FCC Test Report

FCC ID	:	**2AAS9CD10**
Equipment	:	**MerryIoT Air Quality CO2**
Model No.	:	**CD10**
Brand Name	:	**MerryIoT**
Applicant	:	**Browan Communications Incorporation.**
Address	:	**No.15-1, Zhonghua Rd., Hsinchu Industrial Park, Hukou Hsinchu Hsien Taiwan 303**
Standard	:	**47 CFR FCC Part 15.247**
Received Date	:	**Nov. 08, 2021**
Tested Date	:	**Nov. 10 ~ Nov. 17, 2021**

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 may be duplicated completely for legal use with the approval of the applicant. 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**

Testing Laboratory 2732

Table of Contents

Release Record

Report No.	Version	Description	Issued Date
FR1N0801AE	Rev. 01	Initial issue	Dec. 01, 2021

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emissions	Note[1]	N/A
15.247(d) 15.209	Radiated Emissions	[dBuV/m at 3m]: 4960.00MHz 52.98 (Margin -1.02dB) - AV	Pass
15.247(b)(3)	Maximum Output Power	Power [dBm]: 8.03	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
N/A means Not Applicable. Note[1]: The EUT consumes DC power, so the test is not required.			

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.	Type	Connector	Gain (dBi)	Remarks
1	Monopole	No	2.71	---

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	3.6Vdc from battery

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	Battery x2	Brand: RAMWAY Model: ER14505 Rating: 3.6V/2.7Ah
2	screw pack	---
3	3M VHB sticker	---

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	Tera Term, Version: V4.89	
Modulation Mode	Duty Cycle Of Test Signal (%)	Duty Factor (dB)
GFSK-125kbps	100.00%	0.00
GFSK-500kbps	100.00%	0.00
GFSK-1Mbps	100.00%	0.00
GFSK-2Mbps	100.00%	0.00

1.1.7 Power Index of Test Tool

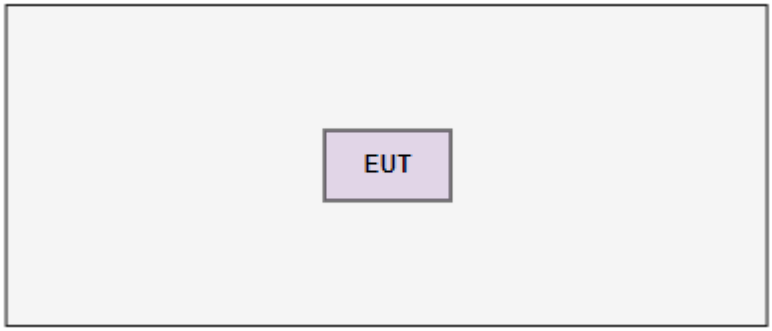
Modulation Mode	Test Frequency (MHz)		
	2402	2440	2480
GFSK/125kbps	pos2dBm	pos3dBm	pos4dBm
GFSK/500kbps	pos2dBm	pos3dBm	pos4dBm
GFSK/1Mbps	pos2dBm	pos3dBm	pos4dBm
GFSK/2Mbps	pos6dBm	pos7dBm	pos8dBm

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude E5470	DoC	---
2	USB cable	---	---	---	Provided by applicant.
3	Fixture	---	---	---	Provided by applicant.

1.3 Test Setup Chart

Test Setup Diagram



Note: The USB cable, notebook and fixture are disconnected from EUT and removed from test table when EUT is set to transmit continuously.

1.4 Test Equipment List and Calibration Data

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Nov. 10 ~ Nov. 15, 2021				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Mar. 12, 2021	Mar. 11, 2022
Spectrum Analyzer	R&S	FSV40	101498	Dec. 04, 2020	Dec. 03, 2021
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 17, 2020	Nov. 16, 2021
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. 11, 2020	Dec. 10, 2021
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Dec. 31, 2020	Dec. 30, 2021
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-NW-11000	200801	Oct. 05, 2021	Oct. 04, 2022
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 05, 2021	Oct. 04, 2022
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 05, 2021	Oct. 04, 2022
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Oct. 05, 2021	Oct. 04, 2022
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Nov. 17, 2021				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101498	Dec. 04, 2020	Dec. 03, 2021
Power Meter	Anritsu	ML2495A	1218007	Jan. 26, 2021	Jan. 25, 2022
Power Sensor	Anritsu	MA2411B	1207367	Jan. 26, 2021	Jan. 25, 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	±34.130 Hz
Conducted power	±0.808 dB
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Radiated emission ≤ 1GHz	±3.41 dB
Radiated emission > 1GHz	±4.59 dB

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	03CH01-WS, TH01-WS
Address of Test Site	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
Radiated Emissions ≤ 1GHz	BT LE	2480	2Mbps	---
Maximum Output Power 6dB bandwidth Power spectral density	BT LE	2402, 2440, 2480 2402, 2440, 2480 2402, 2440, 2480 2402, 2440, 2480	125 kbps 500 kbps 1Mbps 2Mbps	---
Radiated Emissions > 1GHz	BT LE	2402, 2440, 2480 2402, 2440, 2480	1Mbps 2Mbps	---

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.

3 Transmitter Test Results

3.1 6dB and Occupied Bandwidth

3.1.1 Limit of 6dB Bandwidth

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

3.1.2 Test Procedures

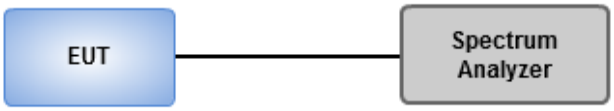
6dB Bandwidth

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.

3.1.3 Test Setup



3.1.4 Test Result of 6dB and Occupied Bandwidth

Ambient Condition	23°C / 66%	Tested By	Aska Huang

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)	710.145k	1.082M	1M08F1D	652.174k	1.082M
BT-LE(500kbps)	699.275k	1.042M	1M04F1D	684.783k	1.042M
BT-LE(1Mbps)	731.884k	1.06M	1M06F1D	695.652k	1.049M
BT-LE(2Mbps)	1.384M	2.069M	2M07F1D	1.239M	2.055M

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

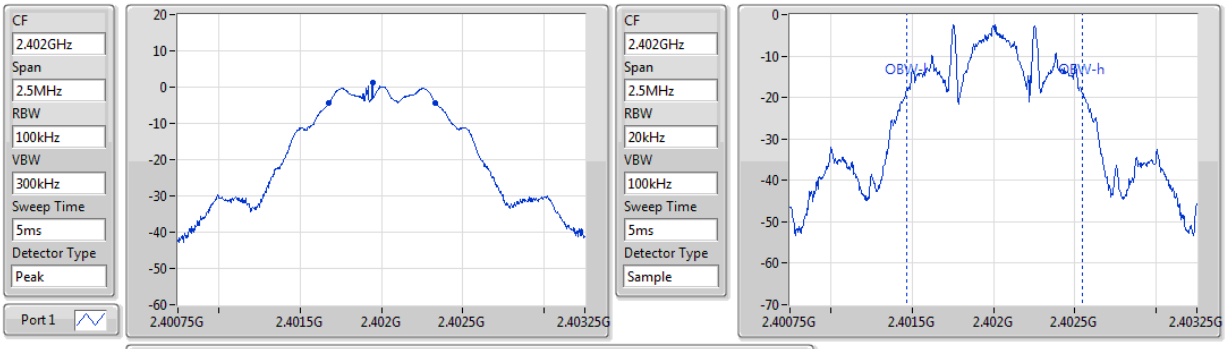
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	500k	655.797k	1.082M
2440MHz	Pass	500k	652.174k	1.082M
2480MHz	Pass	500k	710.145k	1.082M
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	500k	692.029k	1.042M
2440MHz	Pass	500k	699.275k	1.042M
2480MHz	Pass	500k	684.783k	1.042M
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	731.884k	1.06M
2440MHz	Pass	500k	717.391k	1.056M
2480MHz	Pass	500k	695.652k	1.049M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.384M	2.055M
2440MHz	Pass	500k	1.341M	2.069M
2480MHz	Pass	500k	1.239M	2.069M

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

BT-LE(125kbps) **EBW-DTS**

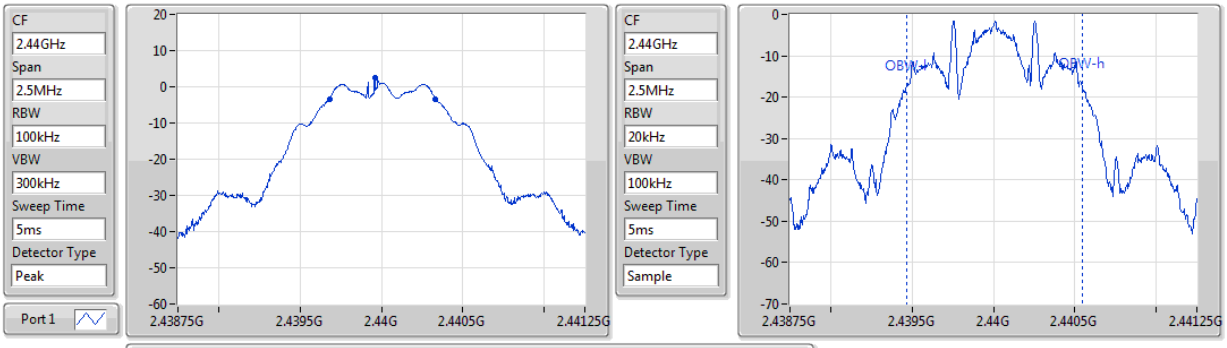
2402MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
655.797k	2.401678G	2.402333G	1.082M	2.401465G	2.402546G	500k	1

BT-LE(125kbps) **EBW-DTS**

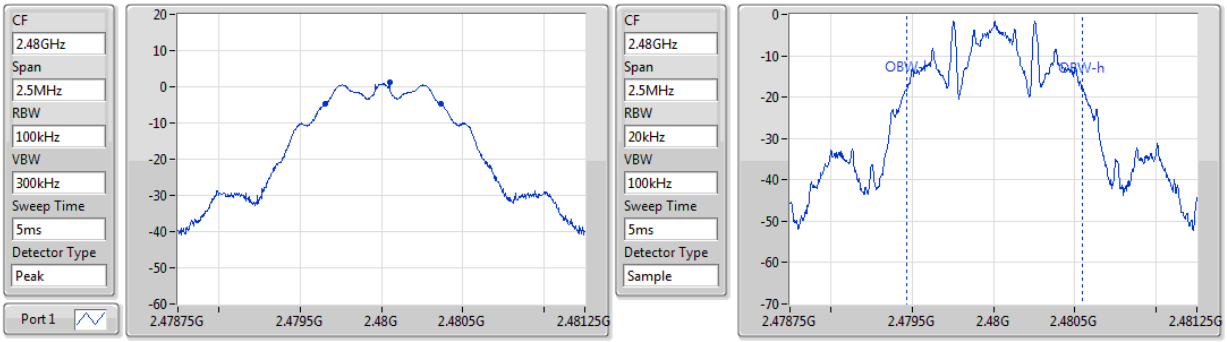
2440MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
652.174k	2.439681G	2.440333G	1.082M	2.439465G	2.440546G	500k	1

BT-LE(125kbps) **EBW-DTS**

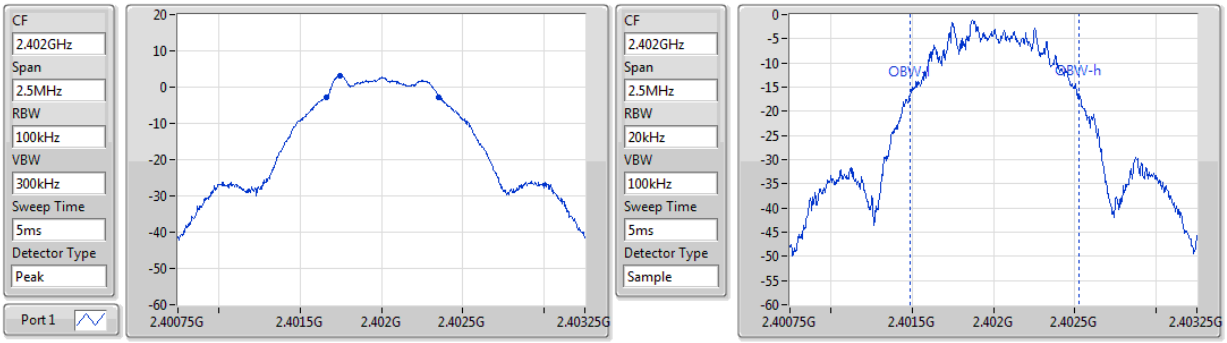
2480MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
710.145k	2.479652G	2.480362G	1.082M	2.479465G	2.480546G	500k	1

BT-LE(500kbps) **EBW-DTS**

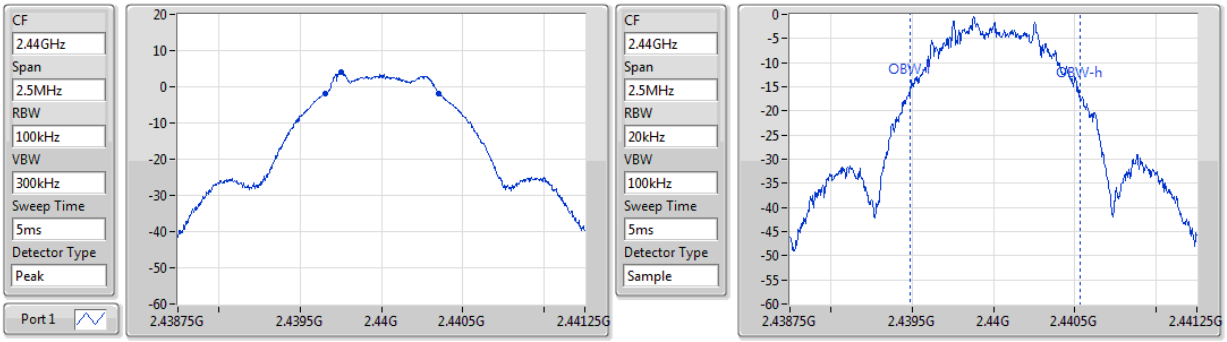
2402MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
692.029k	2.401663G	2.402355G	1.042M	2.401486G	2.402528G	500k	1

