

# FCC Test Report

**FCC ID** : NKR-DHURAZ53  
**Equipment** : 11a/b/g/n/ac 1x1 module  
**Model No.** : DHUR-AZ53  
**Brand Name** : Amazon  
**Applicant** : Wistron NeWeb Corporation  
**Address** : 20 Park Avenue II, Hsinchu Science Park,  
Hsinchu 308,Taiwan,R.O.C.  
**Standard** : 47 CFR FCC Part 15.247  
**Received Date** : Dec. 16, 2021  
**Tested Date** : Jan. 24 ~ Feb. 17, 2022

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:

Approved by:

  
\_\_\_\_\_  
Along Chen / Assistant Manager

  
\_\_\_\_\_  
Gary Chang / Manager

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## Release Record

Report No.	Version	Description	Issued Date
FR1D1601AE	Rev. 01	Initial issue	Mar. 21, 2022

## Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emissions	[dBuV]: 0.546MHz 31.50 (Margin -14.50dB) - AV	Pass
15.247(d) 15.209	Radiated Emissions	[dBuV/m at 3m]: 347.95MHz 42.67 (Margin -333dB) - PK	Pass
15.247(b)(3)	Maximum Output Power	Power [dBm]: 11.02	Pass
15.247(a)(2)	6dB Bandwidth	Meet the requirement of limit	Pass
15.247(e)	Power Spectral Density	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

### Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

### Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

# 1 General Description

## 1.1 Information

### 1.1.1 Specification of the Equipment under Test (EUT)

RF General Information				
Frequency Range (MHz)	Bluetooth Mode	Ch. Freq. (MHz)	Channel Number	Data Rate
2400-2483.5	V5.0 LE	2402-2480	0-39 [40]	125 kbps
				500 kbps
				1 Mbps
				2 Mbps
Note: Bluetooth LE (Low energy) uses GFSK modulation.				

### 1.1.2 Antenna Details

Ant. No.	Brand	Model	Type	Gain (dBi)	Connector	Remark
1	WNC	BT_ANT	PIFA	2.79	NA	onboard
2	WNC	81.EK615.GAM	PIFA	4.04	IPEX	---
3	WNC	81.EK615.GAV	PIFA	4.87	IPEX	---
4	WNC	81.EK615.G90	PIFA	0.75	IPEX	---

### 1.1.3 Power Supply Type of Equipment under Test (EUT)

<b>Power Supply Type</b>	5Vdc from host
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### 1.1.4 Accessories

N/A

### 1.1.5 Channel List

Frequency band (MHz)				2400~2483.5			
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
37	2402	9	2422	18	2442	28	2462
0	2404	10	2424	19	2444	29	2464
1	2406	38	2426	20	2446	30	2466
2	2408	11	2428	21	2448	31	2468
3	2410	12	2430	22	2450	32	2470
4	2412	13	2432	23	2452	33	2472
5	2414	14	2434	24	2454	34	2474
6	2416	15	2436	25	2456	35	2476
7	2418	16	2438	26	2458	36	2478
8	2420	17	2440	27	2460	39	2480

### 1.1.6 Test Tool and Duty Cycle

Test Tool	WCn Combo Tool, Version: V2.1749.00	
Modulation Mode	Duty Cycle Of Test Signal (%)	Duty Factor (dB)
GFSK-125kbps	84.78%	0.72
GFSK-500kbps	59.26%	2.27
GFSK-1Mbps	64.19%	1.93
GFSK-2Mbps	33.65%	4.73

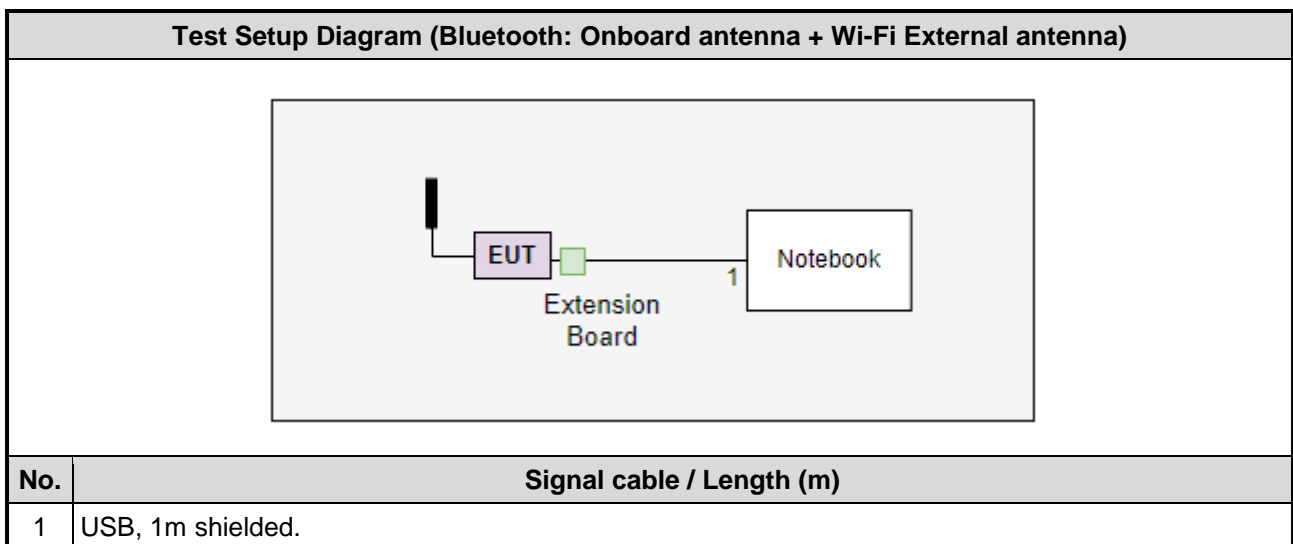
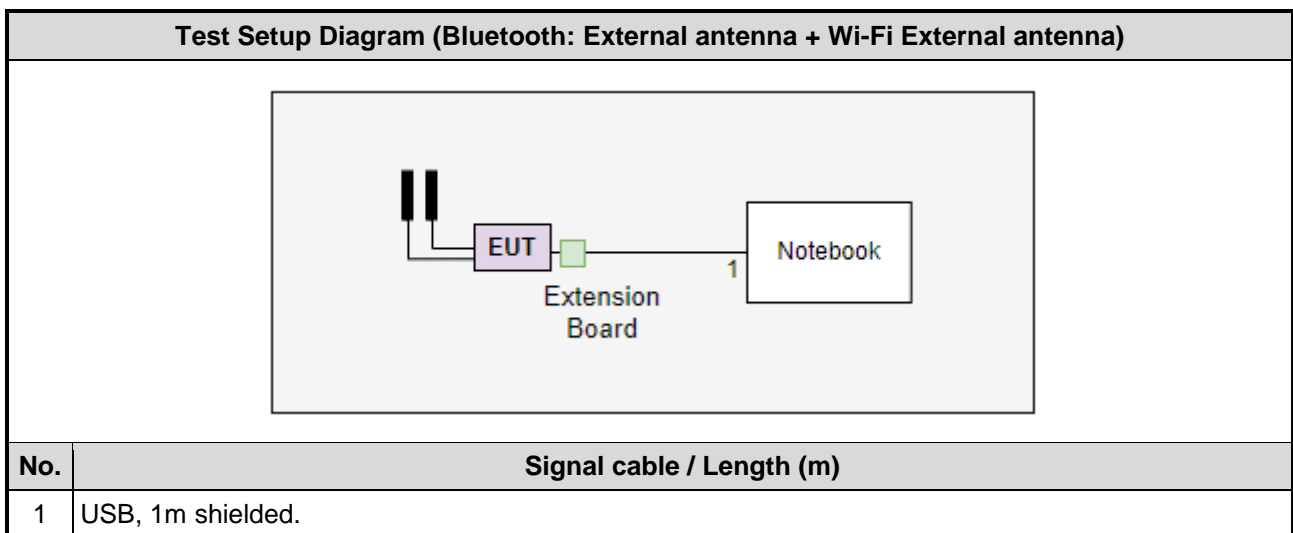
### 1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)		
	2402	2440	2480
GFSK/125kbps	137=77,138=06	137=77,138=06	137=77,138=06
GFSK/500kbps	137=77,138=06	137=77,138=06	137=77,138=06
GFSK/1Mbps	137=77,138=06	137=77,138=06	137=77,138=06
GFSK/2Mbps	137=77,138=06	137=77,138=06	137=77,138=06

## 1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E5470	---	---
2	USB Cable	ICC	extension	---	
3	Extension Board	---	---	---	Provided by applicant.

## 1.3 Test Setup Chart





## 1.4 Test Equipment List and Calibration Data

<b>Test Item</b>	Conducted Emission				
<b>Test Site</b>	Conduction room 1 / (CO01-WS)				
<b>Tested Date</b>	Feb. 15, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	R&S	ESR3	101657	Mar. 12, 2021	Mar. 11, 2022
LISN	R&S	ENV216	101579	Mar. 17, 2021	Mar. 16, 2022
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	8127477	Feb. 25, 2021	Feb. 24, 2022
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 19, 2021	Oct. 18, 2022
50 ohm terminal (Support Unit)	NA	50	04	May 25, 2021	May 24, 2022
Measurement Software	AUDIX	e3	6.120210k	NA	NA

Note: Calibration Interval of instruments listed above is one year.

<b>Test Item</b>	Radiated Emission				
<b>Test Site</b>	966 chamber1 / (03CH01-WS)				
<b>Tested Date</b>	Jan. 24 ~ Jan. 28, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	R&S	ESR3	101657	Mar. 12, 2021	Mar. 11, 2022
Spectrum Analyzer	R&S	FSV40	101498	Nov. 29, 2021	Nov. 28, 2022
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 08, 2021	Nov. 07, 2022
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jun. 30, 2021	Jun. 29, 2022
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 03, 2021	Dec. 02, 2022
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 04, 2021	Nov. 03, 2022
Preamplifier	EMC	EMC02325	980225	Jun. 29, 2021	Jun. 28, 2022
Preamplifier	Agilent	83017A	MY39501308	Sep. 28, 2021	Sep. 27, 2022
Preamplifier	EMC	EMC184045B	980192	Jul. 14, 2021	Jul. 13, 2022
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 05, 2021	Oct. 04, 2022
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 05, 2021	Oct. 04, 2022
LF cable 11M	EMC	EMCCFD400-NW-N W-11000	200801	Oct. 05, 2021	Oct. 04, 2022
LF cable 1M	EMC	EMCCFD400-NM-N M-1000	160502	Oct. 05, 2021	Oct. 04, 2022
RF Cable	EMC	EMC104-35M-35M- 8000	210920	Oct. 05, 2021	Oct. 04, 2022
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 05, 2021	Oct. 04, 2022
Measurement Software	AUDIX	e3	6.120210g	NA	NA

Note: Calibration Interval of instruments listed above is one year.

<b>Test Item</b>	RF Conducted				
<b>Test Site</b>	(TH01-WS)				
<b>Tested Date</b>	Feb. 17, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Spectrum Analyzer	R&S	FSV40	101498	Nov. 29, 2021	Nov. 28, 2022
Power Meter	Anritsu	ML2495A	1241002	Nov. 07, 2021	Nov. 06, 2022
Power Sensor	Anritsu	MA2411B	1207366	Nov. 07, 2021	Nov. 06, 2022
Measurement Software	Sporton	SENSE-15247_FS	V5.10.7.11	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

## 1.5 Test Standards

47 CFR FCC Part 15.247  
ANSI C63.10-2013

## 1.6 Reference Guidance

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

## 1.7 Deviation from Test Standard and Measurement Procedure

None

## 1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ( $k=2$ )).

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	$\pm 34.130$ Hz
Conducted power	$\pm 0.808$ dB
Power density	$\pm 0.583$ dB
Conducted emission	$\pm 2.715$ dB
AC conducted emission	$\pm 2.92$ dB
Radiated emission $\leq 1$ GHz	$\pm 3.41$ dB
Radiated emission $> 1$ GHz	$\pm 4.59$ dB

## 2 Test Configuration

### 2.1 Testing Facility

<b>Test Laboratory</b>	International Certification Corporation
<b>Test Site</b>	CO01-WS, 03CH01-WS, TH01-WS
<b>Address of Test Site</b>	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

### 2.2 The Worst Test Modes and Channel Details

Test item	Mode	Test Frequency (MHz)	Data Rate	Test Configuration
AC Power Line Conducted Emissions	BT LE	2480	1Mbps	1
Radiated Emissions ≤ 1GHz	BT LE	2480	1Mbps	1, 2
Radiated Emissions > 1GHz	BT LE BT LE	2402, 2440, 2480 2402, 2440, 2480	1Mbps 2Mbps	1, 2
Maximum Output Power 6dB bandwidth Power spectral density	BT LE BT LE BT LE BT LE	2402, 2440, 2480 2402, 2440, 2480 2402, 2440, 2480 2402, 2440, 2480	125kbps 500kbps 1Mbps 2Mbps	1

**NOTE:**

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **X-plane** results were found as the worst case and were shown in this report.
2. The EUT had been tested by following test configurations.  
 Test Configuration 1: BT external antenna (model: 81.EK615.GAV) + WiFi external antenna (model: 81.EK615.GAA)  
 Test Configuration 2: BT onboard (model: BT\_ANT) + WiFi external antenna (model: 81.EK615.GAA)

## 3 Transmitter Test Results

### 3.1 Conducted Emissions

#### 3.1.1 Limit of Conducted Emissions

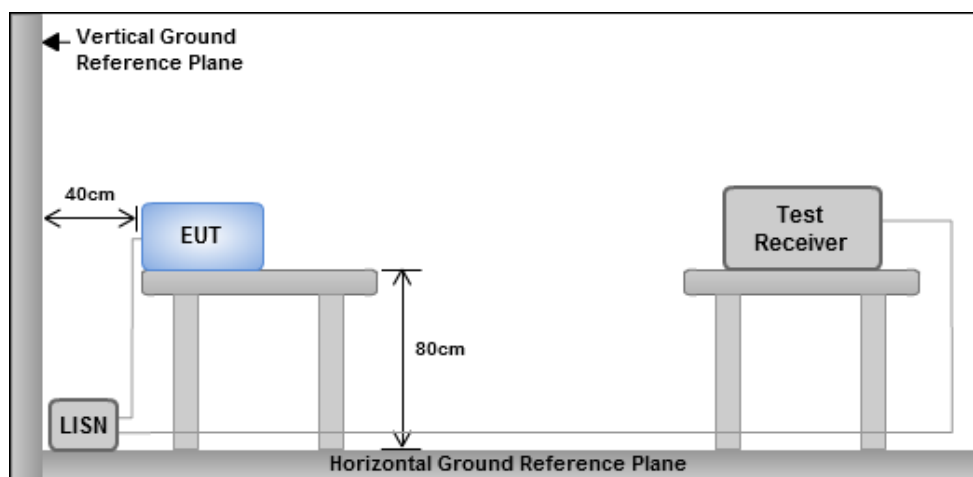
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: \* Decreases with the logarithm of the frequency.

#### 3.1.2 Test Procedures

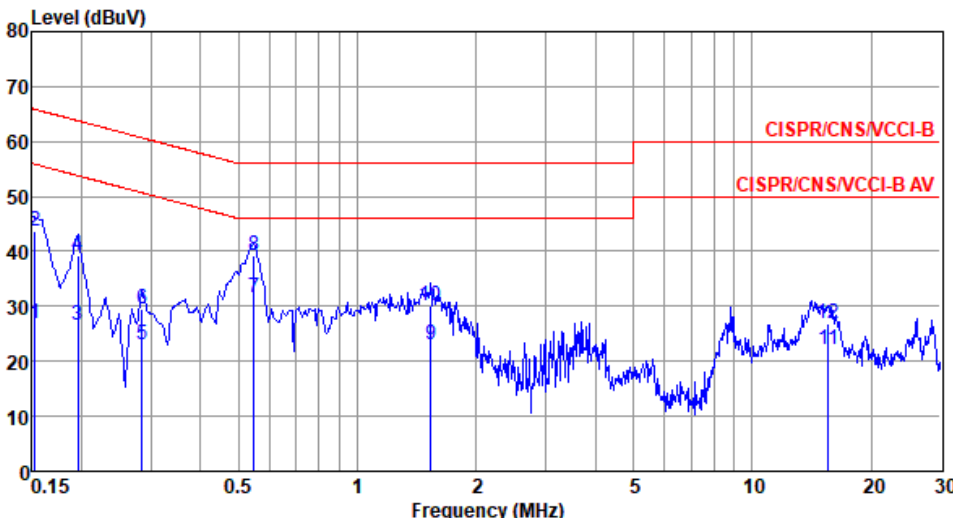
1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50  $\Omega$  LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V/60Hz

#### 3.1.3 Test Setup



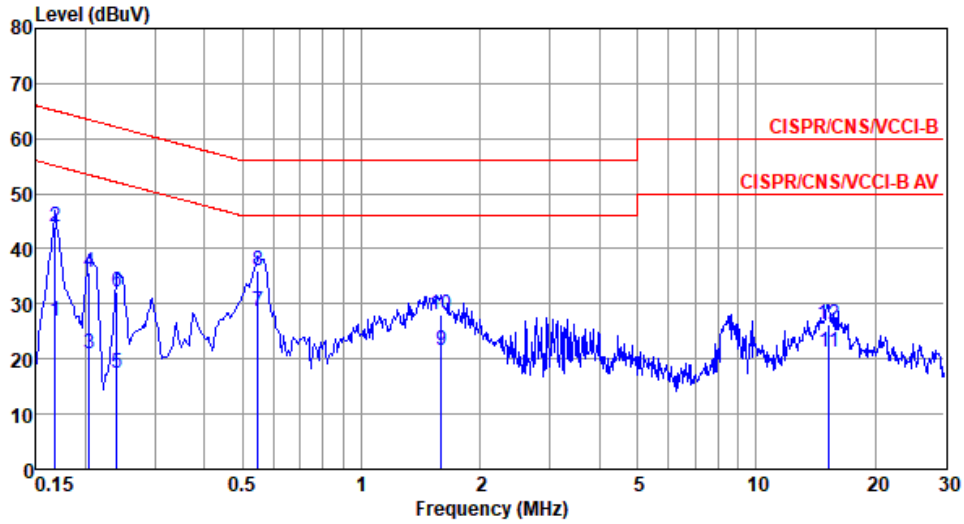
- Note: 1. Support units were connected to second LISN.  
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.1.4 Test Result of Conducted Emissions

<b>Modulation Mode</b>	BT LE-1Mbps	<b>Test Freq. (MHz)</b>	2480																																																																																																																																		
<b>Power Phase</b>	Line																																																																																																																																				
<p>Test by : Joe Liao      Temperature: 16°C      Humidity: 60%</p>																																																																																																																																					
																																																																																																																																					
