

FCC Radio Test Report

FCC ID : 2ASJ3-ATS
Equipment : Console module (ATS)
Brand Name : AVIRON
Model Name : ATS
Applicant : Aviron Interactive
265 Bartley Drive, North York, Ontario, M4A 2N7, Canada
Manufacturer : Qisda Corporation
157 , Shan-Ying Road, Gueishan, Taoyuan 333, Taiwan
Standard : 47 CFR FCC Part 15.407

The product was received on Oct. 24, 2024, and testing was started from Nov. 29, 2024 and completed on Dec. 17, 2024. 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

[illegible]

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	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Conducted Output Power	PASS	-
3.4	15.407(a)	Peak Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Declaration of Conformity:

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

Comments and explanations:

None

Reviewed by: Ben Tseng

Report Producer: Amber Chiu

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20),	5180-5240	36-48 [4]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40),	5190-5230	38-46 [2]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5725-5850		5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX

Note:

- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.
- Evaluated VHT20/VHT40/VHT80 mode only due to the similar modulation. The power setting of HT20/HT40 mode are the same or lower than VHT20/VHT40/VHT80.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Support
1	INPAQ	WA-P-LB-02-1095	PCB	I-Pex	2.4G+5G+BT
2	INPAQ	WA-P-LB-01-335	PCB	N-type	2.4G+5G

Ant.	Port	Gain (dBi)			
		2.4G	5G		BT
			U-NII-1	U-NII-3	
1	1	2.92	3.21	3.20	2.92
2	2	2.90	3.14	3.12	2.90

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

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

For 5GHz function:

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

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

For BT function:

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

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

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter		
EUT Function	☐ Outdoor AP	☐ Indoor AP	
	☐ Fixed P2P AP	☒ Client	
Beamforming Function	☐ With beamforming	☒ Without beamforming	
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.: ...		
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:		
☐	Other:		

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss1,(6Mbps)_2TX	0.991	0.04	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT20_Nss1,(MCS0)_2TX	0.991	0.04	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40_Nss1,(MCS0)_2TX	0.71	1.49	52.344u	20k
802.11ac VHT80_Nss1,(MCS0)_2TX	0.71	1.49	52.344u	20k

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
- ♦ KDB 789033 D02 v02r01

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

- ♦ KDB 662911 D01 v02r01
- ♦ KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Daniel Lin	21.1~22.5°C / 51~54%	17/Dec/2024
RF Conducted	TH01-HY	Sonic Li	23.4~23.6°C / 52~56%	03/Dec/2024~04/Dec/2024
☒ Wenhua 3rd. (TAF: 3785)	ADD: No. 58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Guishan Dist. Taoyuan City 333, Taiwan (R.O.C.)			
	TEL: 886-3-327-0868			
Test site Designation No. TW0036 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated	03CH25-HY	Rian Chung	20.5~21.6°C / 52~56%	29/Nov/2024~01/Dec/2024
Radiated (Co-location)	03CH25-HY	Billy Wang	20.1~20.5°C / 54~55%	17/Dec/2024

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%
Emission 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%
Unwanted Emissions	4.8 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	Dos 6.1
Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	16
5200MHz	19
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	16
5200MHz	18
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	15
5230MHz	18
5755MHz	18
5795MHz	19
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	16
5775MHz	17

2.2 The Worst Case Measurement Configuration

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density
Test Condition	Conducted measurement at transmit chains

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA4O2313 for Co-location RF Exposure Evaluation and Appendix F for Radiated Emission Co-location.	



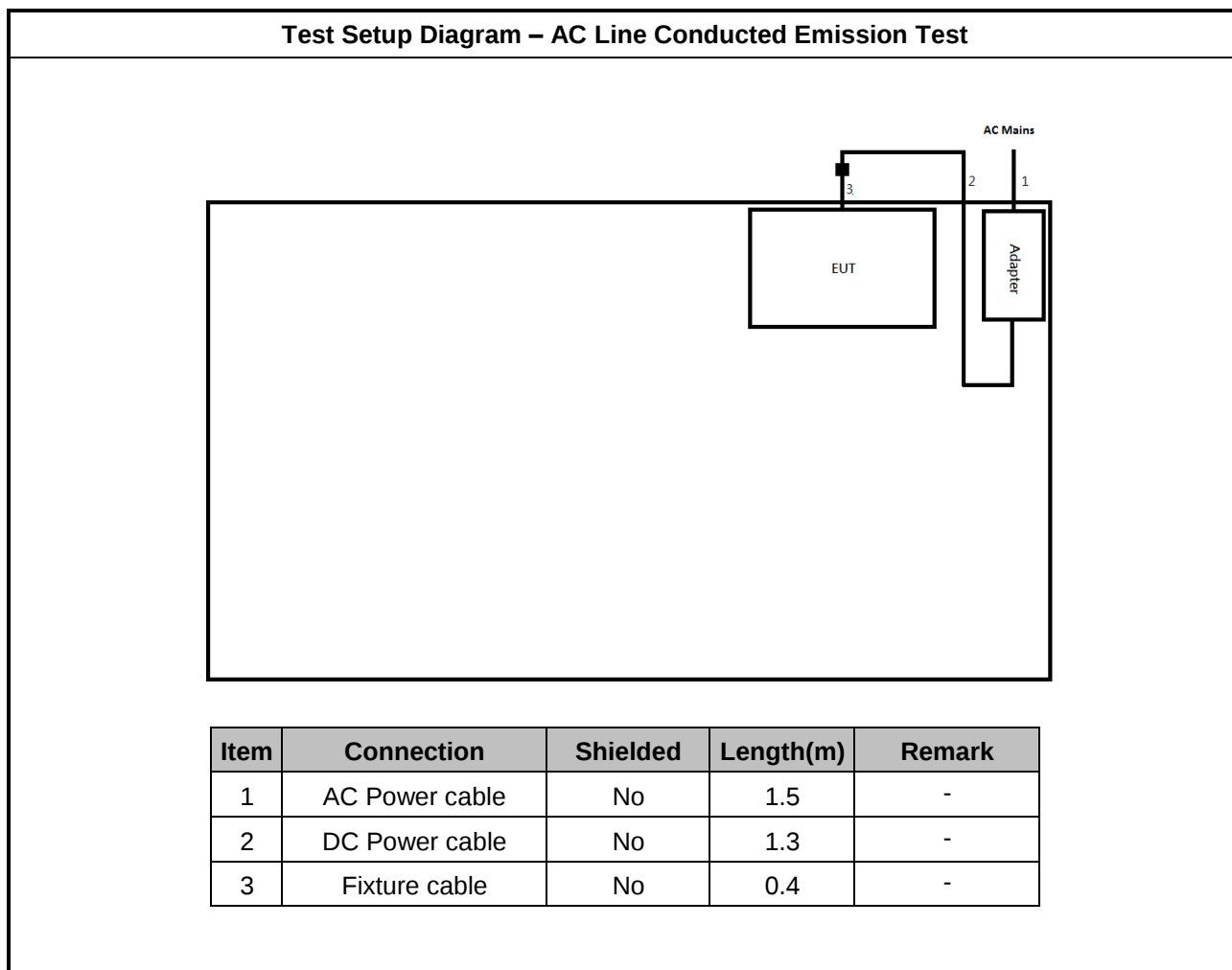
2.3 Support Equipment

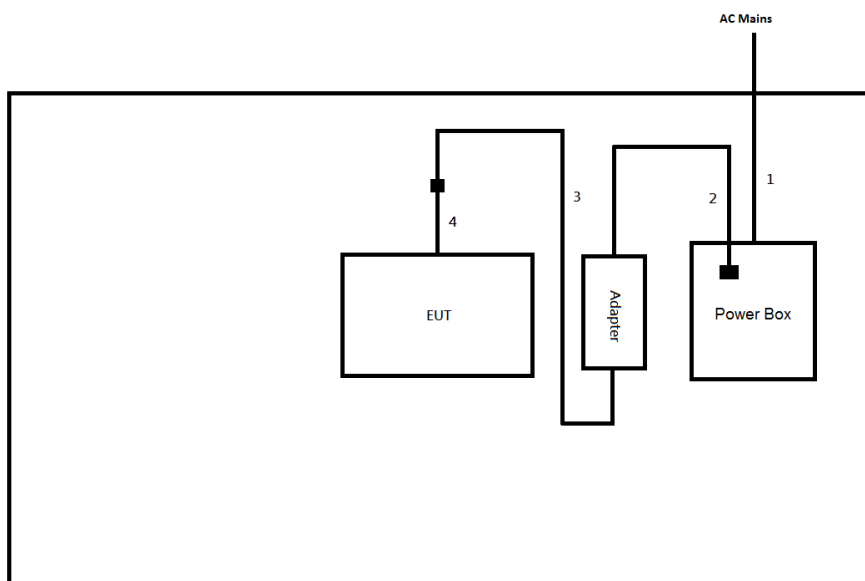
Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Adapter	GVE	GM60-120500-F	-	-
2	Fixture	N/A	N/A	-	Provided by Customer
3	Power Cord	N/A	N/A	-	Provided by Customer

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

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Adapter	GVE	GM60-120500-F	-	-
2	Fixture	N/A	N/A	-	Provided by Customer
3	Power Cord	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	AC Power cable	No	1.5	-
3	DC Power cable	No	1.3	-
4	Fixture cable	No	0.4	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

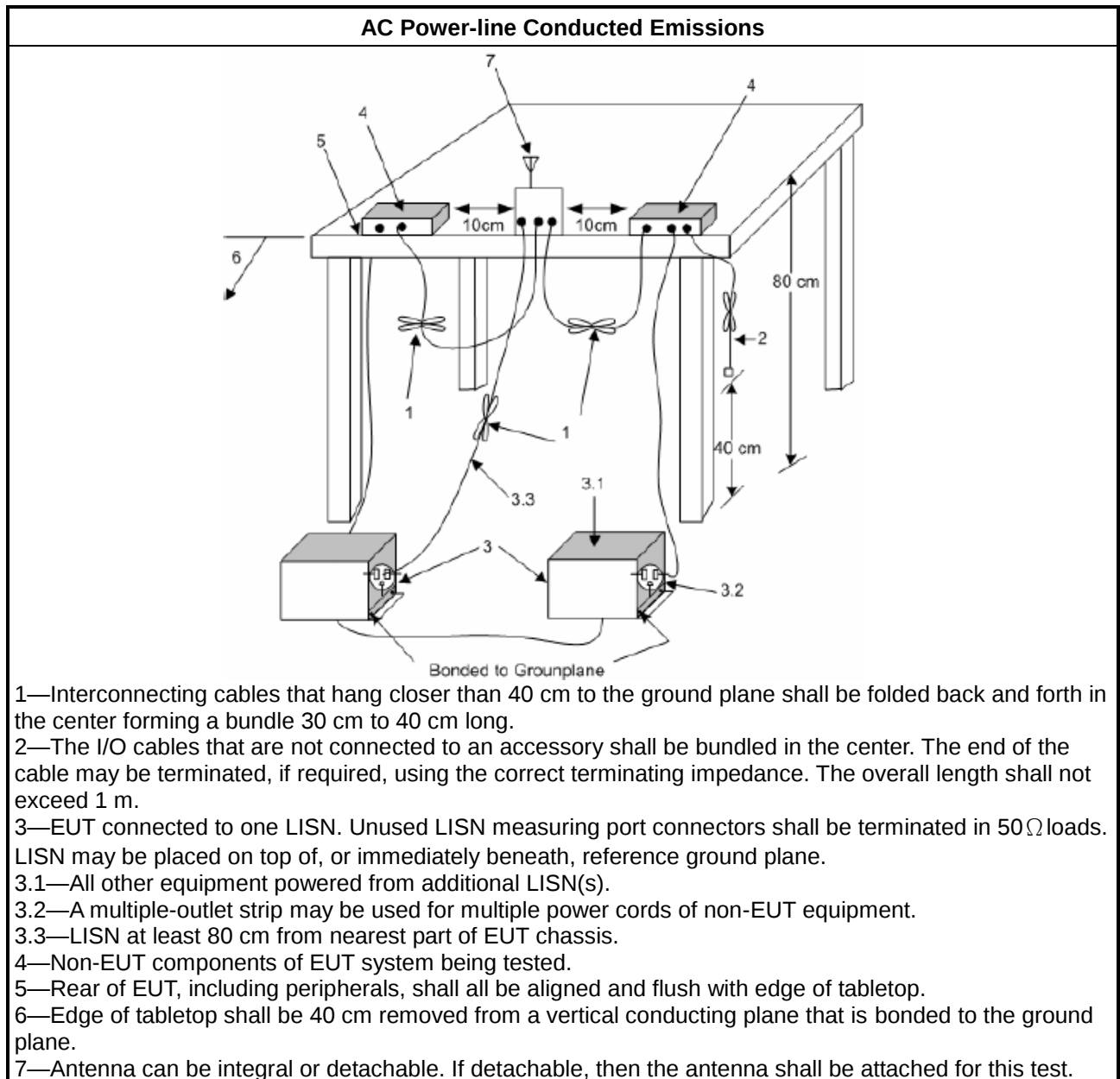
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.5 Test Setup



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, N/A
☐	For the 5.25-5.35 GHz band, N/A
☐	For the 5.47-5.725 GHz band, N/A
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

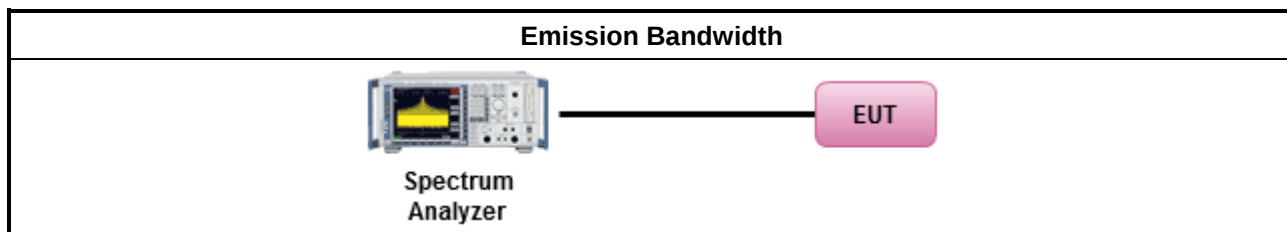
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 6.7 for 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	
UNII Devices	
☒	For the 5.15-5.25 GHz band:
☐	Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm]
☐	Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$
☐	Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed 1 W. If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$.
☐	Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed 250 mW. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☐	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☒	For the 5.725-5.85 GHz band:
☐	Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$.
☐	Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed 1 W.
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

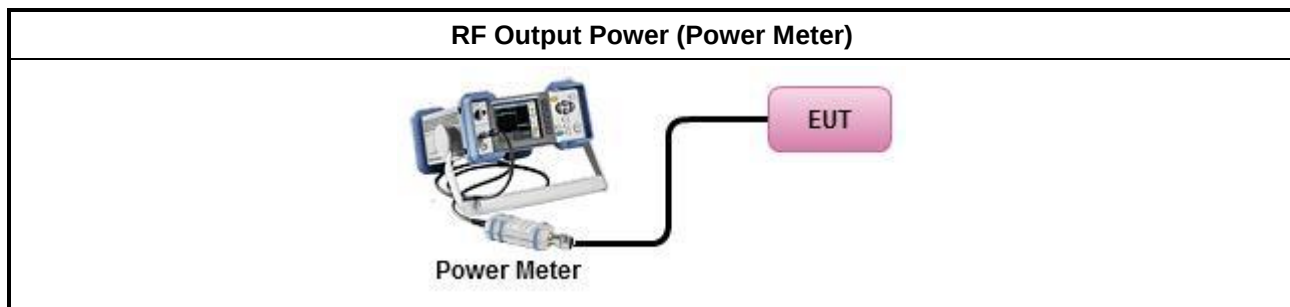
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Conducted Output Power	
	Duty cycle $\geq 98\%$
☐	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle $< 98\%$
☐	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
☒	Refer as KDB 789033, clause E Method PM (using an RF average power meter).
For conducted measurement.	
	If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
	Outdoor AP: the peak power spectral density (PPSD) shall not exceed 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
	Indoor AP: the peak power spectral density (PPSD) shall not exceed 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
	Point-to-point AP: the peak power spectral density (PPSD) shall not exceed 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$.
	Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☐ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
	Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$.
	Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

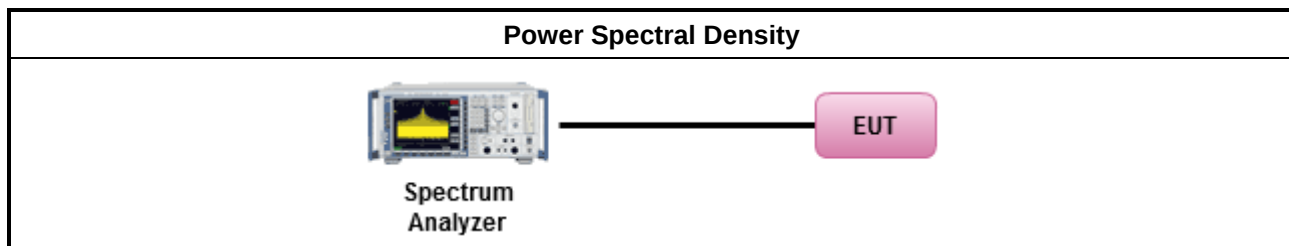
3.4.2 Measuring Instruments

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 shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
☐	Refer as KDB 789033, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
Duty cycle ≥ 98%	
☒	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
Duty cycle < 98%	
☒	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
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.
☐	If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz 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.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

Note 1: 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).

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

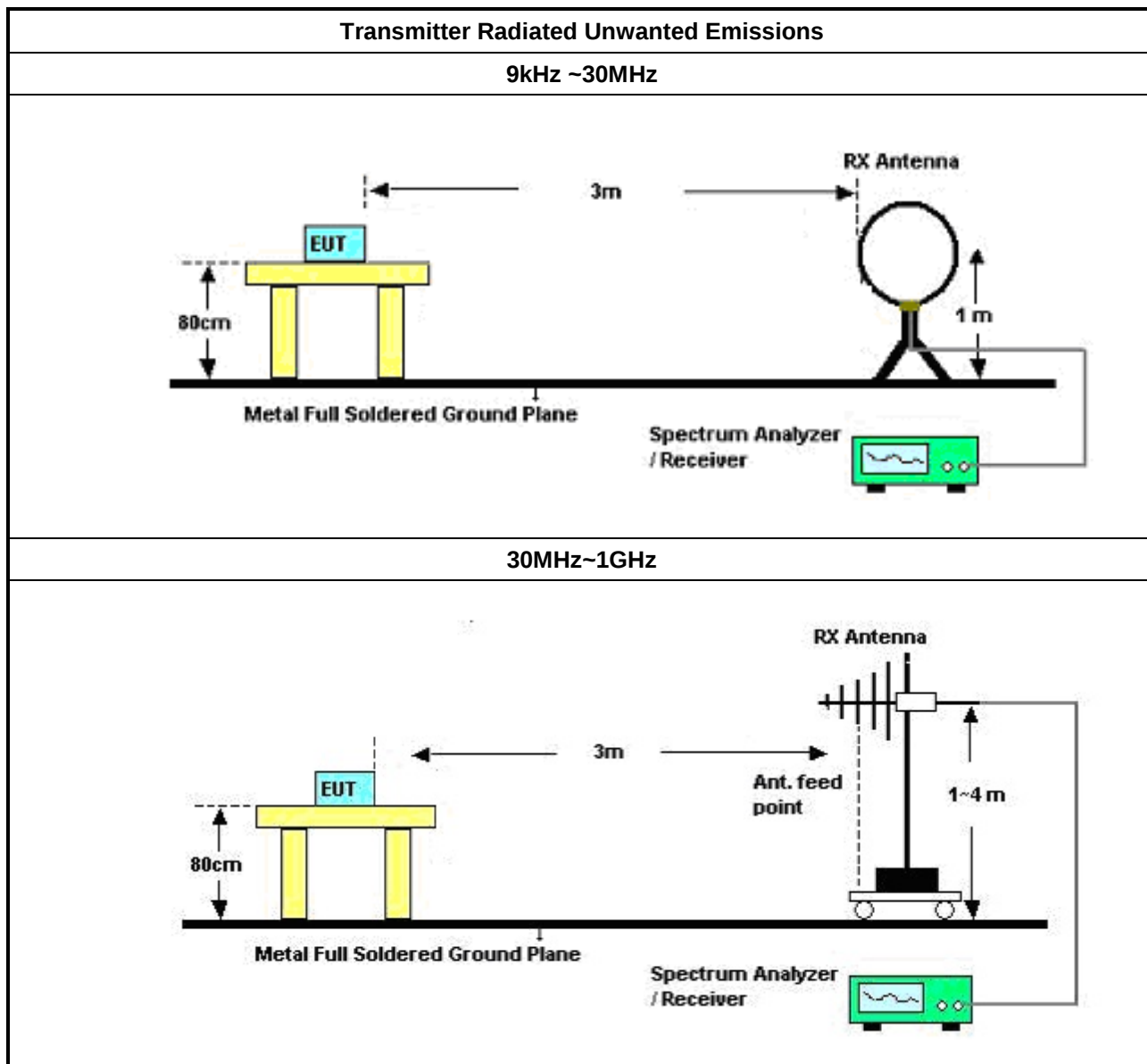
Test Method	
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. 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).	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.
☒	Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.
☒	Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.
For radiated measurement.	
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
The any unwanted emissions level shall not exceed the fundamental emission level.	
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

