

FCC Radio Test Report

FCC ID : U4GSX5XLRWB
Equipment : Rugged mobile computer with barcode reader XLR version
Brand Name : Datalogic
Model Name : Skorpion X5
Applicantt/
Manufacturer : Datalogic S.r.l.
Via S. Vitalino 13, 40012 Lippo di Calderara di Reno (BO) - Italy
Standard : 47 CFR FCC Part 15.247

The product was received on Jun. 08, 2020, and testing was started from Jun. 15, 2020 and completed on Mar. 18, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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



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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: Amber Chiu

1 General Description

1.1 Information

1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-LE(1Mbps)	1.0	1TX
2.4-2.4835GHz	BT-LE(2Mbps)	2.0	1TX

Note:

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

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	Datalogic-USI	Skorpio X5 antenna	PIFA antenna	mini I-pex
2	Datalogic-USI	Skorpio X5 antenna	PIFA antenna	mini I-pex

Ant.	Port	Gain (dBi)					
		2.4G	5G				BT
			U-NII-1	U-NII-2A	U-NII-2C	U-NII-3	
1	1	1.7	2.6	3.5	3.5	3.8	1.7
2	2	1.5	3.6	3.6	4.2	4.2	-

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

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

For 5GHz function:

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

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

For BT function:

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

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

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter / Host system / Battery		
EUT Function	☒ Point-to-multipoint	☐ Point-to-point	
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.: ...		
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.: ...		
☐	Other:		

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq$ 1/T
BT-LE(1Mbps)	0.633	1.99	401.25u	3k
BT-LE(2Mbps)	0.337	4.72	213.75u	10k

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

1.1.5 Table for Multiple Listing

Form factor	Dock connection	2.4G	5G	Bluetooth	NFC	WPC	Camera	Keypad	Scan engine	Description
Pistol	Wired (Pogo pin)	V	V	V				Functional	Extra Long Range	Pistol type with wired charging
Pistol	WLC (wireless)	V	V	V		V		Functional	Extra Long Range	Pistol type with wireless charging
Pistol	Wired (Pogo pin)	V	V	V				Numeric	Extra Long Range	Pistol type with wired charging
Pistol	WLC (wireless)	V	V	V		V		Numeric	Extra Long Range	Pistol type with wireless charging
Pistol	Wired (Pogo pin)	V	V	V				Alphanumeric	Extra Long Range	Pistol type with wired charging
Pistol	WLC (wireless)	V	V	V		V		Alphanumeric	Extra Long Range	Pistol type with wireless charging

Note: The information from manufacturer.

1.2 Testing Applied Standards

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

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

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

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

1.3 Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test site Designation No. TW1190 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward	20.8~22.7°C / 54~58%	18/Mar/2021
RF Conducted	TH01-HY	Barry	22.6~24.1°C / 53~60%	15/Jun/2020~18/Jun/2020
RF Conducted (Power)	TH06-HY	Johnny	20.1~26.9°C / 50~60%	21/Dec/2020~10/Mar/2021
Radiated (below 1GHz)	03CH03-HY	Edward	21.2~22.5°C/ 53~58%	23/Feb/2021~02/Mar/2021
Radiated (above 1GHz)	03CH02-HY	Streak	21.2~23.8°C / 56~58%	17/Jun/2020~10/Sep/2020
Radiated (Co-location)	03CH03-HY	Streak	23.4~23.6°C / 53~58%	01/Aug/2020~26/Aug/2020
☐ Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		FAX: 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				

Laboratory number TAF 3785 is a spin-off from the original Laboratory number TAF 1190.

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	QRCT V4.0-00156
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Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	default
2440MHz	default
2480MHz	default
BT-LE(2Mbps)	-
2402MHz	default
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	Adapter mode (Wired Pistol)
2	Adapter mode (WLC Pistol)
3	USB mode (WLC Pistol)

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains
According to the manufacturer's declaration of product application, the brand and model name are same as FCC ID : U4GSX5WB. After evaluation and verify, the test data meet our expectation. Therefore the test data could be leveraged as FCC ID : U4GSX5XLRWB.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Maximum Conducted Output Power
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	Adapter mode (Wired Pistol)		
2	Adapter mode (WLC Pistol)		
3	USB mode (WLC Pistol)		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT			V
According to the manufacturer's declaration of product application, the brand and model name are same as FCC ID : U4GSX5WB. After evaluation and verify, the test data meet our expectation. Therefore the test data could be leveraged as FCC ID : U4GSX5XLRWB. (only Radiated measurement above 1G)			

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	CTX
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
Refer to Sporton Test Report No.: FA9N0606-07 for Co-location RF Exposure Evaluation and Appendix H for Radiated Emission Co-location.	
According to the manufacturer's declaration of product application, the brand and model name are same as FCC ID : U4GSX5WB. After evaluation and verify, the test data meet our expectation. Therefore the test data could be leveraged as FCC ID : U4GSX5XLRWB.	

2.4 Accessories

Accessories				
AC Adapter	Brand Name	BI	Model Name	BI24-050300-I
	Power Rating	I/P: 100-240Vac, 0.8A, O/P: 5Vdc, 3A		
	Power Cord	1.5 meter, Shielded cable, with ferrite core		
Battery 1	Brand Name	Zhuhai Gushine Electronic Technology Co. Ltd.	Model Name	BY-07
	Power Rating	3.7Vdc, 3460mAh	Type	Li-Ion
Battery 2	Brand Name	Zhuhai Gushine Electronic Technology Co. Ltd.	Model Name	BY-08
	Power Rating	3.635Vdc, 6080mAh	Type	Li-Ion
USB Cable	Power Cord	1.5 meter, Shielded cable, w/o ferrite core		

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

2.5 Support Equipment

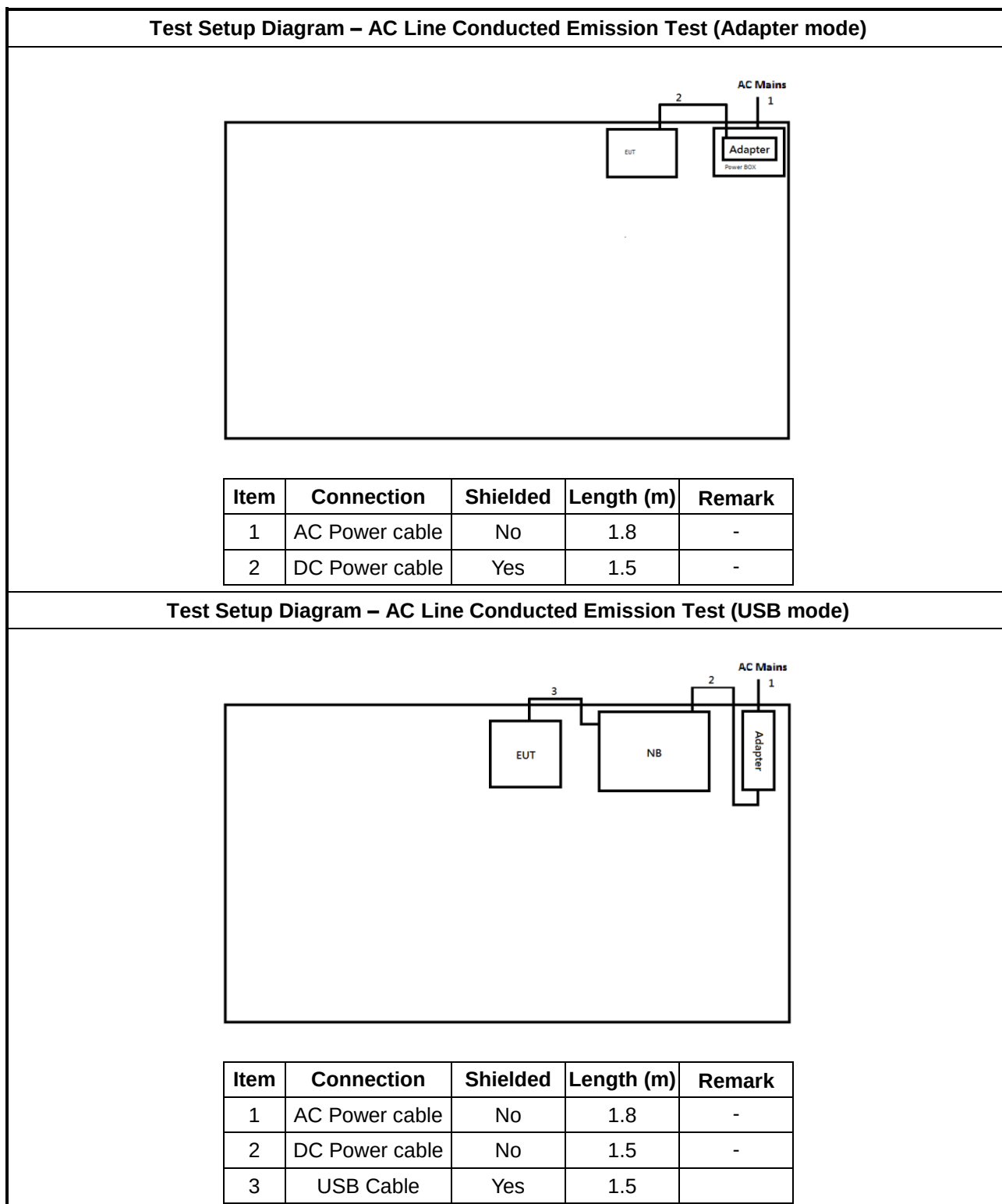
Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	P06G	-	-
2	AC adapter for NB	DELL	AA90PM111	-	-

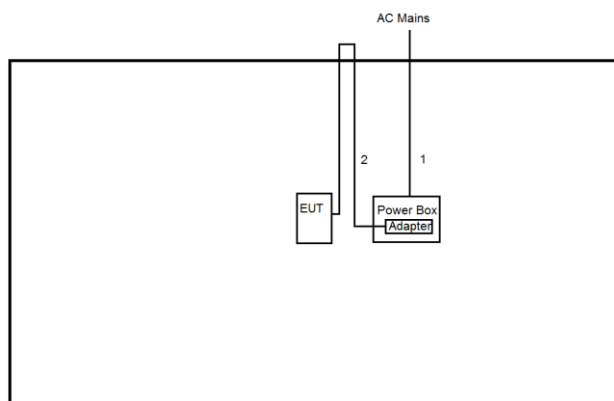
Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

Support Equipment – Radiated below 1GHz					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	P06G	-	-
2	AC adapter for NB	DELL	AA90PM111	-	-

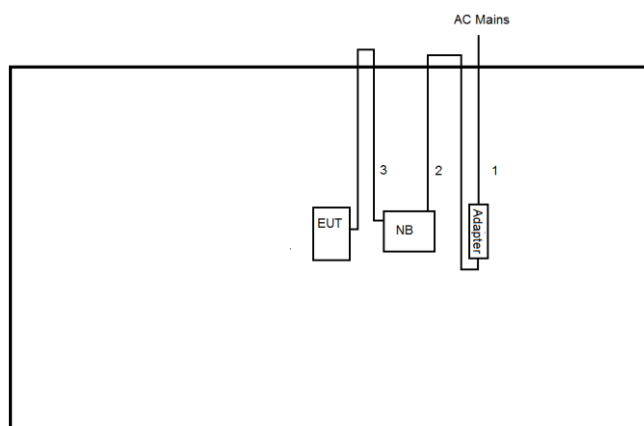
Support Equipment – Radiated above 1GHz					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	PP13S	-	-
2	AC adapter for NB	DELL	AA90PM111	-	-

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test (Adapter mode)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	Yes	1.5	-

Test Setup Diagram - Radiated Test (USB mode)


Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	DC Power cable	No	1.5	-
3	USB Cable	Yes	1.5	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

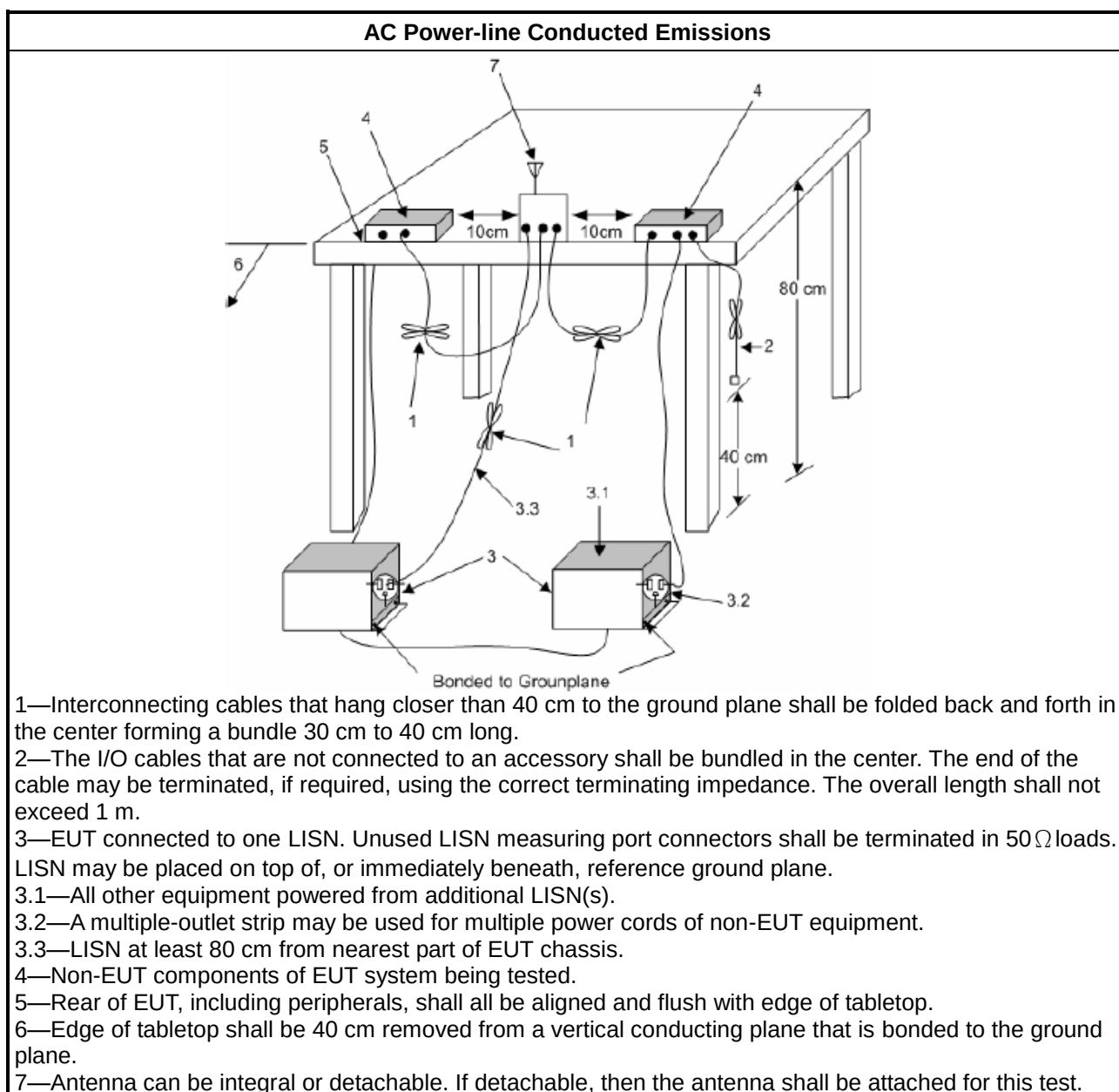
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.5 Test Setup



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
▪	6 dB bandwidth $\geq$ 500 kHz.

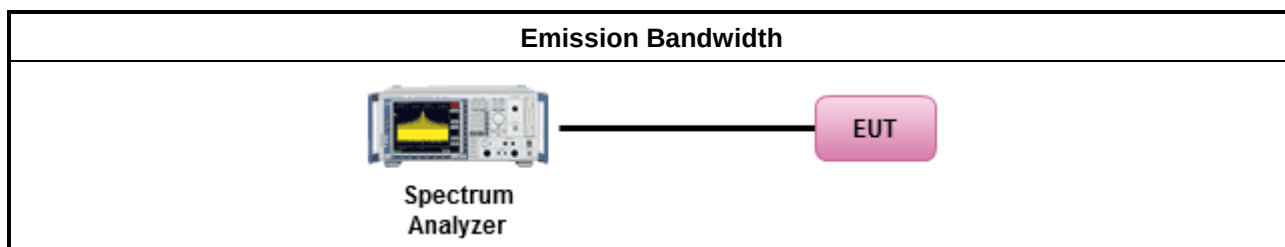
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
e.i.r.p. Power Limit:	
	2400-2483.5 MHz Band
	Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	Smart antenna system (SAS)
	- Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

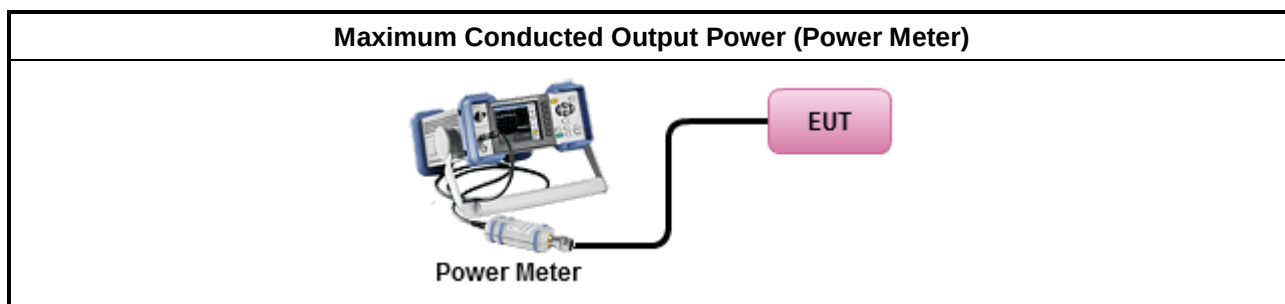
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
☐	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
☐	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
Maximum Average Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
☒	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.	
If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

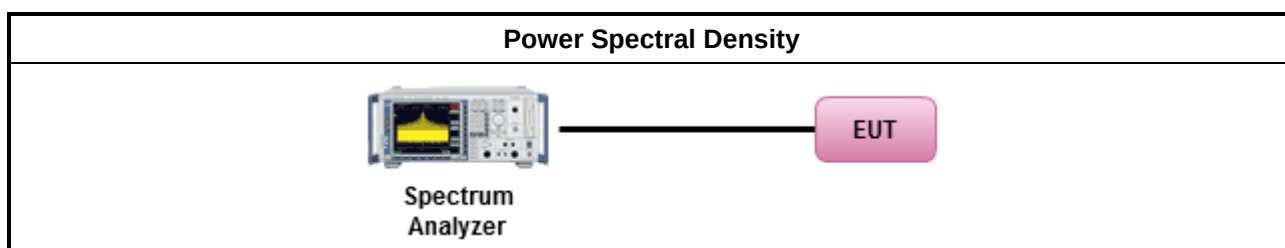
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒	Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.
▪	For conducted measurement.
▪	If The EUT supports multiple transmit chains using options given below:
▪	Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

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

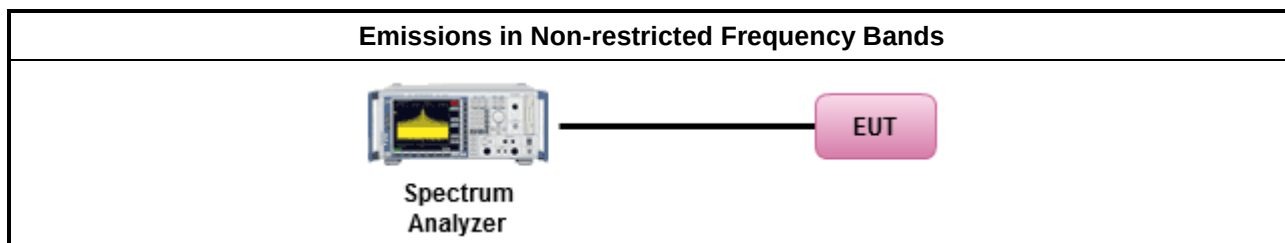
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

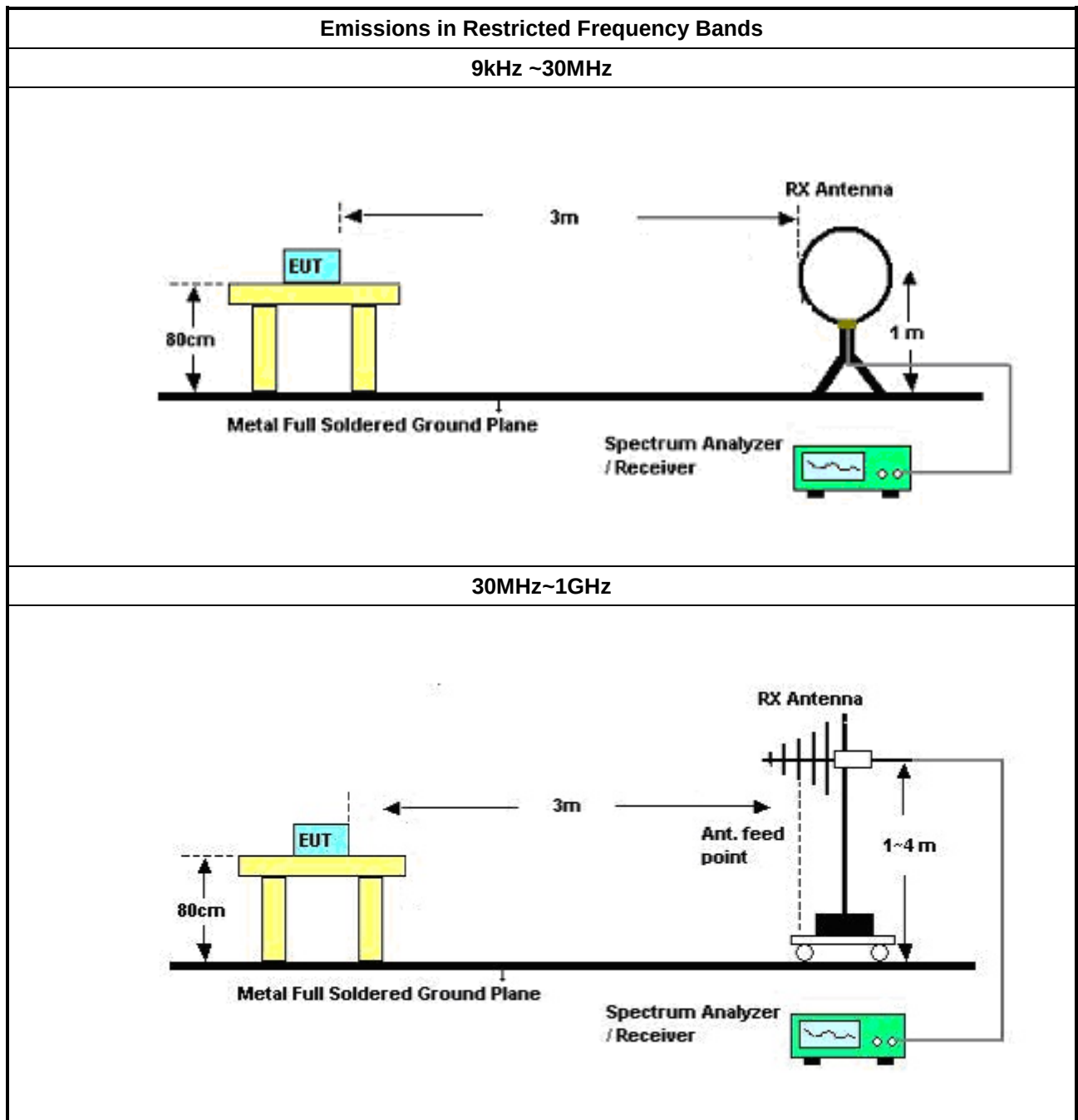
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