<table border="1"> <thead> <tr> <th></th> <th>Freq MHz</th> <th>Level dBuA</th> <th>Limit Line dBuA</th> <th>Over Limit dB</th> <th>Read Level dBuA</th> <th>Factor dB</th> <th>Cable loss dB</th> <th>Aux dB</th> <th>Remark</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.152</td><td>26.86</td><td>55.87</td><td>-29.01</td><td>17.12</td><td>9.66</td><td>0.08</td><td>0.00</td><td>Average</td></tr> <tr><td>2</td><td>0.152</td><td>43.73</td><td>65.87</td><td>-22.14</td><td>33.99</td><td>9.66</td><td>0.08</td><td>0.00</td><td>QP</td></tr> <tr><td>3</td><td>0.195</td><td>26.61</td><td>53.80</td><td>-27.19</td><td>16.88</td><td>9.65</td><td>0.08</td><td>0.00</td><td>Average</td></tr> <tr><td>4</td><td>0.195</td><td>39.30</td><td>63.80</td><td>-24.50</td><td>29.57</td><td>9.65</td><td>0.08</td><td>0.00</td><td>QP</td></tr> <tr><td>5</td><td>0.285</td><td>22.97</td><td>50.68</td><td>-27.71</td><td>13.25</td><td>9.64</td><td>0.08</td><td>0.00</td><td>Average</td></tr> <tr><td>6</td><td>0.285</td><td>29.56</td><td>60.68</td><td>-31.12</td><td>19.84</td><td>9.64</td><td>0.08</td><td>0.00</td><td>QP</td></tr> <tr><td>7*</td><td>0.546</td><td>31.50</td><td>46.00</td><td>-14.50</td><td>21.75</td><td>9.64</td><td>0.11</td><td>0.00</td><td>Average</td></tr> <tr><td>8</td><td>0.546</td><td>39.40</td><td>56.00</td><td>-16.60</td><td>29.65</td><td>9.64</td><td>0.11</td><td>0.00</td><td>QP</td></tr> <tr><td>9</td><td>1.535</td><td>23.14</td><td>46.00</td><td>-22.86</td><td>13.30</td><td>9.66</td><td>0.18</td><td>0.00</td><td>Average</td></tr> <tr><td>10</td><td>1.535</td><td>30.18</td><td>56.00</td><td>-25.82</td><td>20.34</td><td>9.66</td><td>0.18</td><td>0.00</td><td>QP</td></tr> <tr><td>11</td><td>15.552</td><td>22.03</td><td>50.00</td><td>-27.97</td><td>11.77</td><td>9.69</td><td>0.57</td><td>0.00</td><td>Average</td></tr> <tr><td>12</td><td>15.552</td><td>26.95</td><td>60.00</td><td>-33.05</td><td>16.69</td><td>9.69</td><td>0.57</td><td>0.00</td><td>QP</td></tr> </tbody> </table>					Freq MHz	Level dBuA	Limit Line dBuA	Over Limit dB	Read Level dBuA	Factor dB	Cable loss dB	Aux dB	Remark	1	0.152	26.86	55.87	-29.01	17.12	9.66	0.08	0.00	Average	2	0.152	43.73	65.87	-22.14	33.99	9.66	0.08	0.00	QP	3	0.195	26.61	53.80	-27.19	16.88	9.65	0.08	0.00	Average	4	0.195	39.30	63.80	-24.50	29.57	9.65	0.08	0.00	QP	5	0.285	22.97	50.68	-27.71	13.25	9.64	0.08	0.00	Average	6	0.285	29.56	60.68	-31.12	19.84	9.64	0.08	0.00	QP	7*	0.546	31.50	46.00	-14.50	21.75	9.64	0.11	0.00	Average	8	0.546	39.40	56.00	-16.60	29.65	9.64	0.11	0.00	QP	9	1.535	23.14	46.00	-22.86	13.30	9.66	0.18	0.00	Average	10	1.535	30.18	56.00	-25.82	20.34	9.66	0.18	0.00	QP	11	15.552	22.03	50.00	-27.97	11.77	9.69	0.57	0.00	Average	12	15.552	26.95	60.00	-33.05	16.69	9.69	0.57	0.00	QP
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<p>Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).            2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).</p>																																																																																																																																					

<b>Modulation Mode</b>	BT LE-1Mbps	<b>Test Freq. (MHz)</b>	2480
<b>Power Phase</b>	Neutral		

Test by : Joe Liao      Temperature: 16°C      Humidity: 60%



	Freq MHz	Level dBuA	Limit Line dBuA	Over Limit dB	Read Level dBuA	Factor dB	Cable loss dB	Aux dB	Remark
1	0.168	26.96	55.08	-28.12	17.19	9.69	0.08	0.00	Average
2	0.168	44.07	65.08	-21.01	34.30	9.69	0.08	0.00	QP
3	0.204	21.09	53.45	-32.36	11.33	9.68	0.08	0.00	Average
4	0.204	35.59	63.45	-27.86	25.83	9.68	0.08	0.00	QP
5	0.240	17.50	52.08	-34.58	7.74	9.68	0.08	0.00	Average
6	0.240	32.26	62.08	-29.82	22.50	9.68	0.08	0.00	QP
7*	0.546	28.63	46.00	-17.37	18.85	9.67	0.11	0.00	Average
8	0.546	36.01	56.00	-19.99	26.23	9.67	0.11	0.00	QP
9	1.593	21.54	46.00	-24.46	11.66	9.69	0.19	0.00	Average
10	1.593	27.98	56.00	-28.02	18.10	9.69	0.19	0.00	QP
11	15.310	21.38	50.00	-28.62	11.00	9.81	0.57	0.00	Average
12	15.310	26.35	60.00	-33.65	15.97	9.81	0.57	0.00	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).  
 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

## 3.2 6dB and Occupied Bandwidth

### 3.2.1 Limit of 6dB Bandwidth

The minimum 6dB bandwidth shall be at least 500 kHz.

### 3.2.2 Test Procedures

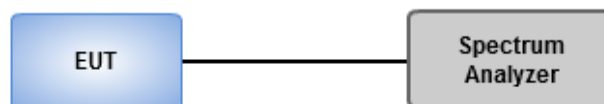
#### 6dB Bandwidth

1. Set resolution bandwidth (RBW) = 100 kHz, Video bandwidth = 300 kHz.
2. Detector = Peak, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6dB relative to the maximum level measured in the fundamental emission.

#### Occupied Bandwidth

1. Set resolution bandwidth (RBW) = 1% ~ 5 % of OBW, Video bandwidth = 3 x RBW
2. Detector = Sample, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Use the OBW measurement function of spectrum analyzer to measure the occupied bandwidth.

### 3.2.3 Test Setup



### 3.2.4 Test Result of 6dB and Occupied Bandwidth

<b>Ambient Condition</b>	21°C / 67%	<b>Tested By</b>	Aska Huang
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#### Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(125kbps)	692.029k	1.06M	1M06F1D	692.029k	1.056M
BT-LE(500kbps)	659.42k	1.027M	1M03F1D	659.42k	1.024M
BT-LE(1Mbps)	692.029k	1.035M	1M04F1D	681.159k	1.031M
BT-LE(2Mbps)	1.159M	2.069M	2M07F1D	1.152M	2.062M

Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;  
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

#### Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	500k	692.029k	1.056M
2440MHz	Pass	500k	692.029k	1.06M
2480MHz	Pass	500k	692.029k	1.056M
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	500k	659.42k	1.027M
2440MHz	Pass	500k	659.42k	1.027M
2480MHz	Pass	500k	659.42k	1.024M
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	681.159k	1.031M
2440MHz	Pass	500k	681.159k	1.031M
2480MHz	Pass	500k	692.029k	1.035M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.152M	2.062M
2440MHz	Pass	500k	1.152M	2.062M
2480MHz	Pass	500k	1.159M	2.069M

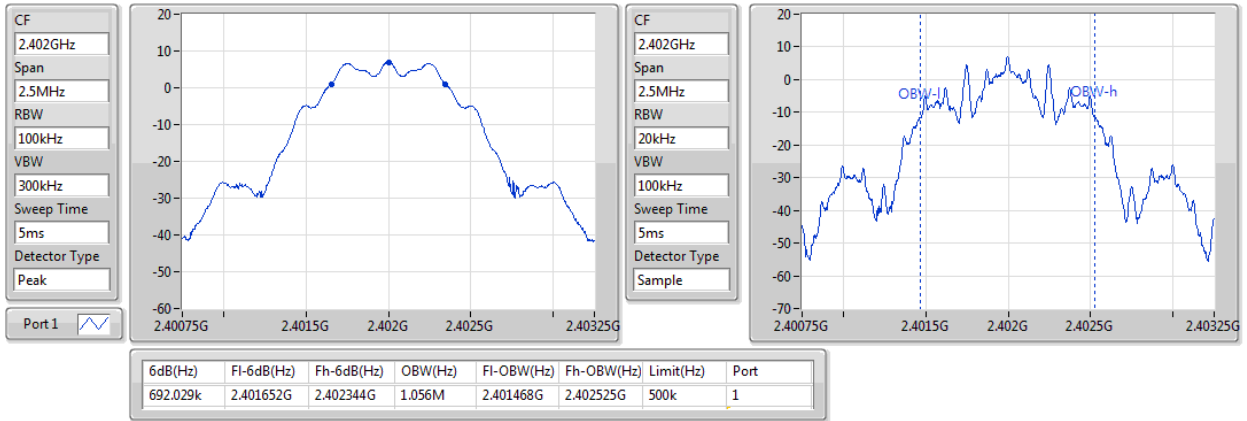
Port X-N dB = Port X 6dB down bandwidth;  
Port X-OBW = Port X 99% occupied bandwidth



