Testing Laboratory 3787

RADIO TEST REPORT

FCC ID	:	VW3FAST5285
Equipment	:	Wireless Router
Brand Name	:	SAGEMCOM
Model Name	:	FAST5285
Applicant	:	SAGEMCOM BROADBAND SAS 250 Route de l'Empereur - 92848 RUEIL MALMAISON CEDEX- FRANCE
Manufacturer	:	SAGEMCOM BROADBAND SAS 250 Route de l'Empereur - 92848 RUEIL MALMAISON CEDEX- FRANCE
Standard	:	47 CFR FCC Part 15.407

The product was received on Jun. 03, 2021, and testing was started from Jun. 07, 2021 and completed on Oct. 27, 2021. 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 variant 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
No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR061130-02	01	Initial issue of report	Jul. 14, 2021
FR061130-02	02	1. Re-evaluated the directional gain, 6dB, 26dB and 99%. 2. Added the plots of duty cycle. 3. Added FW version.	Aug. 27, 2021
FR061130-02	03	1. Revised the description of directional gain in section 1.1.2. 2. Added the detailed description of the orientation of the device in section 2.2.	Sep. 14, 2021
FR061130-02	04	Revised the Max Gain of 5GHz UNII 3, UNII 4 in section 1.1.2.	Oct. 27, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.407(a)	Emission Bandwidth	PASS	-
3.2	15.407(a)	Maximum Output Power	PASS	-
3.3	15.407(a)	Power Spectral Density	PASS	-
3.4	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:
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: Vicky Huang

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]
5850-5895		5845-5885	169-177 [3]
5725-5850	n (HT40), ac (VHT40), ax (HEW40)	5755-5795	151-159 [2]
5850-5895		5835-5875	167-175 [2]
5725-5850	ac (VHT80), ax (HEW80)	5775	155 [1]
5850-5895		5855	171 [1]
5150-5350	ac (VHT160), ax (HEW160)	5250	50 [1]
5470-5725		5570	114 [1]
5850-5895		5815	163 [1]

Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11a	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT20-BF	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11ax HEW20	20	4TX
5.47-5.725GHz	802.11ax HEW20-BF	20	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11ax HEW40	40	4TX
5.47-5.725GHz	802.11ax HEW40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	4TX
5.47-5.725GHz	802.11ax HEW80	80	4TX
5.47-5.725GHz	802.11ax HEW80-BF	80	4TX
5.47-5.725GHz	802.11ac VHT160	160	4TX
5.47-5.725GHz	802.11ac VHT160-BF	160	4TX
5.47-5.725GHz	802.11ax HEW160	160	4TX
5.47-5.725GHz	802.11ax HEW160-BF	160	4TX
5.85-5.895GHz	802.11a	20	4TX

Band	Mode	BWch (MHz)	Nant
5.85-5.895GHz	802.11n HT20	20	4TX
5.85-5.895GHz	802.11n HT20-BF	20	4TX
5.85-5.895GHz	802.11ac VHT20	20	4TX
5.85-5.895GHz	802.11ac VHT20-BF	20	4TX
5.85-5.895GHz	802.11ax HEW20	20	4TX
5.85-5.895GHz	802.11ax HEW20-BF	20	4TX
5.85-5.895GHz	802.11n HT40	40	4TX
5.85-5.895GHz	802.11n HT40-BF	40	4TX
5.85-5.895GHz	802.11ac VHT40	40	4TX
5.85-5.895GHz	802.11ac VHT40-BF	40	4TX
5.85-5.895GHz	802.11ax HEW40	40	4TX
5.85-5.895GHz	802.11ax HEW40-BF	40	4TX
5.85-5.895GHz	802.11ac VHT80	80	4TX
5.85-5.895GHz	802.11ac VHT80-BF	80	4TX
5.85-5.895GHz	802.11ax HEW80	80	4TX
5.85-5.895GHz	802.11ax HEW80-BF	80	4TX
5.85-5.895GHz	802.11ac VHT160	160	4TX
5.85-5.895GHz	802.11ac VHT160-BF	160	4TX
5.85-5.895GHz	802.11ax HEW160	160	4TX
5.85-5.895GHz	802.11ax HEW160-BF	160	4TX

Note:
- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80 and VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- HEW20, HEW40, HEW80 and HEW160 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	GALTRONICS	02102140-07251-1	PCB Antenna	I-PEX	Note
2	2	GALTRONICS	02102140-07251-2	PCB Antenna	I-PEX	
3	3	GALTRONICS	02102140-07251-3	PCB Antenna	I-PEX	
4	4	GALTRONICS	02102140-07251-4	PCB Antenna	I-PEX	

Note:

Band	Max Gain (dBi)			
	Ant. 1	Ant. 2	Ant. 3	Ant. 4
2.4GHz	4.53	1.21	3.31	0.95
5GHz UNII 1, 2A, 2C	5.04	4.55	2.01	3.68
5GHz UNII 3	4.92	4.11	2.81	4.8
5GHz UNII 4	5.64	4.98	3.34	4.63

Band	Max DG (dBi)		
	4T1S	4T2S	4T4S
5GHz UNII 3 (For 5GHz UNII 4 channel span UNII 3 and UNII 4 Bands)	5.45	4.92	-0.31

Band	Max DG (dBi)		
	4T1S	4T2S	4T4S
5GHz UNII 4	5.89	5.64	0.35

Note: The above information was declared by manufacturer.
The directional gain of the 5GHz U-NII 3 & 4 is measured which follows the procedure of KDB 662911 D03.
The antenna report is provided in the operational description for this application.

For 2.4GHz WLAN function

For IEEE 802.11n/ax mode (4TX, 4RX):

Port 1、Port 2、Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1、Port 2、Port 3 and Port 4 could transmit/receive simultaneously.

For IEEE 802.11b/g mode (1TX/1RX, 4TX/4RX):

For 1TX/1RX:

Only Port 1 can be used as transmitting/receiving antenna.

For 4TX/4RX:

Port 1、Port 2、Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1、Port 2、Port 3 and Port 4 could transmit/receive simultaneously.

For 5GHz WLAN function

For IEEE 802.11a/n/ac/ax mode (4TX, 4RX):

Port 1、Port 2、Port 3 and Port 4 can be used as transmitting/receiving antenna.

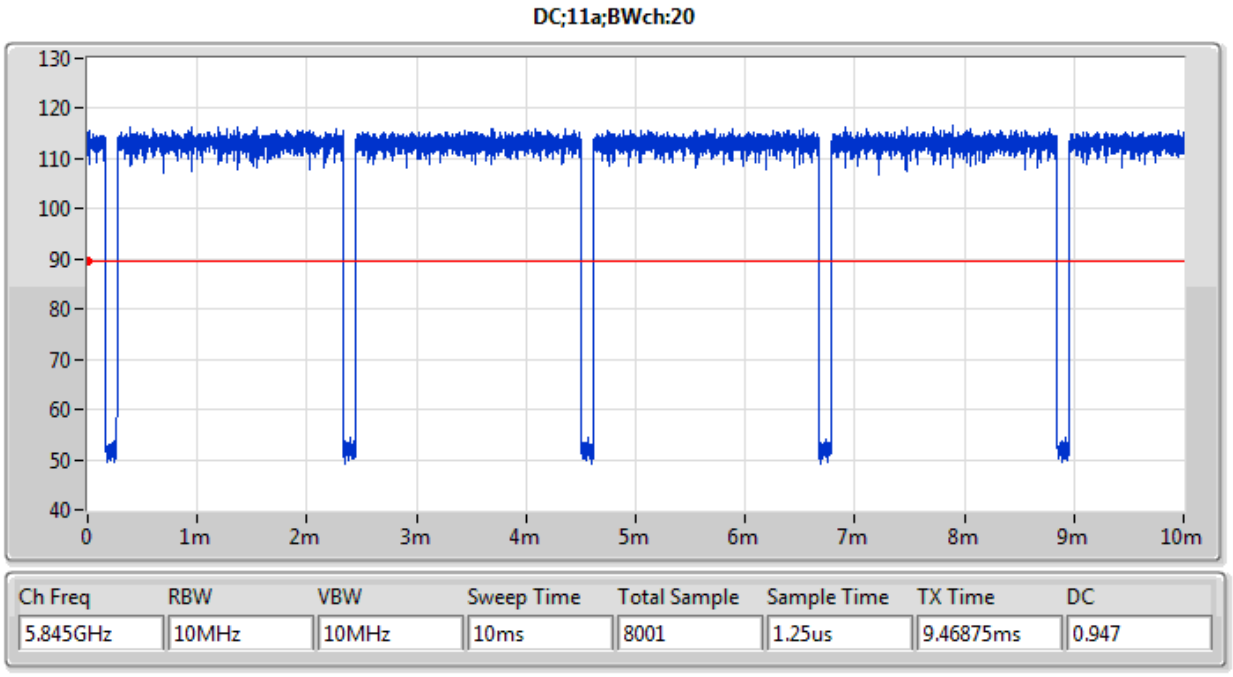
Port 1、Port 2、Port 3 and Port 4 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

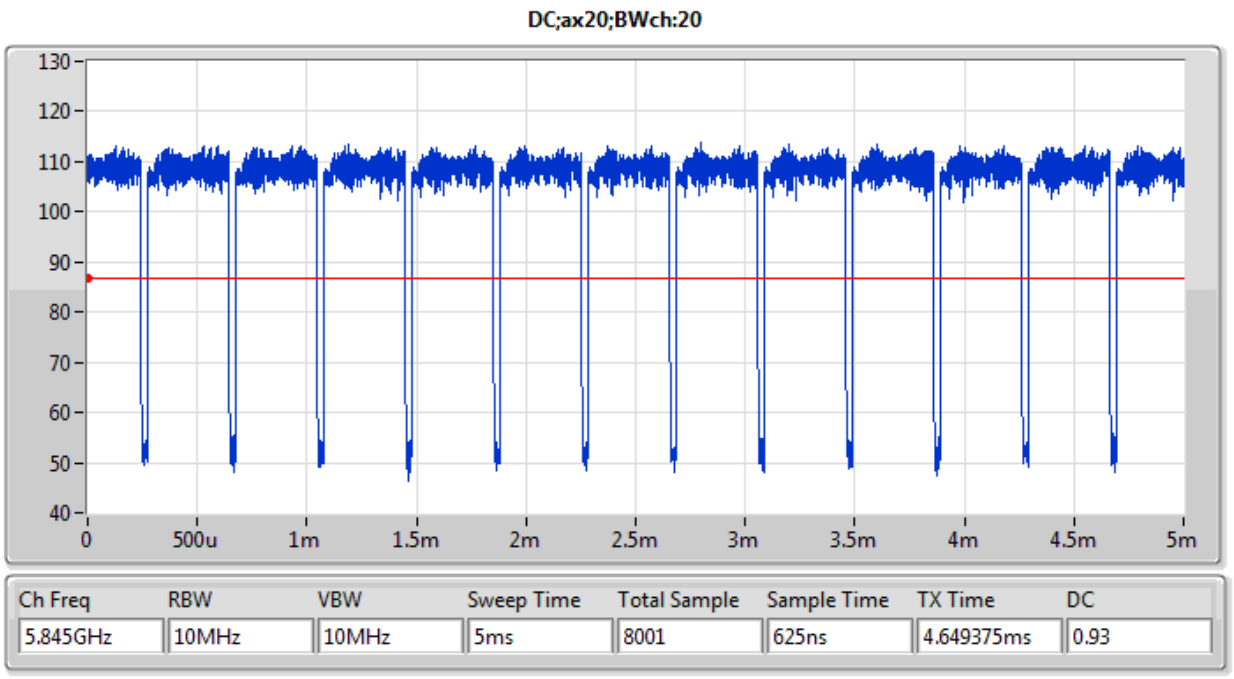
Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.952	0.21	2.065m	1k
802.11ax HEW20	0.979	0.09	1.488m	1k
802.11ax HEW40	0.961	0.17	780.625u	3k
802.11ax HEW80	0.928	0.32	413.75u	3k
802.11ax HEW160	0.886	0.53	236.875u	10k

Note:
- DC is Duty Cycle.
- DCF is Duty Cycle Factor.

Mode 802.11a

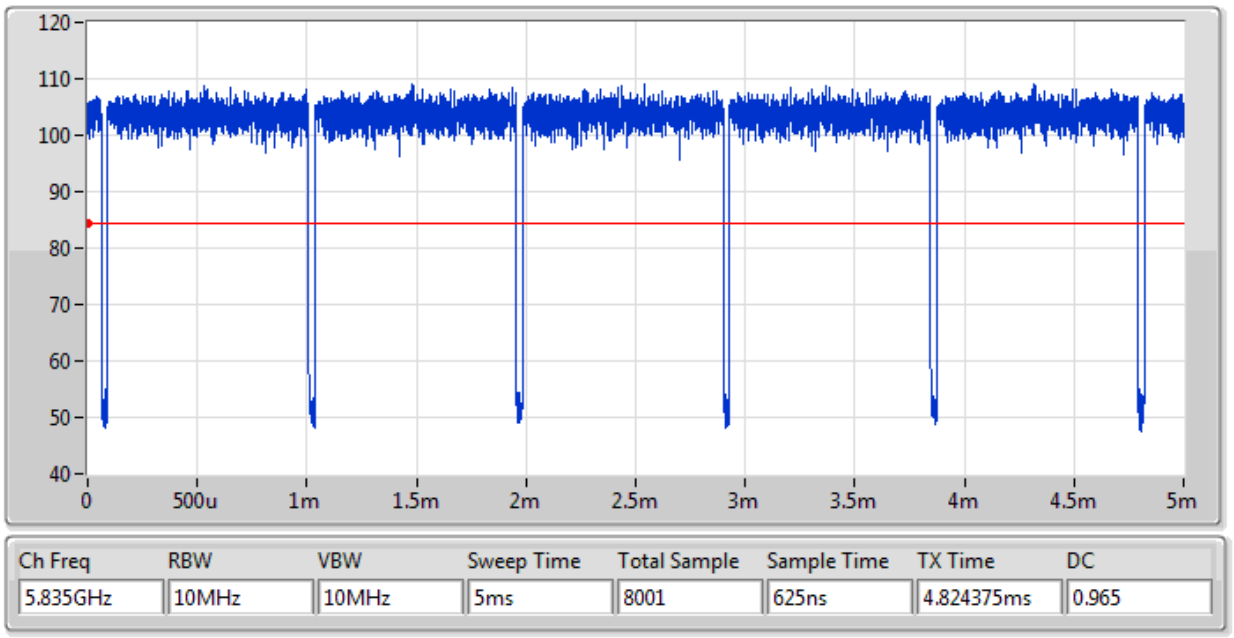


Mode 802.11ax HEW20



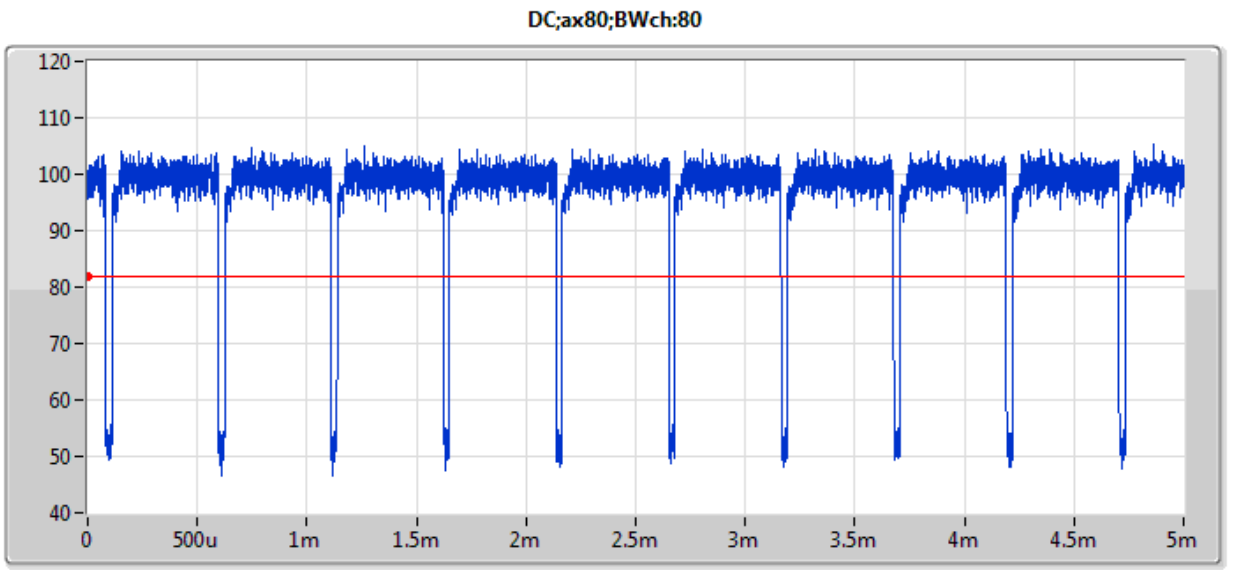
Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
5.845GHz	10MHz	10MHz	5ms	8001	625ns	4.649375ms	0.93

Mode 802.11ax HEW40



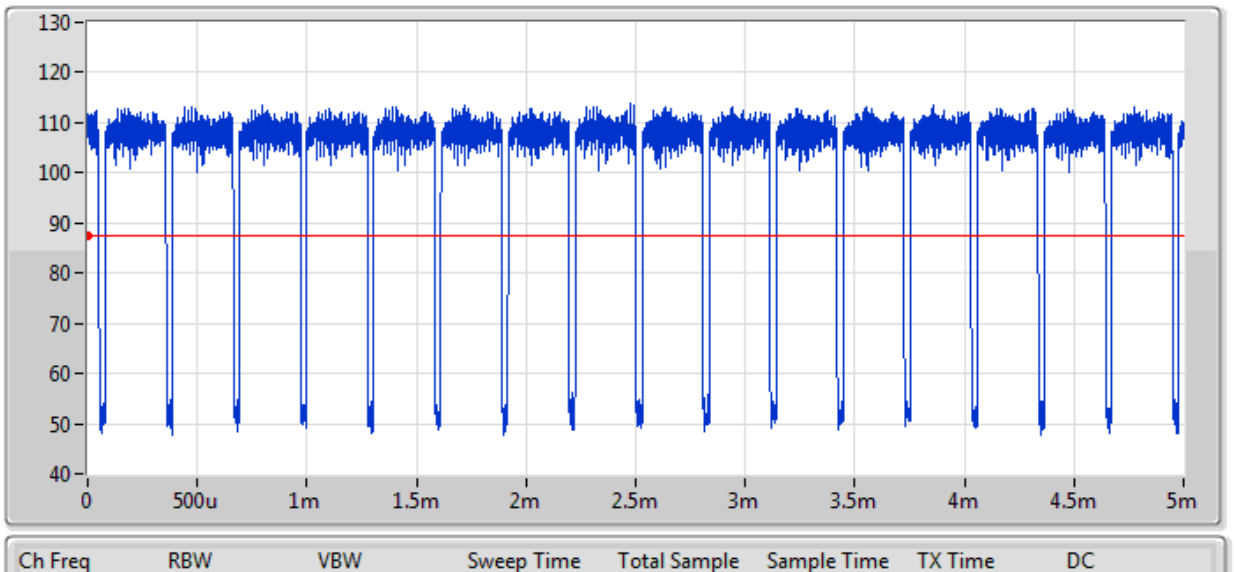
Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
5.835GHz	10MHz	10MHz	5ms	8001	625ns	4.824375ms	0.965

Mode 802.11ax HEW80



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
5.855GHz	10MHz	10MHz	5ms	8001	625ns	4.706875ms	0.941

Mode 802. 802.11ax HEW160



Ch Freq	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
5.815GHz	10MHz	10MHz	5ms	8001	625ns	4.500625ms	0.9

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for 802.11 n/ax in 2.4G and 802.11n/ac/ax in 5GHz.			
Function	☐	Outdoor P2M	☒	Indoor P2M
	☐	Fixed P2P	☐	Client
Test Software Version	Mtool 3.2.1.1			
Firmware Version	5.02L.07p1F5285_5d9fc8d_20210421-1125			

Note: The above information was declared by manufacturer.

1.1.5 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR061130-01.

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

Modifications	Performance Checking
Adding 5850~5895MHz for the device.	1. Emission Bandwidth 2. Maximum Conducted Output Power 3. Peak Power Spectral Density 4. Unwanted Emissions <Above 1GHz>

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 662911 D03 v01

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 ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH03-CB	Brian Sun	20.8~21.3 / 56~61	Jun. 12, 2021~ Oct. 27, 2021
Radiated	03CH03-CB	Nyle Chang	25.3~27.6 / 65~69	Jun. 07, 2021

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
Radiated Emission (1GHz ~ 18GHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%
Output Power Measurement	1.3 dB	Confidence levels of 95%
Power Density Measurement	2.5 dB	Confidence levels of 95%
Bandwidth Measurement	0.9%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

<Non-beamforming mode>

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5845MHz Straddle 5.725-5.85GHz	87
5845MHz Straddle 5.85-5.895GHz	87
5865MHz	87
5885MHz	87
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5845MHz Straddle 5.725-5.85GHz	89
5845MHz Straddle 5.85-5.895GHz	89
5865MHz	89
5885MHz	89
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5835MHz Straddle 5.725-5.85GHz	102
5835MHz Straddle 5.85-5.895GHz	102
5875MHz	103
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5855MHz Straddle 5.725-5.85GHz	102
5855MHz Straddle 5.85-5.895GHz	102
802.11ax HEW160_Nss1,(MCS0)_4TX	-
5815MHz Straddle 5.725-5.85GHz	66
5815MHz Straddle 5.85-5.895GHz	66

<beamforming mode>

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5845MHz Straddle 5.725-5.85GHz	89
5845MHz Straddle 5.85-5.895GHz	89
5865MHz	89
5885MHz	89
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5835MHz Straddle 5.725-5.85GHz	102
5835MHz Straddle 5.85-5.895GHz	102
5875MHz	101
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5855MHz Straddle 5.725-5.85GHz	102
5855MHz Straddle 5.85-5.895GHz	102
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-
5815MHz Straddle 5.725-5.85GHz	66
5815MHz Straddle 5.85-5.895GHz	66

Note:
- There are two functions of EUT, one is beamforming function, and the other is CDD mode function for 802.11 n/ax in 2.4G and 802.11n/ac/ax in 5GHz.
- The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all items of CDD mode are evaluated in the report. The beamforming mode only evaluates the output power.

2.2 The Worst Case Measurement Configuration

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

Note:
According to the usage instructions, the EUT must be used in a vertical orientation on a flat surface. Therefore, there is only the Y axis position was tested. The user manual is provided for this application.

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

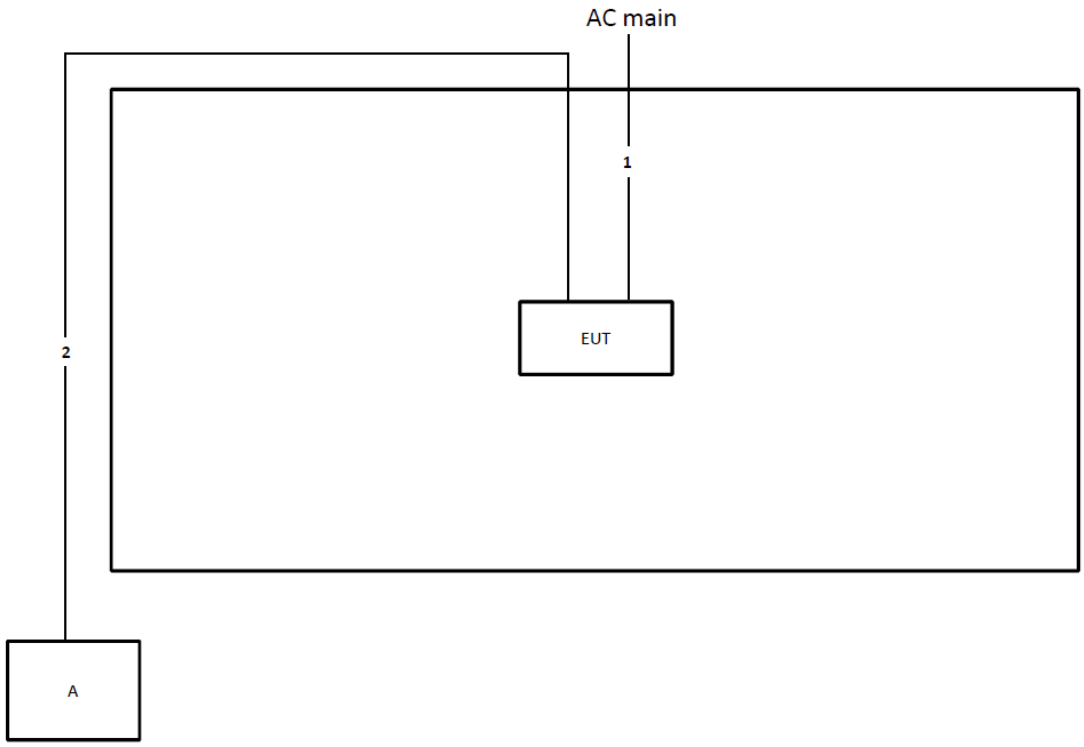
Accessories			
Equipment Name	**Brand Name**	**Model Name**	**Rating**
Adapter 1	DELTA	ADH-36EW B	Input: 100-125V~1.5A, 50-60Hz Output:12.0V, 3.0A
Adapter 2	NetBit	NBS36J120300VU	Input: 100-120V~, 50/60Hz, 1.0A Output:12.0V, 3.0A
Other			
RJ-45 Cable*1, non-shielded, 1.8m			

2.5 Support Equipment

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

2.6 Test Setup Diagram

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m

3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 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, 6 dB emission bandwidth ≥ 500kHz.
☒	For the 5.85-5.895 GHz band, 6 dB emission bandwidth ≥ 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 ≥ 500kHz.

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method		
▪	For the emission bandwidth shall be measured using one of the options below:	
	☒	Refer as FCC KDB 789033, 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.

3.1.4 Test Setup

Emission Bandwidth
 Spectrum Analyzer — EUT

3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.2 Maximum Output Power

3.2.1 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.	

3.2.2 Measuring Instruments

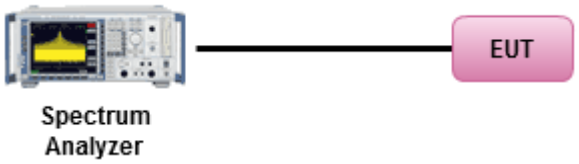
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ Maximum Conducted Output Power	
	Average over on/off periods with duty factor
	☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC 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 FCC KDB 789033, 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: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.2.4 Test Setup

For straddle channel

RF Output Power (Spectrum Analyzer)


For others channel

RF Output Power (Power Meter)


3.2.5 Test Result of Maximum Output Power

Refer as Appendix B

3.3 Power Spectral Density

3.3.1 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° ≤ θ < 8° ; -13 − 0.716 (θ-8) dBW/MHz for 8° ≤ θ < 40° -35.9 − 1.22 (θ-40) dBW/MHz for 40° ≤ θ ≤ 45° ; -42 dBW/MHz for θ > 45°
☐	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 $\mathbf{G_{TX}}$ = the maximum transmitting antenna directional gain in dBi.

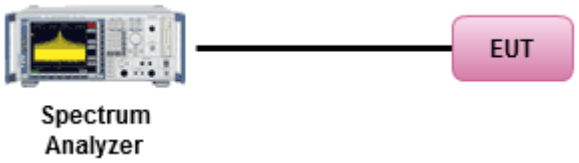
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method		
▪ 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, 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, clause E Method SA-1 (spectral trace averaging).	
	☐ Refer as FCC KDB 789033, 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, clause E Method SA-2 (spectral trace averaging).	
	☐ Refer as FCC 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:	
		☒ 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: $PPSD_{total} = PPSD_1 + PPSD_2 + \ldots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

3.3.4 Test Setup

Power Spectral Density


3.3.5 Test Result of Power Spectral Density

Refer as Appendix C

3.4 Unwanted Emissions

3.4.1 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).	

3.4.2 Measuring Instruments

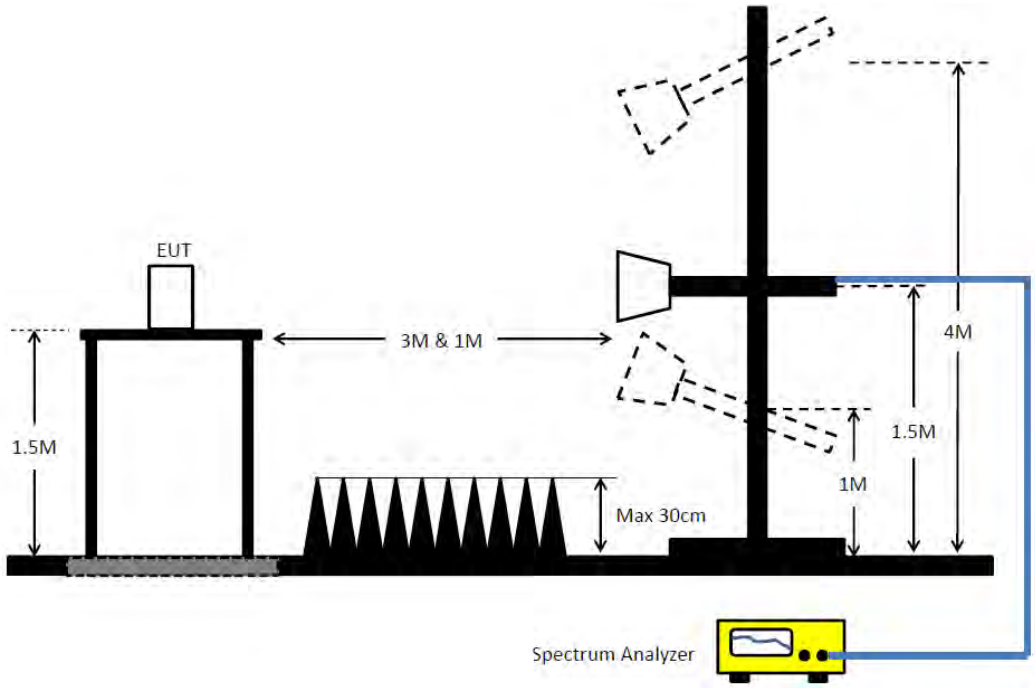
Refer a test equipment and calibration data table in this test report.

