



RADIO TEST REPORT

FCC ID : Z8H89FT0072
Equipment : XE5-8
Brand Name : Cambium Networks
Model Name : XE5-8
Applicant : Cambium Networks Inc.
3800 Golf Road, Suite 360 Rolling Meadows, IL
60008, USA
Manufacturer : Cambium Networks, Ltd.
Ashburton, TQ13 7UP, UK
Standard : 47 CFR FCC Part 15.407

The product was received on Dec. 07, 2021, and testing was started from Jan. 03, 2022 and completed on Jun. 26, 2022. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this 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.)



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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:

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

Comments and Explanations:

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

Reviewed by: Sam Chen

Report Producer: 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
5725-5895	a, n (HT20), ac (VHT20), ax (HEW20)	5845-5885	169-177[3]
5725-5895	n (HT40), ac (VHT40), ax (HEW40)	5835-5875	167-175[2]
5725-5895	ac (VHT80), ax (HEW80)	5855	171[1]
5725-5895	ac (VHT160), ax (HEW160)	5815	163[1]

For radio 2 and radio 3

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



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 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

Radio	Ant.	2.4GHz port	5GHz port	5GHz port	6E port	Bluetooth	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	4	4 (High band)	4 (Full band)	-	-	ACCTON	EAP9819A-6E-1120-CAM	PCB antenna	I-PEX	Note 1
	2	3	3 (High band)	3 (Full band)	-	-	ACCTON	EAP9819A-6E-1120-CAM	PCB antenna	I-PEX	
	3	2	2 (High band)	2 (Full band)	-	-	ACCTON	EAP9819A-6E-1120-CAM	PCB antenna	I-PEX	
	4	1	1 (High band)	1 (Full band)	-	-	ACCTON	EAP9819A-6E-1120-CAM	PCB antenna	I-PEX	
1	5	-	4 (Low band)	8 (Full band)	-	-	ACCTON	EAP9819A-6E-1120-CAM	PCB antenna	I-PEX	
	6	-	3 (Low band)	7 (Full band)	-	-	ACCTON	EAP9819A-6E-1120-CAM	PCB antenna	I-PEX	
	7	-	2 (Low band)	6 (Full band)	-	-	ACCTON	EAP9819A-6E-1120-CAM	PCB antenna	I-PEX	
	8	-	1 (Low band)	5 (Full band)	-	-	ACCTON	EAP9819A-6E-1120-CAM	PCB antenna	I-PEX	
2	9	-	4		4	-	ACCTON	EAP9819A-6E-1120-CAM	Metal antenna	I-PEX	
	10	-	2		2	-	ACCTON	EAP9819A-6E-1120-CAM	Metal antenna	I-PEX	
	11	-	3		3	-	ACCTON	EAP9819A-6E-1120-CAM	Metal antenna	I-PEX	
	12	-	1		1	-	ACCTON	EAP9819A-6E-1120-CAM	Metal antenna	I-PEX	
3	13	-	4		4	-	ACCTON	EAP9819A-6E-1120-CAM	Metal antenna	I-PEX	
	14	-	2		2	-	ACCTON	EAP9819A-6E-1120-CAM	Metal antenna	I-PEX	
	15	-	3		3	-	ACCTON	EAP9819A-6E-1120-CAM	Metal antenna	I-PEX	
	16	-	1		1	-	ACCTON	EAP9819A-6E-1120-CAM	Metal antenna	I-PEX	
4	17	-	-	-	-	1	ACCTON	GT128V007S-001	Chip antenna	N/A	

Note 1:

Radio 1 and Radio 4

Ant.	Antenna Gain (dBi)					
	WLAN 2.4GHz	WLAN 5GHz				Bluetooth
		UNII 1	UNII 2A	UNII 2C	UNII 3	
1	4.51	4.09	3.06	3.82	3.60	-
2	4.97	4.40	5.70	3.79	2.99	-
3	4.66	5.17	5.99	4.38	3.52	-
4	5.95	4.64	4.09	4.19	3.36	-
5	-	3.39	3.58	3.34	2.01	-
6	-	3.70	3.39	2.52	3.03	-
7	-	3.10	3.68	2.83	2.84	-
8	-	2.82	3.13	2.19	2.61	-
17	-	-	-	-	-	3.24



Mode 1: 2.4GHz 4TX and 5GHz UNII 1~UNII 3 8TX

Ant.	Directional Gain (dBi)																		
	WLAN 2.4GHz			WLAN 5GHz															
				UNII 1				UNII 2A				UNII 2C				UNII 3			
	4T1S	4T2S	4T4S	8T1S	8T2S	8T4S	8T8S	8T1S	8T2S	8T4S	8T8S	8T1S	8T2S	8T4S	8T8S	8T1S	8T2S	8T4S	8T8S
1	9.91	6.91	3.96	8.39	5.39	5.17	0.57	8.65	5.99	5.99	0.76	7.37	4.38	4.38	0.01	7.13	4.13	3.60	-0.40
2																			
3																			
4																			
5																			
6																			
7																			
8																			

Mode 2: 2.4GHz, 5GHz UNII 1~UNII 2A and 5GHz UNII 2C~UNII 3 4TX

Ant.	Directional Gain (dBi)														
	WLAN 2.4GHz			WLAN 5GHz											
				UNII 1			UNII 2A			UNII 2C			UNII 3		
	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S
1	9.91	6.91	3.96	-	-	-	-	-	-	8.67	5.67	2.75	8.15	5.15	2.27
2															
3															
4															
5	-	-	-	7.35	4.35	1.38	7.38	4.38	1.47	-	-	-	-	-	-
6															
7															
8															



For Radio 2~Radio 3

Ant.	Antenna Gain (dBi)							
	WLAN 5GHz UNII 1~UNII 3				WLAN 6E			
	UNII 1	UNII 2A	UNII 2C	UNII 3	UNII 5	UNII 6	UNII 7	UNII 8
9	3.56	4.37	3.82	4.70	4.96	3.57	3.72	4.44
10	1.25	3.18	3.45	1.86	4.40	3.52	3.12	3.31
11	4.27	4.24	2.25	3.64	4.14	2.03	3.08	4.86
12	1.94	2.59	2.08	3.11	4.85	2.60	3.43	3.41
13	3.25	3.68	3.74	2.90	4.16	2.52	0.71	2.03
14	2.35	4.20	2.48	3.96	4.72	2.06	1.91	2.03
15	3.07	3.84	2.89	2.61	2.24	1.61	2.74	2.45
16	3.41	3.65	1.81	3.31	3.43	3.56	2.35	1.93

Ant.	Antenna Gain (dBi)		
	WLAN 5GHz UNII 4		
	5.85 GHz	5.885 GHz	5.895 GHz
9	3.6	3.74	3.59
10	3.2	2.71	2.88
11	4.16	4.53	4.72
12	3.19	3.54	3.26
13	1.04	2.35	2.53
14	1.61	2.03	2.09
15	2.87	3.06	2.69
16	2.33	2.17	1.77



For 5GHz UNII 1~UNII 3

Ant.	Directional Gain (dBi)											
	WLAN 5GHz UNII 1~UNII 3											
	UNII 1			UNII 2A			UNII 2C			UNII 3		
	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S
9	6.84	4.27	0.94	7.38	4.38	1.63	5.12	3.82	-0.67	5.70	4.70	0.08
10												
11												
12												
13	6.79	3.79	0.92	6.16	4.20	0.76	4.51	3.74	-0.79	5.60	3.96	0.29
14												
15												
16												

For 5GHz UNII 4

Ant.	Directional Gain (dBi)								
	WLAN 5GHz UNII 4								
	5.85GHz			5.885GHz			5.895GHz		
	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S
9	6.95	4.16	4.16	7.21	4.53	4.53	7.26	4.72	4.72
10									
11									
12									
13	5.03	2.87	2.87	5.58	3.06	3.06	5.59	2.69	2.69
14									
15									
16									



For 6GHz UNII 5~8

Ant.	Directional Gain (dBi)											
	WLAN 6E											
	UNII 5			UNII 6			UNII 7			UNII 8		
	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S
9	7.11	4.96	1.27	6.27	3.57	0.39	6.05	3.72	0.36	7.06	4.86	1.54
10												
11												
12												
13	7.06	4.72	1.39	6.25	3.56	0.34	4.86	2.74	-0.72	5.56	2.56	-0.38
14												
15												
16												

Note 2: The EUT has seventeen antennas.

Note 3: The brand/model/antenna type information was declared by manufacturer.

Note 4: Maximum Directional Gain following KDB662911 D03.

The antenna report is provided in the operational description for this application.

Note 5: Because radio 2 and radio 3 are the same radio, the Directional Gain of radio 2 is higher than radio 3. Thus, radio 2 was tested and recorded in the report.

For Radio 1

For 2.4GHz:

For IEEE 802.11b/g/n/VHT/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 5GHz UNII 1 and UNII 3 (SBS Mode):

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.

For 5GHz UNII 1 and UNII 3 (DBS Mode):

For IEEE 802.11a/n/ac/ax mode (8TX/8RX):

Port 1, Port 2, Port 3, Port 4, Port 5, Port 6, Port 7, Port 8 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3, Port 4, Port 5, Port 6, Port 7, Port 8 could transmit/receive simultaneously.

For Radio 2 and Radio 3

For 5GHz UNII 1, 3 and UNII 4:

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.

For 6GHz UNII 5~8:

For IEEE 802.11ax 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 Radio 4

For Bluetooth:

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



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.933	0.3	1.977m	1k
802.11ax HEW20	0.866	0.62	5.445m	300
802.11ax HEW20-BF	0.83	0.81	5.445m	300
802.11ax HEW40	0.867	0.62	5.445m	300
802.11ax HEW40-BF	0.866	0.62	5.444m	300
802.11ax HEW80	0.86	0.66	5.445m	300
802.11ax HEW80-BF	0.867	0.62	5.444m	300
802.11ax HEW160	0.918	0.37	5.445m	300
802.11ax HEW160-BF	0.917	0.38	5.445m	300

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From PoE			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for n/VHT/ax in 2.4GHz, n/ac/ax in 5GHz and ax in 6GHz			
Function	<input type="checkbox"/>	Outdoor P2M	<input checked="" type="checkbox"/>	Indoor P2M
	<input type="checkbox"/>	Fixed P2P	<input type="checkbox"/>	Client
	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
Device Type (UNII 4)	<input checked="" type="checkbox"/>	Indoor Access Point	<input type="checkbox"/>	Subordinate
	<input type="checkbox"/>	Indoor Client		
Test Software Version	QSPR Version 5.0-00197			

Note: The above information was declared by manufacturer.

1.1.5 Table of Radio Function

Radio (R)	2.4GHz	5GHz UNII 1~3	5GHz UNII 1~4	6E UNII 5~8	Bluetooth
1	V (BW:20/40MHz)	V (BW:20/40/80/80+80MHz)	-	-	-
2 (Pine 1)	-	-	V (BW:20/40/80/160MHz)	V	-
3 (Pine 2)	-	-	V (BW:20/40/80/160MHz)	V	-
4	-	-	-	-	V



1.1.6 Table for EUT Operation Function

Mode	Operation Function
1	DBS Mode: R1: 2.4GHz/5GHz UNII 1~UNII 3 in 8TX +R2: 5GHz UNII 1~UNII 4/6GHz+R3: 5GHz UNII 1~UNII 4/6GHz+R4: BT
2	SBS Mode: R1: 2.4GHz/5GHz UNII 1~UNII 3 in 4TX +R2: 5GHz UNII 1~UNII 4/6GHz+R3: 5GHz UNII 1~UNII 4/6GHz+R4: BT

1.1.7 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR142255-01

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

Modifications	Performance Checking
1. Add UNII 4 band for Radio 2 and Radio 3	1. Emission Bandwidth 2. Maximum Output Power 3. Power Spectral Density 4. Unwanted Emissions above 1GHz
2. Add UNII 2A and UNII 2C (5250~5350MHz and 5470~5725MHz) for this device. 3. Add 160MHz for Radio 2 and Radio 3. 4. Add 80+80MHz mode in DBS Mode for Radio 1.	5. It will be evaluated in test report no: FR142255-02.



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 D03 v01
- ◆ FCC KDB 412172 D01 v01r01
- ◆ FCC KDB 291074 D02 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	TH01-CB	Serway Lee	22.1~22.7 / 67~71	Jan. 03, 2022~ Jun. 26, 2022
Radiated	03CH04-CB	Bruce Yang	23.8-24.9 / 55-58	Jun. 12, 2022~ Jun. 23, 2022



1.4 Measurement Uncertainty

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

For Before Jun. 01, 2022

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%

For After May 31, 2022

Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	5.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%
Conducted Emission	3.2 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.2 dB	Confidence levels of 95%
Bandwidth Measurement	2.0 %	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For non-beamforming:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5845MHz	21
5865MHz	21
5885MHz	21
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5845MHz	22
5865MHz	22
5885MHz	11
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5835MHz	23
5875MHz	22.5
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5855MHz	20
802.11ax HEW160_Nss1,(MCS0)_4TX	-
5815MHz	17

For beamforming:

802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5845MHz	22
5865MHz	22
5885MHz	11
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5835MHz	23
5875MHz	22.5
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5855MHz	20
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-
5815MHz	17

Note:

- ♦ Evaluated HEW20/HEW40/HEW80/HEW160 mode only due to the similar modulation. The power setting of HT20/HT40/VHT20/VHT40/VHT80/VHT160 mode are the same or lower than HEW20/HEW40/HEW80/HEW160.
- ♦ The EUT supports beamforming and CDD modes for 2.4GHz: 802.11n/VHT/ax, 5GHz: 802.11n/ac/ax, 6GHz: 802.11ax, and the CDD mode is the worst case. Therefore, all test items 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 The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at X axis. So the measurement will follow this same test configuration
1	EUT in X axis_Radio 2 UNII 4 4TX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	DBS Mode:R1: 2.4GHz/5GHz UNII 1,UNII 3 in 8TX +R2: 5GHz UNII 1,UNII 3, UNII 4+R3: 5GHz UNII 1,UNII 3, UNII 4 +R4: BT
2	DBS Mode:R1: 2.4GHz/5GHz UNII 1,UNII 3 in 8TX +R2: 5GHz UNII 1,UNII 3, UNII 4+R3: 6GHz UNII 5~UNII 8 +R4: BT
3	DBS Mode:R1: 2.4GHz/5GHz UNII 1,UNII 3 in 8TX +R2: 6GHz UNII 5~UNII 8+R3: 5GHz UNII 1,UNII 3, UNII 4 +R4: BT
4	DBS Mode:R1: 2.4GHz/5GHz UNII 1,UNII 3 in 8TX +R2: 6GHz UNII 5~UNII 8+R3: 6GHz UNII 5~UNII 8 +R4: BT
5	DBS Mode:R1: 2.4GHz/SBS Mode:5GHz UNII 1+UNII 3 in 4TX +R2: 5GHz UNII 1,UNII 3, UNII 4+R3: 5GHz UNII 1,UNII 3, UNII 4 +R4: BT
6	DBS Mode:R1: 2.4GHz/SBS Mode:5GHz UNII 1+UNII 3 in 4TX +R2: 5GHz UNII 1,UNII 3, UNII 4+R3: 6GHz UNII 5~UNII 8 +R4: BT
7	DBS Mode:R1: 2.4GHz/SBS Mode:5GHz UNII 1+UNII 3 in 4TX +R2: 6GHz UNII 5~UNII 8+R3: 5GHz UNII 1, UNII 3, UNII 4 +R4: BT
8	DBS Mode:R1: 2.4GHz/SBS Mode:5GHz UNII 1+UNII 3 in 4TX +R2: 6GHz UNII 5~UNII 8+R3: 6GHz UNII 5~UNII 8 +R4: BT
Refer to Sporton Test Report No.: FA142255-05 for Co-location RF Exposure Evaluation.	



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

Support Unit	Brand	Model
PoE	Cambium	NET-P60-56IN



2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

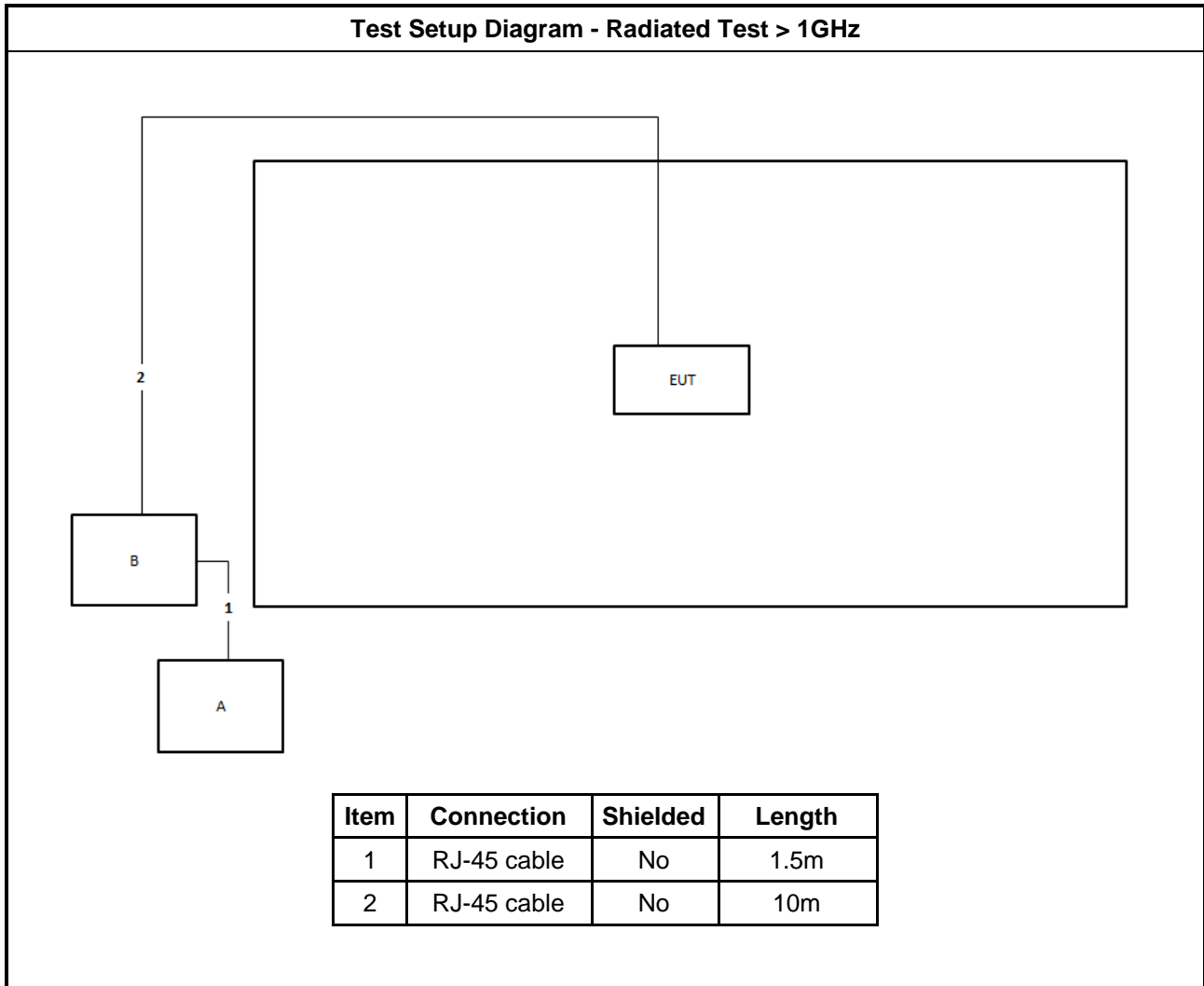
2.4 Accessories

Accessories
Cradle*1

2.5 Support Equipment

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	PoE	Cambium	NET-P60-56IN	N/A

2.6 Test Setup Diagram





3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth ≥ 500kHz.
<input checked="" type="checkbox"/>	For the 5.85-5.895 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth ≥ 500kHz.
LE-LAN Devices	
<input type="checkbox"/>	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.
<input type="checkbox"/>	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
<input type="checkbox"/>	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
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

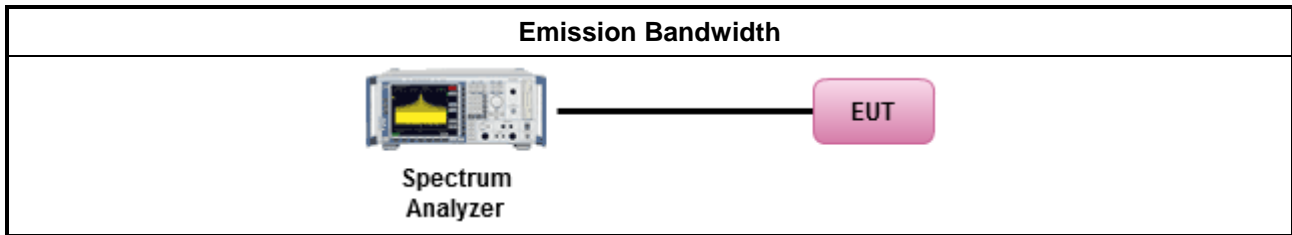
3.1.2 Measuring Instruments

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:	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.1.4 Test Setup



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	
<input type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> ▪ 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 $\leq 125mW$ [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 $P_{Out} = 24 - (G_{TX} - 6)$.
<input type="checkbox"/> For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
<input type="checkbox"/> For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> ▪ 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	
<input checked="" type="checkbox"/> For the 5.85-5.895 GHz band:	
	<ul style="list-style-type: none"> ▪ Indoor AP & subordinate device $< 36 \text{ dBm}$ ▪ Client device $< 30 \text{ dBm}$
LE-LAN Devices	
<input type="checkbox"/> 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.	
<input type="checkbox"/> 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	
<input type="checkbox"/> 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	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> ▪ 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.

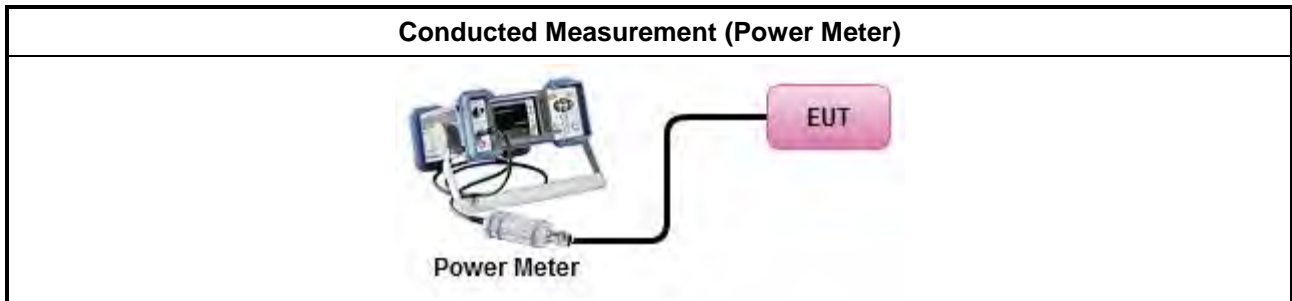
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
Average over on/off periods with duty factor	
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
Wideband RF power meter and average over on/off periods with duty factor	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).
<input checked="" type="checkbox"/>	For conducted measurement.
<ul style="list-style-type: none"> If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	
<input type="checkbox"/>	For radiated measurement.
<ul style="list-style-type: none"> Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing" Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation. 	

3.2.4 Test Setup



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	
<input type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> ▪ 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 $PPSD = 11 - (G_{TX} - 6)$.
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> ▪ 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	
<input checked="" type="checkbox"/> For the 5.85-5.895 GHz band:	
	<ul style="list-style-type: none"> ▪ Indoor AP & subordinate device < 20dBm/MHz ▪ Client device < 14dBm/MHz
LE-LAN Devices	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
	<ul style="list-style-type: none"> ▪ e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; -13 - 0.716 (θ-8) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 (θ-40) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. ▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output	



power shall be used to determine the power spectral density. And power spectral density in dBm/MHz
 G_{TX} = the maximum transmitting antenna directional gain in dBi.

