

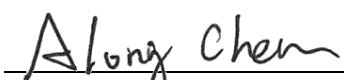
FCC Test Report

FCC ID : SQG-BL54L15U
Equipment : Bluetooth LE + 802.15.4 + NFC module
Model No. : BL54L15μ
Brand Name : Ezurio
Applicant : Ezurio LLC
Address : W66N220 Commerce Court, Cedarburg, WI
53012, USA
Standard : 47 CFR FCC Part 15.247
Received Date : Jan. 10, 2025
Tested Date : Jan. 10 ~ Jan. 15, 2025

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

Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Local Support Equipment List	8
1.3	Test Setup Chart	8
1.4	Test Equipment List and Calibration Data.....	10
1.5	Test Standards	11
1.6	Reference Guidance	11
1.7	Deviation from Test Standard and Measurement Procedure.....	11
1.8	Measurement Uncertainty	11
2	TEST CONFIGURATION	12
2.1	Testing Facility.....	12
2.2	The Worst Test Modes and Channel Details	12
3	TRANSMITTER TEST RESULTS.....	13
3.1	6dB and Occupied Bandwidth	13
3.2	Conducted Output Power	14
3.3	Power Spectral Density	15
3.4	Unwanted Emissions in Restricted Frequency Bands	16
3.5	Emissions in non-restricted Frequency Bands.....	18
3.6	AC Power Line Conducted Emissions	19
4	TEST LABORATORY INFORMATION	20
 Appendix A. 6dB and Occupied Bandwidth		
Appendix B. Conducted Output Power		
Appendix C. Power Spectral Density		
Appendix D. Unwanted Emissions into Restricted Frequency Bands		
Appendix E. Emissions in Non-Restricted Frequency Bands		
Appendix F. AC Power Line Conducted Emissions		

Release Record

Report No.	Version	Description	Issued Date
FR511001AE	Rev. 01	Initial issue	Feb. 14, 2025
FR511001AE	Rev. 02	Typing error of P4 is corrected.	Feb. 25, 2025

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emissions	[dBuV]: 0.404MHz 36.02 (Margin -11.75dB) - AV	Pass
15.247(d) 15.209	Unwanted Emissions	[dBm]: 19.52228GHz -44.39 (Margin -3.19dB) - AV	Pass
15.247(b)(3)	Conducted Output Power	Power [dBm]: 6.82	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	LE	2402-2480	40	125 kbps
				500 kbps
				1 Mbps
		2404-2478	37	2 Mbps
Note: Bluetooth LE (Low energy) uses GFSK modulation.				

1.1.2 Antenna Details

External Antenna list for BL54L15 μ RF trace pin module variant (453-00224R)

Manufacturer	Model	Part Number	Type	Connector	2400-2500 (MHz)	2400-2480 (MHz)
Ezurio	NanoBlue	EBL2400A1-10MH4L	PCB Dipole	IPEX MHF4	2 dBi	-
Ezurio	FlexPIFA	001-0022	FlexPIFA	IPEX MHF4L	-	2 dBi
Mag.Layers	EDA-8709-2G4C1-B27-CY	0600-00057	Dipole	IPEX MHF4	2.32 dBi	-
Ezurio	mFlexPIFA	EFA2400A3S-10MH4L	PIFA	IPEX MHF4L	-	2 dBi
Ezurio	i-FlexPIFATM Mini Series	EFG2401A3S-10MH4L	i-FlexPIFA	IPEX MHF4L	-	2 dBi
Ezurio	Ezurio NFC	0600-00061	Coiled Inductor	FFC/FPC Connector	-	-

Integrated Antenna BL54L15 μ Chip antenna module variant (453-00223R)

Manufacturer	Model	Part Number	Type	Connector	2400-2500 (MHz)
Yaego (Pulse)	NC	ANT1608LL14R 2400A	Chip Antenna	N/A	2.0 dBi
Ezurio	Ezurio NFC	0600-00061	Coiled Inductor	FFC/FPC Connector	-

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	1.8Vdc from host
-------------------	------------------

1.1.4 Accessories

N/A

1.1.5 Channel List

Frequency band (MHz)				2402-2480 / BT-LE(125kbps / 500kbps / 1Mbps)			
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

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

1.1.6 Test Tool and Duty Cycle

Test Tool	Tera Term, Version: 4.84	
Modulation Mode	Duty Cycle Of Test Signal (%)	Duty Factor (dB)
BT-LE(125kbps)	100.00%	0.00
BT-LE(500kbps)	100.00%	0.00
BT-LE(1Mbps)	100.00%	0.00
BT-LE(2Mbps)	100.00%	0.00

1.1.7 Power Index of Test Tool

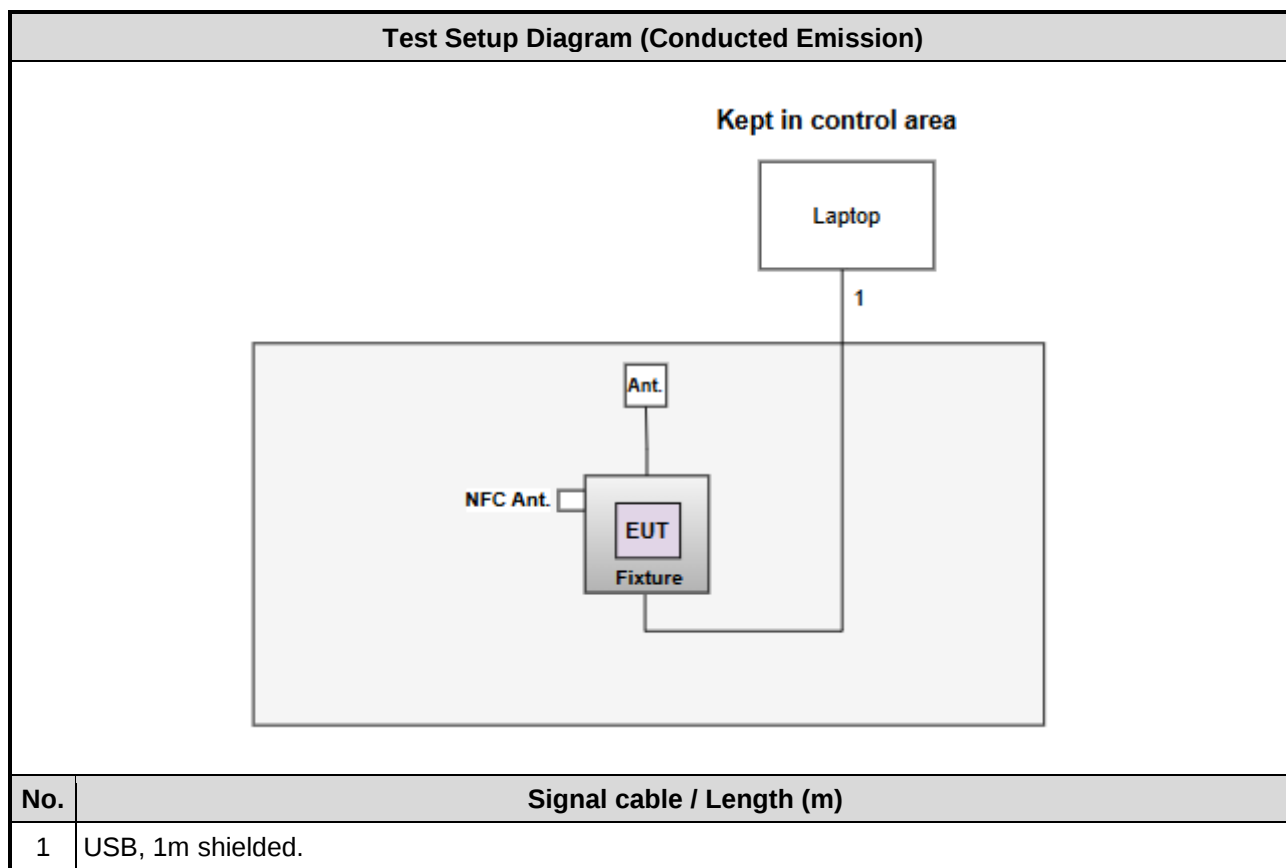
Modulation Mode	Test Frequency (MHz)		
	2402	2440	2480
BT-LE(125kbps)	pos7dBm	pos7dBm	pos7dBm
BT-LE(500kbps)	pos7dBm	pos7dBm	pos7dBm
BT-LE(1Mbps)	pos7dBm	pos7dBm	pos7dBm

Modulation Mode	Test Frequency (MHz)		
	2404	2440	2478
BT-LE(2Mbps)	pos7dBm	pos7dBm	pos7dBm

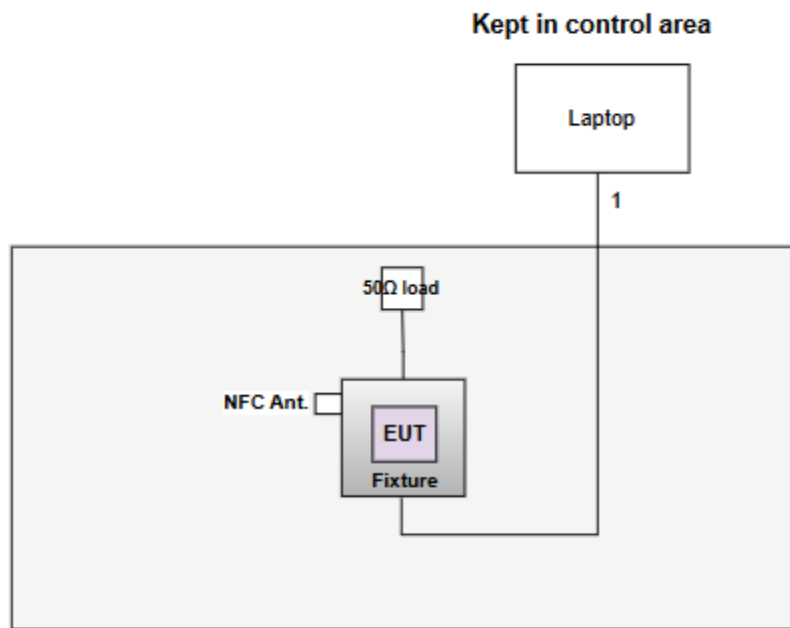
1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Laptop	DELL	Latitude E5400	DoC	---
2	50 ohm load	Woken	WTER-18S2	---	---
3	Fixture	---	---	---	Provided by applicant.

1.3 Test Setup Chart



Test Setup Diagram (Radiated Emission)



No.	Signal cable / Length (m)
1	USB, 1m shielded.

1.4 Test Equipment List and Calibration Data

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Jan. 15, 2025				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 05, 2024	Mar. 04, 2025
LISN	R&S	ENV216	101579	May 09, 2024	May 08, 2025
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127-666	Mar. 05, 2024	Mar. 04, 2025
50 ohm terminal	NA	50	01	Jun. 19, 2024	Jun. 18, 2025
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Jan. 15, 2025				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 05, 2024	Mar. 04, 2025
Spectrum Analyzer	R&S	FSV40	101498	Nov. 12, 2024	Nov. 11, 2025
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 05, 2024	Nov. 04, 2025
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Aug. 09, 2024	Aug. 08, 2025
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Nov. 28, 2024	Nov. 27, 2025
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 18, 2024	Nov. 17, 2025
Preamplifier	EMC	EMC02325	980225	Jun. 17, 2024	Jun. 16, 2025
Preamplifier	EMC	EMC118A45SE	980898	Jul. 05, 2024	Jul. 04, 2025
Preamplifier	EMC	EMC184045SE	980903	Jul. 30, 2024	Jul. 29, 2025
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 02, 2024	Oct. 01, 2025
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 02, 2024	Oct. 01, 2025
LF cable 11M	EMC	EMCCFD400-NW-NW-11000	200801	Oct. 02, 2024	Oct. 01, 2025
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 02, 2024	Oct. 01, 2025
RF Cable	EMC	EMC104-35M-35M-8000	210920	Oct. 02, 2024	Oct. 01, 2025
RF Cable	EMC	EMC104-35M-35M-3000	210922	Oct. 02, 2024	Oct. 01, 2025
Attenuator	Pasternack	PE7005-10	10-1	Oct. 02, 2024	Oct. 01, 2025
HIGHPASS FILTER 3.1-18G	WHK	WHK3.1/18G-10SS	39	Oct. 02, 2024	Oct. 01, 2025
Measurement Software	Sporton	SENSE-15247_FS	V5.11	NA	NA
Measurement Software	Sporton	SENSE-EMI	V5.11	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Jan. 10 ~ Jan. 15, 2025				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV3044	101516	Jun. 17, 2024	Jun. 16, 2025
Power Meter	Anritsu	ML2495A	1241002	Nov. 26, 2024	Nov. 25, 2025
Power Sensor	Anritsu	MA2411B	1207366	Nov. 26, 2024	Nov. 25, 2025
Attenuator	Pasternack	PE7005-10	10-2	Oct. 04, 2024	Oct. 03, 2025
HIGHPASS FILTER 3.1-18G	WHK	WHK3.1/18G-10SS	39	Oct. 02, 2024	Oct. 01, 2025
Measurement Software	Sporton	SENSE-15247_FS	V5.11	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
Unwanted Emission ≤ 1GHz	±3.41 dB
Unwanted Emission > 1GHz	±4.59 dB

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	CO01-WS, 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	Modulation Mode	Test Frequency (MHz)	Test Configuration
AC Power Line Conducted Emissions	BT-LE(1Mbps)	2440	-
Unwanted Emissions ≤ 1GHz	BT-LE(1Mbps)	2440	-
Unwanted Emissions > 1GHz	BT-LE(1Mbps) BT-LE(2Mbps)	2402, 2440, 2480 2404, 2440, 2478	-
Conducted Output Power	BT-LE(125kbps)	2402, 2440, 2480	-
6dB bandwidth	BT-LE(500kbps)	2402, 2440, 2480	
Power spectral density	BT-LE(1Mbps)	2402, 2440, 2480	
	BT-LE(2Mbps)	2404, 2440, 2478	
NOTE:			
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The Z-plane results were found as the worst case and were shown in this report.			
2. The 50Ω terminator is connected to antenna port of EUT for radiated emission measurement.			

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

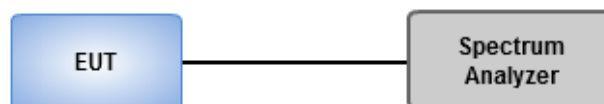
6dB Bandwidth

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 Results

Ambient Condition	22-23°C / 62%	Tested By	Roger Lu / Akun Chung
-------------------	---------------	-----------	-----------------------

Refer to Appendix A.

3.2 Conducted Output Power

3.2.1 Limit of Conducted Output Power

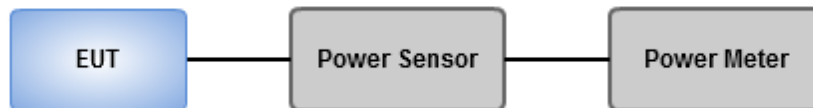
Conducted power shall not exceed 1Watt.

Antenna gain $\leq 6\text{dBi}$, 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 Results

Ambient Condition	22-23°C / 62%	Tested By	Roger Lu / Akun Chung
-------------------	---------------	-----------	-----------------------

Refer to Appendix B.

3.3 Power Spectral Density

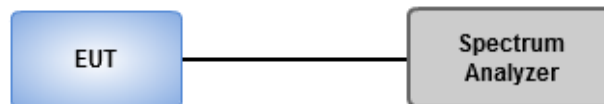
3.3.1 Limit of Power Spectral Density

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

3.3.2 Test Procedures

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.

3.3.3 Test Setup



3.3.4 Test Results

Ambient Condition	22-23°C / 62%	Tested By	Roger Lu / Akun Chung
-------------------	---------------	-----------	-----------------------

Refer to Appendix C.

3.4 Unwanted Emissions in Restricted Frequency Bands

3.4.1 Limit of Unwanted 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.

3.4.2 Test Procedures

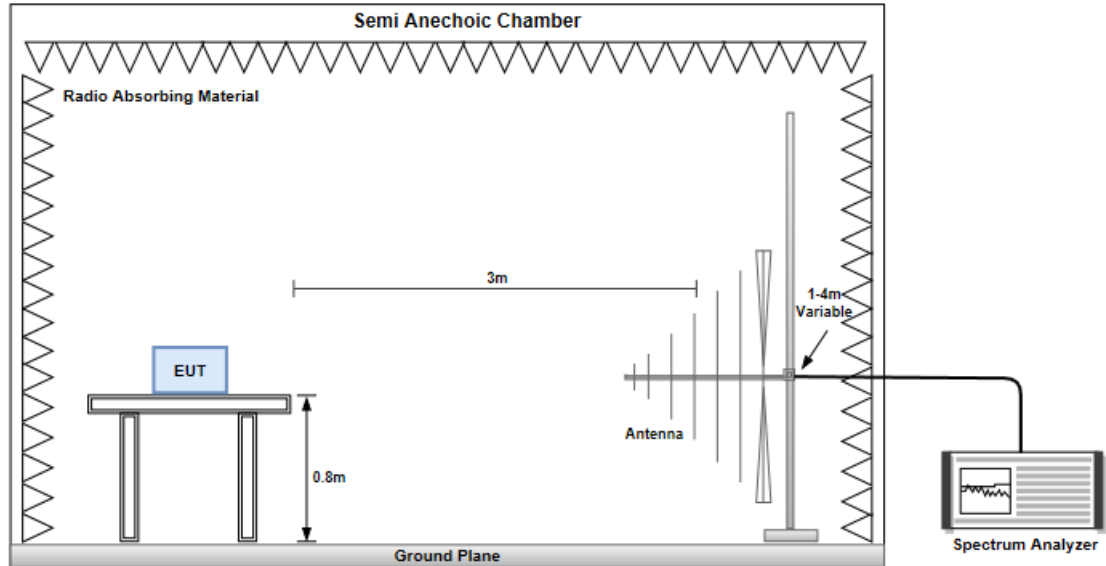
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

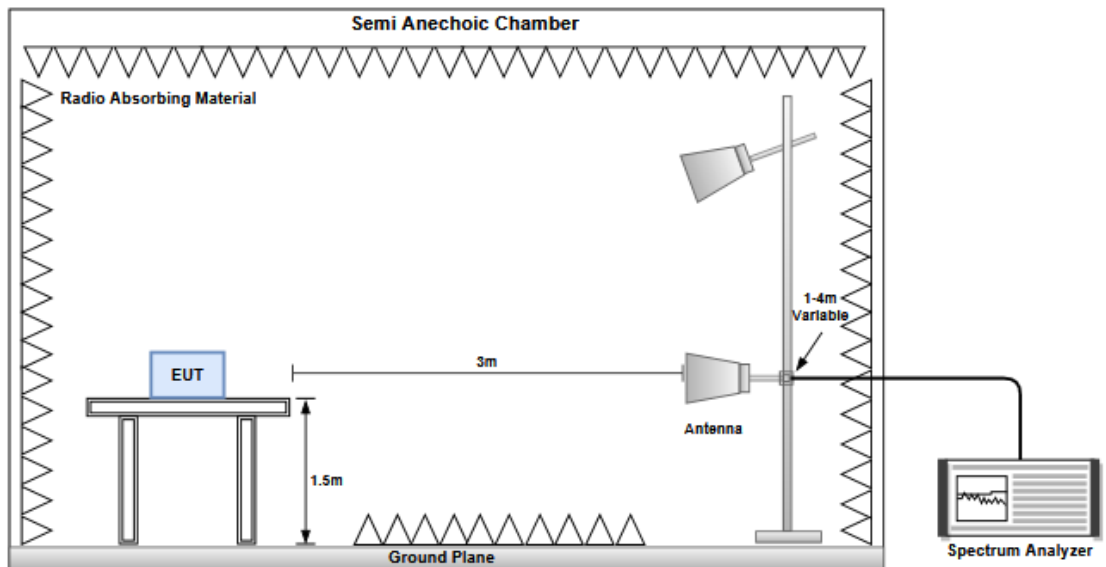
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.4.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.4.4 Test Results

Ambient Condition	21°C / 66%	Tested By	Sean Yu / Allen Lee
-------------------	------------	-----------	---------------------

Refer to Appendix D.

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

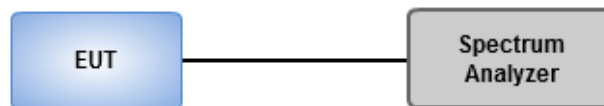
Reference level measurement

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 Results

Ambient Condition	20°C / 63%	Tested By	Akun Chung
-------------------	------------	-----------	------------

Refer to Appendix E.

3.6 AC Power Line Conducted Emissions

3.6.1 Limit of AC Power Line Conducted Emissions

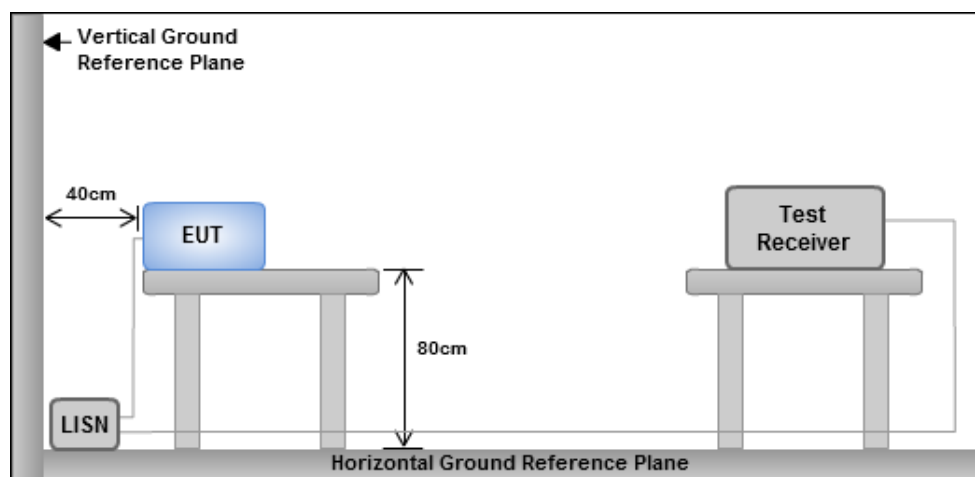
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

3.6.2 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 Ω 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

3.6.3 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

3.6.4 Test Results

Refer to Appendix F.

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

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 33381, Taiwan (R.O.C.)

