



RADIO TEST REPORT

FCC ID : 2ABLKU10XE
Equipment : GigaSpire BLAST u10xe
Brand Name : Calix
Model Name : u10xe GS4237
Applicant : Calix Inc.
1035 N. McDowell Blvd. Petaluma, CA94954 U.S.A
Manufacturer : NEWEB VIET NAM CO., LTD.
Land Lot CN01, Dong Van III Industrial zone,
Dong Van Ward, Duy Tien Town, Ha Nam Province,
VietNam
Standard : 47 CFR FCC Part 15.407

The product was received on Nov. 15, 2022, and testing was started from Nov. 16, 2022 and completed on Apr. 20, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Rex Liao

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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History of this test report

Report No.	Version	Description	Issued Date
FR2N1015AB	01	Initial issue of report	May 24, 2023
FR2N1015AB	02	Changing manufacturer and photos of power adapter	May 26, 2023
FR2N1015AB	03	Changing equipment name	Jun. 02, 2023



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.3	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Output Power	PASS	-
3.4	15.407(a)	Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturee who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

1. The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.
2. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.

Reviewed by: Sam Chen**Report Producer: Sophia Shiung**



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40), ax (HEW40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80), ax (HEW80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	4TX
5.15-5.25GHz	802.11n HT20	20	4TX
5.15-5.25GHz	802.11n HT20-BF	20	4TX
5.15-5.25GHz	802.11ac VHT20	20	4TX
5.15-5.25GHz	802.11ac VHT20-BF	20	4TX
5.15-5.25GHz	802.11ax HEW20	20	4TX
5.15-5.25GHz	802.11ax HEW20-BF	20	4TX
5.15-5.25GHz	802.11n HT40	40	4TX
5.15-5.25GHz	802.11n HT40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT40	40	4TX
5.15-5.25GHz	802.11ac VHT40-BF	40	4TX
5.15-5.25GHz	802.11ax HEW40	40	4TX
5.15-5.25GHz	802.11ax HEW40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT80	80	4TX
5.15-5.25GHz	802.11ac VHT80-BF	80	4TX
5.15-5.25GHz	802.11ax HEW80	80	4TX
5.15-5.25GHz	802.11ax HEW80-BF	80	4TX
5.15-5.25GHz	802.11ac VHT80	80	2TX(Port 1/2)



Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ac VHT80-BF	80	2TX(Port 1/2)
5.15-5.25GHz	802.11ac VHT80+80	80	2TX(Port 1/2)
5.15-5.25GHz	802.11ac VHT80+80-BF	80	2TX(Port 1/2)
5.15-5.25GHz	802.11ax HEW80+80	80	2TX(Port 1/2)
5.15-5.25GHz	802.11ax HEW80+80-BF	80	2TX(Port 1/2)
5.25-5.35GHz	802.11a	20	4TX
5.25-5.35GHz	802.11n HT20	20	4TX
5.25-5.35GHz	802.11n HT20-BF	20	4TX
5.25-5.35GHz	802.11ac VHT20	20	4TX
5.25-5.35GHz	802.11ac VHT20-BF	20	4TX
5.25-5.35GHz	802.11ax HEW20	20	4TX
5.25-5.35GHz	802.11ax HEW20-BF	20	4TX
5.25-5.35GHz	802.11n HT40	40	4TX
5.25-5.35GHz	802.11n HT40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT40	40	4TX
5.25-5.35GHz	802.11ac VHT40-BF	40	4TX
5.25-5.35GHz	802.11ax HEW40	40	4TX
5.25-5.35GHz	802.11ax HEW40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT80	80	4TX
5.25-5.35GHz	802.11ac VHT80-BF	80	4TX
5.25-5.35GHz	802.11ax HEW80	80	4TX
5.25-5.35GHz	802.11ax HEW80-BF	80	4TX
5.25-5.35GHz	802.11ac VHT80	80	2TX(Port 3/4)
5.25-5.35GHz	802.11ac VHT80-BF	80	2TX(Port 3/4)
5.25-5.35GHz	802.11ac VHT80+80	80	2TX(Port 3/4)
5.25-5.35GHz	802.11ac VHT80+80-BF	80	2TX(Port 3/4)
5.25-5.35GHz	802.11ax HEW80+80	80	2TX(Port 3/4)
5.25-5.35GHz	802.11ax HEW80+80-BF	80	2TX(Port 3/4)
5.47-5.725GHz	802.11a	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT20-BF	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11ax HEW20	20	4TX
5.47-5.725GHz	802.11ax HEW20-BF	20	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11ax HEW40	40	4TX



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

Note:

- ◆ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ◆ VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ◆ HEW20, HEW40 and HEW80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ◆ BWch is the nominal channel bandwidth.

1.1.2 Table for 80+80 MHz Mode

Type	Channel No.	Frequency
1	42+58	5210+5290 MHz
2	106+122	5530+5610 MHz



1.1.3 Antenna Information

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	WLAN 2.4GHz	WLAN 5GHz	WLAN 6GHz					
1	1	3	-	WNC	81XKAC15.GFB	Dipole	I-PEX	Note 1
2	2	4	-	WNC	81XKAC15.GFC	Dipole	I-PEX	
3	-	1	-	WNC	81XKAC15.GGA	Dipole	I-PEX	
4	-	2	-	WNC	81XKAC15.GGA	Dipole	I-PEX	
5	-	-	1	WNC	81XKAC15.GFD	Dipole	I-PEX	
6	-	-	2	WNC	81XKAC15.GFE	Dipole	I-PEX	
7	-	-	3	WNC	81XKAC15.GFF	Dipole	I-PEX	
8	-	-	4	WNC	81XKAC15.GFG	Dipole	I-PEX	

Note 1:

Ant.	Antenna Gain (dBi)				
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3
1	2.88	0.9	1.02	3.27	1.99
2	3.07	0.72	0.74	2.25	1.46
3	-	1.13	2	2.99	3.26
4	-	0.82	1.2	1.82	2.95

Ant.	Antenna Gain (dBi)			
	WLAN 6GHz UNII 5	WLAN 6GHz UNII 6	WLAN 6GHz UNII 7	WLAN 6GHz UNII 8
5	3.00	3.70	3.11	3.23
6	3.68	3.56	3.60	3.60
7	4.75	4.70	4.90	4.93
8	4.84	4.55	4.21	3.93

Item	Directional gain (dBi)				
	WLAN 2.4GHz	WLAN 5GHz			
	2.45GHz	5.2GHz	5.3GHz	5.6GHz	5.785GHz
2T1S	4.76	-	-	-	-
2T2S	3.07	-	-	-	-
4T1S	-	3.32	4.34	6.76	7.06
4T2S	-	1.13	2	3.76	4.06
4T4S	-	1.13	2	3.27	3.26

Note 2: The above information (except antenna 1~4 gain and directional gain) was declared by manufacturer.

Note 3: For 2.4GHz / 5GHz, the antenna gain and directional gain are measured which follow the procedure of KDB 662911 D03.



Note 4: For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax (2TX/2RX):

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz function:

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

Port 1~4 can be used as transmitting/receiving antenna.

Port 1~4 could transmit/receive simultaneously.

For 6GHz function:

For IEEE 802.11ax (4TX/4RX):

Port 1~4 can be used as transmitting/receiving antenna.

Port 1~4 could transmit/receive simultaneously.

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.946	0.24	1.977m	1k
802.11ax HEW20	0.8	0.97	5.446m	300
802.11ax HEW40	0.798	0.98	5.446m	300
802.11ax HEW80	0.817	0.88	5.446m	300
802.11ax HEW80+80	0.728	1.38	5.444m	300

Note:

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



1.1.5 EUT Operational Condition

EUT Power Type	From power adapter and UPS			
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.			
Weather Band	<input checked="" type="checkbox"/>	With 5600~5650MHz	<input type="checkbox"/>	Without 5600~5650MHz
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
TPC Function	<input checked="" type="checkbox"/>	With TPC	<input type="checkbox"/>	Without TPC
Channel Puncturing Function	<input type="checkbox"/>	Supported	<input checked="" type="checkbox"/>	Unsupported
Support RU	<input checked="" type="checkbox"/>	Full RU	<input type="checkbox"/>	Partial RU
Test Software Version	QSPR V5.0-00199			

Note: The above information was declared by manufacturer.

1.1.6 Table for EUT supports functions

Function
AP
Repeater

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

Note 2: The above information was declared by manufacturer.



1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ FCC KDB 789033 D02 v02r01

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

- ♦ FCC KDB 662911 D03 v01
- ♦ FCC KDB 412172 D01 v01r01
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH03-CB	Owen Hsu	23.4~24.5 / 62~69	Nov. 24, 2022~ Jan. 12, 2023
Radiated < 1GHz	03CH05-CB	Chris Lee	23.8~24.9 / 55~58	Dec. 05, 2022~ Dec. 14, 2022
Radiated > 1GHz	03CH01-CB	Gordon Hung	21.2~23 / 64~69	Nov. 16, 2022~ Jan. 19, 2023
	03CH02-CB		21.1~22.1 / 64~67	
	03CH03-CB		21~22.7 / 65~68	
Radiated (For Co-location)	03CH04-CB			22~23.4 / 66~67
AC Conduction	CO01-CB	Joe Chu	23~24 / 56~57	Dec. 19, 2022



1.4 Measurement Uncertainty

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

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



2 Test Configuration of EUT

2.1 Test Channel Mode

- HEW20 / HEW40 / HEW80 covers HT20 / HT40 / VHT20 / VHT40 / VHT80 due to similar modulation. The power setting for HT20 / HT40 / VHT20 / VHT40 / VHT80 is the same or lower than HEW20 / HEW40 / HEW80.
- The EUT supports non-beamforming and beamforming modes, after evaluating, the non-beamforming mode has been evaluated to be the worst case, so it was selected to test. The beamforming mode evaluates the output power only.

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	Normal Link
1	EUT + Adapter (Powering) + UPS (Without powering)

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	Normal Link After evaluating, EUT in Y axis was the worst case. So the measurement will follow this same test configuration.
1	EUT in Y axis + Adapter (Powering) + UPS (Powering)
Operating Mode > 1GHz	CTX After evaluating, EUT in Y axis was the worst case. So the measurement will follow this same test configuration.
1	EUT in Y axis



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Appendix F for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz
Refer to Sporton Test Report No.: FA2N1015 for Co-location RF Exposure Evaluation.	

Note: The UPS was for measurement only and would not be marketed. Its information is shown as below:

Equipment	Brand	Model
UPS	CyberPower	CSN75A12V3

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link Mode:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories			
Equipment Name	Brand Holder	Model Name	Rating
Adapter	Chenzhou Frecom	F65L1-120450SPAU	Input: 100-240V~50/60Hz, 1.8A Output: 12.0V, 4.5A, 54.0W



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	10G WAN PC	DELL	T3400	N/A
B	1G LAN NB	DELL	E6430	N/A
C	OLT	CALIX	NGPOIV2-4	N/A
D	Switch	ZXYEL	GS1210-12	N/A
E	OLT NB	DELL	E6430	N/A
F	Phone 1	SAMPO	HT-B 907WL	N/A
G	Phone 2	SAMPO	HT-B 907WL	N/A
H	2.4G NB	DELL	E6430	N/A
I	5G NB	DELL	E6430	N/A
J	6G Client	WNC	LRV2	N/A
K	Flash disk3.0	SanDisk	Msip-rem-tad-sdcz73	N/A
L	UPS	CyberPower	CSN75A12V3	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	10G WAN PC	HP	SGH8190LP1	N/A
B	NB (WiFi 2.4G)	DELL	E4300	N/A
C	NB (WiFi 5G)	DELL	E4300	N/A
D	RX Driver (WiFi 6E)	WNC	LRV2	N/A
E	OLT PC	HP	SGH8190LP1	N/A
F	UPS	CyberPower	CSN75A12V3	N/A
G	Phone	TENDEL	K-311	N/A
H	Phone	TENDEL	K-311	N/A
I	Converter	OPTCORE	10G Ethernet Media Converter	N/A
J	1G LAN NB	DELL	E4300	N/A
K	Flash disk3.0	Silicon Power	B06	N/A
L	OLT	Calix	NGPOIV2-4	N/A
M	Transceiver module	Calix	XGS-PON OLT N1 ITEMP	N/A



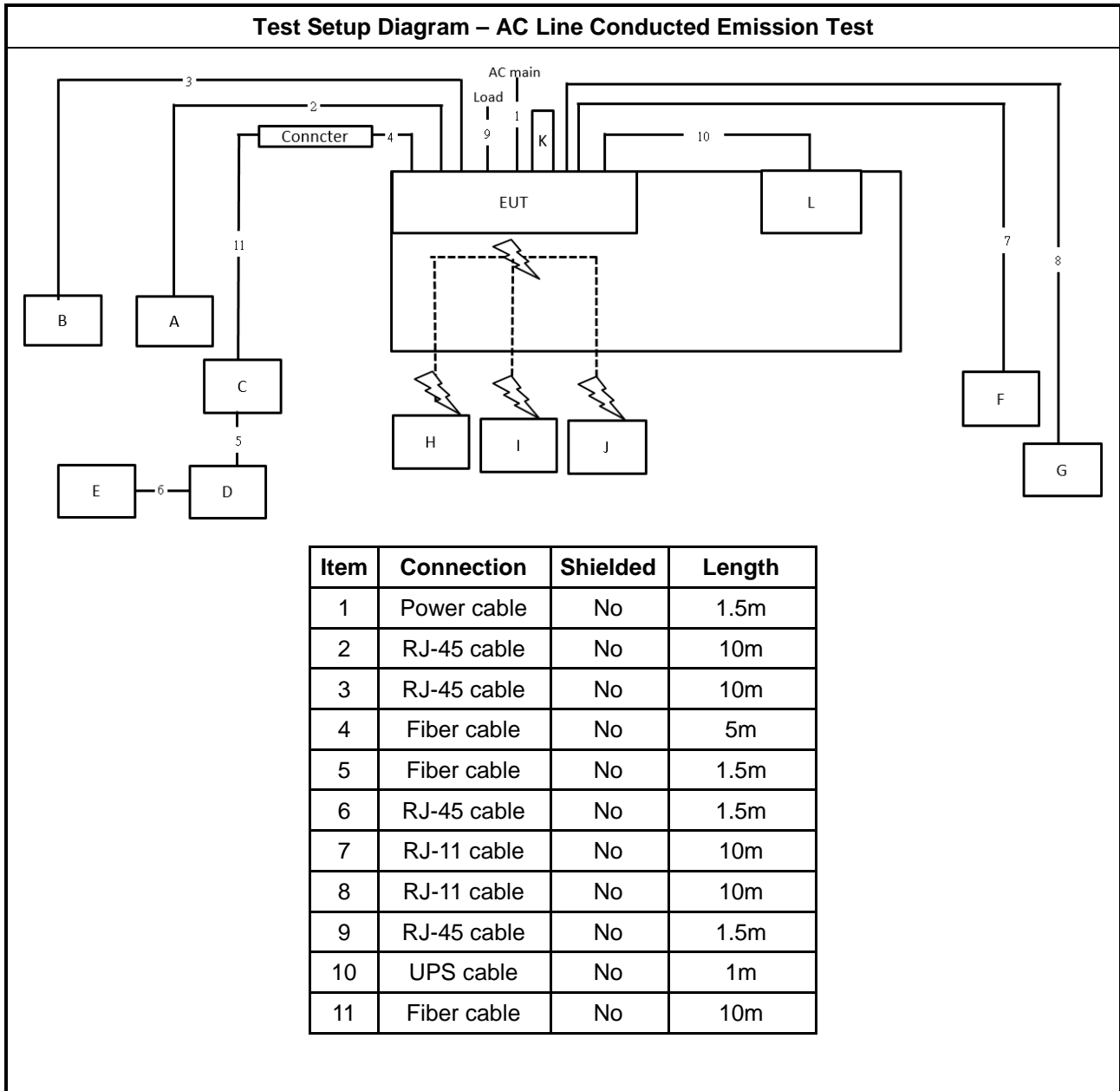
For Radiated (above 1GHz):

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

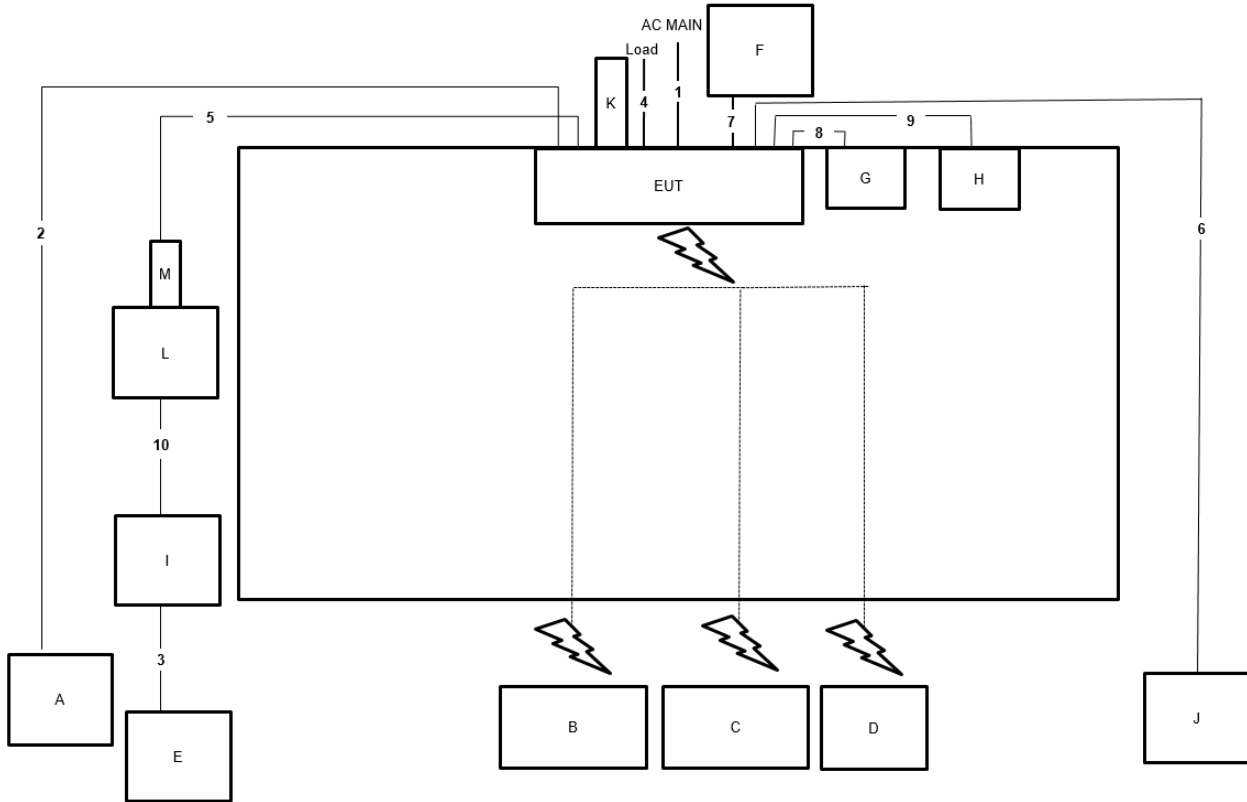
For RF Conducted:

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

2.6 Test Setup Diagram

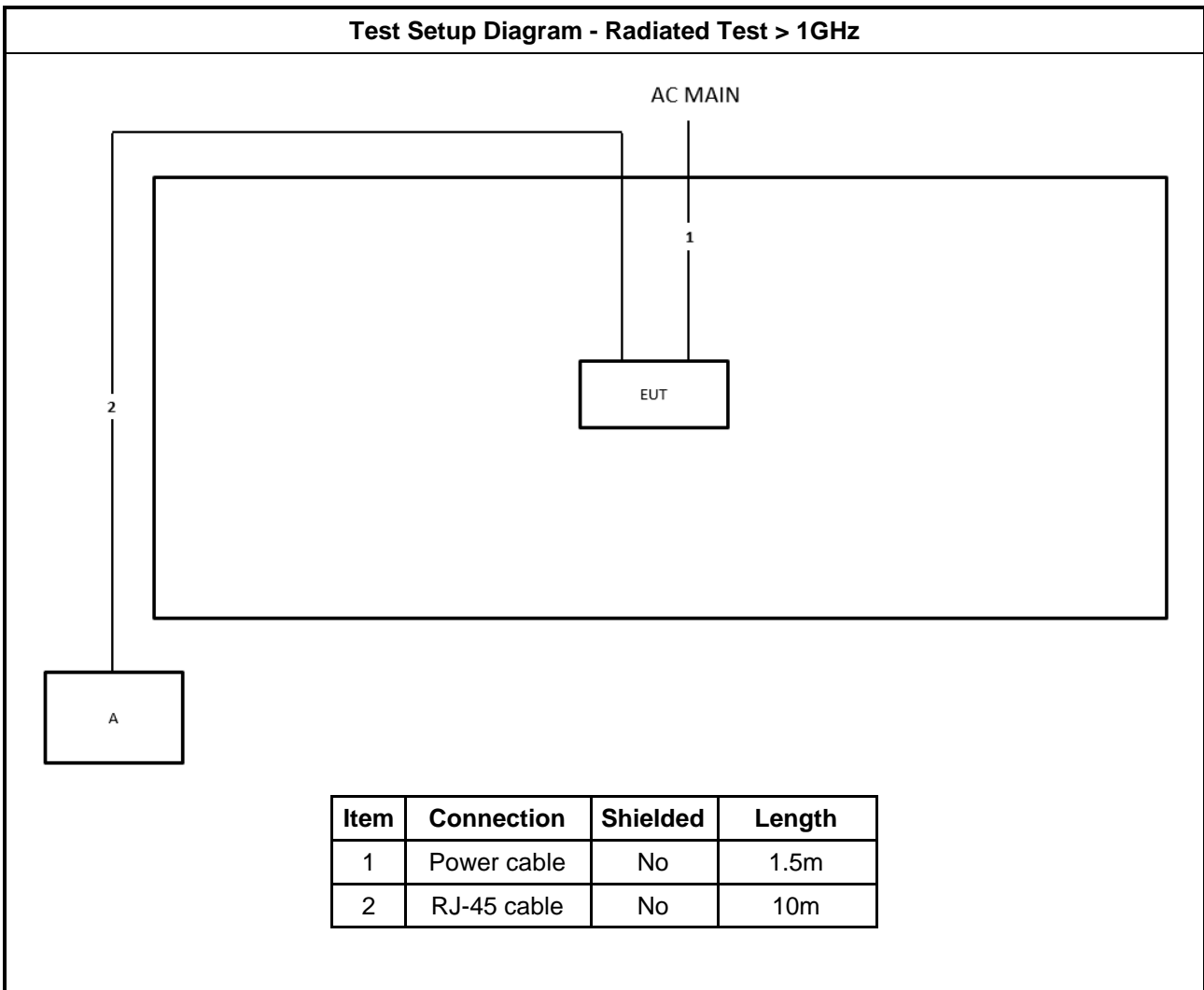


Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m
4	RJ-45 cable*3	No	1.5m
5	Fiber cable	No	10m
6	RJ-45 cable	No	10m
7	UPS cable	No	1m
8	RJ-11 cable	No	1m
9	RJ-11 cable	No	1m
10	Transceiver cable	Yes	1m

Test Setup Diagram - Radiated Test > 1GHz



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



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

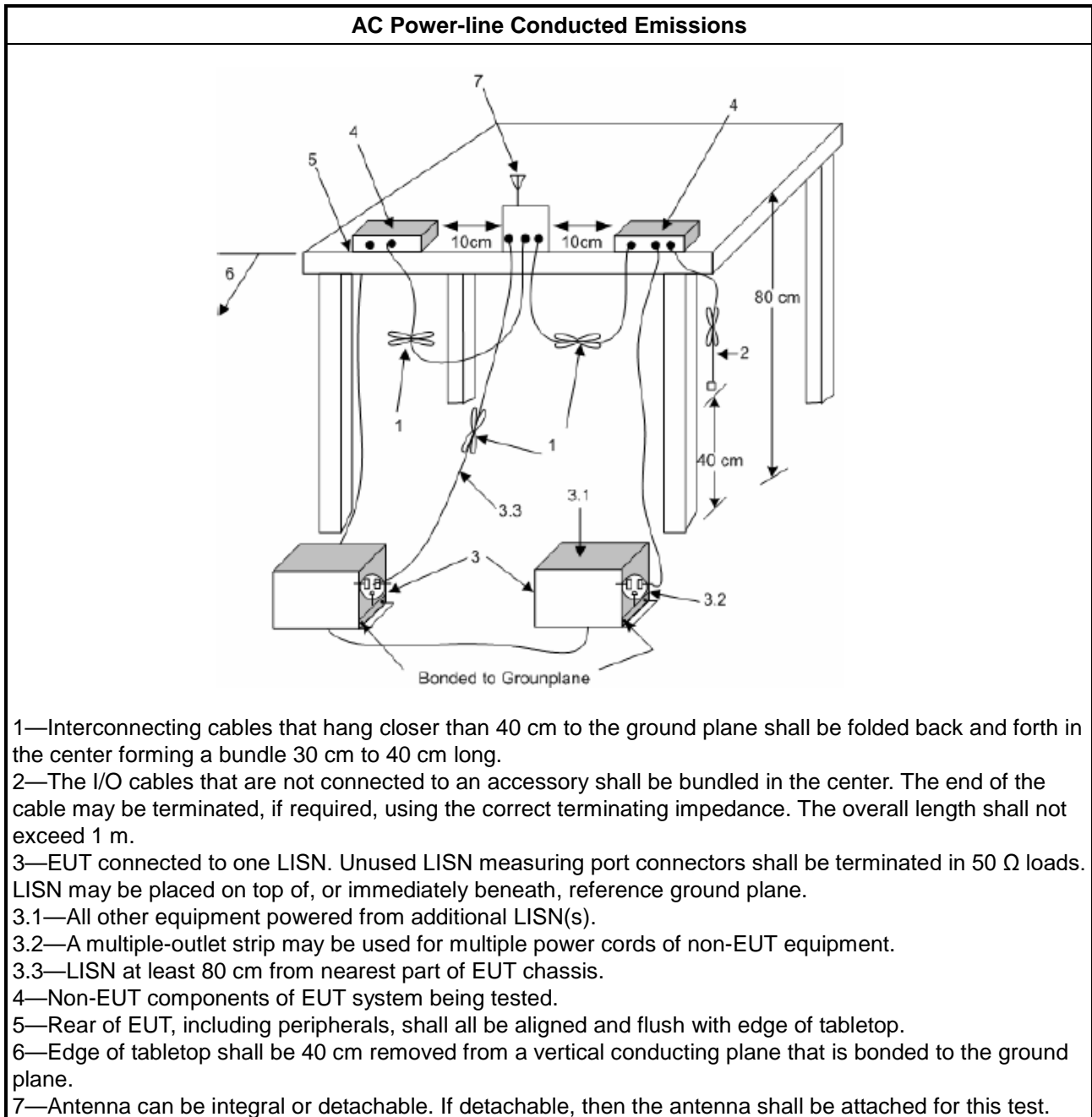
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input checked="" 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 checked="" 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 checked="" type="checkbox"/>	For the 5.725-5.85 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.

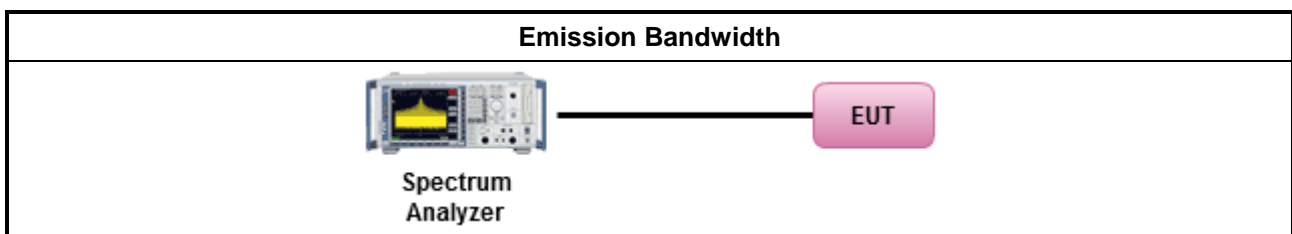
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method							
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, clause C for EBW and clause D for OBW measurement.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.</td> </tr> </table> 		<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.
<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.						

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Output Power

3.3.1 Limit

Maximum Output Power Limit	
UNII Devices	
<input checked="" 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 checked="" 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 checked="" 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 checked="" 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.
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.	

3.3.2 Measuring Instruments

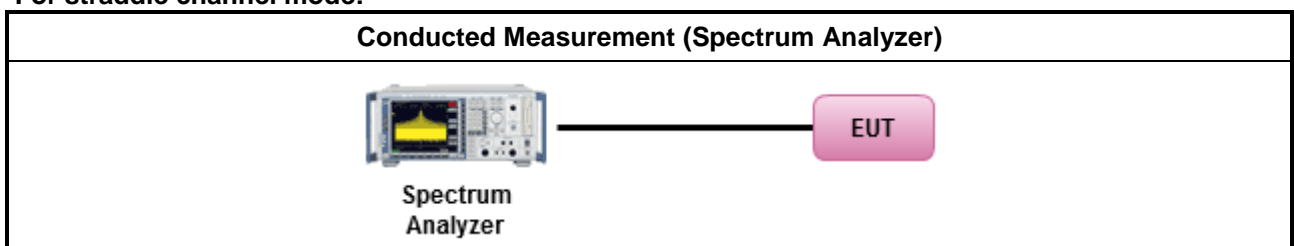
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

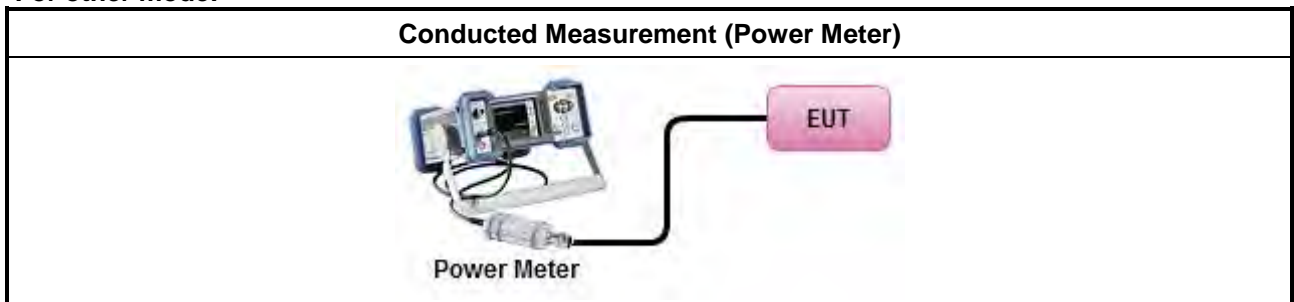
Test Method	
	Average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband 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.
	<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$
<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.

3.3.4 Test Setup

For straddle channel mode:



For other mode:





3.3.5 Test Result of Maximum Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Limit

Peak Power Spectral Density Limit	
UNII Devices	
<input checked="" 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 checked="" 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 checked="" 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 checked="" 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.
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 ($\theta-8$) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 ($\theta-40$) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
<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.
<p>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.</p>	

3.4.2 Measuring Instruments

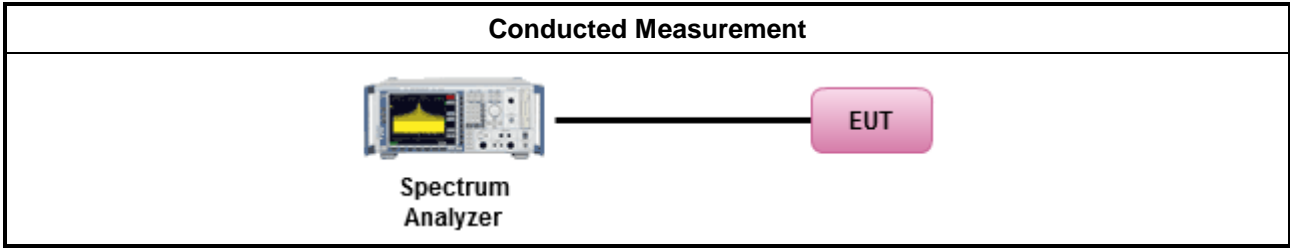
Refer a test equipment and calibration data table in this test report.



3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ 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, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
[duty cycle ≥ 98% 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]) $EIRP_{total} = PPSD_{total} + DG$ 	
<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. 	

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

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

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

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



Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
<input checked="" type="checkbox"/> 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" 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.

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

3.5.2 Measuring Instruments

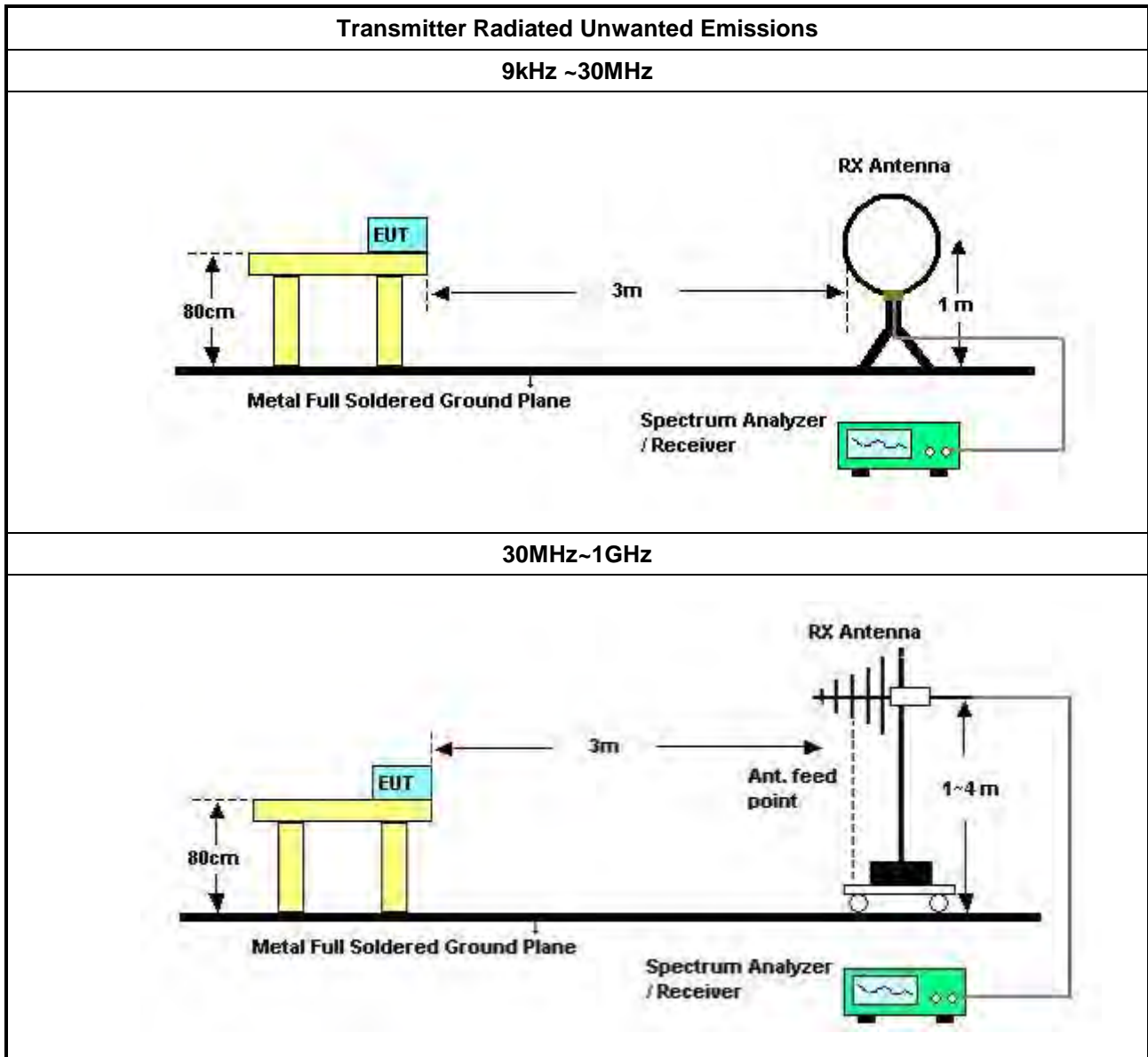
Refer a test equipment and calibration data table in this test report.

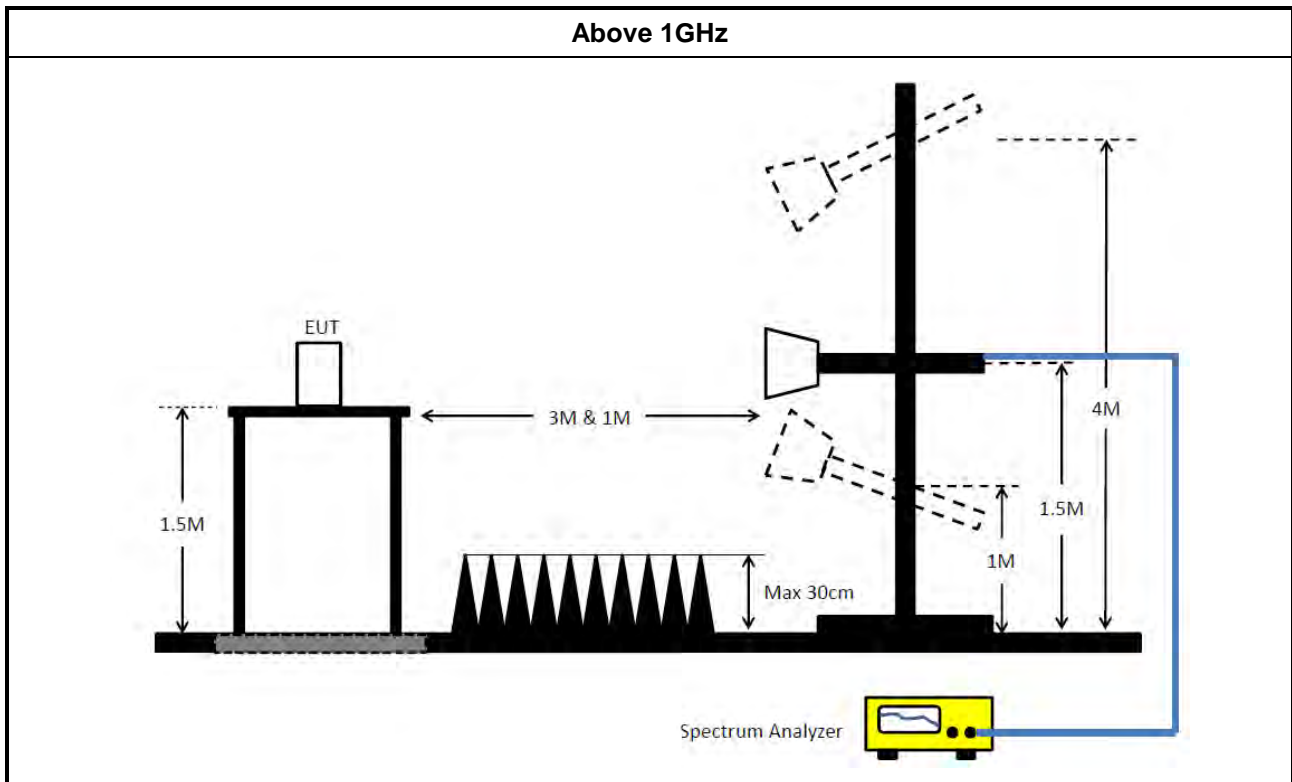


3.5.3 Test Procedures

Test Method	
<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 \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
	<ul style="list-style-type: none"> ▪ 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 \geq 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. 	
	<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.
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	<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"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level. 	
<ul style="list-style-type: none"> ▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported. 	

3.5.4 Test Setup





3.5.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

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

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

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

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 22, 2022	Feb. 21, 2023	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 09, 2022	Feb. 08, 2023	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 12, 2022	Apr. 11, 2023	Conduction (CO01-CB)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 10, 2022	Feb. 09, 2023	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30MHz ~ 1GHz	Aug. 03, 2022	Aug. 02, 2023	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 06, 2022	May 05, 2023	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jun. 23, 2022	Jun. 22, 2023	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 19, 2022	May 18, 2023	Radiation (03CH01-CB)
Pre-Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	Aug. 23 2022	Aug. 22 2023	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	May 06, 2022	May 05, 2023	Radiation (03CH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 26, 2022	Mar. 25, 2023	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 19, 2022	Apr. 18, 2023	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH02-CB)
Pre-Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	Aug. 23 2022	Aug. 22 2023	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSP	100593	9kHz~40GHz	Apr. 08, 2022	Apr. 07, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 05, 2022	May 04, 2023	Radiation (03CH03-CB)
Horn Antenna	ETS-Lindgren	3115	6821	750MHz~18GHz	Jan. 21, 2022	Jan. 20, 2023	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH03-CB)
Pre-Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	Aug. 23 2022	Aug. 22 2023	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 10, 2022	Jun. 09, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 23, 2023	Feb. 22, 2024	Radiation (03CH04-CB)
Horn Antenna	ETS-Lindgren	3115	00143147	750MHz~18GHz	Oct. 12, 2022	Oct. 11, 2023	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Pre-Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	Aug. 23 2022	Aug. 22 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 21, 2023	Mar. 20, 2024	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Jan. 07, 2022	Jan. 06, 2023	Conducted (TH03-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Dec. 30, 2022	Dec. 29, 2023	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1531344	300MHz~40GHz	Jul. 31, 2022	Jul. 30, 2023	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1728002	300MHz~40GHz	Jul. 31, 2022	Jul. 30, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz ~18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1GHz~26.5GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

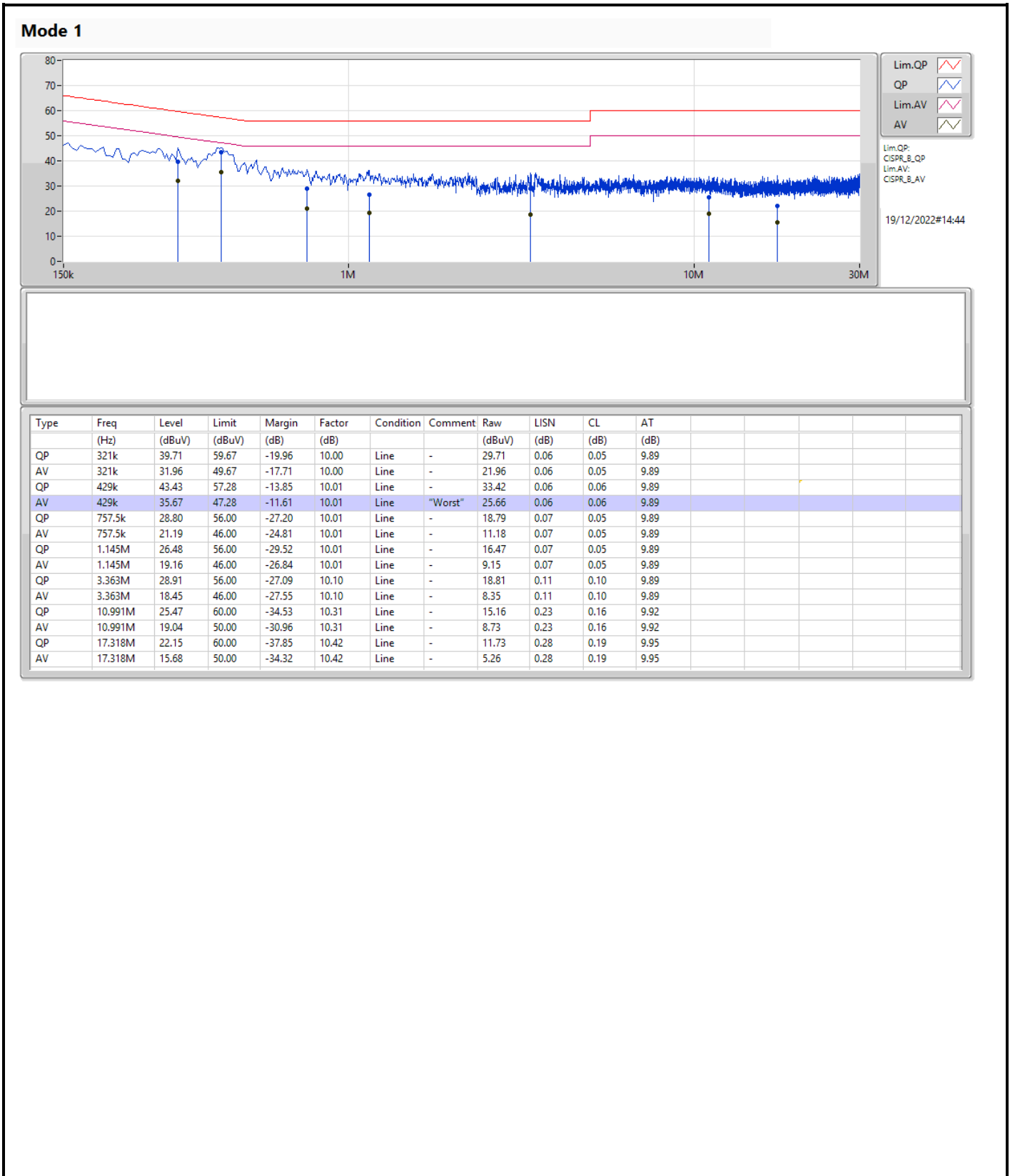
Note: Calibration Interval of instruments listed above is one year.

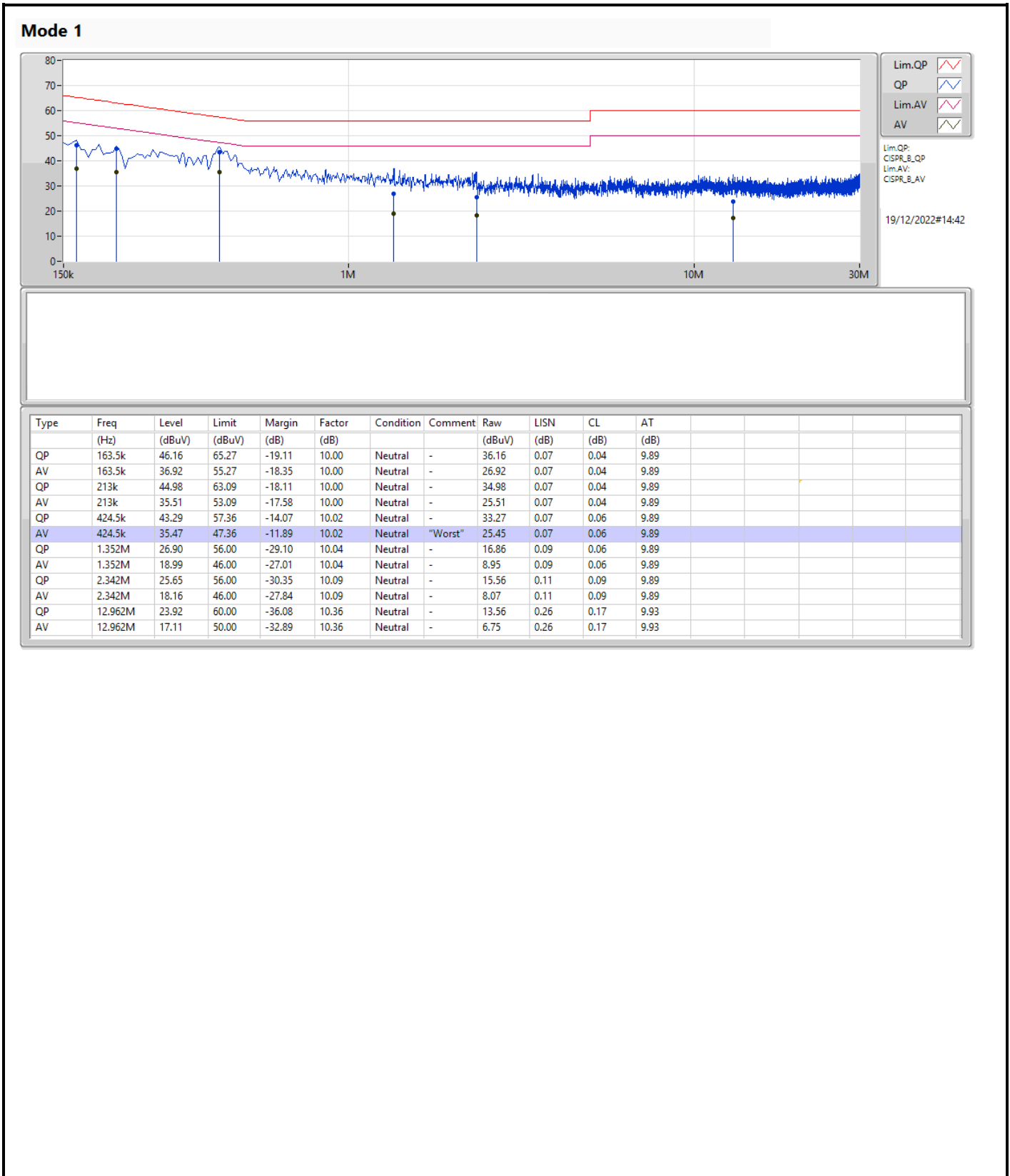
NCR means Non-Calibration required.



