

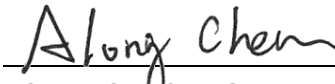
FCC Test Report

FCC ID : SQG-SONAIF513
Equipment : Sona IF513 802.11ax Wi-Fi 6E Module with Bluetooth 5.4
Model No. : Sona IF513
Brand Name : Ezurio
Applicant : Ezurio LLC
Address : W66N220 Commerce Court, Cedarburg, WI 53012 United States Of America
Standard : 47 CFR FCC Part 15.247
Received Date : Jun. 06, 2024
Tested Date : Oct. 04 ~ Oct. 25, 2024

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

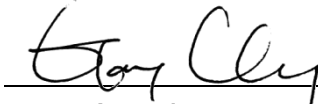

Gary Chang / Manager

Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Local Support Equipment List	7
1.3	Test Setup Chart	7
1.4	Test Equipment List and Calibration Data.....	11
1.5	Test Standards	12
1.6	Reference Guidance	12
1.7	Deviation from Test Standard and Measurement Procedure.....	12
1.8	Measurement Uncertainty	13
2	TEST CONFIGURATION.....	14
2.1	Testing Facility	14
2.2	The Worst Test Modes and Channel Details	15
3	TRANSMITTER TEST RESULTS	16
3.1	6dB and Occupied Bandwidth.....	16
3.2	Conducted Output Power	17
3.3	Power Spectral Density	18
3.4	Unwanted Emissions in Restricted Frequency Bands	19
3.5	Emissions in non-restricted Frequency Bands.....	21
3.6	AC Power Line Conducted Emissions	22
4	TEST LABORATORY INFORMATION	23

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
FR460601AE	Rev. 01	Initial issue	Nov. 25, 2024
FR460601AE	Rev. 02	1. Modified antenna gain 2. Modified Appendix	Dec. 24, 2024

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emissions	[dBuV]: 0.415MHz 29.55 (Margin -28.00dB) - QP	Pass
15.247(d) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 450.03MHz 42.51 (Margin -3.49dB) - QP	Pass
15.247(b)(3)	Conducted Output Power	Power [dBm]: 7.57	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 Product Details

The four configurations of the EUT are shown on the following:

Model Name	Part No.	Description
Sona IF513	453-00184	Module, Sona IF513, MHF4L
	453-00185	Module, Sona IF513, Trace Pin
	453-00193	Module, Sona IF513, Antenna Diversity, MHF4L
	453-00194	Module, Sona IF513, Antenna Diversity, Trace Pin
	453-00186	Module, Sona IF513, M.2, Key E, SDIO, UART
	453-00195	Module, Sona IF513, Antenna Diversity, M.2, Key E, SDIO, UART
	453-00213	Module, Sona IF513, M.2, Key E, SDIO, UART, Ext. OSC
	453-00214	Module, Sona IF513, Antenna Diversity, M.2, Key E, SDIO, UART, Ext. OSC

1.1.2 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	0-39 [40]	125 kbps
				500 kbps
				1 Mbps
				2 Mbps
Note: Bluetooth LE (Low energy) uses GFSK modulation.				

1.1.3 Antenna Details

Ant. No.	Manufacturer	Model	Part Number	Type	Connector	Gain (dBi)
1	Joymax Inc.	TWX-100BRS3B	NA	Dipole	RP-SMA	2
2	Ezurio	FlexMIMO 6E	EFD2471A3S-10MH4L	PIFA	MHF4L	2.2
3	Ezurio	Mini NanoBlade Flex 6 GHz	EMF2471A3S-10MH4L	PCB Dipole	MHF4L	2.4
4	Ezurio	FlexPIFA 6E	EFB2471A3S-10MH4L	PIFA	MHF4L	2.2

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	3.3Vdc from host
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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	AIROC Bluetooth Tool, V1.2.0.2890	
Modulation Mode	Duty Cycle Of Test Signal (%)	Duty Factor (dB)
BT-LE(125kbps)	97.81%	0.10
BT-LE(500kbps)	91.21%	0.40
BT-LE(1Mbps)	86.01%	0.65
BT-LE(2Mbps)	57.87%	2.38

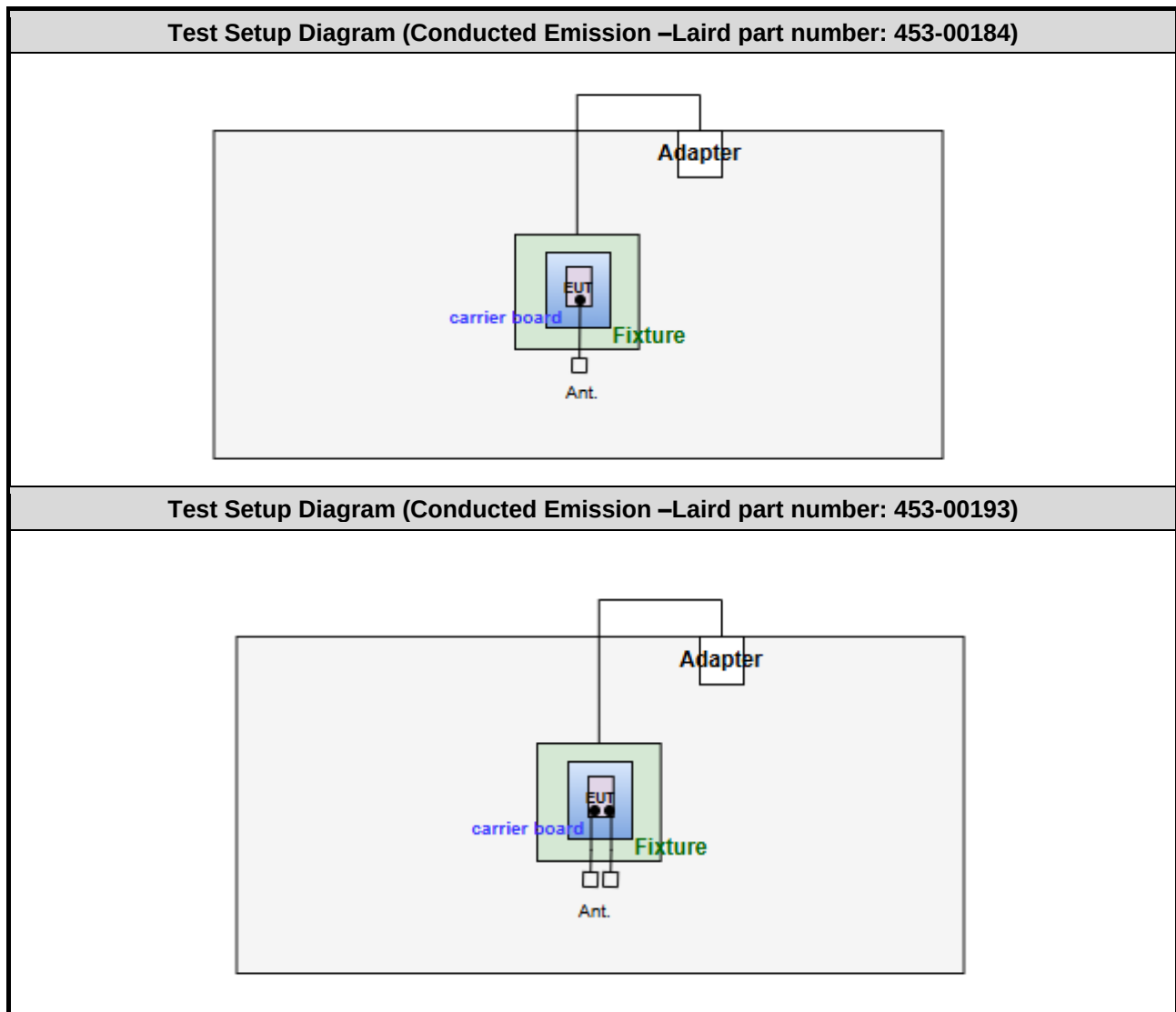
1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)		
	2402	2440	2480
BT-LE(125kbps)	default	default	default
BT-LE(500kbps)	default	default	default
BT-LE(1Mbps)	default	default	default
BT-LE(2Mbps)	default	default	default

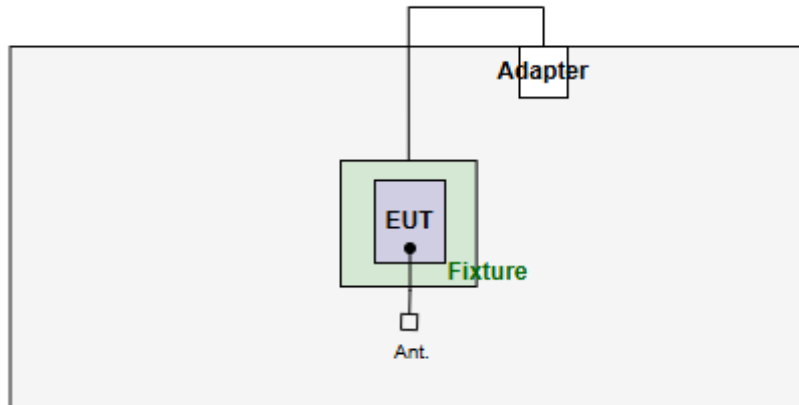
1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Laptop	DELL	Latitude 5400	DoC	---
2	Fixture	Ezurio	750-03425-R3.0	---	Provided by applicant.
3	Fixture's adapter	I.T.E	MU24AY12020 0-A1	---	Provided by applicant.
4	50Ω terminator	Woken	WTER-18S2	---	---

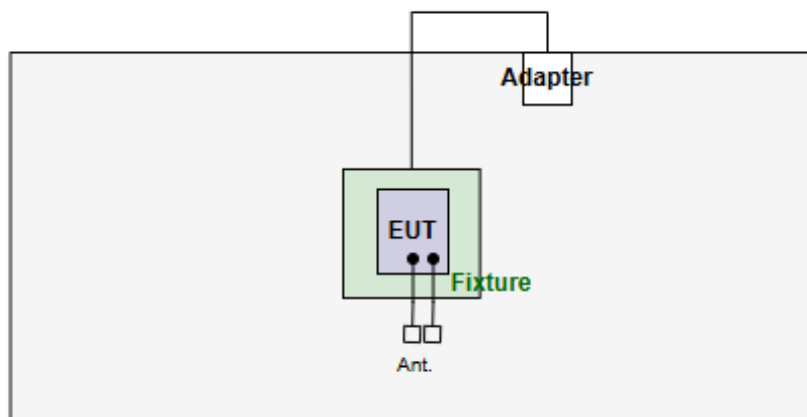
1.3 Test Setup Chart



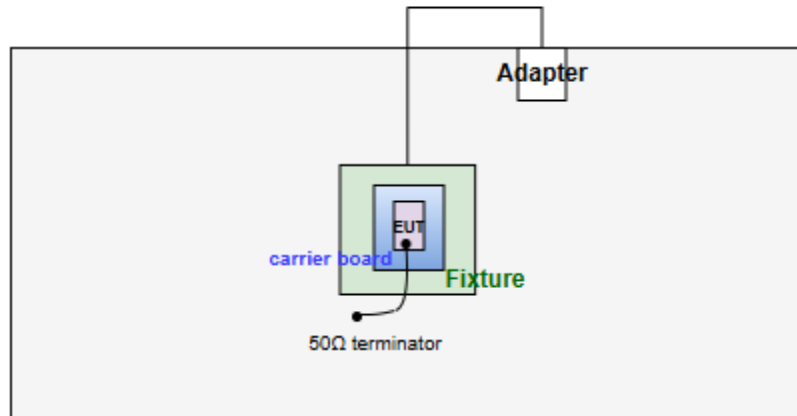
Test Setup Diagram (Conducted Emission –Laird part number: 453-00213)



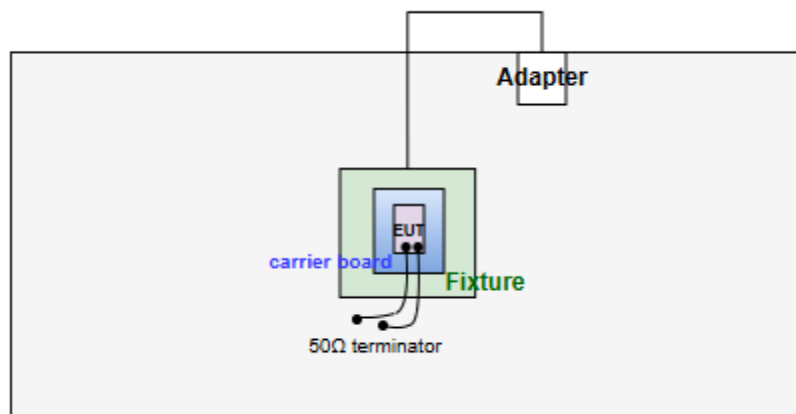
Test Setup Diagram (Conducted Emission – Laird part number: 453-00214)



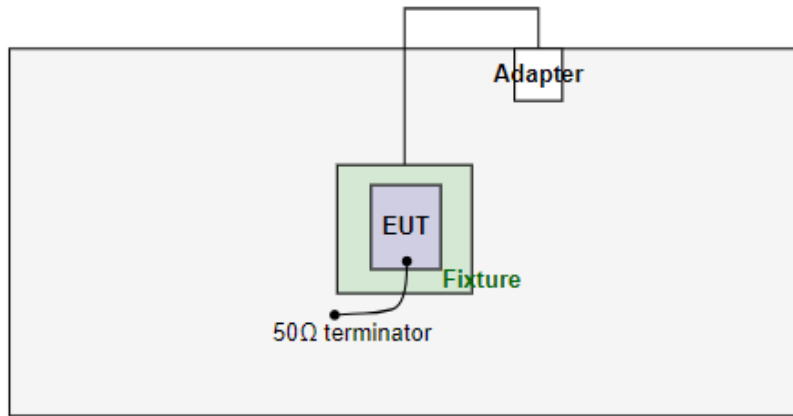
Test Setup Diagram (Radiated Emission – Laird part number: 453-00184)



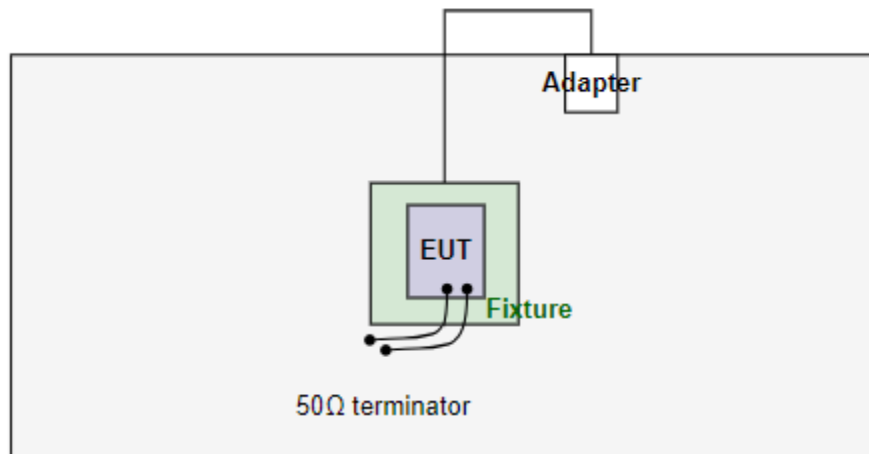
Test Setup Diagram (Radiated Emission –Laird part number: 453-00193)



Test Setup Diagram (Radiated Emission – Laird part number: 453-00213)



Test Setup Diagram (Radiated Emission –Laird part number: 453-00214)



1.4 Test Equipment List and Calibration Data

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Oct. 21, 2024				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101658	Feb. 23, 2024	Feb. 22, 2025
LISN	R&S	ENV216	101579	May 09, 2024	May 08, 2025
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127667	Jan. 10, 2024	Jan. 09, 2025
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 07, 2024	Oct. 08, 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	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Oct. 04 ~ Oct. 25, 2024				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101910	Apr. 18, 2024	Apr. 17, 2025
Power Meter	Anritsu	ML2495A	1241002	Nov. 21, 2023	Nov. 20, 2024
Power Sensor	Anritsu	MA2411B	1207366	Nov. 21, 2023	Nov. 20, 2024
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
LOWPASS FILTER	WI	WLKS1100-12SS	2	Oct. 02, 2024	Oct. 01, 2025
Measurement Software	Sporton	SENSE-15247_DTS	V5.11	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Oct. 07 ~ Oct. 14, 2024				
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. 23, 2023	Nov. 22, 2024
Loop Antenna	R&S	HFH2-Z2	100330	Oct. 31, 2023	Oct. 30, 2024
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. 27, 2023	Nov. 26, 2024
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Oct. 30, 2023	Oct. 29, 2024
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-N W-11000	200801	Oct. 02, 2024	Oct. 01, 2025
LF cable 1M	EMC	EMCCFD400-NM-N M-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_DTS	V5.11	NA	NA
Measurement Software	Sporton	SENSE-EMI	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 ≤ 1 GHz	± 3.41 dB
Unwanted Emission > 1 GHz	± 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 method	Mode	Test Configuration	Note
AC Power Line Conducted Emissions	BT-LE(2Mbps)	2440	Conducted	TX	1	---
Unwanted Emissions $\leq$ 1GHz	BT-LE(2Mbps)	2440	Radiated	TX	1, 2, 3, 4	Note 2
Unwanted Emissions > 1GHz	BT-LE(1Mbps) BT-LE(2Mbps)	2402, 2440, 2480 2404, 2440, 2478	Radiated	TX	1	Note 2
	BT-LE(2Mbps)	2402	Radiated	TX	2, 3, 4	Note 2
Unwanted Emissions $\leq$ 1GHz	BT-LE(2Mbps)	2440	Conducted	TX	1, 2, 3, 4	---
Unwanted Emissions > 1GHz	BT-LE(1Mbps) BT-LE(2Mbps)	2402, 2440, 2480 2404, 2440, 2478	Conducted	TX	1	---
	BT-LE(2Mbps)	2480	Conducted	TX	2, 3, 4	---
Conducted Output Power	BT-LE(125kbps) BT-LE(500kbps) BT-LE(1Mbps) BT-LE(2Mbps)	2402, 2440, 2480 2404, 2440, 2478	Conducted	TX	1, 2, 3, 4	---
6dB bandwidth Power spectral density	BT-LE(125kbps) BT-LE(500kbps) BT-LE(1Mbps) BT-LE(2Mbps)	2402, 2440, 2480 2404, 2440, 2478	Conducted	TX	1	---

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** result was found as the worst case and was shown in this report.
2. The 50 Ω terminator is connected to antenna port of EUT for radiated emission measurement.
3. Test configurations are listed as below:
 Configuration 1: Laird part number: 453-00184
 Configuration 2: Laird part number: 453-00193
 Configuration 3: Laird part number: 453-00213
 Configuration 4: Laird part number: 453-00214

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

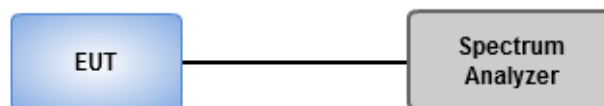
6dB Bandwidth

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	24-25°C / 62%	Tested By	Roger Lu
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Refer to Appendix A.

3.2 Conducted Output Power

3.2.1 Limit of Conducted Output Power

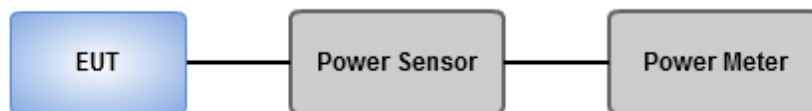
Conducted power shall not exceed 1Watt.

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	24-25°C / 62%	Tested By	Roger Lu
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Refer to Appendix B.

3.3 Power Spectral Density

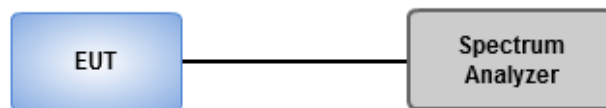
3.3.1 Limit of Power Spectral Density

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	24-25°C / 62%	Tested By	Roger Lu
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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

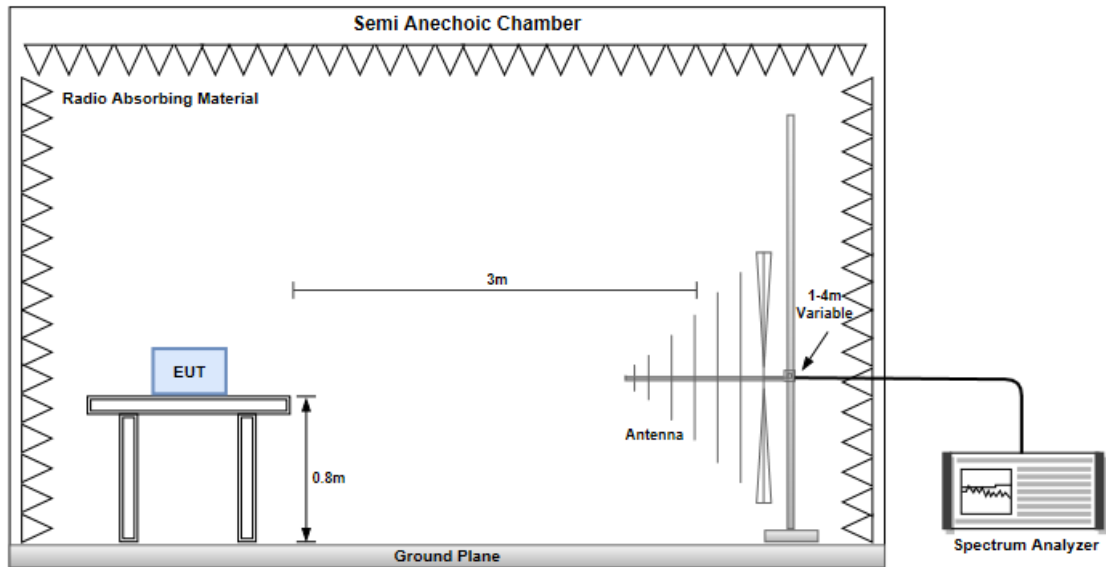
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

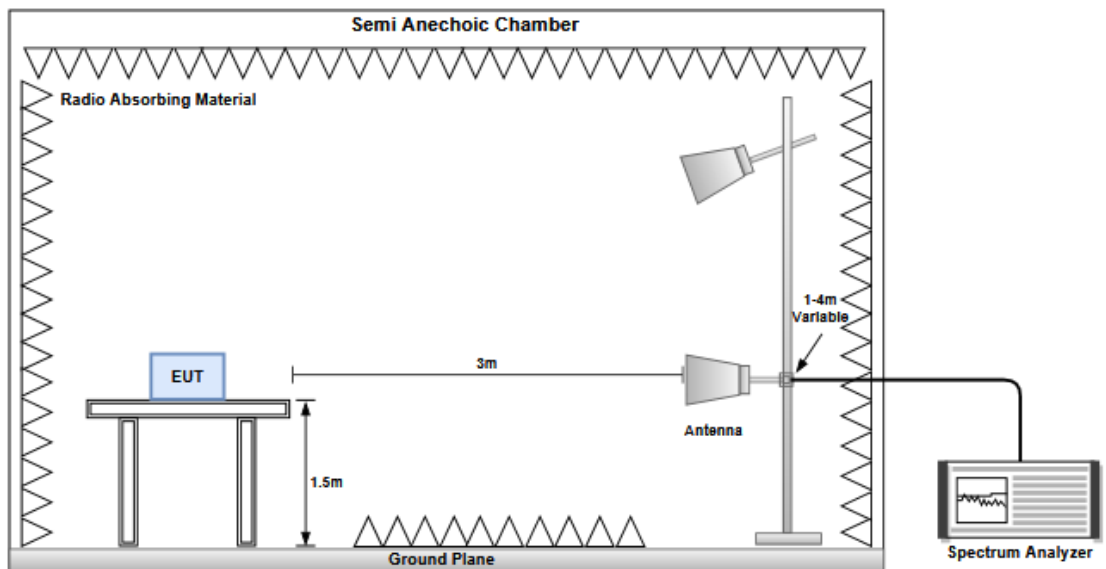
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.4.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



3.4.4 Test Results

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

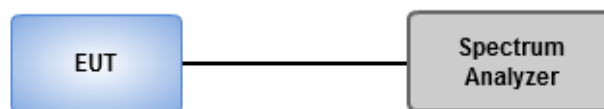
Reference level measurement

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	24-25°C / 62%	Tested By	Roger Lu
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Refer to Appendix E.

3.6 AC Power Line Conducted Emissions

3.6.1 Limit of AC Power Line Conducted Emissions

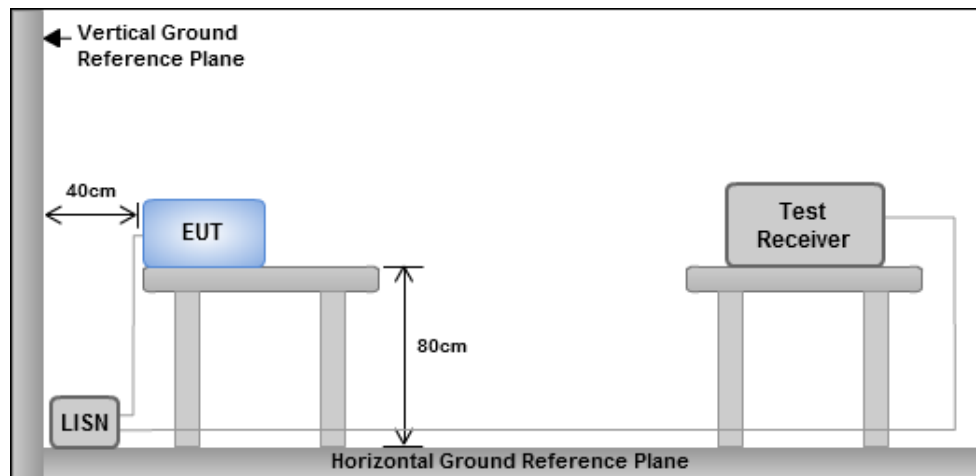
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

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

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==END==

Configuration 1: Laird part number: 453-00184

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)	708.75k	1.066M	1M07F1D	698.75k	1.064M
BT-LE(500kbps)	666.25k	1.029M	1M03F1D	662.5k	1.028M
BT-LE(1Mbps)	666.25k	1.039M	1M04F1D	661.25k	1.039M
BT-LE(2Mbps)	1.24M	2.026M	2M03F1D	1.233M	2.024M

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	708.75k	1.066M
2440MHz	Pass	500k	702.5k	1.066M
2480MHz	Pass	500k	698.75k	1.064M
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	500k	662.5k	1.029M
2440MHz	Pass	500k	666.25k	1.029M
2480MHz	Pass	500k	662.5k	1.028M
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	665k	1.039M
2440MHz	Pass	500k	666.25k	1.039M
2480MHz	Pass	500k	661.25k	1.039M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.233M	2.024M
2440MHz	Pass	500k	1.235M	2.026M
2480MHz	Pass	500k	1.24M	2.024M

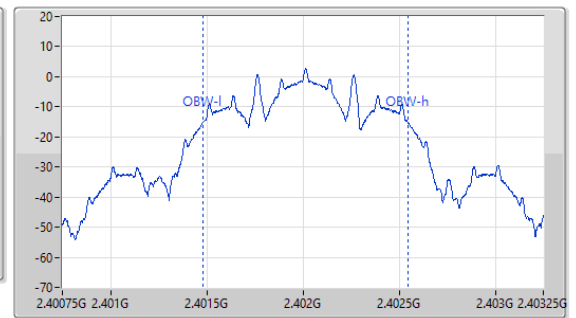
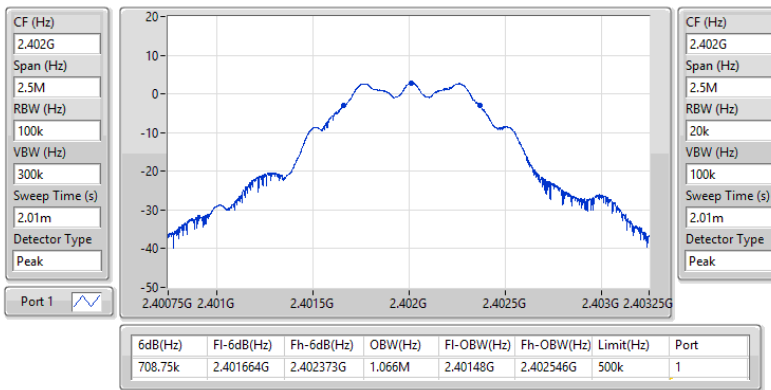
Port X-N dB = Port X 6dB down bandwidth;

Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-LE(125kbps)

EBW-DTS

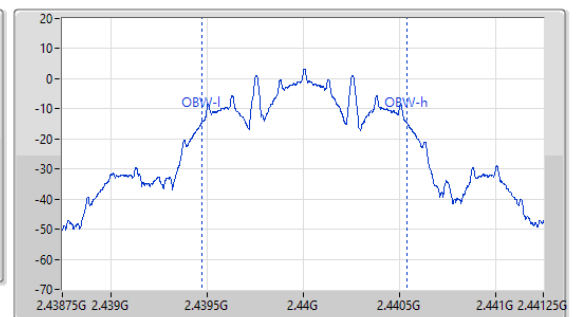
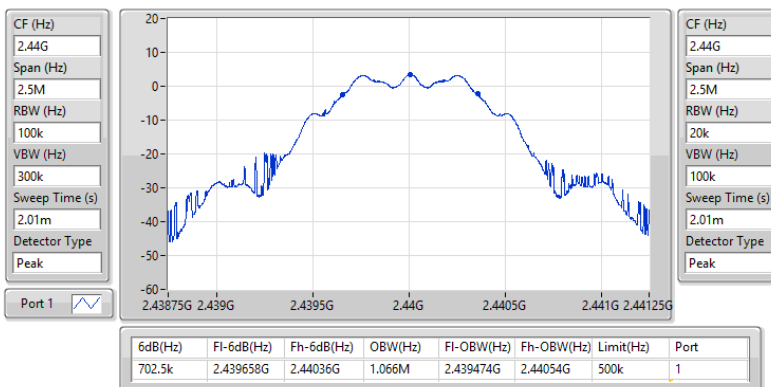
2402MHz



2.4-2.4835GHz_BT-LE(125kbps)

EBW-DTS

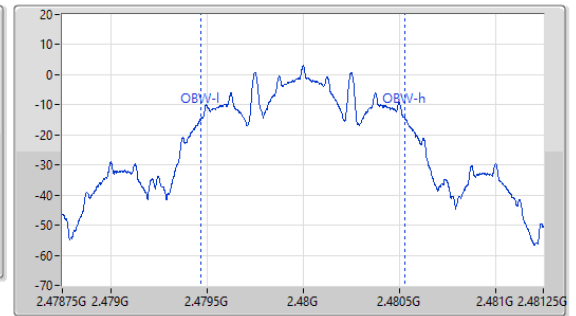
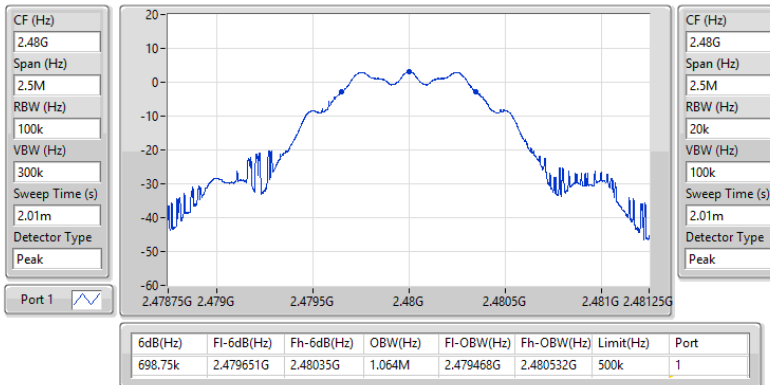
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2.4-2.4835GHz_BT-LE(125kbps)

EBW-DTS

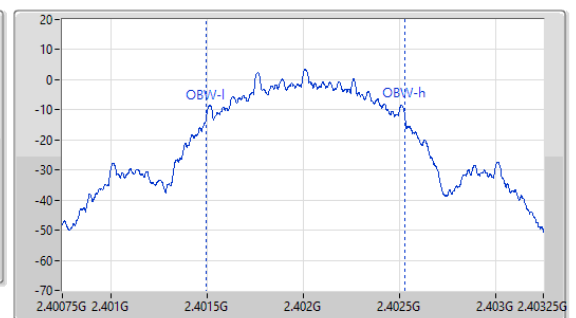
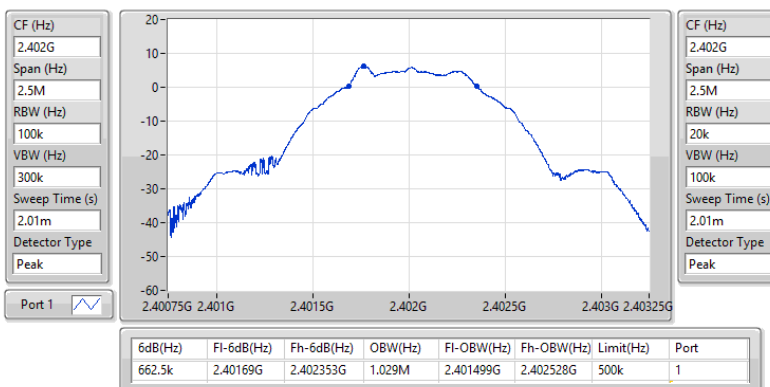
2480MHz



