

ETSI EN 301 489-1 v 1.9.2: 2011/ ETSI EN 301 489-17 v 2.2.1: 2012

MEASURMENT AND TEST REPORT

For

Shenzhen Fenda Technology Co., Ltd.

Fenda Hi-Tech Park, Zhoushi Road, Shiyan Town, Baoan District, Shenzhen City, Guangdong, China

E.U.T.: BLUETOOTH SPEAKER

Model Name: W4, 0102019014, OMA2120, W4MINI, W3, W3MINI

Brand Name: F&D

Report Number: NTC1604356E

Test Date(s): April 29, 2016 to May 16, 2016

Report Date(s): May 16, 2016

Prepared by

Dongguan Nore Testing Center Co., Ltd.

Building D, Gaosheng Science & Technology Park, Zhouxi Longxi Road, Nancheng District, Dongguan City, Guangdong Province, China Tel: +86-769-22022444 Fax: +86-769-22022799

Prepared By

Approved & Authorized Signer

lori Fan Authorized signatory

Alina Guo / Engineer

Note: This test report is for the customer shown above and their specific product only. It may not be duplicated or used in part without prior written consent from Dongguan Nore Testing Center Co., Ltd. The test results referenced from this report are relevant only to the sample tested.



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Dongguan Nore Testing Center Co., Ltd. Report No.: NTC1604356E



Revision History of This Test Report

Report Number	Description	Issued Date
NTC1604356E	Initial Issue	2016-05-16



1. GENERAL INFORMATION

PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST

Manufacturer & Factory : Same as the applicant

Model Name : W4, 0102019014, OMA2120, W4MINI, W3, W3MINI

(All tests were carried on model OMA2120.)

Model difference : These models have the same circuitry, electrical

mechanical, PCB layout and physical construction. Their

differences in model name due to trading purpose.

Power Supply : DC 5V come from USB port,

DC 3.7V Li-ion battery (Normal Voltage)

Adapter : None

Test Voltage : DC 3.7V, DC 5V (Adapter input AC 230V 50Hz)

Operating Temperature

Range

: 0°C to 45°C (Declaration by manufacturer)

Remark: : None

Item	BT2.1+EDR
Frequency	2402-2480MHz
Modulation	GFSK, π/4-DQPSK
Number of Channel	79
Channel space	1MHz
Antenna Type	PCB antenna
Antenna Gain	0 dBi (declared by manufacturer)



2. SUMMARY OF TEST RESULTS

The E.U.T. has been tested according to the following specifications:

ETSI EN 301 489-1 v 1.9.2: 2011/ETSI EN 301 489-17 v 2.2.1: 2012										
	EMISSION									
Standard	Test Type	Result	Remarks							
EN 55022: 2010+AC:	Mains Terminal Disturbance Voltage Test	PASS	Uncertainty: 2.7dB							
2011	Radiated Emission Test	PASS	Uncertainty: 3.4dB							
	IMMUNITY									
Standard	Test Type	Result	Remarks							
EN 61000-4-2: 2009	Electrostatic discharge immunity test	PASS	Meets the requirements of Performance Criterion B							

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3. TEST METHODOLOGY

As per table 2 of clause 7.1 of ETSI EN 301 489-1 V1.9.2, the measurement was performed under EUT combined condition during the tests. The ports on the ancillary left empty during the measurement in this report.

4. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

5. TEST FACILITY

Site Description

EMC Lab : Listed by FCC, July 03, 2014

The Certificate Number is 665078.

Listed by Industry Canada, June 18, 2014

The Certificate Registration Number. Is 46405-9743

Name of Firm 1 : Dongguan Nore Testing Center Co., Ltd.

(Dongguan NTC Co., Ltd.)

