



RADIO TEST REPORT

FCC ID : Z8H89FT0075
Equipment : ePMP 6GHz Force 4625 SM
Brand Name : Cambium Networks
Model Name : ePMP 6GHz Force 4625 SM
Model Number : C068940P142A
Applicant : Cambium Networks Inc.
3800 Golf Road, Suite 360 Rolling Meadows, IL
60008, USA
Manufacturer : Cambium Networks, Ltd.
Ashburton, TQ13 7UP, UK
Standard : 47 CFR FCC Part 15.407

The product was received on Sep. 20, 2022, and testing was started from Oct. 01, 2022 and completed on Oct. 18, 2022. We, Sporton International Inc. Hsinchu 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. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
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TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A12_1 Ver1.4



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 Output Power	PASS	-
3.4	15.407(a)	Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Declaration of Conformity:

1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Measurement Uncertainty".

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Penny Kao

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5725-5850	a, n (HT20), ac (VHT20), ax (HEW20)	5745-5825	149-165 [5]
5725-5850	n (HT40), ac (VHT40), ax (HEW40)	5755-5795	151-159 [2]
5725-5850	ac (VHT80), ax (HEW80)	5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11a	20	2TX
5.725-5.85GHz	802.11n HT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11ax HEW20	20	2TX
5.725-5.85GHz	802.11n HT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ax HEW40	40	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11ax HEW80	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.
- ♦ HEW20, HEW40, HEW80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1/2	Cambium	25dBi Dish antenna	Dish	N/A	25.38

Note1: Directional gain information

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

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ;$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2))^2 / N_{ANT}] \Rightarrow 10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$$

Where ;

5G Band4 G1 = 25.38 dBi; G2 = 25.38 dBi; DG = 28.39 dBi

Note2: The above information was declared by manufacturer.

Note3: The EUT has one antenna.

<5GHz UNII 3 function>

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

Port 1, Port 2 can be used as transmitting/receiving antenna.

Port 1, Port 2 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.641	1.93	1.977m	1k
802.11ax HEW20	0.908	0.42	5.452m	300
802.11ax HEW40	0.93	0.32	5.452m	300
802.11ax HEW80	0.902	0.45	5.452m	300

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From PoE			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Function	☐	Outdoor P2M	☐	Indoor P2M
	☒	Fixed P2P	☐	Client
	☐	Point-to-multipoint	☒	Point-to-point
Test Software Version	QSPR v5.0-00199			

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT supports functions

Function	Support Type
AP	Master
Slave	Slave without radar detection

Note 1: After evaluating, AP Mode was selected to test and record in the report.

Note 2: The above information was declared by manufacturer.



1.2 Applicable 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
- ♦ FCC KDB 789033 D02 v02r01

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

- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISCED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	Mason Chen	22.9~24.7 / 55~60	Oct. 07, 2022
Radiated Below 1GHz	03CH05-CB	RJ Huang	25.1~26.5 / 60~65	Oct. 01, 2022~ Oct. 14, 2022
Radiated Above 1GHz	03CH02-CB	RJ Huang	24.4~25.5 / 55~58	Oct. 01, 2022~ Oct. 14, 2022
	03CH03-CB		23.5~23.8 / 56~60	
AC Conduction	CO02-CB	Allen Chung	22~23 / 58~59	Oct. 18, 2022

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%
Conducted Emission	3.2 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.2 dB	Confidence levels of 95%
Bandwidth Measurement	2.0 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5745MHz	14
5785MHz	13
5825MHz	6.5
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5745MHz	14
5785MHz	14
5825MHz	6.5
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5755MHz	14
5795MHz	10
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5775MHz	9

Note:

- ♦ Evaluated HEW20/HEW40/HEW80 mode only due to the similar modulation.
The power setting of HT20/HT40/VHT20/VHT40/VHT80 mode are the same or lower than HEW20/HEW40/HEW80.



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	Normal Link
1	EUT_WLAN 5GHz + PoE

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Output Power 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
	The EUT was performed at X axis, Y axis and Z axis. EUT in Z axis has been evaluated to be the worst case at Unwanted Emissions <Above 1GHz>; thus, the measurement will follow this same test configuration.
1	EUT in Z axis_WLAN 5GHz + PoE
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position, and the worst case as below:
1	EUT in Z axis

Note: The PoE below is for measurement only, would not be marketed.

The PoE information as below:

Support Unit	Brand	Model Number
PoE	CWT	P015U06



2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

N/A

2.5 Support Equipment

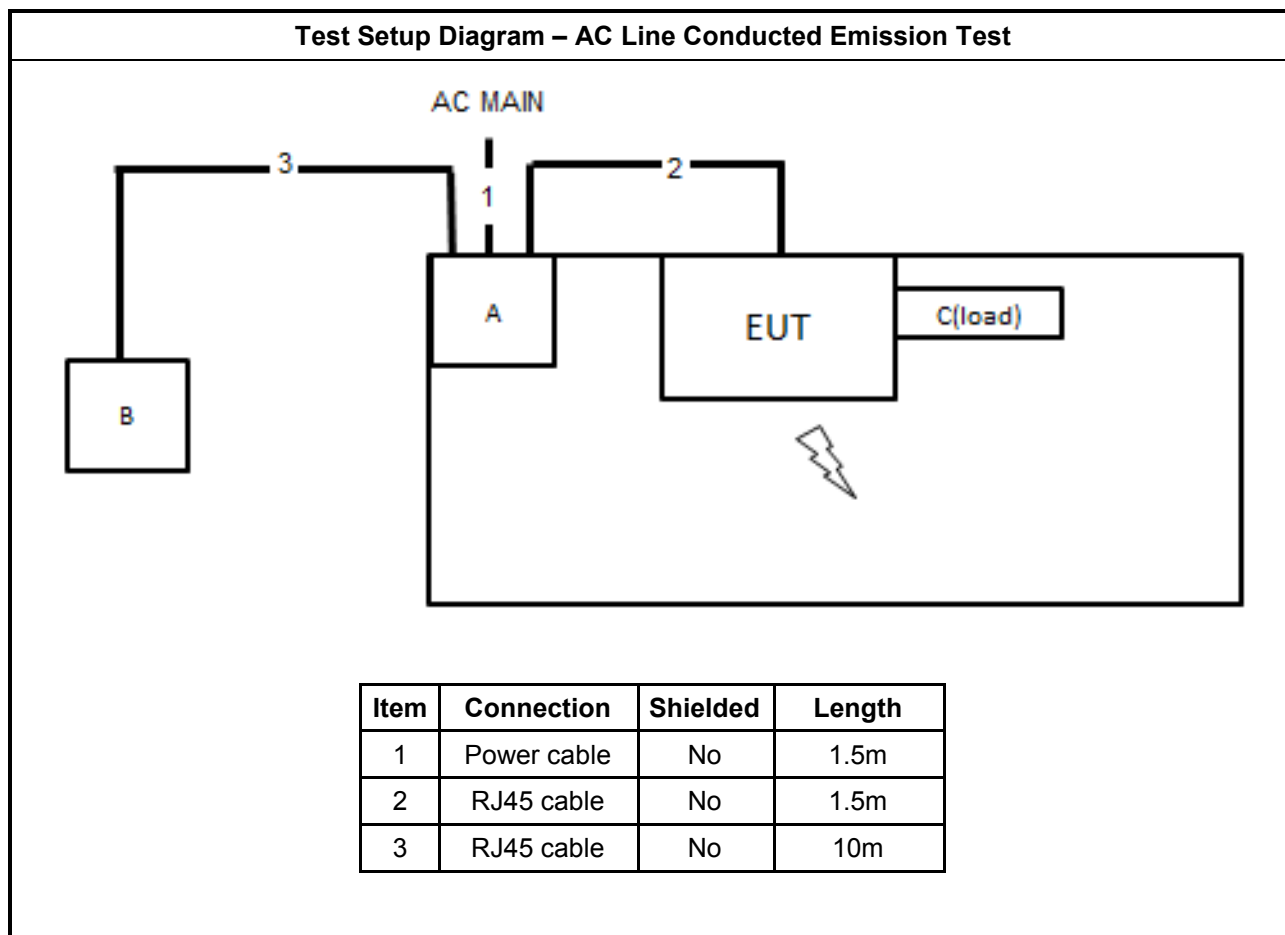
For AC Conduction:

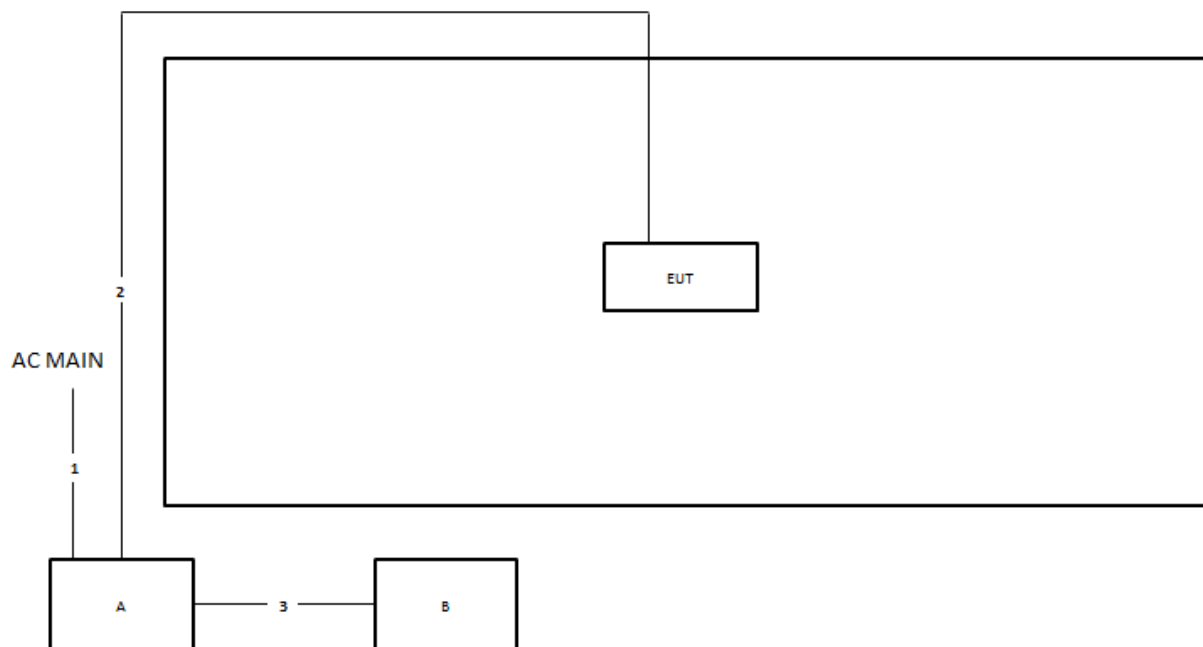
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE	CWT	P015U06	N/A
B	PoE NB	DELL	E6430	N/A
C	Flash disk3.0	Transcend	JetFlash-700	N/A

For Radiated and RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE	CWT	P015U06	N/A
B	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m

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.

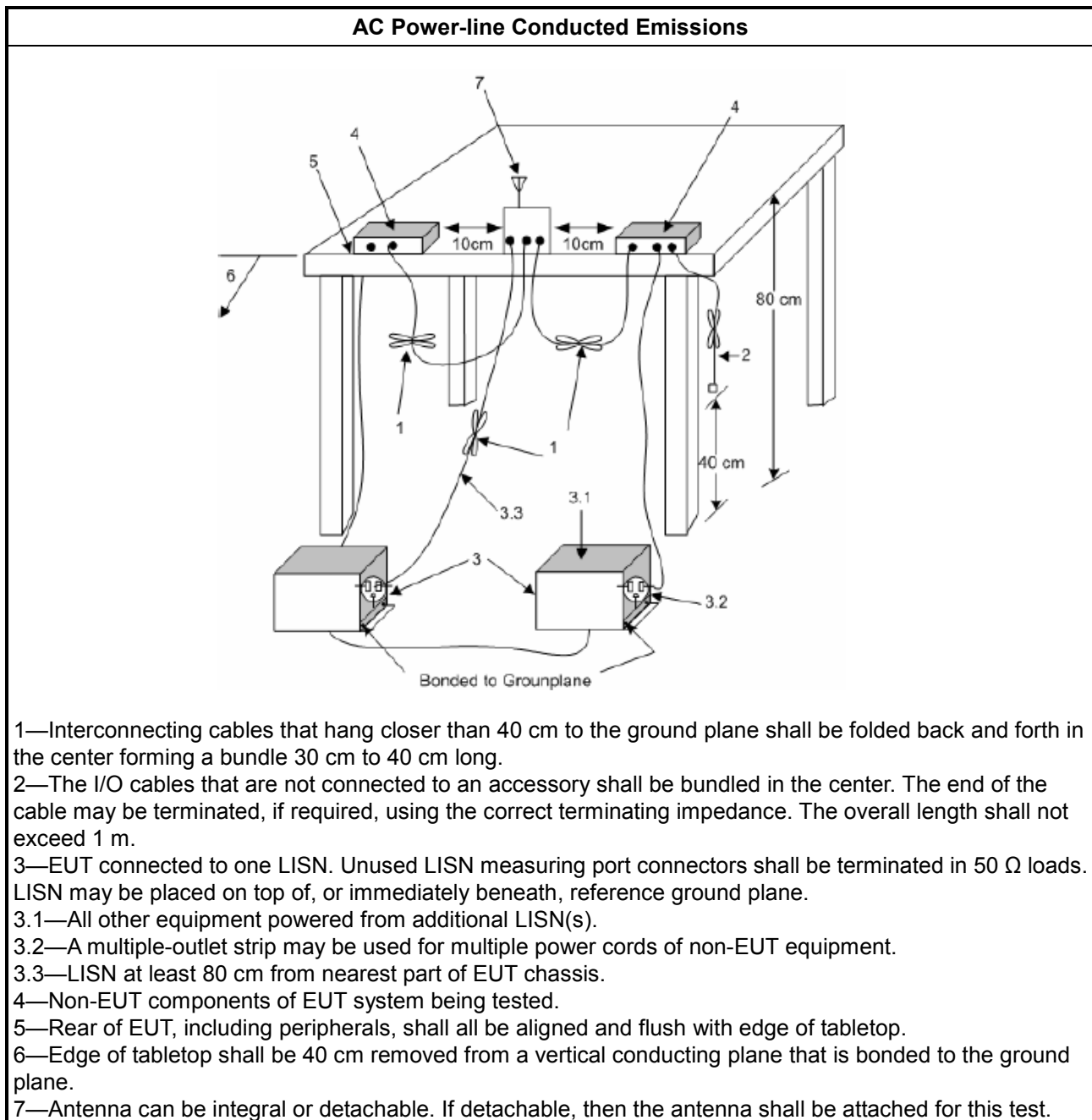
3.1.2 Measuring Instruments

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 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- Margin = -Limit + Level

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, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth $\geq$ 500kHz.
☐	For the 5.85-5.895 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth $\geq$ 500kHz.
LE-LAN Devices	
☐	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

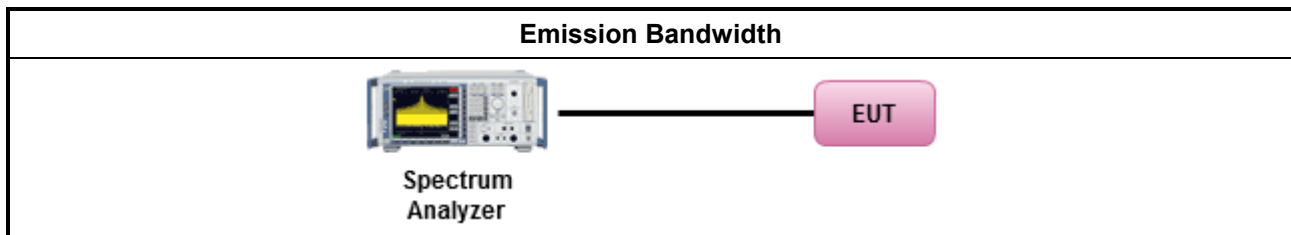
3.2.2 Measuring Instruments

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 FCC KDB 789033 D02, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Output Power

3.3.1 Limit

Maximum 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 the lesser of 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 the lesser of 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 the lesser of 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 the lesser of 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 the lesser of 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 the lesser of 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 the lesser of 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 the lesser of 1 W.
Maximum EIRP Limit	
☐ For the 5.85-5.895 GHz band:	
☐	- Indoor AP & subordinate device < 36 dBm - Client device < 30 dBm
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.	
☐ For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
☐ For the 5.725-5.85 GHz band:	
☐	- Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 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 the

lesser of 1 W.

P_{Out} = maximum conducted output power in dBm,

G_{TX} = the maximum transmitting antenna directional gain in dBi.

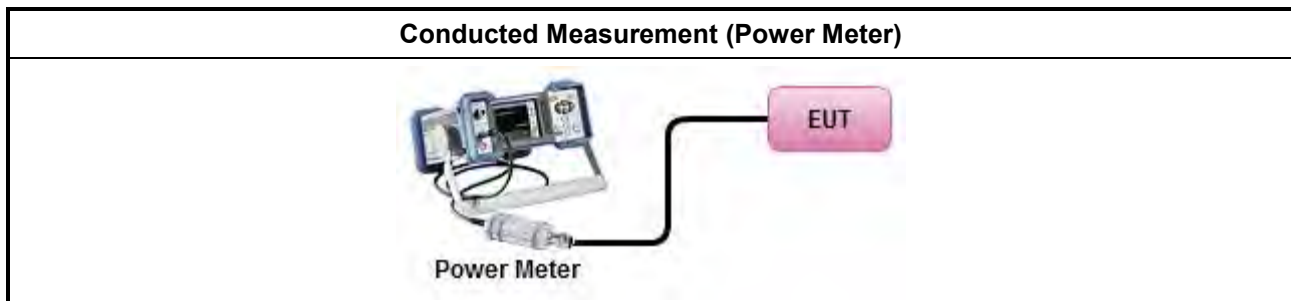
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
	Average over on/off periods with duty factor
	☐ Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033 D02, 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 FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).
☒ For conducted measurement.	
	If the EUT supports multiple transmit chains using options given below: Refer as FCC 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]) $EIRP_{total} = P_{total} + DG$
☐ For radiated measurement.	
	Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

3.3.4 Test Setup



3.3.5 Test Result of Maximum Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 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 the lesser of 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 the lesser of 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 the lesser of 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.
EIRP Power Spectral Density Limit	
☐ For the 5.85-5.895 GHz band:	
	- Indoor AP & subordinate device < 20dBm/MHz - Client device < 14dBm/MHz
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
	e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; $-13 - 0.716 (\theta - 8)$ dBW/MHz for $8^\circ \leq \theta < 40^\circ$ $-35.9 - 1.22 (\theta - 40)$ dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
☐ 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

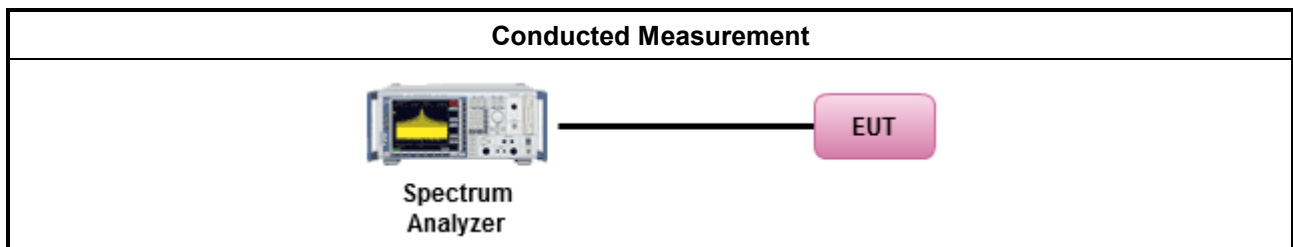
Refer a test equipment and calibration data table in this test report.

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 FCC KDB 789033 D02, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
[duty cycle ≥ 98% or external video / power trigger]	
☒	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
☐	Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
☒	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033 D02, 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:	
☒	Option 1: Measure and sum the spectra across the outputs. Refer as FCC 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.
☐	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
☐	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
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])	

Test Method	
	$EIRP_{total} = PPSD_{total} + DG$
☐	For radiated measurement.
	Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter 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	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
☐ 5.85 - 5.895 GHz	(i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of - 7 dBm/MHz at or above 5.925 GHz. (ii) For a client device, all emissions at or above 5.895 GHz shall not exceed an



	e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz. (iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/ MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.
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

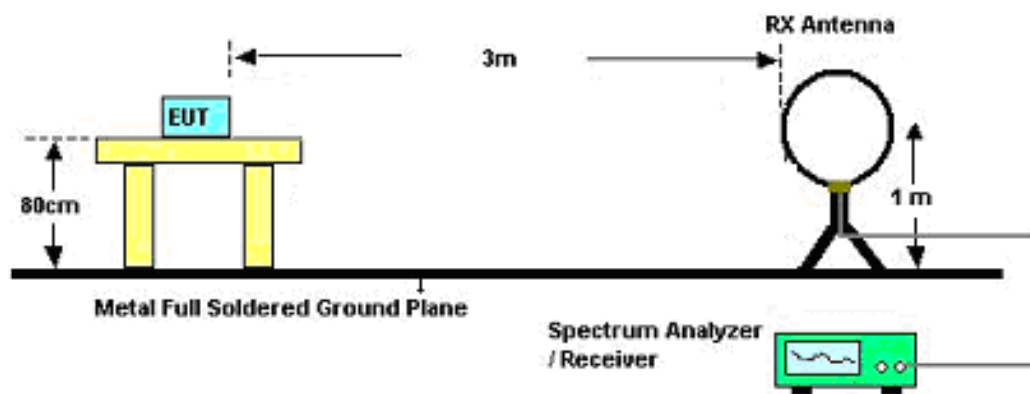
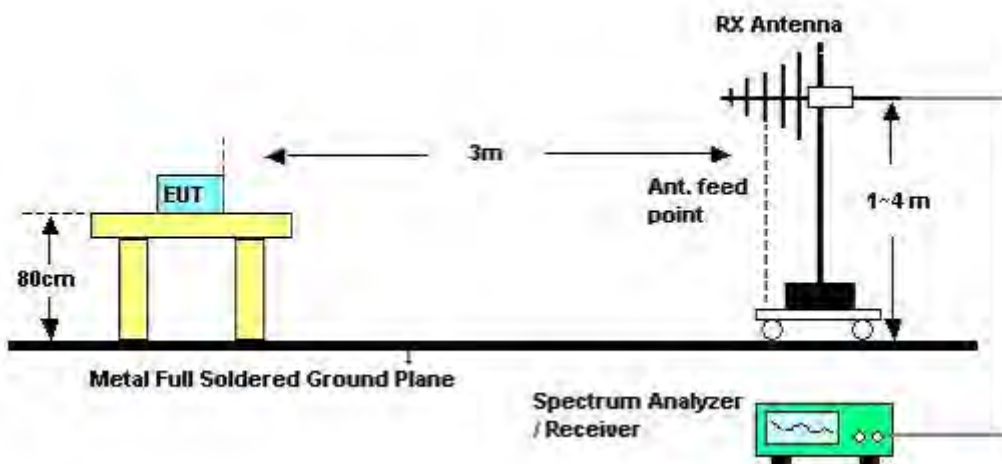
Refer a test equipment and calibration data table in this test report.

