

FCC Radio Test Report

FCC ID : TKZAW7916-NPD
Equipment : WiFi 6E mini PCIe module
Brand Name : AsiaRF Co., Ltd.
Model Name : AW7916-NPD
Applicant : AsiaRF Co., Ltd.
1F, 7, Houde Street, Yonghe Dist. New
Taipei City Taiwan 23455
Manufacturer : AsiaRF Co., Ltd.
1F, 7, Houde Street, Yonghe Dist. New
Taipei City Taiwan 23455
Standard : 47 CFR FCC Part 15.247

The product was received on Apr. 07, 2023, and testing was started from Jun. 01, 2023 and completed on Jun. 20, 2023. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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



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History of this test report

Report No.	Version	Description	Issued Date
FR2D0804AC	01	Initial issue of report	Sep. 04, 2023

Summary of Test Result

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

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and explanations:

None

Reviewed by: Sam Tsai

Report Producer: 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]

Non-Beamforming

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

Beamforming

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11ax HEW20-BF	20	2TX
2.4-2.4835GHz	802.11ax HEW40-BF	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.
- Evaluated HEW20/HEW40 mode only due to the similar modulation. The power setting of HT20/HT40/VHT20/VHT40 mode are the same or lower than HEW20/HEW40.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	AsiaRF Co., Ltd.	ANTS0WF602M02001	Dipole antenna	I-PEX
2	AsiaRF Co., Ltd.	ANTS0WF602M02001	Dipole antenna	I-PEX
3	AsiaRF Co., Ltd.	ANTS0WF602M02001	Dipole antenna	I-PEX

Ant.	Port	Gain (dBi)		
		2.4G	5G	6G
1	1	5	5	5
2	2	5	5	5
3	3	-	5	5

Note 1: The EUT has three antennas.

Note 2: The Ant. 3 is only for DFS RX and MRC function.

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.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax mode (2TX/3RX)

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

Ant. 1 (port 1) and Ant. 2 (port 2) and Ant.3 (port 3) could receive simultaneously.

For 6GHz function:

For IEEE 802.11 a/ax mode (2TX/3RX)

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

Ant. 1 (port 1) and Ant. 2 (port 2) and Ant.3 (port 3) could receive simultaneously.

Note 3: Directional gain information

	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SI}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SI}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SI}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From Test fixture		
EUT Function	<input checked="" type="checkbox"/> Point-to-multipoint	<input type="checkbox"/> Point-to-point	
Beamforming Function	<input checked="" type="checkbox"/> With beamforming	<input type="checkbox"/> Without beamforming	
Resource Unit(802.11ax)	<input checked="" type="checkbox"/> Full RU	<input type="checkbox"/> Partial RU	
Type of EUT			
<input checked="" type="checkbox"/>	Stand-alone		
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.: ...		
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.: ...		
<input type="checkbox"/>	Other:		

1.1.4 Mode Test Duty Cycle

Non-Beamforming

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b_Nss1,(1Mbps)_2TX	0.994	0.03	n/a (DC \geq 0.98)	n/a (DC \geq 0.98)
802.11g_Nss1,(6Mbps)_2TX	0.96	0.18	1.397m	1k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.848	0.72	313.125u	10k
802.11ax HEW40_Nss1,(MCS0)_2TX	0.853	0.69	325.938u	10k

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

Beamforming

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.848	0.72	313.125u	10k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.853	0.69	325.938u	10k

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				
<input checked="" type="checkbox"/> Hsinhua	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
(TAF: 3785)	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Nick Wu	24.7~25.7°C / 55.9~57.6%	13/Jun/2023~14/Jun/2023
RF Conducted	TH01-HY	Johnny Yu	21.8~22.4°C / 53~56%	10/Jun/2023
Radiated	03CH02-HY	Branko Ting	25.2~26.3°C / 64.8~69.2%	01/Jun/2023~09/Jun/2023
Radiated (Co-location)	03CH03-HY	Ivan Chung	25.4~25.9°C / 60.3~62.1%	20/Jun/2023
<input type="checkbox"/> Wen 33rd.St.	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
(TAF: 3785)	TEL: 886-3-318-0787		FAX: 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				

1.4 Measurement Uncertainty

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

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



2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	QATool_Dbg V 0.0.2.73
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Non-Beamforming

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	9.5
2437MHz	7
2462MHz	8
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	9.5
2417MHz	10.5
2437MHz	10.5
2462MHz	10.5
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	9
2417MHz	10
2437MHz	10
2462MHz	10
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	9
2427MHz	9.5
2437MHz	10.5
2447MHz	10
2452MHz	9.5




**Beamforming**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	9
2417MHz	10
2437MHz	10
2462MHz	10
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	9
2427MHz	9.5
2437MHz	10.5
2447MHz	10
2452MHz	9.5

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	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	Fixture Mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT			V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	CTX
1	WLAN 2.4GHz+WLAN 5GHz
2	WLAN 2.4GHz+WLAN 6GHz
Refer to Sporton Test Report No.: FA2D0804 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

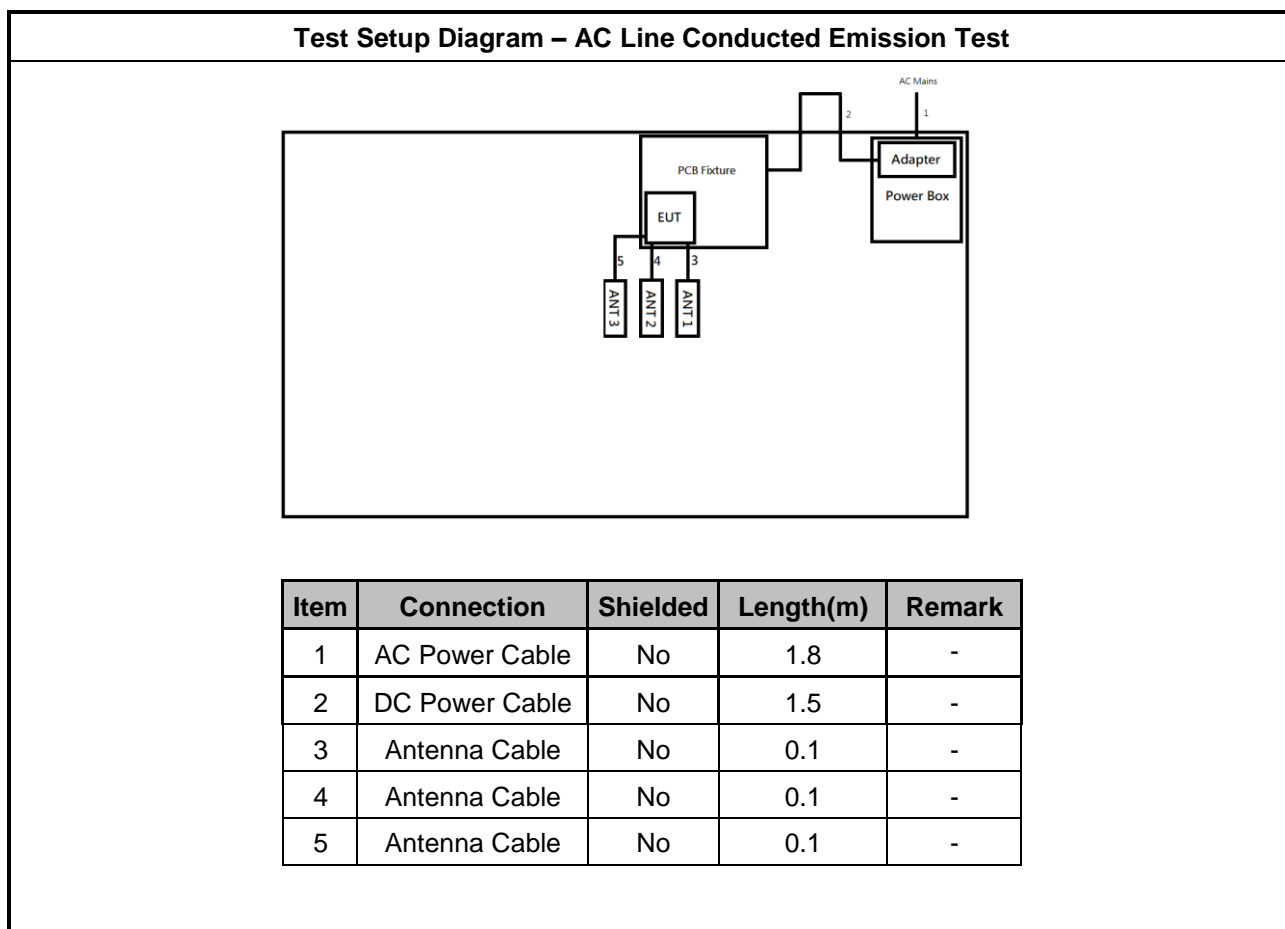


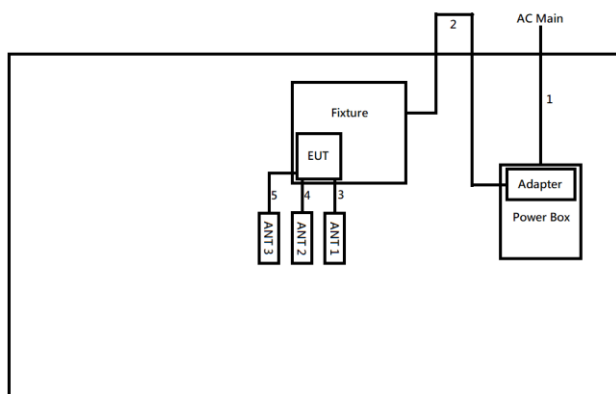
2.3 Support Equipment

Support Equipment – AC Conduction and Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Adapter	iDRC	CW1201000	-	Provided by Customer
2	PCB fixture	N/A	N/A	-	Provided by Customer
3	Antenna*3	AsiaRF Co., Ltd.	ANTS0WF602M02001	-	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	Adapter	iDRC	CW1201000	-	Provided by Customer
4	PCB fixture	N/A	N/A	-	Provided by Customer

2.4 Test Setup Diagram



Test Setup Diagram - Radiated Test


Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	DC Power Cable	No	1.5	-
3	Antenna Cable	No	0.1	-
4	Antenna Cable	No	0.1	-
5	Antenna Cable	No	0.1	-

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

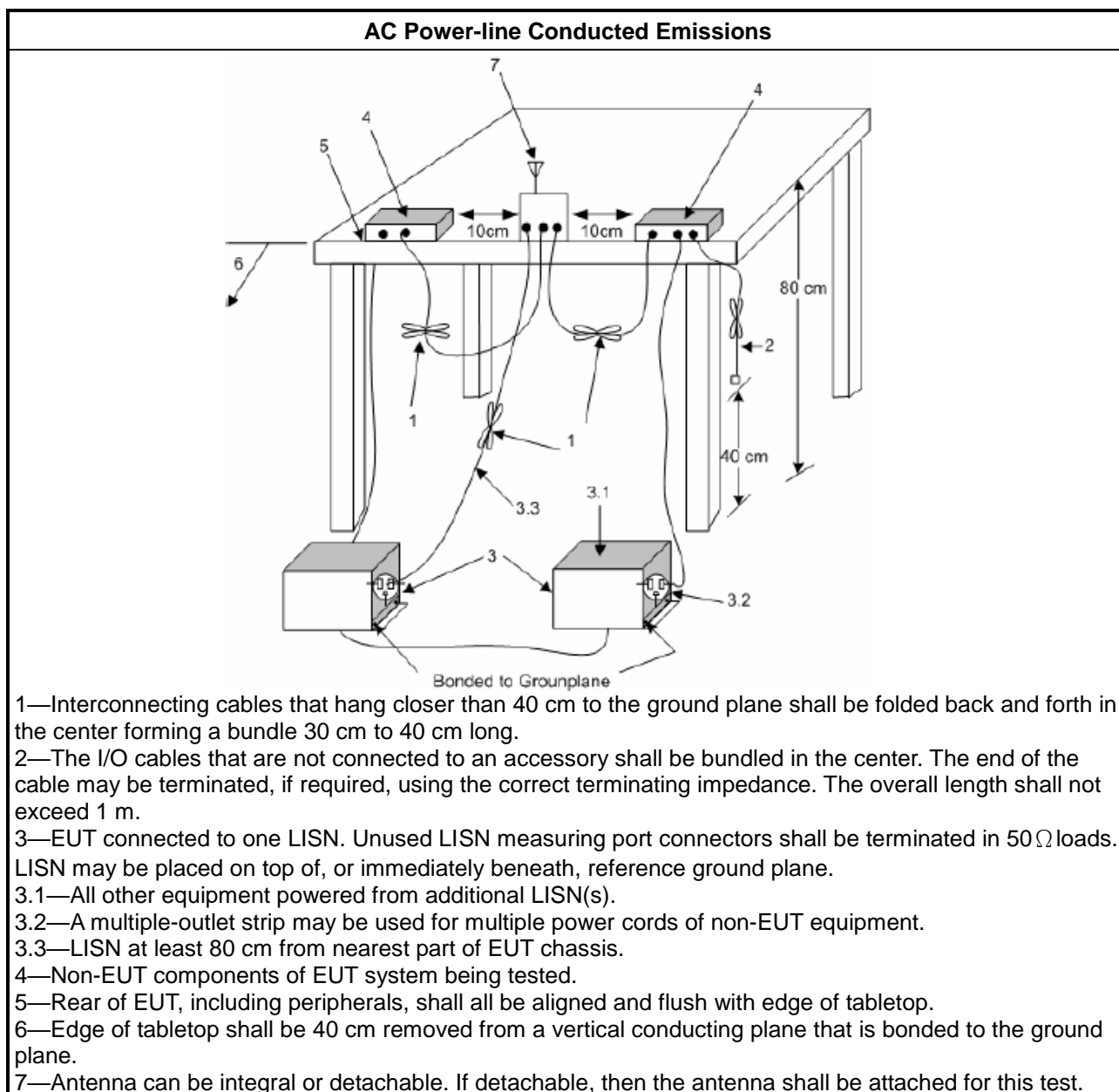
Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

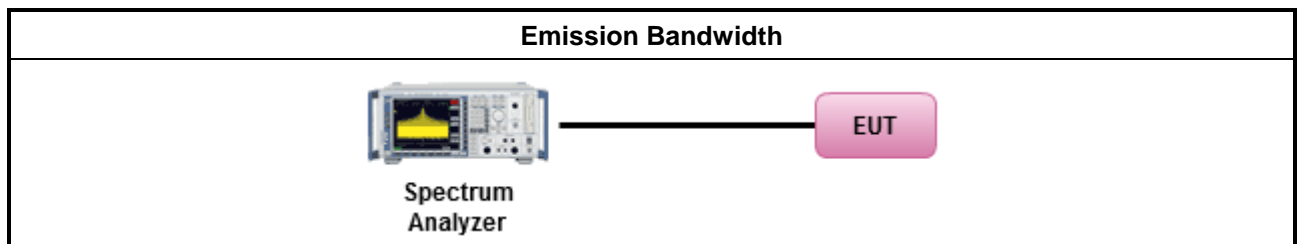
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪	For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/>	Refer as KDB 558074. clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
<input type="checkbox"/>	Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	<ul style="list-style-type: none"> If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none"> Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none"> Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> Smart antenna system (SAS):
	<ul style="list-style-type: none"> - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - 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:	
	<ul style="list-style-type: none"> 2400-2483.5 MHz Band
	<ul style="list-style-type: none"> Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	<ul style="list-style-type: none"> Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	<ul style="list-style-type: none"> Smart antenna system (SAS)
	<ul style="list-style-type: none"> - Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

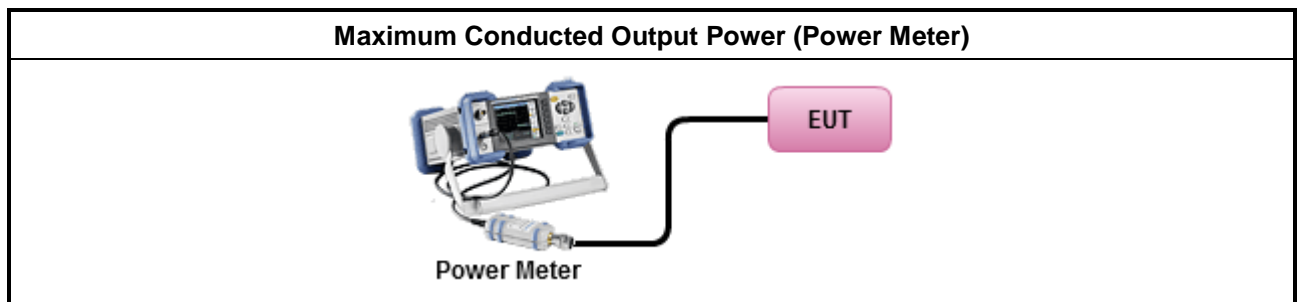
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> Maximum Peak Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
<ul style="list-style-type: none"> Maximum Average Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
<ul style="list-style-type: none"> For conducted measurement. 	
<ul style="list-style-type: none"> 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. 	
<ul style="list-style-type: none"> If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

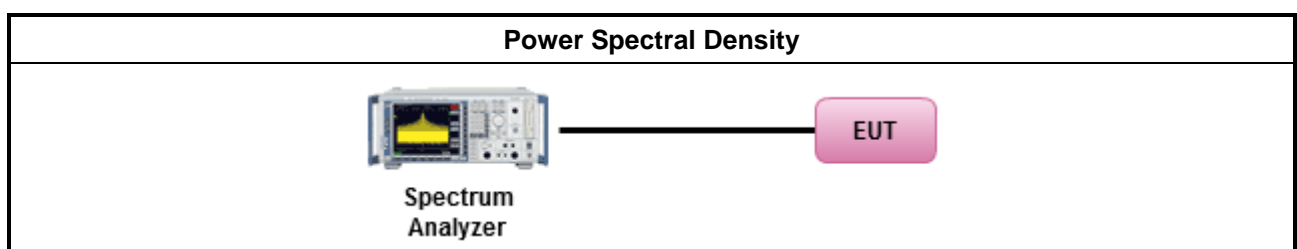
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30
<p>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.</p> <p>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.</p>	

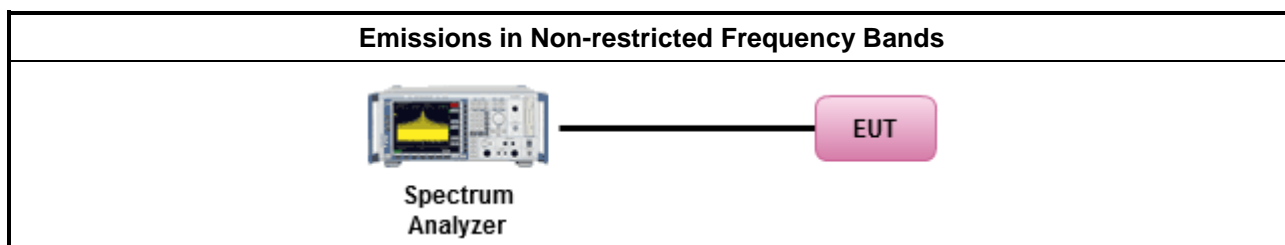
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

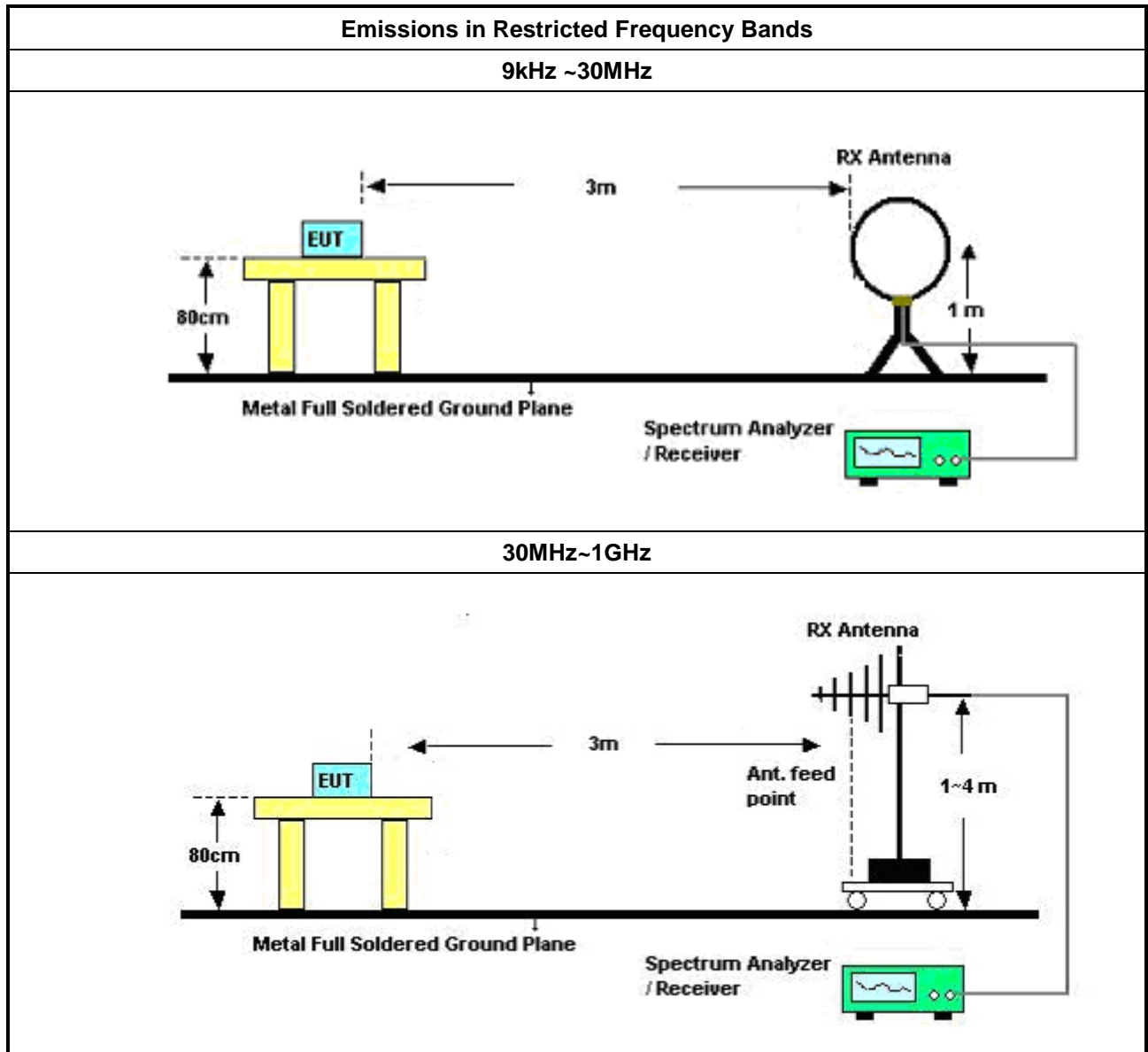
Test Method	
<ul style="list-style-type: none"> The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. 	
<ul style="list-style-type: none"> For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
<ul style="list-style-type: none"> For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> 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.
	<ul style="list-style-type: none"> Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
<ul style="list-style-type: none"> Use the following spectrum analyzer settings: 	
	<ul style="list-style-type: none"> Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	<ul style="list-style-type: none"> Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
<ul style="list-style-type: none"> KDB 414788 Open-Field Test Sites and Chamber Correlation Justification. 	
	<ul style="list-style-type: none"> 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.
	<ul style="list-style-type: none"> Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

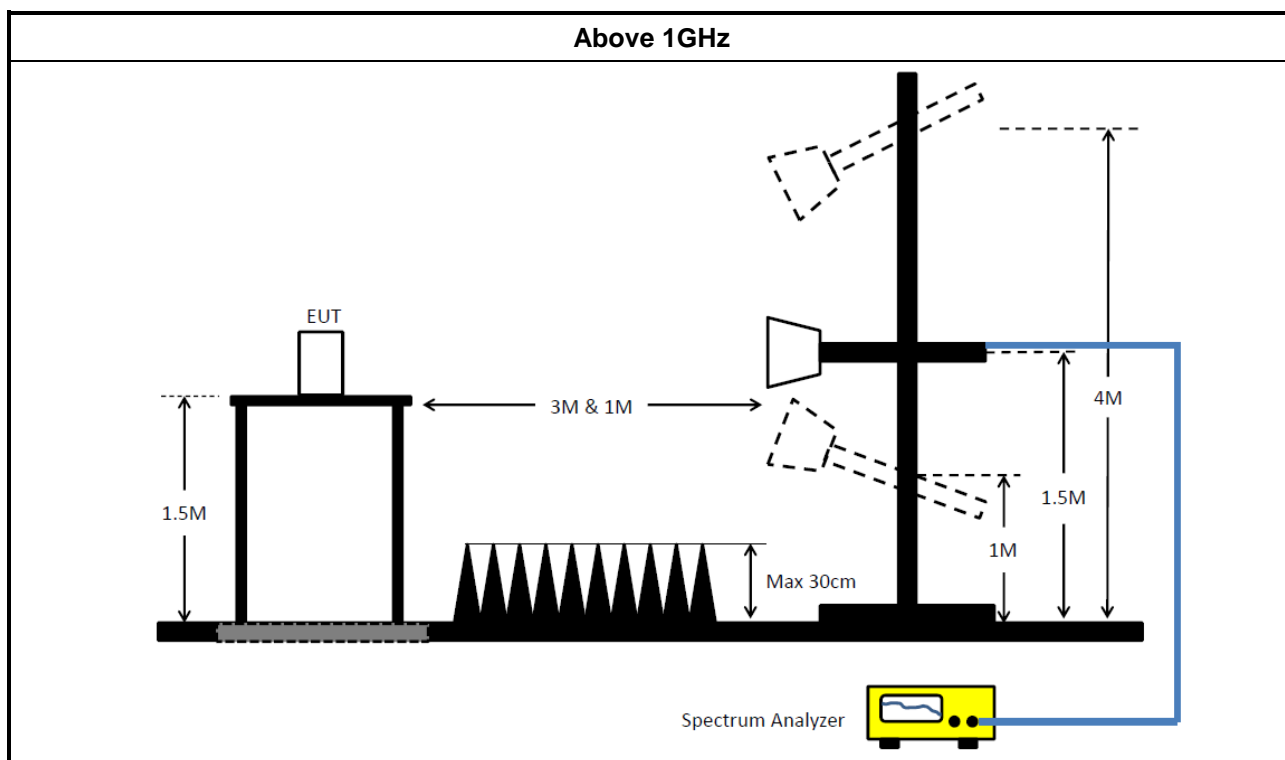
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.6.5 Test Setup





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

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

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR	102318	9kHz ~ 3.6GHz	29/Dec/2022	28/Dec/2023
Two-Line V-Network	R&S	ENV 216	100003	9kHz ~ 30MHz	16/Feb/2023	15/Feb/2024
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	28/Feb/2023	27/Feb/2024
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	25/Oct/2022	24/Oct/2023
Software	Sporton	SENSE-EMI	V5.10.8.7	-	NCR	NCR

NCR: No Calibration Required

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	10/Apr/2023	09/Apr/2024
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2022	20/Oct/2023
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	15/Feb/2023	14/Feb/2024
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	15/Feb/2023	14/Feb/2024
SENSE-15247_DTS	Sporton	V5.11.6	N/A	N/A	N/A	N/A

**Instrument for Radiated Test**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	31/Jul/2022	30/Jul/2023
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	30/Jul/2022	29/Jul/2023
Signal Analyzer	R&S	FSP40	100593	9kHz~40GHz	17/Mar/2023	16/Mar/2024
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	28/Jun/2022	27/Jun/2023
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	02/Nov/2022	01/Nov/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz ~18GHz	27/Sep/2022	26/Sep/2023
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	28/Aug/2022	27/Aug/2023
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	9kHz~30MHz	20/Dec/2022	19/Dec/2023
RF Cable	MVE	400LL+SN 200207	03CH02-cable-02	30MHz~1GHz	20/Dec/2022	19/Dec/2023
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX104	03CH02-cable-01	1GHz~40GHz	10/Feb/2023	09/Feb/2024
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	25/Mar/2023	24/Mar/2024
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz~40GHz	16/Mar/2023	15/Mar/2024
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	23/Mar/2023	22/Mar/2024
EMI Test Receiver	R&S	ESR	102318	9kHz~3.6GHz	29/Dec/2022	28/Dec/2023
SENSE_15247_DTS	Sporton	Sporton	V5.11.6	NA	NA	NA

**Instrument for Radiated Test (Co-location)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz~18GHz 3m	02/Aug/2022	01/Aug/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
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	25/Mar/2023	24/Mar/2024
Microwave Premplifier	Agilent	8449B	3008A02326	1GHz~26.5GHz	14/Jul/2022	13/Jul/2023
Microwave Premplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	16/Mar/2023	15/Mar/2024
SENSE-EMI	Sporton	v5.11	NA	NA	NA	NA



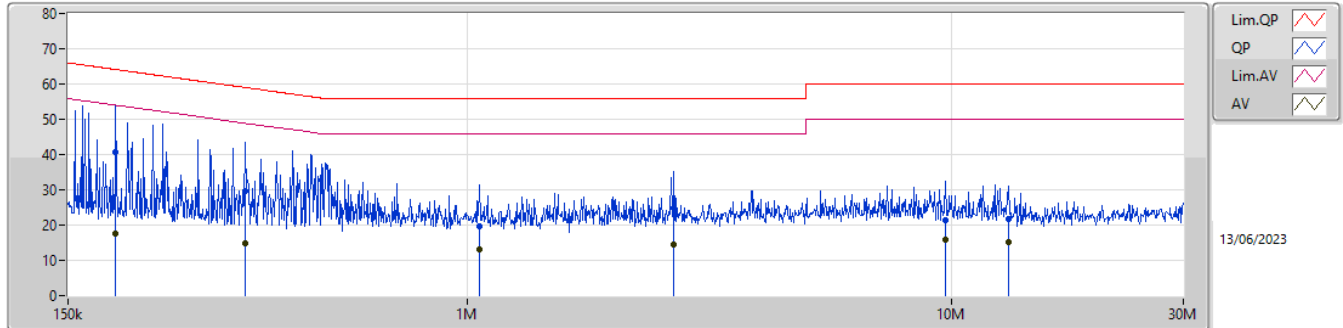
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	176.674k	43.96	64.64	-20.68	Neutral

