Testing Laboratory 3787

RADIO TEST REPORT

FCC ID	:	LDK-9160S2875
Equipment	:	Catalyst Wireless 9164I Series Wi-Fi 6E Access Point
Brand Name	:	CISCO
Model Name	:	CW9164I-B,CW9164I-MR
Applicant	:	Cisco Systems Inc 125 West Tasman Drive San Jose California United States 95134-1706
Manufacturer	:	Cisco Systems Inc 125 West Tasman Drive San Jose California United States 95134-1706
Standard	:	47 CFR FCC Part 15.247

The product was received on Dec. 28, 2021, and testing was started from Jan. 22, 2022 and completed on Sep. 28, 2022. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR271817AD	01	Initial issue of report	Oct. 24, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-
Note: Reference to Sporton Project No.: 1D2822-01.				

Declaration of Conformity:

1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Measurement Uncertainty".

Comments and Explanations:

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. 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.

Reviewed by: Sam Chen
Report Producer: Penny Kao

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number
2400-2483.5	LE	2402-2480	0-39 [40]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-LE(1Mbps)	1.0	1
2.4-2.4835GHz	BT-LE(500Kb/s)	1.0	1
2.4-2.4835GHz	BT-LE(125Kb/s)	1.0	1
2.4-2.4835GHz	BT-LE(2Mbps)	2.0	1

Note:
- Bluetooth LE uses a GFSK modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port					Brand	Model Name	Ant. Type	Connector	Gain (dBi)
	R1: WLAN 2.4GHz	R1: WLAN 5GHz UNII 1~3	R2: WLAN 6GHz UNII 5~8	R3: WLAN 2.4GHz /5GHzUNII1~3 /6GHz UNII 5~8	Bluetooth					
1	-	4	-	-	-	CISCO	95XEAJ15.G04	Folded	I-PEX	Note2
2	-	3	-	-	-	CISCO	95XEAJ15.G03	Folded	I-PEX	
3	2	2	-	-	-	CISCO	95XEAJ15.G05	Folded	I-PEX	
4	1	1	-	-	-	CISCO	95XEAJ15.G06	Folded	I-PEX	
5	-	-	4	-	-	CISCO	95XEAJ15.G12	H-POL Alford loop	I-PEX	
6	-	-	3	-	-	CISCO	95XEAJ15.G11	H-POL Alford loop	I-PEX	
7	-	-	1	-	-	CISCO	95XEAJ15.G09	H-POL Alford loop	I-PEX	
8	-	-	2	-	-	CISCO	95XEAJ15.G10	H-POL Alford loop	I-PEX	
9	-	-	-	1	-	CISCO	95XEAJ15.G07	PIFA	I-PEX	
10	-	-	-	2	-	CISCO	95XEAJ15.G08	PIFA	I-PEX	
11	-	-	-	-	1	CISCO	95XEAJ15.G13	PIFA	I-PEX	

Note1: R means Radio.
Note2:

Ant.	Antenna Gain (dBi)										
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 6GHz UNII 5	WLAN 6GHz UNII 6	WLAN 6GHz UNII 7	WLAN 6GHz UNII 8	Bluetooth	Remark
1	-	4.27	3.94	1.88	2.57	-	-	-	-	-	Radio 1
2	-	5.09	5.16	2.89	2.72	-	-	-	-	-	Radio 1
3	2.79	2.78	2.74	2.66	1.91	-	-	-	-	-	Radio 1
4	2.62	5.24	5.46	4.26	3.94	-	-	-	-	-	Radio 1
5	-	-	-	-	-	2.4	2.41	1.39	0.77	-	Radio 2
6	-	-	-	-	-	2.95	1.96	1.32	0.87	-	Radio 2
7	-	-	-	-	-	2.95	2.31	0.99	0.61	-	Radio 2
8	-	-	-	-	-	2.91	3.96	1.59	0.33	-	Radio 2
9	3.3	4.0				5.3				-	Radio 3
10	3.3	4.0				5.3				-	Radio 3
11	-	-	-	-	-	-	-	-	-	3.8	Radio 4

Note3:

Directional Gain (dBi)										
Item	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 6GHz UNII 5	WLAN 6GHz UNII 6	WLAN 6GHz UNII 7	WLAN 6GHz UNII 8	Remark
2T1S	4.29	5.39	5.26	4.69	4.16	-	-	-	-	Radio 1
2T2S	1.28	2.99	2.99	2.02	1.65	-	-	-	-	
4T1S	-	6.99	7.25	6.62	5.97	-	-	-	-	
4T2S	-	5.24	5.46	4.26	3.94	-	-	-	-	
4T4S	-	1.09	1.55	0.94	0.27	-	-	-	-	
2T1S	-	-	-	-	-	5.38	4.47	4.13	3.08	Radio 2
2T2S	-	-	-	-	-	2.37	1.59	1.12	0.09	
4T1S	-	-	-	-	-	7.45	6.03	6.05	4.51	
4T2S	-	-	-	-	-	4.45	3.96	3.05	1.51	
4T4S	-	-	-	-	-	1.51	0.27	0.07	-1.19	

Note4: The above information (except gain of Radio 1 and Radio 2) was declared by manufacturer.

Note5: Radio 1 (WLAN 2.4/5GHz UNII 1~3), Radio 2 (6GHz UNII 5~8): The directional gain is measured which follows the procedure of KDB 662911 D03.

Note6: The EUT has eleven antennas.

For WLAN 2.4GHz function (Radio 1):

For IEEE 802.11b/g/n/VHT/ax mode (1TX,2TX/2RX):

For 1TX

Only Port 1 can be use as transmitting antenna.

For 2TX

Only Port 1 and Port 2 can be use as transmitting antenna.

Port 1 and Port 2 could transmit simultaneously.

For 2RX

Port 1, Port 2 can be used as receiving antennas.

Port 1, Port 2 could receive simultaneously.

For WLAN 5GHz function (Radio 1):

For IEEE 802.11a/n/ac/ax mode (1TX,2TX,4TX/4RX):

For 1TX

Only Port 1 can be use as transmitting antenna.

For 2TX

Only Port 1 and Port 2 can be use as transmitting antenna.

Port 1 and Port 2 could transmit simultaneously.

For 4TX

Port 1, Port 2, Port 3 and Port 4 can be use as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit simultaneously.

For 4RX

Port 1, Port 2, Port 3 and Port 4 can be used as receiving antennas.

Port 1, Port 2, Port 3 and Port 4 could receive simultaneously.

For 6GHz function (Radio 2):

For IEEE 802.11ax mode (1TX,2TX,4TX/4RX):

For 1TX

Only Port 1 can be use as transmitting antenna.

For 2TX

Only Port 1 and Port 2 can be use as transmitting antenna.

Port 1 and Port 2 could transmit simultaneously.

For 4TX

Port 1, Port 2, Port 3 and Port 4 can be use as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit simultaneously.

For 4RX

Port 1, Port 2, Port 3 and Port 4 can be used as receiving antennas.

Port 1, Port 2, Port 3 and Port 4 could receive simultaneously.

For Scanning Radio 3:
For WLAN 2.4GHz function
For 802.11b/g/n/VHT/ax mode (1TX/2RX):
For 1TX
Only Port 1 can be use as transmitting antenna.
For 2RX
Port 1 and Port 2 can be used as receiving antennas.
Port 1 and Port 2 could receive simultaneously.
For WLAN 5GHz function
For IEEE 802.11a/n/ac/ax mode (1TX/2RX):
For 1TX
Only Port 1 can be use as transmitting antenna.
For 2RX
Port 1 and Port 2 can be used as receiving antennas.
Port 1 and Port 2 could receive simultaneously.
For 6GHz function:
For IEEE 802.11ax mode (1TX/2RX):
For 1TX
Only Port 1 can be use as transmitting antenna.
For 2RX
Port 1 and Port 2 can be used as receiving antennas.
Port 1 and Port 2 could receive simultaneously.
For Bluetooth function (Radio 4):
For Bluetooth mode (1TX/1RX):
Only Port 1 can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-LE(1Mbps)	0.871	0.6	2.178m	1k
BT-LE(2Mbps)	0.586	2.32	1.123m	1k

Note:
- DC is Duty Cycle.
- DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter or PoE	
Test Software Version	Tera team 4.75	
Support Mode	☒	LE 1M PHY: 1 Mb/s
	☒	LE Coded PHY (S=2): 500 Kb/s
	☒	LE Coded PHY (S=8): 125 Kb/s
	☒	LE 2M PHY: 2 Mb/s

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

Equipment Name	Model Name	SW	R1: 2.4GHz	R1: 5GHz Full Band	R2: 6GHz	R3: 2.4GHz/ 5GHz/ 6GHz	R4: Bluetooth
Catalyst Wireless 9164I Wi-Fi 6E Series Access Point	CW9164I-B	Cisco	V	V (with 80+80MHz)	V	V	V
	CW9164I-MR	Meraki	V	V (without 80+80MHz)	V	V	V

Note1: From the above models, model: CW9164I-B was selected as representative model for the test and its data was recorded in this report.
Note2: The above information was declared by manufacturer.

1.1.6 Table for Radio function

Function / Radio	WLAN 2.4GHz	WLAN 5GHz UNII 1~2A	WLAN 5GHz UNII 2C~3	WLAN 6GHz UNII 5~8	Bluetooth
1 (Iron Radio)	V	V	V	-	-
2 (Pine Radio)	-	-	-	V	-
3 (Scanning Radio)	V	V	V	V	-
4	-	-	-	-	V

Note1 : The above information was declared by manufacture.
Note2：The Radio 2 and Radio 3 can't operate simultaneously.

1.1.7 Table for EUT Operation Function

Mode	Operation Function
1	R1: 2.4GHz/5GHz Full Band+R2: 6GHz+R3: 2.4GHz+R4: Bluetooth
2	R1: 2.4GHz/5GHz Full Band+R2: 6GHz+R3: 5GHz+R4: Bluetooth
3	R1: 2.4GHz/5GHz Full Band+R2: 6GHz+R3: 6GHz+R4: Bluetooth

Note: The above information was declared by manufacturer.

1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15.247
- ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 558074 D01 v05r02
- FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab.：Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH01-CB	Owen Hsu	20.3~20.7 / 60~62	Jan. 22, 2022~ May 13, 2022
Radiated for below 1GHz	03CH04-CB	RJ Huang	23.8-24.9 / 55-58	Sep. 26, 2022~ Sep. 27, 2022
Radiated for cabinet	03CH04-CB	Simmon Cheng	23.8-24.9 / 55-58	Feb. 26, 2022~ Apr. 29, 2022
AC Conduction	CO02-CB	Elvin Yeh	20~22 / 60~63	Sep. 28, 2022

Note: The tested sample of the Radiated below 1GHz & AC Conduction test item was received on Jul. 21, 2022.

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Date: Before Jun. 01, 2022

Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%
Output Power Measurement	1.3 dB	Confidence levels of 95%
Power Density Measurement	2.5 dB	Confidence levels of 95%
Bandwidth Measurement	0.9%	Confidence levels of 95%

Test Date: After May 31, 2022

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	18
2440MHz	20
2480MHz	13
BT-LE(2Mbps)	-
2402MHz	18
2440MHz	20
2480MHz	11

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
1	EUT-R1: 2.4GHz + Adapter
2	EUT-R1: 2.4GHz + PoE 1
3	EUT-R1: 2.4GHz + PoE 2
4	EUT-R1: 2.4GHz + PoE 3
5	EUT-R1: 2.4GHz + PoE 4
6	EUT-R1: 2.4GHz + PoE 5
Mode 2 has been evaluated to be the worst case among Mode 1~6, thus measurement for Mode 7 ~ 12 will follow this same test mode.	
7	EUT-R1: 5GHz + PoE 1
8	EUT-R2: 6GHz + PoE 1
9	EUT-R3: 2.4GHz + PoE 1
10	EUT-R3: 5GHz + PoE 1
11	EUT-R3: 6GHz + PoE 1
12	EUT-R4: Bluetooth + PoE 1
For operating mode 10 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains
1	R4: 1T1S

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position and the worst case was found as below:
1	EUT in Z axis-R1: 2.4GHz + Adapter
2	EUT in Z axis-R1: 2.4GHz + PoE 1
3	EUT in Z axis-R1: 2.4GHz + PoE 2
4	EUT in Z axis-R1: 2.4GHz + PoE 3
5	EUT in Z axis-R1: 2.4GHz + PoE 4
6	EUT in Z axis-R1: 2.4GHz + PoE 5
Mode 4 has been evaluated to be the worst case among Mode 1~6, thus measurement for Mode 7~12 will follow this same test mode.	
7	EUT in X axis-R1: 5GHz + PoE 3
8	EUT in Y axis-R2: 6GHz + PoE 3
9	EUT in Y axis-R3: 2.4GHz + PoE 3
10	EUT in Z axis-R3: 5GHz + PoE 3
11	EUT in X axis-R3: 6GHz + PoE 3
12	EUT in Z axis-R4: Bluetooth + PoE 3
For operating mode 10 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains
Operating Mode > 1GHz	CTX(Harmonic and bandedge)
1	R4: 1T1S

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode > 1GHz	CTX(Cabinet)
The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found as below. So the measurement will follow this same test configuration.	
1	For R4:1T1S_EUT in Z axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	R1: 2.4GH + R1: 5GHz Full Band +R2: 6GHz + R3: 2.4GHz + R4: Bluetooth
2	R1: 2.4GH + R1: 5GHz Full Band +R2: 6GHz + R3: 5GHz + R4: Bluetooth
3	R1: 2.4GH + R1: 5GHz Full Band +R2: 6GHz + R3: 6GHz + R4: Bluetooth
Refer to Sporton Test Report No.: FA271817 for Co-location RF Exposure Evaluation.	

Note: The Adapter and PoEs are for measurement only, would not be marketed.
Adapter and PoEs information as below:

Power	Brand	Model
Adapter	UMEC	MA-PWR-50WAC
PoE 1	PHIHONG	POEA33U-1ATE
PoE 2	PHIHONG	POE60U-1BT-X
PoE 3	Delta	ADH-65AR B
PoE 4	Microchip	PD-9001GR/AT/AC
PoE 5	PHIHONG	POE29U-1AT

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

Wall-mounted rack*1

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	PoE 1	PHIHONG	POEA33U-1ATE	N/A
B	Flash disk3.0	Transcend	639205 7755	N/A
C	NB	DELL	E4300	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	PoE 3	Delta	ADH-65AR B	N/A

For Radiated (above 1GHz):
For cabinet:

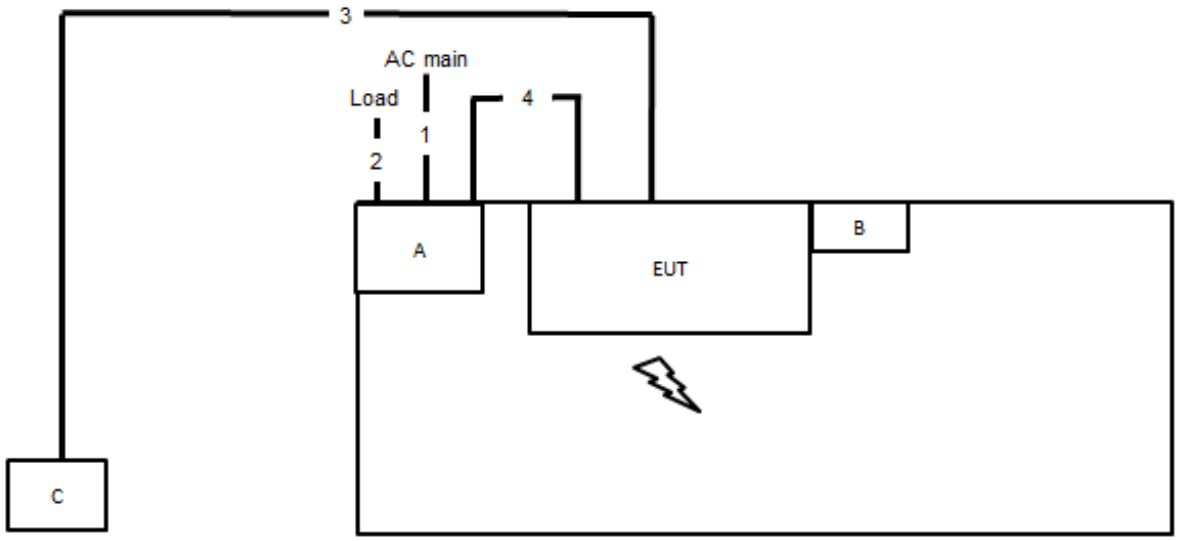
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A
B	PoE 1	PHIHONG	POEA33U-1ATE	N/A

For RF Conducted:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A
B	PoE 1	PHIHONG	POEA33U-1ATE	N/A

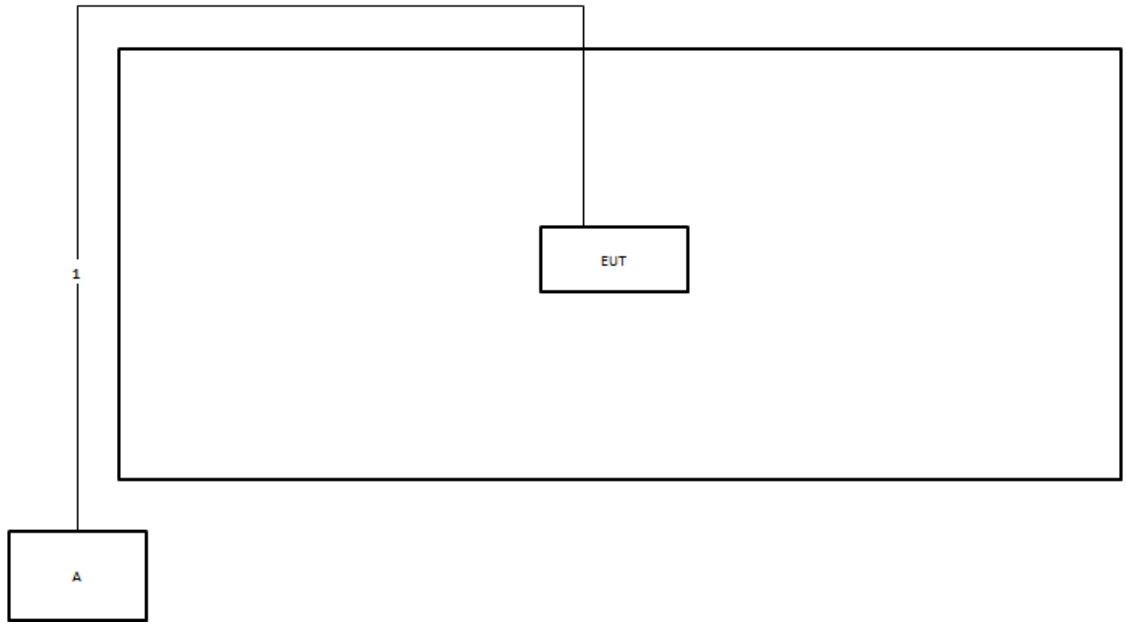
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



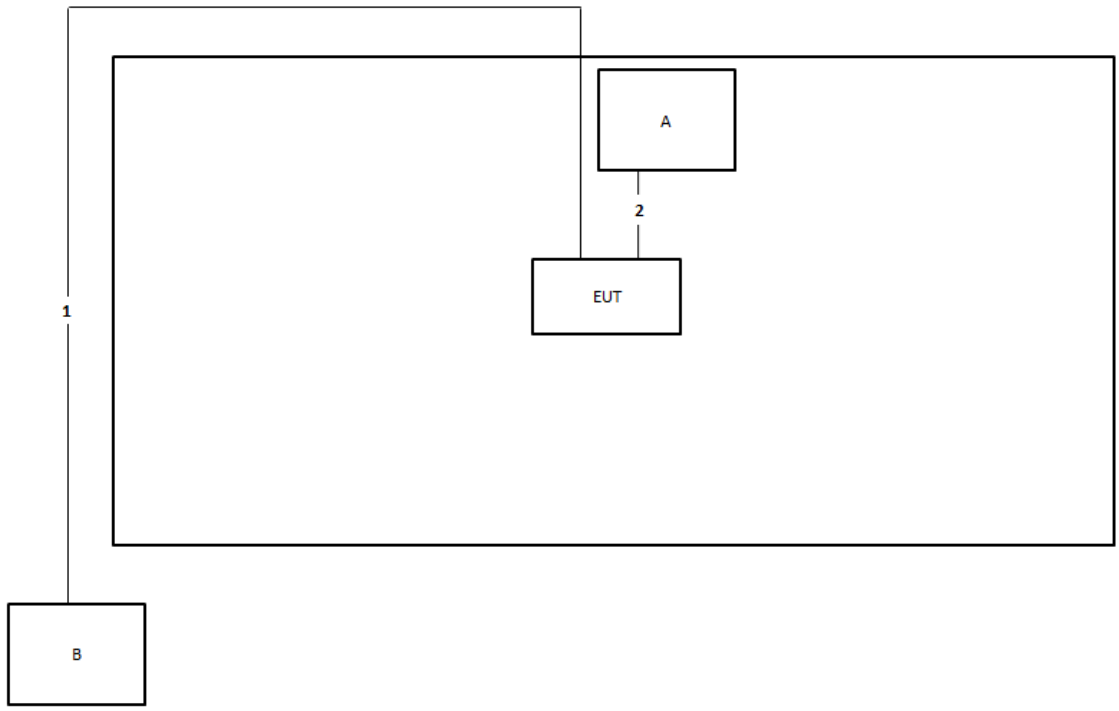
Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	1.5m
3	RS232 To RJ-45 cable	No	1.5m
4	RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Console cable (RS-232 to RJ-45)	No	0.5m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

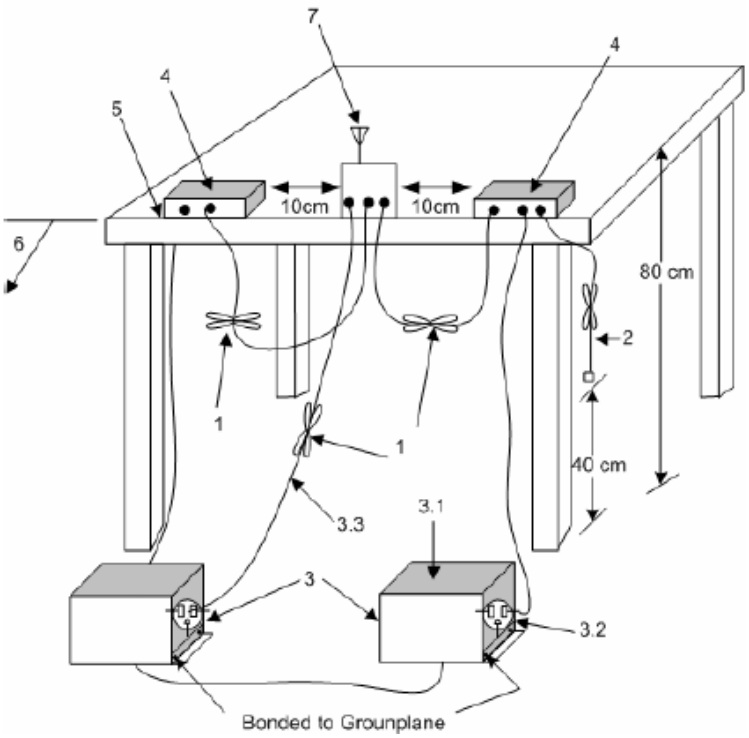
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

1.1.1. Measurement Results Calculation

The measured Level is calculated using:

a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level

b. Margin = -Limit + Level

3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

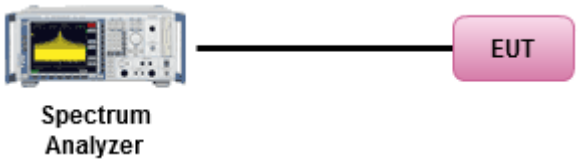
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
	☐ Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
	☐ Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)	
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)$ dBm	
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm	
	▪ Smart antenna system (SAS):	
		- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3 + 8$dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.		

