

## **EMC TEST REPORT**

The device described below is tested by Dongguan Nore Testing Center Co., Ltd. to determine the maximum emission levels emanating from the device, the severe levels which the device can endure and E.U.T.'s performance criterion. The test results, data evaluation, test procedures, and equipment of configurations shown in this report were made in accordance with the RED directive 2014/53/EU.

Applicant : SHENZHEN FENDA TECHNOLOGY CO., LTD.

Address : Fenda Hi-Tech Park, Zhoushi Road, Shiyan Town, Baoan District,

Shenzhen City, Guangdong, China

Manufacturer/Factory : SHENZHEN FENDA TECHNOLOGY CO., LTD.

Address : Fenda Hi-Tech Park, Zhoushi Road, Shiyan Town, Baoan District,

Shenzhen City, Guangdong, China

E.U.T. : Bluetooth Speaker

Brand Name : F&D, Micromax

Model No. : W6T, W6, W6M, MBT5WSF, MBTW6T

(For model difference refer to section 1)

Measurement Standard : ETSI EN 301 489-1 v 2.1.1: 2017

ETSI EN 301 489-17 v 3.1.1: 2017

Date of Receiver : February 28, 2017

Date of Test : March 01, 2017 to May 02, 2017

Date of Report : May 02, 2017

This Test Report is Issued Under the Authority of:

Prepared by

Approved & Authorized Signer

Alina Guo / Engineer

Iori Ear Authorized Signatory

This test report is for the customer shown above and their specific product only. This report applies to above tested sample only and shall not be reproduced in part without written approval of Dongguan Nore Testing Center Co., Ltd.

TEL: +86-769-22022444 FAX: +86-769-22022799 Web: www.ntc-c.com Address: Building D, Gaosheng Science & Technology Park, Zhouxi Longxi Road, Nancheng District, Dongguan City, Guangdong, China



## **TABLE OF CONTENTS**

1.	GENERAL INFORMATION	4
	PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST	
2.	SUMMARY OF TEST RESULTS	5
3.	TEST METHODOLOGY	5
4.	MEASURING INSTRUMENT CALIBRATION	5
5.	TEST FACILITY	6
6.	SUPPORT EQUIPMENT	6
7.	PERFORMANCE CRITERIA	7
8.	ETSI EN 301 489-1/-17 REQUIREMENTS	8
	8.1 RADIATED EMISSION LIMIT	
	8.3 ELECTROSTATIC DISCHARGE	17
	8.4 RF ELECTROMAGNETIC FIELD	
	FOR MAINS TERMINALS DISTURBANCE VOLTAGE TEST	
	FOR ELECTROSTATIC DISCHARGE TEST	21
	FOR RF ELECTROMAGNETIC FIELD IMMUNITY TEST	22



## **Revision History of This Test Report**

Report Number	Description	Issued Date
NTC1702262EV00	Initial Issue	2017-05-02



## 1. GENERAL INFORMATION

#### PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST

Model Name : W6T, W6, W6M, MBT5WSF, MBTW6T

All tests were carried on model W6T.

Model difference : These models have the same circuit schematic,

construction, PCB Layout and critical components.

Their difference in model number and brand name due

to trading purpose.

Power Supply : DC 5V From USB Port

DC 3.7V From Li-ion battery

Adapter : None

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

Only the worst case was recorded in this report.

Operating Temperature

Range

: 0°C to 35°C (Declaration by manufacturer)

Adaptive/Non-Adaptive

Equipment

: Adaptive equipment

Receicer Category : Category 2

Note : None

#### **Technical Specification:**

#### **For BT Function**

Frequency : 2402-2480MHz
Bluetooth Version : BT2.1+EDR

Modulation : GFSK,  $\pi/4$ -DQPSK, 8DPSK

Number of Channel : 79
Channel space : 1MHz
Antenna Type : PCB

Antenna Gain : 0dBi (Declaration by manufacturer)



## 2. SUMMARY OF TEST RESULTS

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

The E.U.T. has been tested according to the following specifications:										
ETSI EN 301 489-1 v 2.1.1: 2017/ ETSI EN 301 489-17 v 3.1.1: 2017										
	EMISSION									
Standard	Test Type	Result	Remarks							
EN 55032: 2015	Mains Terminal Disturbance Voltage Test	PASS	Uncertainty: 2.7dB							
	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							
EN 61000-4-3: 2006+A2: 2010	Radio-frequency, electromagnetic field immunity test	PASS	Meets the requirements of Performance Criterion A							

## 3. TEST METHODOLOGY

As per table 2 of clause 7.1 of ETSI EN 301 489-1 V2.1.1, 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 CNAS, August 14, 2015

The certificate is valid until August 13, 2018

The Laboratory has been assessed and proved to

be in compliance with CNAS/CL01

The Certificate Registration Number is L5795.