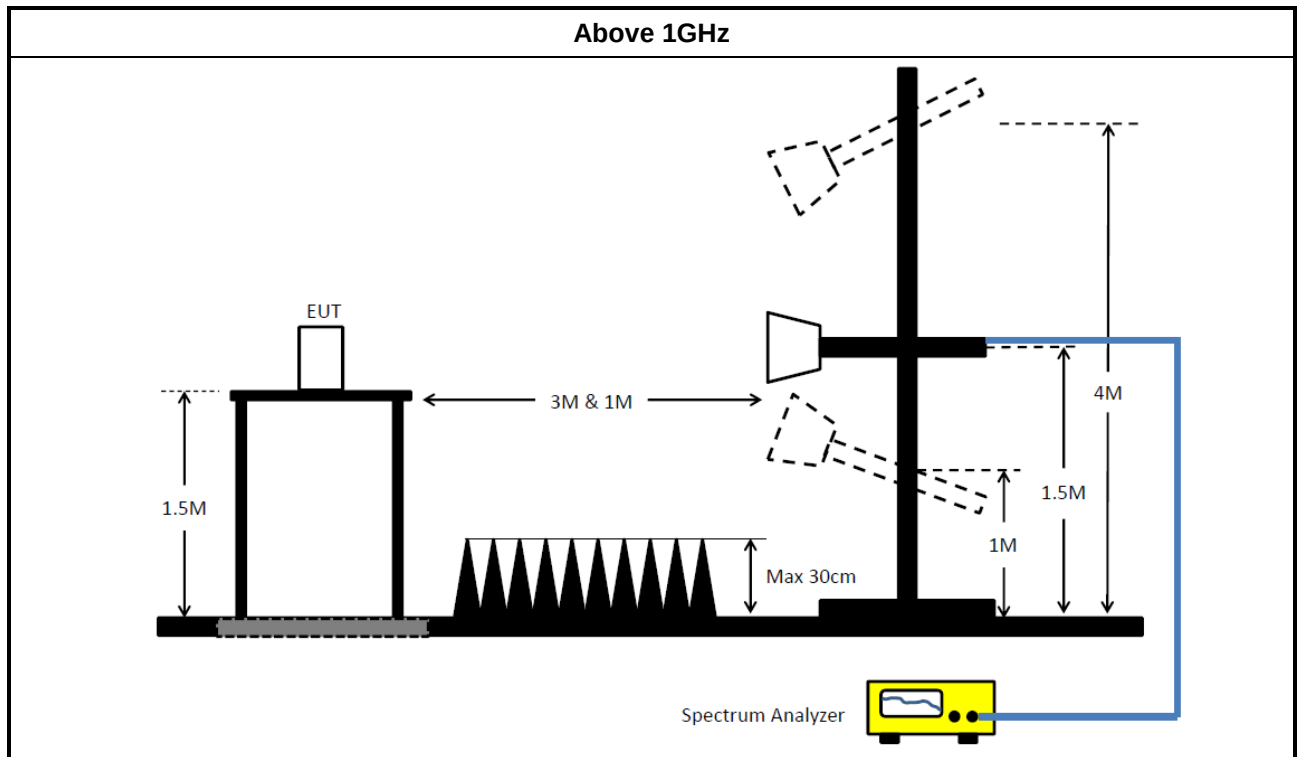
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.6.5 Test Setup





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

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

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	11/Nov/2020	10/Nov/2021
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9kHz~200MHz	03/Mar/2021	02/Mar/2022
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	21/Sep/2020	20/Sep/2021

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	19/Mar/2020	18/Mar/2021
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	11/Nov/2020
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	17/Feb/2020	16/Feb/2021
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	17/Feb/2020	16/Feb/2021

Instrument for Conducted Test for Power

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10Hz~40GHz	19/Oct/2020	18/Oct/2021
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	20/Oct/2020	19/Oct/2021
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	18/Mar/2020	17/Mar/2021
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	18/Mar/2020	17/Mar/2021

Instrument for Radiated Test below 1GHz

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	06/Aug/2020	05/Aug/2021
Signal Analyzer	R&S	FSV40	101500	10Hz~40GHz	19/Aug/2020	18/Aug/2021
Amplifier	HP	8447D	2944A08033	10kHz~1.3GHz	14/Apr/2020	13/Apr/2021
Bilog Antenna & 6dB Attenuator	SCHAFFNER / EMCI	CBL6112B / N-6-05	22237 / AT-N-0603	30MHz~1GHz	25/Oct/2020	24/Oct/2021
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz~30MHz	19/Jun/2020	18/Jun/2021
RF Cable-R03m	Jye Bao	RG142	CB021	30MHz~1GHz	18/Mar/2020	17/Mar/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	29/May/2020	28/May/2021

Instrument for Radiated Test above 1GHz

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	29/Aug/2019	28/Aug/2020
Signal Analyzer	R&S	FSP40	100593	9kHz~40GHz	27/Feb/2020	26/Feb/2021
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~18GHz	16/Oct/2019	15/Oct/2020
Double Ridged Guide Horn Antenna	SCHWARZBEC	BBHA 9120 D	BBHA 9120 D 01543	1GHz~18GHz	09/Jun/2020	08/Jun/2021
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX104	805193/4+80 5192/4	1GHz~40GHz	08/Apr/2020	07/Apr/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021

Instrument for Radiated Test (Co-location)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz~18GHz 3m	04/Aug/2020	03/Aug/2021
Signal Analyzer	R&S	FSP 30	100793	10Hz~30GHz	15/Feb/2020	14/Feb/2021
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz~26.5GHz	09/Sep/2019	08/Sep/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz~18GHz	26/Mar/2020	25/Mar/2021
RF CABLE 5+6m	HUBER+SUHNER	SUOFLEX 104	SN 805801/4+SN 804300/4	1GHz~40GHz	18/Mar/2020	17/Mar/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021

Summary

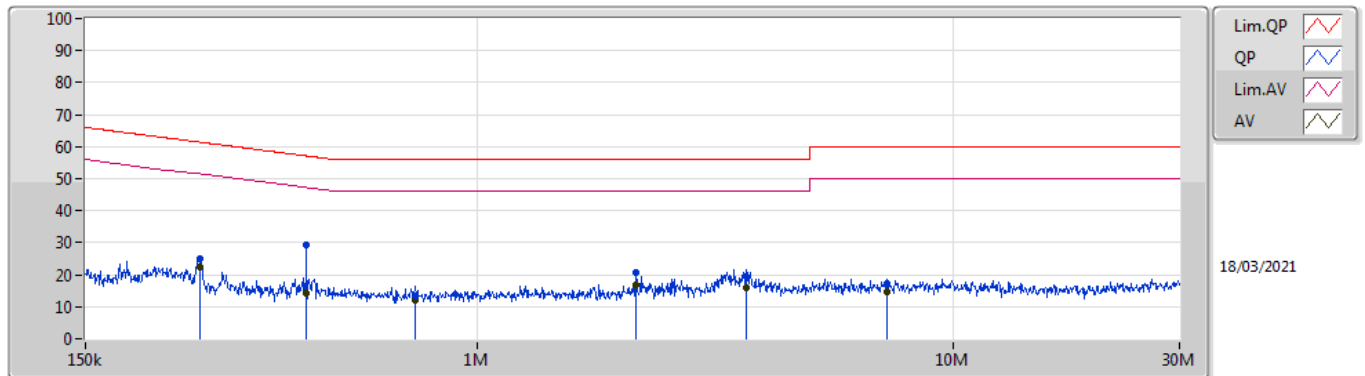
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition
Mode 1	Pass	QP	435.504k	29.41	57.15	-27.74	19.62	Line
Mode 2	Pass	QP	181.681k	48.49	64.41	-15.92	19.62	Neutral
Mode 3	Pass	QP	435.504k	29.41	57.15	-27.74	19.62	Line

Mode Configure

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comments	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
Mode 1	Pass	QP	261.263k	25.06	61.39	-36.33	19.63	Line	-	5.43	9.68	0.05	9.90
Mode 1	Pass	AV	261.263k	22.29	51.39	-29.10	19.63	Line	-	2.66	9.68	0.05	9.90
Mode 1	Pass	QP	435.504k	29.41	57.15	-27.74	19.62	Line	-	9.79	9.67	0.06	9.89
Mode 1	Pass	AV	435.504k	14.41	47.15	-32.74	19.62	Line	-	-5.21	9.67	0.06	9.89
Mode 1	Pass	QP	740.588k	13.30	56.00	-42.70	19.57	Line	-	-6.27	9.67	0.07	9.83
Mode 1	Pass	AV	740.588k	12.09	46.00	-33.91	19.57	Line	-	-7.48	9.67	0.07	9.83
Mode 1	Pass	QP	2.15M	20.88	56.00	-35.12	19.59	Line	-	1.29	9.68	0.10	9.81
Mode 1	Pass	AV	2.15M	16.63	46.00	-29.37	19.59	Line	-	-2.96	9.68	0.10	9.81
Mode 1	Pass	QP	3.671M	19.34	56.00	-36.66	19.72	Line	-	-0.38	9.69	0.14	9.89
Mode 1	Pass	AV	3.671M	16.08	46.00	-29.92	19.72	Line	-	-3.64	9.69	0.14	9.89
Mode 1	Pass	QP	7.265M	17.06	60.00	-42.94	19.79	Line	-	-2.73	9.71	0.18	9.90
Mode 1	Pass	AV	7.265M	14.81	50.00	-35.19	19.79	Line	-	-4.98	9.71	0.18	9.90
Mode 1	Pass	QP	185.344k	26.71	64.24	-37.53	19.62	Neutral	-	7.09	9.68	0.04	9.90
Mode 1	Pass	AV	185.344k	22.58	54.24	-31.66	19.62	Neutral	-	2.96	9.68	0.04	9.90
Mode 1	Pass	QP	258.152k	24.31	61.49	-37.18	19.63	Neutral	-	4.68	9.68	0.05	9.90
Mode 1	Pass	AV	258.152k	21.03	51.49	-30.46	19.63	Neutral	-	1.40	9.68	0.05	9.90
Mode 1	Pass	QP	428.605k	23.71	57.28	-33.57	19.62	Neutral	-	4.09	9.67	0.06	9.89
Mode 1	Pass	AV	428.605k	13.65	47.28	-33.63	19.62	Neutral	-	-5.97	9.67	0.06	9.89
Mode 1	Pass	QP	2.211M	24.41	56.00	-31.59	19.60	Neutral	-	4.81	9.68	0.11	9.81
Mode 1	Pass	AV	2.211M	17.72	46.00	-28.28	19.60	Neutral	-	-1.88	9.68	0.11	9.81
Mode 1	Pass	QP	3.642M	19.14	56.00	-36.86	19.71	Neutral	-	-0.57	9.69	0.13	9.89
Mode 1	Pass	AV	3.642M	16.42	46.00	-29.58	19.71	Neutral	-	-3.29	9.69	0.13	9.89
Mode 1	Pass	QP	8.422M	17.06	60.00	-42.94	19.81	Neutral	-	-2.75	9.72	0.19	9.90
Mode 1	Pass	AV	8.422M	14.73	50.00	-35.27	19.81	Neutral	-	-5.08	9.72	0.19	9.90
Mode 2	Pass	QP	160.533k	48.74	65.43	-16.69	19.63	Line	-	29.11	9.69	0.04	9.90
Mode 2	Pass	AV	160.533k	28.14	55.43	-27.29	19.63	Line	-	8.51	9.69	0.04	9.90
Mode 2	Pass	QP	180.957k	48.44	64.43	-15.99	19.62	Line	-	28.82	9.68	0.04	9.90
Mode 2	Pass	AV	180.957k	32.95	54.43	-21.48	19.62	Line	-	13.33	9.68	0.04	9.90
Mode 2	Pass	QP	227.194k	42.91	62.56	-19.65	19.62	Line	-	23.29	9.68	0.04	9.90
Mode 2	Pass	AV	227.194k	30.37	52.56	-22.19	19.62	Line	-	10.75	9.68	0.04	9.90
Mode 2	Pass	QP	1.62M	23.98	56.00	-32.02	19.57	Line	-	4.41	9.68	0.09	9.80
Mode 2	Pass	AV	1.62M	18.95	46.00	-27.05	19.57	Line	-	-0.62	9.68	0.09	9.80
Mode 2	Pass	QP	4.255M	24.45	56.00	-31.55	19.73	Line	-	4.72	9.69	0.14	9.90
Mode 2	Pass	AV	4.255M	18.79	46.00	-27.21	19.73	Line	-	-0.94	9.69	0.14	9.90
Mode 2	Pass	QP	14.61M	26.19	60.00	-33.81	19.84	Line	-	6.35	9.69	0.25	9.90
Mode 2	Pass	AV	14.61M	17.91	50.00	-32.09	19.84	Line	-	-1.93	9.69	0.25	9.90
Mode 2	Pass	AV	181.681k	33.21	54.41	-21.20	19.62	Neutral	-	13.59	9.68	0.04	9.90
Mode 2	Pass	QP	222.704k	42.46	62.71	-20.25	19.62	Neutral	-	22.84	9.68	0.04	9.90
Mode 2	Pass	AV	222.704k	28.65	52.71	-24.06	19.62	Neutral	-	9.03	9.68	0.04	9.90
Mode 2	Pass	QP	387.896k	24.00	58.10	-34.10	19.63	Neutral	-	4.37	9.67	0.06	9.90
Mode 2	Pass	AV	387.896k	15.53	48.10	-32.57	19.63	Neutral	-	-4.10	9.67	0.06	9.90
Mode 2	Pass	QP	2.211M	26.46	56.00	-29.54	19.60	Neutral	-	6.86	9.68	0.11	9.81

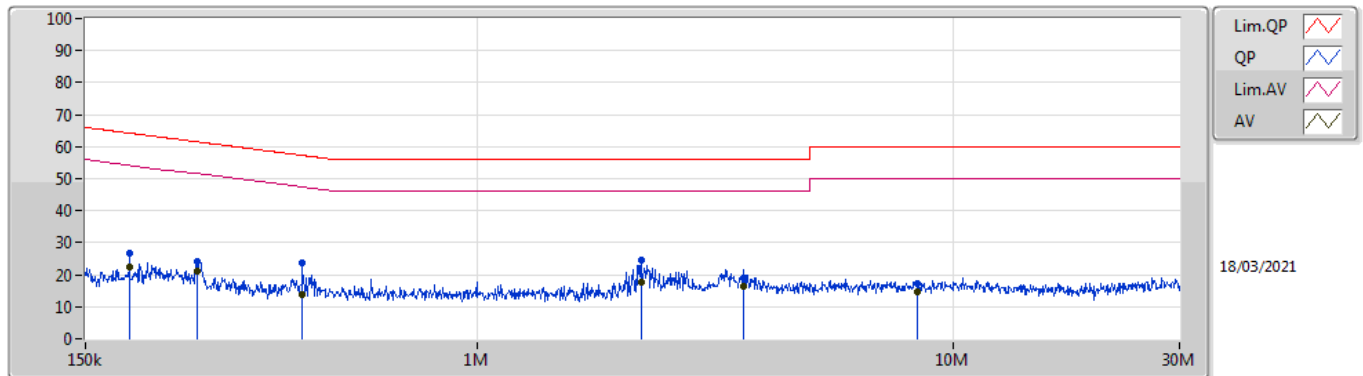
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comments	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
Mode 2	Pass	AV	2.211M	21.53	46.00	-24.47	19.60	Neutral	-	1.93	9.68	0.11	9.81
Mode 2	Pass	QP	4.188M	24.88	56.00	-31.12	19.73	Neutral	-	5.15	9.69	0.14	9.90
Mode 2	Pass	AV	4.188M	19.20	46.00	-26.80	19.73	Neutral	-	-0.53	9.69	0.14	9.90
Mode 2	Pass	QP	14.905M	30.30	60.00	-29.70	19.89	Neutral	-	10.41	9.74	0.25	9.90
Mode 2	Pass	AV	14.905M	23.68	50.00	-26.32	19.89	Neutral	-	3.79	9.74	0.25	9.90
Mode 2	Pass	QP	181.681k	48.49	64.41	-15.92	19.62	Neutral	-	28.87	9.68	0.04	9.90
Mode 3	Pass	QP	261.263k	25.06	61.39	-36.33	19.63	Line	-	5.43	9.68	0.05	9.90
Mode 3	Pass	AV	261.263k	22.29	51.39	-29.10	19.63	Line	-	2.66	9.68	0.05	9.90
Mode 3	Pass	QP	435.504k	29.41	57.15	-27.74	19.62	Line	-	9.79	9.67	0.06	9.89
Mode 3	Pass	AV	435.504k	14.41	47.15	-32.74	19.62	Line	-	-5.21	9.67	0.06	9.89
Mode 3	Pass	QP	740.588k	13.30	56.00	-42.70	19.57	Line	-	-6.27	9.67	0.07	9.83
Mode 3	Pass	AV	740.588k	12.09	46.00	-33.91	19.57	Line	-	-7.48	9.67	0.07	9.83
Mode 3	Pass	QP	2.15M	20.88	56.00	-35.12	19.59	Line	-	1.29	9.68	0.10	9.81
Mode 3	Pass	AV	2.15M	16.63	46.00	-29.37	19.59	Line	-	-2.96	9.68	0.10	9.81
Mode 3	Pass	QP	3.671M	19.34	56.00	-36.66	19.72	Line	-	-0.38	9.69	0.14	9.89
Mode 3	Pass	AV	3.671M	16.08	46.00	-29.92	19.72	Line	-	-3.64	9.69	0.14	9.89
Mode 3	Pass	QP	7.265M	17.06	60.00	-42.94	19.79	Line	-	-2.73	9.71	0.18	9.90
Mode 3	Pass	AV	7.265M	14.81	50.00	-35.19	19.79	Line	-	-4.98	9.71	0.18	9.90
Mode 3	Pass	QP	185.344k	22.58	64.24	-41.66	19.62	Neutral	-	2.96	9.68	0.04	9.90
Mode 3	Pass	AV	185.344k	18.34	54.24	-35.90	19.62	Neutral	-	-1.28	9.68	0.04	9.90
Mode 3	Pass	QP	258.152k	24.31	61.49	-37.18	19.63	Neutral	-	4.68	9.68	0.05	9.90
Mode 3	Pass	AV	258.152k	21.03	51.49	-30.46	19.63	Neutral	-	1.40	9.68	0.05	9.90
Mode 3	Pass	QP	428.605k	23.71	57.28	-33.57	19.62	Neutral	-	4.09	9.67	0.06	9.89
Mode 3	Pass	AV	428.605k	13.65	47.28	-33.63	19.62	Neutral	-	-5.97	9.67	0.06	9.89
Mode 3	Pass	QP	2.211M	24.41	56.00	-31.59	19.60	Neutral	-	4.81	9.68	0.11	9.81
Mode 3	Pass	AV	2.211M	17.72	46.00	-28.28	19.60	Neutral	-	-1.88	9.68	0.11	9.81
Mode 3	Pass	QP	3.642M	19.14	56.00	-36.86	19.71	Neutral	-	-0.57	9.69	0.13	9.89
Mode 3	Pass	AV	3.642M	16.42	46.00	-29.58	19.71	Neutral	-	-3.29	9.69	0.13	9.89
Mode 3	Pass	QP	8.422M	17.06	60.00	-42.94	19.81	Neutral	-	-2.75	9.72	0.19	9.90
Mode 3	Pass	AV	8.422M	14.73	50.00	-35.27	19.81	Neutral	-	-5.08	9.72	0.19	9.90

Conducted Emissions at Powerline_Mode 1



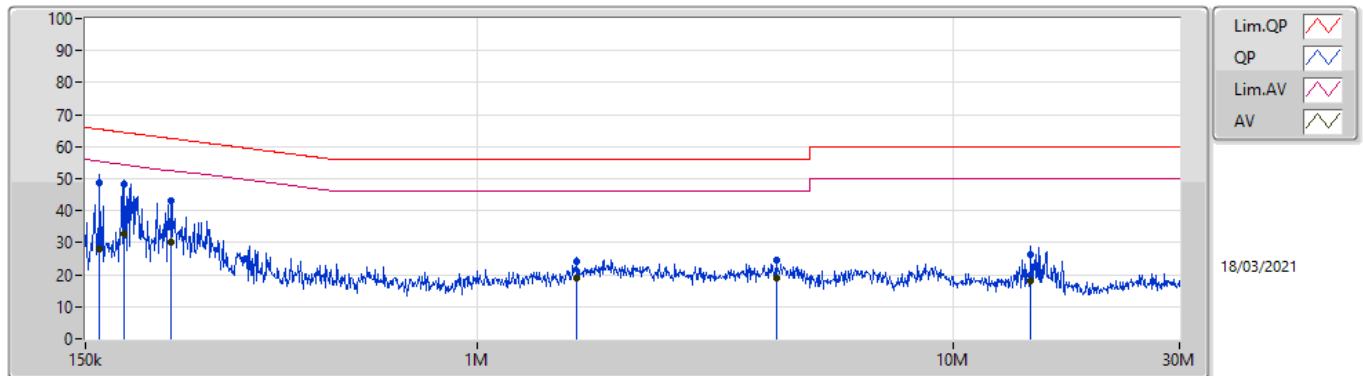
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QP	261.263k	25.06	61.39	-36.33	19.63	Line	-	5.43	9.68	0.05	9.90			
AV	261.263k	22.29	51.39	-29.10	19.63	Line	-	2.66	9.68	0.05	9.90			
QP	435.504k	29.41	57.15	-27.74	19.62	Line	-	9.79	9.67	0.06	9.89			
AV	435.504k	14.41	47.15	-32.74	19.62	Line	-	-5.21	9.67	0.06	9.89			
QP	740.588k	13.30	56.00	-42.70	19.57	Line	-	-6.27	9.67	0.07	9.83			
AV	740.588k	12.09	46.00	-33.91	19.57	Line	-	-7.48	9.67	0.07	9.83			
QP	2.15M	20.88	56.00	-35.12	19.59	Line	-	1.29	9.68	0.10	9.81			
AV	2.15M	16.63	46.00	-29.37	19.59	Line	-	-2.96	9.68	0.10	9.81			
QP	3.671M	19.34	56.00	-36.66	19.72	Line	-	-0.38	9.69	0.14	9.89			
AV	3.671M	16.08	46.00	-29.92	19.72	Line	-	-3.64	9.69	0.14	9.89			
QP	7.265M	17.06	60.00	-42.94	19.79	Line	-	-2.73	9.71	0.18	9.90			
AV	7.265M	14.81	50.00	-35.19	19.79	Line	-	-4.98	9.71	0.18	9.90			