### BT-LE(125kbps)

### EBW-DTS

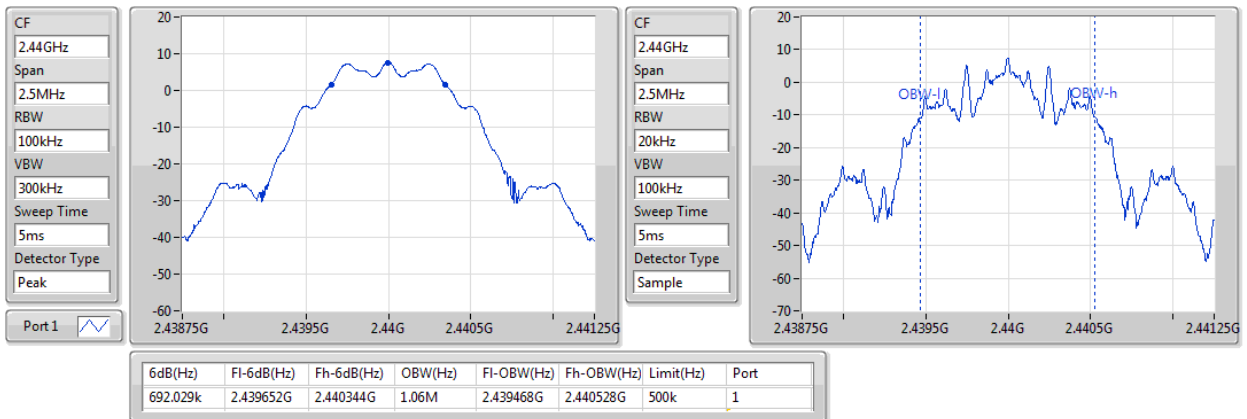
2402MHz



### BT-LE(125kbps)

### EBW-DTS

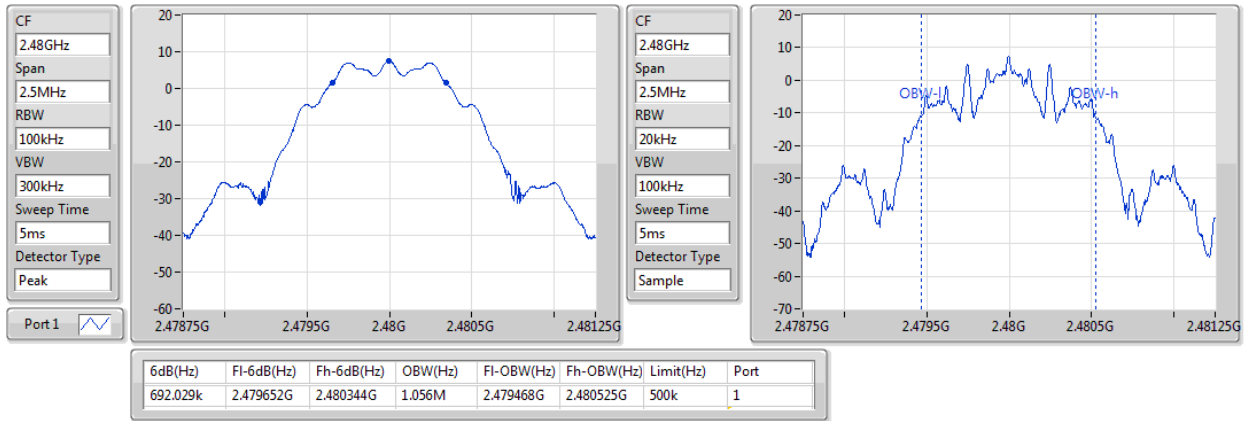
2440MHz



### BT-LE(125kbps)

### EBW-DTS

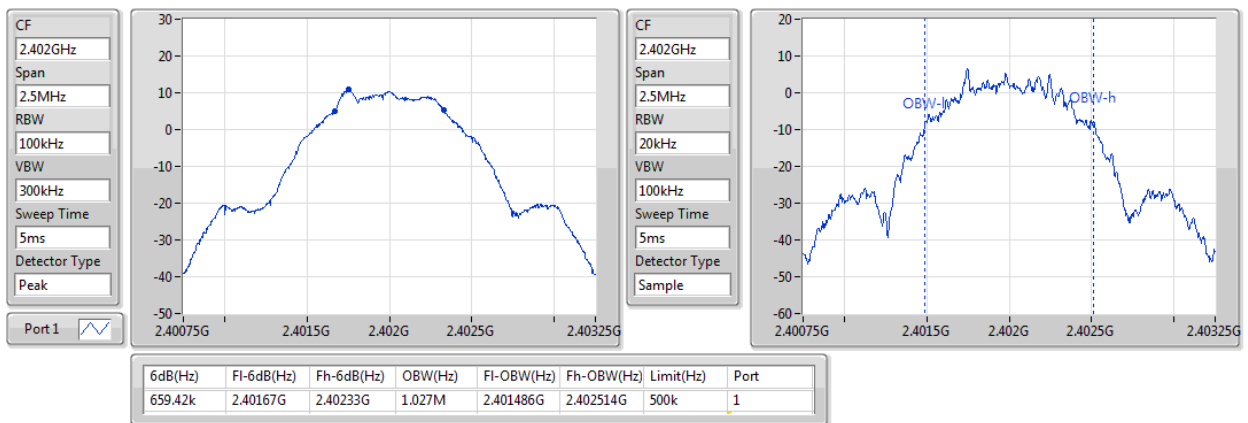
#### 2480MHz



### BT-LE(500kbps)

### EBW-DTS

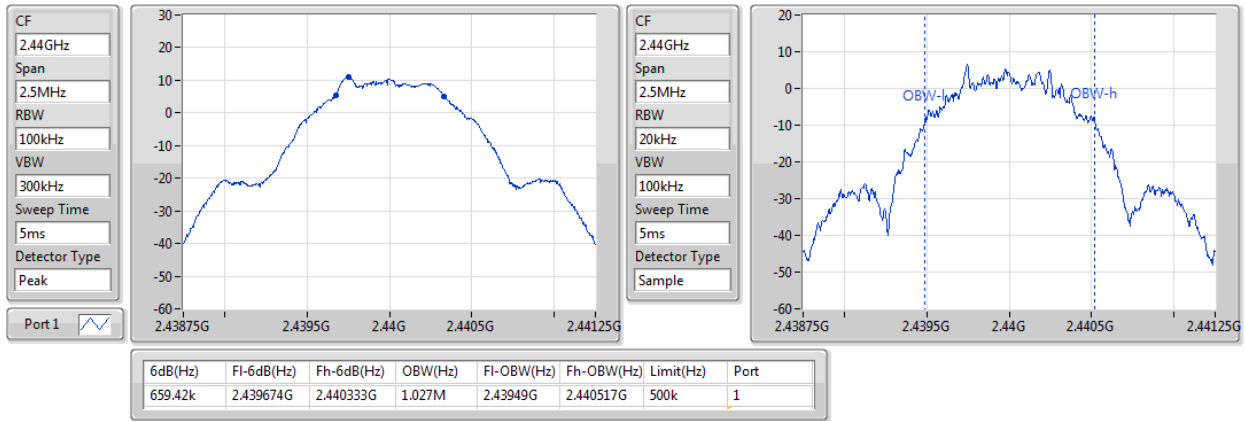
#### 2402MHz



**BT-LE(500kbps)**

**EBW-DTS**

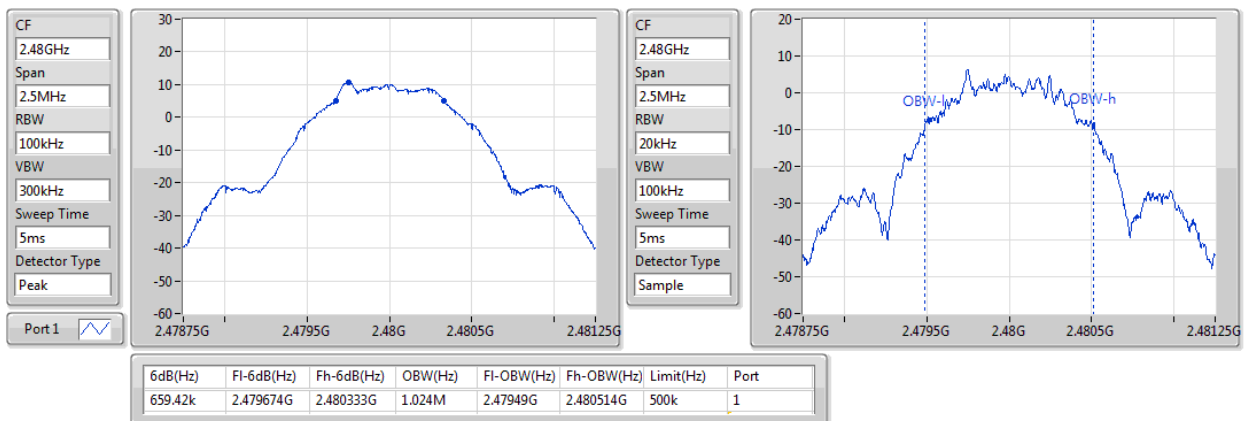
**2440MHz**



**BT-LE(500kbps)**

**EBW-DTS**

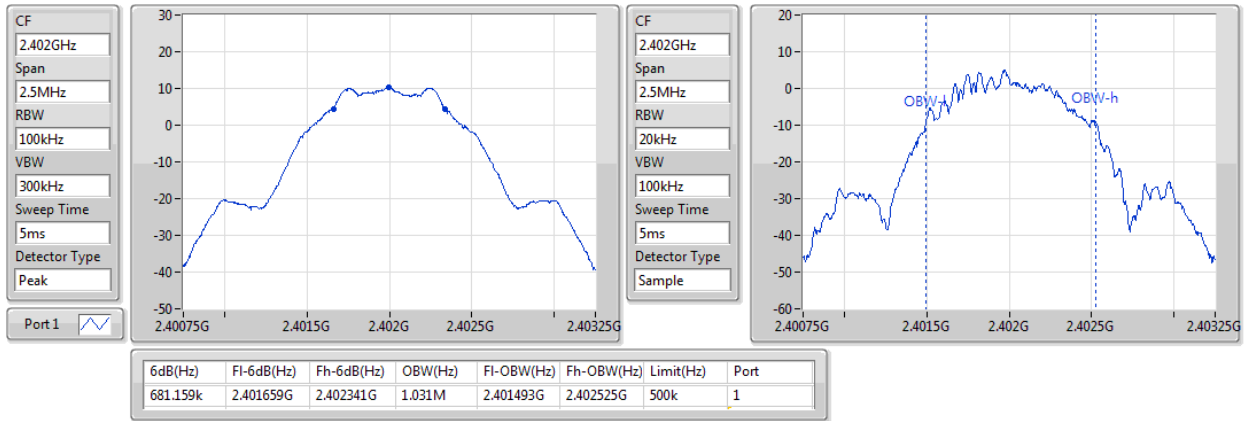
**2480MHz**



### BT-LE(1Mbps)

### EBW-DTS

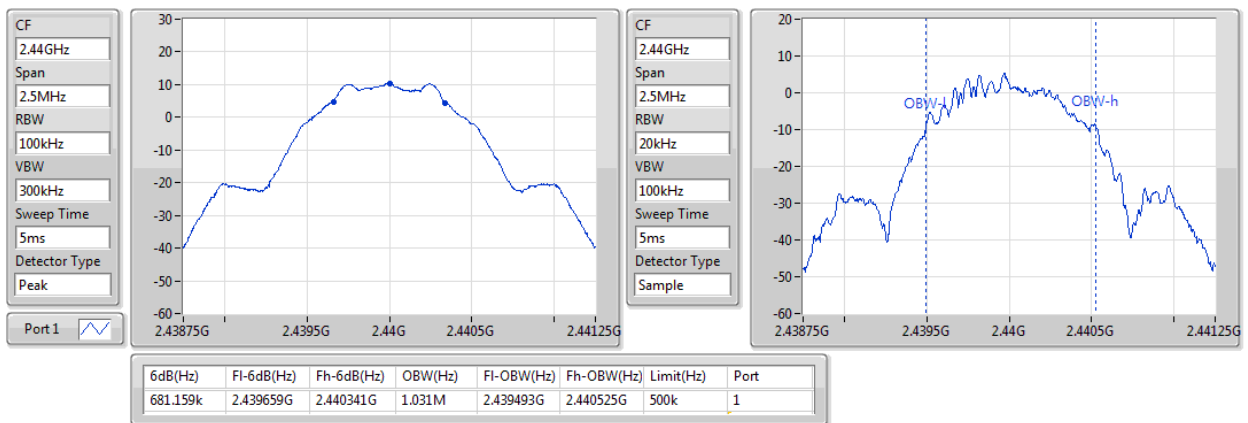
2402MHz



### BT-LE(1Mbps)

### EBW-DTS

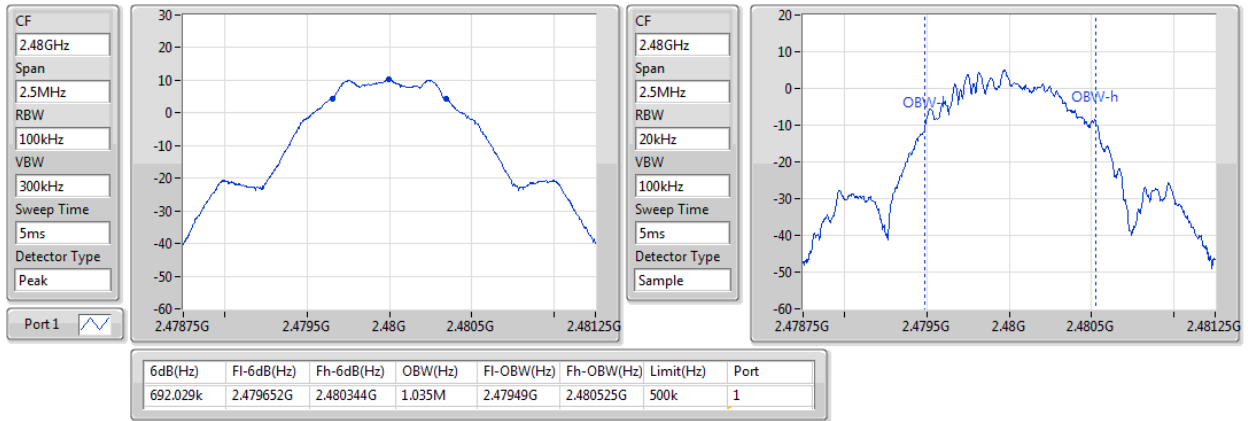
2440MHz



### BT-LE(1Mbps)

### EBW-DTS

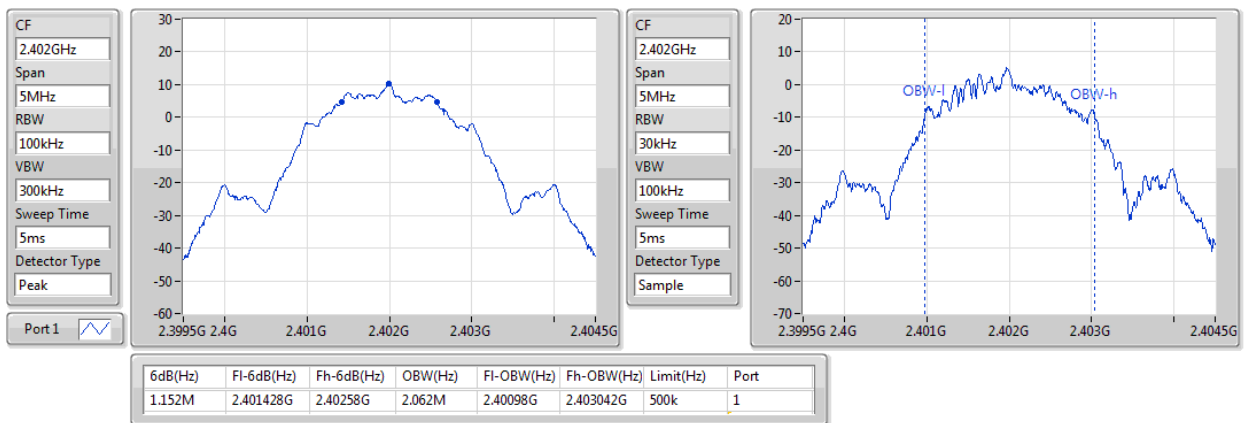
#### 2480MHz



### BT-LE(2Mbps)

### EBW-DTS

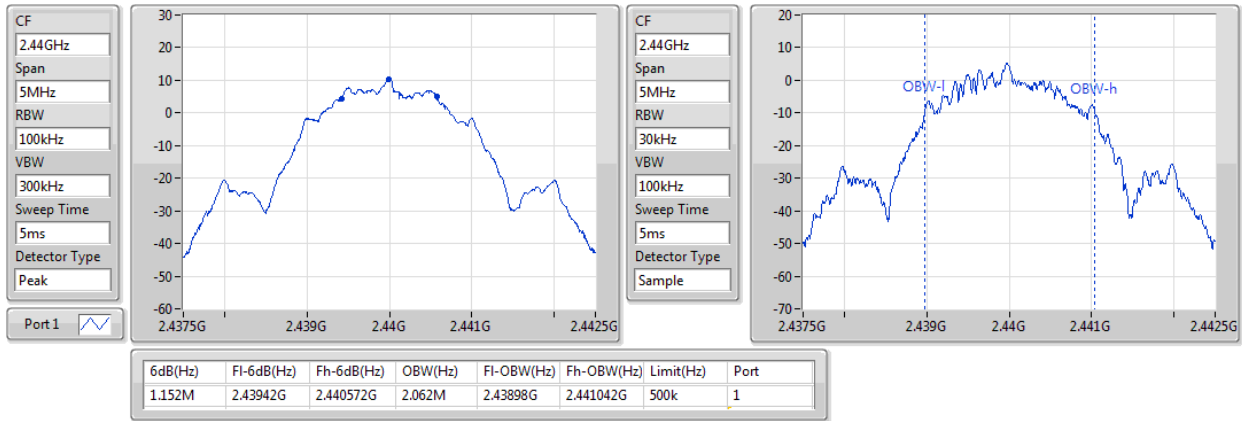
#### 2402MHz



### BT-LE(2Mbps)

### EBW-DTS

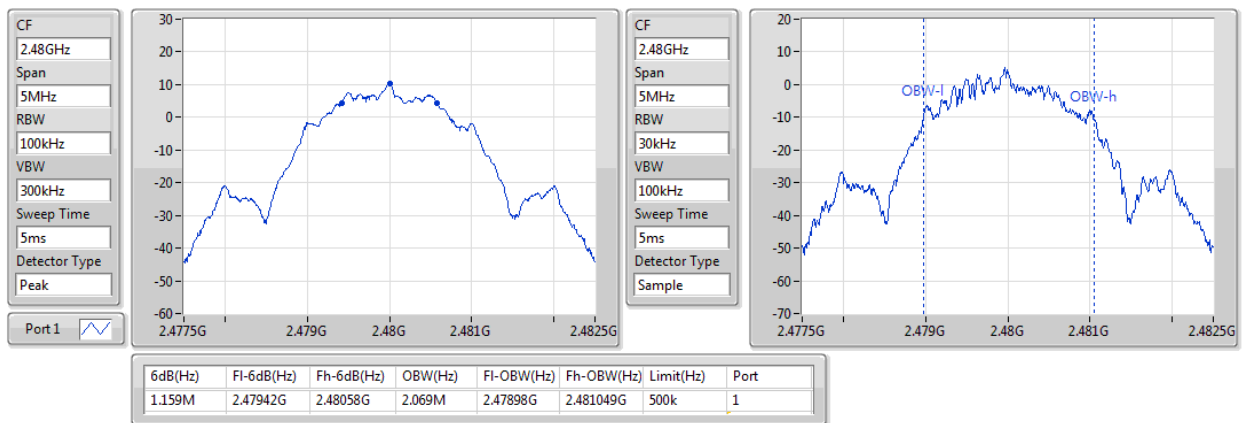
#### 2440MHz



### BT-LE(2Mbps)

### EBW-DTS

#### 2480MHz



### 3.3 RF Output Power

#### 3.3.1 Limit of RF Output Power

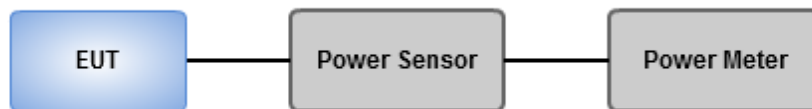
Conducted power shall not exceed 1Watt.

Antenna gain  $\leq 6\text{dBi}$ , no any corresponding reduction is in output power limit.

#### 3.3.2 Test Procedures

A broadband RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.

#### 3.3.3 Test Setup



### 3.3.4 Test Result of Maximum Output Power

<b>Ambient Condition</b>	21°C / 67%	<b>Tested By</b>	Aska Huang
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#### Summary of Peak Conducted Output Power

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	10.93	0.01239
BT-LE(500kbps)	10.94	0.01242
BT-LE(1Mbps)	11.02	0.01265
BT-LE(2Mbps)	10.95	0.01245

#### Result

Mode	Result	Antenna Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	4.87	10.79	30.00
2440MHz	Pass	4.87	10.93	30.00
2480MHz	Pass	4.87	10.91	30.00
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	4.87	10.79	30.00
2440MHz	Pass	4.87	10.94	30.00
2480MHz	Pass	4.87	10.92	30.00
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.87	10.85	30.00
2440MHz	Pass	4.87	10.99	30.00
2480MHz	Pass	4.87	11.02	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.87	10.81	30.00
2440MHz	Pass	4.87	10.95	30.00
2480MHz	Pass	4.87	10.93	30.00



### Summary of Conducted (Average) Output Power

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	10.84	0.01213
BT-LE(500kbps)	10.85	0.01216
BT-LE(1Mbps)	10.90	0.01230
BT-LE(2Mbps)	10.86	0.01219

### Result

Mode	Result	Antenna Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	4.87	10.63	-
2440MHz	Pass	4.87	10.84	-
2480MHz	Pass	4.87	10.80	-
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	4.87	10.63	-
2440MHz	Pass	4.87	10.85	-
2480MHz	Pass	4.87	10.81	-
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.87	10.71	-
2440MHz	Pass	4.87	10.88	-
2480MHz	Pass	4.87	10.90	-
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.87	10.64	-
2440MHz	Pass	4.87	10.86	-
2480MHz	Pass	4.87	10.82	-

Note: Average power is for reference only.

## 3.4 Power Spectral Density

### 3.4.1 Limit of Power Spectral Density

Power spectral density shall not be greater than 8 dBm in any 3 kHz band.

### 3.4.2 Test Procedures

#### Peak PSD

1. Set the RBW = 3 kHz, VBW = 10 kHz.
2. Detector = Peak, Sweep time = auto couple.
3. Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

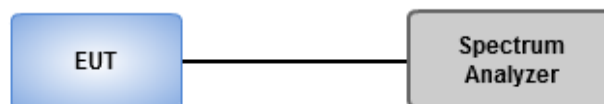
#### Average PSD, duty cycle $\geq 98\%$

1. Set the RBW = 30 kHz, VBW = 100 kHz.
2. Detector = RMS, Sweep time = auto couple.
3. Sweep time = auto couple.
4. Employ trace averaging (RMS) mode over a minimum of 100 traces.
5. Use the peak marker function to determine the maximum amplitude level.

#### Average PSD, duty cycle $< 98\%$

1. Set the RBW = 30 kHz, VBW = 100 kHz. Detector = RMS.
2. Set the sweep time to:  $\geq 10$  (number of measurement points in sweep) x (total on/off period of the transmitted signal).
3. Perform the measurement over a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add  $10 \log (1/x)$ , where x is the duty cycle.

### 3.4.3 Test Setup



### 3.4.4 Test Result of Power Spectral Density

<b>Ambient Condition</b>	21°C / 67%	<b>Tested By</b>	Aska Huang
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#### Summary

Mode	PD (dBm/3kHz)
2.4-2.4835GHz	-
BT-LE(125kbps)	4.80
BT-LE(500kbps)	4.68
BT-LE(1Mbps)	-3.99
BT-LE(2Mbps)	-6.45

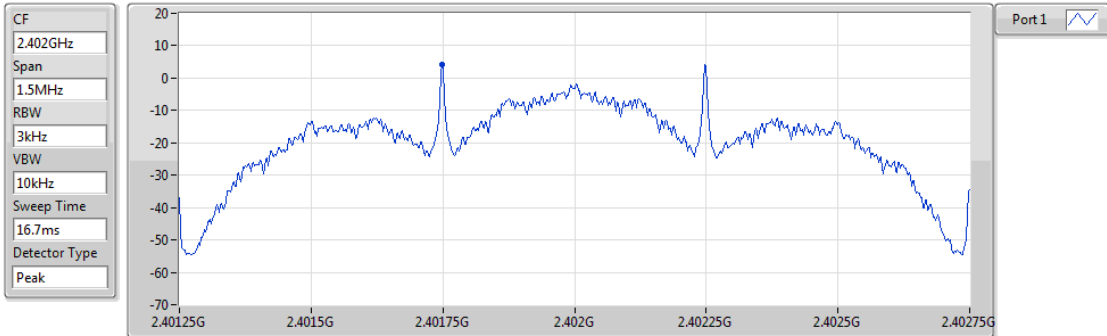
#### Result

Mode	Result	Antenna Gain (dBi)	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	4.87	4.18	8.00
2440MHz	Pass	4.87	4.80	8.00
2480MHz	Pass	4.87	4.60	8.00
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	4.87	4.57	8.00
2440MHz	Pass	4.87	4.68	8.00
2480MHz	Pass	4.87	4.49	8.00
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.87	-4.03	8.00
2440MHz	Pass	4.87	-3.99	8.00
2480MHz	Pass	4.87	-4.17	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.87	-6.55	8.00
2440MHz	Pass	4.87	-6.45	8.00
2480MHz	Pass	4.87	-6.65	8.00

