FCC Test Report

FCC ID	:	**QXO-AP360**
Equipment	:	**Wireless Access Point**
Brand Name	:	Extreme networks or Extreme Networks
Model Name	:	**AP360i, AP360e**
Applicant	:	**Extreme Networks, Inc.** **6480 Via Del Oro, San Jose, CA 95119, United States**
Manufacturer	:	**Extreme Networks, Inc.** **6480 Via Del Oro, San Jose, CA 95119, United States**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Nov. 27, 2019, and testing was started from Jan. 23, 2020 and completed on Mar. 07, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Allen Lin

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

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History of this test report

Report No.	Version	Description	Issued Date
FR992618AL	01	Initial issue of report	Apr. 06, 2020

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

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

1.1.2 Antenna Information

(AP360i) Internal Antenna

Ant.	Brand	Model Number (P/N)	Antenna Type	Connector	Antenna Gain (dBi)			Remark
					2.4GHz	5GHz	BLE/Thread	
1	Senao	5718A0490300	PIFA	IPEX	4.53	4.8	-	Radio 1
2	Senao	5718A0491300	PIFA	IPEX	4.3	5.09	-	Radio 1
3	Senao	5718A0492300	PIFA	IPEX	-	4.94	-	Radio 2
4	Senao	5718A0493300	PIFA	IPEX	-	5.1	-	Radio 2
5	Senao	5718A0494300	PIFA	IPEX	-	-	4.99	Radio 3

(AP360e) External Antenna

Group	Brand	Model Number (P/N)	Antenna Type	Connector	Antenna Gain (dBi)		
					2.4GHz	5GHz	BLE/Thread
1	Extreme	ML-2452-APA2-01	Omni	Reverse SMA	3.17	4.85	-
2	Extreme	ML-2452-HPA5-036	Omni	Reverse SMA	3.9	5.7	-
3	Extreme	ML-2452-HPAG4A6-01	Omni	N-type	4	7.3	-
4	Extreme	ML-2452-PTA4M4-036	Omni	Reverse SMA	5	6.6	-
5	Extreme	ML-2452-HPAG5A8-01	Omni	N-type	5	8	-
6	Extreme	30724 WS-AO-DQ04360N	Omni	N-type	5.5	6	-
7	Extreme	AI-DQ04360S	Omni	Reverse SMA	5.5	6	-
8	Extreme	ML-2452-PNA5-01R	Panel	N-type	4.5	5	-
9	Extreme	ML-2452-SEC6M4-036, WS-AI-DQ05120 (30702)	Panel	Reverse SMA	6.92	7.23	-
10	Extreme	30705 WS-AI-DE07025	Panel	Reverse SMA	7.5	6.5	-
11	Extreme	ML-2452-PNA7-01R	Panel 1	N-type	7.8	10.7	7.8
12	Extreme	30707 WS-AI-DE10055	Panel 2	Reverse SMA	10.5	7.5	-
13	Extreme	ML-2452-APA2-02	Omni	Reverse SMA	3.17	4.85	-
14	Extreme	ML-2499-HPA8-01	Dipole	N-type	-	-	8

Note 1: Group 5, 11 and 12 were measured during the test for WLAN 2.4G Mode.
Note 2: Group 11 and 14 were measured during the test for Bluetooth/Thread Mode.
Note 3: Group 5 and 11 were measured during the test for WLAN 5G Mode.

For 2.4GHz function:

For IEEE 802.11 b/g/n/ac/ax mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

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

Port 1 and port 2 could transmit/receive simultaneously.

For BT function:

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

Only port 1 can be used as transmitting/receiving antenna.

For Thread function:

For IEEE 802.15.4 Thread mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax mode (1TX/1RX)

Only port 1 can be used as transmitting/receiving antenna.

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

Port 1 and port 2 could transmit/receive simultaneously.

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 Table for Multiple Listing

Sample Number	Model Name	Description
1	AP360i	The “i” in AP360i indicates that it comes with internal antennas and the “e” in AP360e indicates that the access point comes with external antenna connectors.
2	AP360e	

1.1.5 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-LE(1Mbps)	0.642	1.92	401.25u	3k

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
- KDB 558074 D01 v05r02
- KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			
☐	Wen Shan	ADD : No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)	
		TEL : 886-3-318-0787	FAX : 886-3-318-0287
Test site Designation No. TW1097 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward	20.3~21.9°C / 55~69%	07/Mar/2020
RF Conducted	TH01-HY	Barry	25.7~26.3°C / 60~66%	31/Jan/2020~ 25/Feb/2020
Radiated	03CH02-HY	Daniel	22.1~24.6°C / 40~55%	23/Jan/2020~ 26/Feb/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 Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Test Software Version	CMD

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	defaule
2440MHz	default
2480MHz	default

2.3 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
Operating Mode	CTX
1	PoE mode (Sample 1)
2	PoE mode (Sample 2)

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 (Sample 1)		
2	PoE mode (Sample 2_Dipole Antenna)		
3	PoE mode (Sample 2_Panel 1 Antenna)		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT	V		

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	Radio 1(WLAN 2.4GHz)+Radio 2(WLAN 5GHz)+Bluetooth
2	Radio 1(WLAN 2.4GHz)+Radio 2(WLAN 5GHz)+Thread
3	Radio 1(WLAN 5GHz)+Radio 2(WLAN 5GHz)+Bluetooth
4	Radio 1(WLAN 5GHz)+Radio 2(WLAN 5GHz)+Thread
Refer to Sporton Test Report No.: FA992618 for Co-location RF Exposure Evaluation.	

2.4 Support Equipment

Support Equipment – AC Conduction					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	RJ45 Cable	Power Sync	CAT-6E-10	-	-
2	PoE	EnGenius	EPA5006GP	-	-
3	AC Power Cable	Power sync	PW-GPC180-3	-	-

Note 1: Support equipment No. 2 was provided by customer.

Support Equipment – Conducted					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Notebook	DELL	PP13S	DoC	-
2	Adapter for NB	DELL	AA90PM111	DoC	-
3	Notebook	DELL	PP13S	DoC	-
4	Adapter for NB	DELL	AA90PM111	DoC	-
5	PoE	EnGenius	EPA5006GP	-	-

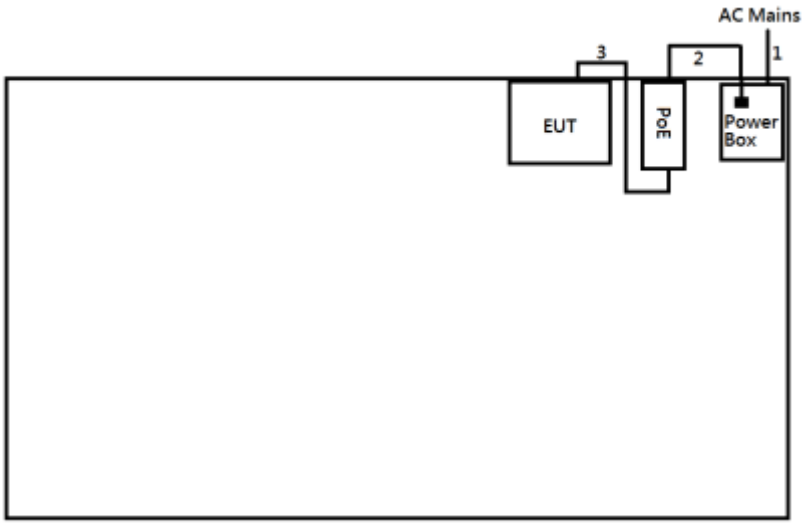
Note 1: Support equipment No. 5 was provided by customer.

Support Equipment – Radiated					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	RJ45 Cable	Power Sync	CAT-6E-10	-	-
2	PoE	EnGenius	EPA5006GP	-	Remote
3	AC Power Cable	-	-	-	Remote

Note 1: Support equipment No. 2, 3 was provided by customer.

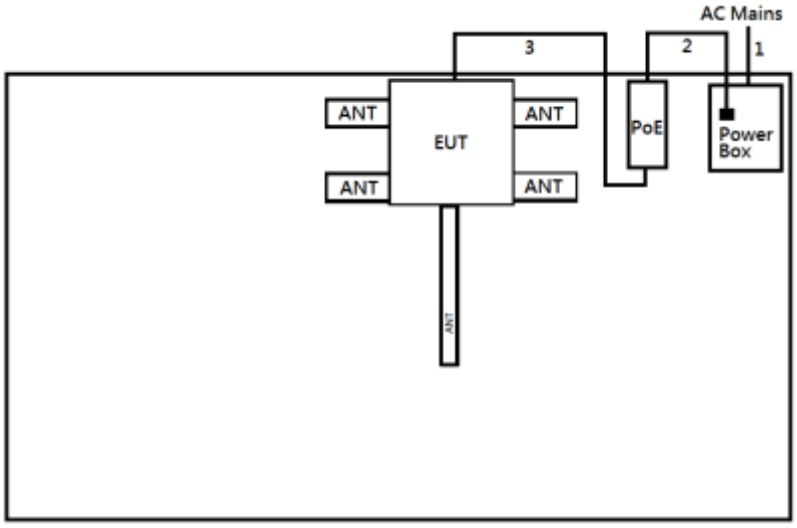
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test (Sample 1)



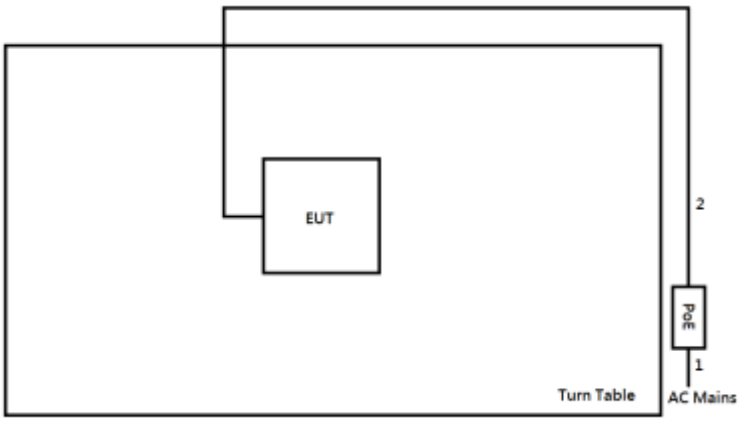
Item	Connection	Shielded	Length(m)
1	AC Power Cable	No	1.5
2	AC Power Cable	No	0.5
3	RJ45 Cable	No	10

Test Setup Diagram – AC Line Conducted Emission Test (Sample 2)



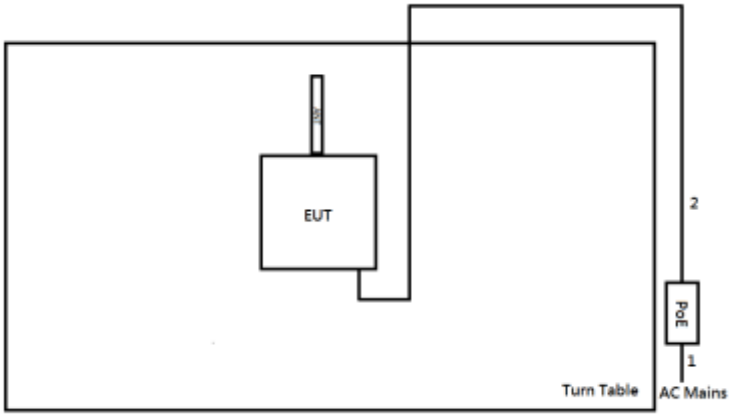
Item	Connection	Shielded	Length(m)
1	AC Power Cable	No	1.5
2	AC Power Cable	No	0.5
3	RJ45 Cable	No	10

Test Setup Diagram - Radiated Test (Sample 1)



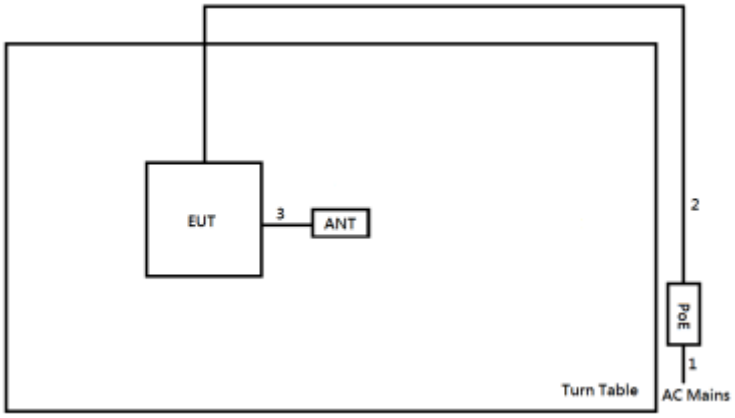
Item	Connection	Shielded	Length
1	AC Power Cable	No	0.5
2	RJ45 Cable	No	10

Test Setup Diagram - Radiated Test (Sample 2_Dipole Antenna)



Item	Connection	Shielded	Length
1	AC Power Cable	No	0.5
2	RJ45 Cable	No	10

Test Setup Diagram - Radiated Test (Sample 2_Panel 1 Antenna)



Item	Connection	Shielded	Length
1	AC Power Cable	No	0.5
2	RJ45 Cable	No	10
3	Antenna Cable	No	0.3

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

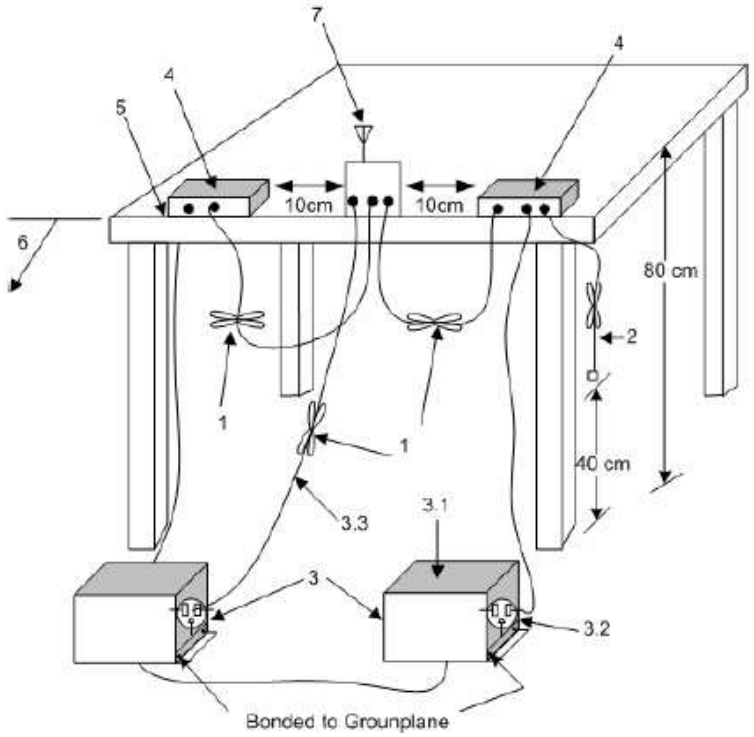
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



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

3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

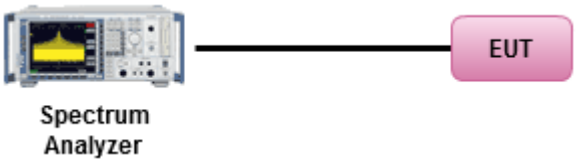
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as KDB 558074, clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
	☐ Refer as RSS-Gen, clause 6.7 for for occupied bandwidth testing.
	☐ Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit			
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)		
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)$ dBm		
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm		
	▪ Smart antenna system (SAS):		
		- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm	
		- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm	
		- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3 + 8$dB dBm	
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): $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX}])$ dBm		
	▪ Smart antenna system (SAS)		
		- Single beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm	
		- Overlap beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm	
		- Aggregate power on all beams: $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX} + 8])$ 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: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

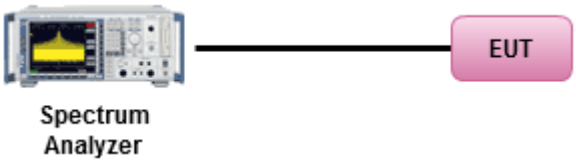
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).		
	☒ Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Method PKPSD.	
▪ 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

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (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.	

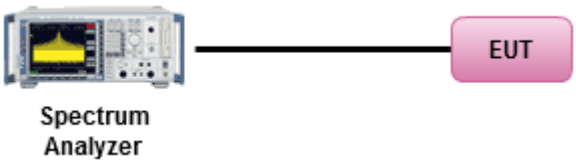
3.5.2 Measuring Instruments

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

Emissions in Non-restricted Frequency Bands


3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

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

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

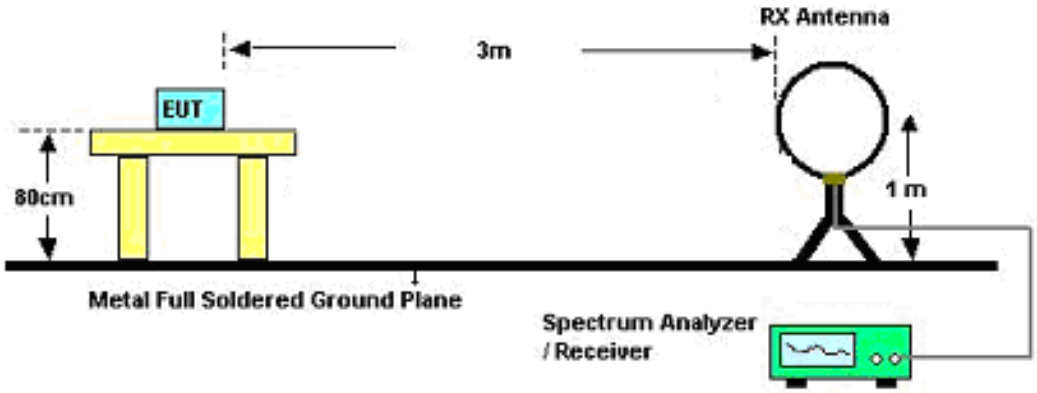
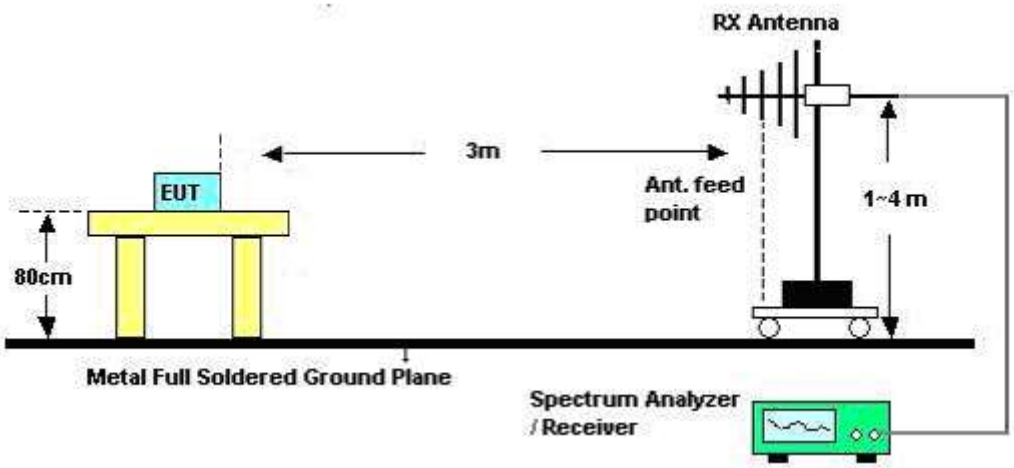
3.6.2 Measuring Instruments

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

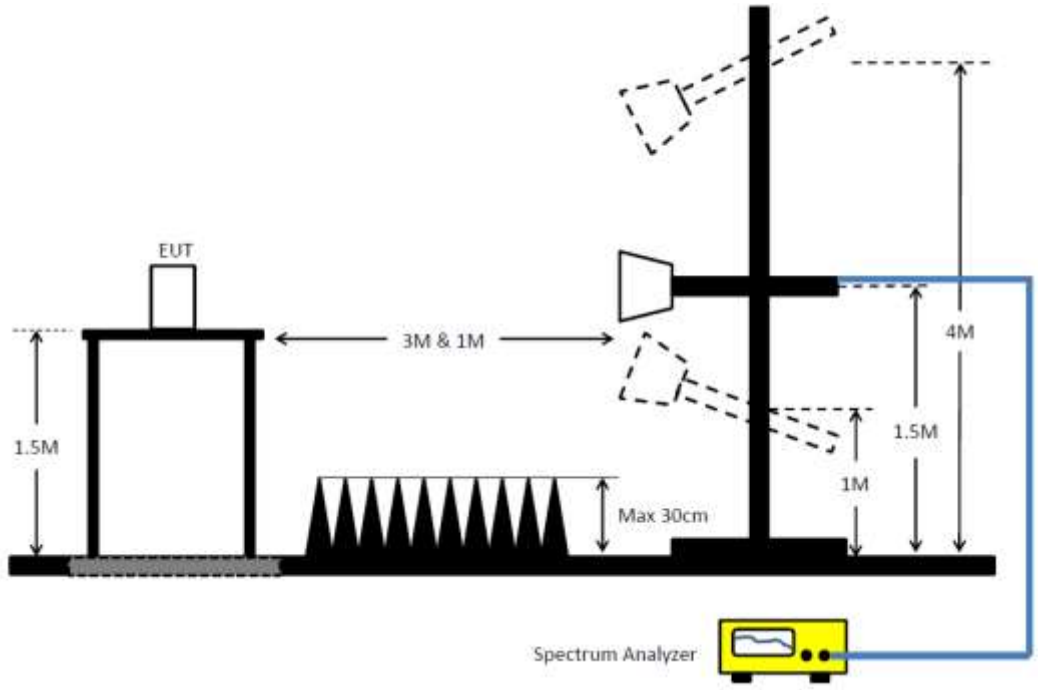
3.6.3 Test Procedures

Test Method	
▪	The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
▪	Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
▪	For the transmitter unwanted emissions shall be measured using following options below:
	▪ Refer as 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 ≥ 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 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.6.5 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.

