FCC Radio Test Report

FCC ID	:	**APYHRO00322**
Equipment	:	**Mobile Router**
Brand Name	:	**SHARP**
Applicant	:	**SHARP CORPORATION 1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan**
Manufacturer	:	**SHARP CORPORATION 1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Nov. 07, 2022, and testing was started from Nov. 07, 2022 and completed on Nov. 07, 2022. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this variant 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: Jordan Hsiao

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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

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History of this test report

Report No.	Version	Description	Issued Date
FR262909-03AC	01	Initial issue of report	Nov. 28, 2022

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
None

Reviewed by: Ryan Hsiao

Report Producer: Debby Hung

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, ax(HEW20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), VHT40, ax(HEW40)	2422-2452	3-9 [7]

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	802.11ax HEW20	20	2TX
2.4-2.4835GHz	802.11ax HEW40	40	2TX

Note:
- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- HEW20, HEW40 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	INPAQ	DPNA4621 WIFI1	FPC/PIFA antenna	I-PEX	2.97
2	INPAQ	DPNA4621 WIFI2	FPC/PIFA antenna	I-PEX	0.72

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

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

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From AC Adapter / Host system			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
Beamforming Function	☐	With beamforming	☒	Without beamforming
Resource Unit(802.11ax)	☒	Full RU	☐	Partial RU

Type of EUT		
☒	Stand-alone	
☐	Combined (EUT where the radio part is fully integrated within another device)	
	Combined Equipment - Brand Name / Model No.:	…
☐	Plug-in radio (EUT intended for a variety of host systems)	
	Host System - Brand Name / Model No.:	…
☐	Other:	

1.1.4 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR262909-01AC

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. LCM power supply changed from LDO to PMIC; 2. BackLight DC-DC convertor and peripheral componmets changed materials, but footprint no changed; 3. SAR chipset peripheral componmets changed to no assembled; 4. Main & MIMO2 antenna diplexer changed material, but footprint no changed; 5. Antenna report changed from V1.4 to V1.5B	Radiated Emission for Above 1G was evaluated

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 594280 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**
Radiated	03CH03-HY	Billy Wang	20.1~26.9°C / 50~60%	07/Nov/2022
☐ 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.				

Note：The tested sample of the verified test item was received on Nov. 07, 2022.

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**
Receiver Radiated Unwanted Emissions	4.8 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 The Worst Case Measurement Configuration

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

2.2 Accessories

Accessories				
USB TYPE C to Ethernet Dongle	Brand Name	-	Model Name	-
	Manufacturer	PAN-INTL	SN	9.HB393A.0022BK
	Signal Line	0.2 meter, non-shielded cable, w/o ferrite core		

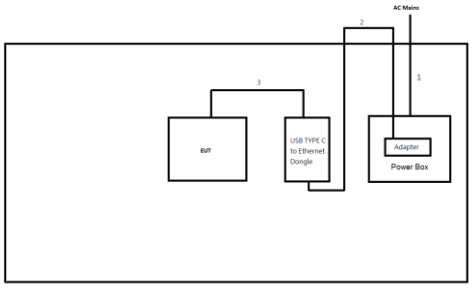
Reminder: Regarding to more detail and other information, please refer to user manual.

2.3 Support Equipment

Support Equipment – Radiated					
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**	**Remark**
1	AC Power cable	Power sync	PW-GPC180-3	-	-
2	Adapter	APPLE	A1385	-	-
3	Type-C cable	Sporton	Sporton	-	-

2.4 Test Setup Diagram

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	Type-C cable	No	1.0	-
3	Type-C cable	No	0.2	-

3 Transmitter Test Result

3.1 Emissions in Restricted Frequency Bands

3.1.1 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.

3.1.2 Measuring Instruments

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

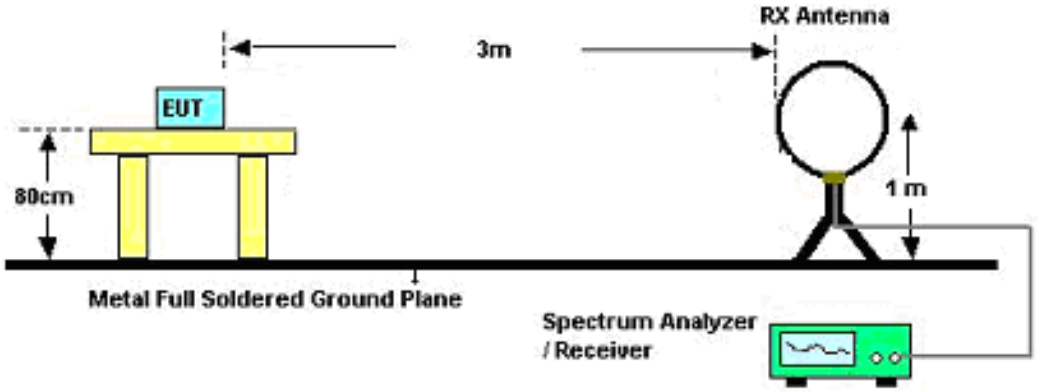
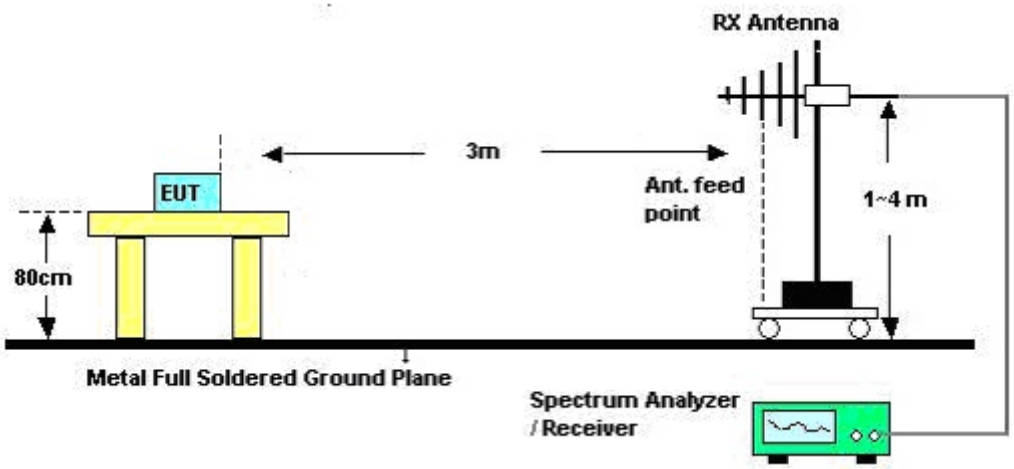
3.1.3 Test Procedures

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.