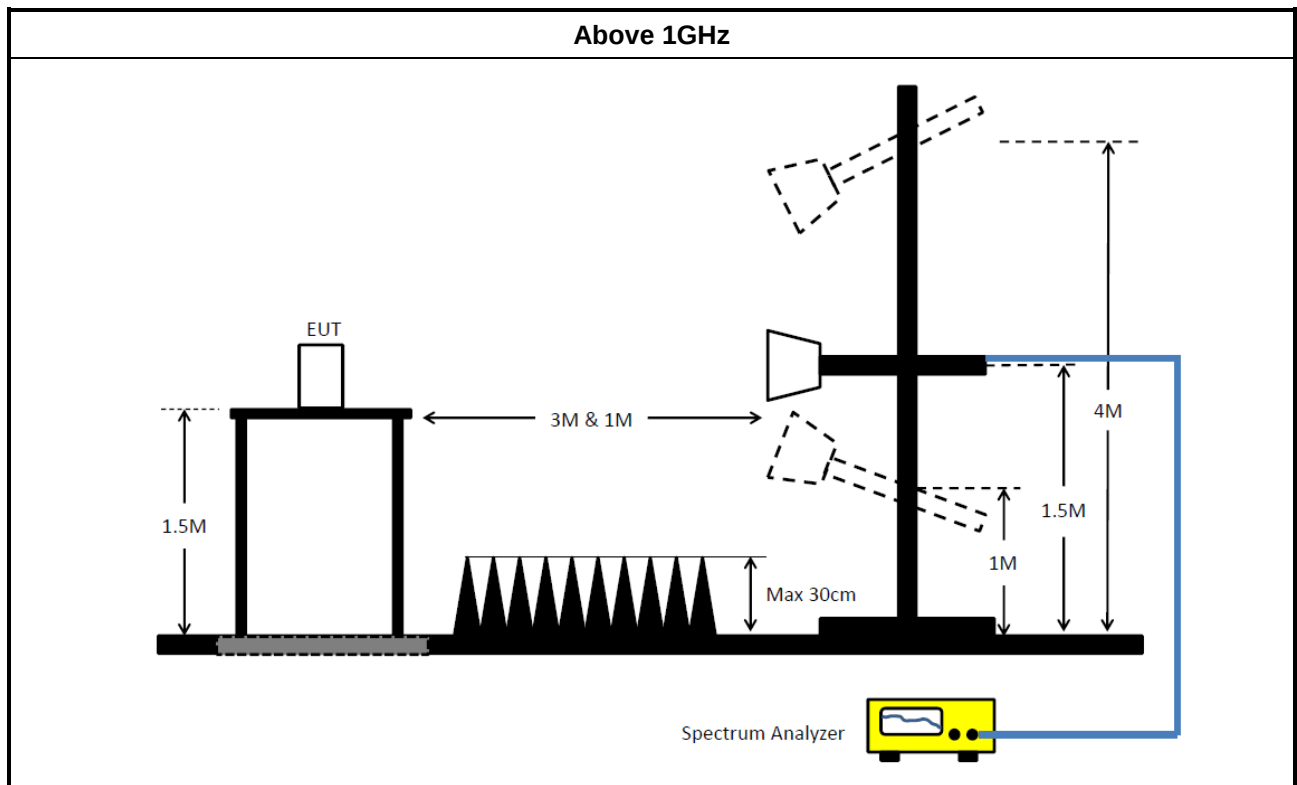
3.5.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.5.5 Test Setup





3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



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	ROHDE & SCHWARZ	ESR3	102051	9kHz ~ 3.6GHz	17/May/2024	16/May/2025
Two-Line V-Network	ROHDE & SCHWARZ	ENV 216	101274	9kHz ~ 30MHz	18/Jun/2024	17/Jun/2025
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	27/Feb/2024	26/Feb/2025
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	17/Oct/2024	16/Oct/2025
Software	Sporton	SENSE-EMI	V5.11.3	-	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	09/Apr/2024	08/Apr/2025
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	16/Oct/2024	15/Oct/2025
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	17/Feb/2024	16/Feb/2025
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	17/Feb/2024	16/Feb/2025
SENSE-15407_NII	Sporton	V5.11.21	N/A	N/A	N/A	N/A

**Instrument for Radiated Test (03CH25-HY)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	30MHz~1GHz 3m	20/Jul/2024	19/Jul/2025
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	1GHz~18GHz 3m	08/Aug/2024	07/Aug/2025
ESR7 EMI Test Receiver	ROHDE & SCHWARZ	ESR7	102956	9kHz~3.6GHz	27/Aug/2024	26/Aug/2025
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101410	10Hz~44GHz	18/Nov/2024	17/Nov/2025
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	19/Mar/2024	18/Mar/2025
Bilog Antenna & 6dB Attenuator	TESEQ & VGT	CBL 6111D & VFA 04002-06	63537/001	30MHz~1GHz	30/May/2024	29/May/2025
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02876	1GHz~18GHz	11/Jul/2024	10/Jul/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	04/Oct/2024	03/Oct/2025
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	9kHz~1GHz	24/Apr/2024	23/Apr/2025
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	1GHz~40GHz	23/Apr/2024	22/Apr/2025
Preamplifier	SGH	PRAMP 903	20230515-1	25MHz~3GHz	24/May/2024	23/May/2025
Preamplifier	SGH	PRAMP 118-H	20230515-3	1GHz~18GHz	24/May/2024	23/May/2025
Pre-amplifier	EMCI	EM01G18G	060940	1GHz~18GHz	22/Oct/2024	21/Oct/2025
Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	15/Apr/2024	14/Apr/2025
SENSE-15407-NII	Sporton	V5.11.20	NA	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	TDK	SAC-3M	03CH25-HY	1GHz~18GHz 3m	08/Aug/2024	07/Aug/2025
Signal Analyzer	ROHDE& SCHWARZ	FSV3044	101410	10Hz~44GHz	18/Nov/2024	17/Nov/2025
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02876	1GHz~18GHz	11/Jul/2024	10/Jul/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	04/Jun/2024	03/Jun/2025
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	1GHz~40GHz	23/Apr/2024	22/Apr/2025
Preamplifier	SGH	PRAMP 118-H	20230515-3	1GHz~18GHz	24/May/2024	23/May/2025
Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	21/Sep/2024	22/Sep/2025
SENSE-EMI	Sporton	V5.11.6	N/A	N/A	N/A	N/A



Conducted Emissions at Powerline

Appendix A

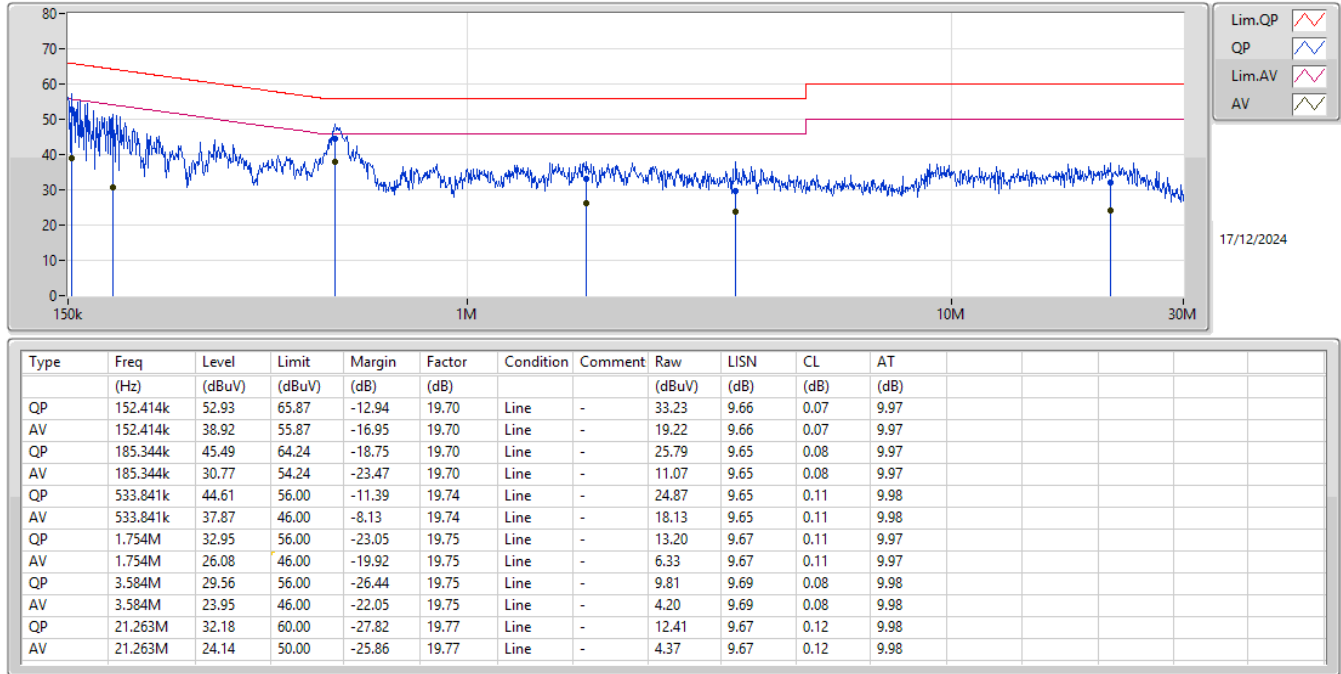
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	533.841k	37.87	46.00	-8.13	Line

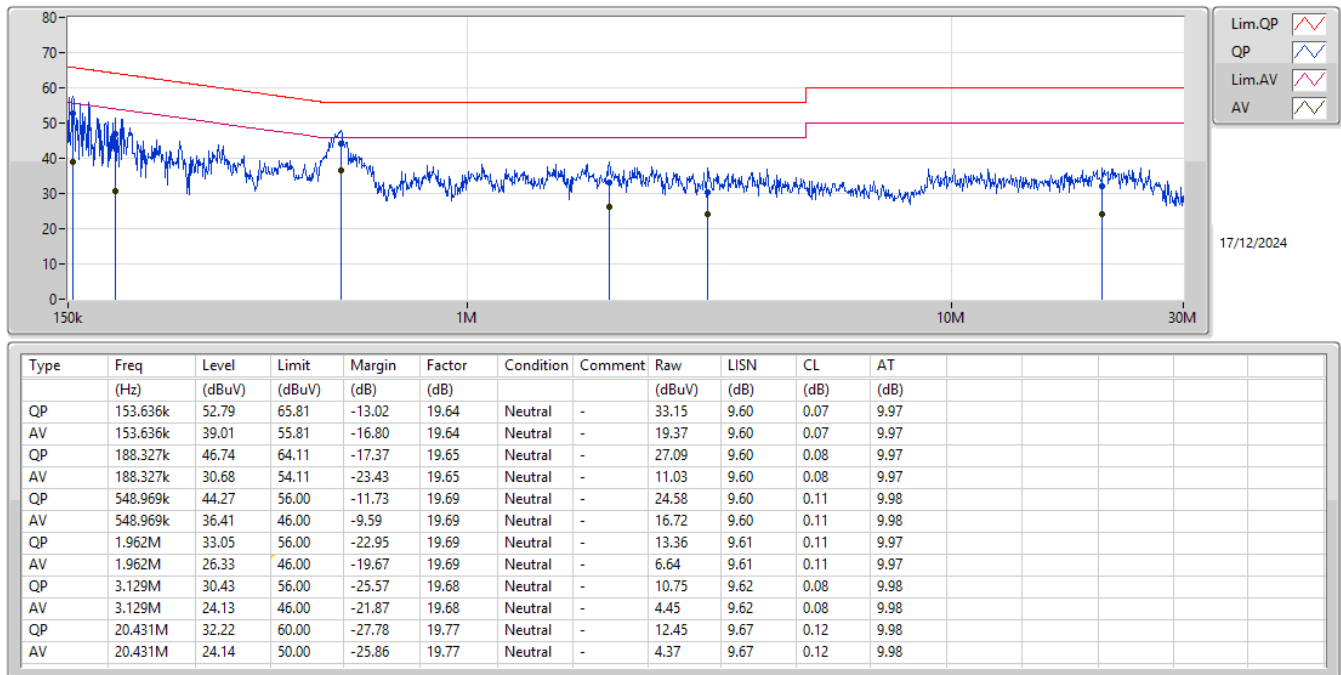
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	152.414k	52.93	65.87	-12.94	Line
Mode 1	Pass	AV	152.414k	38.92	55.87	-16.95	Line
Mode 1	Pass	QP	185.344k	45.49	64.24	-18.75	Line
Mode 1	Pass	AV	185.344k	30.77	54.24	-23.47	Line
Mode 1	Pass	QP	533.841k	44.61	56.00	-11.39	Line
Mode 1	Pass	AV	533.841k	37.87	46.00	-8.13	Line
Mode 1	Pass	QP	1.754M	32.95	56.00	-23.05	Line
Mode 1	Pass	AV	1.754M	26.08	46.00	-19.92	Line
Mode 1	Pass	QP	3.584M	29.56	56.00	-26.44	Line
Mode 1	Pass	AV	3.584M	23.95	46.00	-22.05	Line
Mode 1	Pass	QP	21.263M	32.18	60.00	-27.82	Line
Mode 1	Pass	AV	21.263M	24.14	50.00	-25.86	Line
Mode 1	Pass	QP	153.636k	52.79	65.81	-13.02	Neutral
Mode 1	Pass	AV	153.636k	39.01	55.81	-16.80	Neutral
Mode 1	Pass	QP	188.327k	46.74	64.11	-17.37	Neutral
Mode 1	Pass	AV	188.327k	30.68	54.11	-23.43	Neutral
Mode 1	Pass	QP	548.969k	44.27	56.00	-11.73	Neutral
Mode 1	Pass	AV	548.969k	36.41	46.00	-9.59	Neutral
Mode 1	Pass	QP	1.962M	33.05	56.00	-22.95	Neutral
Mode 1	Pass	AV	1.962M	26.33	46.00	-19.67	Neutral
Mode 1	Pass	QP	3.129M	30.43	56.00	-25.57	Neutral
Mode 1	Pass	AV	3.129M	24.13	46.00	-21.87	Neutral
Mode 1	Pass	QP	20.431M	32.22	60.00	-27.78	Neutral
Mode 1	Pass	AV	20.431M	24.14	50.00	-25.86	Neutral

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1



Summary

Mode	Max-N dB	Max-OBW	ITU-Code	Min-N dB	Min-OBW
	(Hz)	(Hz)		(Hz)	(Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	21.12M	16.734M	16M7D1D	19.25M	16.448M
802.11ac VHT20_Nss1,(MCS0)_2TX	21.835M	17.841M	17M8D1D	20.13M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	39.38M	36.532M	36M5D1D	38.94M	36.282M
802.11ac VHT80_Nss1,(MCS0)_2TX	79.64M	76.362M	76M4D1D	79.42M	75.762M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.225M	16.712M	16M7D1D	14.795M	16.47M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.6M	17.766M	17M8D1D	17.49M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	36.3M	36.582M	36M6D1D	35.75M	36.332M
802.11ac VHT80_Nss1,(MCS0)_2TX	75.46M	76.362M	76M4D1D	75.24M	76.062M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Max-OBW = Maximum 99% occupied bandwidth;
 Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Min-OBW = Minimum 99% occupied bandwidth

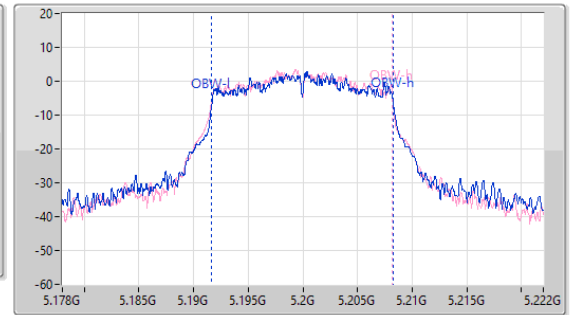
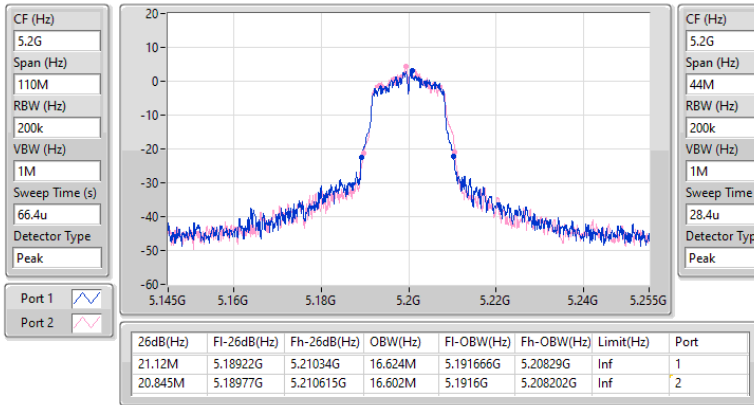
Result

Mode	Result	Limit	Port 1-N dB	Port 1-OBW	Port 2-N dB	Port 2-OBW
		(Hz)	(Hz)	(Hz)	(Hz)	(Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.25M	16.734M	20.295M	16.536M
5200MHz	Pass	Inf	21.12M	16.624M	20.845M	16.602M
5240MHz	Pass	Inf	19.8M	16.492M	20.075M	16.448M
5745MHz	Pass	500k	16.225M	16.47M	16.06M	16.58M
5785MHz	Pass	500k	14.795M	16.712M	15.675M	16.624M
5825MHz	Pass	500k	15.4M	16.58M	16.06M	16.58M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	20.13M	17.641M	21.835M	17.841M
5200MHz	Pass	Inf	20.68M	17.791M	20.68M	17.616M
5240MHz	Pass	Inf	20.79M	17.641M	20.955M	17.666M
5745MHz	Pass	500k	17.545M	17.641M	17.6M	17.691M
5785MHz	Pass	500k	17.6M	17.616M	17.545M	17.741M
5825MHz	Pass	500k	17.545M	17.666M	17.49M	17.766M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.05M	36.532M	38.94M	36.282M
5230MHz	Pass	Inf	39.38M	36.532M	38.94M	36.282M
5755MHz	Pass	500k	35.75M	36.432M	36.3M	36.532M
5795MHz	Pass	500k	36.08M	36.582M	36.3M	36.332M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	79.42M	75.762M	79.64M	76.362M
5775MHz	Pass	500k	75.46M	76.062M	75.24M	76.362M

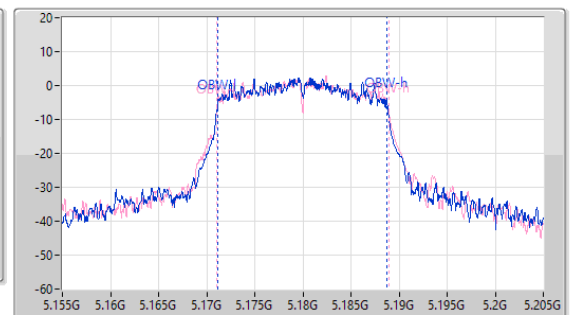
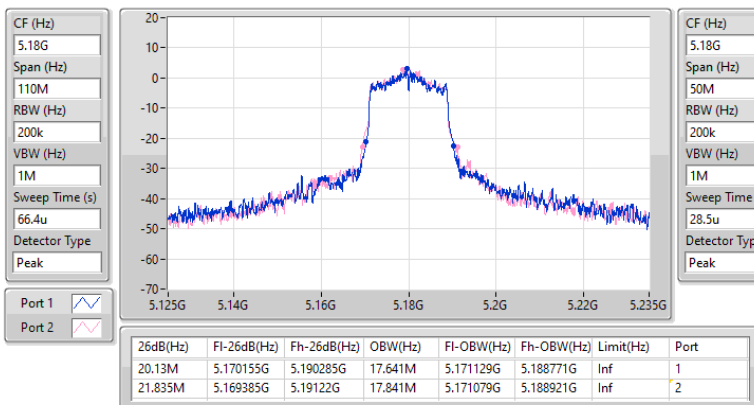
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX
EBW
5200MHz

