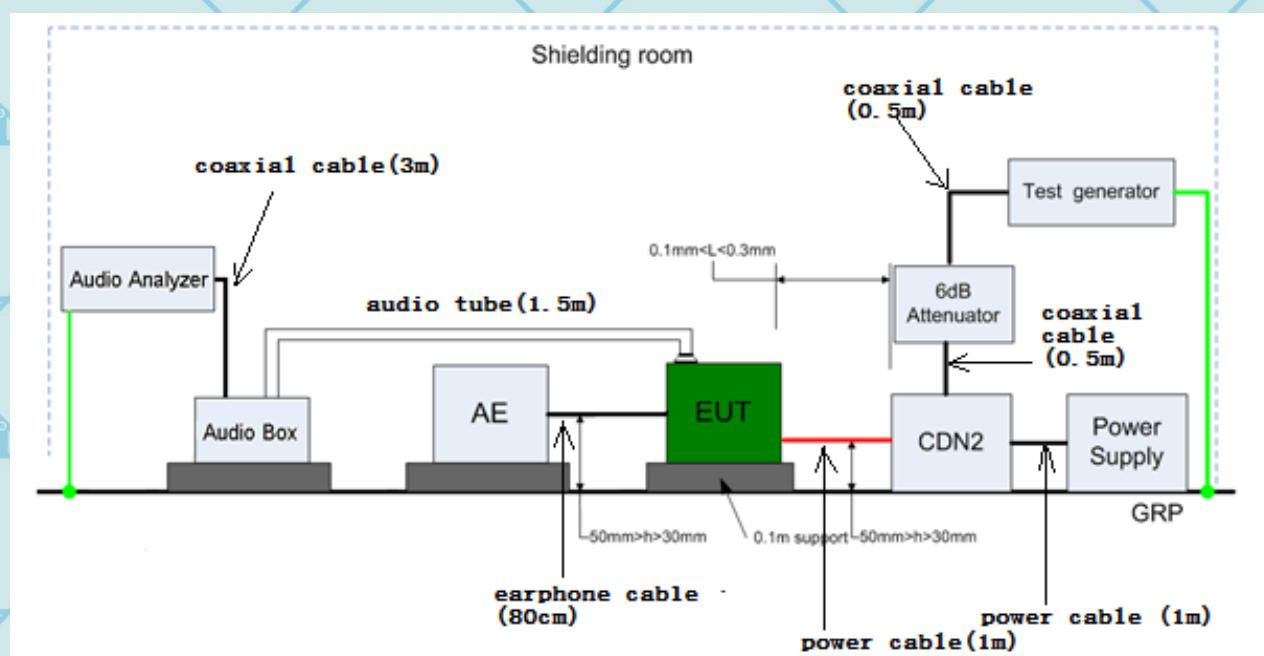
The test shall be performed with the test generator connected to each of the coupling and decoupling devices in turn, while the other non-excited RF input ports of the coupling devices are terminated by a 50-ohm load resistor.

The frequency range was swept from 150 kHz to 80 MHz, using the signal level established during the setting process and with a disturbance signal of 80 % amplitude. The signal was modulated with a 1 kHz sine wave, pausing to adjust the RF signal level or the switch coupling devices as necessary. The sweep rate was 1.5×10^{-3} decades/s. Where the frequency range is swept incrementally, the step size was 1 % of preceding frequency value from 150 kHz to 80 MHz.

The dwell time at each frequency was less than the time necessary for the EUT to be exercised, and able to respond. Sensitive frequency such as clock frequency and harmonics or frequencies of dominant interest, was analyzed separately.

Attempts were made to fully exercise the EUT during testing, and to fully interrogate all exercise modes selected for susceptibility.

8.7.4. TEST SETUP



For the actual test configuration, please refer to the related item.

NOTE:

TABLE-TOP AND 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.





For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.7.5. TEST RESULTS

N/A (EUT belongs to portable equipment, and does not have AC mains power)





For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.8. VOLTAGE DIPS & VOLTAGE INTERRUPTIONS

8.8.1. TEST SPECIFICATION

Basic Standard: EN 61000-4-11
Test duration time: Minimum three test events in sequence
Interval between event: Minimum 10 seconds
Phase Angle: 0° /45° /90° /135° /180° /225° /270° /315° /360°
Test cycle: 3 times
Performance Criterion: B/C

8.8.2. TEST INSTRUMENT

IMMUNITY SHIELDED ROOM						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date	Use or Not
EMC PARTNER TRANSIENT 2000	EMC PARTNER	TRA2000	881	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMU200	1100.0008.02	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
GPS signal generator	Spirent	GSS4100	931	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Coaxial cable	Megalon	LMR400	N/A	2019-11-05	2020-11-04	<input type="checkbox"/>
GPIO cable	Megalon	GPIO	N/A	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>
Universal Radio Communication Tester	R&S	CMW500	103974	2019-11-05	2020-11-04	<input checked="" type="checkbox"/>

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).
 2. N.C.R. stands for No Calibration required

8.8.3. TEST PROCEDURE

1. The EUT and support units were located on a wooden table, 0.8 m away from ground floor.
2. Setting the parameter of tests and then perform the test software of test simulator.
3. Conditions changes to occur at 0 degree crossover point of the voltage waveform.
4. Recording the test result in test record form.



