FCC Radio Test Report

FCC ID	:	**COF-WMBACMT63**
Equipment	:	**802.11a/b/g/n/ac dual-band Wi-Fi + BT 5.1 Module**
Brand Name	:	**USI**
Model Name	:	**WM-BAC-MT-63**
Applicant	:	**Universal Global Scientific Industrial Co., Ltd. 141, Lane 351, Sec. 1, Taiping Road., Tsaotuen, Nantou 542007, Taiwan**
Manufacturer	:	**Universal Global Scientific Industrial Co., Ltd. 141, Lane 351, Sec. 1, Taiping Road., Tsaotuen, Nantou 542007, Taiwan**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Apr. 08, 2021, and testing was started from Apr. 27, 2021 and completed on Jun. 21, 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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PHOTOGRAPHS OF EUT V01

History of this test report

Report No.	Version	Description	Issued Date
FR133036AC	01	Initial issue of report	Sep. 03, 2021

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: Ben Tseng

Report Producer: Jenny Yang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), VHT20	2412-2462	1-11 [11]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	VHT20	20	2TX

Note:
- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	ARISTOTLE	RFA-25-C53-B32C255V2	Dipole	Reverse SMA
2	ARISTOTLE	RFA-25-C53-B32C255V2	Dipole	Reverse SMA
3	ARISTOTLE	RFA-25-C53-B32C255V2	Dipole	Reverse SMA

Ant.	Port	Gain (dBi)		
		2.4G	5G	BT
1	1	3.5	5	-
2	2	3.5	5	-
3	1	-	-	3.5

Note 1: The EUT has three 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)

Only Ant. 3 (port 1) can be used as transmitting/receiving.

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 Test Fixture			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
Beamforming Function	☐	With beamforming	☒	Without beamforming

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
802.11b_Nss1,(1Mbps)_2TX	0.993	0.03	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g_Nss1,(6Mbps)_2TX	0.964	0.16	1.395m	1k
VHT20_Nss1,(MCS0)_2TX	0.931	0.31	685u	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 662911 D01 v02r01
- KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab.：Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua (**TAF:** 3785)	**ADD:** No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		**FAX:** 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
AC Conduction	CO04-HY	Edward Wang	21.2~22.3°C / 58~63%	28/Apr/2021
RF Conducted	TH06-HY	Johnny Yu	20.1~26.9°C / 50~60%	27/Apr/2021~21/Jun/2021
Radiated	03CH03-HY	Billy Wang	20.1~26.9°C / 50~60%	27/Apr/2021~18/Jun/2021
☐ Wen 33rd.St. (**TAF:** 3785)	**ADD:** No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		**FAX:** 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Items	**Uncertainty**	**Remark**
Conducted Emission (150kHz ~ 30MHz)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	Dos

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	20
2417MHz	20
2437MHz	21.5
2457MHz	20.5
2462MHz	20.5
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	18
2417MHz	16
2437MHz	20
2457MHz	15
2462MHz	17
VHT20_Nss1,(MCS0)_2TX	-
2412MHz	16
2417MHz	15.5
2437MHz	19.5
2457MHz	14.5
2462MHz	16.5

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	Test Fixture 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	Test Fixture mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	**Z Plane**

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
Refer to Sporton Test Report No.: FA133036 for Co-location RF Exposure Evaluation.	

2.3 Support Equipment

Support Equipment – AC Conduction					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	DC Power Supply	G.W.	GPS-3030DD	-	-
2	DC Power cable(+)	MiSUMi	WTN1227-RED	-	-
3	DC Power cable(-)	MiSUMi	WTN1227-BLACK	-	-
4	DC Power cable(+)	-	-	-	Note 1
5	DC Power cable(-)	-	-	-	Note 1
6	Test Fixture	-	-	-	Note 1

Note 1: Provided by Customer.

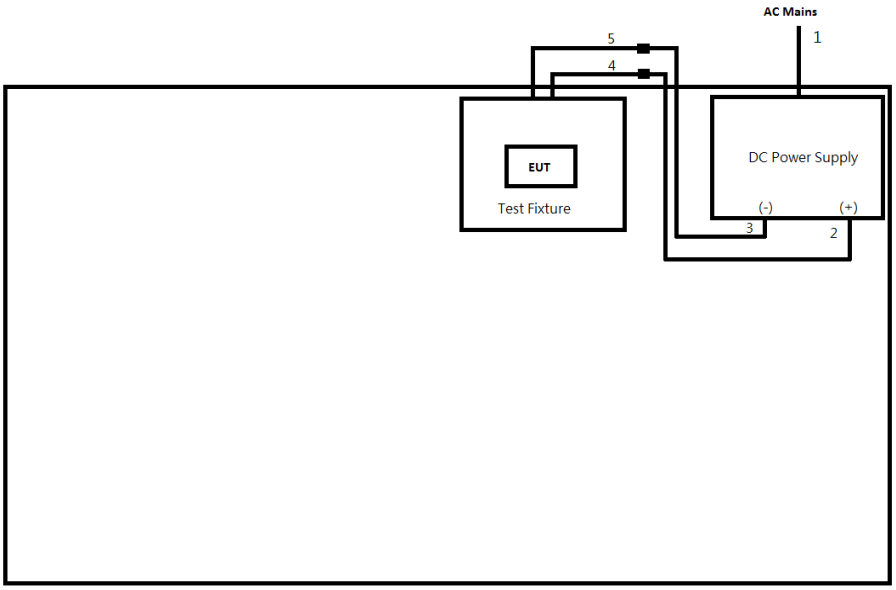
Support Equipment – Conducted					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	DC Power Supply	GW	GPS-3030DD	-	-

Support Equipment – Radiated					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	DC Power Supply	G.W.	GPS-3030DD	-	-
2	DC Power cable(+)	MiSUMi	WTN1227-RED	-	-
3	DC Power cable(-)	MiSUMi	WTN1227-BLACK	-	-
4	DC Power cable(+)	-	-	-	Note 1
5	DC Power cable(-)	-	-	-	Note 1
6	Test Fixture	-	-	-	Note 1

Note 1: Provided by Customer.

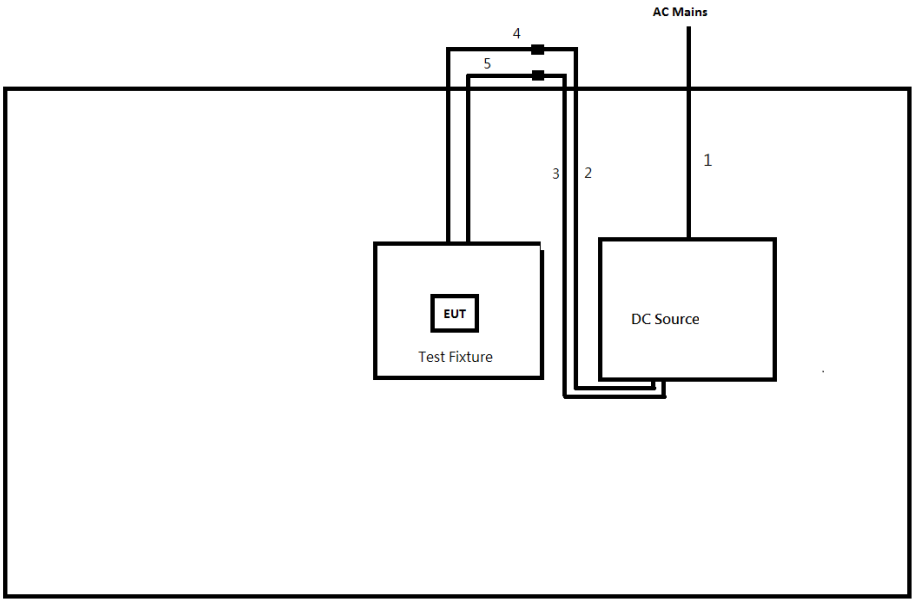
2.4 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.0	-
2	DC Power cable(+)	No	1.0	-
3	DC Power cable(-)	No	1.0	-
4	DC Power cable(+)	No	1.0	-
5	DC Power cable(-)	No	1.0	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.0	-
2	DC Power cable(+)	No	1.0	-
3	DC Power cable(-)	No	1.0	-
4	DC Power cable(+)	No	1.0	-
5	DC Power cable(-)	No	1.0	-

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

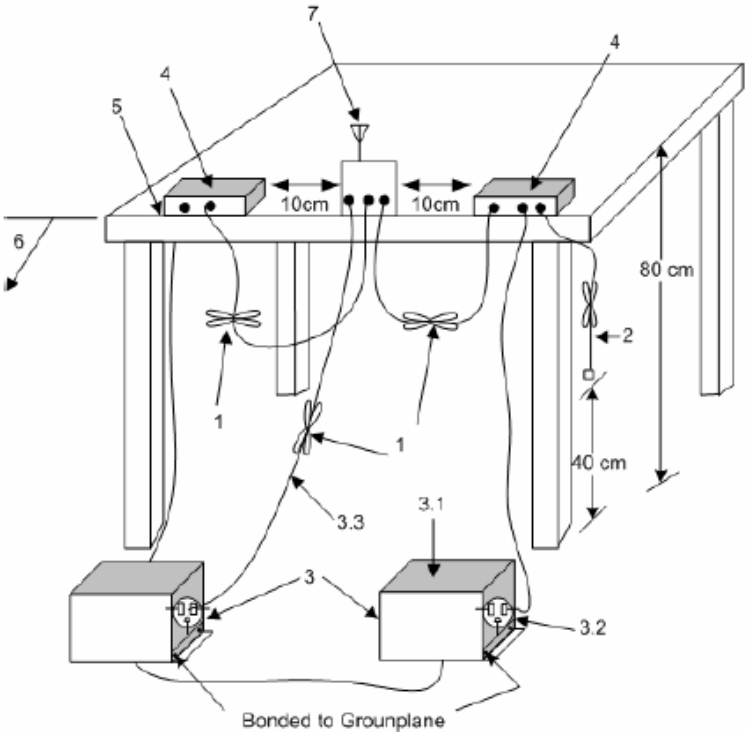
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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.

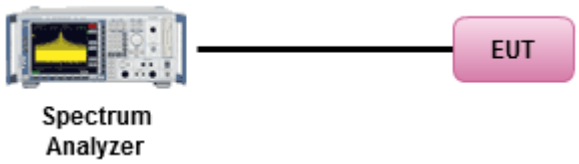
3.2.2 Measuring Instruments

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)

3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

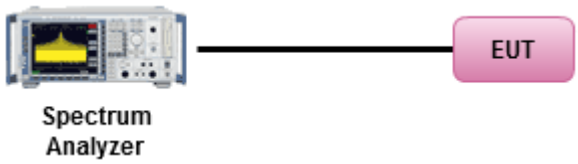
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

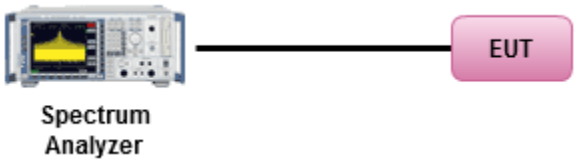
Refer a test equipment and calibration data table in this test report.

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 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 ≥ 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.

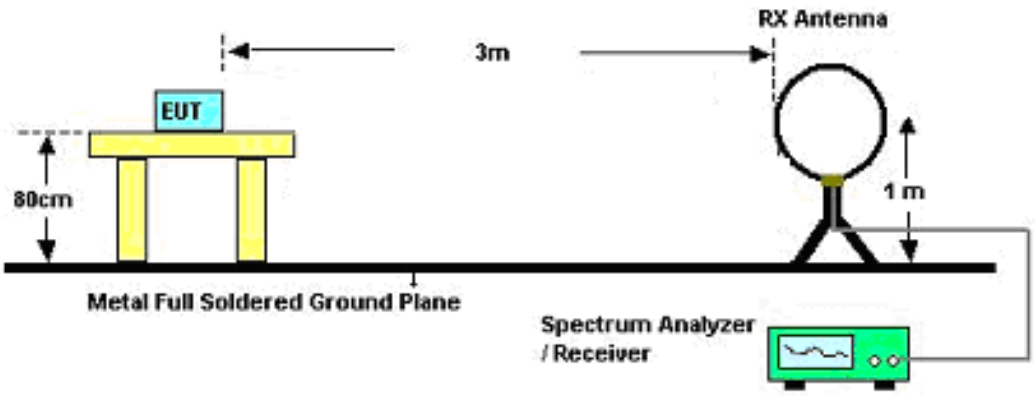
3.6.4 Measurement Results Calculation

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

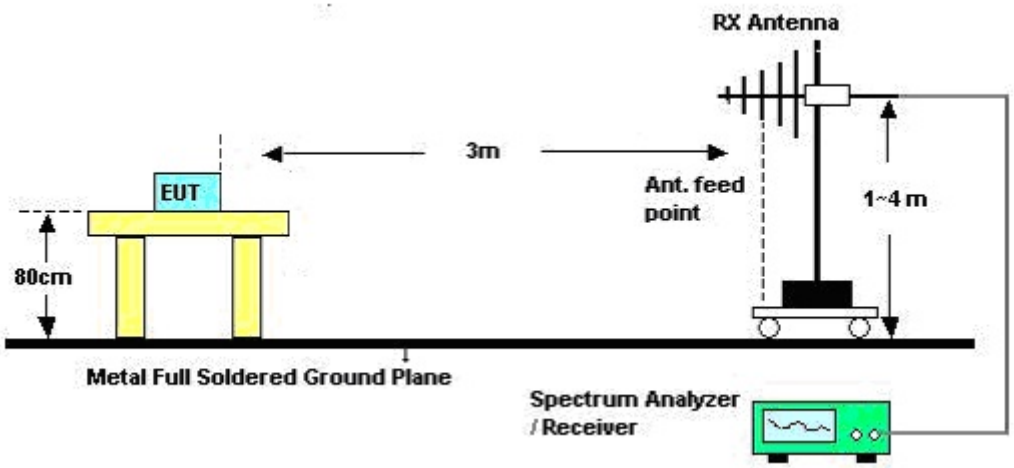
3.6.5 Test Setup

Emissions in Restricted Frequency Bands

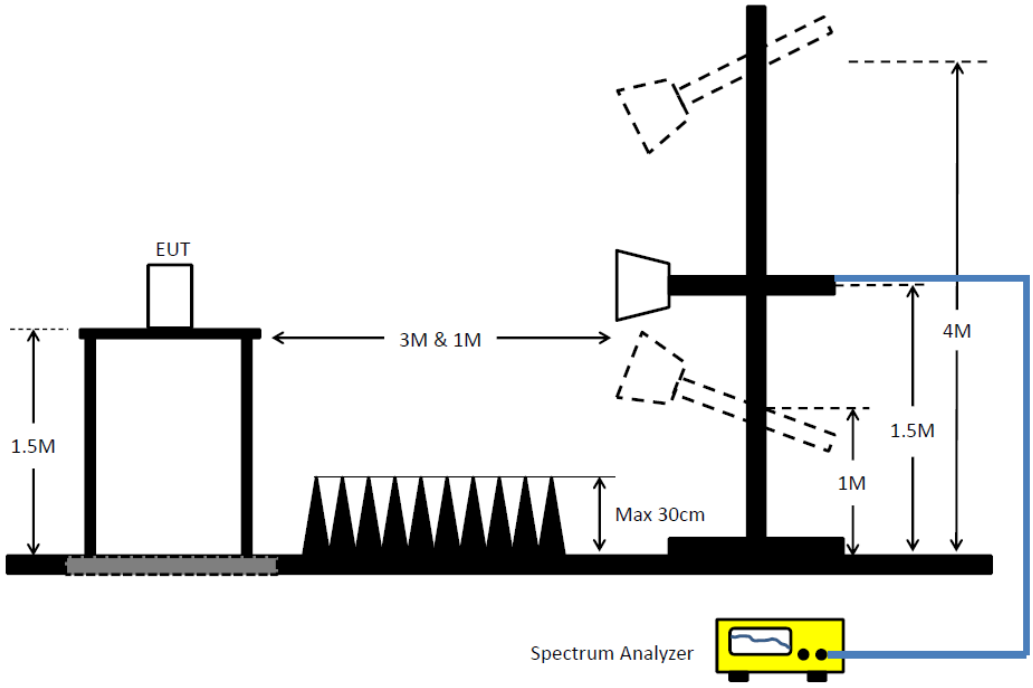
9kHz ~30MHz



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	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	0.1MHz~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
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	30/Mar/2021	29/Mar/2022
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	20/Oct/2020	19/Oct/2021
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	23/Feb/2021	22/Feb/2022
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	23/Feb/2021	22/Feb/2022

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	06/Aug/2020	05/Aug/2021
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz~18GHz 3m	04/Aug/2020	03/Aug/2021
Signal Analyzer	R&S	FSV40	101500	10Hz~40GHz	19/Aug/2020	18/Aug/2021
Amplifier	HP	8447D	2944A08033	10kHz~1.3GHz	13/Apr/2021	12/Apr/2022
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz~26.5GHz	06/Oct/2020	05/Oct/2021
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	06/Sep/2020	05/Sep/2021
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz~18GHz	24/Mar/2021	23/Mar/2022
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz~30MHz	19/Jun/2020	18/Jun/2021
RF Cable-R03m	Jye Bao	RG142	MY37335/4+CB021-1+CB021-2	30MHz~1GHz	17/Mar/2021	16/Mar/2022
RF CABLE 5+6m	HUBER+SUHNER	SUOFLEX 104	SN MY38596/4+SN 804300/4	1GHz~40GHz	04/Aug/2020	03/Aug/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	11/Mar/2021	10/Mar/2022
Microwave Premplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	09/Mar/2021	08/Mar/2022
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2021	15/Mar/2022
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	29/May/2020	28/May/2021

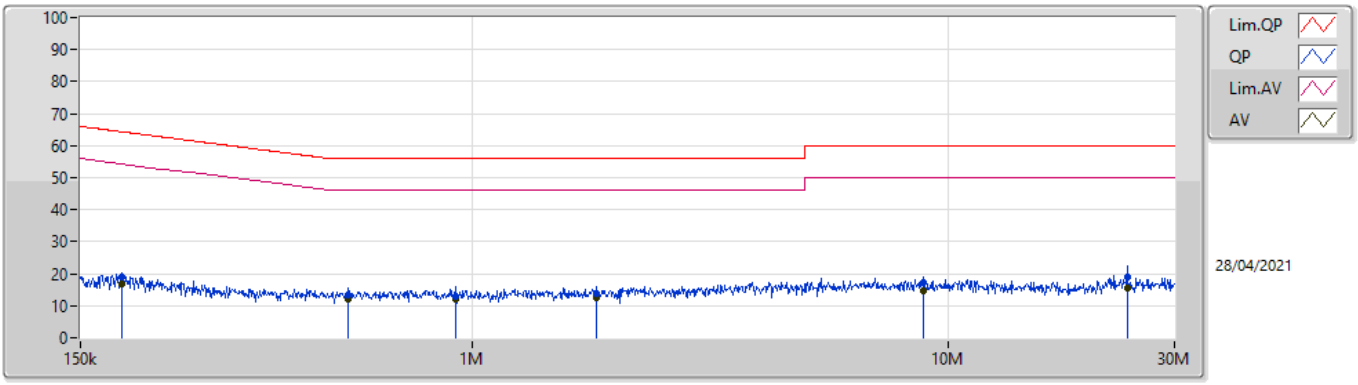
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	21.953M	16.60	50.00	-33.40	Neutral

Result

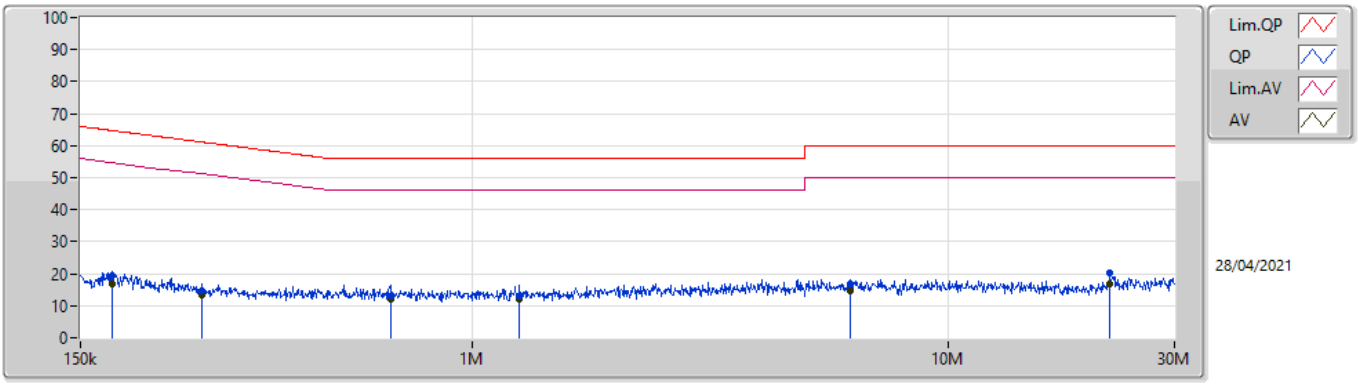
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	183.137k	19.11	64.34	-45.23	Line	-
Mode 1	Pass	AV	183.137k	16.63	54.34	-37.71	Line	-
Mode 1	Pass	QP	546.782k	13.23	56.00	-42.77	Line	-
Mode 1	Pass	AV	546.782k	12.04	46.00	-33.96	Line	-
Mode 1	Pass	QP	926.114k	13.06	56.00	-42.94	Line	-
Mode 1	Pass	AV	926.114k	11.95	46.00	-34.05	Line	-
Mode 1	Pass	QP	1.826M	13.58	56.00	-42.42	Line	-
Mode 1	Pass	AV	1.826M	12.38	46.00	-33.62	Line	-
Mode 1	Pass	QP	8.87M	17.17	60.00	-42.83	Line	-
Mode 1	Pass	AV	8.87M	14.87	50.00	-35.13	Line	-
Mode 1	Pass	QP	23.873M	18.80	60.00	-41.20	Line	-
Mode 1	Pass	AV	23.873M	15.49	50.00	-34.51	Line	-
Mode 1	Pass	QP	174.571k	19.26	64.74	-45.48	Neutral	-
Mode 1	Pass	AV	174.571k	16.75	54.74	-37.99	Neutral	-
Mode 1	Pass	QP	269.741k	14.83	61.12	-46.29	Neutral	-
Mode 1	Pass	AV	269.741k	13.36	51.12	-37.76	Neutral	-
Mode 1	Pass	QP	672.926k	12.93	56.00	-43.07	Neutral	-
Mode 1	Pass	AV	672.926k	11.88	46.00	-34.12	Neutral	-
Mode 1	Pass	QP	1.259M	13.08	56.00	-42.92	Neutral	-
Mode 1	Pass	AV	1.259M	12.06	46.00	-33.94	Neutral	-
Mode 1	Pass	QP	6.243M	16.66	60.00	-43.34	Neutral	-
Mode 1	Pass	AV	6.243M	14.62	50.00	-35.38	Neutral	-
Mode 1	Pass	QP	21.953M	20.36	60.00	-39.64	Neutral	-
Mode 1	Pass	AV	21.953M	16.60	50.00	-33.40	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	183.137k	19.11	64.34	-45.23	19.62	Line	-	-0.51	9.68	0.04	9.90
AV	183.137k	16.63	54.34	-37.71	19.62	Line	-	-2.99	9.68	0.04	9.90
QP	546.782k	13.23	56.00	-42.77	19.61	Line	-	-6.38	9.67	0.07	9.87
AV	546.782k	12.04	46.00	-33.96	19.61	Line	-	-7.57	9.67	0.07	9.87
QP	926.114k	13.06	56.00	-42.94	19.56	Line	-	-6.50	9.67	0.08	9.81
AV	926.114k	11.95	46.00	-34.05	19.56	Line	-	-7.61	9.67	0.08	9.81
QP	1.826M	13.58	56.00	-42.42	19.58	Line	-	-6.00	9.68	0.10	9.80
AV	1.826M	12.38	46.00	-33.62	19.58	Line	-	-7.20	9.68	0.10	9.80
QP	8.87M	17.17	60.00	-42.83	19.81	Line	-	-2.64	9.72	0.19	9.90
AV	8.87M	14.87	50.00	-35.13	19.81	Line	-	-4.94	9.72	0.19	9.90
QP	23.873M	18.80	60.00	-41.20	19.83	Line	-	-1.03	9.61	0.32	9.90
AV	23.873M	15.49	50.00	-34.51	19.83	Line	-	-4.34	9.61	0.32	9.90