03/12/2024

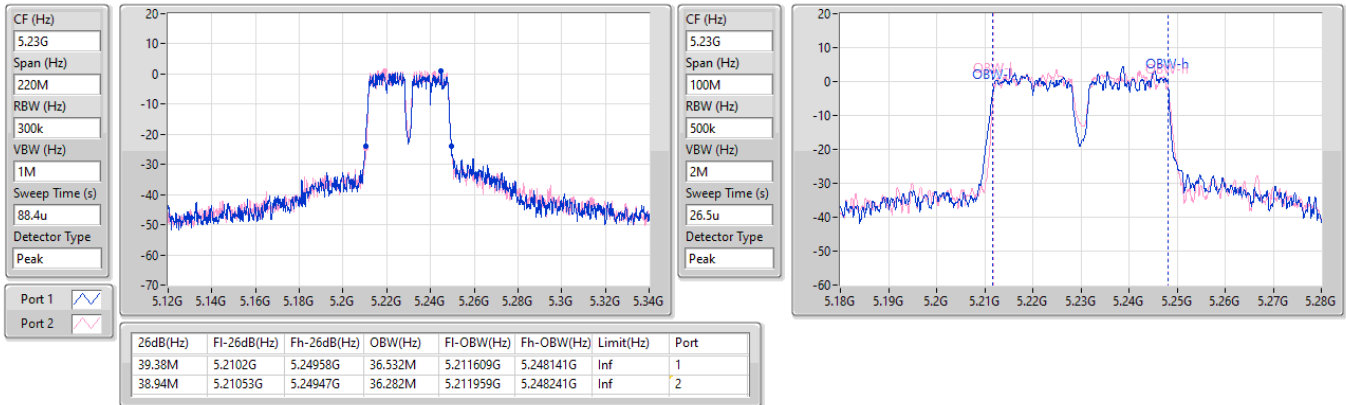

5.15-5.25GHz_802.11ac_VHT20_Nss1,(MCS0)_2TX
EBW
5180MHz

03/12/2024

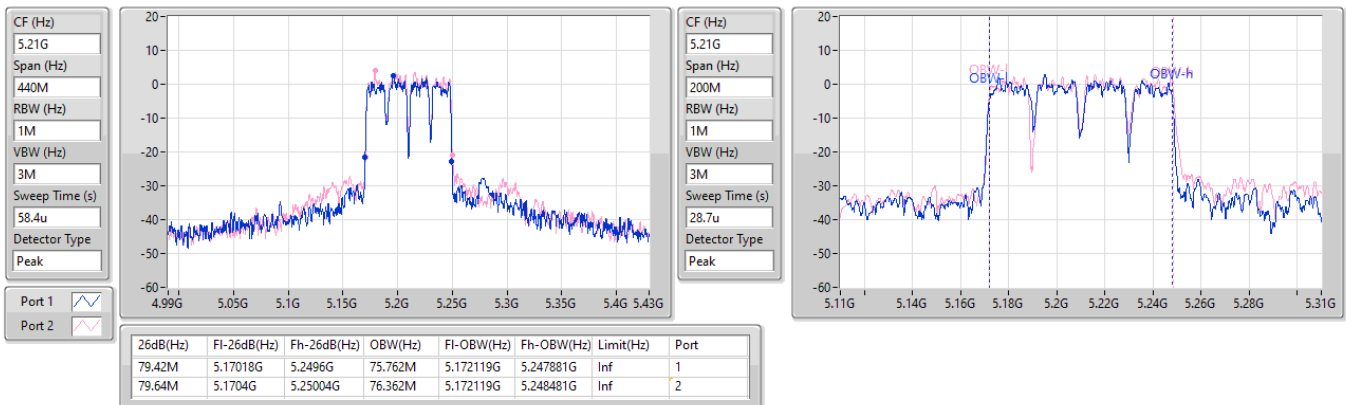


5.15-5.25GHz_802.11ac_VHT40_Nss1,(MCS0)_2TX
EBW
5230MHz

03/12/2024


5.15-5.25GHz_802.11ac_VHT80_Nss1,(MCS0)_2TX
EBW
5210MHz

03/12/2024

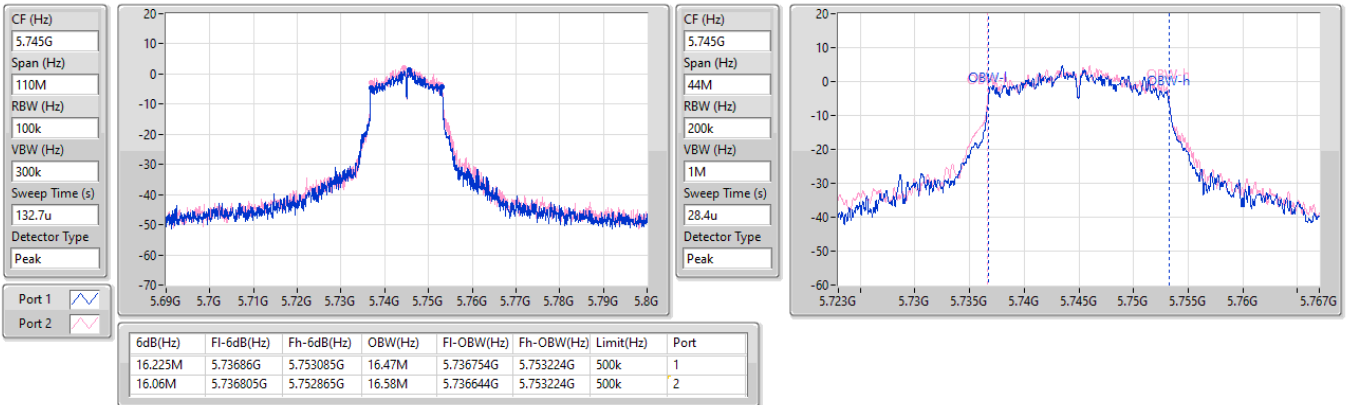


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5745MHz

03/12/2024

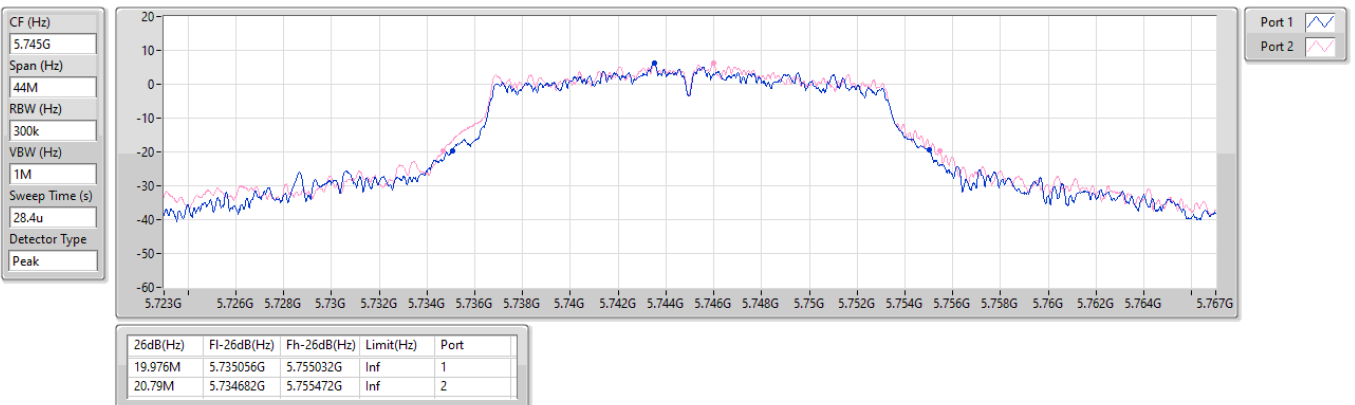


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5745MHz

03/12/2024

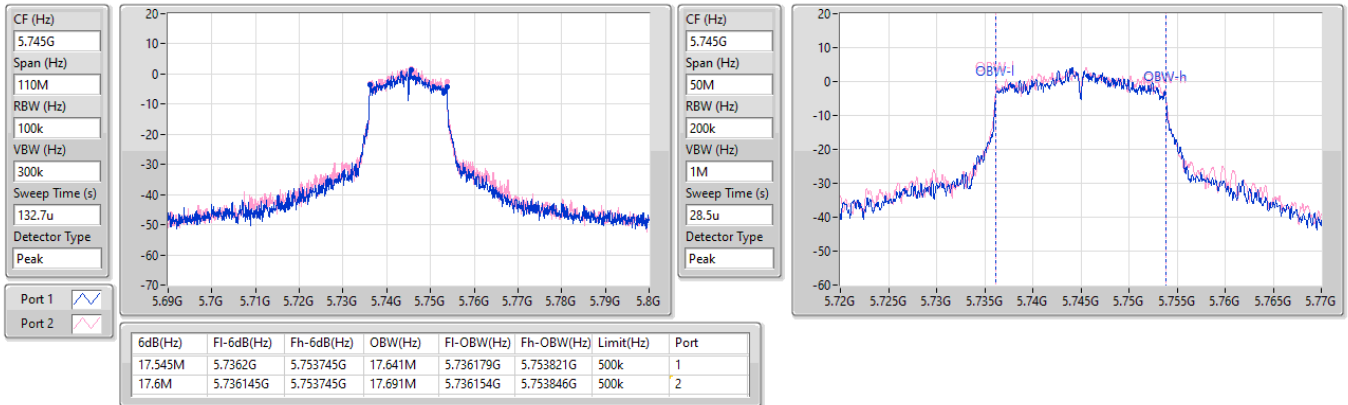


5.725-5.85GHz_802.11ac_VHT20_Nss1,(MCS0)_2TX

EBW

5745MHz

03/12/2024

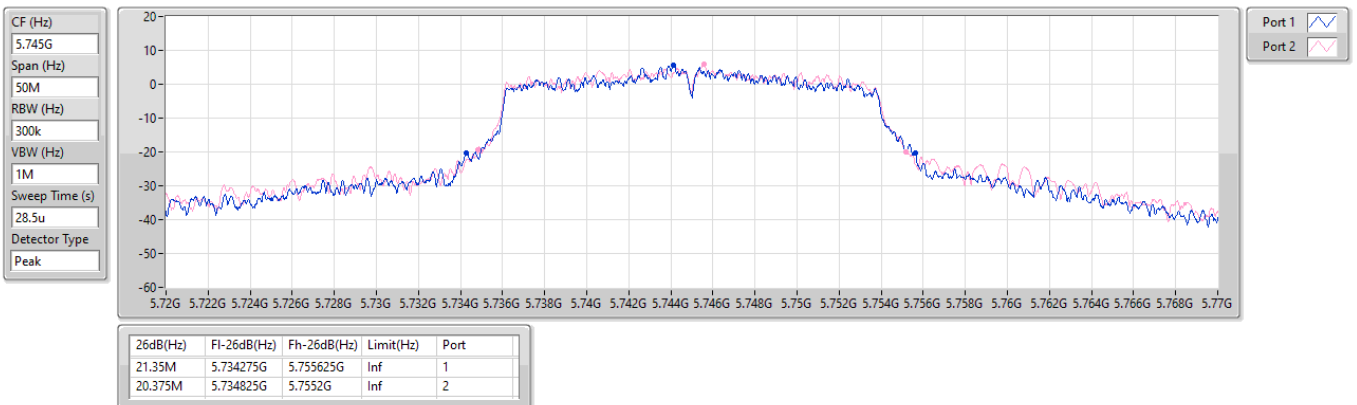


5.725-5.85GHz_802.11ac_VHT20_Nss1,(MCS0)_2TX

EBW

5745MHz

03/12/2024

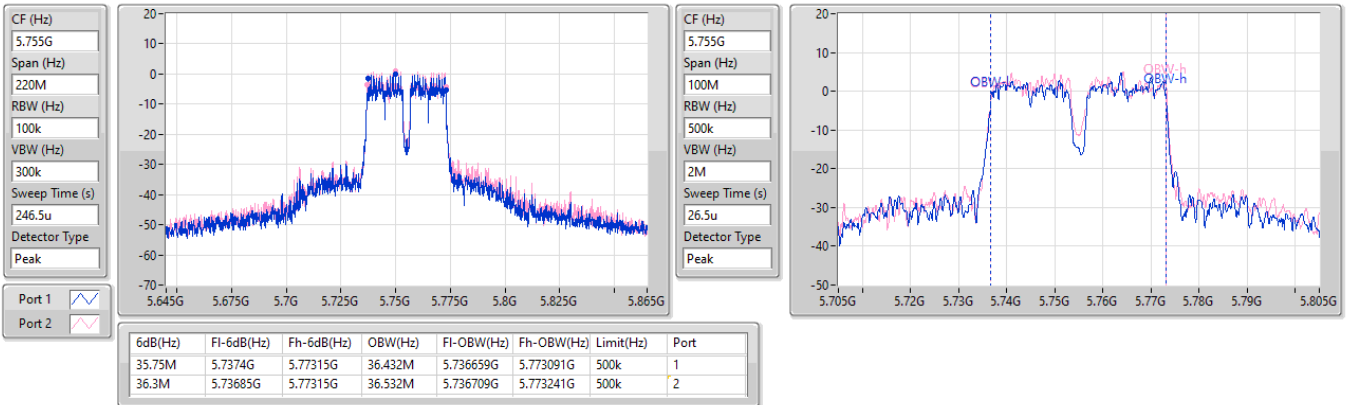


5.725-5.85GHz_802.11ac_VHT40_Nss1,(MCS0)_2TX

EBW

5755MHz

03/12/2024

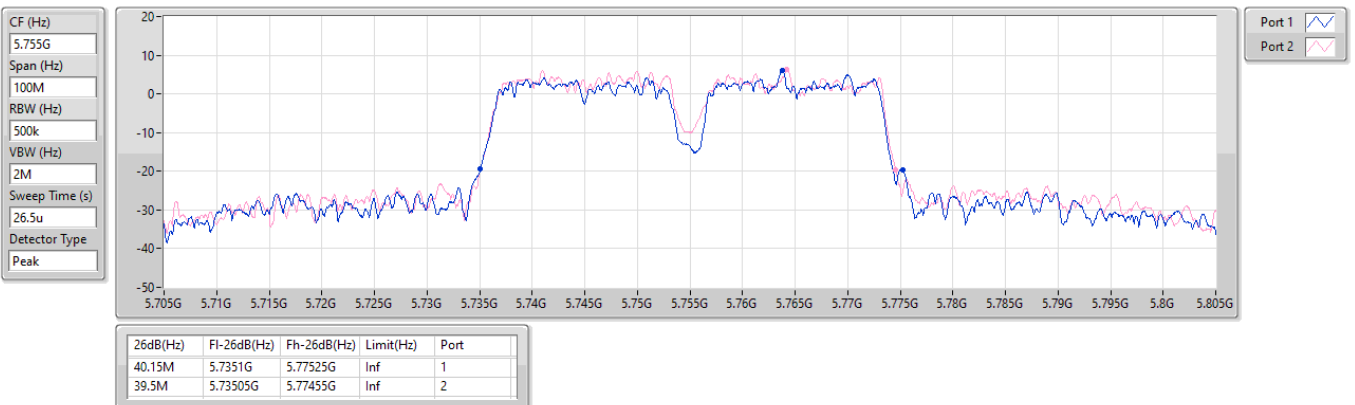


5.725-5.85GHz_802.11ac_VHT40_Nss1,(MCS0)_2TX

EBW

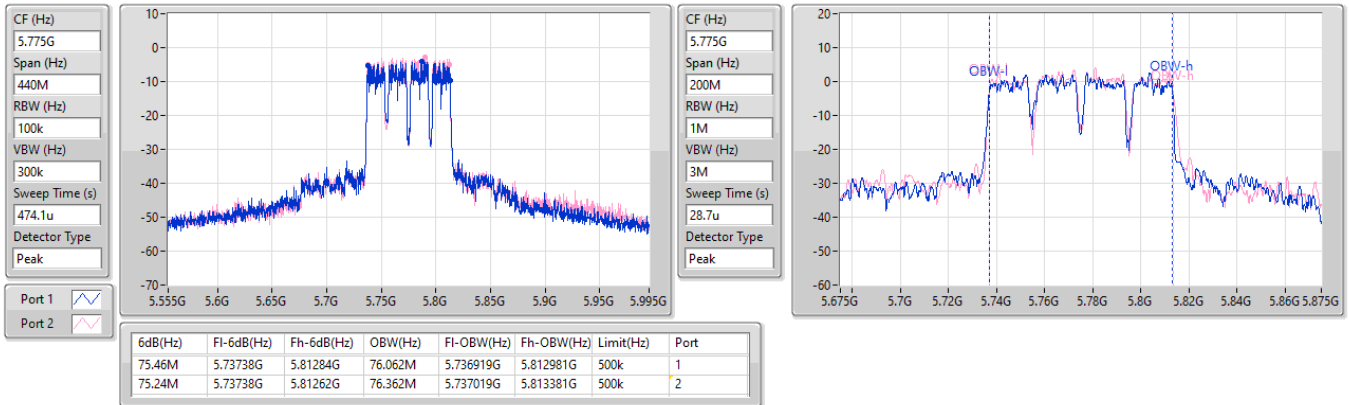
5755MHz

03/12/2024

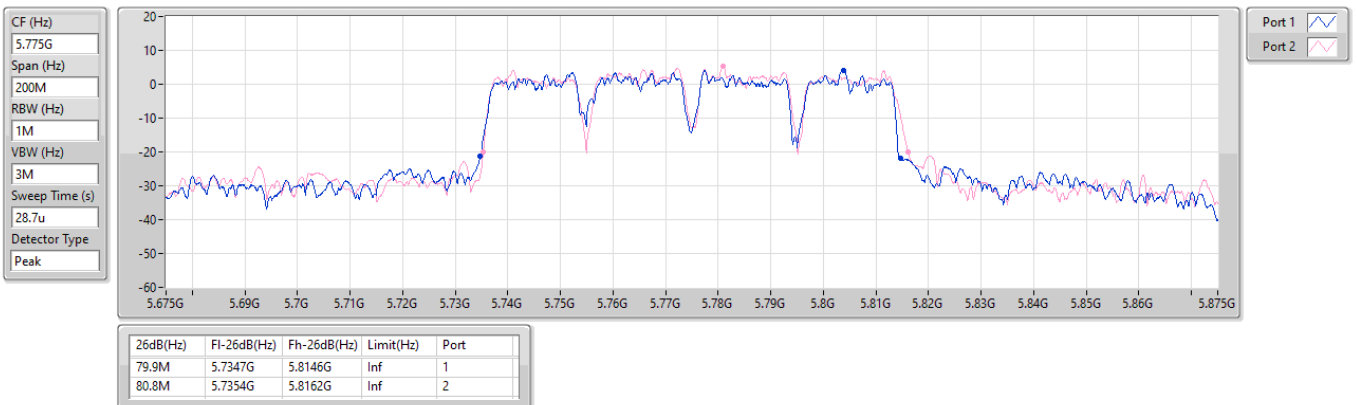


5.725-5.85GHz_802.11ac_VHT80_Nss1,(MCS0)_2TX
EBW
5775MHz

03/12/2024


5.725-5.85GHz_802.11ac_VHT80_Nss1,(MCS0)_2TX
EBW
5775MHz

03/12/2024





Summary

Mode	Total Power	Total Power	EIRP	EIRP
	(dBm)	(W)	(dBm)	(W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	17.21	0.05260	20.42	0.11015
802.11ac VHT20_Nss1,(MCS0)_2TX	17.04	0.05058	20.25	0.10593
802.11ac VHT40_Nss1,(MCS0)_2TX	15.62	0.03648	18.83	0.07638
802.11ac VHT80_Nss1,(MCS0)_2TX	14.60	0.02884	17.81	0.06039
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	18.00	0.06310	21.20	0.13183
802.11ac VHT20_Nss1,(MCS0)_2TX	17.88	0.06138	21.08	0.12823
802.11ac VHT40_Nss1,(MCS0)_2TX	16.48	0.04446	19.68	0.09290
802.11ac VHT80_Nss1,(MCS0)_2TX	15.26	0.03357	18.46	0.07015

Result

Mode	Result	DG	Port 1	Port 2	Total Power	Power Limit	EIRP	EIRP Limit
		(dBi)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.21	13.50	14.34	16.95	23.98	20.16	Inf
5200MHz	Pass	3.21	13.79	14.58	17.21	23.98	20.42	Inf
5240MHz	Pass	3.21	13.82	14.53	17.20	23.98	20.41	Inf
5745MHz	Pass	3.20	14.52	15.42	18.00	30.00	21.20	Inf
5785MHz	Pass	3.20	14.13	15.31	17.77	30.00	20.97	Inf
5825MHz	Pass	3.20	13.97	15.27	17.68	30.00	20.88	Inf
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.21	13.49	14.18	16.86	23.98	20.07	Inf
5200MHz	Pass	3.21	13.65	14.37	17.04	23.98	20.25	Inf
5240MHz	Pass	3.21	13.63	14.16	16.91	23.98	20.12	Inf
5745MHz	Pass	3.20	14.35	15.33	17.88	30.00	21.08	Inf
5785MHz	Pass	3.20	14.09	15.08	17.62	30.00	20.82	Inf
5825MHz	Pass	3.20	13.90	15.03	17.51	30.00	20.71	Inf
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	3.21	11.52	12.26	14.92	23.98	18.13	Inf
5230MHz	Pass	3.21	12.25	12.95	15.62	23.98	18.83	Inf
5755MHz	Pass	3.20	12.90	13.98	16.48	30.00	19.68	Inf
5795MHz	Pass	3.20	12.69	13.88	16.34	30.00	19.54	Inf
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	3.21	11.14	11.99	14.60	23.98	17.81	Inf
5775MHz	Pass	3.20	11.79	12.67	15.26	30.00	18.46	Inf

DG = Directional Gain; Port X = Port X output power
 Inf = There's no restriction for the limit.

Summary

Mode	PD	EIRP PD
	(dBm/RBW)	(dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	6.12	12.31
802.11ac VHT20_Nss1,(MCS0)_2TX	5.83	12.02
802.11ac VHT40_Nss1,(MCS0)_2TX	1.67	7.86
802.11ac VHT80_Nss1,(MCS0)_2TX	-2.29	3.90
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	5.45	11.62
802.11ac VHT20_Nss1,(MCS0)_2TX	5.21	11.38
802.11ac VHT40_Nss1,(MCS0)_2TX	1.35	7.52
802.11ac VHT80_Nss1,(MCS0)_2TX	-2.65	3.52

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

Result

Mode	Result	DG	Port 1	Port 2	PD	PD Limit	EIRP PD	EIRP PD Limit
		(dBi)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.19	2.65	3.38	6.04	10.81	12.23	Inf
5200MHz	Pass	6.19	2.86	3.36	6.12	10.81	12.31	Inf
5240MHz	Pass	6.19	2.69	3.24	5.96	10.81	12.15	Inf
5745MHz	Pass	6.17	2.16	2.77	5.45	29.83	11.62	Inf
5785MHz	Pass	6.17	1.72	2.79	5.28	29.83	11.45	Inf
5825MHz	Pass	6.17	1.62	2.81	5.19	29.83	11.36	Inf
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.19	2.08	2.84	5.49	10.81	11.68	Inf
5200MHz	Pass	6.19	2.48	3.16	5.83	10.81	12.02	Inf
5240MHz	Pass	6.19	2.48	2.78	5.58	10.81	11.77	Inf
5745MHz	Pass	6.17	1.65	2.73	5.21	29.83	11.38	Inf
5785MHz	Pass	6.17	1.32	2.77	5.00	29.83	11.17	Inf
5825MHz	Pass	6.17	1.10	2.33	4.70	29.83	10.87	Inf
802.11ac_VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.19	-2.37	-1.47	1.05	10.81	7.24	Inf
5230MHz	Pass	6.19	-1.70	-0.89	1.67	10.81	7.86	Inf
5755MHz	Pass	6.17	-2.23	-1.04	1.35	29.83	7.52	Inf
5795MHz	Pass	6.17	-2.33	-1.11	1.33	29.83	7.50	Inf
802.11ac_VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.19	-5.66	-4.87	-2.29	10.81	3.90	Inf
5775MHz	Pass	6.17	-6.07	-5.05	-2.65	29.83	3.52	Inf

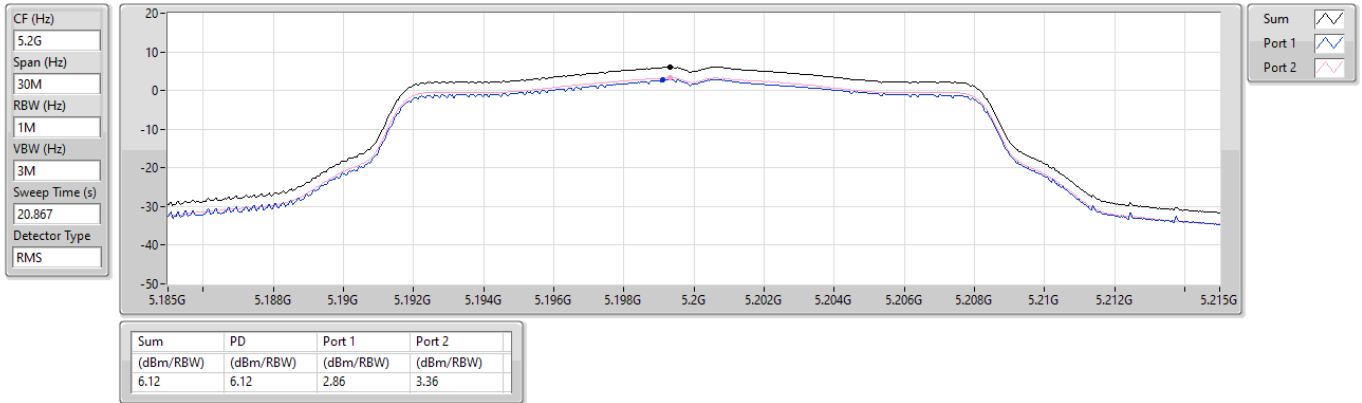
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;
 Inf = There's no restriction for the limit.