Conducted Emissions at Powerline_Mode 1



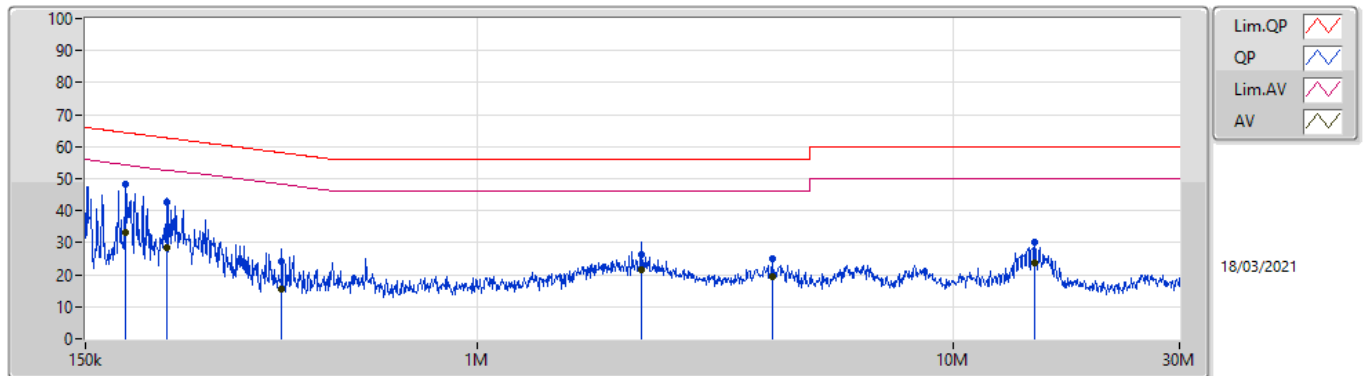
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QP	185.344k	26.71	64.24	-37.53	19.62	Neutral	-	7.09	9.68	0.04	9.90			
AV	185.344k	22.58	54.24	-31.66	19.62	Neutral	-	2.96	9.68	0.04	9.90			
QP	258.152k	24.31	61.49	-37.18	19.63	Neutral	-	4.68	9.68	0.05	9.90			
AV	258.152k	21.03	51.49	-30.46	19.63	Neutral	-	1.40	9.68	0.05	9.90			
QP	428.605k	23.71	57.28	-33.57	19.62	Neutral	-	4.09	9.67	0.06	9.89			
AV	428.605k	13.65	47.28	-33.63	19.62	Neutral	-	-5.97	9.67	0.06	9.89			
QP	2.211M	24.41	56.00	-31.59	19.60	Neutral	-	4.81	9.68	0.11	9.81			
AV	2.211M	17.72	46.00	-28.28	19.60	Neutral	-	-1.88	9.68	0.11	9.81			
QP	3.642M	19.14	56.00	-36.86	19.71	Neutral	-	-0.57	9.69	0.13	9.89			
AV	3.642M	16.42	46.00	-29.58	19.71	Neutral	-	-3.29	9.69	0.13	9.89			
QP	8.422M	17.06	60.00	-42.94	19.81	Neutral	-	-2.75	9.72	0.19	9.90			
AV	8.422M	14.73	50.00	-35.27	19.81	Neutral	-	-5.08	9.72	0.19	9.90			

Conducted Emissions at Powerline_Mode 2



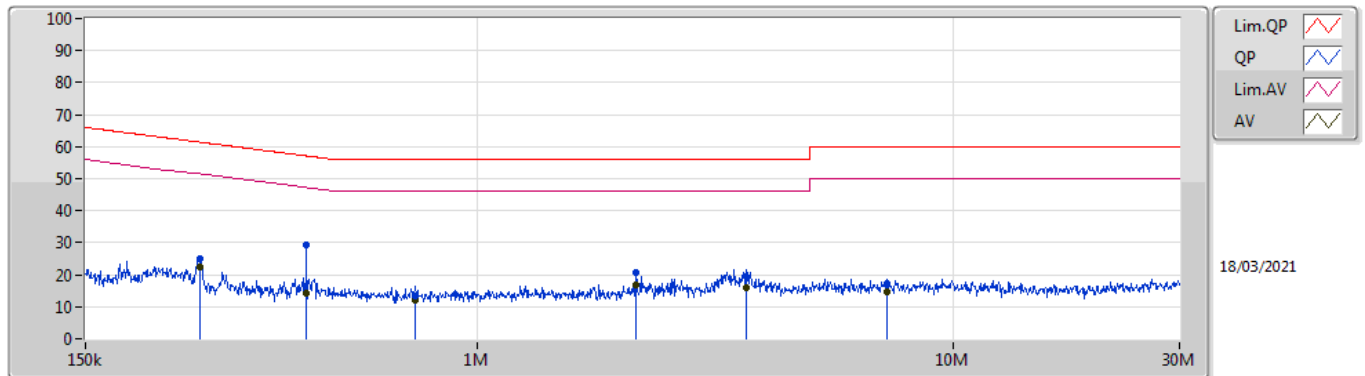
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	160.533k	48.74	65.43	-16.69	19.63	Line	-	29.11	9.69	0.04	9.90			
AV	160.533k	28.14	55.43	-27.29	19.63	Line	-	8.51	9.69	0.04	9.90			
QP	180.957k	48.44	64.43	-15.99	19.62	Line	-	28.82	9.68	0.04	9.90			
AV	180.957k	32.95	54.43	-21.48	19.62	Line	-	13.33	9.68	0.04	9.90			
QP	227.194k	42.91	62.56	-19.65	19.62	Line	-	23.29	9.68	0.04	9.90			
AV	227.194k	30.37	52.56	-22.19	19.62	Line	-	10.75	9.68	0.04	9.90			
QP	1.62M	23.98	56.00	-32.02	19.57	Line	-	4.41	9.68	0.09	9.80			
AV	1.62M	18.95	46.00	-27.05	19.57	Line	-	-0.62	9.68	0.09	9.80			
QP	4.255M	24.45	56.00	-31.55	19.73	Line	-	4.72	9.69	0.14	9.90			
AV	4.255M	18.79	46.00	-27.21	19.73	Line	-	-0.94	9.69	0.14	9.90			
QP	14.61M	26.19	60.00	-33.81	19.84	Line	-	6.35	9.69	0.25	9.90			
AV	14.61M	17.91	50.00	-32.09	19.84	Line	-	-1.93	9.69	0.25	9.90			

Conducted Emissions at Powerline_Mode 2



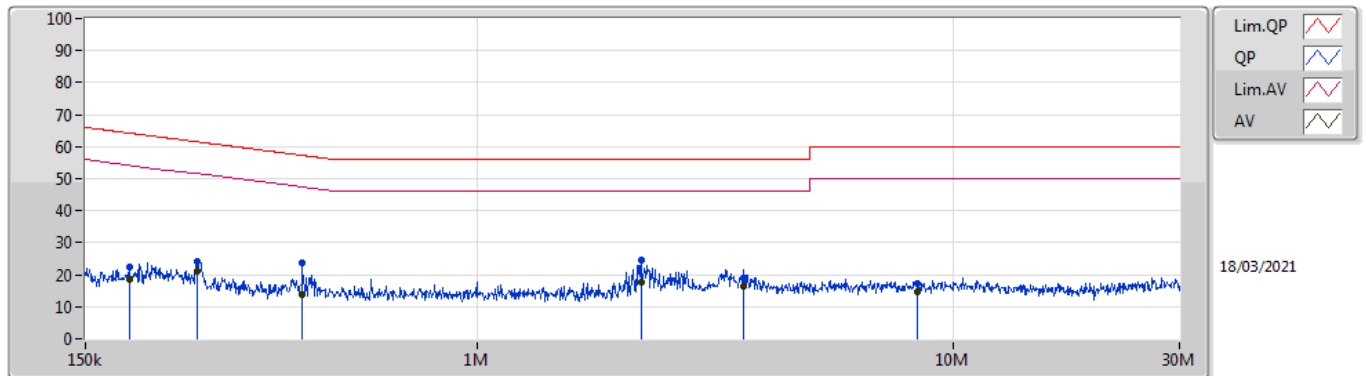
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	181.681k	48.49	64.41	-15.92	19.62	Neutral	-	28.87	9.68	0.04	9.90			
AV	181.681k	33.21	54.41	-21.20	19.62	Neutral	-	13.59	9.68	0.04	9.90			
QP	222.704k	42.46	62.71	-20.25	19.62	Neutral	-	22.84	9.68	0.04	9.90			
AV	222.704k	28.65	52.71	-24.06	19.62	Neutral	-	9.03	9.68	0.04	9.90			
QP	387.896k	24.00	58.10	-34.10	19.63	Neutral	-	4.37	9.67	0.06	9.90			
AV	387.896k	15.53	48.10	-32.57	19.63	Neutral	-	-4.10	9.67	0.06	9.90			
QP	2.211M	26.46	56.00	-29.54	19.60	Neutral	-	6.86	9.68	0.11	9.81			
AV	2.211M	21.53	46.00	-24.47	19.60	Neutral	-	1.93	9.68	0.11	9.81			
QP	4.188M	24.88	56.00	-31.12	19.73	Neutral	-	5.15	9.69	0.14	9.90			
AV	4.188M	19.20	46.00	-26.80	19.73	Neutral	-	-0.53	9.69	0.14	9.90			
QP	14.905M	30.30	60.00	-29.70	19.89	Neutral	-	10.41	9.74	0.25	9.90			
AV	14.905M	23.68	50.00	-26.32	19.89	Neutral	-	3.79	9.74	0.25	9.90			

Conducted Emissions at Powerline_Mode 3



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	261.263k	25.06	61.39	-36.33	19.63	Line	-	5.43	9.68	0.05	9.90			
AV	261.263k	22.29	51.39	-29.10	19.63	Line	-	2.66	9.68	0.05	9.90			
QP	435.504k	29.41	57.15	-27.74	19.62	Line	-	9.79	9.67	0.06	9.89			
AV	435.504k	14.41	47.15	-32.74	19.62	Line	-	-5.21	9.67	0.06	9.89			
QP	740.588k	13.30	56.00	-42.70	19.57	Line	-	-6.27	9.67	0.07	9.83			
AV	740.588k	12.09	46.00	-33.91	19.57	Line	-	-7.48	9.67	0.07	9.83			
QP	2.15M	20.88	56.00	-35.12	19.59	Line	-	1.29	9.68	0.10	9.81			
AV	2.15M	16.63	46.00	-29.37	19.59	Line	-	-2.96	9.68	0.10	9.81			
QP	3.671M	19.34	56.00	-36.66	19.72	Line	-	-0.38	9.69	0.14	9.89			
AV	3.671M	16.08	46.00	-29.92	19.72	Line	-	-3.64	9.69	0.14	9.89			
QP	7.265M	17.06	60.00	-42.94	19.79	Line	-	-2.73	9.71	0.18	9.90			
AV	7.265M	14.81	50.00	-35.19	19.79	Line	-	-4.98	9.71	0.18	9.90			

Conducted Emissions at Powerline_Mode 3



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	185.344k	22.58	64.24	-41.66	19.62	Neutral	-	2.96	9.68	0.04	9.90			
AV	185.344k	18.34	54.24	-35.90	19.62	Neutral	-	-1.28	9.68	0.04	9.90			
QP	258.152k	24.31	61.49	-37.18	19.63	Neutral	-	4.68	9.68	0.05	9.90			
AV	258.152k	21.03	51.49	-30.46	19.63	Neutral	-	1.40	9.68	0.05	9.90			
QP	428.605k	23.71	57.28	-33.57	19.62	Neutral	-	4.09	9.67	0.06	9.89			
AV	428.605k	13.65	47.28	-33.63	19.62	Neutral	-	-5.97	9.67	0.06	9.89			
QP	2.211M	24.41	56.00	-31.59	19.60	Neutral	-	4.81	9.68	0.11	9.81			
AV	2.211M	17.72	46.00	-28.28	19.60	Neutral	-	-1.88	9.68	0.11	9.81			
QP	3.642M	19.14	56.00	-36.86	19.71	Neutral	-	-0.57	9.69	0.13	9.89			
AV	3.642M	16.42	46.00	-29.58	19.71	Neutral	-	-3.29	9.69	0.13	9.89			
QP	8.422M	17.06	60.00	-42.94	19.81	Neutral	-	-2.75	9.72	0.19	9.90			
AV	8.422M	14.73	50.00	-35.27	19.81	Neutral	-	-5.08	9.72	0.19	9.90			



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)	665k	1.027M	1M03F1D	661.25k	1.026M
BT-LE(2Mbps)	1.138M	2.035M	2M04F1D	1.135M	2.033M

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;

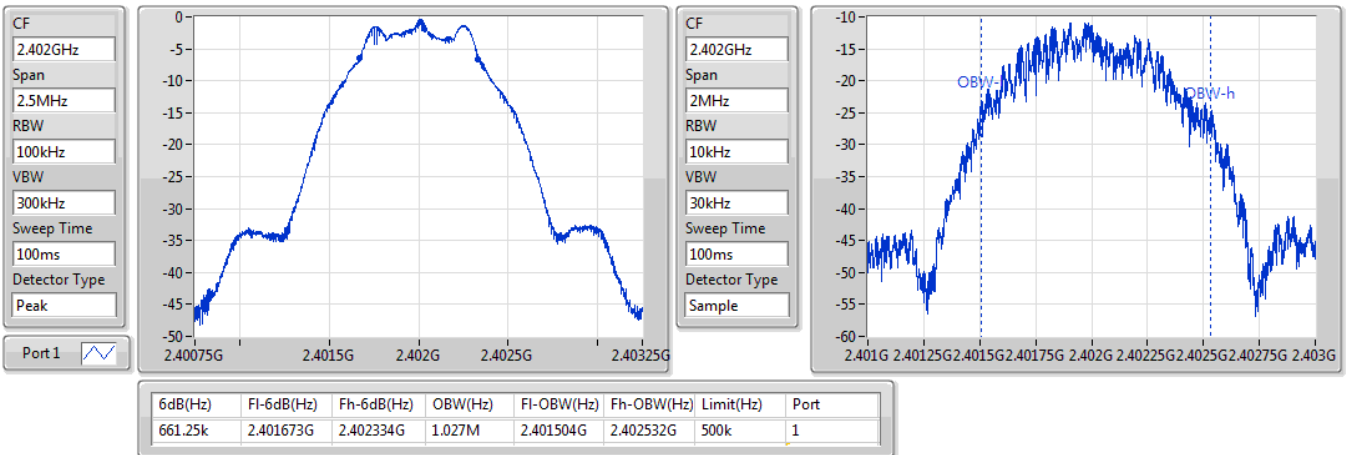
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	661.25k	1.027M
2440MHz	Pass	500k	663.75k	1.026M
2480MHz	Pass	500k	665k	1.027M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.135M	2.035M
2440MHz	Pass	500k	1.138M	2.035M
2480MHz	Pass	500k	1.138M	2.033M

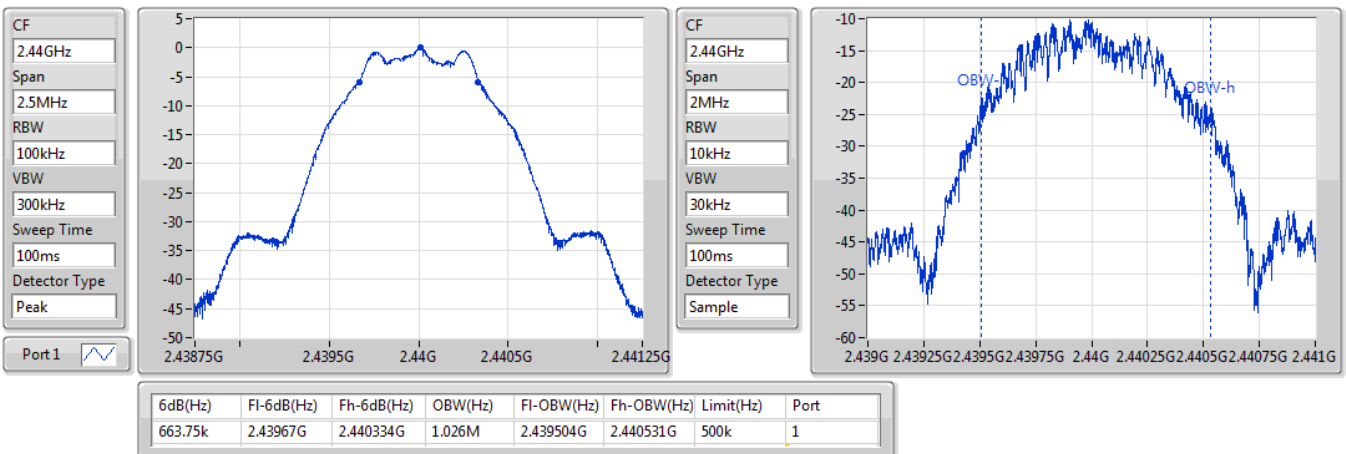
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-LE(1Mbps)
2402MHz
EBW

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BT-LE(1Mbps)
2440MHz
EBW

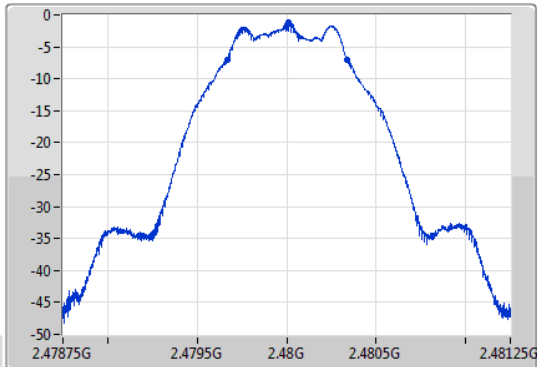
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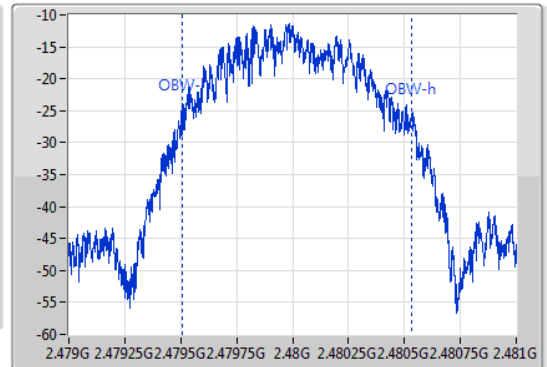
BT-LE(1Mbps)
2480MHz

16/06/2020

CF
2.48GHz
Span
2.5MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak
Port 1



CF
2.48GHz
Span
2MHz
RBW
10kHz
VBW
30kHz
Sweep Time
100ms
Detector Type
Sample

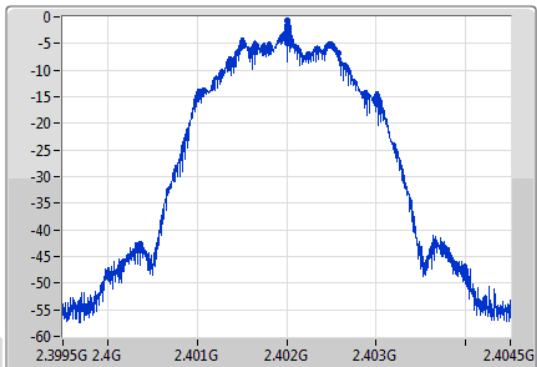


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
665k	2.479671G	2.480336G	1.027M	2.479504G	2.480532G	500k	1

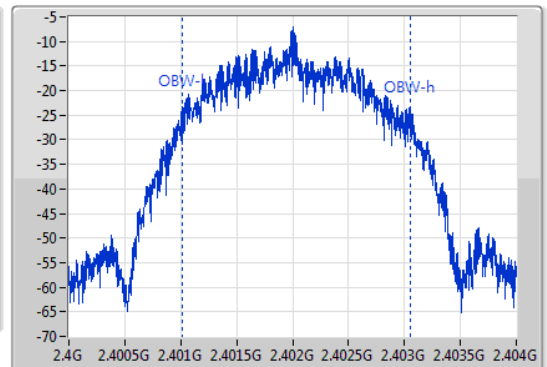
BT-LE(2Mbps)
2402MHz

16/06/2020

CF
2.402GHz
Span
5MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak
Port 1



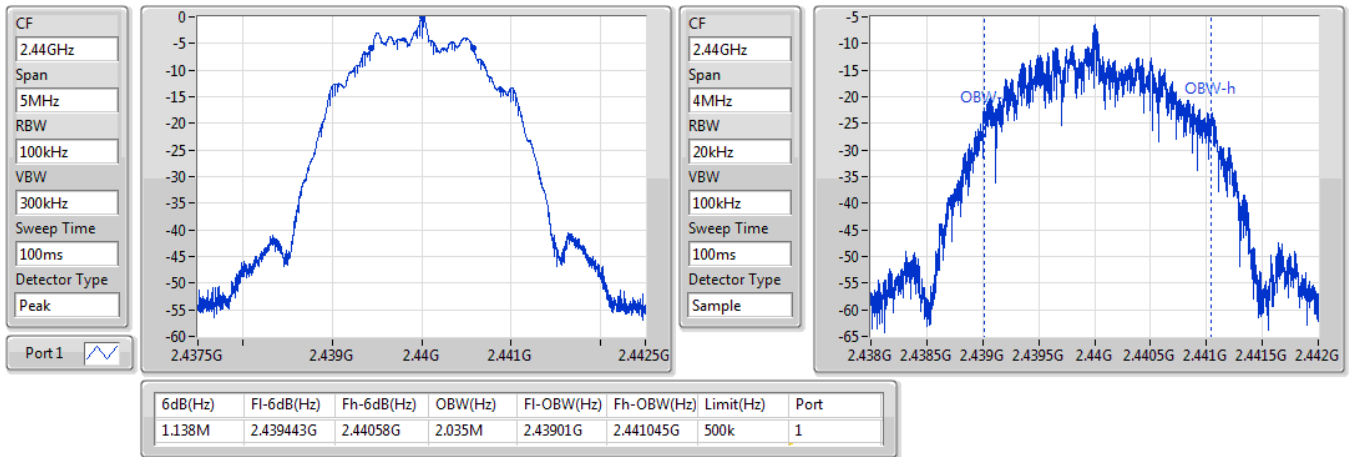
CF
2.402GHz
Span
4MHz
RBW
20kHz
VBW
100kHz
Sweep Time
100ms
Detector Type
Sample