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	174.571k	19.26	64.74	-45.48	19.62	Neutral	-	-0.36	9.68	0.04	9.90
AV	174.571k	16.75	54.74	-37.99	19.62	Neutral	-	-2.87	9.68	0.04	9.90
QP	269.741k	14.83	61.12	-46.29	19.63	Neutral	-	-4.80	9.68	0.05	9.90
AV	269.741k	13.36	51.12	-37.76	19.63	Neutral	-	-6.27	9.68	0.05	9.90
QP	672.926k	12.93	56.00	-43.07	19.58	Neutral	-	-6.65	9.67	0.07	9.84
AV	672.926k	11.88	46.00	-34.12	19.58	Neutral	-	-7.70	9.67	0.07	9.84
QP	1.259M	13.08	56.00	-42.92	19.56	Neutral	-	-6.48	9.67	0.09	9.80
AV	1.259M	12.06	46.00	-33.94	19.56	Neutral	-	-7.50	9.67	0.09	9.80
QP	6.243M	16.66	60.00	-43.34	19.78	Neutral	-	-3.12	9.71	0.17	9.90
AV	6.243M	14.62	50.00	-35.38	19.78	Neutral	-	-5.16	9.71	0.17	9.90
QP	21.953M	20.36	60.00	-39.64	19.95	Neutral	-	0.41	9.74	0.31	9.90
AV	21.953M	16.60	50.00	-33.40	19.95	Neutral	-	-3.35	9.74	0.31	9.90

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	9.075M	13.668M	13M7G1D	9.025M	13.368M
802.11g_Nss1,(6Mbps)_2TX	15.1M	16.567M	16M6D1D	15.05M	16.417M
VHT20_Nss1,(MCS0)_2TX	15.1M	17.641M	17M6D1D	15.05M	17.566M

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

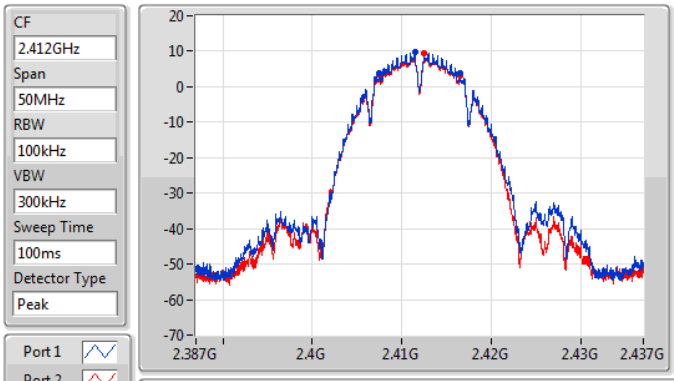
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	9.075M	13.443M	9.05M	13.368M
2437MHz	Pass	500k	9.025M	13.668M	9.05M	13.493M
2462MHz	Pass	500k	9.075M	13.568M	9.075M	13.393M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	15.1M	16.492M	15.075M	16.467M
2437MHz	Pass	500k	15.1M	16.567M	15.05M	16.492M
2462MHz	Pass	500k	15.1M	16.417M	15.1M	16.442M
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	15.1M	17.641M	15.075M	17.641M
2437MHz	Pass	500k	15.05M	17.566M	15.075M	17.591M
2462MHz	Pass	500k	15.075M	17.566M	15.075M	17.641M

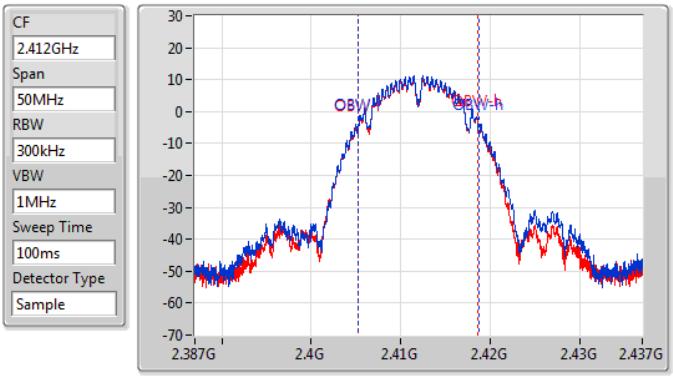
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

16/06/2021



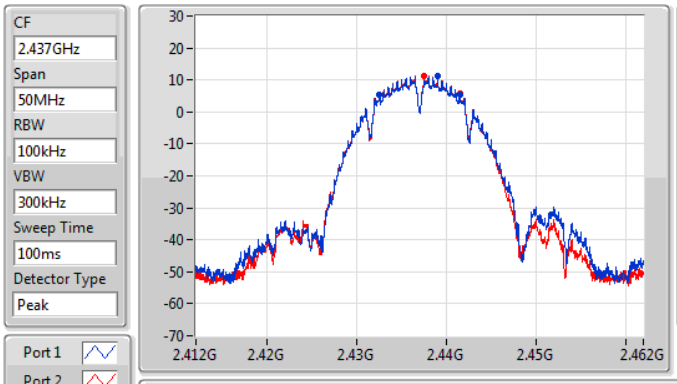


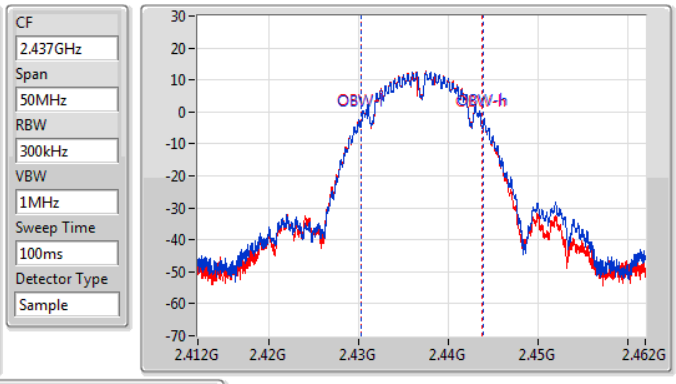
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.075M	2.40745G	2.416525G	13.443M	2.405253G	2.418697G	500k	1
9.05M	2.407475G	2.416525G	13.368M	2.405253G	2.418622G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

16/06/2021



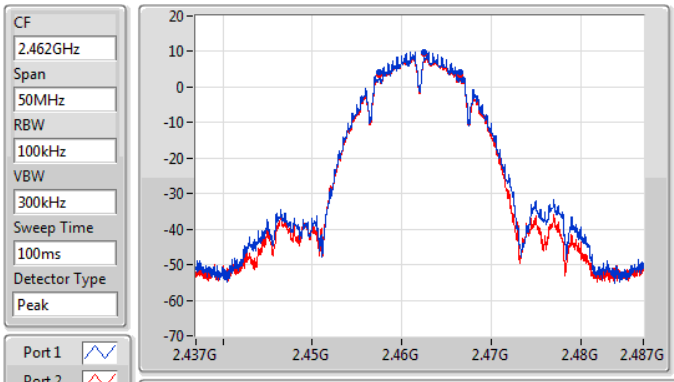


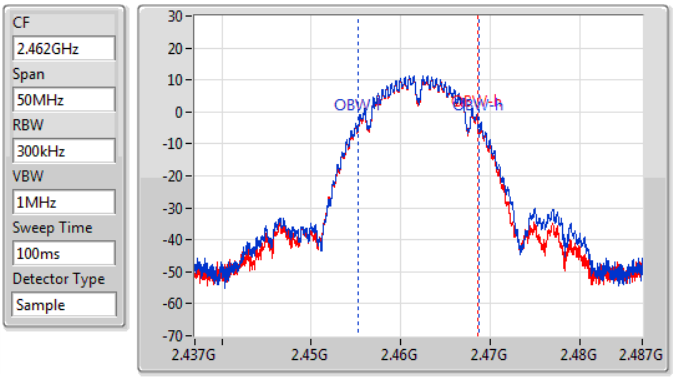
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.025M	2.432475G	2.4415G	13.668M	2.430178G	2.443847G	500k	1
9.05M	2.432475G	2.441525G	13.493M	2.430203G	2.443697G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

16/06/2021



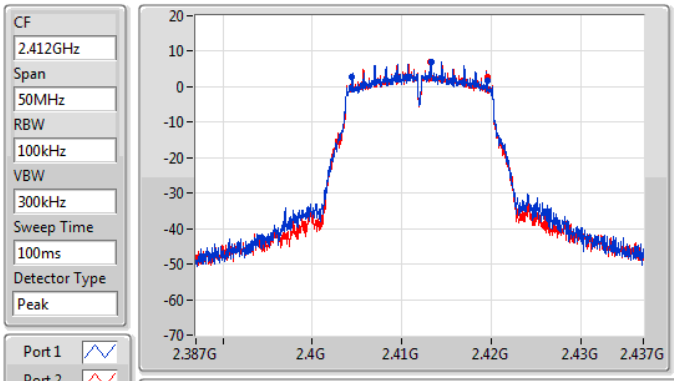


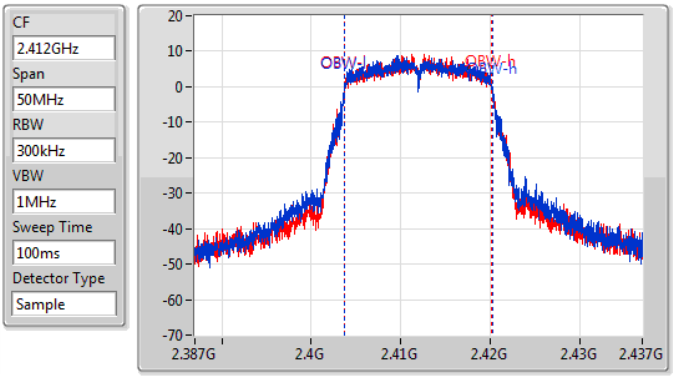
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.075M	2.45745G	2.466525G	13.568M	2.455203G	2.468772G	500k	1
9.075M	2.45745G	2.466525G	13.393M	2.455228G	2.468622G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

16/06/2021



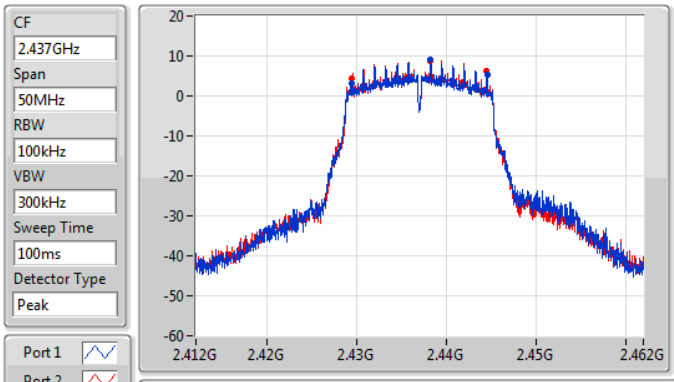


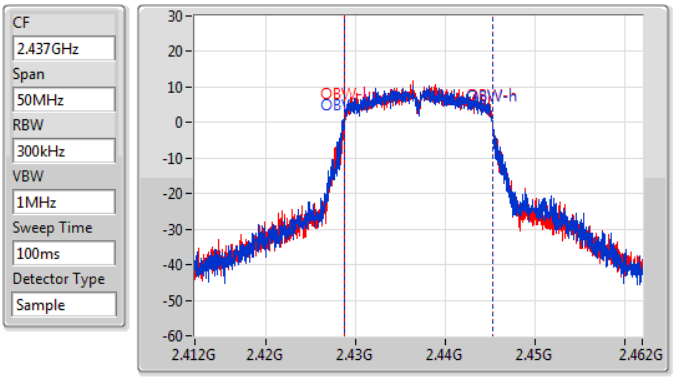
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.1M	2.40445G	2.41955G	16.492M	2.403729G	2.420221G	500k	1
15.075M	2.40445G	2.419525G	16.467M	2.403729G	2.420196G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

16/06/2021



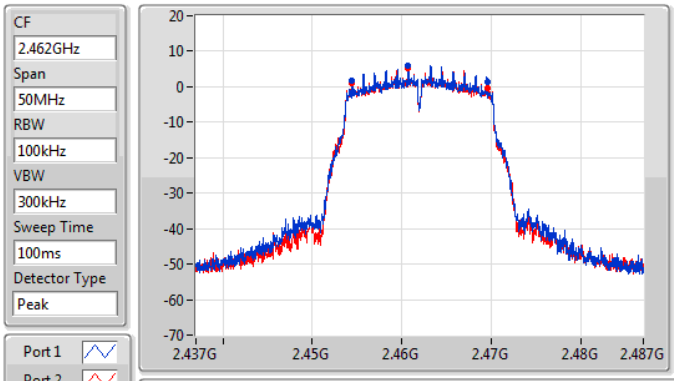


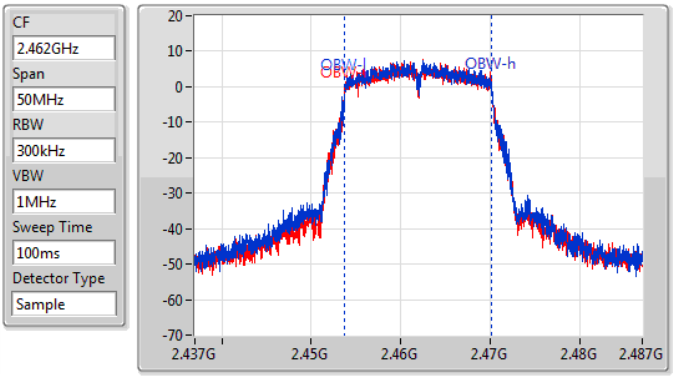
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.1M	2.429425G	2.444525G	16.567M	2.428654G	2.445221G	500k	1
15.05M	2.42945G	2.4445G	16.492M	2.428729G	2.445221G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

16/06/2021





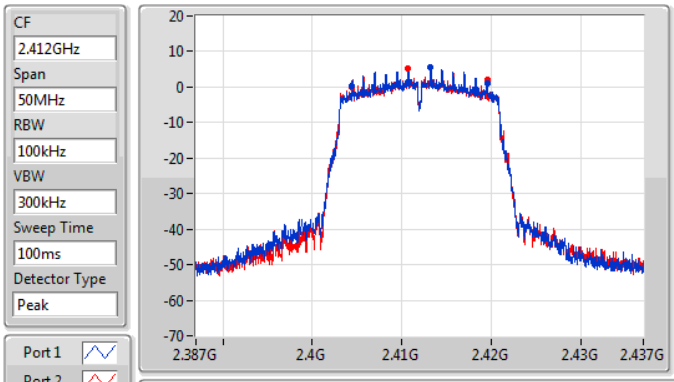
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.1M	2.45445G	2.46955G	16.417M	2.453754G	2.470171G	500k	1
15.1M	2.45445G	2.46955G	16.442M	2.453729G	2.470171G	500k	2

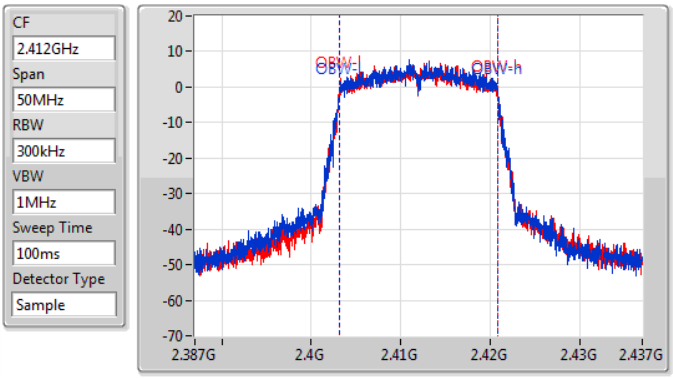
VHT20_Nss1,(MCS0)_2TX

EBW

2412MHz

16/06/2021





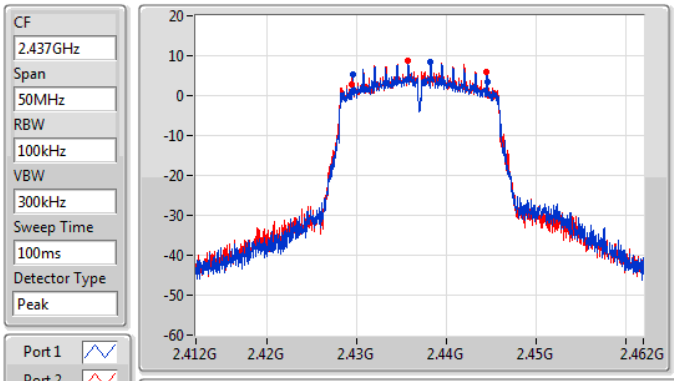
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.1M	2.40445G	2.41955G	17.641M	2.403179G	2.420821G	500k	1
15.075M	2.40445G	2.419525G	17.641M	2.403179G	2.420821G	500k	2

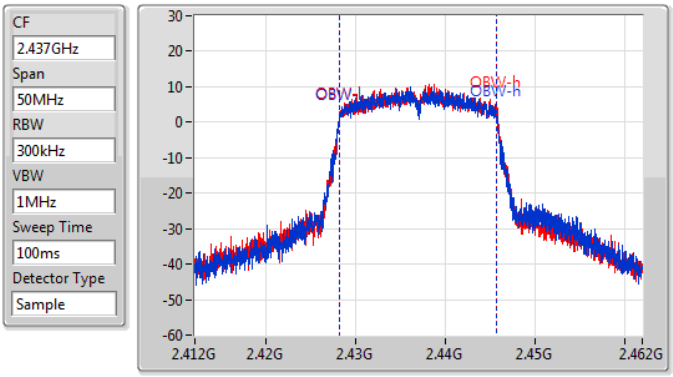
VHT20_Nss1,(MCS0)_2TX

EBW

2437MHz

16/06/2021



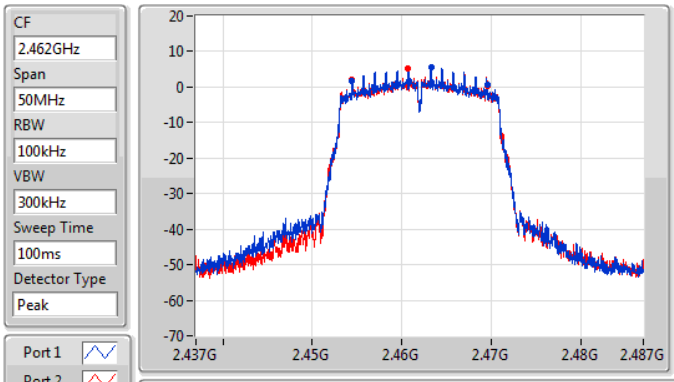


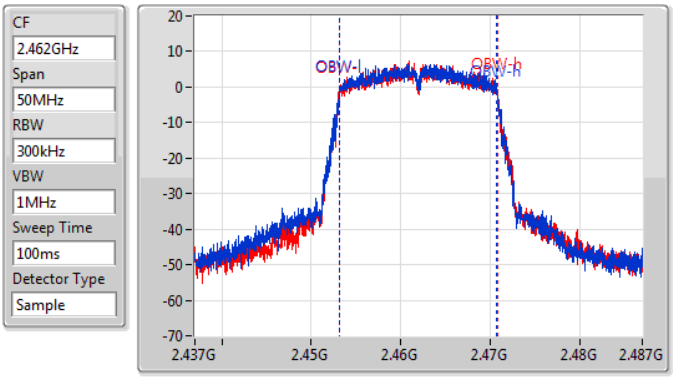
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.05M	2.4295G	2.44455G	17.566M	2.428179G	2.445746G	500k	1
15.075M	2.429425G	2.4445G	17.591M	2.428179G	2.445771G	500k	2

VHT20_Nss1,(MCS0)_2TX EBW

2462MHz

16/06/2021





6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.075M	2.454475G	2.46955G	17.566M	2.453204G	2.470771G	500k	1
15.075M	2.454475G	2.46955G	17.641M	2.453154G	2.470796G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	23.68	0.23335
802.11g_Nss1,(6Mbps)_2TX	22.10	0.16218
VHT20_Nss1,(MCS0)_2TX	21.67	0.14689

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.50	19.09	18.95	22.03	30.00
2417MHz	Pass	3.50	19.24	18.85	22.06	30.00
2437MHz	Pass	3.50	20.58	20.76	23.68	30.00
2457MHz	Pass	3.50	19.58	19.64	22.62	30.00
2462MHz	Pass	3.50	19.39	19.04	22.23	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.50	17.63	17.43	20.54	30.00
2417MHz	Pass	3.50	15.67	15.47	18.58	30.00
2437MHz	Pass	3.50	18.98	19.19	22.10	30.00
2457MHz	Pass	3.50	14.16	14.45	17.32	30.00
2462MHz	Pass	3.50	16.15	16.06	19.12	30.00
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.50	15.74	15.59	18.68	30.00
2417MHz	Pass	3.50	15.05	14.92	18.00	30.00
2437MHz	Pass	3.50	18.53	18.79	21.67	30.00
2457MHz	Pass	3.50	13.83	14.02	16.94	30.00
2462MHz	Pass	3.50	15.64	15.47	18.57	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	-0.93
802.11g_Nss1,(6Mbps)_2TX	-3.07
VHT20_Nss1,(MCS0)_2TX	-4.39

RBW = 3kHz;

Result

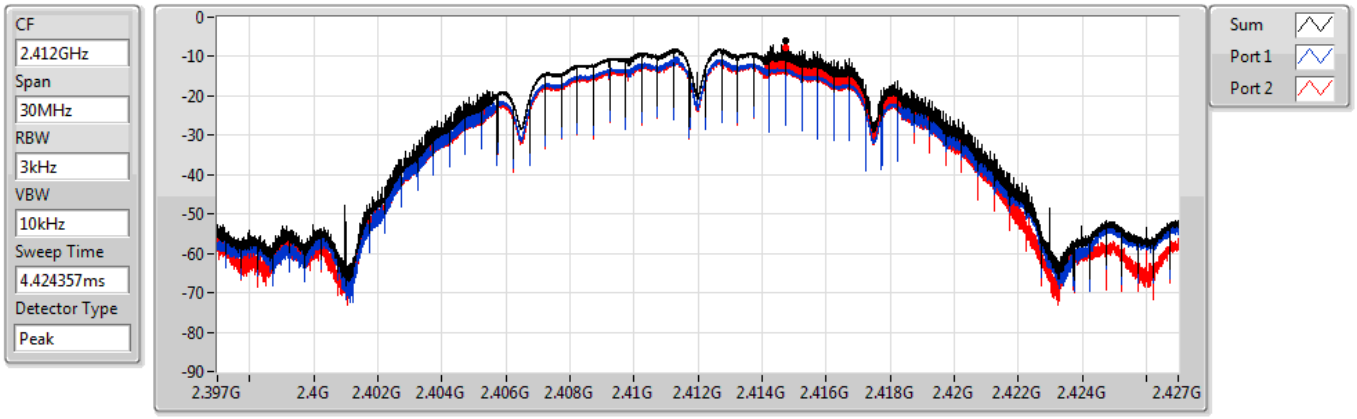
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.51	-10.81	-7.77	-6.02	7.49
2437MHz	Pass	6.51	-2.89	-5.32	-0.93	7.49
2462MHz	Pass	6.51	-8.98	-4.70	-3.32	7.49
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.51	-8.96	-10.02	-6.45	7.49
2437MHz	Pass	6.51	-6.73	-5.51	-3.07	7.49
2462MHz	Pass	6.51	-11.21	-9.40	-7.20	7.49
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.51	-10.34	-10.16	-7.24	7.49
2437MHz	Pass	6.51	-7.64	-7.18	-4.39	7.49
2462MHz	Pass	6.51	-9.87	-11.73	-7.69	7.49

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;

