



FCC Radio Test Report

FCC ID : 2AEIM-1849171
Equipment : TPMS sensor
Brand Name : Tesla
Model Name : 1849171
Applicant : Tesla, Inc.
3500 Deer Creek Road Palo Alto, California US 94304
United States Of America
Manufacturer : Tesla, Inc..
3500 Deer Creek Road Palo Alto, California US 94304
United States Of America
Standard : 47 CFR FCC Part 15.247

The product was received on Nov. 07, 2022, and testing was started from Dec. 14, 2022 and completed on Dec. 27, 2022. We, SPORTON INTERNATIONAL INC. Hsinhua 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. Hsinhua Laboratory, the test report shall not be reproduced except in full.

Approved by: Ben Tseng

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



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PHOTOGRAPHS OF EUT V01



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	Not Required	Only employ battery power.
3.1	15.247(a)	DTS Bandwidth	PASS	-
3.2	15.247(b)	Maximum Conducted Output Power	PASS	-
3.3	15.247(e)	Power Spectral Density	PASS	-
3.4	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.5	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
None

Reviewed by: Barry Hsiao
Report Producer: Amber Chiu

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	1TX
2.4-2.4835GHz	BT-LE(2Mbps)	2.0	1TX

Note:

- Bluetooth LE uses a GFSK (1Mbps/2Mbps) modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	TESLA	TPMS	PCB trace antenna	N/A	4.969

Note 1: The EUT has one antenna.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Only Ant. 1 can be used as transmitting/receiving.

1.1.3 EUT Information

Operational Condition	
EUT Power Type	From Battery / DC Power supply
EUT Function	<input checked="" type="checkbox"/> Point-to-multipoint <input type="checkbox"/> Point-to-point
Type of EUT	
<input checked="" type="checkbox"/>	Stand-alone
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device)
	Combined Equipment - Brand Name / Model No.: ...
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems)
	Host System - Brand Name / Model No.: ...
<input type="checkbox"/>	Other:

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
BT-LE(1Mbps)	1	0	n/a (DC \geq 0.98)	n/a (DC \geq 0.98)
BT-LE(2Mbps)	1	0	n/a (DC \geq 0.98)	n/a (DC \geq 0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied Standards

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

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013

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

- ♦ KDB 558074 D01 v05r02
- ♦ KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
<input checked="" type="checkbox"/>	Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)		
		TEL: 886-3-327-3456	FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Jin Jing	22.3~23.9°C / 53~62%	27/Dec/2022
<input checked="" type="checkbox"/>	Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)		
		TEL: 886-3-318-0787	FAX: 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated	03CH09-HY	Lego Lin	20.2~21.1°C / 59~65%	14/Dec/2022~15/Dec/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 Items	Uncertainty	Remark
Bandwidth	3 MHz	Confidence levels of 95%
Maximum Conducted Output Power	2 dB	Confidence levels of 95%
Power Spectral Density	2 dB	Confidence levels of 95%
Emissions in Non-restricted Frequency Bands	0.14 dB	Confidence levels of 95%
Emissions in Restricted Frequency Bands	4.8 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%



2 Test Configuration of EUT




2.1 Test Channel Mode

Test Software Version	BTool v1.42.19
-----------------------	----------------

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	0xE
2440MHz	0xE
2480MHz	0xE
BT-LE(2Mbps)	-
2402MHz	0xE
2440MHz	0xE
2480MHz	0xE

2.2 The Worst Case Measurement Configuration

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

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		
1	DC Power Supply mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

2.3 Accessories

Accessories				
Battery	Brand Name	Tohoku Murata	Model Name	CR2450HR
	Power Rating	3 Vdc, 550 mAh	Type	Li-ion, Yes

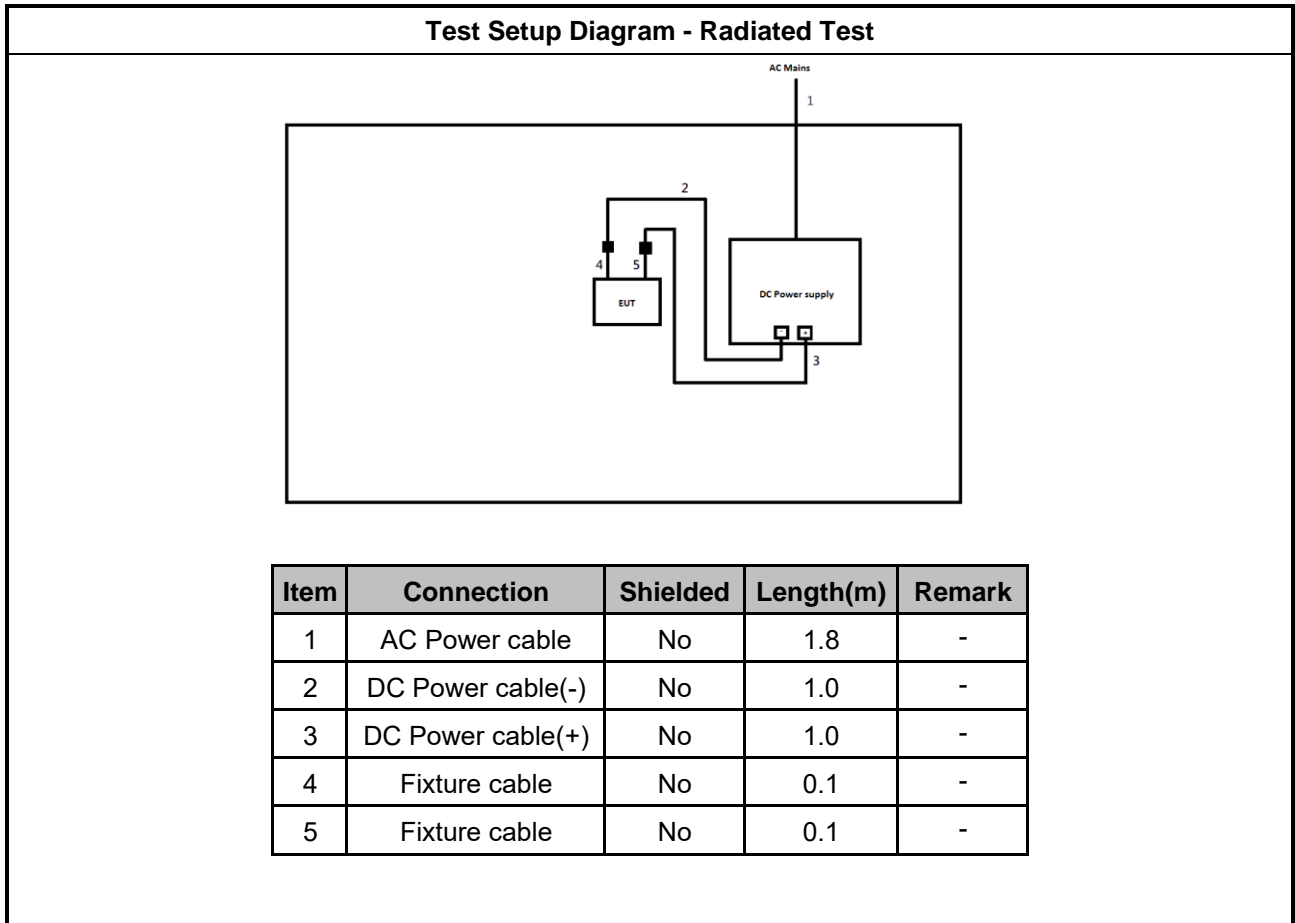
Reminder: Regarding to more detail and other information, please refer to user manual.

2.4 Support Equipment

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	DC Power Supply	GW	GPS-3030DD	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	DC Power Supply	GW	GPS-3030DD	-	-
2	AC power cable	Power Sync	PW-GPC180-3	-	-
3	DC power cable (+)	MiSUMi	WTN1229-BLACK	-	-
4	DC power cable (-)	MiSUMi	WTN1229-RED	-	-

2.5 Test Setup Diagram



3 Transmitter Test Result

3.1 DTS Bandwidth

3.1.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
<ul style="list-style-type: none"> 6 dB bandwidth \geq 500 kHz.

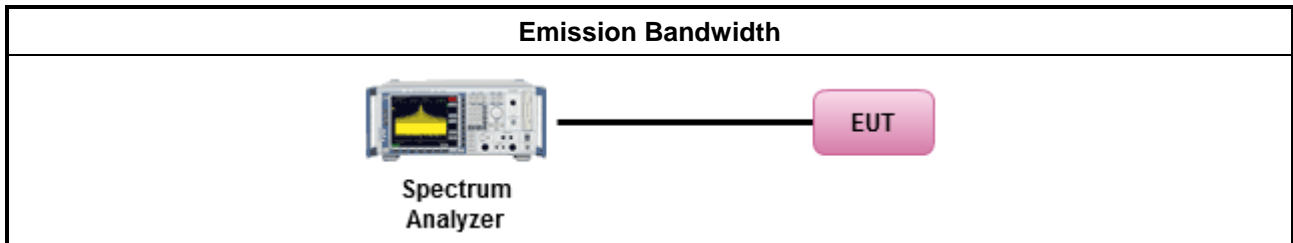
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
<ul style="list-style-type: none"> For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as KDB 558074, clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
<input type="checkbox"/> Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.1.4 Test Setup



3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.2 Maximum Conducted Output Power

3.2.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	<ul style="list-style-type: none"> ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS):
	<ul style="list-style-type: none"> - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
e.i.r.p. Power Limit:	
	<ul style="list-style-type: none"> ▪ 2400-2483.5 MHz Band
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS)
	<ul style="list-style-type: none"> - Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ 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.	

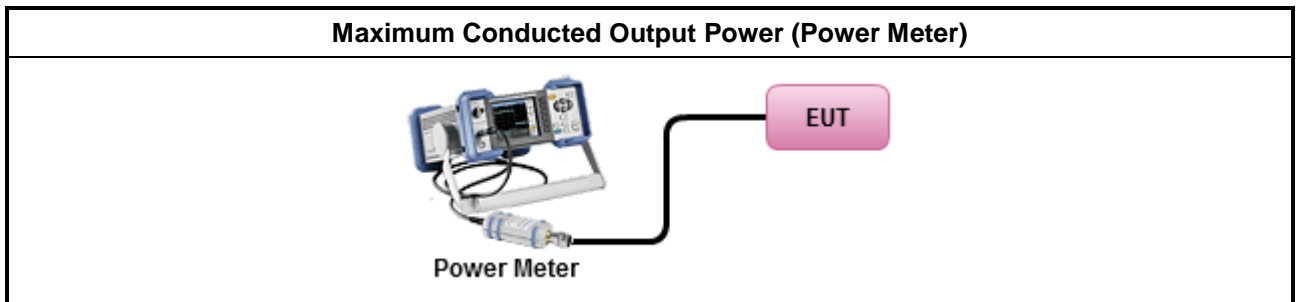
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Peak Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
<ul style="list-style-type: none"> ▪ Maximum Average Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: Refer as 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. 	
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

3.3 Power Spectral Density

3.3.1 Power Spectral Density Limit

Power Spectral Density Limit
<ul style="list-style-type: none"> Power Spectral Density (PSD) ≤ 8 dBm/3kHz

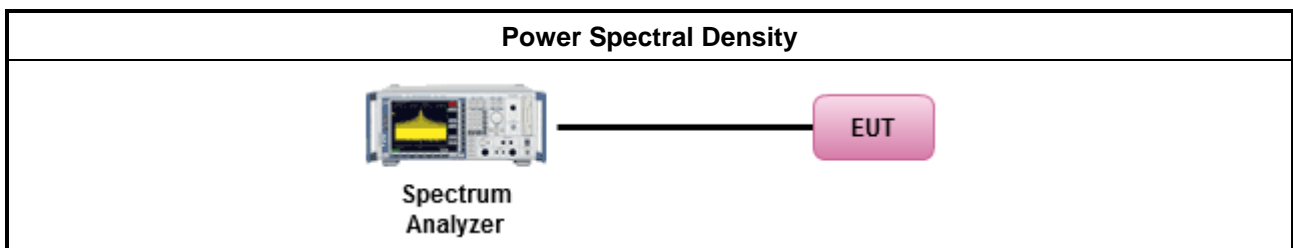
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> 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). 	
<input checked="" type="checkbox"/> Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.	
<ul style="list-style-type: none"> For conducted measurement. 	
<ul style="list-style-type: none"> If The EUT supports multiple transmit chains using options given below: 	
	<ul style="list-style-type: none"> Measure and sum the spectra across the outputs. Refer as 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.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Refer as Appendix C

3.4 Emissions in Non-restricted Frequency Bands

3.4.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
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 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 level.

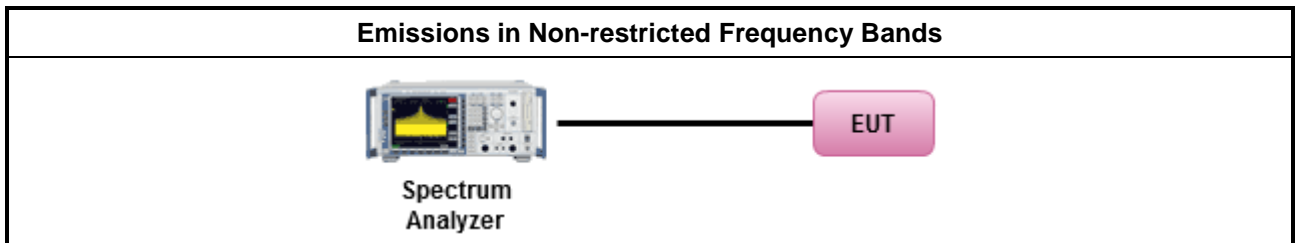
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.4.4 Test Setup



3.4.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix D

3.5 Emissions in Restricted Frequency Bands

3.5.1 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 below 30 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.

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

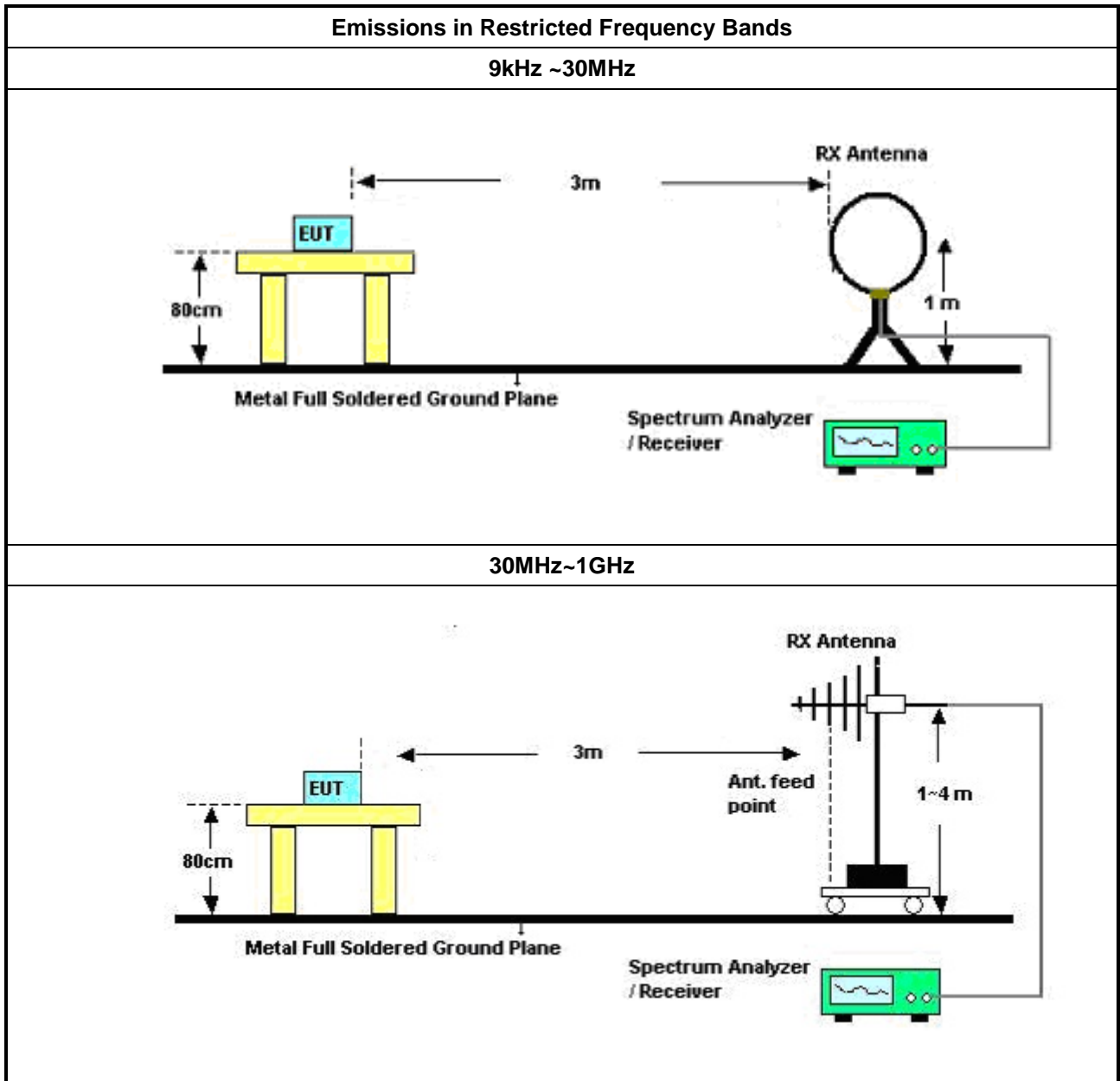
Test Method	
	<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
	<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below:
	<ul style="list-style-type: none"> ▪ Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
	<ul style="list-style-type: none"> ▪ For the transmitter band-edge emissions shall be measured using following options below:
	<ul style="list-style-type: none"> ▪ Refer as KDB 558074 clause 8.7.1, 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.
	<ul style="list-style-type: none"> ▪ Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> ▪ Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
	<ul style="list-style-type: none"> ▪ Use the following spectrum analyzer settings:
	<ul style="list-style-type: none"> ▪ Set RBW=100 kHz for f < 1 GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	<ul style="list-style-type: none"> ▪ Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.
	<ul style="list-style-type: none"> ▪ KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.
	<ul style="list-style-type: none"> ▪ Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	<ul style="list-style-type: none"> ▪ Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