Result

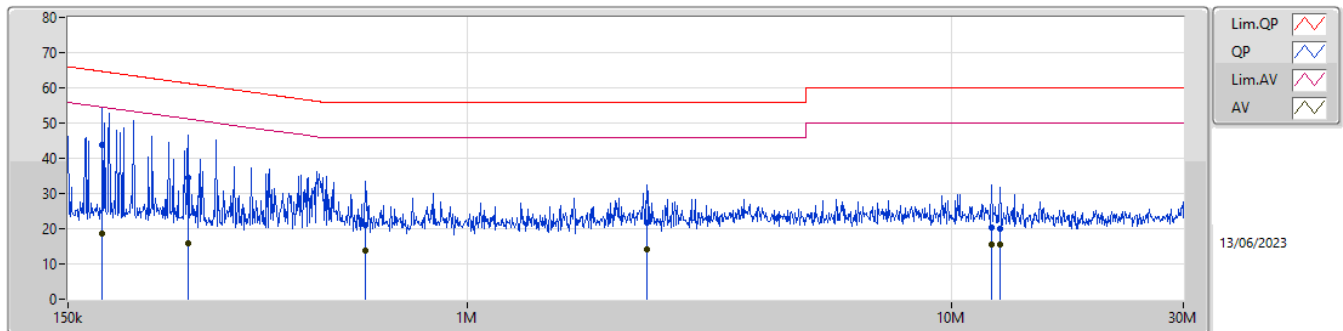
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	188.327k	40.70	64.11	-23.41	Line	-
Mode 1	Pass	AV	188.327k	17.68	54.11	-36.43	Line	-
Mode 1	Pass	QP	348.261k	29.67	59.00	-29.33	Line	-
Mode 1	Pass	AV	348.261k	14.78	49.00	-34.22	Line	-
Mode 1	Pass	QP	1.061M	19.53	56.00	-36.47	Line	-
Mode 1	Pass	AV	1.061M	13.13	46.00	-32.87	Line	-
Mode 1	Pass	QP	2.667M	24.69	56.00	-31.31	Line	-
Mode 1	Pass	AV	2.667M	14.40	46.00	-31.60	Line	-
Mode 1	Pass	QP	9.685M	21.40	60.00	-38.60	Line	-
Mode 1	Pass	AV	9.685M	15.76	50.00	-34.24	Line	-
Mode 1	Pass	QP	13.065M	21.68	60.00	-38.32	Line	-
Mode 1	Pass	AV	13.065M	15.33	50.00	-34.67	Line	-
Mode 1	Pass	QP	176.674k	43.96	64.64	-20.68	Neutral	-
Mode 1	Pass	AV	176.674k	18.54	54.64	-36.10	Neutral	-
Mode 1	Pass	QP	265.468k	34.42	61.26	-26.84	Neutral	-
Mode 1	Pass	AV	265.468k	15.72	51.26	-35.54	Neutral	-
Mode 1	Pass	QP	616.347k	21.11	56.00	-34.89	Neutral	-
Mode 1	Pass	AV	616.347k	13.83	46.00	-32.17	Neutral	-
Mode 1	Pass	QP	2.348M	21.64	56.00	-34.36	Neutral	-
Mode 1	Pass	AV	2.348M	14.28	46.00	-31.72	Neutral	-
Mode 1	Pass	QP	12.063M	20.21	60.00	-39.79	Neutral	-
Mode 1	Pass	AV	12.063M	15.46	50.00	-34.54	Neutral	-
Mode 1	Pass	QP	12.554M	19.94	60.00	-40.06	Neutral	-
Mode 1	Pass	AV	12.554M	15.38	50.00	-34.62	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)								
QP	188.327k	40.70	64.11	-23.41	19.61	Line	-	21.09	9.65	0.03	9.93								
AV	188.327k	17.68	54.11	-36.43	19.61	Line	-	-1.93	9.65	0.03	9.93								
QP	348.261k	29.67	59.00	-29.33	19.63	Line	-	10.04	9.64	0.04	9.95								
AV	348.261k	14.78	49.00	-34.22	19.63	Line	-	-4.85	9.64	0.04	9.95								
QP	1.061M	19.53	56.00	-36.47	19.64	Line	-	-0.11	9.65	0.05	9.94								
AV	1.061M	13.13	46.00	-32.87	19.64	Line	-	-6.51	9.65	0.05	9.94								
QP	2.667M	24.69	56.00	-31.31	19.73	Line	-	4.96	9.69	0.10	9.94								
AV	2.667M	14.40	46.00	-31.60	19.73	Line	-	-5.33	9.69	0.10	9.94								
QP	9.685M	21.40	60.00	-38.60	19.94	Line	-	1.46	9.80	0.18	9.96								
AV	9.685M	15.76	50.00	-34.24	19.94	Line	-	-4.18	9.80	0.18	9.96								
QP	13.065M	21.68	60.00	-38.32	19.99	Line	-	1.69	9.80	0.22	9.97								
AV	13.065M	15.33	50.00	-34.67	19.99	Line	-	-4.66	9.80	0.22	9.97								

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)								
QP	176.674k	43.96	64.64	-20.68	19.58	Neutral	-	24.38	9.62	0.03	9.93								
AV	176.674k	18.54	54.64	-36.10	19.58	Neutral	-	-1.04	9.62	0.03	9.93								
QP	265.468k	34.42	61.26	-26.84	19.59	Neutral	-	14.83	9.62	0.03	9.94								
AV	265.468k	15.72	51.26	-35.54	19.59	Neutral	-	-3.87	9.62	0.03	9.94								
QP	616.347k	21.11	56.00	-34.89	19.63	Neutral	-	1.48	9.64	0.04	9.95								
AV	616.347k	13.83	46.00	-32.17	19.63	Neutral	-	-5.80	9.64	0.04	9.95								
QP	2.348M	21.64	56.00	-34.36	19.69	Neutral	-	1.95	9.66	0.09	9.94								
AV	2.348M	14.28	46.00	-31.72	19.69	Neutral	-	-5.41	9.66	0.09	9.94								
QP	12.063M	20.21	60.00	-39.79	20.02	Neutral	-	0.19	9.85	0.21	9.96								
AV	12.063M	15.46	50.00	-34.54	20.02	Neutral	-	-4.56	9.85	0.21	9.96								
QP	12.554M	19.94	60.00	-40.06	20.04	Neutral	-	-0.10	9.86	0.21	9.97								
AV	12.554M	15.38	50.00	-34.62	20.04	Neutral	-	-4.66	9.86	0.21	9.97								

**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	8.55M	12.864M	12M9G1D	7.525M	12.744M
802.11g_Nss1,(6Mbps)_2TX	16.5M	17.877M	17M9D1D	15.675M	16.69M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.7M	19.04M	19M0D1D	16.9M	18.891M
802.11ax HEW40_Nss1,(MCS0)_2TX	35.95M	37.831M	37M8D1D	35.1M	37.681M

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	7.575M	12.864M	7.525M	12.789M
2437MHz	Pass	500k	8M	12.804M	8.05M	12.744M
2462MHz	Pass	500k	8.55M	12.864M	7.55M	12.759M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	15.675M	16.844M	16.275M	16.69M
2437MHz	Pass	500k	16.5M	17.877M	16.5M	17.833M
2462MHz	Pass	500k	15.9M	16.69M	16.3M	16.69M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.7M	18.891M	18.575M	18.916M
2437MHz	Pass	500k	18.425M	19.04M	17.975M	19.04M
2462MHz	Pass	500k	18.425M	19.015M	16.9M	18.991M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.8M	37.731M	35.1M	37.681M
2437MHz	Pass	500k	35.95M	37.831M	35.1M	37.831M
2452MHz	Pass	500k	35.1M	37.781M	35.1M	37.681M

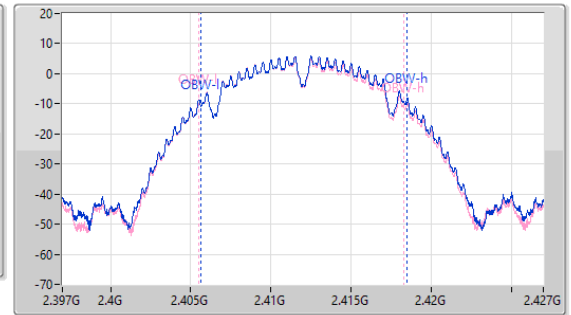
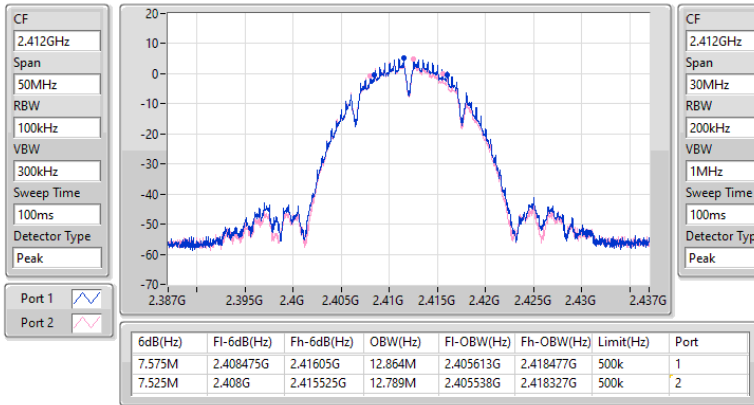
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

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

EBW

2412MHz

10/06/2023

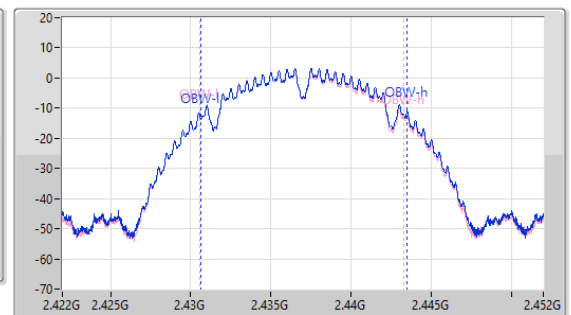
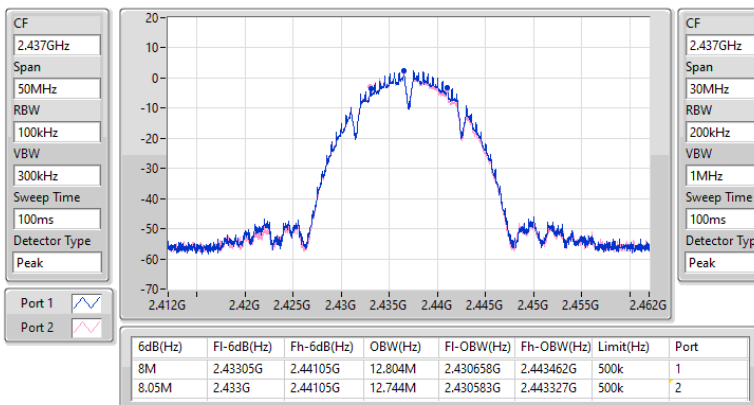


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

EBW

2437MHz

10/06/2023

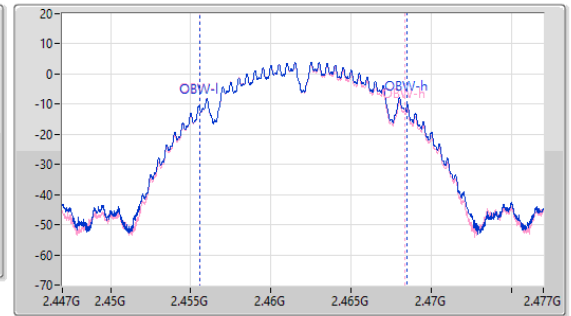
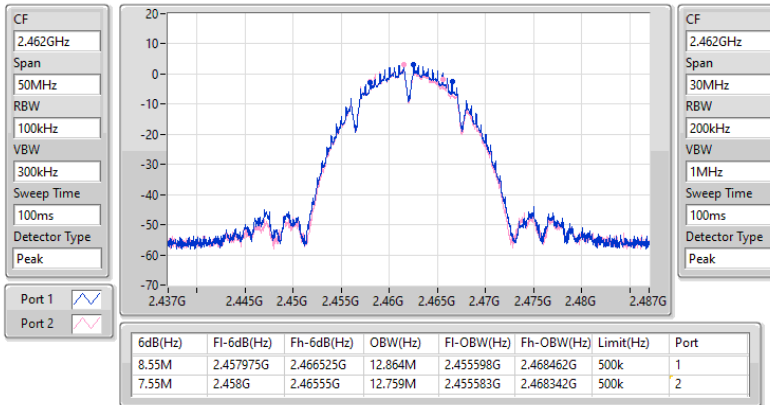


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

EBW

2462MHz

10/06/2023

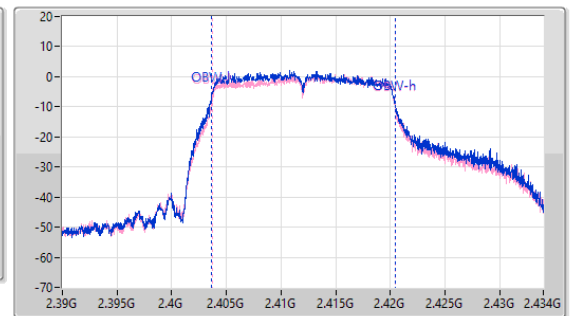
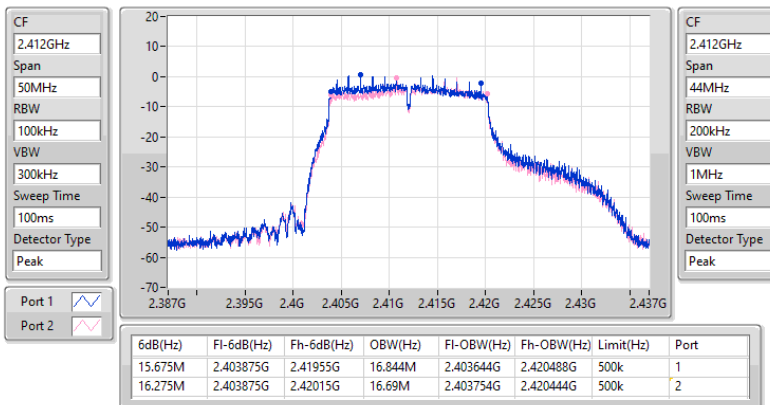


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

EBW

2412MHz

10/06/2023

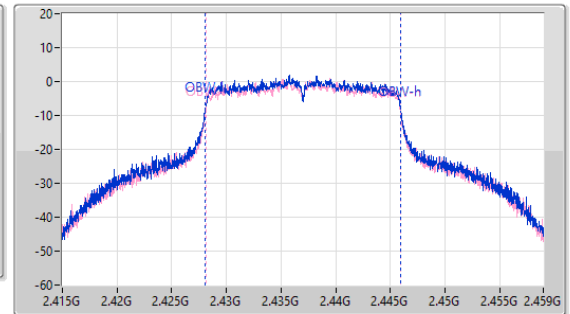
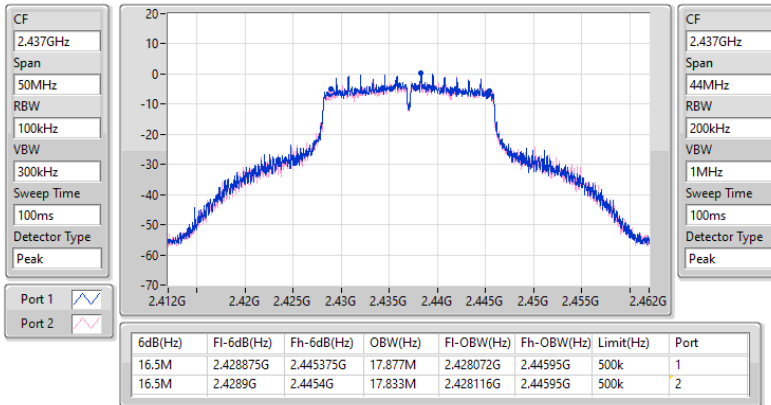


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

EBW

2437MHz

10/06/2023

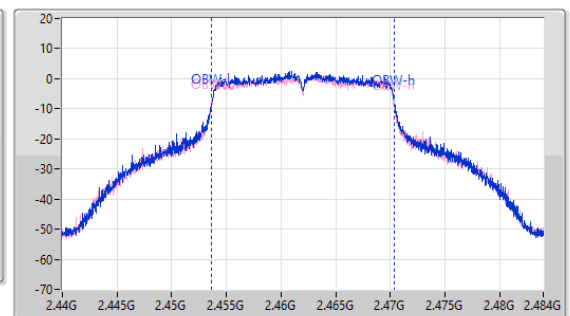
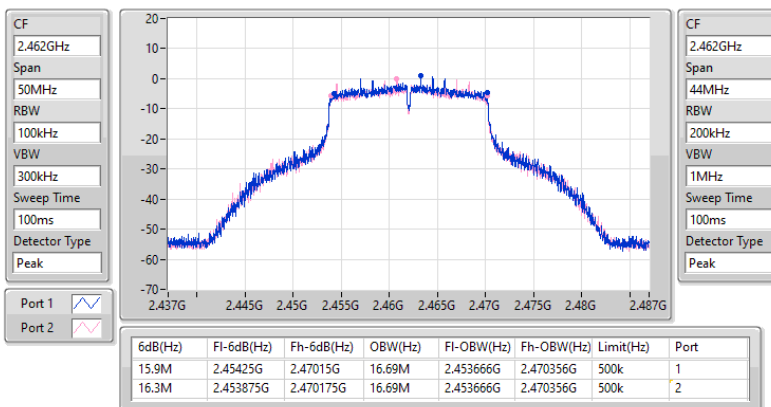


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

EBW

2462MHz

10/06/2023

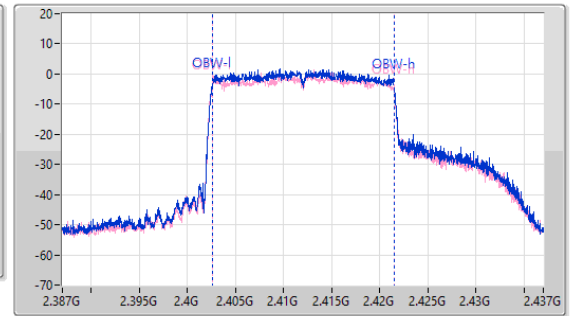
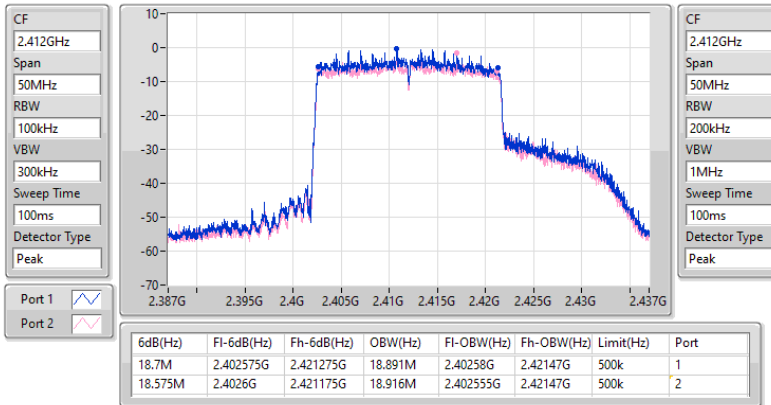


2.4-2.4835GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

EBW

2412MHz

10/06/2023

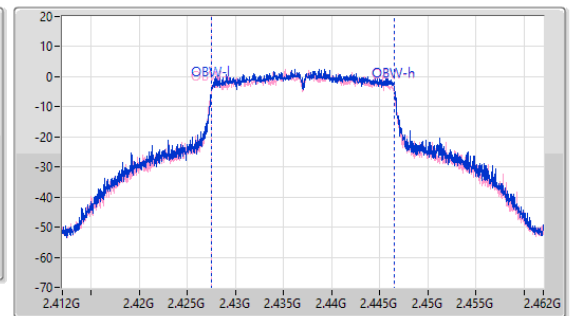
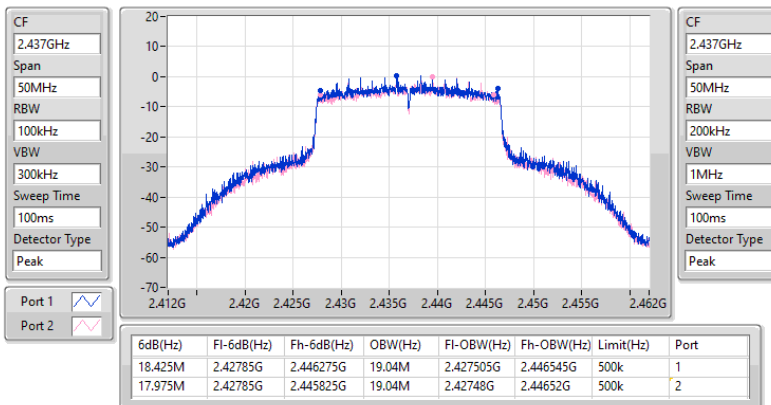


2.4-2.4835GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

EBW

2437MHz

10/06/2023

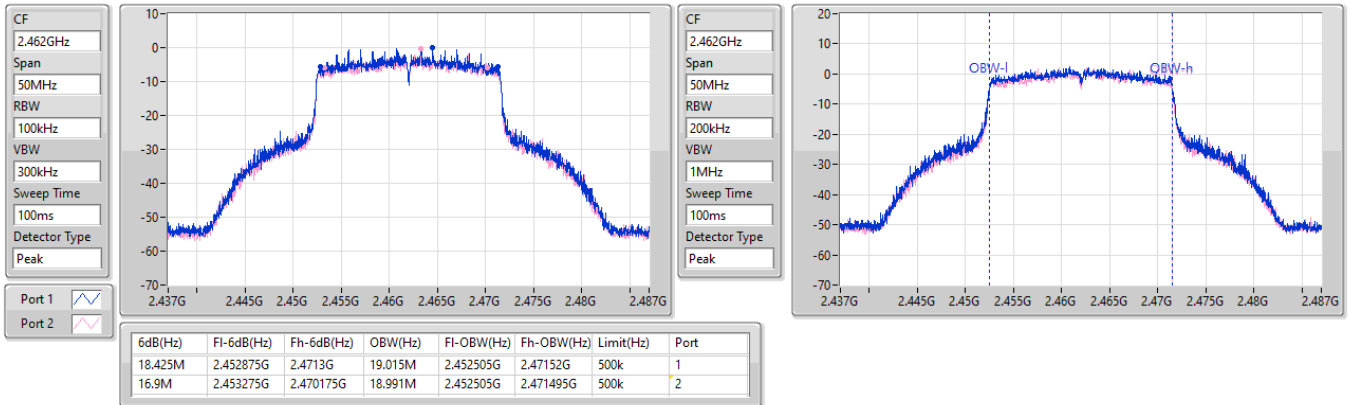


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

2462MHz

10/06/2023

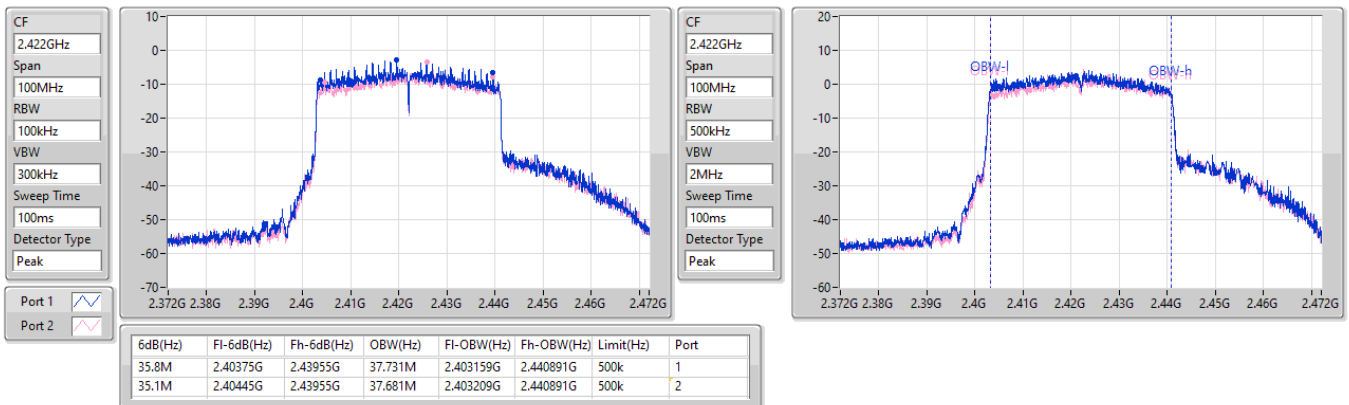


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2422MHz

10/06/2023

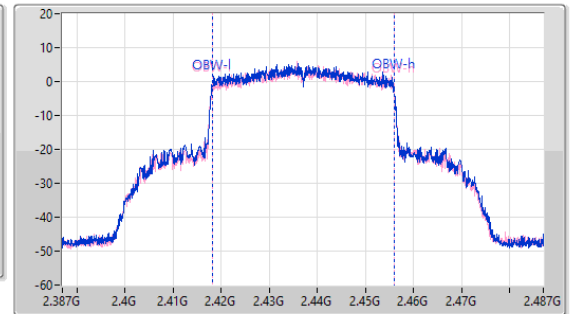
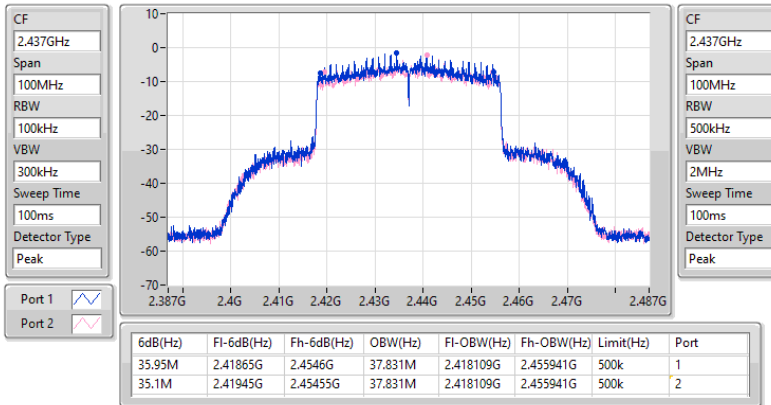


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2437MHz

10/06/2023

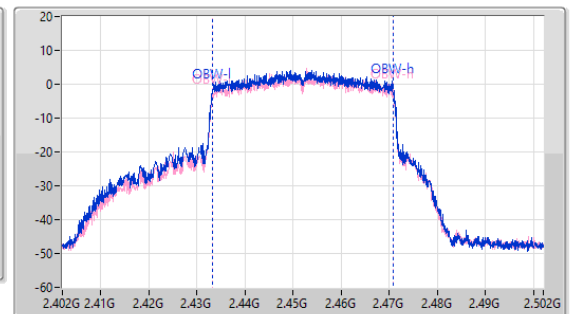
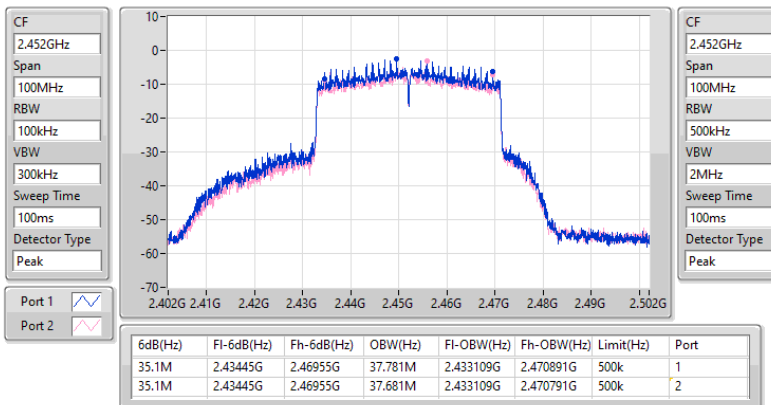


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2452MHz

10/06/2023





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	16.71	0.04688
802.11g_Nss1,(6Mbps)_2TX	15.17	0.03289
802.11ax HEW20_Nss1,(MCS0)_2TX	14.39	0.02748
802.11ax HEW40_Nss1,(MCS0)_2TX	14.29	0.02685

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.00	13.98	13.40	16.71	30.00
2437MHz	Pass	5.00	11.23	10.85	14.05	30.00
2462MHz	Pass	5.00	12.16	11.67	14.93	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.00	11.72	10.83	14.31	30.00
2417MHz	Pass	5.00	12.50	11.78	15.17	30.00
2437MHz	Pass	5.00	11.18	10.59	13.91	30.00
2462MHz	Pass	5.00	12.04	11.60	14.84	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.00	10.95	9.88	13.46	30.00
2417MHz	Pass	5.00	11.80	10.91	14.39	30.00
2437MHz	Pass	5.00	11.32	10.86	14.11	30.00
2462MHz	Pass	5.00	11.35	10.71	14.05	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.00	10.31	9.32	12.85	30.00
2427MHz	Pass	5.00	10.80	9.89	13.38	30.00
2437MHz	Pass	5.00	11.52	11.02	14.29	30.00
2447MHz	Pass	5.00	10.98	10.51	13.76	30.00
2452MHz	Pass	5.00	10.76	9.83	13.33	30.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	14.36	0.02729
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	14.26	0.02667

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.01	10.92	9.85	13.43	27.99
2417MHz	Pass	8.01	11.77	10.88	14.36	27.99
2437MHz	Pass	8.01	11.26	10.80	14.05	27.99
2462MHz	Pass	8.01	11.30	10.66	14.00	27.99
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	8.01	10.29	9.30	12.83	27.99
2427MHz	Pass	8.01	10.74	9.83	13.32	27.99
2437MHz	Pass	8.01	11.49	10.99	14.26	27.99
2447MHz	Pass	8.01	10.95	10.48	13.73	27.99
2452MHz	Pass	8.01	10.74	9.81	13.31	27.99

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	-7.64
802.11g_Nss1,(6Mbps)_2TX	-11.06
802.11ax HEW20_Nss1,(MCS0)_2TX	-12.81
802.11ax HEW40_Nss1,(MCS0)_2TX	-15.83

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	8.01	-9.31	-10.12	-7.64	5.99
2437MHz	Pass	8.01	-12.59	-12.46	-10.74	5.99
2462MHz	Pass	8.01	-10.38	-12.02	-9.02	5.99
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.01	-13.63	-15.16	-12.24	5.99
2437MHz	Pass	8.01	-14.87	-14.07	-12.18	5.99
2462MHz	Pass	8.01	-13.35	-13.19	-11.06	5.99
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.01	-16.18	-16.83	-13.68	5.99
2437MHz	Pass	8.01	-14.65	-15.65	-13.52	5.99
2462MHz	Pass	8.01	-15.26	-15.28	-12.81	5.99
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	8.01	-19.10	-18.77	-17.48	5.99
2437MHz	Pass	8.01	-17.73	-17.12	-15.83	5.99
2452MHz	Pass	8.01	-18.52	-19.88	-16.69	5.99