802.11b_Nss1,(1Mbps)_2TX PSD

2412MHz

16/06/2021

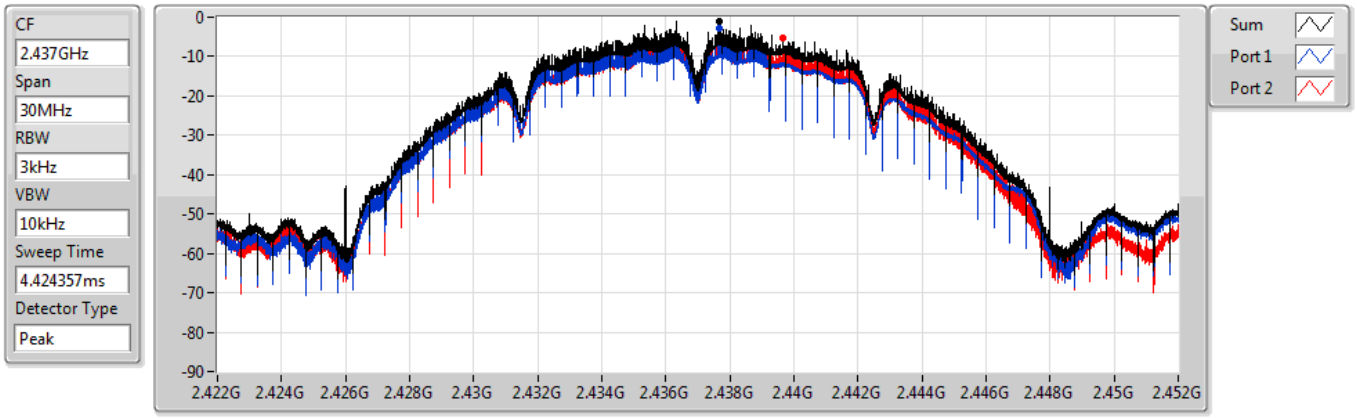


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.02	-6.02	-10.81	-7.77

802.11b_Nss1,(1Mbps)_2TX PSD

2437MHz

16/06/2021

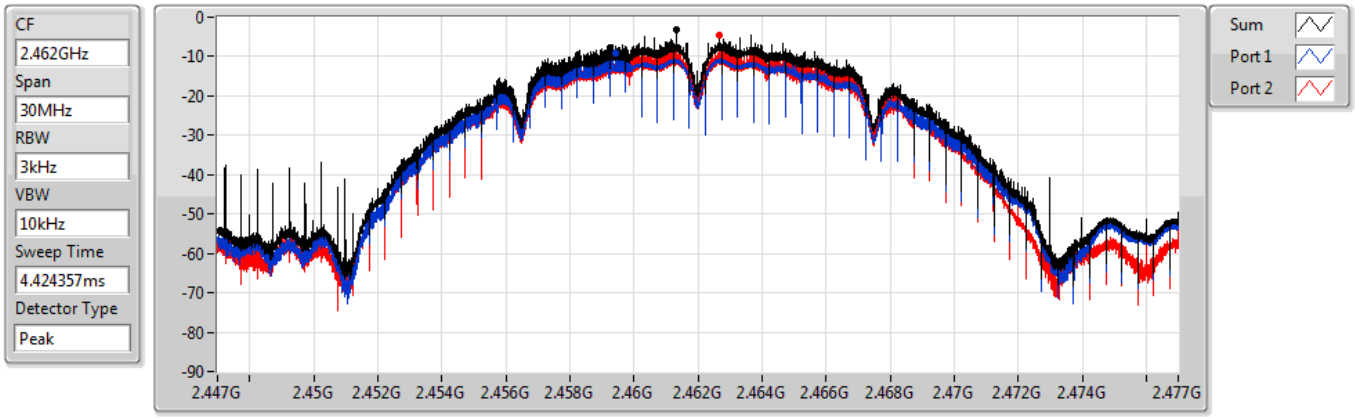


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.93	-0.93	-2.89	-5.32

802.11b_Nss1,(1Mbps)_2TX PSD

2462MHz

16/06/2021

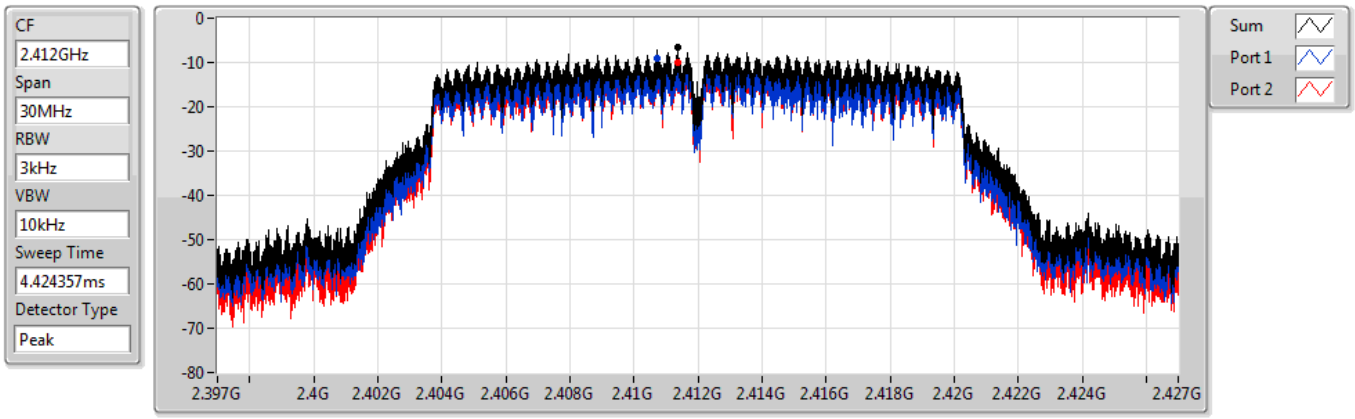


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.32	-3.32	-8.98	-4.70

802.11g_Nss1,(6Mbps)_2TX PSD

2412MHz

16/06/2021

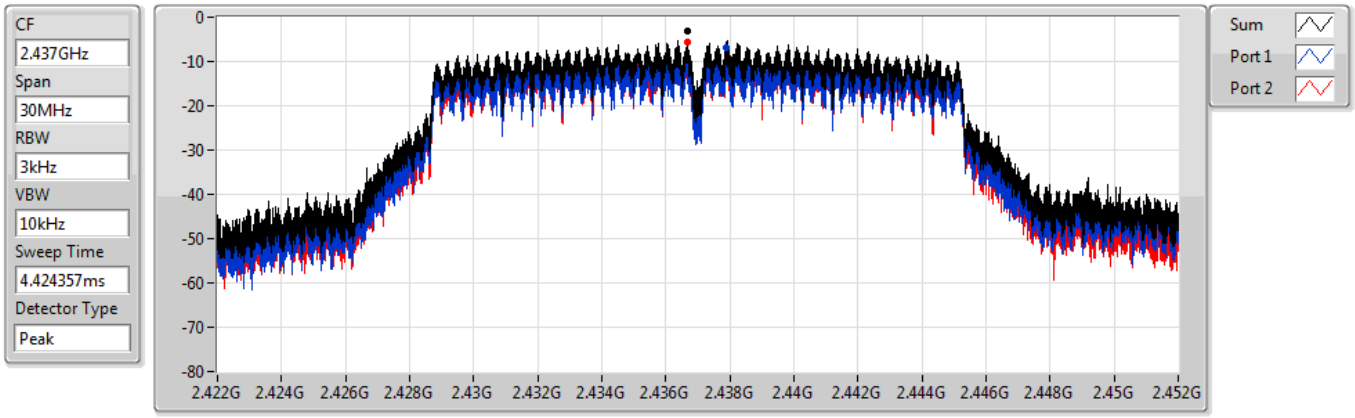


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.45	-6.45	-8.96	-10.02

802.11g_Nss1,(6Mbps)_2TX PSD

2437MHz

16/06/2021

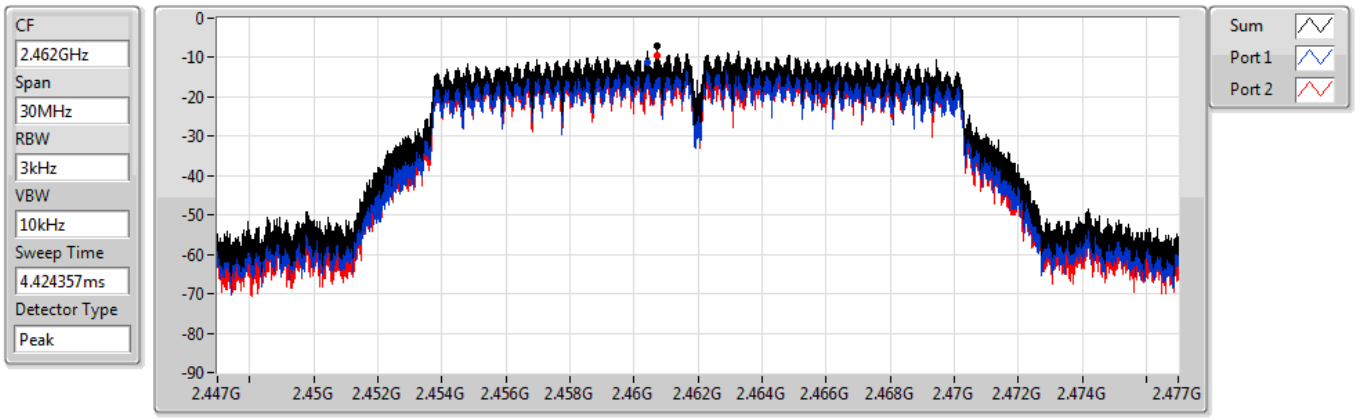


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.07	-3.07	-6.73	-5.51

802.11g_Nss1,(6Mbps)_2TX PSD

2462MHz

16/06/2021

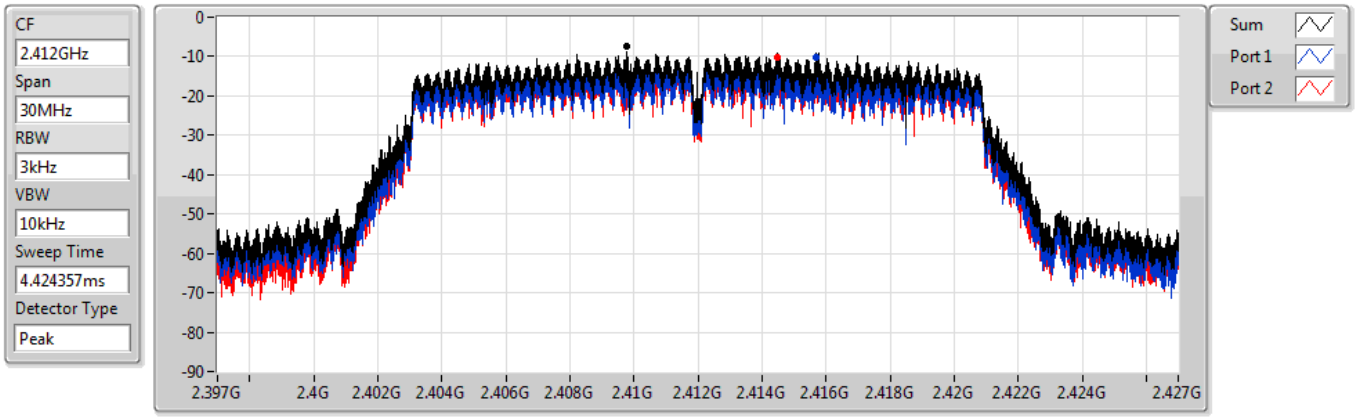


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.20	-7.20	-11.21	-9.40

VHT20_Nss1,(MCS0)_2TX PSD

2412MHz

16/06/2021

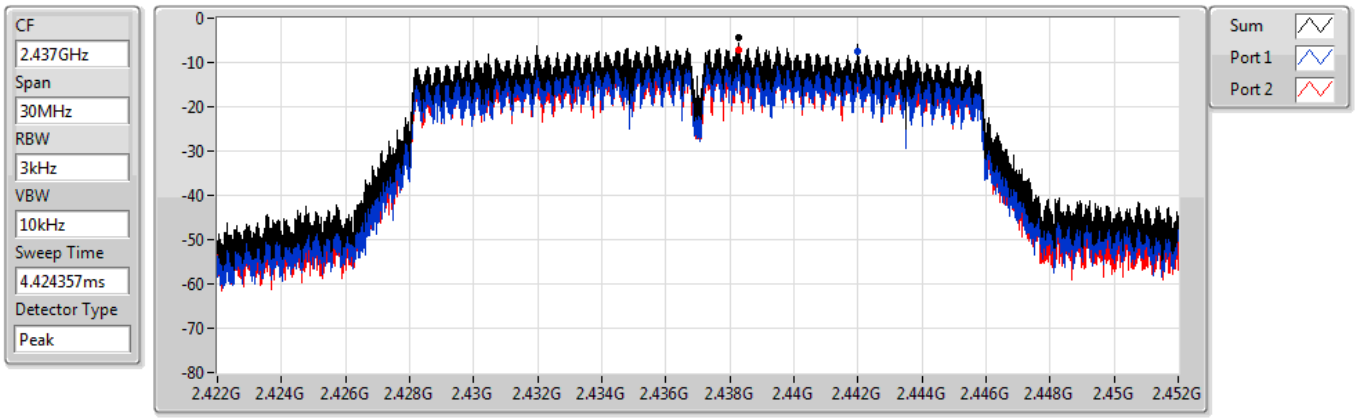


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.24	-7.24	-10.34	-10.16

VHT20_Nss1,(MCS0)_2TX PSD

2437MHz

16/06/2021

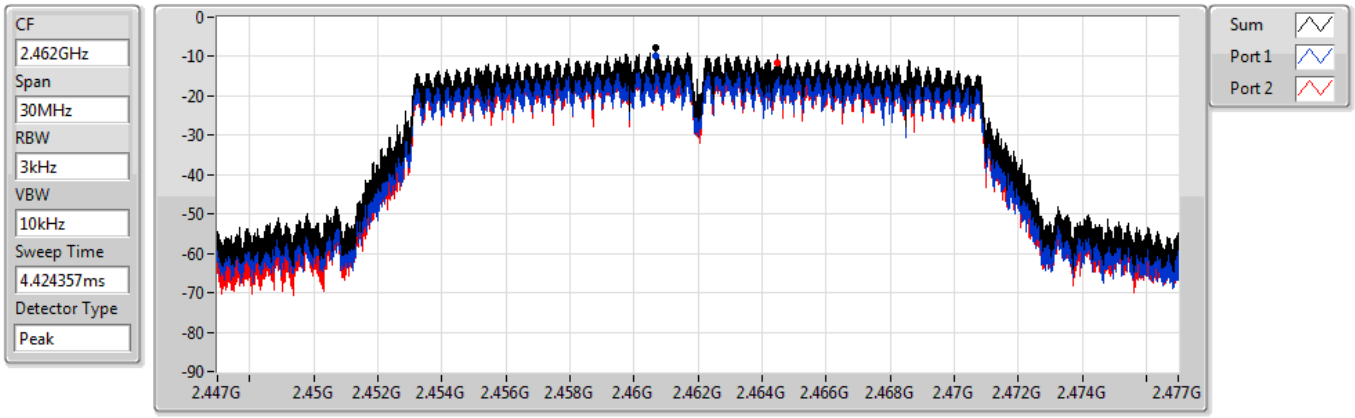


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.39	-4.39	-7.64	-7.18

VHT20_Nss1,(MCS0)_2TX PSD

2462MHz

16/06/2021



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.69	-7.69	-9.87	-11.73

Summary

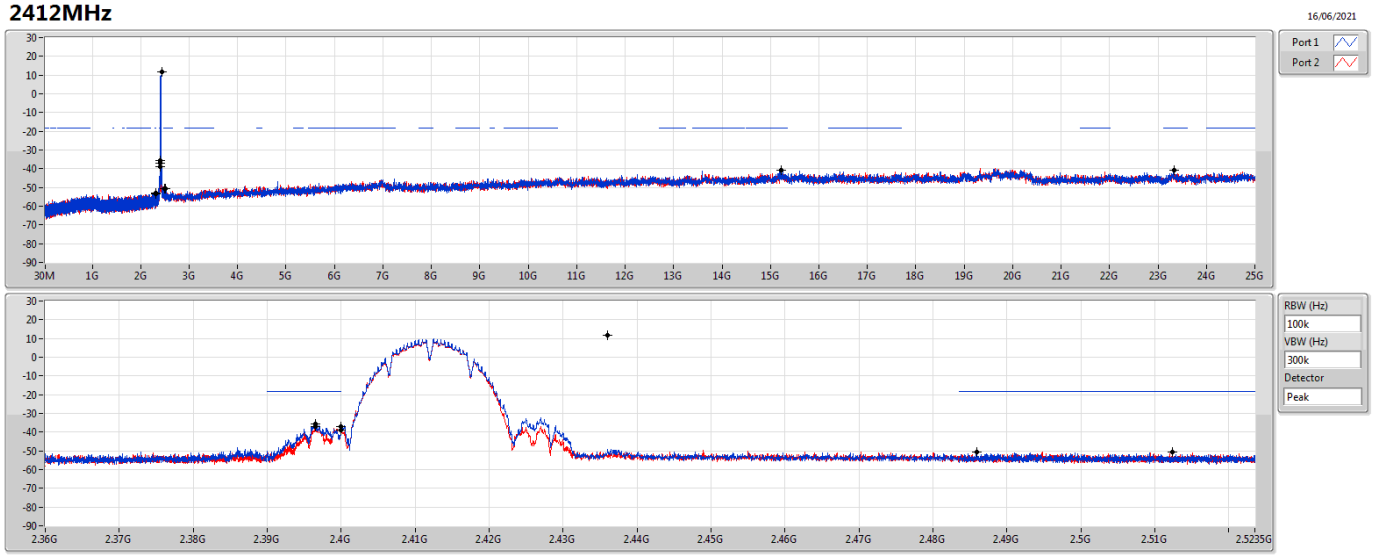
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43599G	11.67	-18.33	2.30874G	-53.64	2.3965G	-35.48	2.4G	-37.18	2.48596G	-50.85	23.33393G	-40.90	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.43824G	8.89	-21.11	2.30554G	-52.83	2.39982G	-31.73	2.4G	-34.55	2.49694G	-49.55	15.24801G	-41.29	1
VHT20_Nss1,(MCS0)_2TX	Pass	2.43574G	8.68	-21.32	2.0839G	-53.97	2.39978G	-38.17	2.4G	-38.78	2.49642G	-50.57	15.2452G	-40.22	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
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43599G	11.67	-18.33	2.30874G	-53.64	2.3965G	-35.48	2.4G	-37.18	2.48596G	-50.85	23.33393G	-40.90	1
2412MHz	Pass	2.43599G	11.67	-18.33	2.3067G	-52.97	2.3965G	-36.94	2.4G	-38.95	2.5123G	-50.77	15.21991G	-40.82	2
2437MHz	Pass	2.43599G	11.67	-18.33	2.30612G	-53.25	2.39696G	-50.44	2.4835G	-51.95	2.48698G	-49.97	16.70617G	-41.29	1
2437MHz	Pass	2.43599G	11.67	-18.33	2.14185G	-52.65	2.39692G	-50.83	2.4G	-53.40	2.49892G	-49.47	24.76681G	-41.60	2
2462MHz	Pass	2.43599G	11.67	-18.33	2.30437G	-53.33	2.39404G	-51.03	2.4835G	-51.85	2.48746G	-48.64	24.02227G	-41.11	1
2462MHz	Pass	2.43599G	11.67	-18.33	2.30408G	-53.09	2.39226G	-51.83	2.4G	-54.59	2.49G	-48.92	16.37183G	-41.20	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43824G	8.89	-21.11	2.30554G	-52.83	2.39982G	-31.73	2.4G	-34.55	2.49694G	-49.55	15.24801G	-41.29	1
2412MHz	Pass	2.43824G	8.89	-21.11	2.30787G	-52.22	2.39992G	-35.44	2.4G	-36.49	2.50344G	-49.46	16.32126G	-41.00	2
2437MHz	Pass	2.43824G	8.89	-21.11	2.30204G	-53.12	2.397G	-45.32	2.4G	-48.49	2.48648G	-47.68	15.19182G	-41.14	1
2437MHz	Pass	2.43824G	8.89	-21.11	2.19807G	-54.11	2.39576G	-44.03	2.4G	-47.44	2.4857G	-46.77	24.57014G	-41.72	2
2462MHz	Pass	2.43824G	8.89	-21.11	2.09555G	-52.35	2.39812G	-51.24	2.4835G	-47.90	2.48446G	-47.08	24.05599G	-40.03	1
2462MHz	Pass	2.43824G	8.89	-21.11	1.99477G	-54.07	2.39474G	-50.07	2.4835G	-51.53	2.4841G	-47.58	15.22272G	-41.18	2
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	8.68	-21.32	2.0839G	-53.97	2.39978G	-38.17	2.4G	-38.78	2.49642G	-50.57	15.2452G	-40.22	1
2412MHz	Pass	2.43574G	8.68	-21.32	1.88293G	-52.54	2.3999G	-38.49	2.4G	-39.93	2.5013G	-49.90	23.30021G	-39.60	2
2437MHz	Pass	2.43574G	8.68	-21.32	2.30728G	-53.67	2.39798G	-46.15	2.4G	-47.82	2.4847G	-47.15	15.21991G	-41.04	1
2437MHz	Pass	2.43574G	8.68	-21.32	1.98924G	-53.04	2.398G	-44.91	2.4G	-46.76	2.4866G	-48.36	24.87076G	-40.53	2
2462MHz	Pass	2.43574G	8.68	-21.32	1.90478G	-53.83	2.39224G	-51.44	2.4835G	-49.05	2.48418G	-46.77	15.23396G	-40.97	1
2462MHz	Pass	2.43574G	8.68	-21.32	1.97642G	-53.37	2.3936G	-51.61	2.4835G	-48.06	2.48386G	-48.03	24.52237G	-41.41	2

802.11b_Nss1,(1Mbps)_2TX **CSENdB**

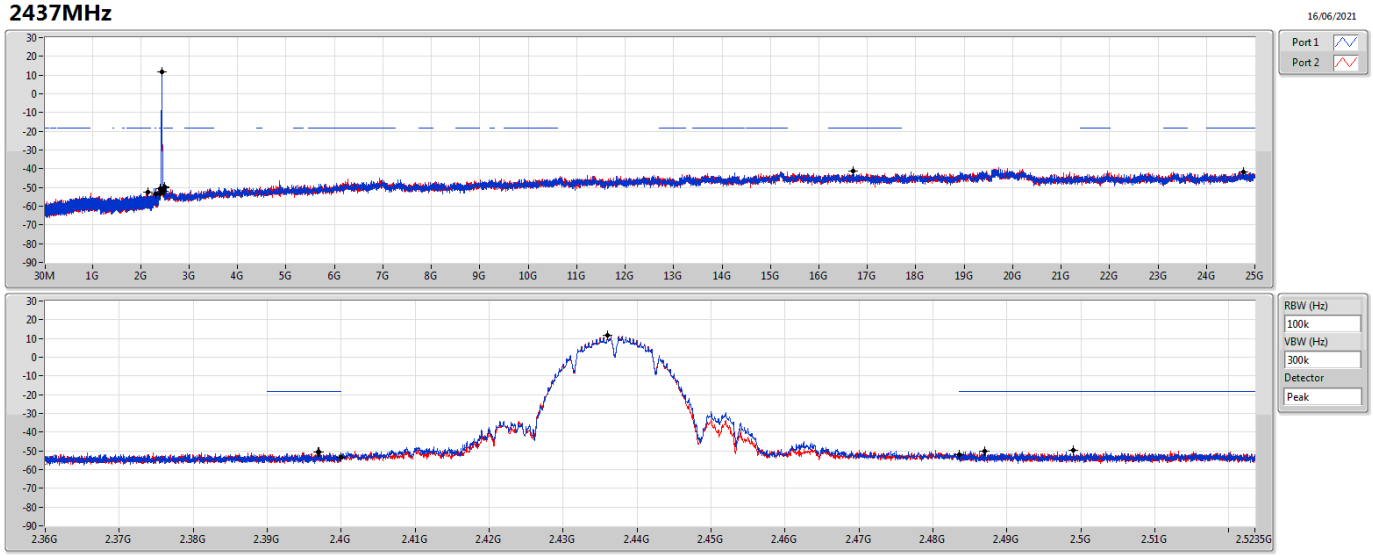
2412MHz



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
2.43599G	11.67	-18.33	2.30874G	-53.64	2.3965G	-35.48	2.4G	-37.18	2.48596G	-50.85	23.33393G	-40.90	1
2.43599G	11.67	-18.33	2.3067G	-52.97	2.3965G	-36.94	2.4G	-38.95	2.5123G	-50.77	15.21991G	-40.82	2

802.11b_Nss1,(1Mbps)_2TX **CSENdB**

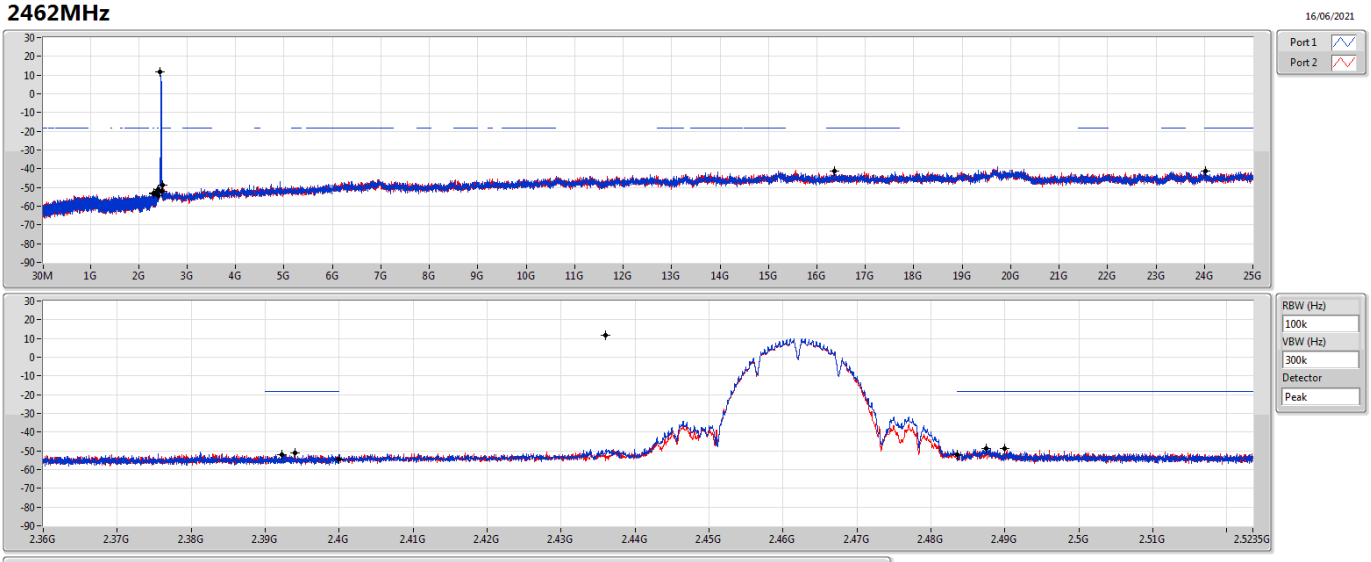
2437MHz



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
2.43599G	11.67	-18.33	2.30612G	-53.25	2.39696G	-50.44	2.4835G	-51.95	2.48698G	-49.97	16.70617G	-41.29	1
2.43599G	11.67	-18.33	2.14185G	-52.65	2.39692G	-50.83	2.4G	-53.40	2.49892G	-49.47	24.76681G	-41.60	2