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX

PSD

5200MHz

03/12/2024

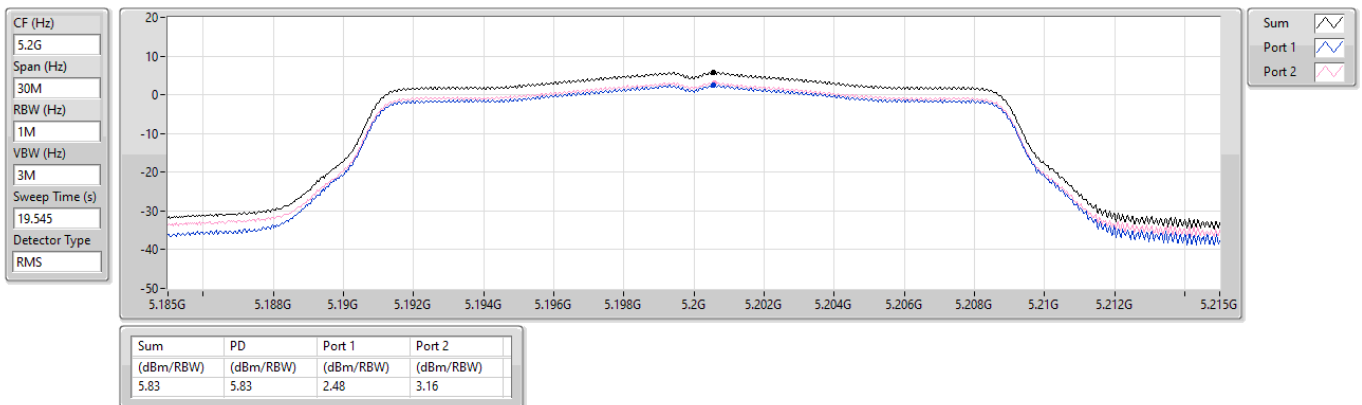


5.15-5.25GHz_802.11ac_VHT20_Nss1,(MCS0)_2TX

PSD

5200MHz

03/12/2024



5.15-5.25GHz_802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5230MHz

03/12/2024

CF (Hz)
5.23G

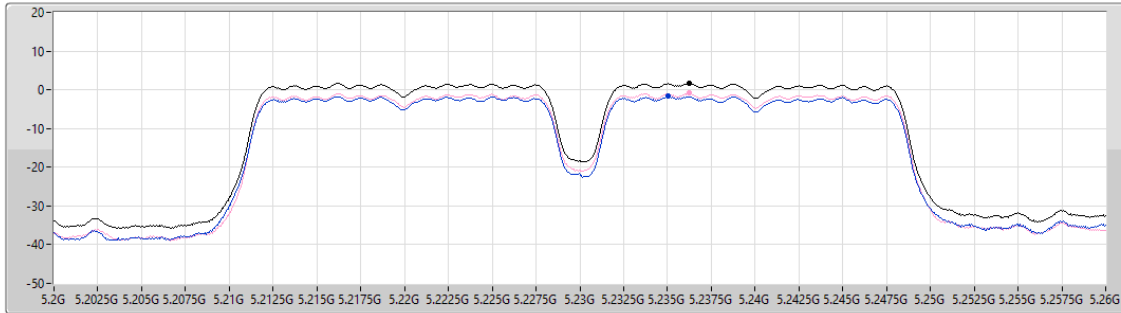
Span (Hz)
60M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
536m

Detector Type
RMS



Sum ☒

Port 1 ☒

Port 2 ☒

Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
1.67	1.67	-1.70	-0.89

5.15-5.25GHz_802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5210MHz

03/12/2024

CF (Hz)
5.21G

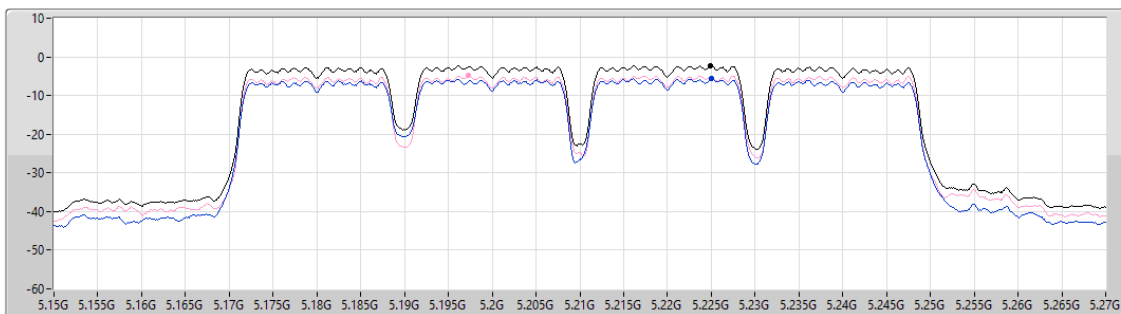
Span (Hz)
120M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
736m

Detector Type
RMS



Sum ☒

Port 1 ☒

Port 2 ☒

Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-2.29	-2.29	-5.66	-4.87

5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

PSD

5745MHz

03/12/2024

CF (Hz)
5.745G

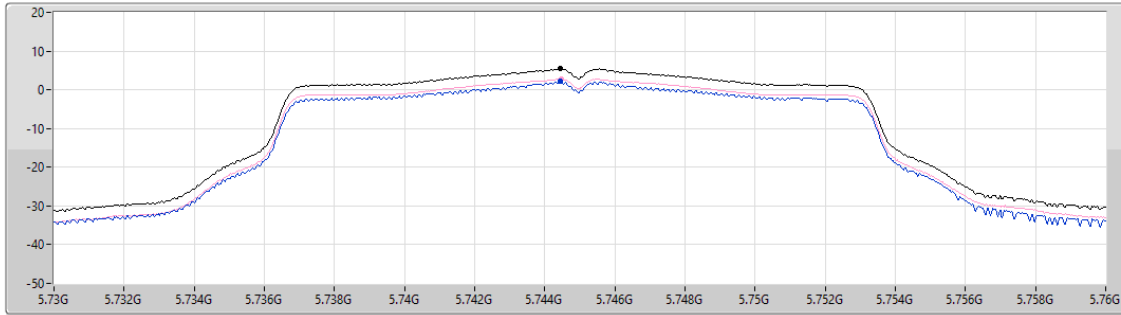
Span (Hz)
30M

RBW (Hz)
500k

VBW (Hz)
3M

Sweep Time (s)
20.867

Detector Type
RMS



Sum (dBm/Hz)	PD (dBm/Hz)	Port 1 (dBm/Hz)	Port 2 (dBm/Hz)
5.45	5.45	2.16	2.77

Sum ☒

Port 1 ☒

Port 2 ☒

5.725-5.85GHz_802.11ac_VHT20_Nss1,(MCS0)_2TX

PSD

5745MHz

03/12/2024

CF (Hz)
5.745G

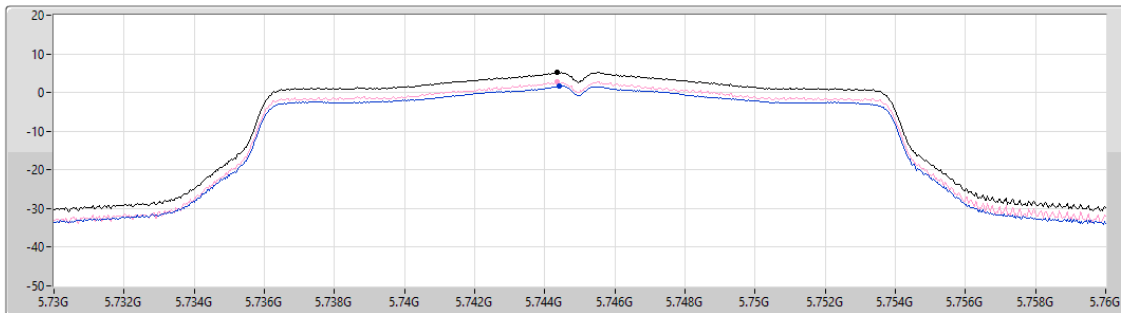
Span (Hz)
30M

RBW (Hz)
500k

VBW (Hz)
3M

Sweep Time (s)
19.545

Detector Type
RMS



Sum (dBm/Hz)	PD (dBm/Hz)	Port 1 (dBm/Hz)	Port 2 (dBm/Hz)
5.21	5.21	1.65	2.73

Sum ☒

Port 1 ☒

Port 2 ☒

5.725-5.85GHz_802.11ac_VHT40_Nss1,(MCS0)_2TX

PSD

5755MHz

03/12/2024

CF (Hz)
5.755G

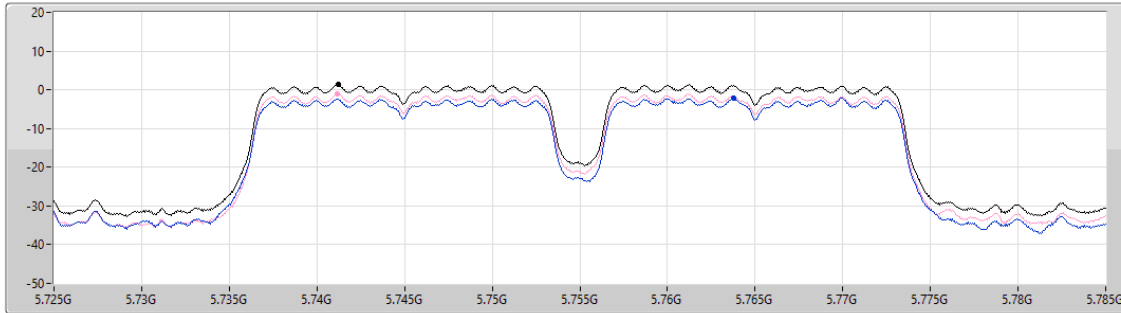
Span (Hz)
60M

RBW (Hz)
500k

VBW (Hz)
3M

Sweep Time (s)
536m

Detector Type
RMS



Sum ☒

Port 1 ☒

Port 2 ☒

Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
1.35	1.35	-2.23	-1.04

5.725-5.85GHz_802.11ac_VHT80_Nss1,(MCS0)_2TX

PSD

5775MHz

03/12/2024

CF (Hz)
5.775G

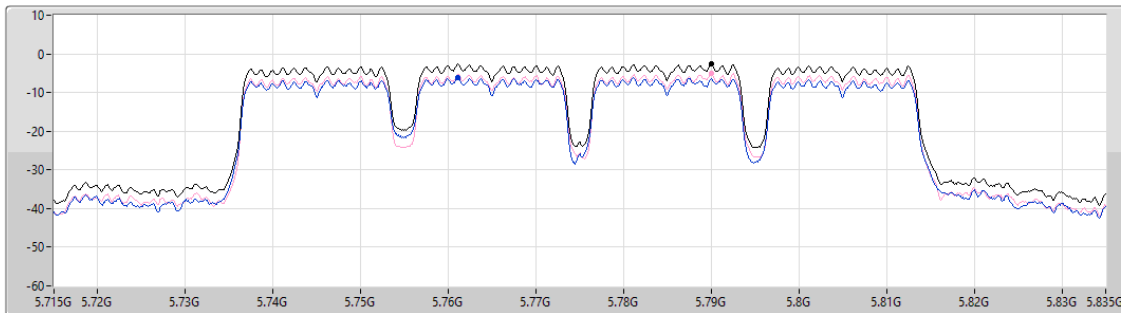
Span (Hz)
120M

RBW (Hz)
500k

VBW (Hz)
3M

Sweep Time (s)
736m

Detector Type
RMS



Sum ☒

Port 1 ☒

Port 2 ☒

Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-2.65	-2.65	-6.07	-5.05



Summary

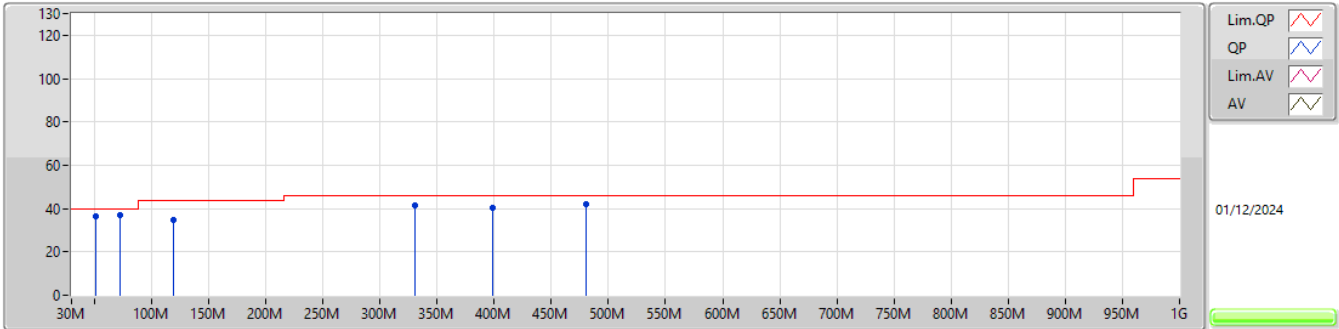
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	QP	72.68M	36.85	40.00	-3.15	3	Vertical	196	1.02

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	PK	51.34M	36.44	40.00	-3.56	3	Vertical	360	1.00
5775MHz	Pass	PK	119.24M	34.63	43.50	-8.87	3	Vertical	360	1.00
5775MHz	Pass	PK	330.7M	41.73	46.00	-4.27	3	Vertical	360	1.00
5775MHz	Pass	PK	480.08M	41.75	46.00	-4.25	3	Vertical	360	1.00
5775MHz	Pass	QP	72.68M	36.85	40.00	-3.15	3	Vertical	196	1.02
5775MHz	Pass	QP	398.6M	40.56	46.00	-5.44	3	Vertical	15	1.13
5775MHz	Pass	PK	45.52M	31.76	40.00	-8.24	3	Horizontal	0	1.00
5775MHz	Pass	PK	72.68M	34.54	40.00	-5.46	3	Horizontal	0	1.00
5775MHz	Pass	PK	148.34M	36.28	43.50	-7.22	3	Horizontal	0	1.00
5775MHz	Pass	PK	332.64M	39.16	46.00	-6.84	3	Horizontal	0	1.00
5775MHz	Pass	PK	480.08M	33.86	46.00	-12.14	3	Horizontal	0	1.00
5775MHz	Pass	QP	396.66M	40.70	46.00	-5.30	3	Horizontal	154	1.96

5.725-5.85GHz_802.11ac VHT80_Nss1,(MCS0)_2TX

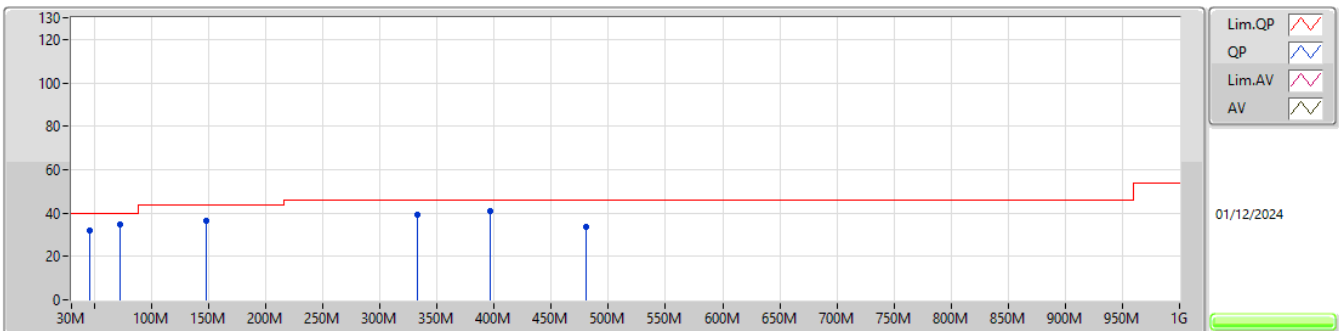
5775MHz_TX



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)
PK	51.34M	36.44	40.00	-3.56	-30.14	3	Vertical	360	1.00	66.58	13.97	0.48	44.59
PK	119.24M	34.63	43.50	-8.87	-26.21	3	Vertical	360	1.00	60.84	17.51	0.83	44.55
PK	330.7M	41.73	46.00	-4.27	-23.09	3	Vertical	360	1.00	64.82	19.84	1.26	44.19
PK	480.08M	41.75	46.00	-4.25	-18.60	3	Vertical	360	1.00	60.35	23.71	1.59	43.90
QP	72.68M	36.85	40.00	-3.15	-31.37	3	Vertical	196	1.02	68.22	12.63	0.66	44.66
QP	398.6M	40.56	46.00	-5.44	-20.65	3	Vertical	15	1.13	61.21	21.92	1.45	44.02

5.725-5.85GHz_802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_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)
PK	45.52M	31.76	40.00	-8.24	-27.14	3	Horizontal	0	1.00	58.90	16.90	0.49	44.53
PK	72.68M	34.54	40.00	-5.46	-31.37	3	Horizontal	0	1.00	65.91	12.63	0.66	44.66
PK	148.34M	36.28	43.50	-7.22	-26.35	3	Horizontal	0	1.00	62.63	17.24	0.98	44.57
PK	332.64M	39.16	46.00	-6.84	-22.98	3	Horizontal	0	1.00	62.14	19.93	1.27	44.18
PK	480.08M	33.86	46.00	-12.14	-18.60	3	Horizontal	0	1.00	52.46	23.71	1.59	43.90
QP	396.66M	40.70	46.00	-5.30	-20.74	3	Horizontal	154	1.96	61.44	21.85	1.44	44.03

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	Pass	AV	5.15G	52.99	54.00	-1.01	3	Vertical	252	1.41
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	AV	5.15G	52.95	54.00	-1.05	3	Vertical	253	1.50
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	AV	5.1464G	51.50	54.00	-2.50	3	Vertical	252	1.50
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	AV	5.1464G	52.48	54.00	-1.52	3	Vertical	254	1.33
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	Pass	PK	5.6514G	63.08	69.24	-6.16	3	Vertical	259	1.54
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	PK	5.6454G	66.96	68.20	-1.24	3	Vertical	259	1.45
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	PK	5.647G	66.88	68.20	-1.32	3	Vertical	259	1.43
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	PK	5.6346G	65.22	68.20	-2.98	3	Vertical	260	1.32

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.11a_Nss1_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.1498G	51.87	54.00	-2.13	3	Vertical	254	1.37
5180MHz	Pass	AV	5.1804G	101.81	Inf	-Inf	3	Vertical	254	1.37
5180MHz	Pass	PK	5.1498G	72.94	74.00	-1.06	3	Vertical	254	1.37
5180MHz	Pass	PK	5.1792G	109.97	Inf	-Inf	3	Vertical	254	1.37
5180MHz	Pass	AV	5.1494G	48.55	54.00	-5.45	3	Horizontal	122	1.41
5180MHz	Pass	AV	5.1804G	97.80	Inf	-Inf	3	Horizontal	122	1.41
5180MHz	Pass	PK	5.1494G	69.08	74.00	-4.92	3	Horizontal	122	1.41
5180MHz	Pass	PK	5.1804G	106.88	Inf	-Inf	3	Horizontal	122	1.41
5180MHz	Pass	PK	10.36004G	50.54	68.20	-17.66	3	Vertical	205	1.56
5180MHz	Pass	PK	10.35328G	49.21	68.20	-18.99	3	Horizontal	170	1.69
5200MHz	Pass	AV	5.15G	52.99	54.00	-1.01	3	Vertical	252	1.41
5200MHz	Pass	AV	5.2008G	103.50	Inf	-Inf	3	Vertical	252	1.41
5200MHz	Pass	PK	5.15G	66.73	74.00	-7.27	3	Vertical	252	1.41
5200MHz	Pass	PK	5.2004G	112.62	Inf	-Inf	3	Vertical	252	1.41
5200MHz	Pass	AV	5.15G	49.18	54.00	-4.82	3	Horizontal	126	1.50
5200MHz	Pass	AV	5.2008G	100.40	Inf	-Inf	3	Horizontal	126	1.50
5200MHz	Pass	PK	5.1496G	62.98	74.00	-11.02	3	Horizontal	126	1.50
5200MHz	Pass	PK	5.2008G	108.93	Inf	-Inf	3	Horizontal	126	1.50
5200MHz	Pass	PK	10.39504G	50.13	68.20	-18.07	3	Vertical	205	1.57
5200MHz	Pass	PK	10.4296G	50.59	68.20	-17.61	3	Horizontal	150	1.45
5240MHz	Pass	AV	5.1494G	47.43	54.00	-6.57	3	Vertical	141	1.52
5240MHz	Pass	AV	5.2406G	106.46	Inf	-Inf	3	Vertical	141	1.52
5240MHz	Pass	AV	5.354G	44.77	54.00	-9.23	3	Vertical	141	1.52
5240MHz	Pass	PK	5.1422G	61.48	74.00	-12.52	3	Vertical	141	1.52
5240MHz	Pass	PK	5.2406G	116.68	Inf	-Inf	3	Vertical	141	1.52
5240MHz	Pass	PK	5.3606G	57.43	74.00	-16.57	3	Vertical	141	1.52
5240MHz	Pass	AV	5.1494G	45.59	54.00	-8.41	3	Horizontal	201	1.50
5240MHz	Pass	AV	5.2406G	104.05	Inf	-Inf	3	Horizontal	201	1.50
5240MHz	Pass	AV	5.3534G	44.60	54.00	-9.40	3	Horizontal	201	1.50
5240MHz	Pass	PK	5.1458G	58.12	74.00	-15.88	3	Horizontal	201	1.50
5240MHz	Pass	PK	5.2406G	114.36	Inf	-Inf	3	Horizontal	201	1.50
5240MHz	Pass	PK	5.3546G	56.86	74.00	-17.14	3	Horizontal	201	1.50
5240MHz	Pass	PK	10.47856G	50.14	68.20	-18.06	3	Vertical	207	1.55
5240MHz	Pass	PK	10.48G	50.64	68.20	-17.56	3	Horizontal	157	2.31
5745MHz	Pass	AV	5.457G	42.39	54.00	-11.61	3	Vertical	259	1.54
5745MHz	Pass	AV	5.745G	106.54	Inf	-Inf	3	Vertical	259	1.54
5745MHz	Pass	PK	5.6514G	63.08	69.24	-6.16	3	Vertical	259	1.54
5745MHz	Pass	PK	5.7438G	115.80	Inf	-Inf	3	Vertical	259	1.54
5745MHz	Pass	PK	5.9778G	57.34	68.20	-10.86	3	Vertical	259	1.54
5745MHz	Pass	AV	5.4498G	42.22	54.00	-11.78	3	Horizontal	202	1.43
5745MHz	Pass	AV	5.7438G	104.26	Inf	-Inf	3	Horizontal	202	1.43
5745MHz	Pass	PK	5.6478G	60.27	68.20	-7.93	3	Horizontal	202	1.43
5745MHz	Pass	PK	5.7438G	113.98	Inf	-Inf	3	Horizontal	202	1.43
5745MHz	Pass	PK	5.967G	57.40	68.20	-10.80	3	Horizontal	202	1.43
5745MHz	Pass	AV	11.48984G	41.25	54.00	-12.75	3	Vertical	164	1.70
5745MHz	Pass	PK	11.48888G	51.62	74.00	-22.38	3	Vertical	164	1.70
5745MHz	Pass	AV	11.48984G	40.74	54.00	-13.26	3	Horizontal	185	1.50
5745MHz	Pass	PK	11.49G	51.29	74.00	-22.71	3	Horizontal	185	1.50
5785MHz	Pass	AV	5.7862G	106.26	Inf	-Inf	3	Vertical	259	1.41
5785MHz	Pass	PK	5.6446G	55.35	68.20	-12.85	3	Vertical	259	1.41
5785MHz	Pass	PK	5.7862G	116.03	Inf	-Inf	3	Vertical	259	1.41
5785MHz	Pass	PK	5.9734G	57.36	68.20	-10.84	3	Vertical	259	1.41
5785MHz	Pass	AV	5.7862G	104.70	Inf	-Inf	3	Horizontal	201	1.21
5785MHz	Pass	PK	5.6302G	55.39	68.20	-12.81	3	Horizontal	201	1.21
5785MHz	Pass	PK	5.7862G	114.40	Inf	-Inf	3	Horizontal	201	1.21
5785MHz	Pass	PK	6.0058G	58.20	68.20	-10.00	3	Horizontal	201	1.21
5785MHz	Pass	AV	11.56984G	42.54	54.00	-11.46	3	Vertical	163	1.98
5785MHz	Pass	PK	11.56952G	52.52	74.00	-21.48	3	Vertical	163	1.98
5785MHz	Pass	AV	11.56984G	41.75	54.00	-12.25	3	Horizontal	134	1.59
5785MHz	Pass	PK	11.56984G	52.49	74.00	-21.51	3	Horizontal	134	1.59

