

FCC Radio Test Report

FCC ID : TVE-4111BBE0671

Equipment : Secured Wireless Access Point

Brand Name : FORTINET

Model Name : FortiAP U432Fxxxxxx, FAP-U432Fxxxxxx, FORTIAP-U432Fxxxxxx
(where "x" can be "A-Z", or "0-9", or "-", or blank for software purposes or marketing purposes only)

Applicant : Fortinet, Inc.
899 Kifer Road, Sunnyvale, CA 94086, USA

Manufacturer : Fortinet, Inc.
899 Kifer Road, Sunnyvale, CA 94086, USA

Standard : 47 CFR FCC Part 15.247

The product was received on Dec. 16, 2020, and testing was started from Dec. 23, 2020 and completed on Feb. 14, 2021. 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: Allen Lin

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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



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History of this test report

TEL : 886-3-3273456
FAX : 886-3-3270973
Report Template No.: HE1-C10 Ver4.0
FCC ID: TVE-4111BBE0671

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	-

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: Sam Tsai

Report Producer: Ann Hou

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
2.4-2.4835GHz	BT-LE(125kbps)	2.0	1TX
2.4-2.4835GHz	BT-LE(500kbps)	2.0	1TX

Note:

- ♦ Bluetooth LE uses a GFSK (125kbps/500kbps/1Mbps/2Mbps) modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	SENAO	5718A0619300	Dipole	N-type
2	SENAO	5718A0619300	Dipole	N-type
3	SENAO	5718A0619300	Dipole	N-type
4	SENAO	5718A0619300	Dipole	N-type
5	SENAO	5718A0620300	Dipole	N-type
6	SENAO	5718A0620300	Dipole	N-type
7	SENAO	5718A0620300	Dipole	N-type
8	SENAO	5718A0620300	Dipole	N-type
9	SENAO	5718A0619300	Dipole	N-type
10	SENAO	5718A0619300	Dipole	N-type
11	SENAO	5718A0618300	Dipole	N-type

Radio	Ant.	Port	Antenna Gain (dBi)				Cable Loss Gain (dBi)			
			2.4G	5G	BT	Zigbee	2.4G	5G	BT	Zigbee
1	1	1	5.5	7.2	-	-	0.6	1	-	-
	2	2	5.5	7.2	-	-	0.6	1	-	-
	3	3	5.5	7.2	-	-	0.5	0.8	-	-
	4	4	5.5	7.2	-	-	0.4	0.7	-	-
2	5	1	-	6.3	-	-	-	1	-	-
	6	2	-	6.3	-	-	-	1.1	-	-
	7	3	-	6.3	-	-	-	0.9	-	-
	8	4	-	6.3	-	-	-	0.9	-	-
3	9	1	5.5	7.2	-	-	0.6	1	-	-
	10	2	5.5	7.2	-	-	0.6	1	-	-
BT+Zigbee	11	1	-	-	4.5	4.5	-	-	0.5	0.5

Note 1: The EUT has eleven antennas.

For 2.4GHz function:

Radio 1

For IEEE 802.11 b/g/n/VHT/ax mode (4TX/4RX)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

Radio 3

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

Ant. 9 (port 1) and Ant. 10 (port 2) could transmit/receive simultaneously.

For 5GHz function:

Radio 1

For IEEE 802.11 a/n/ac/ax mode (4TX/4RX)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

Radio 2

For IEEE 802.11 a/n/ac/ax mode (4TX/4RX)

Ant. 5 (port 1), Ant. 6 (port 2), Ant. 7 (port 3) and Ant. 8 (port 4) could transmit/receive simultaneously.

Radio 3

For IEEE 802.11 a/n/ac/ax mode (2TX/2RX)

Ant. 9 (port 1) and Ant. 10 (port 2) could transmit/receive simultaneously.

For Bluetooth function:

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

Only Ant. 11 (port 1) could transmit/receive.

For Zigbee function:

For Zigbee mode (1TX/1RX)

Only Ant. 11 (port 1) could transmit/receive.

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From PoE		
EUT Function	☒ Point-to-multipoint	☐ Point-to-point	
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.: ...		
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.: ...		
☐	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)
BT-LE(125kbps)	1	0	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
BT-LE(500kbps)	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.

1.1.5 Table for Multiple Listing

The brand/model names in the following table are all refer to the identical product.

Brand Name	Model Name	Description
FORTINET	FortiAP U432Fxxxxxx	All the models are identical, the difference model for served as marketing strategy.
	FAP-U432Fxxxxxx	
	FORTIAP-U432Fxxxxxx	

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				
☒ 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
AC Conduction	CO04-HY	Edward	18.2~19.2°C / 42~48%	31/Dec/2020
RF Conducted	TH06-HY	Alan	20.1~26.9°C / 50~60%	25/Dec/2020~14/Feb/2021
☒ 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	20.5~22.6°C / 50~60%	23/Dec/2020~25/Dec/2020

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
Conducted Emission (150kHz ~ 30MHz)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 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	DOS 6.1
Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	100
2440MHz	100
2480MHz	100
BT-LE(2Mbps)	-
2402MHz	100
2440MHz	100
2480MHz	90
BT-LE(125kbps)	-
2402MHz	100
2440MHz	100
2480MHz	100
BT-LE(500kbps)	-
2402MHz	100
2440MHz	100
2480MHz	100

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	PoE mode

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	PoE mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	Y Plane
	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	Radio 1(2.4G)+ Radio 2(5G)+ Radio 3(2.4G)+ Bluetooth
2	Radio 1(5G)+ Radio 2(5G)+ Radio 3(2.4G)+ Bluetooth
3	Radio 1(5G)+ Radio 2(5G)+ Radio 3(5G)+ Bluetooth
4	Radio 1(2.4G)+ Radio 2(5G)+ Radio 3(5G)+ Bluetooth
5	Radio 1(2.4G)+ Radio 2(5G)+ Radio 3(2.4G)+Zigbee
6	Radio 1(5G)+ Radio 2(5G)+ Radio 3(2.4G)+Zigbee
7	Radio 1(5G)+ Radio 2(5G)+ Radio 3(5G)+Zigbee
8	Radio 1(2.4G)+ Radio 2(5G)+ Radio 3(5G)+Zigbee
Refer to Sporton Test Report No.: FA0D1422 for Co-location RF Exposure Evaluation.	

2.3 Accessories

Accessories				
PoE Adapter	Brand Name	Senao Inc.	Model Name	PIN060-54PR
	Power Rating	I/P: 100-240Vac, 1.5A, 50-60Hz, O/P: 54Vdc, 1.11A		
AC CORD	Brand Name	I-SHENG	Model Name	AC CORD 600mm
	Signal Line	0.5 meter, shielded cable, w/o ferrite core		
Ground Wire	Brand Name	BO YAO	Model Name	WIRE GEN AWG10 180cm
	Signal Line	1.8 meter, shielded cable, w/o ferrite core		
Bracket wall mount	Brand Name	XIERTEK	Model Name	BRACKET WALL MOUNT
Bracket pole mount	Brand Name	CUN SHENG	Model Name	BRACKET POLE MOUN

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

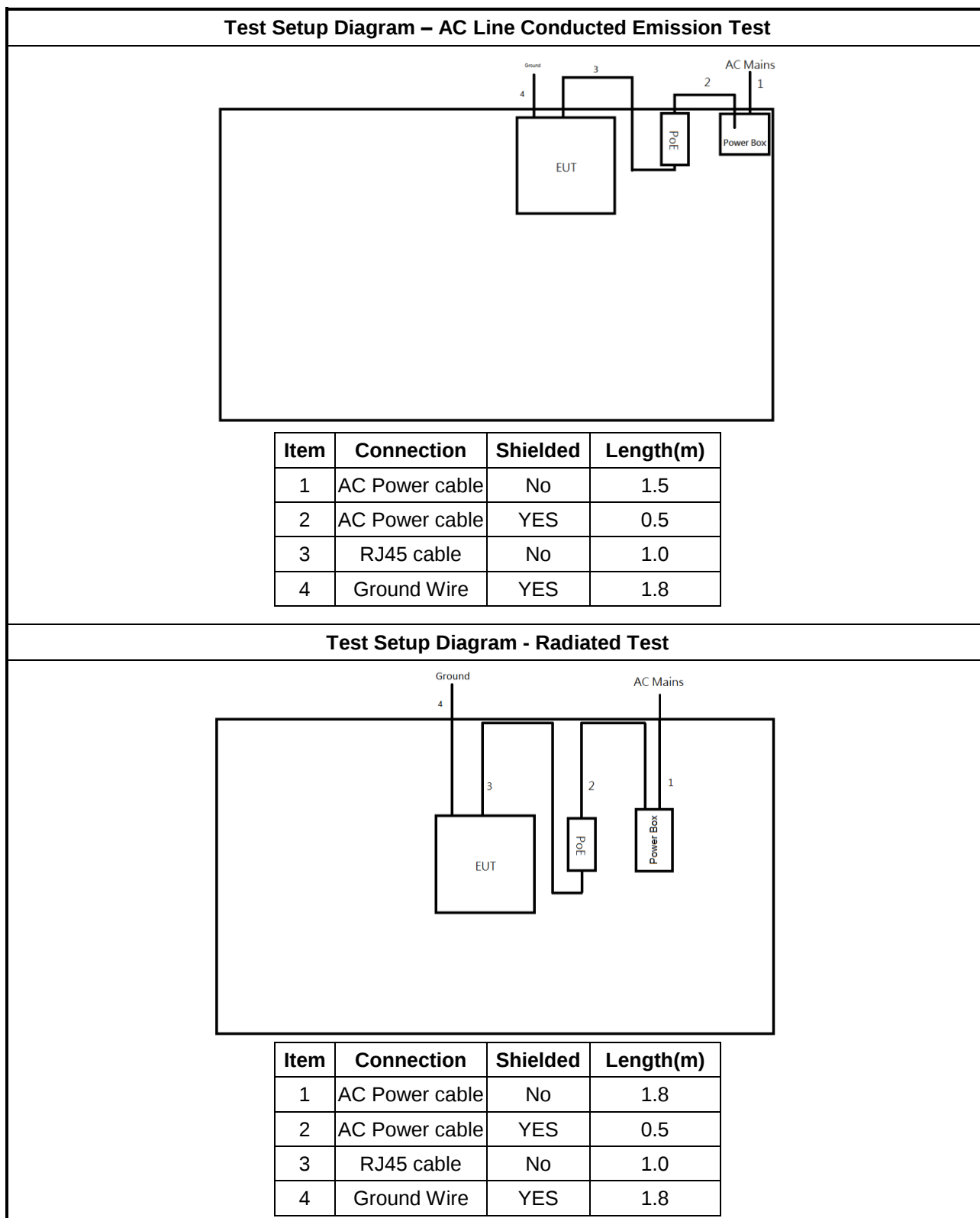
2.4 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ45 Cable	Power Sync	CAT-6E-01	-	-

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	AC Adapter for NB	DELL	HA65NM130	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ45 Cable	Power Sync	CAT-6E-01	-	-

2.5 Test Setup Diagram



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

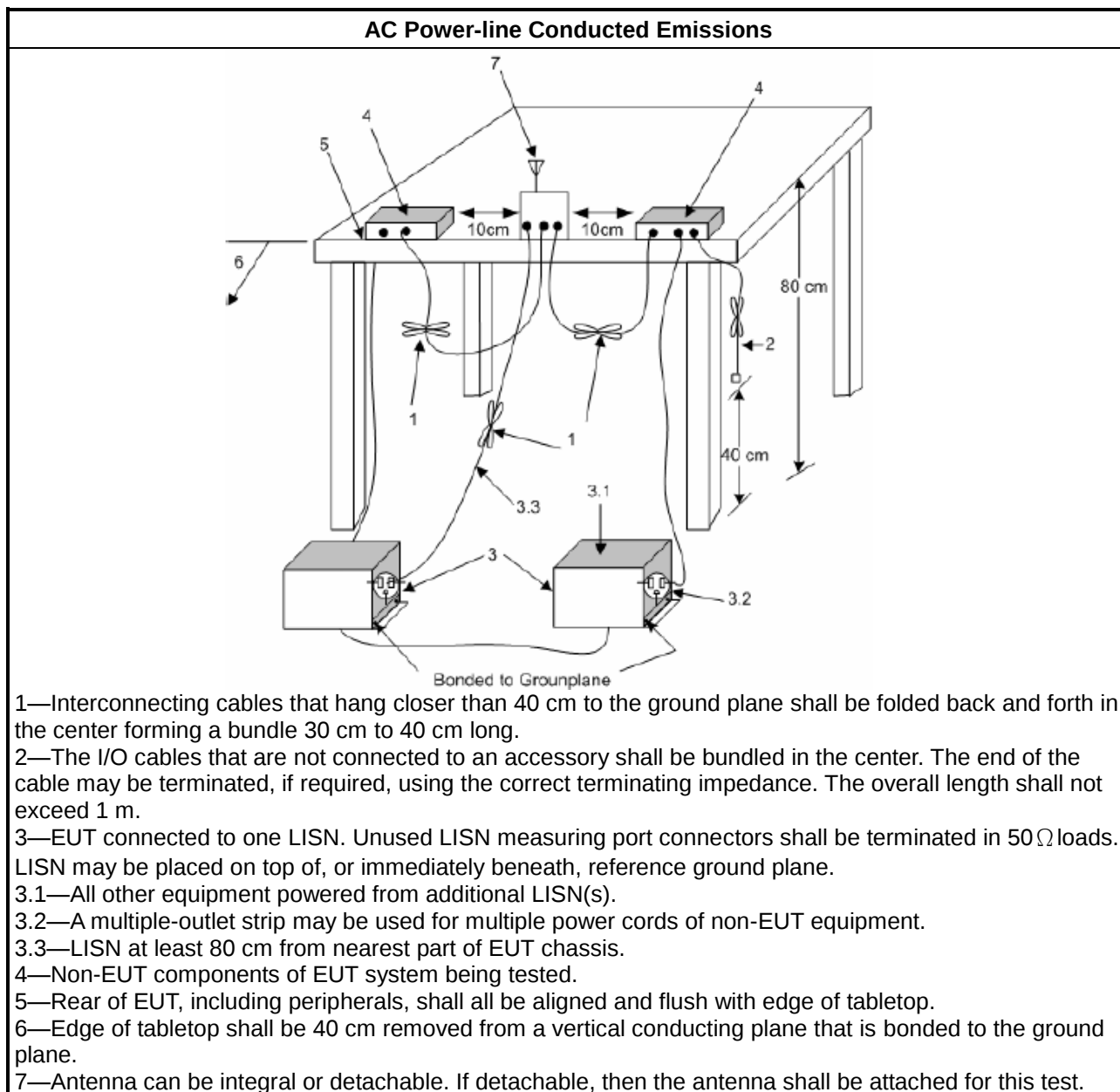
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.5 Test Setup



3.1.6 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 $\geq$ 500 kHz.

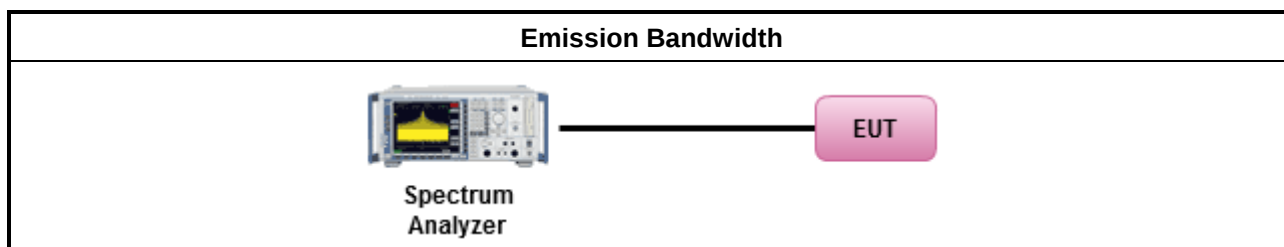
3.2.2 Measuring Instruments

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 KDB 558074, clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
☐	Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup



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
e.i.r.p. Power Limit:	
	2400-2483.5 MHz Band
	Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	Smart antenna system (SAS)
	- Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- 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.	

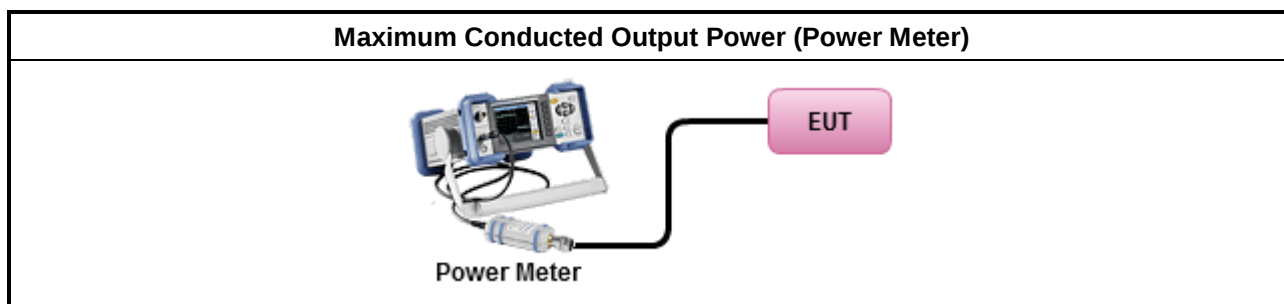
3.3.2 Measuring Instruments

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 KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
☐	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
☐	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
Maximum Average Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
☒	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
For conducted measurement.	
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.	
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]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



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

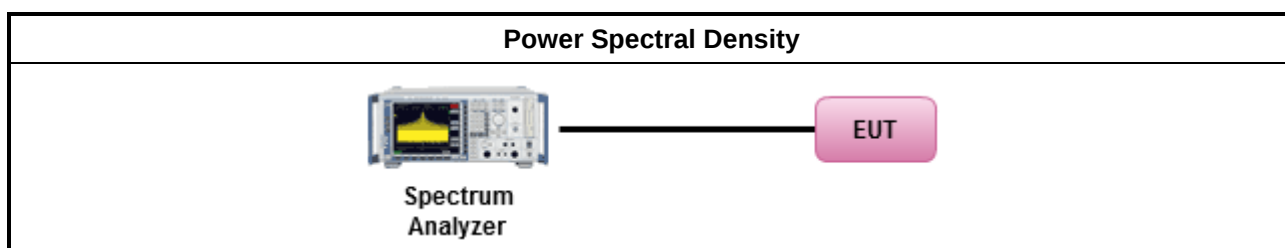
3.4.2 Measuring Instruments

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 KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.
For conducted measurement.
If The EUT supports multiple transmit chains using options given below:
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.

3.4.4 Test Setup



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 (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.	

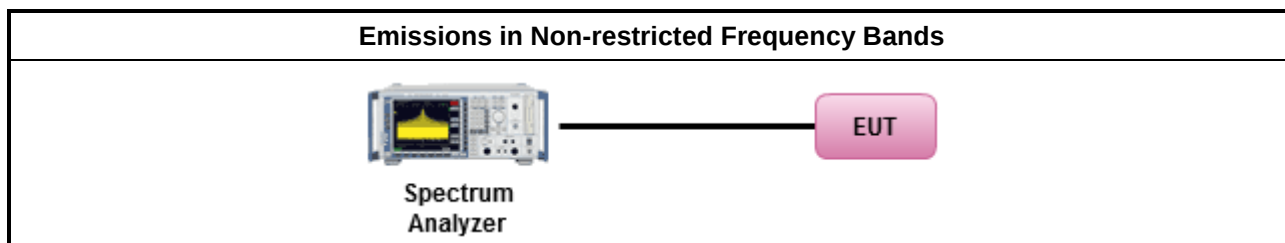
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup



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 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.

3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

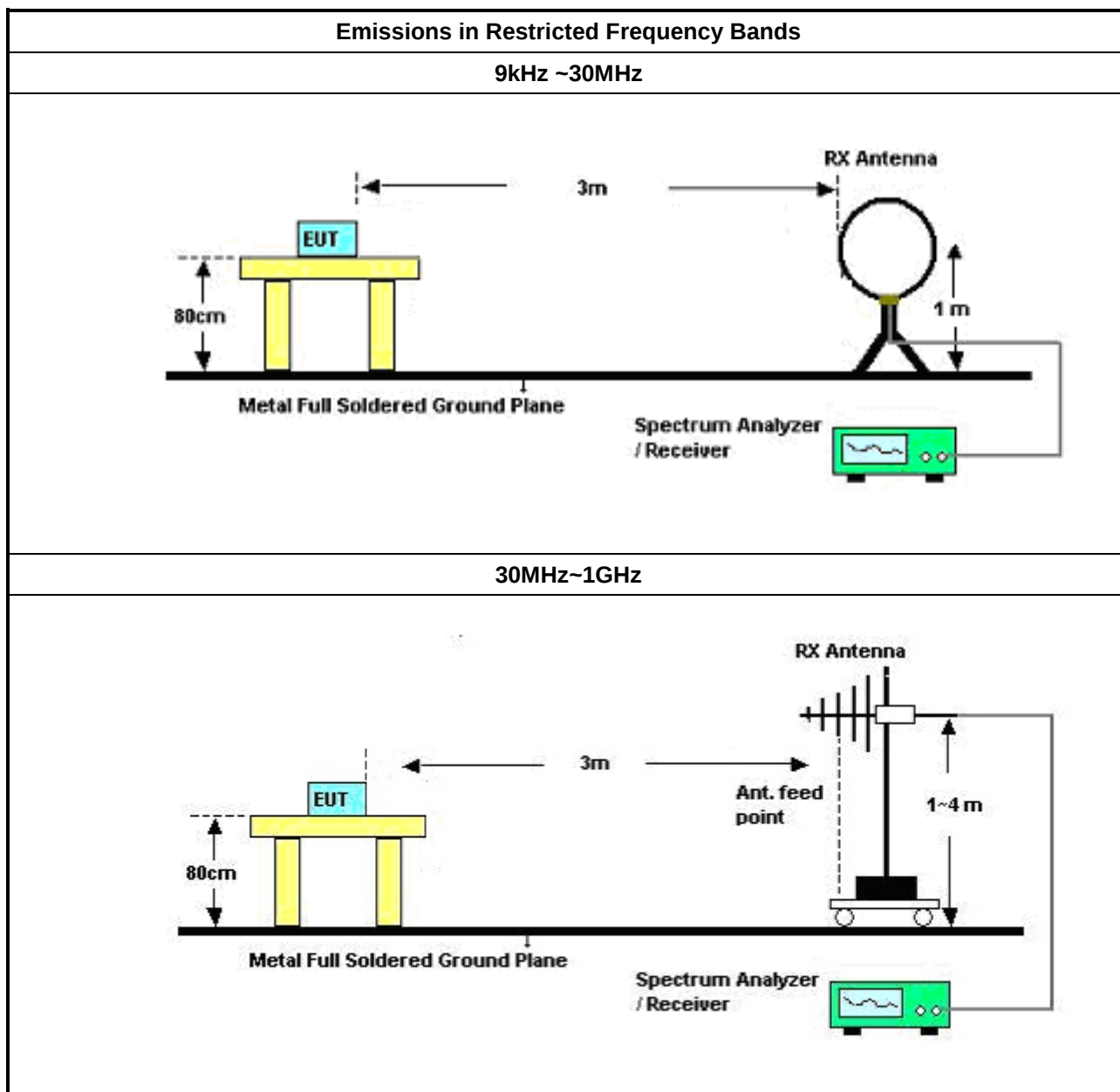
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
For the transmitter band-edge emissions shall be measured using following options below:	
	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.
	Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	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.
	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

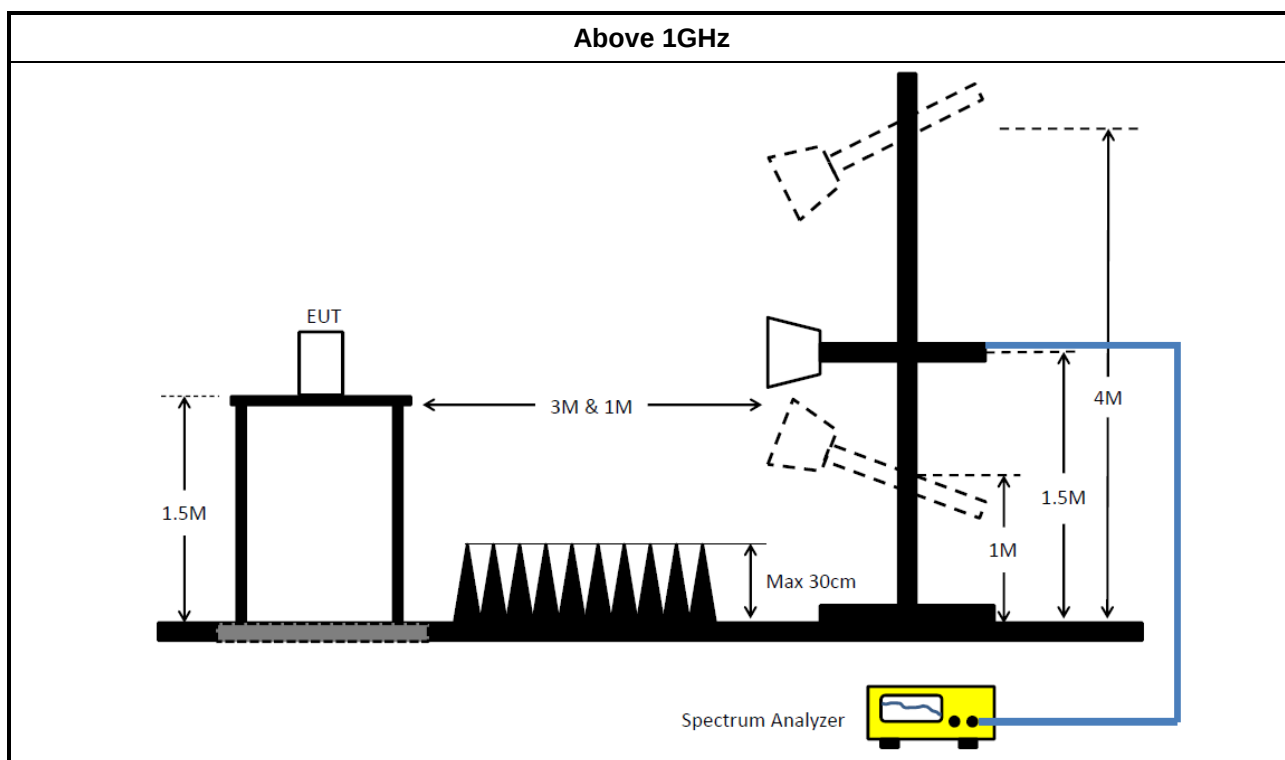
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.6.5 Test Setup





3.6.6 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.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	11/Nov/2020	10/Nov/2021
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	31/Aug/2020	30/Aug/2021
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	21/Sep/2020	20/Sep/2021

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	19/Oct/2020	18/Oct/2021
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	20/Oct/2020	19/Oct/2021
Pulse Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	27/Nov/2020	26/Nov/2021
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	27/Nov/2020	26/Nov/2021

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	27/Mar/2020	26/Mar/2021
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	19/Mar/2020	18/Mar/2021
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	11/Aug/2020	10/Aug/2021
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	14/Apr/2020	13/Apr/2021
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	24/Jul/2020	23/Jul/2021
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D&MTJ6 102-05	35418 & 3	30MHz~1GHz	06/Sep/2020	05/Sep/2021
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	28/May/2020	27/May/2021
RF Cable-low	Jye Bao	RG142	CB031+324530/4	9kHz~30MHz	03/Sep/2020	02/Sep/2021
RF Cable-low	Jye Bao	RG142	CB031+324530/4	30MHz~1GHz	12/Feb/2020	11/Feb/2021
RF CABLE 5m+3m+1m	HUBER+SUHNER	SUCOFLEX104	SN MY25918/4+ SN MY39478/4 + SN 324530/4	1GHz~40GHz	15/Aug/2020	14/Aug/2021
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2020	15/Mar/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	29/May/2020	28/May/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021

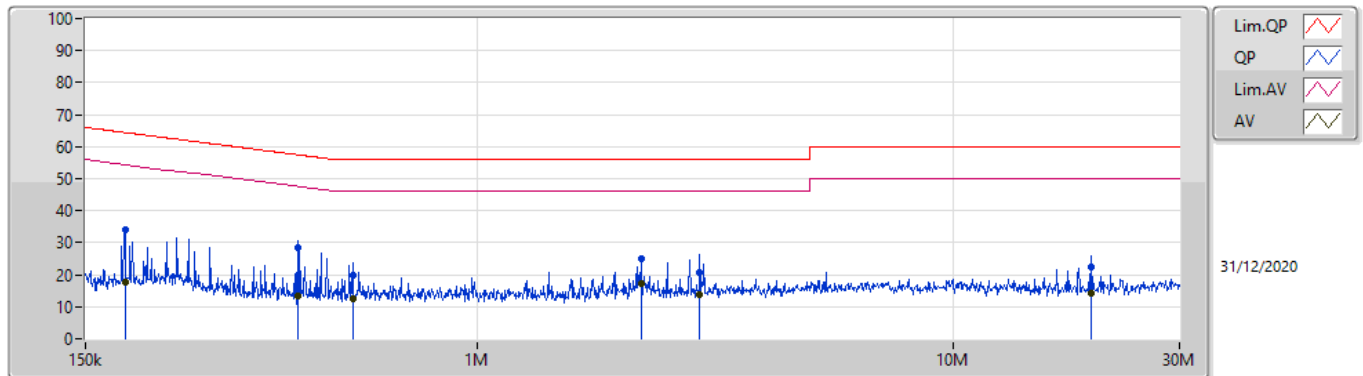
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	2.211M	17.19	46.00	-28.81	Line