3.3.2 Measuring Instruments

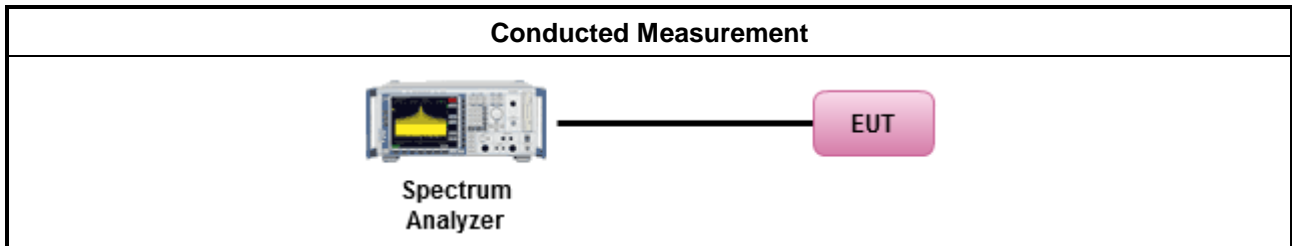
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> ▪ 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:
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
	[duty cycle ≥ 98% or external video / power trigger]
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
	duty cycle < 98% and average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<input checked="" type="checkbox"/>	For conducted measurement.
	<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below:
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	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,
<input type="checkbox"/>	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.
	<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm])

Test Method	
	EIRP _{total} = PPSD _{total} + DG
<input type="checkbox"/>	For radiated measurement.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

3.3.4 Test Setup



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
<input type="checkbox"/> 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m @3m]
<input type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m @3m]
<input type="checkbox"/> 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m @3m]
<input type="checkbox"/> 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.
<input checked="" type="checkbox"/> 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



	<p>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.</p> <p>(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.</p>
<p>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).</p>	

3.4.2 Measuring Instruments

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

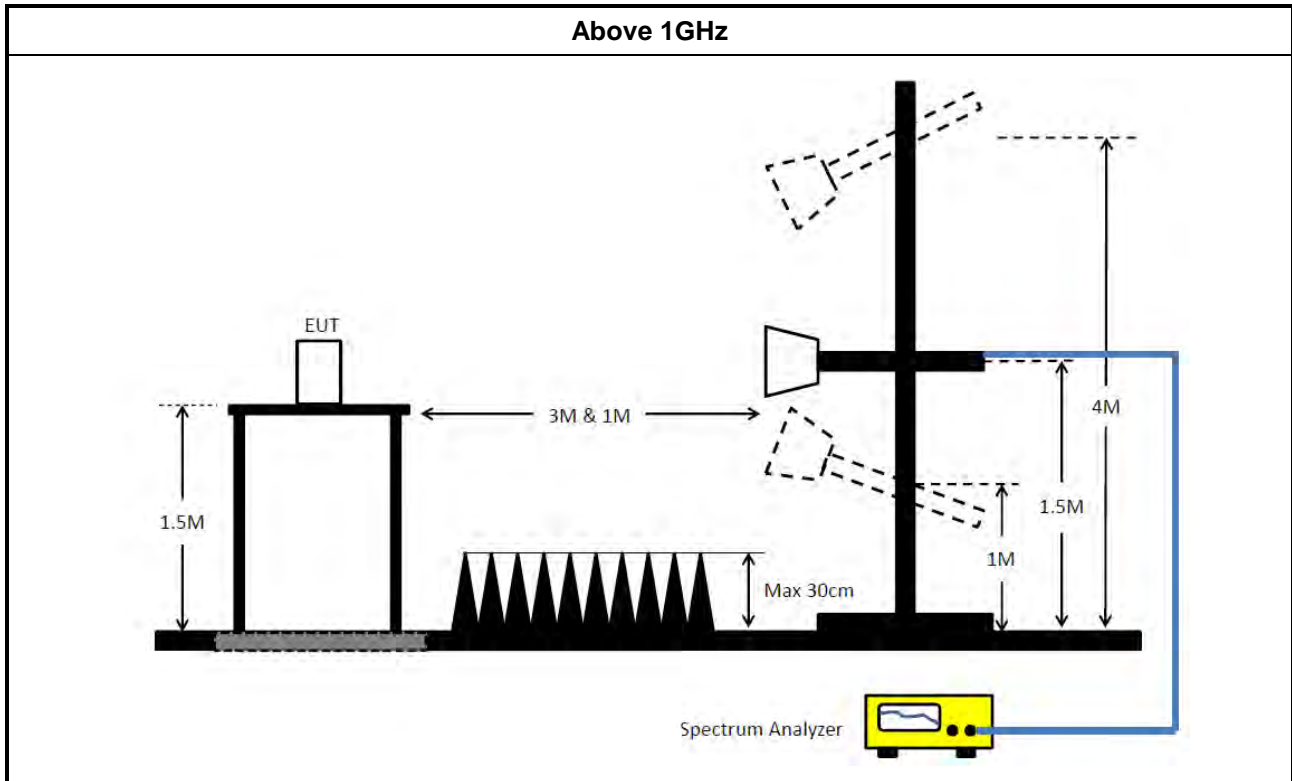
3.4.3 Test Procedures

Test Method															
	<ul style="list-style-type: none"> ▪ 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). 														
	<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. 														
	<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td> <ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. </td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.</td> </tr> </table> 		<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. 	<input type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).	<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).	<input type="checkbox"/>	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.	<input type="checkbox"/>	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.	<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.	<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. 														
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).														
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).														
<input type="checkbox"/>	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.														
<input type="checkbox"/>	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.														
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.														
<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.														
	<ul style="list-style-type: none"> ▪ For radiated measurement. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td> <ul style="list-style-type: none"> ▪ 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. </td> </tr> </table> 		<ul style="list-style-type: none"> ▪ 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. 												
	<ul style="list-style-type: none"> ▪ 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. 														
	<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level. 														

Test Method

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

3.4.4 Test Setup



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	03CH04-CB	1GHz ~18GHz 3m	Feb. 24, 2022	Feb. 23, 2023	Radiation (03CH04-CB)
Horn Antenna	ETS · Lindgren	3115	00143147	750MHz~ 18GHz	Oct. 25, 2021	Oct. 24, 2022	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (03CH04-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 28, 2022	Mar. 27, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 21, 2021	May 20, 2022	Conducted (TH01-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Apr. 26, 2022	Apr. 25, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz – 26.5 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1 GHz – 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P1	1 GHz – 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P2	1 GHz – 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P3	1 GHz – 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P4	1 GHz – 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	SWI-01-P5	1 GHz – 26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1339408	300MHz~40GHz	Sep. 06, 2021	Sep. 05, 2022	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1517009	300MHz~40GHz	Sep. 06, 2021	Sep. 05, 2022	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

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

NCR means Non-Calibration required.



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.895GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.38M	16.882M	16M9D1D	16.32M	16.792M

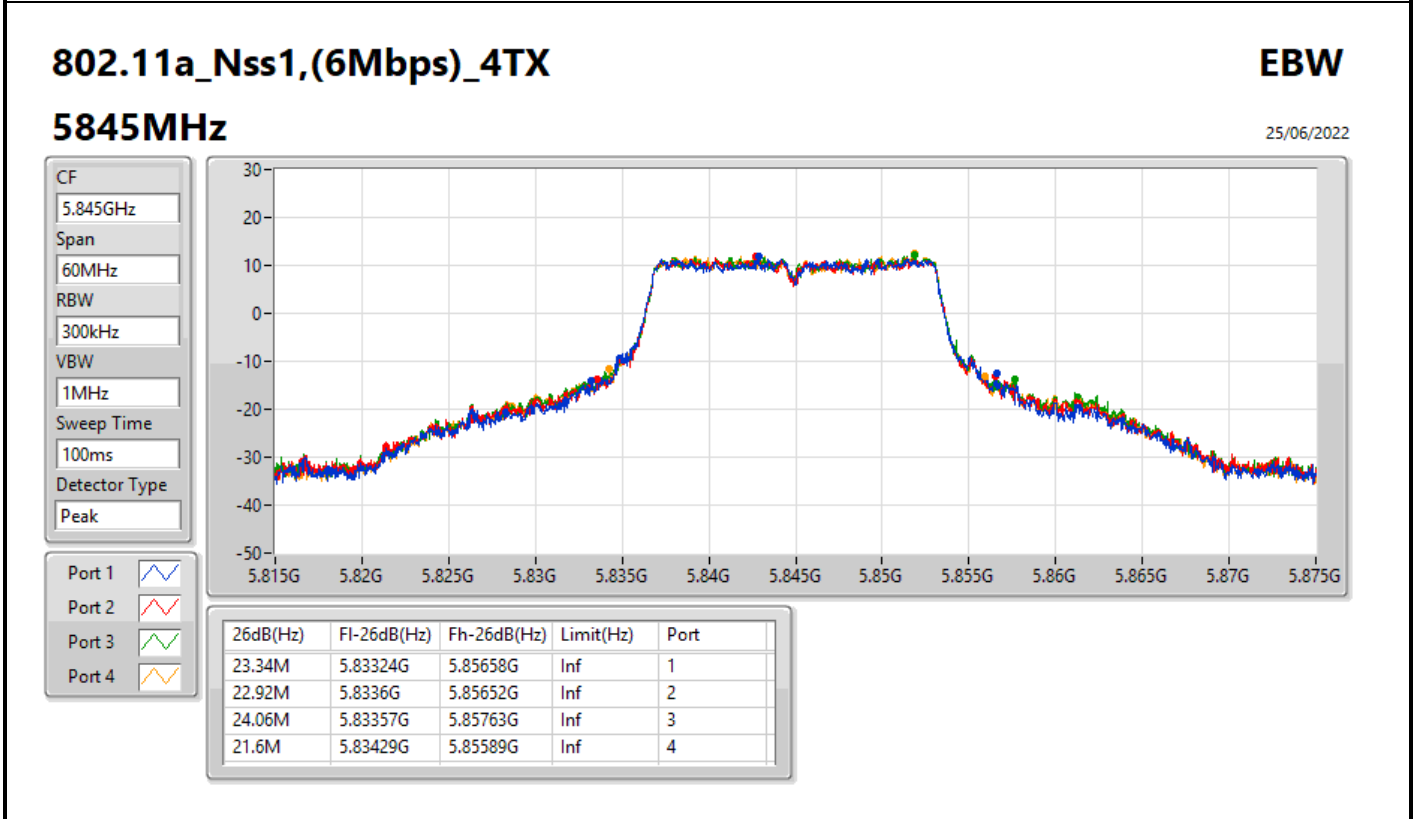
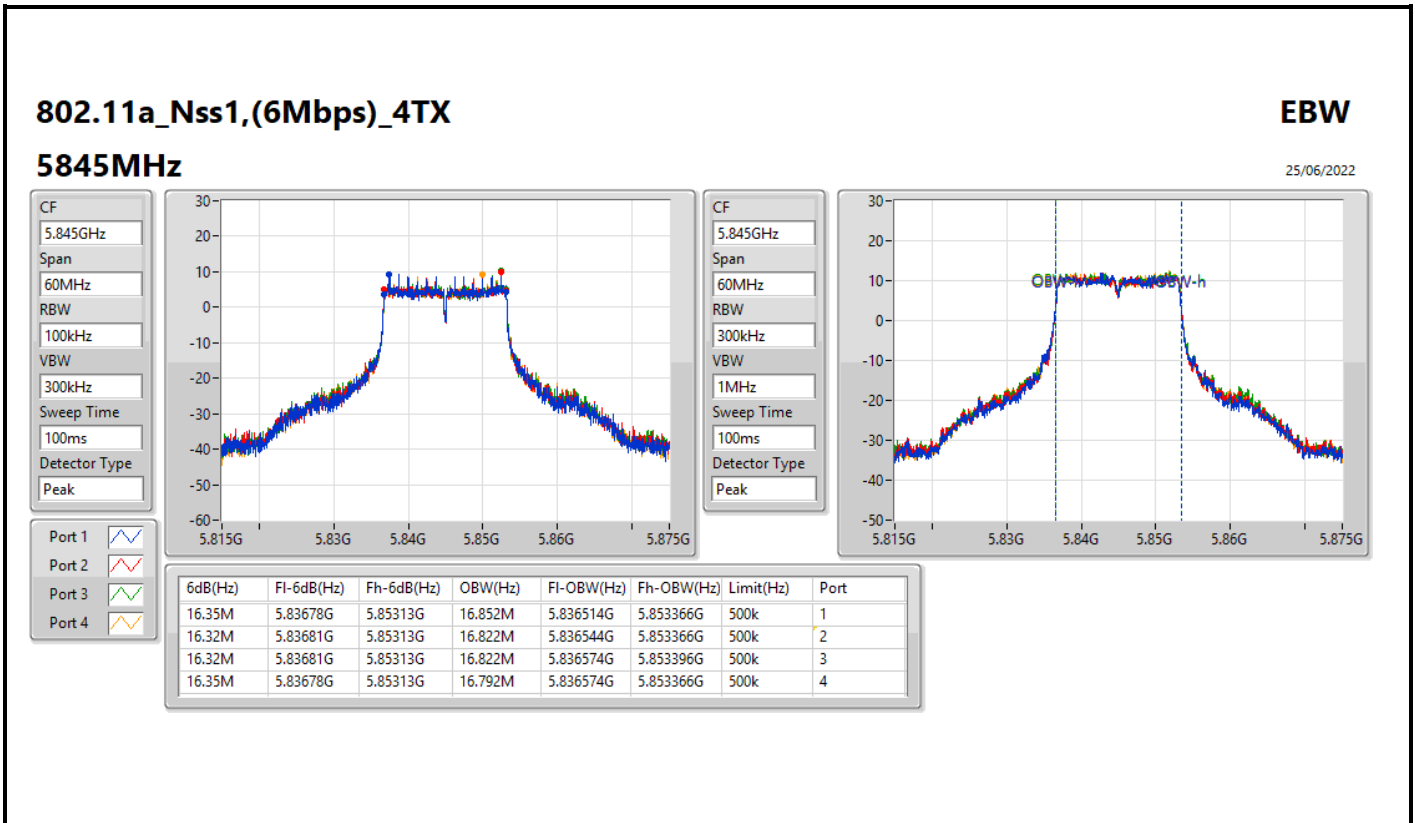
Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth

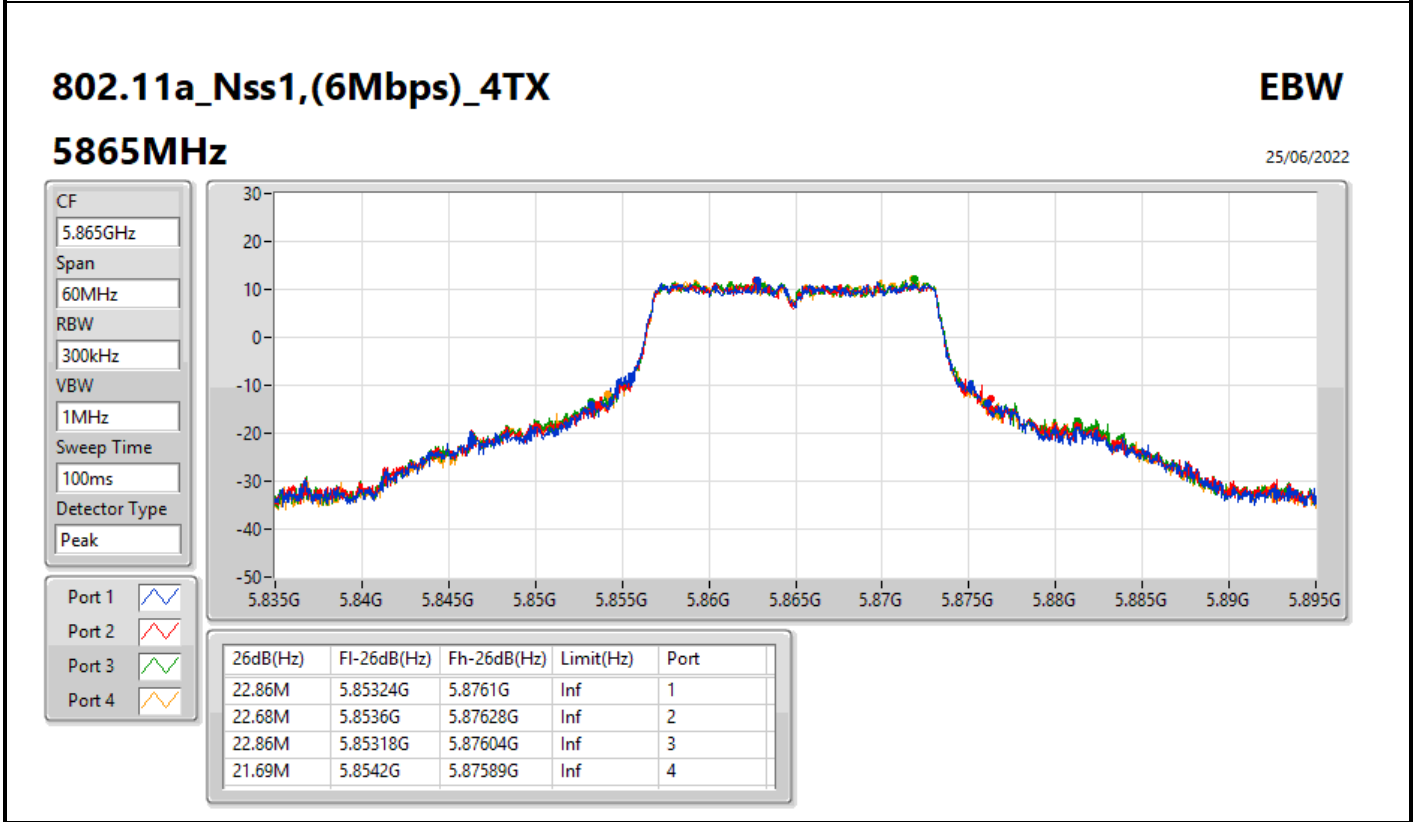
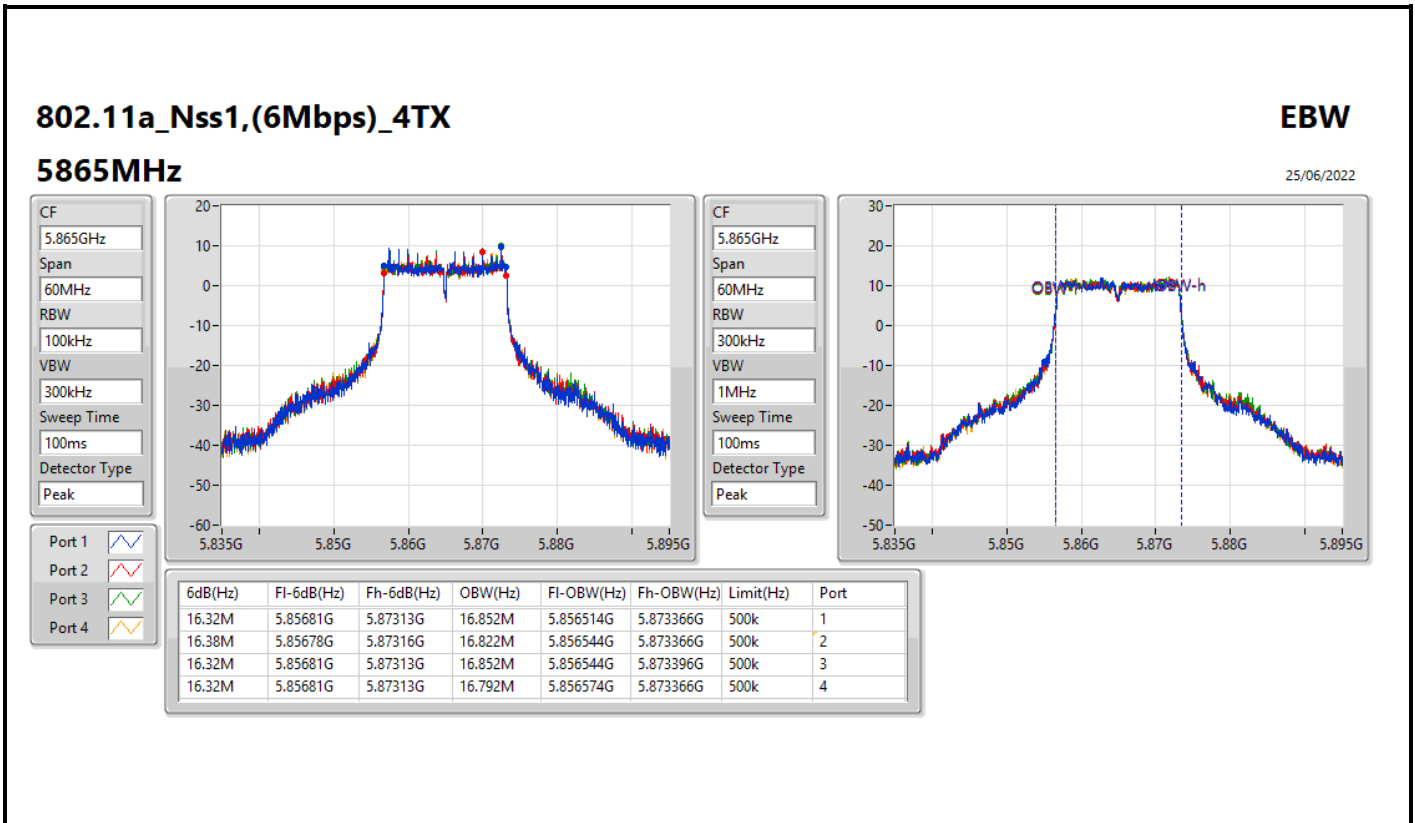


Result

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	500k	16.35M	16.852M	16.32M	16.822M	16.32M	16.822M	16.35M	16.792M
5865MHz	Pass	500k	16.32M	16.852M	16.38M	16.822M	16.32M	16.852M	16.32M	16.792M
5885MHz	Pass	500k	16.32M	16.882M	16.32M	16.852M	16.35M	16.852M	16.32M	16.792M

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



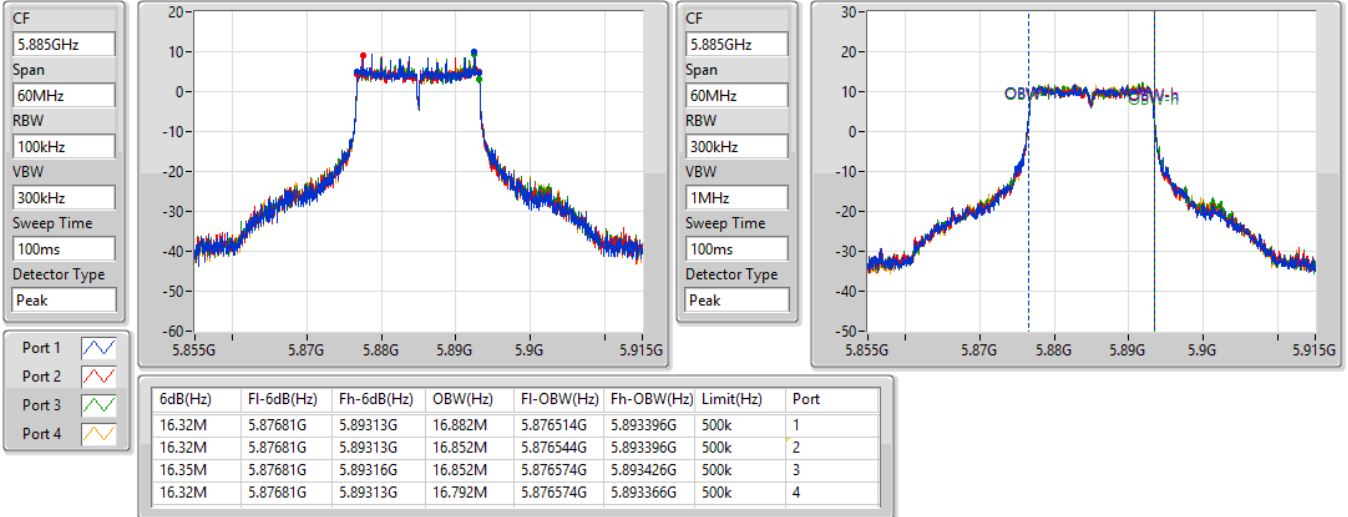


802.11a_Nss1,(6Mbps)_4TX

EBW

5885MHz

25/06/2022

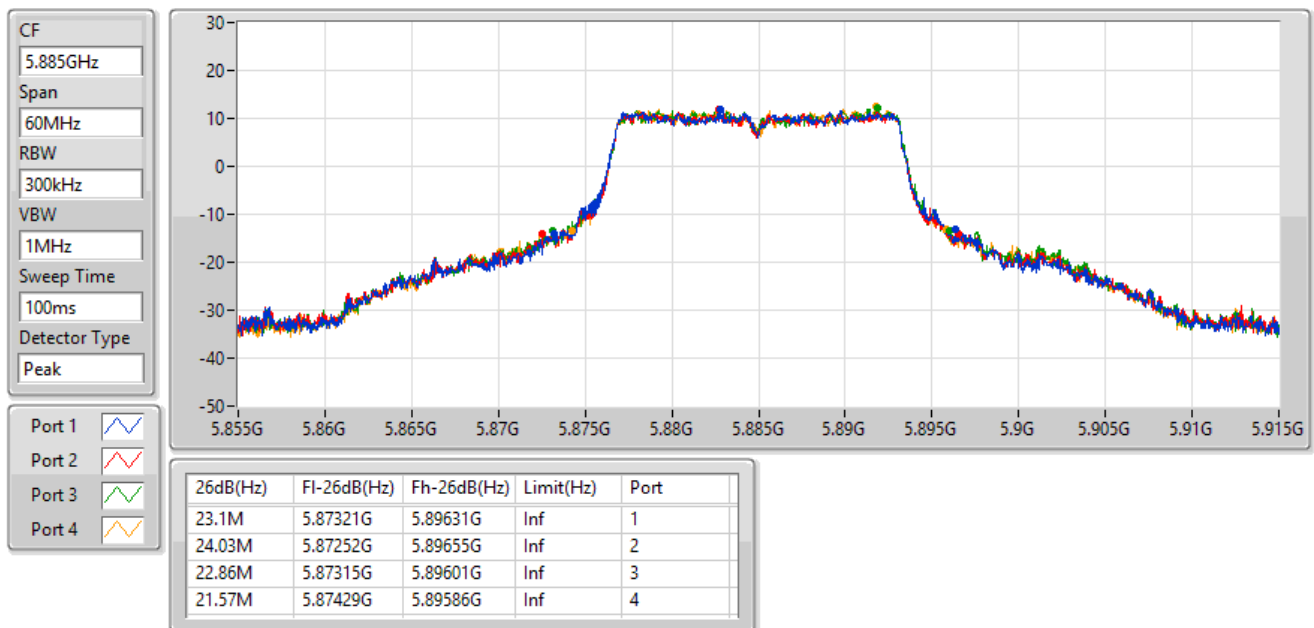


802.11a_Nss1,(6Mbps)_4TX

EBW

5885MHz

25/06/2022





For beamforming:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.895GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	19.11M	19.31M	19M3D1D	18.99M	19.04M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	37.92M	41.979M	42MOD1D	36.84M	38.561M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	78M	77.961M	78MOD1D	71.28M	77.721M
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	153.12M	155.442M	155MD1D	150M	154.963M

