Testing Laboratory 3785

FCC Radio Test Report

FCC ID	:	**2AAAS-CM10**
Equipment	:	**Vivint Doorbell Camera Pro (Gen 2)**
Brand Name	:	**Vivint**
Model Name	:	**CM10**
Applicant	:	**Vivint, Inc.** **4931 N. 300W., Provo, UT 84604 USA**
Manufacturer	:	**Chicony Electronics Co., Ltd** **No.69, Sec. 2, Guangfu Rd., Sanchong Dist.,** **New Taipei City 241, Taiwan (R.O.C.)**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Aug. 04, 2022, and testing was started from Aug. 12, 2022 and completed on Aug. 26, 2022. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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

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History of this test report

Report No.	Version	Description	Issued Date
FR280408AL	01	Initial issue of report	Sep. 26, 2022
FR280408AL	02	Update Brand name (This report is the latest version replacing for the report issued on Sep. 26, 2022)	Sep. 27, 2022

Summary of Test Result

Report Clause	Ref.Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

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: Ryan Hsiao

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

Ant.	Brand	Model Name	Antenna Type	Connector
1	Amphenol	CY5873-12-001-C	PIFA	I-PEX
2	Amphenol	CY5873-12-002-C	PIFA	I-PEX

Ant.	Port	Gain (dBi)		
		2.4G	5G	BT
1	1	0.72	2.33	0.72
2	2	0.69	2.56	-

Note 1: The EUT has two antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT 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.

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.

1.1.3 EUT Information

Operational Condition					
EUT Power Type	From AC Adapter				
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) ≥ 1/T
BT-LE(1Mbps)	0.667	1.76	416.563u	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

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	**ADD:** No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
(TAF: 3785**)**	**TEL:** 886-3-327-3456		**FAX:** 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
AC Conduction	CO04-HY	Wayne	20.9~21.4°C / 53~54%	23/Aug/2022
RF Conducted	TH01-HY	Johnny	21.5~25.4°C / 51~58%	19/Aug/2022~22/Aug/2022
Radiated	03CH03-HY	Edward	23.6~24.7°C / 52~60%	12/Aug/2022~26/Aug/2022
☐ Wen 33rd.St.	**ADD:** No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
(TAF: 3785**)**	**TEL:** 886-3-318-0787		**FAX:** 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				

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**
AC Power-line Conducted Emissions	4.53 dB	Confidence levels of 95%
Bandwidth	3 MHz	Confidence levels of 95%
Maximum Conducted Output Power	2 dB	Confidence levels of 95%
Power Spectral Density	2 dB	Confidence levels of 95%
Emissions in Non-restricted Frequency Bands	0.14 dB	Confidence levels of 95%
Emissions in Restricted Frequency Bands	4.8 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	Putty Release 0.62

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

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
1	Adapter mode

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

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	Adapter mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT	V		

2.3 Support Equipment

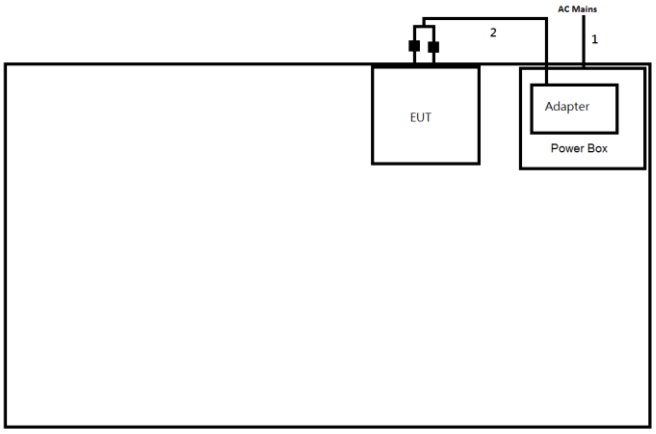
Support Equipment – AC Conduction					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Adapter	Ring	DLA24208	-	Provided by Customer

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					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Adapter	Ring	DLA24208	-	Provided by Customer

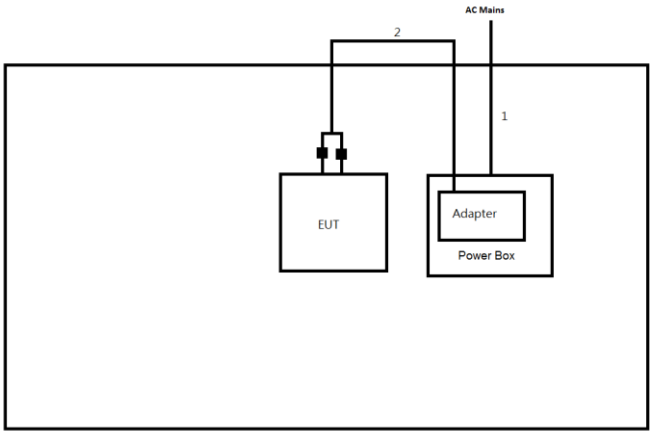
2.4 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	5.5

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	5.5

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

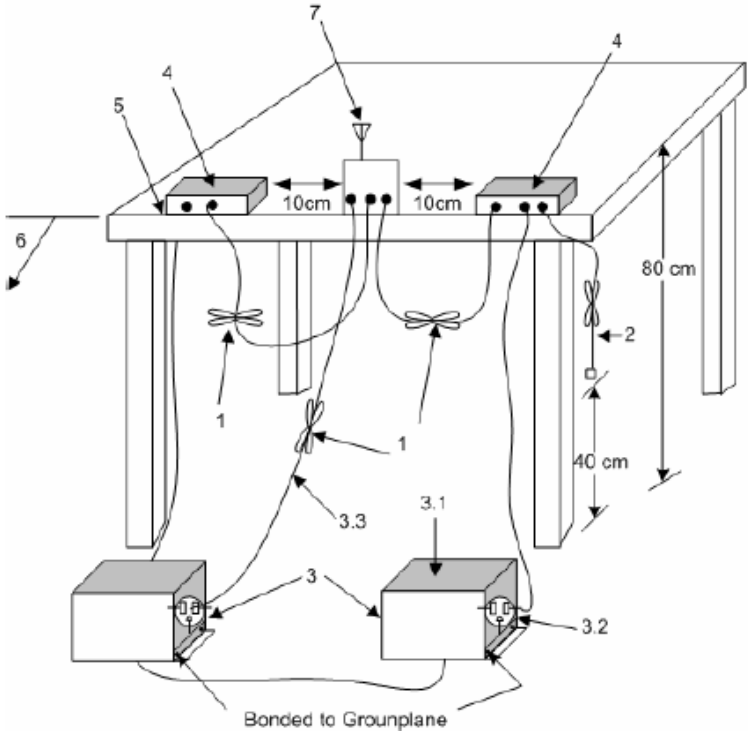
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

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

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.

3.1.6 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 ≥ 500 kHz.

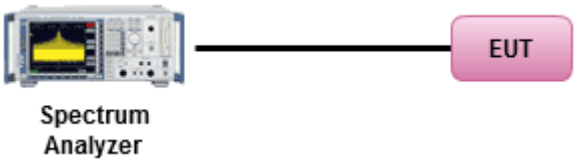
3.2.2 Measuring Instruments

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

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} ≤ 6 dBi, then P_{Out} ≤ 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 + 8dB dBm	
e.i.r.p. Power Limit:			
▪ 2400-2483.5 MHz Band			
	▪ Point-to-multipoint systems (P2M): P_{eirp} ≤ 36 dBm (4 W)		
	▪ Point-to-point systems (P2P): P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX}]) dBm		
	▪ Smart antenna system (SAS)		
		- Single beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm	
		- Overlap beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm	
		- Aggregate power on all beams: P_{eirp} ≤ 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

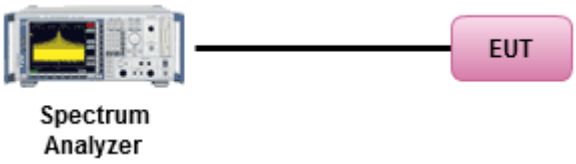
3.4.2 Measuring Instruments

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) 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

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.	

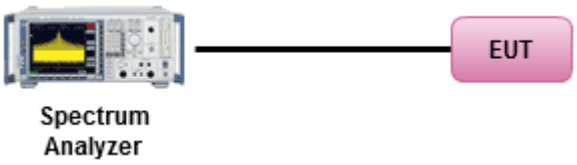
3.5.2 Measuring Instruments

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.

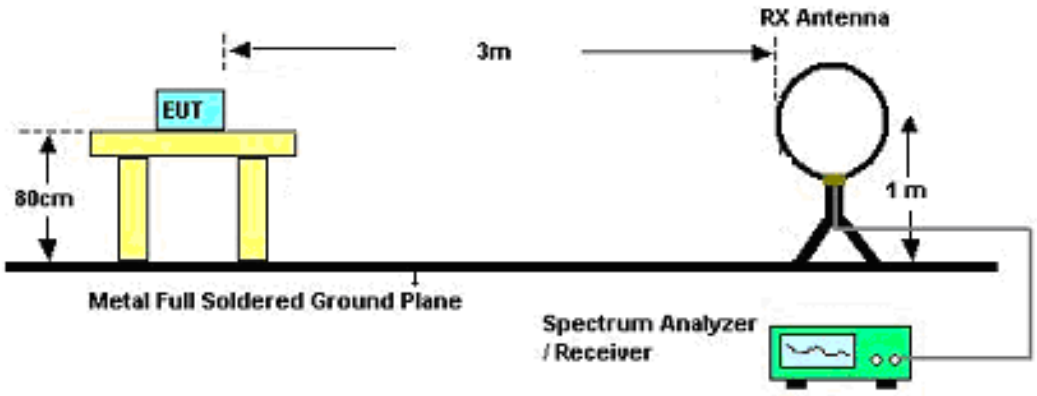
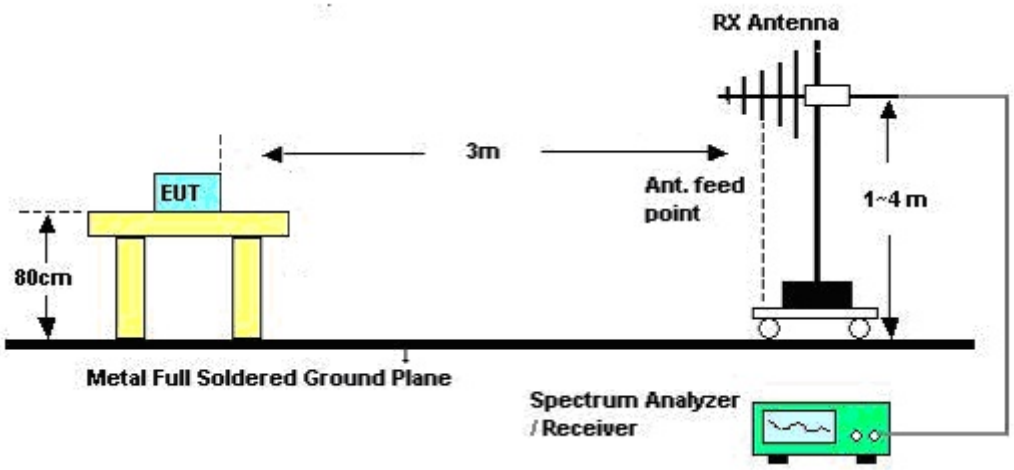
3.6.3 Test Procedures

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.