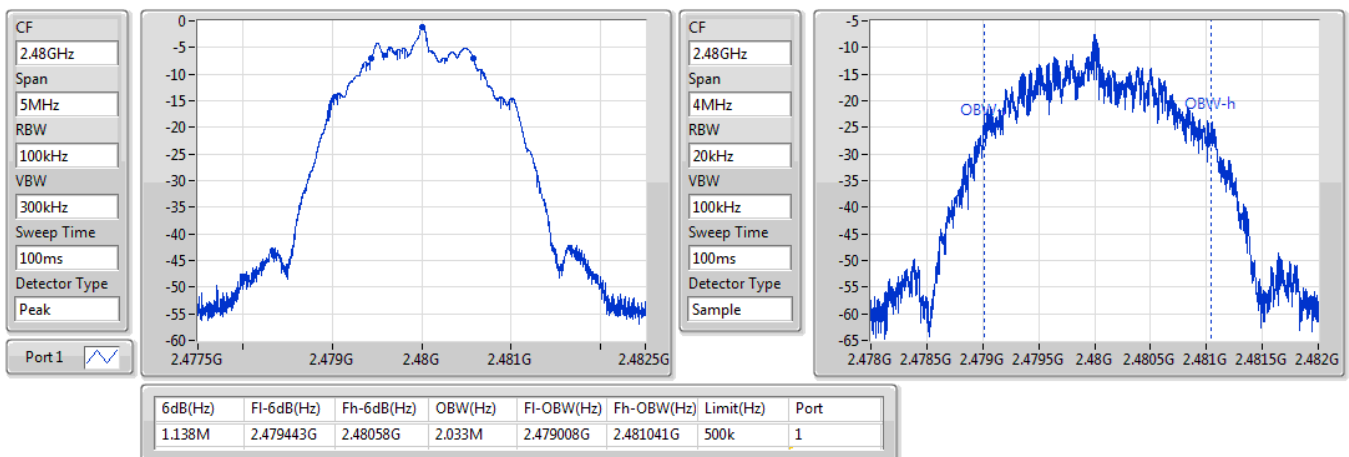
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.135M	2.401445G	2.40258G	2.035M	2.401012G	2.403047G	500k	1

BT-LE(2Mbps)
EBW
2440MHz

16/06/2020


BT-LE(2Mbps)
EBW
2480MHz

16/06/2020





Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	0.82	0.00121
BT-LE(2Mbps)	0.73	0.00118



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	1.70	0.62	30.00
2440MHz	Pass	1.70	0.82	30.00
2480MHz	Pass	1.70	-0.19	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	1.70	0.29	30.00
2440MHz	Pass	1.70	0.73	30.00
2480MHz	Pass	1.70	-0.64	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-14.97
BT-LE(2Mbps)	-18.29

RBW=3 kHz.

Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	1.70	-15.45	8.00
2440MHz	Pass	1.70	-14.97	8.00
2480MHz	Pass	1.70	-16.44	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	1.70	-19.32	8.00
2440MHz	Pass	1.70	-18.29	8.00
2480MHz	Pass	1.70	-19.52	8.00

DG = Directional Gain; RBW=3 kHz;

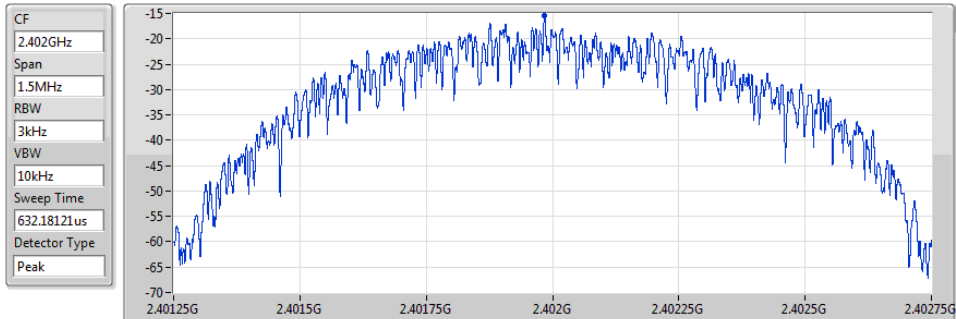
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

BT-LE(1Mbps)

PSD

2402MHz

16/06/2020



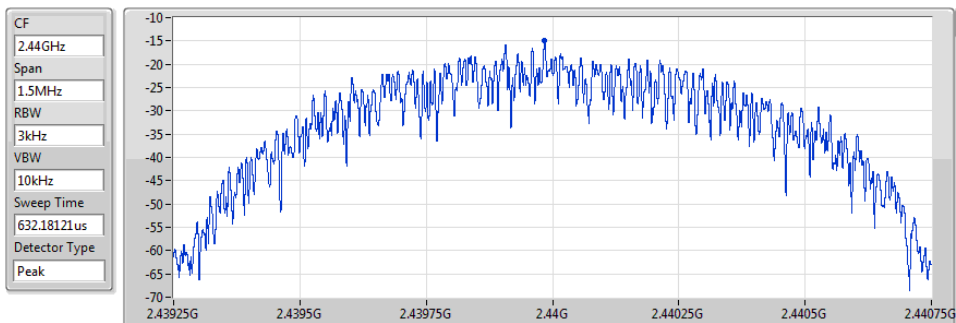
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-15.45	-15.45	-15.45

BT-LE(1Mbps)

PSD

2440MHz

16/06/2020



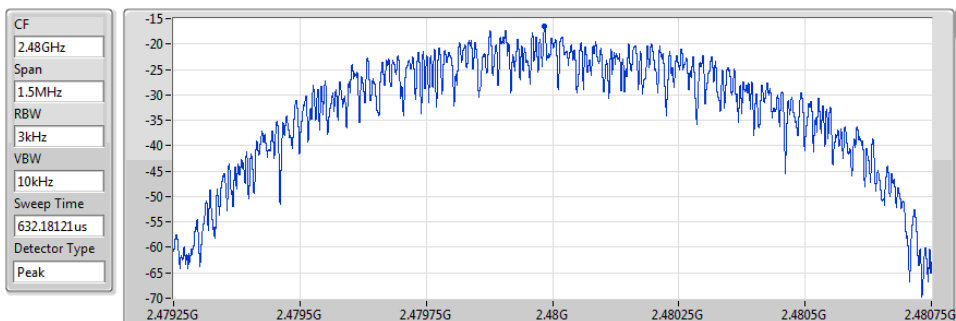
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-14.97	-14.97	-14.97

BT-LE(1Mbps)

PSD

2480MHz

16/06/2020



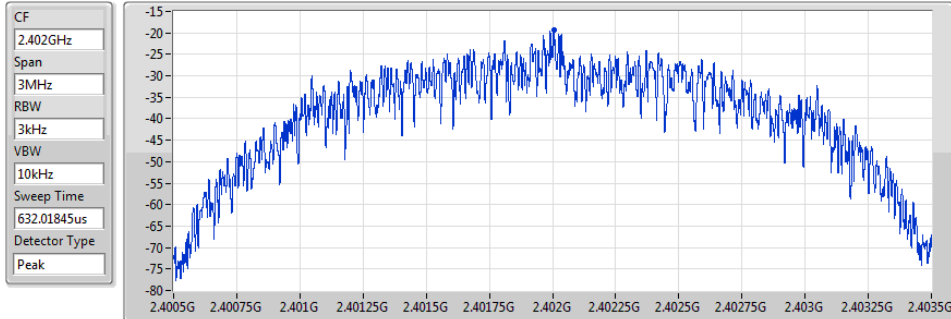
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-16.44	-16.44	-16.44

BT-LE(2Mbps)

PSD

2402MHz

16/06/2020



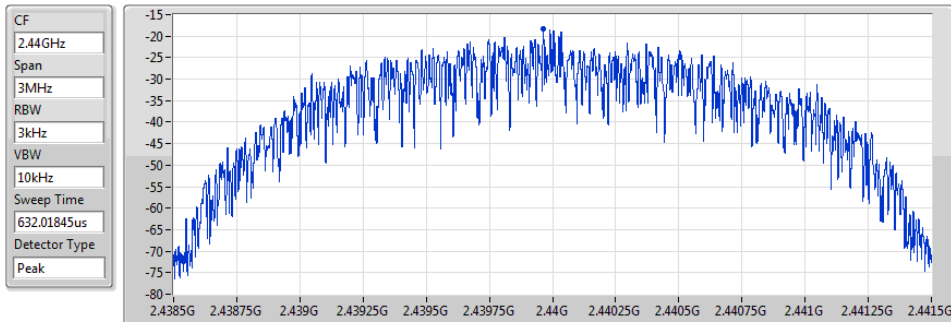
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-19.32	-19.32	-19.32

BT-LE(2Mbps)

PSD

2440MHz

16/06/2020



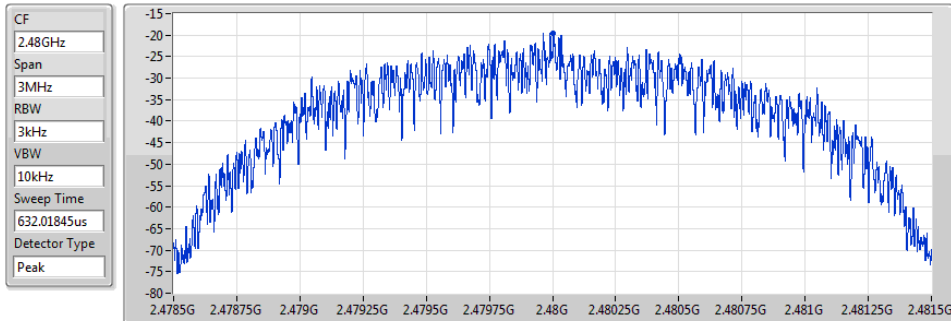
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-18.29	-18.29	-18.29

BT-LE(2Mbps)

PSD

2480MHz

16/06/2020



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-19.52	-19.52	-19.52

Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.44G	-0.12	-30.12	2.00253G	-53.49	2.39874G	-53.08	2.4835G	-55.30	2.49133G	-51.55	14.67973G	-40.59	1
BT-LE(2Mbps)	Pass	2.44G	-0.12	-30.12	2.19464G	-53.94	2.4G	-48.61	2.4G	-47.76	2.49706G	-51.94	23.43931G	-40.61	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44G	-0.12	-30.12	1.957G	-54.72	2.3937G	-52.11	2.4835G	-54.82	2.48623G	-52.32	23.45618G	-41.04	1
2440MHz	Pass	2.44G	-0.12	-30.12	2.3001G	-53.78	2.39421G	-53.33	2.4835G	-53.25	2.5028G	-51.78	17.6802G	-40.46	1
2480MHz	Pass	2.44G	-0.12	-30.12	2.00253G	-53.49	2.39874G	-53.08	2.4835G	-55.30	2.49133G	-51.55	14.67973G	-40.59	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44G	-0.12	-30.12	2.19464G	-53.94	2.4G	-48.61	2.4G	-47.76	2.49706G	-51.94	23.43931G	-40.61	1
2440MHz	Pass	2.44G	-0.12	-30.12	2.14735G	-53.96	2.39521G	-52.89	2.4835G	-56.15	2.48354G	-51.64	17.03624G	-39.68	1
2480MHz	Pass	2.44G	-0.12	-30.12	2.16233G	-53.58	2.39843G	-52.30	2.4835G	-55.85	2.49846G	-52.40	24.08327G	-41.19	1

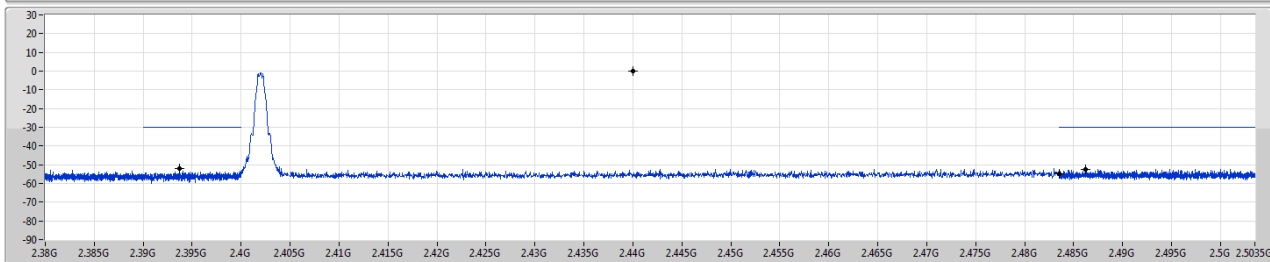
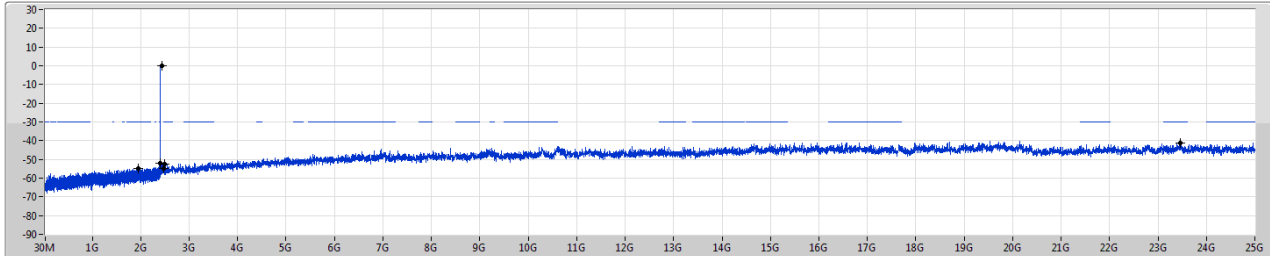
BT-LE(1Mbps)

2402MHz

CSE NdB

16/06/2020

Port1



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

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	-0.12	-30.12	1.957G	-54.72	2.3937G	-52.11	2.4835G	-54.82	2.48623G	-52.32	2.45618G	-41.04	1

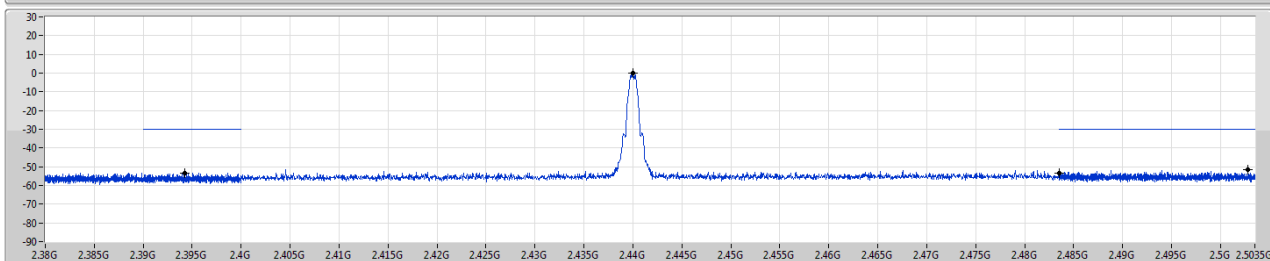
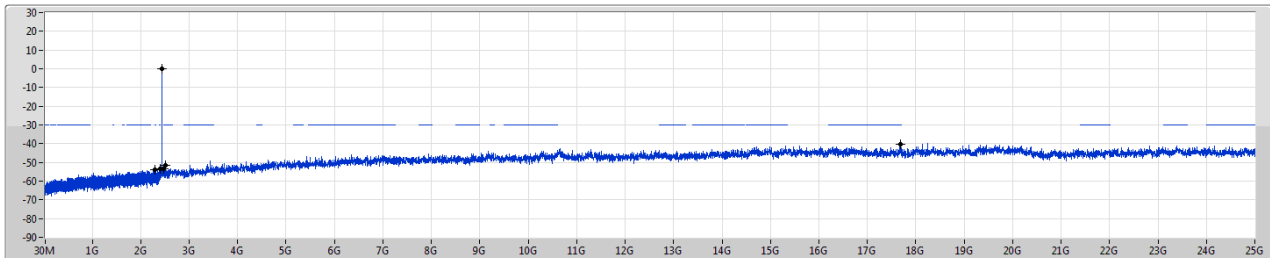
BT-LE(1Mbps)

2440MHz

CSE NdB

16/06/2020

Port1



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

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	-0.12	-30.12	2.3001G	-53.78	2.39421G	-53.33	2.4835G	-53.25	2.5028G	-51.78	17.6802G	-40.46	1

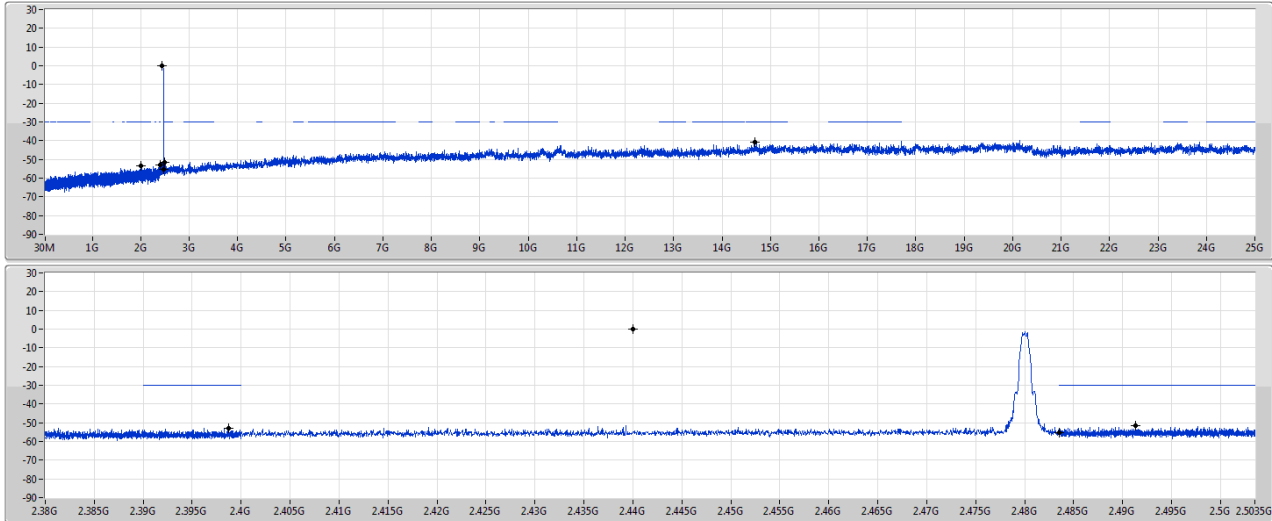
BT-LE(1Mbps)

2480MHz

CSE NdB

16/06/2020

Port 1



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

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	-0.12	-30.12	2.00253G	-53.49	2.39874G	-53.08	2.4835G	-55.30	2.49133G	-51.55	14.67973G	-40.59	1

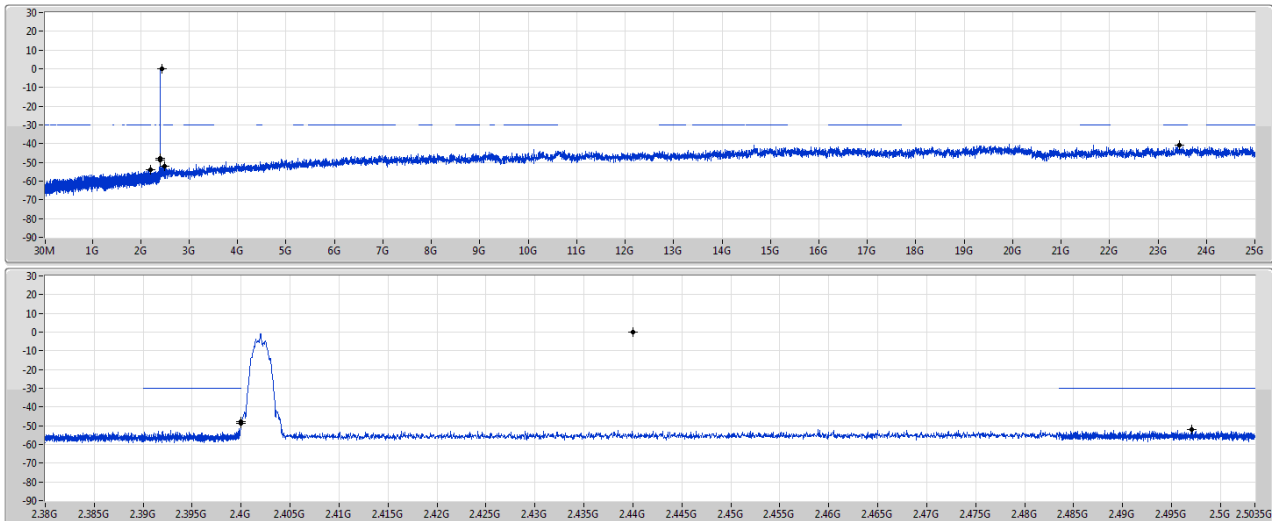
BT-LE(2Mbps)