2.4-2.4835GHz_BT-LE(500kbps)

EBW-DTS

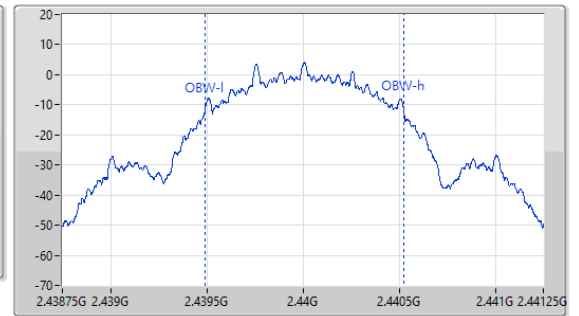
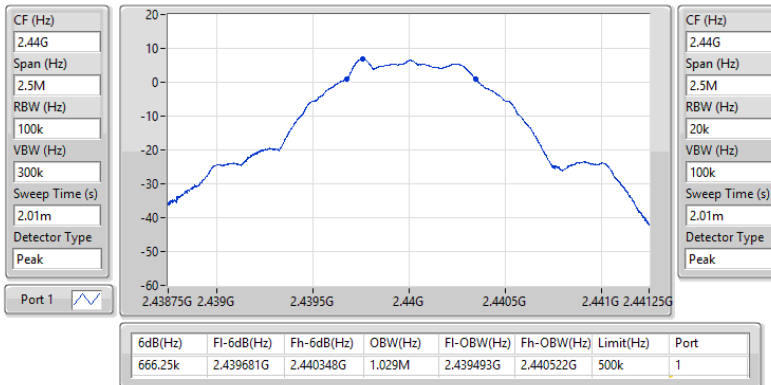
2402MHz



2.4-2.4835GHz_BT-LE(500kbps)

EBW-DTS

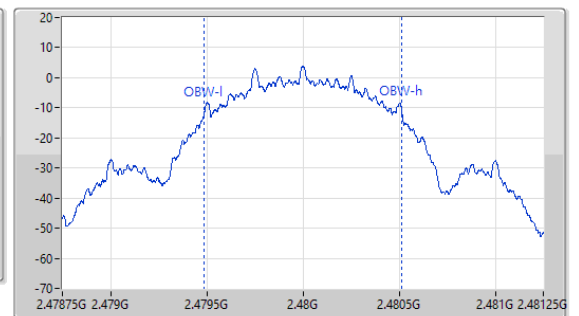
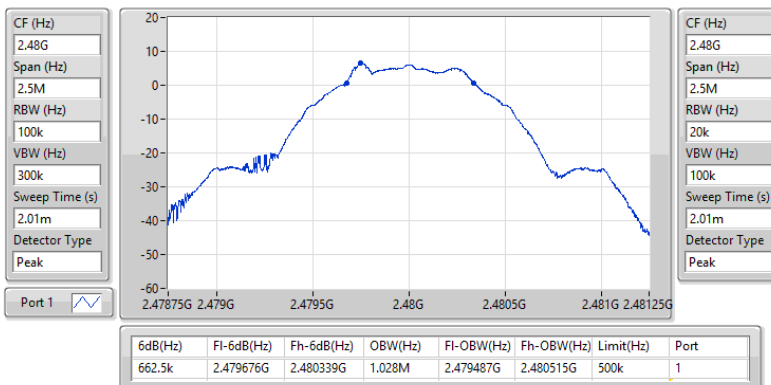
2440MHz



2.4-2.4835GHz_BT-LE(500kbps)

EBW-DTS

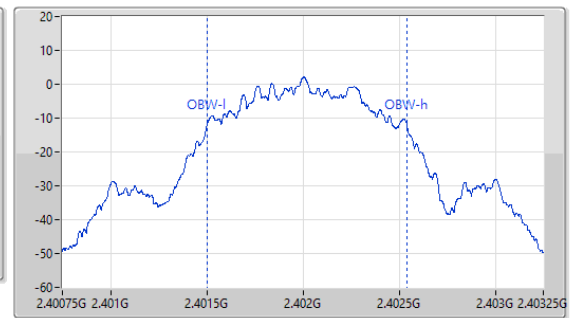
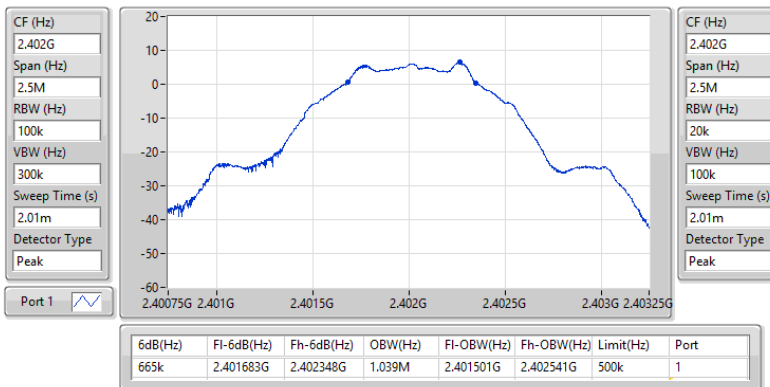
2480MHz



2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

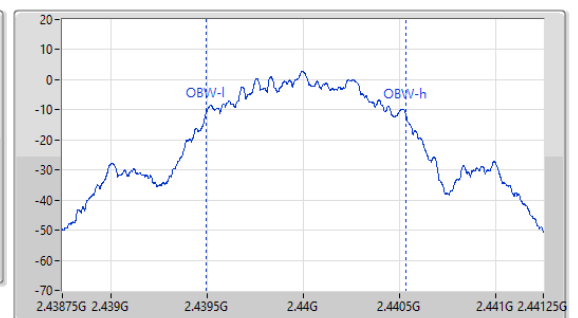
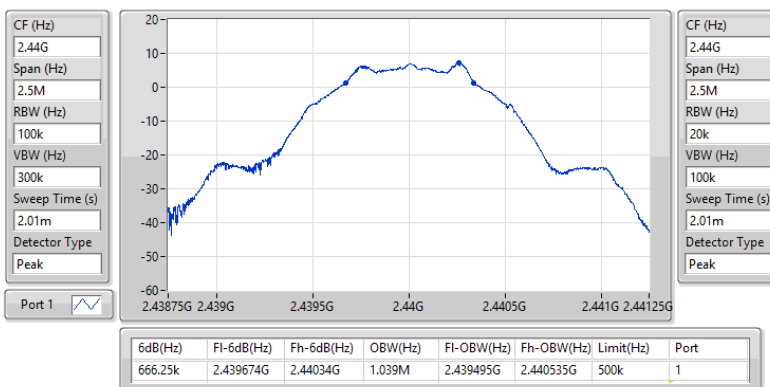
2402MHz



2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

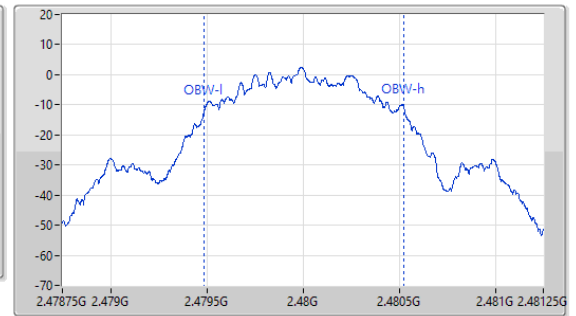
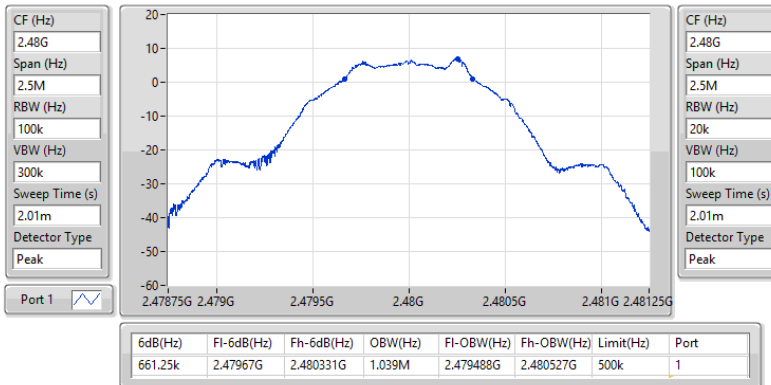
2440MHz



2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

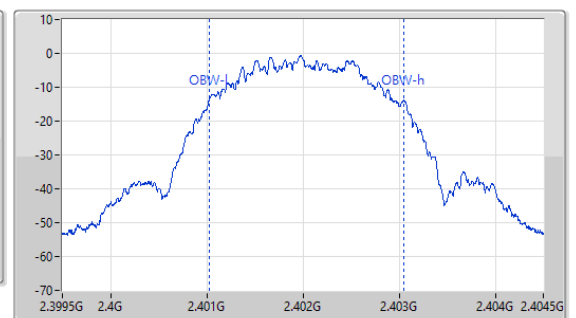
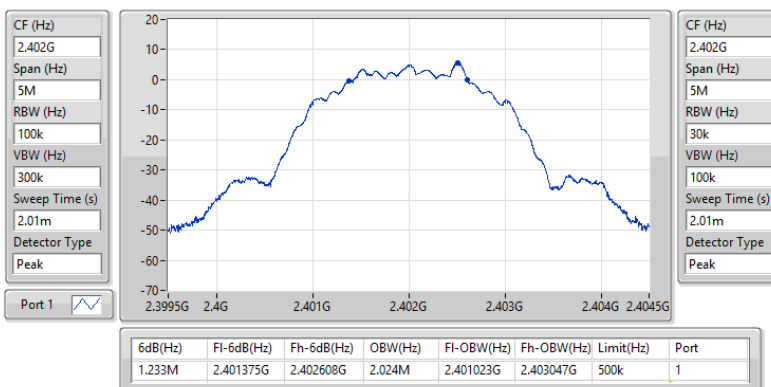
2480MHz



2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

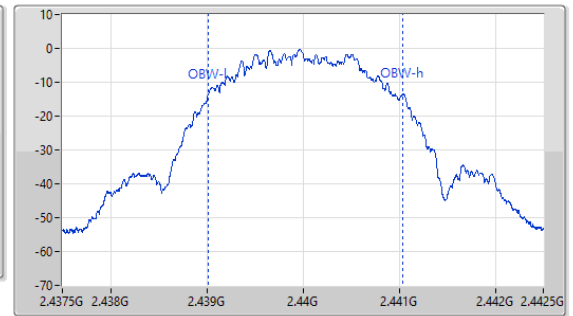
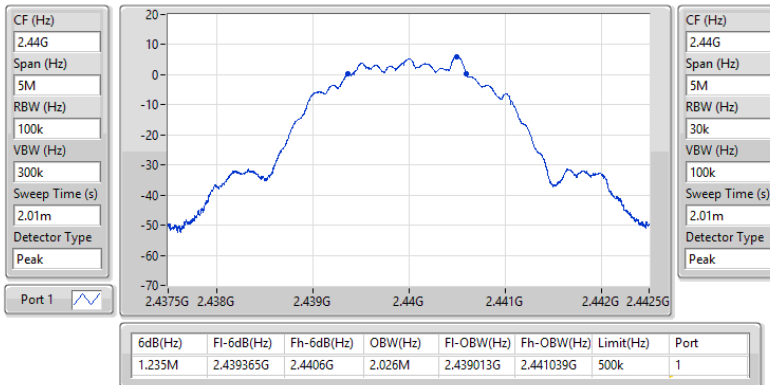
2402MHz



2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

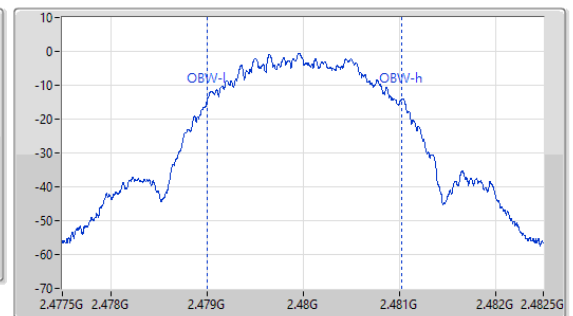
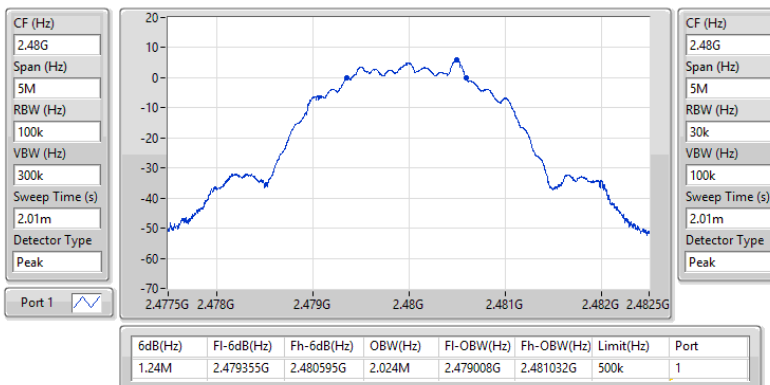
2440MHz



2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

2480MHz



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	7.16	0.00520
BT-LE(500kbps)	7.14	0.00518
BT-LE(1Mbps)	7.19	0.00524
BT-LE(2Mbps)	7.57	0.00571

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(125kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.82	30.00	9.22	36.00
2440MHz	Pass	2.40	7.16	30.00	9.56	36.00
2480MHz	Pass	2.40	6.88	30.00	9.28	36.00
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.81	30.00	9.21	36.00
2440MHz	Pass	2.40	7.14	30.00	9.54	36.00
2480MHz	Pass	2.40	6.87	30.00	9.27	36.00
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.84	30.00	9.24	36.00
2440MHz	Pass	2.40	7.19	30.00	9.59	36.00
2480MHz	Pass	2.40	6.89	30.00	9.29	36.00
BT-LE(2Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	7.25	30.00	9.65	36.00
2440MHz	Pass	2.40	7.57	30.00	9.97	36.00
2480MHz	Pass	2.40	7.35	30.00	9.75	36.00

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	6.86	0.00485
BT-LE(500kbps)	6.84	0.00483
BT-LE(1Mbps)	6.87	0.00486
BT-LE(2Mbps)	6.93	0.00493

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(125kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.50	-	8.90	-
2440MHz	Pass	2.40	6.86	-	9.26	-
2480MHz	Pass	2.40	6.56	-	8.96	-
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.49	-	8.89	-
2440MHz	Pass	2.40	6.84	-	9.24	-
2480MHz	Pass	2.40	6.54	-	8.94	-
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.51	-	8.91	-
2440MHz	Pass	2.40	6.87	-	9.27	-
2480MHz	Pass	2.40	6.57	-	8.97	-
BT-LE(2Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.55	-	8.95	-
2440MHz	Pass	2.40	6.93	-	9.33	-
2480MHz	Pass	2.40	6.71	-	9.11	-

Note: Average power is for reference only.

Summary

Mode	PD (dBm/3kHz)
2.4-2.4835GHz	-
BT-LE(125kbps)	0.79
BT-LE(500kbps)	0.63
BT-LE(1Mbps)	-8.96
BT-LE(2Mbps)	-12.90

Result

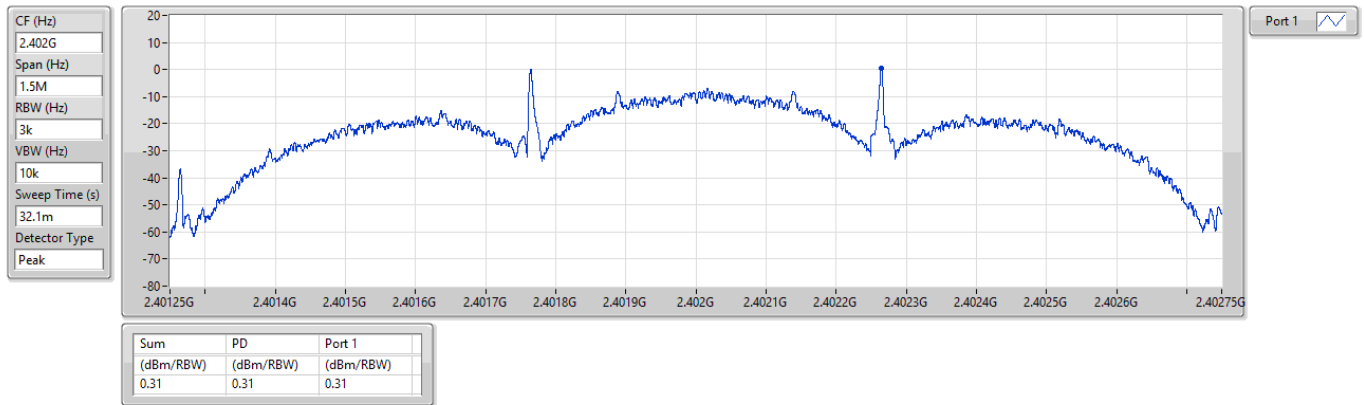
Mode	Result	Antenna Gain (dBi)	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	2.40	0.31	8.00
2440MHz	Pass	2.40	0.79	8.00
2480MHz	Pass	2.40	0.52	8.00
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	2.40	0.02	8.00
2440MHz	Pass	2.40	0.63	8.00
2480MHz	Pass	2.40	0.27	8.00
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.40	-9.54	8.00
2440MHz	Pass	2.40	-8.96	8.00
2480MHz	Pass	2.40	-9.15	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	2.40	-13.54	8.00
2440MHz	Pass	2.40	-12.90	8.00
2480MHz	Pass	2.40	-13.11	8.00



2.4-2.4835GHz_BT-LE(125kbps)

PSD

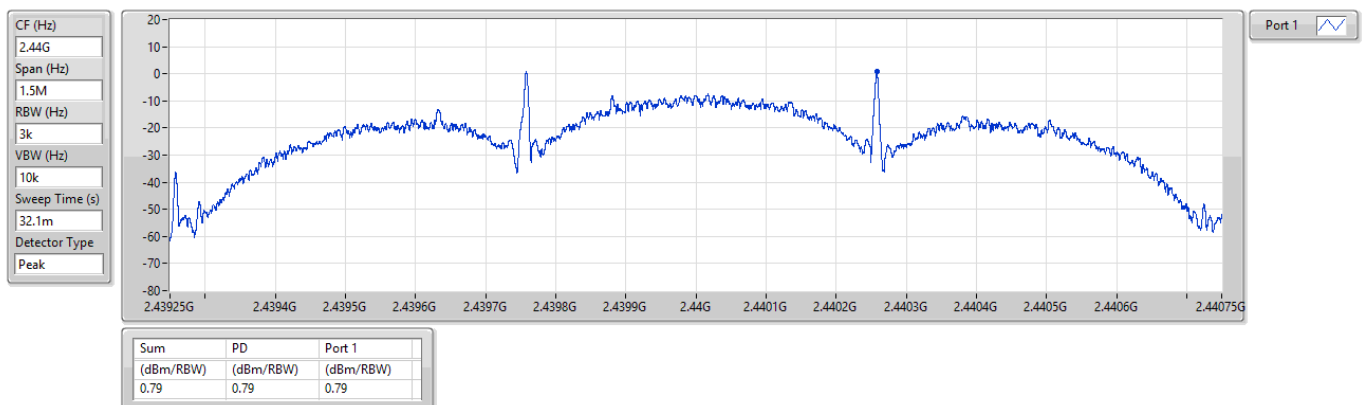
2402MHz



2.4-2.4835GHz_BT-LE(125kbps)

PSD

2440MHz

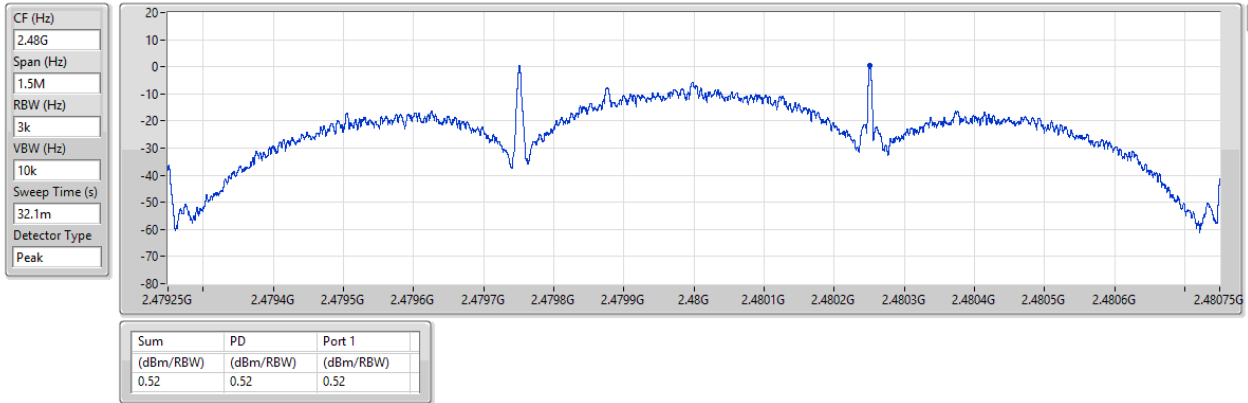




2.4-2.4835GHz_BT-LE(125kbps)

PSD

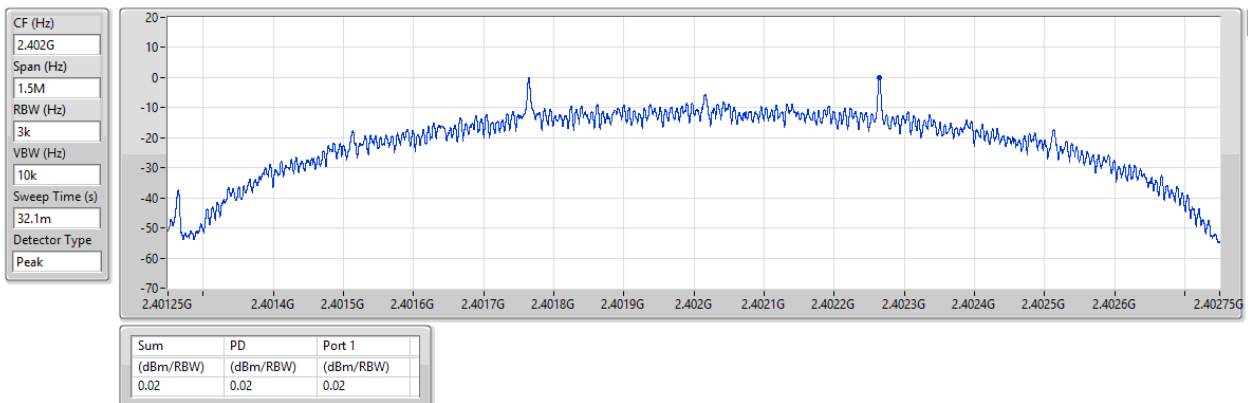
2480MHz



2.4-2.4835GHz_BT-LE(500kbps)

PSD

2402MHz

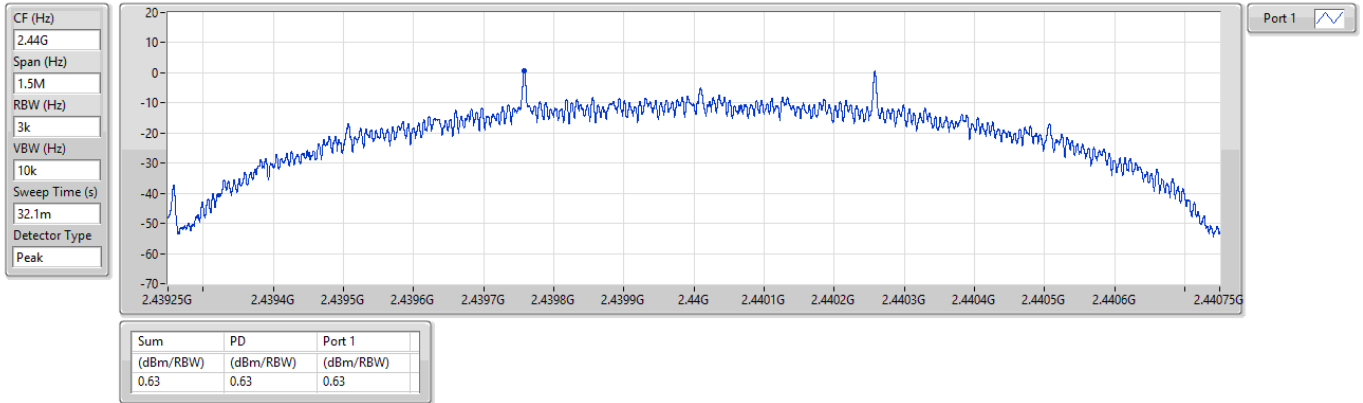




2.4-2.4835GHz_BT-LE(500kbps)

PSD

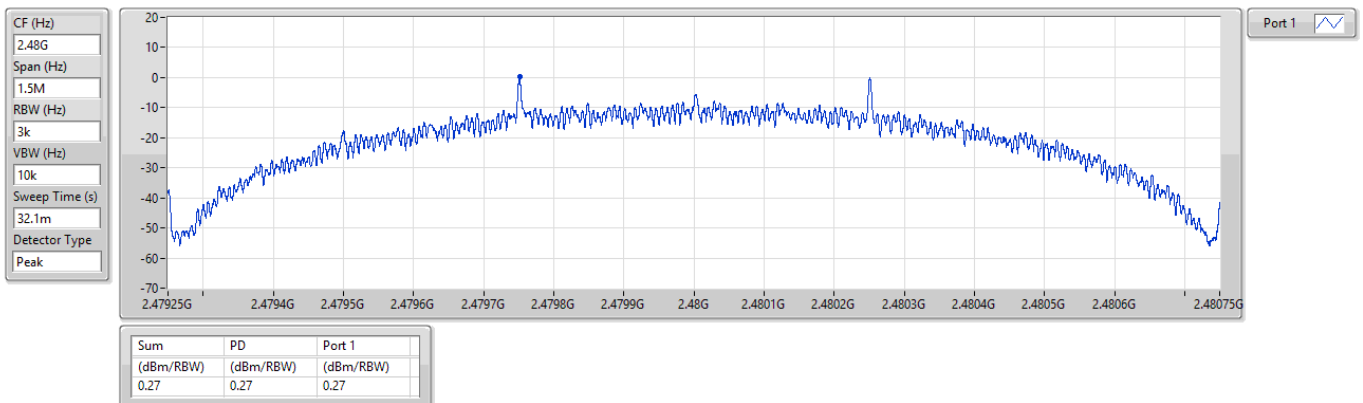
2440MHz



2.4-2.4835GHz_BT-LE(500kbps)

PSD

2480MHz



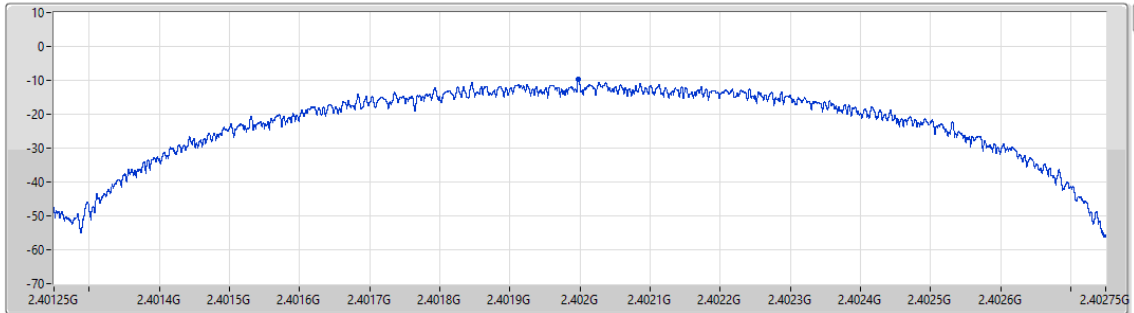


2.4-2.4835GHz_BT-LE(1Mbps)

PSD

2402MHz

CF (Hz)
2.402G
Span (Hz)
1.5M
RBW (Hz)
3k
VBW (Hz)
10k
Sweep Time (s)
32.1m
Detector Type
Peak



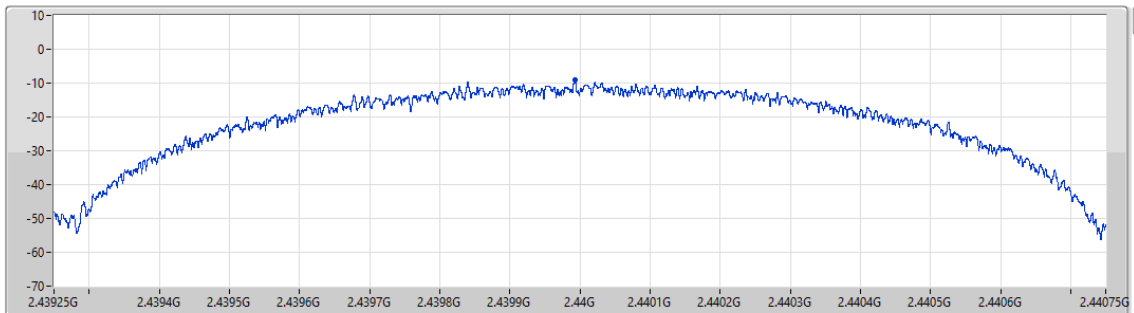
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.54	-9.54	-9.54

2.4-2.4835GHz_BT-LE(1Mbps)

PSD

2440MHz

CF (Hz)
2.44G
Span (Hz)
1.5M
RBW (Hz)
3k
VBW (Hz)
10k
Sweep Time (s)
32.1m
Detector Type
Peak



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.96	-8.96	-8.96

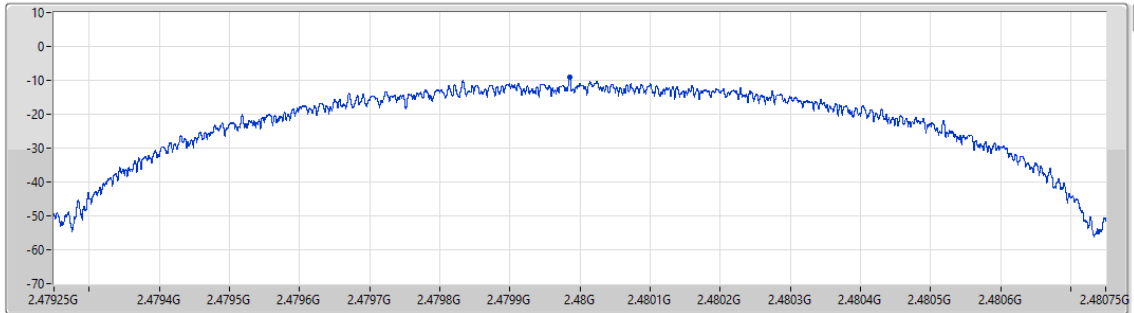


2.4-2.4835GHz_BT-LE(1Mbps)

PSD

2480MHz

CF (Hz)
2.48G
Span (Hz)
1.5M
RBW (Hz)
3k
VBW (Hz)
10k
Sweep Time (s)
32.1m
Detector Type
Peak



Port 1

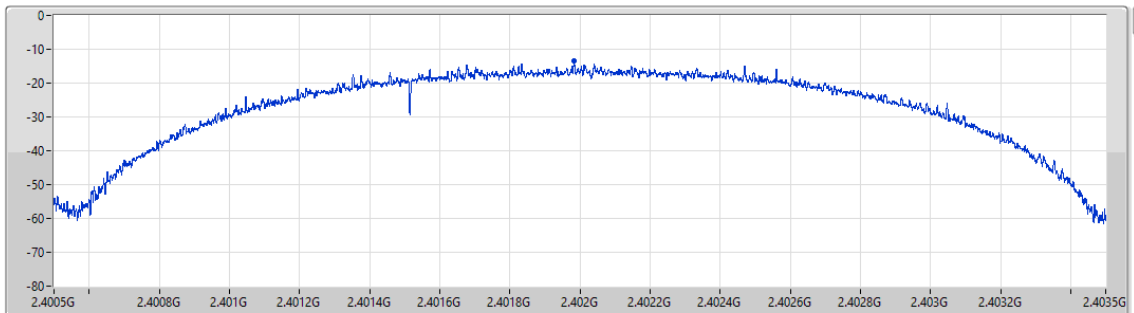
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-9.15	-9.15	-9.15