BT-LE(500kbps) **EBW-DTS**

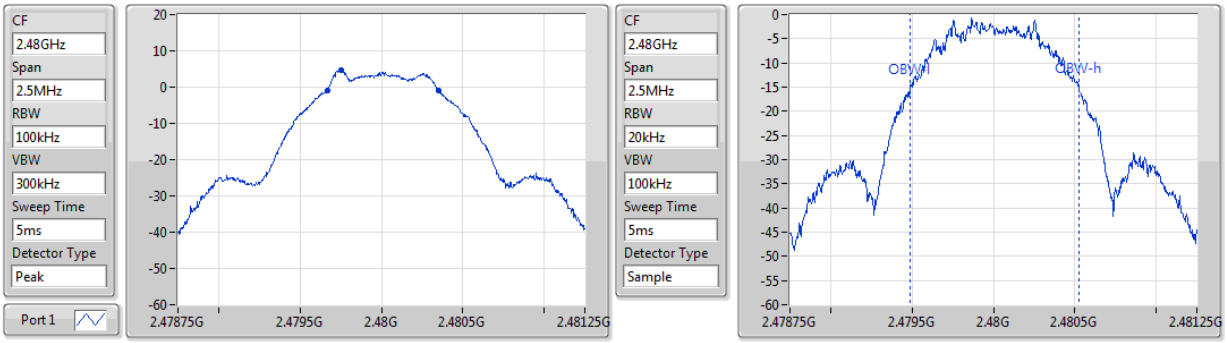
2440MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
699.275k	2.439656G	2.440355G	1.042M	2.43949G	2.440532G	500k	1

BT-LE(500kbps) **EBW-DTS**

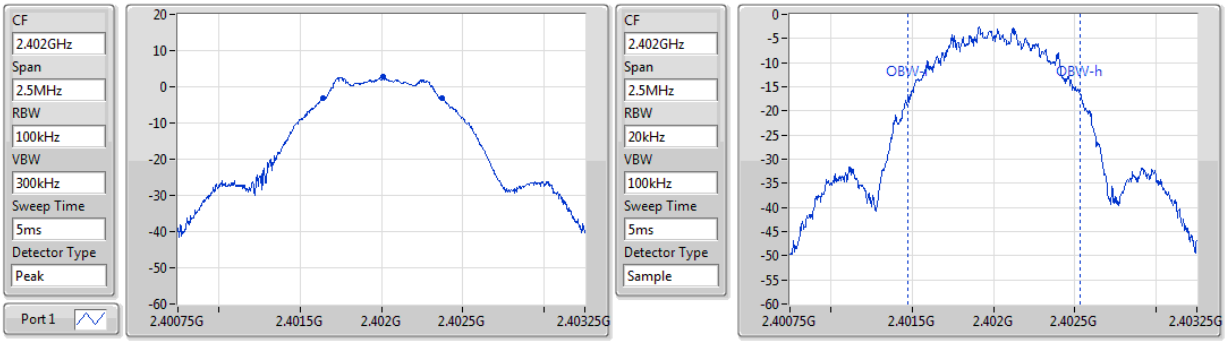
2480MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
684.783k	2.47967G	2.480355G	1.042M	2.479486G	2.480528G	500k	1

BT-LE(1Mbps) **EBW-DTS**

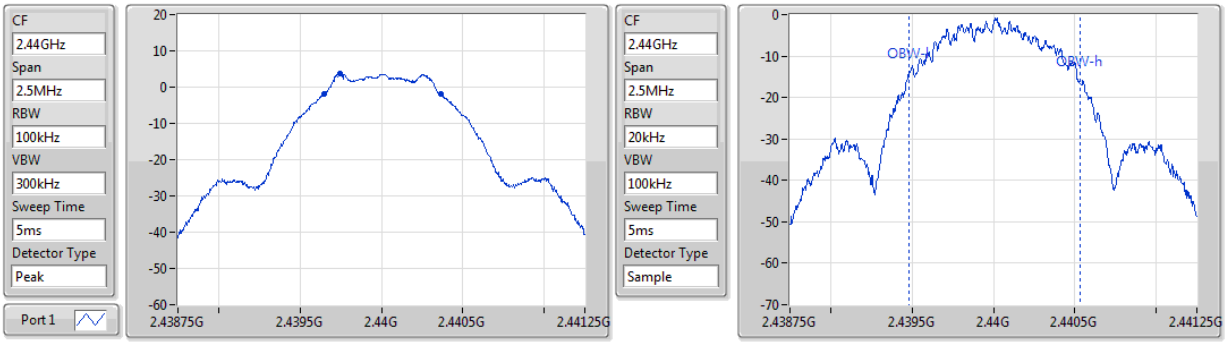
2402MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
731.884k	2.401641G	2.402373G	1.06M	2.401475G	2.402535G	500k	1

BT-LE(1Mbps) **EBW-DTS**

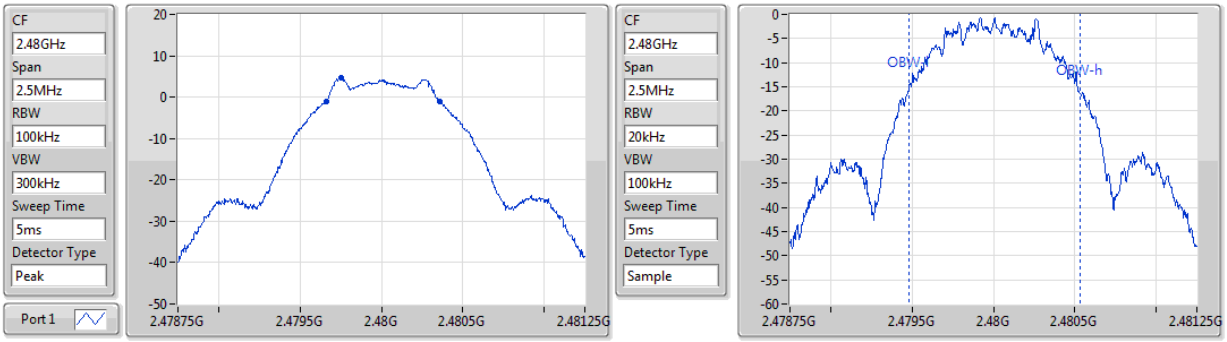
2440MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
717.391k	2.439649G	2.440366G	1.056M	2.439479G	2.440535G	500k	1

BT-LE(1Mbps) **EBW-DTS**

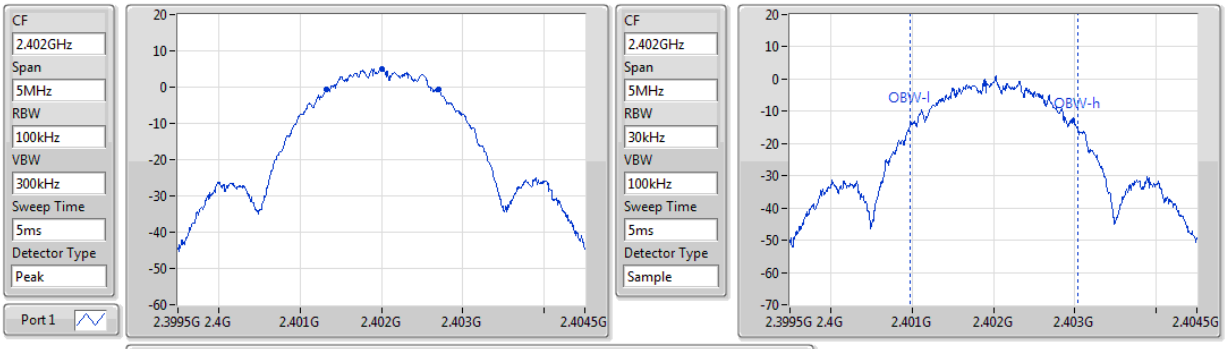
2480MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
695.652k	2.479663G	2.480359G	1.049M	2.479483G	2.480532G	500k	1

BT-LE(2Mbps) **EBW-DTS**

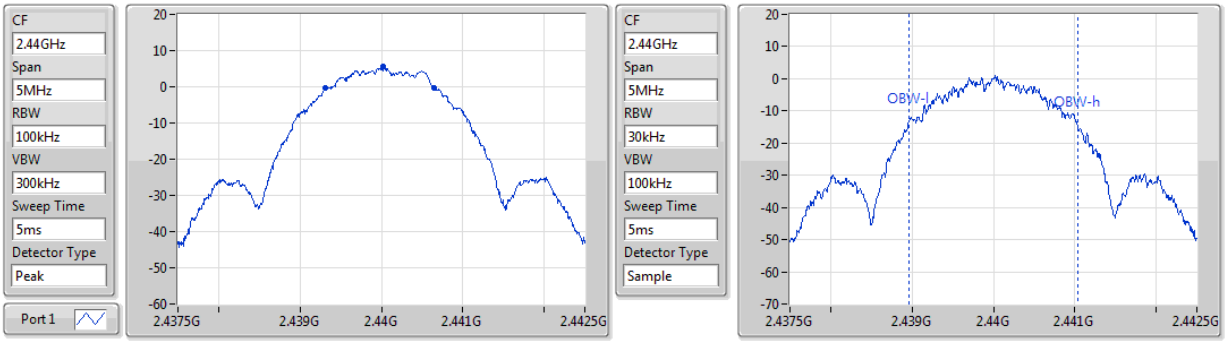
2402MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.384M	2.401319G	2.402703G	2.055M	2.40098G	2.403035G	500k	1

BT-LE(2Mbps) **EBW-DTS**

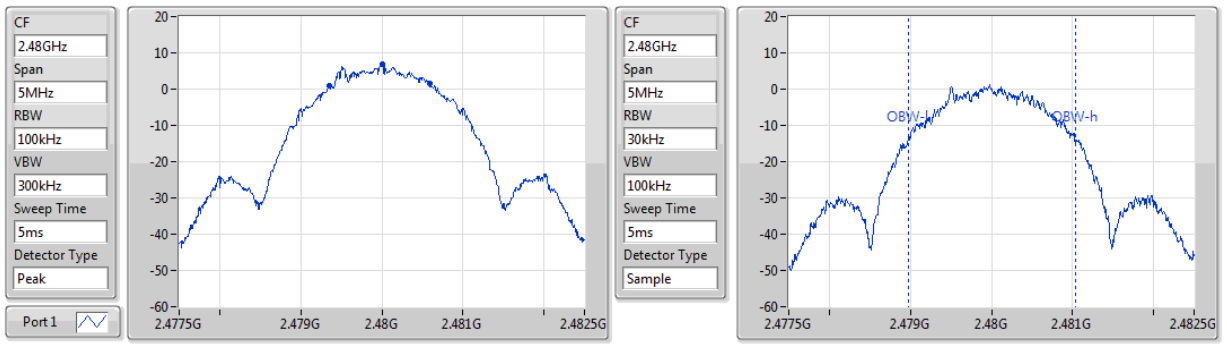
2440MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.341M	2.439312G	2.440652G	2.069M	2.438965G	2.441035G	500k	1

BT-LE(2Mbps) **EBW-DTS**

2480MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.239M	2.479348G	2.480587G	2.069M	2.478973G	2.481042G	500k	1

3.2 RF Output Power

3.2.1 Limit of RF Output Power

Conducted power shall not exceed 1Watt.

Antenna gain <= 6dBi, no any corresponding reduction is in output power limit.

3.2.2 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.

3.2.3 Test Setup

3.2.4 Test Result of Maximum Output Power

Ambient Condition	23°C / 66%	Tested By	Aska Huang

Summary of Peak Conducted Output Power

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	4.98	0.00315
BT-LE(500kbps)	4.99	0.00316
BT-LE(1Mbps)	5.03	0.00318
BT-LE(2Mbps)	8.03	0.00635

Result

Mode	Result	Antenna Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	2.71	3.16	30.00
2440MHz	Pass	2.71	4.27	30.00
2480MHz	Pass	2.71	4.98	30.00
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	2.71	3.18	30.00
2440MHz	Pass	2.71	4.28	30.00
2480MHz	Pass	2.71	4.99	30.00
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.71	3.22	30.00
2440MHz	Pass	2.71	4.29	30.00
2480MHz	Pass	2.71	5.03	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	2.71	6.74	30.00
2440MHz	Pass	2.71	7.35	30.00
2480MHz	Pass	2.71	8.03	30.00

Summary of Conducted (Average) Output Power

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	4.84	0.00305
BT-LE(500kbps)	4.84	0.00305
BT-LE(1Mbps)	4.90	0.00309
BT-LE(2Mbps)	7.95	0.00624

Result

Mode	Result	Antenna Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	2.71	3.06	-
2440MHz	Pass	2.71	4.13	-
2480MHz	Pass	2.71	4.84	-
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	2.71	3.07	-
2440MHz	Pass	2.71	4.14	-
2480MHz	Pass	2.71	4.84	-
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.71	3.12	-
2440MHz	Pass	2.71	4.22	-
2480MHz	Pass	2.71	4.90	-
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	2.71	6.64	-
2440MHz	Pass	2.71	7.25	-
2480MHz	Pass	2.71	7.95	-

Note: Average power is for reference only.

3.3 Power Spectral Density

3.3.1 Limit of Power Spectral Density

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

3.3.2 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 ≥ 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.

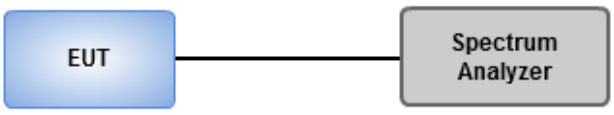
2 Set the sweep time to: ≥ 10 (number of measurement points in sweep) x (total on/off period of the transmitted signal).

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.