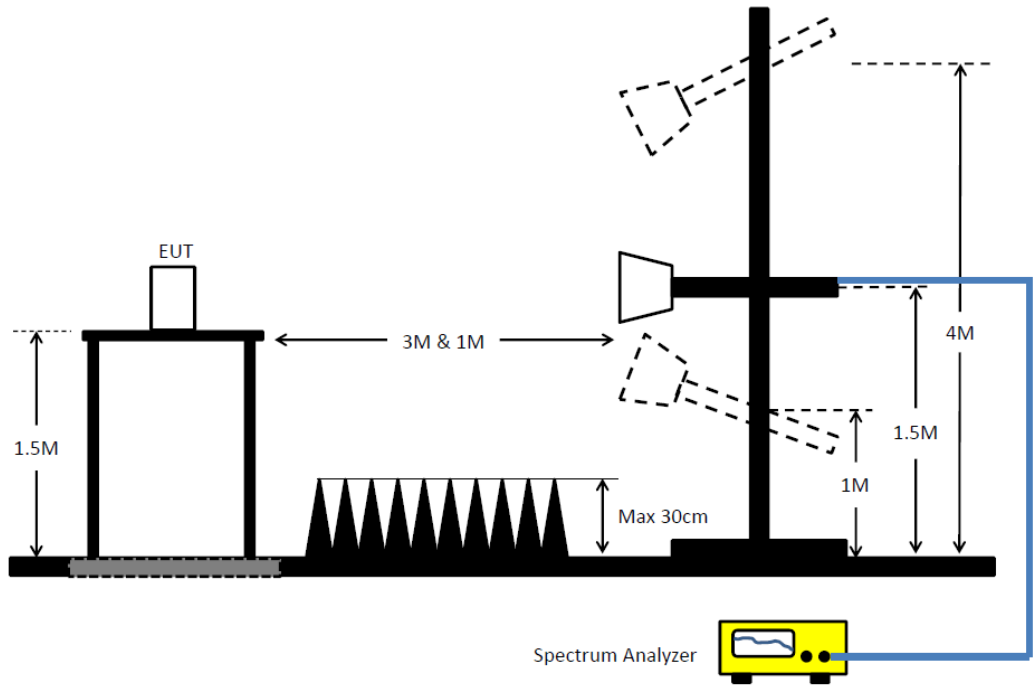
3.1.4 Measurement Results Calculation

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

3.1.5 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.1.6 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.

3.1.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix A

4 Test Equipment and Calibration Data

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	1GHz~18GHz 3m	02/Aug/2022	01/Aug/2023
Microwave Preamplifier	Agilent	8449B	3008A02326	1GHz~26.5GHz	14/Jul/2022	13/Jul/2023
Signal Analyzer	R&S	FSV40	101500	10Hz~40GHz	26/Oct/2022	25/Oct/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02267	1GHz ~18GHz	27/Sep/2022	26/Sep/2023
Double Ridged Guide Horn Antenna	COM-POWER	AHA-118	711064	1GHz ~18GHz	27/Dec/2021	26/Dec/2022
RF CABLE 5+6m	HUBER+SUHNER	SUOFLEX 104	03CH03-cable-01	1GHz~40GHz	27/Jul/2022	26/Jul/2023
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	18/Mar/2022	17/Mar/2023
SENSE-15247_DTS	Sporton	v5.10.8.7	NA	NA	NA	NA

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	2.4835G	49.17	54.00	-4.83	3	Horizontal	57	1.31	-