Listed by FCC, July 03, 2014 The Certificate Number is 665078.

The Certificate Number is 005076.

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

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

Branch

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

Town, Dongguan City, Guangdong 523942, China

## 6. SUPPORT EQUIPMENT

No.	Equipment	Model	Serial No.	Trade name	Data Cable	Power Cord
1	Mobile phone	X5SL	86704802393 0426	Vivo	1.5m unshielded	N/A
2.	iPhone	iPhone 4	84133UUVA4 S	Apple	1.5m unshielded	N/A
3.	Adapter	S0500060-3C	N/A	N/A	N/A	N/A



## 7. PERFORMANCE CRITERIA

	ETSI EN	301489-17 v 3.1.1: 2017
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 2.1.1 Clause 8.2.3, Table 3 and EN 55032: 2015 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.

#### Limits for radiated disturbance Above 1GHz

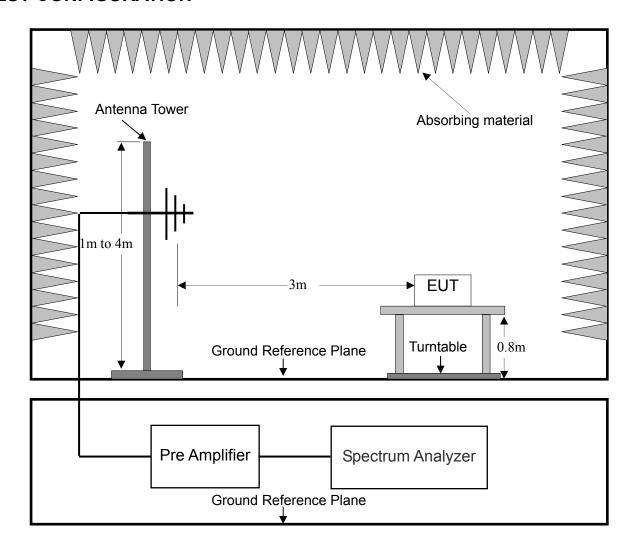
FREQUENCY	DISTANCE	Average Limit	Peak Limit	
(MHz)	(Meters)	(dBμ	V/m)	
1000 ~ 3000	3	50	70	
3000 ~ 6000	3	54	74	

Note: The lower limit applies at the transition frequency.

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



## **TEST CONFIGURATION**



## **TEST PROCEDURE**

Please refer to ETSI EN 301 489-1 v2.1.1 Clause 8.2.3 and EN 55032: 2015 Clause 6 for the measurement methods.

#### **TEST RESULT**

#### **PASS**

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

**Dongguan Nore Testing Center Co., Ltd.** 

**Report No.: NTC1702262EV00** 



Site: Radiation



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

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

Test Time: 2017-4-13 13:34:53

Test Distance:

Power Rating:

Test Engineer:

Ant. Polarization:

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

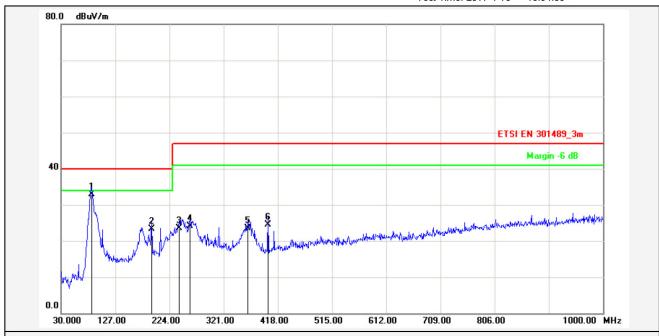
3m

Horizontal

AC 230V/50Hz

Knight

22(C) / 54 %



Report No.: W6T

ETSI EN 301489\_3m Test Standard:

Test item: **Radiation Emission** Applicant: **FENDA** 

Product: Bluetooth Speaker

Model No.: W6T

Test Mode: Charging+BT Link

Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)		Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	84.3200	-15.31	48.21	32.90	40.00	-7.10	QP			Ρ	
2	191.9900	-13.51	36.81	23.30	40.00	-16.70	QP			Р	
3	241.4600	-11.98	35.48	23.50	47.00	-23.50	QP			Р	
4	260.8599	-11.41	35.51	24.10	47.00	-22.90	QP			Р	
5	364.6499	-9.14	32.74	23.60	47.00	-23.40	QP			Р	
6	400.5400	-9.09	33.69	24.60	47.00	-22.40	QP			Р	

Dongguan Nore Testing Center Co., Ltd.