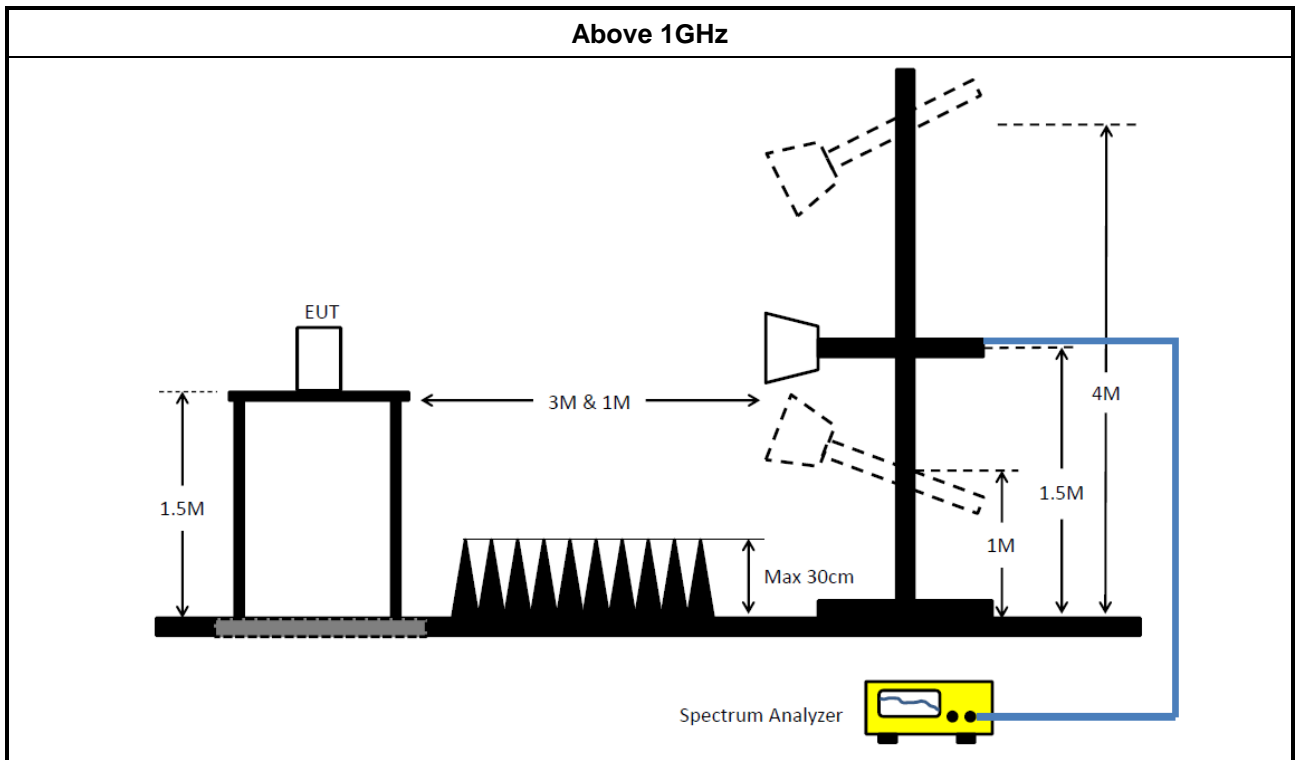
3.5.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

3.5.5 Test Setup





3.5.6 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.5.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10Hz~40GHz	10/Nov/2022	09/Nov/2023
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2022	20/Oct/2023
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	25/Mar/2022	24/Mar/2023
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	25/Mar/2022	24/Mar/2023
SENSE-15247_FS	Sporton	V5.10.7.16	N/A	N/A	N/A	N/A

Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz~1GHz 3m	25/Mar/2022	24/Mar/2023
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	17/Mar/2022	16/Mar/2023
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	11/Aug/2022	10/Aug/2023
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	08/Apr/2022	07/Apr/2023
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	22/Jul/2022	21/Jul/2023
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D&MT J6102-05	35418 & 3	30MHz~1GHz	28/Aug/2022	27/Aug/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz~18GHz	27/Dec/2021	26/Dec/2022
RF Cable-low	Jye Bao	RG142	CB031+324530/4	9kHz~30MHz	07/Feb/2022	06/Feb/2023
RF Cable-low	Jye Bao	RG142	03CH09-cable-01	30MHz~1GHz	09/Dec/2022	08/Dec/2023
RF CABLE 5m+3m+1m	HUBER+SUHNER	SUCOFLEX104	03CH09-cable-02	1GHz~40GHz	17/Aug/2022	16/Aug/2023
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	18/Mar/2022	17/Mar/2023
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	18/Mar/2022	17/Mar/2023
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	02/Nov/2022	01/Nov/2023
SENSE-15247_FS	Sporton	V5.10.7.14	N/A	N/A	N/A	N/A



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)	697.5k	1.104M	1M10F1D	690k	1.094M
BT-LE(2Mbps)	1.393M	2.074M	2M07F1D	1.328M	2.069M

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	690k	1.094M
2440MHz	Pass	500k	697.5k	1.104M
2480MHz	Pass	500k	696.25k	1.102M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.393M	2.074M
2440MHz	Pass	500k	1.328M	2.071M
2480MHz	Pass	500k	1.333M	2.069M

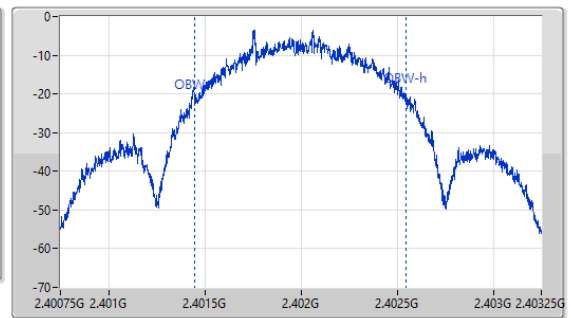
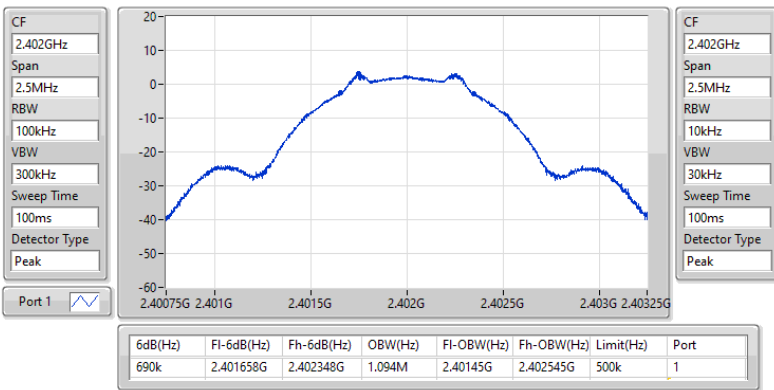
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

2402MHz

27/12/2022

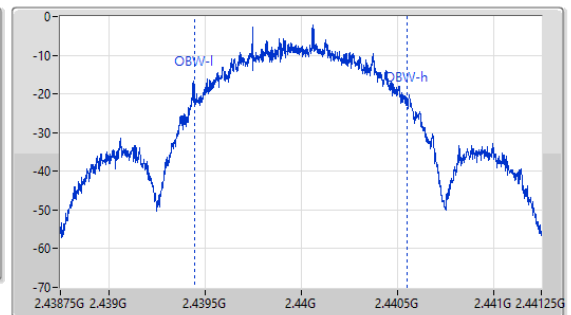
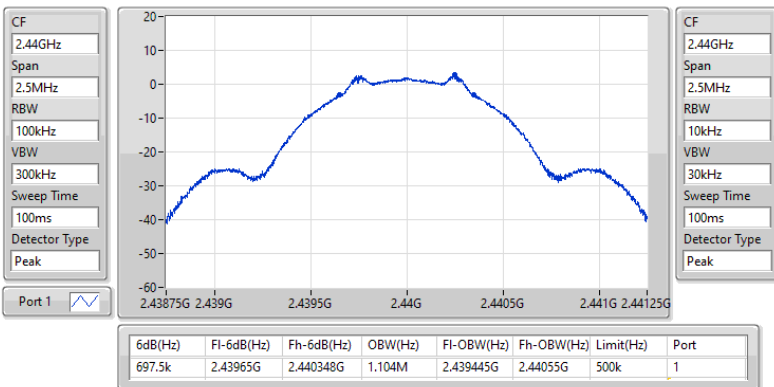


2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

2440MHz

27/12/2022

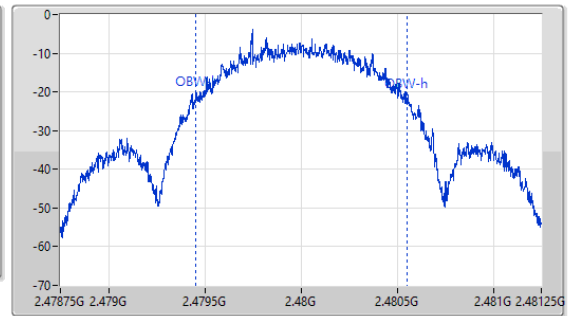
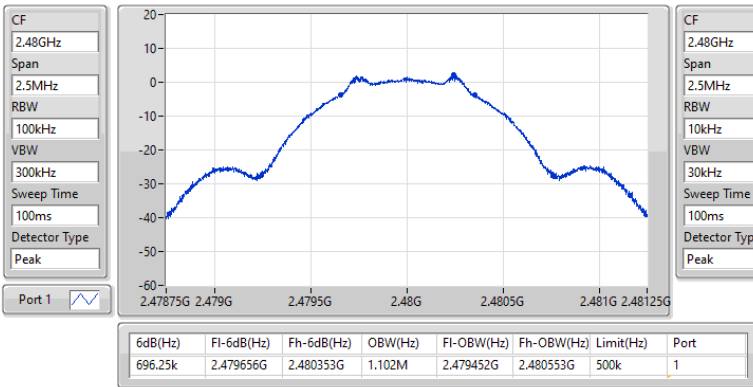


2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

2480MHz

27/12/2022

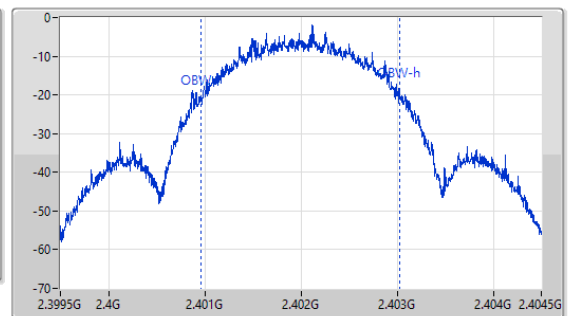
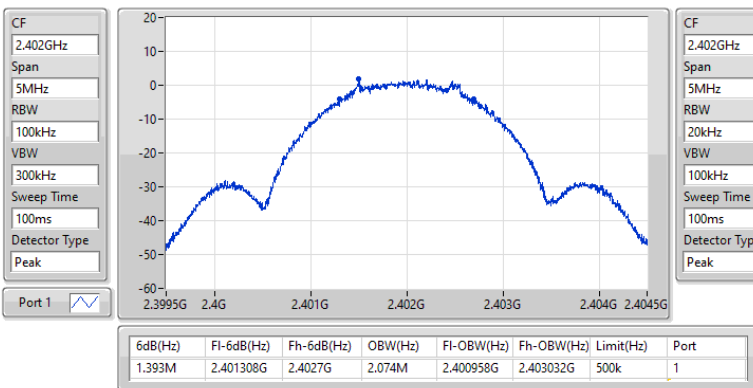


2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

2402MHz

27/12/2022

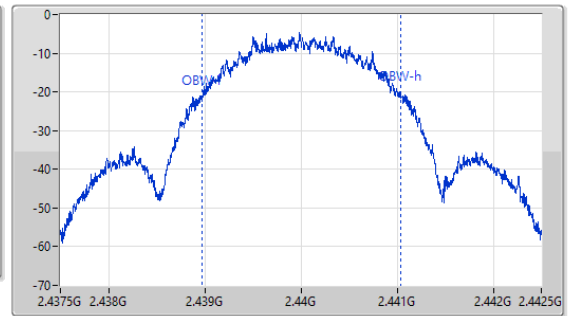
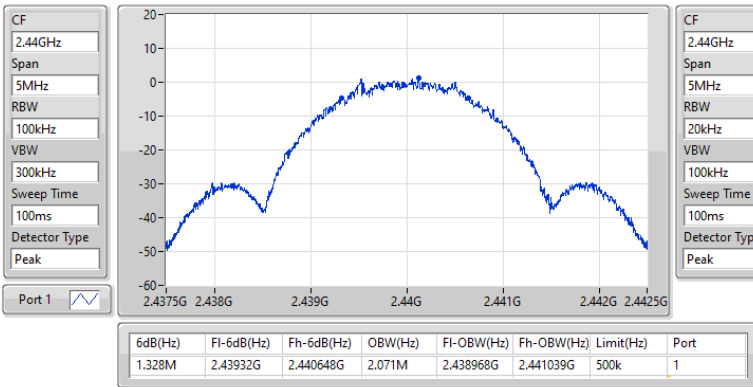


2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

2440MHz

27/12/2022

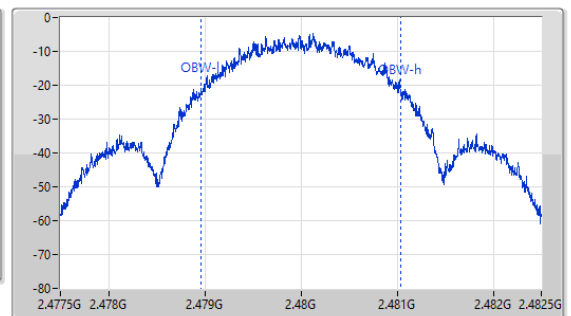
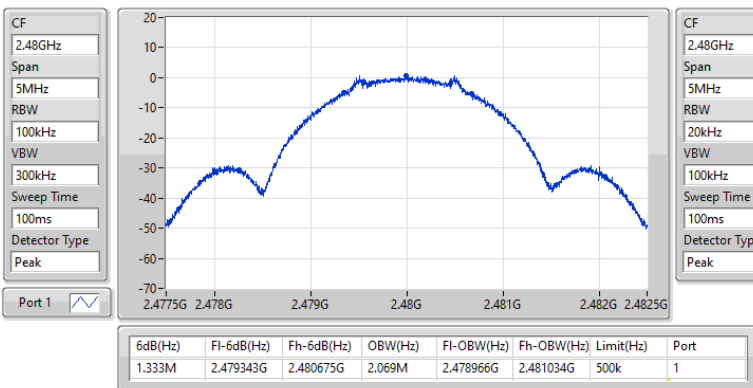


2.4-2.4835GHz_BT-LE(2Mbps)

EBW-DTS

2480MHz

27/12/2022





Summary

Mode	Total Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	4.22	0.00264
BT-LE(2Mbps)	4.07	0.00255