### BT-LE(125kbps)

PSD

2402MHz

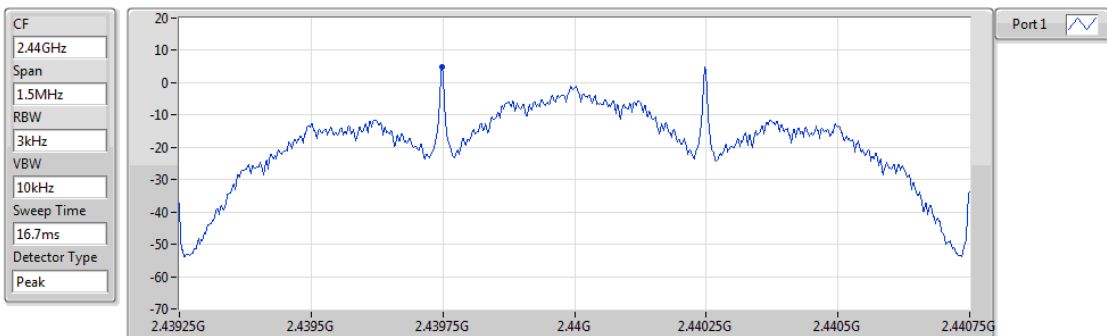


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.18	4.18	4.18

### BT-LE(125kbps)

PSD

2440MHz

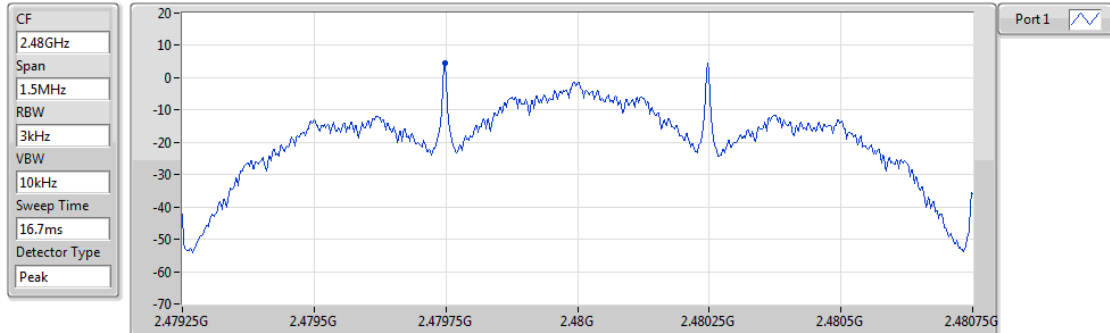


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.80	4.80	4.80

### BT-LE(125kbps)

PSD

2480MHz

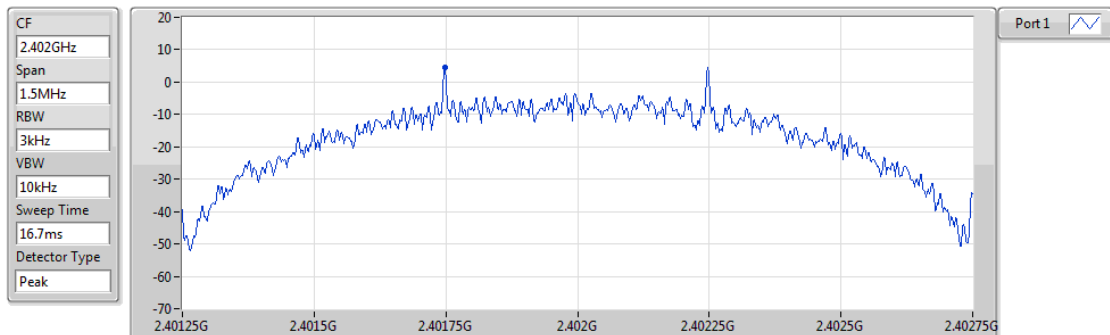


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.60	4.60	4.60

### BT-LE(500kbps)

PSD

2402MHz

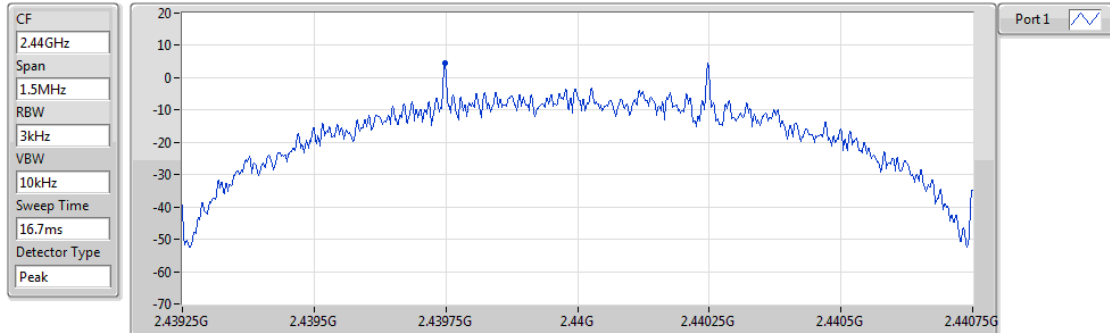


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.57	4.57	4.57

### BT-LE(500kbps)

PSD

2440MHz

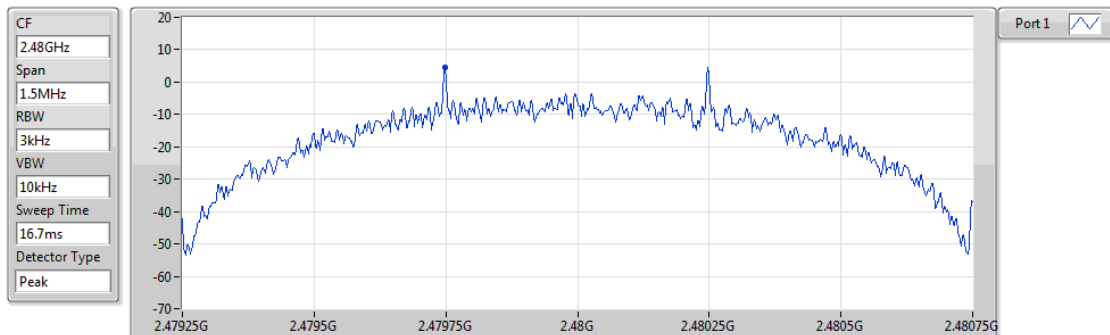


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.68	4.68	4.68

### BT-LE(500kbps)

PSD

2480MHz

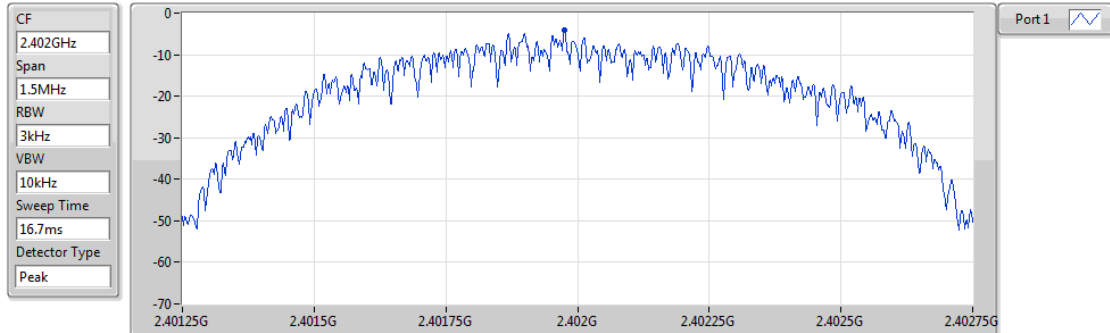


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.49	4.49	4.49

### BT-LE(1Mbps)

PSD

2402MHz

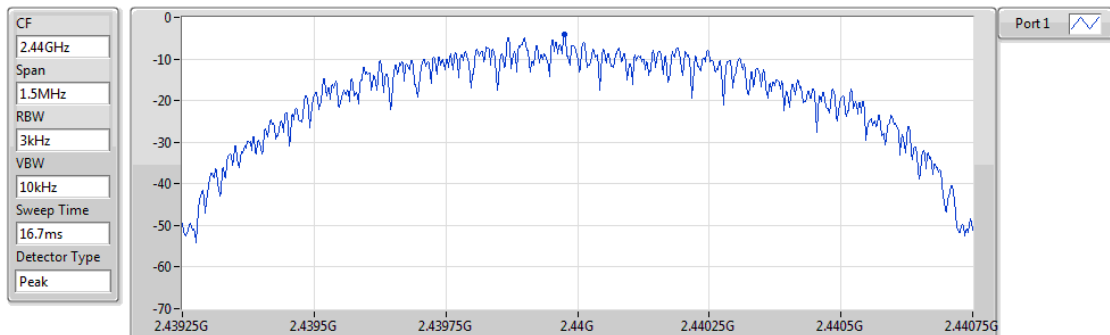


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.03	-4.03	-4.03

### BT-LE(1Mbps)

PSD

2440MHz

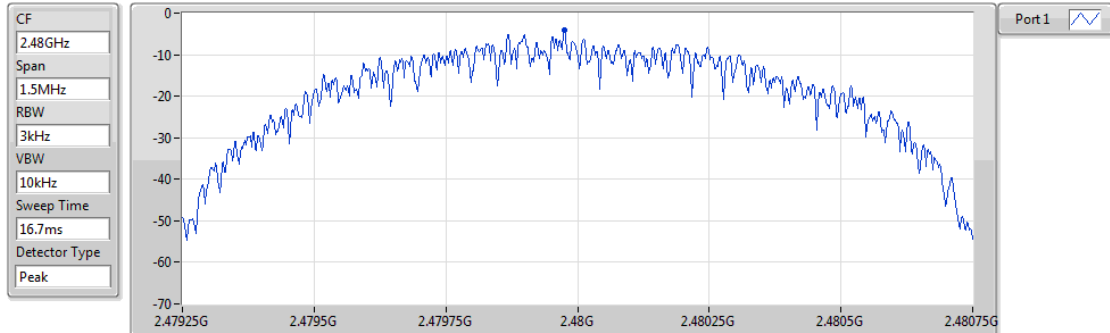


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.99	-3.99	-3.99

### BT-LE(1Mbps)

PSD

2480MHz

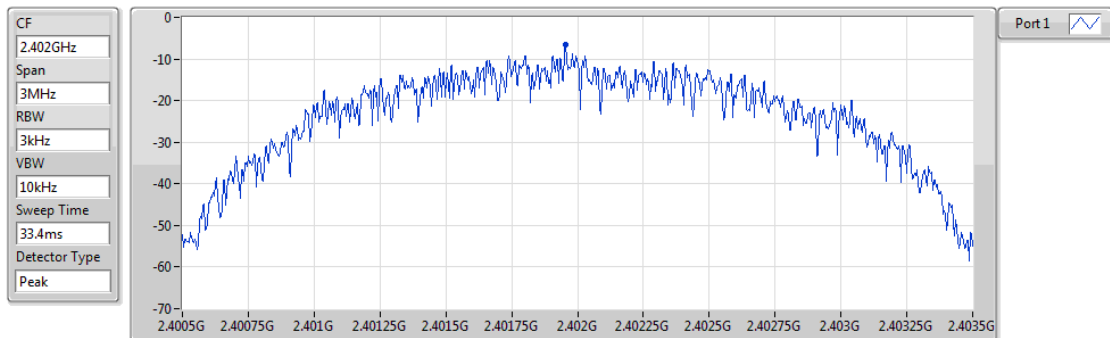


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.17	-4.17	-4.17

### BT-LE(2Mbps)

PSD

2402MHz



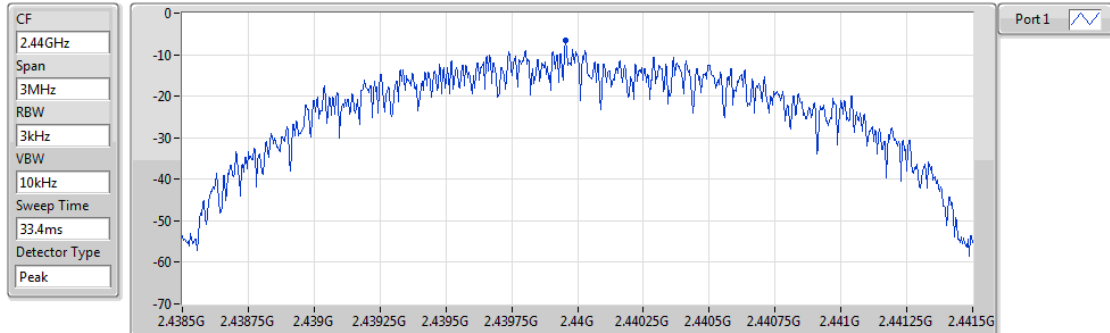
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.55	-6.55	-6.55



### BT-LE(2Mbps)

PSD

2440MHz

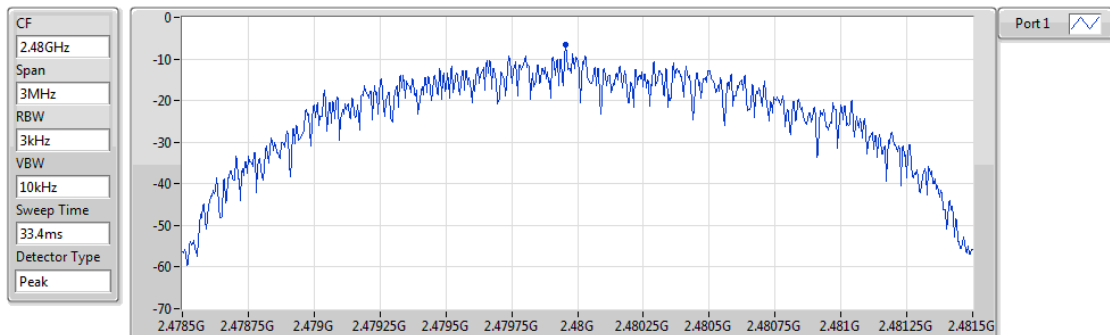


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.45	-6.45	-6.45

### BT-LE(2Mbps)

PSD

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.65	-6.65	-6.65

## 3.5 Emissions in Restricted Frequency Bands

### 3.5.1 Limit of Emissions in Restricted Frequency Bands

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

**Note 1:**  
Quasi-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

**Note 2:**  
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

### 3.5.2 Test Procedures

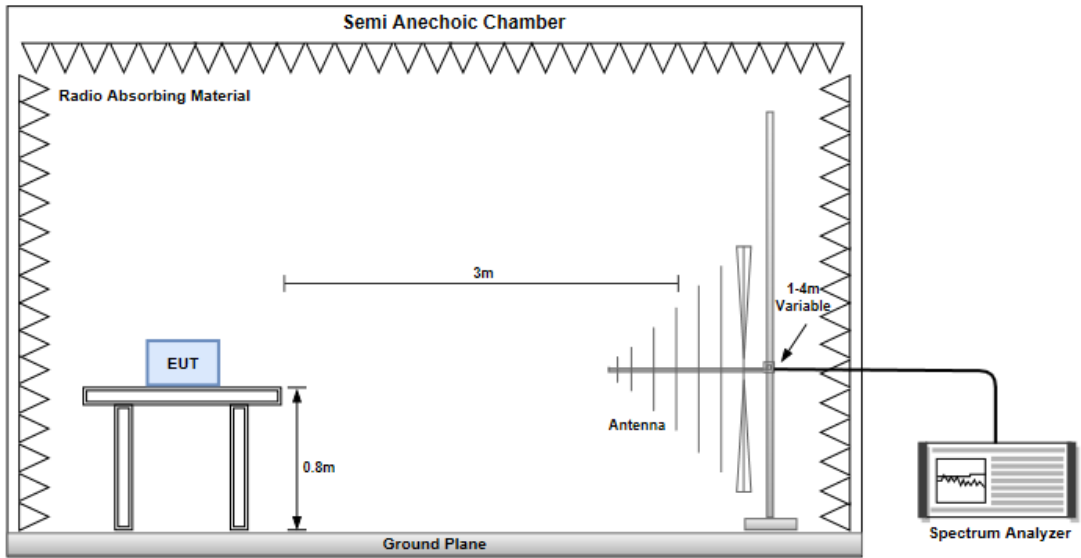
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

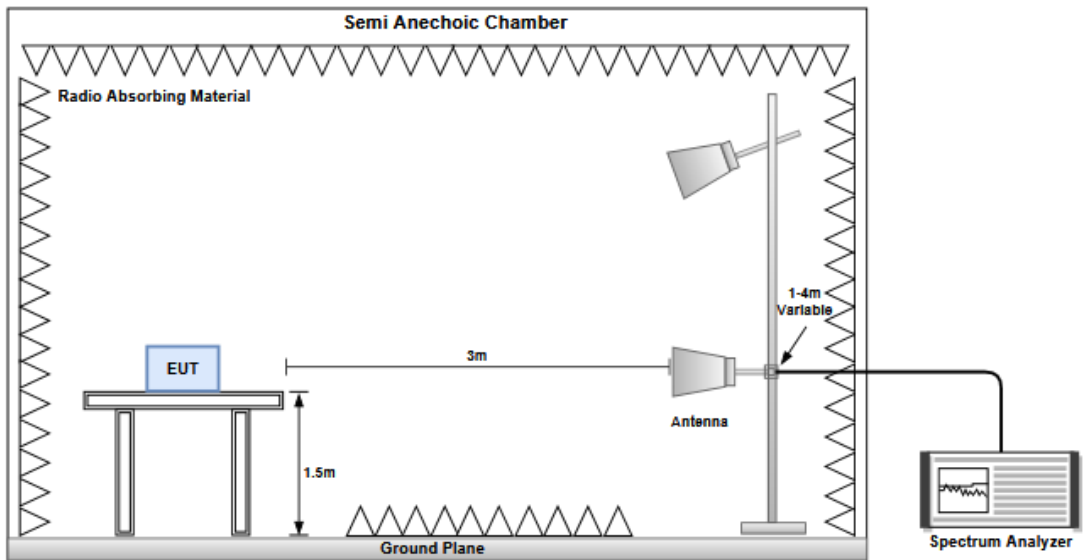
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

### 3.5.3 Test Setup

#### Radiated Emissions below 1 GHz



#### Radiated Emissions above 1 GHz

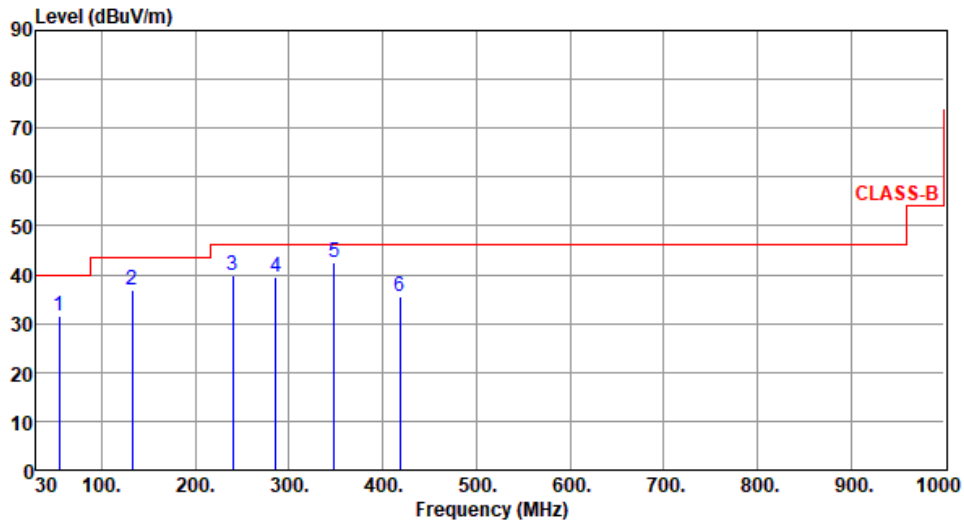


## Test Configuration 1

### 3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Horizontal		

Test By :Brad Wu      Temperature(°C):24      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	54.59	31.57	40.00	-8.43	40.55	-8.98	Peak	---	---
2	132.56	36.95	43.50	-6.55	46.58	-9.63	Peak	---	---
3	239.61	39.81	46.00	-6.19	50.24	-10.43	Peak	---	---
4	286.26	39.61	46.00	-6.39	48.12	-8.51	Peak	---	---
5	347.95	42.67	46.00	-3.33	49.80	-7.13	Peak	---	---
6	418.29	35.62	46.00	-10.38	40.85	-5.23	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

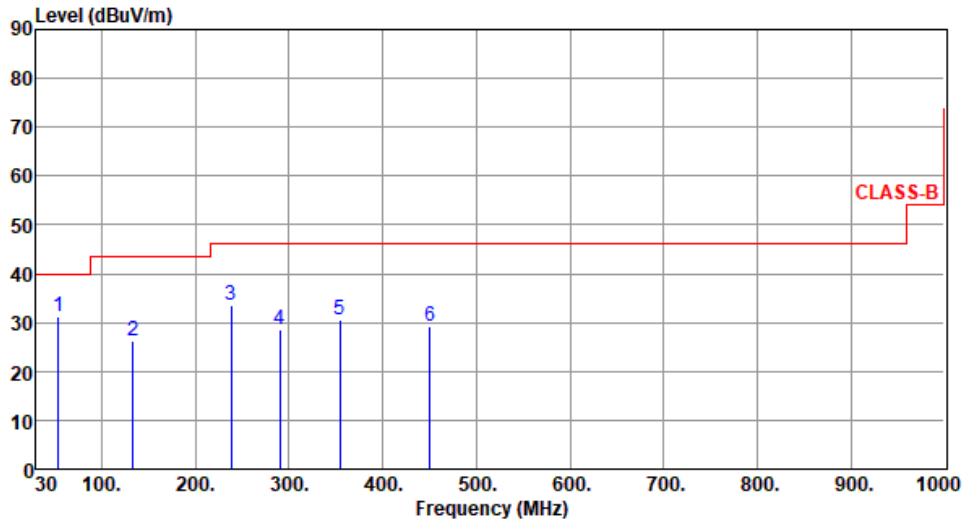
\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):24      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	53.86	31.37	40.00	-8.63	40.31	-8.94	Peak	---	---
2	133.59	26.15	43.50	-17.35	35.69	-9.54	Peak	---	---
3	238.12	33.61	46.00	-12.39	44.19	-10.58	Peak	---	---
4	290.59	28.64	46.00	-17.36	36.98	-8.34	Peak	---	---
5	354.29	30.59	46.00	-15.41	37.49	-6.90	Peak	---	---
6	450.58	29.37	46.00	-16.63	33.60	-4.23	Peak	---	---

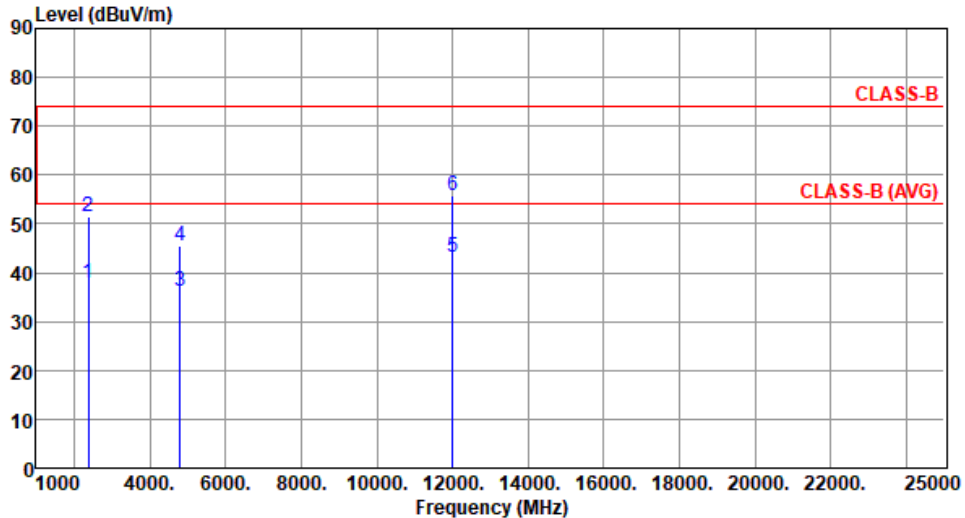
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

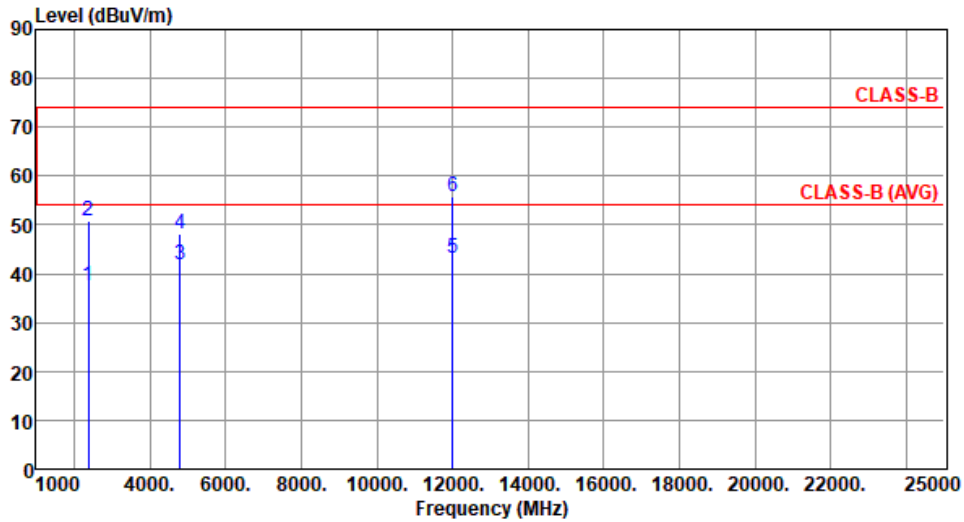
### 3.5.5 Transmitter Radiated Unwanted Emissions (Above 1GHz)

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2402						
<b>Polarization</b>	Horizontal								
Test By : Roger Lu      Temperature(°C):21      Humidity(%):68									
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		cm	deg
1	2390.00	37.90	54.00	-16.10	40.65	-2.75	Average	153	178
2	2390.00	51.31	74.00	-22.69	54.06	-2.75	Peak	153	178
3	4804.00	36.28	54.00	-17.72	32.15	4.13	Average	100	141
4	4804.00	45.66	74.00	-28.34	41.53	4.13	Peak	100	141
5	12010.00	43.04	54.00	-10.96	29.42	13.62	Average	100	30
6	12010.00	55.73	74.00	-18.27	42.11	13.62	Peak	100	30

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)  
\*Factor includes antenna factor , cable loss and amplifier gain  
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2402
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):21      Humidity(%):68