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
▪ Maximum Peak Conducted Output Power	
☐	Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
☐	Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
▪ Maximum Conducted Output Power	
[duty cycle ≥ 98% or external video / power trigger]	
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
duty cycle < 98% and average over on/off periods with duty factor	
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
☐	Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
Measurement using a power meter (PM)	
☐	Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
☒	Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
▪ For conducted measurement.	
▪	If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
▪	If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD)≤8 dBm/3kHz

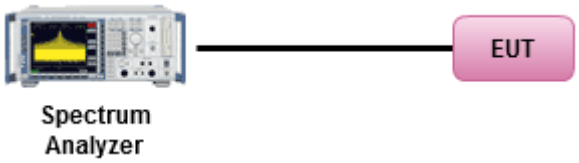
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method			
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).			
	☒ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.		
	[duty cycle ≥ 98% or external video / power trigger]		
▪ For conducted measurement.			
	▪ If The EUT supports multiple transmit chains using options given below:		
		☐	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
		☐	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
		☐	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (dBc)**
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.
Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

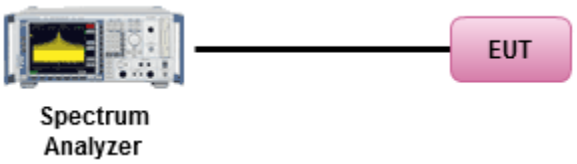
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method
▪ Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands


3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

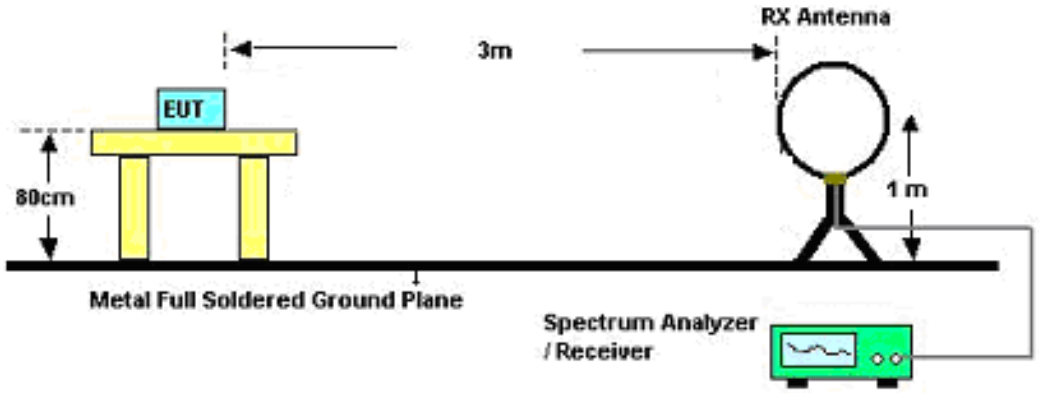
Test Method			
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].			
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.			
▪ For the transmitter unwanted emissions shall be measured using following options below:			
	▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.		
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
		☐	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
		☒	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).
		☐	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
		☒	Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:			
	▪ Refer as FCC KDB 558074 clause 8.7 & c63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.		
	▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.		
	▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).		
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB		
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.		

Test Method	
▪ For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.2.	
	▪ For conducted unwanted emissions into non-restricted bands (relative emission limits). Devices with multiple transmit chains: Refer as FCC KDB 662911, when testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding 10 log(N) if the measurements are made relative to the in-band emissions on the individual outputs.
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

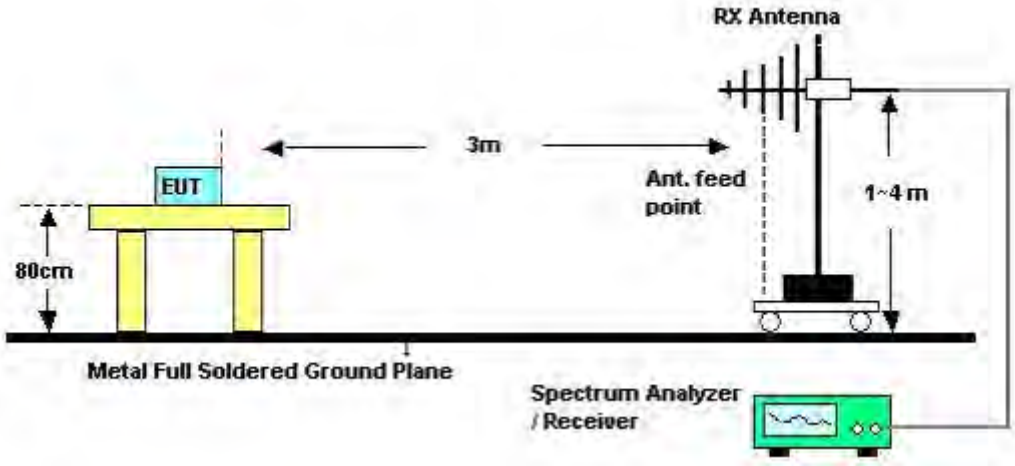
3.6.4 Test Setup

Emissions in Restricted Frequency Bands

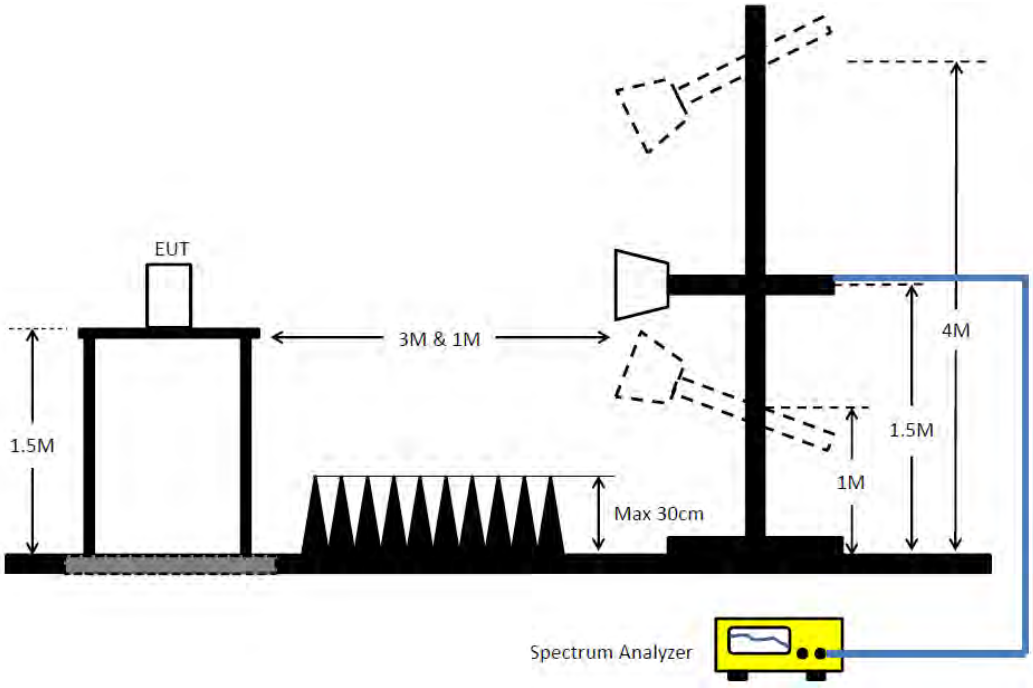
9kHz ~30MHz



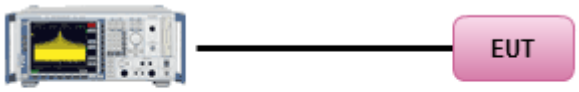
30MHz~1GHz



Above 1GHz



Conducted - Emissions in Restricted Frequency Bands



3.6.5 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

3.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.
The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 22, 2021	Dec. 21, 2022	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	May 06, 2022	May 05, 2023	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 19, 2021	Oct. 18, 2022	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Mar. 18, 2022	Mar. 17, 2023	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH04-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH04-CB	30 MHz ~ 1 GHz	Aug. 02, 2022	Aug. 01, 2023	Radiation (03CH04-CB)
BILOG ANTENNA with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	22021&AT-N0607	30MHz ~ 1GHz	Oct. 09, 2021	Oct. 08, 2022	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	310N	187291	0.1MHz ~ 1GHz	Dec. 16, 2021	Dec. 15, 2022	Radiation (03CH04-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH04-CB)
RF Cable-low	Woken	RG402	Low Cable-03+67	30MHz – 1GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 24, 2022	Feb. 23, 2023	Radiation (03CH04-CB)
Horn Antenna	ETS・Lindgren	3115	00143147	750MHz~ 18GHz	Oct. 25, 2021	Oct. 24, 2022	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (03CH04-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH04-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Apr. 15, 2021	Apr. 14, 2022	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 28, 2022	Mar. 27, 2023	Radiation (03CH04-CB)

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 21, 2021	May 20, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz– 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz– 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz– 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz– 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz– 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz– 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1 GHz– 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P1	1 GHz– 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P2	1 GHz– 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P3	1 GHz– 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P4	1 GHz– 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P5	1 GHz– 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1339408	300MHz~ 40GHz	Sep. 06, 2021	Sep. 05, 2022	Conducted (TH01-CB)

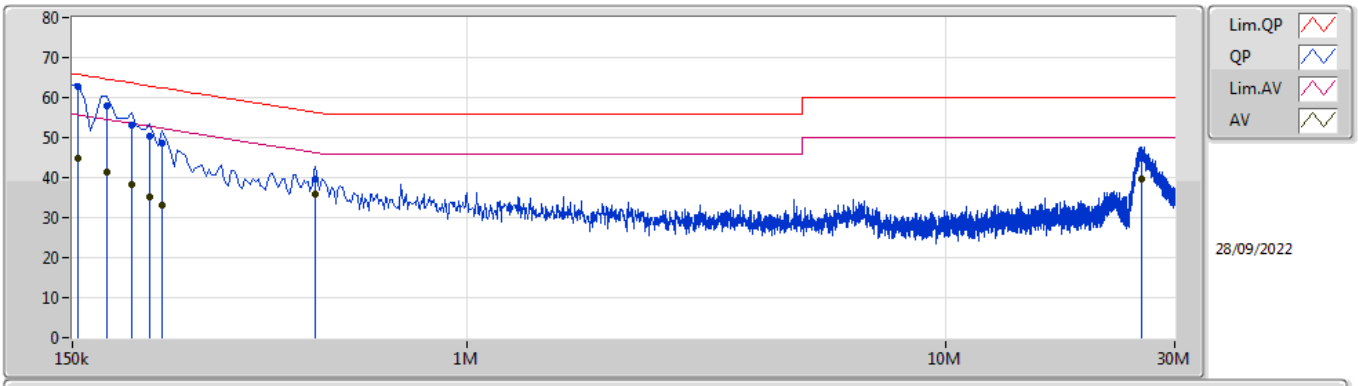
Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Power Meter	Anritsu	ML2495A	1517009	300MHz~ 40GHz	Sep. 06, 2021	Sep. 05, 2022	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P5	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1339408	300MHz~40GHz	Sep. 06, 2021	Sep. 05, 2022	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1517009	300MHz~40GHz	Sep. 06, 2021	Sep. 05, 2022	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.
NCR means Non-Calibration required.

Summary

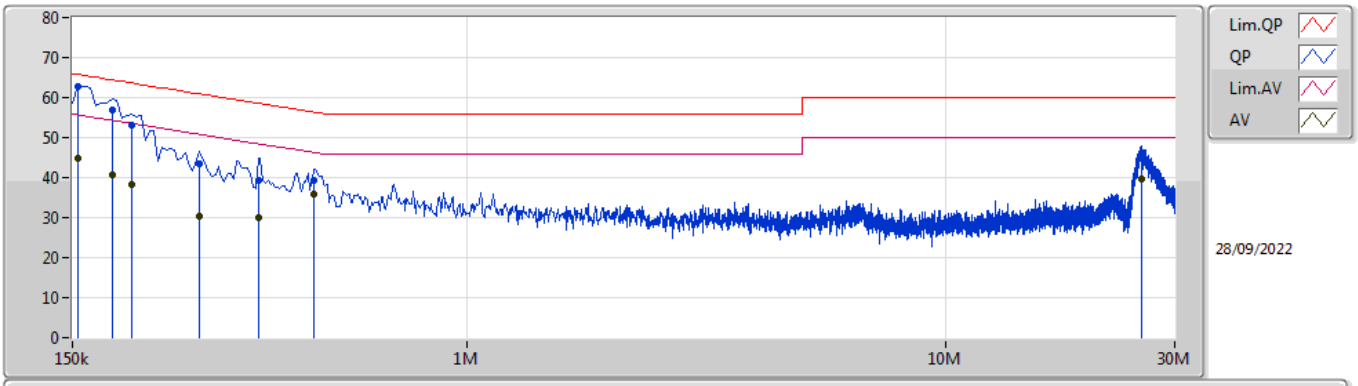
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 10	Pass	QP	154.5k	62.69	65.75	-3.06	Line

Mode 10



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT			
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)			
QP	154.5k	62.69	65.75	-3.06	10.24	Line	"Worst"	52.45	0.12	0.02	10.10			
AV	154.5k	44.80	55.75	-10.95	10.24	Line	-	34.56	0.12	0.02	10.10			
QP	177k	57.89	64.62	-6.73	10.22	Line	-	47.67	0.12	0.02	10.08			
AV	177k	41.44	54.62	-13.18	10.22	Line	-	31.22	0.12	0.02	10.08			
QP	199.5k	53.02	63.63	-10.61	10.20	Line	-	42.82	0.12	0.02	10.06			
AV	199.5k	38.18	53.63	-15.45	10.20	Line	-	27.98	0.12	0.02	10.06			
QP	217.5k	50.44	62.92	-12.48	10.21	Line	-	40.23	0.12	0.02	10.07			
AV	217.5k	35.01	52.92	-17.91	10.21	Line	-	24.80	0.12	0.02	10.07			
QP	231k	48.45	62.41	-13.96	10.21	Line	-	38.24	0.12	0.02	10.07			
AV	231k	33.04	52.41	-19.37	10.21	Line	-	22.83	0.12	0.02	10.07			
QP	483k	39.70	56.29	-16.59	10.26	Line	-	29.44	0.12	0.02	10.12			
AV	483k	35.86	46.29	-10.43	10.26	Line	-	25.60	0.12	0.02	10.12			
QP	25.539M	45.43	60.00	-14.57	10.82	Line	-	34.61	0.40	0.20	10.22			
AV	25.539M	39.56	50.00	-10.44	10.82	Line	-	28.74	0.40	0.20	10.22			

Mode 10



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.5k	62.60	65.75	-3.15	10.28	Neutral	"Worst"	52.32	0.16	0.02	10.10
AV	154.5k	44.91	55.75	-10.84	10.28	Neutral	-	34.63	0.16	0.02	10.10
QP	181.5k	56.88	64.41	-7.53	10.26	Neutral	-	46.62	0.16	0.02	10.08
AV	181.5k	40.67	54.41	-13.74	10.26	Neutral	-	30.41	0.16	0.02	10.08
QP	199.5k	53.27	63.63	-10.36	10.24	Neutral	-	43.03	0.16	0.02	10.06
AV	199.5k	38.21	53.63	-15.42	10.24	Neutral	-	27.97	0.16	0.02	10.06
QP	276k	43.29	60.93	-17.64	10.26	Neutral	-	33.03	0.16	0.02	10.08
AV	276k	30.22	50.93	-20.71	10.26	Neutral	-	19.96	0.16	0.02	10.08
QP	366k	39.38	58.60	-19.22	10.28	Neutral	-	29.10	0.16	0.02	10.10
AV	366k	29.92	48.60	-18.68	10.28	Neutral	-	19.64	0.16	0.02	10.10
QP	478.5k	39.34	56.36	-17.02	10.30	Neutral	-	29.04	0.16	0.02	10.12
AV	478.5k	35.72	46.36	-10.64	10.30	Neutral	-	25.42	0.16	0.02	10.12
QP	25.62M	45.53	60.00	-14.47	10.79	Neutral	-	34.74	0.36	0.21	10.22
AV	25.62M	39.54	50.00	-10.46	10.79	Neutral	-	28.75	0.36	0.21	10.22

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	640k	1.032M	1M03F1D	638.75k	1.028M
BT-LE(2Mbps)	1.085M	2.101M	2M10F1D	1.085M	2.076M

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

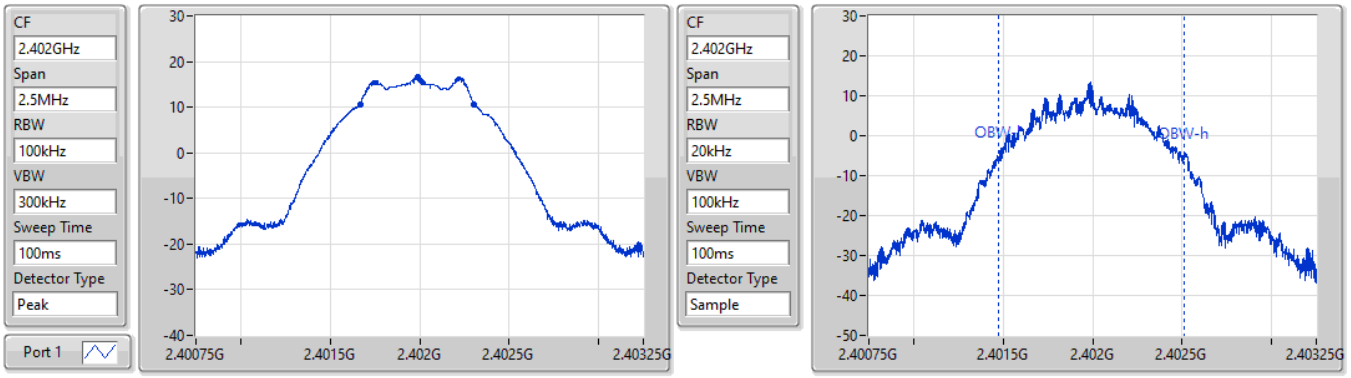
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	638.75k	1.032M
2440MHz	Pass	500k	640k	1.032M
2480MHz	Pass	500k	638.75k	1.028M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.085M	2.076M
2440MHz	Pass	500k	1.085M	2.086M
2480MHz	Pass	500k	1.085M	2.101M

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

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

2402MHz

02/04/2022

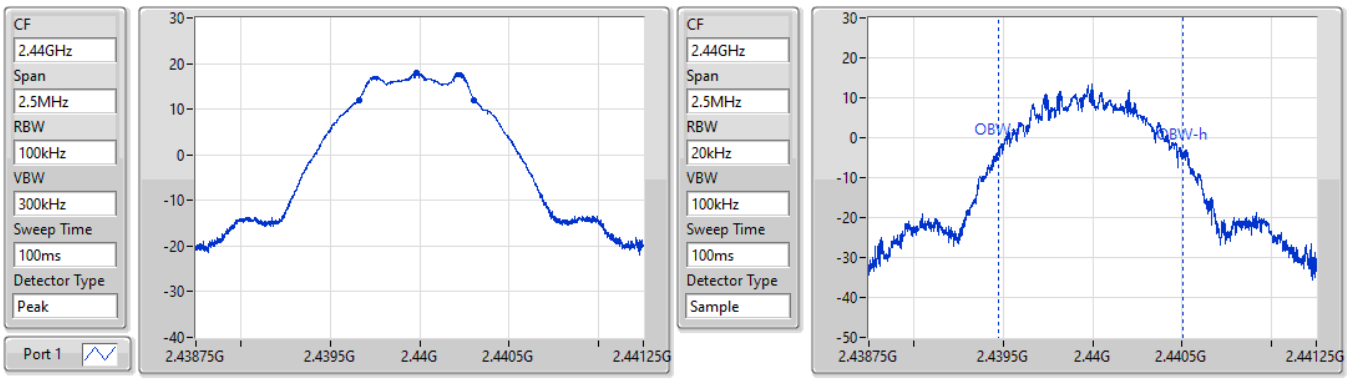


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
638.75k	2.401666G	2.402305G	1.032M	2.401477G	2.402508G	500k	1

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

2440MHz

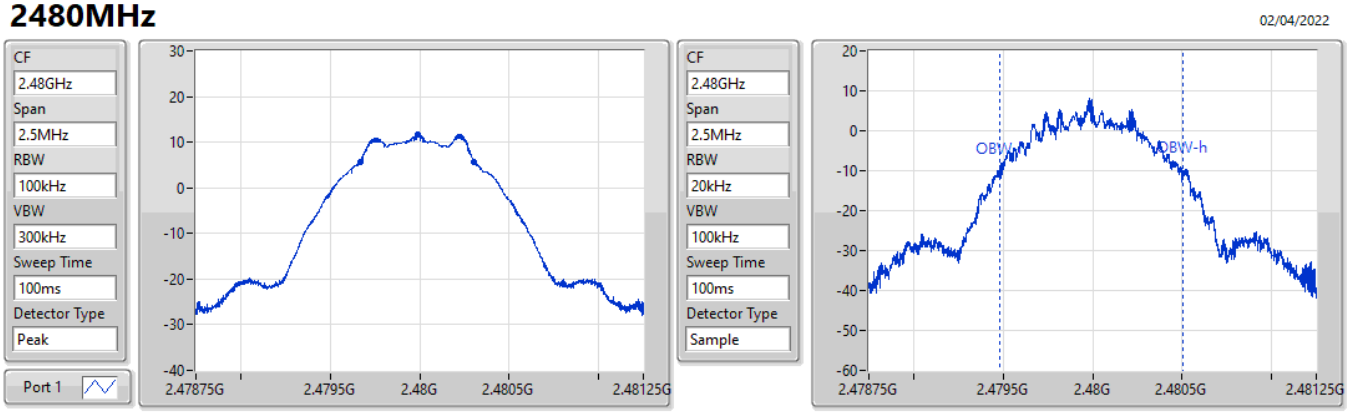
02/04/2022



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
640k	2.439665G	2.440305G	1.032M	2.439474G	2.440506G	500k	1

BT-LE(1Mbps) EBW-DTS

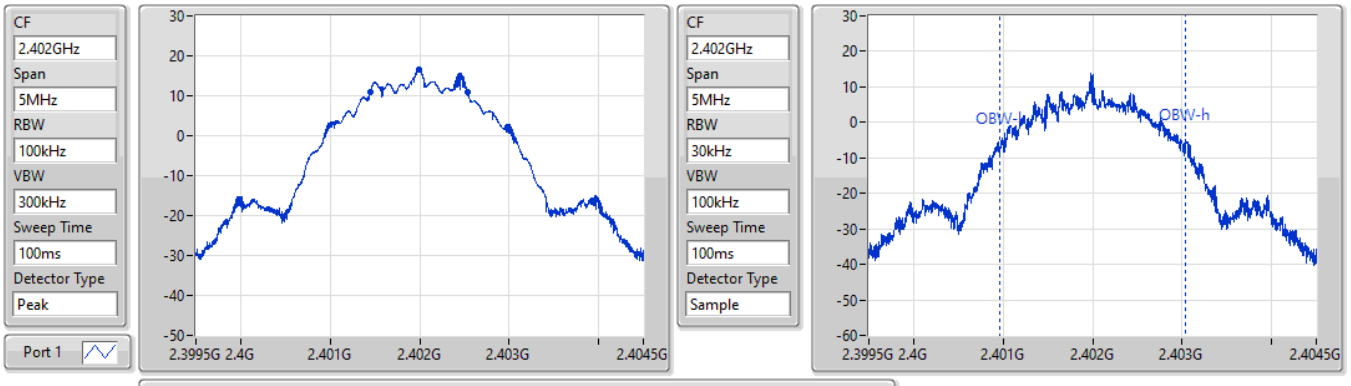
2480MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
638.75k	2.479668G	2.480306G	1.028M	2.479479G	2.480507G	500k	1

BT-LE(2Mbps) EBW-DTS

2402MHz

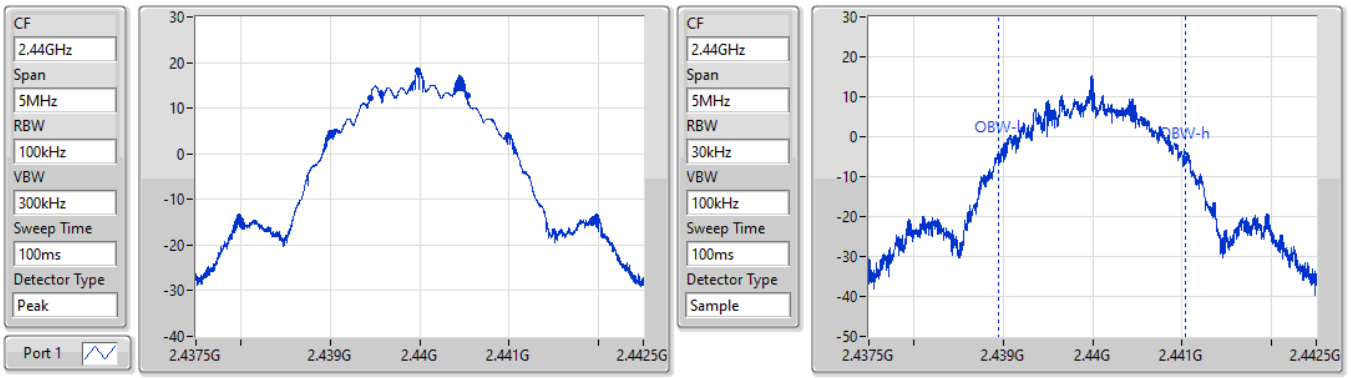


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.085M	2.401448G	2.402533G	2.076M	2.400956G	2.403032G	500k	1

