

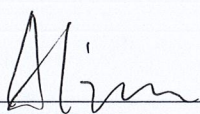
# RF TEST REPORT

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 R&TTE directive 1999/5/EC.

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. : 2.1 Speaker System  
Brand Name : F&D  
Model No. : F580X, T-200X, F560X, F630X, T-220X  
(For model difference refer to section 1)  
Measurement Standard : ETSI EN 300328 V1.9.1: 2015  
Date of Receiver : December 26, 2016  
Date of Test : December 27, 2016 to January 12, 2017  
Date of Report : January 12, 2017

This Test Report is Issued Under the Authority of :

Prepared by

  
Alina Guo / Engineer

Approved & Authorized Signer

  
Lori Fan / 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.

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## Revision History of This Test Report

Report Number	Description	Issued Date
NTC1612190E-1	Initial Issue	2017-01-12



## 1. GENERAL INFORMATION

### PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST

Model Name	: F580X, T-200X, F560X, F630X, T-220X All tests were carried on model F580X.
Model difference	: These models have the same circuit schematic, construction, PCB Layout and critical components. Their difference in model number due to trading purpose.
Power Supply	: AC 100-240V 50/60Hz 0.4A
Test Voltage	: AC 230V 50Hz
Operating Temperature Range	: 0°C to 35°C (Declaration by manufacturer)
Adaptive/Non-Adaptive Equipment	: Adaptive equipment

### Technical Specification:

For BT function

BT Version: 4.2+EDR and backward compatible BLE.

We prepare version BLE(V4.0) and 4.2+EDR for RF test.

Item	BT4.2+EDR	BLE(V4.0)
Frequency	2402-2480MHz	2402-2480MHz
Modulation	GFSK, $\pi/4$ -DQPSK, 8DPSK	GFSK
Number of Channel	79	40
Channel space	1MHz	2MHz
Antenna Type	PCB antenna	PCB antenna
Antenna Gain	0.5 dBi (declared by manufacturer)	0.5 dBi (declared by manufacturer)

SUMMARY OF TEST RESULTS		
Section (ETSI EN 300328)	Description of Test	TEST RESULT
4.3.1.2 / 4.3.2.2	RF Output Power	Compliant
4.3.2.3	Power Spectral Density (Modulations other than FHSS equipment)	Compliant
4.3.1.3 / 4.3.2.4	Duty cycle, Tx-Sequence, Tx-gap (Non-adaptive equipment)	N/A see note
4.3.1.4	Dwell time, Minimum Frequency Occupation & Hopping Sequence (FHSS equipment)	N/A
4.3.1.5	Hopping Frequency Separation (FHSS equipment)	N/A
4.3.1.6 / 4.3.2.5	Medium Utilisation (Non-adaptive equipment)	N/A see note
4.3.1.7 / 4.3.2.6	Adaptivity	N/A see note
4.3.1.8 / 4.3.2.7	Occupied Channel Bandwidth	Compliant
4.3.1.9 / 4.3.2.8	Transmitter unwanted emission in the OOB domain	Compliant
4.3.1.10 / 4.3.2.9	Transmitter unwanted emissions in the spurious domain	Compliant
4.3.1.11 / 4.3.2.10	Receiver spurious emissions	Compliant
4.3.1.12 / 4.3.2.11	Receiver Blocking	N/A

**Note:** These requirements do not apply for equipment with a maximum declared RF Output power of less than 10dBm EIRP or for equipment when operating in a mode where the RF Output power is less than 10dBm EIRP.

## 2. DESCRIPTION OF TEST MODES

The EUT has been tested under Normal Operating condition. Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed. All data rate and modulation type were tested, only the worst-case record in this report.

## 3. TEST FREQUENCIES AND SOFTWARE

For BLE Mode

Channel	Frequency MHz
0	2402
19	2442
39	2480

Test Item	Software	Description
Conducted RF Testing and Radiated testing	ACTsBTAPP	Set the EUT to different modulation and channel

## 4. 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.

Listed by Industry Canada, June 18, 2014  
The Certificate Registration Number. Is 46405-9743

Name of Firm : Dongguan Nore Testing Center Co., Ltd.  
(Dongguan NTC Co., Ltd.)

Site Location : Building D, Gaosheng Science & Technology Park,  
Zhouxi Longxi Road, Nancheng District, Dongguan  
City, Guangdong Province, China

## 5. MEASUREMENT UNCERTAINTY

Parameter	Uncertainty
Occupied Channel Bandwidth	$\pm 1.42 \times 10^{-4}\%$
RF output power, conducted	$\pm 1.06\text{dB}$
Power Spectral Density, conducted	$\pm 1.06\text{dB}$
Unwanted Emissions, conducted	$\pm 2.51\text{dB}$
All emissions, radiated	$\pm 3.70\text{dB}$
Temperature	$\pm 0.8^{\circ}\text{C}$
Humidity	$\pm 3.2\%$
DC and low frequency voltages	$\pm 0.1\%$
Time	$\pm 5\%$
Duty cycle	$\pm 5\%$

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

## 6. SUPPORT EQUIPMENT

Notebook PC	: Manufacturer: IBM Corporation M/N: R50e S/N: L3-HZNGO P/N: 1834KDC
Adapter	: Manufacturer: IBM Corporation M/N: 08K8210 Input: AC100-240V 50/60Hz 0.5-1.0A Output: DC 16V 4.5A