Mode Configure

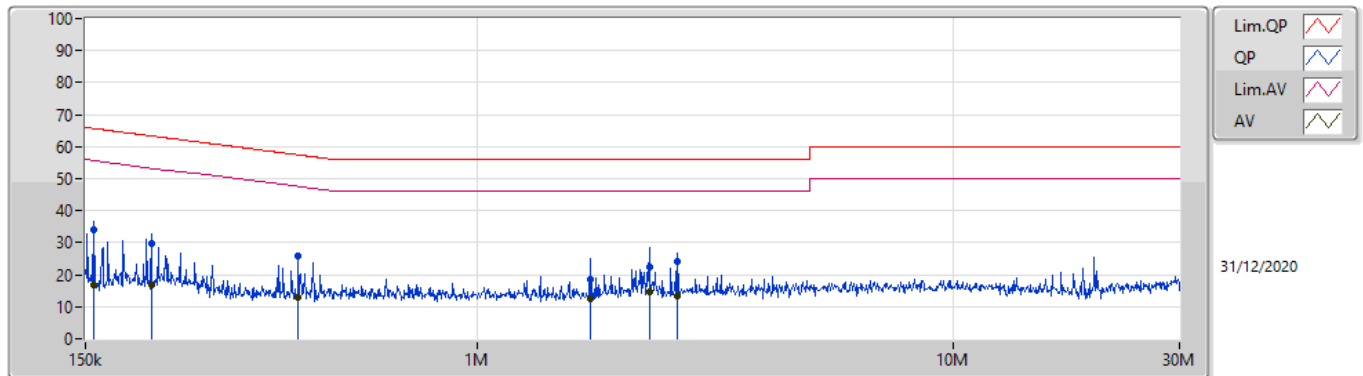
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	181.681k	34.11	64.41	-30.30	Line	-
Mode 1	Pass	AV	181.681k	17.51	54.41	-36.90	Line	-
Mode 1	Pass	QP	418.461k	28.24	57.47	-29.23	Line	-
Mode 1	Pass	AV	418.461k	13.22	47.47	-34.25	Line	-
Mode 1	Pass	QP	546.782k	19.65	56.00	-36.35	Line	-
Mode 1	Pass	AV	546.782k	12.45	46.00	-33.55	Line	-
Mode 1	Pass	QP	2.211M	25.06	56.00	-30.94	Line	-
Mode 1	Pass	AV	2.211M	17.19	46.00	-28.81	Line	"Worst"
Mode 1	Pass	QP	2.936M	20.63	56.00	-35.37	Line	-
Mode 1	Pass	AV	2.936M	13.72	46.00	-32.28	Line	-
Mode 1	Pass	QP	19.553M	22.30	60.00	-37.70	Line	-
Mode 1	Pass	AV	19.553M	14.10	50.00	-35.90	Line	-
Mode 1	Pass	QP	156.109k	34.18	65.67	-31.49	Neutral	-
Mode 1	Pass	AV	156.109k	16.97	55.67	-38.70	Neutral	-
Mode 1	Pass	QP	206.437k	29.59	63.34	-33.75	Neutral	-
Mode 1	Pass	AV	206.437k	16.96	53.34	-36.38	Neutral	-
Mode 1	Pass	QP	420.135k	25.74	57.45	-31.71	Neutral	-
Mode 1	Pass	AV	420.135k	13.01	47.45	-34.44	Neutral	-
Mode 1	Pass	QP	1.726M	18.41	56.00	-37.59	Neutral	-
Mode 1	Pass	AV	1.726M	12.61	46.00	-33.39	Neutral	-
Mode 1	Pass	QP	2.301M	22.43	56.00	-33.57	Neutral	-
Mode 1	Pass	AV	2.301M	14.85	46.00	-31.15	Neutral	"Worst"
Mode 1	Pass	QP	2.636M	24.05	56.00	-31.95	Neutral	-
Mode 1	Pass	AV	2.636M	13.38	46.00	-32.62	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	181.681k	34.11	64.41	-30.30	19.59	Line	-	14.52	9.68	0.01	9.90			
AV	181.681k	17.51	54.41	-36.90	19.59	Line	-	-2.08	9.68	0.01	9.90			
QP	418.461k	28.24	57.47	-29.23	19.58	Line	-	8.66	9.67	0.02	9.89			
AV	418.461k	13.22	47.47	-34.25	19.58	Line	-	-6.36	9.67	0.02	9.89			
QP	546.782k	19.65	56.00	-36.35	19.57	Line	-	0.08	9.67	0.03	9.87			
AV	546.782k	12.45	46.00	-33.55	19.57	Line	-	-7.12	9.67	0.03	9.87			
QP	2.211M	25.06	56.00	-30.94	19.58	Line	-	5.48	9.68	0.09	9.81			
AV	2.211M	17.19	46.00	-28.81	19.58	Line	"Worst"	-2.39	9.68	0.09	9.81			
QP	2.936M	20.63	56.00	-35.37	19.65	Line	-	0.98	9.69	0.10	9.86			
AV	2.936M	13.72	46.00	-32.28	19.65	Line	-	-5.93	9.69	0.10	9.86			
QP	19.553M	22.30	60.00	-37.70	19.86	Line	-	2.44	9.67	0.29	9.90			
AV	19.553M	14.10	50.00	-35.90	19.86	Line	-	-5.76	9.67	0.29	9.90			

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	156.109k	34.18	65.67	-31.49	19.60	Neutral	-	14.58	9.69	0.01	9.90			
AV	156.109k	16.97	55.67	-38.70	19.60	Neutral	-	-2.63	9.69	0.01	9.90			
QP	206.437k	29.59	63.34	-33.75	19.59	Neutral	-	10.00	9.68	0.01	9.90			
AV	206.437k	16.96	53.34	-36.38	19.59	Neutral	-	-2.63	9.68	0.01	9.90			
QP	420.135k	25.74	57.45	-31.71	19.58	Neutral	-	6.16	9.67	0.02	9.89			
AV	420.135k	13.01	47.45	-34.44	19.58	Neutral	-	-6.57	9.67	0.02	9.89			
QP	1.726M	18.41	56.00	-37.59	19.55	Neutral	-	-1.14	9.68	0.07	9.80			
AV	1.726M	12.61	46.00	-33.39	19.55	Neutral	-	-6.94	9.68	0.07	9.80			
QP	2.301M	22.43	56.00	-33.57	19.59	Neutral	-	2.84	9.68	0.09	9.82			
AV	2.301M	14.85	46.00	-31.15	19.59	Neutral	"Worst"	-4.74	9.68	0.09	9.82			
QP	2.636M	24.05	56.00	-31.95	19.62	Neutral	-	4.43	9.68	0.10	9.84			
AV	2.636M	13.38	46.00	-32.62	19.62	Neutral	-	-6.24	9.68	0.10	9.84			

**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)	695k	1.04M	1M04F1D	687.5k	1.036M
BT-LE(2Mbps)	1.345M	2.116M	2M12F1D	1.34M	2.105M
BT-LE(125kbps)	742.5k	1.121M	1M12F1D	740k	1.118M
BT-LE(500kbps)	770k	1.092M	1M09F1D	767.5k	1.088M

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

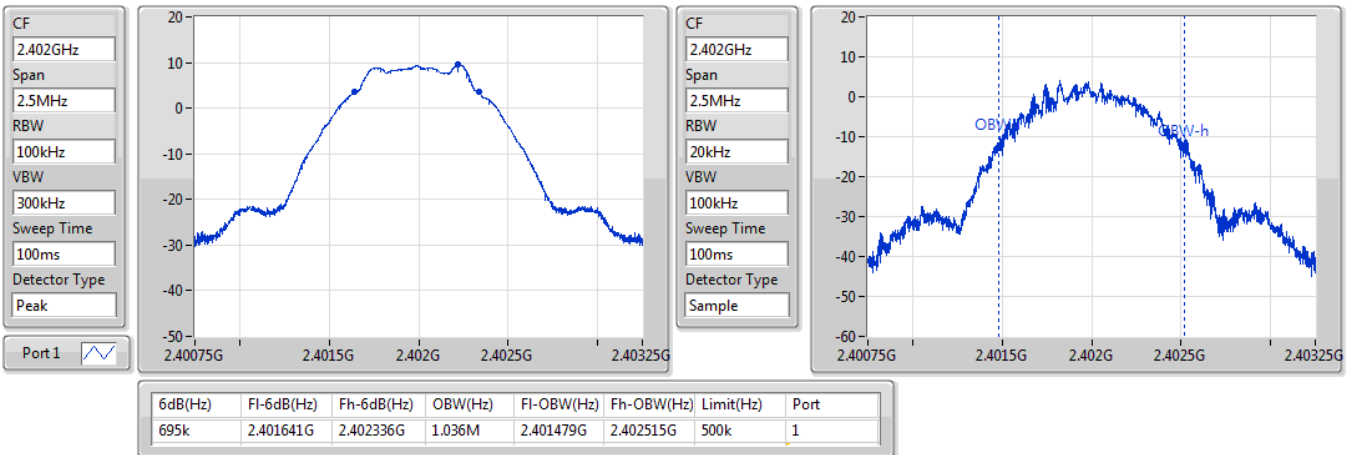
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	695k	1.036M
2440MHz	Pass	500k	687.5k	1.04M
2480MHz	Pass	500k	688.75k	1.038M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.345M	2.106M
2440MHz	Pass	500k	1.34M	2.105M
2480MHz	Pass	500k	1.34M	2.116M
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	500k	742.5k	1.12M
2440MHz	Pass	500k	742.5k	1.121M
2480MHz	Pass	500k	740k	1.118M
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	500k	770k	1.092M
2440MHz	Pass	500k	767.5k	1.09M
2480MHz	Pass	500k	770k	1.088M

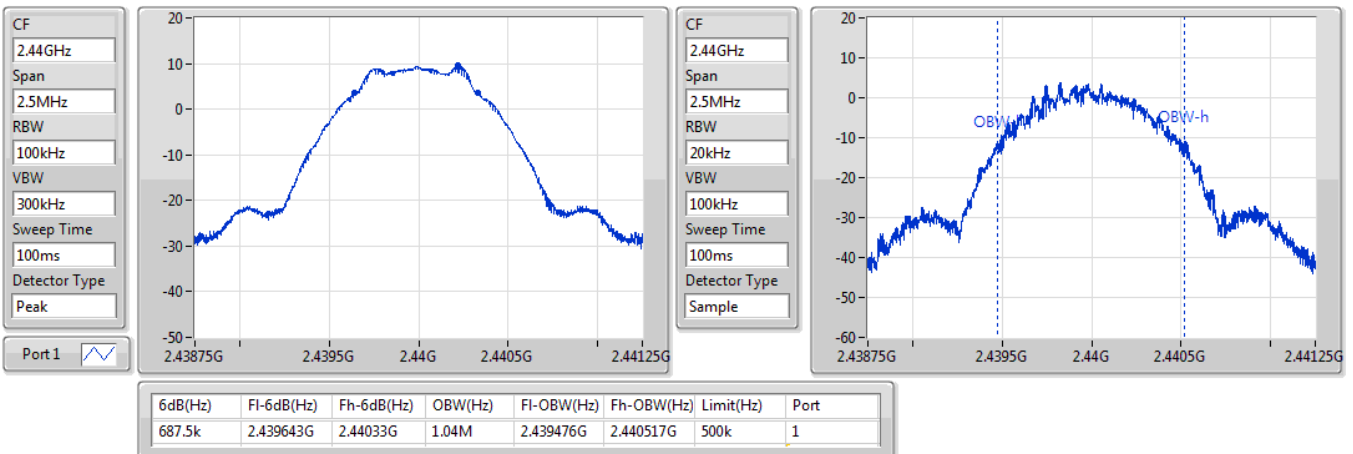
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

BT-LE(1Mbps)
2402MHz
EBW-DTS

25/12/2020

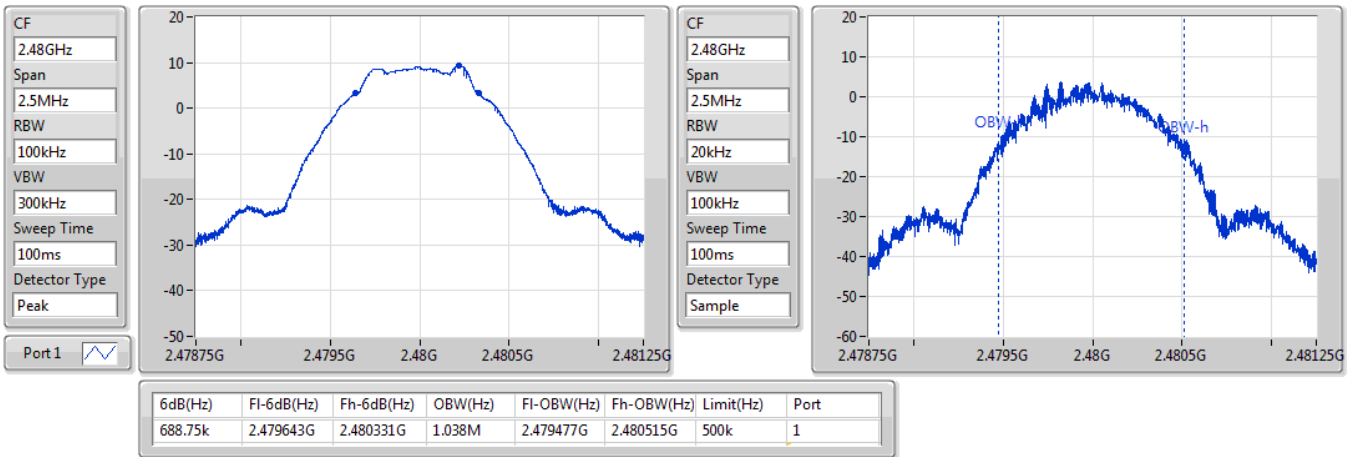

BT-LE(1Mbps)
2440MHz
EBW-DTS

25/12/2020

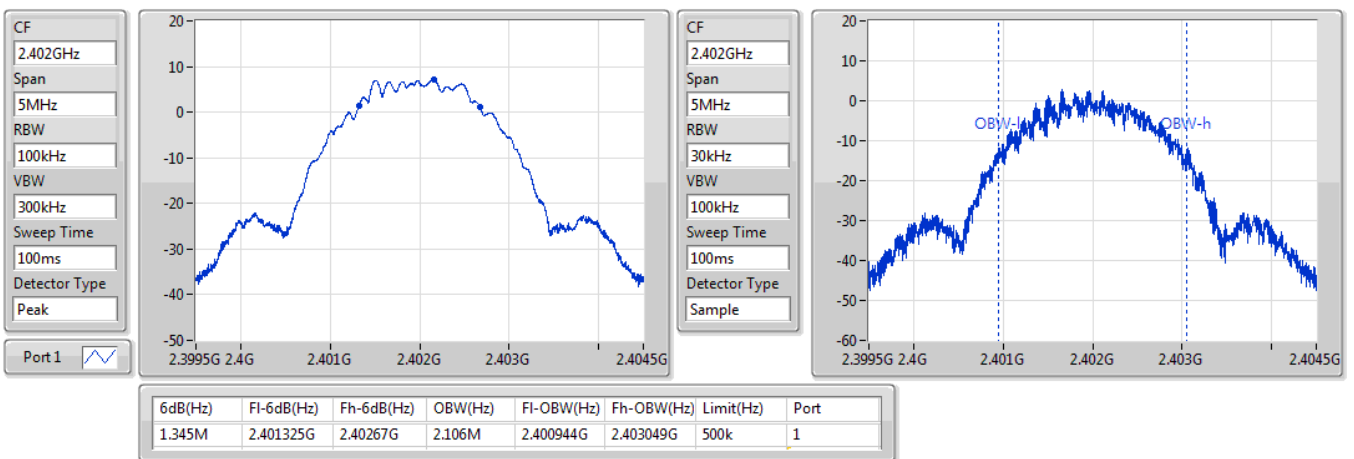


BT-LE(1Mbps)
EBW-DTS
2480MHz

25/12/2020

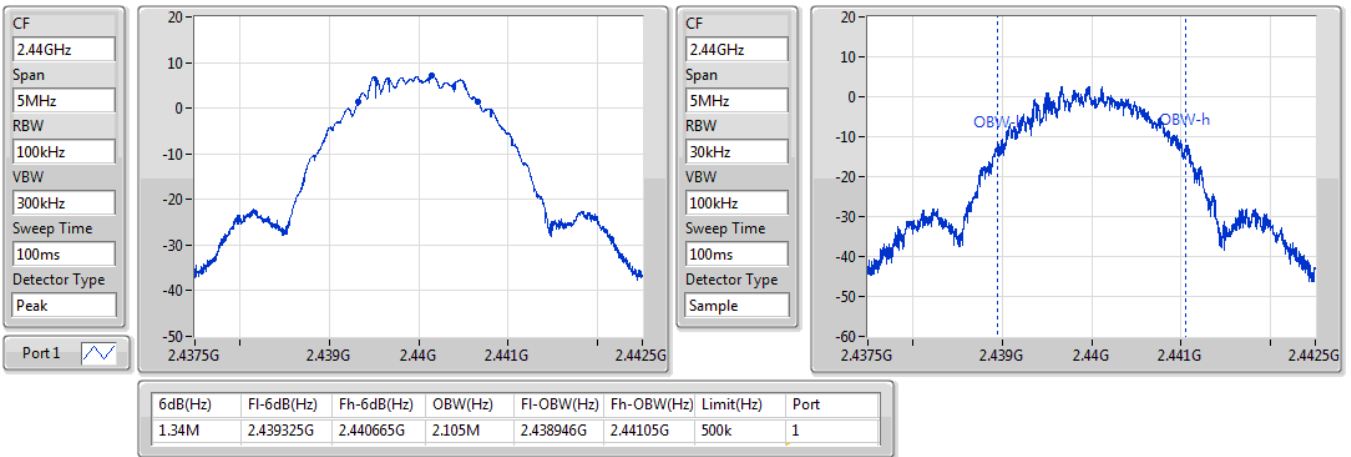

BT-LE(2Mbps)
EBW-DTS
2402MHz

25/12/2020

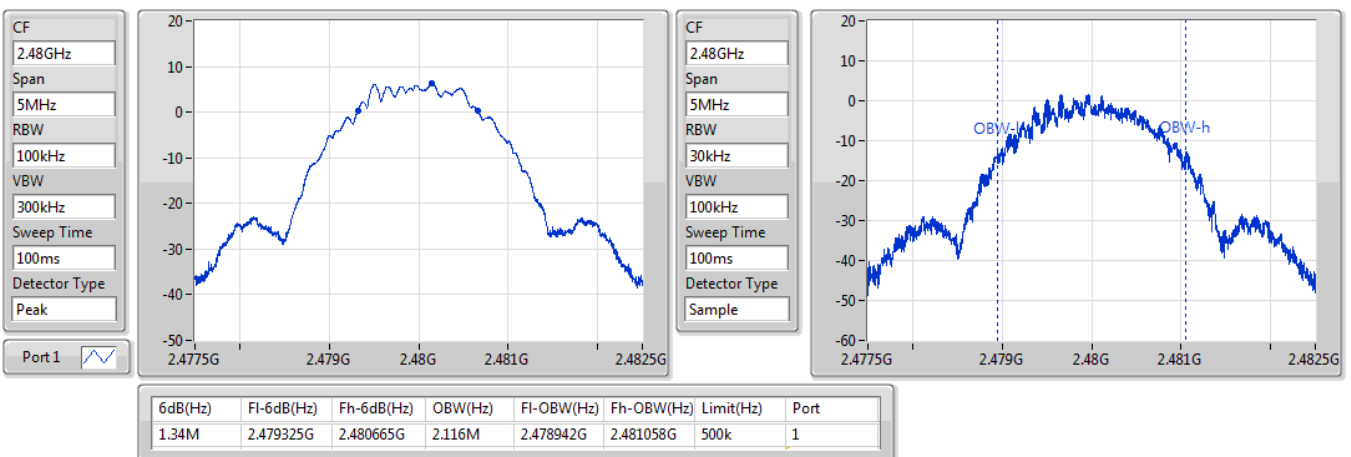


BT-LE(2Mbps)
2440MHz

25/12/2020


BT-LE(2Mbps)
2480MHz

25/12/2020

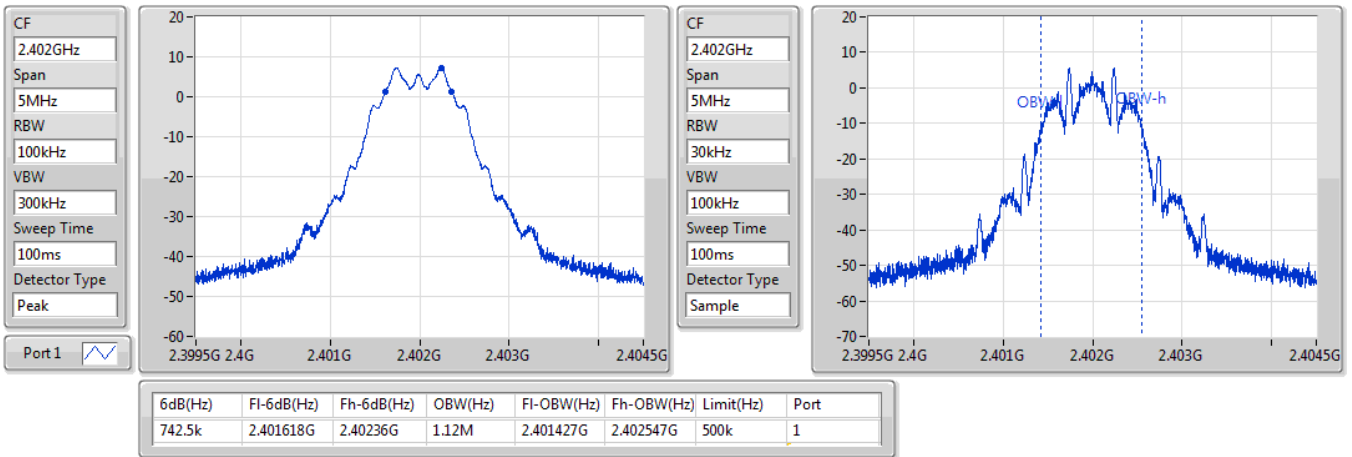


BT-LE(125kbps)

2402MHz

EBW-DTS

25/12/2020

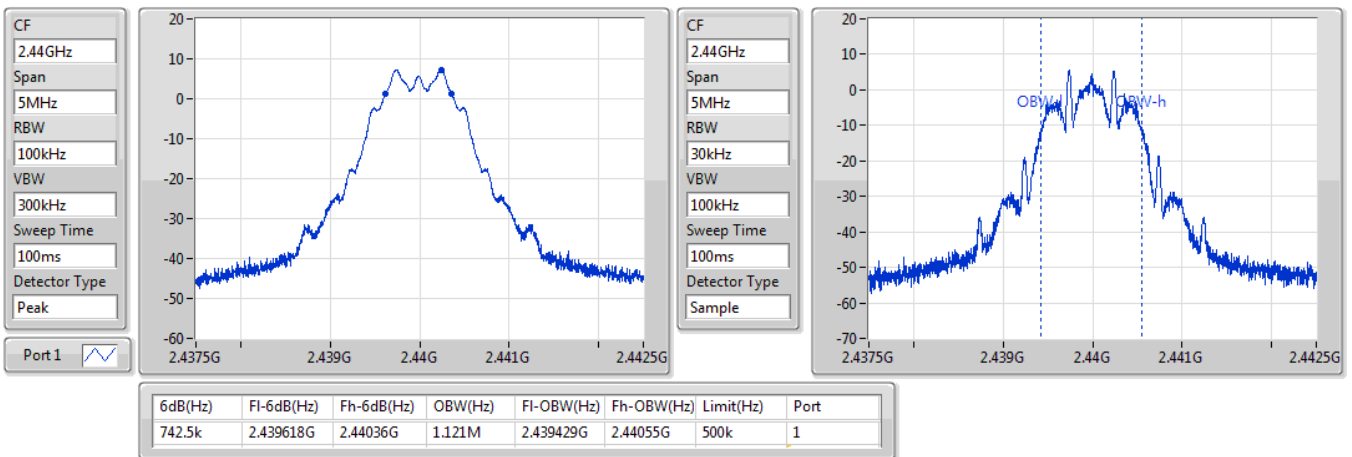


BT-LE(125kbps)

2440MHz

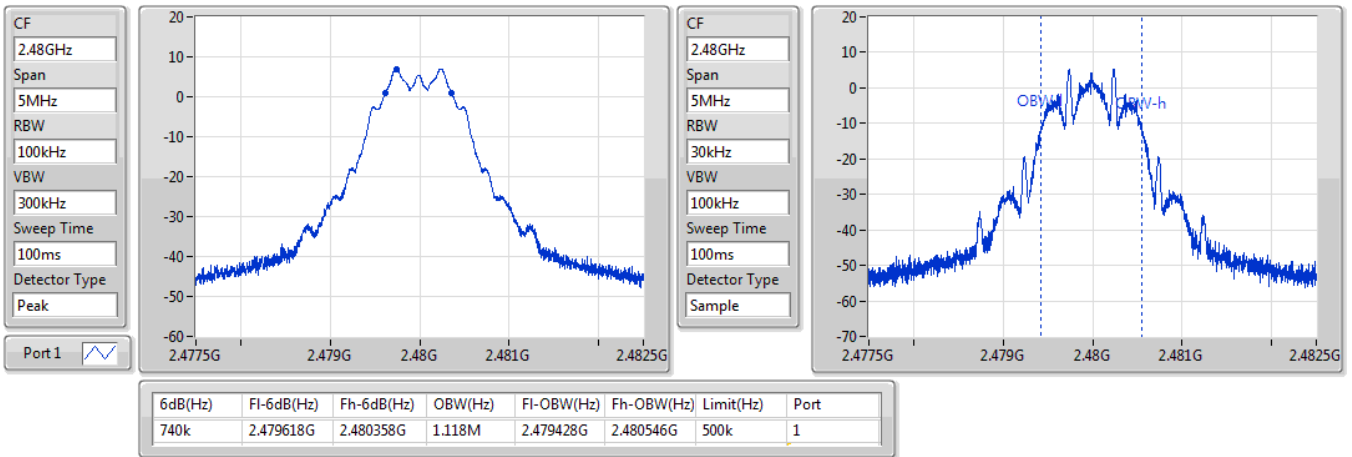
EBW-DTS

25/12/2020

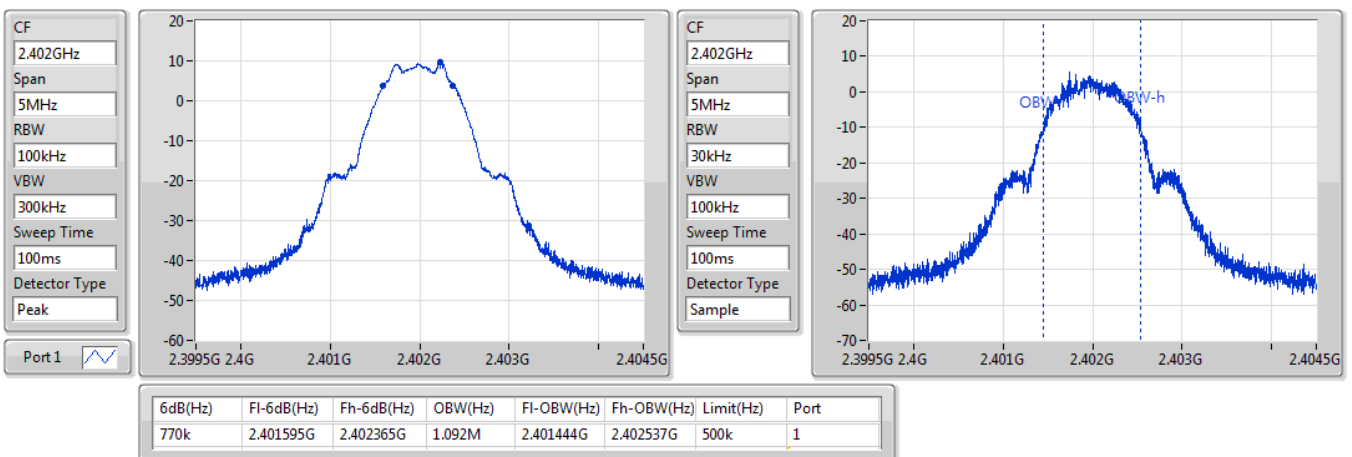


BT-LE(125kbps)
2480MHz
EBW-DTS

25/12/2020

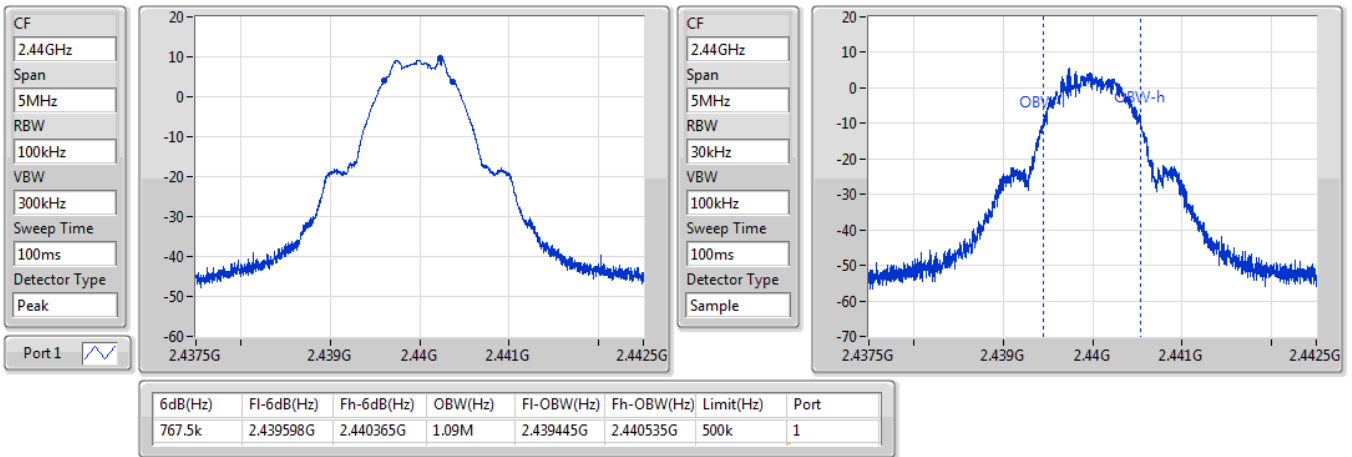

BT-LE(500kbps)
2402MHz
EBW-DTS

25/12/2020

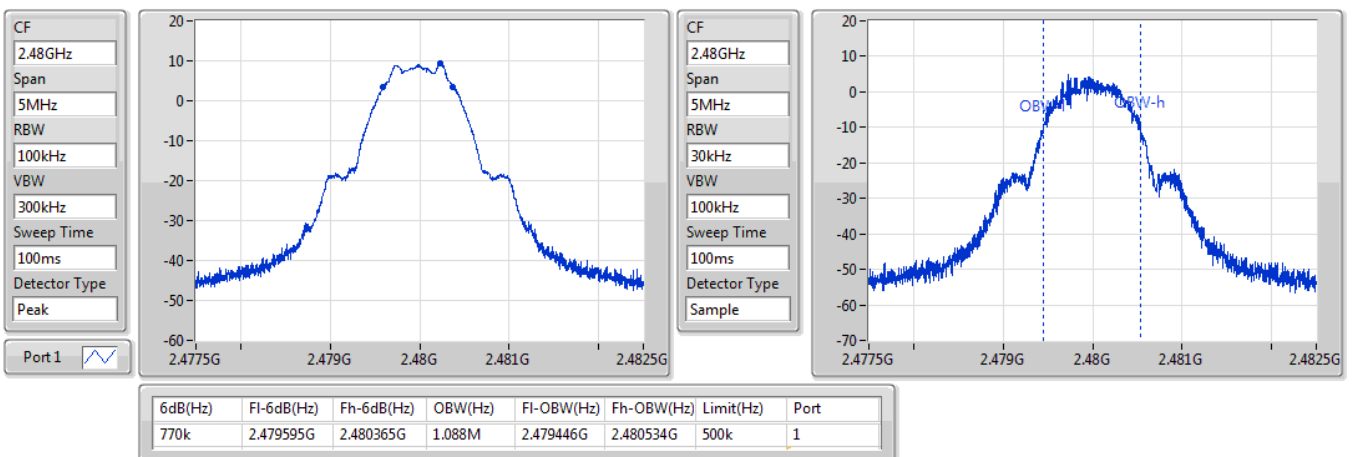


BT-LE(500kbps)
2440MHz
EBW-DTS

25/12/2020


BT-LE(500kbps)
2480MHz
EBW-DTS

25/12/2020





Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	10.33	0.01079
BT-LE(2Mbps)	10.36	0.01086
BT-LE(125kbps)	10.48	0.01117
BT-LE(500kbps)	10.47	0.01114