2402MHz

CSE NdB

16/06/2020

Port 1



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

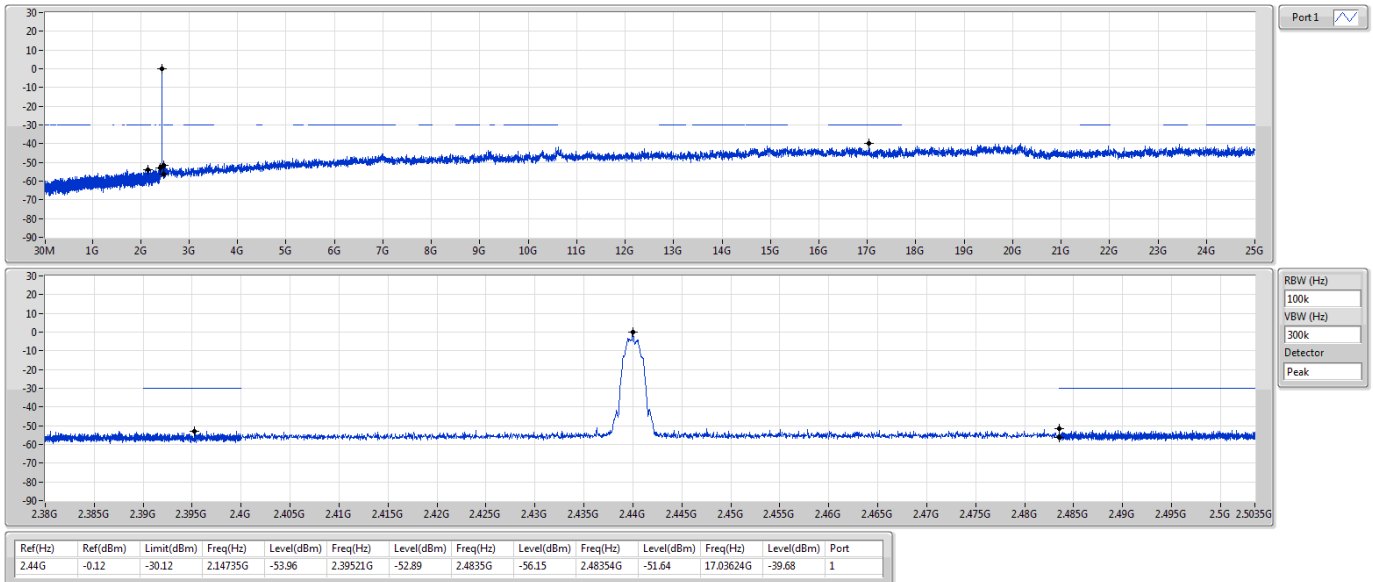
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	-0.12	-30.12	2.19464G	-53.94	2.4G	-48.61	2.4G	-47.76	2.49706G	-51.94	23.43931G	-40.61	1

BT-LE(2Mbps)

2440MHz

CSE NdB

16/06/2020

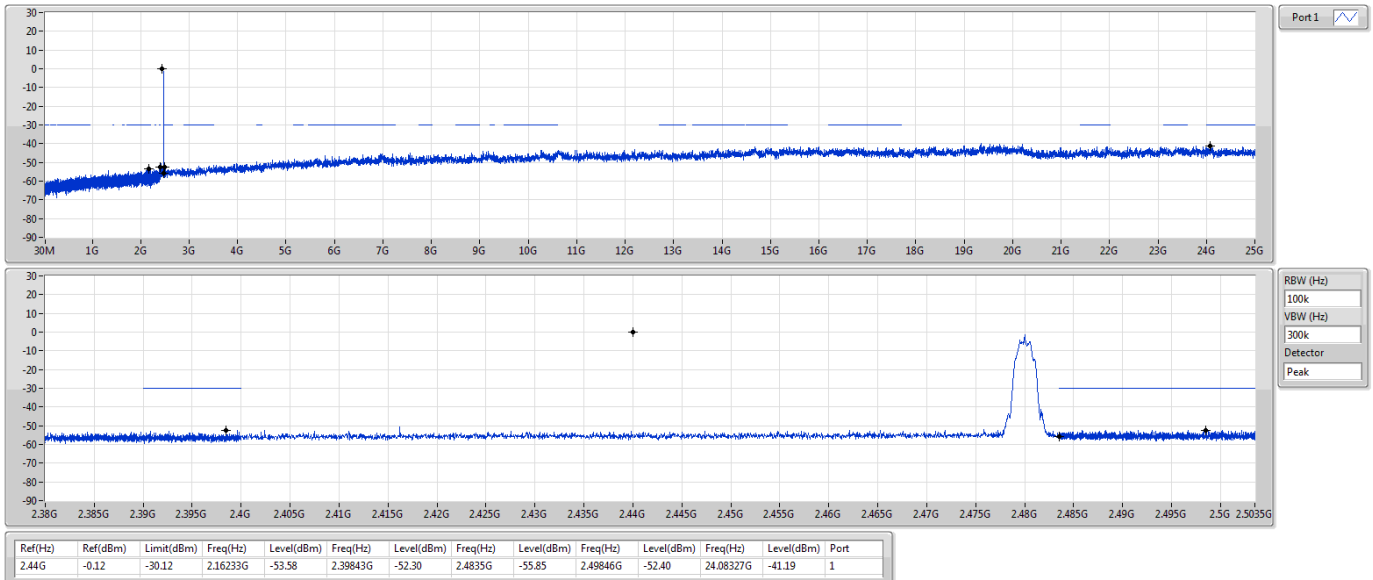


BT-LE(2Mbps)

2480MHz

CSE NdB

16/06/2020





Summary

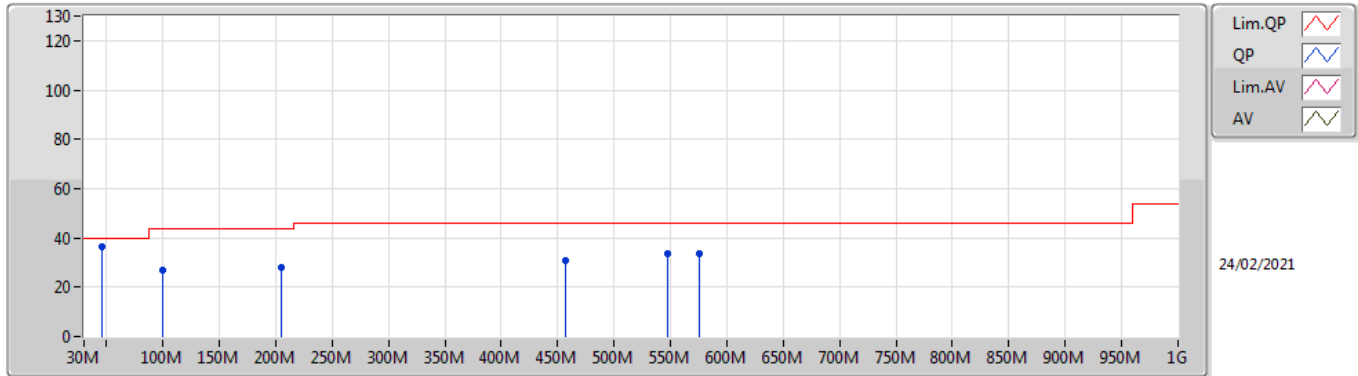
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	QP	45.52M	36.15	40.00	-3.85	3	Vertical	254	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	99.84M	26.69	43.50	-16.81	3	Vertical	0	1.00	-
2440MHz	Pass	PK	204.6M	27.90	43.50	-15.60	3	Vertical	0	1.00	-
2440MHz	Pass	PK	456.8M	30.64	46.00	-15.36	3	Vertical	0	1.00	-
2440MHz	Pass	PK	547.98M	33.54	46.00	-12.46	3	Vertical	0	1.00	-
2440MHz	Pass	PK	575.14M	33.73	46.00	-12.27	3	Vertical	0	1.00	-
2440MHz	Pass	QP	45.52M	36.15	40.00	-3.85	3	Vertical	254	1.00	-
2440MHz	Pass	PK	45.52M	29.62	40.00	-10.38	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	202.66M	28.97	43.50	-14.53	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	291.9M	31.41	46.00	-14.59	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	375.32M	29.73	46.00	-16.27	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	623.64M	31.40	46.00	-14.60	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	648.86M	31.67	46.00	-14.33	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	37.76M	35.05	40.00	-4.95	3	Vertical	0	1.00	-
2440MHz	Pass	PK	97.9M	31.45	43.50	-12.05	3	Vertical	0	1.00	-
2440MHz	Pass	PK	319.06M	27.67	46.00	-18.33	3	Vertical	0	1.00	-
2440MHz	Pass	PK	383.08M	29.80	46.00	-16.20	3	Vertical	0	1.00	-
2440MHz	Pass	PK	577.08M	37.39	46.00	-8.61	3	Vertical	0	1.00	-
2440MHz	Pass	QP	45.52M	35.91	40.00	-4.09	3	Vertical	346	1.00	-
2440MHz	Pass	PK	45.52M	30.92	40.00	-9.08	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	191.02M	26.97	43.50	-16.53	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	291.9M	30.20	46.00	-15.80	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	336.52M	32.35	46.00	-13.65	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	623.64M	36.65	46.00	-9.35	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	720.64M	34.40	46.00	-11.60	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	47.46M	35.63	40.00	-4.37	3	Vertical	0	1.00	-
2440MHz	Pass	PK	165.8M	33.00	43.50	-10.50	3	Vertical	0	1.00	-
2440MHz	Pass	PK	231.76M	29.13	46.00	-16.87	3	Vertical	0	1.00	-
2440MHz	Pass	PK	336.52M	27.33	46.00	-18.67	3	Vertical	0	1.00	-
2440MHz	Pass	PK	383.08M	30.90	46.00	-15.10	3	Vertical	0	1.00	-
2440MHz	Pass	PK	532.46M	31.85	46.00	-14.15	3	Vertical	0	1.00	-
2440MHz	Pass	PK	70.74M	28.26	40.00	-11.74	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	165.8M	32.65	43.50	-10.85	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	231.76M	34.87	46.00	-11.13	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	336.52M	34.70	46.00	-11.30	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	383.08M	38.09	46.00	-7.91	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	456.8M	28.88	46.00	-17.12	3	Horizontal	360	1.00	-

BT-LE(2Mbps)

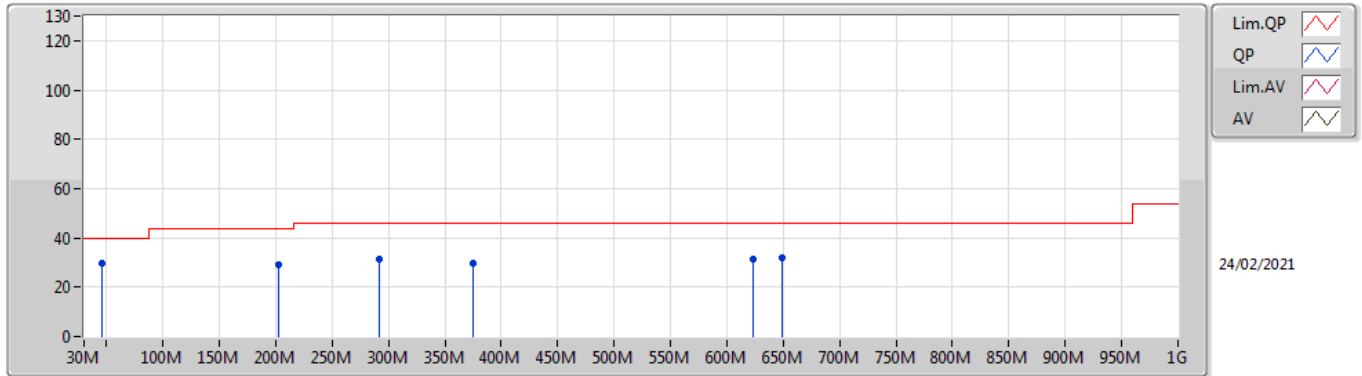
2440MHz_Wired Gun+EXT Battery+Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	99.84M	26.69	43.50	-16.81	-9.59	3	Vertical	0	1.00	-	36.28	16.20	1.60	27.39
PK	204.6M	27.90	43.50	-15.60	-9.92	3	Vertical	0	1.00	-	37.82	14.65	2.33	26.90
PK	456.8M	30.64	46.00	-15.36	-1.96	3	Vertical	0	1.00	-	32.60	22.30	3.44	27.70
PK	547.98M	33.54	46.00	-12.46	0.40	3	Vertical	0	1.00	-	33.14	24.52	3.89	28.01
PK	575.14M	33.73	46.00	-12.27	0.09	3	Vertical	0	1.00	-	33.64	24.10	4.00	28.01
QP	45.52M	36.15	40.00	-3.85	-11.56	3	Vertical	254	1.00	-	47.71	14.96	1.01	27.53

BT-LE(2Mbps)

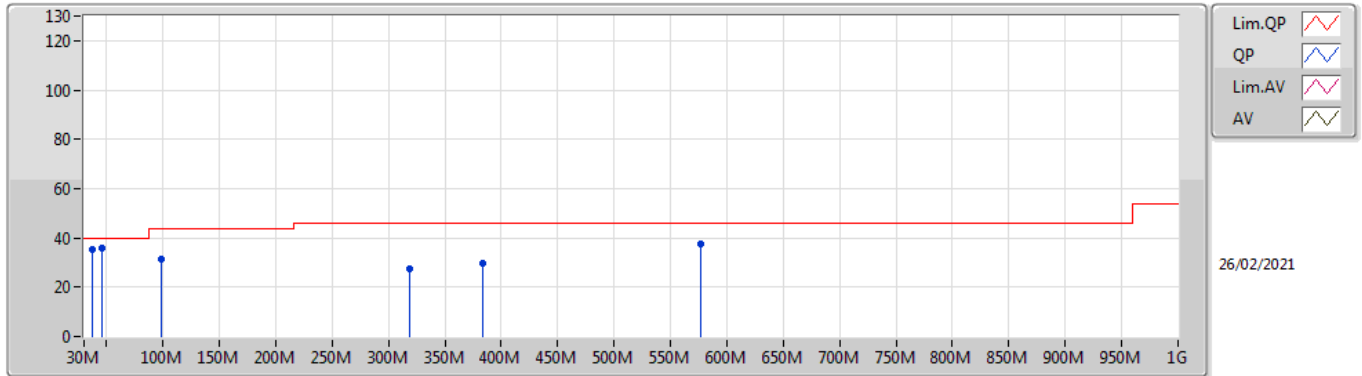
2440MHz_Wired Gun+EXT Battery+Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	45.52M	29.62	40.00	-10.38	-11.56	3	Horizontal	360	1.00	-	41.18	14.96	1.01	27.53
PK	202.66M	28.97	43.50	-14.53	-10.01	3	Horizontal	360	1.00	-	38.98	14.58	2.32	26.91
PK	291.9M	31.41	46.00	-14.59	-5.60	3	Horizontal	360	1.00	-	37.01	18.21	2.85	26.66
PK	375.32M	29.73	46.00	-16.27	-3.78	3	Horizontal	360	1.00	-	33.51	20.12	3.20	27.10
PK	623.64M	31.40	46.00	-14.60	0.23	3	Horizontal	360	1.00	-	31.17	24.09	4.19	28.05
PK	648.86M	31.67	46.00	-14.33	0.47	3	Horizontal	360	1.00	-	31.20	24.27	4.30	28.10

BT-LE(2Mbps)

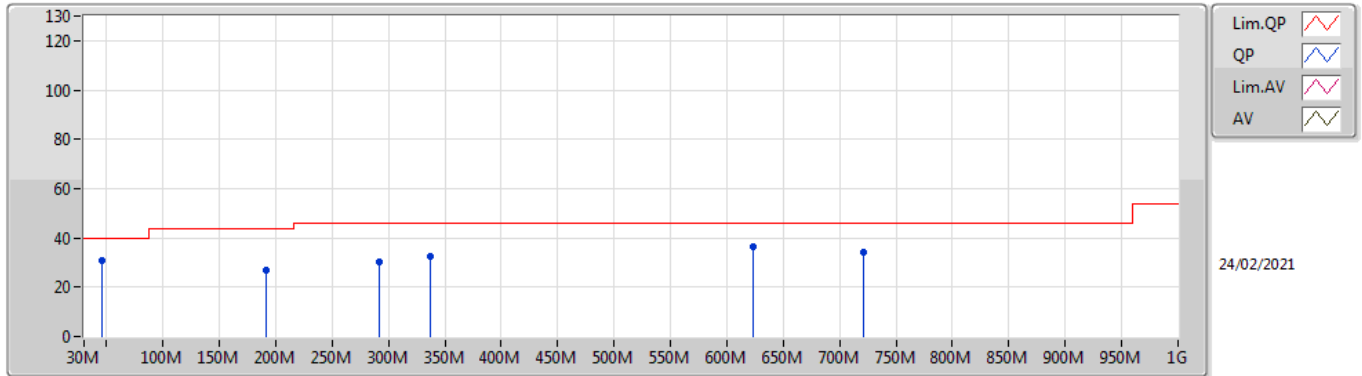
2440MHz_WLC Gun+EXT Battery+Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	37.76M	35.05	40.00	-4.95	-7.40	3	Vertical	0	1.00	-	42.45	19.19	0.96	27.55
PK	97.9M	31.45	43.50	-12.05	-9.85	3	Vertical	0	1.00	-	41.30	15.94	1.60	27.39
PK	319.06M	27.67	46.00	-18.33	-5.03	3	Vertical	0	1.00	-	32.70	18.75	2.98	26.76
PK	383.08M	29.80	46.00	-16.20	-3.62	3	Vertical	0	1.00	-	33.42	20.30	3.23	27.15
PK	577.08M	37.39	46.00	-8.61	0.02	3	Vertical	0	1.00	-	37.37	24.02	4.01	28.01
QP	45.52M	35.91	40.00	-4.09	-11.56	3	Vertical	346	1.00	-	47.47	14.96	1.01	27.53

BT-LE(2Mbps)

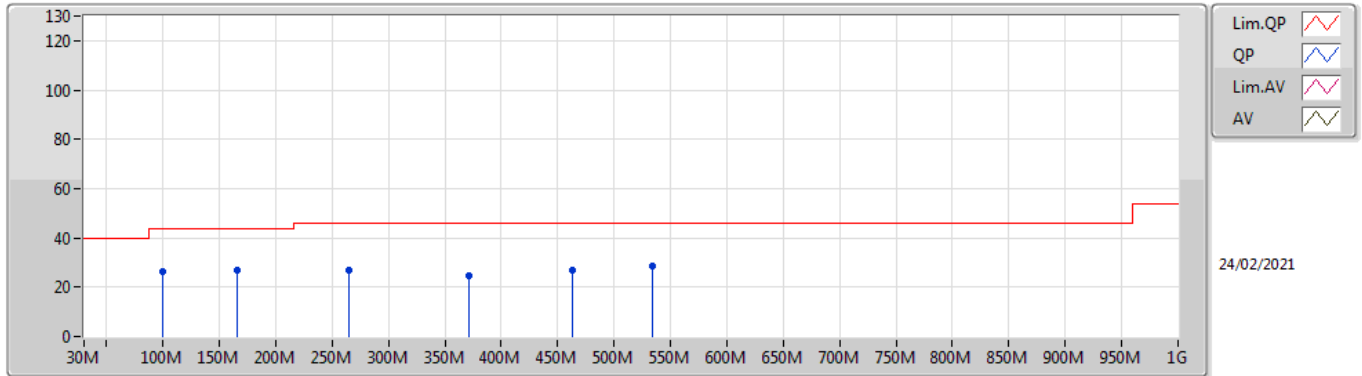
2440MHz_WLC Gun+EXT Battery+Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	45.52M	30.92	40.00	-9.08	-11.56	3	Horizontal	360	1.00	-	42.48	14.96	1.01	27.53
PK	191.02M	26.97	43.50	-16.53	-10.29	3	Horizontal	360	1.00	-	37.26	14.41	2.26	26.96
PK	291.9M	30.20	46.00	-15.80	-5.60	3	Horizontal	360	1.00	-	35.80	18.21	2.85	26.66
PK	336.52M	32.35	46.00	-13.65	-4.69	3	Horizontal	360	1.00	-	37.04	19.12	3.05	26.86
PK	623.64M	36.65	46.00	-9.35	0.23	3	Horizontal	360	1.00	-	36.42	24.09	4.19	28.05
PK	720.64M	34.40	46.00	-11.60	1.33	3	Horizontal	360	1.00	-	33.07	24.84	4.48	27.99

BT-LE(2Mbps)

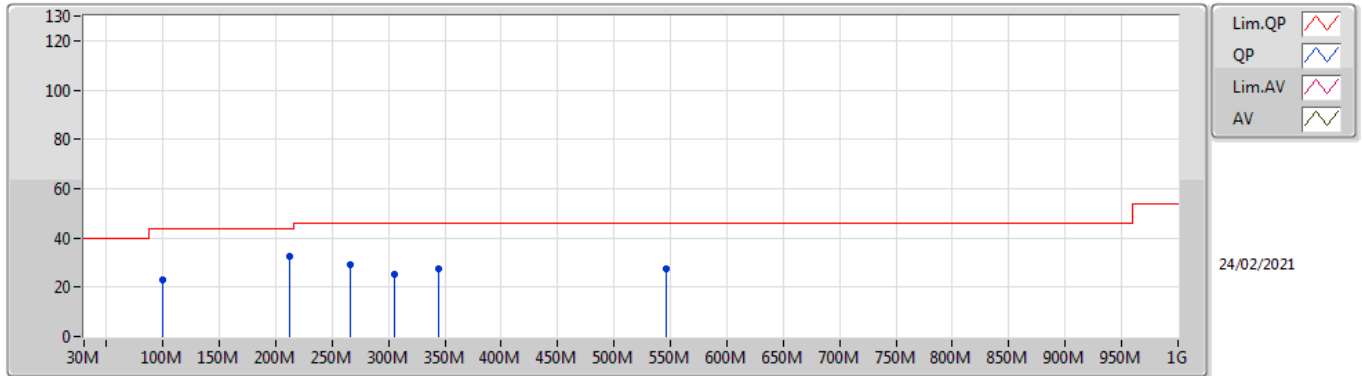
2440MHz_WLC Gun+EXT Battery+USB



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	99.84M	26.08	43.50	-17.42	-9.59	3	Vertical	0	1.00	-	35.67	16.20	1.60	27.39
PK	165.8M	26.70	43.50	-16.80	-10.18	3	Vertical	0	1.00	-	36.88	14.86	2.06	27.10
PK	264.74M	26.66	46.00	-19.34	-5.43	3	Vertical	0	1.00	-	32.09	18.57	2.69	26.69
PK	371.44M	24.44	46.00	-21.56	-3.76	3	Vertical	0	1.00	-	28.20	20.12	3.19	27.07
PK	462.62M	26.67	46.00	-19.33	-1.76	3	Vertical	0	1.00	-	28.43	22.48	3.48	27.72
PK	534.4M	28.59	46.00	-17.41	-0.35	3	Vertical	0	1.00	-	28.94	23.76	3.84	27.95

BT-LE(2Mbps)