Report No.: NTC1702262EV00



Site: Radiation



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

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

Test Time: 2017-4-13 13:41:09

Test Distance:

Power Rating:

Test Engineer:

Ant. Polarization:

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

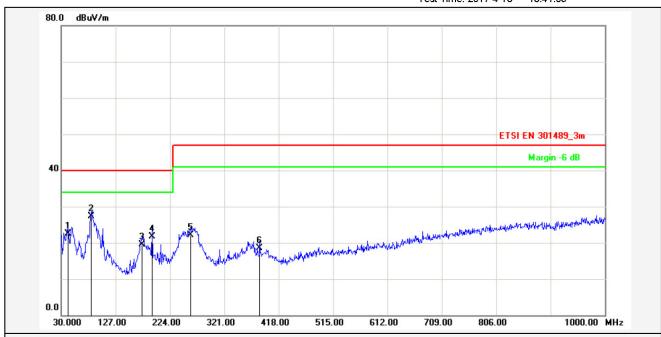
3m

Vertical

AC 230V/50Hz

Knight

22(C) / 54 %



Report No.: W6T

Test Standard: ETSI EN 301489\_3m

Test item: **Radiation Emission** 

Applicant: **FENDA** 

Product: Bluetooth Speaker Model No.: W6T

Test Mode: Charging+BT Link

Remark:

Margin Height (cm) Frequency Factor Reading Level Limit Azimuth Detector P/F No. Remark (deg.) (MHz) (dB/m) (dBuV/m) (dBuV/m) (dBuV) (dB) 41.6400 40.00 QΡ Ρ -14.6937.19 22.50 -17.501 Р 2 84.3198 -12.70 QΡ -18.31 27.30 40.00 45.61 -17.53 40.00 -20.40 QΡ Р 3 174.5300 37.13 19.60 191.9900 -16.51 38.21 21.70 40.00 -18.30 QΡ Р 4 5 260.8599 -13.41 35.61 22.20 47.00 -24.80 QΡ Ρ 6 384.0500 -11.19 29.69 18.50 47.00 -28.50 QΡ Ρ

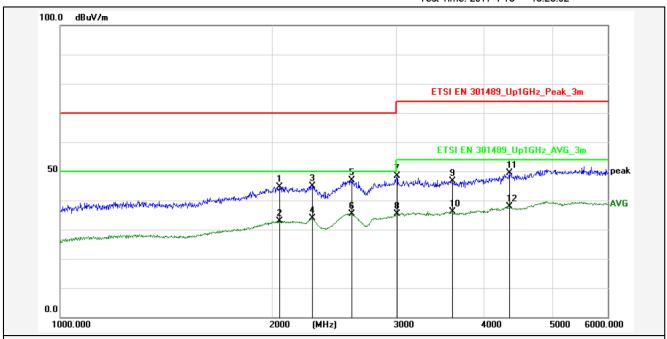




# Dongguan NTC Co., Ltd. Tel:+86-769-22022444 Fax:+86-769-22022799

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

Test Time: 2017-4-13 13:25:02



Report No.: W6T

Test Standard: ETSI EN 301489\_Up1GHz\_Peak\_3m Test Distance: 3m

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

Product: Bluetooth Speaker AC 230V/50Hz Power Rating: Model No.: Test Engineer: Knight

Test Mode: Charging+BT Link

Remark:

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	2047.672	-0.75	45.30	44.55	70.00	-25.45	peak			Р	
2	2047.672	-0.75	33.73	32.98	50.00	-17.02	AVG			Р	
3	2284.166	-0.19	45.14	44.95	70.00	-25.05	peak			Р	
4	2284.166	-0.19	34.01	33.82	50.00	-16.18	AVG			Р	
5	2598.691	0.74	46.25	46.99	70.00	-23.01	peak			Р	
6	2598.691	0.74	34.67	35.41	50.00	-14.59	AVG			Р	
7	3009.976	1.82	46.59	48.41	74.00	-25.59	peak			Р	
8	3009.976	1.82	33.68	35.50	54.00	-18.50	AVG			Р	
9	3613.553	2.97	43.75	46.72	74.00	-27.28	peak			Р	
10	3613.553	2.97	33.09	36.06	54.00	-17.94	AVG			Р	
11	4345.943	4.76	44.51	49.27	74.00	-24.73	peak			Р	
12	4345.943	4.76	33.08	37.84	54.00	-16.16	AVG			Р	



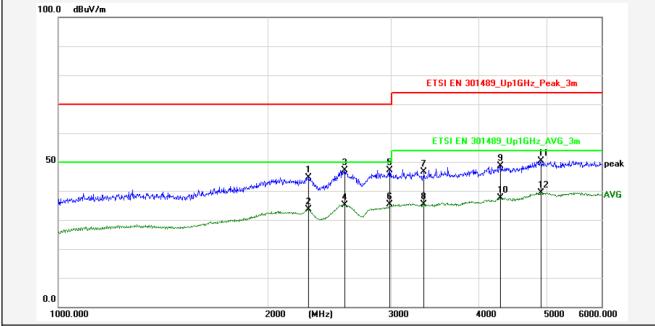


# Dongguan NTC Co., Ltd. Tel:+86-769-22022444 Fax:+86-769-22022799

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

Site: Radiation





Report No.: W6T

Test Standard: ETSI EN 301489\_Up1GHz\_Peak\_3m

Test Distance: 3m **Radiation Emission** Ant. Polarization: Vertical

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

Product: Bluetooth Speaker Power Rating: AC 230V/50Hz Model No.: W6T Test Engineer: Knight

Charging+BT Link Test Mode:

Remark:

Test item:

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	2284.166	-0.19	44.85	44.66	70.00	-25.34	peak			Р	
2	2284.166	-0.19	33.82	33.63	50.00	-16.37	AVG			Р	
3	2570.903	0.65	46.48	47.13	70.00	-22.87	peak			Р	
4	2570.903	0.65	34.56	35.21	50.00	-14.79	AVG			Р	
5	2983.131	1.77	45.39	47.16	70.00	-22.84	peak			Ρ	
6	2983.131	1.77	33.50	35.27	50.00	-14.73	AVG			Р	
7	3339.610	2.32	44.24	46.56	74.00	-27.44	peak			Р	
8	3339.610	2.32	33.05	35.37	54.00	-18.63	AVG			Р	
9	4299.472	4.66	43.95	48.61	74.00	-25.39	peak			Р	
10	4299.472	4.66	32.94	37.60	54.00	-16.40	AVG			Р	
11	4909.060	6.71	43.79	50.50	74.00	-23.50	peak			Ρ	
12	4909.060	6.71	32.79	39.50	54.00	-14.50	AVG	·		Р	



#### **8.2 AC POWER CONDUCTED EMISSION**

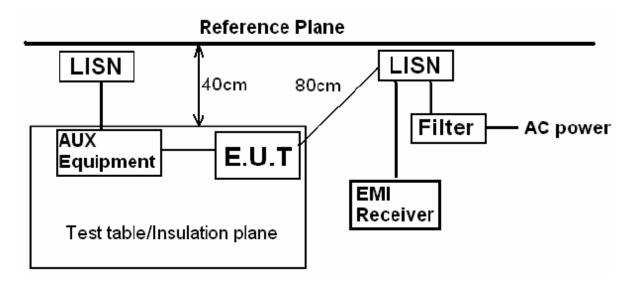
#### LIMIT

According to standard ETSI EN 301 489-1 v2.1.1 Clause 8.3.3, Table 8 and EN 55032: 2015 Clause 5, Table 2, Class B

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

Frequency range	Limits (dB(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 v2.1.1 Clause 8.3.3 and EN 55032: 2015 Clause 5 for the measurement methods.

#### **TEST RESULTS**

#### **PASS**

Please refer to following data tables.