3.4.3 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 ≥ 98 or duty factor].			
▪ For the transmitter unwanted emissions shall be measured using following options below:			
	▪ Refer as FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.		
	▪ Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.		
		☐ Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).	
		☒ Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).	
		☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 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, clause G)5) measurement procedure peak limit.	
		☐ Refer as 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.

3.4.4 Test Setup

Transmitter Radiated Unwanted Emissions
Above 1GHz


3.4.5 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.

3.4.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D

4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 06, 2021	May 05, 2022	Radiation (03CH03-CB)
Horn Antenna	ETS・Lindgren	3115	6821	750MHz~ 18GHz	Jan. 26, 2021	Jan. 25, 2022	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 03, 2020	Jul. 02, 2021	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 04, 2021	Jun. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Dec. 31, 2020	Dec. 30, 2021	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~ 40GHz	Aug. 17, 2020	Aug. 16, 2021	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1531344	300MHz~ 40GHz	Jul. 27, 2021	Jul. 26, 2022	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~ 40GHz	Aug. 17, 2020	Aug. 16, 2021	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1728002	300MHz~ 40GHz	Jul. 27, 2021	Jul. 26, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)

RF Cable-high	Woken	RG402	High Cable-13	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz –18 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

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

NCR means Non-Calibration required.

Summary

Mode	Max-N dB (Hz)	ITU-Code	Min-N dB (Hz)
5.85-5.895GHz	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.35M	16M3D1D	16.35M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.99M	19M0D1D	18.9M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.62M	37M6D1D	32.94M
802.11ax HEW80_Nss1,(MCS0)_4TX	76.32M	76M3D1D	75.24M
802.11ax HEW160_Nss1,(MCS0)_4TX	155.16M	155MD1D	154.98M

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 2-N dB (Hz)	Port 3-N dB (Hz)	Port 4-N dB (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-
5845MHz	Pass	500k	16.35M	16.35M	16.35M	16.35M
5865MHz	Pass	500k	16.35M	16.32M	16.35M	16.35M
5885MHz	Pass	500k	16.35M	16.32M	16.35M	16.35M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5845MHz	Pass	500k	18.99M	18.9M	18.9M	18.99M
5865MHz	Pass	500k	18.99M	18.99M	18.9M	19.02M
5885MHz	Pass	500k	18.99M	18.96M	18.9M	18.96M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5835MHz	Pass	500k	37.56M	36.6M	37.5M	37.38M
5875MHz	Pass	500k	37.62M	36.3M	37.56M	37.38M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5855MHz	Pass	500k	76.08M	76.32M	75.24M	75.36M
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5815MHz	Pass	500k	155.16M	155.16M	154.98M	155.16M

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

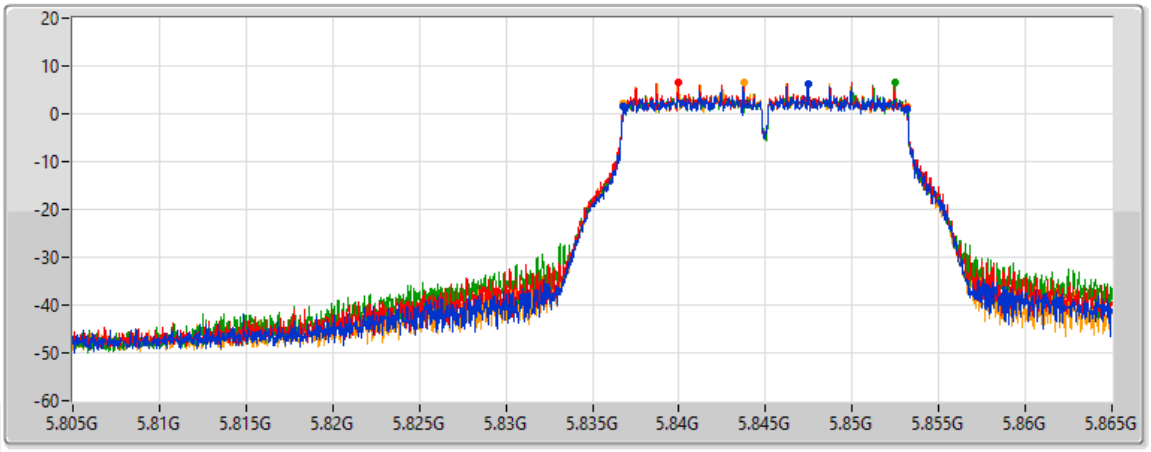
802.11a_Nss1,(6Mbps)_4TX EBW

5845MHz

24/08/2021

CF 5.835GHz
Span 60MHz
RBW 100kHz
VBW 300kHz
Sweep Time 100ms
Detector Type Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
16.35M	5.8368G	5.85315G	500k	1
16.35M	5.8368G	5.85315G	500k	2
16.35M	5.8368G	5.85315G	500k	3
16.35M	5.8368G	5.85315G	500k	4

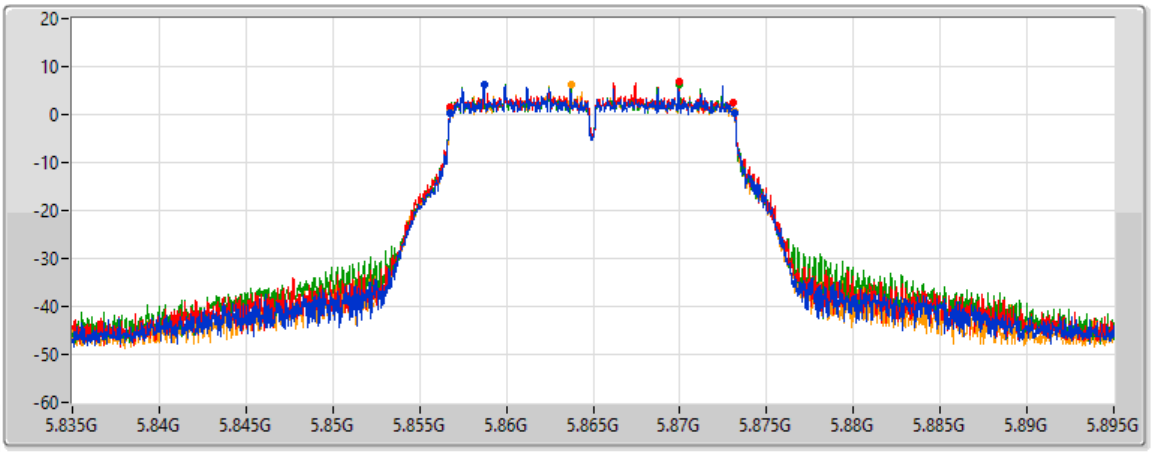
802.11a_Nss1,(6Mbps)_4TX EBW

5865MHz

24/08/2021

CF 5.865GHz
Span 60MHz
RBW 100kHz
VBW 300kHz
Sweep Time 100ms
Detector Type Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
16.35M	5.85678G	5.87313G	500k	1
16.32M	5.85678G	5.8731G	500k	2
16.35M	5.85678G	5.87313G	500k	3
16.35M	5.85678G	5.87313G	500k	4

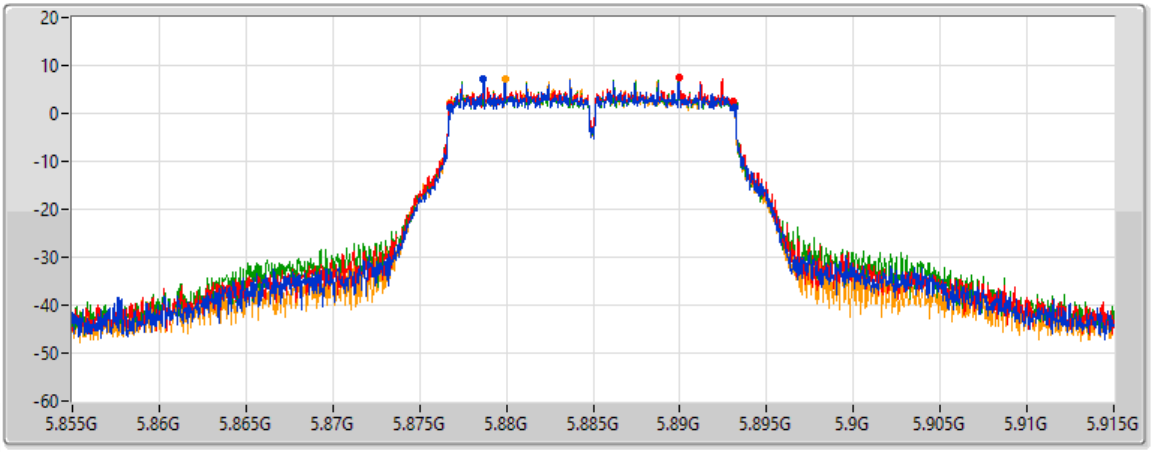
802.11a_Nss1,(6Mbps)_4TX EBW

5885MHz

24/08/2021

CF	5.885GHz
Span	60MHz
RBW	100kHz
VBW	300kHz
Sweep Time	100ms
Detector Type	Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
16.35M	5.87678G	5.89313G	500k	1
16.32M	5.87678G	5.8931G	500k	2
16.35M	5.87678G	5.89313G	500k	3
16.35M	5.87678G	5.89313G	500k	4

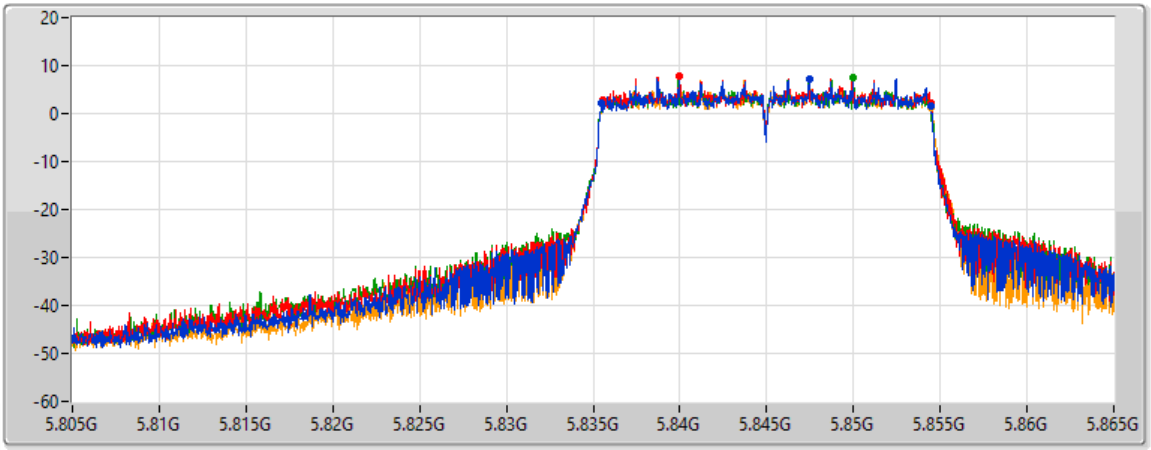
802.11ax HEW20_Nss1,(MCS0)_4TX EBW

5845MHz

24/08/2021

CF	5.835GHz
Span	60MHz
RBW	100kHz
VBW	300kHz
Sweep Time	100ms
Detector Type	Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
18.99M	5.83548G	5.85447G	500k	1
18.9M	5.83554G	5.85444G	500k	2
18.9M	5.83551G	5.85441G	500k	3
18.99M	5.83551G	5.8545G	500k	4

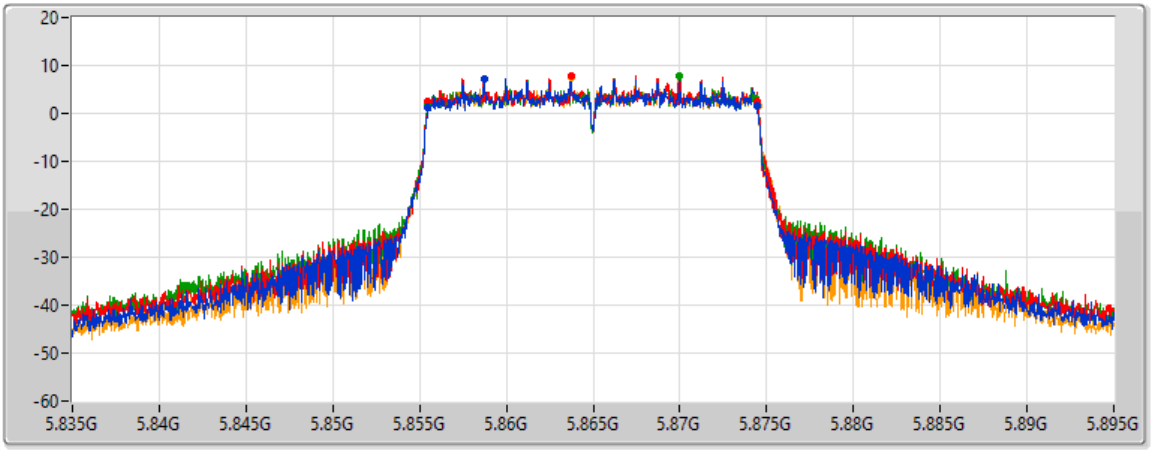
802.11ax HEW20_Nss1,(MCS0)_4TX EBW

5865MHz

24/08/2021

CF 5.865GHz
Span 60MHz
RBW 100kHz
VBW 300kHz
Sweep Time 100ms
Detector Type Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
18.99M	5.85546G	5.87445G	500k	1
18.99M	5.85549G	5.87448G	500k	2
18.9M	5.85549G	5.87439G	500k	3
19.02M	5.85549G	5.87451G	500k	4

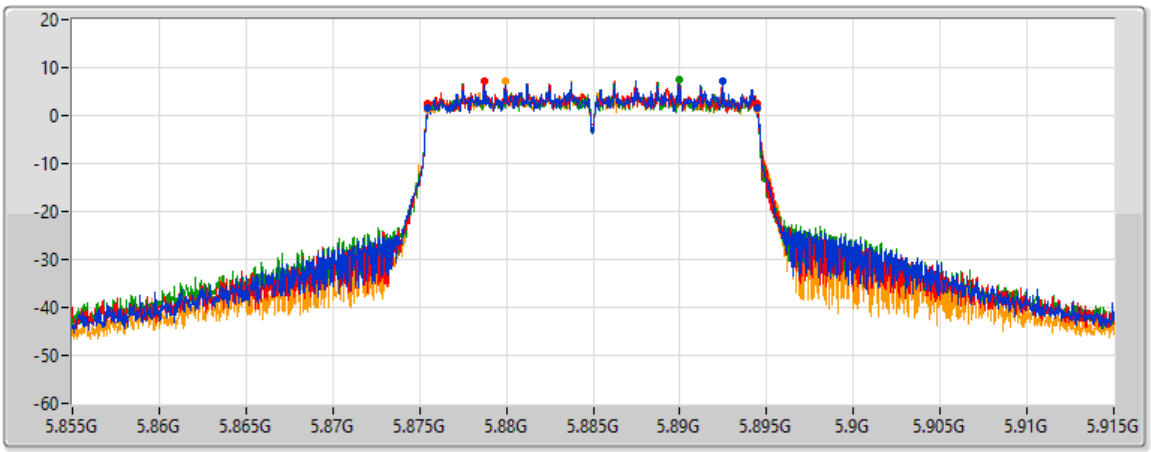
802.11ax HEW20_Nss1,(MCS0)_4TX EBW

5885MHz

24/08/2021

CF 5.885GHz
Span 60MHz
RBW 100kHz
VBW 300kHz
Sweep Time 100ms
Detector Type Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
18.99M	5.87546G	5.89445G	500k	1
18.96M	5.87549G	5.89445G	500k	2
18.9M	5.87552G	5.89442G	500k	3
18.96M	5.87549G	5.89445G	500k	4

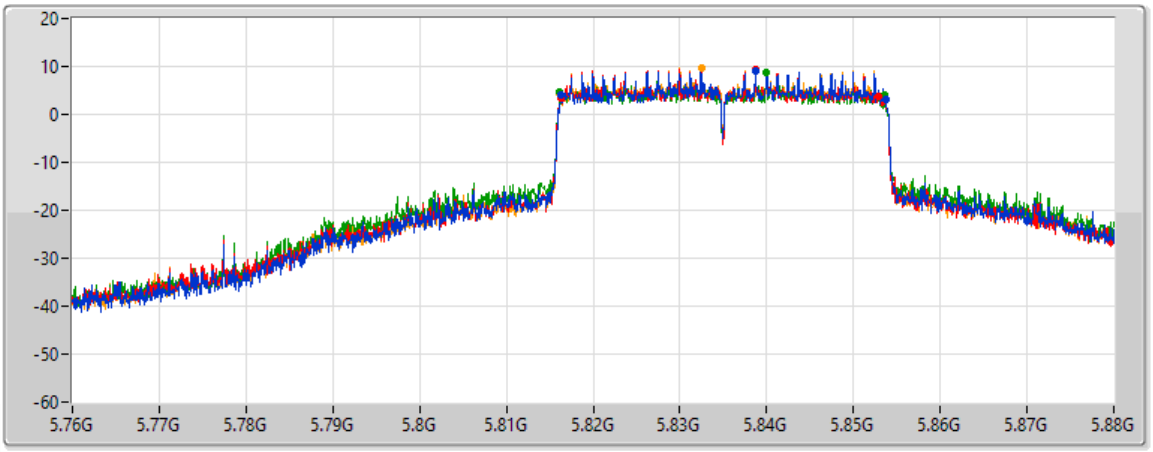
802.11ax HEW40_Nss1,(MCS0)_4TX EBW

5835MHz

24/08/2021

CF	5.82GHz
Span	120MHz
RBW	100kHz
VBW	300kHz
Sweep Time	100ms
Detector Type	Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
37.56M	5.81622G	5.85378G	500k	1
36.6M	5.81634G	5.85294G	500k	2
37.5M	5.81616G	5.85366G	500k	3
37.38M	5.81616G	5.85354G	500k	4

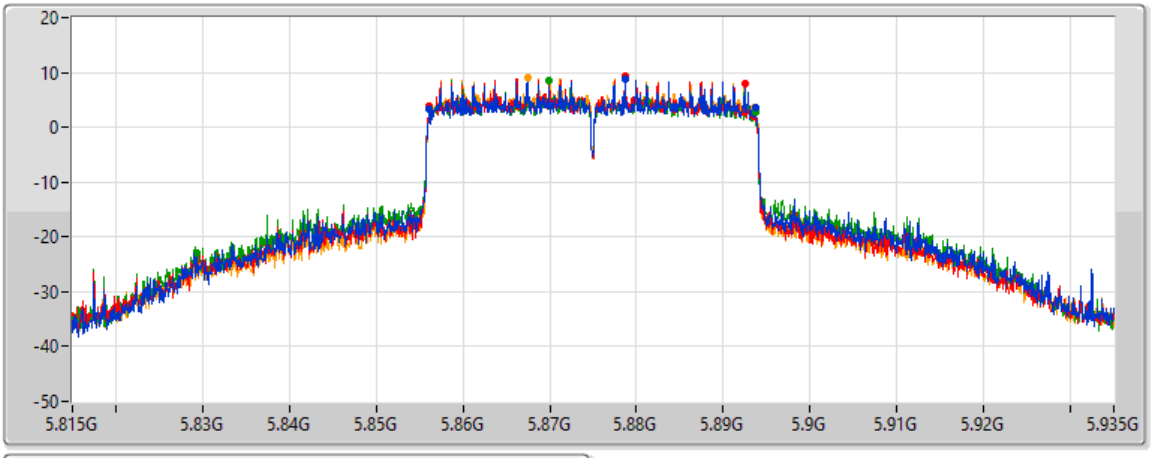
802.11ax HEW40_Nss1,(MCS0)_4TX EBW

5875MHz

24/08/2021

CF	5.875GHz
Span	120MHz
RBW	100kHz
VBW	300kHz
Sweep Time	100ms
Detector Type	Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
37.62M	5.8561G	5.89372G	500k	1
36.3M	5.85616G	5.89246G	500k	2
37.56M	5.85616G	5.89372G	500k	3
37.38M	5.85616G	5.89354G	500k	4

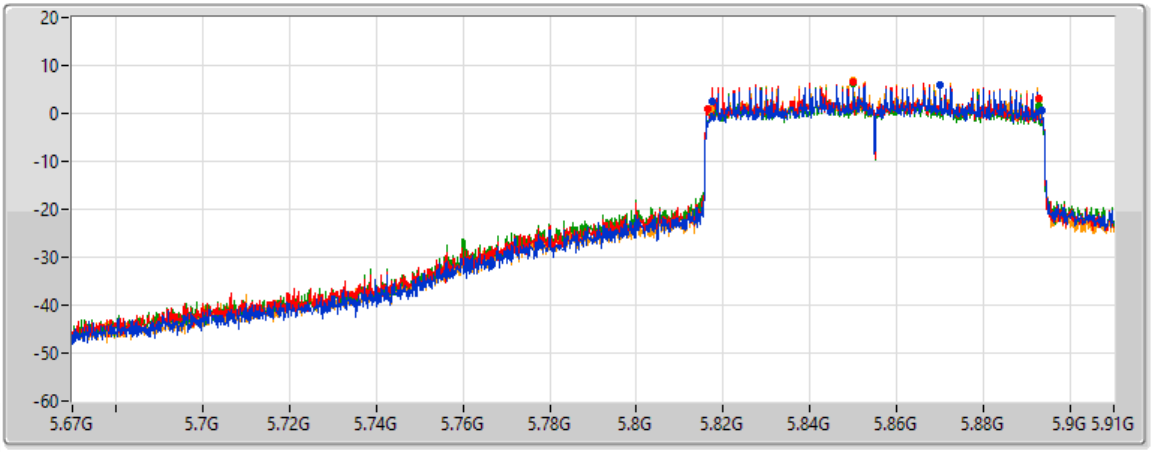
802.11ax HEW80_Nss1,(MCS0)_4TX EBW

5855MHz

24/08/2021

CF 5.79GHz
Span 240MHz
RBW 100kHz
VBW 300kHz
Sweep Time 100ms
Detector Type Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
76.08M	5.81736G	5.89344G	500k	1
76.32M	5.81628G	5.8926G	500k	2
75.24M	5.81736G	5.8926G	500k	3
75.36M	5.81724G	5.8926G	500k	4

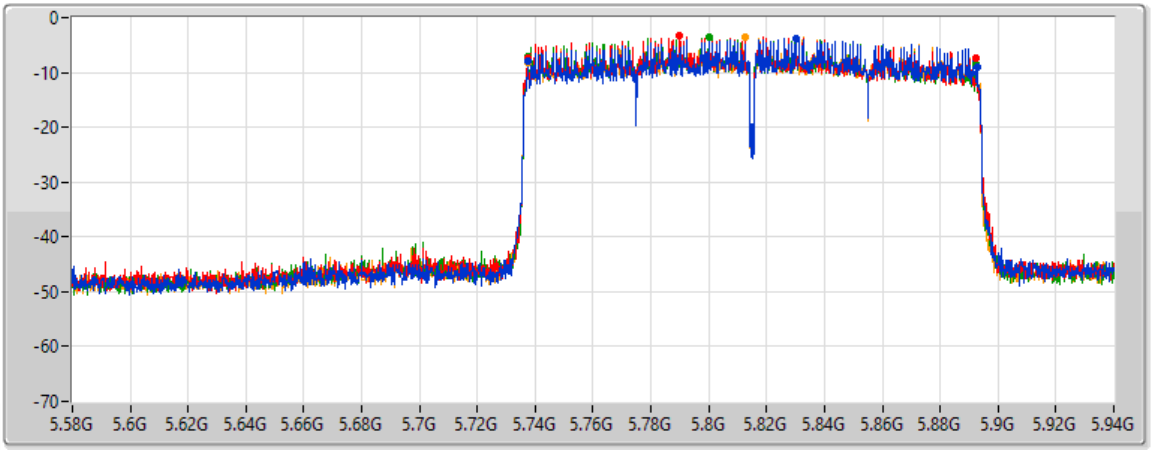
802.11ax HEW160_Nss1,(MCS0)_4TX EBW

5815MHz

24/08/2021

CF 5.76GHz
Span 360MHz
RBW 100kHz
VBW 300kHz
Sweep Time 100ms
Detector Type Peak

Port 1
Port 2
Port 3
Port 4



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	Limit(Hz)	Port
155.16M	5.7375G	5.89266G	500k	1
155.16M	5.73732G	5.89248G	500k	2
154.98M	5.7375G	5.89248G	500k	3
155.16M	5.73732G	5.89248G	500k	4

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.85-5.895GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.96M	17.181M	17M2D1D	21.42M	16.882M
802.11ax HEW20_Nss1,(MCS0)_4TX	22.98M	19.22M	19M2D1D	21.42M	19.07M
802.11ax HEW40_Nss1,(MCS0)_4TX	73.98M	39.76M	39M8D1D	46.92M	34.063M
802.11ax HEW80_Nss1,(MCS0)_4TX	119.16M	78.201M	78M2D1D	106.56M	77.721M
802.11ax HEW160_Nss1,(MCS0)_4TX	165.06M	155.262M	155MD1D	163.08M	155.082M

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

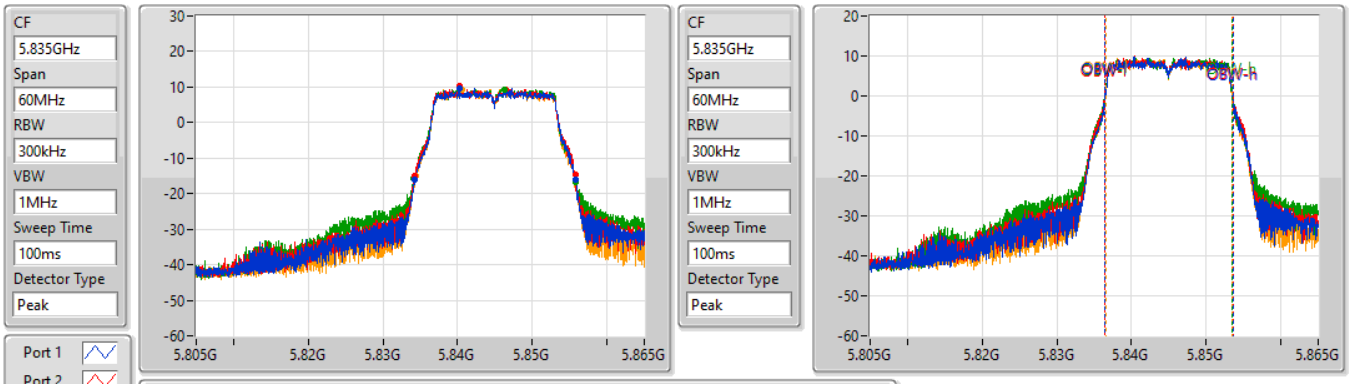
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz	Pass	Inf	21.51M	17.061M	21.48M	17.151M	21.66M	17.061M	21.48M	16.912M
5865MHz	Pass	Inf	21.54M	17.061M	21.48M	17.151M	21.63M	17.061M	21.42M	16.882M
5885MHz	Pass	Inf	21.42M	17.091M	21.51M	17.181M	21.96M	17.151M	21.48M	16.882M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz	Pass	Inf	21.66M	19.1M	21.51M	19.13M	22.08M	19.16M	21.78M	19.19M
5865MHz	Pass	Inf	21.72M	19.1M	21.72M	19.19M	22.98M	19.19M	21.78M	19.19M
5885MHz	Pass	Inf	21.66M	19.13M	21.42M	19.16M	22.35M	19.19M	21.63M	19.22M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5835MHz	Pass	Inf	66.96M	38.381M	57.72M	38.381M	76.74M	39.22M	65.7M	38.261M
5875MHz	Pass	Inf	73.98M	38.681M	57.06M	38.381M	73.26M	39.76M	62.34M	38.261M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5855MHz	Pass	Inf	109.68M	77.841M	106.56M	77.841M	119.16M	78.201M	106.92M	77.721M
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5815MHz	Pass	Inf	164.34M	155.262M	165.06M	155.262M	163.44M	155.082M	163.08M	155.082M

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)_4TX EBW

5845MHz

24/08/2021

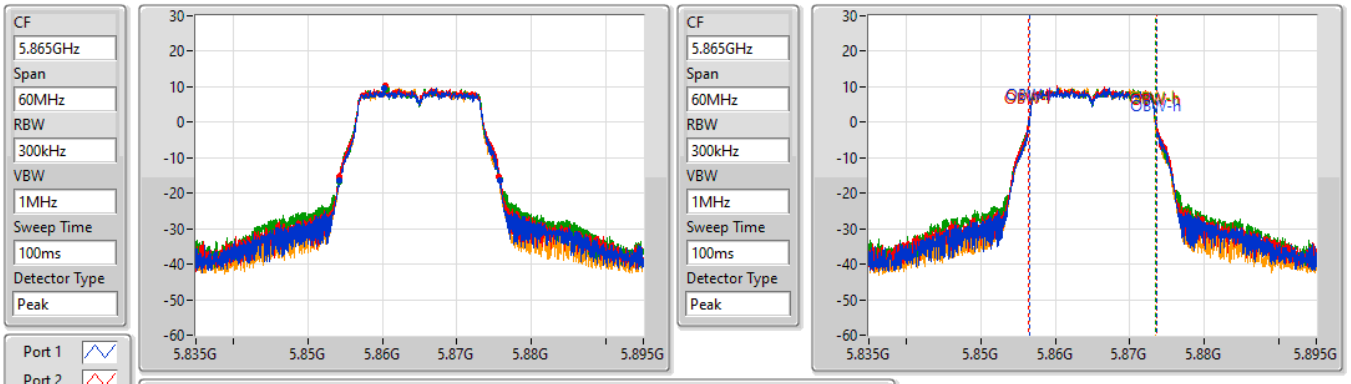


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.51M	5.83431G	5.85582G	17.061M	5.836499G	5.853561G	Inf	1
21.48M	5.83425G	5.85573G	17.151M	5.836439G	5.853591G	Inf	2
21.66M	5.83413G	5.85579G	17.061M	5.836409G	5.853471G	Inf	3
21.48M	5.83434G	5.85582G	16.912M	5.836529G	5.853441G	Inf	4