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	04/Nov/2019	05/Nov/2020
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	12/Sep/2019	11/Sep/2020
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	24/Sep/2019	23/Sep/2020

NCR: Non-Calibration Require

Instrument for Conducted Test

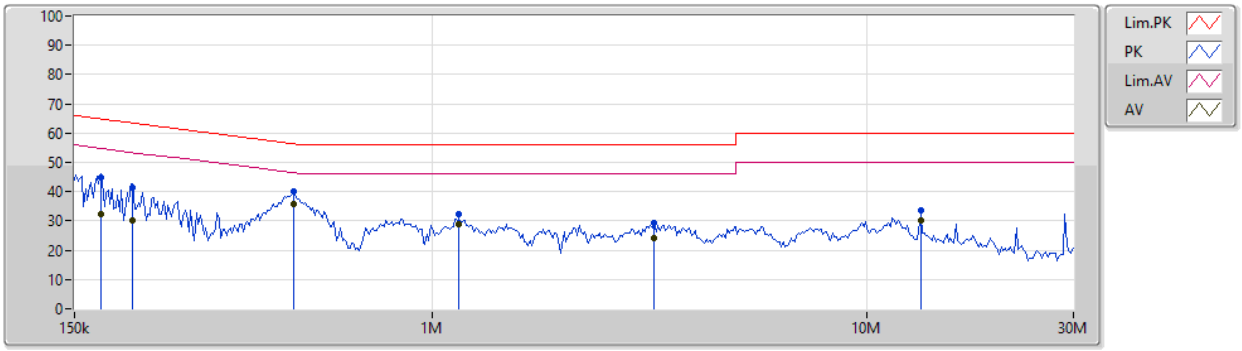
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Pulse Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	14/Mar/2019	13/Mar/2020
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	14/Mar/2019	13/Mar/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	29/Aug/2019	28/Aug/2020
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	29/Aug/2019	28/Aug/2020
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	02/Jul/2019	01/Jul/2020
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	16/Oct/2019	15/Oct/2020
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40 GHz	15/ Aug/2019	14/ Aug /2020
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	26/Mar/2019	25/Mar/2020
RF Cable-high 6m	SUHNER	SUCOFLEX104	10567868 / SN805193/4	1GHz~40GHz	09/Apr/2019	08/Apr/2020
RF Cable-high 7m	SUHNER	SUCOFLEX104	10567868 / SN805192/4	1GHz~40GHz	09/Apr/2019	08/Apr/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz ~ 1GHz	11/Oct/2019	10/Oct/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170339	18GHz ~ 40GHz	19/Apr/2019	18/Apr/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	05/Aug/2019	04/Aug/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 01543	1GHz ~ 18GHz	03/Jun/2019	02/Jun/2020

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Sample 1; PoE mode; BT LE TX		

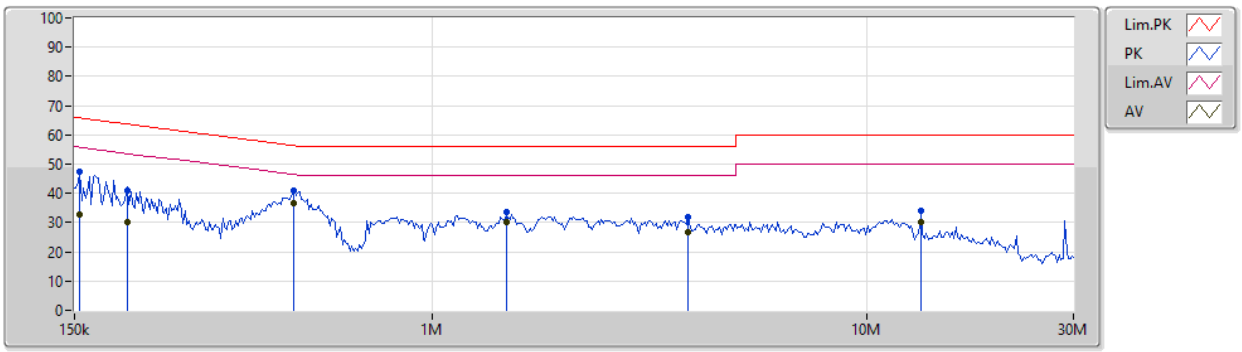
07/03/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	172.421k	44.93	64.83	-19.90	19.63	Neutral	-	25.30	9.65	0.11	9.87
AV	172.421k	32.23	54.83	-22.60	19.63	Neutral	-	12.60	9.65	0.11	9.87
QP	204.199k	41.31	63.44	-22.13	19.62	Neutral	-	21.69	9.64	0.11	9.87
AV	204.199k	30.28	53.44	-23.16	19.62	Neutral	-	10.66	9.64	0.11	9.87
QP	480.498k	40.18	56.33	-16.15	19.63	Neutral	-	20.55	9.63	0.13	9.87
AV	480.498k	35.59	46.33	-10.74	19.63	Neutral	"Worst"	15.96	9.63	0.13	9.87
QP	1.153M	32.17	56.00	-23.83	19.63	Neutral	-	12.54	9.63	0.12	9.88
AV	1.153M	28.91	46.00	-17.09	19.63	Neutral	-	9.28	9.63	0.12	9.88
QP	3.246M	29.30	56.00	-26.70	19.72	Neutral	-	9.58	9.66	0.18	9.88
AV	3.246M	24.10	46.00	-21.90	19.72	Neutral	-	4.38	9.66	0.18	9.88
QP	13.336M	33.54	60.00	-26.46	19.89	Neutral	-	13.65	9.71	0.30	9.88
AV	13.336M	30.06	50.00	-19.94	19.89	Neutral	-	10.17	9.71	0.30	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Sample 1; PoE mode; BT LE TX		

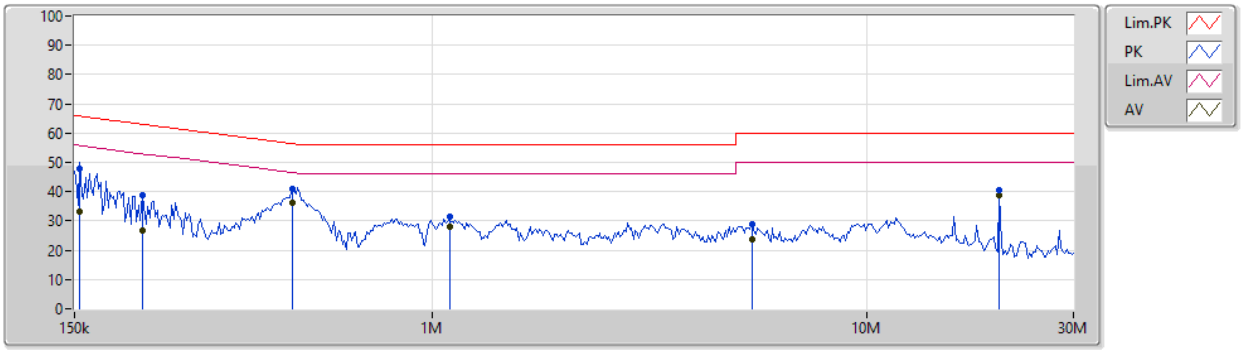
07/03/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.545k	47.39	65.75	-18.36	19.64	Line	-	27.75	9.66	0.11	9.87
AV	154.545k	32.90	55.75	-22.85	19.64	Line	-	13.26	9.66	0.11	9.87
QP	198.194k	41.00	63.69	-22.69	19.63	Line	-	21.37	9.65	0.11	9.87
AV	198.194k	29.97	53.69	-23.72	19.63	Line	-	10.34	9.65	0.11	9.87
QP	480.498k	41.14	56.33	-15.19	19.64	Line	-	21.50	9.64	0.13	9.87
AV	480.498k	36.43	46.33	-9.90	19.64	Line	"Worst"	16.79	9.64	0.13	9.87
QP	1.479M	33.53	56.00	-22.47	19.65	Line	-	13.88	9.65	0.13	9.87
AV	1.479M	29.97	46.00	-16.03	19.65	Line	-	10.32	9.65	0.13	9.87
QP	3.883M	32.00	56.00	-24.00	19.73	Line	-	12.27	9.66	0.19	9.88
AV	3.883M	26.74	46.00	-19.26	19.73	Line	-	7.01	9.66	0.19	9.88
QP	13.336M	33.96	60.00	-26.04	19.85	Line	-	14.11	9.67	0.30	9.88
AV	13.336M	30.36	50.00	-19.64	19.85	Line	-	10.51	9.67	0.30	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Neutral
Operating Function	Sample 2; PoE mode; BT LE TX		

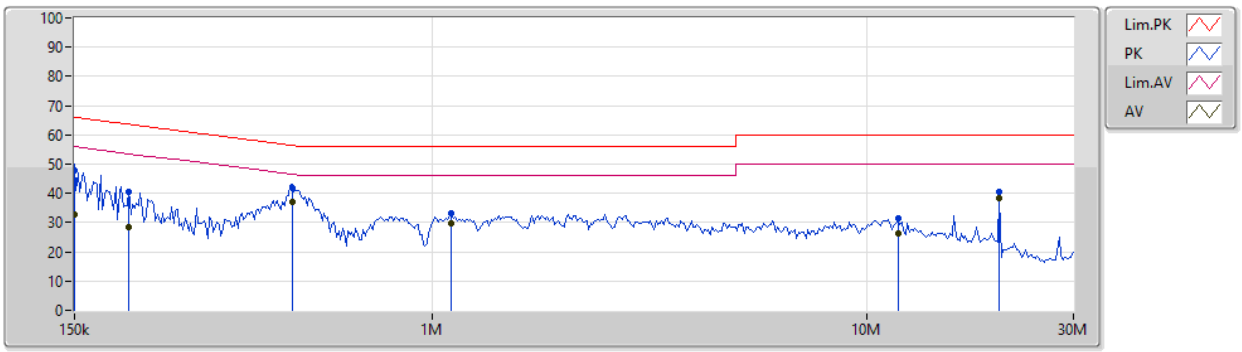
07/03/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.545k	47.73	65.75	-18.02	19.63	Neutral	-	28.10	9.65	0.11	9.87
AV	154.545k	33.29	55.75	-22.46	19.63	Neutral	-	13.66	9.65	0.11	9.87
QP	214.615k	38.89	63.02	-24.13	19.62	Neutral	-	19.27	9.64	0.11	9.87
AV	214.615k	26.82	53.02	-26.20	19.62	Neutral	-	7.20	9.64	0.11	9.87
QP	475.741k	41.00	56.42	-15.42	19.63	Neutral	-	21.37	9.63	0.13	9.87
AV	475.741k	36.39	46.42	-10.03	19.63	Neutral	"Worst"	16.76	9.63	0.13	9.87
QP	1.097M	31.34	56.00	-24.66	19.63	Neutral	-	11.71	9.63	0.12	9.88
AV	1.097M	27.83	46.00	-18.17	19.63	Neutral	-	8.20	9.63	0.12	9.88
QP	5.446M	28.96	60.00	-31.04	19.76	Neutral	-	9.20	9.67	0.21	9.88
AV	5.446M	23.62	50.00	-26.38	19.76	Neutral	-	3.86	9.67	0.21	9.88
QP	20.255M	40.65	60.00	-19.35	19.97	Neutral	-	20.68	9.72	0.36	9.89
AV	20.255M	38.65	50.00	-11.35	19.97	Neutral	-	18.68	9.72	0.36	9.89

AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Line
Operating Function	Sample 2; PoE mode; BT LE TX		

07/03/2020



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150k	47.79	66.00	-18.21	19.64	Line	-	28.15	9.66	0.11	9.87
AV	150k	32.69	56.00	-23.31	19.64	Line	-	13.05	9.66	0.11	9.87
QP	200.176k	40.61	63.61	-23.00	19.63	Line	-	20.98	9.65	0.11	9.87
AV	200.176k	28.51	53.61	-25.10	19.63	Line	-	8.88	9.65	0.11	9.87
QP	475.741k	41.92	56.42	-14.50	19.64	Line	-	22.28	9.64	0.13	9.87
AV	475.741k	37.05	46.42	-9.37	19.64	Line	"Worst"	17.41	9.64	0.13	9.87
QP	1.108M	33.30	56.00	-22.70	19.64	Line	-	13.66	9.64	0.12	9.88
AV	1.108M	29.88	46.00	-16.12	19.64	Line	-	10.24	9.64	0.12	9.88
QP	11.835M	31.46	60.00	-28.54	19.85	Line	-	11.61	9.68	0.29	9.88
AV	11.835M	26.42	50.00	-23.58	19.85	Line	-	6.57	9.68	0.29	9.88
QP	20.255M	40.51	60.00	-19.49	19.89	Line	-	20.62	9.64	0.36	9.89
AV	20.255M	38.49	50.00	-11.51	19.89	Line	-	18.60	9.64	0.36	9.89

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)	693.75k	1.028M	1M03F1D	691.25k	1.028M

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

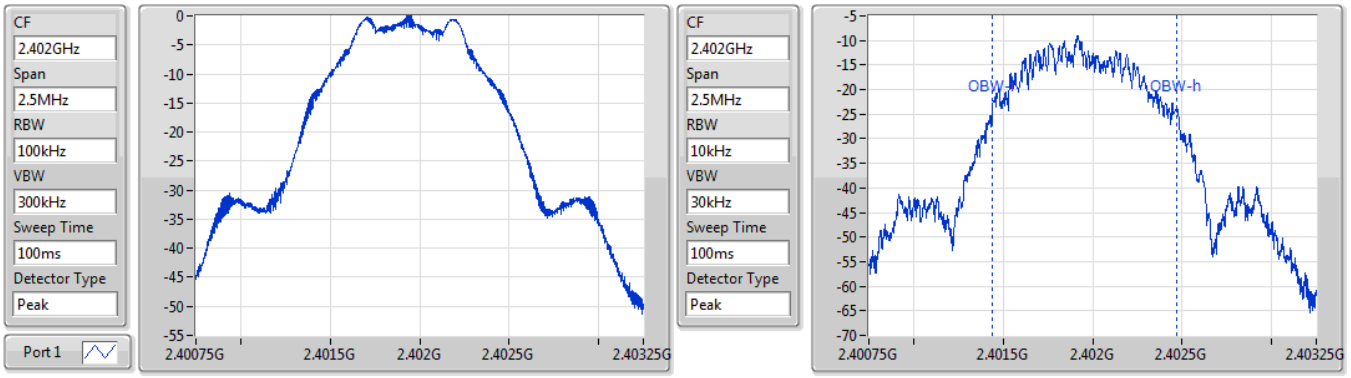
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	693.75k	1.028M
2440MHz	Pass	500k	693.75k	1.028M
2480MHz	Pass	500k	691.25k	1.028M

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

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

2402MHz

11/02/2020

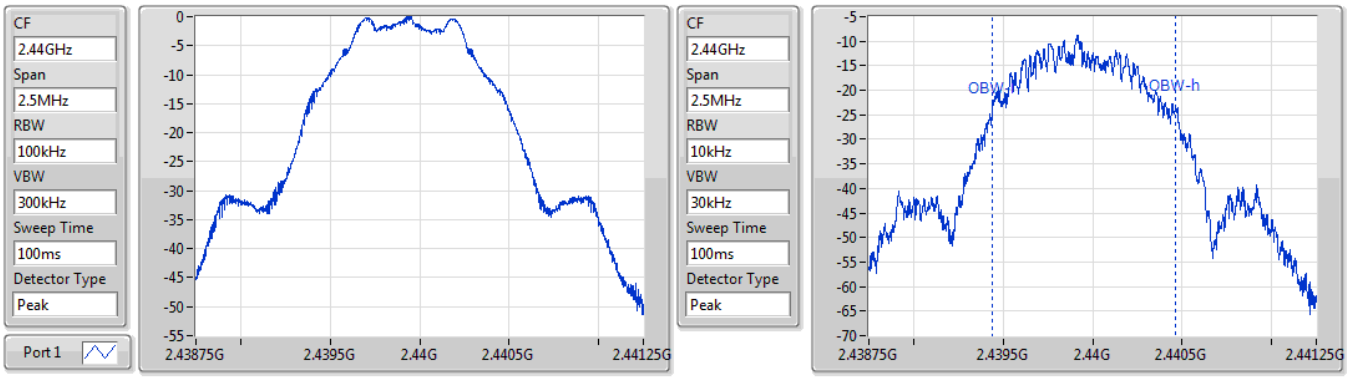


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
693.75k	2.40159G	2.402284G	1.028M	2.401439G	2.402467G	500k	1

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

2440MHz

11/02/2020

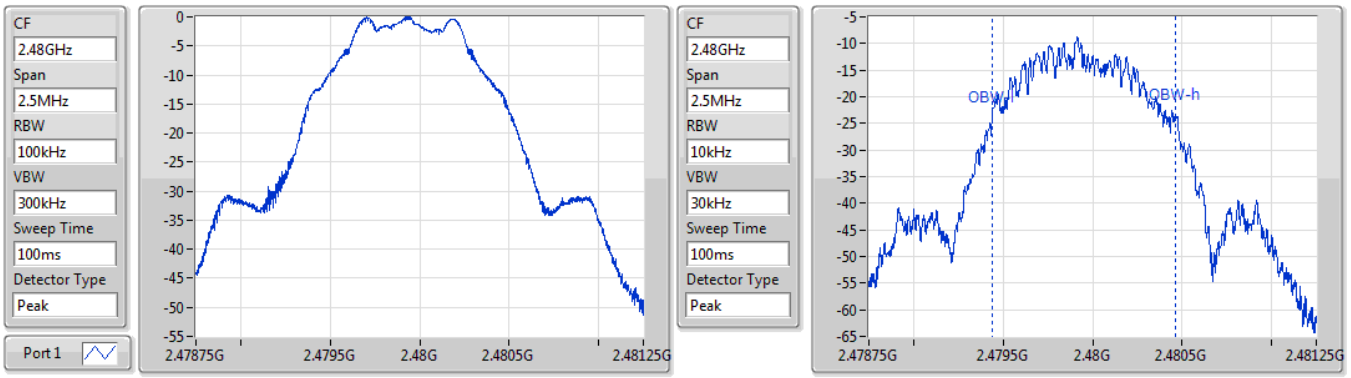


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
693.75k	2.439588G	2.440281G	1.028M	2.439438G	2.440466G	500k	1

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

2480MHz

11/02/2020



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
691.25k	2.47959G	2.480281G	1.028M	2.479437G	2.480465G	500k	1

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)	693.75k	1.029M	1M03F1D	677.5k	1.027M

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

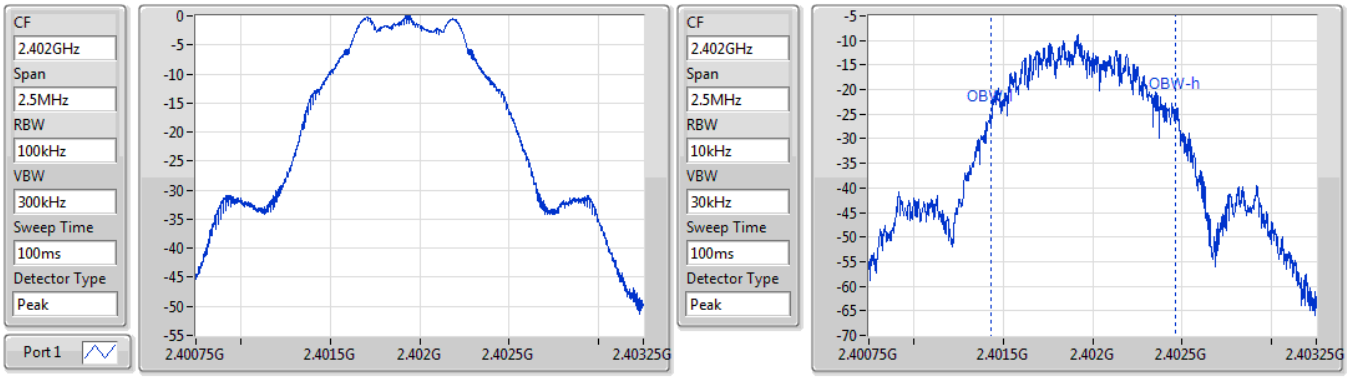
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	693.75k	1.029M
2440MHz	Pass	500k	691.25k	1.028M
2480MHz	Pass	500k	677.5k	1.027M

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

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

2402MHz

11/02/2020

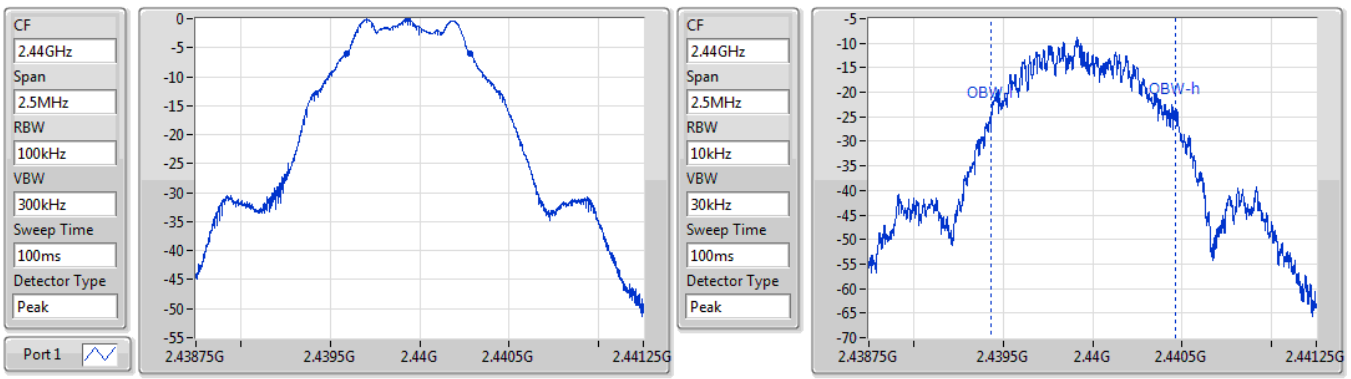


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
693.75k	2.401591G	2.402285G	1.029M	2.401435G	2.402465G	500k	1

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

2440MHz

11/02/2020

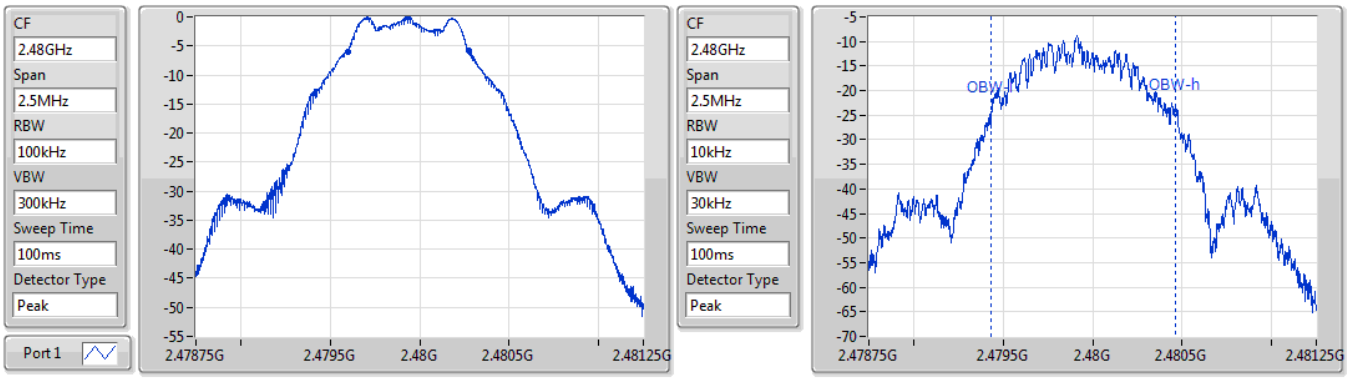


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
691.25k	2.439591G	2.440283G	1.028M	2.439435G	2.440464G	500k	1

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

2480MHz

11/02/2020



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
677.5k	2.479599G	2.480276G	1.027M	2.479435G	2.480462G	500k	1

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)	693.75k	1.029M	1M03F1D	677.5k	1.027M

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

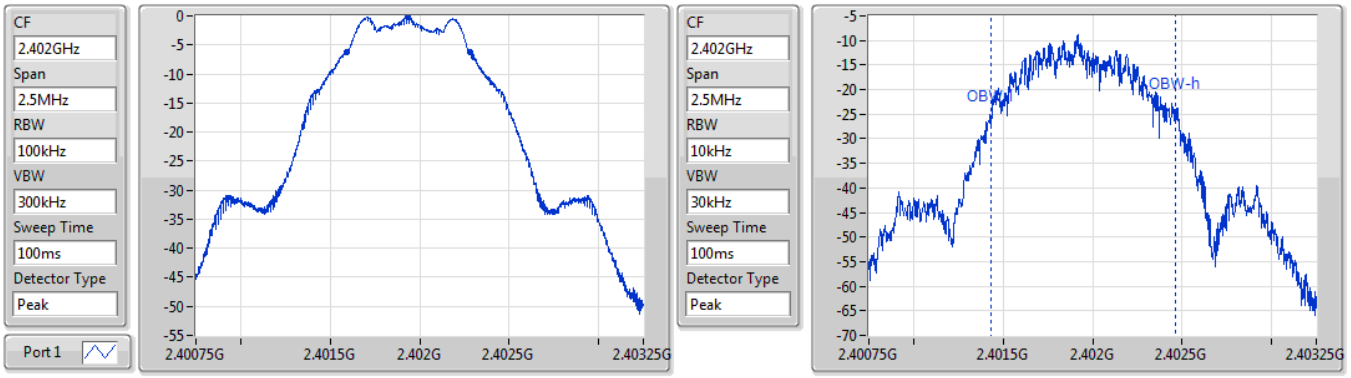
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	693.75k	1.029M
2440MHz	Pass	500k	691.25k	1.028M
2480MHz	Pass	500k	677.5k	1.027M

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

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

2402MHz

11/02/2020

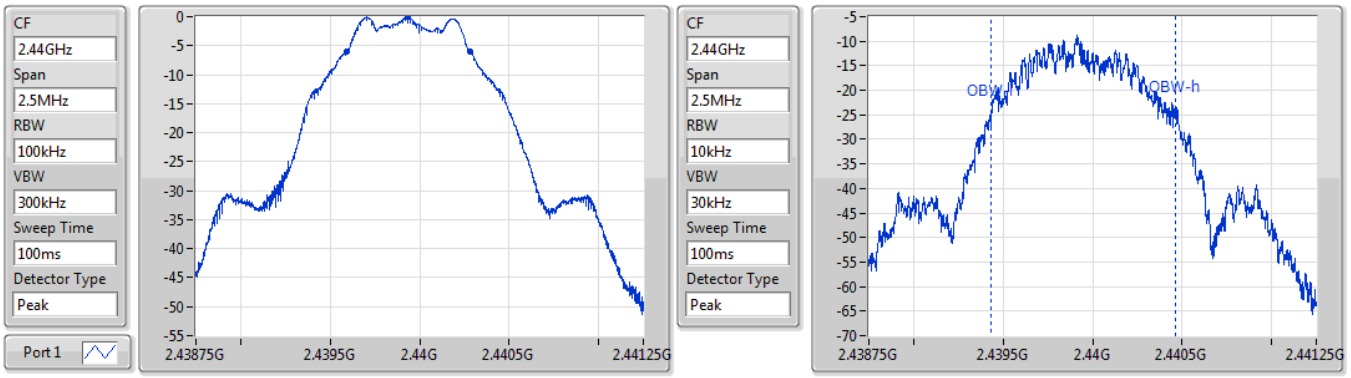


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
693.75k	2.401591G	2.402285G	1.029M	2.401435G	2.402465G	500k	1

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

2440MHz

11/02/2020

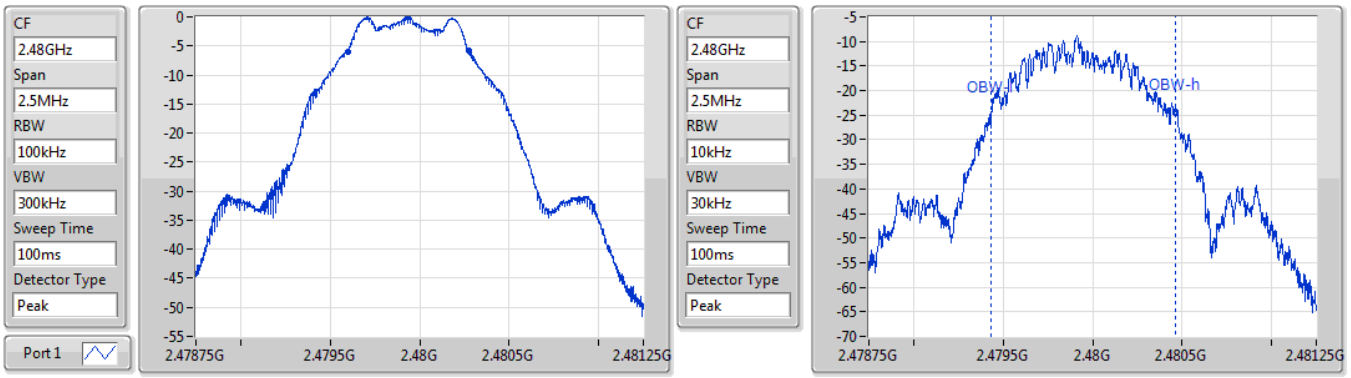


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
691.25k	2.439591G	2.440283G	1.028M	2.439435G	2.440464G	500k	1

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

2480MHz

11/02/2020



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
677.5k	2.479599G	2.480276G	1.027M	2.479435G	2.480462G	500k	1

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	1.24	0.00133

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.99	0.93	30.00
2440MHz	Pass	4.99	1.12	30.00
2480MHz	Pass	4.99	1.24	30.00

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

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	1.22	0.00132

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	8.00	0.94	28.00
2440MHz	Pass	8.00	1.04	28.00
2480MHz	Pass	8.00	1.22	28.00

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

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	1.22	0.00132

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	7.80	0.94	28.20
2440MHz	Pass	7.80	1.04	28.20
2480MHz	Pass	7.80	1.22	28.20

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-14.22

RBW=3 kHz.