2.4-2.4835GHz_BT-LE(2Mbps)

PSD

2402MHz

CF (Hz)
2.402G
Span (Hz)
3M
RBW (Hz)
3k
VBW (Hz)
10k
Sweep Time (s)
33.4m
Detector Type
Peak



Port 1

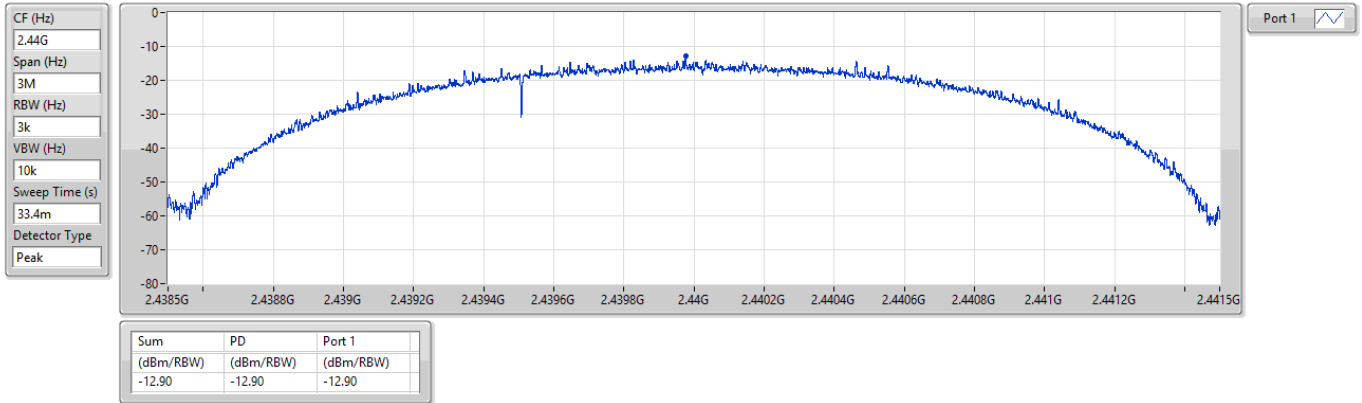
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-13.54	-13.54	-13.54



2.4-2.4835GHz_BT-LE(2Mbps)

PSD

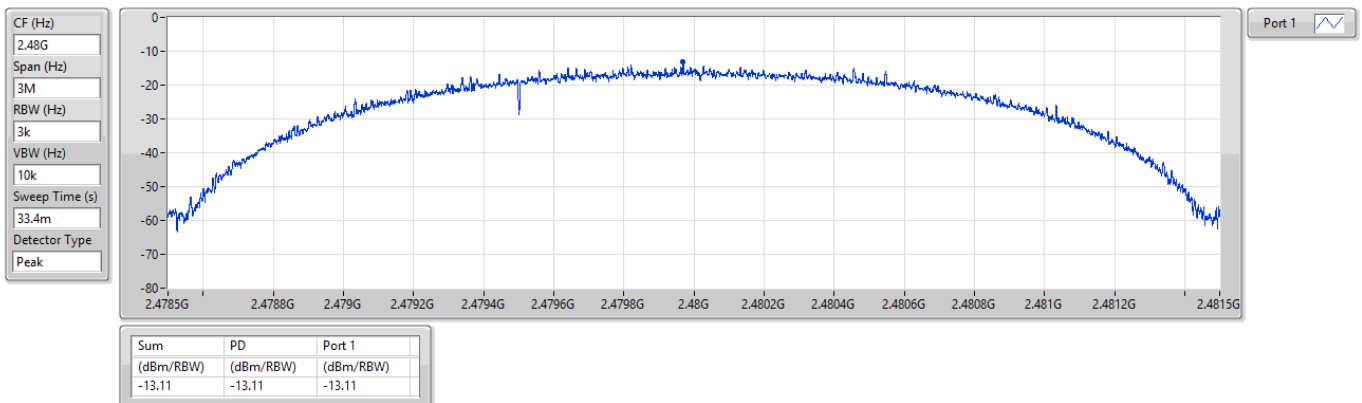
2440MHz



2.4-2.4835GHz_BT-LE(2Mbps)

PSD

2480MHz





Summary

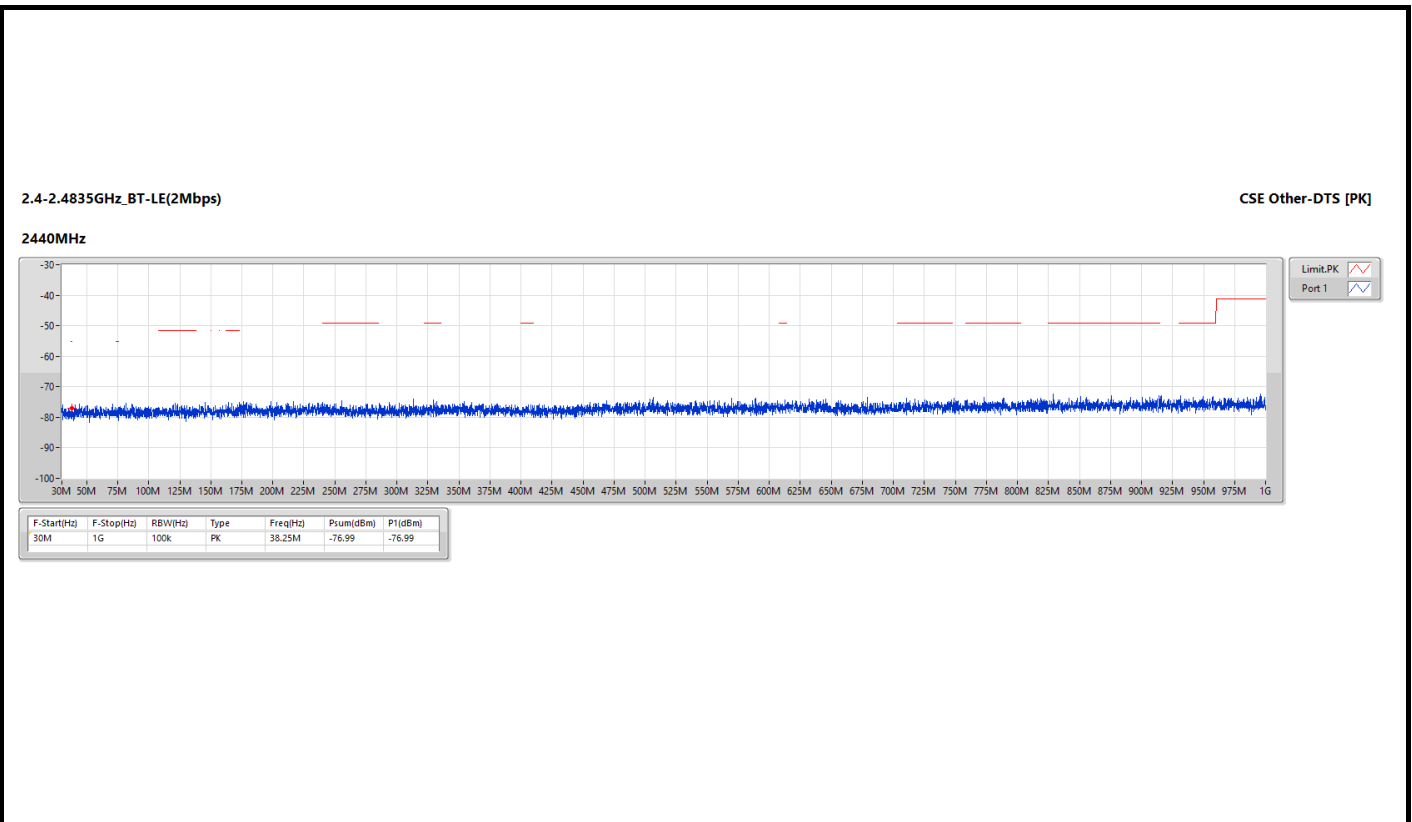
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	GRF (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	30M	1G	PK	38.25M	2.40	-76.99	4.70	-69.89	-55.20	-14.69

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)	GRF (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	30M	1G	PK	38.25M	2.40	-76.99	4.70	-69.89	-55.20	-14.69

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



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	2.48379G	2.40	-59.21	-56.81	-41.20	-15.61
BT-LE(2Mbps)	Pass	2.4835G	2.5G	AV	2.4835G	2.40	-58.79	-56.39	-41.20	-15.19

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	2.20717G	2.40	-61.26	-58.86	-41.20	-17.66
2402MHz	Pass	2.31G	2.39G	AV	2.37428G	2.40	-60.90	-58.50	-41.20	-17.30
2402MHz	Pass	2.4835G	2.5G	AV	2.49511G	2.40	-60.82	-58.42	-41.20	-17.22
2402MHz	Pass	2.5G	3.1G	AV	2.8837G	2.40	-60.17	-57.77	-41.20	-16.57
2402MHz	Pass	1G	2.31G	PK	2.01132G	2.40	-51.66	-49.26	-21.20	-28.06
2402MHz	Pass	2.31G	2.39G	PK	2.36584G	2.40	-49.83	-47.43	-21.20	-26.23
2402MHz	Pass	2.4835G	2.5G	PK	2.49942G	2.40	-50.00	-47.60	-21.20	-26.40
2402MHz	Pass	2.5G	3.1G	PK	2.8456G	2.40	-50.63	-48.23	-21.20	-27.03
2440MHz	Pass	1G	2.31G	AV	2.20831G	2.40	-60.97	-58.57	-41.20	-17.37
2440MHz	Pass	2.31G	2.39G	AV	2.38988G	2.40	-61.10	-58.70	-41.20	-17.50
2440MHz	Pass	2.4835G	2.5G	AV	2.49443G	2.40	-60.58	-58.18	-41.20	-16.98
2440MHz	Pass	2.5G	3.1G	AV	2.88505G	2.40	-59.91	-57.51	-41.20	-16.31
2440MHz	Pass	1G	2.31G	PK	1.76897G	2.40	-51.86	-49.46	-21.20	-28.26
2440MHz	Pass	2.31G	2.39G	PK	2.33848G	2.40	-49.49	-47.09	-21.20	-25.89
2440MHz	Pass	2.4835G	2.5G	PK	2.48918G	2.40	-49.83	-47.43	-21.20	-26.23
2440MHz	Pass	2.5G	3.1G	PK	2.602G	2.40	-50.13	-47.73	-21.20	-26.53
2480MHz	Pass	1G	2.31G	AV	2.23107G	2.40	-61.53	-59.13	-41.20	-17.93
2480MHz	Pass	2.31G	2.39G	AV	2.3598G	2.40	-60.96	-58.56	-41.20	-17.36
2480MHz	Pass	2.4835G	2.5G	AV	2.48379G	2.40	-59.21	-56.81	-41.20	-15.61
2480MHz	Pass	2.5G	3.1G	AV	2.86225G	2.40	-60.08	-57.68	-41.20	-16.48
2480MHz	Pass	1G	2.31G	PK	1.96023G	2.40	-51.43	-49.03	-21.20	-27.83
2480MHz	Pass	2.31G	2.39G	PK	2.3558G	2.40	-50.03	-47.63	-21.20	-26.43
2480MHz	Pass	2.4835G	2.5G	PK	2.48364G	2.40	-49.21	-46.81	-21.20	-25.61
2480MHz	Pass	2.5G	3.1G	PK	2.8708G	2.40	-50.06	-47.66	-21.20	-26.46
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	1G	2.31G	AV	2.21339G	2.40	-61.25	-58.85	-41.20	-17.65
2402MHz	Pass	2.31G	2.39G	AV	2.3838G	2.40	-60.86	-58.46	-41.20	-17.26
2402MHz	Pass	2.4835G	2.5G	AV	2.49059G	2.40	-60.85	-58.45	-41.20	-17.25
2402MHz	Pass	2.5G	3.1G	AV	2.875G	2.40	-59.96	-57.56	-41.20	-16.36
2402MHz	Pass	1G	2.31G	PK	2.28315G	2.40	-51.41	-49.01	-21.20	-27.81
2402MHz	Pass	2.31G	2.39G	PK	2.3752G	2.40	-50.17	-47.77	-21.20	-26.57
2402MHz	Pass	2.4835G	2.5G	PK	2.48626G	2.40	-49.92	-47.52	-21.20	-26.32
2402MHz	Pass	2.5G	3.1G	PK	2.8888G	2.40	-50.49	-48.09	-21.20	-26.89
2440MHz	Pass	1G	2.31G	AV	2.21552G	2.40	-61.26	-58.86	-41.20	-17.66
2440MHz	Pass	2.31G	2.39G	AV	2.35888G	2.40	-60.97	-58.57	-41.20	-17.37
2440MHz	Pass	2.4835G	2.5G	AV	2.49966G	2.40	-61.07	-58.67	-41.20	-17.47
2440MHz	Pass	2.5G	3.1G	AV	2.8819G	2.40	-59.91	-57.51	-41.20	-16.31
2440MHz	Pass	1G	2.31G	PK	2.23992G	2.40	-51.88	-49.48	-21.20	-28.28
2440MHz	Pass	2.31G	2.39G	PK	2.37888G	2.40	-49.85	-47.45	-21.20	-26.25
2440MHz	Pass	2.4835G	2.5G	PK	2.49563G	2.40	-50.09	-47.69	-21.20	-26.49
2440MHz	Pass	2.5G	3.1G	PK	2.8012G	2.40	-50.48	-48.08	-21.20	-26.88

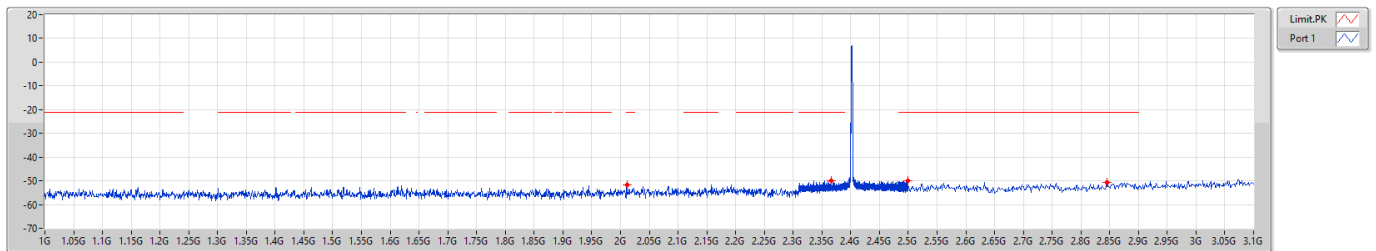
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2480MHz	Pass	1G	2.31G	AV	2.21421G	2.40	-61.25	-58.85	-41.20	-17.65
2480MHz	Pass	2.31G	2.39G	AV	2.34964G	2.40	-61.02	-58.62	-41.20	-17.42
2480MHz	Pass	2.4835G	2.5G	AV	2.4835G	2.40	-58.79	-56.39	-41.20	-15.19
2480MHz	Pass	2.5G	3.1G	AV	2.89375G	2.40	-60.19	-57.79	-41.20	-16.59
2480MHz	Pass	1G	2.31G	PK	1.09367G	2.40	-51.48	-49.08	-21.20	-27.88
2480MHz	Pass	2.31G	2.39G	PK	2.31304G	2.40	-50.07	-47.67	-21.20	-26.47
2480MHz	Pass	2.4835G	2.5G	PK	2.48355G	2.40	-48.68	-46.28	-21.20	-25.08
2480MHz	Pass	2.5G	3.1G	PK	2.89G	2.40	-50.50	-48.10	-21.20	-26.90

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

2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [PK]

2402MHz

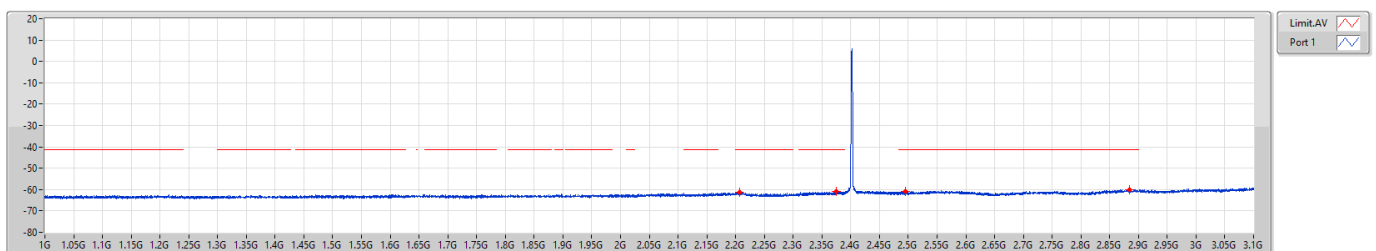


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	PK	2.01132G	-51.66	-51.66
2.31G	2.39G	1M	PK	2.36584G	-49.83	-49.83
2.4835G	2.5G	1M	PK	2.49942G	-50.00	-50.00
2.5G	3.1G	1M	PK	2.8456G	-50.63	-50.63

2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [AV]

2402MHz

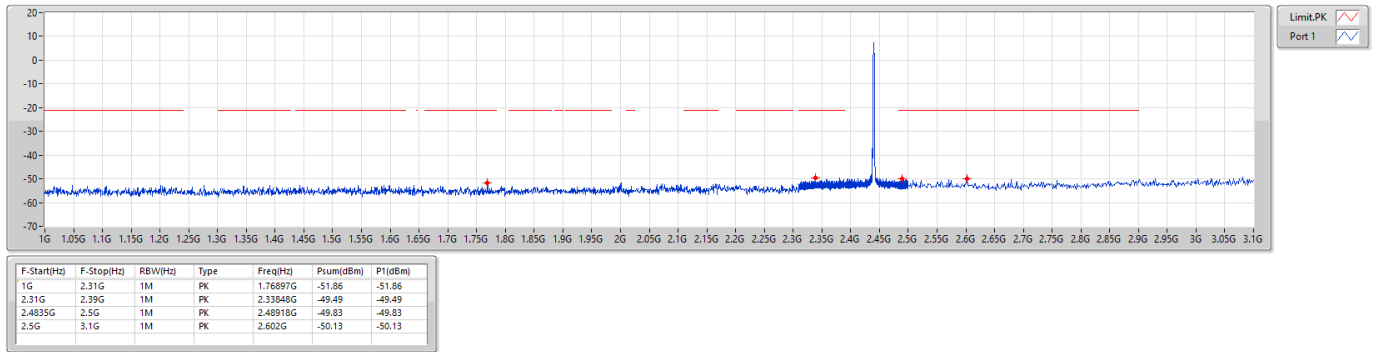


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	AV	2.20717G	-61.26	-61.26
2.31G	2.39G	1M	AV	2.37428G	-60.90	-60.90
2.4835G	2.5G	1M	AV	2.49511G	-60.82	-60.82
2.5G	3.1G	1M	AV	2.8837G	-60.17	-60.17

2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [PK]

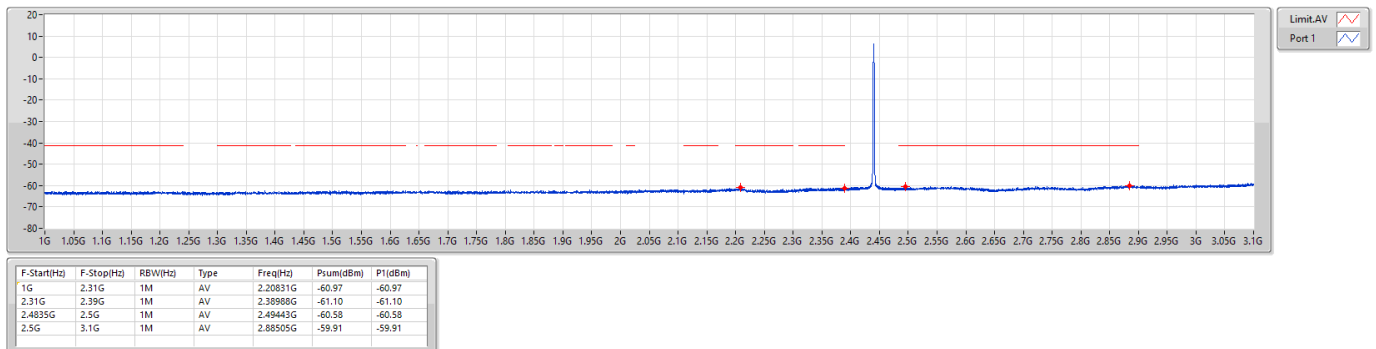
2440MHz



2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [AV]

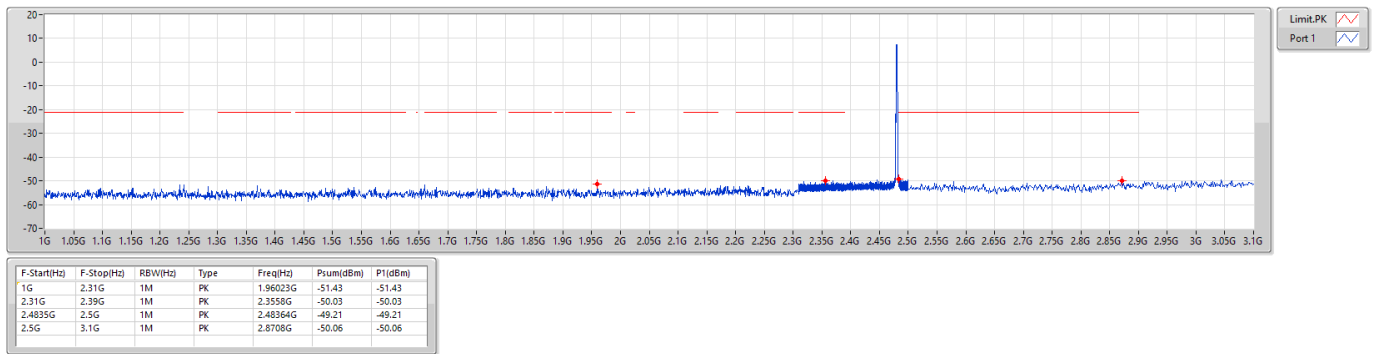
2440MHz



2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [PK]

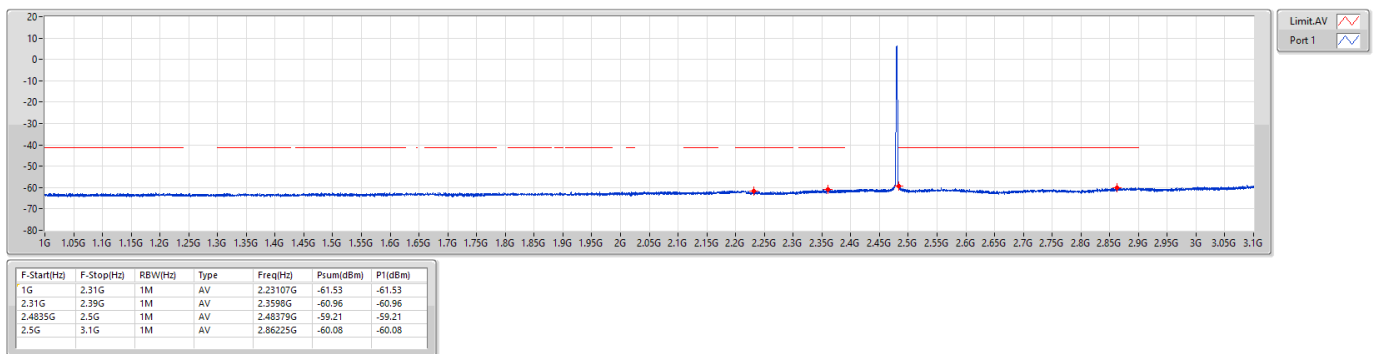
2480MHz



2.4-2.4835GHz_BT-LE(1Mbps)

CSE Bandedge-DTS [AV]

2480MHz

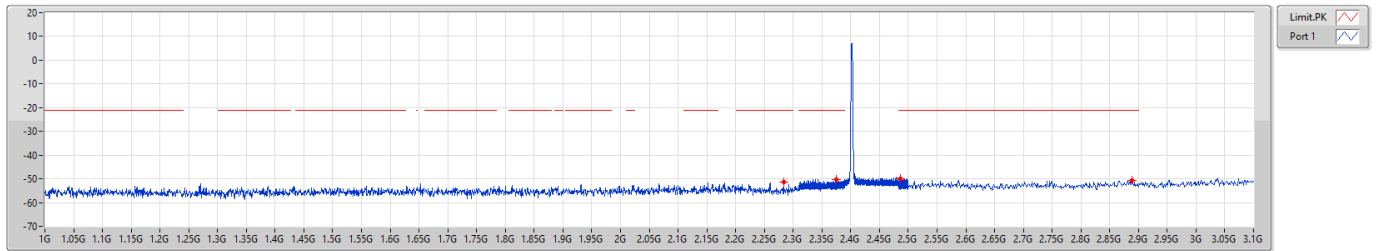




2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [PK]

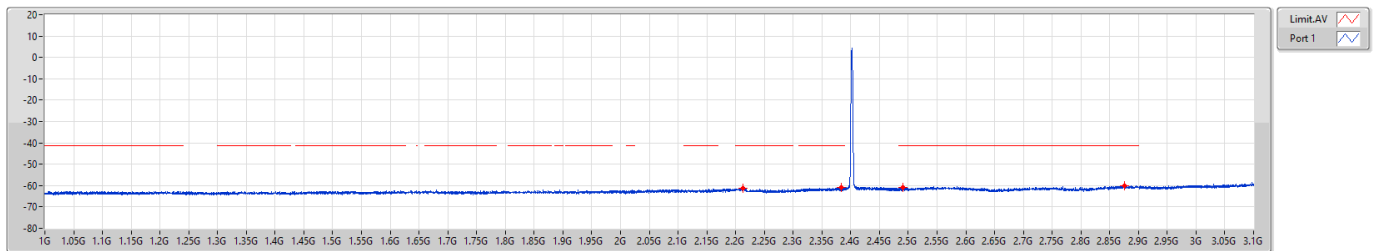
2402MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [AV]

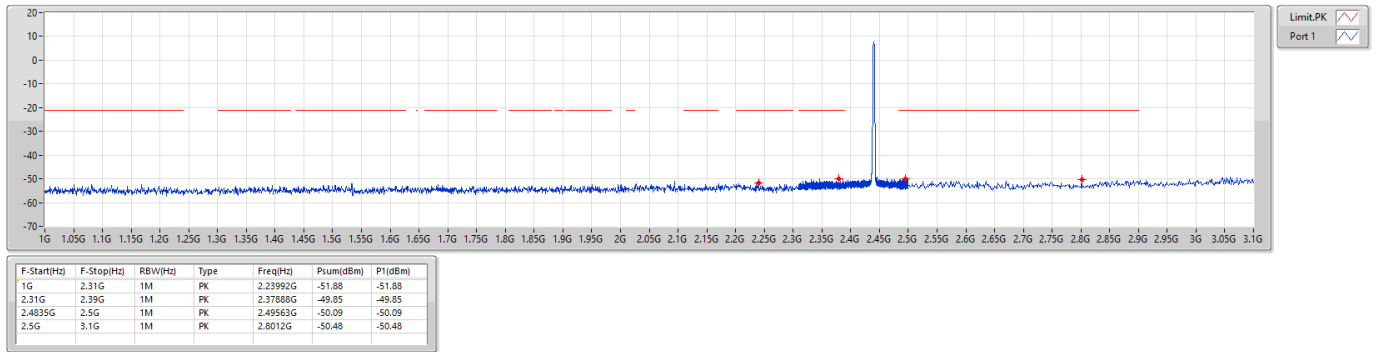
2402MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [PK]

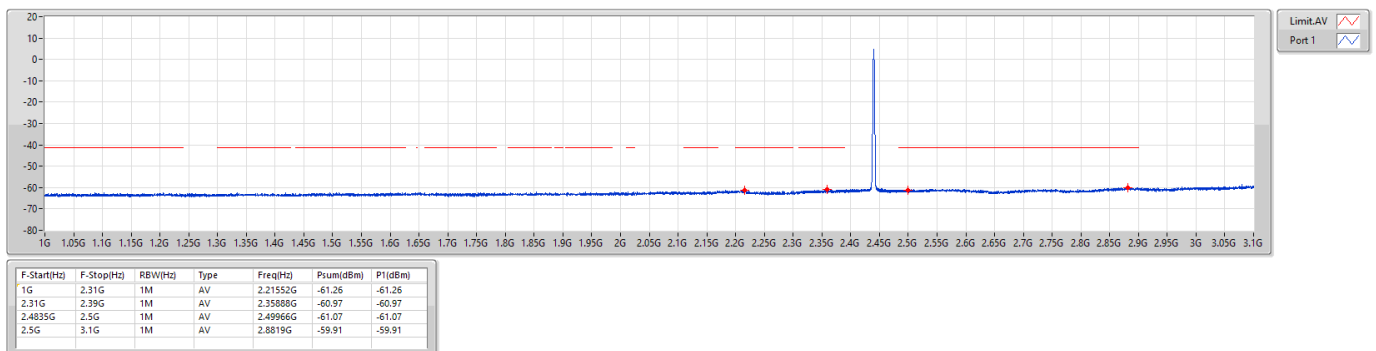
2440MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [AV]

2440MHz

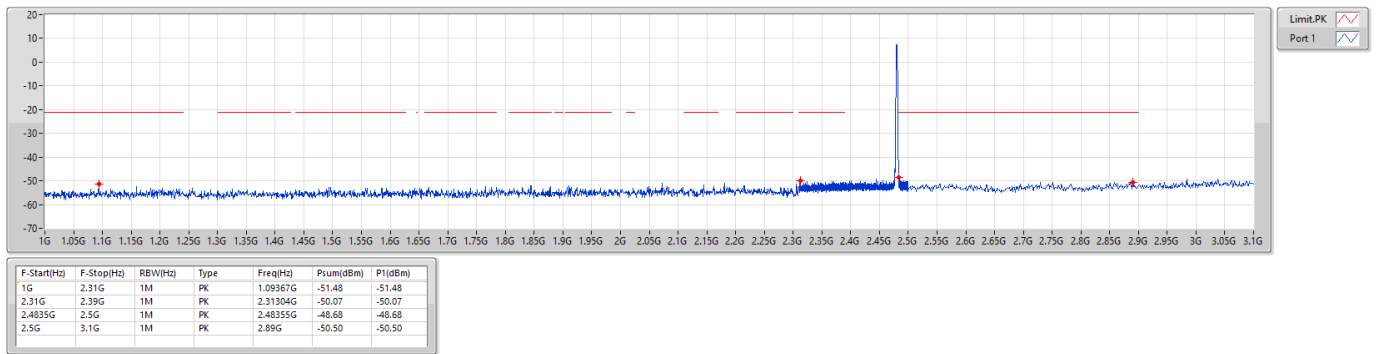




2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [PK]

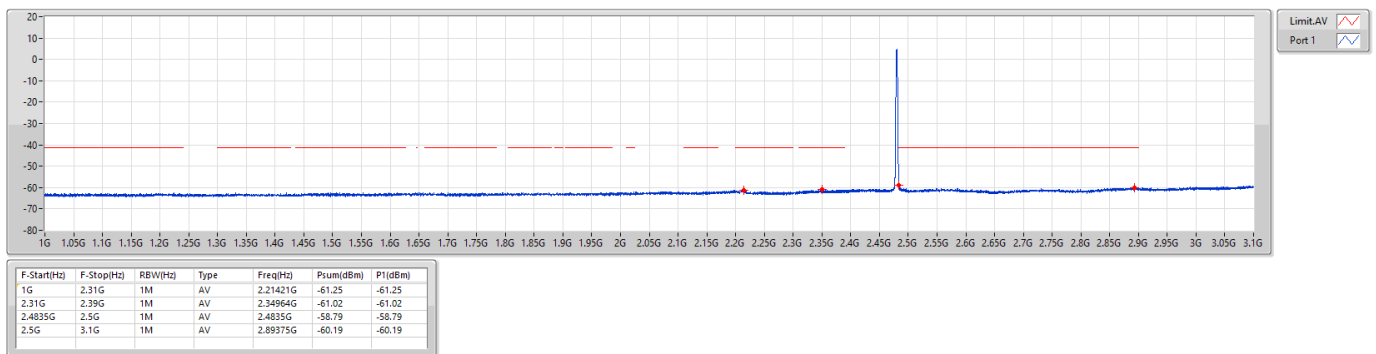
2480MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [AV]

2480MHz



**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	19.39797G	2.40	-64.36	-61.96	-41.20	-20.76
BT-LE(2Mbps)	Pass	8G	25G	AV	19.09091G	2.40	-64.35	-61.95	-41.20	-20.75