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)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz	Pass	500k	19.05M	19.19M	19.05M	19.28M	19.11M	19.22M	19.11M	19.28M
5865MHz	Pass	500k	19.02M	19.19M	19.02M	19.31M	19.02M	19.22M	19.02M	19.31M
5885MHz	Pass	500k	18.99M	19.04M	19.05M	19.04M	19.05M	19.04M	19.08M	19.1M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5835MHz	Pass	500k	37.56M	41.979M	37.86M	40.42M	37.02M	39.94M	36.84M	40.84M
5875MHz	Pass	500k	37.92M	38.681M	37.74M	38.621M	37.86M	38.801M	37.92M	38.561M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5855MHz	Pass	500k	78M	77.841M	77.04M	77.721M	77.4M	77.961M	71.28M	77.721M
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5815MHz	Pass	500k	153.12M	155.202M	150M	155.202M	151.2M	155.442M	151.44M	154.963M

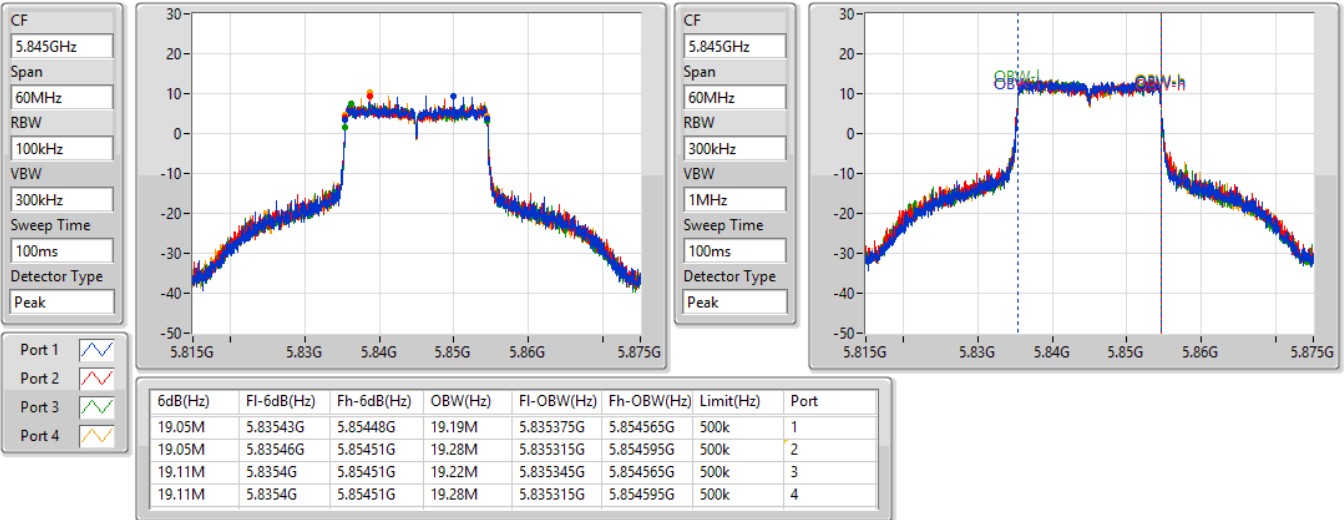
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
 Port X-OBW = Port X 99% occupied bandwidth

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

5845MHz

25/06/2022

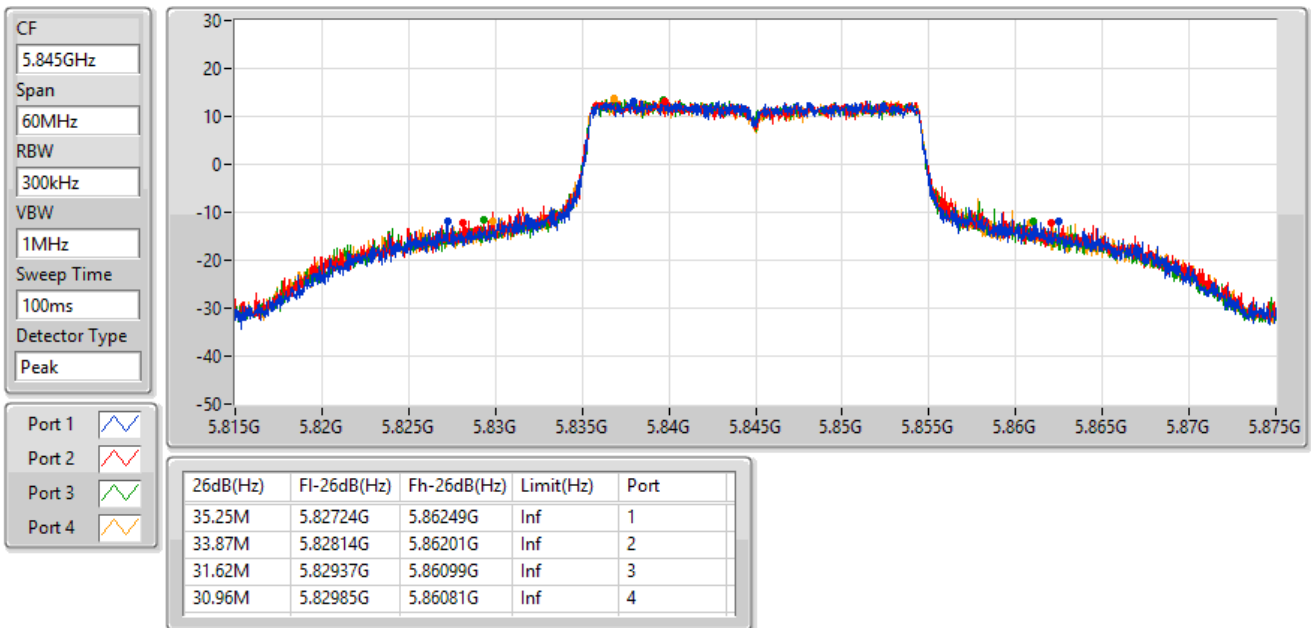


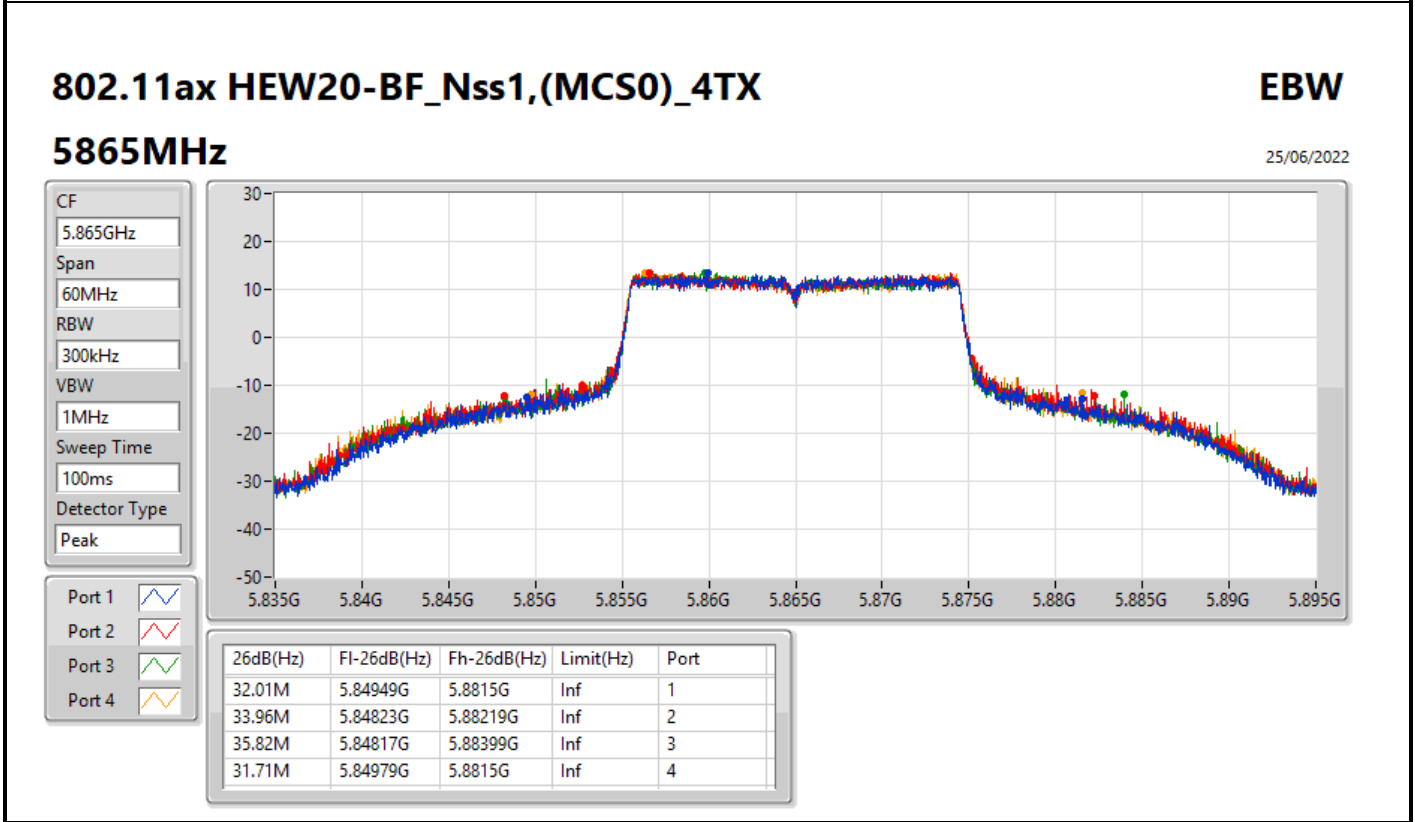
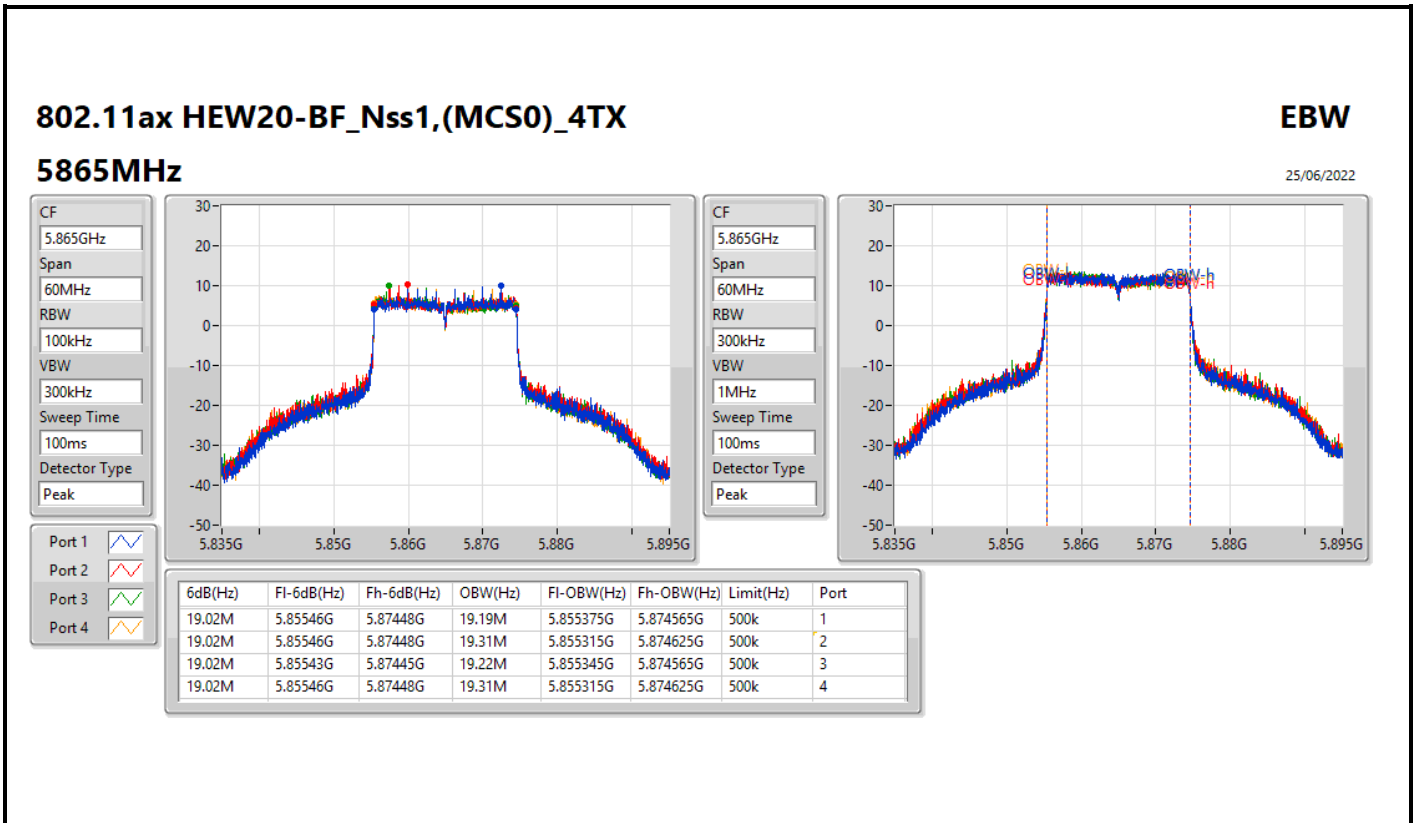
802.11ax HEW20-BF_Nss1,(MCS0)_4TX

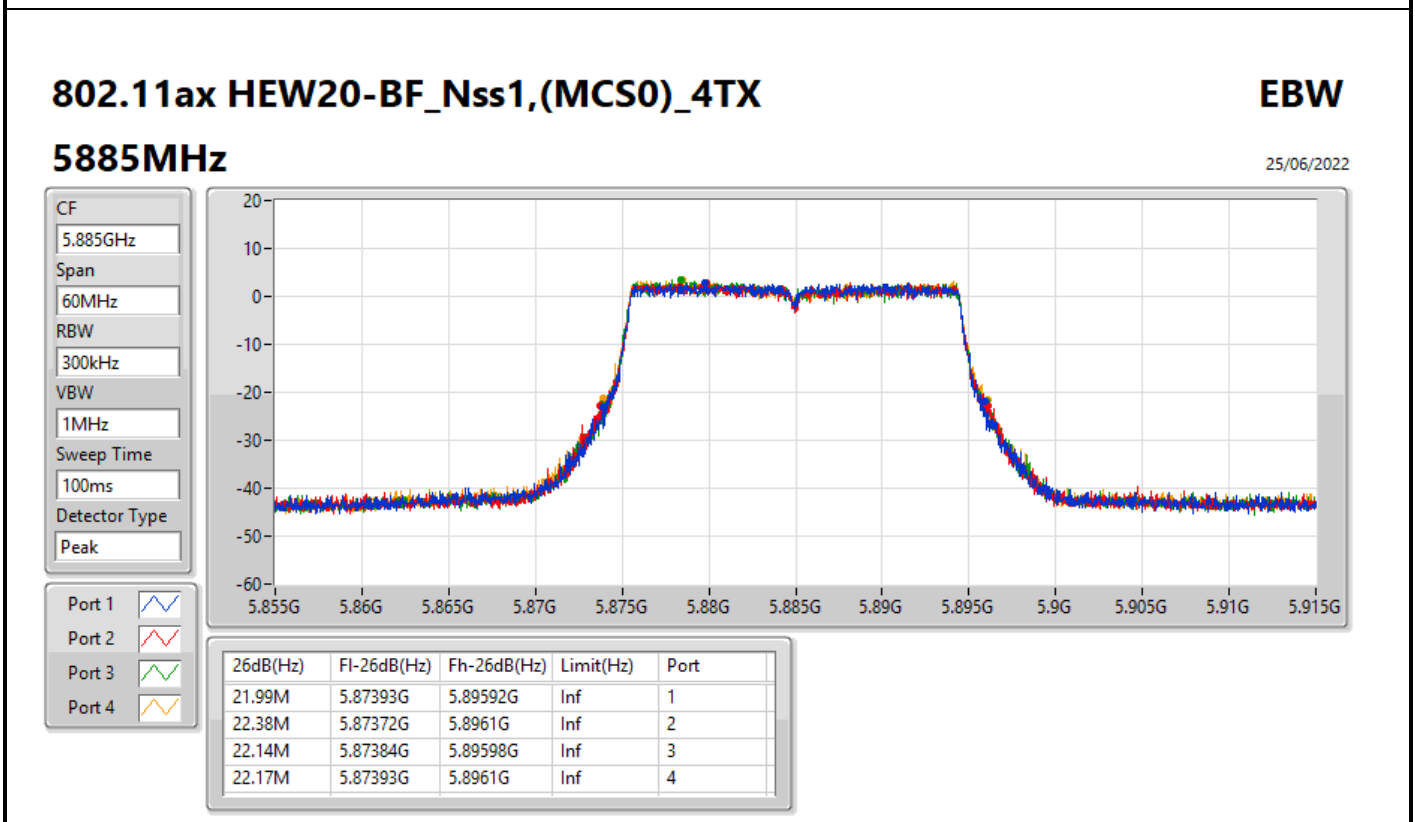
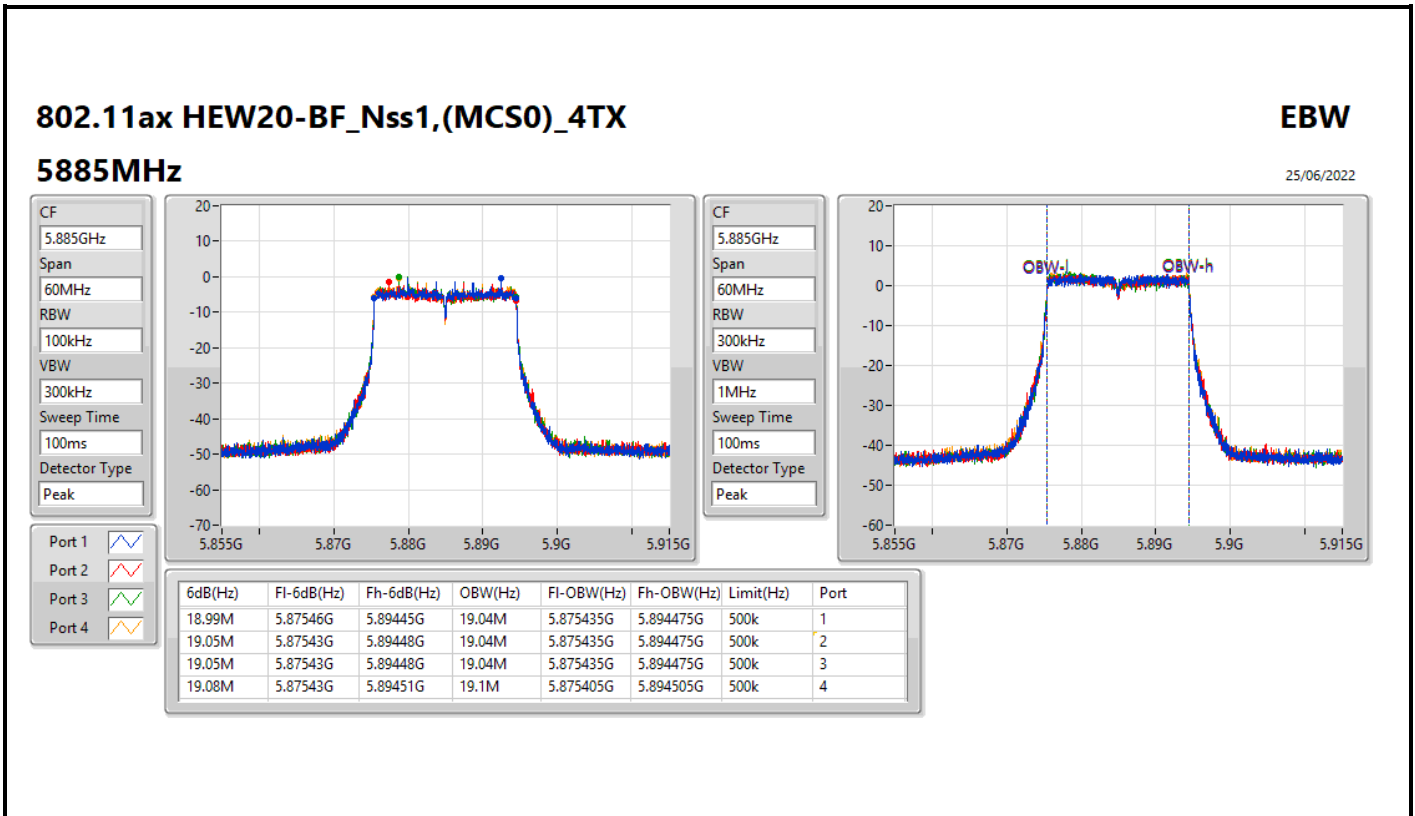
EBW

5845MHz

25/06/2022







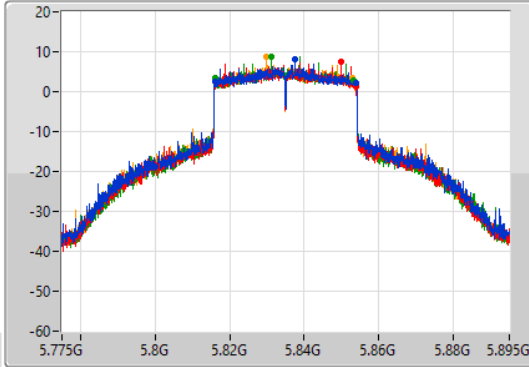
802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

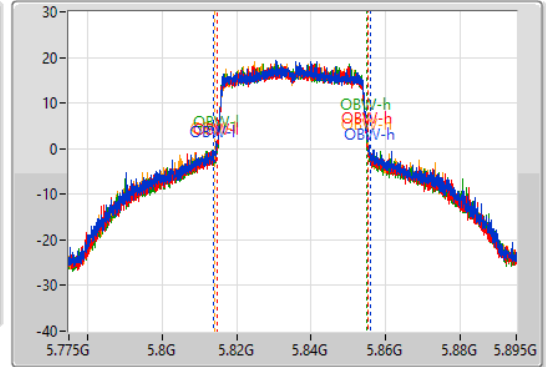
5835MHz

25/06/2022

CF
5.835GHz
Span
120MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.835GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.56M	5.81628G	5.85384G	41.979M	5.813831G	5.85581G	500k	1
37.86M	5.81604G	5.8539G	40.42M	5.81473G	5.85515G	500k	2
37.02M	5.81604G	5.85306G	39.94M	5.81491G	5.85485G	500k	3
36.84M	5.81616G	5.853G	40.84M	5.81425G	5.85509G	500k	4

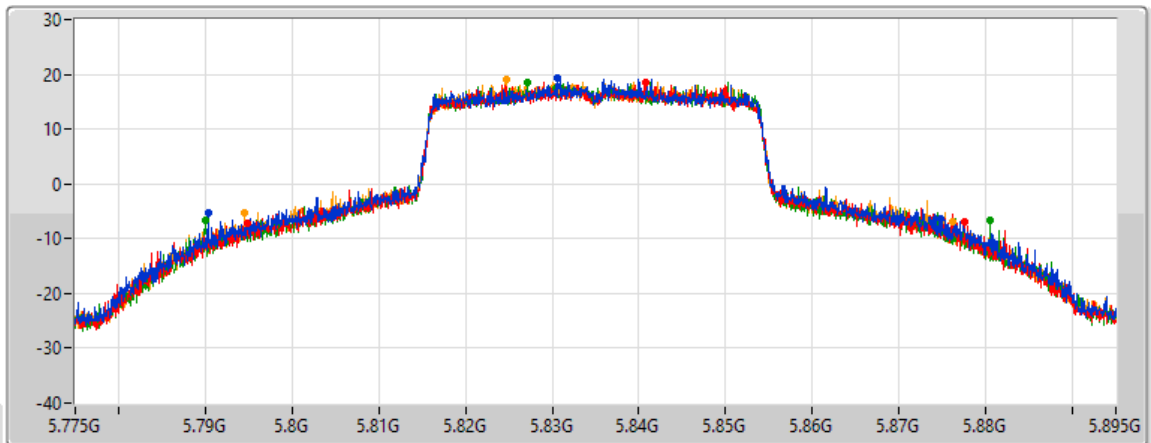
802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

