



TEST REPORT

For Bluetooth

Report Reference No...... : **TRE1603019107** R/C.....: 14043

Applicant's name..... : **Vonino Electronics Limited**

Address..... : Miramar Tower 10F - no1010, 132 Nathan Road, Tsim Sha Tsui, Kowloon, Hong Kong

Manufacturer..... : Vonino Electronics Limited

Address..... : Miramar Tower 10F - no1010, 132 Nathan Road, Tsim Sha Tsui, Kowloon, Hong Kong

Test item description : **XAVY L8 / Epic M8**

Trade Mark : vonino

Model/Type reference..... : T8S

Listed Model(s)..... : -

Standard : **ETSI EN 300 328 V1.9.1: 2015-02**

Date of receipt of test sample..... : Mar 29, 2016

Date of testing..... : Mar 30, 2016- Apr 20, 2016

Date of issue..... : Apr 20, 2016

Result..... : **PASS**

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Testing Laboratory Name : **Shenzhen Huatongwei International Inspection Co., Ltd**

Address..... : 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

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1. Test standards and Test description

1.1. Test Standards

The tests were performed according to following standards:

ETSI EN 300 328V1.9.1(2015-02)–Electromagnetic compatibility and Radio spectrum Matters (ERM);Wideband transmission systems; Data transmission equipment operatingin the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized ENcovering the essential requirements of article 3.2 of the R&TTE Directive

1.2. Test Description

Test item	Standards requirement	Result
Maximum transmit power	ETSI EN 300 328 Sub-clause 4.3.2.2	Pass
Power Spectral Density	ETSI EN 300 328 Sub-clause 4.3.2.3	Pass
Duty Cycle, Tx-sequence, Tx-gap	ETSI EN 300 328Sub-clause 4.3.2.4	N/A
Medium Utilisation (MU) factor	ETSI EN 300 328 Sub-clause 4.3.2.5	N/A
Adaptivity	ETSI EN 300 328 Sub-clause 4.3.2.6	N/A
Occupied Channel Bandwidth	ETSI EN 300 328 Sub-clause 4.3.2.7	Pass
Transmitter unwanted emissions in the out-of-band domain	ETSI EN 300 328 Sub-clause 4.3.2.8	Pass
Transmitter unwanted emissions in the spurious domain	ETSI EN 300 328 Sub-clause 4.3.2.9	Pass
Receiver spurious emissions	ETSI EN 300 328 Sub-clause 4.3.2.10	Pass
Receiver Blocking	ETSI EN 300 328 Sub-clause 4.3.2.11	N/A
Geo-location capability	ETSI EN 300 328 Sub-clause 4.3.2.12	N/A

Remark: The measurement uncertainty is not included in the test result.

N/A is an abbreviation for Not Applicable and means this test item is not applicableforthis device according to the technology characteristic of device.

2. Summary

2.1. Client Information

Applicant:	Vonino Electronics Limited
Address:	Miramar Tower 10F - no1010, 132 Nathan Road, Tsim Sha Tsui, Kowloon, Hong Kong
Manufacturer:	Vonino Electronics Limited
Address:	Miramar Tower 10F - no1010, 132 Nathan Road, Tsim Sha Tsui, Kowloon, Hong Kong

2.2. Product Description

Name of EUT	XAVY L8 / Epic M8
Trade Mark:	vonino
Model/Type reference:	T8S
Listed Model(s):	-
Power supply:	DC 3.7V From internal battery
Adapter information:	Model:FJ-SW728L0502000UE Input:AC 100-240V,50/60Hz 0.4A Max Output: 5Vd.c., 2000mA

Technical index for Bluetooth	
Supported type:	Bluetooth 4.0+BLE
Operation frequency:	2402MHz~2480MHz
Channel number:	40
Channel separation:	2MHz
Modulation:	<input type="checkbox"/> FHSS <input checked="" type="checkbox"/> Other forms of modulation GFSK
Type of Equipment:	<input checked="" type="checkbox"/> Stand-alone <input type="checkbox"/> Combined Equipment <input type="checkbox"/> Plug-in radio device <input type="checkbox"/> Other
Adaptive / non-adaptive equipment	<input type="checkbox"/> non-adaptive Equipment <input type="checkbox"/> adaptive Equipment without the possibility to switch to a non-adaptive mode <input checked="" type="checkbox"/> adaptive Equipment which can also operate in a non-adaptive mode
Operating mode:	<input checked="" type="checkbox"/> Single Antenna Equipment <input checked="" type="checkbox"/> Equipment with only 1 antenna <input type="checkbox"/> Equipment with 2 diversity antennas but only 1 antenna active at any moment in time <input type="checkbox"/> Smart Antenna Systems with 2 or more antennas, but operating in a (legacy) mode where only 1 antenna is used.
	<input type="checkbox"/> Smart Antenna Systems - Multiple Antennas without beam forming <input type="checkbox"/> Single spatial stream / Standard throughput <input type="checkbox"/> High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 1 <input type="checkbox"/> High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 2
	<input type="checkbox"/> Smart Antenna Systems - Multiple Antennas with beam forming <input type="checkbox"/> Single spatial stream / Standard throughput <input type="checkbox"/> High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 1 <input type="checkbox"/> High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 2
Antenna type:	<input checked="" type="checkbox"/> Integral Antenna <input type="checkbox"/> Temporary RF connector provided <input checked="" type="checkbox"/> No temporary RF connector provided Antenna Gain:1.2.... dBi Beamforming gain:0.....dB
	<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: Power Level 1: dBm Power Level 2: dBm Power Level 3: dBm