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	429k	35.67	47.28	-11.61	Line





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.6M	16.541M	16M5D1D	18.72M	16.159M
802.11ax HEW20_Nss1,(MCS0)_4TX	29.88M	19.13M	19M1D1D	21.12M	18.836M
802.11ax HEW40_Nss1,(MCS0)_4TX	45.96M	38.025M	38M0D1D	40.56M	37.613M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.2M	77.577M	77M6D1D	81.84M	76.754M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.71M	16.49M	16M5D1D	18.9M	16.286M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.39M	18.983M	19M0D1D	20.64M	18.718M
802.11ax HEW40_Nss1,(MCS0)_4TX	41.16M	37.848M	37M8D1D	40.32M	37.613M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.32M	77.225M	77M2D1D	81.84M	76.99M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.86M	16.541M	16M5D1D	14.49M	13.178M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.63M	19.071M	19M1D1D	15.39M	14.393M
802.11ax HEW40_Nss1,(MCS0)_4TX	41.04M	37.907M	37M9D1D	35.21M	33.548M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.68M	77.342M	77M3D1D	75.825M	72.639M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.29M	24.264M	24M3D1D	3.1M	3.338M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.99M	24.654M	24M7D1D	4.34M	4.518M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.68M	46.135M	46M1D1D	3.88M	4.058M
802.11ax HEW80_Nss1,(MCS0)_4TX	77.04M	77.225M	77M2D1D	3.66M	4.138M

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	18.72M	16.159M	19.53M	16.439M	19.2M	16.363M	19.59M	16.388M
5200MHz	Pass	Inf	19.5M	16.235M	21.6M	16.541M	20.94M	16.414M	20.76M	16.388M
5240MHz	Pass	Inf	19.98M	16.312M	20.1M	16.388M	21.15M	16.388M	20.97M	16.541M
5260MHz	Pass	Inf	19.71M	16.439M	19.17M	16.312M	19.5M	16.439M	19.11M	16.312M
5300MHz	Pass	Inf	19.44M	16.414M	19.23M	16.337M	19.62M	16.49M	18.93M	16.286M
5320MHz	Pass	Inf	19.32M	16.388M	19.26M	16.363M	19.71M	16.49M	18.9M	16.286M
5500MHz	Pass	Inf	19.41M	16.235M	19.5M	16.388M	18.81M	16.21M	18.99M	16.286M
5580MHz	Pass	Inf	19.74M	16.388M	19.41M	16.312M	19.86M	16.541M	19.11M	16.388M
5700MHz	Pass	Inf	19.53M	16.388M	19.14M	16.312M	18.99M	16.286M	19.02M	16.337M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	14.85M	13.253M	14.85M	13.253M	14.49M	13.178M	14.745M	13.238M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	3.398M	3.1M	3.378M	3.12M	3.378M	3.12M	3.338M
5745MHz	Pass	500k	15.93M	16.72M	15.12M	16.567M	15.66M	16.439M	15.75M	17.28M
5785MHz	Pass	500k	15.63M	22.352M	16.29M	19.064M	15.66M	17.229M	15.69M	20.721M
5825MHz	Pass	500k	15.69M	20.951M	15.09M	20.67M	15.12M	21.588M	15.69M	24.264M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.6M	19.071M	21.12M	18.954M	21.27M	18.954M	21.78M	19.042M
5200MHz	Pass	Inf	21.21M	18.836M	24.96M	19.13M	26.46M	19.012M	22.71M	19.1M
5240MHz	Pass	Inf	25.56M	18.895M	24.27M	19.012M	29.88M	18.954M	22.95M	19.13M
5260MHz	Pass	Inf	20.7M	18.777M	21.09M	18.865M	21.24M	18.983M	20.88M	18.924M
5300MHz	Pass	Inf	20.97M	18.836M	21.21M	18.954M	20.64M	18.718M	20.94M	18.895M
5320MHz	Pass	Inf	21.39M	18.983M	21.24M	18.954M	20.97M	18.807M	21.18M	18.895M
5500MHz	Pass	Inf	21.3M	18.924M	20.67M	18.748M	21.09M	18.954M	20.91M	18.807M
5580MHz	Pass	Inf	21.57M	19.012M	21.45M	18.983M	21.63M	19.071M	20.97M	18.924M
5700MHz	Pass	Inf	21.48M	18.954M	21.15M	18.924M	20.94M	18.865M	21.27M	19.042M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.75M	14.453M	15.39M	14.393M	15.645M	14.483M	15.795M	14.513M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.38M	4.538M	4.34M	4.518M	4.44M	4.558M	4.52M	4.558M
5745MHz	Pass	500k	18.54M	19.1M	18.75M	19.159M	17.34M	19.071M	18.99M	19.218M
5785MHz	Pass	500k	18.66M	21.804M	18.18M	19.247M	18.21M	19.247M	17.52M	19.718M
5825MHz	Pass	500k	18.39M	21.451M	18.84M	21.951M	18.93M	24.654M	18.09M	22.215M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.68M	37.848M	40.56M	37.613M	40.74M	37.672M	40.98M	37.907M
5230MHz	Pass	Inf	43.14M	37.966M	41.4M	37.966M	45.96M	37.966M	41.7M	38.025M
5270MHz	Pass	Inf	41.16M	37.79M	40.56M	37.79M	40.98M	37.848M	40.68M	37.731M
5310MHz	Pass	Inf	40.56M	37.731M	40.56M	37.672M	40.68M	37.848M	40.32M	37.613M
5510MHz	Pass	Inf	41.04M	37.613M	40.32M	37.437M	40.92M	37.907M	40.92M	37.79M
5550MHz	Pass	Inf	40.8M	37.613M	40.98M	37.731M	40.26M	37.378M	40.8M	37.731M
5670MHz	Pass	Inf	40.74M	37.672M	40.62M	37.79M	40.32M	37.496M	40.44M	37.554M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.49M	33.688M	35.315M	33.723M	35.21M	33.548M	35.28M	33.618M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.9M	4.118M	4.08M	4.138M	3.92M	4.098M	3.88M	4.058M
5755MHz	Pass	500k	37.26M	38.025M	37.32M	37.966M	34.68M	38.142M	37.44M	37.966M
5795MHz	Pass	500k	37.68M	43.96M	37.38M	38.201M	37.56M	46.135M	36.42M	38.612M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.84M	77.107M	82.2M	76.754M	81.96M	76.872M	82.08M	77.577M
5290MHz	Pass	Inf	82.08M	77.107M	82.08M	77.107M	82.32M	77.225M	81.84M	76.99M
5530MHz	Pass	Inf	82.08M	77.107M	81.96M	76.519M	82.68M	77.342M	82.2M	77.225M
5610MHz	Pass	Inf	82.68M	76.99M	81.72M	77.107M	81.72M	76.754M	81.72M	76.754M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.05M	73.013M	75.9M	73.088M	75.825M	72.639M	75.825M	72.789M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.96M	4.138M	3.96M	4.198M	4M	4.138M	3.66M	4.138M
5775MHz	Pass	500k	77.04M	77.225M	71.76M	76.754M	67.2M	76.872M	74.64M	76.754M

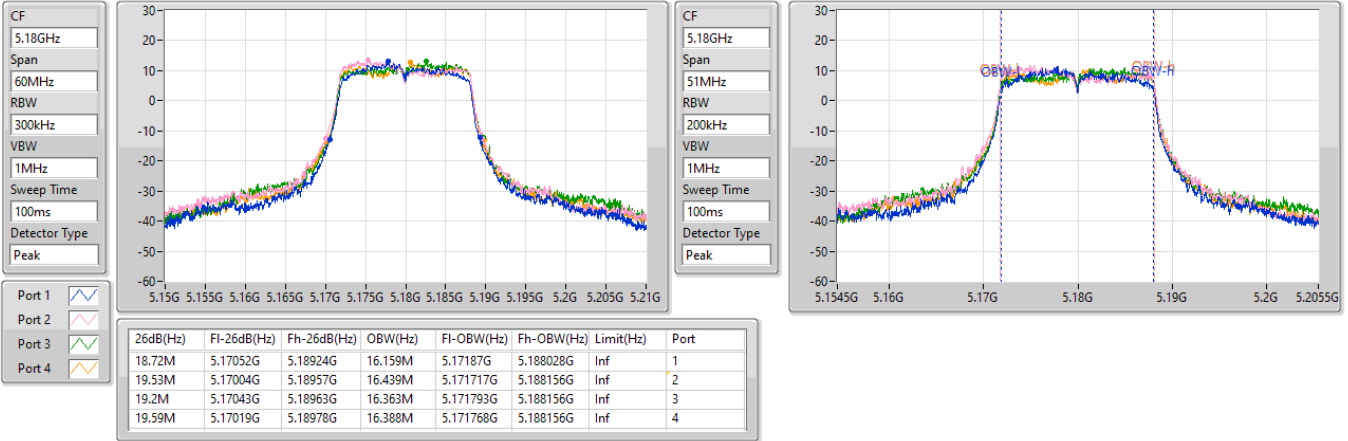
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
 Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5180MHz

10/12/2022

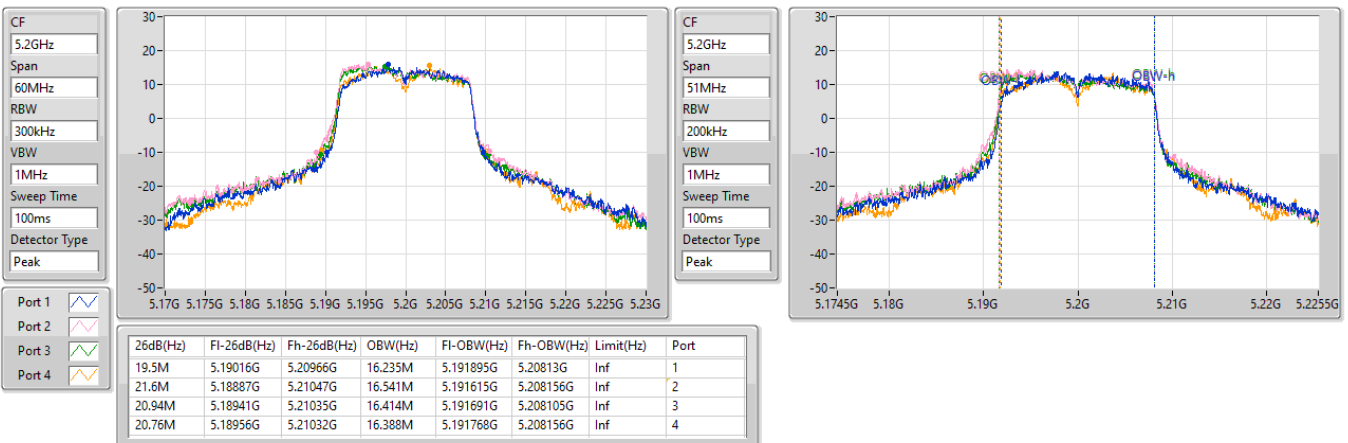


5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5200MHz

10/12/2022

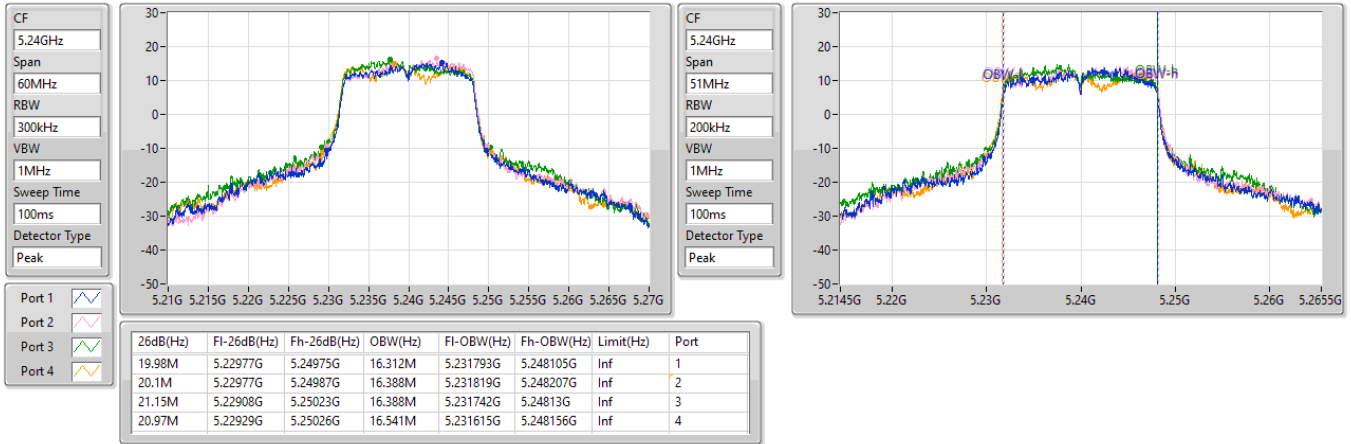


5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5240MHz

10/12/2022

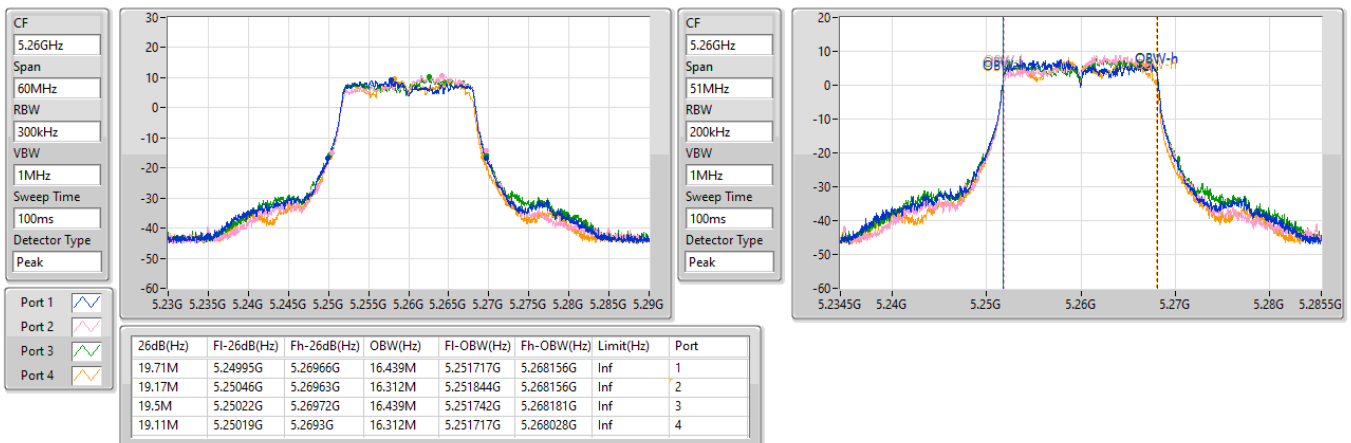


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5260MHz

10/12/2022

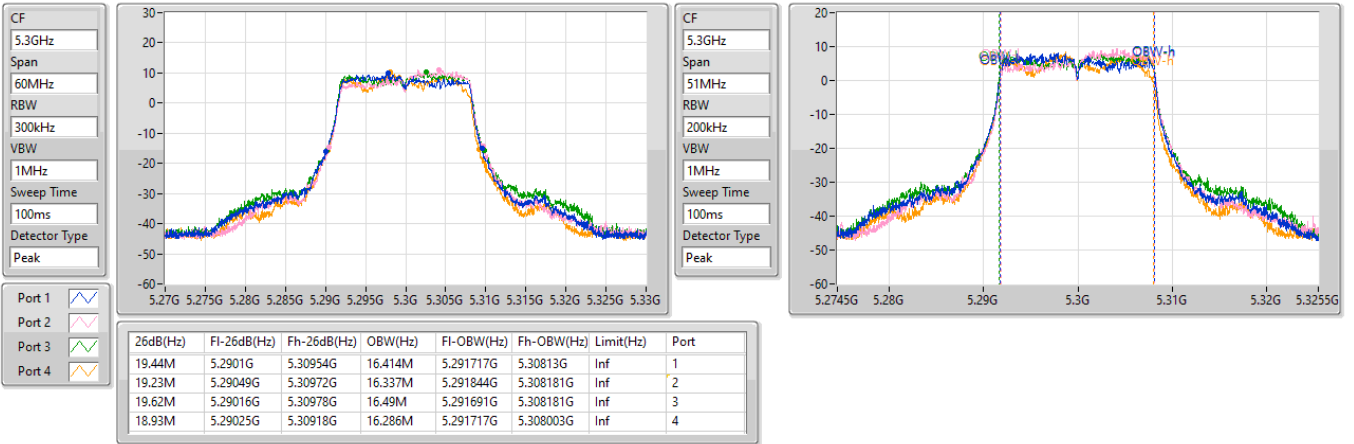


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5300MHz

10/12/2022

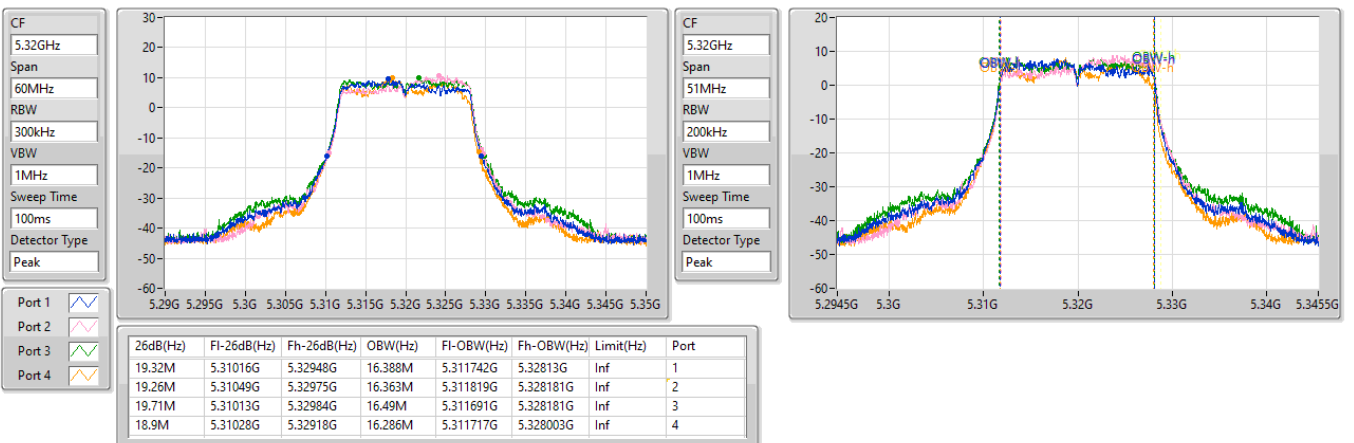


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5320MHz

10/12/2022

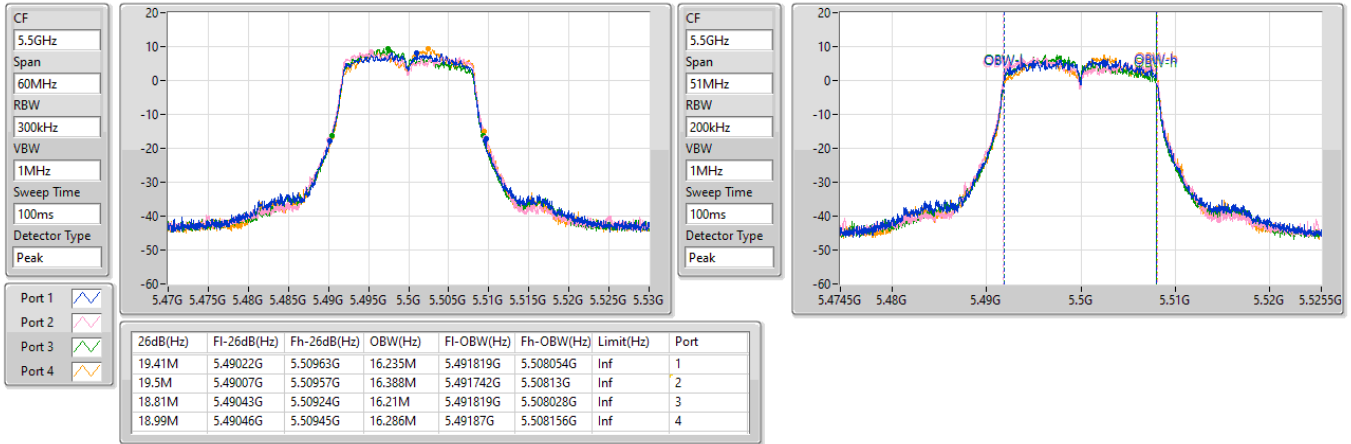


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5500MHz

10/12/2022

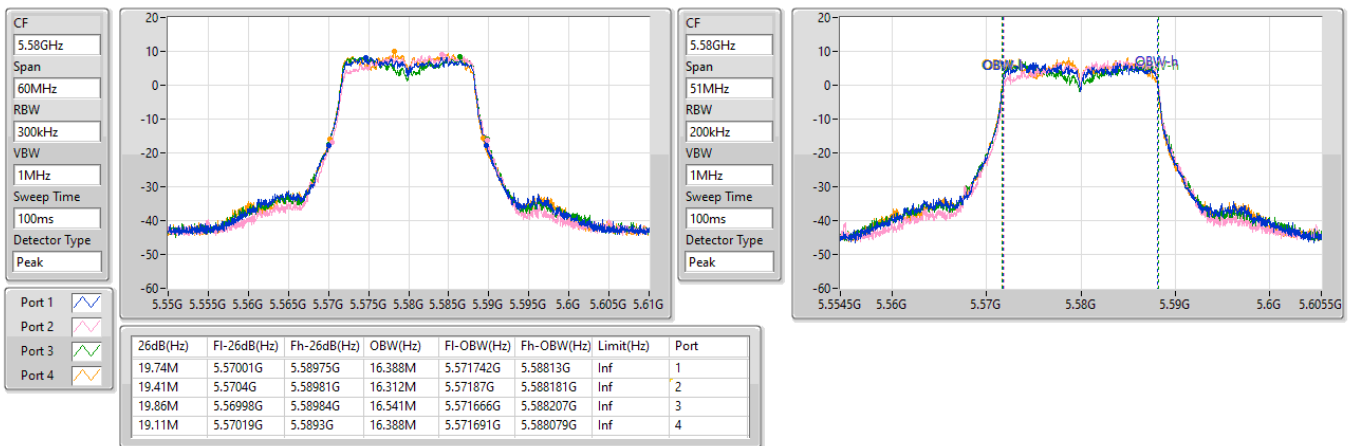


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5580MHz

10/12/2022

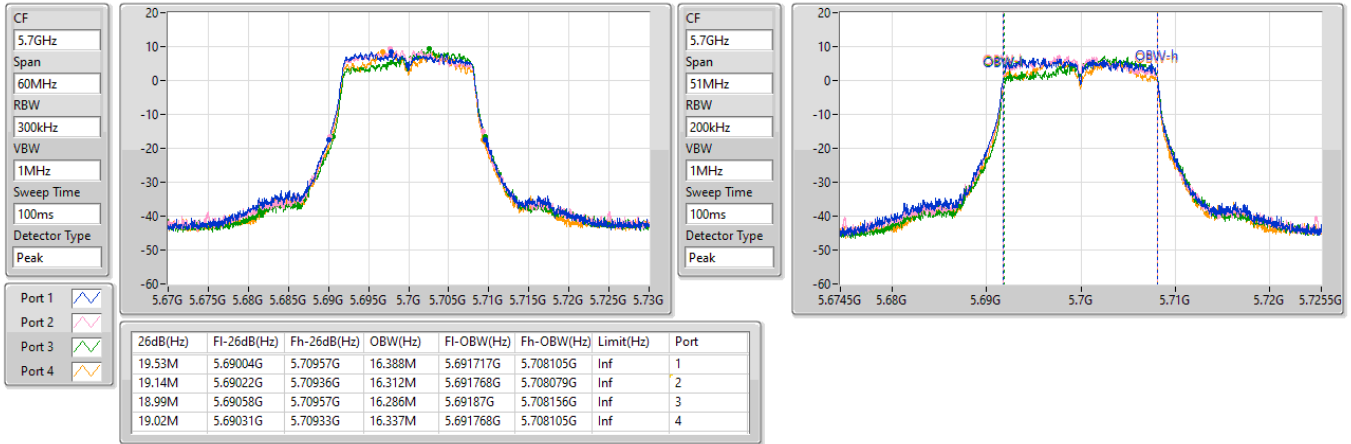


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5700MHz

10/12/2022

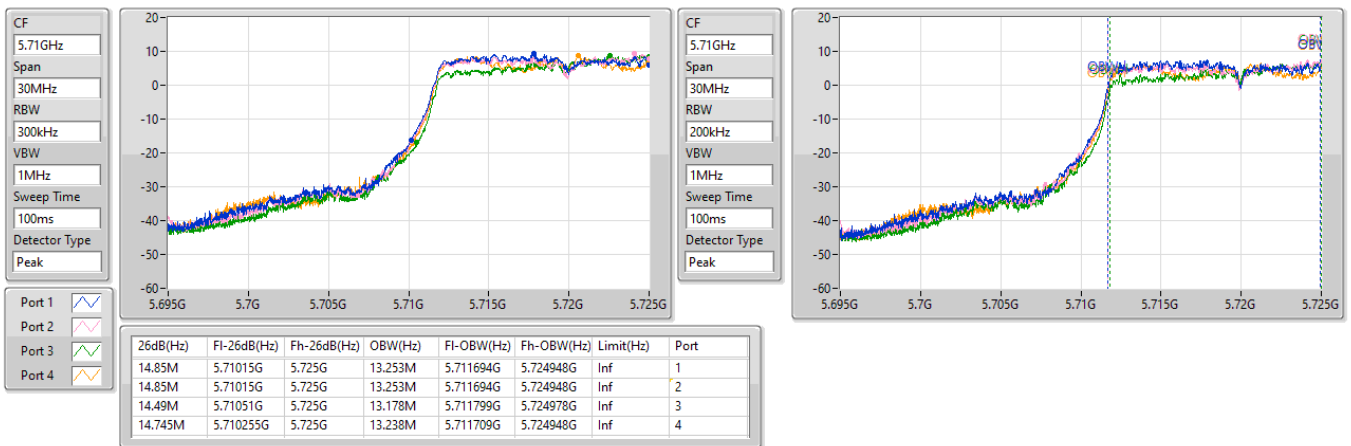


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

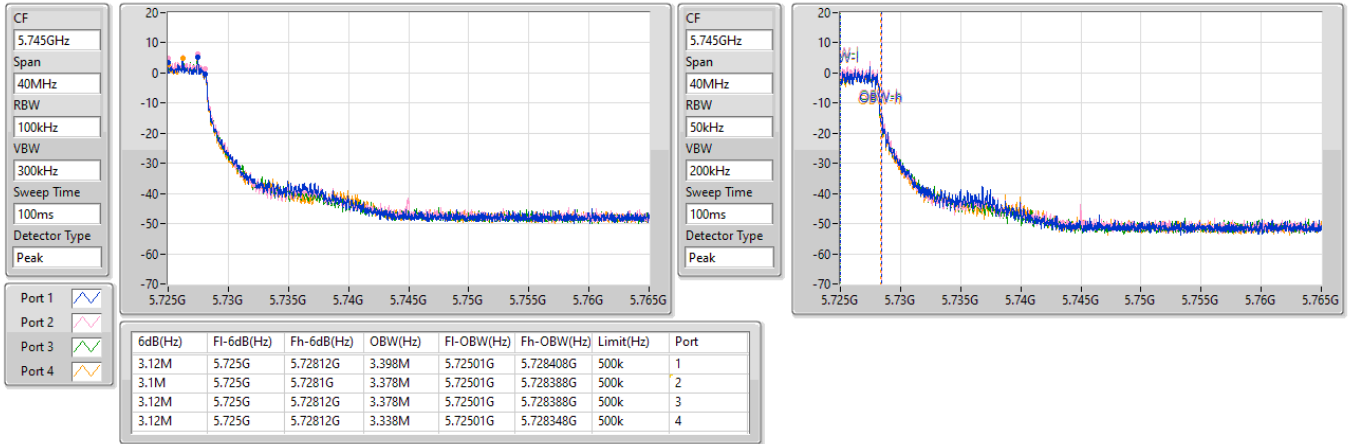
10/12/2022



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX
5720MHz Straddle 5.725-5.85GHz

EBW

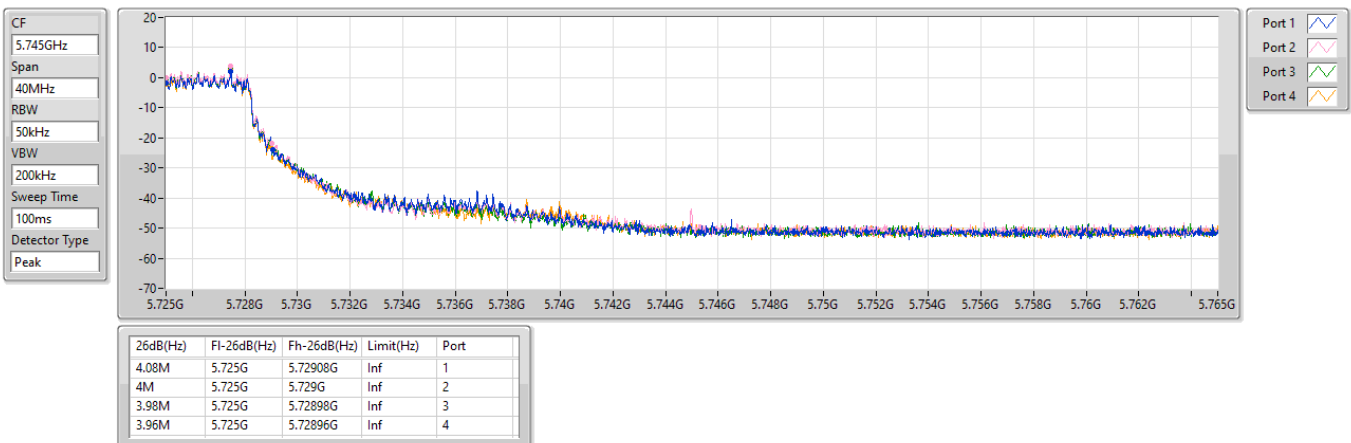
10/12/2022



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX
5720MHz Straddle 5.725-5.85GHz

EBW

10/12/2022

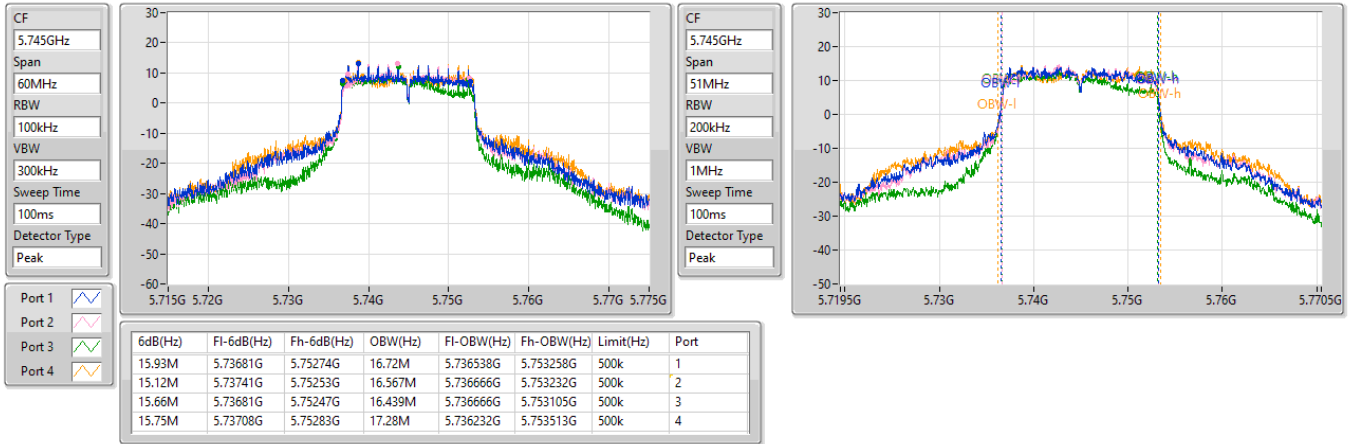


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5745MHz

10/12/2022

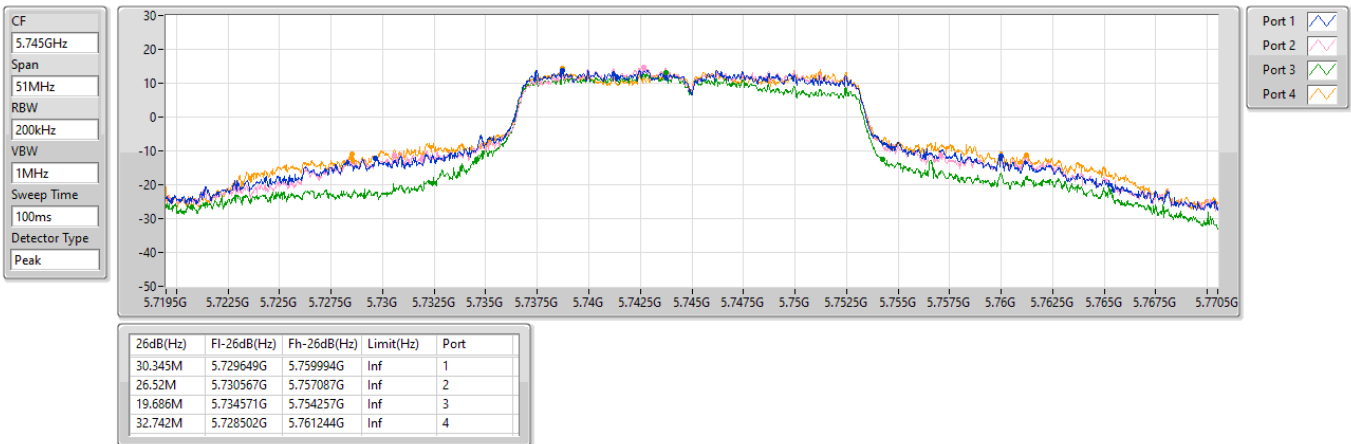


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5745MHz

10/12/2022

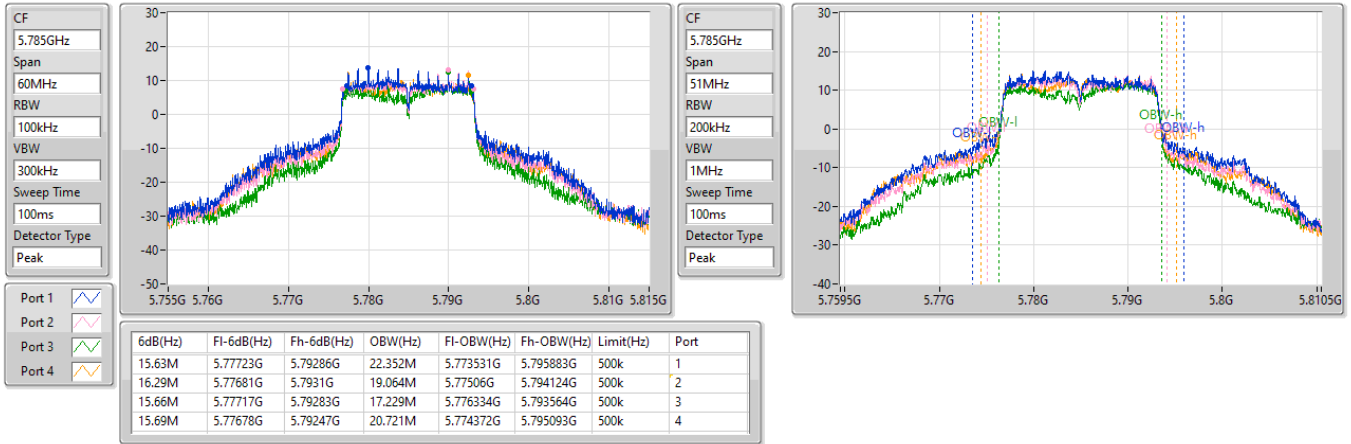


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5785MHz

10/12/2022



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5785MHz

10/12/2022

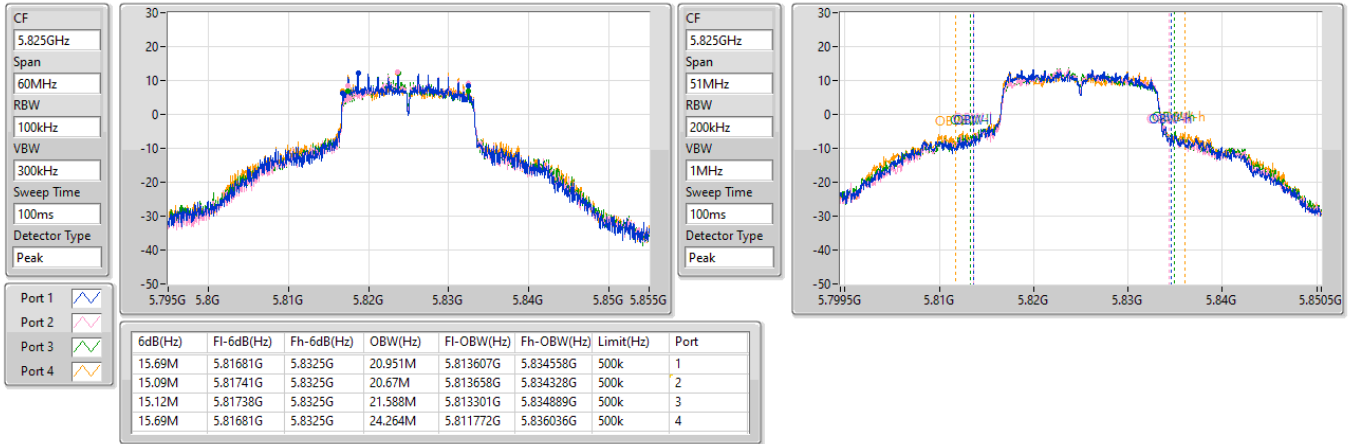


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5825MHz

10/12/2022

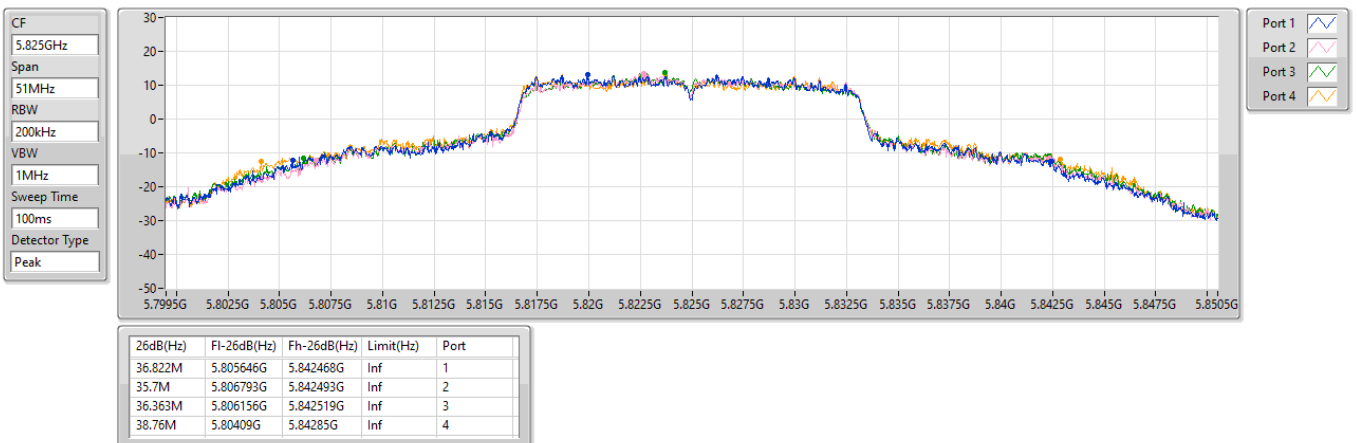


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5825MHz

10/12/2022

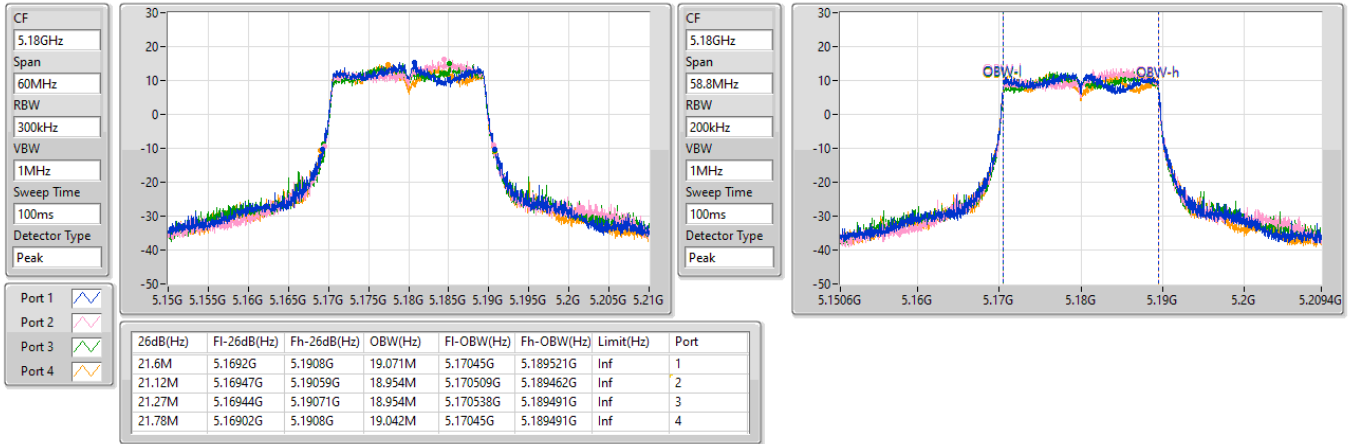


5.15-5.25GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5180MHz

10/12/2022

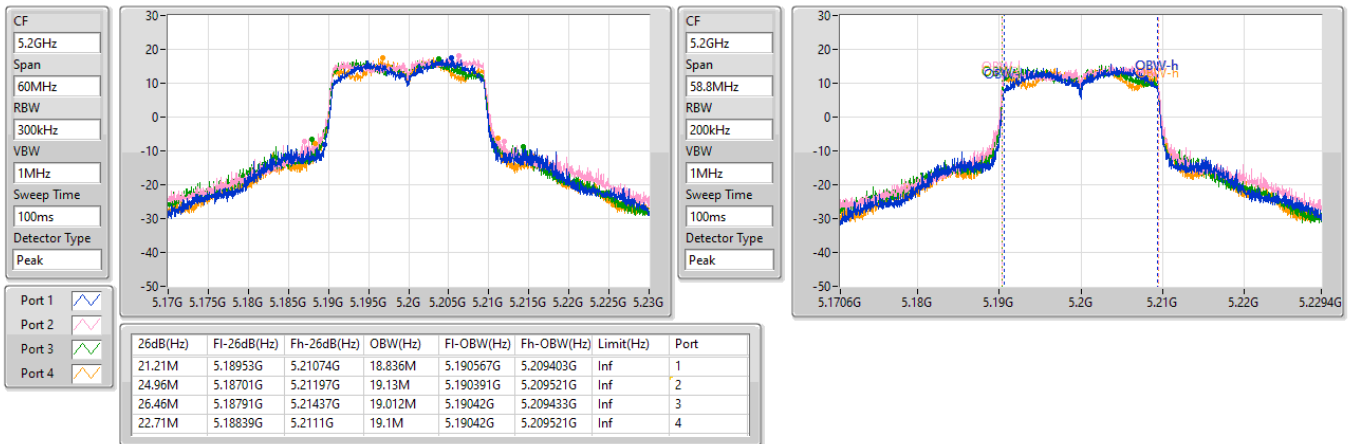


5.15-5.25GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5200MHz

10/12/2022

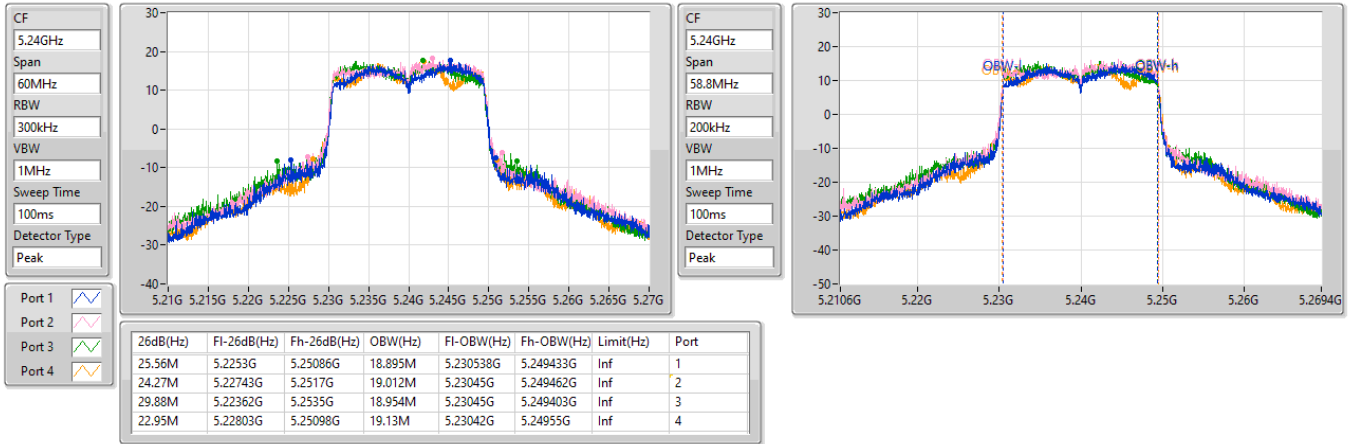


5.15-5.25GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5240MHz

10/12/2022

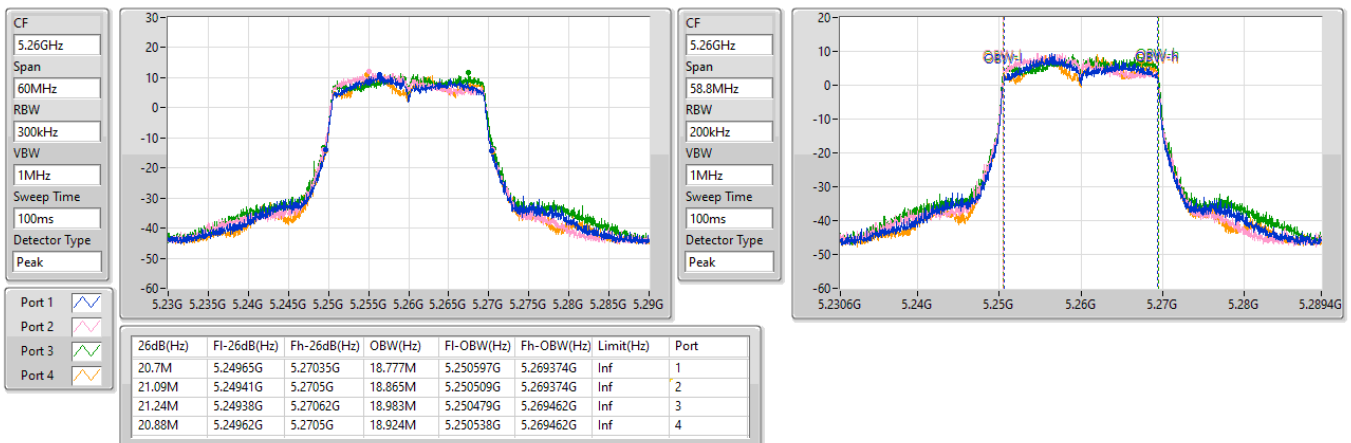


5.25-5.35GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5260MHz

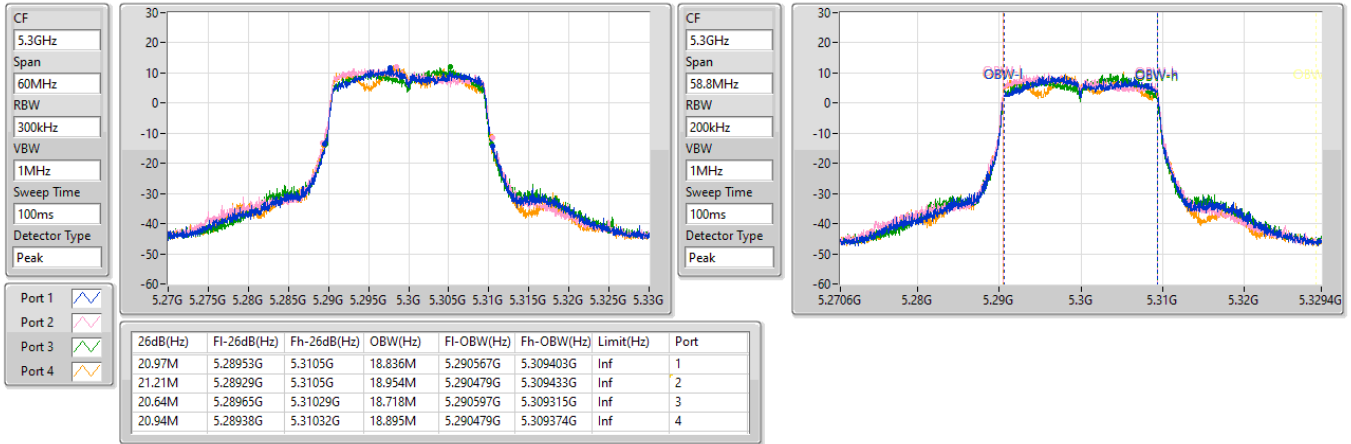
10/12/2022



5.25-5.35GHz_802.11ax HEW20_Nss1,(MCS0)_4TX
5300MHz

EBW

10/12/2022



5.25-5.35GHz_802.11ax HEW20_Nss1,(MCS0)_4TX
5320MHz

EBW

10/12/2022

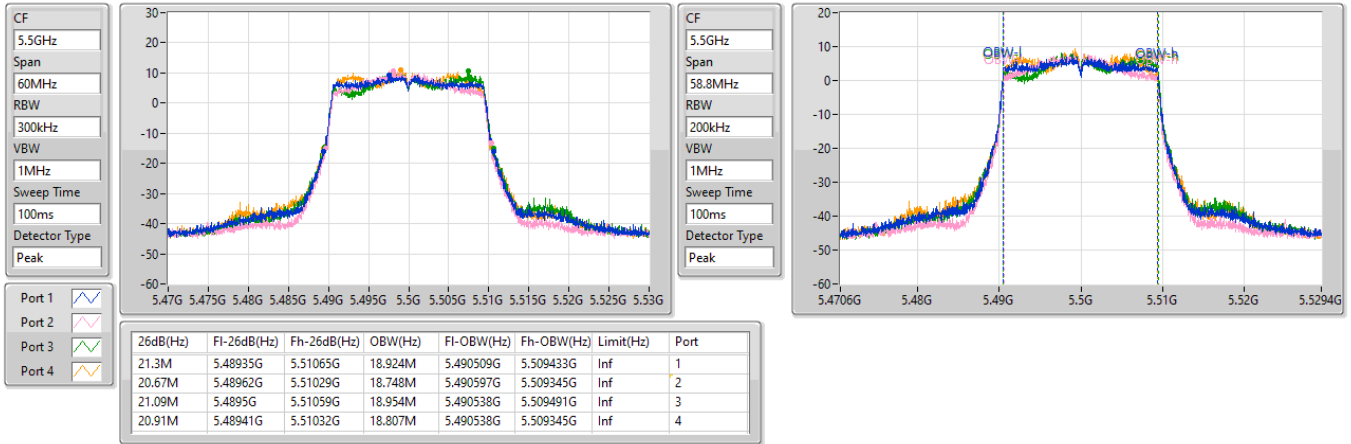


5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5500MHz

10/12/2022

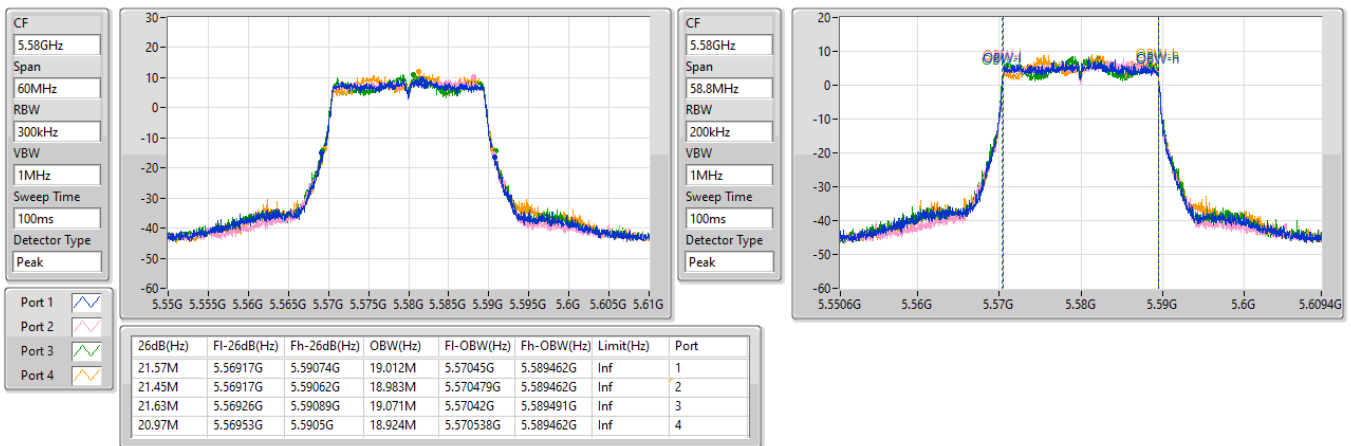


5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5580MHz

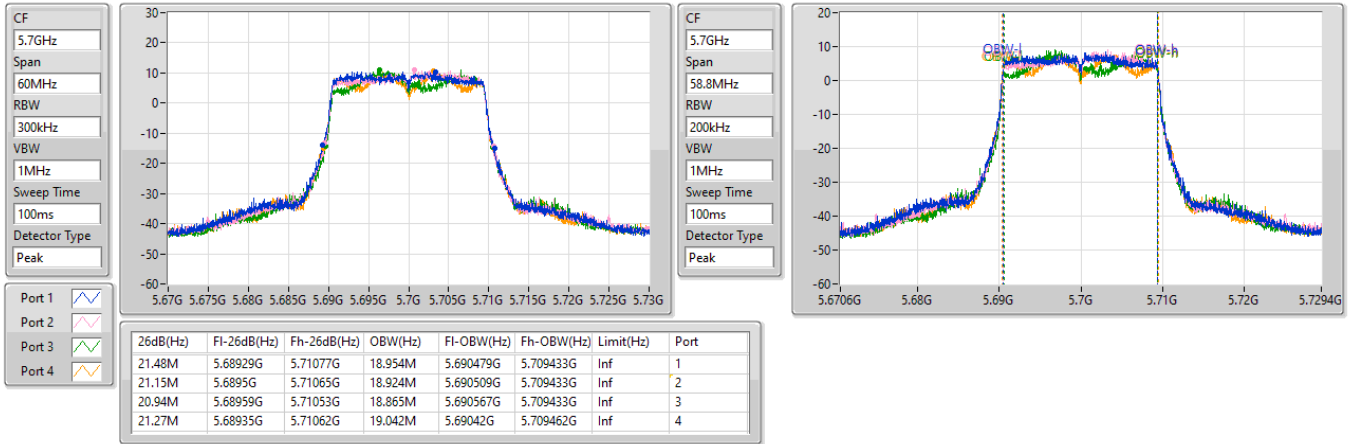
10/12/2022



5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_4TX
5700MHz

EBW

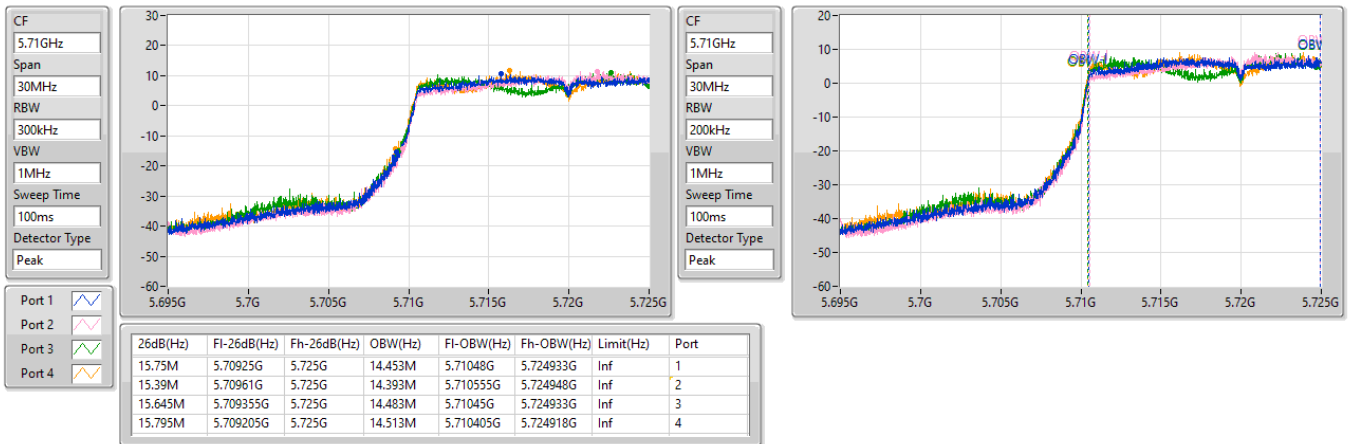
10/12/2022



5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_4TX
5720MHz Straddle 5.47-5.725GHz

EBW

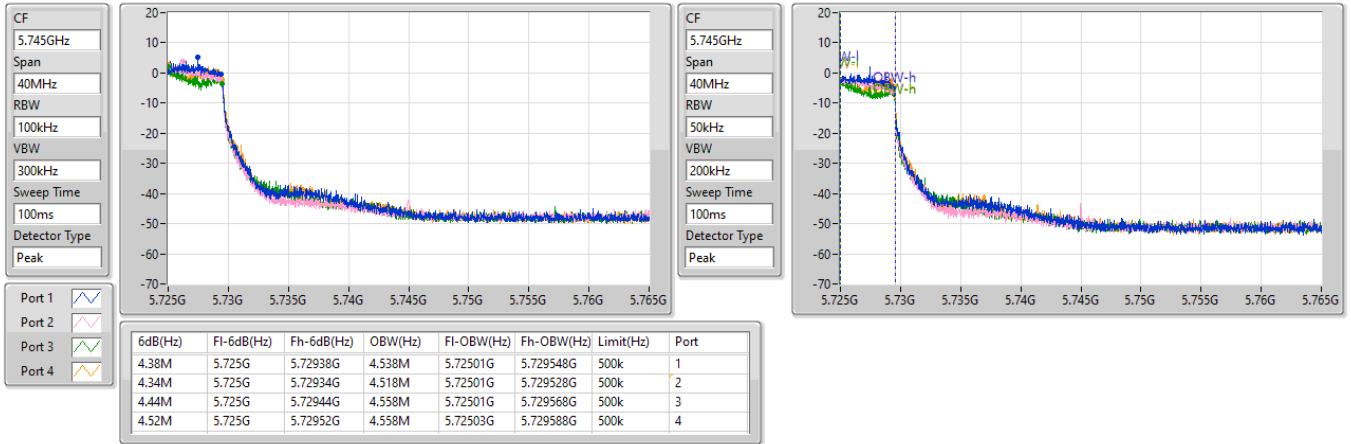
10/12/2022



5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX
5720MHz Straddle 5.725-5.85GHz

EBW

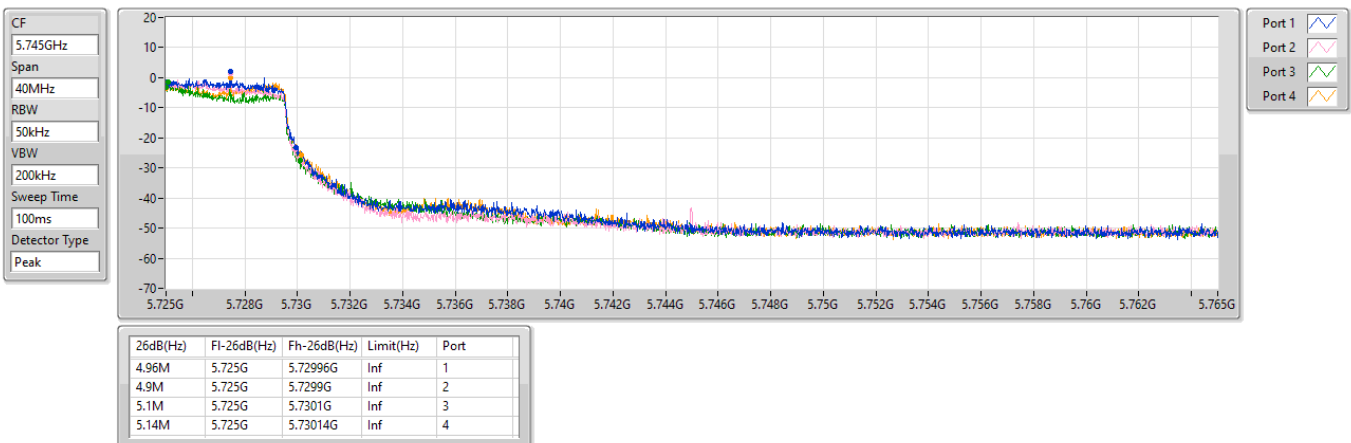
10/12/2022



5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX
5720MHz Straddle 5.725-5.85GHz