Site Location 1 : Building D, Gaosheng Science & Technology Park,

Zhouxi Longxi Road, Nancheng District, Dongguan

City, Guangdong Province, China

: Bureau Veritas Shenzhen Co., Ltd., Dongguan Name of Firm 2

Branch

Site Location 2 : No. 34, Chenwulu Section, Guantai Rd., Houjie

Town, Dongguan City, Guangdong 523942, China

6. SUPPORT EQUIPMENT

Adapter : Model: BSYC050200UW

Input: AC100-240V 50/60Hz 0.5A

Output: DC 5.0V 2000mA

Mobile Phone : Manufacturer: Vivo

Model: X5SL

S/N: 867047023930426

iPod : Manufacturer: Apple

M/N: A1446

S/N: DCYNV5EMF0GQ



7. PERFORMANCE CRITERIA

	ETSI EN301489-17 v 2.2.1: 2012										
Criteria	During Test	After Test									
A	Shall operate as intended May show degradation of performance (note 1) Shall be no loss of function Shall be no unintentional transmissions	Shall operate as intended Shall be no degradation of performance(note 2) Shall be no loss of function Shall be no loss of stored data or user programmable functions									
В	May show loss of function (one or more) May show degradation of performance (note 1) No unintentional transmissions	Functions shall be self-recoverable Shall operate as intended after recovering Shall be no degradation of performance (note 2) Shall be no loss of stored data or user programmable functions									
С	May be loss of function (one or more)	Functions shall be recoverable by the operator Shall operate as intended after recovering Shall be no degradation of performance(note 2)									

NOTE 1: Degradation of performance during the test is understood as a degradation to a level not below a minimum performance level specified by the manufacturer for the use of the apparatus as intended. In some cases the specified minimum performance level may be replaced by a permissible degradation of performance. If the minimum performance level or the permissible performance degradation is not specified by the manufacturer then either of these may be derived from the product description and documentation (including leaflets and advertising) and what the user may reasonably expect from the apparatus if used as intended.

NOTE 2: No degradation of performance after the test is understood as no degradation below a minimum performance level specified by the manufacturer for the use of the apparatus as intended. In some cases the specified minimum performance level may be replaced by a permissible degradation of performance. After the test no change of actual operating data or user retrievable data is allowed. If the minimum performance level or the permissible performance degradation is not specified by the manufacturer then either of these may be derived from the product description and documentation (including leaflets and advertising) and what the user may reasonably expect from the apparatus if used as intended.

Performance Criteria For Continuous Phenomena (CT & CR)

At the conclusion of the test the EUT shall operated as intended with no loss of user control functions or stored data, the communication link shall have been maintained during the test.

Performance Criteria For Transitent Phenomena (TT & TR)

At the conclusion of each exposure the EUT shall operated with no user noticeable loss of communication link.



8. ETSI EN 301 489-1/17 REQUIREMENTS

8.1 RADIATED EMISSION LIMIT

According standard ETSI EN 301 489-1 v 1.9.2 Clause 8.2.3, Table 3 and EN 55022: 2010+AC: 2011 Clause 6, Table 6, Class B

Limits for radiated disturbance Blow 1GHz

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMIT
(MHz)	(Meters)	(dBμV/m)
30 ~ 230	3	40
230 ~ 1000	3	47

Note: (1) The smaller limit shall apply at the combination point between two frequency bands.

(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

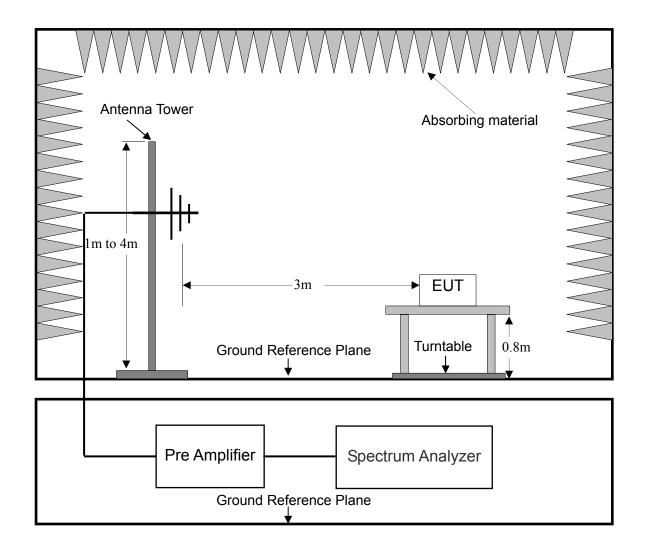
Limits for radiated disturbance Above 1GHz

FREQUENCY	DISTANCE	Average Limit	Peak Limit		
(MHz)	(Meters)	(dB _μ V/m)			
1000 ~ 3000	3	50	70		
3000 ~ 6000	3	54	74		

Note: The lower limit applies at the transition frequency.