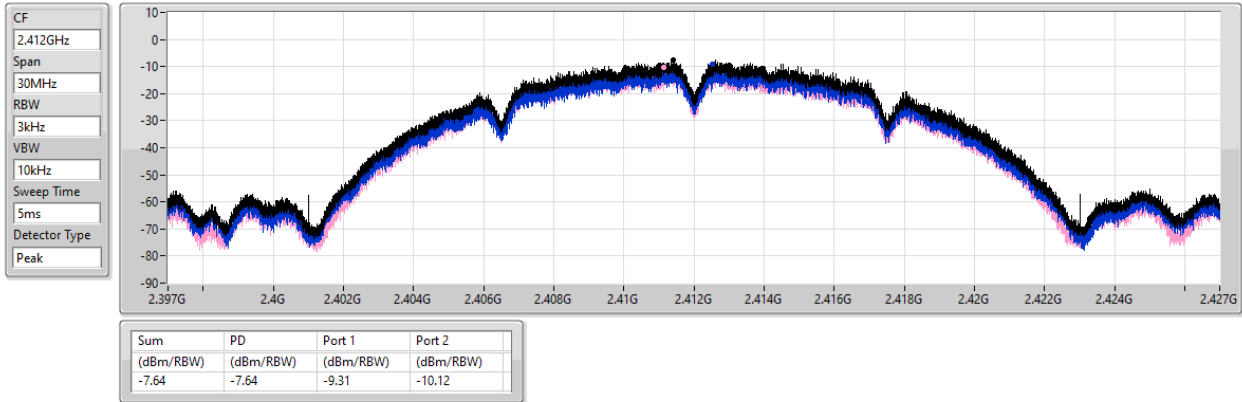
DG = Directional Gain; RBW = 3kHz;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

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

PSD

2412MHz

10/06/2023

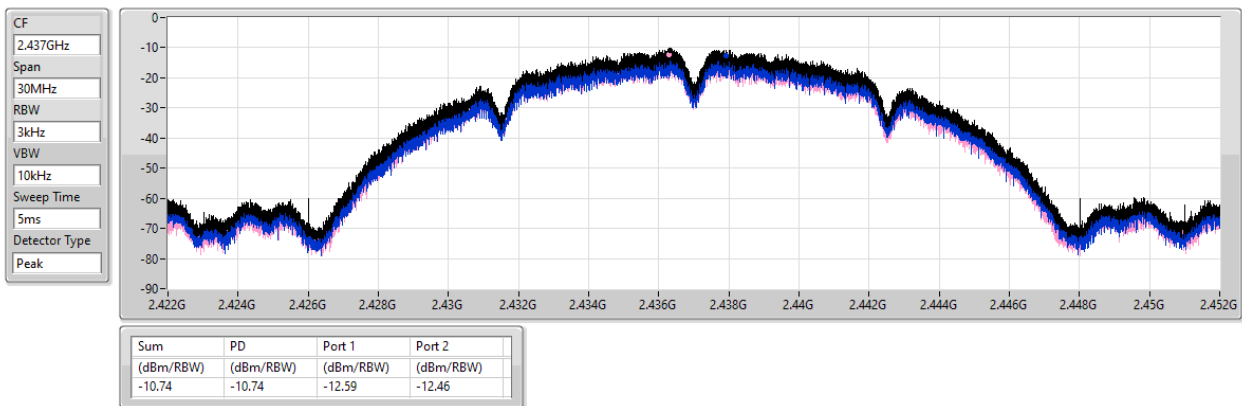


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

PSD

2437MHz

10/06/2023

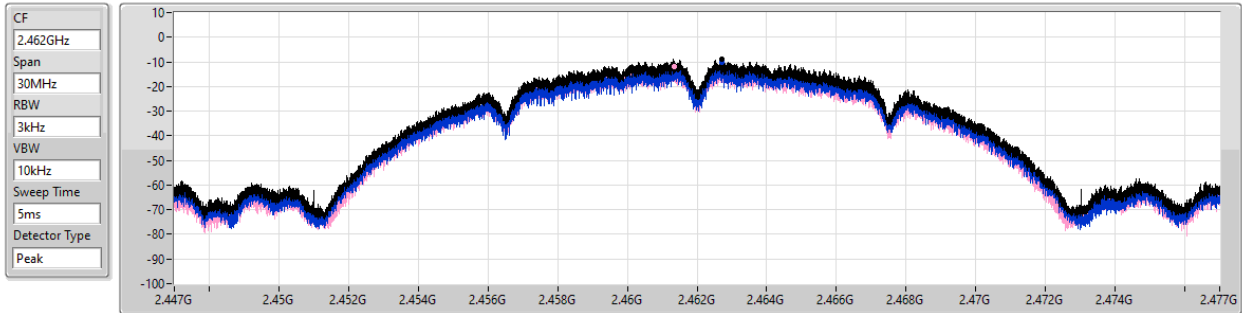


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

PSD

2462MHz

10/06/2023



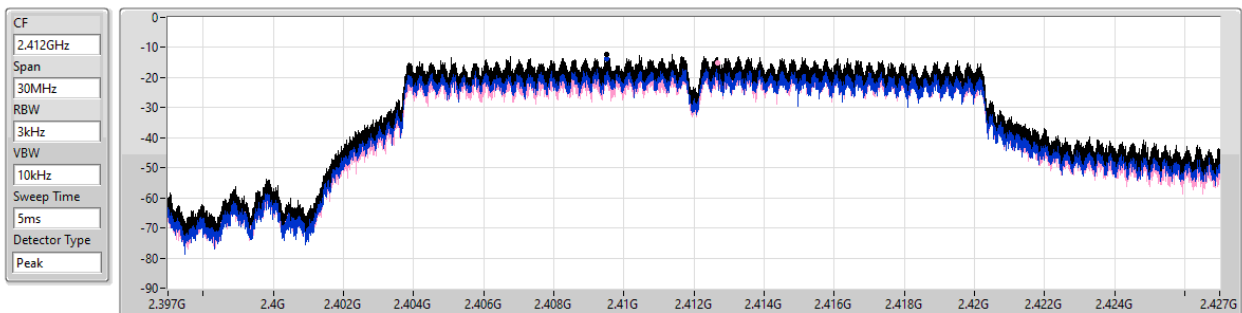
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-9.02	-9.02	-10.38	-12.02

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

PSD

2412MHz

10/06/2023



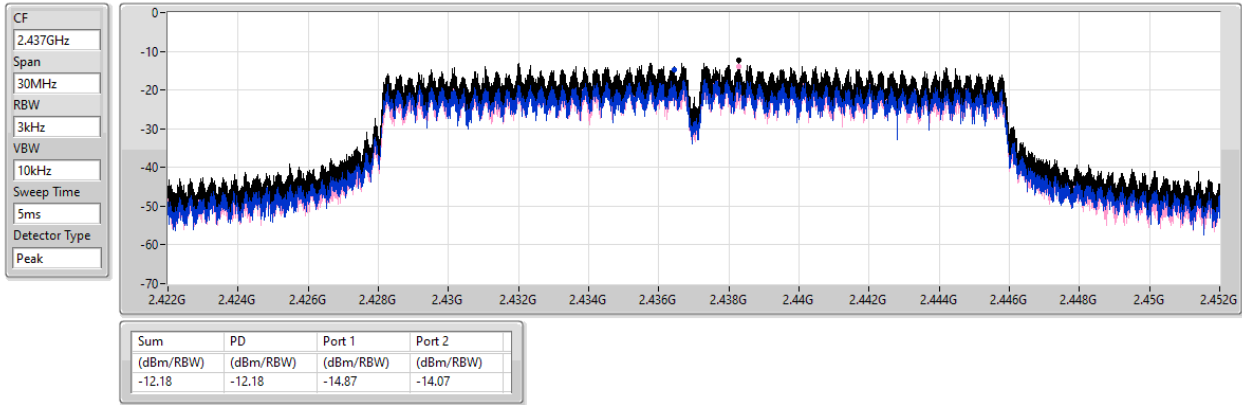
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-12.24	-12.24	-13.63	-15.16

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

PSD

2437MHz

10/06/2023

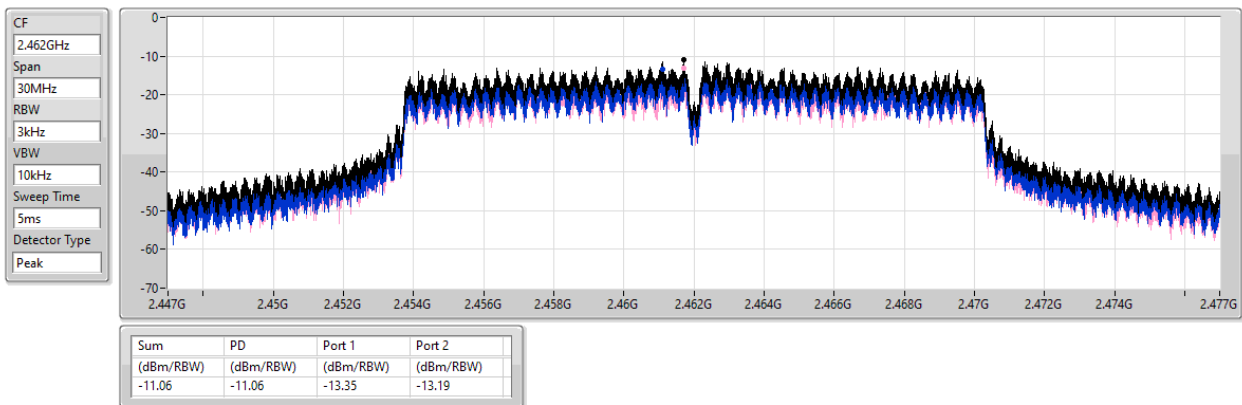


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

PSD

2462MHz

10/06/2023

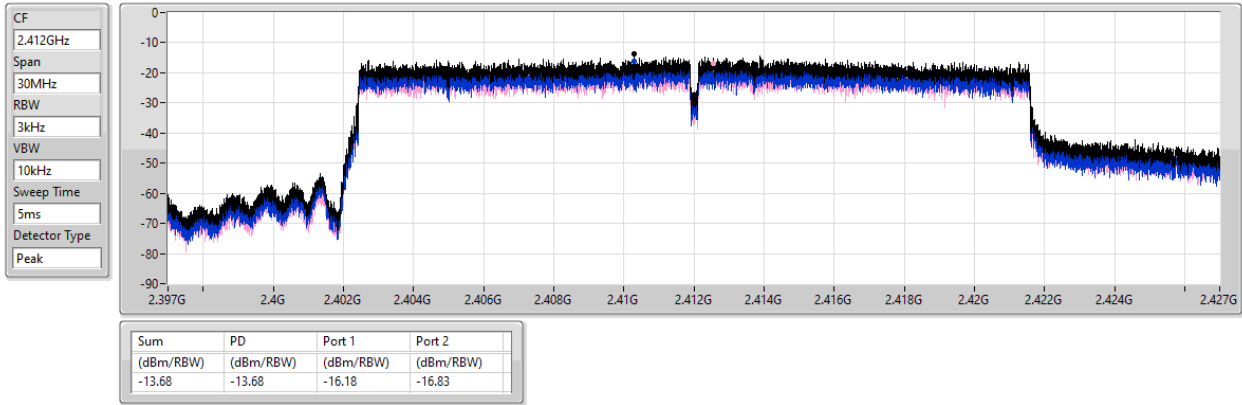


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2412MHz

10/06/2023

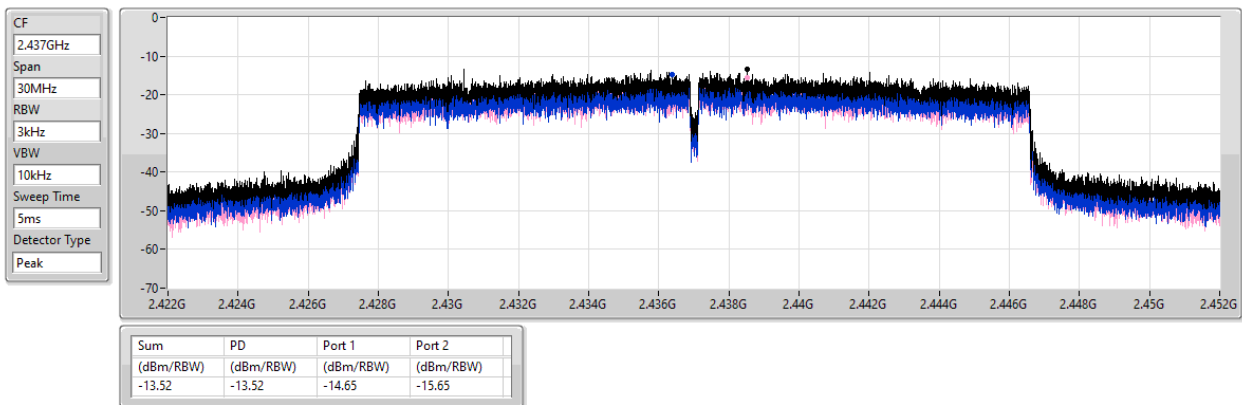


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2437MHz

10/06/2023

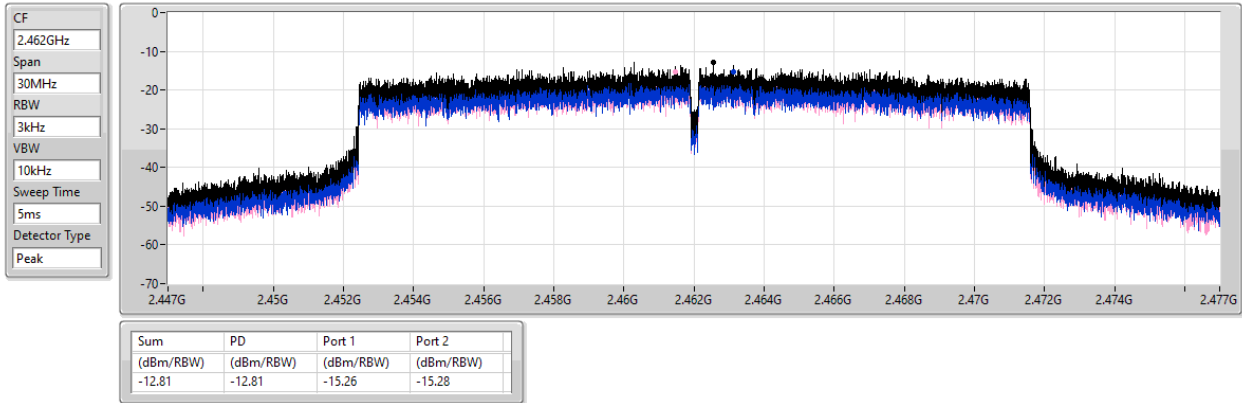


2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2462MHz

10/06/2023

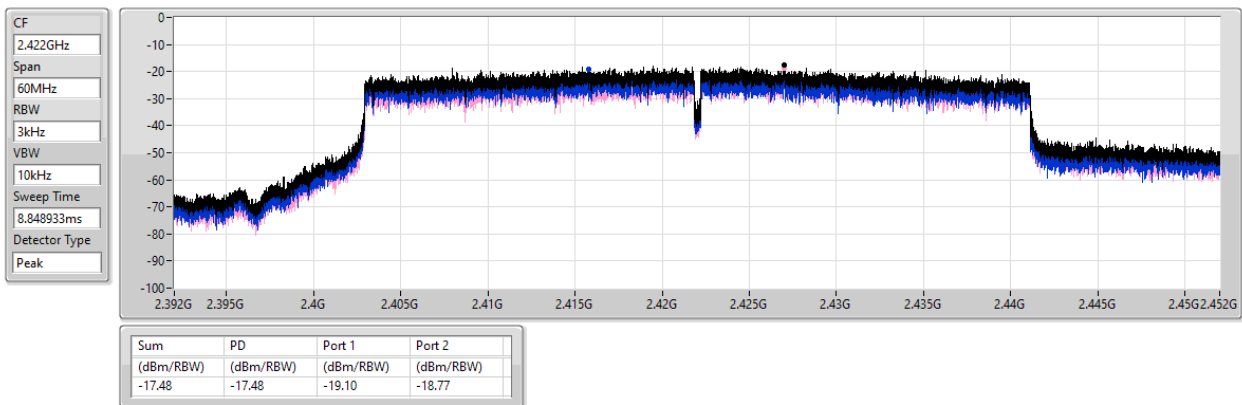


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2422MHz

10/06/2023

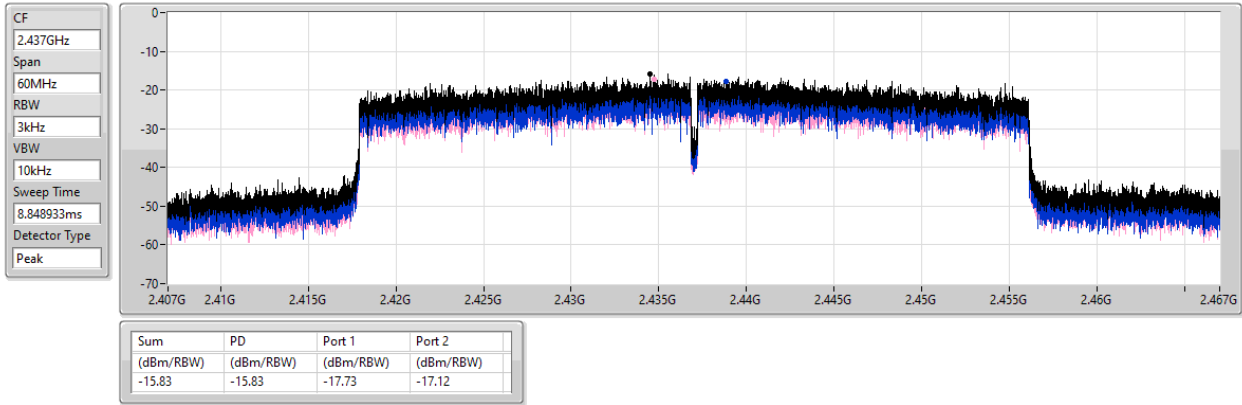


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2437MHz

10/06/2023

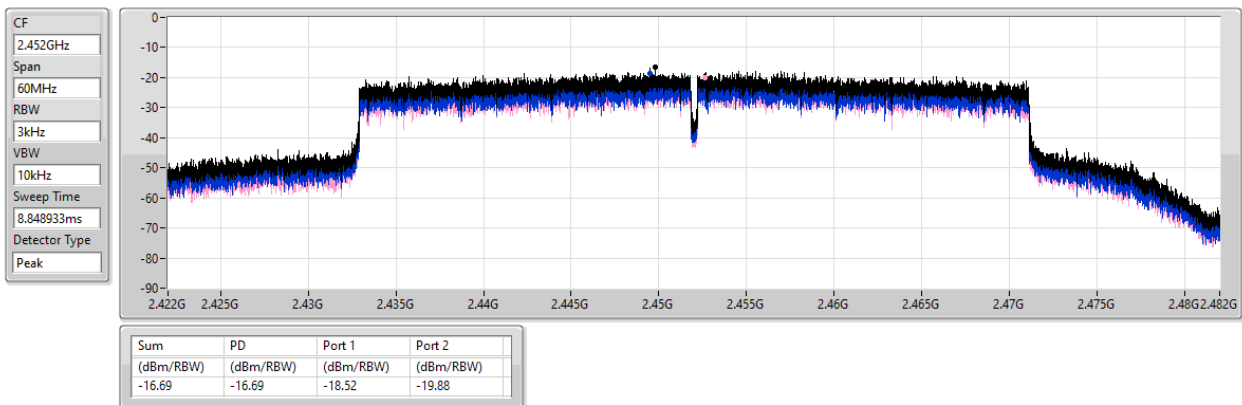


2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2452MHz

10/06/2023



**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	2.41286G	4.94	-25.06	2.08506G	-55.12	2.39704G	-42.74	2.4G	-46.87	2.5095G	-53.04	24.09251G	-41.01	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.43574G	1.47	-28.53	1.97439G	-53.68	2.39992G	-42.10	2.4G	-44.06	2.50198G	-53.34	24.80052G	-41.88	1
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.43574G	0.91	-29.09	2.17127G	-55.68	2.4G	-44.73	2.4G	-46.54	2.50054G	-52.82	24.61509G	-41.04	2
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.43457G	-1.39	-31.39	2.07383G	-54.93	2.4G	-38.54	2.4G	-38.27	2.52222G	-53.03	24.52322G	-41.91	1

Result

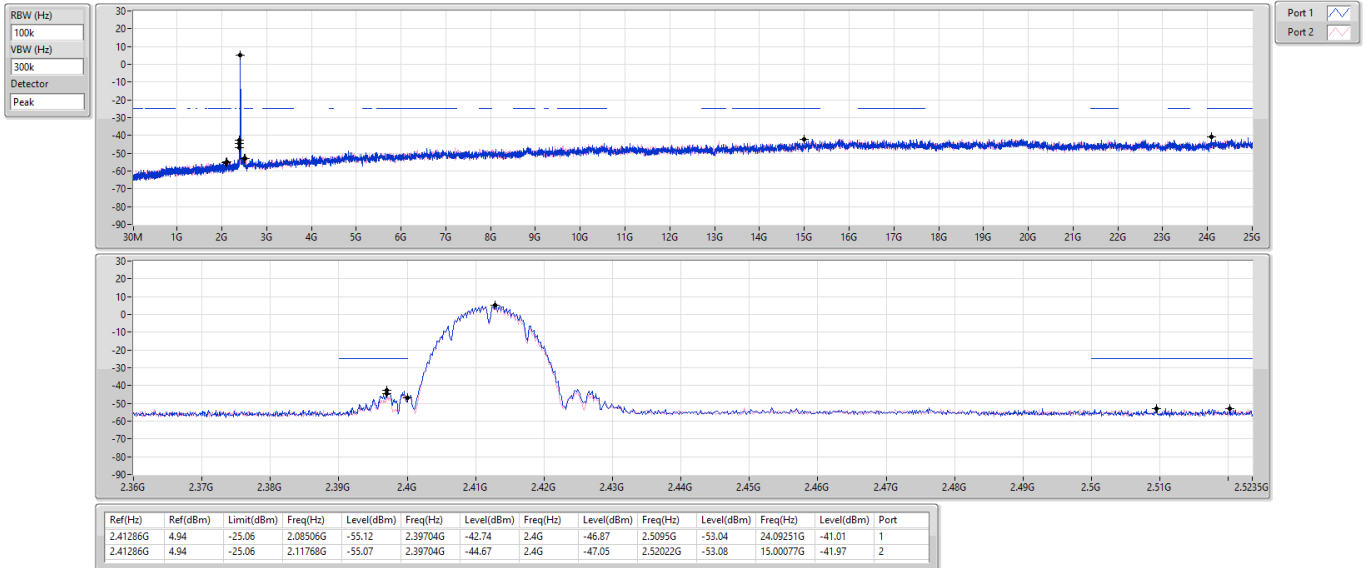
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.41286G	4.94	-25.06	2.08506G	-55.12	2.39704G	-42.74	2.4G	-46.87	2.5095G	-53.04	24.09251G	-41.01	1
2412MHz	Pass	2.41286G	4.94	-25.06	2.11768G	-55.07	2.39704G	-44.67	2.4G	-47.05	2.52022G	-53.08	15.00077G	-41.97	2
2437MHz	Pass	2.41286G	4.94	-25.06	2.30874G	-55.33	2.39216G	-53.88	2.4G	-55.48	2.51822G	-53.37	24.88762G	-42.26	1
2437MHz	Pass	2.41286G	4.94	-25.06	1.83226G	-55.40	2.39568G	-53.53	2.4G	-56.65	2.50406G	-52.88	24.15151G	-42.23	2
2462MHz	Pass	2.41286G	4.94	-25.06	2.11186G	-55.19	2.3948G	-53.22	2.4G	-56.09	2.5027G	-53.37	24.43809G	-41.42	1
2462MHz	Pass	2.41286G	4.94	-25.06	1.74139G	-55.08	2.39648G	-53.88	2.4G	-56.10	2.51534G	-53.03	24.823G	-40.62	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	1.47	-28.53	1.97439G	-53.68	2.39992G	-42.10	2.4G	-44.06	2.50198G	-53.34	24.80052G	-41.88	1
2412MHz	Pass	2.43574G	1.47	-28.53	1.8241G	-54.63	2.39992G	-42.49	2.4G	-44.67	2.50814G	-53.10	24.49147G	-41.33	2
2437MHz	Pass	2.43574G	1.47	-28.53	2.30292G	-54.63	2.39872G	-52.09	2.4G	-54.09	2.51702G	-52.77	24.52518G	-41.70	1
2437MHz	Pass	2.43574G	1.47	-28.53	2.30641G	-54.91	2.39176G	-52.62	2.4G	-54.01	2.50102G	-53.04	16.20326G	-42.21	2
2462MHz	Pass	2.43574G	1.47	-28.53	2.17826G	-53.86	2.39568G	-52.68	2.4G	-53.93	2.51214G	-51.97	17.5968G	-41.48	1
2462MHz	Pass	2.43574G	1.47	-28.53	2.15729G	-54.80	2.39056G	-52.59	2.4G	-54.01	2.50374G	-53.05	24.23861G	-41.40	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	0.91	-29.09	2.30525G	-55.03	2.39984G	-45.48	2.4G	-45.41	2.50318G	-52.29	24.51676G	-41.76	1
2412MHz	Pass	2.43574G	0.91	-29.09	2.17127G	-55.68	2.4G	-44.73	2.4G	-46.54	2.50054G	-52.82	24.61509G	-41.04	2
2437MHz	Pass	2.43574G	0.91	-29.09	2.14564G	-54.78	2.39472G	-53.58	2.4G	-54.12	2.51862G	-53.18	24.51956G	-42.32	1
2437MHz	Pass	2.43574G	0.91	-29.09	2.16661G	-54.40	2.39656G	-52.93	2.4G	-54.90	2.51638G	-52.31	16.80732G	-42.06	2
2462MHz	Pass	2.43574G	0.91	-29.09	2.12234G	-54.44	2.39664G	-53.09	2.4G	-55.91	2.52198G	-53.07	24.54204G	-40.27	1
2462MHz	Pass	2.43574G	0.91	-29.09	2.30641G	-55.42	2.3928G	-53.52	2.4G	-54.37	2.51606G	-52.56	24.32009G	-42.21	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43457G	-1.39	-31.39	2.07383G	-54.93	2.4G	-38.54	2.4G	-38.27	2.52222G	-53.03	24.52322G	-41.91	1
2422MHz	Pass	2.43457G	-1.39	-31.39	2.3097G	-55.32	2.4G	-40.95	2.4G	-40.19	2.51534G	-52.72	16.31988G	-41.54	2
2437MHz	Pass	2.43457G	-1.39	-31.39	2.02574G	-55.33	2.4G	-44.57	2.4G	-44.41	2.55294G	-52.88	24.59053G	-42.17	1
2437MHz	Pass	2.43457G	-1.39	-31.39	1.99597G	-54.84	2.39936G	-45.07	2.4G	-45.07	2.51454G	-52.88	17.10235G	-41.49	2
2452MHz	Pass	2.43457G	-1.39	-31.39	1.98223G	-54.02	2.39472G	-53.59	2.4G	-53.93	2.50766G	-51.81	24.5064G	-41.83	1
2452MHz	Pass	2.43457G	-1.39	-31.39	2.18489G	-55.39	2.39584G	-53.52	2.4G	-54.77	2.50702G	-53.01	24.65784G	-41.74	2

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

CSEndB

2412MHz

10/06/2023

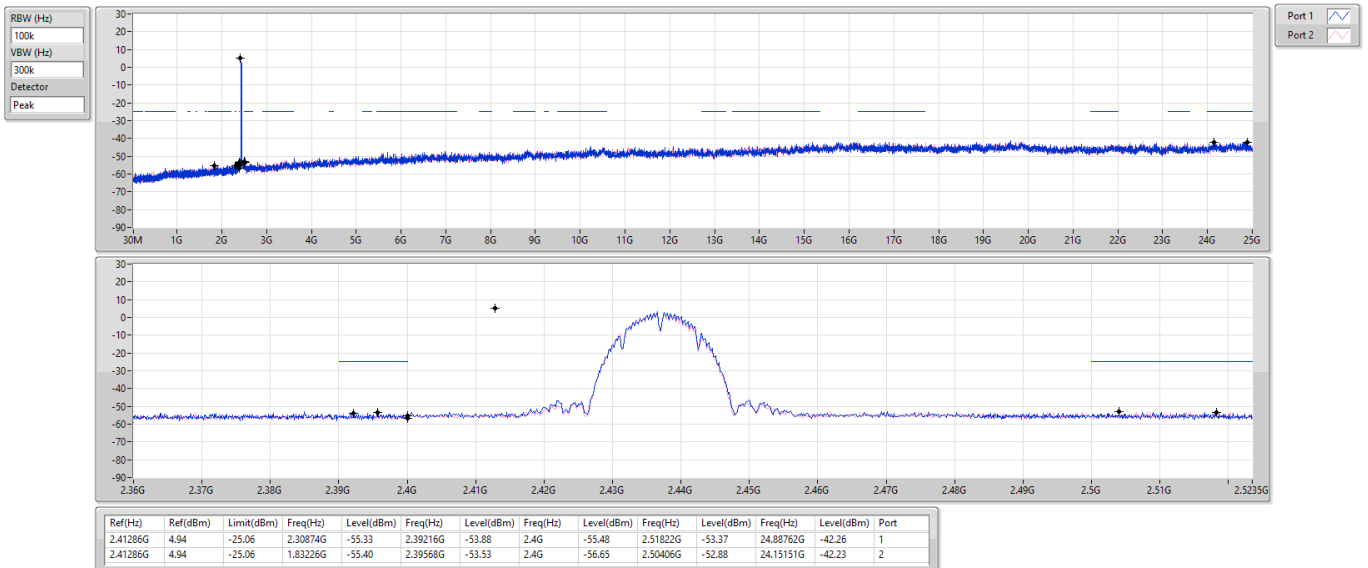


2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

CSEndB

2437MHz

10/06/2023



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

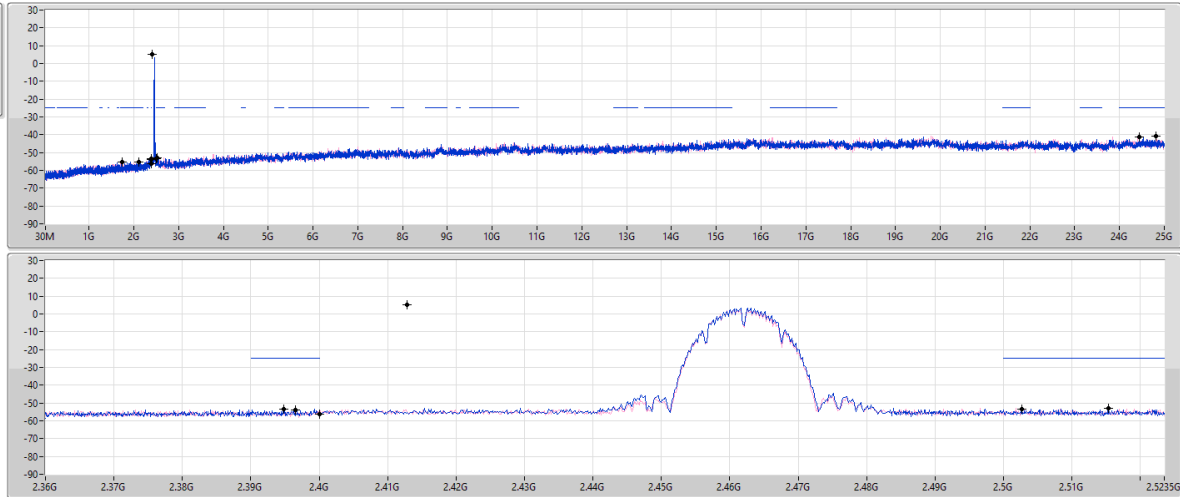
CSEndB

2462MHz

10/06/2023

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

Port 1
Port 2



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
2.41286G	4.94	-25.06	2.11186G	-55.19	2.3948G	-53.22	2.4G	-56.09	2.5027G	-53.37	2.43809G	-41.42	1
2.41286G	4.94	-25.06	1.74139G	-55.08	2.39648G	-53.88	2.4G	-56.10	2.51534G	-53.03	2.4823G	-40.62	2