## 7. RF OUTPUT POWER

### Limits

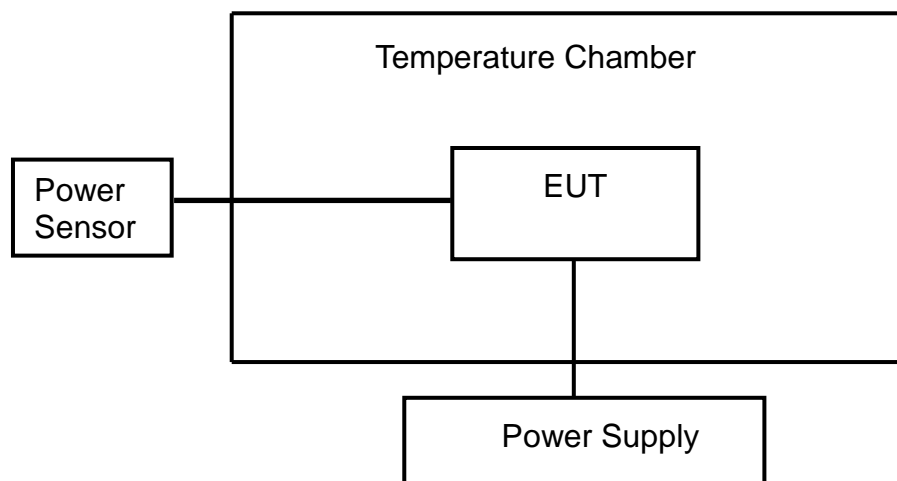
Frequency Band	Limit
2400 ~ 2483.5 MHz Adaptive frequency hopping systems	Equivalent isotropic radiated power (e.i.r.p.) ≤20 dBm

### Test Method

1. Please refer to ETSI EN 300328 (V1.9.1) clause 5.3.2.2.1 for conducted measurement method.
2. The measurements shall be performed at both normal environmental conditions and at The extremes of the operating temperature range.

### Test Configuration

Temperature and Voltage Measurement



### Test Result

Pass.

Please refer to following data tables.



BLE				
Humidity :		52 %	Temperature :	22 °C
Test Result:		PASS	Test By:	Sance
Antenna Assembly Gain:			0.5dBi	
Cable Loss=			1.5dB	
Number of Burst			>20	
Temperature (°C)	Power Supplied	Reading dBm	EIRP dBm	Limit dBm
Lowest channel				
25	AC 230V	2.15	4.15	20
0	AC 230V	2.10	4.10	20
35	AC 230V	2.11	4.11	20
Middle channel				
25	AC 230V	2.95	4.95	20
0	AC 230V	2.92	4.92	20
35	AC 230V	2.90	4.90	20
Highest channel				
25	AC 230V	2.80	4.80	20
0	AC 230V	2.75	4.75	20
35	AC 230V	2.73	4.73	20

Note: Calculated Power(dBm)=Output Power(dBm)+Cable Loss(dB)+Antenna Gain(dBi)

## 8. POWER SPECTRAL DENSITY

### Limits

Frequency Band	Limit
2400 ~ 2483.5 MHz	Equivalent isotropic radiated power (e.i.r.p.) 10 dBm / MHz

### Test Method

1. Please refer to ETSI EN 300328 (V<sub>1.9.1</sub>) clause 5.3.3.2 for conducted measurement method.
2. The measurements shall be performed at normal environmental condition.

### Test Configuration



### Test Result

Pass.

Please refer to following data table.

BLE Mode			
Temperature:	21°C	Test Date:	January 04, 2017
Humidity:	50%	Test By:	Sance
RBW:	10KHz	VBW:	30KHz
TEST CONDITION	Measured data (dBm/MHz) Limited	(dBm/MHz)	
2402	3.95	10	
2442	4.77	10	
2480	4.56	10	

## 9. OCCUPIED CHANNEL BANDWIDTH

### Limits

Condition	Limit
All types of equipment	Shall fall completely within the band 2400 to 2483.5 MHz
For non-adaptive using wide band modulations other than FHSS system and e.i.r.p > 10dBm	Less than 20MHz
For non-adaptive Frequency Hopping system and e.i.r.p > 10dBm	Less than 5MHz

### Test Method

1. Please refer to ETSI EN 300328 (V<sub>1.9.1</sub>) clause 5.3.8.2.1 for conducted measurement method.
2. The measurements shall be performed at normal environmental condition.