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.00	10.31	30.00
2440MHz	Pass	4.00	10.33	30.00
2480MHz	Pass	4.00	10.17	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.00	10.34	30.00
2440MHz	Pass	4.00	10.36	30.00
2480MHz	Pass	4.00	9.34	30.00
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	4.00	10.47	30.00
2440MHz	Pass	4.00	10.48	30.00
2480MHz	Pass	4.00	10.27	30.00
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	4.00	10.47	30.00
2440MHz	Pass	4.00	10.47	30.00
2480MHz	Pass	4.00	10.26	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-5.52
BT-LE(2Mbps)	-7.49
BT-LE(125kbps)	5.06
BT-LE(500kbps)	-8.01

RBW = 3kHz;

Result

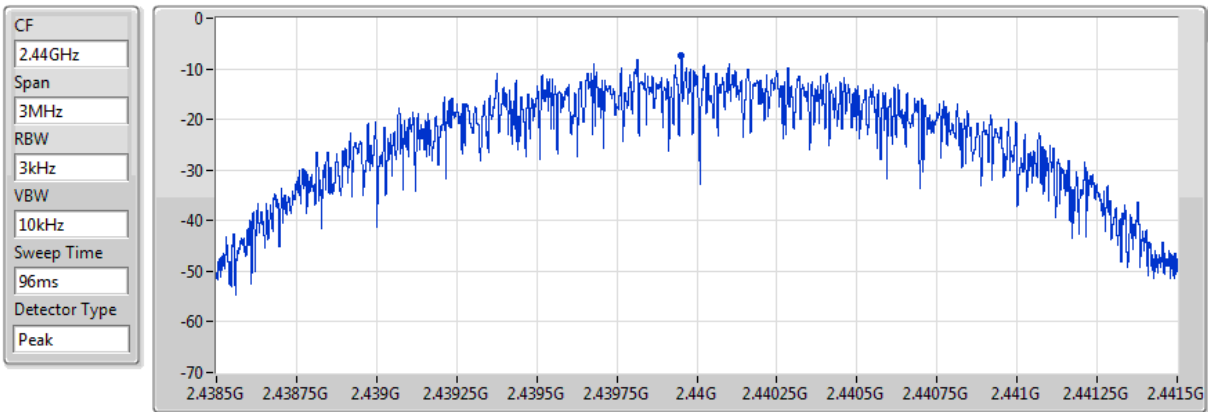
Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.00	-5.52	8.00
2440MHz	Pass	4.00	-5.53	8.00
2480MHz	Pass	4.00	-5.67	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	4.00	-7.49	8.00
2440MHz	Pass	4.00	-7.50	8.00
2480MHz	Pass	4.00	-8.51	8.00
BT-LE(125kbps)	-	-	-	-
2402MHz	Pass	4.00	5.06	8.00
2440MHz	Pass	4.00	4.96	8.00
2480MHz	Pass	4.00	4.75	8.00
BT-LE(500kbps)	-	-	-	-
2402MHz	Pass	4.00	-8.02	8.00
2440MHz	Pass	4.00	-8.01	8.00
2480MHz	Pass	4.00	-8.09	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(2Mbps)

2440MHz

25/12/2020

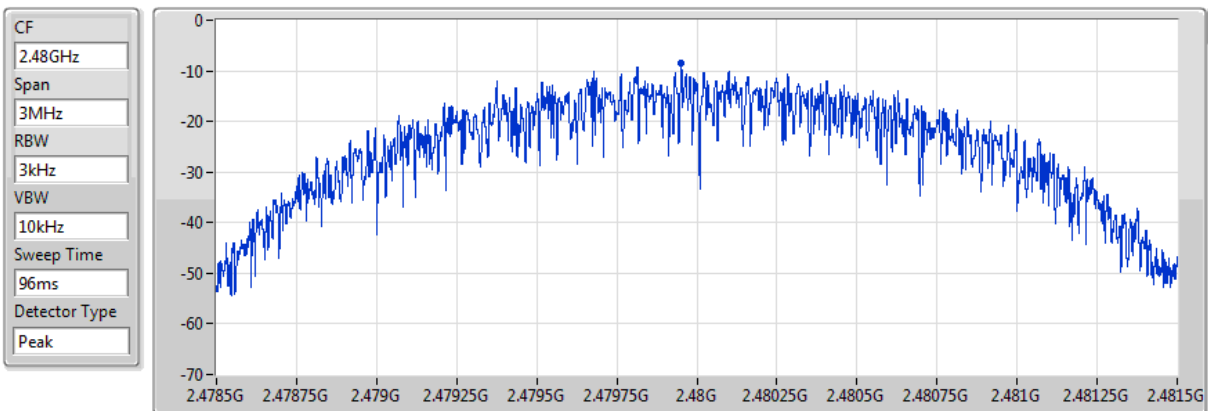


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.50	-7.50	-7.50

BT-LE(2Mbps)

2480MHz

25/12/2020



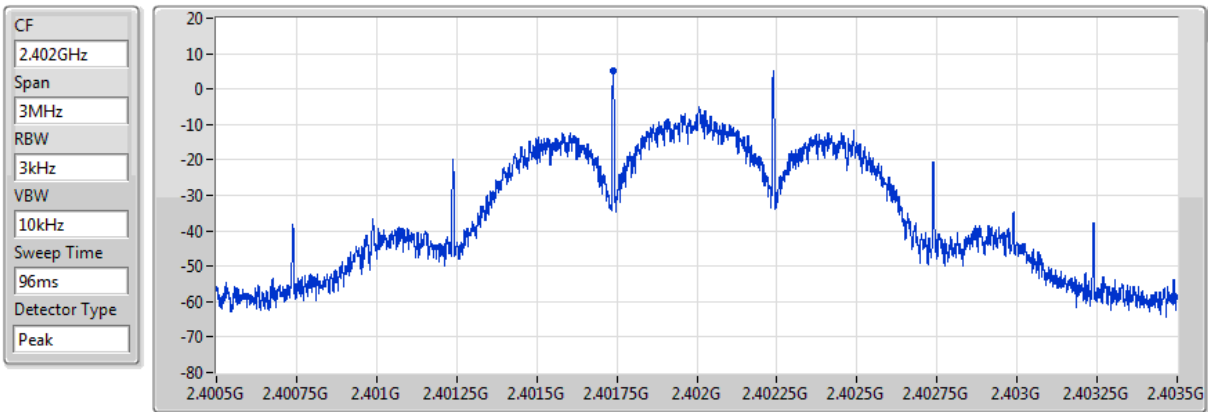
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.51	-8.51	-8.51

BT-LE(125kbps)

PSD

2402MHz

25/12/2020



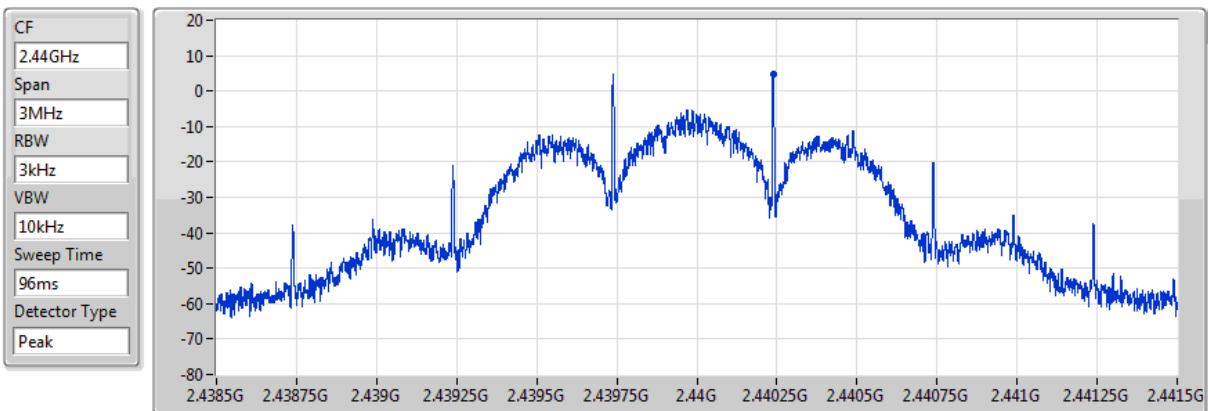
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.06	5.06	5.06

BT-LE(125kbps)

PSD

2440MHz

25/12/2020

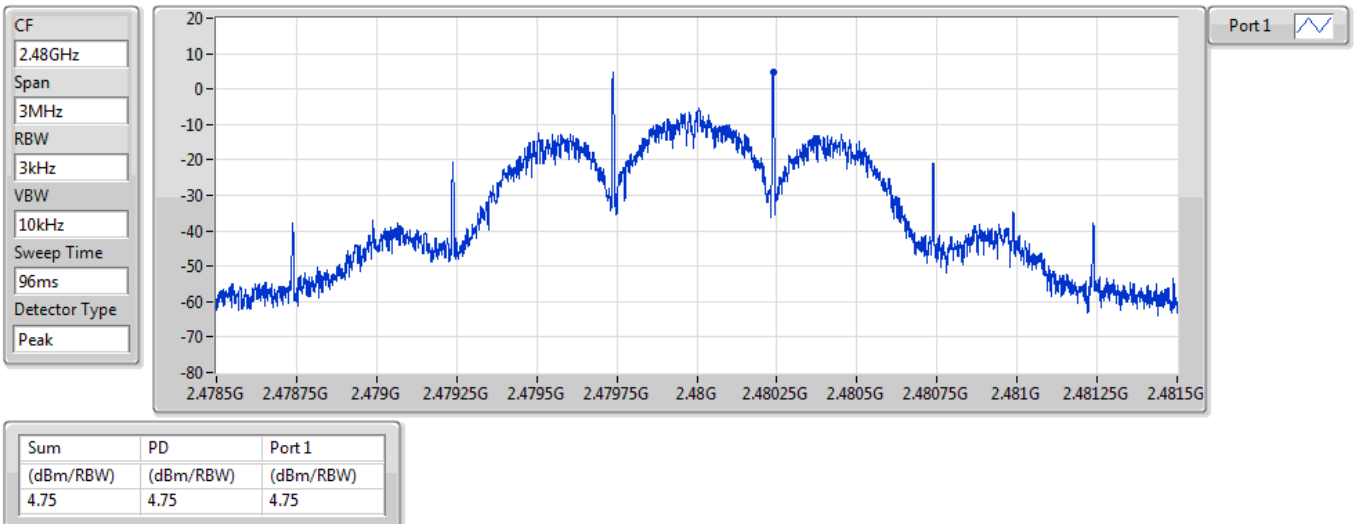


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.96	4.96	4.96

BT-LE(125kbps)

2480MHz

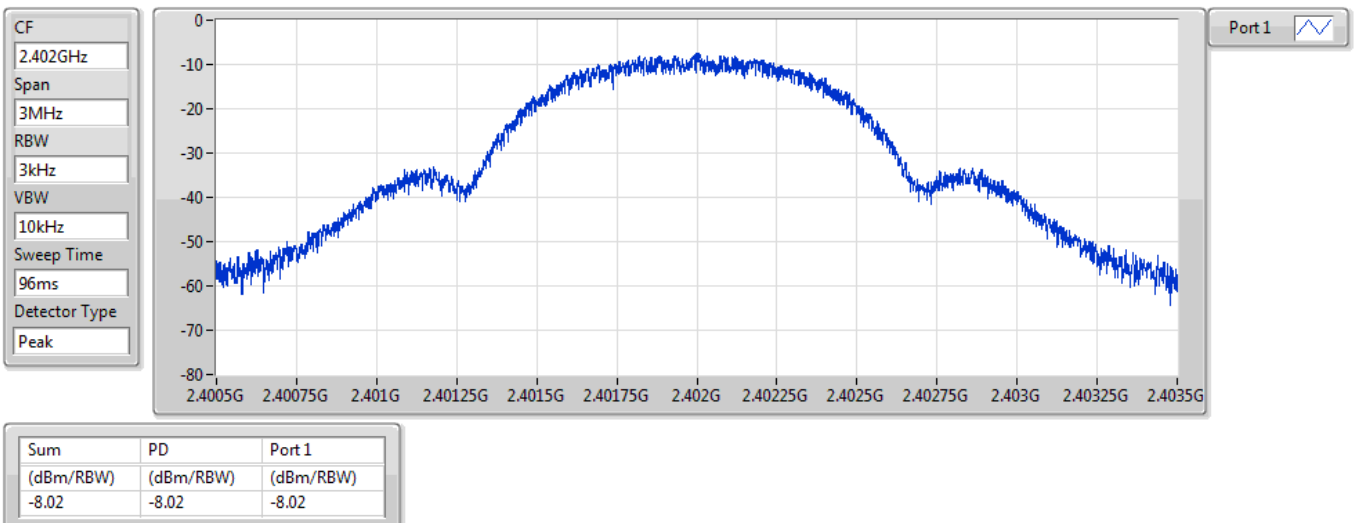
25/12/2020



BT-LE(500kbps)

2402MHz

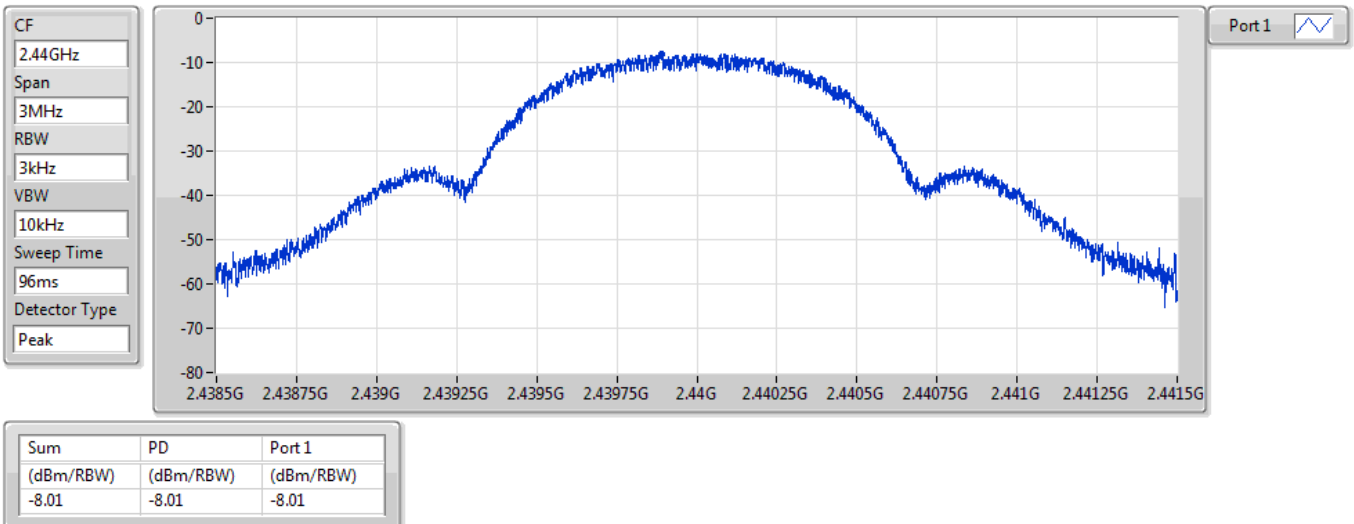
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BT-LE(500kbps)

2440MHz

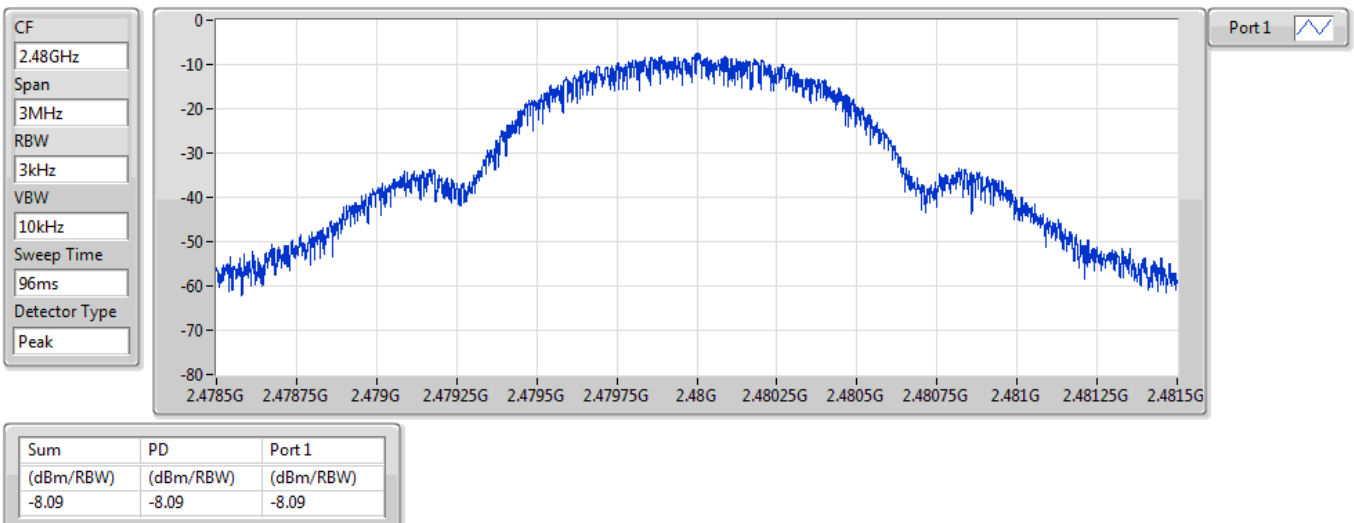
25/12/2020



BT-LE(500kbps)

2480MHz

25/12/2020





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	2.44G	9.06	-20.94	2.06951G	-58.22	2.39977G	-43.54	2.4G	-43.93	2.49966G	-57.45	24.93532G	-45.85	1
BT-LE(2Mbps)	Pass	2.44016G	7.25	-22.75	2.1873G	-58.19	2.39998G	-24.11	2.4G	-24.28	2.49746G	-56.92	24.68786G	-46.12	1
BT-LE(125kbps)	Pass	2.43975G	7.18	-22.82	2.0416G	-58.28	2.39992G	-43.83	2.4G	-44.14	2.48746G	-56.75	24.32792G	-46.28	1
BT-LE(500kbps)	Pass	2.44G	9.13	-20.87	2.30186G	-57.57	2.3997G	-43.63	2.4G	-44.23	2.48622G	-57.31	24.90158G	-46.32	1

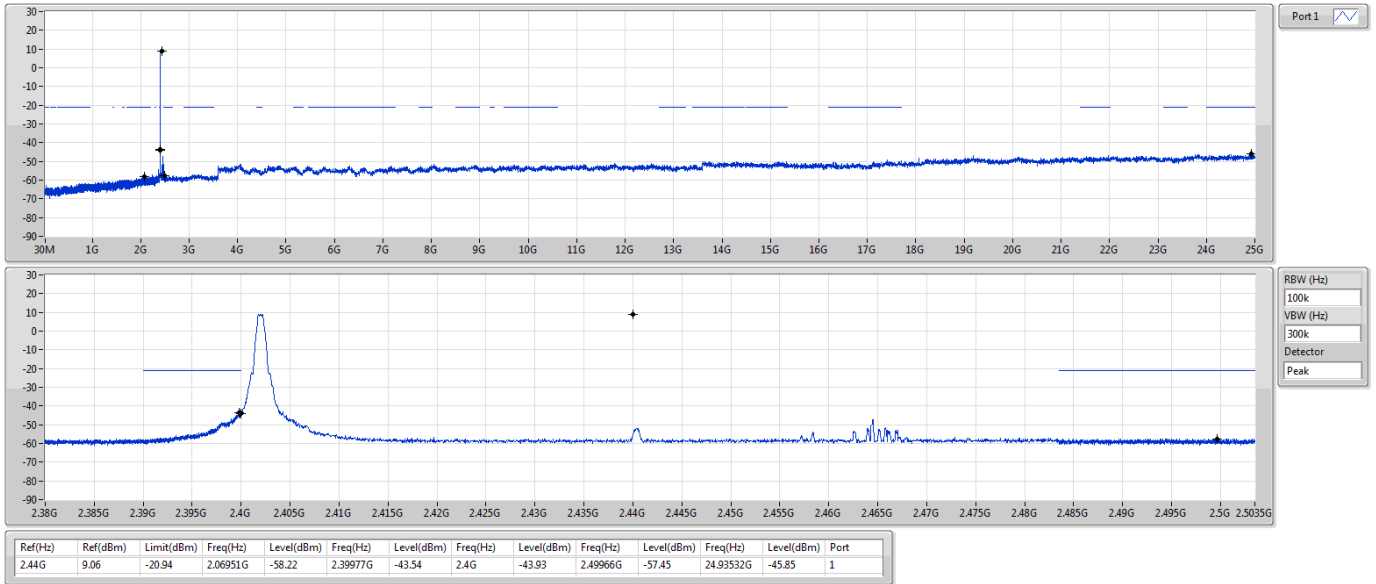
Result

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	2.44G	9.06	-20.94	2.06951G	-58.22	2.39977G	-43.54	2.4G	-43.93	2.49966G	-57.45	24.93532G	-45.85	1
2440MHz	Pass	2.44G	9.06	-20.94	2.04894G	-58.36	2.39783G	-57.38	2.4G	-58.05	2.4847G	-57.16	24.75535G	-45.94	1
2480MHz	Pass	2.44G	9.06	-20.94	2.30744G	-57.99	2.39701G	-57.65	2.4835G	-49.40	2.48354G	-48.95	24.14513G	-46.23	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44016G	7.25	-22.75	2.1873G	-58.19	2.39998G	-24.11	2.4G	-24.28	2.49746G	-56.92	24.68786G	-46.12	1
2440MHz	Pass	2.44016G	7.25	-22.75	2.30715G	-57.56	2.39597G	-57.53	2.4G	-58.14	2.49013G	-57.27	24.45446G	-46.27	1
2480MHz	Pass	2.44016G	7.25	-22.75	2.13971G	-57.64	2.3976G	-57.74	2.4835G	-47.73	2.48358G	-46.95	24.95219G	-45.16	1
BT-LE(125kbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.43975G	7.18	-22.82	2.0416G	-58.28	2.39992G	-43.83	2.4G	-44.14	2.48746G	-56.75	24.32792G	-46.28	1
2440MHz	Pass	2.43975G	7.18	-22.82	2.16703G	-58.23	2.39849G	-57.57	2.4G	-58.61	2.48586G	-56.74	24.71879G	-45.98	1
2480MHz	Pass	2.43975G	7.18	-22.82	2.18495G	-58.26	2.39852G	-57.78	2.4835G	-50.03	2.48368G	-49.05	24.96907G	-46.19	1
BT-LE(500kbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44G	9.13	-20.87	2.30186G	-57.57	2.3997G	-43.63	2.4G	-44.23	2.48622G	-57.31	24.90158G	-46.32	1
2440MHz	Pass	2.44G	9.13	-20.87	2.12884G	-58.23	2.39997G	-57.31	2.4835G	-58.60	2.48549G	-57.15	24.35041G	-46.03	1
2480MHz	Pass	2.44G	9.13	-20.87	2.30363G	-58.20	2.39669G	-57.74	2.4835G	-49.79	2.4835G	-48.88	24.38416G	-45.59	1

BT-LE(1Mbps)

CSEndB-DTS

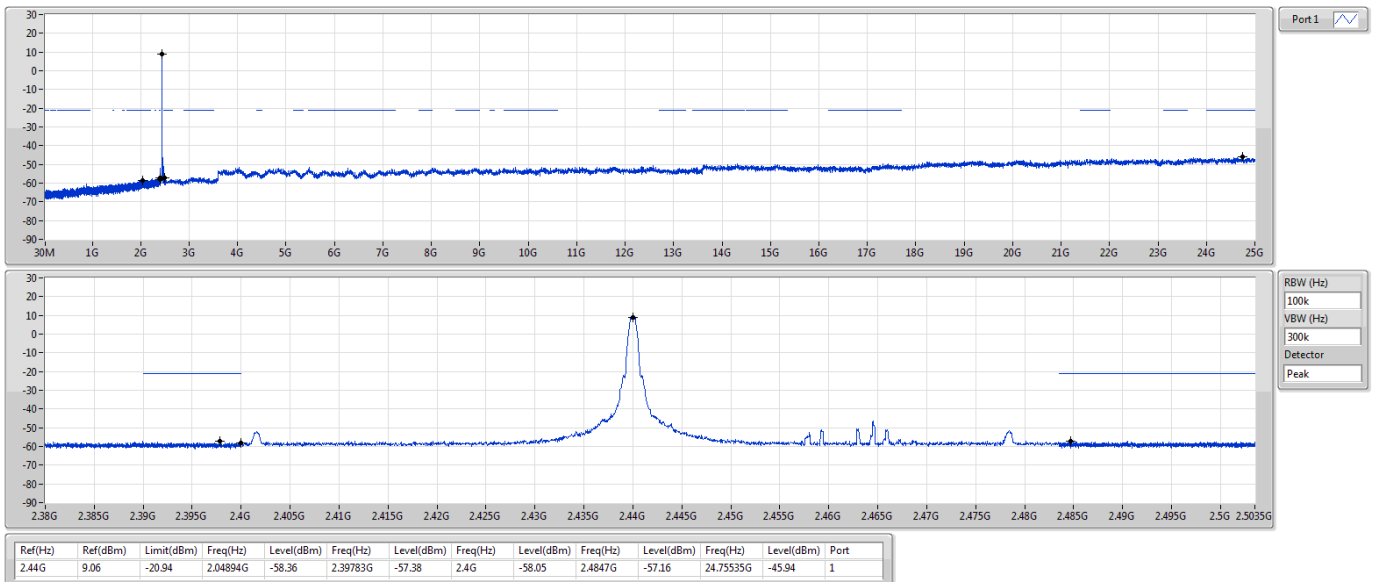
2402MHz



BT-LE(1Mbps)

CSEndB-DTS

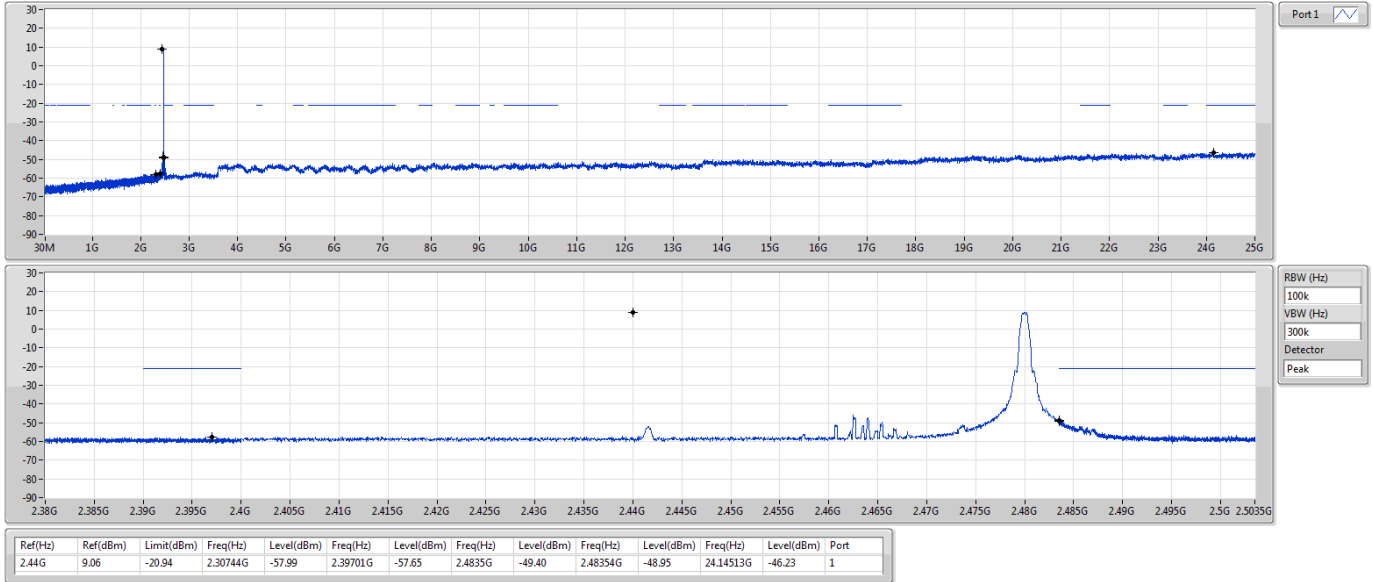
2440MHz



BT-LE(1Mbps)

CSEndB-DTS

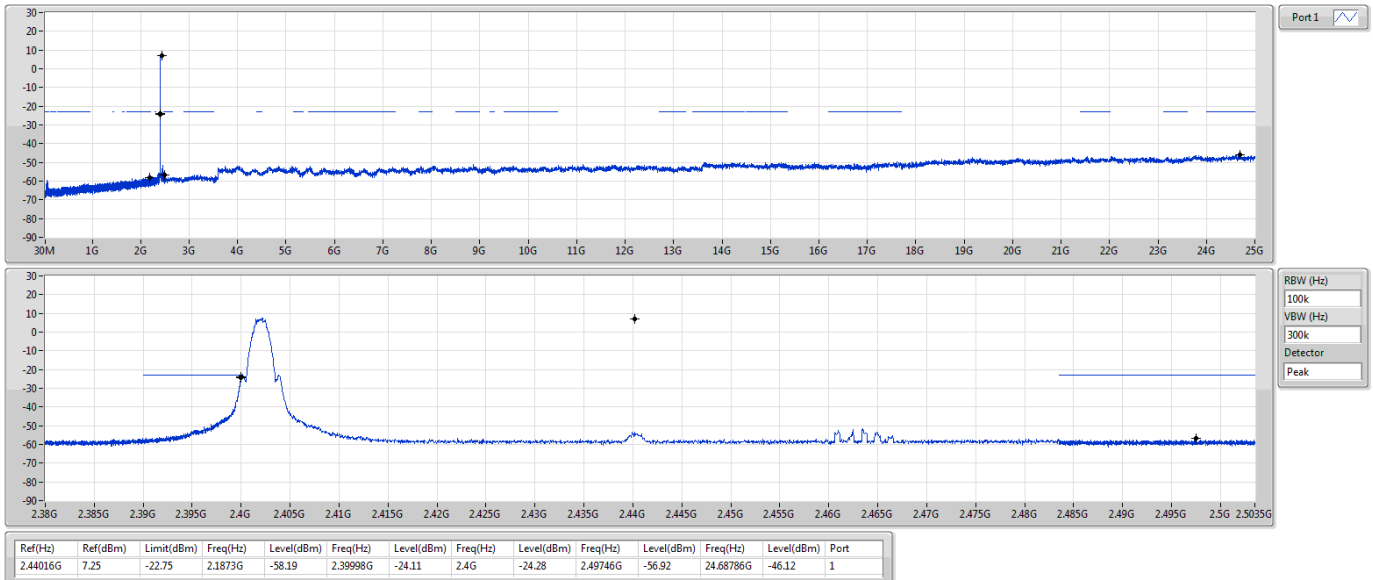
2480MHz



BT-LE(2Mbps)