802.11a_Nss1,(6Mbps)_4TX EBW

5865MHz

24/08/2021

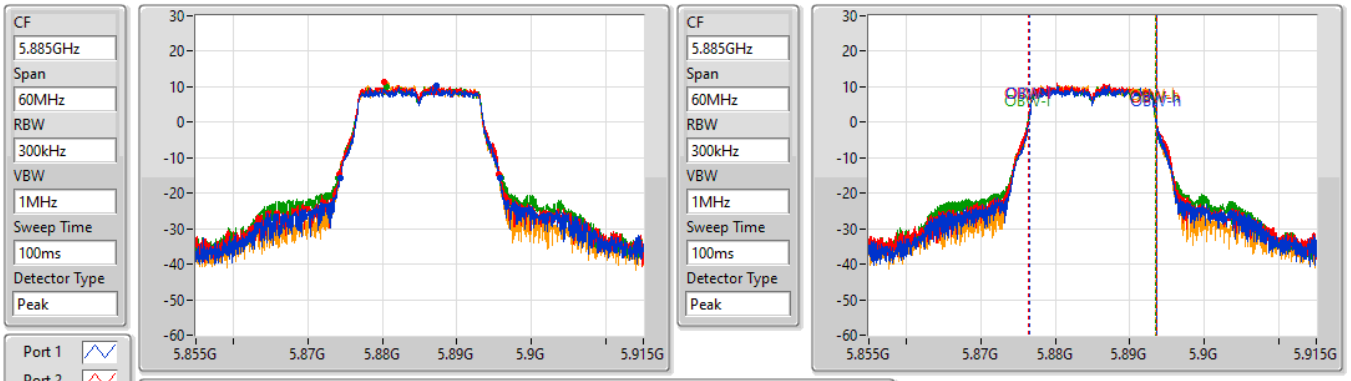


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.54M	5.85426G	5.8758G	17.061M	5.856484G	5.873546G	Inf	1
21.48M	5.8542G	5.87568G	17.151M	5.856424G	5.873576G	Inf	2
21.63M	5.85414G	5.87577G	17.061M	5.856424G	5.873486G	Inf	3
21.42M	5.85429G	5.87571G	16.882M	5.856514G	5.873396G	Inf	4

802.11a_Nss1,(6Mbps)_4TX EBW

5885MHz

24/08/2021

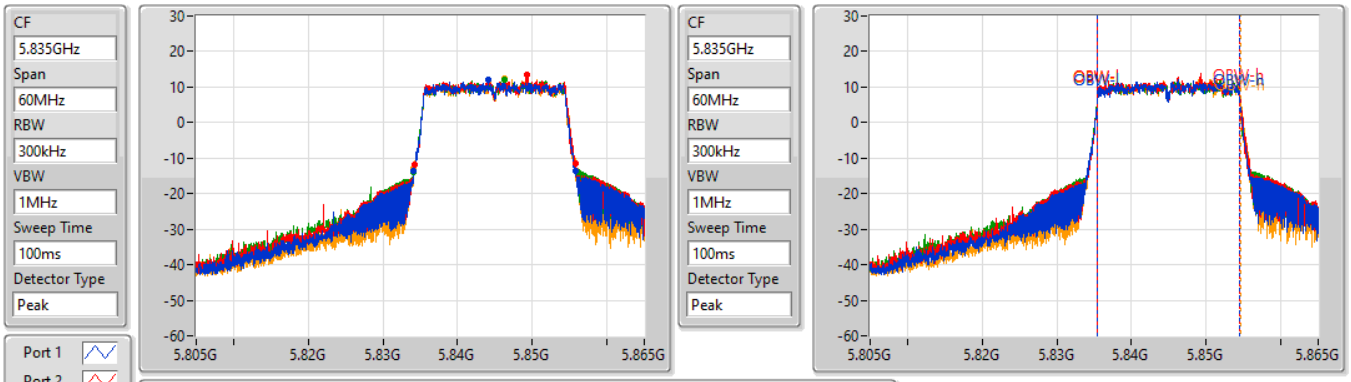


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.42M	5.87432G	5.89574G	17.091M	5.876484G	5.893576G	Inf	1
21.51M	5.87417G	5.89568G	17.181M	5.876394G	5.893576G	Inf	2
21.96M	5.87399G	5.89595G	17.151M	5.876334G	5.893486G	Inf	3
21.48M	5.87423G	5.89571G	16.882M	5.876514G	5.893396G	Inf	4

802.11ax HEW20_Nss1,(MCS0)_4TX EBW

5845MHz

24/08/2021

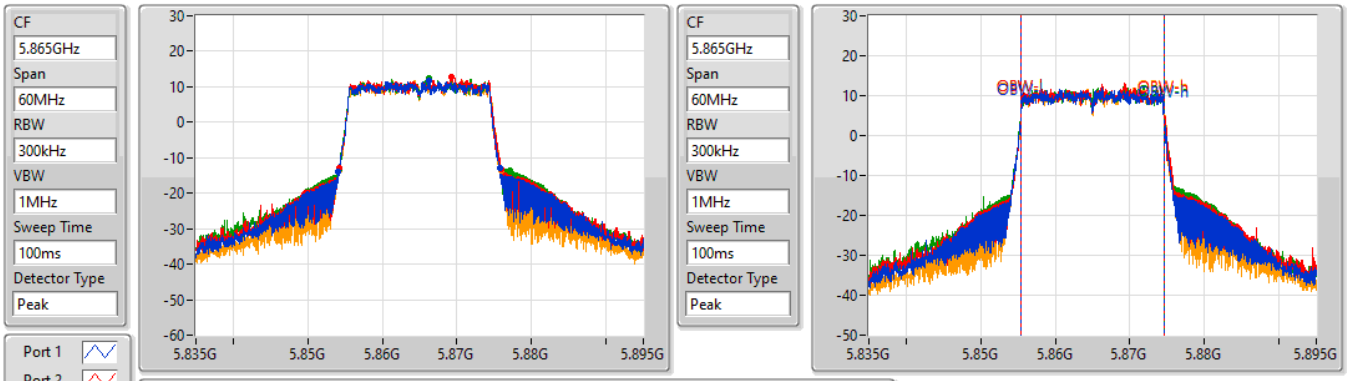


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.66M	5.8341G	5.85576G	19.1M	5.83542G	5.85452G	Inf	1
21.51M	5.83428G	5.85579G	19.13M	5.83542G	5.85455G	Inf	2
22.08M	5.8341G	5.85618G	19.16M	5.83539G	5.85455G	Inf	3
21.78M	5.83416G	5.85594G	19.19M	5.83542G	5.85461G	Inf	4

802.11ax HEW20_Nss1,(MCS0)_4TX EBW

5865MHz

24/08/2021

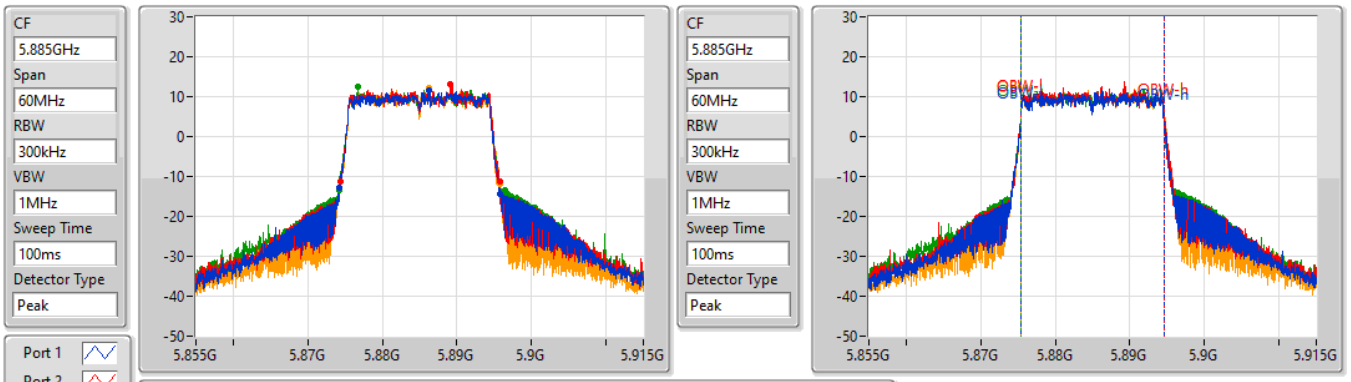


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.72M	5.85411G	5.87583G	19.1M	5.855435G	5.874535G	Inf	1
21.72M	5.8542G	5.87592G	19.19M	5.855435G	5.874625G	Inf	2
22.98M	5.85414G	5.87712G	19.19M	5.855405G	5.874595G	Inf	3
21.78M	5.8542G	5.87598G	19.19M	5.855435G	5.874625G	Inf	4

802.11ax HEW20_Nss1,(MCS0)_4TX EBW

5885MHz

24/08/2021

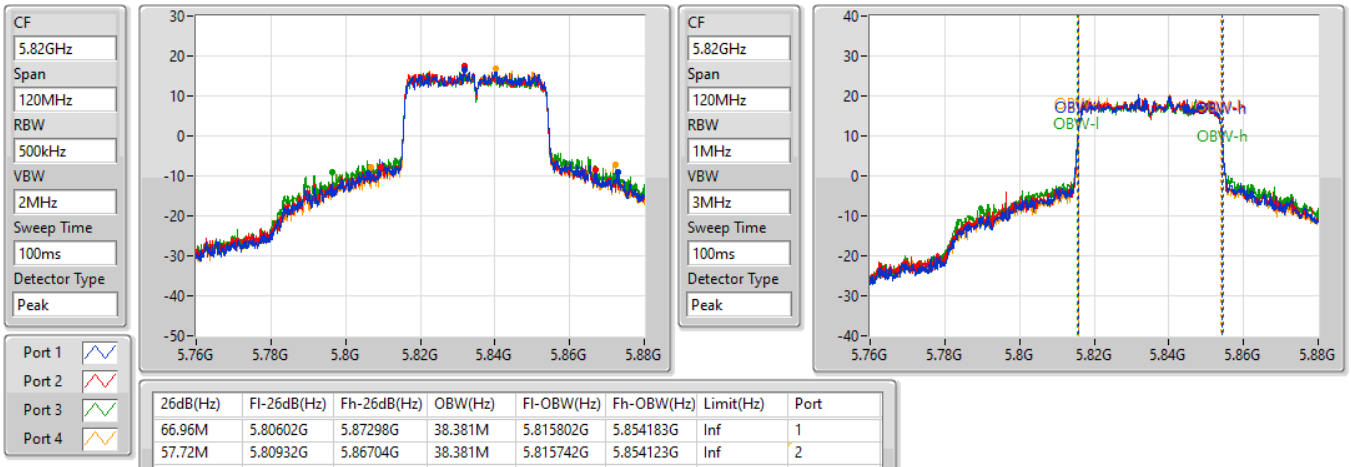


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.66M	5.87417G	5.89583G	19.13M	5.875405G	5.894535G	Inf	1
21.42M	5.87432G	5.89574G	19.16M	5.875435G	5.894595G	Inf	2
22.35M	5.87414G	5.89649G	19.19M	5.875405G	5.894595G	Inf	3
21.63M	5.8742G	5.89583G	19.22M	5.875435G	5.894655G	Inf	4

802.11ax HEW40_Nss1,(MCS0)_4TX EBW

5835MHz

24/08/2021

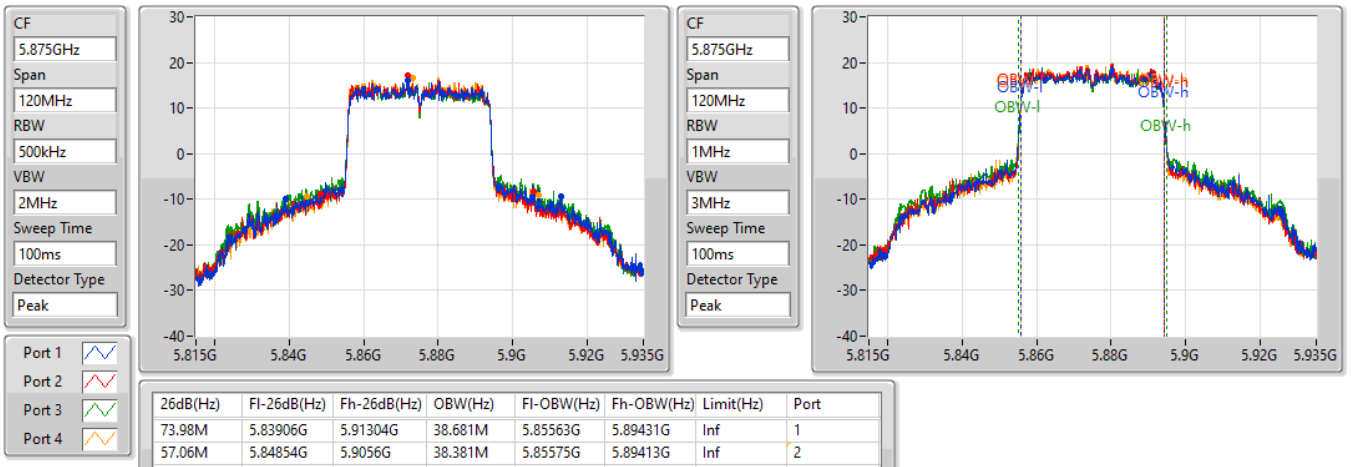


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
66.96M	5.80602G	5.87298G	38.381M	5.815802G	5.854183G	Inf	1
57.72M	5.80932G	5.86704G	38.381M	5.815742G	5.854123G	Inf	2
76.74M	5.79636G	5.8731G	39.22M	5.8153382G	5.854603G	Inf	3
65.7M	5.80674G	5.87244G	38.261M	5.815802G	5.854063G	Inf	4

802.11ax HEW40_Nss1,(MCS0)_4TX EBW

5875MHz

24/08/2021



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
73.98M	5.83906G	5.91304G	38.681M	5.85563G	5.89431G	Inf	1
57.06M	5.84854G	5.9056G	38.381M	5.85575G	5.89413G	Inf	2
73.26M	5.83984G	5.9131G	39.76M	5.85521G	5.89497G	Inf	3
62.34M	5.84464G	5.90698G	38.261M	5.85581G	5.89407G	Inf	4

802.11ax HEW80_Nss1,(MCS0)_4TX EBW

5855MHz

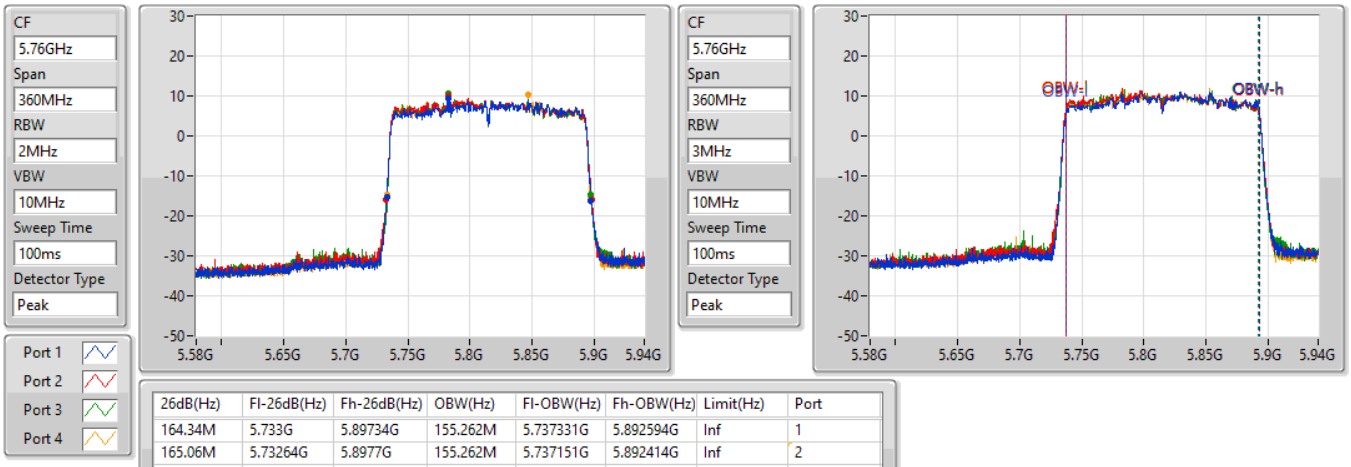
24/08/2021

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
109.68M	5.80032G	5.91G	77.841M	5.816027G	5.893868G	Inf	1
106.56M	5.8032G	5.90976G	77.841M	5.815907G	5.893748G	Inf	2
119.16M	5.79084G	5.91G	78.201M	5.8155547G	5.893748G	Inf	3
106.92M	5.80296G	5.90988G	77.721M	5.816027G	5.893748G	Inf	4

802.11ax HEW160_Nss1,(MCS0)_4TX EBW

5815MHz

24/08/2021



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
164.34M	5.733G	5.89734G	155.262M	5.7373316G	5.892594G	Inf	1
165.06M	5.73264G	5.8977G	155.262M	5.7371516G	5.892414G	Inf	2
163.44M	5.73372G	5.89716G	155.082M	5.7371516G	5.892234G	Inf	3
163.08M	5.73354G	5.89662G	155.082M	5.7373316G	5.892414G	Inf	4

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.23	0.41976	31.15	1.30317
802.11ax HEW20_Nss1,(MCS0)_4TX	26.57	0.45394	31.49	1.40929
802.11ax HEW40_Nss1,(MCS0)_4TX	29.92	0.98175	34.84	3.04789
802.11ax HEW80_Nss1,(MCS0)_4TX	26.77	0.47534	31.69	1.47571
802.11ax HEW160_Nss1,(MCS0)_4TX	20.84	0.12134	25.76	0.37670
5.85-5.895GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.89	0.48865	32.53	1.79061
802.11ax HEW20_Nss1,(MCS0)_4TX	27.49	0.56105	33.13	2.05589
802.11ax HEW40_Nss1,(MCS0)_4TX	30.32	1.07647	35.96	3.94457
802.11ax HEW80_Nss1,(MCS0)_4TX	27.50	0.56234	33.14	2.06063
802.11ax HEW160_Nss1,(MCS0)_4TX	15.57	0.03606	21.21	0.13213

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz Straddle 5.725-5.85GHz	Pass	4.92	20.05	20.10	20.39	20.28	26.23	30.00	31.15	Inf
5845MHz Straddle 5.85-5.895GHz	Pass	5.64	13.81	13.53	13.95	13.49	19.72	Inf	25.36	36.00
5865MHz	Pass	5.64	20.71	20.64	21.01	21.11	26.89	Inf	32.53	36.00
5885MHz	Pass	5.64	20.68	20.51	21.06	20.81	26.79	Inf	32.43	36.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz Straddle 5.725-5.85GHz	Pass	4.92	20.43	20.62	20.61	20.55	26.57	30.00	31.49	Inf
5845MHz Straddle 5.85-5.895GHz	Pass	5.64	15.22	15.32	15.39	15.25	21.32	Inf	26.96	36.00
5865MHz	Pass	5.64	21.42	21.40	21.60	21.44	27.49	Inf	33.13	36.00
5885MHz	Pass	5.64	21.21	21.34	21.54	21.30	27.37	Inf	33.01	36.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5835MHz Straddle 5.725-5.85GHz	Pass	4.92	23.80	23.73	23.85	24.20	29.92	30.00	34.84	Inf
5835MHz Straddle 5.85-5.895GHz	Pass	5.64	14.23	13.84	13.91	14.37	20.11	Inf	25.75	36.00
5875MHz	Pass	5.64	24.28	24.03	24.19	24.66	30.32	Inf	35.96	36.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5855MHz Straddle 5.725-5.85GHz	Pass	4.92	20.36	20.85	20.52	21.20	26.77	30.00	31.69	Inf
5855MHz Straddle 5.85-5.895GHz	Pass	5.64	21.63	21.24	21.10	21.89	27.50	Inf	33.14	36.00
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5815MHz Straddle 5.725-5.85GHz	Pass	4.92	14.59	14.87	15.14	14.67	20.84	30.00	25.76	Inf
5815MHz Straddle 5.85-5.895GHz	Pass	5.64	10.09	9.08	9.58	9.37	15.57	Inf	21.21	36.00

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

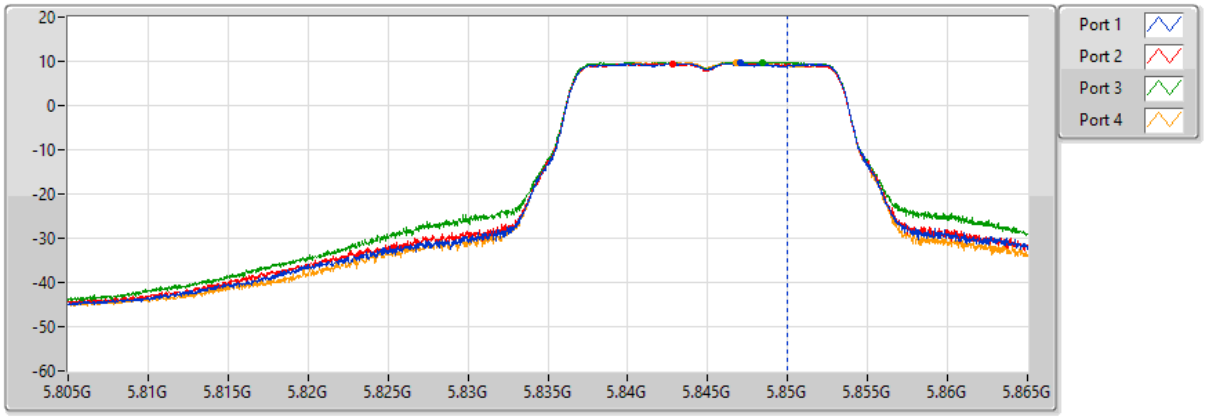
802.11a_Nss1,(6Mbps)_4TX AV Power

5845MHz Straddle 5.725-5.85GHz

12/06/2021

CF	5.835GHz
Span	60MHz
RBW	1MHz
VBW	3MHz
Sweep Time	20ms
Detector Type	RMS
CP BW	30MHz

Sum=Total Power
PX=Port X



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
26.23	20.05	20.10	20.39	20.28

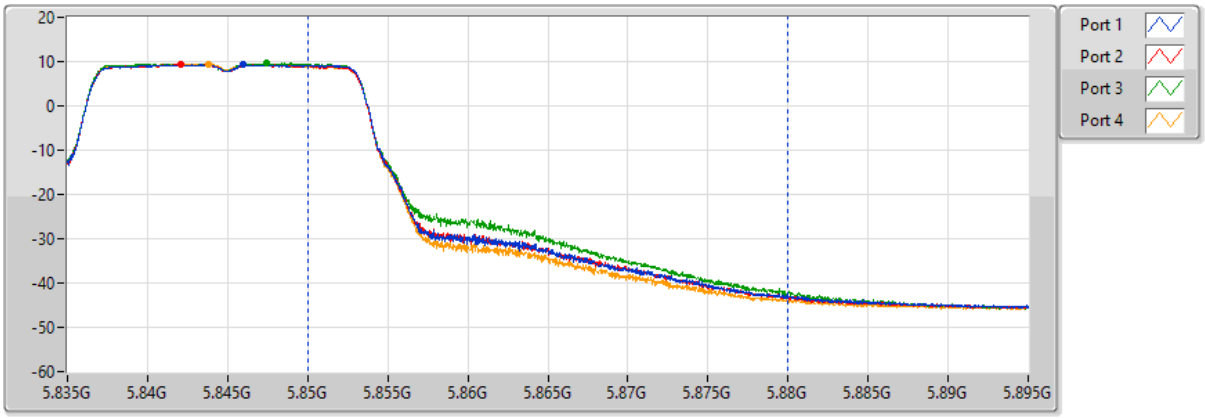
802.11a_Nss1,(6Mbps)_4TX AV Power

5845MHz Straddle 5.85-5.895GHz_TnomVnom

12/06/2021

CF	5.865GHz
Span	60MHz
RBW	1MHz
VBW	3MHz
Sweep Time	20ms
Detector Type	RMS
CP BW	30MHz

Sum=Total Power
PX=Port X

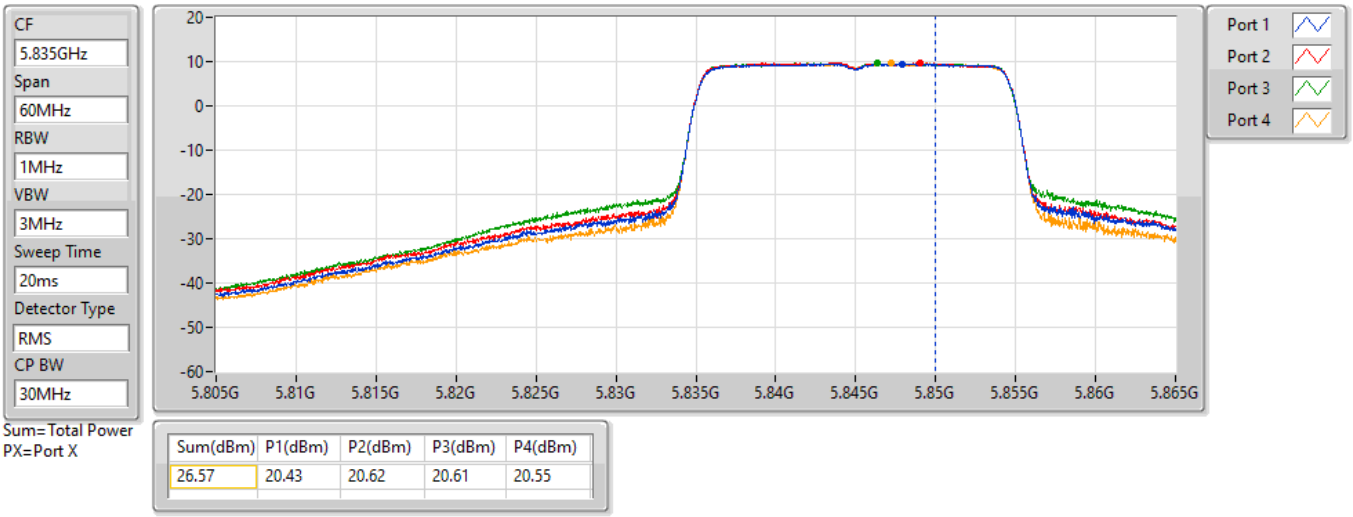


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
19.72	13.81	13.53	13.95	13.49

802.11ax HEW20_Nss1,(MCS0)_4TX AV Power

5845MHz Straddle 5.725-5.85GHz

12/06/2021

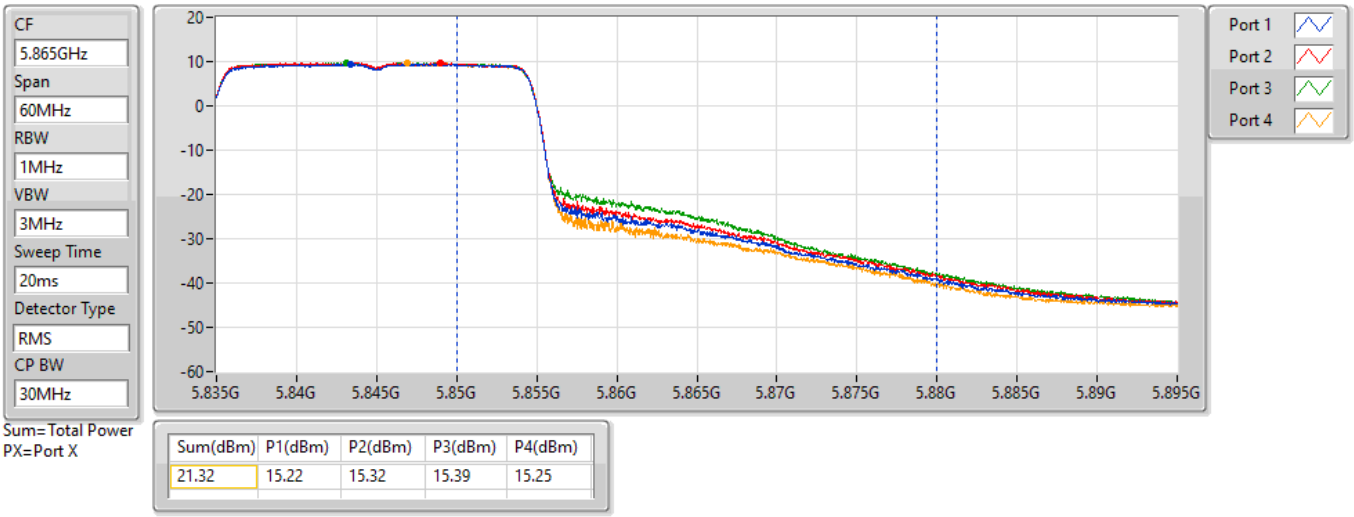


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
26.57	20.43	20.62	20.61	20.55

802.11ax HEW20_Nss1,(MCS0)_4TX AV Power

5845MHz Straddle 5.85-5.895GHz_TnomVnom

12/06/2021

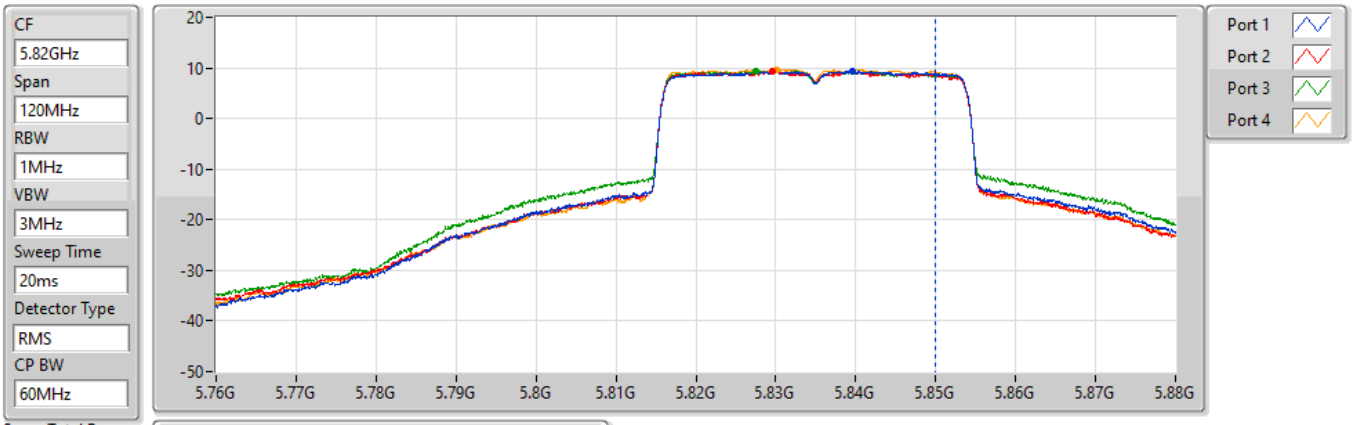


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
21.32	15.22	15.32	15.39	15.25