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.969	4.22	30.00
2440MHz	Pass	4.969	3.48	30.00
2480MHz	Pass	4.969	3.00	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.969	4.07	30.00
2440MHz	Pass	4.969	3.51	30.00
2480MHz	Pass	4.969	3.01	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-9.57
BT-LE(2Mbps)	-12.79

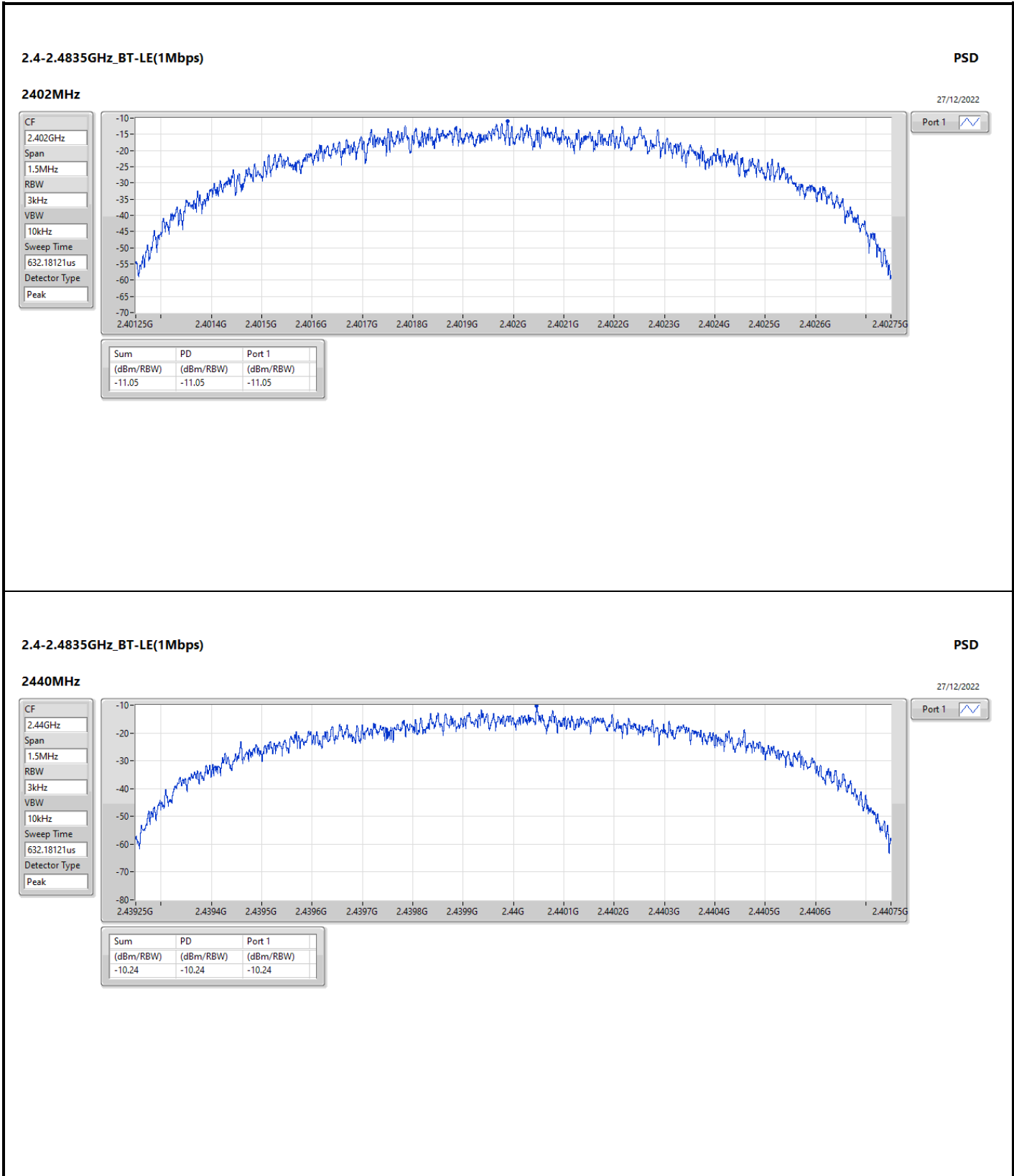
RBW = 3kHz;

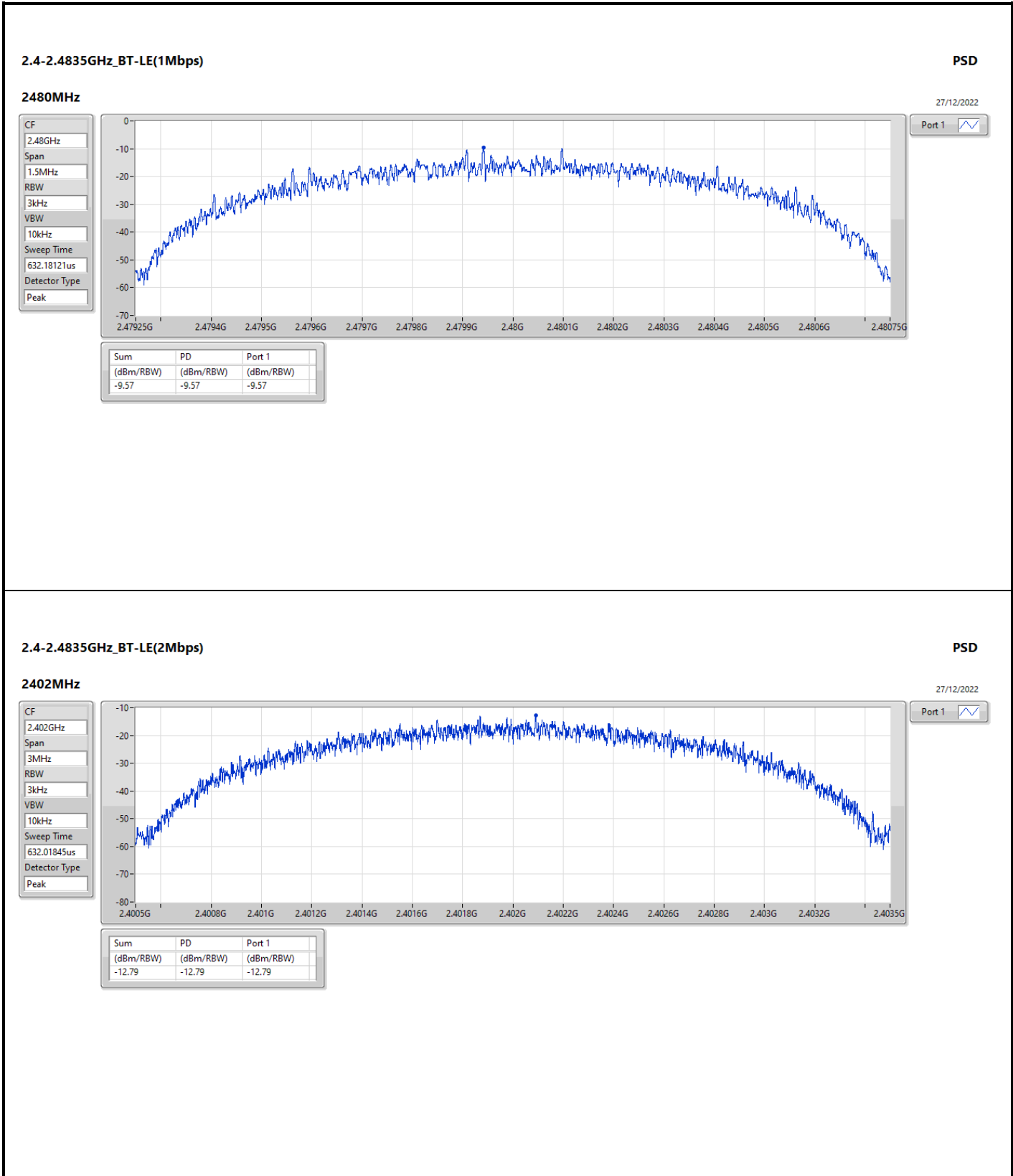


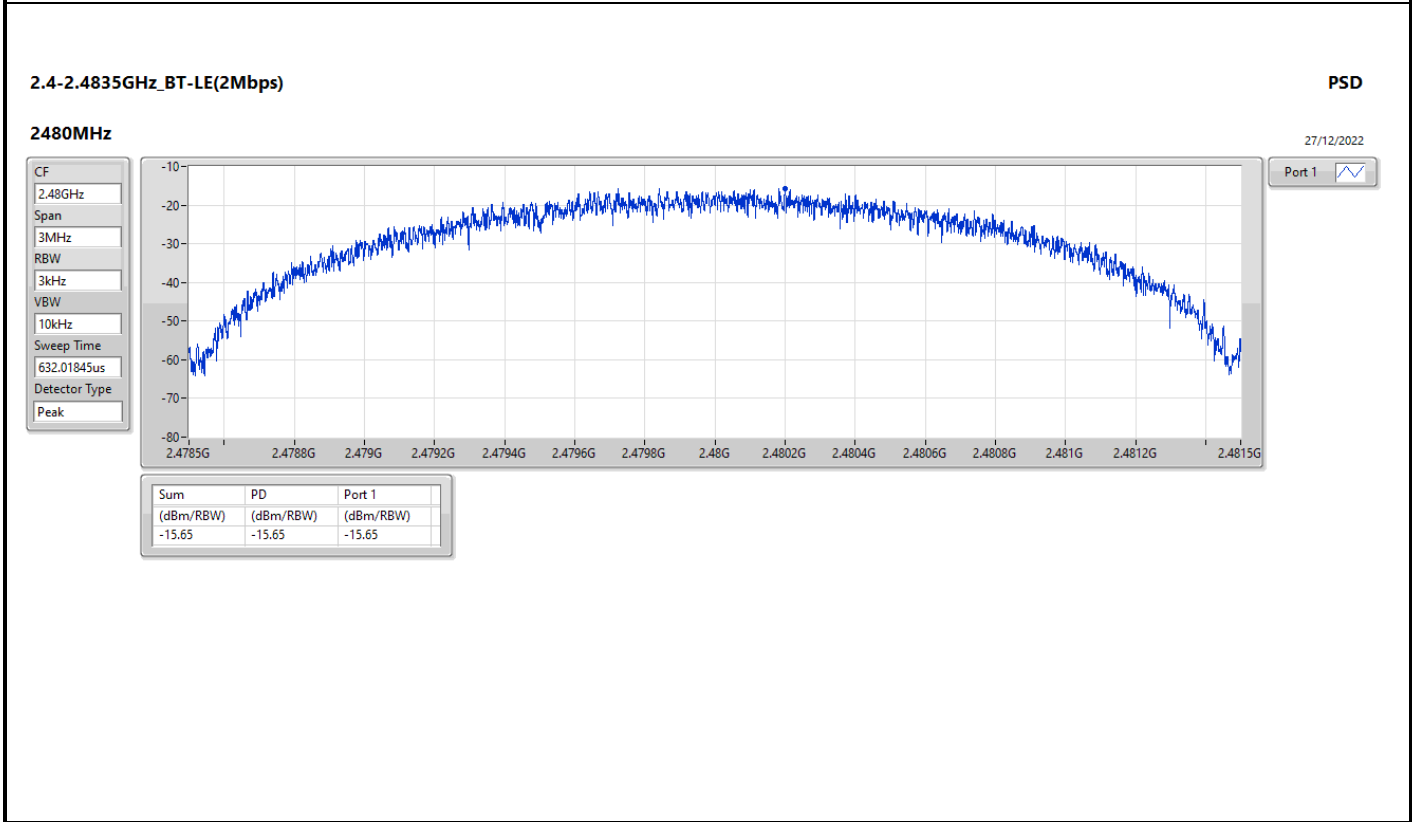
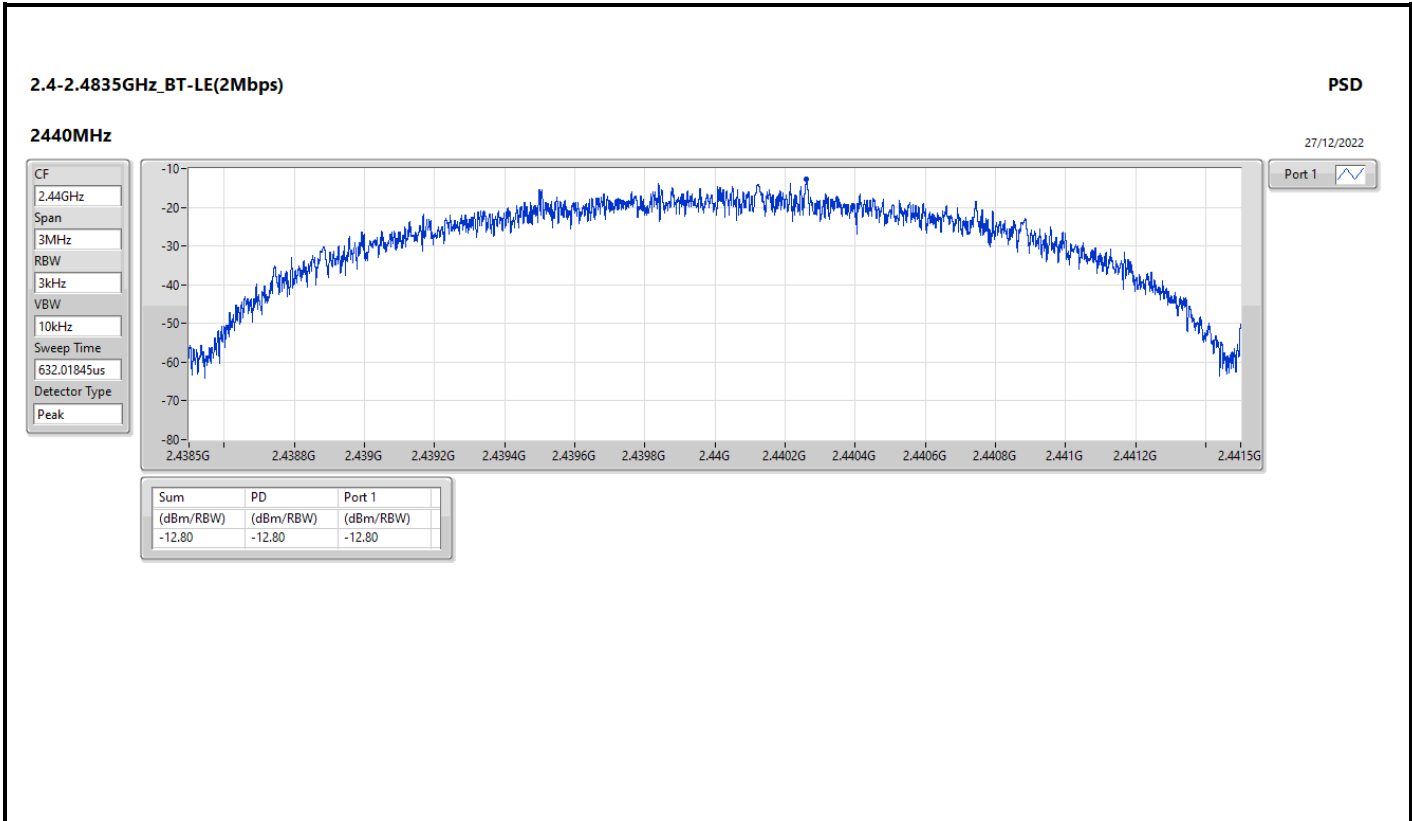
Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.969	-11.05	8.00
2440MHz	Pass	4.969	-10.24	8.00
2480MHz	Pass	4.969	-9.57	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.969	-12.79	8.00
2440MHz	Pass	4.969	-12.80	8.00
2480MHz	Pass	4.969	-15.65	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;