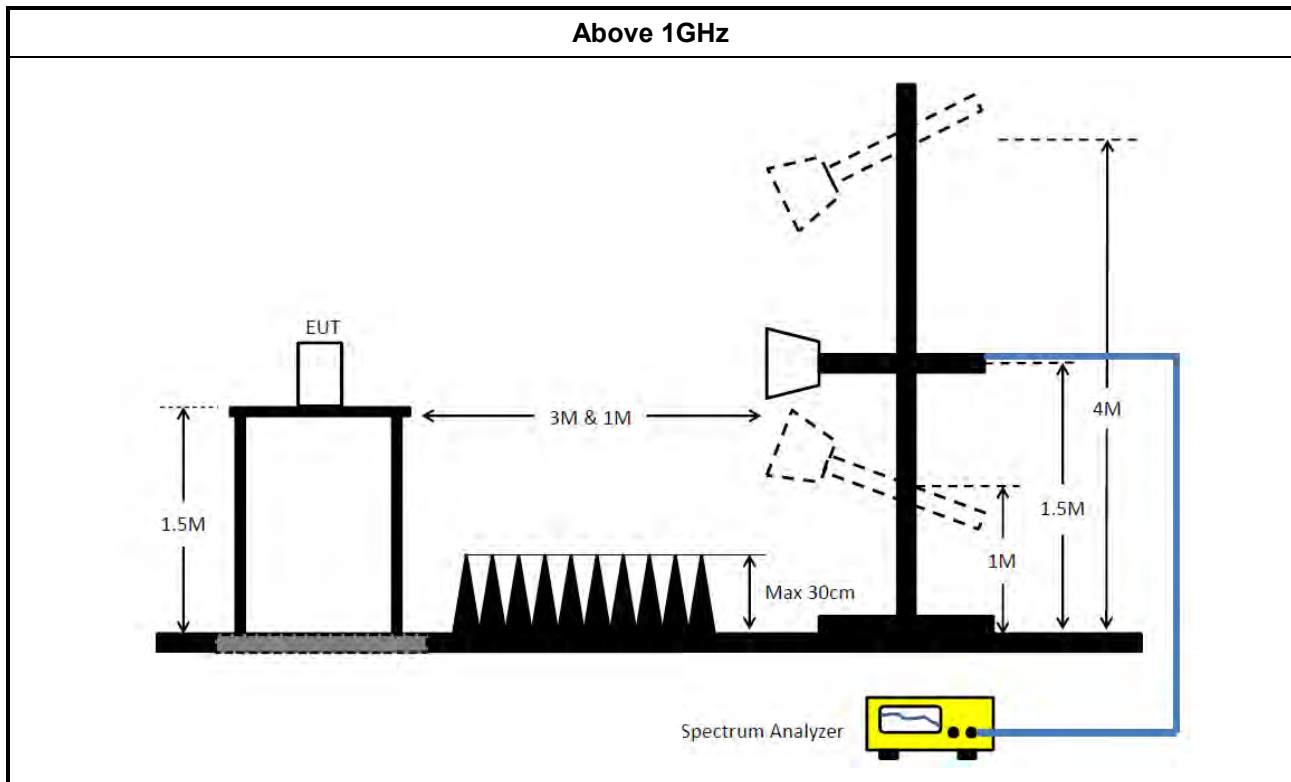
3.5.3 Test Procedures

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:	
For radiated measurement.	Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).
	☒ Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
	☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	☒ Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.
The any unwanted emissions level shall not exceed the fundamental emission level.	☐ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.

Test Method

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

3.5.4 Test Setup
Transmitter Radiated Unwanted Emissions
9kHz ~30MHz

30MHz~1GHz




3.5.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 22, 2021	Dec. 21, 2022	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	May 06, 2022	May 05, 2023	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 19, 2021	Oct. 18, 2022	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Mar. 18, 2022	Mar. 17, 2023	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 03, 2022	Aug. 02, 2023	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 26, 2022	Mar. 25, 2023	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 19, 2022	Apr. 18, 2023	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH02-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 20, 2022	Jul. 19, 2023	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSP	100593	9kHz~40GHz	Apr. 08, 2022	Apr. 07, 2023	Radiation (03CH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~ 18GHz 3m	May 05, 2022	May 04, 2023	Radiation (03CH03-CB)
Horn Antenna	ETS • Lindgren	3115	6821	750MHz~18GHz z	Jan. 21, 2022	Jan. 20, 2023	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 20, 2022	Jul. 19, 2023	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 10, 2022	Jun. 09, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 27, 2022	May 26, 2023	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1 GHz ~26.5 GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz – 26.5 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Feb. 21, 2022	Feb. 20, 2023	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Feb. 21, 2022	Feb. 20, 2023	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

NCR means Non-Calibration required.



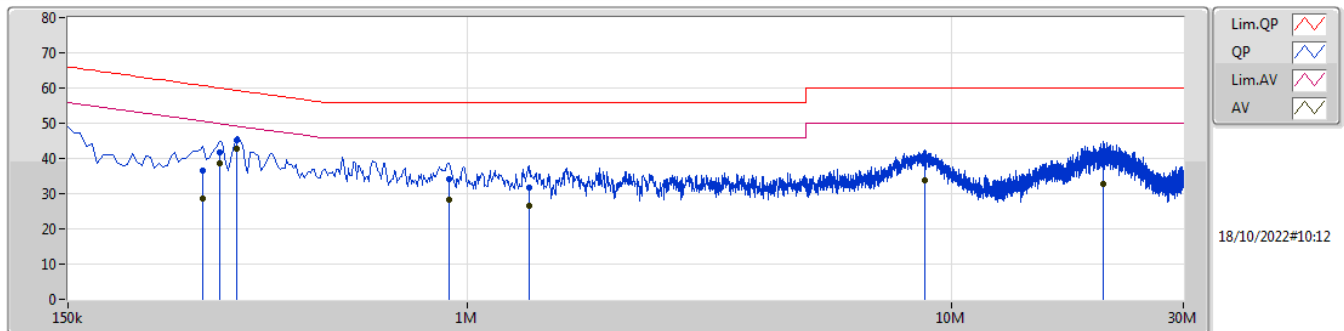
Conducted Emissions at Powerline

Appendix A

Summary

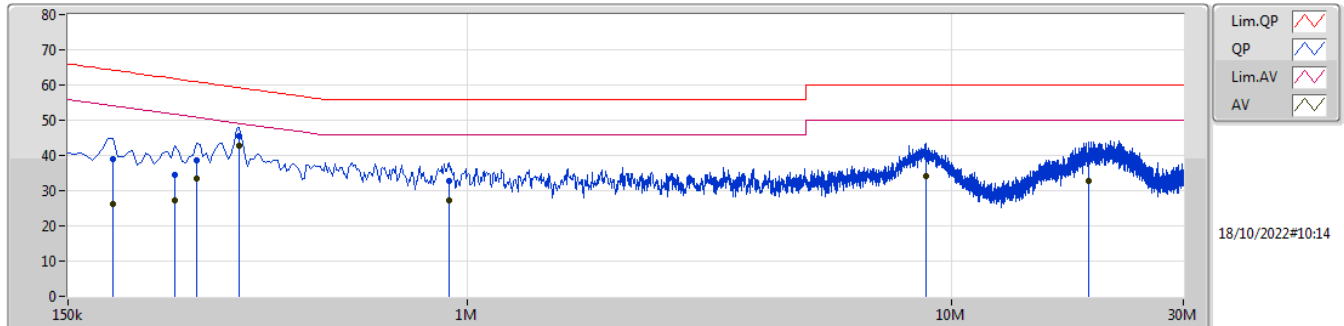
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	334.5k	42.89	49.35	-6.46	Line

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	285k	36.58	60.67	-24.09	10.23	Line	-	26.35	0.12	0.02	10.09						
AV	285k	28.52	50.67	-22.15	10.23	Line	-	18.29	0.12	0.02	10.09						
QP	307.5k	41.68	60.03	-18.35	10.23	Line	-	31.45	0.12	0.02	10.09						
AV	307.5k	38.53	50.03	-11.50	10.23	Line	-	28.30	0.12	0.02	10.09						
QP	334.5k	45.29	59.35	-14.06	10.24	Line	-	35.05	0.12	0.02	10.10						
AV	334.5k	42.89	49.35	-6.46	10.24	Line	"Worst"	32.65	0.12	0.02	10.10						
QP	915k	34.28	56.00	-21.72	10.30	Line	-	23.98	0.14	0.02	10.14						
AV	915k	28.40	46.00	-17.60	10.30	Line	-	18.10	0.14	0.02	10.14						
QP	1.338M	31.75	56.00	-24.25	10.32	Line	-	21.43	0.15	0.03	10.14						
AV	1.338M	26.63	46.00	-19.37	10.32	Line	-	16.31	0.15	0.03	10.14						
QP	8.768M	39.56	60.00	-20.44	10.58	Line	-	28.98	0.32	0.07	10.19						
AV	8.768M	33.85	50.00	-16.15	10.58	Line	-	23.27	0.32	0.07	10.19						
QP	20.562M	39.46	60.00	-20.54	10.72	Line	-	28.74	0.38	0.13	10.21						
AV	20.562M	32.79	50.00	-17.21	10.72	Line	-	22.07	0.38	0.13	10.21						

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)						
QP	186k	38.93	64.20	-25.27	10.25	Neutral	-	28.68	0.16	0.02	10.07						
AV	186k	26.31	54.20	-27.89	10.25	Neutral	-	16.06	0.16	0.02	10.07						
QP	249k	34.41	61.79	-27.38	10.26	Neutral	-	24.15	0.16	0.02	10.08						
AV	249k	27.09	51.79	-24.70	10.26	Neutral	-	16.83	0.16	0.02	10.08						
QP	276k	38.63	60.93	-22.30	10.26	Neutral	-	28.37	0.16	0.02	10.08						
AV	276k	33.43	50.93	-17.50	10.26	Neutral	-	23.17	0.16	0.02	10.08						
QP	339k	45.39	59.23	-13.84	10.28	Neutral	-	35.11	0.16	0.02	10.10						
AV	339k	42.72	49.23	-6.51	10.28	Neutral	"Worst"	32.44	0.16	0.02	10.10						
QP	915k	32.86	56.00	-23.14	10.33	Neutral	-	22.53	0.17	0.02	10.14						
AV	915k	27.10	46.00	-18.90	10.33	Neutral	-	16.77	0.17	0.02	10.14						
QP	8.813M	39.94	60.00	-20.06	10.54	Neutral	-	29.40	0.28	0.07	10.19						
AV	8.813M	34.04	50.00	-15.96	10.54	Neutral	-	23.50	0.28	0.07	10.19						
QP	19.095M	39.50	60.00	-20.50	10.65	Neutral	-	28.85	0.32	0.12	10.21						
AV	19.095M	32.71	50.00	-17.29	10.65	Neutral	-	22.06	0.32	0.12	10.21						

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.9M	41.559M	41M6D1D	5.64M	17.061M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.33M	35.892M	35M9D1D	8.34M	19.16M
802.11ax HEW40_Nss1,(MCS0)_2TX	36.96M	102.909M	103MD1D	21.72M	39.34M
802.11ax HEW80_Nss1,(MCS0)_2TX	60.9M	92.894M	92M9D1D	53.34M	87.076M

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

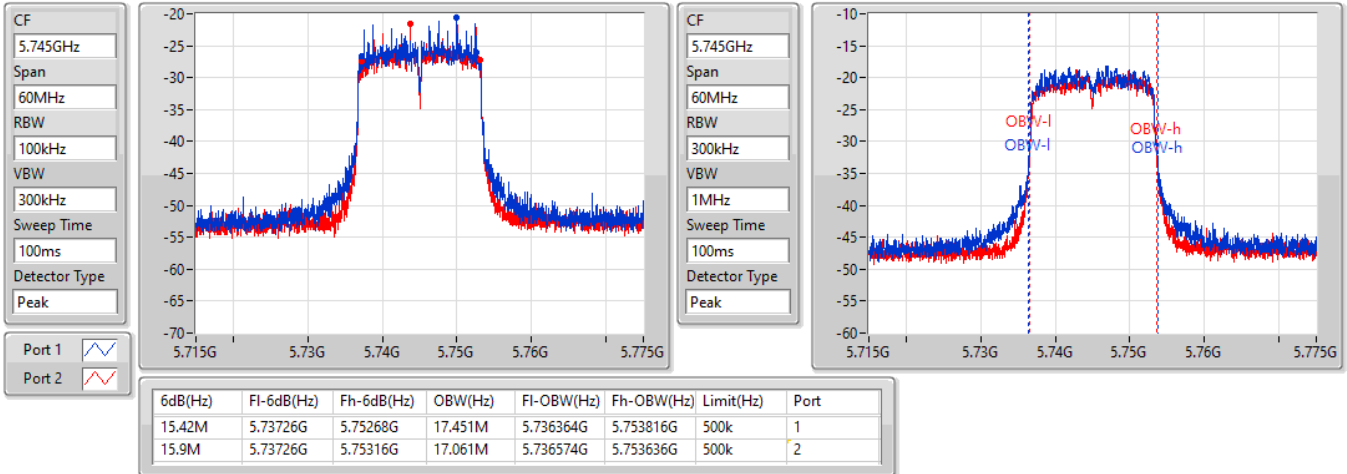
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	500k	15.42M	17.451M	15.9M	17.061M
5785MHz	Pass	500k	15.72M	25.907M	15.03M	17.241M
5825MHz	Pass	500k	5.64M	41.559M	10.65M	39.07M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	500k	18.33M	19.16M	17.76M	19.22M
5785MHz	Pass	500k	16.95M	19.52M	17.34M	21.139M
5825MHz	Pass	500k	8.34M	35.892M	13.35M	31.334M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	500k	36.9M	39.34M	36.96M	39.46M
5795MHz	Pass	500k	21.72M	102.909M	23.94M	89.055M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	500k	53.34M	92.894M	60.9M	87.076M

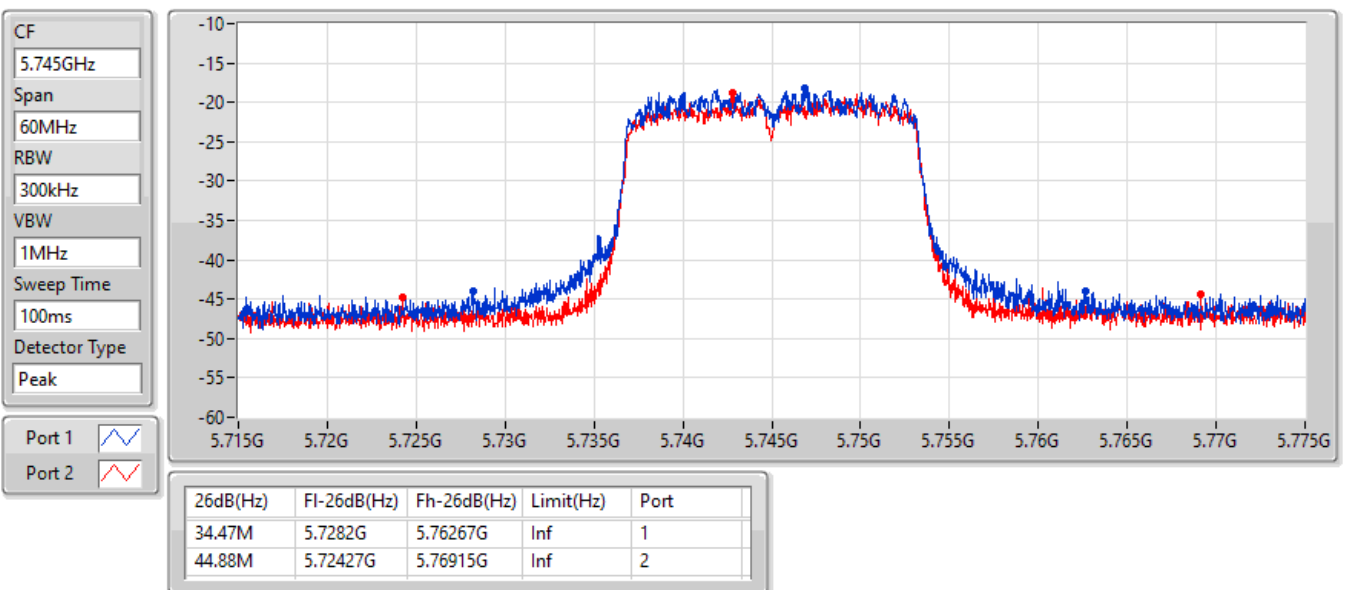
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_2TX
EBW
5745MHz