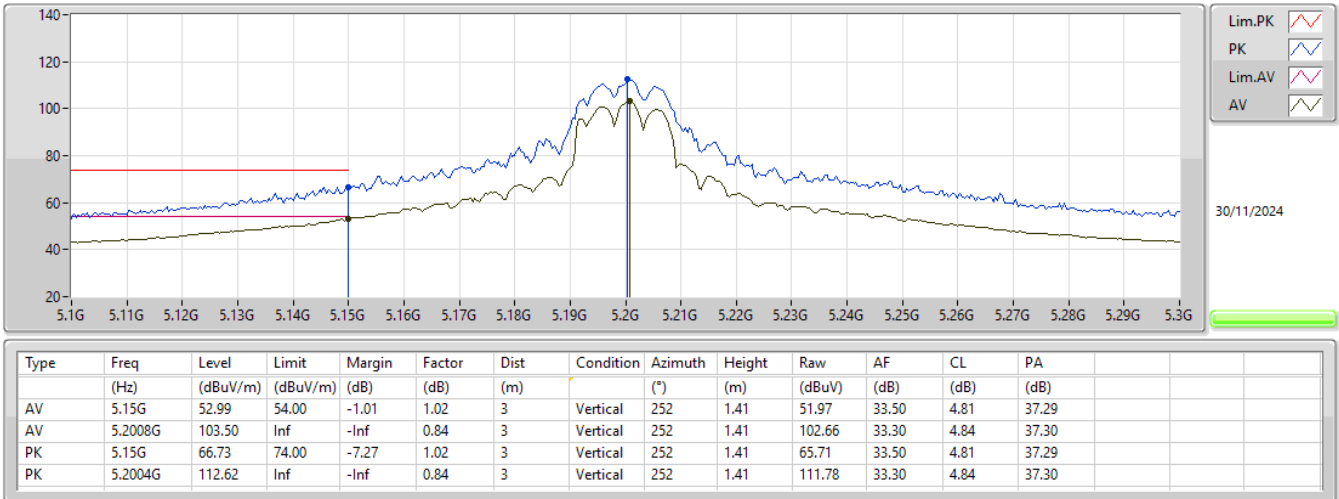
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
5825MHz	Pass	AV	5.825G	105.70	Inf	-Inf	3	Vertical	256	1.50
5825MHz	Pass	PK	5.5874G	56.36	68.20	-11.84	3	Vertical	256	1.50
5825MHz	Pass	PK	5.825G	114.90	Inf	-Inf	3	Vertical	256	1.50
5825MHz	Pass	PK	5.9246G	58.20	68.50	-10.30	3	Vertical	256	1.50
5825MHz	Pass	AV	5.8262G	106.13	Inf	-Inf	3	Horizontal	148	1.04
5825MHz	Pass	PK	5.6078G	55.12	68.20	-13.08	3	Horizontal	148	1.04
5825MHz	Pass	PK	5.8262G	115.58	Inf	-Inf	3	Horizontal	148	1.04
5825MHz	Pass	PK	5.9258G	58.28	68.20	-9.92	3	Horizontal	148	1.04
5825MHz	Pass	AV	11.64984G	42.63	54.00	-11.37	3	Vertical	164	1.99
5825MHz	Pass	PK	11.64968G	51.85	74.00	-22.15	3	Vertical	164	1.99
5825MHz	Pass	AV	11.65G	42.30	54.00	-11.70	3	Horizontal	125	1.63
5825MHz	Pass	PK	11.65G	53.25	74.00	-20.75	3	Horizontal	125	1.63
802.11ac VHT20_Nss1(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.149G	50.34	54.00	-3.66	3	Vertical	253	1.38
5180MHz	Pass	AV	5.1788G	100.73	Inf	-Inf	3	Vertical	253	1.38
5180MHz	Pass	PK	5.1484G	70.89	74.00	-3.11	3	Vertical	253	1.38
5180MHz	Pass	PK	5.181G	110.09	Inf	-Inf	3	Vertical	253	1.38
5180MHz	Pass	AV	5.1498G	50.20	54.00	-3.80	3	Horizontal	136	1.00
5180MHz	Pass	AV	5.1802G	99.22	Inf	-Inf	3	Horizontal	136	1.00
5180MHz	Pass	PK	5.1496G	71.05	74.00	-2.95	3	Horizontal	136	1.00
5180MHz	Pass	PK	5.1774G	108.85	Inf	-Inf	3	Horizontal	136	1.00
5180MHz	Pass	PK	10.35984G	50.87	68.20	-17.33	3	Vertical	206	1.50
5180MHz	Pass	PK	10.35968G	51.27	68.20	-16.93	3	Horizontal	171	1.61
5200MHz	Pass	AV	5.15G	52.95	54.00	-1.05	3	Vertical	253	1.50
5200MHz	Pass	AV	5.2004G	101.94	Inf	-Inf	3	Vertical	253	1.50
5200MHz	Pass	PK	5.1496G	67.29	74.00	-6.71	3	Vertical	253	1.50
5200MHz	Pass	PK	5.2012G	111.29	Inf	-Inf	3	Vertical	253	1.50
5200MHz	Pass	AV	5.15G	49.79	54.00	-4.21	3	Horizontal	151	1.50
5200MHz	Pass	AV	5.1988G	98.64	Inf	-Inf	3	Horizontal	151	1.50
5200MHz	Pass	PK	5.148G	63.85	74.00	-10.15	3	Horizontal	151	1.50
5200MHz	Pass	PK	5.1992G	109.34	Inf	-Inf	3	Horizontal	151	1.50
5200MHz	Pass	PK	10.36624G	50.71	68.20	-17.49	3	Vertical	206	1.50
5200MHz	Pass	PK	10.39968G	50.93	68.20	-17.27	3	Horizontal	151	2.68
5240MHz	Pass	AV	5.15G	49.57	54.00	-4.43	3	Vertical	254	1.50
5240MHz	Pass	AV	5.2406G	105.66	Inf	-Inf	3	Vertical	254	1.50
5240MHz	Pass	AV	5.3504G	44.99	54.00	-9.01	3	Vertical	254	1.50
5240MHz	Pass	PK	5.1458G	67.29	74.00	-6.71	3	Vertical	254	1.50
5240MHz	Pass	PK	5.2406G	115.36	Inf	-Inf	3	Vertical	254	1.50
5240MHz	Pass	PK	5.36G	58.84	74.00	-15.16	3	Vertical	254	1.50
5240MHz	Pass	AV	5.1488G	44.60	54.00	-9.40	3	Horizontal	254	1.50
5240MHz	Pass	AV	5.2394G	96.35	Inf	-Inf	3	Horizontal	254	1.50
5240MHz	Pass	AV	5.35G	43.29	54.00	-10.71	3	Horizontal	254	1.50
5240MHz	Pass	PK	5.1494G	57.83	74.00	-16.17	3	Horizontal	254	1.50
5240MHz	Pass	PK	5.237G	105.49	Inf	-Inf	3	Horizontal	254	1.50
5240MHz	Pass	PK	5.3552G	56.57	74.00	-17.43	3	Horizontal	254	1.50
5240MHz	Pass	PK	10.47636G	51.34	68.20	-16.86	3	Vertical	206	1.51
5240MHz	Pass	PK	10.47996G	52.17	68.20	-16.03	3	Horizontal	146	1.92
5745MHz	Pass	AV	5.4582G	42.46	54.00	-11.54	3	Vertical	259	1.45
5745MHz	Pass	AV	5.745G	105.72	Inf	-Inf	3	Vertical	259	1.45
5745MHz	Pass	PK	5.6454G	66.96	68.20	-1.24	3	Vertical	259	1.45
5745MHz	Pass	PK	5.7426G	115.61	Inf	-Inf	3	Vertical	259	1.45
5745MHz	Pass	PK	5.9322G	57.42	68.20	-10.78	3	Vertical	259	1.45
5745MHz	Pass	AV	5.4522G	42.33	54.00	-11.67	3	Horizontal	135	1.22
5745MHz	Pass	AV	5.745G	106.61	Inf	-Inf	3	Horizontal	135	1.22
5745MHz	Pass	PK	5.6478G	62.60	68.20	-5.60	3	Horizontal	135	1.22
5745MHz	Pass	PK	5.745G	115.74	Inf	-Inf	3	Horizontal	135	1.22
5745MHz	Pass	PK	5.925G	58.26	68.20	-9.94	3	Horizontal	135	1.22
5745MHz	Pass	AV	11.48992G	40.13	54.00	-13.87	3	Vertical	164	1.50
5745MHz	Pass	PK	11.48964G	52.26	74.00	-21.74	3	Vertical	164	1.50
5745MHz	Pass	AV	11.49G	40.88	54.00	-13.12	3	Horizontal	249	1.68
5745MHz	Pass	PK	11.49008G	52.82	74.00	-21.18	3	Horizontal	249	1.68
5785MHz	Pass	AV	5.785G	105.87	Inf	-Inf	3	Vertical	258	1.42

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
5785MHz	Pass	PK	5.6314G	57.15	68.20	-11.05	3	Vertical	258	1.42
5785MHz	Pass	PK	5.7838G	115.04	Inf	-Inf	3	Vertical	258	1.42
5785MHz	Pass	PK	6.0322G	57.71	68.20	-10.49	3	Vertical	258	1.42
5785MHz	Pass	AV	5.785G	103.24	Inf	-Inf	3	Horizontal	272	1.37
5785MHz	Pass	PK	5.6374G	56.02	68.20	-12.18	3	Horizontal	272	1.37
5785MHz	Pass	PK	5.785G	112.54	Inf	-Inf	3	Horizontal	272	1.37
5785MHz	Pass	PK	6.0238G	58.41	68.20	-9.79	3	Horizontal	272	1.37
5785MHz	Pass	AV	11.56992G	41.74	54.00	-12.26	3	Vertical	164	1.99
5785MHz	Pass	PK	11.5698G	53.36	74.00	-20.64	3	Vertical	164	1.99
5785MHz	Pass	AV	11.57004G	41.48	54.00	-12.52	3	Horizontal	128	1.67
5785MHz	Pass	PK	11.56952G	53.70	74.00	-20.30	3	Horizontal	128	1.67
5825MHz	Pass	AV	5.825G	105.80	Inf	-Inf	3	Vertical	258	1.38
5825MHz	Pass	PK	5.6318G	56.21	68.20	-11.99	3	Vertical	258	1.38
5825MHz	Pass	PK	5.8226G	115.28	Inf	-Inf	3	Vertical	258	1.38
5825MHz	Pass	PK	5.9378G	59.04	68.20	-9.16	3	Vertical	258	1.38
5825MHz	Pass	AV	5.825G	106.01	Inf	-Inf	3	Horizontal	148	1.01
5825MHz	Pass	PK	5.6378G	55.81	68.20	-12.39	3	Horizontal	148	1.01
5825MHz	Pass	PK	5.8238G	115.63	Inf	-Inf	3	Horizontal	148	1.01
5825MHz	Pass	PK	5.9306G	58.57	68.20	-9.63	3	Horizontal	148	1.01
5825MHz	Pass	AV	11.64988G	42.31	54.00	-11.69	3	Vertical	165	1.99
5825MHz	Pass	PK	11.65012G	52.77	74.00	-21.23	3	Vertical	165	1.99
5825MHz	Pass	AV	11.64984G	41.96	54.00	-12.04	3	Horizontal	128	1.63
5825MHz	Pass	PK	11.64736G	53.81	74.00	-20.19	3	Horizontal	128	1.63
802.11ac VHT40_Nss1(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	AV	5.1464G	51.50	54.00	-2.50	3	Vertical	252	1.50
5190MHz	Pass	AV	5.1764G	81.76	Inf	-Inf	3	Vertical	252	1.50
5190MHz	Pass	PK	5.1472G	67.97	74.00	-6.03	3	Vertical	252	1.50
5190MHz	Pass	PK	5.196G	105.36	Inf	-Inf	3	Vertical	252	1.50
5190MHz	Pass	AV	5.1472G	50.20	54.00	-3.80	3	Horizontal	151	1.49
5190MHz	Pass	AV	5.1872G	79.74	Inf	-Inf	3	Horizontal	151	1.49
5190MHz	Pass	PK	5.1468G	65.47	74.00	-8.53	3	Horizontal	151	1.49
5190MHz	Pass	PK	5.2028G	101.36	Inf	-Inf	3	Horizontal	151	1.49
5190MHz	Pass	PK	10.37976G	50.34	68.20	-17.86	3	Vertical	150	1.50
5190MHz	Pass	PK	10.38016G	51.29	68.20	-16.91	3	Horizontal	151	2.71
5230MHz	Pass	AV	5.146G	51.08	54.00	-2.92	3	Vertical	252	1.50
5230MHz	Pass	AV	5.2164G	85.54	Inf	-Inf	3	Vertical	252	1.50
5230MHz	Pass	PK	5.15G	67.70	74.00	-6.30	3	Vertical	252	1.50
5230MHz	Pass	PK	5.236G	107.55	Inf	-Inf	3	Vertical	252	1.50
5230MHz	Pass	AV	5.1472G	50.62	54.00	-3.38	3	Horizontal	168	1.00
5230MHz	Pass	AV	5.2272G	84.05	Inf	-Inf	3	Horizontal	168	1.00
5230MHz	Pass	PK	5.15G	65.63	74.00	-8.37	3	Horizontal	168	1.00
5230MHz	Pass	PK	5.2272G	104.99	Inf	-Inf	3	Horizontal	168	1.00
5230MHz	Pass	PK	10.4604G	50.89	68.20	-17.31	3	Vertical	204	1.50
5230MHz	Pass	PK	10.45984G	52.43	68.20	-15.77	3	Horizontal	150	1.38
5755MHz	Pass	AV	5.4586G	42.26	54.00	-11.74	3	Vertical	259	1.43
5755MHz	Pass	AV	5.7418G	86.44	Inf	-Inf	3	Vertical	259	1.43
5755MHz	Pass	PK	5.647G	66.88	68.20	-1.32	3	Vertical	259	1.43
5755MHz	Pass	PK	5.761G	110.01	Inf	-Inf	3	Vertical	259	1.43
5755MHz	Pass	PK	6.055G	57.85	68.20	-10.35	3	Vertical	259	1.43
5755MHz	Pass	AV	5.4598G	42.10	54.00	-11.90	3	Horizontal	201	1.36
5755MHz	Pass	AV	5.7418G	85.17	Inf	-Inf	3	Horizontal	201	1.36
5755MHz	Pass	PK	5.647G	65.39	68.20	-2.81	3	Horizontal	201	1.36
5755MHz	Pass	PK	5.761G	107.24	Inf	-Inf	3	Horizontal	201	1.36
5755MHz	Pass	PK	6.037G	58.28	68.20	-9.92	3	Horizontal	201	1.36
5755MHz	Pass	AV	11.50984G	41.11	54.00	-12.89	3	Vertical	163	1.49
5755MHz	Pass	PK	11.5096G	51.56	74.00	-22.44	3	Vertical	163	1.49
5755MHz	Pass	AV	11.50992G	39.57	54.00	-14.43	3	Horizontal	185	1.61
5755MHz	Pass	PK	11.52272G	51.00	74.00	-23.00	3	Horizontal	185	1.61
5795MHz	Pass	AV	5.7926G	88.02	Inf	-Inf	3	Vertical	259	1.32
5795MHz	Pass	PK	5.6474G	59.83	68.20	-8.37	3	Vertical	259	1.32
5795MHz	Pass	PK	5.8082G	110.51	Inf	-Inf	3	Vertical	259	1.32
5795MHz	Pass	PK	5.933G	61.95	68.20	-6.25	3	Vertical	259	1.32

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
5795MHz	Pass	AV	5.7986G	86.47	Inf	-Inf	3	Horizontal	201	1.31
5795MHz	Pass	PK	5.645G	58.79	68.20	-9.41	3	Horizontal	201	1.31
5795MHz	Pass	PK	5.8034G	108.11	Inf	-Inf	3	Horizontal	201	1.31
5795MHz	Pass	PK	5.9306G	60.57	68.20	-7.63	3	Horizontal	201	1.31
5795MHz	Pass	AV	11.58984G	42.48	54.00	-11.52	3	Vertical	164	1.99
5795MHz	Pass	PK	11.5896G	52.16	74.00	-21.84	3	Vertical	164	1.99
5795MHz	Pass	AV	11.58992G	41.39	54.00	-12.61	3	Horizontal	133	1.60
5795MHz	Pass	PK	11.59G	51.52	74.00	-22.48	3	Horizontal	133	1.60
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	AV	5.1464G	52.48	54.00	-1.52	3	Vertical	254	1.33
5210MHz	Pass	AV	5.1968G	81.81	Inf	-Inf	3	Vertical	254	1.33
5210MHz	Pass	AV	5.3684G	47.20	54.00	-6.80	3	Vertical	254	1.33
5210MHz	Pass	PK	5.1488G	69.50	74.00	-4.50	3	Vertical	254	1.33
5210MHz	Pass	PK	5.192G	101.64	Inf	-Inf	3	Vertical	254	1.33
5210MHz	Pass	PK	5.366G	63.70	74.00	-10.30	3	Vertical	254	1.33
5210MHz	Pass	PK	5.4956G	55.61	68.20	-12.59	3	Vertical	254	1.33
5210MHz	Pass	AV	5.1464G	51.42	54.00	-2.58	3	Horizontal	151	1.50
5210MHz	Pass	AV	5.1968G	79.76	Inf	-Inf	3	Horizontal	151	1.50
5210MHz	Pass	AV	5.354G	47.10	54.00	-6.90	3	Horizontal	151	1.50
5210MHz	Pass	PK	5.15G	67.09	74.00	-6.91	3	Horizontal	151	1.50
5210MHz	Pass	PK	5.198G	98.89	Inf	-Inf	3	Horizontal	151	1.50
5210MHz	Pass	PK	5.3564G	61.90	74.00	-12.10	3	Horizontal	151	1.50
5210MHz	Pass	PK	5.4644G	55.22	68.20	-12.98	3	Horizontal	151	1.50
5210MHz	Pass	PK	10.42008G	50.52	68.20	-17.68	3	Vertical	205	1.54
5210MHz	Pass	PK	10.428G	50.76	68.20	-17.44	3	Horizontal	151	1.41
5775MHz	Pass	AV	5.7906G	94.82	Inf	-Inf	3	Vertical	260	1.32
5775MHz	Pass	PK	5.6346G	65.22	68.20	-2.98	3	Vertical	260	1.32
5775MHz	Pass	PK	5.8002G	101.45	Inf	-Inf	3	Vertical	260	1.32
5775MHz	Pass	PK	5.931G	63.16	68.20	-5.04	3	Vertical	260	1.32
5775MHz	Pass	AV	5.8062G	93.73	Inf	-Inf	3	Horizontal	200	1.32
5775MHz	Pass	PK	5.6262G	64.00	68.20	-4.20	3	Horizontal	200	1.32
5775MHz	Pass	PK	5.7918G	100.64	Inf	-Inf	3	Horizontal	200	1.32
5775MHz	Pass	PK	5.943G	62.02	68.20	-6.18	3	Horizontal	200	1.32
5775MHz	Pass	AV	11.54984G	42.01	54.00	-11.99	3	Vertical	164	1.97
5775MHz	Pass	PK	11.54984G	51.51	74.00	-22.49	3	Vertical	164	1.97
5775MHz	Pass	AV	11.54984G	40.48	54.00	-13.52	3	Horizontal	185	1.58
5775MHz	Pass	PK	11.53312G	50.98	74.00	-23.02	3	Horizontal	185	1.58