### Test Configuration



### Test Result

**Pass.**

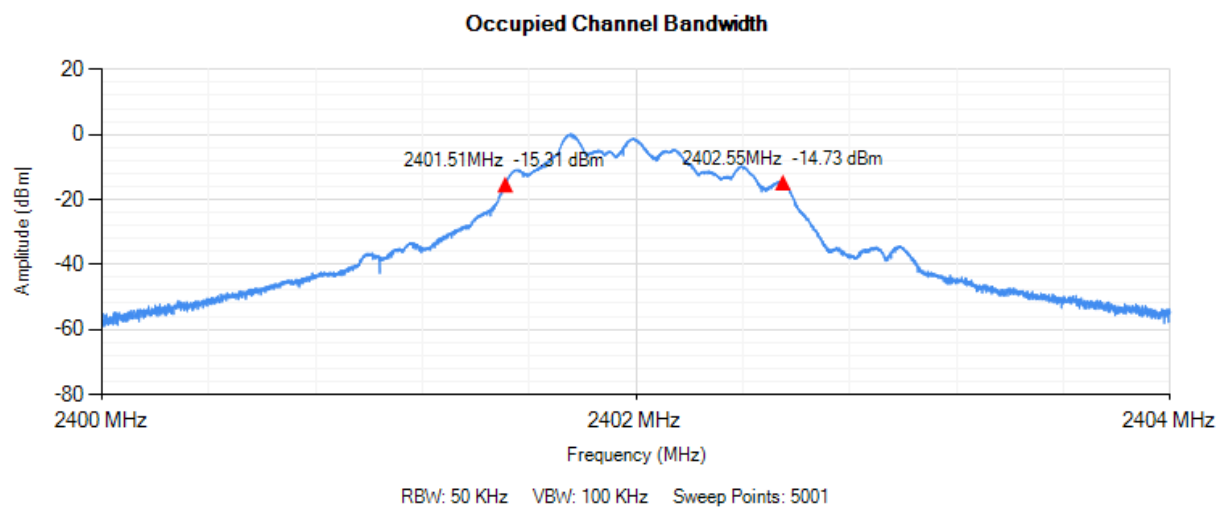
Please refer to following data tables and test plots.

Temperature : 22 °C Humidity : 52%  
Test Date : January 04, 2017 Test Result: PASS  
Test By: Sance

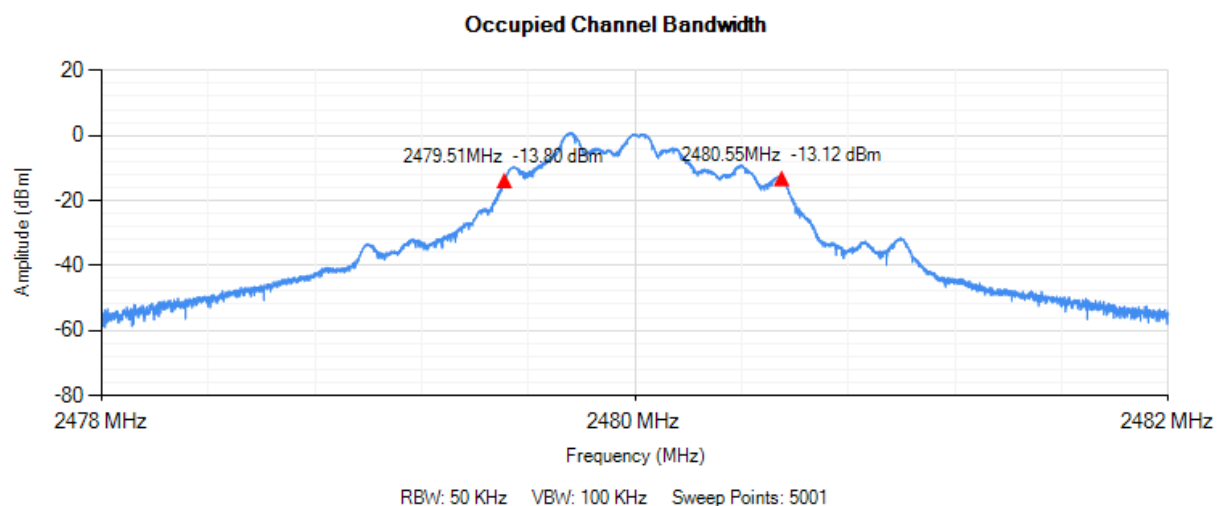
Channel frequency (MHz)	99% Bandwidth (MHz)	FL at 99% BW (KHz)	FH at 99% BW (KHz)	Limit	Result
<b>BLE Mode</b>					
2402	1040	2401.51	2402.55	FL > 2.4 GHz and FH < 2.4835 GHz	Pass
2480	1030	2479.51	2480.55		Pass

Note: FL is the lowest frequency of the 99% occupied bandwidth of power envelope.  
FH is the highest frequency of the 99% occupied bandwidth of power envelope.