07/10/2022

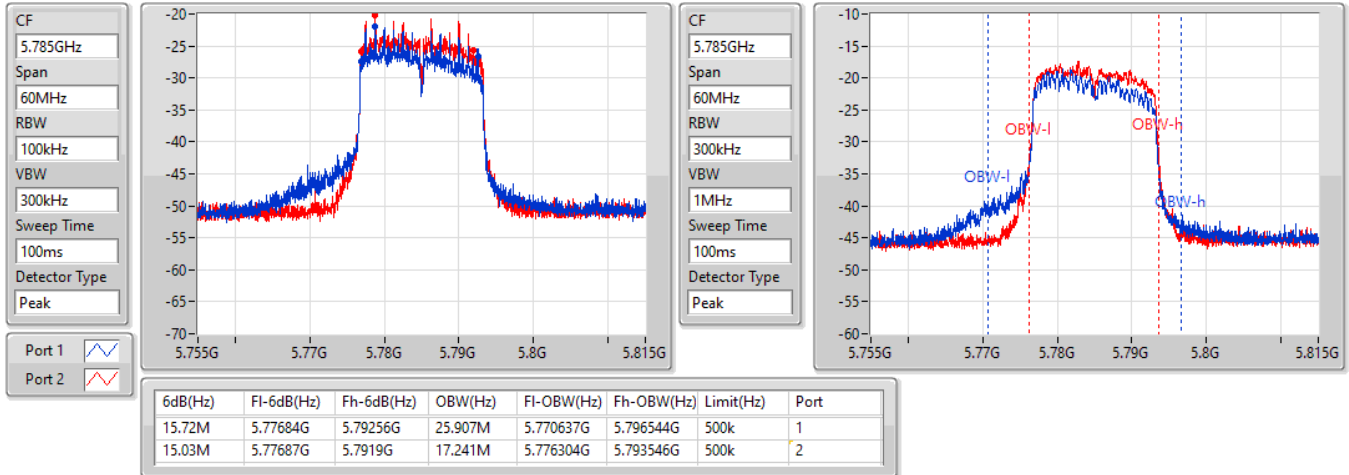

802.11a_Nss1,(6Mbps)_2TX
EBW
5745MHz

07/10/2022

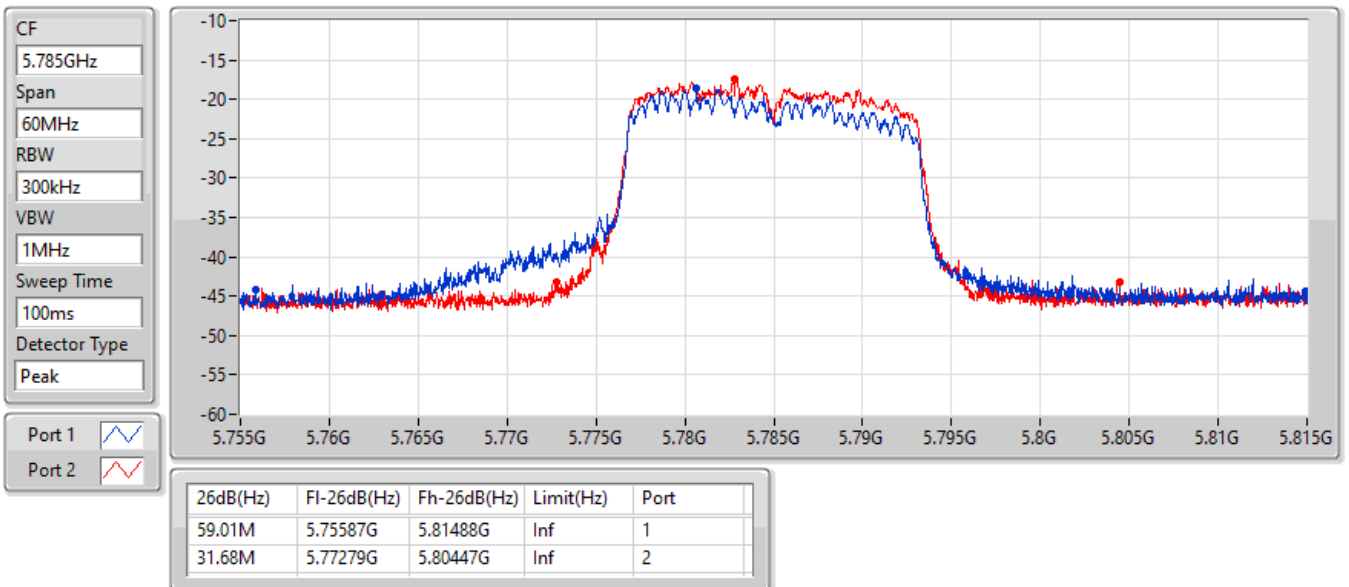


802.11a_Nss1,(6Mbps)_2TX
EBW
5785MHz

07/10/2022

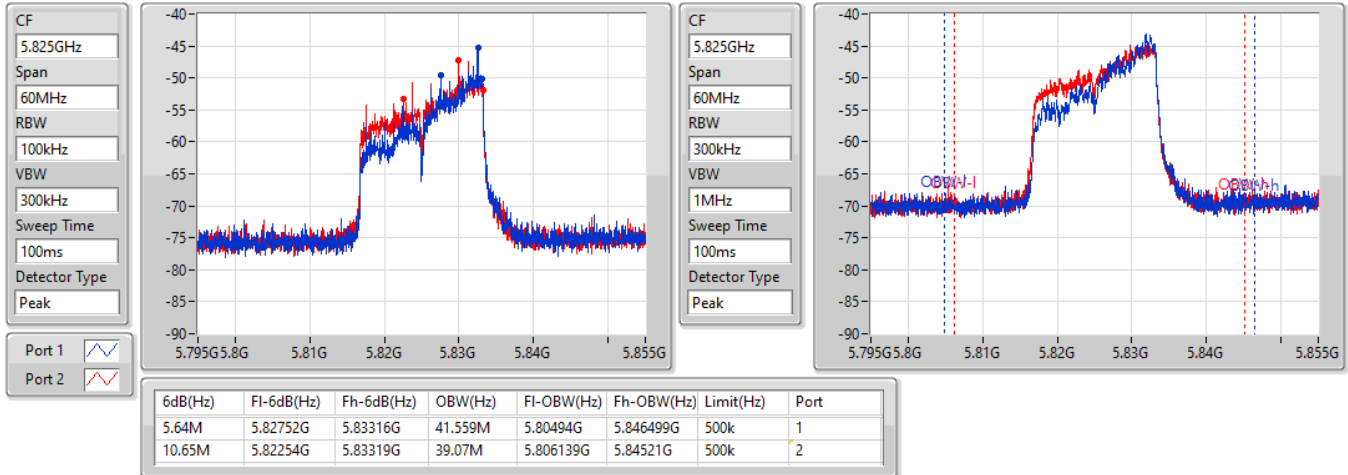

802.11a_Nss1,(6Mbps)_2TX
EBW
5785MHz

07/10/2022

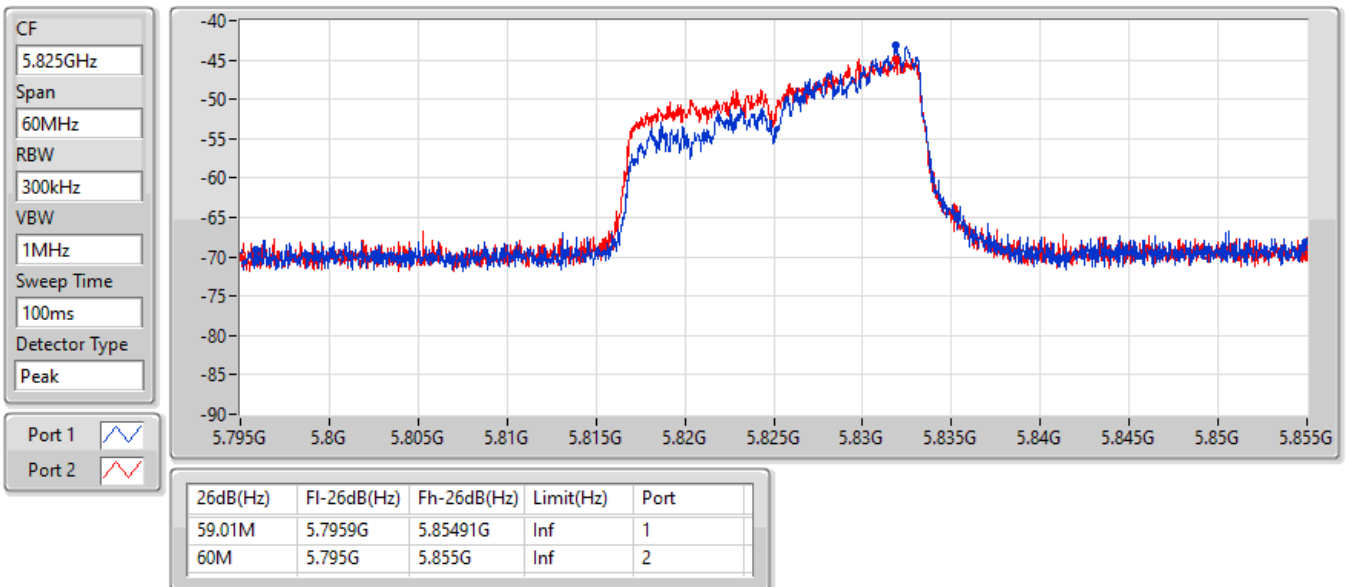


802.11a_Nss1,(6Mbps)_2TX
EBW
5825MHz

07/10/2022

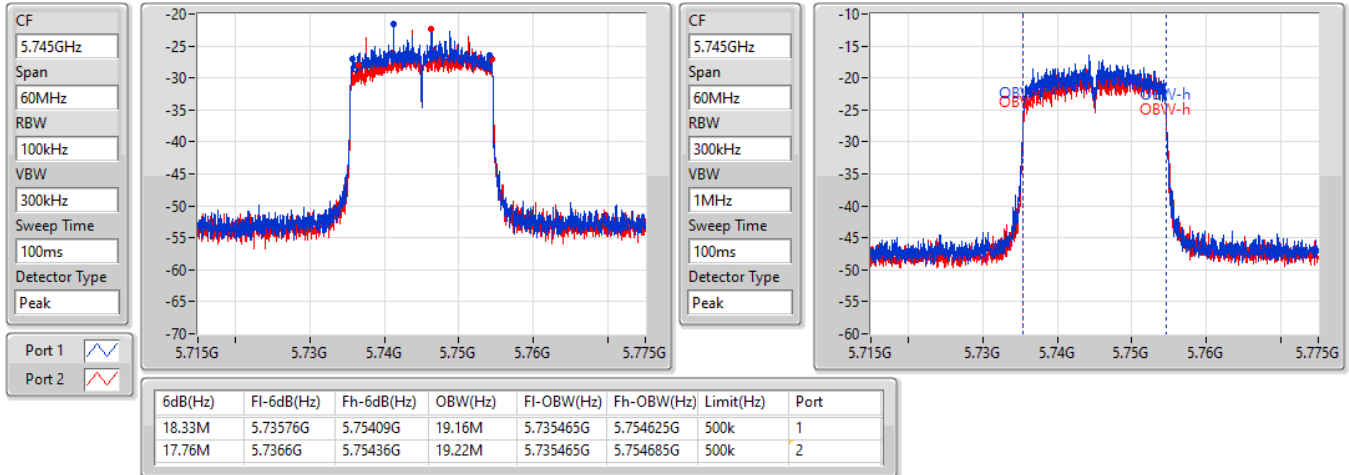

802.11a_Nss1,(6Mbps)_2TX
EBW
5825MHz

07/10/2022

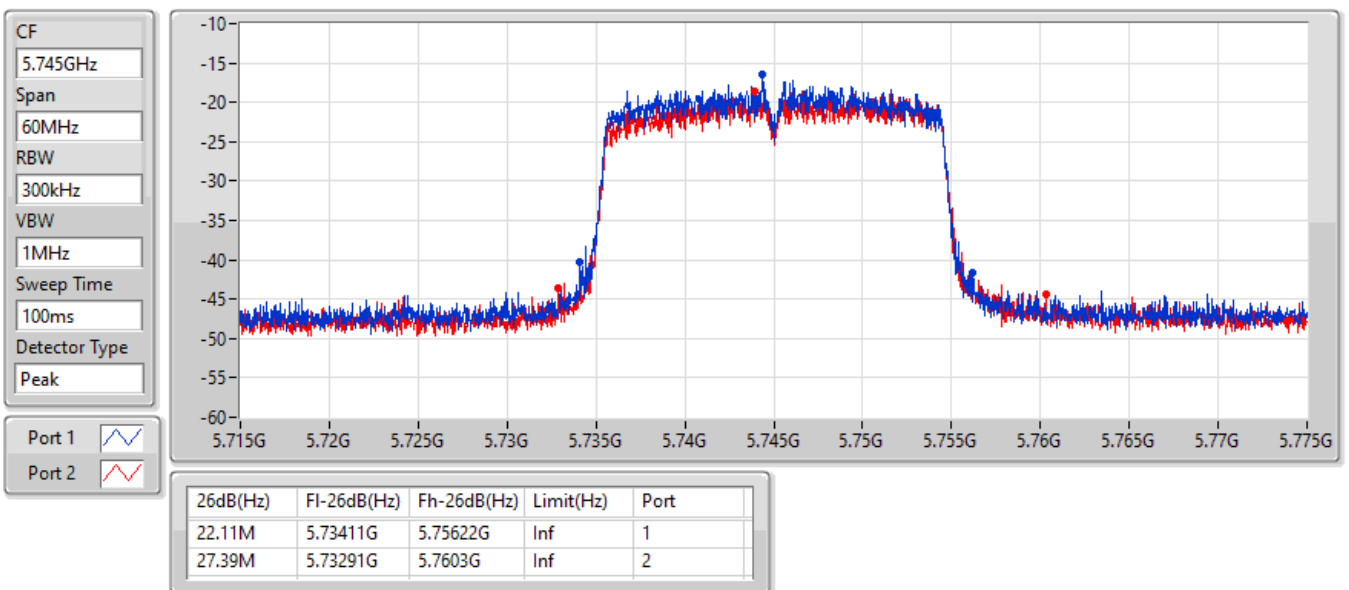


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5745MHz

07/10/2022

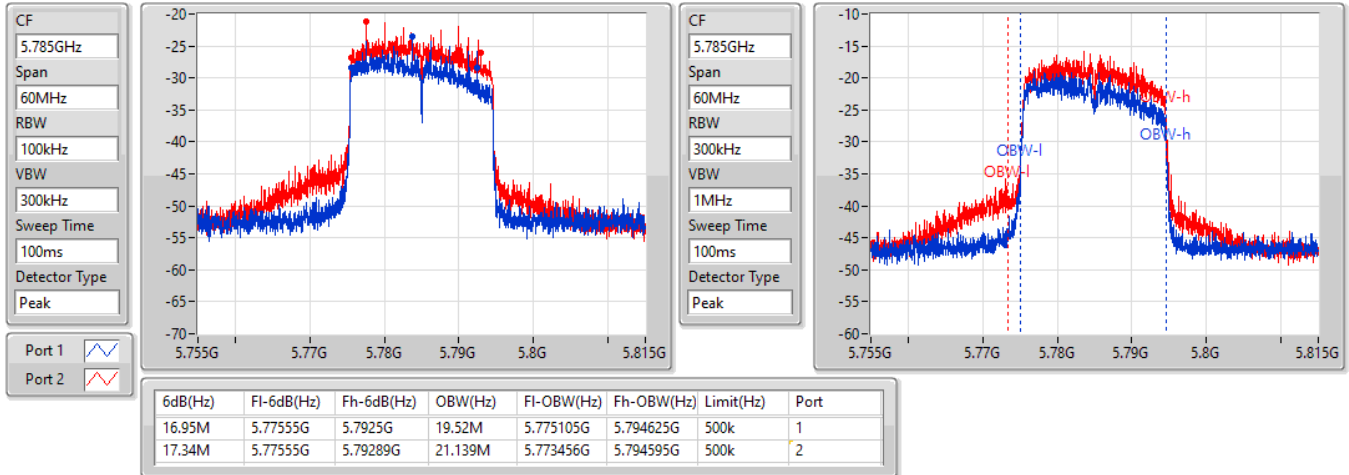

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5745MHz

07/10/2022

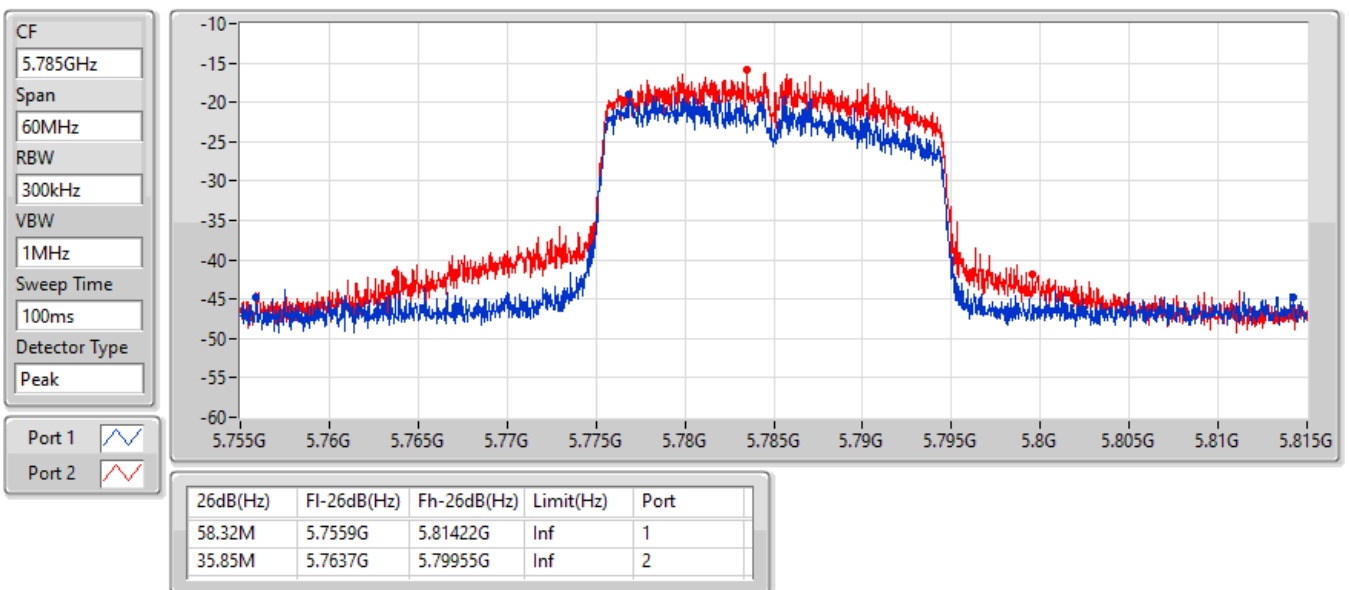


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5785MHz

07/10/2022

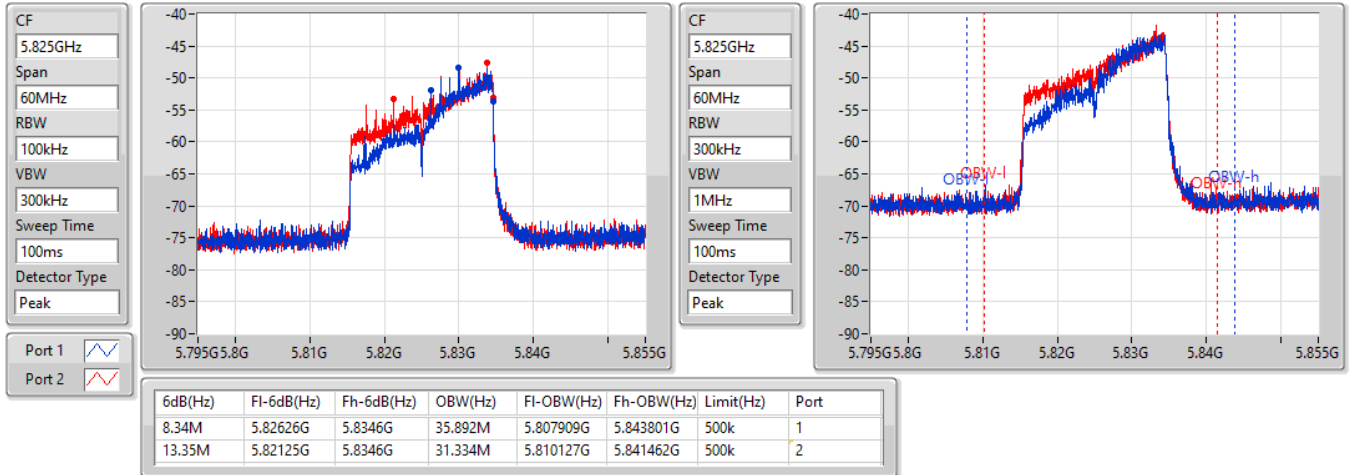

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5785MHz

07/10/2022

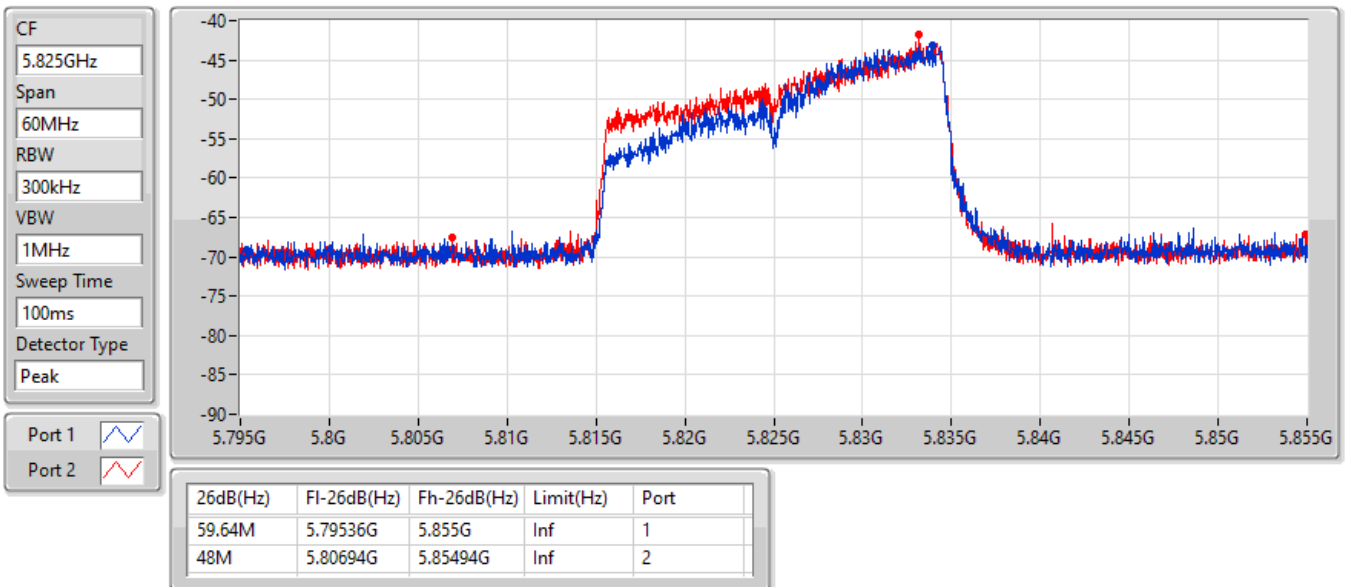


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5825MHz

07/10/2022

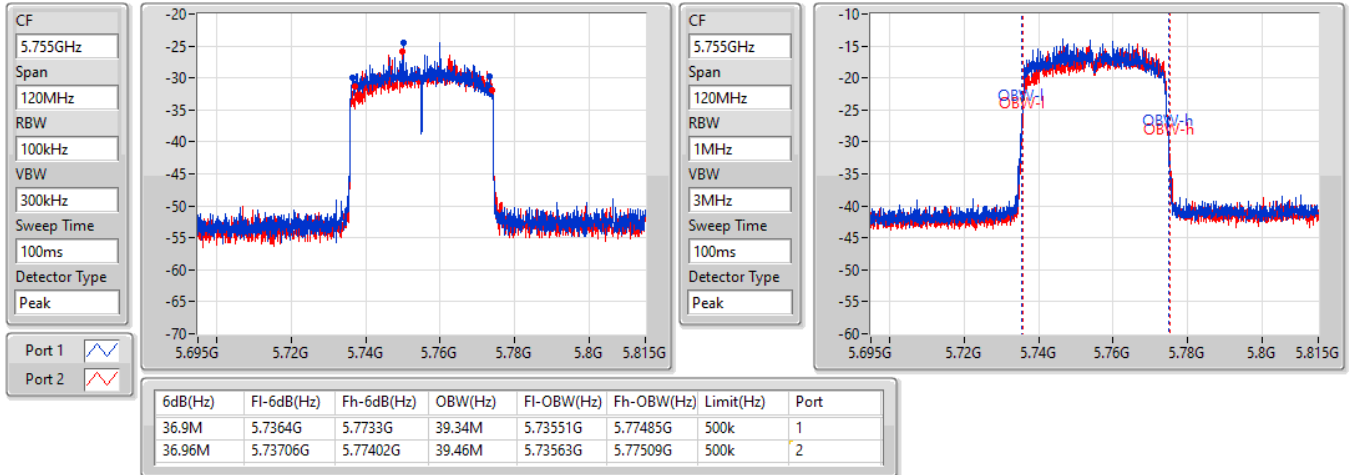

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5825MHz

07/10/2022

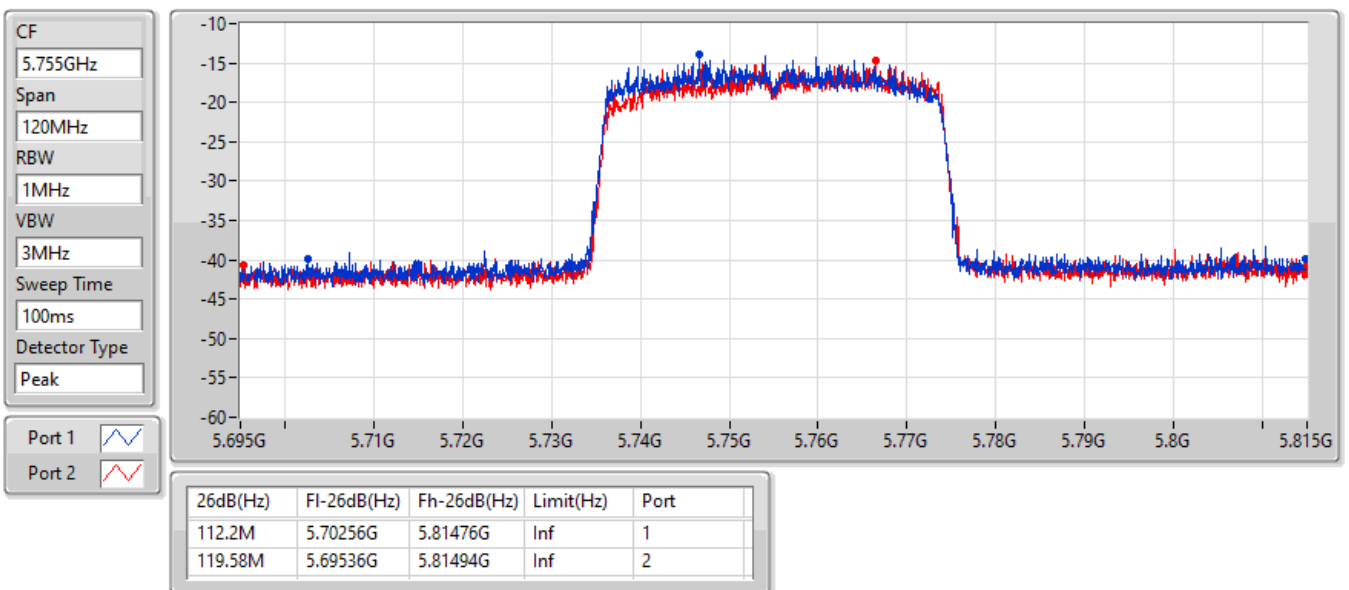


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5755MHz

07/10/2022

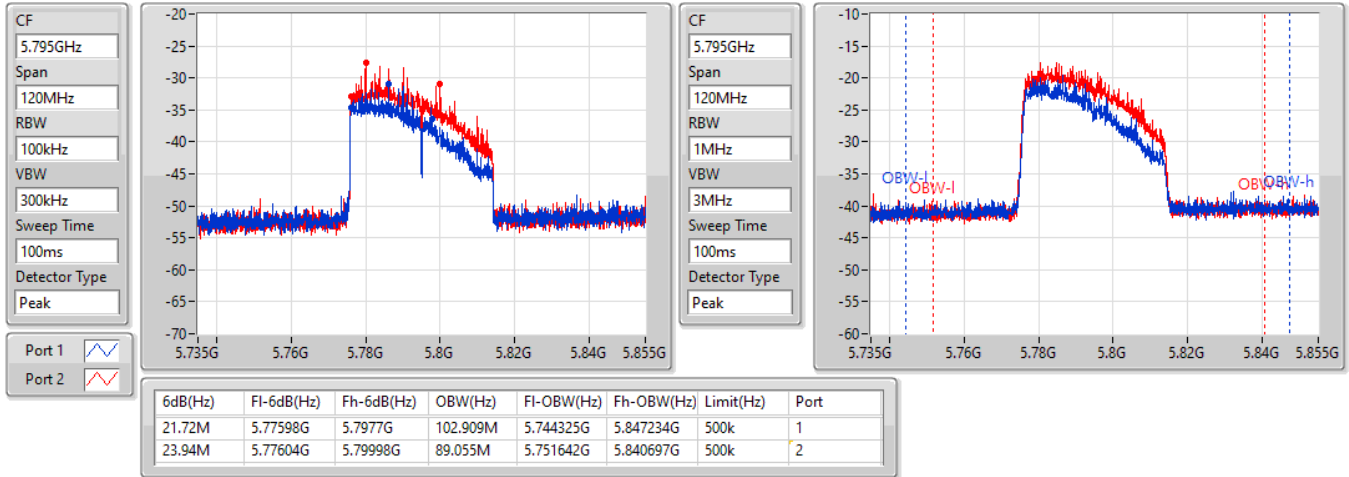

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5755MHz

07/10/2022

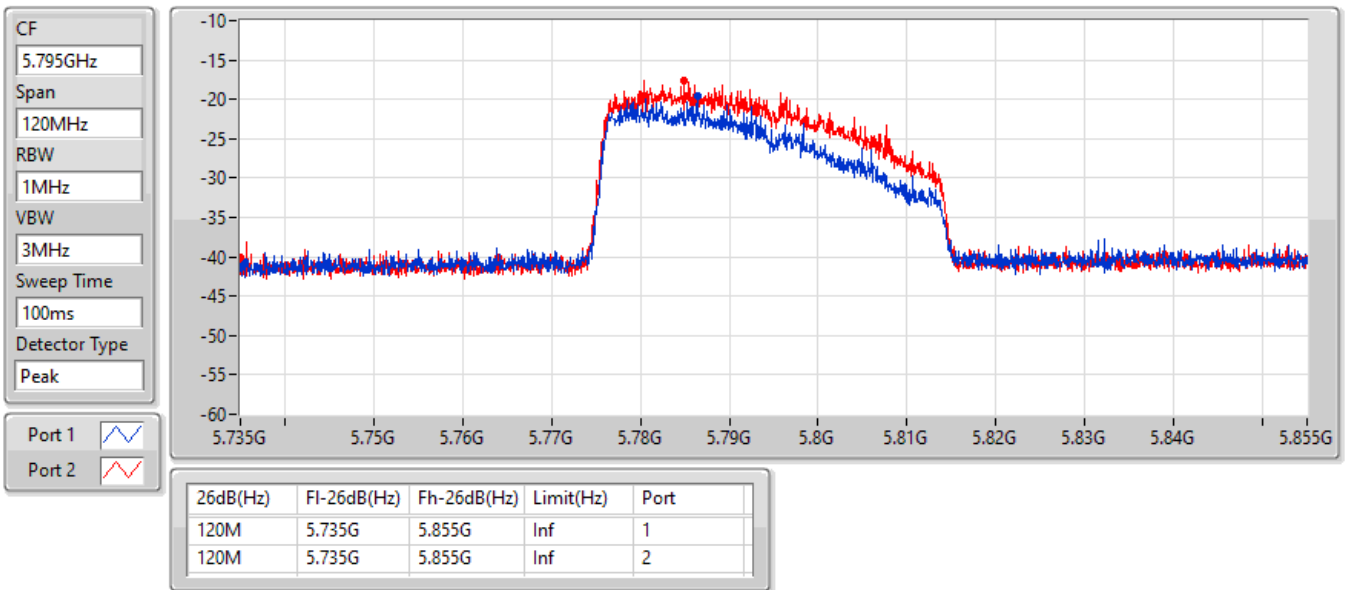


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5795MHz

07/10/2022

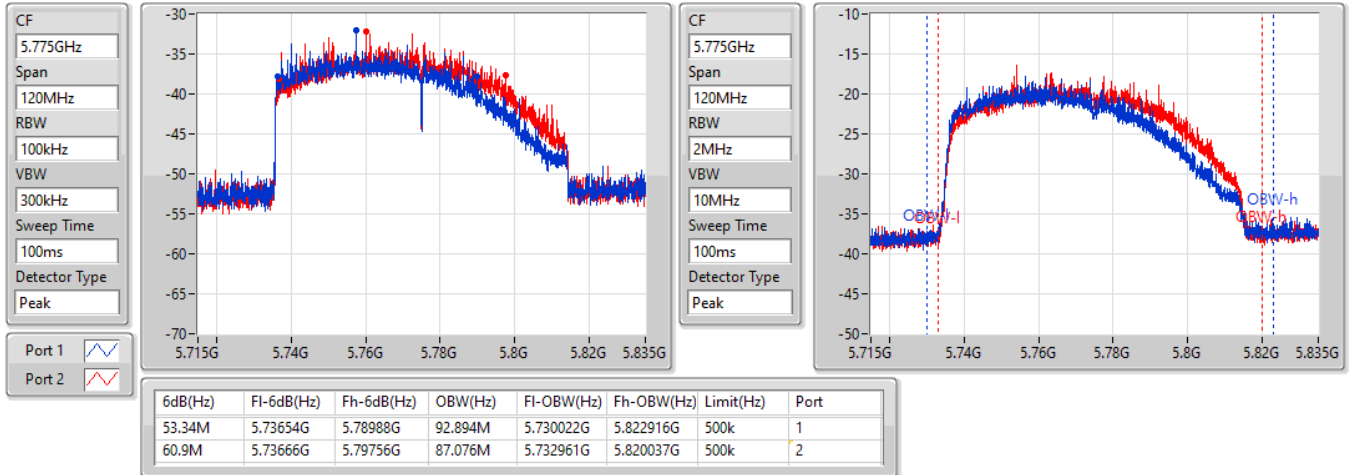

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5795MHz

07/10/2022

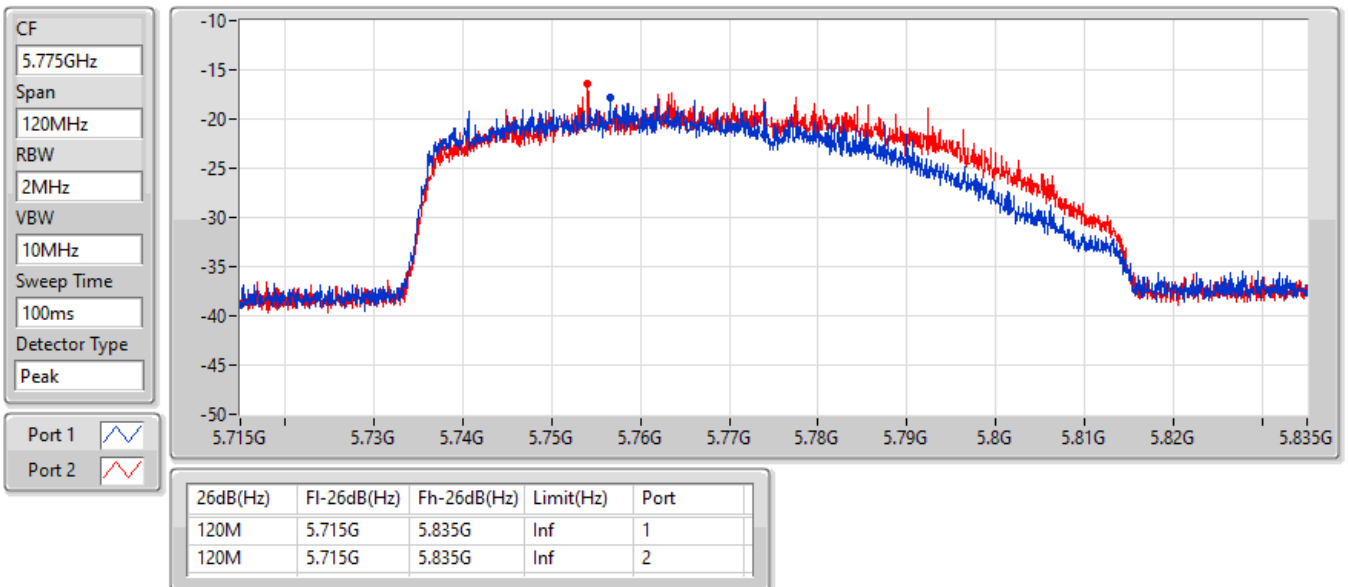


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5775MHz

07/10/2022


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5775MHz

07/10/2022





Average Power

Appendix C

Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	-6.45	0.00023
802.11ax HEW20_Nss1,(MCS0)_2TX	-4.92	0.00032
802.11ax HEW40_Nss1,(MCS0)_2TX	-5.51	0.00028
802.11ax HEW80_Nss1,(MCS0)_2TX	-9.57	0.00011

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	25.38	-9.22	-9.72	-6.45	10.62