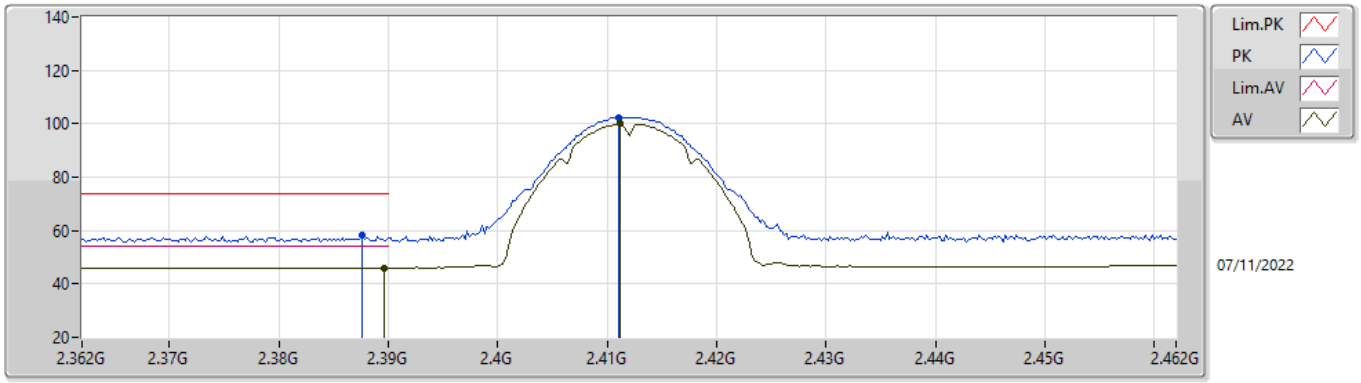
Result

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	2.3896G	45.99	54.00	-8.01	3	Vertical	0	2.98	-
2412MHz	Pass	AV	2.4112G	99.98	Inf	-Inf	3	Vertical	0	2.98	-
2412MHz	Pass	PK	2.3876G	58.04	74.00	-15.96	3	Vertical	0	2.98	-
2412MHz	Pass	PK	2.411G	102.49	Inf	-Inf	3	Vertical	0	2.98	-
2412MHz	Pass	AV	2.3896G	45.99	54.00	-8.01	3	Horizontal	56	1.00	-
2412MHz	Pass	AV	2.4128G	101.95	Inf	-Inf	3	Horizontal	56	1.00	-
2412MHz	Pass	PK	2.3712G	59.20	74.00	-14.80	3	Horizontal	56	1.00	-
2412MHz	Pass	PK	2.4128G	104.48	Inf	-Inf	3	Horizontal	56	1.00	-
2412MHz	Pass	AV	4.824G	45.13	54.00	-8.87	3	Vertical	47	2.80	-
2412MHz	Pass	PK	4.824G	49.56	74.00	-24.44	3	Vertical	47	2.80	-
2412MHz	Pass	AV	4.824G	45.14	54.00	-8.86	3	Horizontal	264	1.10	-
2412MHz	Pass	PK	4.824G	49.45	74.00	-24.55	3	Horizontal	264	1.10	-
2437MHz	Pass	AV	2.3894G	45.99	54.00	-8.01	3	Vertical	154	1.22	-
2437MHz	Pass	AV	2.4362G	95.91	Inf	-Inf	3	Vertical	154	1.22	-
2437MHz	Pass	AV	2.4962G	46.85	54.00	-7.15	3	Vertical	154	1.22	-
2437MHz	Pass	PK	2.3558G	58.04	74.00	-15.96	3	Vertical	154	1.22	-
2437MHz	Pass	PK	2.4362G	98.51	Inf	-Inf	3	Vertical	154	1.22	-
2437MHz	Pass	PK	2.4974G	59.11	74.00	-14.89	3	Vertical	154	1.22	-
2437MHz	Pass	AV	2.3894G	45.99	54.00	-8.01	3	Horizontal	56	1.33	-
2437MHz	Pass	AV	2.4378G	99.31	Inf	-Inf	3	Horizontal	56	1.33	-
2437MHz	Pass	AV	2.4962G	46.85	54.00	-7.15	3	Horizontal	56	1.33	-
2437MHz	Pass	PK	2.351G	58.17	74.00	-15.83	3	Horizontal	56	1.33	-
2437MHz	Pass	PK	2.4378G	101.96	Inf	-Inf	3	Horizontal	56	1.33	-
2437MHz	Pass	PK	2.4922G	59.23	74.00	-14.77	3	Horizontal	56	1.33	-
2437MHz	Pass	AV	4.874G	45.56	54.00	-8.44	3	Vertical	38	2.65	-
2437MHz	Pass	PK	4.874G	49.95	74.00	-24.05	3	Vertical	38	2.65	-
2437MHz	Pass	AV	4.87394G	43.94	54.00	-10.06	3	Horizontal	235	1.08	-
2437MHz	Pass	PK	4.87394G	48.92	74.00	-25.08	3	Horizontal	235	1.08	-
2462MHz	Pass	AV	2.4612G	97.67	Inf	-Inf	3	Vertical	155	1.18	-
2462MHz	Pass	AV	2.4978G	46.85	54.00	-7.15	3	Vertical	155	1.18	-
2462MHz	Pass	PK	2.4628G	100.18	Inf	-Inf	3	Vertical	155	1.18	-
2462MHz	Pass	PK	2.496G	59.57	74.00	-14.43	3	Vertical	155	1.18	-
2462MHz	Pass	AV	2.4612G	101.11	Inf	-Inf	3	Horizontal	57	1.09	-
2462MHz	Pass	AV	2.4962G	46.85	54.00	-7.15	3	Horizontal	57	1.09	-
2462MHz	Pass	PK	2.461G	103.67	Inf	-Inf	3	Horizontal	57	1.09	-
2462MHz	Pass	PK	2.493G	58.50	74.00	-15.50	3	Horizontal	57	1.09	-
2462MHz	Pass	AV	4.924G	44.31	54.00	-9.69	3	Vertical	39	2.91	-
2462MHz	Pass	PK	4.92388G	49.47	74.00	-24.53	3	Vertical	39	2.91	-
2462MHz	Pass	AV	4.92394G	42.42	54.00	-11.58	3	Horizontal	263	1.00	-
2462MHz	Pass	PK	4.92388G	48.32	74.00	-25.68	3	Horizontal	263	1.00	-
2467MHz	Pass	AV	2.4662G	97.15	Inf	-Inf	3	Vertical	154	1.17	-
2467MHz	Pass	AV	2.496G	46.85	54.00	-7.15	3	Vertical	154	1.17	-
2467MHz	Pass	PK	2.466G	99.69	Inf	-Inf	3	Vertical	154	1.17	-
2467MHz	Pass	PK	2.4952G	59.43	74.00	-14.57	3	Vertical	154	1.17	-
2467MHz	Pass	AV	2.4662G	98.47	Inf	-Inf	3	Horizontal	57	1.09	-
2467MHz	Pass	AV	2.496G	46.85	54.00	-7.15	3	Horizontal	57	1.09	-
2467MHz	Pass	PK	2.466G	101.09	Inf	-Inf	3	Horizontal	57	1.09	-
2467MHz	Pass	PK	2.4956G	58.77	74.00	-15.23	3	Horizontal	57	1.09	-
2467MHz	Pass	AV	4.934G	45.20	54.00	-8.80	3	Vertical	40	2.70	-
2467MHz	Pass	PK	4.93382G	50.03	74.00	-23.97	3	Vertical	40	2.70	-
2467MHz	Pass	AV	4.934G	43.88	54.00	-10.12	3	Horizontal	263	1.00	-
2467MHz	Pass	PK	4.93394G	49.00	74.00	-25.00	3	Horizontal	263	1.00	-
2472MHz	Pass	AV	2.4728G	97.37	Inf	-Inf	3	Vertical	155	1.14	-
2472MHz	Pass	AV	2.4835G	47.83	54.00	-6.17	3	Vertical	155	1.14	-
2472MHz	Pass	PK	2.4728G	99.96	Inf	-Inf	3	Vertical	155	1.14	-
2472MHz	Pass	PK	2.4836G	63.32	74.00	-10.68	3	Vertical	155	1.14	-
2472MHz	Pass	AV	2.4728G	100.08	Inf	-Inf	3	Horizontal	57	1.31	-
2472MHz	Pass	AV	2.4835G	49.17	54.00	-4.83	3	Horizontal	57	1.31	-
2472MHz	Pass	PK	2.4728G	102.69	Inf	-Inf	3	Horizontal	57	1.31	-
2472MHz	Pass	PK	2.4835G	67.30	74.00	-6.70	3	Horizontal	57	1.31	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2472MHz	Pass	AV	4.944G	48.68	54.00	-5.32	3	Vertical	39	2.71	-
2472MHz	Pass	PK	4.944G	52.46	74.00	-21.54	3	Vertical	39	2.71	-
2472MHz	Pass	AV	4.94394G	47.40	54.00	-6.60	3	Horizontal	263	1.10	-
2472MHz	Pass	PK	4.944G	51.78	74.00	-22.22	3	Horizontal	263	1.10	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

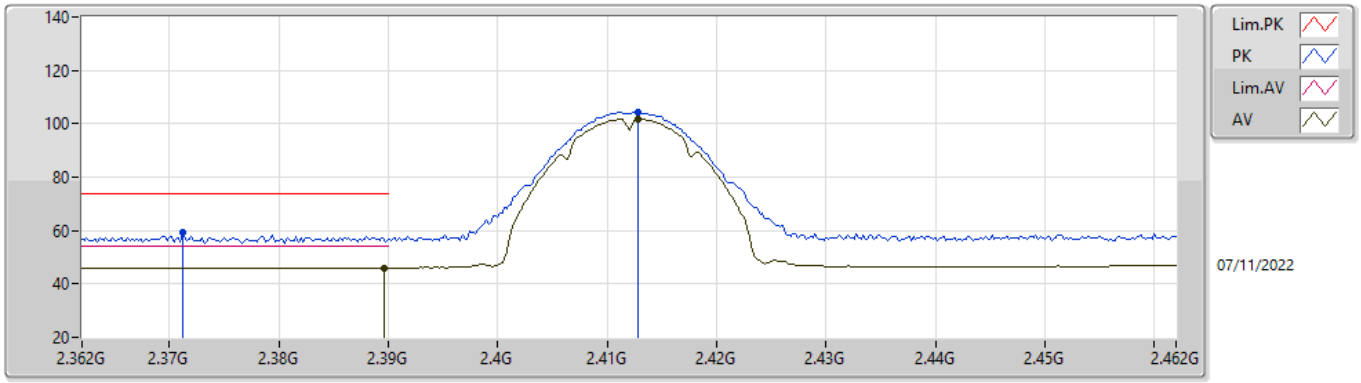
2412MHz_TX



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	2.3896G	45.99	54.00	-8.01	32.02	3	Vertical	0	2.98	-	13.97	27.54	4.48	-
AV	2.4112G	99.98	Inf	-Inf	32.09	3	Vertical	0	2.98	-	67.89	27.62	4.47	-
PK	2.3876G	58.04	74.00	-15.96	32.01	3	Vertical	0	2.98	-	26.03	27.53	4.48	-
PK	2.411G	102.49	Inf	-Inf	32.09	3	Vertical	0	2.98	-	70.40	27.62	4.47	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

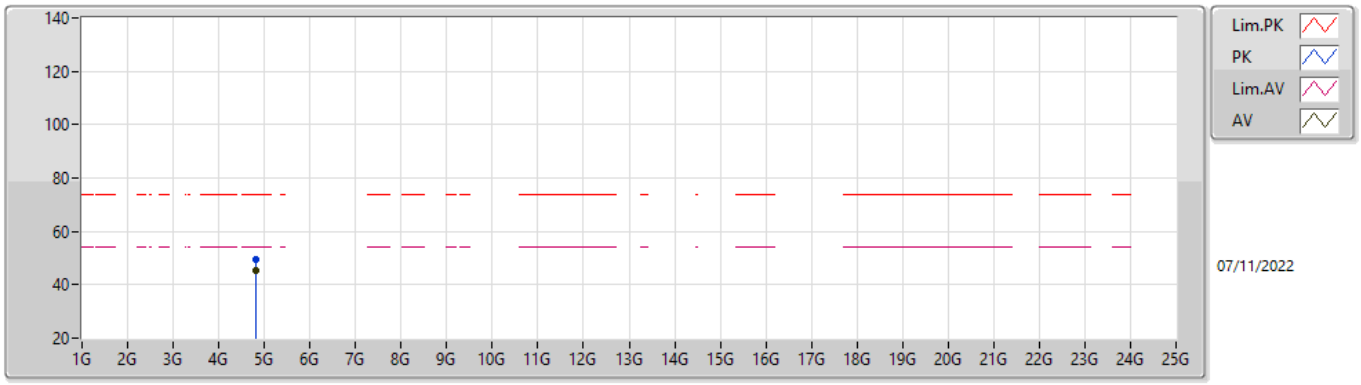
2412MHz_TX



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	2.3896G	45.99	54.00	-8.01	32.02	3	Horizontal	56	1.00	-	13.97	27.54	4.48	-
AV	2.4128G	101.95	Inf	-Inf	32.10	3	Horizontal	56	1.00	-	69.85	27.63	4.47	-
PK	2.3712G	59.20	74.00	-14.80	31.92	3	Horizontal	56	1.00	-	27.28	27.43	4.49	-
PK	2.4128G	104.48	Inf	-Inf	32.10	3	Horizontal	56	1.00	-	72.38	27.63	4.47	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