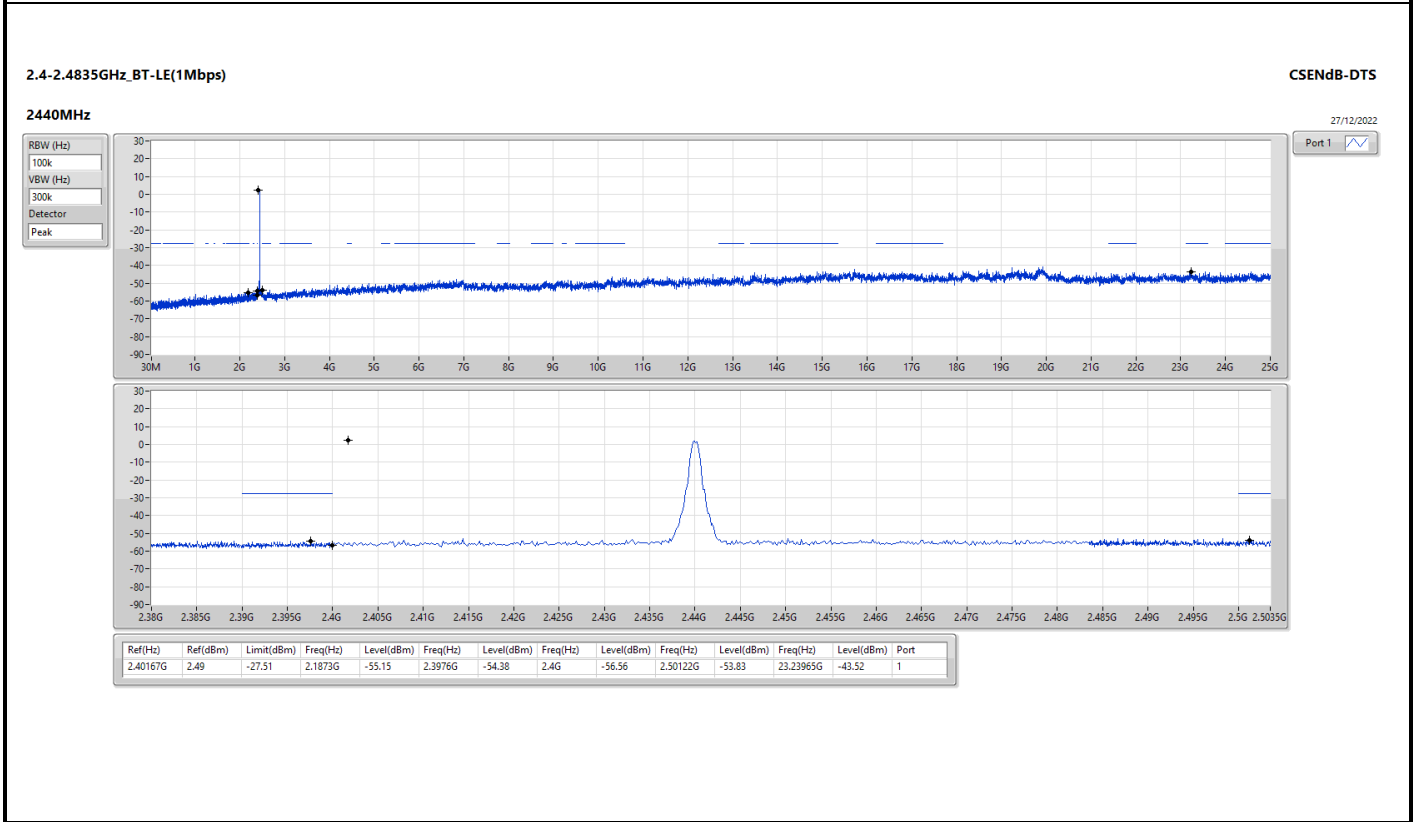
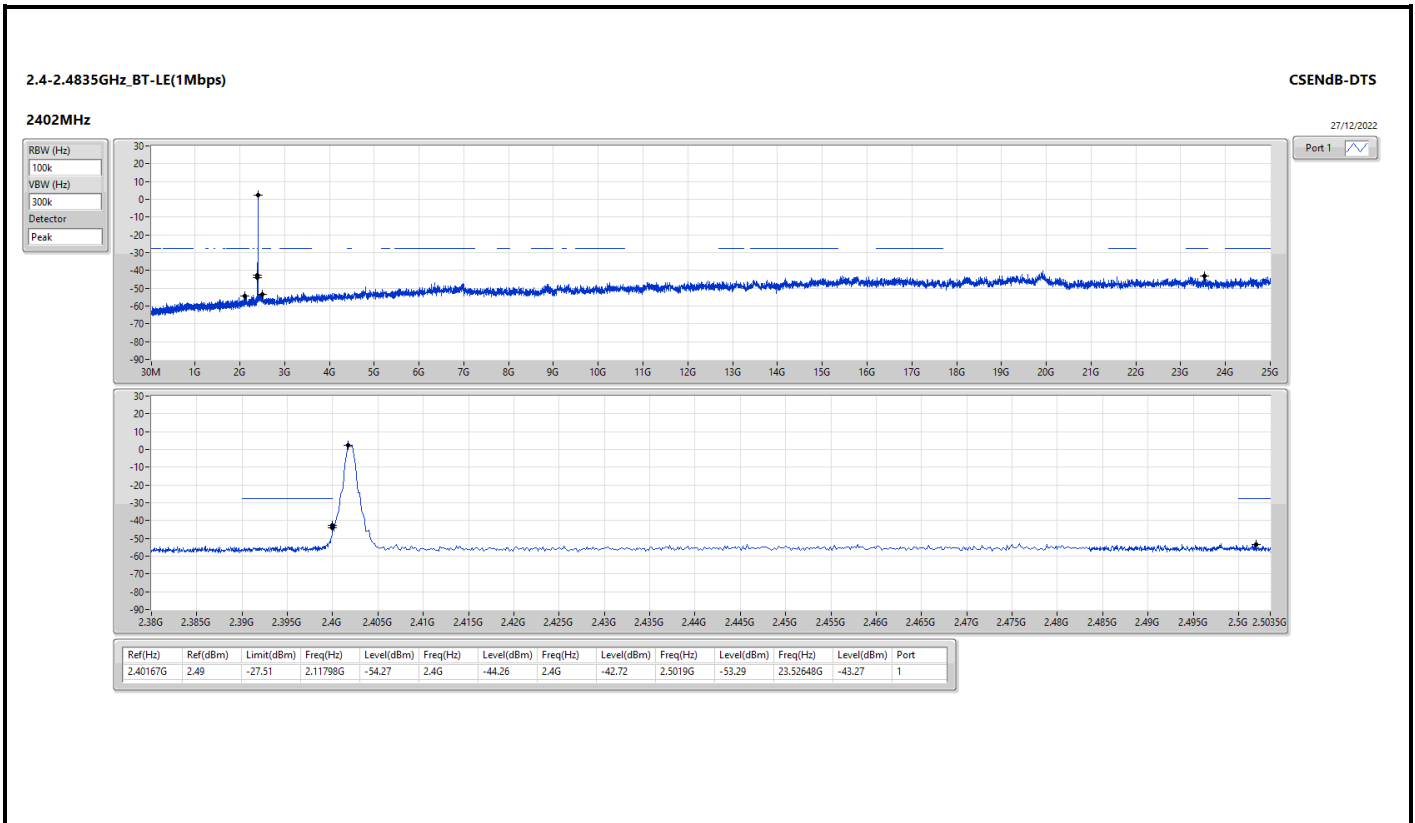
Summary

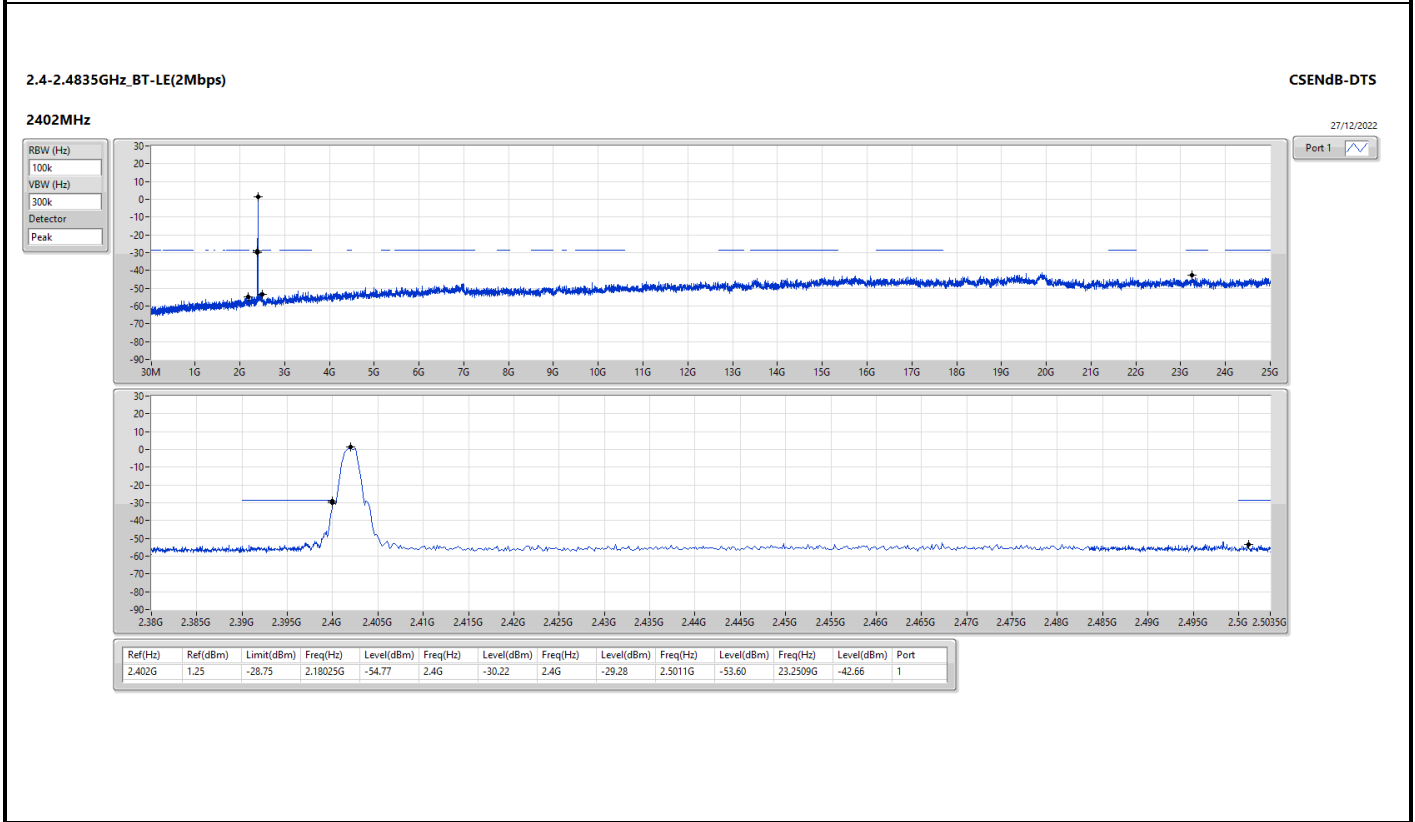
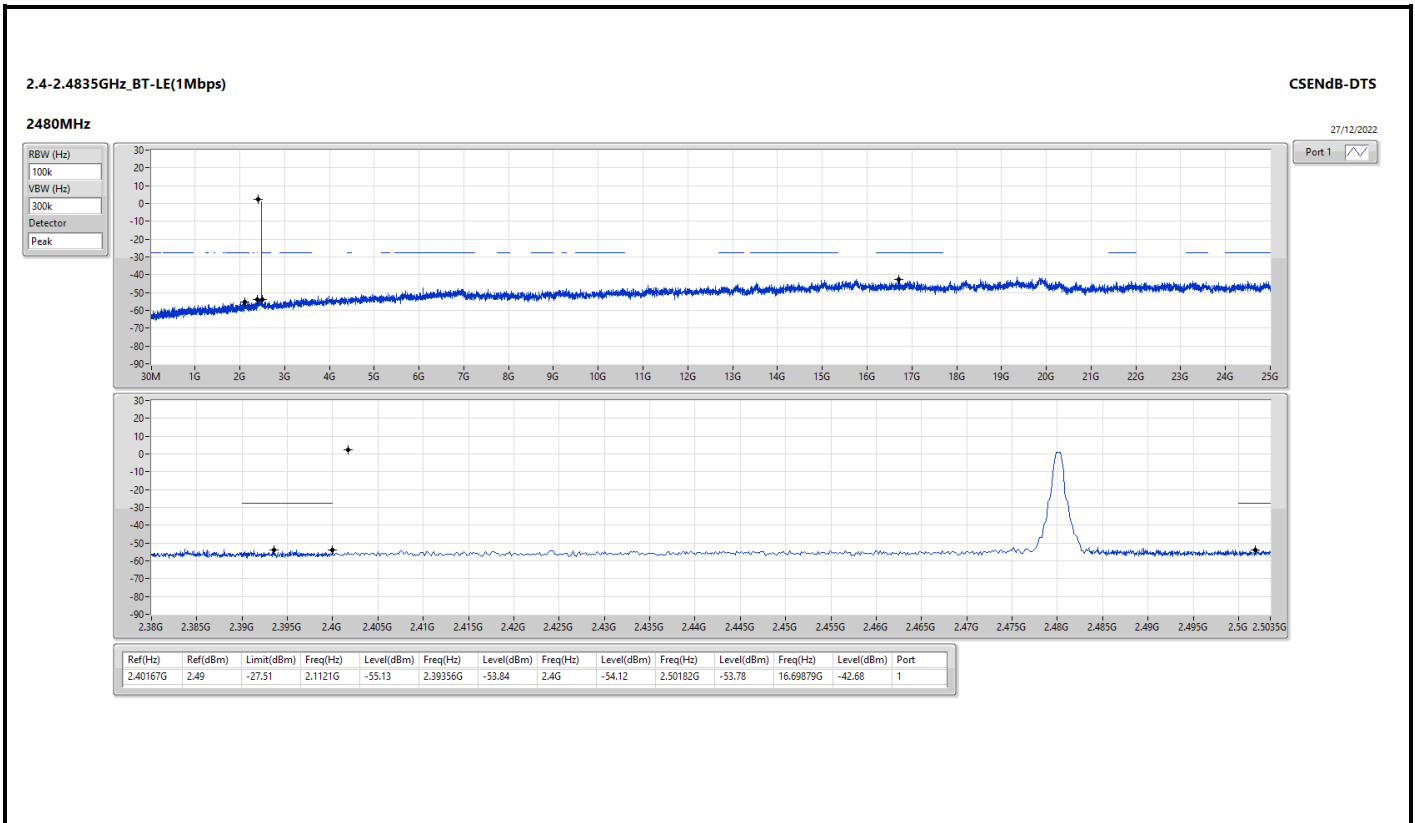
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40167G	2.49	-27.51	2.11798G	-54.27	2.4G	-44.26	2.4G	-42.72	2.5019G	-53.29	23.52648G	-43.27	1
BT-LE(2Mbps)	Pass	2.402G	1.25	-28.75	2.18025G	-54.77	2.4G	-30.22	2.4G	-29.28	2.5011G	-53.60	23.2509G	-42.66	1