3.3.3 Test Setup



3.3.4 Test Result of Power Spectral Density

Ambient Condition	23°C / 66%	Tested By	Aska Huang

Summary

Mode	PD (dBm/3kHz)
2.4-2.4835GHz	-
BT-LE(125kbps)	-1.75
BT-LE(500kbps)	-1.40
BT-LE(1Mbps)	-8.23
BT-LE(2Mbps)	-8.53

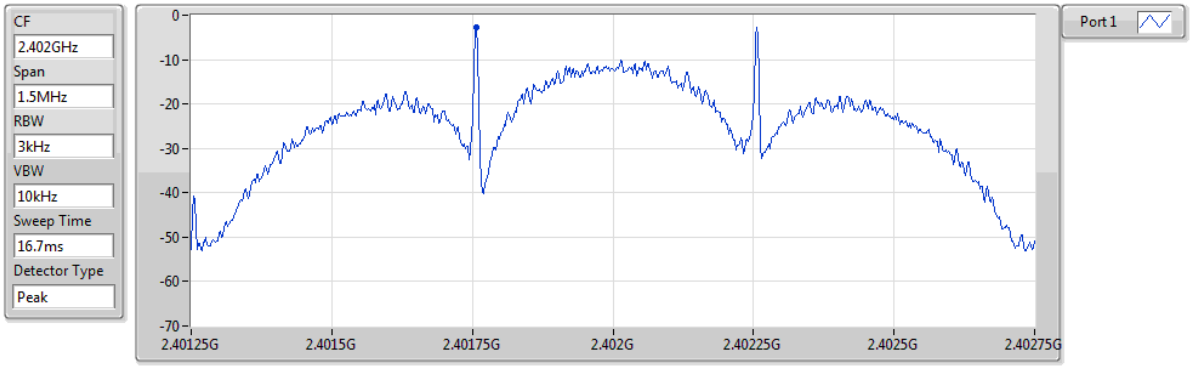
Result

Mode	Result	Antenna Gain (dBi)	PD (dBm/3kHz)	PD Limit (dBm/3kHz)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	2.71	-2.77	8.00
2440MHz	Pass	2.71	-1.75	8.00
2480MHz	Pass	2.71	-1.90	8.00
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	2.71	-3.02	8.00
2440MHz	Pass	2.71	-2.03	8.00
2480MHz	Pass	2.71	-1.40	8.00
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.71	-9.85	8.00
2440MHz	Pass	2.71	-8.97	8.00
2480MHz	Pass	2.71	-8.23	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	2.71	-8.95	8.00
2440MHz	Pass	2.71	-9.31	8.00
2480MHz	Pass	2.71	-8.53	8.00

PD =Maximum power density;

BT-LE(125kbps) **PSD**

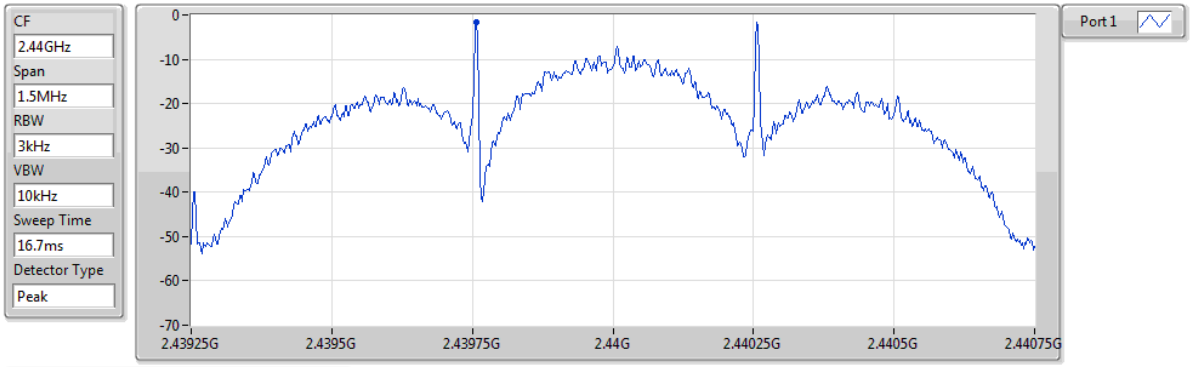
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.77	-2.77	-2.77

BT-LE(125kbps) **PSD**

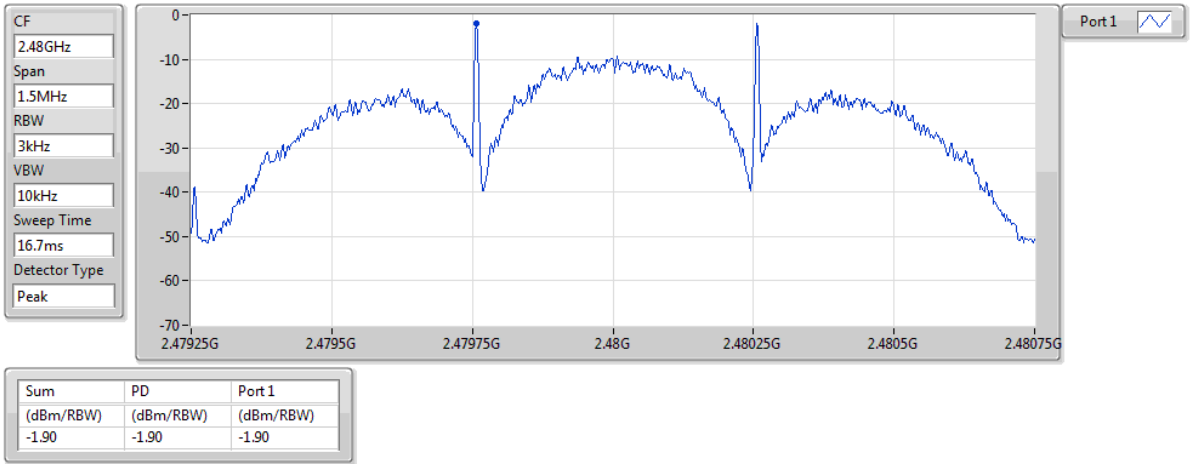
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.75	-1.75	-1.75

BT-LE(125kbps) **PSD**

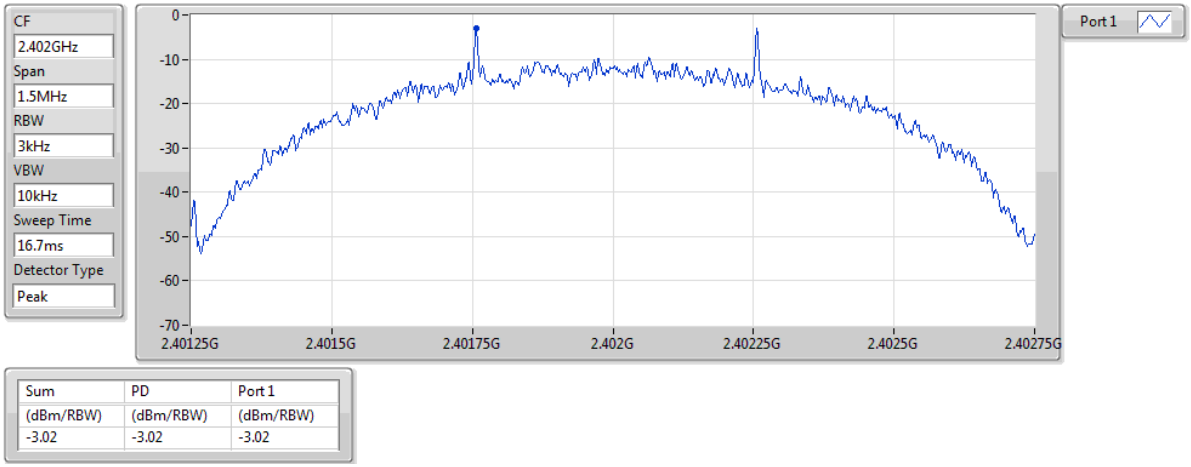
2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.90	-1.90	-1.90

BT-LE(500kbps) **PSD**

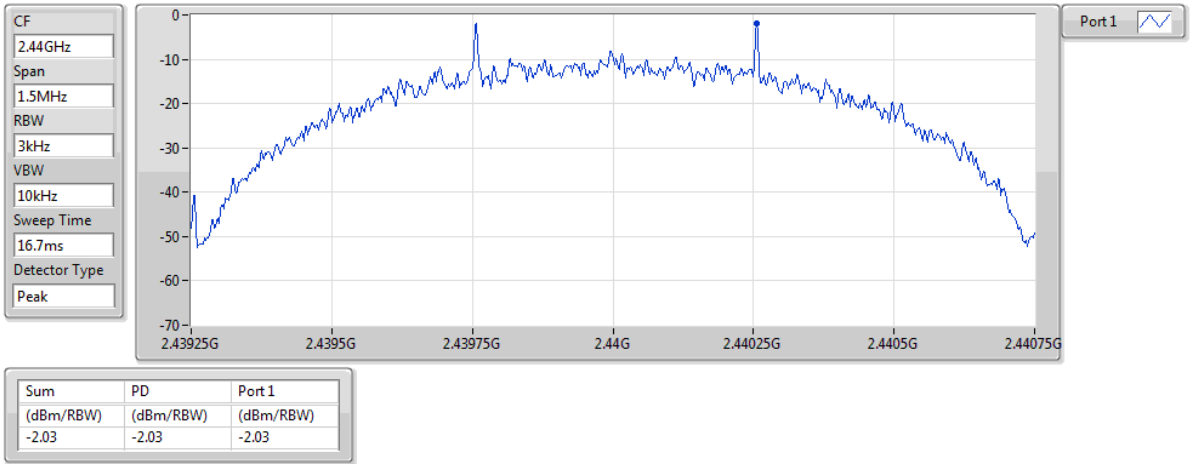
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.02	-3.02	-3.02

BT-LE(500kbps) **PSD**

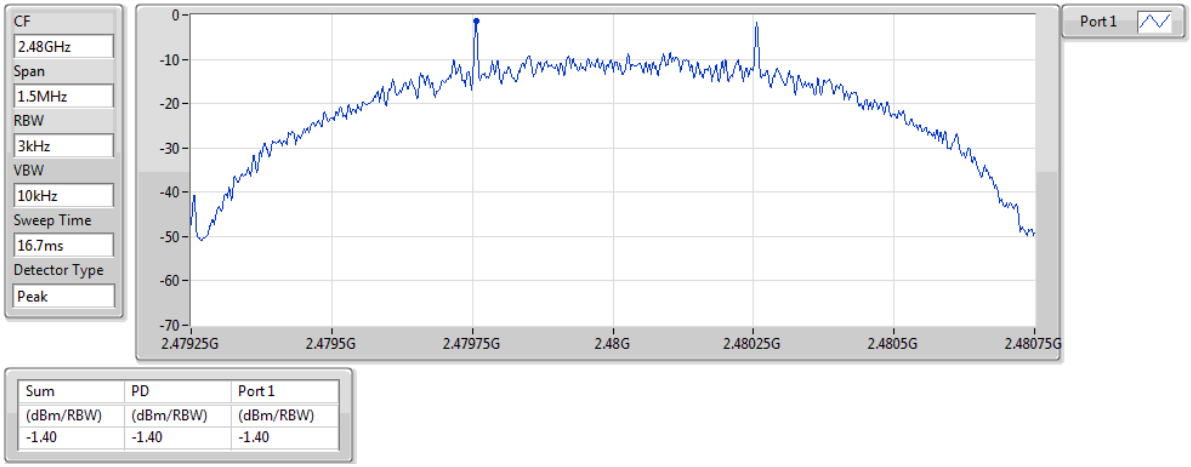
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.03	-2.03	-2.03

BT-LE(500kbps) **PSD**

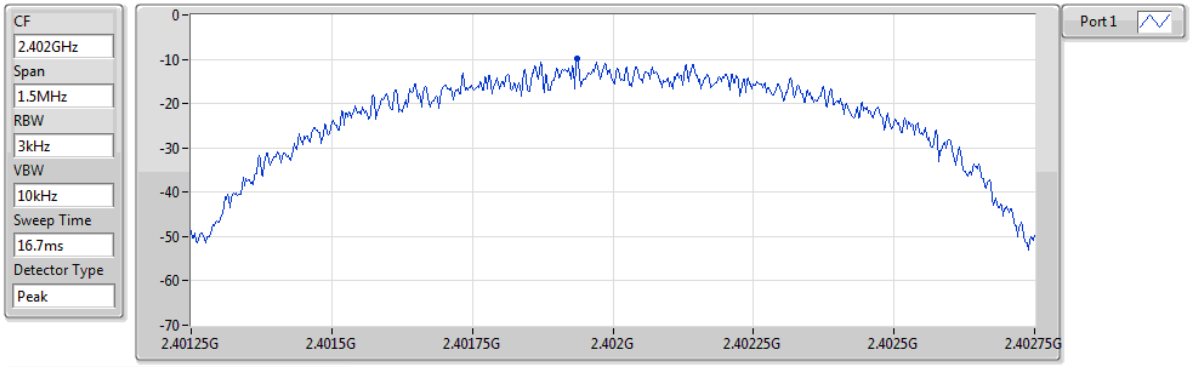
2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.40	-1.40	-1.40

BT-LE(1Mbps) **PSD**

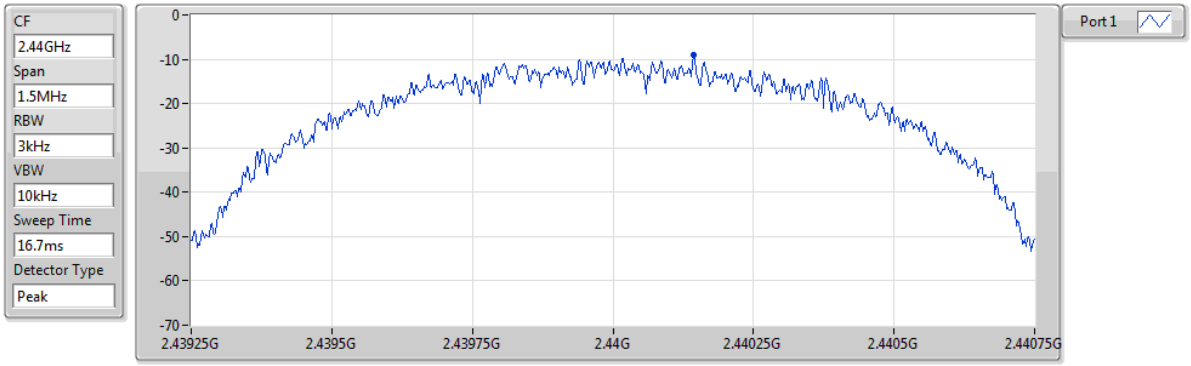
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.85	-9.85	-9.85