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

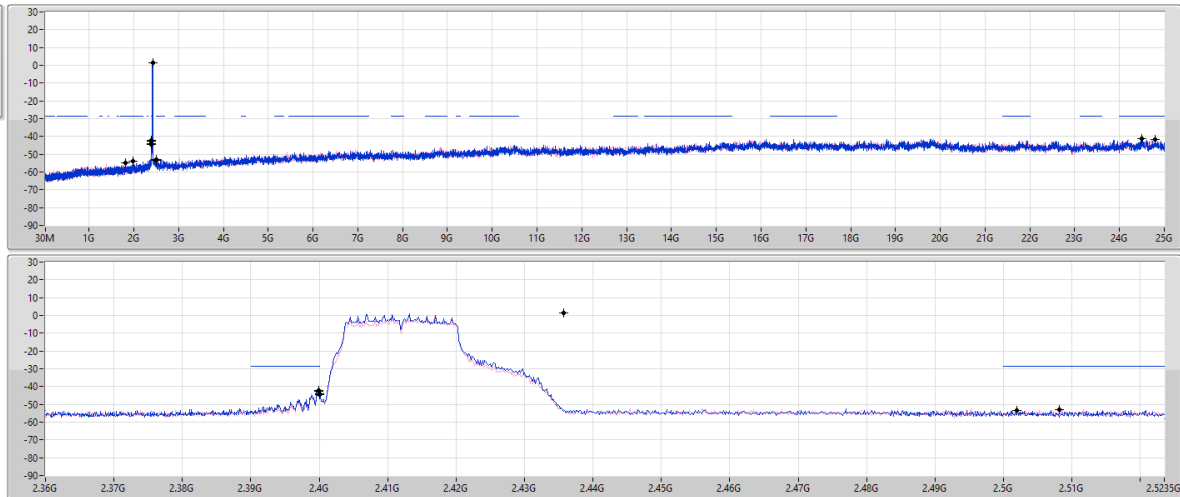
CSEndB

2412MHz

10/06/2023

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

Port 1
Port 2



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	1.47	-28.53	1.97439G	-53.68	2.39992G	-42.10	2.4G	-44.06	2.50198G	-53.34	2.480052G	-41.88	1
2.43574G	1.47	-28.53	1.8241G	-54.63	2.39992G	-42.49	2.4G	-44.67	2.50814G	-53.10	2.489147G	-41.33	2

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

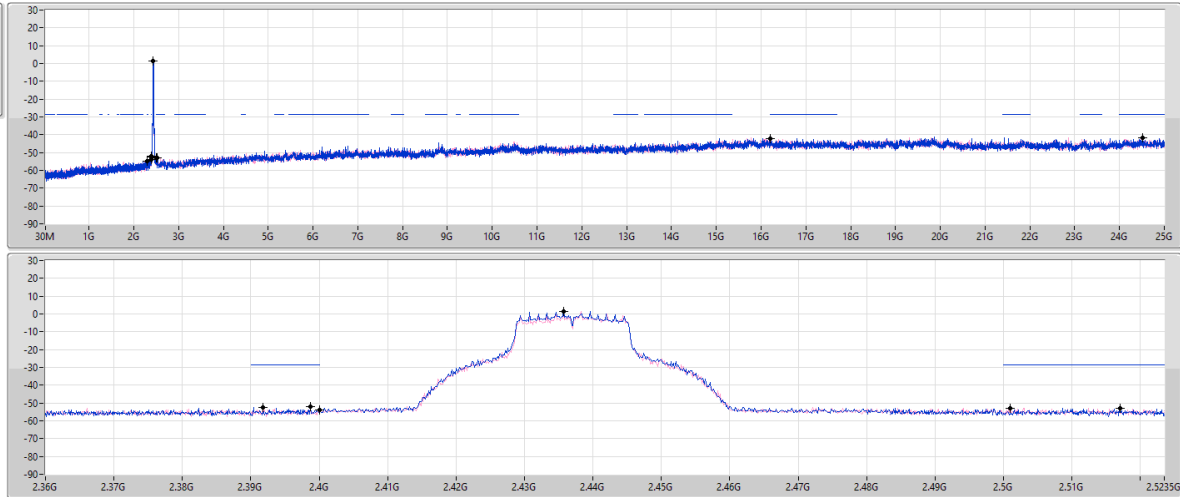
CSEndB

2437MHz

10/06/2023

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

Port 1
Port 2



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	1.47	-28.53	2.30292G	-54.63	2.39872G	-52.09	2.4G	-54.09	2.51702G	-52.77	2.452518G	-41.70	1
2.43574G	1.47	-28.53	2.30641G	-54.91	2.39176G	-52.62	2.4G	-54.01	2.50102G	-53.04	16.20326G	-42.21	2

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

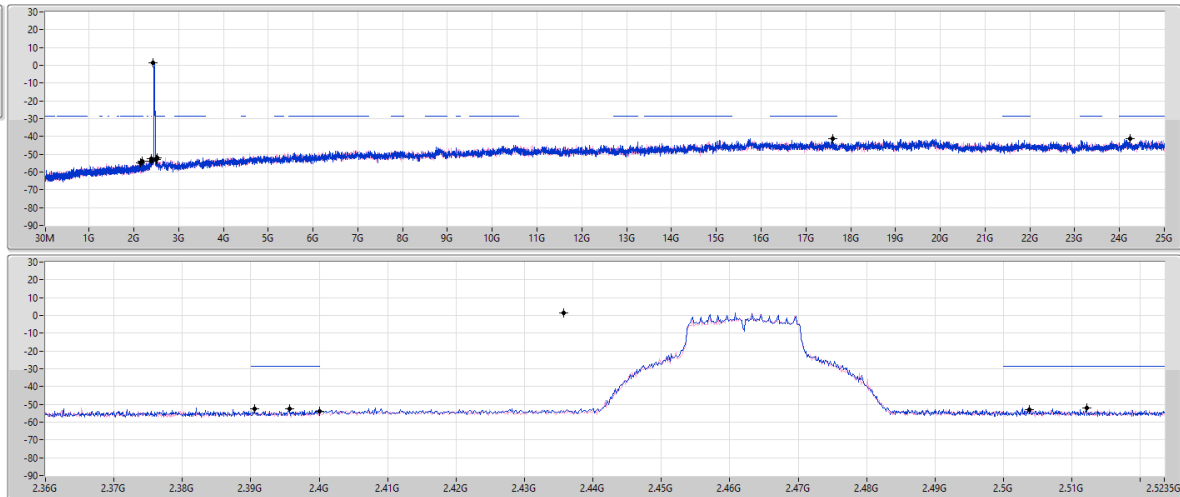
CSEndB

2462MHz

10/06/2023

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

Port 1
Port 2



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	1.47	-28.53	2.17826G	-53.86	2.39568G	-52.68	2.4G	-53.93	2.51214G	-51.97	17.5968G	-41.48	1
2.43574G	1.47	-28.53	2.15729G	-54.80	2.39096G	-52.59	2.4G	-54.01	2.50374G	-53.05	24.23861G	-41.40	2

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

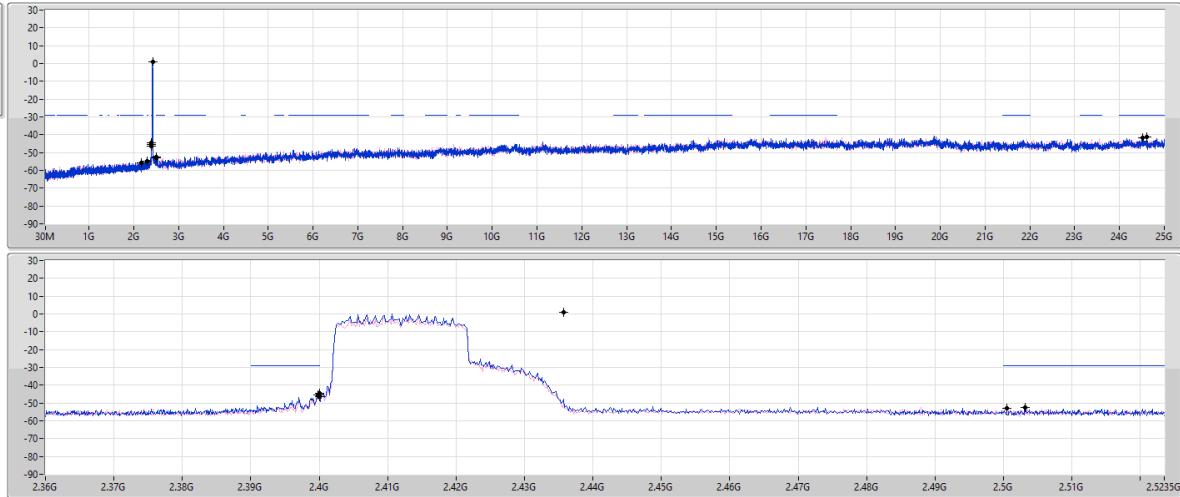
CSEndB

2412MHz

10/06/2023

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

Port 1
Port 2



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	0.91	-29.09	2.30525G	-55.03	2.39984G	-45.48	2.4G	-45.41	2.50318G	-52.29	2.51676G	-41.76	1
2.43574G	0.91	-29.09	2.17127G	-55.68	2.4G	-44.73	2.4G	-46.54	2.50054G	-52.82	2.61509G	-41.04	2

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

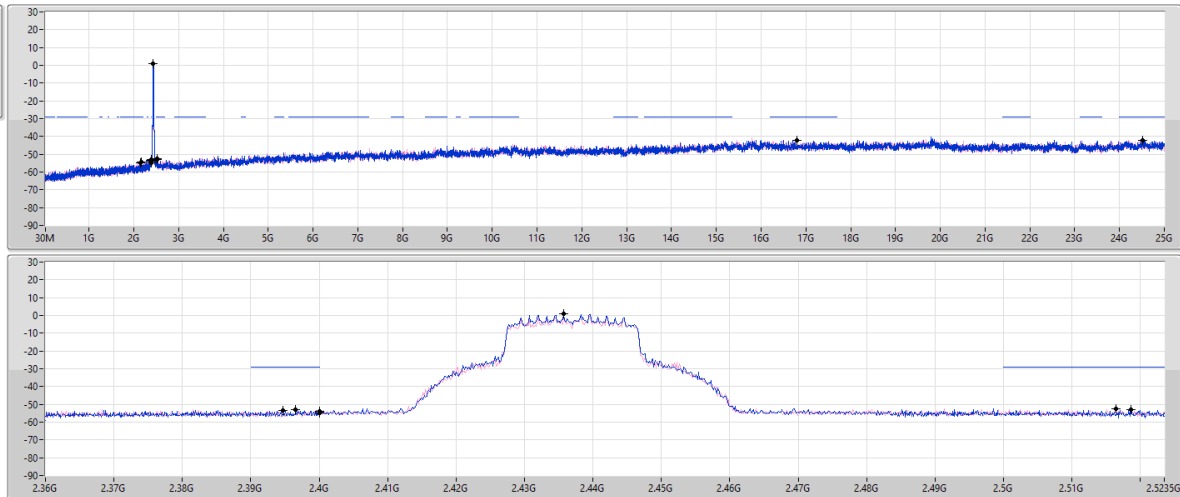
CSEndB

2437MHz

10/06/2023

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

Port 1
Port 2



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	0.91	-29.09	2.14564G	-54.78	2.39472G	-53.38	2.4G	-54.12	2.51862G	-53.18	2.51956G	-42.32	1
2.43574G	0.91	-29.09	2.16661G	-54.40	2.39659G	-52.93	2.4G	-54.90	2.51638G	-52.31	2.60732G	-42.06	2

2.4-2.4835GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

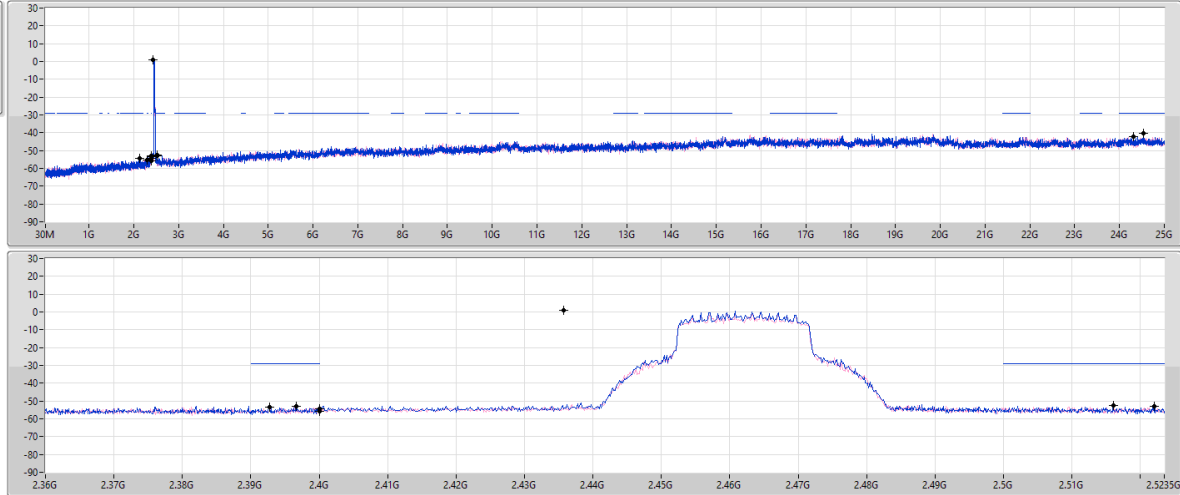
CSEndB

2462MHz

10/06/2023

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

Port 1
Port 2



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	0.91	-29.09	2.12234G	-54.44	2.39664G	-53.09	2.4G	-55.91	2.52198G	-53.07	2.454204G	-40.27	1
2.43574G	0.91	-29.09	2.30641G	-55.42	2.3928G	-53.52	2.4G	-54.37	2.51606G	-52.56	2.432009G	-42.21	2

2.4-2.4835GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

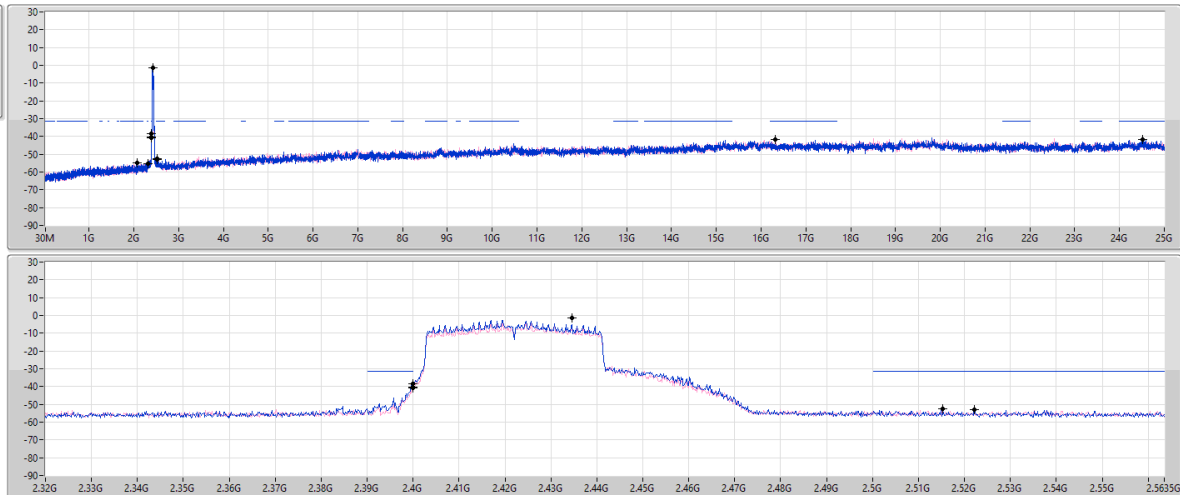
CSEndB

2422MHz

10/06/2023

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

Port 1
Port 2



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
2.43457G	-1.39	-31.39	2.07383G	-54.93	2.4G	-38.54	2.4G	-38.27	2.52222G	-53.03	2.452322G	-41.91	1
2.43457G	-1.39	-31.39	2.3097G	-55.32	2.4G	-40.95	2.4G	-40.19	2.51534G	-52.72	2.431988G	-41.54	2

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

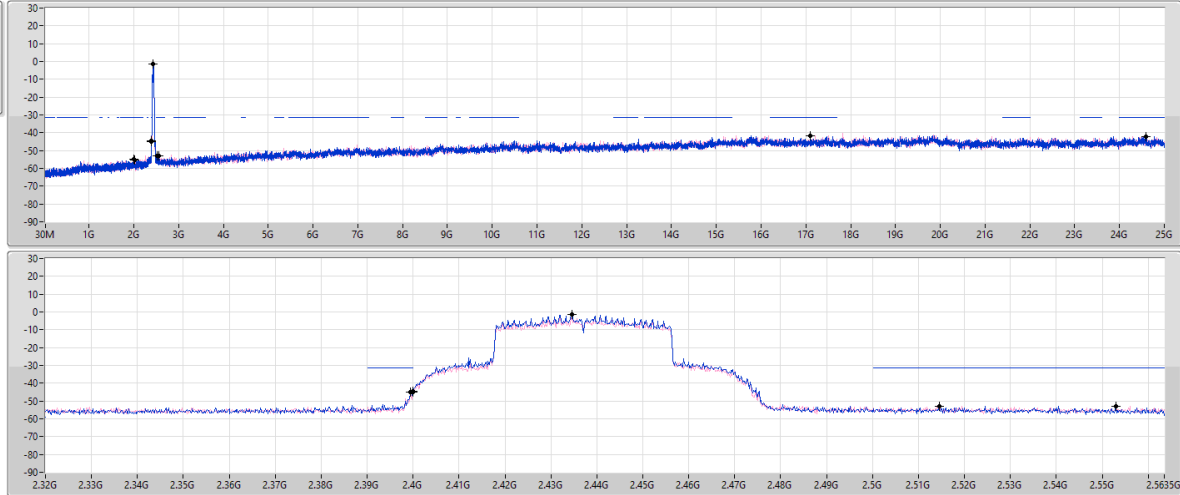
CSEndB

2437MHz

10/06/2023

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

Port 1
Port 2



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
2.43457G	-1.39	-31.39	2.02574G	-55.33	2.4G	-44.57	2.4G	-44.41	2.55294G	-52.88	24.59053G	-42.17	1
2.43457G	-1.39	-31.39	1.99597G	-54.84	2.39938G	-45.07	2.4G	-45.07	2.51454G	-52.88	17.10235G	-41.49	2

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

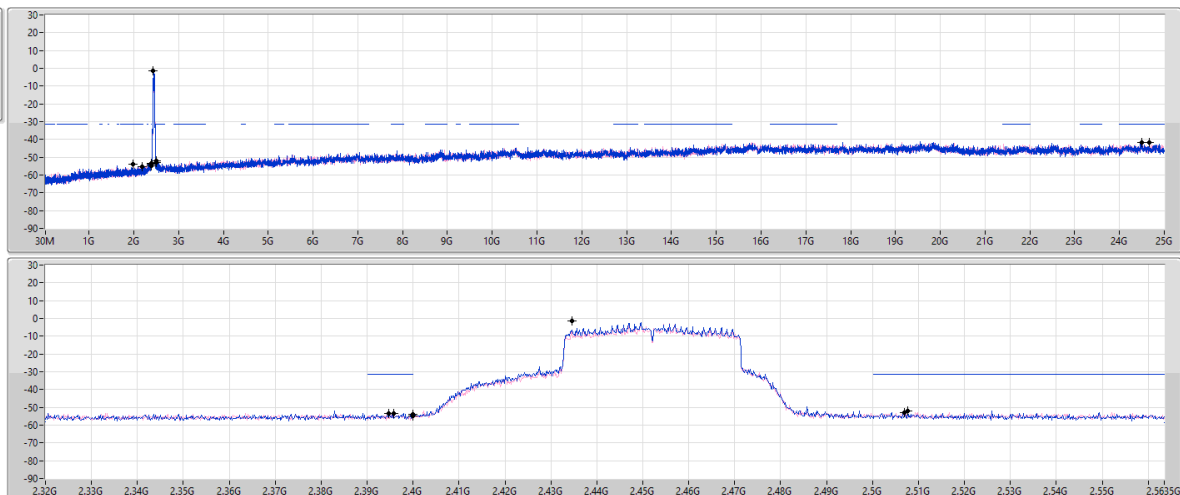
CSEndB

2452MHz

10/06/2023

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

Port 1
Port 2



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
2.43457G	-1.39	-31.39	1.98223G	-54.02	2.39472G	-53.59	2.4G	-53.93	2.50766G	-51.81	24.5084G	-41.83	1
2.43457G	-1.39	-31.39	2.18489G	-55.39	2.39584G	-53.52	2.4G	-54.77	2.50702G	-53.01	24.65784G	-41.74	2



Summary

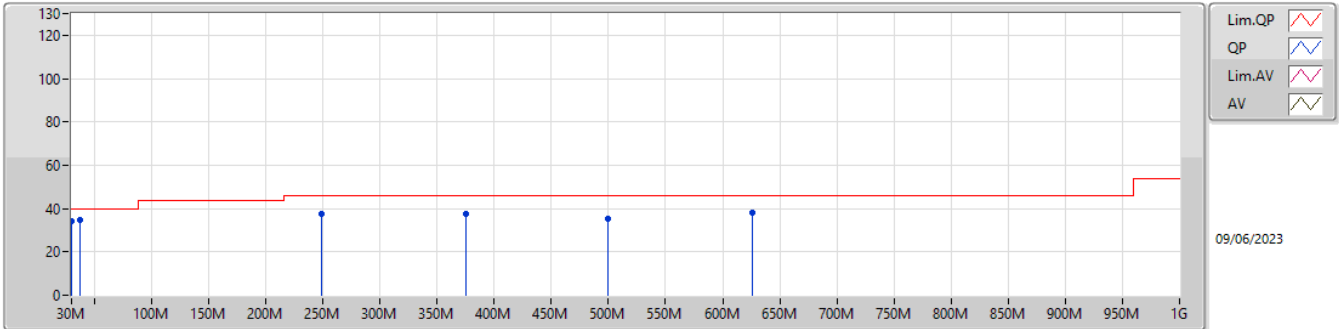
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	QP	375M	45.00	46.00	-1.00	3	Horizontal	273	1.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	30M	34.26	40.00	-5.74	3	Vertical	0	1.00
2437MHz	Pass	PK	249.22M	37.47	46.00	-8.53	3	Vertical	0	1.00
2437MHz	Pass	PK	375.32M	37.73	46.00	-8.27	3	Vertical	0	1.00
2437MHz	Pass	PK	499.48M	35.37	46.00	-10.63	3	Vertical	0	1.00
2437MHz	Pass	PK	625.58M	37.86	46.00	-8.14	3	Vertical	0	1.00
2437MHz	Pass	QP	37.52M	34.82	40.00	-5.18	3	Vertical	93	1.05
2437MHz	Pass	PK	30M	29.35	40.00	-10.65	3	Horizontal	360	1.00
2437MHz	Pass	PK	35.82M	35.39	40.00	-4.61	3	Horizontal	360	1.00
2437MHz	Pass	PK	224M	43.88	46.00	-2.12	3	Horizontal	360	1.00
2437MHz	Pass	PK	499.48M	35.52	46.00	-10.48	3	Horizontal	360	1.00
2437MHz	Pass	PK	623.64M	36.79	46.00	-9.21	3	Horizontal	360	1.00
2437MHz	Pass	QP	375M	45.00	46.00	-1.00	3	Horizontal	273	1.00

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

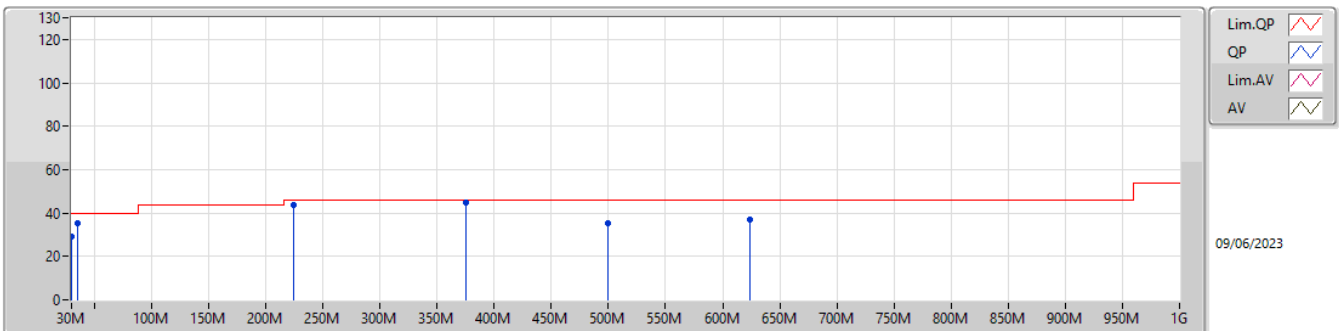
2437MHz_Test fixture



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	34.26	40.00	-5.74	-2.61	3	Vertical	0	1.00	36.87	23.14	1.21	26.96
PK	249.22M	37.47	46.00	-8.53	-6.65	3	Vertical	0	1.00	44.12	17.47	3.04	27.16
PK	375.32M	37.73	46.00	-8.27	-3.86	3	Vertical	0	1.00	41.59	20.03	3.78	27.67
PK	499.48M	35.37	46.00	-10.63	-1.28	3	Vertical	0	1.00	36.65	22.65	4.41	28.34
PK	625.58M	37.86	46.00	-8.14	0.62	3	Vertical	0	1.00	37.24	24.18	4.94	28.50
QP	37.52M	34.82	40.00	-5.18	-6.17	3	Vertical	93	1.05	40.99	19.16	1.38	26.71

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2437MHz_Test fixture



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	30M	29.35	40.00	-10.65	-2.61	3	Horizontal	360	1.00	31.96	23.14	1.21	26.96
PK	35.82M	35.39	40.00	-4.61	-5.29	3	Horizontal	360	1.00	40.68	20.01	1.35	26.65
PK	224M	43.88	46.00	-2.12	-9.70	3	Horizontal	360	1.00	53.58	14.67	2.92	27.29
PK	499.48M	35.52	46.00	-10.48	-1.28	3	Horizontal	360	1.00	36.80	22.65	4.41	28.34
PK	623.64M	36.79	46.00	-9.21	0.59	3	Horizontal	360	1.00	36.20	24.16	4.93	28.50
QP	375M	45.00	46.00	-1.00	-3.86	3	Horizontal	273	1.00	48.86	20.03	3.78	27.67

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	AV	7.31184G	53.86	54.00	-0.14	3	Vertical	288	1.12
802.11g_Nss1,(6Mbps)_2TX	Pass	AV	7.3118G	53.65	54.00	-0.35	3	Vertical	301	1.10
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	AV	2.4835G	53.56	54.00	-0.44	3	Horizontal	105	1.28
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	AV	2.3882G	53.71	54.00	-0.29	3	Horizontal	94	1.06