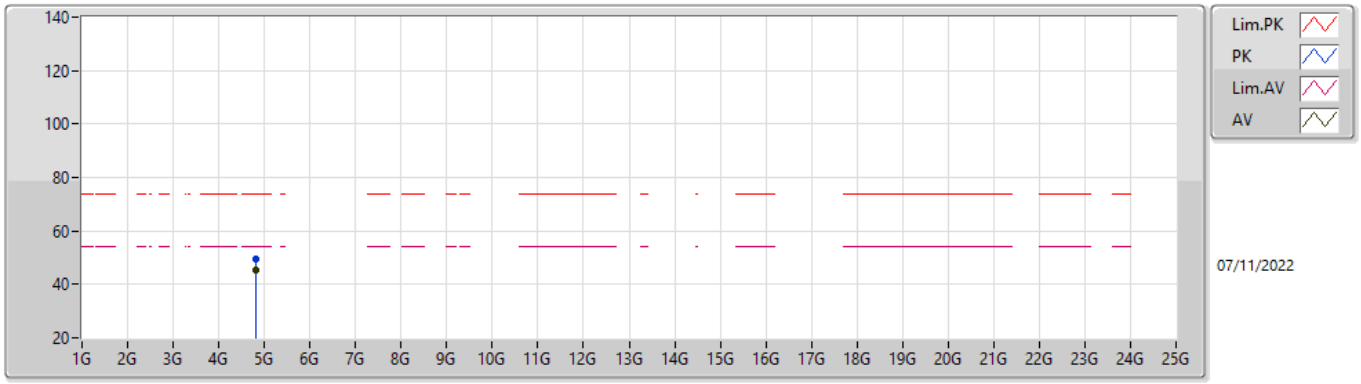
2412MHz_TX



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	4.824G	45.13	54.00	-8.87	5.05	3	Vertical	47	2.80	-	40.08	32.44	6.90	34.29
PK	4.824G	49.56	74.00	-24.44	5.05	3	Vertical	47	2.80	-	44.51	32.44	6.90	34.29

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

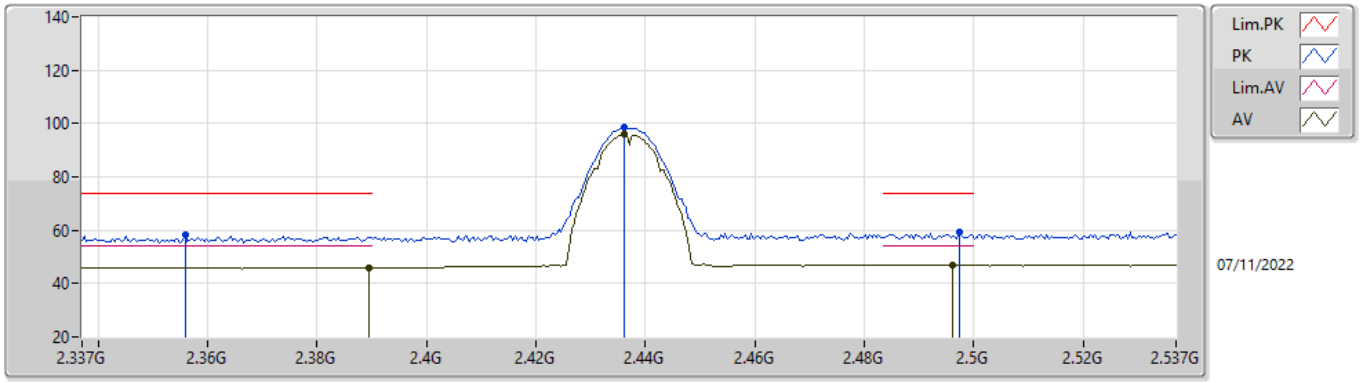
2412MHz_TX



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	4.824G	45.14	54.00	-8.86	5.05	3	Horizontal	264	1.10	-	40.09	32.44	6.90	34.29
PK	4.824G	49.45	74.00	-24.55	5.05	3	Horizontal	264	1.10	-	44.40	32.44	6.90	34.29

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

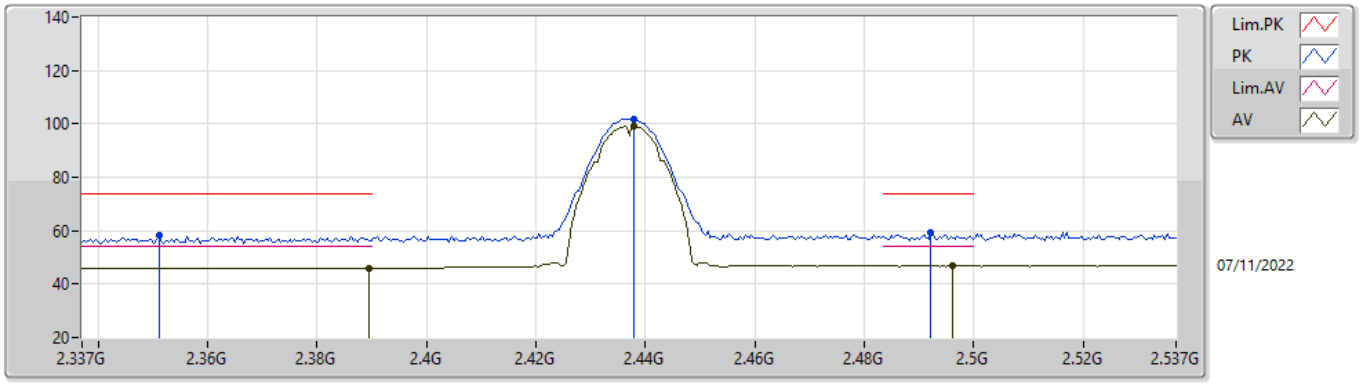
2437MHz_TX



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	2.3894G	45.99	54.00	-8.01	32.02	3	Vertical	154	1.22	-	13.97	27.54	4.48	-
AV	2.4362G	95.91	Inf	-Inf	32.15	3	Vertical	154	1.22	-	63.76	27.67	4.48	-
AV	2.4962G	46.85	54.00	-7.15	32.46	3	Vertical	154	1.22	-	14.39	27.98	4.48	-
PK	2.3558G	58.04	74.00	-15.96	31.83	3	Vertical	154	1.22	-	26.21	27.33	4.50	-
PK	2.4362G	98.51	Inf	-Inf	32.15	3	Vertical	154	1.22	-	66.36	27.67	4.48	-
PK	2.4974G	59.11	74.00	-14.89	32.46	3	Vertical	154	1.22	-	26.65	27.98	4.48	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