BT-LE(1Mbps) **PSD**

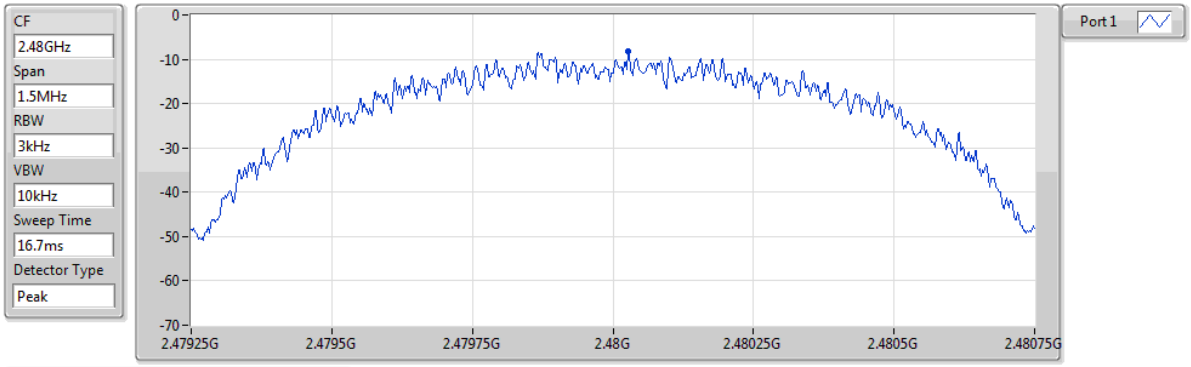
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.97	-8.97	-8.97

BT-LE(1Mbps) **PSD**

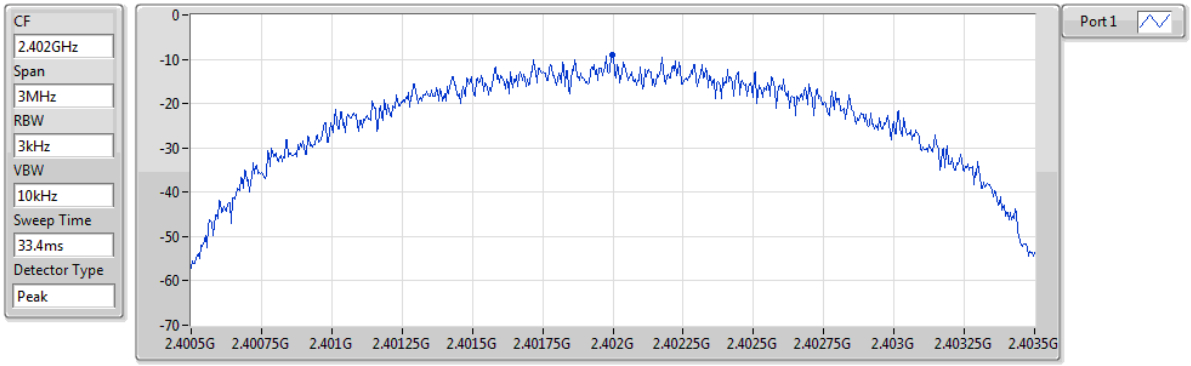
2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.23	-8.23	-8.23

BT-LE(2Mbps) **PSD**

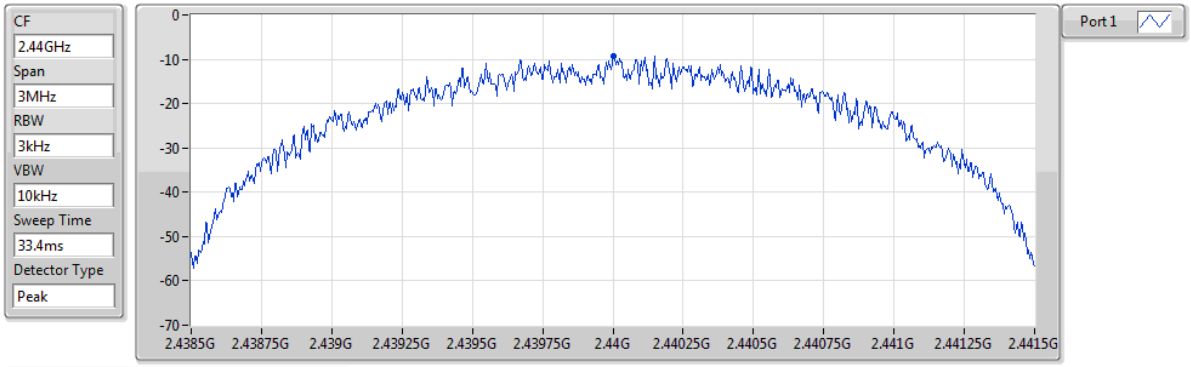
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.95	-8.95	-8.95

BT-LE(2Mbps) **PSD**

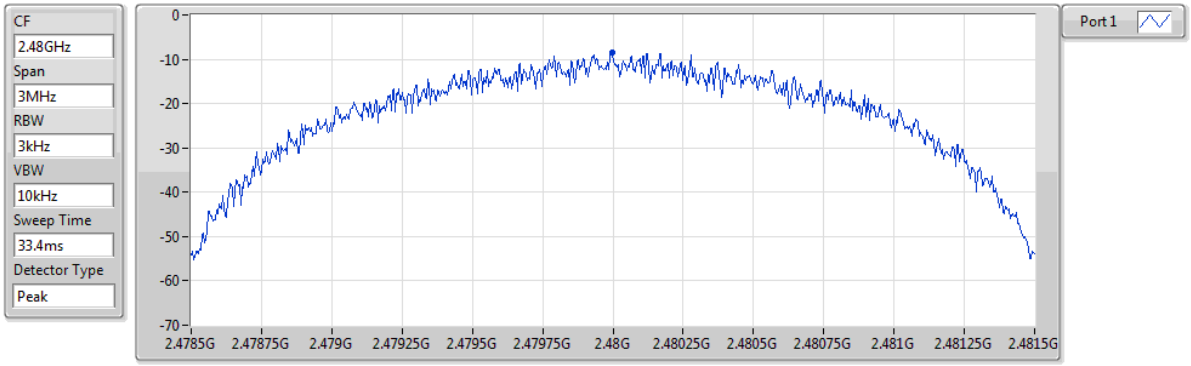
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.31	-9.31	-9.31

BT-LE(2Mbps) **PSD**

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.53	-8.53	-8.53

3.4 Emissions in Restricted Frequency Bands

3.4.1 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:
Qusai-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.

3.4.2 Test Procedures

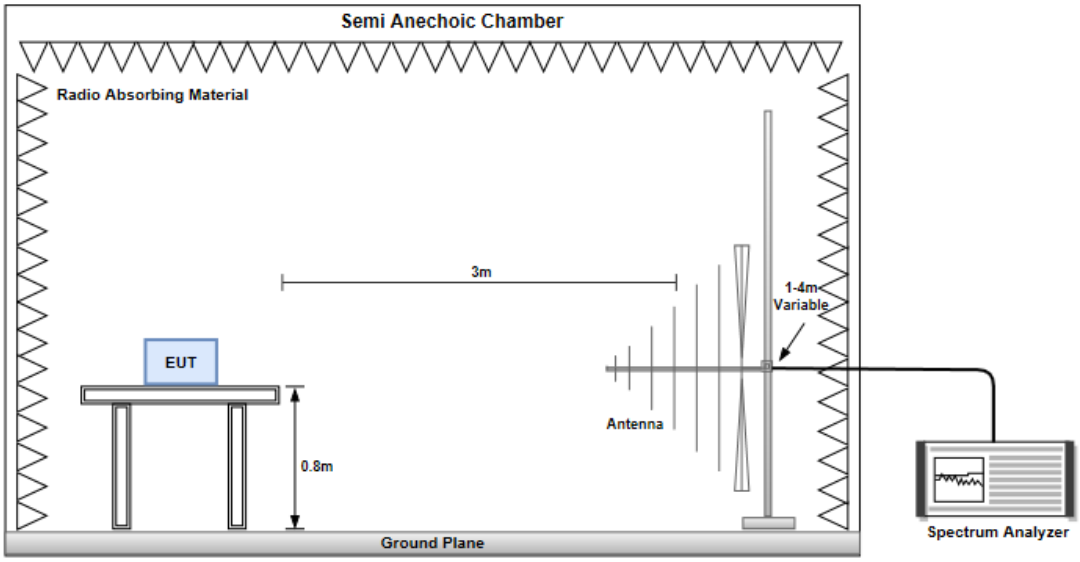
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission 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:

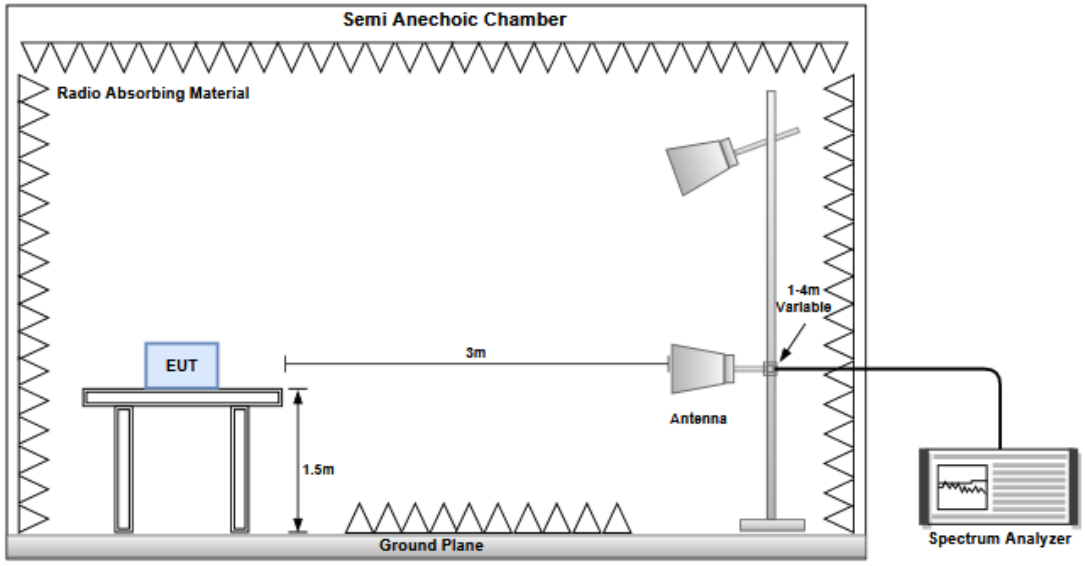
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.4.3 Test Setup

Radiated Emissions below 1 GHz



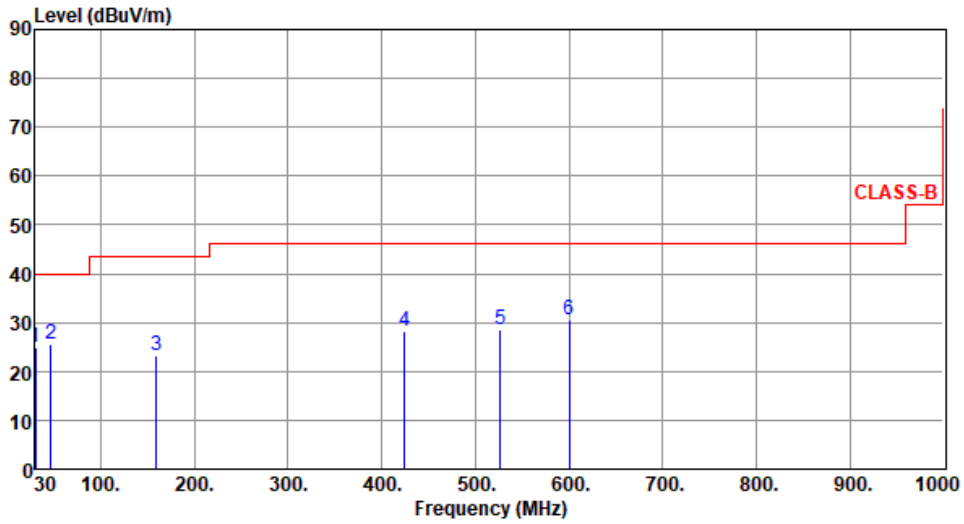
Radiated Emissions above 1 GHz



3.4.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	BT-LE (2Mbps)	Test Freq. (MHz)	2480
Polarization	Horizontal		

Test By :Roger Lu Temperature(℃):24 Humidity(%):62

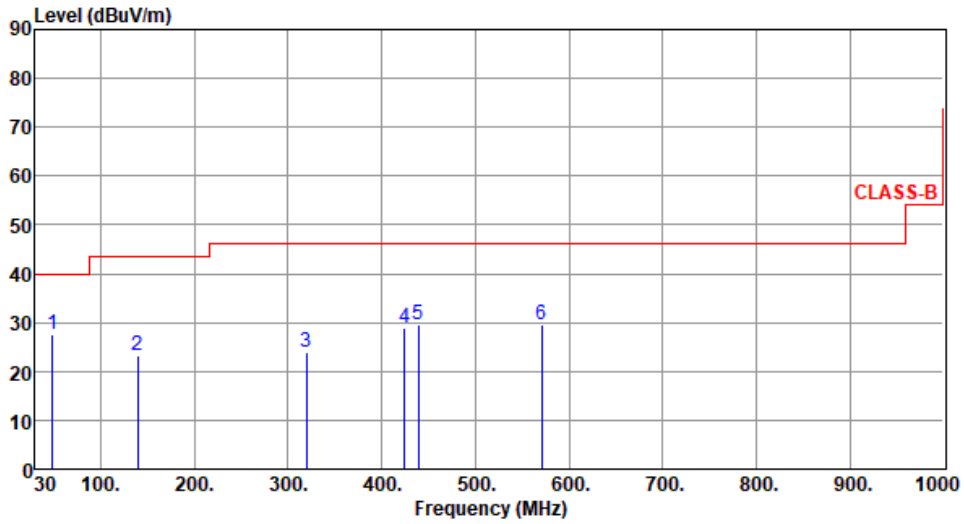


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	30.00	25.02	40.00	-14.98	34.96	-9.94	Peak	---	---
2	46.49	25.47	40.00	-14.53	33.96	-8.49	Peak	---	---
3	159.01	23.29	43.50	-20.21	31.98	-8.69	Peak	---	---
4	424.79	28.14	46.00	-17.86	33.16	-5.02	Peak	---	---
5	526.64	28.66	46.00	-17.34	31.55	-2.89	Peak	---	---
6	600.36	30.67	46.00	-15.33	31.68	-1.01	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.