Result

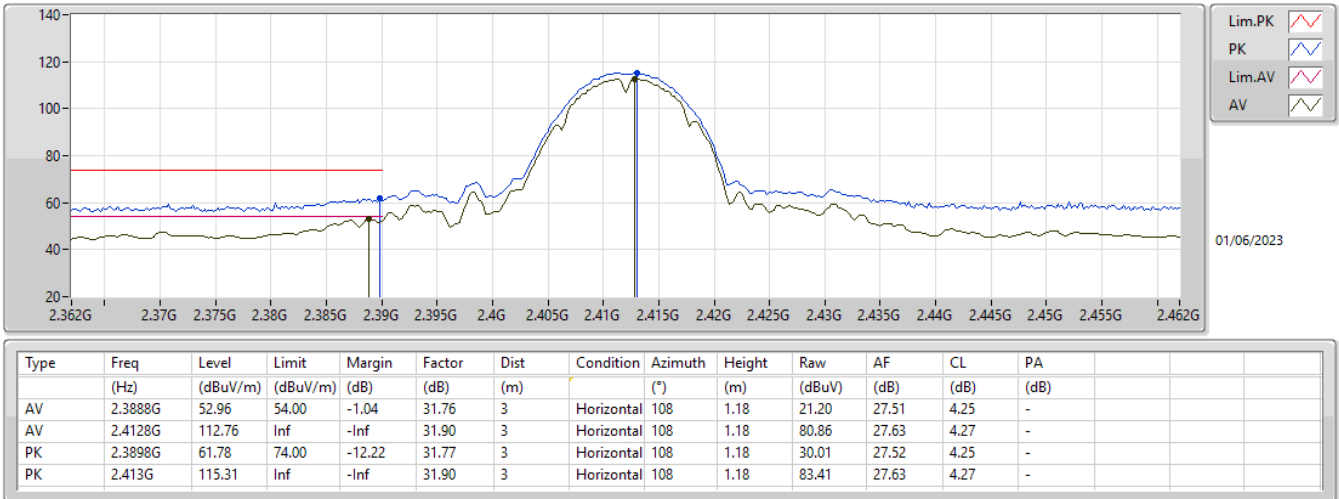
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3888G	52.96	54.00	-1.04	3	Horizontal	108	1.18
2412MHz	Pass	AV	2.4128G	112.76	Inf	-Inf	3	Horizontal	108	1.18
2412MHz	Pass	PK	2.3898G	61.78	74.00	-12.22	3	Horizontal	108	1.18
2412MHz	Pass	PK	2.413G	115.31	Inf	-Inf	3	Horizontal	108	1.18
2412MHz	Pass	AV	4.82404G	52.46	54.00	-1.54	3	Vertical	96	2.65
2412MHz	Pass	PK	4.82396G	54.63	74.00	-19.37	3	Vertical	96	2.65
2412MHz	Pass	AV	4.82404G	53.54	54.00	-0.46	3	Horizontal	319	1.10
2412MHz	Pass	PK	4.824G	55.47	74.00	-18.53	3	Horizontal	319	1.10
2437MHz	Pass	AV	2.3894G	44.57	54.00	-9.43	3	Horizontal	94	1.02
2437MHz	Pass	AV	2.4362G	110.34	Inf	-Inf	3	Horizontal	94	1.02
2437MHz	Pass	AV	2.4902G	45.15	54.00	-8.85	3	Horizontal	94	1.02
2437MHz	Pass	PK	2.375G	58.06	74.00	-15.94	3	Horizontal	94	1.02
2437MHz	Pass	PK	2.4362G	113.38	Inf	-Inf	3	Horizontal	94	1.02
2437MHz	Pass	PK	2.4974G	58.40	74.00	-15.60	3	Horizontal	94	1.02
2437MHz	Pass	AV	4.87402G	48.21	54.00	-5.79	3	Vertical	96	1.08
2437MHz	Pass	AV	7.31184G	53.86	54.00	-0.14	3	Vertical	288	1.12
2437MHz	Pass	PK	4.87404G	51.21	74.00	-22.79	3	Vertical	96	1.08
2437MHz	Pass	PK	7.31202G	58.70	74.00	-15.30	3	Vertical	288	1.12
2437MHz	Pass	AV	4.87406G	50.55	54.00	-3.45	3	Horizontal	315	1.12
2437MHz	Pass	AV	7.31236G	49.90	54.00	-4.10	3	Horizontal	330	1.07
2437MHz	Pass	PK	4.87406G	53.23	74.00	-20.77	3	Horizontal	315	1.12
2437MHz	Pass	PK	7.31256G	55.30	74.00	-18.70	3	Horizontal	330	1.07
2462MHz	Pass	AV	2.4612G	110.44	Inf	-Inf	3	Horizontal	105	1.27
2462MHz	Pass	AV	2.4835G	46.91	54.00	-7.09	3	Horizontal	105	1.27
2462MHz	Pass	PK	2.4612G	113.14	Inf	-Inf	3	Horizontal	105	1.27
2462MHz	Pass	PK	2.4838G	59.38	74.00	-14.62	3	Horizontal	105	1.27
2462MHz	Pass	AV	4.92408G	46.79	54.00	-7.21	3	Vertical	112	1.11
2462MHz	Pass	AV	7.38784G	53.59	54.00	-0.41	3	Vertical	301	1.00
2462MHz	Pass	PK	4.92398G	50.60	74.00	-23.40	3	Vertical	112	1.11
2462MHz	Pass	PK	7.38766G	58.07	74.00	-15.93	3	Vertical	301	1.00
2462MHz	Pass	AV	4.92406G	51.35	54.00	-2.65	3	Horizontal	318	1.04
2462MHz	Pass	AV	7.38534G	52.06	54.00	-1.94	3	Horizontal	54	1.14
2462MHz	Pass	PK	4.92416G	53.81	74.00	-20.19	3	Horizontal	318	1.04
2462MHz	Pass	PK	7.3847G	57.02	74.00	-16.98	3	Horizontal	54	1.14
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	53.00	54.00	-1.00	3	Horizontal	104	1.00
2412MHz	Pass	AV	2.4098G	104.15	Inf	-Inf	3	Horizontal	104	1.00
2412MHz	Pass	PK	2.3898G	69.51	74.00	-4.49	3	Horizontal	104	1.00
2412MHz	Pass	PK	2.4142G	113.36	Inf	-Inf	3	Horizontal	104	1.00
2412MHz	Pass	AV	4.82492G	35.92	54.00	-18.08	3	Vertical	241	1.23
2412MHz	Pass	PK	4.82436G	49.10	74.00	-24.90	3	Vertical	241	1.23
2412MHz	Pass	AV	4.82416G	36.74	54.00	-17.26	3	Horizontal	318	1.13
2412MHz	Pass	PK	4.82528G	49.74	74.00	-24.26	3	Horizontal	318	1.13
2417MHz	Pass	AV	2.39G	50.75	54.00	-3.25	3	Horizontal	108	1.12
2417MHz	Pass	AV	2.419G	105.51	Inf	-Inf	3	Horizontal	108	1.12
2417MHz	Pass	PK	2.3862G	69.18	74.00	-4.82	3	Horizontal	108	1.12
2417MHz	Pass	PK	2.4192G	114.78	Inf	-Inf	3	Horizontal	108	1.12
2417MHz	Pass	AV	4.84392G	37.27	54.00	-16.73	3	Vertical	302	2.88
2417MHz	Pass	AV	7.25012G	53.24	54.00	-0.76	3	Vertical	289	1.00
2417MHz	Pass	PK	4.84368G	45.60	74.00	-28.40	3	Vertical	302	2.88
2417MHz	Pass	PK	7.25108G	68.08	74.00	-5.92	3	Vertical	289	1.00
2417MHz	Pass	AV	4.84332G	36.54	54.00	-17.46	3	Horizontal	252	1.06
2417MHz	Pass	AV	7.25276G	50.92	54.00	-3.08	3	Horizontal	53	1.03
2417MHz	Pass	PK	4.84332G	49.39	74.00	-24.61	3	Horizontal	252	1.06
2417MHz	Pass	PK	7.25292G	65.75	74.00	-8.25	3	Horizontal	53	1.03
2437MHz	Pass	AV	2.3882G	46.64	54.00	-7.36	3	Horizontal	93	1.01
2437MHz	Pass	AV	2.4374G	106.51	Inf	-Inf	3	Horizontal	93	1.01
2437MHz	Pass	AV	2.4914G	46.94	54.00	-7.06	3	Horizontal	93	1.01
2437MHz	Pass	PK	2.3874G	58.98	74.00	-15.02	3	Horizontal	93	1.01
2437MHz	Pass	PK	2.4378G	115.79	Inf	-Inf	3	Horizontal	93	1.01

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2437MHz	Pass	PK	2.491G	59.18	74.00	-14.82	3	Horizontal	93	1.01
2437MHz	Pass	AV	4.87528G	35.92	54.00	-18.08	3	Vertical	96	1.08
2437MHz	Pass	AV	7.3118G	53.65	54.00	-0.35	3	Vertical	301	1.10
2437MHz	Pass	PK	4.87536G	49.15	74.00	-24.85	3	Vertical	96	1.08
2437MHz	Pass	PK	7.3114G	68.61	74.00	-5.39	3	Vertical	301	1.10
2437MHz	Pass	AV	4.8744G	37.60	54.00	-16.40	3	Horizontal	314	1.00
2437MHz	Pass	AV	7.31364G	50.65	54.00	-3.35	3	Horizontal	55	1.18
2437MHz	Pass	PK	4.87508G	50.55	74.00	-23.45	3	Horizontal	314	1.00
2437MHz	Pass	PK	7.31416G	66.36	74.00	-7.64	3	Horizontal	55	1.18
2462MHz	Pass	AV	2.4628G	105.25	Inf	-Inf	3	Horizontal	95	1.25
2462MHz	Pass	AV	2.4835G	52.83	54.00	-1.17	3	Horizontal	95	1.25
2462MHz	Pass	PK	2.4632G	114.08	Inf	-Inf	3	Horizontal	95	1.25
2462MHz	Pass	PK	2.484G	68.51	74.00	-5.49	3	Horizontal	95	1.25
2462MHz	Pass	AV	4.92516G	34.09	54.00	-19.91	3	Vertical	113	1.29
2462MHz	Pass	AV	7.384G	52.48	54.00	-1.52	3	Vertical	287	1.12
2462MHz	Pass	PK	4.91968G	47.55	74.00	-26.45	3	Vertical	113	1.29
2462MHz	Pass	PK	7.38384G	67.44	74.00	-6.56	3	Vertical	287	1.12
2462MHz	Pass	AV	4.92432G	37.55	54.00	-16.45	3	Horizontal	320	1.00
2462MHz	Pass	AV	7.384G	49.47	54.00	-4.53	3	Horizontal	330	1.00
2462MHz	Pass	PK	4.92484G	50.10	74.00	-23.90	3	Horizontal	320	1.00
2462MHz	Pass	PK	7.3888G	63.97	74.00	-10.03	3	Horizontal	330	1.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3884G	52.71	54.00	-1.29	3	Horizontal	104	1.03
2412MHz	Pass	AV	2.4132G	104.44	Inf	-Inf	3	Horizontal	104	1.03
2412MHz	Pass	PK	2.3894G	66.76	74.00	-7.24	3	Horizontal	104	1.03
2412MHz	Pass	PK	2.4108G	115.13	Inf	-Inf	3	Horizontal	104	1.03
2412MHz	Pass	AV	4.82412G	36.82	54.00	-17.18	3	Vertical	241	1.22
2412MHz	Pass	PK	4.8294G	48.43	74.00	-25.57	3	Vertical	241	1.22
2412MHz	Pass	AV	4.82406G	38.96	54.00	-15.04	3	Horizontal	318	1.10
2412MHz	Pass	PK	4.82376G	47.92	74.00	-26.08	3	Horizontal	318	1.10
2417MHz	Pass	AV	2.3892G	51.49	54.00	-2.51	3	Horizontal	121	1.50
2417MHz	Pass	AV	2.4194G	105.13	Inf	-Inf	3	Horizontal	121	1.50
2417MHz	Pass	PK	2.3846G	62.60	74.00	-11.40	3	Horizontal	121	1.50
2417MHz	Pass	PK	2.4196G	115.47	Inf	-Inf	3	Horizontal	121	1.50
2417MHz	Pass	AV	4.84366G	38.30	54.00	-15.70	3	Vertical	116	1.37
2417MHz	Pass	AV	7.2522G	52.89	54.00	-1.11	3	Vertical	301	1.13
2417MHz	Pass	PK	4.84456G	45.50	74.00	-28.50	3	Vertical	116	1.37
2417MHz	Pass	PK	7.2528G	67.18	74.00	-6.82	3	Vertical	301	1.13
2417MHz	Pass	AV	4.83412G	39.61	54.00	-14.39	3	Horizontal	319	1.00
2417MHz	Pass	AV	7.25082G	50.75	54.00	-3.25	3	Horizontal	53	1.04
2417MHz	Pass	PK	4.82938G	48.84	74.00	-25.16	3	Horizontal	319	1.00
2417MHz	Pass	PK	7.25082G	63.58	74.00	-10.42	3	Horizontal	53	1.04
2437MHz	Pass	AV	2.3886G	48.29	54.00	-5.71	3	Horizontal	94	1.00
2437MHz	Pass	AV	2.439G	105.53	Inf	-Inf	3	Horizontal	94	1.00
2437MHz	Pass	AV	2.4835G	49.13	54.00	-4.87	3	Horizontal	94	1.00
2437MHz	Pass	PK	2.3842G	57.93	74.00	-16.07	3	Horizontal	94	1.00
2437MHz	Pass	PK	2.4386G	114.64	Inf	-Inf	3	Horizontal	94	1.00
2437MHz	Pass	PK	2.4858G	59.12	74.00	-14.88	3	Horizontal	94	1.00
2437MHz	Pass	AV	4.87424G	36.22	54.00	-17.78	3	Vertical	222	1.08
2437MHz	Pass	AV	7.31116G	53.13	54.00	-0.87	3	Vertical	288	1.06
2437MHz	Pass	PK	4.87416G	46.09	74.00	-27.91	3	Vertical	222	1.08
2437MHz	Pass	PK	7.31116G	65.34	74.00	-8.66	3	Vertical	288	1.06
2437MHz	Pass	AV	4.87432G	38.95	54.00	-15.05	3	Horizontal	315	1.00
2437MHz	Pass	AV	7.31716G	49.90	54.00	-4.10	3	Horizontal	54	1.01
2437MHz	Pass	PK	4.87472G	48.60	74.00	-25.40	3	Horizontal	315	1.00
2437MHz	Pass	PK	7.30988G	61.66	74.00	-12.34	3	Horizontal	54	1.01
2462MHz	Pass	AV	2.4612G	104.87	Inf	-Inf	3	Horizontal	105	1.28
2462MHz	Pass	AV	2.4835G	53.56	54.00	-0.44	3	Horizontal	105	1.28
2462MHz	Pass	PK	2.4634G	115.63	Inf	-Inf	3	Horizontal	105	1.28
2462MHz	Pass	PK	2.4835G	64.54	74.00	-9.46	3	Horizontal	105	1.28
2462MHz	Pass	AV	4.9219G	35.12	54.00	-18.88	3	Vertical	223	1.17
2462MHz	Pass	AV	7.38G	52.68	54.00	-1.32	3	Vertical	288	1.00

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2462MHz	Pass	PK	4.92208G	46.04	74.00	-27.96	3	Vertical	223	1.17
2462MHz	Pass	PK	7.37244G	66.33	74.00	-7.67	3	Vertical	288	1.00
2462MHz	Pass	AV	4.9243G	38.52	54.00	-15.48	3	Horizontal	319	1.00
2462MHz	Pass	AV	7.38702G	48.85	54.00	-5.15	3	Horizontal	328	1.00
2462MHz	Pass	PK	4.92946G	49.62	74.00	-24.38	3	Horizontal	319	1.00
2462MHz	Pass	PK	7.38498G	61.58	74.00	-12.42	3	Horizontal	328	1.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	AV	2.384G	53.49	54.00	-0.51	3	Horizontal	107	1.11
2422MHz	Pass	AV	2.4192G	101.54	Inf	-Inf	3	Horizontal	107	1.11
2422MHz	Pass	AV	2.4964G	48.56	54.00	-5.44	3	Horizontal	107	1.11
2422MHz	Pass	PK	2.3848G	64.41	74.00	-9.59	3	Horizontal	107	1.11
2422MHz	Pass	PK	2.424G	112.39	Inf	-Inf	3	Horizontal	107	1.11
2422MHz	Pass	PK	2.492G	59.75	74.00	-14.25	3	Horizontal	107	1.11
2422MHz	Pass	AV	4.84388G	39.20	54.00	-14.80	3	Vertical	300	2.87
2422MHz	Pass	AV	7.2576G	50.28	54.00	-3.72	3	Vertical	302	1.00
2422MHz	Pass	PK	4.84388G	45.90	74.00	-28.10	3	Vertical	300	2.87
2422MHz	Pass	PK	7.26996G	61.43	74.00	-12.57	3	Vertical	302	1.00
2422MHz	Pass	AV	4.84424G	37.00	54.00	-17.00	3	Horizontal	318	1.02
2422MHz	Pass	AV	7.26096G	47.34	54.00	-6.66	3	Horizontal	55	1.20
2422MHz	Pass	PK	4.84424G	48.02	74.00	-25.98	3	Horizontal	318	1.02
2422MHz	Pass	PK	7.26816G	59.99	74.00	-14.01	3	Horizontal	55	1.20
2427MHz	Pass	AV	2.3882G	53.71	54.00	-0.29	3	Horizontal	94	1.06
2427MHz	Pass	AV	2.4258G	102.25	Inf	-Inf	3	Horizontal	94	1.06
2427MHz	Pass	AV	2.4882G	49.04	54.00	-4.96	3	Horizontal	94	1.06
2427MHz	Pass	PK	2.389G	65.15	74.00	-8.85	3	Horizontal	94	1.06
2427MHz	Pass	PK	2.4282G	112.93	Inf	-Inf	3	Horizontal	94	1.06
2427MHz	Pass	PK	2.4962G	59.20	74.00	-14.80	3	Horizontal	94	1.06
2437MHz	Pass	AV	2.3886G	52.35	54.00	-1.65	3	Horizontal	92	1.23
2437MHz	Pass	AV	2.4386G	104.23	Inf	-Inf	3	Horizontal	92	1.23
2437MHz	Pass	AV	2.4866G	51.93	54.00	-2.07	3	Horizontal	92	1.23
2437MHz	Pass	PK	2.3898G	66.64	74.00	-7.36	3	Horizontal	92	1.23
2437MHz	Pass	PK	2.4358G	113.26	Inf	-Inf	3	Horizontal	92	1.23
2437MHz	Pass	PK	2.4858G	62.18	74.00	-11.82	3	Horizontal	92	1.23
2437MHz	Pass	AV	4.844G	37.66	54.00	-16.34	3	Vertical	300	2.87
2437MHz	Pass	AV	7.30848G	51.57	54.00	-2.43	3	Vertical	289	1.00
2437MHz	Pass	PK	4.844G	44.88	74.00	-29.12	3	Vertical	300	2.87
2437MHz	Pass	PK	7.3212G	63.32	74.00	-10.68	3	Vertical	289	1.00
2437MHz	Pass	AV	4.87412G	37.33	54.00	-16.67	3	Horizontal	319	1.00
2437MHz	Pass	AV	7.31232G	48.43	54.00	-5.57	3	Horizontal	55	1.01
2437MHz	Pass	PK	4.874G	46.59	74.00	-27.41	3	Horizontal	319	1.00
2437MHz	Pass	PK	7.31244G	60.26	74.00	-13.74	3	Horizontal	55	1.01
2447MHz	Pass	AV	2.3854G	49.75	54.00	-4.25	3	Horizontal	92	1.15
2447MHz	Pass	AV	2.4486G	103.52	Inf	-Inf	3	Horizontal	92	1.15
2447MHz	Pass	AV	2.4835G	53.21	54.00	-0.79	3	Horizontal	92	1.15
2447MHz	Pass	PK	2.3842G	59.62	74.00	-14.38	3	Horizontal	92	1.15
2447MHz	Pass	PK	2.4482G	113.46	Inf	-Inf	3	Horizontal	92	1.15
2447MHz	Pass	PK	2.4914G	64.36	74.00	-9.64	3	Horizontal	92	1.15
2452MHz	Pass	AV	2.3884G	48.69	54.00	-5.31	3	Horizontal	94	1.00
2452MHz	Pass	AV	2.4532G	102.40	Inf	-Inf	3	Horizontal	94	1.00
2452MHz	Pass	AV	2.4835G	52.93	54.00	-1.07	3	Horizontal	94	1.00
2452MHz	Pass	PK	2.386G	58.89	74.00	-15.11	3	Horizontal	94	1.00
2452MHz	Pass	PK	2.4532G	113.04	Inf	-Inf	3	Horizontal	94	1.00
2452MHz	Pass	PK	2.4835G	63.42	74.00	-10.58	3	Horizontal	94	1.00
2452MHz	Pass	AV	4.90532G	33.54	54.00	-20.46	3	Vertical	114	1.00
2452MHz	Pass	AV	7.35636G	48.34	54.00	-5.66	3	Vertical	302	1.06
2452MHz	Pass	PK	4.90532G	43.94	74.00	-30.06	3	Vertical	114	1.00
2452MHz	Pass	PK	7.35852G	61.10	74.00	-12.90	3	Vertical	302	1.06
2452MHz	Pass	AV	4.90412G	36.00	54.00	-18.00	3	Horizontal	319	1.19
2452MHz	Pass	AV	7.35252G	45.53	54.00	-8.47	3	Horizontal	55	1.05
2452MHz	Pass	PK	4.90436G	46.29	74.00	-27.71	3	Horizontal	319	1.19
2452MHz	Pass	PK	7.34736G	56.75	74.00	-17.25	3	Horizontal	55	1.05

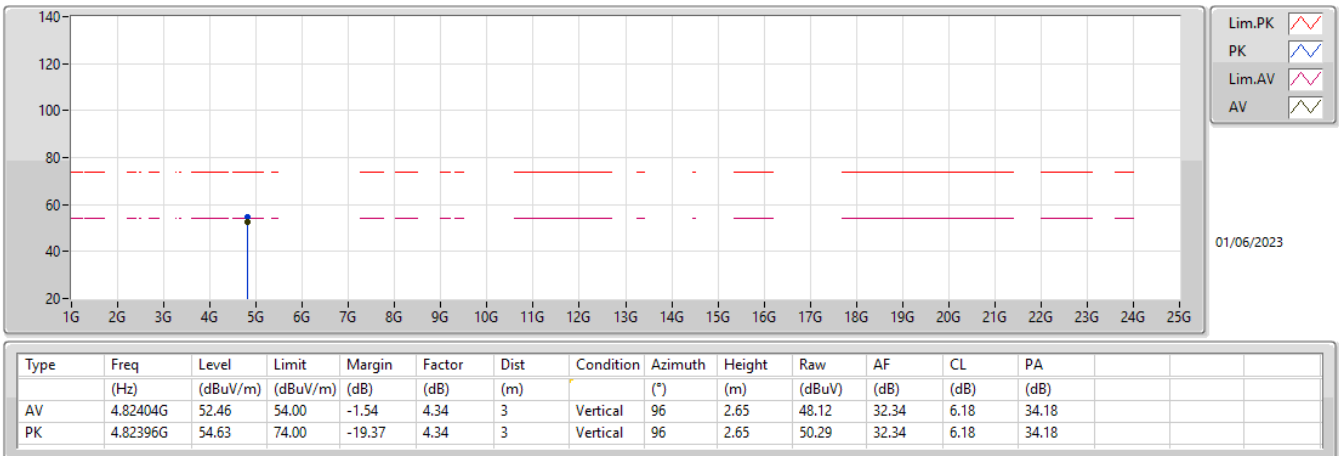
2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX



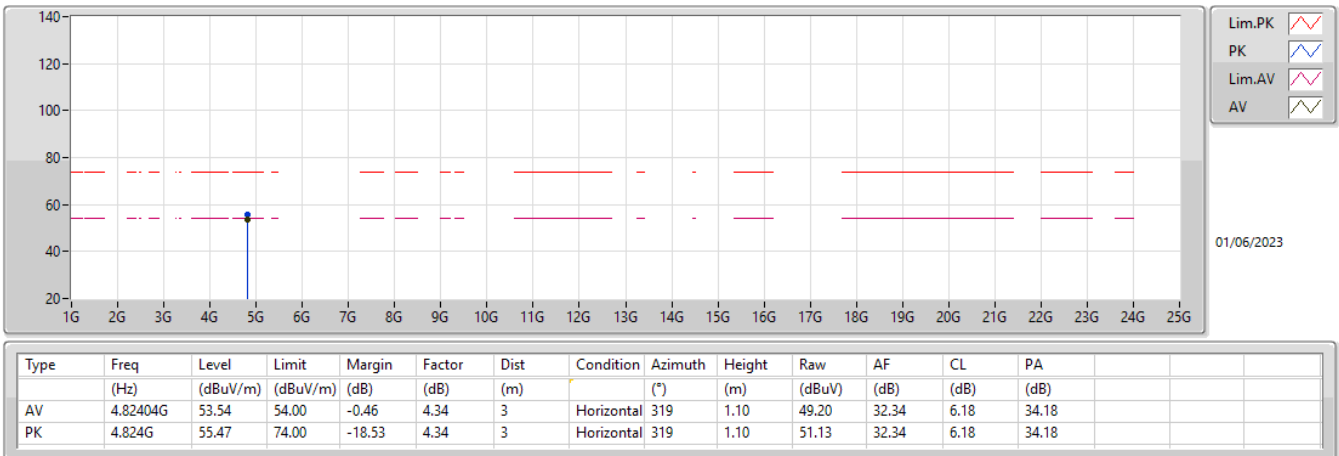
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2412MHz_TX



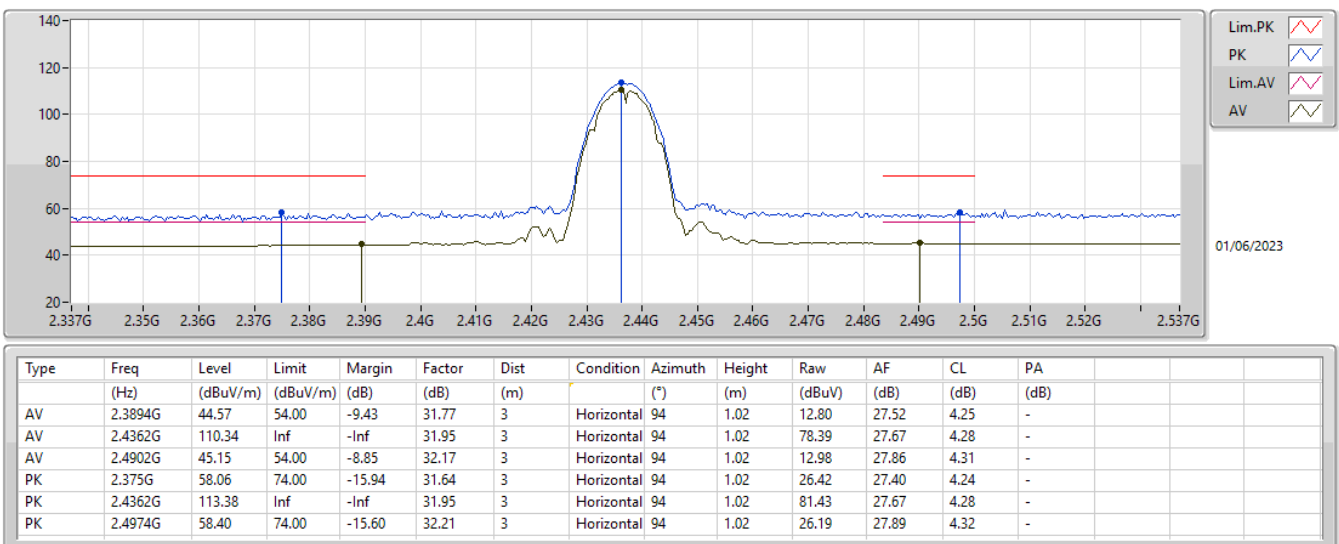
2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX



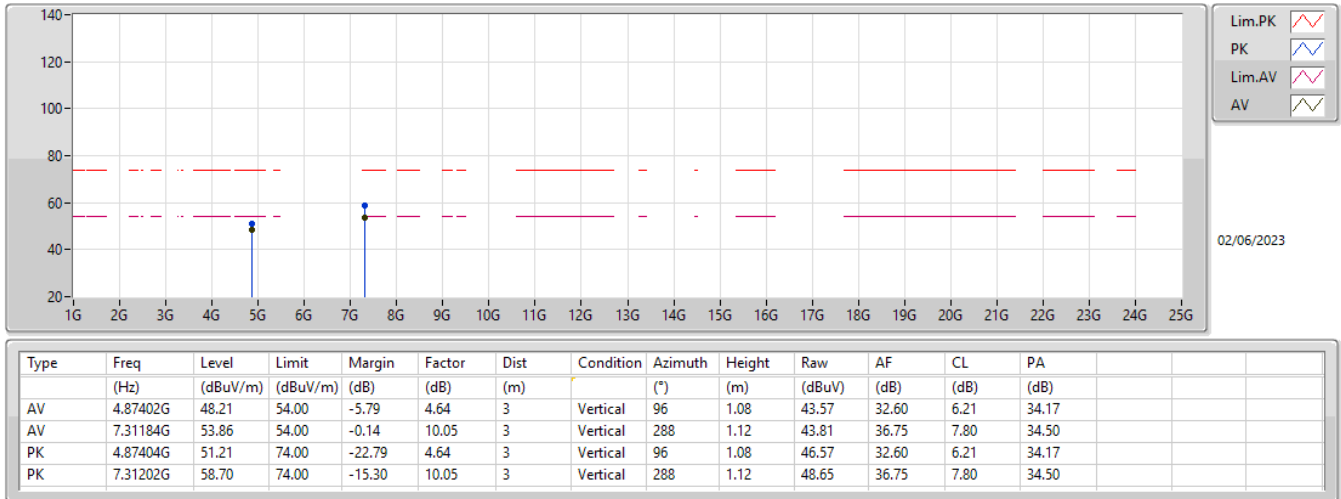
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2437MHz_TX



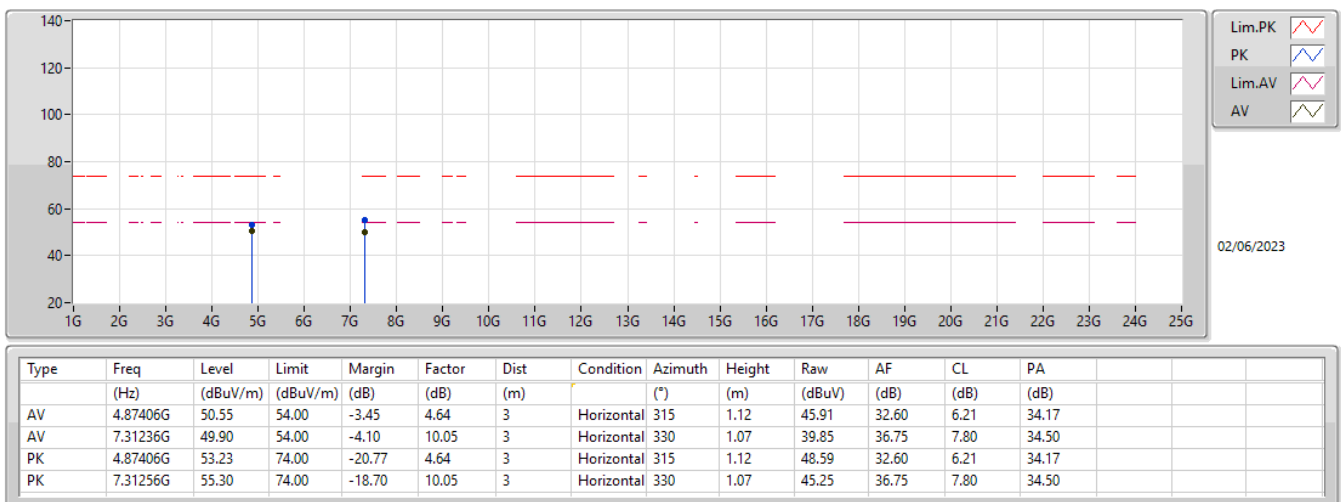
2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX



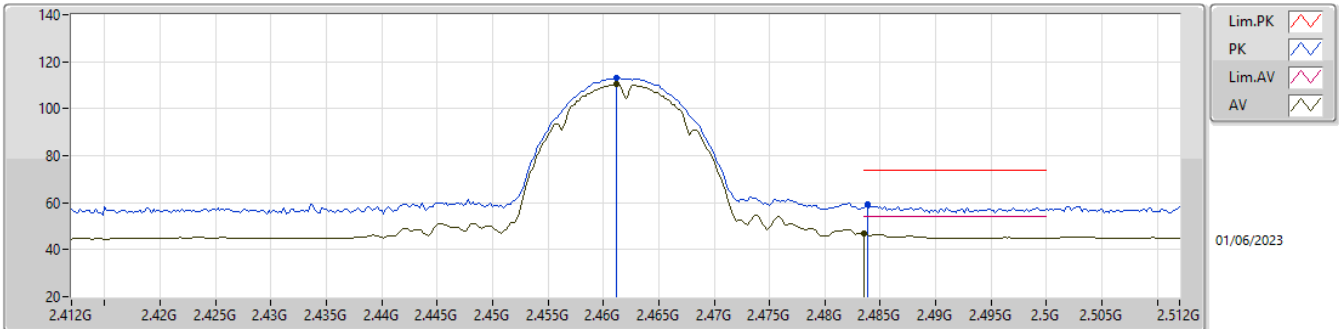
2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX



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

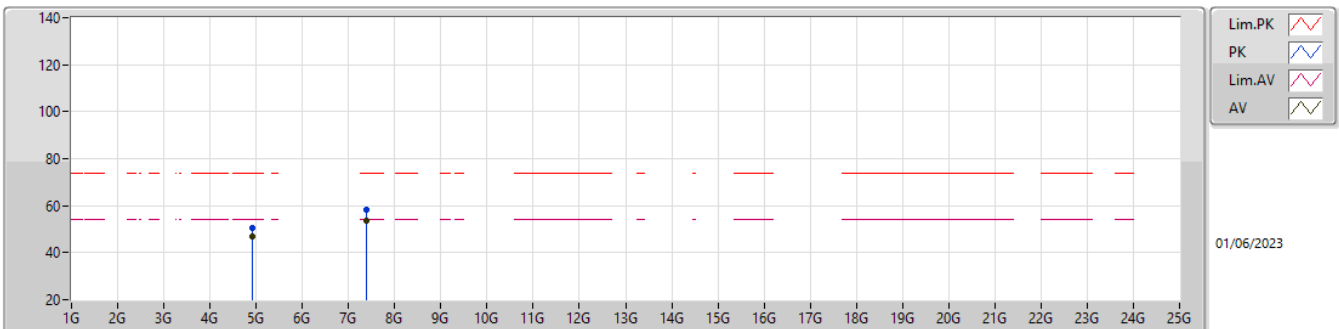
2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4612G	110.44	Inf	-Inf	32.04	3	Horizontal	105	1.27	78.40	27.74	4.30	-
AV	2.4835G	46.91	54.00	-7.09	32.14	3	Horizontal	105	1.27	14.77	27.83	4.31	-
PK	2.4612G	113.14	Inf	-Inf	32.04	3	Horizontal	105	1.27	81.10	27.74	4.30	-
PK	2.4838G	59.38	74.00	-14.62	32.15	3	Horizontal	105	1.27	27.23	27.84	4.31	-

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

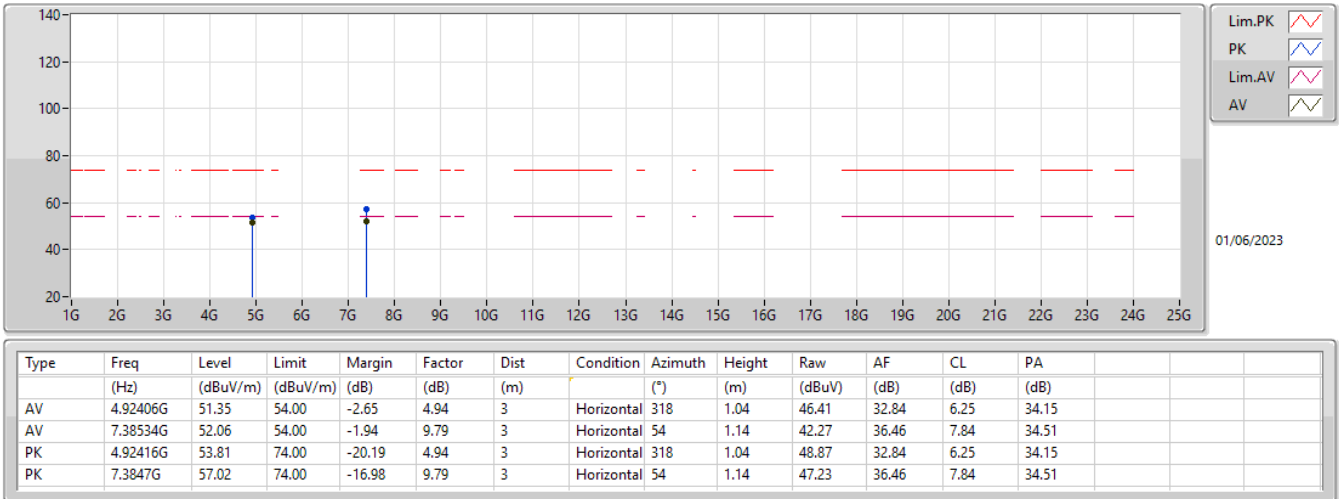
2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92408G	46.79	54.00	-7.21	4.94	3	Vertical	112	1.11	41.85	32.84	6.25	34.15
AV	7.38784G	53.59	54.00	-0.41	9.78	3	Vertical	301	1.00	43.81	36.45	7.84	34.51
PK	4.92398G	50.60	74.00	-23.40	4.94	3	Vertical	112	1.11	45.66	32.84	6.25	34.15
PK	7.38766G	58.07	74.00	-15.93	9.78	3	Vertical	301	1.00	48.29	36.45	7.84	34.51

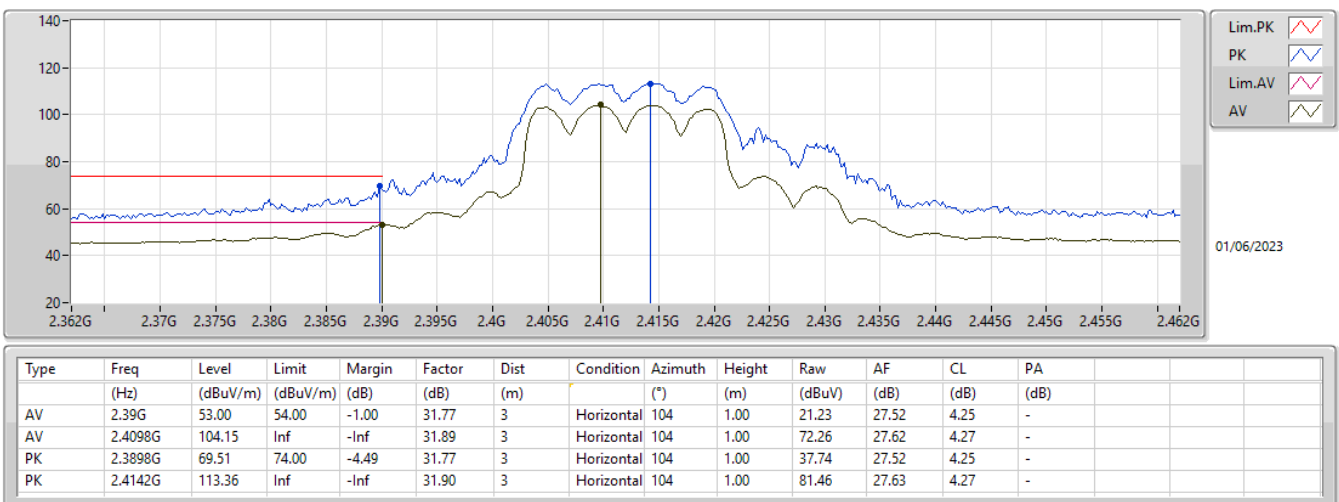
2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX



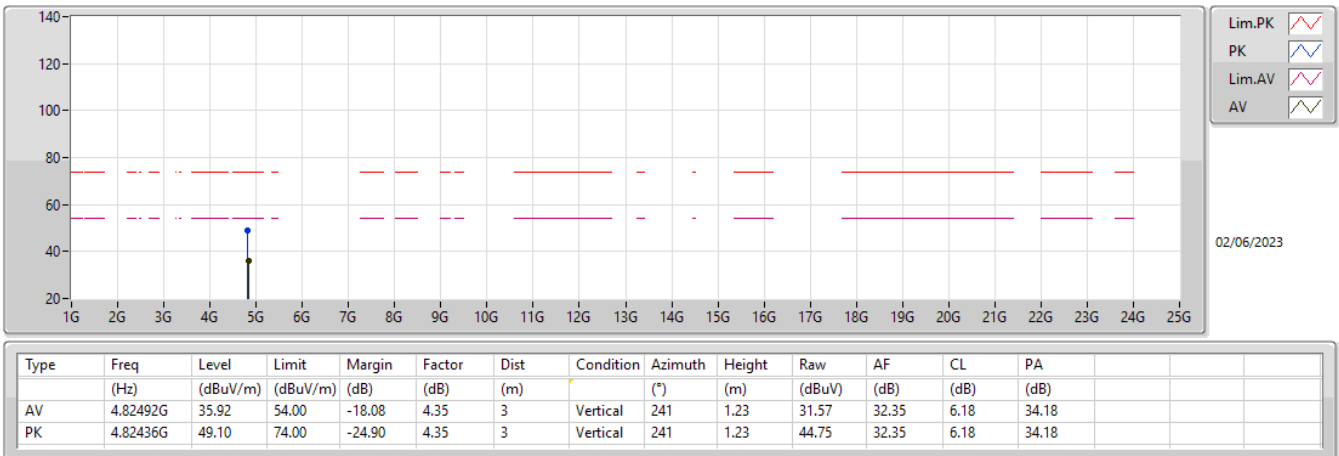
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX



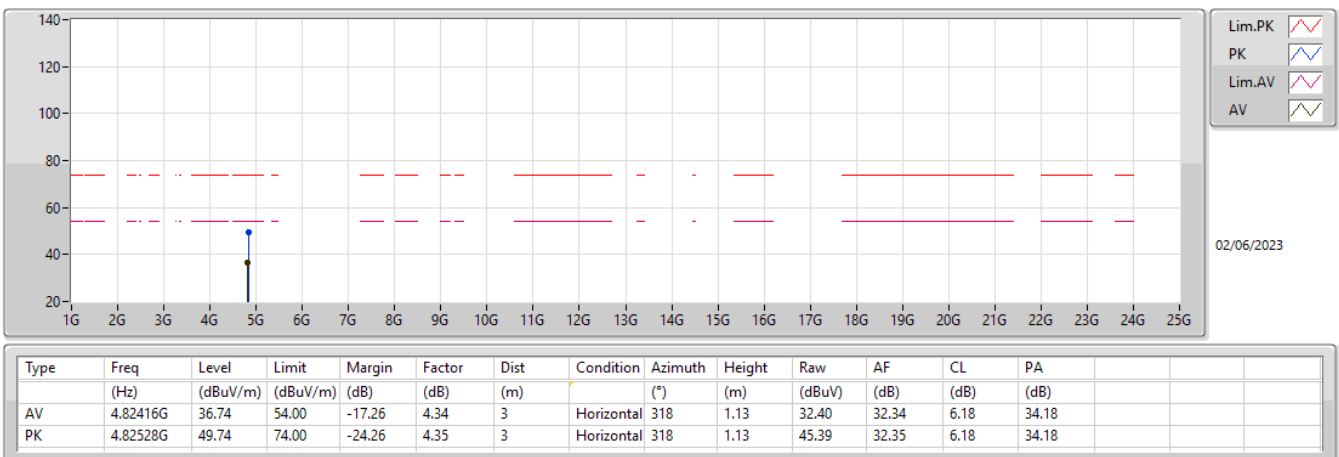
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2412MHz_TX



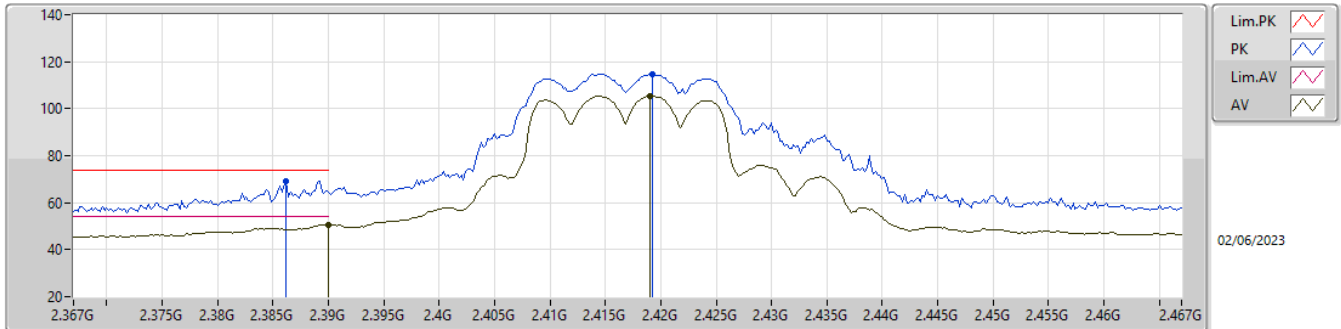
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX



2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

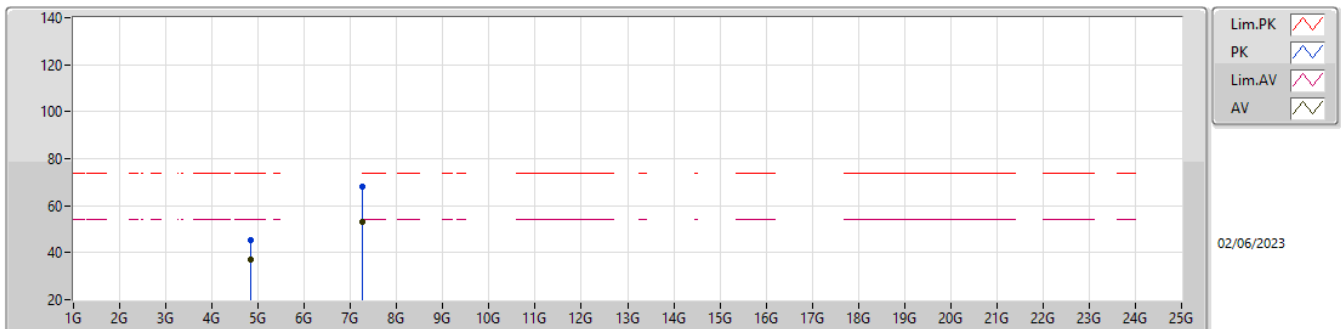
2417MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	50.75	54.00	-3.25	31.77	3	Horizontal	108	1.12	18.98	27.52	4.25	-
AV	2.419G	105.51	Inf	-Inf	31.91	3	Horizontal	108	1.12	73.60	27.64	4.27	-
PK	2.3862G	69.18	74.00	-4.82	31.74	3	Horizontal	108	1.12	37.44	27.49	4.25	-
PK	2.4192G	114.78	Inf	-Inf	31.91	3	Horizontal	108	1.12	82.87	27.64	4.27	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

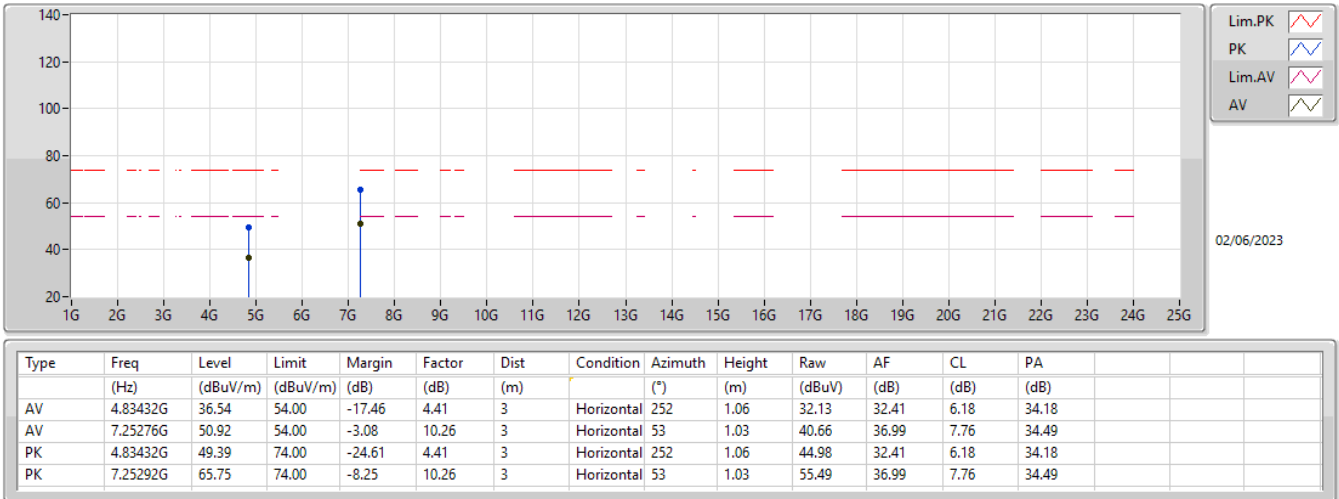
2417MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.84392G	37.27	54.00	-16.73	4.47	3	Vertical	302	2.88	32.80	32.46	6.19	34.18
AV	7.25012G	53.24	54.00	-0.76	10.27	3	Vertical	289	1.00	42.97	37.00	7.76	34.49
PK	4.84368G	45.60	74.00	-28.40	4.47	3	Vertical	302	2.88	41.13	32.46	6.19	34.18
PK	7.25108G	68.08	74.00	-5.92	10.27	3	Vertical	289	1.00	57.81	37.00	7.76	34.49

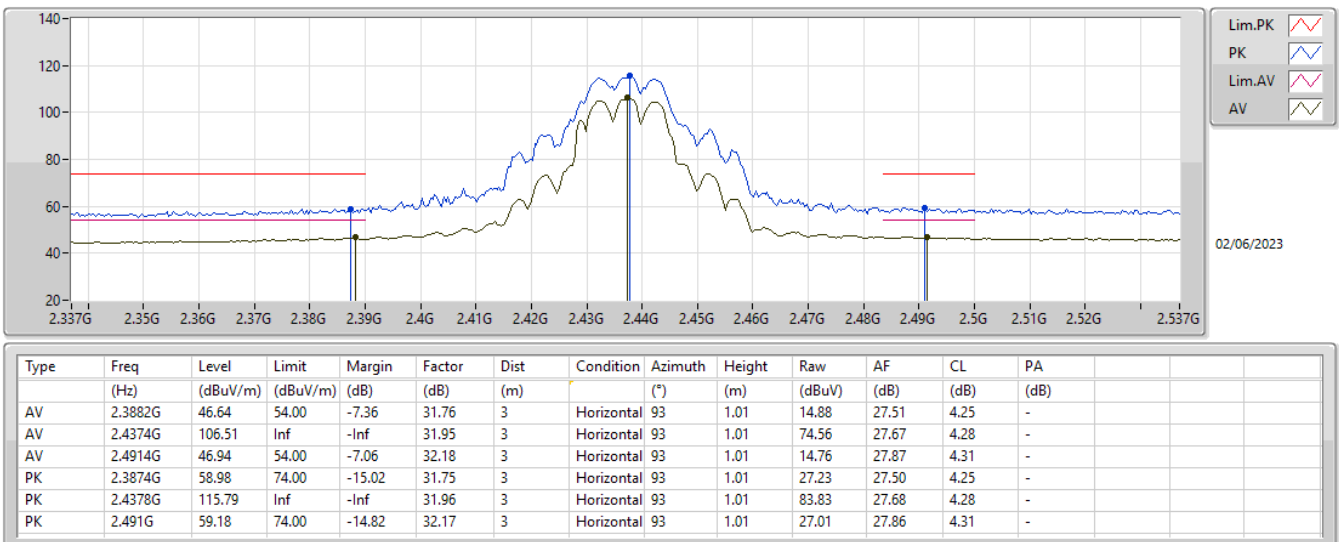
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX



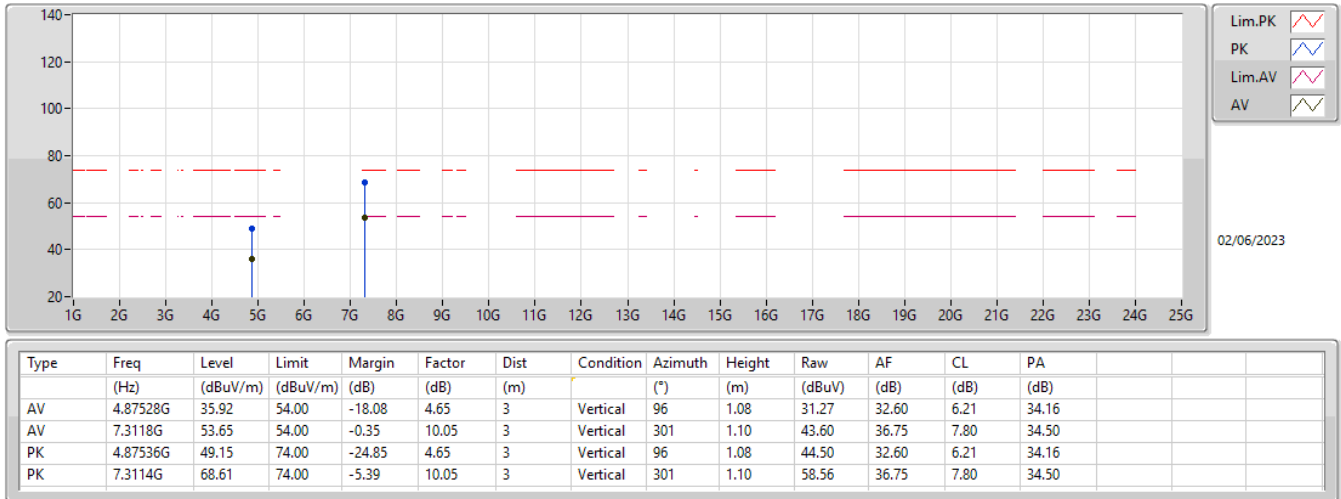
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX



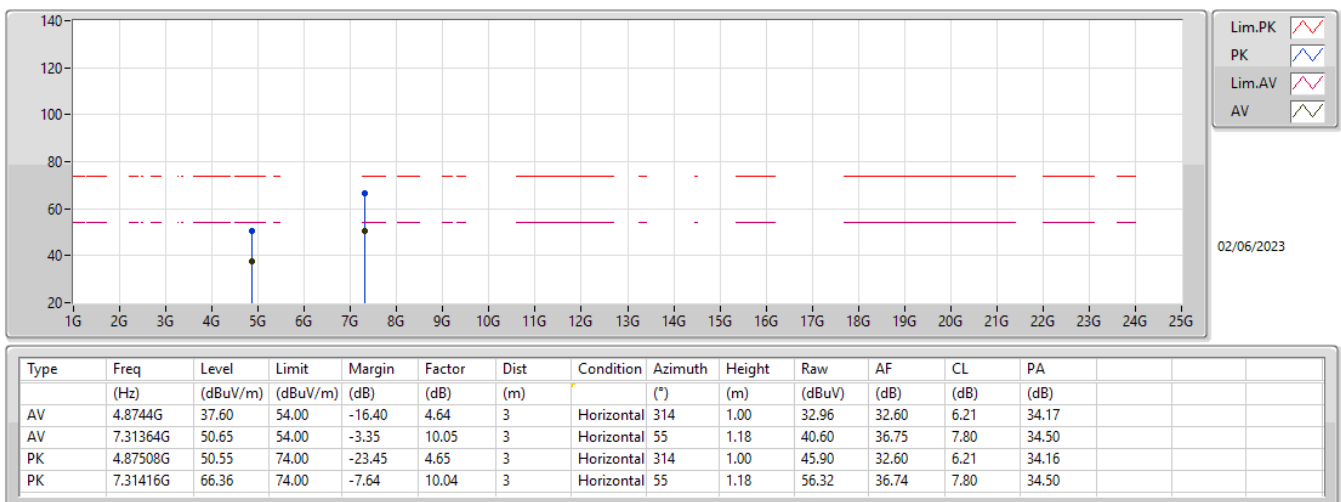
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX



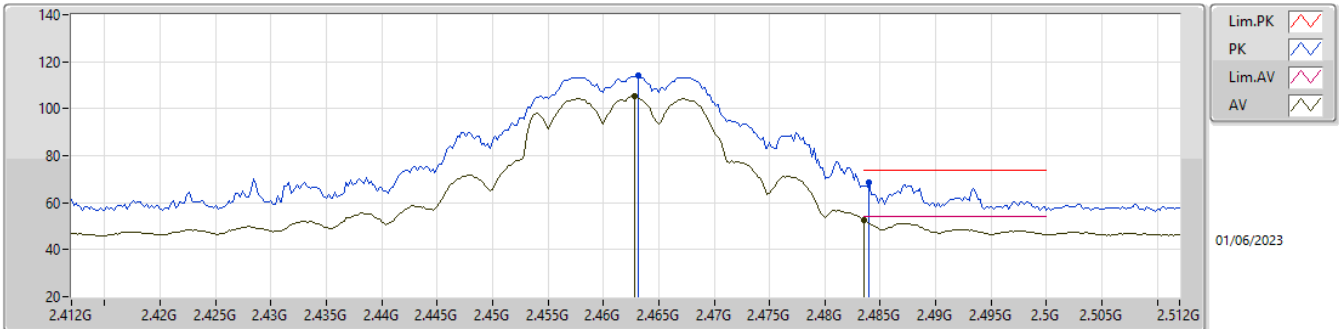
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX



2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

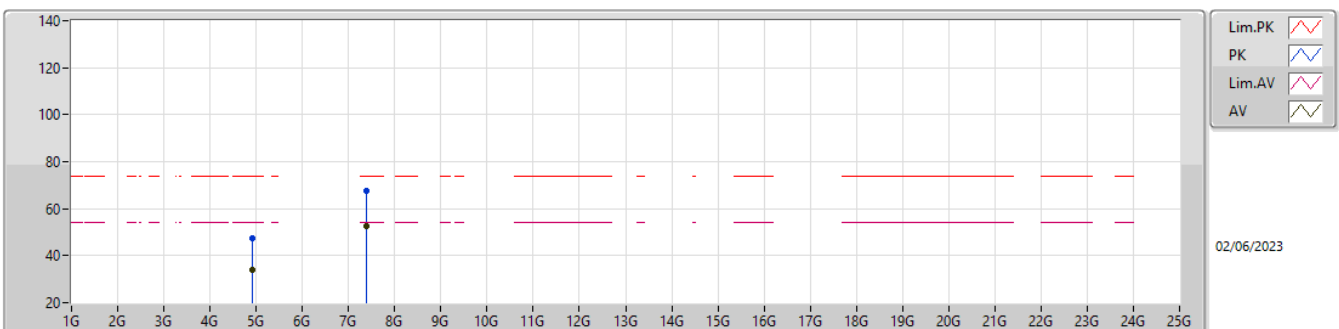
2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4628G	105.25	Inf	-Inf	32.05	3	Horizontal	95	1.25	73.20	27.75	4.30	-
AV	2.4835G	52.83	54.00	-1.17	32.14	3	Horizontal	95	1.25	20.69	27.83	4.31	-
PK	2.4632G	114.08	Inf	-Inf	32.05	3	Horizontal	95	1.25	82.03	27.75	4.30	-
PK	2.484G	68.51	74.00	-5.49	32.15	3	Horizontal	95	1.25	36.36	27.84	4.31	-

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

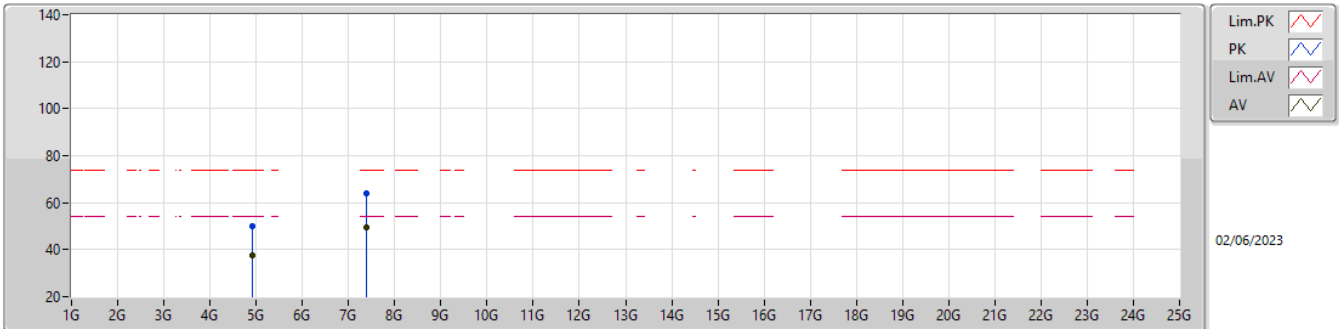
2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92516G	34.09	54.00	-19.91	4.95	3	Vertical	113	1.29	29.14	32.85	6.25	34.15
AV	7.384G	52.48	54.00	-1.52	9.79	3	Vertical	287	1.12	42.69	36.46	7.84	34.51
PK	4.91968G	47.55	74.00	-26.45	4.91	3	Vertical	113	1.29	42.64	32.82	6.24	34.15
PK	7.38384G	67.44	74.00	-6.56	9.79	3	Vertical	287	1.12	57.65	36.46	7.84	34.51