5785MHz	Pass	25.38	-9.77	-9.64	-6.69	10.62
5825MHz	Pass	25.38	-39.23	-38.46	-35.82	10.62
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	25.38	-8.37	-9.13	-5.72	10.62
5785MHz	Pass	25.38	-8.54	-7.40	-4.92	10.62
5825MHz	Pass	25.38	-38.90	-38.26	-35.56	10.62
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	25.38	-8.16	-8.92	-5.51	10.62
5795MHz	Pass	25.38	-13.16	-12.55	-9.83	10.62
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	25.38	-12.61	-12.55	-9.57	10.62

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

Summary

Mode	PD (dBm/RBW)
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	-21.18
802.11ax HEW20_Nss1,(MCS0)_2TX	-22.32
802.11ax HEW40_Nss1,(MCS0)_2TX	-25.54
802.11ax HEW80_Nss1,(MCS0)_2TX	-32.37

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	28.39	-24.54	-25.01	-21.88	7.61
5785MHz	Pass	28.39	-24.50	-23.71	-21.18	7.61
5825MHz	Pass	28.39	-49.28	-49.98	-46.73	7.61
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	28.39	-25.13	-26.17	-22.70	7.61
5785MHz	Pass	28.39	-26.49	-24.10	-22.32	7.61
5825MHz	Pass	28.39	-49.59	-49.23	-46.45	7.61
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	28.39	-28.29	-28.48	-25.54	7.61
5795MHz	Pass	28.39	-33.76	-31.50	-29.68	7.61
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	28.39	-35.58	-35.05	-32.37	7.61

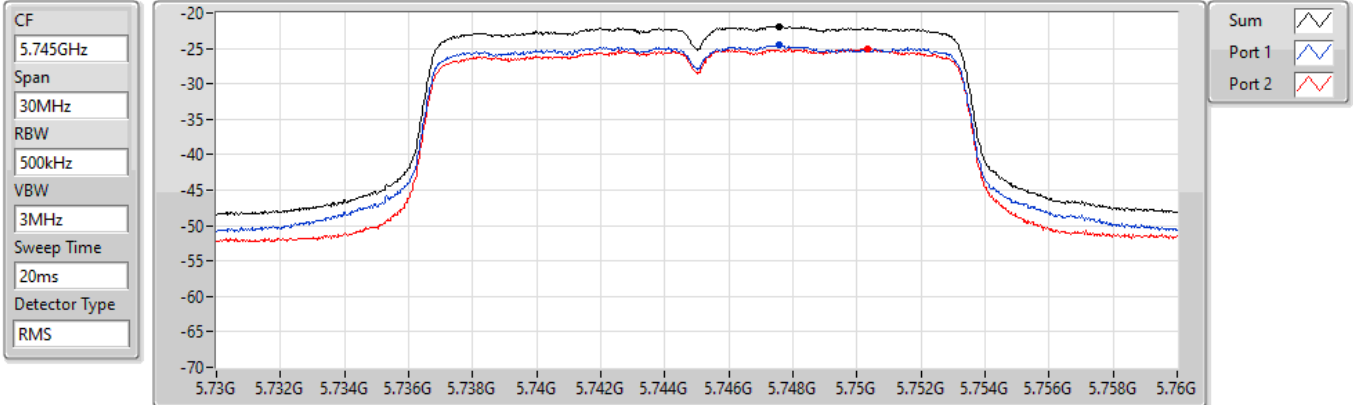
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

802.11a_Nss1,(6Mbps)_2TX

PSD

5745MHz

07/10/2022



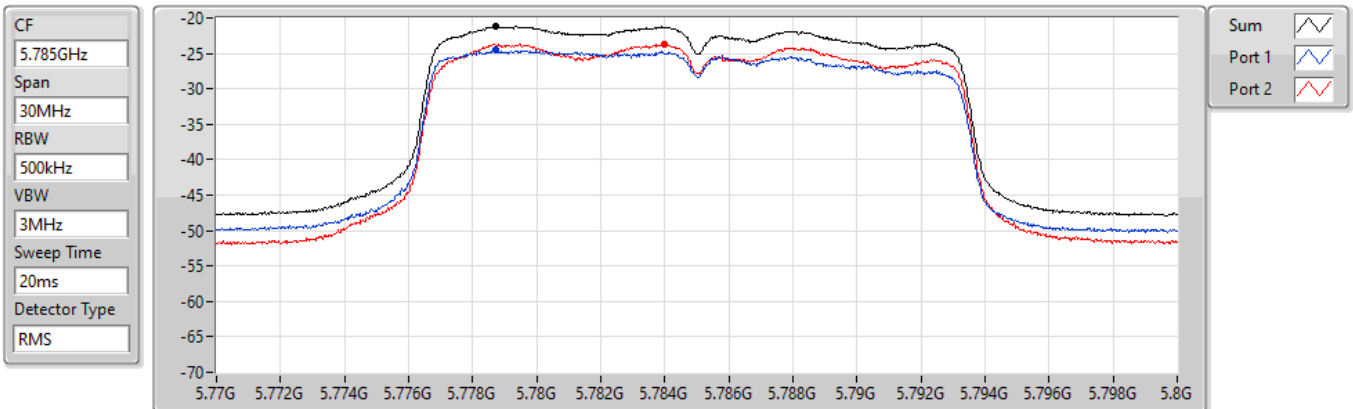
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-21.88	-21.88	-24.54	-25.01

802.11a_Nss1,(6Mbps)_2TX

PSD

5785MHz

07/10/2022



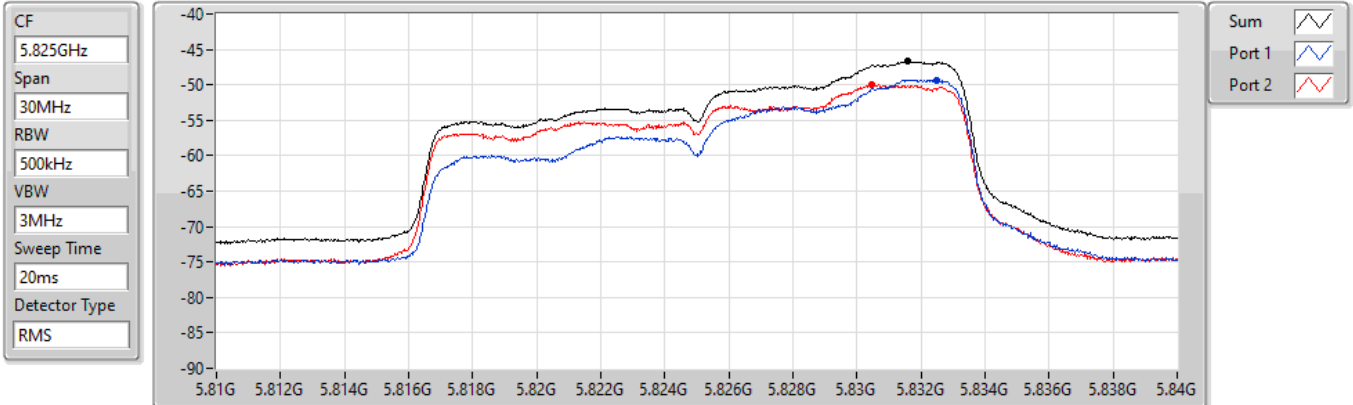
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-21.18	-21.18	-24.50	-23.71

802.11a_Nss1,(6Mbps)_2TX

PSD

5825MHz

07/10/2022



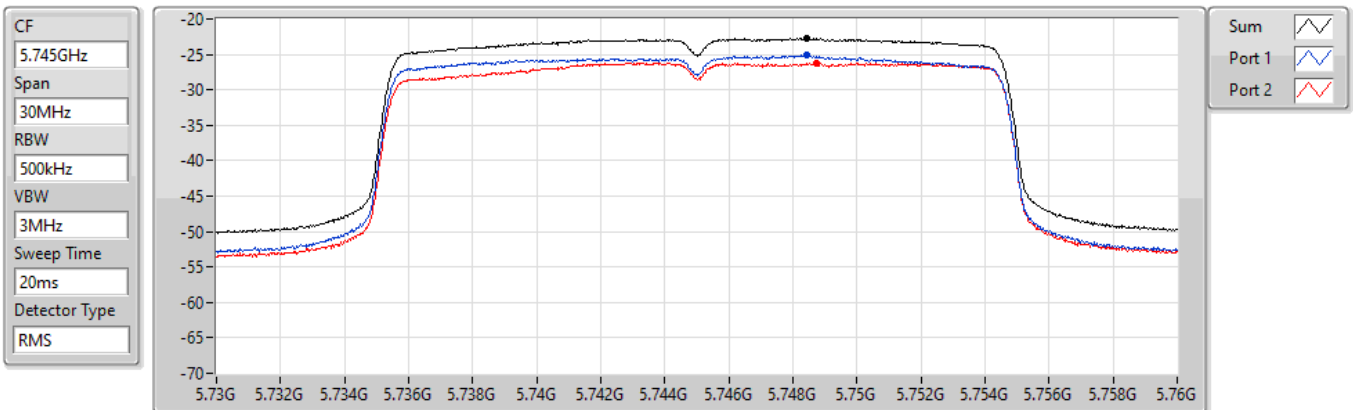
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-46.73	-46.73	-49.28	-49.98

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5745MHz

07/10/2022



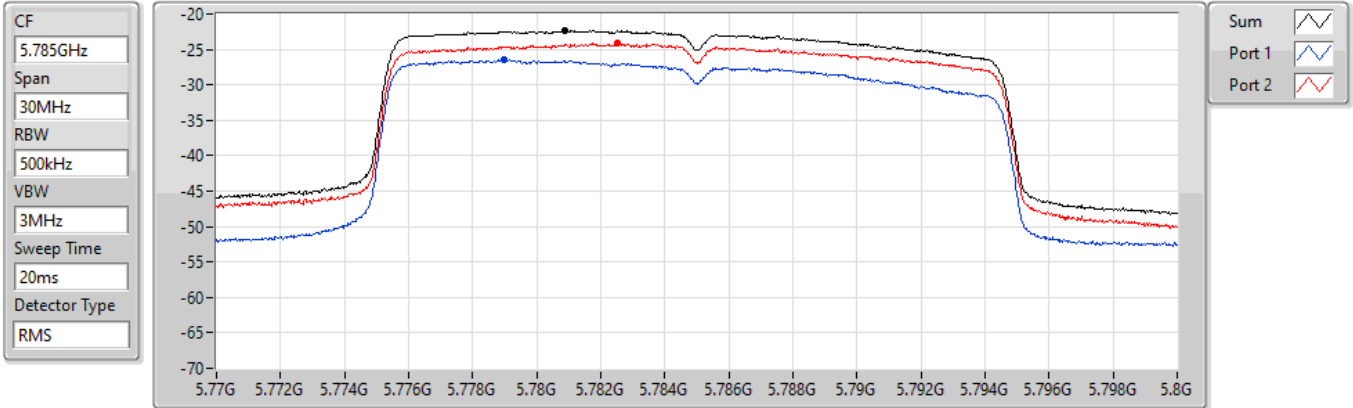
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-22.70	-22.70	-25.13	-26.17