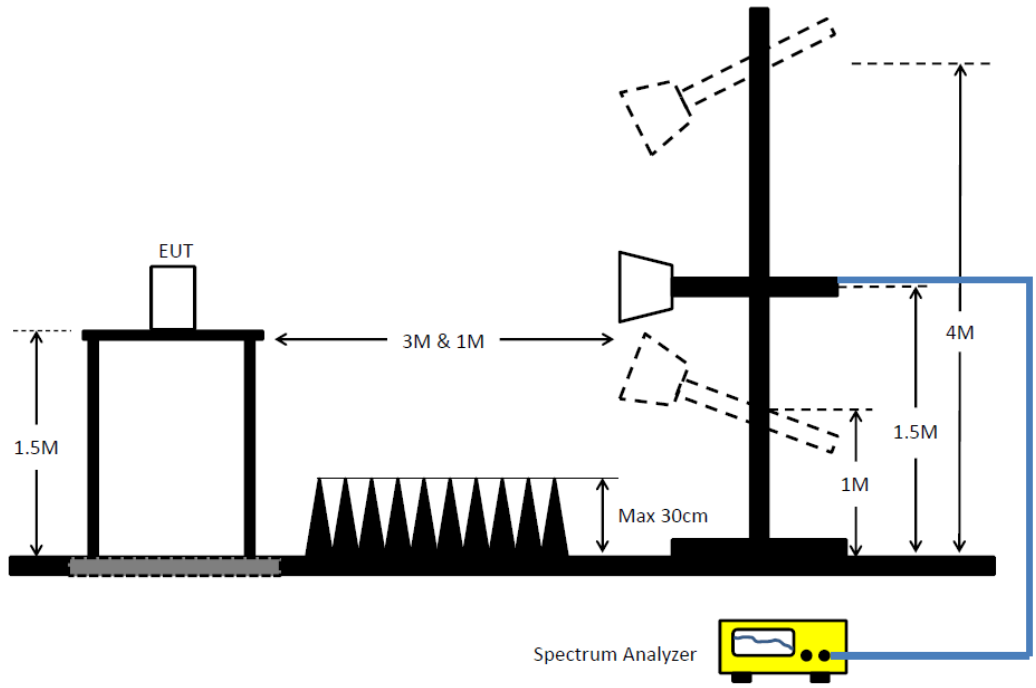
3.6.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamp Factor)

3.6.5 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



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	13/May/2022	12/May/2023
Two-Line V-Network	R&S	ENV 216	100003	9kHz ~ 30MHz	18/Feb/2022	17/Feb/2023
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	01/Mar/2022	28/Feb/2023
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	26/Oct/2021	25/Oct/2022
Software	Sporton	SENSE-EMI	V5.10.8.2	-	NCR	NCR

NCR: No Calibration Required

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	01/Apr/2022	31/Mar/2023
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2021	20/Oct/2022
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	21/Feb/2022	20/Feb/2023
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	21/Feb/2022	20/Feb/2023
SENSE-15247_FS	Sporton	V5.10.7.16	N/A	N/A	N/A	N/A

Instrument for Radiated Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	01/Aug/2022	31/Jul/2023
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz~18GHz 3m	02/Aug/2022	01/Aug/2023
Signal Analyzer	R&S	FSV40	101500	10Hz~40GHz	12/Oct/2021	11/Oct/2022
Amplifier	HP	8447D	2944A08033	10kHz~1.3GHz	08/Apr/2022	07/Apr/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02267	1GHz ~18GHz	14/Sep/2021	13/Sep/2022
Bilog Antenna & 6dB Attenuator	SCHAFFNER / EMCI	CBL6112B / N-6-05	22237 / AT-N-0603	30MHz~1GHz	17/Oct/2021	16/Oct/2022
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz~30MHz	13/Jun/2022	12/Jun/2023
RF Cable-R03m	Jye Bao	RG142	MY37335/4+CB021-1+CB021-2	30MHz~1GHz	22/Mar/2022	21/Mar/2023
RF CABLE 5+6m	HUBER+SUHNER	SUOFLEX 104	03CH03-cable-01	1GHz~40GHz	27/Jul/2022	26/Jul/2023
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	18/Mar/2022	17/Mar/2023
Microwave Premplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	08/Mar/2022	07/Mar/2023
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	18/Mar/2022	17/Mar/2023
Microwave Preamplifier	Agilent	8449B	3008A02326	1GHz~26.5GHz	14/Jul/2022	13/Jul/2023
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	13/May/2022	12/May/2023
SENSE-15224_FS	Sporton	v5.10.7.14	NA	NA	NA	NA

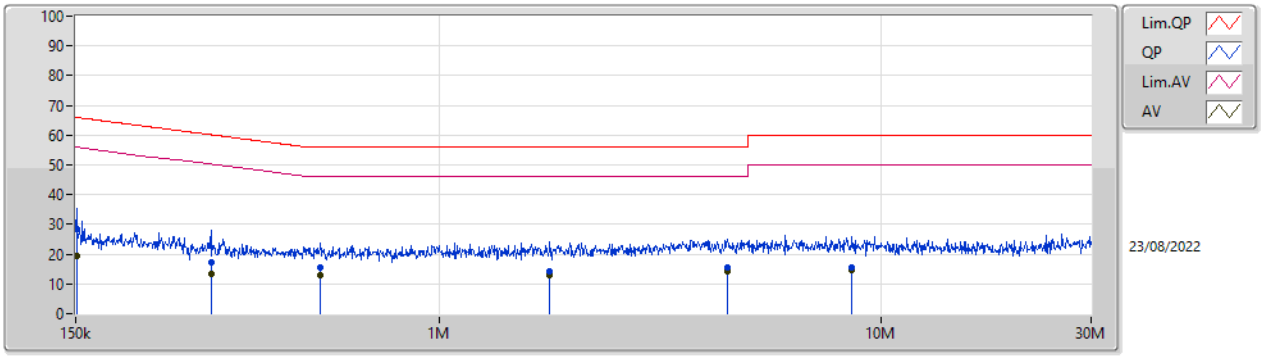
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	1.613M	16.40	46.00	-29.60	Neutral

Result

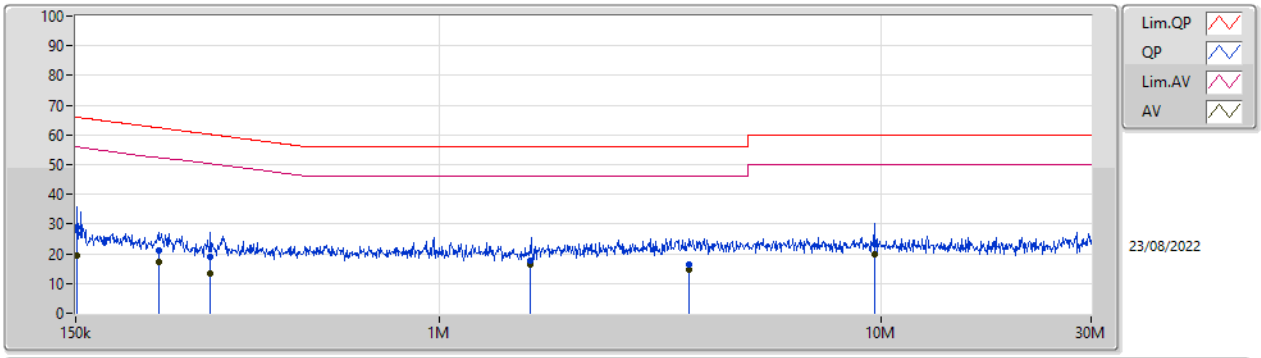
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	150.6k	28.38	65.96	-37.58	Line	-
Mode 1	Pass	AV	150.6k	19.40	55.96	-36.56	Line	-
Mode 1	Pass	QP	304.059k	17.07	60.13	-43.06	Line	-
Mode 1	Pass	AV	304.059k	13.21	50.13	-36.92	Line	-
Mode 1	Pass	QP	538.12k	15.32	56.00	-40.68	Line	-
Mode 1	Pass	AV	538.12k	13.07	46.00	-32.93	Line	-
Mode 1	Pass	QP	1.782M	14.09	56.00	-41.91	Line	-
Mode 1	Pass	AV	1.782M	12.84	46.00	-33.16	Line	-
Mode 1	Pass	QP	4.5M	15.54	56.00	-40.46	Line	-
Mode 1	Pass	AV	4.5M	14.35	46.00	-31.65	Line	-
Mode 1	Pass	QP	8.626M	15.38	60.00	-44.62	Line	-
Mode 1	Pass	AV	8.626M	14.57	50.00	-35.43	Line	-
Mode 1	Pass	QP	151.202k	28.91	65.92	-37.01	Neutral	-
Mode 1	Pass	AV	151.202k	19.38	55.92	-36.54	Neutral	-
Mode 1	Pass	QP	230.851k	20.98	62.42	-41.44	Neutral	-
Mode 1	Pass	AV	230.851k	17.13	52.42	-35.29	Neutral	-
Mode 1	Pass	QP	302.848k	19.04	60.17	-41.13	Neutral	-
Mode 1	Pass	AV	302.848k	13.42	50.17	-36.75	Neutral	-
Mode 1	Pass	QP	1.613M	17.83	56.00	-38.17	Neutral	-
Mode 1	Pass	AV	1.613M	16.40	46.00	-29.60	Neutral	-
Mode 1	Pass	QP	3.686M	16.41	56.00	-39.59	Neutral	-
Mode 1	Pass	AV	3.686M	14.82	46.00	-31.18	Neutral	-
Mode 1	Pass	QP	9.685M	23.21	60.00	-36.79	Neutral	-
Mode 1	Pass	AV	9.685M	19.82	50.00	-30.18	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	150.6k	28.38	65.96	-37.58	19.63	Line	-	8.75	9.69	0.03	9.91
AV	150.6k	19.40	55.96	-36.56	19.63	Line	-	-0.23	9.69	0.03	9.91
QP	304.059k	17.07	60.13	-43.06	19.64	Line	-	-2.57	9.69	0.04	9.91
AV	304.059k	13.21	50.13	-36.92	19.64	Line	-	-6.43	9.69	0.04	9.91
QP	538.12k	15.32	56.00	-40.68	19.64	Line	-	-4.32	9.69	0.04	9.91
AV	538.12k	13.07	46.00	-32.93	19.64	Line	-	-6.57	9.69	0.04	9.91
QP	1.782M	14.09	56.00	-41.91	19.69	Line	-	-5.60	9.69	0.08	9.92
AV	1.782M	12.84	46.00	-33.16	19.69	Line	-	-6.85	9.69	0.08	9.92
QP	4.5M	15.54	56.00	-40.46	19.75	Line	-	-4.21	9.69	0.14	9.92
AV	4.5M	14.35	46.00	-31.65	19.75	Line	-	-5.40	9.69	0.14	9.92
QP	8.626M	15.38	60.00	-44.62	19.79	Line	-	-4.41	9.69	0.17	9.93
AV	8.626M	14.57	50.00	-35.43	19.79	Line	-	-5.22	9.69	0.17	9.93