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

Tel: 886-3-271-8666

Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

==END==

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)	721.25k	1.086M	1M09F1D	663.75k	1.077M
BT-LE(500kbps)	702.5k	1.055M	1M06F1D	686.25k	1.047M
BT-LE(1Mbps)	703.75k	1.079M	1M08F1D	698.75k	1.071M
BT-LE(2Mbps)	1.33M	2.137M	2M14F1D	1.233M	2.13M

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	663.75k	1.079M
2440MHz	Pass	500k	668.75k	1.077M
2480MHz	Pass	500k	721.25k	1.086M
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	500k	686.25k	1.047M
2440MHz	Pass	500k	688.75k	1.047M
2480MHz	Pass	500k	702.5k	1.055M
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	701.25k	1.071M
2440MHz	Pass	500k	698.75k	1.079M
2480MHz	Pass	500k	703.75k	1.071M
BT-LE(2Mbps)	-	-	-	-
2404MHz	Pass	500k	1.233M	2.13M
2440MHz	Pass	500k	1.255M	2.13M
2478MHz	Pass	500k	1.33M	2.137M

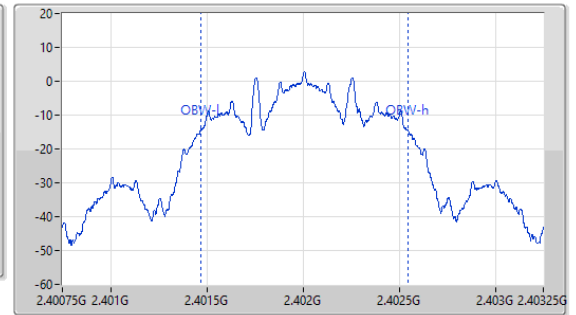
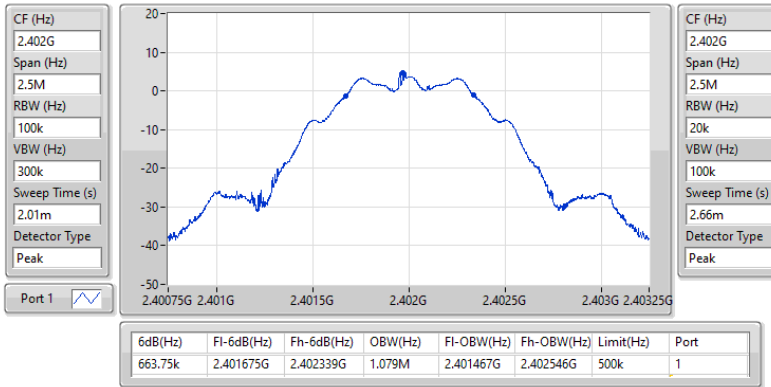
Port X-N dB = Port X 6dB down bandwidth;

Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-LE(125kbps)

EBW-DTS

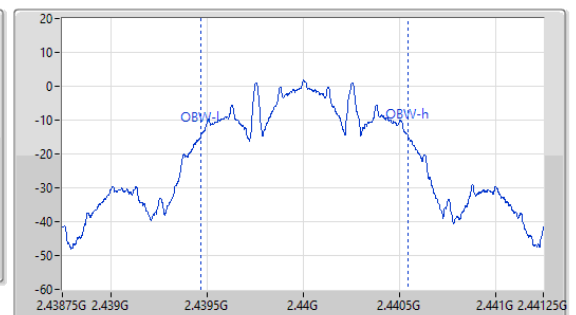
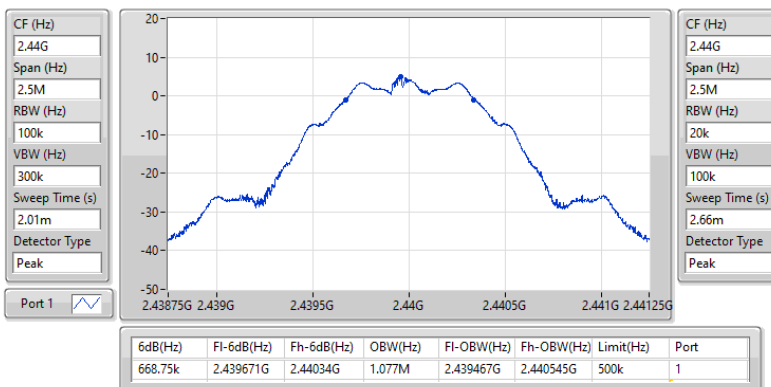
2402MHz



2.4-2.4835GHz_BT-LE(125kbps)

EBW-DTS

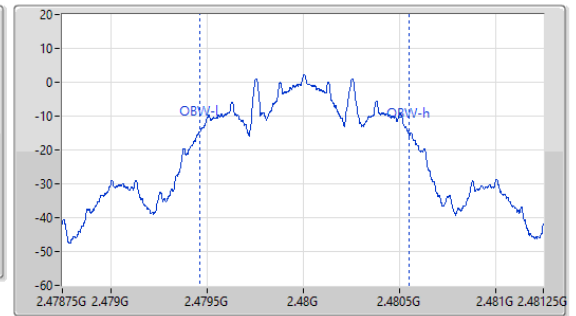
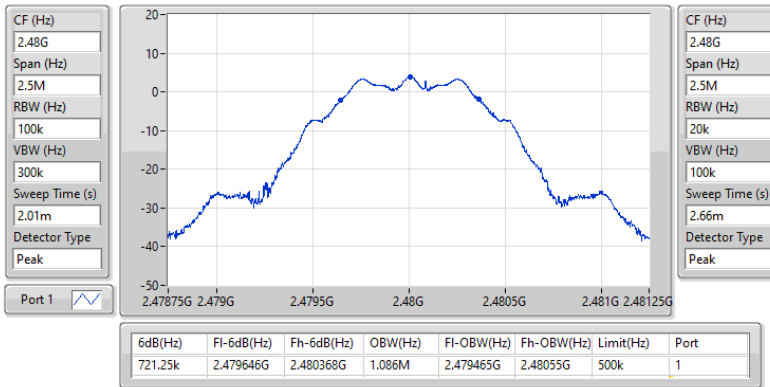
2440MHz



2.4-2.4835GHz_BT-LE(125kbps)

EBW-DTS

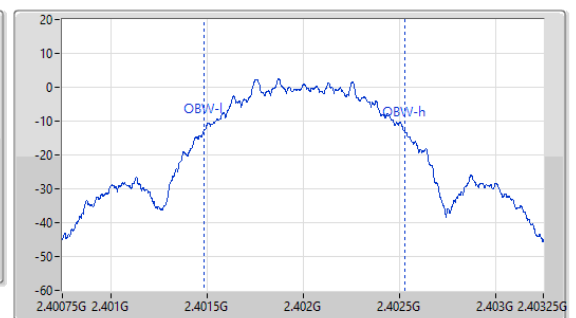
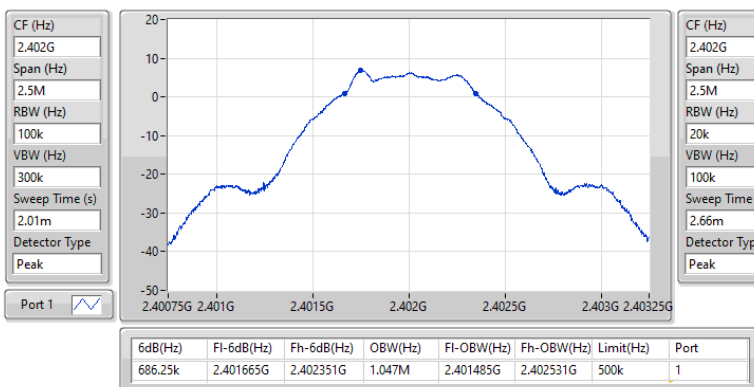
2480MHz



2.4-2.4835GHz_BT-LE(500kbps)

EBW-DTS

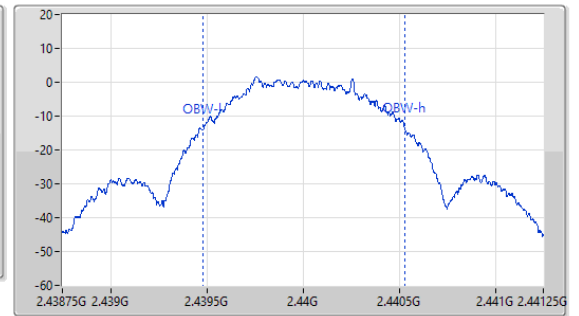
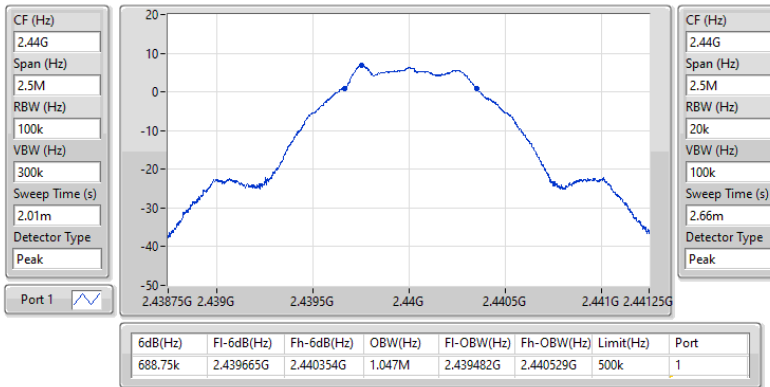
2402MHz



2.4-2.4835GHz_BT-LE(500kbps)

EBW-DTS

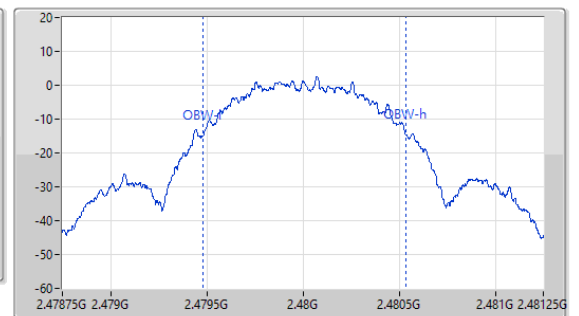
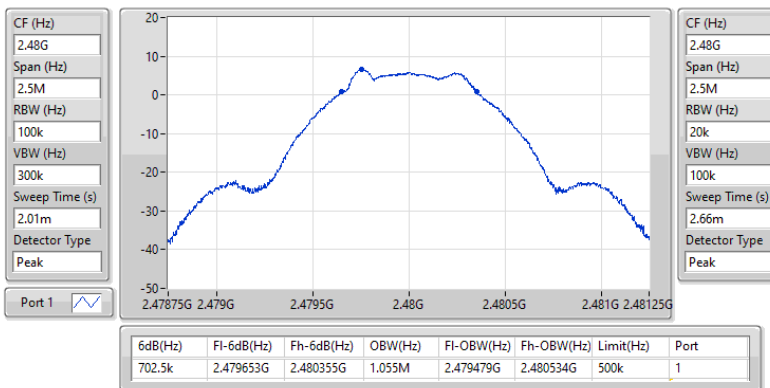
2440MHz



2.4-2.4835GHz_BT-LE(500kbps)

EBW-DTS

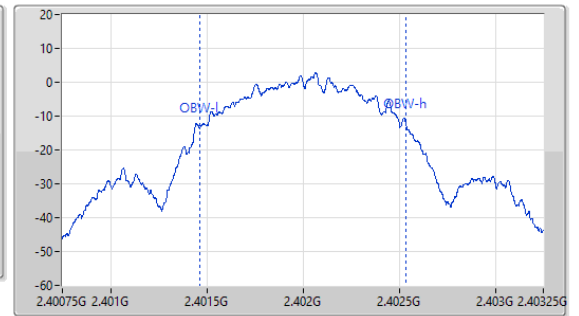
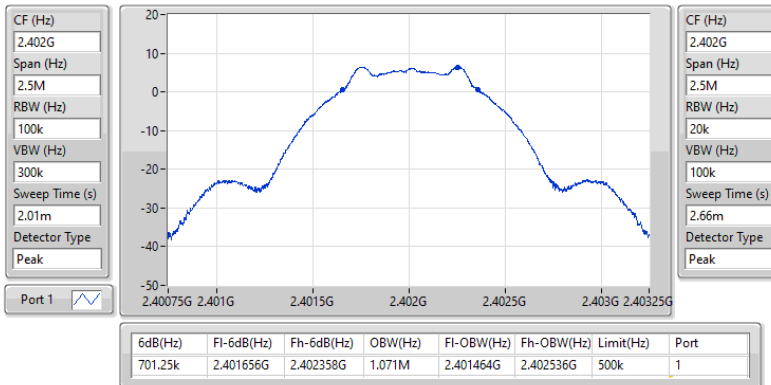
2480MHz



2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

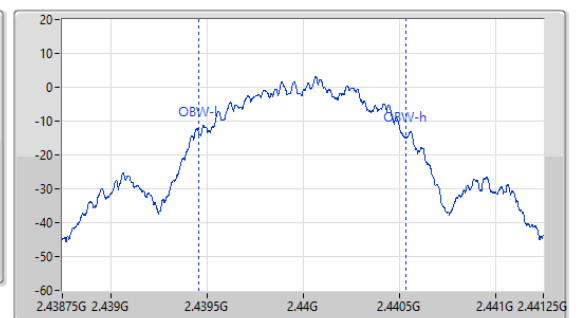
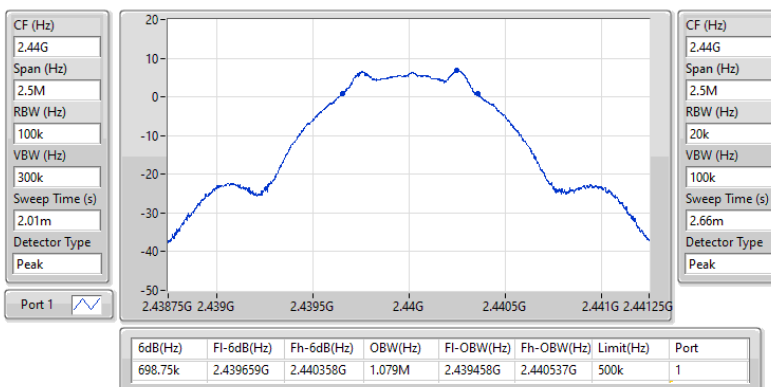
2402MHz



2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

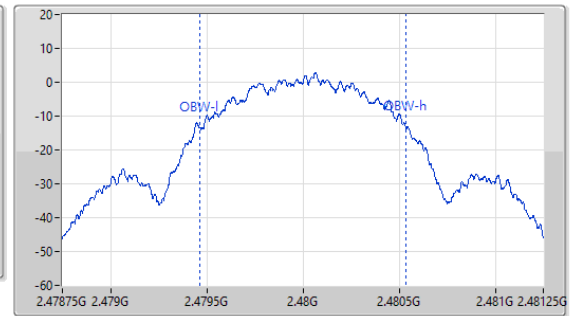
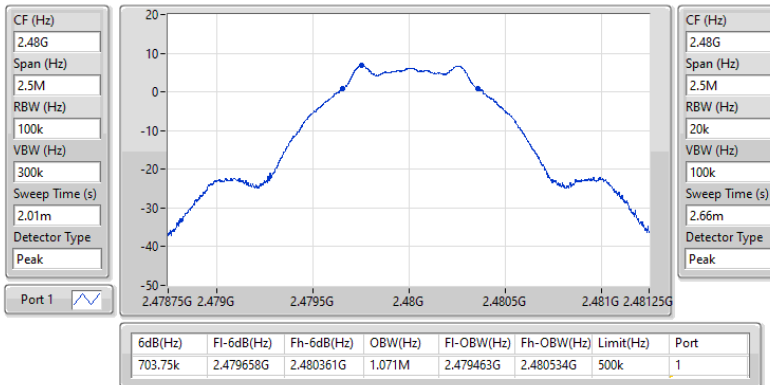
2440MHz



2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

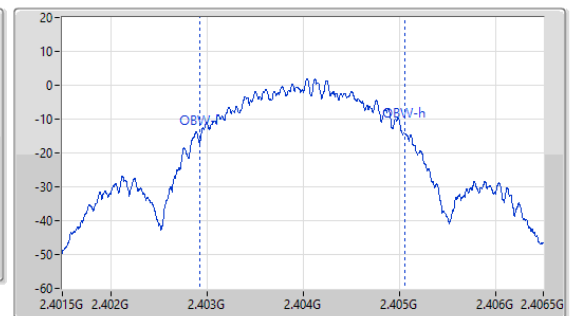
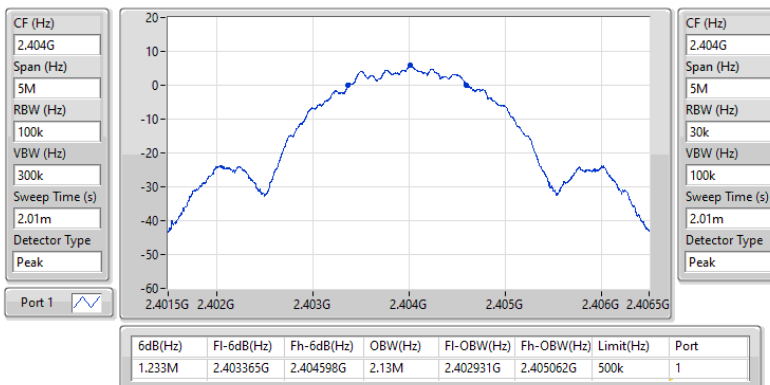
2480MHz



2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

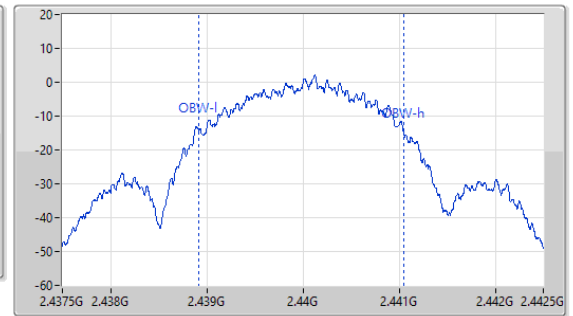
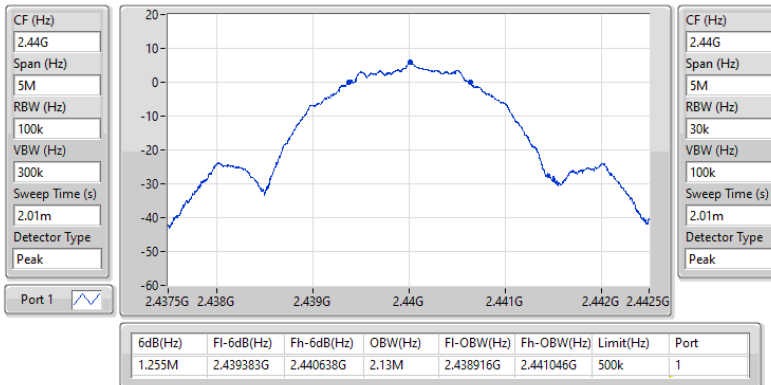
2404MHz



2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

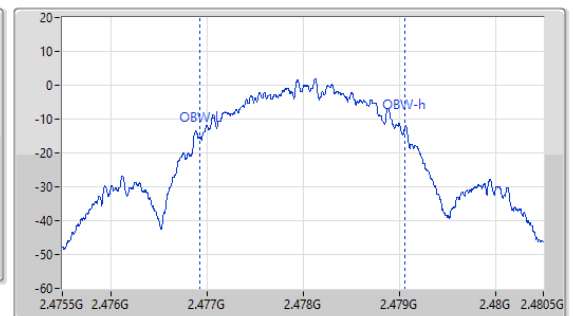
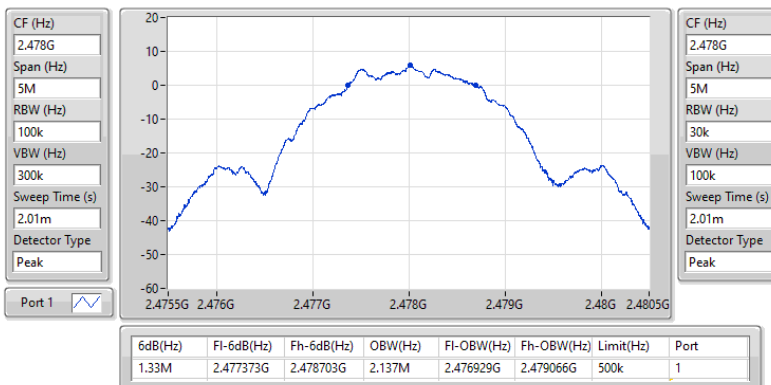
2440MHz



2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

2478MHz





Conducted Output Power (Peak)

Appendix B.1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	6.80	0.00479
BT-LE(500kbps)	6.79	0.00478
BT-LE(1Mbps)	6.82	0.00481
BT-LE(2Mbps)	6.81	0.00480

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(125kbps)	-	-	-	-	-	-
2402MHz	Pass	2.32	6.79	30.00	9.11	36.00
2440MHz	Pass	2.32	6.80	30.00	9.12	36.00
2480MHz	Pass	2.32	6.76	30.00	9.08	36.00
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.32	6.78	30.00	9.10	36.00
2440MHz	Pass	2.32	6.79	30.00	9.11	36.00
2480MHz	Pass	2.32	6.75	30.00	9.07	36.00
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.32	6.81	30.00	9.13	36.00
2440MHz	Pass	2.32	6.82	30.00	9.14	36.00
2480MHz	Pass	2.32	6.78	30.00	9.10	36.00
BT-LE(2Mbps)	-	-	-	-	-	-
2404MHz	Pass	2.32	6.80	30.00	9.12	36.00
2440MHz	Pass	2.32	6.81	30.00	9.13	36.00
2478MHz	Pass	2.32	6.77	30.00	9.09	36.00



Conducted Output Power (Average)

Appendix B.2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	6.69	0.00467
BT-LE(500kbps)	6.68	0.00466
BT-LE(1Mbps)	6.71	0.00469
BT-LE(2Mbps)	6.70	0.00468

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(125kbps)	-	-	-	-	-	-
2402MHz	Pass	2.32	6.68	-	9.00	-
2440MHz	Pass	2.32	6.69	-	9.01	-
2480MHz	Pass	2.32	6.64	-	8.96	-
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.32	6.66	-	8.98	-
2440MHz	Pass	2.32	6.68	-	9.00	-
2480MHz	Pass	2.32	6.64	-	8.96	-
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.32	6.70	-	9.02	-
2440MHz	Pass	2.32	6.71	-	9.03	-
2480MHz	Pass	2.32	6.66	-	8.98	-
BT-LE(2Mbps)	-	-	-	-	-	-
2404MHz	Pass	2.32	6.69	-	9.01	-
2440MHz	Pass	2.32	6.70	-	9.02	-
2478MHz	Pass	2.32	6.65	-	8.97	-

Note: Average power is for reference only.