TEST CONFIGURATION



TEST PROCEDURE

Please refer to ETSI EN 301 489-1 v1.9.2 Clause 8.2.3 and EN 55022: 2010+AC: 2011 Clause 6 for the measurement methods.

TEST RESULT

PASS

Please refer to following data tables of the worst case: Charging+BT Link.

Report No.: NTC1604356E



Site: Radiation



Dongguan NTC Co., Ltd. Tel:+86-769-22022444 Fax:+86-769-22022799

Note Testing Center Web: Http://www.ntc-c.com

Test Distance:

Power Rating:

Test Engineer:

Ant. Polarization:

Temp.(C)/Hum.(%):

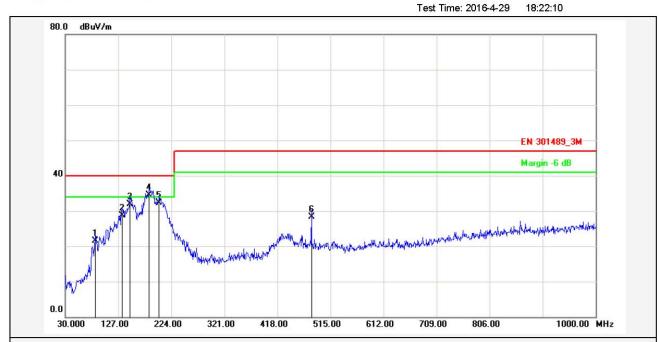
3m

Horizontal

DC 5V(From Adapter)

Anson

22(C) / 54 %



OMA2120 Report No.:

Test Standard: EN 301489_3M

Test item: **Radiation Emission**

Applicant: **FENDA**

Product: **BLUETOOTH SPEAKER**

Model No.: OMA2120

Test Mode: Charging+BT Link

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	85.2900	-15.11	36.61	21.50	40.00	-18.50	QP		,;;	Р	
2	133.7899	-15.32	44.12	28.80	40.00	-11.20	QP			Р	
3	148.3400	-15.54	47.54	32.00	40.00	-8.00	QP		17	Р	
4	183.2600	-13.94	48.44	34.50	40.00	-5.50	QP			Р	
5	201.6900	-13.40	45.70	32.30	40.00	-7.70	QP			Р	
6	480.0800	-7.21	35.51	28.30	47.00	-18.70	QP			Р	

Report No.: NTC1604356E

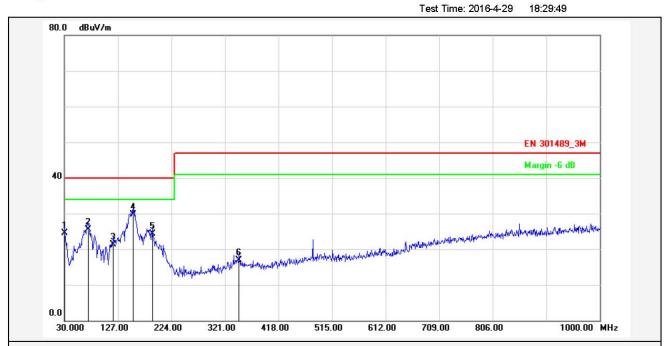


Site: Radiation



Dongguan NTC Co., Ltd. Tel:+86-769-22022444 Fax:+86-769-22022799

Note Testing Center Web: Http://www.ntc-c.com



Report No.: OMA2120

Test Standard: EN 301489_3M

Test item: Radiation Emission

Applicant: FENDA

Product: BLUETOOTH SPEAKER

Model No.: OMA2120

Test Distance: 3m

Ant. Polarization: Vertical

Temp.(C)/Hum.(%): 22(C) / 54 %

Power Rating: DC 5V(From Adapter)

Test Engineer: Anson

Test Mode: Charging+BT Link

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	30.0000	-15.90	40.40	24.50	40.00	-15.50	QP			Р	
2	72.6800	-18.26	43.76	25.50	40.00	-14.50	QP			Р	
3	118.2700	-16.68	37.98	21.30	40.00	-18.70	QP			Р	
4	154.1600	-18.38	48.18	29.80	40.00	-10.20	QP			Ը	
5	189.0800	-16.63	40.93	24.30	40.00	-15.70	QP			Ω.	
6	346.2200	-11.19	28.09	16.90	47.00	-30.10	QP			Ը	