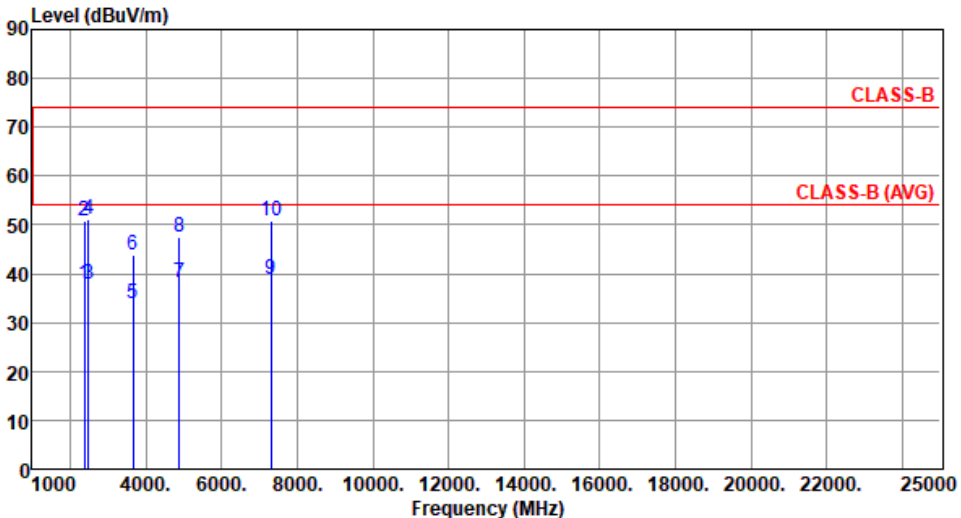


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.47	54.00	-16.53	40.22	-2.75	Average	100	276
2	2390.00	50.93	74.00	-23.07	53.68	-2.75	Peak	100	276
3	4804.00	41.71	54.00	-12.29	37.58	4.13	Average	100	90
4	4804.00	48.15	74.00	-25.85	44.02	4.13	Peak	100	90
5	12010.00	43.20	54.00	-10.80	29.58	13.62	Average	100	40
6	12010.00	55.93	74.00	-18.07	42.31	13.62	Peak	100	40

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

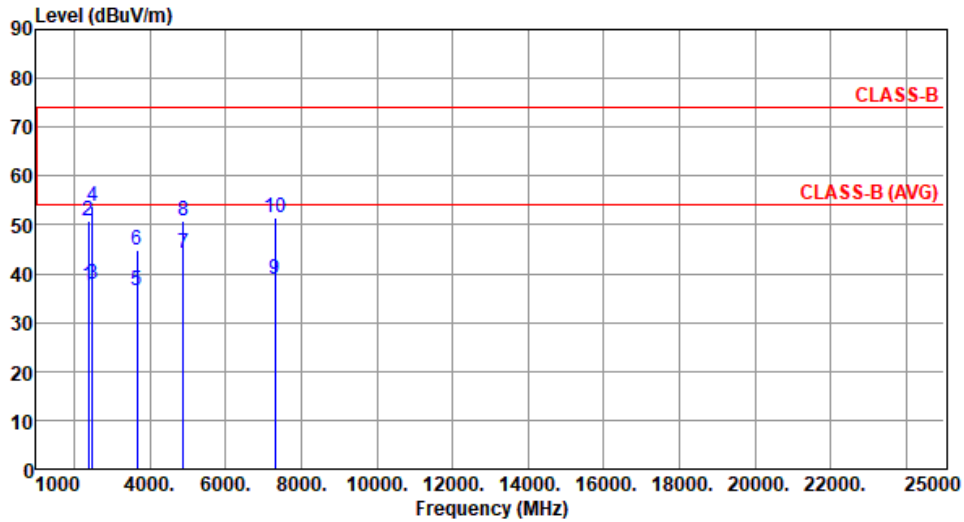
<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2440						
<b>Polarization</b>	Horizontal								
Test By :Roger Lu      Temperature(°C):21      Humidity(%):68									
 <p>The graph displays emission levels for various frequencies. The y-axis represents Level (dBuV/m) from 0 to 90, and the x-axis represents Frequency (MHz) from 1000 to 25000. Two horizontal red lines indicate limits: CLASS-B at approximately 74 dBuV/m and CLASS-B (AVG) at approximately 54 dBuV/m. Vertical blue lines with labels 2 through 10 represent individual test points. The data points are summarized in the table below.</p>									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.81	54.00	-16.19	40.56	-2.75	Average	155	176
2	2390.00	50.93	74.00	-23.07	53.68	-2.75	Peak	155	176
3	2483.50	37.98	54.00	-16.02	40.68	-2.70	Average	155	176
4	2483.50	51.15	74.00	-22.85	53.85	-2.70	Peak	155	176
5	3660.00	33.86	54.00	-20.14	33.16	0.70	Average	195	85
6	3660.00	43.80	74.00	-30.20	43.10	0.70	Peak	195	85
7	4880.00	38.03	54.00	-15.97	33.91	4.12	Average	100	138
8	4880.00	47.58	74.00	-26.42	43.46	4.12	Peak	100	138
9	7320.00	38.70	54.00	-15.30	29.42	9.28	Average	100	40
10	7320.00	50.87	74.00	-23.13	41.59	9.28	Peak	100	40

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)  
 \*Factor includes antenna factor , cable loss and amplifier gain  
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).



<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2440
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):21      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.47	54.00	-16.53	40.22	-2.75	Average	100	274
2	2390.00	50.71	74.00	-23.29	53.46	-2.75	Peak	100	274
3	2483.50	37.78	54.00	-16.22	40.48	-2.70	Average	100	274
4	2483.50	53.66	74.00	-20.34	56.36	-2.70	Peak	100	274
5	3660.00	36.68	54.00	-17.32	35.98	0.70	Average	255	86
6	3660.00	44.94	74.00	-29.06	44.24	0.70	Peak	255	86
7	4880.00	44.17	54.00	-9.83	40.05	4.12	Average	100	75
8	4880.00	50.92	74.00	-23.08	46.80	4.12	Peak	100	75
9	7320.00	38.88	54.00	-15.12	29.60	9.28	Average	100	30
10	7320.00	51.44	74.00	-22.56	42.16	9.28	Peak	100	30

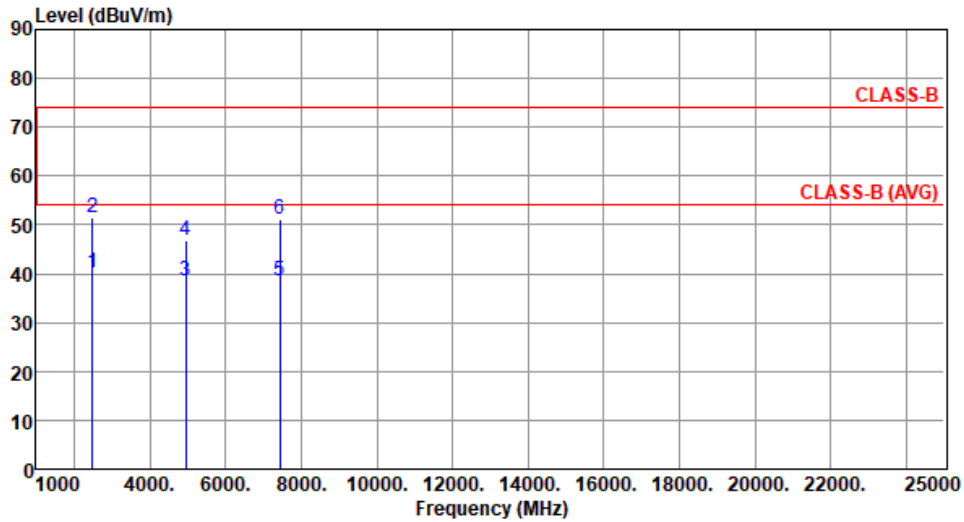
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):21      Humidity(%):68



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	40.22	54.00	-13.78	42.92	-2.70	Average	151	178
2	2483.50	51.63	74.00	-22.37	54.33	-2.70	Peak	151	178
3	4960.00	38.58	54.00	-15.42	34.55	4.03	Average	100	142
4	4960.00	46.71	74.00	-27.29	42.68	4.03	Peak	100	142
5	7440.00	38.63	54.00	-15.37	29.26	9.37	Average	100	30
6	7440.00	51.13	74.00	-22.87	41.76	9.37	Peak	100	30

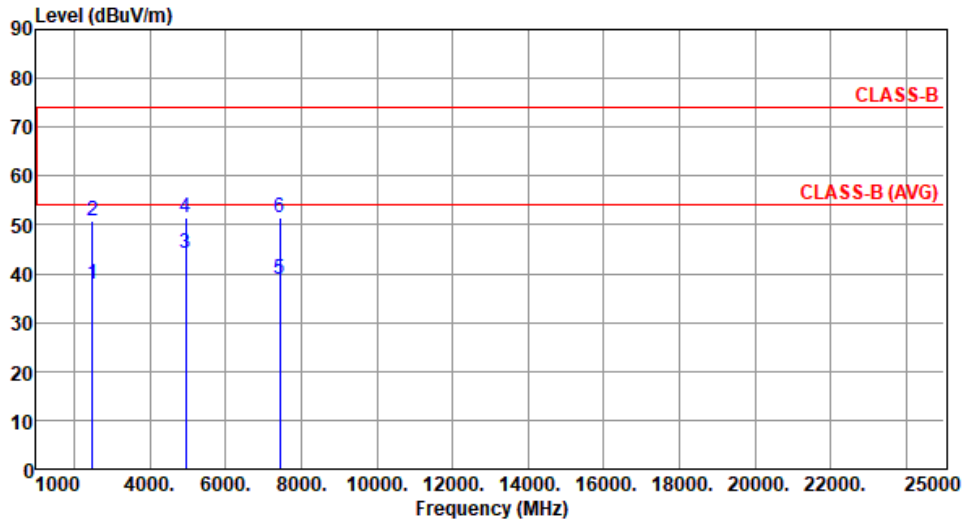
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):21      Humidity(%):68

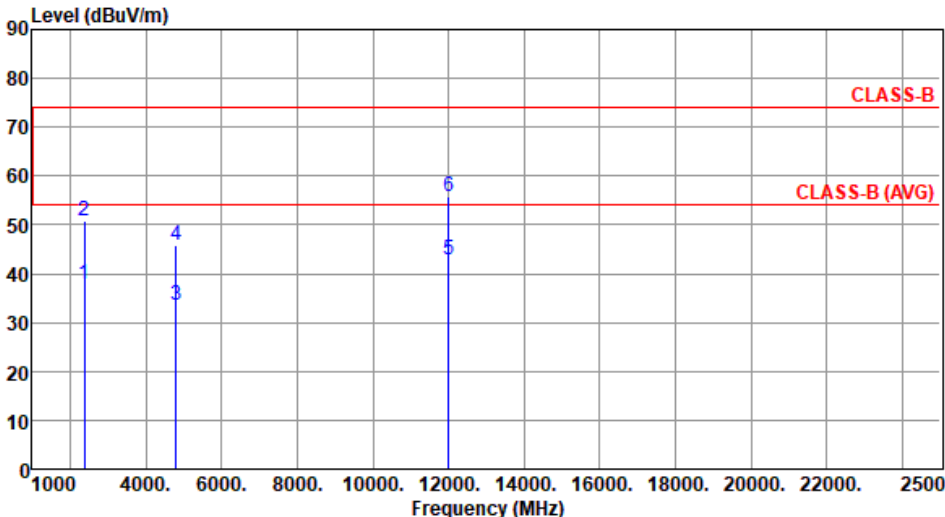


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	37.85	54.00	-16.15	40.55	-2.70	Average	100	277
2	2483.50	50.95	74.00	-23.05	53.65	-2.70	Peak	100	277
3	4960.00	44.28	54.00	-9.72	40.25	4.03	Average	105	89
4	4960.00	51.48	74.00	-22.52	47.45	4.03	Peak	105	89
5	7440.00	38.83	54.00	-15.17	29.46	9.37	Average	100	20
6	7440.00	51.44	74.00	-22.56	42.07	9.37	Peak	100	20

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

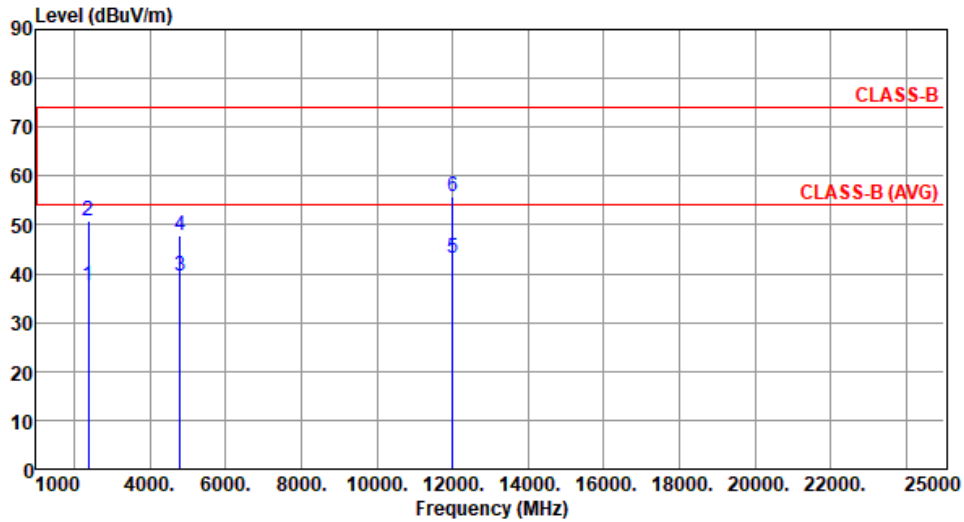
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2402						
<b>Polarization</b>	Horizontal								
Test By : Roger Lu		Temperature(°C): 21			Humidity(%): 68				
									
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
	MHz	level	dBuV/m	dB	reading	dB/m		High	Table
		dBuV/m			dBuV			cm	deg
1	2390.00	37.93	54.00	-16.07	40.68	-2.75	Average	153	179
2	2390.00	50.92	74.00	-23.08	53.67	-2.75	Peak	153	179
3	4804.00	33.38	54.00	-20.62	29.25	4.13	Average	100	135
4	4804.00	45.81	74.00	-28.19	41.68	4.13	Peak	100	135
5	12010.00	42.87	54.00	-11.13	29.25	13.62	Average	100	20
6	12010.00	55.68	74.00	-18.32	42.06	13.62	Peak	100	20

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)  
\*Factor includes antenna factor , cable loss and amplifier gain  
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2402
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):21      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.63	54.00	-16.37	40.38	-2.75	Average	100	273
2	2390.00	50.68	74.00	-23.32	53.43	-2.75	Peak	100	273
3	4804.00	39.38	54.00	-14.62	35.25	4.13	Average	100	88
4	4804.00	47.72	74.00	-26.28	43.59	4.13	Peak	100	88
5	12010.00	43.03	54.00	-10.97	29.41	13.62	Average	100	30
6	12010.00	55.81	74.00	-18.19	42.19	13.62	Peak	100	30

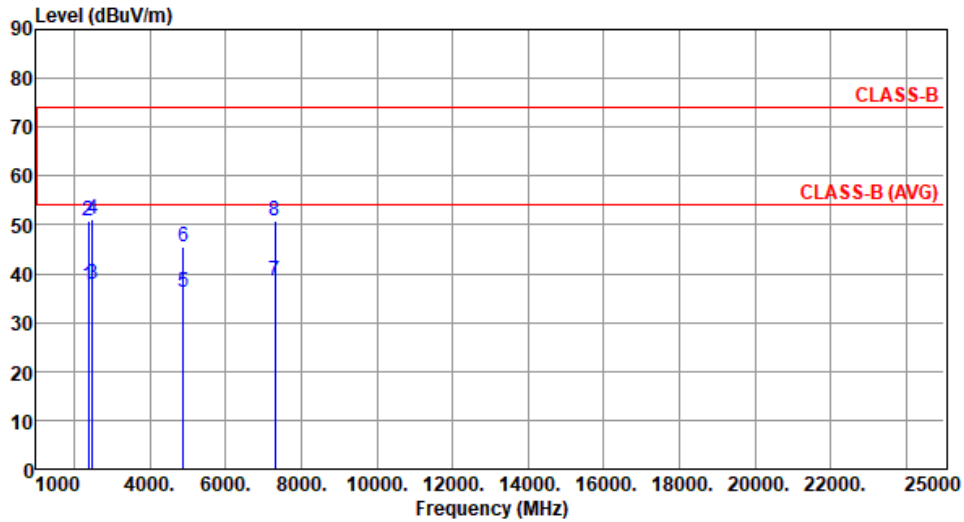
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2440
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):21      Humidity(%):68

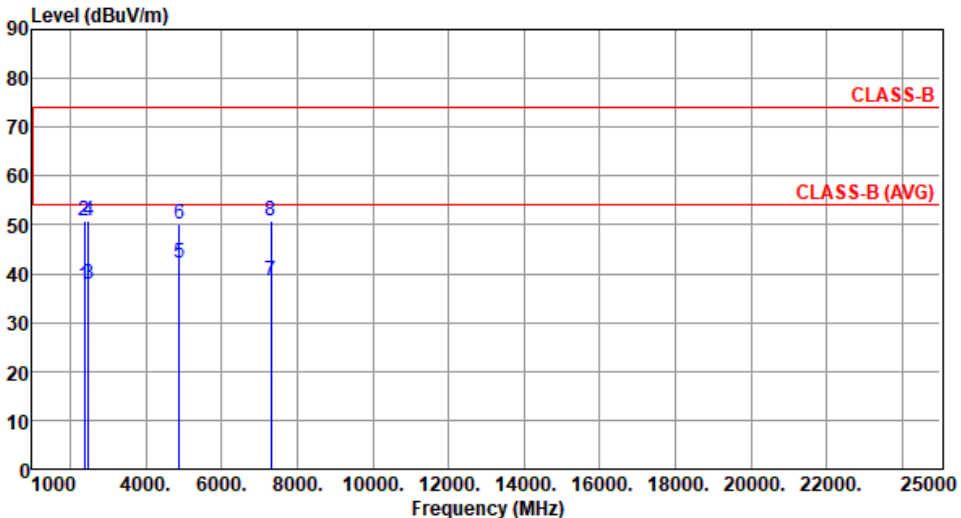


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.67	54.00	-16.33	40.42	-2.75	Average	155	177
2	2390.00	50.84	74.00	-23.16	53.59	-2.75	Peak	155	177
3	2483.50	38.01	54.00	-15.99	40.71	-2.70	Average	155	177
4	2483.50	50.99	74.00	-23.01	53.69	-2.70	Peak	155	177
5	4880.00	36.07	54.00	-17.93	31.95	4.12	Average	100	136
6	4880.00	45.50	74.00	-28.50	41.38	4.12	Peak	100	136
7	7320.00	38.53	54.00	-15.47	29.25	9.28	Average	100	40
8	7320.00	50.83	74.00	-23.17	41.55	9.28	Peak	100	40

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

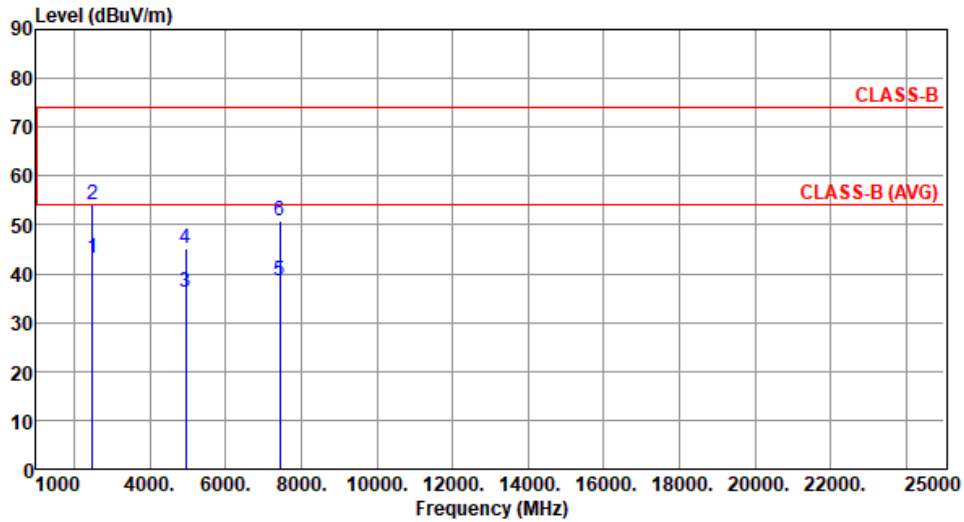
\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2440						
<b>Polarization</b>	Vertical								
Test By : Roger Lu		Temperature(°C): 21	Humidity(%): 68						
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		cm	deg
1	2390.00	37.40	54.00	-16.60	40.15	-2.75	Average	100	271
2	2390.00	50.67	74.00	-23.33	53.42	-2.75	Peak	100	271
3	2483.50	37.85	54.00	-16.15	40.55	-2.70	Average	100	271
4	2483.50	50.73	74.00	-23.27	53.43	-2.70	Peak	100	271
5	4880.00	42.14	54.00	-11.86	38.02	4.12	Average	100	70
6	4880.00	50.27	74.00	-23.73	46.15	4.12	Peak	100	70
7	7320.00	38.39	54.00	-15.61	29.11	9.28	Average	100	60
8	7320.00	50.65	74.00	-23.35	41.37	9.28	Peak	100	60
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)          *Factor includes antenna factor , cable loss and amplifier gain          Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>									

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):21      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	43.15	54.00	-10.85	45.85	-2.70	Average	152	177
2	2483.50	54.02	74.00	-19.98	56.72	-2.70	Peak	152	177
3	4960.00	36.09	54.00	-17.91	32.06	4.03	Average	100	142
4	4960.00	45.29	74.00	-28.71	41.26	4.03	Peak	100	142
5	7440.00	38.53	54.00	-15.47	29.16	9.37	Average	100	60
6	7440.00	50.80	74.00	-23.20	41.43	9.37	Peak	100	60

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

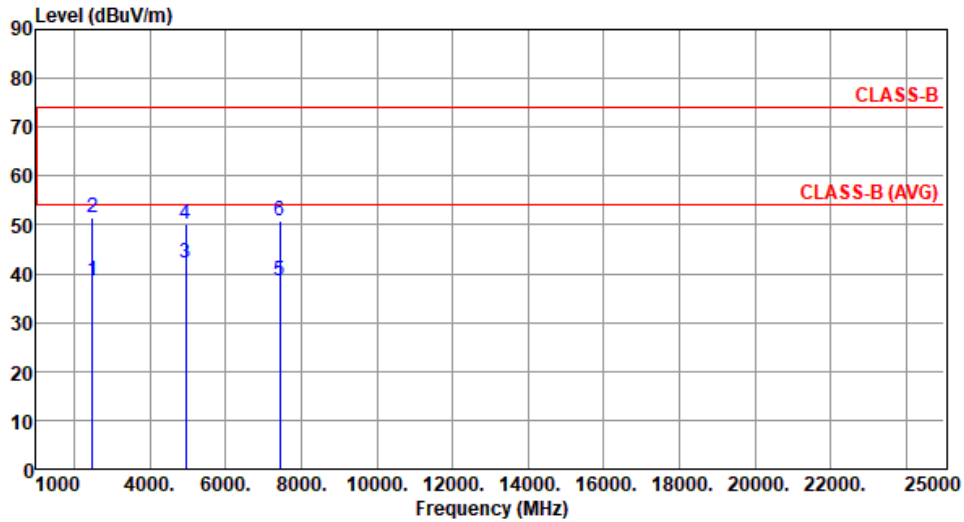
\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).