CSEndB-DTS

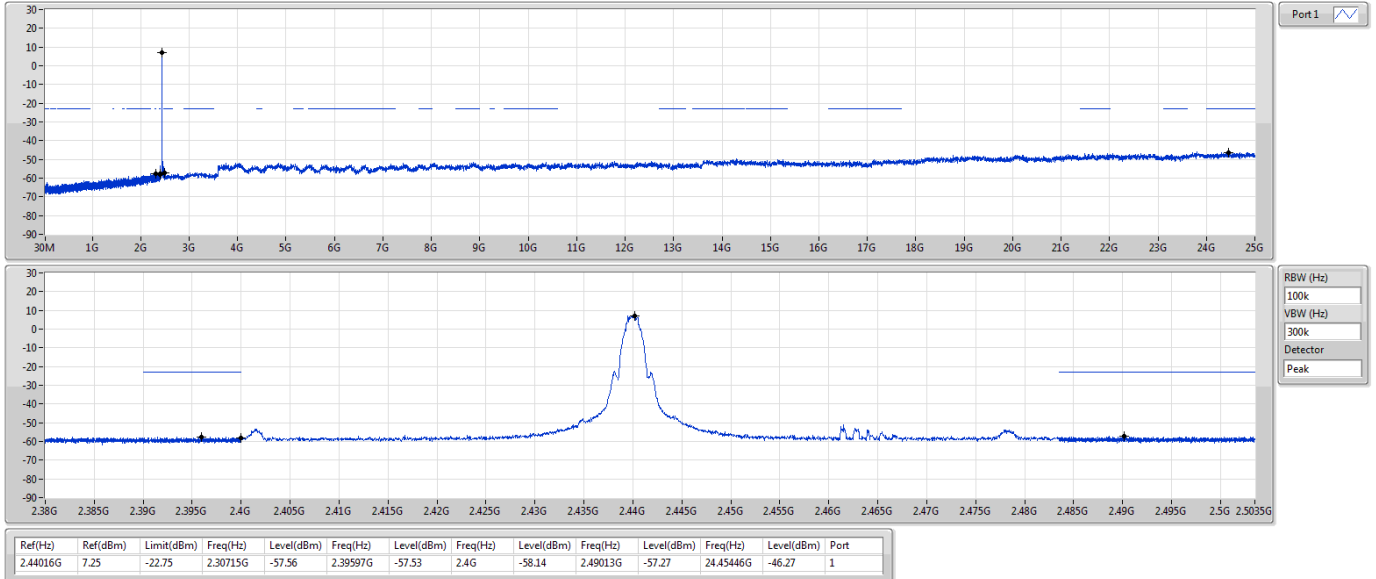
2402MHz



BT-LE(2Mbps)

CSEndB-DTS

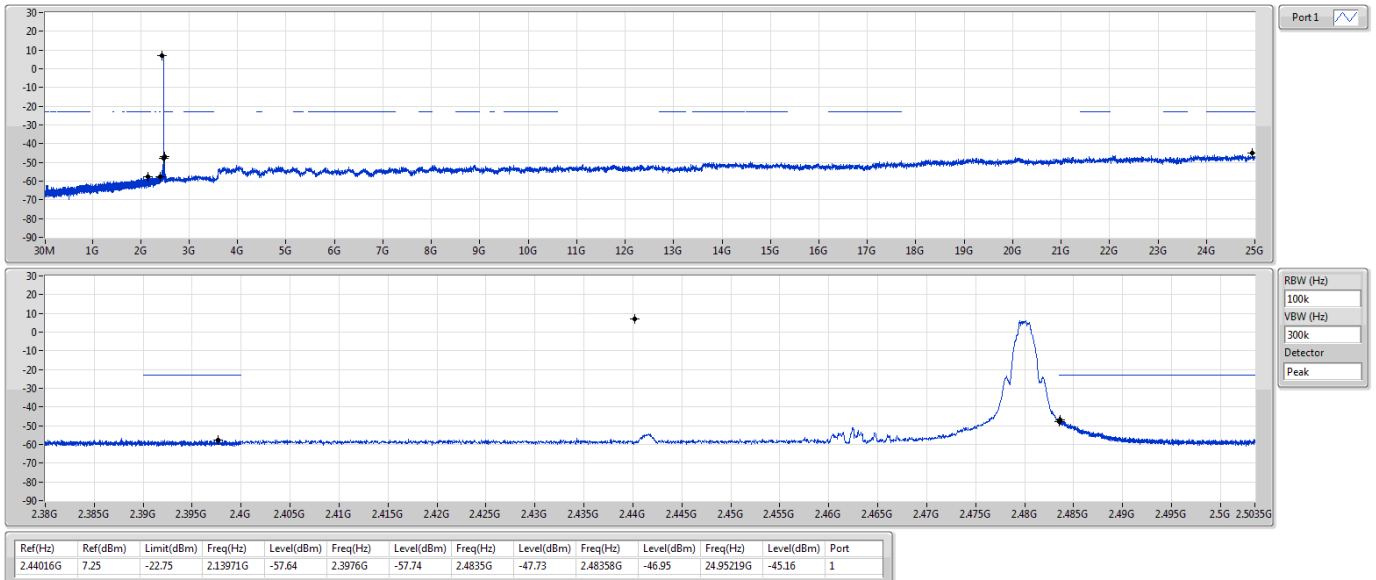
2440MHz



BT-LE(2Mbps)

CSEndB-DTS

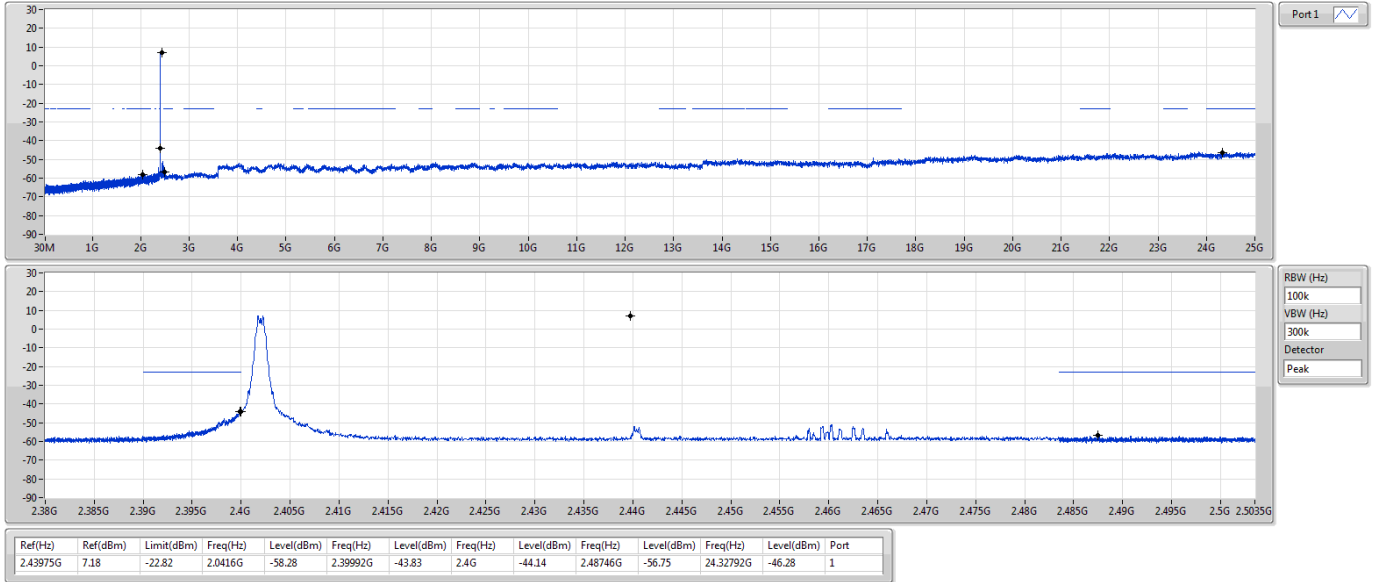
2480MHz



BT-LE(125kbps)

CSEndB-DTS

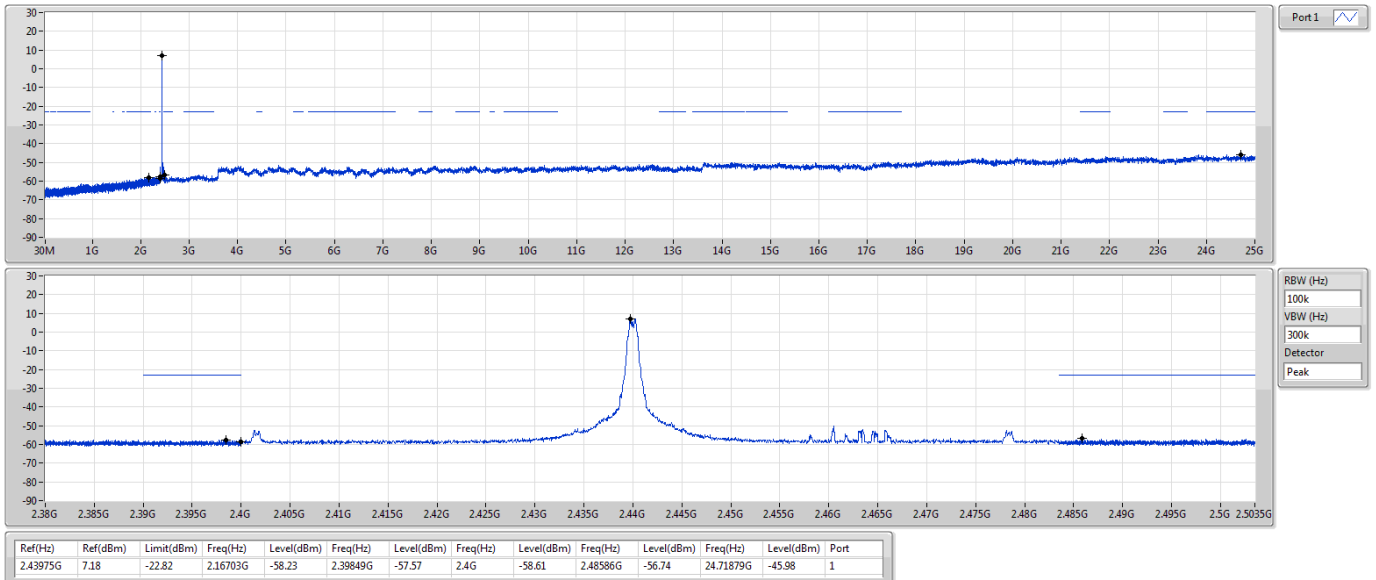
2402MHz



BT-LE(125kbps)

CSEndB-DTS

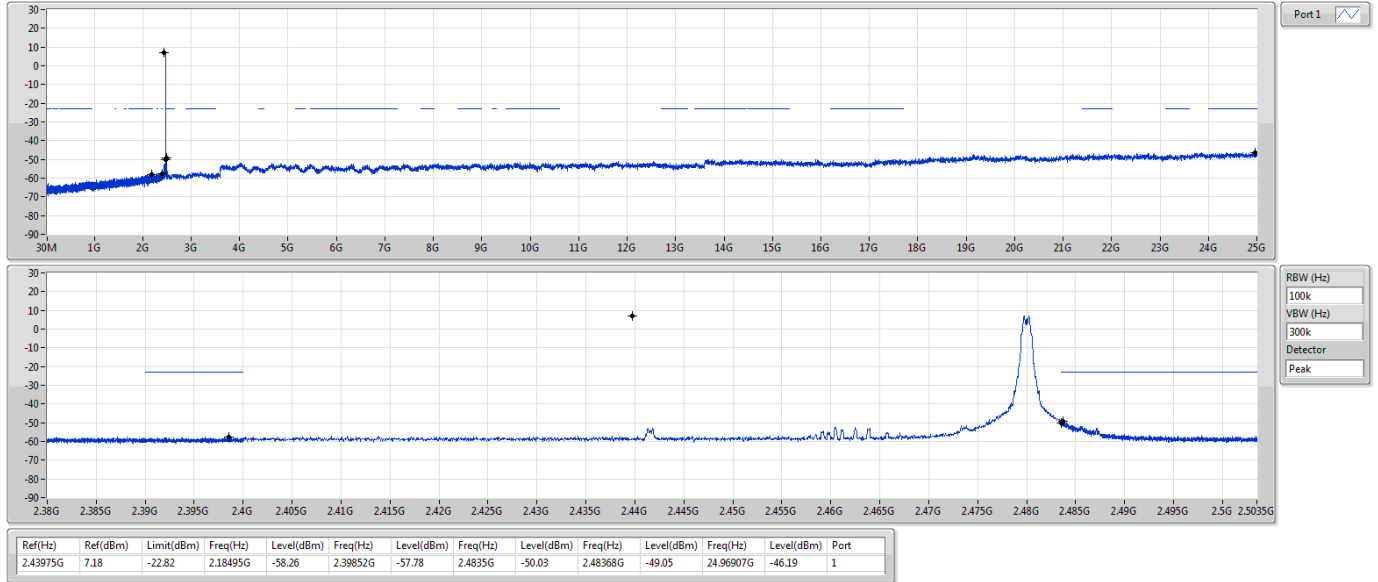
2440MHz



BT-LE(125kbps)

CSEndB-DTS

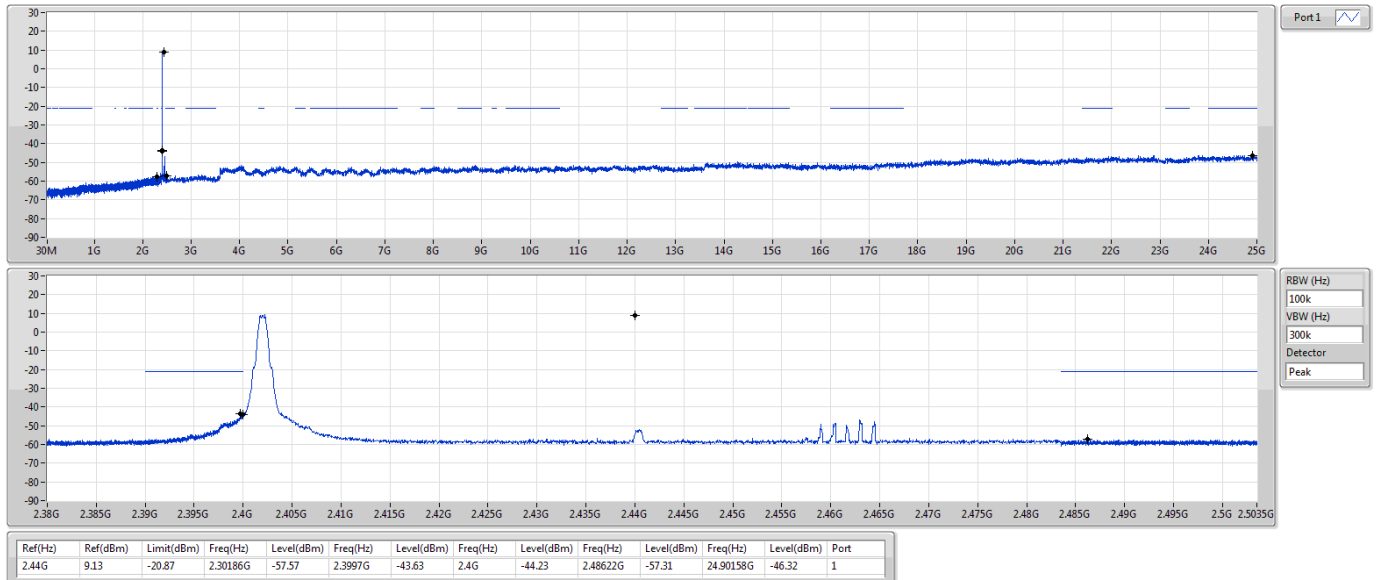
2480MHz



BT-LE(500kbps)

CSEndB-DTS

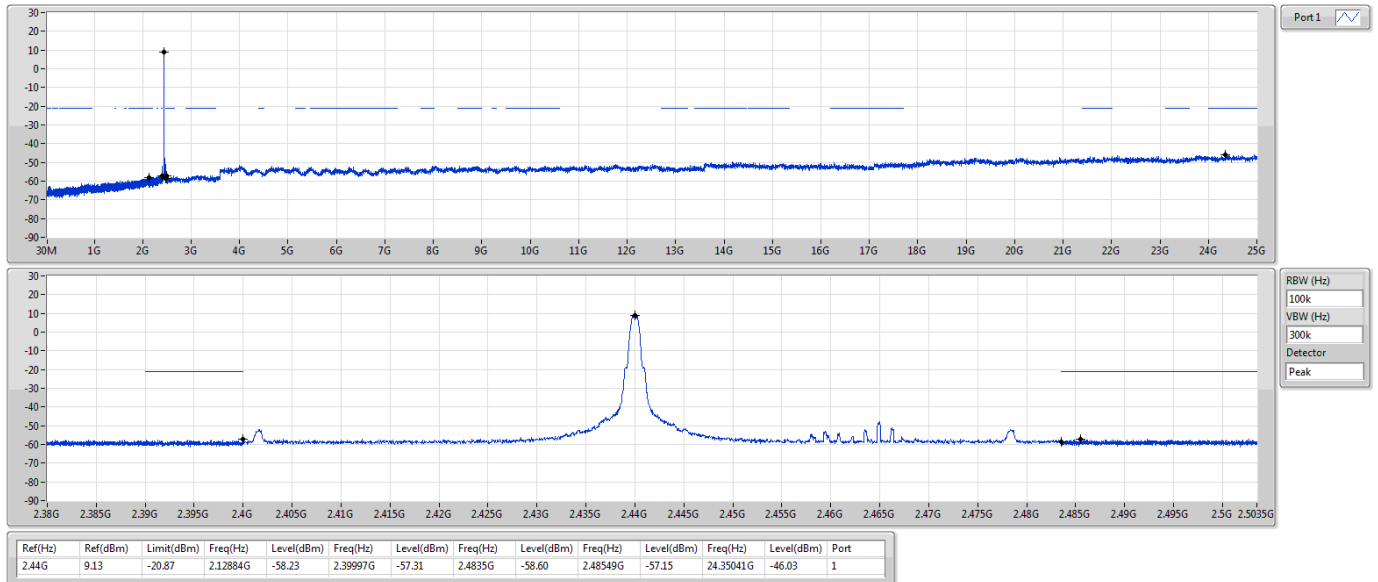
2402MHz



BT-LE(500kbps)

CSEndB-DTS

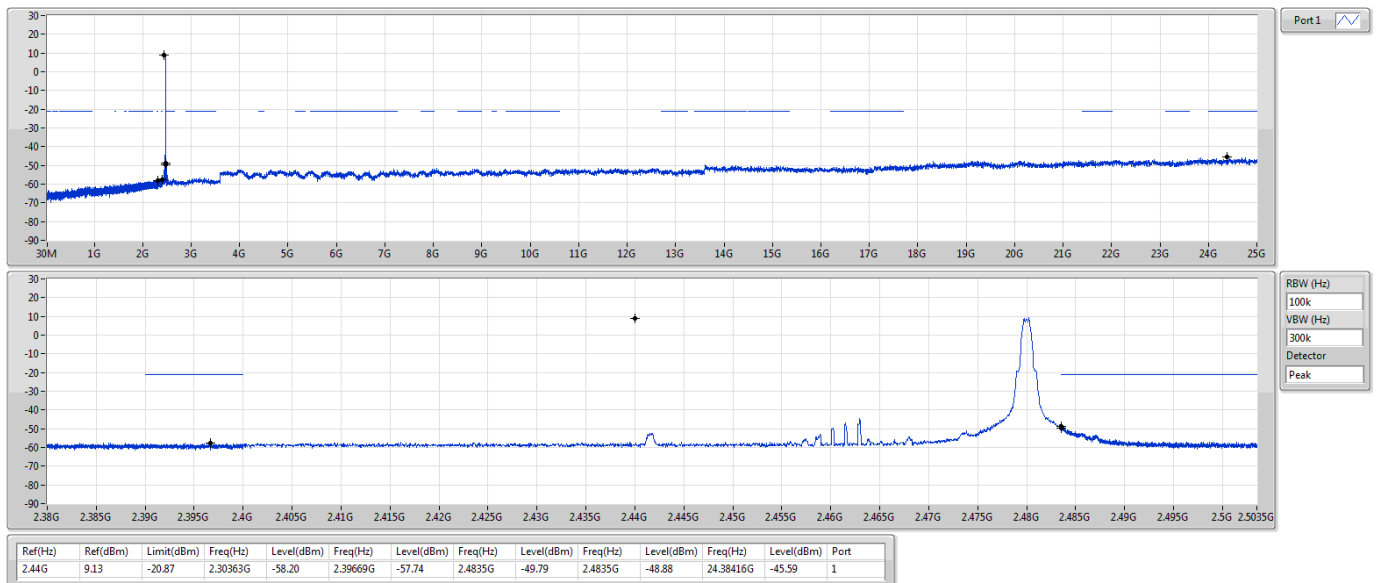
2440MHz



BT-LE(500kbps)

CSEndB-DTS

2480MHz





Summary

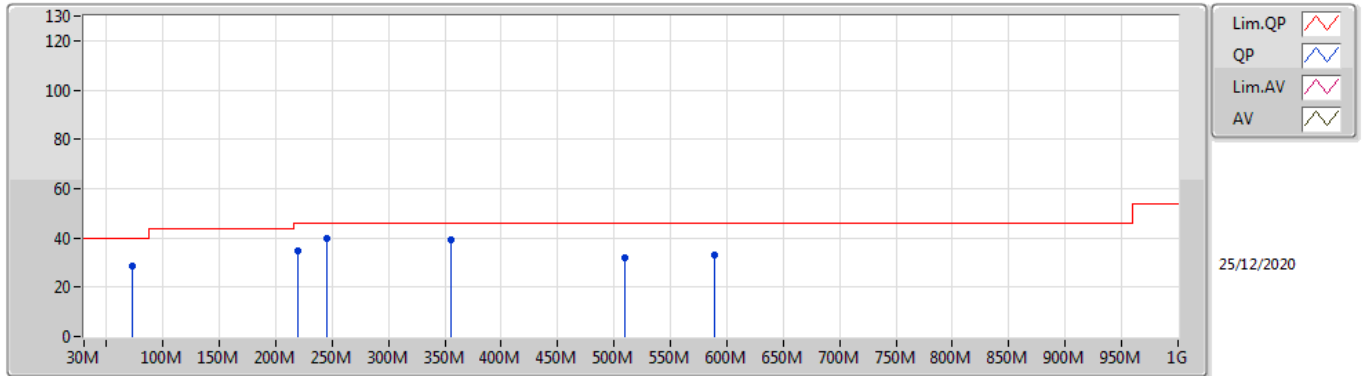
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	PK	245.34M	39.81	46.00	-6.19	3	Vertical	0	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	72.68M	28.73	40.00	-11.27	3	Vertical	0	1.00	-
2440MHz	Pass	PK	220.12M	34.65	46.00	-11.35	3	Vertical	0	1.00	-
2440MHz	Pass	PK	245.34M	39.81	46.00	-6.19	3	Vertical	0	1.00	-
2440MHz	Pass	PK	355.92M	39.25	46.00	-6.75	3	Vertical	0	1.00	-
2440MHz	Pass	PK	509.18M	31.98	46.00	-14.02	3	Vertical	0	1.00	-
2440MHz	Pass	PK	588.72M	33.05	46.00	-12.95	3	Vertical	0	1.00	-
2440MHz	Pass	PK	70.74M	24.77	40.00	-15.23	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	225.94M	30.80	46.00	-15.20	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	286.08M	27.95	46.00	-18.05	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	334.58M	32.89	46.00	-13.11	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	452.92M	27.81	46.00	-18.19	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	555.74M	32.13	46.00	-13.87	3	Horizontal	360	1.00	-

BT-LE(2Mbps)

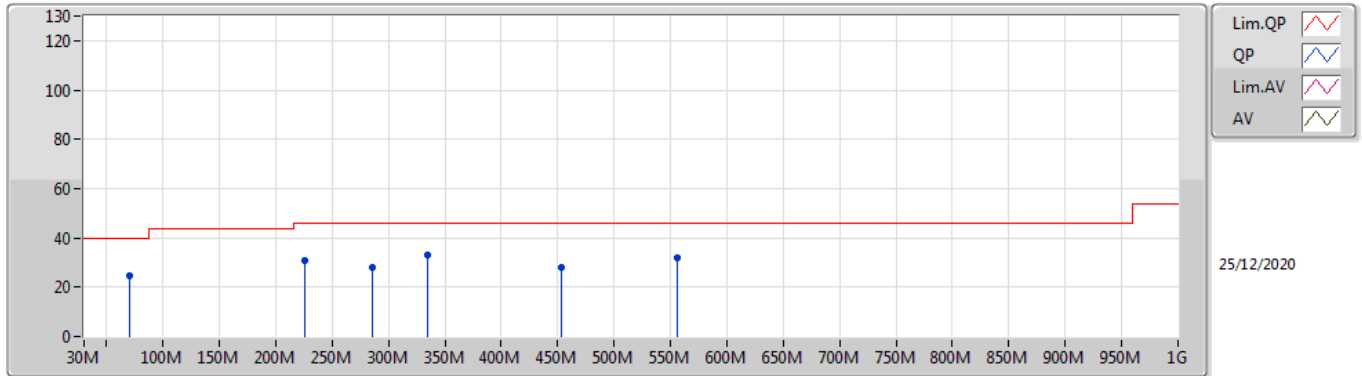
2440MHz_PoE



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	72.68M	28.73	40.00	-11.27	-24.66	3	Vertical	0	1.00	-	53.39	11.52	0.65	36.83
PK	220.12M	34.65	46.00	-11.35	-20.73	3	Vertical	0	1.00	-	55.38	14.37	1.18	36.28
PK	245.34M	39.81	46.00	-6.19	-18.08	3	Vertical	0	1.00	-	57.89	17.05	1.28	36.41
PK	355.92M	39.25	46.00	-6.75	-15.22	3	Vertical	0	1.00	-	54.47	19.75	1.52	36.49
PK	509.18M	31.98	46.00	-14.02	-11.78	3	Vertical	0	1.00	-	43.76	23.32	1.92	37.02
PK	588.72M	33.05	46.00	-12.95	-10.21	3	Vertical	0	1.00	-	43.26	24.78	2.15	37.14

BT-LE(2Mbps)

2440MHz_PoE



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	70.74M	24.77	40.00	-15.23	-24.81	3	Horizontal	360	1.00	-	49.58	11.43	0.61	36.85
PK	225.94M	30.80	46.00	-15.20	-20.19	3	Horizontal	360	1.00	-	50.99	14.92	1.20	36.31
PK	286.08M	27.95	46.00	-18.05	-16.97	3	Horizontal	360	1.00	-	44.92	18.03	1.37	36.37
PK	334.58M	32.89	46.00	-13.11	-15.82	3	Horizontal	360	1.00	-	48.71	19.16	1.47	36.45
PK	452.92M	27.81	46.00	-18.19	-12.32	3	Horizontal	360	1.00	-	40.13	22.50	1.81	36.63
PK	555.74M	32.13	46.00	-13.87	-9.96	3	Horizontal	360	1.00	-	42.09	25.12	2.02	37.10