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	151.202k	28.91	65.92	-37.01	19.67	Neutral	-	9.24	9.73	0.03	9.91
AV	151.202k	19.38	55.92	-36.54	19.67	Neutral	-	-0.29	9.73	0.03	9.91
QP	230.851k	20.98	62.42	-41.44	19.66	Neutral	-	1.32	9.72	0.03	9.91
AV	230.851k	17.13	52.42	-35.29	19.66	Neutral	-	-2.53	9.72	0.03	9.91
QP	302.848k	19.04	60.17	-41.13	19.67	Neutral	-	-0.63	9.72	0.04	9.91
AV	302.848k	13.42	50.17	-36.75	19.67	Neutral	-	-6.25	9.72	0.04	9.91
QP	1.613M	17.83	56.00	-38.17	19.73	Neutral	-	-1.90	9.74	0.07	9.92
AV	1.613M	16.40	46.00	-29.60	19.73	Neutral	-	-3.33	9.74	0.07	9.92
QP	3.686M	16.41	56.00	-39.59	19.80	Neutral	-	-3.39	9.76	0.12	9.92
AV	3.686M	14.82	46.00	-31.18	19.80	Neutral	-	-4.98	9.76	0.12	9.92
QP	9.685M	23.21	60.00	-36.79	20.00	Neutral	-	3.21	9.89	0.18	9.93
AV	9.685M	19.82	50.00	-30.18	20.00	Neutral	-	-0.18	9.89	0.18	9.93

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)	662.5k	1.052M	1M05F1D	660k	1.048M

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

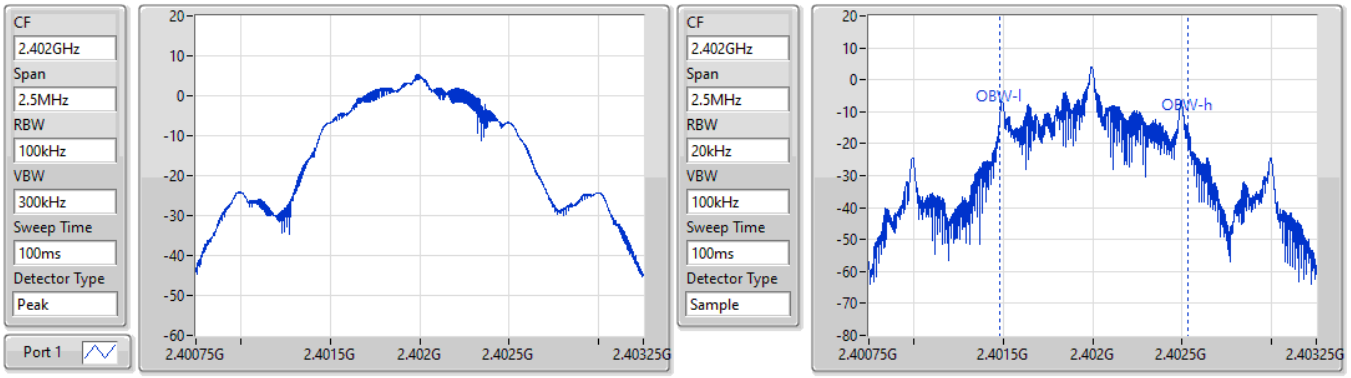
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	662.5k	1.051M
2440MHz	Pass	500k	661.25k	1.052M
2480MHz	Pass	500k	660k	1.048M

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

BT-LE(1Mbps) EBW-DTS

2402MHz

22/08/2022

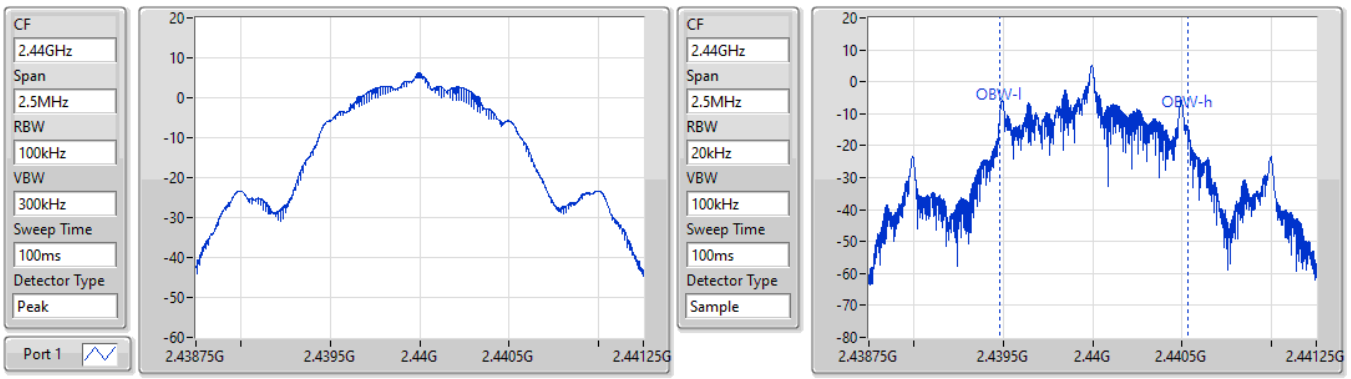


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
662.5k	2.401663G	2.402325G	1.051M	2.40148G	2.402531G	500k	1

BT-LE(1Mbps) EBW-DTS

2440MHz

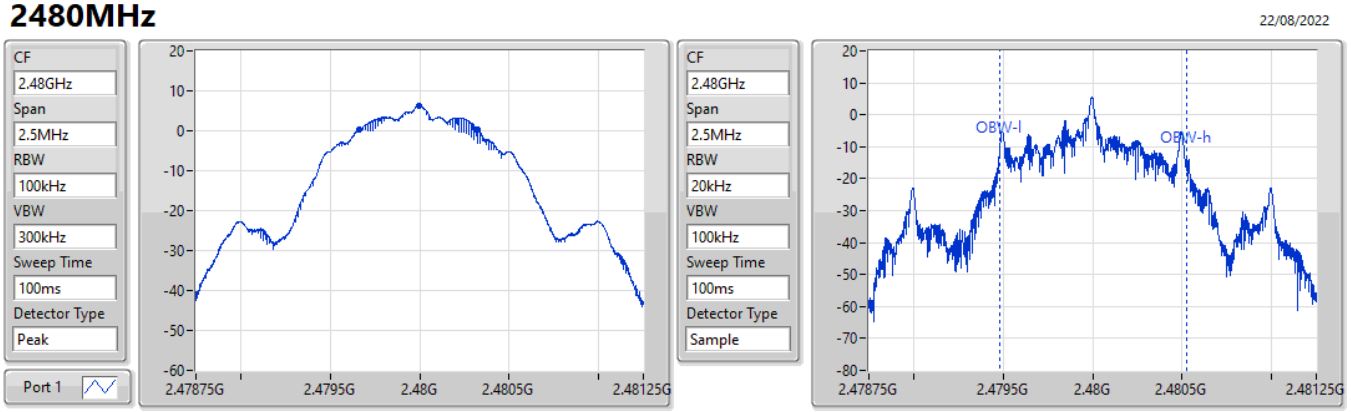
22/08/2022



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
661.25k	2.439664G	2.440325G	1.052M	2.43948G	2.440532G	500k	1

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

2480MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
660k	2.479665G	2.480325G	1.048M	2.47948G	2.480528G	500k	1

Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	5.86	0.00385

Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	0.72	4.50	30.00
2440MHz	Pass	0.72	5.22	30.00
2480MHz	Pass	0.72	5.86	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	4.67

RBW = 3kHz;

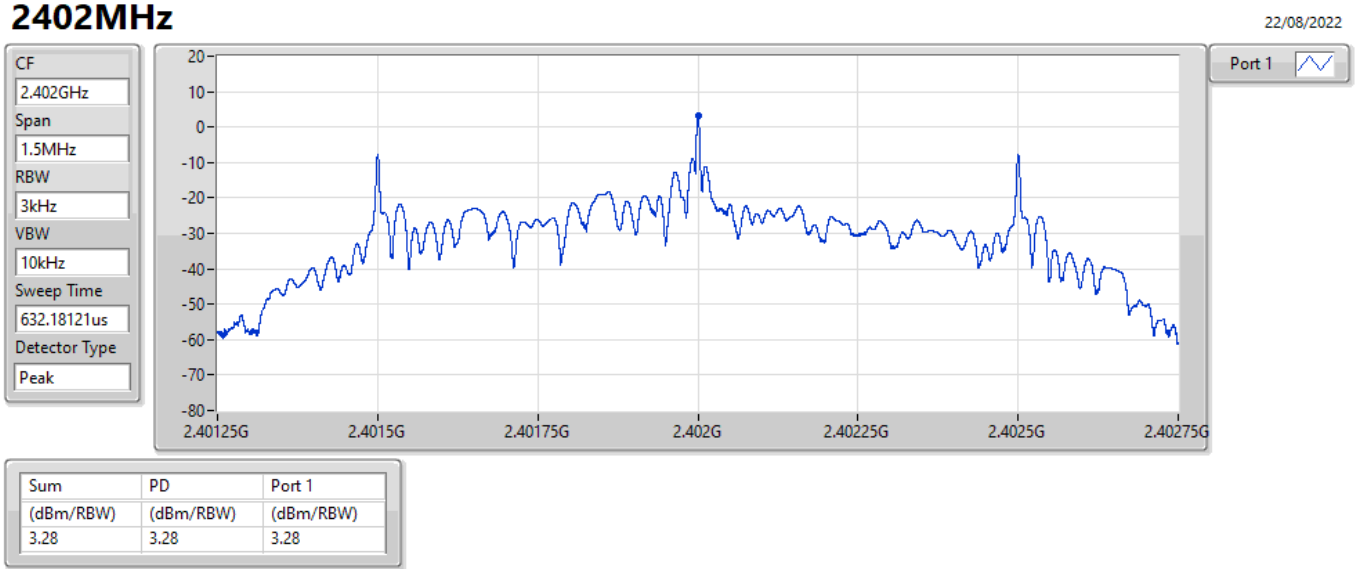
Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	0.72	3.28	8.00
2440MHz	Pass	0.72	4.07	8.00
2480MHz	Pass	0.72	4.67	8.00