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5785MHz

07/10/2022

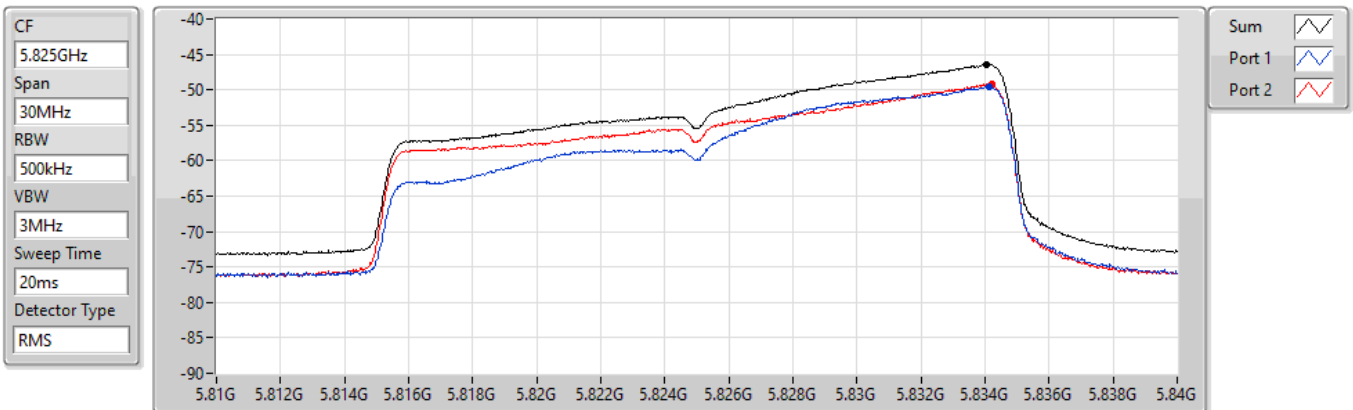


802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5825MHz

07/10/2022

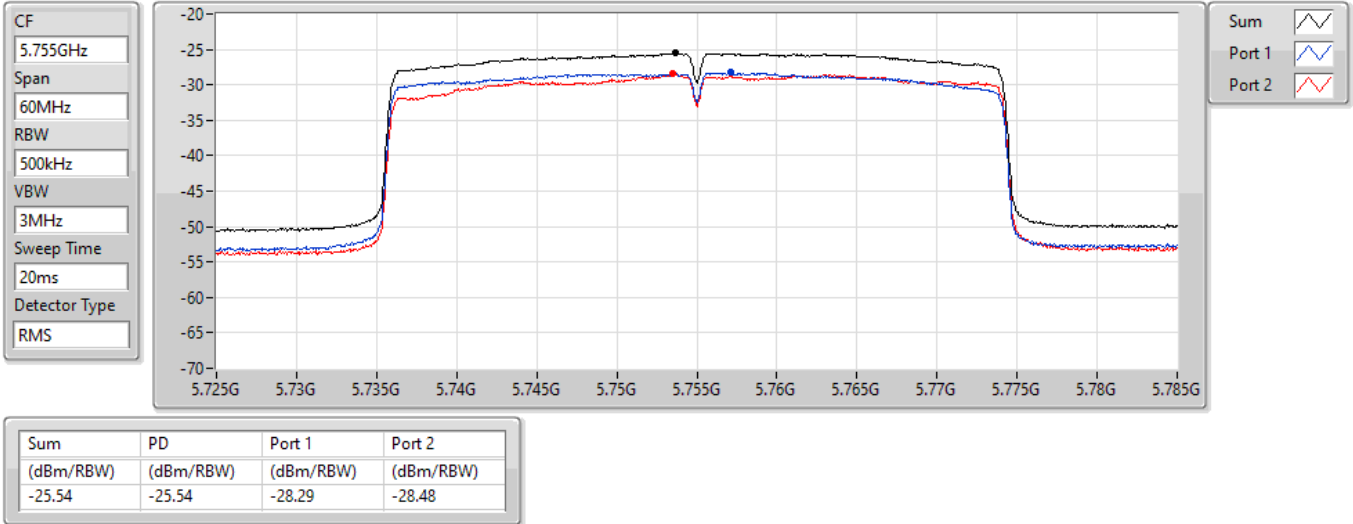


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5755MHz

07/10/2022

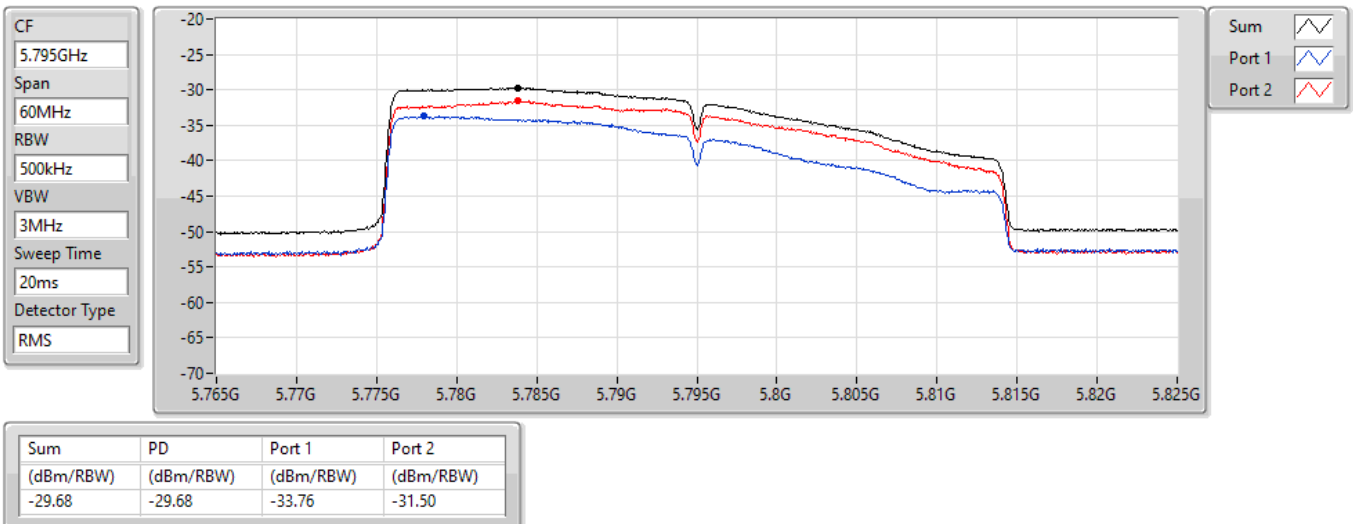


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

5795MHz

07/10/2022

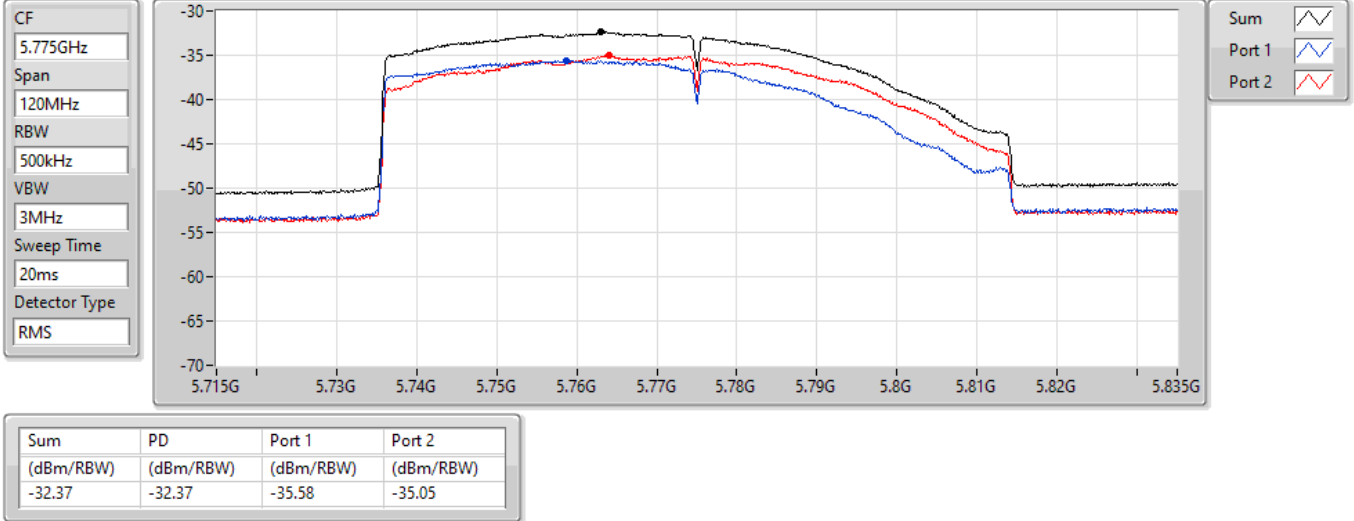


802.11ax HEW80_Nss1,(MCS0)_2TX

5775MHz

PSD

07/10/2022





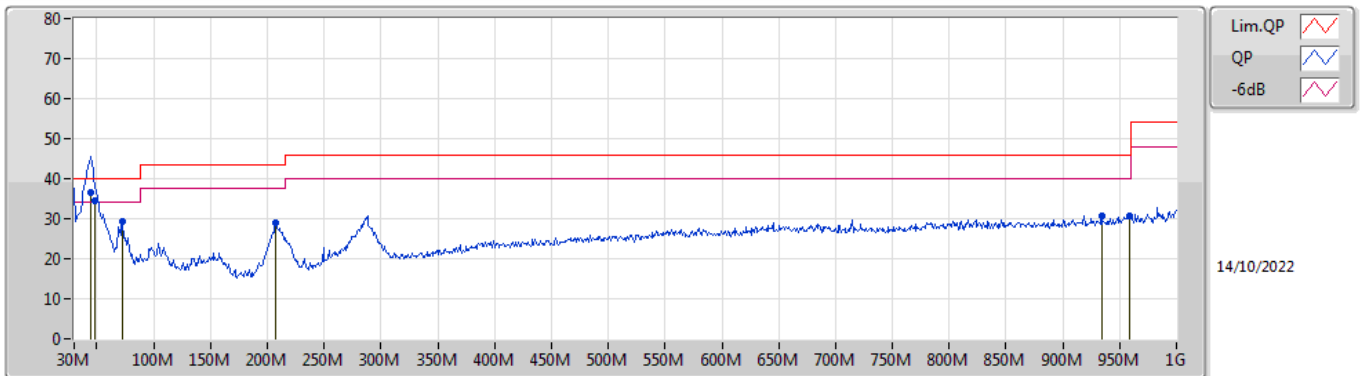
Radiated Emissions below 1GHz

Appendix E.1

Summary

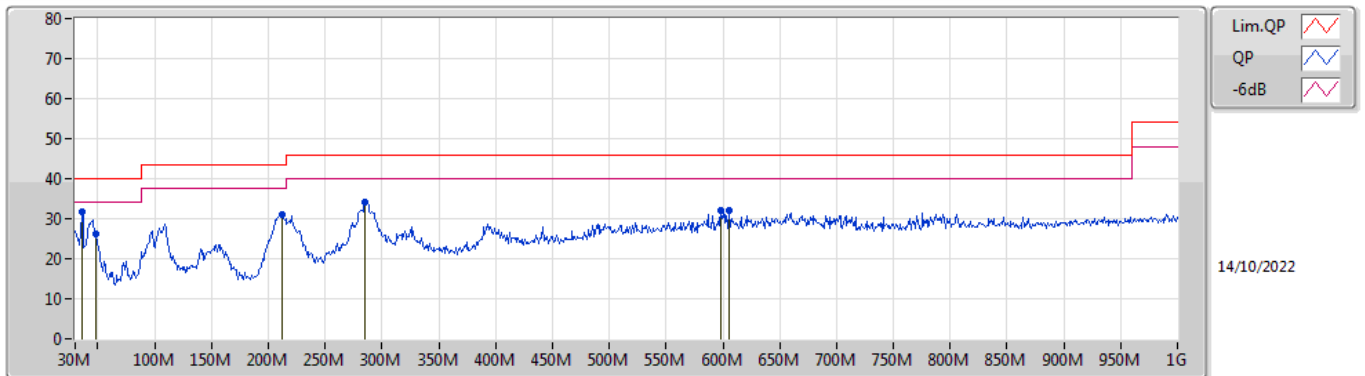
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	44.55M	36.50	40.00	-3.50	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	44.55M	36.50	40.00	-3.50	-15.00	3	Vertical	6	1.00	"Worst"	51.50	16.22	0.60	31.82
QP	48.43M	34.49	40.00	-5.51	-16.61	3	Vertical	0	1.50	-	51.10	14.59	0.65	31.85
PK	72.68M	29.42	40.00	-10.58	-18.92	3	Vertical	70	1.25	-	48.34	12.17	0.88	31.97
PK	207.51M	28.90	43.50	-14.60	-15.23	3	Vertical	177	1.50	-	44.13	15.02	1.77	32.02
PK	934.04M	30.57	46.00	-15.43	-1.90	3	Vertical	0	3.00	-	32.47	26.31	4.27	32.48
PK	959.26M	30.76	46.00	-15.24	-1.50	3	Vertical	2	1.00	-	32.26	26.62	4.33	32.45

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	35.82M	31.69	40.00	-8.31	-10.26	3	Horizontal	287	1.00	"Worst"	41.95	20.92	0.52	31.70
PK	48.43M	26.21	40.00	-13.79	-16.61	3	Horizontal	62	3.00	-	42.82	14.59	0.65	31.85
PK	212.36M	31.05	43.50	-12.45	-15.39	3	Horizontal	82	1.25	-	46.44	14.83	1.80	32.02
PK	285M	34.14	46.00	-11.86	-11.10	3	Horizontal	128	1.00	-	45.24	18.81	2.17	32.08
PK	598.42M	32.20	46.00	-13.80	-4.97	3	Horizontal	260	1.25	-	37.17	24.25	3.29	32.51
PK	605.21M	31.92	46.00	-14.08	-4.99	3	Horizontal	265	1.00	-	36.91	24.21	3.31	32.51

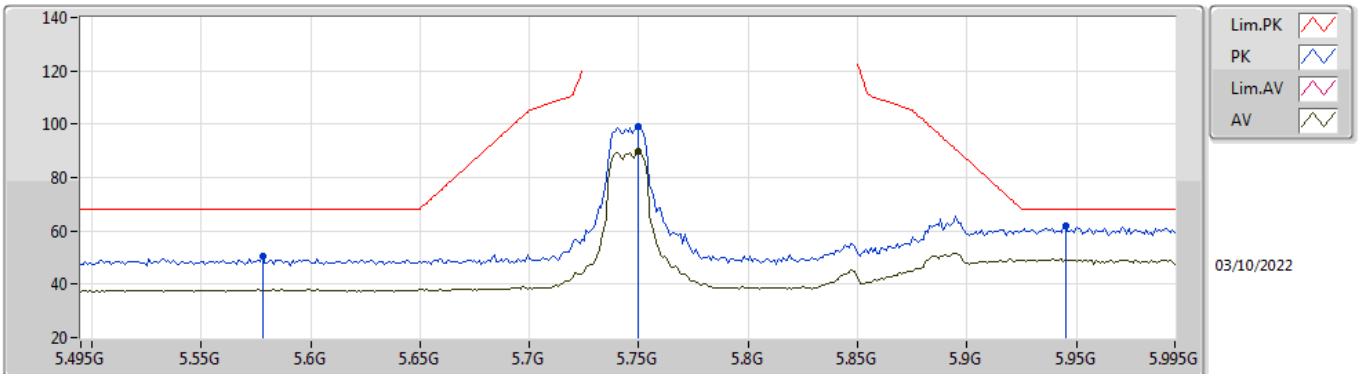


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW80_Nss1,(MCS0)_2TX	Pass	PK	5.962G	67.94	68.20	-0.26	3	Horizontal	360	1.59	-

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TnomVnom

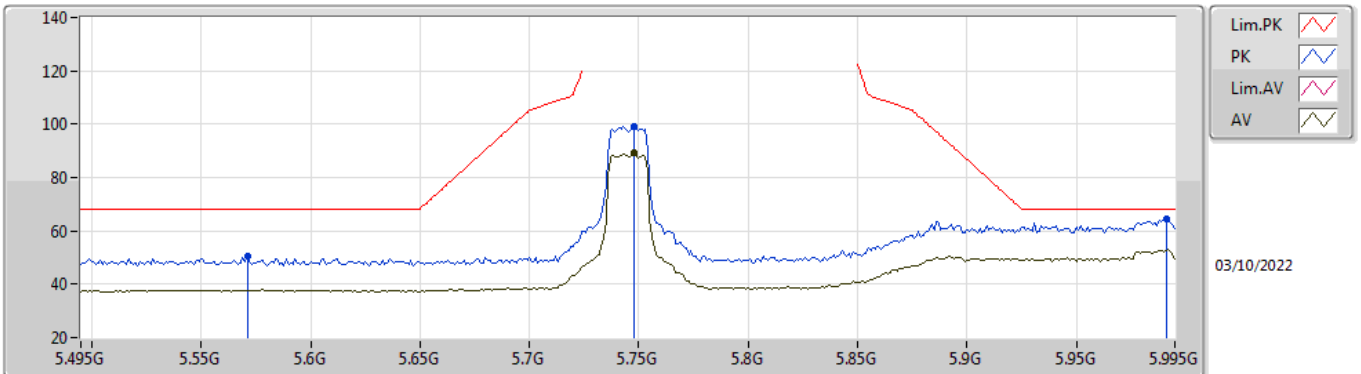


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.578G	50.48	68.20	-17.72	41.24	3	Vertical	359	1.74	-	33.94	6.08	30.78	
PK	5.75G	98.97	Inf	-Inf	89.98	3	Vertical	359	1.74	-	33.80	6.10	30.91	
AV	5.75G	89.63	Inf	-Inf	80.64	3	Vertical	359	1.74	-	33.80	6.10	30.91	
PK	5.945G	61.71	68.20	-6.49	52.34	3	Vertical	359	1.74	-	34.19	6.24	31.06	

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TnomVnom

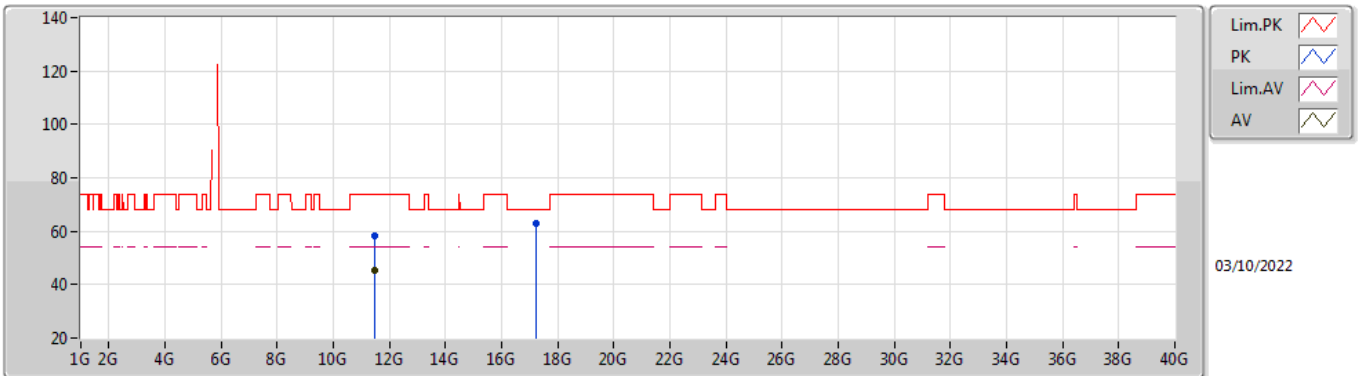


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.571G	50.29	68.20	-17.91	41.03	3	Horizontal	359	1.80	-	33.96	6.07	30.77	
PK	5.748G	98.97	Inf	-Inf	89.98	3	Horizontal	359	1.80	-	33.80	6.10	30.91	
AV	5.748G	89.20	Inf	-Inf	80.21	3	Horizontal	359	1.80	-	33.80	6.10	30.91	
PK	5.991G	64.40	68.20	-3.80	55.00	3	Horizontal	359	1.80	-	34.20	6.29	31.09	

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TnomVnom

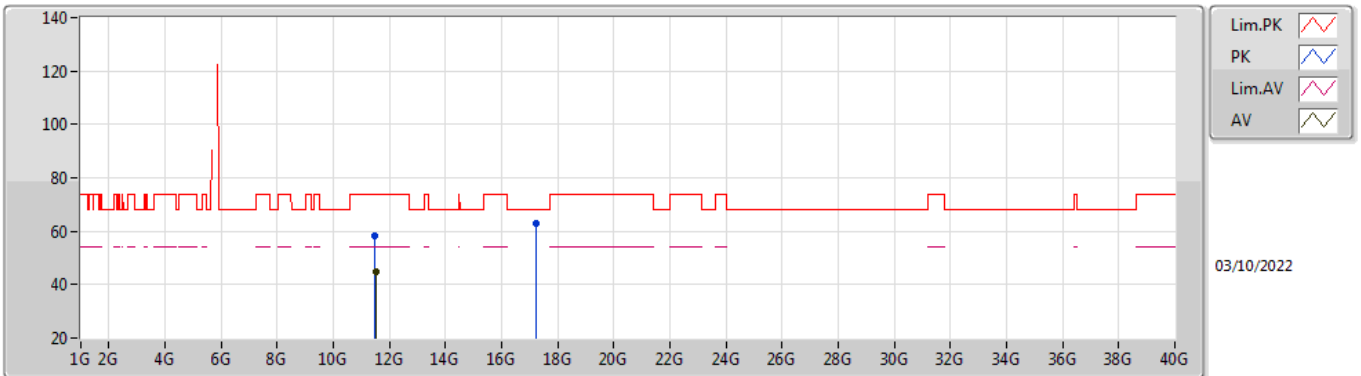


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.47668G	58.53	74.00	-15.47	41.63	3	Vertical	352	1.93	-	38.95	12.81	34.86
AV	11.47776G	45.09	54.00	-8.91	28.18	3	Vertical	352	1.93	-	38.96	12.81	34.86
PK	17.2413G	62.92	68.20	-5.28	38.77	3	Vertical	24	2.12	-	40.85	17.44	34.14

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TnomVnom

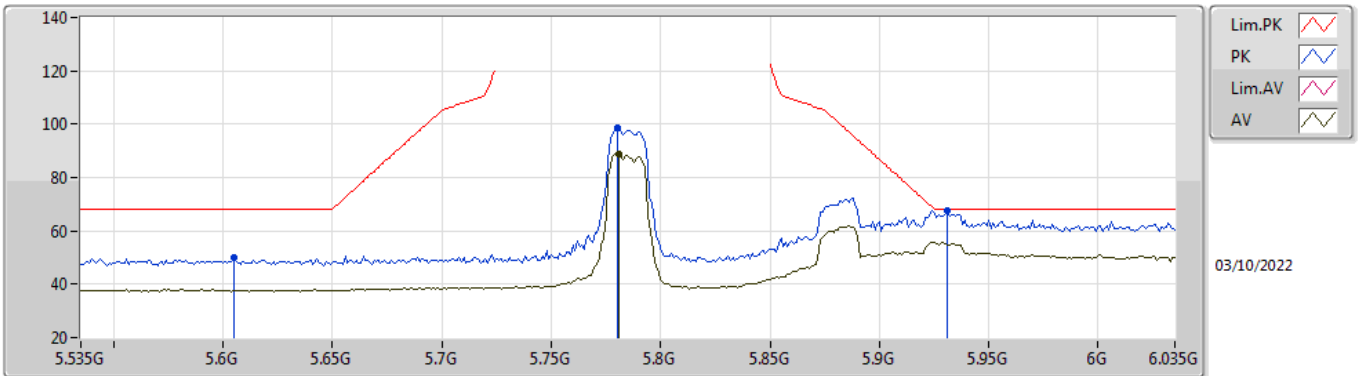


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.49018G	58.40	74.00	-15.60	41.46	3	Horizontal	79	1.80	-	38.98	12.82	34.86
AV	11.50386G	44.87	54.00	-9.13	27.88	3	Horizontal	79	1.80	-	39.02	12.83	34.86
PK	17.23968G	62.76	68.20	-5.44	38.62	3	Horizontal	304	1.80	-	40.84	17.44	34.14

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TnomVnom

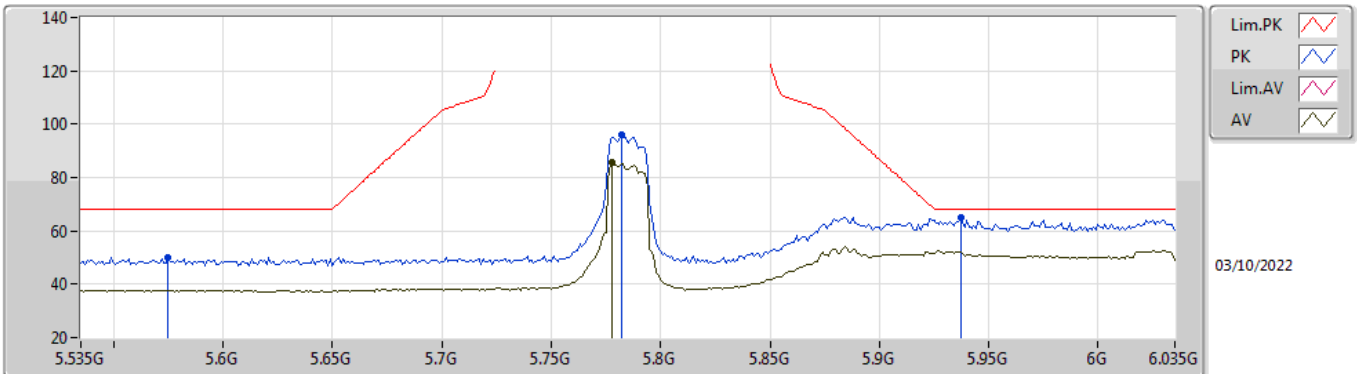


EUT_Z_2TX
Setting 13
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.605G	49.94	68.20	-18.26	40.75	3	Vertical	359	1.73	-	33.89	6.10	30.80	
PK	5.78G	98.66	Inf	-Inf	89.69	3	Vertical	359	1.73	-	33.80	6.10	30.93	
AV	5.781G	88.80	Inf	-Inf	79.83	3	Vertical	359	1.73	-	33.80	6.10	30.93	
PK	5.931G	67.56	68.20	-0.64	58.22	3	Vertical	359	1.73	-	34.16	6.23	31.05	