世标检测认证股份
World Standardization Certification & Testing Group Co., Ltd.

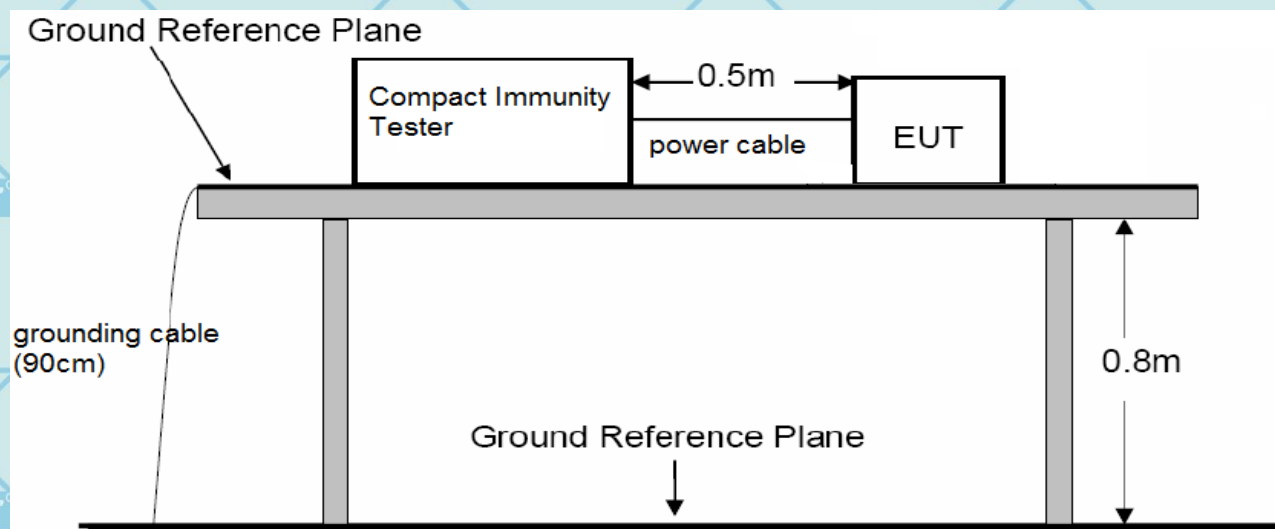
ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
 TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

8.8.4. TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

8.8.5. TEST RESULTS

N/A (Only where equipment has AC mains power input ports)





For Question,
Please Contact with WSCT
www.wsct-cert.com

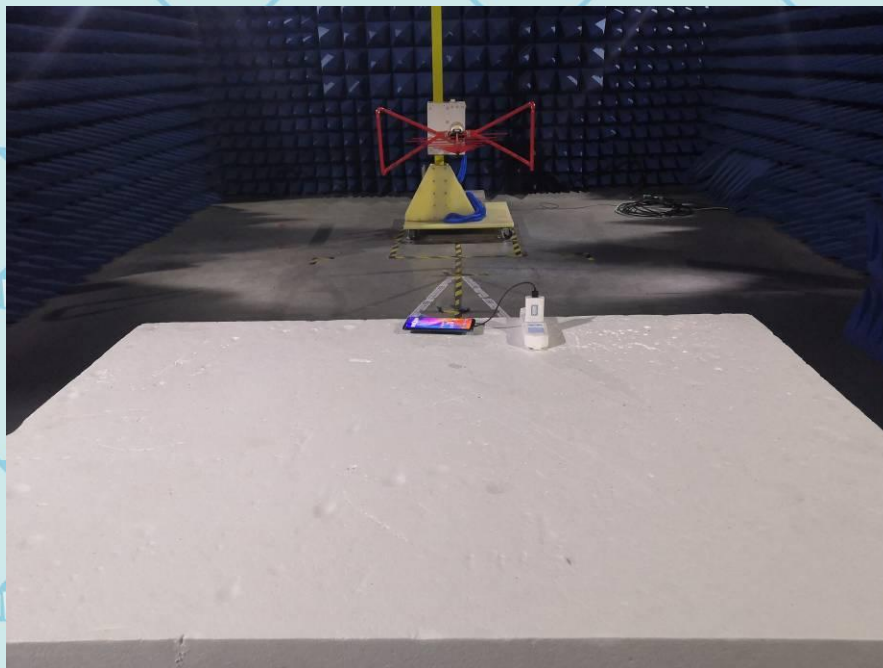
Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