Modulation	BT-LE (2Mbps)	Test Freq. (MHz)	2480
Polarization	Vertical		

Test By :Roger Lu Temperature(℃):24 Humidity(%):62



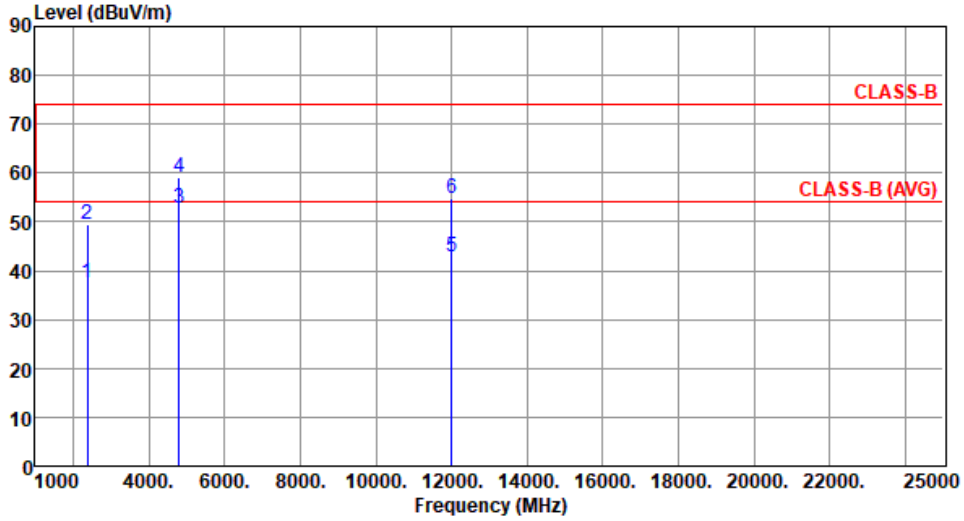
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	48.43	27.64	40.00	-12.36	36.23	-8.59	Peak	---	---
2	139.61	23.24	43.50	-20.26	32.48	-9.24	Peak	---	---
3	320.03	23.90	46.00	-22.10	31.37	-7.47	Peak	---	---
4	424.79	29.03	46.00	-16.97	34.05	-5.02	Peak	---	---
5	439.34	29.60	46.00	-16.40	34.18	-4.58	Peak	---	---
6	571.26	29.61	46.00	-16.39	31.47	-1.86	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.

3.4.5 Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation	BT-LE (1Mbps)	Test Freq. (MHz)	2402
Polarization	Horizontal		

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

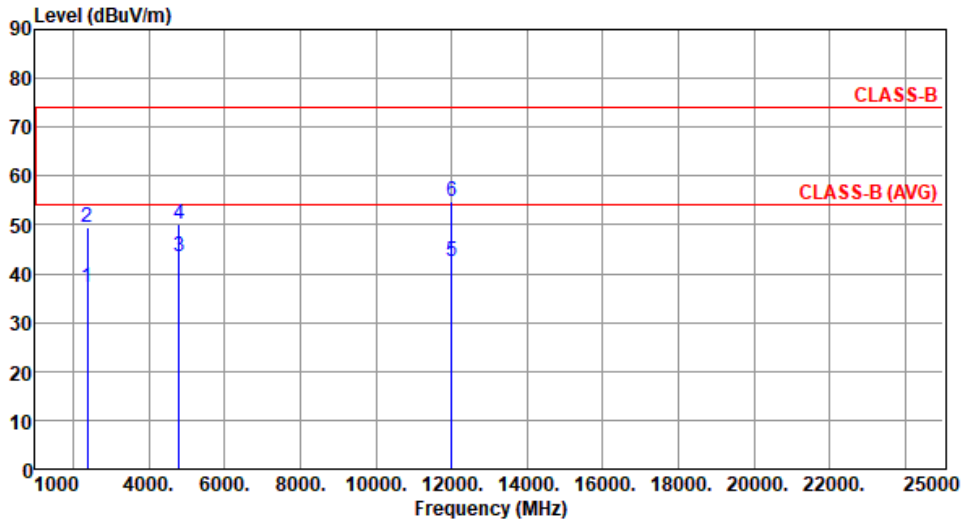


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.47	54.00	-16.53	40.30	-2.83	Average	349	13
2	2390.00	49.65	74.00	-24.35	52.48	-2.83	Peak	349	13
3	4804.00	52.92	54.00	-1.08	49.56	3.36	Average	207	320
4	4804.00	59.04	74.00	-14.96	55.68	3.36	Peak	207	320
5	12010.00	42.74	54.00	-11.26	29.44	13.30	Average	100	40
6	12010.00	54.88	74.00	-19.12	41.58	13.30	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).

Modulation	BT-LE (1Mbps)	Test Freq. (MHz)	2402
Polarization	Vertical		

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

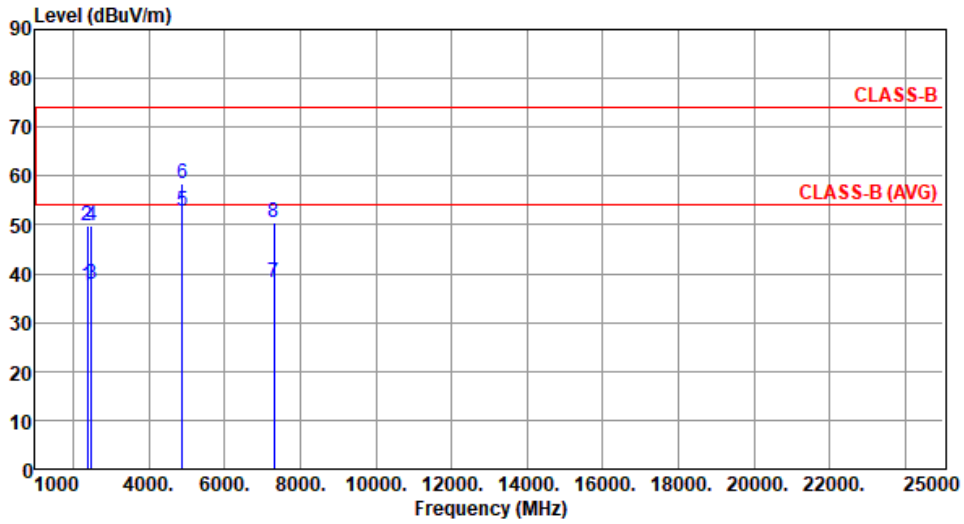


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.33	54.00	-16.67	40.16	-2.83	Average	355	212
2	2390.00	49.51	74.00	-24.49	52.34	-2.83	Peak	355	212
3	4804.00	43.57	54.00	-10.43	40.21	3.36	Average	105	299
4	4804.00	50.02	74.00	-23.98	46.66	3.36	Peak	105	299
5	12010.00	42.61	54.00	-11.39	29.31	13.30	Average	100	30
6	12010.00	54.69	74.00	-19.31	41.39	13.30	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).

Modulation	BT-LE (1Mbps)	Test Freq. (MHz)	2440
Polarization	Horizontal		

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

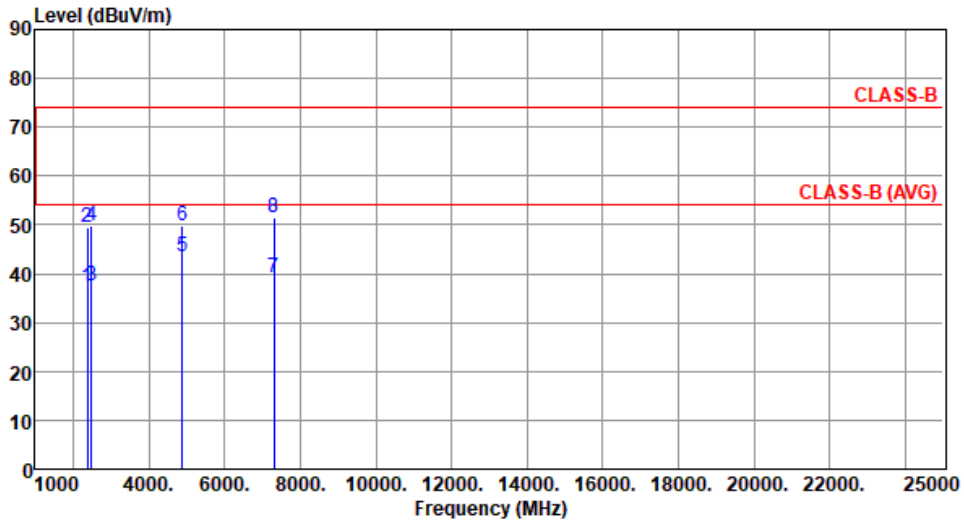


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.44	54.00	-16.56	40.27	-2.83	Average	339	18
2	2390.00	49.76	74.00	-24.24	52.59	-2.83	Peak	339	18
3	2483.50	37.81	54.00	-16.19	40.60	-2.79	Average	339	18
4	2483.50	49.86	74.00	-24.14	52.65	-2.79	Peak	339	18
5	4880.00	52.88	54.00	-1.12	49.56	3.32	Average	213	312
6	4880.00	58.44	74.00	-15.56	55.12	3.32	Peak	213	312
7	7320.00	38.17	54.00	-15.83	29.26	8.91	Average	274	259
8	7320.00	50.56	74.00	-23.44	41.65	8.91	Peak	274	259

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

Modulation	BT-LE (1Mbps)	Test Freq. (MHz)	2440
Polarization	Vertical		

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

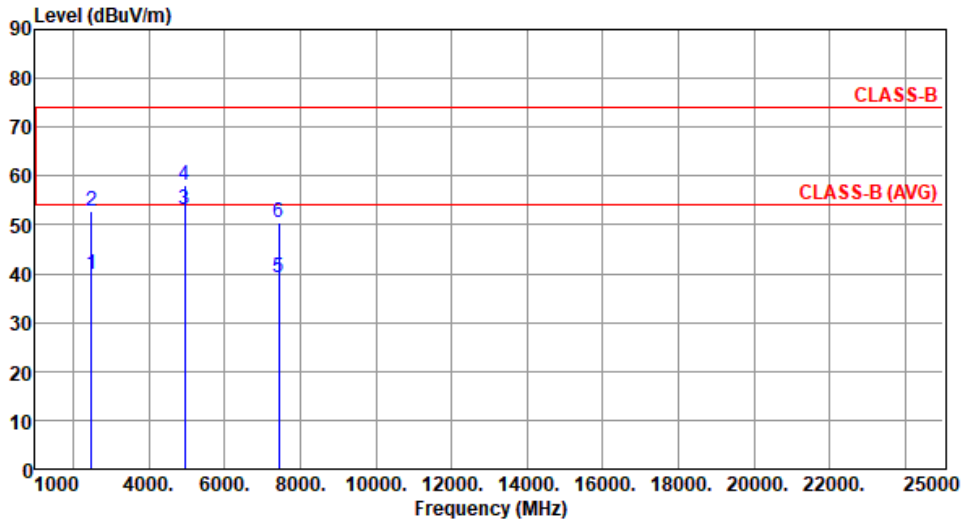


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.33	54.00	-16.67	40.16	-2.83	Average	359	213
2	2390.00	49.63	74.00	-24.37	52.46	-2.83	Peak	359	213
3	2483.50	37.66	54.00	-16.34	40.45	-2.79	Average	359	213
4	2483.50	49.68	74.00	-24.32	52.47	-2.79	Peak	359	213
5	4880.00	43.58	54.00	-10.42	40.26	3.32	Average	105	299
6	4880.00	49.88	74.00	-24.12	46.56	3.32	Peak	105	299
7	7320.00	39.06	54.00	-14.94	30.15	8.91	Average	316	11
8	7320.00	51.48	74.00	-22.52	42.57	8.91	Peak	316	11

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).

Modulation	BT-LE (1Mbps)	**Test Freq. (MHz)**	2480
Polarization	Horizontal		

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

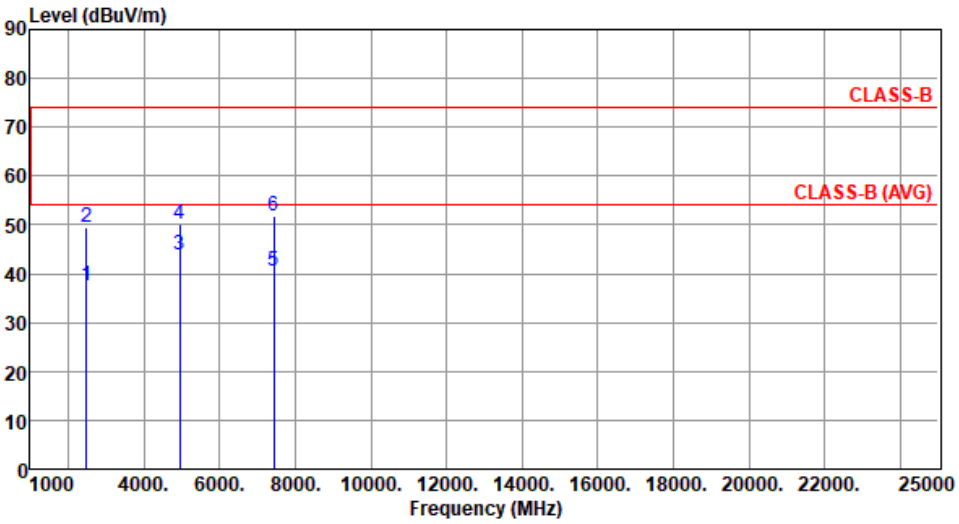


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	39.82	54.00	-14.18	42.61	-2.79	Average	327	24
2	2483.50	52.81	74.00	-21.19	55.60	-2.79	Peak	327	24
3	4960.00	52.98	54.00	-1.02	49.45	3.53	Average	220	312
4	4960.00	58.18	74.00	-15.82	54.65	3.53	Peak	220	312
5	7440.00	39.22	54.00	-14.78	30.31	8.91	Average	277	261
6	7440.00	50.55	74.00	-23.45	41.64	8.91	Peak	277	261

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).