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

2440MHz

02/04/2022

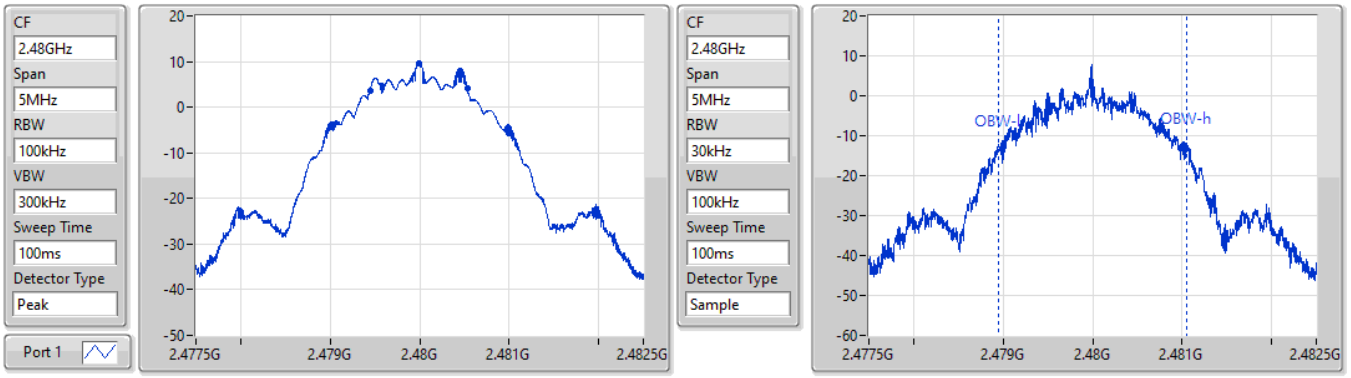


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.085M	2.439445G	2.44053G	2.086M	2.438951G	2.441037G	500k	1

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

2480MHz

02/04/2022



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.085M	2.479448G	2.480533G	2.101M	2.478946G	2.481047G	500k	1

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	18.46	0.07015
BT-LE(2Mbps)	18.37	0.06871

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	3.80	17.09	30.00
2440MHz	Pass	3.80	18.46	30.00
2480MHz	Pass	3.80	12.08	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	3.80	17.04	30.00
2440MHz	Pass	3.80	18.37	30.00
2480MHz	Pass	3.80	10.05	30.00

DG = Directional Gain; Port X = Port X output power

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	2.02
BT-LE(2Mbps)	1.93

RBW = 3kHz;

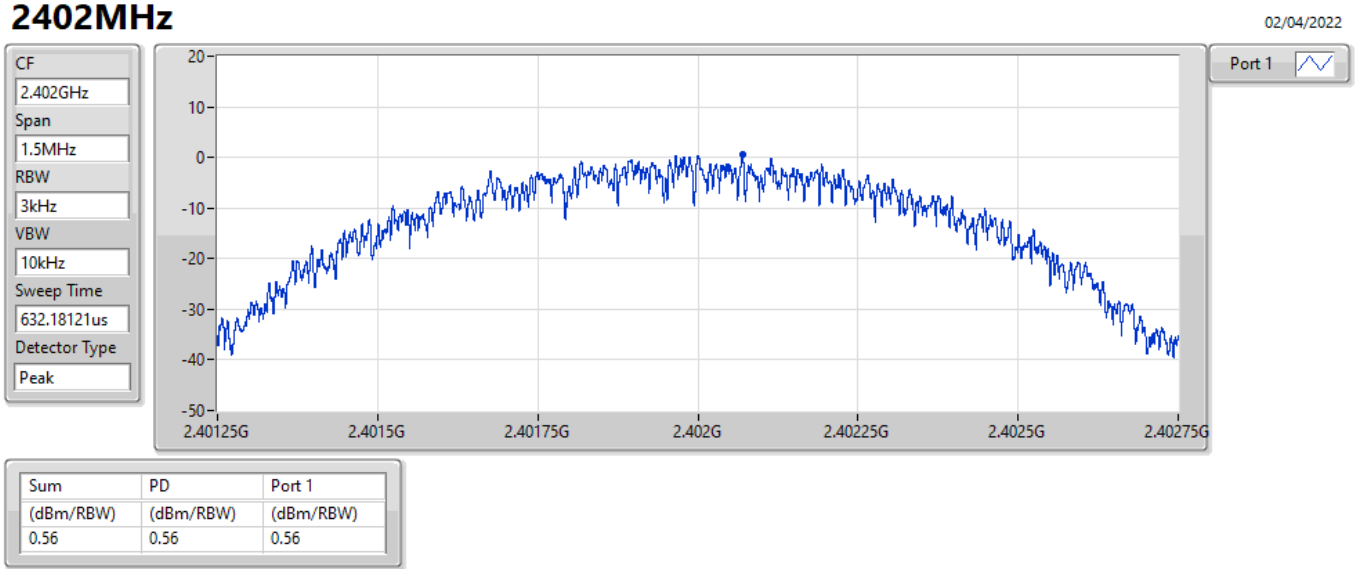
Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	3.80	0.56	8.00
2440MHz	Pass	3.80	2.02	8.00
2480MHz	Pass	3.80	-4.35	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	3.80	0.08	8.00
2440MHz	Pass	3.80	1.93	8.00
2480MHz	Pass	3.80	-6.55	8.00

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

BT-LE(1Mbps) PSD

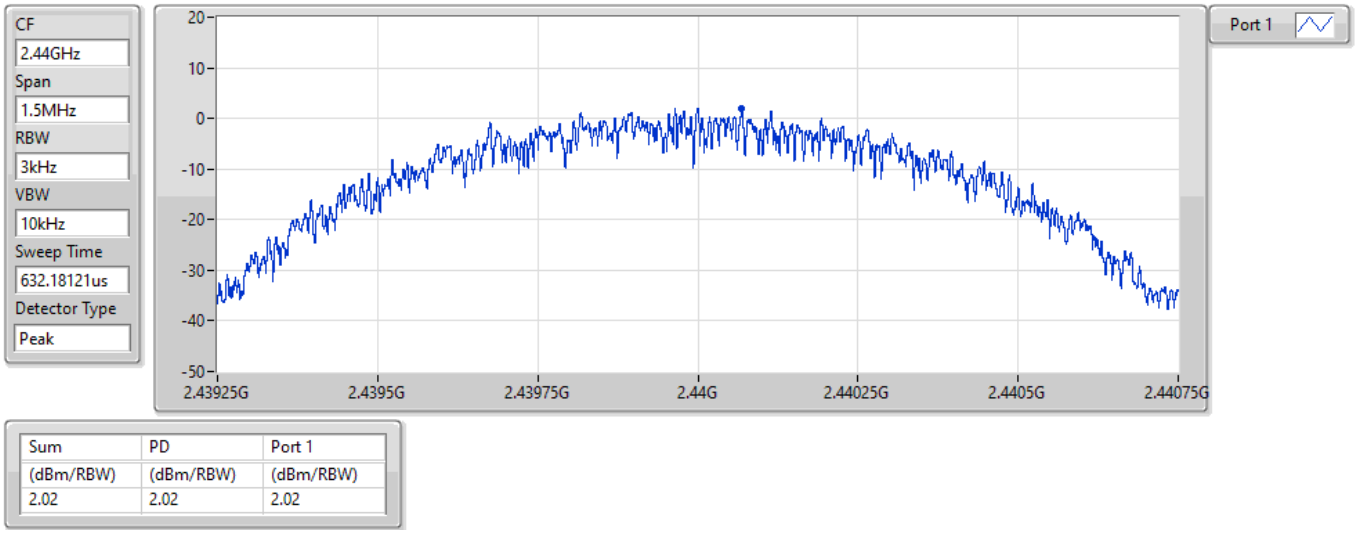
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.56	0.56	0.56

BT-LE(1Mbps) PSD

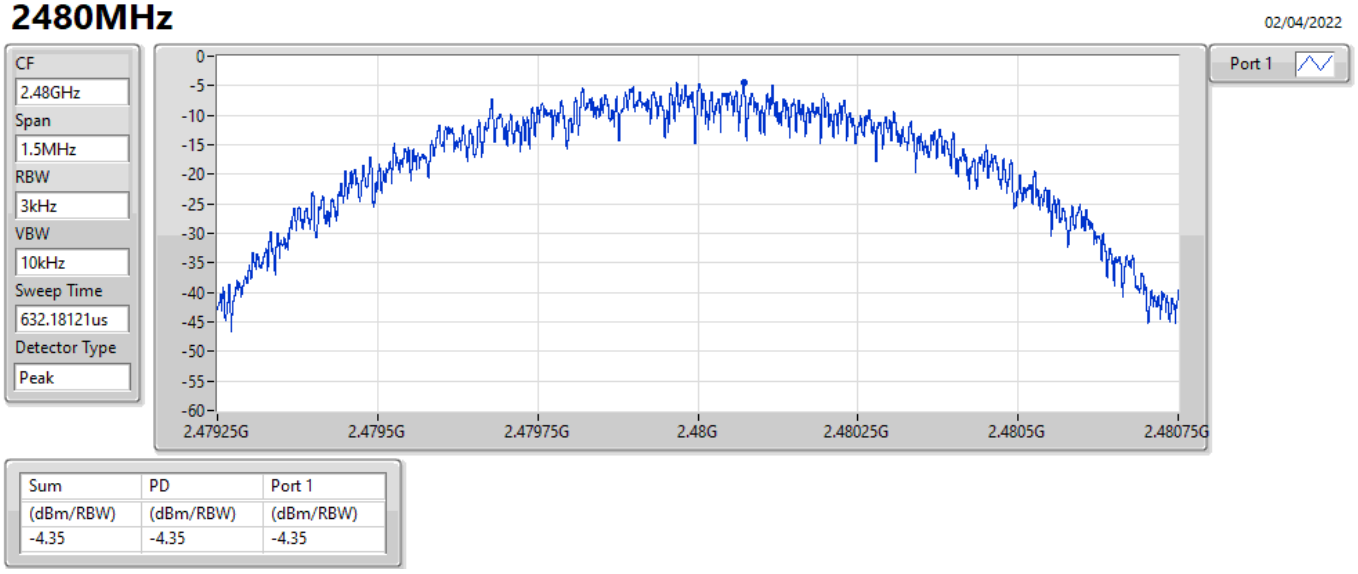
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.02	2.02	2.02

BT-LE(1Mbps) PSD

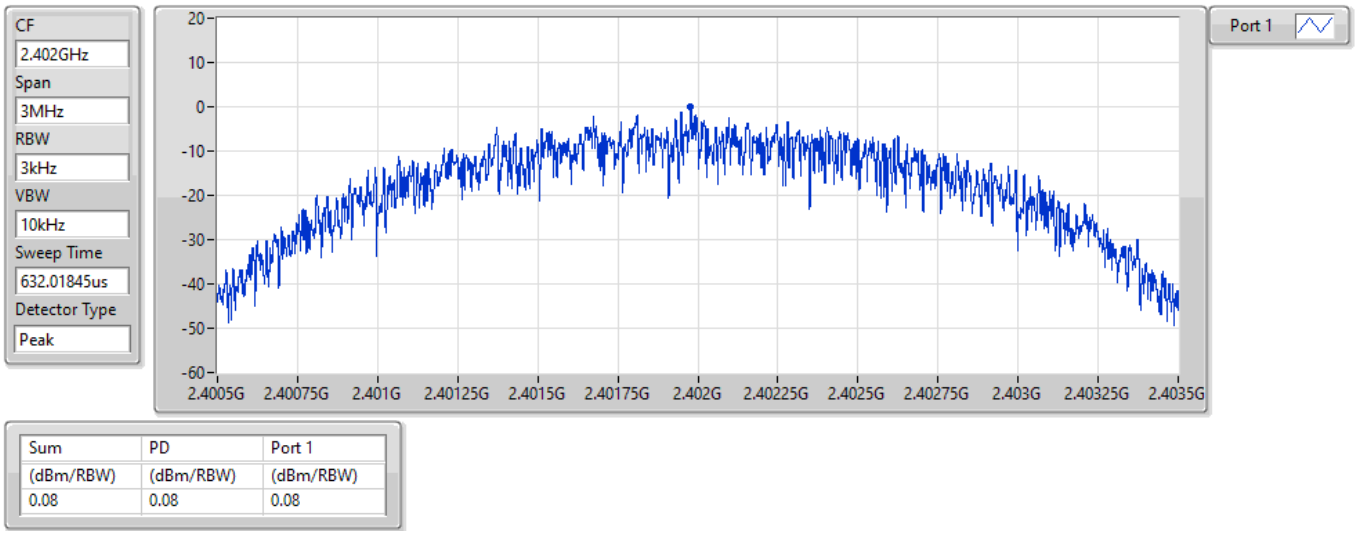
2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.35	-4.35	-4.35

BT-LE(2Mbps) PSD

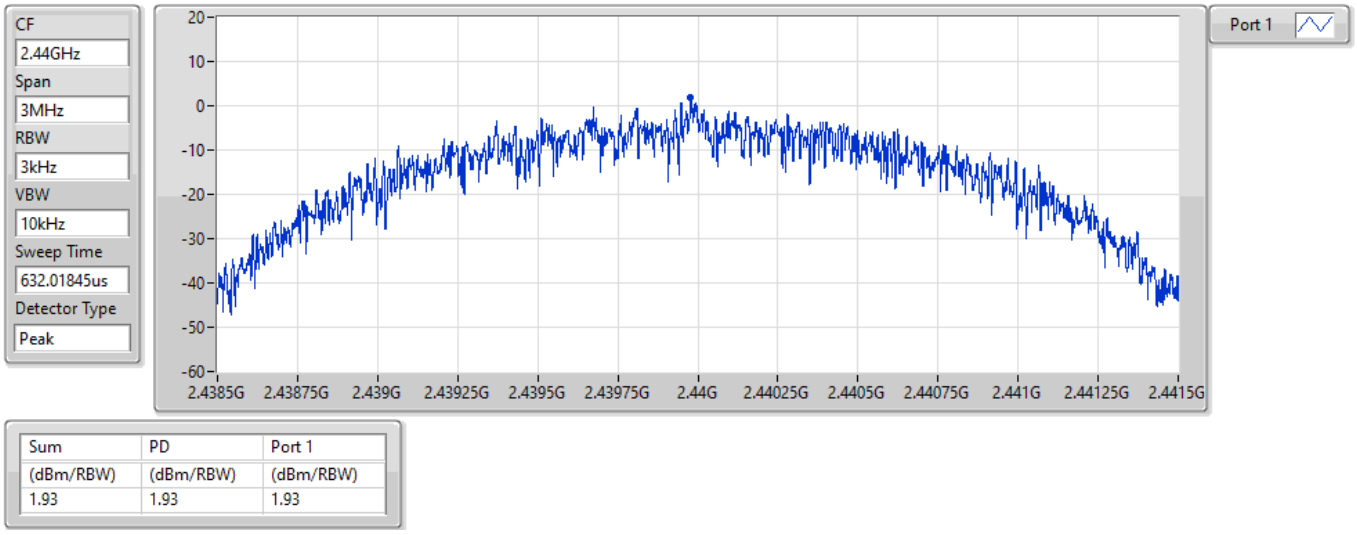
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.08	0.08	0.08

BT-LE(2Mbps) PSD

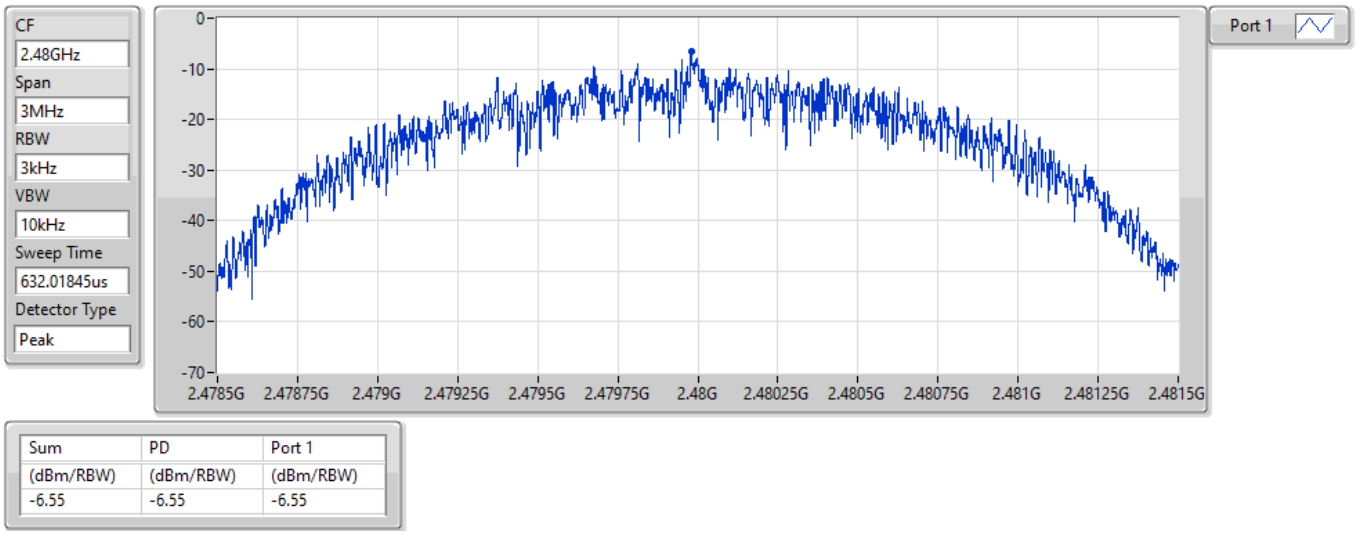
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.93	1.93	1.93

BT-LE(2Mbps) PSD

2480MHz



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

Summary

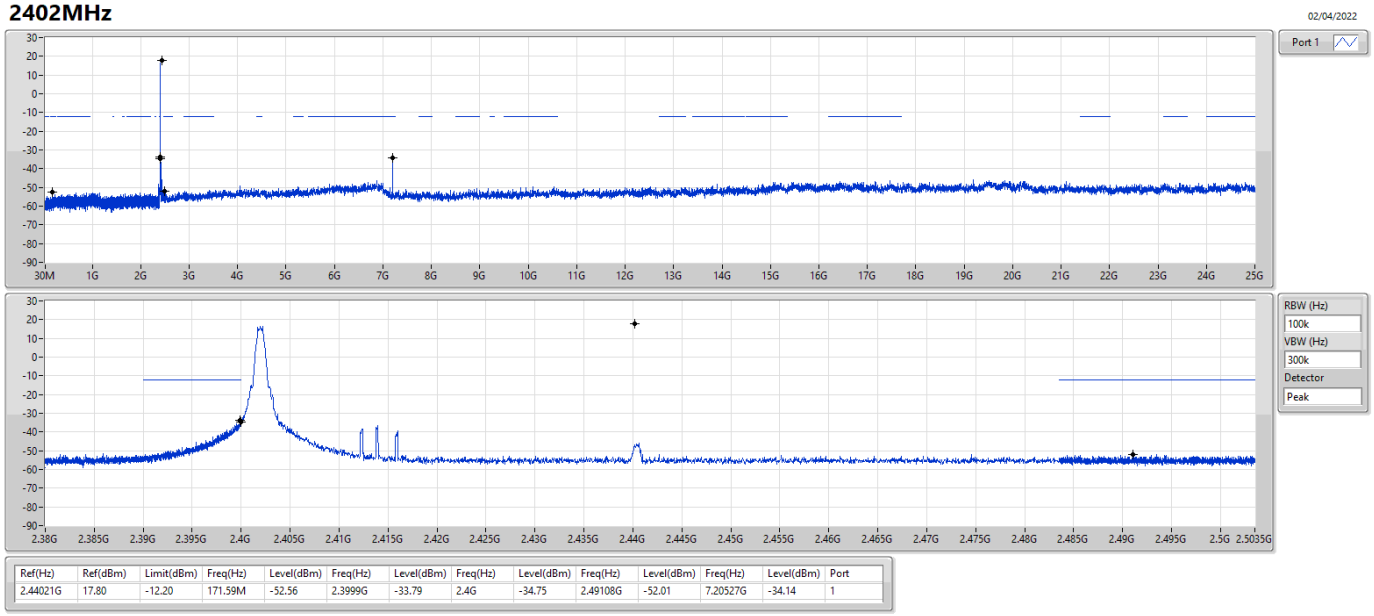
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.44021G	17.80	-12.20	171.59M	-52.56	2.3999G	-33.79	2.4G	-34.75	2.49108G	-52.01	7.20527G	-34.14	1
BT-LE(2Mbps)	Pass	2.44G	17.87	-12.13	874.24M	-52.16	2.39999G	-15.19	2.4G	-18.45	2.50278G	-51.02	7.20808G	-38.81	1

Result

Mode	Result	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
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44021G	17.80	-12.20	171.59M	-52.56	2.3999G	-33.79	2.4G	-34.75	2.49108G	-52.01	7.20527G	-34.14	1
2440MHz	Pass	2.44021G	17.80	-12.20	729.71M	-52.32	2.39765G	-52.41	2.4835G	-55.86	2.50009G	-51.65	6.81439G	-46.62	1
2480MHz	Pass	2.44021G	17.80	-12.20	1.9993G	-53.18	2.39496G	-51.46	2.4835G	-47.03	2.48371G	-45.07	16.88439G	-46.06	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44G	17.87	-12.13	874.24M	-52.16	2.39999G	-15.19	2.4G	-18.45	2.50278G	-51.02	7.20808G	-38.81	1
2440MHz	Pass	2.44G	17.87	-12.13	736.47M	-52.46	2.39416G	-51.77	2.4835G	-55.03	2.48889G	-51.79	16.51601G	-46.73	1
2480MHz	Pass	2.44G	17.87	-12.13	933.87M	-52.89	2.39996G	-52.25	2.4835G	-45.72	2.48356G	-44.23	6.75534G	-46.63	1

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

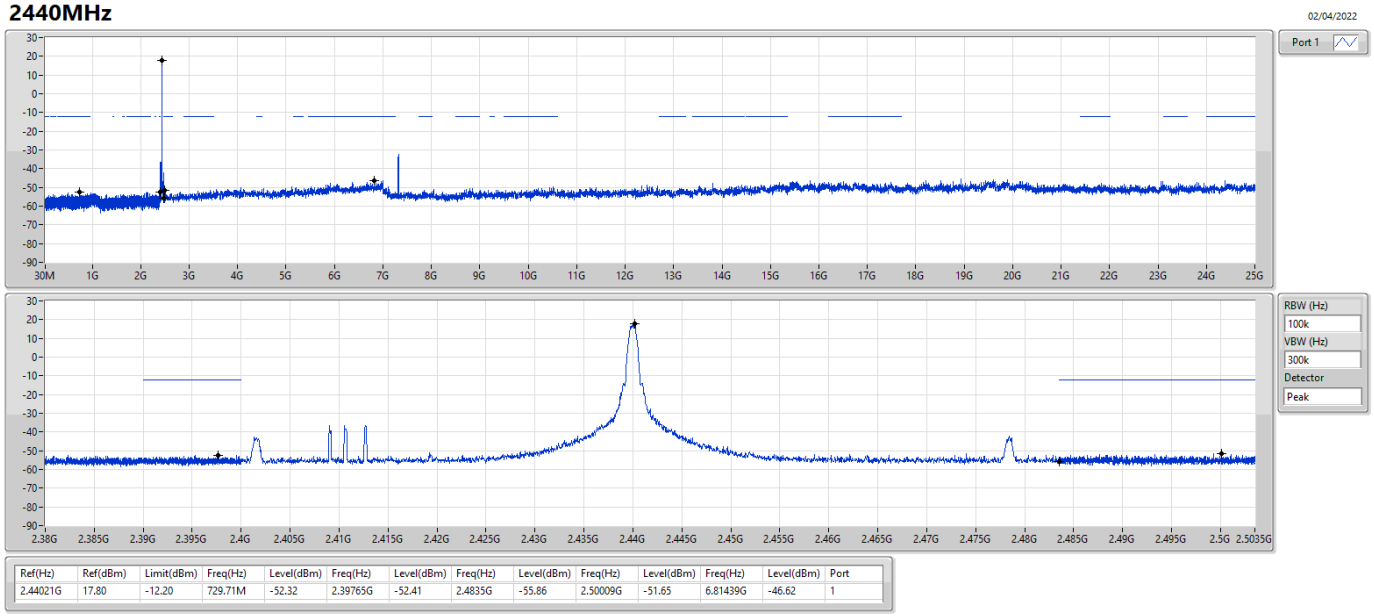
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44021G	17.80	-12.20	171.59M	-52.56	2.3999G	-33.79	2.4G	-34.75	2.49108G	-52.01	7.20527G	-34.14	1