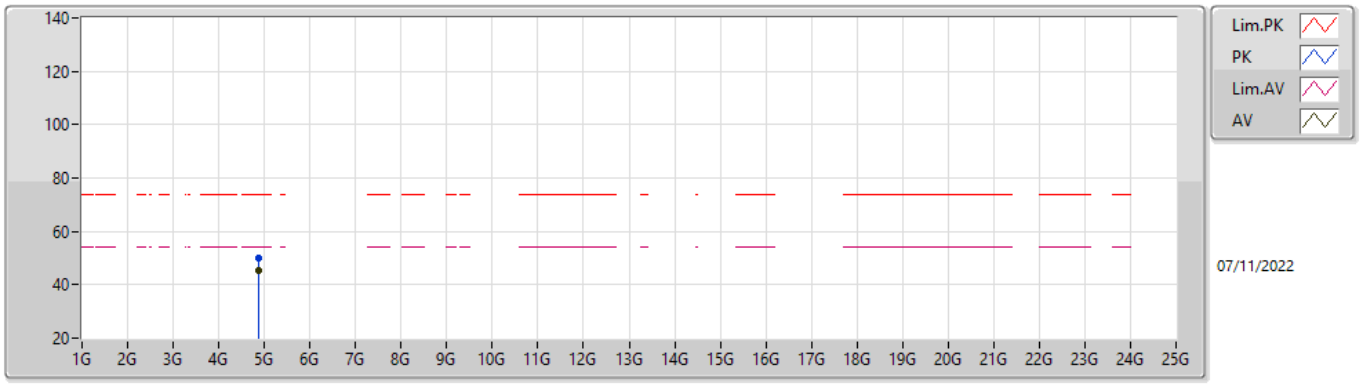
2437MHz_TX



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	2.3894G	45.99	54.00	-8.01	32.02	3	Horizontal	56	1.33	-	13.97	27.54	4.48	-
AV	2.4378G	99.31	Inf	-Inf	32.16	3	Horizontal	56	1.33	-	67.15	27.68	4.48	-
AV	2.4962G	46.85	54.00	-7.15	32.46	3	Horizontal	56	1.33	-	14.39	27.98	4.48	-
PK	2.351G	58.17	74.00	-15.83	31.81	3	Horizontal	56	1.33	-	26.36	27.31	4.50	-
PK	2.4378G	101.96	Inf	-Inf	32.16	3	Horizontal	56	1.33	-	69.80	27.68	4.48	-
PK	2.4922G	59.23	74.00	-14.77	32.43	3	Horizontal	56	1.33	-	26.80	27.95	4.48	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

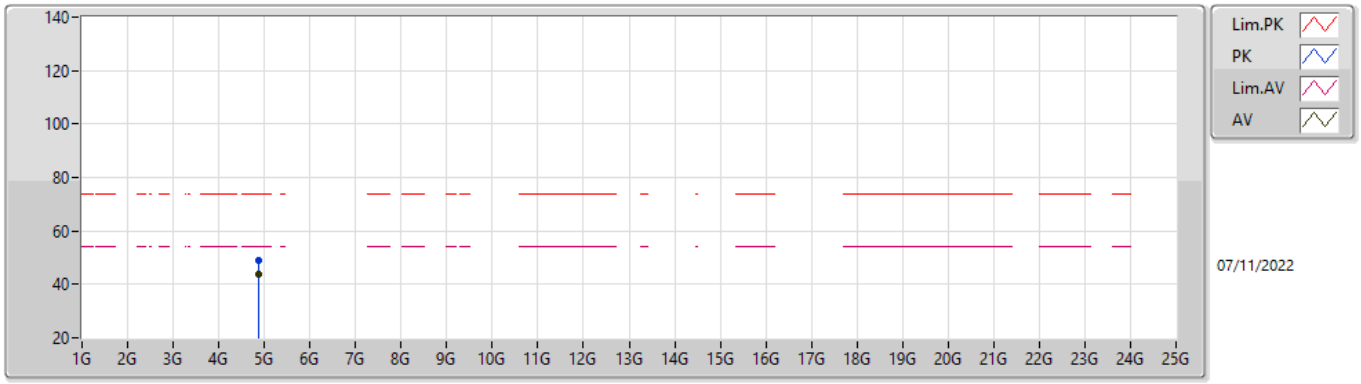
2437MHz_TX



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	4.874G	45.56	54.00	-8.44	5.31	3	Vertical	38	2.65	-	40.25	32.70	6.90	34.29
PK	4.874G	49.95	74.00	-24.05	5.31	3	Vertical	38	2.65	-	44.64	32.70	6.90	34.29

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

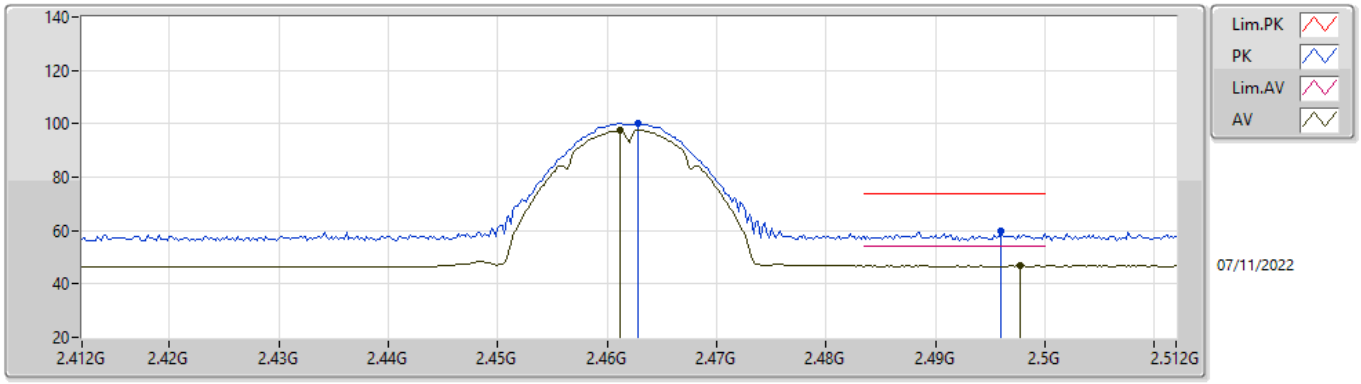
2437MHz_TX



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	43.94	54.00	-10.06	5.31	3	Horizontal	235	1.08	-	38.63	32.70	6.90	34.29
PK	4.87394G	48.92	74.00	-25.08	5.31	3	Horizontal	235	1.08	-	43.61	32.70	6.90	34.29

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

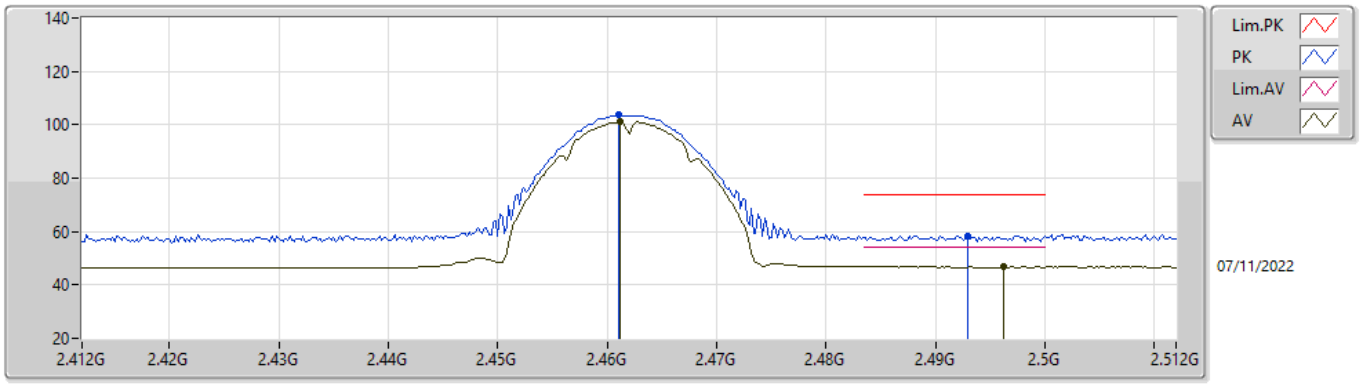
2462MHz_TX



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	2.4612G	97.67	Inf	-Inf	32.25	3	Vertical	155	1.18	-	65.42	27.77	4.48	-
AV	2.4978G	46.85	54.00	-7.15	32.47	3	Vertical	155	1.18	-	14.38	27.99	4.48	-
PK	2.4628G	100.18	Inf	-Inf	32.26	3	Vertical	155	1.18	-	67.92	27.78	4.48	-
PK	2.496G	59.57	74.00	-14.43	32.46	3	Vertical	155	1.18	-	27.11	27.98	4.48	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