2440MHz_WLC Gun+EXT Battery+USB



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	99.84M	22.92	43.50	-20.58	-9.59	3	Horizontal	360	1.00	-	32.51	16.20	1.60	27.39
PK	212.36M	32.60	43.50	-10.90	-10.25	3	Horizontal	360	1.00	-	42.85	14.25	2.37	26.87
PK	266.68M	29.09	46.00	-16.91	-5.57	3	Horizontal	360	1.00	-	34.66	18.42	2.70	26.69
PK	305.48M	25.18	46.00	-20.82	-5.23	3	Horizontal	360	1.00	-	30.41	18.53	2.92	26.68
PK	344.28M	27.46	46.00	-18.54	-4.51	3	Horizontal	360	1.00	-	31.97	19.32	3.08	26.91
PK	546.04M	27.35	46.00	-18.65	0.45	3	Horizontal	360	1.00	-	26.90	24.57	3.88	28.00



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4836G	49.19	54.00	-4.81	3	Horizontal	345	1.12	-
BT-LE(2Mbps)	Pass	AV	2.4928G	50.04	54.00	-3.96	3	Vertical	120	1.29	-

Result

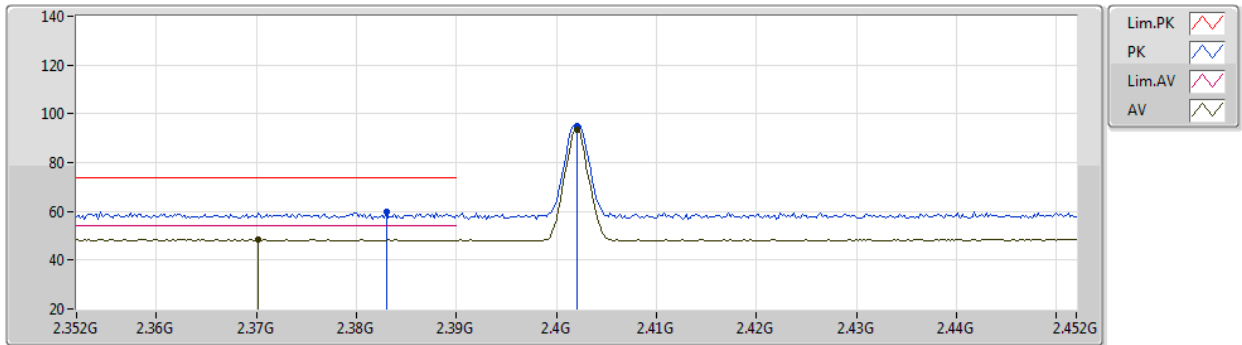
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3702G	48.53	54.00	-5.47	3	Vertical	105	2.40	-
2402MHz	Pass	AV	2.402G	93.69	Inf	-Inf	3	Vertical	105	2.40	-
2402MHz	Pass	PK	2.383G	59.95	74.00	-14.05	3	Vertical	105	2.40	-
2402MHz	Pass	PK	2.402G	95.07	Inf	-Inf	3	Vertical	105	2.40	-
2402MHz	Pass	AV	2.3654G	48.61	54.00	-5.39	3	Horizontal	346	1.14	-
2402MHz	Pass	AV	2.402G	91.66	Inf	-Inf	3	Horizontal	346	1.14	-
2402MHz	Pass	PK	2.366G	59.49	74.00	-14.51	3	Horizontal	346	1.14	-
2402MHz	Pass	PK	2.402G	93.11	Inf	-Inf	3	Horizontal	346	1.14	-
2402MHz	Pass	AV	4.8118G	33.50	54.00	-20.50	3	Vertical	79	2.41	-
2402MHz	Pass	PK	4.79452G	46.10	74.00	-27.90	3	Vertical	79	2.41	-
2402MHz	Pass	AV	4.807G	33.46	54.00	-20.54	3	Horizontal	84	2.38	-
2402MHz	Pass	PK	4.79656G	45.66	74.00	-28.34	3	Horizontal	84	2.38	-
2440MHz	Pass	AV	2.3708G	48.47	54.00	-5.53	3	Vertical	119	1.39	-
2440MHz	Pass	AV	2.44G	94.81	Inf	-Inf	3	Vertical	119	1.39	-
2440MHz	Pass	AV	2.4848G	48.89	54.00	-5.11	3	Vertical	119	1.39	-
2440MHz	Pass	PK	2.3788G	59.58	74.00	-14.42	3	Vertical	119	1.39	-
2440MHz	Pass	PK	2.4404G	96.23	Inf	-Inf	3	Vertical	119	1.39	-
2440MHz	Pass	PK	2.4948G	60.18	74.00	-13.82	3	Vertical	119	1.39	-
2440MHz	Pass	AV	2.3528G	48.55	54.00	-5.45	3	Horizontal	109	1.00	-
2440MHz	Pass	AV	2.44G	92.10	Inf	-Inf	3	Horizontal	109	1.00	-
2440MHz	Pass	AV	2.4992G	48.95	54.00	-5.05	3	Horizontal	109	1.00	-
2440MHz	Pass	PK	2.3716G	59.60	74.00	-14.40	3	Horizontal	109	1.00	-
2440MHz	Pass	PK	2.4404G	93.53	Inf	-Inf	3	Horizontal	109	1.00	-
2440MHz	Pass	PK	2.4972G	59.64	74.00	-14.36	3	Horizontal	109	1.00	-
2440MHz	Pass	AV	4.89302G	33.81	54.00	-20.19	3	Vertical	89	1.79	-
2440MHz	Pass	PK	4.8881G	45.77	74.00	-28.23	3	Vertical	89	1.79	-
2440MHz	Pass	AV	4.87328G	33.94	54.00	-20.06	3	Horizontal	324	2.02	-
2440MHz	Pass	PK	4.8713G	45.81	74.00	-28.19	3	Horizontal	324	2.02	-
2480MHz	Pass	AV	2.48G	94.11	Inf	-Inf	3	Vertical	120	1.00	-
2480MHz	Pass	AV	2.499G	49.06	54.00	-4.94	3	Vertical	120	1.00	-
2480MHz	Pass	PK	2.4798G	95.55	Inf	-Inf	3	Vertical	120	1.00	-
2480MHz	Pass	PK	2.4858G	59.85	74.00	-14.15	3	Vertical	120	1.00	-
2480MHz	Pass	AV	2.48G	92.95	Inf	-Inf	3	Horizontal	345	1.12	-
2480MHz	Pass	AV	2.4836G	49.19	54.00	-4.81	3	Horizontal	345	1.12	-
2480MHz	Pass	PK	2.4798G	94.46	Inf	-Inf	3	Horizontal	345	1.12	-
2480MHz	Pass	PK	2.484G	59.80	74.00	-14.20	3	Horizontal	345	1.12	-
2480MHz	Pass	AV	4.951G	34.20	54.00	-19.80	3	Vertical	40	2.00	-
2480MHz	Pass	PK	4.96684G	46.35	74.00	-27.65	3	Vertical	40	2.00	-
2480MHz	Pass	AV	4.96918G	34.08	54.00	-19.92	3	Horizontal	336	1.53	-
2480MHz	Pass	PK	4.9711G	46.93	74.00	-27.07	3	Horizontal	336	1.53	-
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.356G	49.47	54.00	-4.53	3	Vertical	110	3.00	-
2402MHz	Pass	AV	2.402G	92.76	Inf	-Inf	3	Vertical	110	3.00	-
2402MHz	Pass	PK	2.381G	59.99	74.00	-14.01	3	Vertical	110	3.00	-
2402MHz	Pass	PK	2.402G	95.83	Inf	-Inf	3	Vertical	110	3.00	-
2402MHz	Pass	AV	2.3694G	49.51	54.00	-4.49	3	Horizontal	343	1.15	-
2402MHz	Pass	AV	2.402G	91.00	Inf	-Inf	3	Horizontal	343	1.15	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2402MHz	Pass	PK	2.3586G	60.18	74.00	-13.82	3	Horizontal	343	1.15	-
2402MHz	Pass	PK	2.402G	94.11	Inf	-Inf	3	Horizontal	343	1.15	-
2402MHz	Pass	AV	4.79224G	35.09	54.00	-18.91	3	Vertical	290	1.20	-
2402MHz	Pass	PK	4.79986G	45.74	74.00	-28.26	3	Vertical	290	1.20	-
2402MHz	Pass	AV	4.79344G	35.13	54.00	-18.87	3	Horizontal	5	1.66	-
2402MHz	Pass	PK	4.80172G	45.45	74.00	-28.55	3	Horizontal	5	1.66	-
2440MHz	Pass	AV	2.3532G	49.30	54.00	-4.70	3	Vertical	120	1.29	-
2440MHz	Pass	AV	2.44G	94.03	Inf	-Inf	3	Vertical	120	1.29	-
2440MHz	Pass	AV	2.4928G	50.04	54.00	-3.96	3	Vertical	120	1.29	-
2440MHz	Pass	PK	2.3624G	59.80	74.00	-14.20	3	Vertical	120	1.29	-
2440MHz	Pass	PK	2.4404G	97.00	Inf	-Inf	3	Vertical	120	1.29	-
2440MHz	Pass	PK	2.4896G	60.29	74.00	-13.71	3	Vertical	120	1.29	-
2440MHz	Pass	AV	2.3516G	49.83	54.00	-4.17	3	Horizontal	107	1.00	-
2440MHz	Pass	AV	2.44G	90.90	Inf	-Inf	3	Horizontal	107	1.00	-
2440MHz	Pass	AV	2.49G	49.89	54.00	-4.11	3	Horizontal	107	1.00	-
2440MHz	Pass	PK	2.35G	59.91	74.00	-14.09	3	Horizontal	107	1.00	-
2440MHz	Pass	PK	2.4404G	93.98	Inf	-Inf	3	Horizontal	107	1.00	-
2440MHz	Pass	PK	2.4888G	60.25	74.00	-13.75	3	Horizontal	107	1.00	-
2440MHz	Pass	AV	4.89248G	35.76	54.00	-18.24	3	Vertical	349	2.48	-
2440MHz	Pass	PK	4.8725G	46.31	74.00	-27.69	3	Vertical	349	2.48	-
2440MHz	Pass	AV	4.89032G	35.25	54.00	-18.75	3	Horizontal	15	1.89	-
2440MHz	Pass	PK	4.88972G	45.73	74.00	-28.27	3	Horizontal	15	1.89	-
2480MHz	Pass	AV	2.48G	93.02	Inf	-Inf	3	Vertical	119	0.99	-
2480MHz	Pass	AV	2.4868G	50.02	54.00	-3.98	3	Vertical	119	0.99	-
2480MHz	Pass	PK	2.4796G	96.10	Inf	-Inf	3	Vertical	119	0.99	-
2480MHz	Pass	PK	2.486G	59.85	74.00	-14.15	3	Vertical	119	0.99	-
2480MHz	Pass	AV	2.48G	91.91	Inf	-Inf	3	Horizontal	342	1.13	-
2480MHz	Pass	AV	2.4932G	49.81	54.00	-4.19	3	Horizontal	342	1.13	-
2480MHz	Pass	PK	2.4796G	95.02	Inf	-Inf	3	Horizontal	342	1.13	-
2480MHz	Pass	PK	2.497G	60.08	74.00	-13.92	3	Horizontal	342	1.13	-
2480MHz	Pass	AV	4.95358G	35.63	54.00	-18.37	3	Vertical	133	1.49	-
2480MHz	Pass	PK	4.95412G	46.21	74.00	-27.79	3	Vertical	133	1.49	-
2480MHz	Pass	AV	4.96588G	36.00	54.00	-18.00	3	Horizontal	253	1.48	-
2480MHz	Pass	PK	4.9573G	46.48	74.00	-27.52	3	Horizontal	253	1.48	-

BT-LE(1Mbps)

2402MHz_TX

17/06/2020

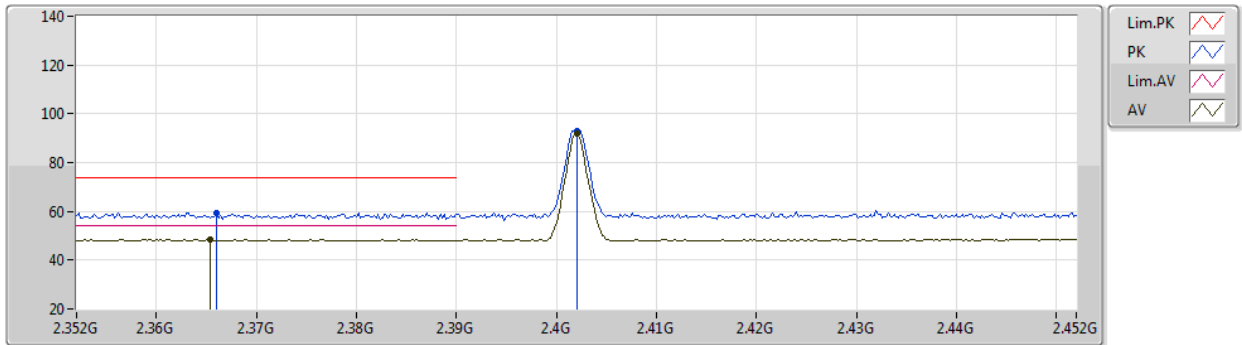


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3702G	48.53	54.00	-5.47	35.58	3	Vertical	105	2.40	-	12.95	29.64	5.94	-
AV	2.402G	93.69	Inf	-Inf	35.67	3	Vertical	105	2.40	-	58.02	29.71	5.96	-
PK	2.383G	59.95	74.00	-14.05	35.62	3	Vertical	105	2.40	-	24.33	29.67	5.95	-
PK	2.402G	95.07	Inf	-Inf	35.67	3	Vertical	105	2.40	-	59.40	29.71	5.96	-

BT-LE(1Mbps)

2402MHz_TX

17/06/2020

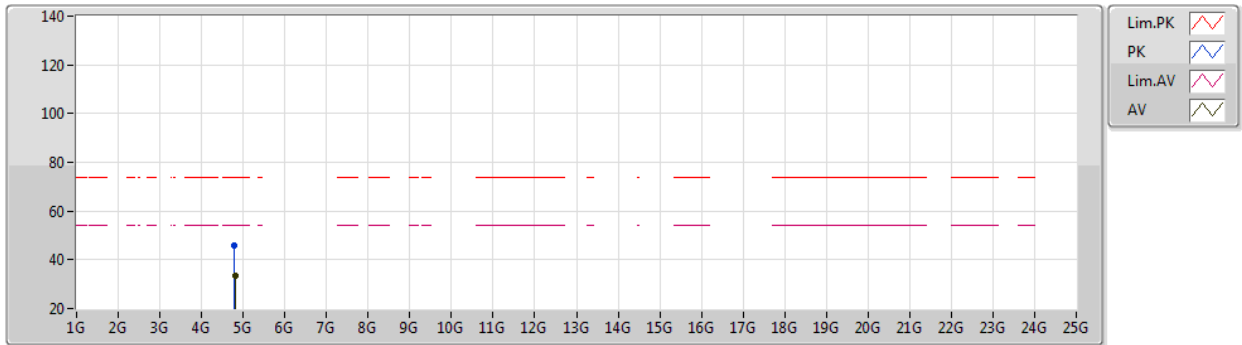


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3654G	48.61	54.00	-5.39	35.56	3	Horizontal	346	1.14	-	13.05	29.63	5.93	-
AV	2.402G	91.66	Inf	-Inf	35.67	3	Horizontal	346	1.14	-	55.99	29.71	5.96	-
PK	2.366G	59.49	74.00	-14.51	35.56	3	Horizontal	346	1.14	-	23.93	29.63	5.93	-
PK	2.402G	93.11	Inf	-Inf	35.67	3	Horizontal	346	1.14	-	57.44	29.71	5.96	-

BT-LE(1Mbps)

2402MHz_TX

17/06/2020

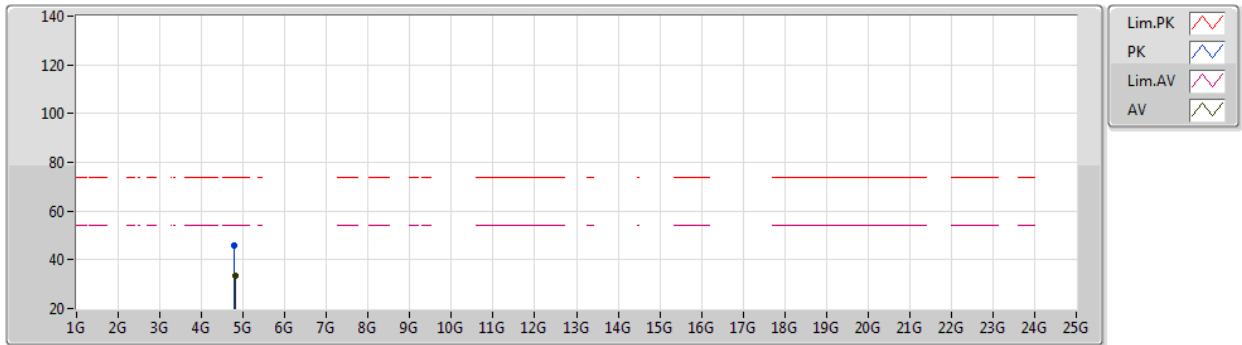


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8118G	33.50	54.00	-20.50	7.98	3	Vertical	79	2.41	-	25.52	33.62	8.26	33.90
PK	4.79452G	46.10	74.00	-27.90	7.91	3	Vertical	79	2.41	-	38.19	33.57	8.25	33.91

BT-LE(1Mbps)

2402MHz_TX

17/06/2020

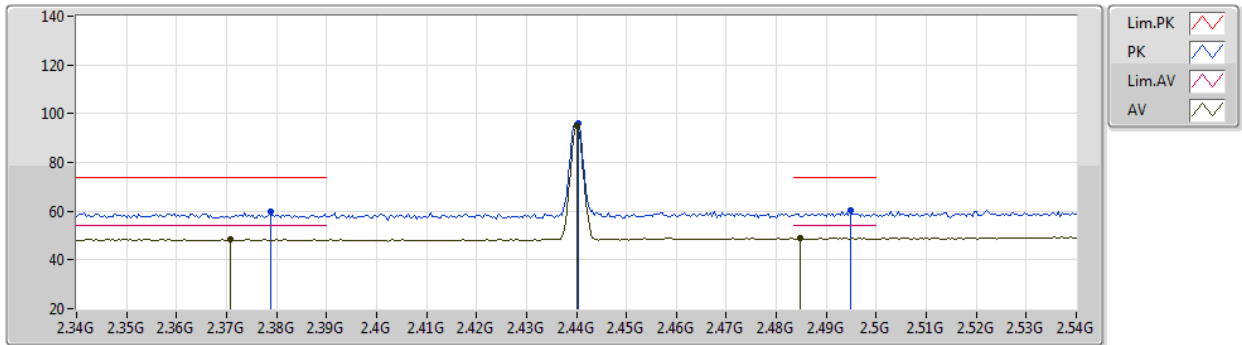


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.807G	33.46	54.00	-20.54	7.95	3	Horizontal	84	2.38	-	25.51	33.61	8.25	33.91
PK	4.79656G	45.66	74.00	-28.34	7.92	3	Horizontal	84	2.38	-	37.74	33.58	8.25	33.91

BT-LE(1Mbps)

2440MHz_TX

17/06/2020

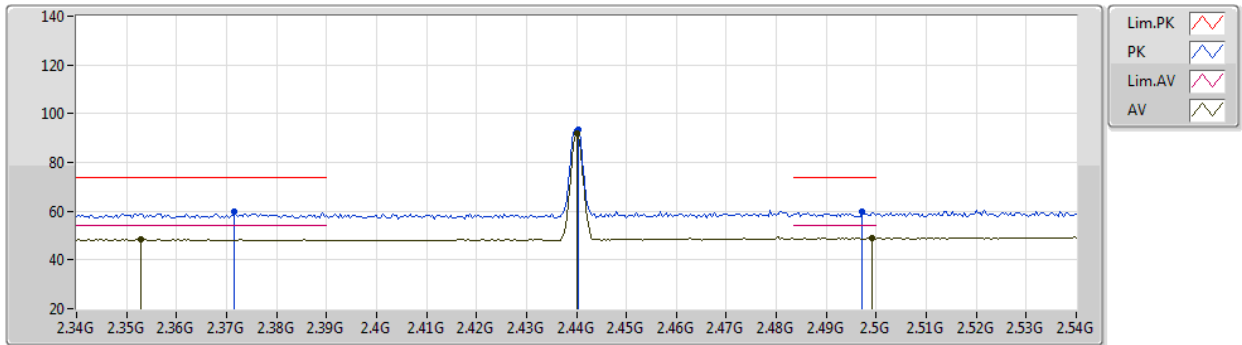


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3708G	48.47	54.00	-5.53	35.58	3	Vertical	119	1.39	-	12.89	29.64	5.94	-
AV	2.44G	94.81	Inf	-Inf	35.91	3	Vertical	119	1.39	-	58.90	29.90	6.01	-
AV	2.4848G	48.89	54.00	-5.11	36.18	3	Vertical	119	1.39	-	12.71	30.12	6.06	-
PK	2.3788G	59.58	74.00	-14.42	35.60	3	Vertical	119	1.39	-	23.98	29.66	5.94	-
PK	2.4404G	96.23	Inf	-Inf	35.91	3	Vertical	119	1.39	-	60.32	29.90	6.01	-
PK	2.4948G	60.18	74.00	-13.82	36.24	3	Vertical	119	1.39	-	23.94	30.17	6.07	-

BT-LE(1Mbps)

2440MHz_TX

17/06/2020

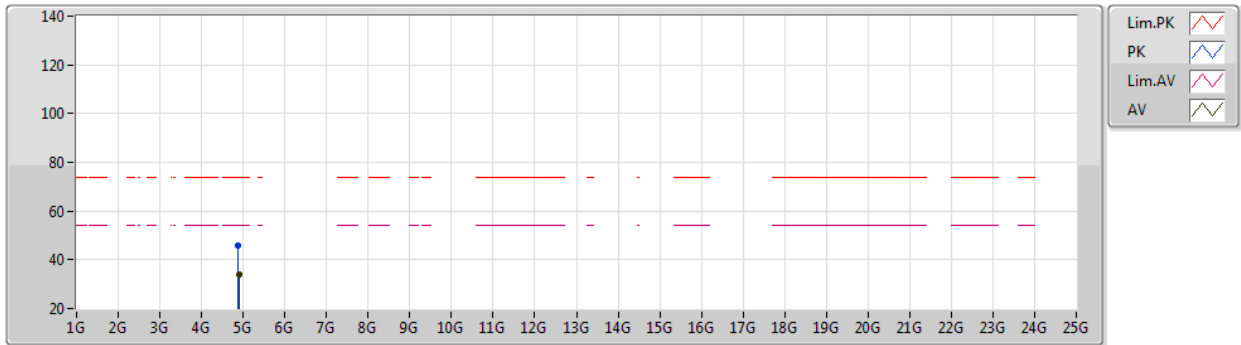


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3528G	48.55	54.00	-5.45	35.53	3	Horizontal	109	1.00	-	13.02	29.61	5.92	-
AV	2.44G	92.10	Inf	-Inf	35.91	3	Horizontal	109	1.00	-	56.19	29.90	6.01	-
AV	2.4992G	48.95	54.00	-5.05	36.28	3	Horizontal	109	1.00	-	12.67	30.20	6.08	-
PK	2.3716G	59.60	74.00	-14.40	35.58	3	Horizontal	109	1.00	-	24.02	29.64	5.94	-
PK	2.4404G	93.53	Inf	-Inf	35.91	3	Horizontal	109	1.00	-	57.62	29.90	6.01	-
PK	2.4972G	59.64	74.00	-14.36	36.27	3	Horizontal	109	1.00	-	23.37	30.19	6.08	-