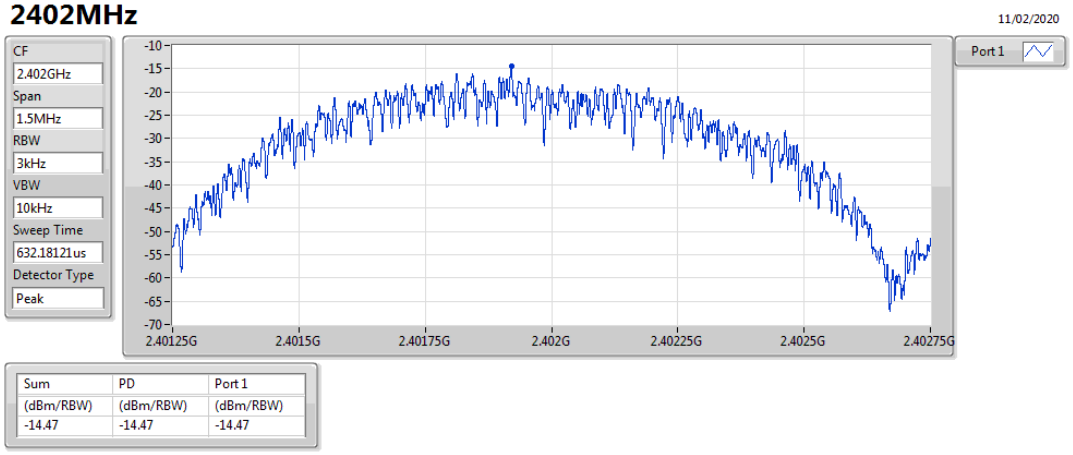
Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.99	-14.47	8.00
2440MHz	Pass	4.99	-14.24	8.00
2480MHz	Pass	4.99	-14.22	8.00

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

BT-LE(1Mbps) **PSD**

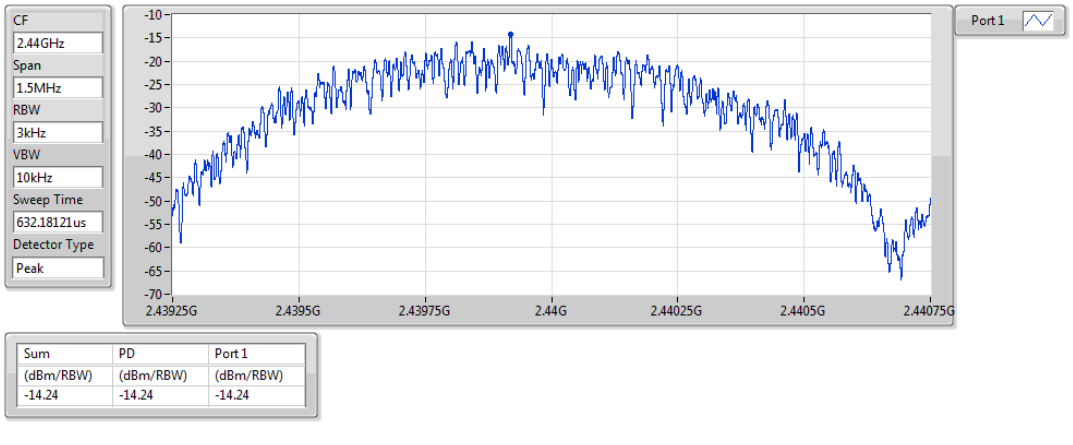
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.47	-14.47	-14.47

BT-LE(1Mbps) **PSD**

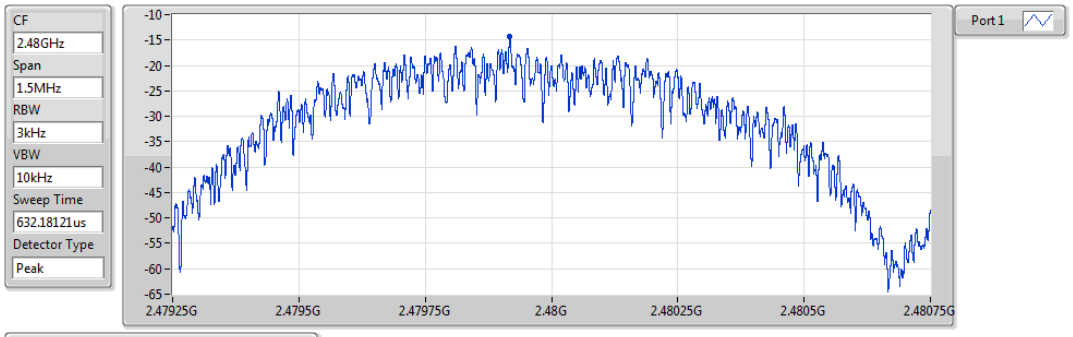
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.24	-14.24	-14.24

BT-LE(1Mbps) **PSD**

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.22	-14.22	-14.22

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-14.15

RBW=3 kHz.

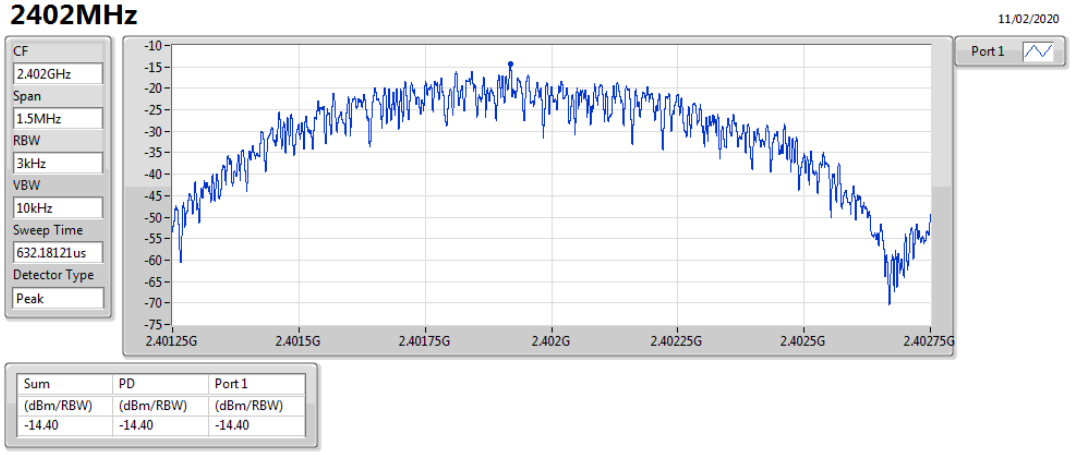
Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	8.00	-14.40	6.00
2440MHz	Pass	8.00	-14.15	6.00
2480MHz	Pass	8.00	-14.35	6.00

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

BT-LE(1Mbps) **PSD**

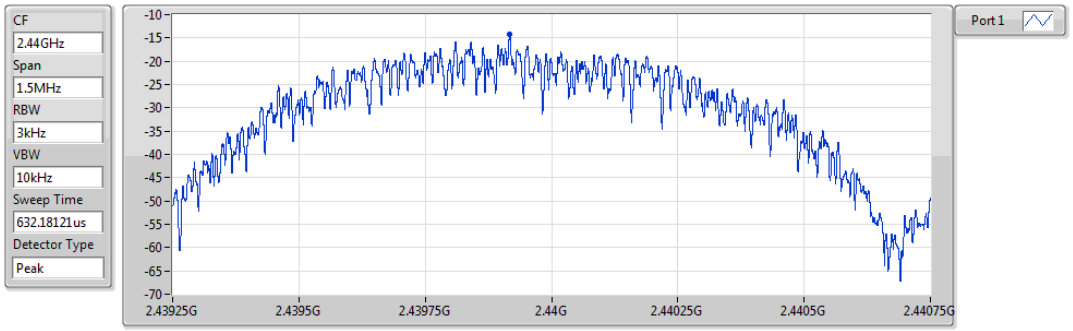
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.40	-14.40	-14.40

BT-LE(1Mbps) **PSD**

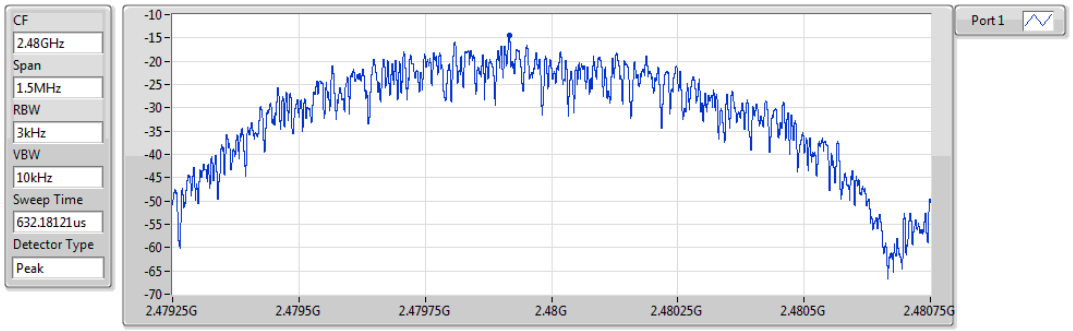
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.15	-14.15	-14.15

BT-LE(1Mbps) **PSD**

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.35	-14.35	-14.35

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-14.15

RBW=3 kHz.

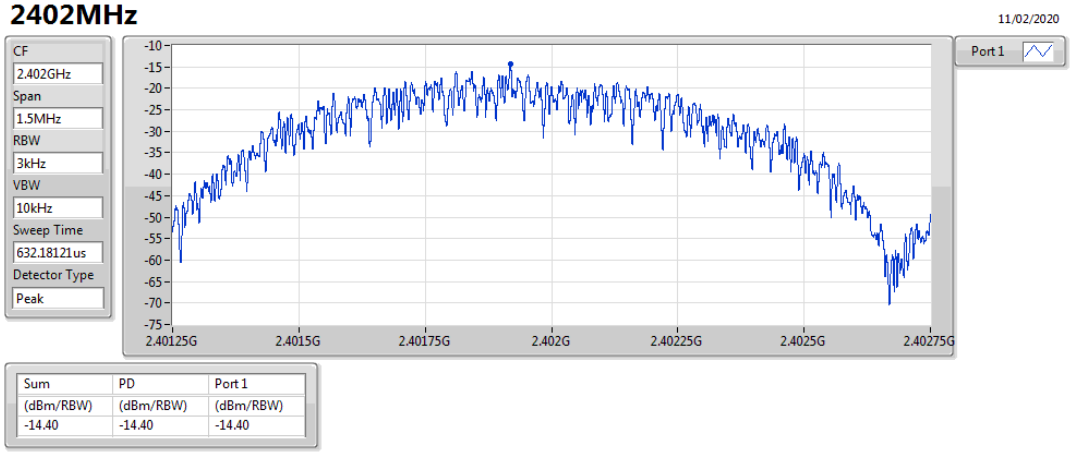
Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	7.80	-14.40	6.20
2440MHz	Pass	7.80	-14.15	6.20
2480MHz	Pass	7.80	-14.35	6.20

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

BT-LE(1Mbps) **PSD**

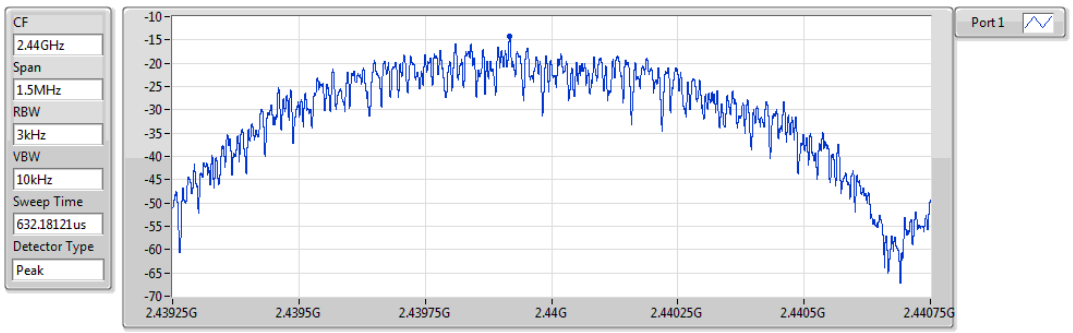
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.40	-14.40	-14.40

BT-LE(1Mbps) **PSD**

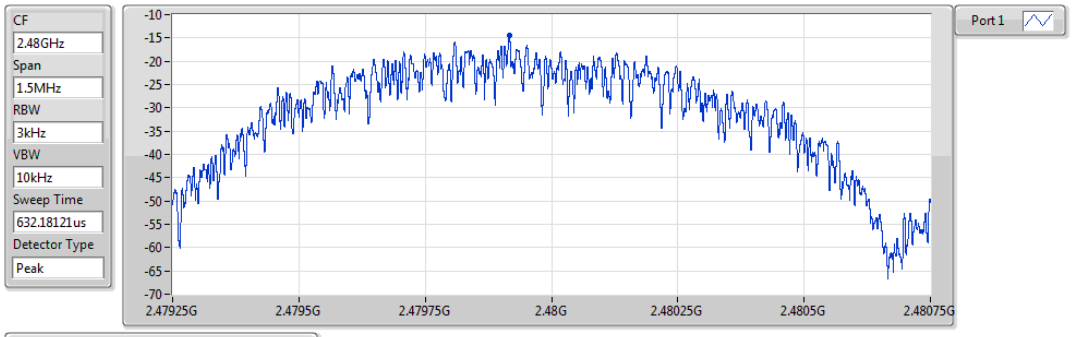
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.15	-14.15	-14.15

BT-LE(1Mbps) **PSD**

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.35	-14.35	-14.35

Summary

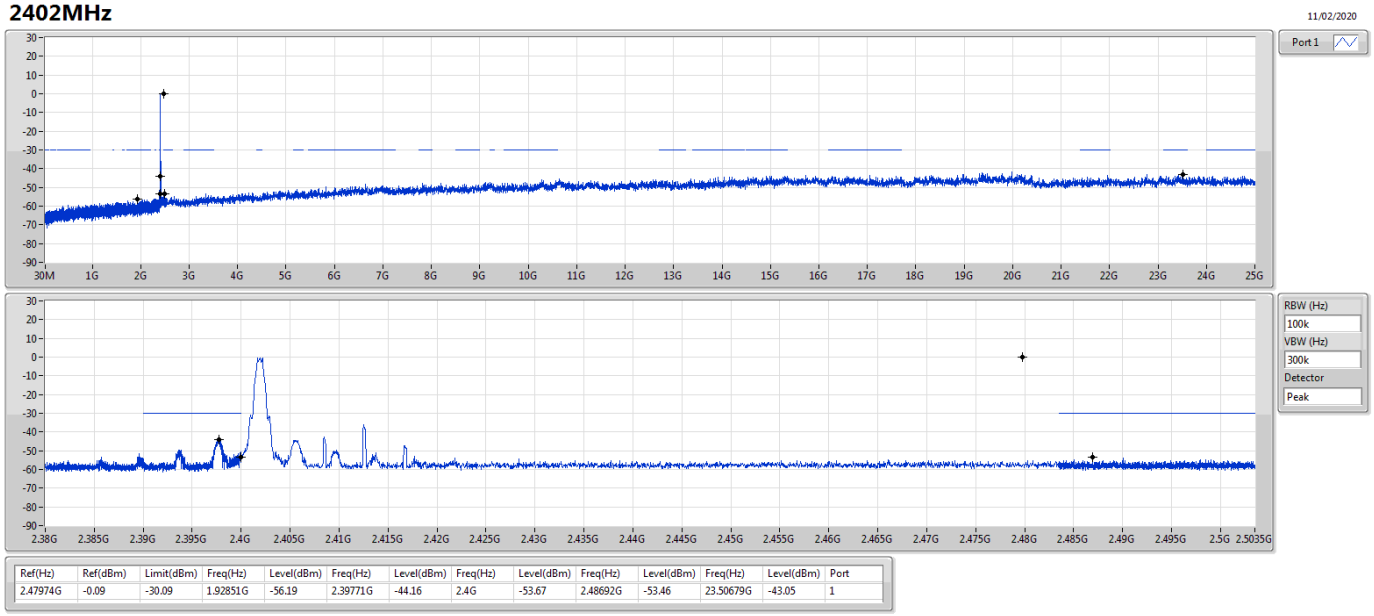
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.47974G	-0.09	-30.09	2.19112G	-56.05	2.39035G	-55.22	2.4835G	-43.54	2.48376G	-43.17	23.40275G	-42.77	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	2.47974G	-0.09	-30.09	1.92851G	-56.19	2.39771G	-44.16	2.4G	-53.67	2.48692G	-53.46	23.50679G	-43.05	1
2440MHz	Pass	2.47974G	-0.09	-30.09	1.80425G	-55.95	2.39627G	-54.74	2.4G	-58.66	2.49401G	-54.81	17.67458G	-42.58	1
2480MHz	Pass	2.47974G	-0.09	-30.09	2.19112G	-56.05	2.39035G	-55.22	2.4835G	-43.54	2.48376G	-43.17	23.40275G	-42.77	1

BT-LE(1Mbps) **CSE NdB**

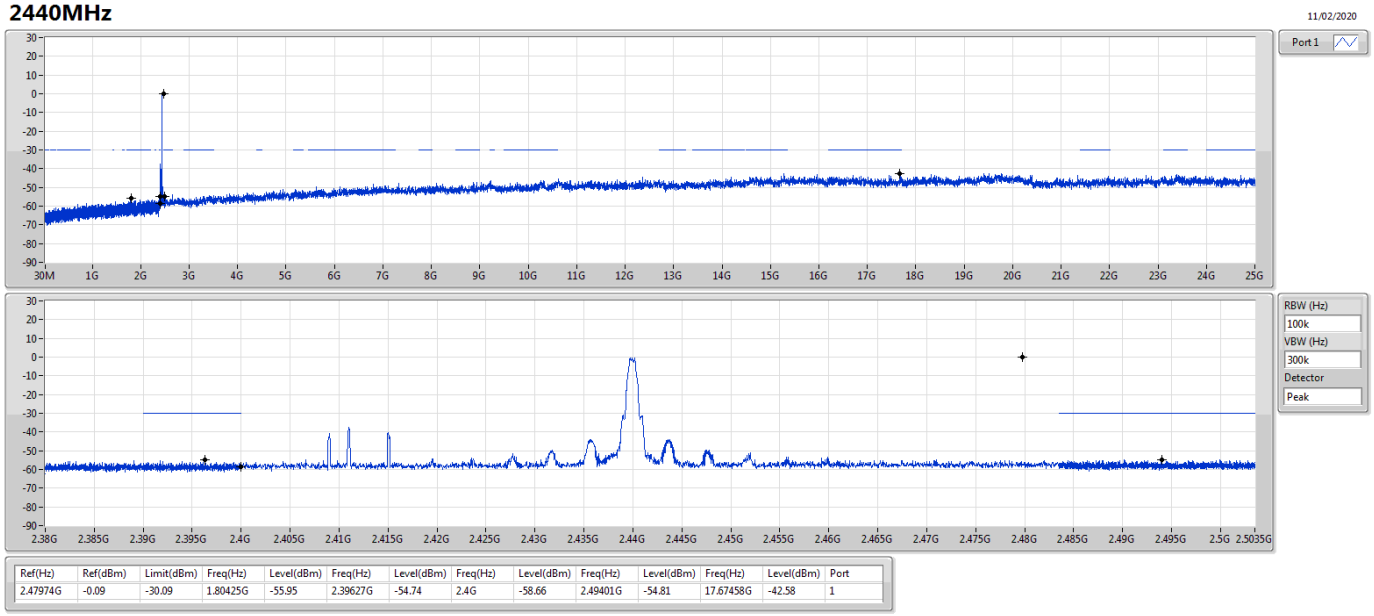
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47974G	-0.09	-30.09	1.92851G	-56.19	2.39771G	-44.16	2.4G	-53.67	2.48692G	-53.46	23.50679G	-43.05	1