2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_2TX

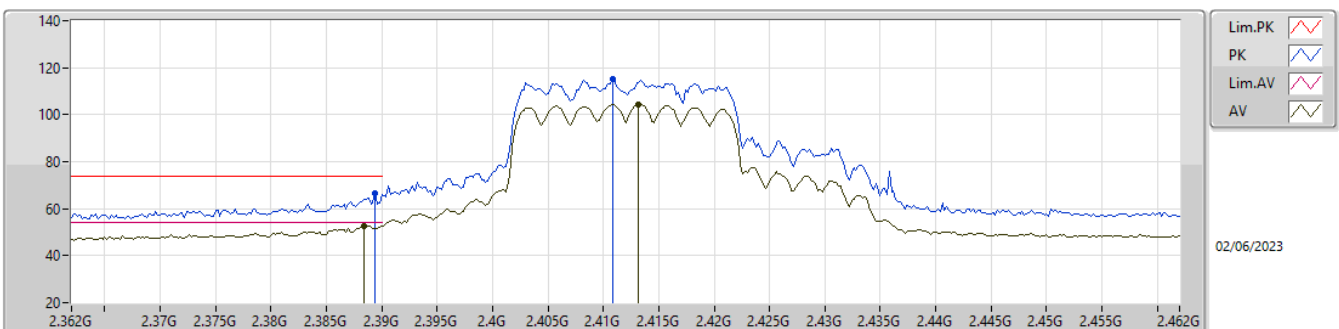
2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92432G	37.55	54.00	-16.45	4.95	3	Horizontal	320	1.00	32.60	32.85	6.25	34.15
AV	7.384G	49.47	54.00	-4.53	9.79	3	Horizontal	330	1.00	39.68	36.46	7.84	34.51
PK	4.92484G	50.10	74.00	-23.90	4.95	3	Horizontal	320	1.00	45.15	32.85	6.25	34.15
PK	7.3888G	63.97	74.00	-10.03	9.77	3	Horizontal	330	1.00	54.20	36.44	7.84	34.51

2.4-2.4835GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

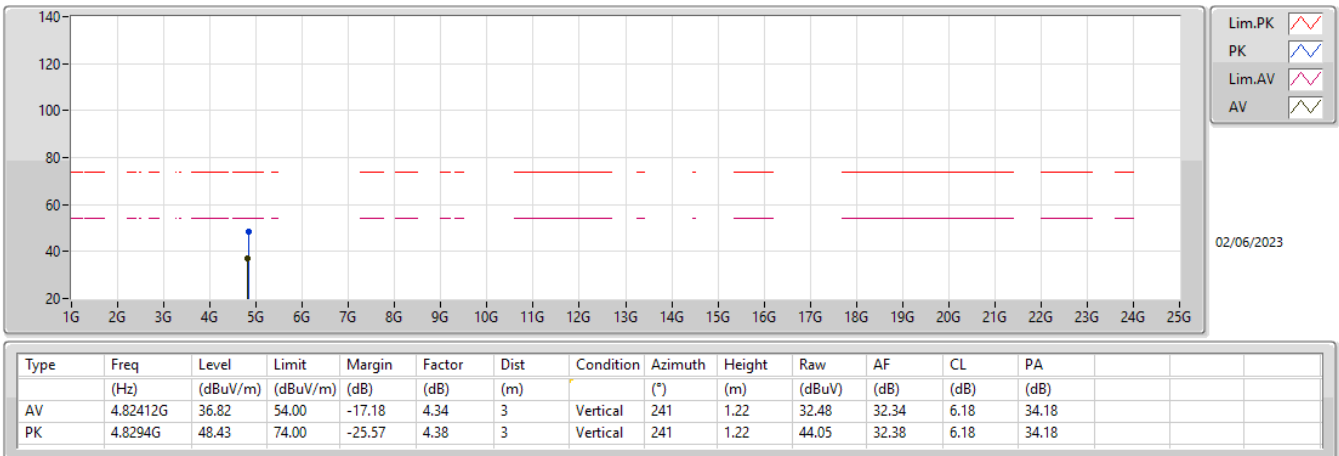
2412MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3884G	52.71	54.00	-1.29	31.76	3	Horizontal	104	1.03	20.95	27.51	4.25	-
AV	2.4132G	104.44	Inf	-Inf	31.90	3	Horizontal	104	1.03	72.54	27.63	4.27	-
PK	2.3894G	66.76	74.00	-7.24	31.77	3	Horizontal	104	1.03	34.99	27.52	4.25	-
PK	2.4108G	115.13	Inf	-Inf	31.89	3	Horizontal	104	1.03	83.24	27.62	4.27	-

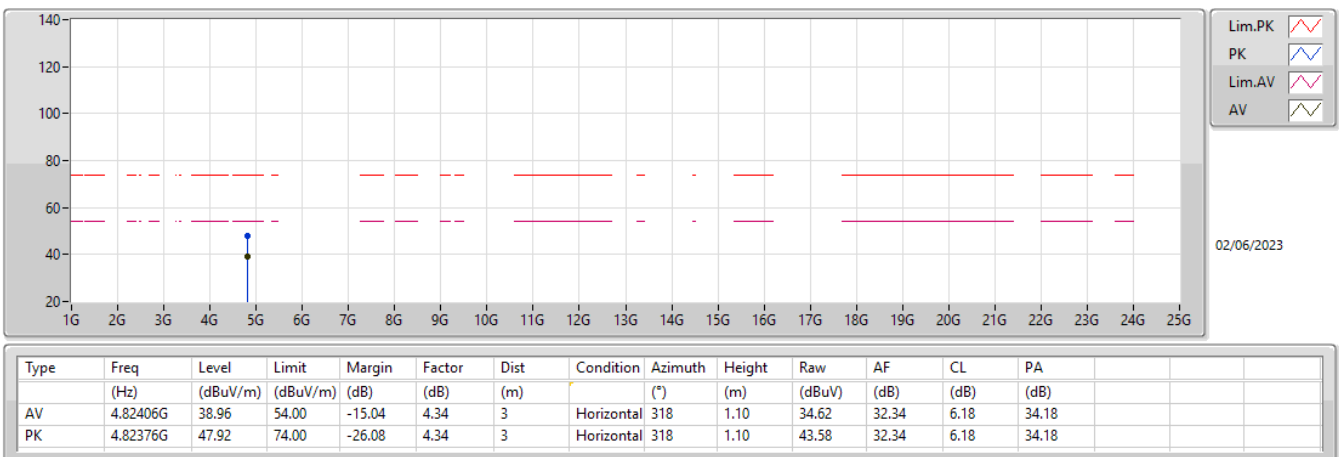
2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX



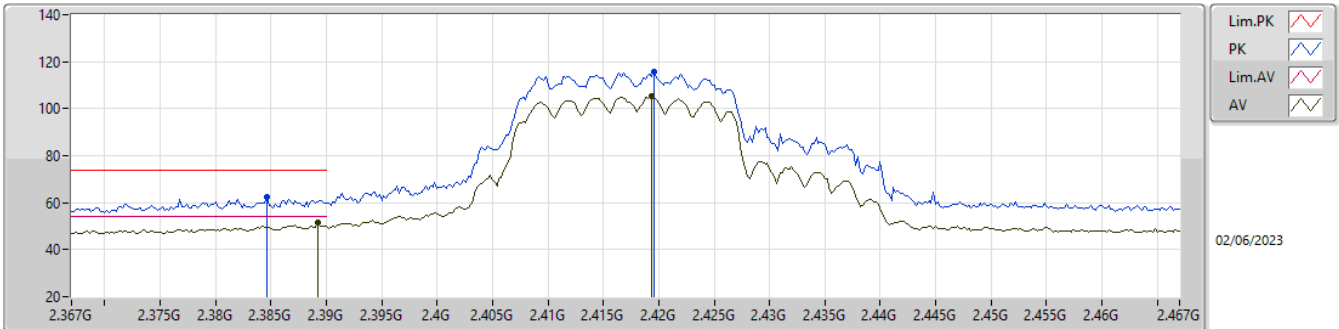
2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2412MHz_TX



2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

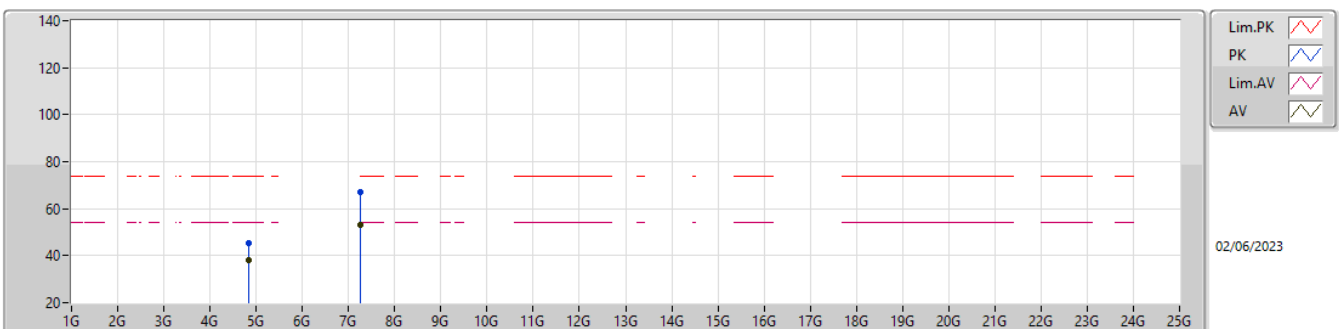
2417MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3892G	51.49	54.00	-2.51	31.76	3	Horizontal	121	1.50	19.73	27.51	4.25	-
AV	2.4194G	105.13	Inf	-Inf	31.91	3	Horizontal	121	1.50	73.22	27.64	4.27	-
PK	2.3846G	62.60	74.00	-11.40	31.73	3	Horizontal	121	1.50	30.87	27.48	4.25	-
PK	2.4196G	115.47	Inf	-Inf	31.91	3	Horizontal	121	1.50	83.56	27.64	4.27	-

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

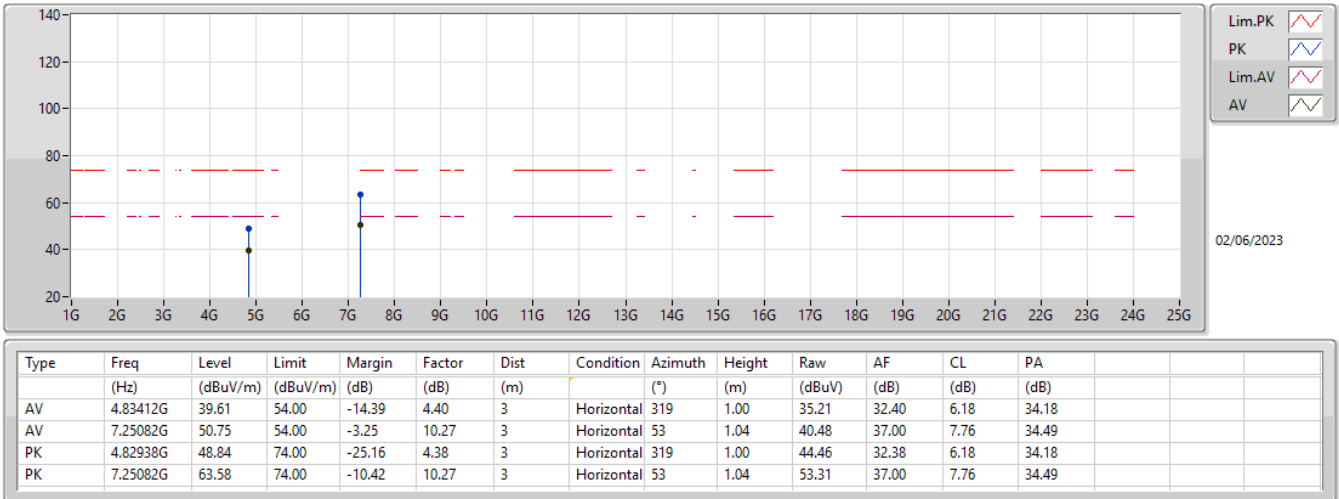
2417MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.84366G	38.30	54.00	-15.70	4.47	3	Vertical	116	1.37	33.83	32.46	6.19	34.18
AV	7.2522G	52.89	54.00	-1.11	10.26	3	Vertical	301	1.13	42.63	36.99	7.76	34.49
PK	4.84456G	45.50	74.00	-28.50	4.48	3	Vertical	116	1.37	41.02	32.47	6.19	34.18
PK	7.2528G	67.18	74.00	-6.82	10.26	3	Vertical	301	1.13	56.92	36.99	7.76	34.49

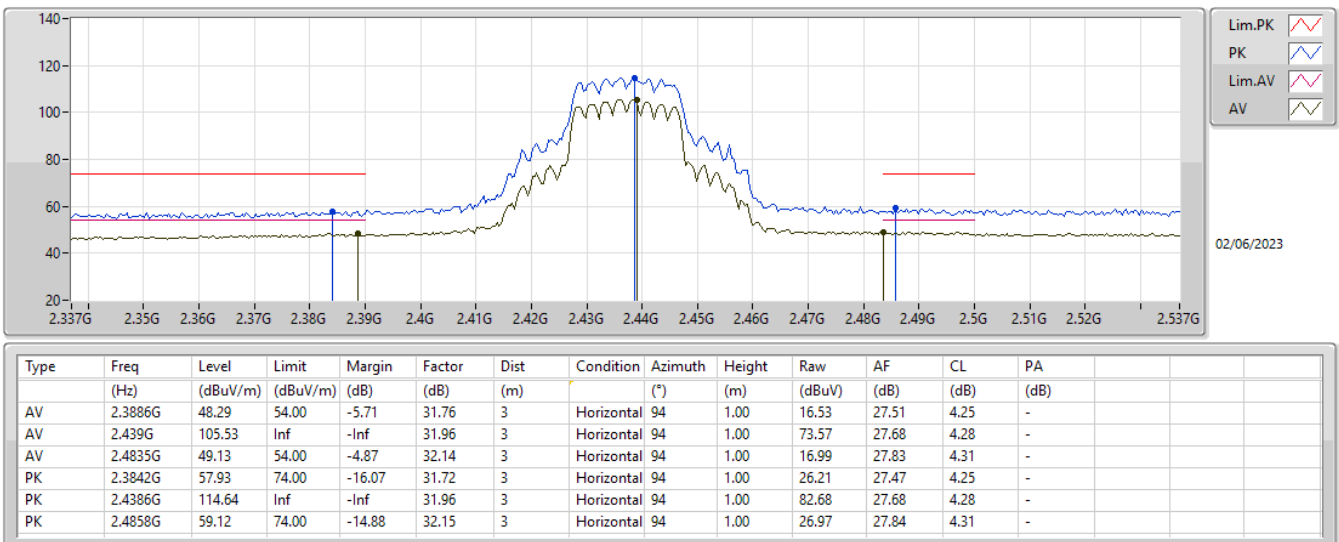
2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2417MHz_TX



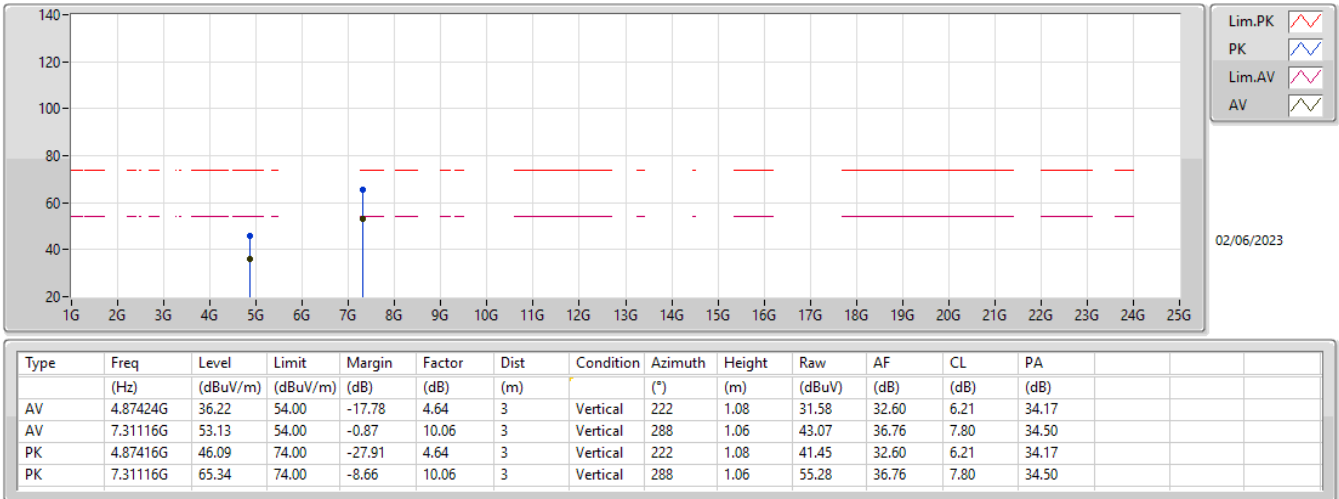
2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX



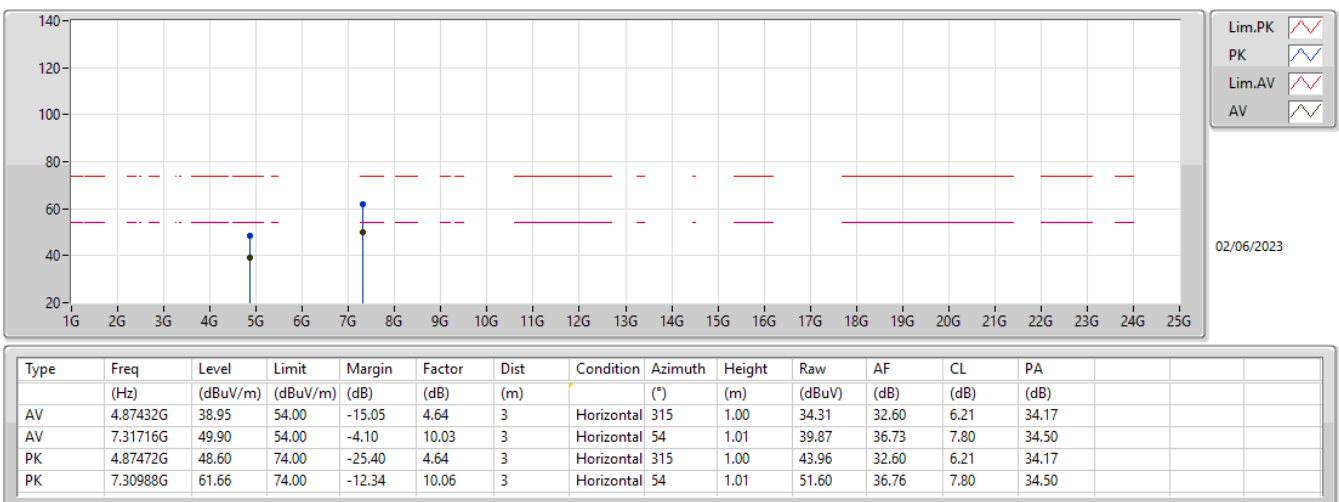
2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX



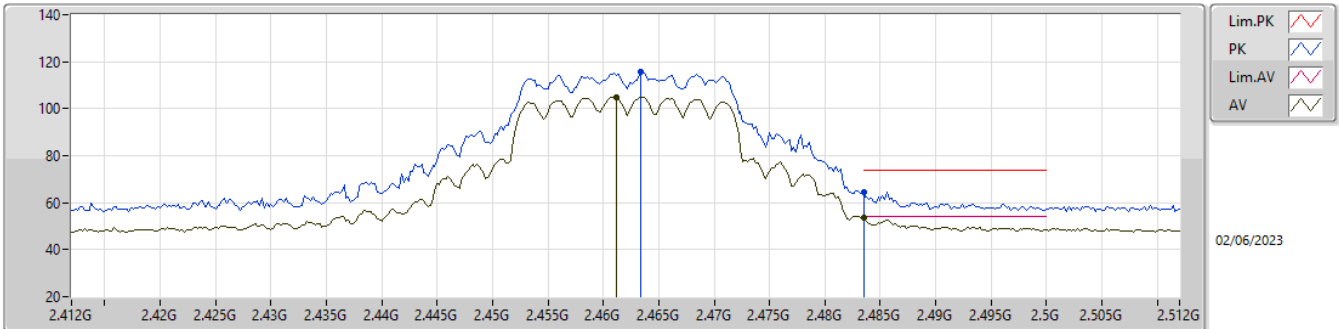
2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2437MHz_TX



2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

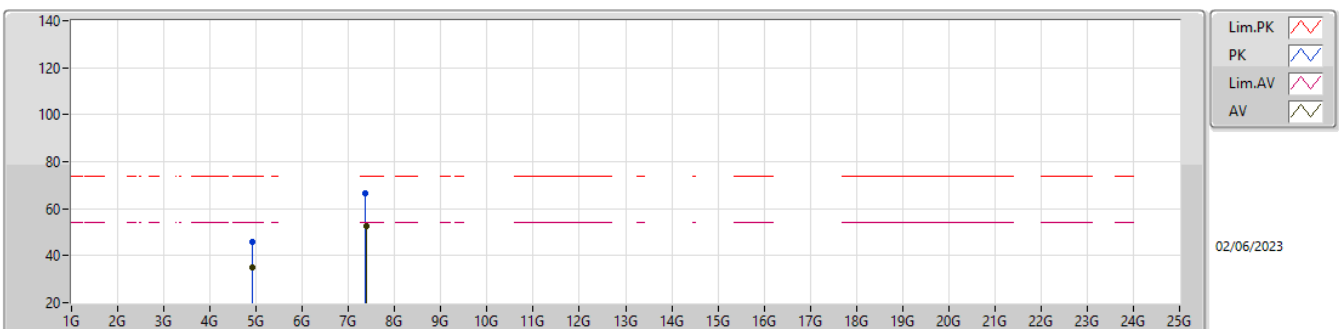
2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4612G	104.87	Inf	-Inf	32.04	3	Horizontal	105	1.28	72.83	27.74	4.30	-
AV	2.4835G	53.56	54.00	-0.44	32.14	3	Horizontal	105	1.28	21.42	27.83	4.31	-
PK	2.4634G	115.63	Inf	-Inf	32.05	3	Horizontal	105	1.28	83.58	27.75	4.30	-
PK	2.4835G	64.54	74.00	-9.46	32.14	3	Horizontal	105	1.28	32.40	27.83	4.31	-

2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

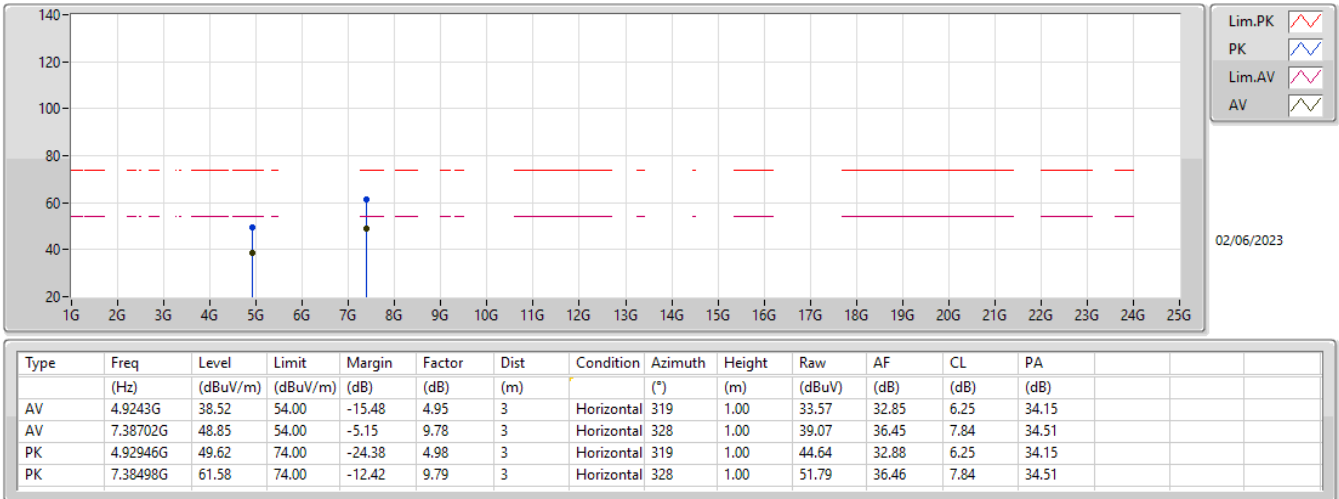
2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.9219G	35.12	54.00	-18.88	4.93	3	Vertical	223	1.17	30.19	32.83	6.25	34.15
AV	7.38G	52.68	54.00	-1.32	9.81	3	Vertical	288	1.00	42.87	36.48	7.84	34.51
PK	4.92208G	46.04	74.00	-27.96	4.93	3	Vertical	223	1.17	41.11	32.83	6.25	34.15
PK	7.37244G	66.33	74.00	-7.67	9.84	3	Vertical	288	1.00	56.49	36.51	7.83	34.50

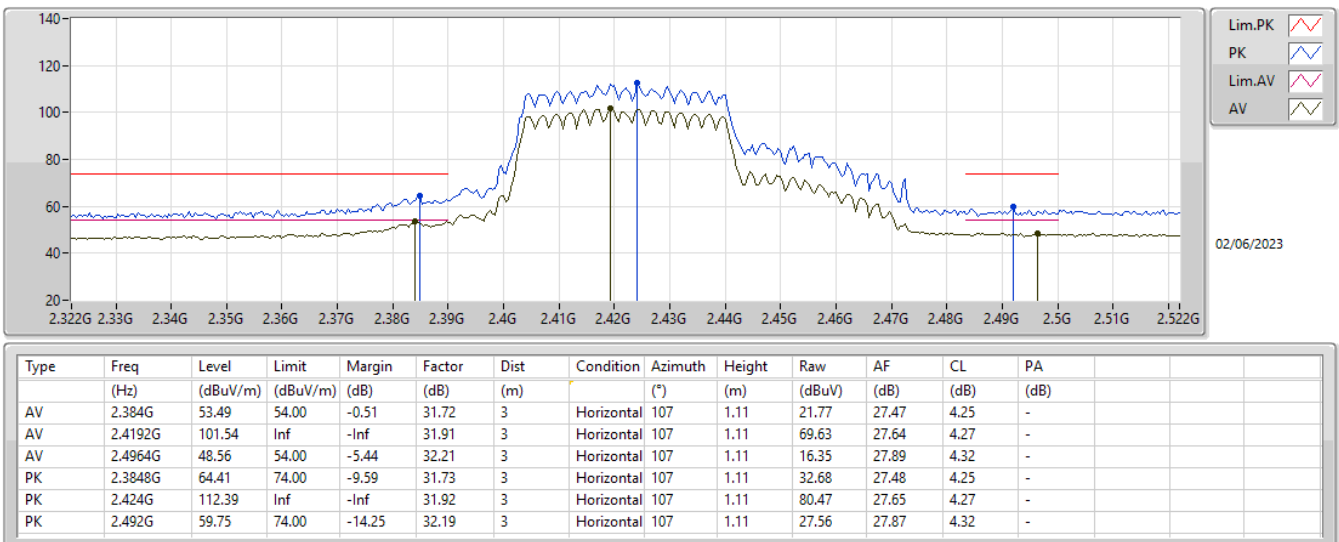
2.4-2.4835GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

2462MHz_TX



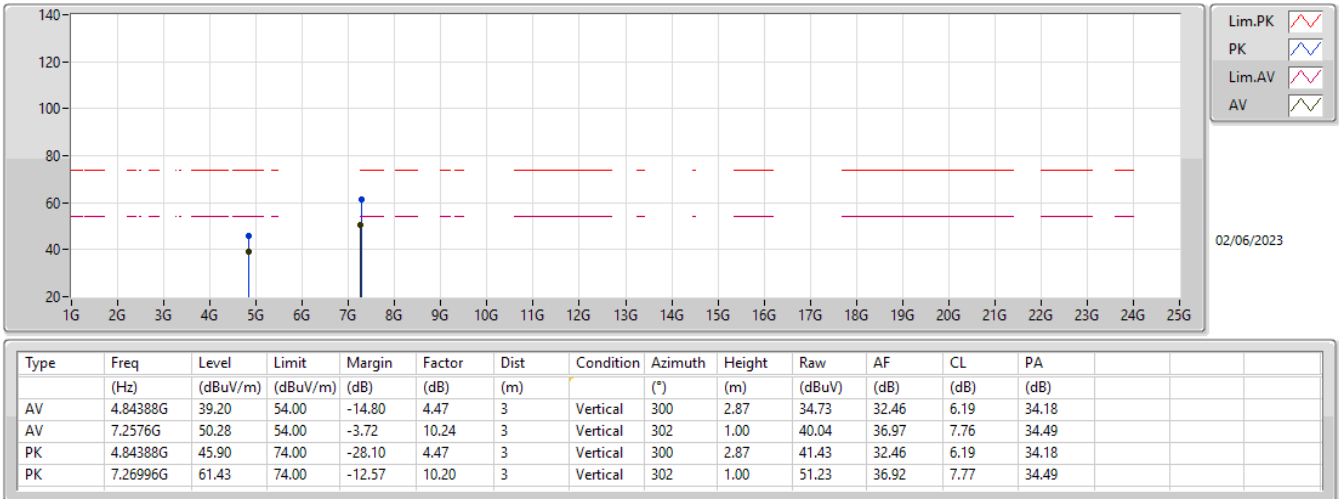
2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX



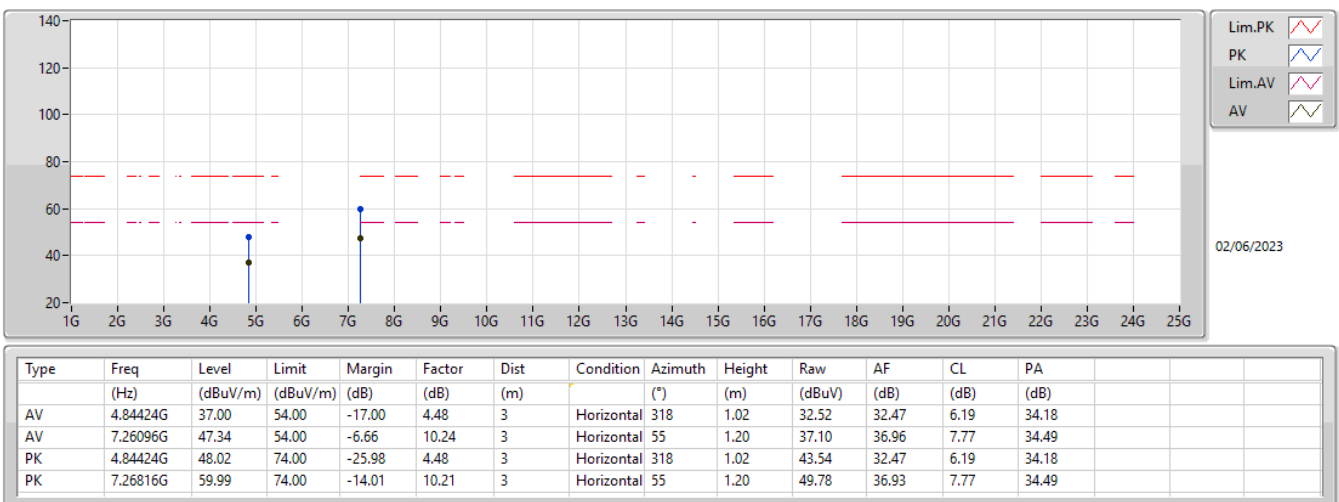
2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX



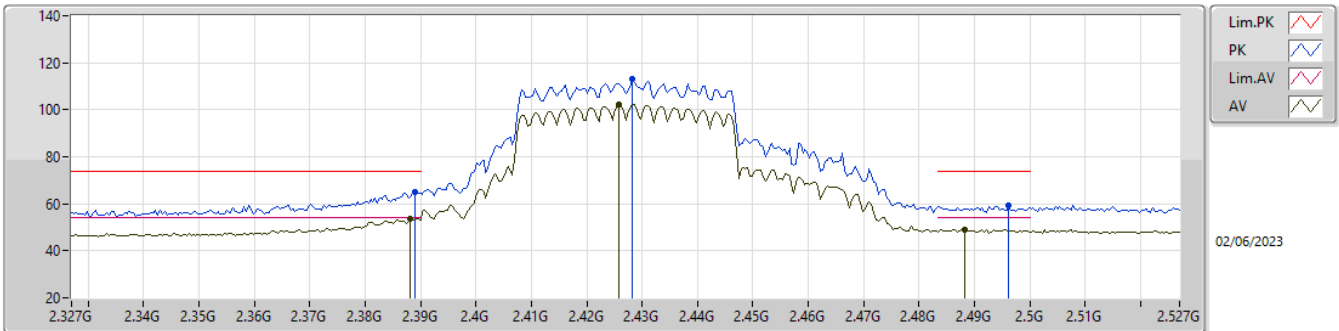
2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

2422MHz_TX



2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

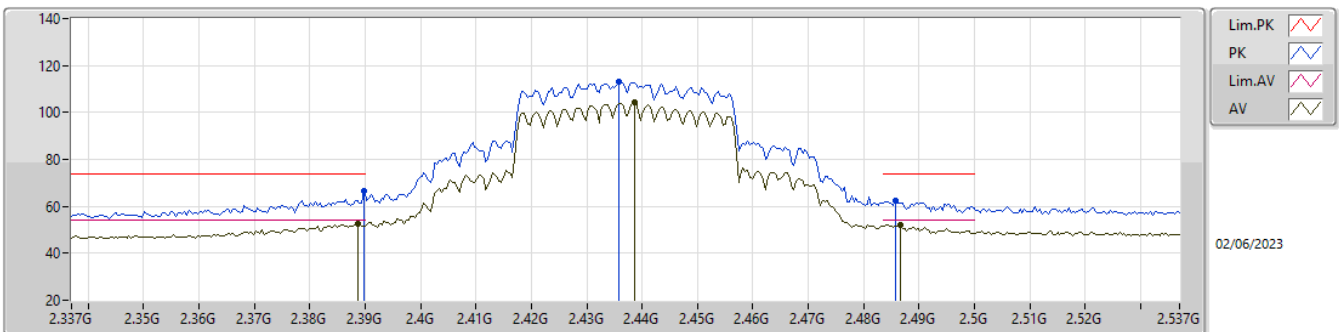
2427MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3882G	53.71	54.00	-0.29	31.76	3	Horizontal	94	1.06	21.95	27.51	4.25	-
AV	2.4258G	102.25	Inf	-Inf	31.93	3	Horizontal	94	1.06	70.32	27.65	4.28	-
AV	2.4882G	49.04	54.00	-4.96	32.16	3	Horizontal	94	1.06	16.88	27.85	4.31	-
PK	2.389G	65.15	74.00	-8.85	31.76	3	Horizontal	94	1.06	33.39	27.51	4.25	-
PK	2.4282G	112.93	Inf	-Inf	31.94	3	Horizontal	94	1.06	80.99	27.66	4.28	-
PK	2.4962G	59.20	74.00	-14.80	32.20	3	Horizontal	94	1.06	27.00	27.88	4.32	-

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

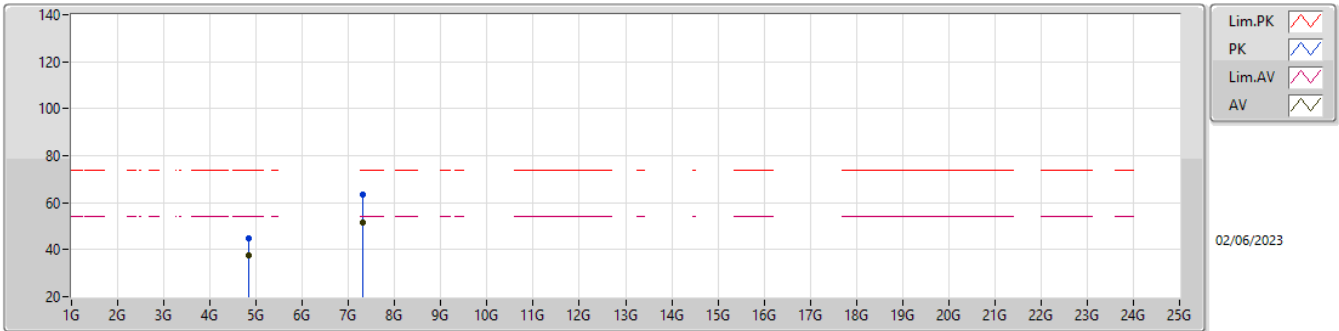
2437MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3886G	52.35	54.00	-1.65	31.76	3	Horizontal	92	1.23	20.59	27.51	4.25	-
AV	2.4386G	104.23	Inf	-Inf	31.96	3	Horizontal	92	1.23	72.27	27.68	4.28	-
AV	2.4866G	51.93	54.00	-2.07	32.16	3	Horizontal	92	1.23	19.77	27.85	4.31	-
PK	2.3898G	66.64	74.00	-7.36	31.77	3	Horizontal	92	1.23	34.87	27.52	4.25	-
PK	2.4358G	113.26	Inf	-Inf	31.95	3	Horizontal	92	1.23	81.31	27.67	4.28	-
PK	2.4858G	62.18	74.00	-11.82	32.15	3	Horizontal	92	1.23	30.03	27.84	4.31	-

2.4-2.4835GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

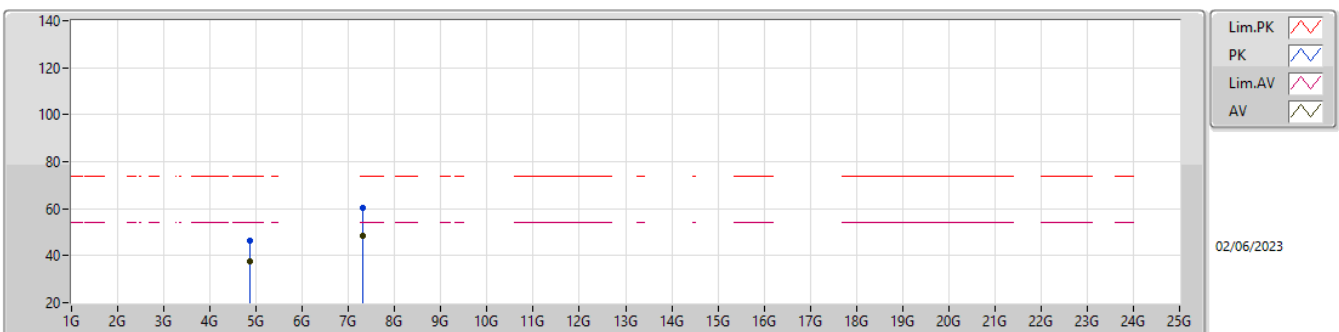
2437MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.844G	37.66	54.00	-16.34	4.47	3	Vertical	300	2.87	33.19	32.46	6.19	34.18
AV	7.30848G	51.57	54.00	-2.43	10.07	3	Vertical	289	1.00	41.50	36.77	7.80	34.50
PK	4.844G	44.88	74.00	-29.12	4.47	3	Vertical	300	2.87	40.41	32.46	6.19	34.18
PK	7.3212G	63.32	74.00	-10.68	10.02	3	Vertical	289	1.00	53.30	36.72	7.80	34.50

2.4-2.4835GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

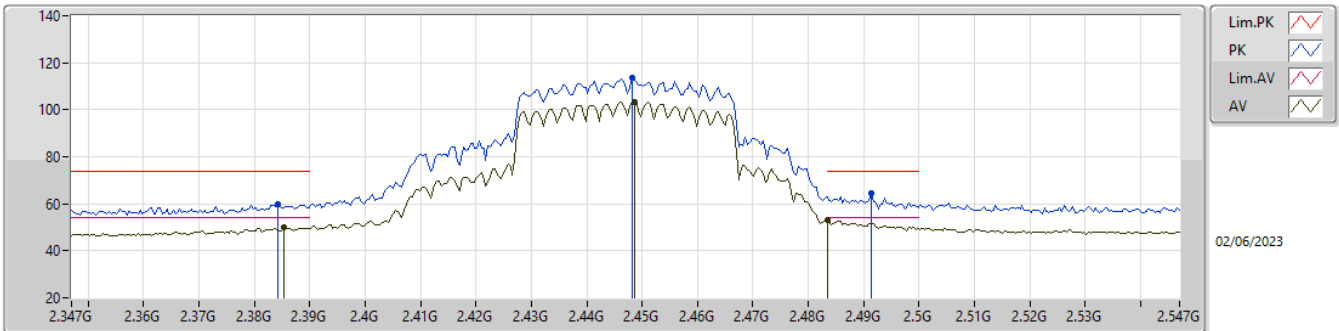
2437MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87412G	37.33	54.00	-16.67	4.64	3	Horizontal	319	1.00	32.69	32.60	6.21	34.17
AV	7.31232G	48.43	54.00	-5.57	10.05	3	Horizontal	55	1.01	38.38	36.75	7.80	34.50
PK	4.874G	46.59	74.00	-27.41	4.64	3	Horizontal	319	1.00	41.95	32.60	6.21	34.17
PK	7.31244G	60.26	74.00	-13.74	10.05	3	Horizontal	55	1.01	50.21	36.75	7.80	34.50

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

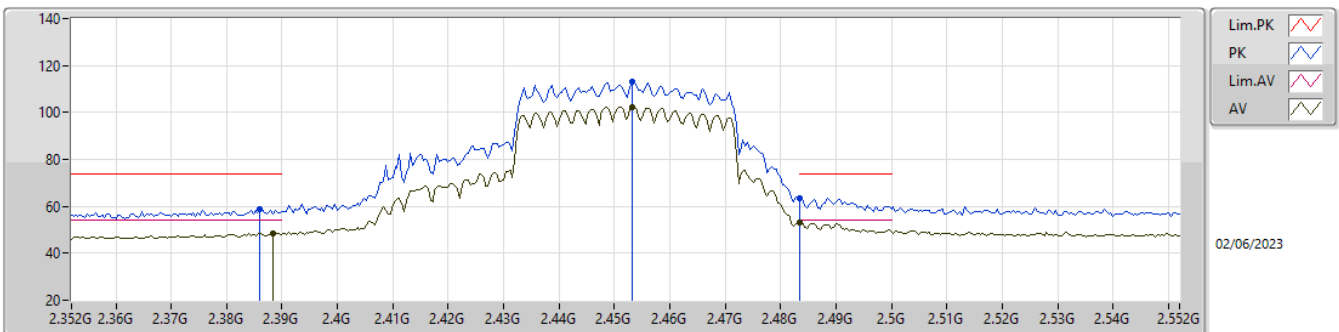
2447MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3854G	49.75	54.00	-4.25	31.73	3	Horizontal	92	1.15	18.02	27.48	4.25	-
AV	2.4486G	103.52	Inf	-Inf	31.99	3	Horizontal	92	1.15	71.53	27.70	4.29	-
AV	2.4835G	53.21	54.00	-0.79	32.14	3	Horizontal	92	1.15	21.07	27.83	4.31	-
PK	2.3842G	59.62	74.00	-14.38	31.72	3	Horizontal	92	1.15	27.90	27.47	4.25	-
PK	2.4482G	113.46	Inf	-Inf	31.99	3	Horizontal	92	1.15	81.47	27.70	4.29	-
PK	2.4914G	64.36	74.00	-9.64	32.18	3	Horizontal	92	1.15	32.18	27.87	4.31	-

2.4-2.4835GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

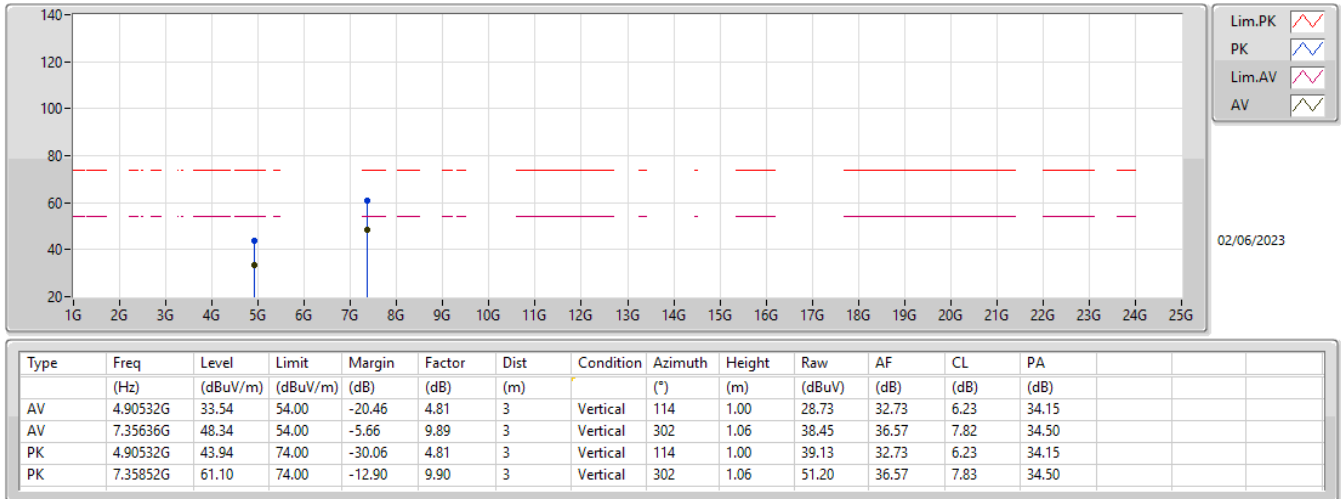
2452MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3884G	48.69	54.00	-5.31	31.76	3	Horizontal	94	1.00	16.93	27.51	4.25	-
AV	2.4532G	102.40	Inf	-Inf	32.00	3	Horizontal	94	1.00	70.40	27.71	4.29	-
AV	2.4835G	52.93	54.00	-1.07	32.14	3	Horizontal	94	1.00	20.79	27.83	4.31	-
PK	2.386G	58.89	74.00	-15.11	31.74	3	Horizontal	94	1.00	27.15	27.49	4.25	-
PK	2.4532G	113.04	Inf	-Inf	32.00	3	Horizontal	94	1.00	81.04	27.71	4.29	-
PK	2.4835G	63.42	74.00	-10.58	32.14	3	Horizontal	94	1.00	31.28	27.83	4.31	-

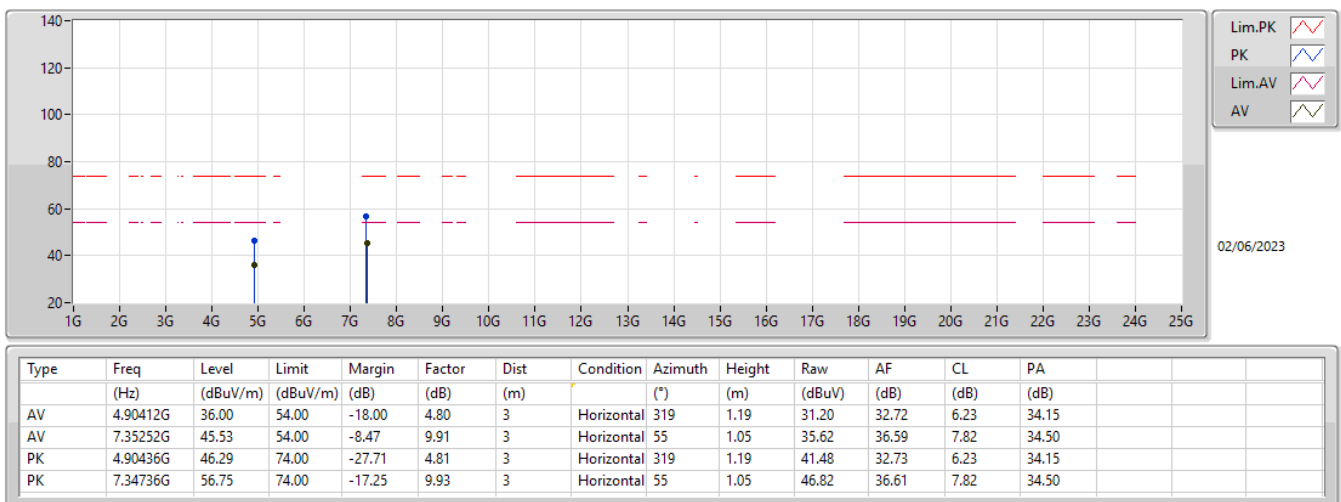
2.4-2.4835GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

2452MHz_TX



2.4-2.4835GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

2452MHz_TX





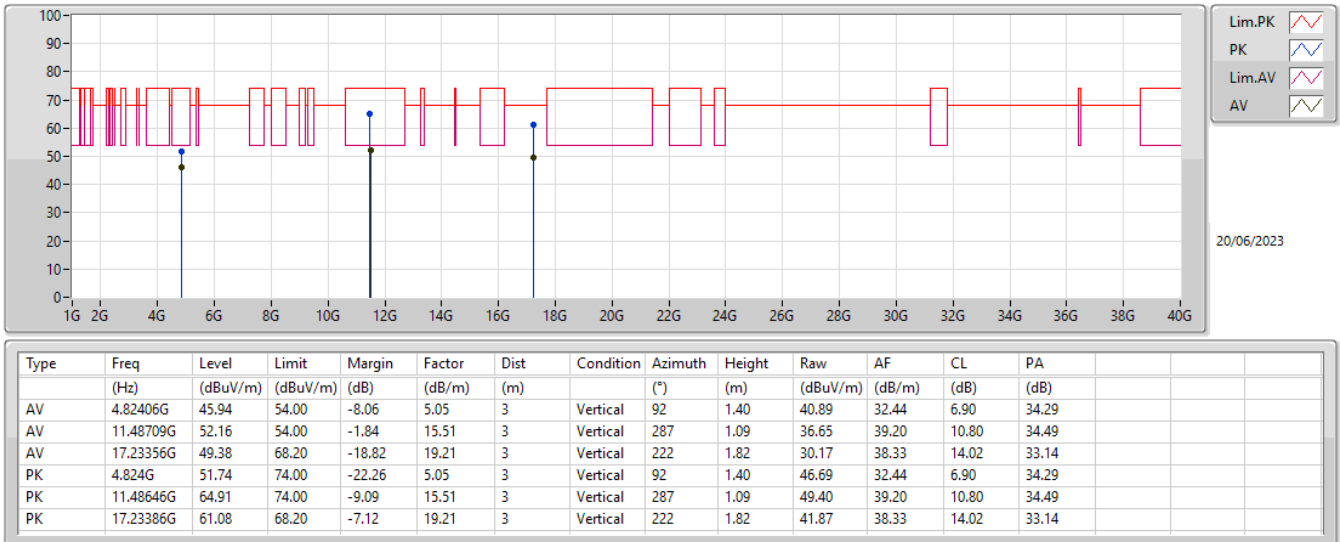
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	11.48709G	52.16	54.00	-1.84	Vertical
Mode 2	Pass	AV	4.82408G	47.13	54.00	-6.87	Vertical

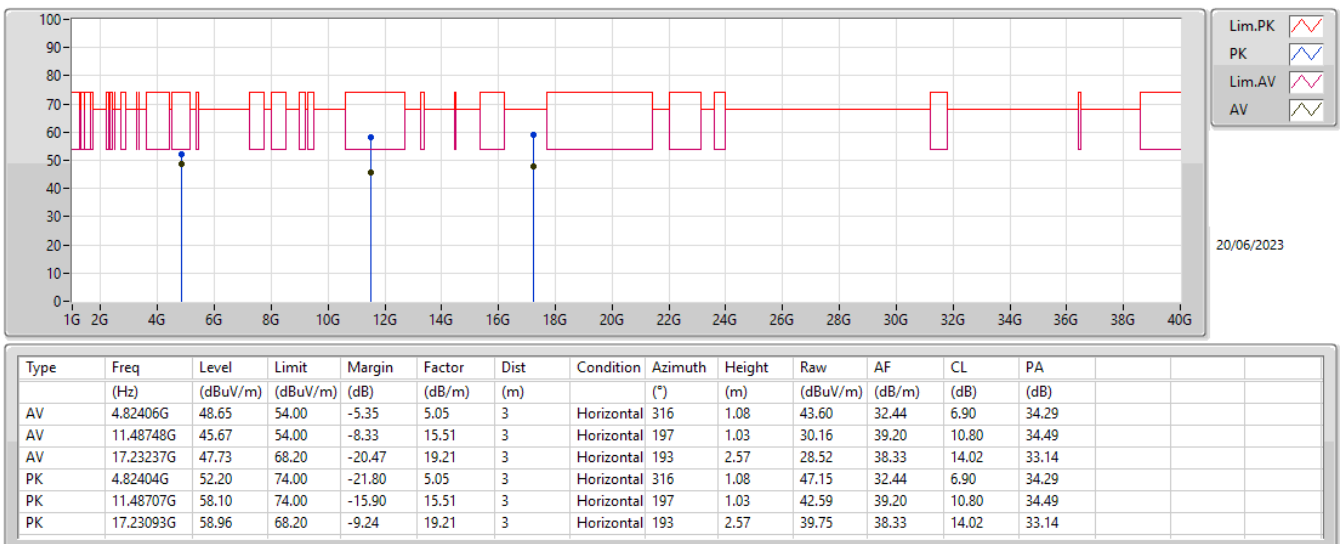
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Mode 1	Pass	AV	4.82406G	45.94	54.00	-8.06	3	Vertical	92	1.40
Mode 1	Pass	AV	11.48709G	52.16	54.00	-1.84	3	Vertical	287	1.09
Mode 1	Pass	AV	17.23356G	49.38	68.20	-18.82	3	Vertical	222	1.82
Mode 1	Pass	PK	4.824G	51.74	74.00	-22.26	3	Vertical	92	1.40
Mode 1	Pass	PK	11.48646G	64.91	74.00	-9.09	3	Vertical	287	1.09
Mode 1	Pass	PK	17.23386G	61.08	68.20	-7.12	3	Vertical	222	1.82
Mode 1	Pass	AV	4.82406G	48.65	54.00	-5.35	3	Horizontal	316	1.08
Mode 1	Pass	AV	11.48748G	45.67	54.00	-8.33	3	Horizontal	197	1.03
Mode 1	Pass	AV	17.23237G	47.73	68.20	-20.47	3	Horizontal	193	2.57
Mode 1	Pass	PK	4.82404G	52.20	74.00	-21.80	3	Horizontal	316	1.08
Mode 1	Pass	PK	11.48707G	58.10	74.00	-15.90	3	Horizontal	197	1.03
Mode 1	Pass	PK	17.23093G	58.96	68.20	-9.24	3	Horizontal	193	2.57
Mode 2	Pass	AV	4.82408G	47.13	54.00	-6.87	3	Vertical	60	1.00
Mode 2	Pass	AV	13.02737G	46.69	68.20	-21.51	3	Vertical	344	1.07
Mode 2	Pass	AV	19.5211G	38.83	54.00	-15.17	3	Vertical	287	2.17
Mode 2	Pass	PK	4.8241G	51.91	74.00	-22.09	3	Vertical	60	1.00
Mode 2	Pass	PK	13.02653G	62.03	88.20	-26.17	3	Vertical	344	1.07
Mode 2	Pass	PK	19.5011G	47.49	74.00	-26.51	3	Vertical	287	2.17
Mode 2	Pass	AV	4.8241G	46.41	54.00	-7.59	3	Horizontal	314	1.08
Mode 2	Pass	AV	13.01798G	44.40	68.20	-23.80	3	Horizontal	360	1.18
Mode 2	Pass	AV	19.5324G	39.19	54.00	-14.81	3	Horizontal	320	2.12
Mode 2	Pass	PK	4.82406G	50.91	74.00	-23.09	3	Horizontal	314	1.08
Mode 2	Pass	PK	13.01755G	57.15	88.20	-31.05	3	Horizontal	360	1.18
Mode 2	Pass	PK	19.5232G	48.32	74.00	-25.68	3	Horizontal	320	2.12

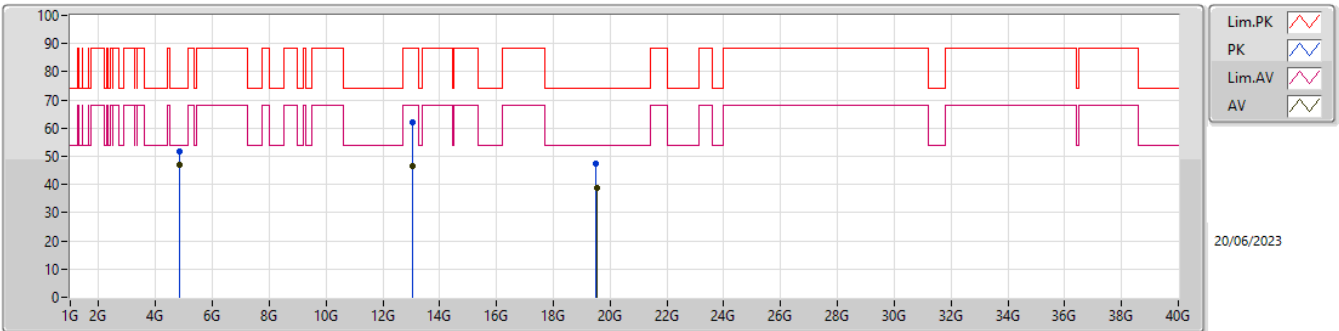
Radiated Emissions above 1GHz_Mode 1



Radiated Emissions above 1GHz_Mode 1

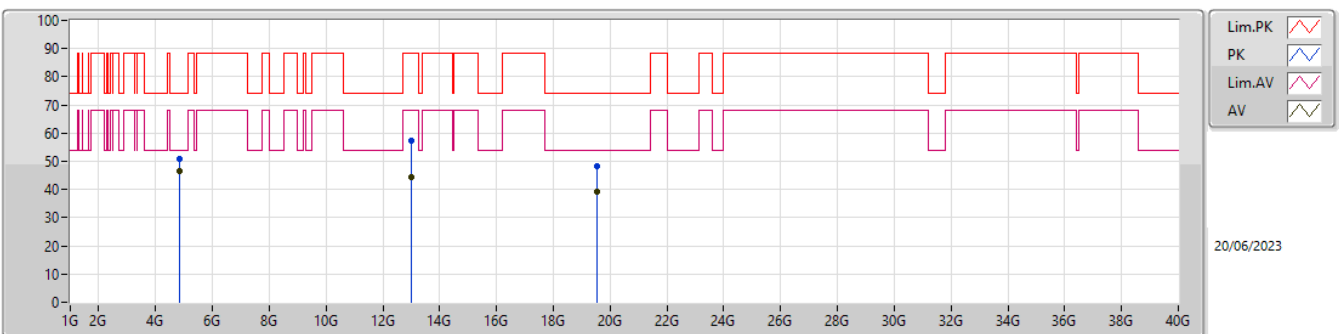


Radiated Emissions above 1GHz_Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)				
AV	4.82408G	47.13	54.00	-6.87	5.05	3	Vertical	60	1.00	42.08	32.44	6.90	34.29				
AV	13.02737G	46.69	68.20	-21.51	17.75	3	Vertical	344	1.07	28.94	39.77	11.41	33.43				
AV	19.5211G	38.83	54.00	-15.17	-9.12	3	Vertical	287	2.17	47.95	37.89	14.68	52.15				
PK	4.8241G	51.91	74.00	-22.09	5.05	3	Vertical	60	1.00	46.86	32.44	6.90	34.29				
PK	13.02653G	62.03	88.20	-26.17	17.75	3	Vertical	344	1.07	44.28	39.77	11.41	33.43				
PK	19.5011G	47.49	74.00	-26.51	-9.06	3	Vertical	287	2.17	56.55	37.90	14.68	52.10				

Radiated Emissions above 1GHz_Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)				
AV	4.8241G	46.41	54.00	-7.59	5.05	3	Horizontal	314	1.08	41.36	32.44	6.90	34.29				
AV	13.01798G	44.40	68.20	-23.80	17.75	3	Horizontal	360	1.18	26.65	39.78	11.41	33.44				
AV	19.5324G	39.19	54.00	-14.81	-9.14	3	Horizontal	320	2.12	48.33	37.89	14.68	52.17				
PK	4.82406G	50.91	74.00	-23.09	5.05	3	Horizontal	314	1.08	45.86	32.44	6.90	34.29				
PK	13.01753G	57.15	88.20	-31.05	17.74	3	Horizontal	360	1.18	39.41	39.78	11.41	33.45				
PK	19.5232G	48.32	74.00	-25.68	-9.12	3	Horizontal	320	2.12	57.44	37.89	14.68	52.15				