EBW

10/12/2022

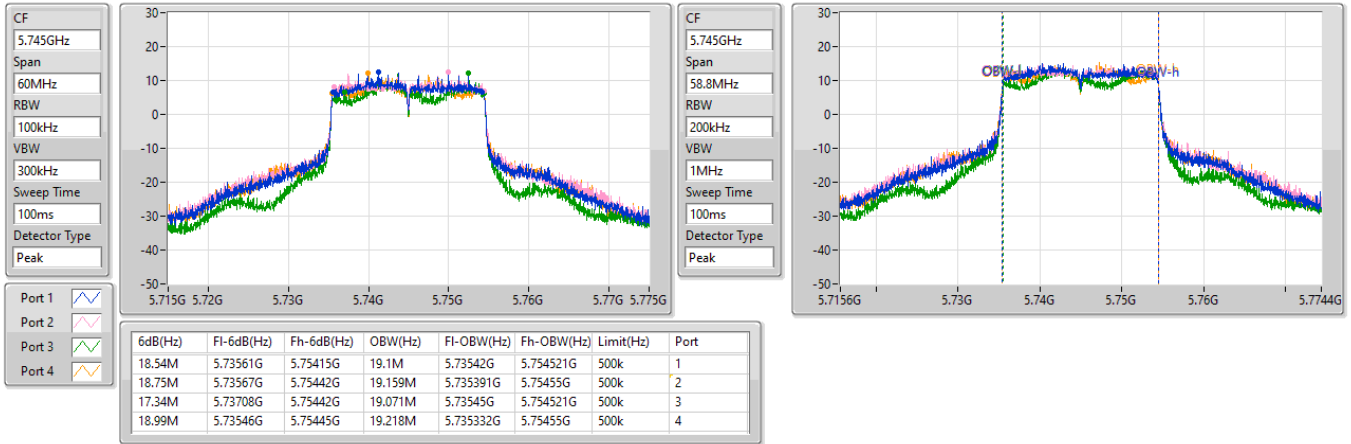


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5745MHz

10/12/2022

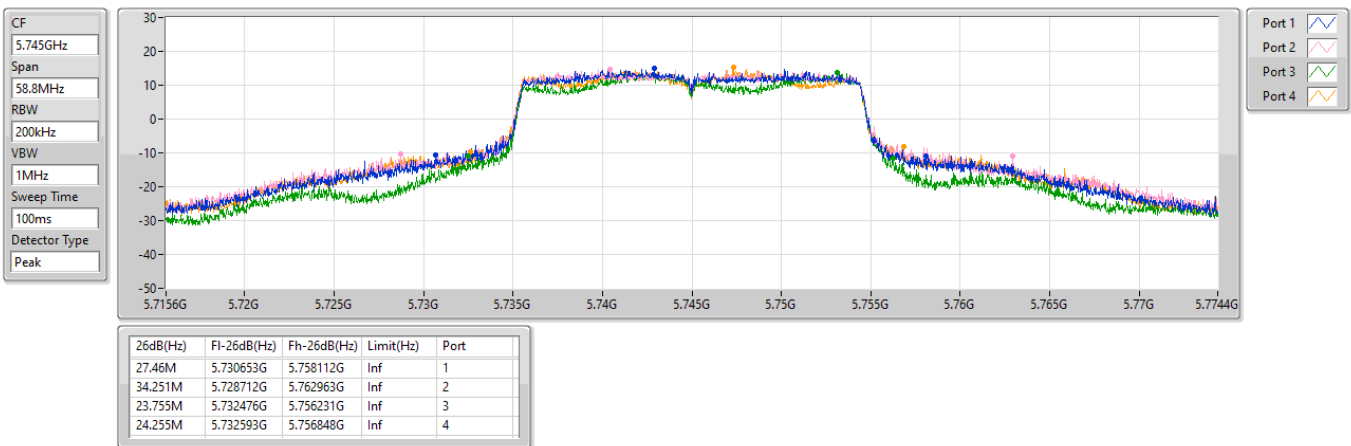


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5745MHz

10/12/2022

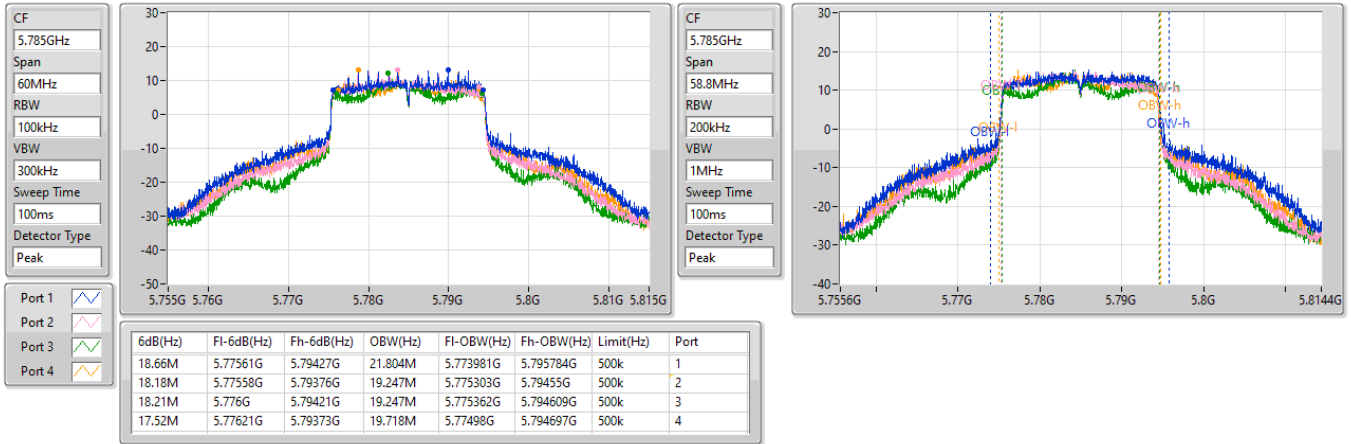


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5785MHz

10/12/2022

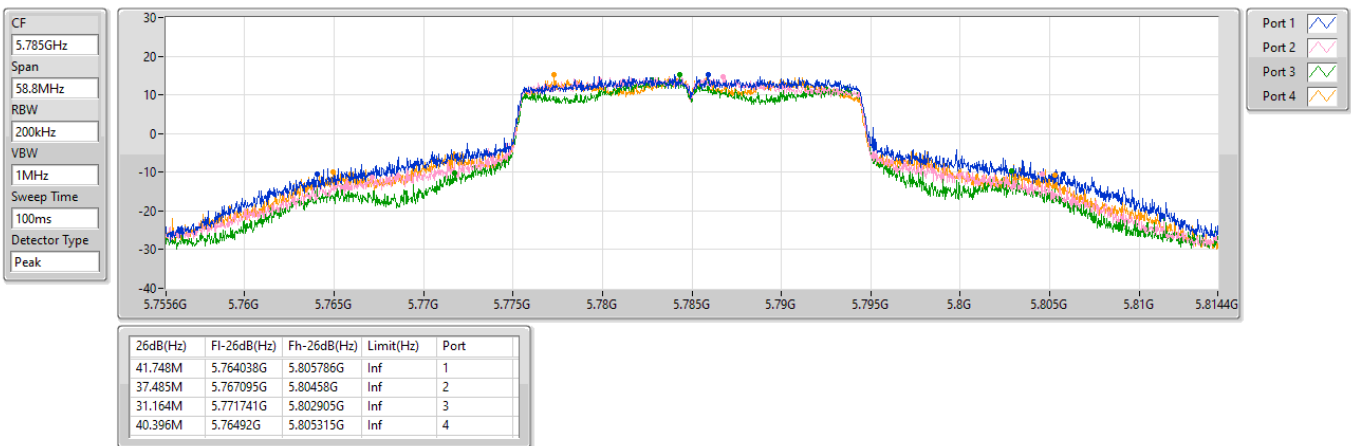


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5785MHz

10/12/2022

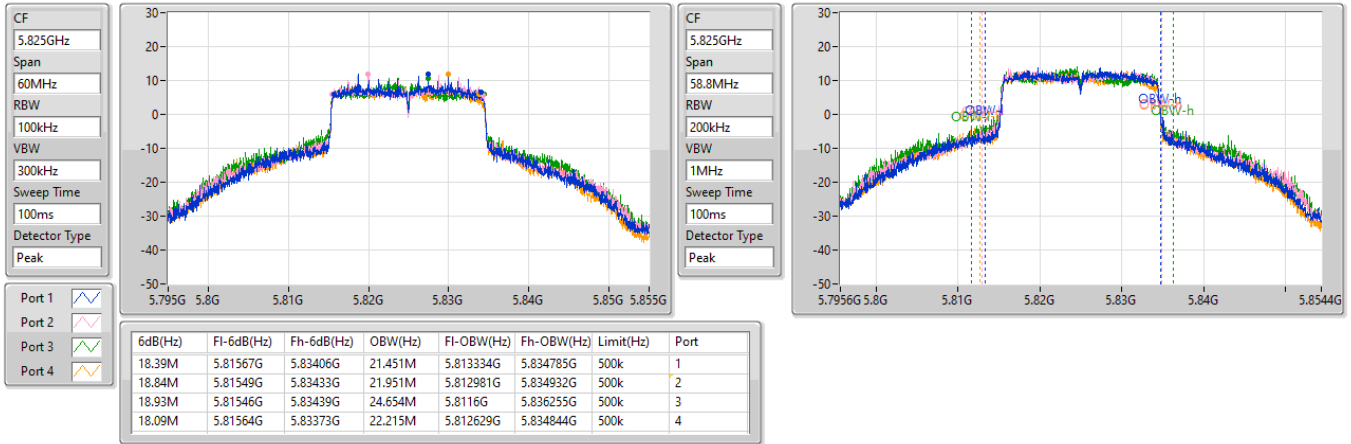


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5825MHz

10/12/2022

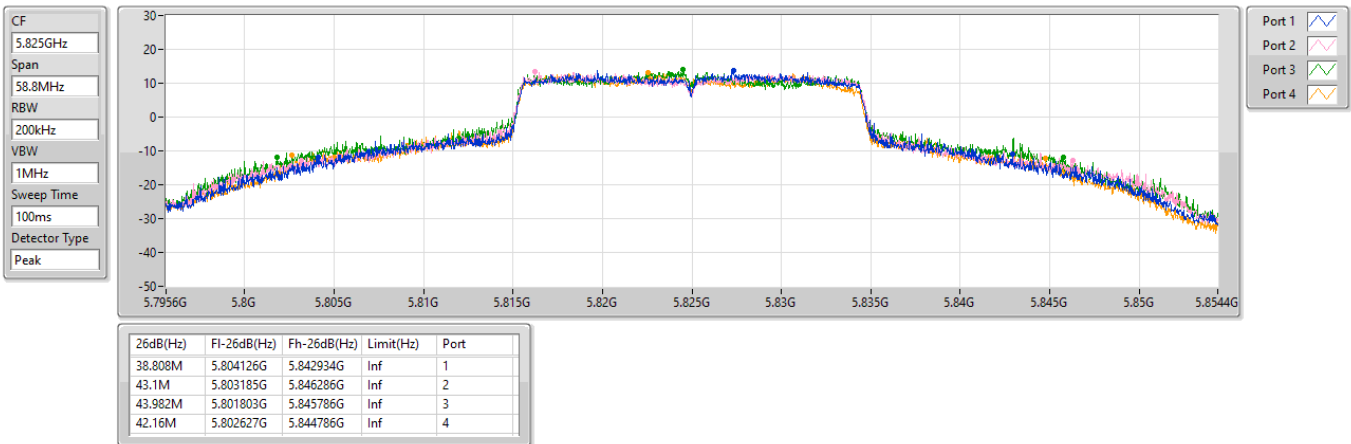


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5825MHz

10/12/2022

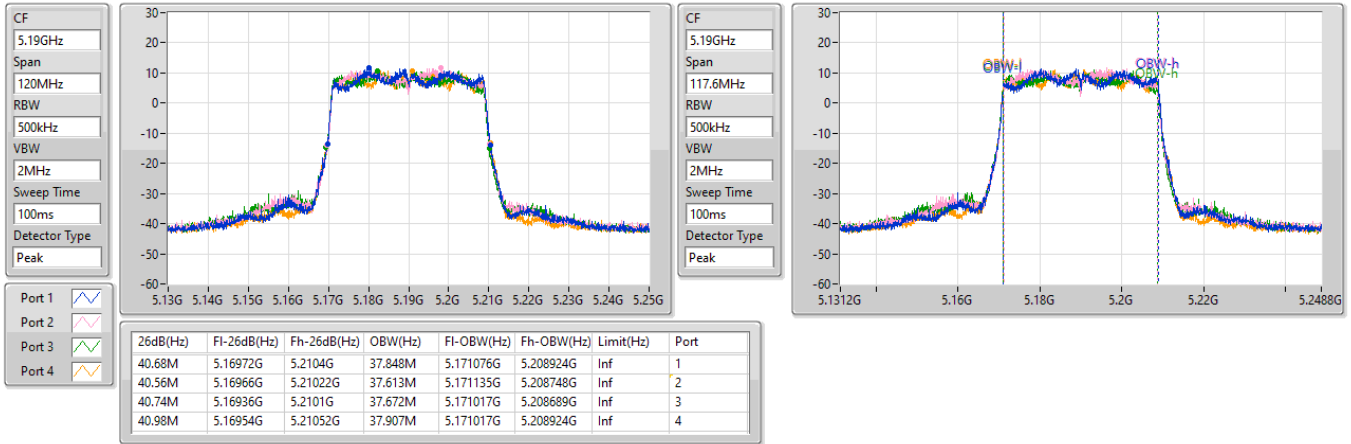


5.15-5.25GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5190MHz

10/12/2022

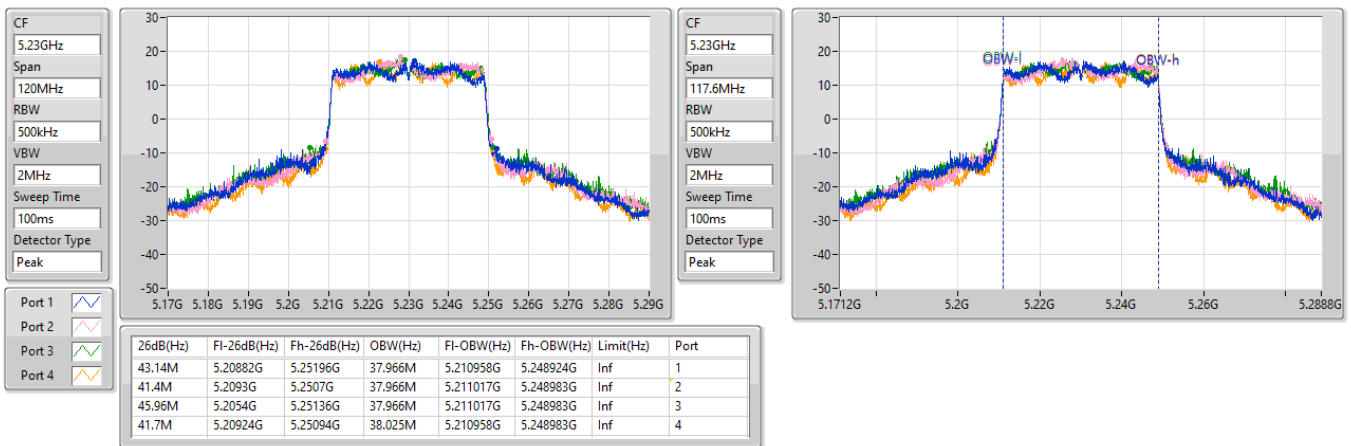


5.15-5.25GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5230MHz

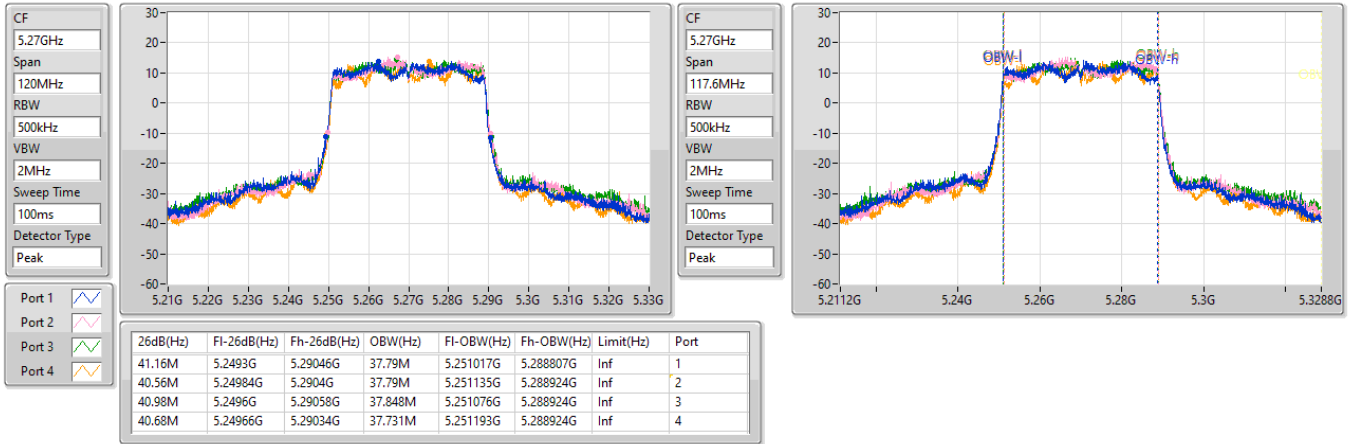
10/12/2022



5.25-5.35GHz_802.11ax HEW40_Nss1,(MCS0)_4TX
5270MHz

EBW

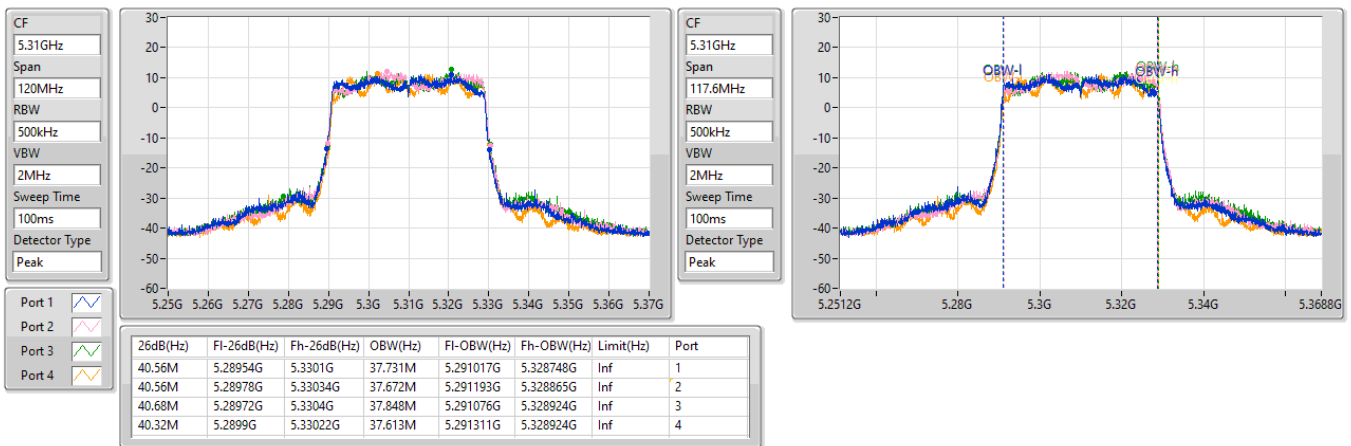
10/12/2022



5.25-5.35GHz_802.11ax HEW40_Nss1,(MCS0)_4TX
5310MHz

EBW

10/12/2022

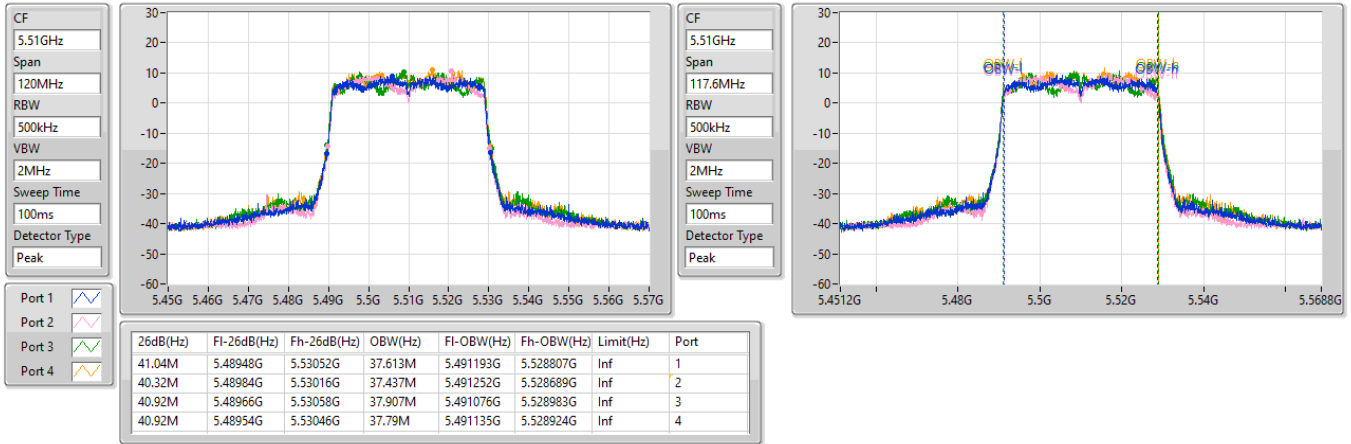


5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5510MHz

10/12/2022

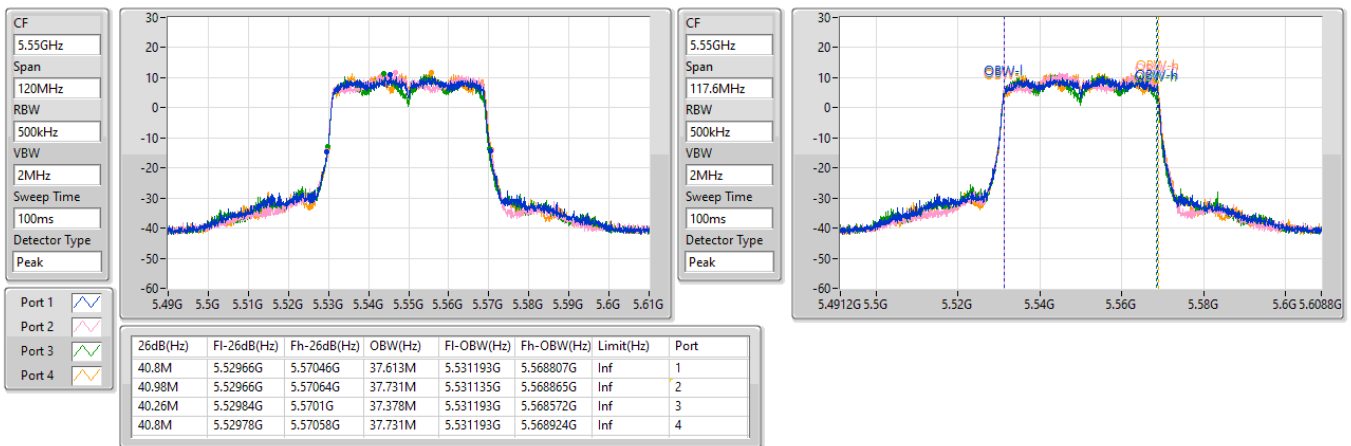


5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5550MHz

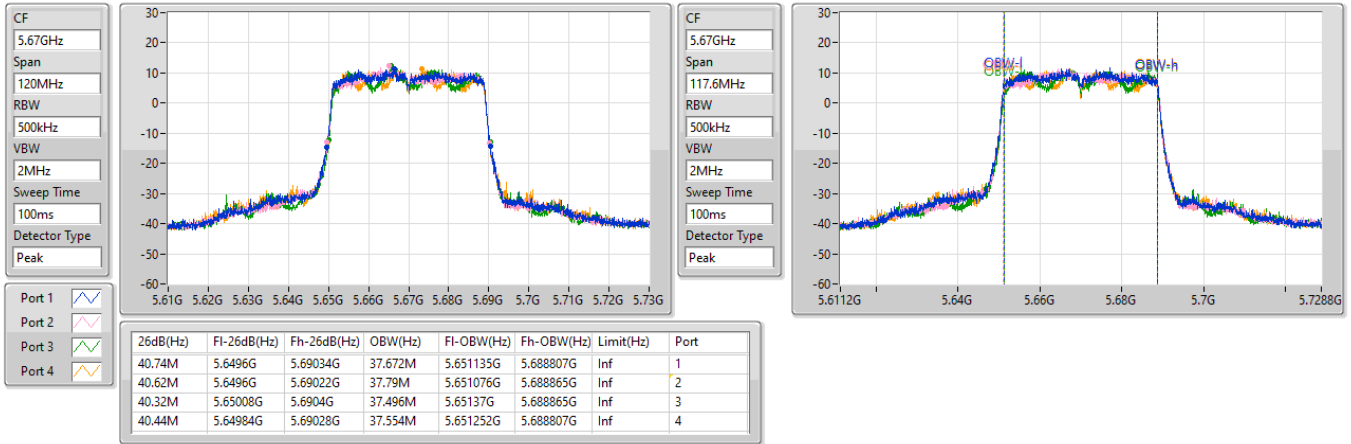
10/12/2022



5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_4TX
5670MHz

EBW

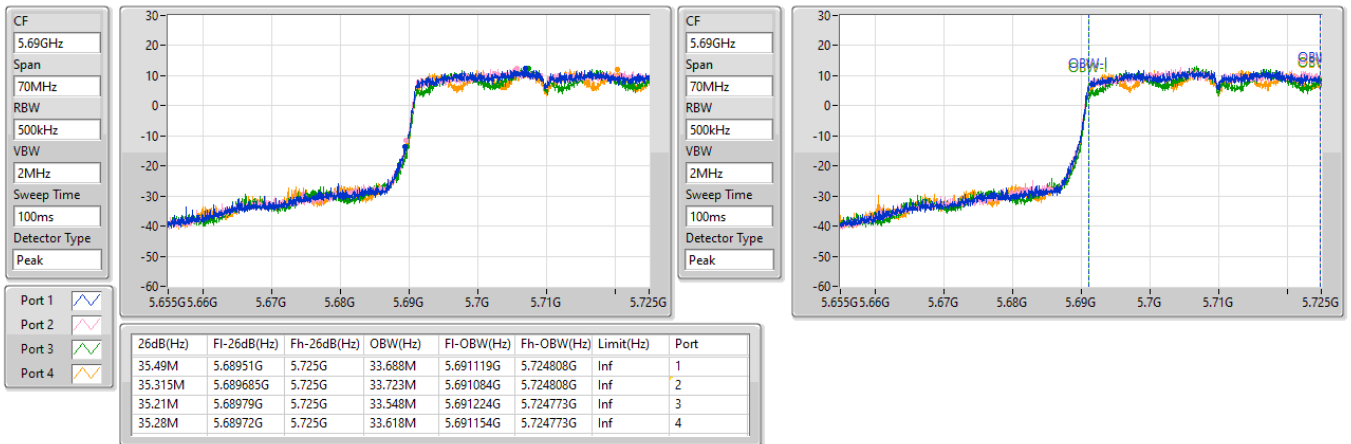
10/12/2022



5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_4TX
5710MHz Straddle 5.47-5.725GHz

EBW

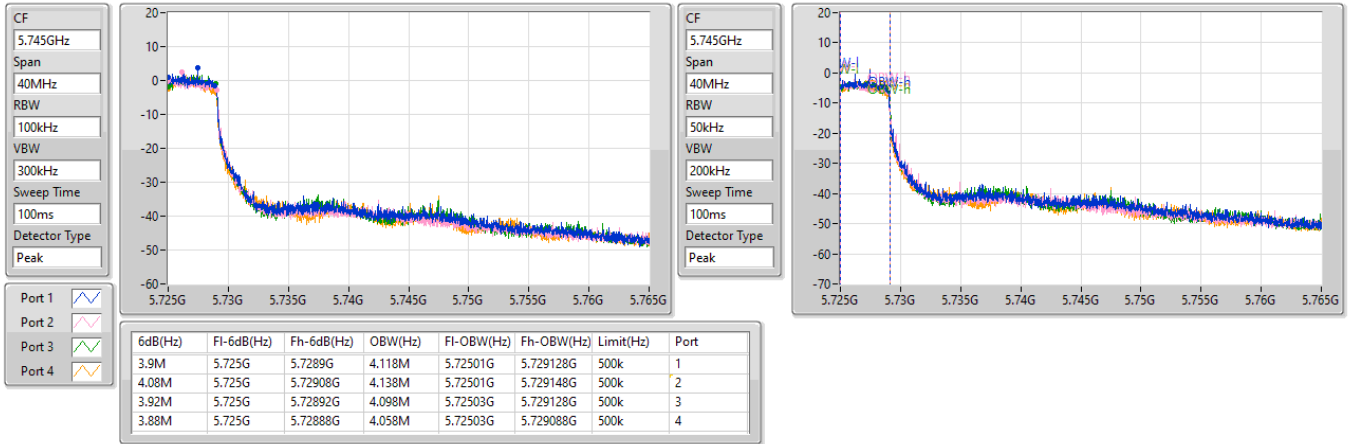
10/12/2022



5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_4TX
5710MHz Straddle 5.725-5.85GHz

EBW

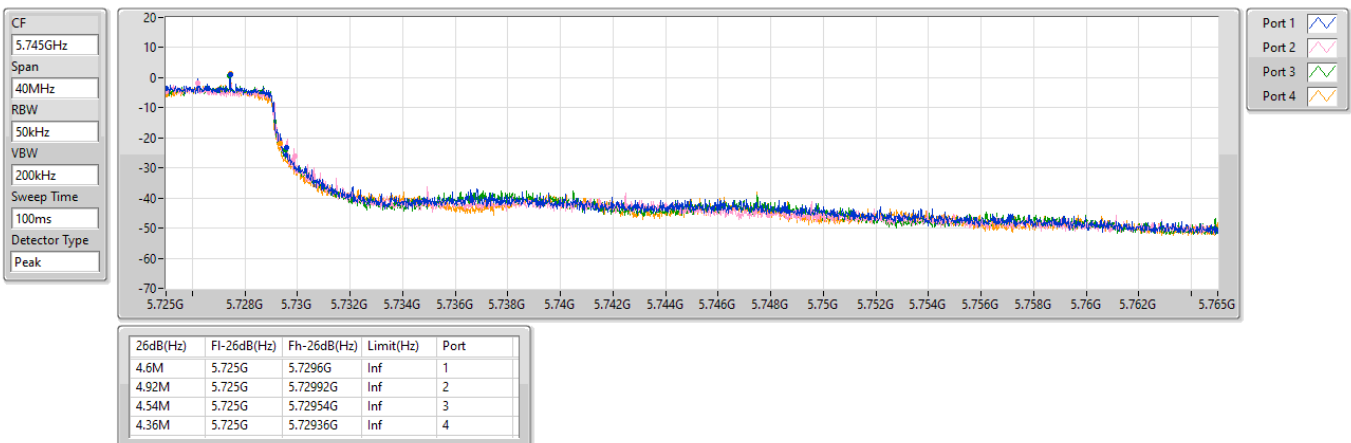
10/12/2022



5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_4TX
5710MHz Straddle 5.725-5.85GHz

EBW

10/12/2022



5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5755MHz

10/12/2022

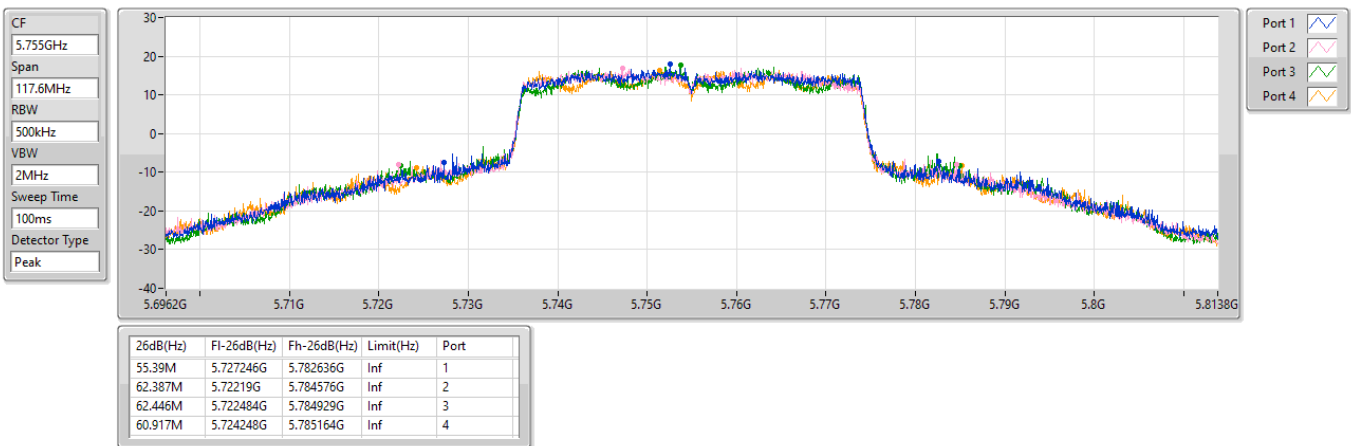


5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5755MHz

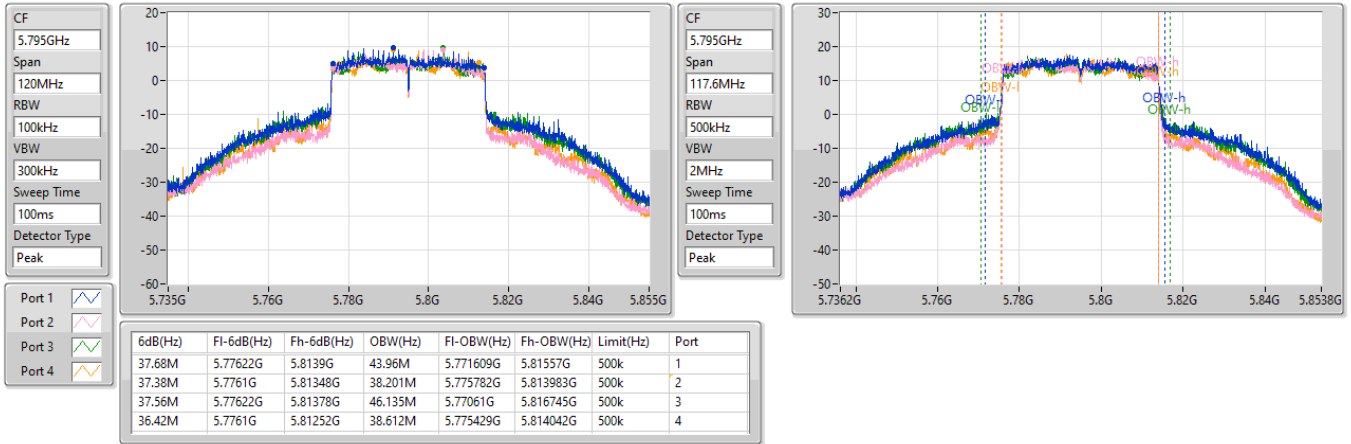
10/12/2022



5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_4TX
5795MHz

EBW

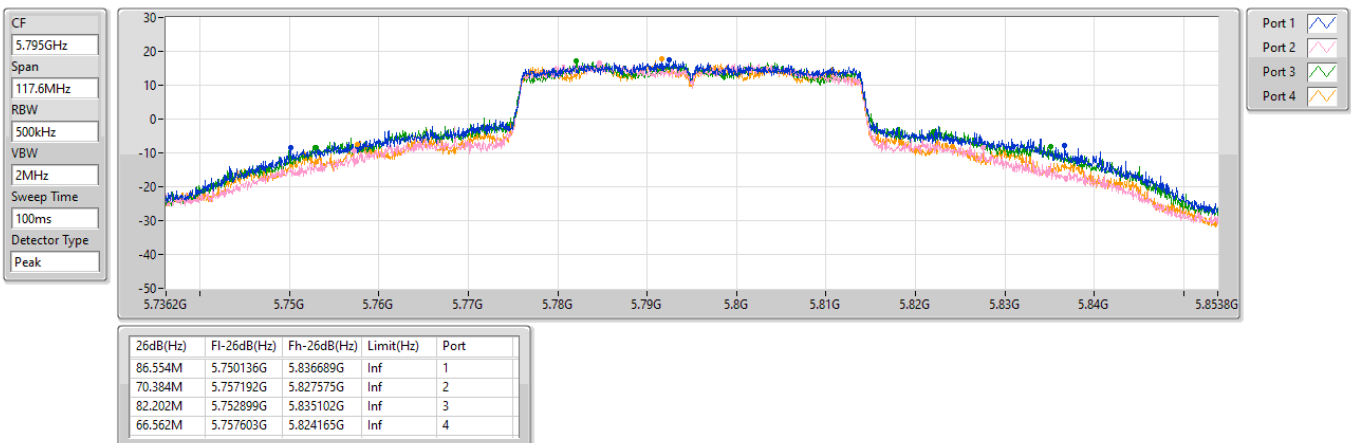
10/12/2022



5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_4TX
5795MHz

EBW

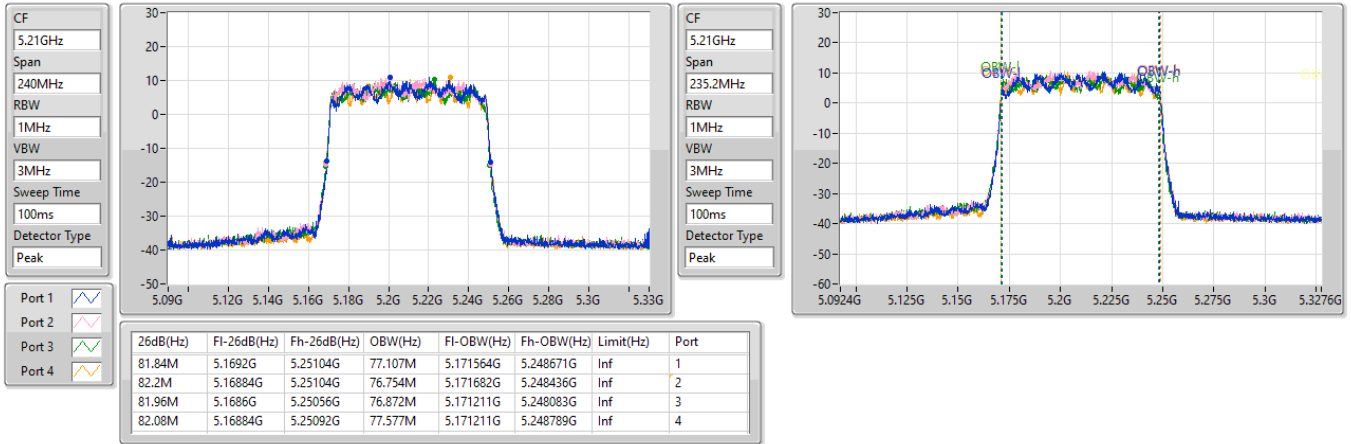
10/12/2022



5.15-5.25GHz_802.11ax HEW80_Nss1,(MCS0)_4TX
5210MHz

EBW

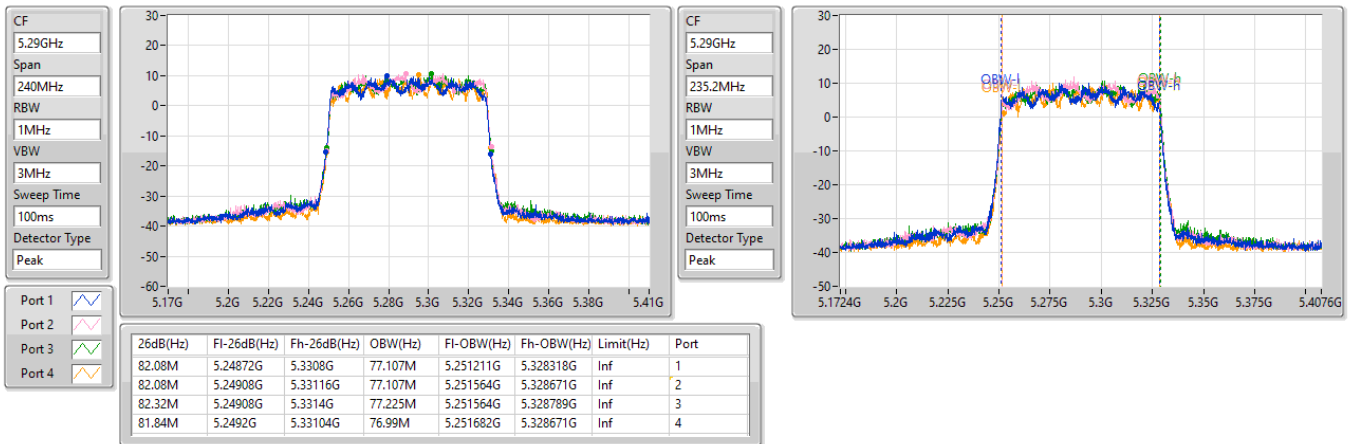
10/12/2022



5.25-5.35GHz_802.11ax HEW80_Nss1,(MCS0)_4TX
5290MHz

EBW

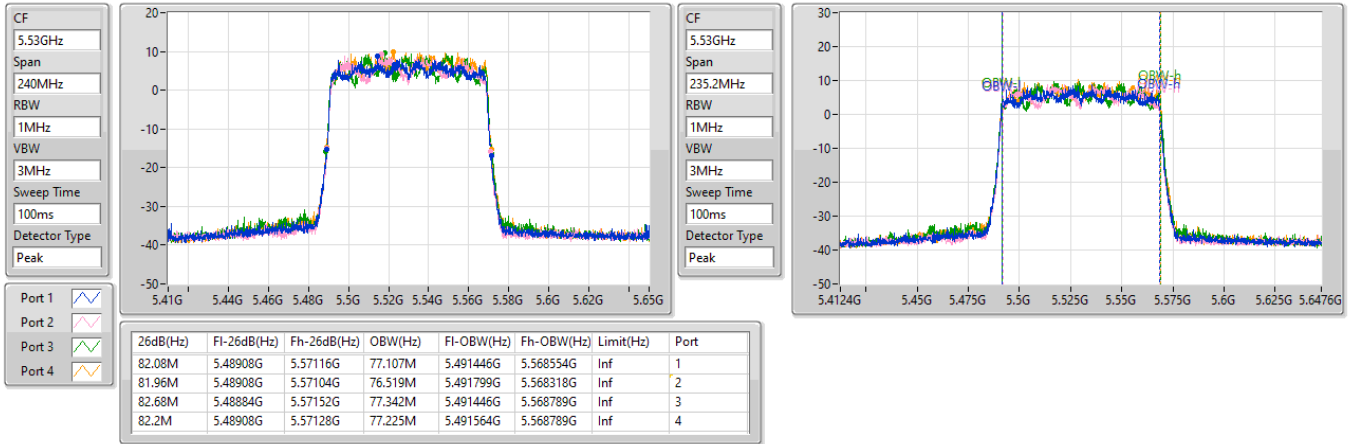
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5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_4TX
5530MHz

EBW

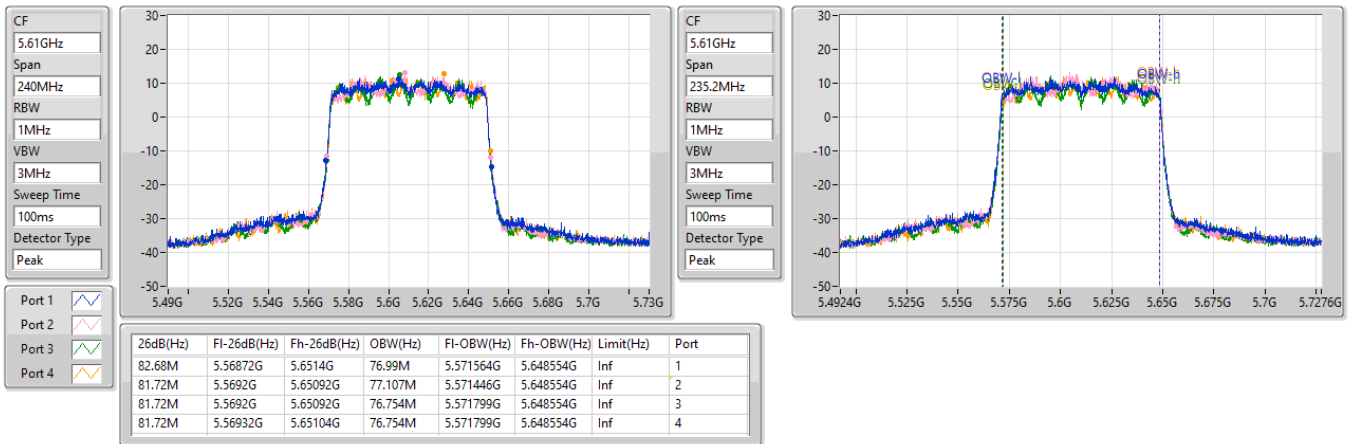
10/12/2022



5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_4TX
5610MHz

EBW

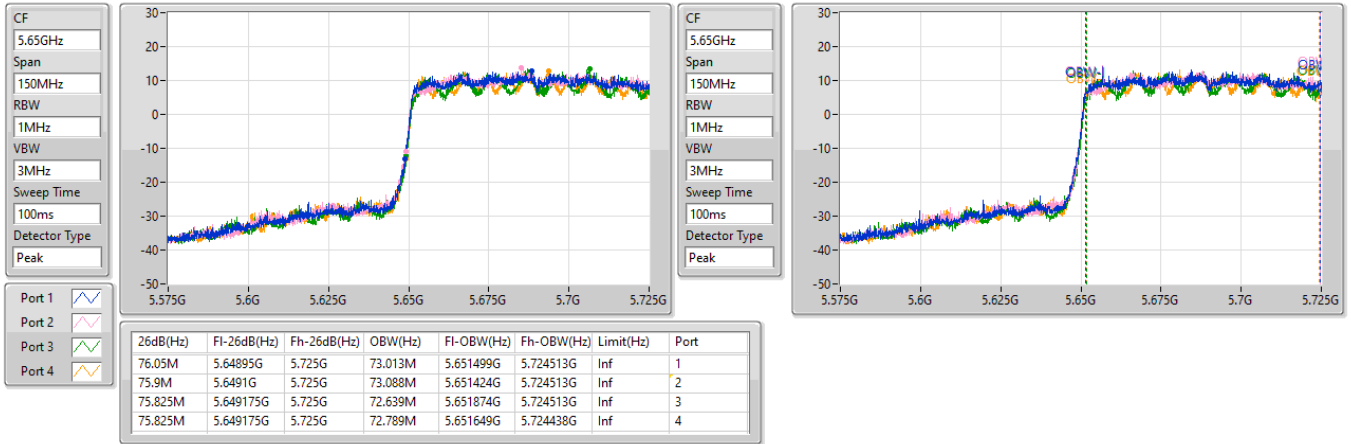
10/12/2022



5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_4TX
5690MHz Straddle 5.47-5.725GHz

EBW

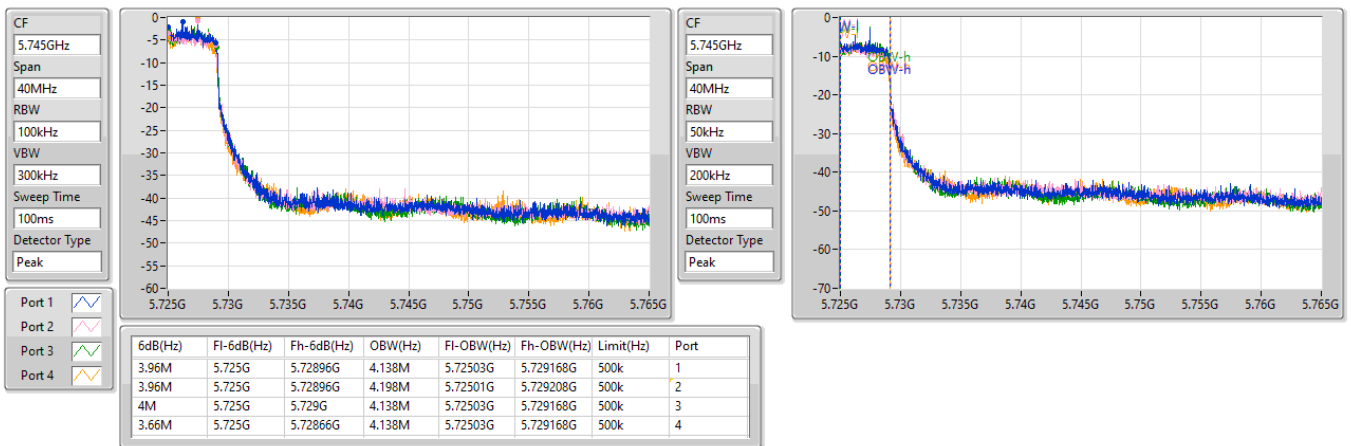
10/12/2022



5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_4TX
5690MHz Straddle 5.725-5.85GHz

EBW

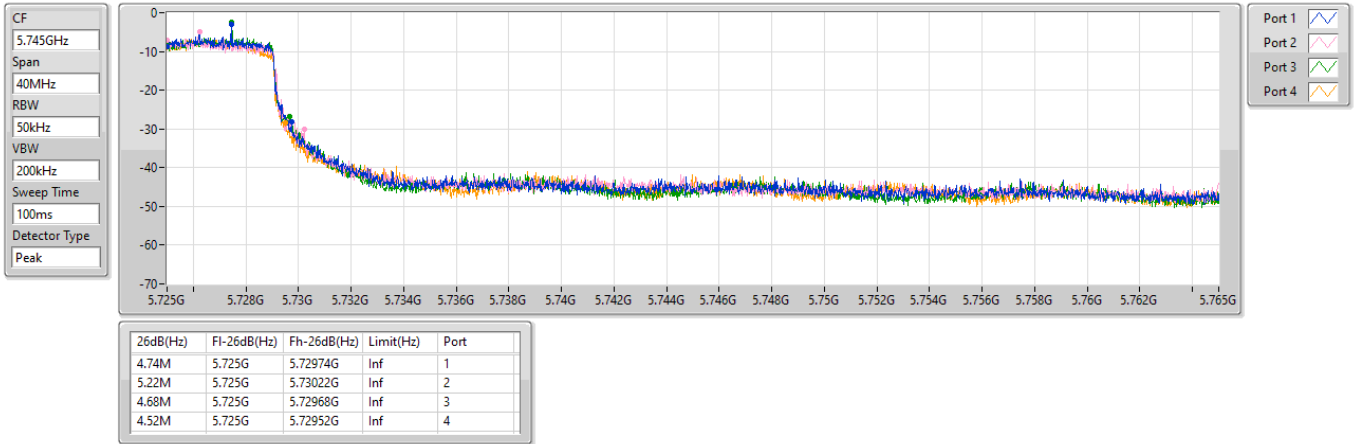
10/12/2022



5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_4TX
5690MHz Straddle 5.725-5.85GHz

EBW

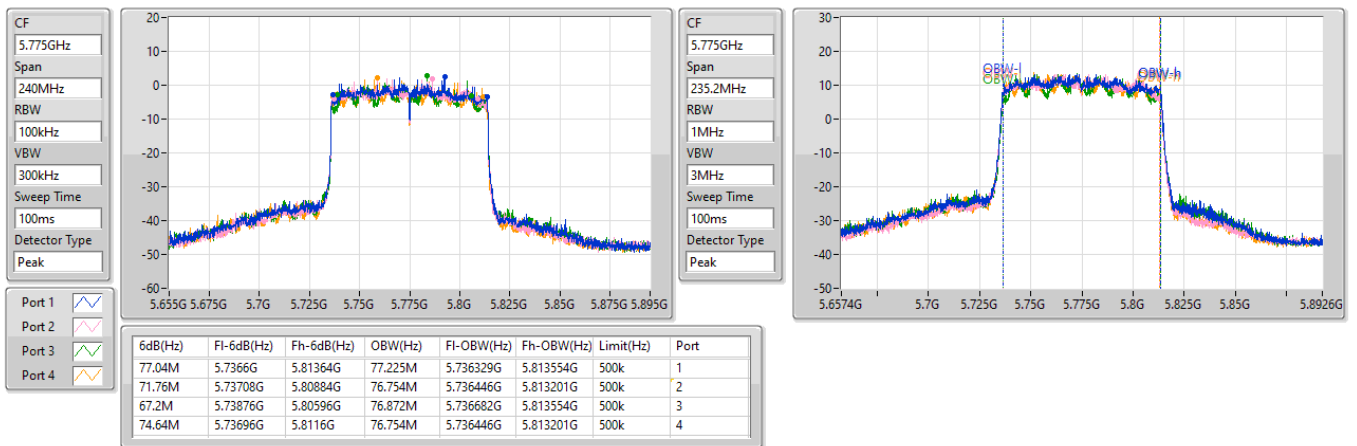
10/12/2022

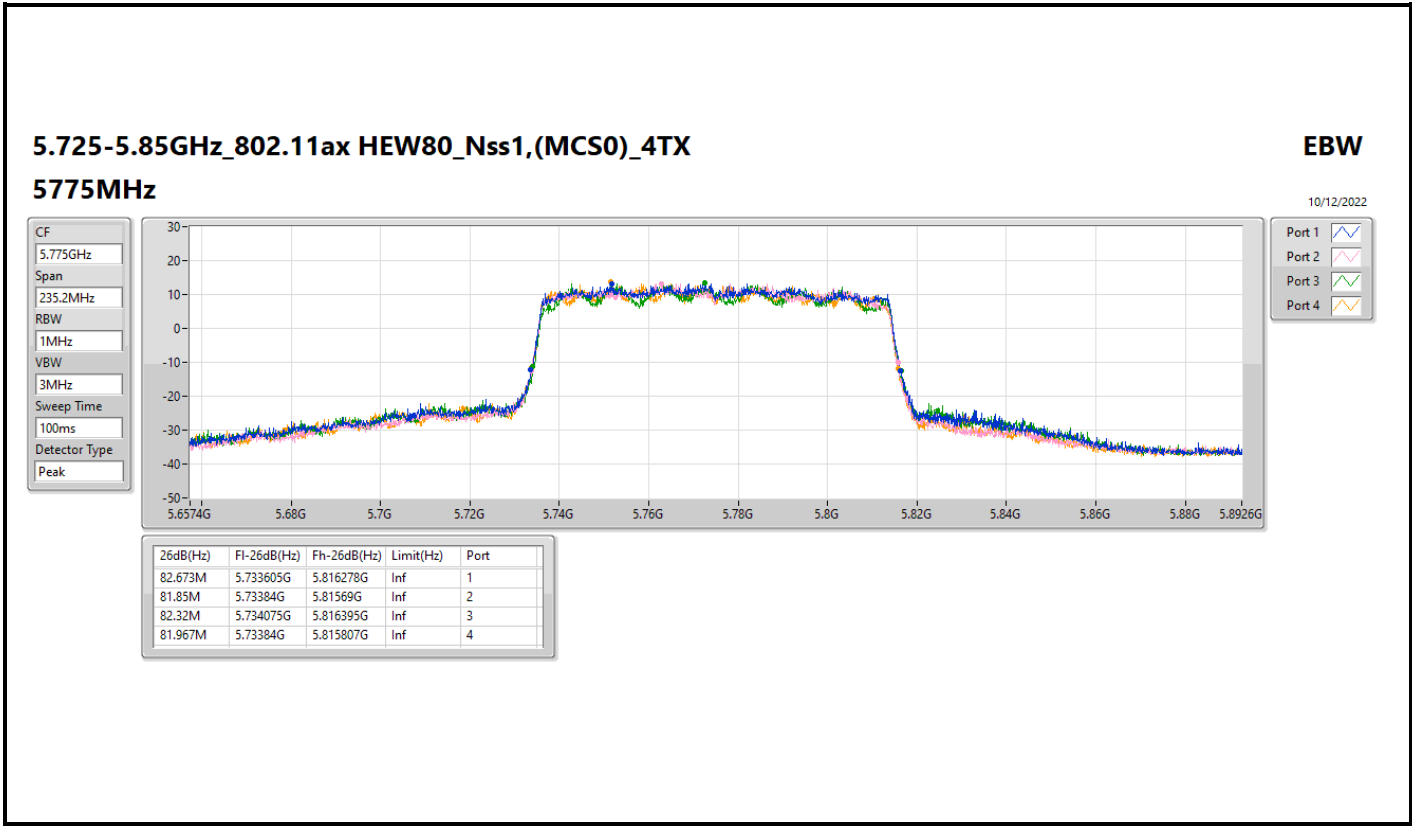


5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_4TX
5775MHz

EBW

10/12/2022





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ax HEW80+80_Nss1,(MCS0)_2TX	81.96M	77.107M	77M1D1D	81.48M	76.754M
5.25-5.35GHz	-	-	-	-	-
802.11ax HEW80+80_Nss1,(MCS0)_2TX	81.96M	77.107M	77M1D1D	81.72M	76.99M
5.47-5.725GHz	-	-	-	-	-
802.11ax HEW80+80_Nss2,(MCS0)_4TX	160.44M	143.518M	144MD1D	83.16M	77.342M

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

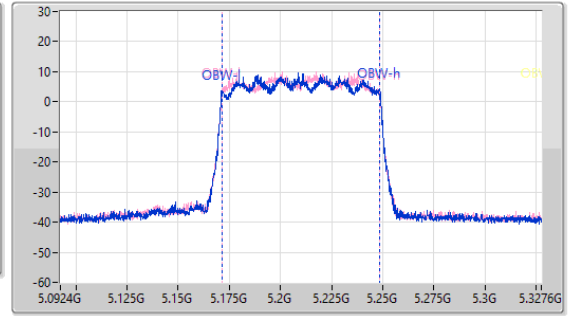
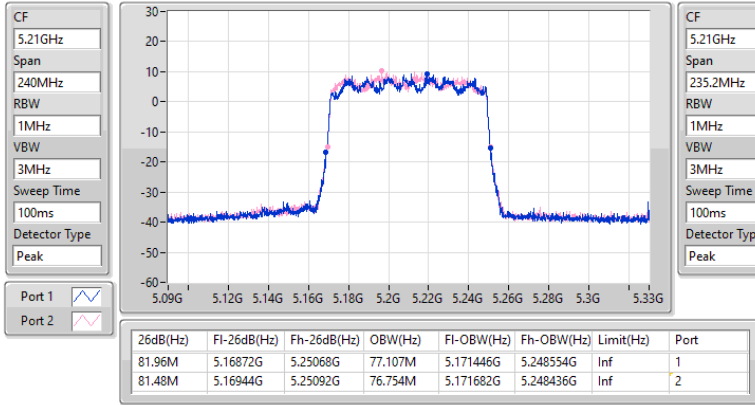
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ax HEW80+80_Nss1,(MCS0)_2TX #5210MHz,5290MHz	-	-	-	-	-	-	-	-	-	-
802.11ax HEW80+80_Nss1,(MCS0)_2TX 5210MHz,#5290MHz	Pass	Inf	81.96M	77.107M	81.48M	76.754M				
802.11ax HEW80+80_Nss2,(MCS0)_4TX #5530MHz,#5610MHz	-	-	-	-	-	-	-	-	-	-
802.11ax HEW80+80_Nss2,(MCS0)_4TX #5530MHz,#5610MHz	Pass	Inf	83.16M	77.342M	160.08M	131.764M	153.12M	86.863M	160.44M	143.518M