Modulation	BT-LE (1Mbps)	**Test Freq. (MHz)**	2480
Polarization	Vertical		

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

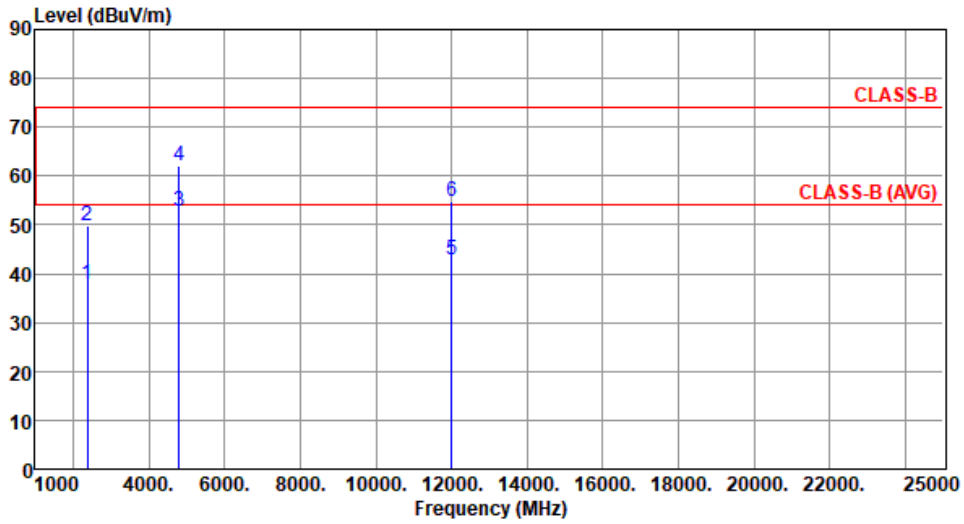


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	37.65	54.00	-16.35	40.44	-2.79	Average	356	217
2	2483.50	49.55	74.00	-24.45	52.34	-2.79	Peak	356	217
3	4960.00	43.88	54.00	-10.12	40.35	3.53	Average	106	294
4	4960.00	50.08	74.00	-23.92	46.55	3.53	Peak	106	294
5	7440.00	40.47	54.00	-13.53	31.56	8.91	Average	315	15
6	7440.00	51.77	74.00	-22.23	42.86	8.91	Peak	315	15

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).

Modulation	BT-LE (2Mbps)	Test Freq. (MHz)	2402
Polarization	Horizontal		

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

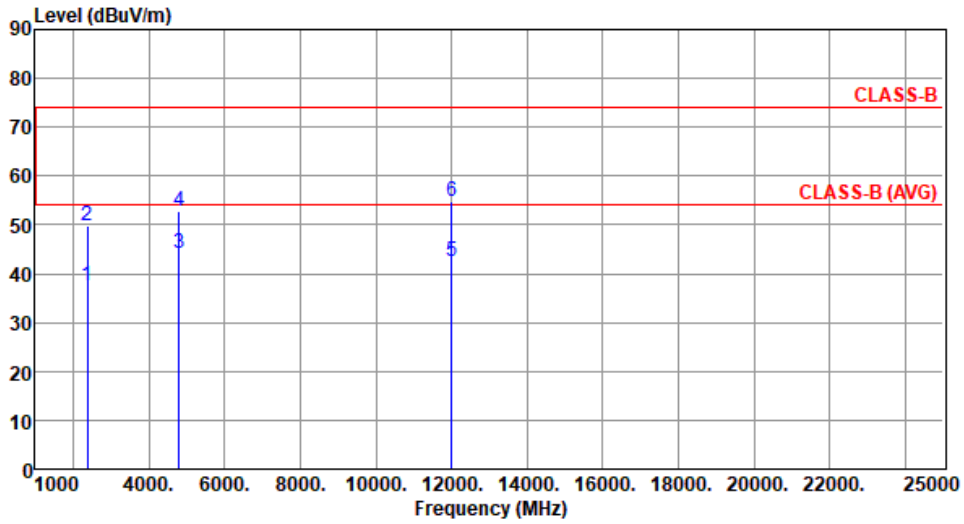


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.76	54.00	-16.24	40.59	-2.83	Average	388	7
2	2390.00	49.81	74.00	-24.19	52.64	-2.83	Peak	388	7
3	4804.00	52.92	54.00	-1.08	49.56	3.36	Average	201	318
4	4804.00	62.20	74.00	-11.80	58.84	3.36	Peak	201	318
5	12010.00	42.72	54.00	-11.28	29.42	13.30	Average	100	40
6	12010.00	54.93	74.00	-19.07	41.63	13.30	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).

Modulation	BT-LE (2Mbps)	Test Freq. (MHz)	2402
Polarization	Vertical		

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

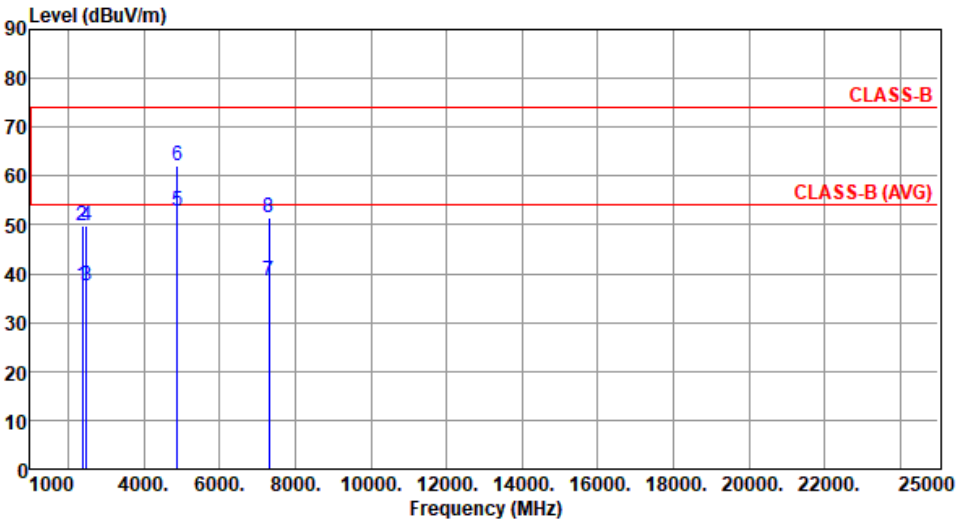


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.44	54.00	-16.56	40.27	-2.83	Average	355	214
2	2390.00	49.67	74.00	-24.33	52.50	-2.83	Peak	355	214
3	4804.00	44.04	54.00	-9.96	40.68	3.36	Average	105	298
4	4804.00	52.92	74.00	-21.08	49.56	3.36	Peak	105	298
5	12010.00	42.55	54.00	-11.45	29.25	13.30	Average	100	50
6	12010.00	54.74	74.00	-19.26	41.44	13.30	Peak	100	50

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).

Modulation	BT-LE (2Mbps)	**Test Freq. (MHz)**	2440
Polarization	Horizontal		

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

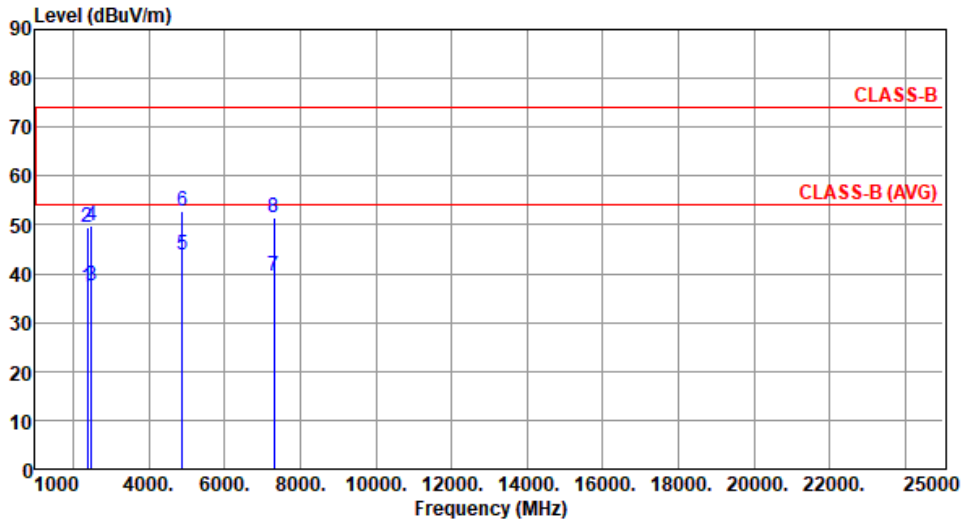


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.49	54.00	-16.51	40.32	-2.83	Average	202	322
2	2390.00	49.76	74.00	-24.24	52.59	-2.83	Peak	202	322
3	2483.50	37.40	54.00	-16.60	40.19	-2.79	Average	202	322
4	2483.50	49.86	74.00	-24.14	52.65	-2.79	Peak	202	322
5	4880.00	52.87	54.00	-1.13	49.55	3.32	Average	202	322
6	4880.00	62.18	74.00	-11.82	58.86	3.32	Peak	202	322
7	7320.00	38.59	54.00	-15.41	29.68	8.91	Average	274	256
8	7320.00	51.51	74.00	-22.49	42.60	8.91	Peak	274	256

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).

Modulation	BT-LE (2Mbps)	Test Freq. (MHz)	2440
Polarization	Vertical		

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

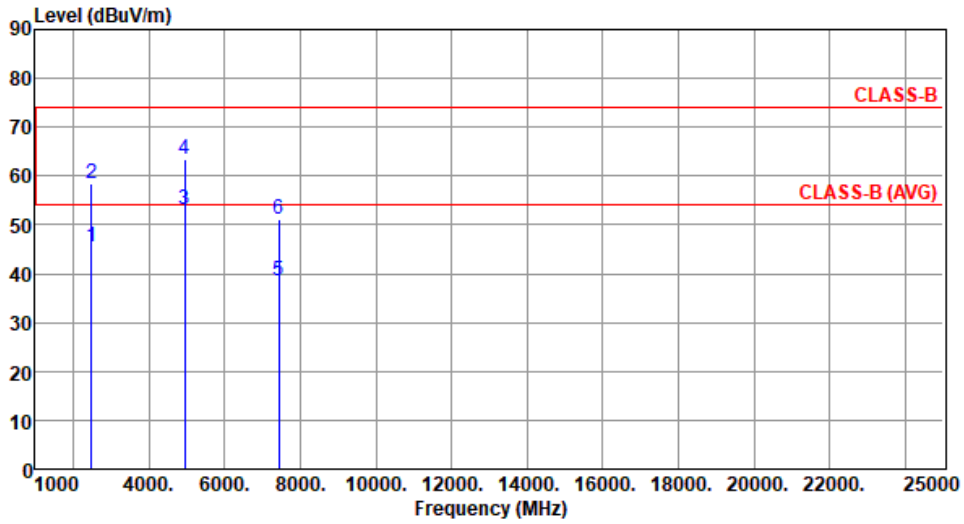


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2390.00	37.33	54.00	-16.67	40.16	-2.83	Average	355	216
2	2390.00	49.64	74.00	-24.36	52.47	-2.83	Peak	355	216
3	2483.50	37.48	54.00	-16.52	40.27	-2.79	Average	355	216
4	2483.50	49.81	74.00	-24.19	52.60	-2.79	Peak	355	216
5	4880.00	43.94	54.00	-10.06	40.62	3.32	Average	102	294
6	4880.00	52.95	74.00	-21.05	49.63	3.32	Peak	102	294
7	7320.00	39.36	54.00	-14.64	30.45	8.91	Average	322	6
8	7320.00	51.50	74.00	-22.50	42.59	8.91	Peak	322	6

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).

Modulation	BT-LE (2Mbps)	Test Freq. (MHz)	2480
Polarization	Horizontal		

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

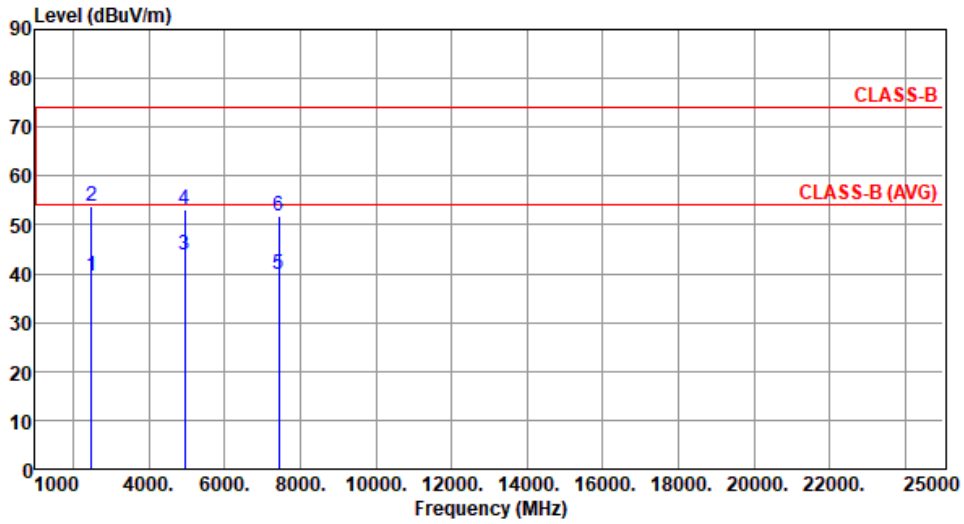


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	2483.50	45.41	54.00	-8.59	48.20	-2.79	Average	324	3
2	2483.50	58.34	74.00	-15.66	61.13	-2.79	Peak	324	3
3	4960.00	52.98	54.00	-1.02	49.45	3.53	Average	212	316
4	4960.00	63.28	74.00	-10.72	59.75	3.53	Peak	212	316
5	7440.00	38.49	54.00	-15.51	29.58	8.91	Average	277	255
6	7440.00	51.06	74.00	-22.94	42.15	8.91	Peak	277	255

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).

Modulation	BT-LE (2Mbps)	Test Freq. (MHz)	2480
Polarization	Vertical		

Test By :Roger Lu Temperature(℃):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	39.48	54.00	-14.52	42.27	-2.79	Average	352	211
2	2483.50	53.68	74.00	-20.32	56.47	-2.79	Peak	352	211
3	4960.00	43.78	54.00	-10.22	40.25	3.53	Average	156	295
4	4960.00	53.06	74.00	-20.94	49.53	3.53	Peak	156	295
5	7440.00	39.85	54.00	-14.15	30.94	8.91	Average	328	5
6	7440.00	51.91	74.00	-22.09	43.00	8.91	Peak	328	5

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).

3.5 Emissions in non-restricted Frequency Bands

3.5.1 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.