Summary

Mode	PD (dBm/3kHz)
2.4-2.4835GHz	-
BT-LE(125kbps)	0.73
BT-LE(500kbps)	0.59
BT-LE(1Mbps)	-4.59
BT-LE(2Mbps)	-8.35

Result

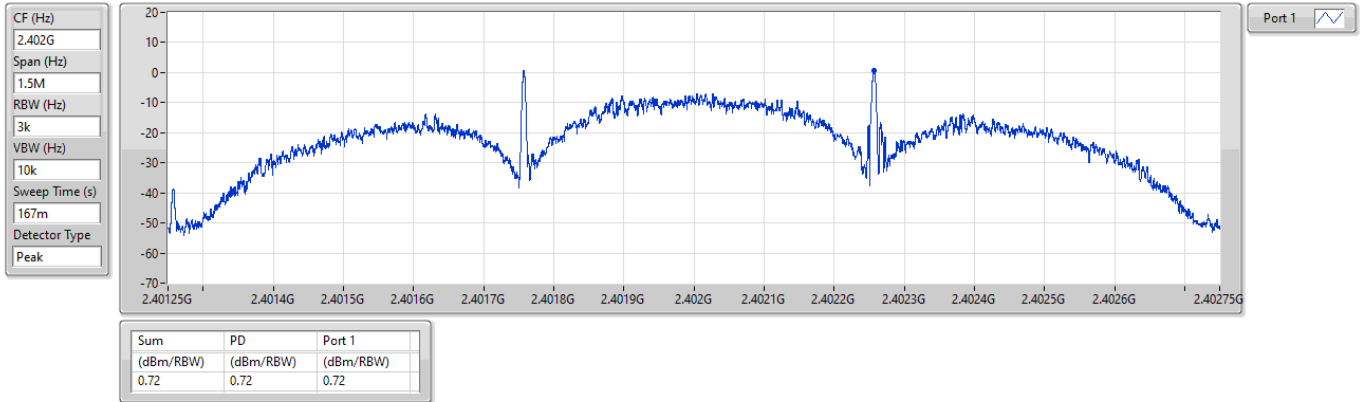
Mode	Result	Antenna Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/3kHz)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	2.32	0.72	8.00
2440MHz	Pass	2.32	0.72	8.00
2480MHz	Pass	2.32	0.73	8.00
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	2.32	0.59	8.00
2440MHz	Pass	2.32	0.48	8.00
2480MHz	Pass	2.32	0.45	8.00
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.32	-6.57	8.00
2440MHz	Pass	2.32	-4.59	8.00
2480MHz	Pass	2.32	-6.45	8.00
BT-LE(2Mbps)	-	-	-	-
2404MHz	Pass	2.32	-8.91	8.00
2440MHz	Pass	2.32	-8.35	8.00
2478MHz	Pass	2.32	-9.90	8.00



2.4-2.4835GHz_BT-LE(125kbps)

PSD

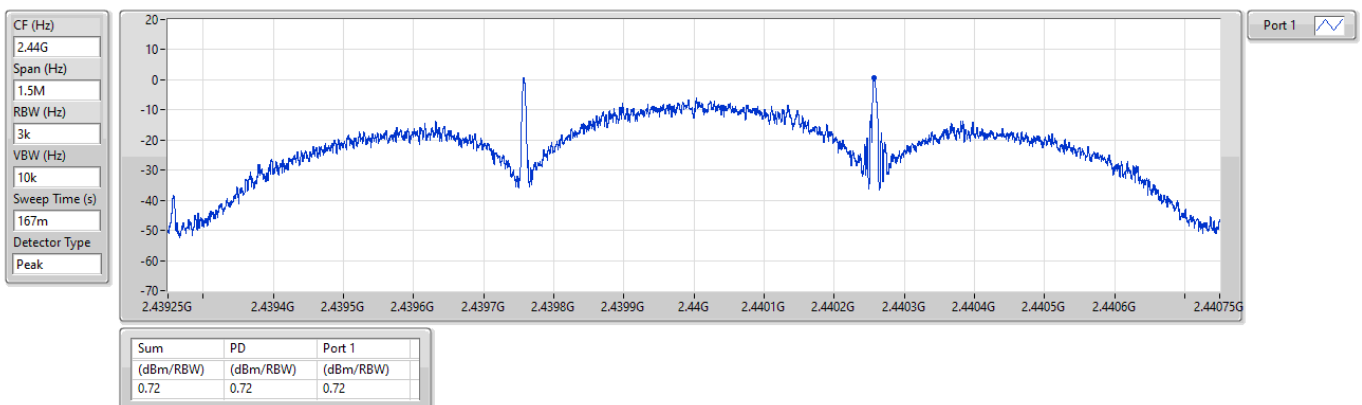
2402MHz



2.4-2.4835GHz_BT-LE(125kbps)

PSD

2440MHz

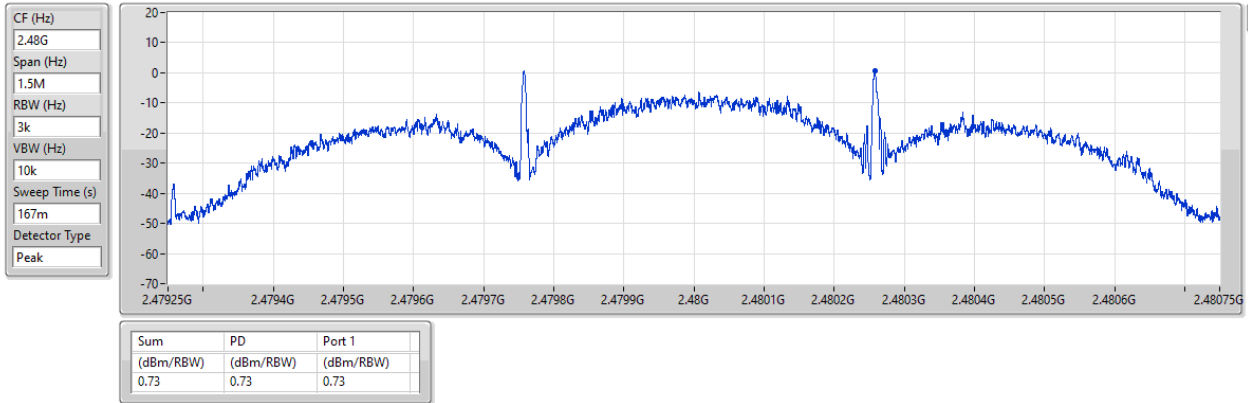




2.4-2.4835GHz_BT-LE(125kbps)

PSD

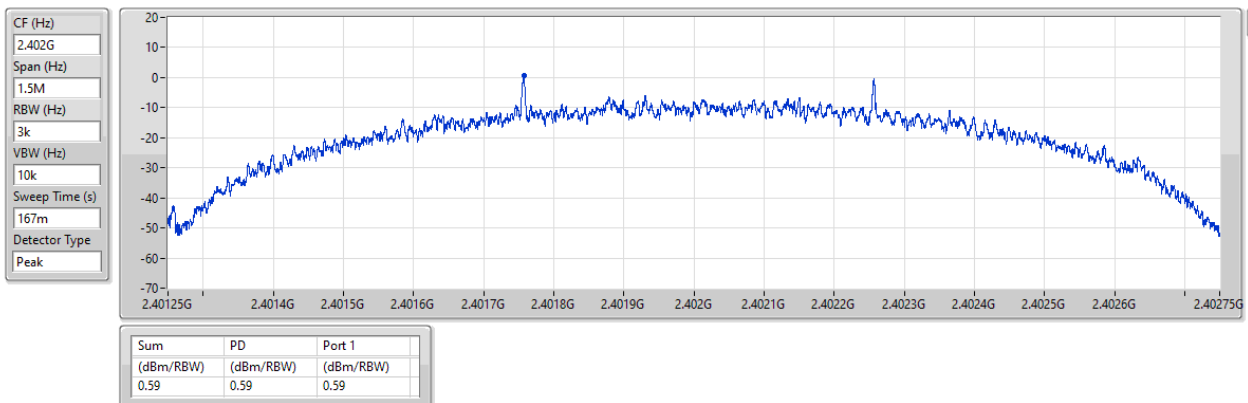
2480MHz



2.4-2.4835GHz_BT-LE(500kbps)

PSD

2402MHz

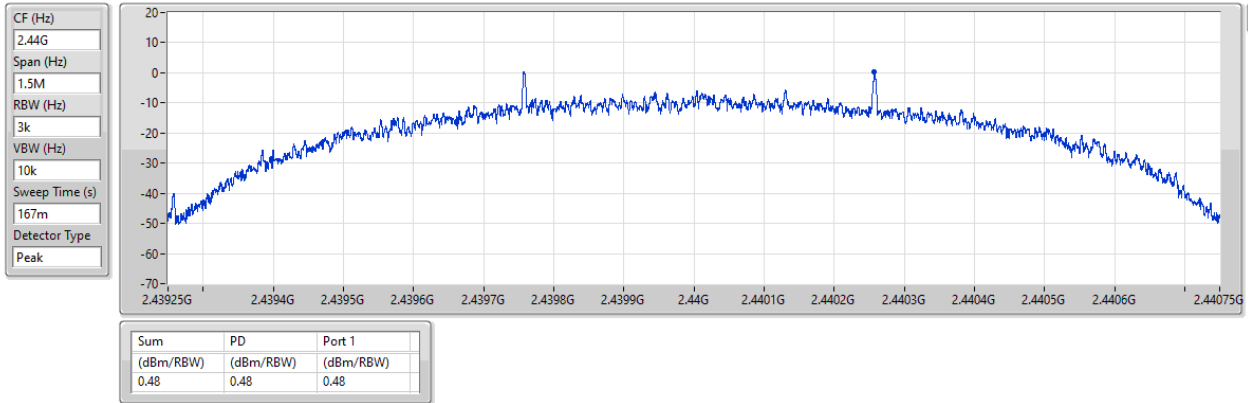




2.4-2.4835GHz_BT-LE(500kbps)

PSD

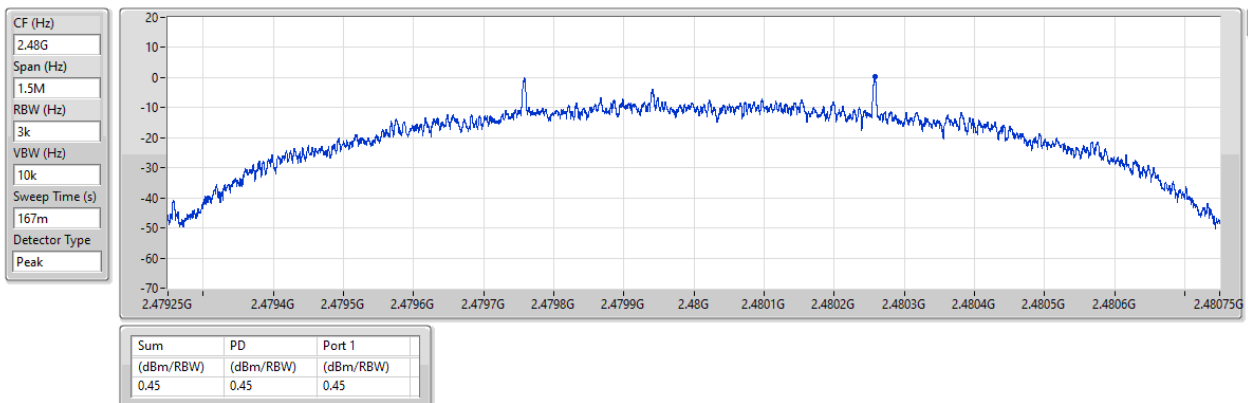
2440MHz



2.4-2.4835GHz_BT-LE(500kbps)

PSD

2480MHz

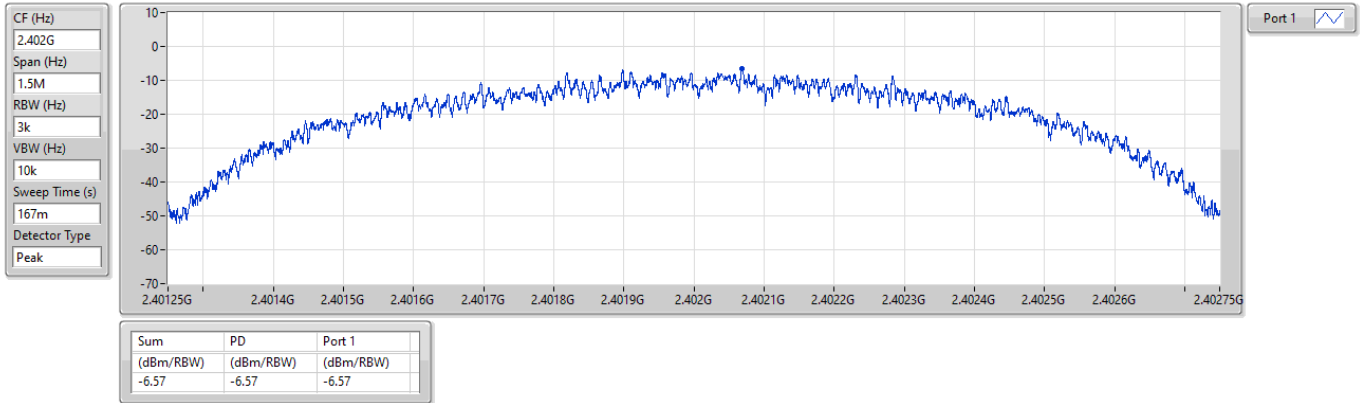




2.4-2.4835GHz_BT-LE(1Mbps)

PSD

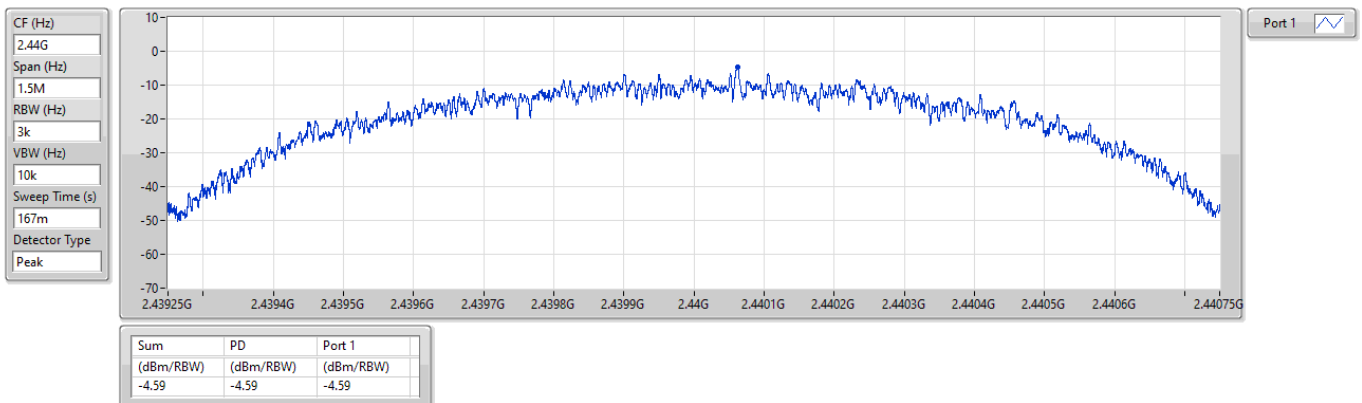
2402MHz



2.4-2.4835GHz_BT-LE(1Mbps)

PSD

2440MHz



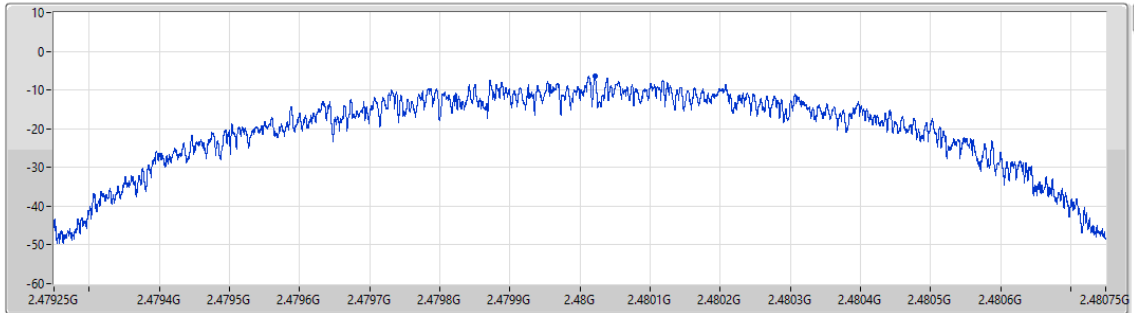


2.4-2.4835GHz_BT-LE(1Mbps)

PSD

2480MHz

CF (Hz)
2.48G
Span (Hz)
1.5M
RBW (Hz)
3k
VBW (Hz)
10k
Sweep Time (s)
167m
Detector Type
Peak



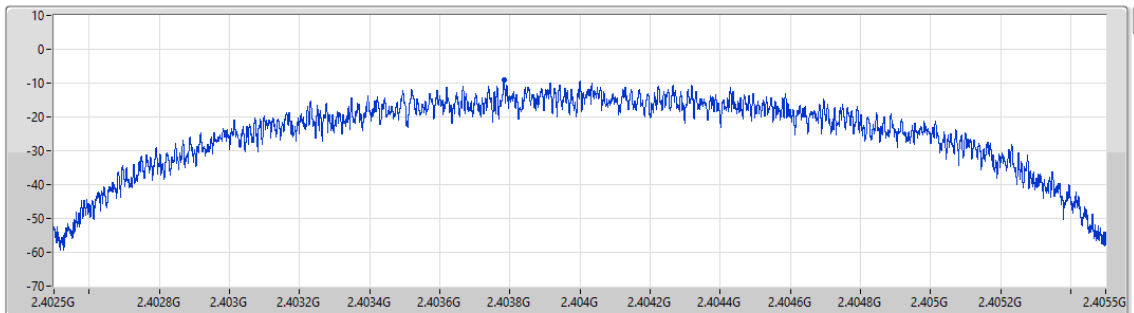
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-6.45	-6.45	-6.45

2.4-2.4835GHz_BT-LE(2Mbps)

PSD

2404MHz

CF (Hz)
2.404G
Span (Hz)
3M
RBW (Hz)
3k
VBW (Hz)
10k
Sweep Time (s)
284m
Detector Type
Peak



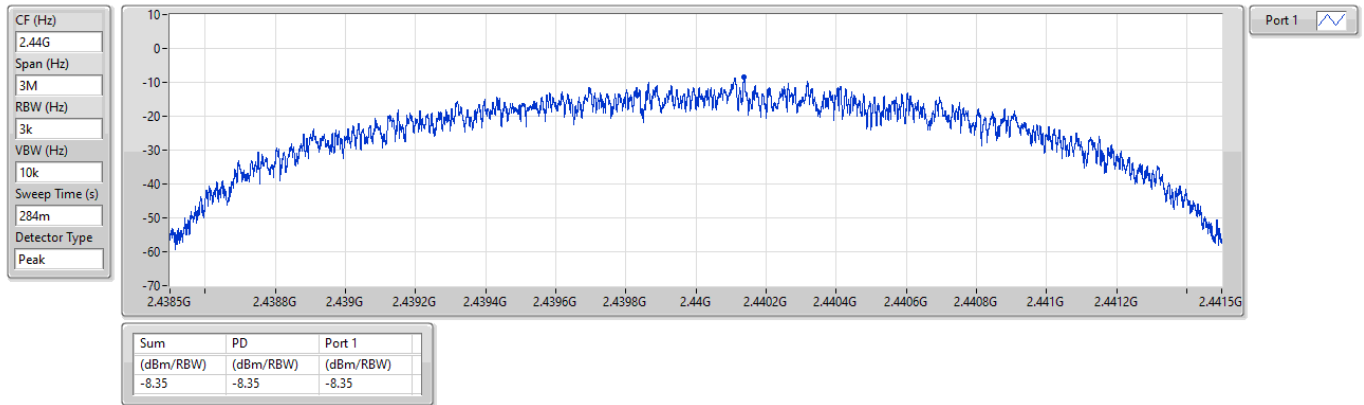
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.91	-8.91	-8.91



2.4-2.4835GHz_BT-LE(2Mbps)

PSD

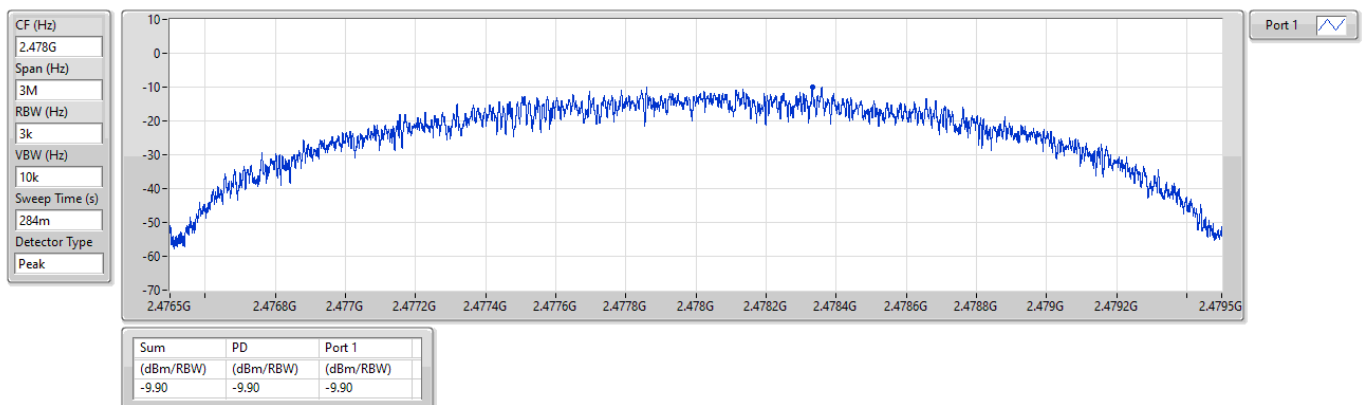
2440MHz



2.4-2.4835GHz_BT-LE(2Mbps)

PSD

2478MHz





Unwanted Conducted Emissions into Restricted Frequency Bands – 30MHz ~ 1GHz

Appendix D.1

Summary

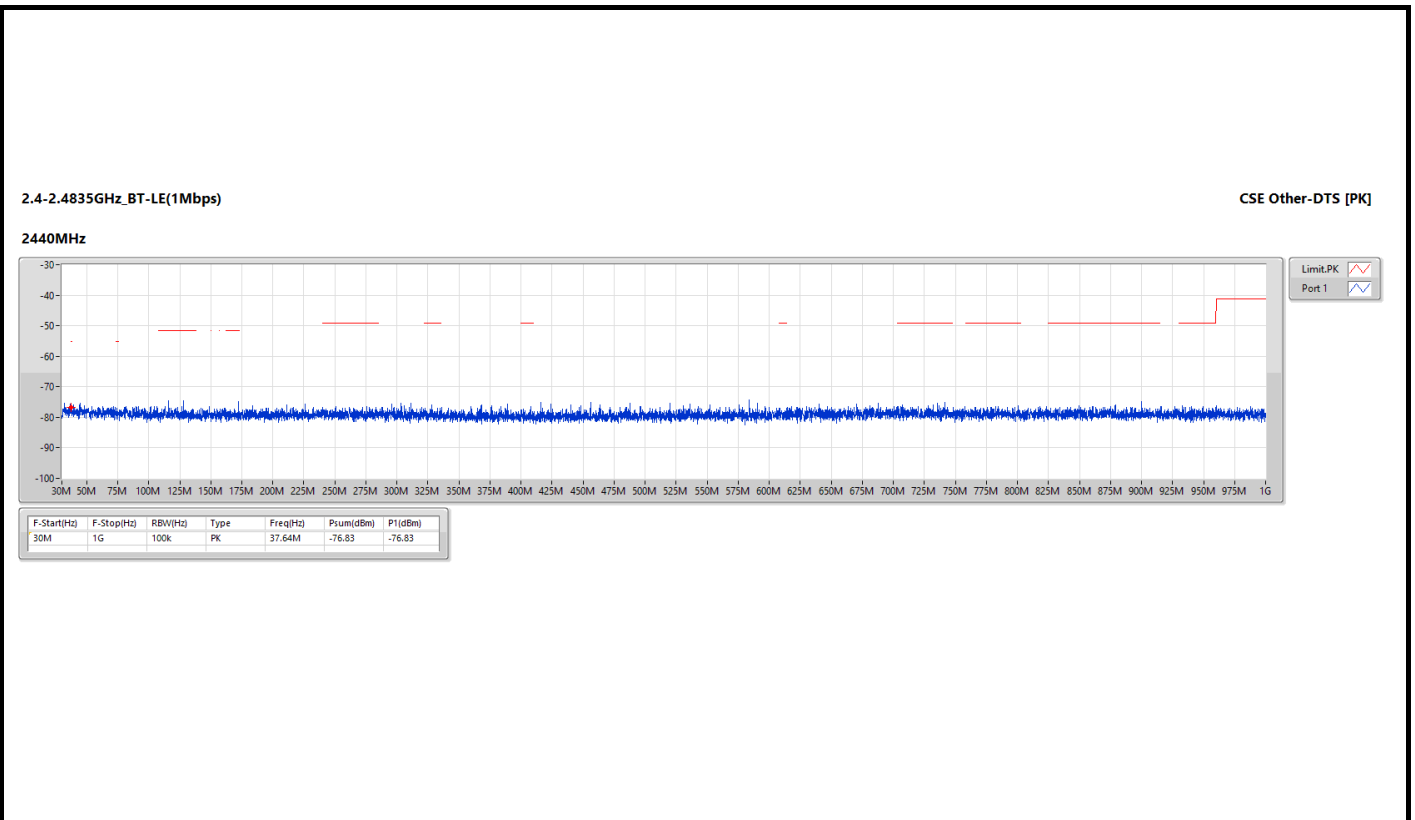
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	GRF (dB)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	30M	1G	PK	37.64M	2.32	4.7	-76.83	-69.81	-55.20	-14.61

DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX

Result

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	GRF (dB)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	30M	1G	PK	37.64M	2.32	4.7	-76.83	-69.81	-55.20	-14.61

DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX





Unwanted Conducted Emissions into Restricted Frequency Bands – 1GHz ~ 3.1GHz

Appendix D.2

Summary

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.4835G	2.5G	AV	2.48365G	2.32	-48.54	-46.22	-41.20	-5.02
BT-LE(2Mbps)	Pass	2.4835G	2.5G	AV	2.4864G	2.32	-51.31	-48.99	-41.20	-7.79

DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX

Result

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	1G	2.31G	AV	2.2743G	2.32	-62.12	-59.80	-41.20	-18.60
2402MHz	Pass	2.31G	2.39G	AV	2.39G	2.32	-59.04	-56.72	-41.20	-15.52
2402MHz	Pass	2.4835G	2.5G	AV	2.49003G	2.32	-64.11	-61.79	-41.20	-20.59
2402MHz	Pass	2.5G	3.1G	AV	2.53G	2.32	-62.23	-59.91	-41.20	-18.71
2402MHz	Pass	1G	2.31G	PK	2.27463G	2.32	-52.86	-50.54	-21.20	-29.34
2402MHz	Pass	2.31G	2.39G	PK	2.38952G	2.32	-48.73	-46.41	-21.20	-25.21
2402MHz	Pass	2.4835G	2.5G	PK	2.49298G	2.32	-53.78	-51.46	-21.20	-30.26
2402MHz	Pass	2.5G	3.1G	PK	2.53G	2.32	-53.86	-51.54	-21.20	-30.34
2440MHz	Pass	1G	2.31G	AV	2.29608G	2.32	-64.12	-61.80	-41.20	-20.60
2440MHz	Pass	2.31G	2.39G	AV	2.31204G	2.32	-62.66	-60.34	-41.20	-19.14
2440MHz	Pass	2.4835G	2.5G	AV	2.48797G	2.32	-63.72	-61.40	-41.20	-20.20
2440MHz	Pass	2.5G	3.1G	AV	2.56795G	2.32	-62.33	-60.01	-41.20	-18.81
2440MHz	Pass	1G	2.31G	PK	2.2969G	2.32	-53.46	-51.14	-21.20	-29.94
2440MHz	Pass	2.31G	2.39G	PK	2.31192G	2.32	-53.95	-51.63	-21.20	-30.43
2440MHz	Pass	2.4835G	2.5G	PK	2.48865G	2.32	-53.10	-50.78	-21.20	-29.58
2440MHz	Pass	2.5G	3.1G	PK	2.8708G	2.32	-54.19	-51.87	-21.20	-30.67
2480MHz	Pass	1G	2.31G	AV	2.22403G	2.32	-63.63	-61.31	-41.20	-20.11
2480MHz	Pass	2.31G	2.39G	AV	2.35212G	2.32	-62.58	-60.26	-41.20	-19.06
2480MHz	Pass	2.4835G	2.5G	AV	2.48365G	2.32	-48.54	-46.22	-41.20	-5.02
2480MHz	Pass	2.5G	3.1G	AV	2.608G	2.32	-62.62	-60.30	-41.20	-19.10
2480MHz	Pass	1G	2.31G	PK	2.11219G	2.32	-52.94	-50.62	-21.20	-29.42
2480MHz	Pass	2.31G	2.39G	PK	2.35208G	2.32	-54.61	-52.29	-21.20	-31.09
2480MHz	Pass	2.4835G	2.5G	PK	2.48385G	2.32	-38.03	-35.71	-21.20	-14.51
2480MHz	Pass	2.5G	3.1G	PK	2.512G	2.32	-53.53	-51.21	-21.20	-30.01
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2404MHz	Pass	1G	2.31G	AV	2.27594G	2.32	-63.03	-60.71	-41.20	-19.51
2404MHz	Pass	2.31G	2.39G	AV	2.38852G	2.32	-57.34	-55.02	-41.20	-13.82
2404MHz	Pass	2.4835G	2.5G	AV	2.49211G	2.32	-64.66	-62.34	-41.20	-21.14
2404MHz	Pass	2.5G	3.1G	AV	2.53195G	2.32	-63.30	-60.98	-41.20	-19.78
2404MHz	Pass	1G	2.31G	PK	2.27529G	2.32	-53.69	-51.37	-21.20	-30.17
2404MHz	Pass	2.31G	2.39G	PK	2.38848G	2.32	-46.67	-44.35	-21.20	-23.15
2404MHz	Pass	2.4835G	2.5G	PK	2.49135G	2.32	-53.95	-51.63	-21.20	-30.43
2404MHz	Pass	2.5G	3.1G	PK	2.8732G	2.32	-54.29	-51.97	-21.20	-30.77

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2440MHz	Pass	1G	2.31G	AV	2.2558G	2.32	-64.28	-61.96	-41.20	-20.76
2440MHz	Pass	2.31G	2.39G	AV	2.31204G	2.32	-63.69	-61.37	-41.20	-20.17
2440MHz	Pass	2.4835G	2.5G	AV	2.48796G	2.32	-64.27	-61.95	-41.20	-20.75
2440MHz	Pass	2.5G	3.1G	AV	2.5681G	2.32	-63.84	-61.52	-41.20	-20.32
2440MHz	Pass	1G	2.31G	PK	1.92814G	2.32	-53.63	-51.31	-21.20	-30.11
2440MHz	Pass	2.31G	2.39G	PK	2.312G	2.32	-54.80	-52.48	-21.20	-31.28
2440MHz	Pass	2.4835G	2.5G	PK	2.48854G	2.32	-53.76	-51.44	-21.20	-30.24
2440MHz	Pass	2.5G	3.1G	PK	2.6464G	2.32	-54.40	-52.08	-21.20	-30.88
2478MHz	Pass	1G	2.31G	AV	2.22239G	2.32	-63.42	-61.10	-41.20	-19.90
2478MHz	Pass	2.31G	2.39G	AV	2.35004G	2.32	-63.79	-61.47	-41.20	-20.27
2478MHz	Pass	2.4835G	2.5G	AV	2.4864G	2.32	-51.31	-48.99	-41.20	-7.79
2478MHz	Pass	2.5G	3.1G	AV	2.6059G	2.32	-63.31	-60.99	-41.20	-19.79
2478MHz	Pass	1G	2.31G	PK	2.15673G	2.32	-52.80	-50.48	-21.20	-29.28
2478MHz	Pass	2.31G	2.39G	PK	2.37412G	2.32	-54.08	-51.76	-21.20	-30.56
2478MHz	Pass	2.4835G	2.5G	PK	2.48678G	2.32	-40.53	-38.21	-21.20	-17.01
2478MHz	Pass	2.5G	3.1G	PK	2.7028G	2.32	-53.93	-51.61	-21.20	-30.41

DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX



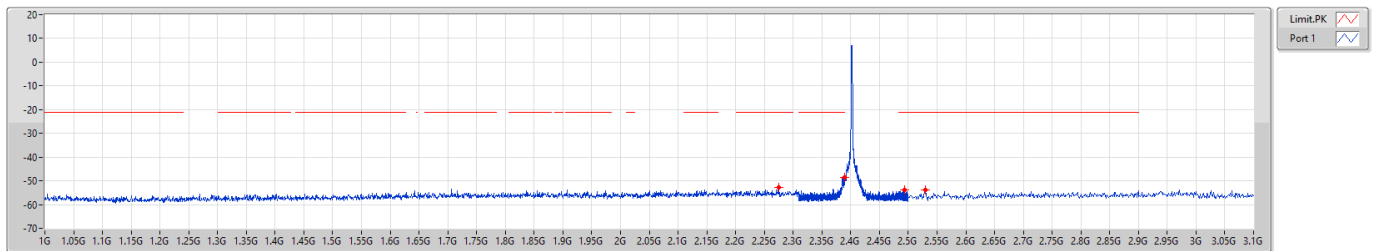
Unwanted Conducted Emissions into Restricted Frequency Bands – 1GHz ~ 3.1GHz

Appendix D.2

2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [PK]

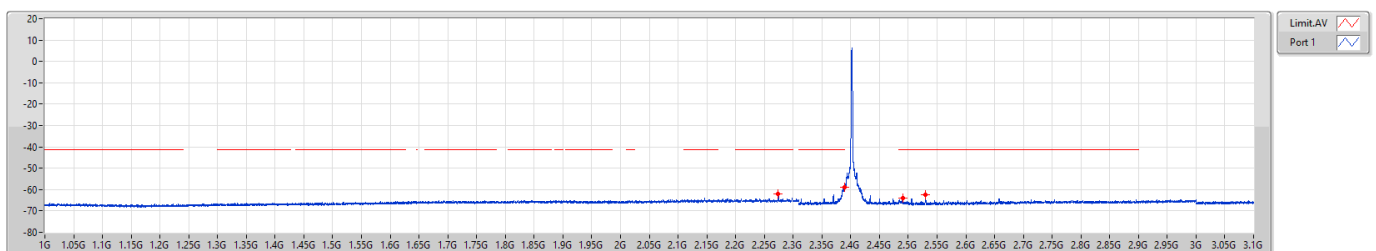
2402MHz



2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [AV]

2402MHz

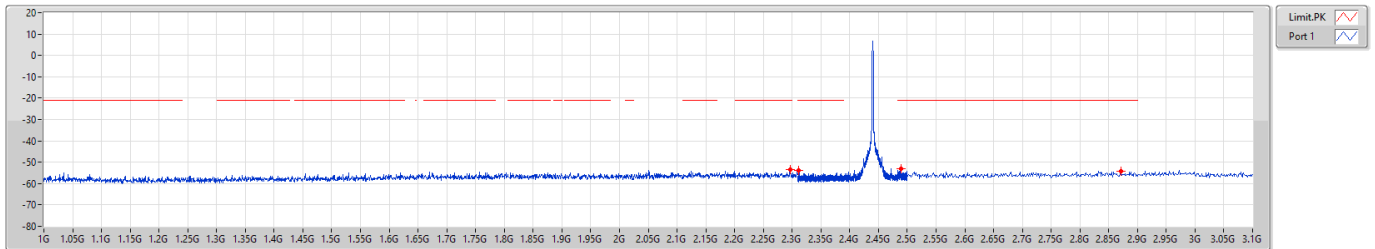




2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [PK]

2440MHz

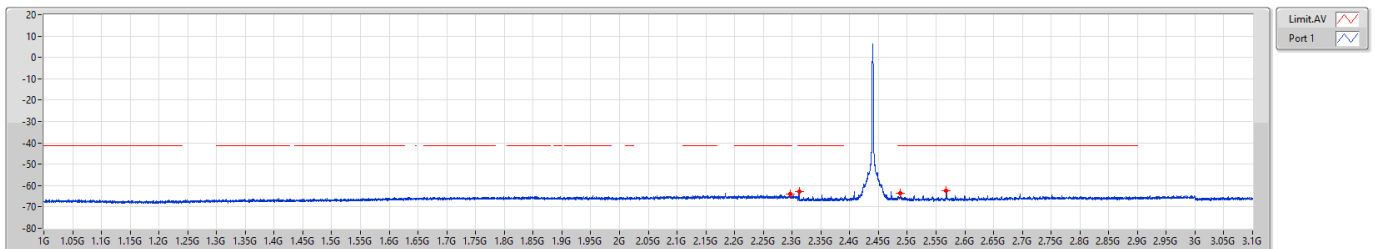


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	PK	2.2969G	-53.46	-53.46
2.31G	2.39G	1M	PK	2.31192G	-53.95	-53.95
2.4835G	2.5G	1M	PK	2.48865G	-53.10	-53.10
2.5G	3.1G	1M	PK	2.8708G	-54.19	-54.19

2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [AV]

2440MHz



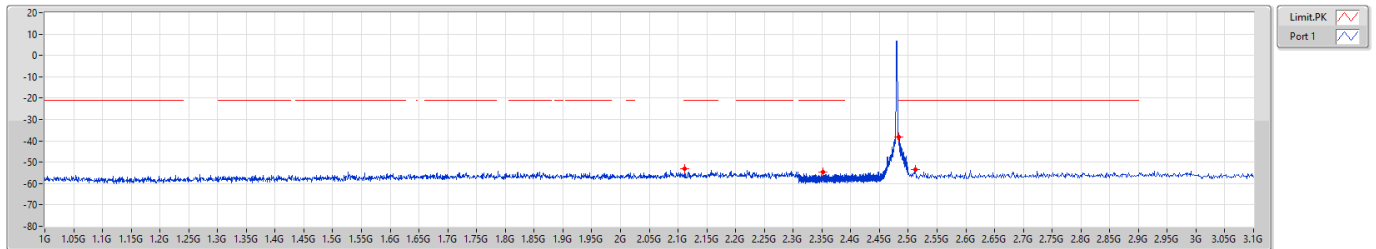
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	AV	2.29608G	-64.12	-64.12
2.31G	2.39G	1M	AV	2.31204G	-62.66	-62.66
2.4835G	2.5G	1M	AV	2.48797G	-63.72	-63.72
2.5G	3.1G	1M	AV	2.56795G	-62.33	-62.33



2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [PK]

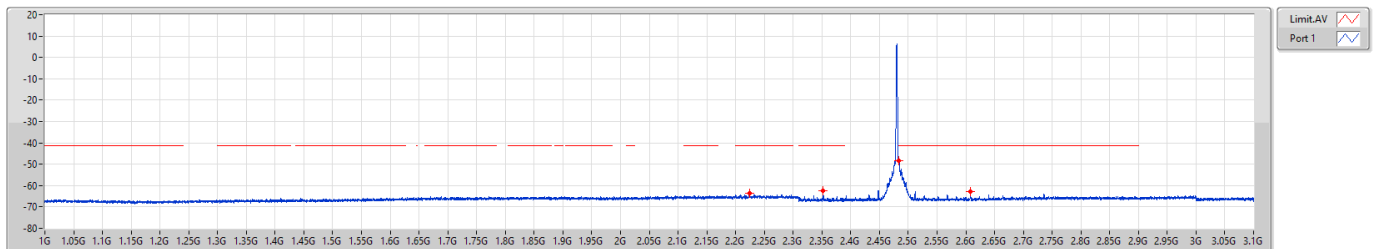
2480MHz



2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [AV]

2480MHz

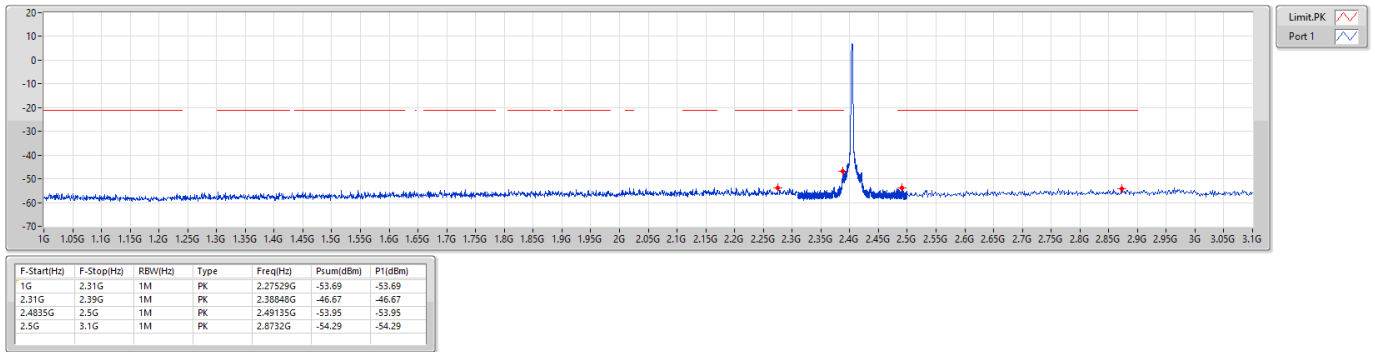




2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [PK]

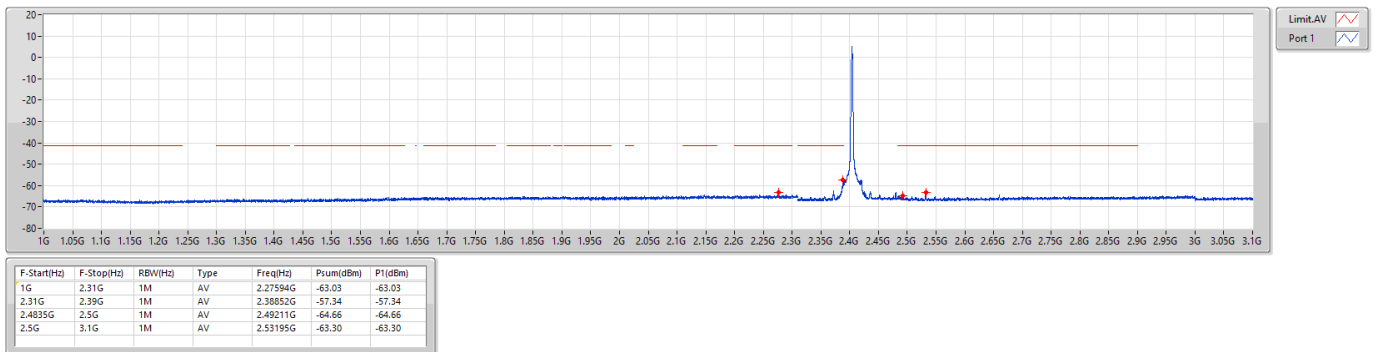
2404MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [AV]

2404MHz





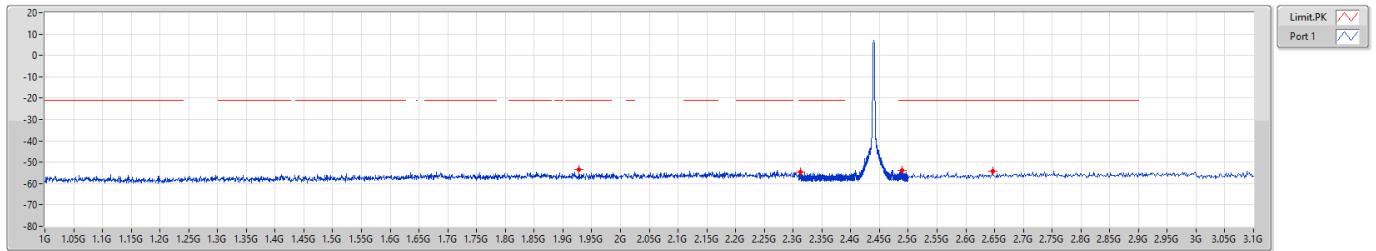
Unwanted Conducted Emissions into Restricted Frequency Bands – 1GHz ~ 3.1GHz

Appendix D.2

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [PK]

2440MHz

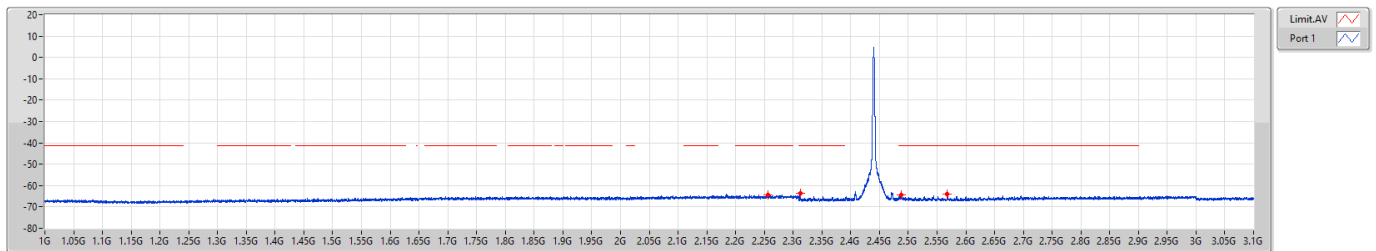


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	PK	1.92814G	-53.63	-53.63
2.31G	2.39G	1M	PK	2.312G	-54.80	-54.80
2.4835G	2.5G	1M	PK	2.48854G	-53.76	-53.76
2.5G	3.1G	1M	PK	2.6464G	-54.40	-54.40

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [AV]

2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	AV	2.2558G	-64.28	-64.28
2.31G	2.39G	1M	AV	2.31204G	-63.69	-63.69
2.4835G	2.5G	1M	AV	2.48796G	-64.27	-64.27
2.5G	3.1G	1M	AV	2.5681G	-63.84	-63.84



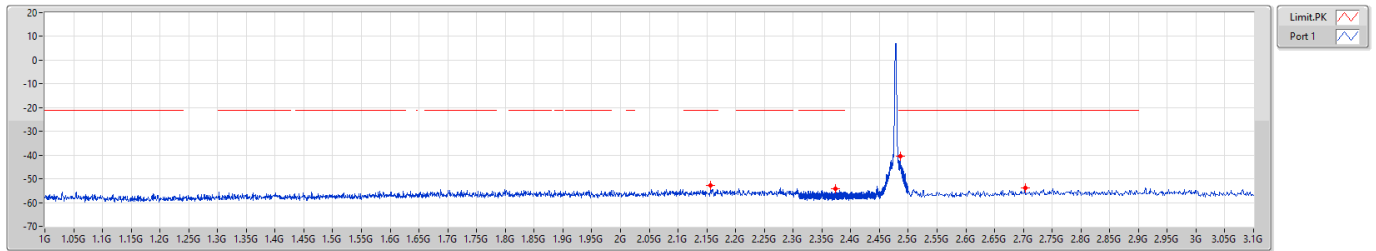
Unwanted Conducted Emissions into Restricted Frequency Bands – 1GHz ~ 3.1GHz

Appendix D.2

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [PK]

2478MHz

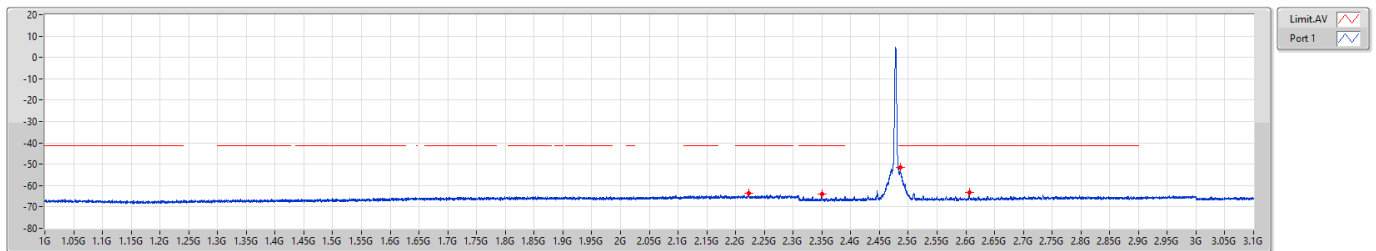


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	PK	2.15673G	-52.80	-52.80
2.31G	2.39G	1M	PK	2.37412G	-54.08	-54.08
2.4835G	2.5G	1M	PK	2.48678G	-40.53	-40.53
2.5G	3.1G	1M	PK	2.7028G	-53.93	-53.93

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [AV]

2478MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	AV	2.22239G	-63.42	-63.42
2.31G	2.39G	1M	AV	2.35004G	-63.79	-63.79
2.4835G	2.5G	1M	AV	2.4864G	-51.31	-51.31
2.5G	3.1G	1M	AV	2.6059G	-63.31	-63.31



Unwanted Conducted Emissions into Restricted Frequency Bands – 3.1GHz ~ 25GHz

Appendix D.3

Summary

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	8G	25G	AV	19.52228G	2.32	-46.71	-44.39	-41.20	-3.19
BT-LE(2Mbps)	Pass	8G	25G	AV	19.52388G	2.32	-47.60	-45.28	-41.20	-4.08

DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX

Result

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	3.1G	4G	AV	3.97593G	2.32	-73.78	-71.46	-41.20	-30.26
2402MHz	Pass	4G	5G	AV	4.80425G	2.32	-63.56	-61.24	-41.20	-20.04
2402MHz	Pass	5G	7G	AV	5.4225G	2.32	-73.00	-70.68	-41.20	-29.48
2402MHz	Pass	7G	8G	AV	7.4995G	2.32	-71.36	-69.04	-41.20	-27.84
2402MHz	Pass	8G	25G	AV	19.21788G	2.32	-47.46	-45.14	-41.20	-3.94
2402MHz	Pass	3.1G	4G	PK	3.90865G	2.32	-62.89	-60.57	-21.20	-39.37
2402MHz	Pass	4G	5G	PK	4.80475G	2.32	-57.58	-55.26	-21.20	-34.06
2402MHz	Pass	5G	7G	PK	5.4555G	2.32	-62.55	-60.23	-21.20	-39.03
2402MHz	Pass	7G	8G	PK	7.34375G	2.32	-60.72	-58.40	-21.20	-37.20
2402MHz	Pass	8G	25G	PK	19.21416G	2.32	-41.56	-39.24	-21.20	-18.04
2440MHz	Pass	3.1G	4G	AV	3.98403G	2.32	-74.16	-71.84	-41.20	-30.64
2440MHz	Pass	4G	5G	AV	4.88G	2.32	-64.66	-62.34	-41.20	-21.14
2440MHz	Pass	5G	7G	AV	5.442G	2.32	-73.13	-70.81	-41.20	-29.61
2440MHz	Pass	7G	8G	AV	7.499G	2.32	-71.17	-68.85	-41.20	-27.65
2440MHz	Pass	8G	25G	AV	19.52228G	2.32	-46.71	-44.39	-41.20	-3.19
2440MHz	Pass	3.1G	4G	PK	3.7732G	2.32	-62.97	-60.65	-21.20	-39.45
2440MHz	Pass	4G	5G	PK	4.8805G	2.32	-58.03	-55.71	-21.20	-34.51
2440MHz	Pass	5G	7G	PK	5.4065G	2.32	-62.61	-60.29	-21.20	-39.09
2440MHz	Pass	7G	8G	PK	7.47975G	2.32	-61.23	-58.91	-21.20	-37.71
2440MHz	Pass	8G	25G	PK	19.51803G	2.32	-40.45	-38.13	-21.20	-16.93
2480MHz	Pass	3.1G	4G	AV	3.95658G	2.32	-74.27	-71.95	-41.20	-30.75
2480MHz	Pass	4G	5G	AV	4.95975G	2.32	-69.96	-67.64	-41.20	-26.44
2480MHz	Pass	5G	7G	AV	5.4295G	2.32	-73.21	-70.89	-41.20	-29.69
2480MHz	Pass	7G	8G	AV	7.4955G	2.32	-71.29	-68.97	-41.20	-27.77
2480MHz	Pass	8G	25G	AV	19.83838G	2.32	-48.31	-45.99	-41.20	-4.79
2480MHz	Pass	3.1G	4G	PK	3.96085G	2.32	-62.64	-60.32	-21.20	-39.12
2480MHz	Pass	4G	5G	PK	4.96075G	2.32	-61.14	-58.82	-21.20	-37.62
2480MHz	Pass	5G	7G	PK	5.458G	2.32	-62.46	-60.14	-21.20	-38.94
2480MHz	Pass	7G	8G	PK	7.47575G	2.32	-61.27	-58.95	-21.20	-37.75
2480MHz	Pass	8G	25G	PK	19.83838G	2.32	-42.49	-40.17	-21.20	-18.97
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2404MHz	Pass	3.1G	4G	AV	3.8659G	2.32	-74.19	-71.87	-41.20	-30.67
2404MHz	Pass	4G	5G	AV	4.809G	2.32	-65.77	-63.45	-41.20	-22.25

Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2404MHz	Pass	5G	7G	AV	5.4505G	2.32	-73.16	-70.84	-41.20	-29.64
2404MHz	Pass	7G	8G	AV	7.485G	2.32	-71.22	-68.90	-41.20	-27.70
2404MHz	Pass	8G	25G	AV	19.23594G	2.32	-48.54	-46.22	-41.20	-5.02
2404MHz	Pass	3.1G	4G	PK	3.81393G	2.32	-63.22	-60.90	-21.20	-39.70
2404MHz	Pass	4G	5G	PK	4.809G	2.32	-57.83	-55.51	-21.20	-34.31
2404MHz	Pass	5G	7G	PK	5.3775G	2.32	-62.72	-60.40	-21.20	-39.20
2404MHz	Pass	7G	8G	PK	7.47G	2.32	-60.66	-58.34	-21.20	-37.14
2404MHz	Pass	8G	25G	PK	19.23647G	2.32	-41.65	-39.33	-21.20	-18.13
2440MHz	Pass	3.1G	4G	AV	3.9235G	2.32	-74.15	-71.83	-41.20	-30.63
2440MHz	Pass	4G	5G	AV	4.881G	2.32	-66.03	-63.71	-41.20	-22.51
2440MHz	Pass	5G	7G	AV	5.422G	2.32	-73.11	-70.79	-41.20	-29.59
2440MHz	Pass	7G	8G	AV	7.494G	2.32	-71.01	-68.69	-41.20	-27.49
2440MHz	Pass	8G	25G	AV	19.52388G	2.32	-47.60	-45.28	-41.20	-4.08
2440MHz	Pass	3.1G	4G	PK	3.96153G	2.32	-63.57	-61.25	-21.20	-40.05
2440MHz	Pass	4G	5G	PK	4.881G	2.32	-58.04	-55.72	-21.20	-34.52
2440MHz	Pass	5G	7G	PK	5.3885G	2.32	-62.40	-60.08	-21.20	-38.88
2440MHz	Pass	7G	8G	PK	7.4845G	2.32	-60.27	-57.95	-21.20	-36.75
2440MHz	Pass	8G	25G	PK	19.51644G	2.32	-40.89	-38.57	-21.20	-17.37
2478MHz	Pass	3.1G	4G	AV	3.99348G	2.32	-74.13	-71.81	-41.20	-30.61
2478MHz	Pass	4G	5G	AV	4.95525G	2.32	-71.02	-68.70	-41.20	-27.50
2478MHz	Pass	5G	7G	AV	5.4295G	2.32	-73.10	-70.78	-41.20	-29.58
2478MHz	Pass	7G	8G	AV	7.47725G	2.32	-71.11	-68.79	-41.20	-27.59
2478MHz	Pass	8G	25G	AV	19.82031G	2.32	-49.43	-47.11	-41.20	-5.91
2478MHz	Pass	3.1G	4G	PK	3.93138G	2.32	-63.04	-60.72	-21.20	-39.52
2478MHz	Pass	4G	5G	PK	4.95525G	2.32	-61.56	-59.24	-21.20	-38.04
2478MHz	Pass	5G	7G	PK	5.432G	2.32	-62.45	-60.13	-21.20	-38.93
2478MHz	Pass	7G	8G	PK	7.42175G	2.32	-59.89	-57.57	-21.20	-36.37
2478MHz	Pass	8G	25G	PK	19.82031G	2.32	-42.38	-40.06	-21.20	-18.86

DG = Directional Gain ; PX=Port X; Psum=P1+P2+...PX



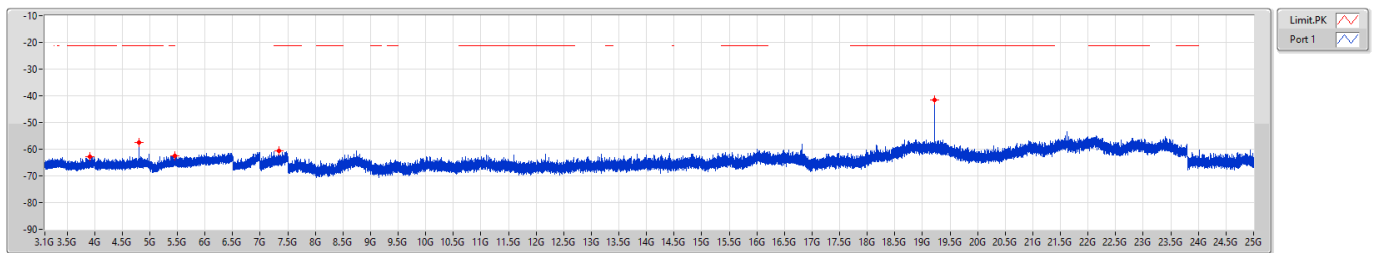
Unwanted Conducted Emissions into Restricted Frequency Bands – 3.1GHz ~ 25GHz

Appendix D.3

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [PK]

2402MHz

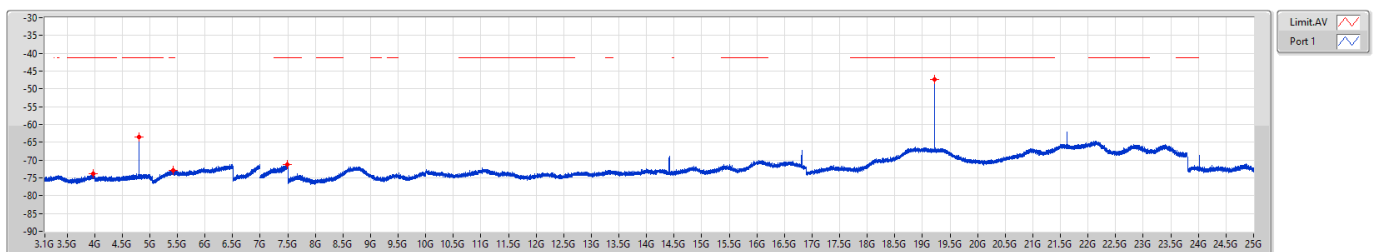


F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.90865G	-62.89	-62.89
4G	5G	1M	PK	4.80475G	-57.58	-57.58
5G	7G	1M	PK	5.4555G	-62.55	-62.55
7G	8G	1M	PK	7.34375G	-60.72	-60.72
8G	25G	1M	PK	19.21416G	-41.56	-41.56

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [AV]

2402MHz



F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.97593G	-73.78	-73.78
4G	5G	1M	AV	4.80425G	-63.56	-63.56
5G	7G	1M	AV	5.4225G	-73.00	-73.00
7G	8G	1M	AV	7.4995G	-71.36	-71.36
8G	25G	1M	AV	19.21788G	-47.46	-47.46



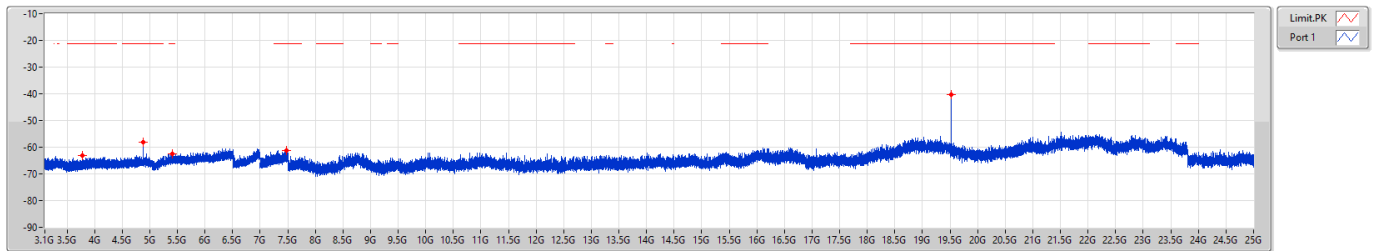
Unwanted Conducted Emissions into Restricted Frequency Bands – 3.1GHz ~ 25GHz

Appendix D.3

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [PK]

2440MHz

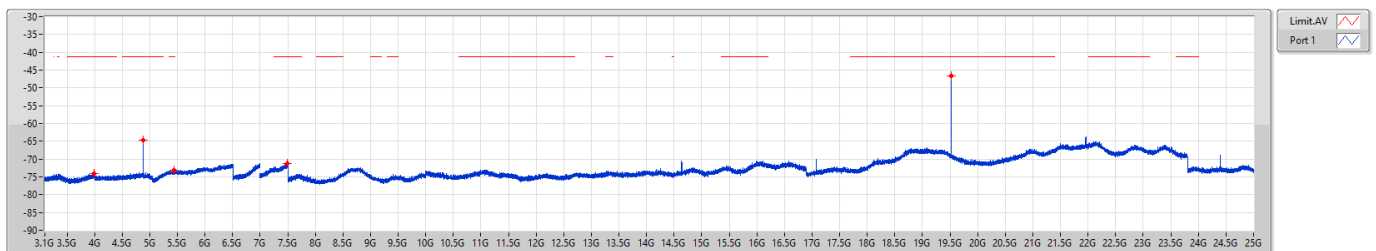


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.7732G	-62.97	-62.97
4G	5G	1M	PK	4.8805G	-58.03	-58.03
5G	7G	1M	PK	5.4065G	-62.61	-62.61
7G	8G	1M	PK	7.47975G	-61.23	-61.23
8G	25G	1M	PK	19.51803G	-40.45	-40.45

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [AV]

2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.98403G	-74.16	-74.16
4G	5G	1M	AV	4.88G	-64.66	-64.66
5G	7G	1M	AV	5.442G	-73.13	-73.13
7G	8G	1M	AV	7.499G	-71.17	-71.17
8G	25G	1M	AV	19.52228G	-46.71	-46.71



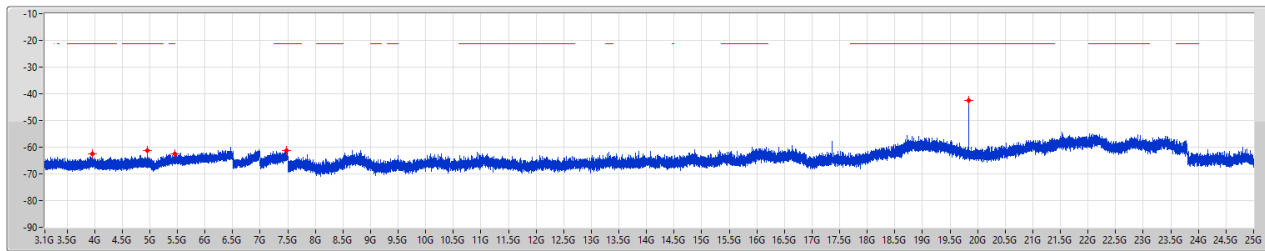
Unwanted Conducted Emissions into Restricted Frequency Bands – 3.1GHz ~ 25GHz

Appendix D.3

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [PK]

2480MHz



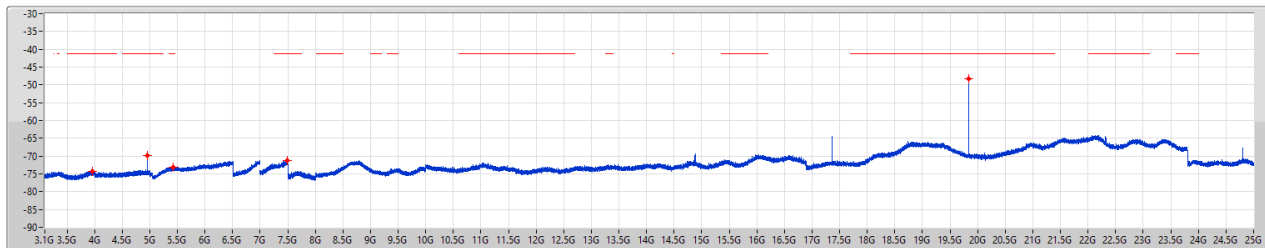
Limit,PK
Port 1

F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.96085G	-62.64	-62.64
4G	5G	1M	PK	4.96075G	-61.14	-61.14
5G	7G	1M	PK	5.458G	-62.46	-62.46
7G	8G	1M	PK	7.47575G	-61.27	-61.27
8G	25G	1M	PK	19.83838G	-42.49	-42.49

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [AV]

2480MHz



Limit,AV
Port 1

F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.95658G	-74.27	-74.27
4G	5G	1M	AV	4.95975G	-69.96	-69.96
5G	7G	1M	AV	5.4295G	-73.21	-73.21
7G	8G	1M	AV	7.4955G	-71.29	-71.29
8G	25G	1M	AV	19.83838G	-48.31	-48.31



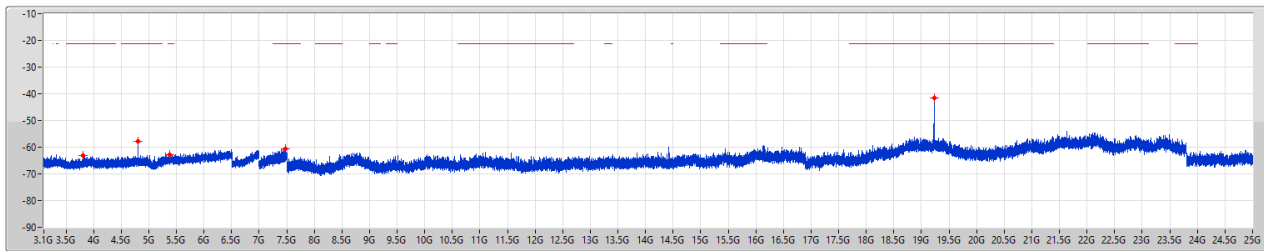
Unwanted Conducted Emissions into Restricted Frequency Bands – 3.1GHz ~ 25GHz

Appendix D.3

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [PK]

2404MHz

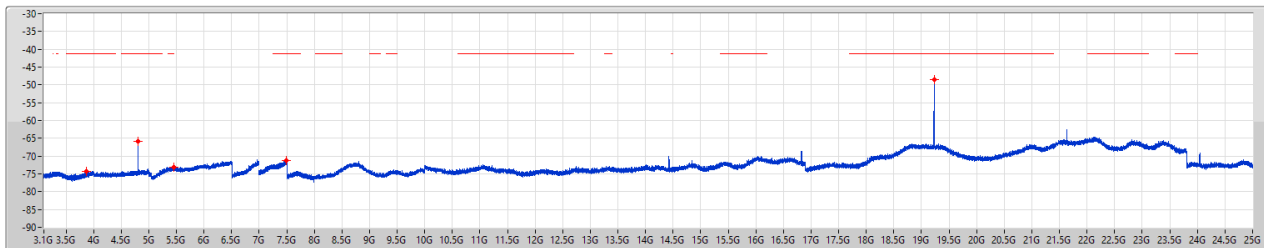


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.81393G	-63.22	-63.22
4G	5G	1M	PK	4.809G	-57.83	-57.83
5G	7G	1M	PK	5.3775G	-62.72	-62.72
7G	8G	1M	PK	7.47G	-60.66	-60.66
8G	25G	1M	PK	19.23647G	-41.65	-41.65

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [AV]

2404MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.8659G	-74.19	-74.19
4G	5G	1M	AV	4.809G	-65.77	-65.77
5G	7G	1M	AV	5.4505G	-73.16	-73.16
7G	8G	1M	AV	7.485G	-71.22	-71.22
8G	25G	1M	AV	19.23594G	-48.54	-48.54



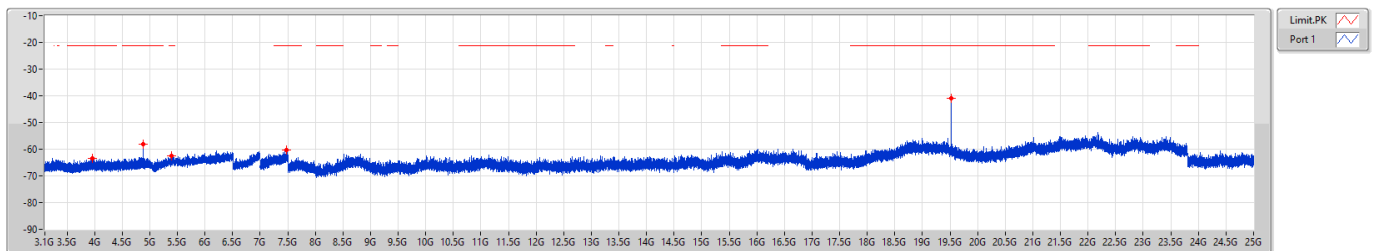
Unwanted Conducted Emissions into Restricted Frequency Bands – 3.1GHz ~ 25GHz

Appendix D.3

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [PK]

2440MHz

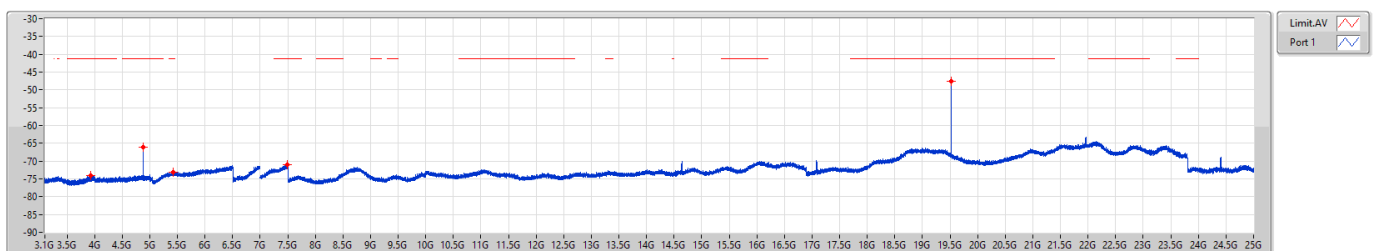


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.96153G	-63.57	-63.57
4G	5G	1M	PK	4.8816	-58.04	-58.04
5G	7G	1M	PK	5.3885G	-62.40	-62.40
7G	8G	1M	PK	7.4845G	-60.27	-60.27
8G	25G	1M	PK	19.51644G	-40.89	-40.89

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [AV]

2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.9235G	-74.15	-74.15
4G	5G	1M	AV	4.8816	-66.03	-66.03
5G	7G	1M	AV	5.422G	-73.11	-73.11
7G	8G	1M	AV	7.494G	-71.01	-71.01
8G	25G	1M	AV	19.52388G	-47.60	-47.60



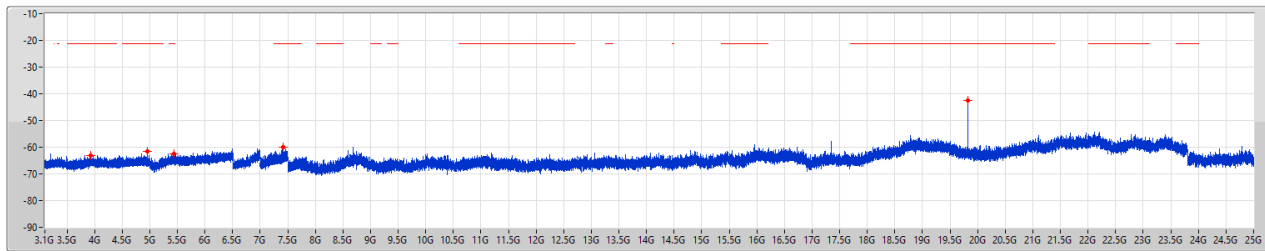
Unwanted Conducted Emissions into Restricted Frequency Bands – 3.1GHz ~ 25GHz

Appendix D.3

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [PK]

2478MHz

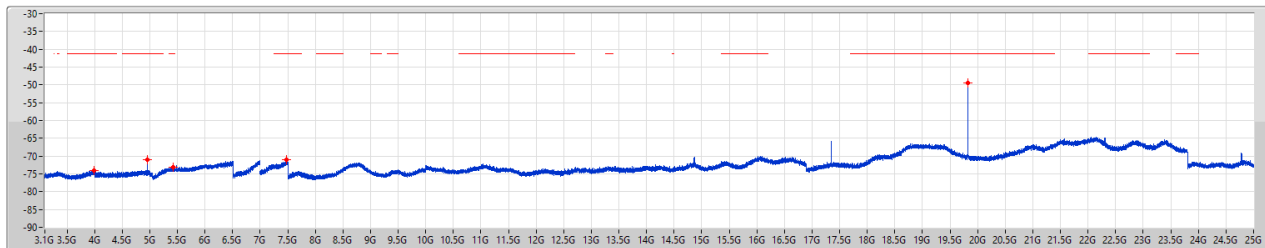


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.93138G	-63.04	-63.04
4G	5G	1M	PK	4.95525G	-61.56	-61.56
5G	7G	1M	PK	5.4322G	-62.45	-62.45
7G	8G	1M	PK	7.42175G	-59.89	-59.89
8G	25G	1M	PK	19.82031G	-42.38	-42.38

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [AV]