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

5.15-5.25GHz_802.11ax HEW80+80_Nss1,(MCS0)_2TX
#5210MHz,5290MHz

EBW

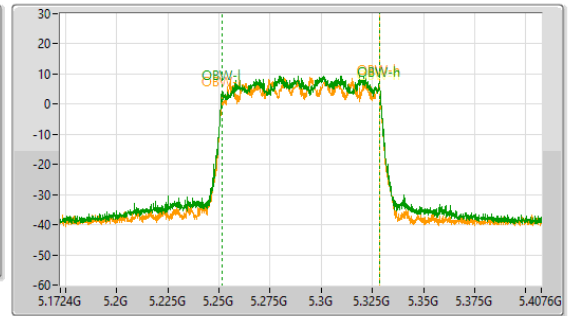
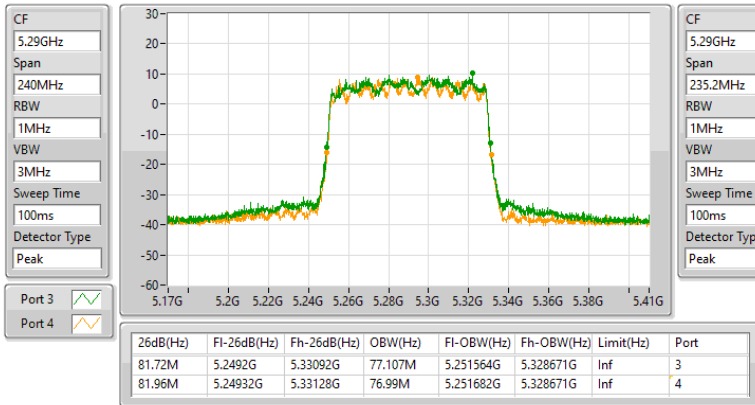
10/12/2022



5.25-5.35GHz_802.11ax HEW80+80_Nss1,(MCS0)_2TX
5210MHz,#5290MHz

EBW

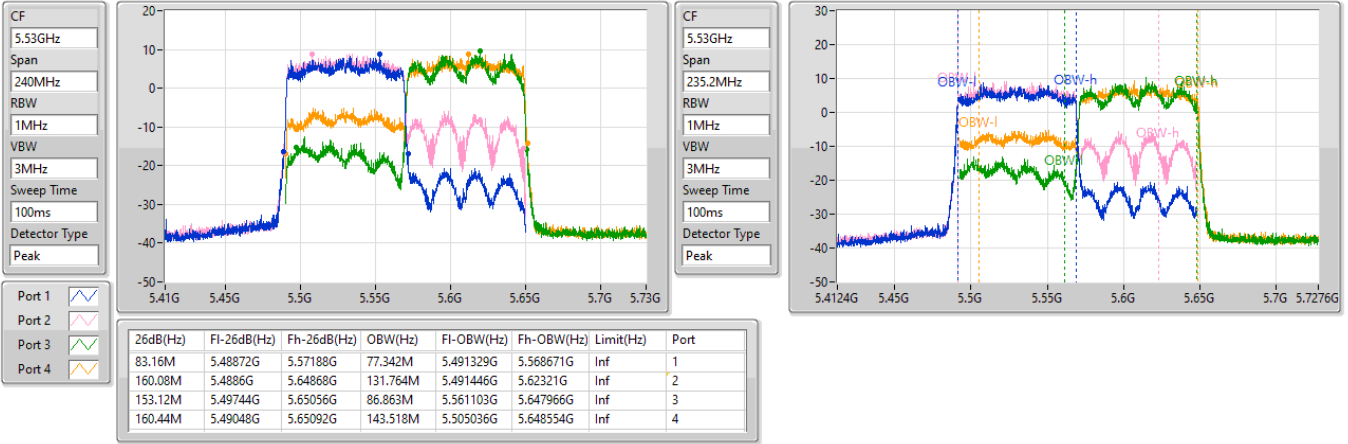
10/12/2022



5.47-5.725GHz_802.11ax HEW80+80_Nss2,(MCS0)_4TX
 #5530MHz,#5610MHz

EBW

10/12/2022





Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	29.93	0.98401
802.11ax HEW20_Nss1,(MCS0)_4TX	29.98	0.99541
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	29.98	0.99541
802.11ax HEW40_Nss1,(MCS0)_4TX	29.88	0.97275
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	29.88	0.97275
802.11ax HEW80_Nss1,(MCS0)_4TX	22.07	0.16106
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	22.07	0.16106
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	23.78	0.23878
802.11ax HEW20_Nss1,(MCS0)_4TX	23.94	0.24774
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	23.94	0.24774
802.11ax HEW40_Nss1,(MCS0)_4TX	23.84	0.24210
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	23.84	0.24210
802.11ax HEW80_Nss1,(MCS0)_4TX	21.91	0.15524
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	21.91	0.15524
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	23.30	0.21380
802.11ax HEW20_Nss1,(MCS0)_4TX	23.44	0.22080
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	23.02	0.20045
802.11ax HEW40_Nss1,(MCS0)_4TX	23.77	0.23823
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	22.99	0.19907
802.11ax HEW80_Nss1,(MCS0)_4TX	23.89	0.24491
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	23.04	0.20137
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	29.88	0.97275
802.11ax HEW20_Nss1,(MCS0)_4TX	29.96	0.99083
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	28.91	0.77804
802.11ax HEW40_Nss1,(MCS0)_4TX	29.96	0.99083
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	28.72	0.74473
802.11ax HEW80_Nss1,(MCS0)_4TX	26.38	0.43451
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	26.38	0.43451



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	1.13	20.46	21.26	20.82	20.47	26.79	30.00
5200MHz	Pass	1.13	23.18	24.01	23.41	22.65	29.36	30.00
5240MHz	Pass	1.13	23.65	24.26	24.35	23.28	29.93	30.00
5260MHz	Pass	2.00	17.56	18.07	18.06	17.28	23.78	23.81
5300MHz	Pass	2.00	17.46	17.88	17.91	16.82	23.56	23.77
5320MHz	Pass	2.00	17.56	17.85	18.12	16.86	23.64	23.76
5500MHz	Pass	3.27	16.36	16.54	16.41	16.73	22.53	23.74
5580MHz	Pass	3.27	16.96	17.27	16.65	17.58	23.15	23.81
5700MHz	Pass	3.27	17.73	17.76	16.95	16.58	23.30	23.79
5720MHz Straddle 5.47-5.725GHz	Pass	3.27	16.27	15.73	14.59	15.13	21.50	22.61
5720MHz Straddle 5.725-5.85GHz	Pass	3.26	9.71	10.88	10.38	9.78	16.23	30.00
5745MHz	Pass	3.26	24.04	24.2	22.52	23.97	29.75	30.00
5785MHz	Pass	3.26	24.55	24.19	22.58	23.89	29.88	30.00
5825MHz	Pass	3.26	22.86	22.87	22.79	22.74	28.84	30.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	1.13	21.52	22.05	21.42	21.16	27.57	30.00
5200MHz	Pass	1.13	23.55	24.59	23.97	23.33	29.91	30.00
5240MHz	Pass	1.13	23.51	24.58	24.23	23.40	29.98	30.00
5260MHz	Pass	2.00	17.64	18.25	18.31	17.42	23.94	23.98
5300MHz	Pass	2.00	17.85	18.09	17.76	17.54	23.84	23.98
5320MHz	Pass	2.00	17.78	18.13	17.74	17.29	23.77	23.98
5500MHz	Pass	3.27	16.18	16.13	16.34	17.20	22.51	23.98
5580MHz	Pass	3.27	16.55	16.97	16.97	17.46	23.02	23.98
5700MHz	Pass	3.27	17.87	17.87	16.99	16.83	23.44	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	3.27	15.42	15.63	15.16	15.56	21.47	22.87
5720MHz Straddle 5.725-5.85GHz	Pass	3.26	10.61	9.65	7.49	9.19	15.40	30.00
5745MHz	Pass	3.26	24.26	24.22	22.67	23.69	29.78	30.00
5785MHz	Pass	3.26	24.66	24.34	22.73	23.80	29.96	30.00
5825MHz	Pass	3.26	22.90	22.86	22.96	22.57	28.85	30.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	1.13	17.63	18.17	17.34	17.28	23.64	30.00
5230MHz	Pass	1.13	23.83	24.18	24.07	23.32	29.88	30.00
5270MHz	Pass	2.00	17.51	18.25	18.31	16.66	23.75	23.98
5310MHz	Pass	2.00	17.60	18.30	18.19	17.09	23.84	23.98
5510MHz	Pass	3.27	15.95	16.13	16.62	17.29	22.55	23.98
5550MHz	Pass	3.27	17.63	17.93	17.46	17.94	23.77	23.98
5670MHz	Pass	3.27	18.11	17.97	17.51	17.37	23.77	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	3.27	18.14	18.23	17.25	17.24	23.76	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	3.26	8.76	8.14	8.55	8.20	14.44	30.00
5755MHz	Pass	3.26	24.02	24.06	23.52	23.32	29.76	30.00
5795MHz	Pass	3.26	24.47	23.76	23.87	23.61	29.96	30.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	1.13	16.17	16.56	15.85	15.55	22.07	30.00
5290MHz	Pass	2.00	15.71	16.31	16.30	15.13	21.91	23.98
5530MHz	Pass	3.27	14.58	15.01	15.29	16.05	21.29	23.98
5610MHz	Pass	3.27	17.93	17.77	17.30	17.83	23.73	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	3.27	18.05	18.32	17.59	17.45	23.89	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	3.26	4.72	4.16	4.67	4.08	10.44	30.00
5775MHz	Pass	3.26	20.78	20.33	20.11	20.20	26.38	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.32	21.52	22.05	21.42	21.16	27.57	30.00
5200MHz	Pass	3.32	23.55	24.59	23.97	23.33	29.91	30.00
5240MHz	Pass	3.32	23.51	24.58	24.23	23.40	29.98	30.00
5260MHz	Pass	4.34	17.64	18.25	18.31	17.42	23.94	23.98



Average Power

Appendix C.1

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
5300MHz	Pass	4.34	17.85	18.09	17.76	17.54	23.84	23.98
5320MHz	Pass	4.34	17.78	18.13	17.74	17.29	23.77	23.98
5500MHz	Pass	6.76	16.18	16.13	16.34	17.20	22.51	23.22
5580MHz	Pass	6.76	16.55	16.97	16.97	17.46	23.02	23.22
5700MHz	Pass	6.76	17.35	17.34	16.68	16.39	22.98	23.22
5720MHz Straddle 5.47-5.725GHz	Pass	6.76	15.42	15.63	15.16	15.56	21.47	23.22
5720MHz Straddle 5.725-5.85GHz	Pass	7.06	10.61	9.65	7.49	9.19	15.40	28.94
5745MHz	Pass	7.06	22.80	23.25	22.46	23.00	28.91	28.94
5785MHz	Pass	7.06	23.07	22.91	22.36	22.42	28.72	28.94
5825MHz	Pass	7.06	22.90	22.86	22.96	22.57	28.85	28.94
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	3.32	17.63	18.17	17.34	17.28	23.64	30.00
5230MHz	Pass	3.32	23.83	24.18	24.07	23.32	29.88	30.00
5270MHz	Pass	4.34	17.51	18.25	18.31	16.66	23.75	23.98
5310MHz	Pass	4.34	17.60	18.30	18.19	17.09	23.84	23.98
5510MHz	Pass	6.76	15.95	16.13	16.62	17.29	22.55	23.22
5550MHz	Pass	6.76	16.74	17.27	16.38	17.33	22.97	23.22
5670MHz	Pass	6.76	17.24	17.27	16.75	16.58	22.99	23.22
5710MHz Straddle 5.47-5.725GHz	Pass	6.76	17.14	17.19	16.31	16.22	22.76	23.22
5710MHz Straddle 5.725-5.85GHz	Pass	7.06	7.75	7.04	7.44	7.10	13.36	28.94
5755MHz	Pass	7.06	22.87	22.89	22.45	22.45	28.69	28.94
5795MHz	Pass	7.06	23.18	22.59	22.54	22.45	28.72	28.94
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	3.32	16.17	16.56	15.85	15.55	22.07	30.00
5290MHz	Pass	4.34	15.71	16.31	16.30	15.13	21.91	23.98
5530MHz	Pass	6.76	14.58	15.01	15.29	16.05	21.29	23.22
5610MHz	Pass	6.76	17.17	17.30	16.46	17.10	23.04	23.22
5690MHz Straddle 5.47-5.725GHz	Pass	6.76	17.34	17.52	16.68	16.46	23.04	23.22
5690MHz Straddle 5.725-5.85GHz	Pass	7.06	3.83	3.17	3.77	3.26	9.54	28.94
5775MHz	Pass	7.06	20.78	20.33	20.11	20.20	26.38	28.94

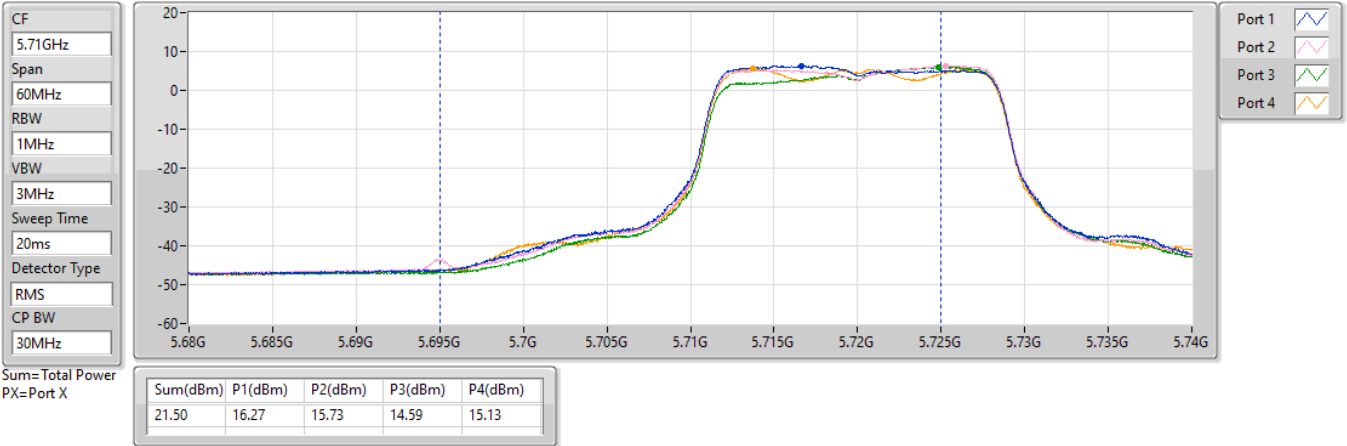
DG = Directional Gain; Port X = Port X output power

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

AV Power

5720MHz Straddle 5.47-5.725GHz_TX

10/12/2022

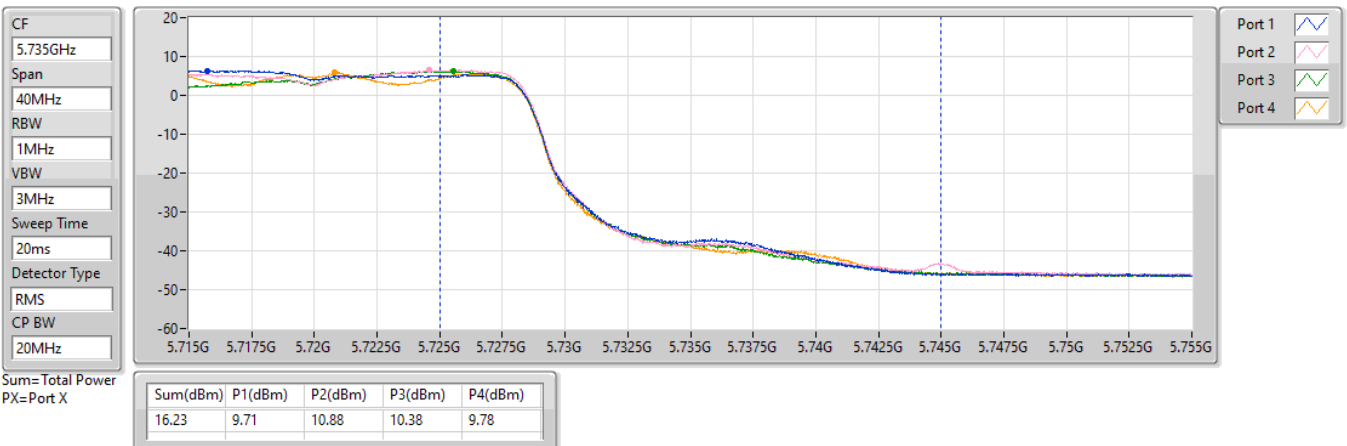


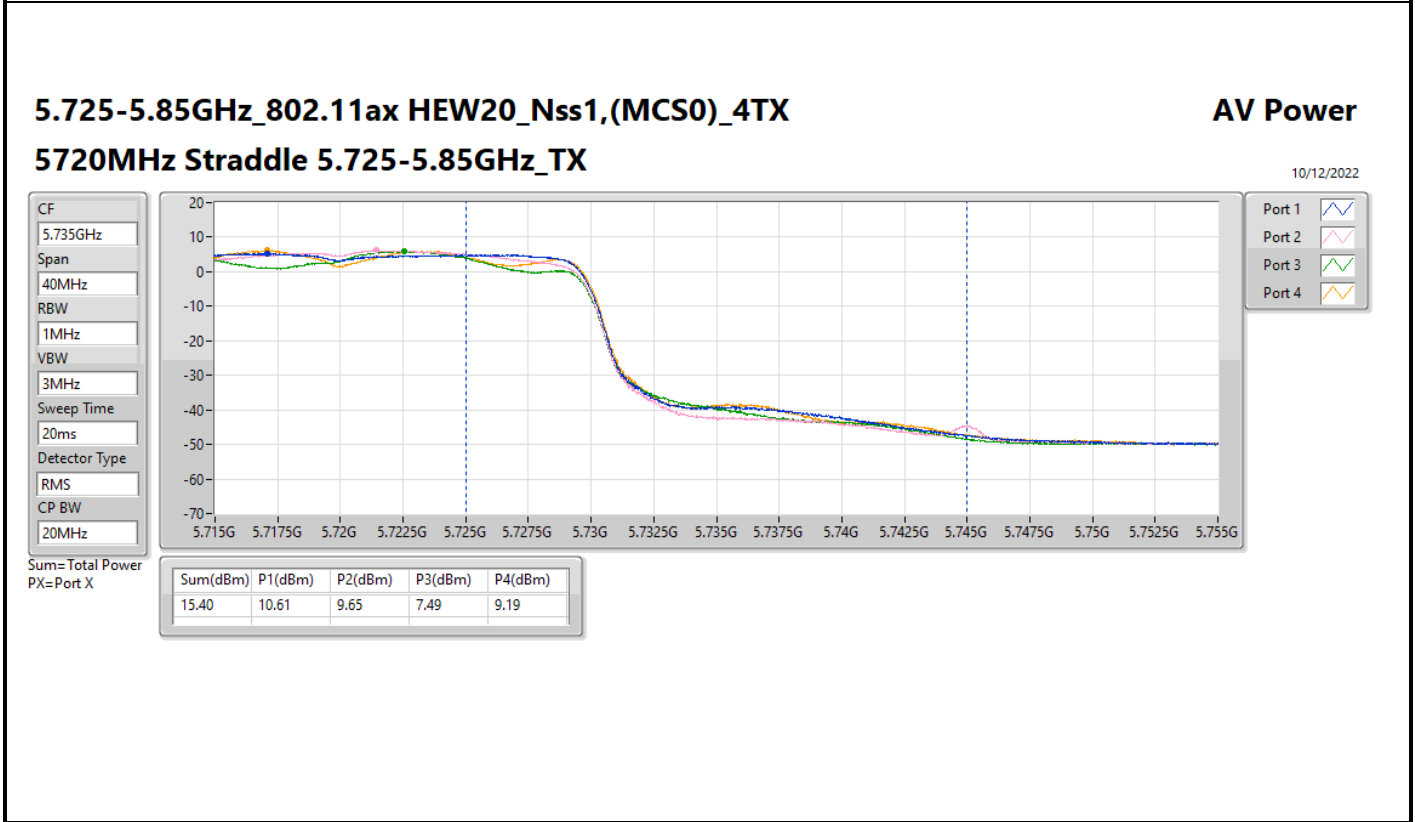
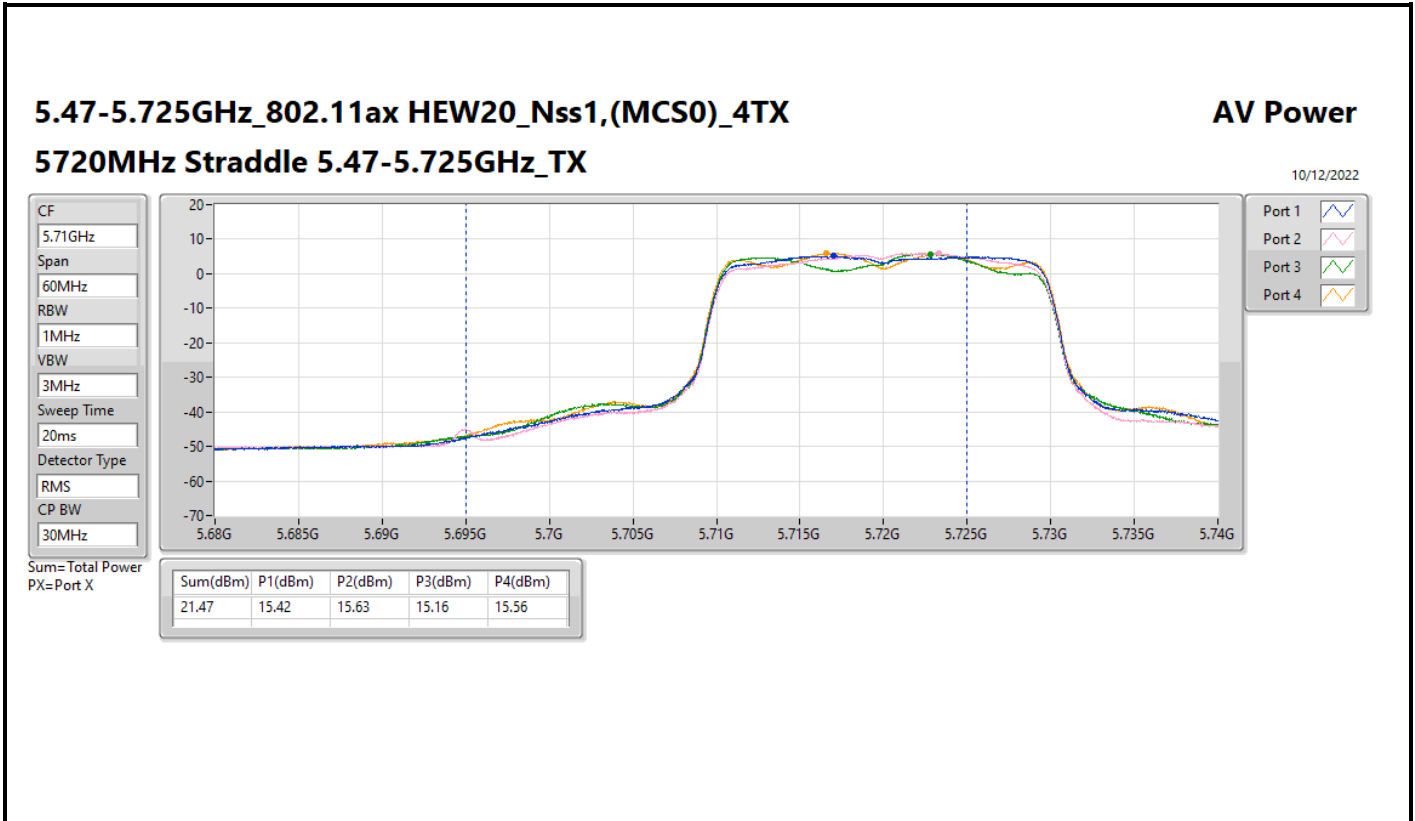
5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

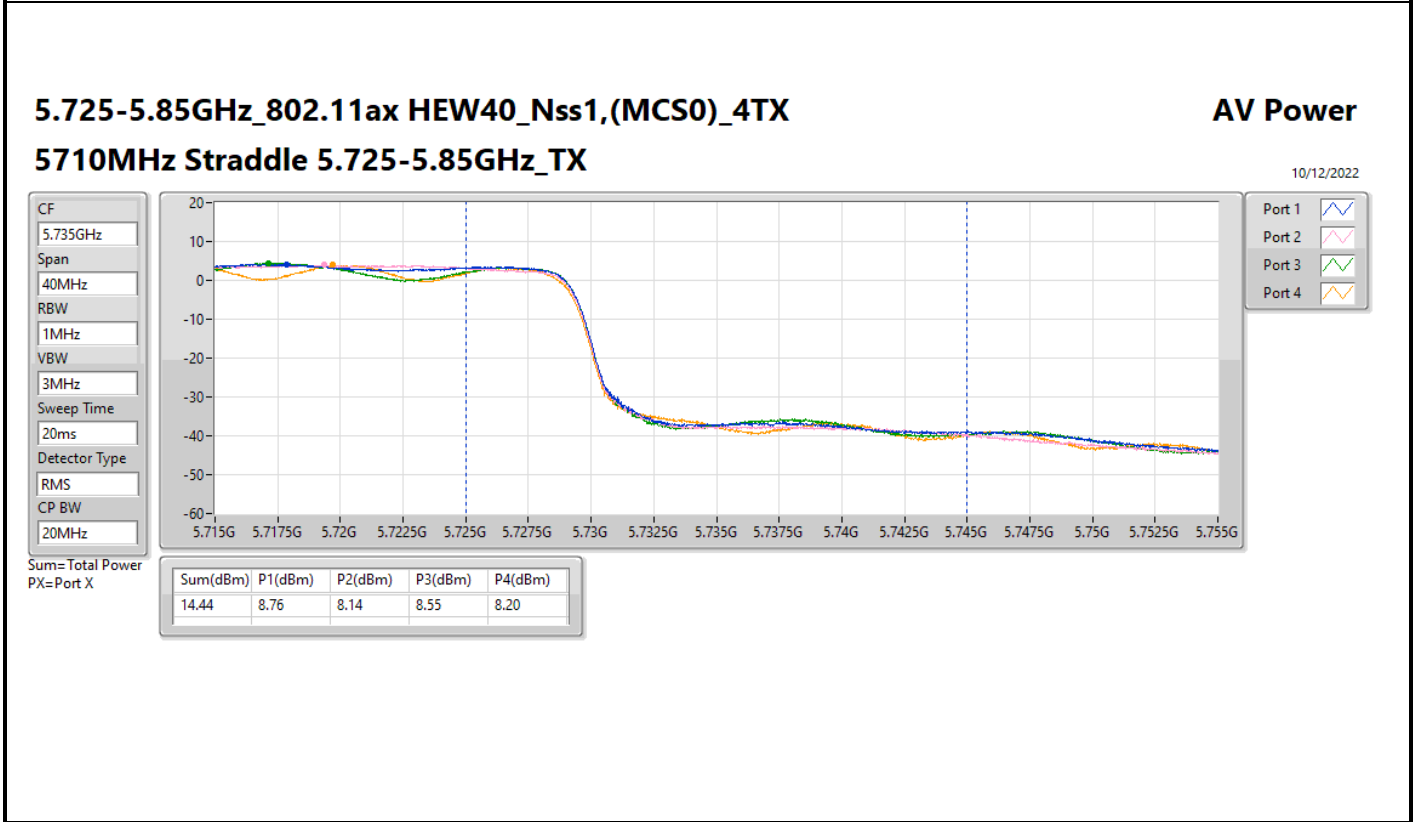
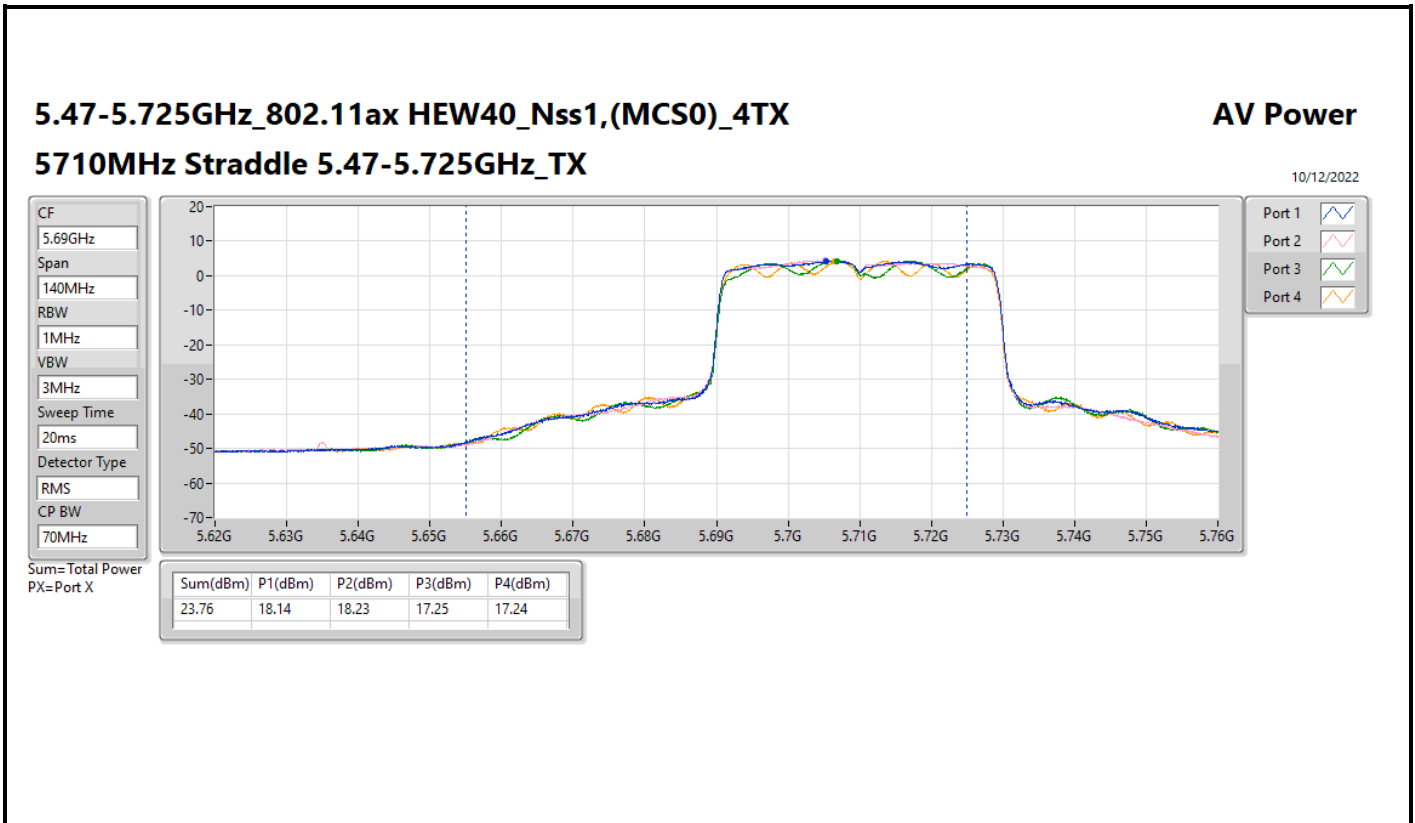
AV Power

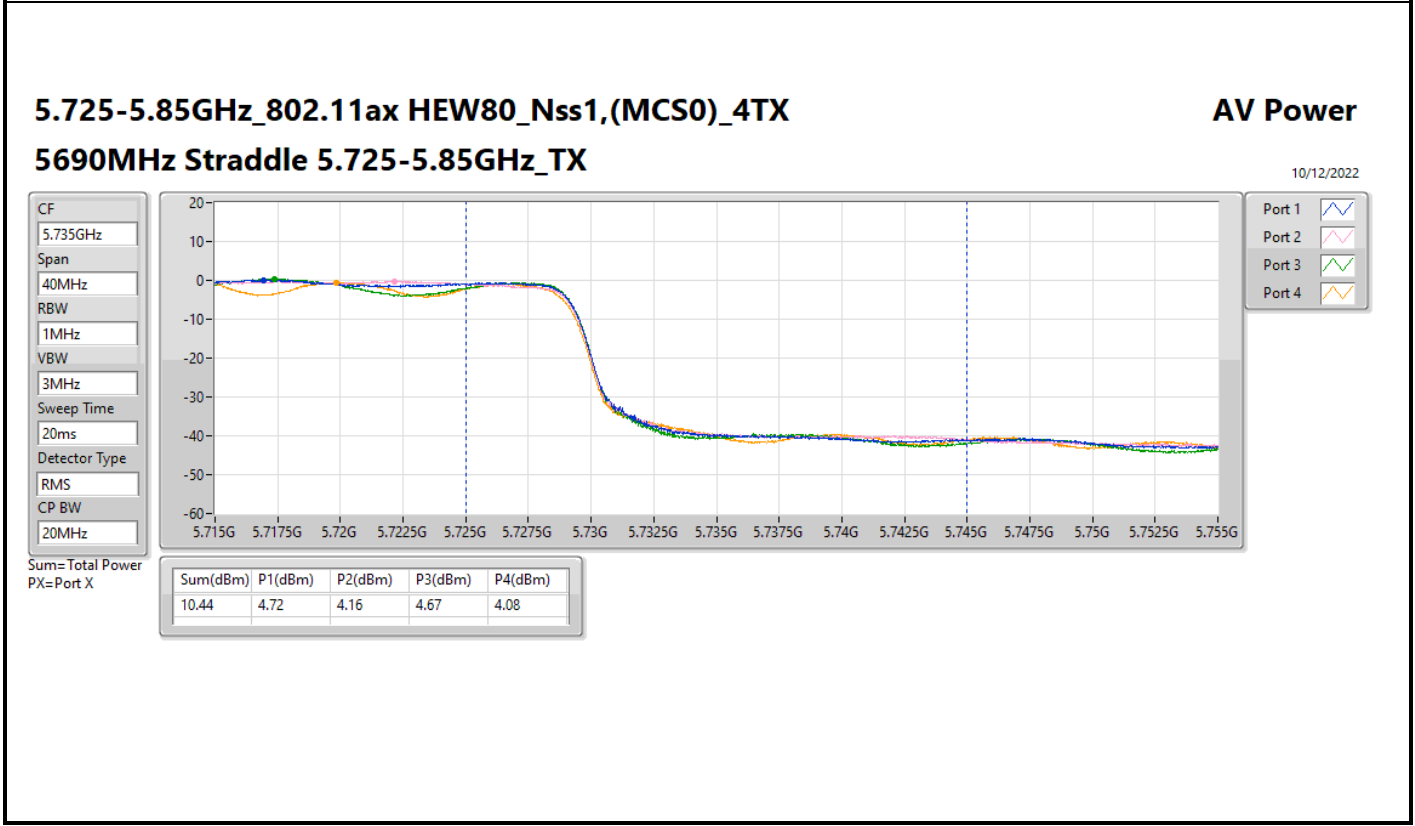
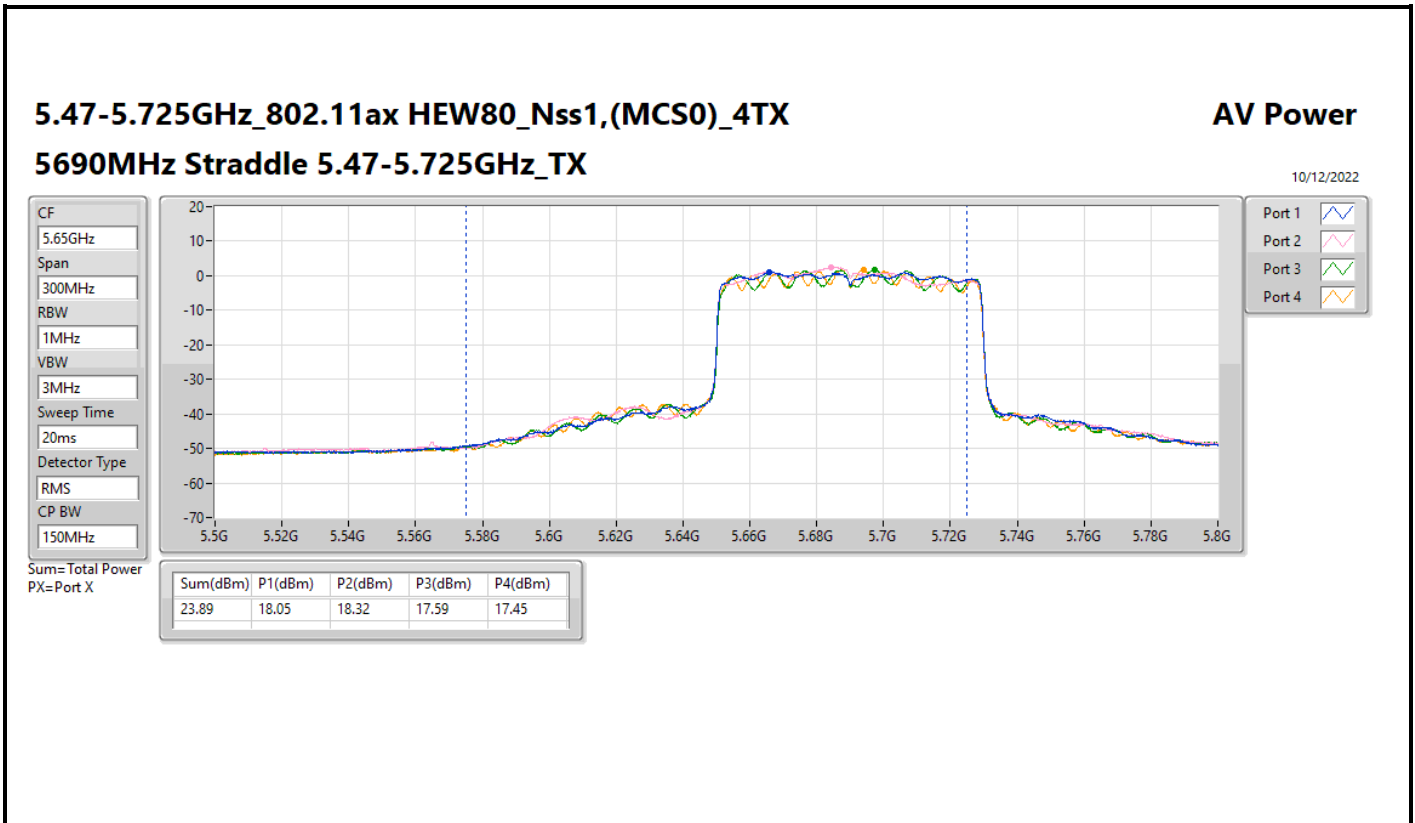
5720MHz Straddle 5.725-5.85GHz_TX

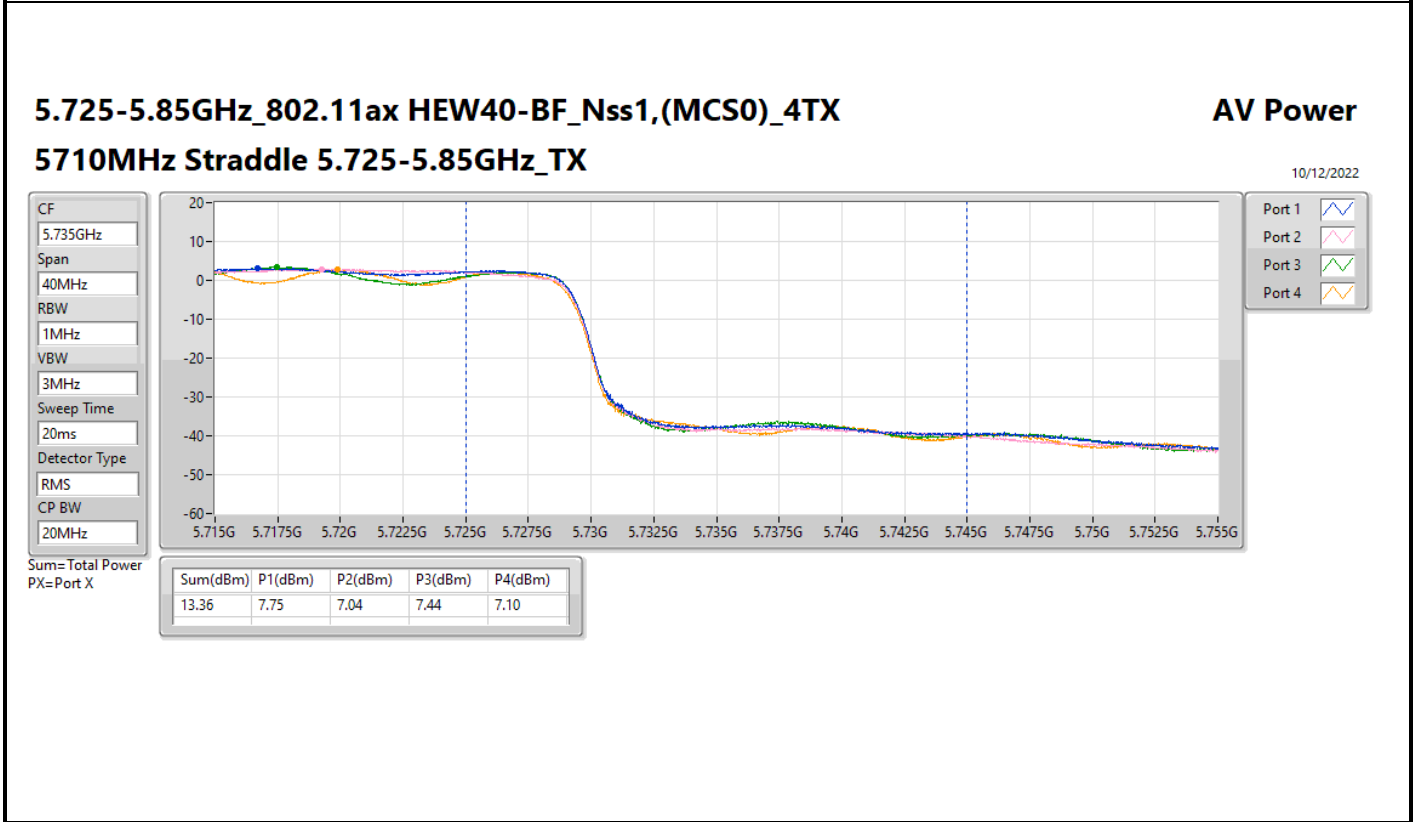
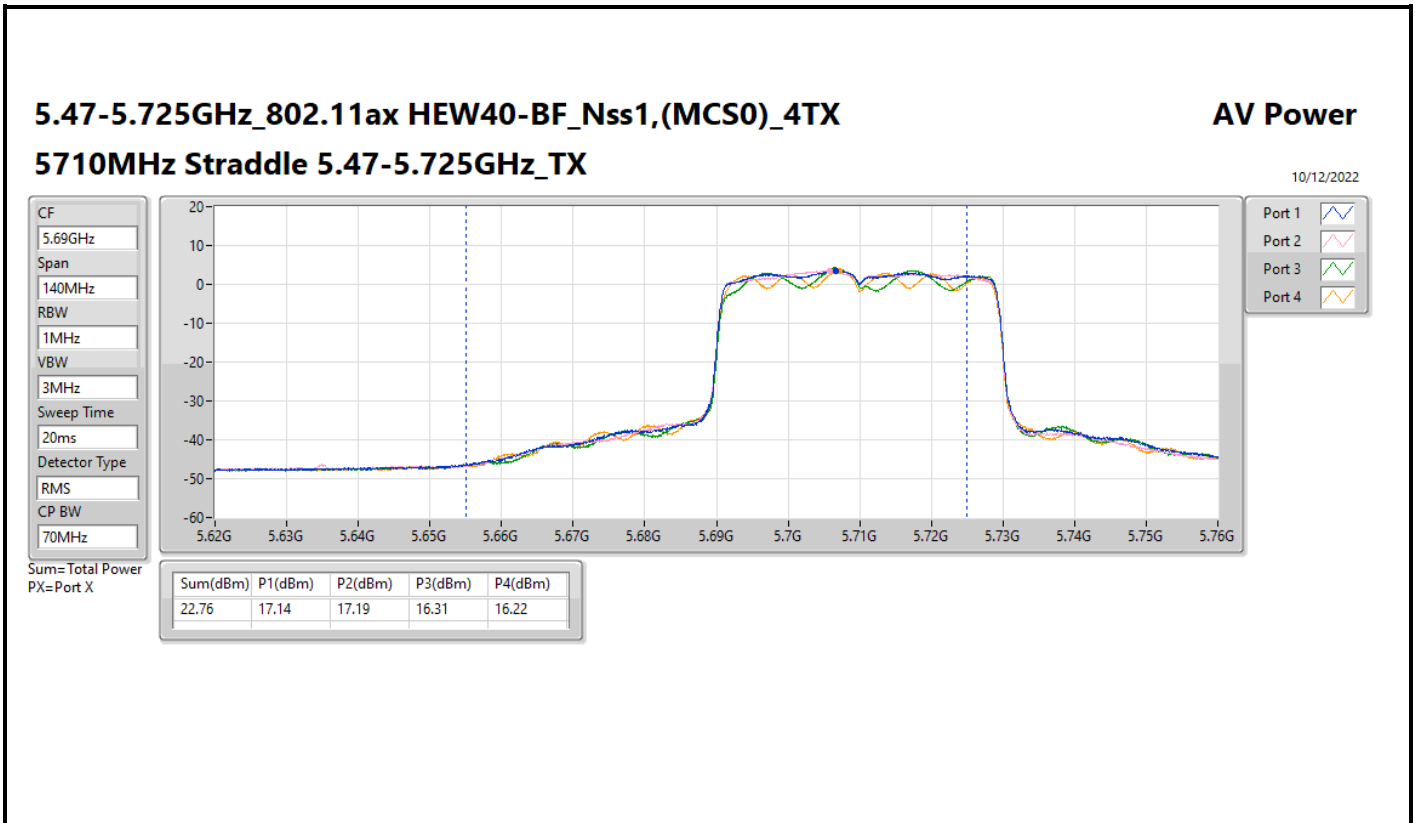
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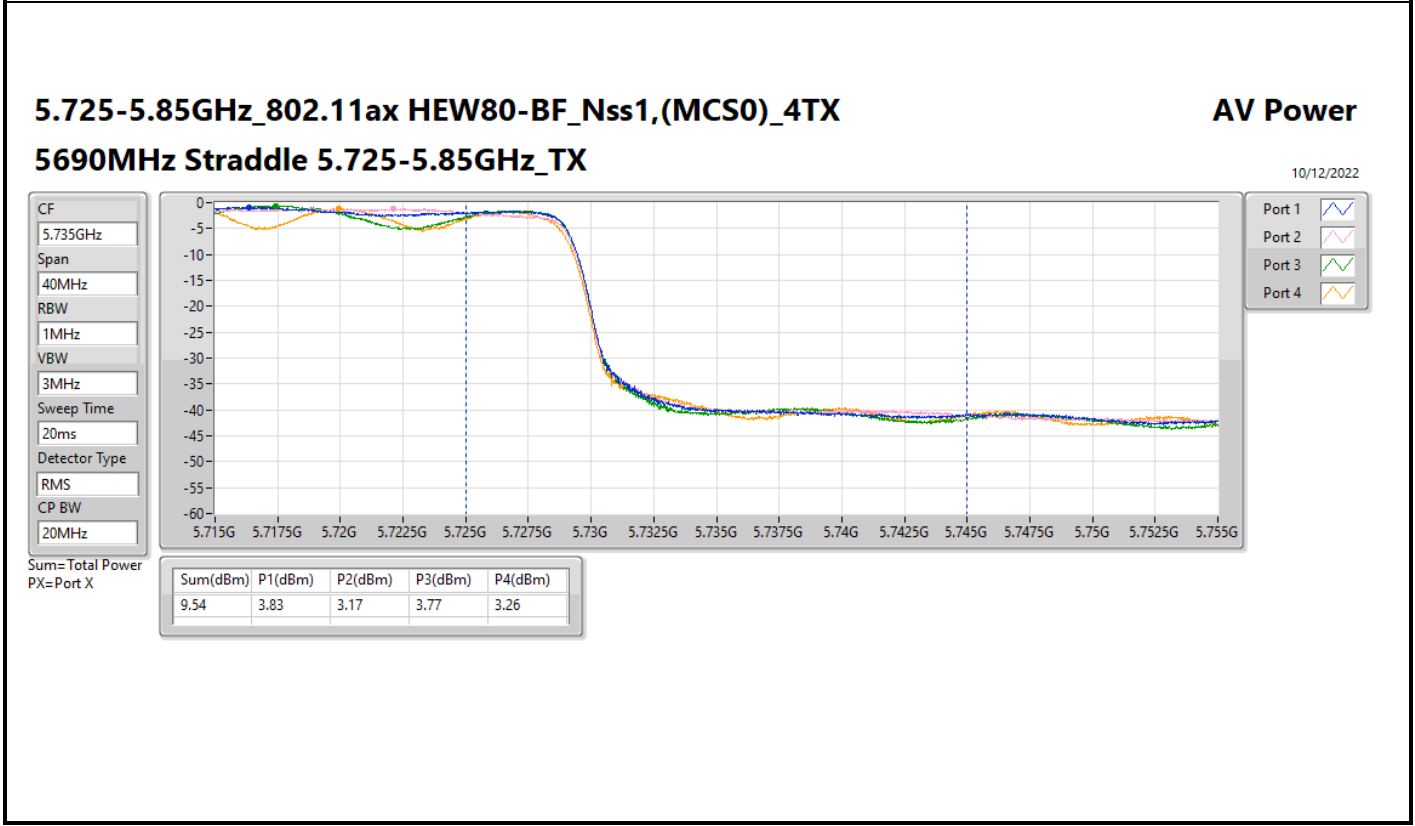
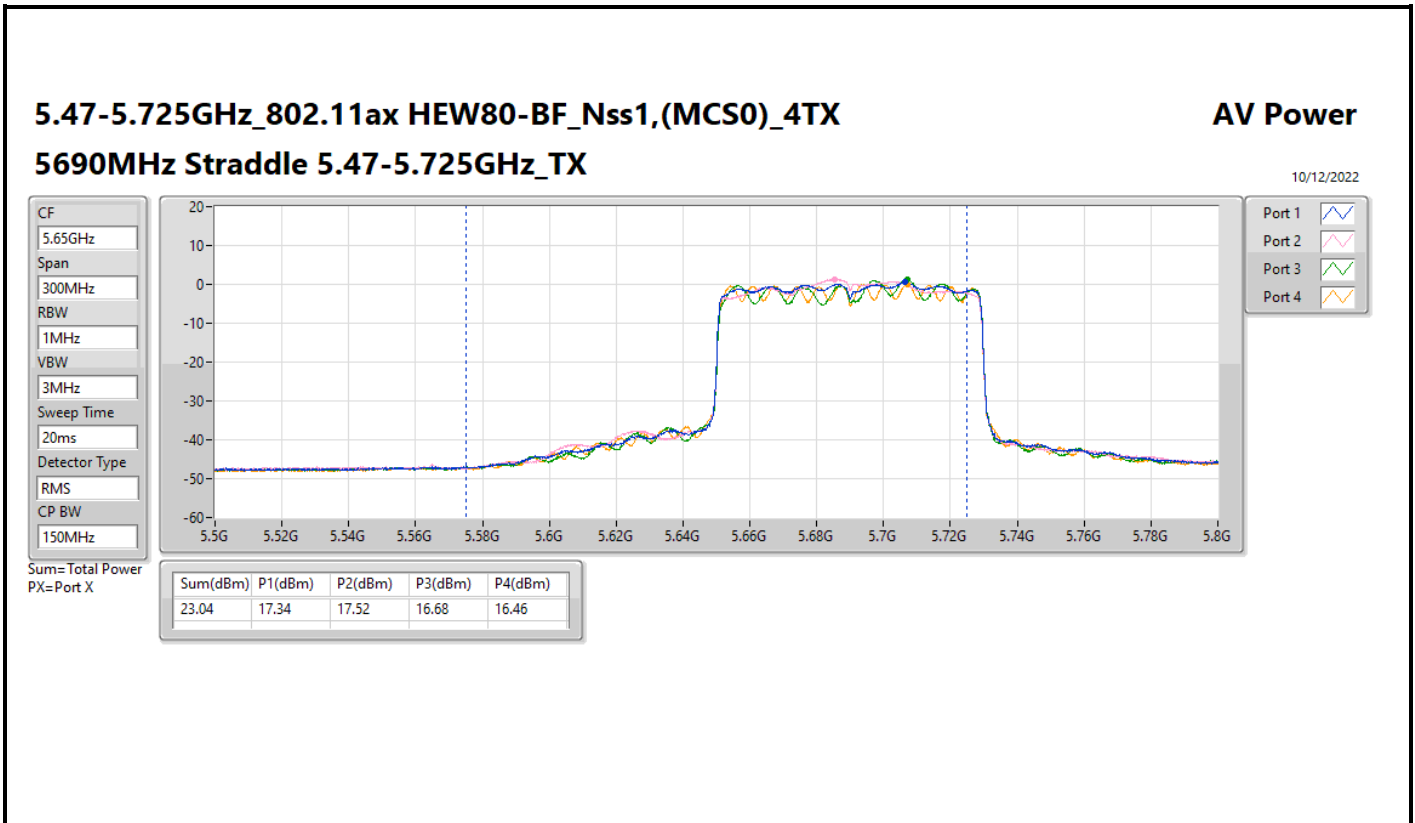














Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11ax HEW80+80_Nss1,(MCS0)_2TX	17.76	0.05970
802.11ax HEW80+80-BF_Nss1,(MCS0)_2TX	17.76	0.05970
5.25-5.35GHz	-	-
802.11ax HEW80+80_Nss1,(MCS0)_2TX	18.26	0.06699
802.11ax HEW80+80-BF_Nss1,(MCS0)_2TX	18.26	0.06699
5.47-5.725GHz	-	-
802.11ax HEW80+80_Nss2,(MCS0)_4TX	21.43	0.13900
802.11ax HEW80+80-BF_Nss2,(MCS0)_4TX	21.43	0.13900



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW80+80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	1.13	13.65	15.62			17.76	30.00
802.11ax HEW80+80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	2.00	-	-	15.61	14.85	18.26	23.98
802.11ax HEW80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	3.27	15.07	15.86	15.07	15.60	21.43	23.98
802.11ax HEW80+80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	3.32	13.65	15.62			17.76	30.00
802.11ax HEW80+80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	4.34			15.61	14.85	18.26	23.98
802.11ax HEW80+80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	6.76	15.07	15.86	15.07	15.60	21.43	23.98

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

Summary

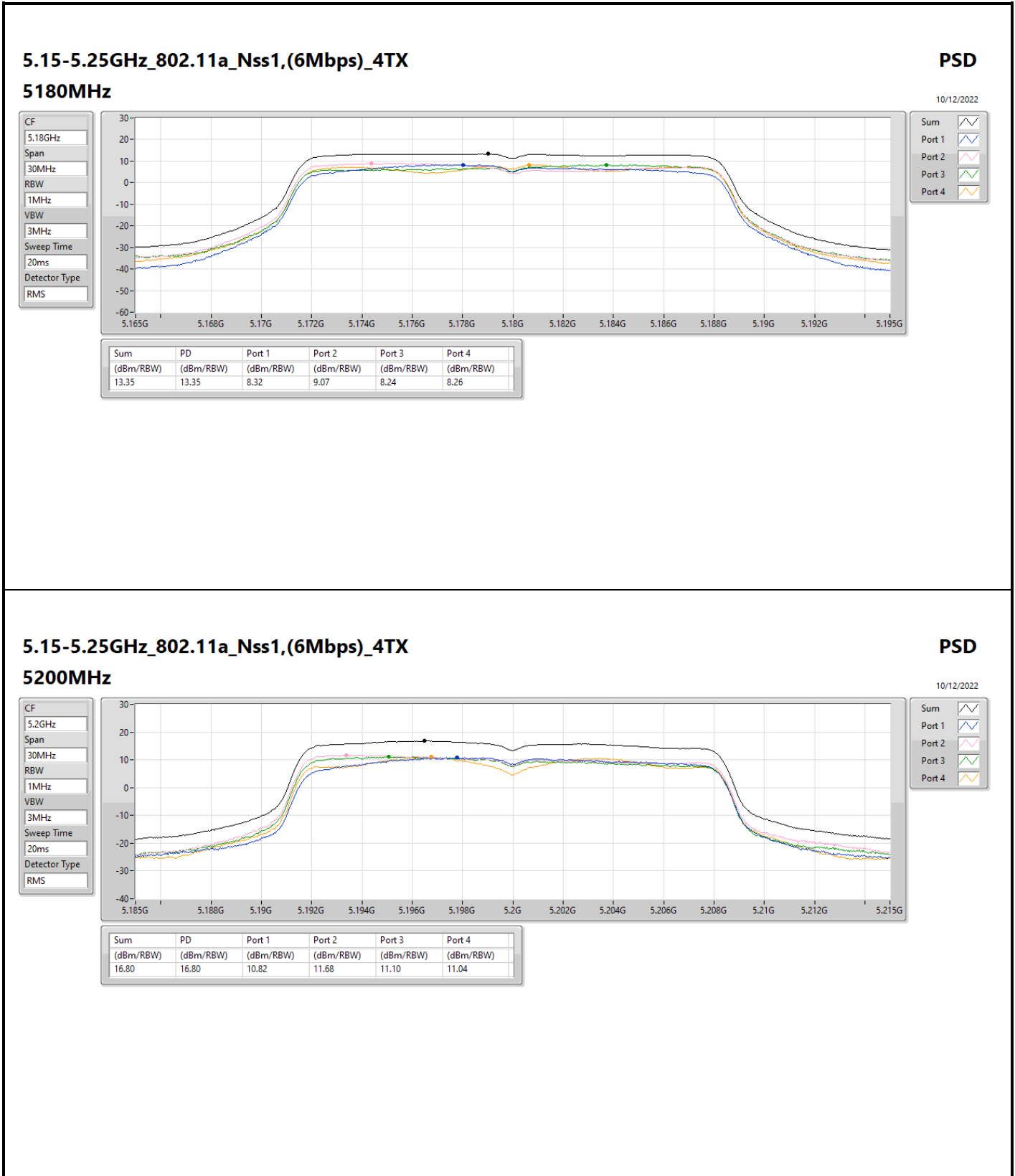
Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_4TX	16.98
802.11ax HEW20_Nss1,(MCS0)_4TX	16.96
802.11ax HEW40_Nss1,(MCS0)_4TX	13.93
802.11ax HEW80_Nss1,(MCS0)_4TX	2.68
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_4TX	10.90
802.11ax HEW20_Nss1,(MCS0)_4TX	10.76
802.11ax HEW40_Nss1,(MCS0)_4TX	10.50
802.11ax HEW80_Nss1,(MCS0)_4TX	3.05
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_4TX	10.22
802.11ax HEW20_Nss1,(MCS0)_4TX	9.97
802.11ax HEW40_Nss1,(MCS0)_4TX	8.87
802.11ax HEW80_Nss1,(MCS0)_4TX	5.86
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	15.20
802.11ax HEW20_Nss1,(MCS0)_4TX	15.22
802.11ax HEW40_Nss1,(MCS0)_4TX	12.04
802.11ax HEW80_Nss1,(MCS0)_4TX	6.44