<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):21      Humidity(%):68



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	38.56	54.00	-15.44	41.26	-2.70	Average	100	276
2	2483.50	51.41	74.00	-22.59	54.11	-2.70	Peak	100	276
3	4960.00	42.10	54.00	-11.90	38.07	4.03	Average	106	92
4	4960.00	50.27	74.00	-23.73	46.24	4.03	Peak	106	92
5	7440.00	38.66	54.00	-15.34	29.29	9.37	Average	100	70
6	7440.00	50.93	74.00	-23.07	41.56	9.37	Peak	100	70

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

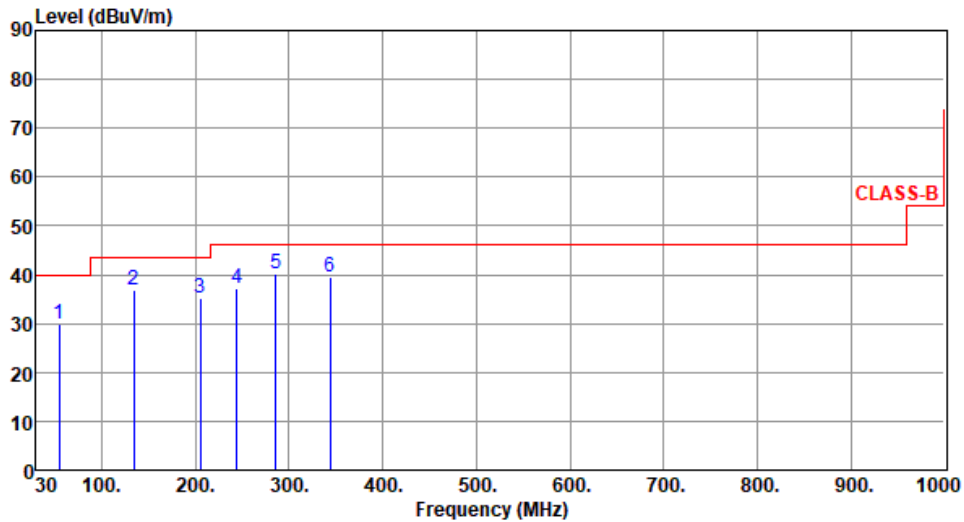
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

## Test Configuration 2

### 3.5.6 Transmitter Radiated Unwanted Emissions (Below 1GHz)

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Horizontal		

Test By :Brad Wu      Temperature(°C):24      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	54.86	29.86	40.00	-10.14	38.84	-8.98	Peak	---	---
2	134.15	36.85	43.50	-6.65	46.31	-9.46	Peak	---	---
3	205.12	35.16	43.50	-8.34	47.13	-11.97	Peak	---	---
4	244.56	37.29	46.00	-8.71	47.48	-10.19	Peak	---	---
5	285.56	40.03	46.00	-5.97	48.58	-8.55	Peak	---	---
6	344.15	39.58	46.00	-6.42	46.80	-7.22	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

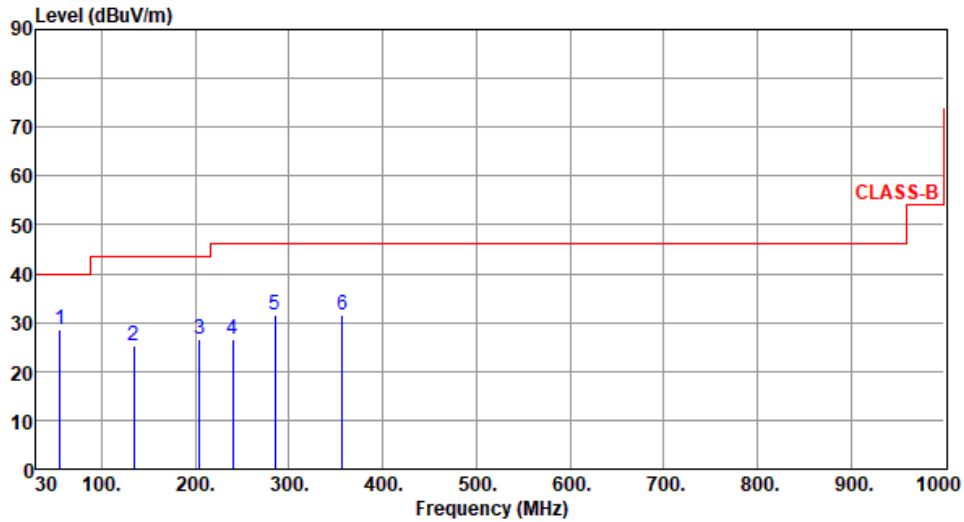
\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):24      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	55.59	28.46	40.00	-11.54	37.45	-8.99	Peak	---	---
2	134.58	25.16	43.50	-18.34	34.62	-9.46	Peak	---	---
3	204.83	26.59	43.50	-16.91	38.56	-11.97	Peak	---	---
4	240.22	26.65	46.00	-19.35	37.03	-10.38	Peak	---	---
5	284.59	31.57	46.00	-14.43	40.15	-8.58	Peak	---	---
6	357.16	31.59	46.00	-14.41	38.37	-6.78	Peak	---	---

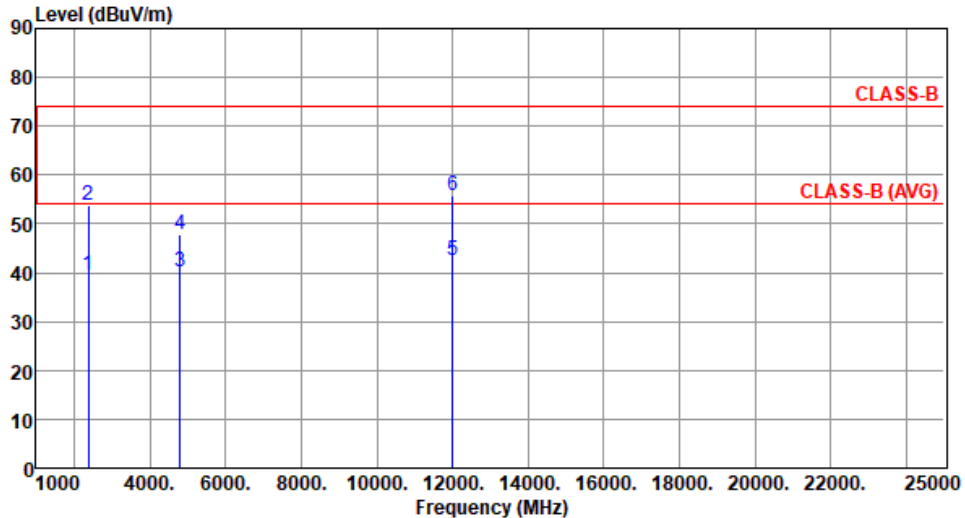
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

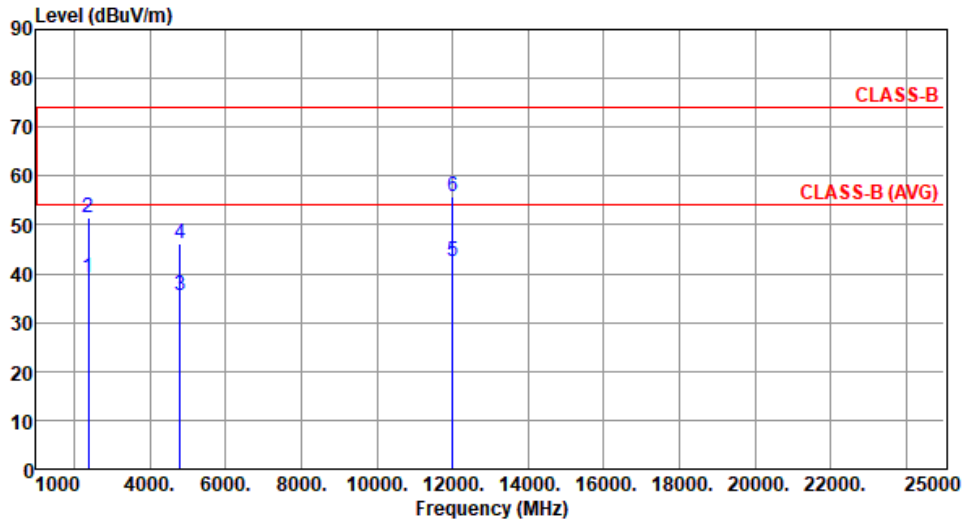
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

### 3.5.7 Transmitter Radiated Unwanted Emissions (Above 1GHz)

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2402						
<b>Polarization</b>	Horizontal								
Test By : Roger Lu      Temperature(°C):23      Humidity(%):65									
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m		cm	deg
1	2390.00	39.38	54.00	-14.62	42.13	-2.75	Average	196	94
2	2390.00	53.66	74.00	-20.34	56.41	-2.75	Peak	196	94
3	4804.00	40.06	54.00	-13.94	35.93	4.13	Average	222	209
4	4804.00	47.72	74.00	-26.28	43.59	4.13	Peak	222	209
5	12010.00	42.65	54.00	-11.35	29.03	13.62	Average	100	12
6	12010.00	55.69	74.00	-18.31	42.07	13.62	Peak	100	12
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)          *Factor includes antenna factor , cable loss and amplifier gain          Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>									

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2402
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	39.25	54.00	-14.75	42.00	-2.75	Average	100	104
2	2390.00	51.59	74.00	-22.41	54.34	-2.75	Peak	100	104
3	4804.00	35.65	54.00	-18.35	31.52	4.13	Average	100	24
4	4804.00	46.11	74.00	-27.89	41.98	4.13	Peak	100	24
5	12010.00	42.66	54.00	-11.34	29.04	13.62	Average	100	33
6	12010.00	55.83	74.00	-18.17	42.21	13.62	Peak	100	33

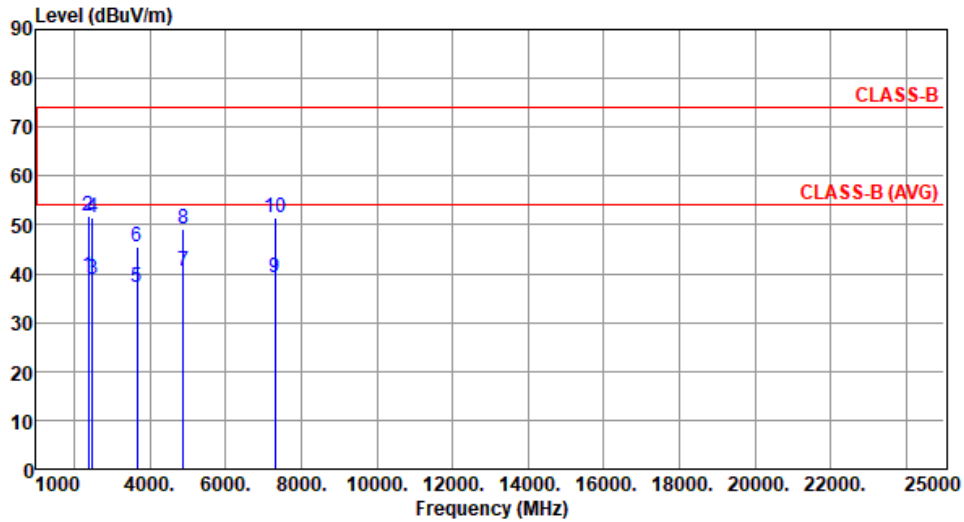
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2440
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	39.45	54.00	-14.55	42.20	-2.75	Average	190	93
2	2390.00	51.95	74.00	-22.05	54.70	-2.75	Peak	190	93
3	2483.50	38.94	54.00	-15.06	41.64	-2.70	Average	190	93
4	2483.50	51.55	74.00	-22.45	54.25	-2.70	Peak	190	93
5	3660.00	37.07	54.00	-16.93	36.37	0.70	Average	100	53
6	3660.00	45.65	74.00	-28.35	44.95	0.70	Peak	100	53
7	4880.00	40.37	54.00	-13.63	36.25	4.12	Average	221	203
8	4880.00	49.14	74.00	-24.86	45.02	4.12	Peak	221	203
9	7320.00	39.20	54.00	-14.80	29.92	9.28	Average	100	45
10	7320.00	51.36	74.00	-22.64	42.08	9.28	Peak	100	45

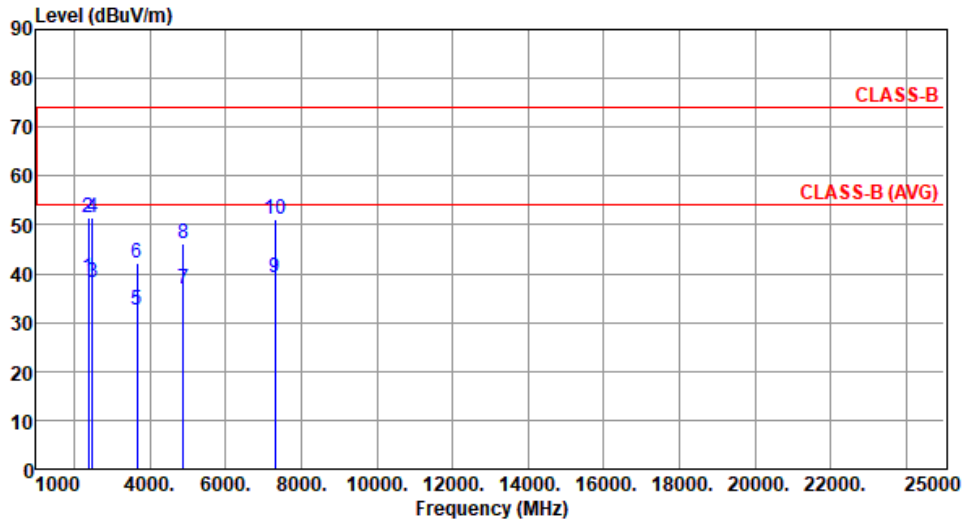
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2440
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	39.18	54.00	-14.82	41.93	-2.75	Average	100	101
2	2390.00	51.46	74.00	-22.54	54.21	-2.75	Peak	100	101
3	2483.50	38.17	54.00	-15.83	40.87	-2.70	Average	100	101
4	2483.50	51.44	74.00	-22.56	54.14	-2.70	Peak	100	101
5	3660.00	32.54	54.00	-21.46	31.84	0.70	Average	100	156
6	3660.00	42.31	74.00	-31.69	41.61	0.70	Peak	100	156
7	4880.00	36.78	54.00	-17.22	32.66	4.12	Average	100	12
8	4880.00	46.28	74.00	-27.72	42.16	4.12	Peak	100	12
9	7320.00	39.05	54.00	-14.95	29.77	9.28	Average	100	29
10	7320.00	51.12	74.00	-22.88	41.84	9.28	Peak	100	29

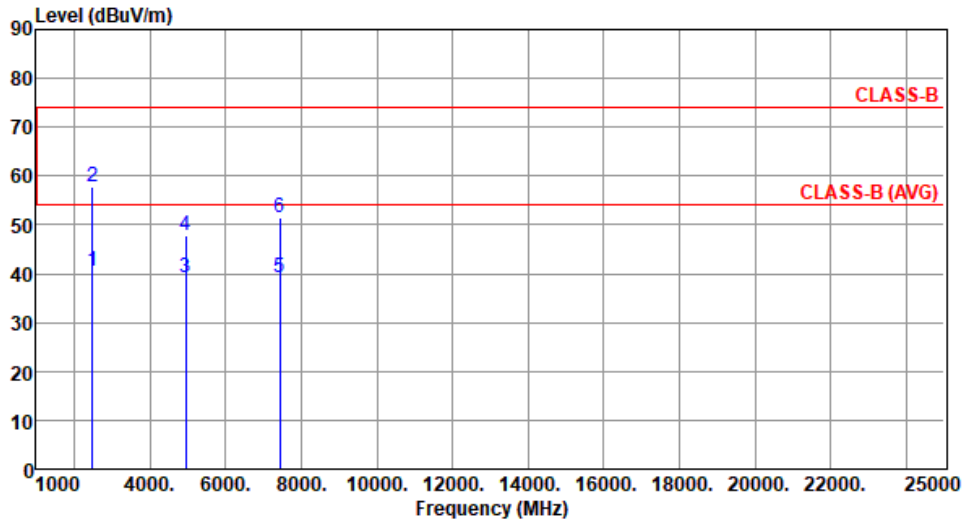
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	40.60	54.00	-13.40	43.30	-2.70	Average	130	83
2	2483.50	57.90	74.00	-16.10	60.60	-2.70	Peak	130	83
3	4960.00	39.21	54.00	-14.79	35.18	4.03	Average	226	206
4	4960.00	47.88	74.00	-26.12	43.85	4.03	Peak	226	206
5	7440.00	39.35	54.00	-14.65	29.98	9.37	Average	100	36
6	7440.00	51.48	74.00	-22.52	42.11	9.37	Peak	100	36

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

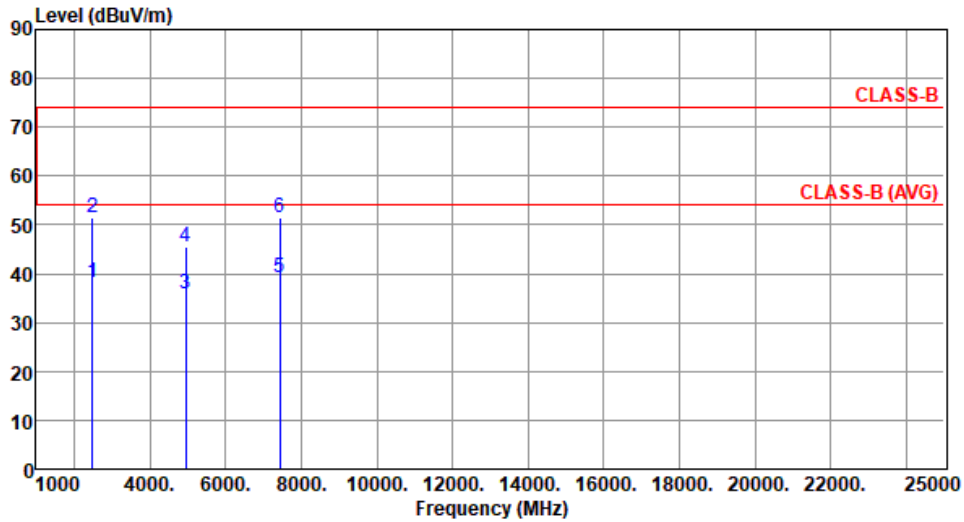
\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).