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

BT-LE(1Mbps) PSD

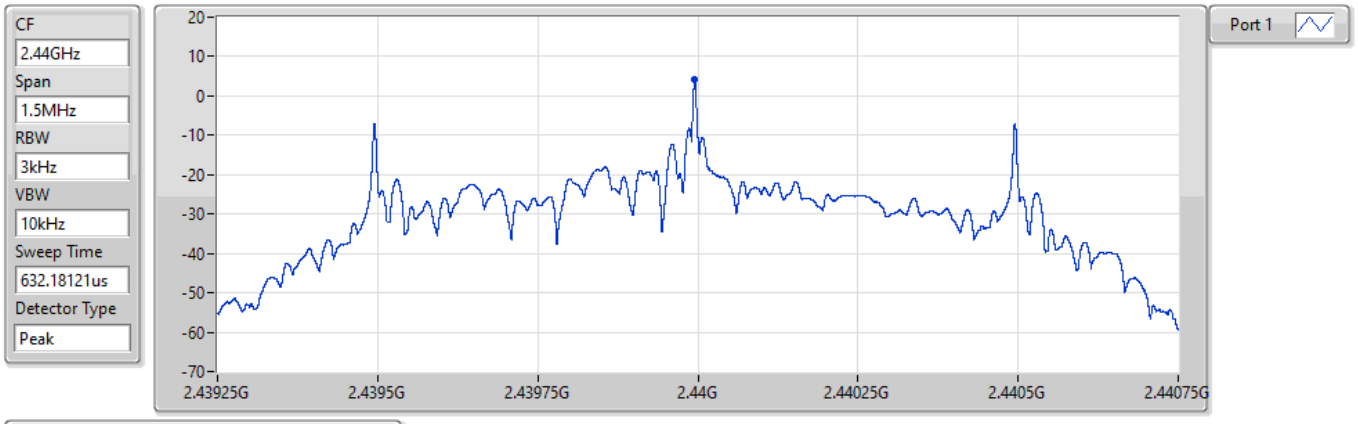
2402MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.28	3.28	3.28

BT-LE(1Mbps) PSD

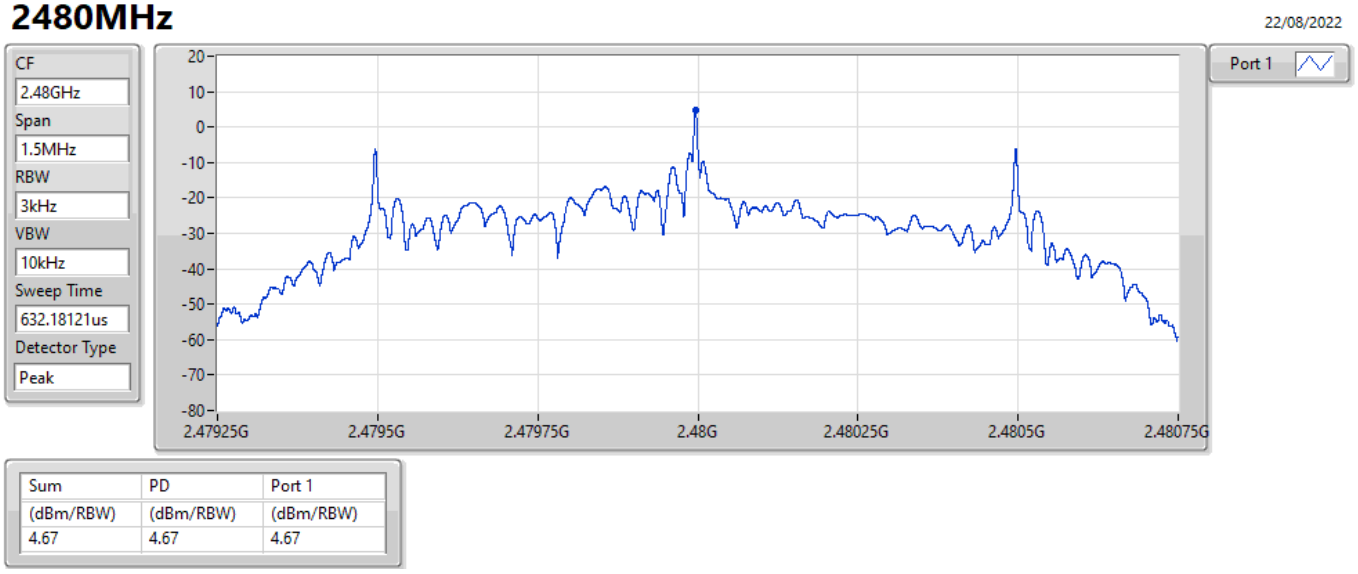
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.07	4.07	4.07

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

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.67	4.67	4.67

Summary

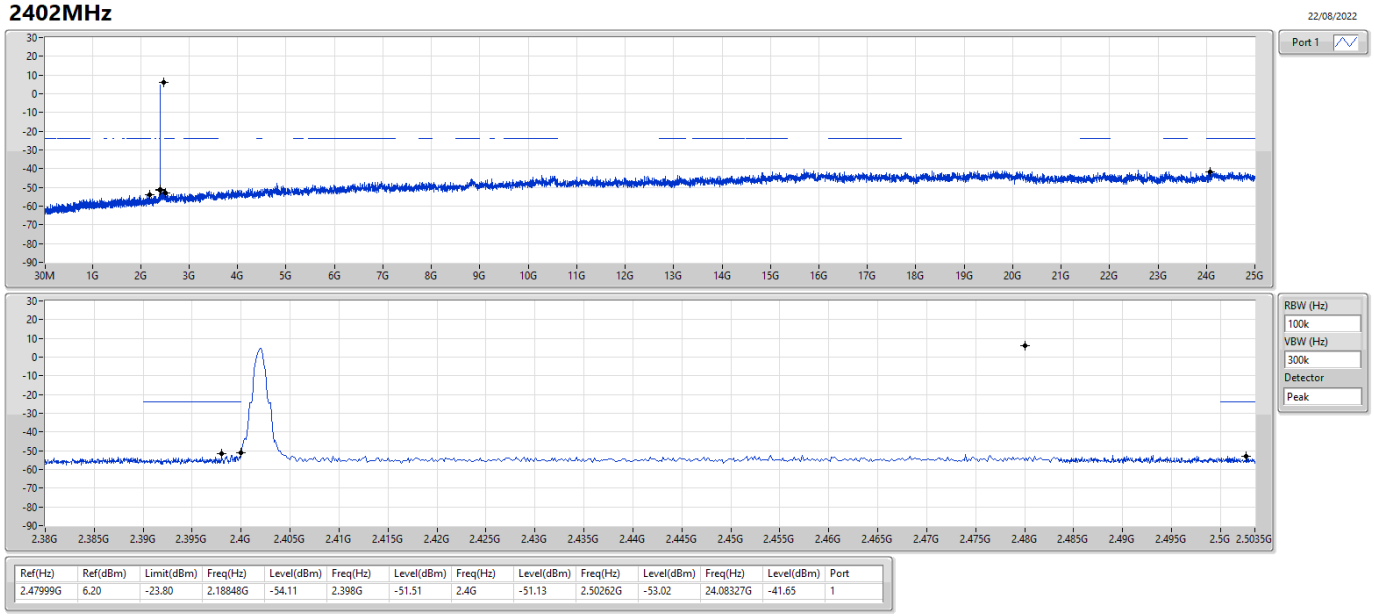
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.47999G	6.20	-23.80	2.18848G	-54.11	2.398G	-51.51	2.4G	-51.13	2.50262G	-53.02	24.08327G	-41.65	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	2.47999G	6.20	-23.80	2.18848G	-54.11	2.398G	-51.51	2.4G	-51.13	2.50262G	-53.02	24.08327G	-41.65	1
2440MHz	Pass	2.47999G	6.20	-23.80	2.0651G	-54.67	2.3904G	-53.54	2.4G	-56.08	2.50282G	-53.41	24.18169G	-40.65	1
2480MHz	Pass	2.47999G	6.20	-23.80	2.1309G	-54.59	2.39844G	-52.96	2.4G	-54.90	2.50198G	-53.32	24.41509G	-40.40	1

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

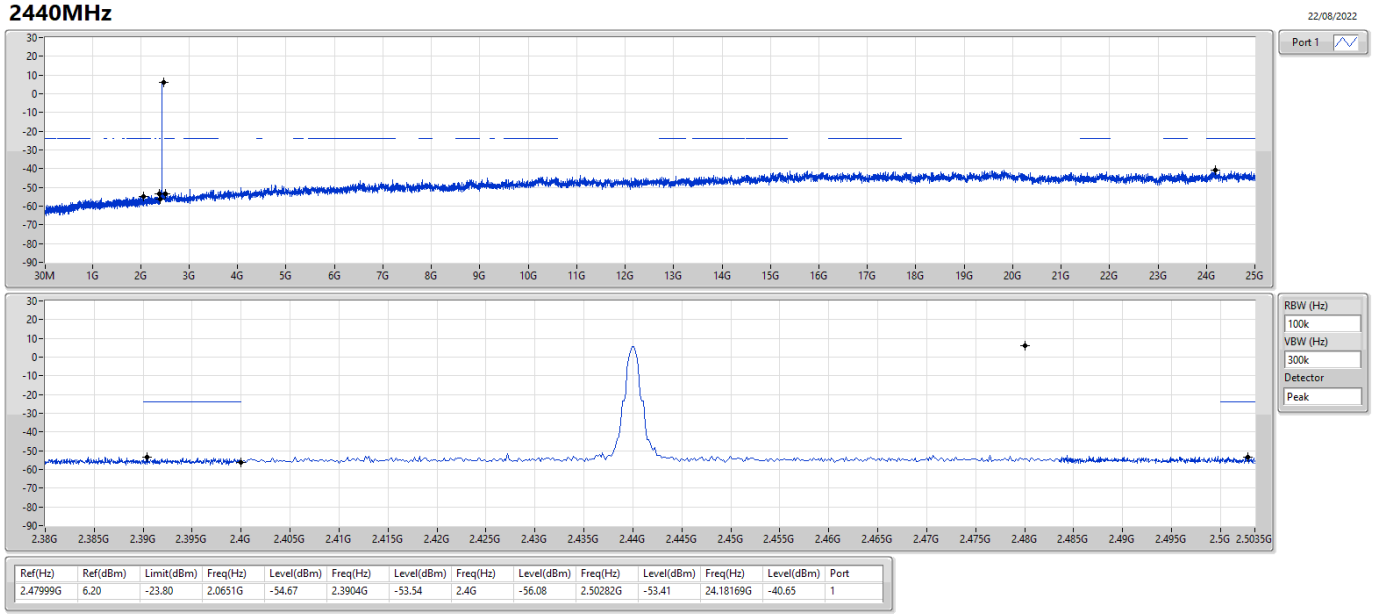
2402MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47999G	6.20	-23.80	2.18848G	-54.11	2.398G	-51.51	2.4G	-51.13	2.50262G	-53.02	24.08327G	-41.65	1