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TnomVnom

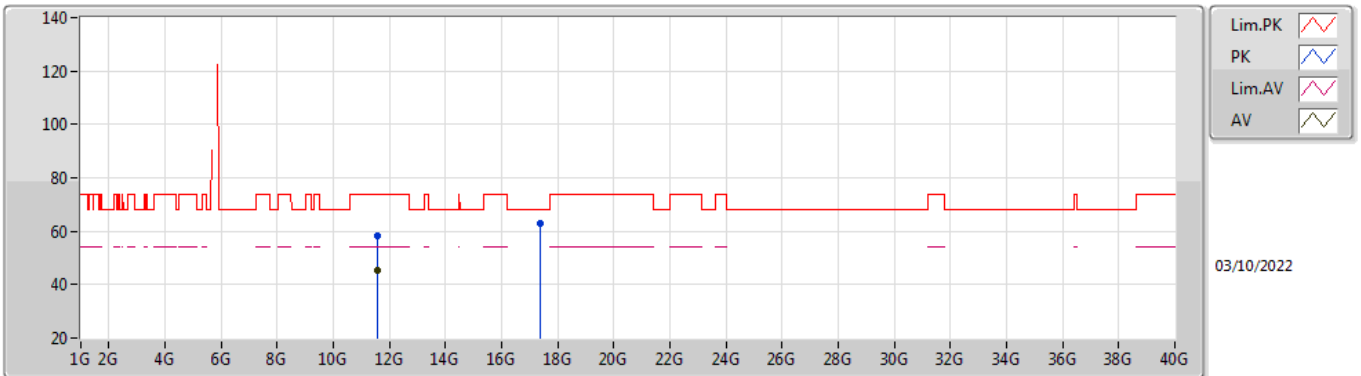


EUT_Z_2TX
Setting 13
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.575G	50.11	68.20	-18.09	40.87	3	Horizontal	359	1.80	-	33.95	6.07	30.78	
PK	5.782G	95.95	Inf	-Inf	86.98	3	Horizontal	359	1.80	-	33.80	6.10	30.93	
AV	5.778G	85.87	Inf	-Inf	76.90	3	Horizontal	359	1.80	-	33.80	6.10	30.93	
PK	5.937G	64.92	68.20	-3.28	55.57	3	Horizontal	359	1.80	-	34.17	6.23	31.05	

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TnomVnom

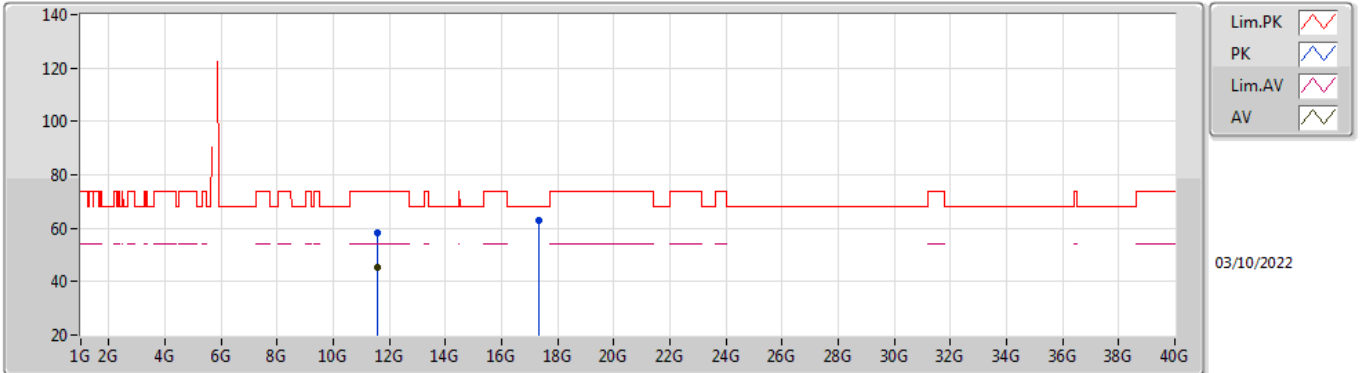


EUT_Z_2TX
Setting 13
03-D-E-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.55896G	58.11	74.00	-15.89	40.90	3	Vertical	102	1.80	-	39.24	12.86	34.89
AV	11.55566G	45.19	54.00	-8.81	28.00	3	Vertical	102	1.80	-	39.22	12.86	34.89
PK	17.36718G	63.06	68.20	-5.14	38.24	3	Vertical	305	2.94	-	41.47	17.52	34.17

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TnomVnom

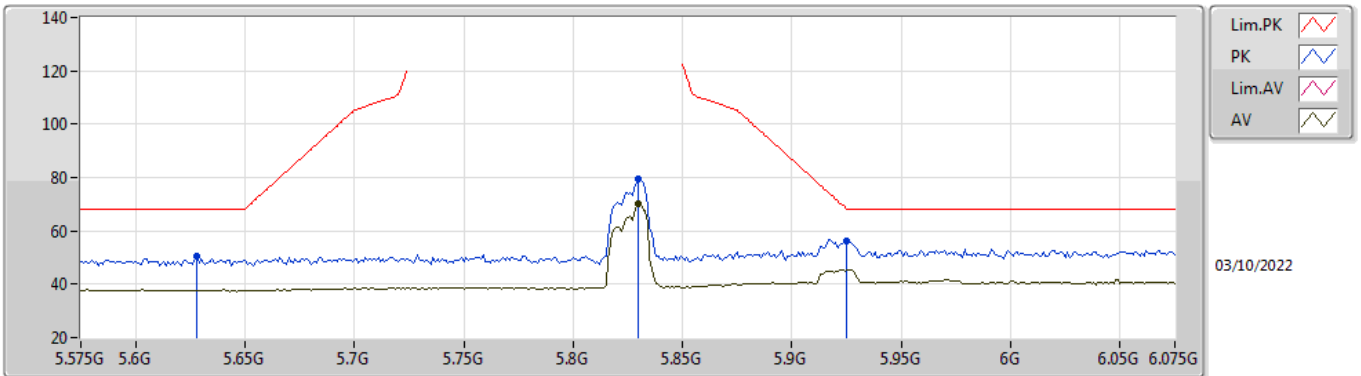


EUT_Z_2TX
Setting 13
03-D-E-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.56682G	58.29	74.00	-15.71	41.05	3	Horizontal	36	2.58	-	39.27	12.86	34.89
AV	11.56724G	45.17	54.00	-8.83	27.93	3	Horizontal	36	2.58	-	39.27	12.86	34.89
PK	17.34132G	63.11	68.20	-5.09	38.41	3	Horizontal	341	1.80	-	41.37	17.50	34.17

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TnomVnom

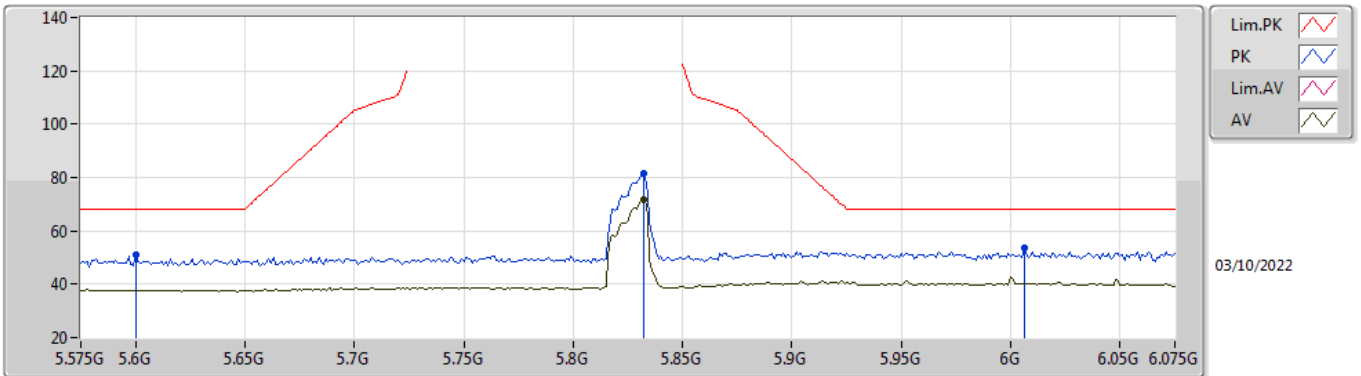


EUT_Z_2TX
Setting 6.5
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.628G	50.37	68.20	-17.83	41.25	3	Vertical	360	1.68	-	33.84	6.10	30.82	
PK	5.83G	79.67	Inf	-Inf	70.72	3	Vertical	360	1.68	-	33.80	6.12	30.97	
AV	5.83G	70.14	Inf	-Inf	61.19	3	Vertical	360	1.68	-	33.80	6.12	30.97	
PK	5.925G	56.34	68.20	-11.86	47.01	3	Vertical	360	1.68	-	34.15	6.22	31.04	

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TnomVnom

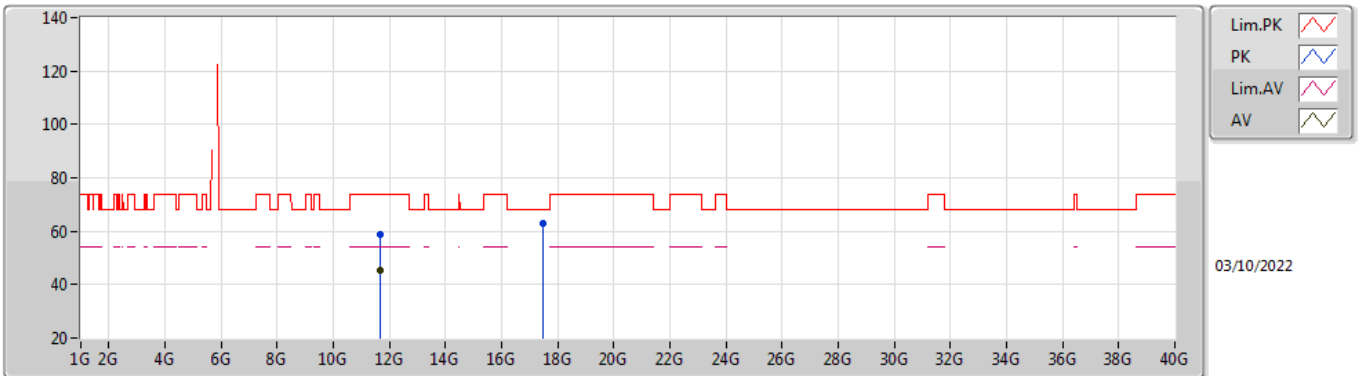


EUT_Z_2TX
Setting 6.5
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.6G	50.98	68.20	-17.22	41.78	3	Horizontal	358	1.80	-	33.90	6.10	30.80	
PK	5.832G	81.39	Inf	-Inf	72.44	3	Horizontal	358	1.80	-	33.80	6.12	30.97	
AV	5.832G	71.76	Inf	-Inf	62.81	3	Horizontal	358	1.80	-	33.80	6.12	30.97	
PK	6.006G	53.66	68.20	-14.54	44.25	3	Horizontal	358	1.80	-	34.21	6.30	31.10	

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TnomVnom

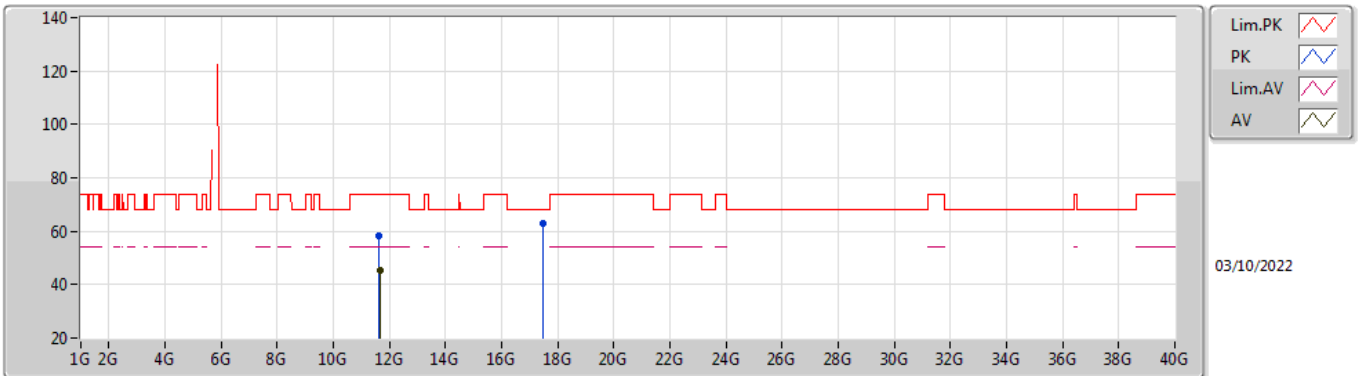


EUT_Z_2TX
Setting 6.5
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.64958G	58.63	74.00	-15.37	41.25	3	Vertical	107	1.00	-	39.40	12.91	34.93
AV	11.66092G	45.27	54.00	-8.73	27.90	3	Vertical	107	1.00	-	39.40	12.91	34.94
PK	17.48236G	63.02	68.20	-5.18	37.30	3	Vertical	23	1.80	-	42.34	17.59	34.21

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TnomVnom

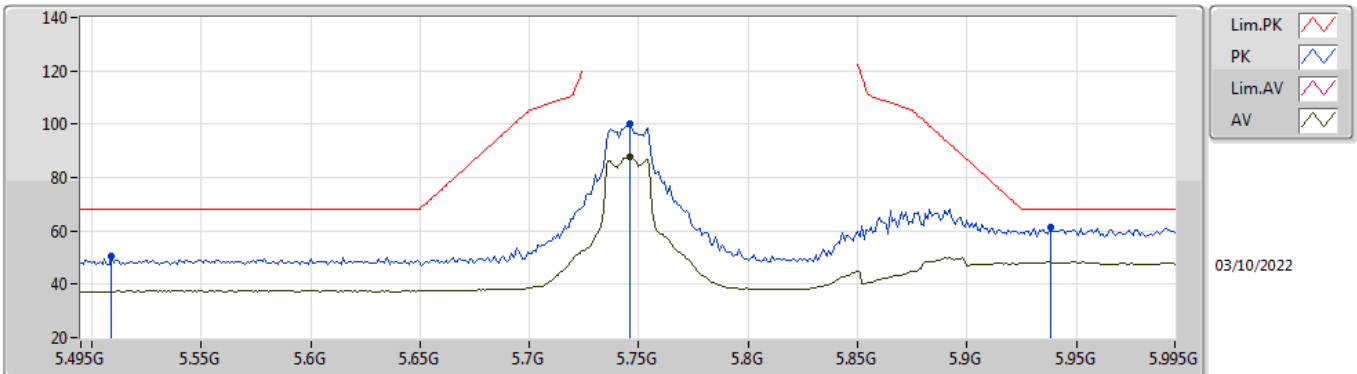


EUT_Z_2TX
Setting 6.5
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.64208G	58.45	74.00	-15.55	41.08	3	Horizontal	10	2.06	-	39.40	12.90	34.93
AV	11.65216G	45.50	54.00	-8.50	28.13	3	Horizontal	10	2.06	-	39.40	12.91	34.94
PK	17.47476G	62.87	68.20	-5.33	37.22	3	Horizontal	156	1.80	-	42.27	17.58	34.20

802.11ax HEW20_Nss1,(MCS0)_2TX

5745MHz_TnomVnom

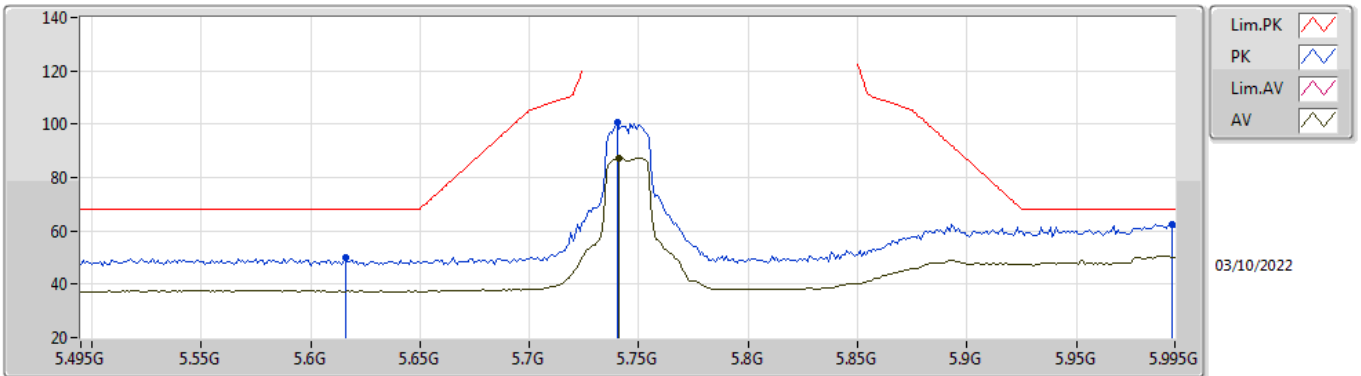


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.509G	50.49	68.20	-17.71	41.21	3	Vertical	359	1.74	-	34.00	6.01	30.73	
PK	5.746G	100.10	Inf	-Inf	91.10	3	Vertical	359	1.74	-	33.81	6.10	30.91	
AV	5.746G	87.84	Inf	-Inf	78.84	3	Vertical	359	1.74	-	33.81	6.10	30.91	
PK	5.938G	61.19	68.20	-7.01	51.83	3	Vertical	359	1.74	-	34.18	6.23	31.05	

802.11ax HEW20_Nss1,(MCS0)_2TX

5745MHz_TnomVnom

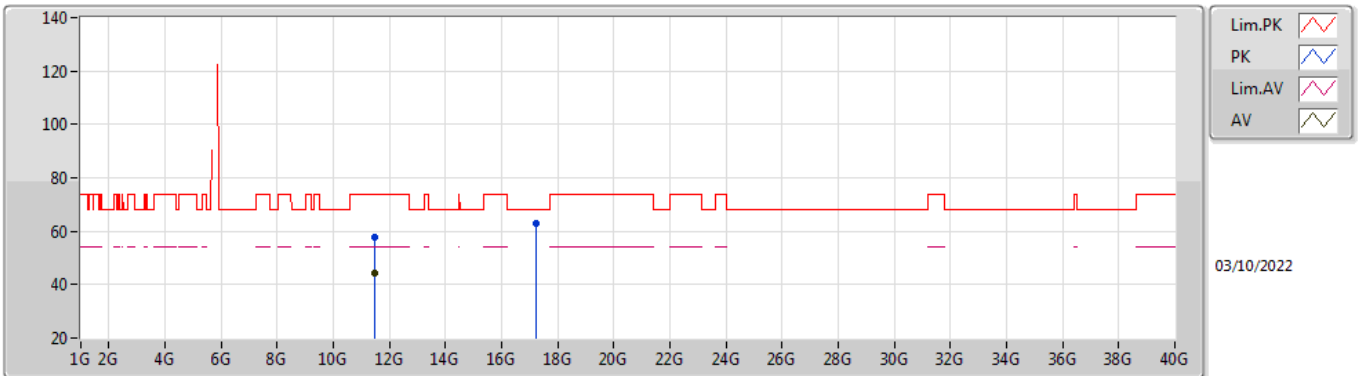


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.616G	49.81	68.20	-18.39	40.65	3	Horizontal	358	1.80	-	33.87	6.10	30.81	
PK	5.74G	100.80	Inf	-Inf	91.78	3	Horizontal	358	1.80	-	33.82	6.10	30.90	
AV	5.741G	87.34	Inf	-Inf	78.32	3	Horizontal	358	1.80	-	33.82	6.10	30.90	
PK	5.994G	62.65	68.20	-5.55	53.26	3	Horizontal	358	1.80	-	34.20	6.29	31.10	

802.11ax HEW20_Nss1,(MCS0)_2TX

5745MHz_TnomVnom

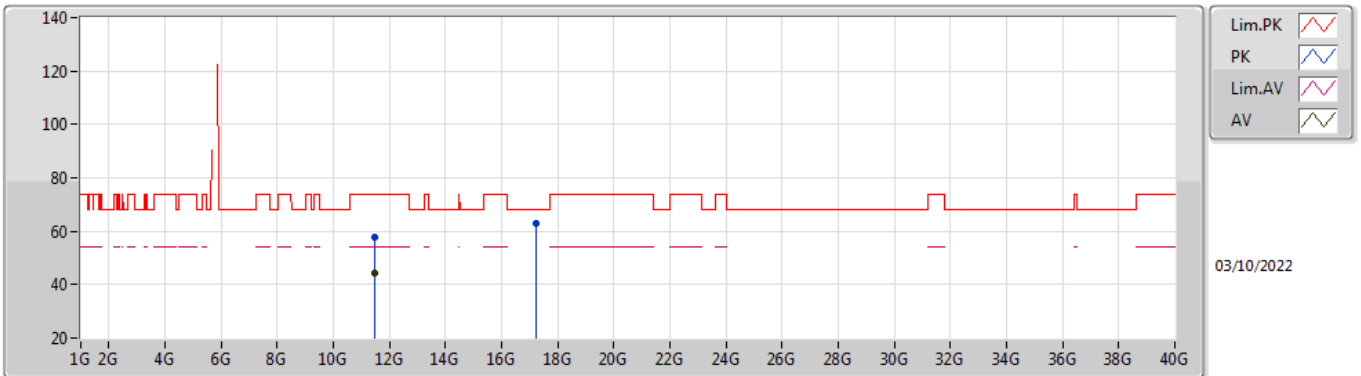


EUT_Z_2TX
Setting 14
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.48226G	58.00	74.00	-16.00	41.08	3	Vertical	181	1.80	-	38.96	12.82	34.86
AV	11.49462G	44.13	54.00	-9.87	27.18	3	Vertical	181	1.80	-	38.99	12.82	34.86
PK	17.24718G	63.11	68.20	-5.09	38.92	3	Vertical	12	1.80	-	40.88	17.45	34.14