BT-LE(1Mbps) **CSE NdB**

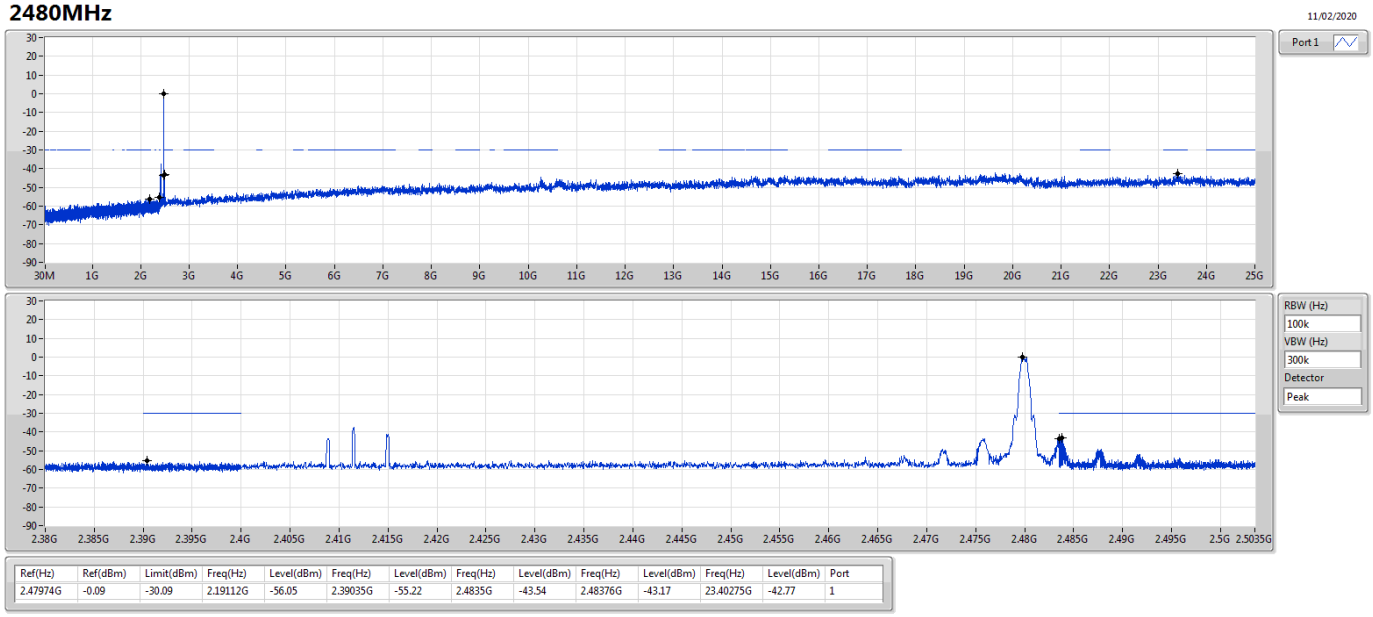
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47974G	-0.09	-30.09	1.80425G	-55.95	2.39627G	-54.74	2.4G	-58.66	2.49401G	-54.81	17.67458G	-42.58	1

BT-LE(1Mbps) **CSE NdB**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47974G	-0.09	-30.09	2.19112G	-56.05	2.39035G	-55.22	2.4835G	-43.54	2.48376G	-43.17	23.40275G	-42.77	1

Summary

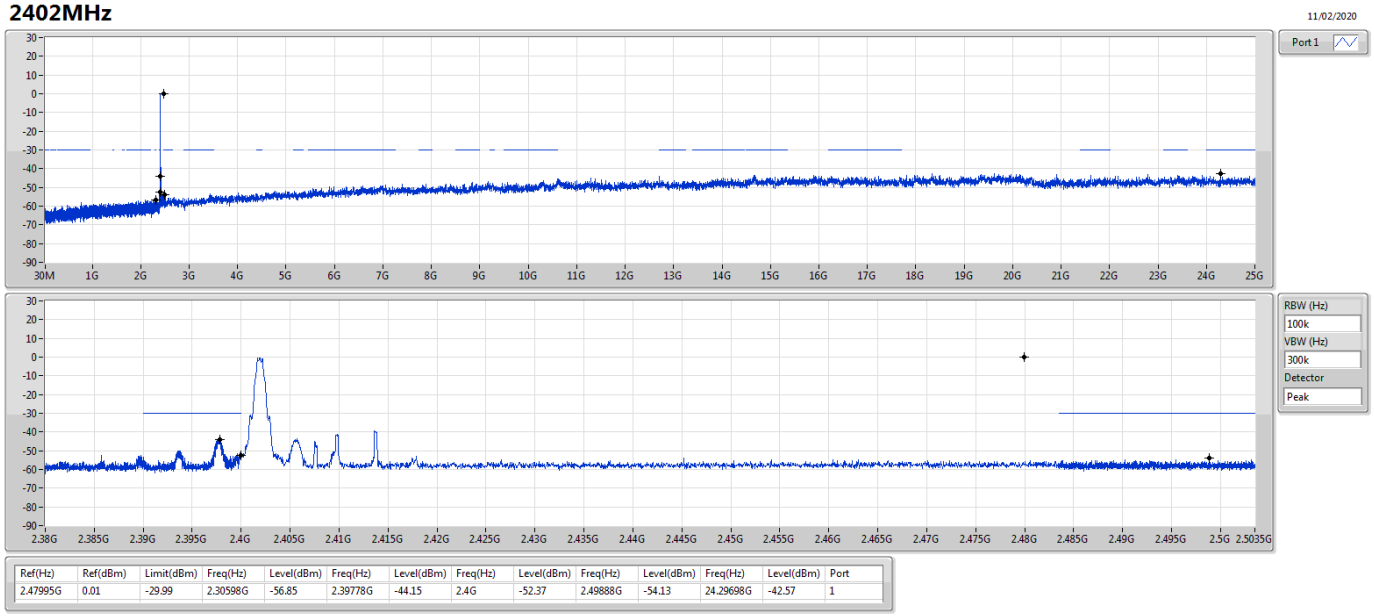
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.47995G	0.01	-29.99	2.14177G	-56.44	2.39789G	-55.04	2.4835G	-45.06	2.48371G	-43.77	14.99187G	-42.81	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.47995G	0.01	-29.99	2.30598G	-56.85	2.39778G	-44.15	2.4G	-52.37	2.49888G	-54.13	24.29698G	-42.57	1
2440MHz	Pass	2.47995G	0.01	-29.99	2.13854G	-56.70	2.39937G	-55.42	2.4835G	-57.68	2.4861G	-54.30	16.76347G	-43.04	1
2480MHz	Pass	2.47995G	0.01	-29.99	2.14177G	-56.44	2.39789G	-55.04	2.4835G	-45.06	2.48371G	-43.77	14.99187G	-42.81	1

BT-LE(1Mbps) **CSE NdB**

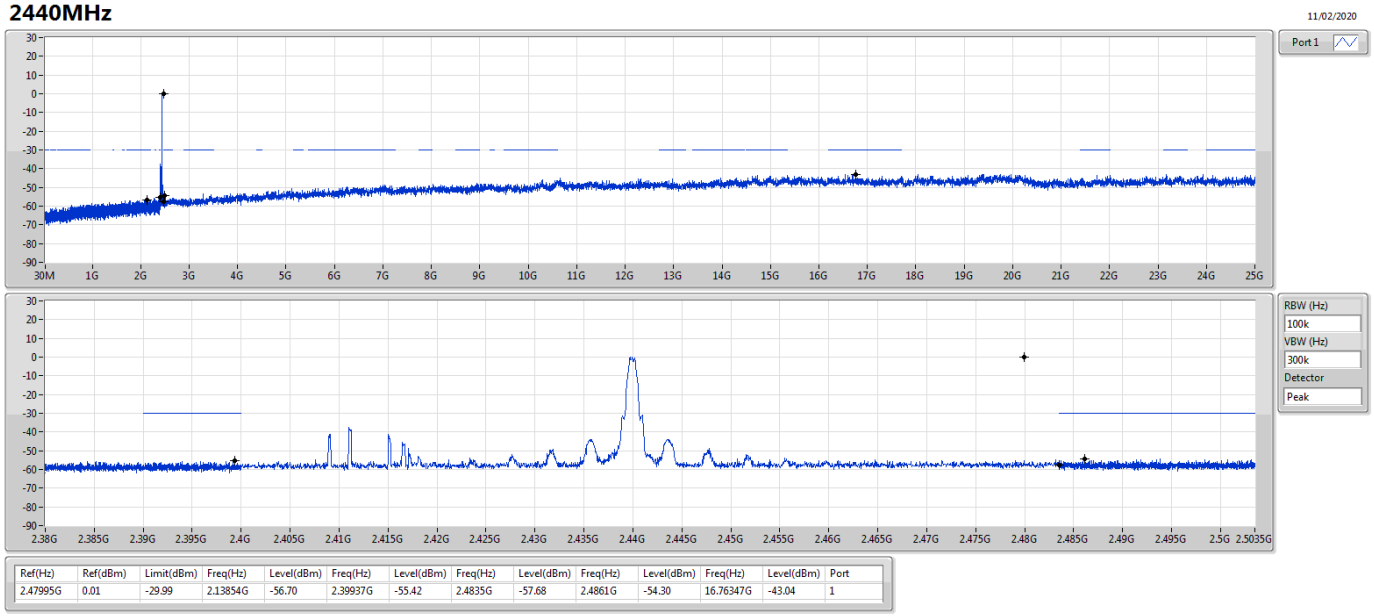
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47995G	0.01	-29.99	2.30598G	-56.85	2.39778G	-44.15	2.4G	-52.37	2.49888G	-54.13	24.29698G	-42.57	1

BT-LE(1Mbps) **CSE NdB**

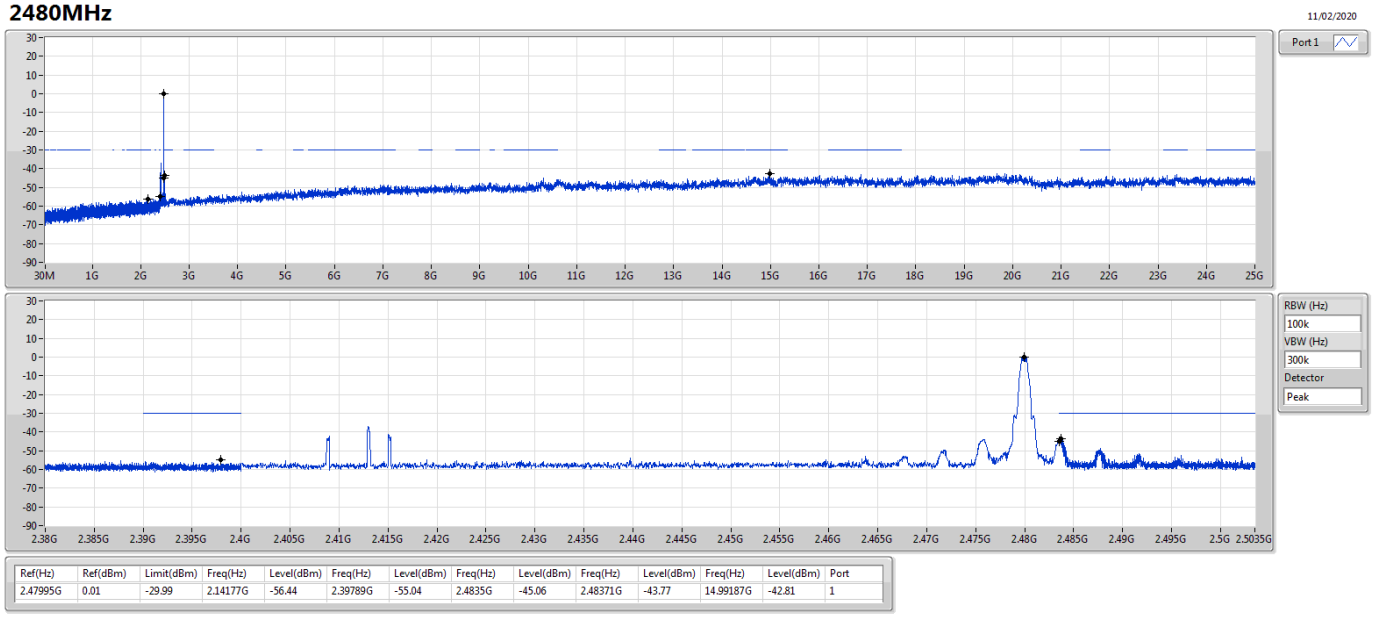
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47995G	0.01	-29.99	2.13854G	-56.70	2.39937G	-55.42	2.4835G	-57.68	2.4861G	-54.30	16.76347G	-43.04	1

BT-LE(1Mbps) **CSE NdB**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47995G	0.01	-29.99	2.14177G	-56.44	2.39789G	-55.04	2.4835G	-45.06	2.48371G	-43.77	14.99187G	-42.81	1

Summary

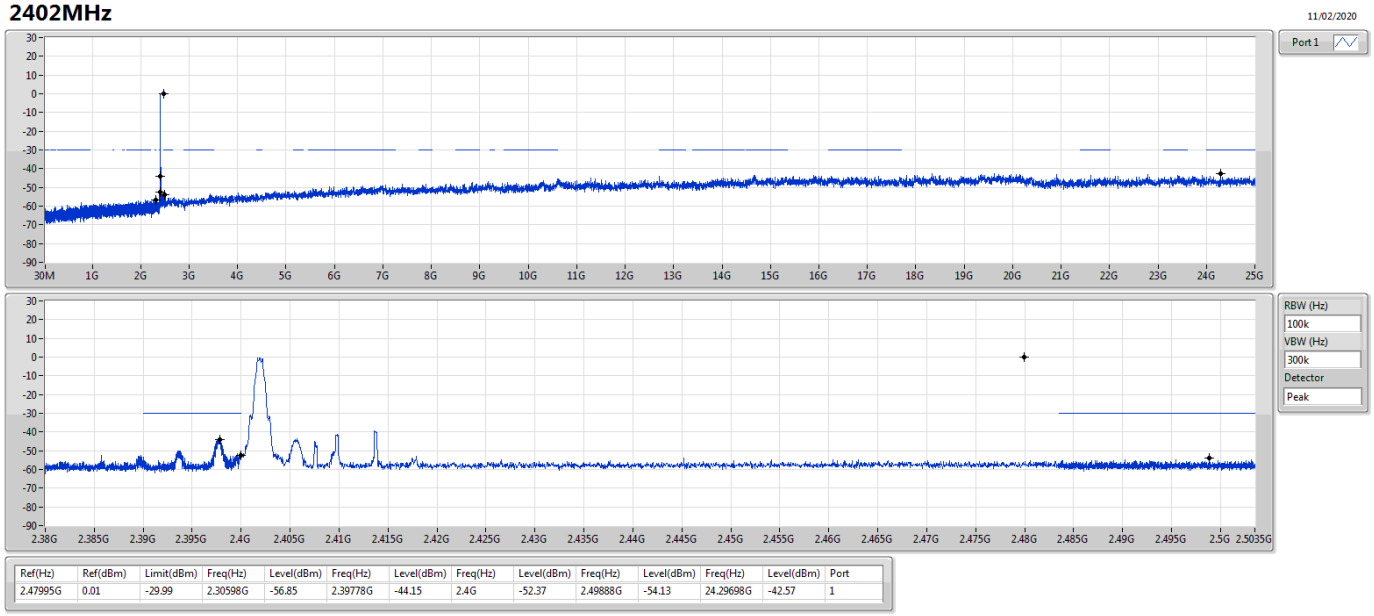
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.47995G	0.01	-29.99	2.14177G	-56.44	2.39789G	-55.04	2.4835G	-45.06	2.48371G	-43.77	14.99187G	-42.81	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.47995G	0.01	-29.99	2.30598G	-56.85	2.39778G	-44.15	2.4G	-52.37	2.49888G	-54.13	24.29698G	-42.57	1
2440MHz	Pass	2.47995G	0.01	-29.99	2.13854G	-56.70	2.39937G	-55.42	2.4835G	-57.68	2.4861G	-54.30	16.76347G	-43.04	1
2480MHz	Pass	2.47995G	0.01	-29.99	2.14177G	-56.44	2.39789G	-55.04	2.4835G	-45.06	2.48371G	-43.77	14.99187G	-42.81	1

BT-LE(1Mbps) **CSE NdB**

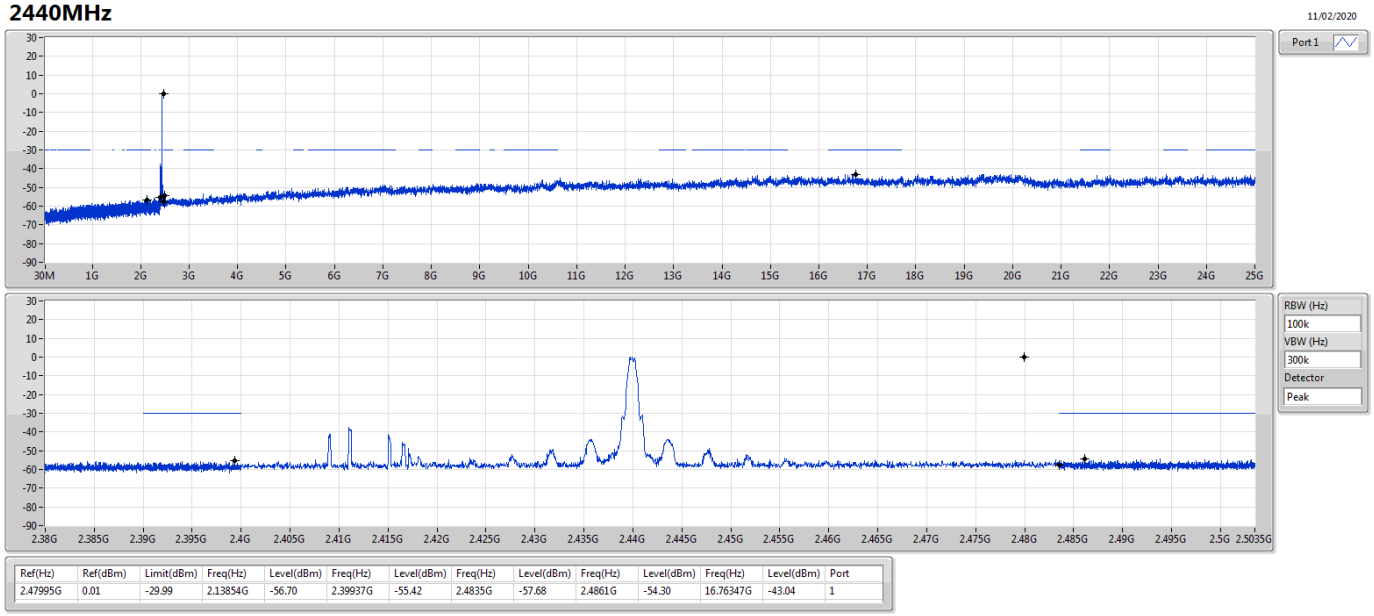
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47995G	0.01	-29.99	2.30598G	-56.85	2.39778G	-44.15	2.4G	-52.37	2.49888G	-54.13	24.29698G	-42.57	1

BT-LE(1Mbps) **CSE NdB**

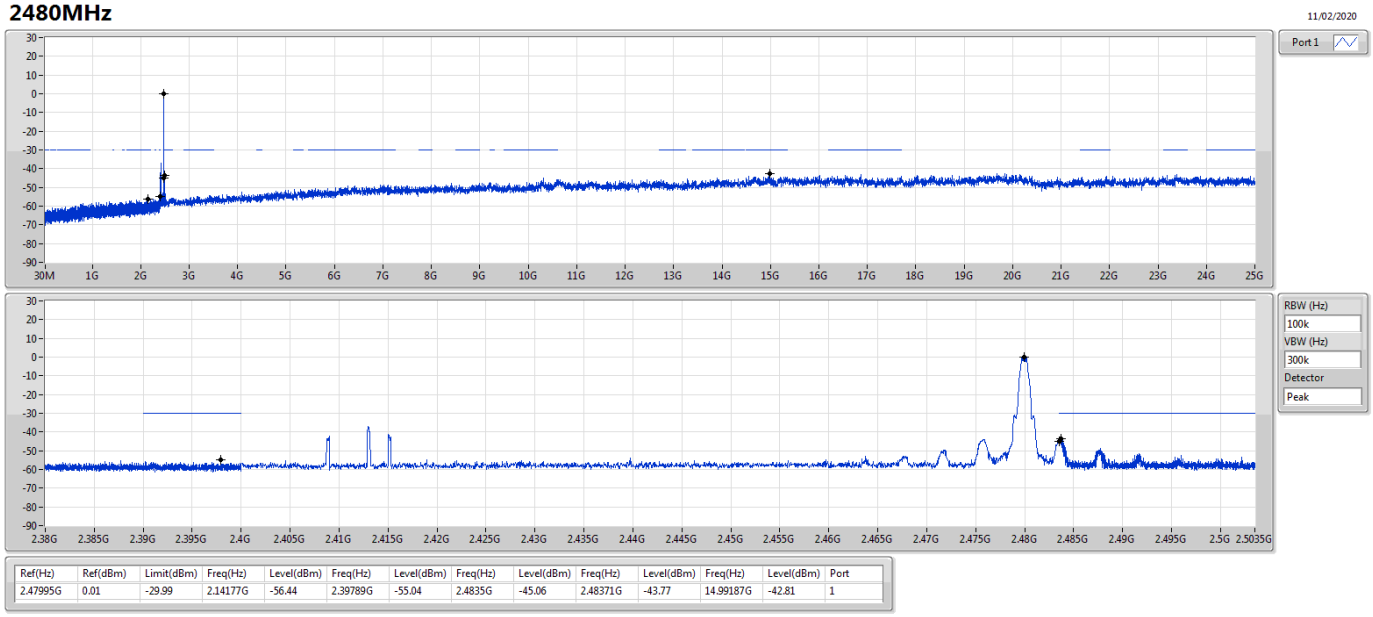
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47995G	0.01	-29.99	2.13854G	-56.70	2.39937G	-55.42	2.4835G	-57.68	2.4861G	-54.30	16.76347G	-43.04	1

BT-LE(1Mbps) **CSE NdB**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47995G	0.01	-29.99	2.14177G	-56.44	2.39789G	-55.04	2.4835G	-45.06	2.48371G	-43.77	14.99187G	-42.81	1

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	PK	499.48M	40.27	46.00	-5.73	3	Vertical	360	1.00	-

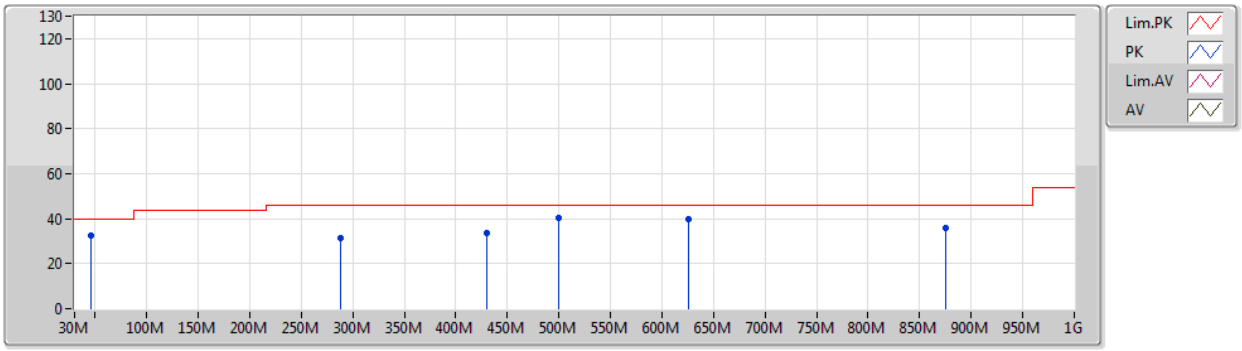
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	45.52M	32.60	40.00	-7.40	3	Vertical	360	1.00	-
2440MHz	Pass	PK	288.02M	31.53	46.00	-14.47	3	Vertical	360	1.00	-
2440MHz	Pass	PK	429.64M	33.49	46.00	-12.51	3	Vertical	360	1.00	-
2440MHz	Pass	PK	499.48M	40.27	46.00	-5.73	3	Vertical	360	1.00	-
2440MHz	Pass	PK	625.58M	39.68	46.00	-6.32	3	Vertical	360	1.00	-
2440MHz	Pass	PK	875.84M	35.83	46.00	-10.17	3	Vertical	360	1.00	-
2440MHz	Pass	PK	59.1M	30.99	40.00	-9.01	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	268.62M	38.25	46.00	-7.75	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	425.76M	33.75	46.00	-12.25	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	499.48M	37.15	46.00	-8.85	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	749.74M	37.16	46.00	-8.84	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	875.84M	38.91	46.00	-7.09	3	Horizontal	0	1.00	-

BT-LE(1Mbps)