5835MHz

25/06/2022

CF
5.835GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

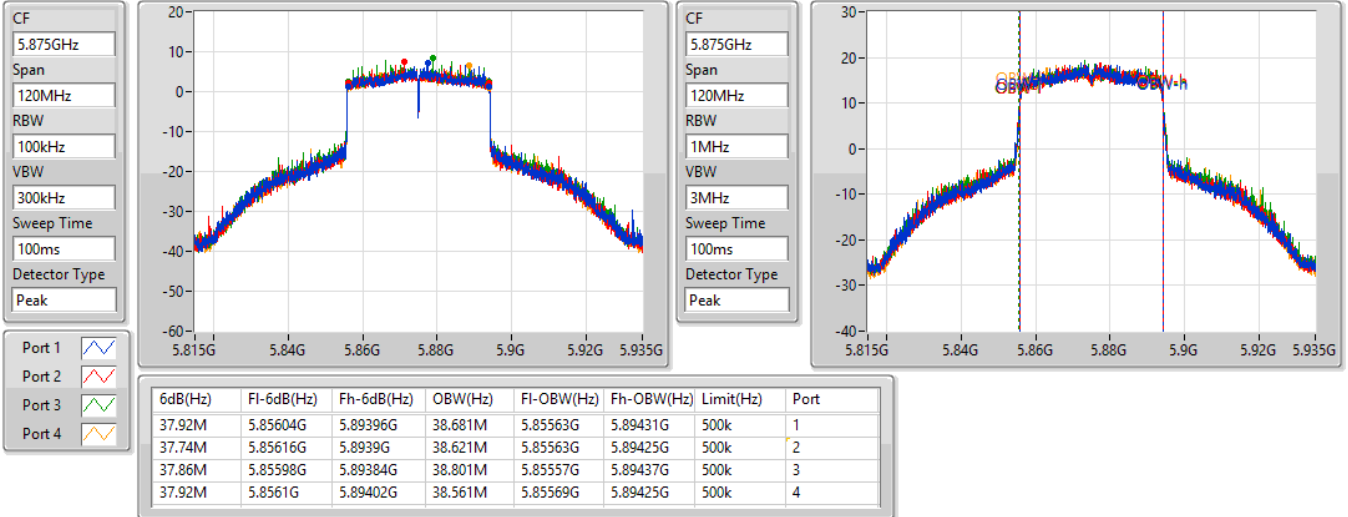
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
84.48M	5.7903G	5.87478G	Inf	1
82.62M	5.79492G	5.87754G	Inf	2
90.48M	5.79G	5.88048G	Inf	3
81.6M	5.79456G	5.87616G	Inf	4

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

5875MHz

25/06/2022

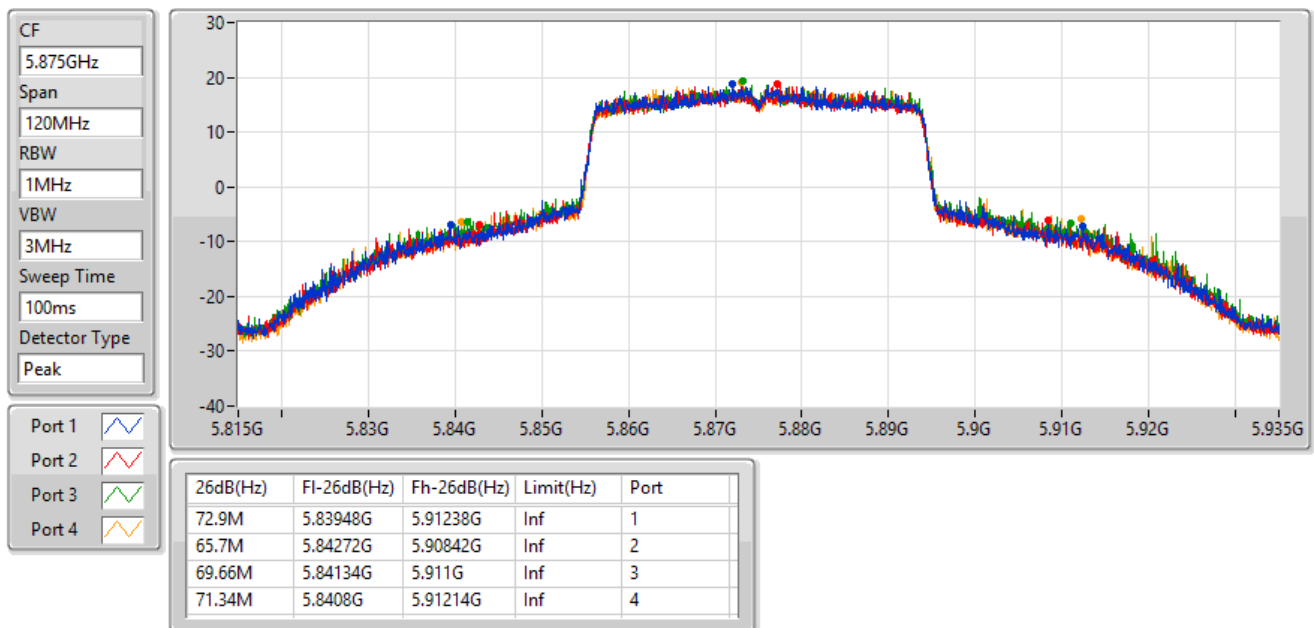


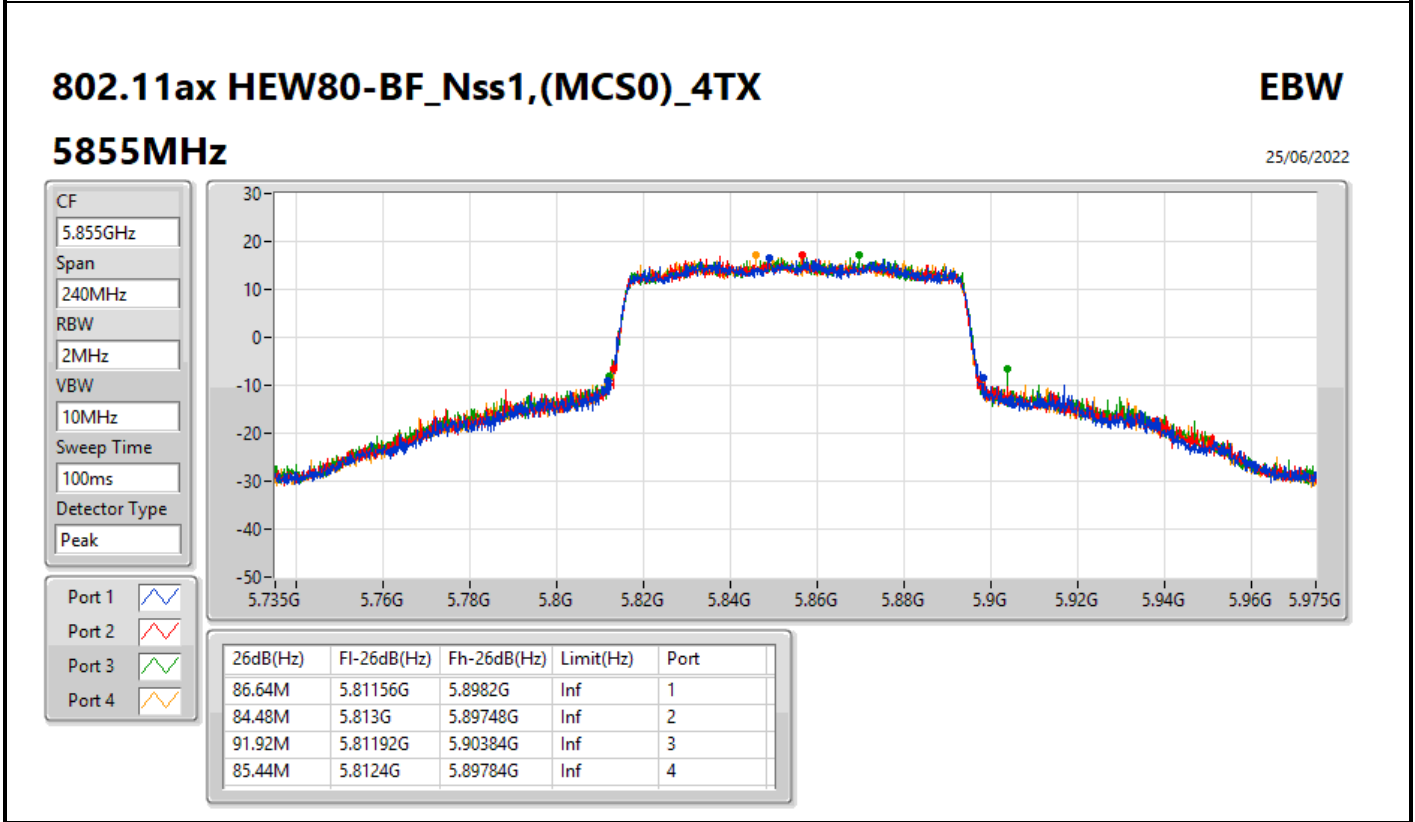
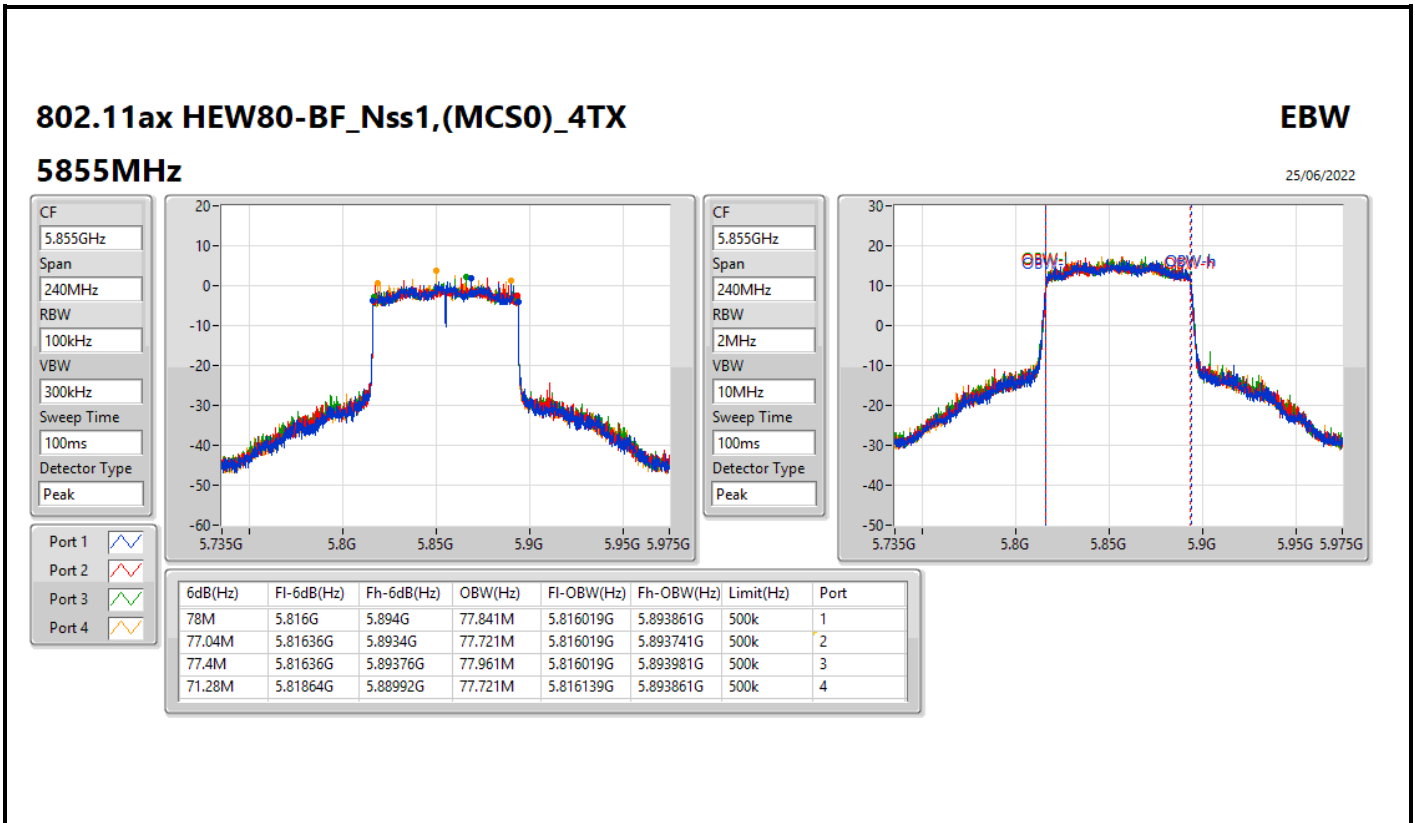
802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

5875MHz

25/06/2022



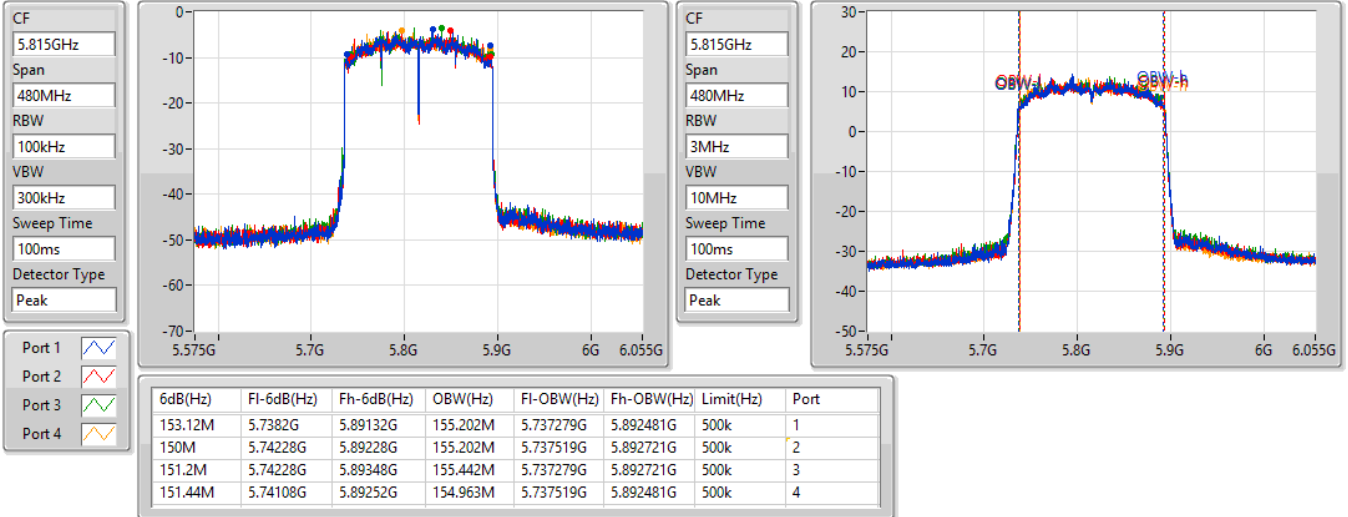


802.11ax HEW160-BF_Nss1,(MCS0)_4TX

EBW

5815MHz

25/06/2022

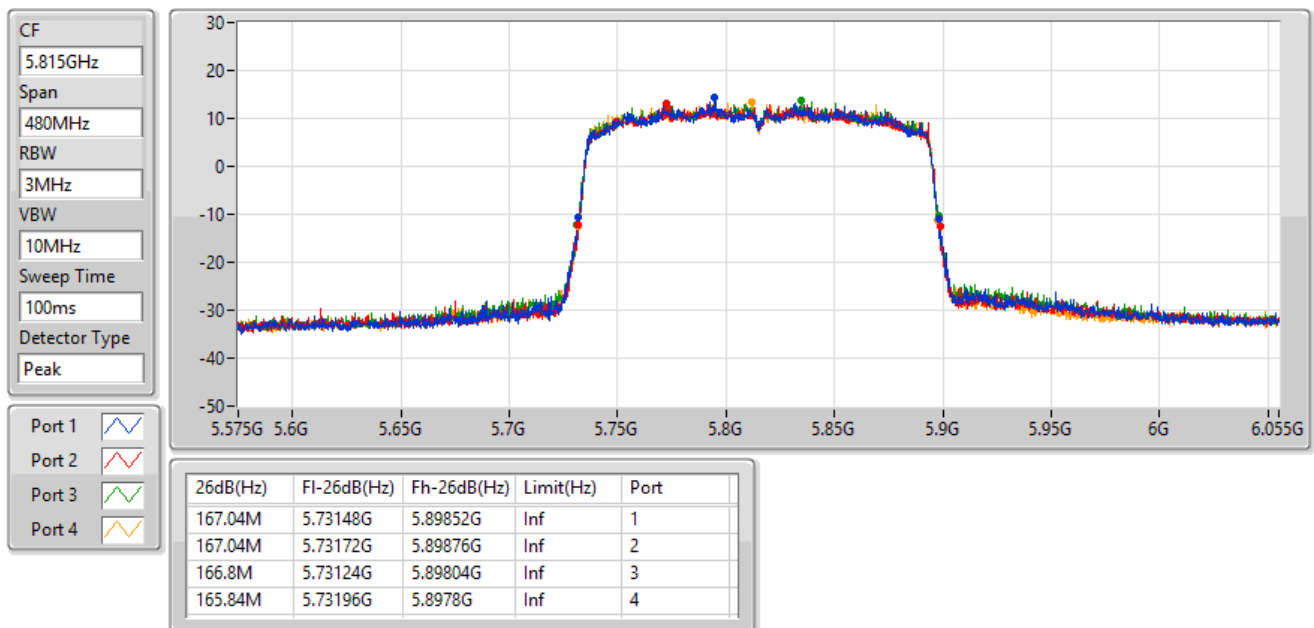


802.11ax HEW160-BF_Nss1,(MCS0)_4TX

EBW

5815MHz

25/06/2022





For non-beamforming:

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.725-5.895GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.46	0.44259	31.18	1.31220
802.11ax HEW20_Nss1,(MCS0)_4TX	27.41	0.55081	32.13	1.63305
802.11ax HEW40_Nss1,(MCS0)_4TX	28.64	0.73114	33.36	2.16770
802.11ax HEW80_Nss1,(MCS0)_4TX	26.05	0.40272	30.77	1.19399
802.11ax HEW160_Nss1,(MCS0)_4TX	23.37	0.21727	28.09	0.64417



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	Pass	4.72	20.38	20.37	20.50	20.51	26.46	Inf	31.18	36.00
5865MHz	Pass	4.72	20.36	20.30	20.51	20.43	26.42	Inf	31.14	36.00
5885MHz	Pass	4.72	20.35	20.25	20.39	20.41	26.37	Inf	31.09	36.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz	Pass	4.72	21.37	21.35	21.46	21.38	27.41	Inf	32.13	36.00
5865MHz	Pass	4.72	21.33	21.35	21.44	21.36	27.39	Inf	32.11	36.00
5885MHz	Pass	4.72	11.21	11.13	11.23	11.29	17.24	Inf	21.96	36.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5835MHz	Pass	4.72	22.67	22.52	22.59	22.71	28.64	Inf	33.36	36.00
5875MHz	Pass	4.72	22.22	22.09	22.43	22.24	28.27	Inf	32.99	36.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5855MHz	Pass	4.72	19.96	19.9	20.14	20.12	26.05	Inf	30.77	36.00
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5815MHz	Pass	4.72	17.32	17.15	17.6	17.31	23.37	Inf	28.09	36.00

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



For beamforming:
Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.725-5.895GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	27.41	0.55081	34.67	2.93089
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	28.64	0.73114	35.90	3.89045
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	26.05	0.40272	33.31	2.14289
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	23.37	0.21727	30.63	1.15611



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	Pass	7.26	21.37	21.35	21.46	21.38	27.41	Inf	34.67	36.00
5865MHz	Pass	7.26	21.33	21.35	21.44	21.36	27.39	Inf	34.65	36.00
5885MHz	Pass	7.26	11.21	11.13	11.23	11.29	17.24	Inf	24.50	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5835MHz	Pass	7.26	22.67	22.52	22.59	22.71	28.64	Inf	35.90	36.00
5875MHz	Pass	7.26	22.22	22.09	22.43	22.24	28.27	Inf	35.53	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5855MHz	Pass	7.26	19.96	19.90	20.14	20.12	26.05	Inf	33.31	36.00
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5815MHz	Pass	7.26	17.32	17.15	17.60	17.31	23.37	Inf	30.63	36.00

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



For non-beamforming:

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.725-5.895GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	12.58	19.84

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	Pass	7.26	6.69	6.44	6.91	6.63	12.58	Inf	19.84	20.00
5865MHz	Pass	7.26	6.48	6.50	6.77	6.54	12.52	Inf	19.78	20.00
5885MHz	Pass	7.26	6.46	6.35	6.81	6.57	12.47	Inf	19.73	20.00

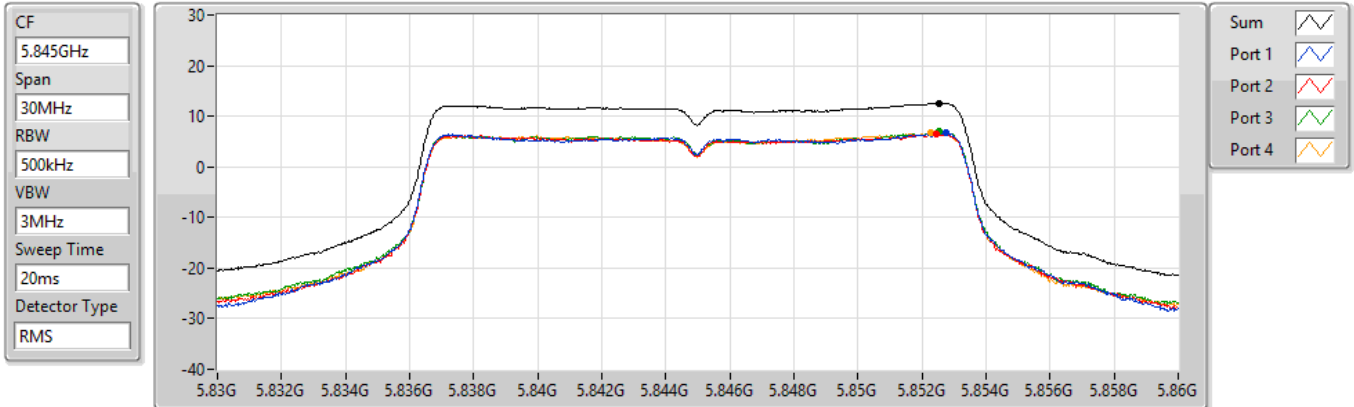
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

802.11a_Nss1,(6Mbps)_4TX

PSD

5845MHz

25/06/2022



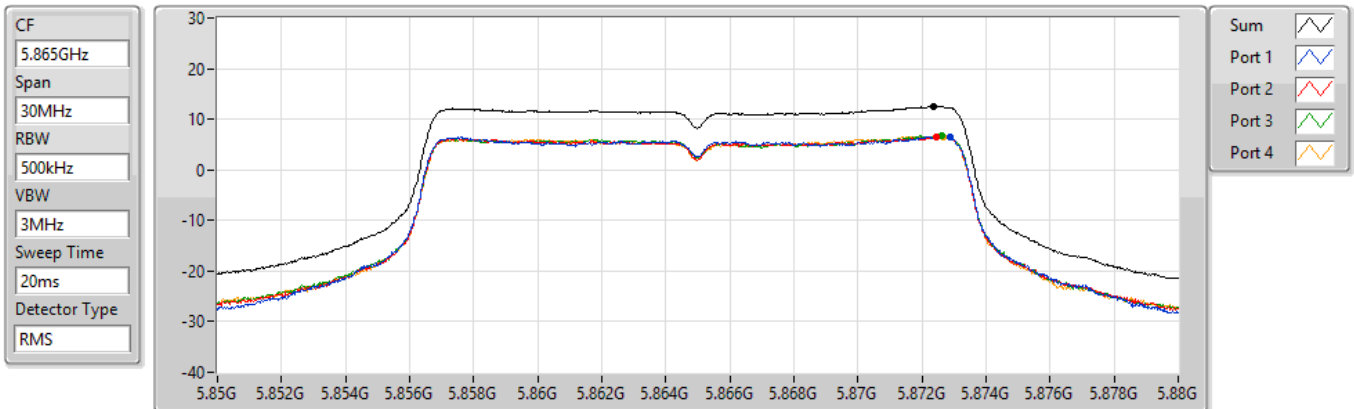
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.58	12.58	6.69	6.44	6.91	6.63

802.11a_Nss1,(6Mbps)_4TX

PSD

5865MHz

25/06/2022



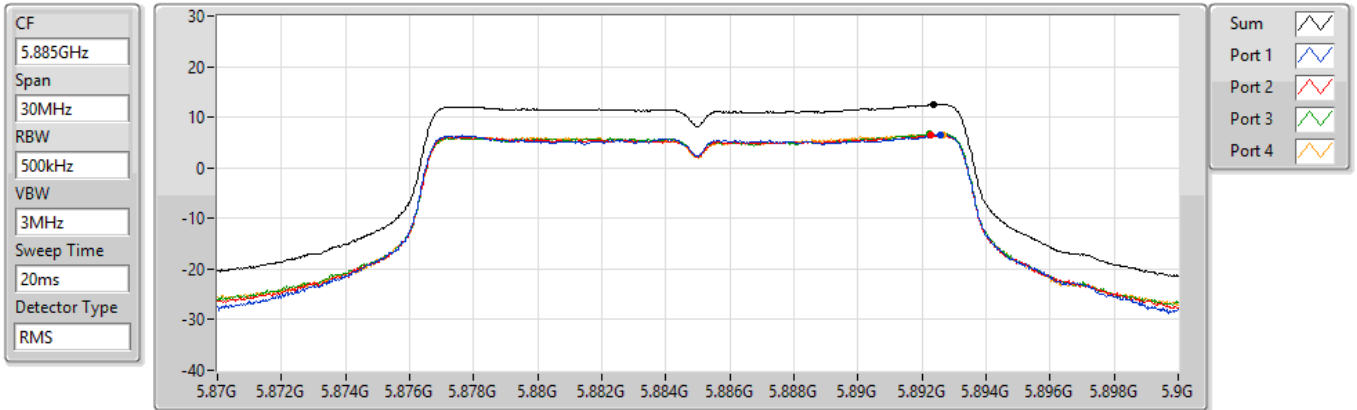
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.52	12.52	6.48	6.50	6.77	6.54