Information is provided by the supplier	
In case of FHSS modulation:	<input type="checkbox"/> In case of non-Adaptive Frequency Hopping equipment: The number of Hopping Frequencies:
	<input type="checkbox"/> In case of Adaptive Frequency Hopping Equipment: The maximum number of Hopping Frequencies: The minimum number of Hopping Frequencies:
	The Dwell Time:
	The Minimum Channel Occupation Time:
In case of adaptive equipment:	The Channel Occupancy Time implemented by the equipment: /.. ms
	<input checked="" type="checkbox"/> The equipment has implemented an LBT based DAA mechanism In case of equipment using modulation different from FHSS: <ul style="list-style-type: none"> <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 The CCA time implemented by the equipment: ../. µs
	<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
In case of non-adaptive Equipment	The maximum RF Output Power (e.i.r.p.): dBm
	The maximum (corresponding) Duty Cycle: %
The worst case operational mode for each of the following tests:	
RF Output Power	-0.71 dBm
Occupied Channel Bandwidth	1.028MHz
Transmitter unwanted emissions in the OOB domain	Reference to section 4.5
Transmitter unwanted emissions in the spurious domain	Reference to section 4.6
Receiver spurious emissions	Reference to section 4.7
<input type="checkbox"/> FHSS	
Dwell time:	
Minimum FrequencyOccupation:	
Hopping Sequence:	
Hopping Frequency Separation	
<input checked="" type="checkbox"/> Other	
Power Spectral Density:	-0.86dBm/MHz
<input checked="" type="checkbox"/> Adaptive equipment	
Adaptivity:	-
Receiver Blocking:	-
<input type="checkbox"/> Non-adaptiveequipment	
Duty cycle:	
Tx-Sequence:	
Tx-gap:	
Medium Utilisation:	

2.3. EUT operation mode

The EUT has been tested under test mode condition. The Applicant provides software to control the EUT for staying in continuous transmitting and receiving mode for testing.

2.4. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

○ - supplied by the lab

	Length (m) :	/
	Shield :	/
	Detachable :	/
	Manufacturer :	/
	Model No. :	/

2.5. Modifications

No modifications were implemented to meet testing criteria.

3. Test Environment

3.1. Address of the test laboratory

Laboratory: Shenzhen Huatongwei International Inspection Co., Ltd.

Address: 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

Phone: 86-755-26748019 Fax: 86-755-26748089

3.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories, Date of Registration: February 28, 2015. Valid time is until February 27, 2018.

A2LA-Lab Cert. No. 3902.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. Valid time is until December 31, 2016.

FCC-Registration No.: 317478

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 317478, Renewal date Jul. 18, 2014, valid time is until Jul. 18, 2017.

IC-Registration No.: 5377A&5377B

The 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377A on Dec. 31, 2013, valid time is until Dec. 31, 2016.

Two 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377B on Dec.03, 2014, valid time is until Dec.03, 2017.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our A2LA accreditation.

VCCI

Radiated disturbance above 1GHz measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-292. Date of Registration: Dec. 24, 2013. Valid time is until Dec. 23, 2016.

Telecommunication Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: T-1837. Date of Registration: May 07, 2013. Valid time is until May 06, 2016.

DNV

Shenzhen Huatongwei International Inspection Co., Ltd. has been found to comply with the requirements of DNV towards subcontractor of EMC and safety testing services in conjunction with the EMC and Low voltage Directives and in the voluntary field. The acceptance is based on a formal quality Audit and follow-ups according to relevant parts of ISO/IEC Guide 17025 (2005), in accordance with the requirements of the DNV Laboratory Quality Manual towards subcontractors. Valid time is until Aug. 24, 2016.

3.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature	Normal Temperature:	25°C
	High Temperature:	55°C
	Low Temperature:	-20°C
Voltage	Normal Voltage	DC 3.70V
	High Voltage	DC 4.25V
	Low Voltage	DC 3.50V
Other	Relative Humidity	55 %
	Air Pressure	989 hPa

3.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test Items	Measurement Uncertainty	Notes
Frequency range	25 Hz	(1)
Transmitter power conducted	0.57 dB	(1)
Power Spectral Density	2.20 dB	(1)
Radiated spurious emission	2.20 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.

3.5. Equipments Used during the Test

TS8997						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1	Signal generator	R&S	SMB100A	177956	11/3/2015	11/2/2016
2	Signal and spectrum analyzer	R&S	FSV40	100048	11/3/2015	11/2/2016
3	OSP	R&S	OSP120	101317	11/3/2015	11/2/2016
4	OSP	R&S	OSP-B157	100890	11/3/2015	11/2/2016
5	Climate Chamber	ESPEC	EL-10KA	05107008	11/3/2015	11/2/2016
6	POWER SUPPLY	R&S	NGMO1	1504.8420	11/3/2015	11/2/2016
7	Vector signal generator	R&S	SMBV100A	260790	11/3/2015	11/2/2016

The Cal. Interval was one year

4. Test conditions and Results

4.1. Maximum transmit power

LIMIT

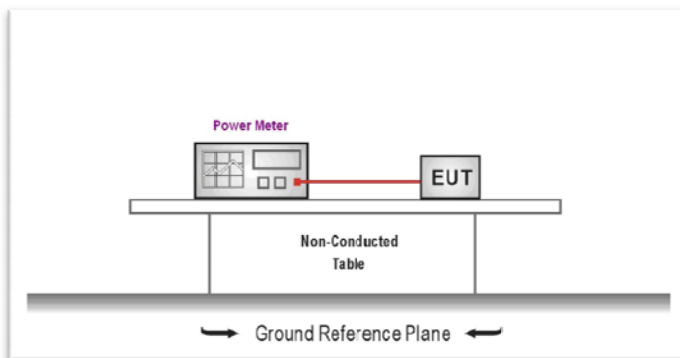
ETSI EN 300 328 Sub-clause 4.3.2.2.3

For adaptive equipment using wide band modulations other than FHSS, the maximum RF output power shall be 20 dBm.

The maximum RF output power for non-adaptive equipment shall be declared by the supplier and shall not exceed 20 dBm. See clause 5.3.1 m). For non-adaptive equipment using wide band modulations other than FHSS, the maximum RF output power shall be equal to or less than the value declared by the supplier.

This limit shall apply for any combination of power level and intended antenna assembly.