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	3.2629G	2.40	-74.27	-71.87	-41.20	-30.67
2402MHz	Pass	4G	5G	AV	4.00325G	2.40	-71.11	-68.71	-41.20	-27.51
2402MHz	Pass	4G	5G	AV	4.80375G	2.40	-74.68	-72.28	-41.20	-31.08
2402MHz	Pass	5G	7G	AV	5.394G	2.40	-73.36	-70.96	-41.20	-29.76
2402MHz	Pass	7G	8G	AV	7.74225G	2.40	-72.75	-70.35	-41.20	-29.15
2402MHz	Pass	8G	25G	AV	19.39797G	2.40	-64.36	-61.96	-41.20	-20.76
2402MHz	Pass	3.1G	4G	PK	3.33828G	2.40	-64.22	-61.82	-21.20	-40.62
2402MHz	Pass	4G	5G	PK	4.8035G	2.40	-65.27	-62.87	-21.20	-41.67
2402MHz	Pass	4G	5G	PK	4.8645G	2.40	-62.69	-60.29	-21.20	-39.09
2402MHz	Pass	5G	7G	PK	5.209G	2.40	-63.50	-61.10	-21.20	-39.90
2402MHz	Pass	7G	8G	PK	7.6745G	2.40	-63.56	-61.16	-21.20	-39.96
2402MHz	Pass	8G	25G	PK	15.74563G	2.40	-56.52	-54.12	-21.20	-32.92
2440MHz	Pass	3.1G	4G	AV	3.26358G	2.40	-74.25	-71.85	-41.20	-30.65
2440MHz	Pass	4G	5G	AV	4.0665G	2.40	-71.61	-69.21	-41.20	-28.01
2440MHz	Pass	4G	5G	AV	4.8795G	2.40	-74.64	-72.24	-41.20	-31.04
2440MHz	Pass	5G	7G	AV	5.4245G	2.40	-73.34	-70.94	-41.20	-29.74
2440MHz	Pass	7G	8G	AV	7.73675G	2.40	-72.82	-70.42	-41.20	-29.22
2440MHz	Pass	8G	25G	AV	19.45163G	2.40	-64.77	-62.37	-41.20	-21.17
2440MHz	Pass	3.1G	4G	PK	3.65508G	2.40	-63.59	-61.19	-21.20	-39.99
2440MHz	Pass	4G	5G	PK	4.32025G	2.40	-63.09	-60.69	-21.20	-39.49
2440MHz	Pass	4G	5G	PK	4.87925G	2.40	-66.02	-63.62	-21.20	-42.42
2440MHz	Pass	5G	7G	PK	5.43G	2.40	-63.20	-60.80	-21.20	-39.60
2440MHz	Pass	7G	8G	PK	7.48625G	2.40	-63.61	-61.21	-21.20	-40.01
2440MHz	Pass	8G	25G	PK	19.40169G	2.40	-56.20	-53.80	-21.20	-32.60
2480MHz	Pass	3.1G	4G	AV	3.26673G	2.40	-74.46	-72.06	-41.20	-30.86
2480MHz	Pass	4G	5G	AV	4.8805G	2.40	-70.66	-68.26	-41.20	-27.06
2480MHz	Pass	4G	5G	AV	4.96025G	2.40	-74.18	-71.78	-41.20	-30.58
2480MHz	Pass	5G	7G	AV	5.397G	2.40	-73.09	-70.69	-41.20	-29.49
2480MHz	Pass	7G	8G	AV	7.75G	2.40	-72.84	-70.44	-41.20	-29.24
2480MHz	Pass	8G	25G	AV	19.07178G	2.40	-64.54	-62.14	-41.20	-20.94
2480MHz	Pass	3.1G	4G	PK	3.26628G	2.40	-62.84	-60.44	-21.20	-39.24
2480MHz	Pass	4G	5G	PK	4.25025G	2.40	-62.78	-60.38	-21.20	-39.18
2480MHz	Pass	4G	5G	PK	4.9595G	2.40	-66.32	-63.92	-21.20	-42.72
2480MHz	Pass	5G	7G	PK	5.2035G	2.40	-62.69	-60.29	-21.20	-39.09
2480MHz	Pass	7G	8G	PK	7.726G	2.40	-63.04	-60.64	-21.20	-39.44
2480MHz	Pass	8G	25G	PK	15.74616G	2.40	-55.55	-53.15	-21.20	-31.95
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	3.1G	4G	AV	3.26605G	2.40	-74.19	-71.79	-41.20	-30.59
2402MHz	Pass	4G	5G	AV	4.00325G	2.40	-71.11	-68.71	-41.20	-27.51
2402MHz	Pass	4G	5G	AV	4.80425G	2.40	-74.67	-72.27	-41.20	-31.07
2402MHz	Pass	5G	7G	AV	5.245G	2.40	-73.29	-70.89	-41.20	-29.69

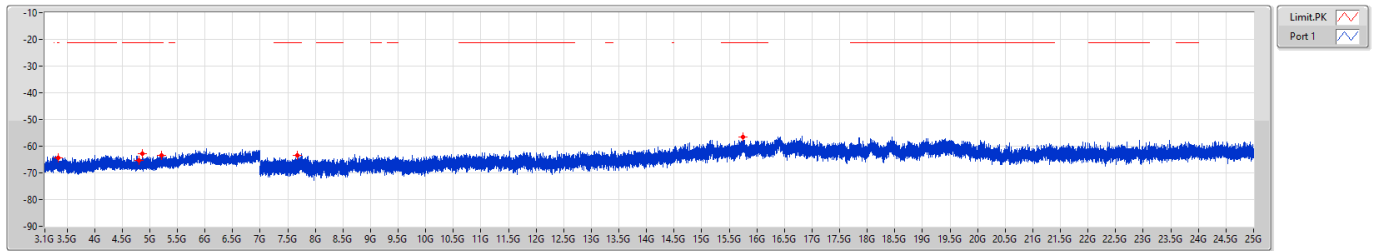
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2402MHz	Pass	7G	8G	AV	7.73925G	2.40	-72.61	-70.21	-41.20	-29.01
2402MHz	Pass	8G	25G	AV	18.4295G	2.40	-64.63	-62.23	-41.20	-21.03
2402MHz	Pass	3.1G	4G	PK	3.51265G	2.40	-64.26	-61.86	-21.20	-40.66
2402MHz	Pass	4G	5G	PK	4.22975G	2.40	-63.17	-60.77	-21.20	-39.57
2402MHz	Pass	4G	5G	PK	4.80375G	2.40	-65.46	-63.06	-21.20	-41.86
2402MHz	Pass	5G	7G	PK	5.369G	2.40	-63.20	-60.80	-21.20	-39.60
2402MHz	Pass	7G	8G	PK	7.74375G	2.40	-62.89	-60.49	-21.20	-39.29
2402MHz	Pass	8G	25G	PK	19.10259G	2.40	-55.67	-53.27	-21.20	-32.07
2440MHz	Pass	3.1G	4G	AV	3.26673G	2.40	-74.18	-71.78	-41.20	-30.58
2440MHz	Pass	4G	5G	AV	4.0665G	2.40	-71.61	-69.21	-41.20	-28.01
2440MHz	Pass	4G	5G	AV	4.881G	2.40	-74.63	-72.23	-41.20	-31.03
2440MHz	Pass	5G	7G	AV	5.2495G	2.40	-73.28	-70.88	-41.20	-29.68
2440MHz	Pass	7G	8G	AV	7.71875G	2.40	-72.85	-70.45	-41.20	-29.25
2440MHz	Pass	8G	25G	AV	19.09091G	2.40	-64.35	-61.95	-41.20	-20.75
2440MHz	Pass	3.1G	4G	PK	3.33333G	2.40	-63.93	-61.53	-21.20	-40.33
2440MHz	Pass	4G	5G	PK	4.19725G	2.40	-63.45	-61.05	-21.20	-39.85
2440MHz	Pass	4G	5G	PK	4.87875G	2.40	-64.86	-62.46	-21.20	-41.26
2440MHz	Pass	5G	7G	PK	5.1855G	2.40	-63.13	-60.73	-21.20	-39.53
2440MHz	Pass	7G	8G	PK	7.749G	2.40	-62.29	-59.89	-21.20	-38.69
2440MHz	Pass	8G	25G	PK	19.50422G	2.40	-56.37	-53.97	-21.20	-32.77
2480MHz	Pass	3.1G	4G	AV	3.26245G	2.40	-74.28	-71.88	-41.20	-30.68
2480MHz	Pass	4G	5G	AV	4.8805G	2.40	-71.02	-68.62	-41.20	-27.42
2480MHz	Pass	4G	5G	AV	4.95825G	2.40	-74.19	-71.79	-41.20	-30.59
2480MHz	Pass	5G	7G	AV	5.2395G	2.40	-73.30	-70.90	-41.20	-29.70
2480MHz	Pass	7G	8G	AV	7.74725G	2.40	-72.53	-70.13	-41.20	-28.93
2480MHz	Pass	8G	25G	AV	19.06222G	2.40	-64.39	-61.99	-41.20	-20.79
2480MHz	Pass	3.1G	4G	PK	3.50275G	2.40	-64.38	-61.98	-21.20	-40.78
2480MHz	Pass	4G	5G	PK	4.78125G	2.40	-63.82	-61.42	-21.20	-40.22
2480MHz	Pass	4G	5G	PK	4.959G	2.40	-65.16	-62.76	-21.20	-41.56
2480MHz	Pass	5G	7G	PK	5.224G	2.40	-63.57	-61.17	-21.20	-39.97
2480MHz	Pass	7G	8G	PK	7.36425G	2.40	-63.56	-61.16	-21.20	-39.96
2480MHz	Pass	8G	25G	PK	19.76453G	2.40	-55.96	-53.56	-21.20	-32.36

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

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [PK]

2402MHz

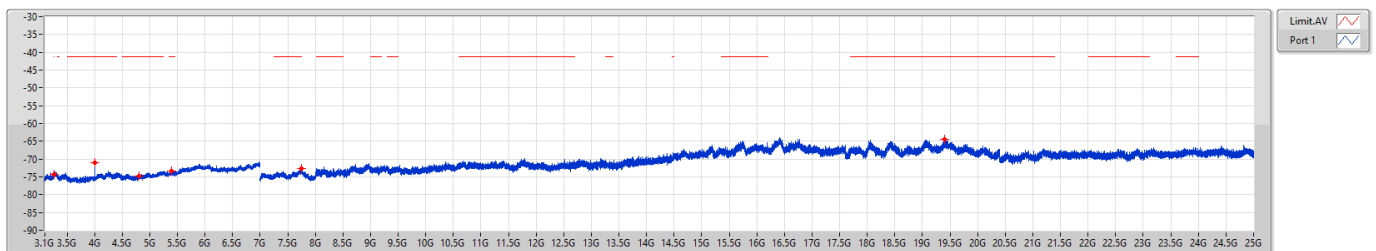


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.33828G	-64.22	-64.22
4G	5G	1M	PK	4.8035G	-65.27	-65.27
4G	5G	1M	PK	4.8645G	-62.69	-62.69
5G	7G	1M	PK	5.209G	-63.50	-63.50
7G	8G	1M	PK	7.6745G	-63.56	-63.56
8G	25G	1M	PK	15.74563G	-56.52	-56.52

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [AV]

2402MHz



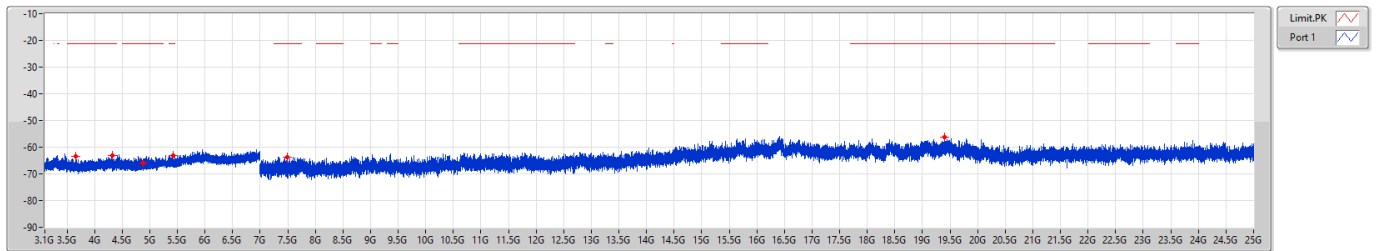
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.2629G	-74.27	-74.27
4G	5G	1M	AV	4.00325G	-71.11	-71.11
4G	5G	1M	AV	4.80375G	-74.68	-74.68
5G	7G	1M	AV	5.394G	-73.36	-73.36
7G	8G	1M	AV	7.74225G	-72.75	-72.75
8G	25G	1M	AV	19.39797G	-64.36	-64.36



2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [PK]

2440MHz

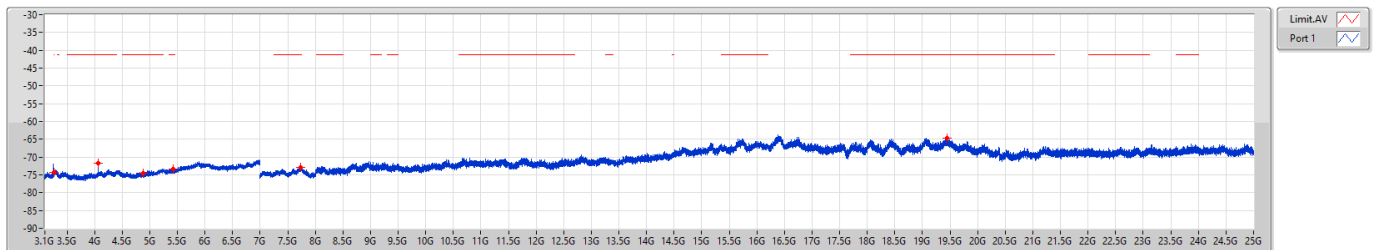


F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.65508G	-63.59	-63.59
4G	5G	1M	PK	4.32025G	-63.09	-63.09
4G	5G	1M	PK	4.87925G	-66.02	-66.02
5G	7G	1M	PK	5.43G	-63.20	-63.20
7G	8G	1M	PK	7.48625G	-63.61	-63.61
8G	25G	1M	PK	19.40169G	-56.20	-56.20

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [AV]

2440MHz

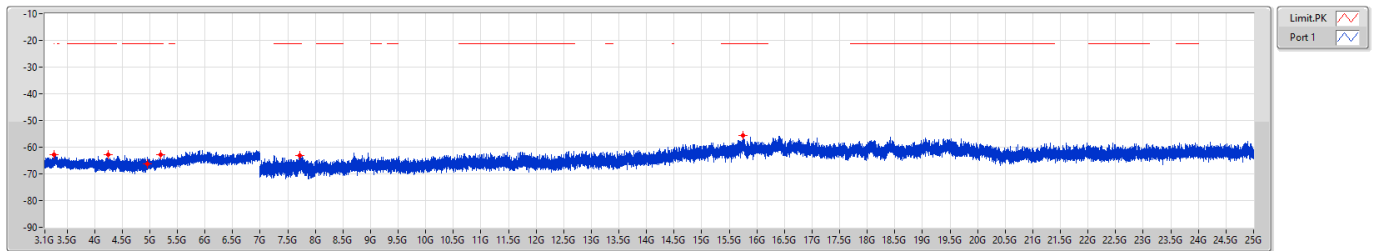


F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.26358G	-74.25	-74.25
4G	5G	1M	AV	4.0665G	-71.61	-71.61
4G	5G	1M	AV	4.8795G	-74.64	-74.64
5G	7G	1M	AV	5.4245G	-73.34	-73.34
7G	8G	1M	AV	7.73675G	-72.82	-72.82
8G	25G	1M	AV	19.45163G	-64.77	-64.77

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [PK]

2480MHz

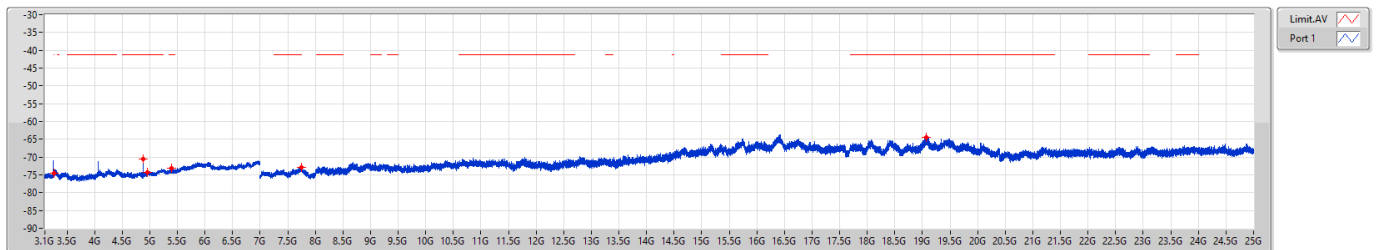


F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.26628G	-62.84	-62.84
4G	5G	1M	PK	4.25025G	-62.78	-62.78
4G	5G	1M	PK	4.9595G	-66.32	-66.32
5G	7G	1M	PK	5.2035G	-62.69	-62.69
7G	8G	1M	PK	7.726G	-63.04	-63.04
8G	25G	1M	PK	15.74616G	-55.55	-55.55

2.4-2.4835GHz_BT-LE(1Mbps)

CSE-DTS [AV]

2480MHz

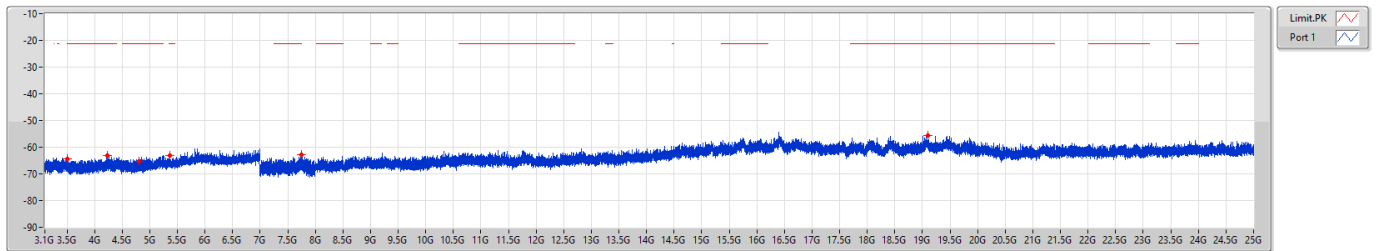


F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.26673G	-74.46	-74.46
4G	5G	1M	AV	4.8805G	-70.66	-70.66
4G	5G	1M	AV	4.96025G	-74.18	-74.18
5G	7G	1M	AV	5.397G	-73.09	-73.09
7G	8G	1M	AV	7.75G	-72.84	-72.84
8G	25G	1M	AV	19.07178G	-64.54	-64.54

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [PK]

2402MHz

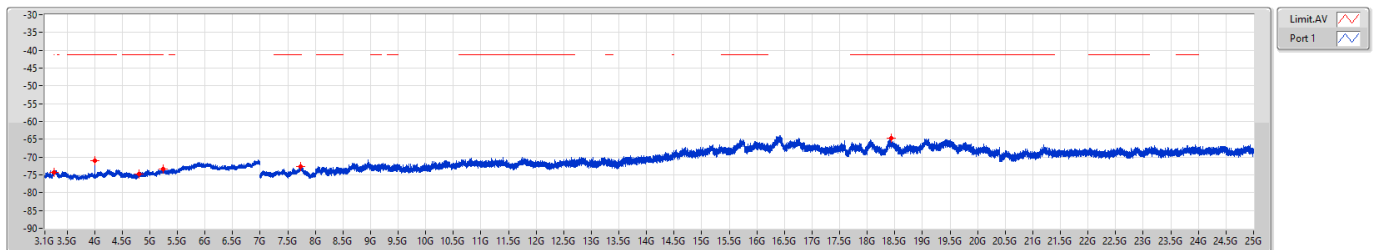


F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.51265G	-64.26	-64.26
4G	5G	1M	PK	4.22975G	-63.17	-63.17
4G	5G	1M	PK	4.80375G	-65.46	-65.46
5G	7G	1M	PK	5.369G	-63.20	-63.20
7G	8G	1M	PK	7.74375G	-62.89	-62.89
8G	25G	1M	PK	19.10259G	-55.67	-55.67

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [AV]

2402MHz



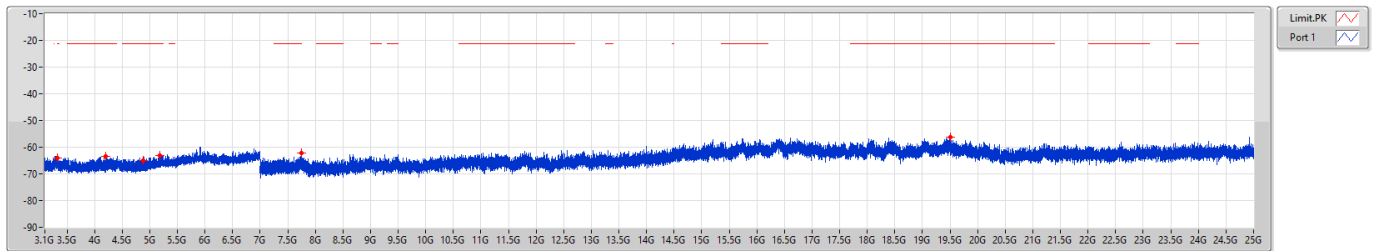
F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.26605G	-74.19	-74.19
4G	5G	1M	AV	4.00325G	-71.11	-71.11
4G	5G	1M	AV	4.80425G	-74.67	-74.67
5G	7G	1M	AV	5.245G	-73.29	-73.29
7G	8G	1M	AV	7.73925G	-72.61	-72.61
8G	25G	1M	AV	18.4295G	-64.63	-64.63



2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [PK]

2440MHz

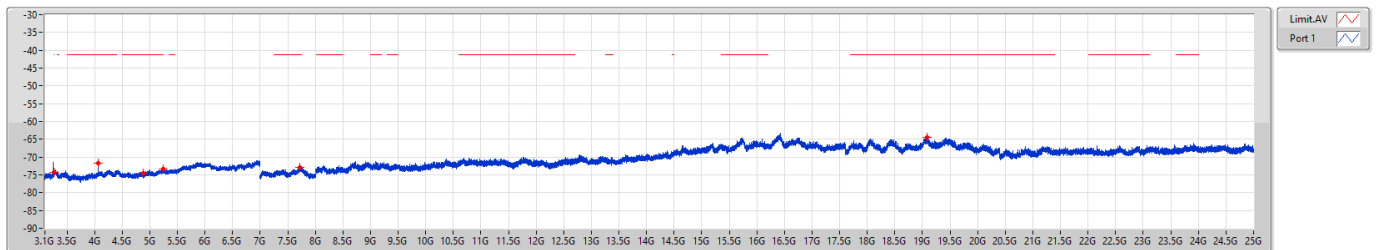


F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.33333G	-63.93	-63.93
4G	5G	1M	PK	4.19725G	-63.45	-63.45
4G	5G	1M	PK	4.87875G	-64.86	-64.86
5G	7G	1M	PK	5.1855G	-63.13	-63.13
7G	8G	1M	PK	7.749G	-62.29	-62.29
8G	25G	1M	PK	19.50422G	-56.37	-56.37

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [AV]

2440MHz

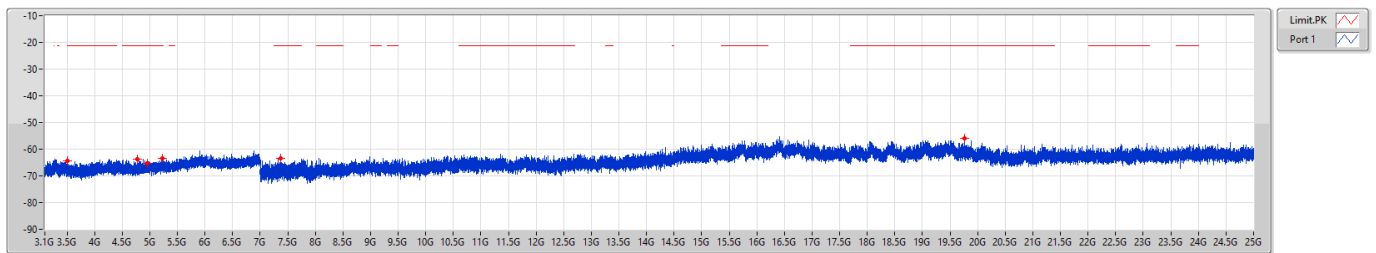


F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.26673G	-74.18	-74.18
4G	5G	1M	AV	4.0665G	-71.61	-71.61
4G	5G	1M	AV	4.881G	-74.63	-74.63
5G	7G	1M	AV	5.2495G	-73.28	-73.28
7G	8G	1M	AV	7.71875G	-72.85	-72.85
8G	25G	1M	AV	19.09091G	-64.35	-64.35

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [PK]

2480MHz

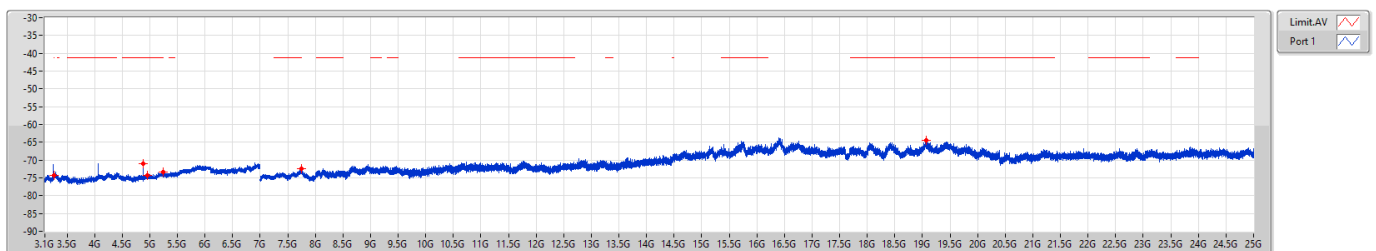


F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.50275G	-64.38	-64.38
4G	5G	1M	PK	4.78125G	-63.82	-63.82
4G	5G	1M	PK	4.959G	-65.16	-65.16
5G	7G	1M	PK	5.224G	-63.57	-63.57
7G	8G	1M	PK	7.36425G	-63.56	-63.56
8G	25G	1M	PK	19.76453G	-55.96	-55.96

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [AV]

2480MHz



F.Start(Hz)	F.Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.26245G	-74.28	-74.28
4G	5G	1M	AV	4.8805G	-71.02	-71.02
4G	5G	1M	AV	4.95825G	-74.19	-74.19
5G	7G	1M	AV	5.2395G	-73.30	-73.30
7G	8G	1M	AV	7.74725G	-72.53	-72.53
8G	25G	1M	AV	19.06222G	-64.39	-64.39



Summary

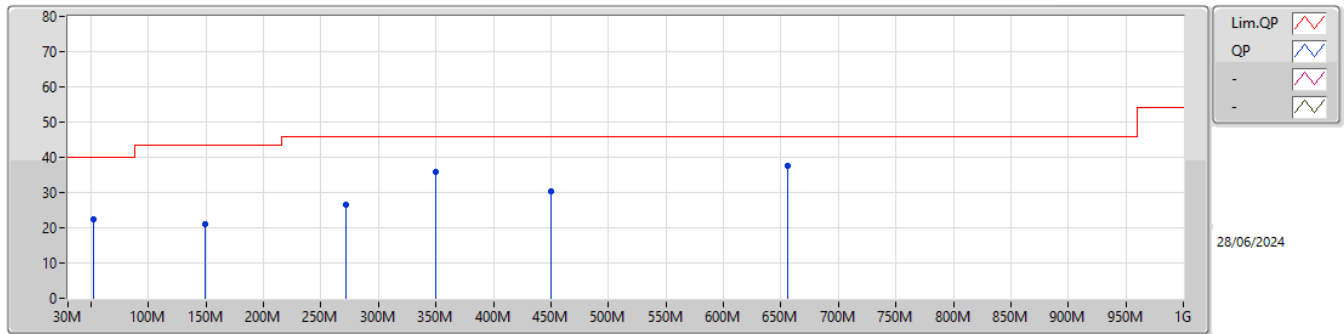
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	450.03M	42.51	46.00	-3.49	Vertical



Unwanted Emissions into Restricted Frequency Bands Below 1GHz

Appendix D.4

Mode 1



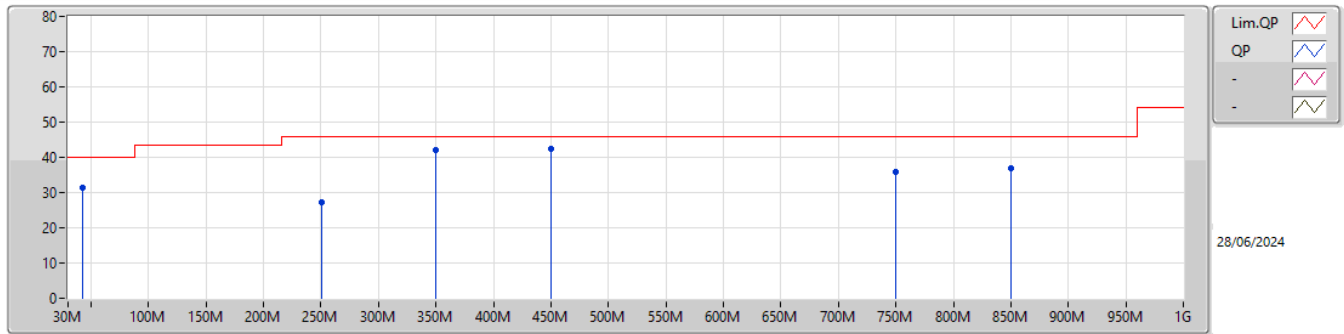
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)		
PK	51.9M	22.27	40.00	-17.73	-8.29	3	Horizontal	-	-	-	30.56	19.12	0.73	28.14		
PK	149.3M	21.10	43.50	-22.40	-8.78	3	Horizontal	-	-	-	29.88	18.26	1.21	28.25		
PK	271.6M	26.50	46.00	-19.50	-8.71	3	Horizontal	-	-	-	35.21	17.86	1.67	28.24		
PK	350.12M	35.98	46.00	-10.02	-6.88	3	Horizontal	-	-	-	42.86	19.50	1.82	28.20		
PK	450.4M	30.19	46.00	-15.81	-4.11	3	Horizontal	-	-	-	34.30	22.10	1.98	28.19		
PK	655.4M	37.62	46.00	-8.38	-0.07	3	Horizontal	-	-	-	37.69	25.51	2.51	28.09		



Unwanted 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	31.55	40.00	-8.45	-8.52	3	Vertical	-	-	-	40.07	19.00	0.60	28.12		
PK	250.11M	27.39	46.00	-18.61	-9.78	3	Vertical	-	-	-	37.17	16.90	1.57	28.25		
QP	350.12M	42.17	46.00	-3.83	-6.88	3	Vertical	106	1.23	-	49.05	19.50	1.82	28.20		
QP	450.03M	42.51	46.00	-3.49	-4.11	3	Vertical	217	1.00	-	46.62	22.10	1.98	28.19		
PK	750.02M	35.78	46.00	-10.22	1.83	3	Vertical	-	-	-	33.95	27.00	2.75	27.92		
PK	849.84M	36.86	46.00	-9.14	3.13	3	Vertical	-	-	-	33.73	28.00	2.89	27.76		



**Unwanted 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	12.01G	41.78	54.00	-12.22	3	Vertical	184	1.00	-
BT-LE(2Mbps)	Pass	AV	12.01G	41.81	54.00	-12.19	3	Vertical	126	1.00	-

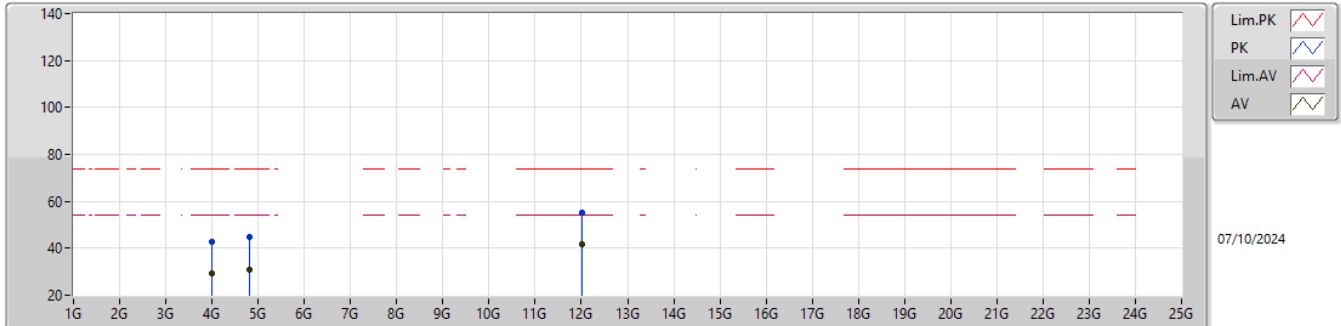


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

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	4G	29.09	54.00	-24.91	31.36	3	Horizontal	246	1.00	-	29.70	6.02	37.99			
PK	4G	42.92	74.00	-31.08	45.19	3	Horizontal	246	1.00	-	29.70	6.02	37.99			
AV	4.804G	30.76	54.00	-23.24	31.31	3	Horizontal	118	1.00	-	31.29	6.68	38.52			
PK	4.804G	44.70	74.00	-29.30	45.25	3	Horizontal	118	1.00	-	31.29	6.68	38.52			
AV	12.01G	41.70	54.00	-12.30	35.17	3	Horizontal	126	1.00	-	39.20	10.23	42.90			
PK	12.01G	55.38	74.00	-18.62	48.85	3	Horizontal	126	1.00	-	39.20	10.23	42.90			