802.11ax HEW40_Nss1,(MCS0)_4TX AV Power

5835MHz Straddle 5.725-5.85GHz

12/06/2021

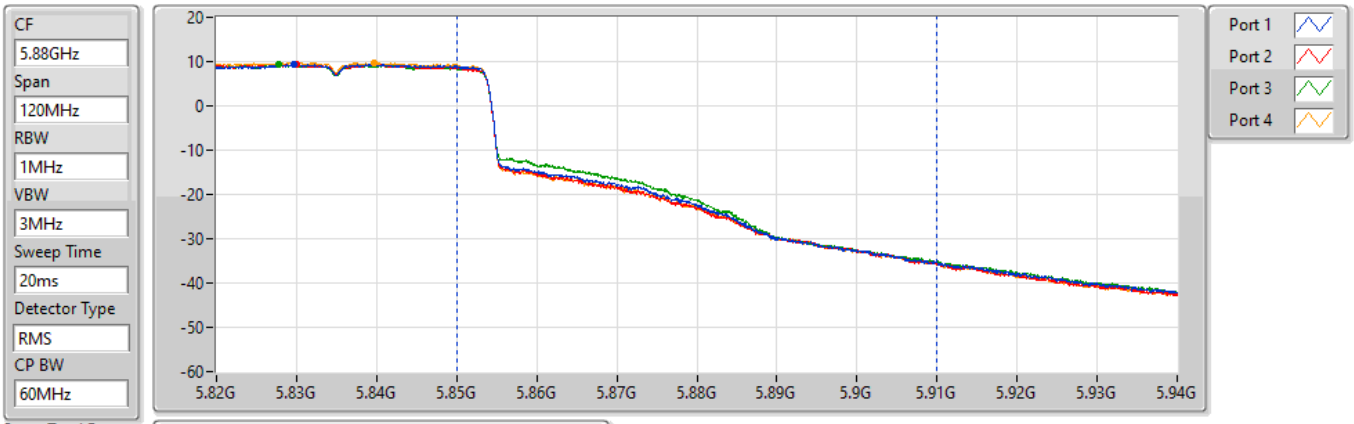


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
29.92	23.80	23.73	23.85	24.20

802.11ax HEW40_Nss1,(MCS0)_4TX AV Power

5835MHz Straddle 5.85-5.895GHz_TnomVnom

12/06/2021

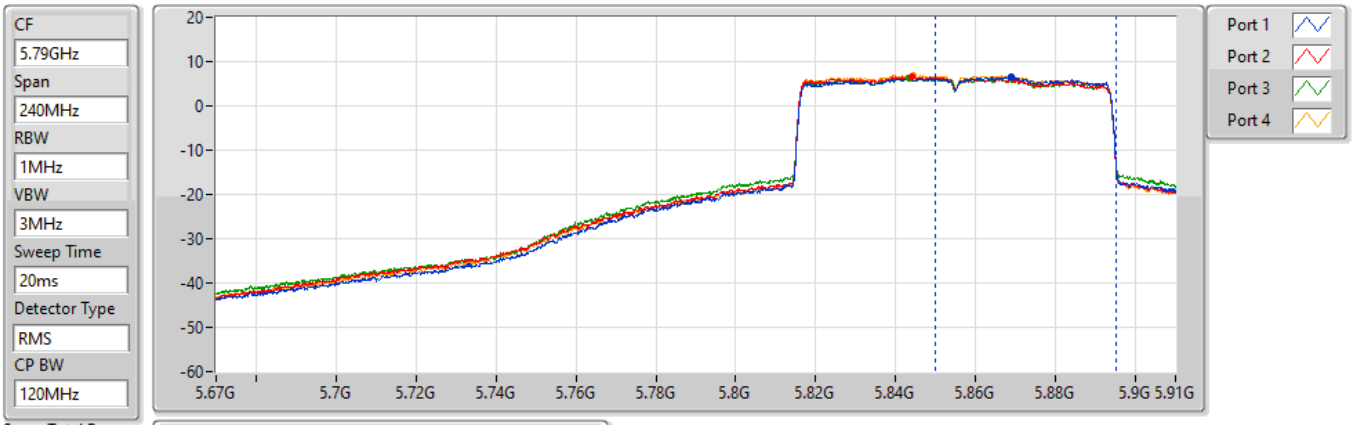


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
20.11	14.23	13.84	13.91	14.37

802.11ax HEW80_Nss1,(MCS0)_4TX AV Power

5855MHz Straddle 5.725-5.85GHz

12/06/2021



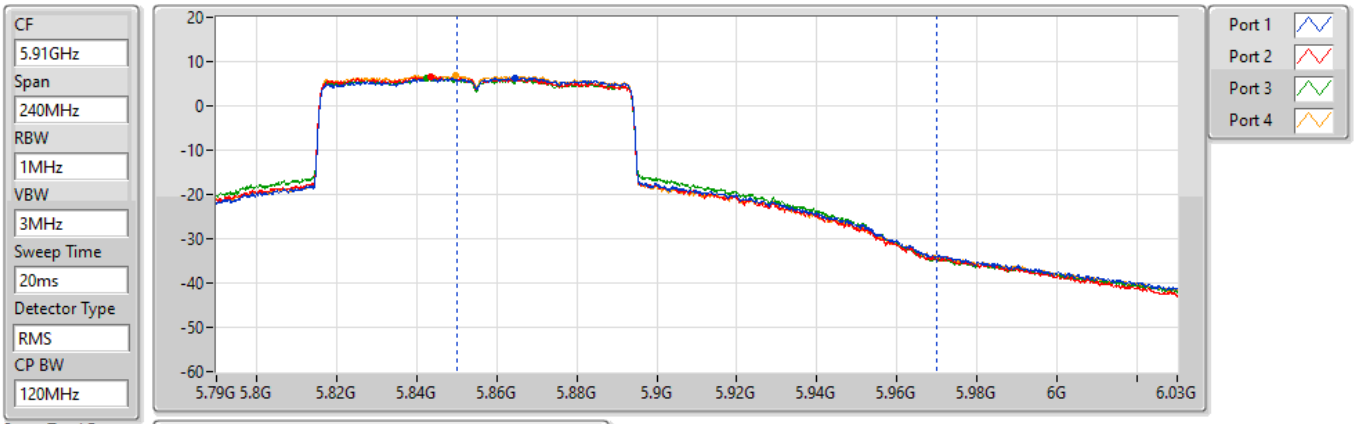
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
26.77	20.36	20.85	20.52	21.20

802.11ax HEW80_Nss1,(MCS0)_4TX AV Power

5855MHz Straddle 5.85-5.895GHz_TnomVnom

12/06/2021



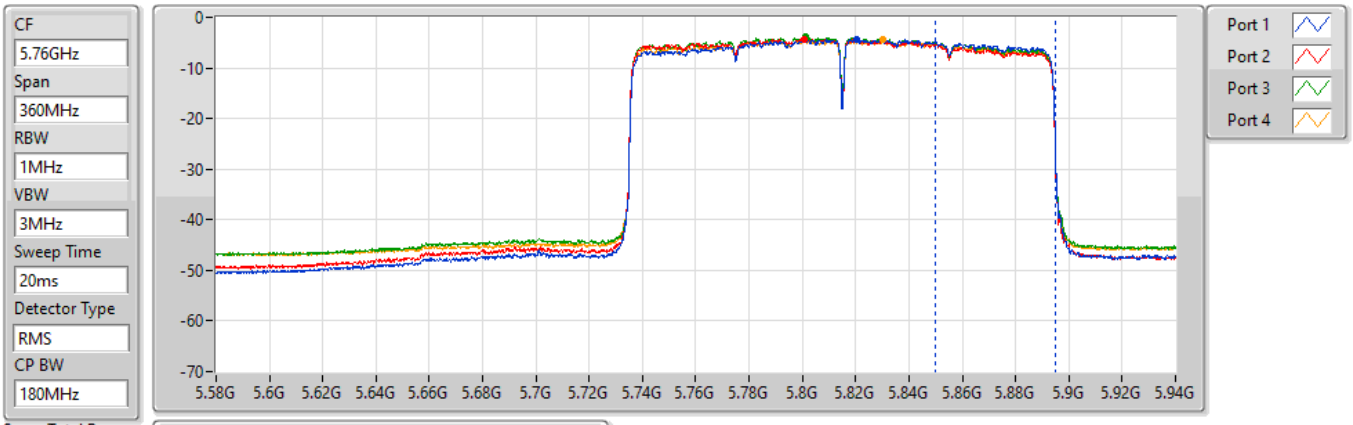
Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
27.50	21.63	21.24	21.10	21.89

802.11ax HEW160_Nss1,(MCS0)_4TX AV Power

5815MHz Straddle 5.725-5.85GHz

12/06/2021

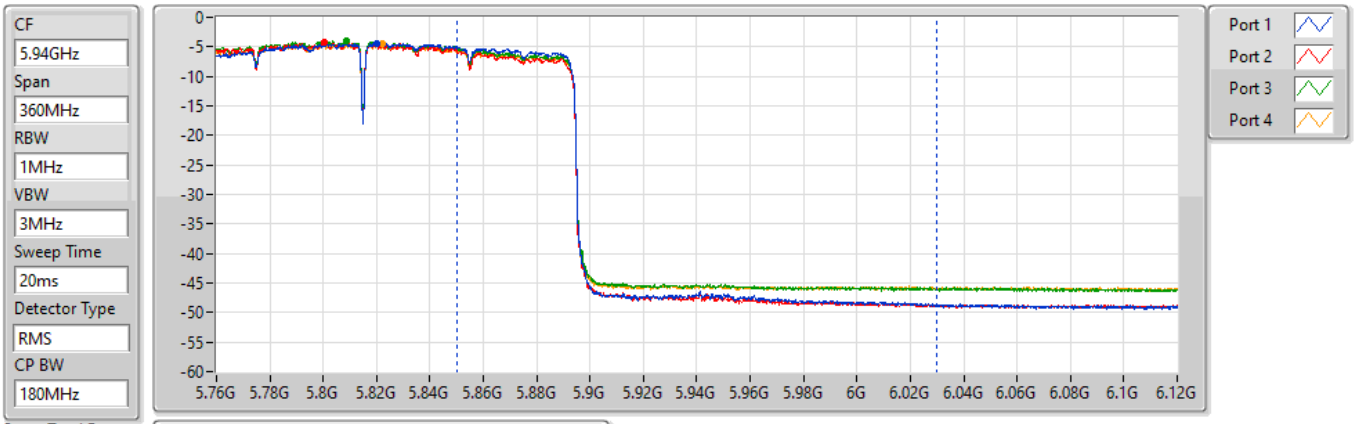


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
20.84	14.59	14.87	15.14	14.67

802.11ax HEW160_Nss1,(MCS0)_4TX AV Power

5815MHz Straddle 5.85-5.895GHz_TnomVnom

12/06/2021



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
15.57	10.09	9.08	9.58	9.37

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	26.57	0.45394	32.02	1.59221
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	29.92	0.98175	35.37	3.44350
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	26.77	0.47534	32.22	1.66725
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	20.84	0.12134	26.29	0.42560
5.85-5.895GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	27.49	0.56105	33.38	2.17771
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	29.94	0.98628	35.83	3.82825
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	27.50	0.56234	33.39	2.18273
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	15.57	0.03606	21.46	0.13996

Result

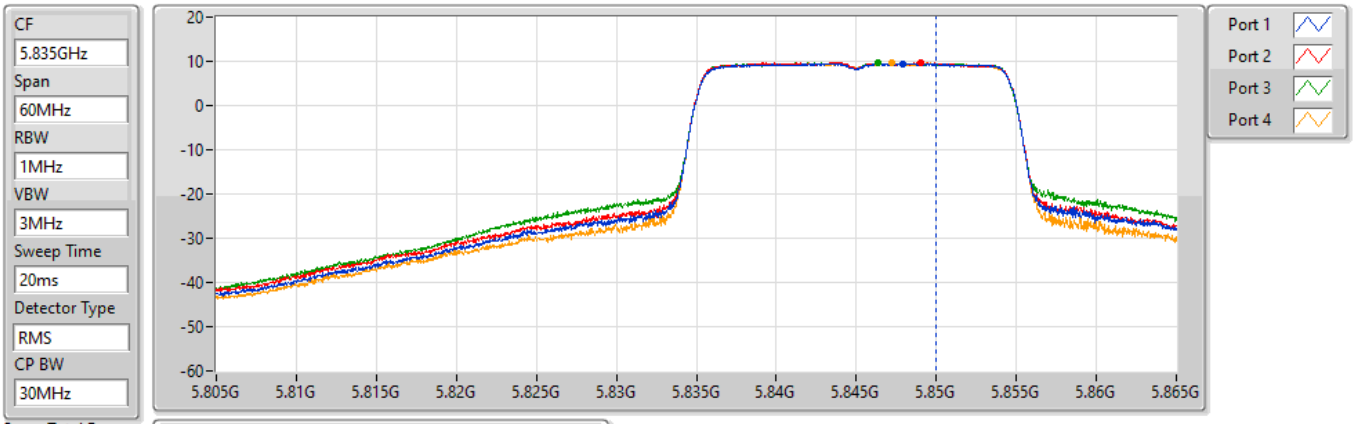
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz Straddle 5.725-5.85GHz	Pass	5.45	20.43	20.62	20.61	20.55	26.57	30.00	32.02	Inf
5845MHz Straddle 5.85-5.895GHz	Pass	5.89	15.22	15.32	15.39	15.25	21.32	Inf	27.21	36.00
5865MHz	Pass	5.89	21.42	21.4	21.6	21.44	27.49	Inf	33.38	36.00
5885MHz	Pass	5.89	21.21	21.34	21.54	21.3	27.37	Inf	33.26	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5835MHz Straddle 5.725-5.85GHz	Pass	5.45	23.8	23.73	23.85	24.2	29.92	30.00	35.37	Inf
5835MHz Straddle 5.85-5.895GHz	Pass	5.89	14.23	13.84	13.91	14.37	20.11	Inf	26.00	36.00
5875MHz	Pass	5.89	23.89	23.69	23.89	24.21	29.94	Inf	35.83	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5855MHz Straddle 5.725-5.85GHz	Pass	5.45	20.36	20.85	20.52	21.2	26.77	30.00	32.22	Inf
5855MHz Straddle 5.85-5.895GHz	Pass	5.89	21.63	21.24	21.1	21.89	27.50	Inf	33.39	36.00
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5815MHz Straddle 5.725-5.85GHz	Pass	5.45	14.59	14.87	15.14	14.67	20.84	30.00	26.29	Inf
5815MHz Straddle 5.85-5.895GHz	Pass	5.89	10.09	9.08	9.58	9.37	15.57	Inf	21.46	36.00

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

802.11ax HEW20-BF_Nss1,(MCS0)_4TX AV Power

5845MHz Straddle 5.725-5.85GHz

12/06/2021

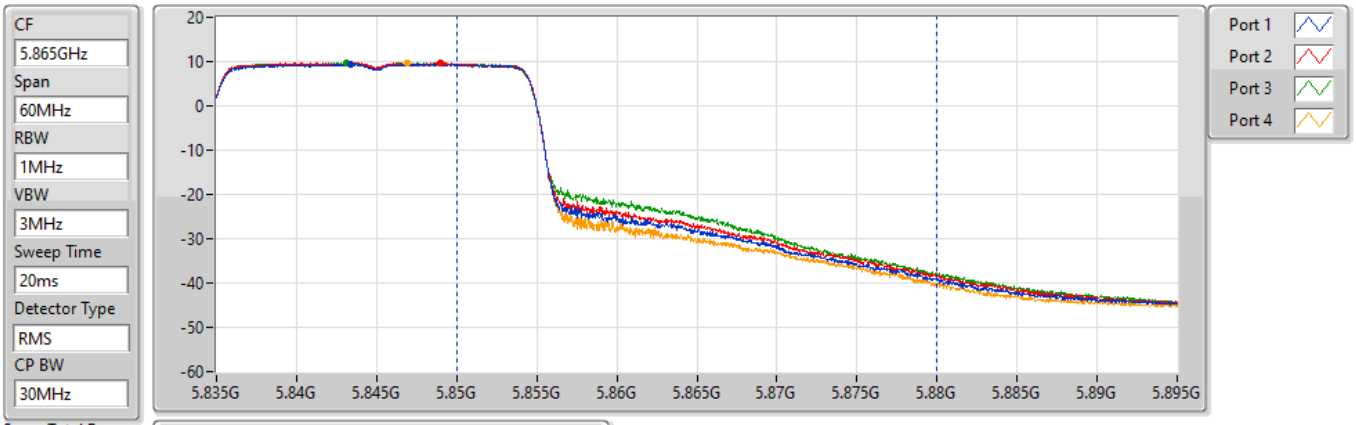


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
26.57	20.43	20.62	20.61	20.55

802.11ax HEW20-BF_Nss1,(MCS0)_4TX AV Power

5845MHz Straddle 5.85-5.895GHz_TnomVnom

12/06/2021

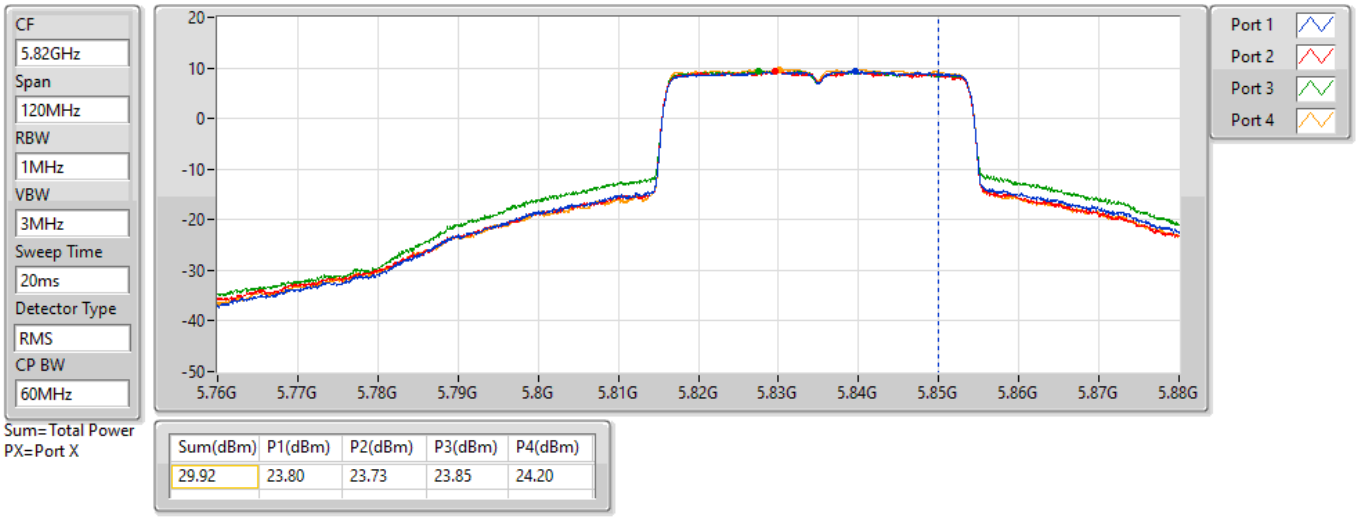


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
21.32	15.22	15.32	15.39	15.25

802.11ax HEW40-BF_Nss1,(MCS0)_4TX AV Power

5835MHz Straddle 5.725-5.85GHz

12/06/2021

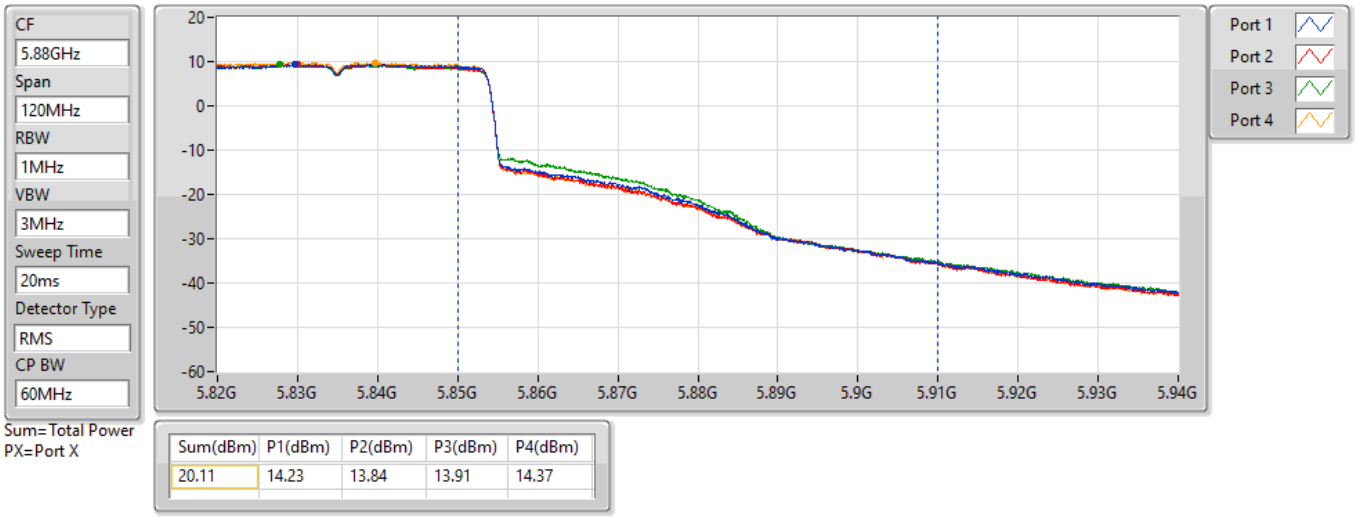


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
29.92	23.80	23.73	23.85	24.20

802.11ax HEW40-BF_Nss1,(MCS0)_4TX AV Power

5835MHz Straddle 5.85-5.895GHz_TnomVnom

12/06/2021

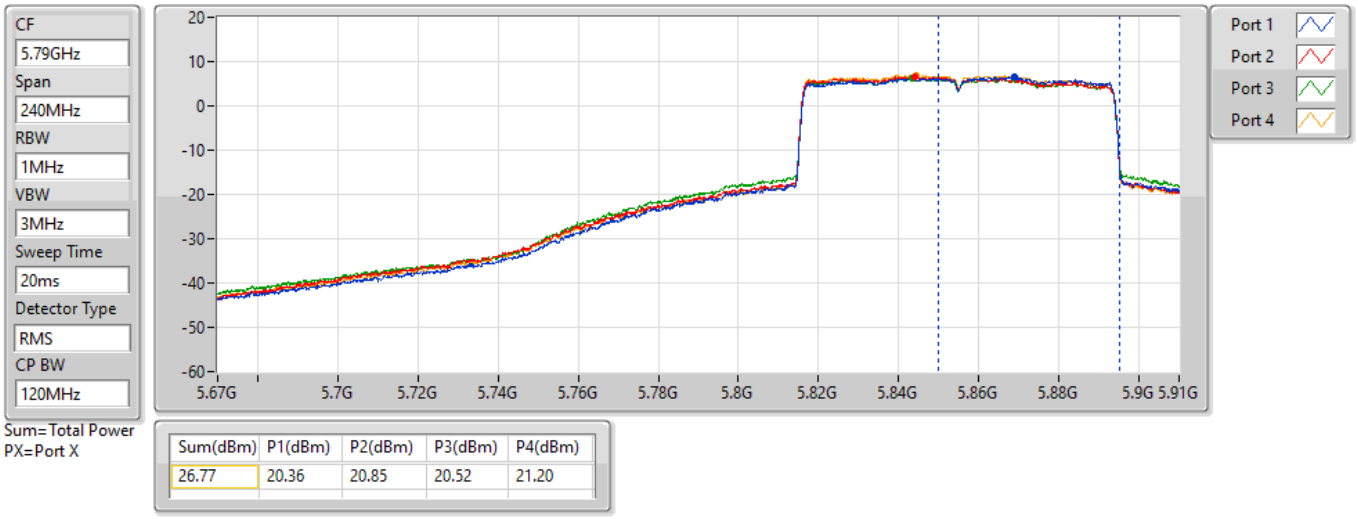


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
20.11	14.23	13.84	13.91	14.37

802.11ax HEW80-BF_Nss1,(MCS0)_4TX AV Power

5855MHz Straddle 5.725-5.85GHz

12/06/2021

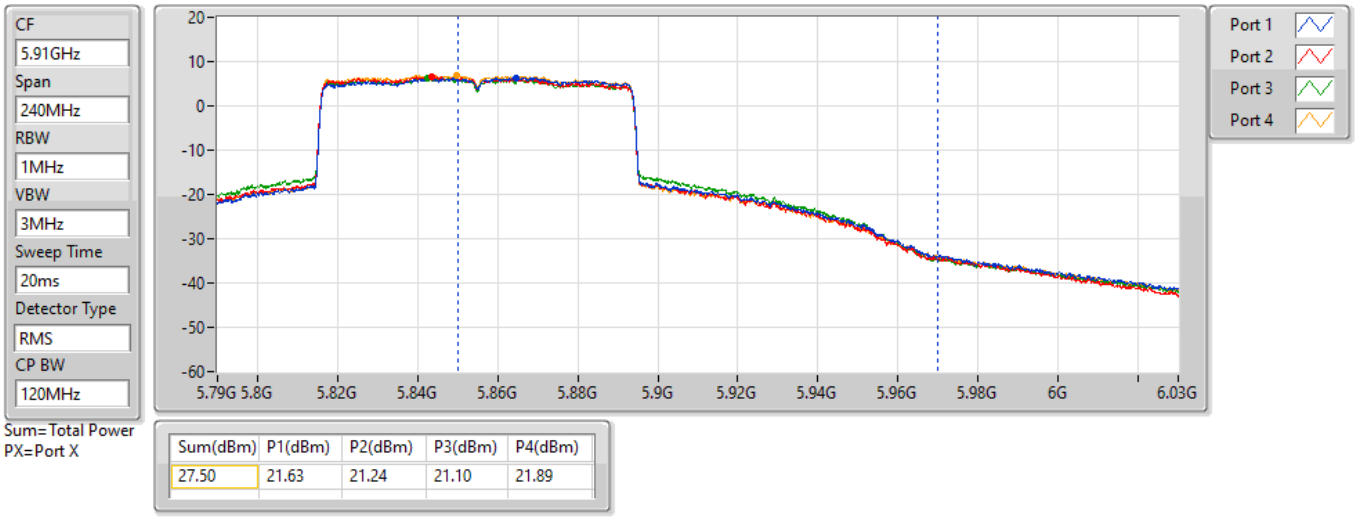


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
26.77	20.36	20.85	20.52	21.20

802.11ax HEW80-BF_Nss1,(MCS0)_4TX AV Power

5855MHz Straddle 5.85-5.895GHz_TnomVnom

12/06/2021

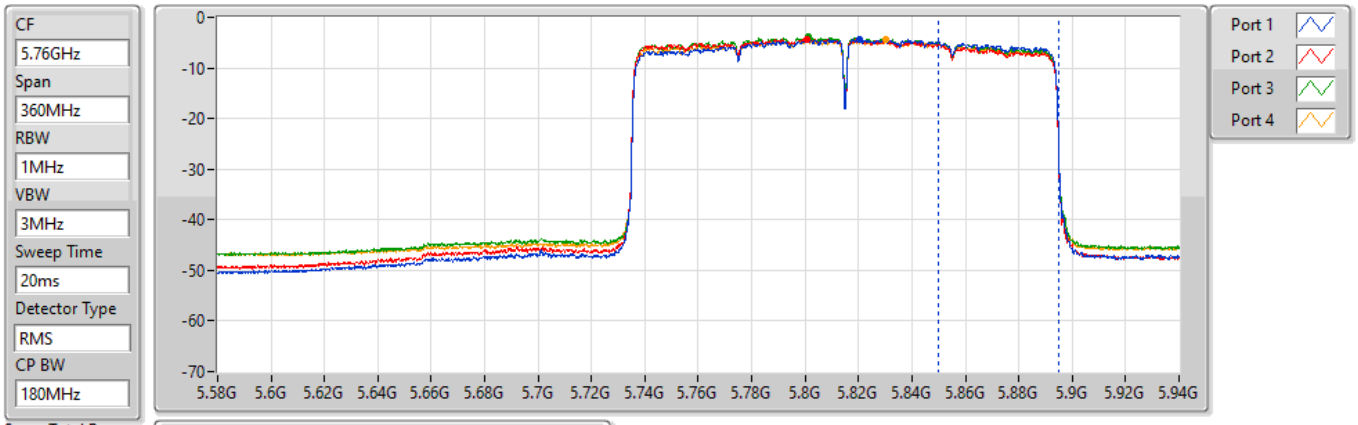


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
27.50	21.63	21.24	21.10	21.89