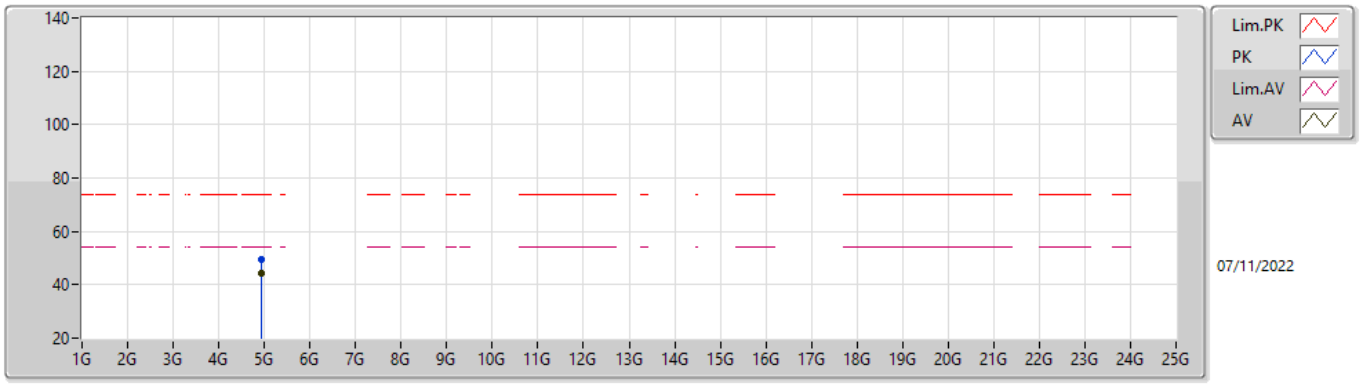
2462MHz_TX



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	2.4612G	101.11	Inf	-Inf	32.25	3	Horizontal	57	1.09	-	68.86	27.77	4.48	-
AV	2.4962G	46.85	54.00	-7.15	32.46	3	Horizontal	57	1.09	-	14.39	27.98	4.48	-
PK	2.461G	103.67	Inf	-Inf	32.25	3	Horizontal	57	1.09	-	71.42	27.77	4.48	-
PK	2.493G	58.50	74.00	-15.50	32.44	3	Horizontal	57	1.09	-	26.06	27.96	4.48	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

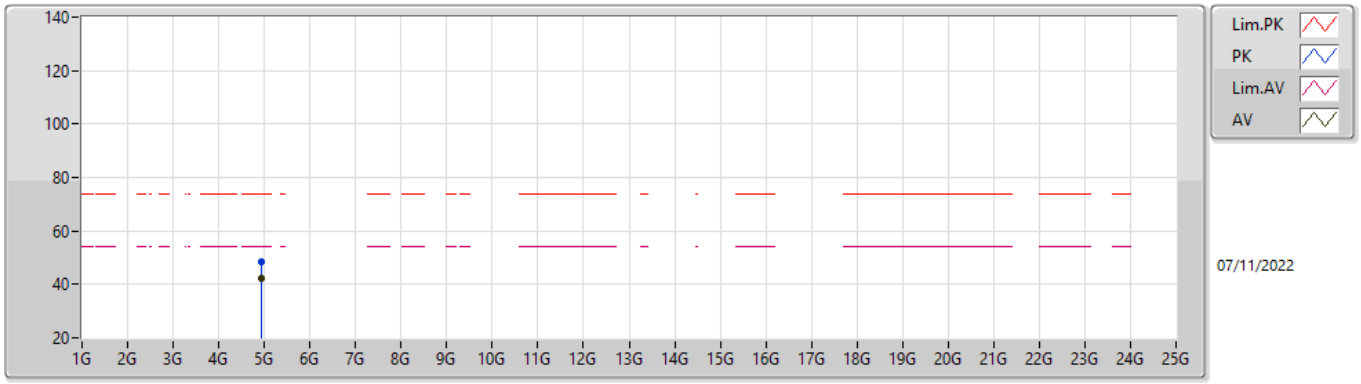
2462MHz_TX



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	44.31	54.00	-9.69	5.57	3	Vertical	39	2.91	-	38.74	32.94	6.91	34.28
PK	4.92388G	49.47	74.00	-24.53	5.57	3	Vertical	39	2.91	-	43.90	32.94	6.91	34.28

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

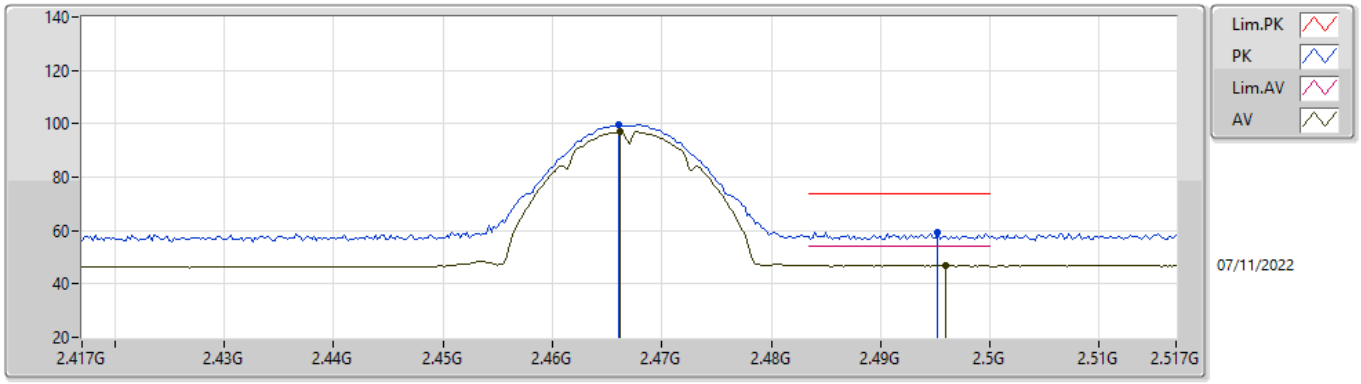
2462MHz_TX



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	42.42	54.00	-11.58	5.57	3	Horizontal	263	1.00	-	36.85	32.94	6.91	34.28
PK	4.92388G	48.32	74.00	-25.68	5.57	3	Horizontal	263	1.00	-	42.75	32.94	6.91	34.28