<b>Modulation</b>	BT-LE (1Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65

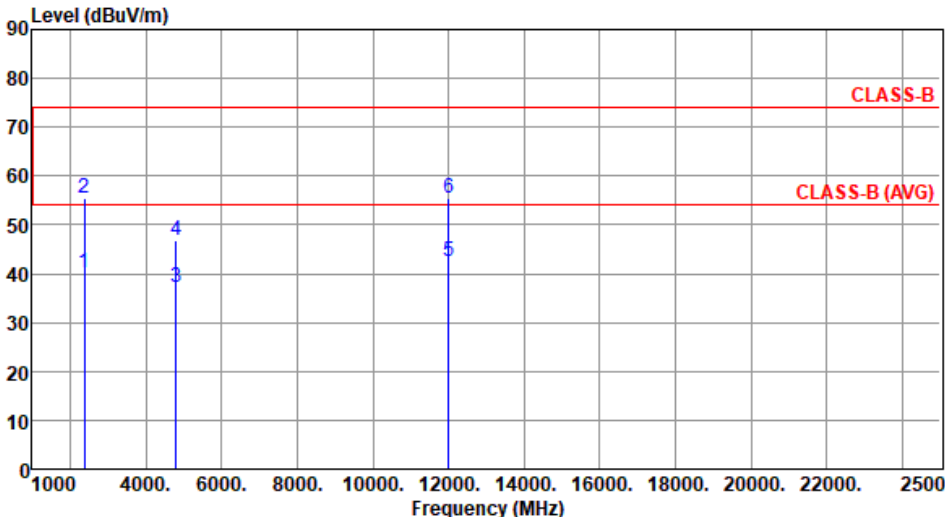


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	38.29	54.00	-15.71	40.99	-2.70	Average	100	99
2	2483.50	51.62	74.00	-22.38	54.32	-2.70	Peak	100	99
3	4960.00	35.88	54.00	-18.12	31.85	4.03	Average	100	16
4	4960.00	45.35	74.00	-28.65	41.32	4.03	Peak	100	16
5	7440.00	39.16	54.00	-14.84	29.79	9.37	Average	100	22
6	7440.00	51.31	74.00	-22.69	41.94	9.37	Peak	100	22

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV) + Factor\* (dB/m)

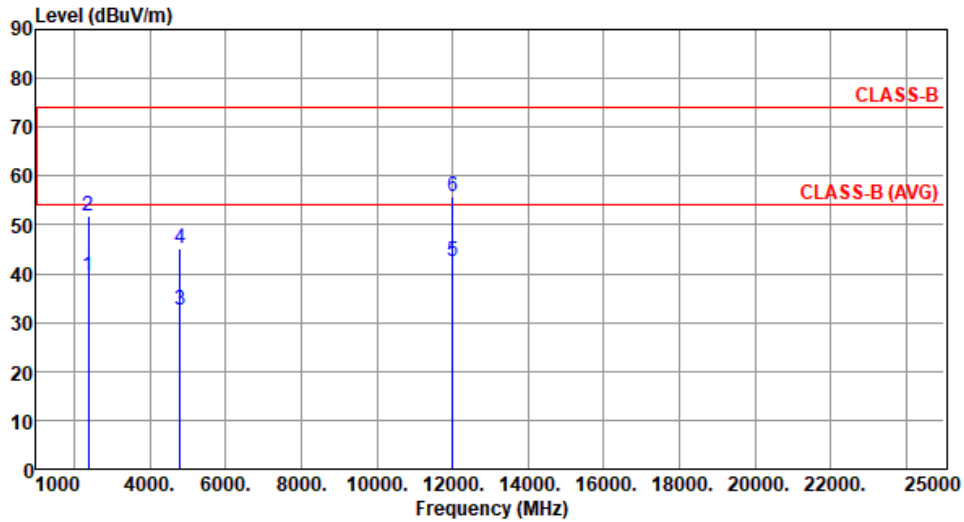
\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2402						
<b>Polarization</b>	Horizontal								
Test By :Roger Lu		Temperature(°C):23			Humidity(%):65				
									
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
	MHz	level	dBuV/m	dB	reading	dB/m		High	Table
		dBuV/m			dBuV			cm	deg
1	2390.00	40.09	54.00	-13.91	42.84	-2.75	Average	188	94
2	2390.00	55.56	74.00	-18.44	58.31	-2.75	Peak	188	94
3	4804.00	37.11	54.00	-16.89	32.98	4.13	Average	225	211
4	4804.00	46.76	74.00	-27.24	42.63	4.13	Peak	225	211
5	12010.00	42.58	54.00	-11.42	28.96	13.62	Average	100	14
6	12010.00	55.61	74.00	-18.39	41.99	13.62	Peak	100	14
<p>Note 1: Emission Level (dBUV/m) = SA Reading (dBUV) + Factor* (dB/m)  *Factor includes antenna factor , cable loss and amplifier gain  Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).</p>									

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2402
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	39.45	54.00	-14.55	42.20	-2.75	Average	100	102
2	2390.00	51.88	74.00	-22.12	54.63	-2.75	Peak	100	102
3	4804.00	32.61	54.00	-21.39	28.48	4.13	Average	100	35
4	4804.00	45.02	74.00	-28.98	40.89	4.13	Peak	100	35
5	12010.00	42.55	54.00	-11.45	28.93	13.62	Average	100	38
6	12010.00	55.77	74.00	-18.23	42.15	13.62	Peak	100	38

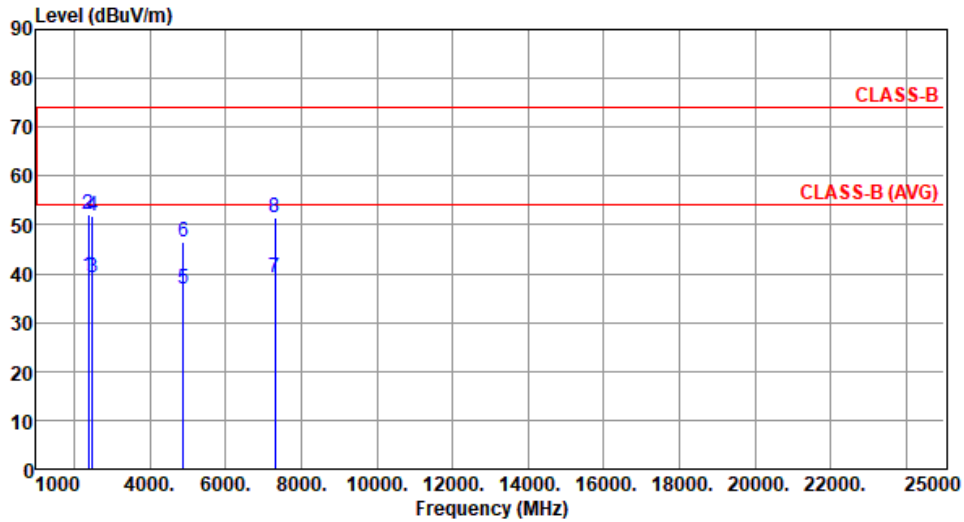
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2440
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	39.52	54.00	-14.48	42.27	-2.75	Average	191	95
2	2390.00	52.06	74.00	-21.94	54.81	-2.75	Peak	191	95
3	2483.50	39.11	54.00	-14.89	41.81	-2.70	Average	191	95
4	2483.50	51.68	74.00	-22.32	54.38	-2.70	Peak	191	95
5	4880.00	36.81	54.00	-17.19	32.69	4.12	Average	223	201
6	4880.00	46.65	74.00	-27.35	42.53	4.12	Peak	223	201
7	7320.00	39.26	54.00	-14.74	29.98	9.28	Average	100	51
8	7320.00	51.49	74.00	-22.51	42.21	9.28	Peak	100	51

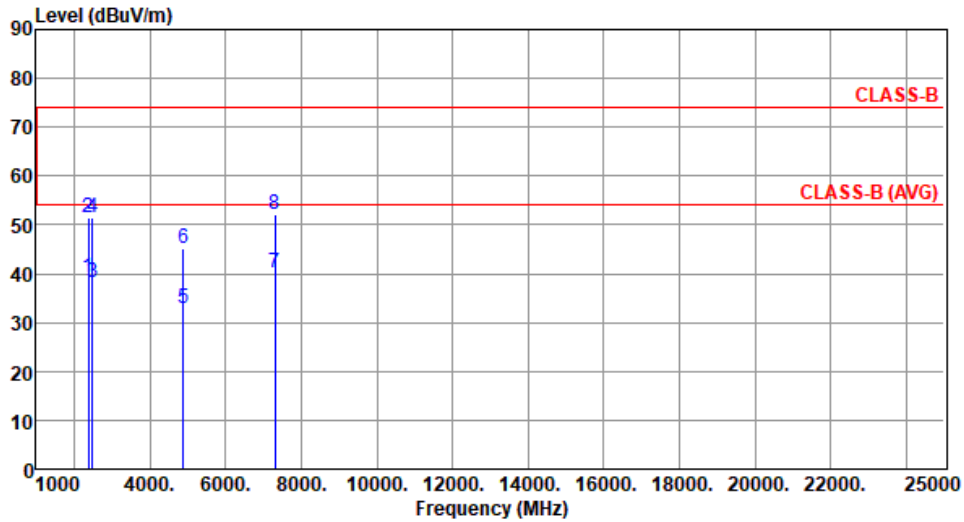
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2440
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	39.22	54.00	-14.78	41.97	-2.75	Average	100	106
2	2390.00	51.58	74.00	-22.42	54.33	-2.75	Peak	100	106
3	2483.50	38.26	54.00	-15.74	40.96	-2.70	Average	100	106
4	2483.50	51.55	74.00	-22.45	54.25	-2.70	Peak	100	106
5	4880.00	32.96	54.00	-21.04	28.84	4.12	Average	100	28
6	4880.00	45.33	74.00	-28.67	41.21	4.12	Peak	100	28
7	7320.00	40.14	54.00	-13.86	30.86	9.28	Average	100	36
8	7320.00	52.19	74.00	-21.81	42.91	9.28	Peak	100	36

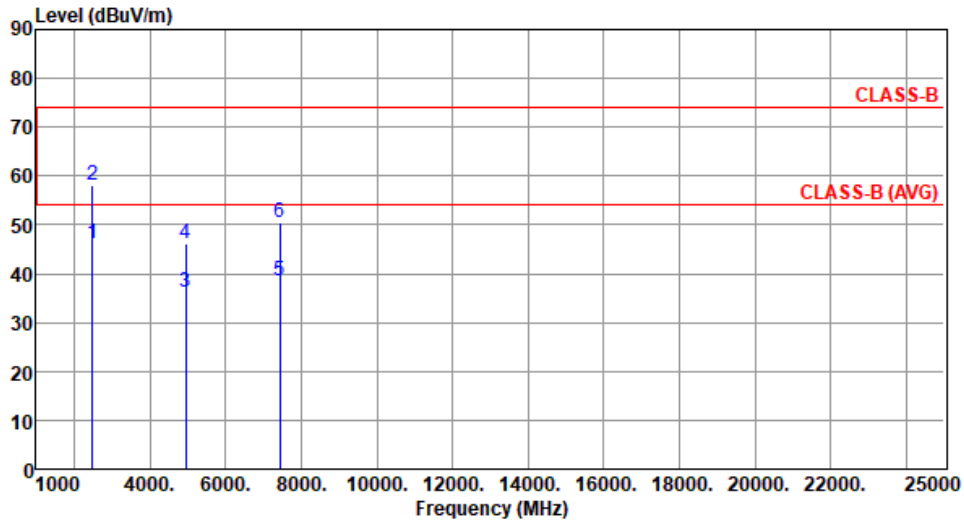
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	46.07	54.00	-7.93	48.77	-2.70	Average	133	83
2	2483.50	58.10	74.00	-15.90	60.80	-2.70	Peak	133	83
3	4960.00	36.36	54.00	-17.64	32.33	4.03	Average	220	214
4	4960.00	46.02	74.00	-27.98	41.99	4.03	Peak	221	214
5	7440.00	38.46	54.00	-15.54	29.09	9.37	Average	100	31
6	7440.00	50.51	74.00	-23.49	41.14	9.37	Peak	100	31

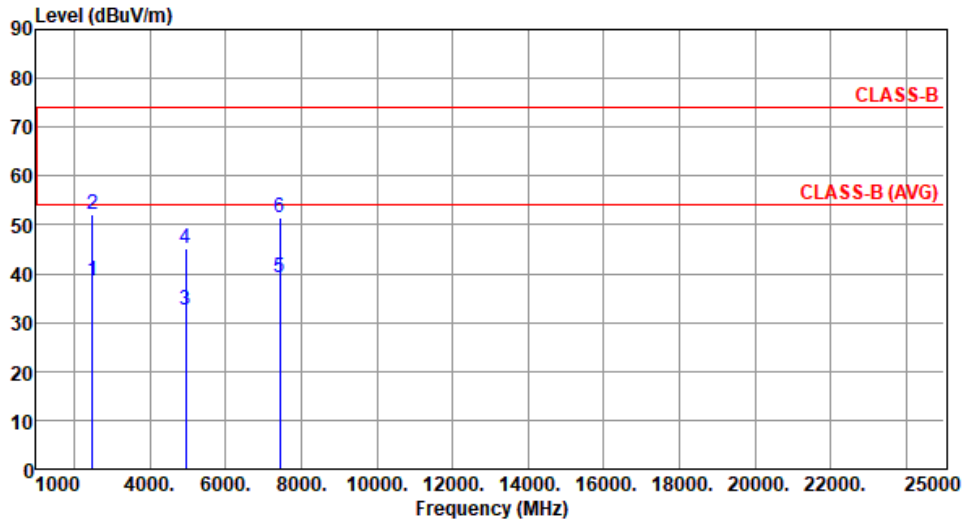
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	BT-LE (2Mbps)	<b>Test Freq. (MHz)</b>	2480
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):23      Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	38.46	54.00	-15.54	41.16	-2.70	Average	100	106
2	2483.50	52.14	74.00	-21.86	54.84	-2.70	Peak	100	106
3	4960.00	32.68	54.00	-21.32	28.65	4.03	Average	100	24
4	4960.00	45.22	74.00	-28.78	41.19	4.03	Peak	100	24
5	7440.00	39.19	54.00	-14.81	29.82	9.37	Average	100	13
6	7440.00	51.44	74.00	-22.56	42.07	9.37	Peak	100	13

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor\* (dB/m)

\*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

## 3.6 Emissions in non-restricted Frequency Bands

### 3.6.1 Emissions in non-restricted frequency bands limit

Peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz.

### 3.6.2 Test Procedures

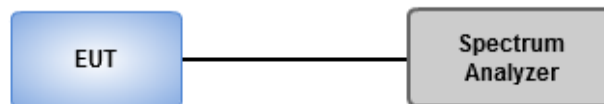
#### Reference level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Use the peak marker function to determine the maximum PSD level

#### Emission level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Scan Frequency range is up to 25GHz
4. Use the peak marker function to determine the maximum amplitude level

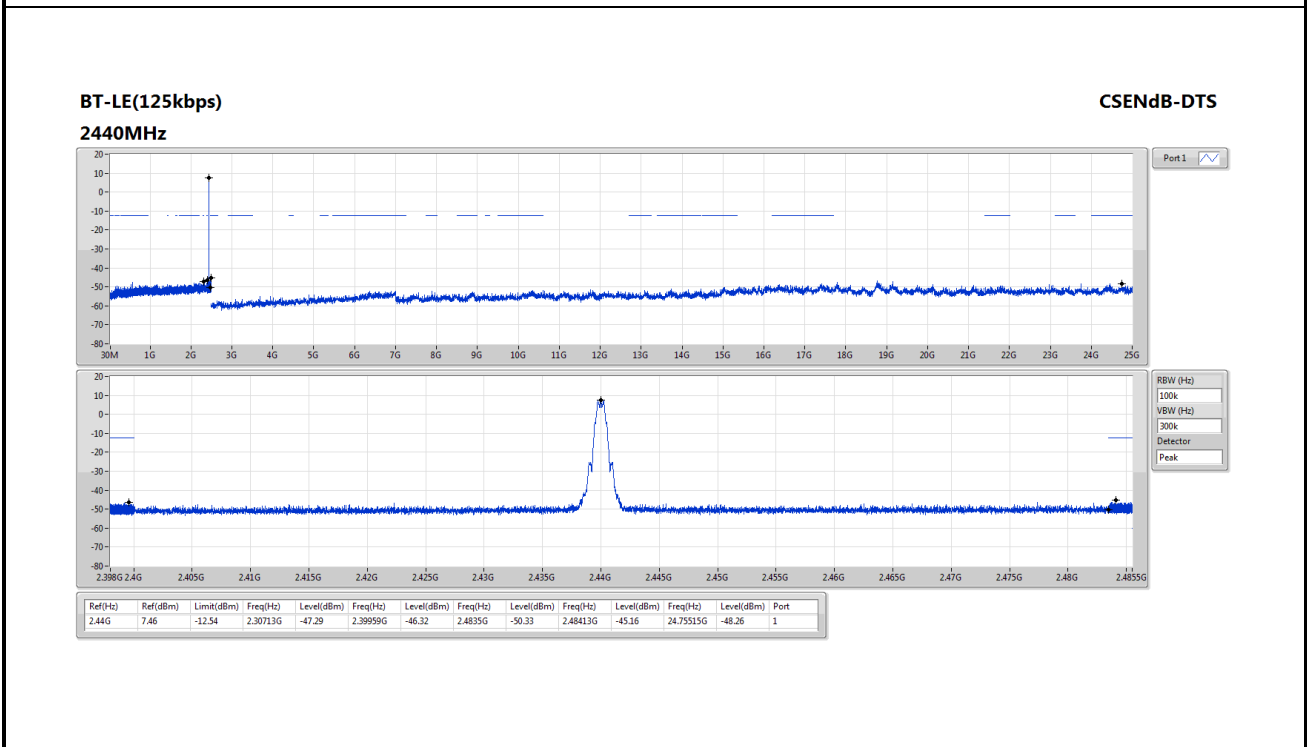
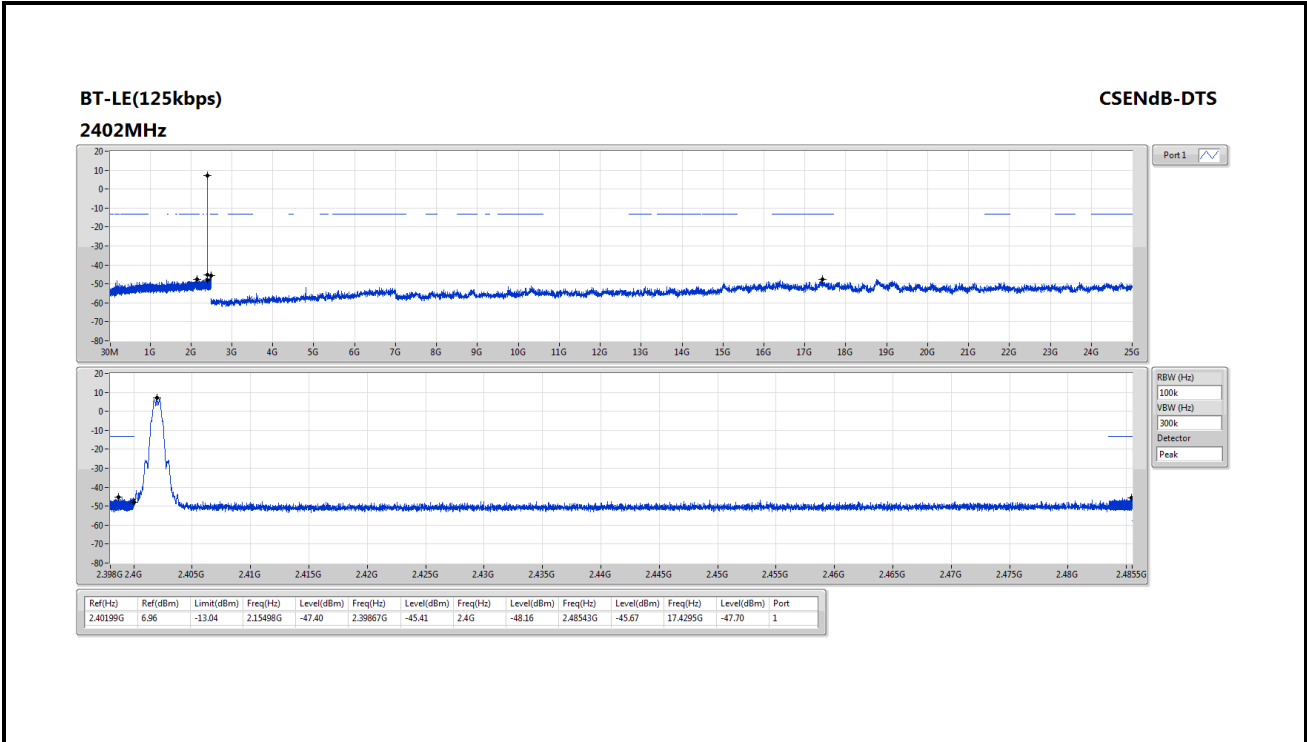
### 3.6.3 Test Setup