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

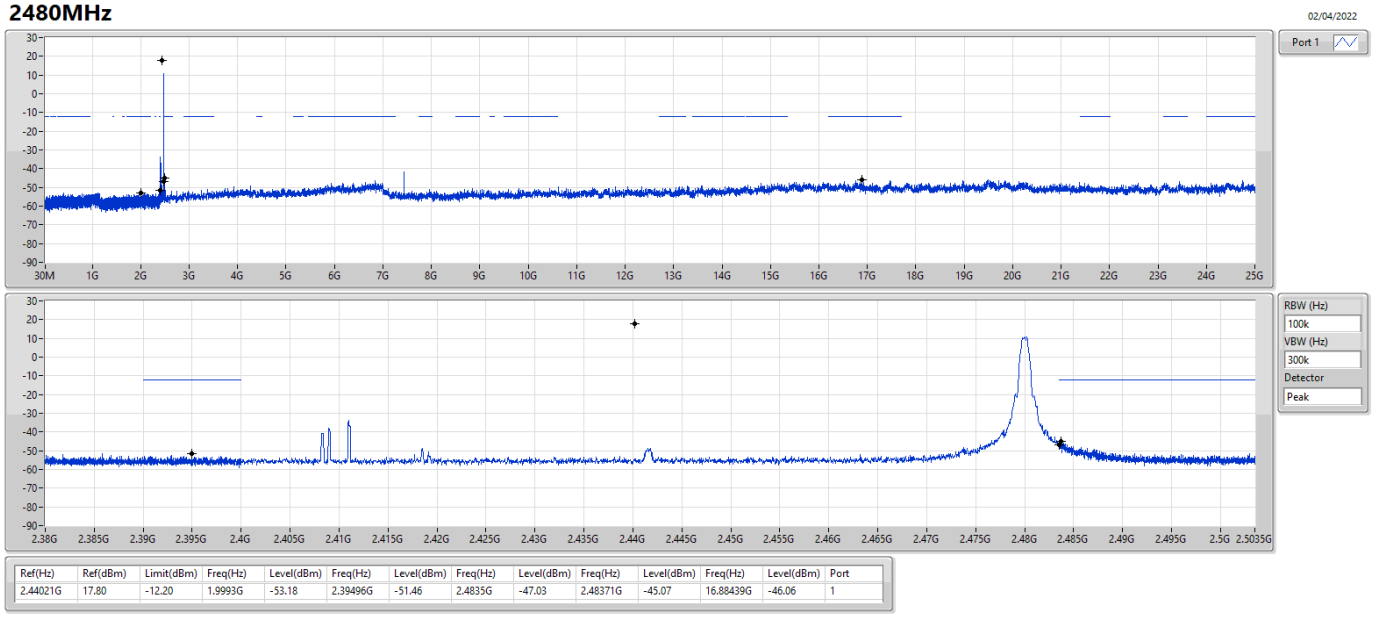
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44021G	17.80	-12.20	729.71M	-52.32	2.39765G	-52.41	2.4835G	-55.86	2.50009G	-51.65	6.81439G	-46.62	1

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

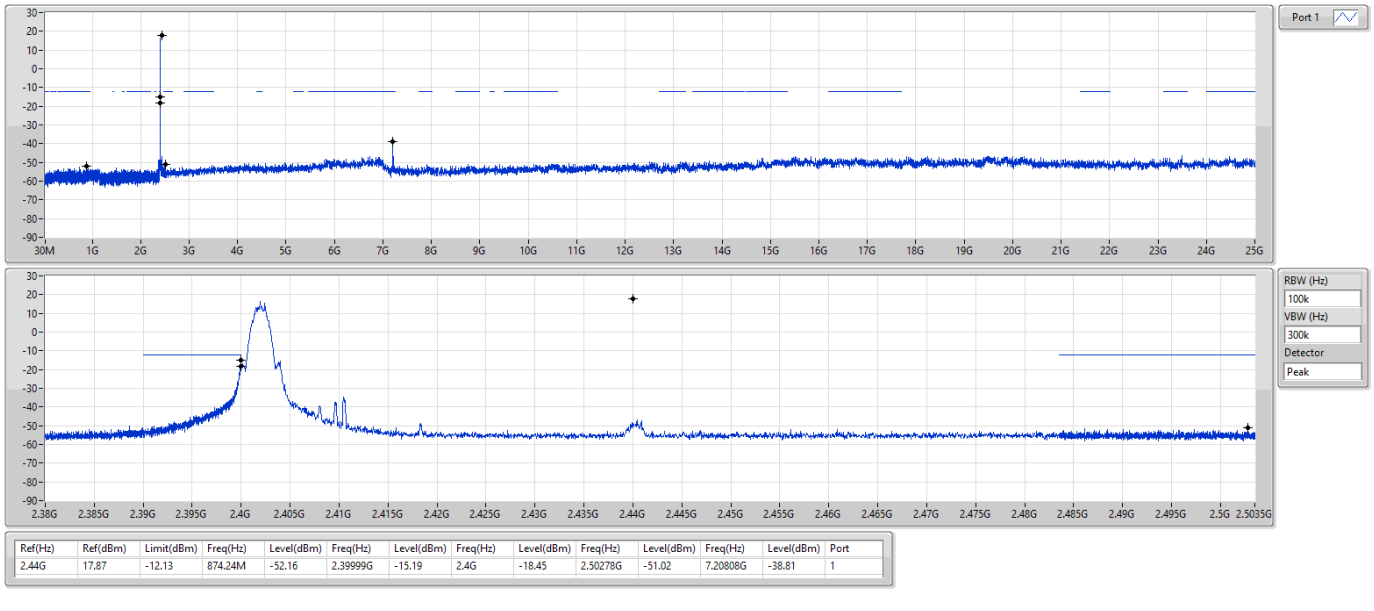
2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44021G	17.80	-12.20	1.9993G	-53.18	2.39496G	-51.46	2.4835G	-47.03	2.48371G	-45.07	16.88439G	-46.06	1

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

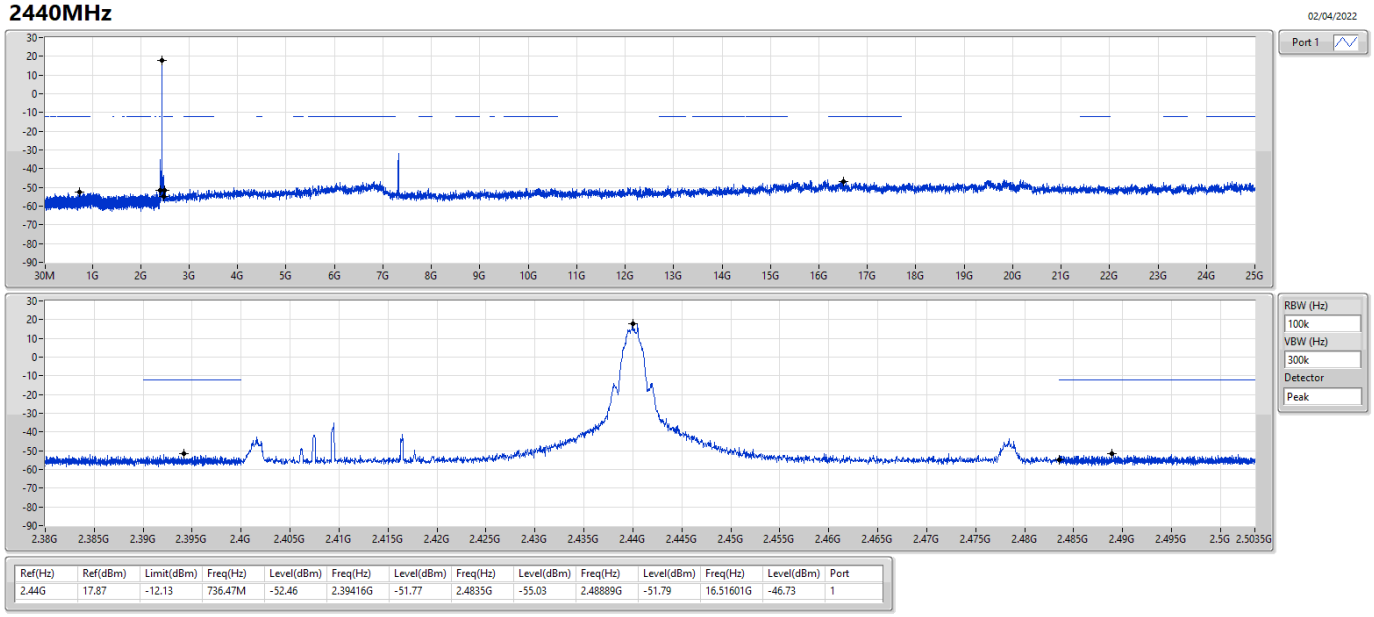
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	17.87	-12.13	874.24M	-52.16	2.39999G	-15.19	2.4G	-18.45	2.50278G	-51.02	7.20808G	-38.81	1

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

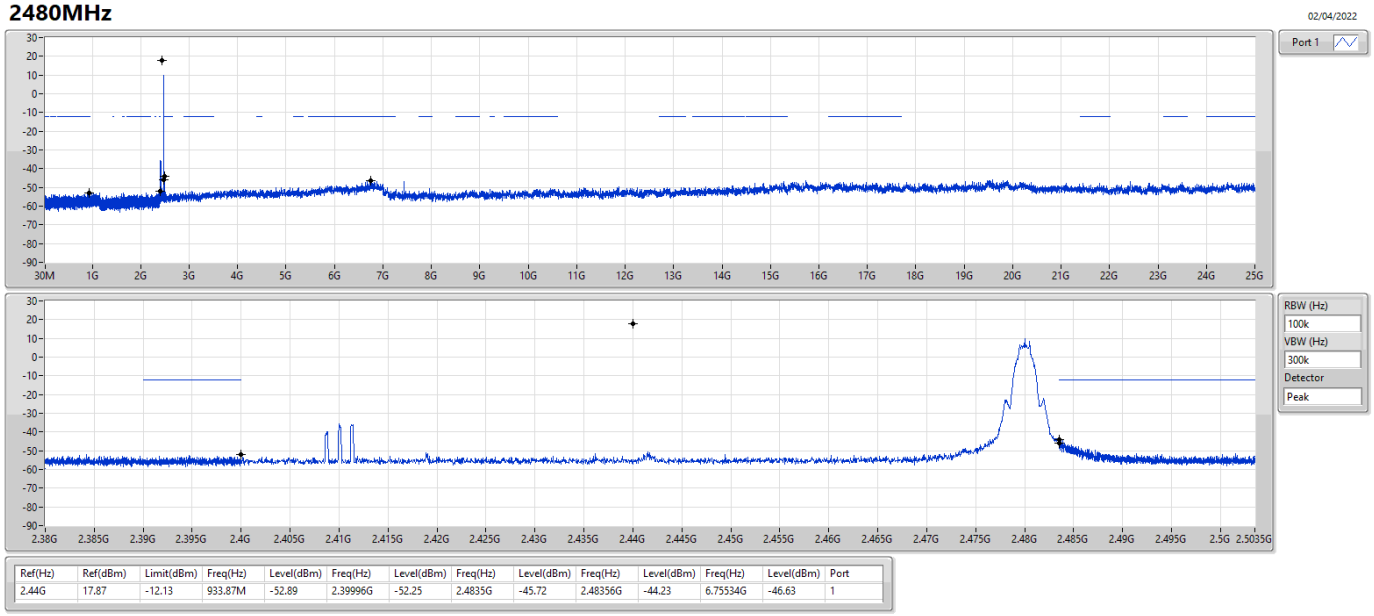
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	17.87	-12.13	736.47M	-52.46	2.39416G	-51.77	2.4835G	-55.03	2.48889G	-51.79	16.51601G	-46.73	1

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

2480MHz

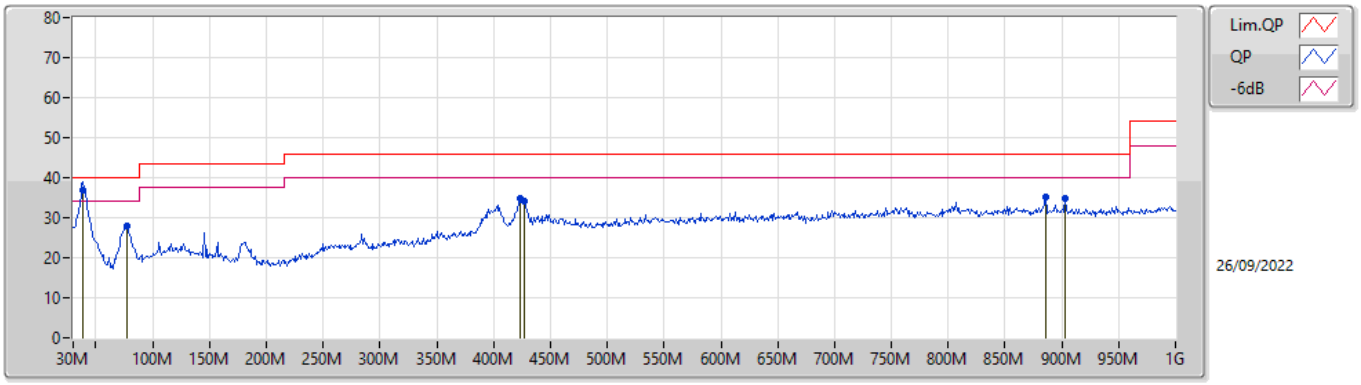


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	17.87	-12.13	933.87M	-52.89	2.39996G	-52.25	2.4835G	-45.72	2.48356G	-44.23	6.75534G	-46.63	1

Summary

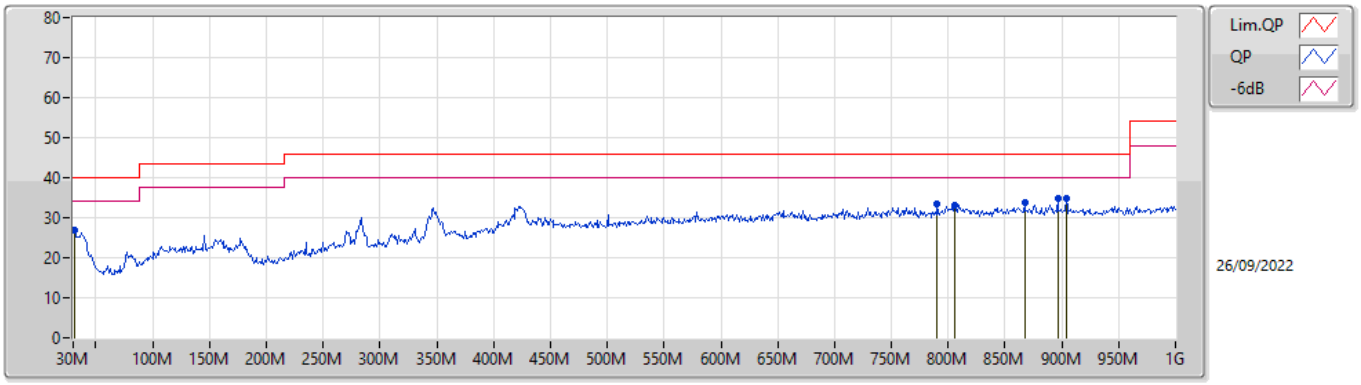
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 10	Pass	QP	38.73M	36.97	40.00	-3.03	Vertical

Mode 10



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
QP	38.73M	36.97	40.00	-3.03	-11.64	3	Vertical	179	1.00	"Worst"	48.61	18.93	1.60	32.17
PK	77.53M	28.10	40.00	-11.90	-17.80	3	Vertical	181	1.25	-	45.90	12.52	1.80	32.12
PK	423.82M	34.76	46.00	-11.24	-7.12	3	Vertical	190	1.00	-	41.88	22.47	2.90	32.49
PK	426.73M	33.99	46.00	-12.01	-7.10	3	Vertical	190	1.00	-	41.09	22.47	2.91	32.48
PK	885.54M	35.08	46.00	-10.92	-2.19	3	Vertical	86	3.00	-	37.27	27.08	3.81	33.08
PK	903M	34.87	46.00	-11.13	-2.10	3	Vertical	277	1.00	-	36.97	27.06	3.90	33.06

Mode 10



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB/m)	(m)		(°)	(m)		(dBuV/m)	(dB/m)	(dB)	(dB)
PK	30.97M	27.01	40.00	-12.99	-7.55	3	Horizontal	359	1.50	-	34.56	23.10	1.52	32.17
PK	790.48M	33.58	46.00	-12.42	-4.14	3	Horizontal	175	2.00	-	37.72	25.81	3.58	33.53
PK	806M	33.06	46.00	-12.94	-3.59	3	Horizontal	35	1.00	-	36.65	26.31	3.60	33.50
PK	867.11M	33.70	46.00	-12.30	-2.69	3	Horizontal	298	1.50	-	36.39	26.67	3.70	33.06
PK	896.21M	34.94	46.00	-11.06	-1.99	3	Horizontal	193	3.00	"Worst"	36.93	27.23	3.88	33.10
PK	903.97M	34.68	46.00	-11.32	-2.12	3	Horizontal	306	3.00	-	36.80	27.02	3.90	33.04

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	1G	2.38G	AV	2.36379G	3.80	-49.80	-46.00	-41.20	-4.80
BT-LE(2Mbps)	Pass	1G	2.38G	AV	2.36361G	3.80	-48.53	-44.73	-41.20	-3.53

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

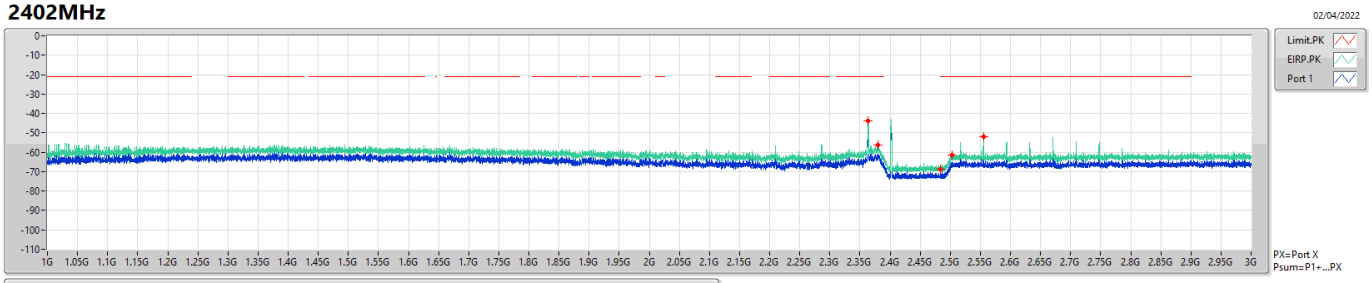
Result

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	2.38G	AV	2.36379G	3.80	-49.80	-46.00	-41.20	-4.80
2402MHz	Pass	2.38G	2.4G	AV	2.38048G	3.80	-70.64	-66.84	-41.20	-25.64
2402MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-82.35	-78.55	-41.20	-37.35
2402MHz	Pass	2.4835G	2.5035G	AV	2.50338G	3.80	-74.90	-71.10	-41.20	-29.90
2402MHz	Pass	2.5035G	3G	AV	2.6707G	3.80	-66.08	-62.28	-41.20	-21.08
2402MHz	Pass	1G	2.38G	PK	2.36344G	3.80	-47.69	-43.89	-21.20	-22.69
2402MHz	Pass	2.38G	2.4G	PK	2.38004G	3.80	-59.90	-56.10	-21.20	-34.90
2402MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-72.41	-68.61	-21.20	-47.41
2402MHz	Pass	2.4835G	2.5035G	PK	2.50326G	3.80	-65.27	-61.47	-21.20	-40.27
2402MHz	Pass	2.5035G	3G	PK	2.55551G	3.80	-55.81	-52.01	-21.20	-30.81
2440MHz	Pass	1G	2.38G	AV	2.24787G	3.80	-64.81	-61.01	-41.20	-19.81
2440MHz	Pass	2.38G	2.4G	AV	2.3802G	3.80	-72.35	-68.55	-41.20	-27.35
2440MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-82.13	-78.33	-41.20	-37.13
2440MHz	Pass	2.4835G	2.5035G	AV	2.50338G	3.80	-70.89	-67.09	-41.20	-25.89
2440MHz	Pass	2.5035G	3G	AV	2.59374G	3.80	-64.22	-60.42	-41.20	-19.22
2440MHz	Pass	1G	2.38G	PK	1.60634G	3.80	-56.50	-52.70	-21.20	-31.50
2440MHz	Pass	2.38G	2.4G	PK	2.38052G	3.80	-62.36	-58.56	-21.20	-37.36
2440MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-71.88	-68.08	-21.20	-46.88
2440MHz	Pass	2.4835G	2.5035G	PK	2.50314G	3.80	-59.77	-55.97	-21.20	-34.77
2440MHz	Pass	2.5035G	3G	PK	2.59349G	3.80	-53.67	-49.87	-21.20	-28.67
2480MHz	Pass	1G	2.38G	AV	2.3267G	3.80	-71.65	-67.85	-41.20	-26.65
2480MHz	Pass	2.38G	2.4G	AV	2.38052G	3.80	-78.24	-74.44	-41.20	-33.24
2480MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-82.35	-78.55	-41.20	-37.35
2480MHz	Pass	2.4835G	2.5035G	AV	2.50246G	3.80	-72.06	-68.26	-41.20	-27.06
2480MHz	Pass	2.5035G	3G	AV	2.51827G	3.80	-50.89	-47.09	-41.20	-5.89
2480MHz	Pass	1G	2.38G	PK	1.03709G	3.80	-58.85	-55.05	-21.20	-33.85
2480MHz	Pass	2.38G	2.4G	PK	2.38096G	3.80	-67.49	-63.69	-21.20	-42.49
2480MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-71.26	-67.46	-21.20	-46.26
2480MHz	Pass	2.4835G	2.5035G	PK	2.50346G	3.80	-62.11	-58.31	-21.20	-37.11
2480MHz	Pass	2.5035G	3G	PK	2.51815G	3.80	-49.09	-45.29	-21.20	-24.09
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	1G	2.38G	AV	2.36361G	3.80	-48.53	-44.73	-41.20	-3.53
2402MHz	Pass	2.38G	2.4G	AV	2.38164G	3.80	-67.83	-64.03	-41.20	-22.83
2402MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-82.39	-78.59	-41.20	-37.39
2402MHz	Pass	2.4835G	2.5035G	AV	2.50342G	3.80	-74.11	-70.31	-41.20	-29.11
2402MHz	Pass	2.5035G	3G	AV	2.70942G	3.80	-67.09	-63.29	-41.20	-22.09
2402MHz	Pass	1G	2.38G	PK	2.36344G	3.80	-45.17	-41.37	-21.20	-20.17
2402MHz	Pass	2.38G	2.4G	PK	2.38036G	3.80	-57.28	-53.48	-21.20	-32.28
2402MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-72.25	-68.45	-21.20	-47.25
2402MHz	Pass	2.4835G	2.5035G	PK	2.50342G	3.80	-62.82	-59.02	-21.20	-37.82
2402MHz	Pass	2.5035G	3G	PK	2.55563G	3.80	-55.23	-51.43	-21.20	-30.23
2440MHz	Pass	1G	2.38G	AV	2.36327G	3.80	-64.36	-60.56	-41.20	-19.36
2440MHz	Pass	2.38G	2.4G	AV	2.38G	3.80	-72.17	-68.37	-41.20	-27.17
2440MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-81.88	-78.08	-41.20	-36.88
2440MHz	Pass	2.4835G	2.5035G	AV	2.5025G	3.80	-71.23	-67.43	-41.20	-26.23
2440MHz	Pass	2.5035G	3G	AV	2.74691G	3.80	-64.71	-60.91	-41.20	-19.71
2440MHz	Pass	1G	2.38G	PK	2.28668G	3.80	-55.54	-51.74	-21.20	-30.54
2440MHz	Pass	2.38G	2.4G	PK	2.38008G	3.80	-62.63	-58.83	-21.20	-37.63
2440MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-73.28	-69.48	-21.20	-48.28
2440MHz	Pass	2.4835G	2.5035G	PK	2.50314G	3.80	-61.39	-57.59	-21.20	-36.39
2440MHz	Pass	2.5035G	3G	PK	2.59361G	3.80	-53.12	-49.32	-21.20	-28.12
2480MHz	Pass	1G	2.38G	AV	1.51698G	3.80	-73.71	-69.91	-41.20	-28.71
2480MHz	Pass	2.38G	2.4G	AV	2.38072G	3.80	-79.52	-75.72	-41.20	-34.52
2480MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-81.96	-78.16	-41.20	-36.96
2480MHz	Pass	2.4835G	2.5035G	AV	2.50338G	3.80	-73.39	-69.59	-41.20	-28.39
2480MHz	Pass	2.5035G	3G	AV	2.5184G	3.80	-55.30	-51.50	-41.20	-10.30
2480MHz	Pass	1G	2.38G	PK	1.03071G	3.80	-58.99	-55.19	-21.20	-33.99
2480MHz	Pass	2.38G	2.4G	PK	2.38112G	3.80	-68.85	-65.05	-21.20	-43.85
2480MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-71.96	-68.16	-21.20	-46.96
2480MHz	Pass	2.4835G	2.5035G	PK	2.5017G	3.80	-61.53	-57.73	-21.20	-36.53
2480MHz	Pass	2.5035G	3G	PK	2.51777G	3.80	-51.03	-47.23	-21.20	-26.03