802.11a_Nss1,(6Mbps)_4TX

PSD

5885MHz

25/06/2022



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.47	12.47	6.46	6.35	6.81	6.57



For beamforming:
Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.725-5.895GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	12.52	19.78
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	11.12	18.38
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	5.59	12.85
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	0.25	7.51

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)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz	Pass	7.26	6.44	6.65	6.74	6.74	12.52	Inf	19.78	20.00
5865MHz	Pass	7.26	6.28	6.75	6.63	6.89	12.48	Inf	19.74	20.00
5885MHz	Pass	7.26	-3.72	-3.72	-3.41	-3.34	2.30	Inf	9.56	20.00
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5835MHz	Pass	7.26	5.41	4.88	5.33	5.22	11.12	Inf	18.38	20.00
5875MHz	Pass	7.26	4.95	4.63	5.20	4.73	10.76	Inf	18.02	20.00
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5855MHz	Pass	7.26	-0.25	-0.35	-0.12	-0.47	5.59	Inf	12.85	20.00
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5815MHz	Pass	7.26	-5.66	-5.96	-5.45	-5.73	0.25	Inf	7.51	20.00

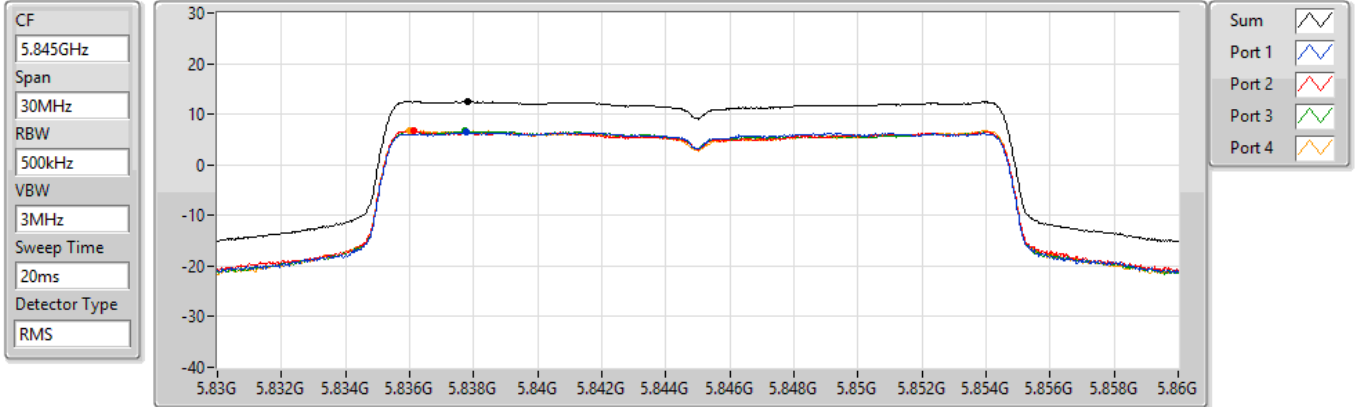
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

PSD

5845MHz

25/06/2022



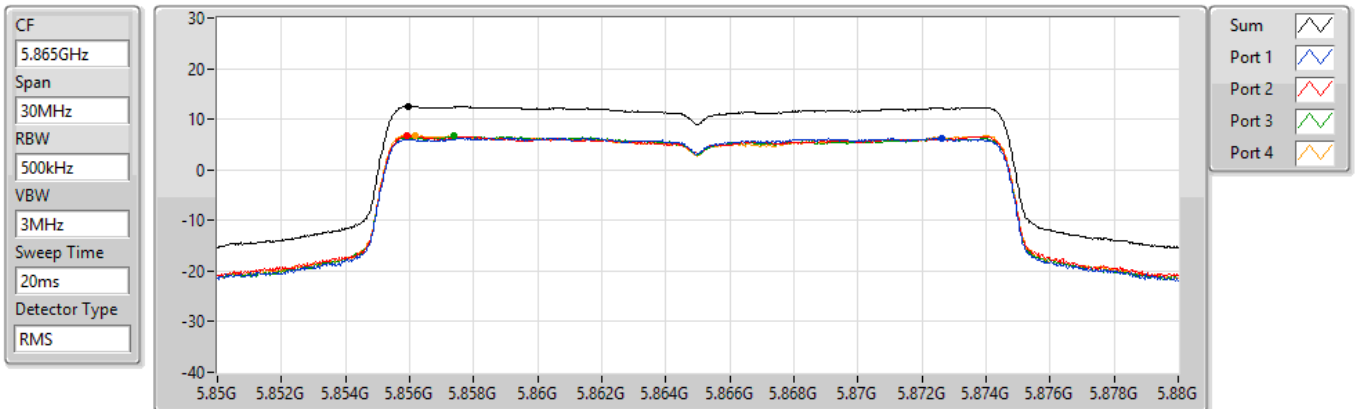
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.52	12.52	6.44	6.65	6.74	6.74

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

PSD

5865MHz

25/06/2022



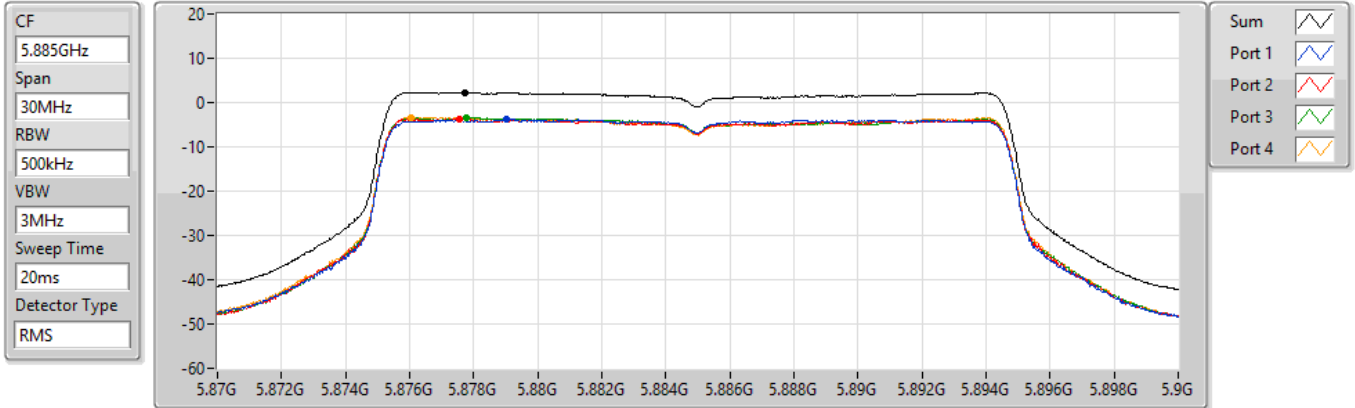
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.48	12.48	6.28	6.75	6.63	6.89

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

PSD

5885MHz

25/06/2022



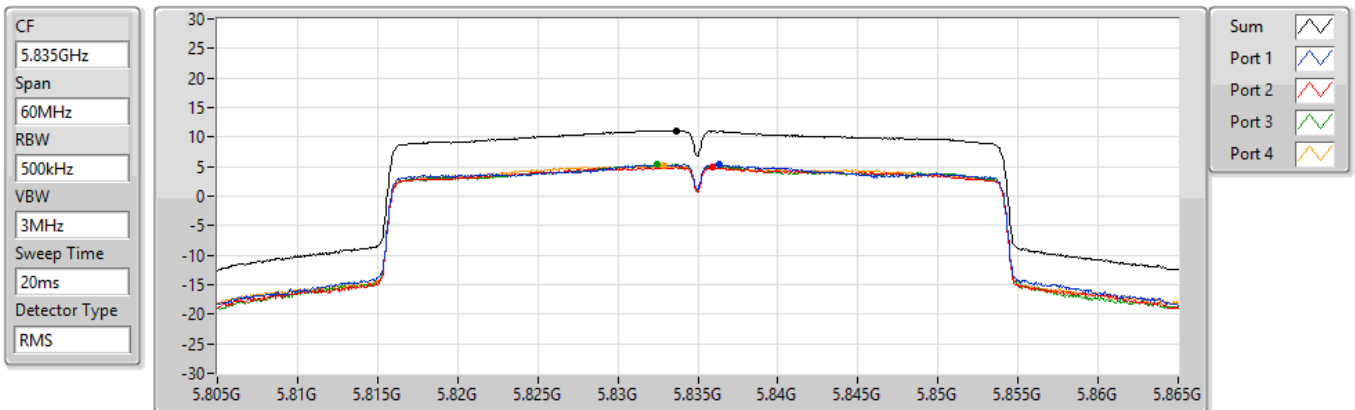
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.30	2.30	-3.72	-3.72	-3.41	-3.34

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

PSD

5835MHz

25/06/2022



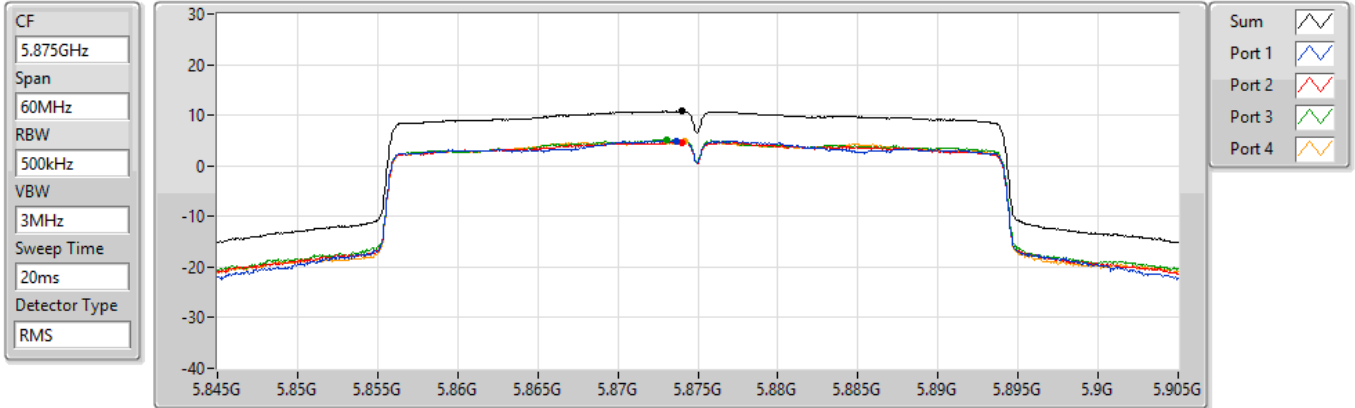
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.12	11.12	5.41	4.88	5.33	5.22

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

PSD

5875MHz

25/06/2022



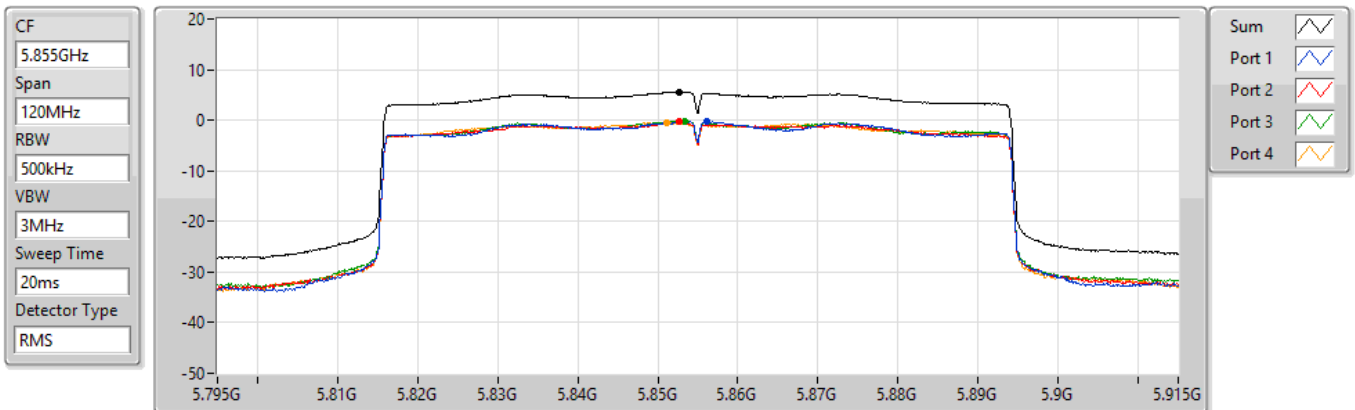
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.76	10.76	4.95	4.63	5.20	4.73

802.11ax HEW80-BF_Nss1,(MCS0)_4TX

PSD

5855MHz

25/06/2022



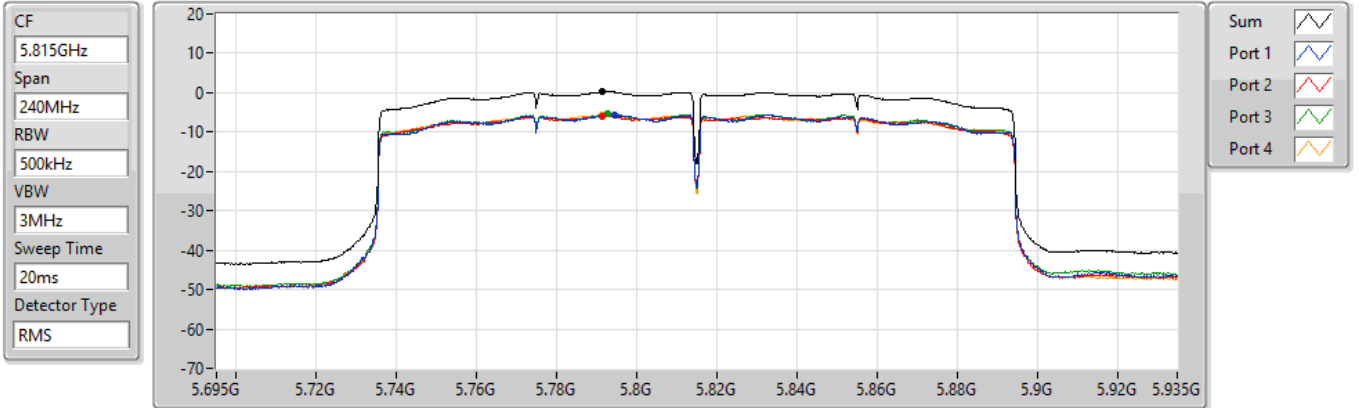
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.59	5.59	-0.25	-0.35	-0.12	-0.47

802.11ax HEW160-BF_Nss1,(MCS0)_4TX

PSD

5815MHz

25/06/2022



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.25	0.25	-5.66	-5.96	-5.45	-5.73



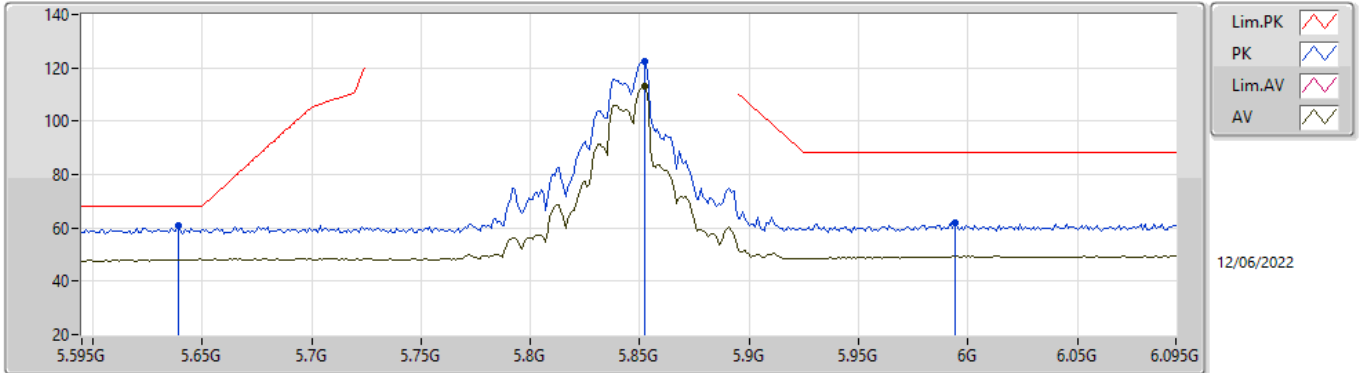
For non-beamforming:

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	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	Pass	AV	11.76826G	52.29	54.00	-1.71	3	Horizontal	354	1.78	-

802.11a_Nss1,(6Mbps)_4TX

5845MHz_TnomVnom

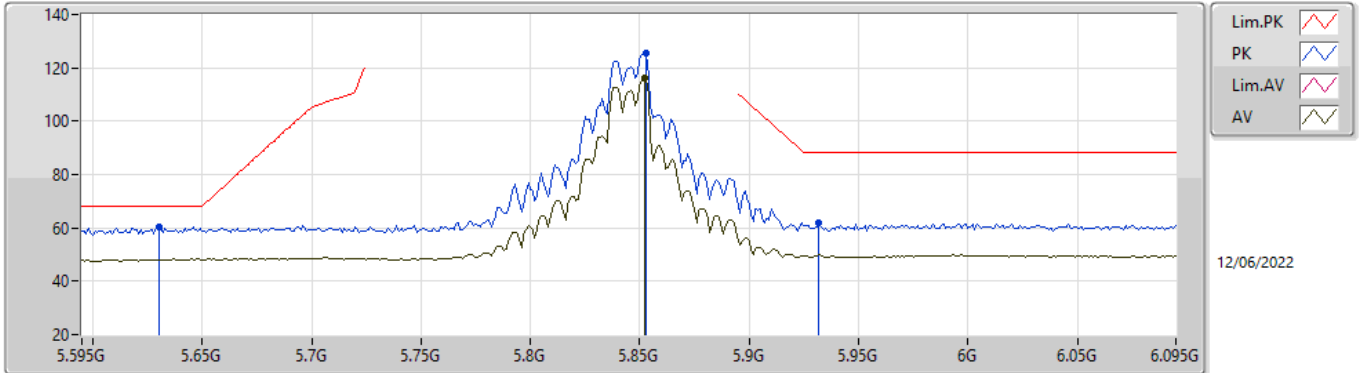


EUT_X_4TX
Setting 24
04-D-S-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.639G	61.04	68.20	-7.16	54.75	3	Vertical	323	1.02	-	34.23	5.30	33.24
PK	5.852G	122.56	Inf	-Inf	115.75	3	Vertical	323	1.02	-	34.80	5.33	33.32
AV	5.852G	112.88	Inf	-Inf	106.07	3	Vertical	323	1.02	-	34.80	5.33	33.32
PK	5.994G	61.85	88.20	-26.35	54.45	3	Vertical	323	1.02	-	35.38	5.40	33.38

802.11a_Nss1,(6Mbps)_4TX

5845MHz_TnomVnom

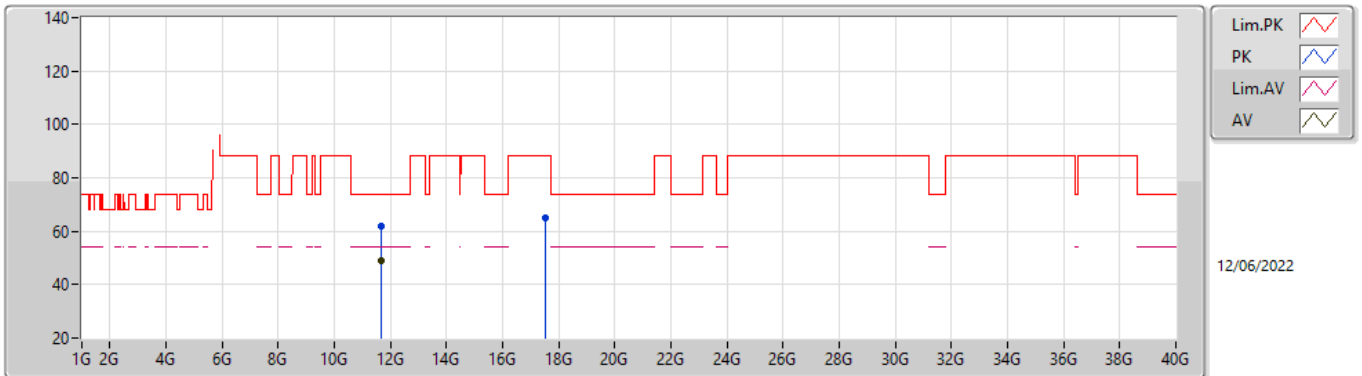


EUT X_4TX
Setting 24
04-D-S-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.63G	60.44	68.20	-7.76	54.19	3	Horizontal	356	1.14	-	34.18	5.30	33.23
PK	5.853G	125.46	Inf	-Inf	118.64	3	Horizontal	356	1.14	-	34.81	5.33	33.32
AV	5.852G	116.20	Inf	-Inf	109.39	3	Horizontal	356	1.14	-	34.80	5.33	33.32
PK	5.932G	61.99	88.20	-26.21	54.88	3	Horizontal	356	1.14	-	35.09	5.37	33.35

802.11a_Nss1,(6Mbps)_4TX

5845MHz_TnomVnom

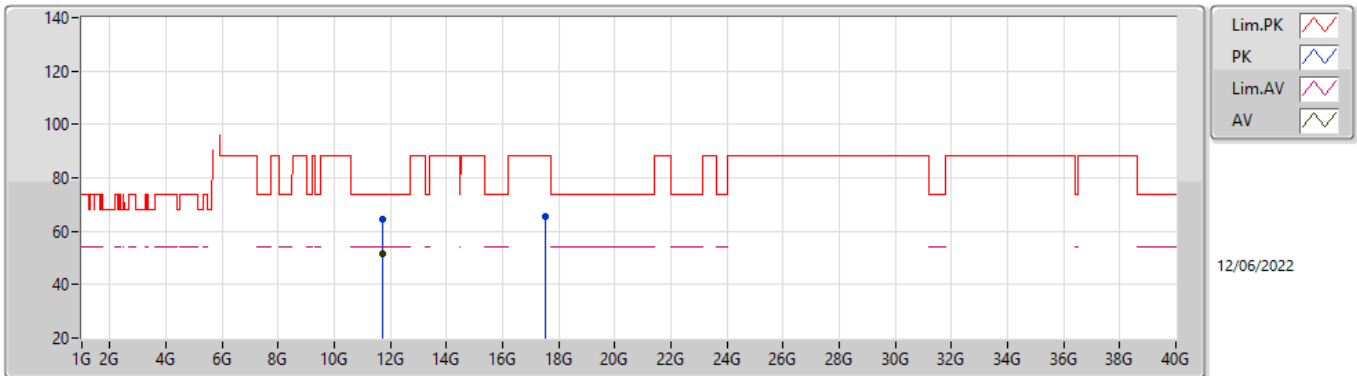


EUT X_4TX
Setting 24
04-D-S-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.69024G	61.91	74.00	-12.09	48.75	3	Vertical	328	2.46	-	39.21	8.78	34.83
AV	11.6897G	49.18	54.00	-4.82	36.02	3	Vertical	328	2.46	-	39.21	8.78	34.83
PK	17.53368G	65.14	88.20	-23.06	47.93	3	Vertical	21	1.80	-	42.07	9.64	34.50

802.11a_Nss1,(6Mbps)_4TX

5845MHz_TnomVnom

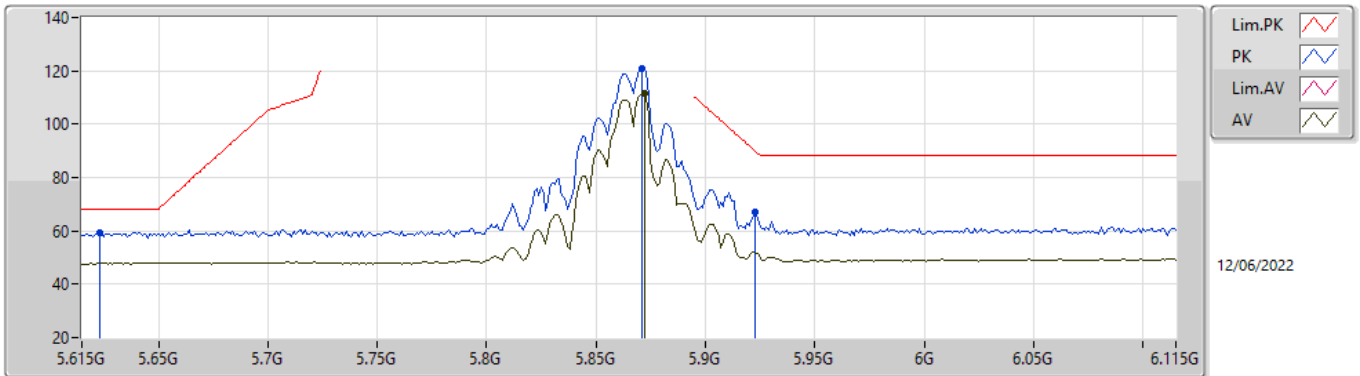


EUT X_4TX
Setting 24
04-D-S-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.69828G	64.54	74.00	-9.46	51.39	3	Horizontal	328	2.86	-	39.20	8.79	34.84
AV	11.69912G	51.41	54.00	-2.59	38.26	3	Horizontal	328	2.86	-	39.20	8.79	34.84
PK	17.5263G	65.58	88.20	-22.62	48.38	3	Horizontal	308	1.04	-	42.07	9.63	34.50