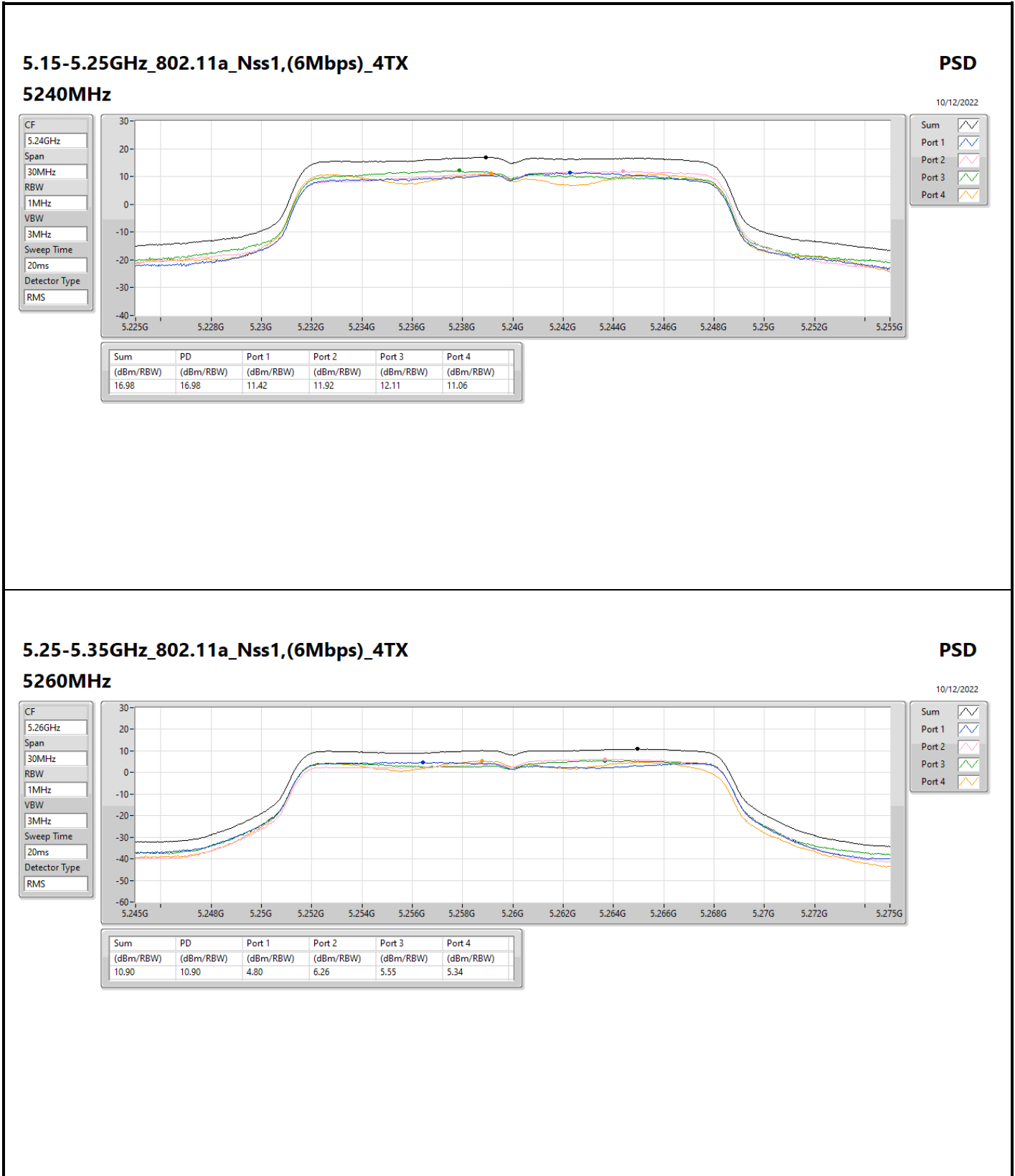
RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.32	8.32	9.07	8.24	8.26	13.35	17.00
5200MHz	Pass	3.32	10.82	11.68	11.10	11.04	16.80	17.00
5240MHz	Pass	3.32	11.42	11.92	12.11	11.06	16.98	17.00
5260MHz	Pass	4.34	4.80	6.26	5.55	5.34	10.90	11.00
5300MHz	Pass	4.34	4.67	6.13	5.02	5.37	10.58	11.00
5320MHz	Pass	4.34	4.90	6.07	5.39	5.54	10.55	11.00
5500MHz	Pass	6.76	3.68	4.27	4.90	5.01	10.11	10.24
5580MHz	Pass	6.76	3.88	4.68	4.37	5.37	10.22	10.24
5700MHz	Pass	6.76	4.55	5.08	5.16	4.61	10.20	10.24
5720MHz Straddle 5.47-5.725GHz	Pass	6.76	4.88	4.93	4.65	4.20	9.99	10.24
5720MHz Straddle 5.725-5.85GHz	Pass	7.06	2.21	3.48	3.21	2.54	8.78	28.94
5745MHz	Pass	7.06	9.32	9.83	8.81	9.68	15.20	28.94
5785MHz	Pass	7.06	10.19	9.41	8.42	9.70	14.75	28.94
5825MHz	Pass	7.06	8.08	8.64	8.89	8.42	14.34	28.94
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.32	8.71	9.56	8.27	8.63	13.81	17.00
5200MHz	Pass	3.32	11.06	11.30	11.00	11.16	16.96	17.00
5240MHz	Pass	3.32	10.81	11.64	11.13	10.91	16.70	17.00
5260MHz	Pass	4.34	4.62	5.15	4.84	4.63	10.43	11.00
5300MHz	Pass	4.34	5.37	5.54	5.33	5.80	10.76	11.00
5320MHz	Pass	4.34	4.62	5.59	5.57	5.37	10.72	11.00
5500MHz	Pass	6.76	3.23	3.97	4.06	4.67	9.97	10.24
5580MHz	Pass	6.76	3.20	3.20	4.45	5.18	9.93	10.24
5700MHz	Pass	6.76	4.21	4.23	4.87	4.18	9.85	10.24
5720MHz Straddle 5.47-5.725GHz	Pass	6.76	3.71	4.37	4.46	4.39	9.90	10.24
5720MHz Straddle 5.725-5.85GHz	Pass	7.06	2.00	1.81	0.93	1.31	7.48	28.94
5745MHz	Pass	7.06	9.24	8.72	8.57	9.61	14.85	28.94
5785MHz	Pass	7.06	9.45	9.51	9.21	9.31	15.22	28.94
5825MHz	Pass	7.06	7.69	7.57	8.51	7.91	13.33	28.94
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	3.32	2.18	2.11	1.60	1.98	7.15	17.00
5230MHz	Pass	3.32	8.24	9.10	8.83	7.80	13.93	17.00
5270MHz	Pass	4.34	4.51	5.56	5.35	4.90	10.50	11.00
5310MHz	Pass	4.34	1.70	3.09	2.94	2.19	7.80	11.00
5510MHz	Pass	6.76	-0.24	0.32	1.62	1.74	6.48	10.24
5550MHz	Pass	6.76	1.22	2.48	2.01	2.61	7.60	10.24
5670MHz	Pass	6.76	1.85	2.34	2.36	2.07	7.99	10.24
5710MHz Straddle 5.47-5.725GHz	Pass	6.76	3.02	2.89	3.08	2.90	8.87	10.24
5710MHz Straddle 5.725-5.85GHz	Pass	7.06	0.49	0.16	0.21	0.21	6.04	28.94
5755MHz	Pass	7.06	6.44	5.98	6.50	6.35	11.98	28.94
5795MHz	Pass	7.06	6.67	6.22	6.58	6.24	12.04	28.94
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	3.32	-2.36	-2.21	-2.89	-2.57	2.68	17.00
5290MHz	Pass	4.34	-3.02	-1.79	-2.31	-2.76	3.05	11.00
5530MHz	Pass	6.76	-4.62	-3.70	-2.59	-2.45	1.99	10.24
5610MHz	Pass	6.76	-1.34	-0.39	-0.56	-0.58	4.59	10.24
5690MHz Straddle 5.47-5.725GHz	Pass	6.76	-0.24	0.02	0.25	-0.31	5.86	10.24
5690MHz Straddle 5.725-5.85GHz	Pass	7.06	-3.51	-3.76	-3.74	-3.68	2.05	28.94
5775MHz	Pass	7.06	0.85	0.27	0.99	0.80	6.44	28.94

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;



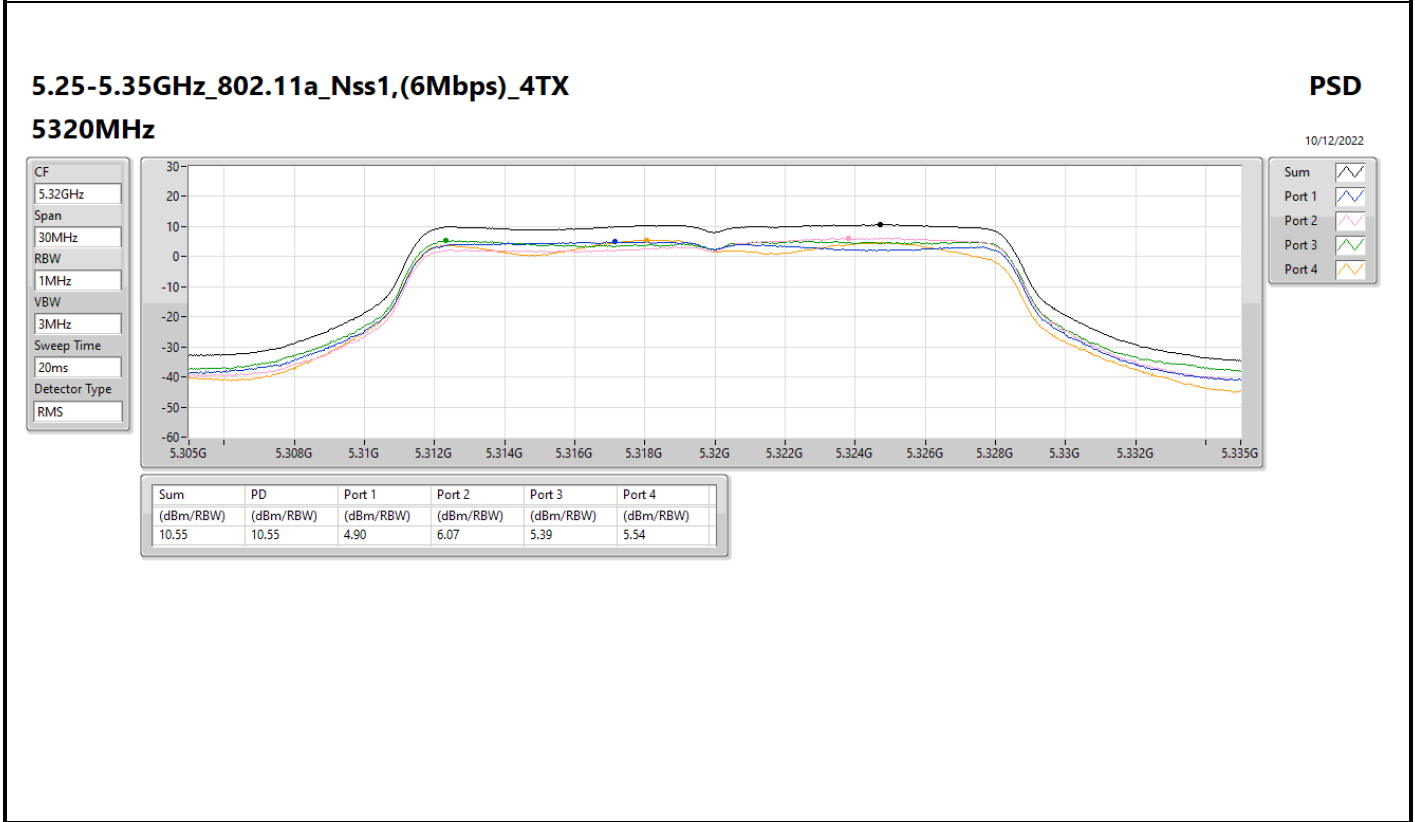
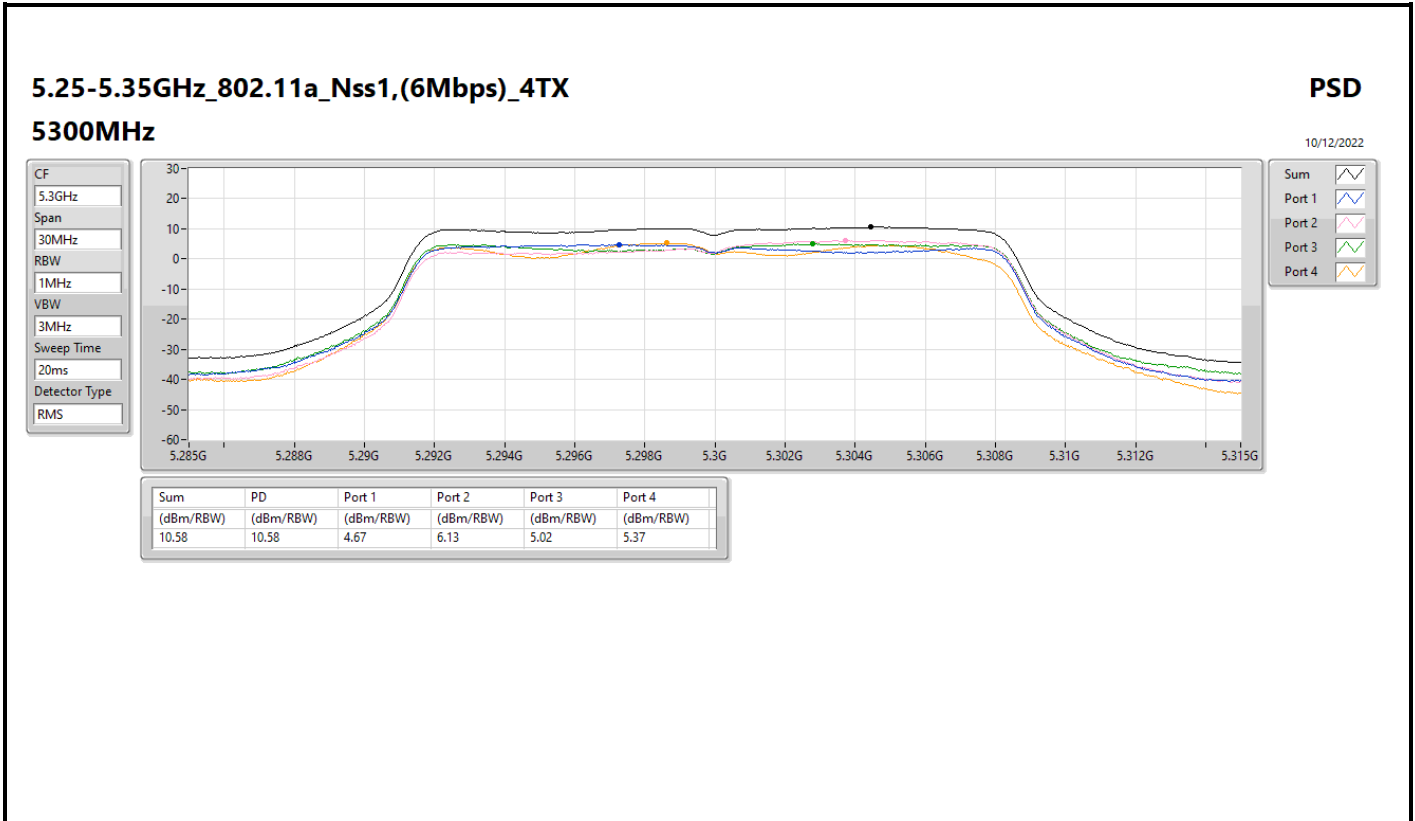


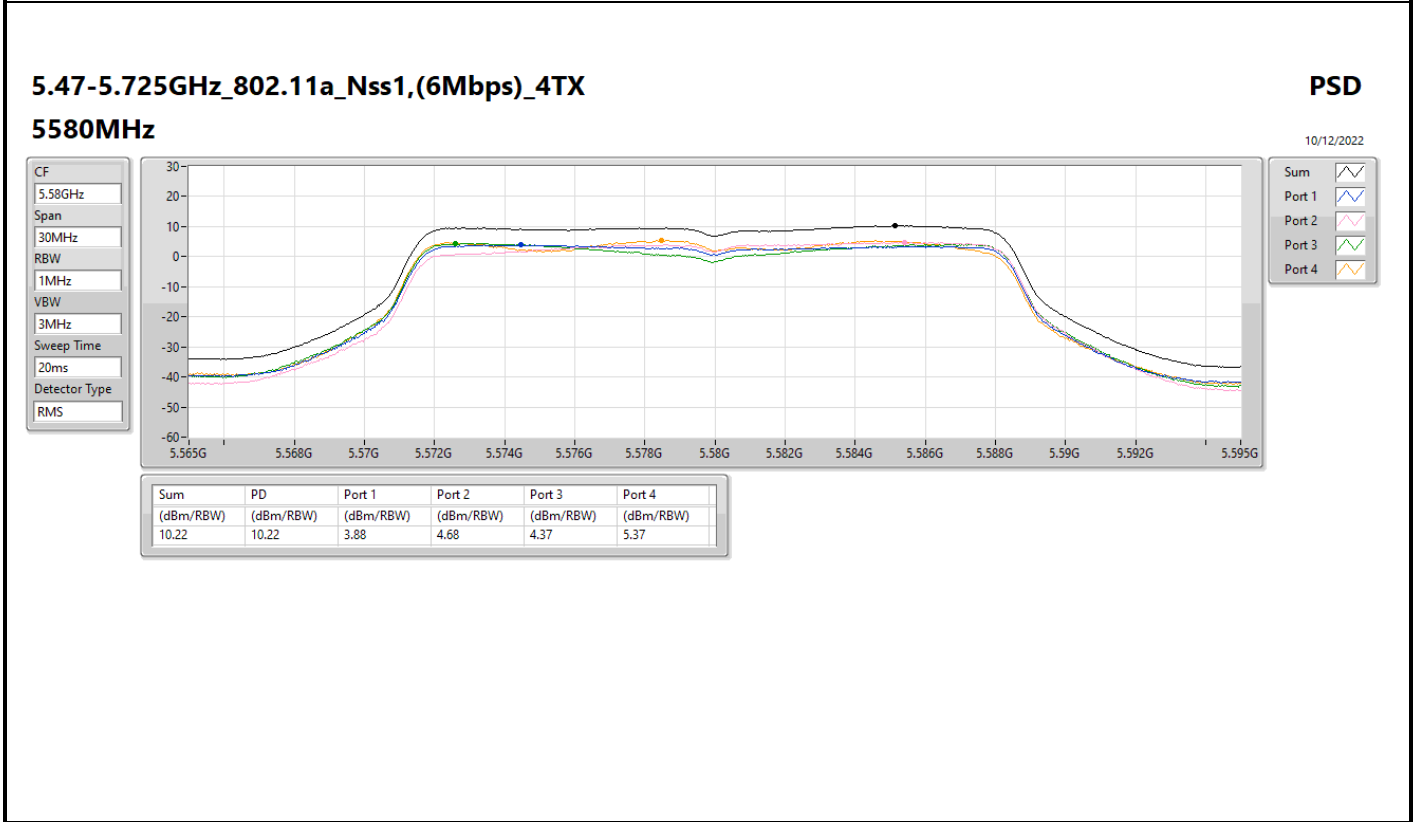
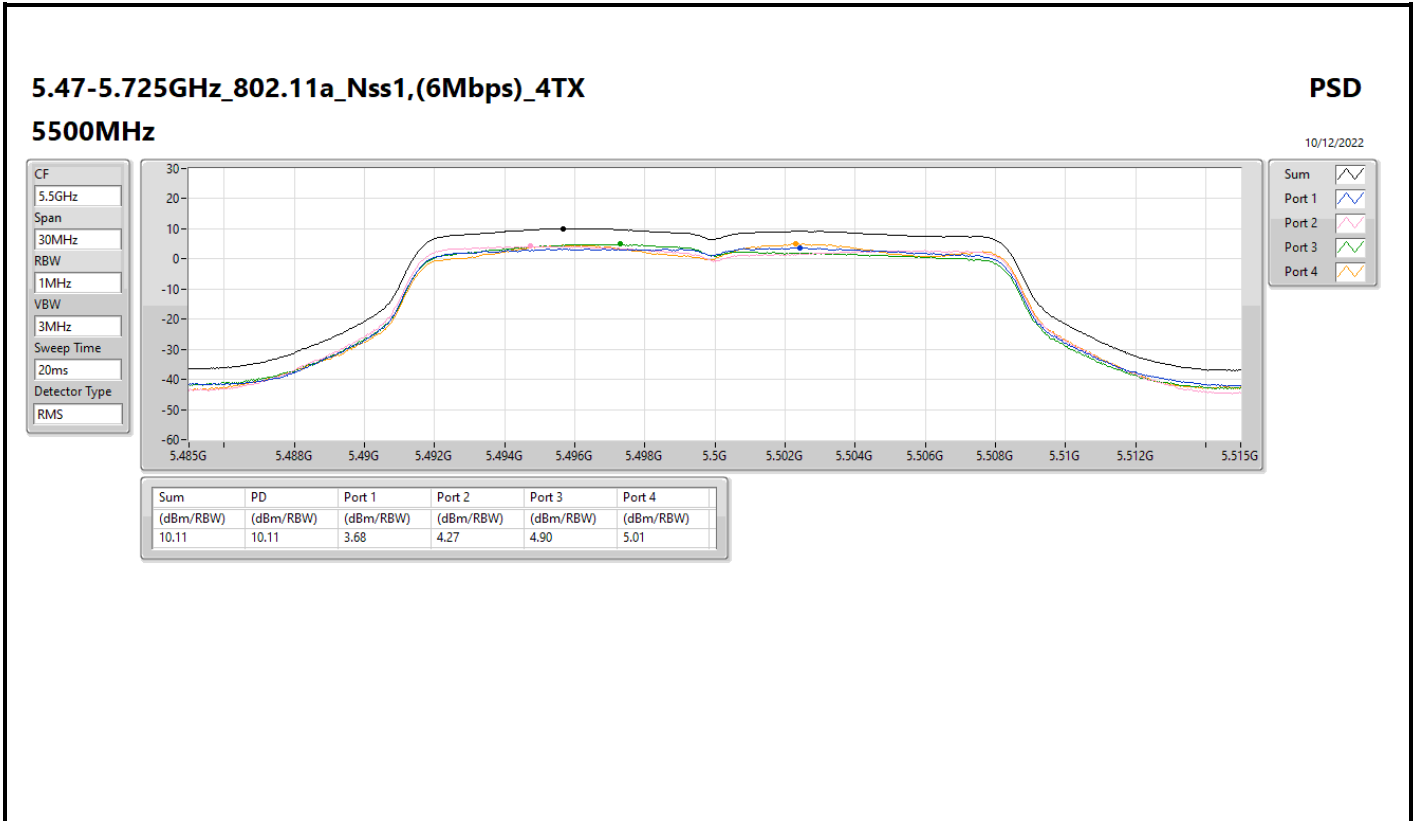
5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

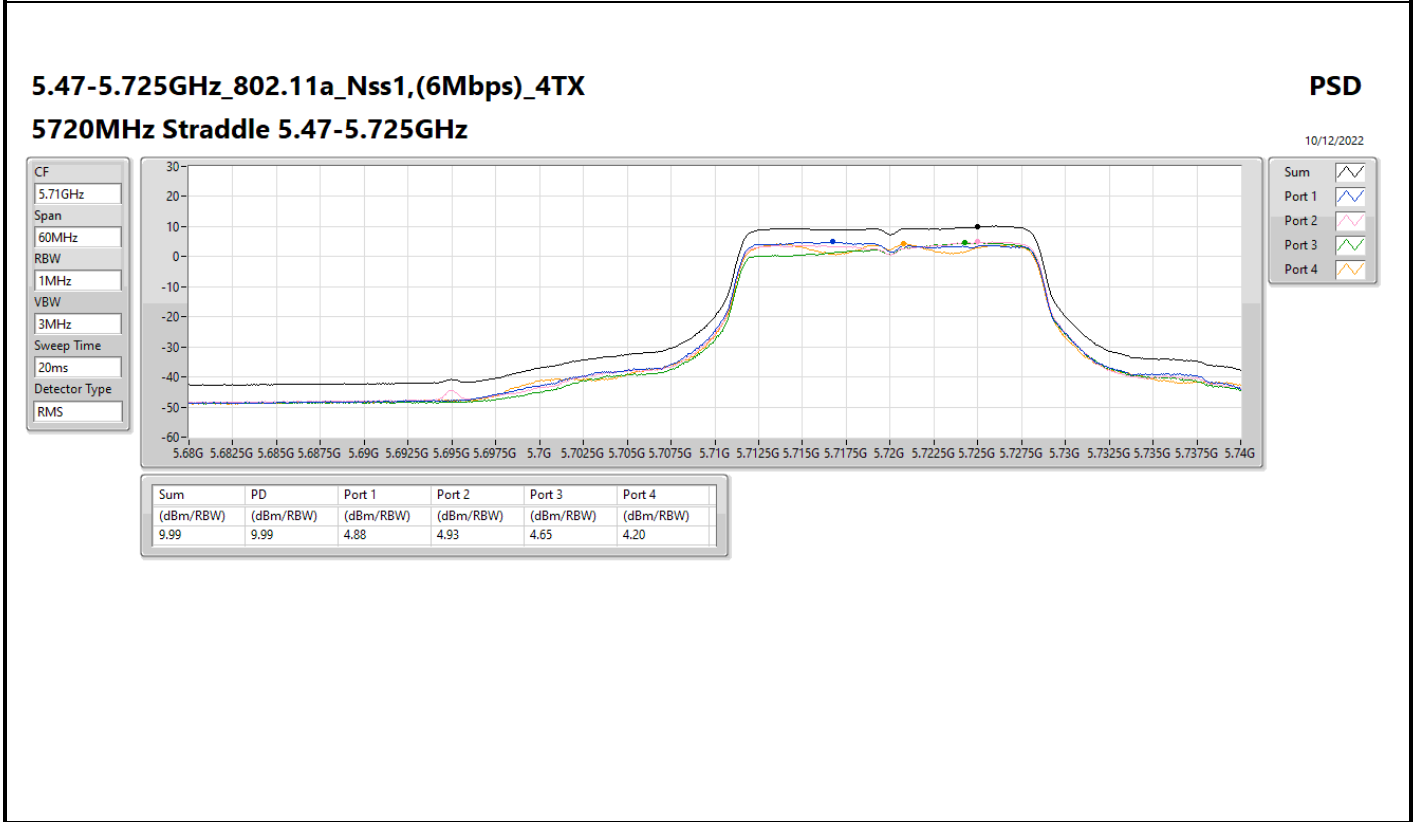
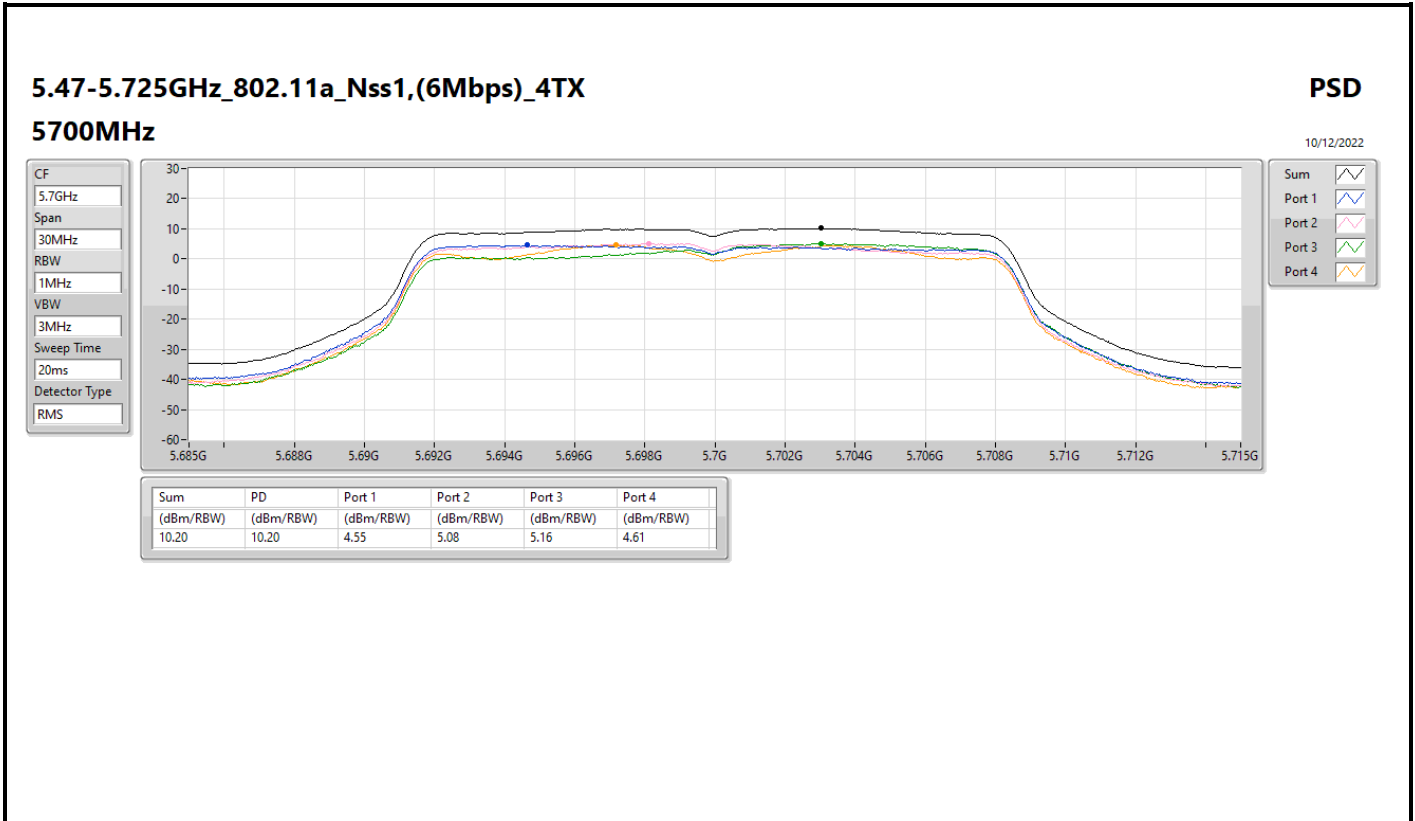
5260MHz

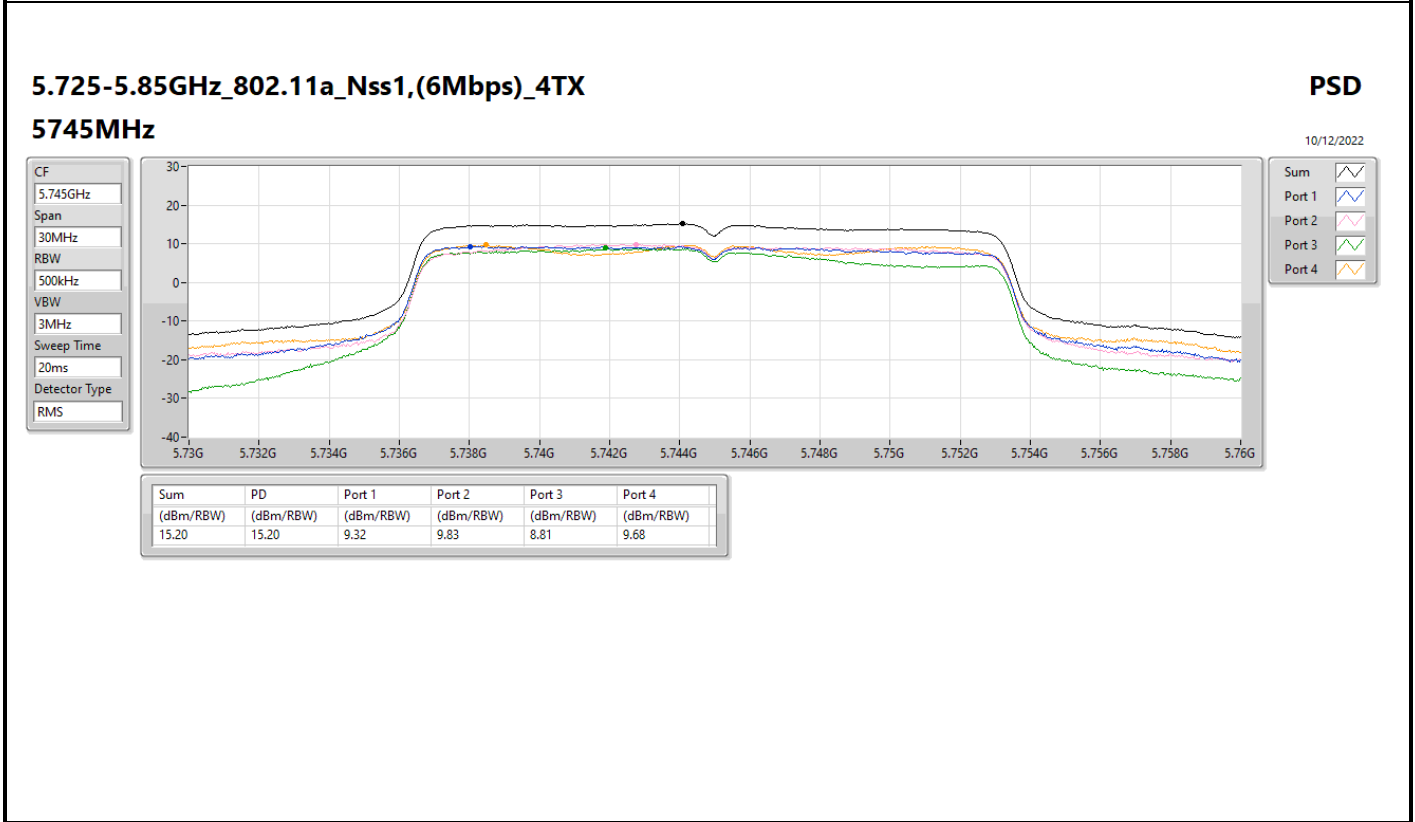
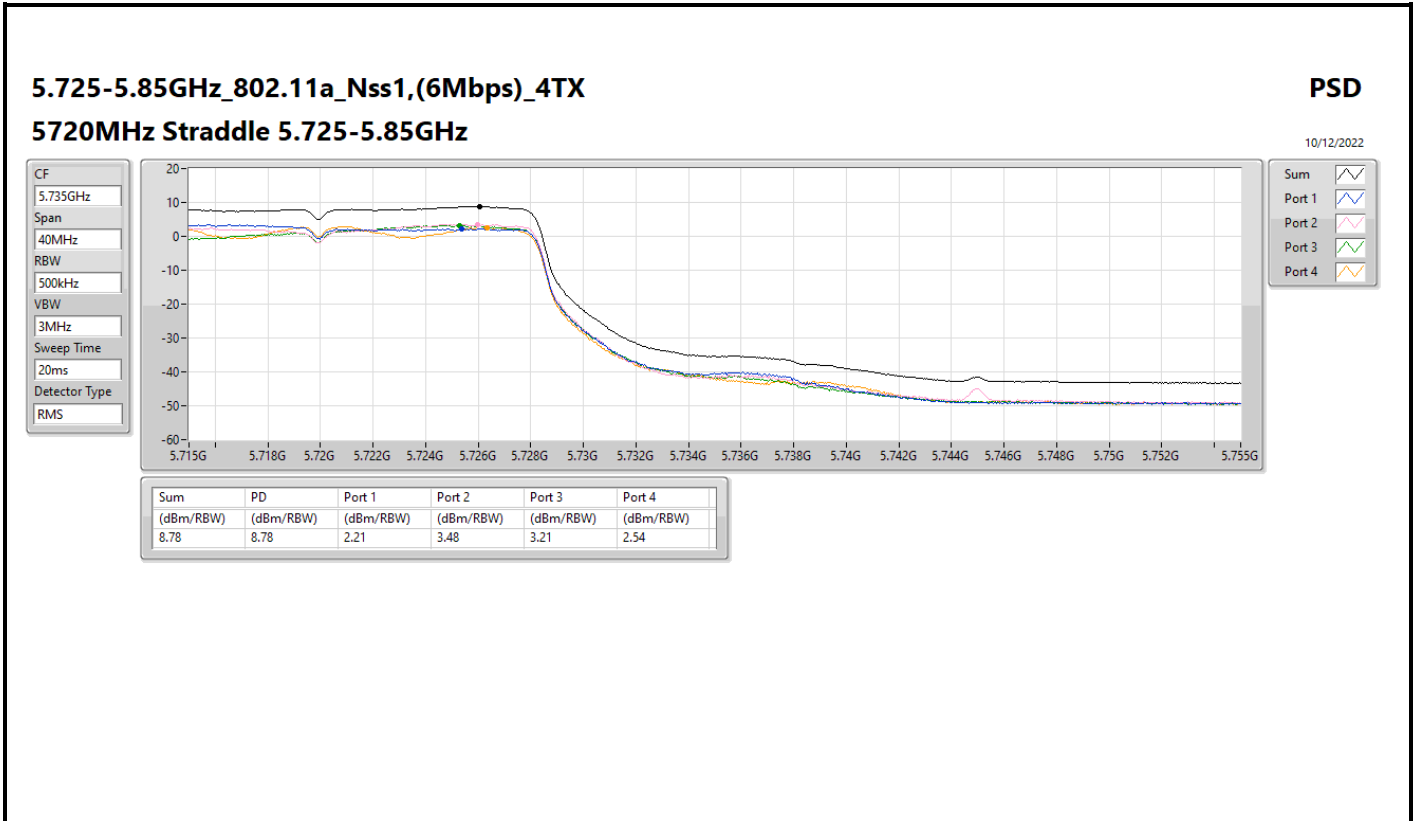
PSD

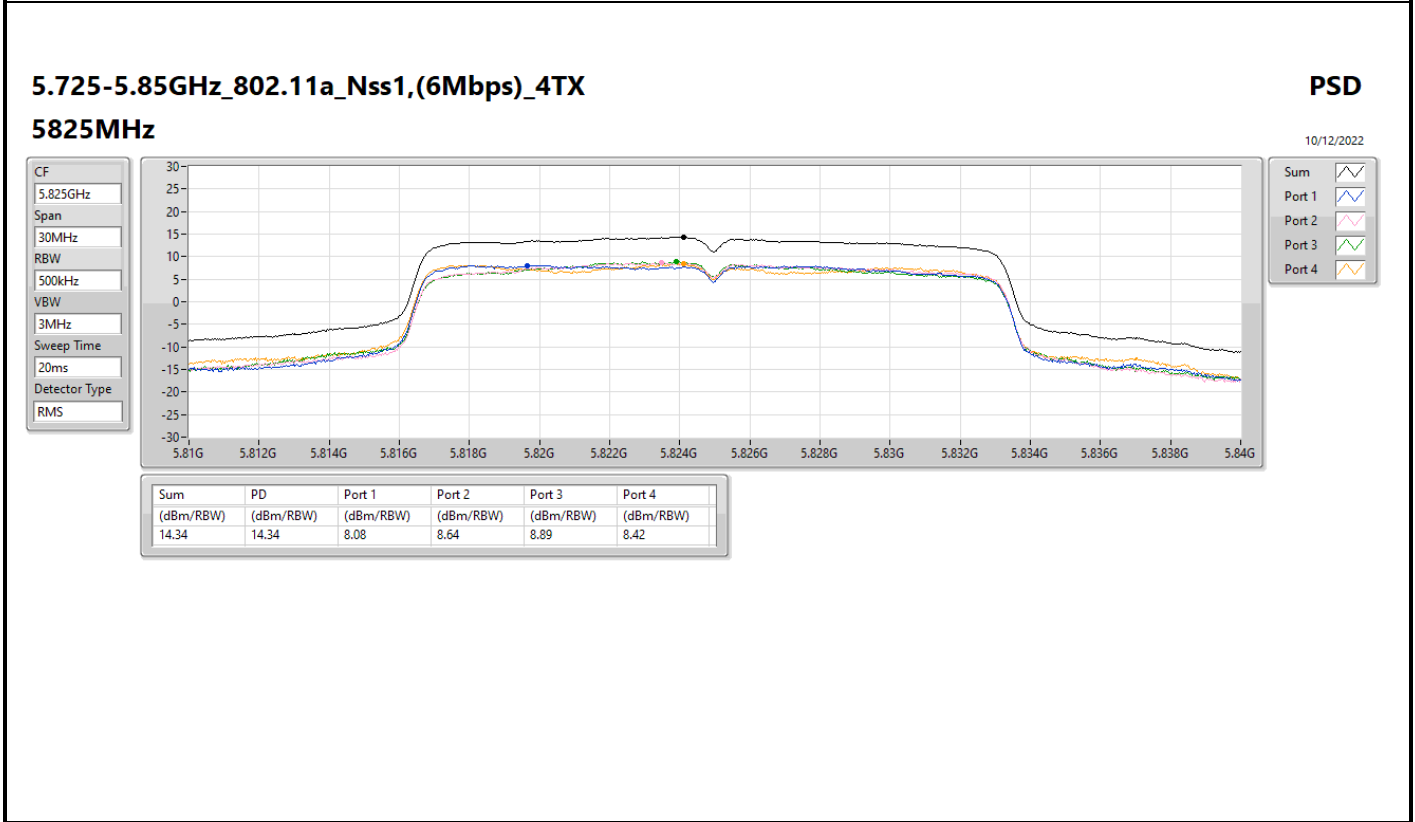
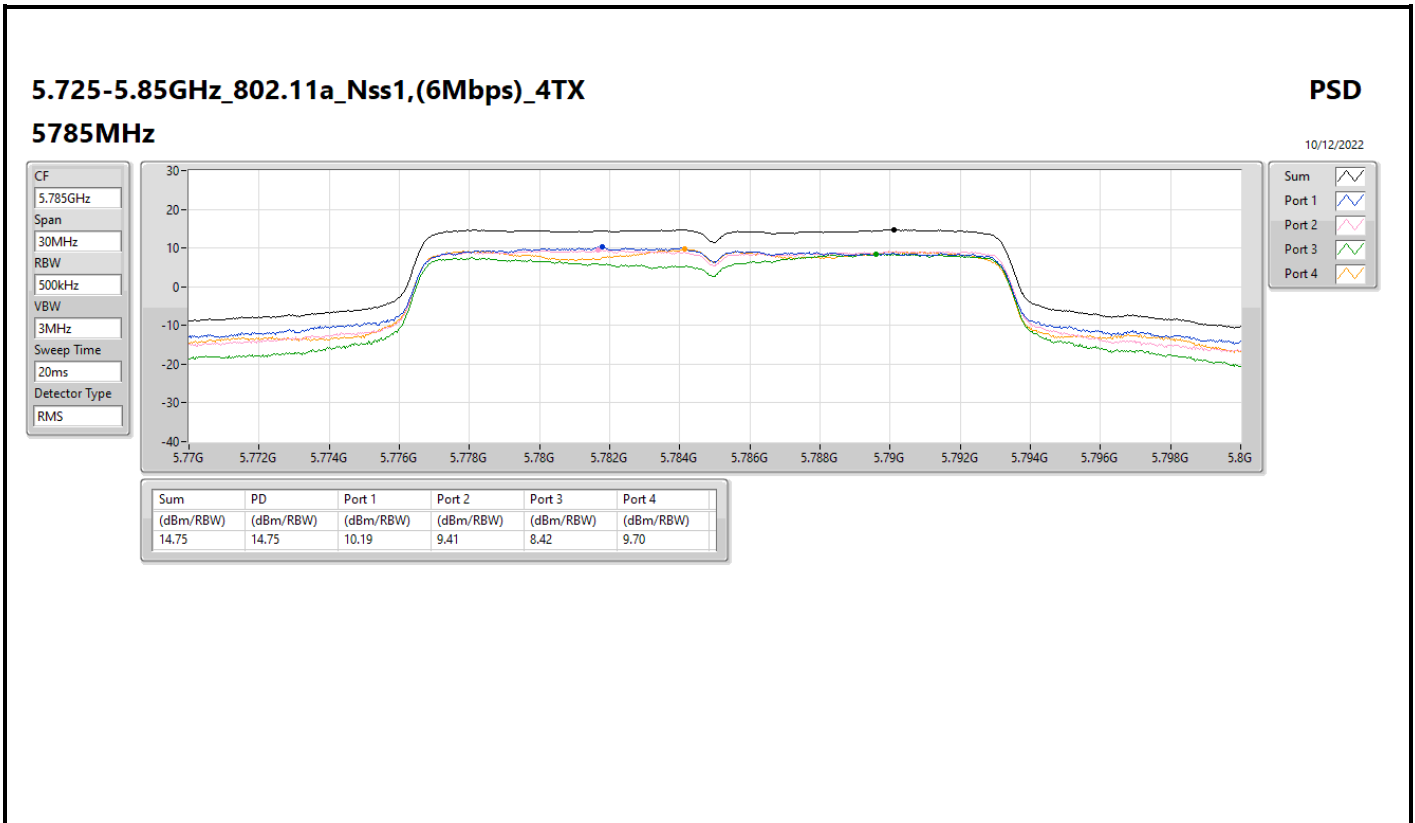
10/12/2022

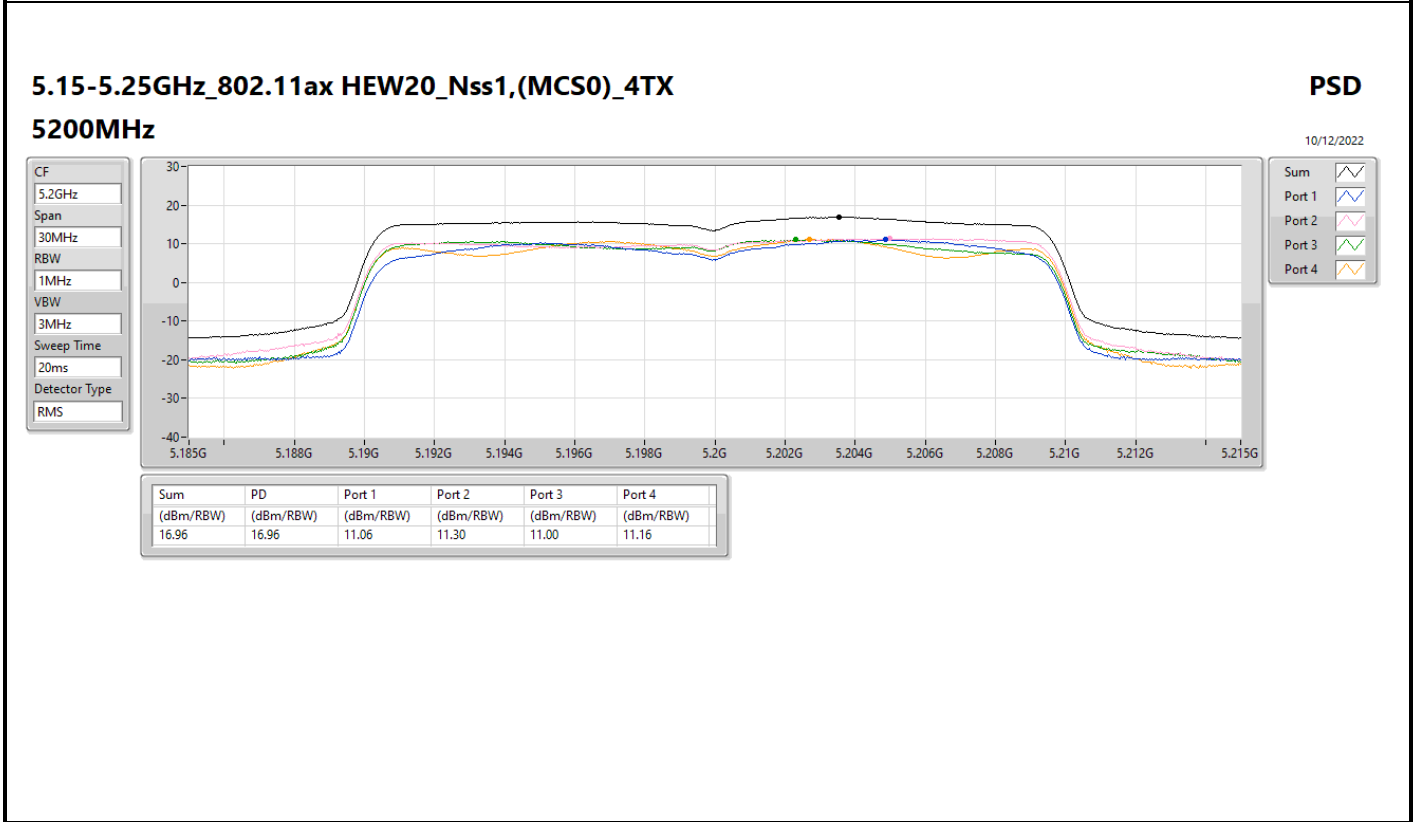
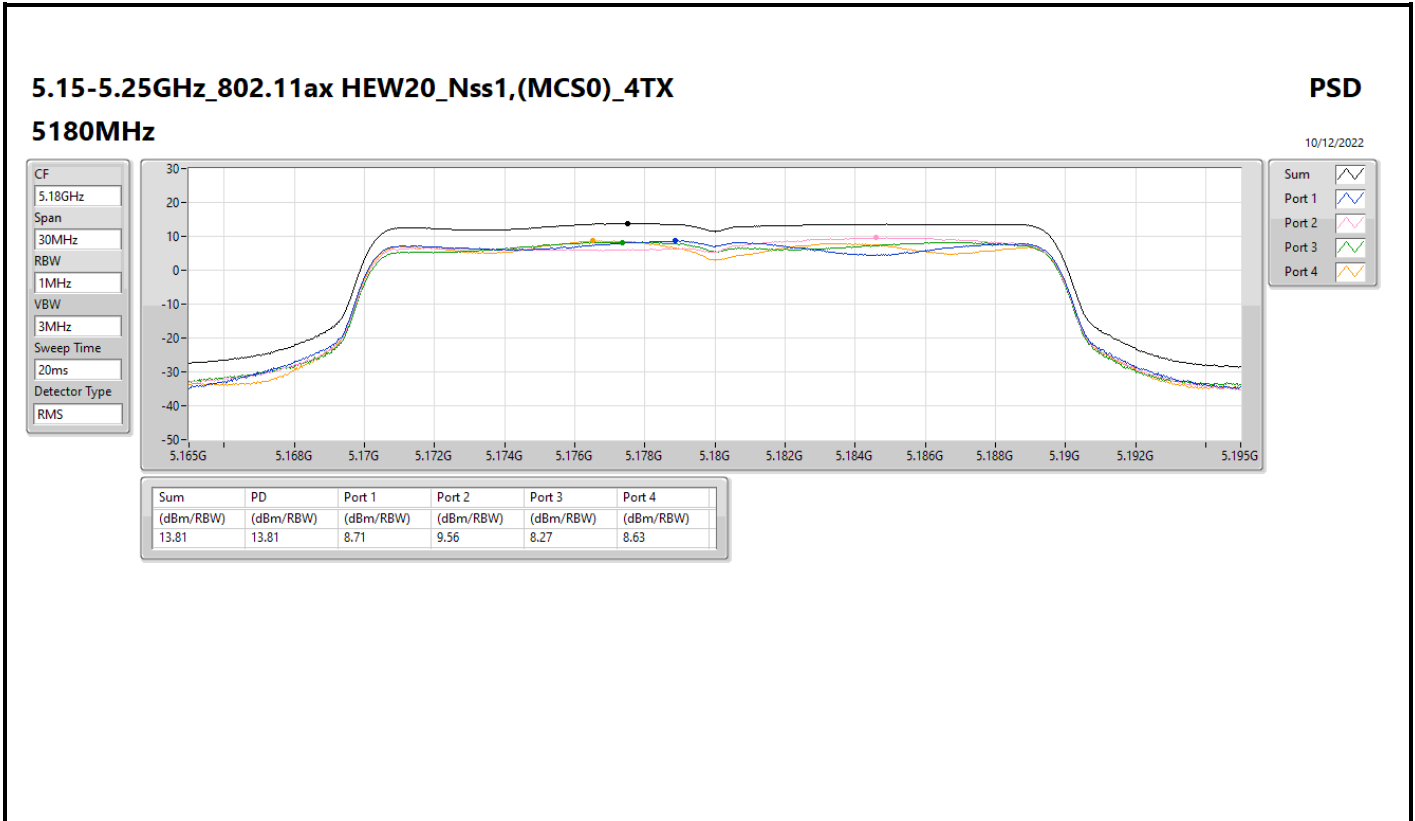