## BLE Mode Lowest Channel



## Highest Channel



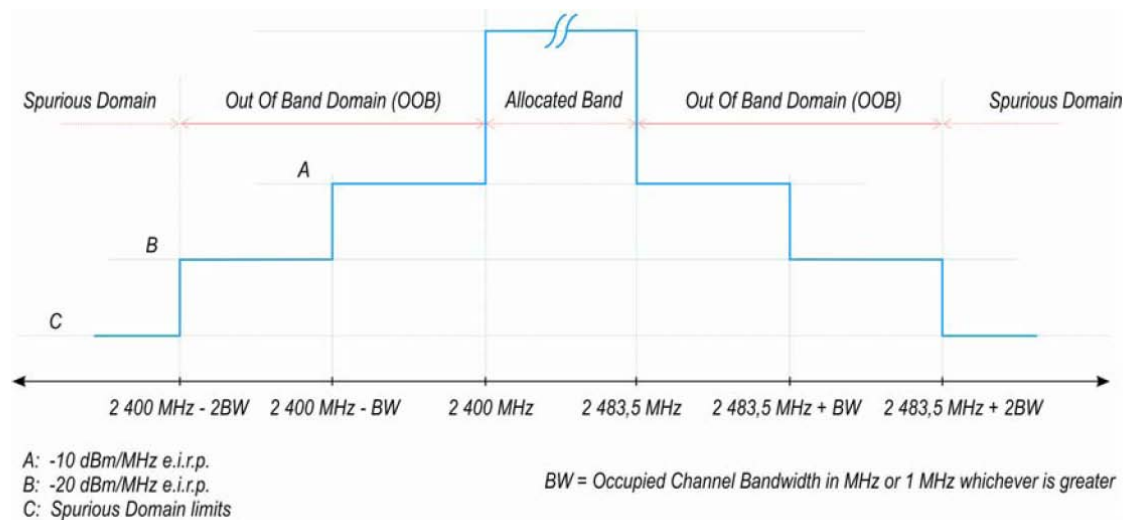


## 10. TRANSMITTER UNWANTED EMISSIONS IN THE OUT-OF-BAND DOMAIN

### Limits

The transmitter unwanted emissions in the out-of-band domain but outside the allocated band, shall not exceed the values provided by the mask

#### Transmit mask

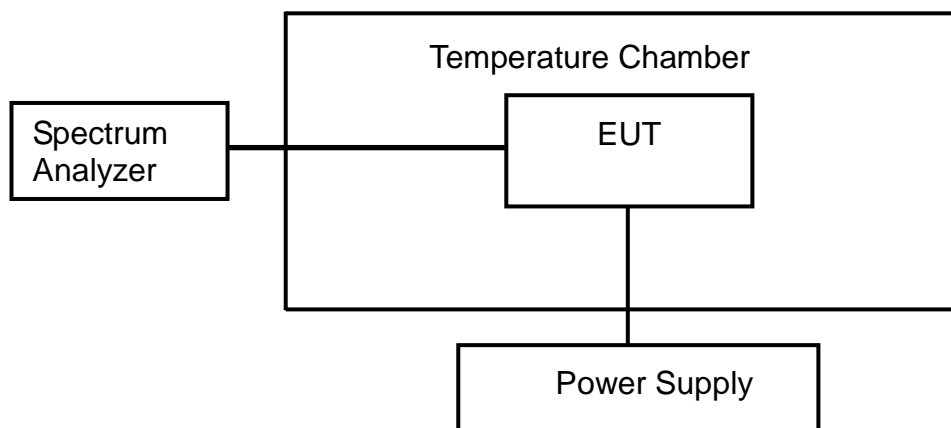


### Test Method

1. Please refer to ETSI EN 300328 (V1.9.1) clause 5.3.9.2.1 for conducted measurement method.
2. The measurements shall be performed at both normal environmental conditions and at The extremes of the operating temperature range.

## Test Configuration

### Temperature and Voltage Measurement



## Test Result

**Pass.**

Please refer to following data tables.

Temperature :	22 °C	Humidity :	52%
Test Date :	January 04, 2017	Test Result:	PASS
RBW:	1MHz	VBW:	3MHz
Test By:	Sance		

Condition (°C)	Power Supplied	2400-BW~2400 / 2483.5+BW ~2483.5 (dBm/MHz)	Limit (dBm/MHz)	2400-2*BW~2400-BW / 2483.5+2*BW ~2483.5+BW (dBm/MHz)	Limit (dBm/MHz)	Result
<b>BLE Mode (2402MHz)</b>						
25	AC 230V	-31.544	-10	-46.164	-20	PASS
0	AC 230V	-31.559	-10	-46.213	-20	PASS
35	AC 230V	-31.548	-10	-46.206	-20	PASS
<b>BLE Mode (2480MHz)</b>						
25	AC 230V	-46.294	-10	-55.664	-20	PASS
0	AC 230V	-46.298	-10	-55.667	-20	PASS
35	AC 230V	-46.310	-10	-55.671	-20	PASS

## 11. TRANSMITTER SPURIOUS EMISSIONS

### Limits:

The transmitter unwanted emissions in the spurious domain shall not exceed the values.