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

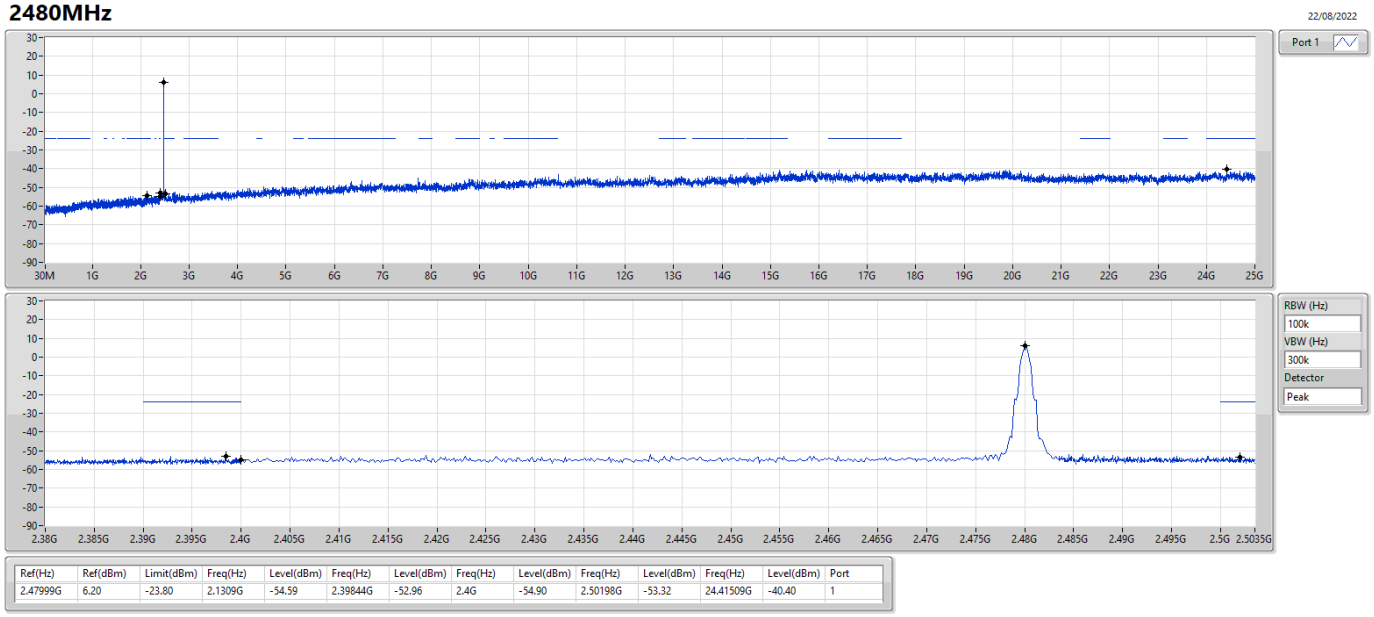
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47999G	6.20	-23.80	2.0651G	-54.67	2.3904G	-53.54	2.4G	-56.08	2.50282G	-53.41	24.18169G	-40.65	1

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

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.47999G	6.20	-23.80	2.1309G	-54.59	2.39844G	-52.96	2.4G	-54.90	2.50198G	-53.32	24.41509G	-40.40	1

Summary

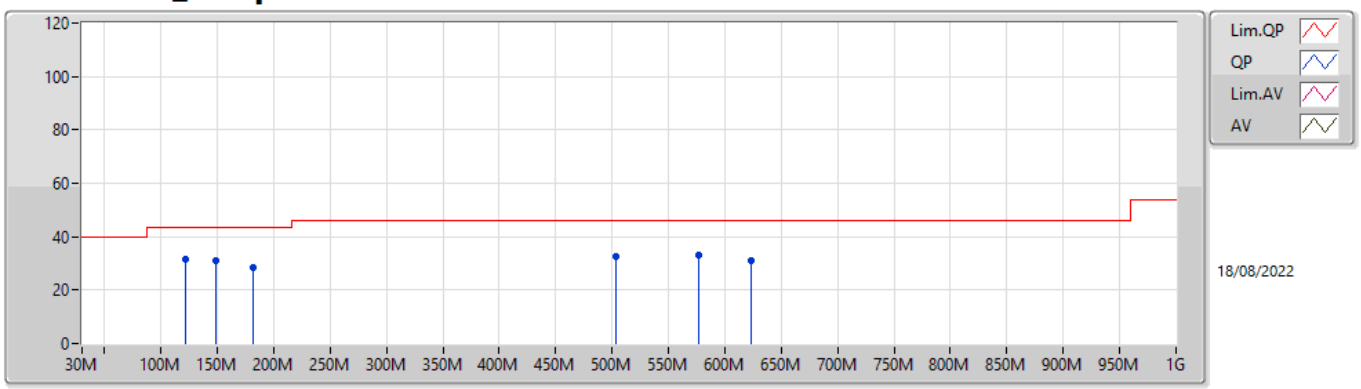
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	PK	169.68M	34.55	43.50	-8.95	-10.18	3	Horizontal	0	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	121.18M	31.48	43.50	-12.02	-8.12	3	Vertical	360	1.00	-
2440MHz	Pass	PK	148.34M	30.82	43.50	-12.68	-9.62	3	Vertical	360	1.00	-
2440MHz	Pass	PK	181.32M	28.67	43.50	-14.83	-10.48	3	Vertical	360	1.00	-
2440MHz	Pass	PK	503.36M	32.53	46.00	-13.47	-1.23	3	Vertical	360	1.00	-
2440MHz	Pass	PK	577.08M	32.94	46.00	-13.06	0.00	3	Vertical	360	1.00	-
2440MHz	Pass	PK	623.64M	30.86	46.00	-15.14	0.33	3	Vertical	360	1.00	-
2440MHz	Pass	PK	121.18M	31.94	43.50	-11.56	-8.12	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	169.68M	34.55	43.50	-8.95	-10.18	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	196.84M	31.45	43.50	-12.05	-10.29	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	359.8M	26.91	46.00	-19.09	-3.92	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	528.58M	32.38	46.00	-13.62	-0.86	3	Horizontal	0	1.00	-
2440MHz	Pass	PK	672.14M	33.75	46.00	-12.25	0.63	3	Horizontal	0	1.00	-

BT-LE(1Mbps)

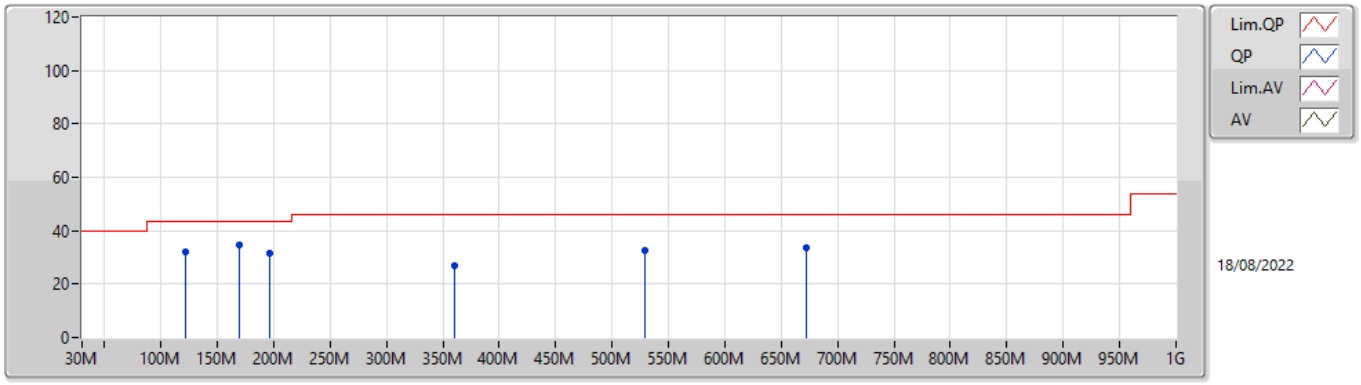
2440MHz_Adapter



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	121.18M	31.48	43.50	-12.02	-8.12	3	Vertical	360	1.00	-	39.60	17.34	1.81	27.27
PK	148.34M	30.82	43.50	-12.68	-9.62	3	Vertical	360	1.00	-	40.44	15.54	2.00	27.16
PK	181.32M	28.67	43.50	-14.83	-10.48	3	Vertical	360	1.00	-	39.15	14.27	2.23	26.98
PK	503.36M	32.53	46.00	-13.47	-1.23	3	Vertical	360	1.00	-	33.76	22.73	3.82	27.78
PK	577.08M	32.94	46.00	-13.06	0.00	3	Vertical	360	1.00	-	32.94	23.87	4.10	27.97
PK	623.64M	30.86	46.00	-15.14	0.33	3	Vertical	360	1.00	-	30.53	24.02	4.30	27.99

BT-LE(1Mbps)