802.11ax HEW20_Nss1,(MCS0)_2TX

5745MHz_TnomVnom

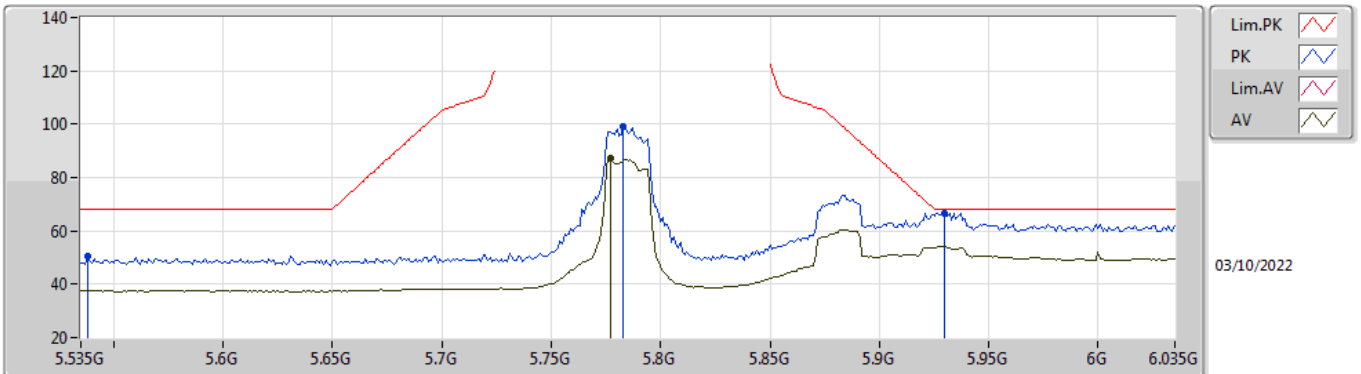


EUT_Z_2TX
Setting 14
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.48592G	57.88	74.00	-16.12	40.95	3	Horizontal	195	2.97	-	38.97	12.82	34.86
AV	11.48316G	44.15	54.00	-9.85	27.22	3	Horizontal	195	2.97	-	38.97	12.82	34.86
PK	17.2341G	62.94	68.20	-5.26	38.84	3	Horizontal	280	1.82	-	40.80	17.44	34.14

802.11ax HEW20_Nss1,(MCS0)_2TX

5785MHz_TnomVnom

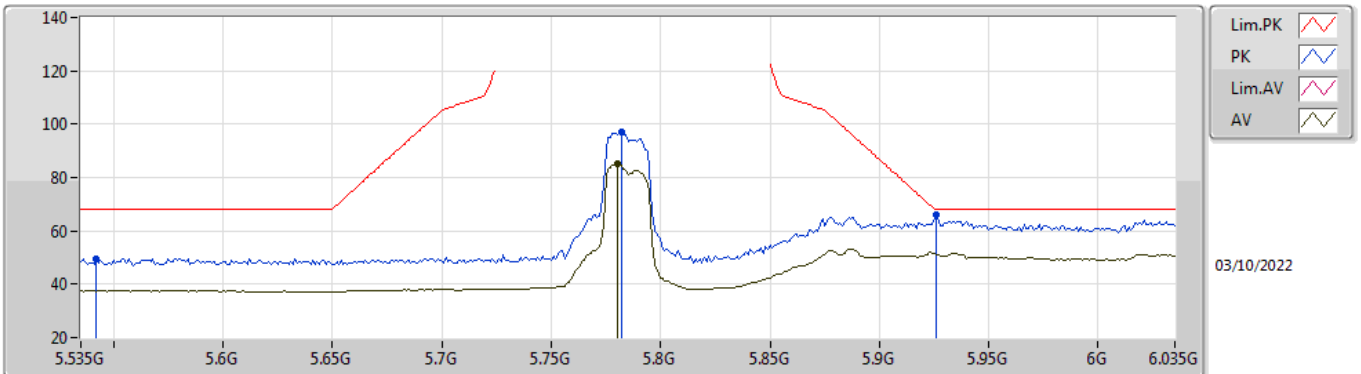


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.538G	50.54	68.20	-17.66	41.25	3	Vertical	359	1.72	-	34.00	6.04	30.75	
PK	5.783G	98.98	Inf	-Inf	90.02	3	Vertical	359	1.72	-	33.80	6.10	30.94	
AV	5.777G	87.18	Inf	-Inf	78.21	3	Vertical	359	1.72	-	33.80	6.10	30.93	
PK	5.93G	66.70	68.20	-1.50	57.36	3	Vertical	359	1.72	-	34.16	6.23	31.05	

802.11ax HEW20_Nss1,(MCS0)_2TX

5785MHz_TnomVnom

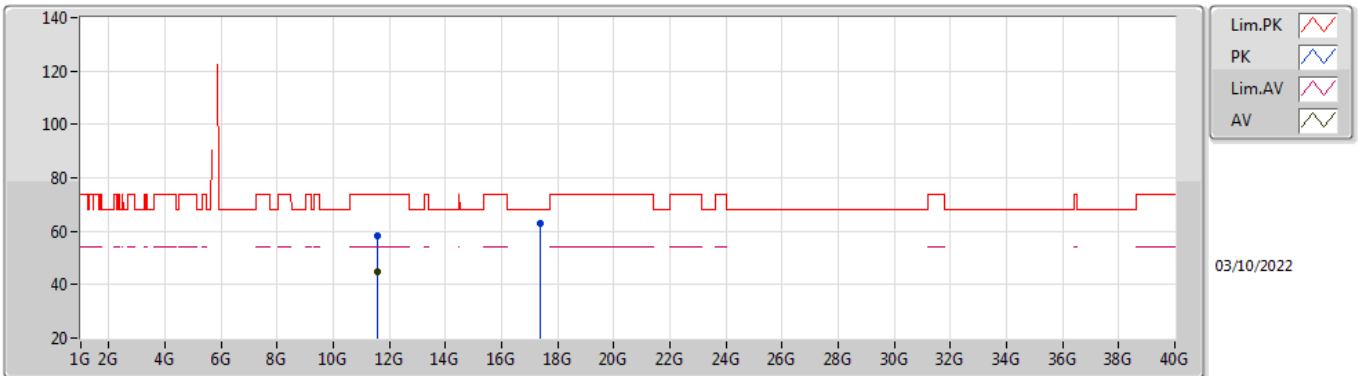


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.542G	49.68	68.20	-18.52	40.39	3	Horizontal	359	1.76	-	34.00	6.04	30.75
PK	5.782G	96.91	Inf	-Inf	87.94	3	Horizontal	359	1.76	-	33.80	6.10	30.93
AV	5.78G	84.92	Inf	-Inf	75.95	3	Horizontal	359	1.76	-	33.80	6.10	30.93
PK	5.926G	65.83	68.20	-2.37	56.50	3	Horizontal	359	1.76	-	34.15	6.22	31.04

802.11ax HEW20_Nss1,(MCS0)_2TX

5785MHz_TnomVnom

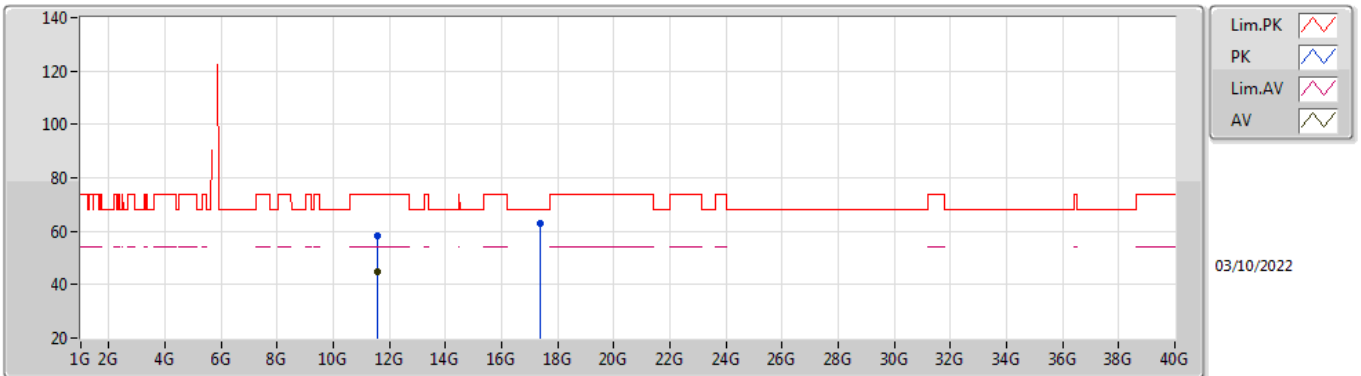


EUT_Z_2TX
Setting 14
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.56628G	58.13	74.00	-15.87	40.89	3	Vertical	66	1.80	-	39.27	12.86	34.89
AV	11.55638G	44.69	54.00	-9.31	27.49	3	Vertical	66	1.80	-	39.23	12.86	34.89
PK	17.35714G	63.03	68.20	-5.17	38.26	3	Vertical	233	1.12	-	41.43	17.51	34.17

802.11ax HEW20_Nss1,(MCS0)_2TX

5785MHz_TnomVnom

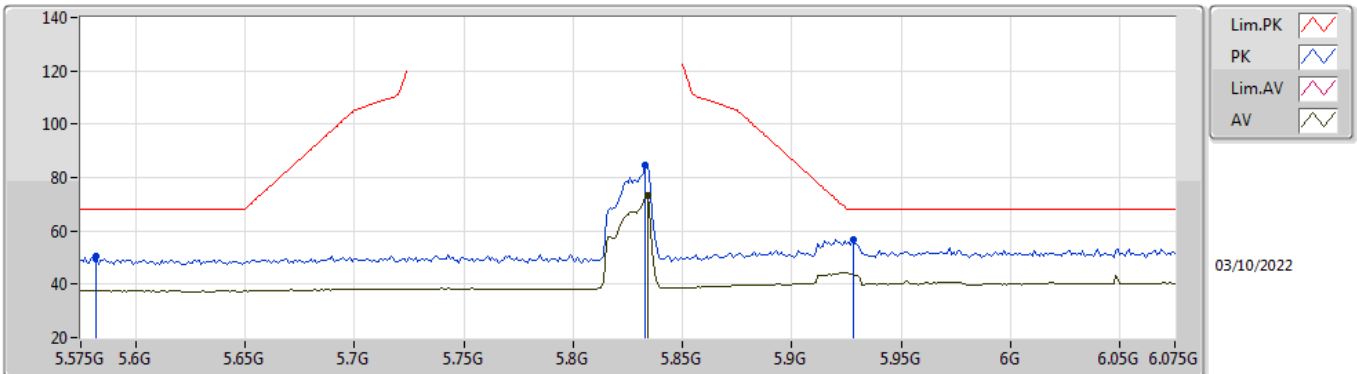


EUT_Z_2TX
Setting 14
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.55662G	58.49	74.00	-15.51	41.29	3	Horizontal	355	1.28	-	39.23	12.86	34.89
AV	11.5781G	44.76	54.00	-9.24	27.48	3	Horizontal	355	1.28	-	39.31	12.87	34.90
PK	17.3571G	63.18	68.20	-5.02	38.41	3	Horizontal	266	2.86	-	41.43	17.51	34.17

802.11ax HEW20_Nss1,(MCS0)_2TX

5825MHz_TnomVnom

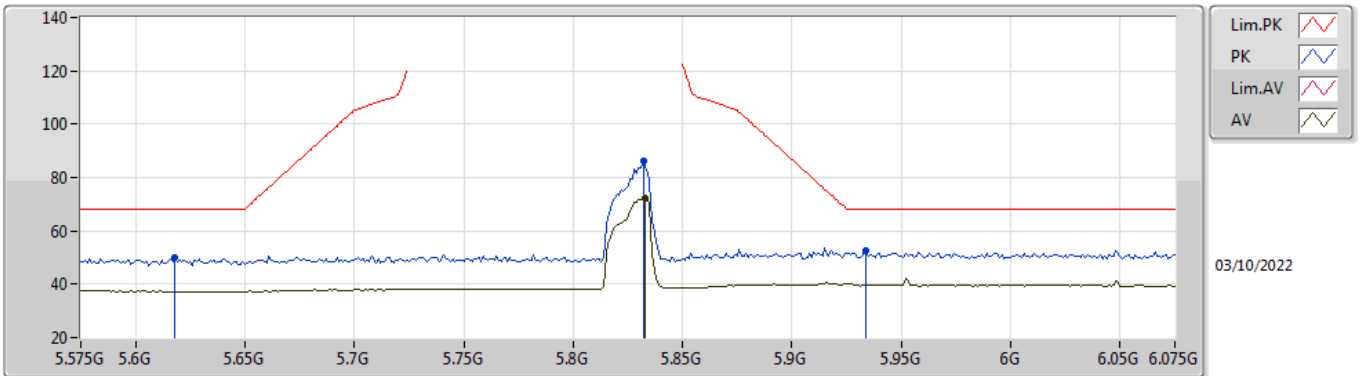


EUT_Z_2TX
Setting 6.5
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.582G	50.40	68.20	-17.80	41.16	3	Vertical	359	1.70	-	33.94	6.08	30.78
PK	5.833G	84.42	Inf	-Inf	75.47	3	Vertical	359	1.70	-	33.80	6.12	30.97
AV	5.834G	73.51	Inf	-Inf	64.55	3	Vertical	359	1.70	-	33.80	6.13	30.97
PK	5.928G	56.85	68.20	-11.35	47.52	3	Vertical	359	1.70	-	34.16	6.22	31.05

802.11ax HEW20_Nss1,(MCS0)_2TX

5825MHz_TnomVnom

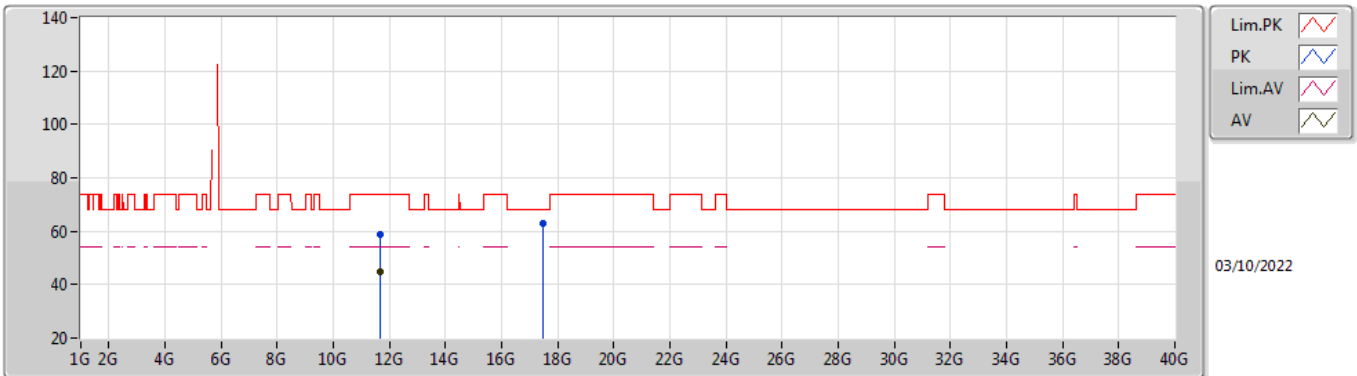


EUT_Z_2TX
Setting 6.5
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.618G	49.89	68.20	-18.31	40.74	3	Horizontal	359	1.80	-	33.86	6.10	30.81	
PK	5.832G	86.06	Inf	-Inf	77.11	3	Horizontal	359	1.80	-	33.80	6.12	30.97	
AV	5.833G	72.12	Inf	-Inf	63.17	3	Horizontal	359	1.80	-	33.80	6.12	30.97	
PK	5.934G	52.35	68.20	-15.85	43.00	3	Horizontal	359	1.80	-	34.17	6.23	31.05	

802.11ax HEW20_Nss1,(MCS0)_2TX

5825MHz_TnomVnom

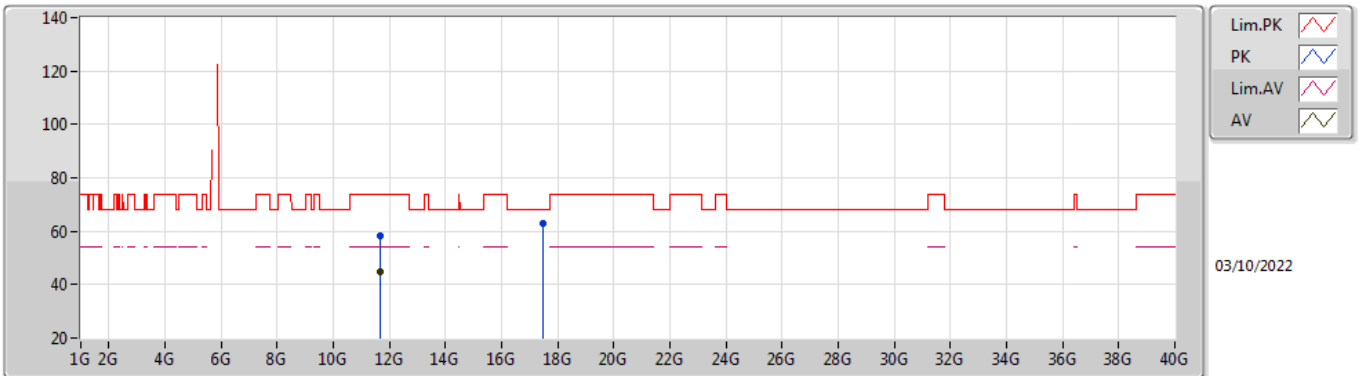


EUT_Z_2TX
Setting 6.5
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.65996G	58.54	74.00	-15.46	41.17	3	Vertical	335	1.00	-	39.40	12.91	34.94
AV	11.6614G	45.00	54.00	-9.00	27.63	3	Vertical	335	1.00	-	39.40	12.91	34.94
PK	17.47058G	63.12	68.20	-5.08	37.50	3	Vertical	200	2.52	-	42.24	17.58	34.20

802.11ax HEW20_Nss1,(MCS0)_2TX

5825MHz_TnomVnom

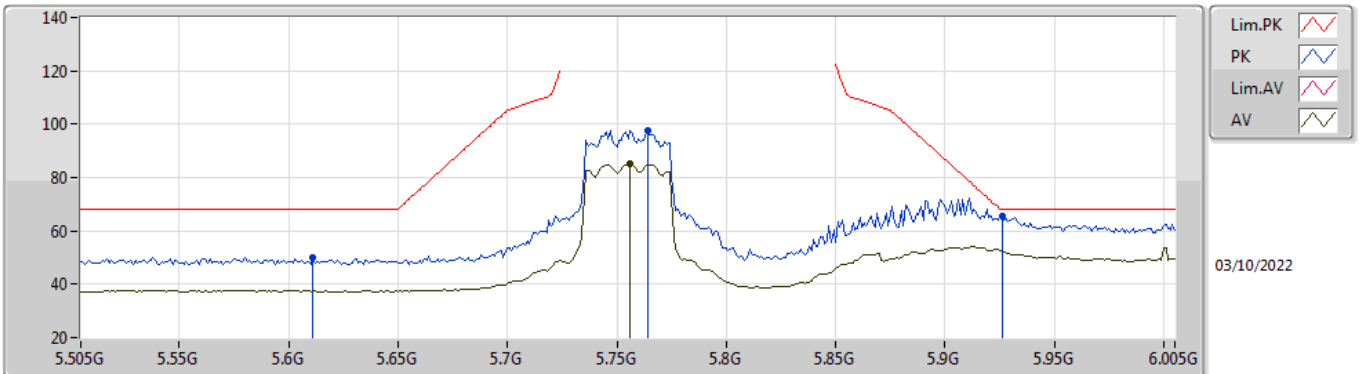


EUT_Z_2TX
Setting 6.5
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	11.65966G	58.30	74.00	-15.70	40.93	3	Horizontal	139	1.80	-	39.40	12.91	34.94	
AV	11.65612G	44.76	54.00	-9.24	27.39	3	Horizontal	139	1.80	-	39.40	12.91	34.94	
PK	17.47666G	63.06	68.20	-5.14	37.38	3	Horizontal	266	1.23	-	42.29	17.59	34.20	

802.11ax HEW40_Nss1,(MCS0)_2TX

5755MHz_TnomVnom

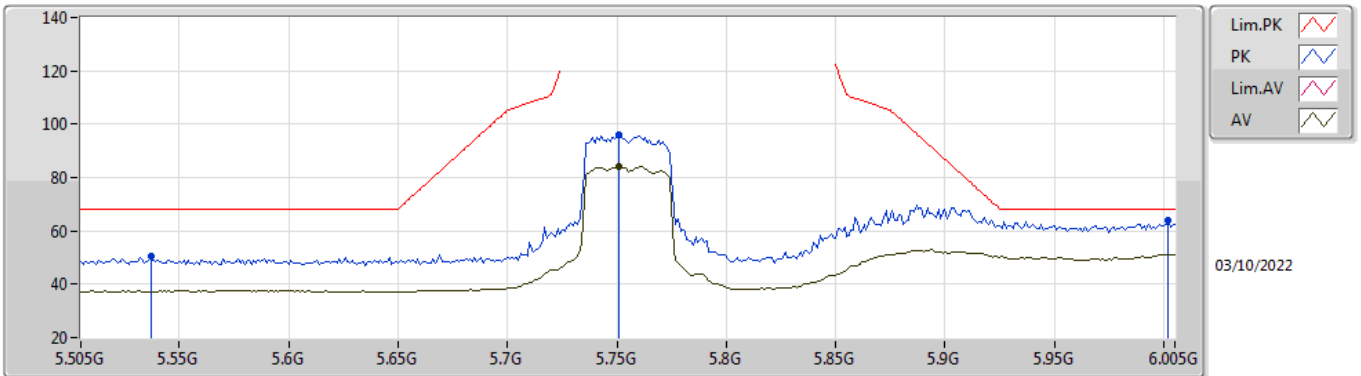


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.611G	50.17	68.20	-18.03	40.99	3	Vertical	359	1.72	-	33.88	6.10	30.80	
PK	5.764G	97.80	Inf	-Inf	88.82	3	Vertical	359	1.72	-	33.80	6.10	30.92	
AV	5.756G	85.09	Inf	-Inf	76.10	3	Vertical	359	1.72	-	33.80	6.10	30.91	
PK	5.926G	65.47	68.20	-2.73	56.14	3	Vertical	359	1.72	-	34.15	6.22	31.04	