2440MHz_PoE

10/02/2020

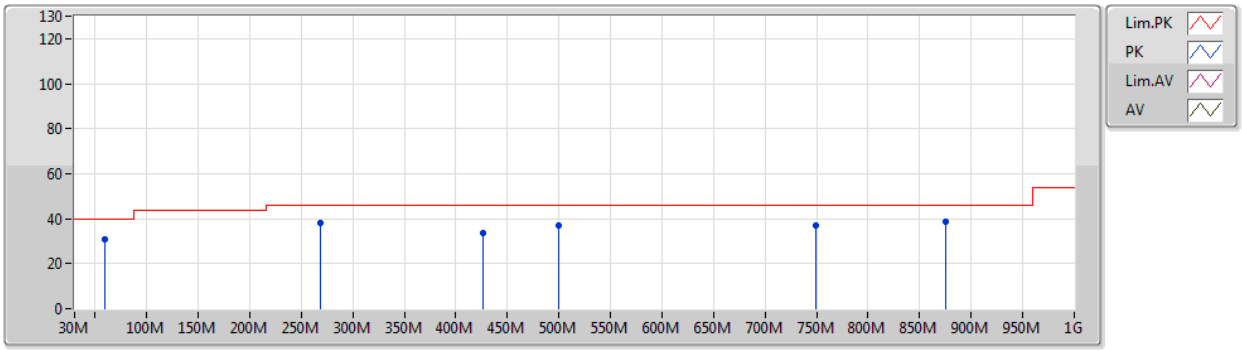


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	45.52M	32.60	40.00	-7.40	-20.87	3	Vertical	360	1.00	-	53.47	15.76	0.57	37.20
PK	288.02M	31.53	46.00	-14.47	-16.98	3	Vertical	360	1.00	-	48.51	18.09	1.40	36.47
PK	429.64M	33.49	46.00	-12.51	-13.12	3	Vertical	360	1.00	-	46.61	21.83	1.77	36.72
PK	499.48M	40.27	46.00	-5.73	-12.12	3	Vertical	360	1.00	-	52.39	22.92	1.88	36.92
PK	625.58M	39.68	46.00	-6.32	-9.95	3	Vertical	360	1.00	-	49.63	25.16	2.15	37.26
PK	875.84M	35.83	46.00	-10.17	-7.01	3	Vertical	360	1.00	-	42.84	27.97	2.52	37.50

BT-LE(1Mbps)

2440MHz_PoE

10/02/2020



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)
PK	59.1M	30.99	40.00	-9.01	-25.78	3	Horizontal	0	1.00	-	56.77	10.69	0.62	37.09
PK	268.62M	38.25	46.00	-7.75	-16.68	3	Horizontal	0	1.00	-	54.93	18.41	1.35	36.44
PK	425.76M	33.75	46.00	-12.25	-13.15	3	Horizontal	0	1.00	-	46.90	21.81	1.75	36.71
PK	499.48M	37.15	46.00	-8.85	-12.12	3	Horizontal	0	1.00	-	49.27	22.92	1.88	36.92
PK	749.74M	37.16	46.00	-8.84	-8.02	3	Horizontal	0	1.00	-	45.18	27.06	2.35	37.43
PK	875.84M	38.91	46.00	-7.09	-7.01	3	Horizontal	0	1.00	-	45.92	27.97	2.52	37.50

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	PK	2.4836G	66.53	74.00	-7.47	3	Vertical	339	3.00	-

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	2.3526G	44.78	54.00	-9.22	3	Vertical	20	1.38	-
2402MHz	Pass	AV	2.402G	93.22	Inf	-Inf	3	Vertical	20	1.38	-
2402MHz	Pass	PK	2.3844G	56.40	74.00	-17.60	3	Vertical	20	1.38	-
2402MHz	Pass	PK	2.4022G	94.11	Inf	-Inf	3	Vertical	20	1.38	-
2402MHz	Pass	AV	2.3782G	44.52	54.00	-9.48	3	Horizontal	360	1.78	-
2402MHz	Pass	AV	2.402G	97.86	Inf	-Inf	3	Horizontal	360	1.78	-
2402MHz	Pass	PK	2.3898G	58.49	74.00	-15.51	3	Horizontal	360	1.78	-
2402MHz	Pass	PK	2.4016G	98.77	Inf	-Inf	3	Horizontal	360	1.78	-
2402MHz	Pass	AV	4.80325G	34.46	54.00	-19.54	3	Vertical	314	1.87	-
2402MHz	Pass	PK	4.80343G	45.23	74.00	-28.77	3	Vertical	314	1.87	-
2402MHz	Pass	AV	4.80588G	33.32	54.00	-20.68	3	Horizontal	203	1.50	-
2402MHz	Pass	PK	4.80599G	45.45	74.00	-28.55	3	Horizontal	203	1.50	-
2440MHz	Pass	AV	2.3784G	44.47	54.00	-9.53	3	Vertical	23	1.14	-
2440MHz	Pass	AV	2.44G	93.38	Inf	-Inf	3	Vertical	23	1.14	-
2440MHz	Pass	AV	2.4976G	44.37	54.00	-9.63	3	Vertical	23	1.14	-
2440MHz	Pass	PK	2.3628G	56.42	74.00	-17.58	3	Vertical	23	1.14	-
2440MHz	Pass	PK	2.44G	94.34	Inf	-Inf	3	Vertical	23	1.14	-
2440MHz	Pass	PK	2.4844G	56.27	74.00	-17.73	3	Vertical	23	1.14	-
2440MHz	Pass	AV	2.3452G	44.60	54.00	-9.40	3	Horizontal	360	2.22	-
2440MHz	Pass	AV	2.44G	97.36	Inf	-Inf	3	Horizontal	360	2.22	-
2440MHz	Pass	AV	2.4968G	44.65	54.00	-9.35	3	Horizontal	360	2.22	-
2440MHz	Pass	PK	2.3576G	56.22	74.00	-17.78	3	Horizontal	360	2.22	-
2440MHz	Pass	PK	2.4396G	98.29	Inf	-Inf	3	Horizontal	360	2.22	-
2440MHz	Pass	PK	2.4936G	55.83	74.00	-18.17	3	Horizontal	360	2.22	-
2440MHz	Pass	AV	4.87926G	32.75	54.00	-21.25	3	Vertical	323	2.98	-
2440MHz	Pass	AV	7.31904G	40.25	54.00	-13.75	3	Vertical	32	3.00	-
2440MHz	Pass	PK	4.87829G	46.07	74.00	-27.93	3	Vertical	323	2.86	-
2440MHz	Pass	PK	7.31929G	52.44	74.00	-21.56	3	Vertical	32	3.00	-
2440MHz	Pass	AV	4.87786G	32.55	54.00	-21.45	3	Horizontal	25	1.50	-
2440MHz	Pass	AV	7.31875G	39.77	54.00	-14.23	3	Horizontal	213	1.37	-
2440MHz	Pass	PK	4.8781G	44.21	74.00	-29.79	3	Horizontal	25	1.50	-
2440MHz	Pass	PK	7.32246G	51.43	74.00	-22.57	3	Horizontal	213	1.37	-
2480MHz	Pass	AV	2.48G	96.72	Inf	-Inf	3	Vertical	339	3.00	-
2480MHz	Pass	AV	2.487G	44.61	54.00	-9.39	3	Vertical	339	3.00	-
2480MHz	Pass	PK	2.4802G	97.60	Inf	-Inf	3	Vertical	339	3.00	-
2480MHz	Pass	PK	2.4836G	66.53	74.00	-7.47	3	Vertical	339	3.00	-
2480MHz	Pass	AV	2.48G	96.06	Inf	-Inf	3	Horizontal	359	1.50	-
2480MHz	Pass	AV	2.4874G	44.94	54.00	-9.06	3	Horizontal	359	1.50	-
2480MHz	Pass	PK	2.4802G	96.96	Inf	-Inf	3	Horizontal	359	1.50	-
2480MHz	Pass	PK	2.4836G	66.39	74.00	-7.61	3	Horizontal	359	1.50	-
2480MHz	Pass	AV	4.95965G	34.38	54.00	-19.62	3	Vertical	318	1.63	-
2480MHz	Pass	AV	7.43915G	39.78	54.00	-14.22	3	Vertical	308	1.84	-
2480MHz	Pass	PK	4.95919G	45.42	74.00	-28.58	3	Vertical	318	1.63	-
2480MHz	Pass	PK	7.43965G	51.80	74.00	-22.20	3	Vertical	308	1.84	-
2480MHz	Pass	AV	4.95956G	35.11	54.00	-18.89	3	Horizontal	327	2.92	-
2480MHz	Pass	AV	7.43918G	39.93	54.00	-14.07	3	Horizontal	18	1.23	-
2480MHz	Pass	PK	4.95937G	46.79	74.00	-27.21	3	Horizontal	327	2.92	-

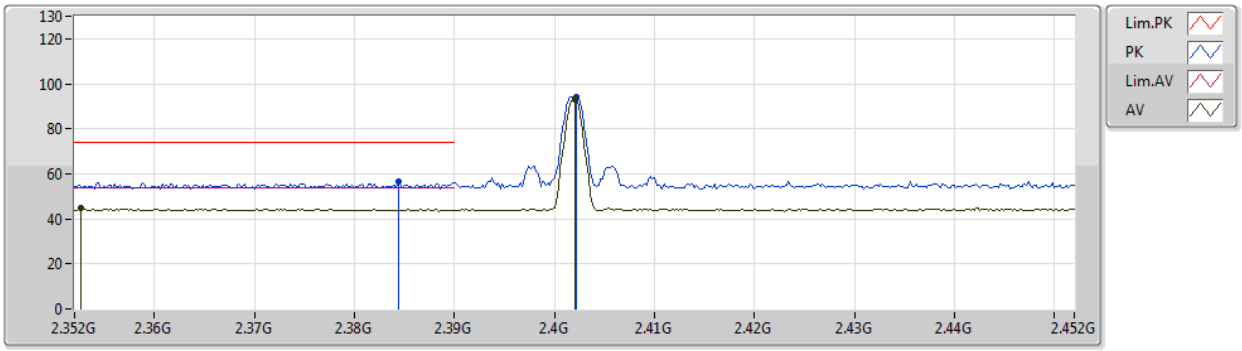
Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	PK	7.439G	52.33	74.00	-21.67	3	Horizontal	18	1.23	-

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

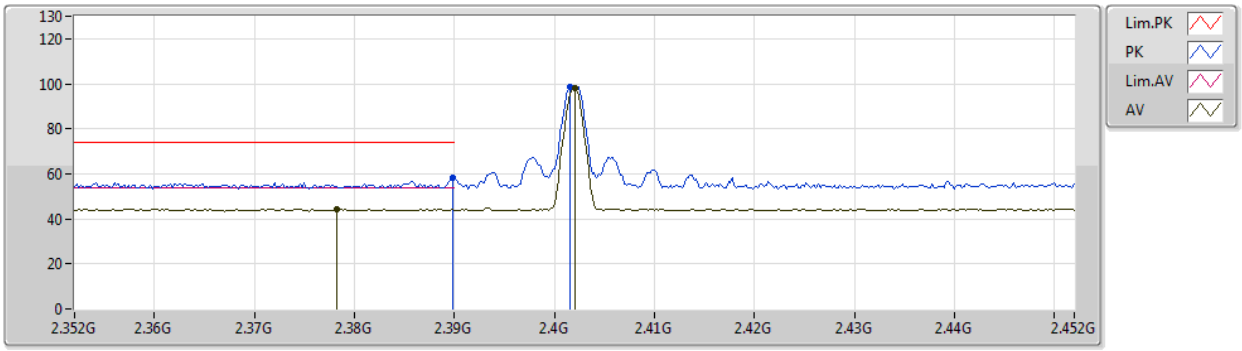


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3526G	44.78	54.00	-9.22	31.50	3	Vertical	20	1.38	-	13.28	27.79	3.71	-
AV	2.402G	93.22	Inf	-Inf	31.34	3	Vertical	20	1.38	-	61.88	27.60	3.74	-
PK	2.3844G	56.40	74.00	-17.60	31.39	3	Vertical	20	1.38	-	25.01	27.66	3.73	-
PK	2.4022G	94.11	Inf	-Inf	31.34	3	Vertical	20	1.38	-	62.77	27.60	3.74	-

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

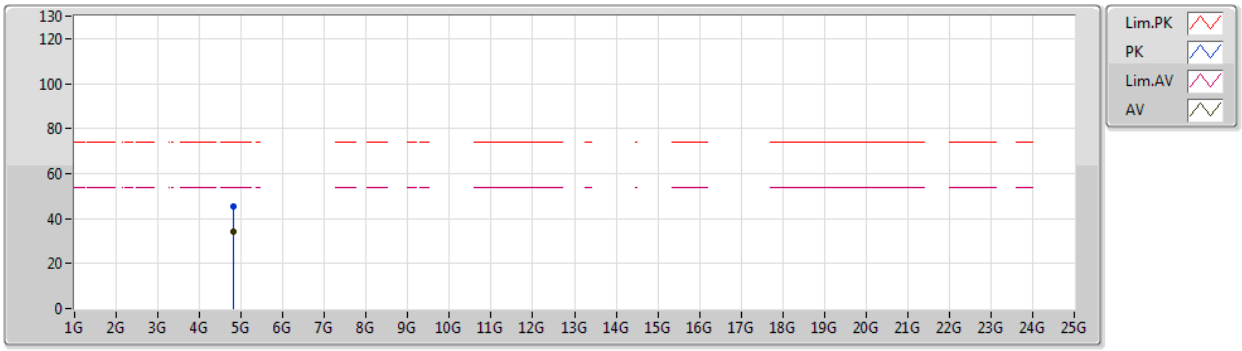


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3782G	44.52	54.00	-9.48	31.42	3	Horizontal	360	1.78	-	13.10	27.69	3.73	-
AV	2.402G	97.86	Inf	-Inf	31.34	3	Horizontal	360	1.78	-	66.52	27.60	3.74	-
PK	2.3898G	58.49	74.00	-15.51	31.37	3	Horizontal	360	1.78	-	27.12	27.64	3.73	-
PK	2.4016G	98.77	Inf	-Inf	31.34	3	Horizontal	360	1.78	-	67.43	27.60	3.74	-

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

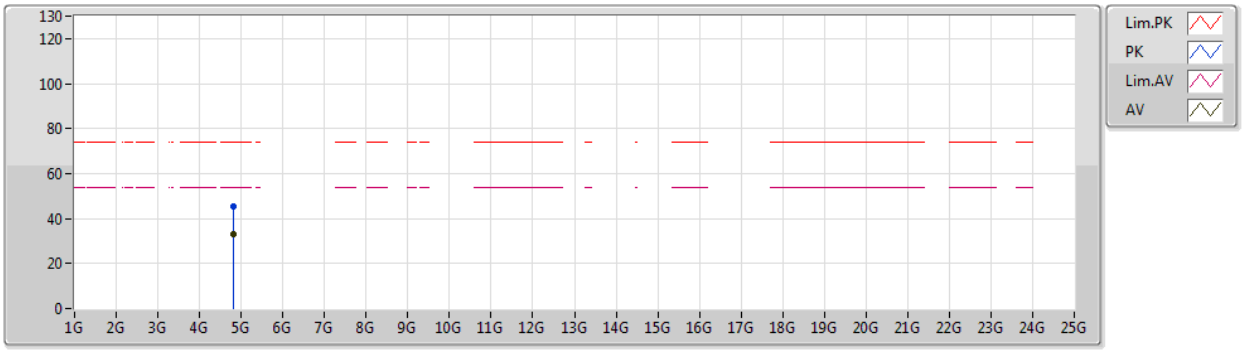


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80325G	34.46	54.00	-19.54	2.56	3	Vertical	314	1.87	-	31.90	31.10	5.51	34.05
PK	4.80343G	45.23	74.00	-28.77	2.56	3	Vertical	314	1.87	-	42.67	31.10	5.51	34.05

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

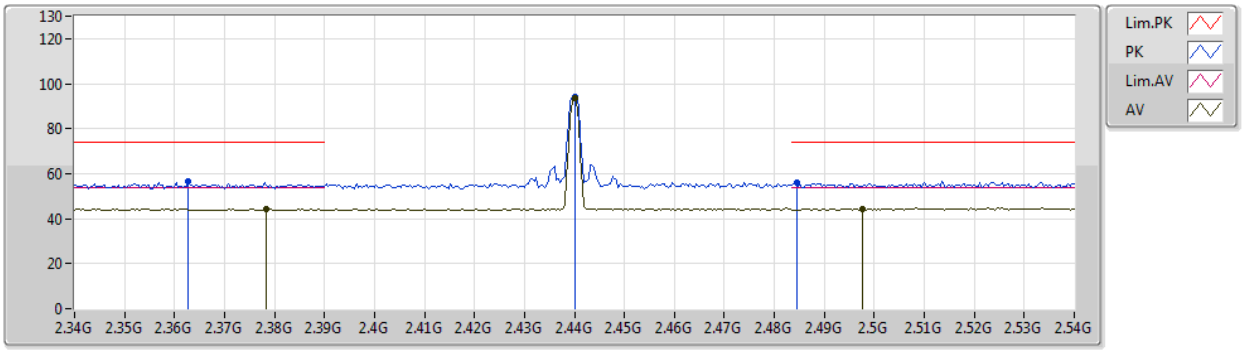


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80588G	33.32	54.00	-20.68	2.57	3	Horizontal	203	1.50	-	30.75	31.10	5.52	34.05
PK	4.80599G	45.45	74.00	-28.55	2.57	3	Horizontal	203	1.50	-	42.88	31.10	5.52	34.05

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

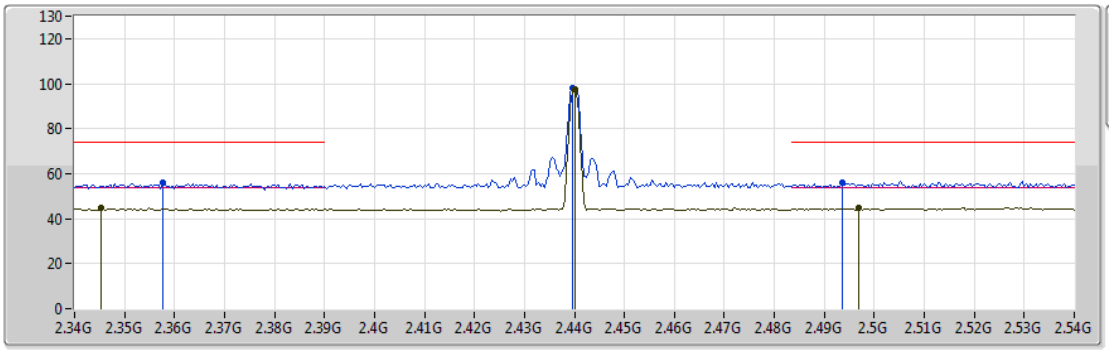


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3784G	44.47	54.00	-9.53	31.42	3	Vertical	23	1.14	-	13.05	27.69	3.73	-
AV	2.44G	93.38	Inf	-Inf	31.33	3	Vertical	23	1.14	-	62.05	27.56	3.77	-
AV	2.4976G	44.37	54.00	-9.63	31.31	3	Vertical	23	1.14	-	13.06	27.50	3.81	-
PK	2.3628G	56.42	74.00	-17.58	31.47	3	Vertical	23	1.14	-	24.95	27.75	3.72	-
PK	2.44G	94.34	Inf	-Inf	31.33	3	Vertical	23	1.14	-	63.01	27.56	3.77	-
PK	2.4844G	56.27	74.00	-17.73	31.32	3	Vertical	23	1.14	-	24.95	27.52	3.80	-

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

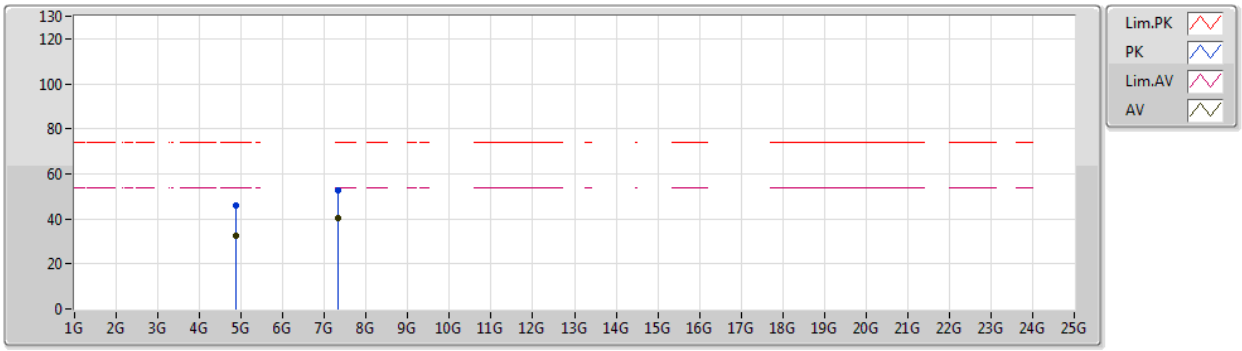


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3452G	44.60	54.00	-9.40	31.53	3	Horizontal	360	2.22	-	13.07	27.82	3.71	-
AV	2.44G	97.36	Inf	-Inf	31.33	3	Horizontal	360	2.22	-	66.03	27.56	3.77	-
AV	2.4968G	44.65	54.00	-9.35	31.31	3	Horizontal	360	2.22	-	13.34	27.50	3.81	-
PK	2.3576G	56.22	74.00	-17.78	31.49	3	Horizontal	360	2.22	-	24.73	27.77	3.72	-
PK	2.4396G	98.29	Inf	-Inf	31.33	3	Horizontal	360	2.22	-	66.96	27.56	3.77	-
PK	2.4936G	55.83	74.00	-18.17	31.32	3	Horizontal	360	2.22	-	24.51	27.51	3.81	-

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

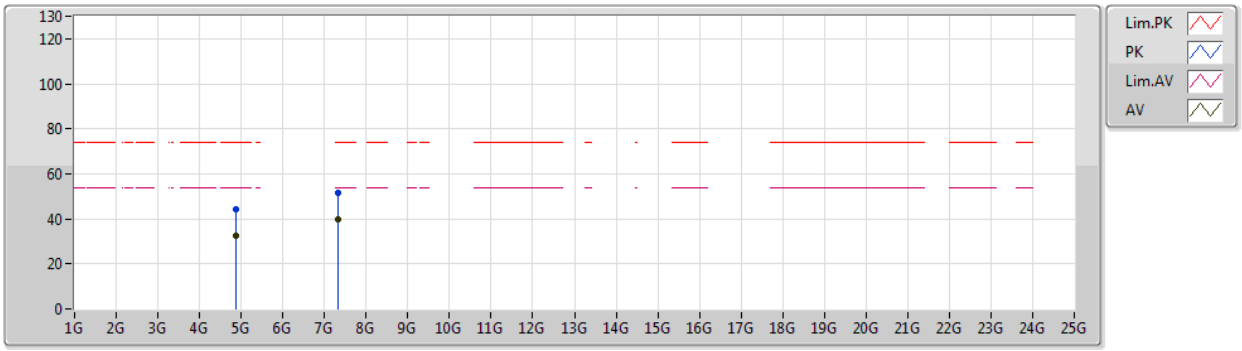


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.87926G	32.75	54.00	-21.25	2.95	3	Vertical	323	2.98	-	29.80	31.10	5.90	34.05
AV	7.31904G	40.25	54.00	-13.75	10.48	3	Vertical	32	3.00	-	29.77	36.28	8.47	34.27
PK	4.87829G	46.07	74.00	-27.93	2.95	3	Vertical	323	2.86	-	43.12	31.10	5.90	34.05
PK	7.31929G	52.44	74.00	-21.56	10.48	3	Vertical	32	3.00	-	41.96	36.28	8.47	34.27

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

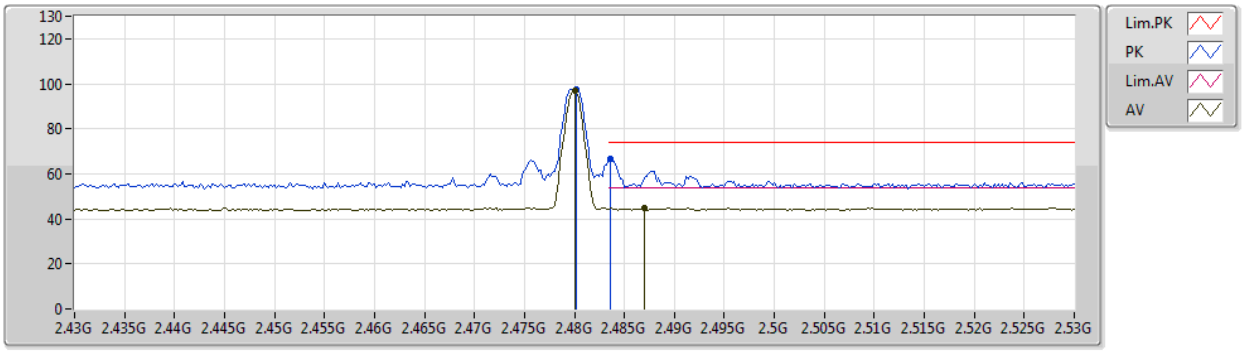


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.87786G	32.55	54.00	-21.45	2.94	3	Horizontal	25	1.50	-	29.61	31.10	5.89	34.05
AV	7.31875G	39.77	54.00	-14.23	10.48	3	Horizontal	213	1.37	-	29.29	36.28	8.47	34.27
PK	4.8781G	44.21	74.00	-29.79	2.95	3	Horizontal	25	1.50	-	41.26	31.10	5.90	34.05
PK	7.32246G	51.43	74.00	-22.57	10.48	3	Horizontal	213	1.37	-	40.95	36.28	8.47	34.27