802.11a_Nss1,(6Mbps)_4TX

5865MHz_TnomVnom

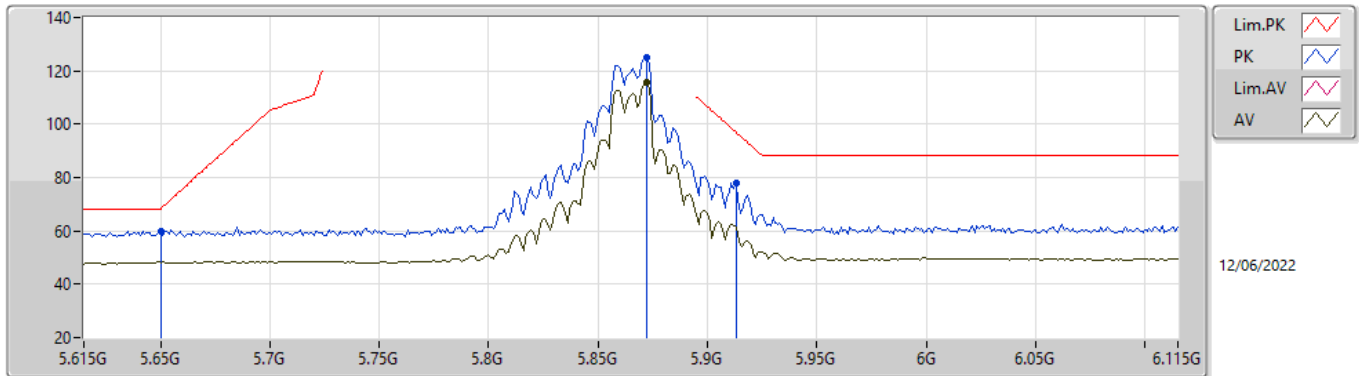


EUTX_4TX
Setting 24
04-D-S-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.623G	59.52	68.20	-8.68	53.31	3	Vertical	328	2.37	-	34.14	5.30	33.23
PK	5.871G	120.97	Inf	-Inf	114.12	3	Vertical	328	2.37	-	34.84	5.34	33.33
AV	5.872G	111.36	Inf	-Inf	104.51	3	Vertical	328	2.37	-	34.84	5.34	33.33
PK	5.923G	66.88	89.67	-22.79	59.83	3	Vertical	328	2.37	-	35.04	5.36	33.35

802.11a_Nss1,(6Mbps)_4TX

5865MHz_TnomVnom

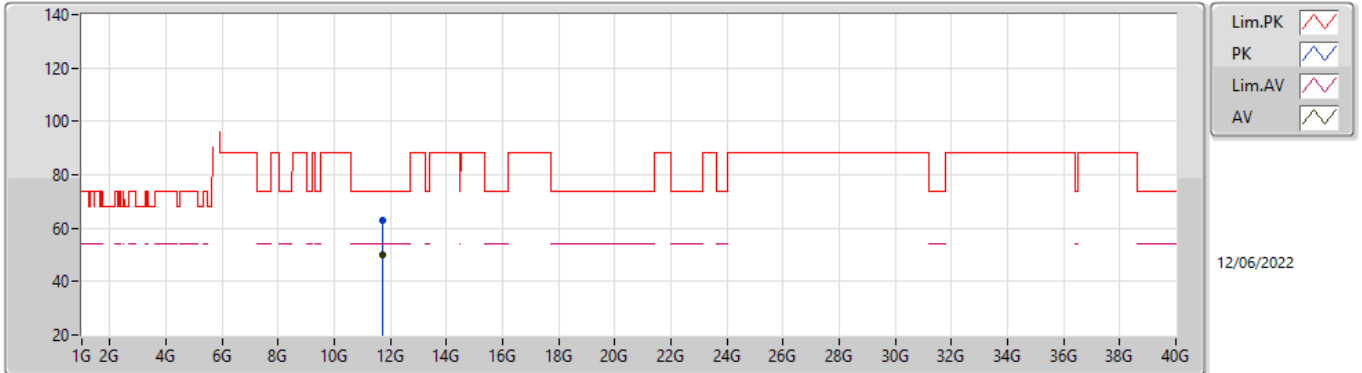


EUT_X_4TX
Setting 24
04-D-S-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.65G	59.93	68.20	-8.27	53.57	3	Horizontal	356	1.12	-	34.30	5.30	33.24
PK	5.872G	124.85	Inf	-Inf	118.00	3	Horizontal	356	1.12	-	34.84	5.34	33.33
AV	5.872G	115.83	Inf	-Inf	108.98	3	Horizontal	356	1.12	-	34.84	5.34	33.33
PK	5.913G	77.68	97.00	-19.32	70.69	3	Horizontal	356	1.12	-	34.98	5.36	33.35

802.11a_Nss1,(6Mbps)_4TX

5865MHz_TnomVnom

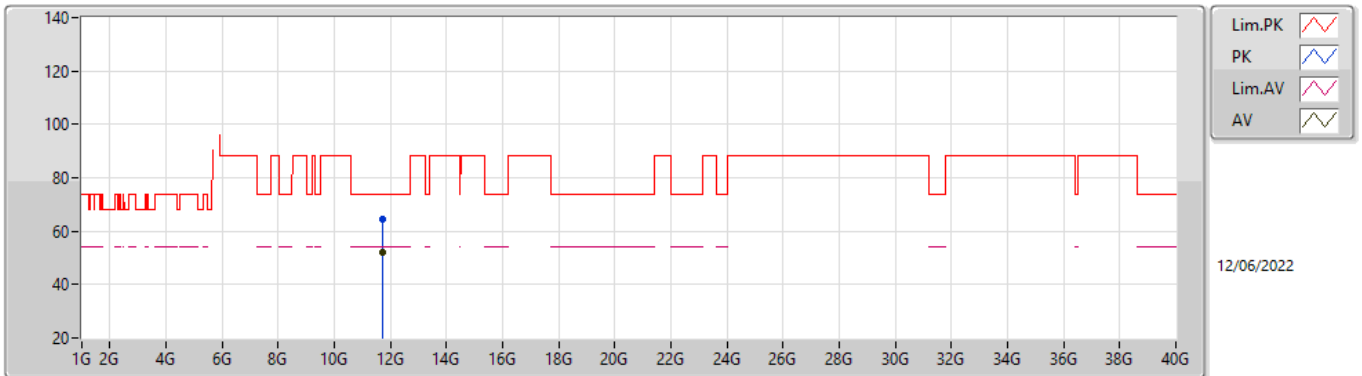


EUT X_4TX
Setting 24
04-D-S-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.7306G	62.83	74.00	-11.17	49.70	3	Vertical	328	2.45	-	39.17	8.81	34.85
AV	11.73024G	50.02	54.00	-3.98	36.89	3	Vertical	328	2.45	-	39.17	8.81	34.85

802.11a_Nss1,(6Mbps)_4TX

5865MHz_TnomVnom

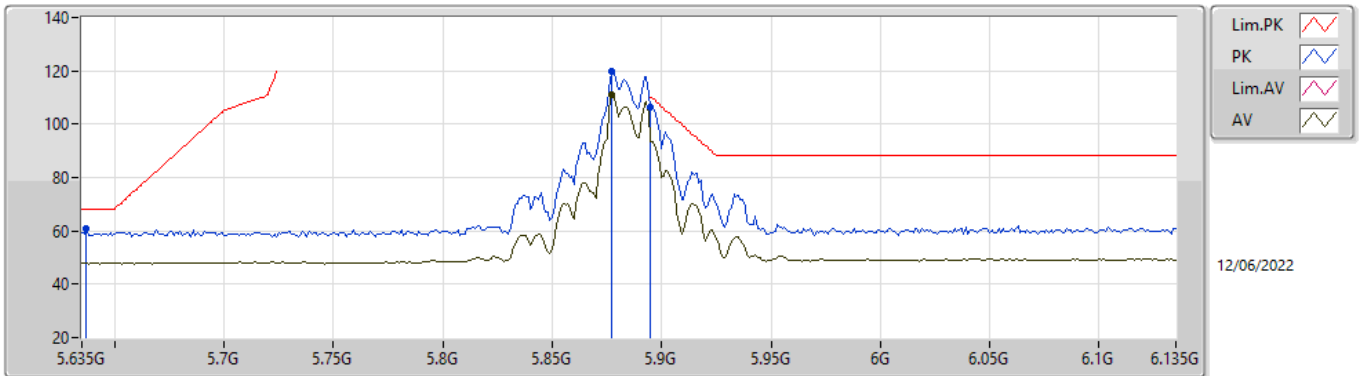


EUT X_4TX
Setting 24
04-D-S-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.73048G	64.36	74.00	-9.64	51.23	3	Horizontal	319	1.76	-	39.17	8.81	34.85
AV	11.72988G	52.05	54.00	-1.95	38.92	3	Horizontal	319	1.76	-	39.17	8.81	34.85

802.11a_Nss1,(6Mbps)_4TX

5885MHz_TnomVnom

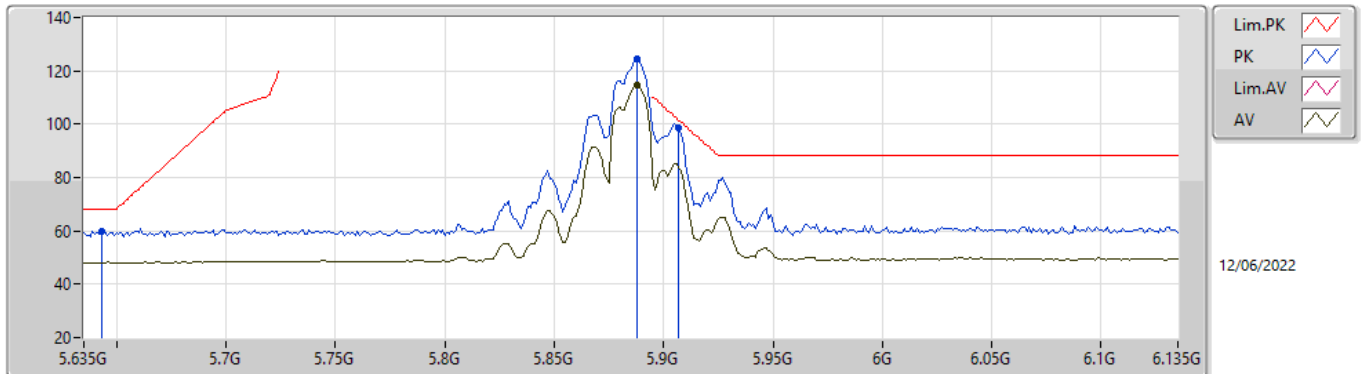


EUT_X_4TX
Setting 24
04-D-S-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.637G	60.71	68.20	-7.49	54.42	3	Vertical	360	1.80	-	34.22	5.30	33.23
PK	5.877G	119.78	Inf	-Inf	112.92	3	Vertical	360	1.80	-	34.85	5.34	33.33
AV	5.877G	111.06	Inf	-Inf	104.20	3	Vertical	360	1.80	-	34.85	5.34	33.33
PK	5.895G	106.56	110.20	-3.64	99.66	3	Vertical	360	1.80	-	34.89	5.35	33.34

802.11a_Nss1,(6Mbps)_4TX

5885MHz_TnomVnom

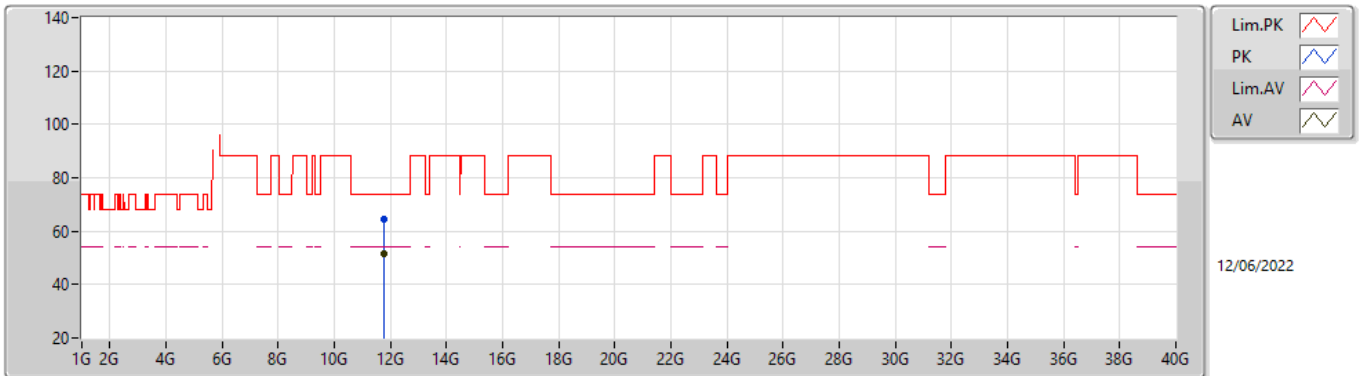


EUT_X_4TX
Setting 24
04-D-S-8-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.643G	59.88	68.20	-8.32	53.56	3	Horizontal	302	1.64	-	34.26	5.30	33.24
PK	5.888G	124.41	Inf	-Inf	117.53	3	Horizontal	302	1.64	-	34.88	5.34	33.34
AV	5.888G	114.65	Inf	-Inf	107.77	3	Horizontal	302	1.64	-	34.88	5.34	33.34
PK	5.907G	98.63	101.40	-2.77	91.68	3	Horizontal	302	1.64	-	34.94	5.35	33.34

802.11a_Nss1,(6Mbps)_4TX

5885MHz_TnomVnom

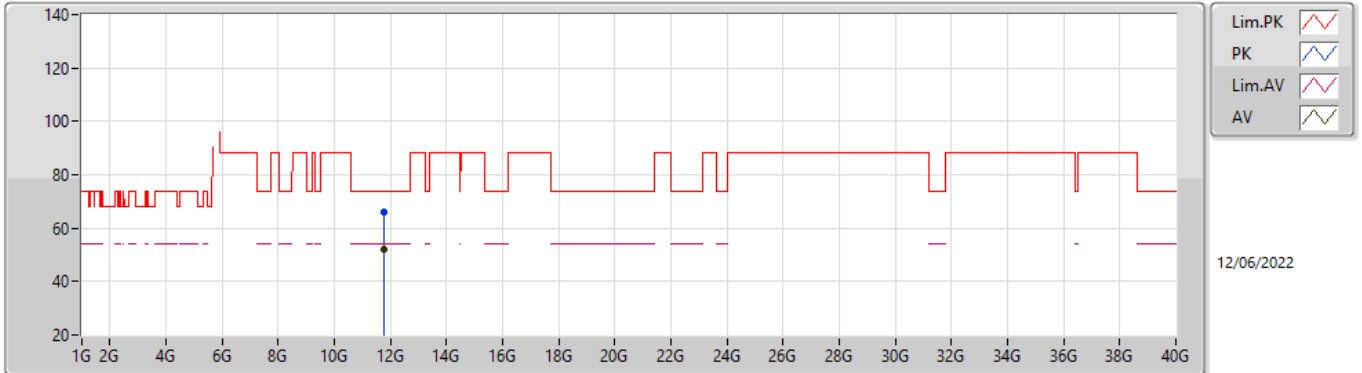


EUT X_4TX
Setting 24
04-D-S-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.77054G	64.62	74.00	-9.38	51.51	3	Vertical	328	2.43	-	39.13	8.84	34.86
AV	11.77024G	51.43	54.00	-2.57	38.32	3	Vertical	328	2.43	-	39.13	8.84	34.86

802.11a_Nss1,(6Mbps)_4TX

5885MHz_TnomVnom



EUT X_4TX
Setting 24
04-D-S-8

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.76802G	65.92	74.00	-8.08	52.81	3	Horizontal	354	1.78	-	39.13	8.84	34.86
AV	11.76826G	52.29	54.00	-1.71	39.18	3	Horizontal	354	1.78	-	39.13	8.84	34.86

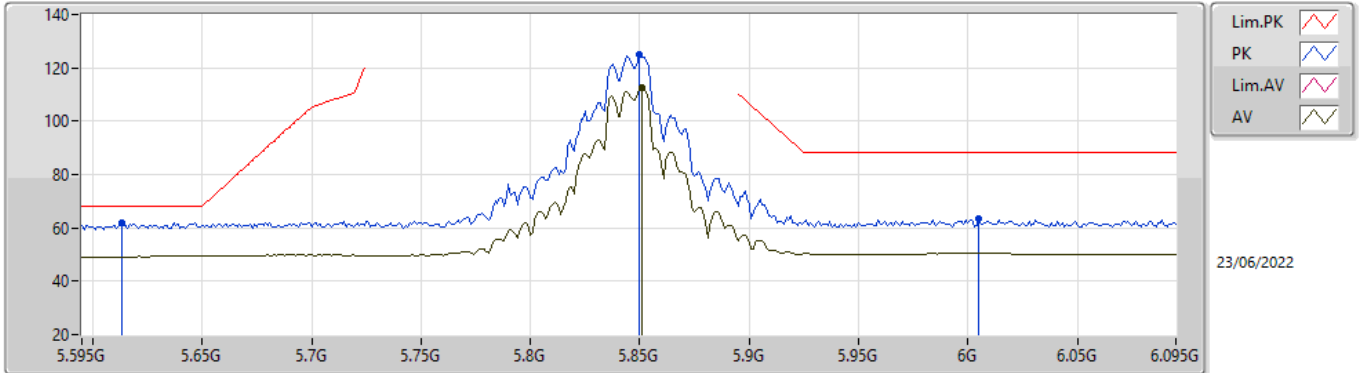


For beamforming:
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.895GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	Pass	PK	5.911G	98.42	98.47	-0.05	3	Vertical	6	2.55	-

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5845MHz_TnomVnom

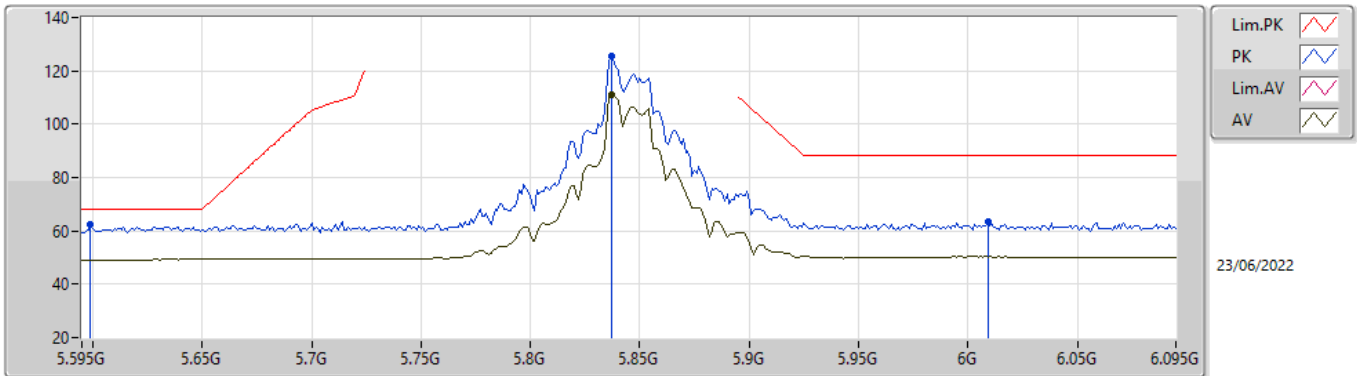


EUT X_4TX
Setting 24
04-E-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.613G	61.87	68.20	-6.33	55.72	3	Vertical	354	2.97	-	34.08	5.30	33.23
PK	5.85G	124.88	Inf	-Inf	118.07	3	Vertical	354	2.97	-	34.80	5.33	33.32
AV	5.851G	112.45	Inf	-Inf	105.64	3	Vertical	354	2.97	-	34.80	5.33	33.32
PK	6.005G	63.38	88.20	-24.82	55.95	3	Vertical	354	2.97	-	35.40	5.41	33.38

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5845MHz_TnomVnom

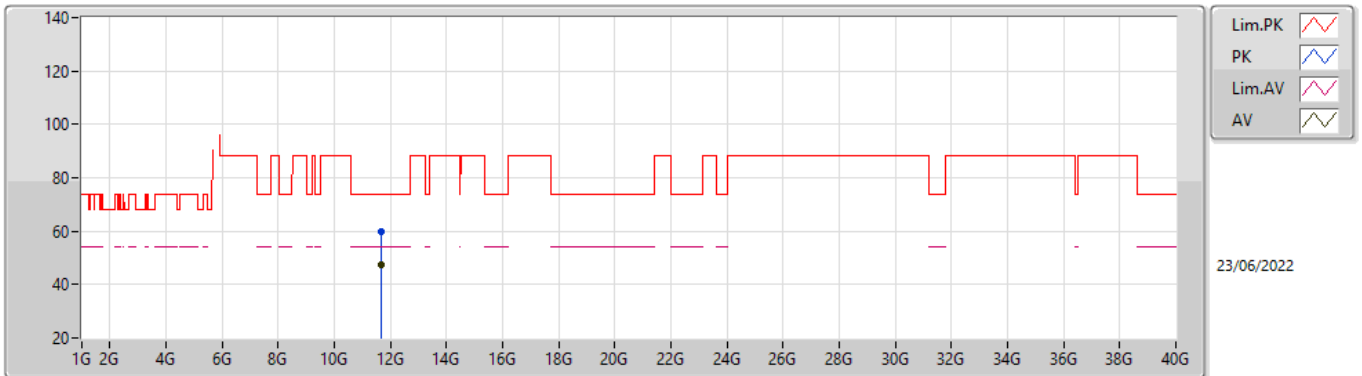


EUT_X_4TX
Setting 24
04-E-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.599G	62.63	68.20	-5.57	56.55	3	Horizontal	330	1.80	-	34.00	5.30	33.22
PK	5.837G	125.56	Inf	-Inf	118.83	3	Horizontal	330	1.80	-	34.72	5.32	33.31
AV	5.837G	111.17	Inf	-Inf	104.44	3	Horizontal	330	1.80	-	34.72	5.32	33.31
PK	6.009G	63.24	88.20	-24.96	55.80	3	Horizontal	330	1.80	-	35.40	5.41	33.37

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5845MHz_TnomVnom

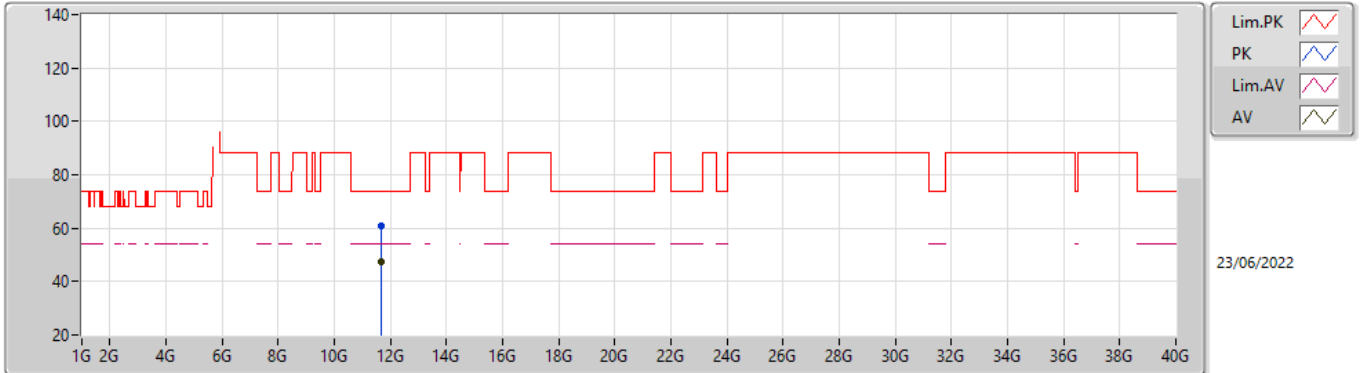


EUT X_4TX
Setting 24
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.68984G	60.03	74.00	-13.97	46.87	3	Vertical	360	2.84	-	39.21	8.78	34.83
AV	11.68888G	47.23	54.00	-6.77	34.07	3	Vertical	360	2.84	-	39.21	8.78	34.83

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5845MHz_TnomVnom

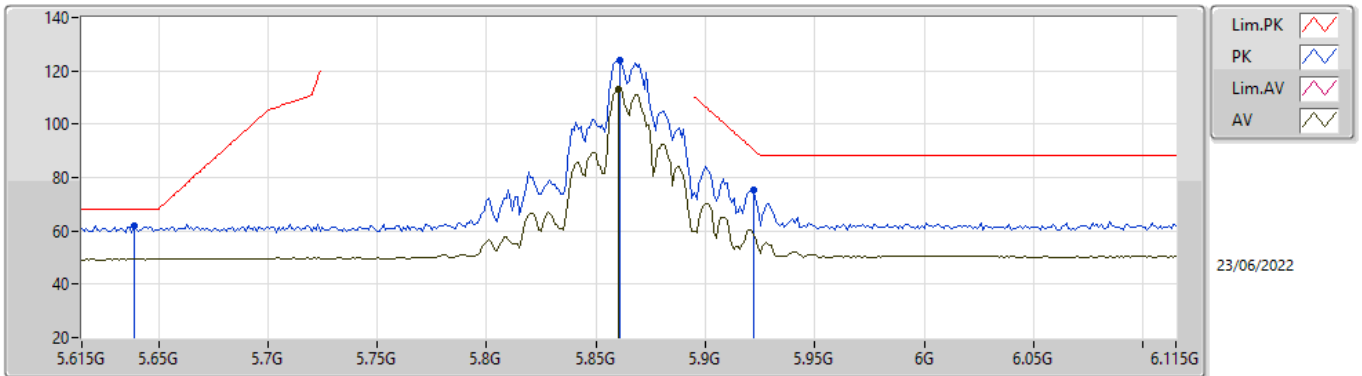


EUT X_4TX
Setting 24
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.69304G	60.76	74.00	-13.24	47.59	3	Horizontal	57	2.03	-	39.21	8.79	34.83
AV	11.6924G	47.49	54.00	-6.51	34.33	3	Horizontal	57	2.03	-	39.21	8.78	34.83