TEST CONFIGURATION



TEST PROCEDURE

Refer to ETSI EN 300 328 Sub-clause 5.3.2.2

Power Meter: sample speed 1MS/s or faster

Test bursts: 400

TEST RESULTS

BT4.0+BLE					
<i>Test conditions</i>		<i>Channel</i>	<i>EIRP (dBm)</i>	<i>Limit (dBm)</i>	<i>Result</i>
<i>Temperature (°C)</i>	<i>Voltage (V)</i>				
<i>Tnor=25</i>	<i>3.70</i>	<i>CH00</i>	<i>-1.82</i>	<i>20.00</i>	<i>Pass</i>
		<i>CH19</i>	<i>-0.82</i>		
		<i>CH39</i>	<i>-1.86</i>		
<i>Tlow=-20</i>	<i>3.50</i>	<i>CH00</i>	<i>-1.92</i>		
		<i>CH19</i>	<i>-0.91</i>		
		<i>CH39</i>	<i>-1.98</i>		
	<i>4.25</i>	<i>CH00</i>	<i>-1.66</i>		
		<i>CH19</i>	<i>-0.73</i>		
		<i>CH39</i>	<i>-1.76</i>		
<i>Thigh=+55</i>	<i>3.50</i>	<i>CH00</i>	<i>-1.93</i>		
		<i>CH19</i>	<i>-0.91</i>		
		<i>CH39</i>	<i>-1.99</i>		
	<i>4.25</i>	<i>CH00</i>	<i>-1.74</i>		
		<i>CH19</i>	<i>-0.71</i>		
		<i>CH39</i>	<i>-1.73</i>		

Note :

1. Measured Power include the cable loss.

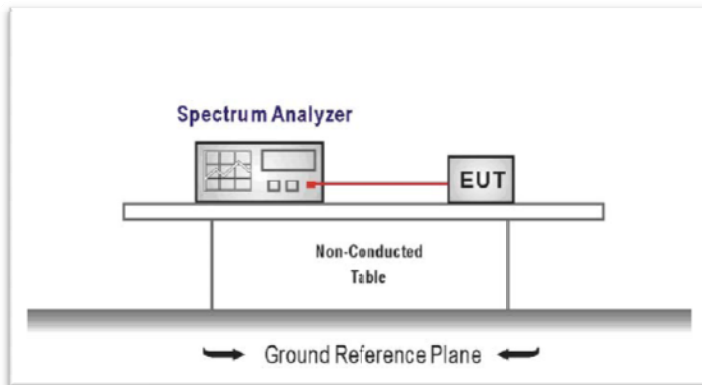
4.2. Maximum e.i.r.p. spectral density

LIMIT

ETSI EN 300 328 Sub-clause 4.3.2.3.3

For equipment using wide band modulations other than FHSS, the maximum Power Spectral Density is limited to 10 dBm per MHz.

TEST CONFIGURATION



TEST PROCEDURE

1. Please refer to ETSI EN 300 328 Sub-clause 5.1 for the test conditions.
2. Please refer to ETSI EN 300 328 Sub-clause 5.3.3 for the measurement method.
 Frequency range: 2400MHz-2483.5MHz
 RBW/VBW: 10KHz/30KHz
 Sweep points/time: >8350 / Auto
 Detector: RMS

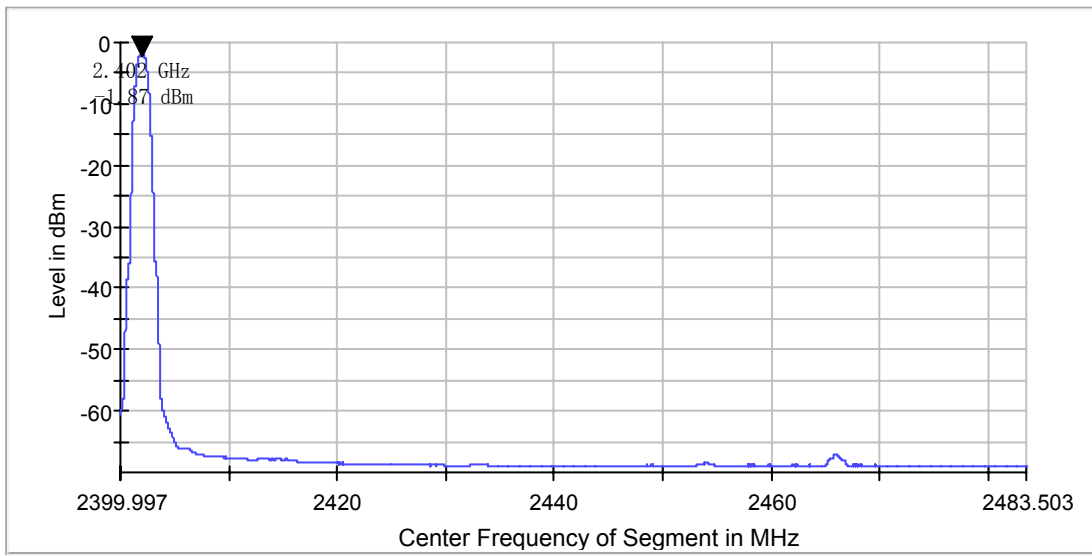
TEST RESULTS

Mode	Channel	EIRP Density (dBm/MHz)	Limit (dBm/MHz)	Result
BT4.0+BLE	CH00	-1.87	10.00	Pass
	CH19	-0.86		
	CH39	-1.91		

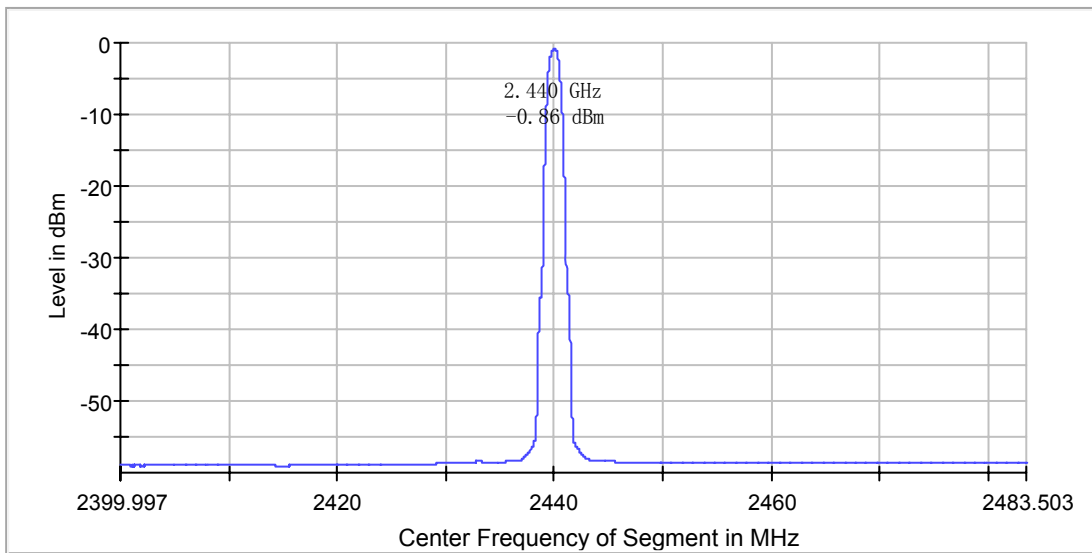
Note: Measured Power include the cable loss