BT-LE(1Mbps)

2480MHz_TX

10/02/2020

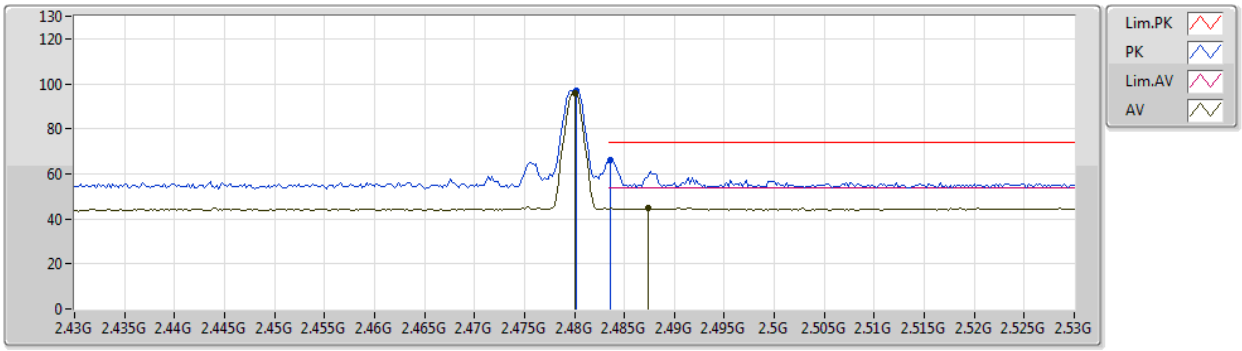


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	96.72	Inf	-Inf	31.32	3	Vertical	339	3.00	-	65.40	27.52	3.80	-
AV	2.487G	44.61	54.00	-9.39	31.31	3	Vertical	339	3.00	-	13.30	27.51	3.80	-
PK	2.4802G	97.60	Inf	-Inf	31.32	3	Vertical	339	3.00	-	66.28	27.52	3.80	-
PK	2.4836G	66.53	74.00	-7.47	31.32	3	Vertical	339	3.00	-	35.21	27.52	3.80	-

BT-LE(1Mbps)

2480MHz_TX

10/02/2020

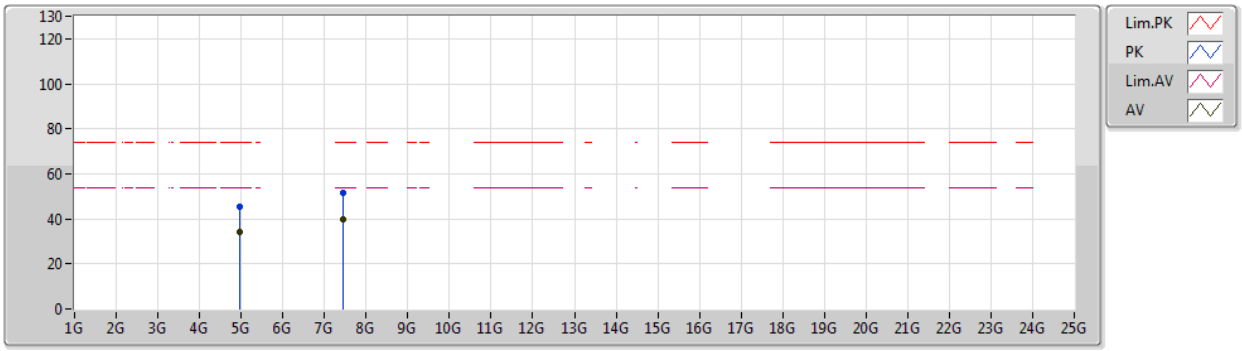


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	96.06	Inf	-Inf	31.32	3	Horizontal	359	1.50	-	64.74	27.52	3.80	-
AV	2.4874G	44.94	54.00	-9.06	31.31	3	Horizontal	359	1.50	-	13.63	27.51	3.80	-
PK	2.4802G	96.96	Inf	-Inf	31.32	3	Horizontal	359	1.50	-	65.64	27.52	3.80	-
PK	2.4836G	66.39	74.00	-7.61	31.32	3	Horizontal	359	1.50	-	35.07	27.52	3.80	-

BT-LE(1Mbps)

2480MHz_TX

10/02/2020

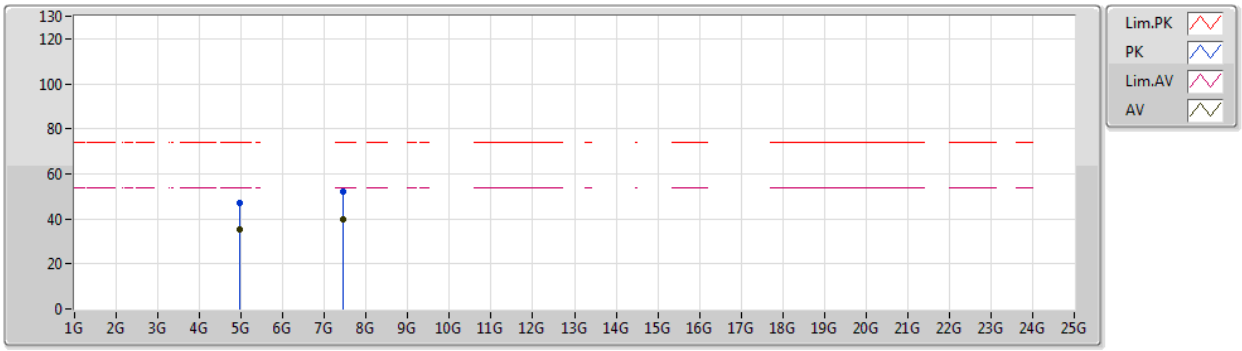


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95965G	34.38	54.00	-19.62	3.62	3	Vertical	318	1.63	-	30.76	31.34	6.32	34.04
AV	7.43915G	39.78	54.00	-14.22	10.60	3	Vertical	308	1.84	-	29.18	36.32	8.57	34.29
PK	4.95919G	45.42	74.00	-28.58	3.62	3	Vertical	318	1.63	-	41.80	31.34	6.32	34.04
PK	7.43965G	51.80	74.00	-22.20	10.60	3	Vertical	308	1.84	-	41.20	36.32	8.57	34.29

BT-LE(1Mbps)

2480MHz_TX

10/02/2020



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	4.95956G	35.11	54.00	-18.89	3.62	3	Horizontal	327	2.92	-	31.49	31.34	6.32	34.04
AV	7.43918G	39.93	54.00	-14.07	10.60	3	Horizontal	18	1.23	-	29.33	36.32	8.57	34.29
PK	4.95937G	46.79	74.00	-27.21	3.62	3	Horizontal	327	2.92	-	43.17	31.34	6.32	34.04
PK	7.439G	52.33	74.00	-21.67	10.60	3	Horizontal	18	1.23	-	41.73	36.32	8.57	34.29

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	PK	875.84M	42.64	46.00	-3.36	3	Horizontal	360	1.00	-

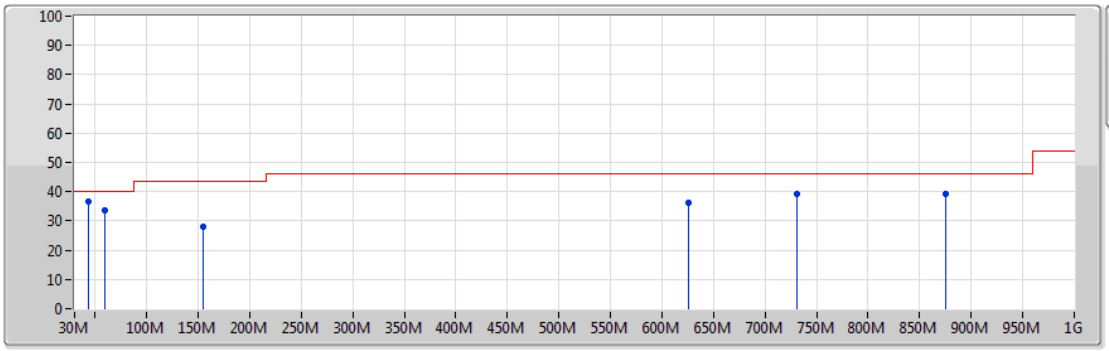
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	43.58M	36.63	40.00	-3.37	3	Vertical	0	1.00	-
2440MHz	Pass	PK	59.1M	33.66	40.00	-6.34	3	Vertical	0	1.00	-
2440MHz	Pass	PK	154.16M	28.02	43.50	-15.48	3	Vertical	0	1.00	-
2440MHz	Pass	PK	625.58M	36.21	46.00	-9.79	3	Vertical	0	1.00	-
2440MHz	Pass	PK	730.34M	39.26	46.00	-6.74	3	Vertical	0	1.00	-
2440MHz	Pass	PK	875.84M	39.16	46.00	-6.84	3	Vertical	0	1.00	-
2440MHz	Pass	PK	37.76M	33.75	40.00	-6.25	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	66.86M	28.76	40.00	-11.24	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	101.78M	30.17	43.50	-13.33	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	499.48M	35.76	46.00	-10.24	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	674.08M	36.32	46.00	-9.68	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	875.84M	42.64	46.00	-3.36	3	Horizontal	360	1.00	-

BT-LE(1Mbps)

2440MHz_PoE

10/02/2020

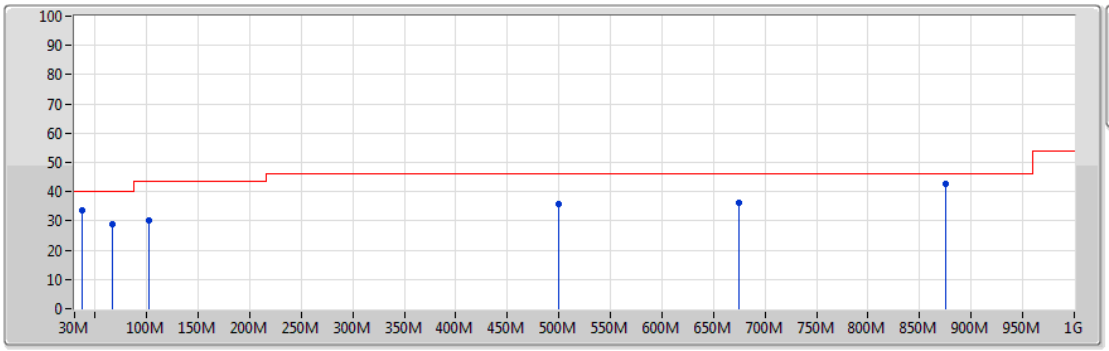


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	43.58M	36.63	40.00	-3.37	-11.42	3	Vertical	0	1.00	-	48.05	15.54	0.72	27.68
PK	59.1M	33.66	40.00	-6.34	-15.33	3	Vertical	0	1.00	-	48.99	11.44	0.93	27.70
PK	154.16M	28.02	43.50	-15.48	-10.36	3	Vertical	0	1.00	-	38.38	15.37	1.88	27.61
PK	625.58M	36.21	46.00	-9.79	-0.67	3	Vertical	0	1.00	-	36.88	24.12	3.74	28.53
PK	730.34M	39.26	46.00	-6.74	0.36	3	Vertical	0	1.00	-	38.90	24.63	4.09	28.36
PK	875.84M	39.16	46.00	-6.84	1.79	3	Vertical	0	1.00	-	37.37	25.36	4.30	27.87

BT-LE(1Mbps)

2440MHz_PoE

10/02/2020



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)
PK	37.76M	33.75	40.00	-6.25	-8.72	3	Horizontal	360	1.00	-	42.47	18.39	0.57	27.68
PK	66.86M	28.76	40.00	-11.24	-15.36	3	Horizontal	360	1.00	-	44.12	11.32	1.03	27.71
PK	101.78M	30.17	43.50	-13.33	-10.13	3	Horizontal	360	1.00	-	40.30	16.14	1.49	27.76
PK	499.48M	35.76	46.00	-10.24	-2.39	3	Horizontal	360	1.00	-	38.15	22.71	3.31	28.41
PK	674.08M	36.32	46.00	-9.68	-0.58	3	Horizontal	360	1.00	-	36.90	23.96	3.92	28.46
PK	875.84M	42.64	46.00	-3.36	1.79	3	Horizontal	360	1.00	-	40.85	25.36	4.30	27.87

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	PK	2.4835G	69.96	74.00	-4.04	3	Vertical	360	1.84	-

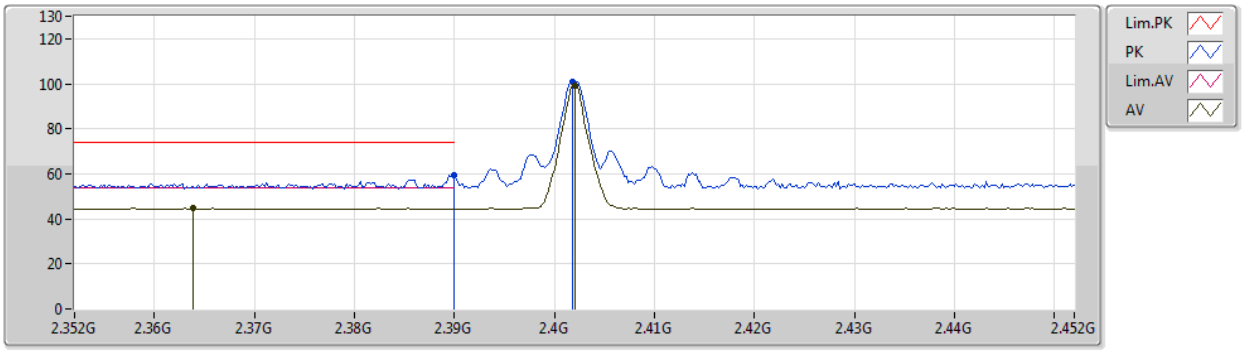
Result

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	2.3638G	44.80	54.00	-9.20	3	Vertical	182	1.63	-
2402MHz	Pass	AV	2.402G	99.35	Inf	-Inf	3	Vertical	182	1.63	-
2402MHz	Pass	PK	2.39G	59.55	74.00	-14.45	3	Vertical	182	1.63	-
2402MHz	Pass	PK	2.4018G	100.82	Inf	-Inf	3	Vertical	182	1.63	-
2402MHz	Pass	AV	2.3728G	44.72	54.00	-9.28	3	Horizontal	20	1.83	-
2402MHz	Pass	AV	2.402G	85.81	Inf	-Inf	3	Horizontal	20	1.83	-
2402MHz	Pass	PK	2.3702G	55.79	74.00	-18.21	3	Horizontal	20	1.83	-
2402MHz	Pass	PK	2.4018G	87.29	Inf	-Inf	3	Horizontal	20	1.83	-
2402MHz	Pass	AV	4.80377G	30.63	54.00	-23.37	3	Vertical	321	2.87	-
2402MHz	Pass	PK	4.80378G	42.87	74.00	-31.13	3	Vertical	321	2.87	-
2402MHz	Pass	AV	4.80337G	30.06	54.00	-23.94	3	Horizontal	6	1.71	-
2402MHz	Pass	PK	4.8053G	41.65	74.00	-32.35	3	Horizontal	6	1.71	-
2440MHz	Pass	AV	2.3588G	44.59	54.00	-9.41	3	Vertical	205	1.80	-
2440MHz	Pass	AV	2.44G	99.37	Inf	-Inf	3	Vertical	205	1.80	-
2440MHz	Pass	AV	2.486G	45.01	54.00	-8.99	3	Vertical	205	1.80	-
2440MHz	Pass	PK	2.3488G	55.64	74.00	-18.36	3	Vertical	205	1.80	-
2440MHz	Pass	PK	2.4404G	100.79	Inf	-Inf	3	Vertical	205	1.80	-
2440MHz	Pass	PK	2.4904G	55.82	74.00	-18.18	3	Vertical	205	1.80	-
2440MHz	Pass	AV	2.3632G	44.58	54.00	-9.42	3	Horizontal	128	1.70	-
2440MHz	Pass	AV	2.44G	85.93	Inf	-Inf	3	Horizontal	128	1.70	-
2440MHz	Pass	AV	2.4872G	44.98	54.00	-9.02	3	Horizontal	128	1.70	-
2440MHz	Pass	PK	2.3744G	56.26	74.00	-17.74	3	Horizontal	128	1.70	-
2440MHz	Pass	PK	2.4396G	87.34	Inf	-Inf	3	Horizontal	128	1.70	-
2440MHz	Pass	PK	2.4996G	56.14	74.00	-17.86	3	Horizontal	128	1.70	-
2440MHz	Pass	AV	4.87954G	30.88	54.00	-23.12	3	Vertical	359	1.97	-
2440MHz	Pass	PK	4.87906G	42.82	74.00	-31.18	3	Vertical	359	1.97	-
2440MHz	Pass	AV	4.8795G	30.58	54.00	-23.42	3	Horizontal	84	1.56	-
2440MHz	Pass	PK	4.8799G	42.70	74.00	-31.30	3	Horizontal	84	1.56	-
2480MHz	Pass	AV	2.48G	100.17	Inf	-Inf	3	Vertical	360	1.84	-
2480MHz	Pass	AV	2.4835G	47.53	54.00	-6.47	3	Vertical	360	1.84	-
2480MHz	Pass	PK	2.4798G	101.65	Inf	-Inf	3	Vertical	360	1.84	-
2480MHz	Pass	PK	2.4835G	69.96	74.00	-4.04	3	Vertical	360	1.84	-
2480MHz	Pass	AV	2.48G	86.56	Inf	-Inf	3	Horizontal	316	1.58	-
2480MHz	Pass	AV	2.49G	45.11	54.00	-8.89	3	Horizontal	316	1.58	-
2480MHz	Pass	PK	2.4798G	87.99	Inf	-Inf	3	Horizontal	316	1.58	-
2480MHz	Pass	PK	2.4835G	58.28	74.00	-15.72	3	Horizontal	316	1.58	-
2480MHz	Pass	AV	4.95964G	32.06	54.00	-21.94	3	Vertical	358	2.35	-
2480MHz	Pass	PK	4.96036G	43.53	74.00	-30.47	3	Vertical	358	2.35	-
2480MHz	Pass	AV	4.95946G	32.13	54.00	-21.87	3	Horizontal	344	1.00	-
2480MHz	Pass	PK	4.96294G	43.30	74.00	-30.70	3	Horizontal	344	1.00	-

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

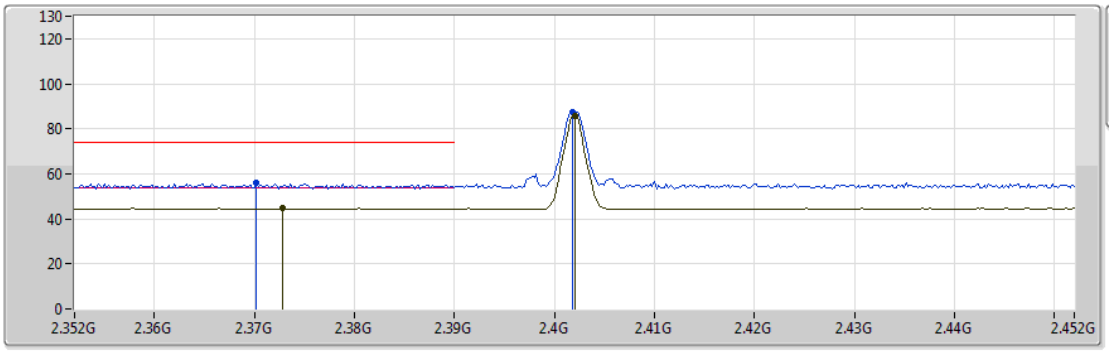


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3638G	44.80	54.00	-9.20	31.98	3	Vertical	182	1.63	-	12.82	27.29	4.69	-
AV	2.402G	99.35	Inf	-Inf	32.14	3	Vertical	182	1.63	-	67.21	27.41	4.73	-
PK	2.39G	59.55	74.00	-14.45	32.09	3	Vertical	182	1.63	-	27.46	27.37	4.72	-
PK	2.4018G	100.82	Inf	-Inf	32.14	3	Vertical	182	1.63	-	68.68	27.41	4.73	-

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

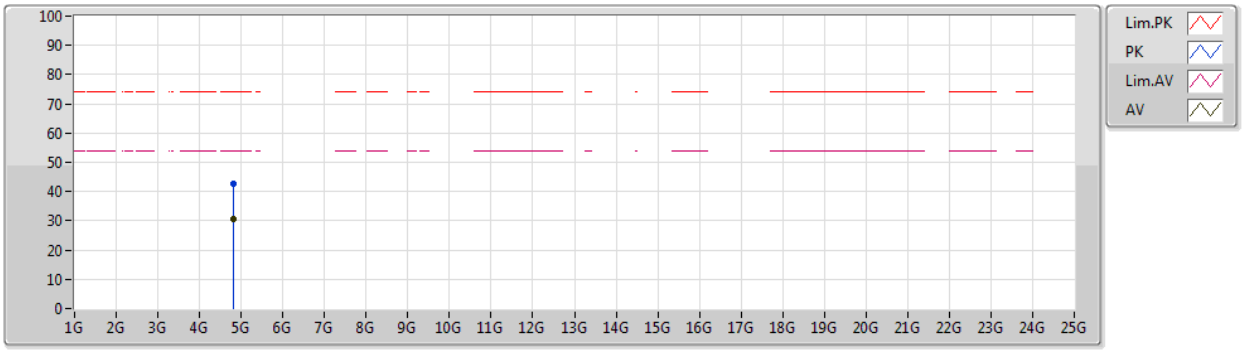


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3728G	44.72	54.00	-9.28	32.02	3	Horizontal	20	1.83	-	12.70	27.32	4.70	-
AV	2.402G	85.81	Inf	-Inf	32.14	3	Horizontal	20	1.83	-	53.67	27.41	4.73	-
PK	2.3702G	55.79	74.00	-18.21	32.01	3	Horizontal	20	1.83	-	23.78	27.31	4.70	-
PK	2.4018G	87.29	Inf	-Inf	32.14	3	Horizontal	20	1.83	-	55.15	27.41	4.73	-

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

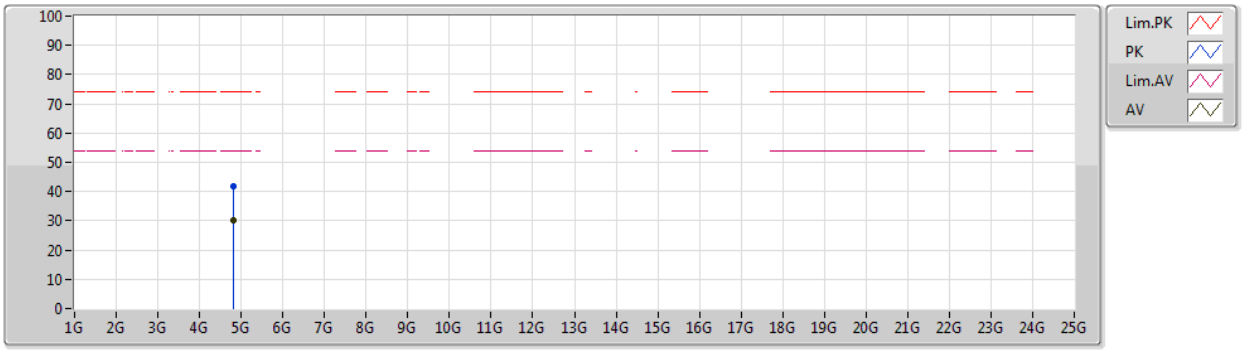


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80377G	30.63	54.00	-23.37	4.22	3	Vertical	321	2.87	-	26.41	31.35	6.78	33.91
PK	4.80378G	42.87	74.00	-31.13	4.22	3	Vertical	321	2.87	-	38.65	31.35	6.78	33.91