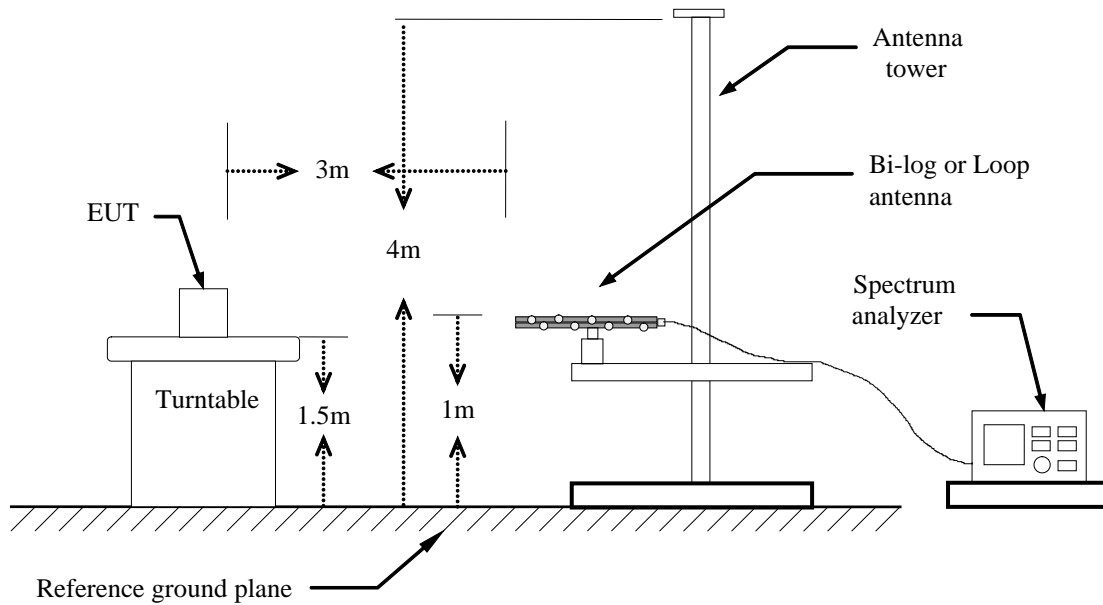
Frequency Range	Maximum power e.r.p. ( $\leq 1$ GHz) e.i.r.p. ( $> 1$ GHz)	Bandwidth
30 MHz to 47MHz	-36 dBm	100KHz
47 MHz to 74MHz	-54 dBm	100KHz
74 MHz to 87.5MHz	-36 dBm	100KHz
87.5 MHz to 118MHz	-54 dBm	100KHz
118 MHz to 174MHz	-36 dBm	100KHz
174 MHz to 230MHz	-54 dBm	100KHz
230 MHz to 470MHz	-36 dBm	100KHz
470 MHz to 862MHz	-54 dBm	100KHz
862 MHz to 1GHz	-36 dBm	100KHz
1GHz to 12.75GHz	-30 dBm	1MHz

### Test Method

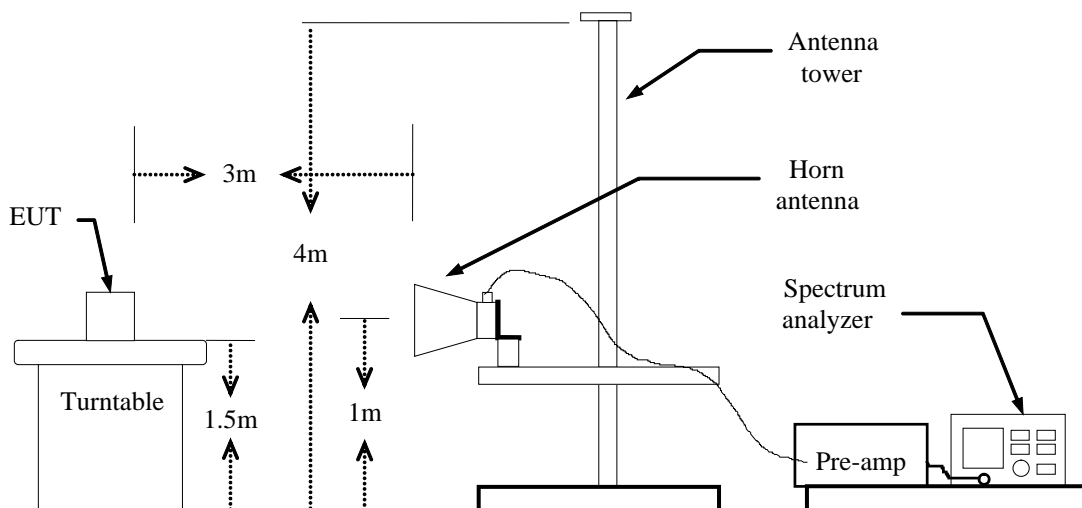
1. Please refer to ETSI EN 300328 (V<sub>1.9.1</sub>) clause 5.3.10.2.2 for radiated measurement and clause 4.3.2.9 for conducted measurement method.
2. The measurements shall be performed at normal environmental condition.

## Test Configuration

### Below 1GHz



### Above 1GHz



## Test Result

**Pass.**

Please refer to following data tables of the worst case: Middle channel.



Below 1GHz Middle channel				
Humidity : 54 %		Temperature : 22 °C		
Test Result: PASS		Test By: Sance		
RBW: 100KHz		VBW: 300KHz		
Test Mode: TX				
Frequency (MHz)	Antenna Polarization	Emission level (dBm)	Limit (dBm)	Margin (dB)
77.5300	Vertical	-64.03	-36.00	-28.03
494.6299	Vertical	-69.27	-54.00	-15.27
---				
286.0799	Horizontal	-61.42	-36.00	-25.42
363.6800	Horizontal	-61.27	-36.00	-25.27
---				

Above 1GHz Middle channel				
Humidity : 54 %		Temperature : 22 °C		
Test Result: PASS		Test By: Sance		
RBW: 1MHz		VBW: 3MHz		
Test Mode: TX				
Frequency (MHz)	Antenna Polarization	Emission level (dBm)	Limit (dBm)	Margin (dB)
4884	Vertical	-44.74	-30	-14.74
7326	Vertical	-41.62	-30	-11.62
---				
4884	Horizontal	-45.24	-30	-15.24
7326	Horizontal	-40.25	-30	-10.25
---				

- Note:**
1. Emission Level (dBm) = Reading level (dBm)+Correction Factor (dB)
  2. Data of measurement within this frequency range shown " ---" in the table above means the reading of emissions are attenuated more than 10dB below the permissible limits.
  3. The Test frequency range is 30MHz to12.75GHz.