802.11ax HEW160-BF_Nss1,(MCS0)_4TX AV Power

5815MHz Straddle 5.725-5.85GHz

12/06/2021

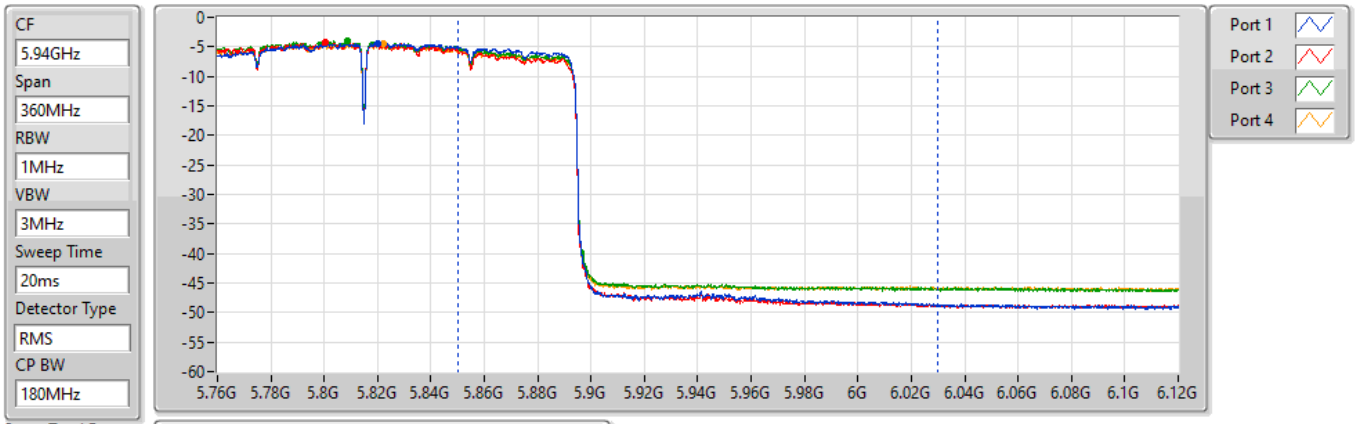


Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
20.84	14.59	14.87	15.14	14.67

802.11ax HEW160-BF_Nss1,(MCS0)_4TX AV Power

5815MHz Straddle 5.85-5.895GHz_TnomVnom

12/06/2021



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
15.57	10.09	9.08	9.58	9.37

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.725-5.895GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	13.91	19.36
802.11ax HEW20_Nss1,(MCS0)_4TX	13.88	19.33
802.11ax HEW40_Nss1,(MCS0)_4TX	13.26	18.71
802.11ax HEW80_Nss1,(MCS0)_4TX	10.86	16.31
802.11ax HEW160_Nss1,(MCS0)_4TX	-0.65	4.80
5.85-5.895GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	13.93	19.82
802.11ax HEW20_Nss1,(MCS0)_4TX	14.03	19.92
802.11ax HEW40_Nss1,(MCS0)_4TX	13.87	19.76
802.11ax HEW80_Nss1,(MCS0)_4TX	10.75	16.64
802.11ax HEW160_Nss1,(MCS0)_4TX	-0.78	5.11

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

Result

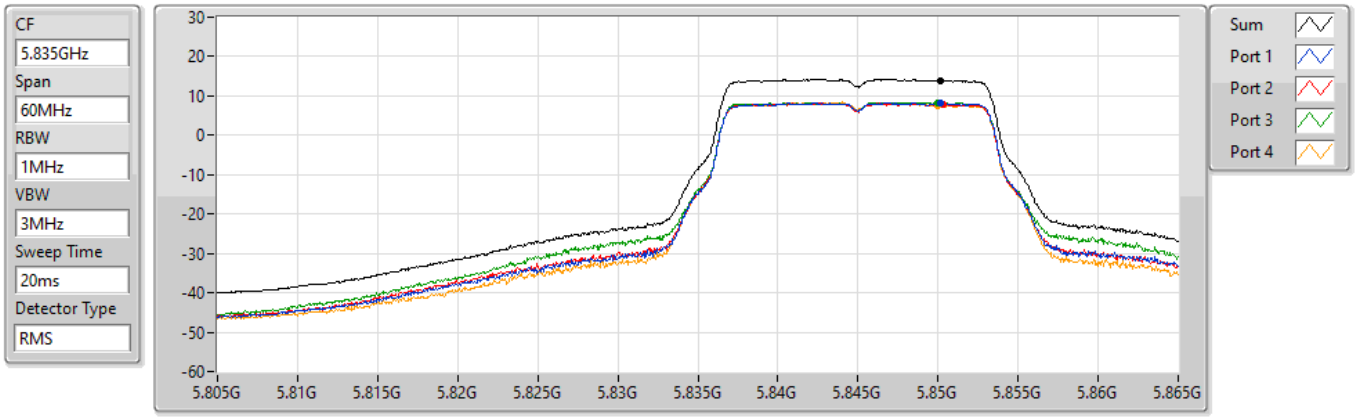
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz Straddle 5.725-5.85GHz	Pass	5.45	8.03	7.85	8.21	7.62	13.91	30.00	19.36	Inf
5845MHz Straddle 5.85-5.895GHz	Pass	5.89	7.75	7.56	8.03	7.31	13.59	Inf	19.48	20.00
5865MHz	Pass	5.89	7.96	7.70	8.07	8.17	13.89	Inf	19.78	20.00
5885MHz	Pass	5.89	7.91	7.77	8.22	8.17	13.93	Inf	19.82	20.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz Straddle 5.725-5.85GHz	Pass	5.45	7.83	7.87	7.88	8.00	13.88	30.00	19.33	Inf
5845MHz Straddle 5.85-5.895GHz	Pass	5.89	7.72	7.99	7.92	7.90	13.88	Inf	19.77	20.00
5865MHz	Pass	5.89	8.18	8.09	8.16	8.12	14.03	Inf	19.92	20.00
5885MHz	Pass	5.89	7.90	8.00	8.08	7.99	13.88	Inf	19.77	20.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5835MHz Straddle 5.725-5.85GHz	Pass	5.45	7.31	7.10	7.01	7.64	13.26	30.00	18.71	Inf
5835MHz Straddle 5.85-5.895GHz	Pass	5.89	7.30	7.19	6.90	7.56	13.22	Inf	19.11	20.00
5875MHz	Pass	5.89	8.02	7.52	7.49	8.32	13.87	Inf	19.76	20.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5855MHz Straddle 5.725-5.85GHz	Pass	5.45	4.91	4.74	4.68	5.27	10.86	30.00	16.31	Inf
5855MHz Straddle 5.85-5.895GHz	Pass	5.89	4.78	4.72	4.43	5.30	10.75	Inf	16.64	20.00
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5815MHz Straddle 5.725-5.85GHz	Pass	5.45	-6.33	-6.96	-6.38	-7.02	-0.65	30.00	4.80	Inf
5815MHz Straddle 5.85-5.895GHz	Pass	5.89	-6.48	-6.85	-6.71	-6.87	-0.78	Inf	5.11	20.00

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)_4TX PSD

5845MHz Straddle 5.725-5.85GHz

12/06/2021

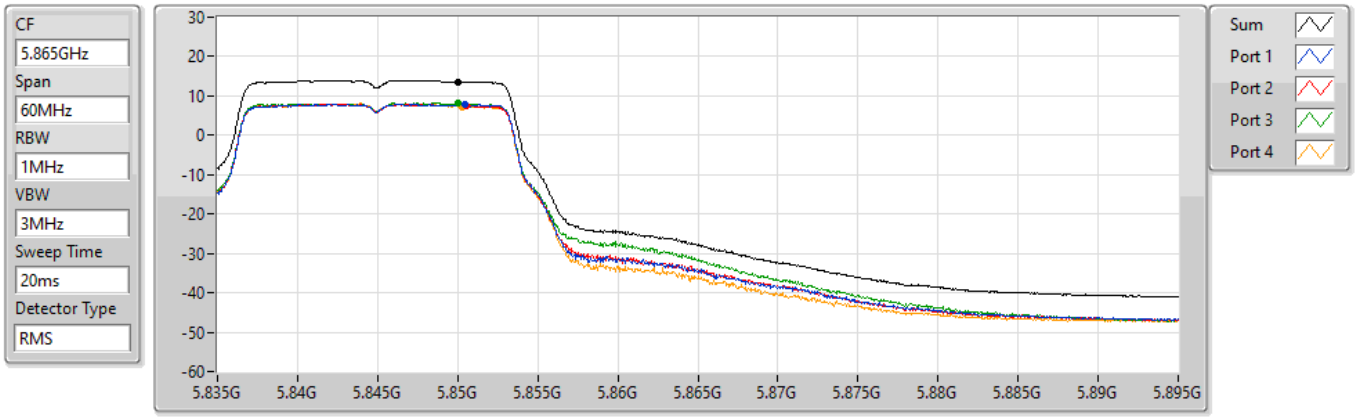


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.91	13.91	8.03	7.85	8.21	7.62

802.11a_Nss1,(6Mbps)_4TX PSD

5845MHz Straddle 5.85-5.895GHz

12/06/2021

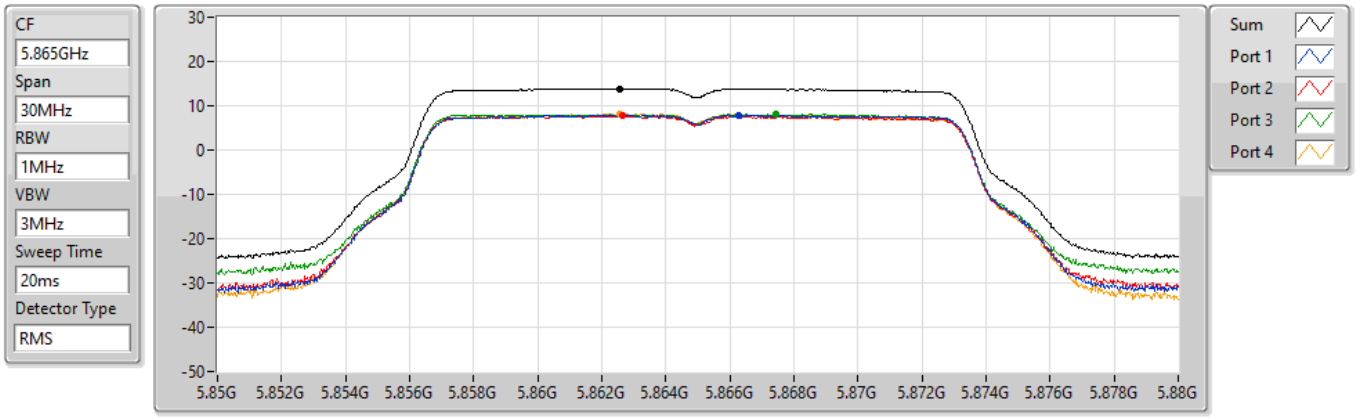


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.59	13.59	7.75	7.56	8.03	7.31

802.11a_Nss1,(6Mbps)_4TX PSD

5865MHz

12/06/2021

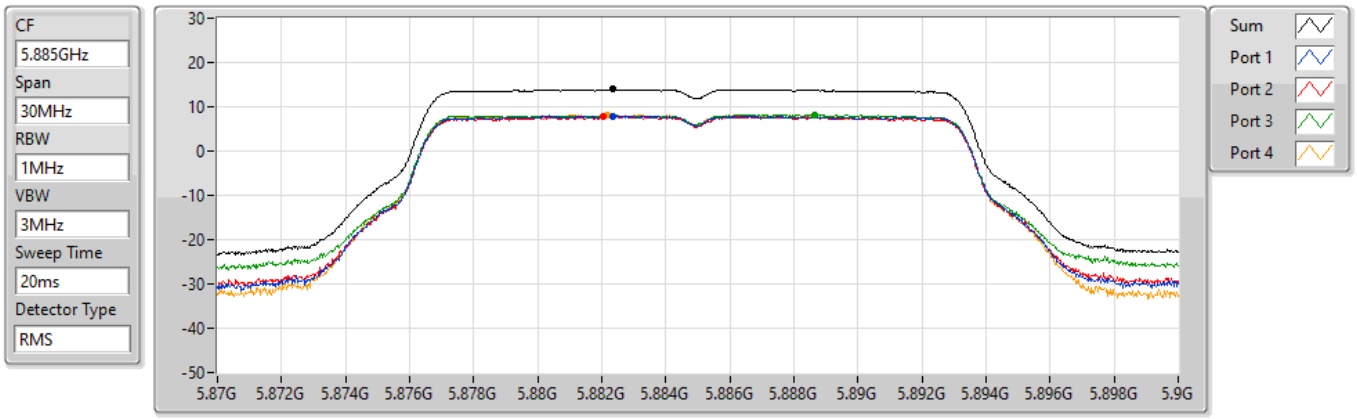


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.89	13.89	7.96	7.70	8.07	8.17

802.11a_Nss1,(6Mbps)_4TX PSD

5885MHz

12/06/2021

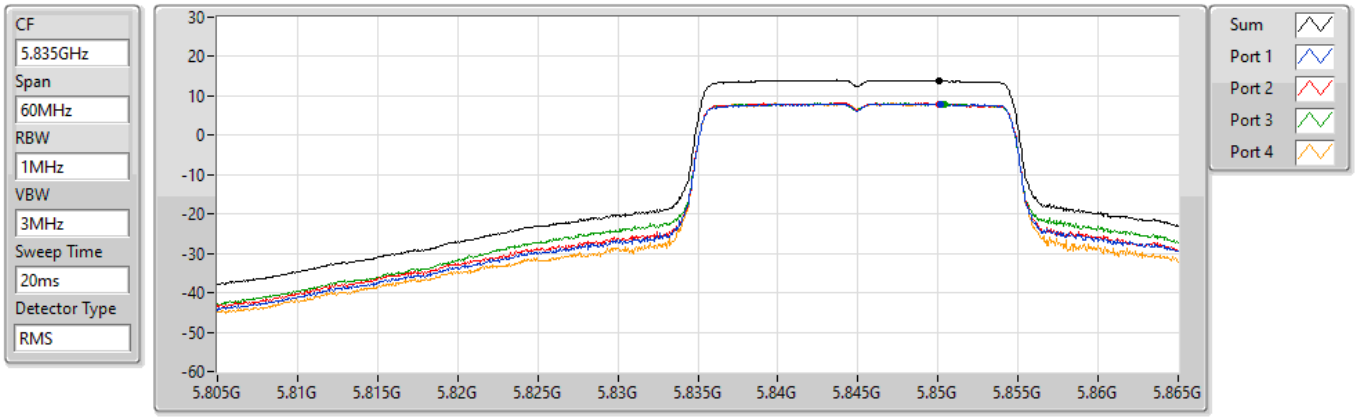


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.93	13.93	7.91	7.77	8.22	8.17

802.11ax HEW20_Nss1,(MCS0)_4TX PSD

5845MHz Straddle 5.725-5.85GHz

12/06/2021

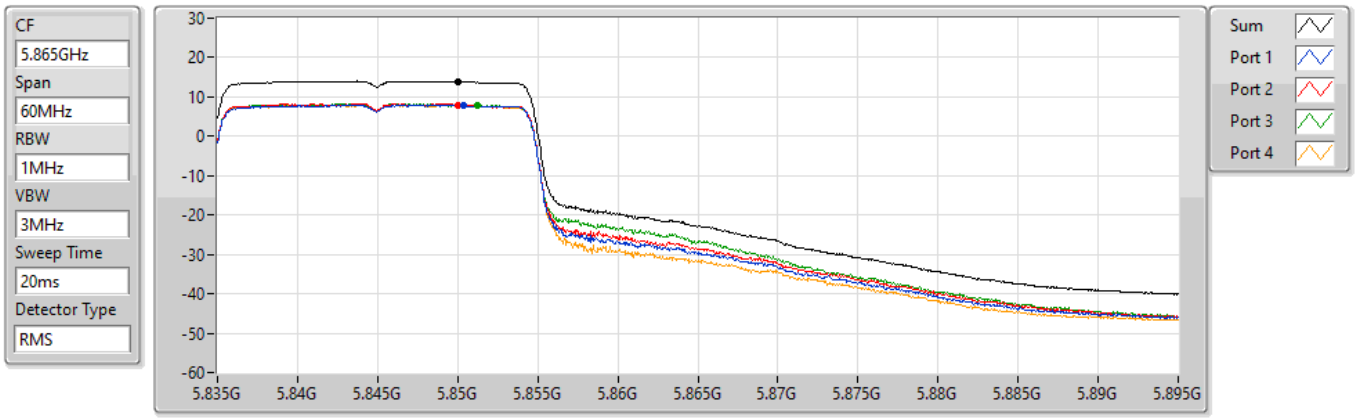


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.88	13.88	7.83	7.87	7.88	8.00

802.11ax HEW20_Nss1,(MCS0)_4TX PSD

5845MHz Straddle 5.85-5.895GHz

12/06/2021

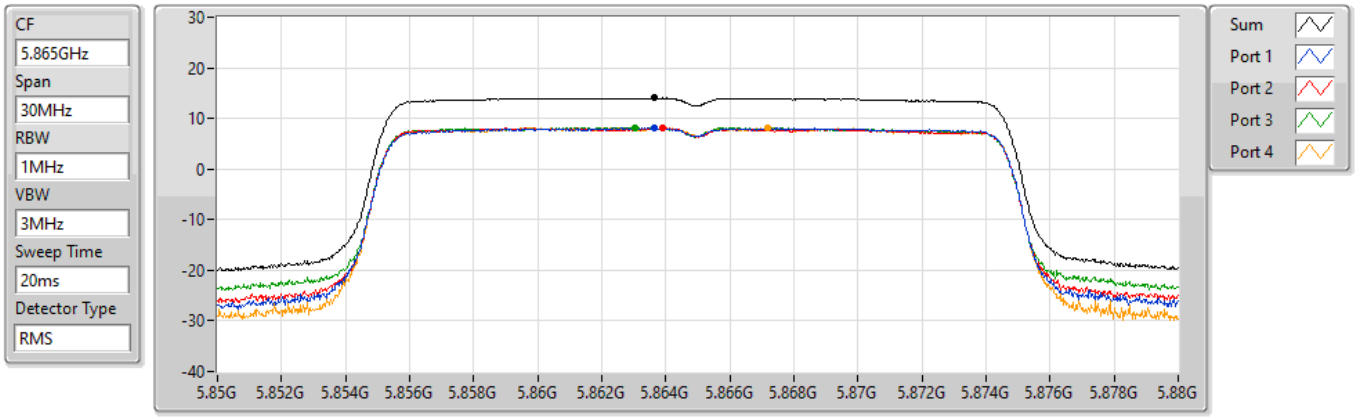


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.88	13.88	7.72	7.99	7.92	7.90

802.11ax HEW20_Nss1,(MCS0)_4TX PSD

5865MHz

12/06/2021

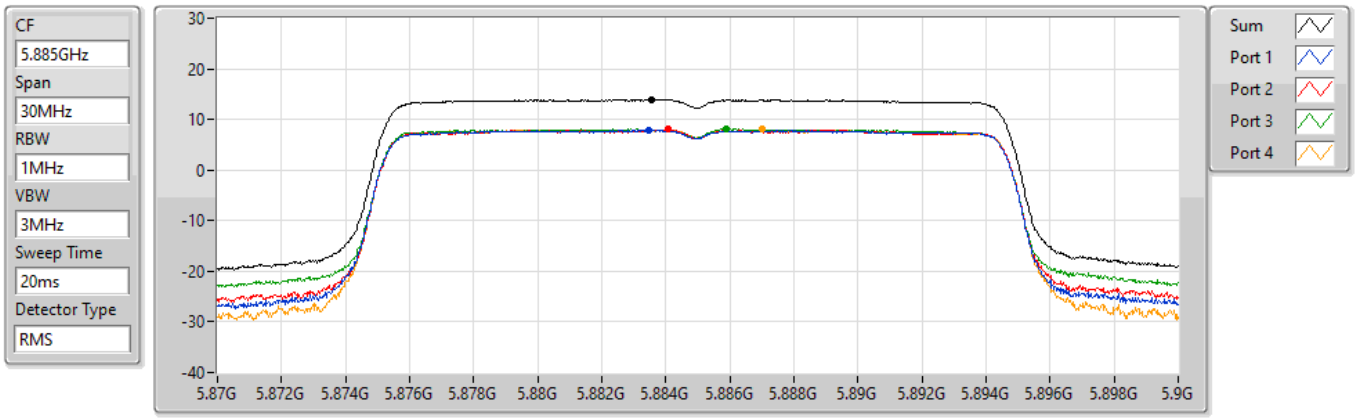


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.03	14.03	8.18	8.09	8.16	8.12

802.11ax HEW20_Nss1,(MCS0)_4TX PSD

5885MHz

12/06/2021

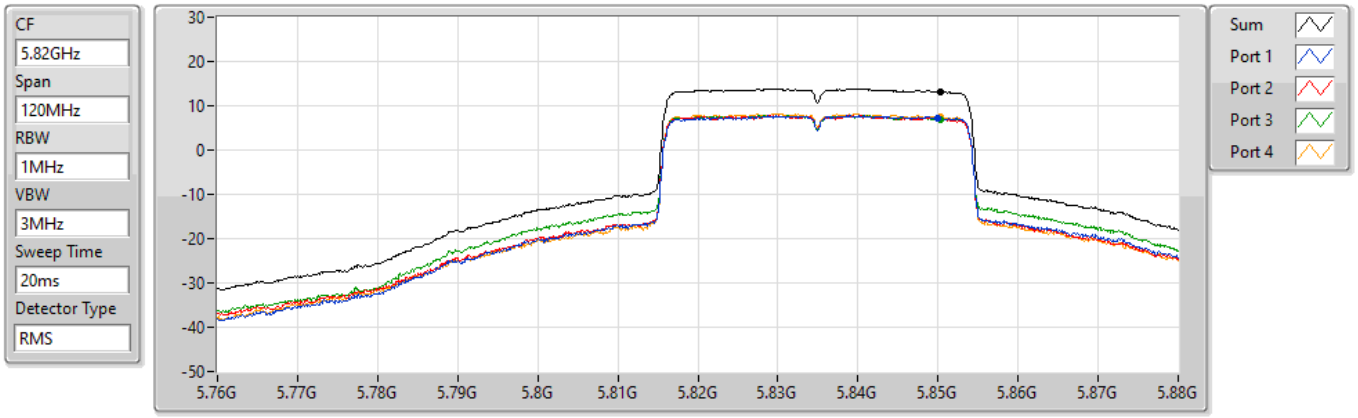


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.88	13.88	7.90	8.00	8.08	7.99

802.11ax HEW40_Nss1,(MCS0)_4TX PSD

5835MHz Straddle 5.725-5.85GHz

12/06/2021

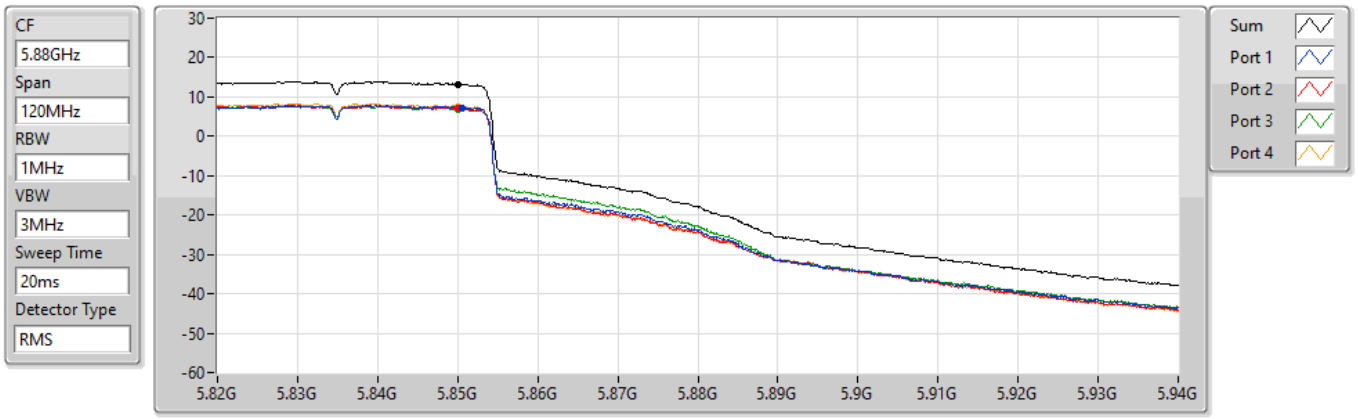


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.26	13.26	7.31	7.10	7.01	7.64

802.11ax HEW40_Nss1,(MCS0)_4TX PSD

5835MHz Straddle 5.85-5.895GHz

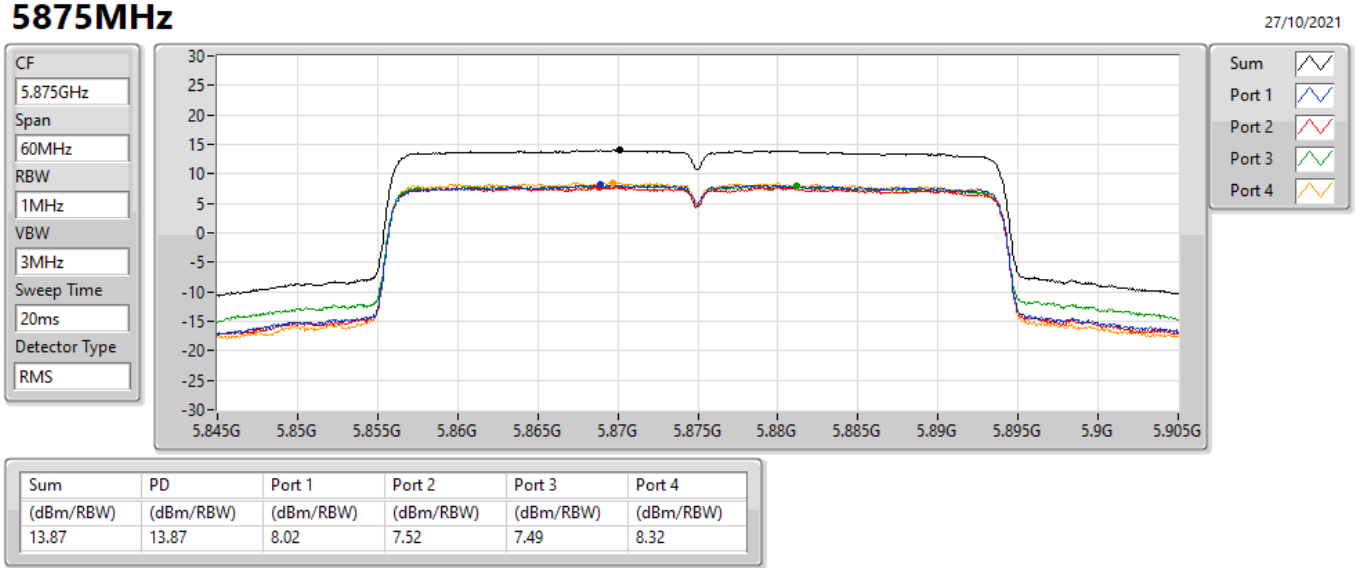
12/06/2021



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.22	13.22	7.30	7.19	6.90	7.56

802.11ax HEW40_Nss1,(MCS0)_4TX PSD

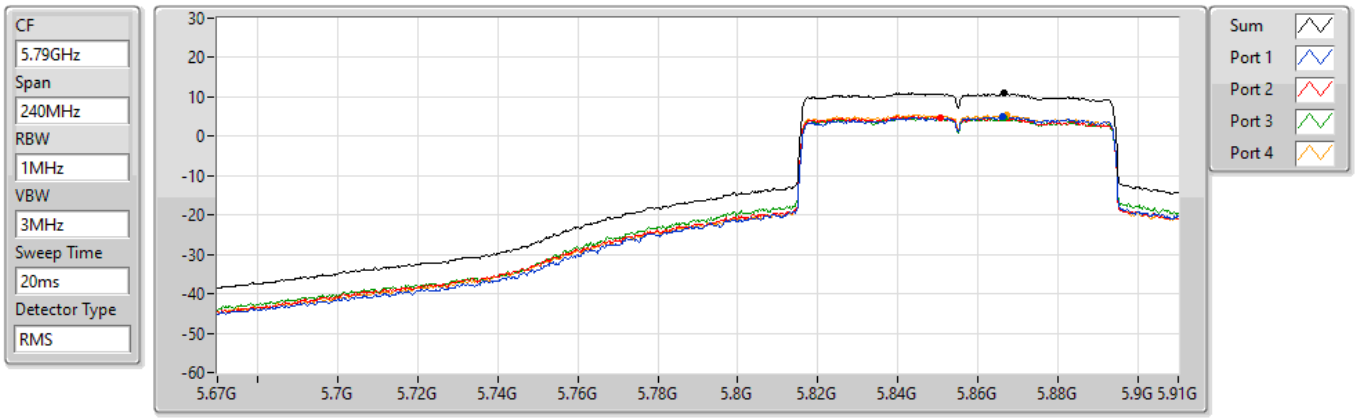
5875MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.87	13.87	8.02	7.52	7.49	8.32

802.11ax HEW80_Nss1,(MCS0)_4TX PSD

5855MHz Straddle 5.725-5.85GHz

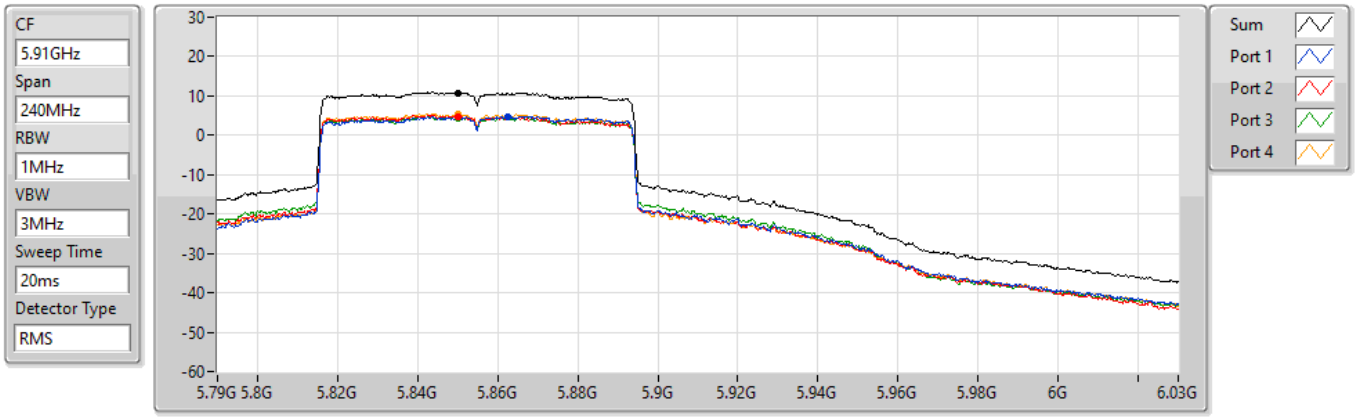


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.86	10.86	4.91	4.74	4.68	5.27