9 PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST



RADIATED EMISSION TEST



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

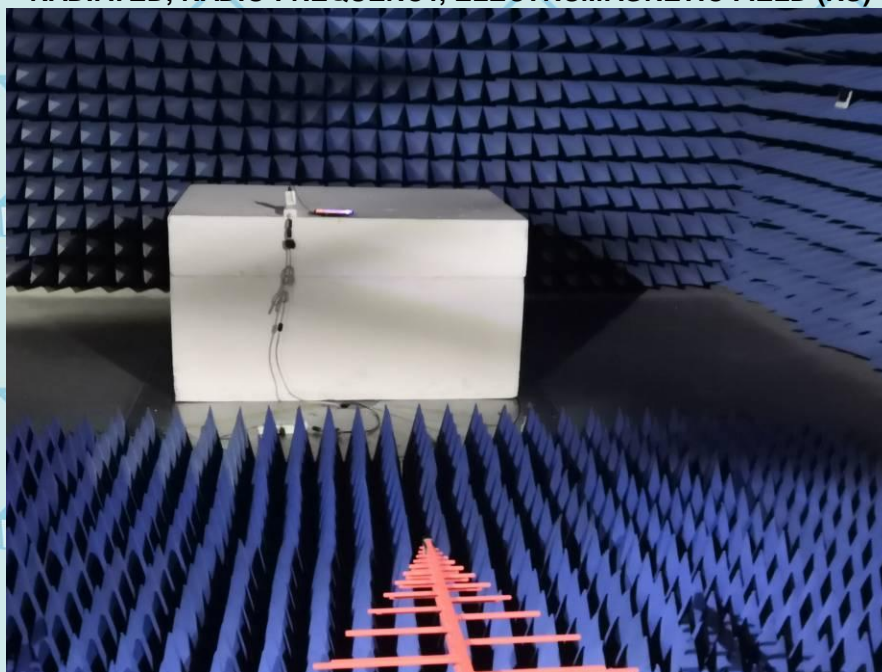
ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

RADIATED, RADIO-FREQUENCY, ELECTROMAGNETIC FIELD (RS)



ESD TEST



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

10 PHOTOGRAPHS OF EUT

Appearance photograph of EUT



Appearance photograph of EUT



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Appearance photograph of EUT



Appearance photograph of EUT



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Appearance photograph of EUT



Appearance photograph of EUT



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Internal photograph of EUT



Internal photograph of EUT



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



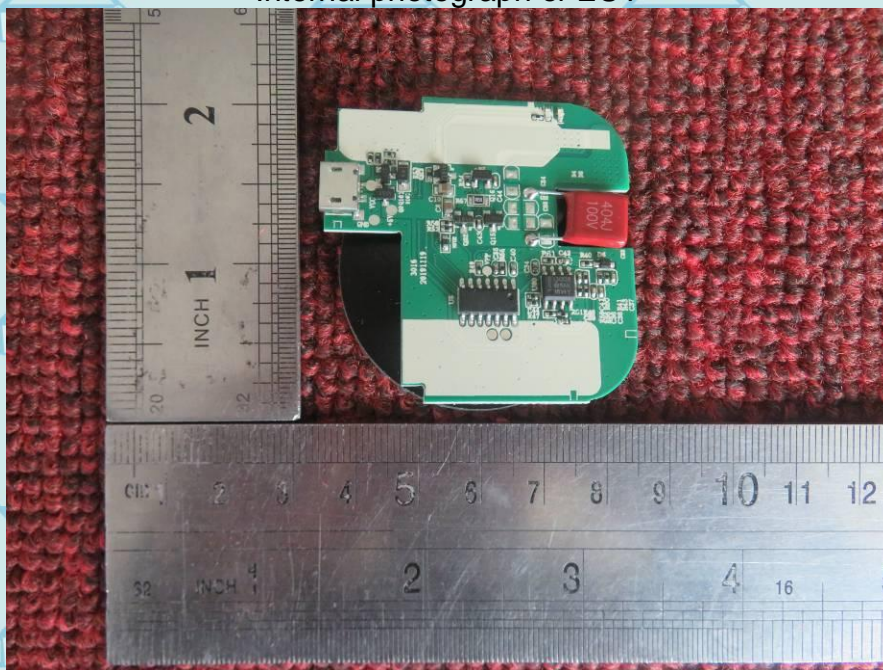
For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Internal photograph of EUT