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

BT-LE(1Mbps) **CSE-DTS [PK]**

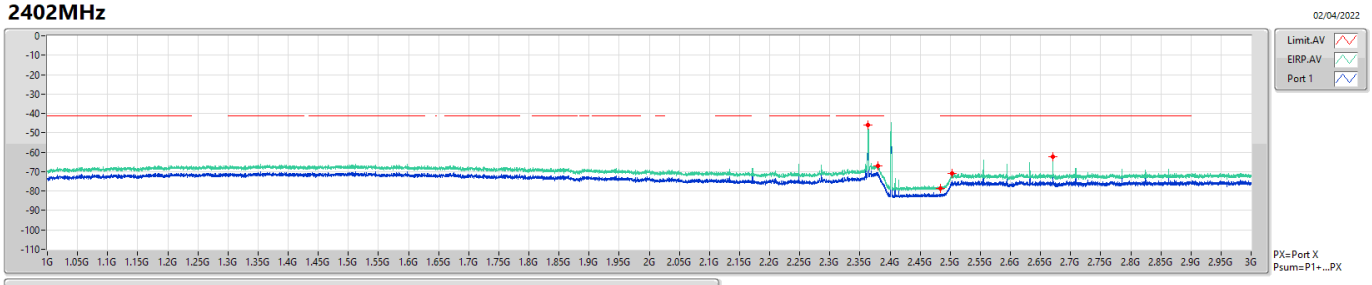
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	2.36344G	-43.89	-21.20	-22.69	3.80	0.00	-47.69	-47.69
2.38G	2.4G	1M	PK	2.38004G	-56.10	-21.20	-34.90	3.80	0.00	-59.90	-59.90
2.4G	2.4835G	1M	PK	2.4835G	-68.61	-21.20	-47.41	3.80	0.00	-72.41	-72.41
2.4835G	2.5035G	1M	PK	2.50326G	-61.47	-21.20	-40.27	3.80	0.00	-65.27	-65.27
2.5035G	3G	1M	PK	2.55551G	-52.01	-21.20	-30.81	3.80	0.00	-55.81	-55.81

BT-LE(1Mbps) **CSE-DTS [AV]**

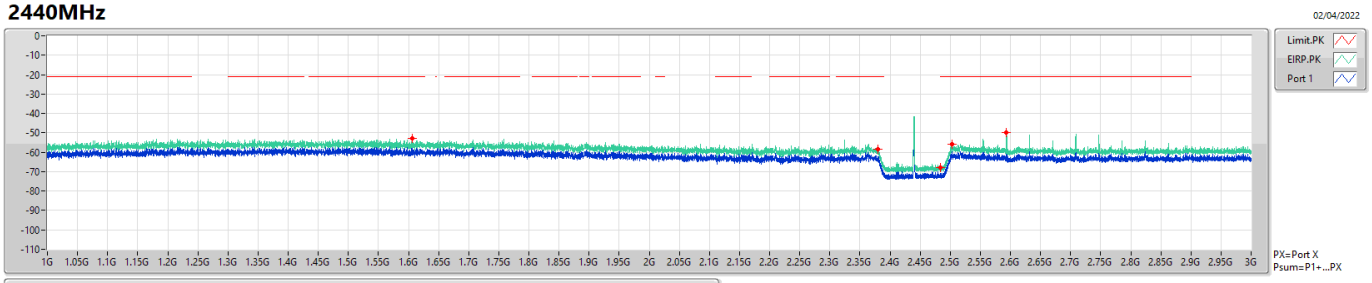
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.36379G	-46.00	-41.20	-4.80	3.80	0.00	-49.80	-49.80
2.38G	2.4G	1M	AV	2.38048G	-66.84	-41.20	-25.64	3.80	0.00	-70.64	-70.64
2.4G	2.4835G	1M	AV	2.4835G	-78.55	-41.20	-37.35	3.80	0.00	-82.35	-82.35
2.4835G	2.5035G	1M	AV	2.50338G	-71.10	-41.20	-29.90	3.80	0.00	-74.90	-74.90
2.5035G	3G	1M	AV	2.6707G	-62.28	-41.20	-21.08	3.80	0.00	-66.08	-66.08

BT-LE(1Mbps) **CSE-DTS [PK]**

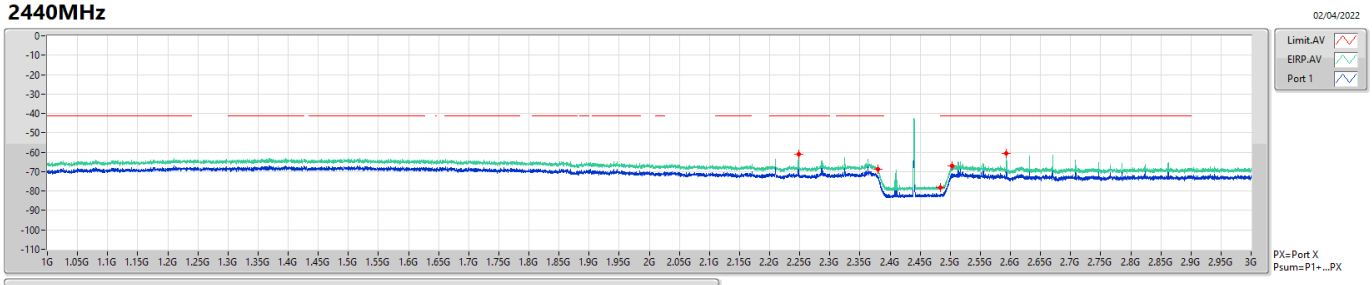
2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	1.60634G	-52.70	-21.20	-31.50	3.80	0.00	-56.50	-56.50
2.38G	2.4G	1M	PK	2.38052G	-58.56	-21.20	-37.36	3.80	0.00	-62.36	-62.36
2.4G	2.4835G	1M	PK	2.4835G	-68.08	-21.20	-46.88	3.80	0.00	-71.88	-71.88
2.4835G	2.5035G	1M	PK	2.50314G	-55.97	-21.20	-34.77	3.80	0.00	-59.77	-59.77
2.5035G	3G	1M	PK	2.59349G	-49.87	-21.20	-28.67	3.80	0.00	-53.67	-53.67

BT-LE(1Mbps) **CSE-DTS [AV]**

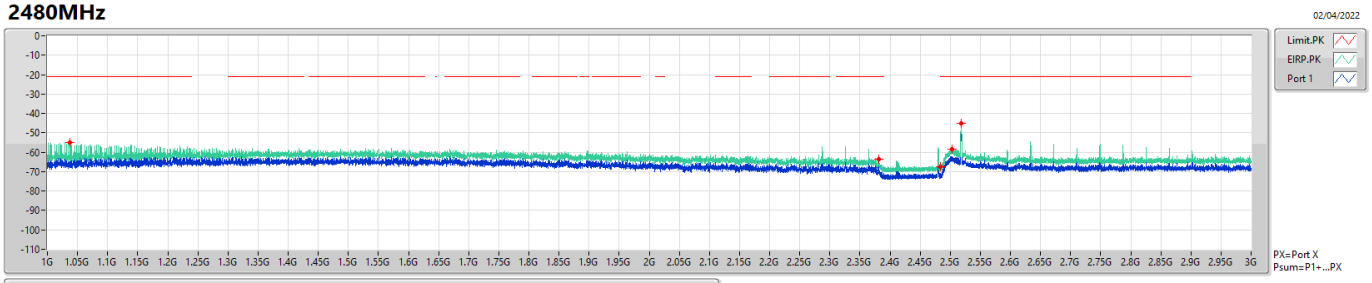
2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.24787G	-61.01	-41.20	-19.81	3.80	0.00	-64.81	-64.81
2.38G	2.4G	1M	AV	2.3802G	-68.55	-41.20	-27.35	3.80	0.00	-72.35	-72.35
2.4G	2.4835G	1M	AV	2.4835G	-78.33	-41.20	-37.13	3.80	0.00	-82.13	-82.13
2.4835G	2.5035G	1M	AV	2.50338G	-67.09	-41.20	-25.89	3.80	0.00	-70.89	-70.89
2.5035G	3G	1M	AV	2.59374G	-60.42	-41.20	-19.22	3.80	0.00	-64.22	-64.22

BT-LE(1Mbps) **CSE-DTS [PK]**

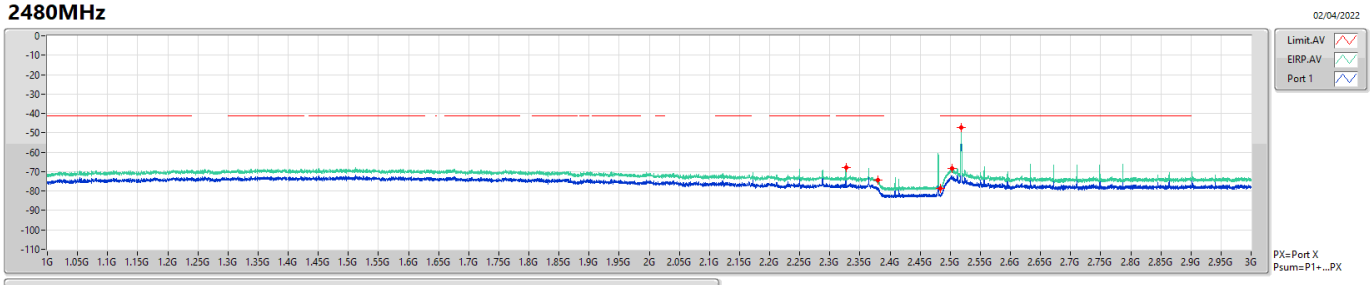
2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	1.03709G	-55.05	-21.20	-33.85	3.80	0.00	-58.85	-58.85
2.38G	2.4G	1M	PK	2.38096G	-63.69	-21.20	-42.49	3.80	0.00	-67.49	-67.49
2.4G	2.4835G	1M	PK	2.4835G	-67.46	-21.20	-46.26	3.80	0.00	-71.26	-71.26
2.4835G	2.5035G	1M	PK	2.50346G	-58.31	-21.20	-37.11	3.80	0.00	-62.11	-62.11
2.5035G	3G	1M	PK	2.51815G	-45.29	-21.20	-24.09	3.80	0.00	-49.09	-49.09

BT-LE(1Mbps) **CSE-DTS [AV]**

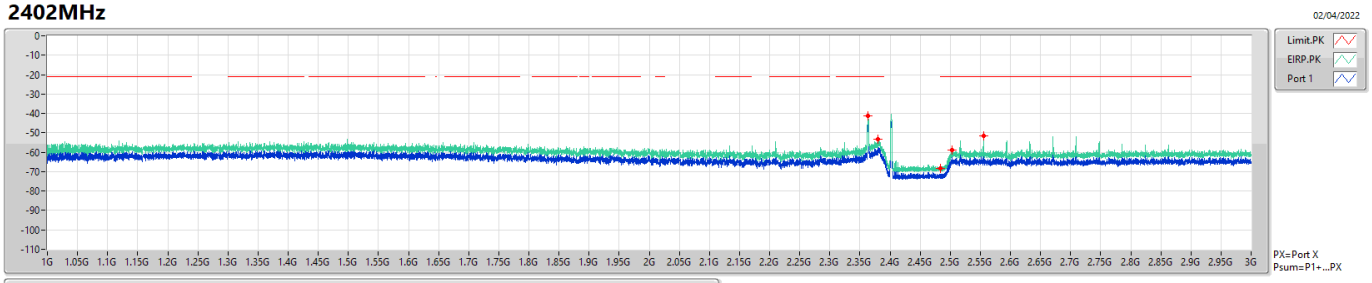
2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.3267G	-67.85	-41.20	-26.65	3.80	0.00	-71.65	-71.65
2.38G	2.4G	1M	AV	2.38052G	-74.44	-41.20	-33.24	3.80	0.00	-78.24	-78.24
2.4G	2.4835G	1M	AV	2.4835G	-78.55	-41.20	-37.35	3.80	0.00	-82.35	-82.35
2.4835G	2.5035G	1M	AV	2.50246G	-68.26	-41.20	-27.06	3.80	0.00	-72.06	-72.06
2.5035G	3G	1M	AV	2.51827G	-47.09	-41.20	-5.89	3.80	0.00	-50.89	-50.89

BT-LE(2Mbps) **CSE-DTS [PK]**

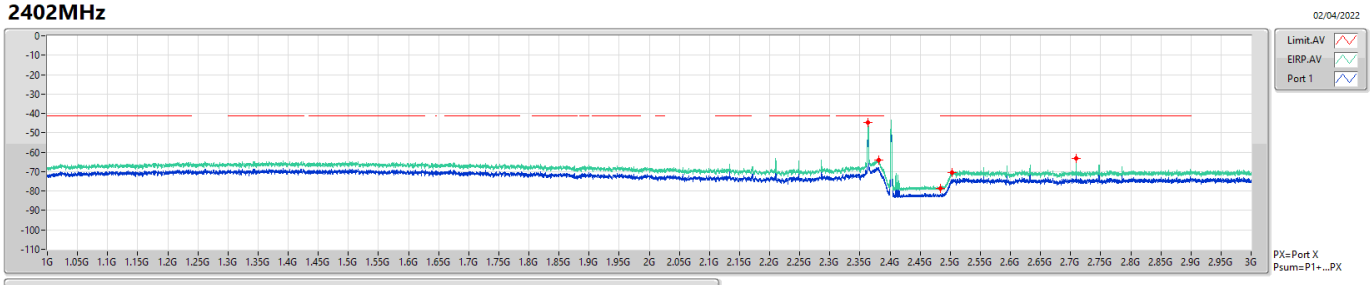
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	2.36344G	-41.37	-21.20	-20.17	3.80	0.00	-45.17	-45.17
2.38G	2.4G	1M	PK	2.38036G	-53.48	-21.20	-32.28	3.80	0.00	-57.28	-57.28
2.4G	2.4835G	1M	PK	2.4835G	-68.45	-21.20	-47.25	3.80	0.00	-72.25	-72.25
2.4835G	2.5035G	1M	PK	2.50342G	-59.02	-21.20	-37.82	3.80	0.00	-62.82	-62.82
2.5035G	3G	1M	PK	2.55563G	-51.43	-21.20	-30.23	3.80	0.00	-55.23	-55.23

BT-LE(2Mbps) **CSE-DTS [AV]**

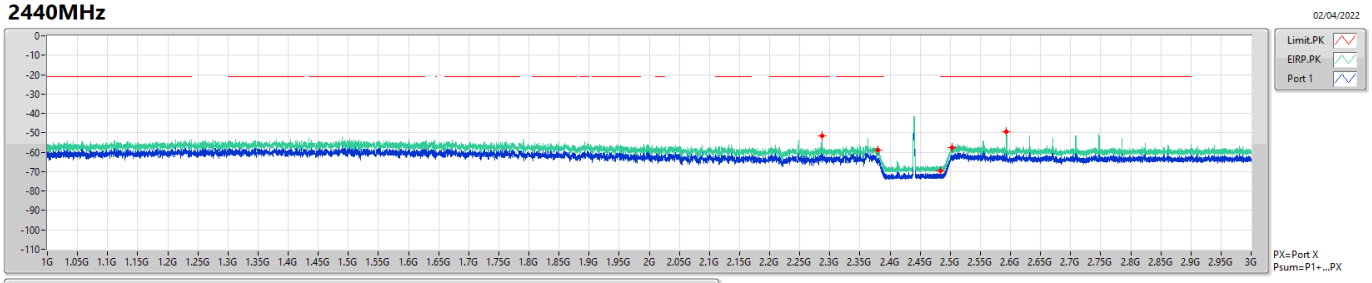
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.36361G	-44.73	-41.20	-3.53	3.80	0.00	-48.53	-48.53
2.38G	2.4G	1M	AV	2.38164G	-64.03	-41.20	-22.83	3.80	0.00	-67.83	-67.83
2.4G	2.4835G	1M	AV	2.4835G	-78.59	-41.20	-37.39	3.80	0.00	-82.39	-82.39
2.4835G	2.5035G	1M	AV	2.50342G	-70.31	-41.20	-29.11	3.80	0.00	-74.11	-74.11
2.5035G	3G	1M	AV	2.70942G	-63.29	-41.20	-22.09	3.80	0.00	-67.09	-67.09

BT-LE(2Mbps) **CSE-DTS [PK]**

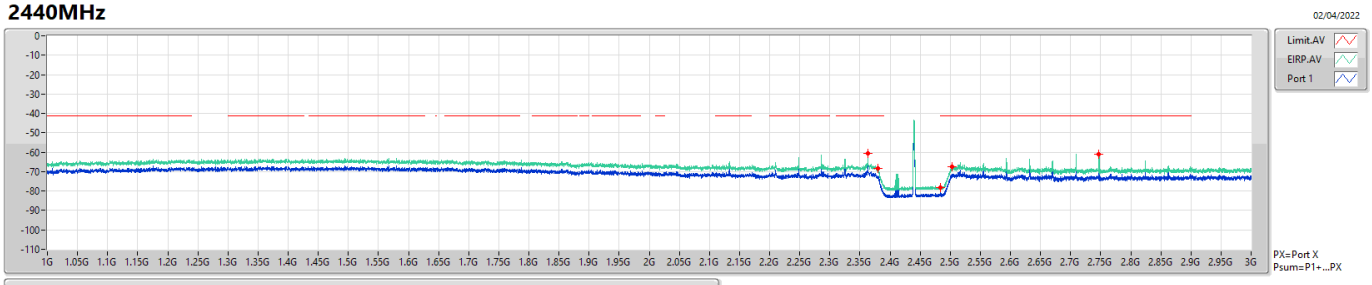
2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	2.28668G	-51.74	-21.20	-30.54	3.80	0.00	-55.54	-55.54
2.38G	2.4G	1M	PK	2.38008G	-58.83	-21.20	-37.63	3.80	0.00	-62.63	-62.63
2.4G	2.4835G	1M	PK	2.4835G	-69.48	-21.20	-48.28	3.80	0.00	-73.28	-73.28
2.4835G	2.5035G	1M	PK	2.50314G	-57.59	-21.20	-36.39	3.80	0.00	-61.39	-61.39
2.5035G	3G	1M	PK	2.59361G	-49.32	-21.20	-28.12	3.80	0.00	-53.12	-53.12

BT-LE(2Mbps) **CSE-DTS [AV]**

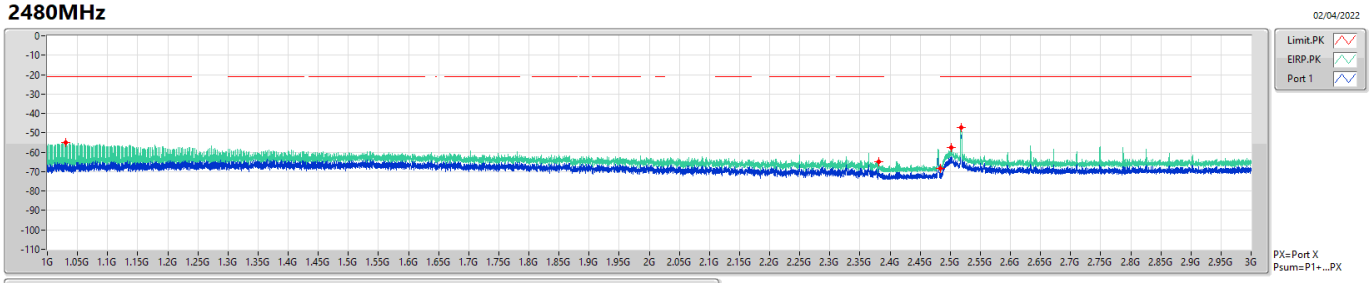
2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.36327G	-60.56	-41.20	-19.36	3.80	0.00	-64.36	-64.36
2.38G	2.4G	1M	AV	2.38G	-68.37	-41.20	-27.17	3.80	0.00	-72.17	-72.17
2.4G	2.4835G	1M	AV	2.4835G	-78.08	-41.20	-36.88	3.80	0.00	-81.88	-81.88
2.4835G	2.5035G	1M	AV	2.5025G	-67.43	-41.20	-26.23	3.80	0.00	-71.23	-71.23
2.5035G	3G	1M	AV	2.74691G	-60.91	-41.20	-19.71	3.80	0.00	-64.71	-64.71

BT-LE(2Mbps) **CSE-DTS [PK]**

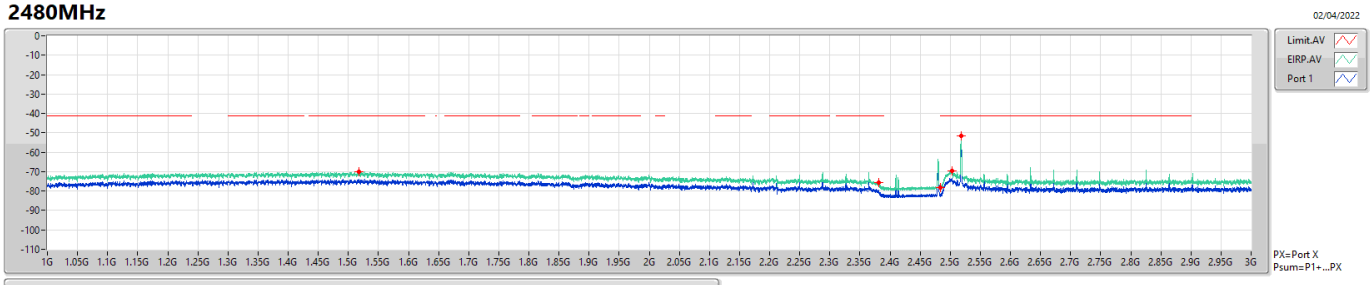
2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	1.03071G	-55.19	-21.20	-33.99	3.80	0.00	-58.99	-58.99
2.38G	2.4G	1M	PK	2.38112G	-65.05	-21.20	-43.85	3.80	0.00	-68.85	-68.85
2.4G	2.4835G	1M	PK	2.4835G	-68.16	-21.20	-46.96	3.80	0.00	-71.96	-71.96
2.4835G	2.5035G	1M	PK	2.5017G	-57.73	-21.20	-36.53	3.80	0.00	-61.53	-61.53
2.5035G	3G	1M	PK	2.51777G	-47.23	-21.20	-26.03	3.80	0.00	-51.03	-51.03