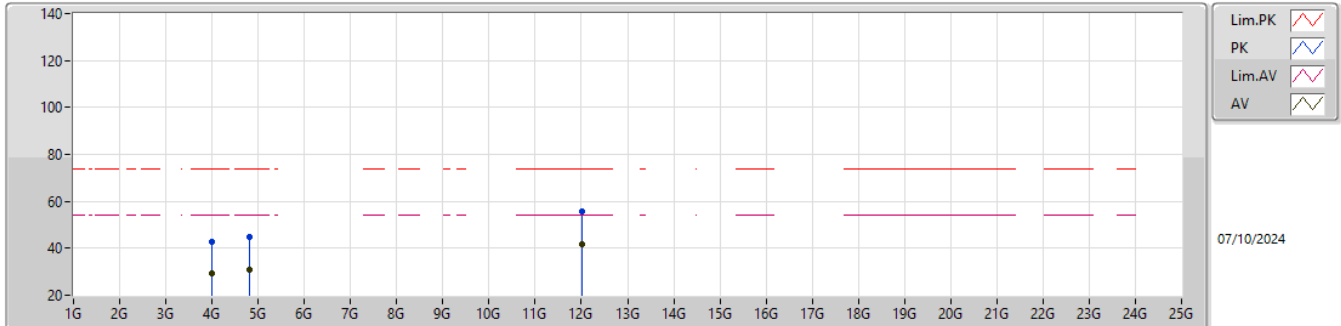


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

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	4G	29.15	54.00	-24.85	31.42	3	Vertical	119	1.00	-	29.70	6.02	37.99				
PK	4G	43.01	74.00	-30.99	45.28	3	Vertical	119	1.00	-	29.70	6.02	37.99				
AV	4.804G	30.78	54.00	-23.22	31.33	3	Vertical	201	1.00	-	31.29	6.68	38.52				
PK	4.804G	44.74	74.00	-29.26	45.29	3	Vertical	201	1.00	-	31.29	6.68	38.52				
AV	12.01G	41.78	54.00	-12.22	35.25	3	Vertical	184	1.00	-	39.20	10.23	42.90				
PK	12.01G	55.45	74.00	-18.55	48.92	3	Vertical	184	1.00	-	39.20	10.23	42.90				

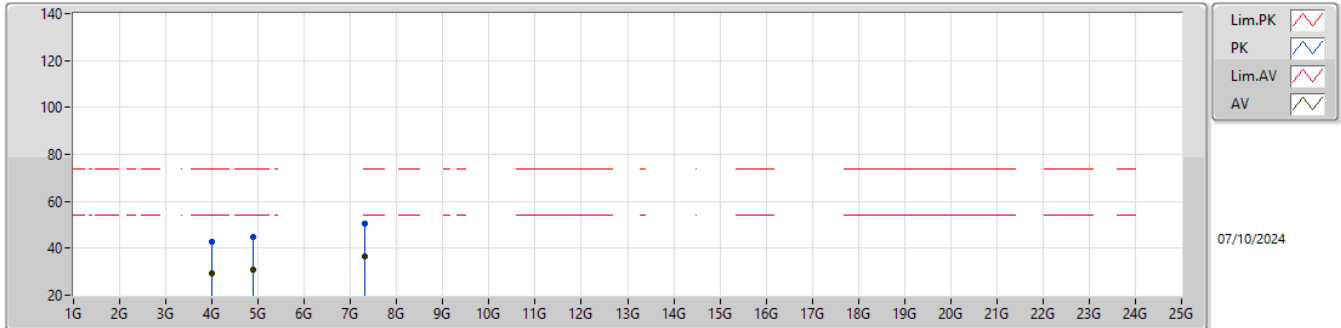


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

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	4G	29.24	54.00	-24.76	31.51	3	Horizontal	274	1.00	-	29.70	6.02	37.99				
PK	4G	42.84	74.00	-31.16	45.11	3	Horizontal	274	1.00	-	29.70	6.02	37.99				
AV	4.88G	30.65	54.00	-23.35	31.31	3	Horizontal	186	1.00	-	31.14	6.77	38.57				
PK	4.88G	44.65	74.00	-29.35	45.31	3	Horizontal	186	1.00	-	31.14	6.77	38.57				
AV	7.32G	36.41	54.00	-17.59	31.01	3	Horizontal	213	1.00	-	36.16	8.63	39.39				
PK	7.32G	50.36	74.00	-23.64	44.96	3	Horizontal	213	1.00	-	36.16	8.63	39.39				

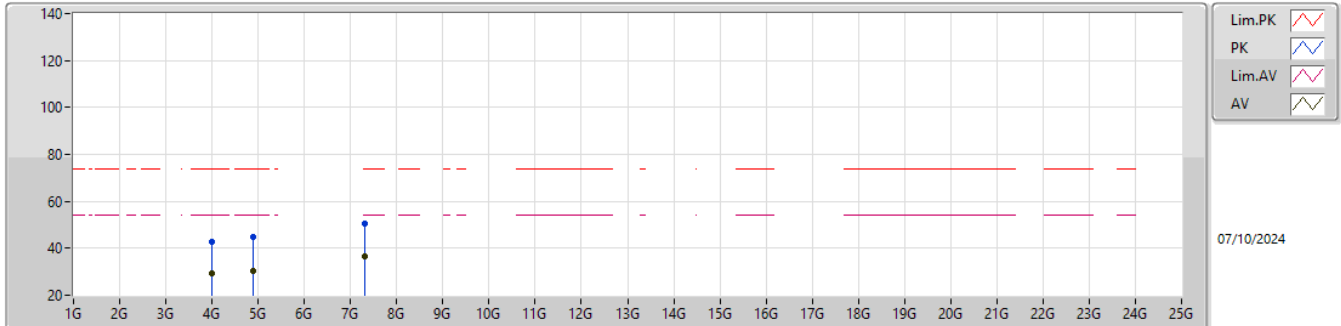


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

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	4G	29.16	54.00	-24.84	31.43	3	Vertical	208	1.00	-	29.70	6.02	37.99			
PK	4G	42.92	74.00	-31.08	45.19	3	Vertical	208	1.00	-	29.70	6.02	37.99			
AV	4.88G	30.59	54.00	-23.41	31.25	3	Vertical	145	1.00	-	31.14	6.77	38.57			
PK	4.88G	44.68	74.00	-29.32	45.34	3	Vertical	145	1.00	-	31.14	6.77	38.57			
AV	7.32G	36.34	54.00	-17.66	30.94	3	Vertical	221	1.00	-	36.16	8.63	39.39			
PK	7.32G	50.47	74.00	-23.53	45.07	3	Vertical	221	1.00	-	36.16	8.63	39.39			

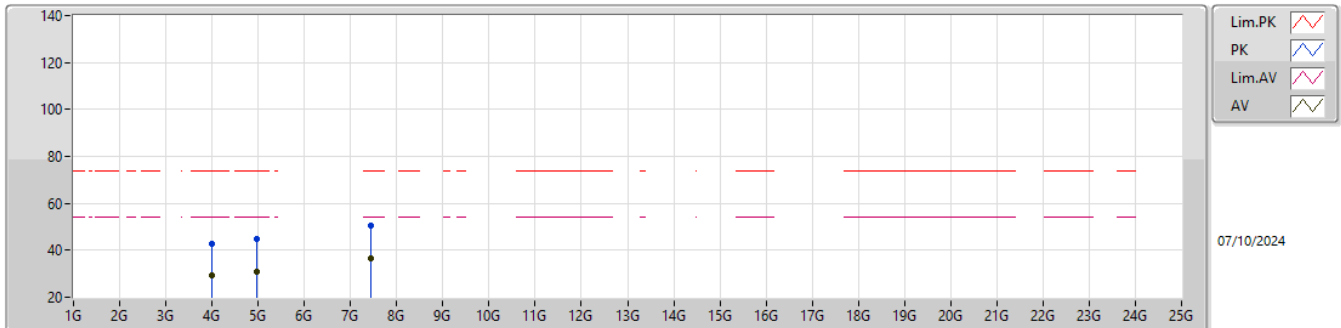


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

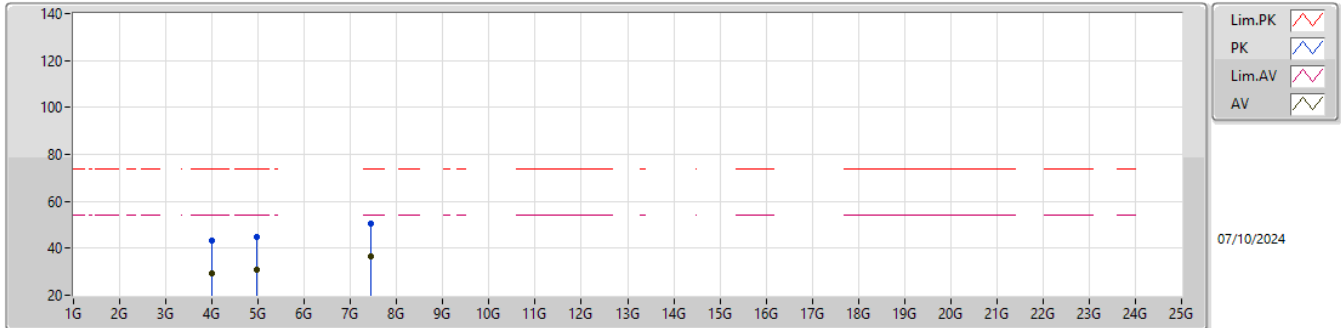


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)			
AV	4G	29.06	54.00	-24.94	31.33	3	Horizontal	176	1.00	-	29.70	6.02	37.99			
PK	4G	42.95	74.00	-31.05	45.22	3	Horizontal	176	1.00	-	29.70	6.02	37.99			
AV	4.96G	30.87	54.00	-23.13	31.27	3	Horizontal	154	1.00	-	31.36	6.86	38.62			
PK	4.96G	44.85	74.00	-29.15	45.25	3	Horizontal	154	1.00	-	31.36	6.86	38.62			
AV	7.44G	36.46	54.00	-17.54	31.00	3	Horizontal	208	1.00	-	36.34	8.66	39.54			
PK	7.44G	50.56	74.00	-23.44	45.10	3	Horizontal	208	1.00	-	36.34	8.66	39.54			



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	4G	29.09	54.00	-24.91	31.36	3	Vertical	108	1.00	-	29.70	6.02	37.99			
PK	4G	43.07	74.00	-30.93	45.34	3	Vertical	108	1.00	-	29.70	6.02	37.99			
AV	4.96G	30.89	54.00	-23.11	31.29	3	Vertical	251	1.00	-	31.36	6.86	38.62			
PK	4.96G	45.01	74.00	-28.99	45.41	3	Vertical	251	1.00	-	31.36	6.86	38.62			
AV	7.44G	36.45	54.00	-17.55	30.99	3	Vertical	167	1.00	-	36.34	8.66	39.54			
PK	7.44G	50.65	74.00	-23.35	45.19	3	Vertical	167	1.00	-	36.34	8.66	39.54			

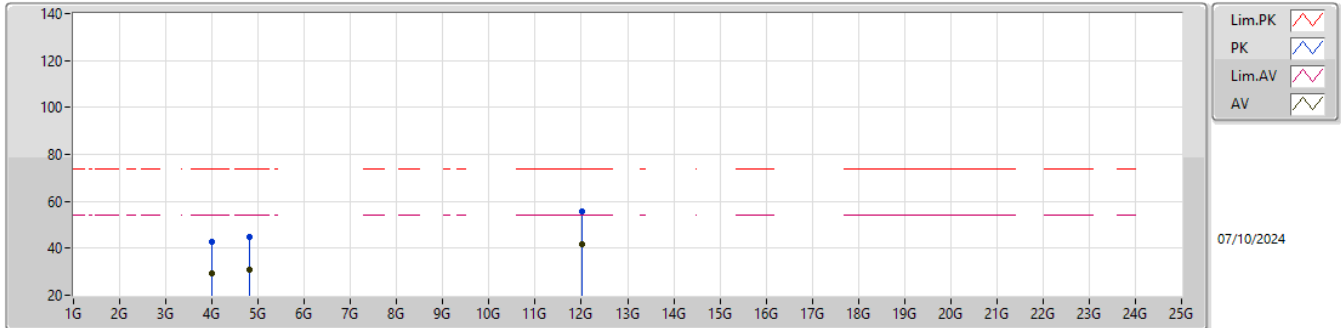


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(2Mbps)

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	4G	29.11	54.00	-24.89	31.38	3	Horizontal	186	1.00	-	29.70	6.02	37.99				
PK	4G	43.01	74.00	-30.99	45.28	3	Horizontal	186	1.00	-	29.70	6.02	37.99				
AV	4.804G	30.74	54.00	-23.26	31.29	3	Horizontal	221	1.00	-	31.29	6.68	38.52				
PK	4.804G	44.86	74.00	-29.14	45.41	3	Horizontal	221	1.00	-	31.29	6.68	38.52				
AV	12.01G	41.72	54.00	-12.28	35.19	3	Horizontal	107	1.00	-	39.20	10.23	42.90				
PK	12.01G	55.53	74.00	-18.47	49.00	3	Horizontal	107	1.00	-	39.20	10.23	42.90				

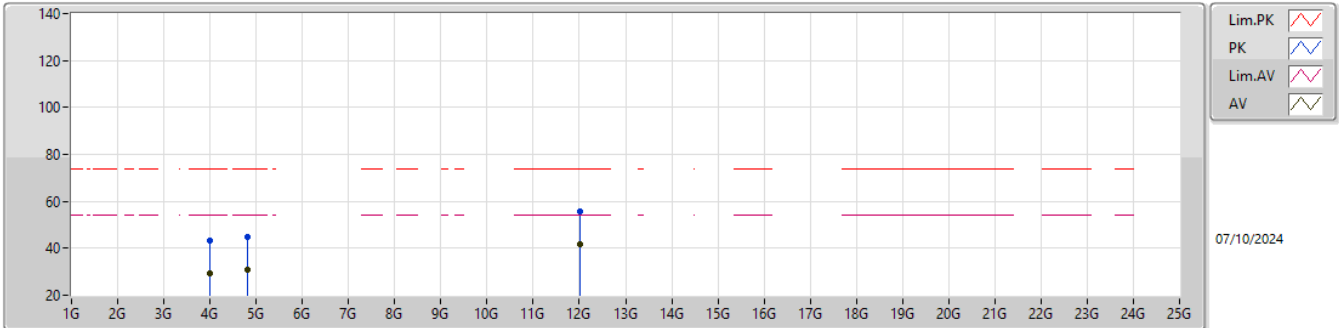


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(2Mbps)

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	4G	29.12	54.00	-24.88	31.39	3	Vertical	188	1.00	-	29.70	6.02	37.99				
PK	4G	43.08	74.00	-30.92	45.35	3	Vertical	188	1.00	-	29.70	6.02	37.99				
AV	4.804G	30.78	54.00	-23.22	31.33	3	Vertical	245	1.00	-	31.29	6.68	38.52				
PK	4.804G	44.83	74.00	-29.17	45.38	3	Vertical	245	1.00	-	31.29	6.68	38.52				
AV	12.01G	41.81	54.00	-12.19	35.28	3	Vertical	126	1.00	-	39.20	10.23	42.90				
PK	12.01G	55.62	74.00	-18.38	49.09	3	Vertical	126	1.00	-	39.20	10.23	42.90				

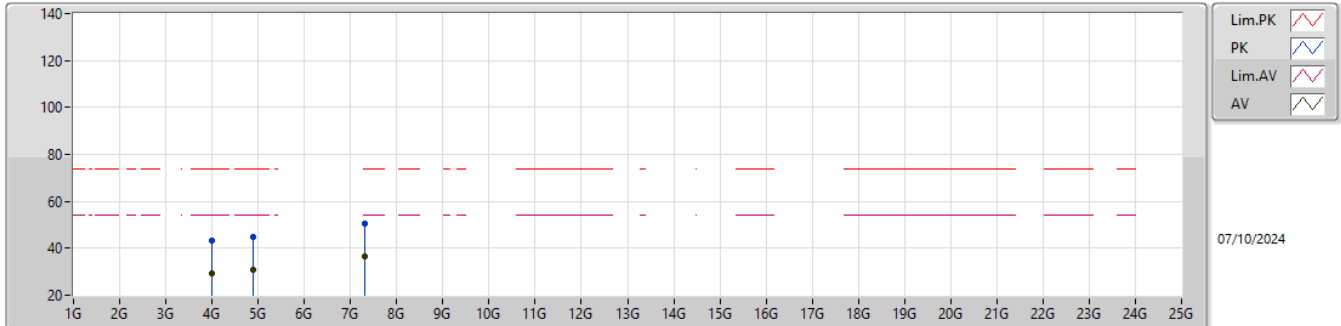


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

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	4G	29.11	54.00	-24.89	31.38	3	Horizontal	186	1.00	-	29.70	6.02	37.99				
PK	4G	43.14	74.00	-30.86	45.41	3	Horizontal	186	1.00	-	29.70	6.02	37.99				
AV	4.88G	30.69	54.00	-23.31	31.35	3	Horizontal	251	1.00	-	31.14	6.77	38.57				
PK	4.88G	44.80	74.00	-29.20	45.46	3	Horizontal	251	1.00	-	31.14	6.77	38.57				
AV	7.32G	36.41	54.00	-17.59	31.01	3	Horizontal	123	1.00	-	36.16	8.63	39.39				
PK	7.32G	50.54	74.00	-23.46	45.14	3	Horizontal	123	1.00	-	36.16	8.63	39.39				

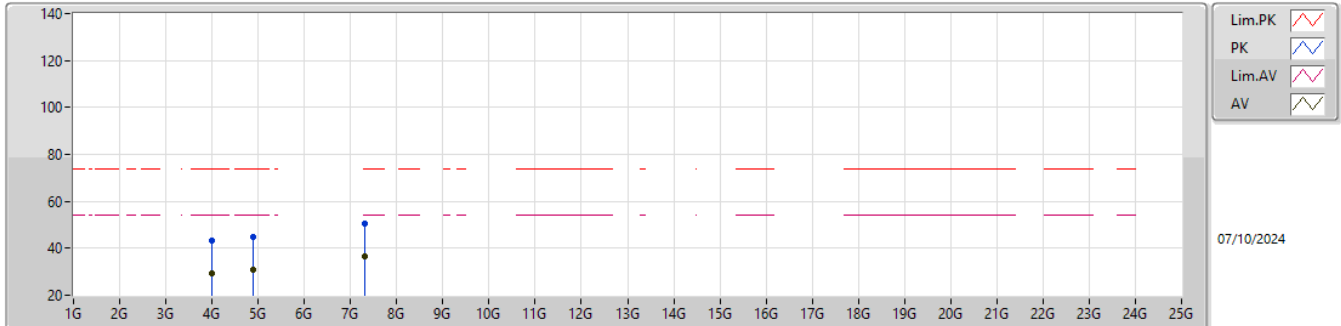


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

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	4G	29.09	54.00	-24.91	31.36	3	Vertical	173	1.00	-	29.70	6.02	37.99			
PK	4G	43.06	74.00	-30.94	45.33	3	Vertical	173	1.00	-	29.70	6.02	37.99			
AV	4.88G	30.70	54.00	-23.30	31.36	3	Vertical	215	1.00	-	31.14	6.77	38.57			
PK	4.88G	44.77	74.00	-29.23	45.43	3	Vertical	215	1.00	-	31.14	6.77	38.57			
AV	7.32G	36.42	54.00	-17.58	31.02	3	Vertical	108	1.00	-	36.16	8.63	39.39			
PK	7.32G	50.50	74.00	-23.50	45.10	3	Vertical	108	1.00	-	36.16	8.63	39.39			

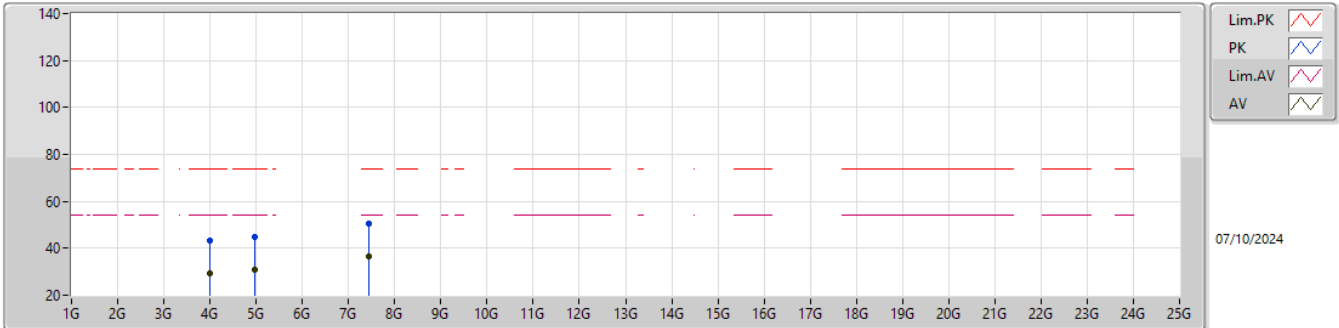


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(2Mbps)

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	4G	29.13	54.00	-24.87	31.40	3	Horizontal	165	1.00	-	29.70	6.02	37.99			
PK	4G	43.11	74.00	-30.89	45.38	3	Horizontal	165	1.00	-	29.70	6.02	37.99			
AV	4.96G	30.90	54.00	-23.10	31.30	3	Horizontal	261	1.00	-	31.36	6.86	38.62			
PK	4.96G	44.97	74.00	-29.03	45.37	3	Horizontal	261	1.00	-	31.36	6.86	38.62			
AV	7.44G	36.51	54.00	-17.49	31.05	3	Horizontal	125	1.00	-	36.34	8.66	39.54			
PK	7.44G	50.69	74.00	-23.31	45.23	3	Horizontal	125	1.00	-	36.34	8.66	39.54			

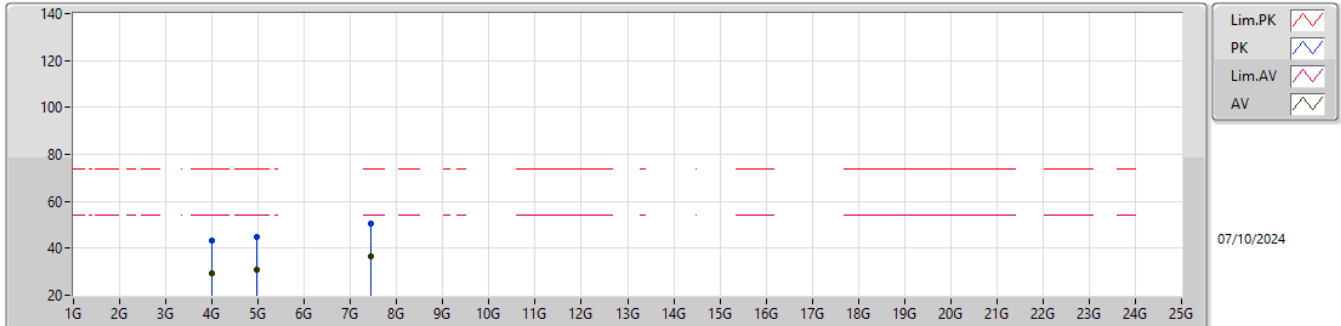


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(2Mbps)

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	4G	29.06	54.00	-24.94	31.33	3	Vertical	157	1.00	-	29.70	6.02	37.99			
PK	4G	43.09	74.00	-30.91	45.36	3	Vertical	157	1.00	-	29.70	6.02	37.99			
AV	4.96G	30.92	54.00	-23.08	31.32	3	Vertical	45	1.00	-	31.36	6.86	38.62			
PK	4.96G	45.01	74.00	-28.99	45.41	3	Vertical	45	1.00	-	31.36	6.86	38.62			
AV	7.44G	36.48	54.00	-17.52	31.02	3	Vertical	208	1.00	-	36.34	8.66	39.54			
PK	7.44G	50.64	74.00	-23.36	45.18	3	Vertical	208	1.00	-	36.34	8.66	39.54			

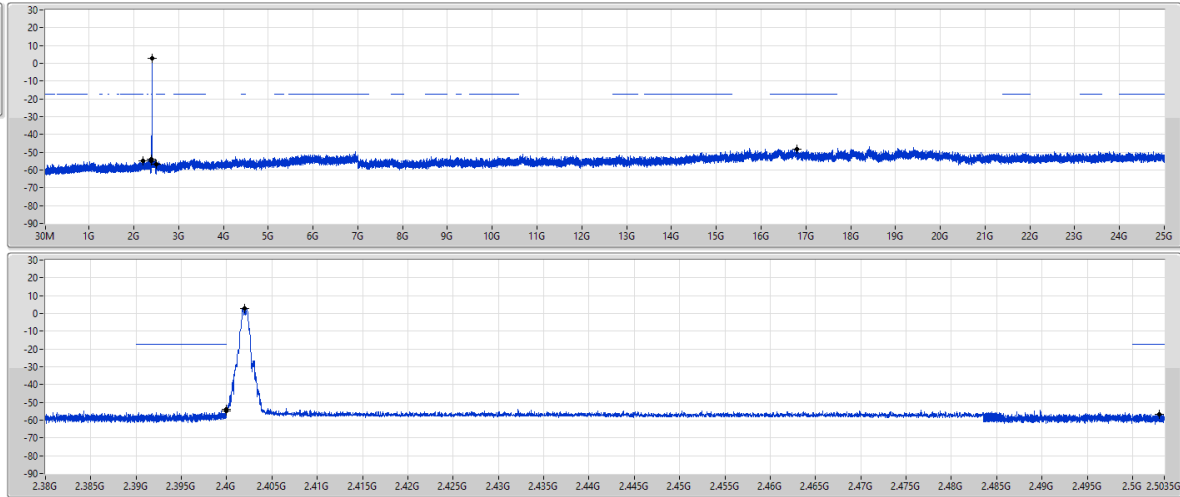


2.4-2.4835GHz_BT-LE(125kbps)

CSEndB-DTS

2402MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



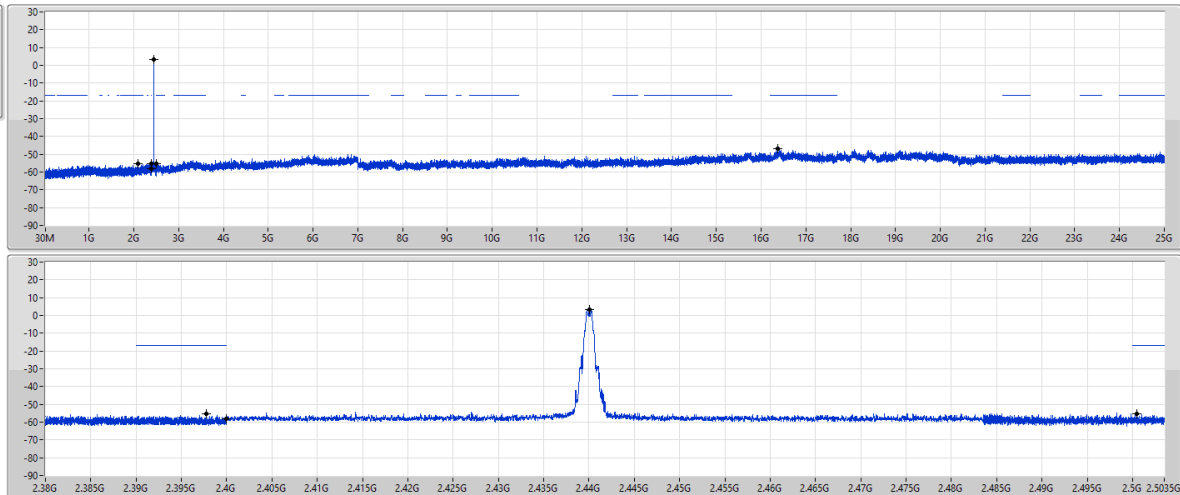
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40201G	2.86	-17.14	2.19699G	-55.00	2.39996G	-54.94	2.4G	-53.83	2.50298G	-56.56	16.79651G	-48.08	1

2.4-2.4835GHz_BT-LE(125kbps)

CSEndB-DTS

2440MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

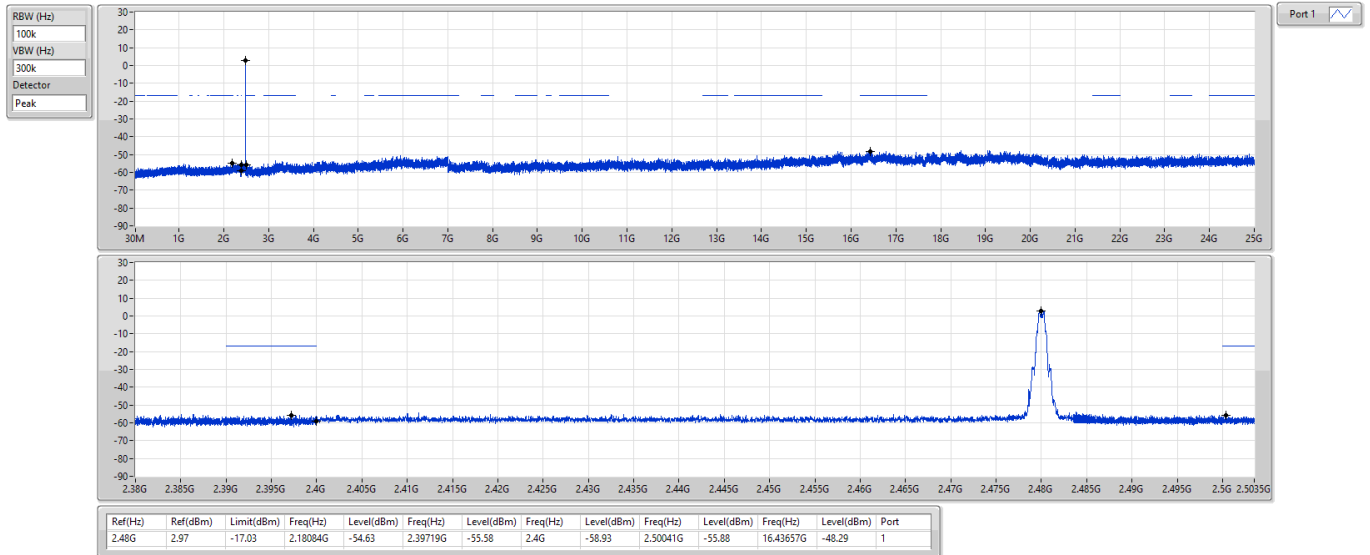


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44001G	3.14	-16.86	2.10211G	-55.45	2.3978G	-55.36	2.4G	-58.26	2.50049G	-55.44	16.36627G	-46.74	1

2.4-2.4835GHz_BT-LE(125kbps)