802.11ax HEW80_Nss1,(MCS0)_4TX PSD

5855MHz Straddle 5.85-5.895GHz

12/06/2021

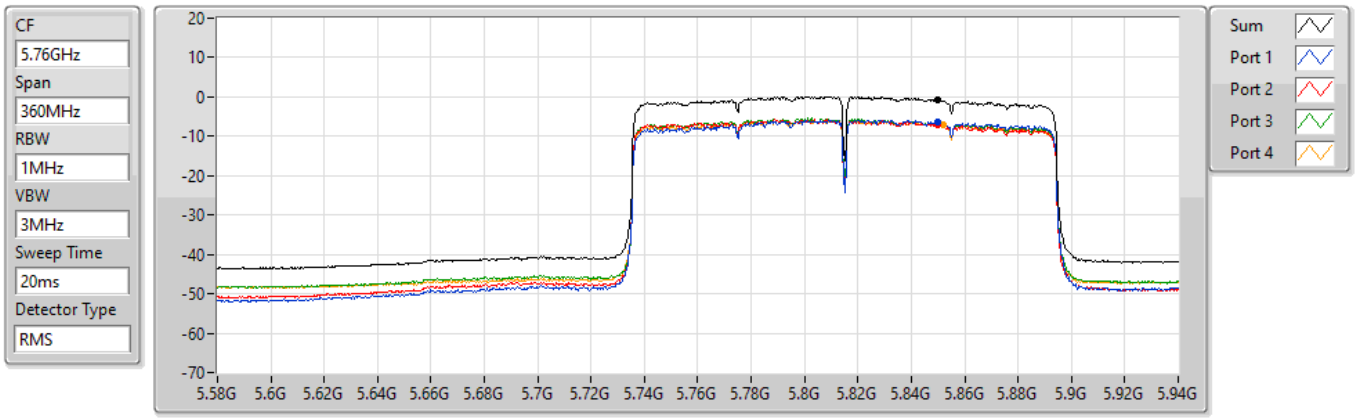


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.75	10.75	4.78	4.72	4.43	5.30

802.11ax HEW160_Nss1,(MCS0)_4TX PSD

5815MHz Straddle 5.725-5.85GHz

12/06/2021



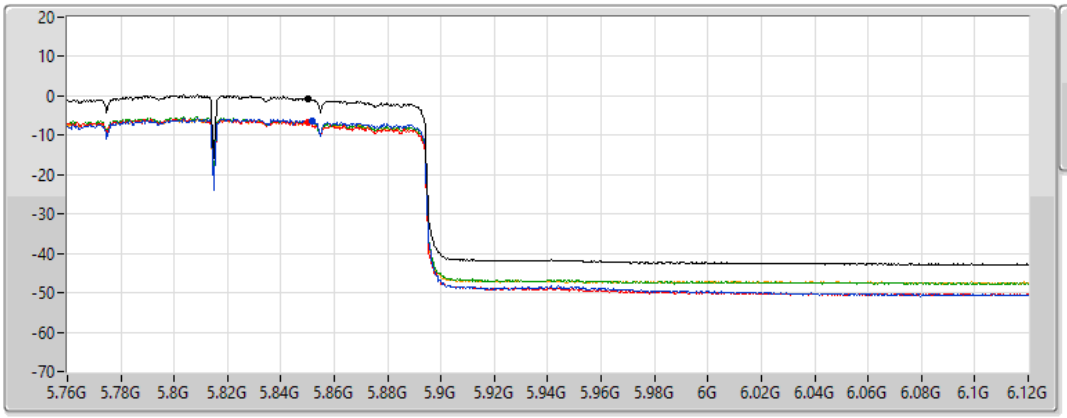
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.65	-0.65	-6.33	-6.96	-6.38	-7.02

802.11ax HEW160_Nss1,(MCS0)_4TX PSD

5815MHz Straddle 5.85-5.895GHz

12/06/2021

CF 5.94GHz
Span 360MHz
RBW 1MHz
VBW 3MHz
Sweep Time 20ms
Detector Type RMS



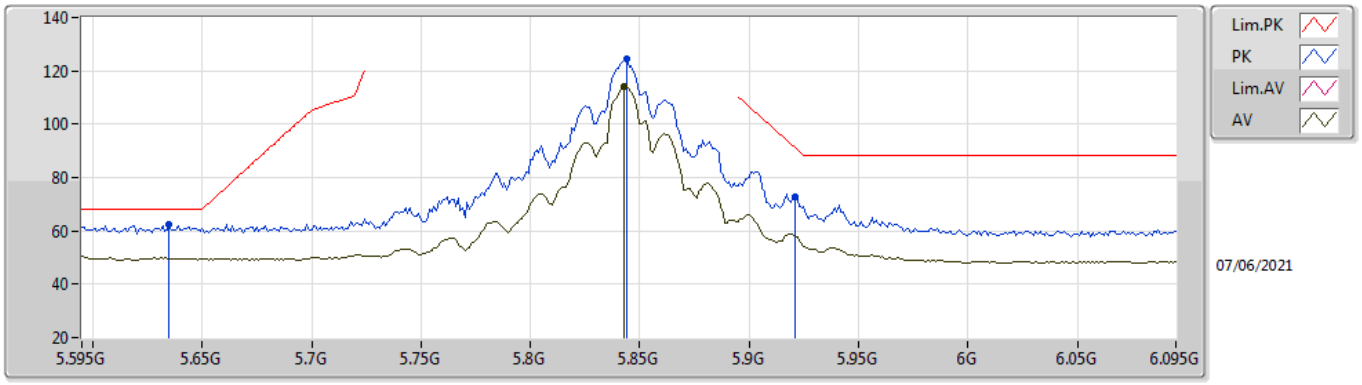
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.78	-0.78	-6.48	-6.85	-6.71	-6.87

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.85-5.895GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	Pass	PK	5.895G	110.17	110.20	-0.03	3	Horizontal	57	1.58	-

802.11a_Nss1,(6Mbps)_4TX

5845MHz_TX

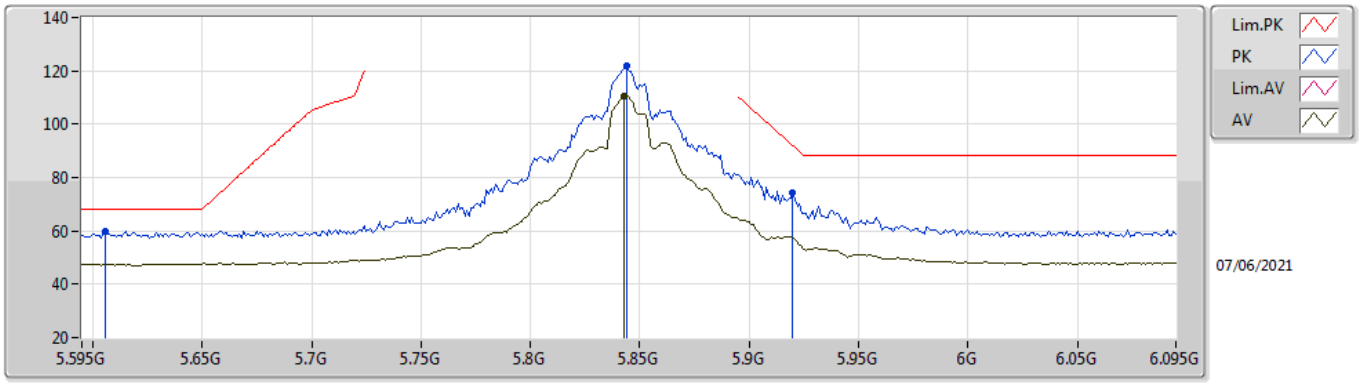


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.635G	62.27	68.20	-5.93	55.99	3	Vertical	82	1.93	-	34.40	6.82	34.94
PK	5.844G	124.42	Inf	-Inf	118.03	3	Vertical	82	1.93	-	34.40	6.92	34.93
AV	5.843G	113.97	Inf	-Inf	107.58	3	Vertical	82	1.93	-	34.40	6.92	34.93
PK	5.921G	72.65	91.13	-18.48	65.95	3	Vertical	82	1.93	-	34.66	6.96	34.92

802.11a_Nss1,(6Mbps)_4TX

5845MHz_TX

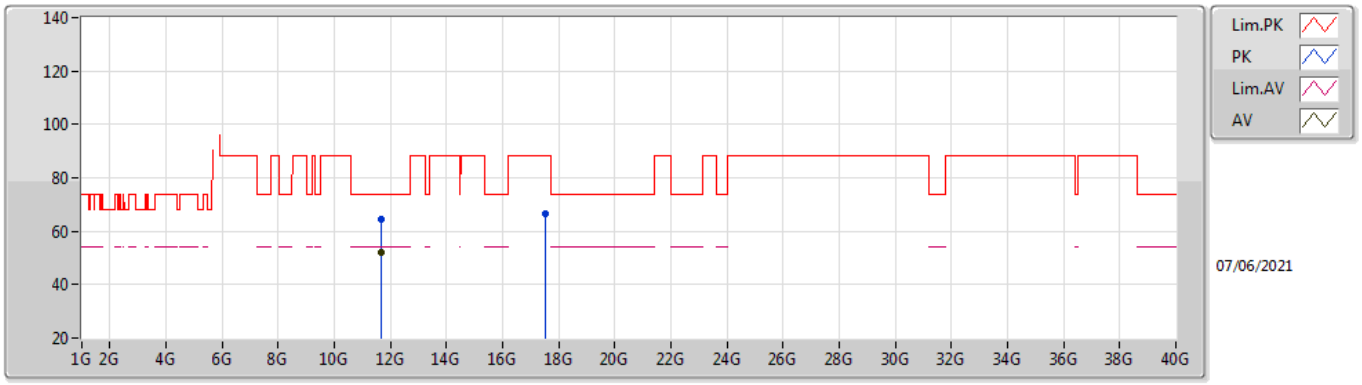


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.606G	59.62	68.20	-8.58	53.36	3	Horizontal	66	1.80	-	34.40	6.80	34.94
PK	5.844G	121.76	Inf	-Inf	115.37	3	Horizontal	66	1.80	-	34.40	6.92	34.93
AV	5.843G	110.73	Inf	-Inf	104.34	3	Horizontal	66	1.80	-	34.40	6.92	34.93
PK	5.92G	74.45	91.87	-17.42	67.75	3	Horizontal	66	1.80	-	34.66	6.96	34.92

802.11a_Nss1,(6Mbps)_4TX

5845MHz_TX

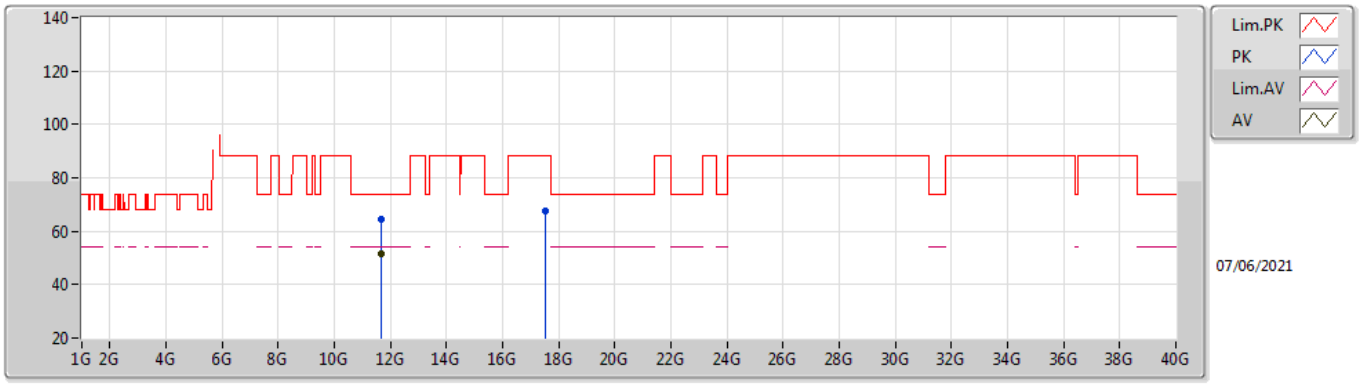


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.68972G	64.65	74.00	-9.35	49.81	3	Vertical	180	2.08	-	39.60	9.94	34.70
AV	11.68936G	51.90	54.00	-2.10	37.06	3	Vertical	180	2.08	-	39.60	9.94	34.70
PK	17.53496G	66.48	88.20	-21.72	45.74	3	Vertical	153	1.73	-	42.75	12.54	34.55

802.11a_Nss1,(6Mbps)_4TX

5845MHz_TX

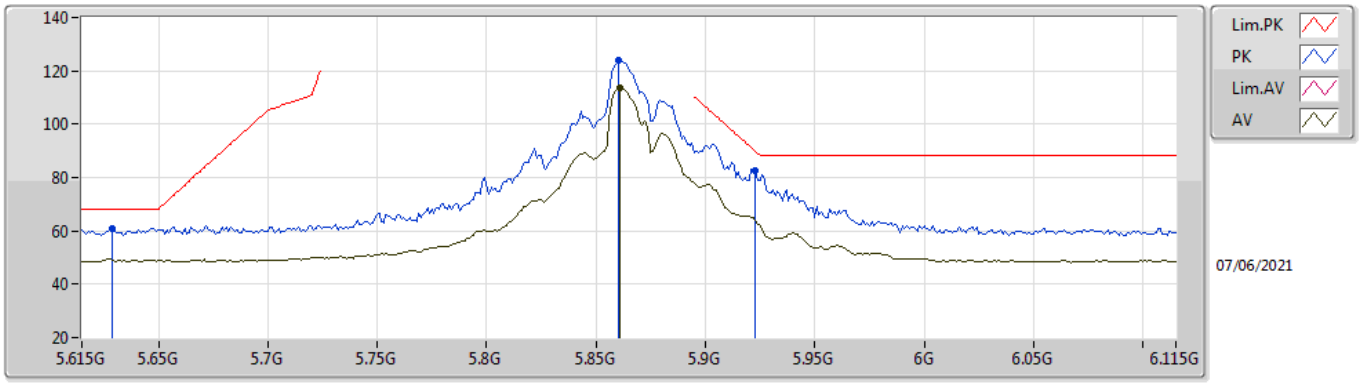


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.69104G	64.34	74.00	-9.66	49.50	3	Horizontal	226	1.36	-	39.60	9.94	34.70
AV	11.69048G	51.48	54.00	-2.52	36.64	3	Horizontal	226	1.36	-	39.60	9.94	34.70
PK	17.53232G	67.69	88.20	-20.51	46.98	3	Horizontal	195	1.80	-	42.72	12.54	34.55

802.11a_Nss1,(6Mbps)_4TX

5865MHz_TX

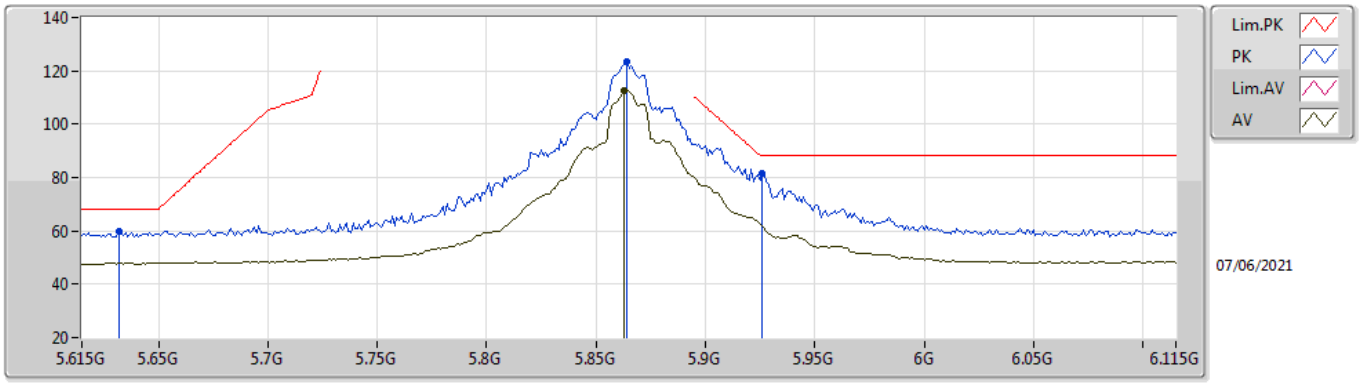


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.629G	60.96	68.20	-7.24	54.69	3	Vertical	285	2.07	-	34.40	6.81	34.94
PK	5.86G	124.11	Inf	-Inf	117.65	3	Vertical	285	2.07	-	34.46	6.93	34.93
AV	5.861G	113.78	Inf	-Inf	107.31	3	Vertical	285	2.07	-	34.47	6.93	34.93
PK	5.923G	82.65	89.67	-7.02	75.96	3	Vertical	285	2.07	-	34.65	6.96	34.92

802.11a_Nss1,(6Mbps)_4TX

5865MHz_TX

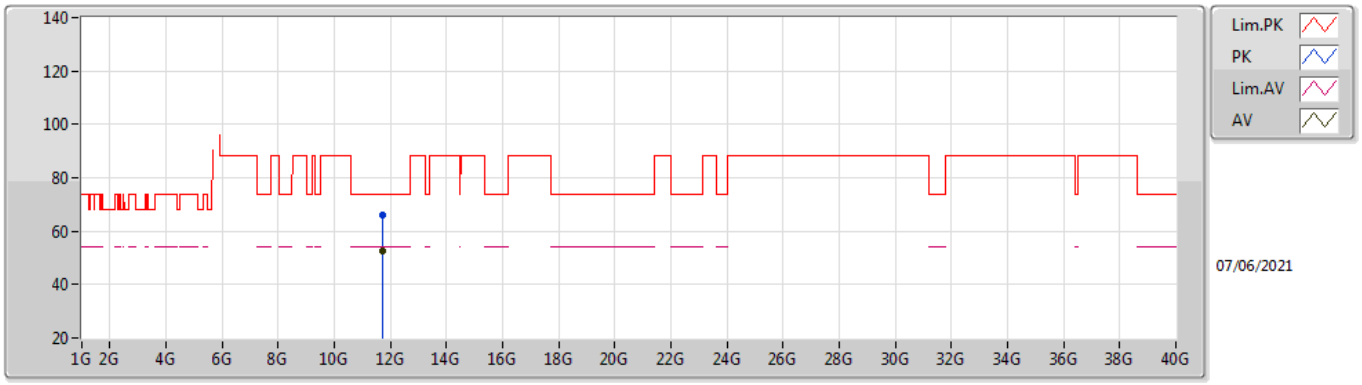


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.632G	59.66	68.20	-8.54	53.38	3	Horizontal	63	1.63	-	34.40	6.82	34.94
PK	5.864G	123.27	Inf	-Inf	116.79	3	Horizontal	63	1.63	-	34.48	6.93	34.93
AV	5.863G	112.66	Inf	-Inf	106.18	3	Horizontal	63	1.63	-	34.48	6.93	34.93
PK	5.926G	81.81	88.20	-6.39	75.12	3	Horizontal	63	1.63	-	34.65	6.96	34.92

802.11a_Nss1,(6Mbps)_4TX

5865MHz_TX

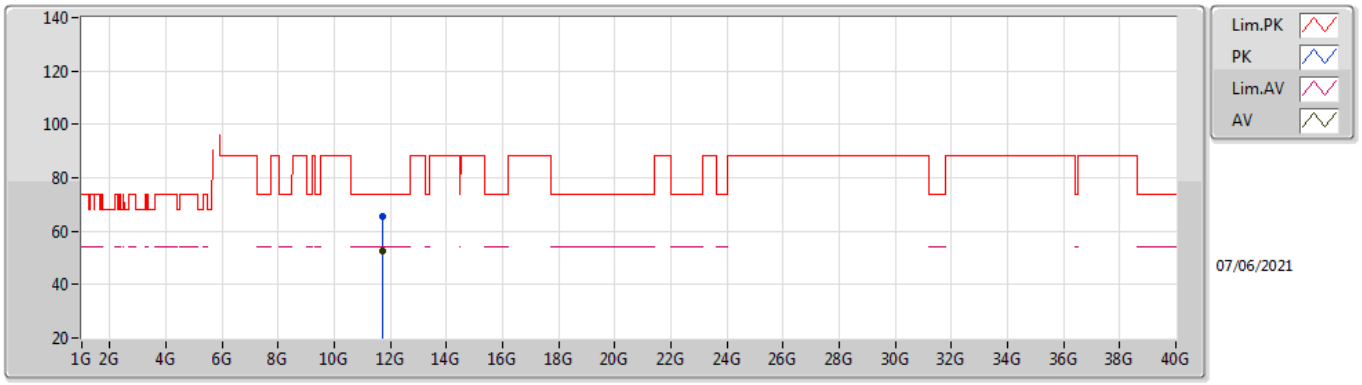


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.72736G	65.90	74.00	-8.10	51.05	3	Vertical	183	2.11	-	39.60	9.95	34.70
AV	11.72888G	52.82	54.00	-1.18	37.97	3	Vertical	183	2.11	-	39.60	9.95	34.70

802.11a_Nss1,(6Mbps)_4TX

5865MHz_TX

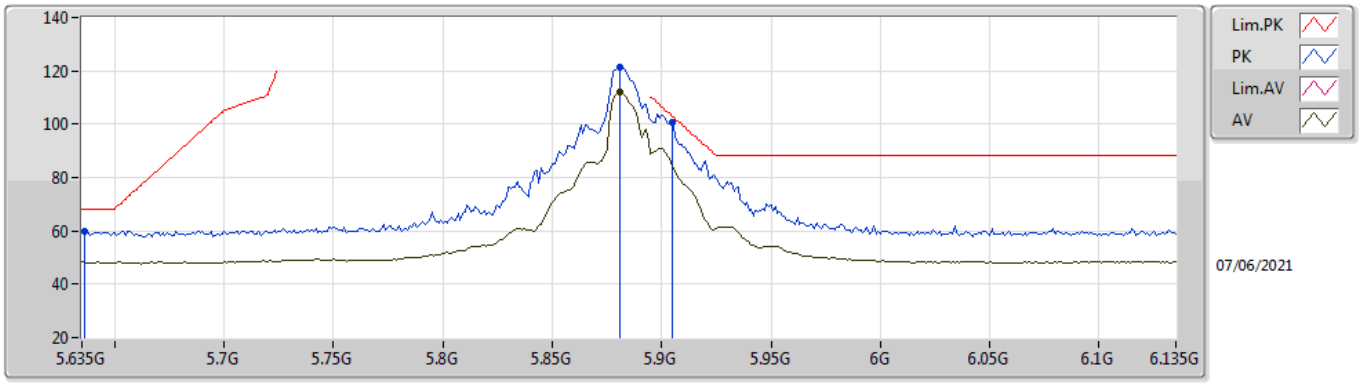


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.73084G	65.64	74.00	-8.36	50.80	3	Horizontal	221	1.36	-	39.60	9.95	34.71
AV	11.72972G	52.49	54.00	-1.51	37.65	3	Horizontal	221	1.36	-	39.60	9.95	34.71

802.11a_Nss1,(6Mbps)_4TX

5885MHz_TX

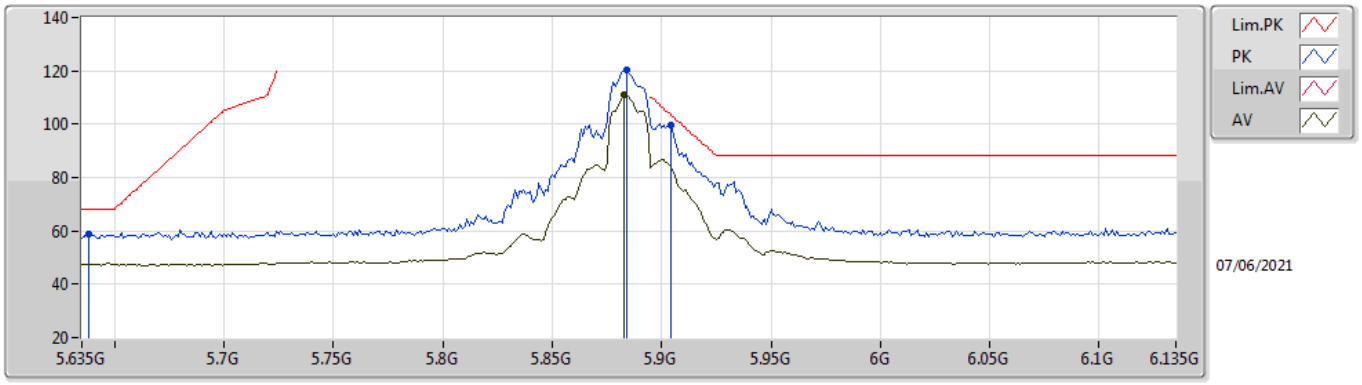


EUT Y_4TX
Setting 105
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.636G	59.64	68.20	-8.56	53.36	3	Vertical	285	2.11	-	34.40	6.82	34.94
PK	5.881G	121.14	Inf	-Inf	114.54	3	Vertical	285	2.11	-	34.59	6.94	34.93
AV	5.881G	111.89	Inf	-Inf	105.29	3	Vertical	285	2.11	-	34.59	6.94	34.93
PK	5.905G	100.53	102.87	-2.34	93.82	3	Vertical	285	2.11	-	34.69	6.95	34.93

802.11a_Nss1,(6Mbps)_4TX

5885MHz_TX

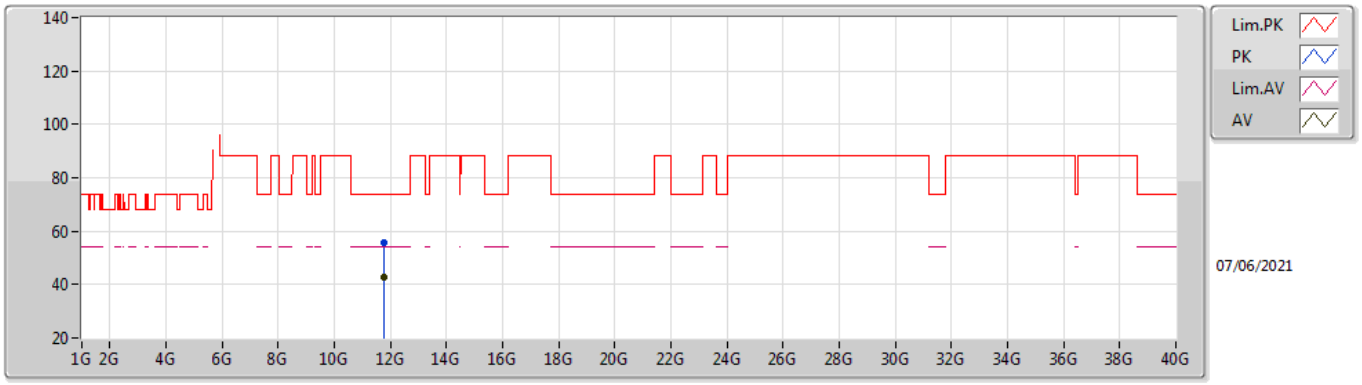


EUT Y_4TX
Setting 105
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.638G	58.69	68.20	-9.51	52.41	3	Horizontal	62	1.59	-	34.40	6.82	34.94
PK	5.884G	120.53	Inf	-Inf	113.92	3	Horizontal	62	1.59	-	34.60	6.94	34.93
AV	5.883G	110.80	Inf	-Inf	104.19	3	Horizontal	62	1.59	-	34.60	6.94	34.93
PK	5.904G	99.44	103.60	-4.16	92.73	3	Horizontal	62	1.59	-	34.69	6.95	34.93

802.11a_Nss1,(6Mbps)_4TX

5885MHz_TX

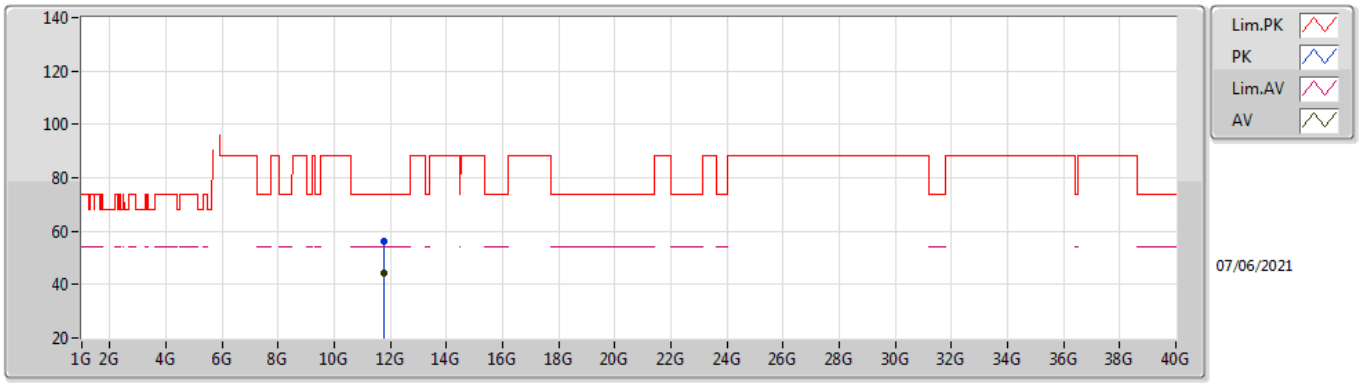


EUT Y_4TX
Setting 105
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.7776G	55.82	74.00	-18.18	40.98	3	Vertical	53	1.80	-	39.60	9.96	34.72
AV	11.76124G	42.56	54.00	-11.44	27.72	3	Vertical	53	1.80	-	39.60	9.95	34.71