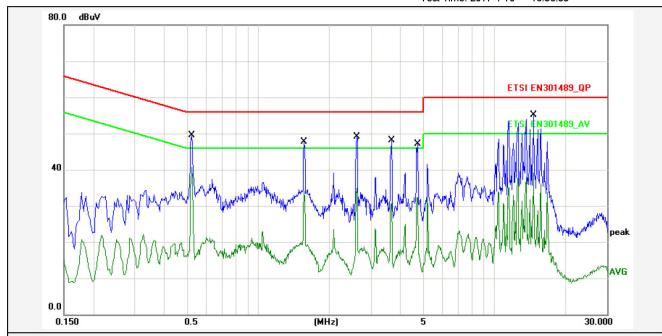
Site: Conduction



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

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

Test Time: 2017-4-10 16:58:35



Report No.: W6T

Test Standard: ETSI EN301489\_QP

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

Applicant: **FENDA** 20(C) / 53 % Temp.( )/Hum.(%):

Product: Bluetoooth Speaker Power Rating: AC 230V/50Hz Model No.: Test Engineer: Lueng

Test Mode: Charging+BT Link

Remark:

No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.5220	10.80	35.80	46.60	56.00	-9.40	QP	Р	
2	0.5220	10.80	26.90	37.70	46.00	-8.30	AVG	Р	
3	1.5660	10.80	33.40	44.20	56.00	-11.80	QP	Р	
4	1.5660	10.80	20.40	31.20	46.00	-14.80	AVG	Р	
5	2.6220	10.80	35.30	46.10	56.00	-9.90	QP	Р	
6	2.6220	10.80	20.50	31.30	46.00	-14.70	AVG	Р	
7	3.6660	10.80	35.00	45.80	56.00	-10.20	QP	Р	
8	3.6660	10.80	16.90	27.70	46.00	-18.30	AVG	Р	
9	4.7259	10.80	32.90	43.70	56.00	-12.30	QP	Р	
10	4.7259	10.80	19.10	29.90	46.00	-16.10	AVG	Р	
11	14.7059	10.80	41.10	51.90	60.00	-8.10	QP	Ρ	
12	14.7059	10.80	25.80	36.60	50.00	-13.40	AVG	Р	

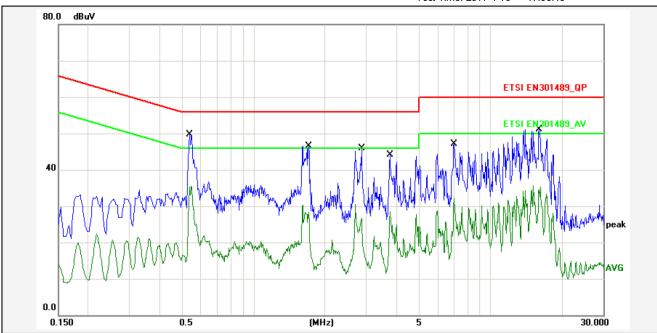




Dongguan NTC Co., Ltd. Tel: +86-769-22022444 Fax: +86-769-22022799

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

Test Time: 2017-4-10 17:05:48



Report No.: W6T

Test Standard: ETSI EN301489\_QP

Test item: **Conducted Emission** Phase:

Applicant: **FENDA** 20(C) / 53 % Temp.( )/Hum.(%):

Product: AC 230V/50Hz **Bluetoooth Speaker** Power Rating: Model No.: Test Engineer: Lueng

Test Mode: Charging+BT Link

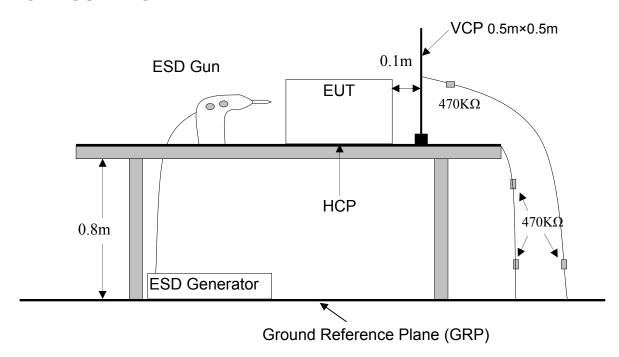
Remark:

No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.5380	10.80	35.80	46.60	56.00	-9.40	QP	Р	
2	0.5380	10.80	21.90	32.70	46.00	-13.30	AVG	Р	
3	1.7100	10.80	32.50	43.30	56.00	-12.70	QP	Р	
4	1.7100	10.80	16.90	27.70	46.00	-18.30	AVG	Р	
5	2.8660	10.80	32.30	43.10	56.00	-12.90	QP	Р	
6	2.8660	10.80	12.50	23.30	46.00	-22.70	AVG	Р	
7	3.7620	10.80	31.00	41.80	56.00	-14.20	QP	Р	
8	3.7620	10.80	14.70	25.50	46.00	-20.50	AVG	Р	
9	7.0339	10.80	33.40	44.20	60.00	-15.80	QP	Р	
10	7.0339	10.80	19.00	29.80	50.00	-20.20	AVG	Р	
11	16.0939	10.80	38.10	48.90	60.00	-11.10	QP	Р	
12	16.0939	10.80	21.50	32.30	50.00	-17.70	AVG	Р	



## **8.3 ELECTROSTATIC DISCHARGE**

## **TEST CONFIGURATION**



## **TEST PROCEDURE:**

Please refer to ETSI EN 301 489-1 v2.1.1 Clause 9.3.2 and EN 61000-4-2 for the measurement methods.

#### **TEST RESULT**

#### **PASS**

please refer to following data table.

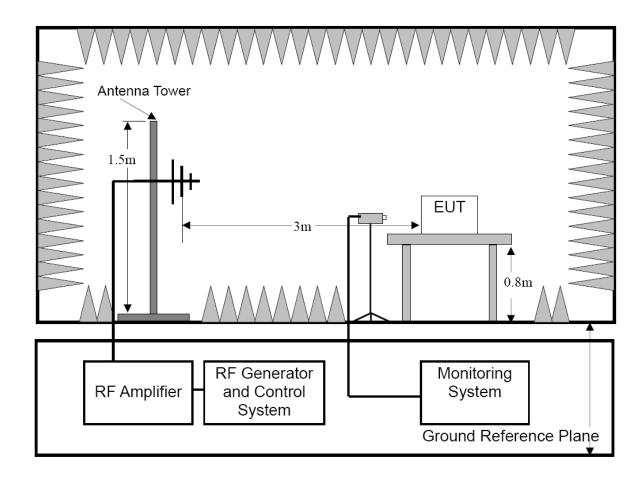


		Test (	Condition				
Temperature	22°C		Test Voltage	DC 3.7V, AC 230V(Adapter input)			
Humidity	57%RH	ł	Tested by	Chilam			
Pressure	1022m	bar	Performance Criterion :	CR & CT & B			
Ground Bond Res	sistance		0.2 Ω				
Time Between Ea	ch Dischar	ge:	1 second				
Test Mode	Test Mode			BT Link, Charging+BT Link			
Test Level			± 2.0, ± 4.0, ±8.0 kV (Air Discharge) ± 2.0, ±4.0 kV (Contact Discharge) ± 2.0, ±4.0 kV (Indirect Contact Discharge)				
		Tes	t Result				
Discharge	Туре		Level	Result			
Contact Discharge ±			2, ± 4kV	Pass			
Air Discharge ±			± 4, ± 8kV	Pass			
Indirect HCP D	ischarge	± 2, ± 4kV		Pass			
Indirect VCP Discharge		± 2, ± 4kV		Pass			



## 8.4 RF ELECTROMAGNETIC FIELD

## **TEST CONFIGURATION**



#### **TEST PROCEDURE**

Please refer to ETSI EN 301 489-1 v2.1.1 Clause 9.2.2 and EN61000-4-3 for the measurement methods.

#### **TEST RESULT**

#### **PASS**

please refer to following data table.



Test Condition						
Temperature 22°C			Test Voltage	DC 3.7V, AC 230V(Adapter input)		
Humidity	57%RH	1	Tested by	Chilam		
Pressure	1022mb	oar	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	1		Horizontal and Vertical			
Test Mode			BT Link, Charging+BT Link			
Test Level			3V/m			
		Tes	t Result			
Frequency (MHz)		Ex	posed Side	Result		
80 to 6000			Front	Pass		
80 to 6000			Left	Pass		
80 to 6000			Rear	Pass		
80 to 6000			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.