CSEndB-DTS

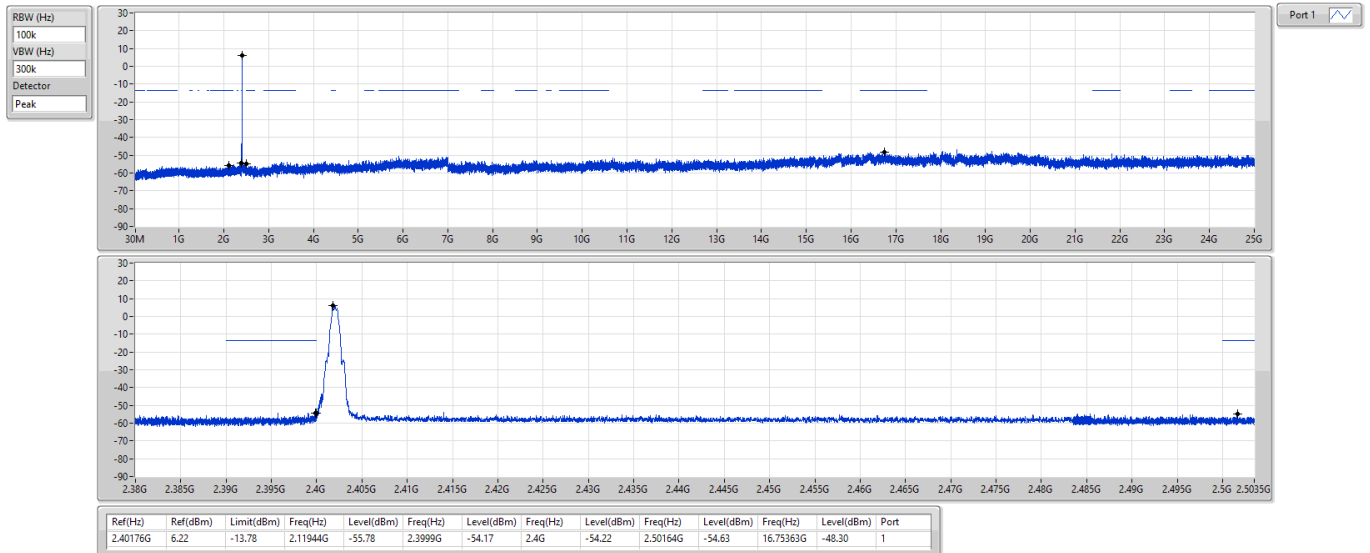
2480MHz



2.4-2.4835GHz_BT-LE(500kbps)

CSEndB-DTS

2402MHz

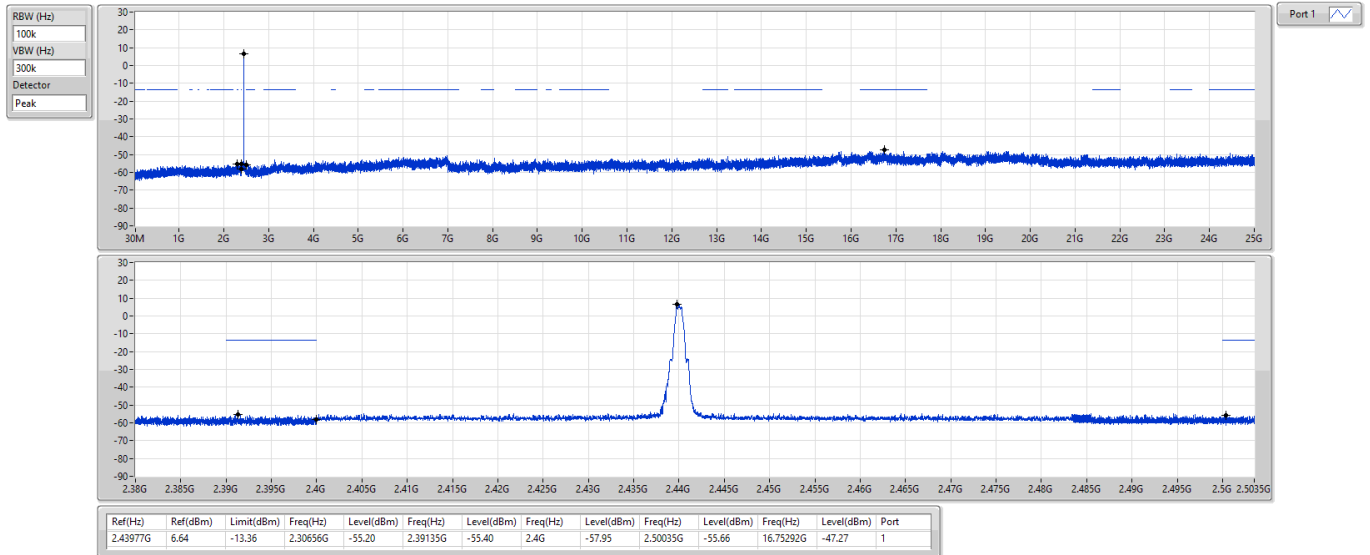




2.4-2.4835GHz_BT-LE(500kbps)

CSEndB-DTS

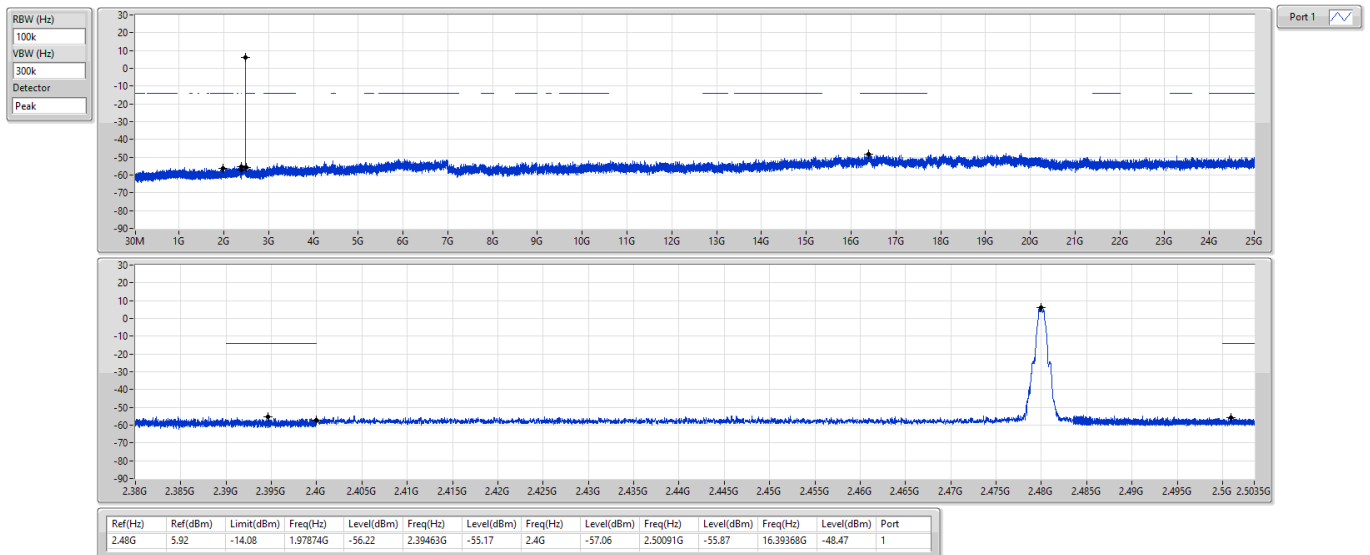
2440MHz



2.4-2.4835GHz_BT-LE(500kbps)

CSEndB-DTS

2480MHz



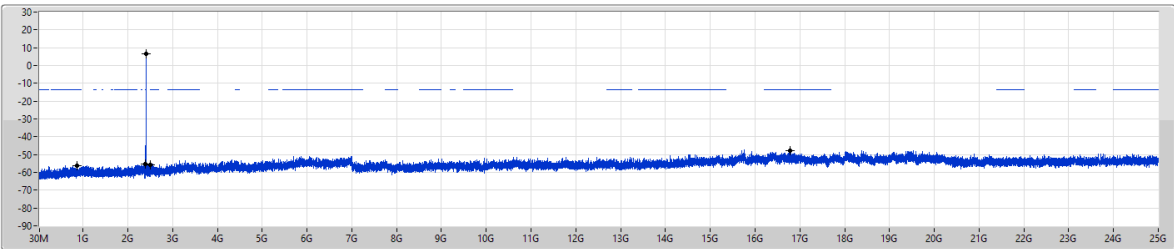


2.4-2.4835GHz_BT-LE(1Mbps)

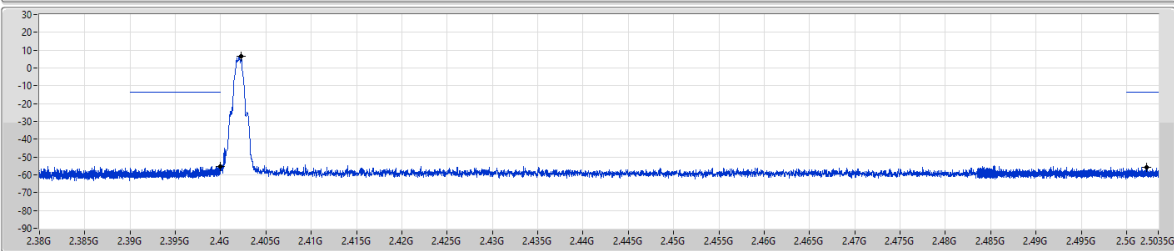
CSEndB-DTS

2402MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



Port 1



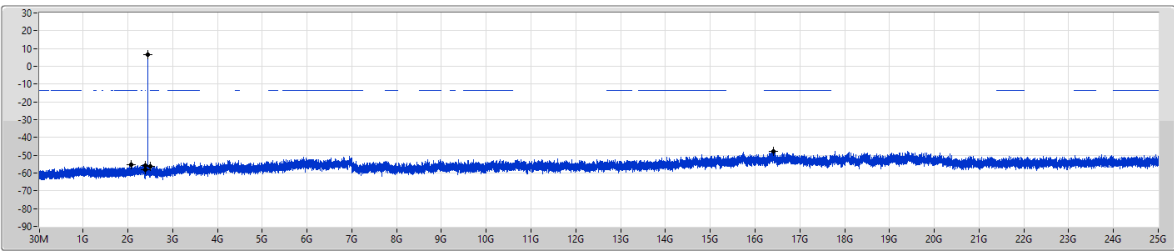
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40226G	6.37	-13.63	857.79M	-56.31	2.39991G	-55.14	2.4G	-55.29	2.50222G	-55.65	16.78245G	-47.95	1

2.4-2.4835GHz_BT-LE(1Mbps)

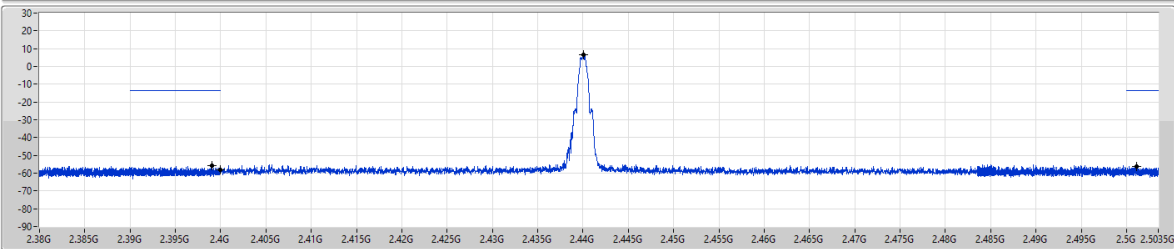
CSEndB-DTS

2440MHz

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



Port 1

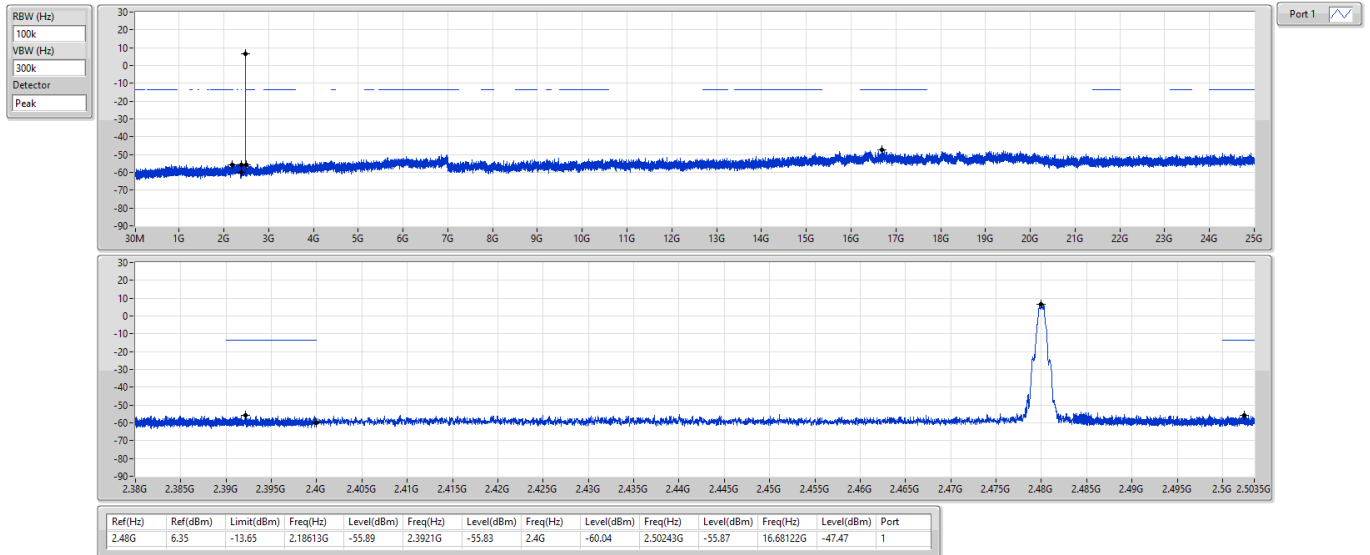


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44001G	6.50	-13.50	2.06628G	-55.52	2.39904G	-55.79	2.4G	-58.26	2.50109G	-56.10	16.41477G	-47.58	1

2.4-2.4835GHz_BT-LE(1Mbps)

CSEndB-DTS

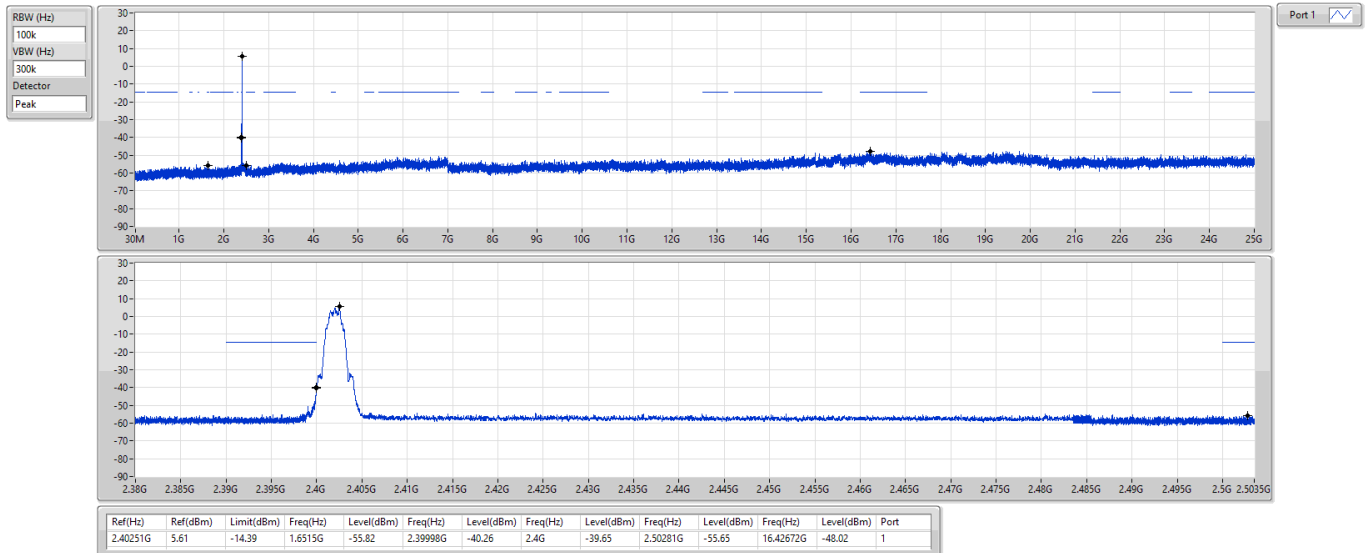
2480MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSEndB-DTS

2402MHz

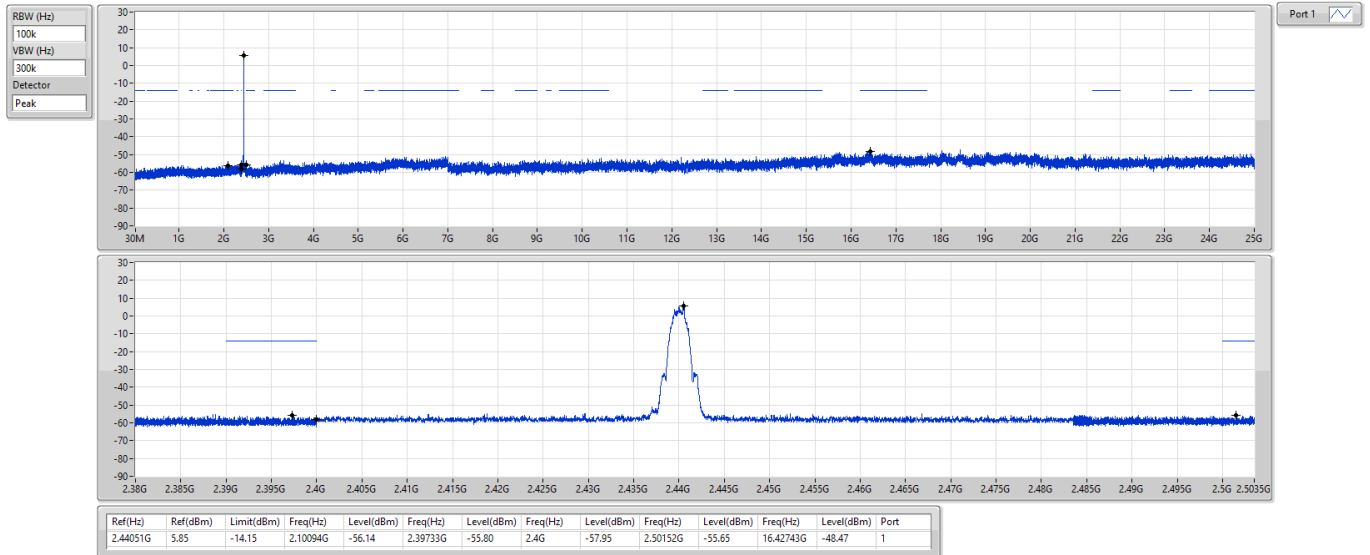




2.4-2.4835GHz_BT-LE(2Mbps)

CSEndB-DTS

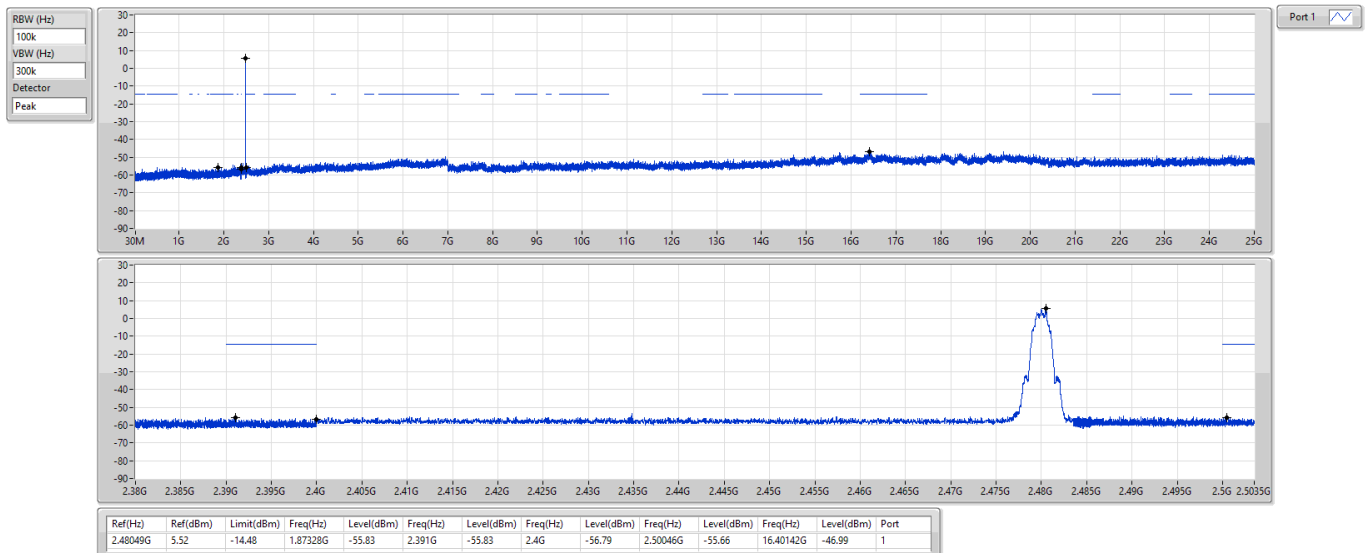
2440MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSEndB-DTS

2480MHz

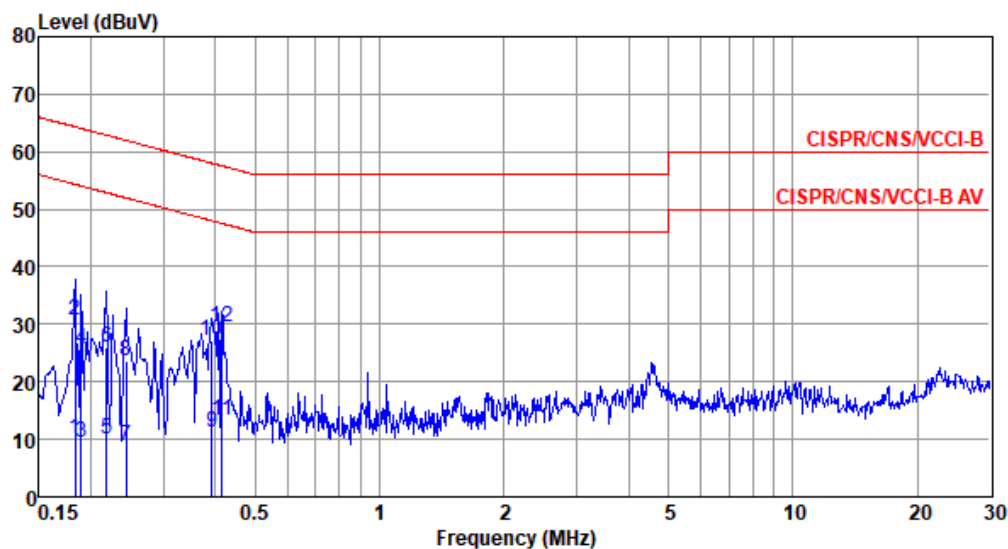


Modulation	BT-LE(2Mbps)	Test Freq. (MHz)	2440
Power Phase	Line		

Test by : Sean Yu

Temperature: 23°C

Humidity: 65%



	Freq MHz	Level dBUV	Limit Line dBUV	Over Limit dB	Read Level dBUV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.183	10.00	54.33	-44.33	0.03	9.65	0.08	0.24	Average
2	0.183	30.82	64.33	-33.51	20.85	9.65	0.08	0.24	QP
3	0.189	9.50	54.06	-44.56	-0.47	9.65	0.08	0.24	Average
4	0.189	25.75	64.06	-38.31	15.78	9.65	0.08	0.24	QP
5	0.219	10.03	52.88	-42.85	0.04	9.65	0.08	0.26	Average
6	0.219	25.88	62.88	-37.00	15.89	9.65	0.08	0.26	QP
7	0.243	9.00	52.00	-43.00	-1.00	9.65	0.08	0.27	Average
8	0.243	23.74	62.00	-38.26	13.74	9.65	0.08	0.27	QP
9	0.393	11.08	47.99	-36.91	1.02	9.64	0.09	0.33	Average
10	0.393	27.13	57.99	-30.86	17.07	9.64	0.09	0.33	QP
11	0.415	13.18	47.55	-34.37	3.12	9.64	0.09	0.33	Average
12*	0.415	29.55	57.55	-28.00	19.49	9.64	0.09	0.33	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	BT-LE(2Mbps)	Test Freq. (MHz)	2440																																																																																																																																		
Power Phase	Neutral																																																																																																																																				
Test by : Sean Yu Temperature: 23°C Humidity: 65%																																																																																																																																					
Level (dBuV) Frequency (MHz) <table><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><tr><td>1</td><td>0.156</td><td>10.60</td><td>55.69</td><td>-45.09</td><td>0.73</td><td>9.66</td><td>0.08</td><td>0.13</td><td>Average</td></tr><tr><td>2</td><td>0.156</td><td>32.83</td><td>65.69</td><td>-32.86</td><td>22.96</td><td>9.66</td><td>0.08</td><td>0.13</td><td>QP</td></tr><tr><td>3</td><td>0.186</td><td>9.10</td><td>54.20</td><td>-45.10</td><td>-0.79</td><td>9.65</td><td>0.08</td><td>0.16</td><td>Average</td></tr><tr><td>4</td><td>0.186</td><td>28.17</td><td>64.20</td><td>-36.03</td><td>18.28</td><td>9.65</td><td>0.08</td><td>0.16</td><td>QP</td></tr><tr><td>5</td><td>0.226</td><td>10.57</td><td>52.61</td><td>-42.04</td><td>0.66</td><td>9.65</td><td>0.08</td><td>0.18</td><td>Average</td></tr><tr><td>6</td><td>0.226</td><td>25.81</td><td>62.61</td><td>-36.80</td><td>15.90</td><td>9.65</td><td>0.08</td><td>0.18</td><td>QP</td></tr><tr><td>7</td><td>0.297</td><td>5.60</td><td>50.32</td><td>-44.72</td><td>-4.35</td><td>9.64</td><td>0.09</td><td>0.22</td><td>Average</td></tr><tr><td>8</td><td>0.297</td><td>14.59</td><td>60.32</td><td>-45.73</td><td>4.64</td><td>9.64</td><td>0.09</td><td>0.22</td><td>QP</td></tr><tr><td>9</td><td>0.415</td><td>11.20</td><td>47.55</td><td>-36.35</td><td>1.22</td><td>9.64</td><td>0.09</td><td>0.25</td><td>Average</td></tr><tr><td>10</td><td>0.415</td><td>26.58</td><td>57.55</td><td>-30.97</td><td>16.60</td><td>9.64</td><td>0.09</td><td>0.25</td><td>QP</td></tr><tr><td>11</td><td>4.598</td><td>13.11</td><td>46.00</td><td>-32.89</td><td>2.79</td><td>9.69</td><td>0.23</td><td>0.40</td><td>Average</td></tr><tr><td>12*</td><td>4.598</td><td>25.08</td><td>56.00</td><td>-30.92</td><td>14.76</td><td>9.69</td><td>0.23</td><td>0.40</td><td>QP</td></tr></table>					Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark	1	0.156	10.60	55.69	-45.09	0.73	9.66	0.08	0.13	Average	2	0.156	32.83	65.69	-32.86	22.96	9.66	0.08	0.13	QP	3	0.186	9.10	54.20	-45.10	-0.79	9.65	0.08	0.16	Average	4	0.186	28.17	64.20	-36.03	18.28	9.65	0.08	0.16	QP	5	0.226	10.57	52.61	-42.04	0.66	9.65	0.08	0.18	Average	6	0.226	25.81	62.61	-36.80	15.90	9.65	0.08	0.18	QP	7	0.297	5.60	50.32	-44.72	-4.35	9.64	0.09	0.22	Average	8	0.297	14.59	60.32	-45.73	4.64	9.64	0.09	0.22	QP	9	0.415	11.20	47.55	-36.35	1.22	9.64	0.09	0.25	Average	10	0.415	26.58	57.55	-30.97	16.60	9.64	0.09	0.25	QP	11	4.598	13.11	46.00	-32.89	2.79	9.69	0.23	0.40	Average	12*	4.598	25.08	56.00	-30.92	14.76	9.69	0.23	0.40	QP
	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark																																																																																																																												
1	0.156	10.60	55.69	-45.09	0.73	9.66	0.08	0.13	Average																																																																																																																												
2	0.156	32.83	65.69	-32.86	22.96	9.66	0.08	0.13	QP																																																																																																																												
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Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB). 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).																																																																																																																																					

Configuration 2: Laird part number: 453-00193

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	7.04	0.00506
BT-LE(500kbps)	7.02	0.00504
BT-LE(1Mbps)	7.07	0.00509
BT-LE(2Mbps)	7.45	0.00556

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(125kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.65	30.00	9.05	36.00
2440MHz	Pass	2.40	7.04	30.00	9.44	36.00
2480MHz	Pass	2.40	6.75	30.00	9.15	36.00
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.63	30.00	9.03	36.00
2440MHz	Pass	2.40	7.02	30.00	9.42	36.00
2480MHz	Pass	2.40	6.74	30.00	9.14	36.00
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.66	30.00	9.06	36.00
2440MHz	Pass	2.40	7.07	30.00	9.47	36.00
2480MHz	Pass	2.40	6.76	30.00	9.16	36.00
BT-LE(2Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	7.09	30.00	9.49	36.00
2440MHz	Pass	2.40	7.45	30.00	9.85	36.00
2480MHz	Pass	2.40	7.22	30.00	9.62	36.00

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	6.74	0.00472
BT-LE(500kbps)	6.72	0.00470
BT-LE(1Mbps)	6.75	0.00473
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	2.40	6.34	-	8.74	-
2440MHz	Pass	2.40	6.74	-	9.14	-
2480MHz	Pass	2.40	6.44	-	8.84	-
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.32	-	8.72	-
2440MHz	Pass	2.40	6.72	-	9.12	-
2480MHz	Pass	2.40	6.43	-	8.83	-
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.35	-	8.75	-
2440MHz	Pass	2.40	6.75	-	9.15	-
2480MHz	Pass	2.40	6.45	-	8.85	-
BT-LE(2Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.40	-	8.80	-
2440MHz	Pass	2.40	6.81	-	9.21	-
2480MHz	Pass	2.40	6.58	-	8.98	-



Summary

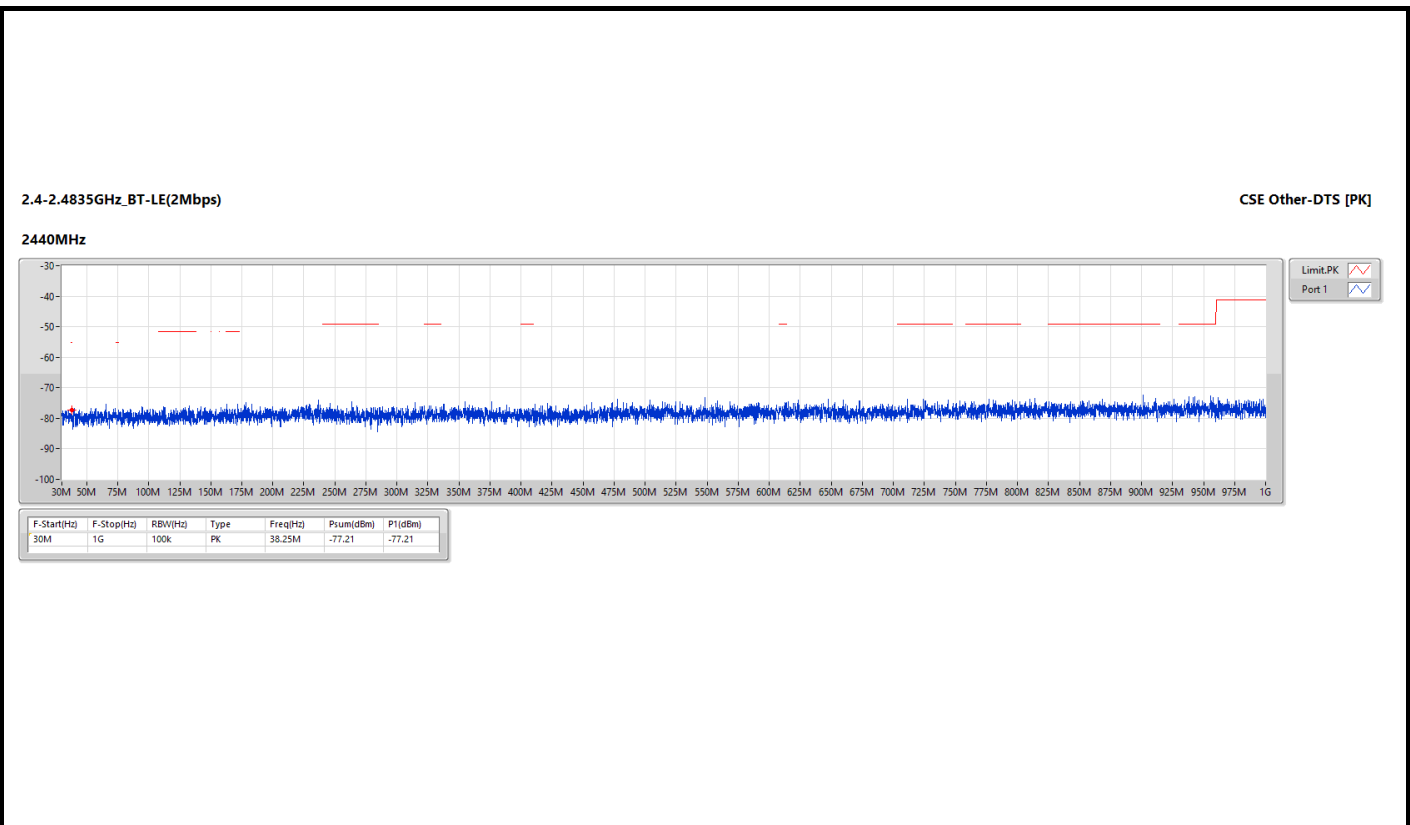
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	GRF (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	30M	1G	PK	38.25M	2.40	-77.21	4.70	-70.11	-55.20	-14.91