## 12. RECEIVER SPURIOUS EMISSIONS

### Limits

Frequency Range	Maximum power e.r.p. ( $\leq 1$ GHz) e.i.r.p. ( $> 1$ GHz)	Bandwidth
30 MHz to 1GHz	-57 dBm	100KHz
1GHz to 12.75GHz	-47 dBm	1MHz

### Test Method

1. Please refer to ETSI EN 300328 (V<sub>1.9.1</sub>) clause 5.3.11.2.2 for radiated measurement method.
2. The measurements shall be performed at normal environmental condition.

### Test Configuration

(Same as section 11 in this test report)

### Test Result

**Pass.**

Please refer to following data tables.

Below 1GHz Middle channel				
Humidity : 54 %		Temperature : 22 °C		
Test Result: PASS		Test By: Sance		
RBW: 100KHz		VBW: 300KHz		
Test Mode: RX				
Frequency (MHz)	Antenna Polarization	Emission level (dBm)	Limit (dBm)	Margin (dB)
77.5300	Vertical	-60.68	-57.00	-3.68
129.9098	Vertical	-66.95	-57.00	-9.95
337.4900	Vertical	-60.85	-57.00	-3.85
---				
77.5300	Horizontal	-63.49	-57.00	-6.49
129.9098	Horizontal	-61.55	-57.00	-4.55
312.2699	Horizontal	-61.84	-57.00	-4.84
---				

Above 1GHz Middle channel				
Humidity : 54 %		Temperature : 22 °C		
Test Result: PASS		Test By: Sance		
RBW: 1MHz		VBW: 3MHz		
Test Mode: RX				
Frequency (MHz)	Antenna Polarization	Emission level (dBm)	Limit (dBm)	Margin (dB)
4880	Vertical	-54.76	-47	-7.76
7320	Vertical	-51.25	-47	-4.25
---				
4880	Horizontal	-54.78	-47	-7.78
7320	Horizontal	-51.90	-47	-4.90
---				

- Note:**
1. Emission Level (dBm) = Reading level (dBm)+Correction Factor (dB)
  2. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 10dB below the permissible limits.
  3. The Test frequency range is 30MHz to12.75GHz.

### 13. TEST EQUIPMENT LIST

Description	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due Date
Receiver	Rohde & Schwarz	ESCI7	100837	Mar. 07, 2016	Mar. 07, 2017
DC Power Source	HUA YI	HY5003-2	N/A	Nov.02, 2016	Nov.01, 2017
Temperature & Humidity Chamber	HAIDA	DH-225T	N/A	Nov.04, 2016	Nov.03, 2017
Spectrum Analyzer	Rohde & Schwarz	FSU26	200409/026	Mar. 07, 2016	Mar. 07, 2017
Horn Antenna	COM-Power	AH-118	071078	Mar. 07, 2016	Mar. 07, 2017
Pre-Amplifier	COM-Power	PAM-118	443007	Mar. 07, 2016	Mar. 07, 2017
Broadband Antenna	Schwarzbeck	VULB9162	9162-010	Apr. 25, 2016	Apr. 25, 2017
Pre-Amplifier	Agilent	8449B	3008A02964	Mar. 07, 2016	Mar. 07, 2017
Pre-Amplifier	HP	HP 8447D	1145A00203	Mar. 07, 2016	Mar. 07, 2017
Power Sensor	DARE	RPR3006 W	15I00041SN O64	Mar. 07, 2016	Mar. 06, 2017
Test Software	Acentest	AT890-SW	N/A	N/A	N/A

## **APPENDIX I**

### **INFORMATION AS REQUIRED BY EN 300 328 V1.9.1**



In accordance with EN 300 328, clause 5.3.1, the following information is provided by the supplier.