2440MHz_Adapter



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	121.18M	31.94	43.50	-11.56	-8.12	3	Horizontal	0	1.00	-	40.06	17.34	1.81	27.27
PK	169.68M	34.55	43.50	-8.95	-10.18	3	Horizontal	0	1.00	-	44.73	14.72	2.15	27.05
PK	196.84M	31.45	43.50	-12.05	-10.29	3	Horizontal	0	1.00	-	41.74	14.29	2.33	26.91
PK	359.8M	26.91	46.00	-19.09	-3.92	3	Horizontal	0	1.00	-	30.83	19.81	3.19	26.92
PK	528.58M	32.38	46.00	-13.62	-0.86	3	Horizontal	0	1.00	-	33.24	23.14	3.90	27.90
PK	672.14M	33.75	46.00	-12.25	0.63	3	Horizontal	0	1.00	-	33.12	24.12	4.47	27.96

Summary

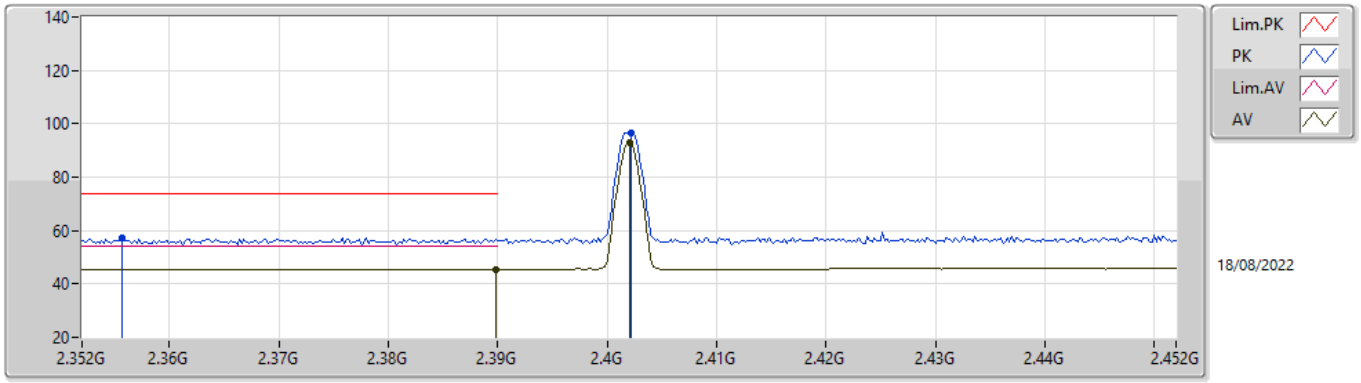
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4988G	48.66	54.00	-5.34	32.37	3	Horizontal	339	2.11	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3898G	45.31	54.00	-8.69	31.86	3	Vertical	314	1.08	-
2402MHz	Pass	AV	2.402G	92.84	Inf	-Inf	31.88	3	Vertical	314	1.08	-
2402MHz	Pass	PK	2.3556G	57.26	74.00	-16.74	31.81	3	Vertical	314	1.08	-
2402MHz	Pass	PK	2.4022G	96.69	Inf	-Inf	31.88	3	Vertical	314	1.08	-
2402MHz	Pass	AV	2.368G	45.51	54.00	-8.49	31.83	3	Horizontal	52	1.34	-
2402MHz	Pass	AV	2.402G	93.90	Inf	-Inf	31.88	3	Horizontal	52	1.34	-
2402MHz	Pass	PK	2.3676G	57.65	74.00	-16.35	31.83	3	Horizontal	52	1.34	-
2402MHz	Pass	PK	2.4024G	97.74	Inf	-Inf	31.88	3	Horizontal	52	1.34	-
2402MHz	Pass	AV	4.804G	35.70	54.00	-18.30	5.13	3	Vertical	341	1.03	-
2402MHz	Pass	PK	4.80389G	46.09	74.00	-27.91	5.13	3	Vertical	341	1.03	-
2402MHz	Pass	AV	4.80401G	38.00	54.00	-16.00	5.13	3	Horizontal	0	2.49	-
2402MHz	Pass	PK	4.80383G	47.46	74.00	-26.54	5.13	3	Horizontal	0	2.49	-
2440MHz	Pass	AV	2.3504G	47.76	54.00	-6.24	31.80	3	Vertical	54	1.97	-
2440MHz	Pass	AV	2.44G	98.61	Inf	-Inf	32.04	3	Vertical	54	1.97	-
2440MHz	Pass	AV	2.4932G	48.65	54.00	-5.35	32.34	3	Vertical	54	1.97	-
2440MHz	Pass	PK	2.3572G	58.70	74.00	-15.30	31.81	3	Vertical	54	1.97	-
2440MHz	Pass	PK	2.44G	99.39	Inf	-Inf	32.04	3	Vertical	54	1.97	-
2440MHz	Pass	PK	2.4968G	59.76	74.00	-14.24	32.36	3	Vertical	54	1.97	-
2440MHz	Pass	AV	2.352G	47.75	54.00	-6.25	31.80	3	Horizontal	339	2.11	-
2440MHz	Pass	AV	2.44G	100.35	Inf	-Inf	32.04	3	Horizontal	339	2.11	-
2440MHz	Pass	AV	2.4988G	48.66	54.00	-5.34	32.37	3	Horizontal	339	2.11	-
2440MHz	Pass	PK	2.354G	58.39	74.00	-15.61	31.81	3	Horizontal	339	2.11	-
2440MHz	Pass	PK	2.4404G	100.91	Inf	-Inf	32.04	3	Horizontal	339	2.11	-
2440MHz	Pass	PK	2.4892G	59.08	74.00	-14.92	32.32	3	Horizontal	339	2.11	-
2440MHz	Pass	AV	4.87995G	38.48	54.00	-15.52	5.38	3	Vertical	353	2.08	-
2440MHz	Pass	PK	4.8801G	46.27	74.00	-27.73	5.38	3	Vertical	353	2.08	-
2440MHz	Pass	AV	4.87993G	38.23	54.00	-15.77	5.38	3	Horizontal	0	2.45	-
2440MHz	Pass	PK	4.88054G	46.17	74.00	-27.83	5.38	3	Horizontal	0	2.45	-
2480MHz	Pass	AV	2.48G	99.21	Inf	-Inf	32.26	3	Vertical	313	2.75	-
2480MHz	Pass	AV	2.4835G	47.85	54.00	-6.15	32.28	3	Vertical	313	2.75	-
2480MHz	Pass	PK	2.48G	99.78	Inf	-Inf	32.26	3	Vertical	313	2.75	-
2480MHz	Pass	PK	2.4842G	58.70	74.00	-15.30	32.29	3	Vertical	313	2.75	-
2480MHz	Pass	AV	2.48G	101.73	Inf	-Inf	32.26	3	Horizontal	14	1.86	-
2480MHz	Pass	AV	2.4882G	47.64	54.00	-6.36	32.31	3	Horizontal	14	1.86	-
2480MHz	Pass	PK	2.4802G	102.32	Inf	-Inf	32.26	3	Horizontal	14	1.86	-
2480MHz	Pass	PK	2.4836G	58.66	74.00	-15.34	32.28	3	Horizontal	14	1.86	-
2480MHz	Pass	AV	4.95998G	36.75	54.00	-17.25	5.78	3	Vertical	0	2.03	-
2480MHz	Pass	PK	4.96029G	46.28	74.00	-27.72	5.78	3	Vertical	0	2.03	-
2480MHz	Pass	AV	4.9599G	35.27	54.00	-18.73	5.78	3	Horizontal	14	1.50	-
2480MHz	Pass	PK	4.96033G	45.22	74.00	-28.78	5.78	3	Horizontal	14	1.50	-

BT-LE(1Mbps)

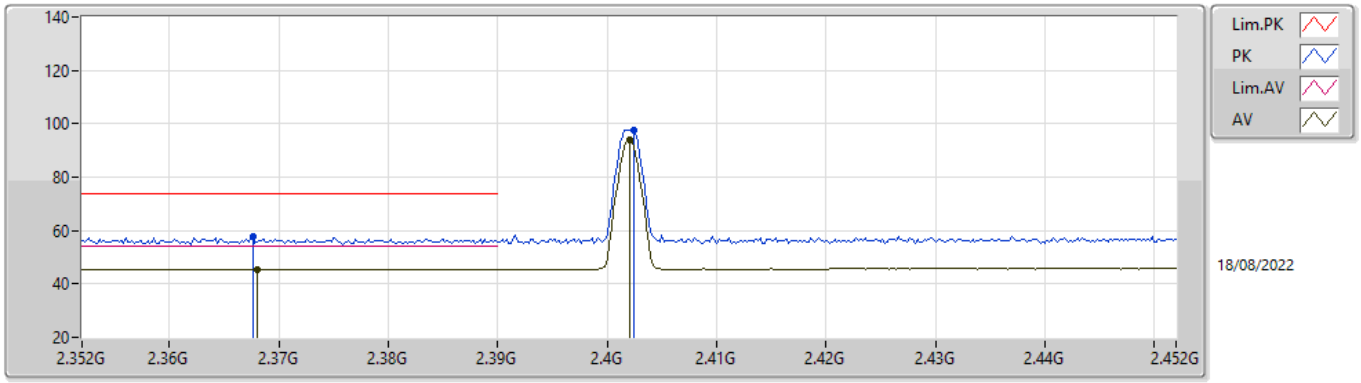
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3898G	45.31	54.00	-8.69	31.86	3	Vertical	314	1.08	-	13.45	27.38	4.48	-
AV	2.402G	92.84	Inf	-Inf	31.88	3	Vertical	314	1.08	-	60.96	27.41	4.47	-
PK	2.3556G	57.26	74.00	-16.74	31.81	3	Vertical	314	1.08	-	25.45	27.31	4.50	-
PK	2.4022G	96.69	Inf	-Inf	31.88	3	Vertical	314	1.08	-	64.81	27.41	4.47	-

BT-LE(1Mbps)