Report No.: NTC1604356E



Site: Radiation

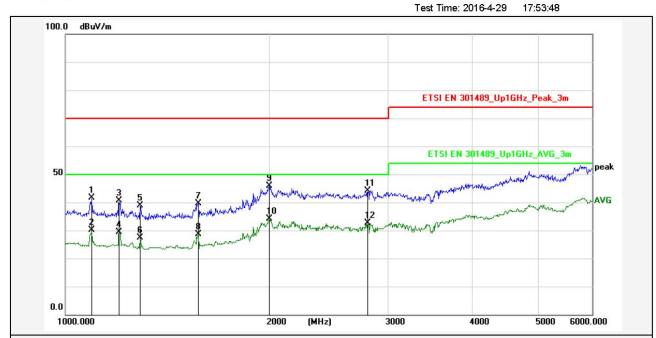


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Web: Http://www.ntc-c.com

Test Distance:

3m



Report No.: OMA2120

ETSI EN 301489_Up1GHz_Peak_3m Test Standard:

Test item: **Radiation Emission** Ant. Polarization: Horizontal 22(C) / 54 % Applicant: **FENDA** Temp.(C)/Hum.(%):

Product: **BLUETOOTH SPEAKER** Power Rating: DC 5V(From Adapter)

Model No.: OMA2120 Test Engineer: Anson

Test Mode: Charging + BT Link

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1093.724	1.66	39.88	41.54	70.00	-28.46	peak			Р	
2	1093.724	1.66	28.53	30.19	50.00	-19.81	AVG			Р	
3	1200.525	2.12	38.61	40.73	70.00	-29.27	peak			Р	
4	1200.525	2.12	27.17	29.29	50.00	-20.71	AVG			Р	
5	1289.726	2.54	36.27	38.81	70.00	-31.19	peak			Р	
6	1289.726	2.54	24.74	27.28	50.00	-22.72	AVG			Р	
7	1573.520	4.20	35.51	39.71	70.00	-30.29	peak			Р	
8	1573.520	4.20	24.35	28.55	50.00	-21.45	AVG			Р	
9	2000.527	6.98	39.00	45.98	70.00	-24.02	peak			Р	
10	2000.527	6.98	27.14	34.12	50.00	-15.88	AVG			Р	
11	2796.783	8.82	35.30	44.12	70.00	-25.88	peak			Р	
12	2796.783	8.82	23.74	32.56	50.00	-17.44	AVG			Р	

Report No.: NTC1604356E



Site: Radiation

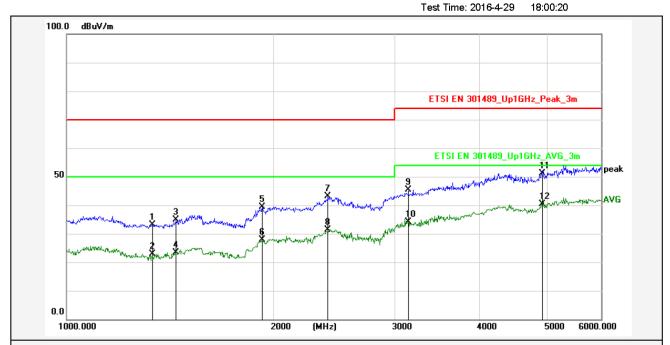


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Web: Http://www.ntc-c.com

Test Distance:

3m



Report No.: OMA2120

Test Standard: ETSI EN 301489_Up1GHz_Peak_3m

Test item: Radiation Emission Ant. Polarization: Vertical

Applicant: FENDA Temp.(C)/Hum.(%): 22(C) / 54 %

Product: BLUETOOTH SPEAKER Power Rating: DC 5V(From Adapter)