802.11b_Nss1,(1Mbps)_2TX **CSENdB**

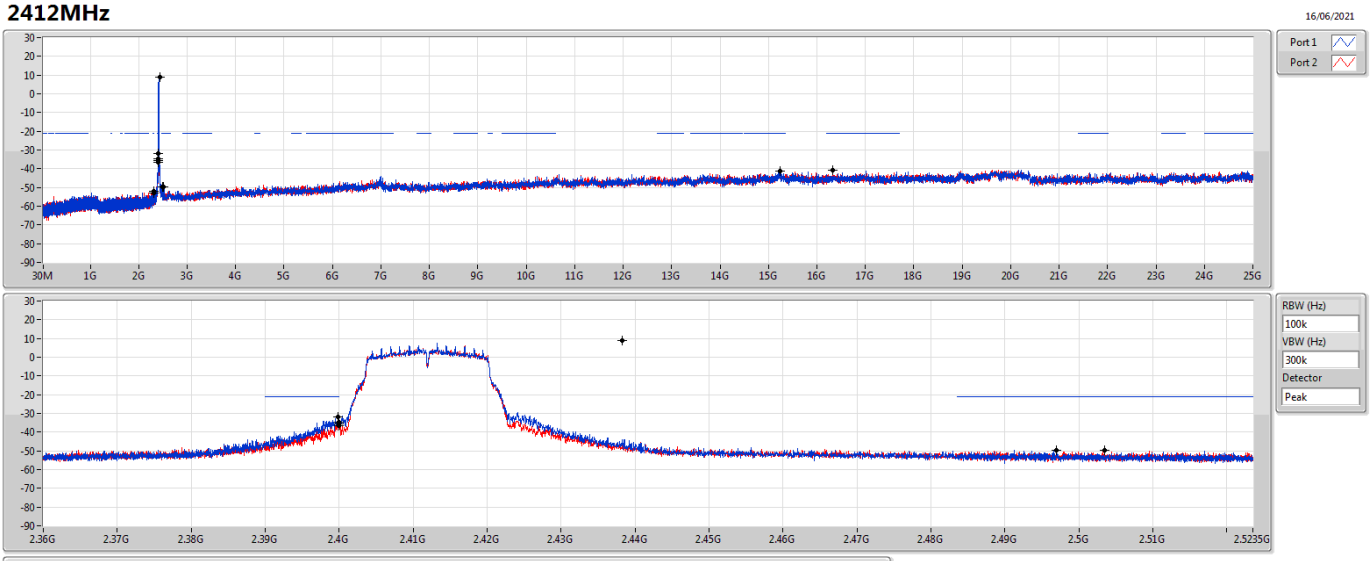
2462MHz



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
2.43599G	11.67	-18.33	2.30437G	-53.33	2.39404G	-51.03	2.4835G	-51.85	2.48746G	-48.64	24.02227G	-41.11	1
2.43599G	11.67	-18.33	2.30408G	-53.09	2.39226G	-51.83	2.4G	-54.59	2.49G	-48.92	16.37183G	-41.20	2

802.11g_Nss1,(6Mbps)_2TX **CSENdB**

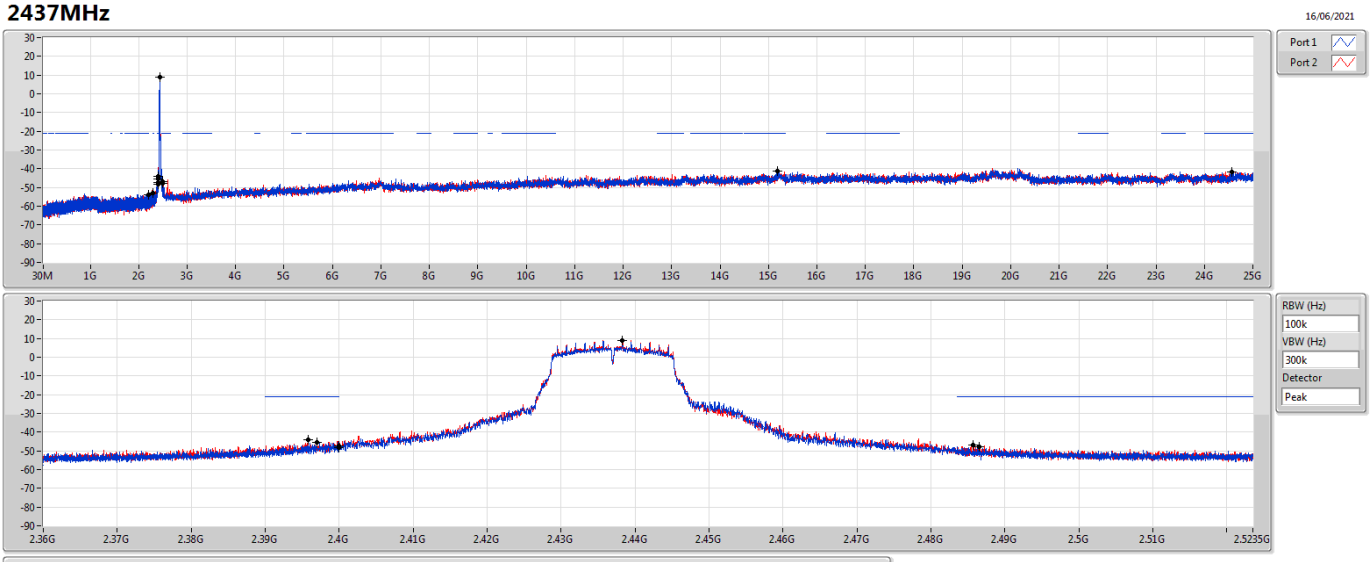
2412MHz



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
2.43824G	8.89	-21.11	2.30554G	-52.83	2.39982G	-31.73	2.4G	-34.55	2.49694G	-49.55	15.24801G	-41.29	1
2.43824G	8.89	-21.11	2.30787G	-52.22	2.39992G	-35.44	2.4G	-36.49	2.50344G	-49.46	16.32126G	-41.00	2

802.11g_Nss1,(6Mbps)_2TX **CSENdB**

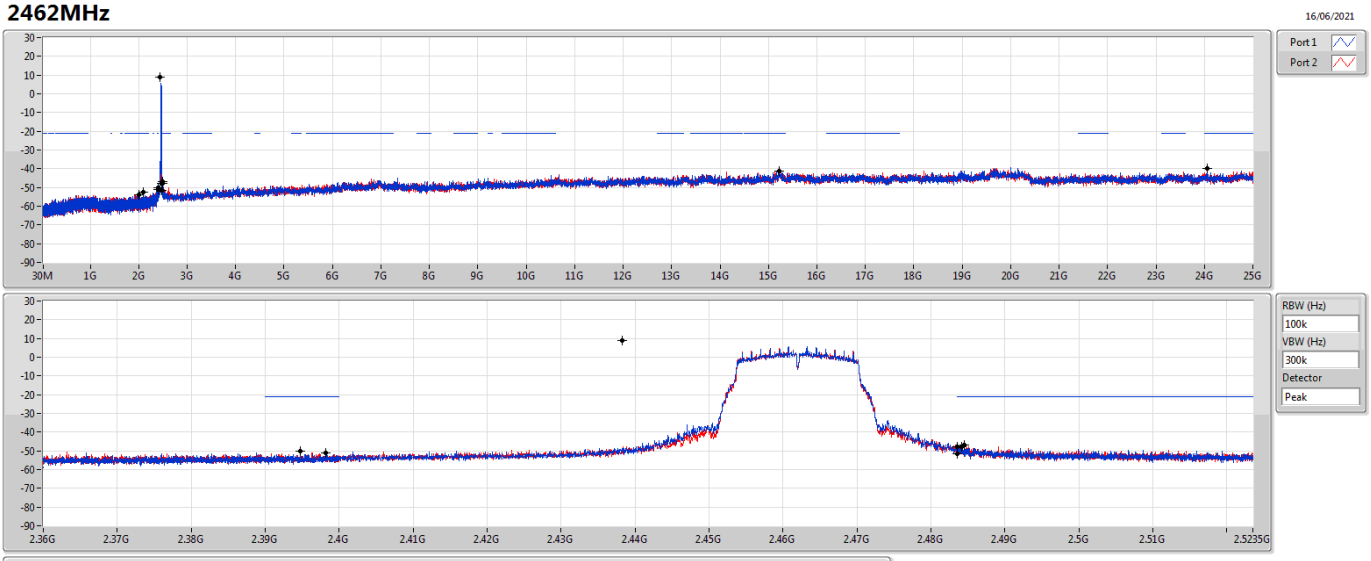
2437MHz



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
2.43824G	8.89	-21.11	2.30204G	-53.12	2.397G	-45.32	2.4G	-48.49	2.48648G	-47.68	15.19182G	-41.14	1
2.43824G	8.89	-21.11	2.19807G	-54.11	2.39576G	-44.03	2.4G	-47.44	2.4857G	-46.77	24.57014G	-41.72	2

802.11g_Nss1,(6Mbps)_2TX **CSENdB**

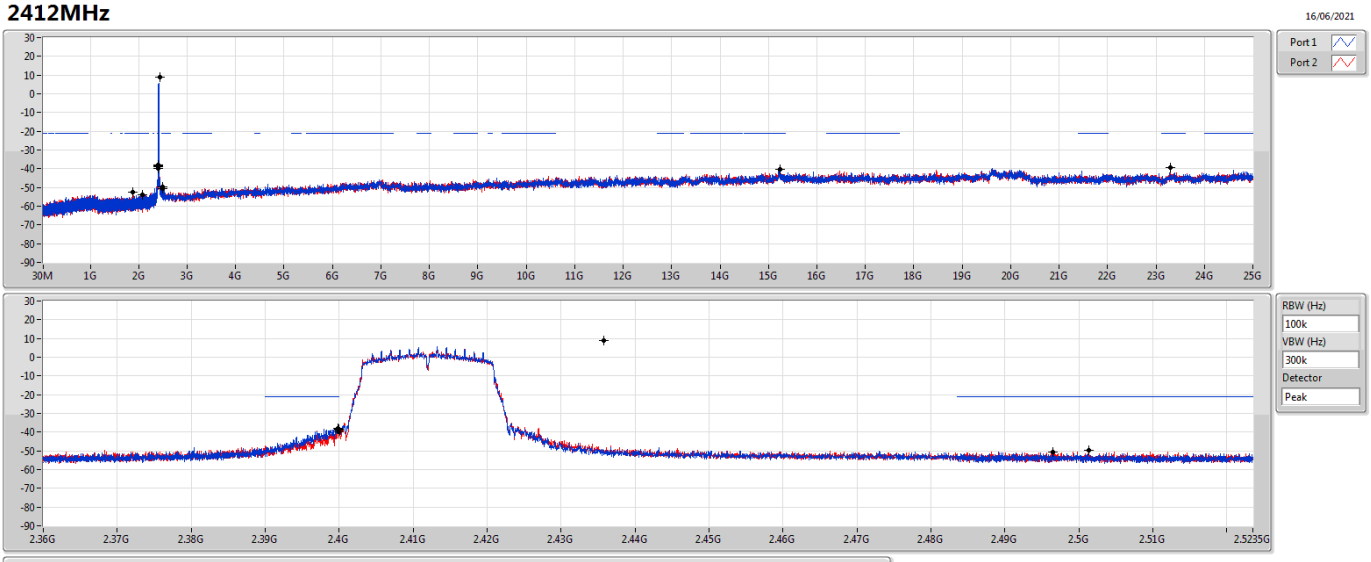
2462MHz



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
2.43824G	8.89	-21.11	2.09555G	-52.35	2.39812G	-51.24	2.4835G	-47.90	2.48446G	-47.08	24.05599G	-40.03	1
2.43824G	8.89	-21.11	1.99477G	-54.07	2.39474G	-50.07	2.4835G	-51.53	2.4841G	-47.58	15.22272G	-41.18	2

VHT20_Nss1,(MCS0)_2TX **CSENdB**

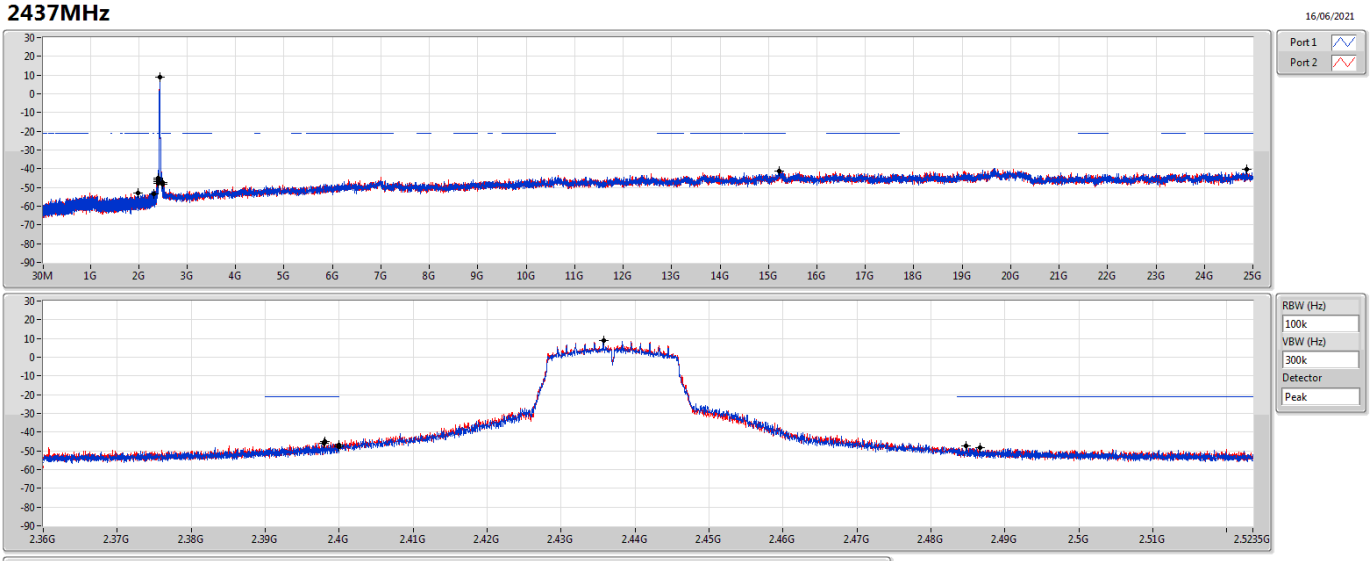
2412MHz



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
2.43574G	8.68	-21.32	2.0839G	-53.97	2.39978G	-38.17	2.4G	-38.78	2.49642G	-50.57	15.2452G	-40.22	1
2.43574G	8.68	-21.32	1.88293G	-52.54	2.3999G	-38.49	2.4G	-39.93	2.5013G	-49.90	23.30021G	-39.60	2

VHT20_Nss1,(MCS0)_2TX **CSENdB**

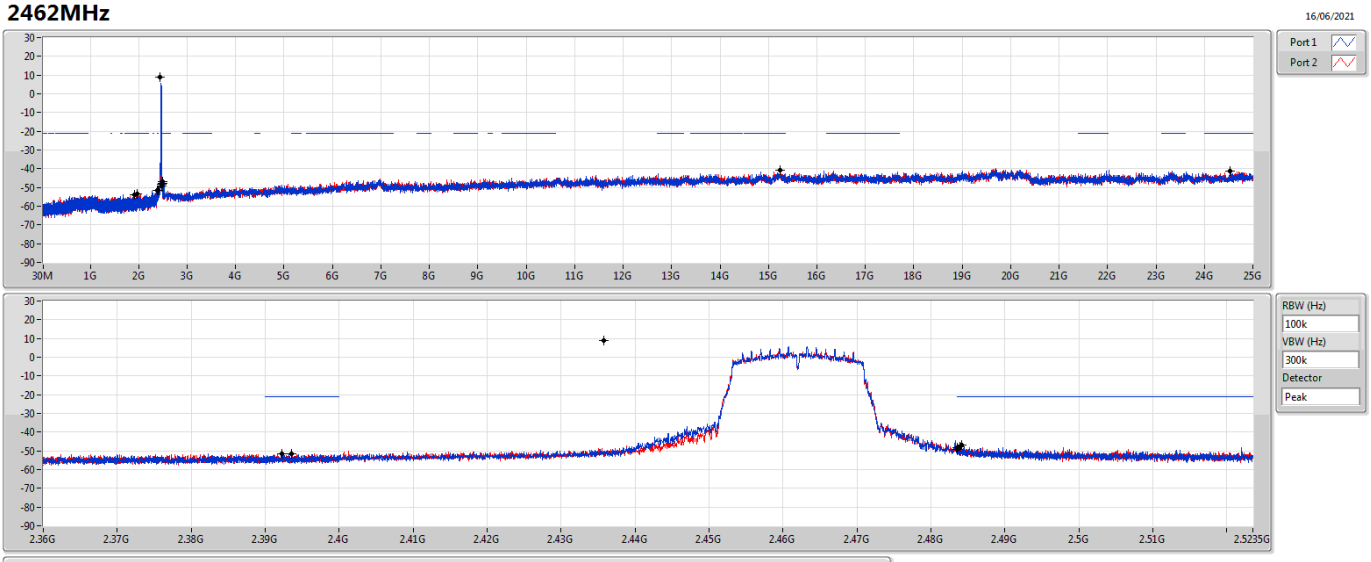
2437MHz



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
2.43574G	8.68	-21.32	2.30728G	-53.67	2.39798G	-46.15	2.4G	-47.82	2.4847G	-47.15	15.21991G	-41.04	1
2.43574G	8.68	-21.32	1.98924G	-53.04	2.398G	-44.91	2.4G	-46.76	2.4866G	-48.36	24.87076G	-40.53	2

VHT20_Nss1,(MCS0)_2TX **CSENdB**

2462MHz



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
2.43574G	8.68	-21.32	1.90478G	-53.83	2.39224G	-51.44	2.4835G	-49.05	2.48418G	-46.77	15.23396G	-40.97	1
2.43574G	8.68	-21.32	1.97642G	-53.37	2.3936G	-51.61	2.4835G	-48.06	2.48386G	-48.03	24.52237G	-41.41	2

Summary

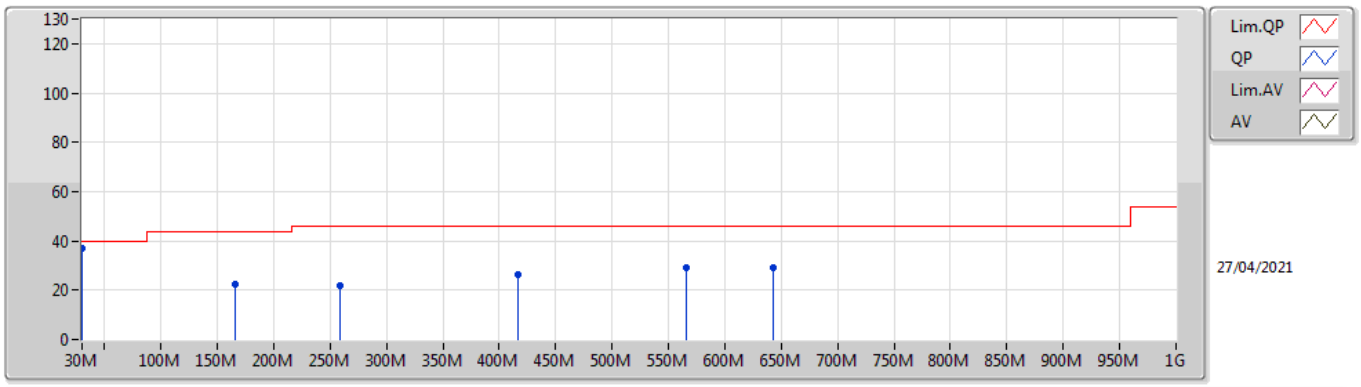
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
VHT20_Nss1,(MCS0)_2TX	Pass	QP	30M	36.73	40.00	-3.27	3	Vertical	231	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	165.8M	22.55	43.50	-20.95	3	Vertical	0	1.00	-
2437MHz	Pass	PK	258.92M	21.97	46.00	-24.03	3	Vertical	0	1.00	-
2437MHz	Pass	PK	416.06M	26.44	46.00	-19.56	3	Vertical	0	1.00	-
2437MHz	Pass	PK	565.44M	29.23	46.00	-16.77	3	Vertical	0	1.00	-
2437MHz	Pass	PK	643.04M	29.34	46.00	-16.66	3	Vertical	0	1.00	-
2437MHz	Pass	QP	30M	36.73	40.00	-3.27	3	Vertical	231	1.00	-
2437MHz	Pass	PK	30M	30.64	40.00	-9.36	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	121.18M	19.84	43.50	-23.66	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	260.86M	22.07	46.00	-23.93	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	418M	26.31	46.00	-19.69	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	540.22M	29.49	46.00	-16.51	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	714.82M	30.67	46.00	-15.33	3	Horizontal	360	1.00	-

VHT20_Nss1,(MCS0)_2TX

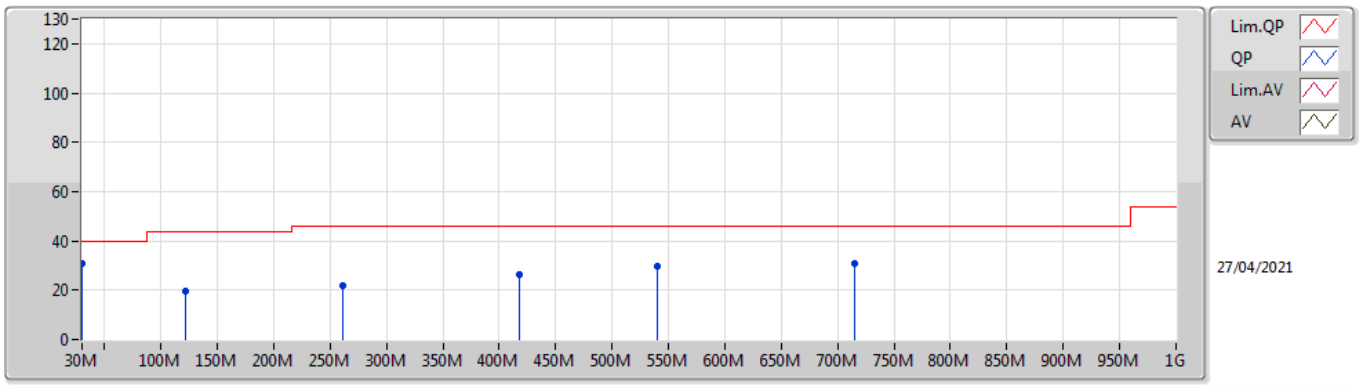
2437MHz_Test Fixture



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	165.8M	22.55	43.50	-20.95	-10.16	3	Vertical	0	1.00	-	32.71	14.86	2.16	27.18
PK	258.92M	21.97	46.00	-24.03	-5.19	3	Vertical	0	1.00	-	27.16	18.83	2.71	26.73
PK	416.06M	26.44	46.00	-19.56	-2.14	3	Vertical	0	1.00	-	28.58	21.75	3.52	27.41
PK	565.44M	29.23	46.00	-16.77	0.36	3	Vertical	0	1.00	-	28.87	24.29	4.18	28.11
PK	643.04M	29.34	46.00	-16.66	0.58	3	Vertical	0	1.00	-	28.76	24.28	4.43	28.13
QP	30M	36.73	40.00	-3.27	-3.23	3	Vertical	231	1.00	-	39.96	23.51	0.90	27.64

VHT20_Nss1,(MCS0)_2TX

2437MHz_Test Fixture



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	30M	30.64	40.00	-9.36	-3.23	3	Horizontal	360	1.00	-	33.87	23.51	0.90	27.64
PK	121.18M	19.84	43.50	-23.66	-7.89	3	Horizontal	360	1.00	-	27.73	17.57	1.90	27.36
PK	260.86M	22.07	46.00	-23.93	-5.13	3	Horizontal	360	1.00	-	27.20	18.89	2.72	26.74
PK	418M	26.31	46.00	-19.69	-2.13	3	Horizontal	360	1.00	-	28.44	21.77	3.53	27.43
PK	540.22M	29.49	46.00	-16.51	0.38	3	Horizontal	360	1.00	-	29.11	24.39	4.04	28.05
PK	714.82M	30.67	46.00	-15.33	1.33	3	Horizontal	360	1.00	-	29.34	24.68	4.68	28.03