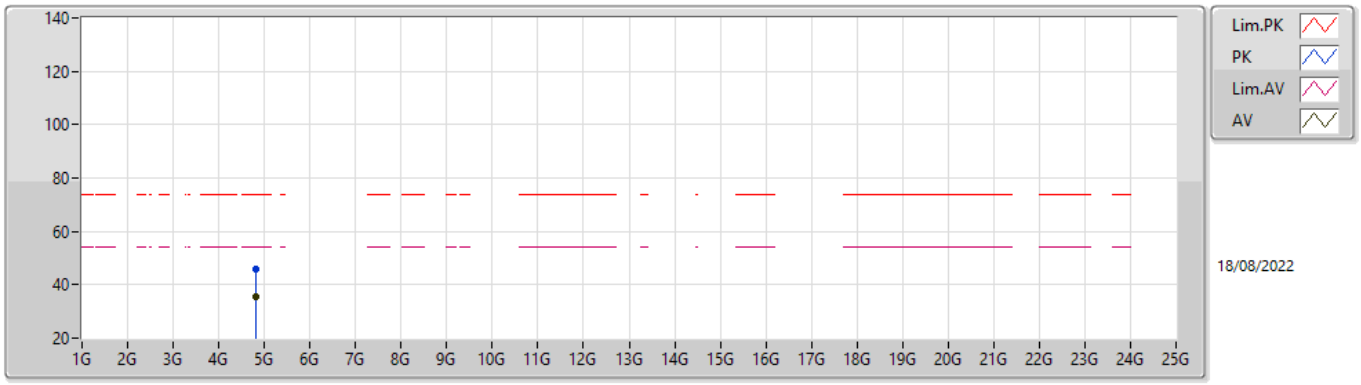
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.368G	45.51	54.00	-8.49	31.83	3	Horizontal	52	1.34	-	13.68	27.34	4.49	-
AV	2.402G	93.90	Inf	-Inf	31.88	3	Horizontal	52	1.34	-	62.02	27.41	4.47	-
PK	2.3676G	57.65	74.00	-16.35	31.83	3	Horizontal	52	1.34	-	25.82	27.34	4.49	-
PK	2.4024G	97.74	Inf	-Inf	31.88	3	Horizontal	52	1.34	-	65.86	27.41	4.47	-

BT-LE(1Mbps)

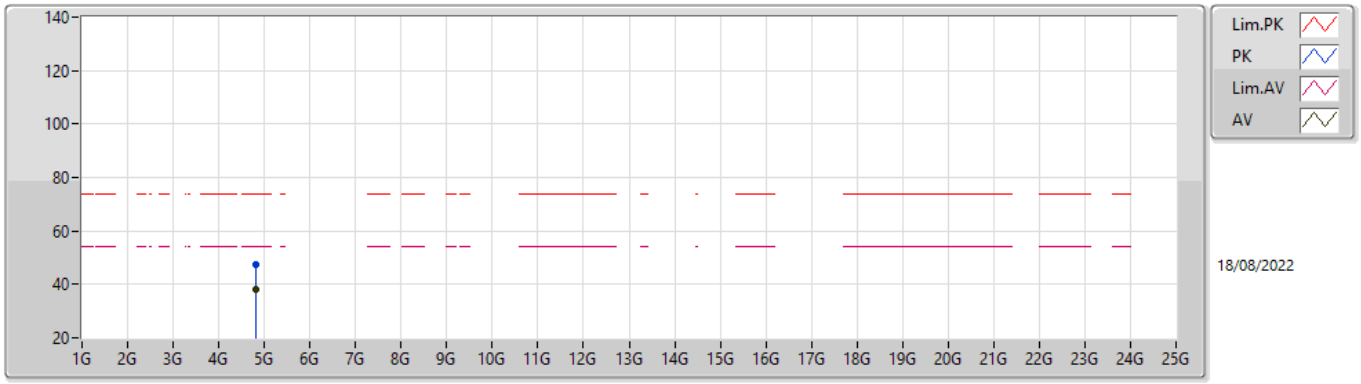
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.804G	35.70	54.00	-18.30	5.13	3	Vertical	341	1.03	-	30.57	32.52	6.90	34.29
PK	4.80389G	46.09	74.00	-27.91	5.13	3	Vertical	341	1.03	-	40.96	32.52	6.90	34.29

BT-LE(1Mbps)

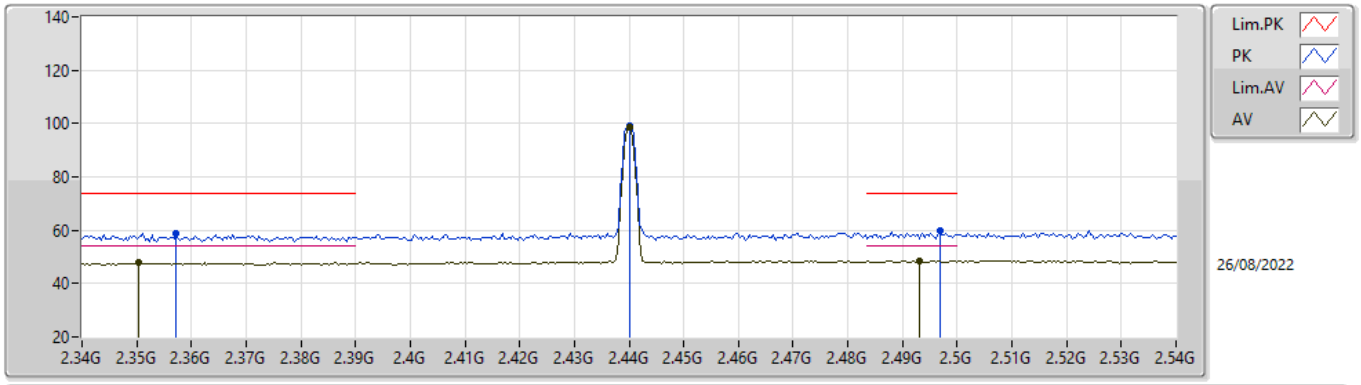
2402MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.80401G	38.00	54.00	-16.00	5.13	3	Horizontal	0	2.49	-	32.87	32.52	6.90	34.29
PK	4.80383G	47.46	74.00	-26.54	5.13	3	Horizontal	0	2.49	-	42.33	32.52	6.90	34.29

BT-LE(1Mbps)

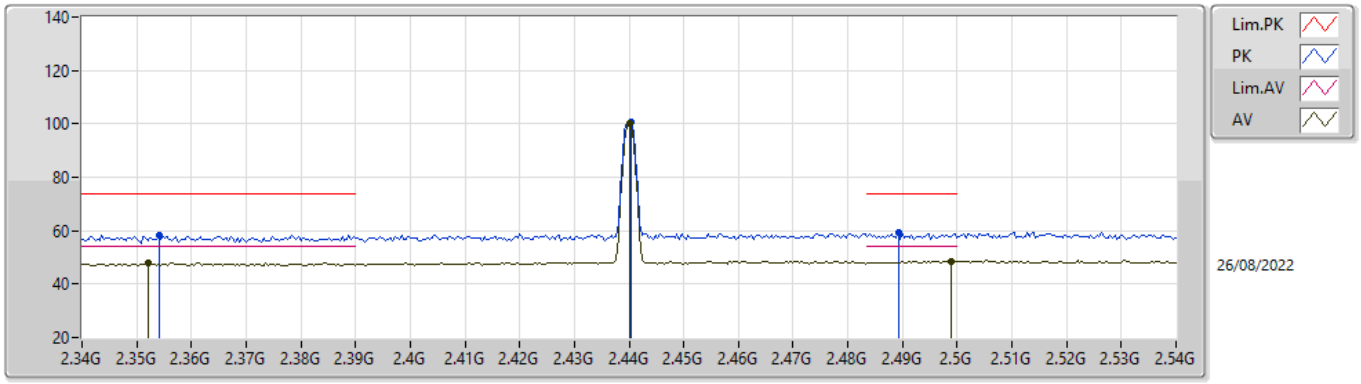
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.3504G	47.76	54.00	-6.24	31.80	3	Vertical	54	1.97	-	15.96	27.30	4.50	-
AV	2.44G	98.61	Inf	-Inf	32.04	3	Vertical	54	1.97	-	66.57	27.56	4.48	-
AV	2.4932G	48.65	54.00	-5.35	32.34	3	Vertical	54	1.97	-	16.31	27.86	4.48	-
PK	2.3572G	58.70	74.00	-15.30	31.81	3	Vertical	54	1.97	-	26.89	27.31	4.50	-
PK	2.44G	99.39	Inf	-Inf	32.04	3	Vertical	54	1.97	-	67.35	27.56	4.48	-
PK	2.4968G	59.76	74.00	-14.24	32.36	3	Vertical	54	1.97	-	27.40	27.88	4.48	-

BT-LE(1Mbps)

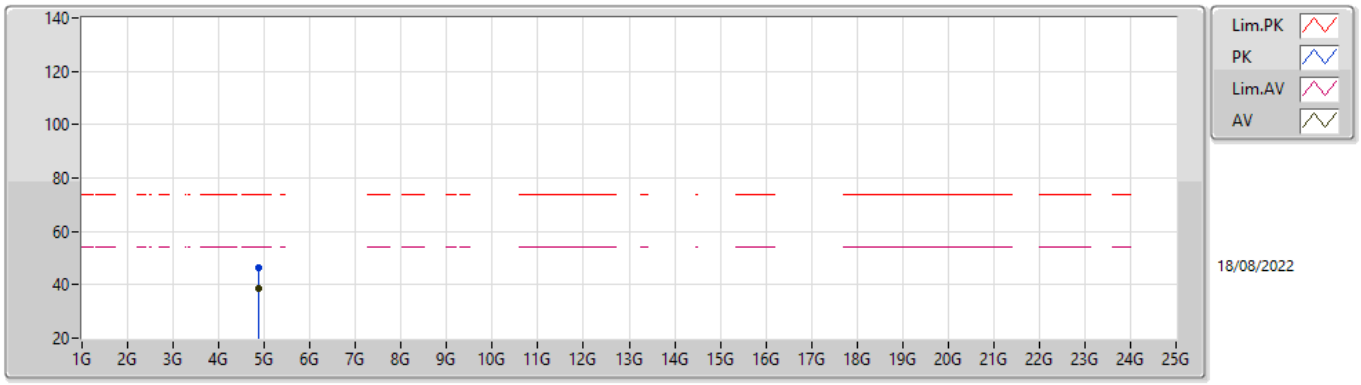
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.352G	47.75	54.00	-6.25	31.80	3	Horizontal	339	2.11	-	15.95	27.30	4.50	-
AV	2.44G	100.35	Inf	-Inf	32.04	3	Horizontal	339	2.11	-	68.31	27.56	4.48	-
AV	2.4988G	48.66	54.00	-5.34	32.37	3	Horizontal	339	2.11	-	16.29	27.89	4.48	-
PK	2.354G	58.39	74.00	-15.61	31.81	3	Horizontal	339	2.11	-	26.58	27.31	4.50	-
PK	2.4404G	100.91	Inf	-Inf	32.04	3	Horizontal	339	2.11	-	68.87	27.56	4.48	-
PK	2.4892G	59.08	74.00	-14.92	32.32	3	Horizontal	339	2.11	-	26.76	27.84	4.48	-

BT-LE(1Mbps)