Model No.: OMA2120 Test Engineer: Anson

Test Mode: Charging + BT Link

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1334.389	2.78	30.35	33.13	70.00	-36.87	peak			Р	
2	1334.389	2.78	20.00	22.78	50.00	-27.22	AVG			Р	
3	1443.846	3.37	31.43	34.80	70.00	-35.20	peak			Р	
4	1443.846	3.37	20.04	23.41	50.00	-26.59	AVG			Р	
5	1926.652	6.54	32.73	39.27	70.00	-30.73	peak			Р	
6	1926.652	6.54	21.26	27.80	50.00	-22.20	AVG			Р	
7	2401.684	8.09	35.03	43.12	70.00	-26.88	peak			Р	
8	2401.684	8.09	23.31	31.40	50.00	-18.60	AVG			Р	
9	3142.235	9.64	35.84	45.48	74.00	-28.52	peak			Р	
10	3142.235	9.64	24.49	34.13	54.00	-19.87	AVG			Р	
11	4926.683	15.15	36.07	51.22	74.00	-22.78	peak			Р	
12	4926.683	15.15	25.24	40.39	54.00	-13.61	AVG			Р	



8.2 AC POWER CONDUCTED EMISSION

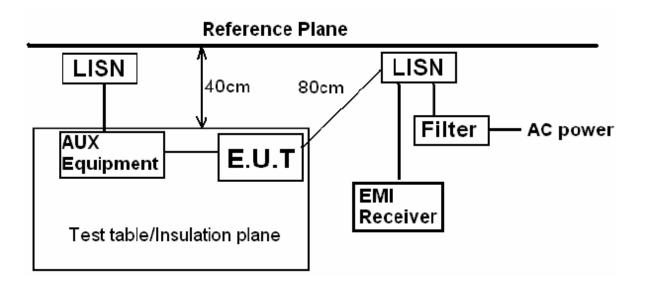
LIMIT

According to standard ETSI EN 301 489-1 v1.9.2 Clause 8.3.3, Table 8 and EN 55022: 2010+AC: 2011 Clause 5, Table 2, Class B

Limits for conducted disturbance at the mains ports of class B ITE.

Elitile for conducted distarbance at the mains porte of class B 11E.									
Frequency range	Limits								
	(dB(ı	uV))							
(MHz)	Quasi-peak	Average							
0.15 to 0.5	66 to 56	56 to 46							
0.5 to 5	56	46							
5 to 30	60	50							

TEST CONFIGURATION



TEST PROCEDURE

Please refer to ETSI EN 301 489-1 v1.9.2 Clause 8.3.3 and EN 55022: 2010+AC: 2011 Clause 5 for the measurement methods.

Dongguan Nore Testing Center Co., Ltd. Report No.: NTC1604356E



TEST RESULTS

PASS

Please refer to following data.

Report No.: NTC1604356E

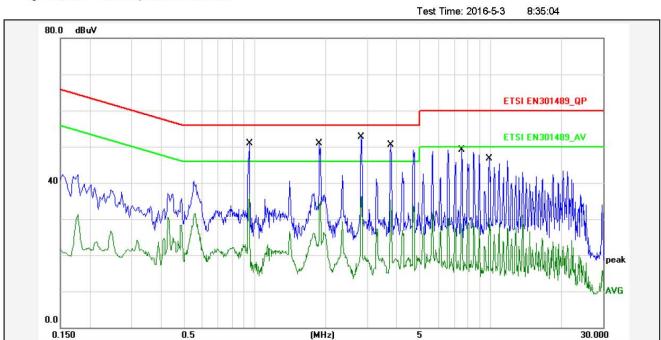




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esting Center Web: <u>Http://www.ntc-c.com</u>

Site: Conduction



Report No.: OMA2120

Test Standard: ETSI EN301489_QP

Test item: **Conducted Emission** Phase: L1

Applicant: **FENDA** Temp.()/Hum.(%): 22(C) / 50 % Product: **BLUETOOTH SPEAKER** Power Rating: DC 5V(From Adapter)

Model No.: OMA2120 Test Engineer: chilaw

Test Mode: Charging + BT Link

No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.9500	10.80	38.00	48.80	56.00	-7.20	QP	Р	
2	0.9500	10.80	23.80	34.60	46.00	-11.40	AVG	Р	
3	1.8820	10.80	38.00	48.80	56.00	-7.20	QP	Р	
4	1.8820	10.80	22.00	32.80	46.00	-13.20	AVG	Р	
5	2.8300	10.80	39.90	50.70	56.00	-5.30	QP	Р	
6	2.8300	10.80	23.50	34.30	46.00	-11.70	AVG	Р	
7	3.7700	10.80	37.70	48.50	56.00	-7.50	QP	Р	
8	3.7700	10.80	22.40	33.20	46.00	-12.80	AVG	Р	
9	7.5459	10.80	36.30	47.10	60.00	-12.90	QP	Р	
10	7.5459	10.80	15.80	26.60	50.00	-23.40	AVG	Р	
11	9.9059	10.80	33.90	44.70	60.00	-15.30	QP	Р	
12	9.9059	10.80	17.40	28.20	50.00	-21.80	AVG	Р	