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	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	AV	2.4876G	51.88	54.00	-2.12	3	Vertical	246	1.30	-
802.11g_Nss1,(6Mbps)_2TX	Pass	AV	2.4846G	52.23	54.00	-1.77	3	Vertical	166	1.56	-
VHT20_Nss1,(MCS0)_2TX	Pass	AV	2.4854G	52.24	54.00	-1.76	3	Vertical	164	1.56	-

Result

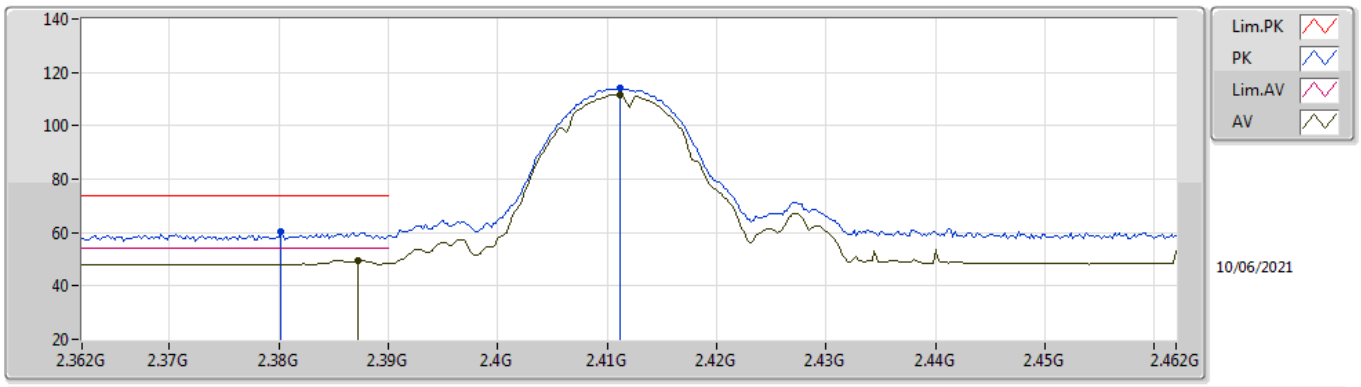
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3872G	49.56	54.00	-4.44	3	Vertical	162	1.60	-
2412MHz	Pass	AV	2.4112G	111.65	Inf	-Inf	3	Vertical	162	1.60	-
2412MHz	Pass	PK	2.3802G	60.11	74.00	-13.89	3	Vertical	162	1.60	-
2412MHz	Pass	PK	2.4112G	114.10	Inf	-Inf	3	Vertical	162	1.60	-
2412MHz	Pass	AV	4.82394G	50.37	54.00	-3.63	3	Vertical	178	1.21	-
2412MHz	Pass	PK	4.82394G	53.63	74.00	-20.37	3	Vertical	178	1.21	-
2412MHz	Pass	AV	4.82388G	38.44	54.00	-15.56	3	Horizontal	197	1.11	-
2412MHz	Pass	PK	4.82406G	47.48	74.00	-26.52	3	Horizontal	197	1.11	-
2417MHz	Pass	AV	2.39G	50.24	54.00	-3.76	3	Vertical	248	1.49	-
2417MHz	Pass	AV	2.4162G	113.30	Inf	-Inf	3	Vertical	248	1.49	-
2417MHz	Pass	PK	2.3766G	60.50	74.00	-13.50	3	Vertical	248	1.49	-
2417MHz	Pass	PK	2.4162G	115.74	Inf	-Inf	3	Vertical	248	1.49	-
2417MHz	Pass	AV	4.83394G	50.61	54.00	-3.39	3	Vertical	14	1.74	-
2417MHz	Pass	AV	7.25172G	50.09	54.00	-3.91	3	Vertical	344	1.56	-
2417MHz	Pass	PK	4.834G	54.53	74.00	-19.47	3	Vertical	14	1.74	-
2417MHz	Pass	PK	7.25202G	56.75	74.00	-17.25	3	Vertical	344	1.56	-
2417MHz	Pass	AV	4.83394G	37.97	54.00	-16.03	3	Horizontal	197	1.16	-
2417MHz	Pass	AV	7.25178G	41.44	54.00	-12.56	3	Horizontal	162	1.03	-
2417MHz	Pass	PK	4.83784G	47.06	74.00	-26.94	3	Horizontal	197	1.16	-
2417MHz	Pass	PK	7.25196G	52.45	74.00	-21.55	3	Horizontal	162	1.03	-
2437MHz	Pass	AV	2.3898G	48.36	54.00	-5.64	3	Vertical	186	1.78	-
2437MHz	Pass	AV	2.4362G	113.48	Inf	-Inf	3	Vertical	186	1.78	-
2437MHz	Pass	AV	2.4986G	48.68	54.00	-5.32	3	Vertical	186	1.78	-
2437MHz	Pass	PK	2.3382G	59.54	74.00	-14.46	3	Vertical	186	1.78	-
2437MHz	Pass	PK	2.4362G	115.94	Inf	-Inf	3	Vertical	186	1.78	-
2437MHz	Pass	PK	2.499G	59.72	74.00	-14.28	3	Vertical	186	1.78	-
2437MHz	Pass	AV	4.87394G	47.31	54.00	-6.69	3	Vertical	13	1.56	-
2437MHz	Pass	AV	7.3101G	50.54	54.00	-3.46	3	Vertical	340	1.73	-
2437MHz	Pass	PK	4.87394G	51.99	74.00	-22.01	3	Vertical	13	1.56	-
2437MHz	Pass	PK	7.30956G	57.26	74.00	-16.74	3	Vertical	340	1.73	-
2437MHz	Pass	AV	4.87376G	33.79	54.00	-20.21	3	Horizontal	144	1.51	-
2437MHz	Pass	AV	7.31172G	43.89	54.00	-10.11	3	Horizontal	153	1.94	-
2437MHz	Pass	PK	4.87022G	46.35	74.00	-27.65	3	Horizontal	144	1.51	-
2437MHz	Pass	PK	7.31208G	53.95	74.00	-20.05	3	Horizontal	153	1.94	-
2457MHz	Pass	AV	2.4562G	113.85	Inf	-Inf	3	Vertical	247	1.32	-
2457MHz	Pass	AV	2.4835G	51.85	54.00	-2.15	3	Vertical	247	1.32	-
2457MHz	Pass	PK	2.4562G	116.29	Inf	-Inf	3	Vertical	247	1.32	-
2457MHz	Pass	PK	2.4836G	61.29	74.00	-12.71	3	Vertical	247	1.32	-
2457MHz	Pass	AV	4.91394G	50.73	54.00	-3.27	3	Vertical	317	1.76	-
2457MHz	Pass	AV	7.37172G	49.40	54.00	-4.60	3	Vertical	348	1.50	-
2457MHz	Pass	PK	4.91394G	55.03	74.00	-18.97	3	Vertical	317	1.76	-
2457MHz	Pass	PK	7.37214G	56.22	74.00	-17.78	3	Vertical	348	1.50	-
2457MHz	Pass	AV	4.91394G	38.82	54.00	-15.18	3	Horizontal	264	2.16	-
2457MHz	Pass	AV	7.37004G	42.99	54.00	-11.01	3	Horizontal	157	2.01	-
2457MHz	Pass	PK	4.9137G	47.19	74.00	-26.81	3	Horizontal	264	2.16	-
2457MHz	Pass	PK	7.3698G	53.15	74.00	-20.85	3	Horizontal	157	2.01	-
2462MHz	Pass	AV	2.4628G	113.87	Inf	-Inf	3	Vertical	246	1.30	-
2462MHz	Pass	AV	2.4876G	51.88	54.00	-2.12	3	Vertical	246	1.30	-
2462MHz	Pass	PK	2.463G	116.32	Inf	-Inf	3	Vertical	246	1.30	-
2462MHz	Pass	PK	2.4874G	62.79	74.00	-11.21	3	Vertical	246	1.30	-
2462MHz	Pass	AV	4.92394G	50.36	54.00	-3.64	3	Vertical	318	1.40	-
2462MHz	Pass	AV	7.38672G	48.97	54.00	-5.03	3	Vertical	348	1.43	-
2462MHz	Pass	PK	4.92394G	54.09	74.00	-19.91	3	Vertical	318	1.40	-
2462MHz	Pass	PK	7.3875G	56.22	74.00	-17.78	3	Vertical	348	1.43	-
2462MHz	Pass	AV	4.924G	38.20	54.00	-15.80	3	Horizontal	11	1.40	-
2462MHz	Pass	AV	7.3851G	42.14	54.00	-11.86	3	Horizontal	151	1.50	-
2462MHz	Pass	PK	4.92406G	48.04	74.00	-25.96	3	Horizontal	11	1.40	-
2462MHz	Pass	PK	7.38468G	53.24	74.00	-20.76	3	Horizontal	151	1.50	-
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3898G	52.14	54.00	-1.86	3	Vertical	168	1.66	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2412MHz	Pass	AV	2.4126G	108.58	Inf	-Inf	3	Vertical	168	1.66	-
2412MHz	Pass	PK	2.39G	63.75	74.00	-10.25	3	Vertical	168	1.66	-
2412MHz	Pass	PK	2.4126G	116.59	Inf	-Inf	3	Vertical	168	1.66	-
2412MHz	Pass	AV	4.82376G	37.55	54.00	-16.45	3	Vertical	9	1.77	-
2412MHz	Pass	PK	4.81902G	49.24	74.00	-24.76	3	Vertical	9	1.77	-
2412MHz	Pass	AV	4.82352G	34.53	54.00	-19.47	3	Horizontal	320	1.82	-
2412MHz	Pass	PK	4.8339G	45.91	74.00	-28.09	3	Horizontal	320	1.82	-
2417MHz	Pass	AV	2.3874G	52.12	54.00	-1.88	3	Vertical	168	1.67	-
2417MHz	Pass	AV	2.4176G	106.21	Inf	-Inf	3	Vertical	168	1.67	-
2417MHz	Pass	PK	2.3884G	63.47	74.00	-10.53	3	Vertical	168	1.67	-
2417MHz	Pass	PK	2.4178G	113.62	Inf	-Inf	3	Vertical	168	1.67	-
2437MHz	Pass	AV	2.3898G	51.61	54.00	-2.39	3	Vertical	166	1.56	-
2437MHz	Pass	AV	2.435G	109.49	Inf	-Inf	3	Vertical	166	1.56	-
2437MHz	Pass	AV	2.4846G	52.23	54.00	-1.77	3	Vertical	166	1.56	-
2437MHz	Pass	PK	2.3858G	61.67	74.00	-12.33	3	Vertical	166	1.56	-
2437MHz	Pass	PK	2.4354G	117.76	Inf	-Inf	3	Vertical	166	1.56	-
2437MHz	Pass	PK	2.4854G	62.63	74.00	-11.37	3	Vertical	166	1.56	-
2437MHz	Pass	AV	4.87214G	38.10	54.00	-15.90	3	Vertical	12	1.56	-
2437MHz	Pass	AV	7.31106G	46.14	54.00	-7.86	3	Vertical	349	1.38	-
2437MHz	Pass	PK	4.87208G	50.06	74.00	-23.94	3	Vertical	12	1.56	-
2437MHz	Pass	PK	7.31082G	58.17	74.00	-15.83	3	Vertical	349	1.38	-
2437MHz	Pass	AV	4.86884G	34.48	54.00	-19.52	3	Horizontal	246	1.77	-
2437MHz	Pass	AV	7.31262G	41.21	54.00	-12.79	3	Horizontal	229	1.92	-
2437MHz	Pass	PK	4.8737G	46.56	74.00	-27.44	3	Horizontal	246	1.77	-
2437MHz	Pass	PK	7.31646G	52.59	74.00	-21.41	3	Horizontal	229	1.92	-
2457MHz	Pass	AV	2.4578G	104.77	Inf	-Inf	3	Vertical	162	1.83	-
2457MHz	Pass	AV	2.4835G	52.04	54.00	-1.96	3	Vertical	162	1.83	-
2457MHz	Pass	PK	2.4576G	113.32	Inf	-Inf	3	Vertical	162	1.83	-
2457MHz	Pass	PK	2.4836G	62.89	74.00	-11.11	3	Vertical	162	1.83	-
2462MHz	Pass	AV	2.4614G	106.59	Inf	-Inf	3	Vertical	246	1.31	-
2462MHz	Pass	AV	2.4835G	52.04	54.00	-1.96	3	Vertical	246	1.31	-
2462MHz	Pass	PK	2.4612G	114.60	Inf	-Inf	3	Vertical	246	1.31	-
2462MHz	Pass	PK	2.4858G	63.82	74.00	-10.18	3	Vertical	246	1.31	-
2462MHz	Pass	AV	4.92238G	37.37	54.00	-16.63	3	Vertical	315	1.79	-
2462MHz	Pass	AV	7.38462G	41.90	54.00	-12.10	3	Vertical	341	1.47	-
2462MHz	Pass	PK	4.92328G	49.17	74.00	-24.83	3	Vertical	315	1.79	-
2462MHz	Pass	PK	7.38984G	54.64	74.00	-19.36	3	Vertical	341	1.47	-
2462MHz	Pass	AV	4.92556G	34.66	54.00	-19.34	3	Horizontal	144	1.78	-
2462MHz	Pass	AV	7.38762G	39.67	54.00	-14.33	3	Horizontal	151	2.24	-
2462MHz	Pass	PK	4.92394G	46.63	74.00	-27.37	3	Horizontal	144	1.78	-
2462MHz	Pass	PK	7.3815G	51.44	74.00	-22.56	3	Horizontal	151	2.24	-
VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	51.61	54.00	-2.39	3	Vertical	248	1.55	-
2412MHz	Pass	AV	2.4098G	104.47	Inf	-Inf	3	Vertical	248	1.55	-
2412MHz	Pass	PK	2.39G	63.06	74.00	-10.94	3	Vertical	248	1.55	-
2412MHz	Pass	PK	2.4096G	113.03	Inf	-Inf	3	Vertical	248	1.55	-
2412MHz	Pass	AV	4.81926G	36.25	54.00	-17.75	3	Vertical	360	1.50	-
2412MHz	Pass	PK	4.8225G	46.96	74.00	-27.04	3	Vertical	360	1.50	-
2412MHz	Pass	AV	4.82034G	35.55	54.00	-18.45	3	Horizontal	98	1.50	-
2412MHz	Pass	PK	4.82742G	46.07	74.00	-27.93	3	Horizontal	98	1.50	-
2417MHz	Pass	AV	2.3898G	52.14	54.00	-1.86	3	Vertical	162	1.36	-
2417MHz	Pass	AV	2.4162G	103.76	Inf	-Inf	3	Vertical	162	1.36	-
2417MHz	Pass	PK	2.3872G	62.59	74.00	-11.41	3	Vertical	162	1.36	-
2417MHz	Pass	PK	2.4152G	112.63	Inf	-Inf	3	Vertical	162	1.36	-
2437MHz	Pass	AV	2.387G	51.40	54.00	-2.60	3	Vertical	164	1.56	-
2437MHz	Pass	AV	2.4362G	107.17	Inf	-Inf	3	Vertical	164	1.56	-
2437MHz	Pass	AV	2.4854G	52.24	54.00	-1.76	3	Vertical	164	1.56	-
2437MHz	Pass	PK	2.389G	62.45	74.00	-11.55	3	Vertical	164	1.56	-
2437MHz	Pass	PK	2.435G	116.01	Inf	-Inf	3	Vertical	164	1.56	-
2437MHz	Pass	PK	2.4906G	62.12	74.00	-11.88	3	Vertical	164	1.56	-
2437MHz	Pass	AV	4.87334G	38.10	54.00	-15.90	3	Vertical	13	1.57	-
2437MHz	Pass	AV	7.31202G	44.23	54.00	-9.77	3	Vertical	207	1.62	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2437MHz	Pass	PK	4.87496G	49.46	74.00	-24.54	3	Vertical	13	1.57	-
2437MHz	Pass	PK	7.30224G	56.02	74.00	-17.98	3	Vertical	207	1.62	-
2437MHz	Pass	AV	4.886G	35.45	54.00	-18.55	3	Horizontal	7	2.30	-
2437MHz	Pass	AV	7.30926G	41.49	54.00	-12.51	3	Horizontal	157	2.18	-
2437MHz	Pass	PK	4.86506G	46.30	74.00	-27.70	3	Horizontal	7	2.30	-
2437MHz	Pass	PK	7.3203G	52.51	74.00	-21.49	3	Horizontal	157	2.18	-
2457MHz	Pass	AV	2.4548G	103.23	Inf	-Inf	3	Vertical	163	1.46	-
2457MHz	Pass	AV	2.4835G	52.23	54.00	-1.77	3	Vertical	163	1.46	-
2457MHz	Pass	PK	2.4546G	112.28	Inf	-Inf	3	Vertical	163	1.46	-
2457MHz	Pass	PK	2.4848G	62.73	74.00	-11.27	3	Vertical	163	1.46	-
2462MHz	Pass	AV	2.46G	104.92	Inf	-Inf	3	Vertical	162	1.44	-
2462MHz	Pass	AV	2.4838G	52.04	54.00	-1.96	3	Vertical	162	1.44	-
2462MHz	Pass	PK	2.4596G	114.21	Inf	-Inf	3	Vertical	162	1.44	-
2462MHz	Pass	PK	2.4872G	62.23	74.00	-11.77	3	Vertical	162	1.44	-
2462MHz	Pass	AV	4.92252G	37.28	54.00	-16.72	3	Vertical	313	1.50	-
2462MHz	Pass	AV	7.38996G	41.68	54.00	-12.32	3	Vertical	342	1.58	-
2462MHz	Pass	PK	4.92284G	48.86	74.00	-25.14	3	Vertical	313	1.50	-
2462MHz	Pass	PK	7.38704G	53.25	74.00	-20.75	3	Vertical	342	1.58	-
2462MHz	Pass	AV	4.93008G	35.42	54.00	-18.58	3	Horizontal	333	1.50	-
2462MHz	Pass	AV	7.39564G	40.44	54.00	-13.56	3	Horizontal	166	1.19	-
2462MHz	Pass	PK	4.92848G	46.61	74.00	-27.39	3	Horizontal	333	1.50	-
2462MHz	Pass	PK	7.38244G	51.43	74.00	-22.57	3	Horizontal	166	1.19	-

802.11b_Nss1,(1Mbps)_2TX

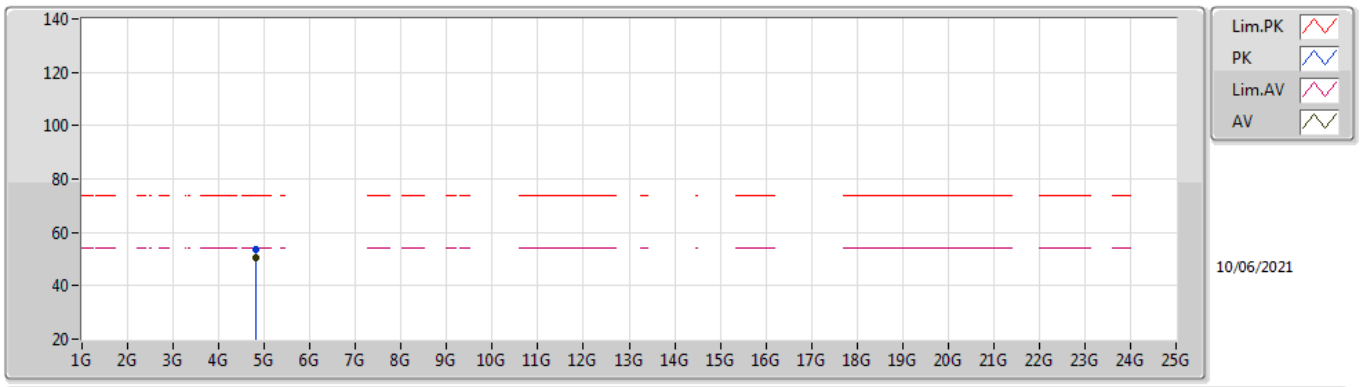
2412MHz_TX



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	2.3872G	49.56	54.00	-4.44	31.94	3	Vertical	162	1.60	-	17.62	27.65	4.29	-
AV	2.4112G	111.65	Inf	-Inf	31.91	3	Vertical	162	1.60	-	79.74	27.60	4.31	-
PK	2.3802G	60.11	74.00	-13.89	31.96	3	Vertical	162	1.60	-	28.15	27.68	4.28	-
PK	2.4112G	114.10	Inf	-Inf	31.91	3	Vertical	162	1.60	-	82.19	27.60	4.31	-

802.11b_Nss1,(1Mbps)_2TX

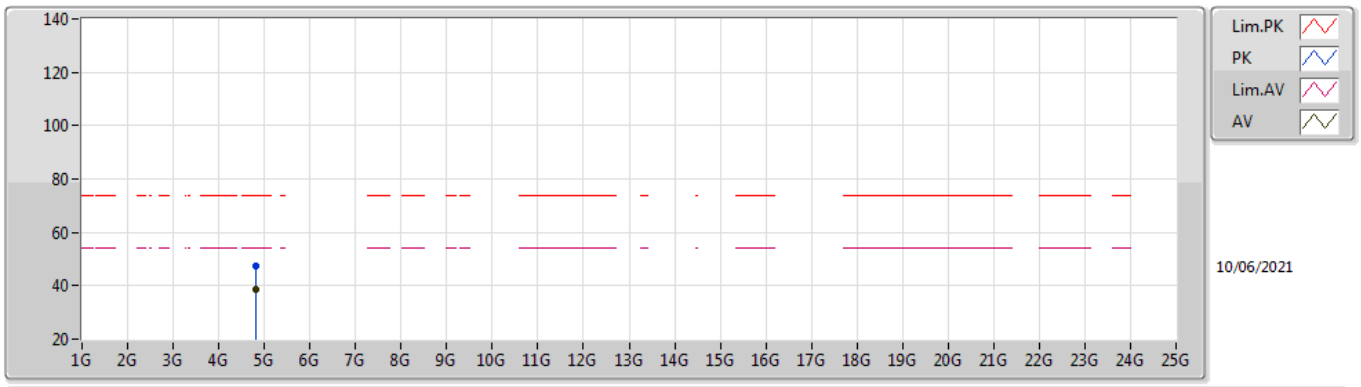
2412MHz_TX



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	4.82394G	50.37	54.00	-3.63	8.44	3	Vertical	178	1.21	-	41.93	31.15	6.52	29.23
PK	4.82394G	53.63	74.00	-20.37	8.44	3	Vertical	178	1.21	-	45.19	31.15	6.52	29.23

802.11b_Nss1,(1Mbps)_2TX

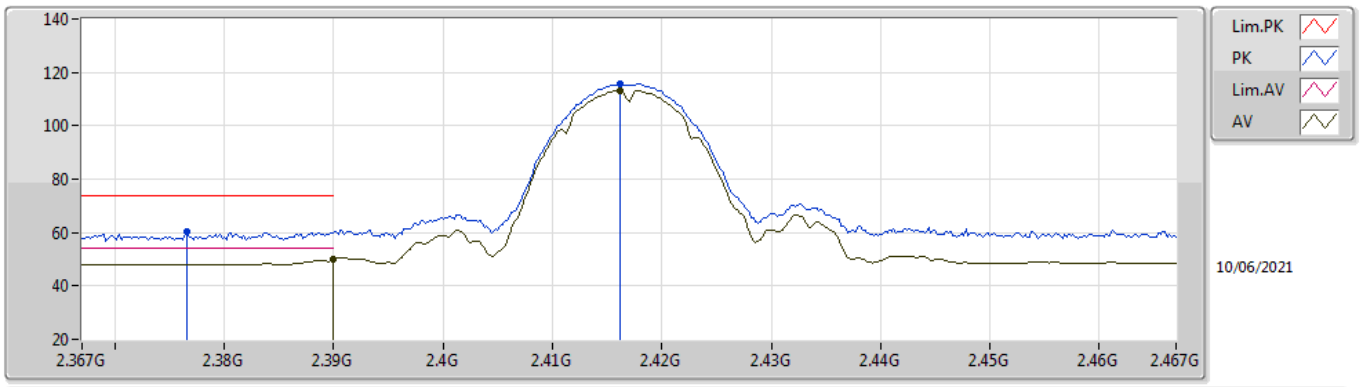
2412MHz_TX



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	4.82388G	38.44	54.00	-15.56	8.44	3	Horizontal	197	1.11	-	30.00	31.15	6.52	29.23
PK	4.82406G	47.48	74.00	-26.52	8.44	3	Horizontal	197	1.11	-	39.04	31.15	6.52	29.23