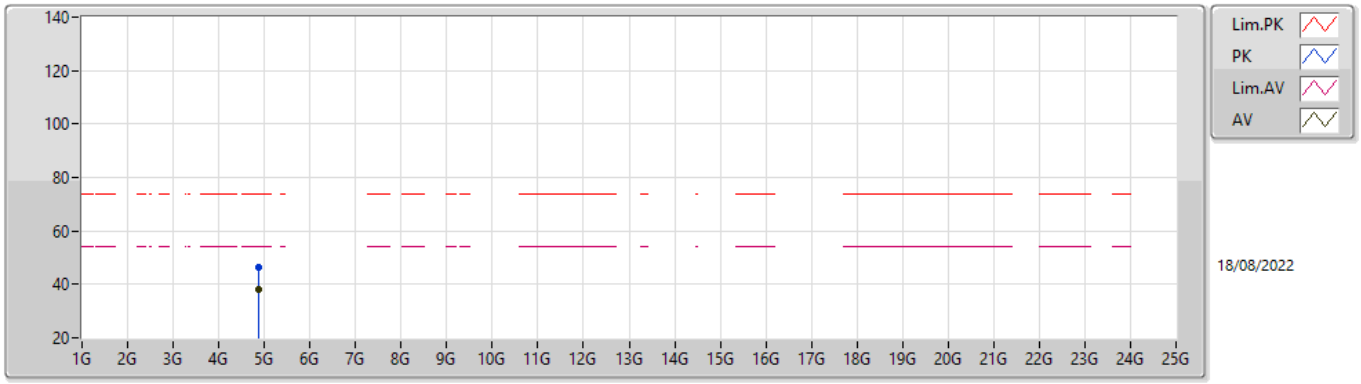
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.87995G	38.48	54.00	-15.52	5.38	3	Vertical	353	2.08	-	33.10	32.76	6.90	34.28
PK	4.8801G	46.27	74.00	-27.73	5.38	3	Vertical	353	2.08	-	40.89	32.76	6.90	34.28

BT-LE(1Mbps)

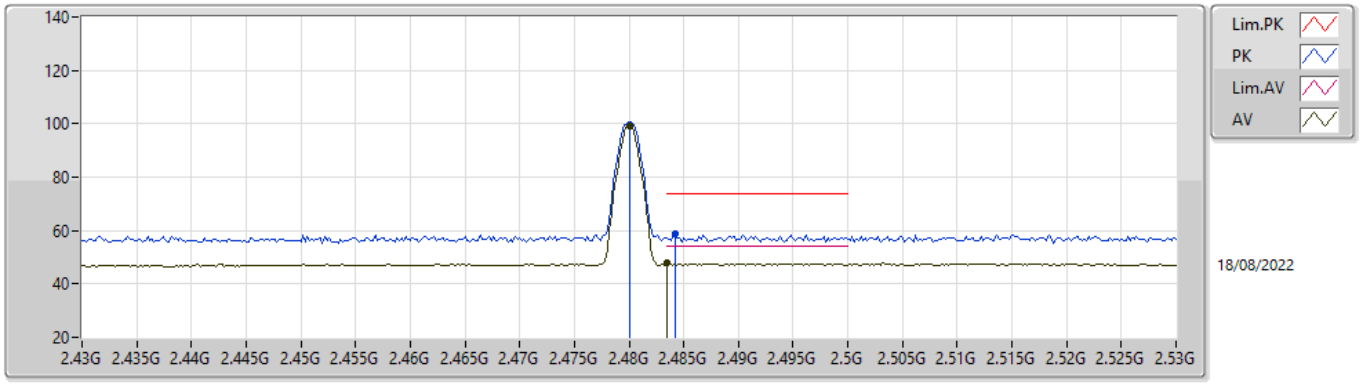
2440MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.87993G	38.23	54.00	-15.77	5.38	3	Horizontal	0	2.45	-	32.85	32.76	6.90	34.28
PK	4.88054G	46.17	74.00	-27.83	5.38	3	Horizontal	0	2.45	-	40.79	32.76	6.90	34.28

BT-LE(1Mbps)

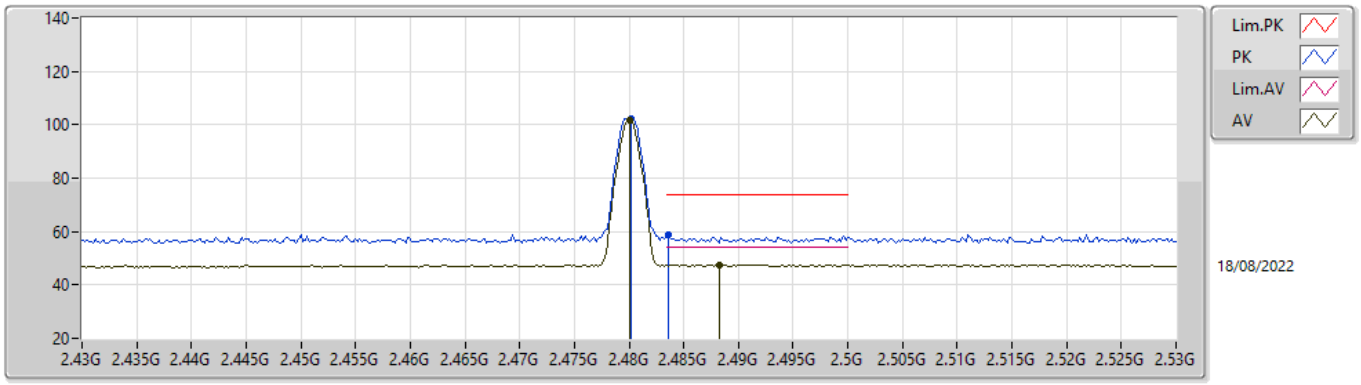
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	99.21	Inf	-Inf	32.26	3	Vertical	313	2.75	-	66.95	27.78	4.48	-
AV	2.4835G	47.85	54.00	-6.15	32.28	3	Vertical	313	2.75	-	15.57	27.80	4.48	-
PK	2.48G	99.78	Inf	-Inf	32.26	3	Vertical	313	2.75	-	67.52	27.78	4.48	-
PK	2.4842G	58.70	74.00	-15.30	32.29	3	Vertical	313	2.75	-	26.41	27.81	4.48	-

BT-LE(1Mbps)

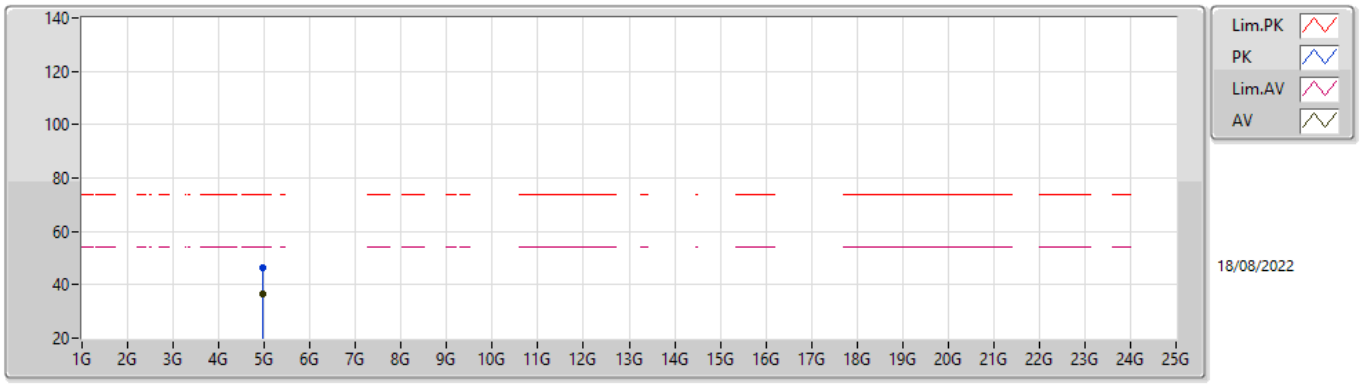
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	2.48G	101.73	Inf	-Inf	32.26	3	Horizontal	14	1.86	-	69.47	27.78	4.48	-
AV	2.4882G	47.64	54.00	-6.36	32.31	3	Horizontal	14	1.86	-	15.33	27.83	4.48	-
PK	2.4802G	102.32	Inf	-Inf	32.26	3	Horizontal	14	1.86	-	70.06	27.78	4.48	-
PK	2.4836G	58.66	74.00	-15.34	32.28	3	Horizontal	14	1.86	-	26.38	27.80	4.48	-

BT-LE(1Mbps)

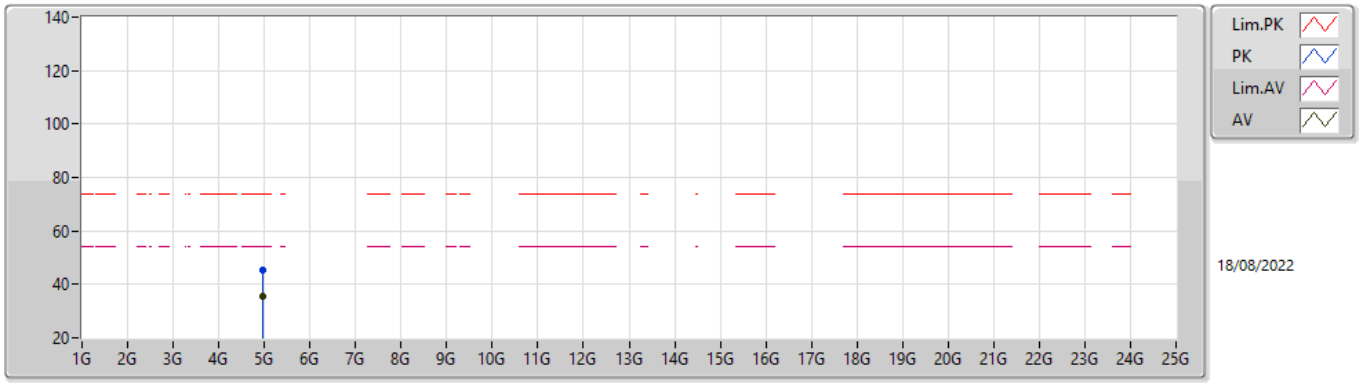
2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.95998G	36.75	54.00	-17.25	5.78	3	Vertical	0	2.03	-	30.97	33.14	6.91	34.27
PK	4.96029G	46.28	74.00	-27.72	5.78	3	Vertical	0	2.03	-	40.50	33.14	6.91	34.27

BT-LE(1Mbps)

2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.9599G	35.27	54.00	-18.73	5.78	3	Horizontal	14	1.50	-	29.49	33.14	6.91	34.27
PK	4.96033G	45.22	74.00	-28.78	5.78	3	Horizontal	14	1.50	-	39.44	33.14	6.91	34.27