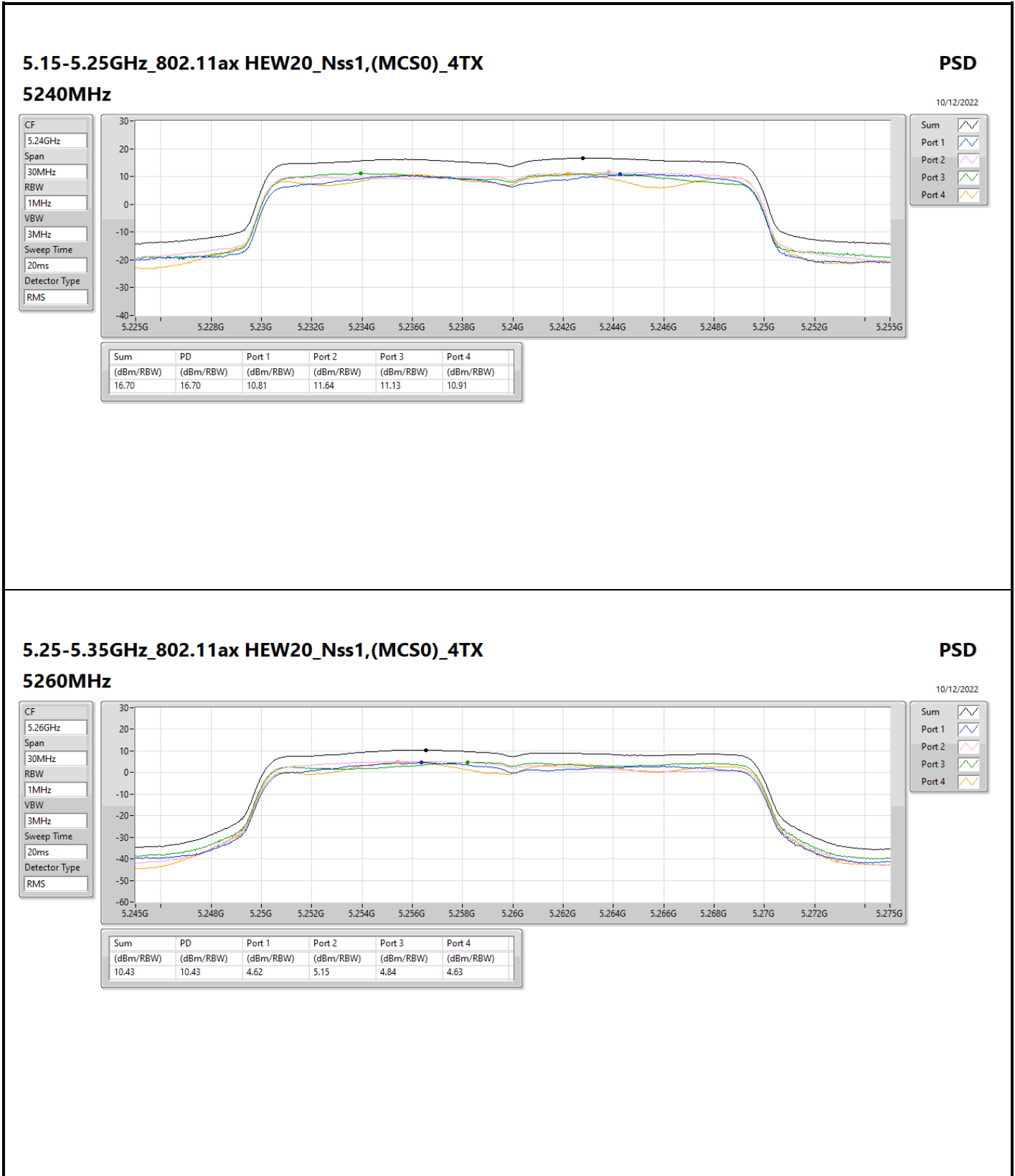










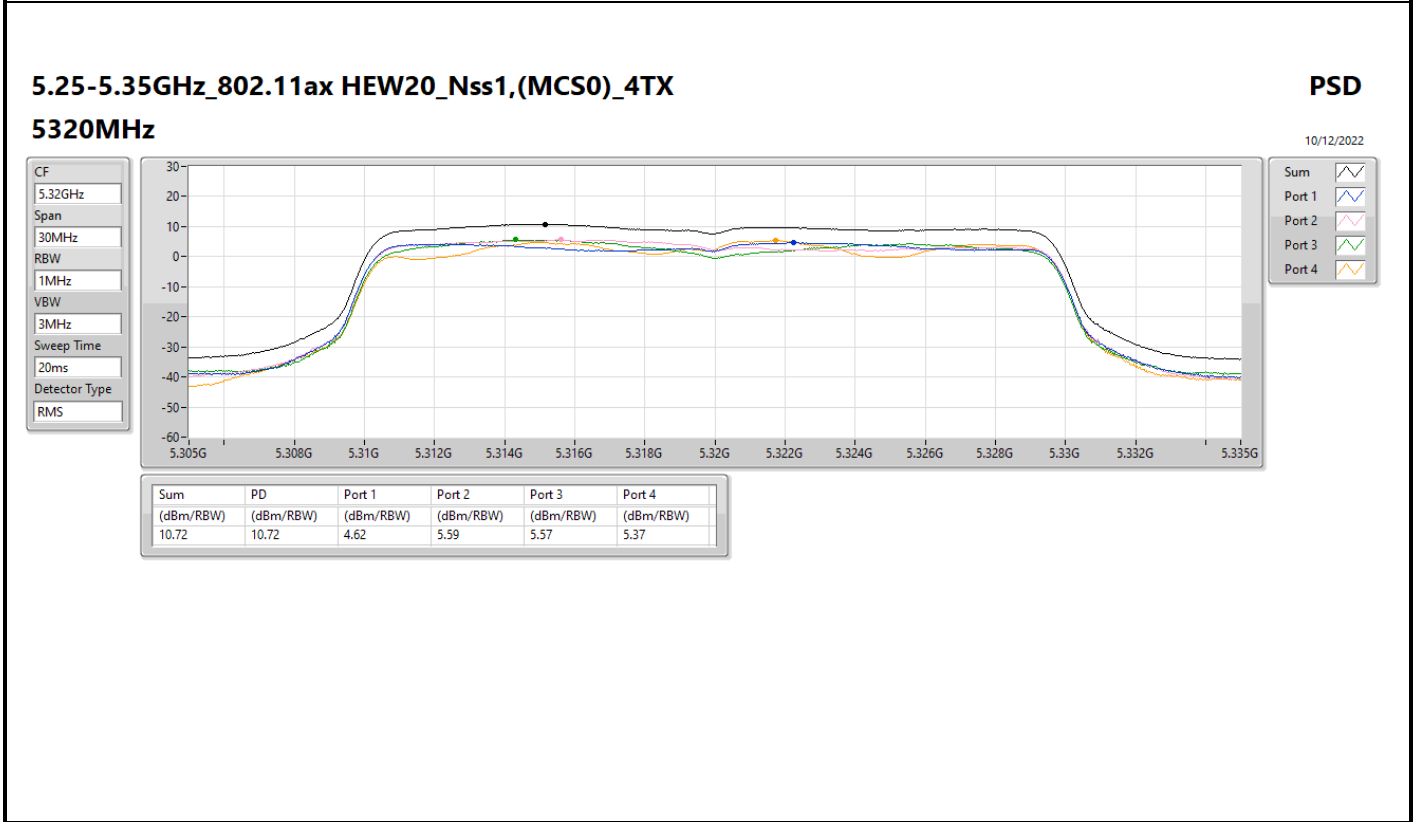
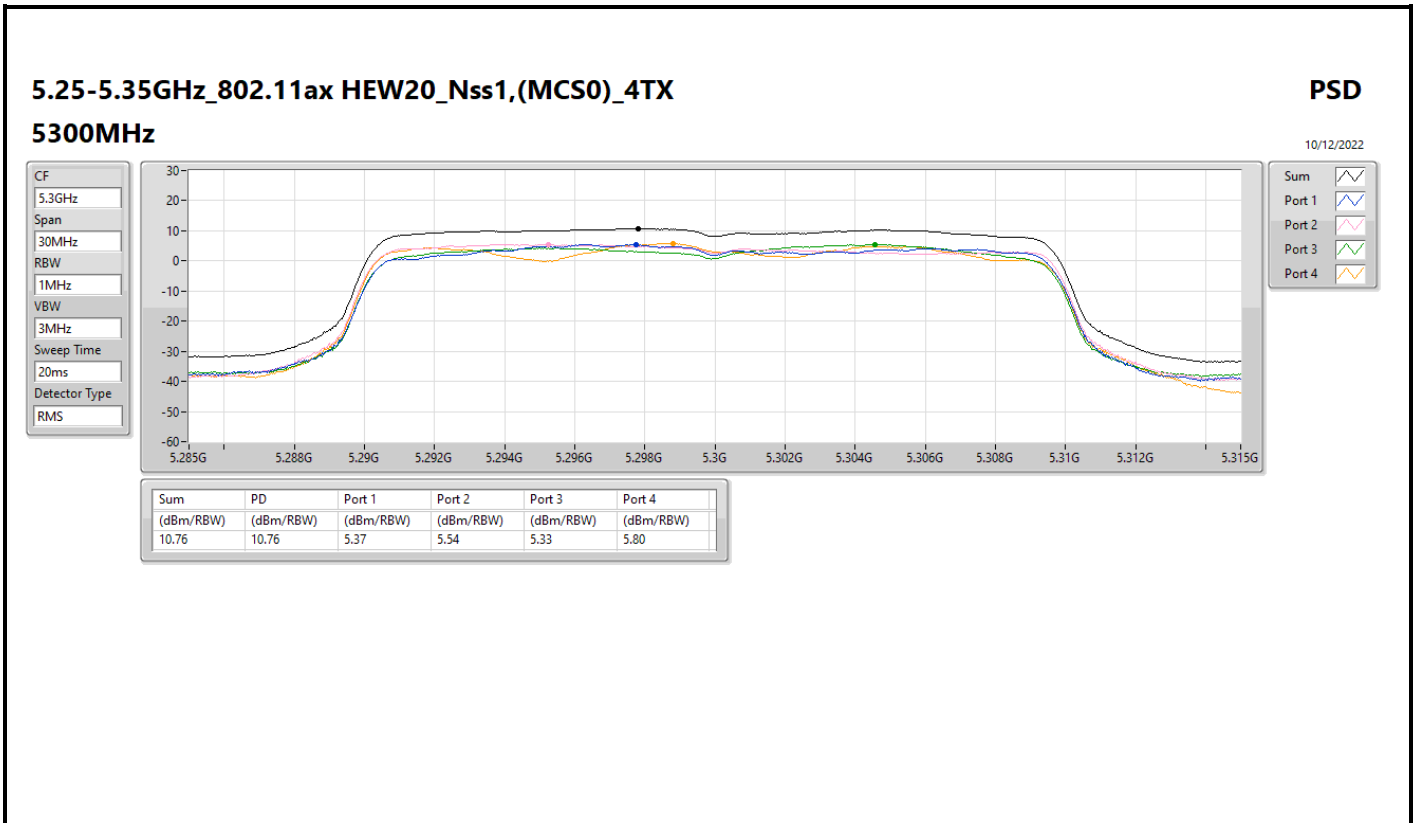


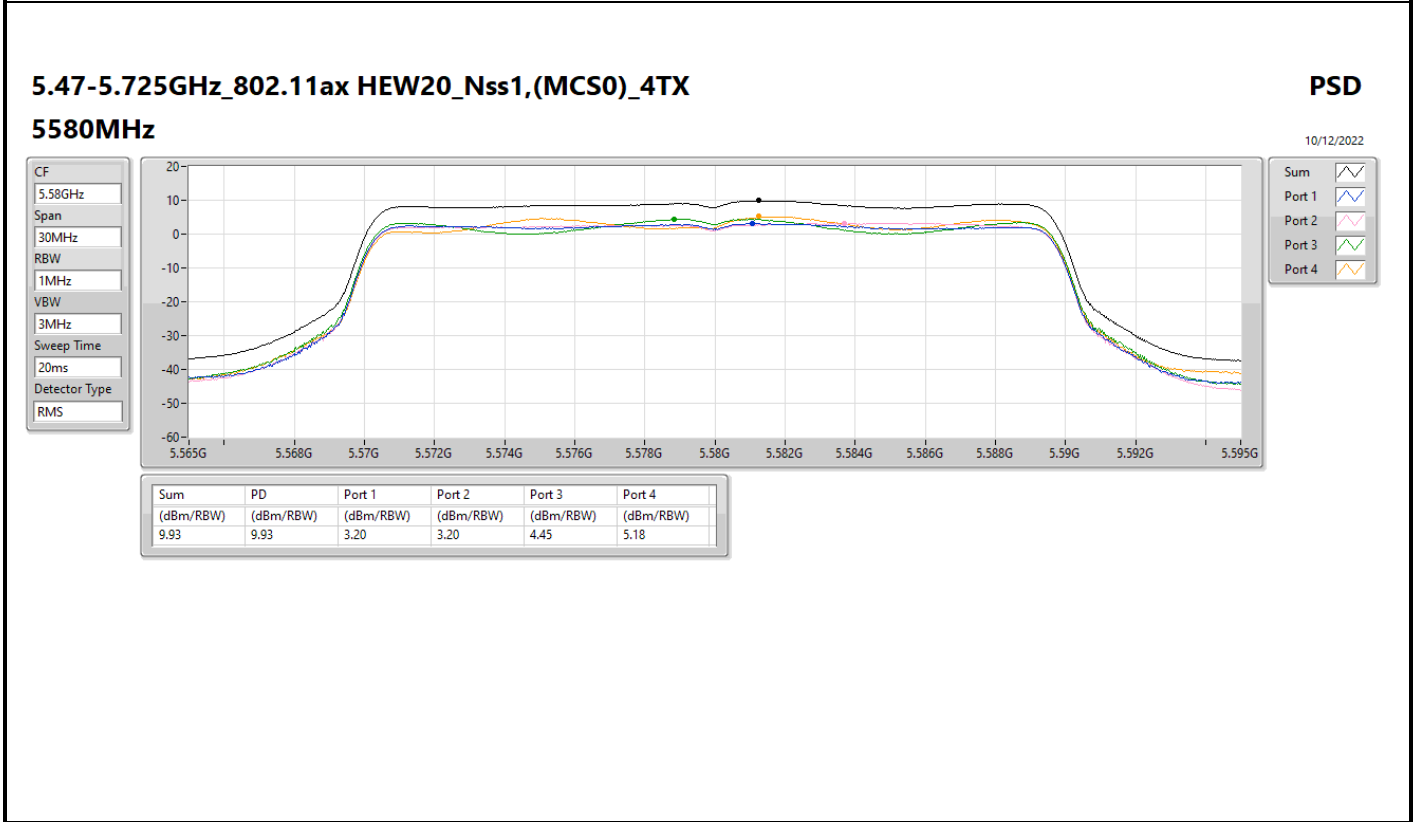
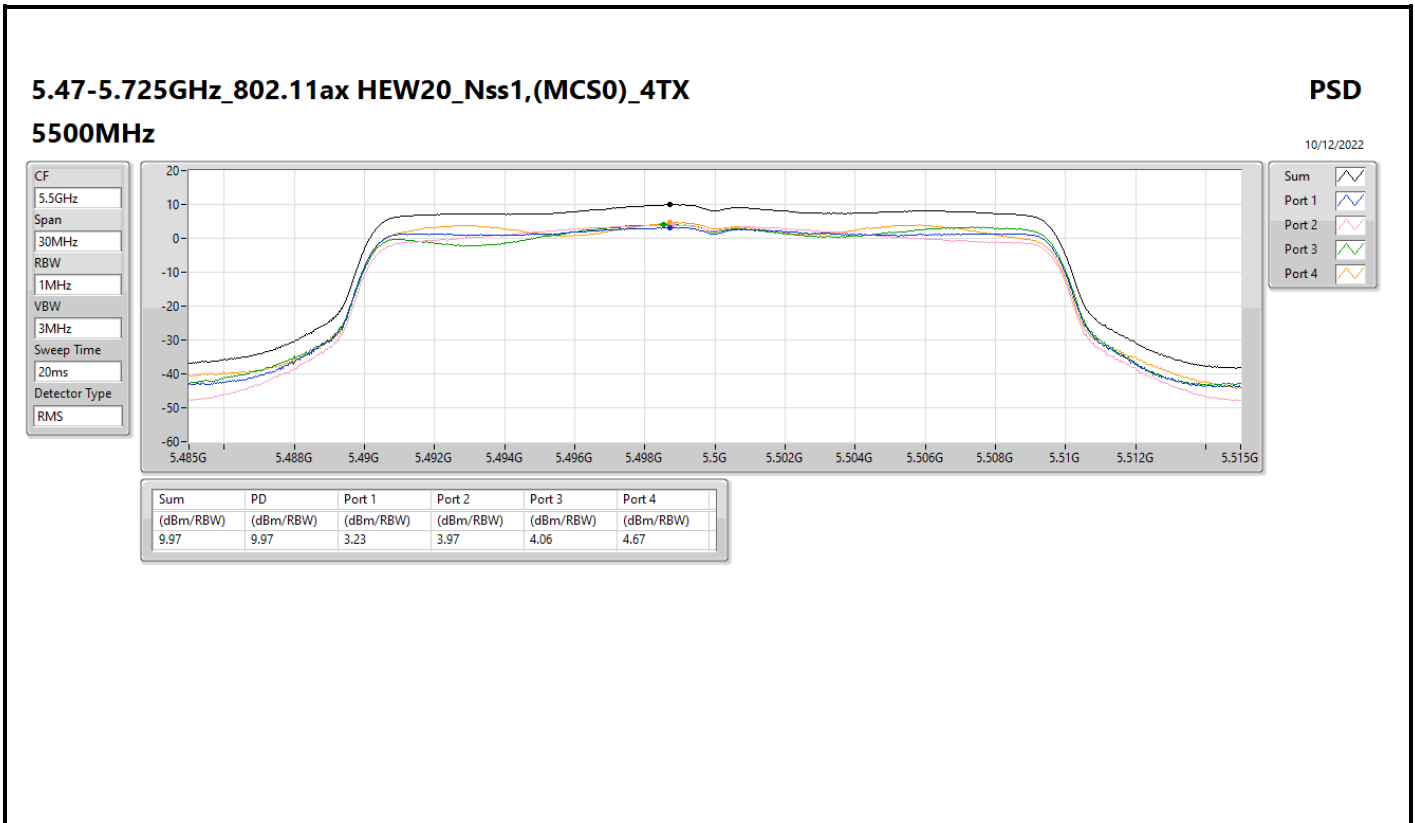
5.25-5.35GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

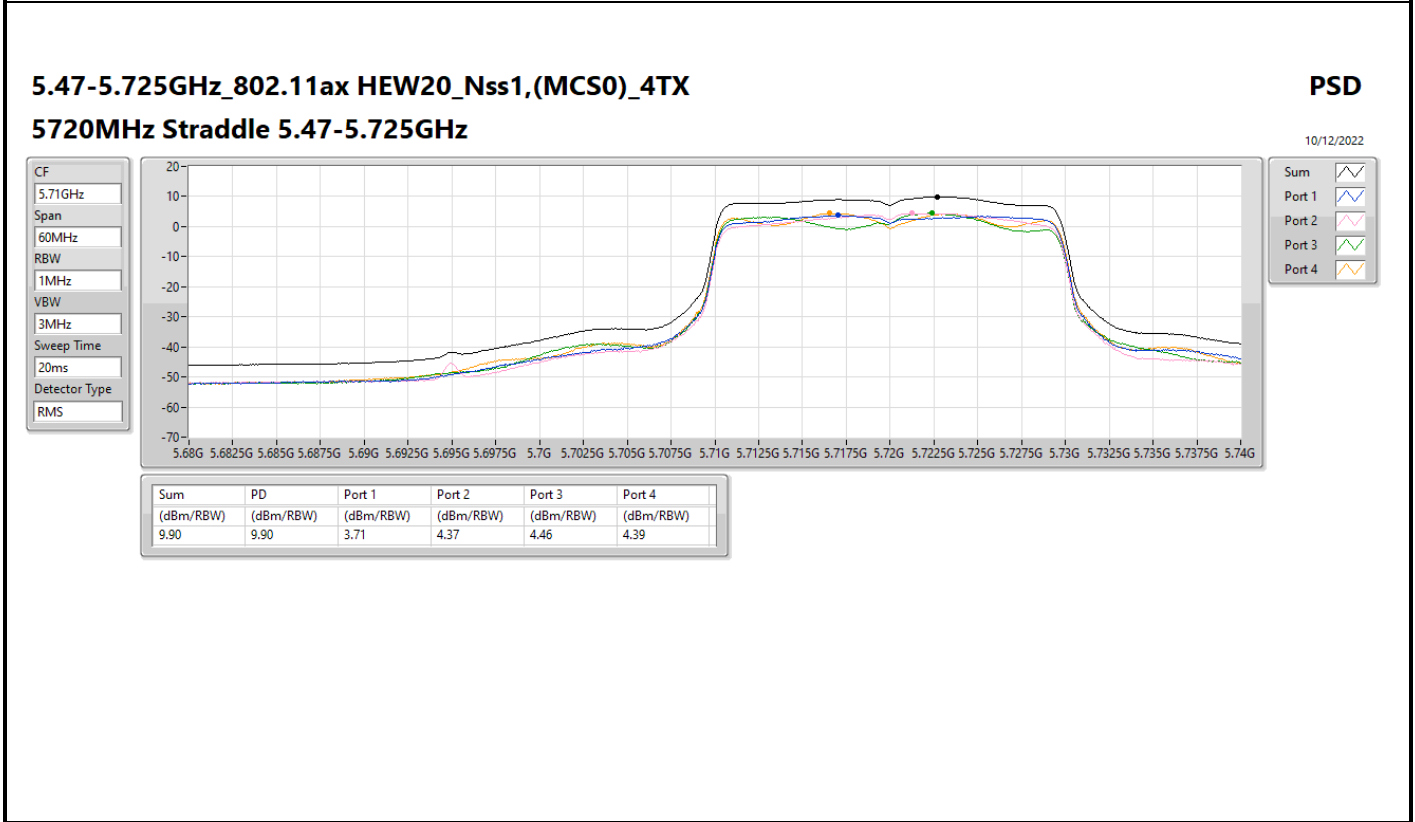
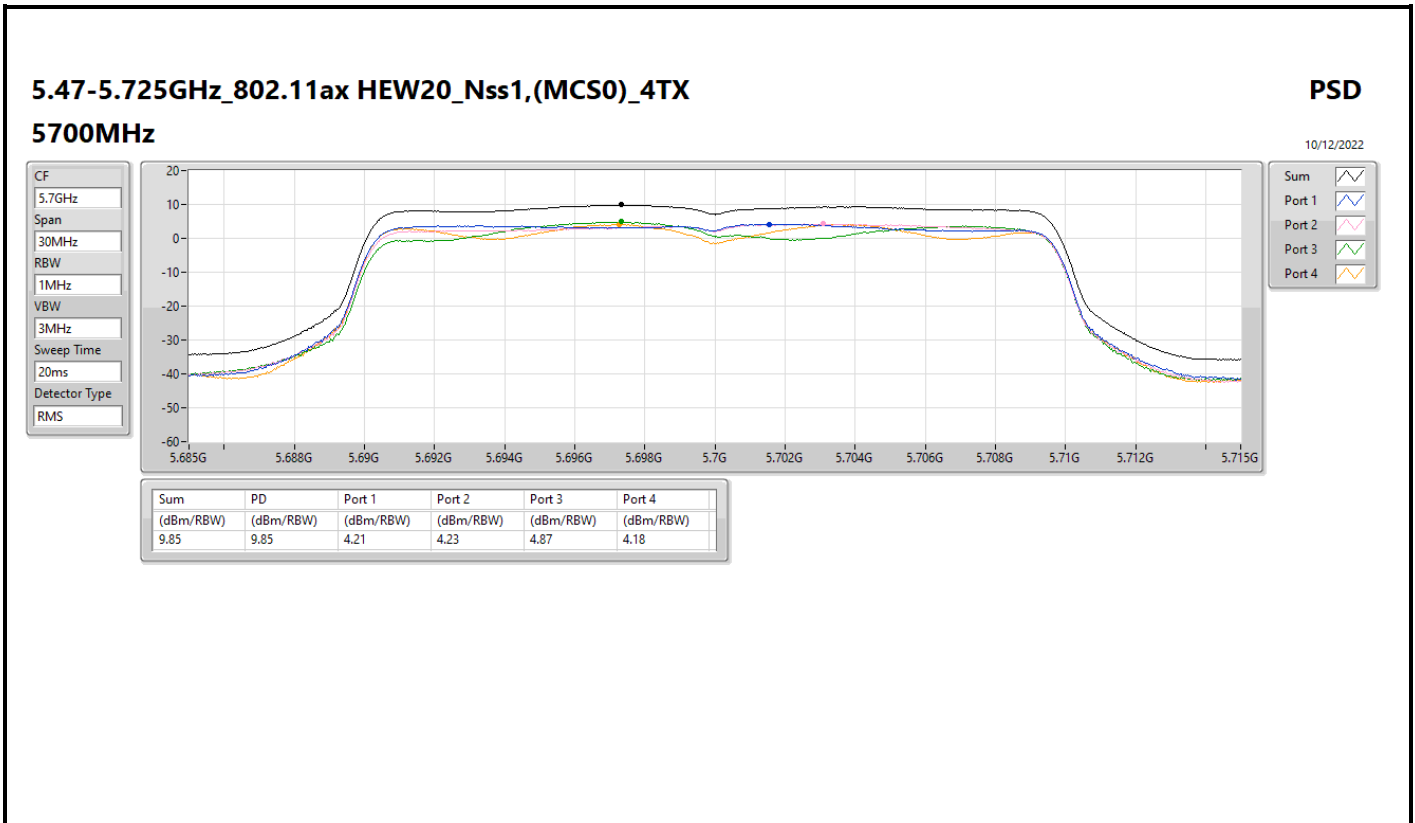
5260MHz

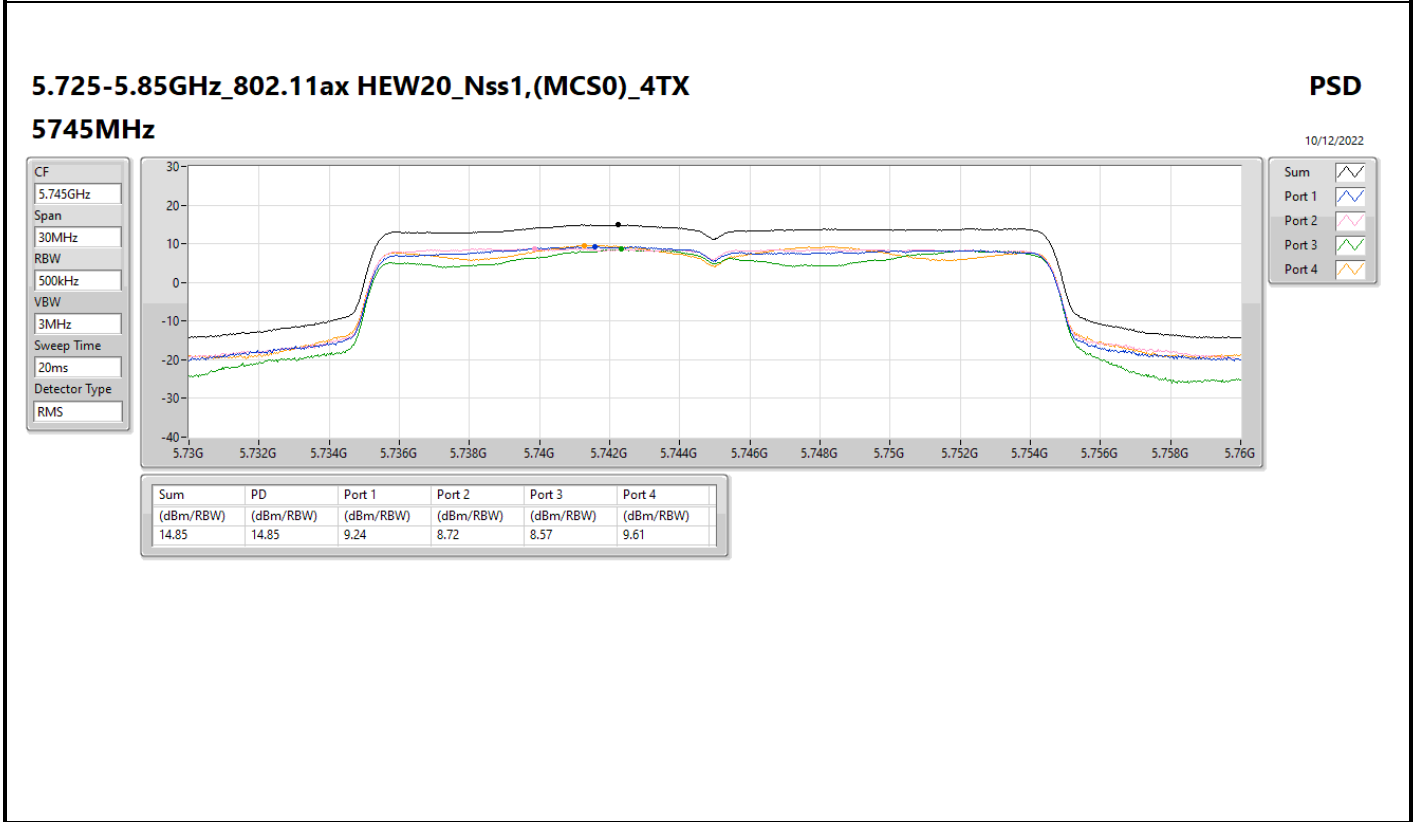
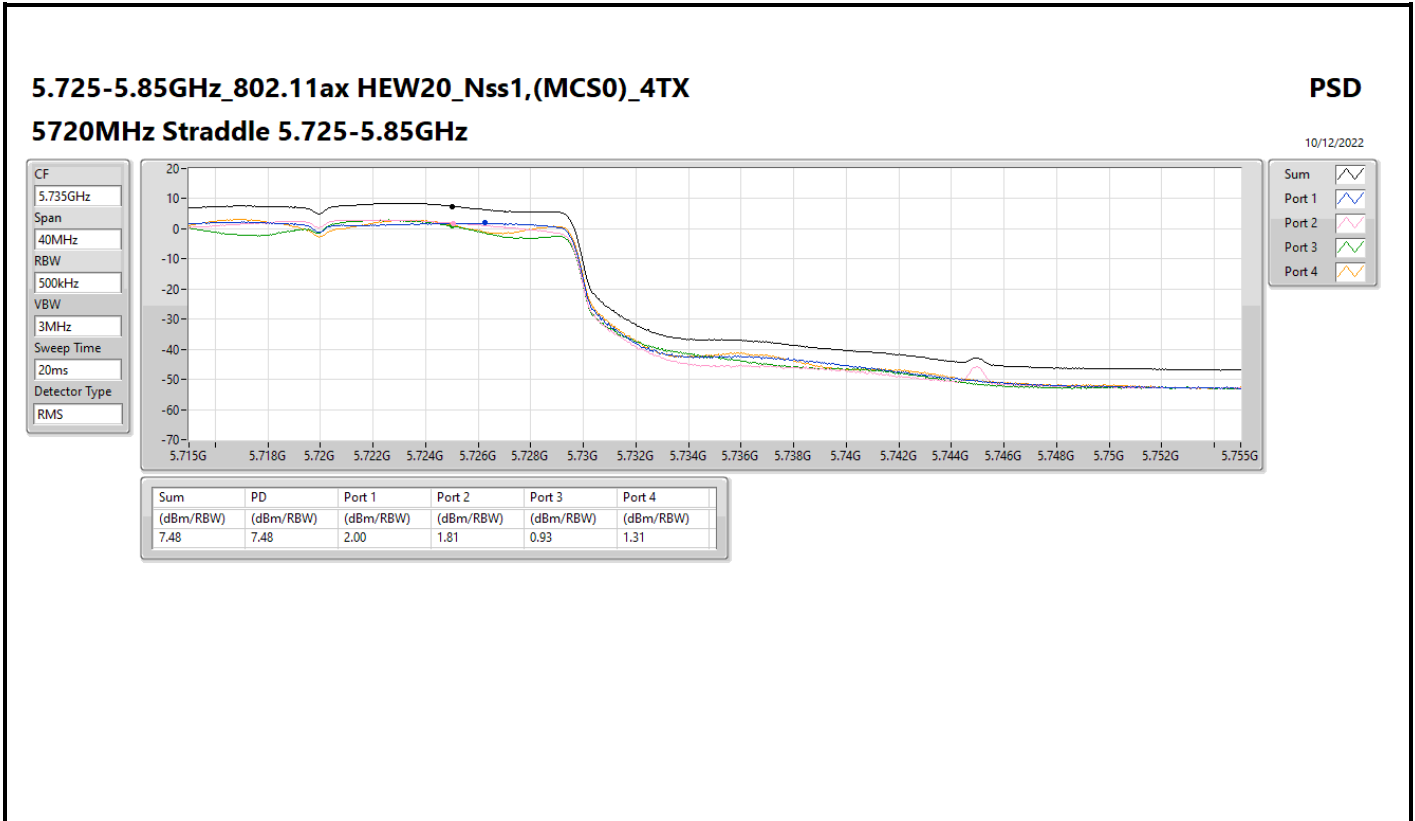
PSD

10/12/2022







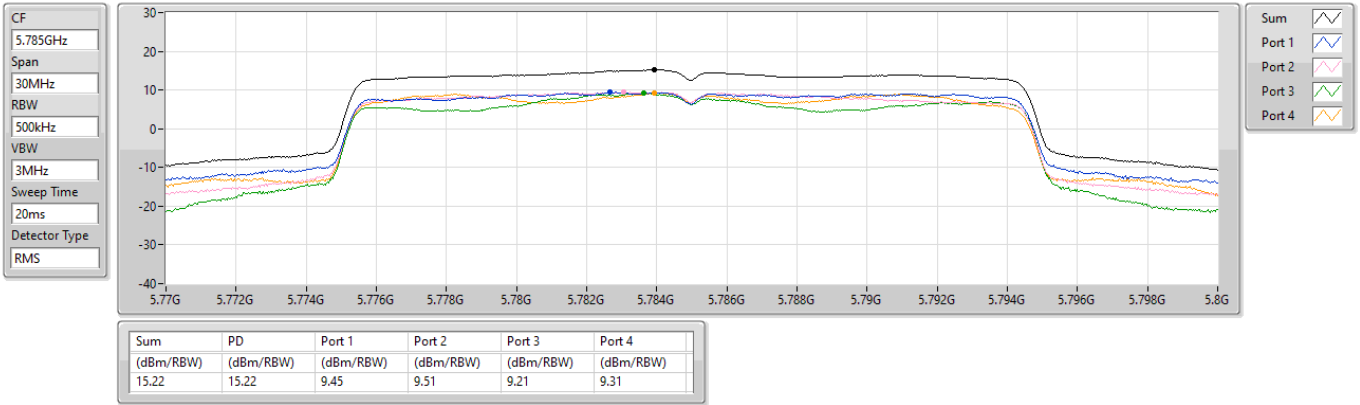


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

PSD

5785MHz

10/12/2022

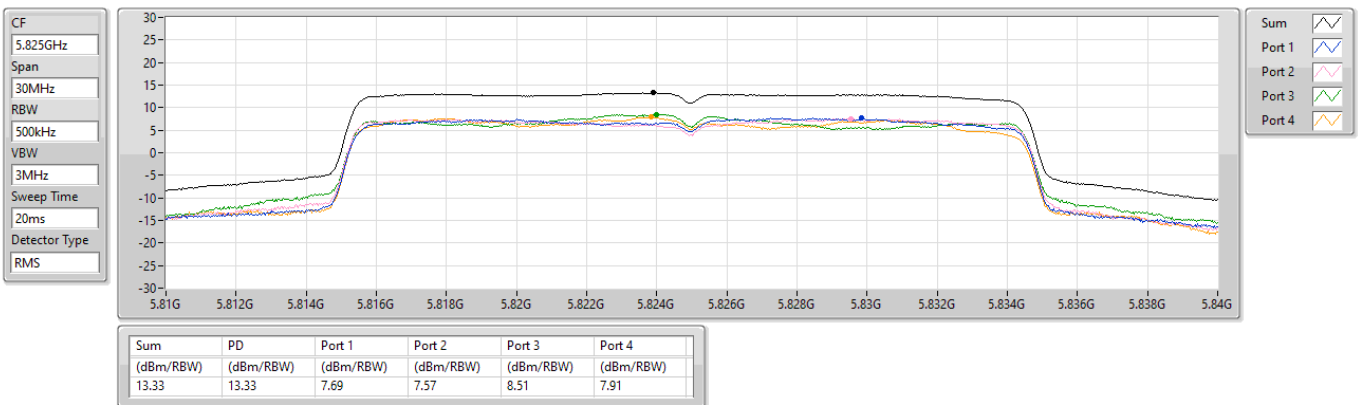


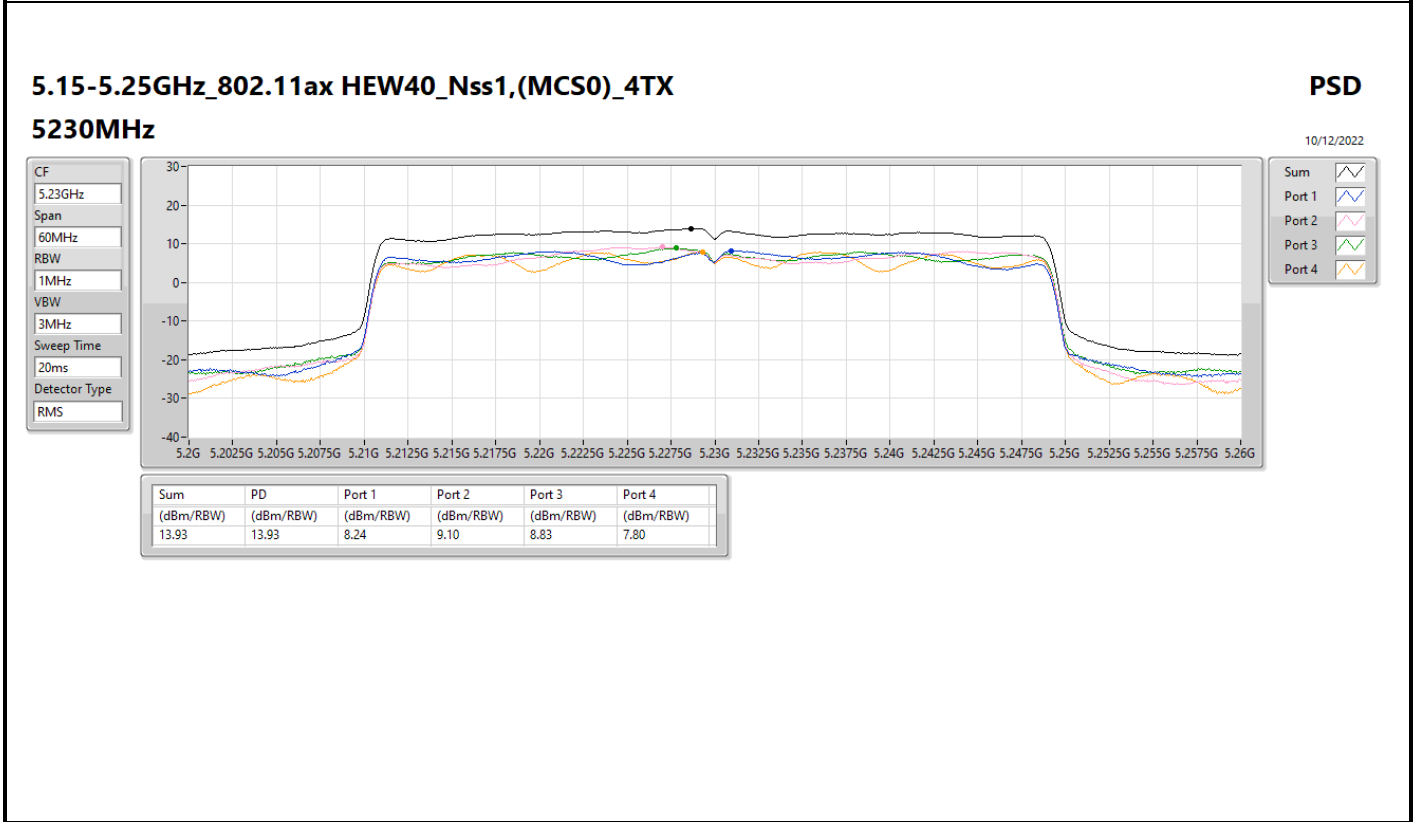
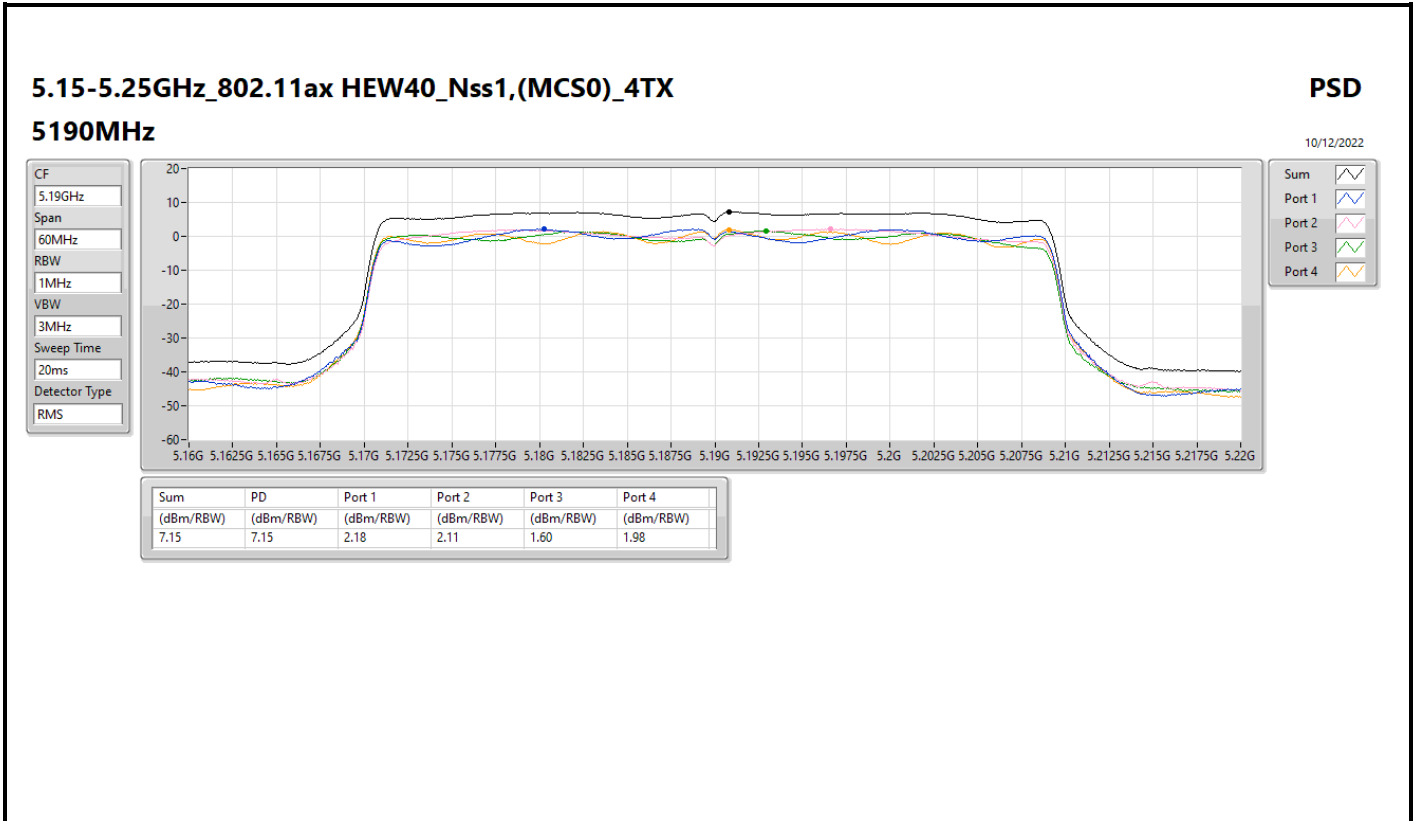
5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

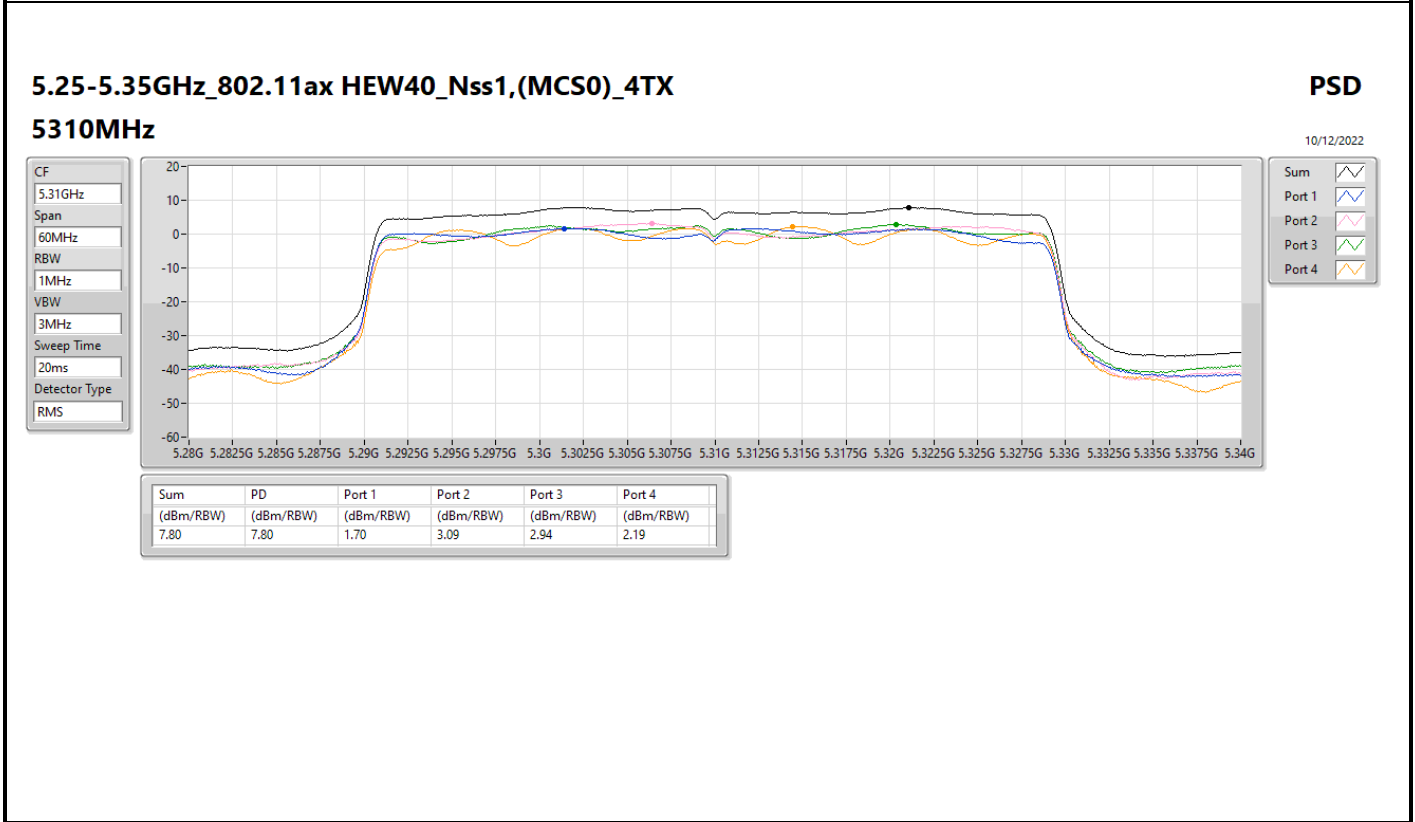
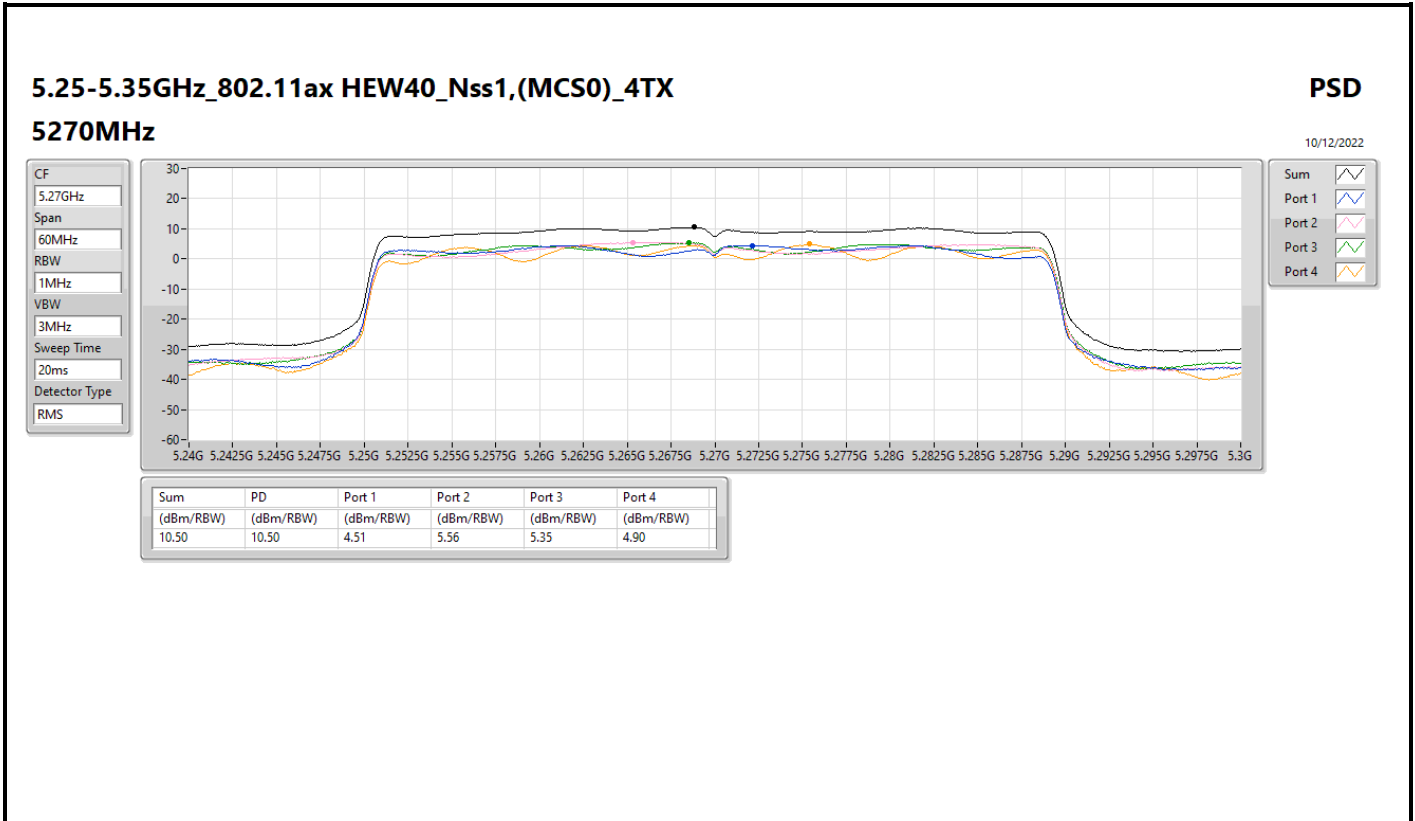
PSD

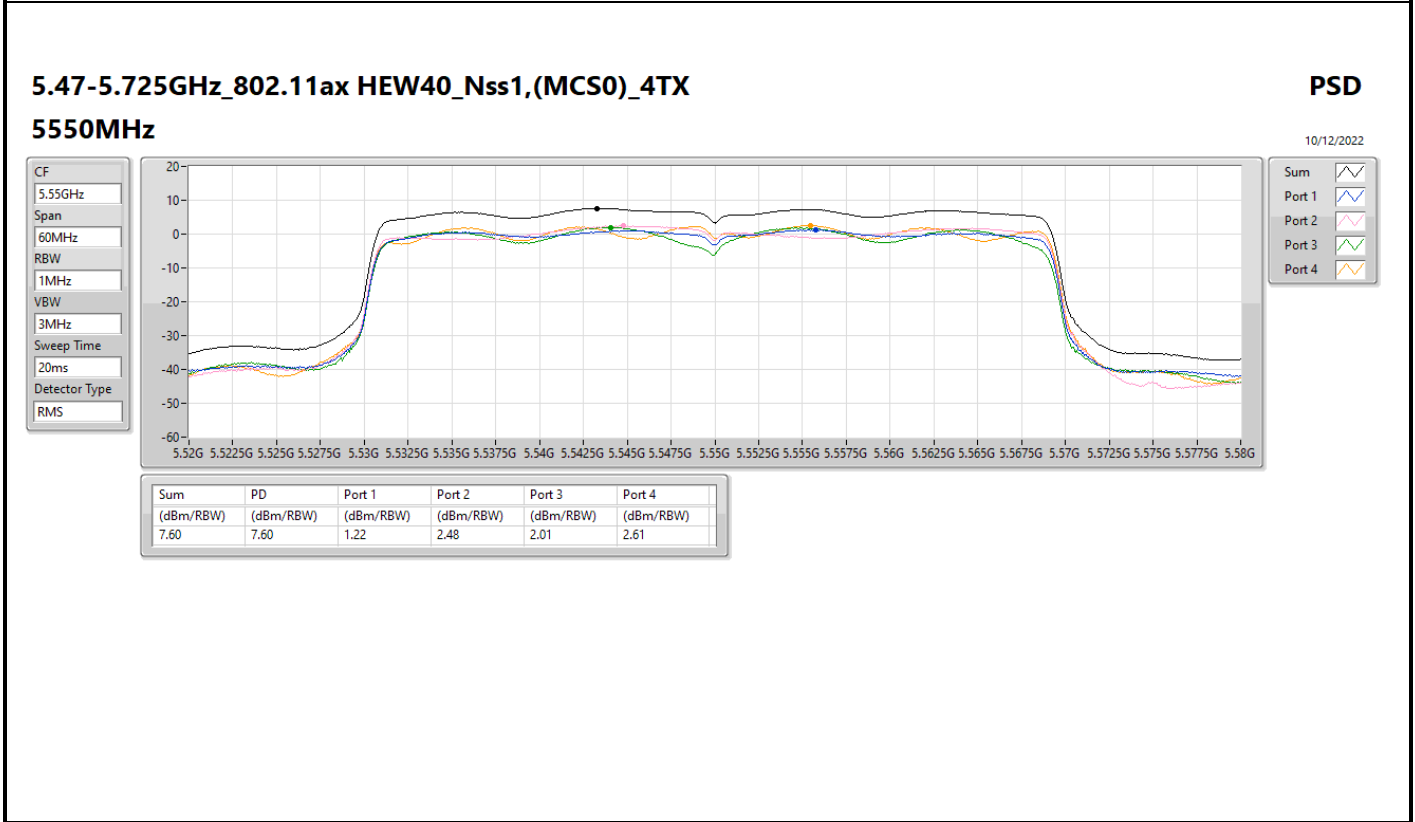
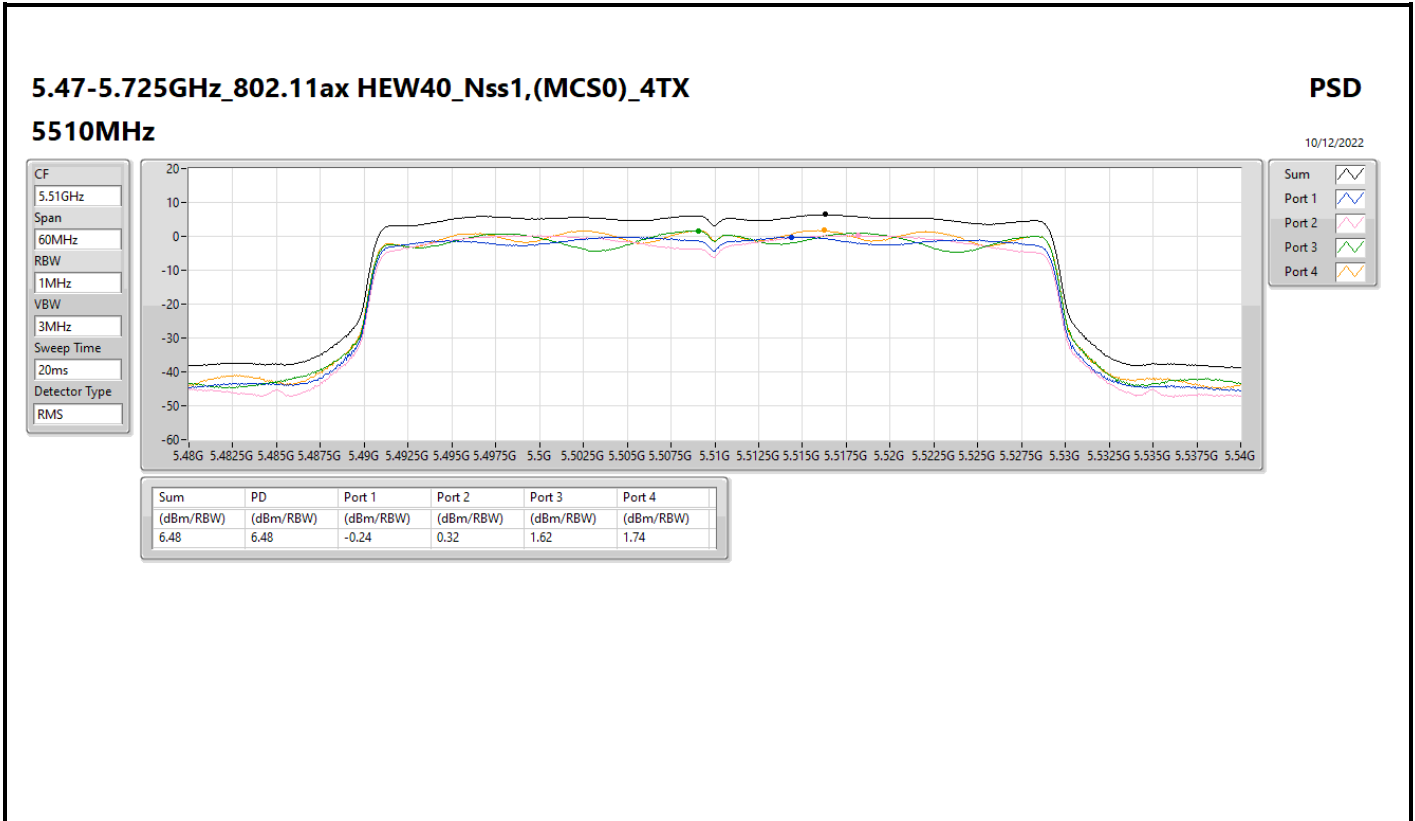
5825MHz