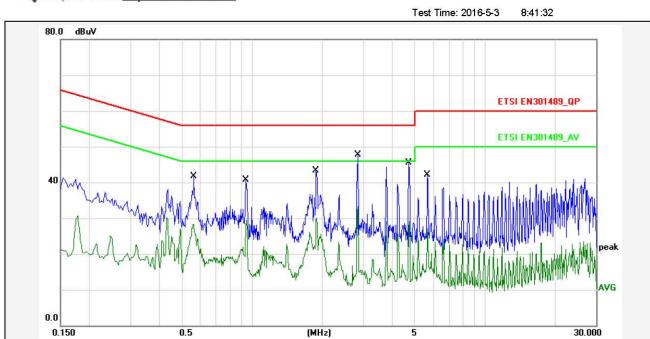
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Report No.: OMA2120

Test Standard: ETSI EN301489_QP

Test item: Conducted Emission Phase: N

Applicant: FENDA Temp.()/Hum.(%): 22(C) / 50 %

Product: BLUETOOTH SPEAKER Power Rating: DC 5V(From Adapter)

Model No.: OMA2120 Test Engineer: chilaw

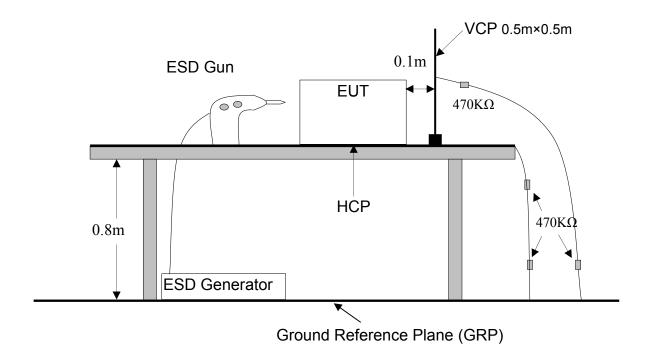
Test Mode: Charging + BT Link

No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.5620	10.80	28.90	39.70	56.00	-16.30	QP	Р	
2	0.5620	10.80	15.50	26.30	46.00	-19.70	AVG	Р	
3	0.9420	10.80	27.80	38.60	56.00	-17.40	QP	Р	
4	0.9420	10.80	16.70	27.50	46.00	-18.50	AVG	Р	
5	1.8860	10.80	30.40	41.20	56.00	-14.80	QP	Р	
6	1.8860	10.80	17.30	28.10	46.00	-17.90	AVG	Р	
7	2.8460	10.80	34.80	45.60	56.00	-10.40	QP	Р	
8	2.8460	10.80	20.40	31.20	46.00	-14.80	AVG	Р	
9	4.7179	10.80	32.70	43.50	56.00	-12.50	QP	Р	
10	4.7179	10.80	16.20	27.00	46.00	-19.00	AVG	Р	
11	5.6619	10.80	29.20	40.00	60.00	-20.00	QP	Р	
12	5.6619	10.80	14.30	25.10	50.00	-24.90	AVG	Р	



8.3 ELECTROSTATIC DISCHARGE

TEST CONFIGURATION



TEST PROCEDURE:

Please refer to ETSI EN 301 489-1 v1.9.2 Clause 9.3.2 and EN 61000-4-2 for the measurement methods.

TEST RESULT

PASS

please refer to following data table.