Internal photograph of EUT



Internal photograph of EUT



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com

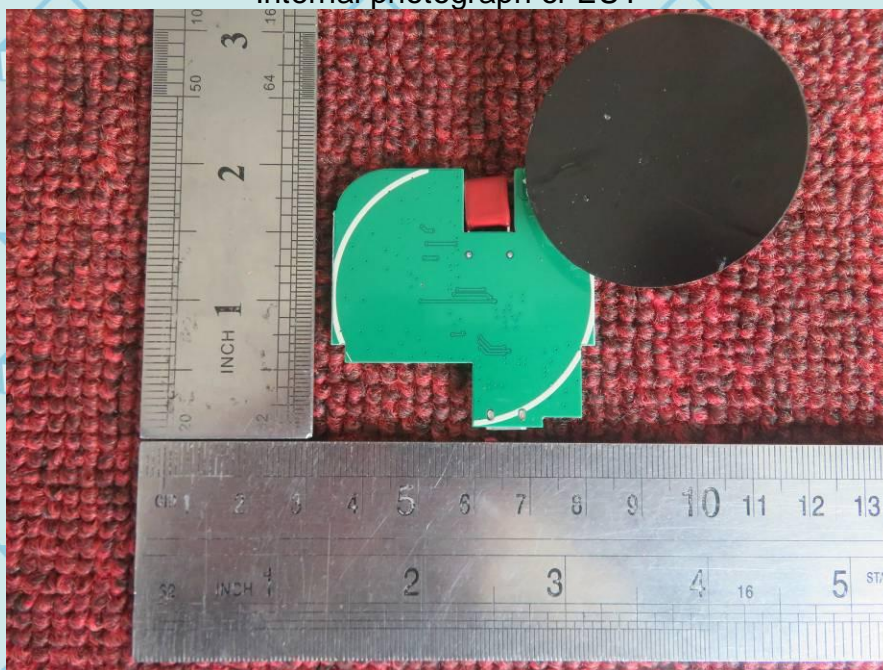


For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None



Internal photograph of EUT



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

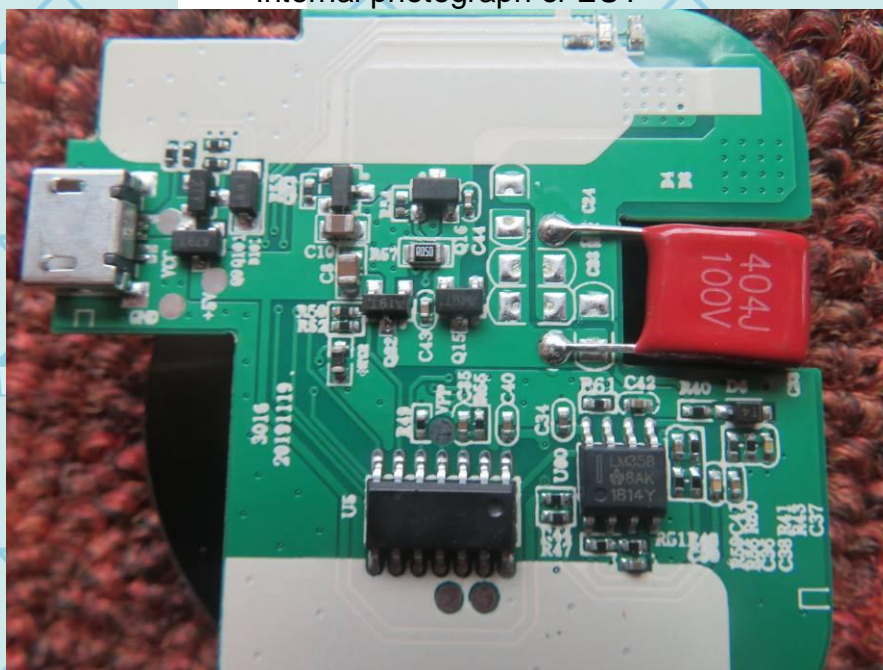
ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com



For Question,
Please Contact with WSCT
www.wsct-cert.com

Report No.: WSCT-R&E200300047A-EMC Issued: 31 March 2020 Revised: None

Internal photograph of EUT



—END OF REPORT—



世标检测认证股份
World Standardization Certification & Testing Group Co.,Ltd.

ADD: Building A-B Baoshi Science & technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China
TEL: 86-755-26996143/26996144/26996145/26996192 FAX: 86-755-86376605 E-mail: Fengbing.Wang@wsct-cert.com Http: www.wsct-cert.com