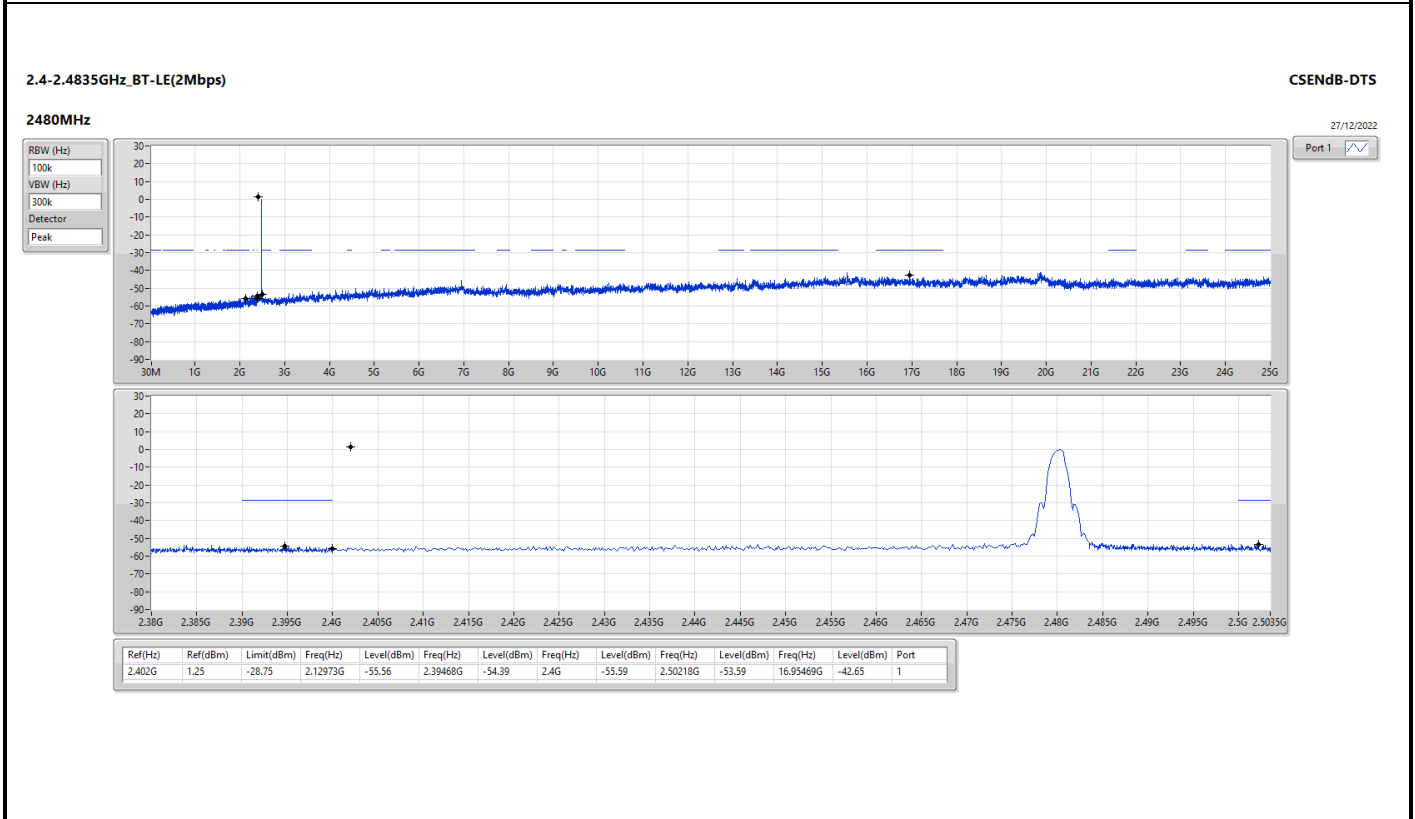
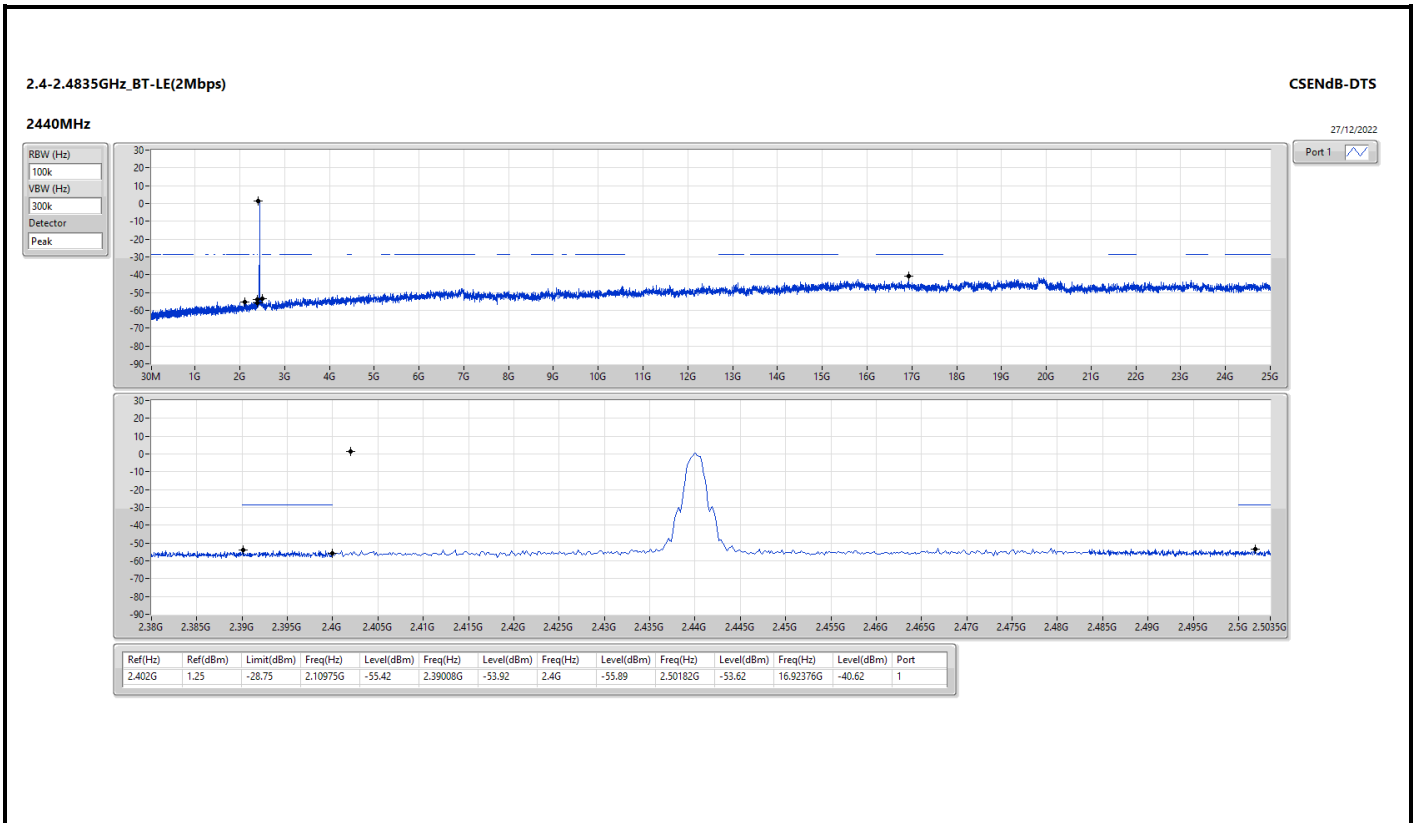


Result

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	2.40167G	2.49	-27.51	2.11798G	-54.27	2.4G	-44.26	2.4G	-42.72	2.5019G	-53.29	23.52648G	-43.27	1
2440MHz	Pass	2.40167G	2.49	-27.51	2.1873G	-55.15	2.3976G	-54.38	2.4G	-56.56	2.50122G	-53.83	23.23965G	-43.52	1
2480MHz	Pass	2.40167G	2.49	-27.51	2.1121G	-55.13	2.39356G	-53.84	2.4G	-54.12	2.50182G	-53.78	16.69879G	-42.68	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402G	1.25	-28.75	2.18025G	-54.77	2.4G	-30.22	2.4G	-29.28	2.5011G	-53.60	23.2509G	-42.66	1
2440MHz	Pass	2.402G	1.25	-28.75	2.10975G	-55.42	2.39008G	-53.92	2.4G	-55.89	2.50182G	-53.62	16.92376G	-40.62	1
2480MHz	Pass	2.402G	1.25	-28.75	2.12973G	-55.56	2.39468G	-54.39	2.4G	-55.59	2.50218G	-53.59	16.95469G	-42.65	1









Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	PK	229.82M	40.39	46.00	-5.61	3	Vertical	0	1.00

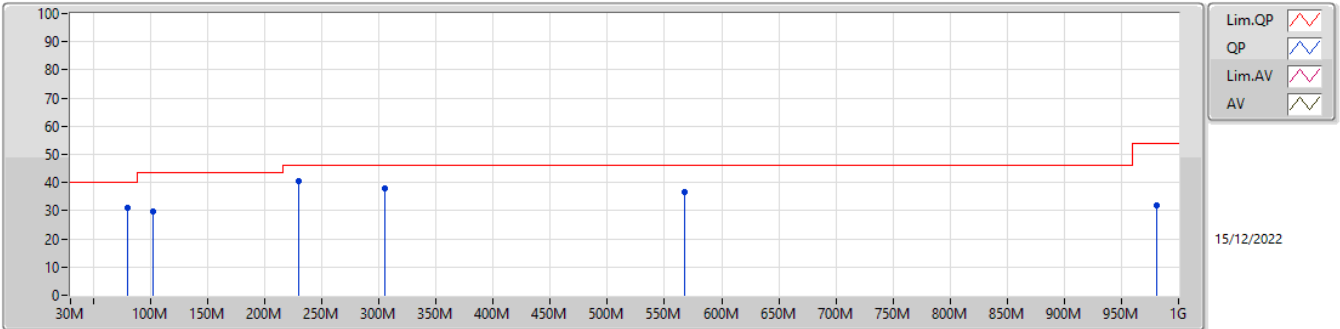


Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	80.44M	30.94	40.00	-9.06	3	Vertical	0	1.00
2440MHz	Pass	PK	101.78M	29.53	43.50	-13.97	3	Vertical	0	1.00
2440MHz	Pass	PK	229.82M	40.39	46.00	-5.61	3	Vertical	0	1.00
2440MHz	Pass	PK	305.48M	37.75	46.00	-8.25	3	Vertical	0	1.00
2440MHz	Pass	PK	567.38M	36.61	46.00	-9.39	3	Vertical	0	1.00
2440MHz	Pass	PK	980.6M	32.06	54.00	-21.94	3	Vertical	0	1.00
2440MHz	Pass	PK	68.8M	33.47	40.00	-6.53	3	Horizontal	360	1.00
2440MHz	Pass	PK	243.4M	32.98	46.00	-13.02	3	Horizontal	360	1.00
2440MHz	Pass	PK	288.02M	38.17	46.00	-7.83	3	Horizontal	360	1.00
2440MHz	Pass	PK	573.2M	40.17	46.00	-5.83	3	Horizontal	360	1.00
2440MHz	Pass	PK	802.12M	28.67	46.00	-17.33	3	Horizontal	360	1.00
2440MHz	Pass	PK	951.5M	31.73	46.00	-14.27	3	Horizontal	360	1.00

2.4-2.4835GHz_BT-LE(2Mbps)

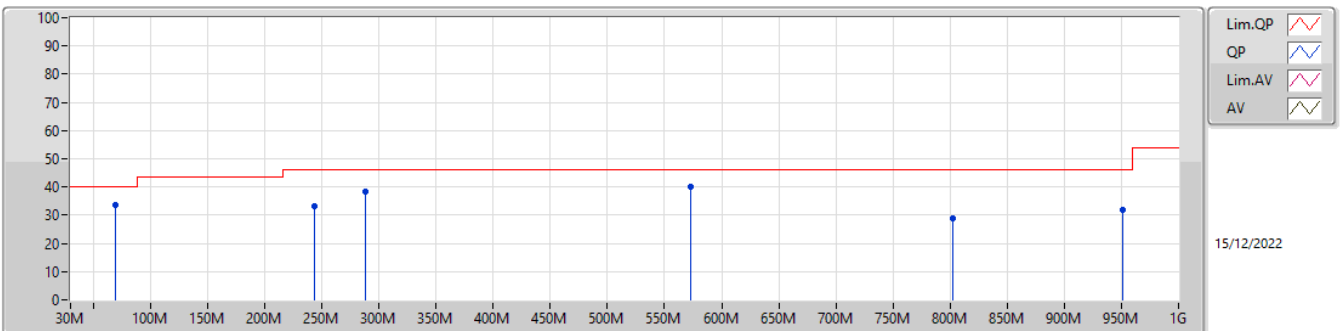
2440MHz_DC Power Supply



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	80.44M	30.94	40.00	-9.06	-23.29	3	Vertical	0	1.00	54.23	12.57	0.97	36.83
PK	101.78M	29.53	43.50	-13.97	-20.10	3	Vertical	0	1.00	49.63	15.43	1.11	36.64
PK	229.82M	40.39	46.00	-5.61	-19.33	3	Vertical	0	1.00	59.72	15.27	1.80	36.40
PK	305.48M	37.75	46.00	-8.25	-15.93	3	Vertical	0	1.00	53.68	18.40	2.09	36.42
PK	567.38M	36.61	46.00	-9.39	-9.25	3	Vertical	0	1.00	45.86	25.16	2.71	37.12
PK	980.6M	32.06	54.00	-21.94	-3.46	3	Vertical	0	1.00	35.52	29.93	3.84	37.23

2.4-2.4835GHz_BT-LE(2Mbps)

2440MHz_DC Power Supply



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	68.8M	33.47	40.00	-6.53	-24.46	3	Horizontal	360	1.00	57.93	11.47	1.05	36.98
PK	243.4M	32.98	46.00	-13.02	-17.74	3	Horizontal	360	1.00	50.72	16.84	1.87	36.45
PK	288.02M	38.17	46.00	-7.83	-16.26	3	Horizontal	360	1.00	54.43	18.14	2.03	36.43
PK	573.2M	40.17	46.00	-5.83	-9.36	3	Horizontal	360	1.00	49.53	25.01	2.74	37.11
PK	802.12M	28.67	46.00	-17.33	-7.00	3	Horizontal	360	1.00	35.67	27.18	3.31	37.49
PK	951.5M	31.73	46.00	-14.27	-3.61	3	Horizontal	360	1.00	35.34	29.98	3.75	37.34



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	4.804G	48.56	54.00	-5.44	3	Vertical	182	1.42
BT-LE(2Mbps)	Pass	AV	2.4835G	48.89	54.00	-5.11	3	Horizontal	80	1.42



Result

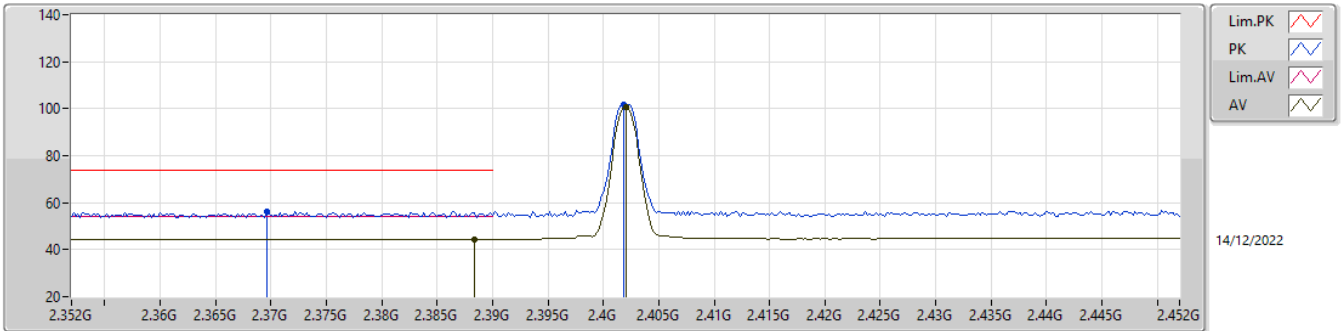
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3884G	44.41	54.00	-9.59	3	Vertical	85	2.20
2402MHz	Pass	AV	2.402G	100.75	Inf	-Inf	3	Vertical	85	2.20
2402MHz	Pass	PK	2.3696G	56.25	74.00	-17.75	3	Vertical	85	2.20
2402MHz	Pass	PK	2.4018G	101.67	Inf	-Inf	3	Vertical	85	2.20
2402MHz	Pass	AV	2.3884G	44.45	54.00	-9.55	3	Horizontal	71	1.49
2402MHz	Pass	AV	2.402G	102.10	Inf	-Inf	3	Horizontal	71	1.49
2402MHz	Pass	PK	2.3764G	56.22	74.00	-17.78	3	Horizontal	71	1.49
2402MHz	Pass	PK	2.4018G	102.94	Inf	-Inf	3	Horizontal	71	1.49
2402MHz	Pass	PK	4.8035G	55.11	74.00	-18.89	3	Vertical	182	1.42
2402MHz	Pass	AV	4.804G	48.56	54.00	-5.44	3	Vertical	182	1.42
2402MHz	Pass	PK	4.80355G	52.80	74.00	-21.20	3	Horizontal	352	2.58
2402MHz	Pass	AV	4.80395G	44.50	54.00	-9.50	3	Horizontal	352	2.58
2440MHz	Pass	AV	2.388G	44.38	54.00	-9.62	3	Vertical	91	2.32
2440MHz	Pass	AV	2.44G	101.22	Inf	-Inf	3	Vertical	91	2.32
2440MHz	Pass	AV	2.4976G	45.35	54.00	-8.65	3	Vertical	91	2.32
2440MHz	Pass	PK	2.3492G	56.22	74.00	-17.78	3	Vertical	91	2.32
2440MHz	Pass	PK	2.4404G	102.19	Inf	-Inf	3	Vertical	91	2.32
2440MHz	Pass	PK	2.4892G	56.53	74.00	-17.47	3	Vertical	91	2.32
2440MHz	Pass	AV	2.39G	44.40	54.00	-9.60	3	Horizontal	75	1.57
2440MHz	Pass	AV	2.44G	101.62	Inf	-Inf	3	Horizontal	75	1.57
2440MHz	Pass	AV	2.488G	45.39	54.00	-8.61	3	Horizontal	75	1.57
2440MHz	Pass	PK	2.3448G	56.23	74.00	-17.77	3	Horizontal	75	1.57
2440MHz	Pass	PK	2.4396G	102.55	Inf	-Inf	3	Horizontal	75	1.57
2440MHz	Pass	PK	2.4888G	57.04	74.00	-16.96	3	Horizontal	75	1.57
2440MHz	Pass	AV	4.88G	45.38	54.00	-8.62	3	Vertical	166	1.01
2440MHz	Pass	PK	4.87946G	52.36	74.00	-21.64	3	Vertical	166	1.01
2440MHz	Pass	AV	4.88004G	42.12	54.00	-11.88	3	Horizontal	172	1.01
2440MHz	Pass	PK	4.8794G	50.34	74.00	-23.66	3	Horizontal	172	1.01
2480MHz	Pass	AV	2.48G	99.46	Inf	-Inf	3	Vertical	88	2.07
2480MHz	Pass	AV	2.4835G	45.51	54.00	-8.49	3	Vertical	88	2.07
2480MHz	Pass	PK	2.4798G	100.40	Inf	-Inf	3	Vertical	88	2.07
2480MHz	Pass	PK	2.4876G	57.65	74.00	-16.35	3	Vertical	88	2.07
2480MHz	Pass	AV	2.48G	101.84	Inf	-Inf	3	Horizontal	75	1.43
2480MHz	Pass	AV	2.4835G	45.82	54.00	-8.18	3	Horizontal	75	1.43
2480MHz	Pass	PK	2.4798G	102.76	Inf	-Inf	3	Horizontal	75	1.43
2480MHz	Pass	PK	2.499G	57.51	74.00	-16.49	3	Horizontal	75	1.43
2480MHz	Pass	AV	4.95994G	43.50	54.00	-10.50	3	Vertical	161	1.04
2480MHz	Pass	PK	4.96048G	51.72	74.00	-22.28	3	Vertical	161	1.04
2480MHz	Pass	AV	4.96003G	44.62	54.00	-9.38	3	Horizontal	297	1.03
2480MHz	Pass	PK	4.96034G	52.37	74.00	-21.63	3	Horizontal	297	1.03
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3886G	44.44	54.00	-9.56	3	Vertical	90	2.20
2402MHz	Pass	AV	2.402G	98.94	Inf	-Inf	3	Vertical	90	2.20
2402MHz	Pass	PK	2.3774G	56.55	74.00	-17.45	3	Vertical	90	2.20
2402MHz	Pass	PK	2.4014G	101.49	Inf	-Inf	3	Vertical	90	2.20
2402MHz	Pass	AV	2.3882G	44.48	54.00	-9.52	3	Horizontal	78	1.43
2402MHz	Pass	AV	2.402G	99.81	Inf	-Inf	3	Horizontal	78	1.43
2402MHz	Pass	PK	2.3636G	56.44	74.00	-17.56	3	Horizontal	78	1.43
2402MHz	Pass	PK	2.4026G	102.35	Inf	-Inf	3	Horizontal	78	1.43
2402MHz	Pass	AV	4.80307G	47.06	54.00	-6.94	3	Vertical	195	1.00
2402MHz	Pass	PK	4.80299G	55.74	74.00	-18.26	3	Vertical	195	1.00
2402MHz	Pass	AV	4.80307G	41.68	54.00	-12.32	3	Horizontal	356	2.53
2402MHz	Pass	PK	4.80306G	51.58	74.00	-22.42	3	Horizontal	356	2.53
2440MHz	Pass	AV	2.39G	44.39	54.00	-9.61	3	Vertical	93	2.30
2440MHz	Pass	AV	2.44G	99.31	Inf	-Inf	3	Vertical	93	2.30
2440MHz	Pass	AV	2.4992G	45.35	54.00	-8.65	3	Vertical	93	2.30
2440MHz	Pass	PK	2.3824G	57.24	74.00	-16.76	3	Vertical	93	2.30
2440MHz	Pass	PK	2.4396G	101.90	Inf	-Inf	3	Vertical	93	2.30
2440MHz	Pass	PK	2.4844G	57.52	74.00	-16.48	3	Vertical	93	2.30
2440MHz	Pass	AV	2.3864G	44.40	54.00	-9.60	3	Horizontal	18	1.49