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

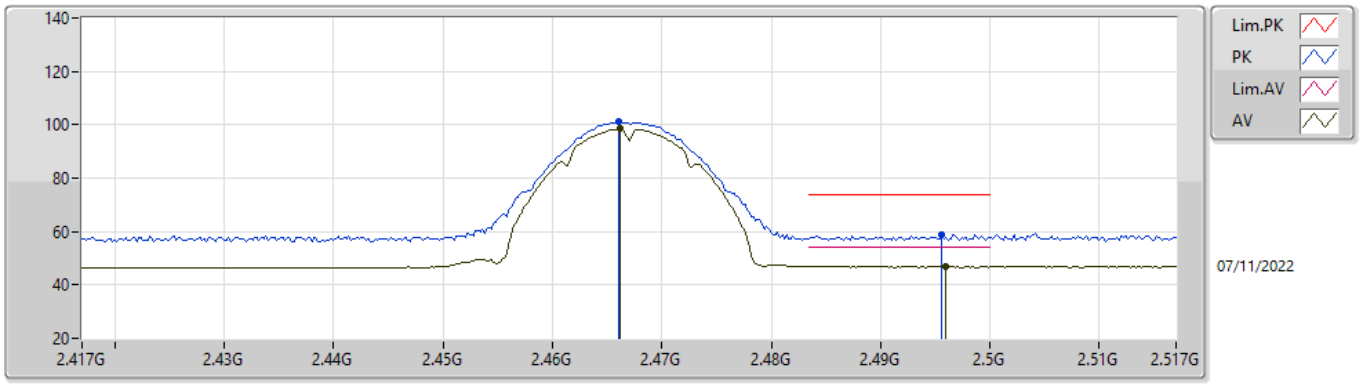
2467MHz_TX



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	2.4662G	97.15	Inf	-Inf	32.28	3	Vertical	154	1.17	-	64.87	27.80	4.48	-
AV	2.496G	46.85	54.00	-7.15	32.46	3	Vertical	154	1.17	-	14.39	27.98	4.48	-
PK	2.466G	99.69	Inf	-Inf	32.28	3	Vertical	154	1.17	-	67.41	27.80	4.48	-
PK	2.4952G	59.43	74.00	-14.57	32.45	3	Vertical	154	1.17	-	26.98	27.97	4.48	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

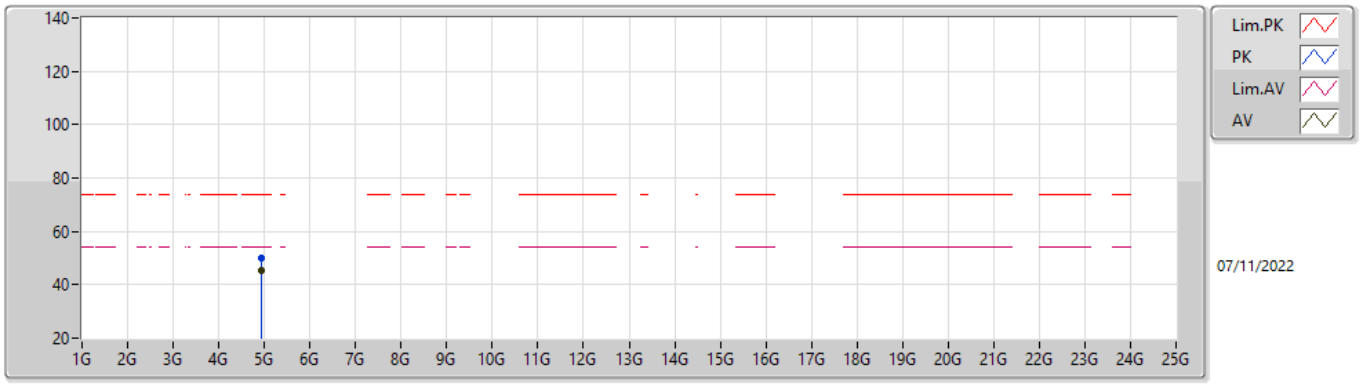
2467MHz_TX



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	2.4662G	98.47	Inf	-Inf	32.28	3	Horizontal	57	1.09	-	66.19	27.80	4.48	-
AV	2.496G	46.85	54.00	-7.15	32.46	3	Horizontal	57	1.09	-	14.39	27.98	4.48	-
PK	2.466G	101.09	Inf	-Inf	32.28	3	Horizontal	57	1.09	-	68.81	27.80	4.48	-
PK	2.4956G	58.77	74.00	-15.23	32.45	3	Horizontal	57	1.09	-	26.32	27.97	4.48	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

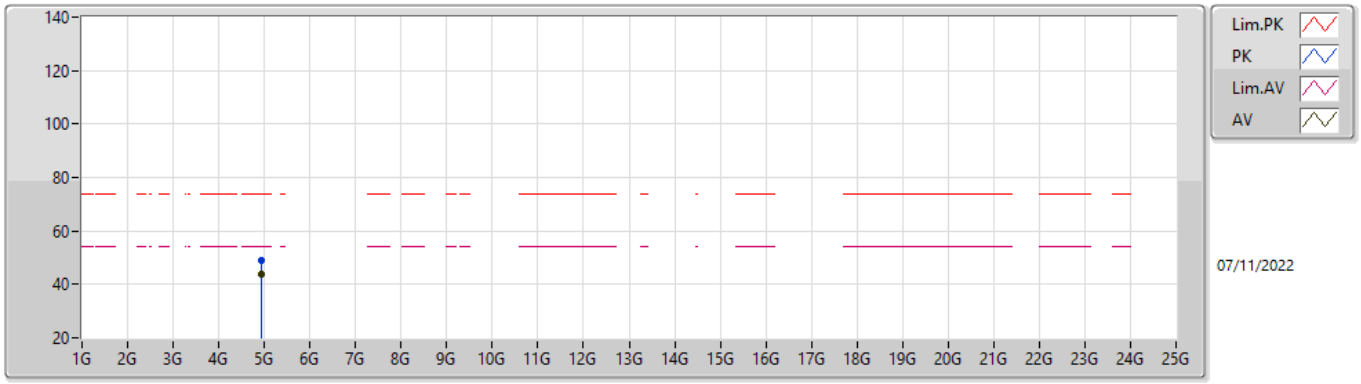
2467MHz_TX



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	4.934G	45.20	54.00	-8.80	5.63	3	Vertical	40	2.70	-	39.57	33.00	6.91	34.28
PK	4.93382G	50.03	74.00	-23.97	5.63	3	Vertical	40	2.70	-	44.40	33.00	6.91	34.28

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

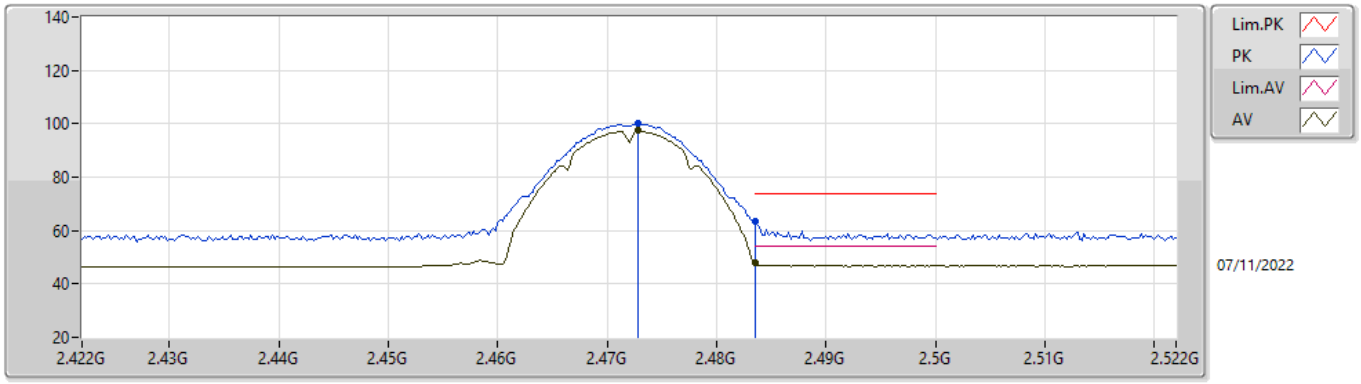
2467MHz_TX



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	4.934G	43.88	54.00	-10.12	5.63	3	Horizontal	263	1.00	-	38.25	33.00	6.91	34.28
PK	4.93394G	49.00	74.00	-25.00	5.63	3	Horizontal	263	1.00	-	43.37	33.00	6.91	34.28