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5865MHz_TnomVnom

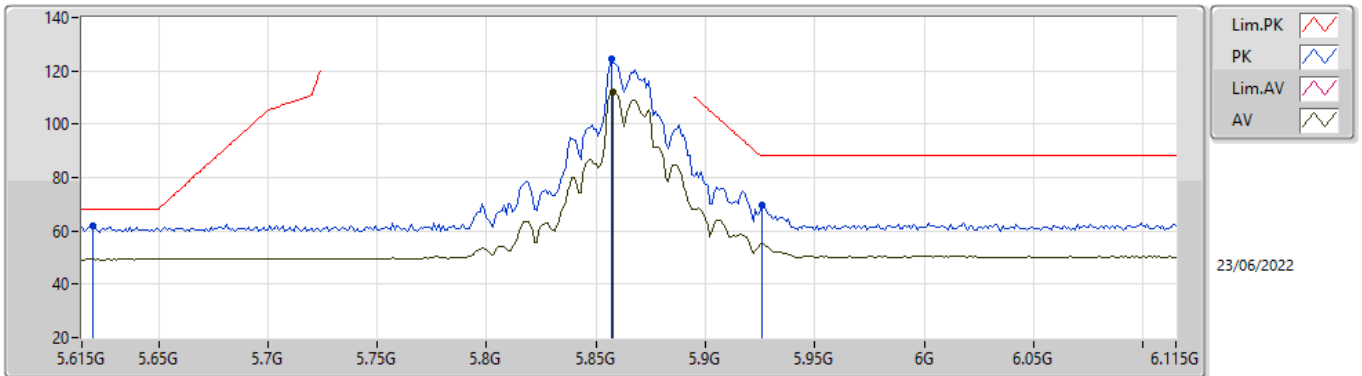


EUTX_4TX
Setting 24
04-E-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.639G	61.95	68.20	-6.25	55.66	3	Vertical	40	2.56	-	34.23	5.30	33.24
PK	5.861G	123.79	Inf	-Inf	116.96	3	Vertical	40	2.56	-	34.82	5.33	33.32
AV	5.86G	113.09	Inf	-Inf	106.26	3	Vertical	40	2.56	-	34.82	5.33	33.32
PK	5.922G	75.09	90.40	-15.31	68.05	3	Vertical	40	2.56	-	35.03	5.36	33.35

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5865MHz_TnomVnom

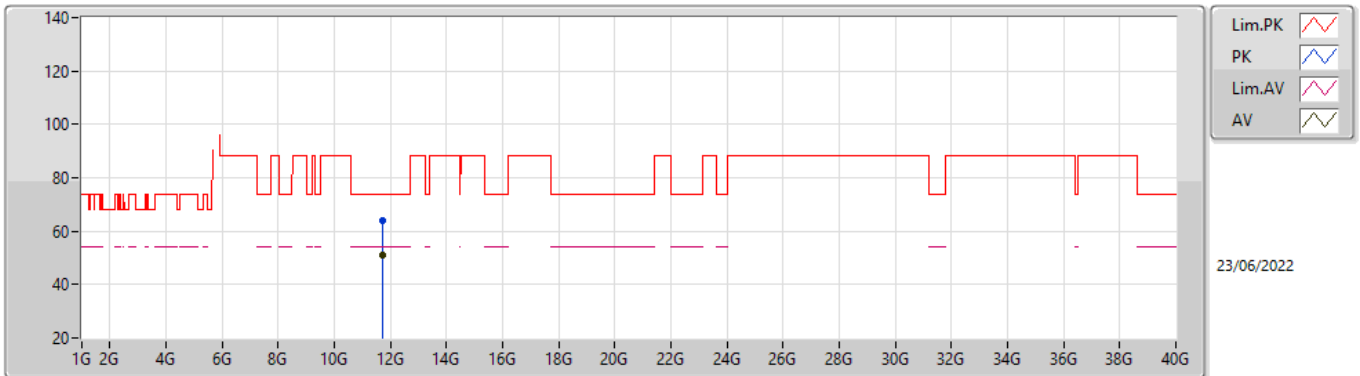


EUTX_4TX
Setting 24
04-E-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.62G	61.89	68.20	-6.31	55.70	3	Horizontal	328	1.94	-	34.12	5.30	33.23
PK	5.857G	124.53	Inf	-Inf	117.71	3	Horizontal	328	1.94	-	34.81	5.33	33.32
AV	5.858G	112.18	Inf	-Inf	105.35	3	Horizontal	328	1.94	-	34.82	5.33	33.32
PK	5.926G	69.76	88.20	-18.44	62.69	3	Horizontal	328	1.94	-	35.06	5.36	33.35

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5865MHz_TnomVnom

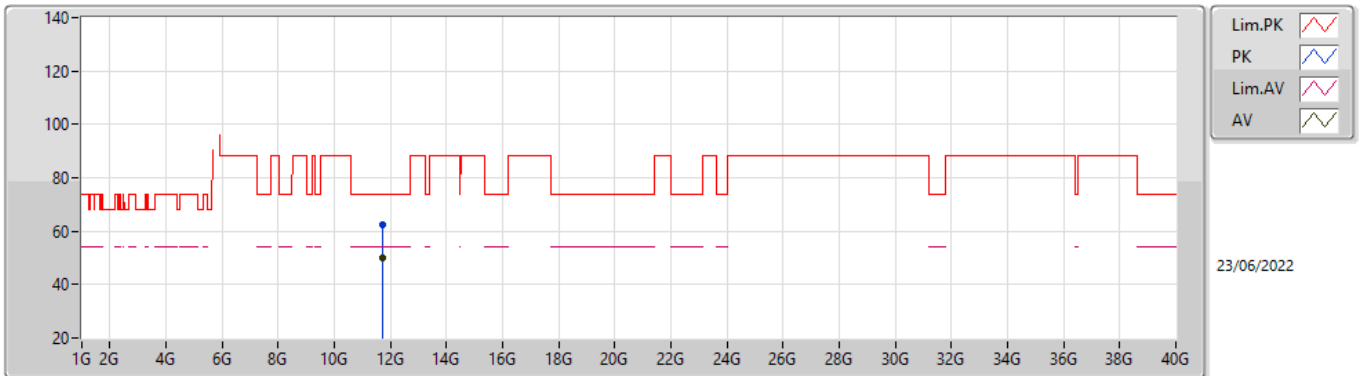


EUT X_4TX
Setting 24
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.72824G	63.93	74.00	-10.07	50.80	3	Vertical	348	2.80	-	39.17	8.81	34.85
AV	11.72936G	50.94	54.00	-3.06	37.81	3	Vertical	348	2.80	-	39.17	8.81	34.85

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5865MHz_TnomVnom

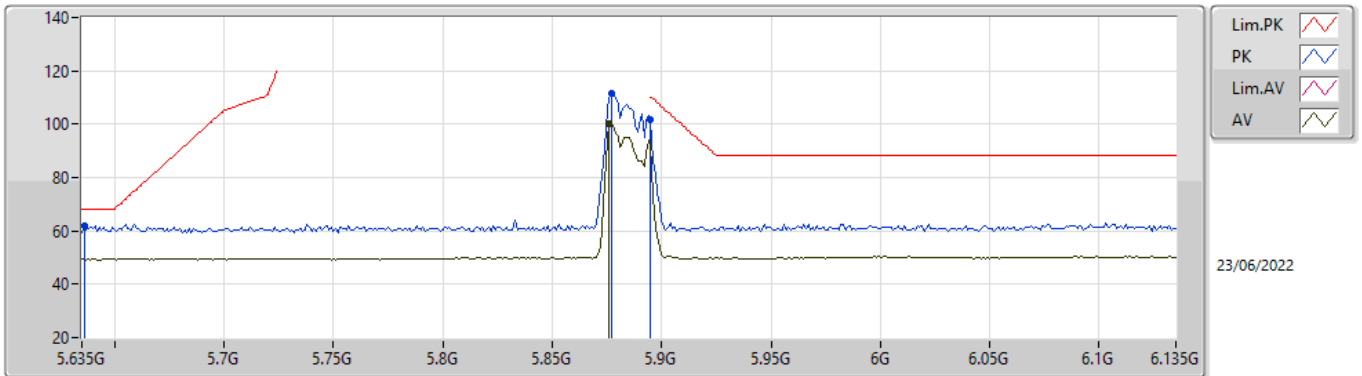


EUT X_4TX
Setting 24
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.72152G	62.49	74.00	-11.51	49.34	3	Horizontal	62	1.98	-	39.18	8.81	34.84
AV	11.73G	50.12	54.00	-3.88	36.99	3	Horizontal	62	1.98	-	39.17	8.81	34.85

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5885MHz_TnomVnom

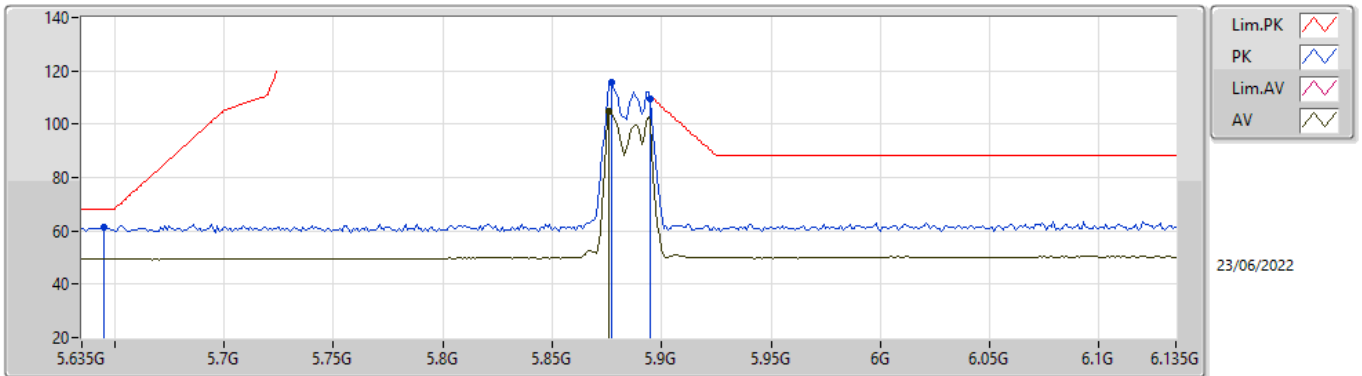


EUTX_4TX
Setting 11
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.636G	62.13	68.20	-6.07	55.84	3	Vertical	53	2.97	-	34.22	5.30	33.23
PK	5.877G	111.58	Inf	-Inf	104.72	3	Vertical	53	2.97	-	34.85	5.34	33.33
AV	5.876G	100.01	Inf	-Inf	93.15	3	Vertical	53	2.97	-	34.85	5.34	33.33
PK	5.895G	101.51	110.20	-8.69	94.61	3	Vertical	53	2.97	-	34.89	5.35	33.34

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5885MHz_TnomVnom

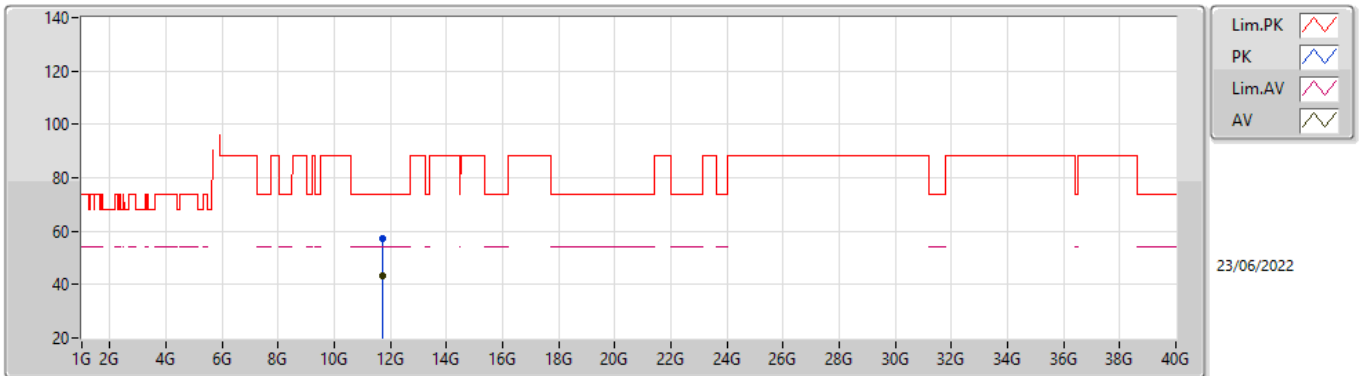


EUT_X_4TX
Setting 11
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.645G	61.36	68.20	-6.84	55.03	3	Horizontal	290	3.00	-	34.27	5.30	33.24
PK	5.877G	115.44	Inf	-Inf	108.58	3	Horizontal	290	3.00	-	34.85	5.34	33.33
AV	5.876G	104.60	Inf	-Inf	97.74	3	Horizontal	290	3.00	-	34.85	5.34	33.33
PK	5.895G	109.71	110.20	-0.49	102.81	3	Horizontal	290	3.00	-	34.89	5.35	33.34

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5885MHz_TnomVnom

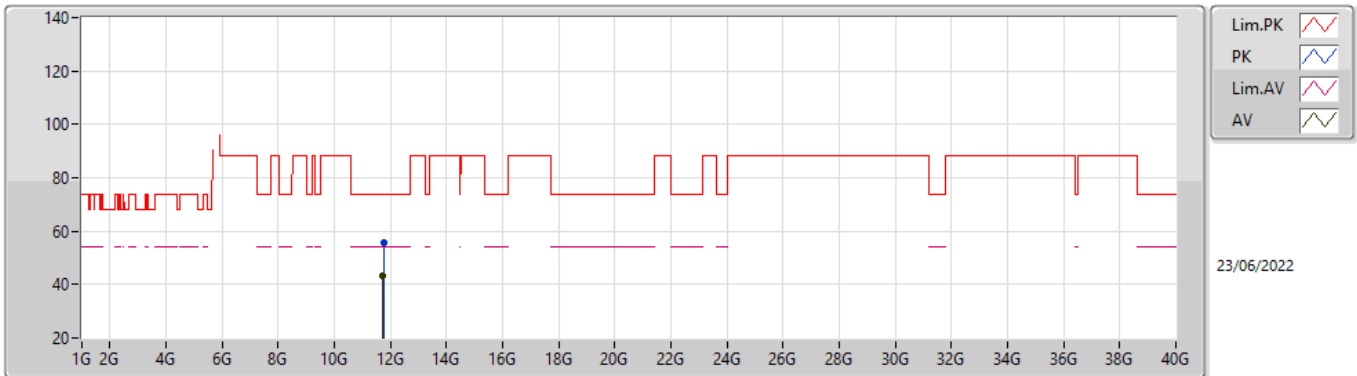


EUT_X_4TX
Setting 11
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.74088G	57.28	74.00	-16.72	44.15	3	Vertical	54	1.48	-	39.16	8.82	34.85
AV	11.73128G	43.23	54.00	-10.77	30.10	3	Vertical	54	1.48	-	39.17	8.81	34.85

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

5885MHz_TnomVnom

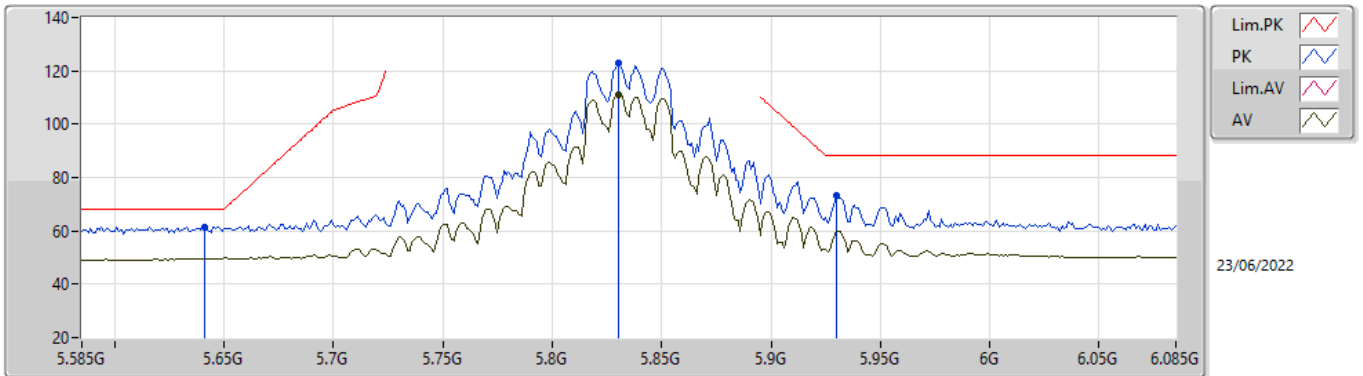


EUT_X_4TX
Setting 11
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.79224G	55.80	74.00	-18.20	42.71	3	Horizontal	106	1.80	-	39.11	8.85	34.87
AV	11.73208G	43.11	54.00	-10.89	29.98	3	Horizontal	106	1.80	-	39.17	8.81	34.85

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

5835MHz_TnomVnom

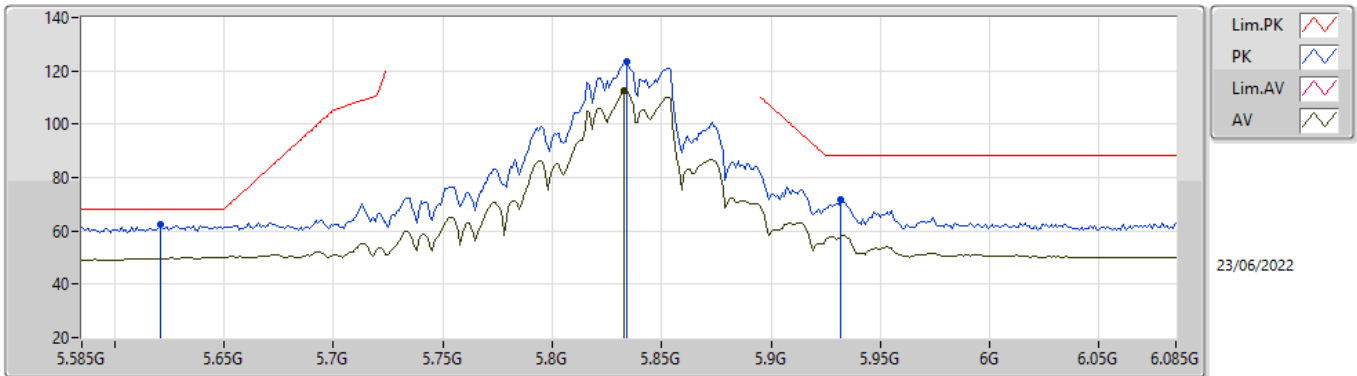


EUT X_4TX
Setting 24
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.641G	61.60	68.20	-6.60	55.29	3	Vertical	39	2.49	-	34.25	5.30	33.24
PK	5.83G	122.94	Inf	-Inf	116.26	3	Vertical	39	2.49	-	34.68	5.31	33.31
AV	5.83G	111.19	Inf	-Inf	104.51	3	Vertical	39	2.49	-	34.68	5.31	33.31
PK	5.93G	73.45	88.20	-14.75	66.35	3	Vertical	39	2.49	-	35.08	5.37	33.35

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

5835MHz_TnomVnom

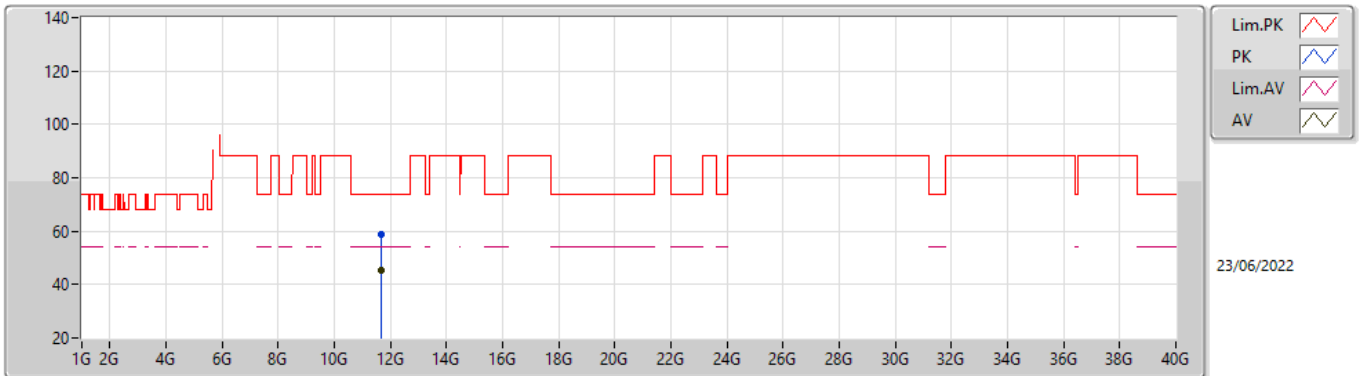


EUT X_4TX
Setting 24
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.621G	62.22	68.20	-5.98	56.02	3	Horizontal	42	2.55	-	34.13	5.30	33.23
PK	5.834G	123.62	Inf	-Inf	116.91	3	Horizontal	42	2.55	-	34.70	5.32	33.31
AV	5.833G	112.39	Inf	-Inf	105.68	3	Horizontal	42	2.55	-	34.70	5.32	33.31
PK	5.932G	71.70	88.20	-16.50	64.59	3	Horizontal	42	2.55	-	35.09	5.37	33.35

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

5835MHz_TnomVnom

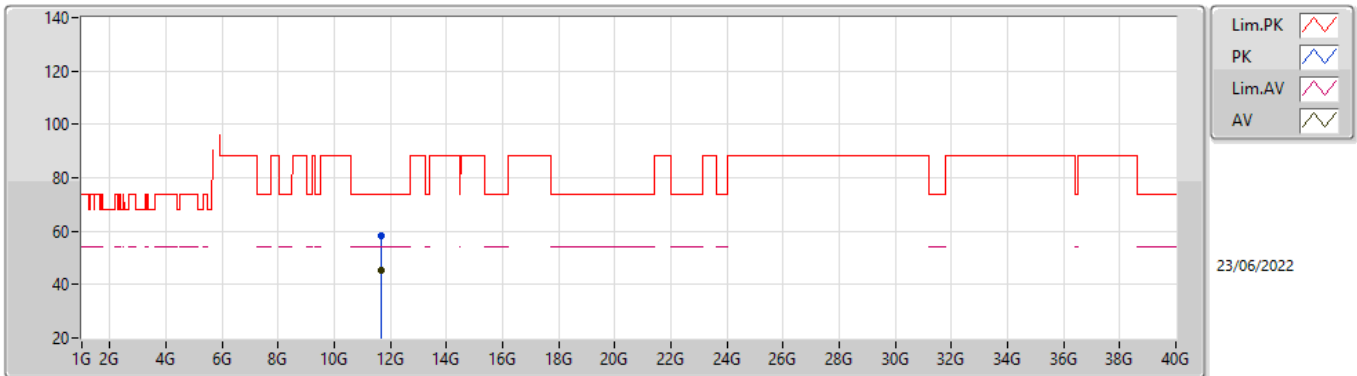


EUT X_4TX
Setting 24
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.68024G	58.60	74.00	-15.40	45.43	3	Vertical	344	1.00	-	39.22	8.78	34.83
AV	11.68056G	45.56	54.00	-8.44	32.39	3	Vertical	344	1.00	-	39.22	8.78	34.83

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

5835MHz_TnomVnom

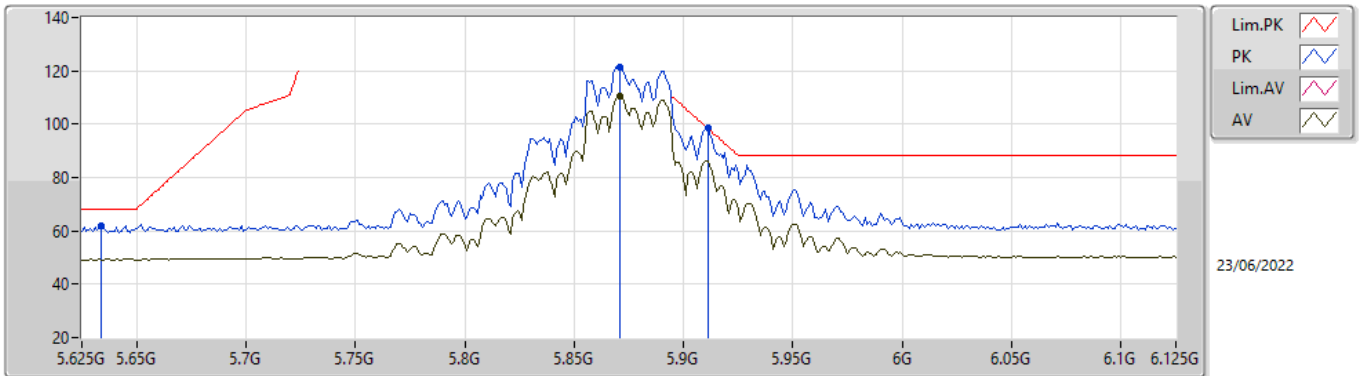


EUT X_4TX
Setting 24
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.68984G	58.17	74.00	-15.83	45.01	3	Horizontal	63	2.00	-	39.21	8.78	34.83
AV	11.67G	45.56	54.00	-8.44	32.38	3	Horizontal	63	2.00	-	39.23	8.77	34.82