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

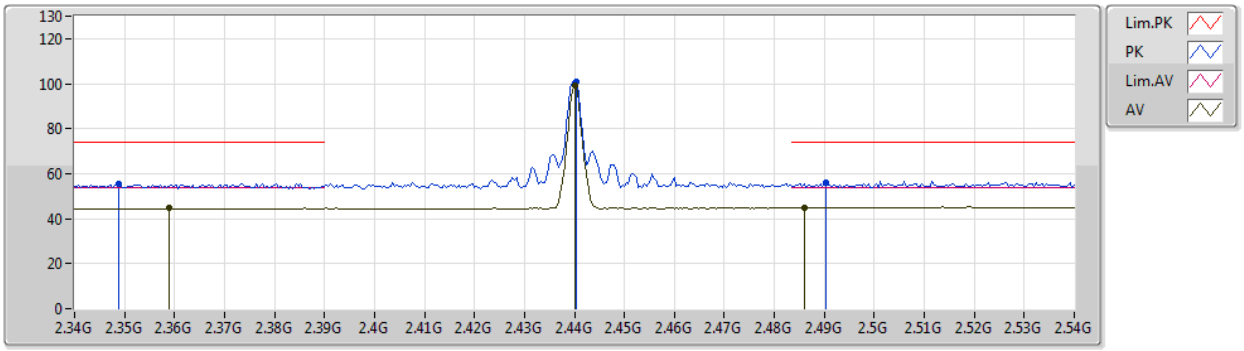


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80337G	30.06	54.00	-23.94	4.22	3	Horizontal	6	1.71	-	25.84	31.35	6.78	33.91
PK	4.8053G	41.65	74.00	-32.35	4.22	3	Horizontal	6	1.71	-	37.43	31.35	6.78	33.91

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

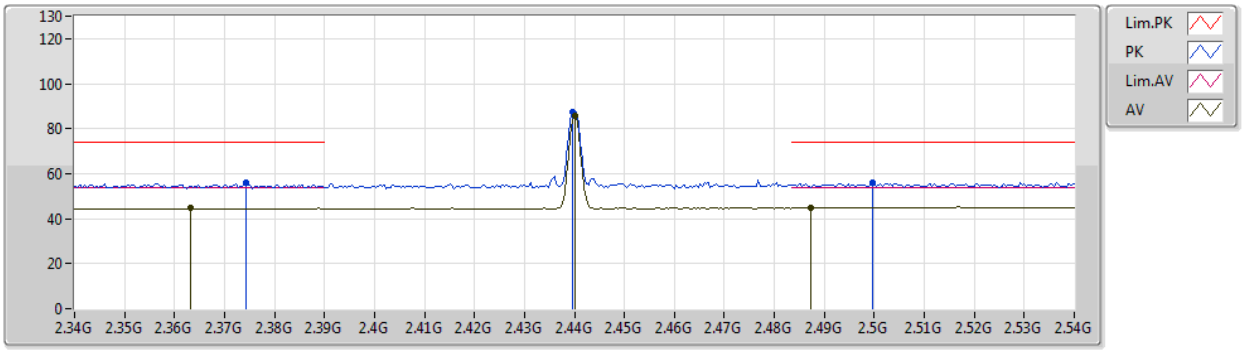


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3588G	44.59	54.00	-9.41	31.96	3	Vertical	205	1.80	-	12.63	27.28	4.68	-
AV	2.44G	99.37	Inf	-Inf	32.30	3	Vertical	205	1.80	-	67.07	27.52	4.78	-
AV	2.486G	45.01	54.00	-8.99	32.49	3	Vertical	205	1.80	-	12.52	27.66	4.83	-
PK	2.3488G	55.64	74.00	-18.36	31.92	3	Vertical	205	1.80	-	23.72	27.25	4.67	-
PK	2.4404G	100.79	Inf	-Inf	32.30	3	Vertical	205	1.80	-	68.49	27.52	4.78	-
PK	2.4904G	55.82	74.00	-18.18	32.51	3	Vertical	205	1.80	-	23.31	27.67	4.84	-

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

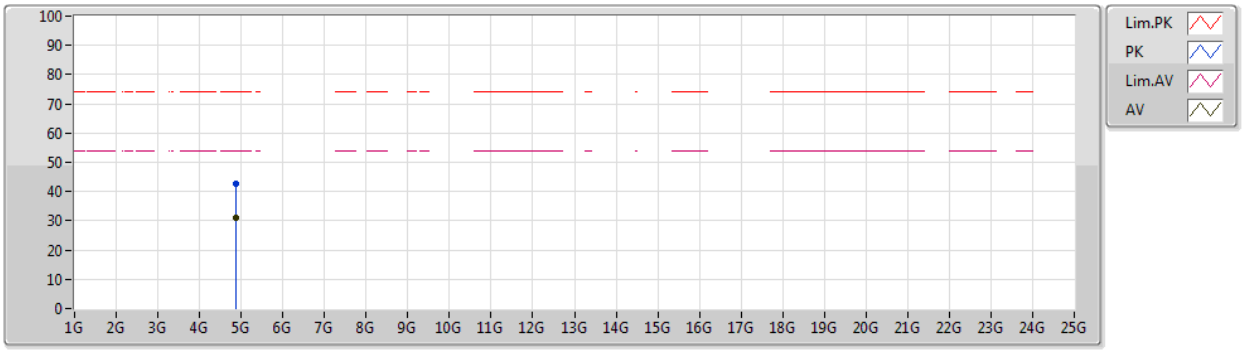


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3632G	44.58	54.00	-9.42	31.98	3	Horizontal	128	1.70	-	12.60	27.29	4.69	-
AV	2.44G	85.93	Inf	-Inf	32.30	3	Horizontal	128	1.70	-	53.63	27.52	4.78	-
AV	2.4872G	44.98	54.00	-9.02	32.49	3	Horizontal	128	1.70	-	12.49	27.66	4.83	-
PK	2.3744G	56.26	74.00	-17.74	32.02	3	Horizontal	128	1.70	-	24.24	27.32	4.70	-
PK	2.4396G	87.34	Inf	-Inf	32.30	3	Horizontal	128	1.70	-	55.04	27.52	4.78	-
PK	2.4996G	56.14	74.00	-17.86	32.55	3	Horizontal	128	1.70	-	23.59	27.70	4.85	-

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

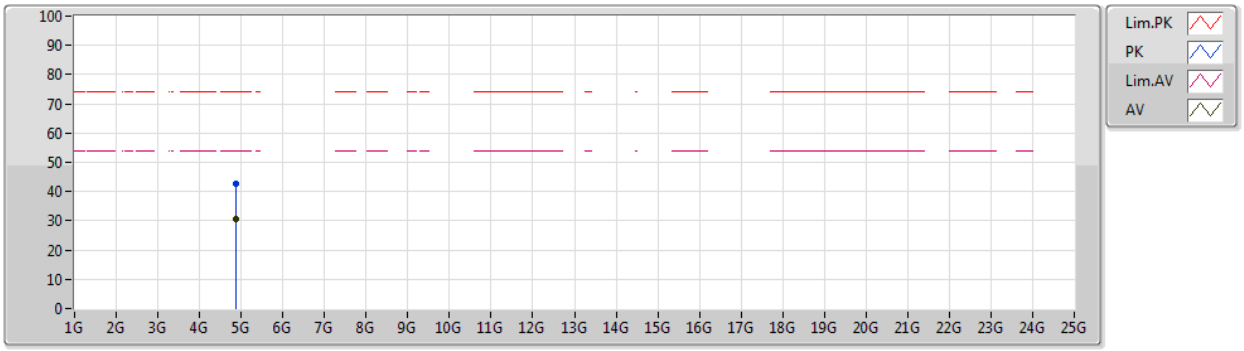


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.87954G	30.88	54.00	-23.12	4.42	3	Vertical	359	1.97	-	26.46	31.48	6.81	33.87
PK	4.87906G	42.82	74.00	-31.18	4.42	3	Vertical	359	1.97	-	38.40	31.48	6.81	33.87

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

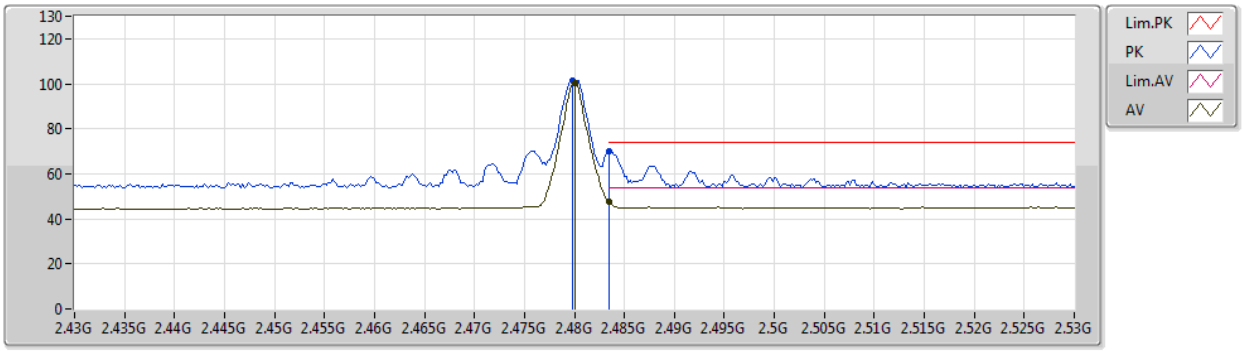


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.8795G	30.58	54.00	-23.42	4.42	3	Horizontal	84	1.56	-	26.16	31.48	6.81	33.87
PK	4.8799G	42.70	74.00	-31.30	4.42	3	Horizontal	84	1.56	-	38.28	31.48	6.81	33.87

BT-LE(1Mbps)

2480MHz_TX

10/02/2020

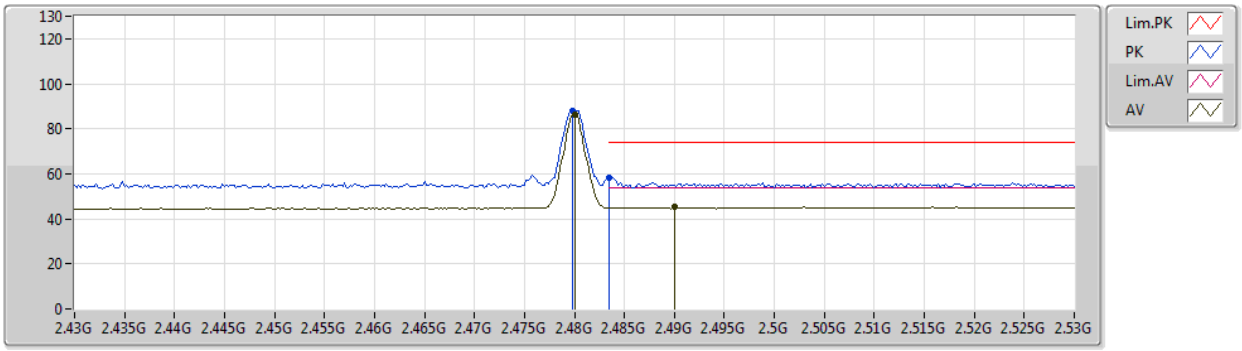


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	100.17	Inf	-Inf	32.46	3	Vertical	360	1.84	-	67.71	27.64	4.82	-
AV	2.4835G	47.53	54.00	-6.47	32.48	3	Vertical	360	1.84	-	15.05	27.65	4.83	-
PK	2.4798G	101.65	Inf	-Inf	32.46	3	Vertical	360	1.84	-	69.19	27.64	4.82	-
PK	2.4835G	69.96	74.00	-4.04	32.48	3	Vertical	360	1.84	-	37.48	27.65	4.83	-

BT-LE(1Mbps)

2480MHz_TX

10/02/2020

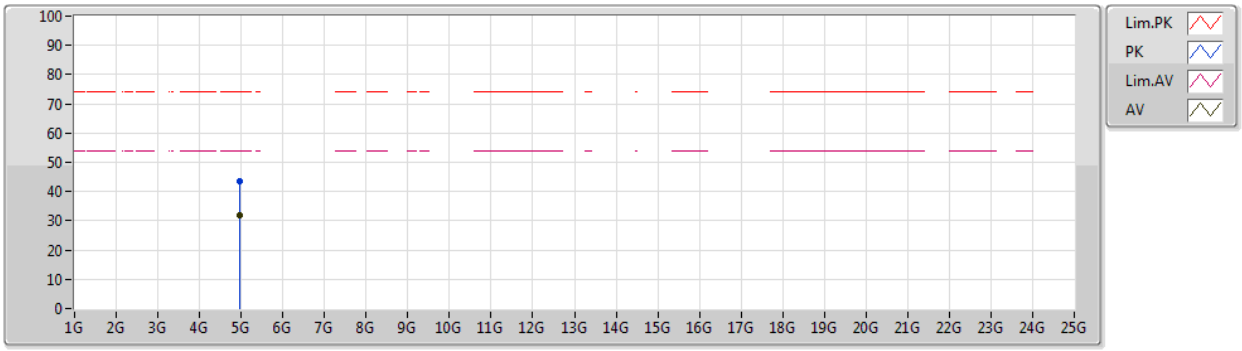


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	86.56	Inf	-Inf	32.46	3	Horizontal	316	1.58	-	54.10	27.64	4.82	-
AV	2.49G	45.11	54.00	-8.89	32.51	3	Horizontal	316	1.58	-	12.60	27.67	4.84	-
PK	2.4798G	87.99	Inf	-Inf	32.46	3	Horizontal	316	1.58	-	55.53	27.64	4.82	-
PK	2.4835G	58.28	74.00	-15.72	32.48	3	Horizontal	316	1.58	-	25.80	27.65	4.83	-

BT-LE(1Mbps)

2480MHz_TX

10/02/2020



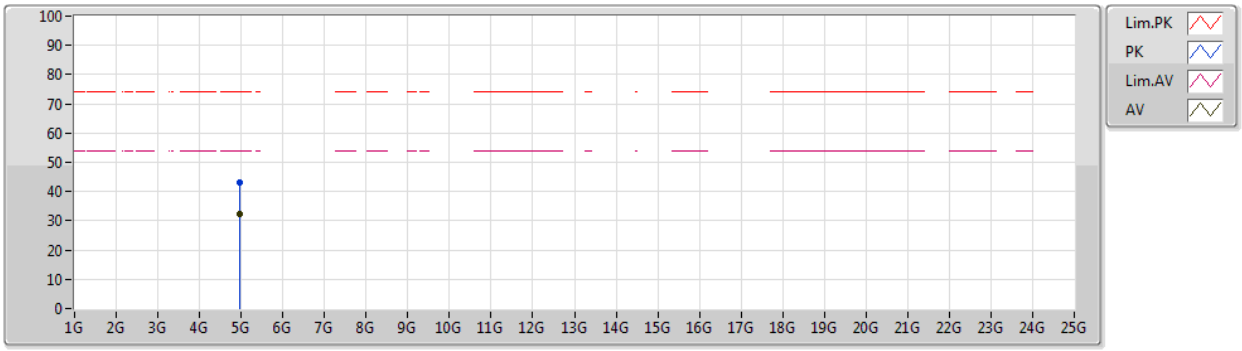
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95964G	32.06	54.00	-21.94	4.64	3	Vertical	358	2.35	-	27.42	31.63	6.83	33.82
PK	4.96036G	43.53	74.00	-30.47	4.64	3	Vertical	358	2.35	-	38.89	31.63	6.83	33.82

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-LE(1Mbps)

2480MHz_TX

10/02/2020



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	4.95946G	32.13	54.00	-21.87	4.64	3	Horizontal	344	1.00	-	27.49	31.63	6.83	33.82
PK	4.96294G	43.30	74.00	-30.70	4.65	3	Horizontal	344	1.00	-	38.65	31.63	6.84	33.82

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	PK	43.58M	36.96	40.00	-3.04	3	Vertical	360	1.00	-

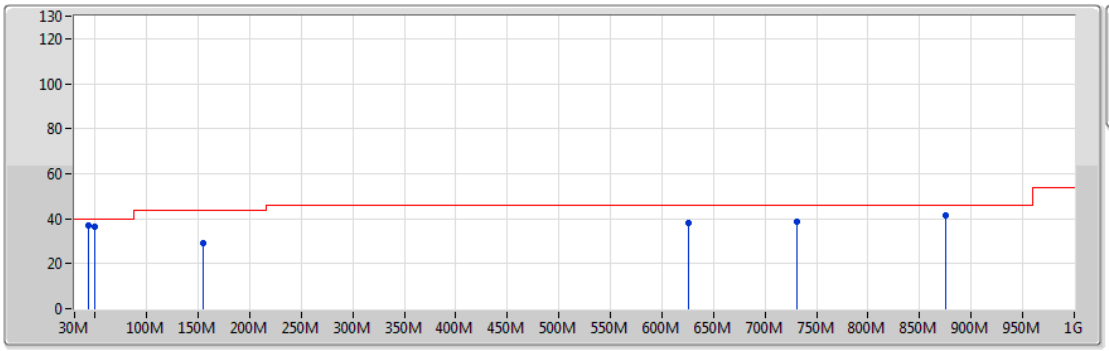
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	43.58M	36.96	40.00	-3.04	3	Vertical	360	1.00	-
2440MHz	Pass	PK	49.4M	36.41	40.00	-3.59	3	Vertical	360	1.00	-
2440MHz	Pass	PK	154.16M	28.99	43.50	-14.51	3	Vertical	360	1.00	-
2440MHz	Pass	PK	625.58M	37.92	46.00	-8.08	3	Vertical	360	1.00	-
2440MHz	Pass	PK	730.34M	38.49	46.00	-7.51	3	Vertical	360	1.00	-
2440MHz	Pass	PK	875.84M	41.62	46.00	-4.38	3	Vertical	360	1.00	-
2440MHz	Pass	PK	39.7M	35.18	40.00	-4.82	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	101.78M	28.07	43.50	-15.43	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	171.62M	29.05	43.50	-14.45	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	499.48M	36.33	46.00	-9.67	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	625.58M	36.84	46.00	-9.16	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	875.84M	40.81	46.00	-5.19	3	Horizontal	0	1.00	-

BT-LE(1Mbps)

2440MHz_PoE

10/02/2020

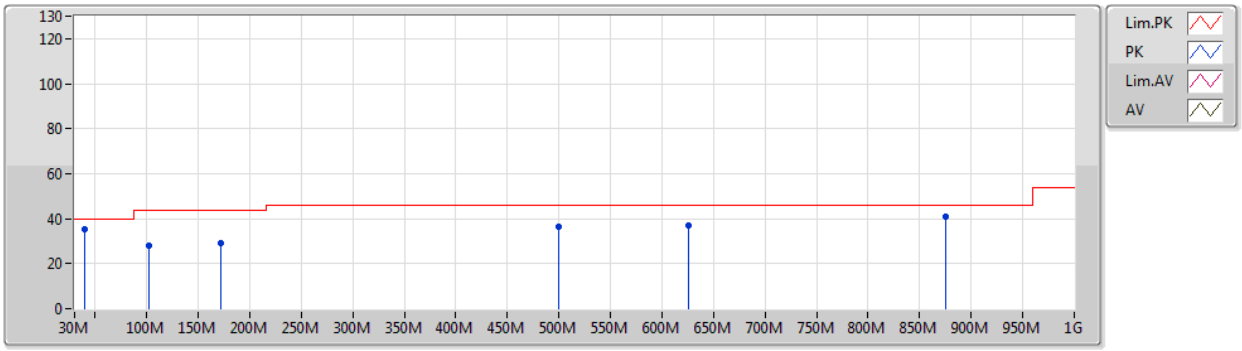


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
PK	43.58M	36.96	40.00	-3.04	-11.42	3	Vertical	360	1.00	-	48.38	15.54	0.72	27.68
PK	49.4M	36.41	40.00	-3.59	-13.46	3	Vertical	360	1.00	-	49.87	13.40	0.83	27.69
PK	154.16M	28.99	43.50	-14.51	-10.36	3	Vertical	360	1.00	-	39.35	15.37	1.88	27.61
PK	625.58M	37.92	46.00	-8.08	-0.67	3	Vertical	360	1.00	-	38.59	24.12	3.74	28.53
PK	730.34M	38.49	46.00	-7.51	0.36	3	Vertical	360	1.00	-	38.13	24.63	4.09	28.36
PK	875.84M	41.62	46.00	-4.38	1.79	3	Vertical	360	1.00	-	39.83	25.36	4.30	27.87

BT-LE(1Mbps)

2440MHz_PoE

10/02/2020



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)
PK	39.7M	35.18	40.00	-4.82	-9.60	3	Horizontal	0	1.00	-	44.78	17.44	0.64	27.68
PK	101.78M	28.07	43.50	-15.43	-10.13	3	Horizontal	0	1.00	-	38.20	16.14	1.49	27.76
PK	171.62M	29.05	43.50	-14.45	-10.74	3	Horizontal	0	1.00	-	39.79	14.74	2.04	27.52
PK	499.48M	36.33	46.00	-9.67	-2.39	3	Horizontal	0	1.00	-	38.72	22.71	3.31	28.41
PK	625.58M	36.84	46.00	-9.16	-0.67	3	Horizontal	0	1.00	-	37.51	24.12	3.74	28.53
PK	875.84M	40.81	46.00	-5.19	1.79	3	Horizontal	0	1.00	-	39.02	25.36	4.30	27.87

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	PK	2.4836G	71.16	74.00	-2.84	3	Horizontal	7	1.93	-