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

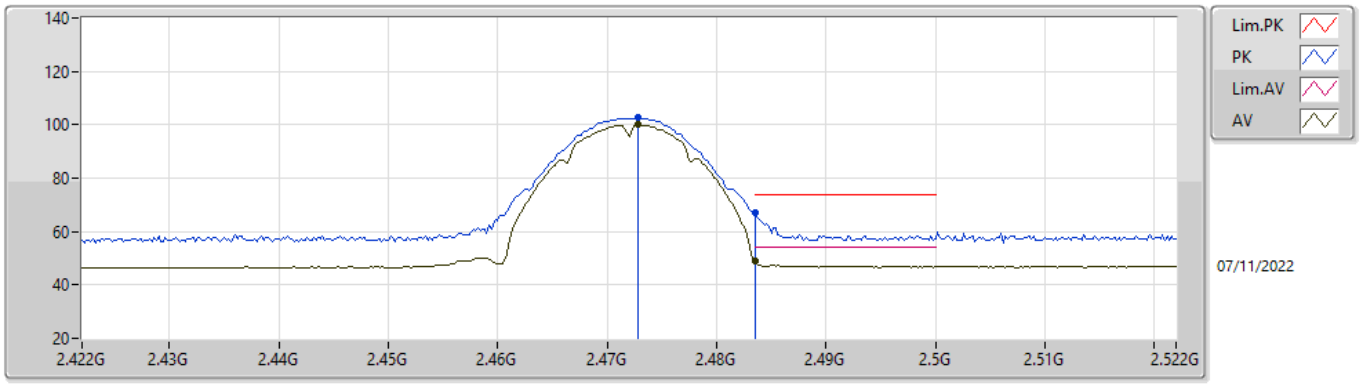
2472MHz_TX



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	2.4728G	97.37	Inf	-Inf	32.32	3	Vertical	155	1.14	-	65.05	27.84	4.48	-
AV	2.4835G	47.83	54.00	-6.17	32.38	3	Vertical	155	1.14	-	15.45	27.90	4.48	-
PK	2.4728G	99.96	Inf	-Inf	32.32	3	Vertical	155	1.14	-	67.64	27.84	4.48	-
PK	2.4836G	63.32	74.00	-10.68	32.38	3	Vertical	155	1.14	-	30.94	27.90	4.48	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

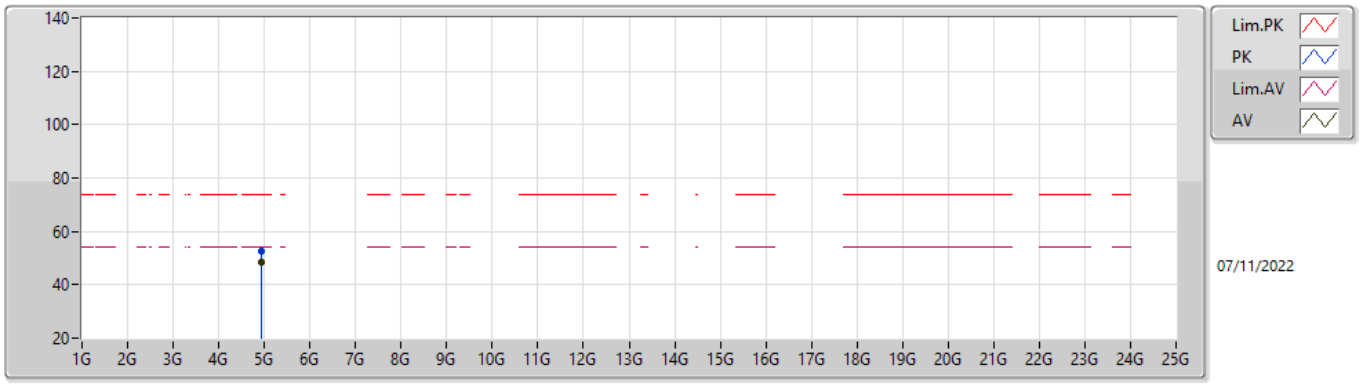
2472MHz_TX



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	2.4728G	100.08	Inf	-Inf	32.32	3	Horizontal	57	1.31	-	67.76	27.84	4.48	-
AV	2.4835G	49.17	54.00	-4.83	32.38	3	Horizontal	57	1.31	-	16.79	27.90	4.48	-
PK	2.4728G	102.69	Inf	-Inf	32.32	3	Horizontal	57	1.31	-	70.37	27.84	4.48	-
PK	2.4835G	67.30	74.00	-6.70	32.38	3	Horizontal	57	1.31	-	34.92	27.90	4.48	-

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

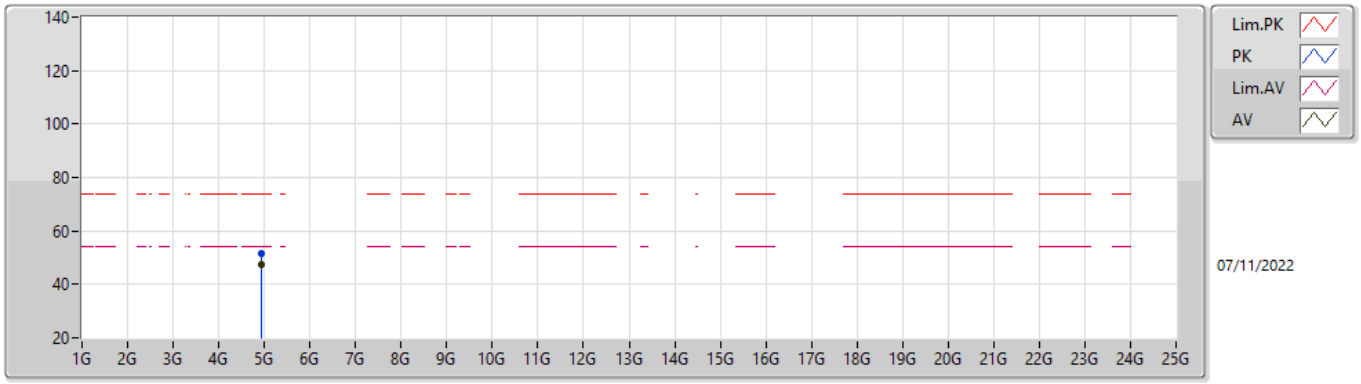
2472MHz_TX



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	4.944G	48.68	54.00	-5.32	5.69	3	Vertical	39	2.71	-	42.99	33.06	6.91	34.28
PK	4.944G	52.46	74.00	-21.54	5.69	3	Vertical	39	2.71	-	46.77	33.06	6.91	34.28

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2472MHz_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	4.94394G	47.40	54.00	-6.60	5.69	3	Horizontal	263	1.10	-	41.71	33.06	6.91	34.28
PK	4.944G	51.78	74.00	-22.22	5.69	3	Horizontal	263	1.10	-	46.09	33.06	6.91	34.28