BT-LE(2Mbps) **CSE-DTS [AV]**

2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	1.51698G	-69.91	-41.20	-28.71	3.80	0.00	-73.71	-73.71
2.38G	2.4G	1M	AV	2.38072G	-75.72	-41.20	-34.52	3.80	0.00	-79.52	-79.52
2.4G	2.4835G	1M	AV	2.4835G	-78.16	-41.20	-36.96	3.80	0.00	-81.96	-81.96
2.4835G	2.5035G	1M	AV	2.50338G	-69.59	-41.20	-28.39	3.80	0.00	-73.39	-73.39
2.5035G	3G	1M	AV	2.5184G	-51.50	-41.20	-10.30	3.80	0.00	-55.30	-55.30

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	3G	7.5G	AV	4.87988G	3.80	-52.84	-49.04	-41.20	-7.84
BT-LE(2Mbps)	Pass	3G	7.5G	AV	4.87988G	3.80	-55.63	-51.83	-41.20	-10.63

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

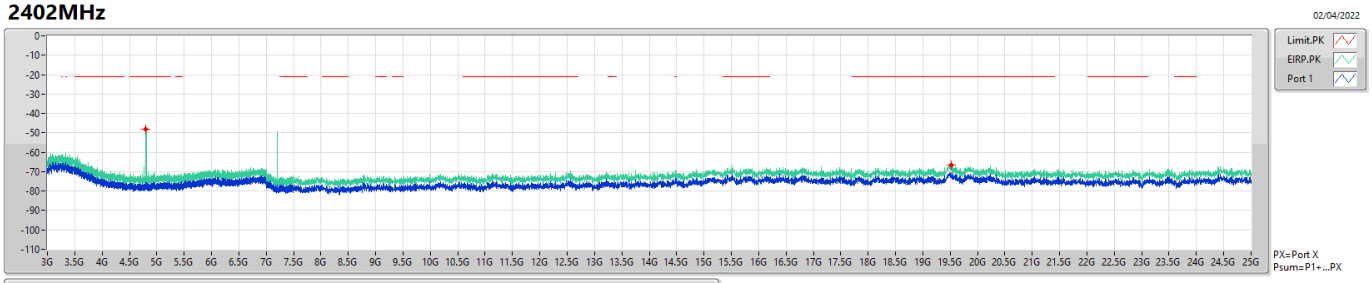
Result

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	3G	7.5G	AV	4.80394G	3.80	-55.13	-51.33	-41.20	-10.13
2402MHz	Pass	7.5G	25G	AV	19.50938G	3.80	-79.36	-75.56	-41.20	-34.36
2402MHz	Pass	3G	7.5G	PK	4.80338G	3.80	-52.07	-48.27	-21.20	-27.07
2402MHz	Pass	7.5G	25G	PK	19.52469G	3.80	-70.58	-66.78	-21.20	-45.58
2440MHz	Pass	3G	7.5G	AV	4.87988G	3.80	-52.84	-49.04	-41.20	-7.84
2440MHz	Pass	7.5G	25G	AV	19.52688G	3.80	-79.48	-75.68	-41.20	-34.48
2440MHz	Pass	3G	7.5G	PK	4.88044G	3.80	-49.85	-46.05	-21.20	-24.85
2440MHz	Pass	7.5G	25G	PK	19.48531G	3.80	-70.75	-66.95	-21.20	-45.75
2480MHz	Pass	3G	7.5G	AV	4.96031G	3.80	-59.04	-55.24	-41.20	-14.04
2480MHz	Pass	7.5G	25G	AV	19.505G	3.80	-79.77	-75.97	-41.20	-34.77
2480MHz	Pass	3G	7.5G	PK	4.95975G	3.80	-55.76	-51.96	-21.20	-30.76
2480MHz	Pass	7.5G	25G	PK	19.46344G	3.80	-70.17	-66.37	-21.20	-45.17
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	3G	7.5G	AV	4.80281G	3.80	-57.95	-54.15	-41.20	-12.95
2402MHz	Pass	3G	7.5G	AV	4.80338G	3.80	-59.42	-55.62	-41.20	-14.42
2402MHz	Pass	7.5G	25G	AV	19.49844G	3.80	-79.44	-75.64	-41.20	-34.44
2402MHz	Pass	3G	7.5G	PK	4.8045G	3.80	-52.55	-48.75	-21.20	-27.55
2402MHz	Pass	7.5G	25G	PK	19.4525G	3.80	-70.14	-66.34	-21.20	-45.14
2440MHz	Pass	3G	7.5G	AV	4.87988G	3.80	-55.63	-51.83	-41.20	-10.63
2440MHz	Pass	7.5G	25G	AV	19.50719G	3.80	-79.38	-75.58	-41.20	-34.38
2440MHz	Pass	3G	7.5G	PK	4.87875G	3.80	-50.21	-46.41	-21.20	-25.21
2440MHz	Pass	3G	7.5G	PK	4.881G	3.80	-50.44	-46.64	-21.20	-25.44
2440MHz	Pass	7.5G	25G	PK	19.57281G	3.80	-70.25	-66.45	-21.20	-45.25
2480MHz	Pass	3G	7.5G	AV	4.95863G	3.80	-64.09	-60.29	-41.20	-19.09
2480MHz	Pass	3G	7.5G	AV	4.95919G	3.80	-65.56	-61.76	-41.20	-20.56
2480MHz	Pass	7.5G	25G	AV	19.51375G	3.80	-79.57	-75.77	-41.20	-34.57
2480MHz	Pass	3G	7.5G	PK	4.95919G	3.80	-58.52	-54.72	-21.20	-33.52
2480MHz	Pass	7.5G	25G	PK	19.49188G	3.80	-70.19	-66.39	-21.20	-45.19

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

BT-LE(1Mbps) **CSE-DTS [PK]**

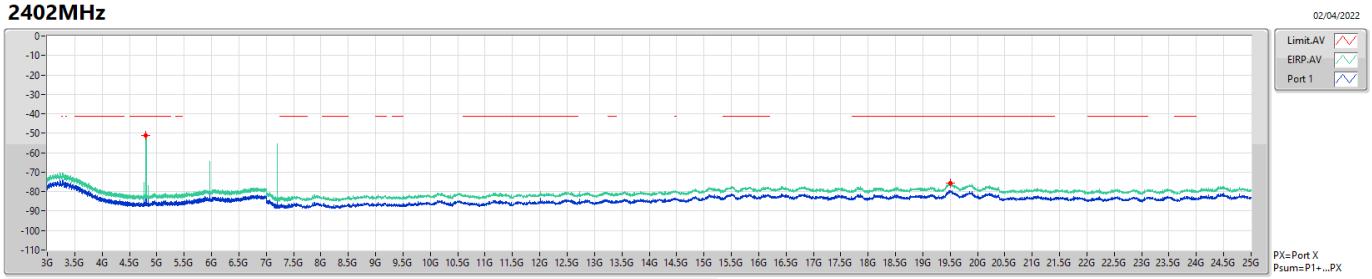
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	PK	4.80338G	-48.27	-21.20	-27.07	3.80	0.00	-52.07	-52.07
7.5G	25G	1M	PK	19.52469G	-66.78	-21.20	-45.58	3.80	0.00	-70.58	-70.58

BT-LE(1Mbps) **CSE-DTS [AV]**

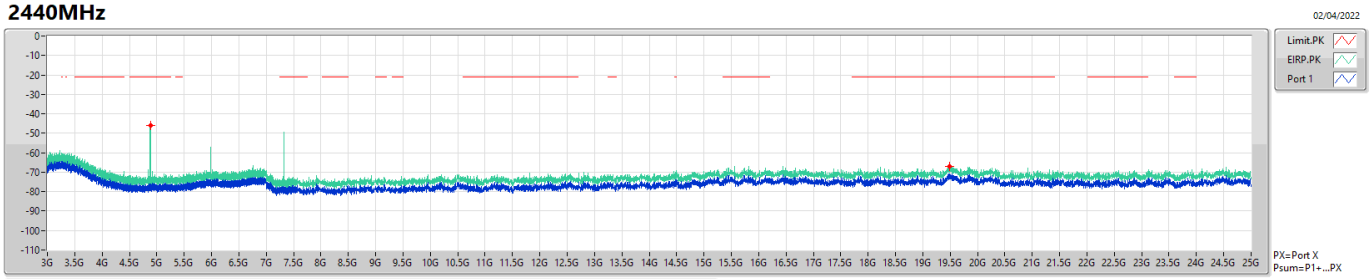
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	AV	4.80394G	-51.33	-41.20	-10.13	3.80	0.00	-55.13	-55.13
7.5G	25G	1M	AV	19.50938G	-75.56	-41.20	-34.36	3.80	0.00	-79.36	-79.36

BT-LE(1Mbps) **CSE-DTS [PK]**

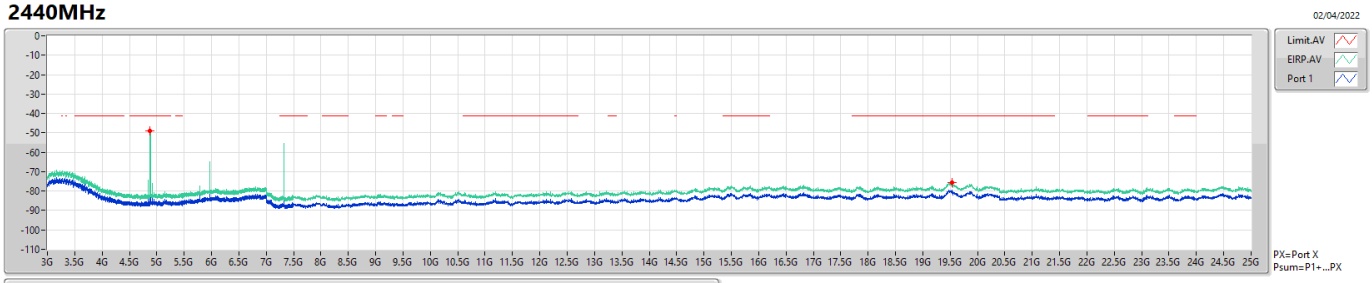
2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	PK	4.88044G	-46.05	-21.20	-24.85	3.80	0.00	-49.85	-49.85
7.5G	25G	1M	PK	19.48531G	-66.95	-21.20	-45.75	3.80	0.00	-70.75	-70.75

BT-LE(1Mbps) **CSE-DTS [AV]**

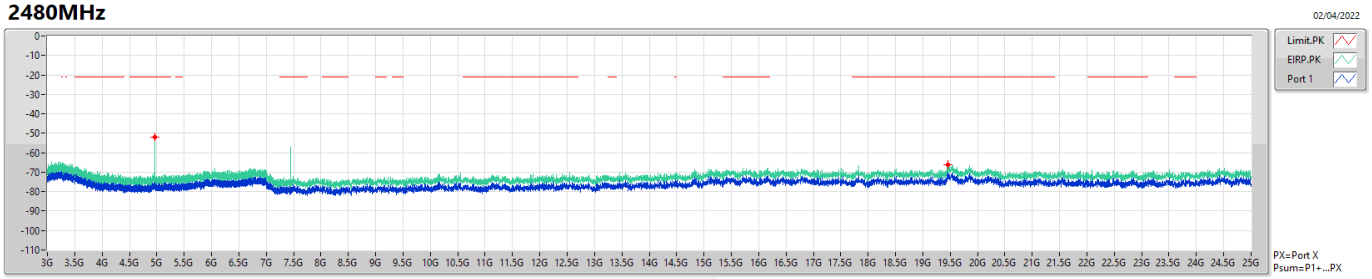
2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	AV	4.87988G	-49.04	-41.20	-7.84	3.80	0.00	-52.84	-52.84
7.5G	25G	1M	AV	19.52688G	-75.68	-41.20	-34.48	3.80	0.00	-79.48	-79.48

BT-LE(1Mbps) **CSE-DTS [PK]**

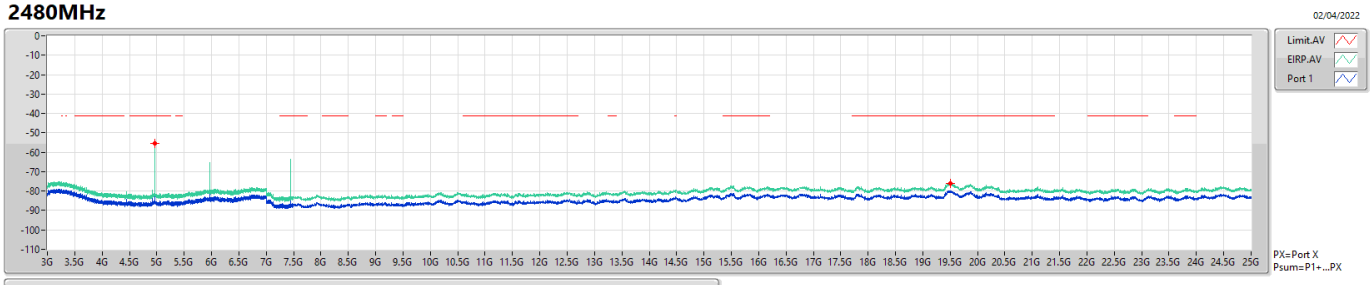
2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	PK	4.95975G	-51.96	-21.20	-30.76	3.80	0.00	-55.76	-55.76
7.5G	25G	1M	PK	19.46344G	-66.37	-21.20	-45.17	3.80	0.00	-70.17	-70.17

BT-LE(1Mbps) **CSE-DTS [AV]**

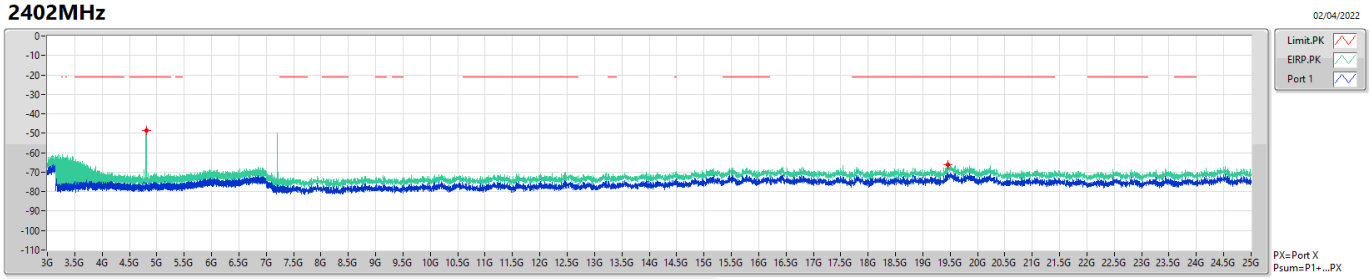
2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	AV	4.96031G	-55.24	-41.20	-14.04	3.80	0.00	-59.04	-59.04
7.5G	25G	1M	AV	19.505G	-75.97	-41.20	-34.77	3.80	0.00	-79.77	-79.77

BT-LE(2Mbps) **CSE-DTS [PK]**

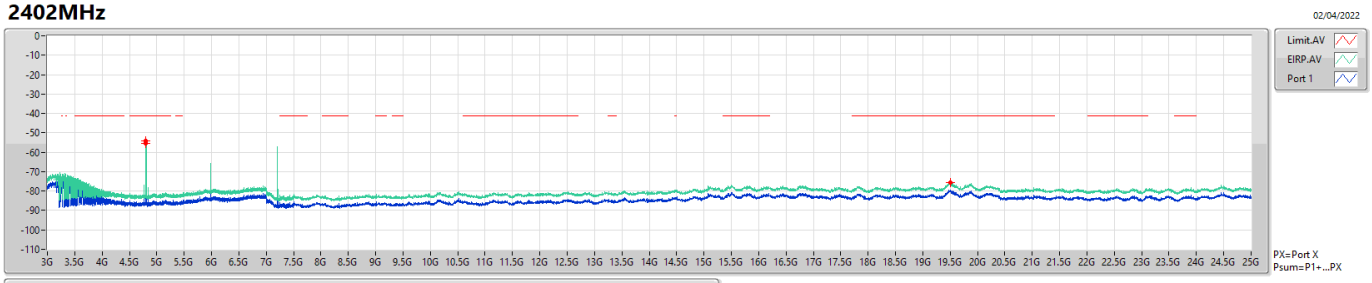
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	PK	4.8045G	-48.75	-21.20	-27.55	3.80	0.00	-52.55	-52.55
7.5G	25G	1M	PK	19.4525G	-66.34	-21.20	-45.14	3.80	0.00	-70.14	-70.14

BT-LE(2Mbps) **CSE-DTS [AV]**

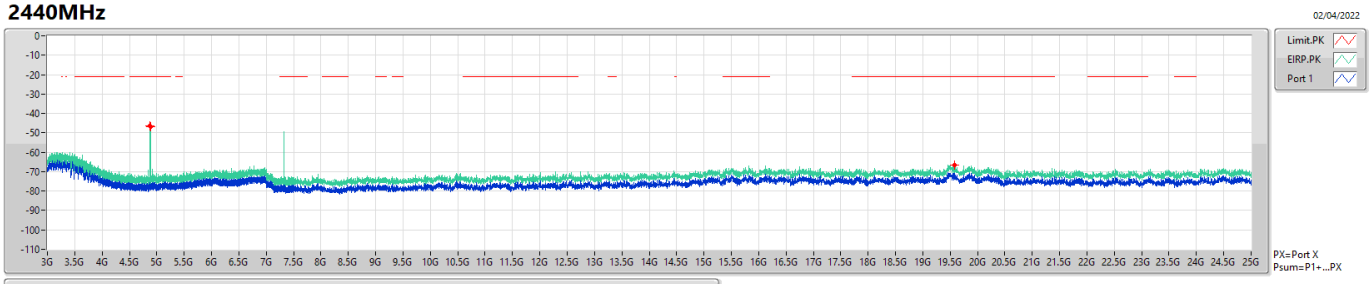
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	AV	4.80281G	-54.15	-41.20	-12.95	3.80	0.00	-57.95	-57.95
3G	7.5G	1M	AV	4.80338G	-55.62	-41.20	-14.42	3.80	0.00	-59.42	-59.42
7.5G	25G	1M	AV	19.49844G	-75.64	-41.20	-34.44	3.80	0.00	-79.44	-79.44

BT-LE(2Mbps) **CSE-DTS [PK]**

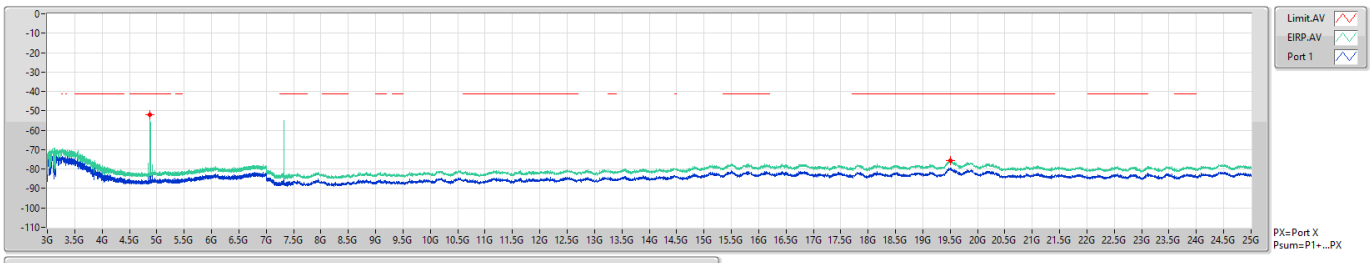
2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	PK	4.87875G	-46.41	-21.20	-25.21	3.80	0.00	-50.21	-50.21
3G	7.5G	1M	PK	4.881G	-46.64	-21.20	-25.44	3.80	0.00	-50.44	-50.44
7.5G	25G	1M	PK	19.57281G	-66.45	-21.20	-45.25	3.80	0.00	-70.25	-70.25

BT-LE(2Mbps) **CSE-DTS [AV]**

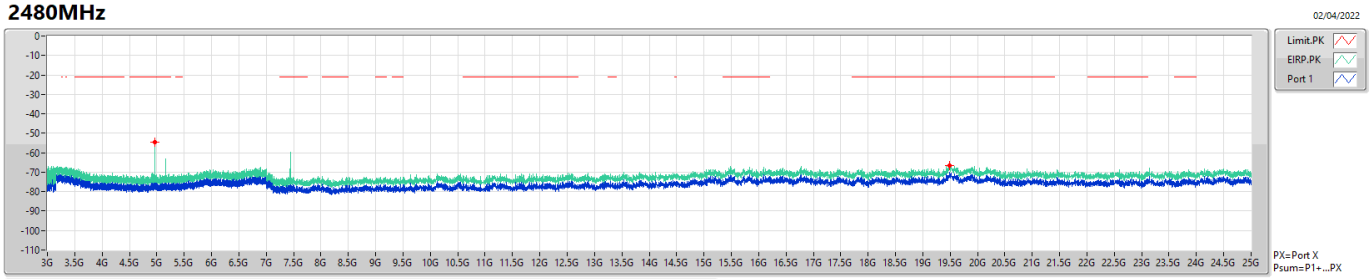
2440MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	AV	4.87988G	-51.83	-41.20	-10.63	3.80	0.00	-55.63	-55.63
7.5G	25G	1M	AV	19.50719G	-75.58	-41.20	-34.38	3.80	0.00	-79.38	-79.38

BT-LE(2Mbps) **CSE-DTS [PK]**

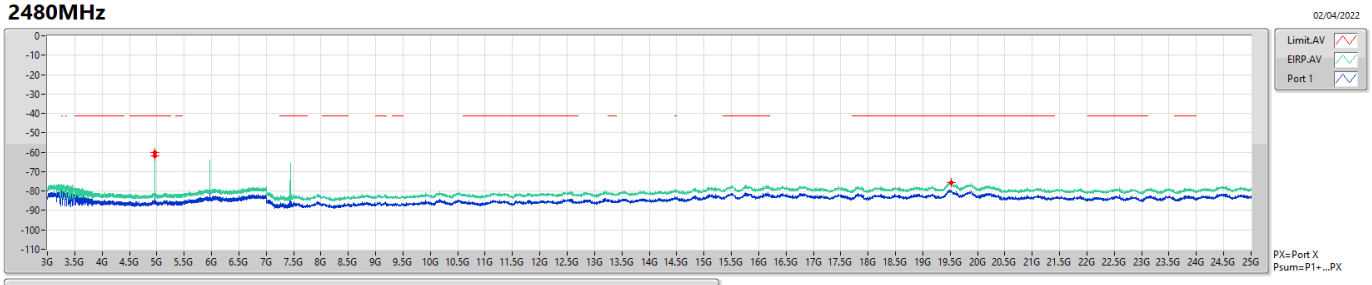
2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	PK	4.95919G	-54.72	-21.20	-33.52	3.80	0.00	-58.52	-58.52
7.5G	25G	1M	PK	19.49188G	-66.39	-21.20	-45.19	3.80	0.00	-70.19	-70.19

BT-LE(2Mbps) **CSE-DTS [AV]**

2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
3G	7.5G	1M	AV	4.95863G	-60.29	-41.20	-19.09	3.80	0.00	-64.09	-64.09
3G	7.5G	1M	AV	4.95919G	-61.76	-41.20	-20.56	3.80	0.00	-65.56	-65.56
7.5G	25G	1M	AV	19.51375G	-75.77	-41.20	-34.57	3.80	0.00	-79.57	-79.57

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	2.4G	2.4835G	AV	2.4835G	3.80	-46.17	-42.37	-41.20	-1.17
BT-LE(2Mbps)	Pass	2.4835G	2.5035G	AV	2.4835G	3.80	-45.11	-41.31	-41.20	-0.11