<b>a) The type of modulation used by the equipment:</b>	<input type="checkbox"/> FHSS <input checked="" type="checkbox"/> other forms of modulation
<b>b) In case of FHSS modulation:</b>	<ul style="list-style-type: none"> <li>In case of non-Adaptive Frequency Hopping equipment: The number of Hopping Frequencies: _____</li> <li>In case of Adaptive Frequency Hopping Equipment: The maximum number of Hopping Frequencies: _____ The minimum number of Hopping Frequencies: _____</li> <li>The (Average) Dwell Time: _____</li> </ul>
<b>c) Adaptive / non-adaptive equipment:</b>	<input type="checkbox"/> non-adaptive Equipment <input checked="" type="checkbox"/> adaptive Equipment without the possibility to switch to a non-adaptive mode <input type="checkbox"/> adaptive Equipment which can also operate in a non-adaptive mode
<b>d) In case of adaptive equipment:</b>	The Channel Occupancy Time implemented by the equipment: _____ ms <input type="checkbox"/> The equipment has implemented an LBT based DAA mechanism <ul style="list-style-type: none"> <li>In case of equipment using modulation different from FHSS:  <input type="checkbox"/> The equipment is Frame Based equipment  <input checked="" type="checkbox"/> The equipment is Load Based equipment  <input type="checkbox"/> The equipment can switch dynamically between Frame Based and Load Based equipment           </li> </ul> The CCA time implemented by the equipment: _____ $\mu$ s <input type="checkbox"/> The equipment has implemented an non-LBT based DAA mechanism <input type="checkbox"/> The equipment can operate in more than one adaptive mode
<b>e) In case of non-adaptive Equipment:</b>	The maximum RF Output Power (e.i.r.p.): _____ dBm The maximum (corresponding) Duty Cycle: _____ % Equipment with dynamic behaviour, that behaviour is described here. (e.g. the different combinations of duty cycle and orresponding power levels to be declared):
<b>f) The worst case operational mode for each of the following tests:</b>	<ul style="list-style-type: none"> <li>RF Output Power <u>BLE CH19</u></li> <li>Power Spectral Density <u>BLE CH0</u></li> <li>Duty cycle, Tx-Sequence, Tx-gap <u>N/A</u></li> <li>Accumulated Transmit time, Frequency Occupation &amp; Hopping Sequence (only for FHSS equipment) <u>N/A</u></li> <li>Hopping Frequency Separation (only for FHSS equipment) _____</li> <li>Medium Utilisation <u>N/A</u></li> <li>Adaptivity &amp; Receiver Blocking <u>N/A</u></li> <li>Nominal Channel Bandwidth <u>BLE CH0</u></li> <li>Transmitter unwanted emissions in the OOB domain <u>BLE CH0</u></li> <li>Transmitter unwanted emissions in the spurious domain <u>BLE CH19</u></li> <li>Receiver spurious emissions <u>BLE CH19</u></li> </ul>

<p><b>g) The different transmit operating modes (tick all that apply):</b></p>	<p><input checked="" type="checkbox"/> Operating mode 1: Single Antenna Equipment</p> <p><input checked="" type="checkbox"/> Equipment with only 1 antenna</p> <p><input type="checkbox"/> Equipment with 2 diversity antennas but only 1 antenna active at any moment in time</p> <p><input type="checkbox"/> Smart Antenna Systems with 2 or more antennas, but operating in a (legacy) mode where only 1 antenna is used. (e.g. IEEE 802.11™ [i.3] legacy mode in smart antenna systems)</p> <hr/> <p><input type="checkbox"/> Operating mode 2: Smart Antenna Systems - Multiple Antennas without beam forming</p> <p><input type="checkbox"/> Single spatial stream / Standard throughput / (e.g. IEEE 802.11™ [i.3] legacy mode)</p> <p><input type="checkbox"/> High Throughput (&gt; 1 spatial stream) using Occupied Channel Bandwidth 1</p> <p><input type="checkbox"/> High Throughput (&gt; 1 spatial stream) using Occupied Channel Bandwidth 2</p> <p>NOTE: Add more lines if more channel bandwidths are supported.</p> <hr/> <p><input type="checkbox"/> Operating mode 3: Smart Antenna Systems - Multiple Antennas with beam forming</p> <p><input type="checkbox"/> Single spatial stream / Standard throughput / (e.g. IEEE 802.11™ [i.3] legacy mode)</p> <p><input type="checkbox"/> High Throughput (&gt; 1 spatial stream) using Occupied Channel Bandwidth 1</p> <p><input type="checkbox"/> High Throughput (&gt; 1 spatial stream) using Occupied Channel Bandwidth 2</p> <p>NOTE: Add more lines if more channel bandwidths are supported.</p>
<p><b>h) In case of Smart Antenna Systems:</b></p>	<p>•The number of Receive chains: _____</p> <hr/> <p>•The number of Transmit chains: _____</p> <p><input type="checkbox"/> symmetrical power distribution</p> <p><input type="checkbox"/> asymmetrical power distribution</p> <hr/> <p>In case of beam forming, the maximum beam forming gain: _____</p> <p>NOTE: Beam forming gain does not include the basic gain of a single antenna.</p>
<p><b>i) Operating Frequency Range(s) of the equipment:</b></p>	<p>•Operating Frequency Range 1: <u>2402</u> MHz to <u>2480</u> MHz</p> <p>•Operating Frequency Range 2: _____ MHz to _____ MHz</p> <p>NOTE: Add more lines if more Frequency Ranges are supported.</p>
<p><b>j) Occupied Channel Bandwidth(s):</b></p>	<p>•Nominal Channel Bandwidth 1: <u>1040</u> KHz</p> <p>•Nominal Channel Bandwidth 2: _____ MHz</p> <p>NOTE: Add more lines if more channel bandwidths are supported.</p>
<p><b>k) Type of Equipment (stand-alone, combined, plug-in radio device, etc.):</b> Stand-alone</p>	<p><input checked="" type="checkbox"/> Stand-alone</p> <p><input type="checkbox"/> Combined Equipment (Equipment where the radio part is fully integrated within another type of equipment)</p> <p><input type="checkbox"/> Plug-in radio device (Equipment intended for a variety of host systems)</p> <p><input type="checkbox"/> Other _____</p>