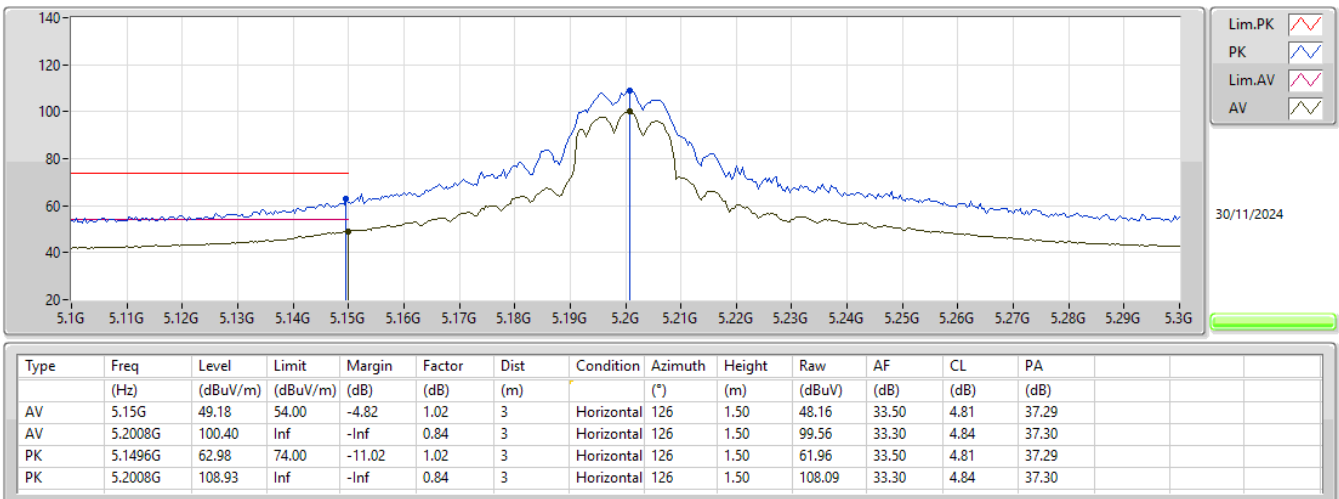
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5200MHz_TX



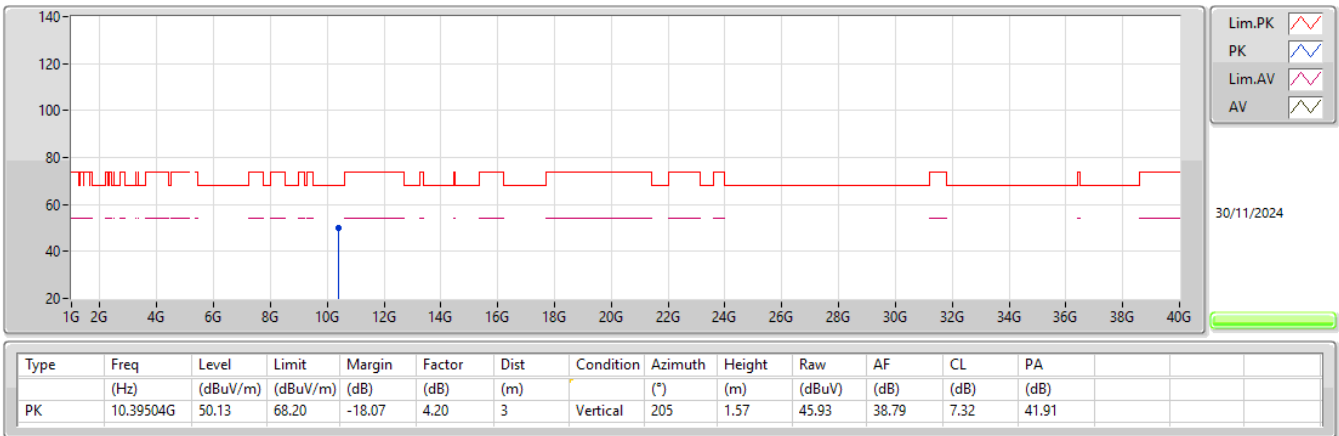
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5200MHz_TX



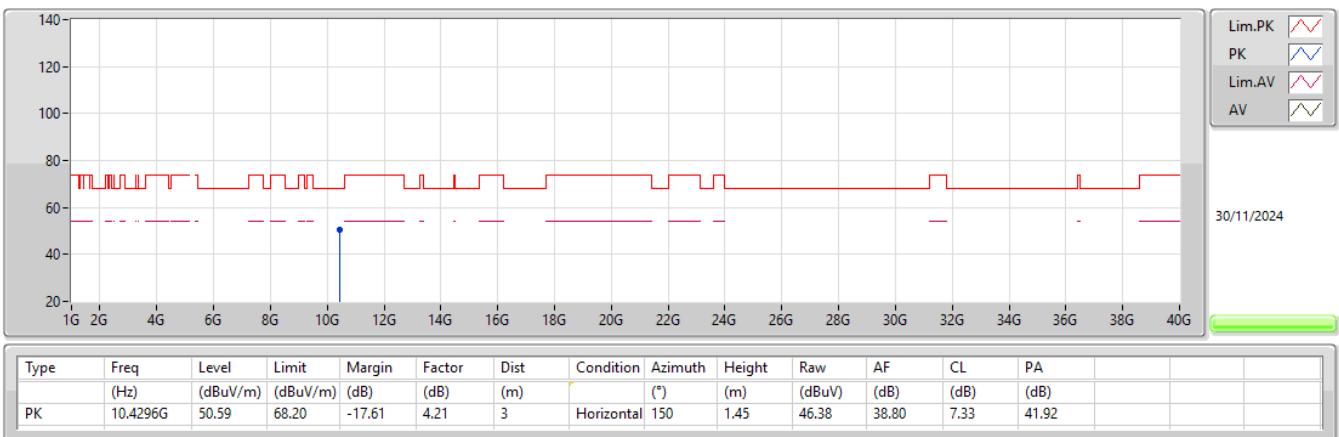
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5200MHz_TX



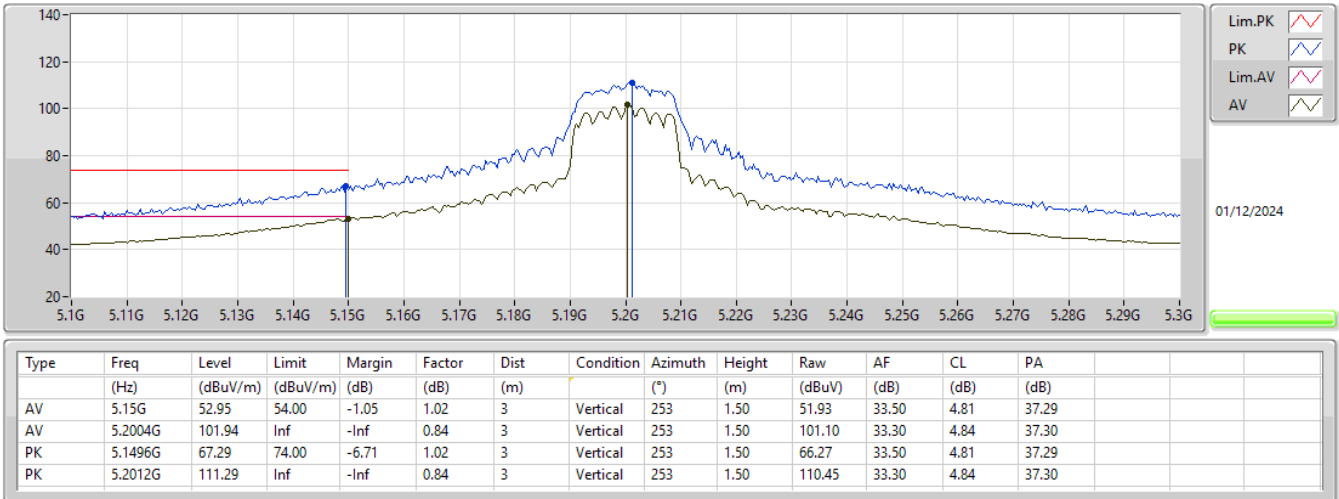
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5200MHz_TX



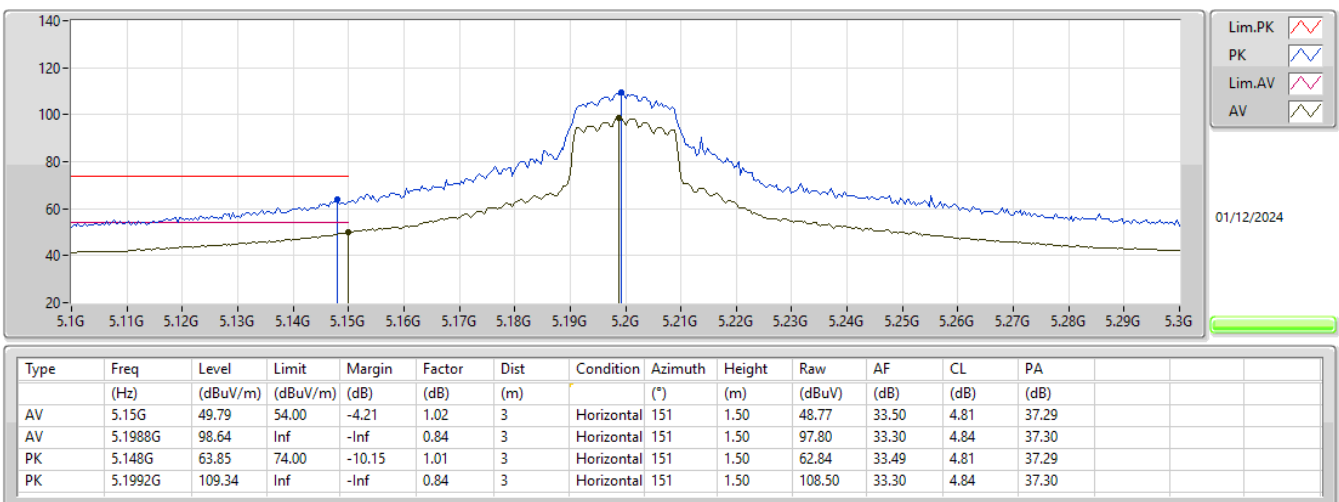
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5200MHz_TX



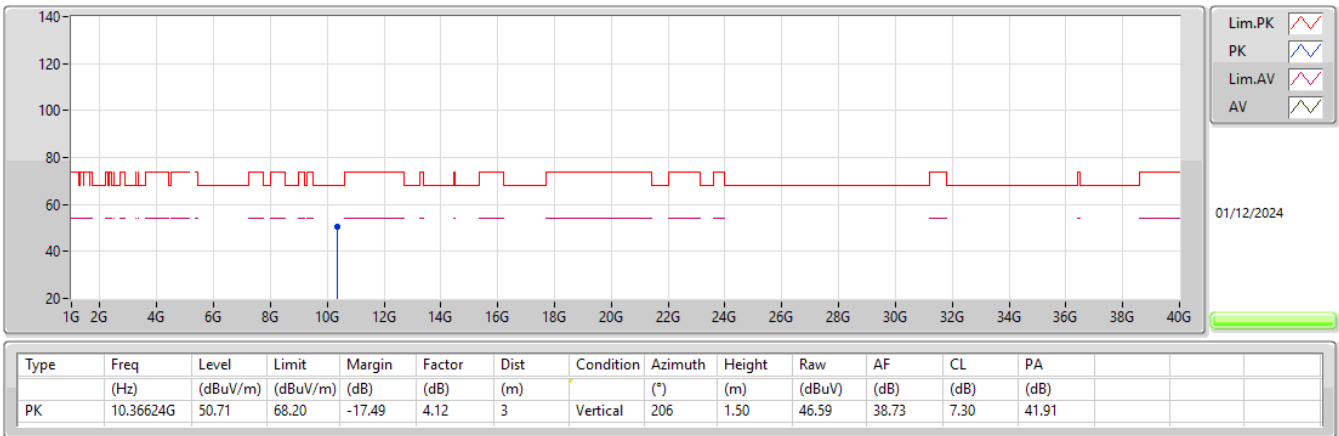
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5200MHz_TX



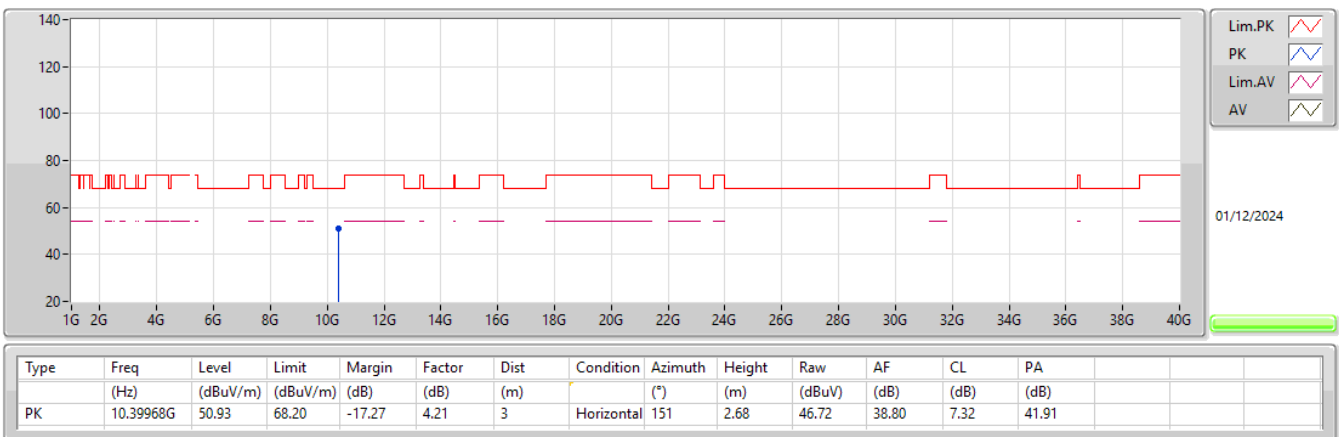
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5200MHz_TX



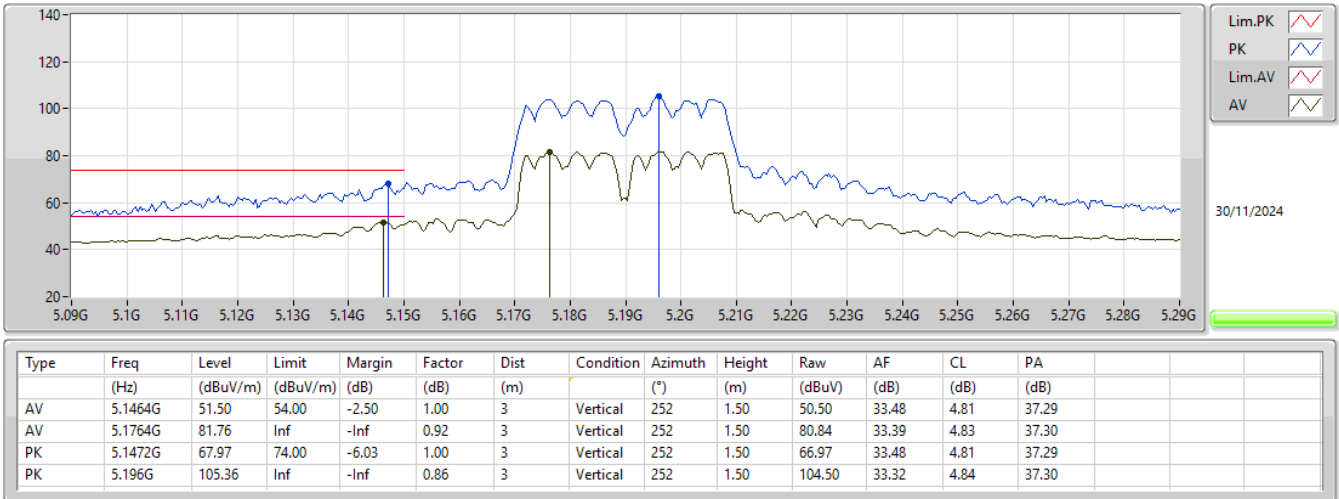
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5200MHz_TX



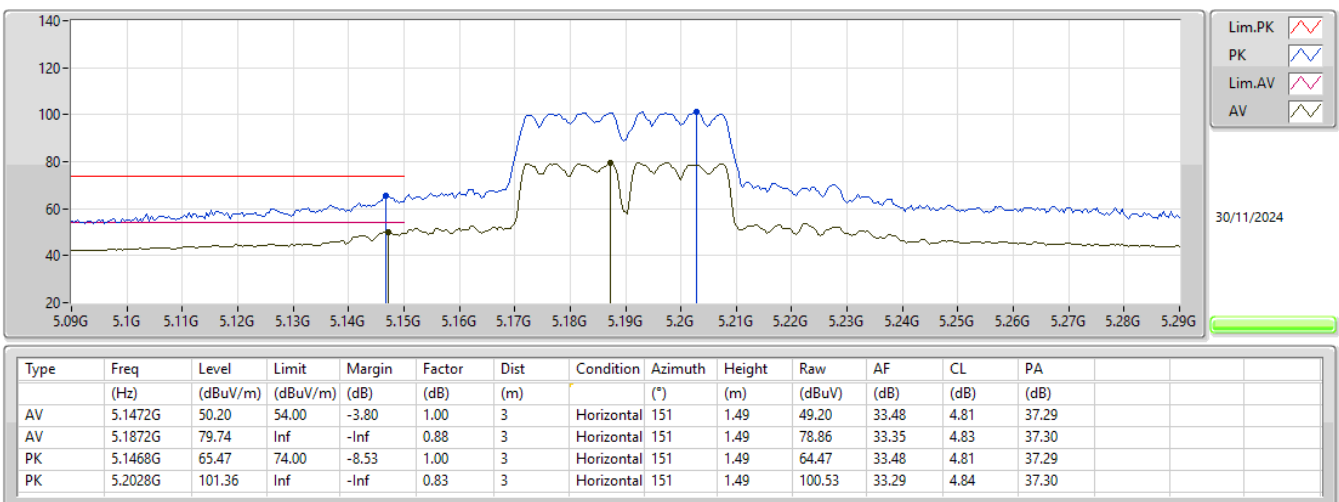
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5190MHz_TX



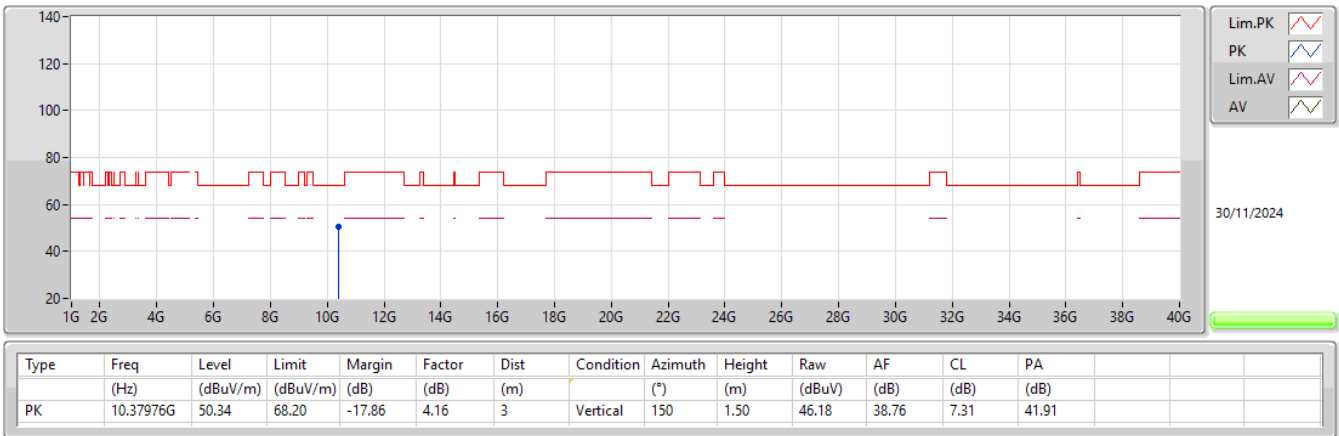
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5190MHz_TX



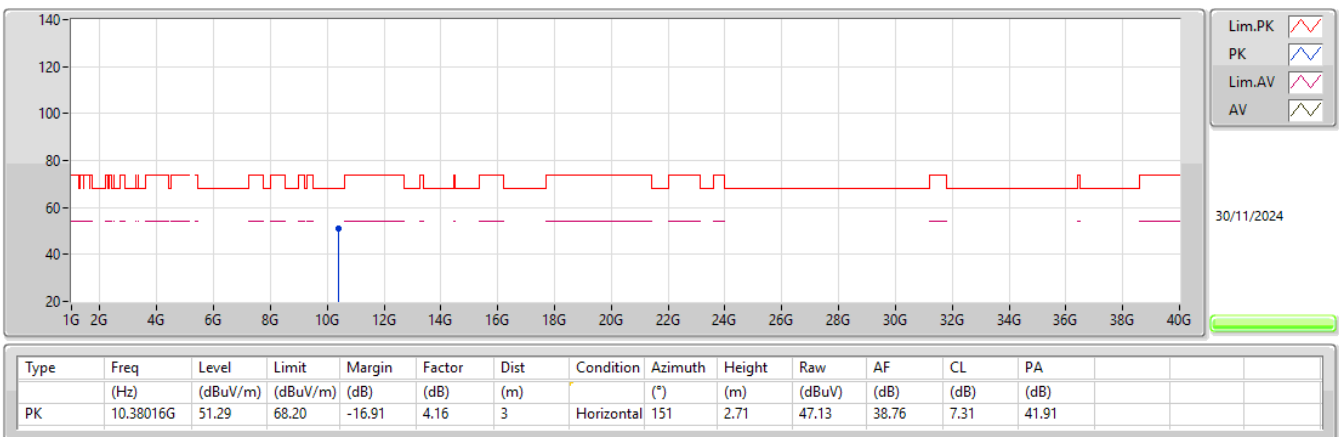
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5190MHz_TX