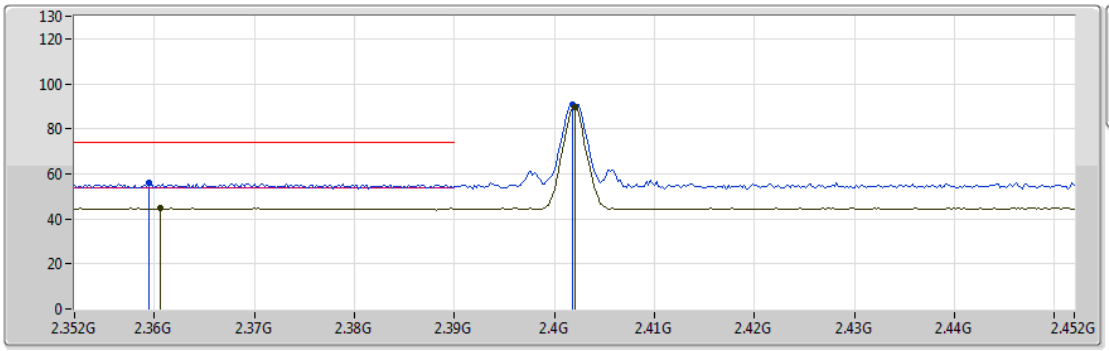
Result

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	2.3606G	44.75	54.00	-9.25	3	Vertical	319	1.18	-
2402MHz	Pass	AV	2.402G	89.62	Inf	-Inf	3	Vertical	319	1.18	-
2402MHz	Pass	PK	2.3594G	56.10	74.00	-17.90	3	Vertical	319	1.18	-
2402MHz	Pass	PK	2.4018G	91.01	Inf	-Inf	3	Vertical	319	1.18	-
2402MHz	Pass	AV	2.39G	44.74	54.00	-9.26	3	Horizontal	9	1.62	-
2402MHz	Pass	AV	2.402G	99.10	Inf	-Inf	3	Horizontal	9	1.62	-
2402MHz	Pass	PK	2.3898G	61.00	74.00	-13.00	3	Horizontal	9	1.62	-
2402MHz	Pass	PK	2.4018G	100.48	Inf	-Inf	3	Horizontal	9	1.62	-
2402MHz	Pass	AV	4.80364G	31.07	54.00	-22.93	3	Vertical	44	1.85	-
2402MHz	Pass	PK	4.80436G	42.90	74.00	-31.10	3	Vertical	44	1.85	-
2402MHz	Pass	AV	4.80352G	31.86	54.00	-22.14	3	Horizontal	19	3.00	-
2402MHz	Pass	PK	4.80436G	43.23	74.00	-30.77	3	Horizontal	19	3.00	-
2440MHz	Pass	AV	2.3484G	44.77	54.00	-9.23	3	Vertical	21	1.54	-
2440MHz	Pass	AV	2.44G	87.16	Inf	-Inf	3	Vertical	21	1.54	-
2440MHz	Pass	AV	2.5G	45.14	54.00	-8.86	3	Vertical	21	1.54	-
2440MHz	Pass	PK	2.342G	56.15	74.00	-17.85	3	Vertical	21	1.54	-
2440MHz	Pass	PK	2.4396G	88.57	Inf	-Inf	3	Vertical	21	1.54	-
2440MHz	Pass	PK	2.4864G	55.96	74.00	-18.04	3	Vertical	21	1.54	-
2440MHz	Pass	AV	2.3652G	44.74	54.00	-9.26	3	Horizontal	6	1.81	-
2440MHz	Pass	AV	2.44G	100.38	Inf	-Inf	3	Horizontal	6	1.81	-
2440MHz	Pass	AV	2.4988G	45.02	54.00	-8.98	3	Horizontal	6	1.81	-
2440MHz	Pass	PK	2.3628G	55.79	74.00	-18.21	3	Horizontal	6	1.81	-
2440MHz	Pass	PK	2.4396G	101.78	Inf	-Inf	3	Horizontal	6	1.81	-
2440MHz	Pass	PK	2.4996G	55.93	74.00	-18.07	3	Horizontal	6	1.81	-
2440MHz	Pass	AV	4.8795G	31.55	54.00	-22.45	3	Vertical	46	1.96	-
2440MHz	Pass	PK	4.88002G	43.69	74.00	-30.31	3	Vertical	46	1.96	-
2440MHz	Pass	AV	4.87958G	31.40	54.00	-22.60	3	Horizontal	346	1.00	-
2440MHz	Pass	PK	4.88028G	43.40	74.00	-30.60	3	Horizontal	346	1.00	-
2480MHz	Pass	AV	2.48G	86.97	Inf	-Inf	3	Vertical	235	1.65	-
2480MHz	Pass	AV	2.499G	45.06	54.00	-8.94	3	Vertical	235	1.65	-
2480MHz	Pass	PK	2.4802G	88.42	Inf	-Inf	3	Vertical	235	1.65	-
2480MHz	Pass	PK	2.4838G	59.39	74.00	-14.61	3	Vertical	235	1.65	-
2480MHz	Pass	AV	2.48G	101.32	Inf	-Inf	3	Horizontal	7	1.93	-
2480MHz	Pass	AV	2.4835G	48.22	54.00	-5.78	3	Horizontal	7	1.93	-
2480MHz	Pass	PK	2.4798G	102.72	Inf	-Inf	3	Horizontal	7	1.93	-
2480MHz	Pass	PK	2.4836G	71.16	74.00	-2.84	3	Horizontal	7	1.93	-
2480MHz	Pass	AV	4.95964G	30.91	54.00	-23.09	3	Vertical	42	1.50	-
2480MHz	Pass	PK	4.963G	42.46	74.00	-31.54	3	Vertical	42	1.50	-
2480MHz	Pass	AV	4.95946G	32.00	54.00	-22.00	3	Horizontal	341	1.00	-
2480MHz	Pass	PK	4.95974G	43.75	74.00	-30.25	3	Horizontal	341	1.00	-

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

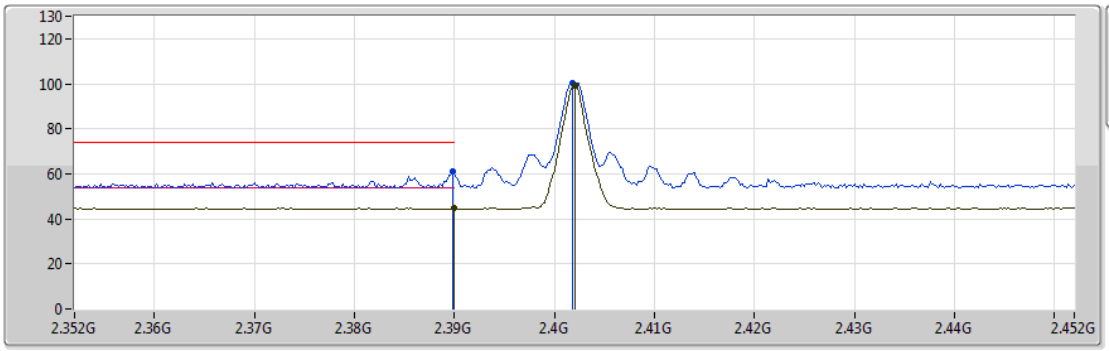


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3606G	44.75	54.00	-9.25	31.96	3	Vertical	319	1.18	-	12.79	27.28	4.68	-
AV	2.402G	89.62	Inf	-Inf	32.14	3	Vertical	319	1.18	-	57.48	27.41	4.73	-
PK	2.3594G	56.10	74.00	-17.90	31.96	3	Vertical	319	1.18	-	24.14	27.28	4.68	-
PK	2.4018G	91.01	Inf	-Inf	32.14	3	Vertical	319	1.18	-	58.87	27.41	4.73	-

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

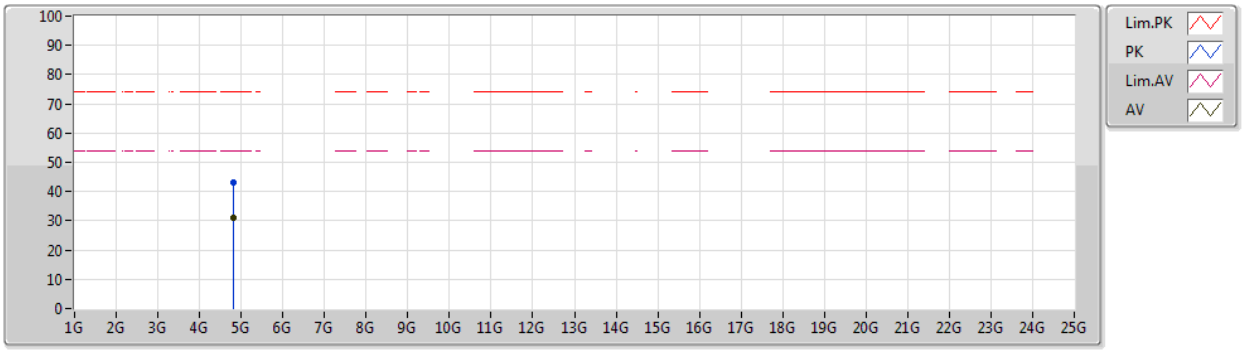


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.39G	44.74	54.00	-9.26	32.09	3	Horizontal	9	1.62	-	12.65	27.37	4.72	-
AV	2.402G	99.10	Inf	-Inf	32.14	3	Horizontal	9	1.62	-	66.96	27.41	4.73	-
PK	2.3898G	61.00	74.00	-13.00	32.09	3	Horizontal	9	1.62	-	28.91	27.37	4.72	-
PK	2.4018G	100.48	Inf	-Inf	32.14	3	Horizontal	9	1.62	-	68.34	27.41	4.73	-

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

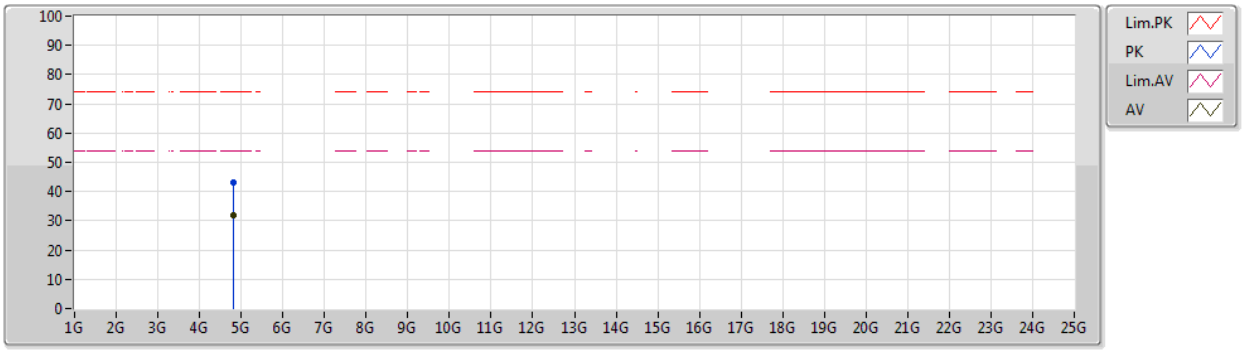


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80364G	31.07	54.00	-22.93	4.22	3	Vertical	44	1.85	-	26.85	31.35	6.78	33.91
PK	4.80436G	42.90	74.00	-31.10	4.22	3	Vertical	44	1.85	-	38.68	31.35	6.78	33.91

BT-LE(1Mbps)

2402MHz_TX

10/02/2020

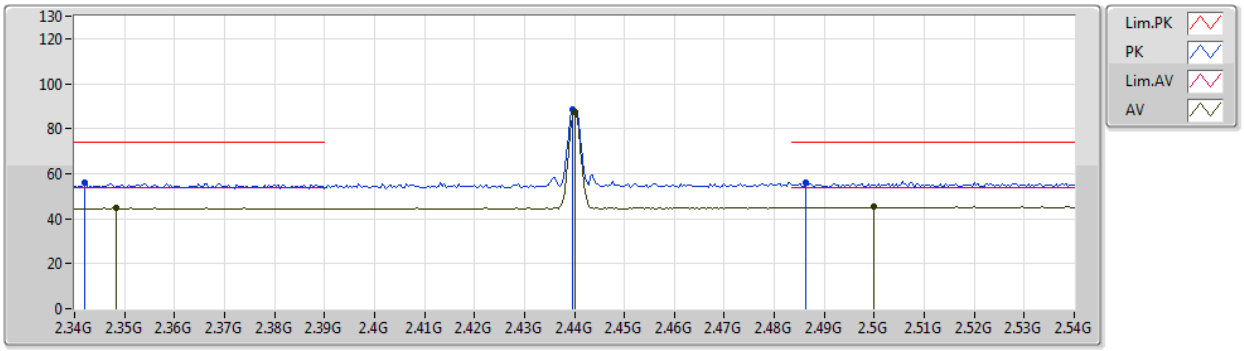


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80352G	31.86	54.00	-22.14	4.22	3	Horizontal	19	3.00	-	27.64	31.35	6.78	33.91
PK	4.80436G	43.23	74.00	-30.77	4.22	3	Horizontal	19	3.00	-	39.01	31.35	6.78	33.91

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

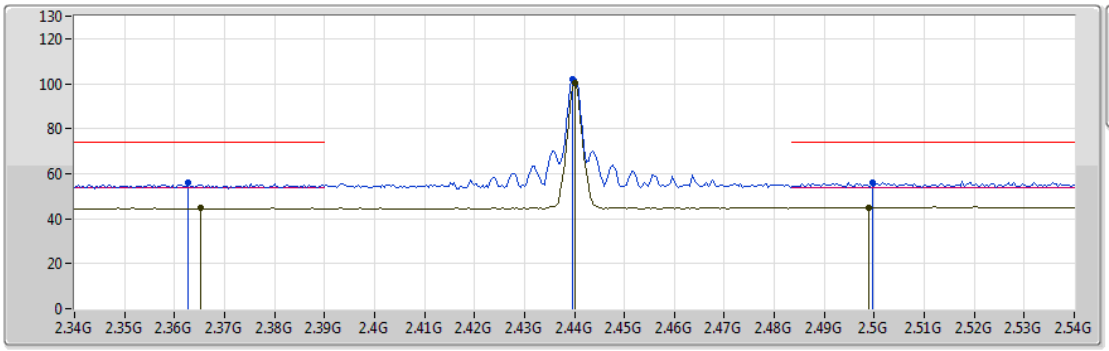


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3484G	44.77	54.00	-9.23	31.92	3	Vertical	21	1.54	-	12.85	27.25	4.67	-
AV	2.44G	87.16	Inf	-Inf	32.30	3	Vertical	21	1.54	-	54.86	27.52	4.78	-
AV	2.5G	45.14	54.00	-8.86	32.55	3	Vertical	21	1.54	-	12.59	27.70	4.85	-
PK	2.342G	56.15	74.00	-17.85	31.89	3	Vertical	21	1.54	-	24.26	27.23	4.66	-
PK	2.4396G	88.57	Inf	-Inf	32.30	3	Vertical	21	1.54	-	56.27	27.52	4.78	-
PK	2.4864G	55.96	74.00	-18.04	32.49	3	Vertical	21	1.54	-	23.47	27.66	4.83	-

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

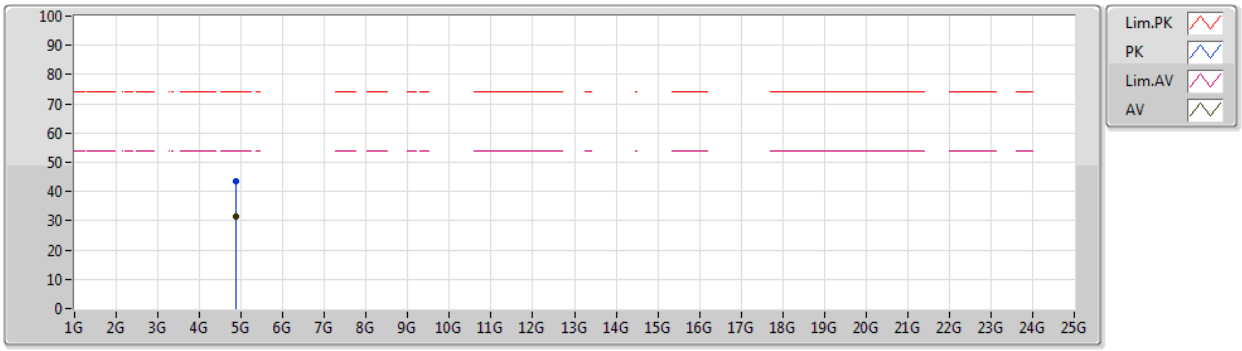


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3652G	44.74	54.00	-9.26	31.99	3	Horizontal	6	1.81	-	12.75	27.30	4.69	-
AV	2.44G	100.38	Inf	-Inf	32.30	3	Horizontal	6	1.81	-	68.08	27.52	4.78	-
AV	2.4988G	45.02	54.00	-8.98	32.55	3	Horizontal	6	1.81	-	12.47	27.70	4.85	-
PK	2.3628G	55.79	74.00	-18.21	31.98	3	Horizontal	6	1.81	-	23.81	27.29	4.69	-
PK	2.4396G	101.78	Inf	-Inf	32.30	3	Horizontal	6	1.81	-	69.48	27.52	4.78	-
PK	2.4996G	55.93	74.00	-18.07	32.55	3	Horizontal	6	1.81	-	23.38	27.70	4.85	-

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

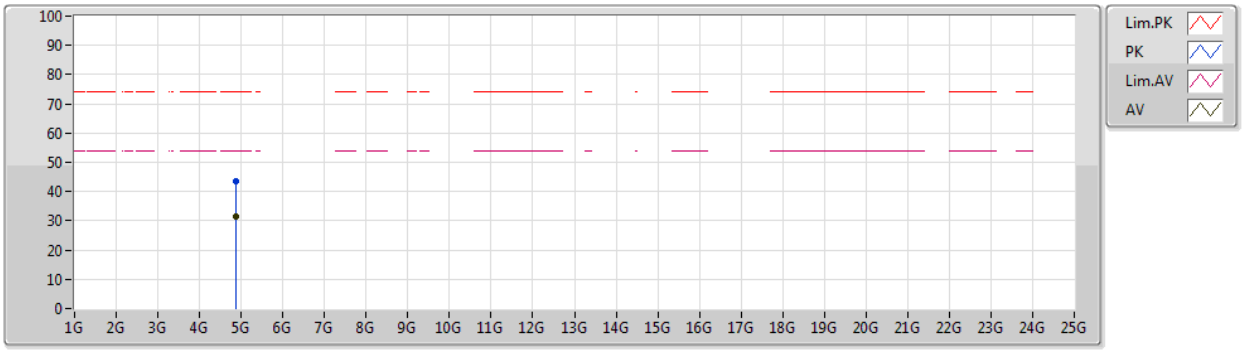


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.8795G	31.55	54.00	-22.45	4.42	3	Vertical	46	1.96	-	27.13	31.48	6.81	33.87
PK	4.88002G	43.69	74.00	-30.31	4.42	3	Vertical	46	1.96	-	39.27	31.48	6.81	33.87

BT-LE(1Mbps)

2440MHz_TX

10/02/2020

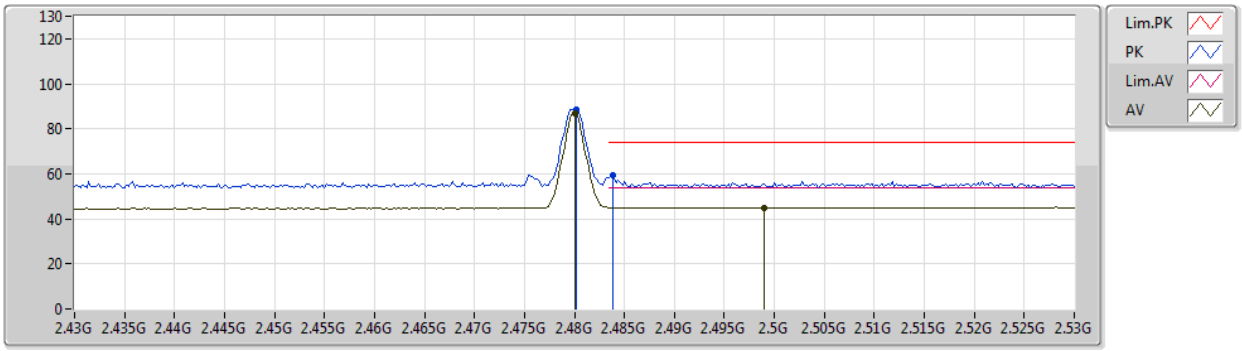


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.87958G	31.40	54.00	-22.60	4.42	3	Horizontal	346	1.00	-	26.98	31.48	6.81	33.87
PK	4.88028G	43.40	74.00	-30.60	4.42	3	Horizontal	346	1.00	-	38.98	31.48	6.81	33.87

BT-LE(1Mbps)

2480MHz_TX

10/02/2020

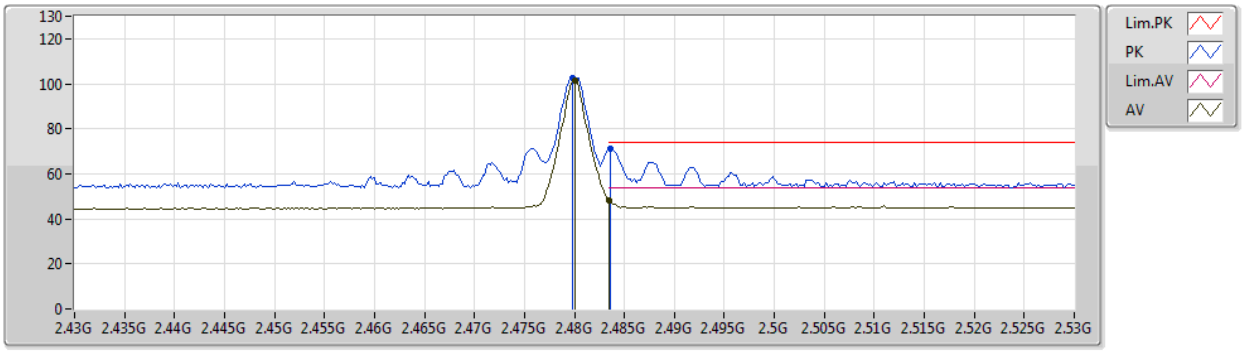


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	86.97	Inf	-Inf	32.46	3	Vertical	235	1.65	-	54.51	27.64	4.82	-
AV	2.499G	45.06	54.00	-8.94	32.55	3	Vertical	235	1.65	-	12.51	27.70	4.85	-
PK	2.4802G	88.42	Inf	-Inf	32.46	3	Vertical	235	1.65	-	55.96	27.64	4.82	-
PK	2.4838G	59.39	74.00	-14.61	32.48	3	Vertical	235	1.65	-	26.91	27.65	4.83	-

BT-LE(1Mbps)

2480MHz_TX

10/02/2020

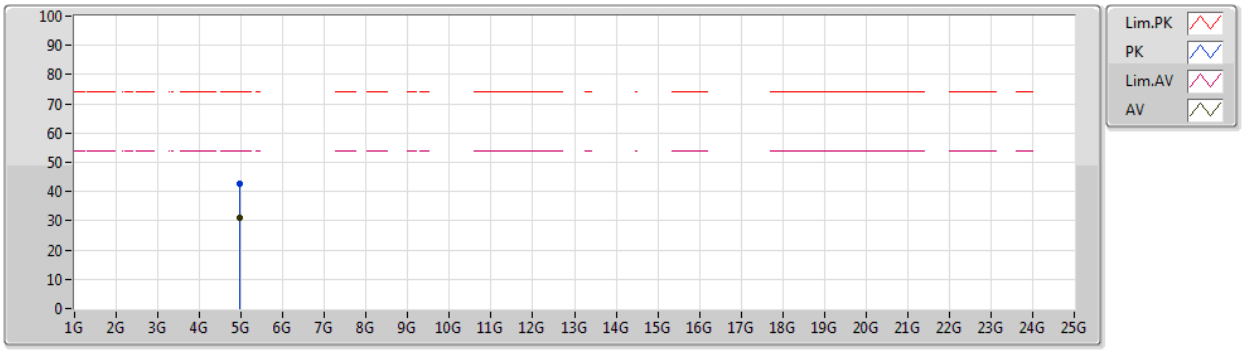


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	101.32	Inf	-Inf	32.46	3	Horizontal	7	1.93	-	68.86	27.64	4.82	-
AV	2.4835G	48.22	54.00	-5.78	32.48	3	Horizontal	7	1.93	-	15.74	27.65	4.83	-
PK	2.4798G	102.72	Inf	-Inf	32.46	3	Horizontal	7	1.93	-	70.26	27.64	4.82	-
PK	2.4836G	71.16	74.00	-2.84	32.48	3	Horizontal	7	1.93	-	38.68	27.65	4.83	-

BT-LE(1Mbps)

2480MHz_TX

10/02/2020



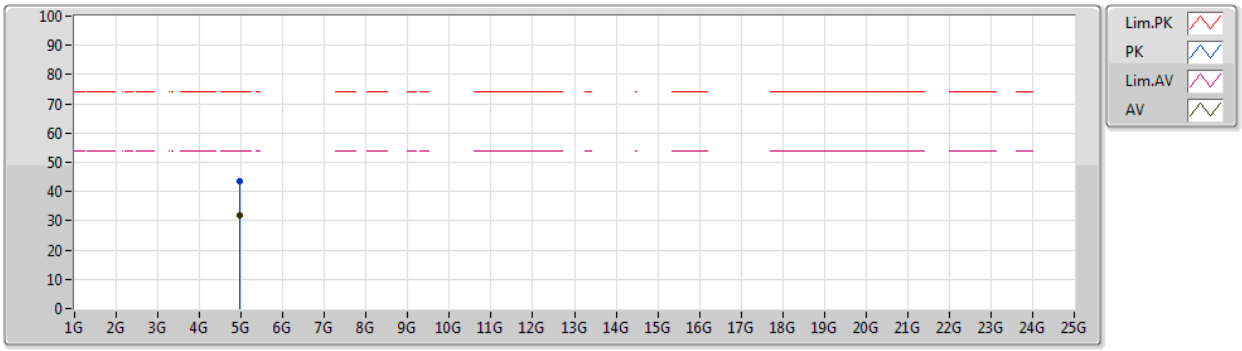
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95964G	30.91	54.00	-23.09	4.64	3	Vertical	42	1.50	-	26.27	31.63	6.83	33.82
PK	4.963G	42.46	74.00	-31.54	4.65	3	Vertical	42	1.50	-	37.81	31.63	6.84	33.82

Level (dBuV/m) = Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

BT-LE(1Mbps)

2480MHz_TX

10/02/2020



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	4.95946G	32.00	54.00	-22.00	4.64	3	Horizontal	341	1.00	-	27.36	31.63	6.83	33.82
PK	4.95974G	43.75	74.00	-30.25	4.64	3	Horizontal	341	1.00	-	39.11	31.63	6.83	33.82