3.5.2 Test Procedures

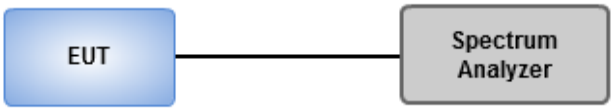
Reference level measurement

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

3.5.3 Test Setup

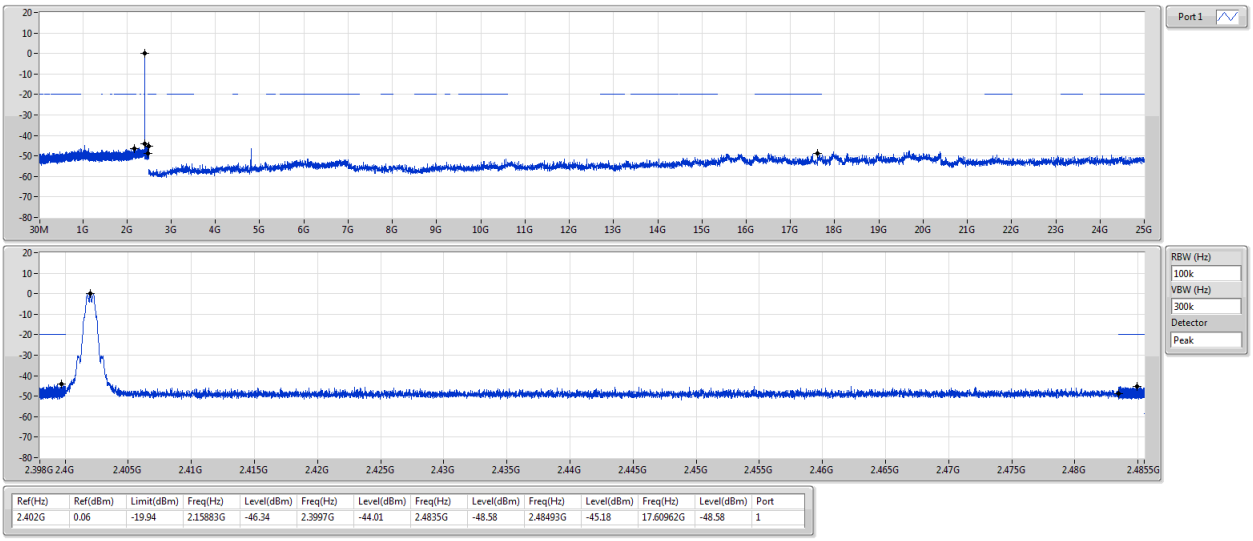


3.5.4 Test Result of Emissions in non-restricted Frequency Bands

Ambient Condition	23°C / 66%	Tested By	Aska Huang

BT-LE(125kbps) **CSENdB-DTS**

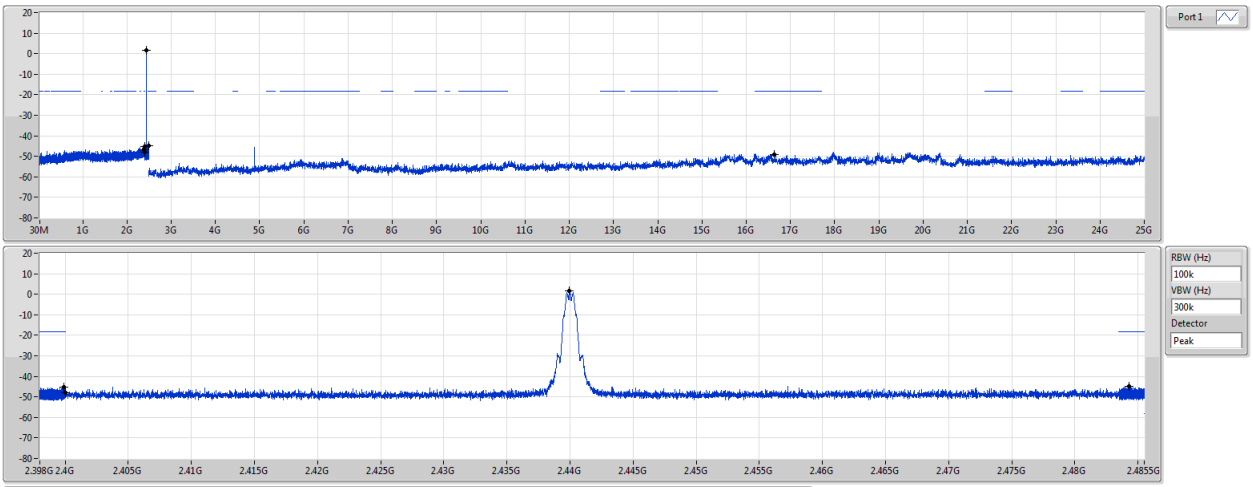
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.402G	0.06	-19.94	2.15883G	-46.34	2.3997G	-44.01	2.4835G	-48.58	2.48493G	-45.18	17.60962G	-48.58	1

BT-LE(125kbps) **CSENdB-DTS**

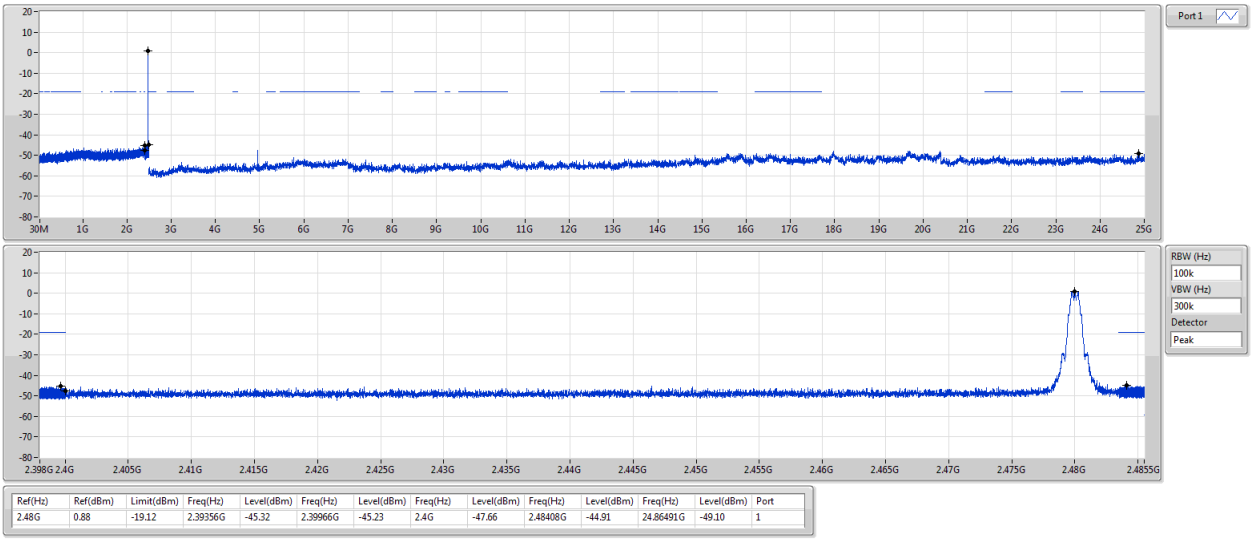
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43992G	1.55	-18.45	2.39178G	-46.65	2.39993G	-45.33	2.4G	-48.01	2.48428G	-44.82	16.63023G	-48.96	1

BT-LE(125kbps) **CSENdB-DTS**

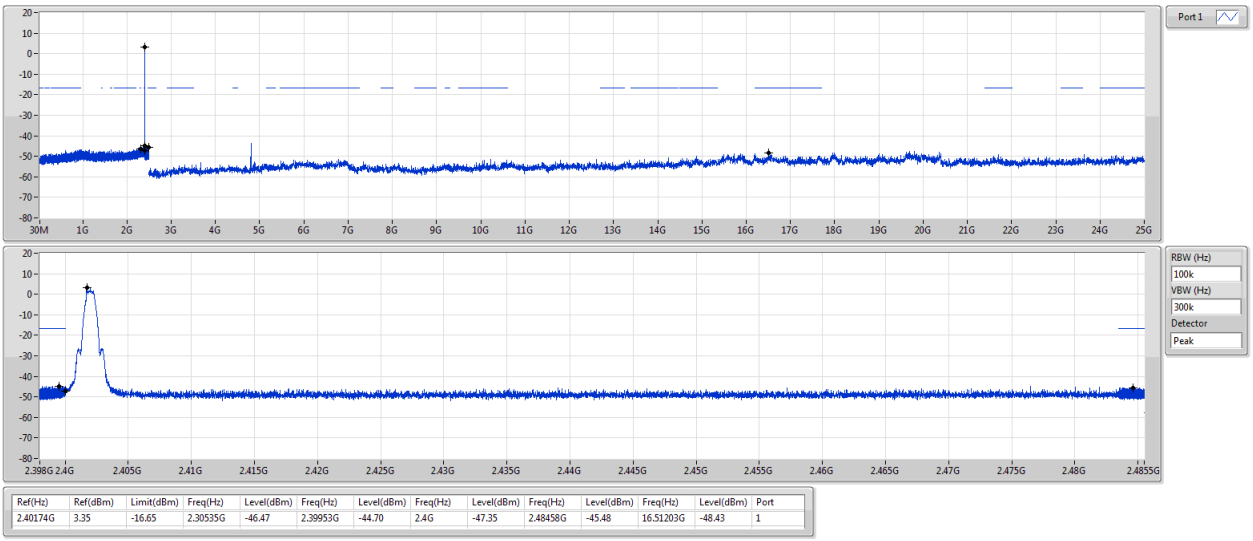
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48G	0.88	-19.12	2.39356G	-45.32	2.39966G	-45.23	2.4G	-47.66	2.48408G	-44.91	24.86491G	-49.10	1

BT-LE(500kbps) **CSENdB-DTS**

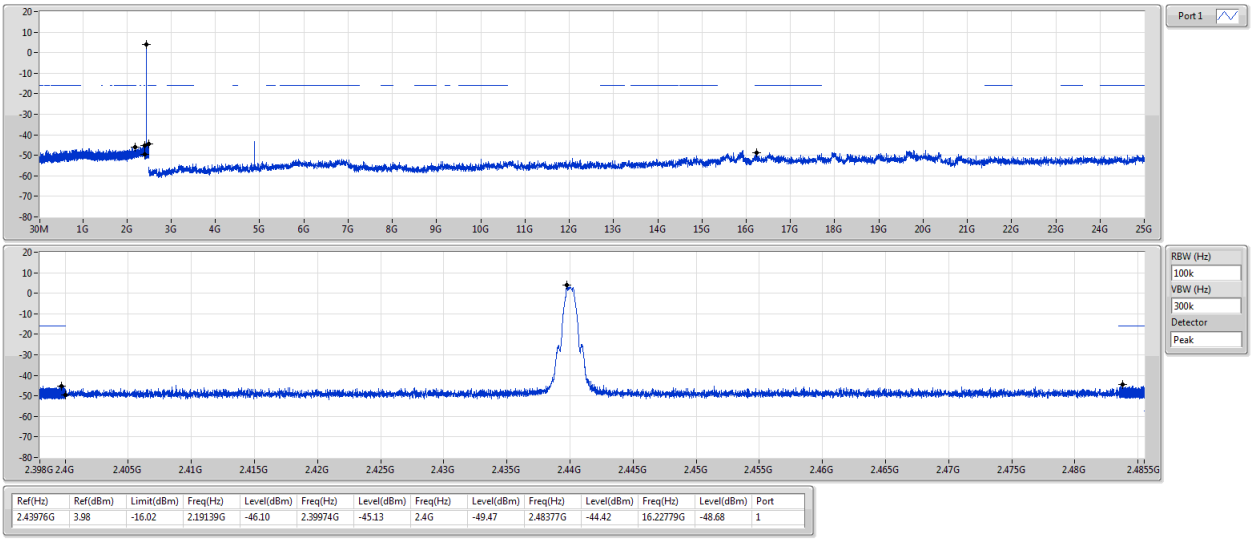
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40174G	3.35	-16.65	2.30535G	-46.47	2.39953G	-44.70	2.4G	-47.35	2.48458G	-45.48	16.51203G	-48.43	1

BT-LE(500kbps) **CSENdB-DTS**

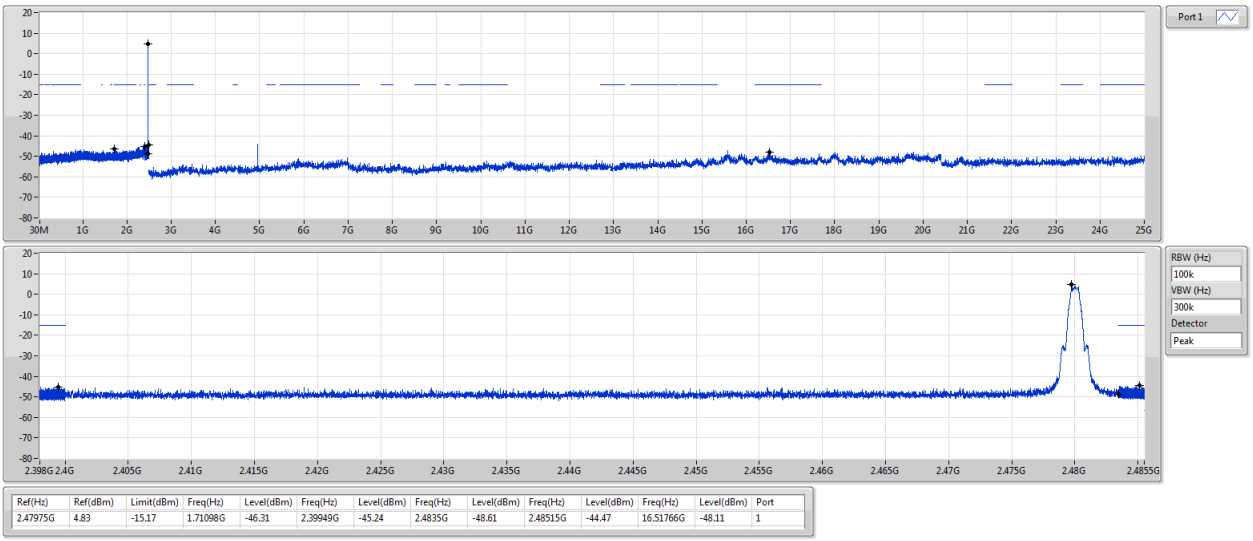
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43976G	3.98	-16.02	2.19139G	-46.10	2.39974G	-45.13	2.4G	-49.47	2.48377G	-44.42	16.22779G	-48.68	1