<b>l) The extreme operating conditions that apply to the equipment:</b>	Operating temperature range: <u>  0  </u> °C to <u>  35  </u> °C Details provided are for the: <input checked="" type="checkbox"/> stand-alone equipment <input type="checkbox"/> combined (or host) equipment <input type="checkbox"/> test jig																																								
<b>m) The intended combination(s) of the radio equipment power settings and one or more antenna assemblies and their corresponding e.i.r.p levels:</b>	<div> <b>•Antenna Type:</b>  <input checked="" type="checkbox"/> PCB Antenna:            Antenna Gain: <u>  0.5  </u> dBi            If applicable, additional beamforming gain (excluding basic antenna gain): <u>      </u> dB  <input type="checkbox"/> Temporary RF connector provided  <input type="checkbox"/> No temporary RF connector provided         </div> <div> <input type="checkbox"/> Dedicated Antennas (equipment with antenna connector)  <input type="checkbox"/> Single power level with corresponding antenna(s)  <input type="checkbox"/> Multiple power settings and corresponding antenna(s)            Number of different Power Levels: <u>      </u>            Power Level 1: <u>                  </u> dBm            Power Level 2: <u>                  </u> dBm            Power Level 3: <u>                  </u> dBm             NOTE 1: Add more lines in case the equipment has more power levels.            NOTE 2: These power levels are conducted power levels (at antenna connector).   <b>• For each of the Power Levels, provide the intended antenna assemblies, their corresponding gains (G) and the resulting e.i.r.p. levels also taking into account the beamforming gain (Y) if applicable</b>   <b>Power Level 1: <u>                  </u></b>            Number of antenna assemblies provided for this power level:  <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Assembly #</th> <th style="width: 20%;">Gain (dBi)</th> <th style="width: 20%;">e.i.r.p.(dBm)</th> <th style="width: 45%;">Part number or model name</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td></tr> </tbody> </table>           Note: Add more rows in case more antenna assemblies are supported for this power level.   <b>Power Level 2: <u>                  </u></b>            Number of antenna assemblies provided for this power level:  <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Assembly #</th> <th style="width: 20%;">Gain (dBi)</th> <th style="width: 20%;">e.i.r.p.(dBm)</th> <th style="width: 45%;">Part number or model name</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td></tr> </tbody> </table>           Note: Add more rows in case more antenna assemblies are supported for this power level.         </div>	Assembly #	Gain (dBi)	e.i.r.p.(dBm)	Part number or model name	1				2				3				4				Assembly #	Gain (dBi)	e.i.r.p.(dBm)	Part number or model name	1				2				3				4			
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	<p><b>Power Level 3:</b> _____</p> <p>Number of antenna assemblies provided for this power level:</p> <table border="1" data-bbox="526 320 1420 535"> <thead> <tr> <th>Assembly #</th><th>Gain (dBi)</th><th>e.i.r.p.(dBm)</th><th>Part number or model name</th></tr> </thead> <tbody> <tr><td>1</td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td></tr> </tbody> </table> <p>Note: Add more rows in case more antenna assemblies are supported for this power level.</p>	Assembly #	Gain (dBi)	e.i.r.p.(dBm)	Part number or model name	1				2				3				4			
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2																					
3																					
4																					
<p><b>n) The nominal voltages of the stand-alone radio equipment or the nominal voltages of the combined (host) equipment or test jig in case of plug-in devices:</b></p>	<p>Details provided are for the: <input type="checkbox"/> stand-alone equipment  <input checked="" type="checkbox"/> combined (or host) equipment  <input type="checkbox"/> test jig</p> <p>Supply Voltage <input checked="" type="checkbox"/> AC mains State AC voltage <u>230</u> V  <input type="checkbox"/> DC State DC voltage _____ V</p> <p>In case of DC, indicate the type of power source</p> <p><input type="checkbox"/> Internal Power Supply  <input type="checkbox"/> External Power Supply or AC/DC adapter  <input type="checkbox"/> Battery  <input type="checkbox"/> Other: _____</p>																				
<p><b>o) Describe the test modes available which can facilitate testing:</b></p>	<p>The EUT provides TX Mode to control RF signal transmission</p>																				
<p><b>p) The equipment type (e.g. Bluetooth®, IEEE 802.11™ [i.3], proprietary, etc.):</b></p>	<p>Bluetooth®</p>																				
<p><b>q) If applicable, the statistical analysis referred to in clause 5.3.1 q)</b></p>	<p>(to be provided as separate attachment)</p>																				
<p><b>r) If applicable, the statistical analysis referred to in clause 5.3.1 r)</b></p>	<p>(to be provided as separate attachment)</p>																				
<p><b>s) Geo-location capability supported by the equipment:</b></p>	<p><input type="checkbox"/> Yes  <input type="checkbox"/> The geographical location determined by the equipment as defined in clause 4.3.1.13.2 or clause 4.3.2.12.2 is not accessible to the user.  <input type="checkbox"/> No</p>																				

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## **APPENDIX II**

### **PHOTOGRPHS OF TEST SETUP**

## Radiated Emission Below 1 GHz



## Radiated Emission Above 1 GHz



---End---