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2440MHz	Pass	AV	2.44G	99.76	Inf	-Inf	3	Horizontal	18	1.49
2440MHz	Pass	AV	2.488G	45.38	54.00	-8.62	3	Horizontal	18	1.49
2440MHz	Pass	PK	2.3656G	56.46	74.00	-17.54	3	Horizontal	18	1.49
2440MHz	Pass	PK	2.4404G	102.42	Inf	-Inf	3	Horizontal	18	1.49
2440MHz	Pass	PK	2.484G	57.44	74.00	-16.56	3	Horizontal	18	1.49
2440MHz	Pass	AV	4.87903G	44.26	54.00	-9.74	3	Vertical	168	1.01
2440MHz	Pass	PK	4.87898G	53.14	74.00	-20.86	3	Vertical	168	1.01
2440MHz	Pass	AV	4.87909G	41.03	54.00	-12.97	3	Horizontal	260	2.48
2440MHz	Pass	PK	4.87914G	50.52	74.00	-23.48	3	Horizontal	260	2.48
2480MHz	Pass	AV	2.48G	97.38	Inf	-Inf	3	Vertical	94	2.04
2480MHz	Pass	AV	2.4835G	47.93	54.00	-6.07	3	Vertical	94	2.04
2480MHz	Pass	PK	2.4794G	99.96	Inf	-Inf	3	Vertical	94	2.04
2480MHz	Pass	PK	2.4836G	58.40	74.00	-15.60	3	Vertical	94	2.04
2480MHz	Pass	AV	2.48G	99.33	Inf	-Inf	3	Horizontal	80	1.42
2480MHz	Pass	AV	2.4835G	48.89	54.00	-5.11	3	Horizontal	80	1.42
2480MHz	Pass	PK	2.4794G	101.95	Inf	-Inf	3	Horizontal	80	1.42
2480MHz	Pass	PK	2.4835G	59.01	74.00	-14.99	3	Horizontal	80	1.42
2480MHz	Pass	AV	4.95913G	41.38	54.00	-12.62	3	Vertical	222	2.93
2480MHz	Pass	PK	4.96082G	51.19	74.00	-22.81	3	Vertical	222	2.93
2480MHz	Pass	AV	4.96091G	42.39	54.00	-11.61	3	Horizontal	318	2.58
2480MHz	Pass	PK	4.95894G	51.71	74.00	-22.29	3	Horizontal	318	2.58

2.4-2.4835GHz_BT-LE(1Mbps)

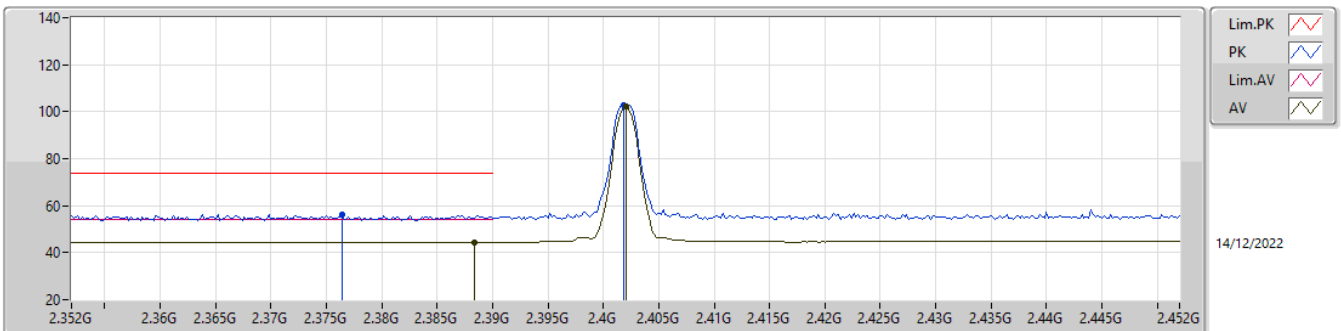
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3884G	44.41	54.00	-9.59	31.59	3	Vertical	85	2.20	12.82	27.43	4.16	-
AV	2.402G	100.75	Inf	-Inf	31.67	3	Vertical	85	2.20	69.08	27.50	4.17	-
PK	2.3696G	56.25	74.00	-17.75	31.46	3	Vertical	85	2.20	24.79	27.32	4.14	-
PK	2.4018G	101.67	Inf	-Inf	31.67	3	Vertical	85	2.20	70.00	27.50	4.17	-

2.4-2.4835GHz_BT-LE(1Mbps)

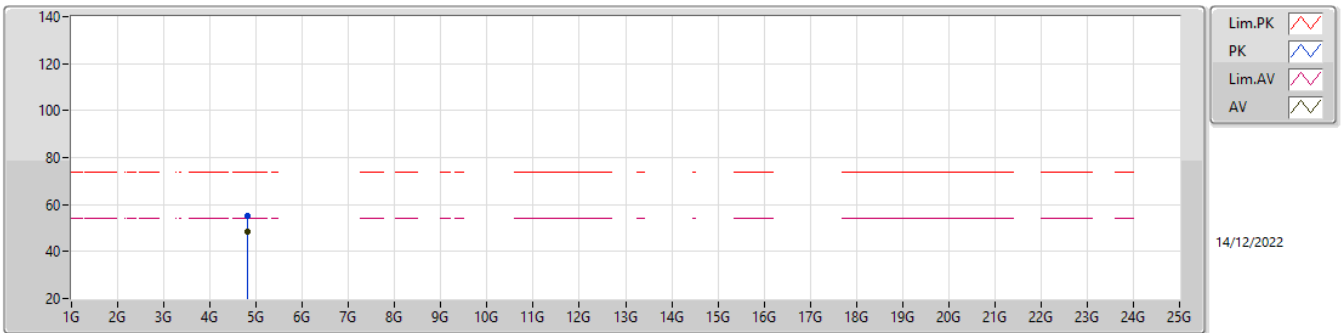
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3884G	44.45	54.00	-9.55	31.59	3	Horizontal	71	1.49	12.86	27.43	4.16	-
AV	2.402G	102.10	Inf	-Inf	31.67	3	Horizontal	71	1.49	70.43	27.50	4.17	-
PK	2.3764G	56.22	74.00	-17.78	31.51	3	Horizontal	71	1.49	24.71	27.36	4.15	-
PK	2.4018G	102.94	Inf	-Inf	31.67	3	Horizontal	71	1.49	71.27	27.50	4.17	-

2.4-2.4835GHz_BT-LE(1Mbps)

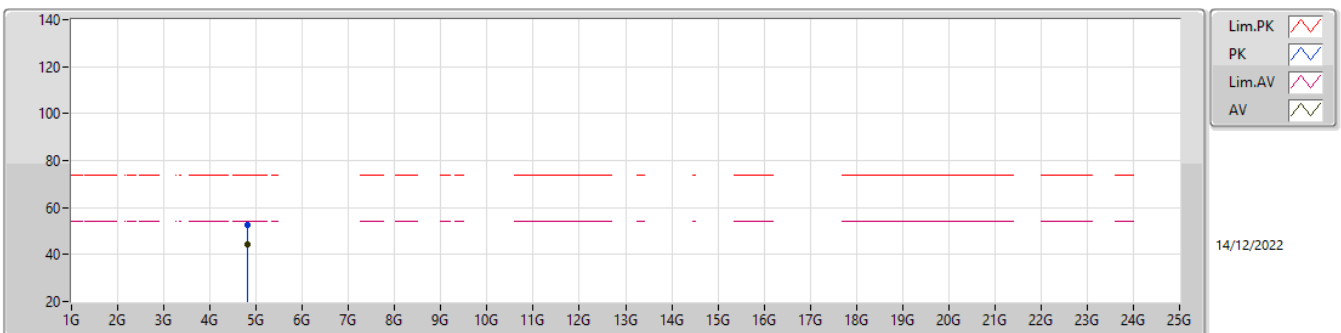
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	4.8035G	55.11	74.00	-18.89	3.33	3	Vertical	182	1.42	51.78	32.32	5.67	34.66
AV	4.804G	48.56	54.00	-5.44	3.33	3	Vertical	182	1.42	45.23	32.32	5.67	34.66

2.4-2.4835GHz_BT-LE(1Mbps)

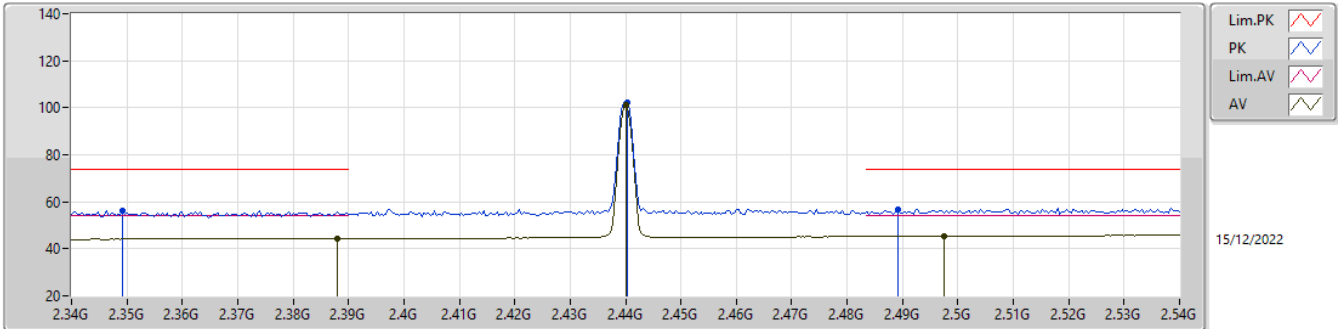
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	4.80355G	52.80	74.00	-21.20	3.33	3	Horizontal	352	2.58	49.47	32.32	5.67	34.66
AV	4.80395G	44.50	54.00	-9.50	3.33	3	Horizontal	352	2.58	41.17	32.32	5.67	34.66

2.4-2.4835GHz_BT-LE(1Mbps)

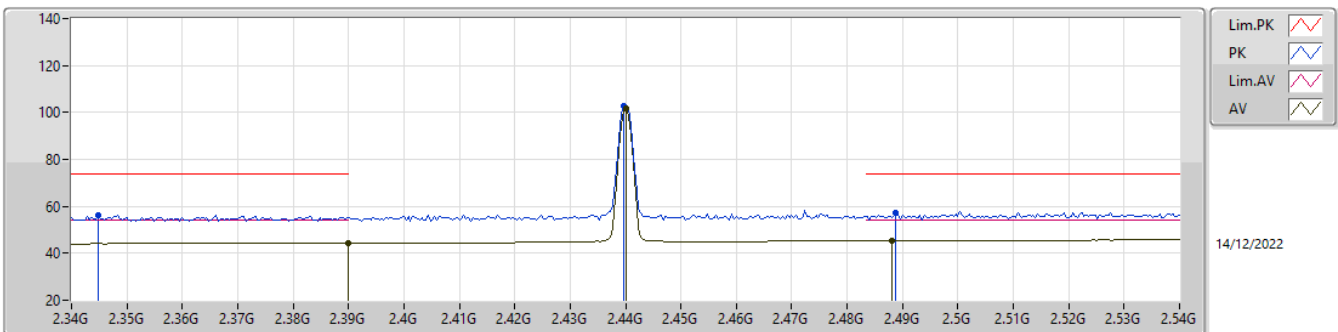
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.388G	44.38	54.00	-9.62	31.59	3	Vertical	91	2.32	12.79	27.43	4.16	-
AV	2.44G	101.22	Inf	-Inf	31.77	3	Vertical	91	2.32	69.45	27.58	4.19	-
AV	2.4976G	45.35	54.00	-8.65	32.12	3	Vertical	91	2.32	13.23	27.89	4.23	-
PK	2.3492G	56.22	74.00	-17.78	31.32	3	Vertical	91	2.32	24.90	27.20	4.12	-
PK	2.4404G	102.19	Inf	-Inf	31.77	3	Vertical	91	2.32	70.42	27.58	4.19	-
PK	2.4892G	56.53	74.00	-17.47	32.06	3	Vertical	91	2.32	24.47	27.84	4.22	-

2.4-2.4835GHz_BT-LE(1Mbps)

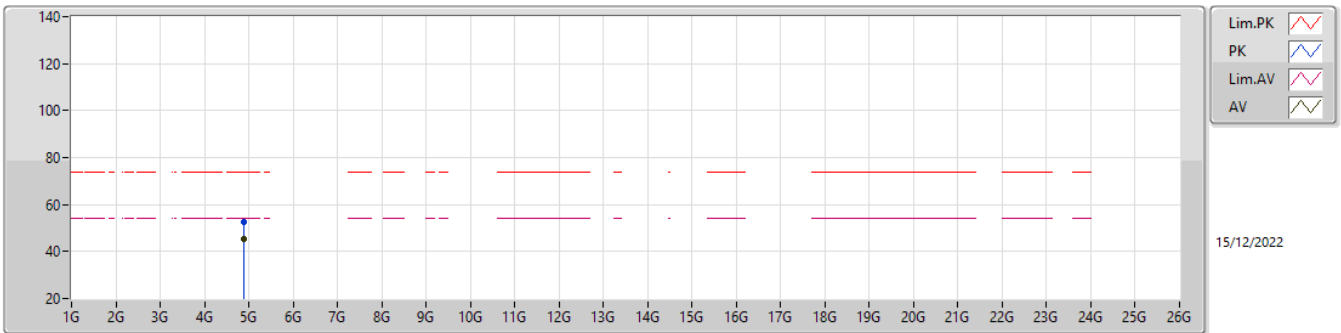
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	44.40	54.00	-9.60	31.60	3	Horizontal	75	1.57	12.80	27.44	4.16	-
AV	2.44G	101.62	Inf	-Inf	31.77	3	Horizontal	75	1.57	69.85	27.58	4.19	-
AV	2.488G	45.39	54.00	-8.61	32.05	3	Horizontal	75	1.57	13.34	27.83	4.22	-
PK	2.3448G	56.23	74.00	-17.77	31.30	3	Horizontal	75	1.57	24.93	27.18	4.12	-
PK	2.4396G	102.55	Inf	-Inf	31.77	3	Horizontal	75	1.57	70.78	27.58	4.19	-
PK	2.4888G	57.04	74.00	-16.96	32.05	3	Horizontal	75	1.57	24.99	27.83	4.22	-