### 3.6.4 Test Result of Emissions in non-restricted Frequency Bands

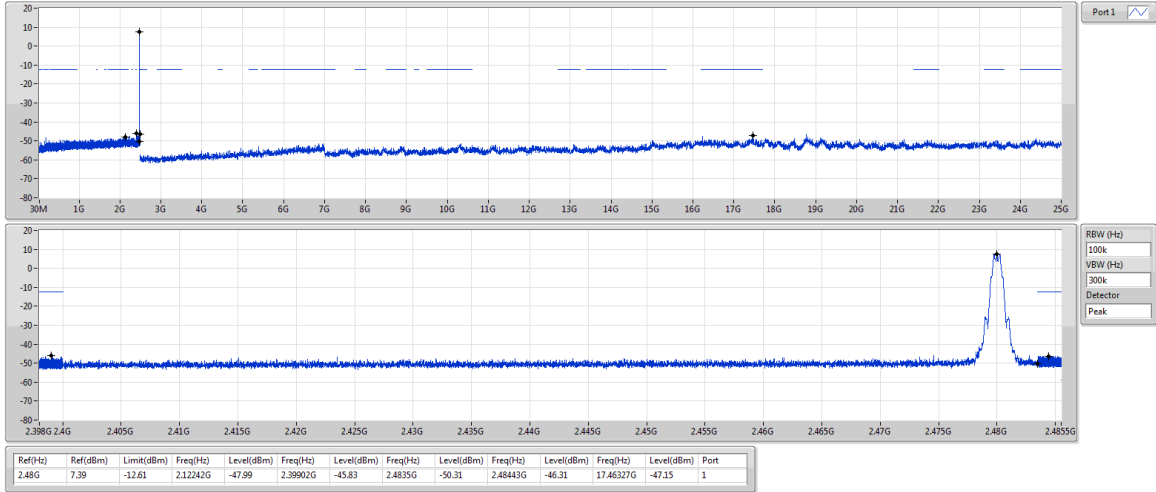
<b>Ambient Condition</b>	21°C / 67%	<b>Tested By</b>	Aska Huang
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**BT-LE(125kbps)**

**CSEndB-DTS**

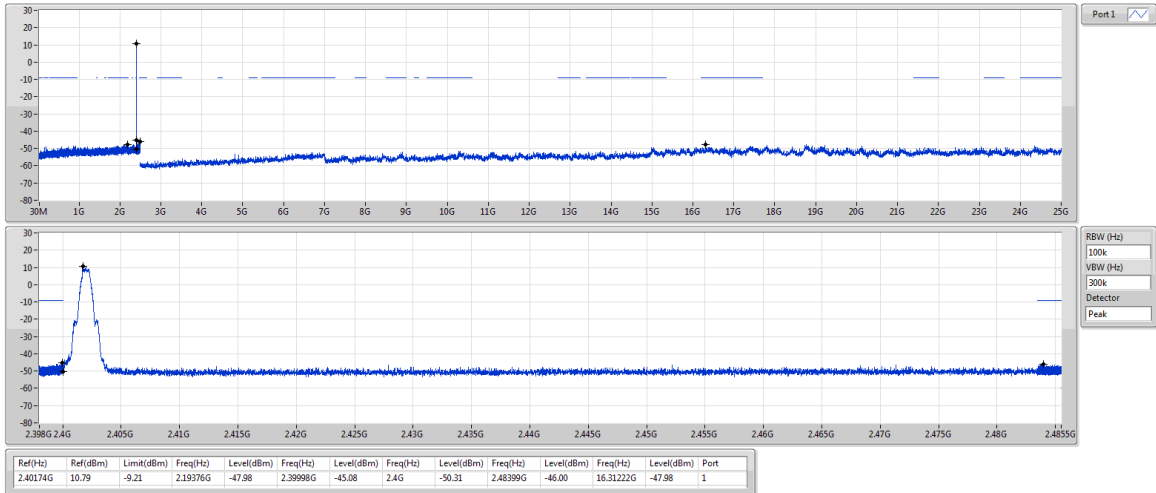
**2480MHz**



**BT-LE(500kbps)**

**CSEndB-DTS**

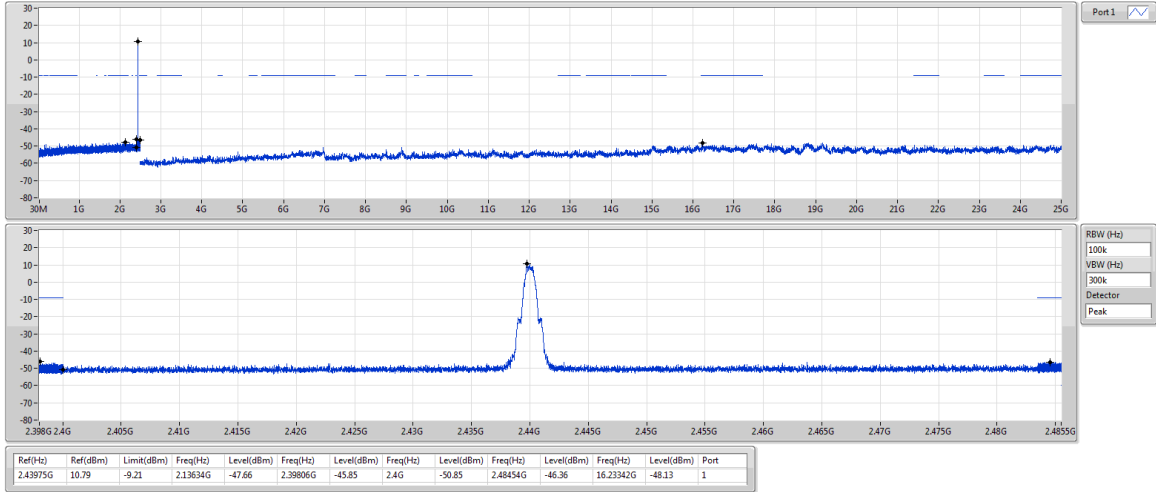
**2402MHz**



**BT-LE(500kbps)**

**CSEndB-DTS**

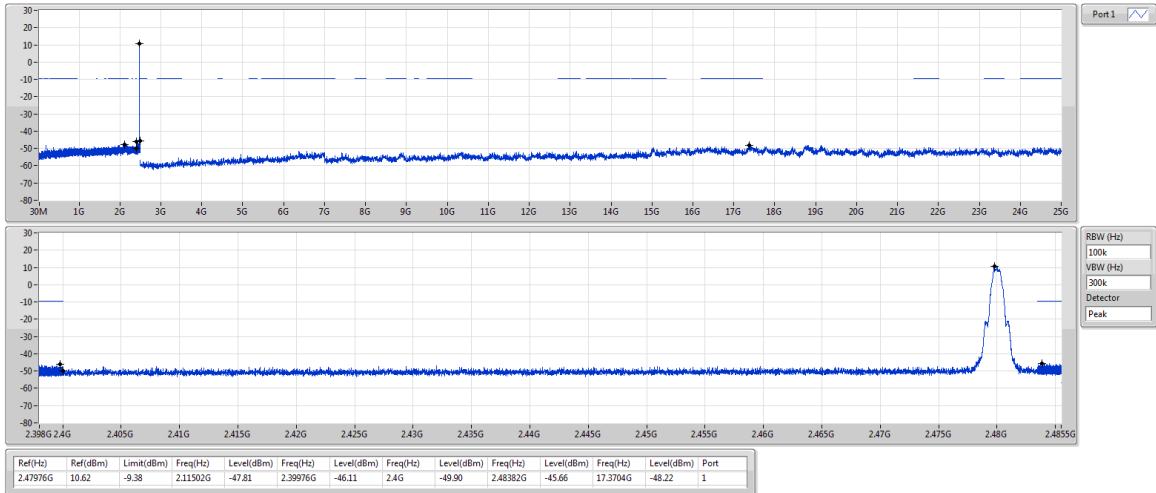
**2440MHz**



**BT-LE(500kbps)**

**CSEndB-DTS**

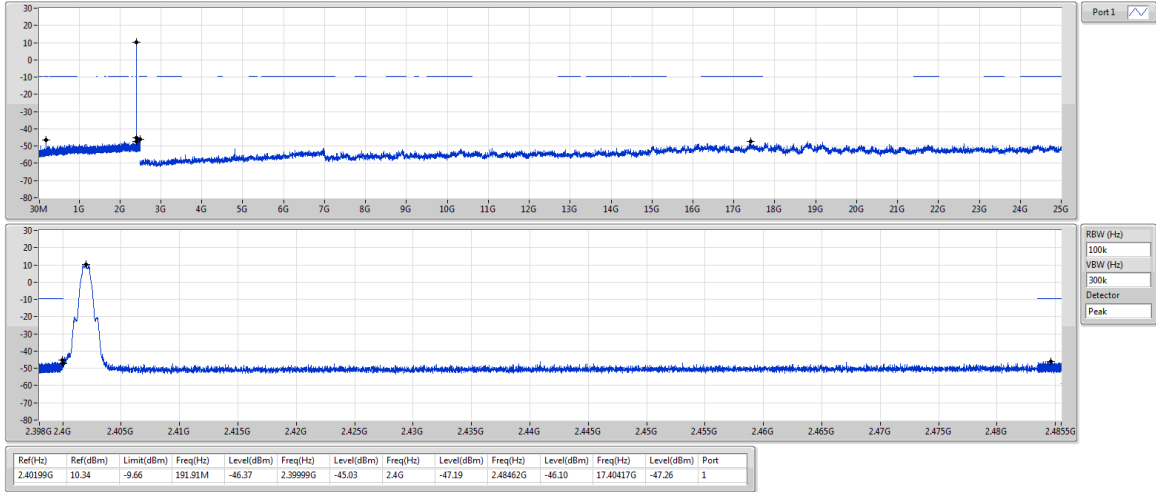
**2480MHz**



**BT-LE(1Mbps)**

**CSEndB-DTS**

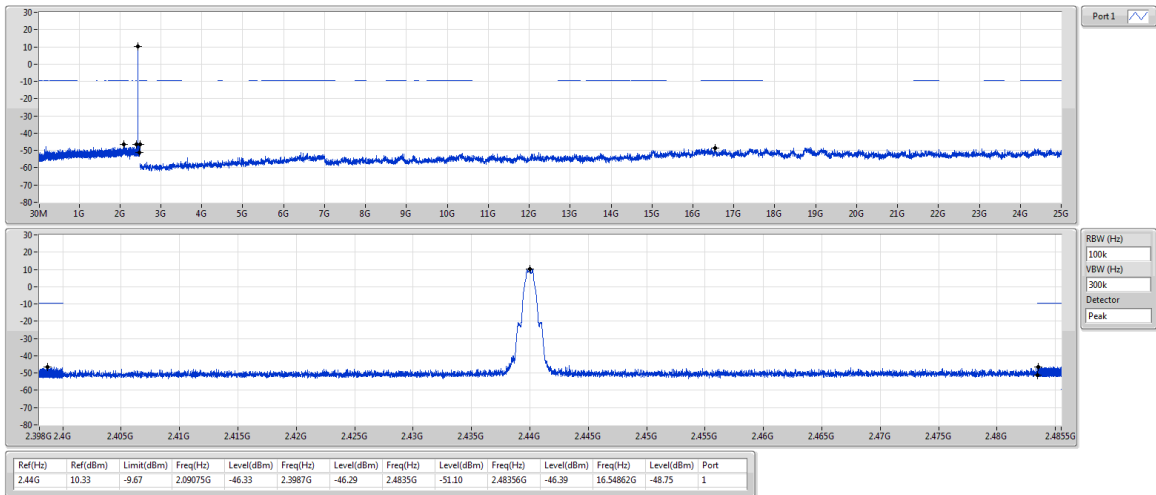
**2402MHz**



**BT-LE(1Mbps)**

**CSEndB-DTS**

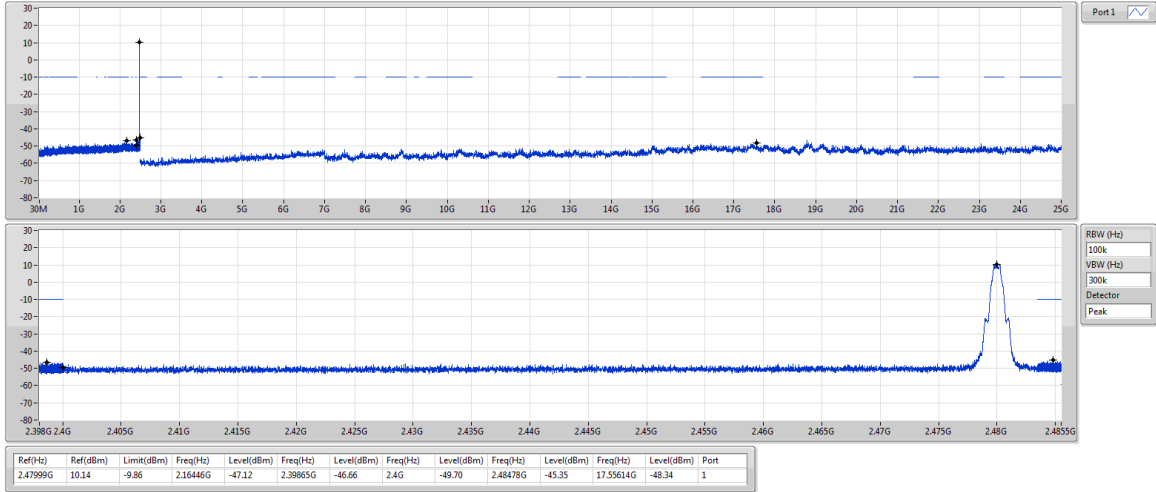
**2440MHz**



**BT-LE(1Mbps)**

CSEndB-DTS

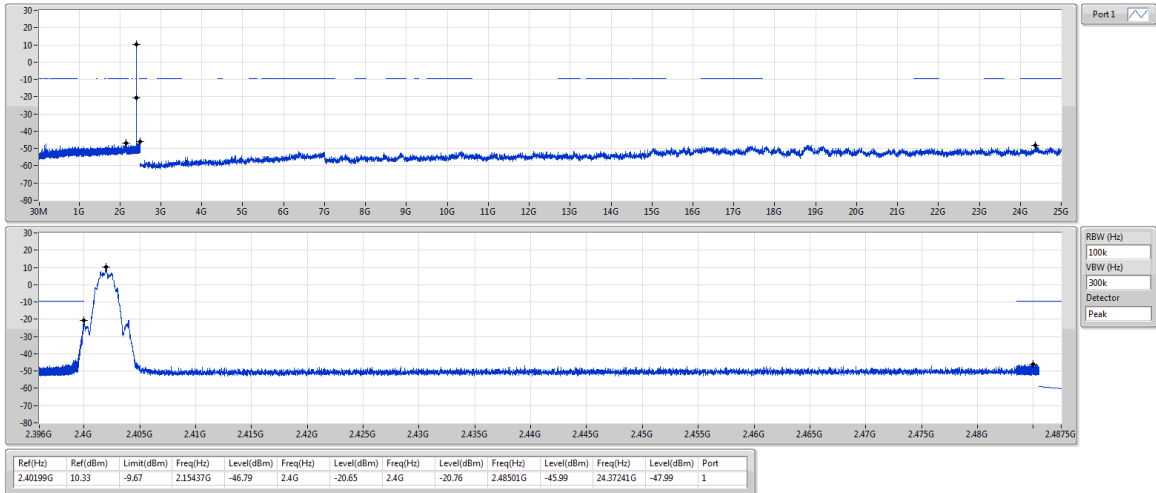
2480MHz



**BT-LE(2Mbps)**

CSEndB-DTS

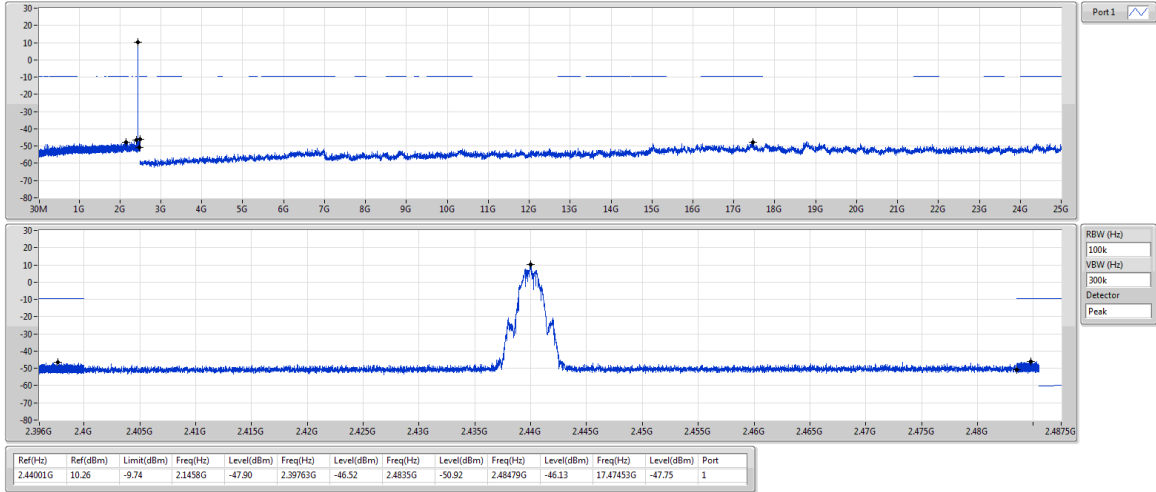
2402MHz



**BT-LE(2Mbps)**

**CSEndB-DTS**

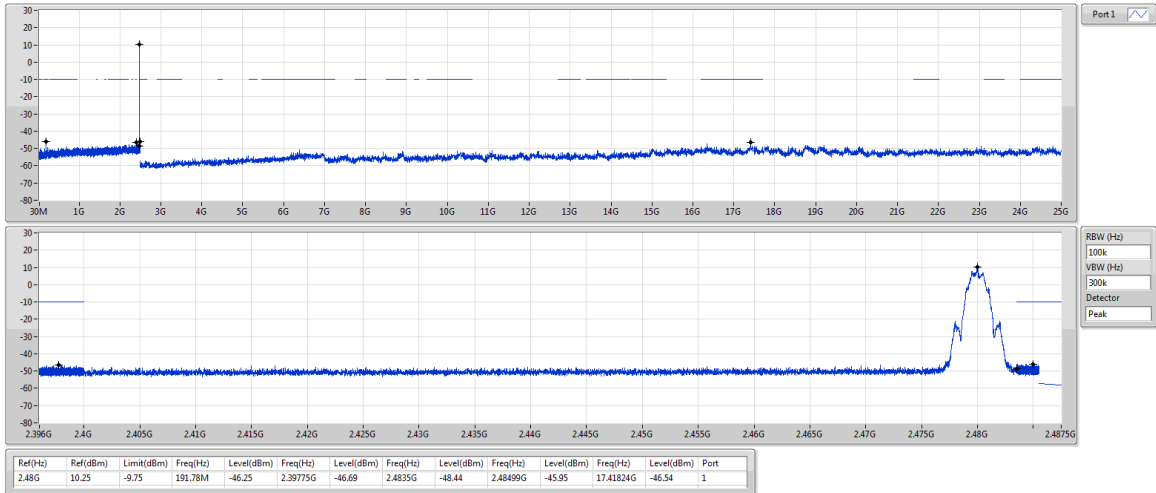
**2440MHz**



**BT-LE(2Mbps)**

**CSEndB-DTS**

**2480MHz**



## 4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

### **Linkou**

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou  
District, New Taipei City, Taiwan  
(R.O.C.)

### **Kwei Shan**

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

No.2-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

### **Kwei Shan Site II**

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 333, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666

Fax: 886-3-318-0345

Email: ICC\_Service@icertifi.com.tw

==END==