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)	GRF (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	30M	1G	PK	38.25M	2.40	-77.21	4.70	-70.11	-55.20	-14.91

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



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(2Mbps)	Pass	2.4835G	2.5G	AV	2.4835G	2.40	-60.51	-58.11	-41.20	-16.91

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

Result

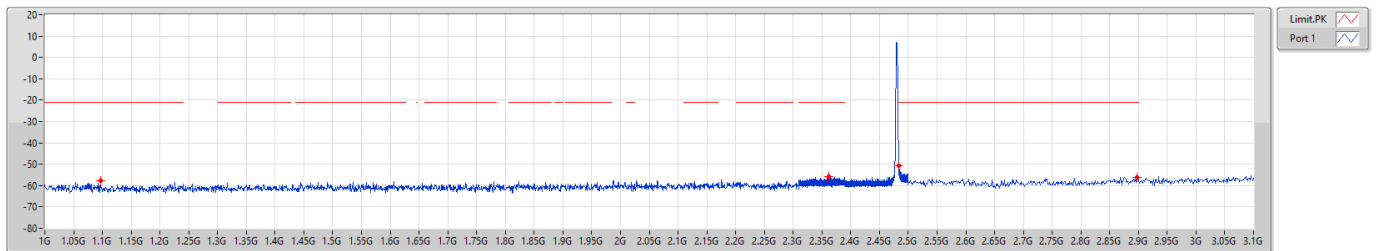
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2480MHz	Pass	1G	2.31G	AV	2.20536G	2.40	-66.79	-64.39	-41.20	-23.19
2480MHz	Pass	2.31G	2.39G	AV	2.38816G	2.40	-66.62	-64.22	-41.20	-23.02
2480MHz	Pass	2.4835G	2.5G	AV	2.4835G	2.40	-60.51	-58.11	-41.20	-16.91
2480MHz	Pass	2.5G	3.1G	AV	2.8933G	2.40	-65.44	-63.04	-41.20	-21.84
2480MHz	Pass	1G	2.31G	PK	1.09629G	2.40	-57.81	-55.41	-21.20	-34.21
2480MHz	Pass	2.31G	2.39G	PK	2.36216G	2.40	-55.81	-53.41	-21.20	-32.21
2480MHz	Pass	2.4835G	2.5G	PK	2.48352G	2.40	-50.65	-48.25	-21.20	-27.05
2480MHz	Pass	2.5G	3.1G	PK	2.8972G	2.40	-56.04	-53.64	-21.20	-32.44

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

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [PK]

2480MHz

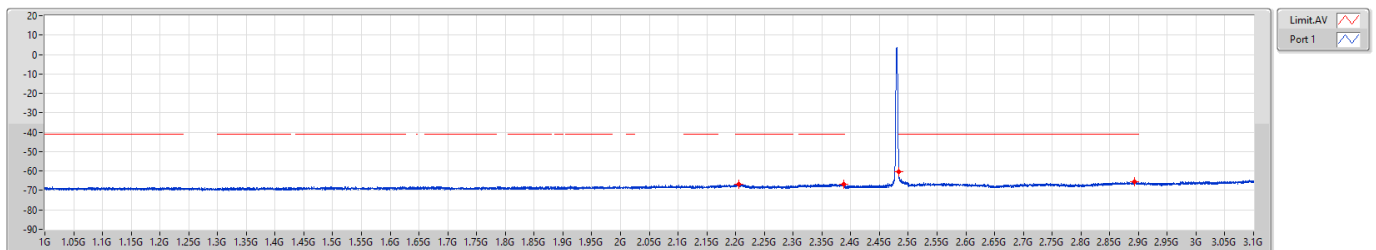


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	PK	1.09629G	-57.81	-57.81
2.31G	2.39G	1M	PK	2.36216G	-55.81	-55.81
2.4835G	2.5G	1M	PK	2.48352G	-50.65	-50.65
2.5G	3.1G	1M	PK	2.8972G	-56.04	-56.04

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [AV]

2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	AV	2.20536G	-66.79	-66.79
2.31G	2.39G	1M	AV	2.38816G	-66.62	-66.62
2.4835G	2.5G	1M	AV	2.4835G	-60.51	-60.51
2.5G	3.1G	1M	AV	2.8939G	-65.44	-65.44

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(2Mbps)	Pass	8G	25G	AV	19.08081G	2.40	-64.08	-61.68	-41.20	-20.48

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

Result

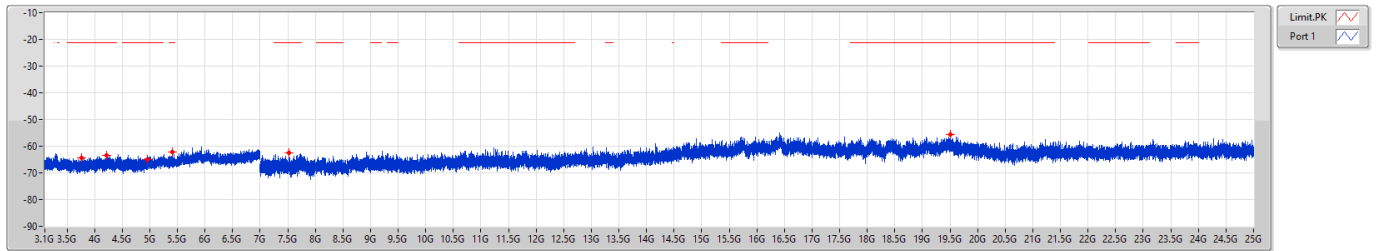
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2480MHz	Pass	3.1G	4G	AV	3.26448G	2.40	-73.20	-70.80	-41.20	-29.60
2480MHz	Pass	4G	5G	AV	4.1335G	2.40	-72.92	-70.52	-41.20	-29.32
2480MHz	Pass	4G	5G	AV	4.96175G	2.40	-73.96	-71.56	-41.20	-30.36
2480MHz	Pass	5G	7G	AV	5.2275G	2.40	-73.09	-70.69	-41.20	-29.49
2480MHz	Pass	7G	8G	AV	7.749G	2.40	-72.37	-69.97	-41.20	-28.77
2480MHz	Pass	8G	25G	AV	19.08081G	2.40	-64.08	-61.68	-41.20	-20.48
2480MHz	Pass	3.1G	4G	PK	3.7705G	2.40	-64.38	-61.98	-21.20	-40.78
2480MHz	Pass	4G	5G	PK	4.21325G	2.40	-63.34	-60.94	-21.20	-39.74
2480MHz	Pass	4G	5G	PK	4.95825G	2.40	-64.88	-62.48	-21.20	-41.28
2480MHz	Pass	5G	7G	PK	5.412G	2.40	-62.08	-59.68	-21.20	-38.48
2480MHz	Pass	7G	8G	PK	7.52475G	2.40	-62.55	-60.15	-21.20	-38.95
2480MHz	Pass	8G	25G	PK	19.51006G	2.40	-55.74	-53.34	-21.20	-32.14

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

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [PK]

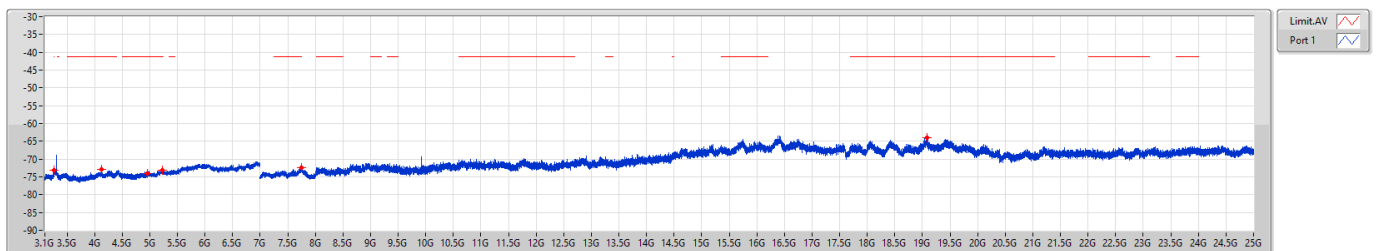
2480MHz



2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [AV]

2480MHz





Summary

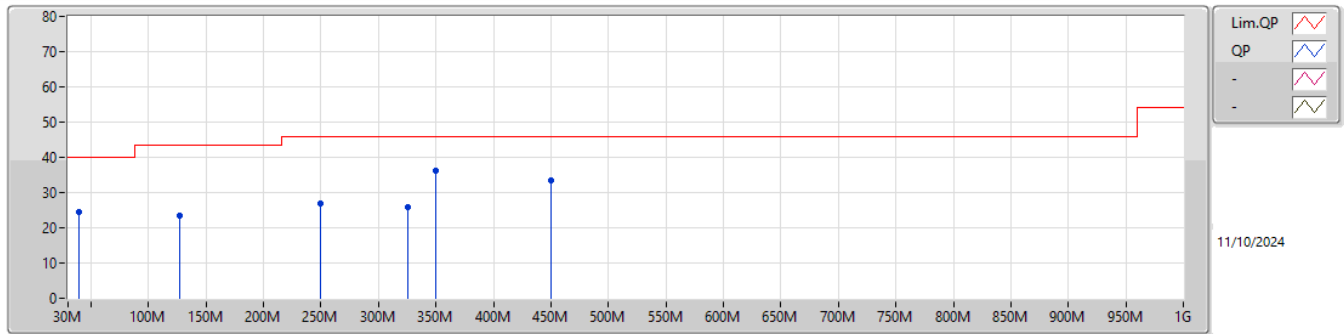
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	450.01M	42.38	46.00	-3.62	Vertical



Unwanted Emissions into Restricted Frequency Bands Below 1GHz

Appendix D.4

Mode 1



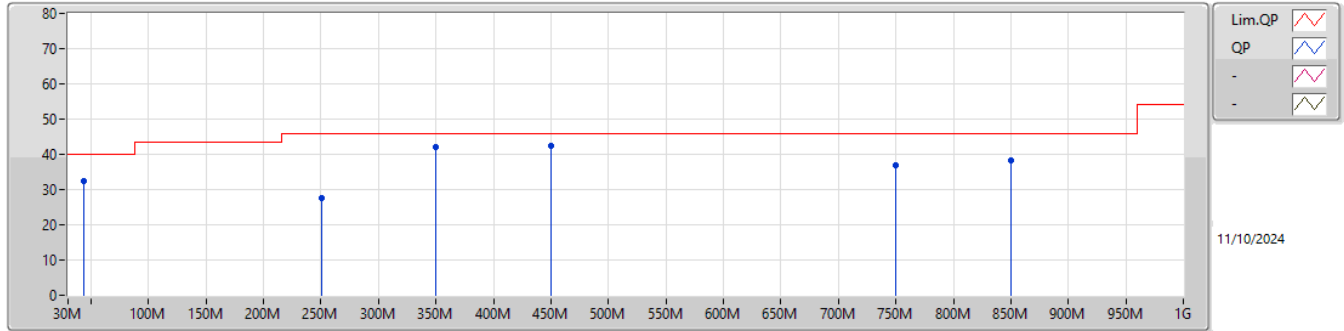
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)		
PK	39.59M	24.33	40.00	-15.67	-9.06	3	Horizontal	-	-	-	33.39	18.46	0.59	28.11		
PK	126.79M	23.48	43.50	-20.02	-10.34	3	Horizontal	-	-	-	33.82	16.78	1.12	28.24		
PK	250.01M	26.79	46.00	-19.21	-9.78	3	Horizontal	-	-	-	36.57	16.90	1.57	28.25		
PK	325.22M	25.75	46.00	-20.25	-7.20	3	Horizontal	-	-	-	32.95	19.20	1.81	28.21		
PK	350.1M	36.16	46.00	-9.84	-6.88	3	Horizontal	-	-	-	43.04	19.50	1.82	28.20		
PK	450.01M	33.42	46.00	-12.58	-4.11	3	Horizontal	-	-	-	37.53	22.10	1.98	28.19		



Unwanted 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	43.79M	32.48	40.00	-7.52	-8.75	3	Vertical	-	-	-	41.23	18.76	0.61	28.12		
PK	250.11M	27.48	46.00	-18.52	-9.78	3	Vertical	-	-	-	37.26	16.90	1.57	28.25		
QP	350.11M	42.11	46.00	-3.89	-6.88	3	Vertical	103	1.33	-	48.99	19.50	1.82	28.20		
QP	450.01M	42.38	46.00	-3.62	-4.11	3	Vertical	219	1.00	-	46.49	22.10	1.98	28.19		
PK	749.49M	36.79	46.00	-9.21	1.81	3	Vertical	-	-	-	34.98	26.99	2.75	27.93		
PK	849.78M	38.16	46.00	-7.84	3.13	3	Vertical	-	-	-	35.03	28.00	2.89	27.76		



**Unwanted 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(2Mbps)	Pass	AV	12.01G	41.75	54.00	-12.25	3	Vertical	123	1.00	-

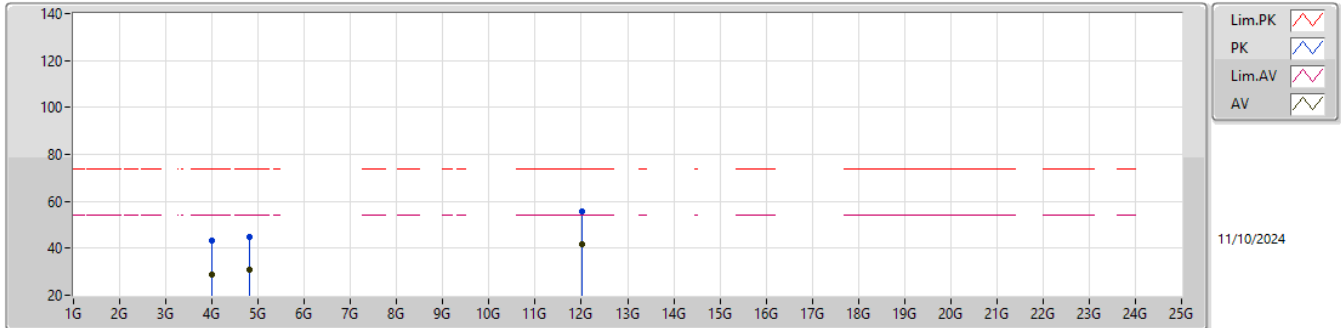


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(2Mbps)

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	4G	29.03	54.00	-24.97	31.30	3	Horizontal	187	1.00	-	29.70	6.02	37.99				
PK	4G	43.21	74.00	-30.79	45.48	3	Horizontal	187	1.00	-	29.70	6.02	37.99				
AV	4.804G	30.84	54.00	-23.16	31.39	3	Horizontal	213	1.00	-	31.29	6.68	38.52				
PK	4.804G	44.84	74.00	-29.16	45.39	3	Horizontal	213	1.00	-	31.29	6.68	38.52				
AV	12.01G	41.65	54.00	-12.35	35.12	3	Horizontal	108	1.00	-	39.20	10.23	42.90				
PK	12.01G	55.46	74.00	-18.54	48.93	3	Horizontal	108	1.00	-	39.20	10.23	42.90				

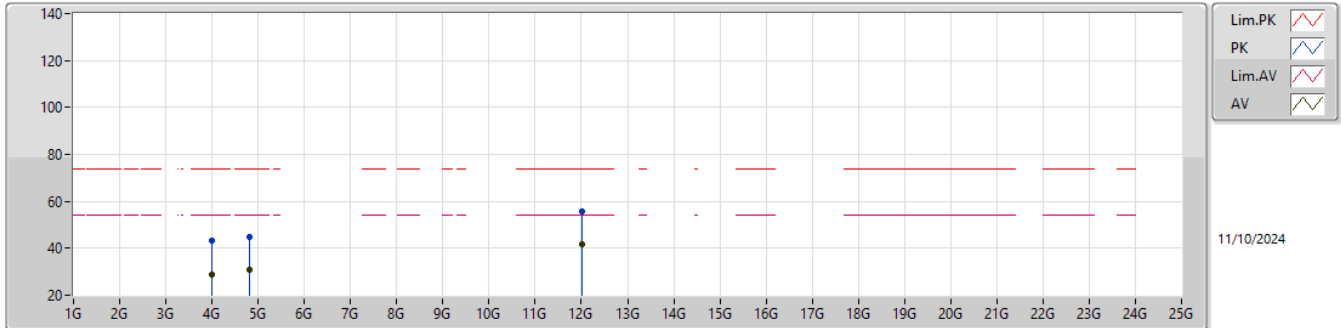


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(2Mbps)

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	4G	29.03	54.00	-24.97	31.30	3	Vertical	186	1.00	-	29.70	6.02	37.99				
PK	4G	43.12	74.00	-30.88	45.39	3	Vertical	186	1.00	-	29.70	6.02	37.99				
AV	4.804G	30.66	54.00	-23.34	31.21	3	Vertical	248	1.00	-	31.29	6.68	38.52				
PK	4.804G	44.73	74.00	-29.27	45.28	3	Vertical	248	1.00	-	31.29	6.68	38.52				
AV	12.01G	41.75	54.00	-12.25	35.22	3	Vertical	123	1.00	-	39.20	10.23	42.90				
PK	12.01G	55.57	74.00	-18.43	49.04	3	Vertical	123	1.00	-	39.20	10.23	42.90				

Configuration 3: Laird part number: 453-00213

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	7.14	0.00518
BT-LE(500kbps)	7.12	0.00515
BT-LE(1Mbps)	7.17	0.00521
BT-LE(2Mbps)	7.56	0.00570

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(125kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.80	30.00	9.20	36.00
2440MHz	Pass	2.40	7.14	30.00	9.54	36.00
2480MHz	Pass	2.40	6.86	30.00	9.26	36.00
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.79	30.00	9.19	36.00
2440MHz	Pass	2.40	7.12	30.00	9.52	36.00
2480MHz	Pass	2.40	6.84	30.00	9.24	36.00
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.82	30.00	9.22	36.00
2440MHz	Pass	2.40	7.17	30.00	9.57	36.00
2480MHz	Pass	2.40	6.88	30.00	9.28	36.00
BT-LE(2Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	7.23	30.00	9.63	36.00
2440MHz	Pass	2.40	7.56	30.00	9.96	36.00
2480MHz	Pass	2.40	7.32	30.00	9.72	36.00

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	6.84	0.00483
BT-LE(500kbps)	6.82	0.00481
BT-LE(1Mbps)	6.85	0.00484
BT-LE(2Mbps)	6.92	0.00492

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(125kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.48	-	8.88	-
2440MHz	Pass	2.40	6.84	-	9.24	-
2480MHz	Pass	2.40	6.54	-	8.94	-
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.47	-	8.87	-
2440MHz	Pass	2.40	6.82	-	9.22	-
2480MHz	Pass	2.40	6.53	-	8.93	-
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.49	-	8.89	-
2440MHz	Pass	2.40	6.85	-	9.25	-
2480MHz	Pass	2.40	6.56	-	8.96	-
BT-LE(2Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.53	-	8.93	-
2440MHz	Pass	2.40	6.92	-	9.32	-
2480MHz	Pass	2.40	6.68	-	9.08	-

Note: Average power is for reference only.



Summary

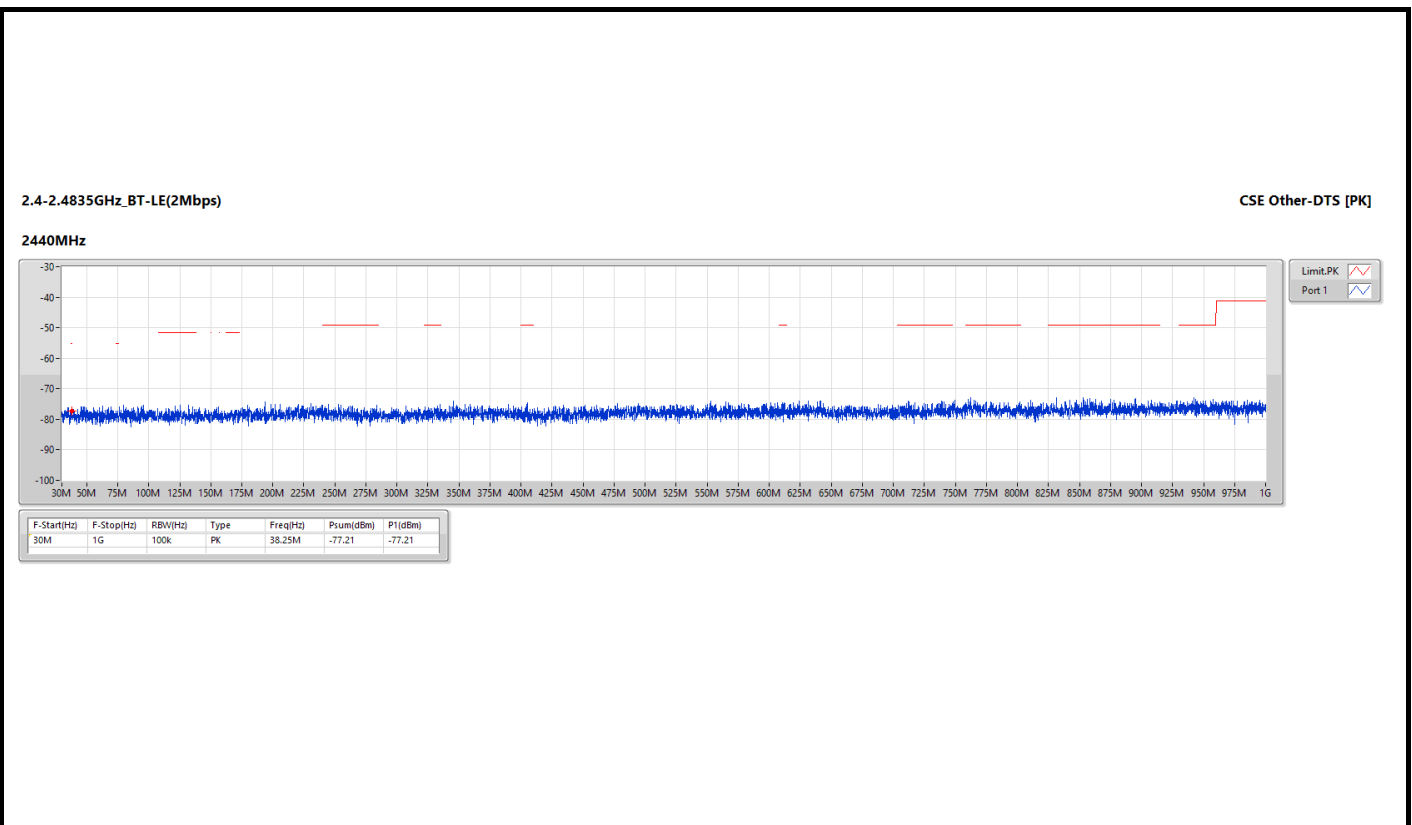
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	GRF (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	30M	1G	PK	38.25M	2.40	-77.21	4.70	-70.11	-55.20	-14.91

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)	GRF (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	30M	1G	PK	38.25M	2.40	-77.21	4.70	-70.11	-55.20	-14.91

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



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(2Mbps)	Pass	2.4835G	2.5G	AV	2.48352G	2.40	-60.78	-58.38	-41.20	-17.18

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

Result

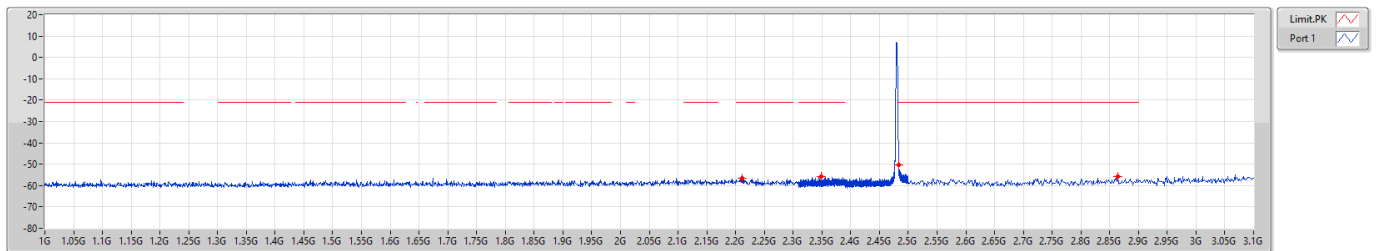
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2480MHz	Pass	1G	2.31G	AV	2.20995G	2.40	-67.05	-64.65	-41.20	-23.45
2480MHz	Pass	2.31G	2.39G	AV	2.38044G	2.40	-66.39	-63.99	-41.20	-22.79
2480MHz	Pass	2.4835G	2.5G	AV	2.48352G	2.40	-60.78	-58.38	-41.20	-17.18
2480MHz	Pass	2.5G	3.1G	AV	2.88385G	2.40	-65.68	-63.28	-41.20	-22.08
2480MHz	Pass	1G	2.31G	PK	2.21175G	2.40	-56.60	-54.20	-21.20	-33.00
2480MHz	Pass	2.31G	2.39G	PK	2.34876G	2.40	-55.96	-53.56	-21.20	-32.36
2480MHz	Pass	2.4835G	2.5G	PK	2.48363G	2.40	-50.32	-47.92	-21.20	-26.72
2480MHz	Pass	2.5G	3.1G	PK	2.8648G	2.40	-55.80	-53.40	-21.20	-32.20

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

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [PK]

2480MHz

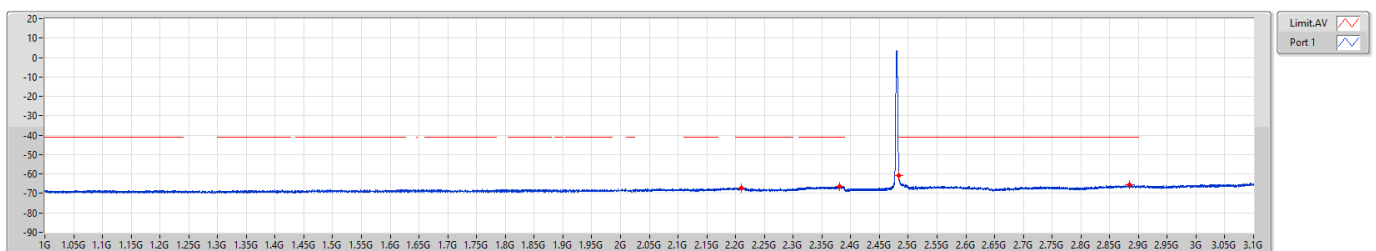


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	PK	2.21175G	-56.60	-56.60
2.31G	2.39G	1M	PK	2.34876G	-55.96	-55.96
2.4835G	2.5G	1M	PK	2.48363G	-50.32	-50.32
2.5G	3.1G	1M	PK	2.8648G	-55.80	-55.80

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [AV]

2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	AV	2.20995G	-67.05	-67.05
2.31G	2.39G	1M	AV	2.38044G	-66.39	-66.39
2.4835G	2.5G	1M	AV	2.48352G	-60.78	-60.78
2.5G	3.1G	1M	AV	2.88385G	-65.68	-65.68

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(2Mbps)	Pass	8G	25G	AV	19.42559G	2.40	-64.32	-61.92	-41.20	-20.72

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

Result

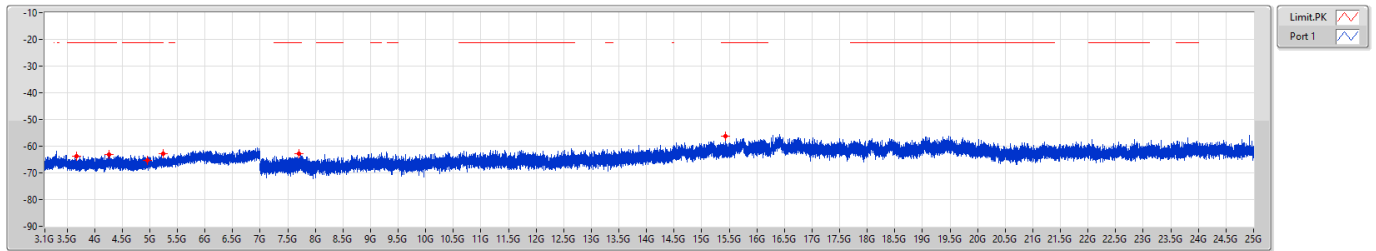
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2480MHz	Pass	3.1G	4G	AV	3.98493G	2.40	-73.73	-71.33	-41.20	-30.13
2480MHz	Pass	4G	5G	AV	4.13325G	2.40	-72.21	-69.81	-41.20	-28.61
2480MHz	Pass	4G	5G	AV	4.96025G	2.40	-73.97	-71.57	-41.20	-30.37
2480MHz	Pass	5G	7G	AV	5.2285G	2.40	-72.83	-70.43	-41.20	-29.23
2480MHz	Pass	7G	8G	AV	7.716G	2.40	-72.23	-69.83	-41.20	-28.63
2480MHz	Pass	8G	25G	AV	19.42559G	2.40	-64.32	-61.92	-41.20	-20.72
2480MHz	Pass	3.1G	4G	PK	3.66993G	2.40	-63.85	-61.45	-21.20	-40.25
2480MHz	Pass	4G	5G	PK	4.26825G	2.40	-62.98	-60.58	-21.20	-39.38
2480MHz	Pass	4G	5G	PK	4.96125G	2.40	-65.27	-62.87	-21.20	-41.67
2480MHz	Pass	5G	7G	PK	5.2445G	2.40	-62.80	-60.40	-21.20	-39.20
2480MHz	Pass	7G	8G	PK	7.70575G	2.40	-62.96	-60.56	-21.20	-39.36
2480MHz	Pass	8G	25G	PK	15.42794G	2.40	-56.13	-53.73	-21.20	-32.53

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

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [PK]

2480MHz

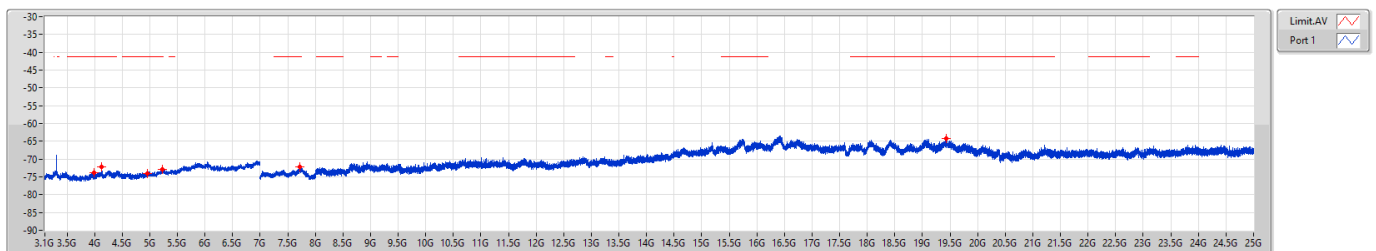


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.66993G	-63.85	-63.85
4G	5G	1M	PK	4.26825G	-62.98	-62.98
4G	5G	1M	PK	4.96125G	-65.27	-65.27
5G	7G	1M	PK	5.2445G	-62.80	-62.80
7G	8G	1M	PK	7.70575G	-62.96	-62.96
8G	25G	1M	PK	15.42794G	-56.13	-56.13

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [AV]

2480MHz



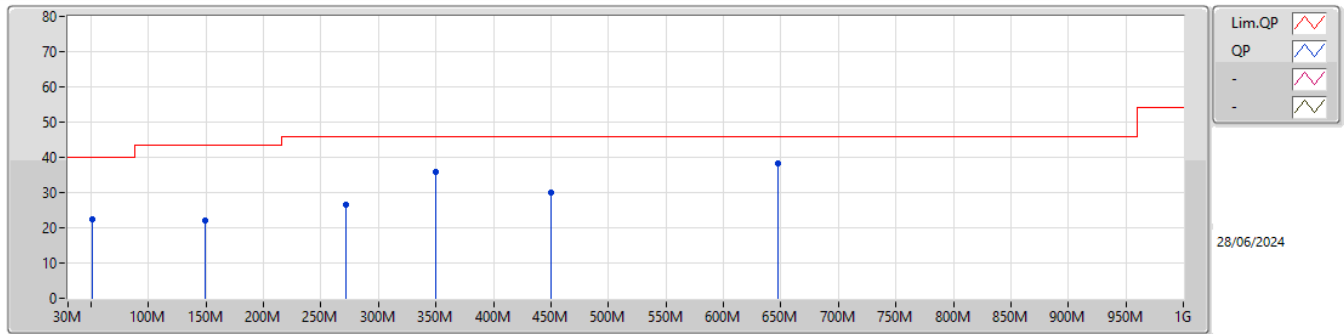
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.98493G	-73.73	-73.73
4G	5G	1M	AV	4.13325G	-72.21	-72.21
4G	5G	1M	AV	4.96025G	-73.97	-73.97
5G	7G	1M	AV	5.2385G	-72.83	-72.83
7G	8G	1M	AV	7.716G	-72.23	-72.23
8G	25G	1M	AV	19.42559G	-64.32	-64.32