802.11ax HEW40_Nss1,(MCS0)_2TX

5755MHz_TnomVnom

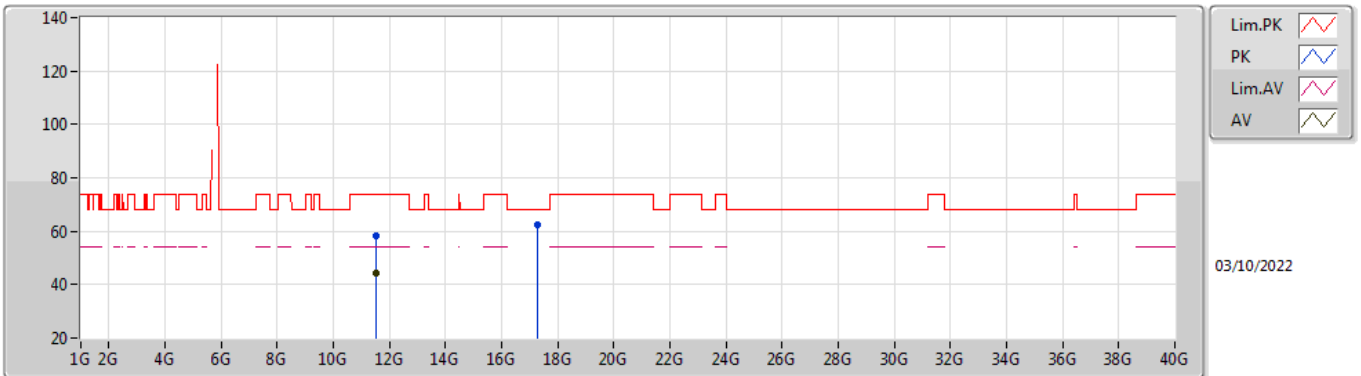


EUT_Z_2TX
Setting 14
02-B-B-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.537G	50.33	68.20	-17.87	41.04	3	Horizontal	359	1.80	-	34.00	6.04	30.75
PK	5.751G	96.05	Inf	-Inf	87.06	3	Horizontal	359	1.80	-	33.80	6.10	30.91
AV	5.751G	84.19	Inf	-Inf	75.20	3	Horizontal	359	1.80	-	33.80	6.10	30.91
PK	6.002G	63.78	68.20	-4.42	54.38	3	Horizontal	359	1.80	-	34.20	6.30	31.10

802.11ax HEW40_Nss1,(MCS0)_2TX

5755MHz_TnomVnom

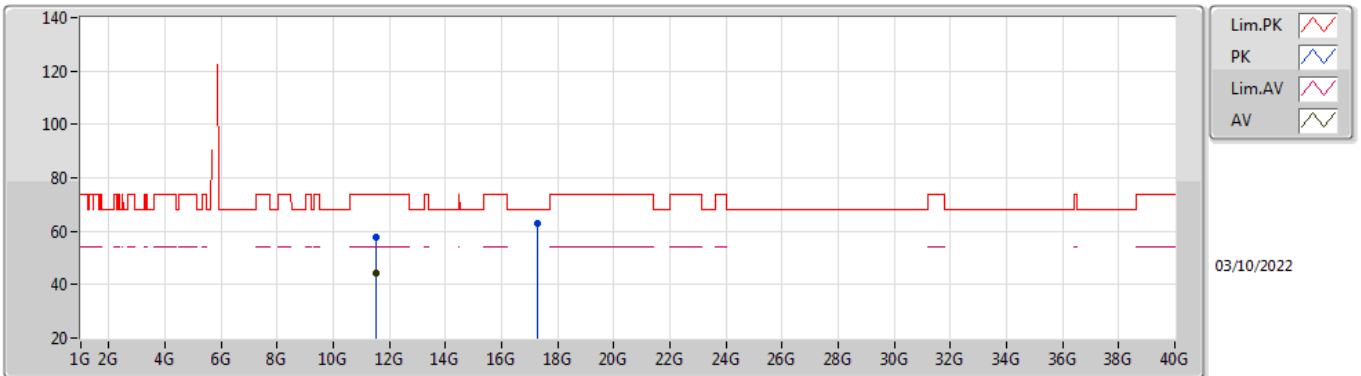


EUT_Z_2TX
Setting 14
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.50652G	58.31	74.00	-15.69	41.31	3	Vertical	116	1.80	-	39.03	12.83	34.86
AV	11.52086G	44.45	54.00	-9.55	27.40	3	Vertical	116	1.80	-	39.08	12.84	34.87
PK	17.26778G	62.51	68.20	-5.69	38.18	3	Vertical	211	1.82	-	41.01	17.46	34.14

802.11ax HEW40_Nss1,(MCS0)_2TX

5755MHz_TnomVnom

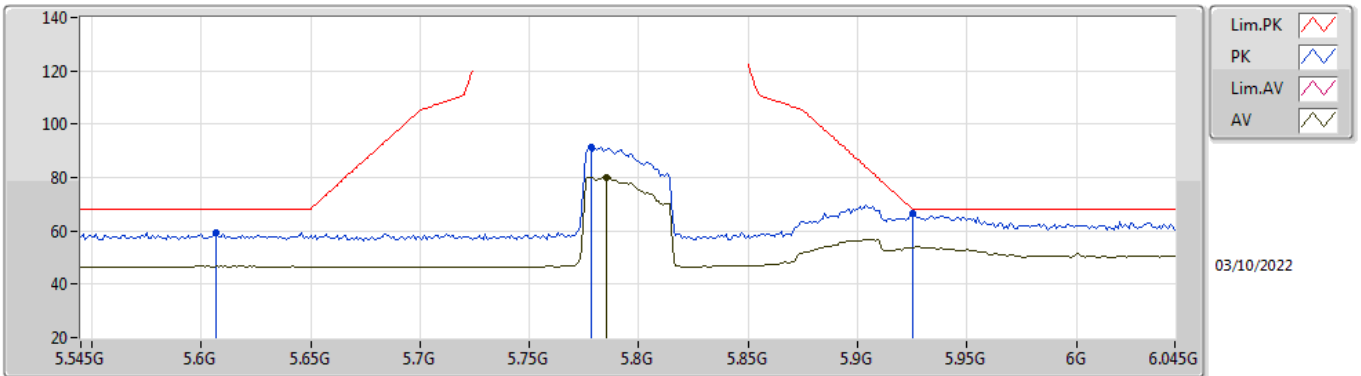


EUT_Z_2TX
Setting 14
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.50568G	57.90	74.00	-16.10	40.91	3	Horizontal	328	1.80	-	39.02	12.83	34.86
AV	11.52488G	44.48	54.00	-9.52	27.41	3	Horizontal	328	1.80	-	39.10	12.84	34.87
PK	17.26938G	62.77	68.20	-5.43	38.44	3	Horizontal	82	2.17	-	41.02	17.46	34.15

802.11ax HEW40_Nss1,(MCS0)_2TX

5795MHz_TnomVnom

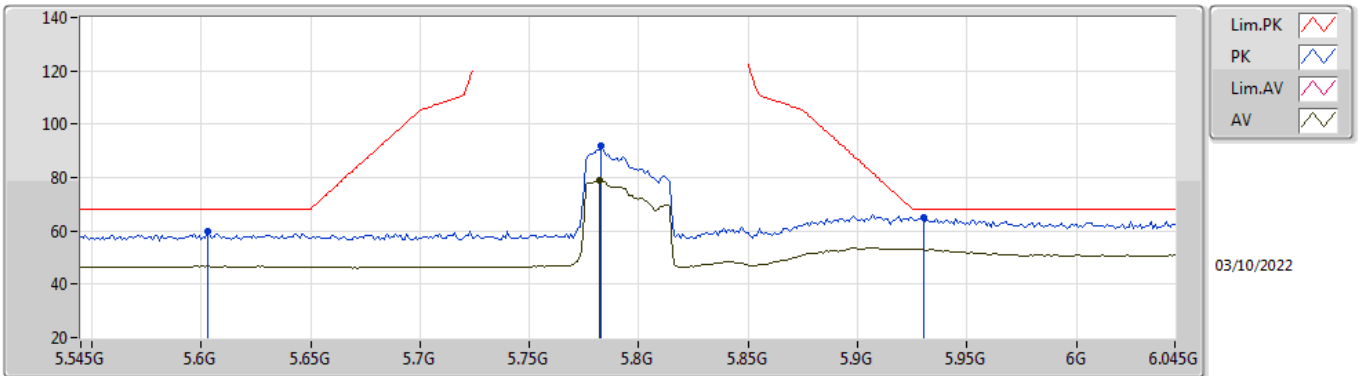


EUT_Z_2TX
Setting 10
03-D-E-5-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.607G	59.48	68.20	-8.72	52.67	3	Vertical	360	1.56	-	34.59	7.10	34.88
PK	5.778G	91.42	Inf	-Inf	84.95	3	Vertical	360	1.56	-	34.20	7.19	34.92
AV	5.785G	80.12	Inf	-Inf	73.65	3	Vertical	360	1.56	-	34.20	7.19	34.92
PK	5.925G	66.78	68.20	-1.42	59.77	3	Vertical	360	1.56	-	34.70	7.26	34.95

802.11ax HEW40_Nss1,(MCS0)_2TX

5795MHz_TnomVnom

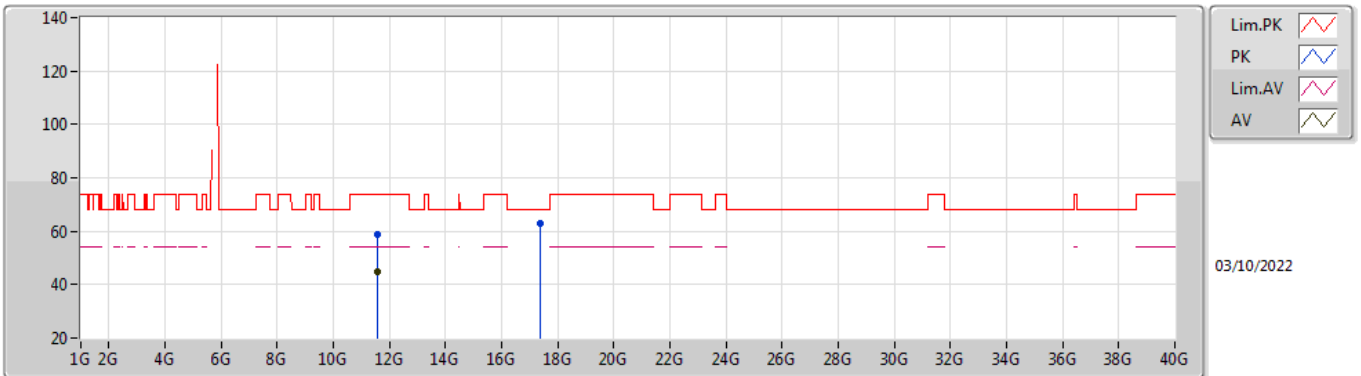


EUT_Z_2TX
Setting 10
03-D-E-5-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.603G	59.71	68.20	-8.49	52.90	3	Horizontal	360	1.58	-	34.59	7.10	34.88
PK	5.783G	91.96	Inf	-Inf	85.49	3	Horizontal	360	1.58	-	34.20	7.19	34.92
AV	5.782G	78.87	Inf	-Inf	72.40	3	Horizontal	360	1.58	-	34.20	7.19	34.92
PK	5.93G	64.76	68.20	-3.44	57.73	3	Horizontal	360	1.58	-	34.72	7.26	34.95

802.11ax HEW40_Nss1,(MCS0)_2TX

5795MHz_TnomVnom

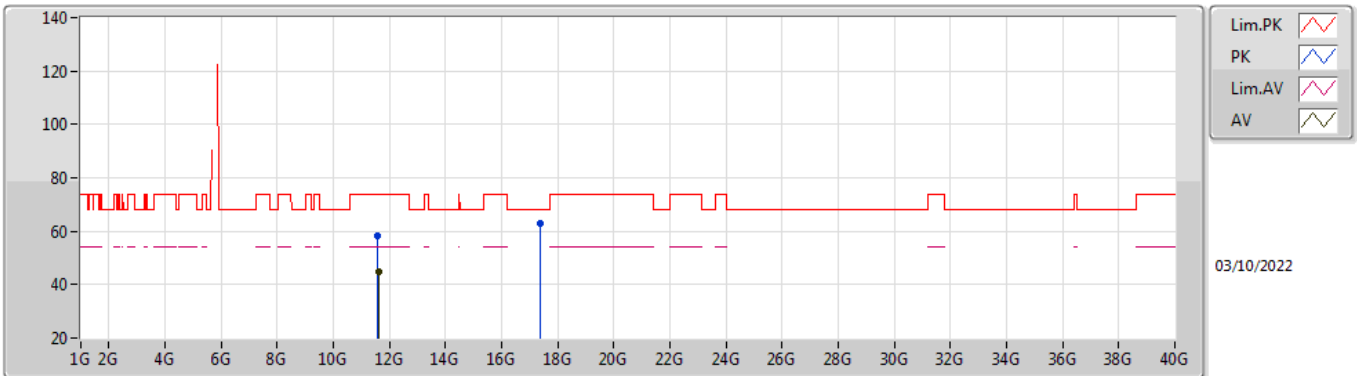


EUT_Z_2TX
Setting 10
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.57794G	58.88	74.00	-15.12	41.60	3	Vertical	264	1.80	-	39.31	12.87	34.90
AV	11.59636G	44.68	54.00	-9.32	27.32	3	Vertical	264	1.80	-	39.39	12.88	34.91
PK	17.3831G	63.02	68.20	-5.18	38.14	3	Vertical	186	2.77	-	41.53	17.53	34.18

802.11ax HEW40_Nss1,(MCS0)_2TX

5795MHz_TnomVnom

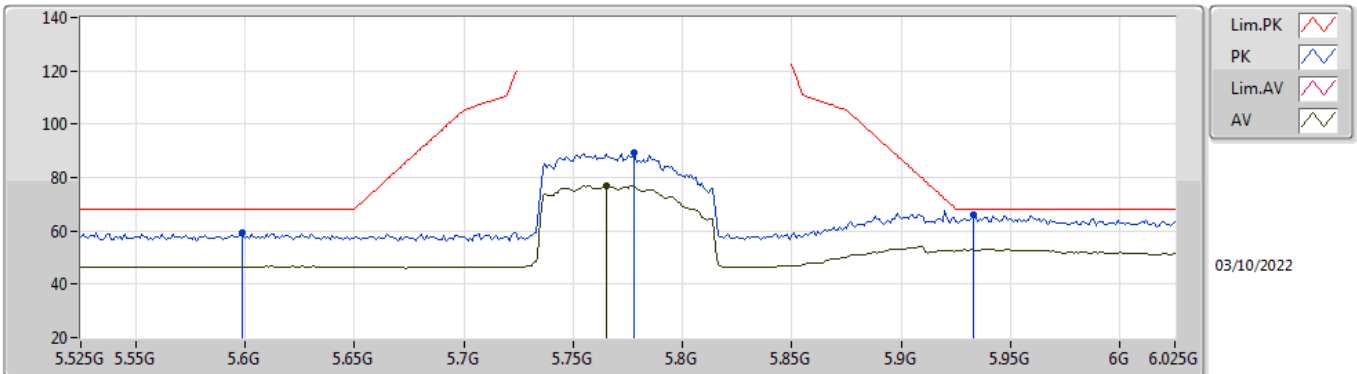


EUT_Z_2TX
Setting 10
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.57734G	58.13	74.00	-15.87	40.85	3	Horizontal	75	1.94	-	39.31	12.87	34.90
AV	11.60344G	44.79	54.00	-9.21	27.42	3	Horizontal	75	1.94	-	39.40	12.88	34.91
PK	17.3841G	63.06	68.20	-5.14	38.17	3	Horizontal	256	2.86	-	41.54	17.53	34.18

802.11ax HEW80_Nss1,(MCS0)_2TX

5775MHz_TnomVnom

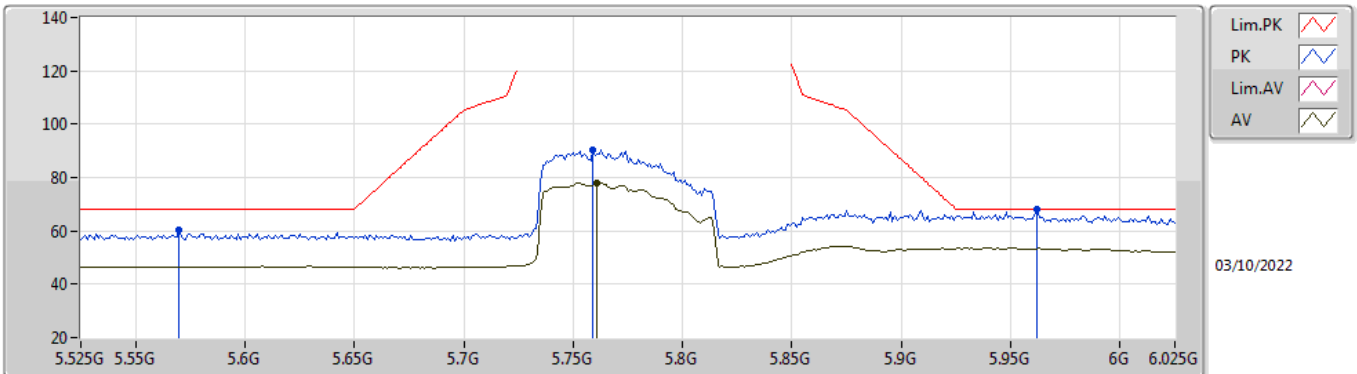


EUT_Z_2TX
Setting 9
03-D-E-5-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.599G	59.45	68.20	-8.75	52.63	3	Vertical	360	1.55	-	34.60	7.10	34.88
PK	5.778G	89.12	Inf	-Inf	82.65	3	Vertical	360	1.55	-	34.20	7.19	34.92
AV	5.765G	77.05	Inf	-Inf	70.59	3	Vertical	360	1.55	-	34.20	7.18	34.92
PK	5.933G	65.89	68.20	-2.31	58.85	3	Vertical	360	1.55	-	34.73	7.27	34.96

802.11ax HEW80_Nss1,(MCS0)_2TX

5775MHz_TnomVnom

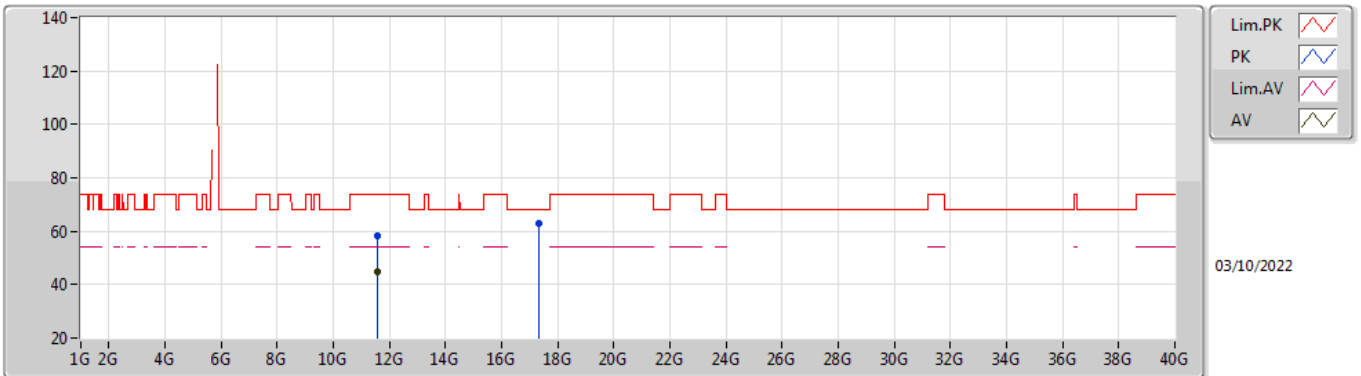


EUT_Z_2TX
Setting 9
03-D-E-5-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.57G	60.45	68.20	-7.75	53.66	3	Horizontal	360	1.59	-	34.60	7.07	34.88	
PK	5.759G	90.32	Inf	-Inf	83.86	3	Horizontal	360	1.59	-	34.20	7.18	34.92	
AV	5.761G	77.89	Inf	-Inf	71.43	3	Horizontal	360	1.59	-	34.20	7.18	34.92	
PK	5.962G	67.94	68.20	-0.26	60.82	3	Horizontal	360	1.59	-	34.80	7.28	34.96	

802.11ax HEW80_Nss1,(MCS0)_2TX

5775MHz_TnomVnom

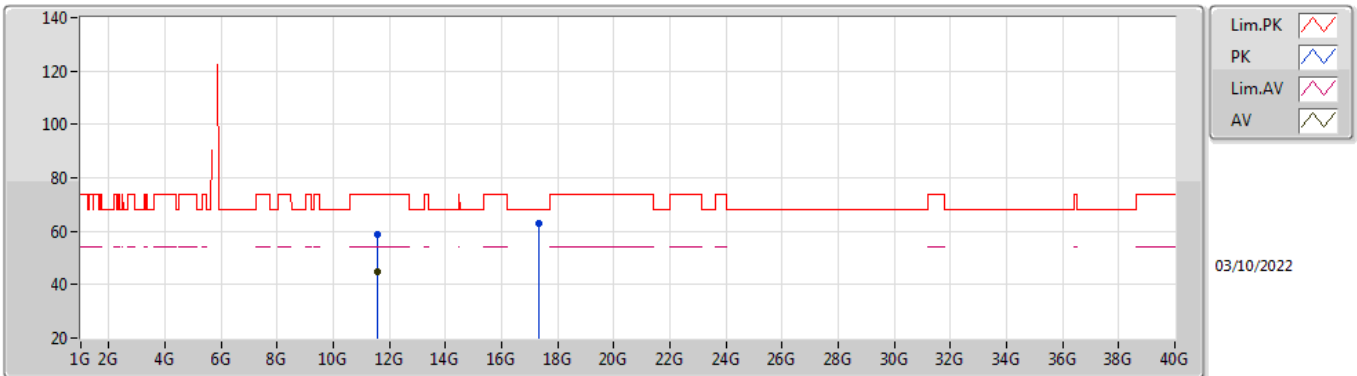


EUT_Z_2TX
Setting 9
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.55468G	58.14	74.00	-15.86	40.95	3	Vertical	121	1.80	-	39.22	12.86	34.89
AV	11.54964G	44.83	54.00	-9.17	27.66	3	Vertical	121	1.80	-	39.20	12.85	34.88
PK	17.32556G	63.04	68.20	-5.16	38.40	3	Vertical	132	1.22	-	41.30	17.50	34.16

802.11ax HEW80_Nss1,(MCS0)_2TX

5775MHz_TnomVnom



EUT_Z_2TX
Setting 9
03-D-J-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.5563G	58.78	74.00	-15.22	41.58	3	Horizontal	327	1.80	-	39.23	12.86	34.89
AV	11.55642G	44.73	54.00	-9.27	27.53	3	Horizontal	327	1.80	-	39.23	12.86	34.89
PK	17.32232G	63.15	68.20	-5.05	38.53	3	Horizontal	212	1.73	-	41.29	17.49	34.16