2478MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.99348G	-74.13	-74.13
4G	5G	1M	AV	4.95525G	-71.02	-71.02
5G	7G	1M	AV	5.4295G	-73.10	-73.10
7G	8G	1M	AV	7.47725G	-71.11	-71.11
8G	25G	1M	AV	19.82031G	-49.43	-49.43



Summary

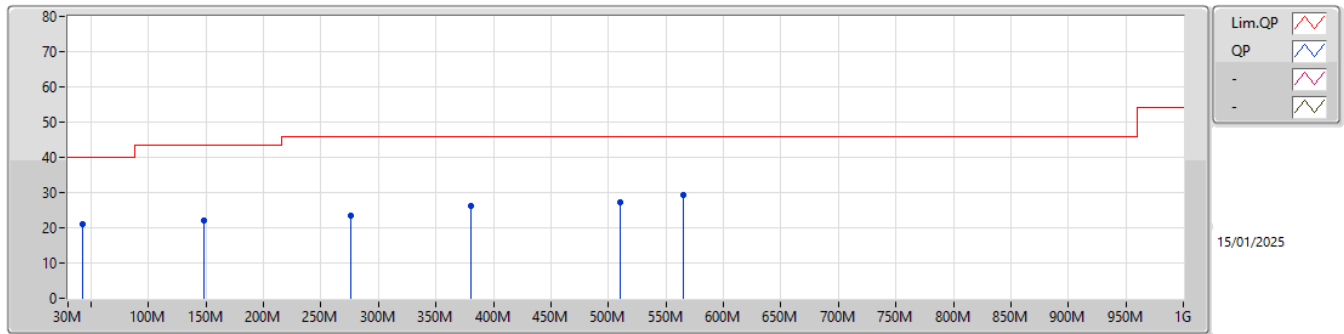
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	52.9M	28.31	40.00	-11.69	Vertical



Unwanted Radiated Emissions into Restricted Frequency Bands Below 1GHz

Appendix D.4

Mode 1



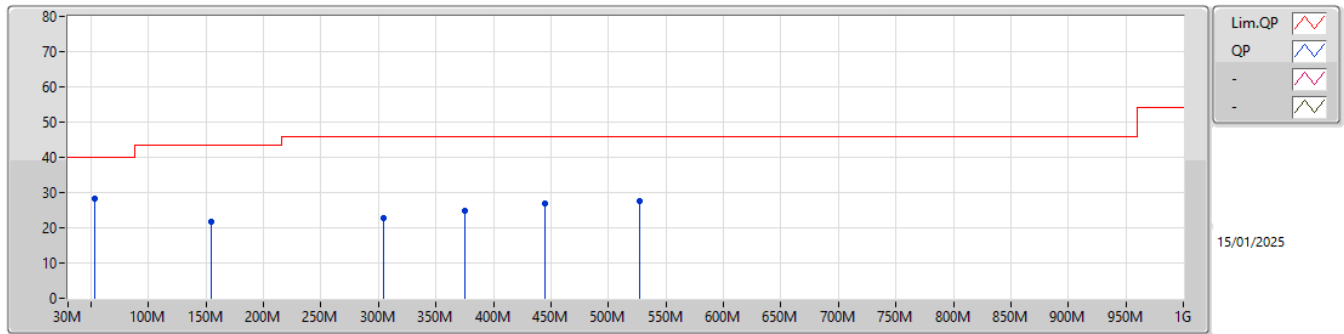
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)		
PK	43M	20.89	40.00	-19.11	-8.52	3	Horizontal	-	-	-	29.41	19.00	0.60	28.12		
PK	147.8M	22.03	43.50	-21.47	-8.73	3	Horizontal	-	-	-	30.76	18.32	1.20	28.25		
PK	276.2M	23.46	46.00	-22.54	-8.50	3	Horizontal	-	-	-	31.96	18.05	1.69	28.24		
PK	380.3M	26.29	46.00	-19.71	-5.81	3	Horizontal	-	-	-	32.10	20.50	1.87	28.18		
PK	510.5M	27.18	46.00	-18.82	-3.11	3	Horizontal	-	-	-	30.29	23.01	2.08	28.20		
PK	565.6M	29.39	46.00	-16.61	-1.99	3	Horizontal	-	-	-	31.38	23.92	2.28	28.19		



Unwanted Radiated Emissions into Restricted Frequency Bands Below 1GHz

Appendix D.4

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)		
PK	52.9M	28.31	40.00	-11.69	-8.23	3	Vertical	-	-	-	36.54	19.19	0.73	28.15		
PK	154.6M	21.62	43.50	-21.88	-8.57	3	Vertical	-	-	-	30.19	18.46	1.23	28.26		
PK	304.8M	22.90	46.00	-23.10	-7.65	3	Vertical	-	-	-	30.55	18.79	1.79	28.23		
PK	375M	24.93	46.00	-21.07	-6.03	3	Vertical	-	-	-	30.96	20.30	1.86	28.19		
PK	445.2M	26.74	46.00	-19.26	-4.30	3	Vertical	-	-	-	31.04	21.91	1.97	28.18		
PK	527.2M	27.68	46.00	-18.32	-2.84	3	Vertical	-	-	-	30.52	23.20	2.15	28.19		



**Unwanted Radiated Emissions into Restricted
Frequency Bands Above 1GHz**

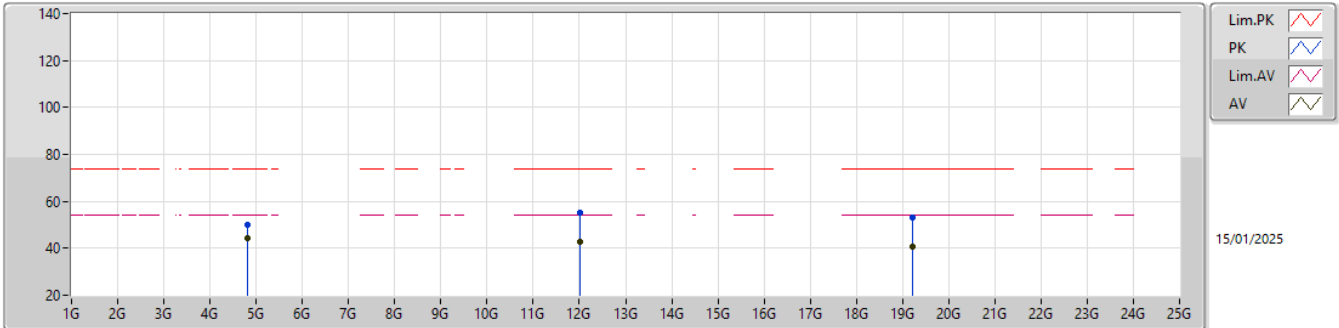
Appendix D.5

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	4.96G	47.49	54.00	-6.51	3	Horizontal	46	1.00	-
BT-LE(2Mbps)	Pass	AV	4.956G	45.79	54.00	-8.21	3	Horizontal	45	1.08	-

2.4-2.4835GHz_BT-LE(1Mbps)

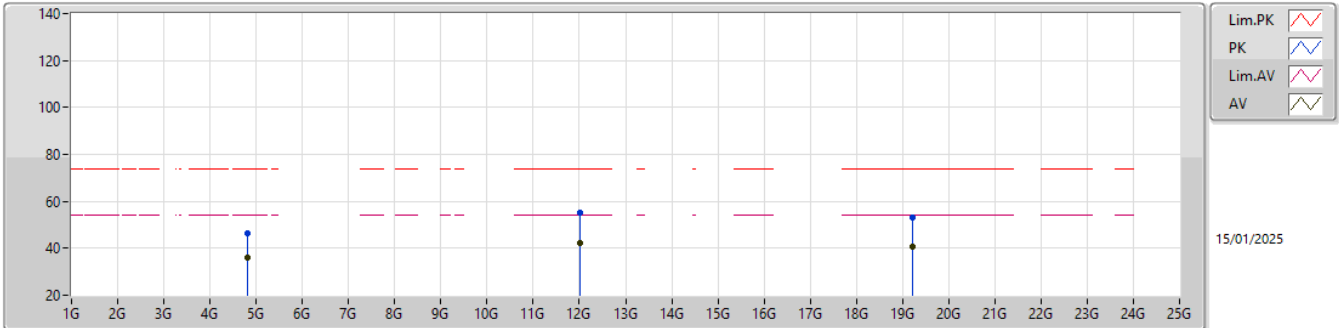
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)			
AV	4.804G	44.09	54.00	-9.91	44.53	3	Horizontal	44	1.70	-	31.40	6.68	38.52			
PK	4.804G	50.18	74.00	-23.82	50.62	3	Horizontal	44	1.70	-	31.40	6.68	38.52			
AV	12.01G	42.51	54.00	-11.49	35.84	3	Horizontal	126	1.00	-	39.34	10.23	42.90			
PK	12.01G	55.33	74.00	-18.67	48.66	3	Horizontal	126	1.00	-	39.34	10.23	42.90			
AV	19.216G	40.45	54.00	-13.55	38.68	3	Horizontal	108	1.00	-	37.87	13.29	49.39			
PK	19.216G	52.99	74.00	-21.01	51.22	3	Horizontal	108	1.00	-	37.87	13.29	49.39			

2.4-2.4835GHz_BT-LE(1Mbps)

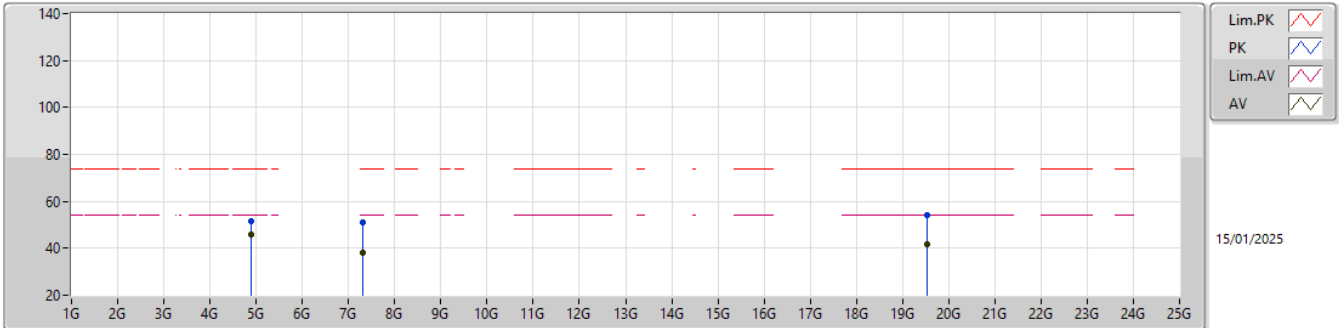
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)				
AV	4.804G	36.10	54.00	-17.90	36.54	3	Vertical	151	2.17	-	31.40	6.68	38.52				
PK	4.804G	46.40	74.00	-27.60	46.84	3	Vertical	151	2.17	-	31.40	6.68	38.52				
AV	12.01G	42.22	54.00	-11.78	35.55	3	Vertical	214	1.00	-	39.34	10.23	42.90				
PK	12.01G	55.41	74.00	-18.59	48.74	3	Vertical	214	1.00	-	39.34	10.23	42.90				
AV	19.216G	40.51	54.00	-13.49	38.74	3	Vertical	147	1.00	-	37.87	13.29	49.39				
PK	19.216G	52.93	74.00	-21.07	51.16	3	Vertical	147	1.00	-	37.87	13.29	49.39				

2.4-2.4835GHz_BT-LE(1Mbps)

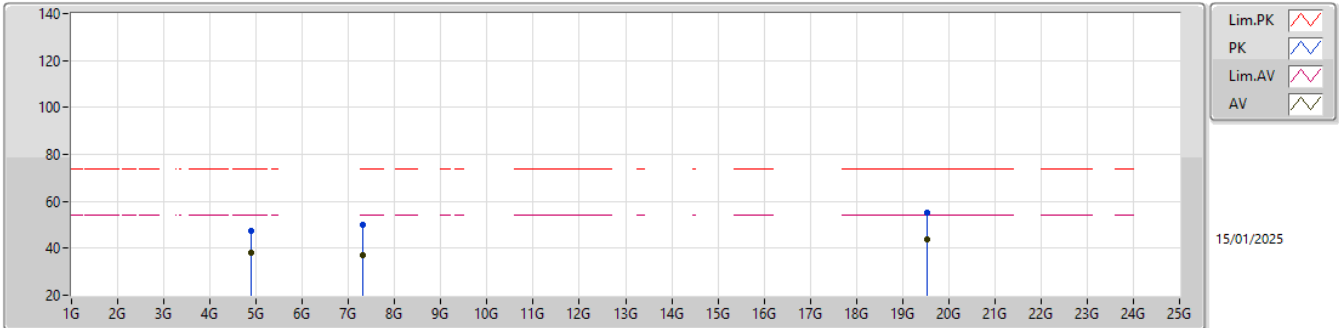
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)				
AV	4.88G	45.95	54.00	-8.05	46.35	3	Horizontal	45	1.67	-	31.40	6.77	38.57				
PK	4.88G	51.43	74.00	-22.57	51.83	3	Horizontal	45	1.67	-	31.40	6.77	38.57				
AV	7.32G	38.34	54.00	-15.66	32.84	3	Horizontal	162	1.00	-	36.26	8.63	39.39				
PK	7.32G	51.15	74.00	-22.85	45.65	3	Horizontal	162	1.00	-	36.26	8.63	39.39				
AV	19.52G	41.57	54.00	-12.43	39.84	3	Horizontal	203	1.15	-	37.60	13.45	49.32				
PK	19.52G	53.96	74.00	-20.04	52.23	3	Horizontal	203	1.15	-	37.60	13.45	49.32				

2.4-2.4835GHz_BT-LE(1Mbps)

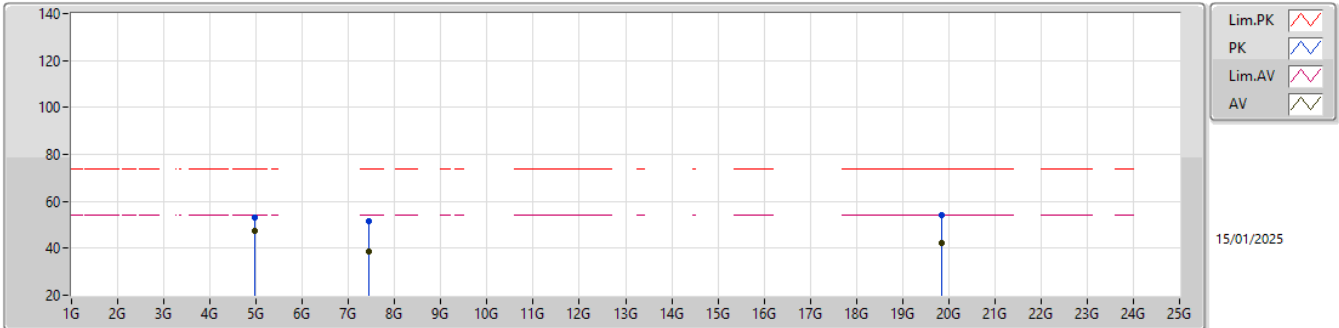
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)			
AV	4.88G	38.02	54.00	-15.98	38.42	3	Vertical	151	2.31	-	31.40	6.77	38.57			
PK	4.88G	47.27	74.00	-26.73	47.67	3	Vertical	151	2.31	-	31.40	6.77	38.57			
AV	7.32G	37.08	54.00	-16.92	31.58	3	Vertical	208	1.00	-	36.26	8.63	39.39			
PK	7.32G	50.06	74.00	-23.94	44.56	3	Vertical	208	1.00	-	36.26	8.63	39.39			
AV	19.52G	43.61	54.00	-10.39	41.88	3	Vertical	184	1.21	-	37.60	13.45	49.32			
PK	19.52G	54.94	74.00	-19.06	53.21	3	Vertical	184	1.21	-	37.60	13.45	49.32			

2.4-2.4835GHz_BT-LE(1Mbps)

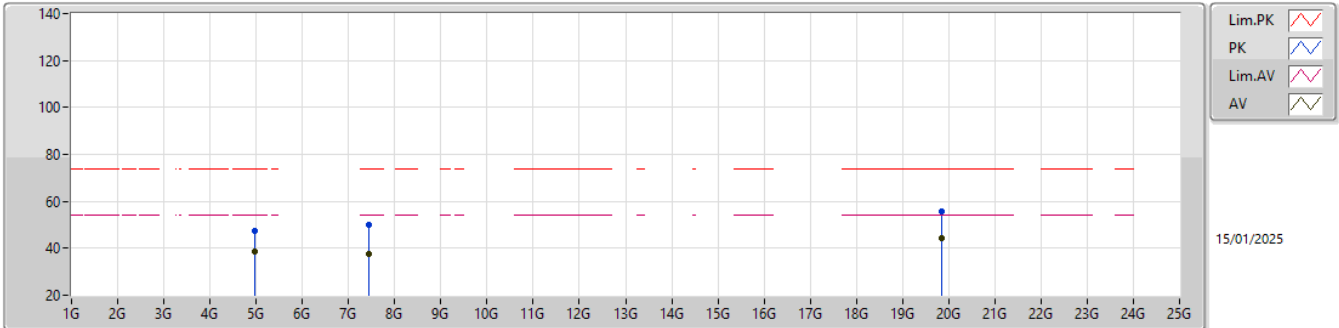
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)				
AV	4.96G	47.49	54.00	-6.51	47.81	3	Horizontal	46	1.00	-	31.44	6.86	38.62				
PK	4.96G	52.95	74.00	-21.05	53.27	3	Horizontal	46	1.00	-	31.44	6.86	38.62				
AV	7.44G	38.60	54.00	-15.40	33.20	3	Horizontal	147	1.38	-	36.28	8.66	39.54				
PK	7.44G	51.35	74.00	-22.65	45.95	3	Horizontal	147	1.38	-	36.28	8.66	39.54				
AV	19.84G	42.09	54.00	-11.91	40.23	3	Horizontal	208	1.17	-	37.52	13.50	49.16				
PK	19.84G	54.34	74.00	-19.66	52.48	3	Horizontal	208	1.17	-	37.52	13.50	49.16				

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

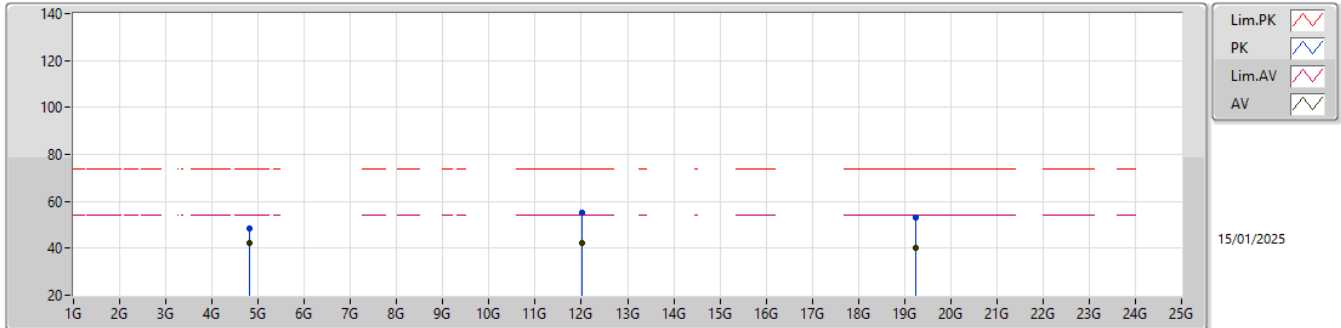


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)			
AV	4.96G	38.59	54.00	-15.41	38.91	3	Vertical	148	2.26	-	31.44	6.86	38.62			
PK	4.96G	47.56	74.00	-26.44	47.88	3	Vertical	148	2.26	-	31.44	6.86	38.62			
AV	7.44G	37.46	54.00	-16.54	32.06	3	Vertical	213	1.00	-	36.28	8.66	39.54			
PK	7.44G	50.24	74.00	-23.76	44.84	3	Vertical	213	1.00	-	36.28	8.66	39.54			
AV	19.84G	44.19	54.00	-9.81	42.33	3	Vertical	182	1.28	-	37.52	13.50	49.16			
PK	19.84G	55.44	74.00	-18.56	53.58	3	Vertical	182	1.28	-	37.52	13.50	49.16			



2.4-2.4835GHz_BT-LE(2Mbps)

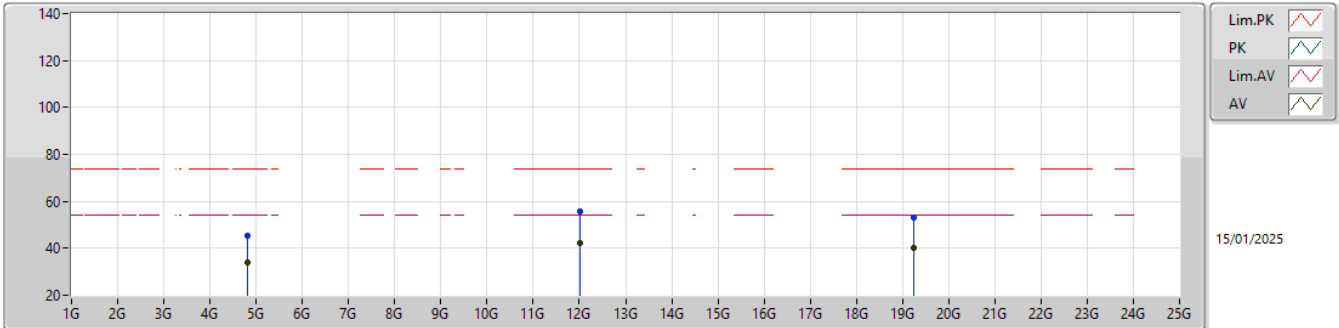
2404MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)			
AV	4.808G	42.25	54.00	-11.75	42.68	3	Horizontal	46	1.57	-	31.40	6.69	38.52			
PK	4.808G	48.54	74.00	-25.46	48.97	3	Horizontal	46	1.57	-	31.40	6.69	38.52			
AV	12.02G	42.38	54.00	-11.62	35.66	3	Horizontal	118	1.00	-	39.38	10.23	42.89			
PK	12.02G	55.29	74.00	-18.71	48.57	3	Horizontal	118	1.00	-	39.38	10.23	42.89			
AV	19.232G	40.34	54.00	-13.66	38.59	3	Horizontal	204	1.00	-	37.84	13.29	49.38			
PK	19.232G	53.09	74.00	-20.91	51.34	3	Horizontal	204	1.00	-	37.84	13.29	49.38			

2.4-2.4835GHz_BT-LE(2Mbps)

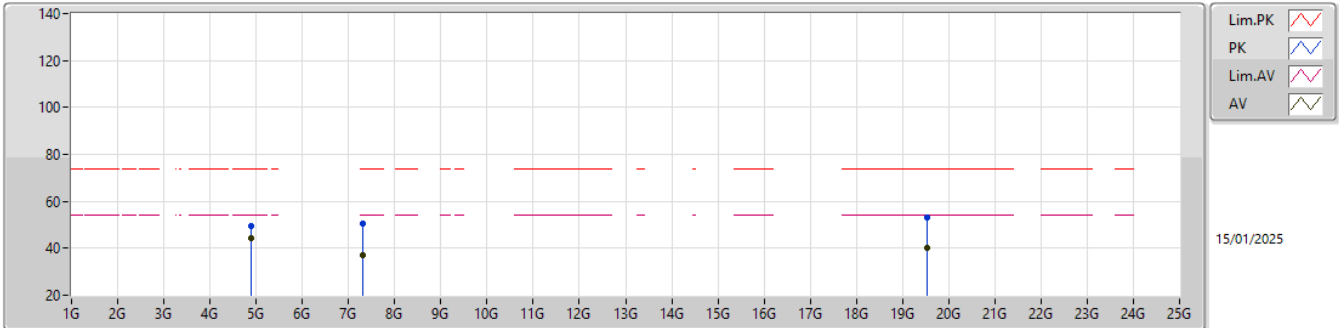
2404MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)			
AV	4.804G	33.95	54.00	-20.05	34.39	3	Vertical	148	2.08	-	31.40	6.68	38.52			
PK	4.804G	45.44	74.00	-28.56	45.88	3	Vertical	148	2.08	-	31.40	6.68	38.52			
AV	12.02G	42.36	54.00	-11.64	35.64	3	Vertical	123	1.00	-	39.38	10.23	42.89			
PK	12.02G	55.54	74.00	-18.46	48.82	3	Vertical	123	1.00	-	39.38	10.23	42.89			
AV	19.232G	40.40	54.00	-13.60	38.65	3	Vertical	201	1.00	-	37.84	13.29	49.38			
PK	19.232G	53.08	74.00	-20.92	51.33	3	Vertical	201	1.00	-	37.84	13.29	49.38			