Test plot as follows:

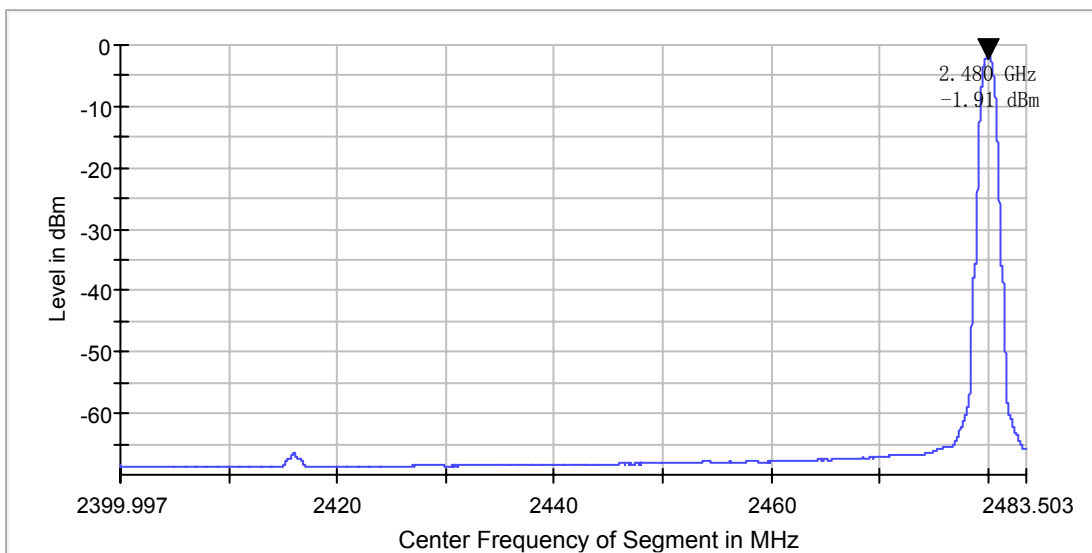
BT4.0+BLE



CH00



CH19



CH39

4.3. Adaptivity and Receiver blocking

LIMIT

ETSI EN 300 328 Sub-clause 4.3.2.6

The frequency range of the equipment is determined by the lowest and highest

Non-LBT based Detect and Avoid

- 1 The frequency shall remain unavailable for a minimum time equal to 1 second after which the channel maybe considered again as an 'available' channel;
- 2 $COT \leq 40 \text{ ms}$;
- 3 Idle Period = 5% of COT;
- 4 Detection threshold level = $-70\text{dBm/MHz} + (20\text{dBm} - P_{out \text{ e.i.r.p}})/1\text{MHz}$ (P_{out} in dBm);

LBT based Detect and Avoid (Frame Based Equipment):

- 1 Minimum Clear Channel Assessment (CCA) time = 18 us;
- 2 CCA observation time declared by the supplier;
- 3 $COT = 1 \sim 10 \text{ ms}$;
- 4 Idle Period = 5% of COT;
- 5 Detection threshold level = $-70\text{dBm/MHz} + (20\text{dBm} - P_{out \text{ e.i.r.p}})/1\text{MHz}$ (P_{out} in dBm);

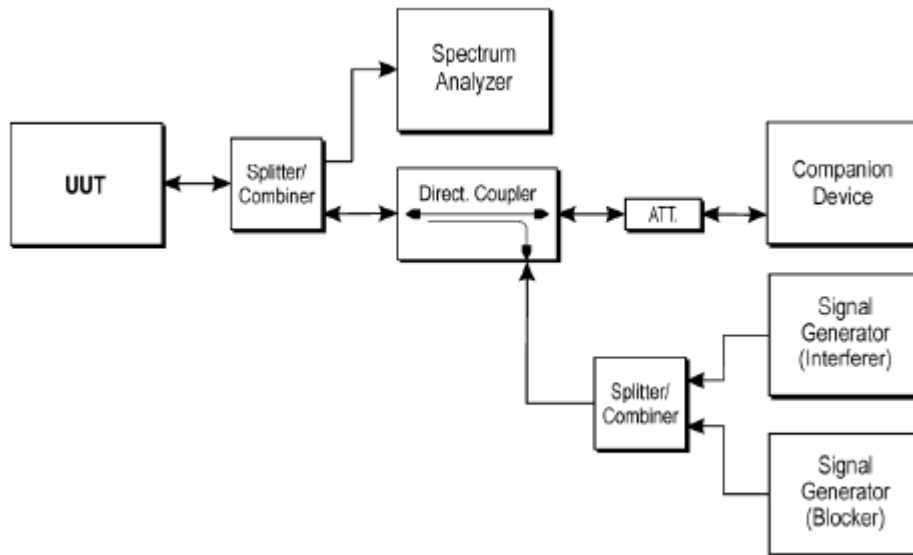
LBT based Detect and Avoid (Load Based Equipment):

- 1 Minimum Clear Channel Assessment (CCA) time = 18 us;
- 2 CCA declared by the manufacturer;
- 3 $COT \leq 13\text{ms}$;
- 4 Detection threshold level = $-70\text{dBm/MHz} + (20\text{dBm} - P_{out \text{ e.i.r.p}})/1\text{MHz}$ (P_{out} in dBm);

Short Control Signalling Transmissions:

Short Control Signalling Transmissions shall have a maximum duty cycle of 10% within an observation period of 50ms.

TEST CONFIGURATION



TEST PROCEDURE

1. Please refer to ETSI EN 300 328 Sub-clause 5.1 for the test conditions.
2. Please refer to ETSI EN 300 328 Sub-clause 5.3.7 for the measurement method.

TEST RESULTS

Not Application, This requirement dose not apply for equipment with a maximum declared RF Output power level of less than 10dBm e.i.r.p or for equioment when operating in a mode where the RF Output power is less than 10dBm e.i.r.p. The EUT's RF Output power is less 10dBm.