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4835G	50.24	54.00	-3.76	3	Horizontal	183	2.33	-
BT-LE(2Mbps)	Pass	AV	2.4835G	52.77	54.00	-1.23	3	Horizontal	181	1.74	-
BT-LE(125kbps)	Pass	AV	2.4835G	50.35	54.00	-3.65	3	Horizontal	180	2.32	-
BT-LE(500kbps)	Pass	AV	2.4835G	49.83	54.00	-4.17	3	Horizontal	182	2.16	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3632G	43.08	54.00	-10.92	3	Vertical	215	1.02	-
2402MHz	Pass	AV	2.402G	95.28	Inf	-Inf	3	Vertical	215	1.02	-
2402MHz	Pass	PK	2.3538G	56.97	74.00	-17.03	3	Vertical	215	1.02	-
2402MHz	Pass	PK	2.4022G	96.26	Inf	-Inf	3	Vertical	215	1.02	-
2402MHz	Pass	AV	2.3636G	45.35	54.00	-8.65	3	Horizontal	181	2.02	-
2402MHz	Pass	AV	2.402G	108.81	Inf	-Inf	3	Horizontal	181	2.02	-
2402MHz	Pass	PK	2.3638G	56.60	74.00	-17.40	3	Horizontal	181	2.02	-
2402MHz	Pass	PK	2.4018G	109.77	Inf	-Inf	3	Horizontal	181	2.02	-
2402MHz	Pass	AV	4.80402G	31.00	54.00	-23.00	3	Vertical	360	1.22	-
2402MHz	Pass	PK	4.79954G	44.06	74.00	-29.94	3	Vertical	360	1.22	-
2402MHz	Pass	AV	4.80388G	30.39	54.00	-23.61	3	Horizontal	11	1.50	-
2402MHz	Pass	PK	4.80704G	43.55	74.00	-30.45	3	Horizontal	11	1.50	-
2402MHz	Pass	AV	2.3424G	43.08	54.00	-10.92	3	Vertical	215	1.20	-
2440MHz	Pass	AV	2.44G	93.46	Inf	-Inf	3	Vertical	215	1.20	-
2440MHz	Pass	AV	2.4972G	43.52	54.00	-10.48	3	Vertical	215	1.20	-
2440MHz	Pass	PK	2.3812G	56.08	74.00	-17.92	3	Vertical	215	1.20	-
2440MHz	Pass	PK	2.4396G	94.44	Inf	-Inf	3	Vertical	215	1.20	-
2440MHz	Pass	PK	2.49G	57.22	74.00	-16.78	3	Vertical	215	1.20	-
2440MHz	Pass	AV	2.3484G	43.09	54.00	-10.91	3	Horizontal	167	1.76	-
2440MHz	Pass	AV	2.44G	108.34	Inf	-Inf	3	Horizontal	167	1.76	-
2440MHz	Pass	AV	2.4952G	43.52	54.00	-10.48	3	Horizontal	167	1.76	-
2440MHz	Pass	PK	2.3404G	56.10	74.00	-17.90	3	Horizontal	167	1.76	-
2440MHz	Pass	PK	2.4396G	109.31	Inf	-Inf	3	Horizontal	167	1.76	-
2440MHz	Pass	PK	2.4904G	56.27	74.00	-17.73	3	Horizontal	167	1.76	-
2440MHz	Pass	AV	4.87985G	30.10	54.00	-23.90	3	Vertical	360	1.29	-
2440MHz	Pass	AV	7.32055G	40.00	54.00	-14.00	3	Vertical	24	1.49	-
2440MHz	Pass	PK	4.88006G	43.10	74.00	-30.90	3	Vertical	360	1.29	-
2440MHz	Pass	PK	7.31896G	52.35	74.00	-21.65	3	Vertical	24	1.49	-
2440MHz	Pass	AV	4.88006G	30.07	54.00	-23.93	3	Horizontal	329	2.02	-
2440MHz	Pass	AV	7.3205G	39.80	54.00	-14.20	3	Horizontal	31	1.50	-
2440MHz	Pass	PK	4.8786G	43.71	74.00	-30.29	3	Horizontal	329	2.02	-
2440MHz	Pass	PK	7.32082G	51.67	74.00	-22.33	3	Horizontal	31	1.50	-
2480MHz	Pass	AV	2.48G	92.38	Inf	-Inf	3	Vertical	53	1.50	-
2480MHz	Pass	AV	2.4835G	43.84	54.00	-10.16	3	Vertical	53	1.50	-
2480MHz	Pass	PK	2.4802G	93.40	Inf	-Inf	3	Vertical	53	1.50	-
2480MHz	Pass	PK	2.4844G	57.18	74.00	-16.82	3	Vertical	53	1.50	-
2480MHz	Pass	AV	2.48G	108.50	Inf	-Inf	3	Horizontal	183	2.33	-
2480MHz	Pass	AV	2.4835G	50.24	54.00	-3.76	3	Horizontal	183	2.33	-
2480MHz	Pass	PK	2.4802G	109.45	Inf	-Inf	3	Horizontal	183	2.33	-
2480MHz	Pass	PK	2.4835G	62.22	74.00	-11.78	3	Horizontal	183	2.33	-
2480MHz	Pass	AV	4.96006G	30.77	54.00	-23.23	3	Vertical	360	1.49	-
2480MHz	Pass	AV	7.4405G	40.33	54.00	-13.67	3	Vertical	25	1.62	-
2480MHz	Pass	PK	4.95967G	44.16	74.00	-29.84	3	Vertical	360	1.49	-
2480MHz	Pass	PK	7.43927G	52.98	74.00	-21.02	3	Vertical	25	1.62	-
2480MHz	Pass	AV	4.95959G	30.63	54.00	-23.37	3	Horizontal	323	1.58	-
2480MHz	Pass	AV	7.44057G	39.84	54.00	-14.16	3	Horizontal	21	1.34	-
2480MHz	Pass	PK	4.96091G	44.43	74.00	-29.57	3	Horizontal	323	1.58	-
2480MHz	Pass	PK	7.43946G	51.73	74.00	-22.27	3	Horizontal	21	1.34	-
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3532G	42.90	54.00	-11.10	3	Vertical	25	1.41	-
2402MHz	Pass	AV	2.402G	90.21	Inf	-Inf	3	Vertical	25	1.41	-
2402MHz	Pass	PK	2.3556G	56.13	74.00	-17.87	3	Vertical	25	1.41	-
2402MHz	Pass	PK	2.4024G	93.20	Inf	-Inf	3	Vertical	25	1.41	-
2402MHz	Pass	AV	2.3634G	44.39	54.00	-9.61	3	Horizontal	184	1.98	-
2402MHz	Pass	AV	2.402G	107.19	Inf	-Inf	3	Horizontal	184	1.98	-
2402MHz	Pass	PK	2.3634G	56.53	74.00	-17.47	3	Horizontal	184	1.98	-
2402MHz	Pass	PK	2.4016G	110.14	Inf	-Inf	3	Horizontal	184	1.98	-
2402MHz	Pass	AV	4.80308G	30.07	54.00	-23.93	3	Vertical	360	1.32	-
2402MHz	Pass	PK	4.80494G	44.06	74.00	-29.94	3	Vertical	360	1.32	-
2402MHz	Pass	AV	4.80302G	29.57	54.00	-24.43	3	Horizontal	0	1.00	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	4.8046G	43.38	74.00	-30.62	3	Horizontal	0	1.00	-
2440MHz	Pass	AV	2.358G	43.14	54.00	-10.86	3	Vertical	36	1.18	-
2440MHz	Pass	AV	2.44G	90.72	Inf	-Inf	3	Vertical	36	1.18	-
2440MHz	Pass	AV	2.49G	43.46	54.00	-10.54	3	Vertical	36	1.18	-
2440MHz	Pass	PK	2.3568G	56.19	74.00	-17.81	3	Vertical	36	1.18	-
2440MHz	Pass	PK	2.4396G	93.70	Inf	-Inf	3	Vertical	36	1.18	-
2440MHz	Pass	PK	2.4972G	56.02	74.00	-17.98	3	Vertical	36	1.18	-
2440MHz	Pass	AV	2.3504G	43.11	54.00	-10.89	3	Horizontal	169	1.74	-
2440MHz	Pass	AV	2.44G	106.60	Inf	-Inf	3	Horizontal	169	1.74	-
2440MHz	Pass	AV	2.4968G	43.52	54.00	-10.48	3	Horizontal	169	1.74	-
2440MHz	Pass	PK	2.378G	56.21	74.00	-17.79	3	Horizontal	169	1.74	-
2440MHz	Pass	PK	2.4404G	109.50	Inf	-Inf	3	Horizontal	169	1.74	-
2440MHz	Pass	PK	2.49G	57.03	74.00	-16.97	3	Horizontal	169	1.74	-
2440MHz	Pass	AV	4.8791G	29.55	54.00	-24.45	3	Vertical	0	1.09	-
2440MHz	Pass	AV	7.32121G	40.17	54.00	-13.83	3	Vertical	25	1.43	-
2440MHz	Pass	PK	4.87909G	45.38	74.00	-28.62	3	Vertical	0	1.09	-
2440MHz	Pass	PK	7.32152G	52.53	74.00	-21.47	3	Vertical	25	1.43	-
2440MHz	Pass	AV	4.87913G	29.67	54.00	-24.33	3	Horizontal	332	1.67	-
2440MHz	Pass	AV	7.31885G	38.65	54.00	-15.35	3	Horizontal	30	1.50	-
2440MHz	Pass	PK	4.88042G	43.04	74.00	-30.96	3	Horizontal	332	1.67	-
2440MHz	Pass	PK	7.32136G	51.68	74.00	-22.32	3	Horizontal	30	1.50	-
2480MHz	Pass	AV	2.48G	93.02	Inf	-Inf	3	Vertical	212	2.59	-
2480MHz	Pass	AV	2.4835G	44.81	54.00	-9.19	3	Vertical	212	2.59	-
2480MHz	Pass	PK	2.4804G	95.95	Inf	-Inf	3	Vertical	212	2.59	-
2480MHz	Pass	PK	2.4864G	57.11	74.00	-16.89	3	Vertical	212	2.59	-
2480MHz	Pass	AV	2.48G	105.36	Inf	-Inf	3	Horizontal	181	1.74	-
2480MHz	Pass	AV	2.4835G	52.77	54.00	-1.23	3	Horizontal	181	1.74	-
2480MHz	Pass	PK	2.4804G	108.28	Inf	-Inf	3	Horizontal	181	1.74	-
2480MHz	Pass	PK	2.4835G	64.48	74.00	-9.52	3	Horizontal	181	1.74	-
2480MHz	Pass	AV	4.95782G	30.17	54.00	-23.83	3	Vertical	53	1.50	-
2480MHz	Pass	AV	7.43878G	37.75	54.00	-16.25	3	Vertical	329	1.50	-
2480MHz	Pass	PK	4.95895G	44.08	74.00	-29.92	3	Vertical	53	1.50	-
2480MHz	Pass	PK	7.4415G	50.54	74.00	-23.46	3	Vertical	329	1.50	-
2480MHz	Pass	AV	4.95793G	30.10	54.00	-23.90	3	Horizontal	116	1.50	-
2480MHz	Pass	AV	7.44125G	38.20	54.00	-15.80	3	Horizontal	22	1.28	-
2480MHz	Pass	PK	4.95944G	44.14	74.00	-29.86	3	Horizontal	135	1.50	-
2480MHz	Pass	PK	7.44144G	50.79	74.00	-23.21	3	Horizontal	22	1.28	-
BT-LE(125kbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3538G	43.10	54.00	-10.90	3	Vertical	211	1.02	-
2402MHz	Pass	AV	2.402G	94.39	Inf	-Inf	3	Vertical	211	1.02	-
2402MHz	Pass	PK	2.3554G	56.66	74.00	-17.34	3	Vertical	211	1.02	-
2402MHz	Pass	PK	2.4022G	95.91	Inf	-Inf	3	Vertical	211	1.02	-
2402MHz	Pass	AV	2.3636G	45.21	54.00	-8.79	3	Horizontal	179	2.02	-
2402MHz	Pass	AV	2.402G	108.27	Inf	-Inf	3	Horizontal	179	2.02	-
2402MHz	Pass	PK	2.3614G	56.53	74.00	-17.47	3	Horizontal	179	2.02	-
2402MHz	Pass	PK	2.4018G	109.75	Inf	-Inf	3	Horizontal	179	2.02	-
2402MHz	Pass	AV	4.8015G	30.53	54.00	-23.47	3	Vertical	98	1.68	-
2402MHz	Pass	PK	4.80577G	44.04	74.00	-29.96	3	Vertical	98	1.68	-
2402MHz	Pass	AV	4.80152G	30.56	54.00	-23.44	3	Horizontal	297	1.23	-
2402MHz	Pass	PK	4.80229G	44.17	74.00	-29.83	3	Horizontal	297	1.23	-
2440MHz	Pass	AV	2.3504G	43.12	54.00	-10.88	3	Vertical	105	1.30	-
2440MHz	Pass	AV	2.44G	92.24	Inf	-Inf	3	Vertical	105	1.30	-
2440MHz	Pass	AV	2.5G	43.51	54.00	-10.49	3	Vertical	105	1.30	-
2440MHz	Pass	PK	2.3592G	56.44	74.00	-17.56	3	Vertical	105	1.30	-
2440MHz	Pass	PK	2.4396G	93.85	Inf	-Inf	3	Vertical	105	1.30	-
2440MHz	Pass	PK	2.4912G	57.16	74.00	-16.84	3	Vertical	105	1.30	-
2440MHz	Pass	AV	2.3504G	43.13	54.00	-10.87	3	Horizontal	164	1.75	-
2440MHz	Pass	AV	2.44G	108.03	Inf	-Inf	3	Horizontal	164	1.75	-
2440MHz	Pass	AV	2.4992G	43.54	54.00	-10.46	3	Horizontal	164	1.75	-
2440MHz	Pass	PK	2.3508G	56.31	74.00	-17.69	3	Horizontal	164	1.75	-
2440MHz	Pass	PK	2.4396G	109.50	Inf	-Inf	3	Horizontal	164	1.75	-
2440MHz	Pass	PK	2.49G	56.44	74.00	-17.56	3	Horizontal	164	1.75	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2440MHz	Pass	AV	4.8775G	29.50	54.00	-24.50	3	Vertical	6	2.14	-
2440MHz	Pass	AV	7.3193G	39.99	54.00	-14.01	3	Vertical	22	1.43	-
2440MHz	Pass	PK	4.88134G	43.24	74.00	-30.76	3	Vertical	6	2.14	-
2440MHz	Pass	PK	7.32081G	52.60	74.00	-21.40	3	Vertical	22	1.43	-
2440MHz	Pass	AV	4.87775G	29.48	54.00	-24.52	3	Horizontal	300	1.35	-
2440MHz	Pass	AV	7.3207G	39.61	54.00	-14.39	3	Horizontal	28	1.49	-
2440MHz	Pass	PK	4.88G	43.41	74.00	-30.59	3	Horizontal	300	1.35	-
2440MHz	Pass	PK	7.31925G	52.60	74.00	-21.40	3	Horizontal	28	1.49	-
2480MHz	Pass	AV	2.48G	91.92	Inf	-Inf	3	Vertical	50	1.49	-
2480MHz	Pass	AV	2.4835G	43.87	54.00	-10.13	3	Vertical	50	1.49	-
2480MHz	Pass	PK	2.4802G	93.46	Inf	-Inf	3	Vertical	50	1.49	-
2480MHz	Pass	PK	2.4866G	57.15	74.00	-16.85	3	Vertical	50	1.49	-
2480MHz	Pass	AV	2.48G	108.17	Inf	-Inf	3	Horizontal	180	2.32	-
2480MHz	Pass	AV	2.4835G	50.35	54.00	-3.65	3	Horizontal	180	2.32	-
2480MHz	Pass	PK	2.4802G	109.64	Inf	-Inf	3	Horizontal	180	2.32	-
2480MHz	Pass	PK	2.4835G	62.40	74.00	-11.60	3	Horizontal	180	2.32	-
2480MHz	Pass	AV	4.96037G	30.23	54.00	-23.77	3	Vertical	31	2.04	-
2480MHz	Pass	AV	7.43927G	40.44	54.00	-13.56	3	Vertical	26	1.62	-
2480MHz	Pass	PK	4.95755G	43.62	74.00	-30.38	3	Vertical	31	2.04	-
2480MHz	Pass	PK	7.44101G	52.67	74.00	-21.33	3	Vertical	26	1.62	-
2480MHz	Pass	AV	4.95957G	30.24	54.00	-23.76	3	Horizontal	99	2.18	-
2480MHz	Pass	AV	7.44069G	39.90	54.00	-14.10	3	Horizontal	19	1.30	-
2480MHz	Pass	PK	4.95849G	44.11	74.00	-29.89	3	Horizontal	99	2.18	-
2480MHz	Pass	PK	7.44106G	52.85	74.00	-21.15	3	Horizontal	19	1.30	-
BT-LE(500kbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3538G	43.10	54.00	-10.90	3	Vertical	211	1.02	-
2402MHz	Pass	AV	2.402G	94.39	Inf	-Inf	3	Vertical	211	1.02	-
2402MHz	Pass	PK	2.3554G	56.66	74.00	-17.34	3	Vertical	211	1.02	-
2402MHz	Pass	PK	2.4022G	95.91	Inf	-Inf	3	Vertical	211	1.02	-
2402MHz	Pass	AV	2.3636G	45.21	54.00	-8.79	3	Horizontal	179	2.02	-
2402MHz	Pass	AV	2.402G	108.27	Inf	-Inf	3	Horizontal	179	2.02	-
2402MHz	Pass	PK	2.3614G	56.53	74.00	-17.47	3	Horizontal	179	2.02	-
2402MHz	Pass	PK	2.4018G	109.75	Inf	-Inf	3	Horizontal	179	2.02	-
2402MHz	Pass	AV	4.8015G	30.53	54.00	-23.47	3	Vertical	98	1.68	-
2402MHz	Pass	PK	4.80577G	44.04	74.00	-29.96	3	Vertical	98	1.68	-
2402MHz	Pass	AV	4.80152G	30.56	54.00	-23.44	3	Horizontal	297	1.23	-
2402MHz	Pass	PK	4.80229G	44.17	74.00	-29.83	3	Horizontal	297	1.23	-
2440MHz	Pass	AV	2.3516G	43.14	54.00	-10.86	3	Vertical	126	1.30	-
2440MHz	Pass	AV	2.44G	91.99	Inf	-Inf	3	Vertical	126	1.30	-
2440MHz	Pass	AV	2.4932G	43.52	54.00	-10.48	3	Vertical	126	1.30	-
2440MHz	Pass	PK	2.3584G	56.33	74.00	-17.67	3	Vertical	126	1.30	-
2440MHz	Pass	PK	2.4396G	93.31	Inf	-Inf	3	Vertical	126	1.30	-
2440MHz	Pass	PK	2.4984G	56.60	74.00	-17.40	3	Vertical	126	1.30	-
2440MHz	Pass	AV	2.356G	43.14	54.00	-10.86	3	Horizontal	174	1.52	-
2440MHz	Pass	AV	2.44G	108.17	Inf	-Inf	3	Horizontal	174	1.52	-
2440MHz	Pass	AV	2.484G	43.55	54.00	-10.45	3	Horizontal	174	1.52	-
2440MHz	Pass	PK	2.3524G	56.46	74.00	-17.54	3	Horizontal	174	1.52	-
2440MHz	Pass	PK	2.4396G	109.43	Inf	-Inf	3	Horizontal	174	1.52	-
2440MHz	Pass	PK	2.4924G	56.83	74.00	-17.17	3	Horizontal	174	1.52	-
2440MHz	Pass	AV	4.87978G	29.41	54.00	-24.59	3	Vertical	0	1.22	-
2440MHz	Pass	AV	7.32063G	39.40	54.00	-14.60	3	Vertical	28	1.43	-
2440MHz	Pass	PK	4.8776G	43.27	74.00	-30.73	3	Vertical	0	1.22	-
2440MHz	Pass	PK	7.32085G	51.41	74.00	-22.59	3	Vertical	28	1.43	-
2440MHz	Pass	AV	4.87978G	29.49	54.00	-24.51	3	Horizontal	337	1.90	-
2440MHz	Pass	AV	7.32068G	39.01	54.00	-14.99	3	Horizontal	34	1.50	-
2440MHz	Pass	PK	4.87822G	42.75	74.00	-31.25	3	Horizontal	337	1.90	-
2440MHz	Pass	PK	7.32065G	51.62	74.00	-22.38	3	Horizontal	34	1.50	-
2480MHz	Pass	AV	2.48G	92.98	Inf	-Inf	3	Vertical	173	1.25	-
2480MHz	Pass	AV	2.4835G	43.83	54.00	-10.17	3	Vertical	173	1.25	-
2480MHz	Pass	PK	2.4802G	94.30	Inf	-Inf	3	Vertical	173	1.25	-
2480MHz	Pass	PK	2.487G	56.77	74.00	-17.23	3	Vertical	173	1.25	-
2480MHz	Pass	AV	2.48G	108.01	Inf	-Inf	3	Horizontal	182	2.16	-



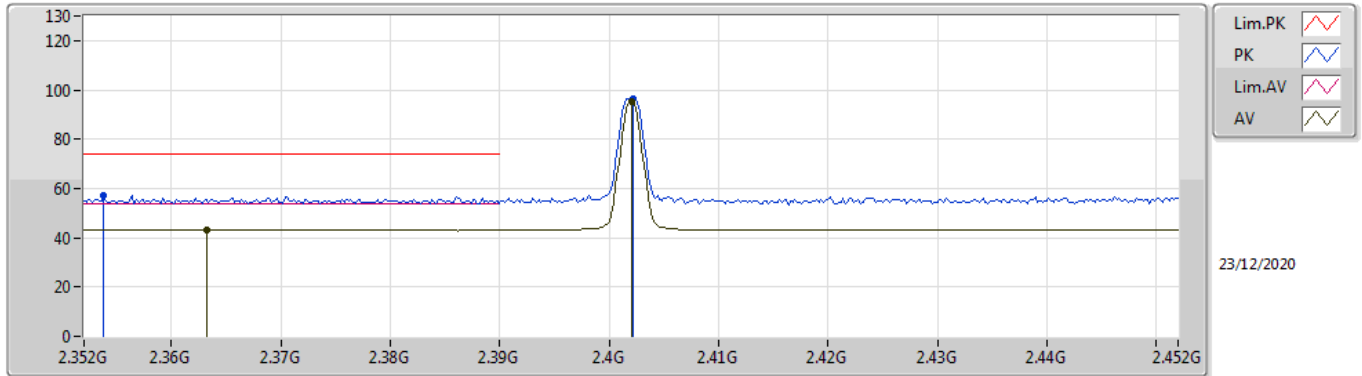
RSE TX above 1GHz

Appendix F.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	AV	2.4835G	49.83	54.00	-4.17	3	Horizontal	182	2.16	-
2480MHz	Pass	PK	2.4802G	109.23	Inf	-Inf	3	Horizontal	182	2.16	-
2480MHz	Pass	PK	2.4838G	61.23	74.00	-12.77	3	Horizontal	182	2.16	-
2480MHz	Pass	AV	4.95971G	30.54	54.00	-23.46	3	Vertical	0	1.19	-
2480MHz	Pass	AV	7.43936G	39.46	54.00	-14.54	3	Vertical	24	1.50	-
2480MHz	Pass	PK	4.95951G	44.55	74.00	-29.45	3	Vertical	0	1.19	-
2480MHz	Pass	PK	7.43913G	51.97	74.00	-22.03	3	Vertical	24	1.50	-
2480MHz	Pass	AV	4.96025G	30.70	54.00	-23.30	3	Horizontal	330	1.79	-
2480MHz	Pass	AV	7.44065G	39.20	54.00	-14.80	3	Horizontal	321	1.50	-
2480MHz	Pass	PK	4.95931G	43.85	74.00	-30.15	3	Horizontal	330	1.79	-
2480MHz	Pass	PK	7.43936G	52.43	74.00	-21.57	3	Horizontal	321	1.50	-

BT-LE(1Mbps)

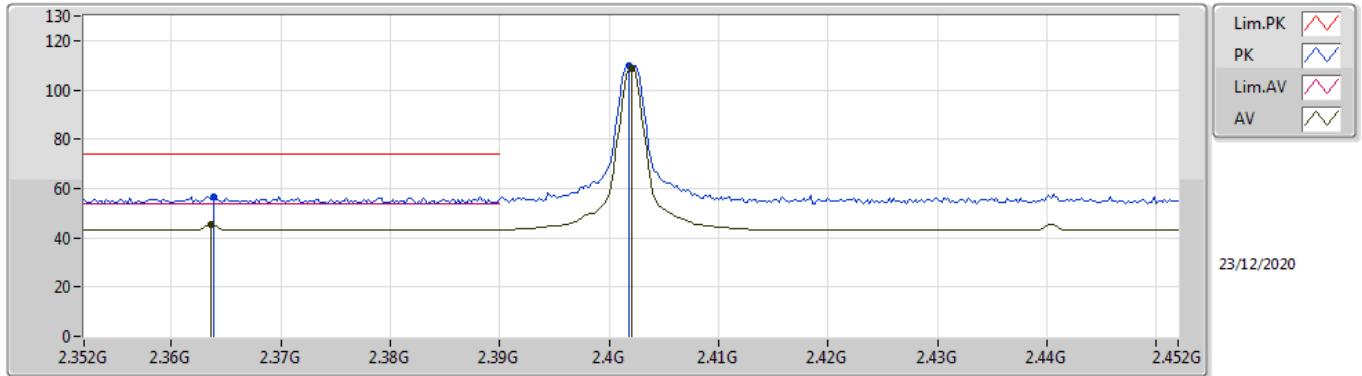
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3632G	43.08	54.00	-10.92	31.59	3	Vertical	215	1.02	-	11.49	27.75	3.84	-
AV	2.402G	95.28	Inf	-Inf	31.50	3	Vertical	215	1.02	-	63.78	27.60	3.90	-
PK	2.3538G	56.97	74.00	-17.03	31.61	3	Vertical	215	1.02	-	25.36	27.78	3.83	-
PK	2.4022G	96.26	Inf	-Inf	31.50	3	Vertical	215	1.02	-	64.76	27.60	3.90	-

BT-LE(1Mbps)

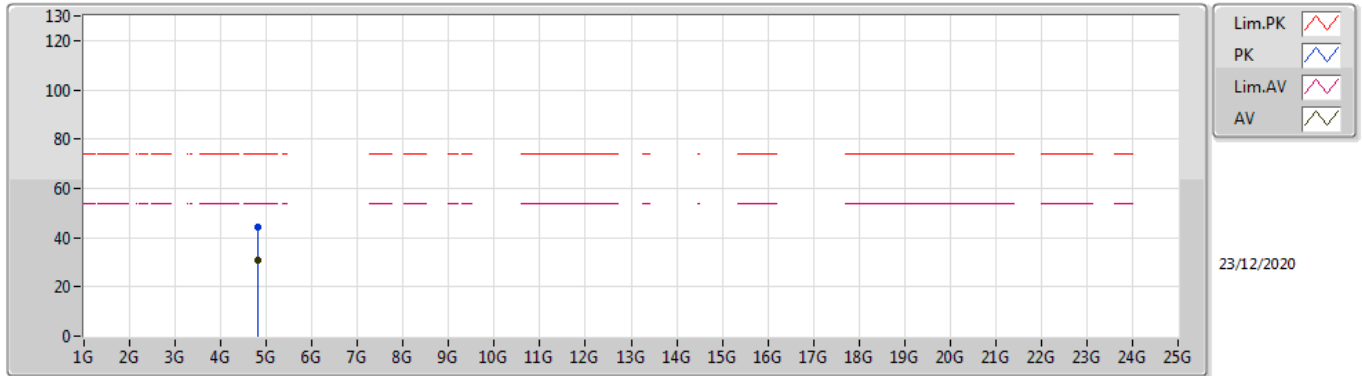
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3636G	45.35	54.00	-8.65	31.60	3	Horizontal	181	2.02	-	13.75	27.75	3.85	-
AV	2.402G	108.81	Inf	-Inf	31.50	3	Horizontal	181	2.02	-	77.31	27.60	3.90	-
PK	2.3638G	56.60	74.00	-17.40	31.59	3	Horizontal	181	2.02	-	25.01	27.74	3.85	-
PK	2.4018G	109.77	Inf	-Inf	31.50	3	Horizontal	181	2.02	-	78.27	27.60	3.90	-

BT-LE(1Mbps)

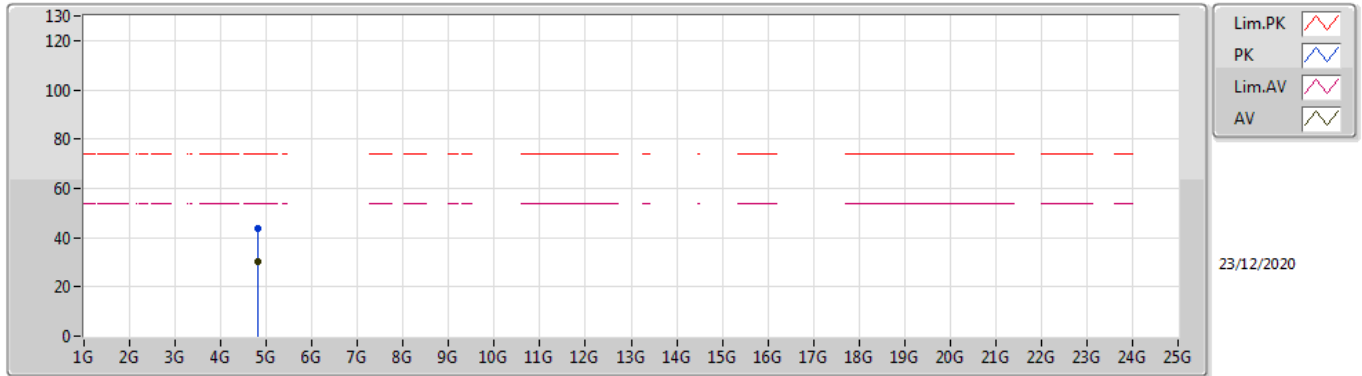
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80402G	31.00	54.00	-23.00	1.49	3	Vertical	360	1.22	-	29.51	31.12	5.30	34.93
PK	4.79954G	44.06	74.00	-29.94	1.47	3	Vertical	360	1.22	-	42.59	31.10	5.30	34.93

BT-LE(1Mbps)

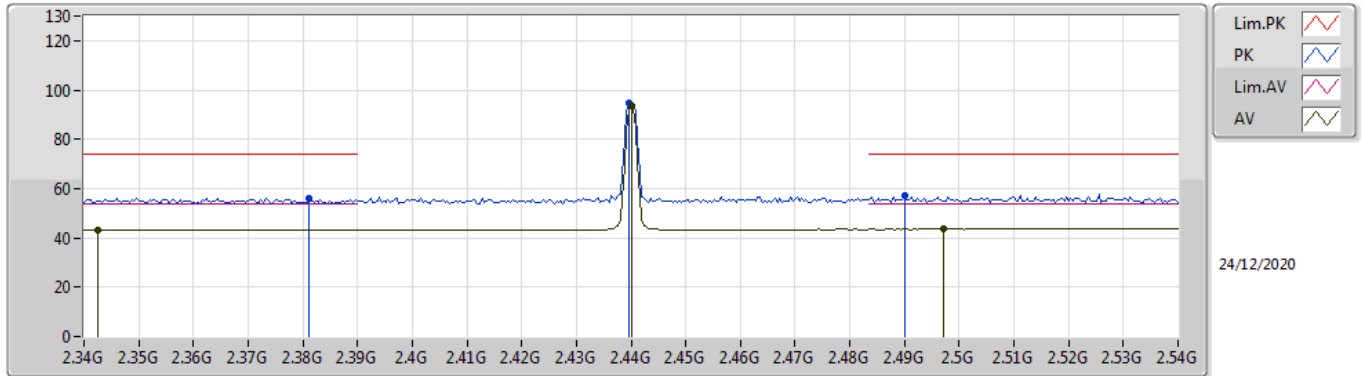
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80388G	30.39	54.00	-23.61	1.49	3	Horizontal	11	1.50	-	28.90	31.12	5.30	34.93
PK	4.80704G	43.55	74.00	-30.45	1.50	3	Horizontal	11	1.50	-	42.05	31.13	5.30	34.93

BT-LE(1Mbps)

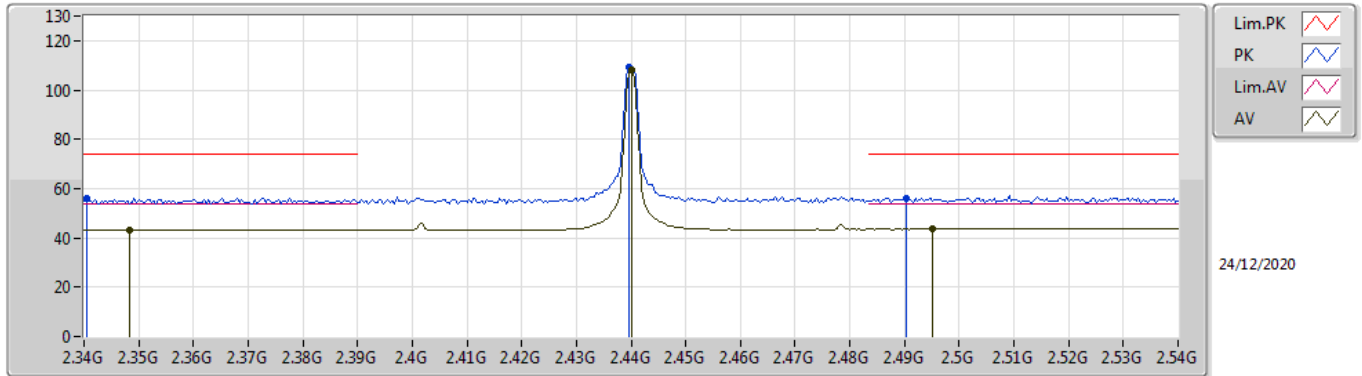
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3424G	43.08	54.00	-10.92	31.63	3	Vertical	215	1.20	-	11.45	27.82	3.81	-
AV	2.44G	93.46	Inf	-Inf	31.56	3	Vertical	215	1.20	-	61.90	27.60	3.96	-
AV	2.4972G	43.52	54.00	-10.48	31.65	3	Vertical	215	1.20	-	11.87	27.60	4.05	-
PK	2.3812G	56.08	74.00	-17.92	31.55	3	Vertical	215	1.20	-	24.53	27.68	3.87	-
PK	2.4396G	94.44	Inf	-Inf	31.56	3	Vertical	215	1.20	-	62.88	27.60	3.96	-
PK	2.49G	57.22	74.00	-16.78	31.64	3	Vertical	215	1.20	-	25.58	27.60	4.04	-

BT-LE(1Mbps)