2.4-2.4835GHz_BT-LE(2Mbps)

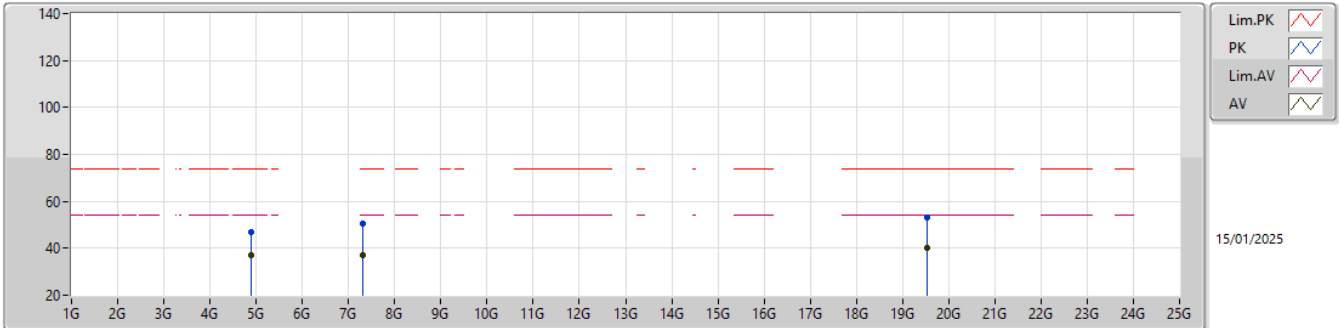
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)			
AV	4.88G	44.44	54.00	-9.56	44.84	3	Horizontal	46	1.58	-	31.40	6.77	38.57			
PK	4.88G	49.63	74.00	-24.37	50.03	3	Horizontal	46	1.58	-	31.40	6.77	38.57			
AV	7.32G	37.16	54.00	-16.84	31.66	3	Horizontal	204	1.00	-	36.26	8.63	39.39			
PK	7.32G	50.62	74.00	-23.38	45.12	3	Horizontal	204	1.00	-	36.26	8.63	39.39			
AV	19.52G	40.30	54.00	-13.70	38.57	3	Horizontal	116	1.00	-	37.60	13.45	49.32			
PK	19.52G	53.16	74.00	-20.84	51.43	3	Horizontal	116	1.00	-	37.60	13.45	49.32			

2.4-2.4835GHz_BT-LE(2Mbps)

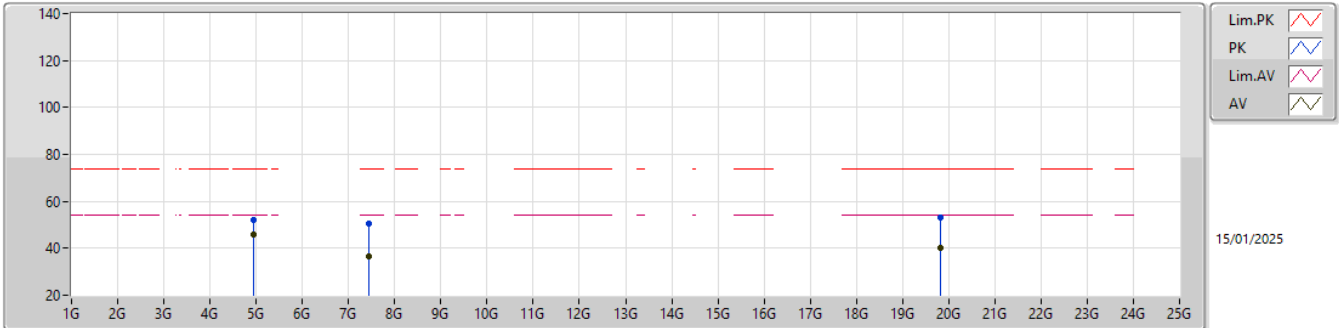
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)				
AV	4.88G	37.12	54.00	-16.88	37.52	3	Vertical	154	2.19	-	31.40	6.77	38.57				
PK	4.88G	46.84	74.00	-27.16	47.24	3	Vertical	154	2.19	-	31.40	6.77	38.57				
AV	7.32G	37.06	54.00	-16.94	31.56	3	Vertical	221	1.00	-	36.26	8.63	39.39				
PK	7.32G	50.77	74.00	-23.23	45.27	3	Vertical	221	1.00	-	36.26	8.63	39.39				
AV	19.52G	40.29	54.00	-13.71	38.56	3	Vertical	147	1.00	-	37.60	13.45	49.32				
PK	19.52G	52.95	74.00	-21.05	51.22	3	Vertical	147	1.00	-	37.60	13.45	49.32				

2.4-2.4835GHz_BT-LE(2Mbps)

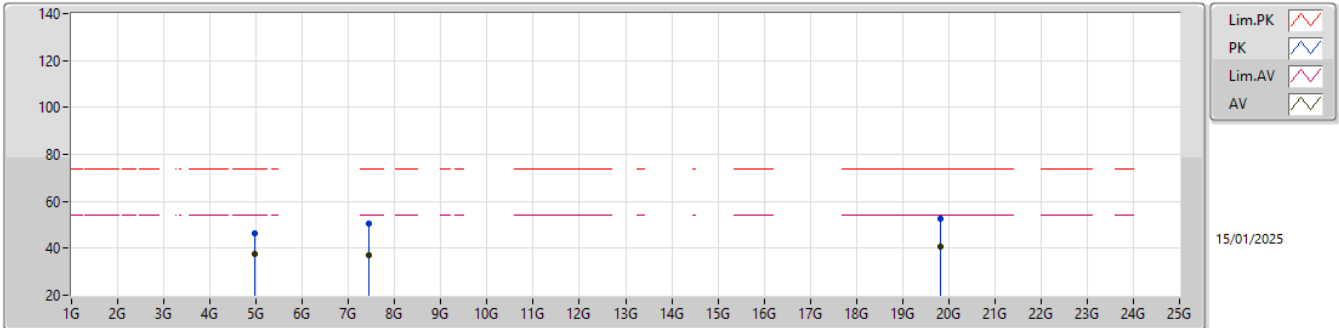
2478MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)				
AV	4.956G	45.79	54.00	-8.21	46.13	3	Horizontal	45	1.08	-	31.42	6.86	38.62				
PK	4.956G	52.23	74.00	-21.77	52.57	3	Horizontal	45	1.08	-	31.42	6.86	38.62				
AV	7.434G	36.65	54.00	-17.35	31.26	3	Horizontal	223	1.00	-	36.27	8.66	39.54				
PK	7.434G	50.67	74.00	-23.33	45.28	3	Horizontal	223	1.00	-	36.27	8.66	39.54				
AV	19.824G	40.43	54.00	-13.57	38.55	3	Horizontal	178	1.00	-	37.55	13.50	49.17				
PK	19.824G	52.90	74.00	-21.10	51.02	3	Horizontal	178	1.00	-	37.55	13.50	49.17				

2.4-2.4835GHz_BT-LE(2Mbps)

2478MHz_TX

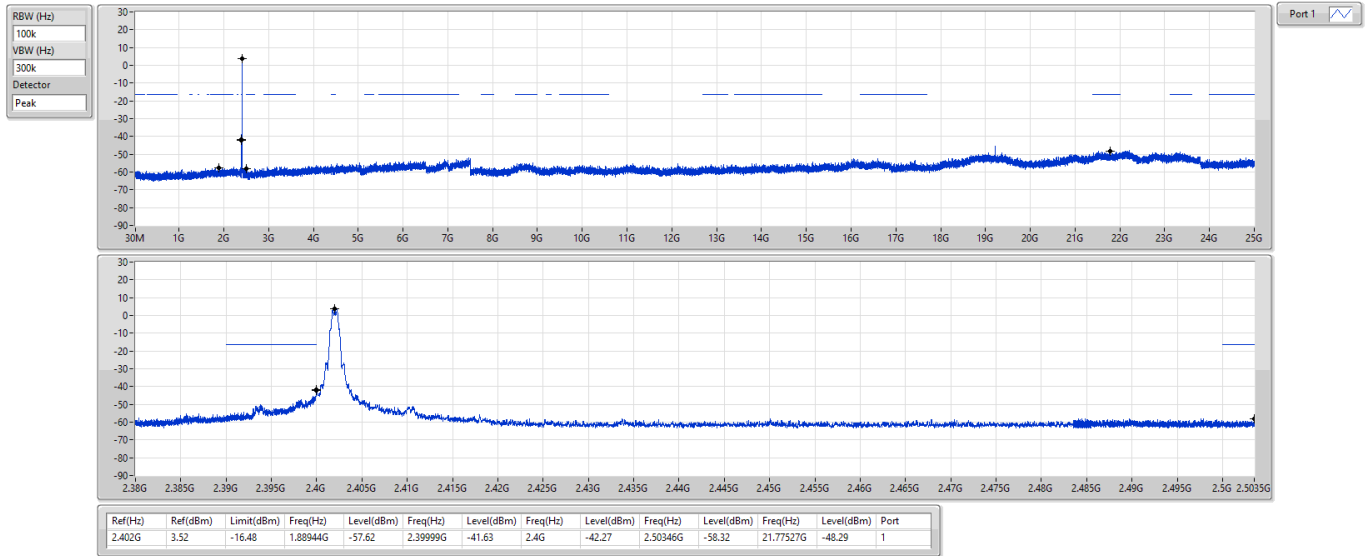


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)				
AV	4.96G	37.44	54.00	-16.56	37.76	3	Vertical	128	2.21	-	31.44	6.86	38.62				
PK	4.96G	46.22	74.00	-27.78	46.54	3	Vertical	128	2.21	-	31.44	6.86	38.62				
AV	7.434G	36.93	54.00	-17.07	31.54	3	Vertical	245	1.00	-	36.27	8.66	39.54				
PK	7.434G	50.41	74.00	-23.59	45.02	3	Vertical	245	1.00	-	36.27	8.66	39.54				
AV	19.824G	40.52	54.00	-13.48	38.64	3	Vertical	108	1.00	-	37.55	13.50	49.17				
PK	19.824G	52.82	74.00	-21.18	50.94	3	Vertical	108	1.00	-	37.55	13.50	49.17				

2.4-2.4835GHz_BT-LE(125kbps)

CSEndB-DTS

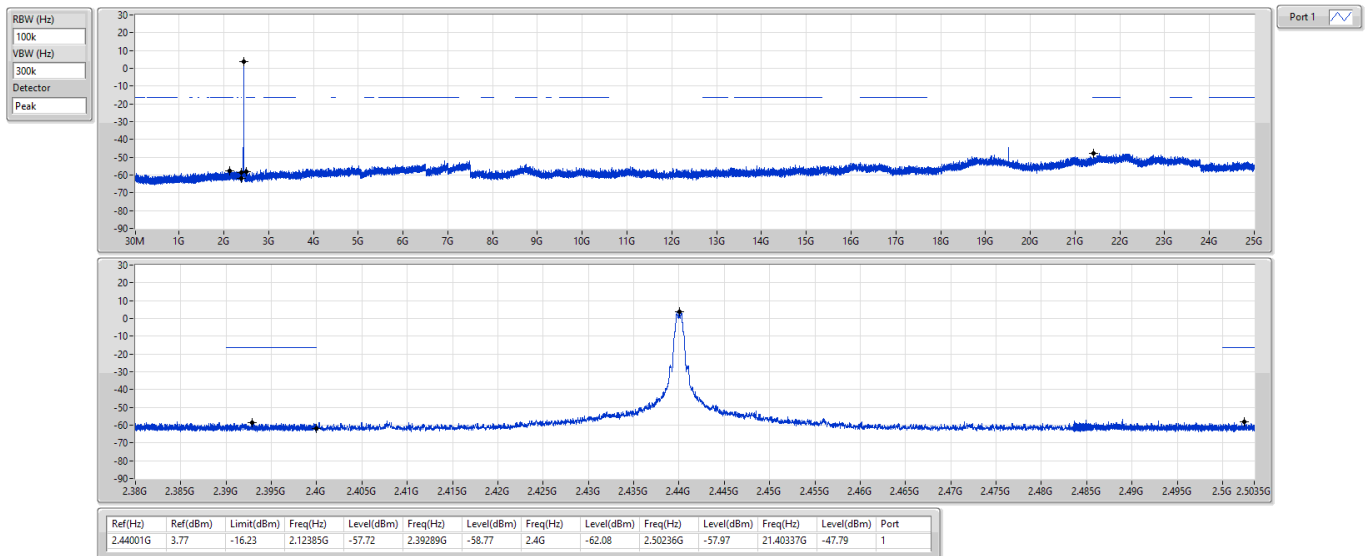
2402MHz



2.4-2.4835GHz_BT-LE(125kbps)

CSEndB-DTS

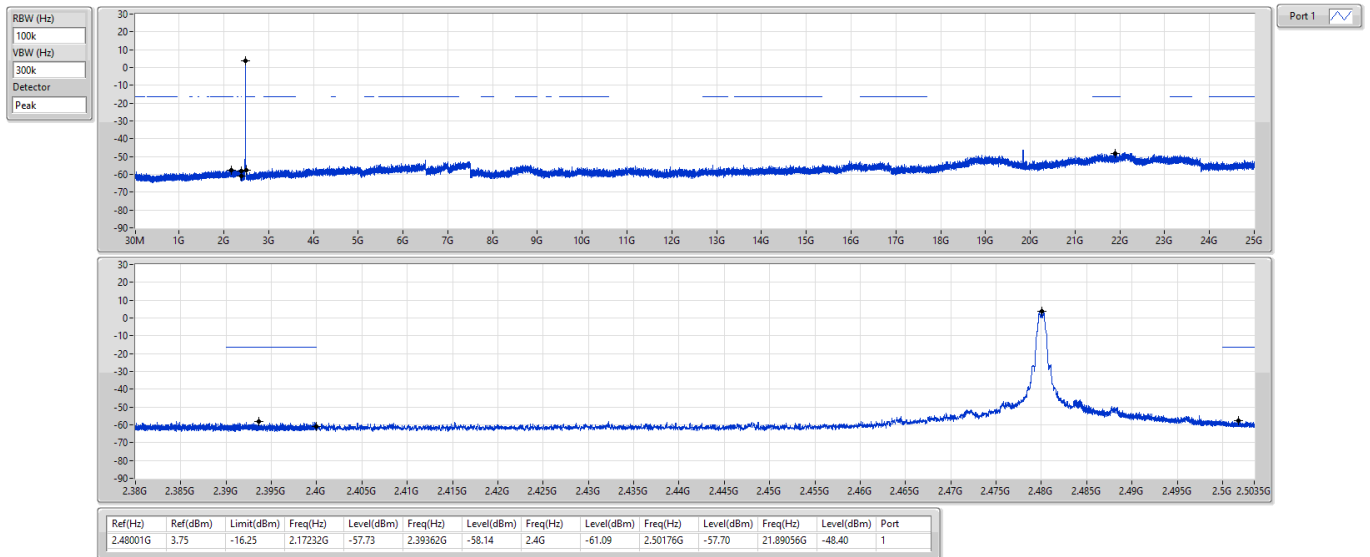
2440MHz



2.4-2.4835GHz_BT-LE(125kbps)

CSEndB-DTS

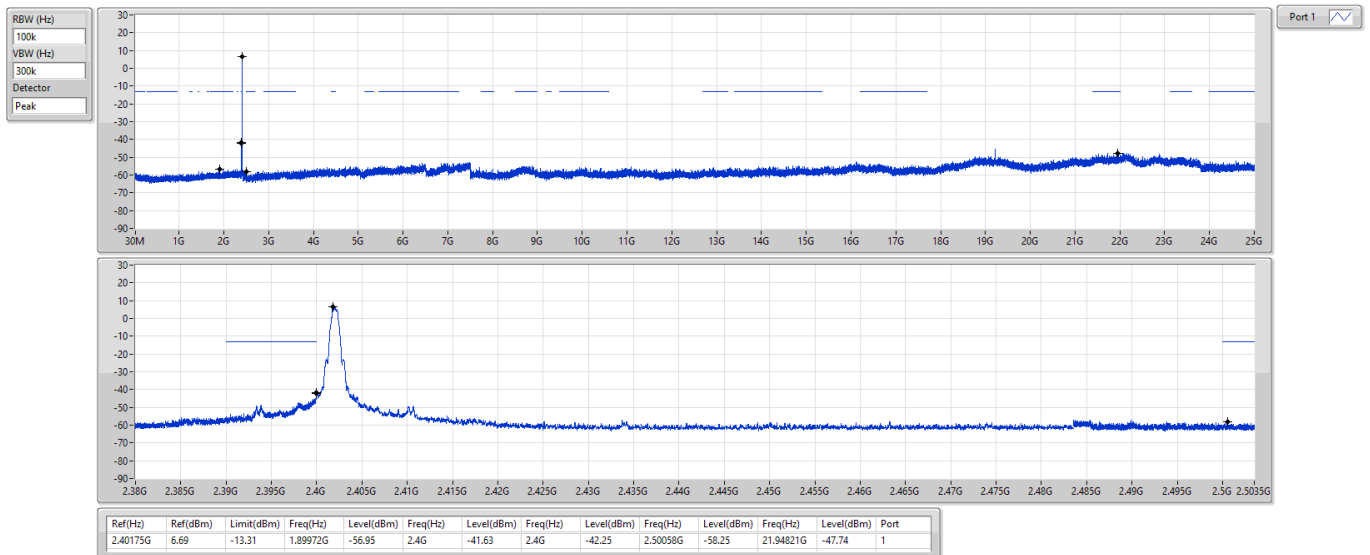
2480MHz



2.4-2.4835GHz_BT-LE(500kbps)

CSEndB-DTS

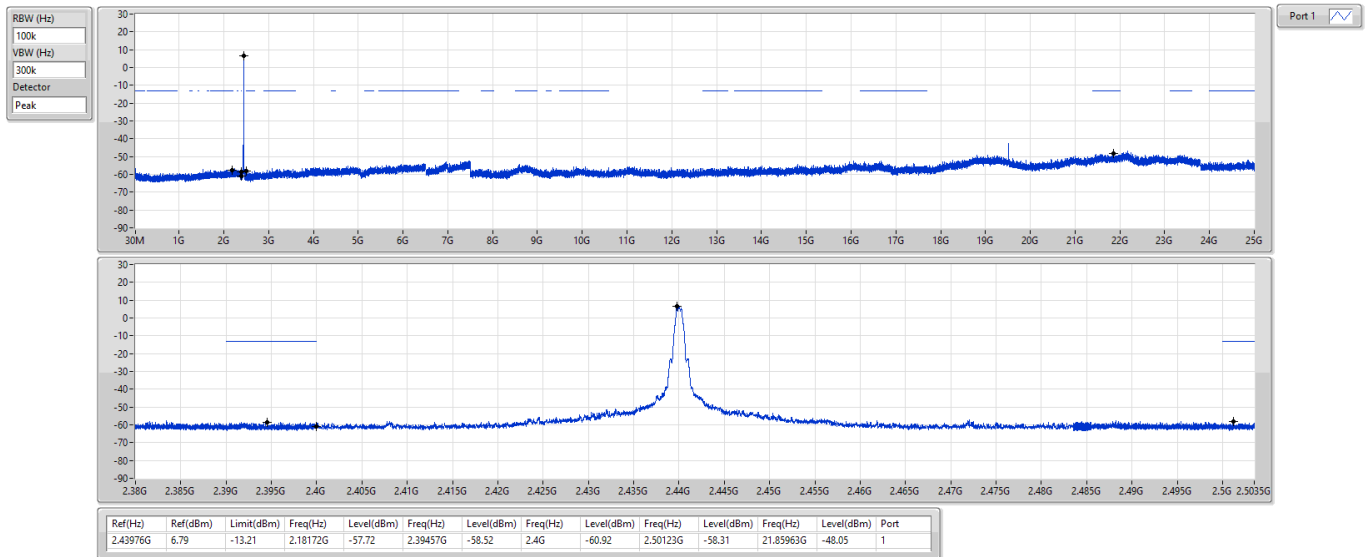
2402MHz



2.4-2.4835GHz_BT-LE(500kbps)

CSEndB-DTS

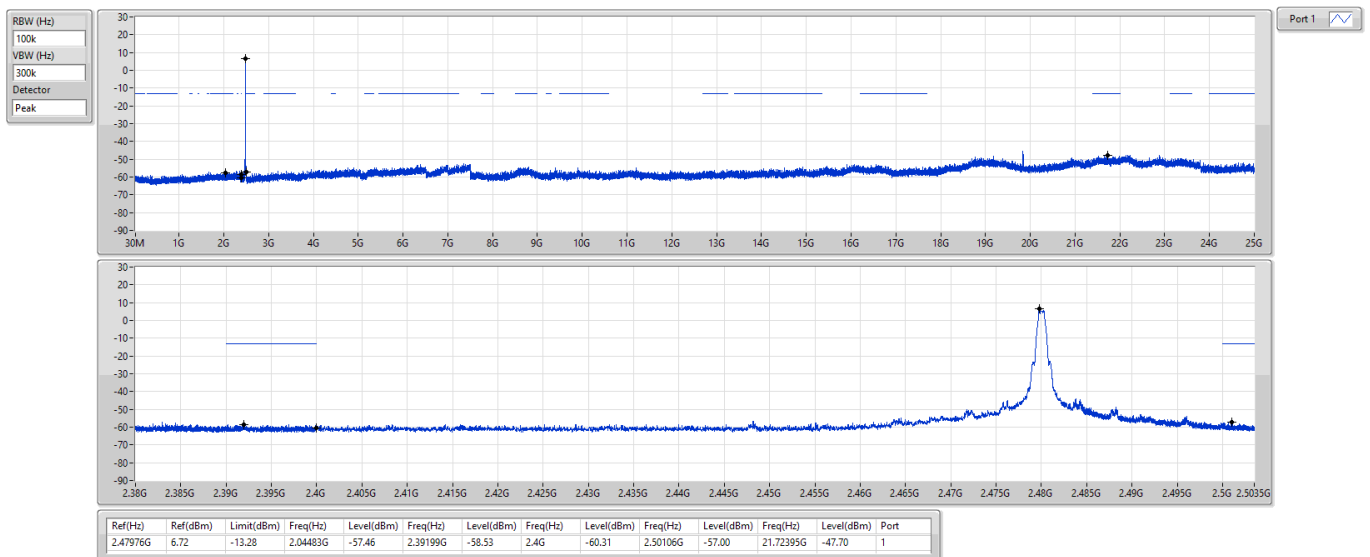
2440MHz



2.4-2.4835GHz_BT-LE(500kbps)