4.4. Occupied Channel Bandwidth

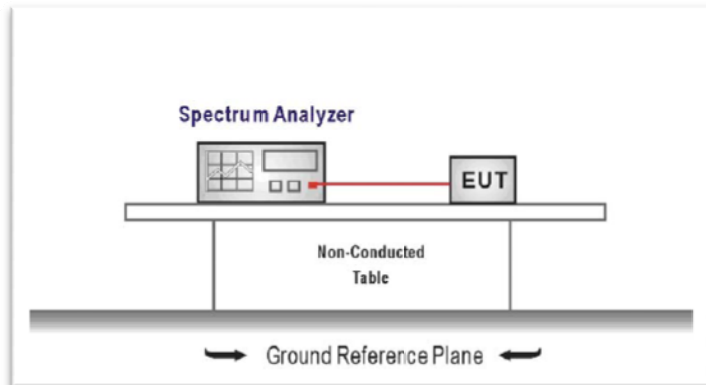
LIMIT

ETSI EN 300 328 Sub-clause 4.3.2.7.3

The Occupied Channel Bandwidth shall fall completely within the band given in clause 1.

In addition, for non-adaptive systems using wide band modulations other than FHSS and with e.i.r.p greater than 10 dBm, the occupied channel bandwidth shall be less than 20 MHz.

TEST CONFIGURATION



TEST PROCEDURE

1. Please refer to ETSI EN 300 328 Sub-clause 5.1 for the test conditions.
2. Please refer to ETSI EN 300 328 Sub-clause 5.3.8 for the measurement method.

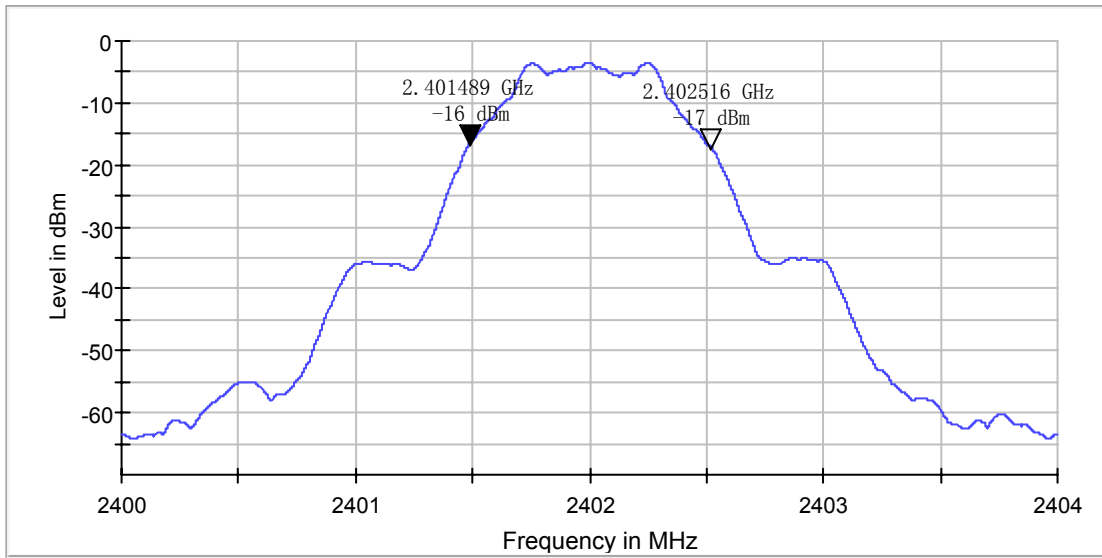
Centre Frequency: The centre frequency of the channel under test
 Resolution BW: ~ 1 % of the span without going below 1 % (30KHz)
 Video BW: 3 × RBW (100KHz)
 Frequency Span: 2 × Occupied Channel Bandwidth (2MHz)
 Detector Mode: RMS
 Trace Mode: Max Hold

TEST RESULTS

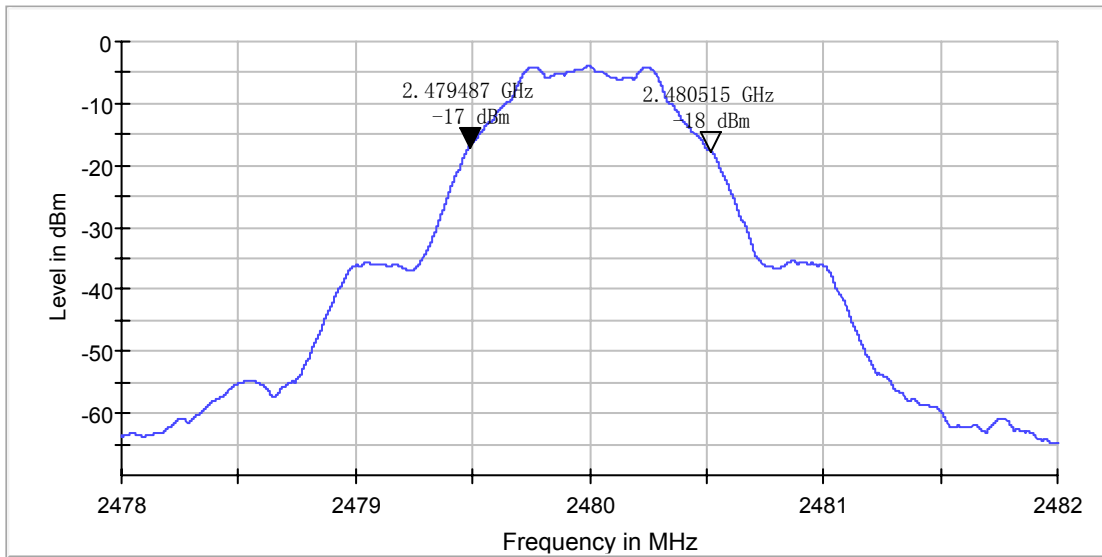
Modulation	Channel	Occupied Channel Bandwidth (MHz)	Result
BT4.0+BLE	CH00	1.027	Pass
	CH39	1.028	

Test plot as follows:

BT4.0+BLE



CH00



CH39

4.5. Transmitter unwanted emissions in the out-of-band domain

LIMIT

ETSI EN 300 328 Sub-clause 4.3.2.8.3

The transmitter unwanted emissions in the out-of-band domain but outside the allocated band, shall not exceed the values provided by the mask in figure 3.