802.11a_Nss1,(6Mbps)_4TX

5885MHz_TX

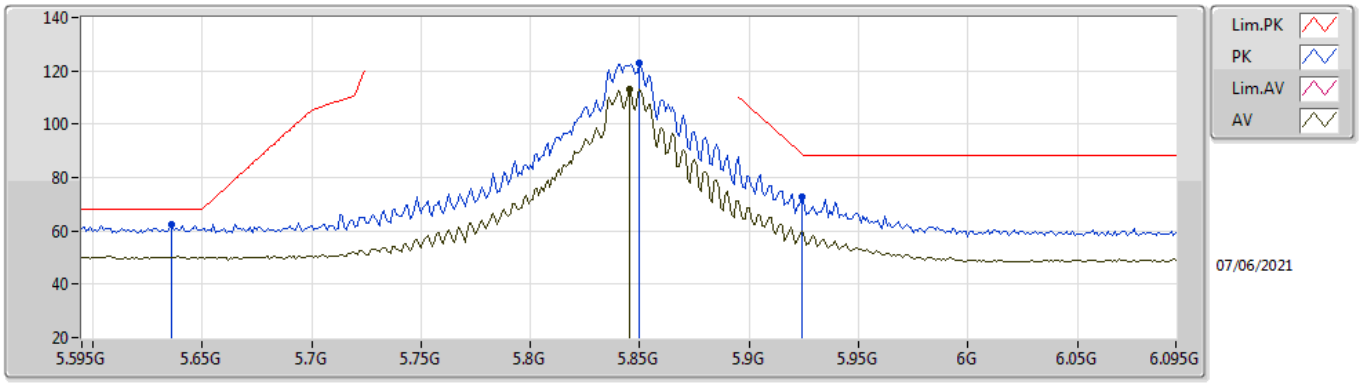


EUT Y_4TX
Setting 105
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.77012G	56.25	74.00	-17.75	41.41	3	Horizontal	153	1.80	-	39.60	9.95	34.71
AV	11.76985G	44.49	54.00	-9.51	29.65	3	Horizontal	153	1.80	-	39.60	9.95	34.71

802.11ax HEW20_Nss1,(MCS0)_4TX

5845MHz_TX

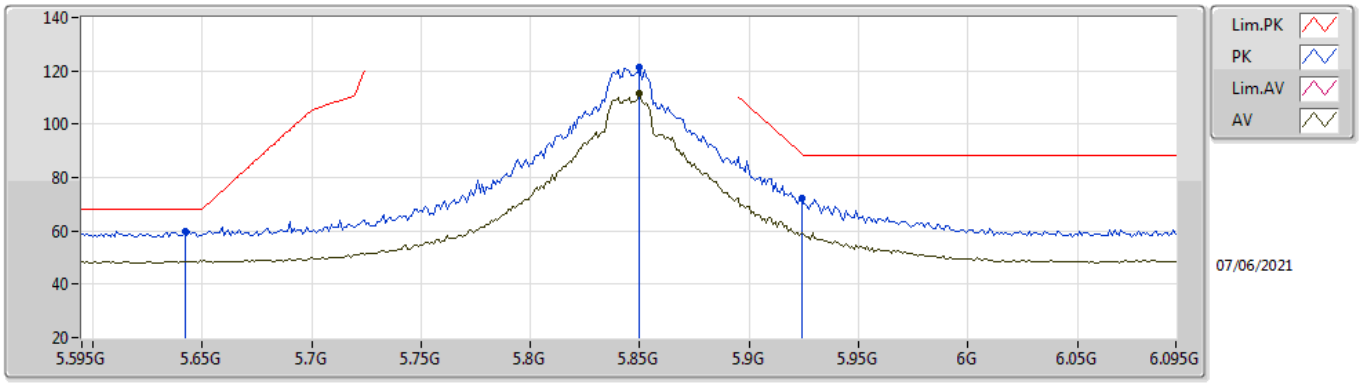


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.636G	62.41	68.20	-5.79	56.13	3	Vertical	75	2.04	-	34.40	6.82	34.94
PK	5.85G	122.83	Inf	-Inf	116.43	3	Vertical	75	2.04	-	34.40	6.93	34.93
AV	5.845G	113.08	Inf	-Inf	106.69	3	Vertical	75	2.04	-	34.40	6.92	34.93
PK	5.924G	72.73	88.93	-16.20	66.04	3	Vertical	75	2.04	-	34.65	6.96	34.92

802.11ax HEW20_Nss1,(MCS0)_4TX

5845MHz_TX

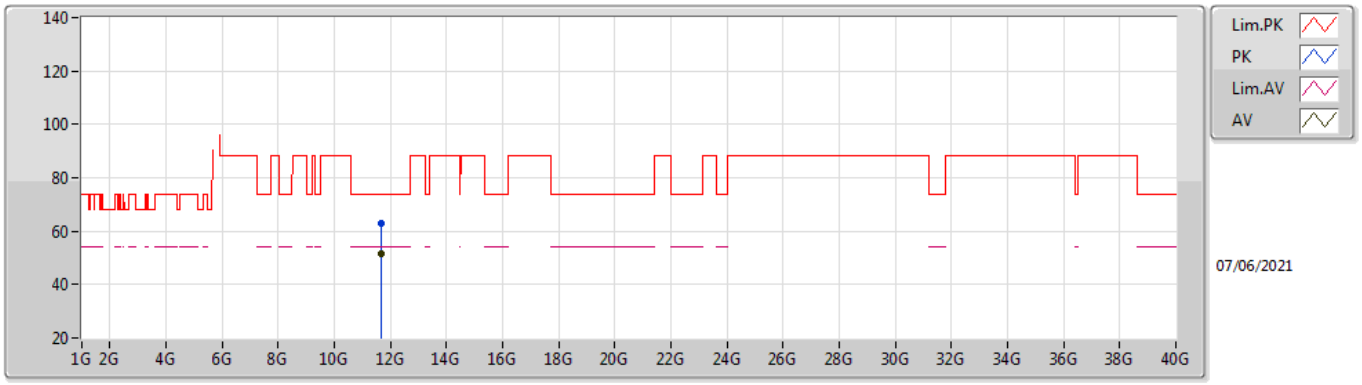


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.642G	59.93	68.20	-8.27	53.65	3	Horizontal	61	1.61	-	34.40	6.82	34.94
PK	5.85G	121.54	Inf	-Inf	115.14	3	Horizontal	61	1.61	-	34.40	6.93	34.93
AV	5.85G	111.67	Inf	-Inf	105.27	3	Horizontal	61	1.61	-	34.40	6.93	34.93
PK	5.924G	72.50	88.93	-16.43	65.81	3	Horizontal	61	1.61	-	34.65	6.96	34.92

802.11ax HEW20_Nss1,(MCS0)_4TX

5845MHz_TX

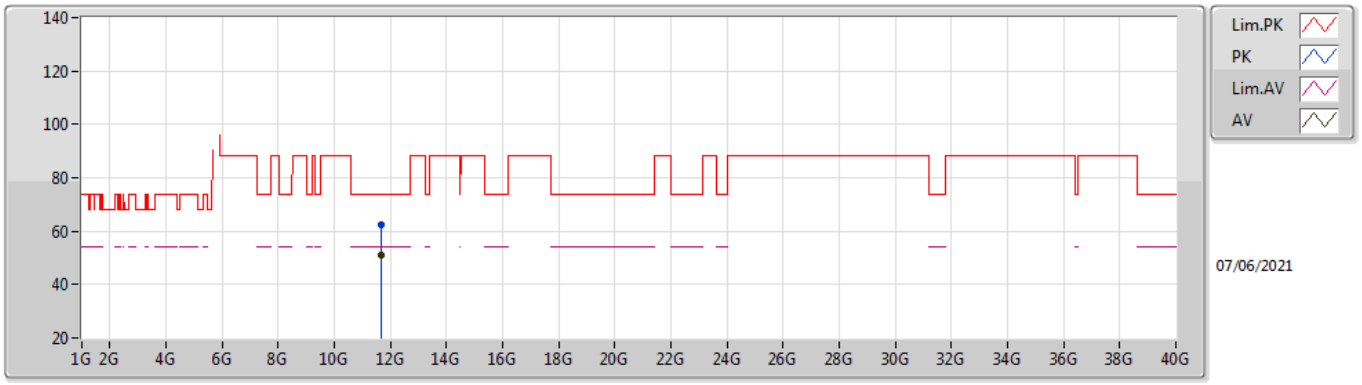


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.6897G	62.84	74.00	-11.16	48.00	3	Vertical	184	2.17	-	39.60	9.94	34.70
AV	11.68958G	51.49	54.00	-2.51	36.65	3	Vertical	184	2.17	-	39.60	9.94	34.70

802.11ax HEW20_Nss1,(MCS0)_4TX

5845MHz_TX

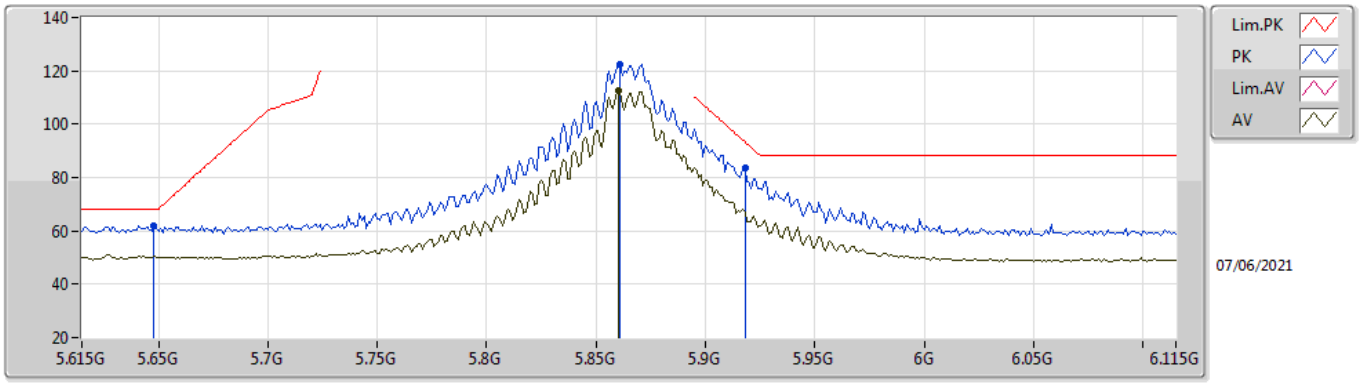


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.6786G	62.25	74.00	-11.75	47.40	3	Horizontal	209	1.80	-	39.60	9.94	34.69
AV	11.68844G	51.13	54.00	-2.87	36.29	3	Horizontal	209	1.80	-	39.60	9.94	34.70

802.11ax HEW20_Nss1,(MCS0)_4TX

5865MHz_TX

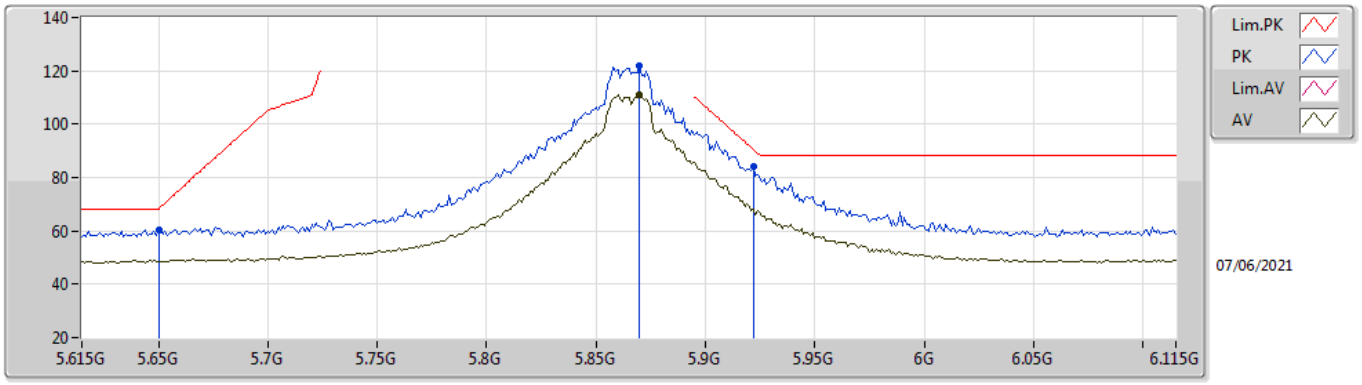


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.648G	62.13	68.20	-6.07	55.85	3	Vertical	75	1.80	-	34.40	6.82	34.94
PK	5.861G	122.44	Inf	-Inf	115.97	3	Vertical	75	1.80	-	34.47	6.93	34.93
AV	5.86G	112.68	Inf	-Inf	106.22	3	Vertical	75	1.80	-	34.46	6.93	34.93
PK	5.918G	83.68	93.33	-9.65	76.98	3	Vertical	75	1.80	-	34.66	6.96	34.92

802.11ax HEW20_Nss1,(MCS0)_4TX

5865MHz_TX

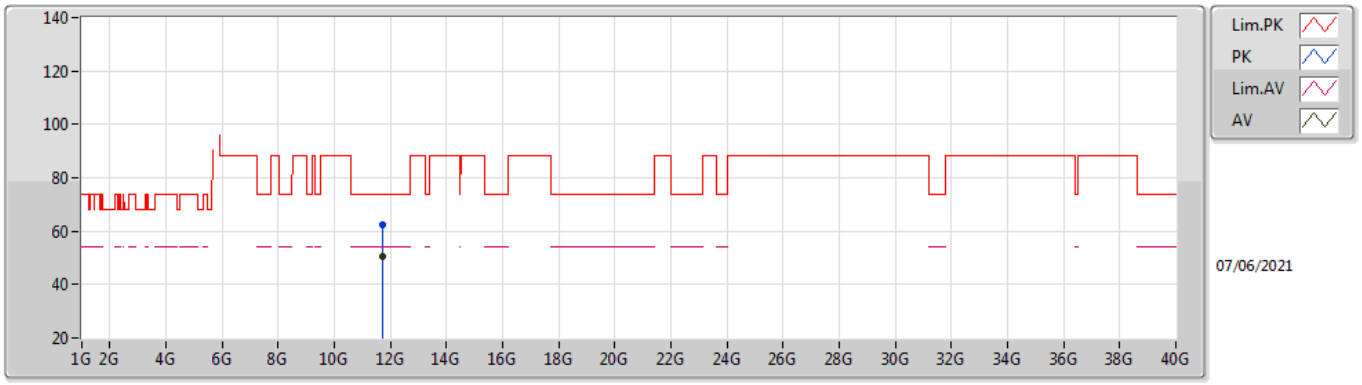


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.65G	60.60	68.20	-7.60	54.31	3	Horizontal	60	1.48	-	34.40	6.83	34.94
PK	5.87G	121.67	Inf	-Inf	115.14	3	Horizontal	60	1.48	-	34.52	6.94	34.93
AV	5.87G	111.08	Inf	-Inf	104.55	3	Horizontal	60	1.48	-	34.52	6.94	34.93
PK	5.922G	84.04	90.40	-6.36	77.34	3	Horizontal	60	1.48	-	34.66	6.96	34.92

802.11ax HEW20_Nss1,(MCS0)_4TX

5865MHz_TX

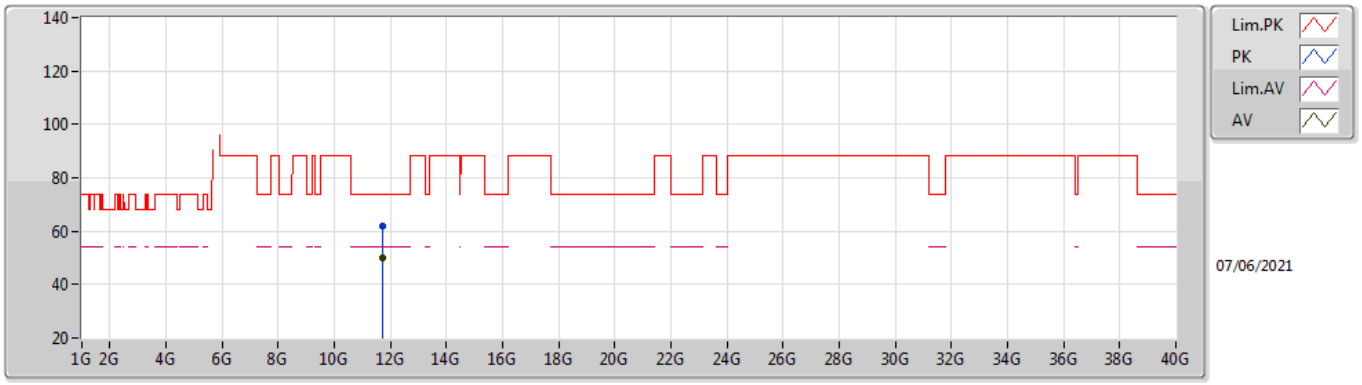


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.72934G	62.26	74.00	-11.74	47.42	3	Vertical	178	2.10	-	39.60	9.95	34.71
AV	11.72988G	50.50	54.00	-3.50	35.66	3	Vertical	178	2.10	-	39.60	9.95	34.71

802.11ax HEW20_Nss1,(MCS0)_4TX

5865MHz_TX

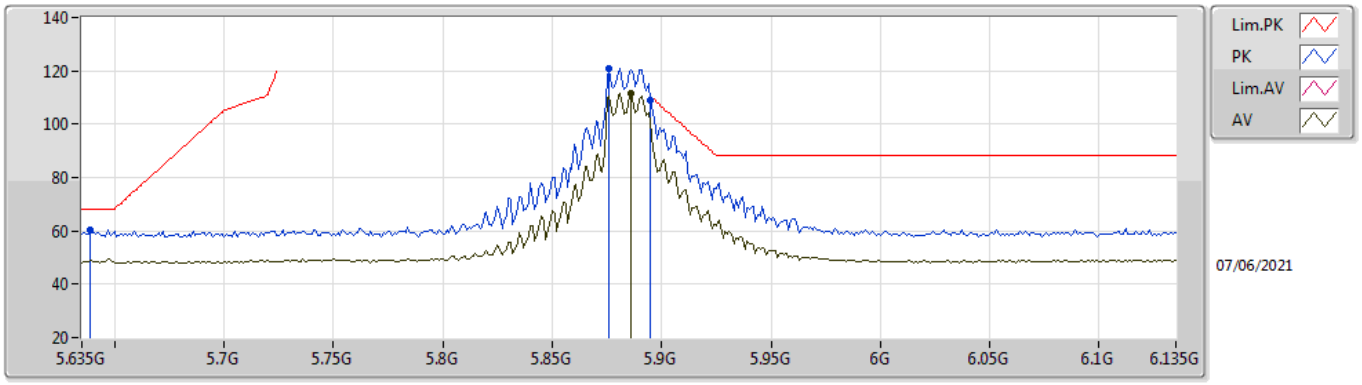


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.72322G	61.89	74.00	-12.11	47.05	3	Horizontal	208	1.79	-	39.60	9.94	34.70
AV	11.72826G	50.21	54.00	-3.79	35.36	3	Horizontal	208	1.79	-	39.60	9.95	34.70

802.11ax HEW20_Nss1,(MCS0)_4TX

5885MHz_TX

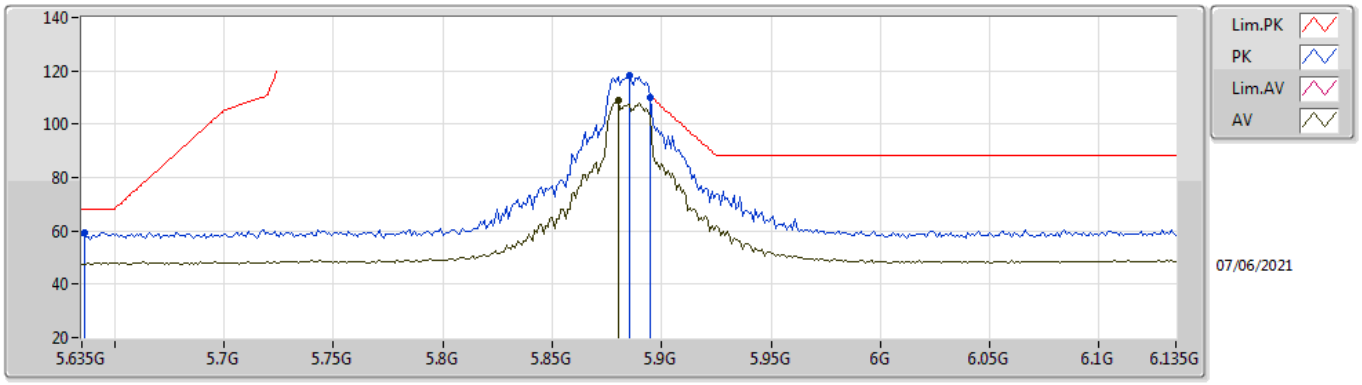


EUT Y_4TX
Setting 103
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.639G	60.34	68.20	-7.86	54.06	3	Vertical	331	1.37	-	34.40	6.82	34.94
PK	5.876G	120.70	Inf	-Inf	114.13	3	Vertical	331	1.37	-	34.56	6.94	34.93
PK	5.895G	108.79	110.20	-1.41	102.10	3	Vertical	331	1.37	-	34.67	6.95	34.93
AV	5.886G	111.39	Inf	-Inf	104.76	3	Vertical	331	1.37	-	34.62	6.94	34.93

802.11ax HEW20_Nss1,(MCS0)_4TX

5885MHz_TX

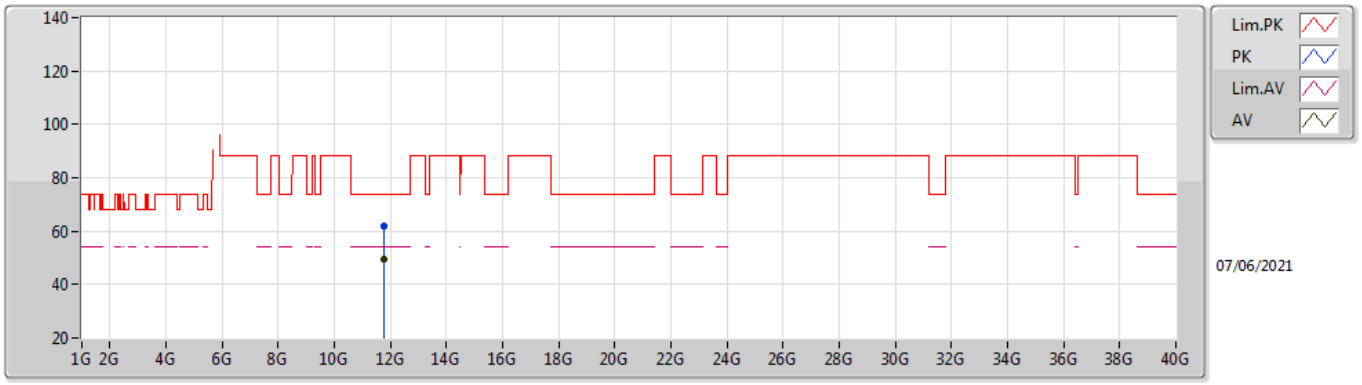


EUT Y_4TX
Setting 103
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.636G	59.55	68.20	-8.65	53.27	3	Horizontal	57	1.58	-	34.40	6.82	34.94
PK	5.885G	118.24	Inf	-Inf	111.62	3	Horizontal	57	1.58	-	34.61	6.94	34.93
AV	5.88G	109.05	Inf	-Inf	102.46	3	Horizontal	57	1.58	-	34.58	6.94	34.93
PK	5.895G	110.17	110.20	-0.03	103.48	3	Horizontal	57	1.58	-	34.67	6.95	34.93

802.11ax HEW20_Nss1,(MCS0)_4TX

5885MHz_TX

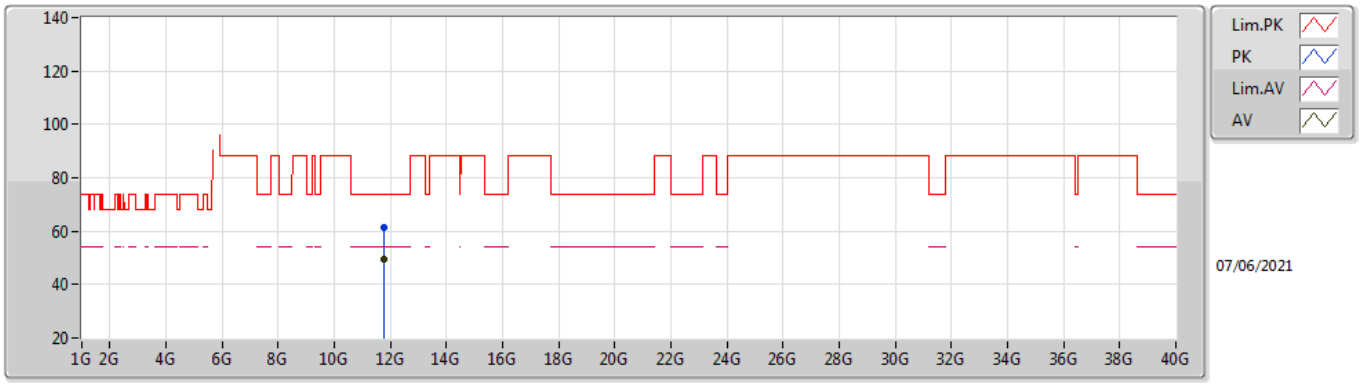


EUT Y_4TX
Setting 103
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.76838G	61.72	74.00	-12.28	46.88	3	Vertical	182	2.04	-	39.60	9.95	34.71
AV	11.7694G	49.72	54.00	-4.28	34.88	3	Vertical	182	2.04	-	39.60	9.95	34.71

802.11ax HEW20_Nss1,(MCS0)_4TX

5885MHz_TX

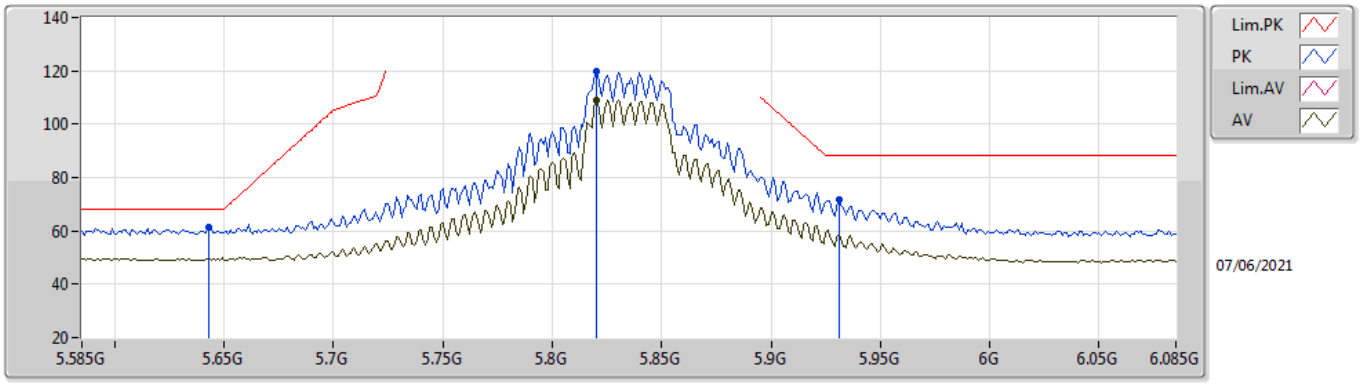


EUT Y_4TX
Setting 103
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.76844G	61.20	74.00	-12.80	46.36	3	Horizontal	207	1.79	-	39.60	9.95	34.71
AV	11.7685G	49.42	54.00	-4.58	34.58	3	Horizontal	207	1.79	-	39.60	9.95	34.71

802.11ax HEW40_Nss1,(MCS0)_4TX

5835MHz_TX

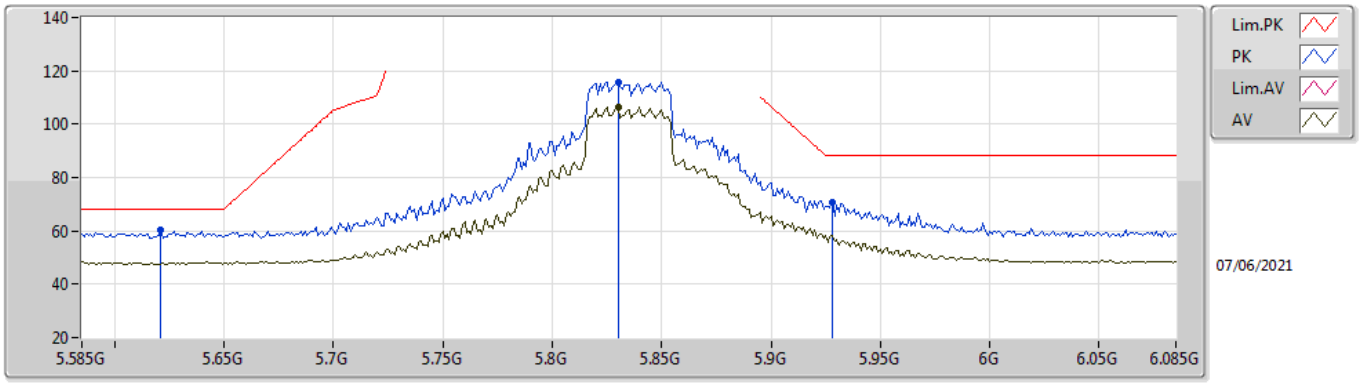


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.643G	61.60	68.20	-6.60	55.32	3	Vertical	73	1.91	-	34.40	6.82	34.94
PK	5.82G	119.83	Inf	-Inf	113.45	3	Vertical	73	1.91	-	34.40	6.91	34.93
AV	5.82G	108.97	Inf	-Inf	102.59	3	Vertical	73	1.91	-	34.40	6.91	34.93
PK	5.931G	71.79	88.20	-16.41	65.10	3	Vertical	73	1.91	-	34.64	6.97	34.92