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	450.01M	42.31	46.00	-3.69	Vertical

Mode 1



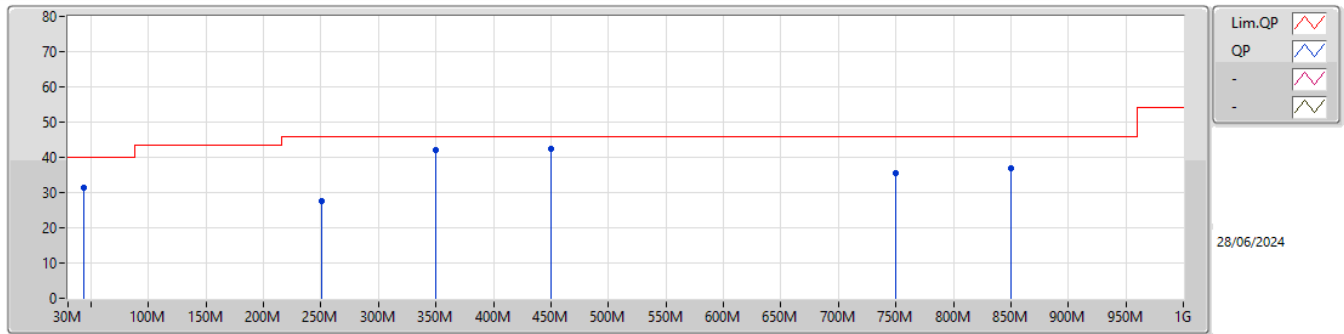
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)		
PK	51.63M	22.29	40.00	-17.71	-8.25	3	Horizontal	-	-	-	30.54	19.17	0.72	28.14		
PK	149.54M	22.15	43.50	-21.35	-8.73	3	Horizontal	-	-	-	30.88	18.31	1.21	28.25		
PK	271.79M	26.48	46.00	-19.52	-8.70	3	Horizontal	-	-	-	35.18	17.87	1.67	28.24		
PK	350.1M	35.76	46.00	-10.24	-6.88	3	Horizontal	-	-	-	42.64	19.50	1.82	28.20		
PK	450.01M	30.02	46.00	-15.98	-4.11	3	Horizontal	-	-	-	34.13	22.10	1.98	28.19		
PK	647.4M	38.11	46.00	-7.89	-0.11	3	Horizontal	-	-	-	38.22	25.50	2.49	28.10		



Unwanted 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	43.46M	31.28	40.00	-8.72	-8.66	3	Vertical	-	-	-	39.94	18.86	0.60	28.12		
PK	250.23M	27.66	46.00	-18.34	-9.77	3	Vertical	-	-	-	37.43	16.91	1.57	28.25		
QP	350.1M	42.01	46.00	-3.99	-6.88	3	Vertical	102	1.24	-	48.89	19.50	1.82	28.20		
QP	450.01M	42.31	46.00	-3.69	-4.11	3	Vertical	219	1.00	-	46.42	22.10	1.98	28.19		
PK	750.33M	35.48	46.00	-10.52	1.84	3	Vertical	-	-	-	33.64	27.01	2.75	27.92		
PK	850.1M	36.77	46.00	-9.23	3.13	3	Vertical	-	-	-	33.64	28.00	2.89	27.76		



**Unwanted 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(2Mbps)	Pass	AV	12.01G	41.67	54.00	-12.33	3	Vertical	122	1.00	-

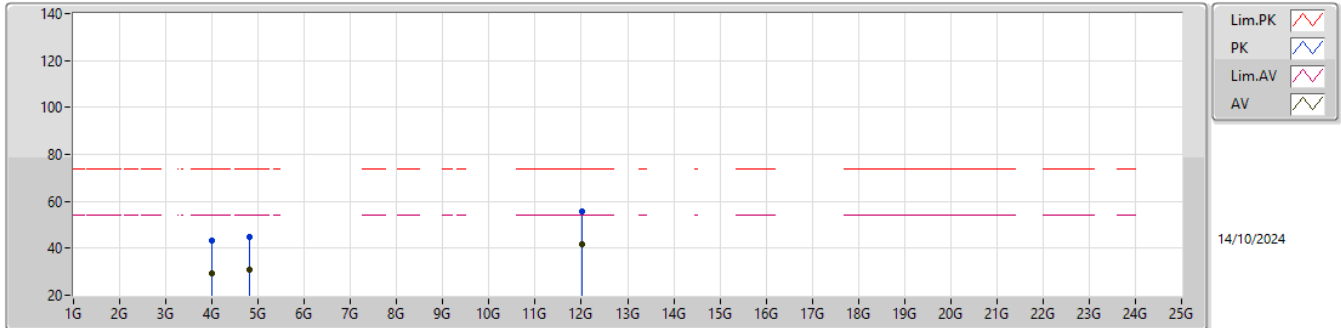


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(2Mbps)

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	4G	29.15	54.00	-24.85	31.42	3	Horizontal	185	1.00	-	29.70	6.02	37.99				
PK	4G	43.51	74.00	-30.49	45.78	3	Horizontal	185	1.00	-	29.70	6.02	37.99				
AV	4.804G	30.77	54.00	-23.23	31.32	3	Horizontal	218	1.00	-	31.29	6.68	38.52				
PK	4.804G	44.89	74.00	-29.11	45.44	3	Horizontal	218	1.00	-	31.29	6.68	38.52				
AV	12.01G	41.59	54.00	-12.41	35.06	3	Horizontal	111	1.00	-	39.20	10.23	42.90				
PK	12.01G	55.51	74.00	-18.49	48.98	3	Horizontal	111	1.00	-	39.20	10.23	42.90				

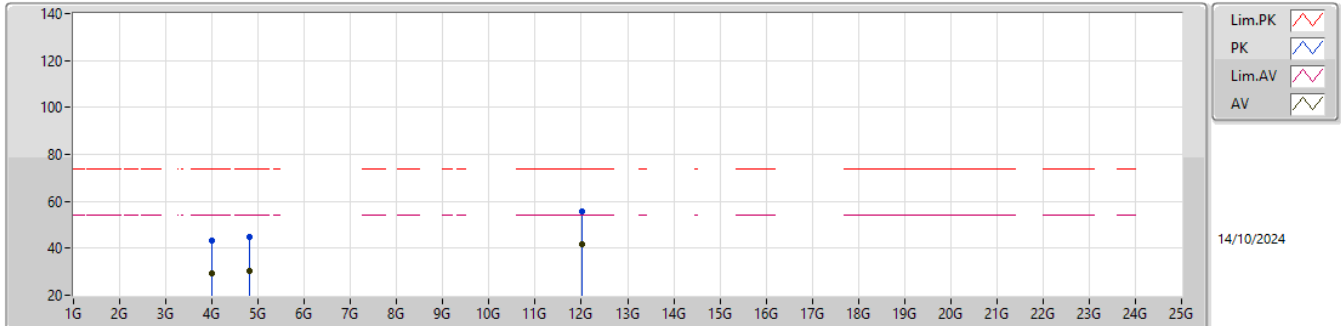


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(2Mbps)

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	4G	29.18	54.00	-24.82	31.45	3	Vertical	187	1.00	-	29.70	6.02	37.99				
PK	4G	43.28	74.00	-30.72	45.55	3	Vertical	187	1.00	-	29.70	6.02	37.99				
AV	4.804G	30.57	54.00	-23.43	31.12	3	Vertical	248	1.00	-	31.29	6.68	38.52				
PK	4.804G	44.66	74.00	-29.34	45.21	3	Vertical	248	1.00	-	31.29	6.68	38.52				
AV	12.01G	41.67	54.00	-12.33	35.14	3	Vertical	122	1.00	-	39.20	10.23	42.90				
PK	12.01G	55.51	74.00	-18.49	48.98	3	Vertical	122	1.00	-	39.20	10.23	42.90				

Configuration 4: Laird part number: 453-00214

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	7.12	0.00515
BT-LE(500kbps)	7.10	0.00513
BT-LE(1Mbps)	7.13	0.00516
BT-LE(2Mbps)	7.53	0.00566

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(125kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.78	30.00	9.18	36.00
2440MHz	Pass	2.40	7.12	30.00	9.52	36.00
2480MHz	Pass	2.40	6.78	30.00	9.18	36.00
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.76	30.00	9.16	36.00
2440MHz	Pass	2.40	7.10	30.00	9.50	36.00
2480MHz	Pass	2.40	6.77	30.00	9.17	36.00
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.79	30.00	9.19	36.00
2440MHz	Pass	2.40	7.13	30.00	9.53	36.00
2480MHz	Pass	2.40	6.84	30.00	9.24	36.00
BT-LE(2Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	7.19	30.00	9.59	36.00
2440MHz	Pass	2.40	7.53	30.00	9.93	36.00
2480MHz	Pass	2.40	7.29	30.00	9.69	36.00

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
BT-LE(125kbps)	6.81	0.00480
BT-LE(500kbps)	6.79	0.00478
BT-LE(1Mbps)	6.82	0.00481
BT-LE(2Mbps)	6.90	0.00490

Result

Mode	Result	Antenna Gain (dBi)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
BT-LE(125kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.45	-	8.85	-
2440MHz	Pass	2.40	6.81	-	9.21	-
2480MHz	Pass	2.40	6.50	-	8.90	-
BT-LE(500kbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.44	-	8.84	-
2440MHz	Pass	2.40	6.79	-	9.19	-
2480MHz	Pass	2.40	6.48	-	8.88	-
BT-LE(1Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.46	-	8.86	-
2440MHz	Pass	2.40	6.82	-	9.22	-
2480MHz	Pass	2.40	6.52	-	8.92	-
BT-LE(2Mbps)	-	-	-	-	-	-
2402MHz	Pass	2.40	6.49	-	8.89	-
2440MHz	Pass	2.40	6.90	-	9.30	-
2480MHz	Pass	2.40	6.66	-	9.06	-

Note: Average power is for reference only.



Summary

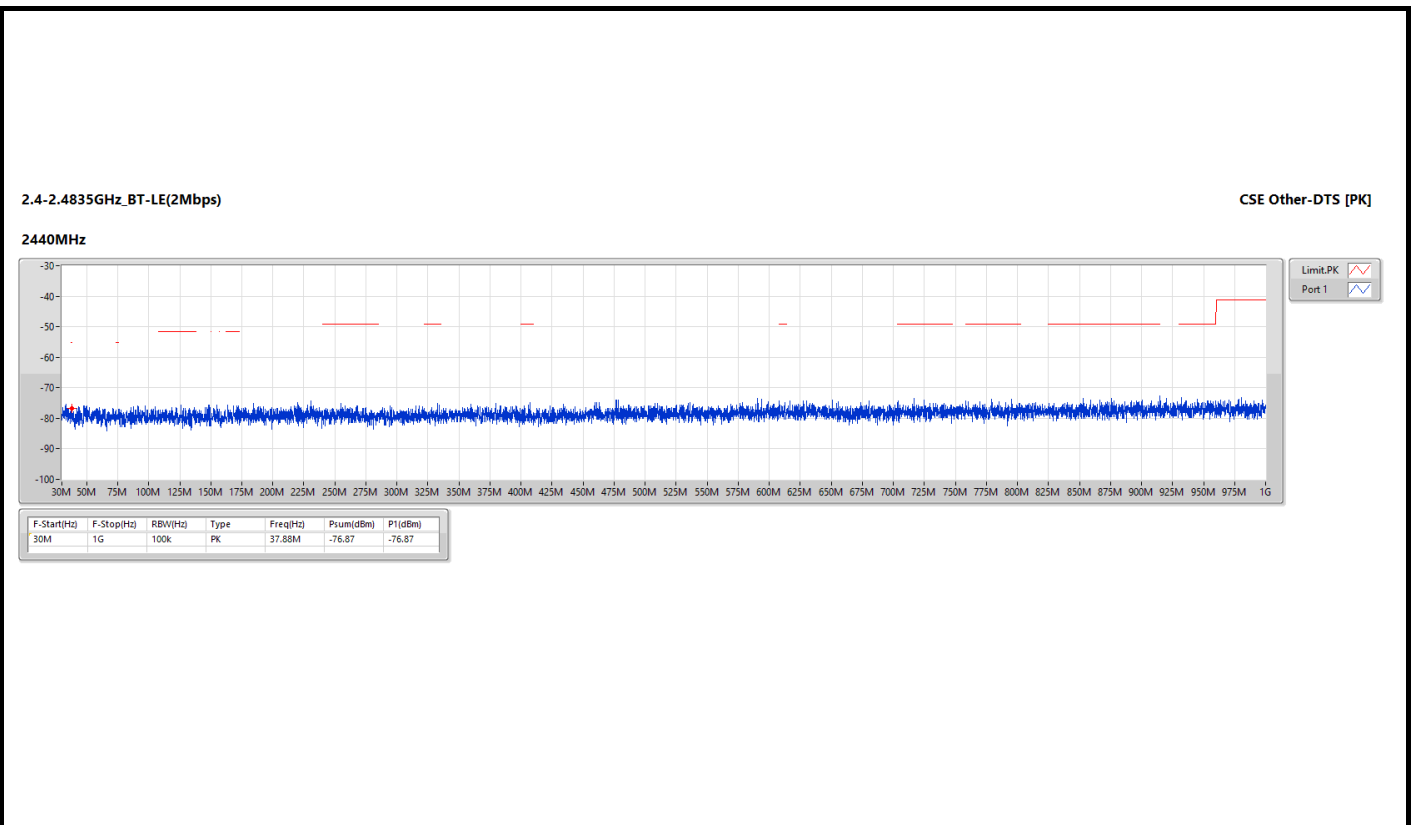
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	GRF (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	30M	1G	PK	37.88M	2.40	-76.87	4.70	-69.77	-55.20	-14.57

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)	GRF (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	30M	1G	PK	37.88M	2.40	-76.87	4.70	-69.77	-55.20	-14.57

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



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(2Mbps)	Pass	2.4835G	2.5G	AV	2.48352G	2.40	-59.26	-56.86	-41.20	-15.66

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

Result

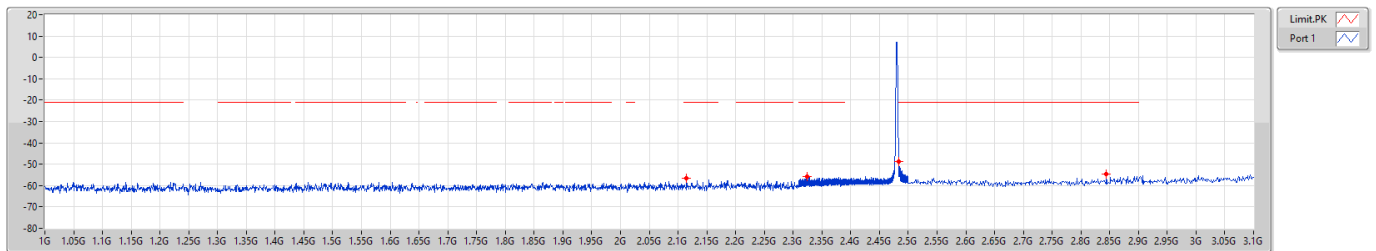
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2480MHz	Pass	1G	2.31G	AV	2.2088G	2.40	-66.77	-64.37	-41.20	-23.17
2480MHz	Pass	2.31G	2.39G	AV	2.38304G	2.40	-66.38	-63.98	-41.20	-22.78
2480MHz	Pass	2.4835G	2.5G	AV	2.48352G	2.40	-59.26	-56.86	-41.20	-15.66
2480MHz	Pass	2.5G	3.1G	AV	2.89315G	2.40	-65.44	-63.04	-41.20	-21.84
2480MHz	Pass	1G	2.31G	PK	2.11481G	2.40	-56.55	-54.15	-21.20	-32.95
2480MHz	Pass	2.31G	2.39G	PK	2.32416G	2.40	-55.77	-53.37	-21.20	-32.17
2480MHz	Pass	2.4835G	2.5G	PK	2.48352G	2.40	-48.57	-46.17	-21.20	-24.97
2480MHz	Pass	2.5G	3.1G	PK	2.8444G	2.40	-54.78	-52.38	-21.20	-31.18

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

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [PK]

2480MHz

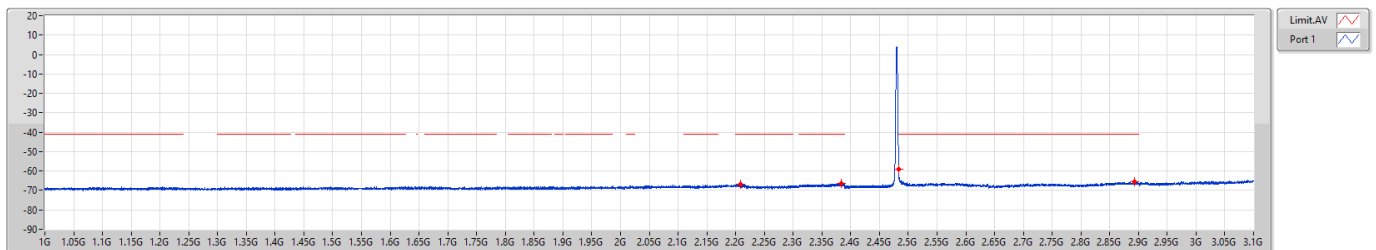


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	PK	2.11481G	-56.55	-56.55
2.31G	2.39G	1M	PK	2.32416G	-55.77	-55.77
2.4835G	2.5G	1M	PK	2.48352G	-48.57	-48.57
2.5G	3.1G	1M	PK	2.8444G	-54.78	-54.78

2.4-2.4835GHz_BT-LE(2Mbps)

CSE Bandedge-DTS [AV]

2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
1G	2.31G	1M	AV	2.2088G	-66.77	-66.77
2.31G	2.39G	1M	AV	2.38304G	-66.38	-66.38
2.4835G	2.5G	1M	AV	2.48352G	-59.26	-59.26
2.5G	3.1G	1M	AV	2.89315G	-65.44	-65.44

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(2Mbps)	Pass	8G	25G	AV	15.73925G	2.40	-64.50	-62.10	-41.20	-20.90

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

Result

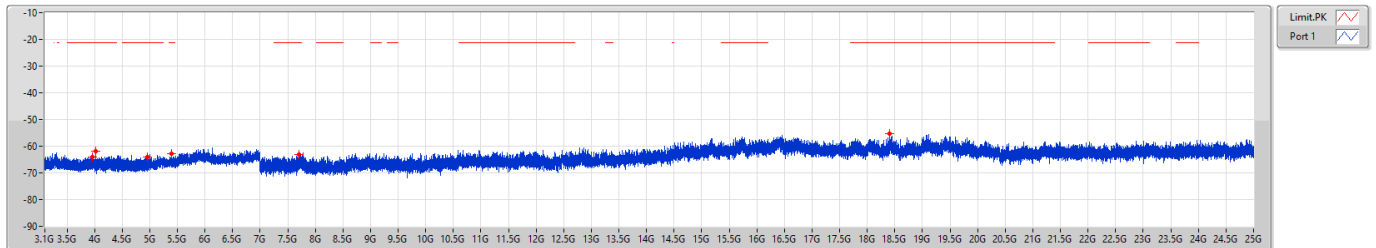
Mode	Result	F-Start (Hz)	F-Stop (Hz)	Type	Freq (Hz)	DG (dBi)	Psum (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2480MHz	Pass	3.1G	4G	AV	3.26605G	2.40	-73.71	-71.31	-41.20	-30.11
2480MHz	Pass	4G	5G	AV	4.253G	2.40	-73.42	-71.02	-41.20	-29.82
2480MHz	Pass	4G	5G	AV	4.9615G	2.40	-73.96	-71.56	-41.20	-30.36
2480MHz	Pass	5G	7G	AV	5.4255G	2.40	-72.86	-70.46	-41.20	-29.26
2480MHz	Pass	7G	8G	AV	7.7455G	2.40	-72.41	-70.01	-41.20	-28.81
2480MHz	Pass	8G	25G	AV	15.73925G	2.40	-64.50	-62.10	-41.20	-20.90
2480MHz	Pass	3.1G	4G	PK	3.95433G	2.40	-64.01	-61.61	-21.20	-40.41
2480MHz	Pass	4G	5G	PK	4.02725G	2.40	-61.73	-59.33	-21.20	-38.13
2480MHz	Pass	4G	5G	PK	4.96G	2.40	-64.09	-61.69	-21.20	-40.49
2480MHz	Pass	5G	7G	PK	5.391G	2.40	-62.96	-60.56	-21.20	-39.36
2480MHz	Pass	7G	8G	PK	7.69725G	2.40	-63.08	-60.68	-21.20	-39.48
2480MHz	Pass	8G	25G	PK	18.40559G	2.40	-55.37	-52.97	-21.20	-31.77

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

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [PK]

2480MHz

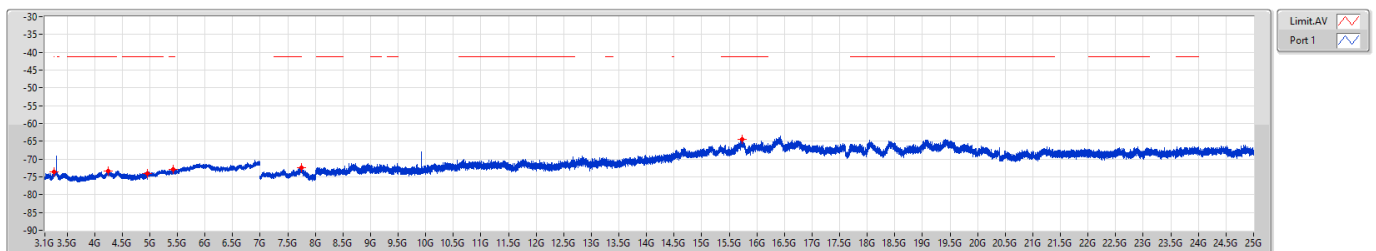


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	PK	3.95433G	-64.01	-64.01
4G	5G	1M	PK	4.02725G	-61.73	-61.73
4G	5G	1M	PK	4.96G	-64.09	-64.09
5G	7G	1M	PK	5.3916	-62.96	-62.96
7G	8G	1M	PK	7.69725G	-63.08	-63.08
8G	25G	1M	PK	18.40559G	-55.37	-55.37

2.4-2.4835GHz_BT-LE(2Mbps)

CSE-DTS [AV]

2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	Psum(dBm)	P1(dBm)
3.1G	4G	1M	AV	3.26605G	-73.71	-73.71
4G	5G	1M	AV	4.253G	-73.42	-73.42
4G	5G	1M	AV	4.9615G	-73.96	-73.96
5G	7G	1M	AV	5.4255G	-72.86	-72.86
7G	8G	1M	AV	7.7455G	-72.41	-72.41
8G	25G	1M	AV	15.73925G	-64.50	-64.50



Summary

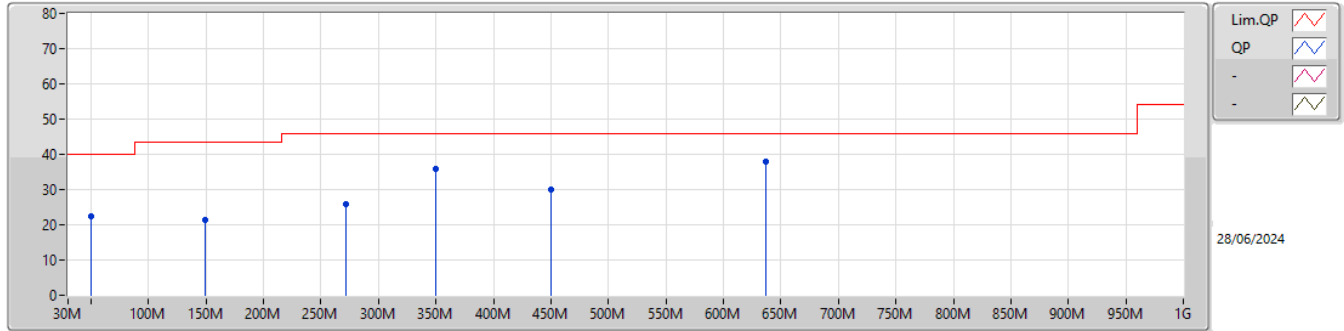
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	450.01M	42.33	46.00	-3.67	Vertical



Unwanted Emissions into Restricted Frequency Bands Below 1GHz

Appendix D.4

Mode 1



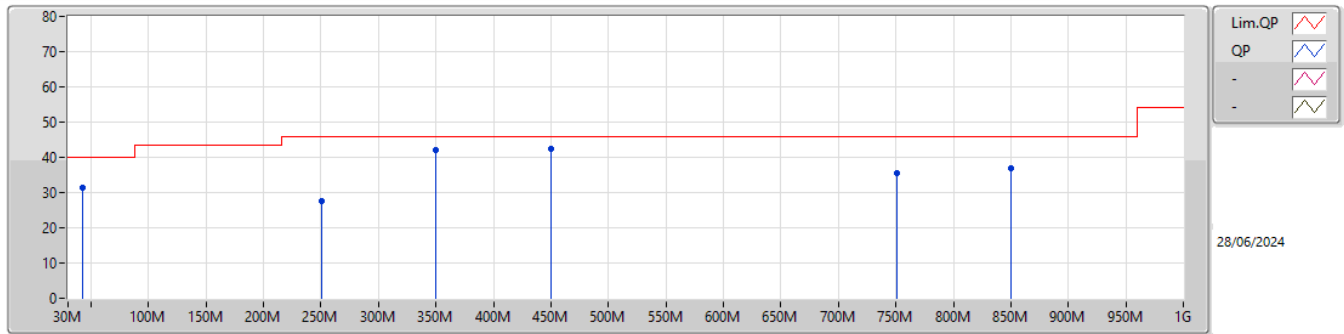
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB/m)	CL (dB)	PA (dB)		
PK	49.63M	22.37	40.00	-17.63	-8.24	3	Horizontal	-	-	-	30.61	19.20	0.70	28.14		
PK	149.55M	21.48	43.50	-22.02	-8.73	3	Horizontal	-	-	-	30.21	18.31	1.21	28.25		
PK	271.77M	25.89	46.00	-20.11	-8.70	3	Horizontal	-	-	-	34.59	17.87	1.67	28.24		
PK	350.1M	35.86	46.00	-10.14	-6.88	3	Horizontal	-	-	-	42.74	19.50	1.82	28.20		
PK	450.01M	30.15	46.00	-15.85	-4.11	3	Horizontal	-	-	-	34.26	22.10	1.98	28.19		
PK	636.4M	37.84	46.00	-8.16	-0.15	3	Horizontal	-	-	-	37.99	25.50	2.47	28.12		



Unwanted 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	31.26	40.00	-8.74	-8.52	3	Vertical	-	-	-	39.78	19.00	0.60	28.12		
PK	250.26M	27.48	46.00	-18.52	-9.77	3	Vertical	-	-	-	37.25	16.91	1.57	28.25		
QP	350.1M	42.08	46.00	-3.92	-6.88	3	Vertical	103	1.27	-	48.96	19.50	1.82	28.20		
QP	450.01M	42.33	46.00	-3.67	-4.11	3	Vertical	220	1.00	-	46.44	22.10	1.98	28.19		
PK	750.83M	35.66	46.00	-10.34	1.85	3	Vertical	-	-	-	33.81	27.02	2.75	27.92		
PK	850.11M	36.77	46.00	-9.23	3.13	3	Vertical	-	-	-	33.64	28.00	2.89	27.76		



**Unwanted 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(2Mbps)	Pass	AV	12.01G	41.66	54.00	-12.34	3	Vertical	126	1.00	-

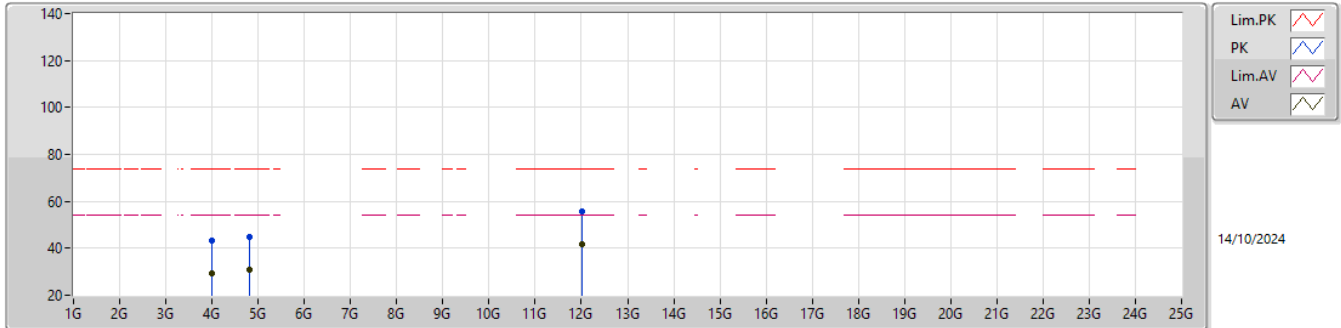


Unwanted Emissions into Restricted Frequency Bands Above 1GHz

Appendix D.5

2.4-2.4835GHz_BT-LE(2Mbps)

2402MHz_TX

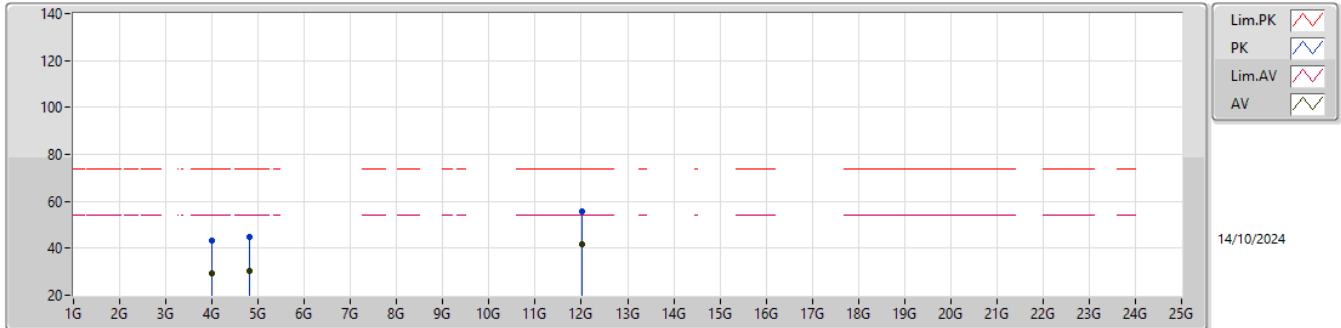


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB/m)	CL (dB)	PA (dB)			
AV	4G	29.12	54.00	-24.88	31.39	3	Horizontal	186	1.00	-	29.70	6.02	37.99			
PK	4G	43.23	74.00	-30.77	45.50	3	Horizontal	186	1.00	-	29.70	6.02	37.99			
AV	4.804G	30.85	54.00	-23.15	31.40	3	Horizontal	208	1.00	-	31.29	6.68	38.52			
PK	4.804G	44.86	74.00	-29.14	45.41	3	Horizontal	208	1.00	-	31.29	6.68	38.52			
AV	12.01G	41.57	54.00	-12.43	35.04	3	Horizontal	112	1.00	-	39.20	10.23	42.90			
PK	12.01G	55.57	74.00	-18.43	49.04	3	Horizontal	112	1.00	-	39.20	10.23	42.90			



2.4-2.4835GHz_BT-LE(2Mbps)

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	4G	29.12	54.00	-24.88	31.39	3	Vertical	188	1.00	-	29.70	6.02	37.99			
PK	4G	43.21	74.00	-30.79	45.48	3	Vertical	188	1.00	-	29.70	6.02	37.99			
AV	4.804G	30.58	54.00	-23.42	31.13	3	Vertical	251	1.00	-	31.29	6.68	38.52			
PK	4.804G	44.76	74.00	-29.24	45.31	3	Vertical	251	1.00	-	31.29	6.68	38.52			
AV	12.01G	41.66	54.00	-12.34	35.13	3	Vertical	126	1.00	-	39.20	10.23	42.90			
PK	12.01G	55.59	74.00	-18.41	49.06	3	Vertical	126	1.00	-	39.20	10.23	42.90			