NOTE: Within the 2 400 MHz to 2 483,5 MHz band, the Out-of-band emissions are fulfilled by compliance with the Occupied Channel Bandwidth requirement in clause 4.3.2.7.

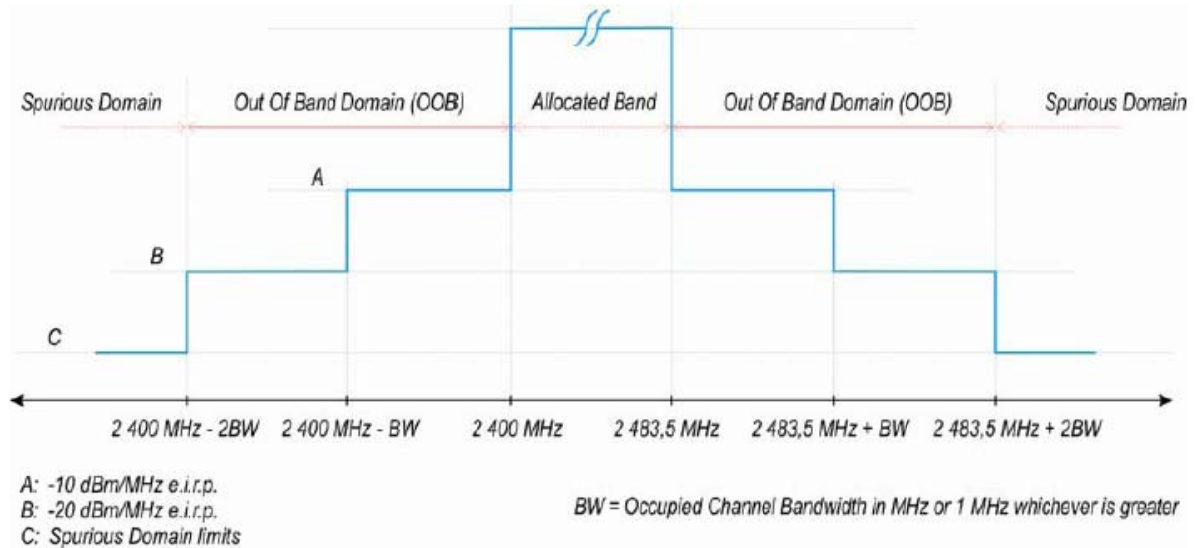
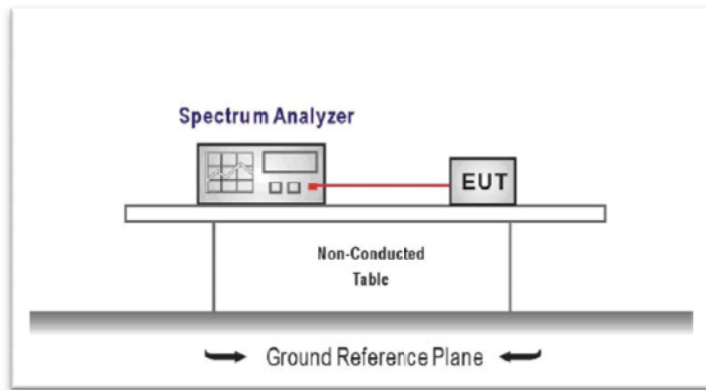


Figure 3: Transmit mask

TEST CONFIGURATION



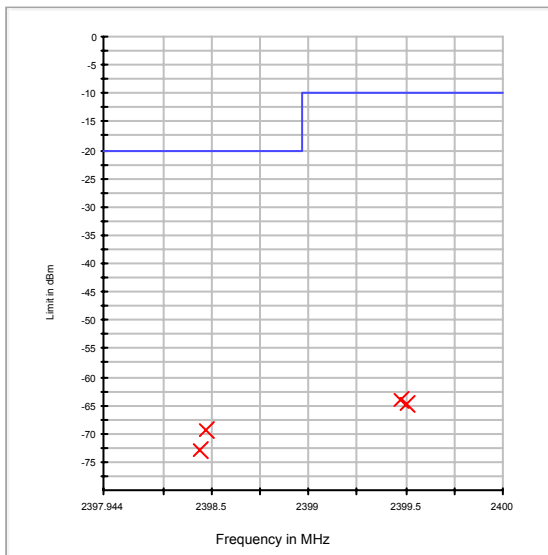
TEST PROCEDURE

1. Please refer to ETSI EN 300 328 Sub-clause 5.1 for the test conditions.
2. Please refer to ETSI EN 300 328 Sub-clause 5.3.9 for the measurement method.

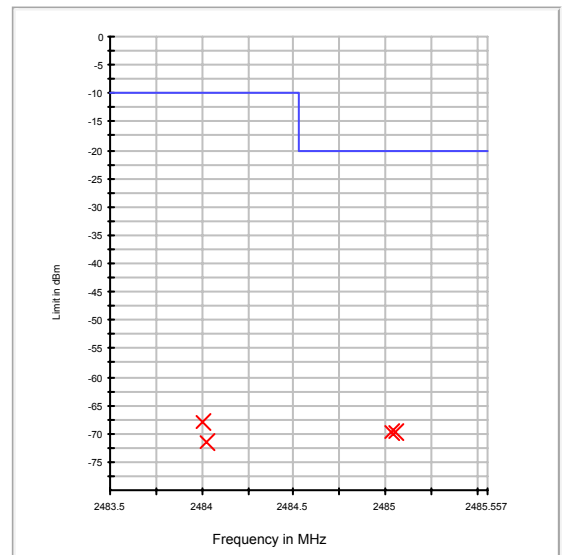
RBW/ VBW: 1MHz/3MHz
 Span: 0Hz
 Filter mode: Channel filter
 Detector: RMS