BT-LE(500kbps) **CSENdB-DTS**

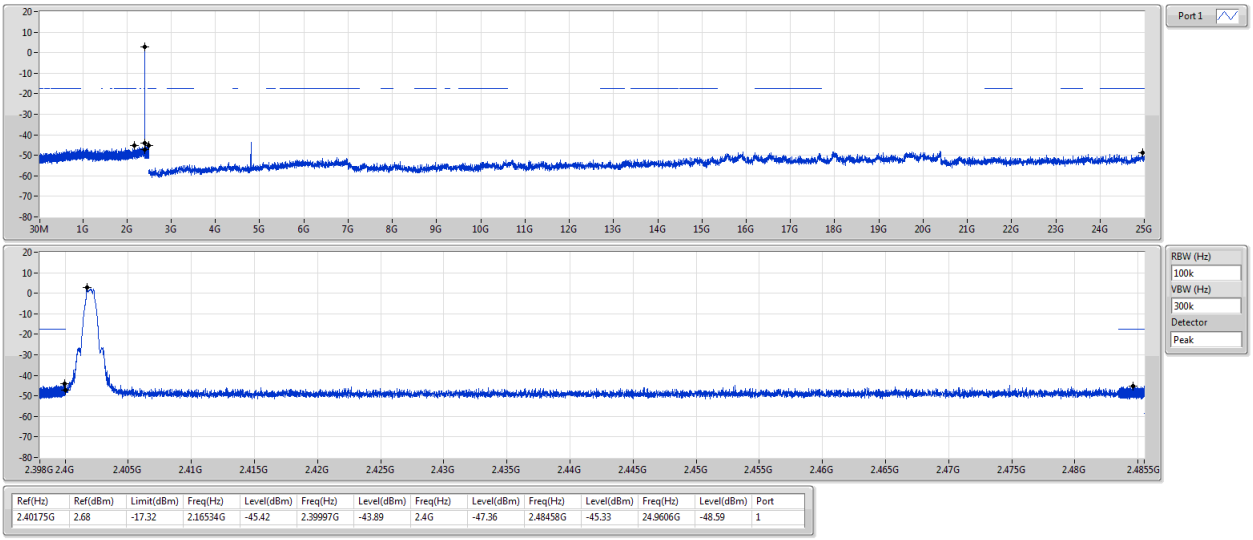
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47975G	4.83	-15.17	1.71098G	-46.31	2.39949G	-45.24	2.4835G	-48.61	2.48515G	-44.47	16.51766G	-48.11	1

BT-LE(1Mbps) **CSENdB-DTS**

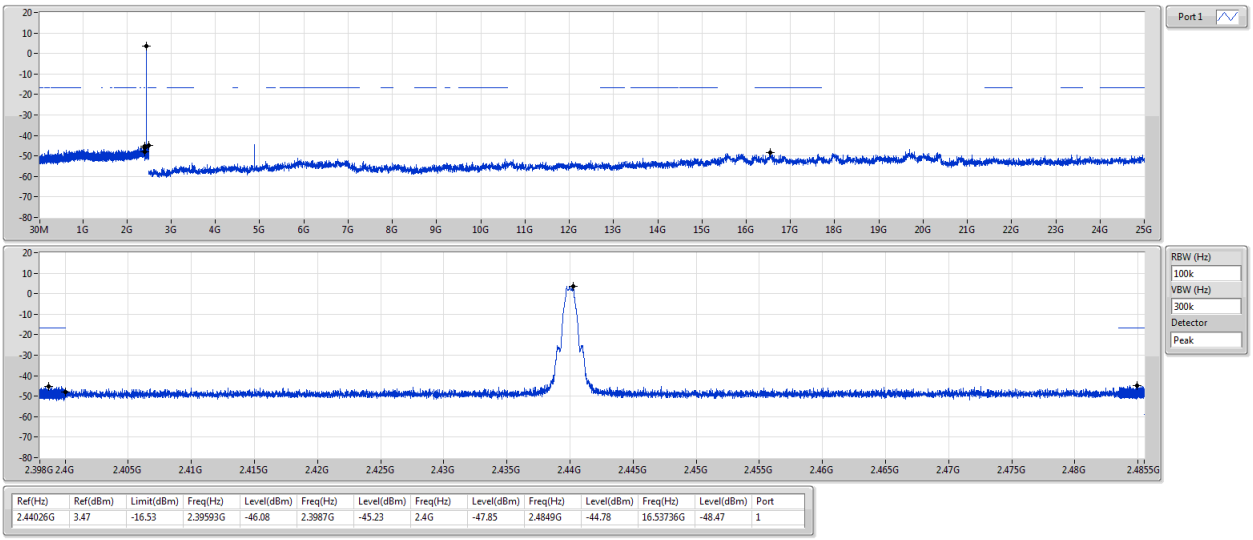
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40175G	2.68	-17.32	2.16534G	-45.42	2.39997G	-43.89	2.4G	-47.36	2.48458G	-45.33	24.9606G	-48.59	1

BT-LE(1Mbps) **CSENdB-DTS**

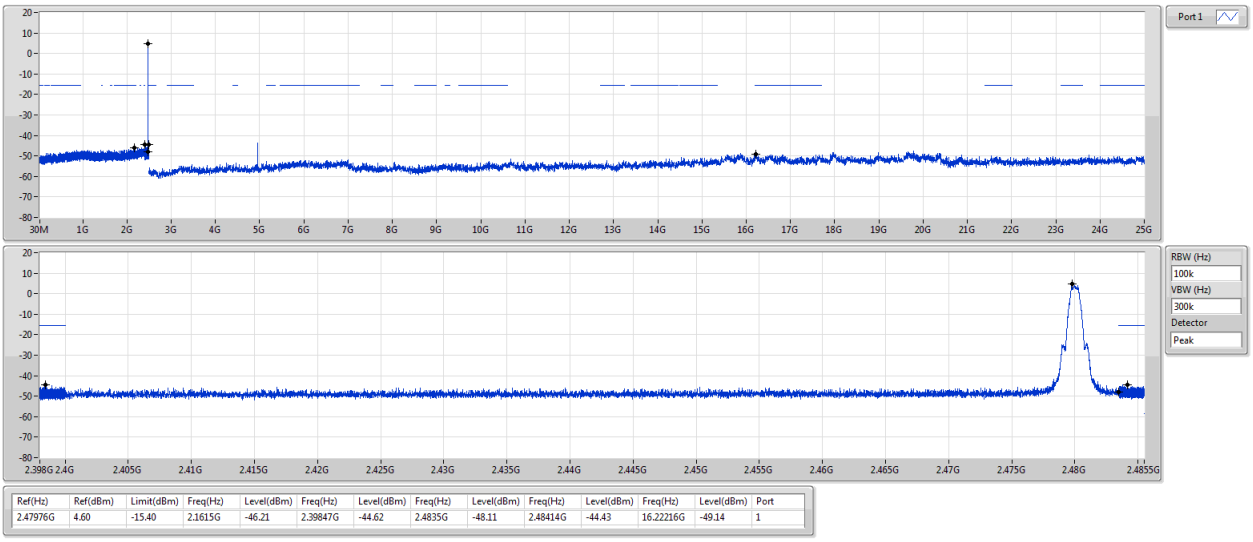
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44026G	3.47	-16.53	2.39593G	-46.08	2.3987G	-45.23	2.4G	-47.85	2.4849G	-44.78	16.53736G	-48.47	1

BT-LE(1Mbps) **CSENdB-DTS**

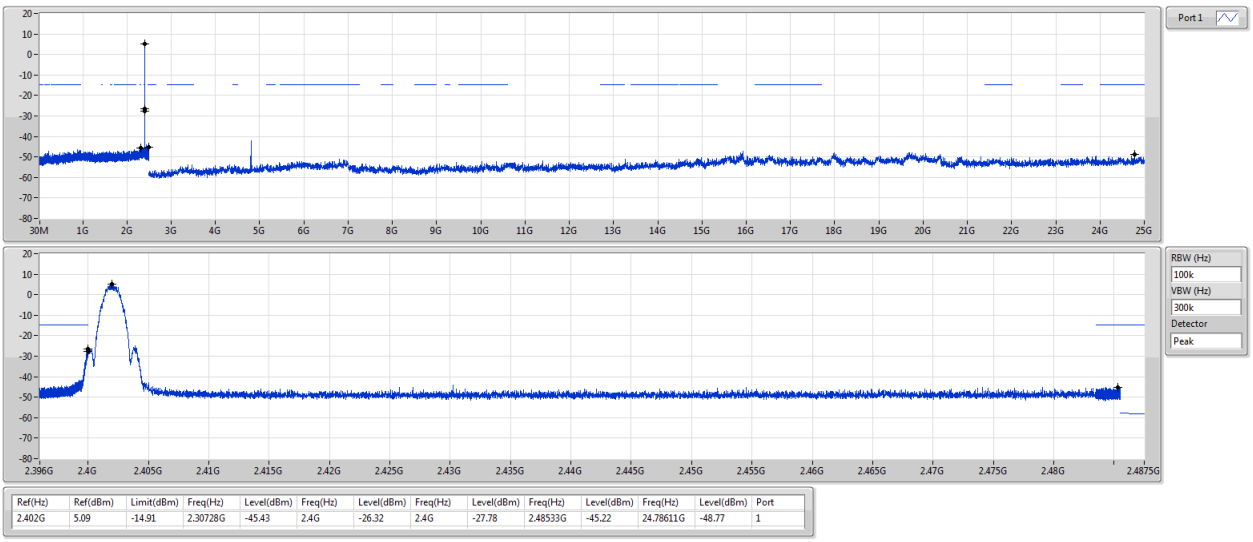
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47976G	4.60	-15.40	2.1615G	-46.21	2.39847G	-44.62	2.4835G	-48.11	2.48414G	-44.43	16.22216G	-49.14	1

BT-LE(2Mbps) **CSENdB-DTS**

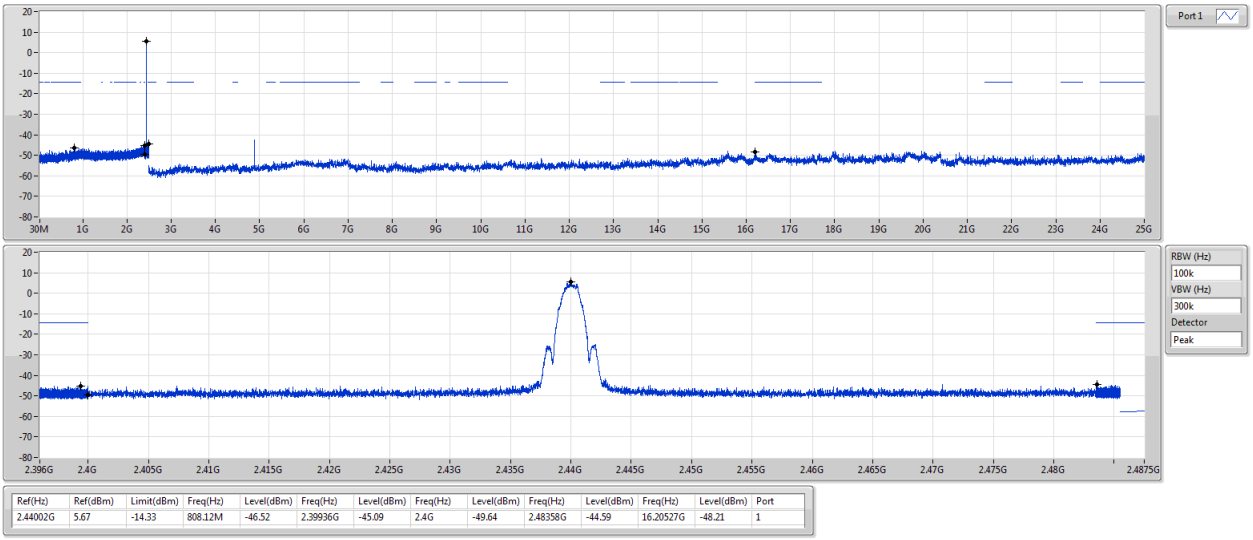
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.402G	5.09	-14.91	2.30728G	-45.43	2.4G	-26.32	2.4G	-27.78	2.48533G	-45.22	24.78611G	-48.77	1

BT-LE(2Mbps) **CSENdB-DTS**

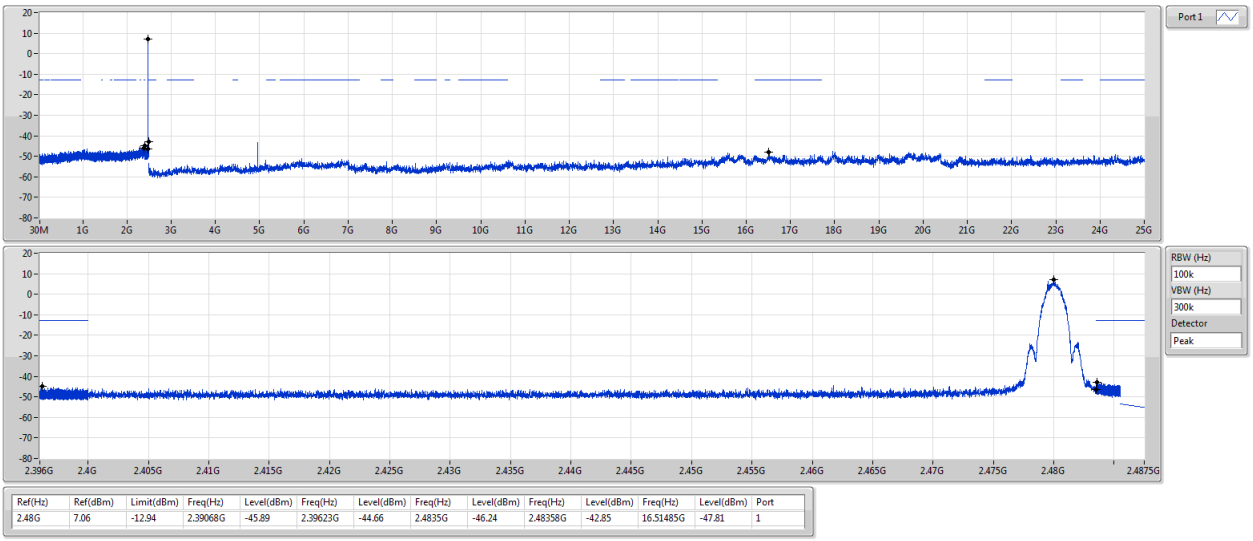
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44002G	5.67	-14.33	808.12M	-46.52	2.39936G	-45.09	2.4G	-49.64	2.48358G	-44.59	16.20527G	-48.21	1

BT-LE(2Mbps) **CSENdB-DTS**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.48G	7.06	-12.94	2.39068G	-45.89	2.39623G	-44.66	2.4835G	-46.24	2.48358G	-42.85	16.51485G	-47.81	1

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 Corporation (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	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)	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.)	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.

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