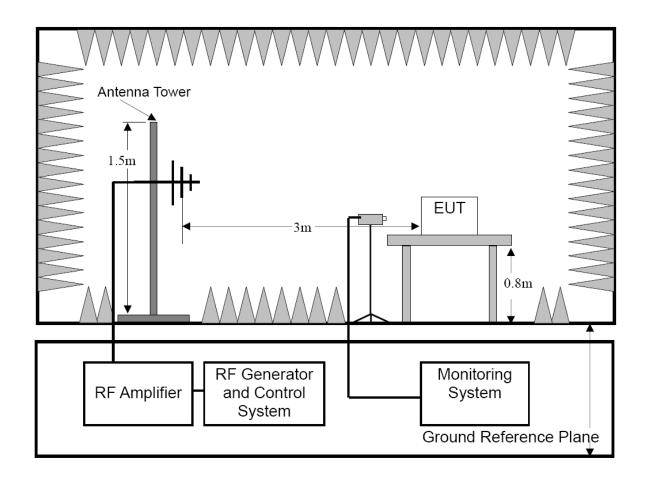


		Test Co	ondition			
Temperature	25°C		Test Voltage	AC 230V/50Hz, DC 3.7V		
Humidity	53%RI	1	Tested by	Steven		
Pressure	1022m	bar	Performance Criterion :	CR & CT & B		
Ground Bond Res	sistance		0.2 Ω			
Time Between Ea	ch Dischar	ge:	1 second			
Test Mode			TX+RX(BT Link)			
Test Level			\pm 2.0, \pm 4.0, \pm 8.0 kV (Air Discharge) \pm 2.0, \pm 4.0 kV (Contact Discharge) \pm 2.0, \pm 4.0 kV (Indirect Contact Discharge)			
		Test	Result			
Discharge	Туре		Level	Result		
Contact Discharge ±			2, ± 4kV	Pass		
Air Discharge ± 2,			± 4, ± 8kV	Pass		
Indirect HCP Discharge			2, ± 4kV	Pass		
Indirect VCP Di	scharge	± 2, ± 4kV		Pass		



8.4 RF ELECTROMAGNETIC FIELD

TEST CONFIGURATION



TEST PROCEDURE

Please refer to ETSI EN 301 489-1 v1.9.2 Clause 9.2.2 and EN61000-4-3 for the measurement methods.

TEST RESULT

PASS

please refer to following data table.



Test Condition							
Temperature	25°C	Test Voltage	AC 230V 50Hz, DC 3.7V				
Humidity	53%RH	Tested by	Chilaw				
Pressure	1022mbar	Performance Criterion	CR & CT & A				
Frequency Range		80-1000MHz and	1400-2700 MHz				
Test Modulation		1kHz, 80% AM					
Dwell time		1 second					
Frequency Step		1%					
Antenna Polarization		Horizontal and V	Horizontal and Vertical				
Test Mode		TX+RX(BT Link)	TX+RX(BT Link)				
Test Level		3V/m	3V/m				
		Test Result					
Frequency (MHz)		Exposed Side	Result				
80 to 1000 1400 to 2700		Front	Pass				
80 to 1000 1400 to 2700			Pass				
80 to 1000 1400 to 2700			Pass				
80 to 1000 1400 to 2700		Right	Pass				

Note: The exclusion band for 2,45 GHZ equipment falling within the scope of the present document extends from 2 280 MHz to 2 607,675 MHz.

Note: This test was carry out on Bureau Veritas Shenzhen Co., Ltd., Dongguan Branch.

Report No.: NTC1604356E



8.5 TEST EQUIPMENT LIST

FOR MAINS TERMINALS DISTURBANCE VOLTAGE TEST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
						Interval
1.	Test Receiver	Rohde & Schwarz	ESCI	101152	Nov. 24, 2015	1 Year
2.	L.I.S.N	Rohde & Schwarz	ENV 216	101317	Nov. 08, 2015	1 Year
3.	L.I.S.N	Schwarzbeck	NNLK8129	8129-212	Nov. 08, 2015	1 Year
4.	RF Switching	Compliance Direction	RSU-M2	38311	Nov. 08, 2015	1 Year
	Unit	Systems Inc.				
5.	Pulse Limiter	MTS-systemtechnik	MTS-IMP-136	26115-010-	Nov. 08, 2015	1 Year
		-		0007		

FOR RADIATED EMISSION MEASUREMENT

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
						Interval
1.	Test Receiver	Rohde & Schwarz	ESCI7	100837	Nov. 23, 2015	1 Year
2.	Antenna	Schwarzbeck	VULB9162	9162-010	Nov. 26, 2015	1 Year
3.	Cable	Huber+Suhner	CBL3-NN-9M	21490001	Nov. 08, 2015	1 Year
4.	Cable	Huber+Suhner	CIL02	N/A	Nov. 08, 2015	1 Year
5.	Power Amplifier	HP	HP 8447D	1145A00203	Nov. 07, 2015	1 Year
6	Horn Antenna	COM-Power	AH-118	071078	Nov. 05, 2015	1 Year
7	Pre-Amplifier	COM-Power	PAM-118	443007	Nov. 05, 2015	1 Year