TEST RESULTS

BT4.0+BLE							
Test conditions		Channel	Frequency range (MHz)		Level (dBm)	Limit (dBm)	Result
Temperature (°C)	Voltage (V)		Start	Stop			
Tnor=25	3.70	00	2400-2OBW	2400-OBW	-69.32	-20	Pass
			2400-OBW	2400	-64.78	-10	Pass
		39	2484	2484+OBW	-67.52	-10	Pass
			2484+OBW	2484+2OBW	-69.89	-20	Pass
Tlow=-20	3.50	00	2400-2OBW	2400-OBW	-69.60	-20	Pass
			2400-OBW	2400	-64.07	-10	Pass
		39	2484	2484+OBW	-68.32	-10	Pass
			2484+OBW	2484+2OBW	-70.69	-20	Pass
	4.25	00	2400-2OBW	2400-OBW	-70.65	-20	Pass
			2400-OBW	2400	-65.03	-10	Pass
		39	2484	2484+OBW	-67.54	-10	Pass
			2484+OBW	2484+2OBW	-69.98	-20	Pass
Thigh=+55	3.50	00	2400-2OBW	2400-OBW	-70.81	-20	Pass
			2400-OBW	2400	-65.49	-10	Pass
		39	2484	2484+OBW	-67.02	-10	Pass
			2484+OBW	2484+2OBW	-70.66	-20	Pass
	4.25	00	2400-2OBW	2400-OBW	-70.00	-20	Pass
			2400-OBW	2400	-66.09	-10	Pass
		39	2484	2484+OBW	-71.11	-10	Pass
			2484+OBW	2484+2OBW	-69.90	-20	Pass



CH01



CH13

Note:

- * Radiant level is far less than the limit, has more than 20 dB margin
- Only show the test plot on normal condition

4.6. Transmitter unwanted emissions in the spurious domain

LIMIT

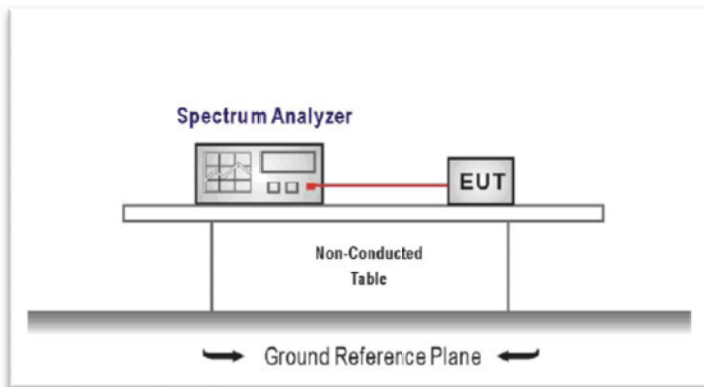
ETSI EN 300 328 Sub-clause 4.3.2.9.3

- The transmitter unwanted emissions in the spurious domain shall not exceed the values given in table 1.

Table 1: Transmitter limits for spurious emissions

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

TEST CONFIGURATION



TEST PROCEDURE

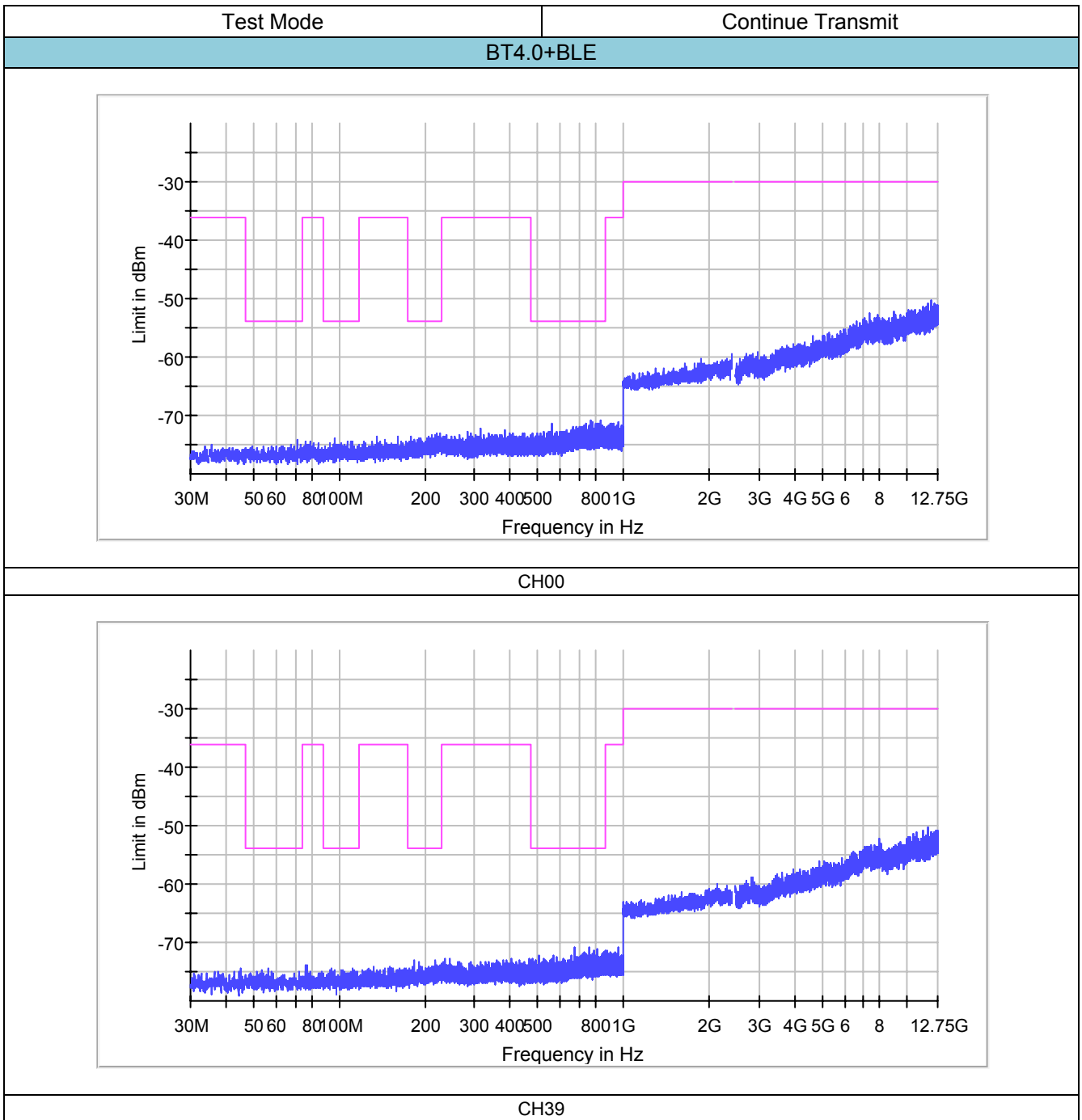
1. Please refer to ETSI EN 300 328 Sub-clause 5.1 for the test conditions.
2. Please refer to ETSI EN 300 328 Sub-clause 5.3.10.2 for the measurement method.