BT-LE(1Mbps)

2440MHz_TX

17/06/2020

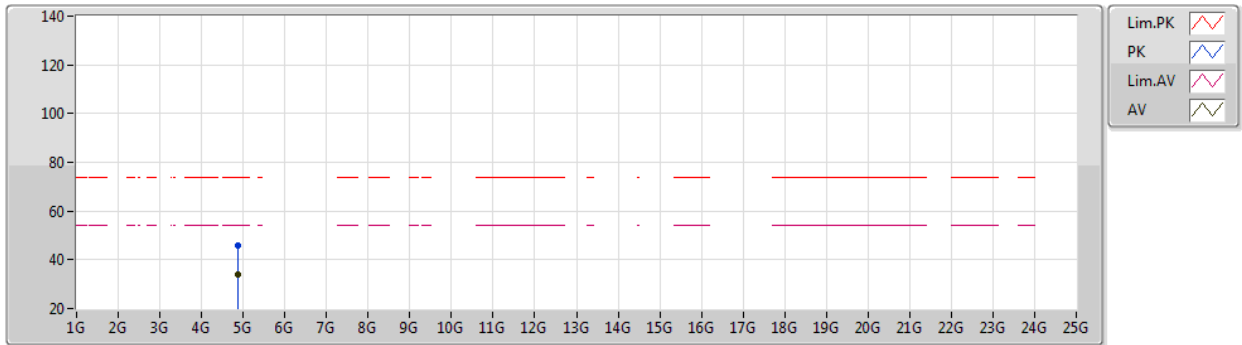


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.89302G	33.81	54.00	-20.19	8.24	3	Vertical	89	1.79	-	25.57	33.79	8.31	33.86
PK	4.8881G	45.77	74.00	-28.23	8.22	3	Vertical	89	1.79	-	37.55	33.78	8.31	33.87

BT-LE(1Mbps)

2440MHz_TX

17/06/2020

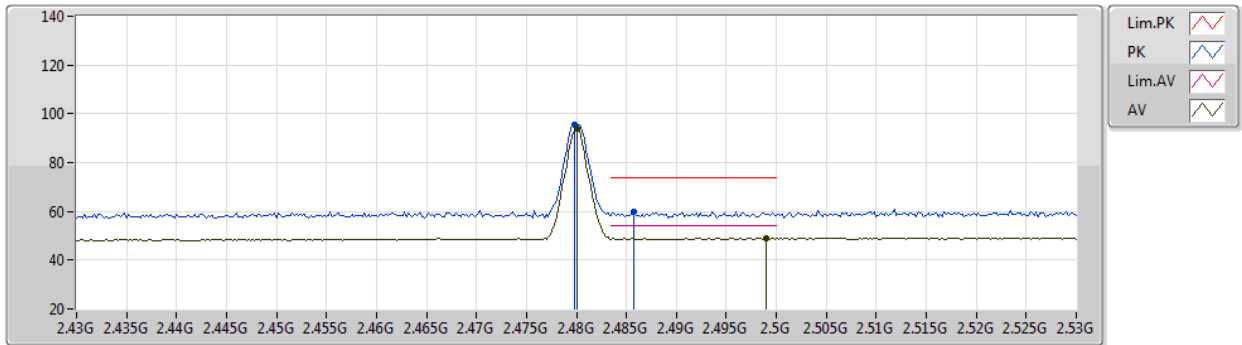


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87328G	33.94	54.00	-20.06	8.18	3	Horizontal	324	2.02	-	25.76	33.75	8.30	33.87
PK	4.8713G	45.81	74.00	-28.19	8.17	3	Horizontal	324	2.02	-	37.64	33.74	8.30	33.87

BT-LE(1Mbps)

2480MHz_TX

17/06/2020

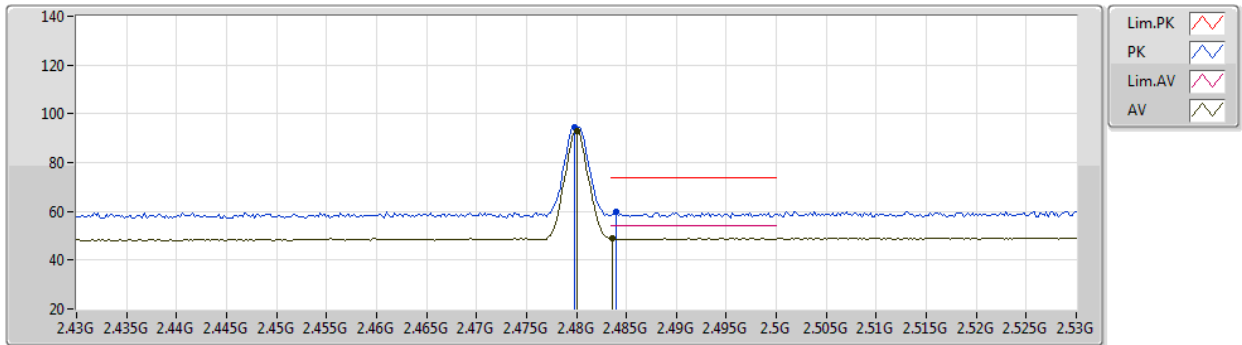


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	94.11	Inf	-Inf	36.16	3	Vertical	120	1.00	-	57.95	30.10	6.06	-
AV	2.499G	49.06	54.00	-4.94	36.28	3	Vertical	120	1.00	-	12.78	30.20	6.08	-
PK	2.4798G	95.55	Inf	-Inf	36.16	3	Vertical	120	1.00	-	59.39	30.10	6.06	-
PK	2.4858G	59.85	74.00	-14.15	36.19	3	Vertical	120	1.00	-	23.66	30.13	6.06	-

BT-LE(1Mbps)

2480MHz_TX

17/06/2020

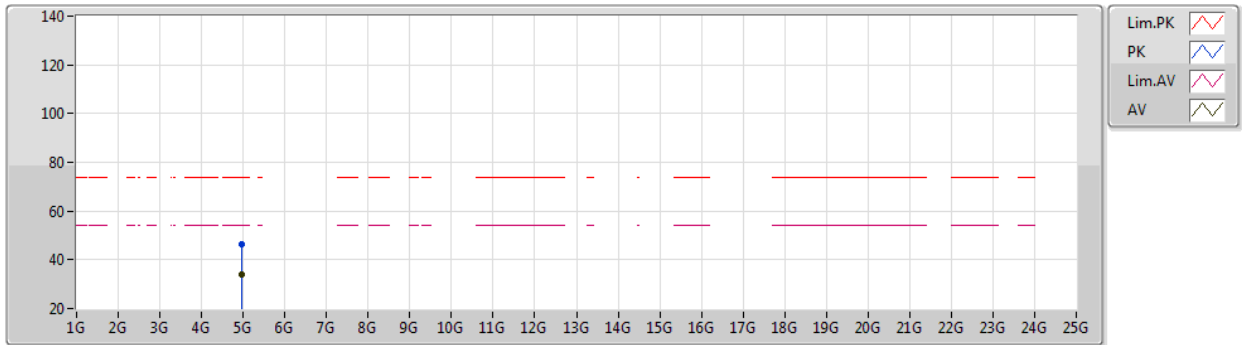


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	92.95	Inf	-Inf	36.16	3	Horizontal	345	1.12	-	56.79	30.10	6.06	-
AV	2.4836G	49.19	54.00	-4.81	36.18	3	Horizontal	345	1.12	-	13.01	30.12	6.06	-
PK	2.4798G	94.46	Inf	-Inf	36.16	3	Horizontal	345	1.12	-	58.30	30.10	6.06	-
PK	2.484G	59.80	74.00	-14.20	36.18	3	Horizontal	345	1.12	-	23.62	30.12	6.06	-

BT-LE(1Mbps)

2480MHz_TX

17/06/2020

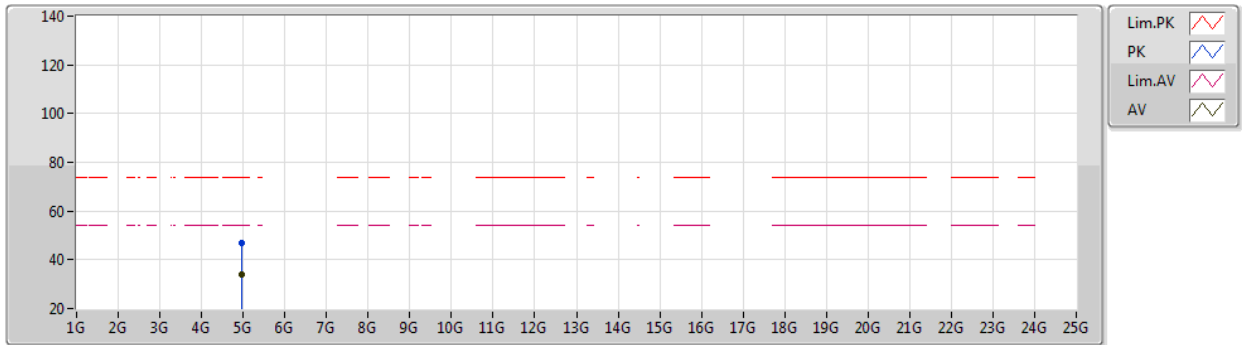


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.951G	34.20	54.00	-19.80	8.42	3	Vertical	40	2.00	-	25.78	33.90	8.35	33.83
PK	4.96684G	46.35	74.00	-27.65	8.47	3	Vertical	40	2.00	-	37.88	33.93	8.36	33.82

BT-LE(1Mbps)

2480MHz_TX

17/06/2020

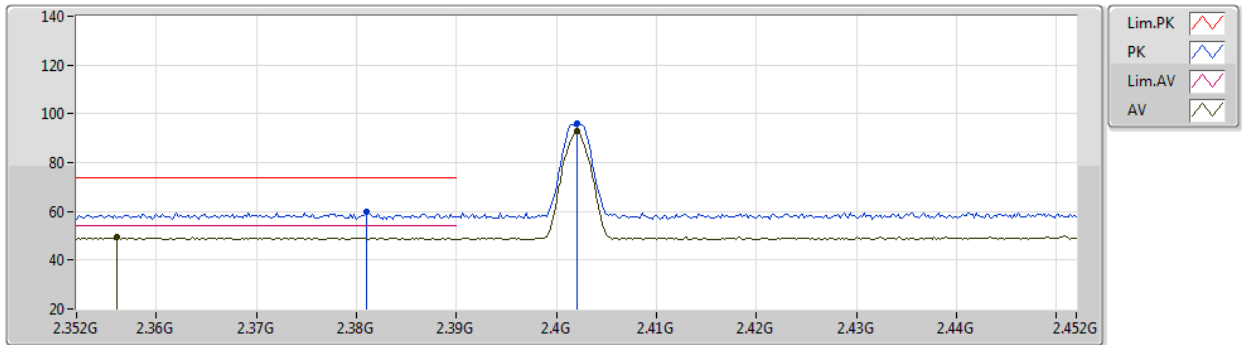


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96918G	34.08	54.00	-19.92	8.48	3	Horizontal	336	1.53	-	25.60	33.94	8.36	33.82
PK	4.9711G	46.93	74.00	-27.07	8.48	3	Horizontal	336	1.53	-	38.45	33.94	8.36	33.82

BT-LE(2Mbps)

2402MHz_TX

17/06/2020

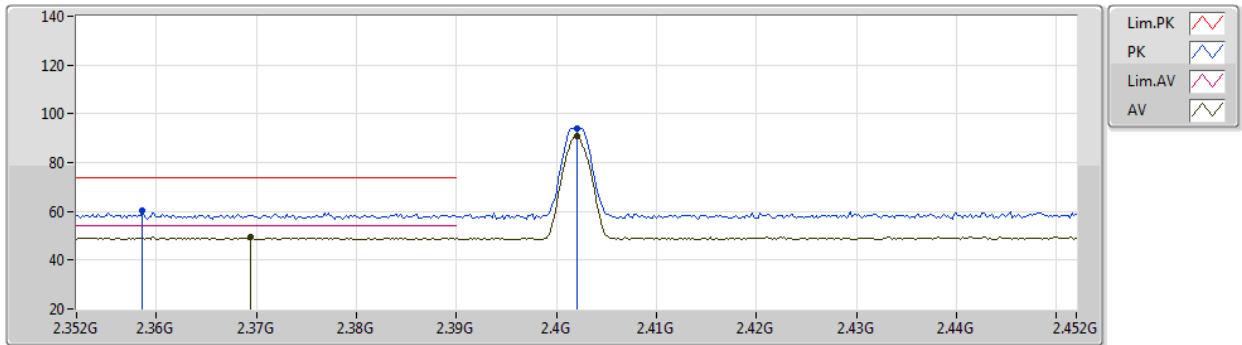


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.356G	49.47	54.00	-4.53	35.54	3	Vertical	110	3.00	-	13.93	29.61	5.93	-
AV	2.402G	92.76	Inf	-Inf	35.67	3	Vertical	110	3.00	-	57.09	29.71	5.96	-
PK	2.381G	59.99	74.00	-14.01	35.61	3	Vertical	110	3.00	-	24.38	29.66	5.95	-
PK	2.402G	95.83	Inf	-Inf	35.67	3	Vertical	110	3.00	-	60.16	29.71	5.96	-

BT-LE(2Mbps)

2402MHz_TX

17/06/2020

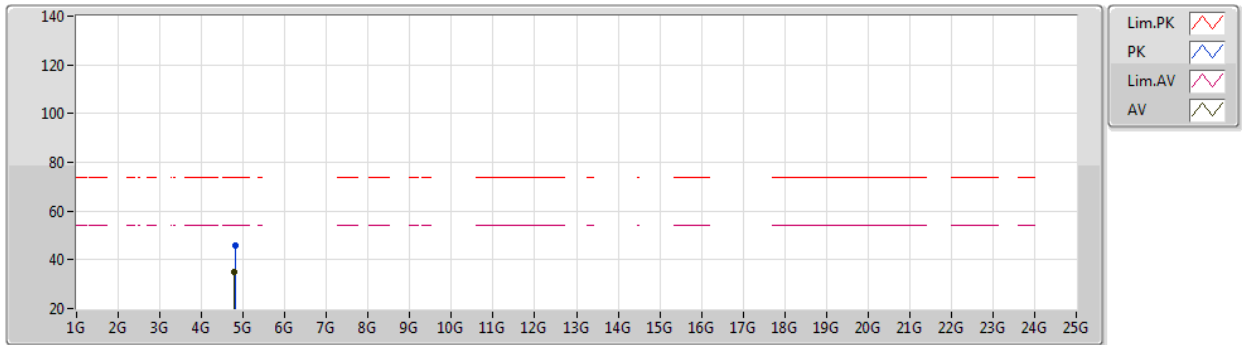


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3694G	49.51	54.00	-4.49	35.58	3	Horizontal	343	1.15	-	13.93	29.64	5.94	-
AV	2.402G	91.00	Inf	-Inf	35.67	3	Horizontal	343	1.15	-	55.33	29.71	5.96	-
PK	2.3586G	60.18	74.00	-13.82	35.55	3	Horizontal	343	1.15	-	24.63	29.62	5.93	-
PK	2.402G	94.11	Inf	-Inf	35.67	3	Horizontal	343	1.15	-	58.44	29.71	5.96	-

BT-LE(2Mbps)

2402MHz_TX

17/06/2020

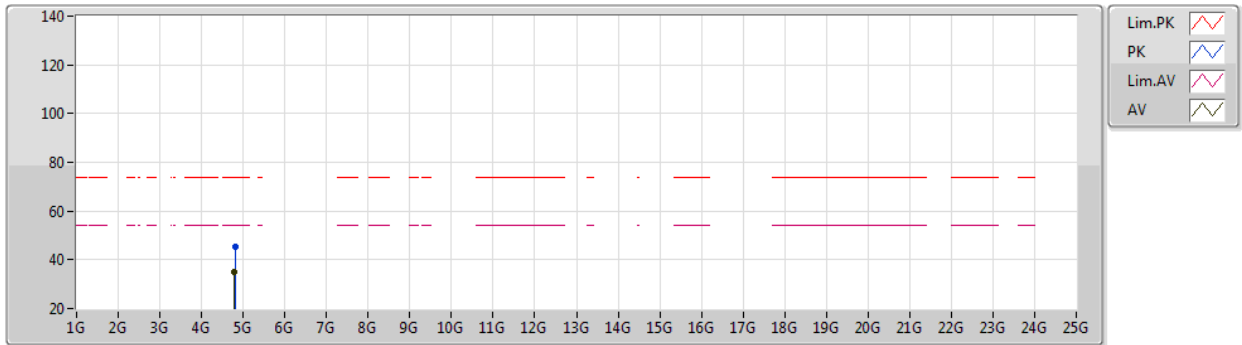


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.79224G	35.09	54.00	-18.91	7.89	3	Vertical	290	1.20	-	27.20	33.55	8.25	33.91
PK	4.79986G	45.74	74.00	-28.26	7.94	3	Vertical	290	1.20	-	37.80	33.60	8.25	33.91

BT-LE(2Mbps)

2402MHz_TX

17/06/2020

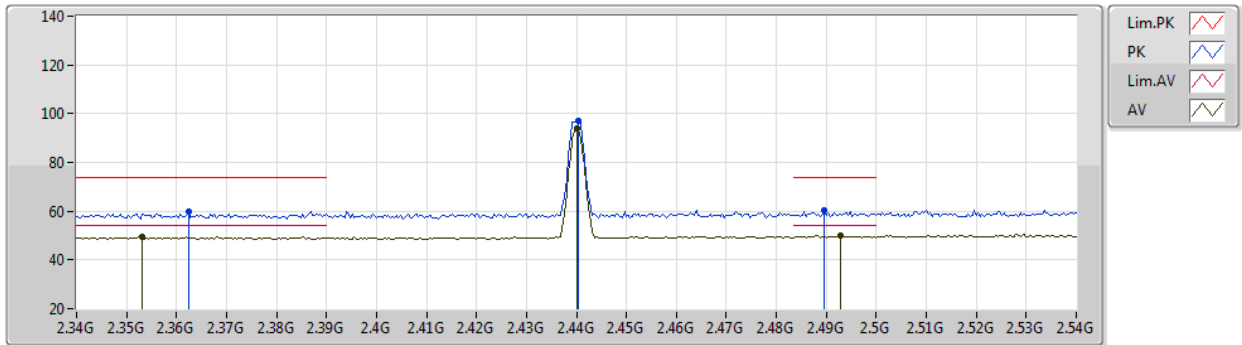


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.79344G	35.13	54.00	-18.87	7.90	3	Horizontal	5	1.66	-	27.23	33.56	8.25	33.91
PK	4.80172G	45.45	74.00	-28.55	7.94	3	Horizontal	5	1.66	-	37.51	33.60	8.25	33.91

BT-LE(2Mbps)

2440MHz_TX

17/06/2020

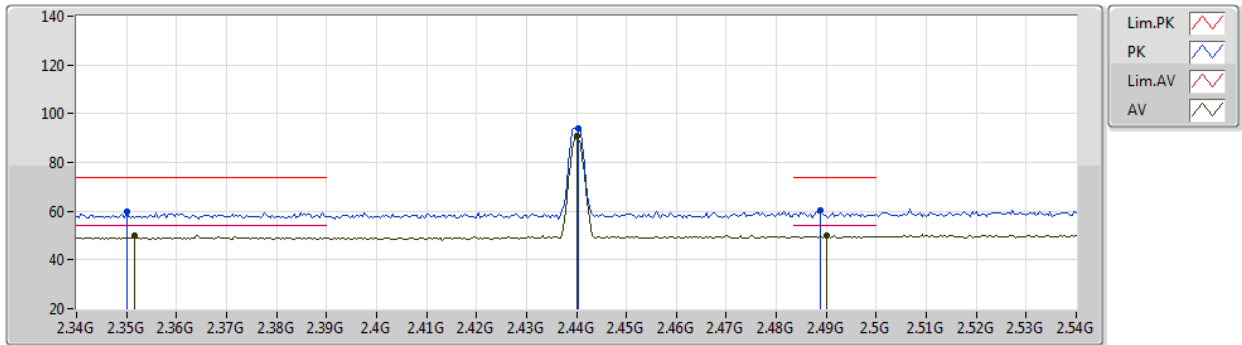


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3532G	49.30	54.00	-4.70	35.53	3	Vertical	120	1.29	-	13.77	29.61	5.92	-
AV	2.44G	94.03	Inf	-Inf	35.91	3	Vertical	120	1.29	-	58.12	29.90	6.01	-
AV	2.4928G	50.04	54.00	-3.96	36.23	3	Vertical	120	1.29	-	13.81	30.16	6.07	-
PK	2.3624G	59.80	74.00	-14.20	35.55	3	Vertical	120	1.29	-	24.25	29.62	5.93	-
PK	2.4404G	97.00	Inf	-Inf	35.91	3	Vertical	120	1.29	-	61.09	29.90	6.01	-
PK	2.4896G	60.29	74.00	-13.71	36.22	3	Vertical	120	1.29	-	24.07	30.15	6.07	-

BT-LE(2Mbps)