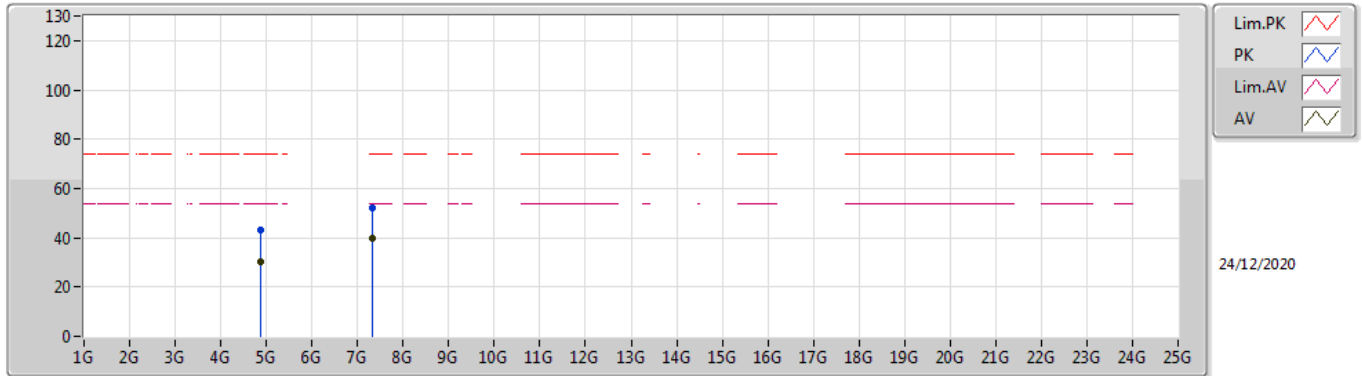
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3484G	43.09	54.00	-10.91	31.62	3	Horizontal	167	1.76	-	11.47	27.80	3.82	-
AV	2.44G	108.34	Inf	-Inf	31.56	3	Horizontal	167	1.76	-	76.78	27.60	3.96	-
AV	2.4952G	43.52	54.00	-10.48	31.64	3	Horizontal	167	1.76	-	11.88	27.60	4.04	-
PK	2.3404G	56.10	74.00	-17.90	31.63	3	Horizontal	167	1.76	-	24.47	27.82	3.81	-
PK	2.4396G	109.31	Inf	-Inf	31.56	3	Horizontal	167	1.76	-	77.75	27.60	3.96	-
PK	2.4904G	56.27	74.00	-17.73	31.64	3	Horizontal	167	1.76	-	24.63	27.60	4.04	-

BT-LE(1Mbps)

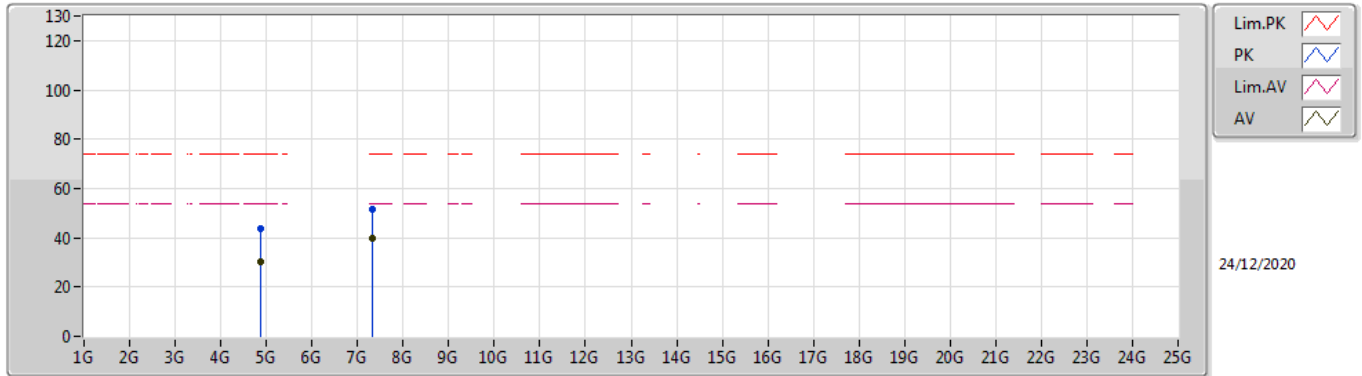
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87985G	30.10	54.00	-23.90	1.65	3	Vertical	360	1.29	-	28.45	31.24	5.34	34.93
AV	7.32055G	40.00	54.00	-14.00	8.18	3	Vertical	24	1.49	-	31.82	36.56	6.80	35.18
PK	4.88006G	43.10	74.00	-30.90	1.65	3	Vertical	360	1.29	-	41.45	31.24	5.34	34.93
PK	7.31896G	52.35	74.00	-21.65	8.18	3	Vertical	24	1.49	-	44.17	36.56	6.80	35.18

BT-LE(1Mbps)

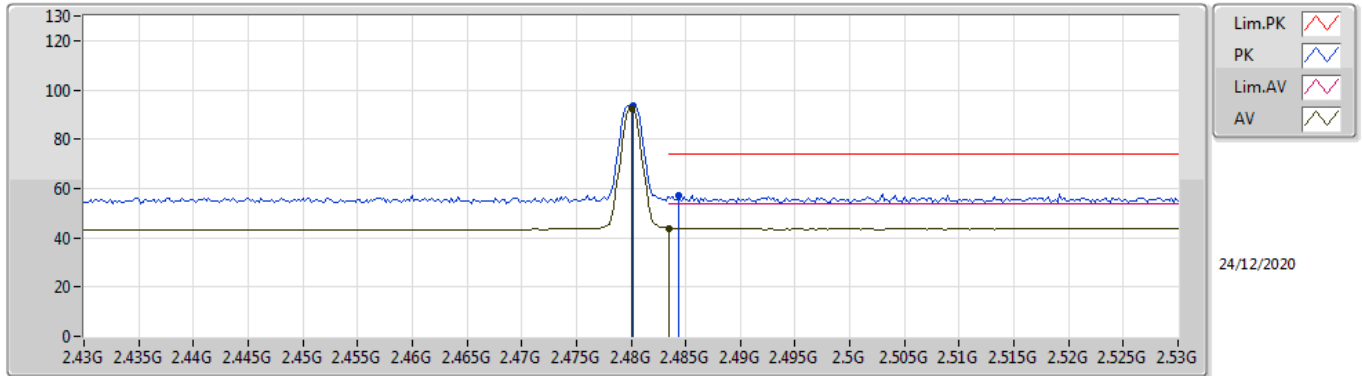
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88006G	30.07	54.00	-23.93	1.65	3	Horizontal	329	2.02	-	28.42	31.24	5.34	34.93
AV	7.3205G	39.80	54.00	-14.20	8.18	3	Horizontal	31	1.50	-	31.62	36.56	6.80	35.18
PK	4.8786G	43.71	74.00	-30.29	1.65	3	Horizontal	329	2.02	-	42.06	31.24	5.34	34.93
PK	7.32082G	51.67	74.00	-22.33	8.18	3	Horizontal	31	1.50	-	43.49	36.56	6.80	35.18

BT-LE(1Mbps)

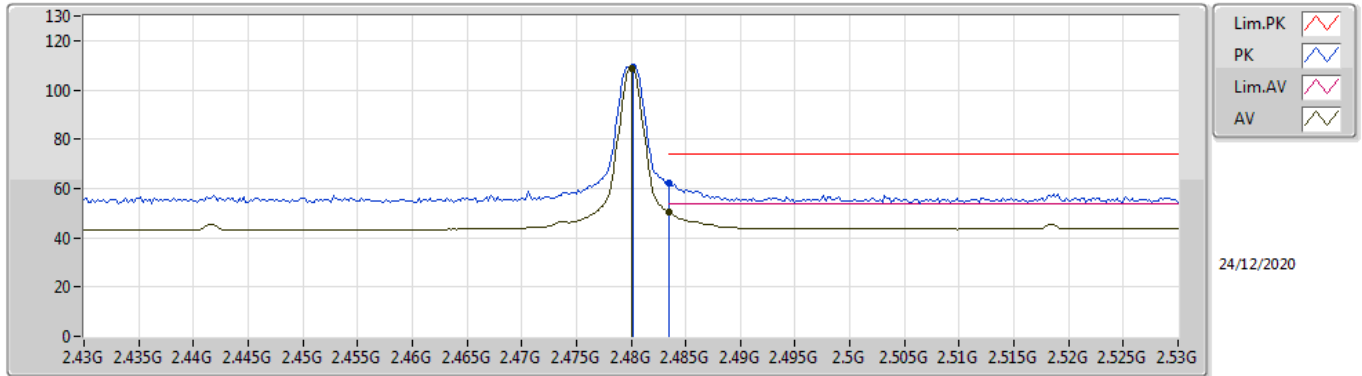
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	92.38	Inf	-Inf	31.62	3	Vertical	53	1.50	-	60.76	27.60	4.02	-
AV	2.4835G	43.84	54.00	-10.16	31.63	3	Vertical	53	1.50	-	12.21	27.60	4.03	-
PK	2.4802G	93.40	Inf	-Inf	31.62	3	Vertical	53	1.50	-	61.78	27.60	4.02	-
PK	2.4844G	57.18	74.00	-16.82	31.63	3	Vertical	53	1.50	-	25.55	27.60	4.03	-

BT-LE(1Mbps)

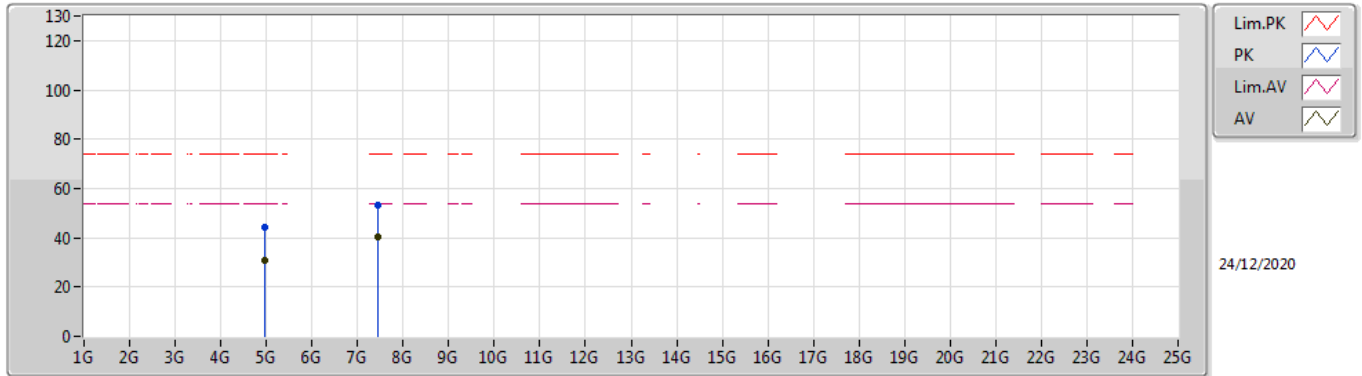
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	108.50	Inf	-Inf	31.62	3	Horizontal	183	2.33	-	76.88	27.60	4.02	-
AV	2.4835G	50.24	54.00	-3.76	31.63	3	Horizontal	183	2.33	-	18.61	27.60	4.03	-
PK	2.4802G	109.45	Inf	-Inf	31.62	3	Horizontal	183	2.33	-	77.83	27.60	4.02	-
PK	2.4835G	62.22	74.00	-11.78	31.63	3	Horizontal	183	2.33	-	30.59	27.60	4.03	-

BT-LE(1Mbps)

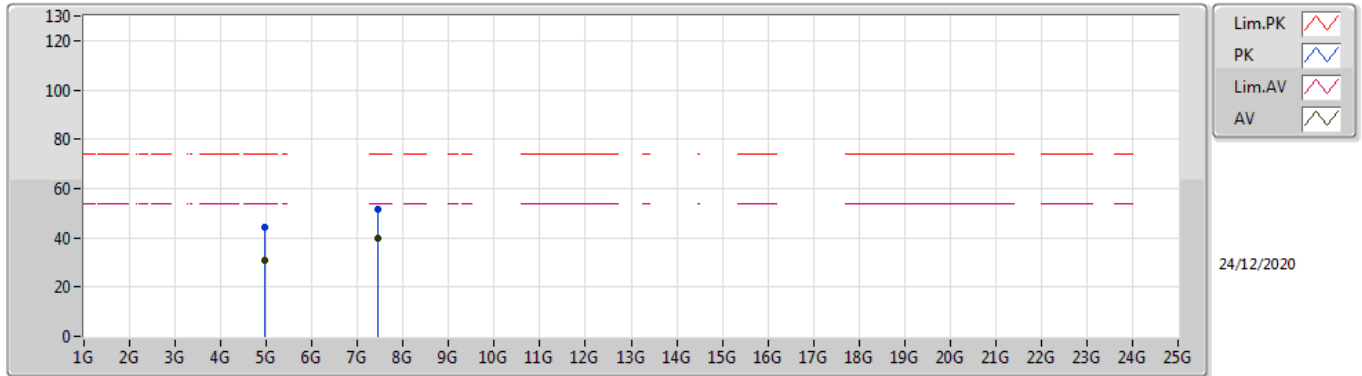
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96006G	30.77	54.00	-23.23	1.86	3	Vertical	360	1.49	-	28.91	31.42	5.38	34.94
AV	7.4405G	40.33	54.00	-13.67	8.21	3	Vertical	25	1.62	-	32.12	36.56	6.82	35.17
PK	4.95967G	44.16	74.00	-29.84	1.86	3	Vertical	360	1.49	-	42.30	31.42	5.38	34.94
PK	7.43927G	52.98	74.00	-21.02	8.21	3	Vertical	25	1.62	-	44.77	36.56	6.82	35.17

BT-LE(1Mbps)

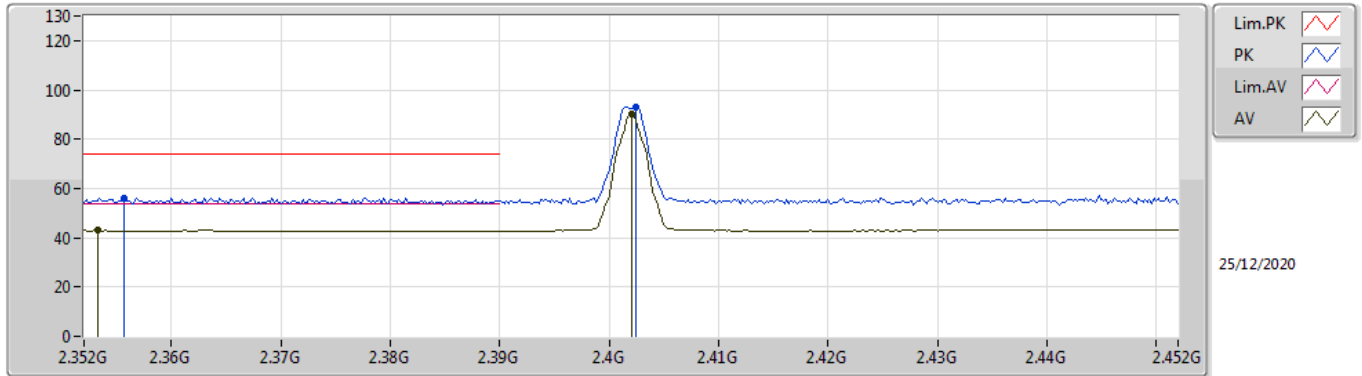
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95959G	30.63	54.00	-23.37	1.86	3	Horizontal	323	1.58	-	28.77	31.42	5.38	34.94
AV	7.44057G	39.84	54.00	-14.16	8.21	3	Horizontal	21	1.34	-	31.63	36.56	6.82	35.17
PK	4.96091G	44.43	74.00	-29.57	1.86	3	Horizontal	323	1.58	-	42.57	31.42	5.38	34.94
PK	7.43946G	51.73	74.00	-22.27	8.21	3	Horizontal	21	1.34	-	43.52	36.56	6.82	35.17

BT-LE(2Mbps)

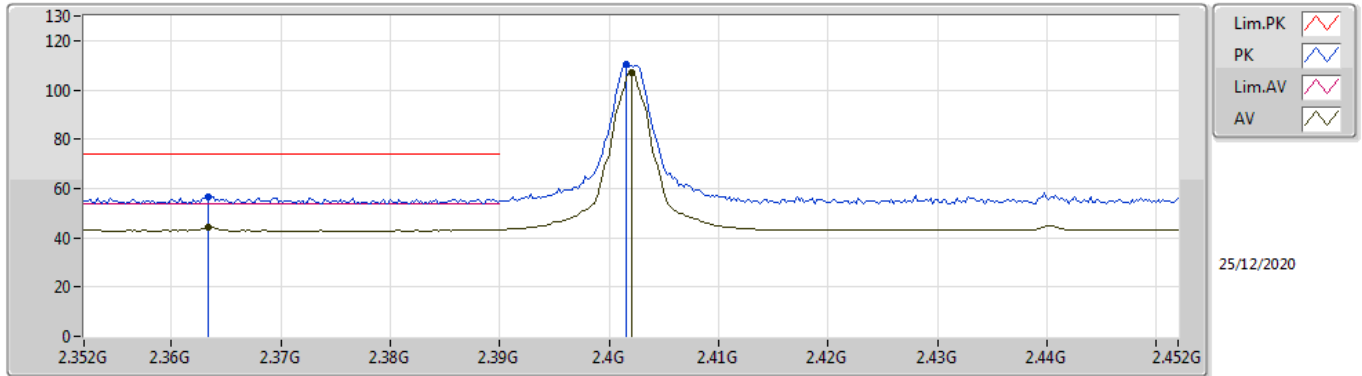
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3532G	42.90	54.00	-11.10	31.62	3	Vertical	25	1.41	-	11.28	27.79	3.83	-
AV	2.402G	90.21	Inf	-Inf	31.50	3	Vertical	25	1.41	-	58.71	27.60	3.90	-
PK	2.3556G	56.13	74.00	-17.87	31.61	3	Vertical	25	1.41	-	24.52	27.78	3.83	-
PK	2.4024G	93.20	Inf	-Inf	31.50	3	Vertical	25	1.41	-	61.70	27.60	3.90	-

BT-LE(2Mbps)

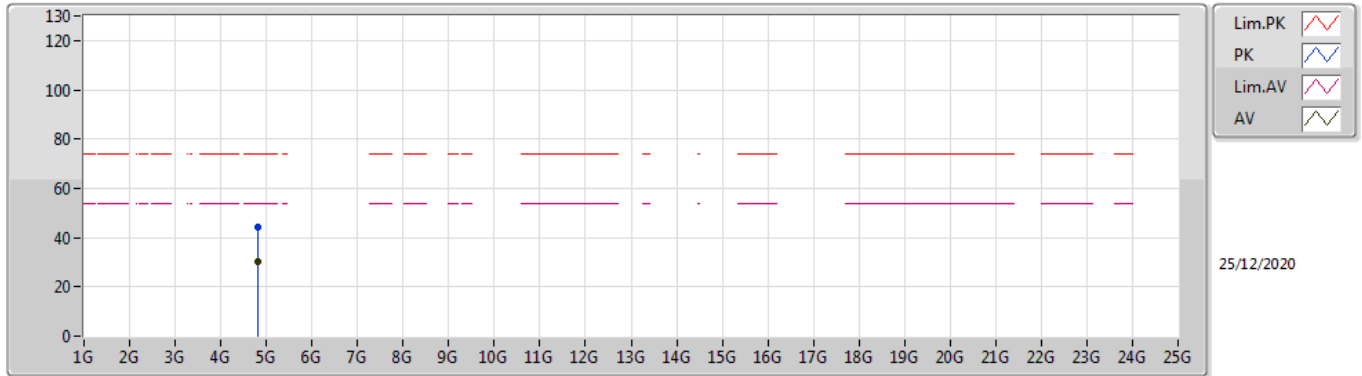
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3634G	44.39	54.00	-9.61	31.60	3	Horizontal	184	1.98	-	12.79	27.75	3.85	-
AV	2.402G	107.19	Inf	-Inf	31.50	3	Horizontal	184	1.98	-	75.69	27.60	3.90	-
PK	2.3634G	56.53	74.00	-17.47	31.60	3	Horizontal	184	1.98	-	24.93	27.75	3.85	-
PK	2.4016G	110.14	Inf	-Inf	31.50	3	Horizontal	184	1.98	-	78.64	27.60	3.90	-

BT-LE(2Mbps)

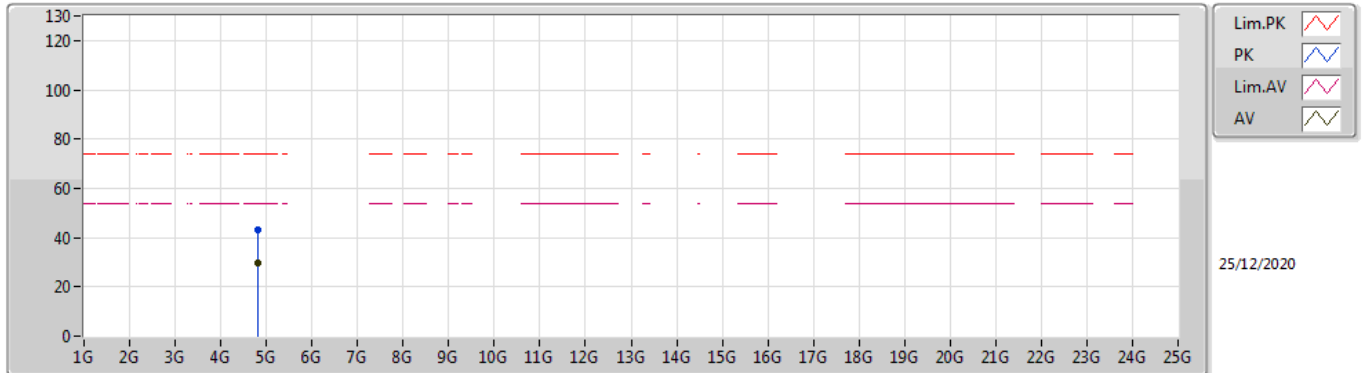
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80308G	30.07	54.00	-23.93	1.48	3	Vertical	360	1.32	-	28.59	31.11	5.30	34.93
PK	4.80494G	44.06	74.00	-29.94	1.49	3	Vertical	360	1.32	-	42.57	31.12	5.30	34.93

BT-LE(2Mbps)

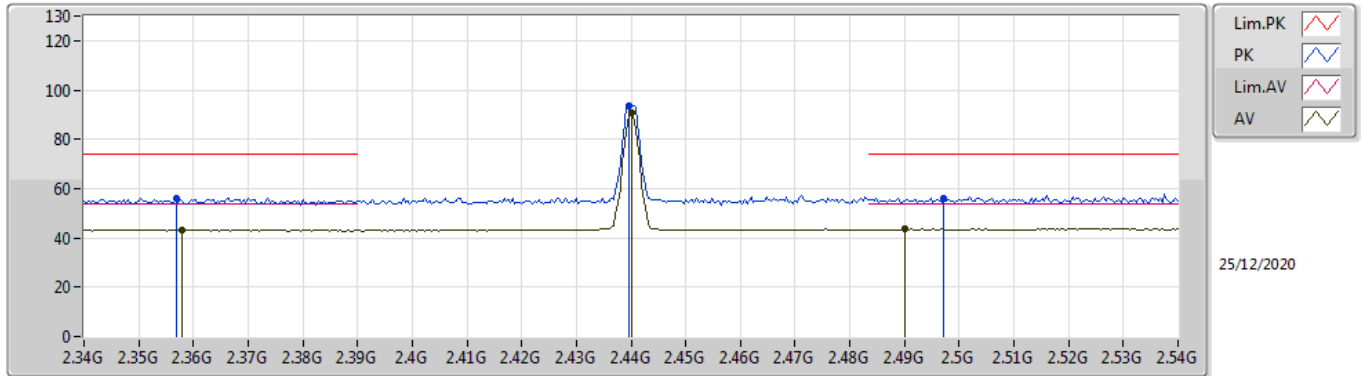
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80302G	29.57	54.00	-24.43	1.48	3	Horizontal	0	1.00	-	28.09	31.11	5.30	34.93
PK	4.8046G	43.38	74.00	-30.62	1.49	3	Horizontal	0	1.00	-	41.89	31.12	5.30	34.93

BT-LE(2Mbps)

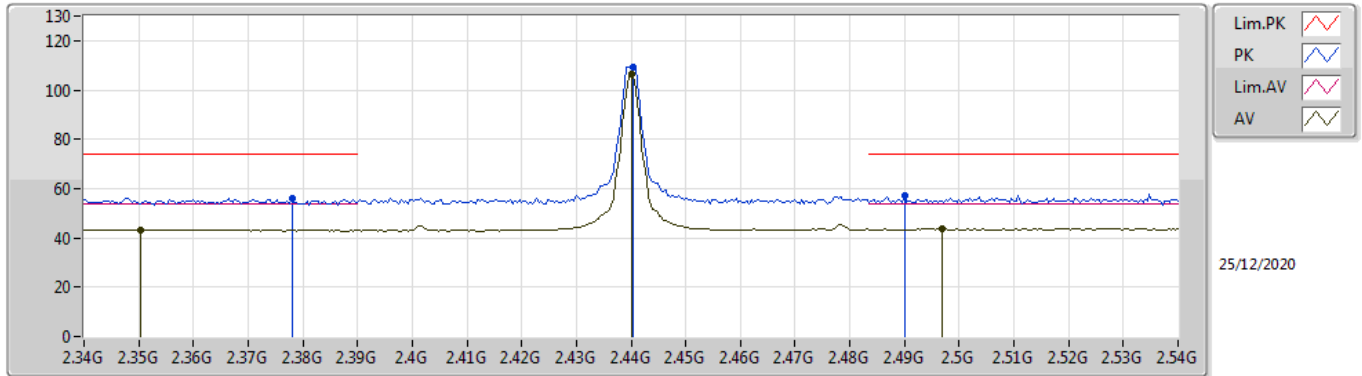
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.358G	43.14	54.00	-10.86	31.61	3	Vertical	36	1.18	-	11.53	27.77	3.84	-
AV	2.44G	90.72	Inf	-Inf	31.56	3	Vertical	36	1.18	-	59.16	27.60	3.96	-
AV	2.49G	43.46	54.00	-10.54	31.64	3	Vertical	36	1.18	-	11.82	27.60	4.04	-
PK	2.3568G	56.19	74.00	-17.81	31.61	3	Vertical	36	1.18	-	24.58	27.77	3.84	-
PK	2.4396G	93.70	Inf	-Inf	31.56	3	Vertical	36	1.18	-	62.14	27.60	3.96	-
PK	2.4972G	56.02	74.00	-17.98	31.65	3	Vertical	36	1.18	-	24.37	27.60	4.05	-

BT-LE(2Mbps)

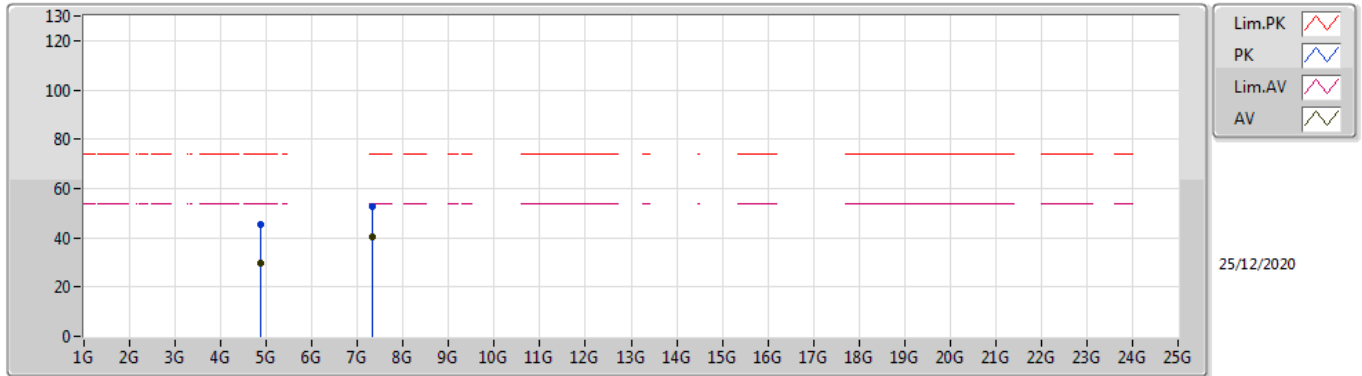
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3504G	43.11	54.00	-10.89	31.63	3	Horizontal	169	1.74	-	11.48	27.80	3.83	-
AV	2.44G	106.60	Inf	-Inf	31.56	3	Horizontal	169	1.74	-	75.04	27.60	3.96	-
AV	2.4968G	43.52	54.00	-10.48	31.65	3	Horizontal	169	1.74	-	11.87	27.60	4.05	-
PK	2.378G	56.21	74.00	-17.79	31.56	3	Horizontal	169	1.74	-	24.65	27.69	3.87	-
PK	2.4404G	109.50	Inf	-Inf	31.56	3	Horizontal	169	1.74	-	77.94	27.60	3.96	-
PK	2.49G	57.03	74.00	-16.97	31.64	3	Horizontal	169	1.74	-	25.39	27.60	4.04	-

BT-LE(2Mbps)

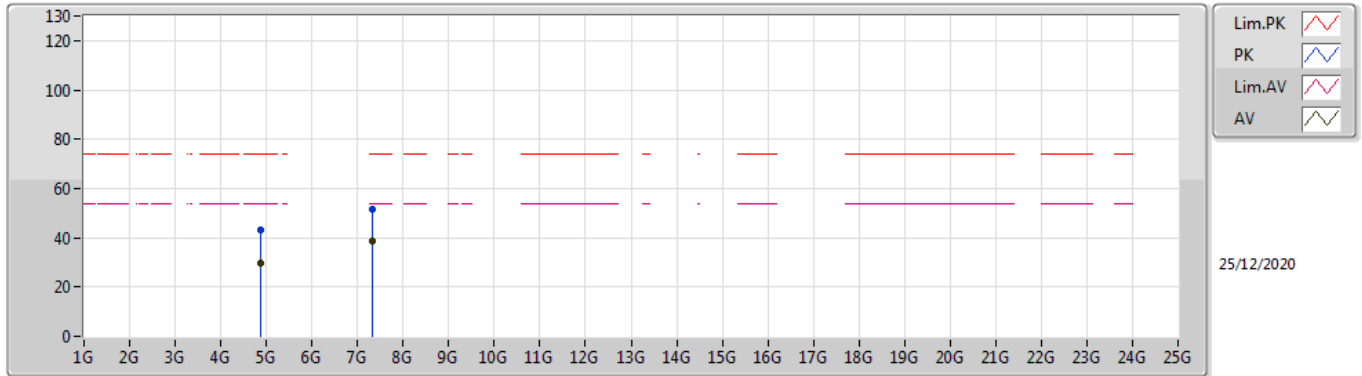
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8791G	29.55	54.00	-24.45	1.65	3	Vertical	0	1.09	-	27.90	31.24	5.34	34.93
AV	7.32121G	40.17	54.00	-13.83	8.18	3	Vertical	25	1.43	-	31.99	36.56	6.80	35.18
PK	4.87909G	45.38	74.00	-28.62	1.65	3	Vertical	0	1.09	-	43.73	31.24	5.34	34.93
PK	7.32152G	52.53	74.00	-21.47	8.18	3	Vertical	25	1.43	-	44.35	36.56	6.80	35.18

BT-LE(2Mbps)