Resolution Bandwidth: 100 kHz (< 1 GHz) / 1 MHz (> 1 GHz)

Video Bandwidth: 300 kHz (< 1 GHz) / 3 MHz (> 1 GHz)

Detector: Peak for prescan/RMS for emission retest

TEST RESULTS



4.7. Receiver spuriousemissions

LIMIT

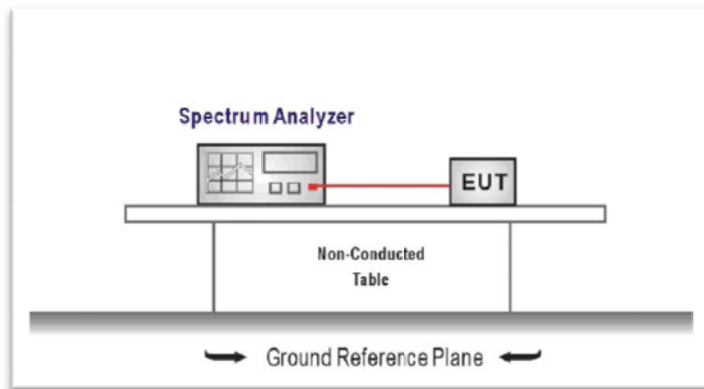
ETSI EN 300 328 Sub-clause 4.3.2.10.3

The spurious emissions of the receiver shall not exceed the values given in table 2.

Table 2: spurious emission limits for receivers

Frequency	Maximum power, e.r.p.	Measurement bandwidth
30 MHz to 1 GHz	-57 dBm	100 KHz
1 GHz to 12.75 GHz	-47 dBm	1 MHz

TEST CONFIGURATION



TEST PROCEDURE

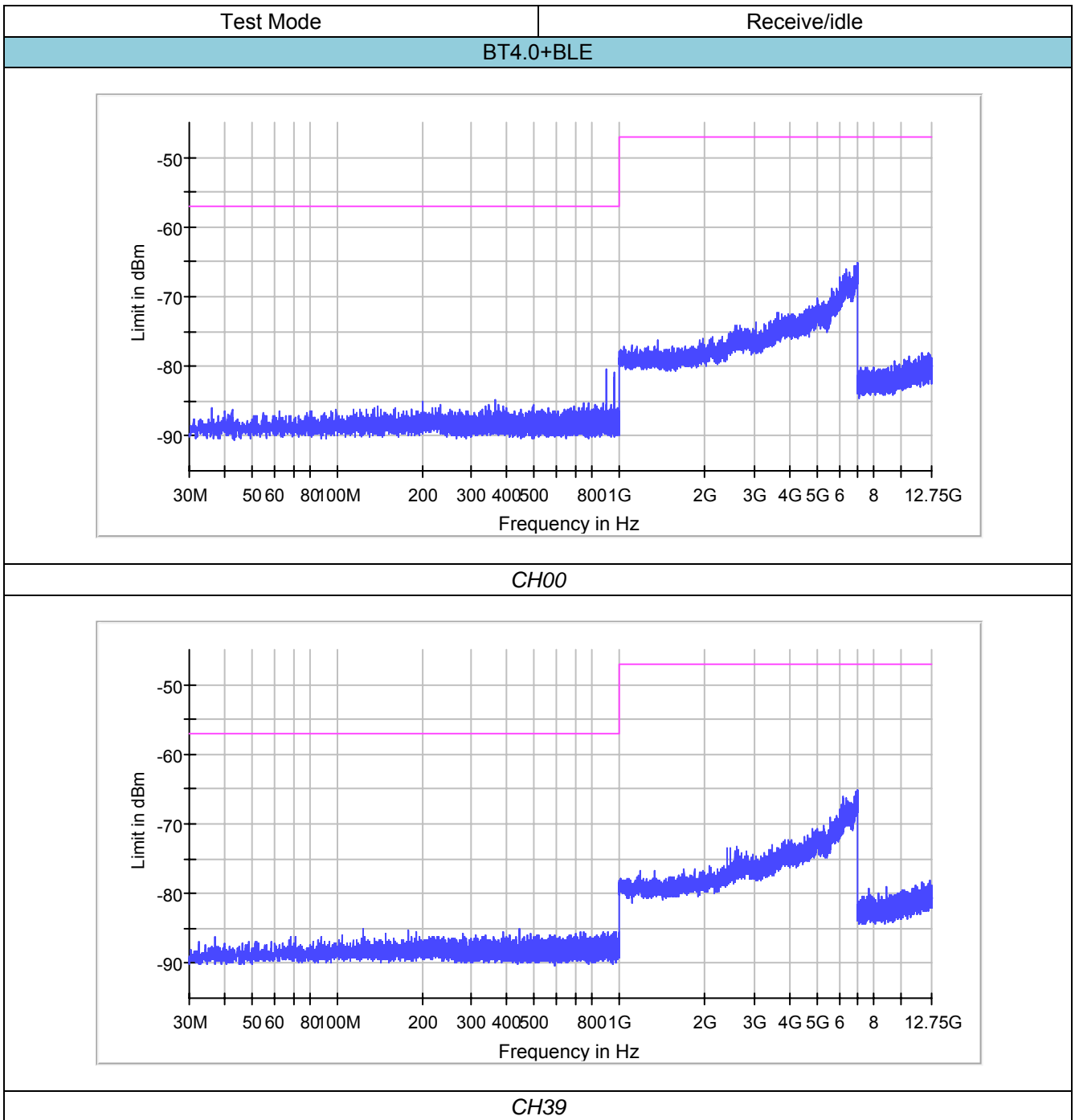
1. Please refer to ETSI EN 300 328 Sub-clause 5.1 for the test conditions.
2. Please refer to ETSI EN 300328 Sub-clause 5.3.11.2 for the measurement method.

Resolution Bandwidth: 100 kHz (< 1 GHz) / 1 MHz (> 1 GHz)

Video Bandwidth: 300 kHz (< 1 GHz) / 3 MHz (> 1 GHz)

Detector: Peak for prescan/RMS for emission retest

TEST RESULTS



5. Test Setup Photos of the EUT



6. **External and Internal Photos of the EUT**

Reference to the test report No. TRE1603019101

-----*End of Report*-----