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

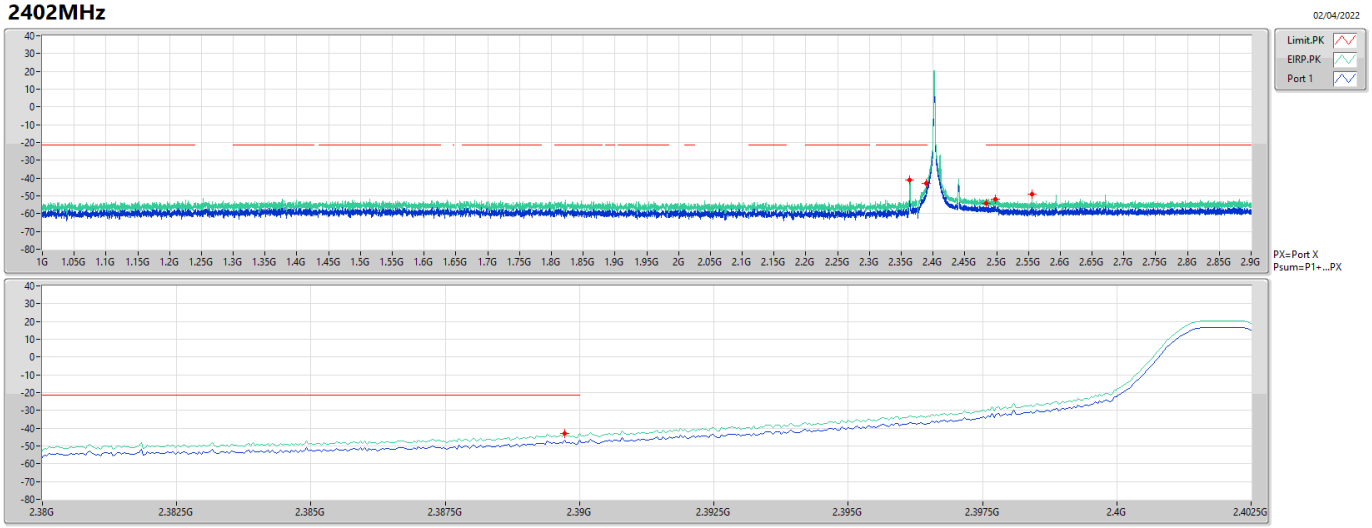
Result

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	2.38G	AV	2.36361G	3.80	-47.13	-43.33	-41.20	-2.13
2402MHz	Pass	2.38G	2.4G	AV	2.38972G	3.80	-57.54	-53.74	-41.20	-12.54
2402MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-67.51	-63.71	-41.20	-22.51
2402MHz	Pass	2.4835G	2.5035G	AV	2.4851G	3.80	-66.49	-62.69	-41.20	-21.49
2402MHz	Pass	2.5035G	2.9G	AV	2.55505G	3.80	-66.01	-62.21	-41.20	-21.01
2402MHz	Pass	1G	2.38G	PK	2.36344G	3.80	-44.67	-40.87	-21.20	-19.67
2402MHz	Pass	2.38G	2.4G	PK	2.38972G	3.80	-46.87	-43.07	-21.20	-21.87
2402MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-57.79	-53.99	-21.20	-32.79
2402MHz	Pass	2.4835G	2.5035G	PK	2.49766G	3.80	-55.69	-51.89	-21.20	-30.69
2402MHz	Pass	2.5035G	2.9G	PK	2.55544G	3.80	-53.02	-49.22	-21.20	-28.02
2440MHz	Pass	1G	2.38G	AV	2.32497G	3.80	-63.67	-59.87	-41.20	-18.67
2440MHz	Pass	2.38G	2.4G	AV	2.3888G	3.80	-65.67	-61.87	-41.20	-20.67
2440MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-65.49	-61.69	-41.20	-20.49
2440MHz	Pass	2.4835G	2.5035G	AV	2.49086G	3.80	-65.00	-61.20	-41.20	-20.00
2440MHz	Pass	2.5035G	2.9G	AV	2.63226G	3.80	-64.19	-60.39	-41.20	-19.19
2440MHz	Pass	1G	2.38G	PK	2.28616G	3.80	-53.75	-49.95	-21.20	-28.75
2440MHz	Pass	2.38G	2.4G	PK	2.38936G	3.80	-54.64	-50.84	-21.20	-29.64
2440MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-55.12	-51.32	-21.20	-30.12
2440MHz	Pass	2.4835G	2.5035G	PK	2.48854G	3.80	-54.40	-50.60	-21.20	-29.40
2440MHz	Pass	2.5035G	2.9G	PK	2.5938G	3.80	-53.02	-49.22	-21.20	-28.02
2480MHz	Pass	1G	2.38G	AV	2.28789G	3.80	-67.00	-63.20	-41.20	-22.00
2480MHz	Pass	2.38G	2.4G	AV	2.38048G	3.80	-67.94	-64.14	-41.20	-22.94
2480MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-46.17	-42.37	-41.20	-1.17
2480MHz	Pass	2.4835G	2.5035G	AV	2.4835G	3.80	-46.31	-42.51	-41.20	-1.31
2480MHz	Pass	2.5035G	2.9G	AV	2.51837G	3.80	-50.72	-46.92	-41.20	-5.72
2480MHz	Pass	1G	2.38G	PK	1.97566G	3.80	-56.47	-52.67	-21.20	-31.47
2480MHz	Pass	2.38G	2.4G	PK	2.3886G	3.80	-57.33	-53.53	-21.20	-32.33
2480MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-35.90	-32.10	-21.20	-10.90
2480MHz	Pass	2.4835G	2.5035G	PK	2.48358G	3.80	-35.85	-32.05	-21.20	-10.85
2480MHz	Pass	2.5035G	2.9G	PK	2.51807G	3.80	-47.46	-43.66	-21.20	-22.46
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	1G	2.38G	AV	2.36379G	3.80	-46.14	-42.34	-41.20	-1.14
2402MHz	Pass	2.38G	2.4G	AV	2.38992G	3.80	-53.70	-49.90	-41.20	-8.70
2402MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-66.84	-63.04	-41.20	-21.84
2402MHz	Pass	2.4835G	2.5035G	AV	2.48406G	3.80	-65.82	-62.02	-41.20	-20.82
2402MHz	Pass	2.5035G	2.9G	AV	2.67082G	3.80	-63.32	-59.52	-41.20	-18.32
2402MHz	Pass	1G	2.38G	PK	2.36327G	3.80	-42.86	-39.06	-21.20	-17.86
2402MHz	Pass	2.38G	2.4G	PK	2.3896G	3.80	-43.29	-39.49	-21.20	-18.29
2402MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-56.79	-52.99	-21.20	-31.79
2402MHz	Pass	2.4835G	2.5035G	PK	2.4937G	3.80	-55.45	-51.65	-21.20	-30.45
2402MHz	Pass	2.5035G	2.9G	PK	2.55564G	3.80	-52.02	-48.22	-21.20	-27.02
2440MHz	Pass	1G	2.38G	AV	2.24804G	3.80	-63.93	-60.13	-41.20	-18.93
2440MHz	Pass	2.38G	2.4G	AV	2.38628G	3.80	-65.36	-61.56	-41.20	-20.36
2440MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-65.65	-61.85	-41.20	-20.65
2440MHz	Pass	2.4835G	2.5035G	AV	2.49066G	3.80	-65.04	-61.24	-41.20	-20.04
2440MHz	Pass	2.5035G	2.9G	AV	2.5937G	3.80	-62.69	-58.89	-41.20	-17.69
2440MHz	Pass	1G	2.38G	PK	1.46817G	3.80	-54.83	-51.03	-21.20	-29.83
2440MHz	Pass	2.38G	2.4G	PK	2.38692G	3.80	-55.54	-51.74	-21.20	-30.54
2440MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-55.13	-51.33	-21.20	-30.13
2440MHz	Pass	2.4835G	2.5035G	PK	2.48358G	3.80	-54.12	-50.32	-21.20	-29.12
2440MHz	Pass	2.5035G	2.9G	PK	2.5936G	3.80	-52.89	-49.09	-21.20	-27.89
2480MHz	Pass	1G	2.38G	AV	1.52078G	3.80	-67.67	-63.87	-41.20	-22.67
2480MHz	Pass	2.38G	2.4G	AV	2.3874G	3.80	-68.15	-64.35	-41.20	-23.15
2480MHz	Pass	2.4G	2.4835G	AV	2.4835G	3.80	-45.57	-41.77	-41.20	-0.57
2480MHz	Pass	2.4835G	2.5035G	AV	2.4835G	3.80	-45.11	-41.31	-41.20	-0.11
2480MHz	Pass	2.5035G	2.9G	AV	2.51817G	3.80	-55.23	-51.43	-41.20	-10.23
2480MHz	Pass	1G	2.38G	PK	1.02415G	3.80	-56.60	-52.80	-21.20	-31.60
2480MHz	Pass	2.38G	2.4G	PK	2.38064G	3.80	-56.71	-52.91	-21.20	-31.71
2480MHz	Pass	2.4G	2.4835G	PK	2.4835G	3.80	-35.46	-31.66	-21.20	-10.46
2480MHz	Pass	2.4835G	2.5035G	PK	2.4837G	3.80	-34.10	-30.30	-21.20	-9.10
2480MHz	Pass	2.5035G	2.9G	PK	2.51758G	3.80	-49.92	-46.12	-21.20	-24.92

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

BT-LE(1Mbps) **CSE-DTS [PK]**

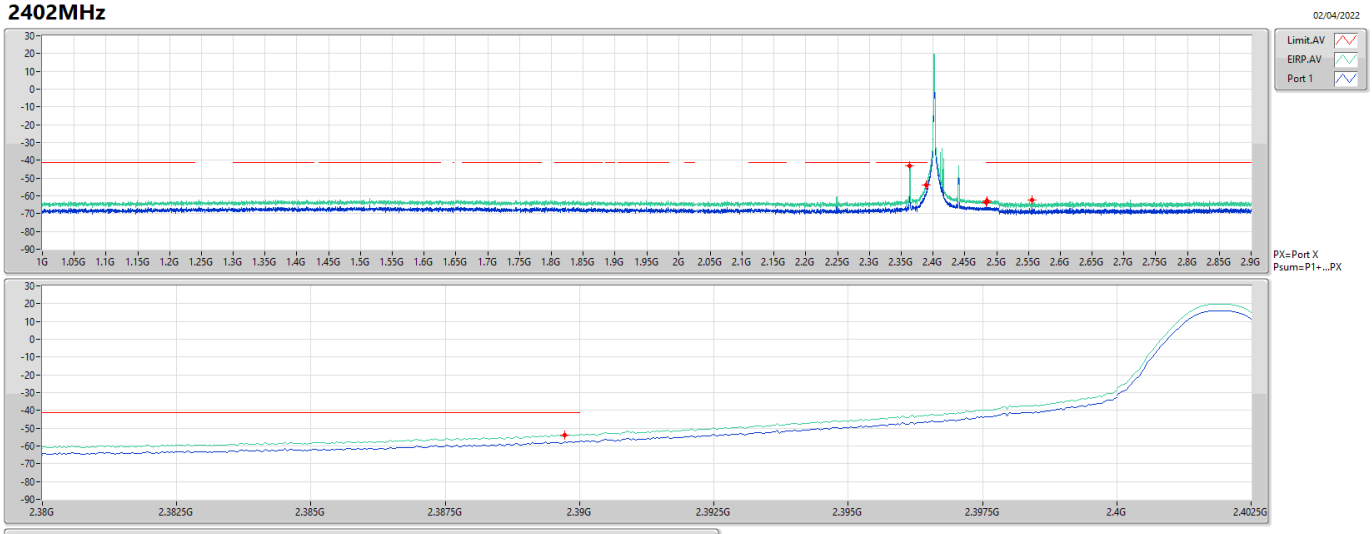
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	2.36344G	-40.87	-21.20	-19.67	3.80	0.00	-44.67	-44.67
2.38G	2.4G	1M	PK	2.38972G	-43.07	-21.20	-21.87	3.80	0.00	-46.87	-46.87
2.4G	2.4835G	1M	PK	2.4835G	-53.99	-21.20	-32.79	3.80	0.00	-57.79	-57.79
2.4835G	2.5035G	1M	PK	2.49766G	-51.89	-21.20	-30.69	3.80	0.00	-55.69	-55.69
2.5035G	2.9G	1M	PK	2.55544G	-49.22	-21.20	-28.02	3.80	0.00	-53.02	-53.02

BT-LE(1Mbps) **CSE-DTS [AV]**

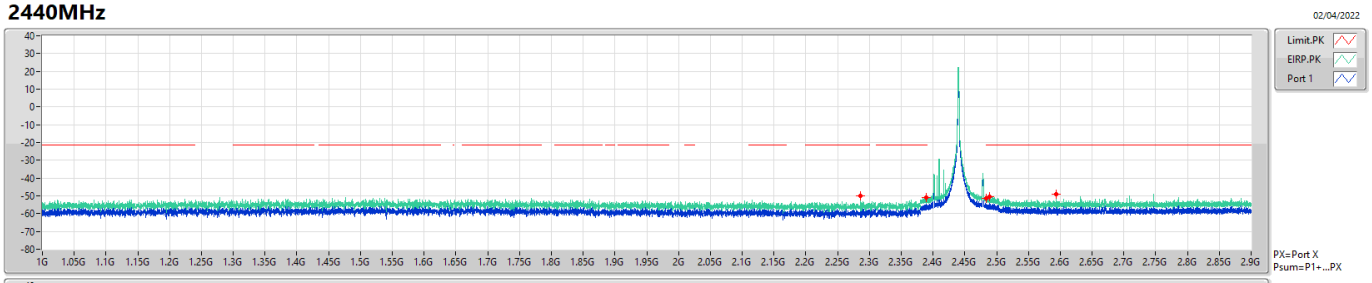
2402MHz

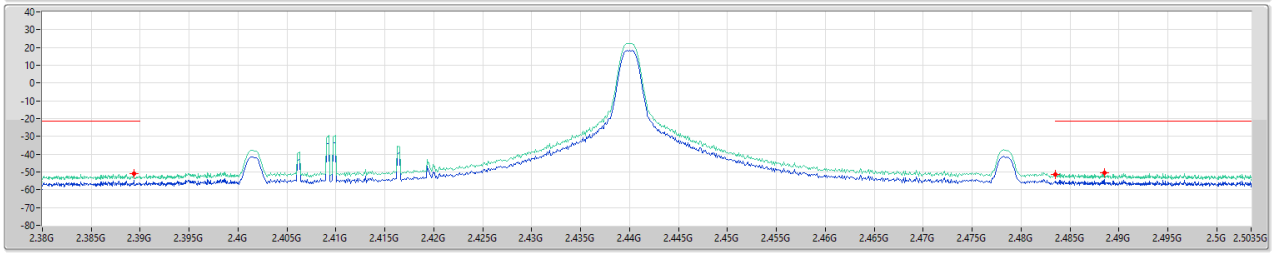


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.36361G	-43.33	-41.20	-2.13	3.80	0.00	-47.13	-47.13
2.38G	2.4G	1M	AV	2.38972G	-53.74	-41.20	-12.54	3.80	0.00	-57.54	-57.54
2.4G	2.4835G	1M	AV	2.4835G	-63.71	-41.20	-22.51	3.80	0.00	-67.51	-67.51
2.4835G	2.5035G	1M	AV	2.4851G	-62.69	-41.20	-21.49	3.80	0.00	-66.49	-66.49
2.5035G	2.9G	1M	AV	2.55505G	-62.21	-41.20	-21.01	3.80	0.00	-66.01	-66.01

BT-LE(1Mbps) **CSE-DTS [PK]**

2440MHz

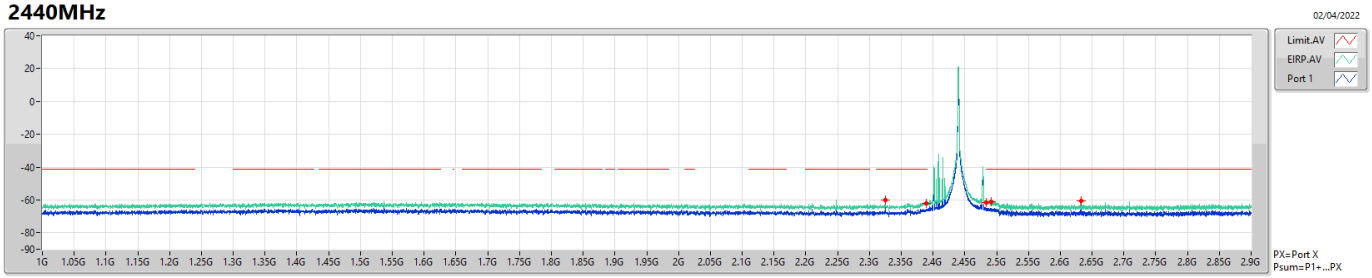


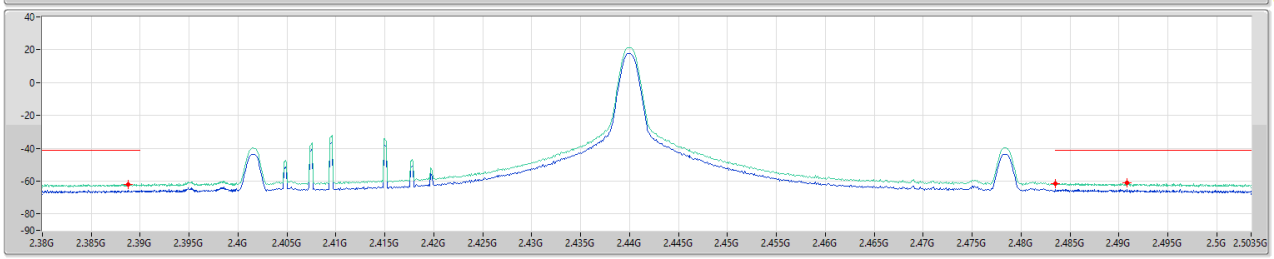


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	2.28616G	-49.95	-21.20	-28.75	3.80	0.00	-53.75	-53.75
2.38G	2.4G	1M	PK	2.38936G	-50.84	-21.20	-29.64	3.80	0.00	-54.64	-54.64
2.4G	2.4835G	1M	PK	2.4835G	-51.32	-21.20	-30.12	3.80	0.00	-55.12	-55.12
2.4835G	2.5035G	1M	PK	2.48854G	-50.60	-21.20	-29.40	3.80	0.00	-54.40	-54.40
2.5035G	2.9G	1M	PK	2.5938G	-49.22	-21.20	-28.02	3.80	0.00	-53.02	-53.02

BT-LE(1Mbps) **CSE-DTS [AV]**

2440MHz

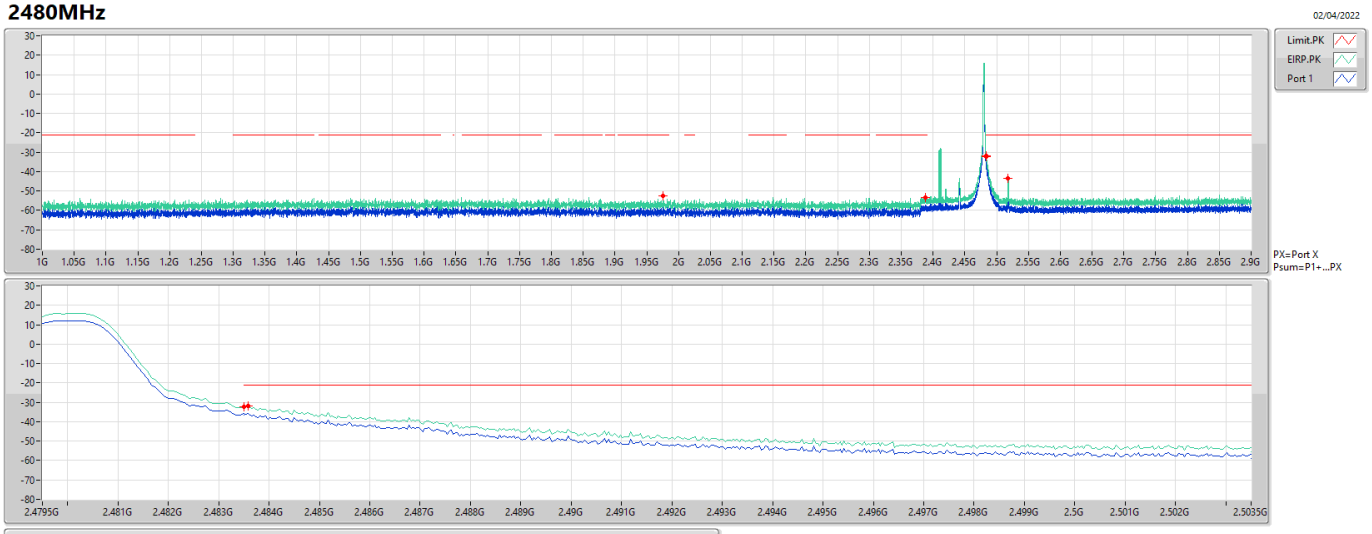




F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.32497G	-59.87	-41.20	-18.67	3.80	0.00	-63.67	-63.67
2.38G	2.4G	1M	AV	2.3888G	-61.87	-41.20	-20.67	3.80	0.00	-65.67	-65.67
2.4G	2.4835G	1M	AV	2.4835G	-61.69	-41.20	-20.49	3.80	0.00	-65.49	-65.49
2.4835G	2.5035G	1M	AV	2.49086G	-61.20	-41.20	-20.00	3.80	0.00	-65.00	-65.00
2.5035G	2.9G	1M	AV	2.63226G	-60.39	-41.20	-19.19	3.80	0.00	-64.19	-64.19

BT-LE(1Mbps) **CSE-DTS [PK]**

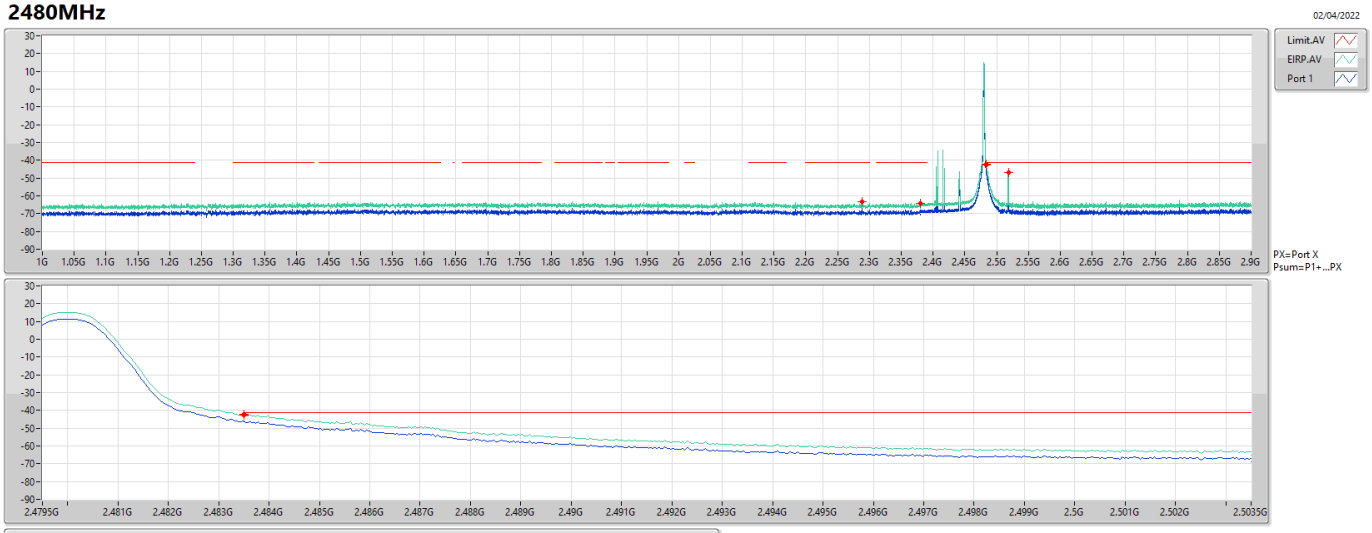
2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	1.97566G	-52.67	-21.20	-31.47	3.80	0.00	-56.47	-56.47
2.38G	2.4G	1M	PK	2.3886G	-53.53	-21.20	-32.33	3.80	0.00	-57.33	-57.33
2.4G	2.4835G	1M	PK	2.4835G	-32.10	-21.20	-10.90	3.80	0.00	-35.90	-35.90
2.4835G	2.5035G	1M	PK	2.48358G	-32.05	-21.20	-10.85	3.80	0.00	-35.85	-35.85
2.5035G	2.9G	1M	PK	2.51807G	-43.66	-21.20	-22.46	3.80	0.00	-47.46	-47.46