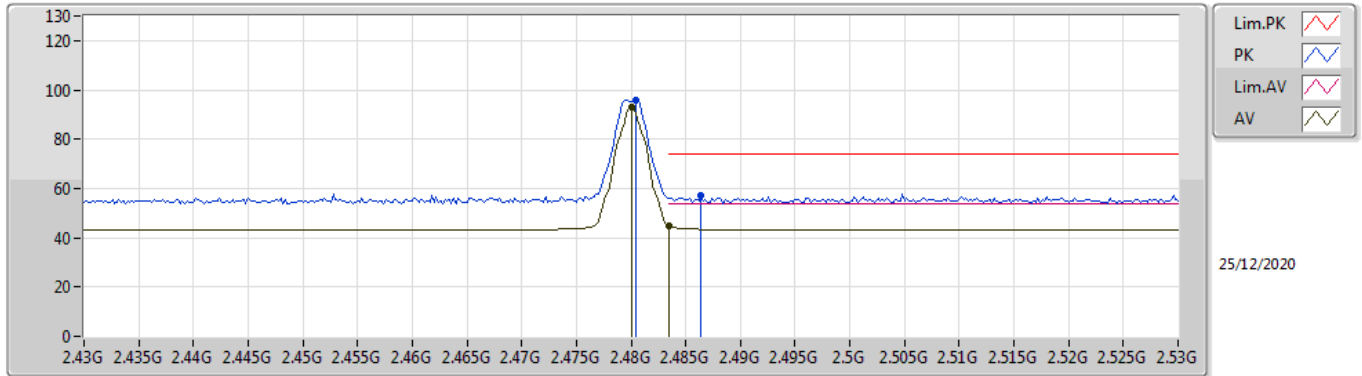
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.87913G	29.67	54.00	-24.33	1.65	3	Horizontal	332	1.67	-	28.02	31.24	5.34	34.93
AV	7.31885G	38.65	54.00	-15.35	8.18	3	Horizontal	30	1.50	-	30.47	36.56	6.80	35.18
PK	4.88042G	43.04	74.00	-30.96	1.65	3	Horizontal	332	1.67	-	41.39	31.24	5.34	34.93
PK	7.32136G	51.68	74.00	-22.32	8.18	3	Horizontal	30	1.50	-	43.50	36.56	6.80	35.18

BT-LE(2Mbps)

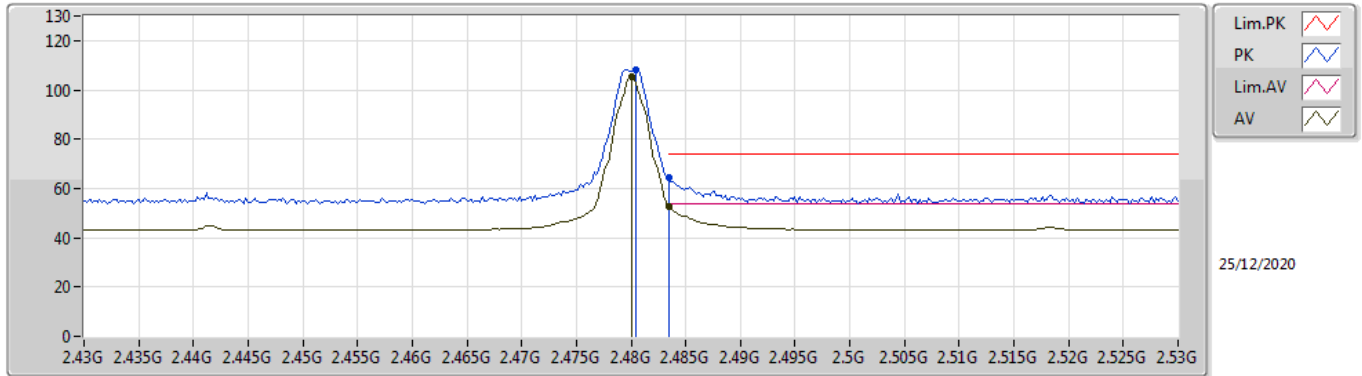
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	93.02	Inf	-Inf	31.62	3	Vertical	212	2.59	-	61.40	27.60	4.02	-
AV	2.4835G	44.81	54.00	-9.19	31.63	3	Vertical	212	2.59	-	13.18	27.60	4.03	-
PK	2.4804G	95.95	Inf	-Inf	31.62	3	Vertical	212	2.59	-	64.33	27.60	4.02	-
PK	2.4864G	57.11	74.00	-16.89	31.63	3	Vertical	212	2.59	-	25.48	27.60	4.03	-

BT-LE(2Mbps)

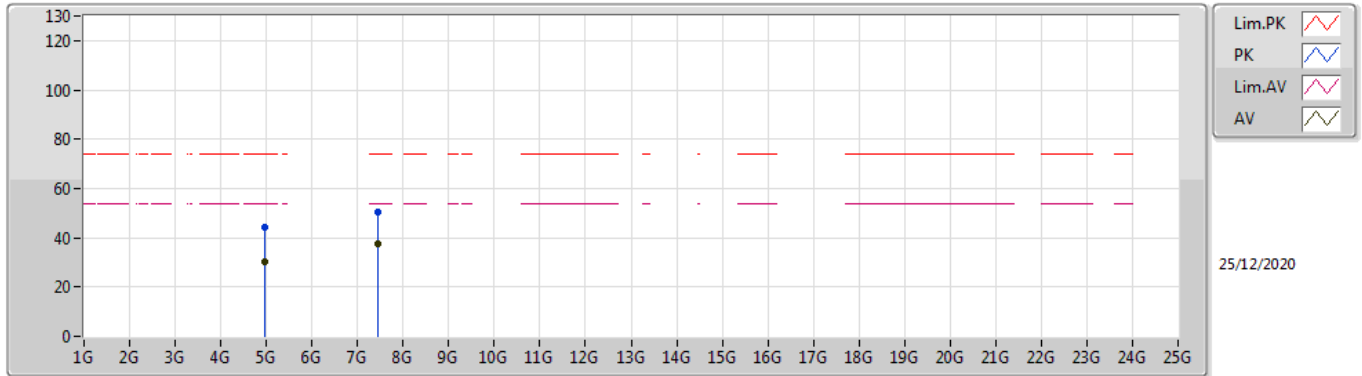
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	105.36	Inf	-Inf	31.62	3	Horizontal	181	1.74	-	73.74	27.60	4.02	-
AV	2.4835G	52.77	54.00	-1.23	31.63	3	Horizontal	181	1.74	-	21.14	27.60	4.03	-
PK	2.4804G	108.28	Inf	-Inf	31.62	3	Horizontal	181	1.74	-	76.66	27.60	4.02	-
PK	2.4835G	64.48	74.00	-9.52	31.63	3	Horizontal	181	1.74	-	32.85	27.60	4.03	-

BT-LE(2Mbps)

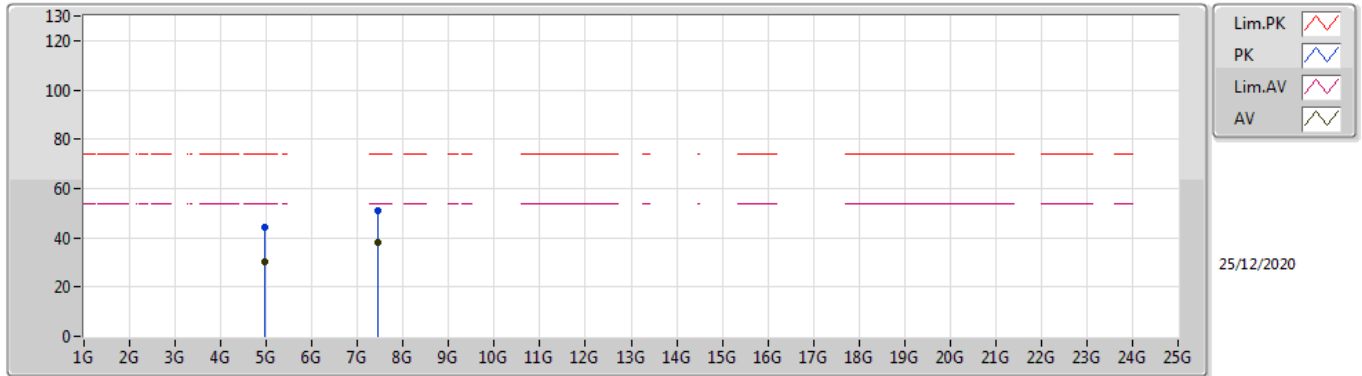
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95782G	30.17	54.00	-23.83	1.86	3	Vertical	53	1.50	-	28.31	31.42	5.38	34.94
AV	7.43878G	37.75	54.00	-16.25	8.21	3	Vertical	329	1.50	-	29.54	36.56	6.82	35.17
PK	4.95895G	44.08	74.00	-29.92	1.86	3	Vertical	53	1.50	-	42.22	31.42	5.38	34.94
PK	7.4415G	50.54	74.00	-23.46	8.22	3	Vertical	329	1.50	-	42.32	36.57	6.82	35.17

BT-LE(2Mbps)

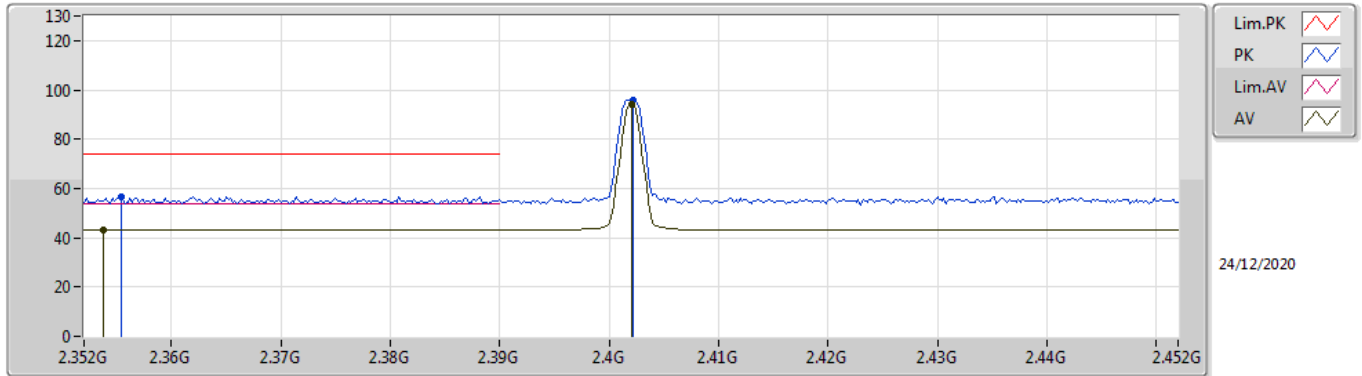
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95793G	30.10	54.00	-23.90	1.86	3	Horizontal	116	1.50	-	28.24	31.42	5.38	34.94
AV	7.44125G	38.20	54.00	-15.80	8.21	3	Horizontal	22	1.28	-	29.99	36.56	6.82	35.17
PK	4.95944G	44.14	74.00	-29.86	1.86	3	Horizontal	135	1.50	-	42.28	31.42	5.38	34.94
PK	7.44144G	50.79	74.00	-23.21	8.22	3	Horizontal	22	1.28	-	42.57	36.57	6.82	35.17

BT-LE(125kbps)

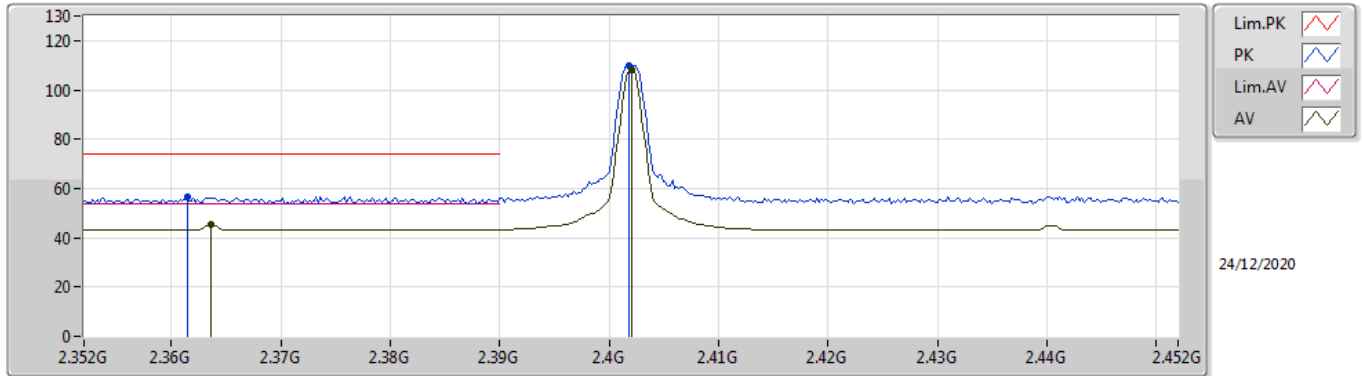
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3538G	43.10	54.00	-10.90	31.61	3	Vertical	211	1.02	-	11.49	27.78	3.83	-
AV	2.402G	94.39	Inf	-Inf	31.50	3	Vertical	211	1.02	-	62.89	27.60	3.90	-
PK	2.3554G	56.66	74.00	-17.34	31.61	3	Vertical	211	1.02	-	25.05	27.78	3.83	-
PK	2.4022G	95.91	Inf	-Inf	31.50	3	Vertical	211	1.02	-	64.41	27.60	3.90	-

BT-LE(125kbps)

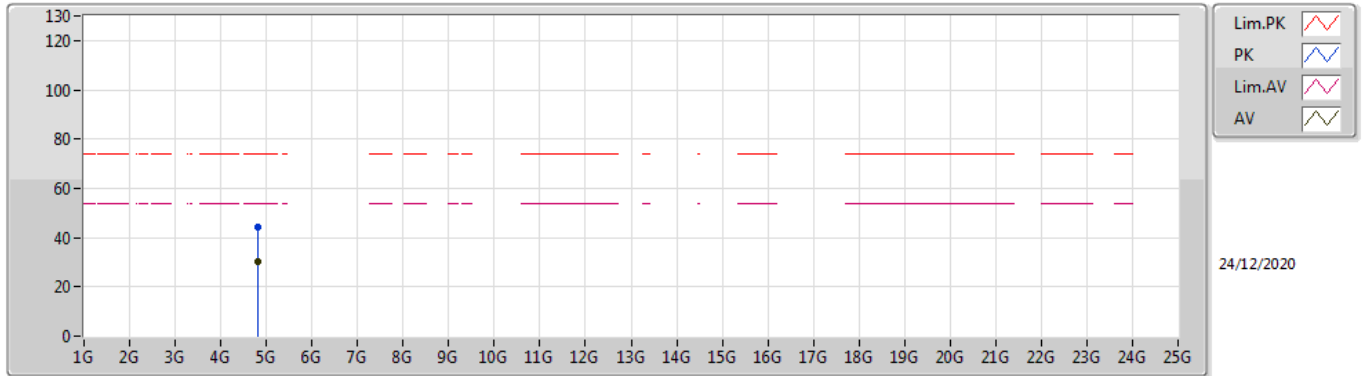
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3636G	45.21	54.00	-8.79	31.60	3	Horizontal	179	2.02	-	13.61	27.75	3.85	-
AV	2.402G	108.27	Inf	-Inf	31.50	3	Horizontal	179	2.02	-	76.77	27.60	3.90	-
PK	2.3614G	56.53	74.00	-17.47	31.59	3	Horizontal	179	2.02	-	24.94	27.75	3.84	-
PK	2.4018G	109.75	Inf	-Inf	31.50	3	Horizontal	179	2.02	-	78.25	27.60	3.90	-

BT-LE(125kbps)

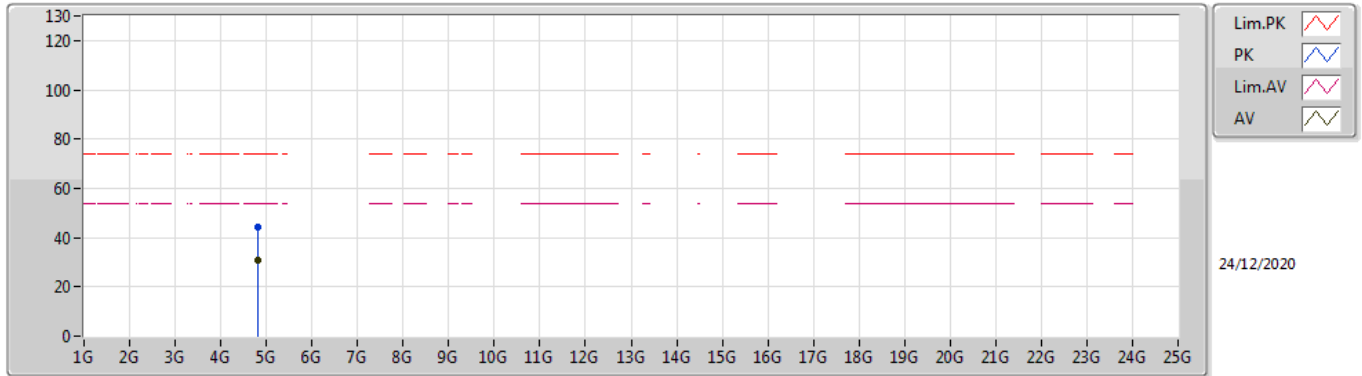
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8015G	30.53	54.00	-23.47	1.48	3	Vertical	98	1.68	-	29.05	31.11	5.30	34.93
PK	4.80577G	44.04	74.00	-29.96	1.49	3	Vertical	98	1.68	-	42.55	31.12	5.30	34.93

BT-LE(125kbps)

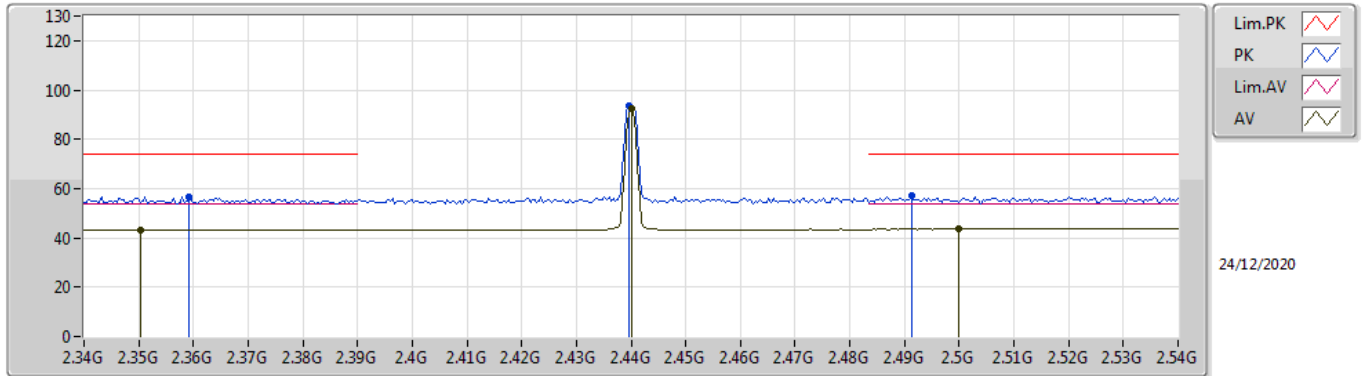
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80152G	30.56	54.00	-23.44	1.48	3	Horizontal	297	1.23	-	29.08	31.11	5.30	34.93
PK	4.80229G	44.17	74.00	-29.83	1.48	3	Horizontal	297	1.23	-	42.69	31.11	5.30	34.93

BT-LE(125kbps)

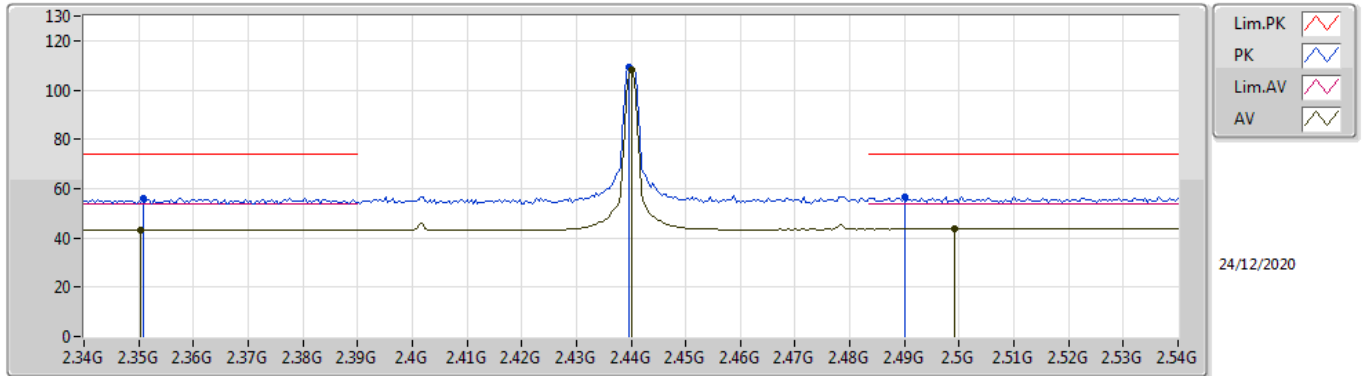
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3504G	43.12	54.00	-10.88	31.63	3	Vertical	105	1.30	-	11.49	27.80	3.83	-
AV	2.44G	92.24	Inf	-Inf	31.56	3	Vertical	105	1.30	-	60.68	27.60	3.96	-
AV	2.5G	43.51	54.00	-10.49	31.65	3	Vertical	105	1.30	-	11.86	27.60	4.05	-
PK	2.3592G	56.44	74.00	-17.56	31.60	3	Vertical	105	1.30	-	24.84	27.76	3.84	-
PK	2.4396G	93.85	Inf	-Inf	31.56	3	Vertical	105	1.30	-	62.29	27.60	3.96	-
PK	2.4912G	57.16	74.00	-16.84	31.64	3	Vertical	105	1.30	-	25.52	27.60	4.04	-

BT-LE(125kbps)

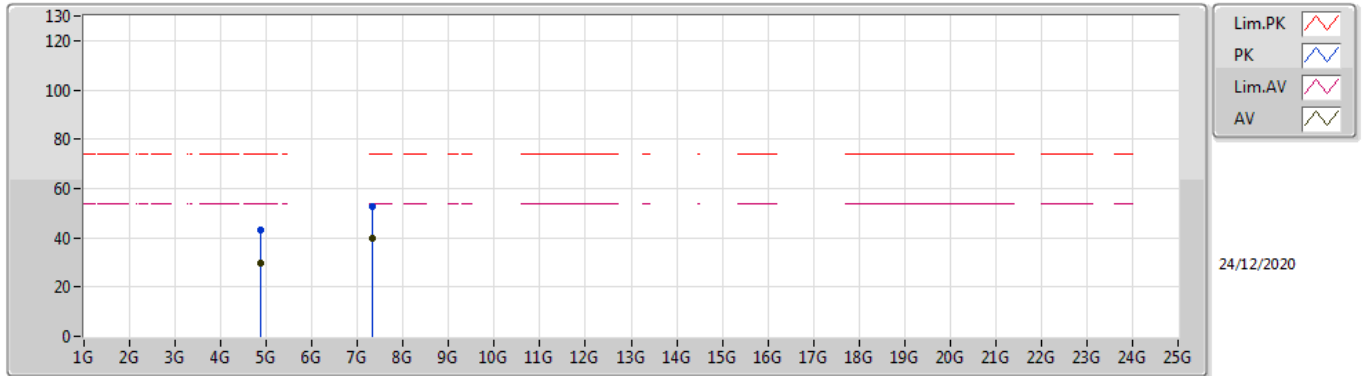
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3504G	43.13	54.00	-10.87	31.63	3	Horizontal	164	1.75	-	11.50	27.80	3.83	-
AV	2.44G	108.03	Inf	-Inf	31.56	3	Horizontal	164	1.75	-	76.47	27.60	3.96	-
AV	2.4992G	43.54	54.00	-10.46	31.65	3	Horizontal	164	1.75	-	11.89	27.60	4.05	-
PK	2.3508G	56.31	74.00	-17.69	31.63	3	Horizontal	164	1.75	-	24.68	27.80	3.83	-
PK	2.4396G	109.50	Inf	-Inf	31.56	3	Horizontal	164	1.75	-	77.94	27.60	3.96	-
PK	2.49G	56.44	74.00	-17.56	31.64	3	Horizontal	164	1.75	-	24.80	27.60	4.04	-

BT-LE(125kbps)

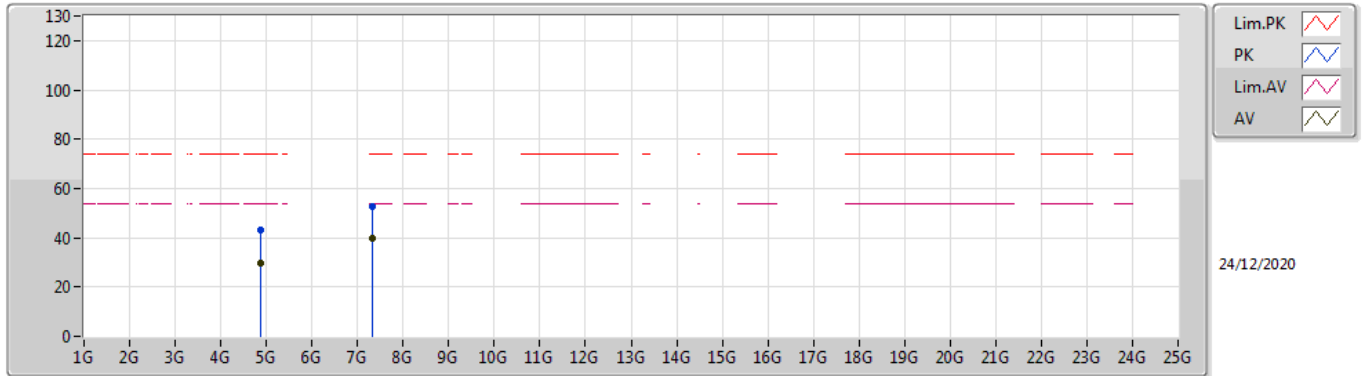
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8775G	29.50	54.00	-24.50	1.66	3	Vertical	6	2.14	-	27.84	31.25	5.34	34.93
AV	7.3193G	39.99	54.00	-14.01	8.18	3	Vertical	22	1.43	-	31.81	36.56	6.80	35.18
PK	4.88134G	43.24	74.00	-30.76	1.65	3	Vertical	6	2.14	-	41.59	31.24	5.34	34.93
PK	7.32081G	52.60	74.00	-21.40	8.18	3	Vertical	22	1.43	-	44.42	36.56	6.80	35.18

BT-LE(125kbps)

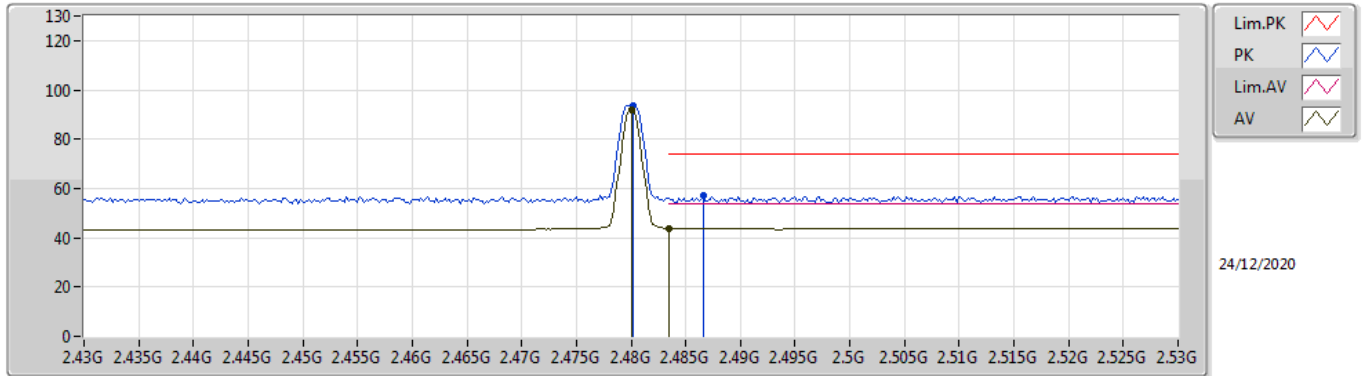
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87775G	29.48	54.00	-24.52	1.65	3	Horizontal	300	1.35	-	27.83	31.24	5.34	34.93
AV	7.3207G	39.61	54.00	-14.39	8.18	3	Horizontal	28	1.49	-	31.43	36.56	6.80	35.18
PK	4.88G	43.41	74.00	-30.59	1.65	3	Horizontal	300	1.35	-	41.76	31.24	5.34	34.93
PK	7.31925G	52.60	74.00	-21.40	8.18	3	Horizontal	28	1.49	-	44.42	36.56	6.80	35.18

BT-LE(125kbps)

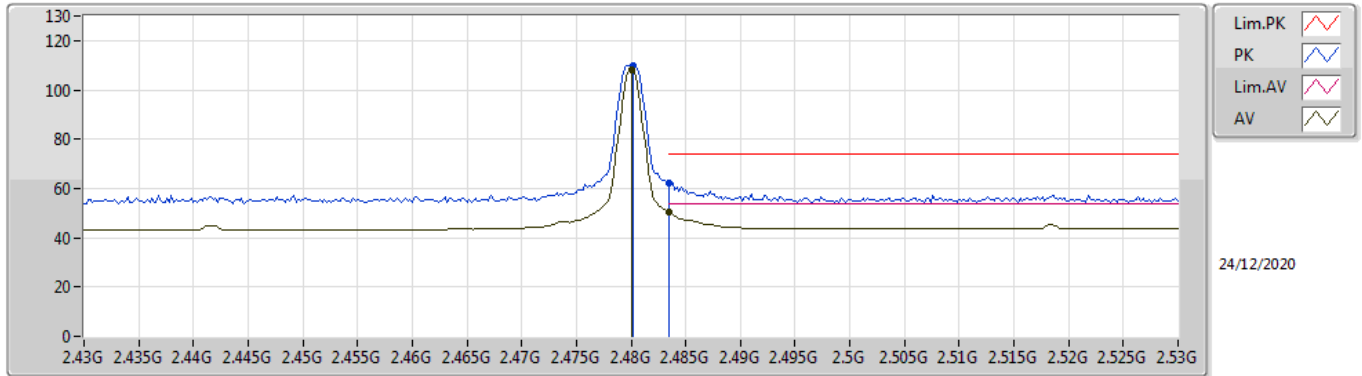
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	91.92	Inf	-Inf	31.62	3	Vertical	50	1.49	-	60.30	27.60	4.02	-
AV	2.4835G	43.87	54.00	-10.13	31.63	3	Vertical	50	1.49	-	12.24	27.60	4.03	-
PK	2.4802G	93.46	Inf	-Inf	31.62	3	Vertical	50	1.49	-	61.84	27.60	4.02	-
PK	2.4866G	57.15	74.00	-16.85	31.63	3	Vertical	50	1.49	-	25.52	27.60	4.03	-

BT-LE(125kbps)