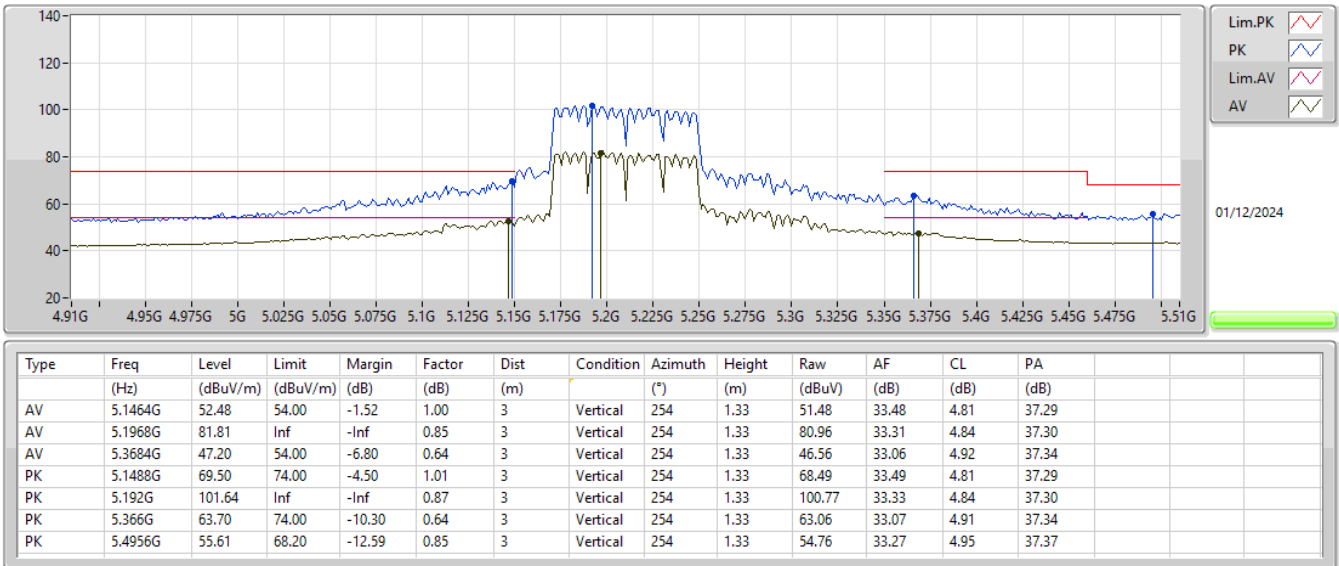
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5190MHz_TX



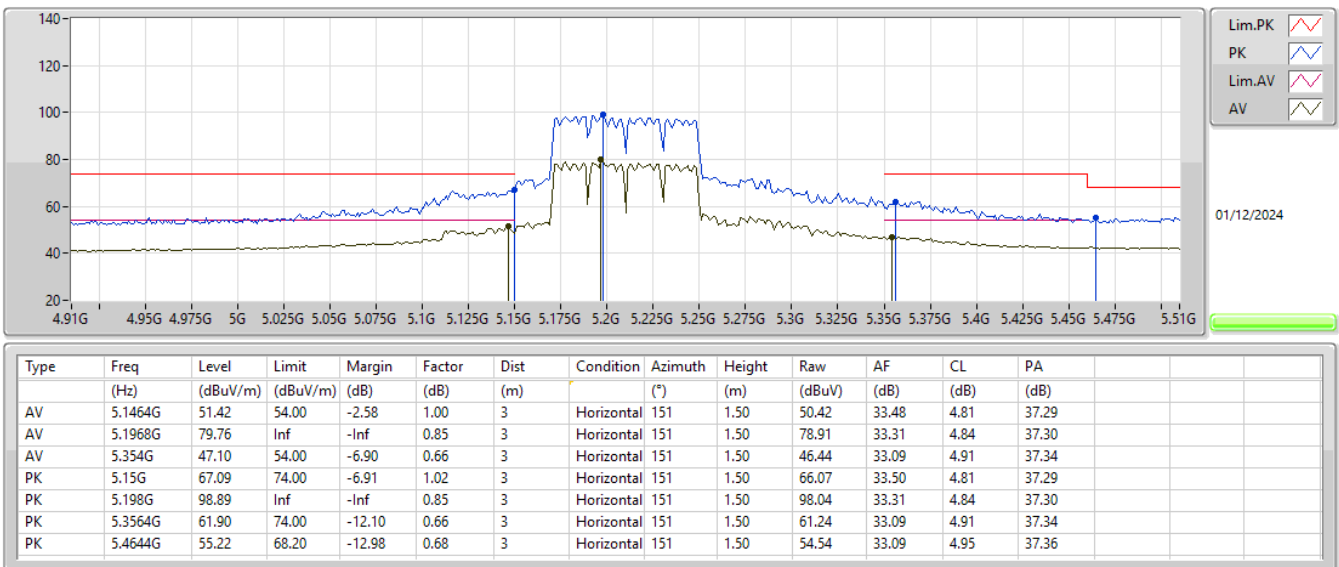
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5210MHz_TX



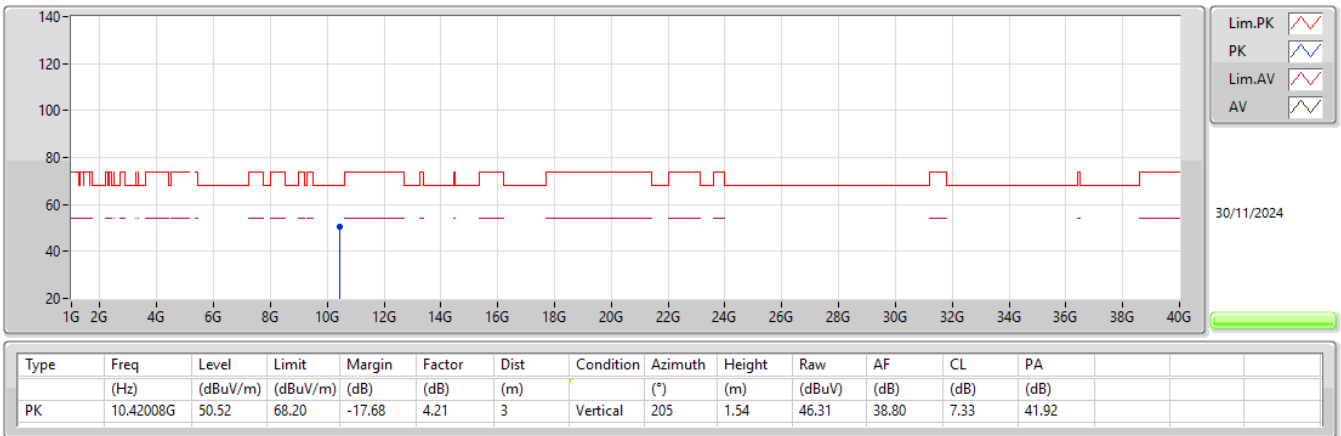
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5210MHz_TX



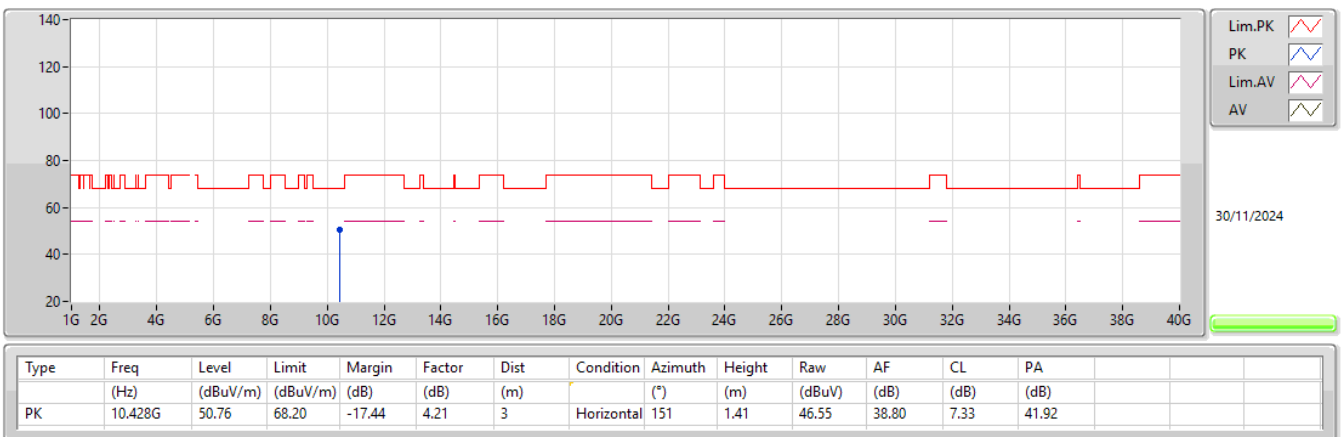
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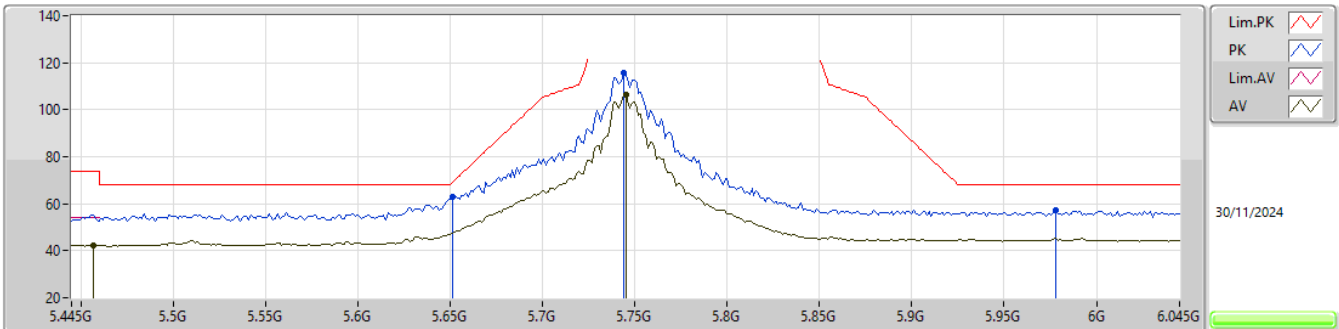
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5210MHz_TX



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

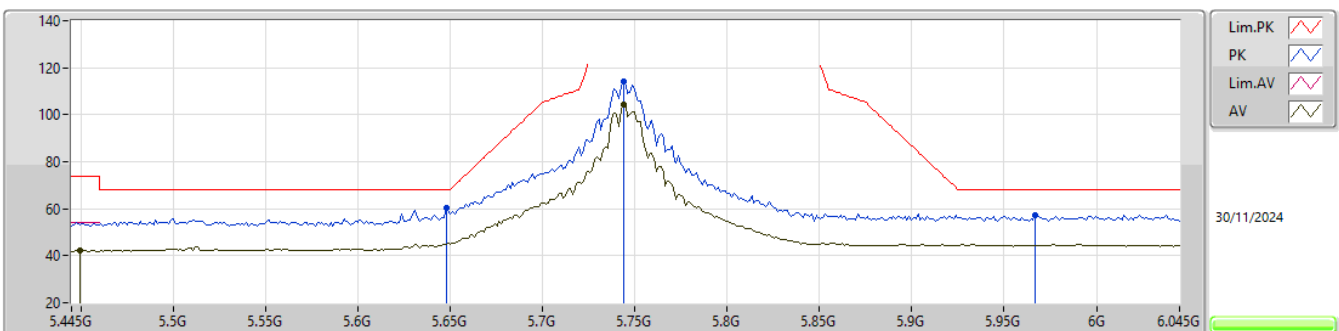
5745MHz_TX



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	5.457G	42.39	54.00	-11.61	0.62	3	Vertical	259	1.54	41.77	33.04	4.94	37.36
AV	5.745G	106.54	Inf	-Inf	1.83	3	Vertical	259	1.54	104.71	33.98	5.12	37.27
PK	5.6514G	63.08	69.24	-6.16	1.13	3	Vertical	259	1.54	61.95	33.41	5.03	37.31
PK	5.7438G	115.80	Inf	-Inf	1.83	3	Vertical	259	1.54	113.97	33.98	5.12	37.27
PK	5.9778G	57.34	68.20	-10.86	2.31	3	Vertical	259	1.54	55.03	34.40	5.08	37.17

5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

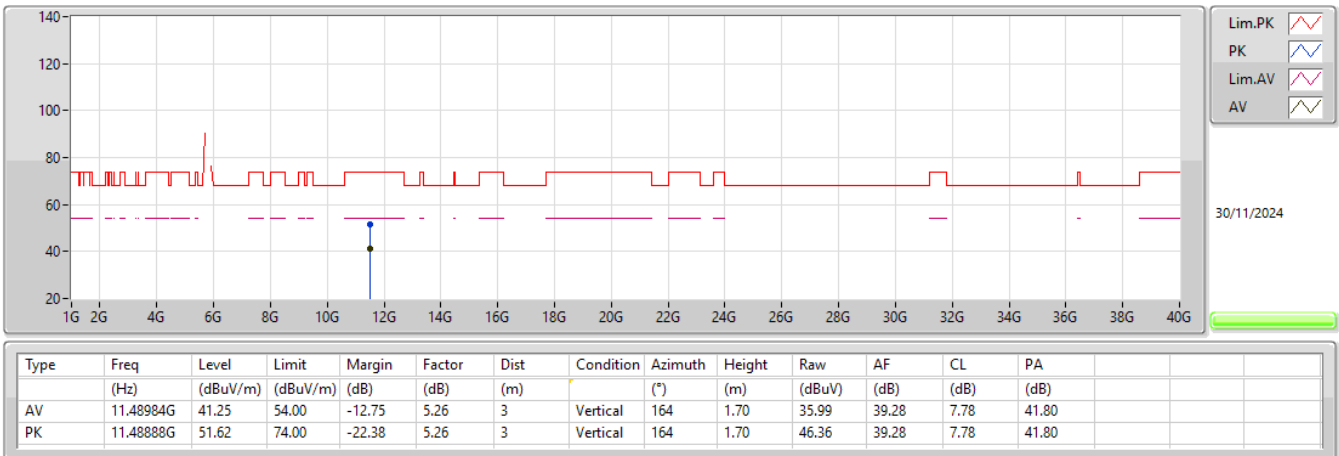
5745MHz_TX



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	5.4498G	42.22	54.00	-11.78	0.58	3	Horizontal	202	1.43	41.64	33.00	4.94	37.36
AV	5.7438G	104.26	Inf	-Inf	1.83	3	Horizontal	202	1.43	102.43	33.98	5.12	37.27
PK	5.6478G	60.27	68.20	-7.93	1.11	3	Horizontal	202	1.43	59.16	33.39	5.03	37.31
PK	5.7438G	113.98	Inf	-Inf	1.83	3	Horizontal	202	1.43	112.15	33.98	5.12	37.27
PK	5.967G	57.40	68.20	-10.80	2.32	3	Horizontal	202	1.43	55.08	34.40	5.09	37.17

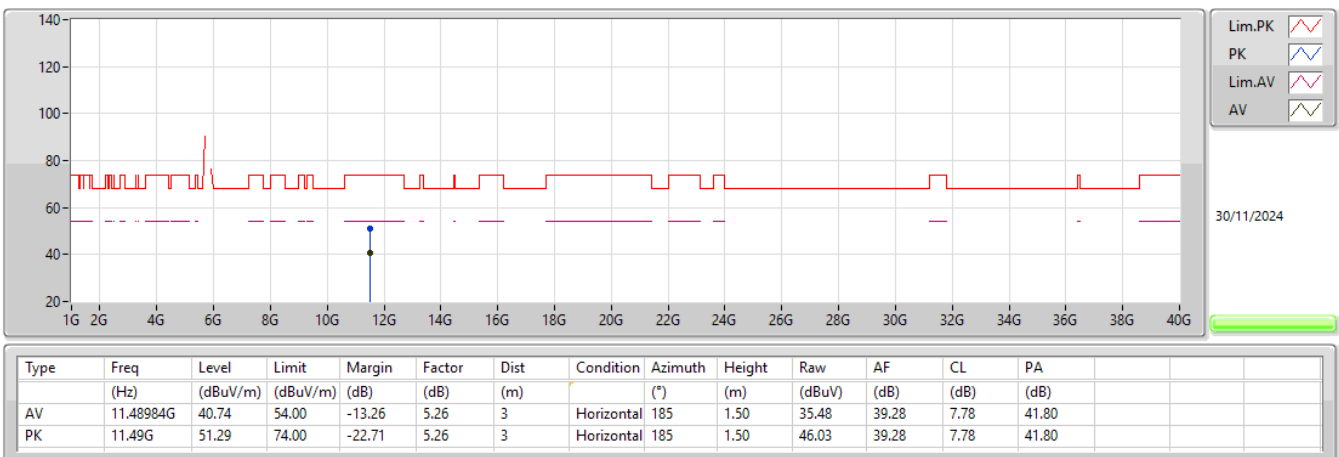
5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX



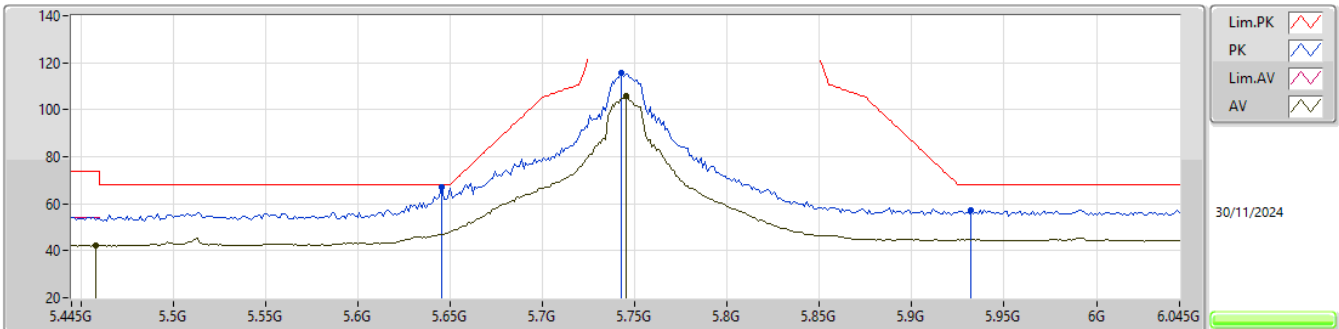
5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX



5.725-5.85GHz_802.11ac VHT20_Nss1,(MCS0)_2TX

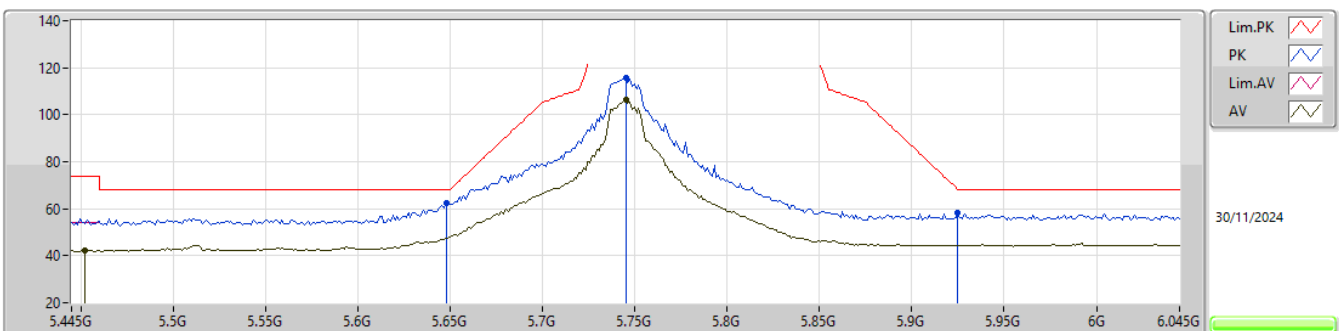
5745MHz_TX



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	5.4582G	42.46	54.00	-11.54	0.63	3	Vertical	259	1.45	41.83	33.05	4.94	37.36
AV	5.745G	105.72	Inf	-Inf	1.83	3	Vertical	259	1.45	103.89	33.98	5.12	37.27
PK	5.6454G	66.96	68.20	-1.24	1.10	3	Vertical	259	1.45	65.86	33.38	5.03	37.31
PK	5.7426G	115.61	Inf	-Inf	1.82	3	Vertical	259	1.45	113.79	33.97	5.12	37.27
PK	5.9322G	57.42	68.20	-10.78	2.36	3	Vertical	259	1.45	55.06	34.44	5.11	37.19

5.725-5.85GHz_802.11ac VHT20_Nss1,(MCS0)_2TX

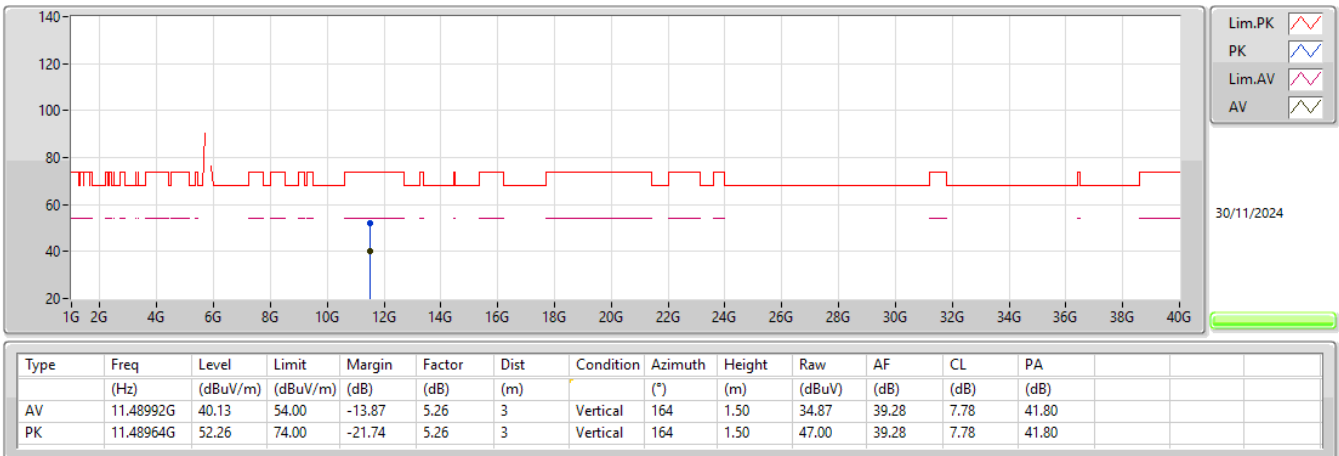
5745MHz_TX



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	5.4522G	42.33	54.00	-11.67	0.59	3	Horizontal	135	1.22	41.74	33.01	4.94	37.36
AV	5.745G	106.61	Inf	-Inf	1.83	3	Horizontal	135	1.22	104.78	33.98	5.12	37.27
PK	5.6478G	62.60	68.20	-5.60	1.11	3	Horizontal	135	1.22	61.49	33.39	5.03	37.31
PK	5.745G	115.74	Inf	-Inf	1.83	3	Horizontal	135	1.22	113.91	33.98	5.12	37.27
PK	5.925G	58.26	68.20	-9.94	2.37	3	Horizontal	135	1.22	55.89	34.45	5.11	37.19