BT-LE(1Mbps) **CSE-DTS [AV]**

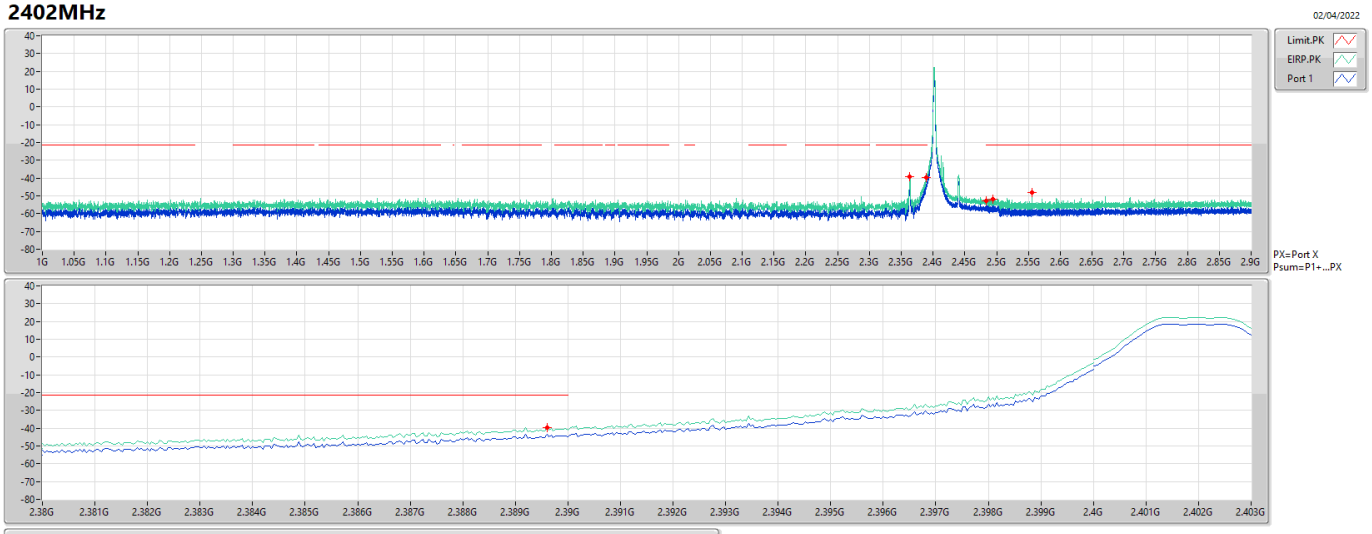
2480MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.28789G	-63.20	-41.20	-22.00	3.80	0.00	-67.00	-67.00
2.38G	2.4G	1M	AV	2.38048G	-64.14	-41.20	-22.94	3.80	0.00	-67.94	-67.94
2.4G	2.4835G	1M	AV	2.4835G	-42.37	-41.20	-1.17	3.80	0.00	-46.17	-46.17
2.4835G	2.5035G	1M	AV	2.4835G	-42.51	-41.20	-1.31	3.80	0.00	-46.31	-46.31
2.5035G	2.9G	1M	AV	2.51837G	-46.92	-41.20	-5.72	3.80	0.00	-50.72	-50.72

BT-LE(2Mbps) **CSE-DTS [PK]**

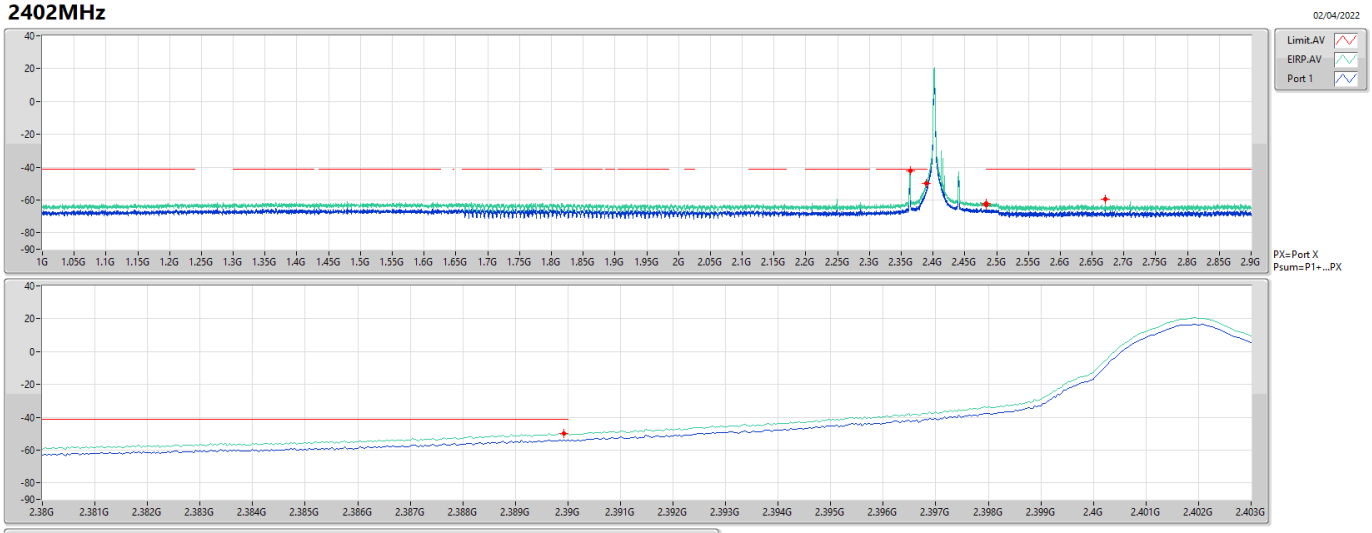
2402MHz



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	2.36327G	-39.06	-21.20	-17.86	3.80	0.00	-42.86	-42.86
2.38G	2.4G	1M	PK	2.3896G	-39.49	-21.20	-18.29	3.80	0.00	-43.29	-43.29
2.4G	2.4835G	1M	PK	2.4835G	-52.99	-21.20	-31.79	3.80	0.00	-56.79	-56.79
2.4835G	2.5035G	1M	PK	2.4937G	-51.65	-21.20	-30.45	3.80	0.00	-55.45	-55.45
2.5035G	2.9G	1M	PK	2.55564G	-48.22	-21.20	-27.02	3.80	0.00	-52.02	-52.02

BT-LE(2Mbps) **CSE-DTS [AV]**

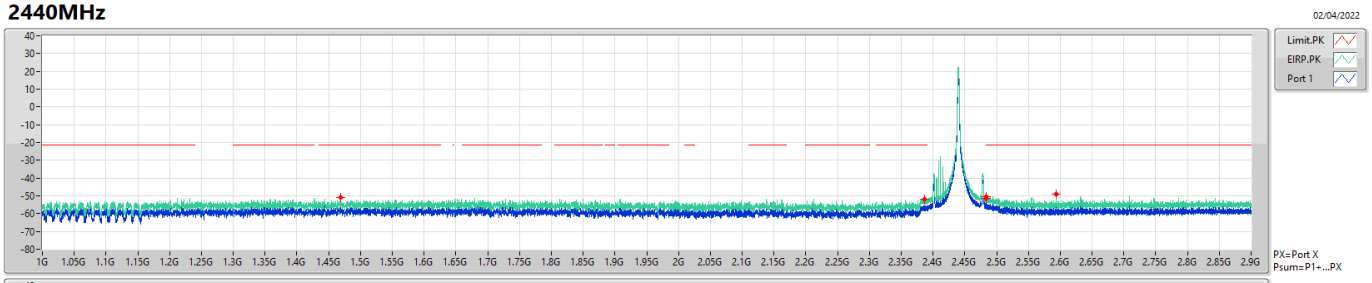
2402MHz

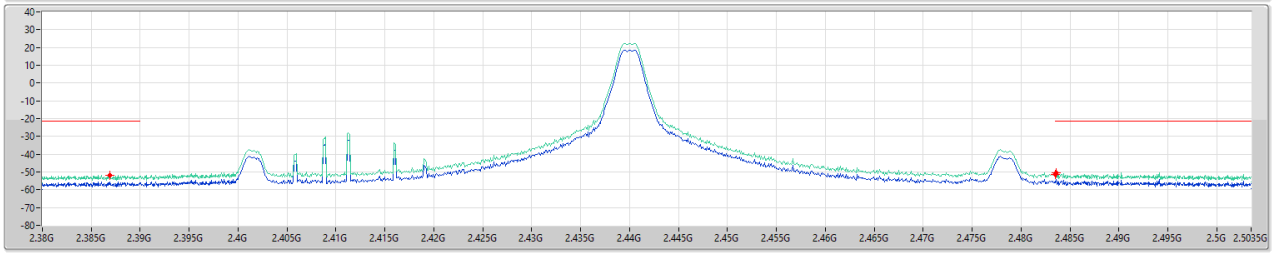


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.36379G	-42.34	-41.20	-1.14	3.80	0.00	-46.14	-46.14
2.38G	2.4G	1M	AV	2.38992G	-49.90	-41.20	-8.70	3.80	0.00	-53.70	-53.70
2.4G	2.4835G	1M	AV	2.4835G	-63.04	-41.20	-21.84	3.80	0.00	-66.84	-66.84
2.4835G	2.5035G	1M	AV	2.48406G	-62.02	-41.20	-20.82	3.80	0.00	-65.82	-65.82
2.5035G	2.9G	1M	AV	2.67082G	-59.52	-41.20	-18.32	3.80	0.00	-63.32	-63.32

BT-LE(2Mbps) **CSE-DTS [PK]**

2440MHz

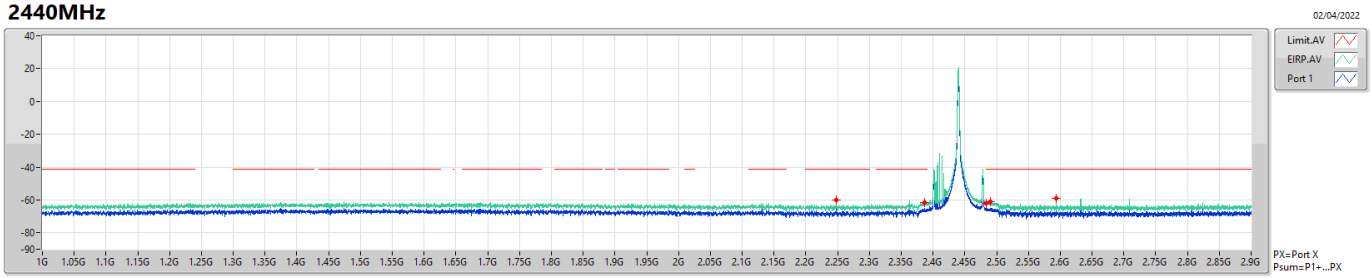


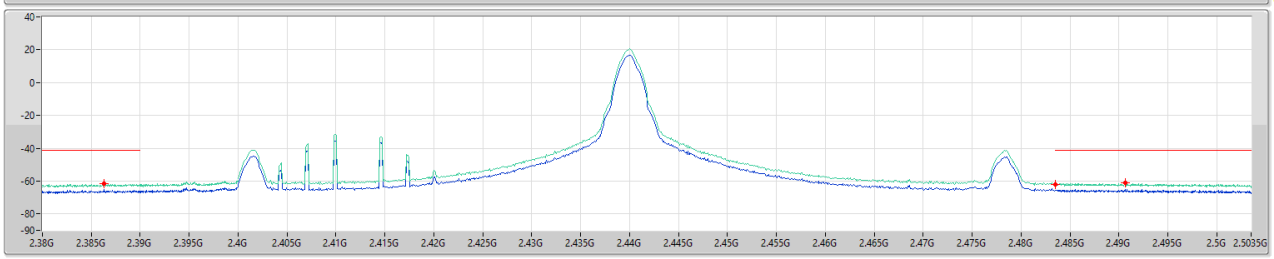


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	1.46817G	-51.03	-21.20	-29.83	3.80	0.00	-54.83	-54.83
2.38G	2.4G	1M	PK	2.38692G	-51.74	-21.20	-30.54	3.80	0.00	-55.54	-55.54
2.4G	2.4835G	1M	PK	2.4835G	-51.33	-21.20	-30.13	3.80	0.00	-55.13	-55.13
2.4835G	2.5035G	1M	PK	2.48358G	-50.32	-21.20	-29.12	3.80	0.00	-54.12	-54.12
2.5035G	2.9G	1M	PK	2.5936G	-49.09	-21.20	-27.89	3.80	0.00	-52.89	-52.89

BT-LE(2Mbps) **CSE-DTS [AV]**

2440MHz

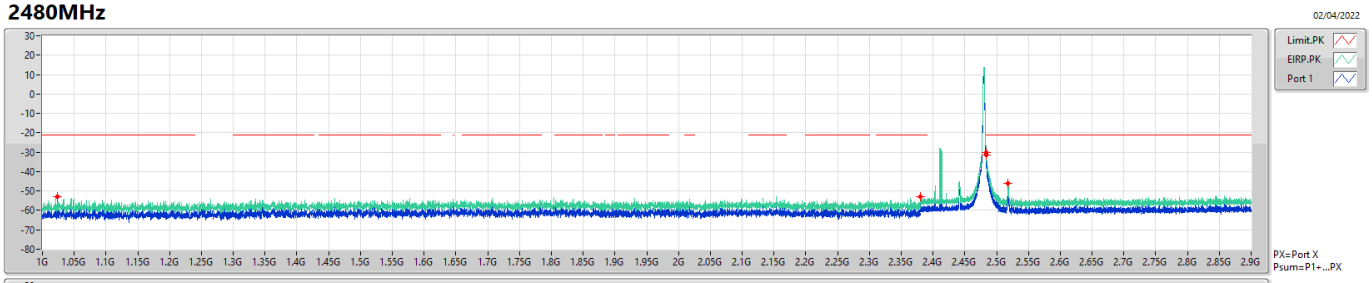


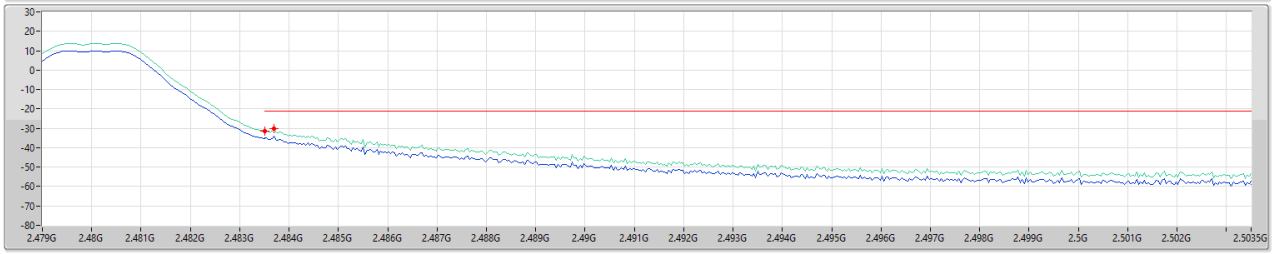


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	2.24804G	-60.13	-41.20	-18.93	3.80	0.00	-63.93	-63.93
2.38G	2.4G	1M	AV	2.38628G	-61.56	-41.20	-20.36	3.80	0.00	-65.36	-65.36
2.4G	2.4835G	1M	AV	2.4835G	-61.85	-41.20	-20.65	3.80	0.00	-65.65	-65.65
2.4835G	2.5035G	1M	AV	2.49066G	-61.24	-41.20	-20.04	3.80	0.00	-65.04	-65.04
2.5035G	2.9G	1M	AV	2.5937G	-58.89	-41.20	-17.69	3.80	0.00	-62.69	-62.69

BT-LE(2Mbps) **CSE-DTS [PK]**

2480MHz

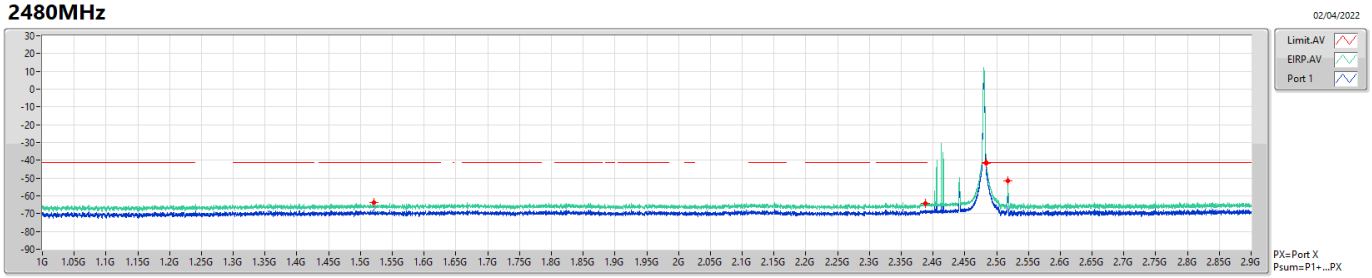


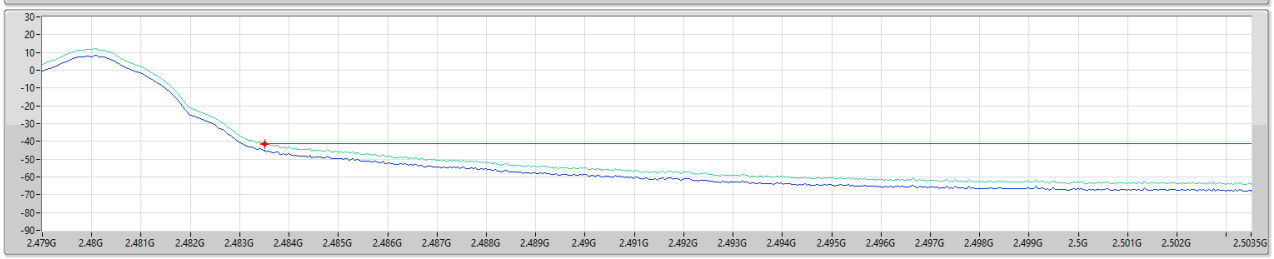


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	PK	1.02415G	-52.80	-21.20	-31.60	3.80	0.00	-56.60	-56.60
2.38G	2.4G	1M	PK	2.38064G	-52.91	-21.20	-31.71	3.80	0.00	-56.71	-56.71
2.4G	2.4835G	1M	PK	2.4835G	-31.66	-21.20	-10.46	3.80	0.00	-35.46	-35.46
2.4835G	2.5035G	1M	PK	2.4837G	-30.30	-21.20	-9.10	3.80	0.00	-34.10	-34.10
2.5035G	2.9G	1M	PK	2.51758G	-46.12	-21.20	-24.92	3.80	0.00	-49.92	-49.92

BT-LE(2Mbps) **CSE-DTS [AV]**

2480MHz





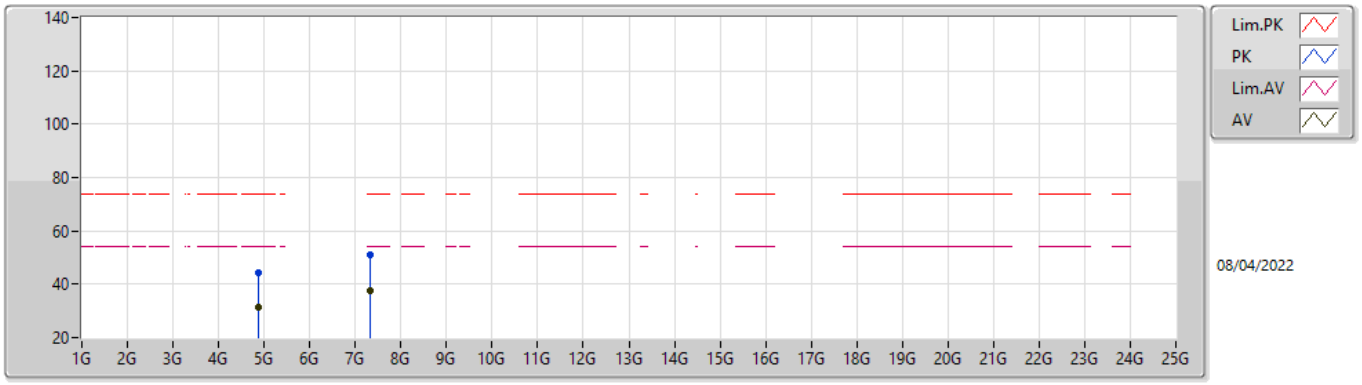
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	Type	Freq(Hz)	EIRP(dBm)	Limit(dBm)	Margin(dB)	DG(dBi)	Refl(dB)	Psum(dBm)	P1(dBm)
1G	2.38G	1M	AV	1.52078G	-63.87	-41.20	-22.67	3.80	0.00	-67.67	-67.67
2.38G	2.4G	1M	AV	2.3874G	-64.35	-41.20	-23.15	3.80	0.00	-68.15	-68.15
2.4G	2.4835G	1M	AV	2.4835G	-41.77	-41.20	-0.57	3.80	0.00	-45.57	-45.57
2.4835G	2.5035G	1M	AV	2.4835G	-41.31	-41.20	-0.11	3.80	0.00	-45.11	-45.11
2.5035G	2.9G	1M	AV	2.51817G	-51.43	-41.20	-10.23	3.80	0.00	-55.23	-55.23

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,Z_Nss1_1TX	Pass	AV	7.31932G	38.16	54.00	-15.84	3	Horizontal	223	1.90	-

BT-LE,X_Nss1_1TX

2440MHz_TX

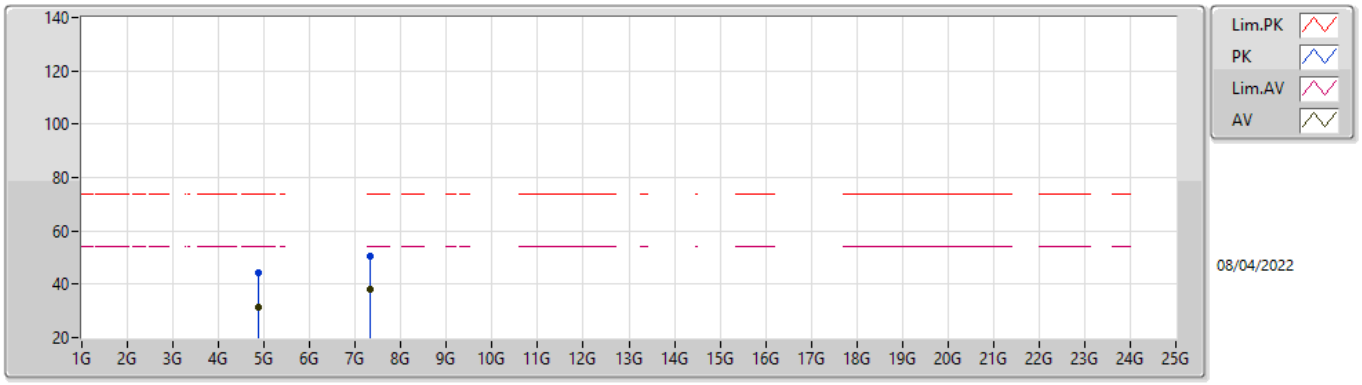


EUT X_1TX
Setting 20
04-D-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.88168G	44.46	74.00	-29.54	39.91	3	Vertical	137	1.56	-	32.93	4.84	33.22
AV	4.87688G	31.41	54.00	-22.59	26.88	3	Vertical	137	1.56	-	32.91	4.84	33.22
PK	7.31948G	51.24	74.00	-22.76	41.35	3	Vertical	289	2.74	-	37.50	6.06	33.67
AV	7.31978G	37.83	54.00	-16.17	27.94	3	Vertical	289	2.74	-	37.50	6.06	33.67

BT-LE,X_Nss1_1TX

2440MHz_TX



EUT X_1TX
Setting 20
04-D-S-8

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	4.88396G	44.38	74.00	-29.62	39.82	3	Horizontal	12	2.56	-	32.94	4.84	33.22
AV	4.88112G	31.33	54.00	-22.67	26.79	3	Horizontal	12	2.56	-	32.92	4.84	33.22
PK	7.3183G	50.40	74.00	-23.60	40.51	3	Horizontal	154	2.44	-	37.50	6.06	33.67
AV	7.32044G	37.89	54.00	-16.11	28.00	3	Horizontal	154	2.44	-	37.50	6.06	33.67