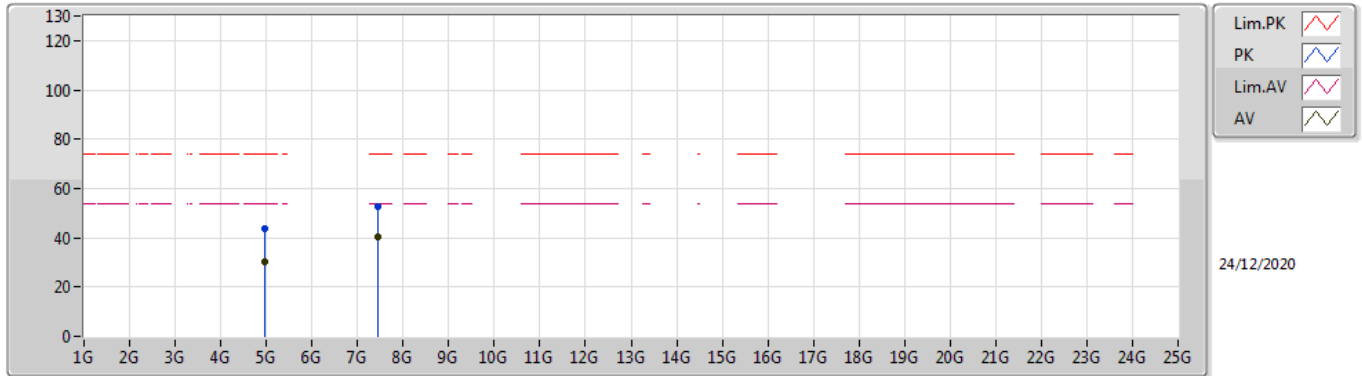
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	108.17	Inf	-Inf	31.62	3	Horizontal	180	2.32	-	76.55	27.60	4.02	-
AV	2.4835G	50.35	54.00	-3.65	31.63	3	Horizontal	180	2.32	-	18.72	27.60	4.03	-
PK	2.4802G	109.64	Inf	-Inf	31.62	3	Horizontal	180	2.32	-	78.02	27.60	4.02	-
PK	2.4835G	62.40	74.00	-11.60	31.63	3	Horizontal	180	2.32	-	30.77	27.60	4.03	-

BT-LE(125kbps)

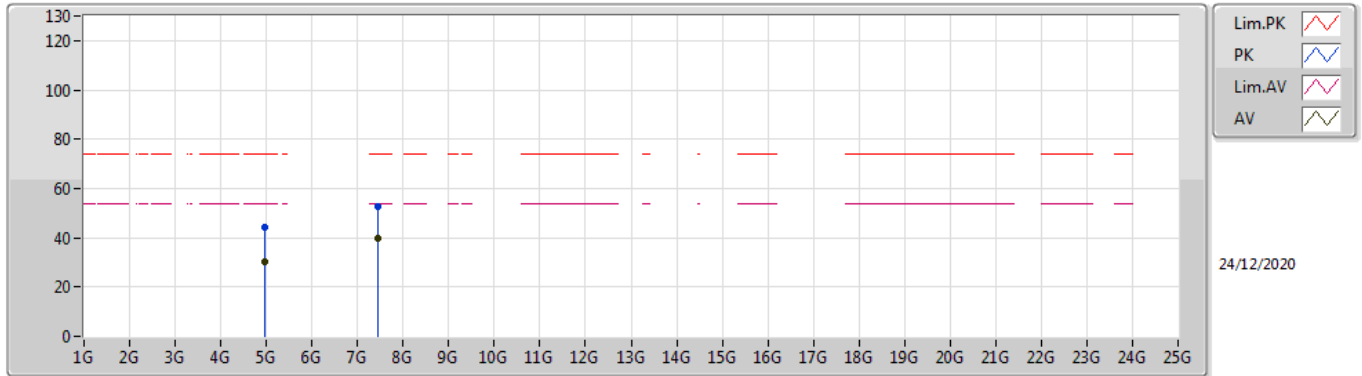
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96037G	30.23	54.00	-23.77	1.86	3	Vertical	31	2.04	-	28.37	31.42	5.38	34.94
AV	7.43927G	40.44	54.00	-13.56	8.21	3	Vertical	26	1.62	-	32.23	36.56	6.82	35.17
PK	4.95755G	43.62	74.00	-30.38	1.86	3	Vertical	31	2.04	-	41.76	31.42	5.38	34.94
PK	7.44101G	52.67	74.00	-21.33	8.21	3	Vertical	26	1.62	-	44.46	36.56	6.82	35.17

BT-LE(125kbps)

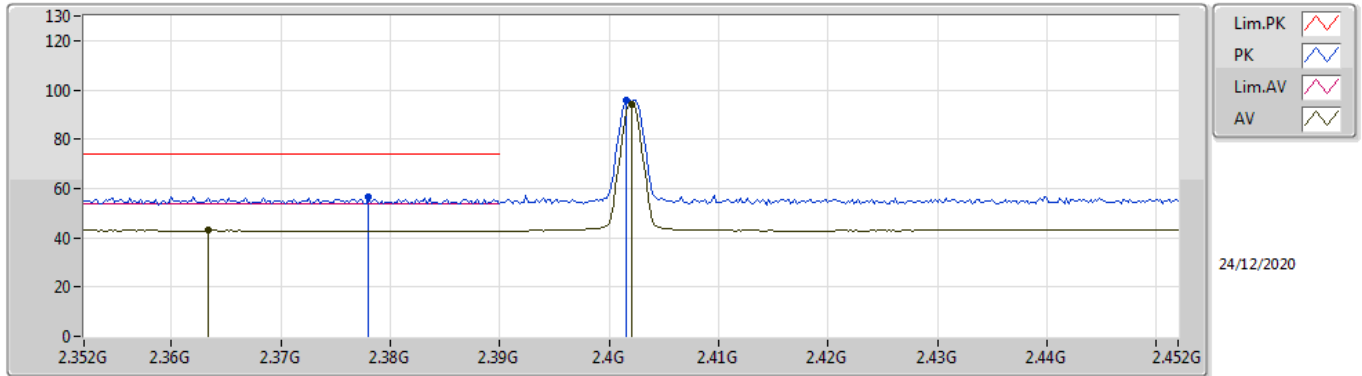
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95957G	30.24	54.00	-23.76	1.86	3	Horizontal	99	2.18	-	28.38	31.42	5.38	34.94
AV	7.44069G	39.90	54.00	-14.10	8.21	3	Horizontal	19	1.30	-	31.69	36.56	6.82	35.17
PK	4.95849G	44.11	74.00	-29.89	1.86	3	Horizontal	99	2.18	-	42.25	31.42	5.38	34.94
PK	7.44106G	52.85	74.00	-21.15	8.21	3	Horizontal	19	1.30	-	44.64	36.56	6.82	35.17

BT-LE(500kbps)

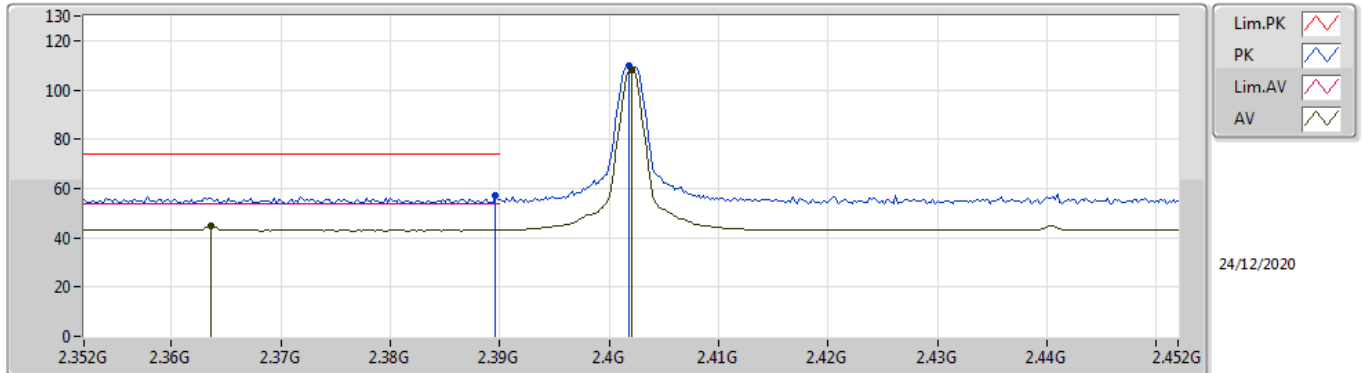
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3634G	42.93	54.00	-11.07	31.60	3	Vertical	218	1.02	-	11.33	27.75	3.85	-
AV	2.402G	94.40	Inf	-Inf	31.50	3	Vertical	218	1.02	-	62.90	27.60	3.90	-
PK	2.378G	56.67	74.00	-17.33	31.56	3	Vertical	218	1.02	-	25.11	27.69	3.87	-
PK	2.4016G	95.65	Inf	-Inf	31.50	3	Vertical	218	1.02	-	64.15	27.60	3.90	-

BT-LE(500kbps)

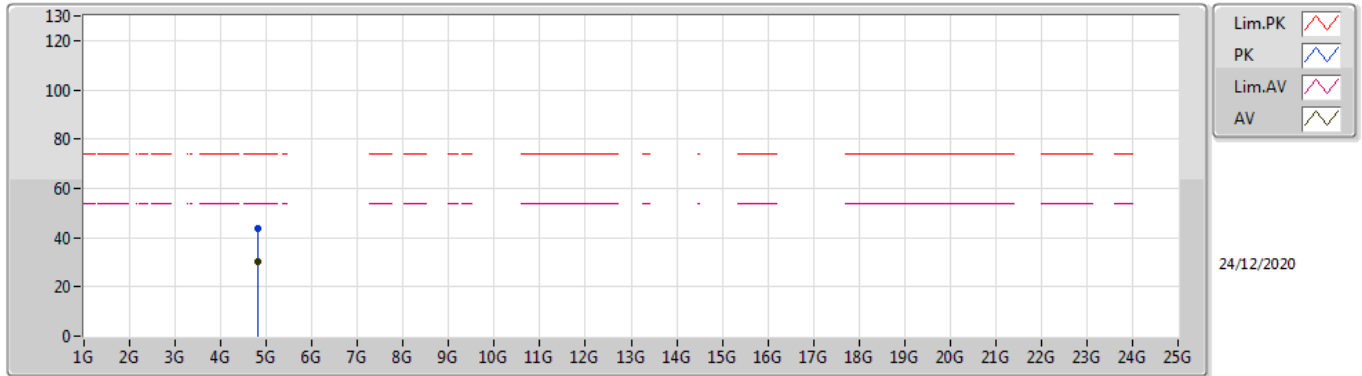
2402MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3636G	44.85	54.00	-9.15	31.60	3	Horizontal	186	2.00	-	13.25	27.75	3.85	-
AV	2.402G	108.32	Inf	-Inf	31.50	3	Horizontal	186	2.00	-	76.82	27.60	3.90	-
PK	2.3896G	56.92	74.00	-17.08	31.52	3	Horizontal	186	2.00	-	25.40	27.64	3.88	-
PK	2.4018G	109.55	Inf	-Inf	31.50	3	Horizontal	186	2.00	-	78.05	27.60	3.90	-

BT-LE(500kbps)

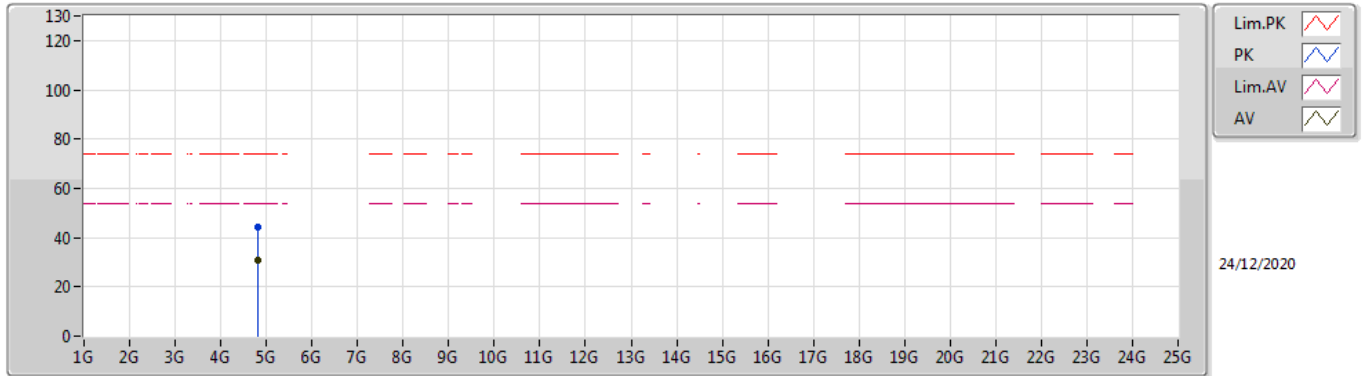
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80633G	30.43	54.00	-23.57	1.50	3	Vertical	80	1.50	-	28.93	31.13	5.30	34.93
PK	4.80638G	43.85	74.00	-30.15	1.50	3	Vertical	80	1.50	-	42.35	31.13	5.30	34.93

BT-LE(500kbps)

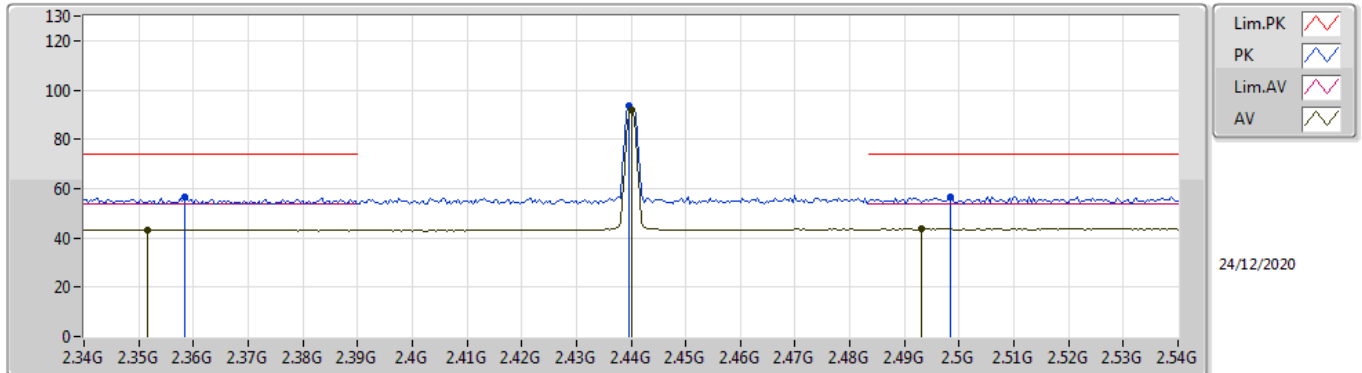
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80634G	30.62	54.00	-23.38	1.50	3	Horizontal	240	1.50	-	29.12	31.13	5.30	34.93
PK	4.80623G	44.44	74.00	-29.56	1.49	3	Horizontal	240	1.50	-	42.95	31.12	5.30	34.93

BT-LE(500kbps)

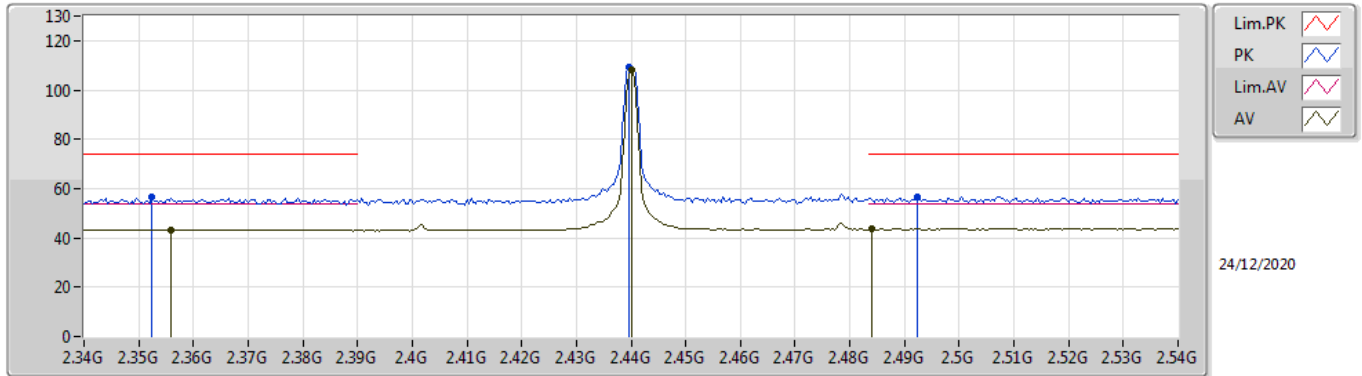
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3516G	43.14	54.00	-10.86	31.62	3	Vertical	126	1.30	-	11.52	27.79	3.83	-
AV	2.44G	91.99	Inf	-Inf	31.56	3	Vertical	126	1.30	-	60.43	27.60	3.96	-
AV	2.4932G	43.52	54.00	-10.48	31.64	3	Vertical	126	1.30	-	11.88	27.60	4.04	-
PK	2.3584G	56.33	74.00	-17.67	31.61	3	Vertical	126	1.30	-	24.72	27.77	3.84	-
PK	2.4396G	93.31	Inf	-Inf	31.56	3	Vertical	126	1.30	-	61.75	27.60	3.96	-
PK	2.4984G	56.60	74.00	-17.40	31.65	3	Vertical	126	1.30	-	24.95	27.60	4.05	-

BT-LE(500kbps)

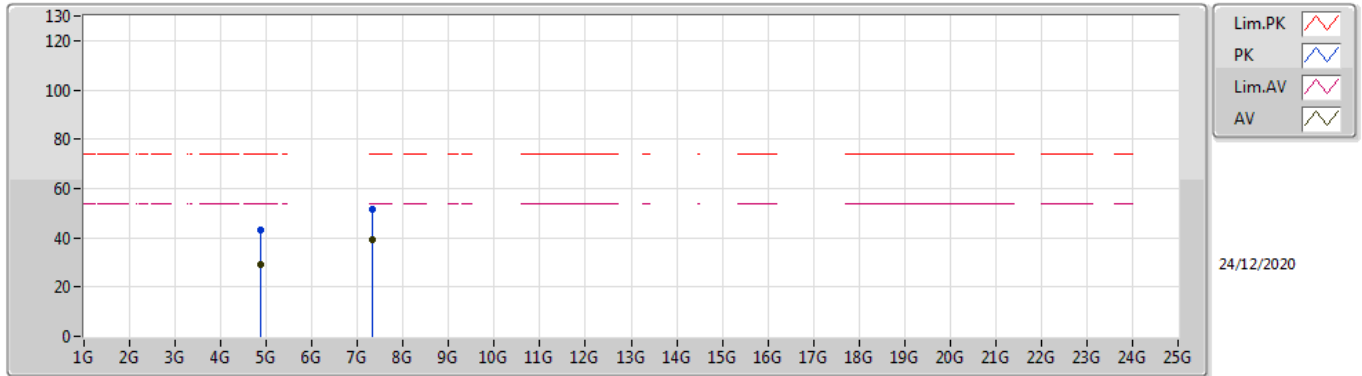
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.356G	43.14	54.00	-10.86	31.61	3	Horizontal	174	1.52	-	11.53	27.78	3.83	-
AV	2.44G	108.17	Inf	-Inf	31.56	3	Horizontal	174	1.52	-	76.61	27.60	3.96	-
AV	2.484G	43.55	54.00	-10.45	31.63	3	Horizontal	174	1.52	-	11.92	27.60	4.03	-
PK	2.3524G	56.46	74.00	-17.54	31.62	3	Horizontal	174	1.52	-	24.84	27.79	3.83	-
PK	2.4396G	109.43	Inf	-Inf	31.56	3	Horizontal	174	1.52	-	77.87	27.60	3.96	-
PK	2.4924G	56.83	74.00	-17.17	31.64	3	Horizontal	174	1.52	-	25.19	27.60	4.04	-

BT-LE(500kbps)

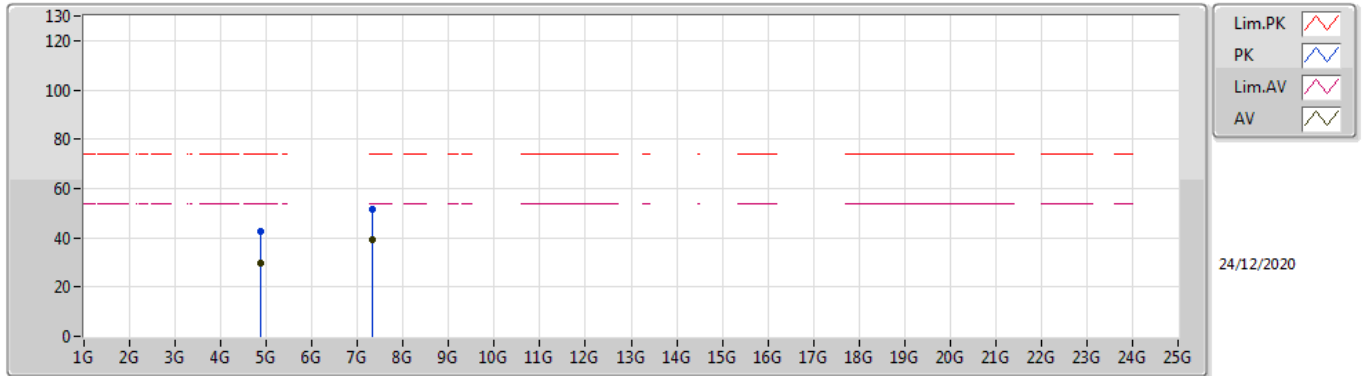
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87978G	29.41	54.00	-24.59	1.65	3	Vertical	0	1.22	-	27.76	31.24	5.34	34.93
AV	7.32063G	39.40	54.00	-14.60	8.18	3	Vertical	28	1.43	-	31.22	36.56	6.80	35.18
PK	4.8776G	43.27	74.00	-30.73	1.65	3	Vertical	0	1.22	-	41.62	31.24	5.34	34.93
PK	7.32085G	51.41	74.00	-22.59	8.18	3	Vertical	28	1.43	-	43.23	36.56	6.80	35.18

BT-LE(500kbps)

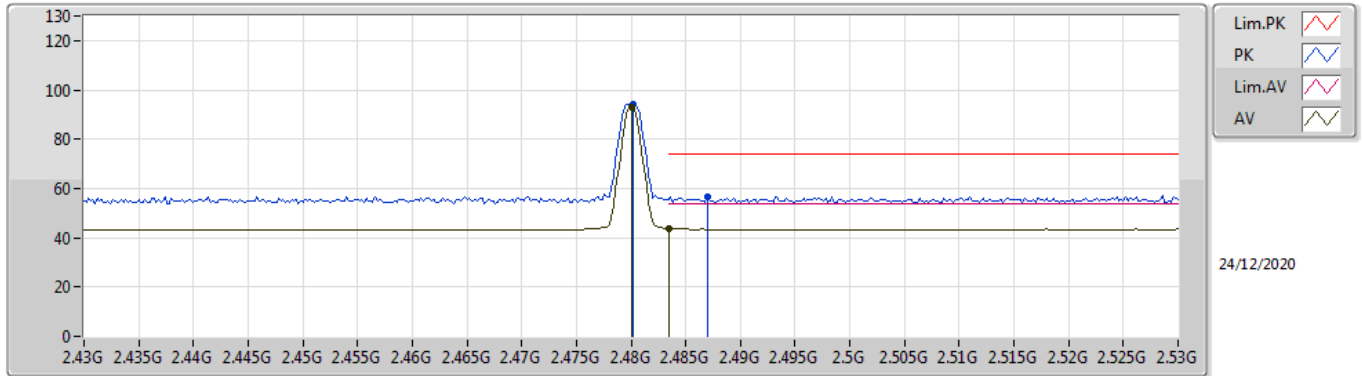
2440MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87978G	29.49	54.00	-24.51	1.65	3	Horizontal	337	1.90	-	27.84	31.24	5.34	34.93
AV	7.32068G	39.01	54.00	-14.99	8.18	3	Horizontal	34	1.50	-	30.83	36.56	6.80	35.18
PK	4.87822G	42.75	74.00	-31.25	1.65	3	Horizontal	337	1.90	-	41.10	31.24	5.34	34.93
PK	7.32065G	51.62	74.00	-22.38	8.18	3	Horizontal	34	1.50	-	43.44	36.56	6.80	35.18

BT-LE(500kbps)

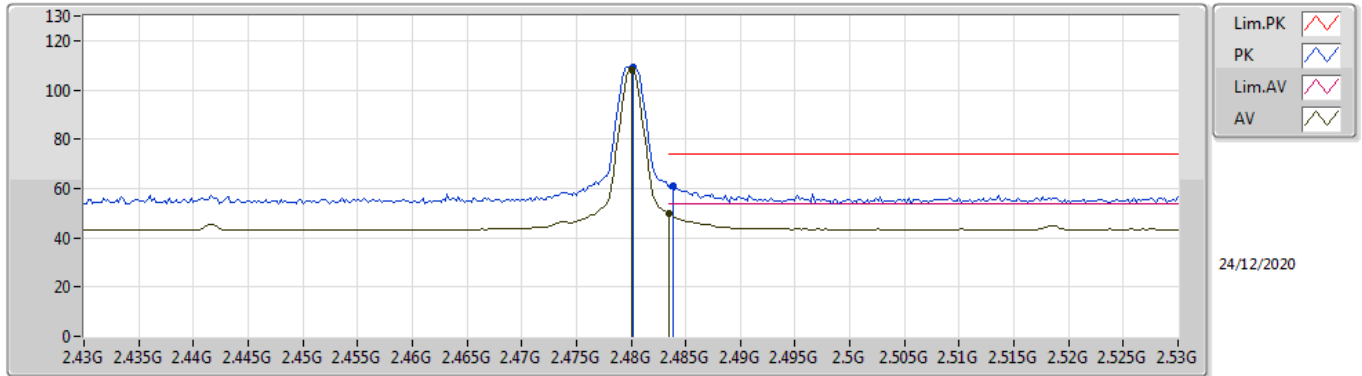
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	92.98	Inf	-Inf	31.62	3	Vertical	173	1.25	-	61.36	27.60	4.02	-
AV	2.4835G	43.83	54.00	-10.17	31.63	3	Vertical	173	1.25	-	12.20	27.60	4.03	-
PK	2.4802G	94.30	Inf	-Inf	31.62	3	Vertical	173	1.25	-	62.68	27.60	4.02	-
PK	2.487G	56.77	74.00	-17.23	31.63	3	Vertical	173	1.25	-	25.14	27.60	4.03	-

BT-LE(500kbps)

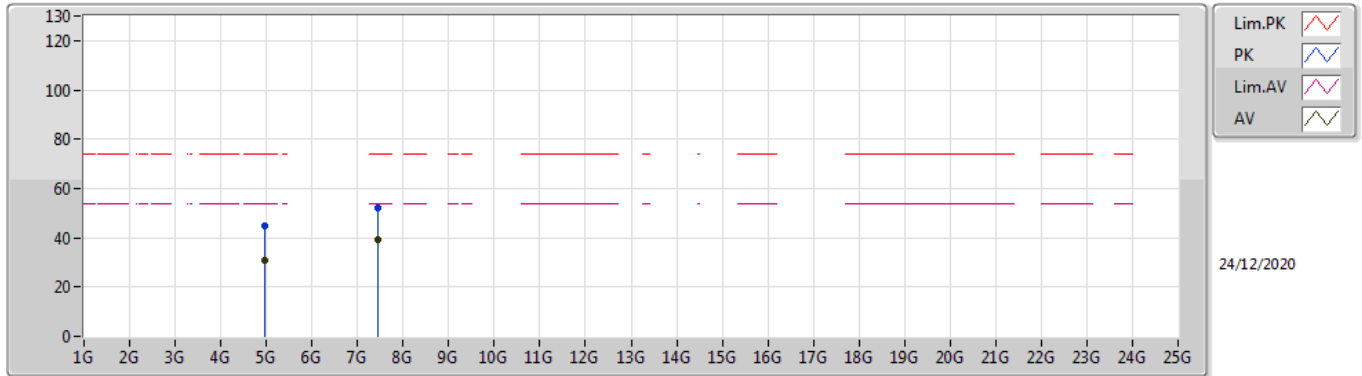
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	108.01	Inf	-Inf	31.62	3	Horizontal	182	2.16	-	76.39	27.60	4.02	-
AV	2.4835G	49.83	54.00	-4.17	31.63	3	Horizontal	182	2.16	-	18.20	27.60	4.03	-
PK	2.4802G	109.23	Inf	-Inf	31.62	3	Horizontal	182	2.16	-	77.61	27.60	4.02	-
PK	2.4838G	61.23	74.00	-12.77	31.63	3	Horizontal	182	2.16	-	29.60	27.60	4.03	-

BT-LE(500kbps)

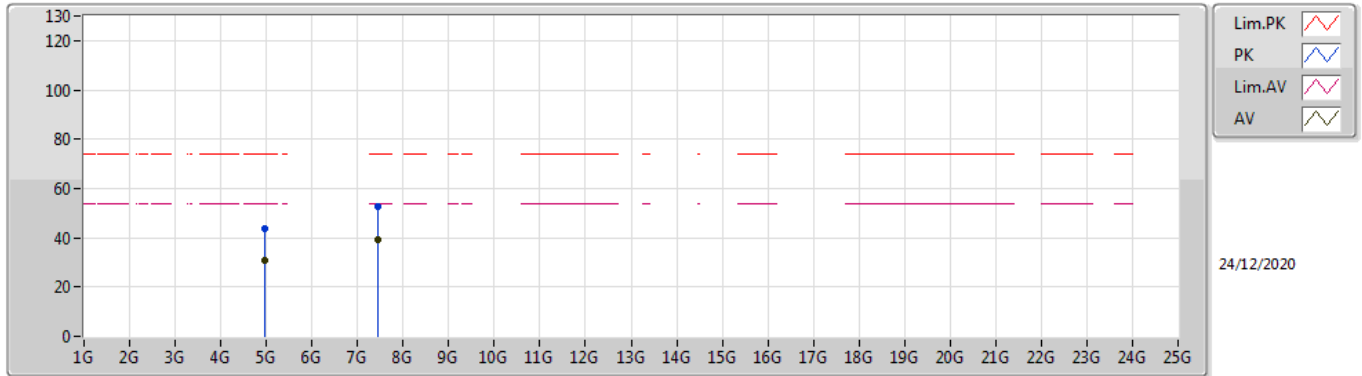
2480MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95971G	30.54	54.00	-23.46	1.86	3	Vertical	0	1.19	-	28.68	31.42	5.38	34.94
AV	7.43936G	39.46	54.00	-14.54	8.21	3	Vertical	24	1.50	-	31.25	36.56	6.82	35.17
PK	4.95951G	44.55	74.00	-29.45	1.86	3	Vertical	0	1.19	-	42.69	31.42	5.38	34.94
PK	7.43913G	51.97	74.00	-22.03	8.21	3	Vertical	24	1.50	-	43.76	36.56	6.82	35.17

BT-LE(500kbps)

2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.96025G	30.70	54.00	-23.30	1.86	3	Horizontal	330	1.79	-	28.84	31.42	5.38	34.94
AV	7.44065G	39.20	54.00	-14.80	8.21	3	Horizontal	321	1.50	-	30.99	36.56	6.82	35.17
PK	4.95931G	43.85	74.00	-30.15	1.86	3	Horizontal	330	1.79	-	41.99	31.42	5.38	34.94
PK	7.43936G	52.43	74.00	-21.57	8.21	3	Horizontal	321	1.50	-	44.22	36.56	6.82	35.17