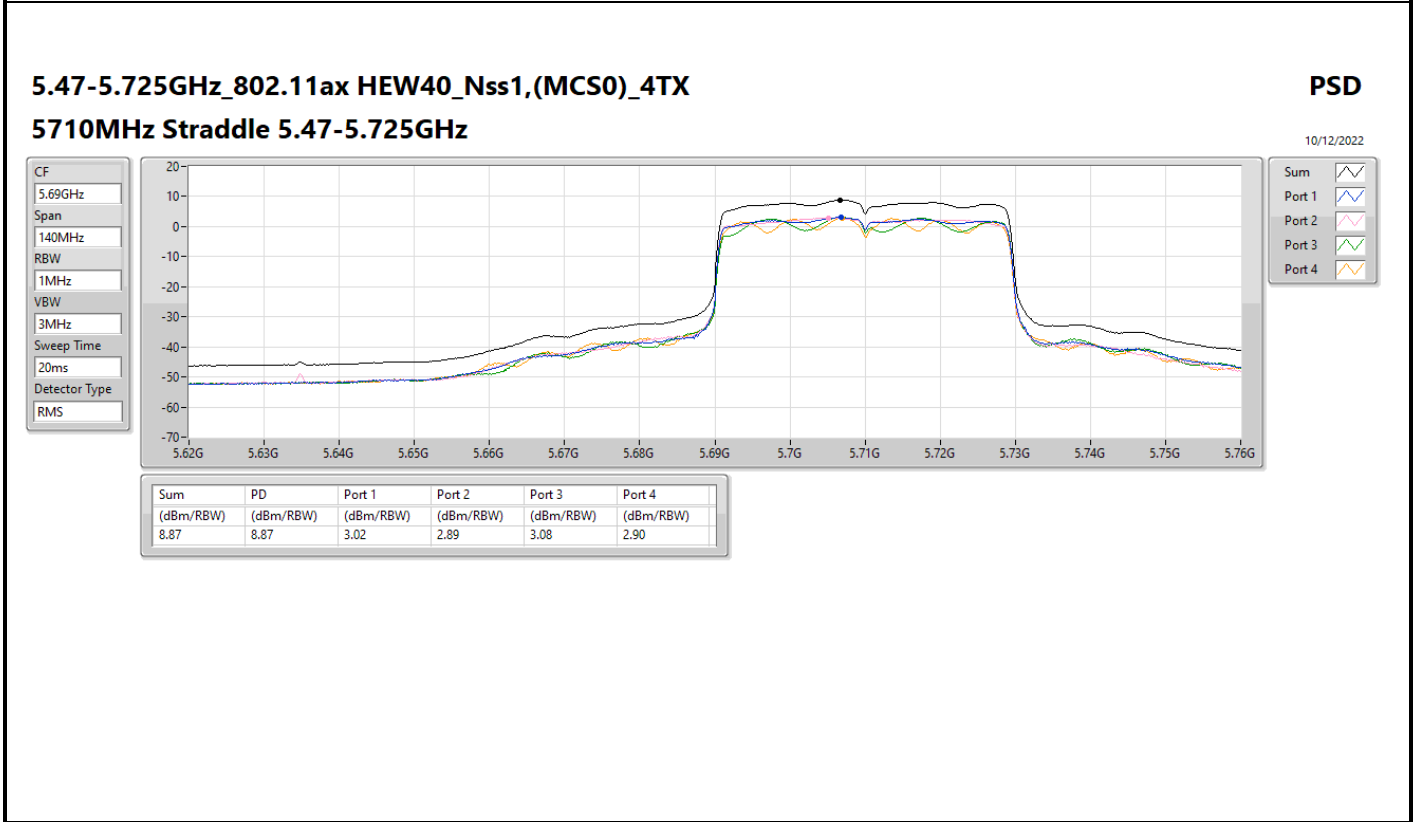
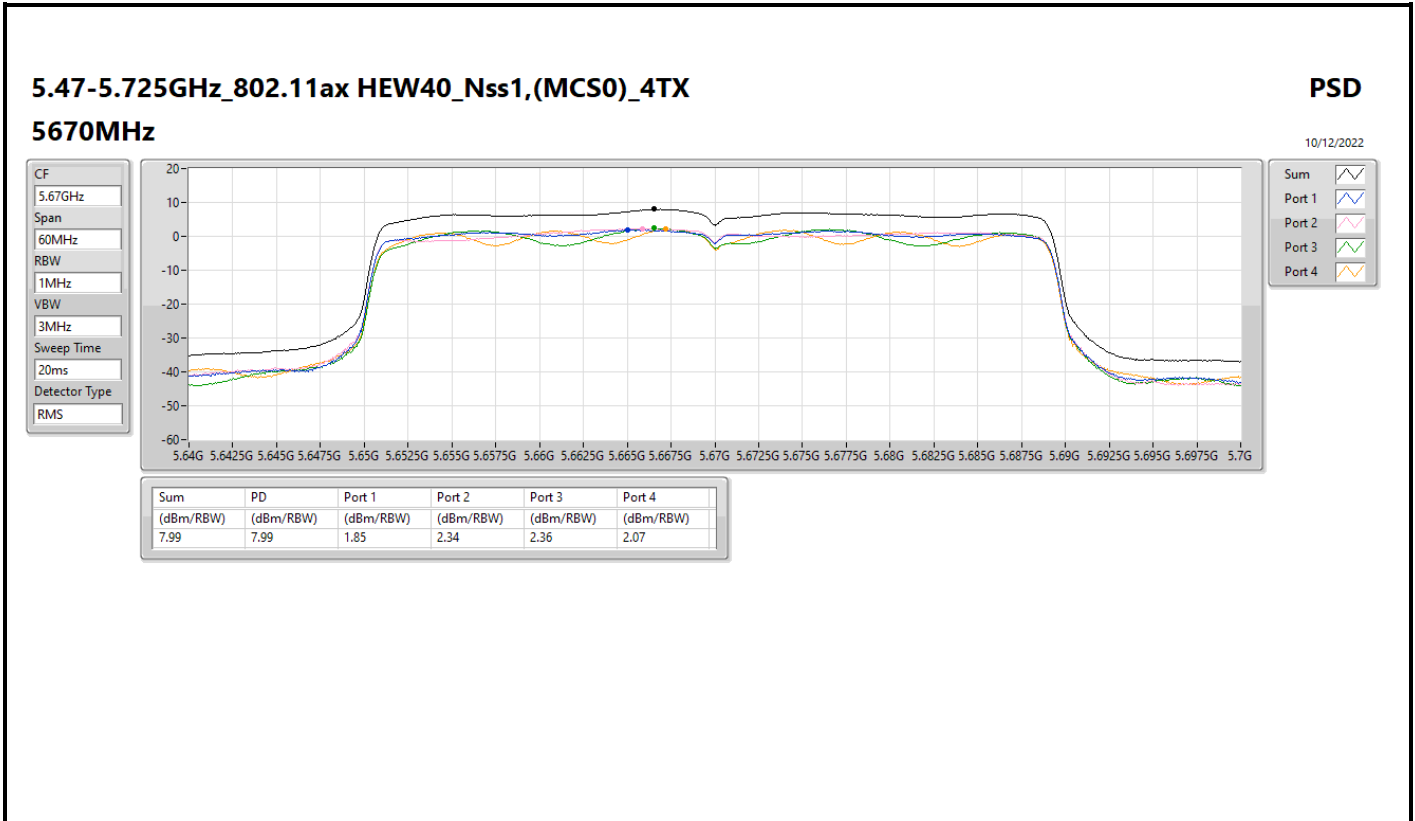
10/12/2022

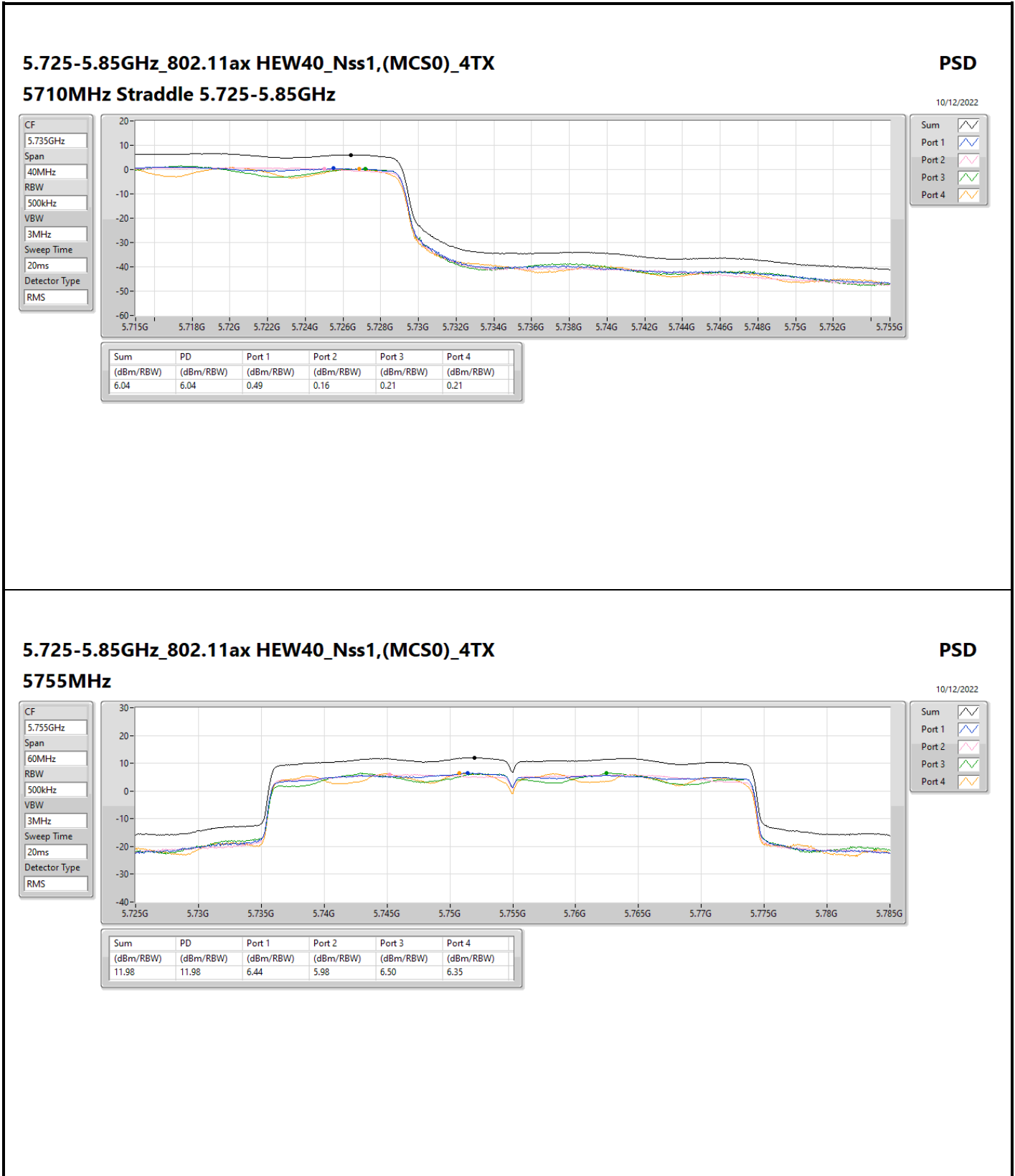










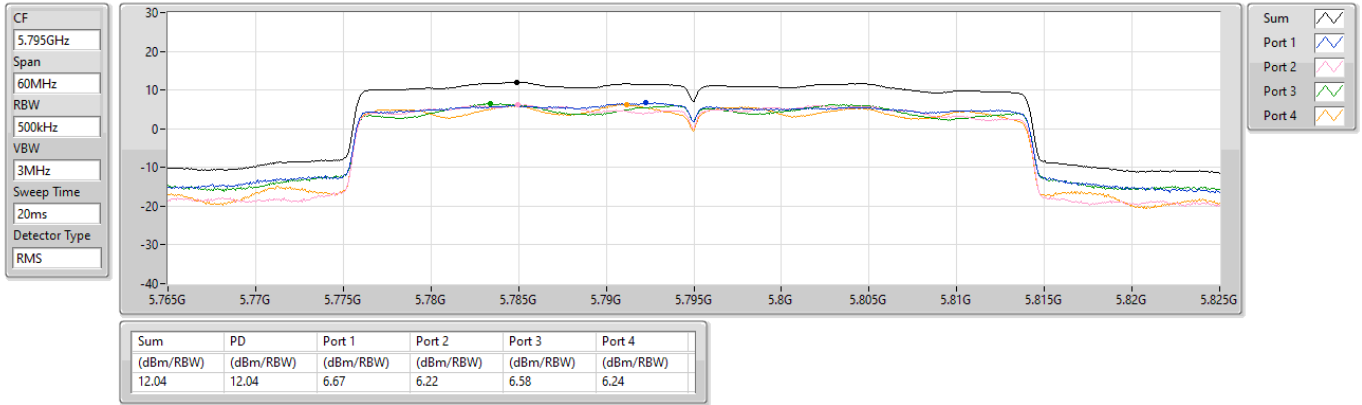


5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

PSD

5795MHz

10/12/2022

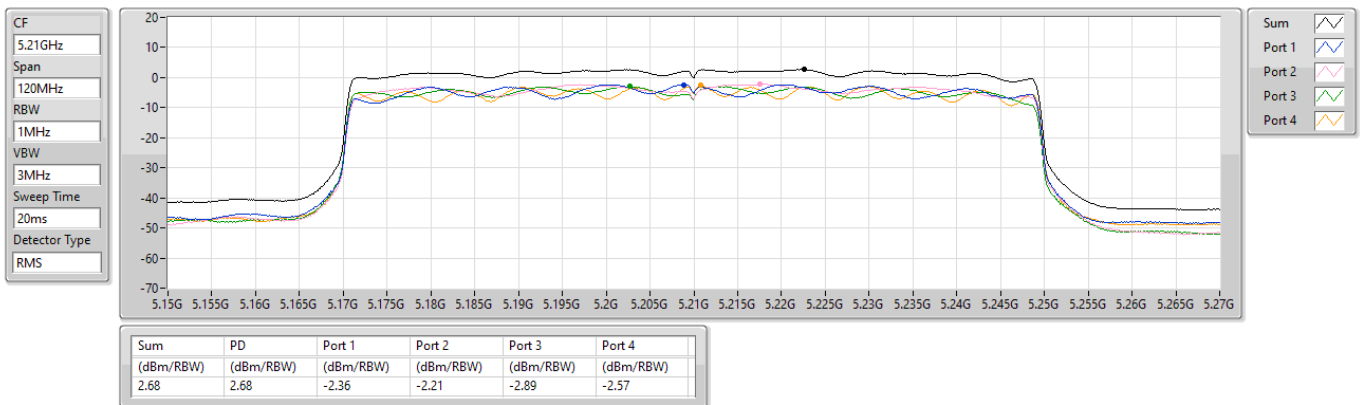


5.15-5.25GHz_802.11ax HEW80_Nss1,(MCS0)_4TX

PSD

5210MHz

10/12/2022



5.25-5.35GHz_802.11ax HEW80_Nss1,(MCS0)_4TX

5290MHz

PSD

10/12/2022

CF
5.29GHz

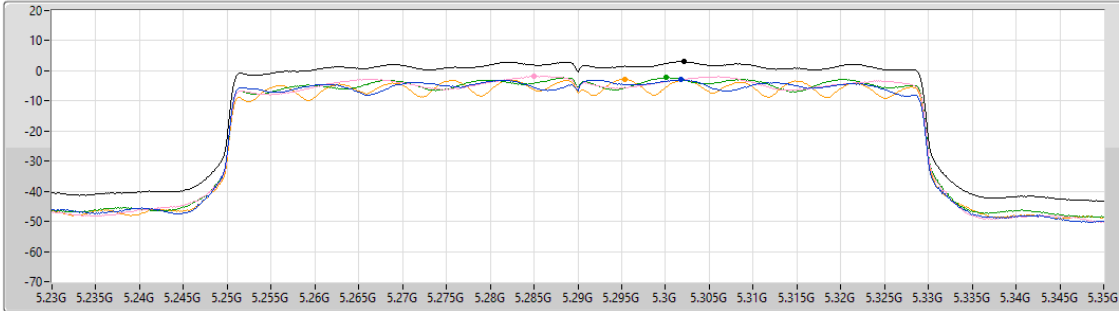
Span
120MHz


RBW
1MHz


VBW
3MHz


Sweep Time
20ms


Detector Type
RMS




Sum 

Port 1 

Port 2 

Port 3 

Port 4 

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.05	3.05	-3.02	-1.79	-2.31	-2.76

5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_4TX

5530MHz

PSD

10/12/2022

CF
5.53GHz

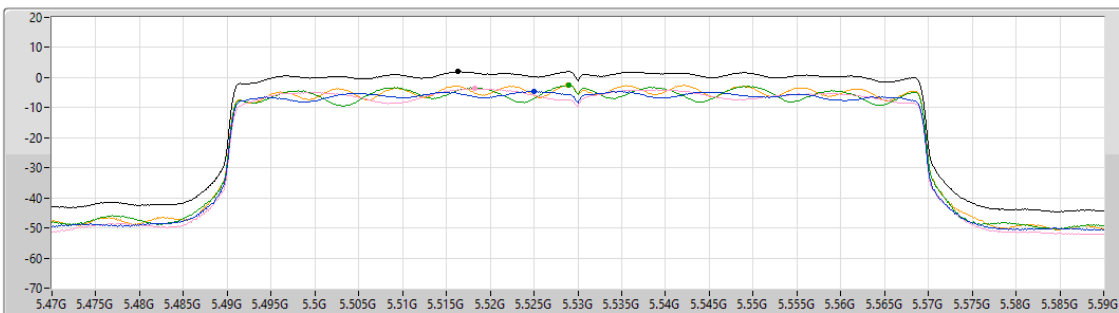
Span
120MHz


RBW
1MHz


VBW
3MHz


Sweep Time
20ms


Detector Type
RMS




Sum 

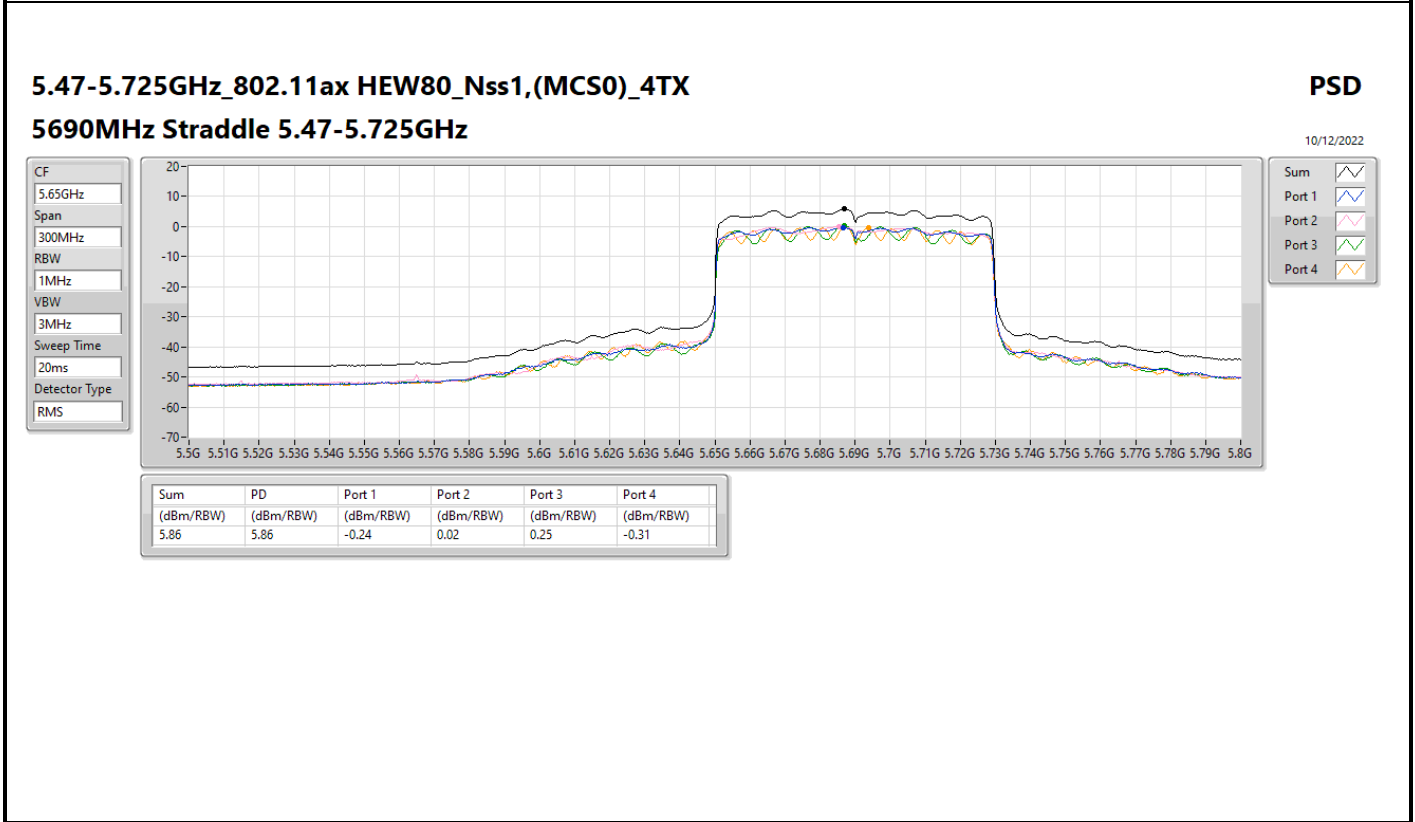
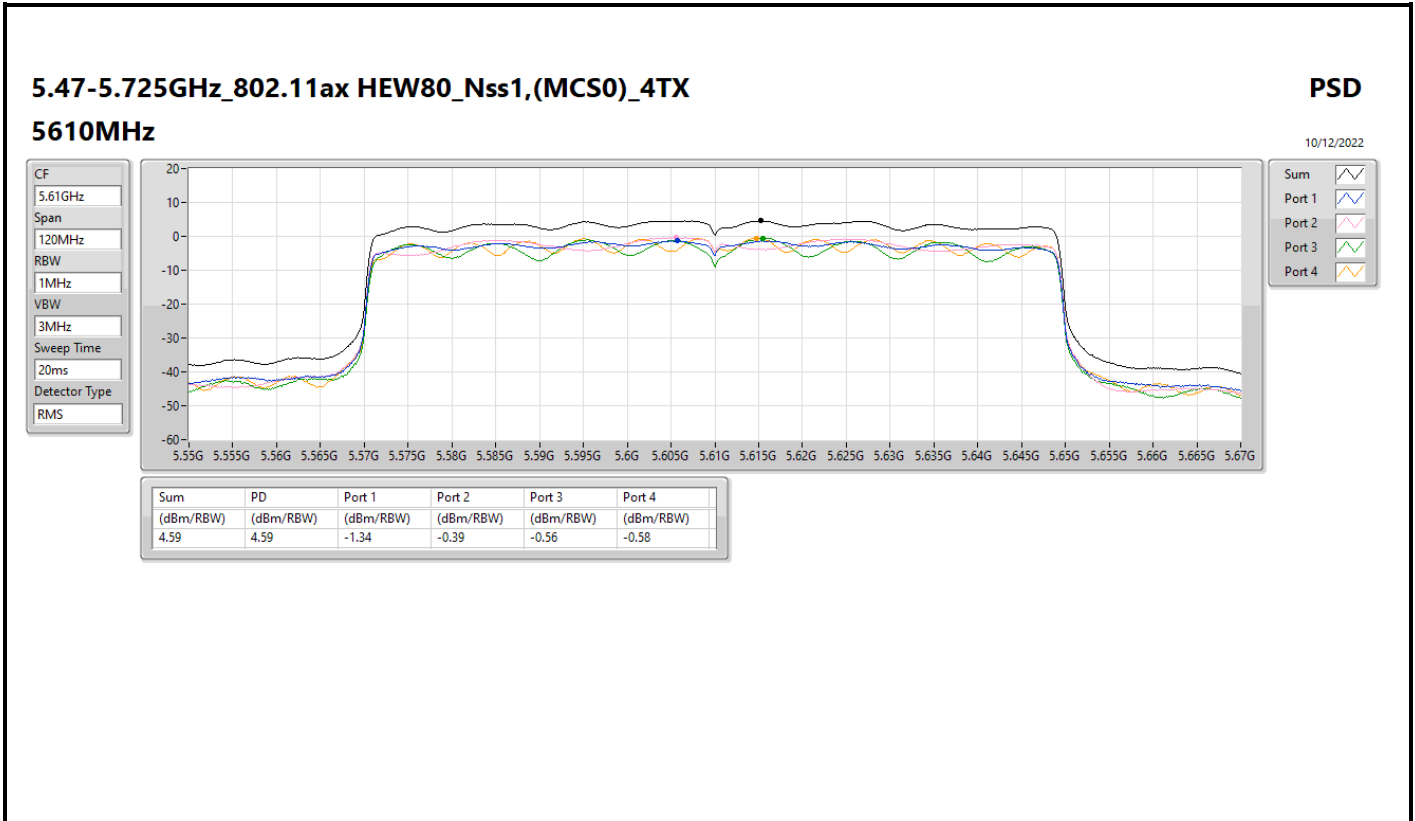
Port 1 

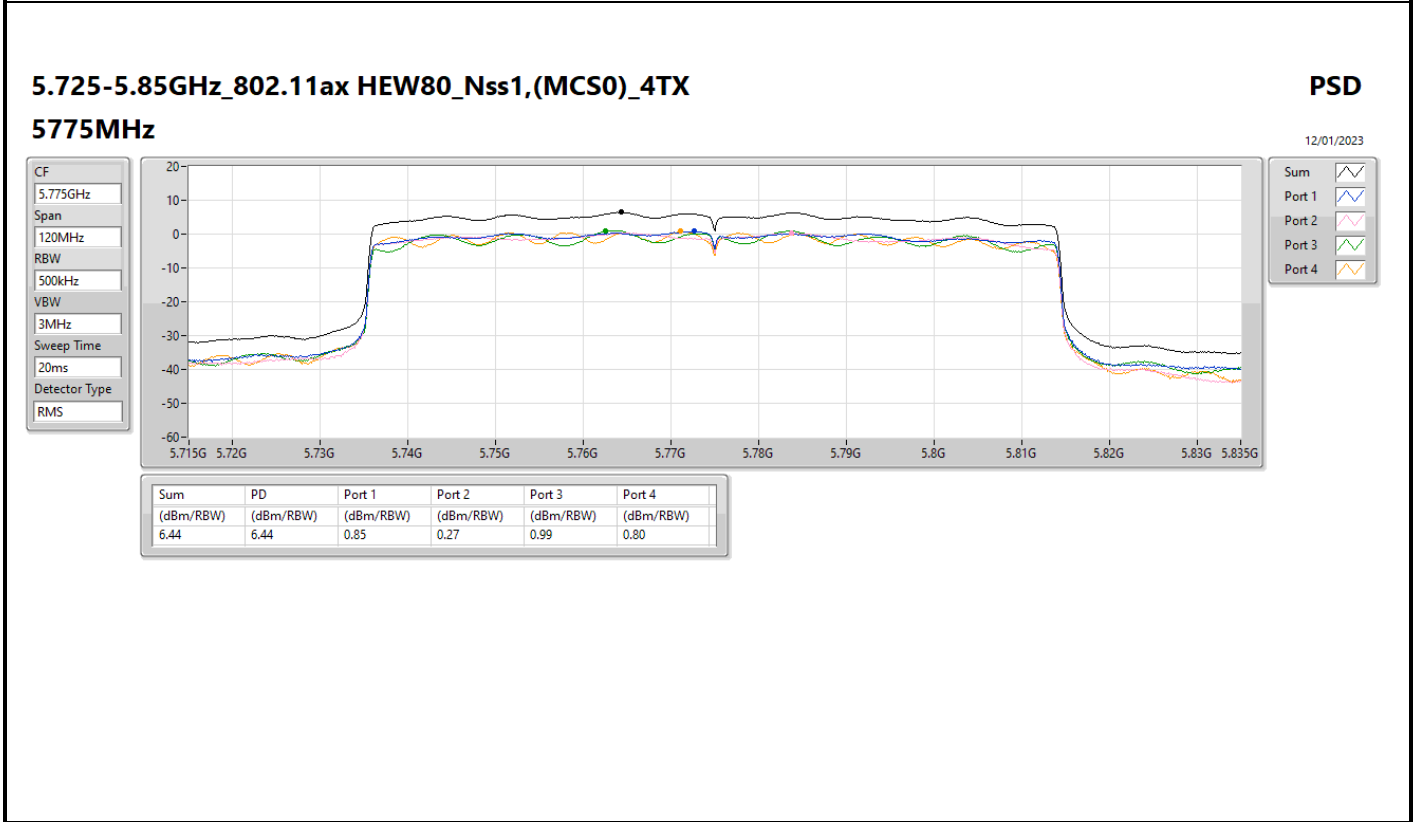
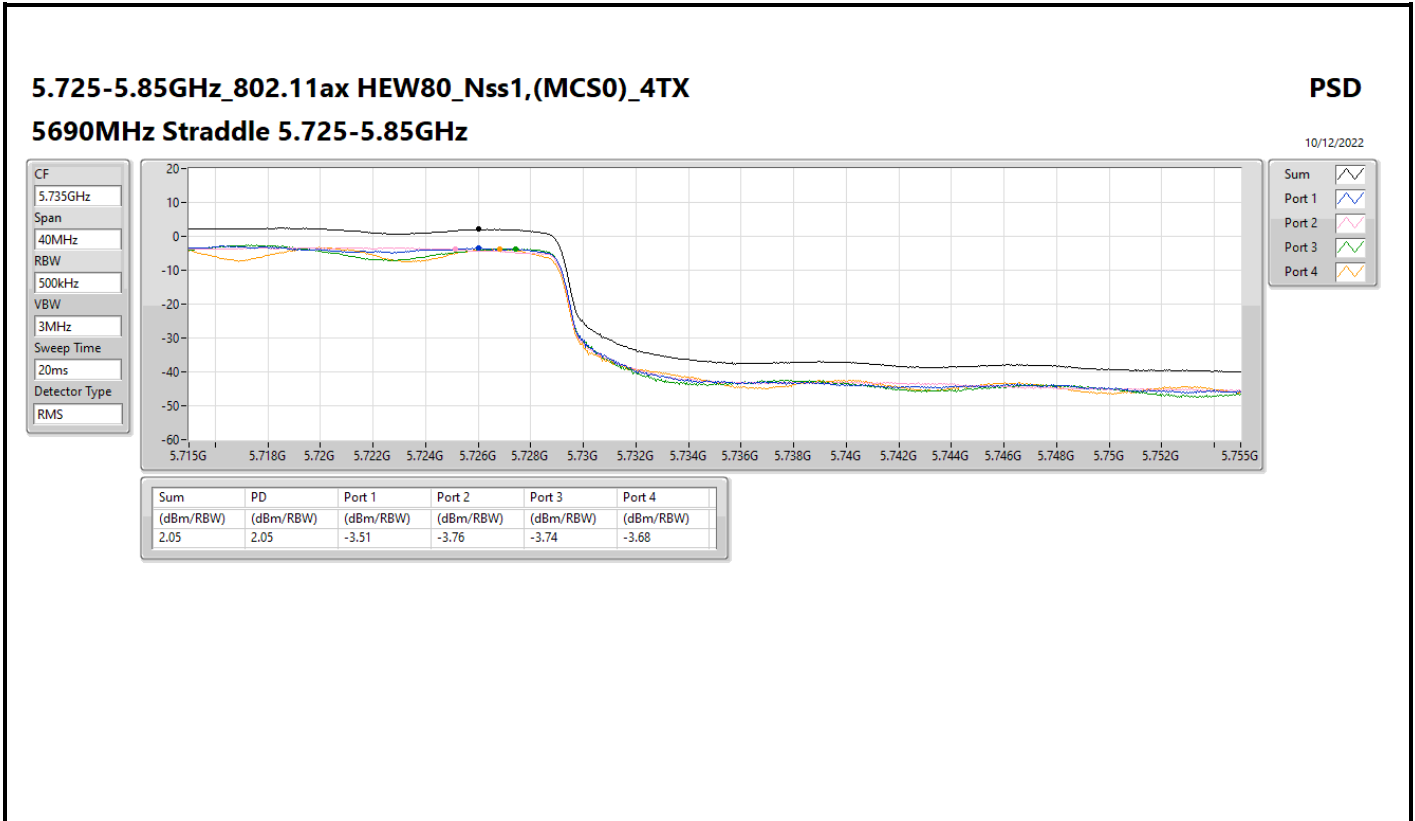
Port 2 

Port 3 

Port 4 

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.99	1.99	-4.62	-3.70	-2.59	-2.45





Summary

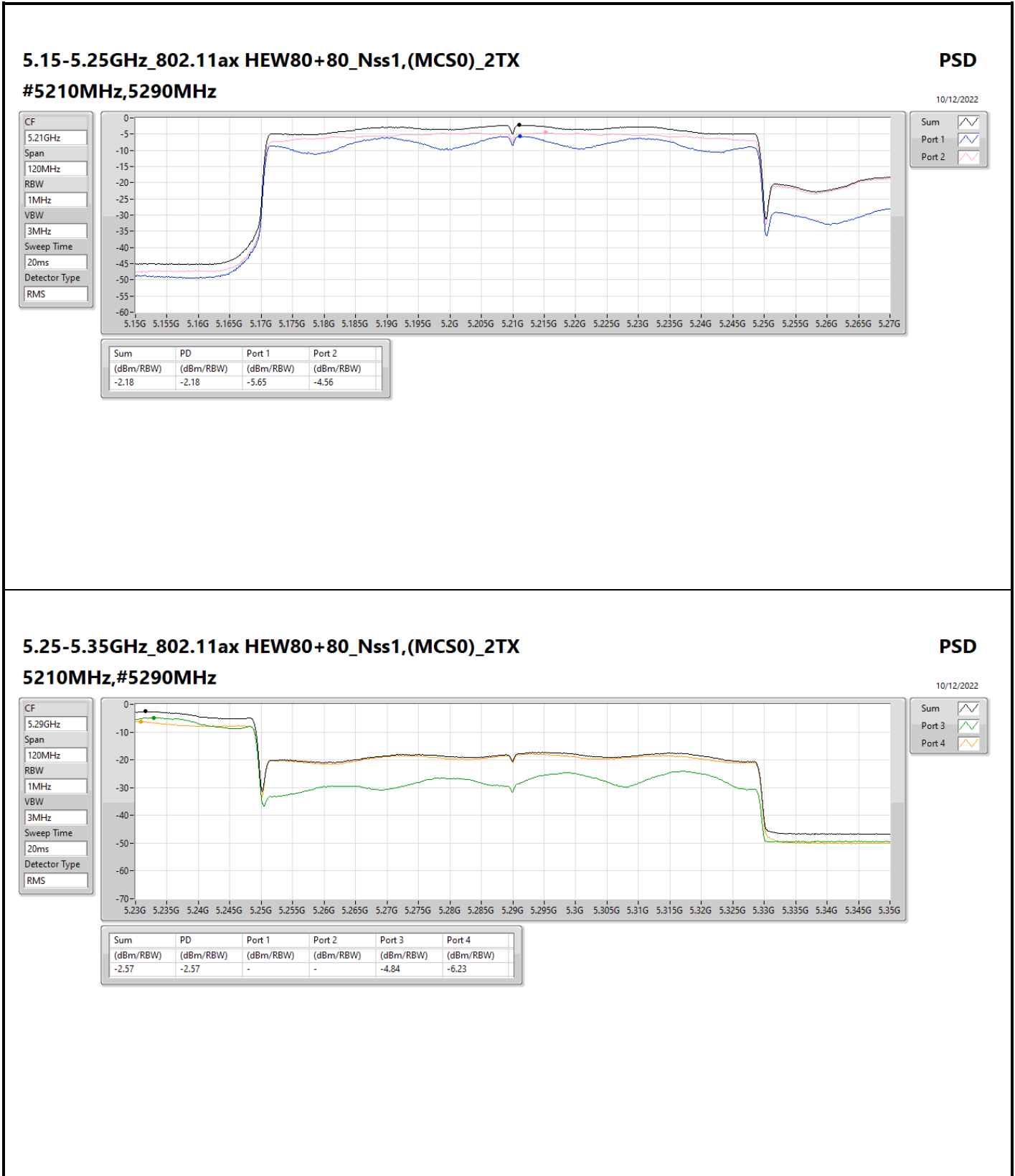
Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11ax HEW80+80_Nss1,(MCS0)_2TX	-2.18	1.14
5.25-5.35GHz	-	-
802.11ax HEW80+80_Nss1,(MCS0)_2TX	-2.57	1.77
5.47-5.725GHz	-	-
802.11ax HEW80+80_Nss2,(MCS0)_4TX	0.02	6.78

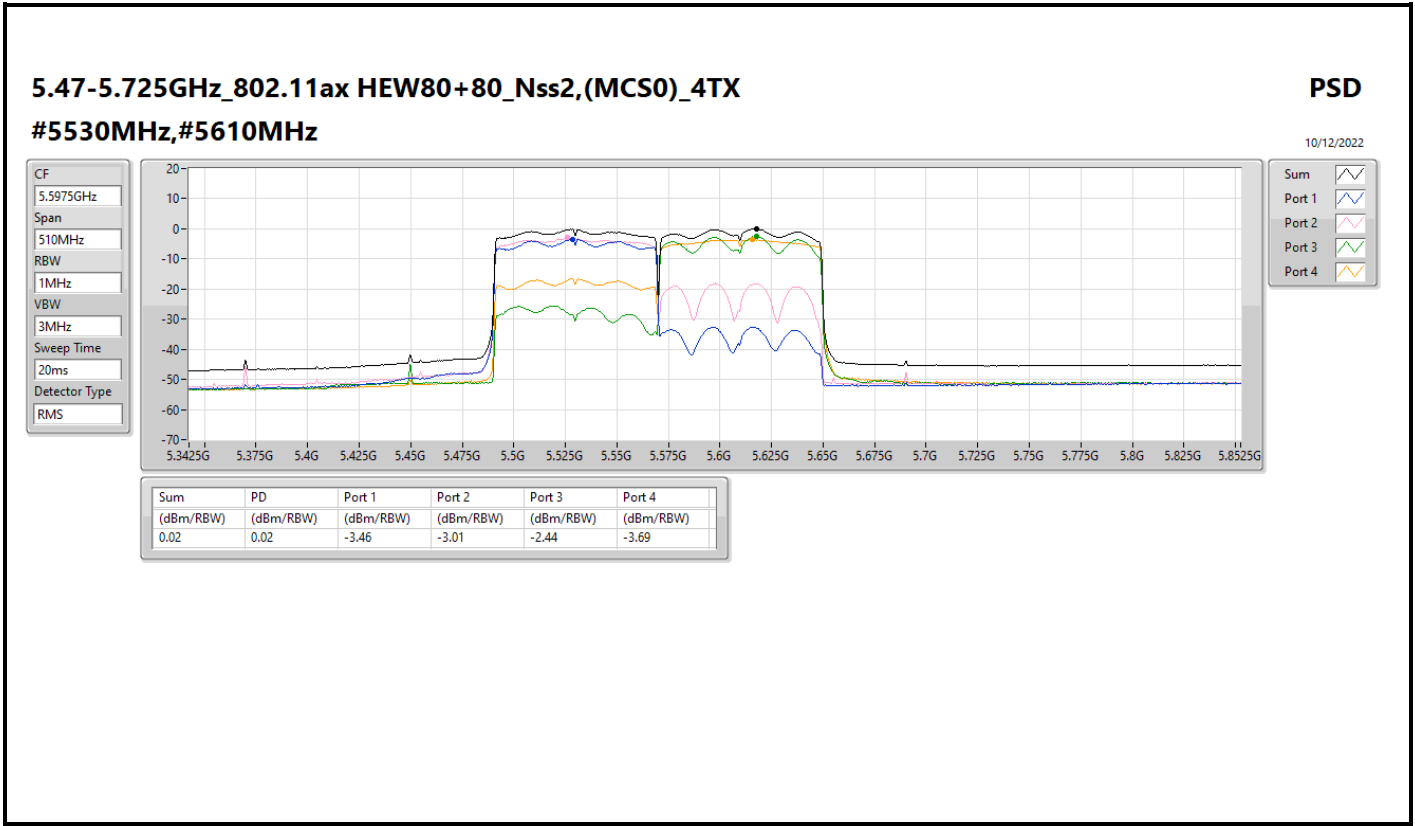
RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band:

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 HEW80+80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
#5210MHz,5290MHz	Pass	3.32	-5.65	-4.56			-2.18	17.00	1.14	23.00
802.11ax HEW80+80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
5210MHz,#5290MHz	Pass	4.34	-	-	-4.84	-6.23	-2.57	11.00	1.77	17.00
802.11ax HEW80+80_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
#5530MHz,#5610MHz	Pass	6.76	-3.46	-3.01	-2.44	-3.69	0.02	10.24	6.78	17.00

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;



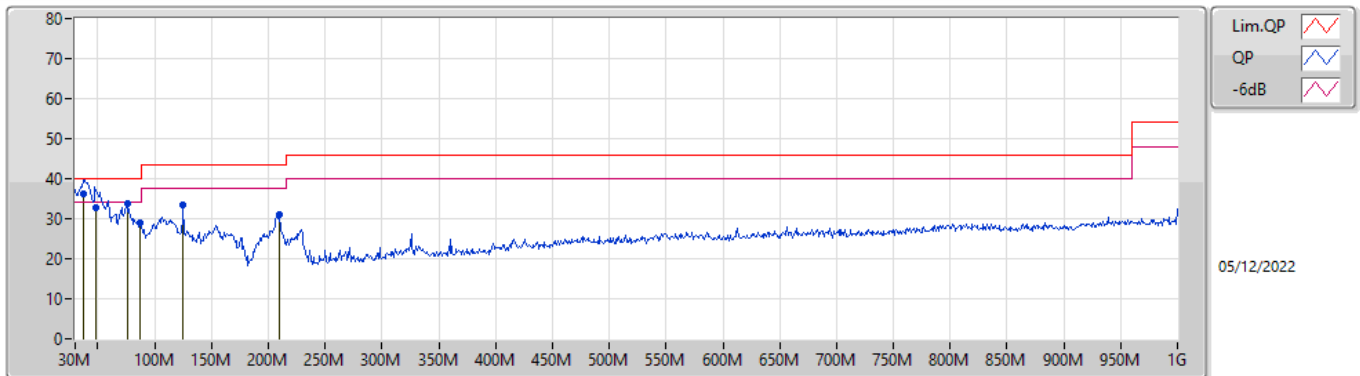




Summary

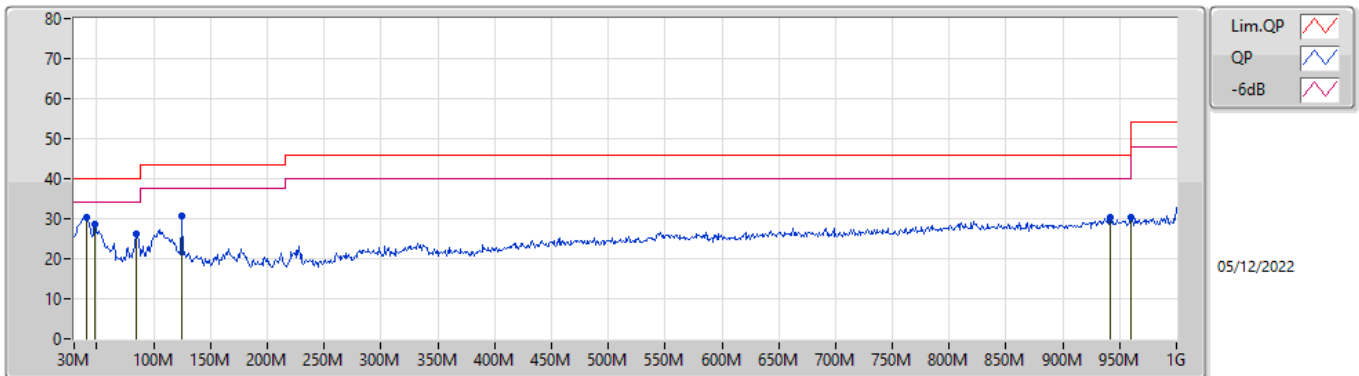
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	QP	37.76M	36.26	40.00	-3.74	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	37.76M	36.26	40.00	-3.74	-11.34	3	Vertical	279	1.00	"Worst"	47.60	19.85	0.53	31.72
QP	48.43M	32.89	40.00	-7.11	-16.61	3	Vertical	0	1.00	-	49.50	14.59	0.65	31.85
PK	76.56M	33.77	40.00	-6.23	-18.69	3	Vertical	218	1.25	-	52.46	12.37	0.91	31.97
PK	87.23M	28.85	40.00	-11.15	-16.93	3	Vertical	104	1.50	-	45.78	14.02	1.00	31.95
PK	125.06M	33.51	43.50	-9.99	-12.81	3	Vertical	86	1.25	-	46.32	17.89	1.28	31.98
PK	209.45M	30.95	43.50	-12.55	-15.31	3	Vertical	164	1.00	-	46.26	14.93	1.78	32.02

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	40.67M	30.38	40.00	-9.62	-12.98	3	Horizontal	112	2.00	"Worst"	43.36	18.22	0.56	31.76
PK	48.43M	28.46	40.00	-11.54	-16.61	3	Horizontal	72	3.00	-	45.07	14.59	0.65	31.85
PK	84.32M	26.34	40.00	-13.66	-17.52	3	Horizontal	357	1.00	-	43.86	13.46	0.97	31.95
PK	125.06M	30.84	43.50	-12.66	-12.81	3	Horizontal	181	3.00	-	43.65	17.89	1.28	31.98
PK	941.8M	30.42	46.00	-15.58	-1.80	3	Horizontal	349	1.50	-	32.22	26.39	4.29	32.48
PK	960M	30.49	46.00	-15.51	-1.49	3	Horizontal	160	1.00	-	31.98	26.63	4.33	32.45

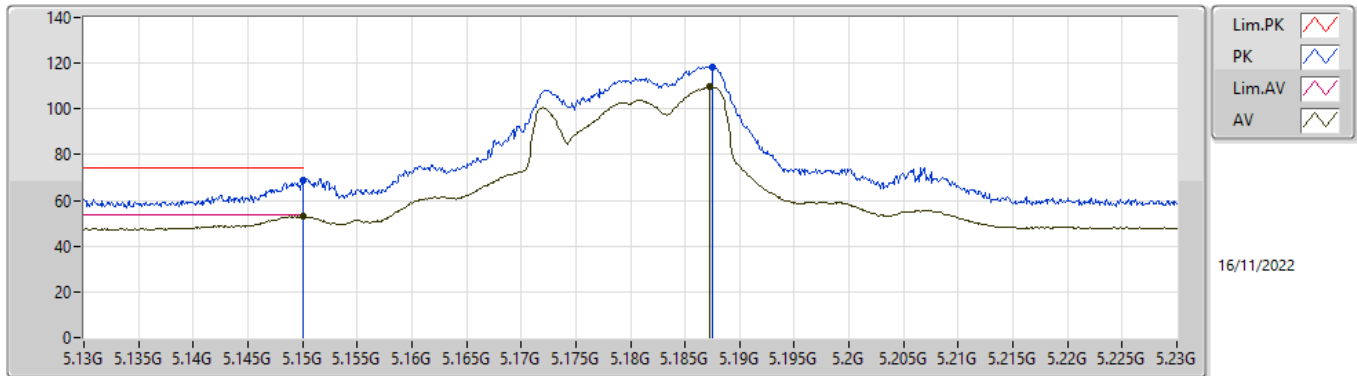


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.47-5.725GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	Pass	PK	5.7299G	68.14	68.20	-0.06	3	Vertical	219	2.14	18.5

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5180MHz_TX

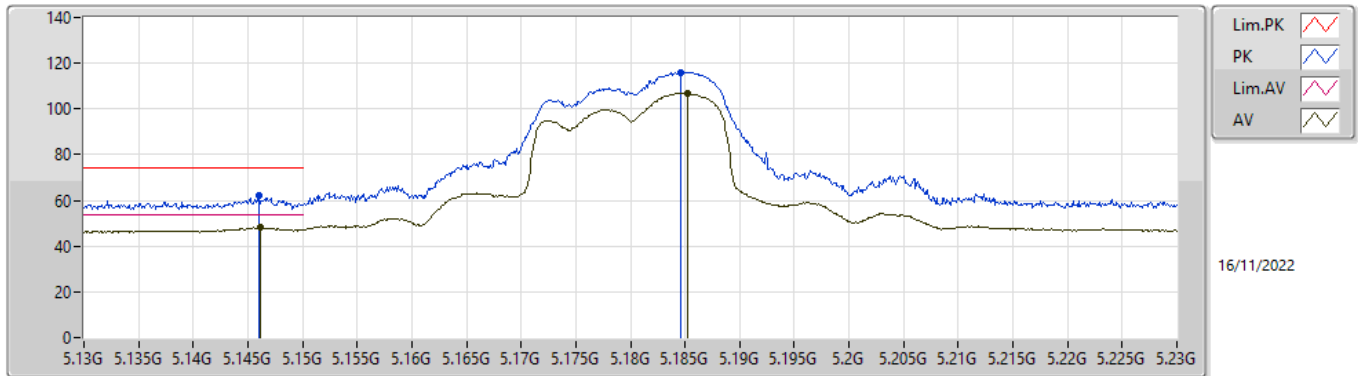


EUTY_4TX

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	5.15G	68.99	74.00	-5.01	62.71	3	Vertical	238	1.80	21	33.10	5.97	32.79
AV	5.15G	53.15	54.00	-0.85	46.87	3	Vertical	238	1.80	21	33.10	5.97	32.79
PK	5.1875G	118.52	Inf	-Inf	112.12	3	Vertical	238	1.80	21	33.18	5.99	32.77
AV	5.1872G	109.70	Inf	-Inf	103.31	3	Vertical	238	1.80	21	33.17	5.99	32.77

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5180MHz_TX

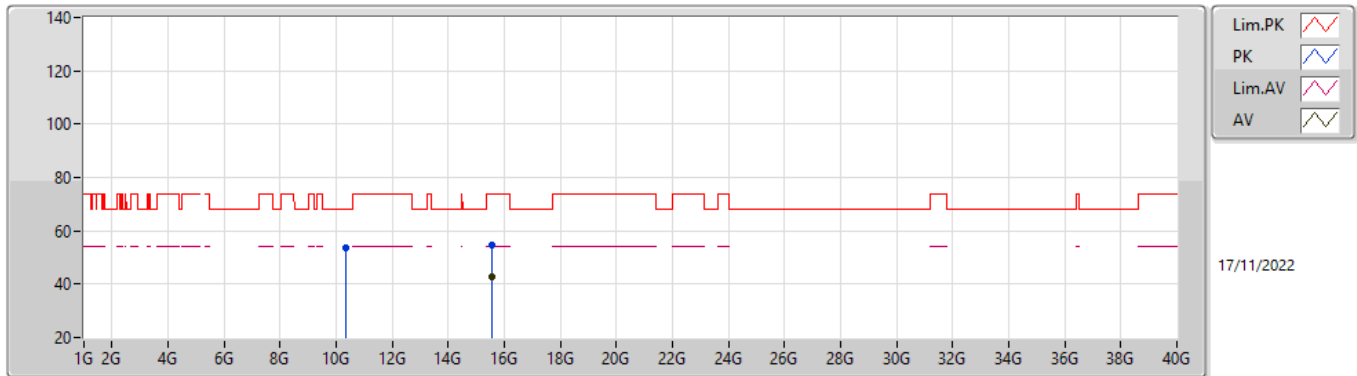


EUTY_4TX

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	5.146G	61.89	74.00	-12.11	55.61	3	Horizontal	30	1.75	21	33.10	5.97	32.79
AV	5.1461G	48.08	54.00	-5.92	41.80	3	Horizontal	30	1.75	21	33.10	5.97	32.79
PK	5.1846G	116.07	Inf	-Inf	109.68	3	Horizontal	30	1.75	21	33.17	5.99	32.77
AV	5.1852G	106.88	Inf	-Inf	100.49	3	Horizontal	30	1.75	21	33.17	5.99	32.77

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5180MHz_TX

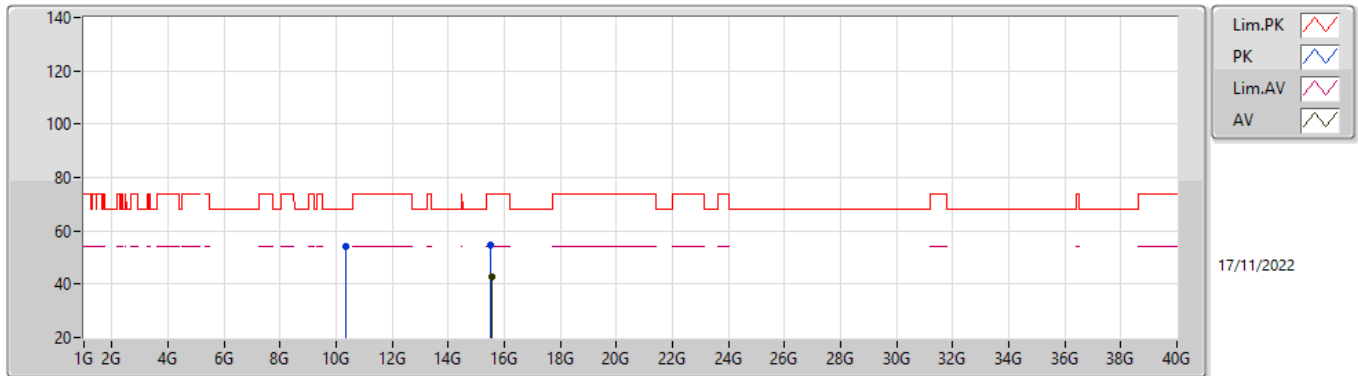


EUTY_4TX

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	10.34969G	53.52	68.20	-14.68	48.95	3	Vertical	81	1.80	21	38.70	8.44	42.57
PK	15.55646G	54.78	74.00	-19.22	47.73	3	Vertical	298	1.80	21	38.49	10.52	41.96
AV	15.54847G	42.75	54.00	-11.25	35.69	3	Vertical	298	1.80	21	38.50	10.52	41.96

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5180MHz_TX

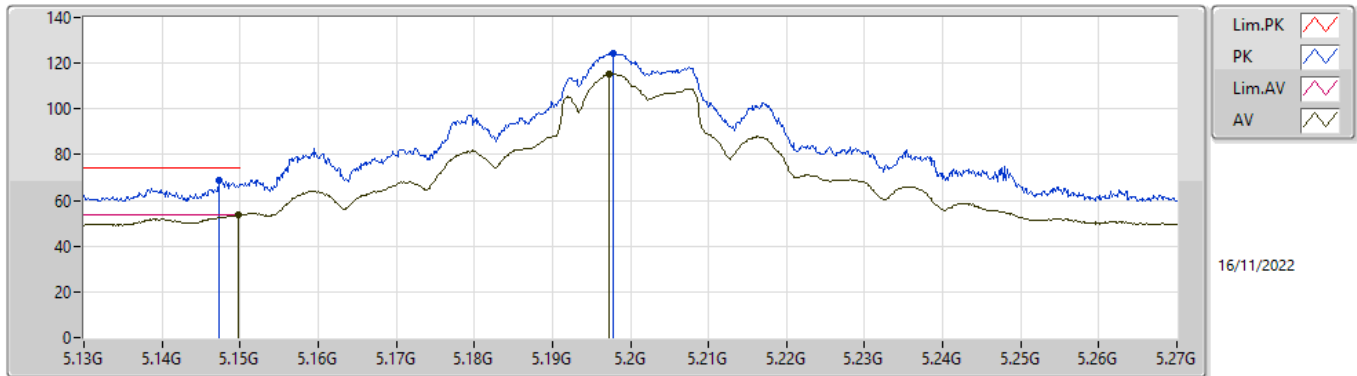


EUT_Y_4TX

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	10.34609G	54.03	68.20	-14.17	49.47	3	Horizontal	60	2.99	21	38.69	8.44	42.57
PK	15.52358G	54.69	74.00	-19.31	47.60	3	Horizontal	180	1.80	21	38.55	10.51	41.97
AV	15.54599G	42.74	54.00	-11.26	35.68	3	Horizontal	180	1.80	21	38.51	10.52	41.97

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX

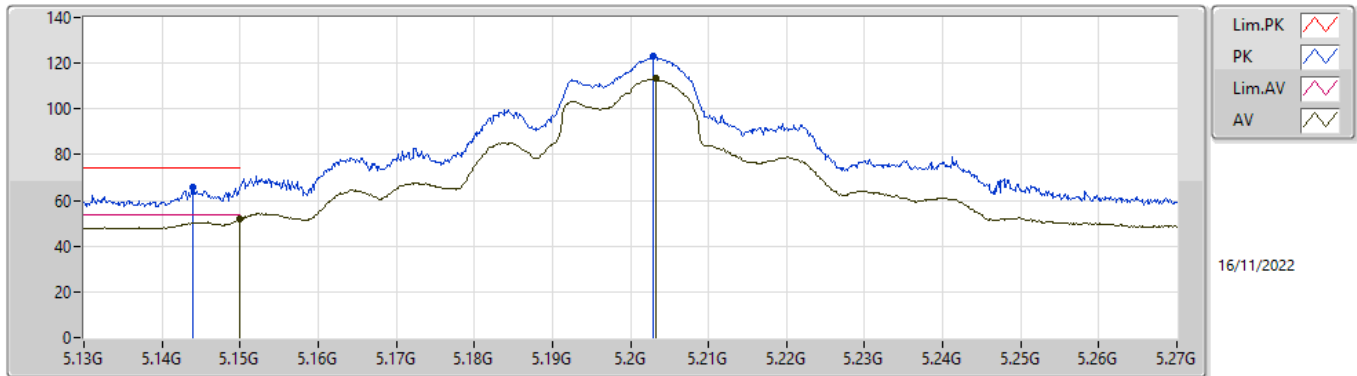


EUTY_4TX

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	5.14736G	68.64	74.00	-5.36	62.36	3	Vertical	204	1.79	26.5	33.10	5.97	32.79
AV	5.14974G	53.94	54.00	-0.06	47.66	3	Vertical	204	1.79	26.5	33.10	5.97	32.79
PK	5.19776G	124.44	Inf	-Inf	118.01	3	Vertical	204	1.79	26.5	33.20	6.00	32.77
AV	5.19734G	115.18	Inf	-Inf	108.76	3	Vertical	204	1.79	26.5	33.19	6.00	32.77