802.11b_Nss1,(1Mbps)_2TX

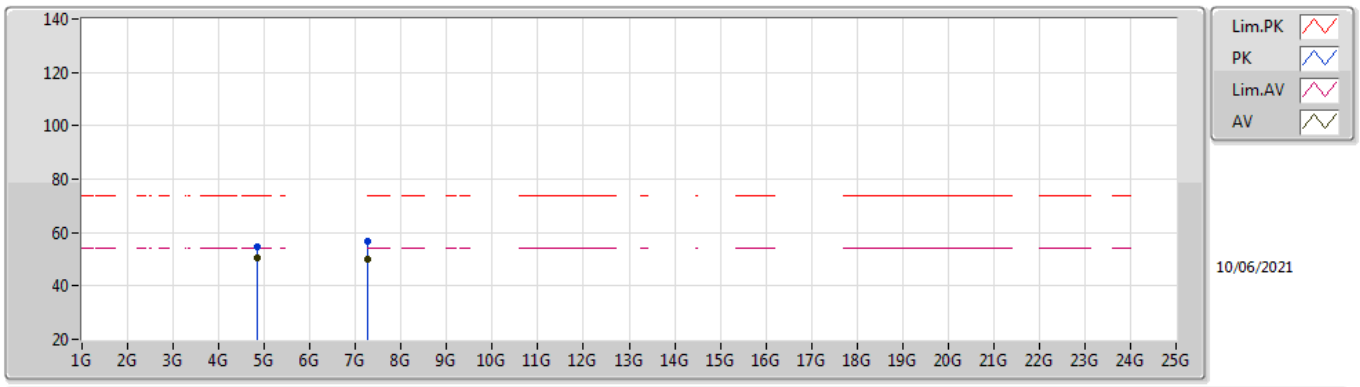
2417MHz_TX



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	2.39G	50.24	54.00	-3.76	31.93	3	Vertical	248	1.49	-	18.31	27.64	4.29	-
AV	2.4162G	113.30	Inf	-Inf	31.92	3	Vertical	248	1.49	-	81.38	27.60	4.32	-
PK	2.3766G	60.50	74.00	-13.50	31.97	3	Vertical	248	1.49	-	28.53	27.69	4.28	-
PK	2.4162G	115.74	Inf	-Inf	31.92	3	Vertical	248	1.49	-	83.82	27.60	4.32	-

802.11b_Nss1,(1Mbps)_2TX

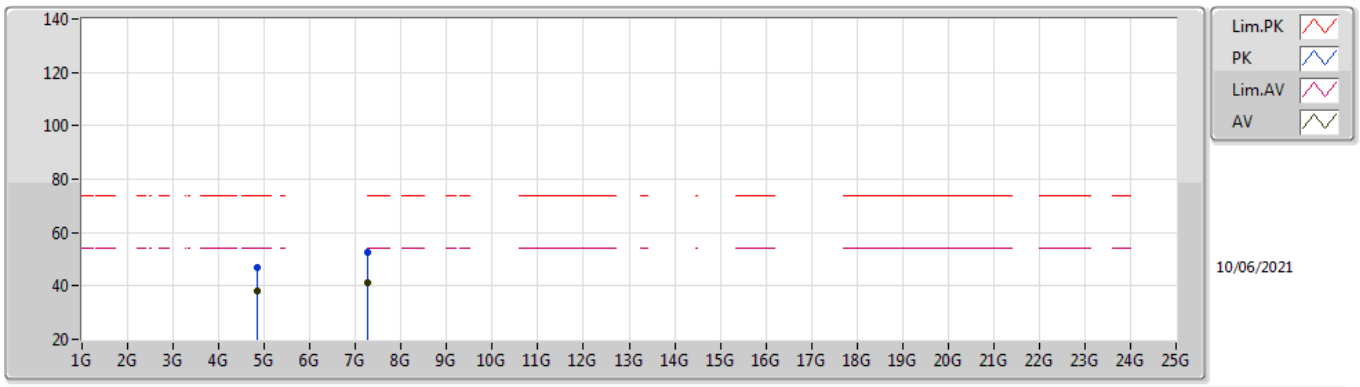
2417MHz_TX



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	4.83394G	50.61	54.00	-3.39	8.48	3	Vertical	14	1.74	-	42.13	31.17	6.53	29.22
AV	7.25172G	50.09	54.00	-3.91	13.59	3	Vertical	344	1.56	-	36.50	36.11	7.60	30.12
PK	4.834G	54.53	74.00	-19.47	8.48	3	Vertical	14	1.74	-	46.05	31.17	6.53	29.22
PK	7.25202G	56.75	74.00	-17.25	13.59	3	Vertical	344	1.56	-	43.16	36.11	7.60	30.12

802.11b_Nss1,(1Mbps)_2TX

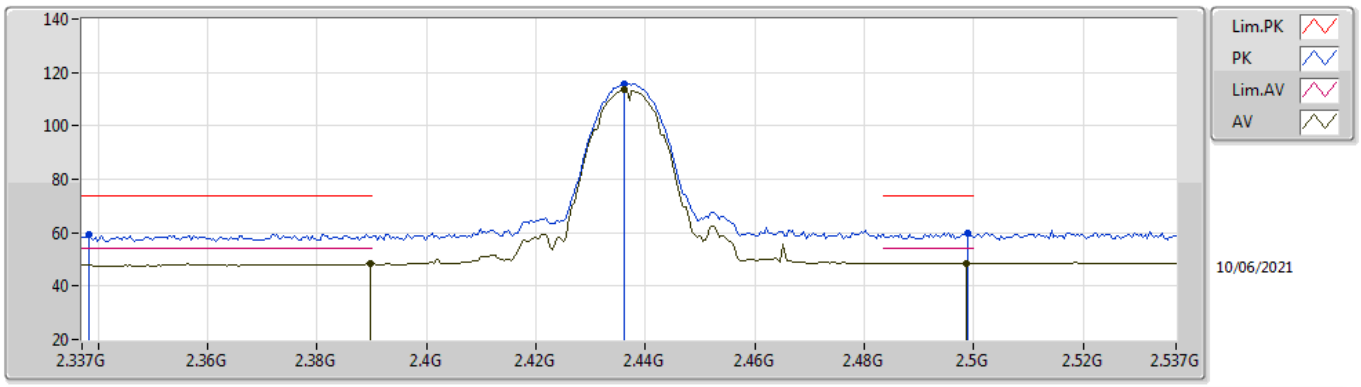
2417MHz_TX



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	4.83394G	37.97	54.00	-16.03	8.48	3	Horizontal	197	1.16	-	29.49	31.17	6.53	29.22
AV	7.25178G	41.44	54.00	-12.56	13.59	3	Horizontal	162	1.03	-	27.85	36.11	7.60	30.12
PK	4.83784G	47.06	74.00	-26.94	8.50	3	Horizontal	197	1.16	-	38.56	31.18	6.54	29.22
PK	7.25196G	52.45	74.00	-21.55	13.59	3	Horizontal	162	1.03	-	38.86	36.11	7.60	30.12

802.11b_Nss1,(1Mbps)_2TX

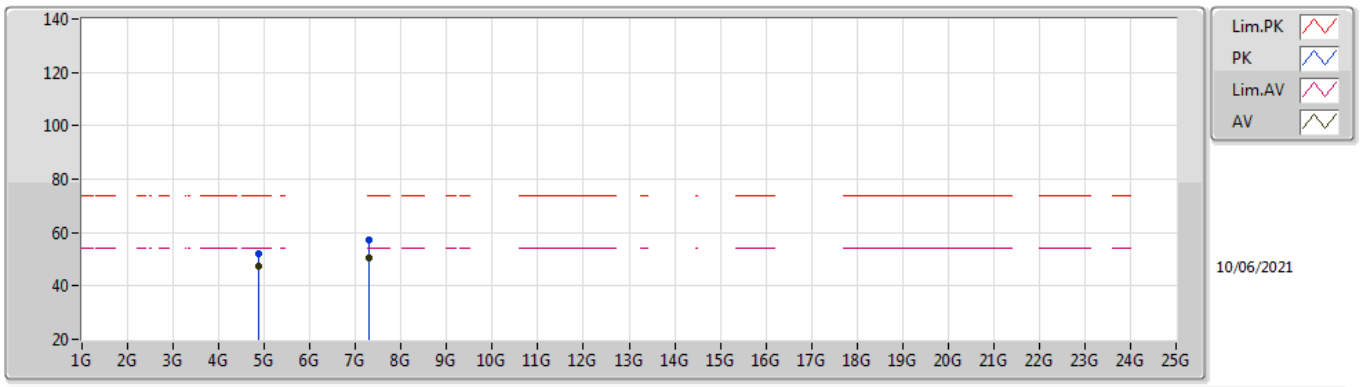
2437MHz_TX



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	48.36	54.00	-5.64	31.93	3	Vertical	186	1.78	-	16.43	27.64	4.29	-
AV	2.4362G	113.48	Inf	-Inf	31.94	3	Vertical	186	1.78	-	81.54	27.60	4.34	-
AV	2.4986G	48.68	54.00	-5.32	32.10	3	Vertical	186	1.78	-	16.58	27.70	4.40	-
PK	2.3382G	59.54	74.00	-14.46	32.06	3	Vertical	186	1.78	-	27.48	27.82	4.24	-
PK	2.4362G	115.94	Inf	-Inf	31.94	3	Vertical	186	1.78	-	84.00	27.60	4.34	-
PK	2.499G	59.72	74.00	-14.28	32.10	3	Vertical	186	1.78	-	27.62	27.70	4.40	-

802.11b_Nss1,(1Mbps)_2TX

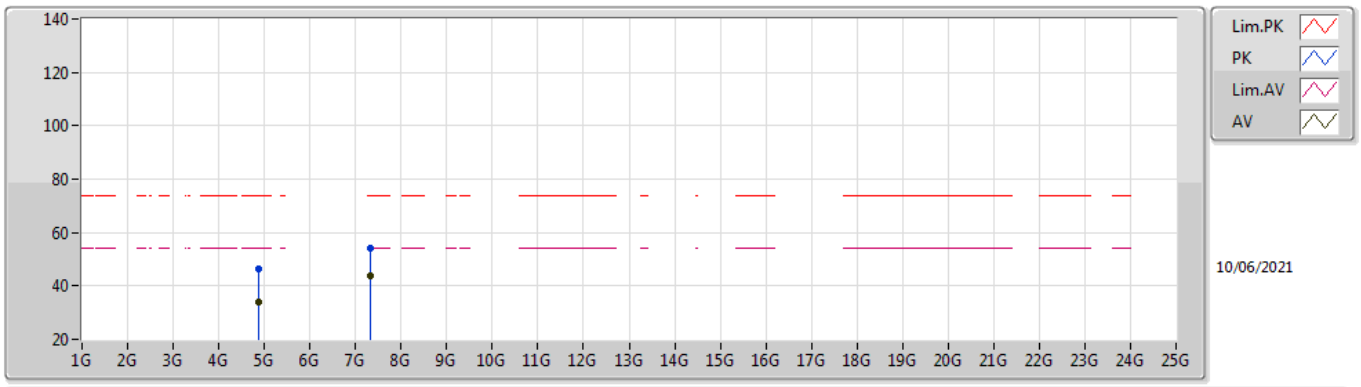
2437MHz_TX



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	4.87394G	47.31	54.00	-6.69	8.56	3	Vertical	13	1.56	-	38.75	31.20	6.57	29.21
AV	7.3101G	50.54	54.00	-3.46	13.72	3	Vertical	340	1.73	-	36.82	36.28	7.60	30.16
PK	4.87394G	51.99	74.00	-22.01	8.56	3	Vertical	13	1.56	-	43.43	31.20	6.57	29.21
PK	7.30956G	57.26	74.00	-16.74	13.72	3	Vertical	340	1.73	-	43.54	36.28	7.60	30.16

802.11b_Nss1,(1Mbps)_2TX

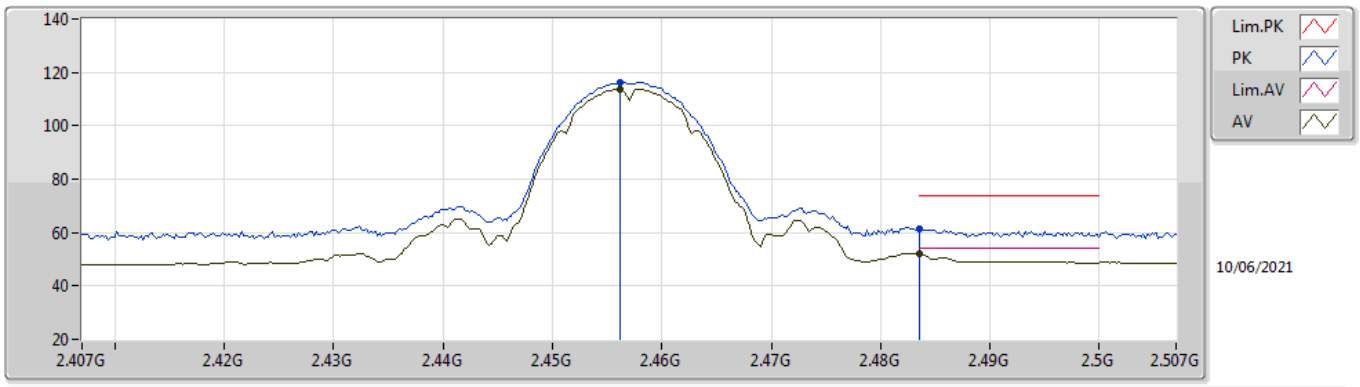
2437MHz_TX



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	4.87376G	33.79	54.00	-20.21	8.56	3	Horizontal	144	1.51	-	25.23	31.20	6.57	29.21
AV	7.31172G	43.89	54.00	-10.11	13.72	3	Horizontal	153	1.94	-	30.17	36.28	7.60	30.16
PK	4.87022G	46.35	74.00	-27.65	8.56	3	Horizontal	144	1.51	-	37.79	31.20	6.57	29.21
PK	7.31208G	53.95	74.00	-20.05	13.72	3	Horizontal	153	1.94	-	40.23	36.28	7.60	30.16

802.11b_Nss1,(1Mbps)_2TX

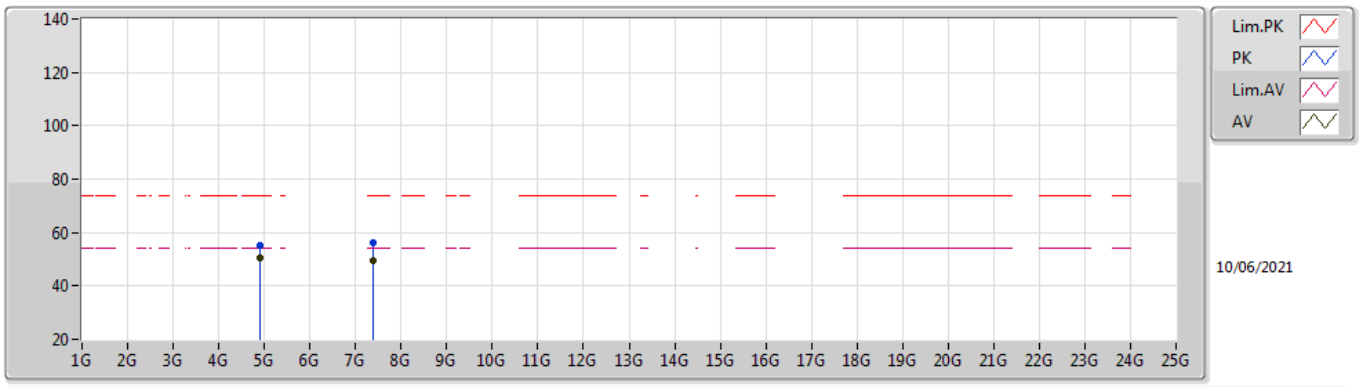
2457MHz_TX



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	2.4562G	113.85	Inf	-Inf	31.97	3	Vertical	247	1.32	-	81.88	27.61	4.36	-
AV	2.4835G	51.85	54.00	-2.15	32.05	3	Vertical	247	1.32	-	19.80	27.67	4.38	-
PK	2.4562G	116.29	Inf	-Inf	31.97	3	Vertical	247	1.32	-	84.32	27.61	4.36	-
PK	2.4836G	61.29	74.00	-12.71	32.05	3	Vertical	247	1.32	-	29.24	27.67	4.38	-

802.11b_Nss1,(1Mbps)_2TX

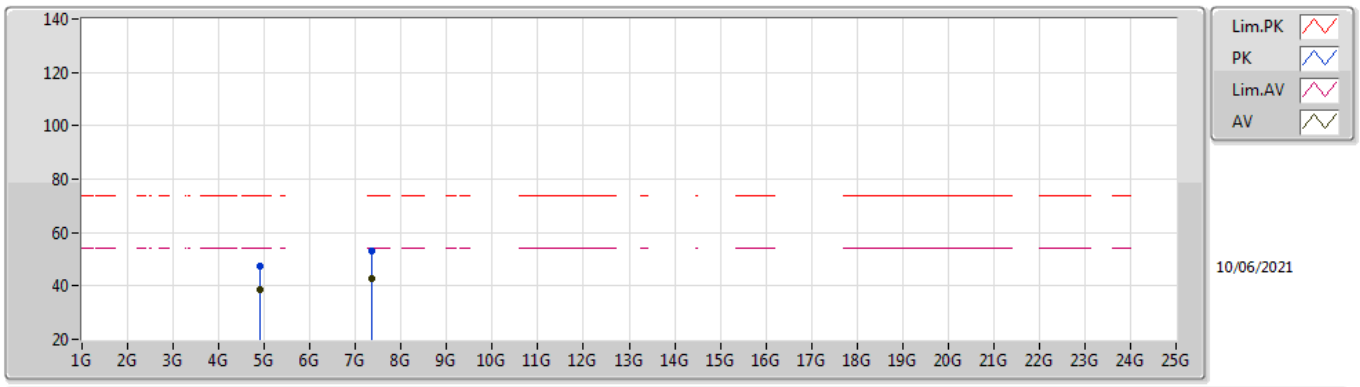
2457MHz_TX



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	4.91394G	50.73	54.00	-3.27	8.64	3	Vertical	317	1.76	-	42.09	31.23	6.61	29.20
AV	7.37172G	49.40	54.00	-4.60	13.55	3	Vertical	348	1.50	-	35.85	36.16	7.60	30.21
PK	4.91394G	55.03	74.00	-18.97	8.64	3	Vertical	317	1.76	-	46.39	31.23	6.61	29.20
PK	7.37214G	56.22	74.00	-17.78	13.55	3	Vertical	348	1.50	-	42.67	36.16	7.60	30.21

802.11b_Nss1,(1Mbps)_2TX

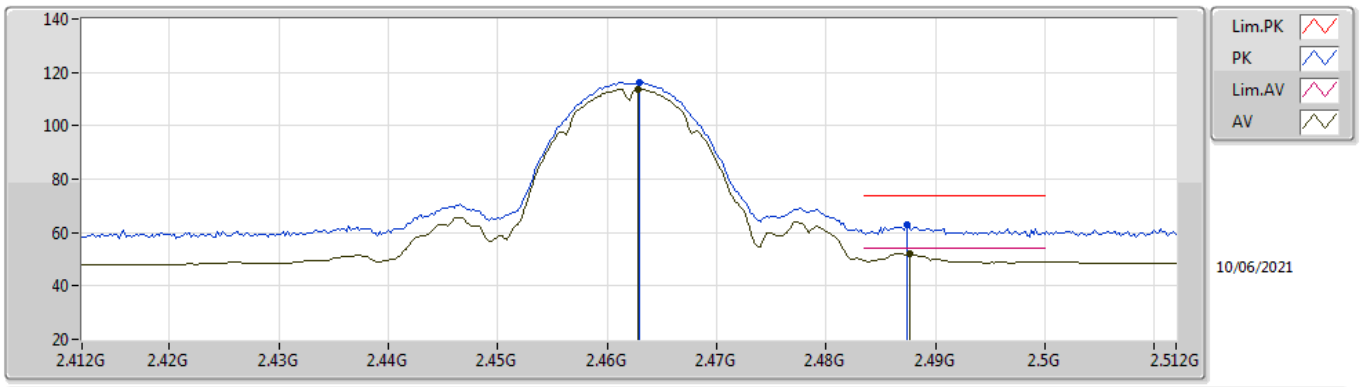
2457MHz_TX



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	4.91394G	38.82	54.00	-15.18	8.64	3	Horizontal	264	2.16	-	30.18	31.23	6.61	29.20
AV	7.37004G	42.99	54.00	-11.01	13.55	3	Horizontal	157	2.01	-	29.44	36.16	7.60	30.21
PK	4.9137G	47.19	74.00	-26.81	8.64	3	Horizontal	264	2.16	-	38.55	31.23	6.61	29.20
PK	7.3698G	53.15	74.00	-20.85	13.55	3	Horizontal	157	2.01	-	39.60	36.16	7.60	30.21

802.11b_Nss1,(1Mbps)_2TX

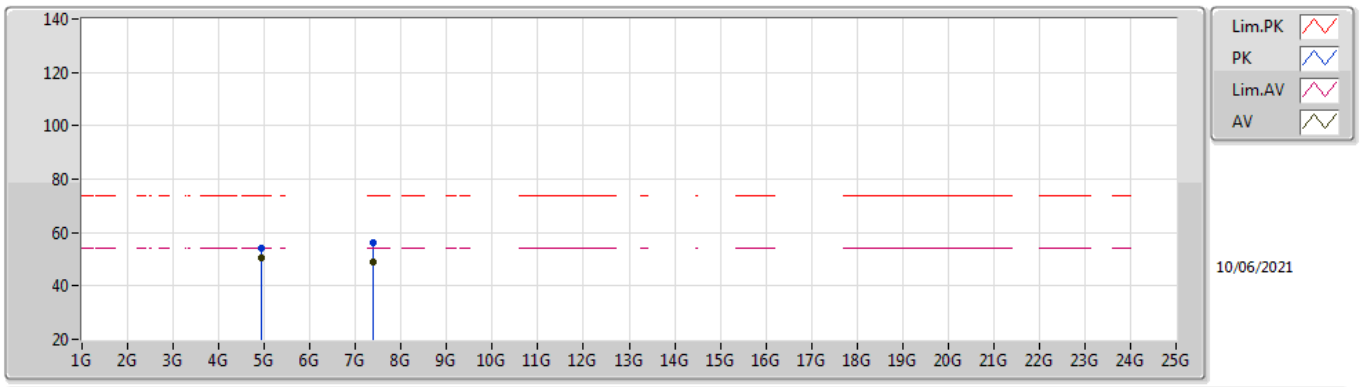
2462MHz_TX



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	2.4628G	113.87	Inf	-Inf	31.99	3	Vertical	246	1.30	-	81.88	27.63	4.36	-
AV	2.4876G	51.88	54.00	-2.12	32.07	3	Vertical	246	1.30	-	19.81	27.68	4.39	-
PK	2.463G	116.32	Inf	-Inf	31.99	3	Vertical	246	1.30	-	84.33	27.63	4.36	-
PK	2.4874G	62.79	74.00	-11.21	32.06	3	Vertical	246	1.30	-	30.73	27.67	4.39	-

802.11b_Nss1,(1Mbps)_2TX

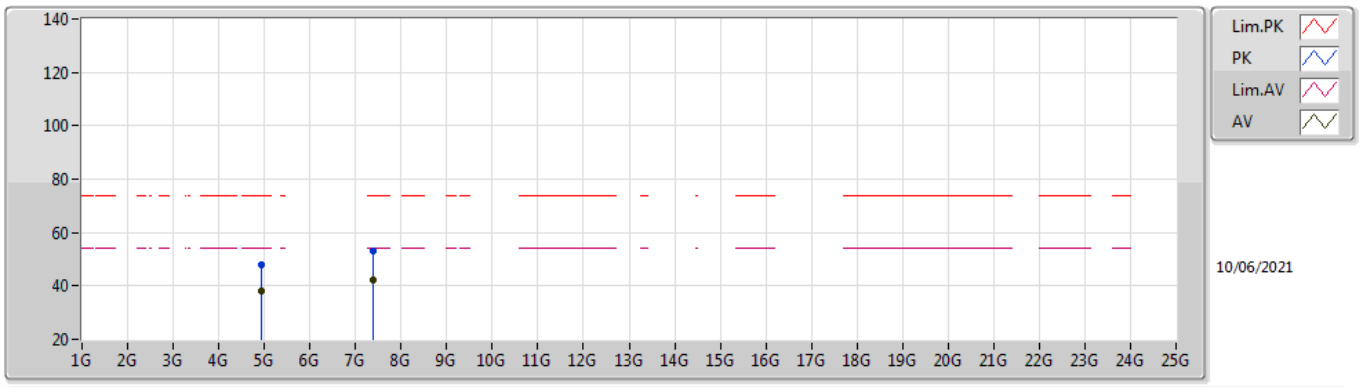
2462MHz_TX



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	4.92394G	50.36	54.00	-3.64	8.68	3	Vertical	318	1.40	-	41.68	31.25	6.62	29.19
AV	7.38672G	48.97	54.00	-5.03	13.51	3	Vertical	348	1.43	-	35.46	36.13	7.60	30.22
PK	4.92394G	54.09	74.00	-19.91	8.68	3	Vertical	318	1.40	-	45.41	31.25	6.62	29.19
PK	7.3875G	56.22	74.00	-17.78	13.50	3	Vertical	348	1.43	-	42.72	36.12	7.60	30.22