## **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	Mar. 07, 2017	1 Year
2.	L.I.S.N	Rohde & Schwarz	ENV 216	101317	Mar. 07, 2017	1 Year
3.	L.I.S.N	Schwarzbeck	NNLK8129	8129-212	Mar. 07, 2017	1 Year
4.	RF Switching	Compliance Direction	RSU-M2	38311	Mar. 07, 2017	1 Year
	Unit	Systems Inc.				
5.	Pulse Limiter	MTS-systemtechnik	MTS-IMP-136	26115-010-	Mar. 07, 2017	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	Mar. 07, 2017	1 Year
2.	Antenna	Schwarzbeck	VULB9162	9162-010	Apr. 25, 2017	1 Year
3.	Cable	Huber+Suhner	CBL3-NN-9M	21490001	Mar. 07, 2017	1 Year
4.	Cable	Huber+Suhner	CIL02	N/A	Mar. 07, 2017	1 Year
5.	Power Amplifier	HP	HP 8447D	1145A00203	Mar. 07, 2017	1 Year
6	Horn Antenna	COM-Power	AH-118	071078	Mar. 07, 2017	1 Year
7	Pre-Amplifier	COM-Power	PAM-118	443007	Mar. 07, 2017	1 Year

## FOR ELECTROSTATIC DISCHARGE TEST

It	em	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1		ESD Tester	TESEQ	NSG 437	432	Apr. 26, 2017	1 Year



## FOR RF ELECTROMAGNETIC FIELD IMMUNITY TEST

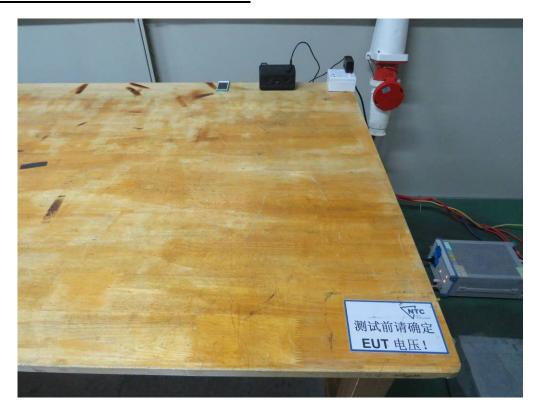
(Bureau Veritas Shenzhen Co., Ltd., Dongguan Branch)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Signal Generator	Agilent	N5181A	MY501425 30	Aug 31, 2016	1 Year
2.	Antenna Log-Periodic	CORAD	ATR80M6G	0337307	Aug 31, 2016	1 Year
3.	Switch Controller	CORAD	SC1000	0337343	Aug 31, 2016	1 Year
4.	RF Power Meter	ESE	4242	13984	Aug 31, 2016	1 Year
5	Power Sensor	ESE	51011EMC	35716	Aug 31, 2016	1 Year
6	E-Field probe	Narda	NBM-520	2403/01B	Aug 31, 2016	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, 2016	1 Year
11	Dual Directional Coupler		C6187	95175	Aug 31, 2016	1 Year
12	Dual Directional Coupler	TESEQ	CPH-274F	M251304-0 1	Aug 31, 2016	1 Year

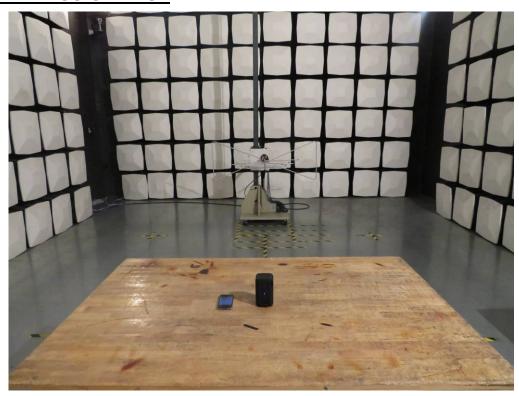


# APPENDIX 1 PHOTOGRPHS OF TEST SETUP

## **LINE CONDUCTED EMISSION TEST**



## **RADIATED EMISSION TEST**

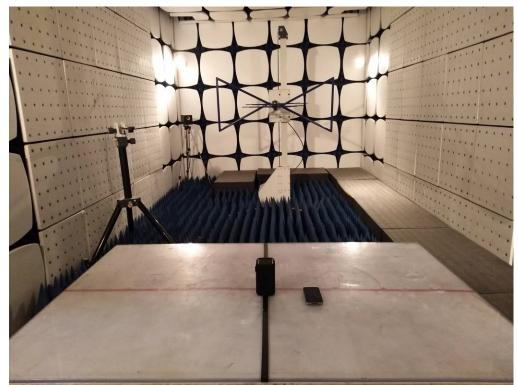




## **ELECTROSTATIC DISCHARGE TEST**



## RADIATED ELECTROMAGNETIC FIELD TEST





## General Appearance of the EUT





