802.11ax HEW40_Nss1,(MCS0)_4TX

5835MHz_TX

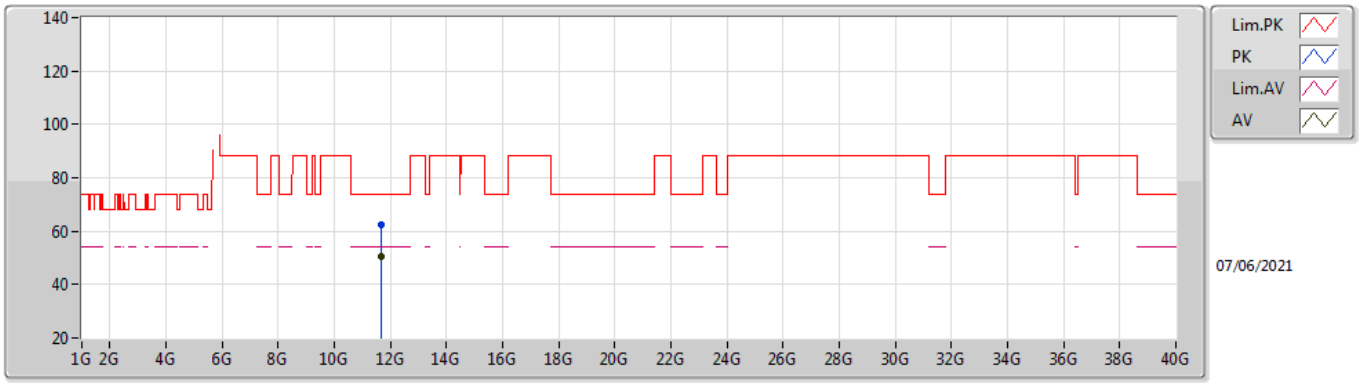


EUT Y_4TX
Setting 108
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.621G	60.43	68.20	-7.77	54.16	3	Horizontal	64	1.72	-	34.40	6.81	34.94
PK	5.83G	115.84	Inf	-Inf	109.45	3	Horizontal	64	1.72	-	34.40	6.92	34.93
AV	5.83G	106.54	Inf	-Inf	100.15	3	Horizontal	64	1.72	-	34.40	6.92	34.93
PK	5.928G	70.76	88.20	-17.44	64.08	3	Horizontal	64	1.72	-	34.64	6.96	34.92

802.11ax HEW40_Nss1,(MCS0)_4TX

5835MHz_TX

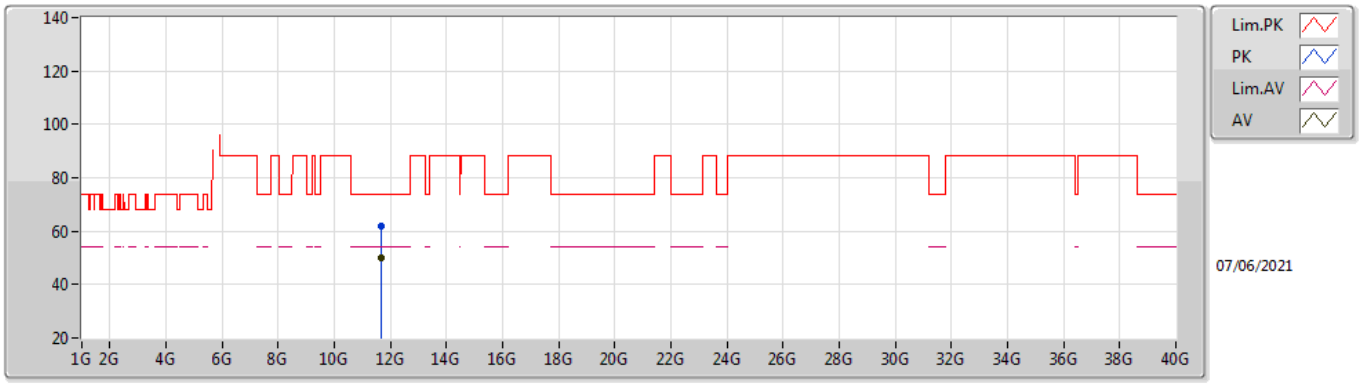


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.67018G	62.48	74.00	-11.52	47.64	3	Vertical	181	2.13	-	39.60	9.93	34.69
AV	11.66994G	50.63	54.00	-3.37	35.79	3	Vertical	181	2.13	-	39.60	9.93	34.69

802.11ax HEW40_Nss1,(MCS0)_4TX

5835MHz_TX

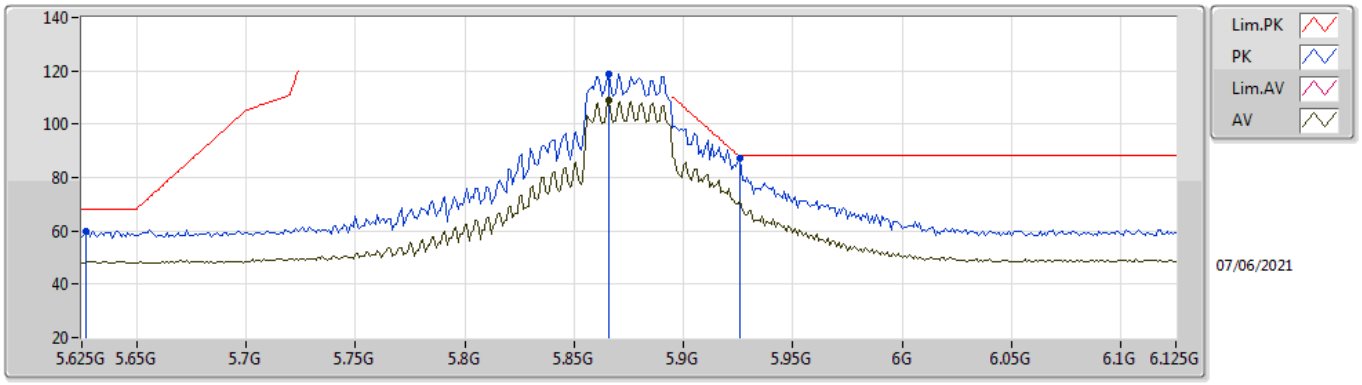


EUT Y_4TX
Setting 108
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.66856G	61.80	74.00	-12.20	46.96	3	Horizontal	208	2.03	-	39.60	9.93	34.69
AV	11.6691G	49.80	54.00	-4.20	34.96	3	Horizontal	208	2.03	-	39.60	9.93	34.69

802.11ax HEW40_Nss1,(MCS0)_4TX

5875MHz_TX

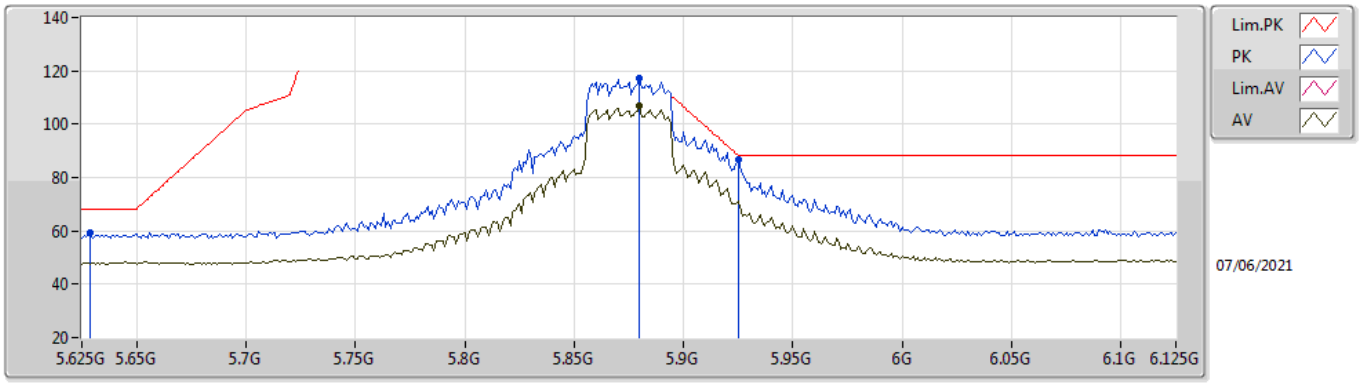


EUT Y_4TX
Setting 104
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.627G	59.95	68.20	-8.25	53.68	3	Vertical	333	1.48	-	34.40	6.81	34.94
PK	5.866G	118.99	Inf	-Inf	112.49	3	Vertical	333	1.48	-	34.50	6.93	34.93
AV	5.866G	108.71	Inf	-Inf	102.21	3	Vertical	333	1.48	-	34.50	6.93	34.93
PK	5.926G	87.50	88.20	-0.70	80.81	3	Vertical	333	1.48	-	34.65	6.96	34.92

802.11ax HEW40_Nss1,(MCS0)_4TX

5875MHz_TX

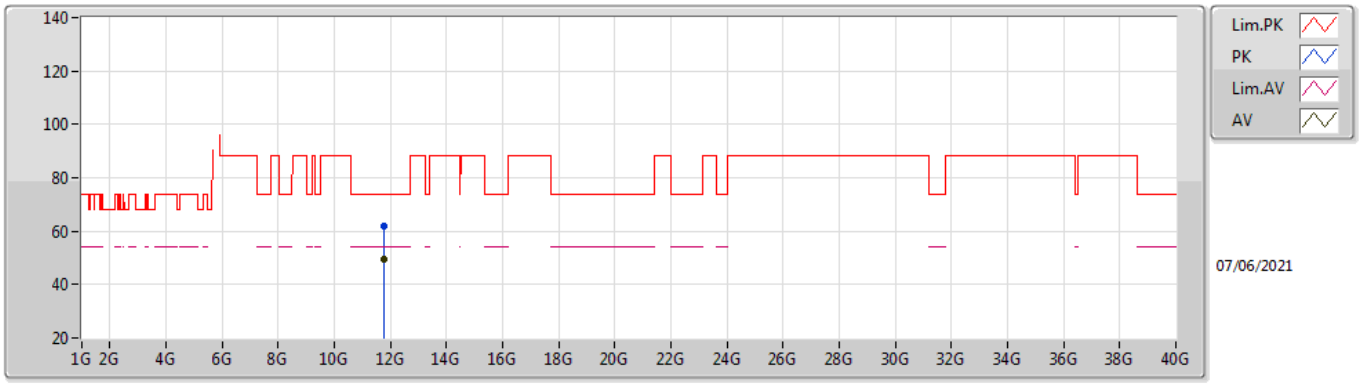


EUT Y_4TX
Setting 104
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.629G	59.37	68.20	-8.83	53.10	3	Horizontal	60	1.48	-	34.40	6.81	34.94
PK	5.88G	117.13	Inf	-Inf	110.54	3	Horizontal	60	1.48	-	34.58	6.94	34.93
AV	5.88G	106.65	Inf	-Inf	100.06	3	Horizontal	60	1.48	-	34.58	6.94	34.93
PK	5.925G	86.79	88.20	-1.41	80.10	3	Horizontal	60	1.48	-	34.65	6.96	34.92

802.11ax HEW40_Nss1,(MCS0)_4TX

5875MHz_TX

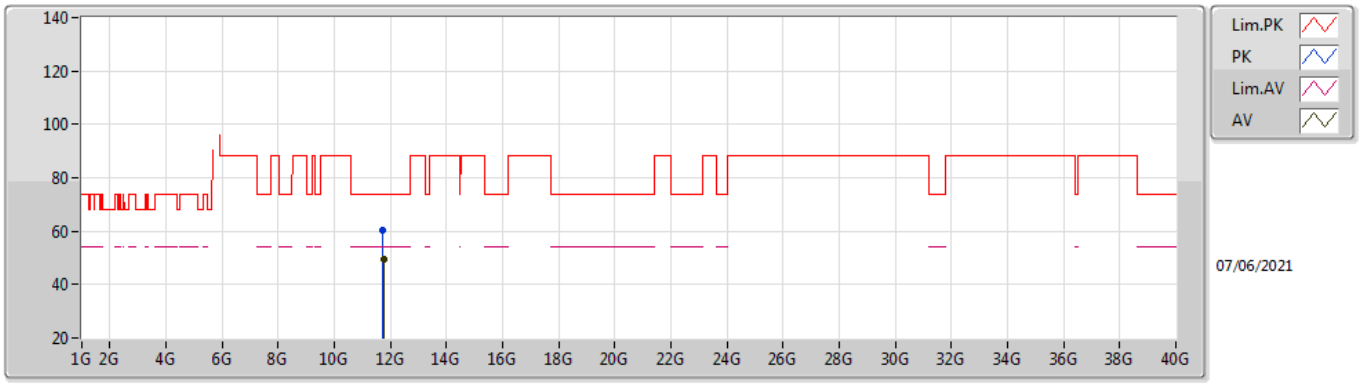


EUT Y_4TX
Setting 104
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.74922G	61.72	74.00	-12.28	46.88	3	Vertical	183	1.80	-	39.60	9.95	34.71
AV	11.74892G	49.44	54.00	-4.56	34.60	3	Vertical	183	1.80	-	39.60	9.95	34.71

802.11ax HEW40_Nss1,(MCS0)_4TX

5875MHz_TX

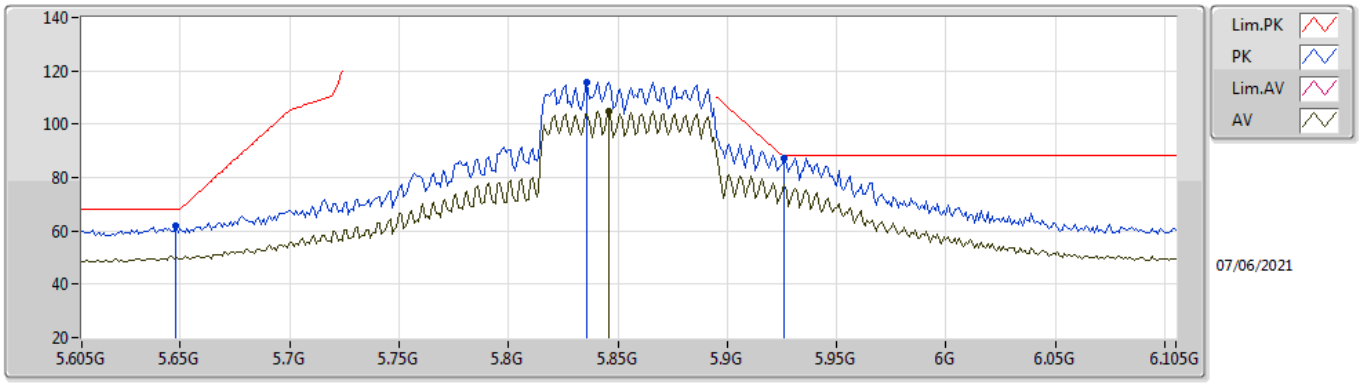


EUT Y_4TX
Setting 104
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.744G	60.60	74.00	-13.40	45.76	3	Horizontal	206	1.80	-	39.60	9.95	34.71
AV	11.74916G	49.24	54.00	-4.76	34.40	3	Horizontal	206	1.80	-	39.60	9.95	34.71

802.11ax HEW80_Nss1,(MCS0)_4TX

5855MHz_TX

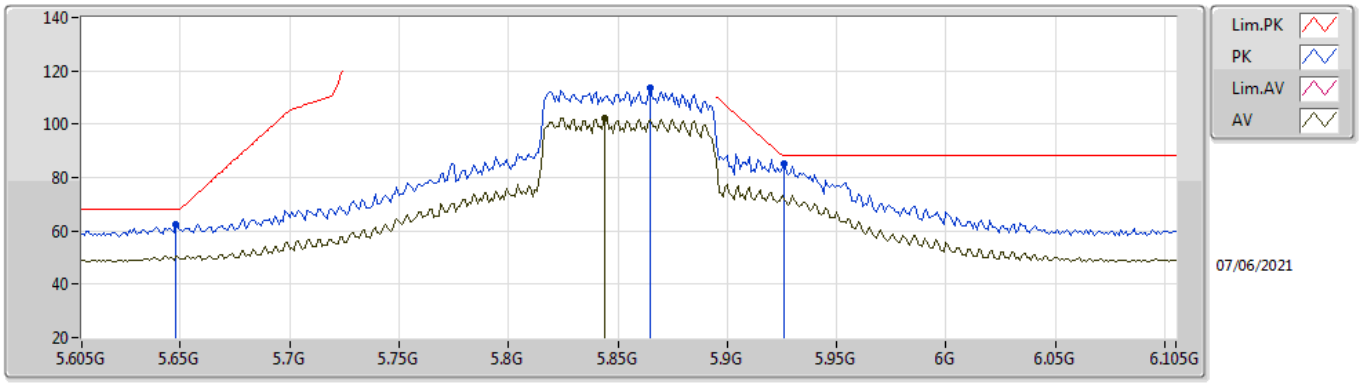


EUT Y_4TX
Setting 102
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.648G	62.03	68.20	-6.17	55.75	3	Vertical	328	1.54	-	34.40	6.82	34.94
PK	5.836G	115.87	Inf	-Inf	109.48	3	Vertical	328	1.54	-	34.40	6.92	34.93
AV	5.846G	104.78	Inf	-Inf	98.39	3	Vertical	328	1.54	-	34.40	6.92	34.93
PK	5.926G	87.49	88.20	-0.71	80.80	3	Vertical	328	1.54	-	34.65	6.96	34.92

802.11ax HEW80_Nss1,(MCS0)_4TX

5855MHz_TX

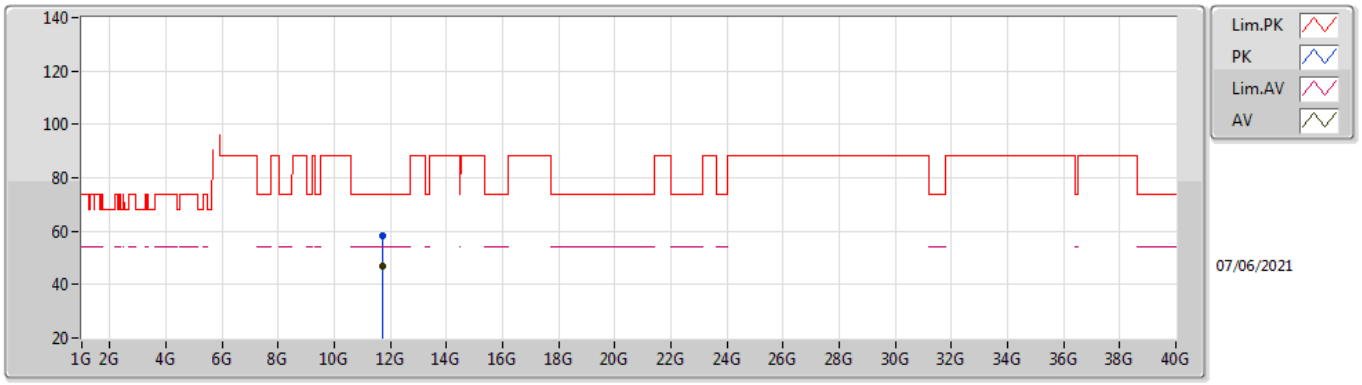


EUT Y_4TX
Setting 102
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.648G	62.49	68.20	-5.71	56.21	3	Horizontal	123	2.98	-	34.40	6.82	34.94
PK	5.865G	113.44	Inf	-Inf	106.95	3	Horizontal	123	2.98	-	34.49	6.93	34.93
AV	5.844G	102.45	Inf	-Inf	96.06	3	Horizontal	123	2.98	-	34.40	6.92	34.93
PK	5.926G	85.13	88.20	-3.07	78.44	3	Horizontal	123	2.98	-	34.65	6.96	34.92

802.11ax HEW80_Nss1,(MCS0)_4TX

5855MHz_TX

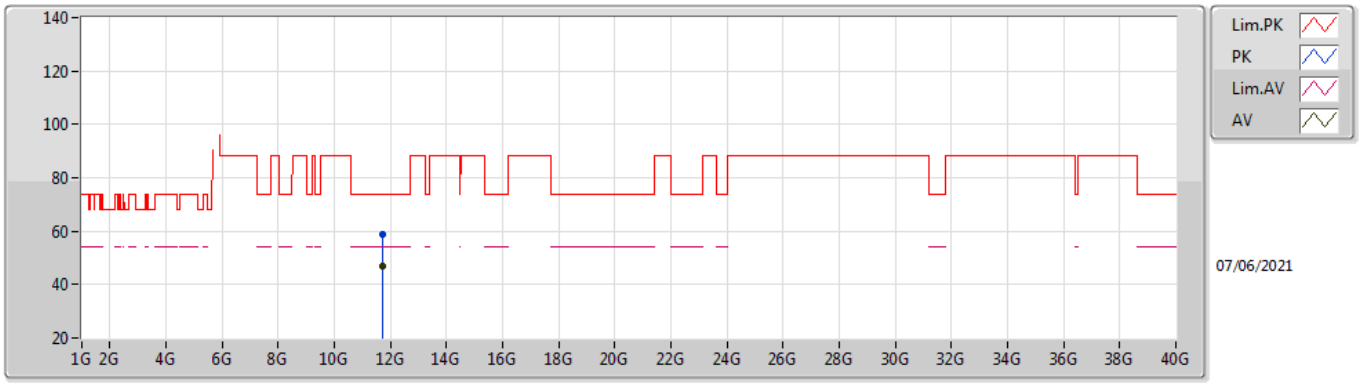


EUT Y_4TX
Setting 102
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.69992G	58.49	74.00	-15.51	43.65	3	Vertical	176	1.80	-	39.60	9.94	34.70
AV	11.70976G	46.92	54.00	-7.08	32.08	3	Vertical	176	1.80	-	39.60	9.94	34.70

802.11ax HEW80_Nss1,(MCS0)_4TX

5855MHz_TX

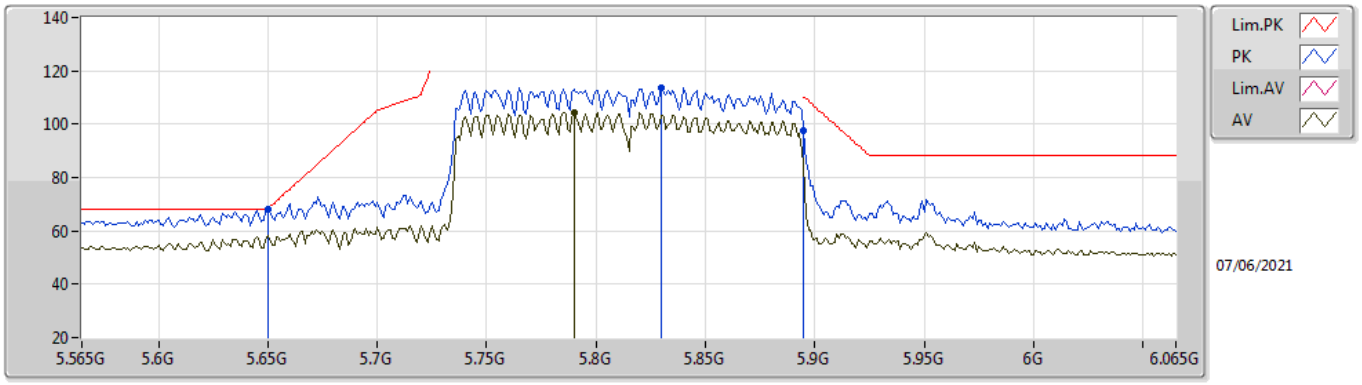


EUT Y_4TX
Setting 102
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.7133G	58.56	74.00	-15.44	43.72	3	Horizontal	209	2.07	-	39.60	9.94	34.70
AV	11.69896G	46.81	54.00	-7.19	31.97	3	Horizontal	209	2.07	-	39.60	9.94	34.70

802.11ax HEW160_Nss1,(MCS0)_4TX

5815MHz_TX

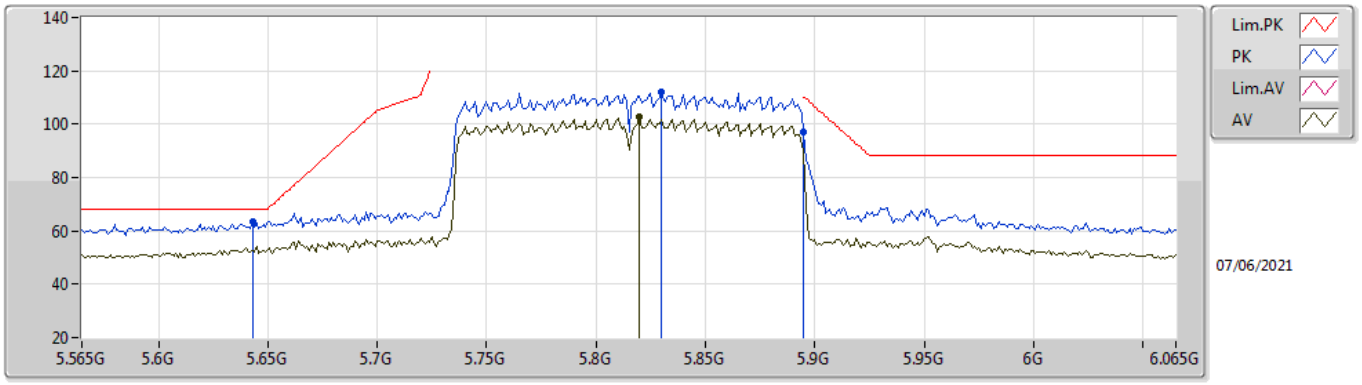


EUT Y_4TX
Setting 66
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.65G	67.93	68.20	-0.27	61.64	3	Vertical	77	1.99	-	34.40	6.83	34.94
PK	5.83G	113.60	Inf	-Inf	107.21	3	Vertical	77	1.99	-	34.40	6.92	34.93
AV	5.79G	104.56	Inf	-Inf	98.19	3	Vertical	77	1.99	-	34.40	6.90	34.93
PK	5.895G	97.39	110.20	-12.81	90.70	3	Vertical	77	1.99	-	34.67	6.95	34.93

802.11ax HEW160_Nss1,(MCS0)_4TX

5815MHz_TX

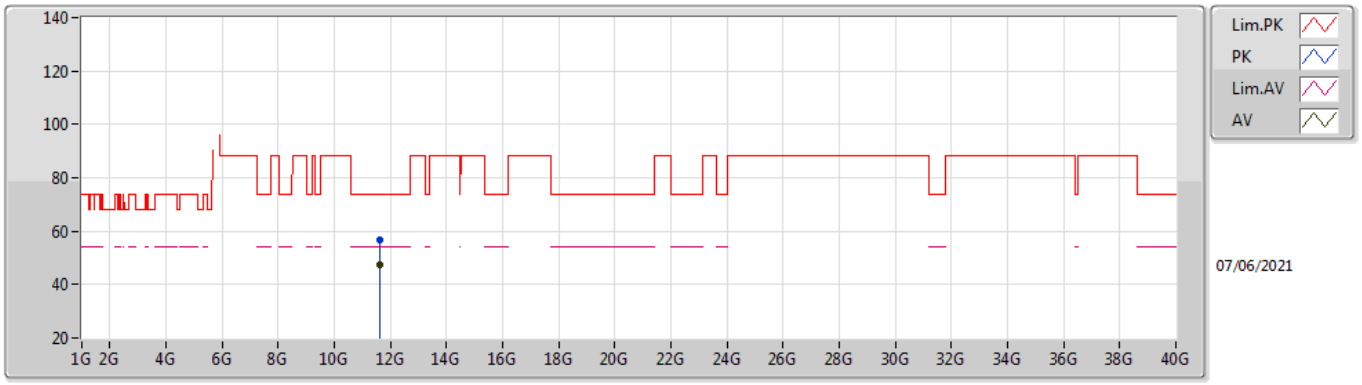


EUT Y_4TX
Setting 66
03-E-K-5-10

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	5.643G	63.41	68.20	-4.79	57.13	3	Horizontal	63	1.74	-	34.40	6.82	34.94
PK	5.83G	112.26	Inf	-Inf	105.87	3	Horizontal	63	1.74	-	34.40	6.92	34.93
AV	5.82G	102.63	Inf	-Inf	96.25	3	Horizontal	63	1.74	-	34.40	6.91	34.93
PK	5.895G	97.04	110.20	-13.16	90.35	3	Horizontal	63	1.74	-	34.67	6.95	34.93

802.11ax HEW160_Nss1,(MCS0)_4TX

5815MHz_TX

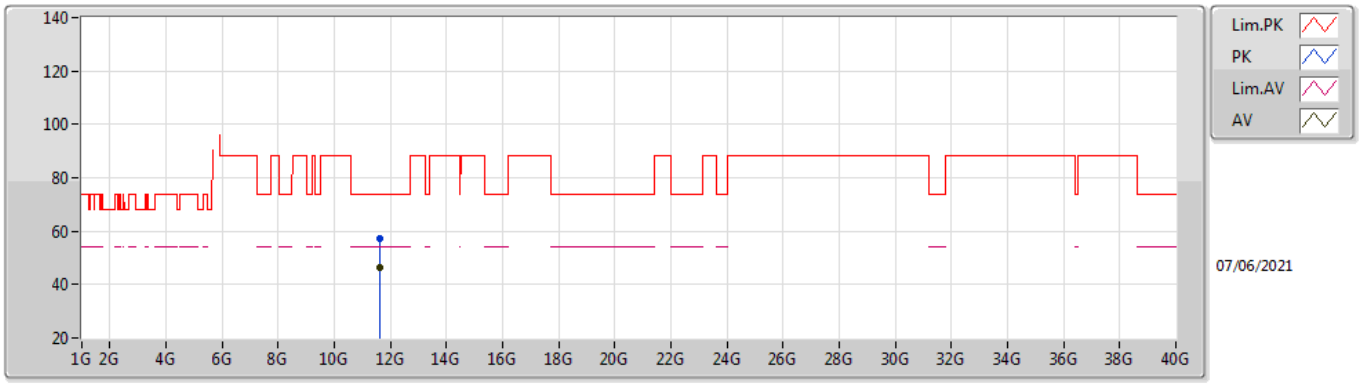


EUT Y_4TX
Setting 66
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.6298G	56.49	74.00	-17.51	41.64	3	Vertical	170	1.75	-	39.60	9.93	34.68
AV	11.62987G	47.20	54.00	-6.80	32.35	3	Vertical	170	1.75	-	39.60	9.93	34.68

802.11ax HEW160_Nss1,(MCS0)_4TX

5815MHz_TX



EUT Y_4TX
Setting 66
03-E-K-5

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	11.63032G	57.03	74.00	-16.97	42.18	3	Horizontal	144	2.42	-	39.60	9.93	34.68
AV	11.62984G	46.46	54.00	-7.54	31.61	3	Horizontal	144	2.42	-	39.60	9.93	34.68