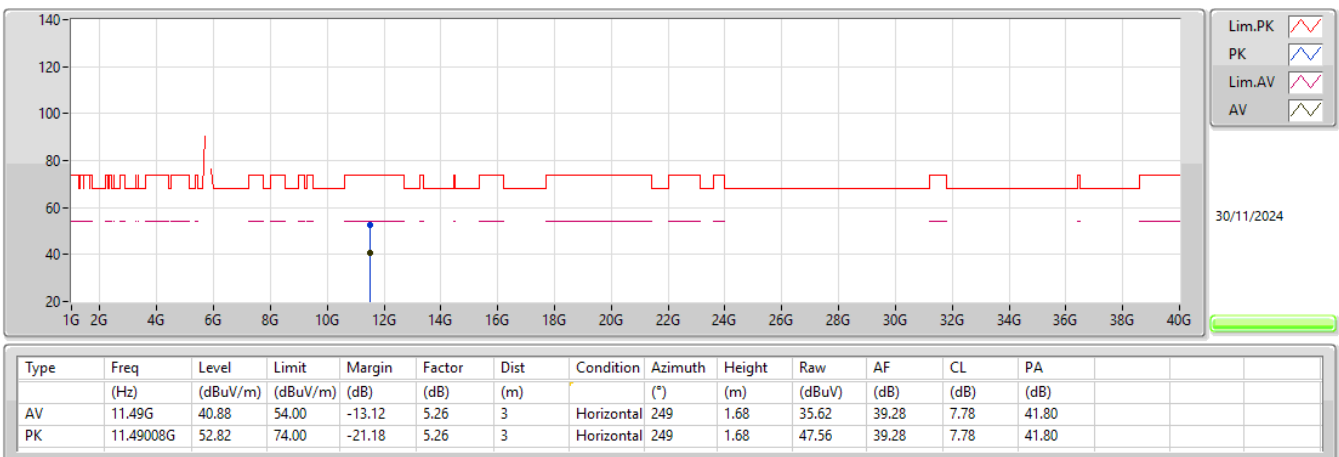
5.725-5.85GHz_802.11ac_VHT20_Nss1,(MCS0)_2TX

5745MHz_TX



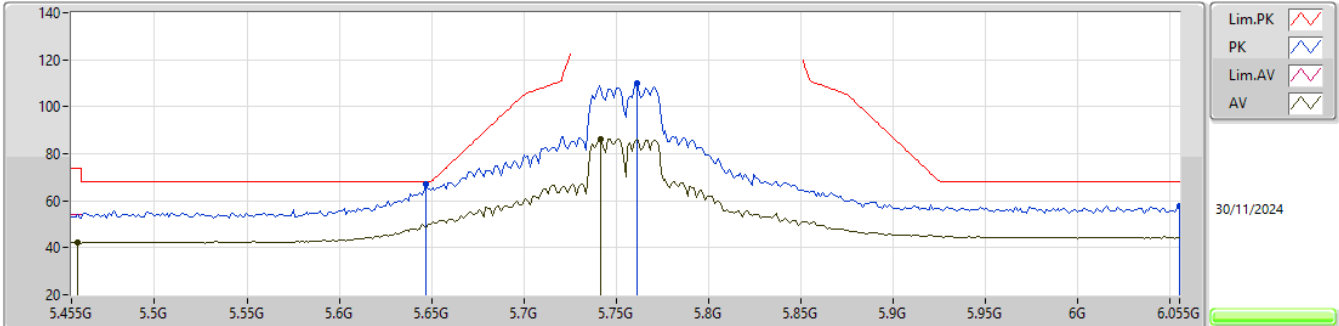
5.725-5.85GHz_802.11ac_VHT20_Nss1,(MCS0)_2TX

5745MHz_TX



5.725-5.85GHz_802.11ac_VHT40_Nss1,(MCS0)_2TX

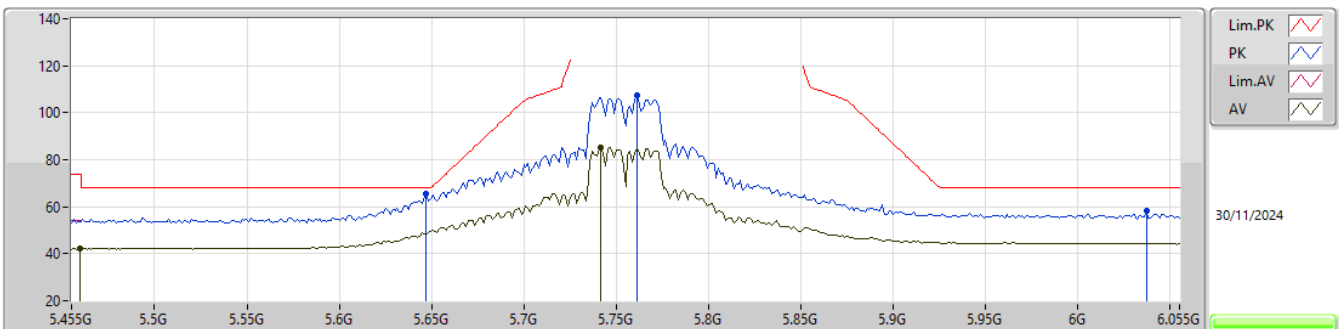
5755MHz_TX



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	5.4586G	42.26	54.00	-11.74	0.63	3	Vertical	259	1.43	41.63	33.05	4.94	37.36
AV	5.7418G	86.44	Inf	-Inf	1.82	3	Vertical	259	1.43	84.62	33.97	5.12	37.27
PK	5.647G	66.88	68.20	-1.32	1.11	3	Vertical	259	1.43	65.77	33.39	5.03	37.31
PK	5.761G	110.01	Inf	-Inf	1.92	3	Vertical	259	1.43	108.09	34.04	5.14	37.26
PK	6.055G	57.85	68.20	-10.35	2.34	3	Vertical	259	1.43	55.51	34.39	5.11	37.16

5.725-5.85GHz_802.11ac_VHT40_Nss1,(MCS0)_2TX

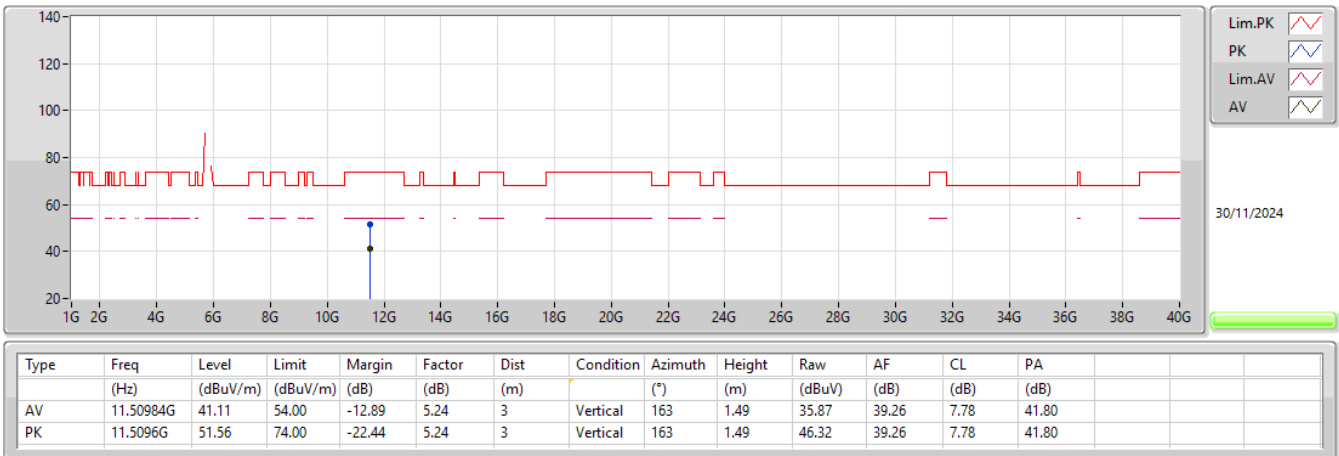
5755MHz_TX



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	5.4598G	42.10	54.00	-11.90	0.64	3	Horizontal	201	1.36	41.46	33.06	4.94	37.36
AV	5.7418G	85.17	Inf	-Inf	1.82	3	Horizontal	201	1.36	83.35	33.97	5.12	37.27
PK	5.647G	65.39	68.20	-2.81	1.11	3	Horizontal	201	1.36	64.28	33.39	5.03	37.31
PK	5.761G	107.24	Inf	-Inf	1.92	3	Horizontal	201	1.36	105.32	34.04	5.14	37.26
PK	6.037G	58.28	68.20	-9.92	2.34	3	Horizontal	201	1.36	55.94	34.40	5.10	37.16

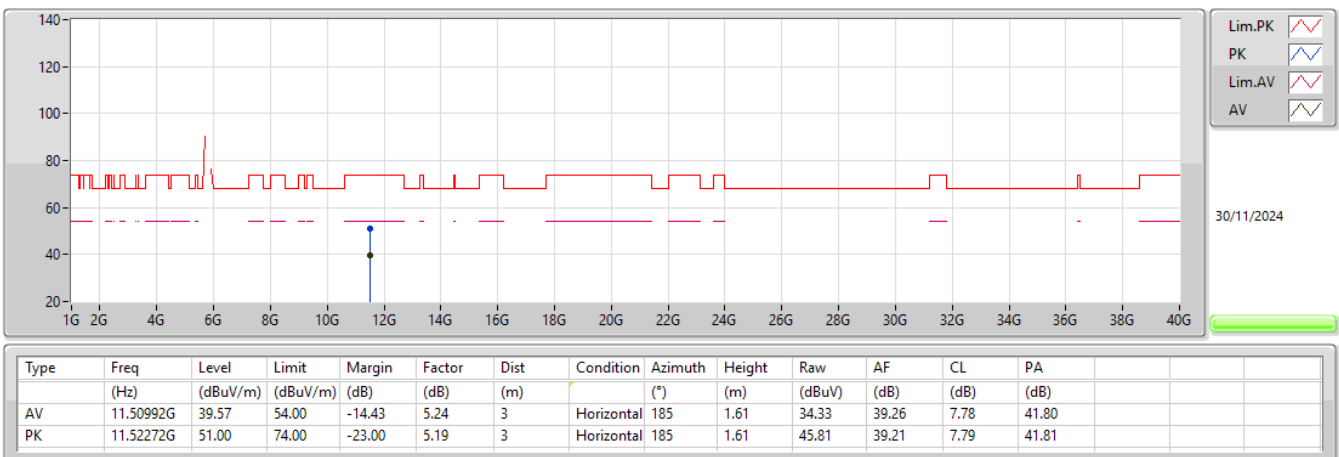
5.725-5.85GHz_802.11ac_VHT40_Nss1,(MCS0)_2TX

5755MHz_TX



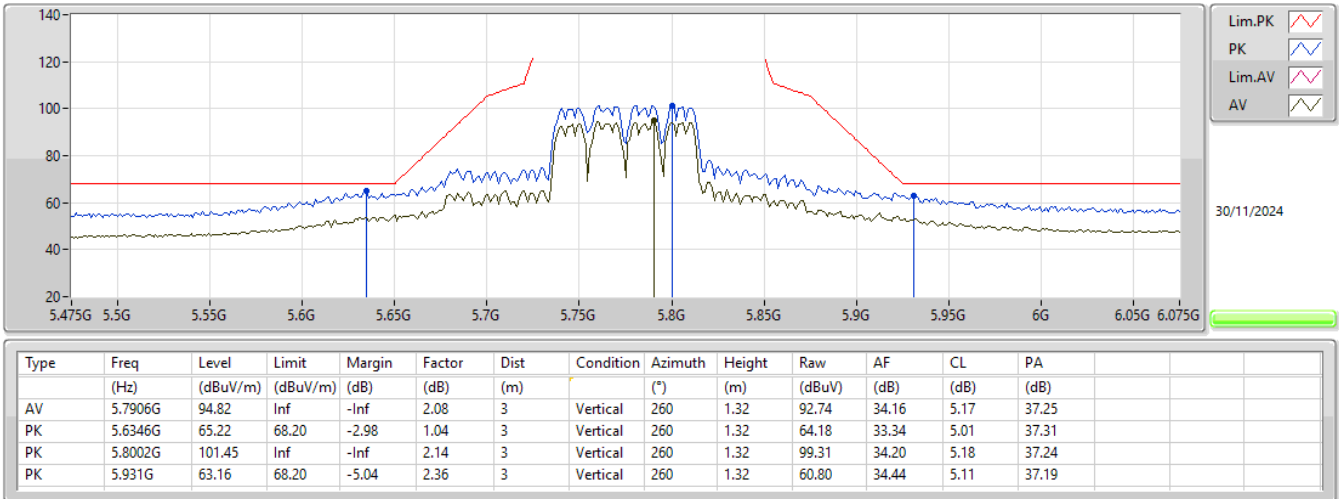
5.725-5.85GHz_802.11ac_VHT40_Nss1,(MCS0)_2TX

5755MHz_TX



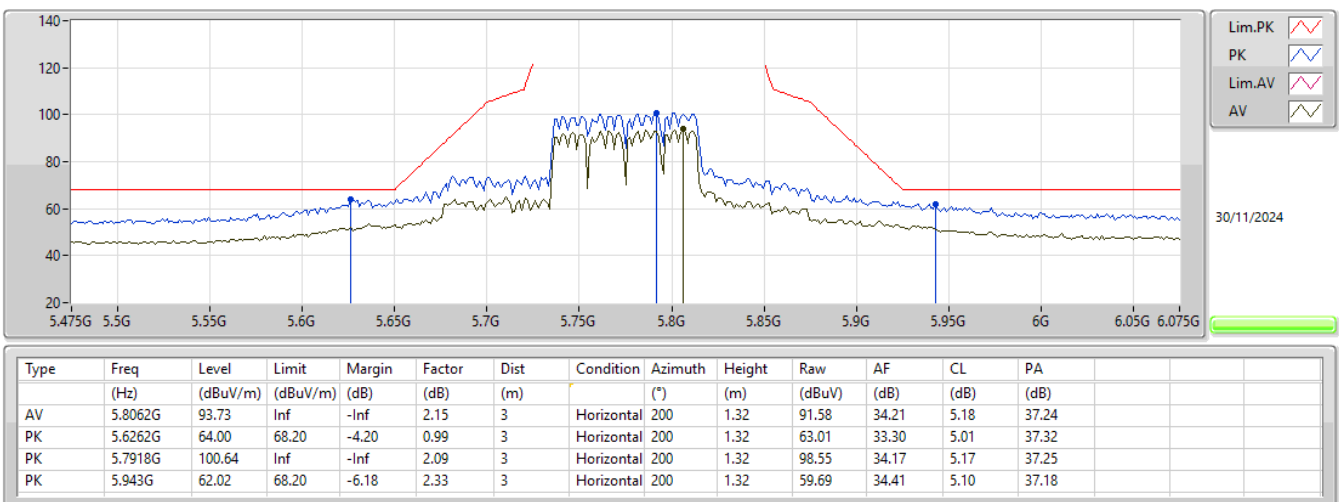
5.725-5.85GHz_802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



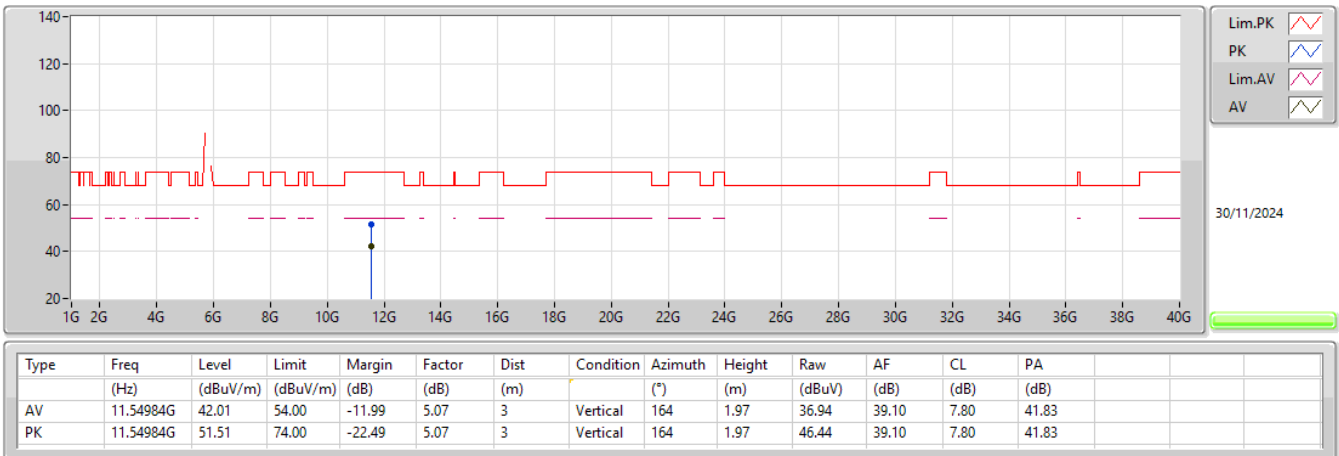
5.725-5.85GHz_802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



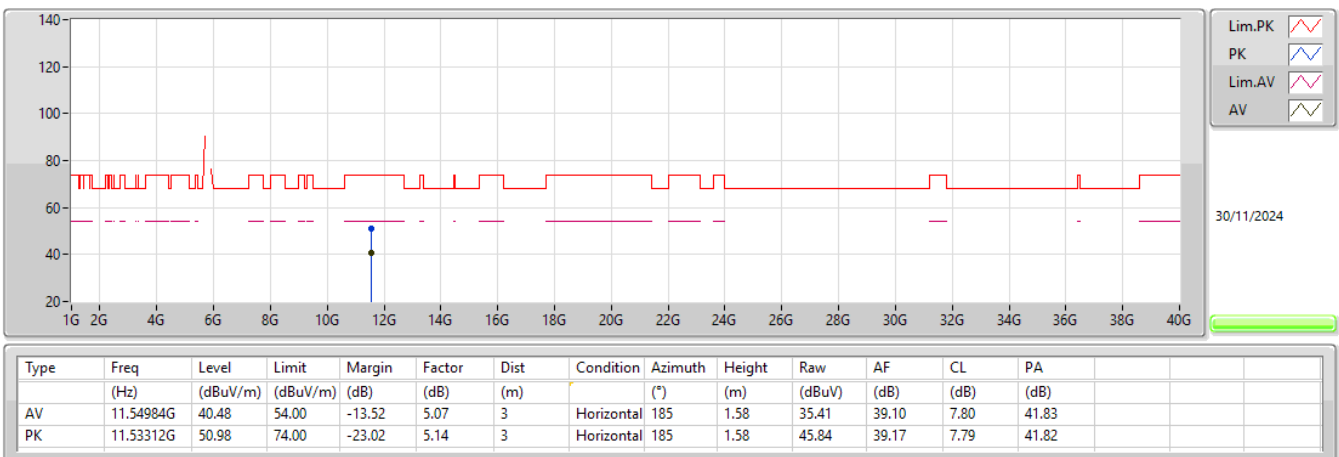
5.725-5.85GHz_802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



5.725-5.85GHz_802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX





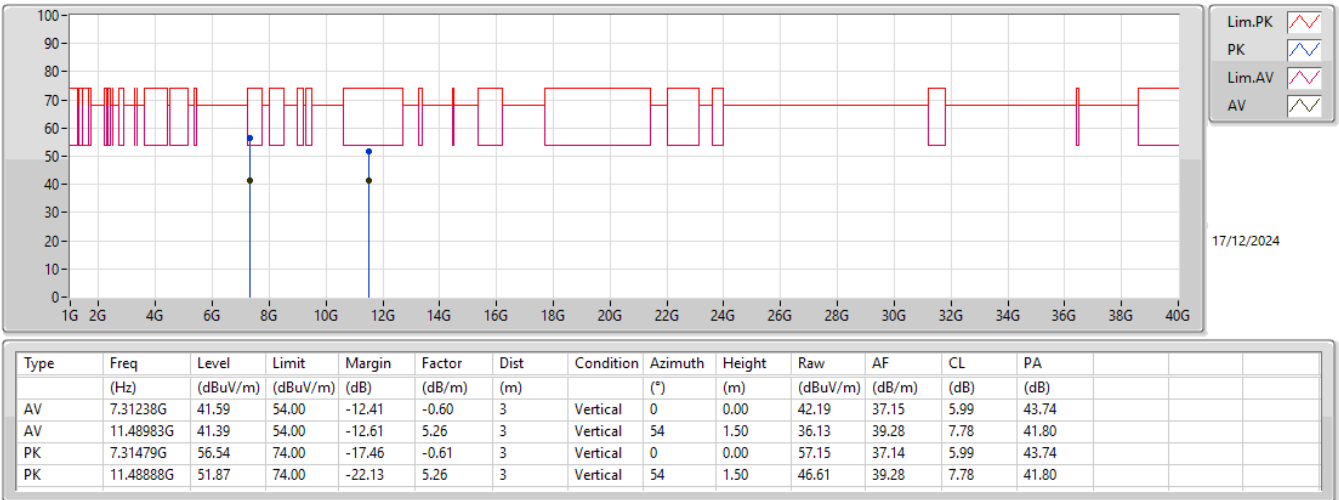
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	7.31264G	43.57	54.00	-10.43	Horizontal

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Mode 1	Pass	AV	7.31238G	41.59	54.00	-12.41	3	Vertical	0	0.00	-
Mode 1	Pass	AV	11.48983G	41.39	54.00	-12.61	3	Vertical	54	1.50	-
Mode 1	Pass	PK	7.31479G	56.54	74.00	-17.46	3	Vertical	0	0.00	-
Mode 1	Pass	PK	11.48888G	51.87	74.00	-22.13	3	Vertical	54	1.50	-
Mode 1	Pass	AV	7.31264G	43.57	54.00	-10.43	3	Horizontal	162	1.12	-
Mode 1	Pass	AV	11.48974G	40.85	54.00	-13.15	3	Horizontal	156	1.54	-
Mode 1	Pass	PK	7.31396G	58.24	74.00	-15.76	3	Horizontal	162	1.12	-
Mode 1	Pass	PK	11.49025G	50.62	74.00	-23.38	3	Horizontal	156	1.54	-

Radiated Emissions above 1GHz_Mode 1



Radiated Emissions above 1GHz_Mode 1