2.4-2.4835GHz_BT-LE(1Mbps)

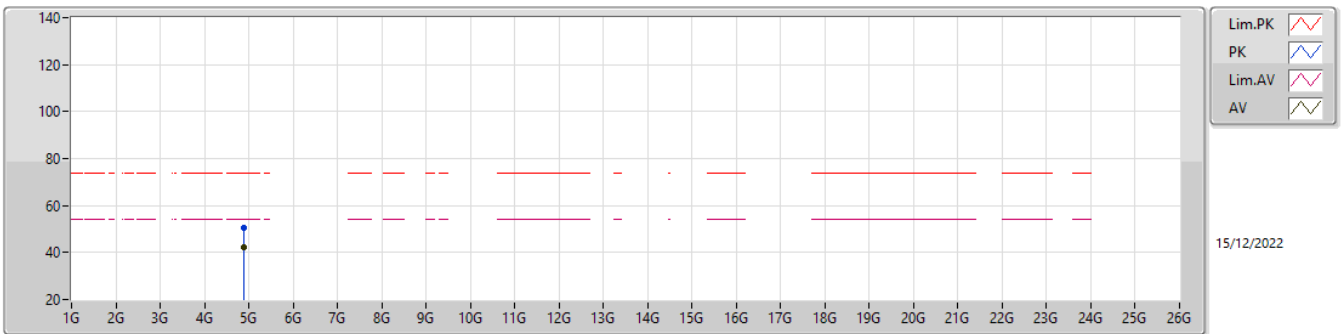
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88G	45.38	54.00	-8.62	3.79	3	Vertical	166	1.01	41.59	32.72	5.72	34.65
PK	4.87946G	52.36	74.00	-21.64	3.79	3	Vertical	166	1.01	48.57	32.72	5.72	34.65

2.4-2.4835GHz_BT-LE(1Mbps)

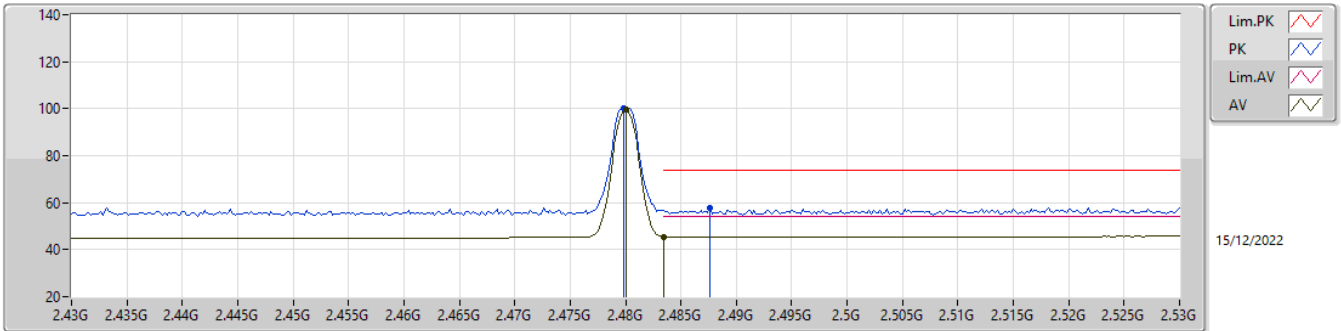
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88004G	42.12	54.00	-11.88	3.79	3	Horizontal	172	1.01	38.33	32.72	5.72	34.65
PK	4.8794G	50.34	74.00	-23.66	3.79	3	Horizontal	172	1.01	46.55	32.72	5.72	34.65

2.4-2.4835GHz_BT-LE(1Mbps)

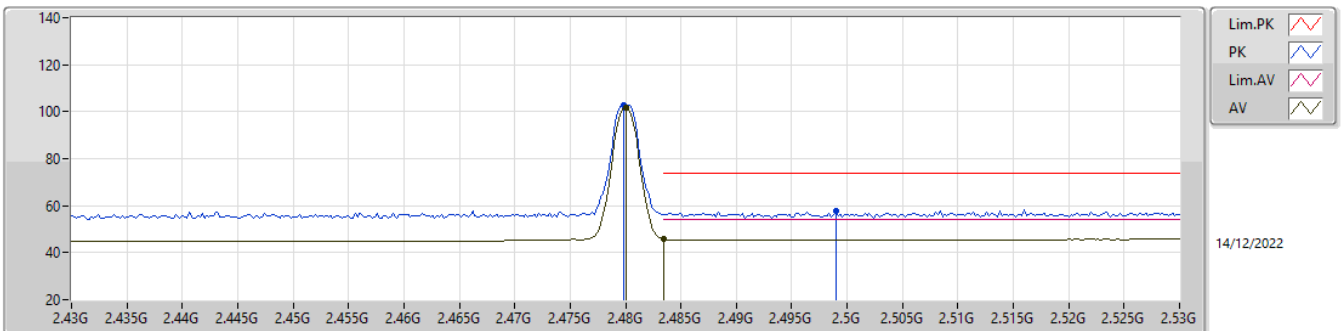
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	99.46	Inf	-Inf	32.00	3	Vertical	88	2.07	67.46	27.78	4.22	-
AV	2.4835G	45.51	54.00	-8.49	32.02	3	Vertical	88	2.07	13.49	27.80	4.22	-
PK	2.4798G	100.40	Inf	-Inf	32.00	3	Vertical	88	2.07	68.40	27.78	4.22	-
PK	2.4876G	57.65	74.00	-16.35	32.05	3	Vertical	88	2.07	25.60	27.83	4.22	-

2.4-2.4835GHz_BT-LE(1Mbps)

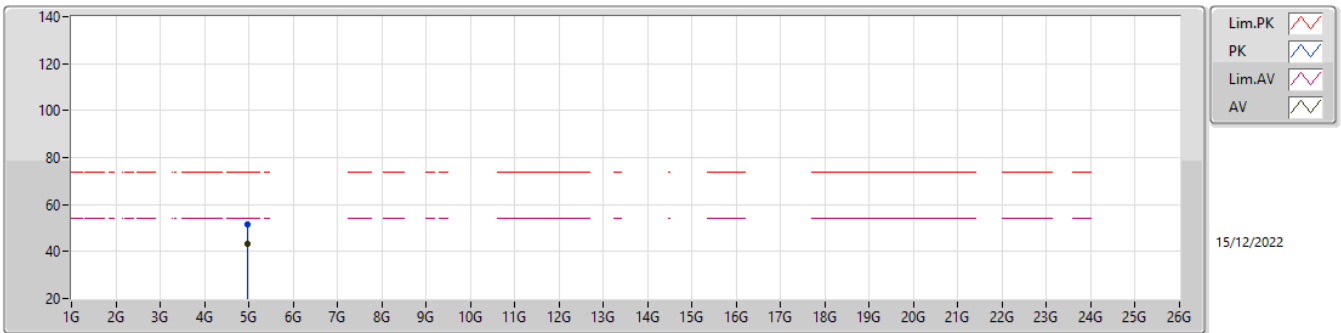
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	101.84	Inf	-Inf	32.00	3	Horizontal	75	1.43	69.84	27.78	4.22	-
AV	2.4835G	45.82	54.00	-8.18	32.02	3	Horizontal	75	1.43	13.80	27.80	4.22	-
PK	2.4798G	102.76	Inf	-Inf	32.00	3	Horizontal	75	1.43	70.76	27.78	4.22	-
PK	2.499G	57.51	74.00	-16.49	32.12	3	Horizontal	75	1.43	25.39	27.89	4.23	-

2.4-2.4835GHz_BT-LE(1Mbps)

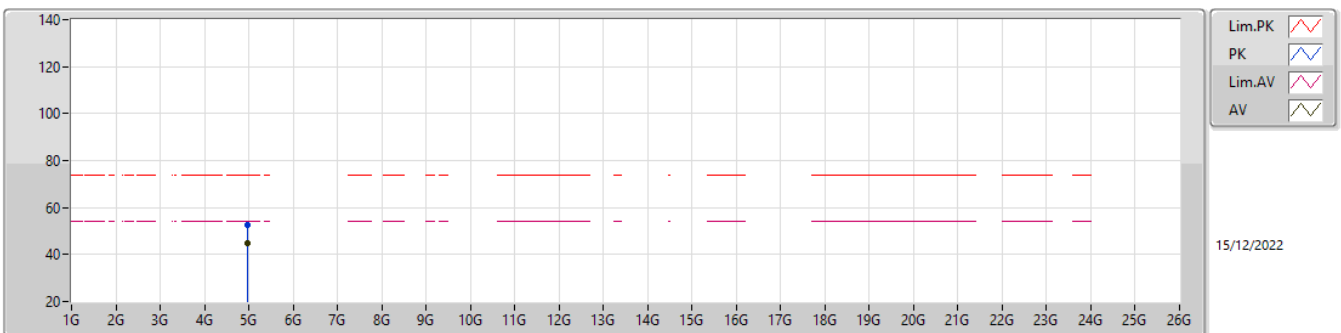
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95994G	43.50	54.00	-10.50	4.15	3	Vertical	161	1.04	39.35	33.02	5.77	34.64
PK	4.96048G	51.72	74.00	-22.28	4.15	3	Vertical	161	1.04	47.57	33.02	5.77	34.64

2.4-2.4835GHz_BT-LE(1Mbps)

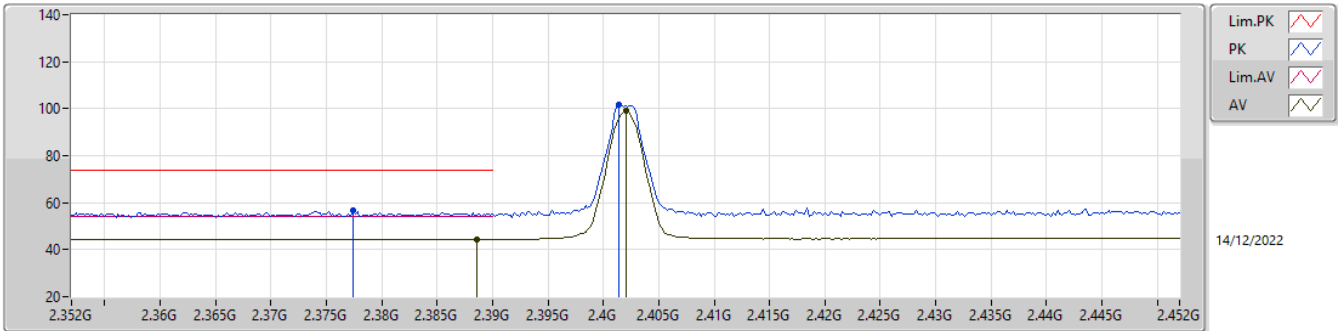
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96003G	44.62	54.00	-9.38	4.15	3	Horizontal	297	1.03	40.47	33.02	5.77	34.64
PK	4.96034G	52.37	74.00	-21.63	4.15	3	Horizontal	297	1.03	48.22	33.02	5.77	34.64

2.4-2.4835GHz_BT-LE(2Mbps)

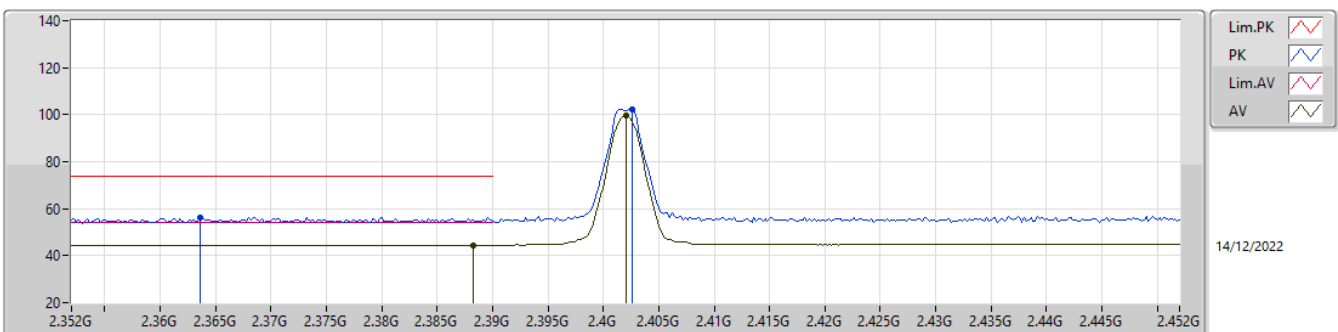
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3886G	44.44	54.00	-9.56	31.59	3	Vertical	90	2.20	12.85	27.43	4.16	-
AV	2.402G	98.94	Inf	-Inf	31.67	3	Vertical	90	2.20	67.27	27.50	4.17	-
PK	2.3774G	56.55	74.00	-17.45	31.51	3	Vertical	90	2.20	25.04	27.36	4.15	-
PK	2.4014G	101.49	Inf	-Inf	31.67	3	Vertical	90	2.20	69.82	27.50	4.17	-

2.4-2.4835GHz_BT-LE(2Mbps)

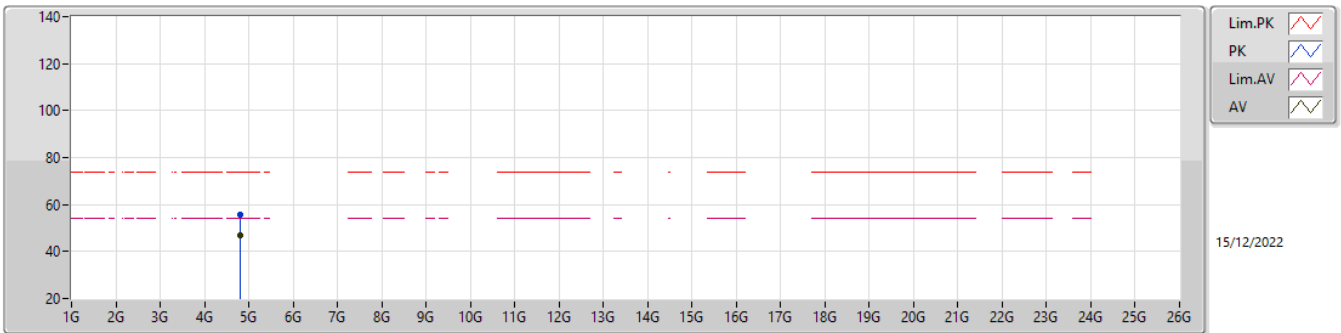
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3882G	44.48	54.00	-9.52	31.59	3	Horizontal	78	1.43	12.89	27.43	4.16	-
AV	2.402G	99.81	Inf	-Inf	31.67	3	Horizontal	78	1.43	68.14	27.50	4.17	-
PK	2.3636G	56.44	74.00	-17.56	31.42	3	Horizontal	78	1.43	25.02	27.28	4.14	-
PK	2.4026G	102.35	Inf	-Inf	31.68	3	Horizontal	78	1.43	70.67	27.51	4.17	-

2.4-2.4835GHz_BT-LE(2Mbps)