802.11b_Nss1,(1Mbps)_2TX

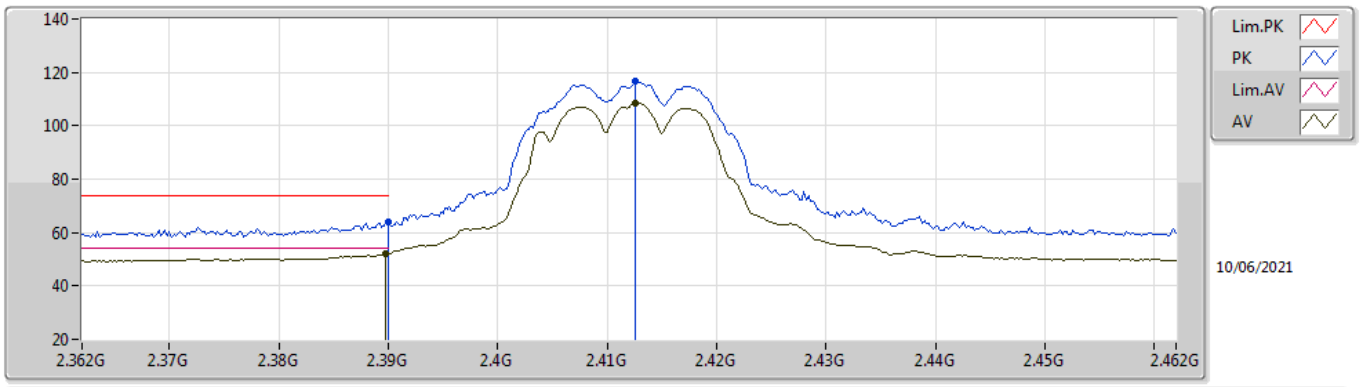
2462MHz_TX



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	4.924G	38.20	54.00	-15.80	8.68	3	Horizontal	11	1.40	-	29.52	31.25	6.62	29.19
AV	7.3851G	42.14	54.00	-11.86	13.51	3	Horizontal	151	1.50	-	28.63	36.13	7.60	30.22
PK	4.92406G	48.04	74.00	-25.96	8.68	3	Horizontal	11	1.40	-	39.36	31.25	6.62	29.19
PK	7.38468G	53.24	74.00	-20.76	13.51	3	Horizontal	151	1.50	-	39.73	36.13	7.60	30.22

802.11g_Nss1,(6Mbps)_2TX

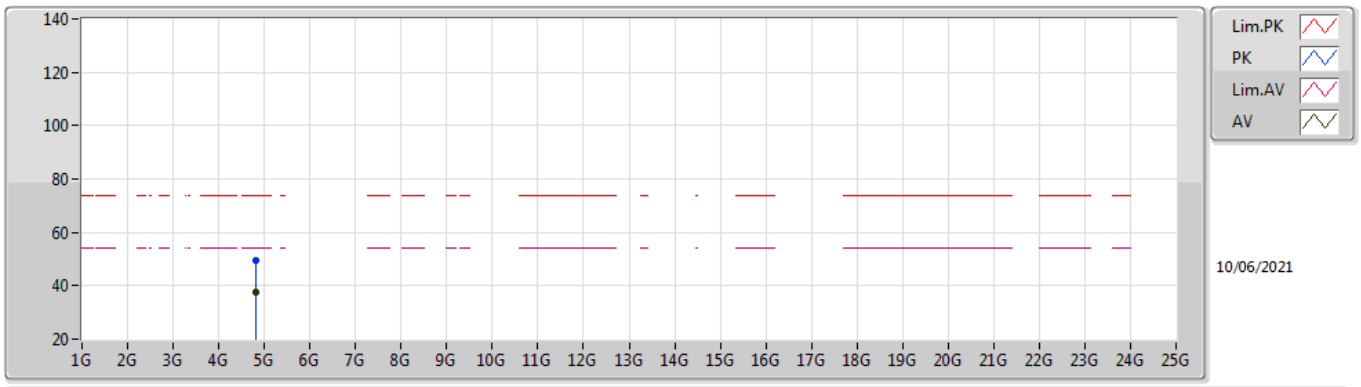
2412MHz_TX



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	52.14	54.00	-1.86	31.93	3	Vertical	168	1.66	-	20.21	27.64	4.29	-
AV	2.4126G	108.58	Inf	-Inf	31.91	3	Vertical	168	1.66	-	76.67	27.60	4.31	-
PK	2.39G	63.75	74.00	-10.25	31.93	3	Vertical	168	1.66	-	31.82	27.64	4.29	-
PK	2.4126G	116.59	Inf	-Inf	31.91	3	Vertical	168	1.66	-	84.68	27.60	4.31	-

802.11g_Nss1,(6Mbps)_2TX

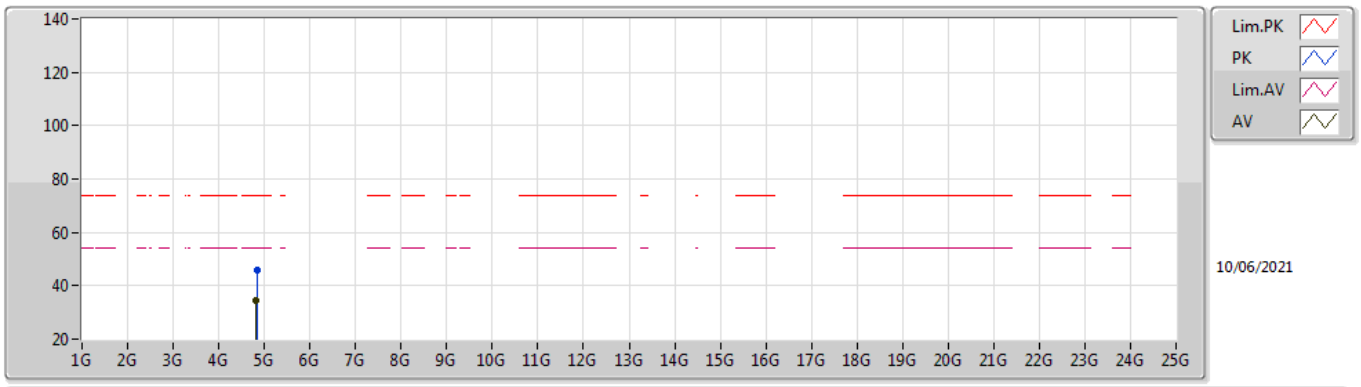
2412MHz_TX



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	4.82376G	37.55	54.00	-16.45	8.44	3	Vertical	9	1.77	-	29.11	31.15	6.52	29.23
PK	4.81902G	49.24	74.00	-24.76	8.43	3	Vertical	9	1.77	-	40.81	31.14	6.52	29.23

802.11g_Nss1,(6Mbps)_2TX

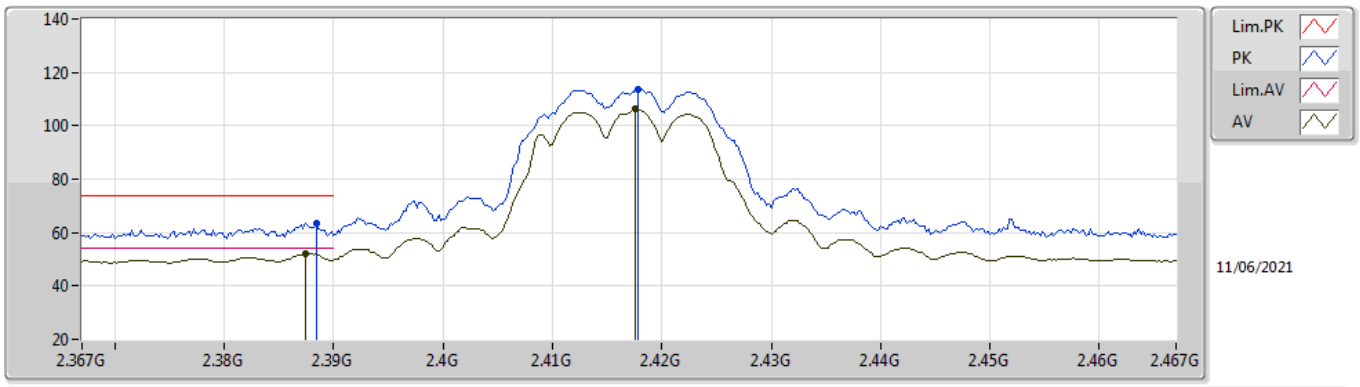
2412MHz_TX



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	4.82352G	34.53	54.00	-19.47	8.44	3	Horizontal	320	1.82	-	26.09	31.15	6.52	29.23
PK	4.8339G	45.91	74.00	-28.09	8.48	3	Horizontal	320	1.82	-	37.43	31.17	6.53	29.22

802.11g_Nss1,(6Mbps)_2TX

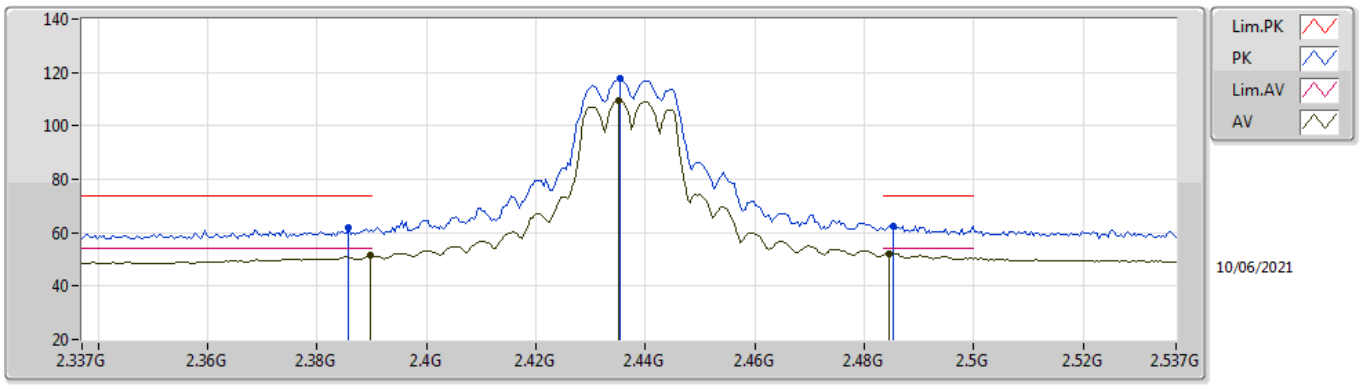
2417MHz_TX



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	2.3874G	52.12	54.00	-1.88	31.94	3	Vertical	168	1.67	-	20.18	27.65	4.29	-
AV	2.4176G	106.21	Inf	-Inf	31.92	3	Vertical	168	1.67	-	74.29	27.60	4.32	-
PK	2.3884G	63.47	74.00	-10.53	31.94	3	Vertical	168	1.67	-	31.53	27.65	4.29	-
PK	2.4178G	113.62	Inf	-Inf	31.92	3	Vertical	168	1.67	-	81.70	27.60	4.32	-

802.11g_Nss1,(6Mbps)_2TX

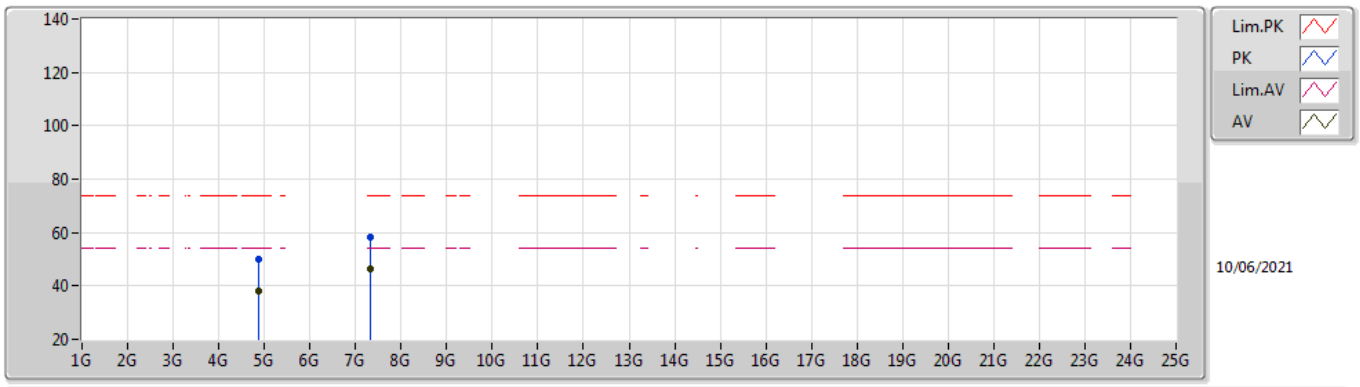
2437MHz_TX



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	51.61	54.00	-2.39	31.93	3	Vertical	166	1.56	-	19.68	27.64	4.29	-
AV	2.435G	109.49	Inf	-Inf	31.93	3	Vertical	166	1.56	-	77.56	27.60	4.33	-
AV	2.4846G	52.23	54.00	-1.77	32.05	3	Vertical	166	1.56	-	20.18	27.67	4.38	-
PK	2.3858G	61.67	74.00	-12.33	31.95	3	Vertical	166	1.56	-	29.72	27.66	4.29	-
PK	2.4354G	117.76	Inf	-Inf	31.94	3	Vertical	166	1.56	-	85.82	27.60	4.34	-
PK	2.4854G	62.63	74.00	-11.37	32.06	3	Vertical	166	1.56	-	30.57	27.67	4.39	-

802.11g_Nss1,(6Mbps)_2TX

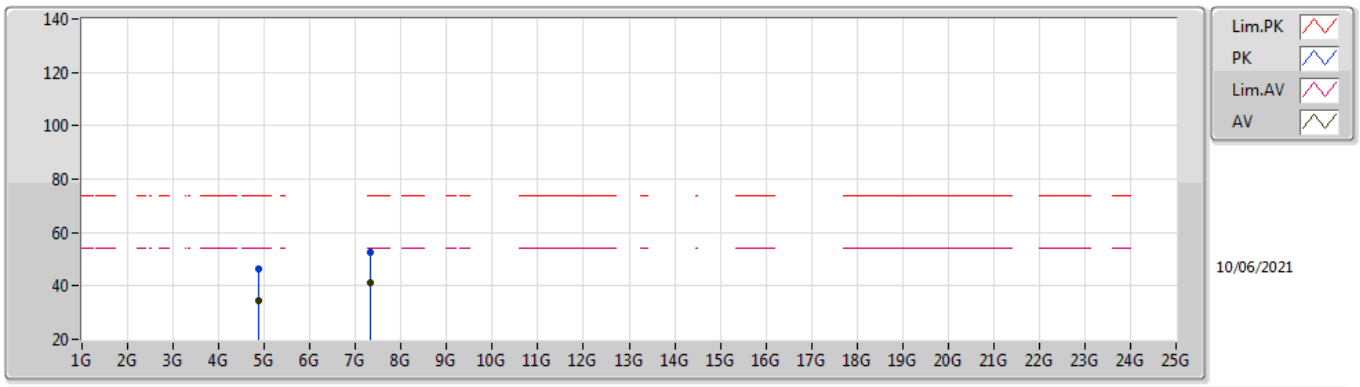
2437MHz_TX



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	4.87214G	38.10	54.00	-15.90	8.56	3	Vertical	12	1.56	-	29.54	31.20	6.57	29.21
AV	7.31106G	46.14	54.00	-7.86	13.72	3	Vertical	349	1.38	-	32.42	36.28	7.60	30.16
PK	4.87208G	50.06	74.00	-23.94	8.56	3	Vertical	12	1.56	-	41.50	31.20	6.57	29.21
PK	7.31082G	58.17	74.00	-15.83	13.72	3	Vertical	349	1.38	-	44.45	36.28	7.60	30.16

802.11g_Nss1,(6Mbps)_2TX

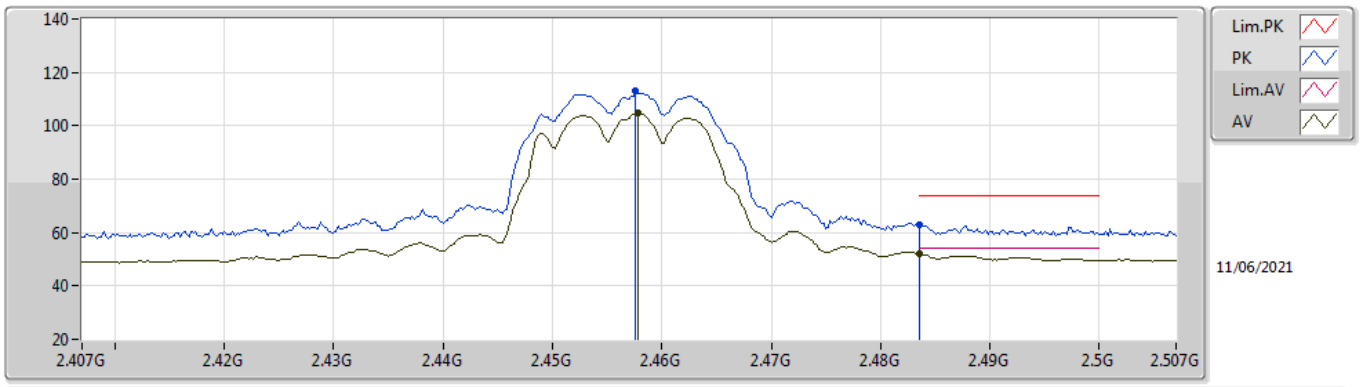
2437MHz_TX



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	4.86884G	34.48	54.00	-19.52	8.56	3	Horizontal	246	1.77	-	25.92	31.20	6.57	29.21
AV	7.31262G	41.21	54.00	-12.79	13.70	3	Horizontal	229	1.92	-	27.51	36.27	7.60	30.17
PK	4.8737G	46.56	74.00	-27.44	8.56	3	Horizontal	246	1.77	-	38.00	31.20	6.57	29.21
PK	7.31646G	52.59	74.00	-21.41	13.70	3	Horizontal	229	1.92	-	38.89	36.27	7.60	30.17

802.11g_Nss1,(6Mbps)_2TX

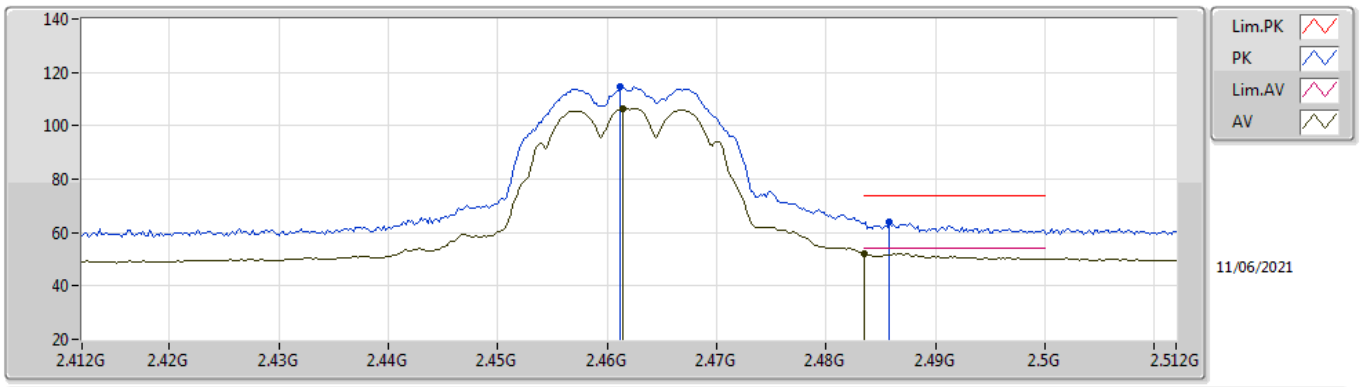
2457MHz_TX



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	2.4578G	104.77	Inf	-Inf	31.98	3	Vertical	162	1.83	-	72.79	27.62	4.36	-
AV	2.4835G	52.04	54.00	-1.96	32.05	3	Vertical	162	1.83	-	19.99	27.67	4.38	-
PK	2.4576G	113.32	Inf	-Inf	31.98	3	Vertical	162	1.83	-	81.34	27.62	4.36	-
PK	2.4836G	62.89	74.00	-11.11	32.05	3	Vertical	162	1.83	-	30.84	27.67	4.38	-

802.11g_Nss1,(6Mbps)_2TX

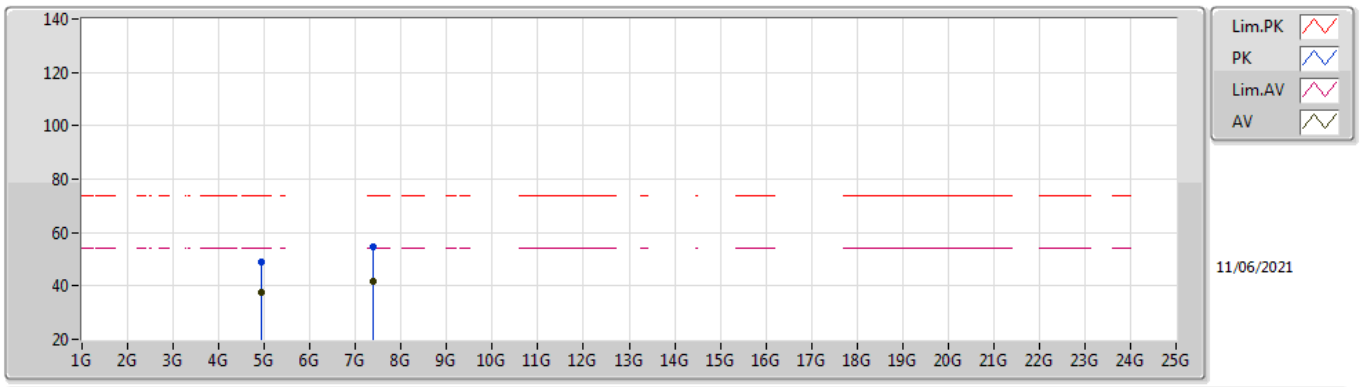
2462MHz_TX



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	2.4614G	106.59	Inf	-Inf	31.98	3	Vertical	246	1.31	-	74.61	27.62	4.36	-
AV	2.4835G	52.04	54.00	-1.96	32.05	3	Vertical	246	1.31	-	19.99	27.67	4.38	-
PK	2.4612G	114.60	Inf	-Inf	31.98	3	Vertical	246	1.31	-	82.62	27.62	4.36	-
PK	2.4858G	63.82	74.00	-10.18	32.06	3	Vertical	246	1.31	-	31.76	27.67	4.39	-

802.11g_Nss1,(6Mbps)_2TX

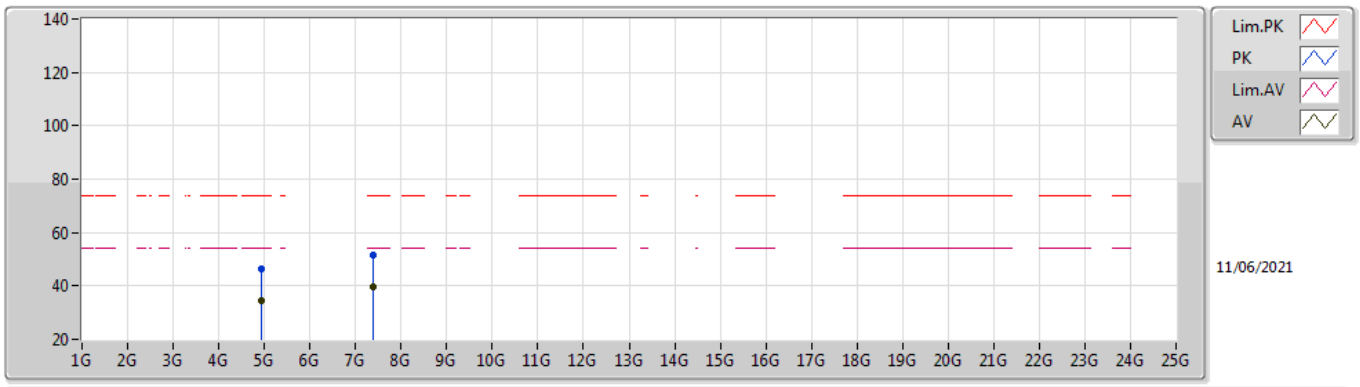
2462MHz_TX



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	4.92238G	37.37	54.00	-16.63	8.67	3	Vertical	315	1.79	-	28.70	31.24	6.62	29.19
AV	7.38462G	41.90	54.00	-12.10	13.51	3	Vertical	341	1.47	-	28.39	36.13	7.60	30.22
PK	4.92328G	49.17	74.00	-24.83	8.68	3	Vertical	315	1.79	-	40.49	31.25	6.62	29.19
PK	7.38984G	54.64	74.00	-19.36	13.50	3	Vertical	341	1.47	-	41.14	36.12	7.60	30.22