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

5875MHz_TnomVnom

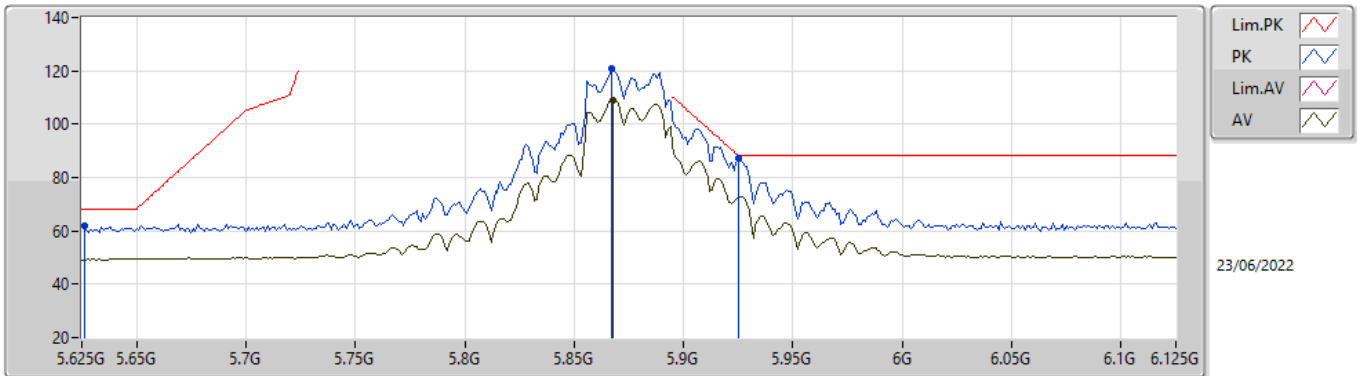


EUT_X_4TX
Setting 22.5
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.634G	61.79	68.20	-6.41	55.52	3	Vertical	6	2.55	-	34.20	5.30	33.23
PK	5.871G	121.46	Inf	-Inf	114.61	3	Vertical	6	2.55	-	34.84	5.34	33.33
AV	5.871G	110.48	Inf	-Inf	103.63	3	Vertical	6	2.55	-	34.84	5.34	33.33
PK	5.911G	98.42	98.47	-0.05	91.43	3	Vertical	6	2.55	-	34.97	5.36	33.34

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

5875MHz_TnomVnom

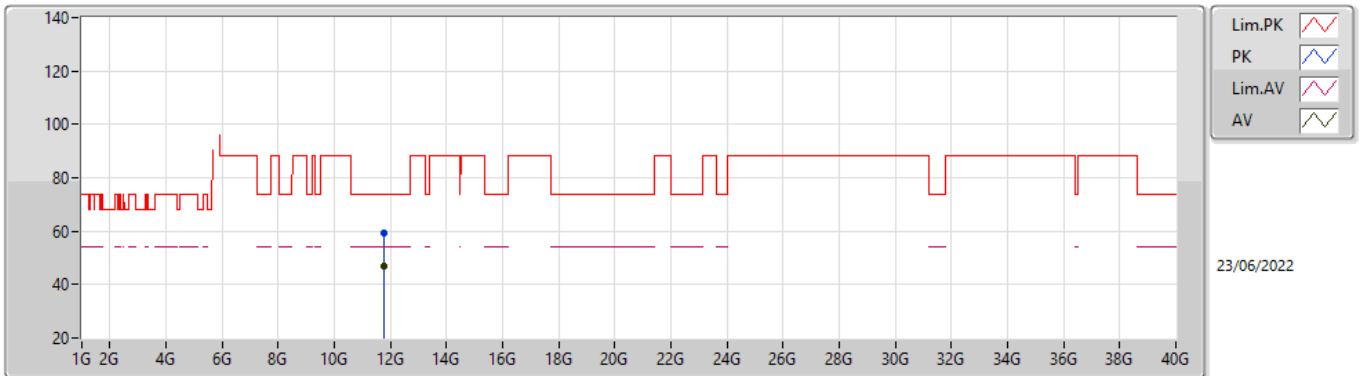


EUT_X_4TX
Setting 22.5
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.626G	62.15	68.20	-6.05	55.92	3	Horizontal	329	1.83	-	34.16	5.30	33.23
PK	5.867G	120.83	Inf	-Inf	114.00	3	Horizontal	329	1.83	-	34.83	5.33	33.33
AV	5.868G	109.20	Inf	-Inf	102.36	3	Horizontal	329	1.83	-	34.84	5.33	33.33
PK	5.925G	87.10	88.20	-1.10	80.04	3	Horizontal	329	1.83	-	35.05	5.36	33.35

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

5875MHz_TnomVnom

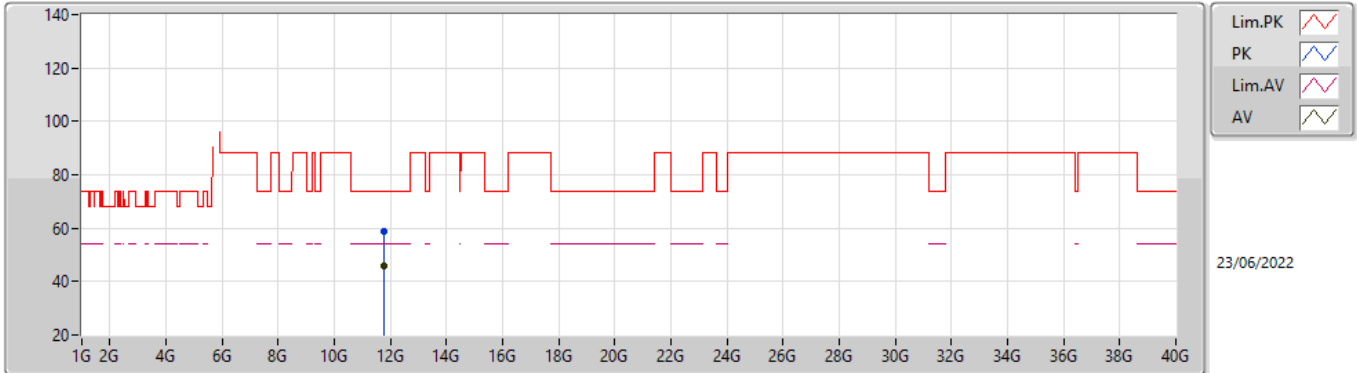


EUT X_4TX
Setting 22.5
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.74984G	59.56	74.00	-14.44	46.44	3	Vertical	344	1.80	-	39.15	8.82	34.85
AV	11.74984G	46.73	54.00	-7.27	33.61	3	Vertical	344	1.80	-	39.15	8.82	34.85

802.11ax HEW40-BF_Nss1,(MCS0)_4TX

5875MHz_TnomVnom

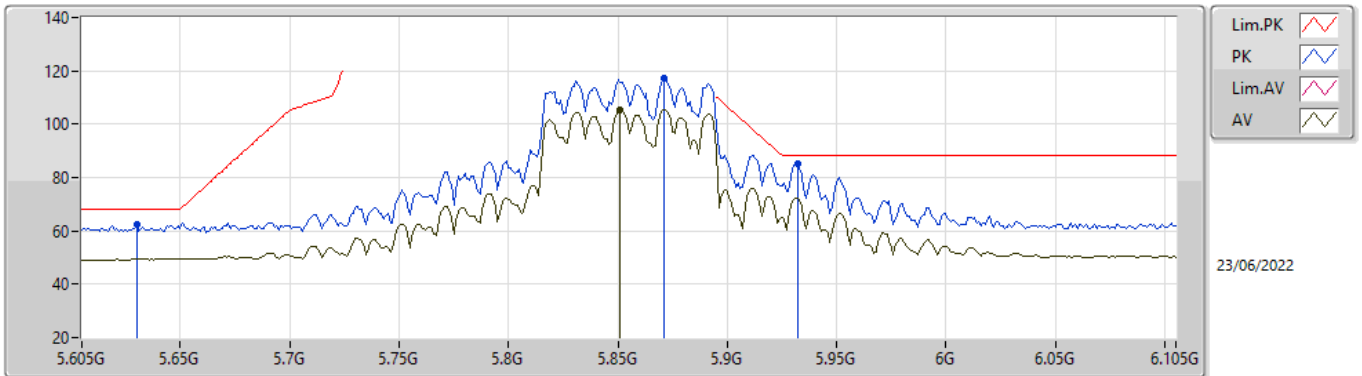


EUT_X_4TX
Setting 22.5
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.74648G	58.57	74.00	-15.43	45.45	3	Horizontal	349	1.80	-	39.15	8.82	34.85
AV	11.7476G	45.98	54.00	-8.02	32.86	3	Horizontal	349	1.80	-	39.15	8.82	34.85

802.11ax HEW80-BF_Nss1,(MCS0)_4TX

5855MHz_TnomVnom

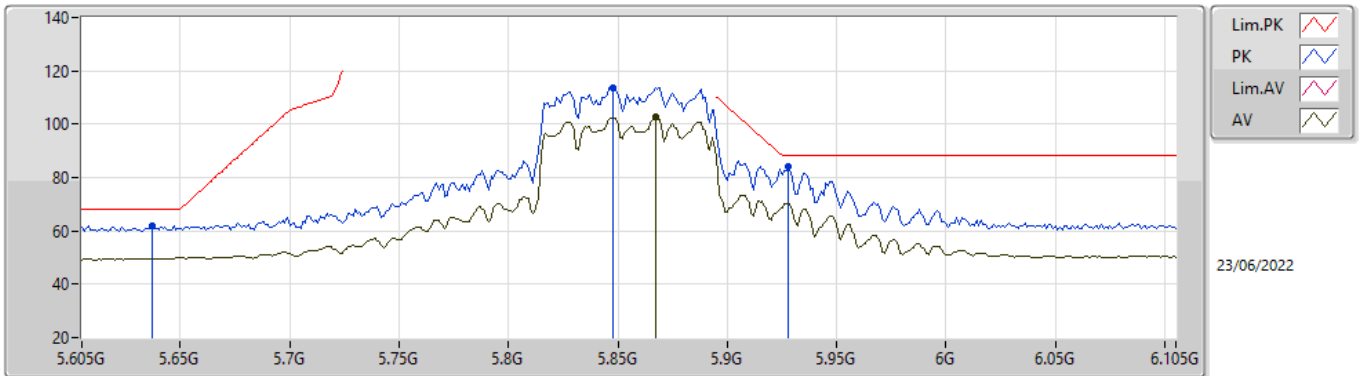


EUT_X_4TX
Setting 20
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.63G	62.50	68.20	-5.70	56.25	3	Vertical	37	2.57	-	34.18	5.30	33.23
PK	5.871G	117.48	Inf	-Inf	110.63	3	Vertical	37	2.57	-	34.84	5.34	33.33
AV	5.851G	105.38	Inf	-Inf	98.57	3	Vertical	37	2.57	-	34.80	5.33	33.32
PK	5.932G	85.27	88.20	-2.93	78.16	3	Vertical	37	2.57	-	35.09	5.37	33.35

802.11ax HEW80-BF_Nss1,(MCS0)_4TX

5855MHz_TnomVnom

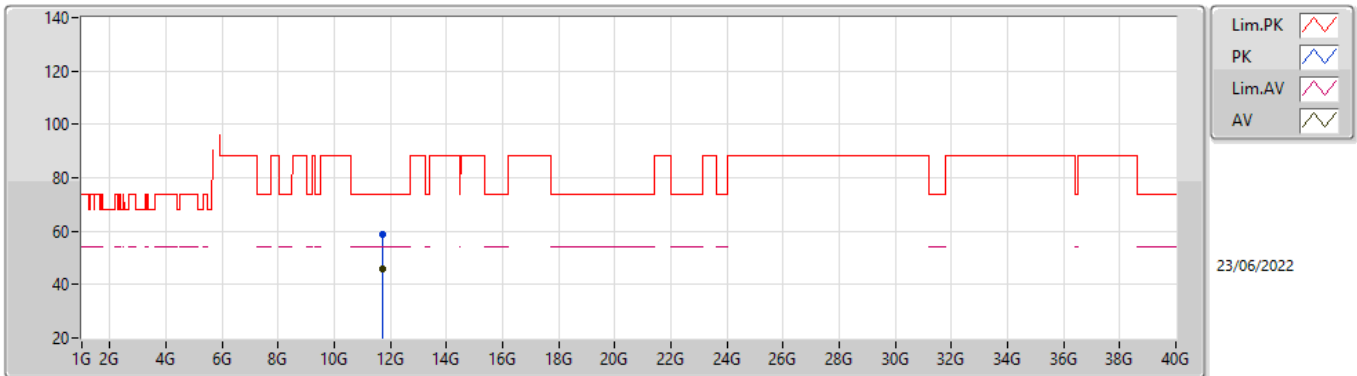


EUT X_4TX
Setting 20
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.637G	62.14	68.20	-6.06	55.85	3	Horizontal	331	1.80	-	34.22	5.30	33.23
PK	5.848G	113.79	Inf	-Inf	107.00	3	Horizontal	331	1.80	-	34.79	5.32	33.32
AV	5.867G	102.60	Inf	-Inf	95.77	3	Horizontal	331	1.80	-	34.83	5.33	33.33
PK	5.928G	84.18	88.20	-4.02	77.10	3	Horizontal	331	1.80	-	35.07	5.36	33.35

802.11ax HEW80-BF_Nss1,(MCS0)_4TX

5855MHz_TnomVnom

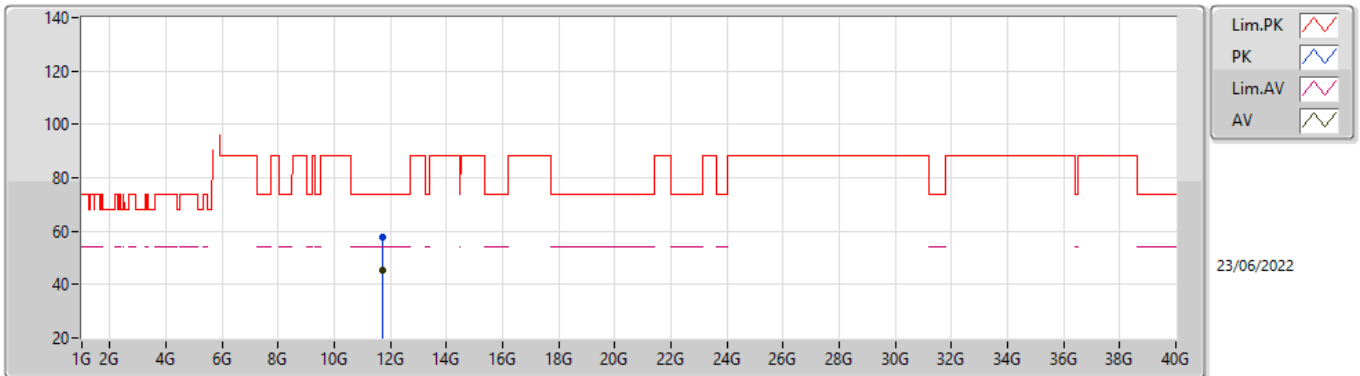


EUT X_4TX
Setting 20
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.7206G	58.57	74.00	-15.43	45.43	3	Vertical	344	1.00	-	39.18	8.80	34.84
AV	11.7202G	46.06	54.00	-7.94	32.92	3	Vertical	344	1.00	-	39.18	8.80	34.84

802.11ax HEW80-BF_Nss1,(MCS0)_4TX

5855MHz_TnomVnom

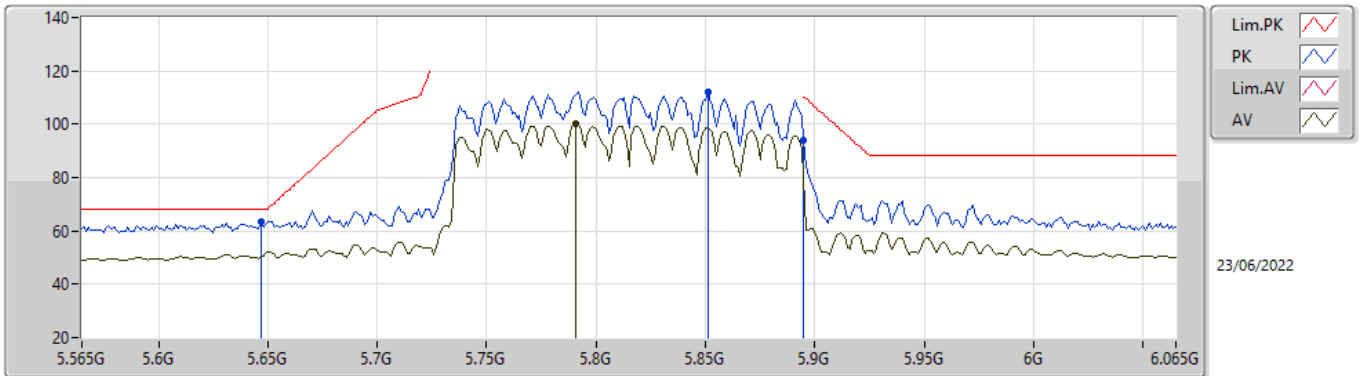


EUT_X_4TX
Setting 20
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.7132G	57.81	74.00	-16.19	44.66	3	Horizontal	58	2.04	-	39.19	8.80	34.84
AV	11.7124G	45.56	54.00	-8.44	32.41	3	Horizontal	58	2.04	-	39.19	8.80	34.84

802.11ax HEW160-BF_Nss1,(MCS0)_4TX

5815MHz_TnomVnom

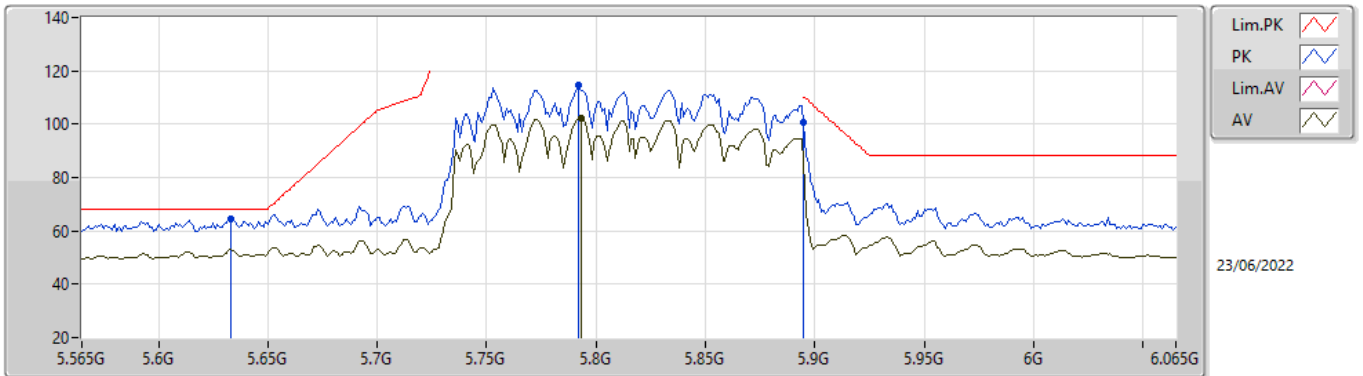


EUTX_4TX
Setting 17
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.647G	63.65	68.20	-4.55	57.31	3	Vertical	38	2.43	-	34.28	5.30	33.24
PK	5.851G	112.15	Inf	-Inf	105.34	3	Vertical	38	2.43	-	34.80	5.33	33.32
AV	5.791G	100.28	Inf	-Inf	93.80	3	Vertical	38	2.43	-	34.48	5.30	33.30
PK	5.895G	93.89	110.20	-16.31	86.99	3	Vertical	38	2.43	-	34.89	5.35	33.34

802.11ax HEW160-BF_Nss1,(MCS0)_4TX

5815MHz_TnomVnom

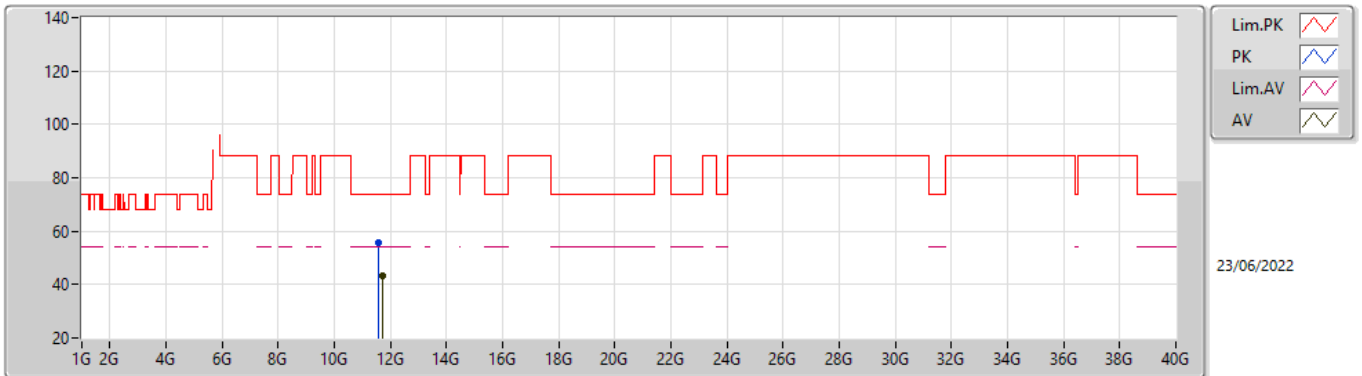


EUTX_4TX
Setting 17
04-D-G-4-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.633G	64.67	68.20	-3.53	58.40	3	Horizontal	42	2.49	-	34.20	5.30	33.23
PK	5.792G	114.41	Inf	-Inf	107.93	3	Horizontal	42	2.49	-	34.48	5.30	33.30
AV	5.793G	102.24	Inf	-Inf	95.75	3	Horizontal	42	2.49	-	34.49	5.30	33.30
PK	5.895G	100.67	110.20	-9.53	93.77	3	Horizontal	42	2.49	-	34.89	5.35	33.34

802.11ax HEW160-BF_Nss1,(MCS0)_4TX

5815MHz_TnomVnom

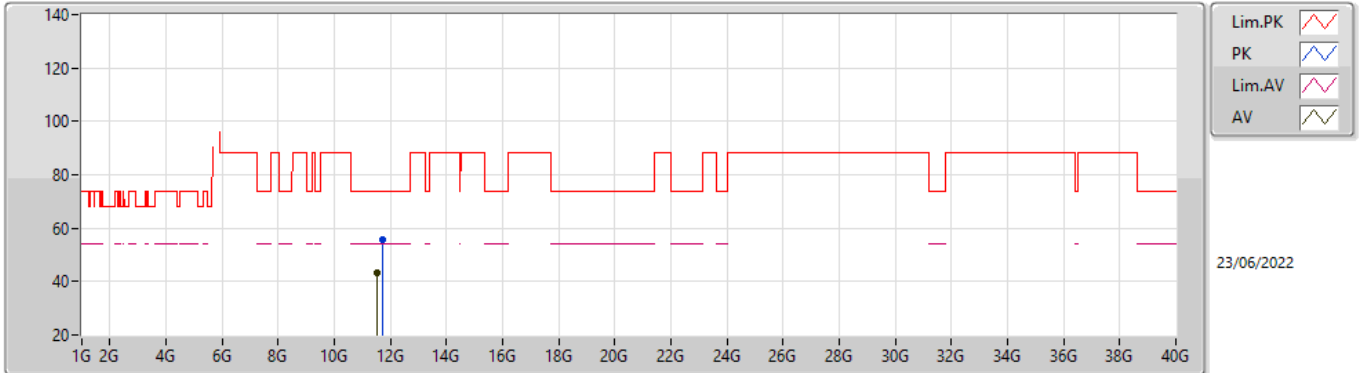


EUT_X_4TX
Setting 17
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.591G	55.68	74.00	-18.32	42.46	3	Vertical	-0	1.80	-	39.30	8.71	34.79
AV	11.722G	43.38	54.00	-10.62	30.23	3	Vertical	-0	1.80	-	39.18	8.81	34.84

802.11ax HEW160-BF_Nss1,(MCS0)_4TX

5815MHz_TnomVnom



EUT X_4TX
Setting 17
04-E-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.7G	55.90	74.00	-18.10	42.75	3	Horizontal	350	1.00	-	39.20	8.79	34.84
AV	11.526G	43.11	54.00	-10.89	29.91	3	Horizontal	350	1.00	-	39.30	8.67	34.77