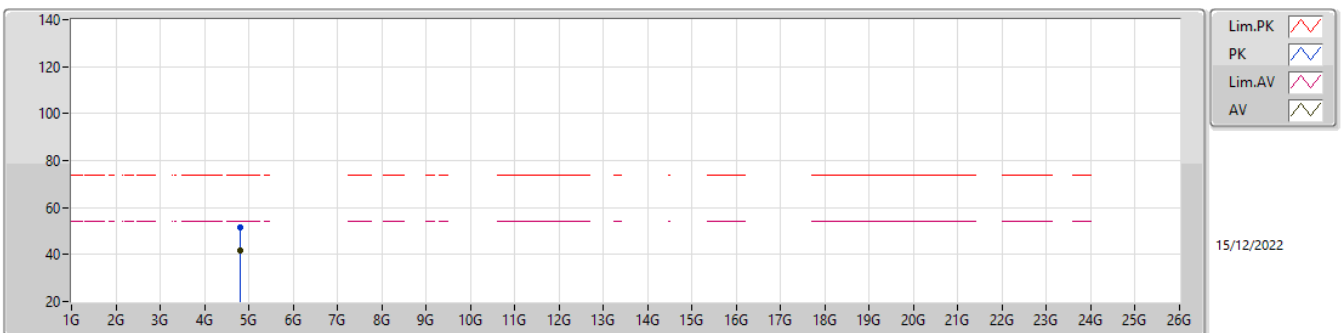
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80307G	47.06	54.00	-6.94	3.33	3	Vertical	195	1.00	43.73	32.32	5.67	34.66
PK	4.80299G	55.74	74.00	-18.26	3.33	3	Vertical	195	1.00	52.41	32.32	5.67	34.66

2.4-2.4835GHz_BT-LE(2Mbps)

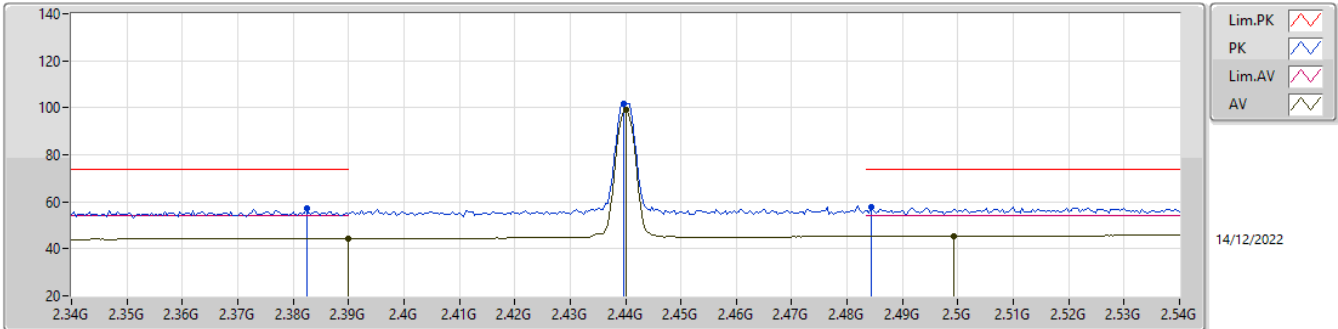
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80307G	41.68	54.00	-12.32	3.33	3	Horizontal	356	2.53	38.35	32.32	5.67	34.66
PK	4.80306G	51.58	74.00	-22.42	3.33	3	Horizontal	356	2.53	48.25	32.32	5.67	34.66

2.4-2.4835GHz_BT-LE(2Mbps)

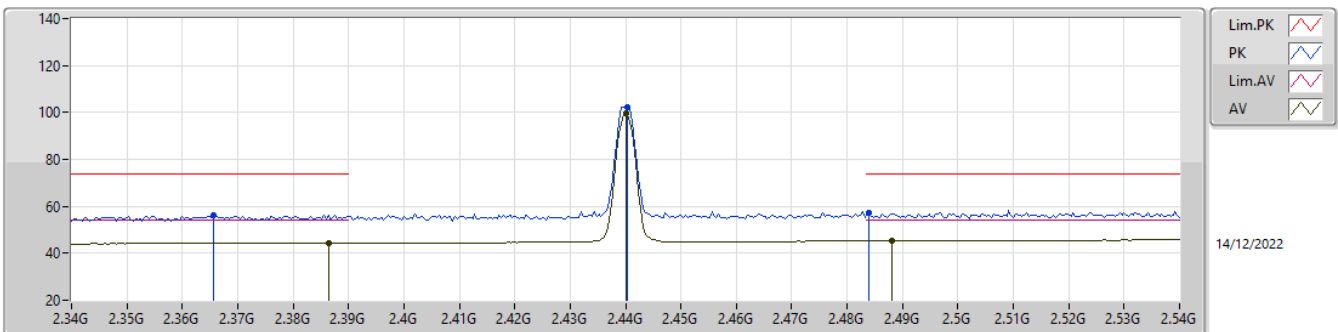
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	44.39	54.00	-9.61	31.60	3	Vertical	93	2.30	12.79	27.44	4.16	-
AV	2.44G	99.31	Inf	-Inf	31.77	3	Vertical	93	2.30	67.54	27.58	4.19	-
AV	2.4992G	45.35	54.00	-8.65	32.13	3	Vertical	93	2.30	13.22	27.90	4.23	-
PK	2.3824G	57.24	74.00	-16.76	31.54	3	Vertical	93	2.30	25.70	27.39	4.15	-
PK	2.4396G	101.90	Inf	-Inf	31.77	3	Vertical	93	2.30	70.13	27.58	4.19	-
PK	2.4844G	57.52	74.00	-16.48	32.03	3	Vertical	93	2.30	25.49	27.81	4.22	-

2.4-2.4835GHz_BT-LE(2Mbps)

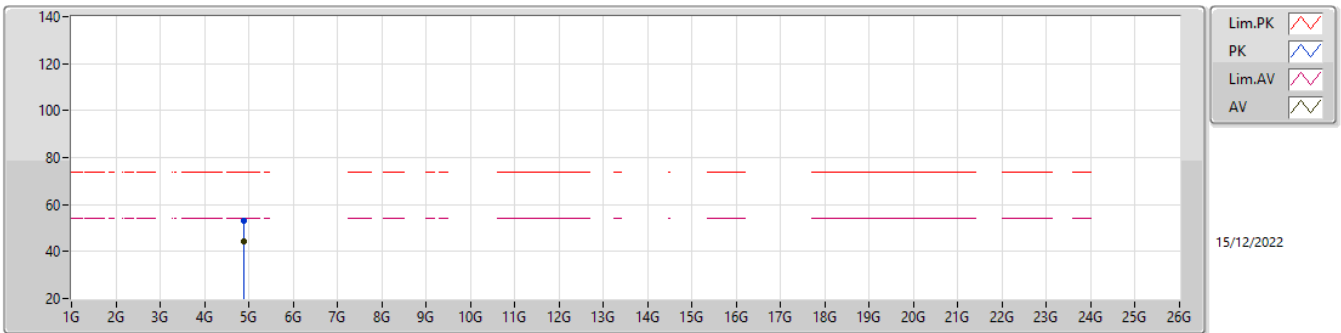
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3864G	44.40	54.00	-9.60	31.58	3	Horizontal	18	1.49	12.82	27.42	4.16	-
AV	2.44G	99.76	Inf	-Inf	31.77	3	Horizontal	18	1.49	67.99	27.58	4.19	-
AV	2.488G	45.38	54.00	-8.62	32.05	3	Horizontal	18	1.49	13.33	27.83	4.22	-
PK	2.3656G	56.46	74.00	-17.54	31.43	3	Horizontal	18	1.49	25.03	27.29	4.14	-
PK	2.4404G	102.42	Inf	-Inf	31.77	3	Horizontal	18	1.49	70.65	27.58	4.19	-
PK	2.484G	57.44	74.00	-16.56	32.02	3	Horizontal	18	1.49	25.42	27.80	4.22	-

2.4-2.4835GHz_BT-LE(2Mbps)

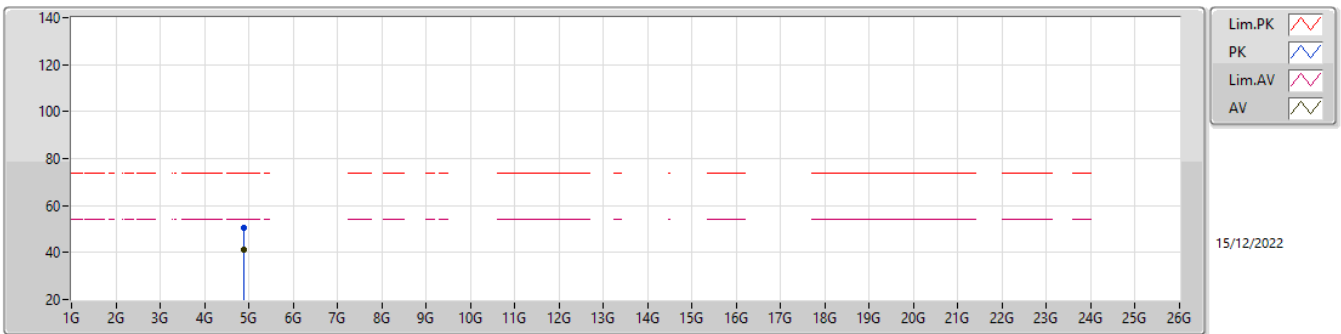
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87903G	44.26	54.00	-9.74	3.79	3	Vertical	168	1.01	40.47	32.72	5.72	34.65
PK	4.87898G	53.14	74.00	-20.86	3.79	3	Vertical	168	1.01	49.35	32.72	5.72	34.65

2.4-2.4835GHz_BT-LE(2Mbps)

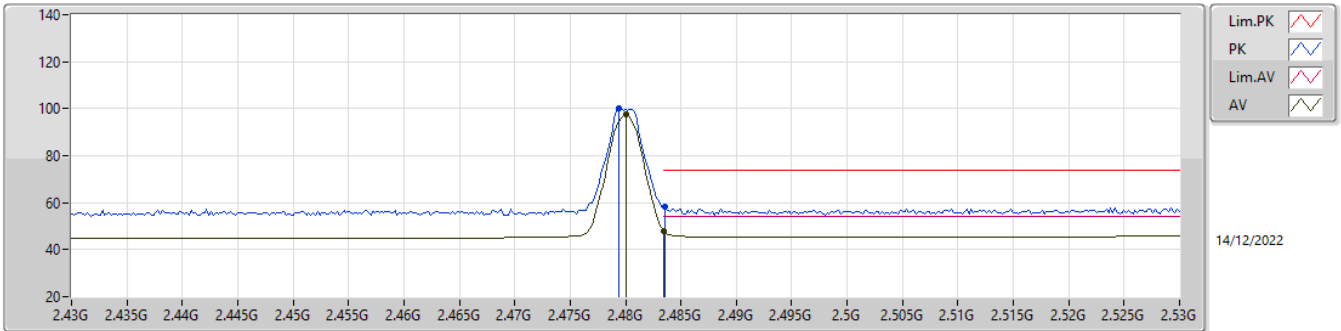
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87909G	41.03	54.00	-12.97	3.79	3	Horizontal	260	2.48	37.24	32.72	5.72	34.65
PK	4.87914G	50.52	74.00	-23.48	3.79	3	Horizontal	260	2.48	46.73	32.72	5.72	34.65

2.4-2.4835GHz_BT-LE(2Mbps)

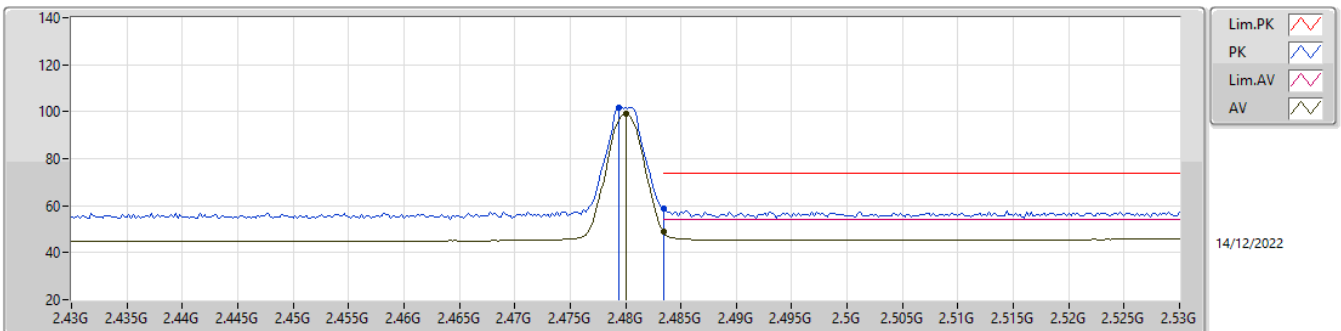
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	97.38	Inf	-Inf	32.00	3	Vertical	94	2.04	65.38	27.78	4.22	-
AV	2.4835G	47.93	54.00	-6.07	32.02	3	Vertical	94	2.04	15.91	27.80	4.22	-
PK	2.4794G	99.96	Inf	-Inf	32.00	3	Vertical	94	2.04	67.96	27.78	4.22	-
PK	2.4836G	58.40	74.00	-15.60	32.02	3	Vertical	94	2.04	26.38	27.80	4.22	-

2.4-2.4835GHz_BT-LE(2Mbps)

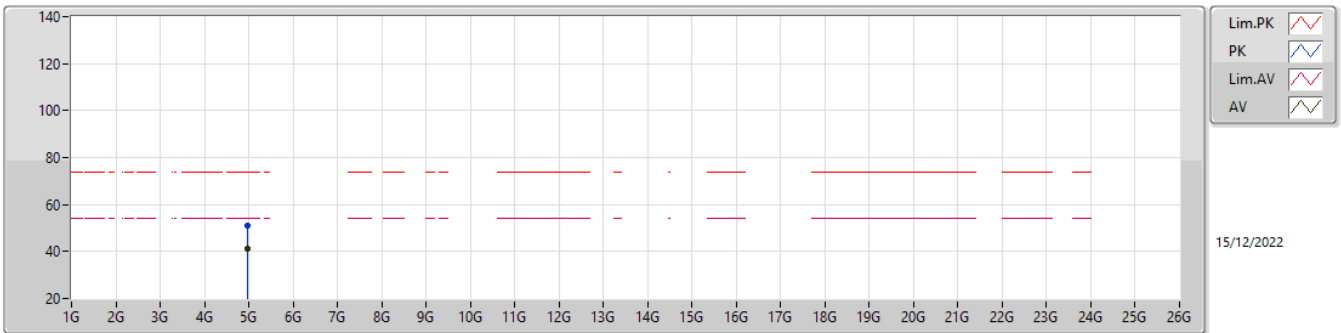
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	99.33	Inf	-Inf	32.00	3	Horizontal	80	1.42	67.33	27.78	4.22	-
AV	2.4835G	48.89	54.00	-5.11	32.02	3	Horizontal	80	1.42	16.87	27.80	4.22	-
PK	2.4794G	101.95	Inf	-Inf	32.00	3	Horizontal	80	1.42	69.95	27.78	4.22	-
PK	2.4835G	59.01	74.00	-14.99	32.02	3	Horizontal	80	1.42	26.99	27.80	4.22	-

2.4-2.4835GHz_BT-LE(2Mbps)

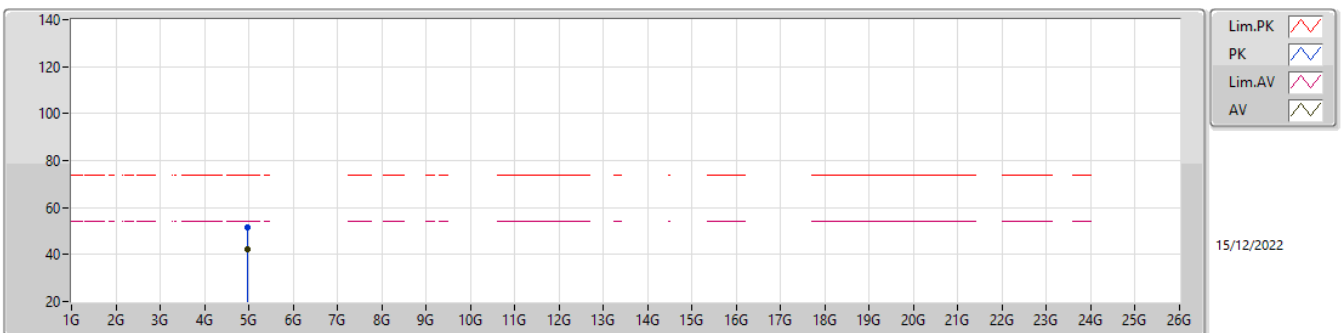
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95913G	41.38	54.00	-12.62	4.15	3	Vertical	222	2.93	37.23	33.02	5.77	34.64
PK	4.96082G	51.19	74.00	-22.81	4.15	3	Vertical	222	2.93	47.04	33.02	5.77	34.64

2.4-2.4835GHz_BT-LE(2Mbps)

2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96091G	42.39	54.00	-11.61	4.15	3	Horizontal	318	2.58	38.24	33.02	5.77	34.64
PK	4.95894G	51.71	74.00	-22.29	4.15	3	Horizontal	318	2.58	47.56	33.02	5.77	34.64