802.11g_Nss1,(6Mbps)_2TX

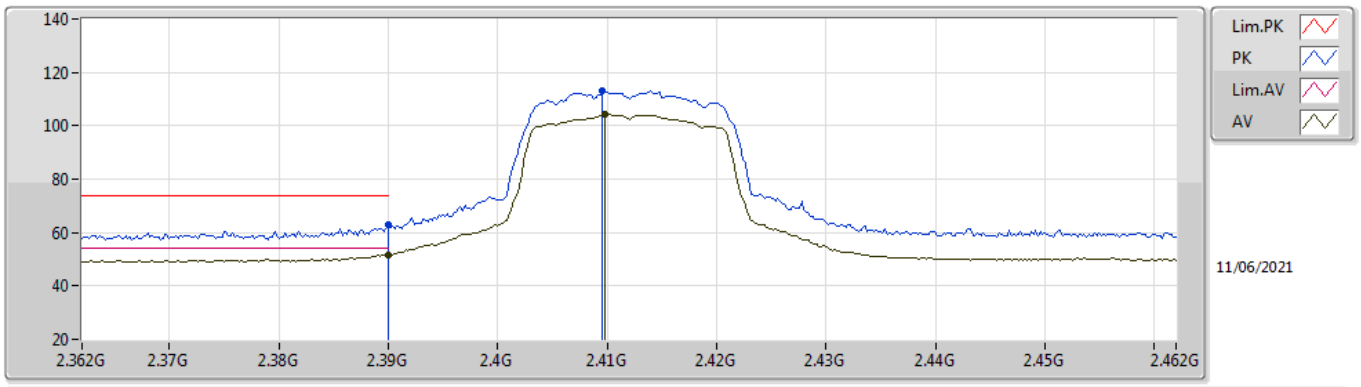
2462MHz_TX



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	4.92556G	34.66	54.00	-19.34	8.69	3	Horizontal	144	1.78	-	25.97	31.25	6.63	29.19
AV	7.38762G	39.67	54.00	-14.33	13.50	3	Horizontal	151	2.24	-	26.17	36.12	7.60	30.22
PK	4.92394G	46.63	74.00	-27.37	8.68	3	Horizontal	144	1.78	-	37.95	31.25	6.62	29.19
PK	7.3815G	51.44	74.00	-22.56	13.53	3	Horizontal	151	2.24	-	37.91	36.14	7.60	30.21

VHT20_Nss1,(MCS0)_2TX

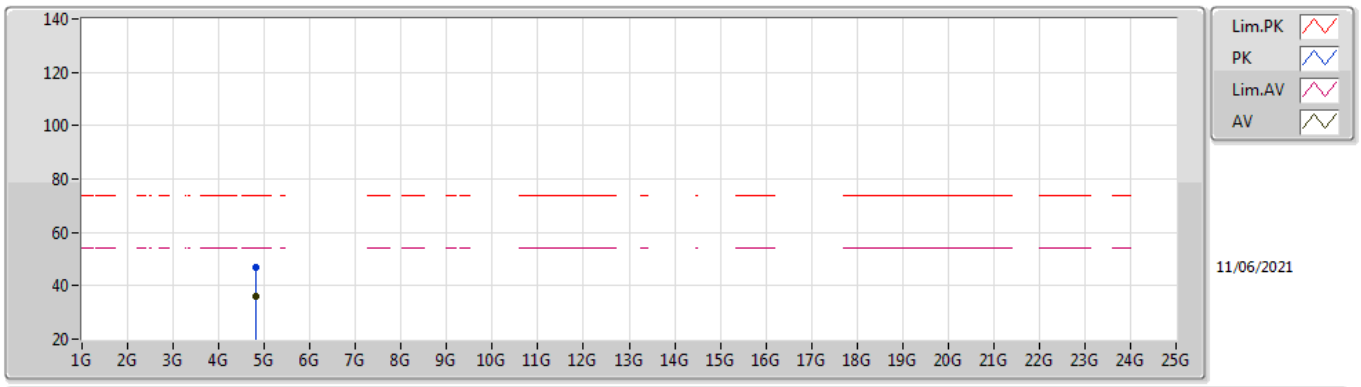
2412MHz_TX



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	2.39G	51.61	54.00	-2.39	31.93	3	Vertical	248	1.55	-	19.68	27.64	4.29	-
AV	2.4098G	104.47	Inf	-Inf	31.91	3	Vertical	248	1.55	-	72.56	27.60	4.31	-
PK	2.39G	63.06	74.00	-10.94	31.93	3	Vertical	248	1.55	-	31.13	27.64	4.29	-
PK	2.4096G	113.03	Inf	-Inf	31.91	3	Vertical	248	1.55	-	81.12	27.60	4.31	-

VHT20_Nss1,(MCS0)_2TX

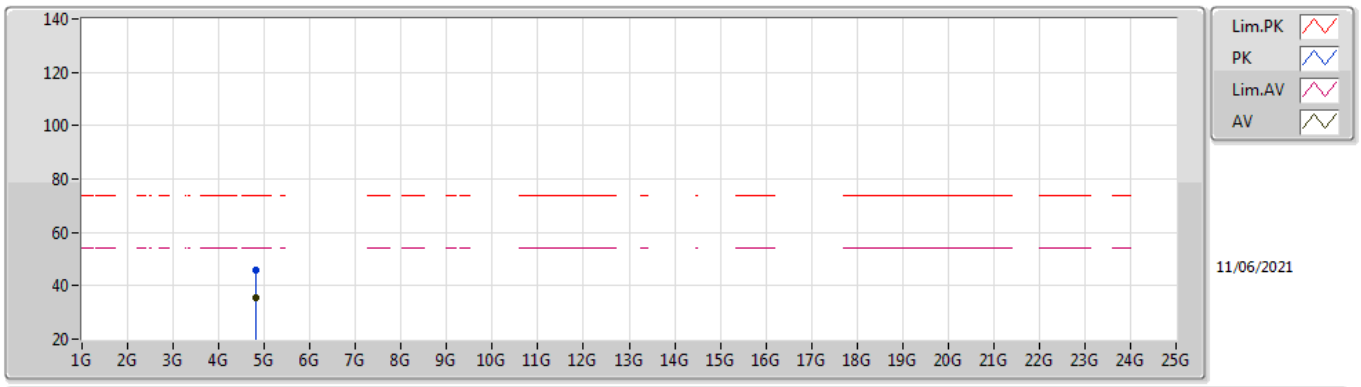
2412MHz_TX



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	4.81926G	36.25	54.00	-17.75	8.43	3	Vertical	360	1.50	-	27.82	31.14	6.52	29.23
PK	4.8225G	46.96	74.00	-27.04	8.43	3	Vertical	360	1.50	-	38.53	31.14	6.52	29.23

VHT20_Nss1,(MCS0)_2TX

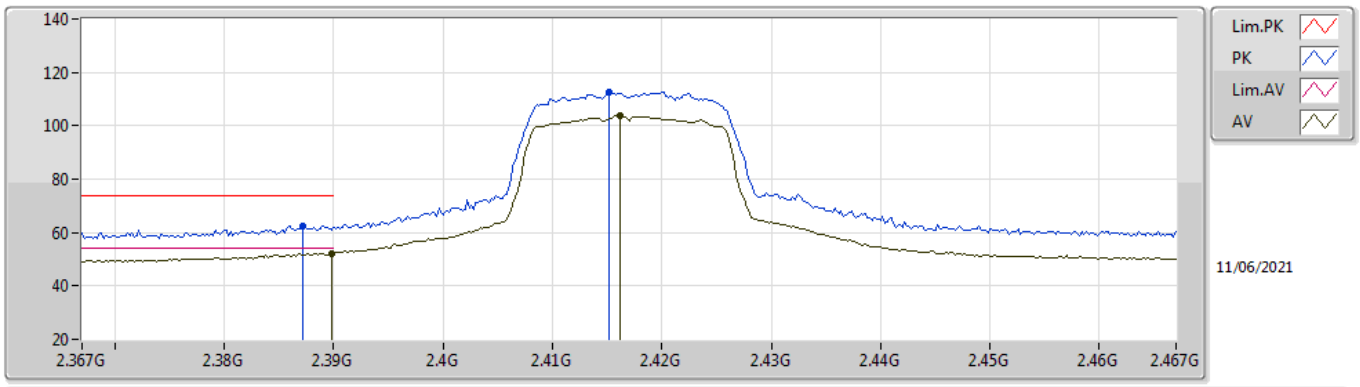
2412MHz_TX



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	4.82034G	35.55	54.00	-18.45	8.43	3	Horizontal	98	1.50	-	27.12	31.14	6.52	29.23
PK	4.82742G	46.07	74.00	-27.93	8.45	3	Horizontal	98	1.50	-	37.62	31.15	6.53	29.23

VHT20_Nss1,(MCS0)_2TX

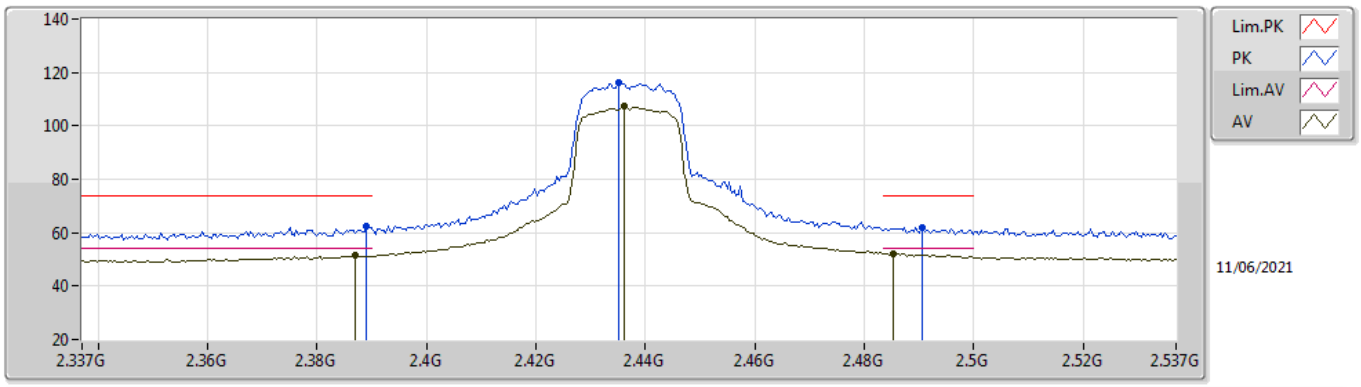
2417MHz_TX



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	52.14	54.00	-1.86	31.93	3	Vertical	162	1.36	-	20.21	27.64	4.29	-
AV	2.4162G	103.76	Inf	-Inf	31.92	3	Vertical	162	1.36	-	71.84	27.60	4.32	-
PK	2.3872G	62.59	74.00	-11.41	31.94	3	Vertical	162	1.36	-	30.65	27.65	4.29	-
PK	2.4152G	112.63	Inf	-Inf	31.92	3	Vertical	162	1.36	-	80.71	27.60	4.32	-

VHT20_Nss1,(MCS0)_2TX

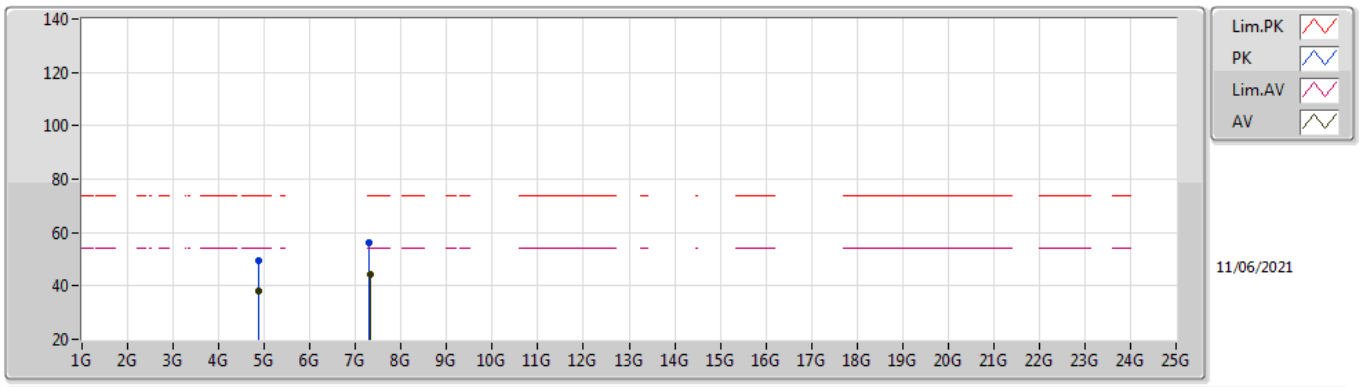
2437MHz_TX



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	2.387G	51.40	54.00	-2.60	31.94	3	Vertical	164	1.56	-	19.46	27.65	4.29	-
AV	2.4362G	107.17	Inf	-Inf	31.94	3	Vertical	164	1.56	-	75.23	27.60	4.34	-
AV	2.4854G	52.24	54.00	-1.76	32.06	3	Vertical	164	1.56	-	20.18	27.67	4.39	-
PK	2.389G	62.45	74.00	-11.55	31.93	3	Vertical	164	1.56	-	30.52	27.64	4.29	-
PK	2.435G	116.01	Inf	-Inf	31.93	3	Vertical	164	1.56	-	84.08	27.60	4.33	-
PK	2.4906G	62.12	74.00	-11.88	32.07	3	Vertical	164	1.56	-	30.05	27.68	4.39	-

VHT20_Nss1,(MCS0)_2TX

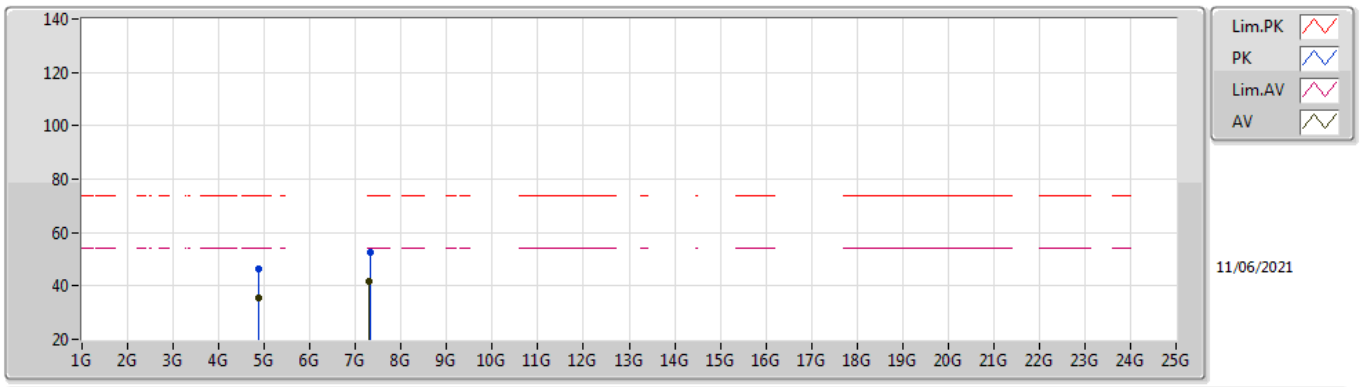
2437MHz_TX



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	4.87334G	38.10	54.00	-15.90	8.56	3	Vertical	13	1.57	-	29.54	31.20	6.57	29.21
AV	7.31202G	44.23	54.00	-9.77	13.72	3	Vertical	207	1.62	-	30.51	36.28	7.60	30.16
PK	4.87496G	49.46	74.00	-24.54	8.56	3	Vertical	13	1.57	-	40.90	31.20	6.57	29.21
PK	7.30224G	56.02	74.00	-17.98	13.74	3	Vertical	207	1.62	-	42.28	36.30	7.60	30.16

VHT20_Nss1,(MCS0)_2TX

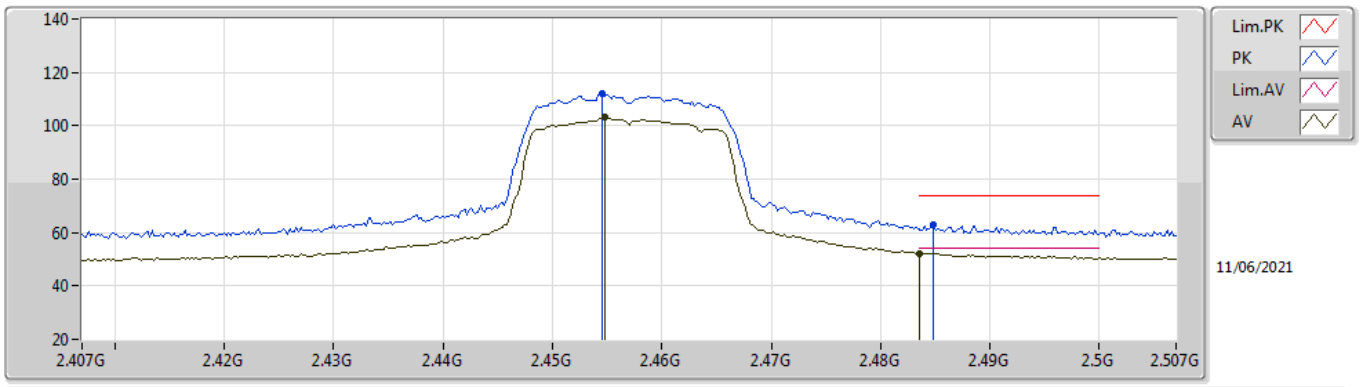
2437MHz_TX



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	4.886G	35.45	54.00	-18.55	8.58	3	Horizontal	7	2.30	-	26.87	31.20	6.59	29.21
AV	7.30926G	41.49	54.00	-12.51	13.72	3	Horizontal	157	2.18	-	27.77	36.28	7.60	30.16
PK	4.86506G	46.30	74.00	-27.70	8.56	3	Horizontal	7	2.30	-	37.74	31.20	6.57	29.21
PK	7.3203G	52.51	74.00	-21.49	13.69	3	Horizontal	157	2.18	-	38.82	36.26	7.60	30.17

VHT20_Nss1,(MCS0)_2TX

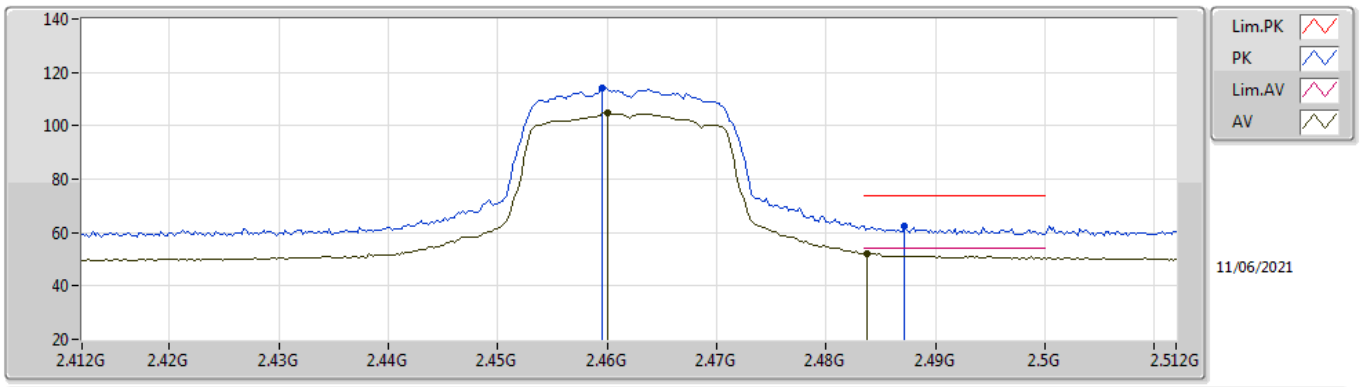
2457MHz_TX



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	2.4548G	103.23	Inf	-Inf	31.96	3	Vertical	163	1.46	-	71.27	27.61	4.35	-
AV	2.4835G	52.23	54.00	-1.77	32.05	3	Vertical	163	1.46	-	20.18	27.67	4.38	-
PK	2.4546G	112.28	Inf	-Inf	31.96	3	Vertical	163	1.46	-	80.32	27.61	4.35	-
PK	2.4848G	62.73	74.00	-11.27	32.05	3	Vertical	163	1.46	-	30.68	27.67	4.38	-

VHT20_Nss1,(MCS0)_2TX

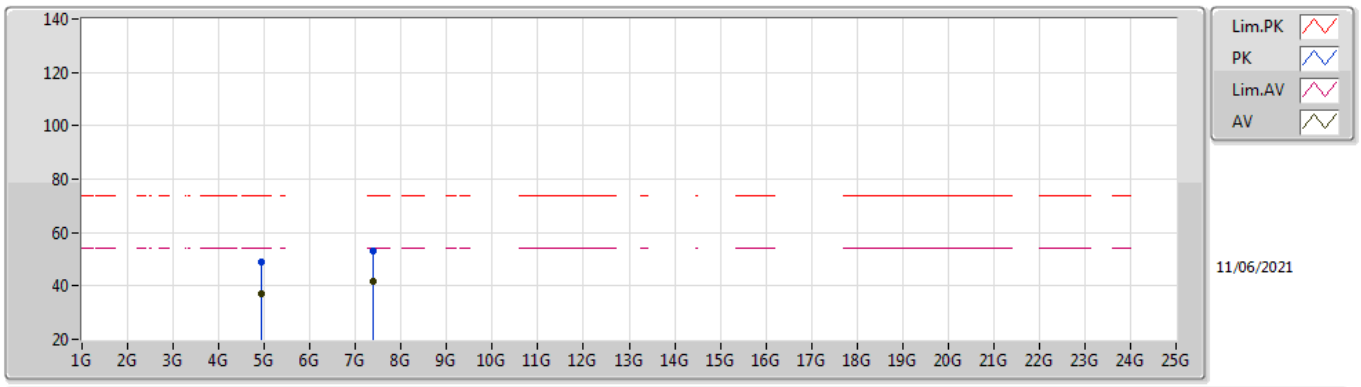
2462MHz_TX



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	2.46G	104.92	Inf	-Inf	31.98	3	Vertical	162	1.44	-	72.94	27.62	4.36	-
AV	2.4838G	52.04	54.00	-1.96	32.05	3	Vertical	162	1.44	-	19.99	27.67	4.38	-
PK	2.4596G	114.21	Inf	-Inf	31.98	3	Vertical	162	1.44	-	82.23	27.62	4.36	-
PK	2.4872G	62.23	74.00	-11.77	32.06	3	Vertical	162	1.44	-	30.17	27.67	4.39	-

VHT20_Nss1,(MCS0)_2TX

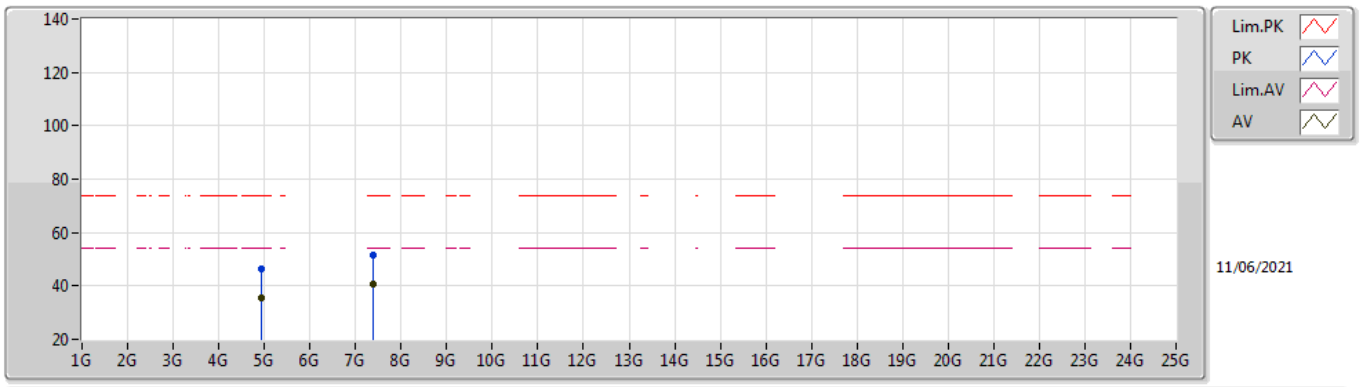
2462MHz_TX



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	4.92252G	37.28	54.00	-16.72	8.68	3	Vertical	313	1.50	-	28.60	31.25	6.62	29.19
AV	7.38996G	41.68	54.00	-12.32	13.50	3	Vertical	342	1.58	-	28.18	36.12	7.60	30.22
PK	4.92284G	48.86	74.00	-25.14	8.68	3	Vertical	313	1.50	-	40.18	31.25	6.62	29.19
PK	7.38704G	53.25	74.00	-20.75	13.51	3	Vertical	342	1.58	-	39.74	36.13	7.60	30.22

VHT20_Nss1,(MCS0)_2TX

2462MHz_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	4.93008G	35.42	54.00	-18.58	8.70	3	Horizontal	333	1.50	-	26.72	31.26	6.63	29.19
AV	7.39564G	40.44	54.00	-13.56	13.49	3	Horizontal	166	1.19	-	26.95	36.11	7.60	30.22
PK	4.92848G	46.61	74.00	-27.39	8.70	3	Horizontal	333	1.50	-	37.91	31.26	6.63	29.19
PK	7.38244G	51.43	74.00	-22.57	13.52	3	Horizontal	166	1.19	-	37.91	36.14	7.60	30.22