FOR ELECTROSTATIC DISCHARGE TEST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	ESD Tester	TESEQ	NSG 437	432	Nov. 09, 2015	1 Year



FOR RF ELECTROMAGNETIC FIELD IMMUNITY TEST

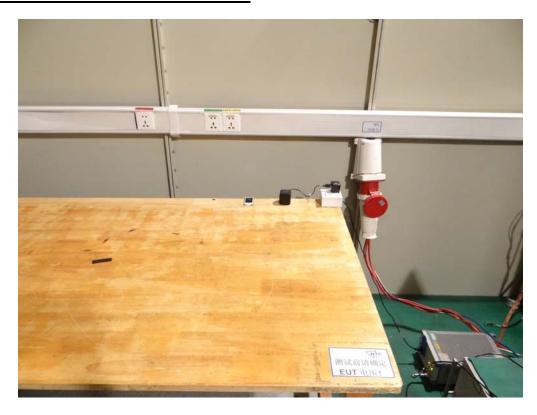
(Bureau Veritas Shenzhen Co., Ltd., Dongguan Branch)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Signal Generator	Agilent	N5181A	MY501425 30	Aug 31, 2015	1 Year
2.	Antenna Log-Periodic	CORAD	ATR80M6G	0337307	Aug 31, 2015	1 Year
3.	Switch Controller	CORAD	SC1000	0337343	Aug 31, 2015	1 Year
4.	RF Power Meter	ESE	4242	13984	Aug 31, 2015	1 Year
5	Power Sensor	ESE	51011EMC	35716	Aug 31, 2015	1 Year
6	E-Field probe	Narda	NBM-520	2403/01B	Nov. 03, 2015	1 Year
7	Power Amplifier	TESEQ	CBA 1G-150	T44029	N/A	N/A
8	Power Amplifier	TESEQ	CBA 3G-100	T44030	N/A	N/A
9	Power Amplifier	TESEQ	CBA 6G-050	1041204	N/A	N/A
10	Dual Directional Coupler	TESEQ	C5982	95208	Aug 31, 2015	1 Year
11	Coupler	TESEQ	C6187		Aug 31, 2015	1 Year
12	Dual Directional Coupler	TESEQ	CPH-274F	M251304-0 1	Aug 31, 2015	1 Year

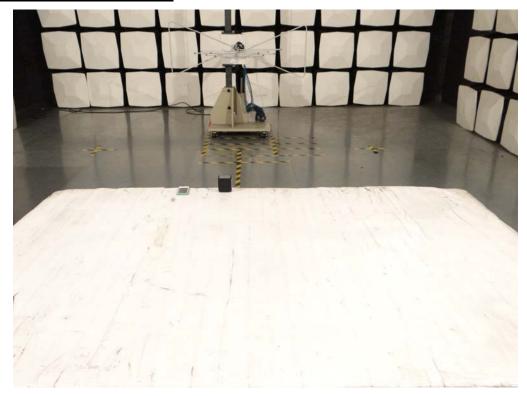


APPENDIX 1 PHOTOGRPHS OF TEST SETUP

LINE CONDUCTED EMISSION TEST



RADIATED EMISSION TEST

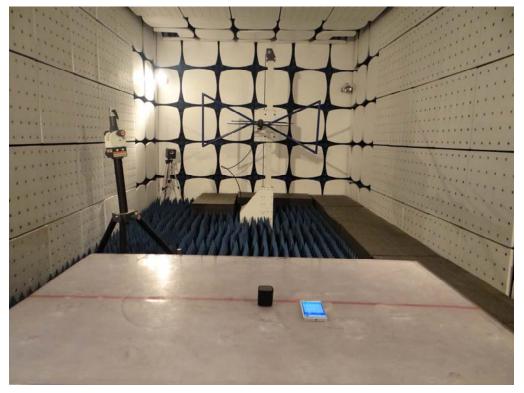




ELECTROSTATIC DISCHARGE TEST



RADIATED ELECTROMAGNETIC FIELD TEST





General Appearance of the EUT