2440MHz_TX

17/06/2020

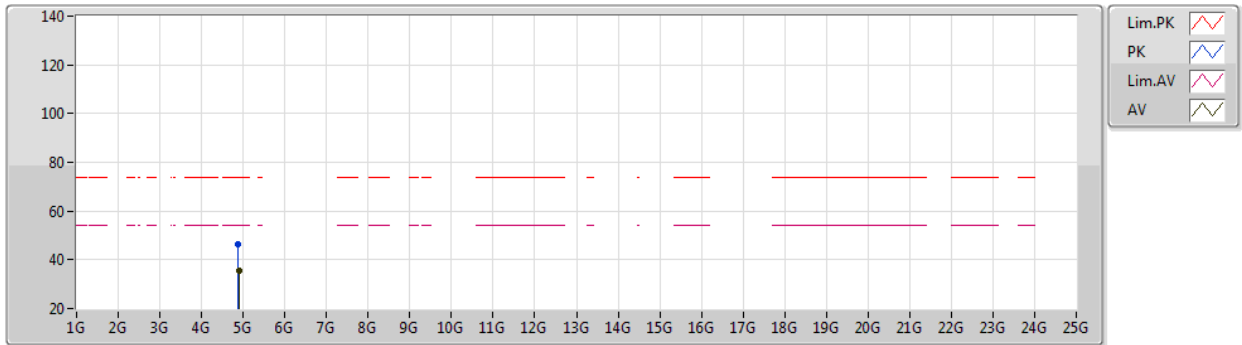


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3516G	49.83	54.00	-4.17	35.52	3	Horizontal	107	1.00	-	14.31	29.60	5.92	-
AV	2.44G	90.90	Inf	-Inf	35.91	3	Horizontal	107	1.00	-	54.99	29.90	6.01	-
AV	2.49G	49.89	54.00	-4.11	36.22	3	Horizontal	107	1.00	-	13.67	30.15	6.07	-
PK	2.35G	59.91	74.00	-14.09	35.52	3	Horizontal	107	1.00	-	24.39	29.60	5.92	-
PK	2.4404G	93.98	Inf	-Inf	35.91	3	Horizontal	107	1.00	-	58.07	29.90	6.01	-
PK	2.4888G	60.25	74.00	-13.75	36.21	3	Horizontal	107	1.00	-	24.04	30.14	6.07	-

BT-LE(2Mbps)

2440MHz_TX

17/06/2020

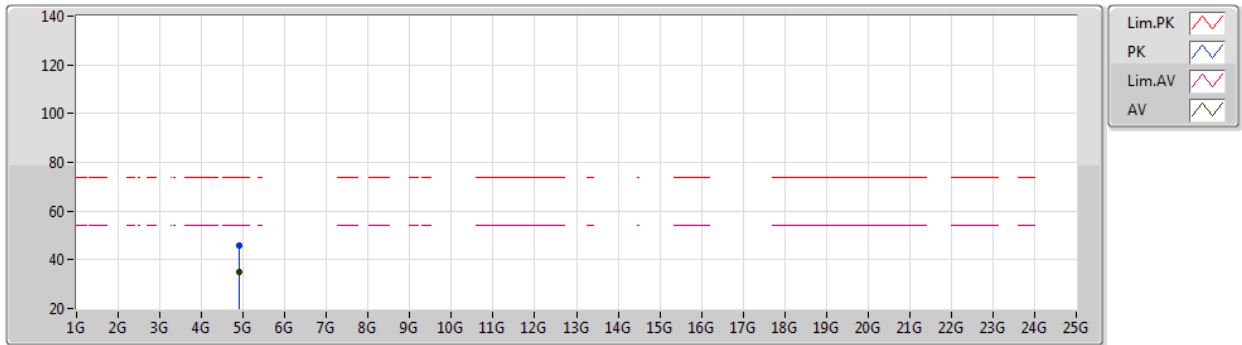


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.89248G	35.76	54.00	-18.24	8.23	3	Vertical	349	2.48	-	27.53	33.78	8.31	33.86
PK	4.8725G	46.31	74.00	-27.69	8.17	3	Vertical	349	2.48	-	38.14	33.74	8.30	33.87

BT-LE(2Mbps)

2440MHz_TX

17/06/2020

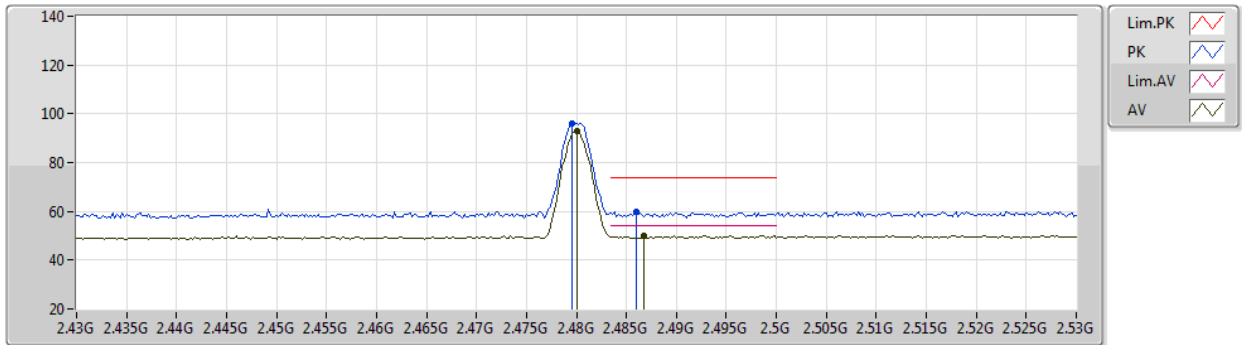


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.89032G	35.25	54.00	-18.75	8.23	3	Horizontal	15	1.89	-	27.02	33.78	8.31	33.86
PK	4.88972G	45.73	74.00	-28.27	8.22	3	Horizontal	15	1.89	-	37.51	33.78	8.31	33.87

BT-LE(2Mbps)

2480MHz_TX

17/06/2020

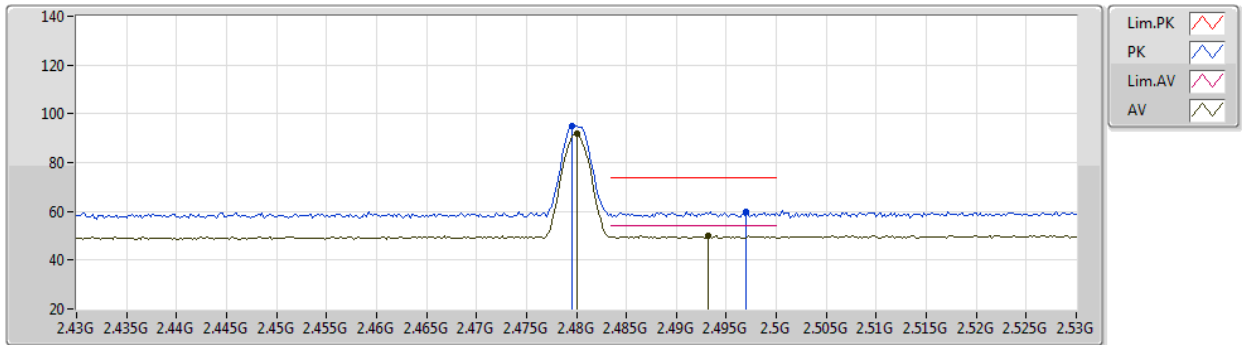


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	93.02	Inf	-Inf	36.16	3	Vertical	119	0.99	-	56.86	30.10	6.06	-
AV	2.4868G	50.02	54.00	-3.98	36.19	3	Vertical	119	0.99	-	13.83	30.13	6.06	-
PK	2.4796G	96.10	Inf	-Inf	36.16	3	Vertical	119	0.99	-	59.94	30.10	6.06	-
PK	2.486G	59.85	74.00	-14.15	36.19	3	Vertical	119	0.99	-	23.66	30.13	6.06	-

BT-LE(2Mbps)

2480MHz_TX

17/06/2020

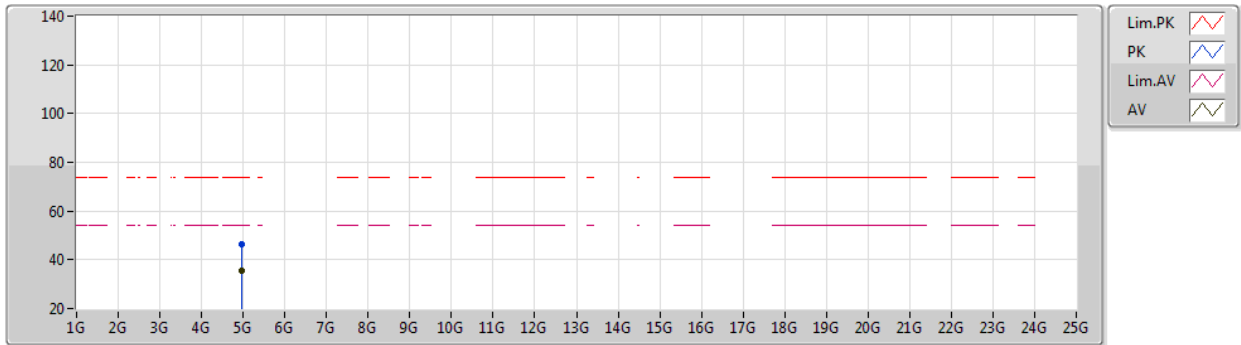


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	91.91	Inf	-Inf	36.16	3	Horizontal	342	1.13	-	55.75	30.10	6.06	-
AV	2.4932G	49.81	54.00	-4.19	36.24	3	Horizontal	342	1.13	-	13.57	30.17	6.07	-
PK	2.4796G	95.02	Inf	-Inf	36.16	3	Horizontal	342	1.13	-	58.86	30.10	6.06	-
PK	2.497G	60.08	74.00	-13.92	36.26	3	Horizontal	342	1.13	-	23.82	30.18	6.08	-

BT-LE(2Mbps)

2480MHz_TX

17/06/2020

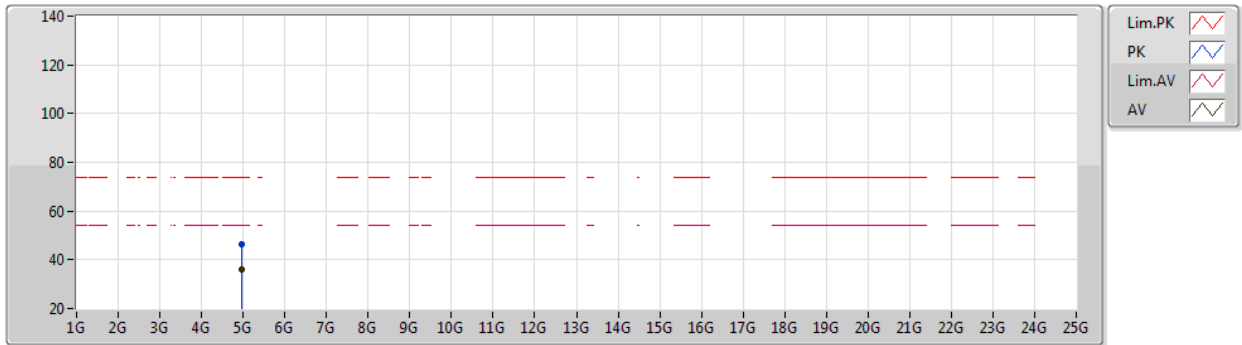


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.95358G	35.63	54.00	-18.37	8.43	3	Vertical	133	1.49	-	27.20	33.91	8.35	33.83
PK	4.95412G	46.21	74.00	-27.79	8.43	3	Vertical	133	1.49	-	37.78	33.91	8.35	33.83

BT-LE(2Mbps)

2480MHz_TX

17/06/2020



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96588G	36.00	54.00	-18.00	8.47	3	Horizontal	253	1.48	-	27.53	33.93	8.36	33.82
PK	4.9573G	46.48	74.00	-27.52	8.43	3	Horizontal	253	1.48	-	38.05	33.91	8.35	33.83

Summary

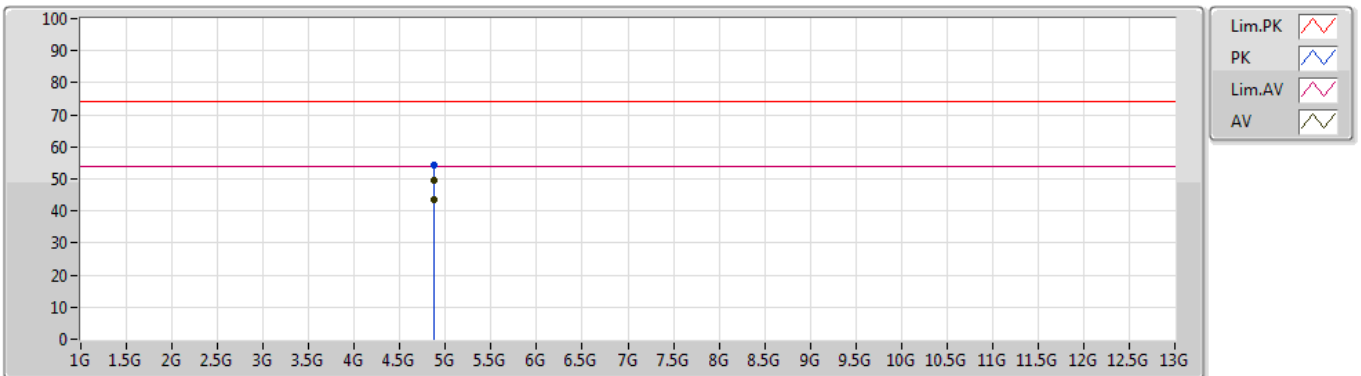
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	4.87996G	51.48	54.00	-2.52	Horizontal
Mode 2	Pass	AV	4.88G	51.90	54.00	-2.10	Vertical

Mode Configure

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 1	Pass	AV	4.87394G	43.57	54.00	-10.43	3	Vertical	169	1.05	-
Mode 1	Pass	AV	4.87996G	49.51	54.00	-4.49	3	Vertical	140	1.01	"Worst"
Mode 1	Pass	PK	4.87399G	49.54	74.00	-24.46	3	Vertical	169	1.05	-
Mode 1	Pass	PK	4.87968G	54.42	74.00	-19.58	3	Vertical	140	1.01	-
Mode 1	Pass	AV	4.87394G	38.55	54.00	-15.45	3	Horizontal	275	1.01	-
Mode 1	Pass	AV	4.87996G	51.48	54.00	-2.52	3	Horizontal	1	1.01	"Worst"
Mode 1	Pass	PK	4.87399G	47.50	74.00	-26.50	3	Horizontal	275	1.01	-
Mode 1	Pass	PK	4.8798G	51.54	74.00	-22.46	3	Horizontal	1	1.01	-
Mode 2	Pass	AV	4.88G	51.90	54.00	-2.10	3	Vertical	129	1.10	"Worst"
Mode 2	Pass	AV	11.15484G	42.56	54.00	-11.44	3	Vertical	300	2.41	-
Mode 2	Pass	PK	4.88024G	55.45	74.00	-18.55	3	Vertical	129	1.10	-
Mode 2	Pass	PK	11.16868G	55.24	74.00	-18.76	3	Vertical	300	2.41	-
Mode 2	Pass	AV	4.87996G	50.62	54.00	-3.38	3	Horizontal	67	1.08	"Worst"
Mode 2	Pass	AV	11.16164G	42.55	54.00	-11.45	3	Horizontal	199	2.81	-
Mode 2	Pass	PK	4.87964G	54.59	74.00	-19.41	3	Horizontal	67	1.08	-
Mode 2	Pass	PK	11.15088G	55.34	74.00	-18.66	3	Horizontal	199	2.81	-

Radiated Emissions above 1GHz_Mode 1

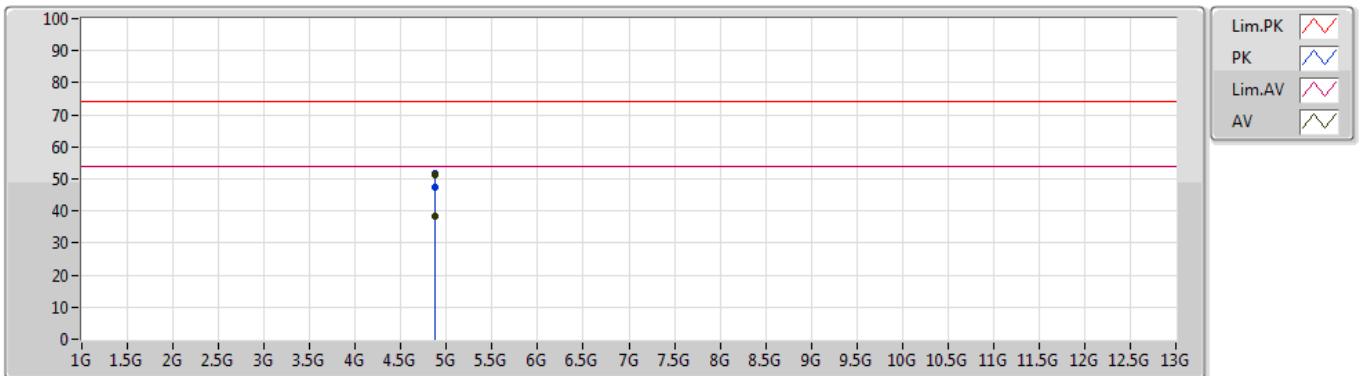
26/08/2020



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	4.87394G	43.57	54.00	-10.43	8.29	3	Vertical	169	1.05	-	35.28	31.10	6.57	29.38
AV	4.87996G	49.51	54.00	-4.49	8.30	3	Vertical	140	1.01	"Worst"	41.21	31.10	6.58	29.38
PK	4.87399G	49.54	74.00	-24.46	8.29	3	Vertical	169	1.05	-	41.25	31.10	6.57	29.38
PK	4.87968G	54.42	74.00	-19.58	8.30	3	Vertical	140	1.01	-	46.12	31.10	6.58	29.38

Radiated Emissions above 1GHz_Mode 1

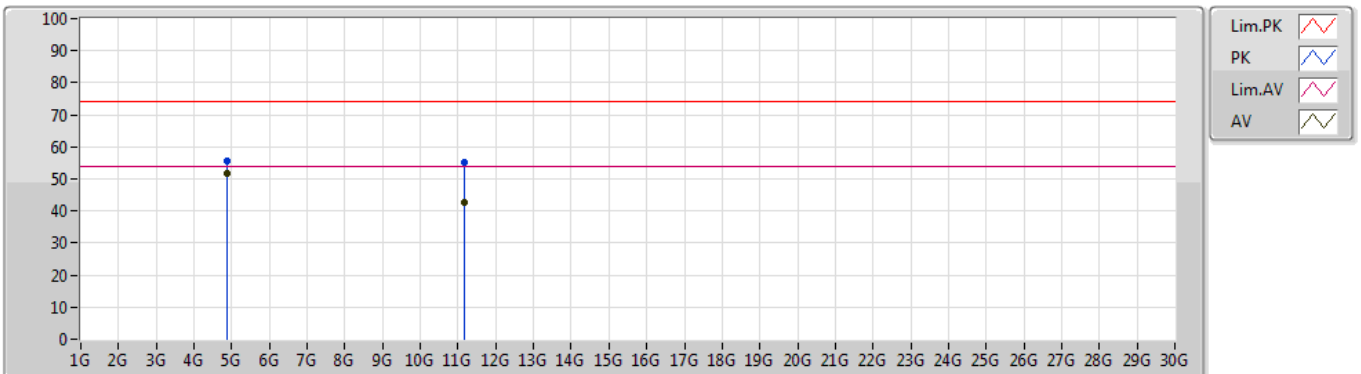
26/08/2020



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87394G	38.55	54.00	-15.45	8.29	3	Horizontal	275	1.01	-	30.26	31.10	6.57	29.38
AV	4.87996G	51.48	54.00	-2.52	8.30	3	Horizontal	1	1.01	"Worst"	43.18	31.10	6.58	29.38
PK	4.87399G	47.50	74.00	-26.50	8.29	3	Horizontal	275	1.01	-	39.21	31.10	6.57	29.38
PK	4.8798G	51.54	74.00	-22.46	8.30	3	Horizontal	1	1.01	-	43.24	31.10	6.58	29.38

Radiated Emissions above 1GHz_Mode 2

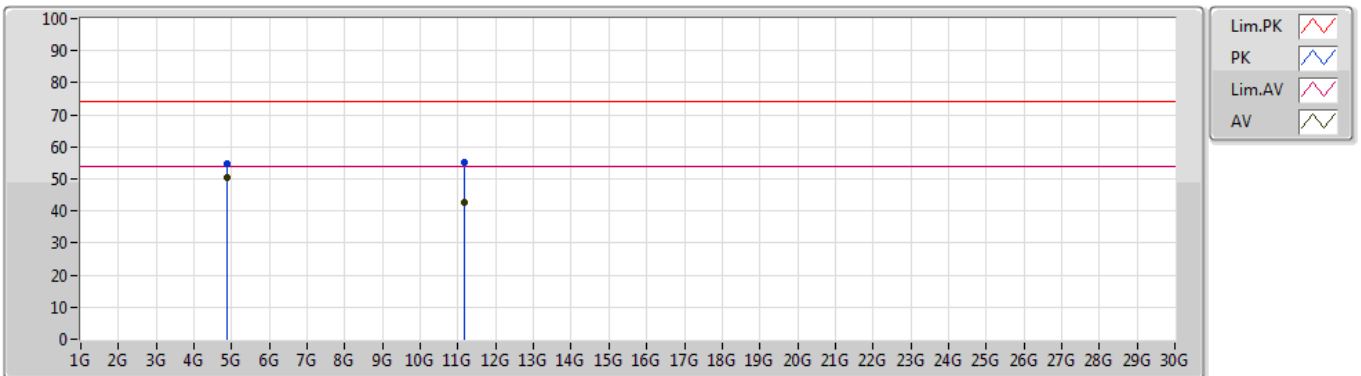
26/08/2020



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88G	51.90	54.00	-2.10	8.30	3	Vertical	129	1.10	"Worst"	43.60	31.10	6.58	29.38
AV	11.15484G	42.56	54.00	-11.44	18.30	3	Vertical	300	2.41	-	24.26	39.85	9.32	30.87
PK	4.88024G	55.45	74.00	-18.55	8.30	3	Vertical	129	1.10	-	47.15	31.10	6.58	29.38
PK	11.16868G	55.24	74.00	-18.76	18.29	3	Vertical	300	2.41	-	36.95	39.83	9.33	30.87

Radiated Emissions above 1GHz_Mode 2

26/08/2020



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87996G	50.62	54.00	-3.38	8.30	3	Horizontal	67	1.08	"Worst"	42.32	31.10	6.58	29.38
AV	11.16164G	42.55	54.00	-11.45	18.29	3	Horizontal	199	2.81	-	24.26	39.84	9.32	30.87
PK	4.87964G	54.59	74.00	-19.41	8.30	3	Horizontal	67	1.08	-	46.29	31.10	6.58	29.38
PK	11.15088G	55.34	74.00	-18.66	18.30	3	Horizontal	199	2.81	-	37.04	39.85	9.32	30.87