CSEndB-DTS

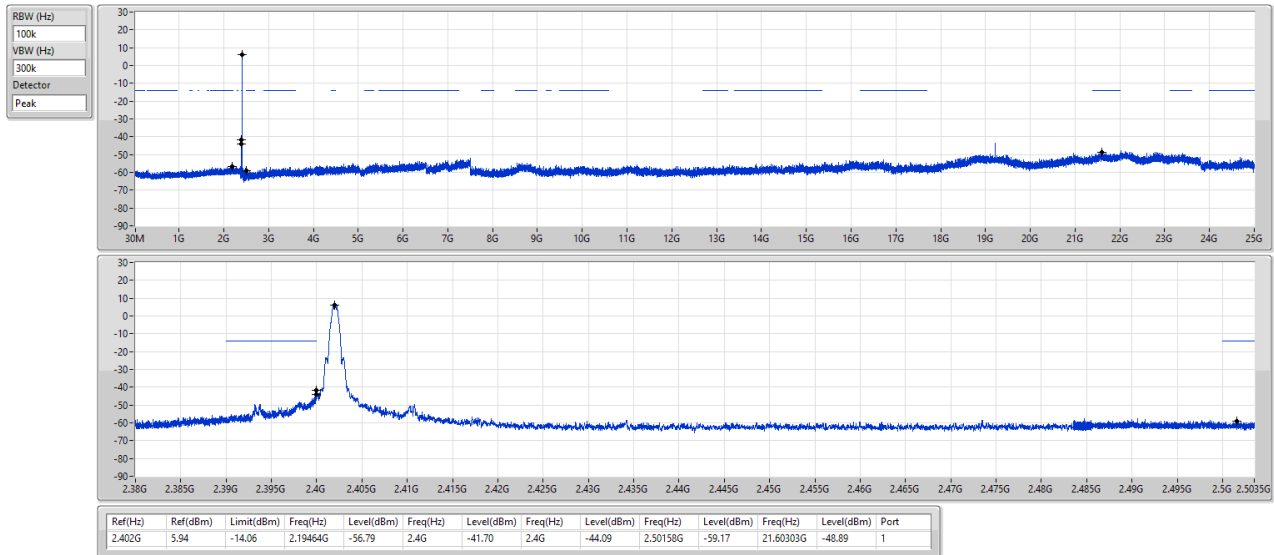
2480MHz



2.4-2.4835GHz_BT-LE(1Mbps)

CSEndB-DTS

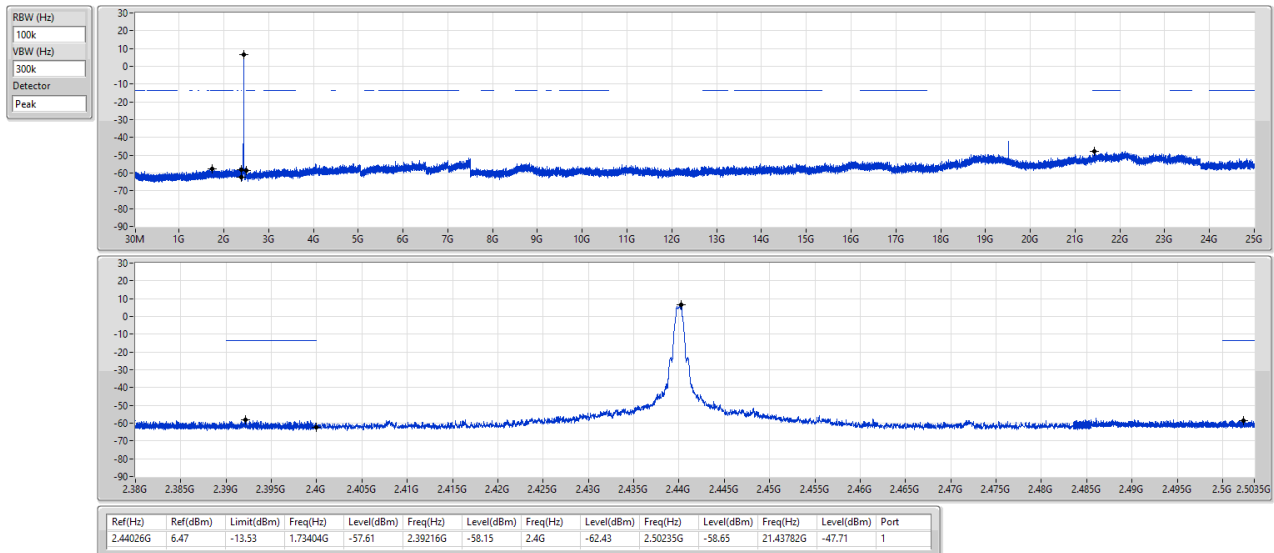
2402MHz



2.4-2.4835GHz_BT-LE(1Mbps)

CSEndB-DTS

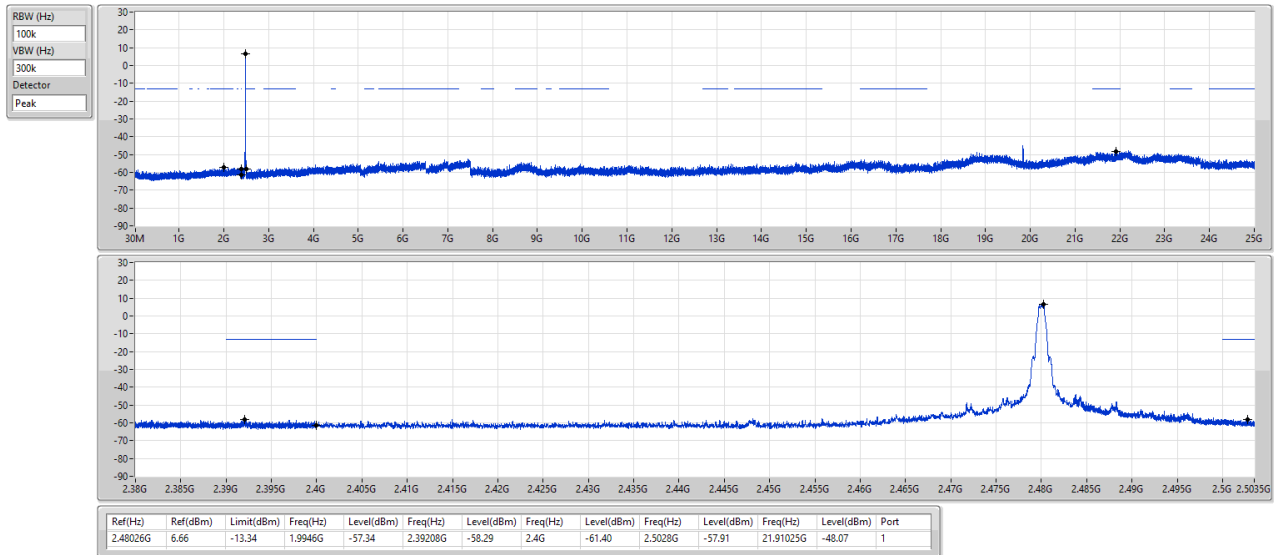
2440MHz



2.4-2.4835GHz_BT-LE(1Mbps)

CSEndB-DTS

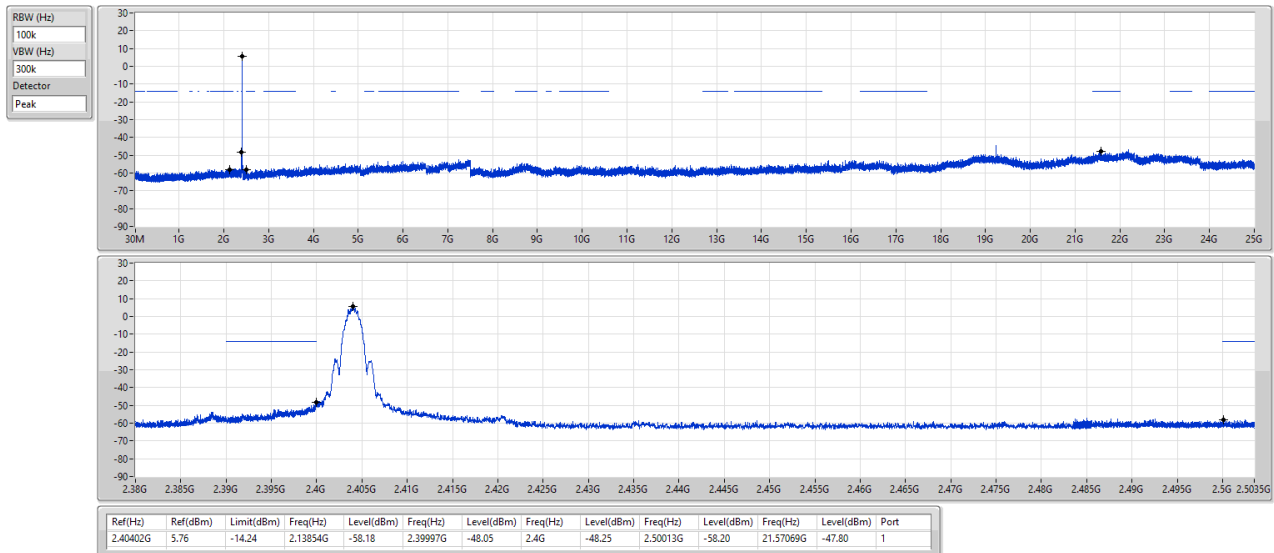
2480MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSEndB-DTS

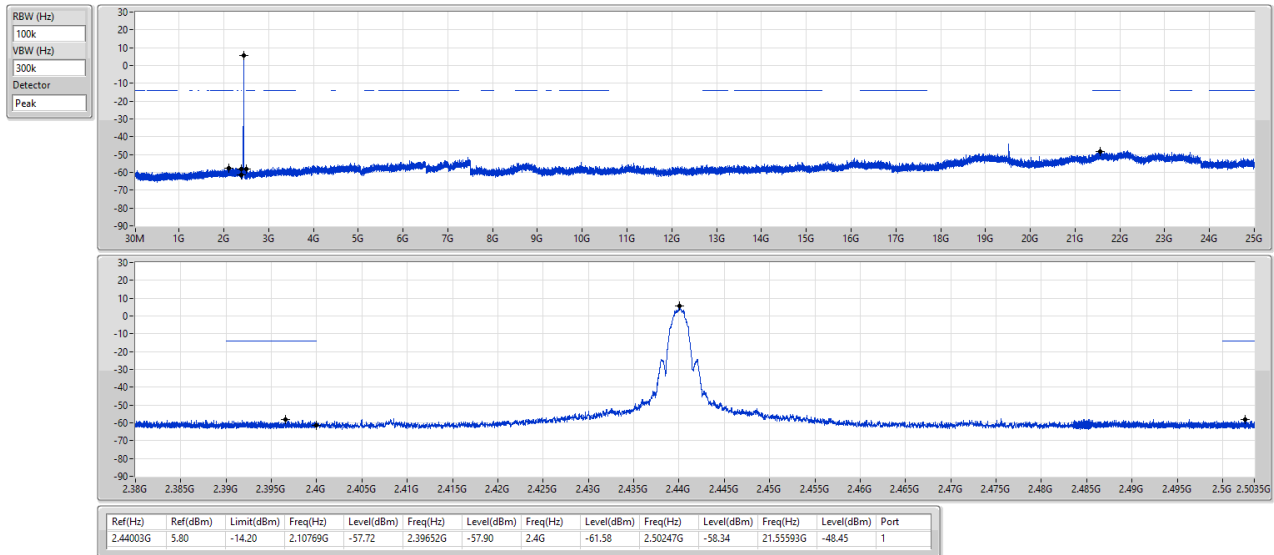
2404MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSEndB-DTS

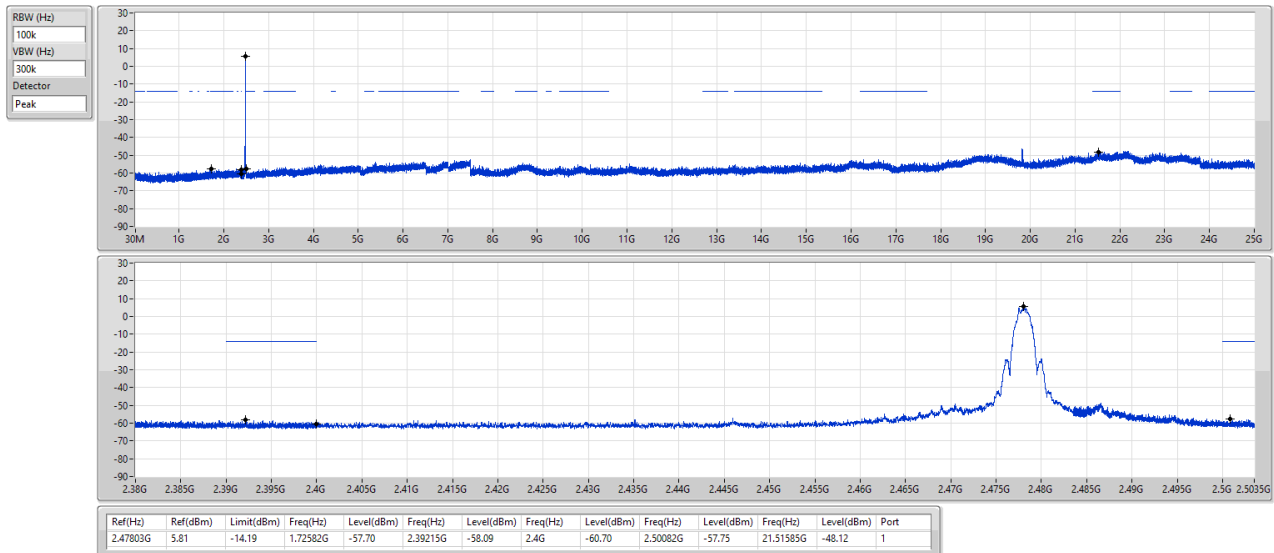
2440MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSEndB-DTS

2478MHz

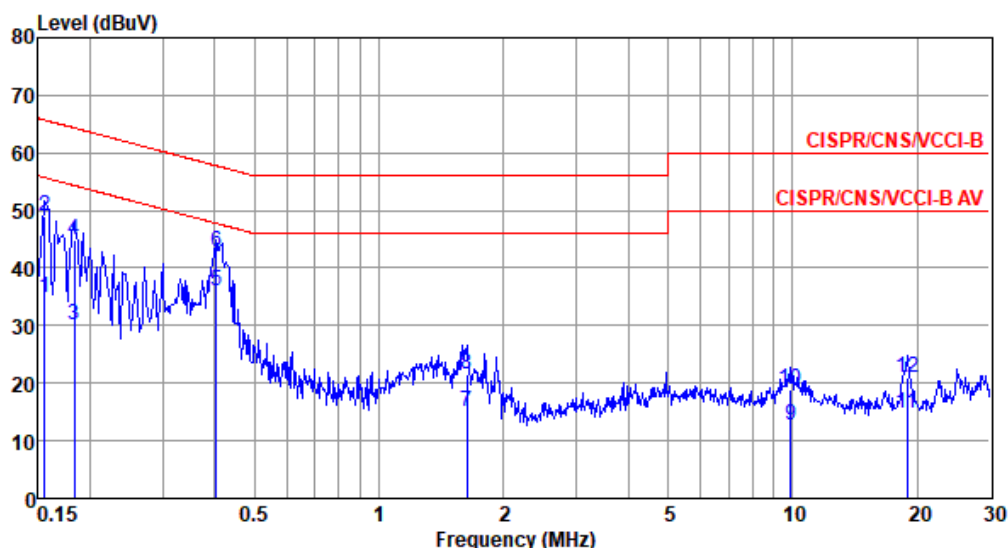


Modulation Mode	BT-LE(1Mbps)	Test Freq. (MHz)	2440
Power Phase	Line		

Test by : Allen Lee

Temperature: 21°C

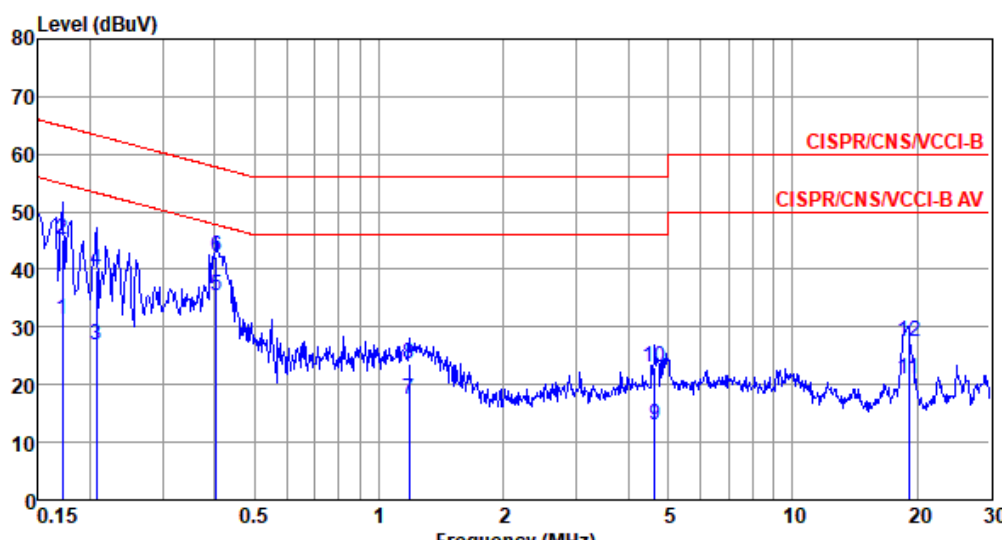
Humidity: 66%



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.156	34.91	55.69	-20.78	25.18	9.65	0.08	0.00	Average
2	0.156	48.89	65.69	-16.80	39.16	9.65	0.08	0.00	QP
3	0.183	30.21	54.33	-24.12	20.48	9.65	0.08	0.00	Average
4	0.183	44.83	64.33	-19.50	35.10	9.65	0.08	0.00	QP
5*	0.404	36.02	47.77	-11.75	26.29	9.64	0.09	0.00	Average
6	0.404	42.67	57.77	-15.10	32.94	9.64	0.09	0.00	QP
7	1.628	14.97	46.00	-31.03	5.16	9.66	0.15	0.00	Average
8	1.628	21.47	56.00	-34.53	11.66	9.66	0.15	0.00	QP
9	9.913	12.72	50.00	-37.28	2.71	9.71	0.30	0.00	Average
10	9.913	18.85	60.00	-41.15	8.84	9.71	0.30	0.00	QP
11	18.920	14.86	50.00	-35.14	4.64	9.68	0.54	0.00	Average
12	18.920	21.07	60.00	-38.93	10.85	9.68	0.54	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).

Modulation Mode	BT-LE(1Mbps)	Test Freq. (MHz)	2440																																																																																																																																		
Power Phase	Neutral																																																																																																																																				
Test by : Allen Lee Temperature: 21°C Humidity: 66%																																																																																																																																					
Level (dBUV)  Frequency (MHz) <table><thead><tr><th></th><th>Freq MHz</th><th>Level dBUV</th><th>Limit Line dBUV</th><th>Over Limit dB</th><th>Read Level dBUV</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>0.171</td><td>31.41</td><td>54.90</td><td>-23.49</td><td>21.67</td><td>9.66</td><td>0.08</td><td>0.00</td><td>Average</td></tr><tr><td>2</td><td>0.171</td><td>45.31</td><td>64.90</td><td>-19.59</td><td>35.57</td><td>9.66</td><td>0.08</td><td>0.00</td><td>QP</td></tr><tr><td>3</td><td>0.207</td><td>26.78</td><td>53.32</td><td>-26.54</td><td>17.05</td><td>9.65</td><td>0.08</td><td>0.00</td><td>Average</td></tr><tr><td>4</td><td>0.207</td><td>39.72</td><td>63.32</td><td>-23.60</td><td>29.99</td><td>9.65</td><td>0.08</td><td>0.00</td><td>QP</td></tr><tr><td>5*</td><td>0.404</td><td>35.55</td><td>47.77</td><td>-12.22</td><td>25.82</td><td>9.64</td><td>0.09</td><td>0.00</td><td>Average</td></tr><tr><td>6</td><td>0.404</td><td>42.21</td><td>57.77</td><td>-15.56</td><td>32.48</td><td>9.64</td><td>0.09</td><td>0.00</td><td>QP</td></tr><tr><td>7</td><td>1.184</td><td>17.40</td><td>46.00</td><td>-28.60</td><td>7.63</td><td>9.65</td><td>0.12</td><td>0.00</td><td>Average</td></tr><tr><td>8</td><td>1.184</td><td>23.58</td><td>56.00</td><td>-32.42</td><td>13.81</td><td>9.65</td><td>0.12</td><td>0.00</td><td>QP</td></tr><tr><td>9</td><td>4.647</td><td>12.90</td><td>46.00</td><td>-33.10</td><td>2.98</td><td>9.69</td><td>0.23</td><td>0.00</td><td>Average</td></tr><tr><td>10</td><td>4.647</td><td>23.05</td><td>56.00</td><td>-32.95</td><td>13.13</td><td>9.69</td><td>0.23</td><td>0.00</td><td>QP</td></tr><tr><td>11</td><td>19.122</td><td>20.93</td><td>50.00</td><td>-29.07</td><td>10.56</td><td>9.82</td><td>0.55</td><td>0.00</td><td>Average</td></tr><tr><td>12</td><td>19.122</td><td>27.53</td><td>60.00</td><td>-32.47</td><td>17.16</td><td>9.82</td><td>0.55</td><td>0.00</td><td>QP</td></tr></tbody></table>					Freq MHz	Level dBUV	Limit Line dBUV	Over Limit dB	Read Level dBUV	Factor dB	Cable loss dB	Aux dB	Remark	1	0.171	31.41	54.90	-23.49	21.67	9.66	0.08	0.00	Average	2	0.171	45.31	64.90	-19.59	35.57	9.66	0.08	0.00	QP	3	0.207	26.78	53.32	-26.54	17.05	9.65	0.08	0.00	Average	4	0.207	39.72	63.32	-23.60	29.99	9.65	0.08	0.00	QP	5*	0.404	35.55	47.77	-12.22	25.82	9.64	0.09	0.00	Average	6	0.404	42.21	57.77	-15.56	32.48	9.64	0.09	0.00	QP	7	1.184	17.40	46.00	-28.60	7.63	9.65	0.12	0.00	Average	8	1.184	23.58	56.00	-32.42	13.81	9.65	0.12	0.00	QP	9	4.647	12.90	46.00	-33.10	2.98	9.69	0.23	0.00	Average	10	4.647	23.05	56.00	-32.95	13.13	9.69	0.23	0.00	QP	11	19.122	20.93	50.00	-29.07	10.56	9.82	0.55	0.00	Average	12	19.122	27.53	60.00	-32.47	17.16	9.82	0.55	0.00	QP
	Freq MHz	Level dBUV	Limit Line dBUV	Over Limit dB	Read Level dBUV	Factor dB	Cable loss dB	Aux dB	Remark																																																																																																																												
1	0.171	31.41	54.90	-23.49	21.67	9.66	0.08	0.00	Average																																																																																																																												
2	0.171	45.31	64.90	-19.59	35.57	9.66	0.08	0.00	QP																																																																																																																												
3	0.207	26.78	53.32	-26.54	17.05	9.65	0.08	0.00	Average																																																																																																																												
4	0.207	39.72	63.32	-23.60	29.99	9.65	0.08	0.00	QP																																																																																																																												
5*	0.404	35.55	47.77	-12.22	25.82	9.64	0.09	0.00	Average																																																																																																																												
6	0.404	42.21	57.77	-15.56	32.48	9.64	0.09	0.00	QP																																																																																																																												
7	1.184	17.40	46.00	-28.60	7.63	9.65	0.12	0.00	Average																																																																																																																												
8	1.184	23.58	56.00	-32.42	13.81	9.65	0.12	0.00	QP																																																																																																																												
9	4.647	12.90	46.00	-33.10	2.98	9.69	0.23	0.00	Average																																																																																																																												
10	4.647	23.05	56.00	-32.95	13.13	9.69	0.23	0.00	QP																																																																																																																												
11	19.122	20.93	50.00	-29.07	10.56	9.82	0.55	0.00	Average																																																																																																																												
12	19.122	27.53	60.00	-32.47	17.16	9.82	0.55	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).																																																																																																																																					