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX

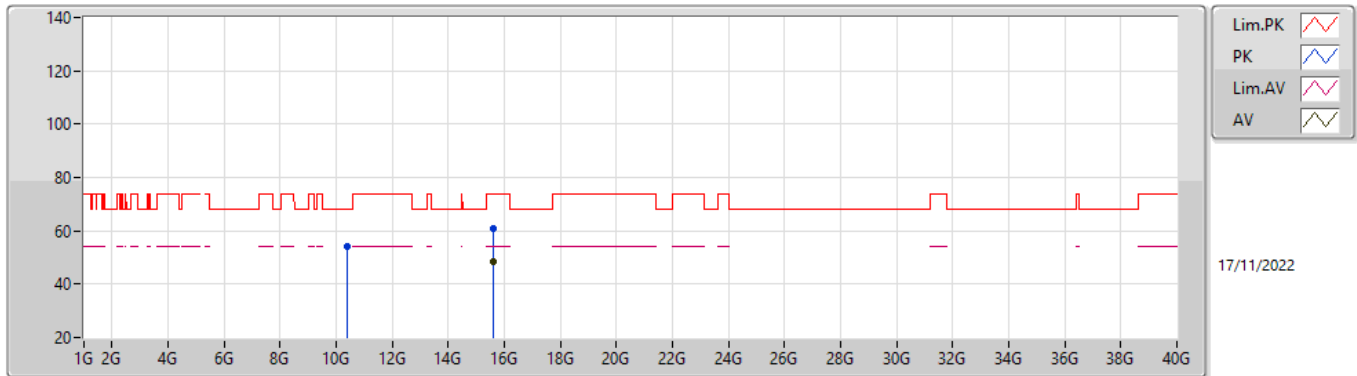


EUTY_4TX

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	5.144G	65.78	74.00	-8.22	59.50	3	Horizontal	57	1.80	26.5	33.10	5.97	32.79
AV	5.15G	51.81	54.00	-2.19	45.53	3	Horizontal	57	1.80	26.5	33.10	5.97	32.79
PK	5.20294G	122.82	Inf	-Inf	116.37	3	Horizontal	57	1.80	26.5	33.21	6.00	32.76
AV	5.20322G	113.25	Inf	-Inf	106.80	3	Horizontal	57	1.80	26.5	33.21	6.00	32.76

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX

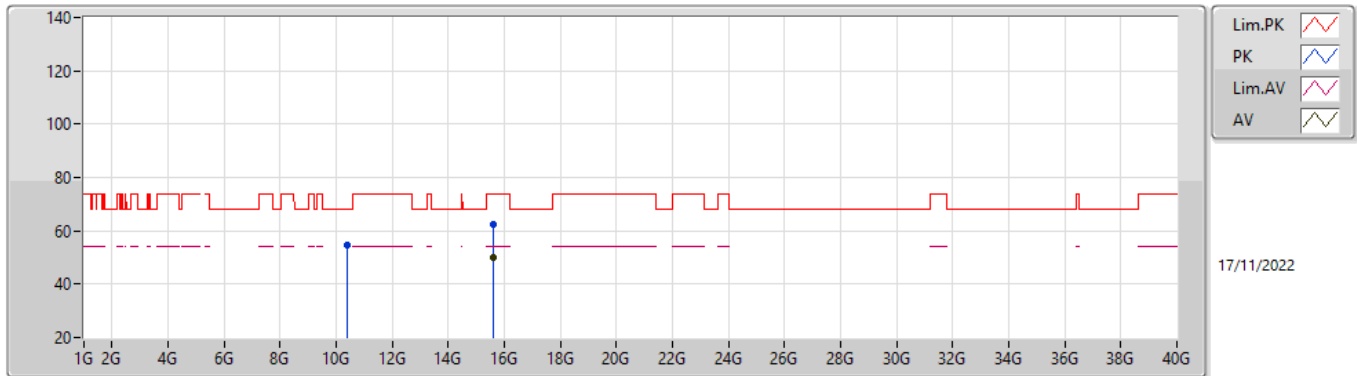


EUTY_4TX

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	10.41694G	54.08	68.20	-14.12	49.40	3	Vertical	46	1.00	26.5	38.80	8.47	42.59
PK	15.59409G	60.94	74.00	-13.06	53.94	3	Vertical	336	1.78	26.5	38.41	10.54	41.95
AV	15.59449G	48.70	54.00	-5.30	41.70	3	Vertical	336	1.78	26.5	38.41	10.54	41.95

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5200MHz_TX

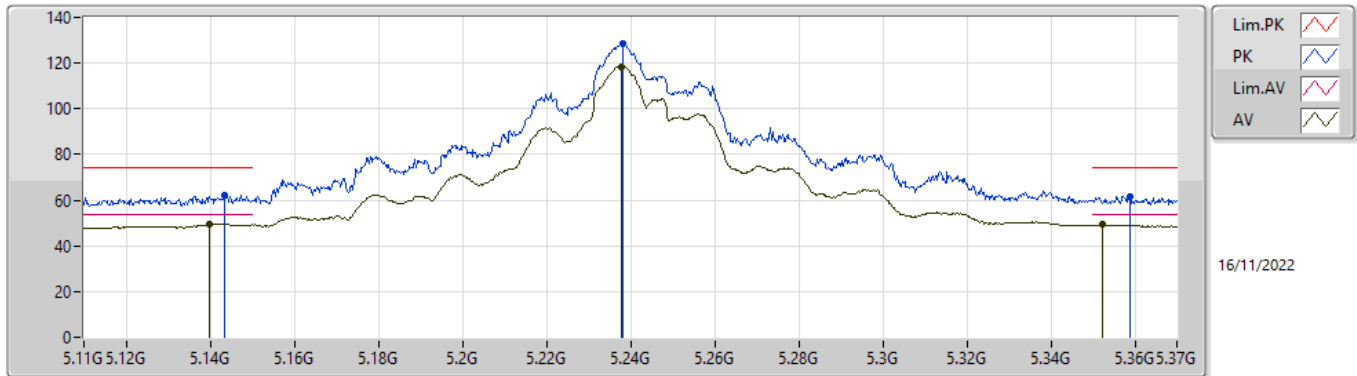


EUTY_4TX

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	10.39644G	54.53	68.20	-13.67	49.86	3	Horizontal	115	3.00	26.5	38.79	8.46	42.58
PK	15.60232G	62.26	74.00	-11.74	55.27	3	Horizontal	222	2.96	26.5	38.40	10.54	41.95
AV	15.60324G	50.20	54.00	-3.80	43.21	3	Horizontal	222	2.96	26.5	38.40	10.54	41.95

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5240MHz_TX

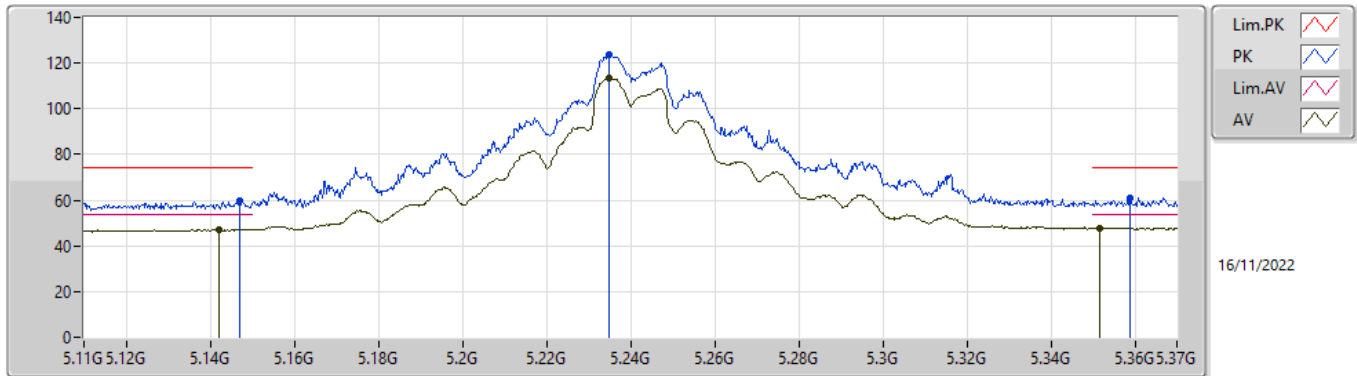


EUT Y_4TX

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	5.14328G	62.14	74.00	-11.86	55.86	3	Vertical	237	1.61	30	33.10	5.97	32.79
AV	5.1399G	49.67	54.00	-4.33	43.39	3	Vertical	237	1.61	30	33.10	5.97	32.79
PK	5.23818G	128.72	Inf	-Inf	122.17	3	Vertical	237	1.61	30	33.28	6.02	32.75
AV	5.23792G	118.41	Inf	-Inf	111.86	3	Vertical	237	1.61	30	33.28	6.02	32.75
PK	5.35882G	61.74	74.00	-12.26	54.82	3	Vertical	237	1.61	30	33.54	6.08	32.70
AV	5.35232G	49.20	54.00	-4.80	42.31	3	Vertical	237	1.61	30	33.51	6.08	32.70

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5240MHz_TX

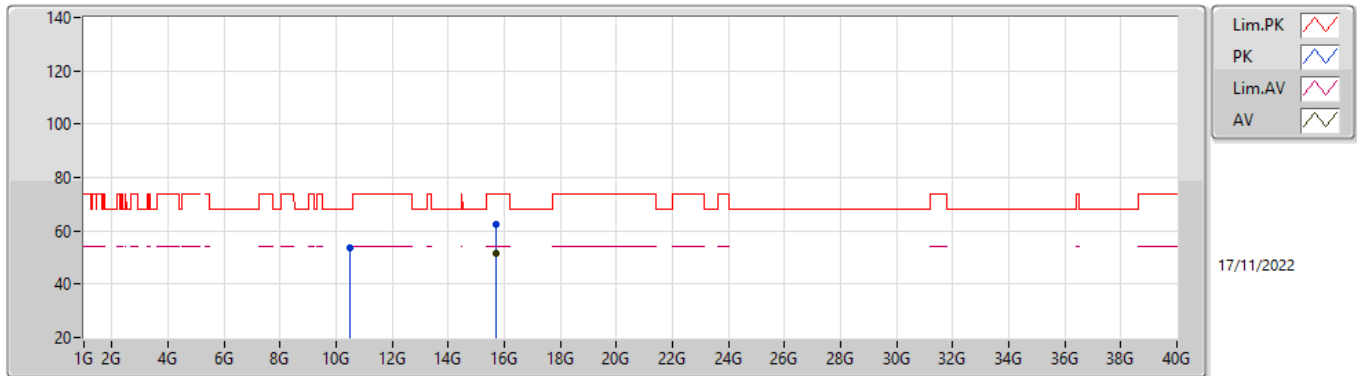


EUT Y_4TX

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	5.14718G	59.65	74.00	-14.35	53.37	3	Horizontal	31	1.76	30	33.10	5.97	32.79
AV	5.14224G	47.20	54.00	-6.80	40.92	3	Horizontal	31	1.76	30	33.10	5.97	32.79
PK	5.23506G	123.47	Inf	-Inf	116.93	3	Horizontal	31	1.76	30	33.27	6.02	32.75
AV	5.2348G	113.65	Inf	-Inf	107.11	3	Horizontal	31	1.76	30	33.27	6.02	32.75
PK	5.35882G	61.22	74.00	-12.78	54.30	3	Horizontal	31	1.76	30	33.54	6.08	32.70
AV	5.3518G	47.82	54.00	-6.18	40.93	3	Horizontal	31	1.76	30	33.51	6.08	32.70

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5240MHz_TX

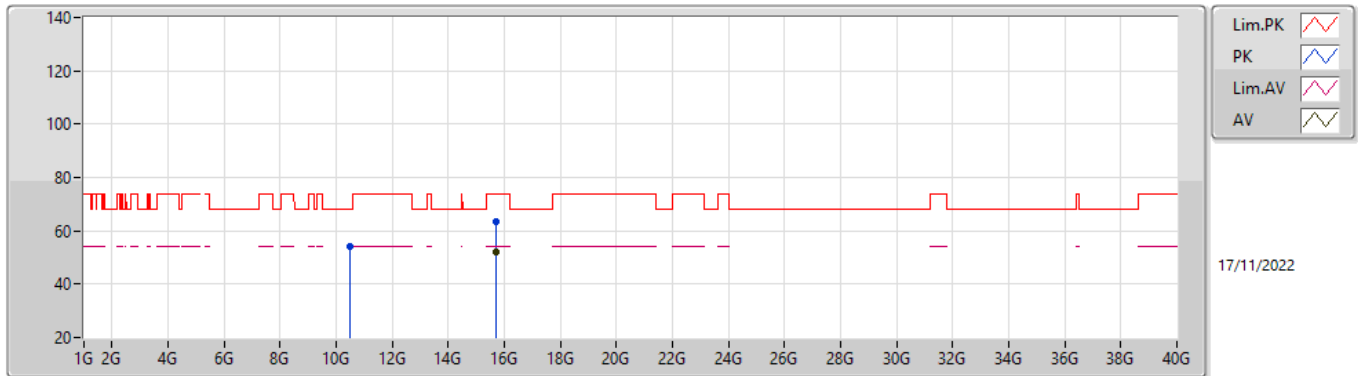


EUTY_4TX

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	10.47852G	53.74	68.20	-14.46	49.05	3	Vertical	145	2.66	30	38.80	8.49	42.60
PK	15.71812G	62.36	74.00	-11.64	55.33	3	Vertical	337	2.13	30	38.35	10.59	41.91
AV	15.71844G	51.36	54.00	-2.64	44.32	3	Vertical	337	2.13	30	38.36	10.59	41.91

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

5240MHz_TX

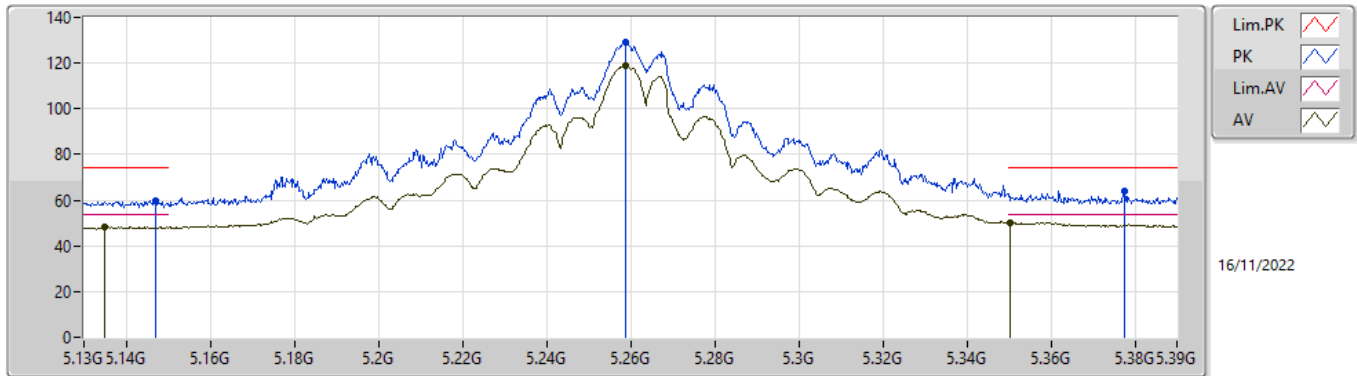


EUTY_4TX

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	10.49267G	54.32	68.20	-13.88	49.63	3	Horizontal	102	1.83	30	38.80	8.50	42.61
PK	15.71808G	63.25	74.00	-10.75	56.22	3	Horizontal	45	2.80	30	38.35	10.59	41.91
AV	15.71884G	52.24	54.00	-1.76	45.20	3	Horizontal	45	2.80	30	38.36	10.59	41.91

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5260MHz_TX

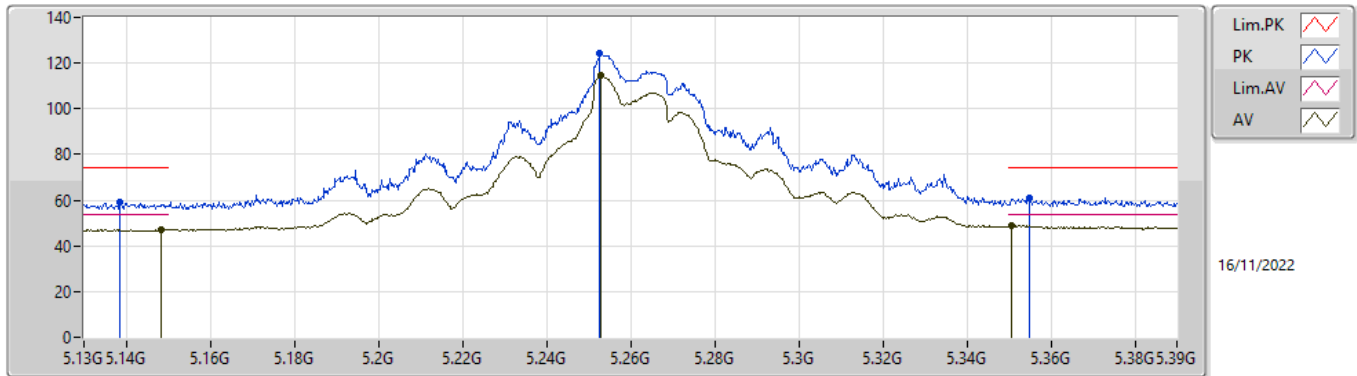


EUT Y_4TX

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	5.1469G	59.96	74.00	-14.04	53.68	3	Vertical	214	2.38	30	33.10	5.97	32.79
AV	5.13494G	48.21	54.00	-5.79	41.93	3	Vertical	214	2.38	30	33.10	5.97	32.79
PK	5.2587G	129.15	Inf	-Inf	122.54	3	Vertical	214	2.38	30	33.32	6.03	32.74
AV	5.25896G	119.08	Inf	-Inf	112.47	3	Vertical	214	2.38	30	33.32	6.03	32.74
PK	5.37752G	63.70	74.00	-10.30	56.69	3	Vertical	214	2.38	30	33.61	6.09	32.69
AV	5.35048G	50.11	54.00	-3.89	43.23	3	Vertical	214	2.38	30	33.50	6.08	32.70

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5260MHz_TX

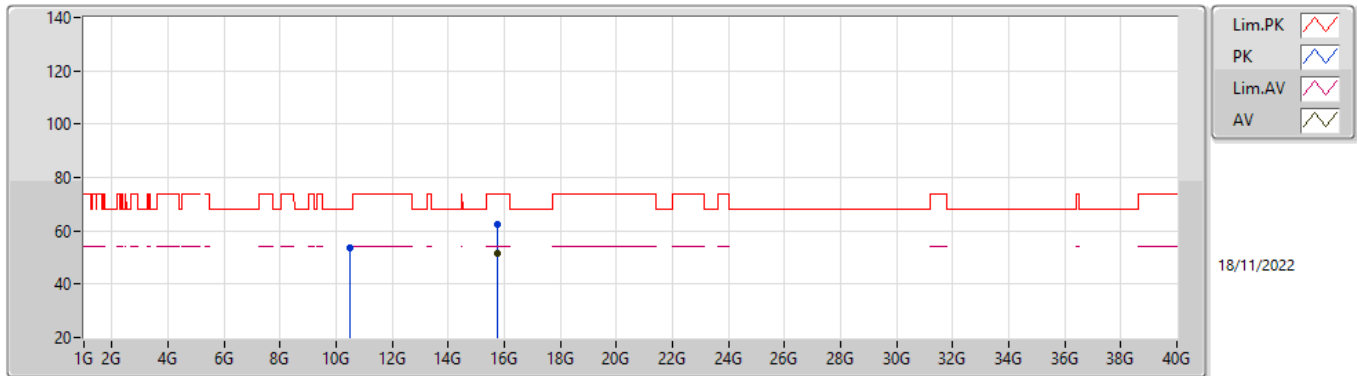


EUT Y_4TX

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	5.13858G	59.24	74.00	-14.76	52.96	3	Horizontal	60	1.59	30	33.10	5.97	32.79
AV	5.14846G	47.15	54.00	-6.85	40.87	3	Horizontal	60	1.59	30	33.10	5.97	32.79
PK	5.25272G	124.43	Inf	-Inf	117.83	3	Horizontal	60	1.59	30	33.31	6.03	32.74
AV	5.25298G	114.57	Inf	-Inf	107.97	3	Horizontal	60	1.59	30	33.31	6.03	32.74
PK	5.3549G	61.06	74.00	-12.94	54.16	3	Horizontal	60	1.59	30	33.52	6.08	32.70
AV	5.35074G	48.86	54.00	-5.14	41.98	3	Horizontal	60	1.59	30	33.50	6.08	32.70

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5260MHz_TX

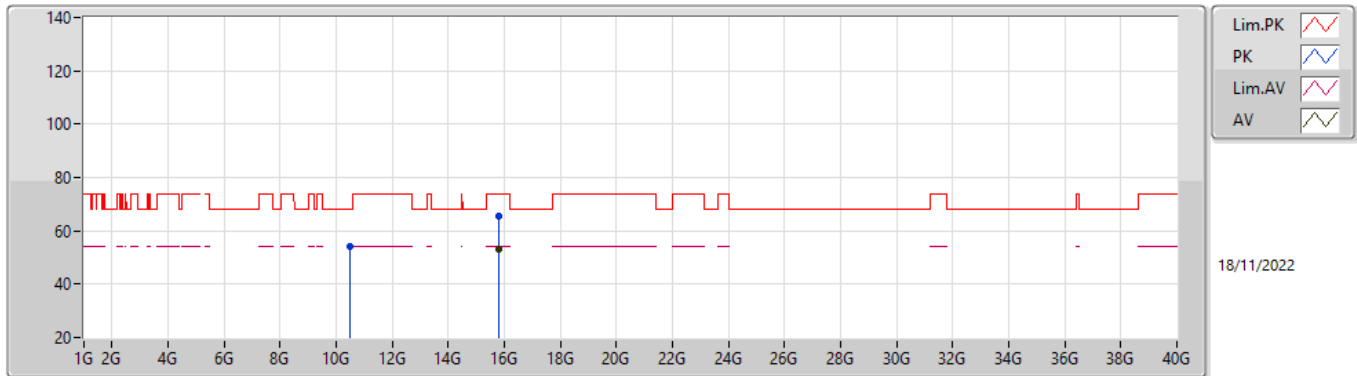


EUTY_4TX

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	10.50526G	53.75	68.20	-14.45	49.06	3	Vertical	53	1.80	30	38.80	8.50	42.61
PK	15.77712G	62.48	74.00	-11.52	55.23	3	Vertical	144	1.22	30	38.53	10.61	41.89
AV	15.77724G	51.63	54.00	-2.37	44.38	3	Vertical	144	1.22	30	38.53	10.61	41.89

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5260MHz_TX

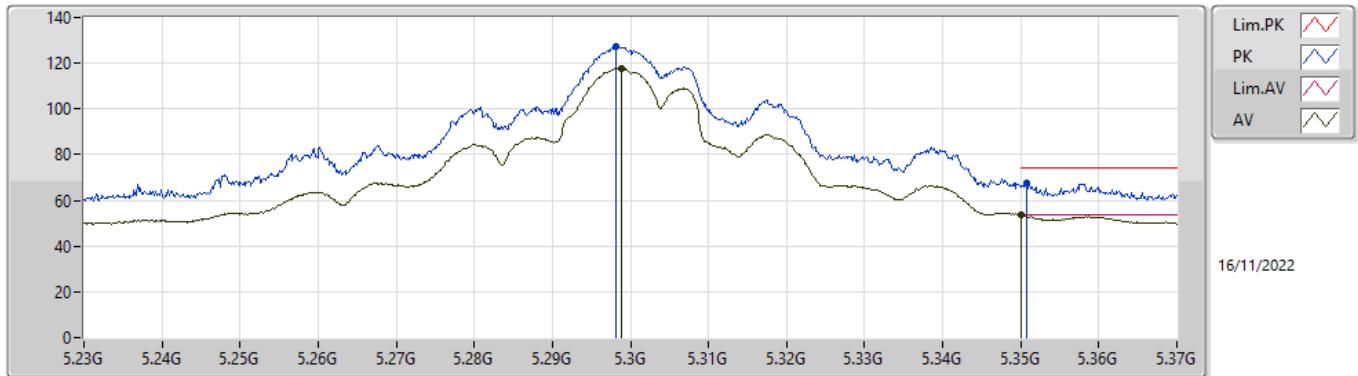


EUT_Y_4TX

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	10.51588G	54.32	68.20	-13.88	49.62	3	Horizontal	335	2.25	30	38.80	8.51	42.61
PK	15.785G	65.41	74.00	-8.59	58.14	3	Horizontal	50	2.77	30	38.55	10.61	41.89
AV	15.78412G	52.91	54.00	-1.09	45.64	3	Horizontal	50	2.77	30	38.55	10.61	41.89

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5300MHz_TX

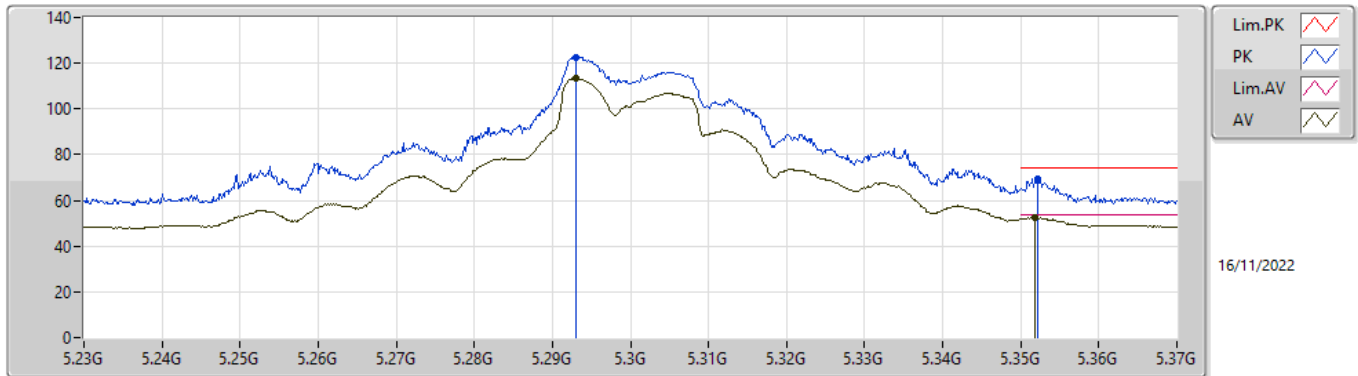


EUTY_4TX

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	5.29818G	127.28	Inf	-Inf	120.55	3	Vertical	217	2.45	26	33.40	6.05	32.72
AV	5.29888G	117.71	Inf	-Inf	110.98	3	Vertical	217	2.45	26	33.40	6.05	32.72
PK	5.35068G	67.41	74.00	-6.59	60.53	3	Vertical	217	2.45	26	33.50	6.08	32.70
AV	5.35G	53.45	54.00	-0.55	46.58	3	Vertical	217	2.45	26	33.50	6.07	32.70

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5300MHz_TX

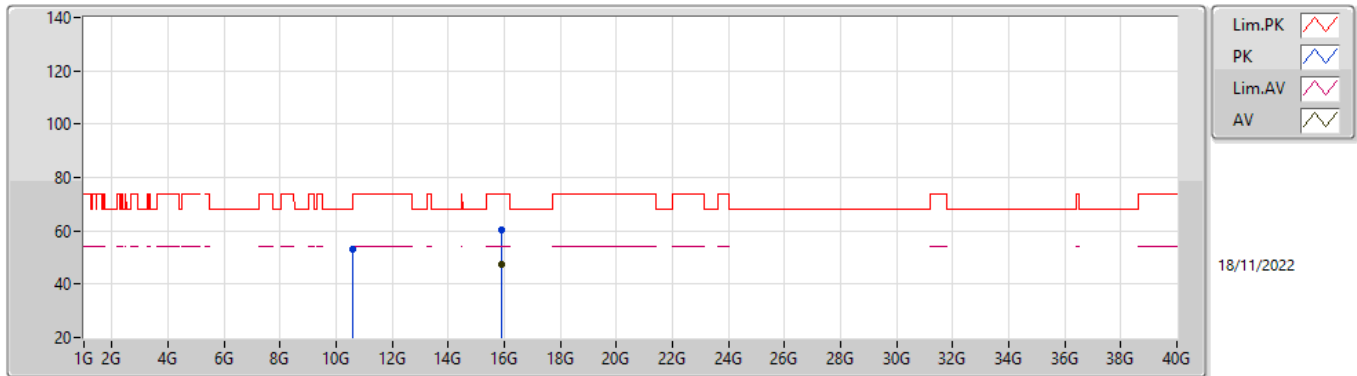


EUTY_4TX

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	5.293G	122.65	Inf	-Inf	115.94	3	Horizontal	64	1.74	26	33.39	6.05	32.73
AV	5.293G	113.53	Inf	-Inf	106.82	3	Horizontal	64	1.74	26	33.39	6.05	32.73
PK	5.35222G	69.35	74.00	-4.65	62.46	3	Horizontal	64	1.74	26	33.51	6.08	32.70
AV	5.3518G	52.55	54.00	-1.45	45.66	3	Horizontal	64	1.74	26	33.51	6.08	32.70

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5300MHz_TX

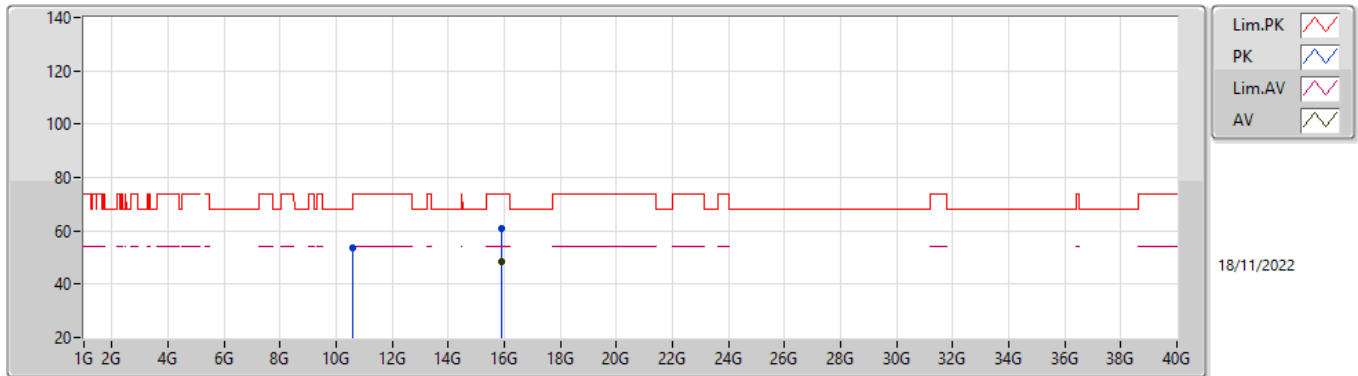


EUTY_4TX

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	10.60999G	52.88	74.00	-21.12	48.16	3	Vertical	326	1.80	26	38.80	8.54	42.62
PK	15.89105G	60.59	74.00	-13.41	53.00	3	Vertical	343	3.00	26	38.78	10.66	41.85
AV	15.89145G	47.56	54.00	-6.44	39.97	3	Vertical	343	3.00	26	38.78	10.66	41.85

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5300MHz_TX

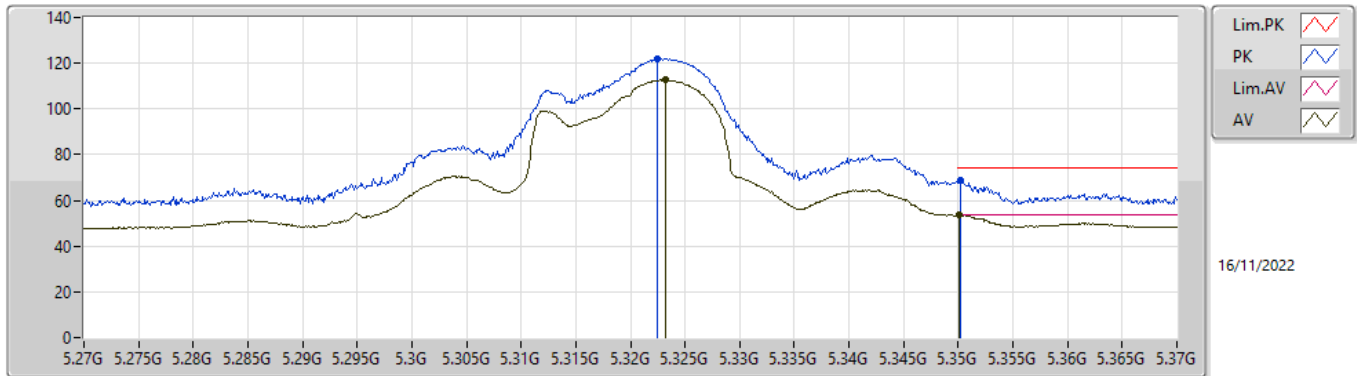


EUTY_4TX

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	10.5968G	53.53	68.20	-14.67	48.81	3	Horizontal	360	2.05	26	38.80	8.54	42.62
PK	15.90132G	60.99	74.00	-13.01	53.38	3	Horizontal	49	3.00	26	38.80	10.66	41.85
AV	15.90232G	48.45	54.00	-5.55	40.84	3	Horizontal	49	3.00	26	38.80	10.66	41.85

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5320MHz_TX

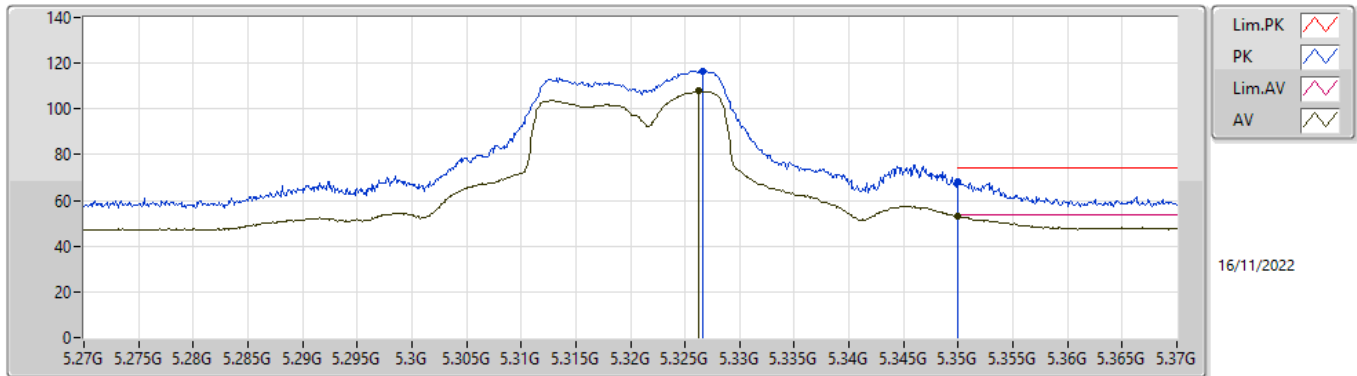


EUTY_4TX

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	5.3225G	122.05	Inf	-Inf	115.25	3	Vertical	353	1.50	20.5	33.45	6.06	32.71
AV	5.3232G	112.88	Inf	-Inf	106.08	3	Vertical	353	1.50	20.5	33.45	6.06	32.71
PK	5.3502G	68.66	74.00	-5.34	61.78	3	Vertical	353	1.50	20.5	33.50	6.08	32.70
AV	5.3501G	53.72	54.00	-0.28	46.84	3	Vertical	353	1.50	20.5	33.50	6.08	32.70

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5320MHz_TX

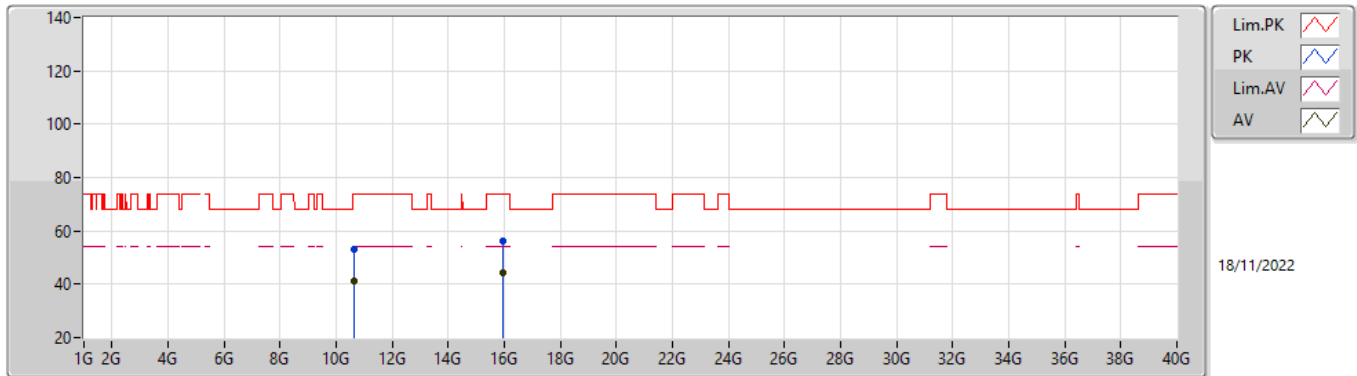


EUTY_4TX

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	5.3266G	116.67	Inf	-Inf	109.87	3	Horizontal	64	1.48	20.5	33.45	6.06	32.71
AV	5.3263G	107.80	Inf	-Inf	101.00	3	Horizontal	64	1.48	20.5	33.45	6.06	32.71
PK	5.35G	68.39	74.00	-5.61	61.52	3	Horizontal	64	1.48	20.5	33.50	6.07	32.70
AV	5.35G	52.82	54.00	-1.18	45.95	3	Horizontal	64	1.48	20.5	33.50	6.07	32.70

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5320MHz_TX

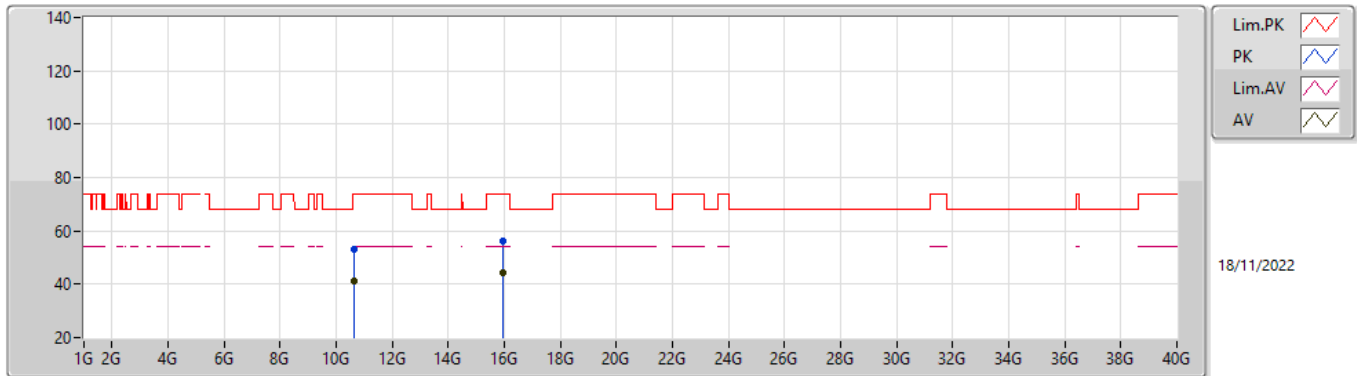


EUTY_4TX

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	10.6209G	52.98	74.00	-21.02	48.25	3	Vertical	336	1.80	20.5	38.80	8.55	42.62
AV	10.63772G	41.40	54.00	-12.60	36.66	3	Vertical	336	1.80	20.5	38.80	8.56	42.62
PK	15.94002G	56.42	74.00	-17.58	48.70	3	Vertical	86	1.03	20.5	38.88	10.68	41.84
AV	15.9419G	44.25	54.00	-9.75	36.53	3	Vertical	86	1.03	20.5	38.88	10.68	41.84

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

5320MHz_TX

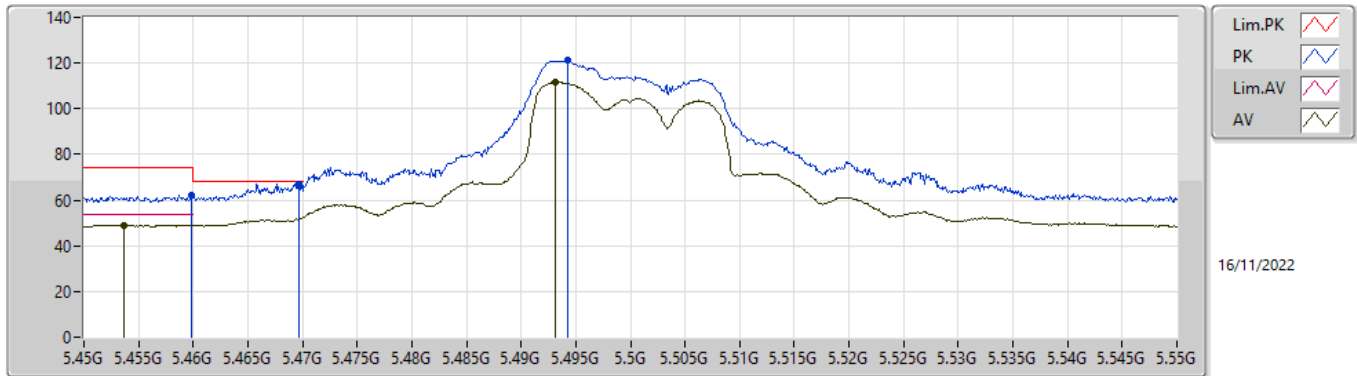


EUTY_4TX

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	10.62857G	53.22	74.00	-20.78	48.49	3	Horizontal	277	1.80	20.5	38.80	8.55	42.62
AV	10.62194G	41.35	54.00	-12.65	36.62	3	Horizontal	277	1.80	20.5	38.80	8.55	42.62
PK	15.9566G	56.09	74.00	-17.91	48.33	3	Horizontal	312	1.80	20.5	38.91	10.68	41.83
AV	15.94186G	44.11	54.00	-9.89	36.39	3	Horizontal	312	1.80	20.5	38.88	10.68	41.84

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

5500MHz_TX

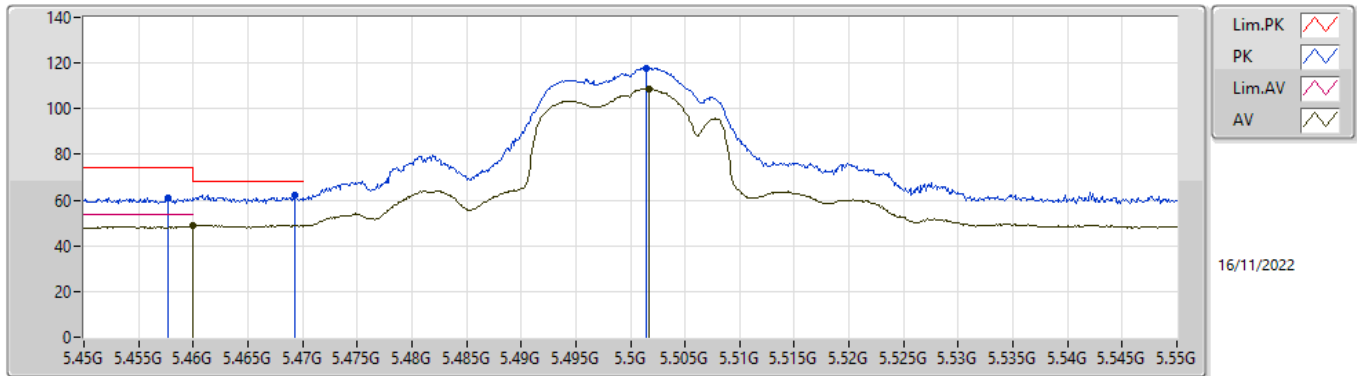


EUT_Y_4TX

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	5.4598G	62.28	74.00	-11.72	54.87	3	Vertical	324	1.57	20	33.94	6.13	32.66
AV	5.4536G	49.16	54.00	-4.84	41.78	3	Vertical	324	1.57	20	33.91	6.13	32.66
PK	5.4697G	66.91	68.20	-1.29	59.45	3	Vertical	324	1.57	20	33.98	6.13	32.65
PK	5.4943G	121.26	Inf	-Inf	113.67	3	Vertical	324	1.57	20	34.08	6.15	32.64
AV	5.4931G	111.76	Inf	-Inf	104.18	3	Vertical	324	1.57	20	34.07	6.15	32.64

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

5500MHz_TX

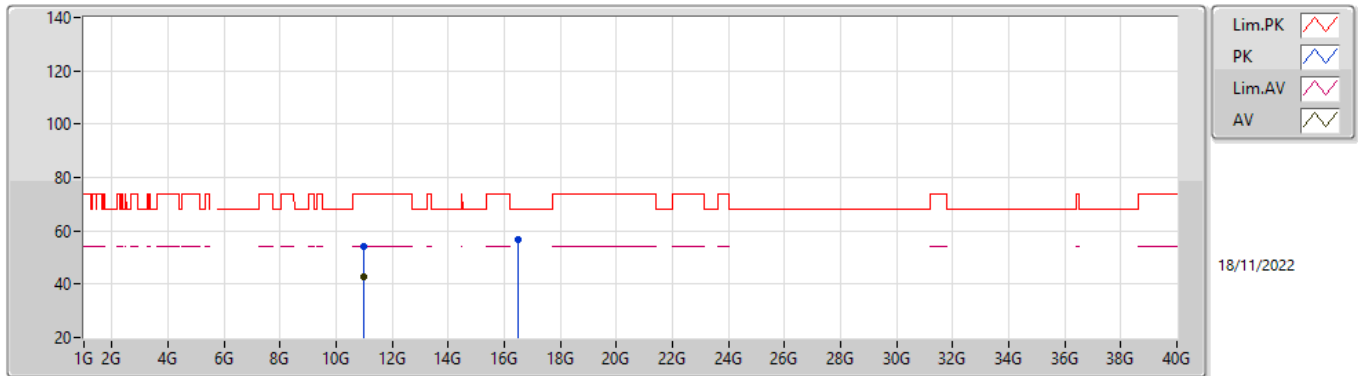


EUT_Y_4TX

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	5.4577G	61.04	74.00	-12.96	53.64	3	Horizontal	27	1.45	20	33.93	6.13	32.66
AV	5.4599G	48.61	54.00	-5.39	41.20	3	Horizontal	27	1.45	20	33.94	6.13	32.66
PK	5.4693G	62.30	68.20	-5.90	54.84	3	Horizontal	27	1.45	20	33.98	6.13	32.65
PK	5.5014G	117.80	Inf	-Inf	110.19	3	Horizontal	27	1.45	20	34.10	6.15	32.64
AV	5.5017G	108.62	Inf	-Inf	101.01	3	Horizontal	27	1.45	20	34.10	6.15	32.64

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

5500MHz_TX

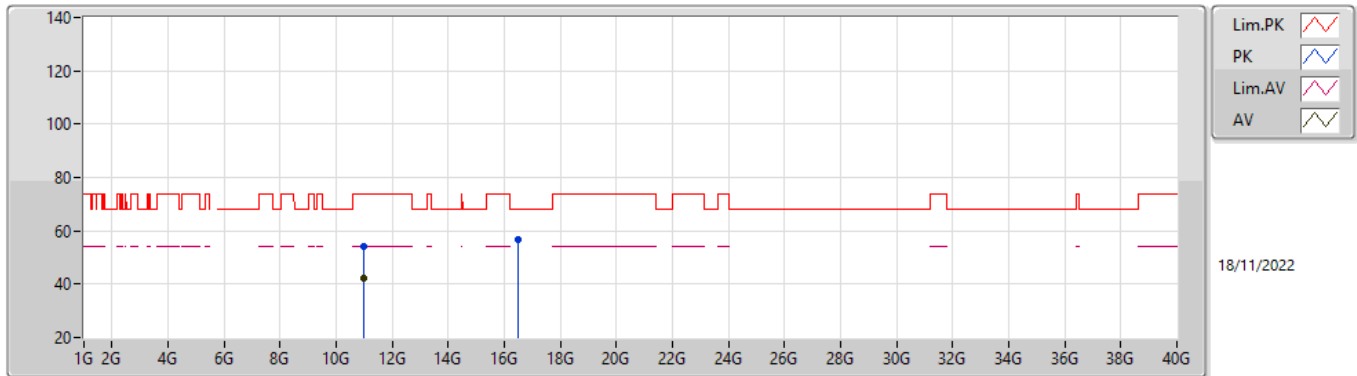


EUTY_4TX

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	10.99165G	53.97	74.00	-20.03	49.23	3	Vertical	108	1.42	20	38.70	8.70	42.66
AV	11G	42.85	54.00	-11.15	38.11	3	Vertical	108	1.42	20	38.70	8.70	42.66
PK	16.51459G	56.82	68.20	-11.38	47.42	3	Vertical	82	1.80	20	40.44	10.91	41.95

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

5500MHz_TX

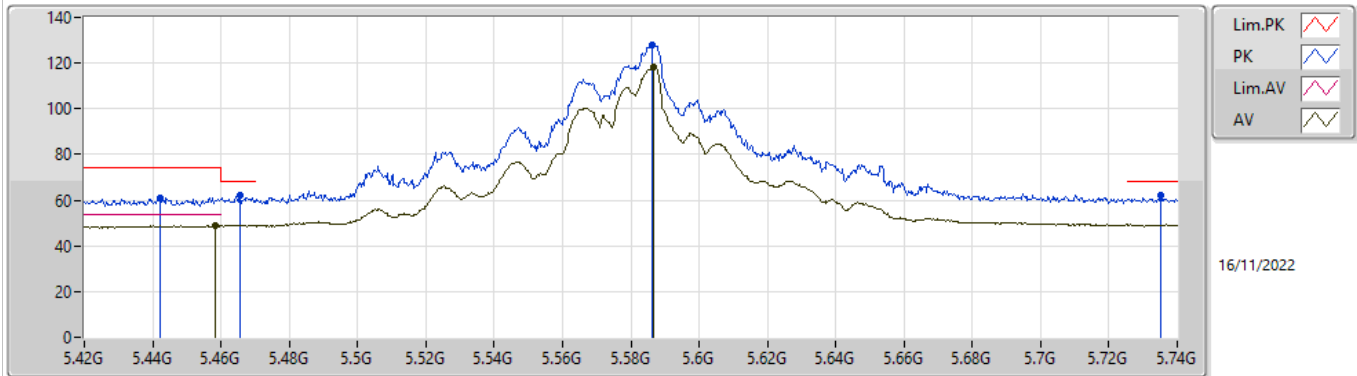


EUTY_4TX

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	10.98901G	53.96	74.00	-20.04	49.22	3	Horizontal	337	1.00	20	38.70	8.70	42.66
AV	10.9978G	42.10	54.00	-11.90	37.36	3	Horizontal	337	1.00	20	38.70	8.70	42.66
PK	16.51614G	56.92	68.20	-11.28	47.51	3	Horizontal	111	1.80	20	40.44	10.91	41.94

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

5580MHz_TX

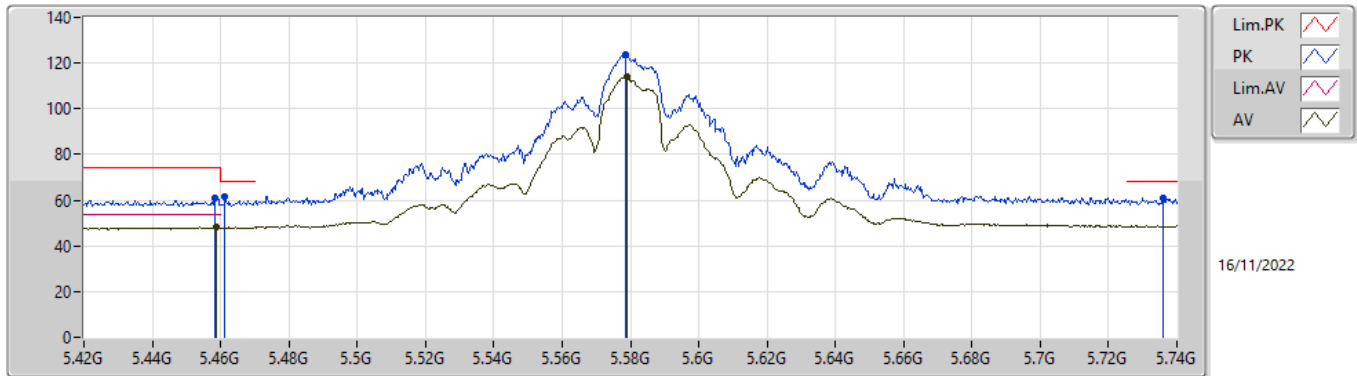


EUT Y_4TX

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	5.44208G	61.05	74.00	-12.95	53.72	3	Vertical	118	1.80	30	33.87	6.12	32.66
PK	5.46544G	61.99	68.20	-6.21	54.55	3	Vertical	118	1.80	30	33.96	6.13	32.65
AV	5.4584G	48.82	54.00	-5.18	41.42	3	Vertical	118	1.80	30	33.93	6.13	32.66
PK	5.5864G	128.04	Inf	-Inf	120.27	3	Vertical	118	1.80	30	34.25	6.19	32.67
AV	5.58672G	118.00	Inf	-Inf	110.23	3	Vertical	118	1.80	30	34.25	6.19	32.67
PK	5.7352G	61.88	68.20	-6.32	53.84	3	Vertical	118	1.80	30	34.50	6.27	32.73

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

5580MHz_TX

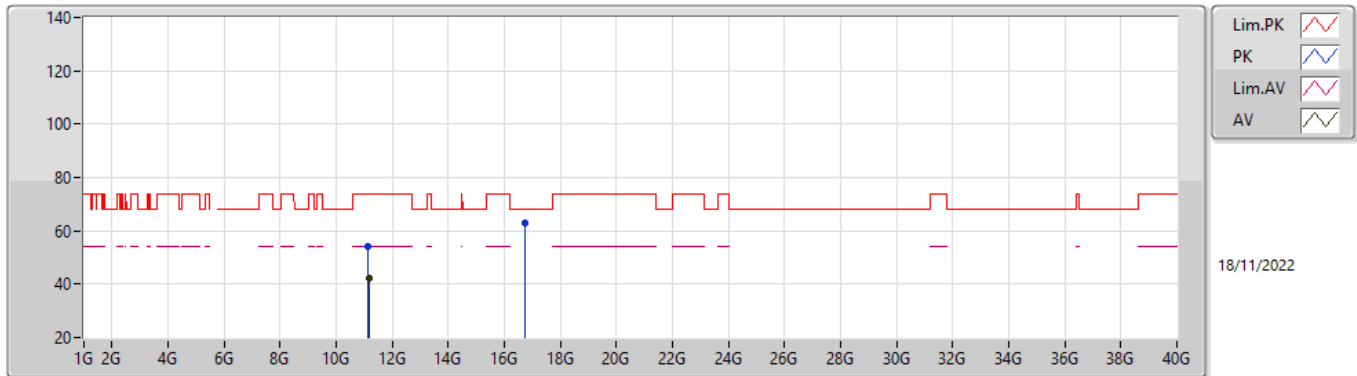


EUT Y_4TX

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	5.4584G	61.05	74.00	-12.95	53.65	3	Horizontal	89	1.80	30	33.93	6.13	32.66
AV	5.45872G	48.16	54.00	-5.84	40.76	3	Horizontal	89	1.80	30	33.93	6.13	32.66
PK	5.46128G	61.37	68.20	-6.83	53.95	3	Horizontal	89	1.80	30	33.95	6.13	32.66
PK	5.57872G	123.98	Inf	-Inf	116.25	3	Horizontal	89	1.80	30	34.21	6.19	32.67
AV	5.57904G	114.04	Inf	-Inf	106.30	3	Horizontal	89	1.80	30	34.22	6.19	32.67
PK	5.73616G	60.96	68.20	-7.24	52.92	3	Horizontal	89	1.80	30	34.50	6.27	32.73

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

5580MHz_TX

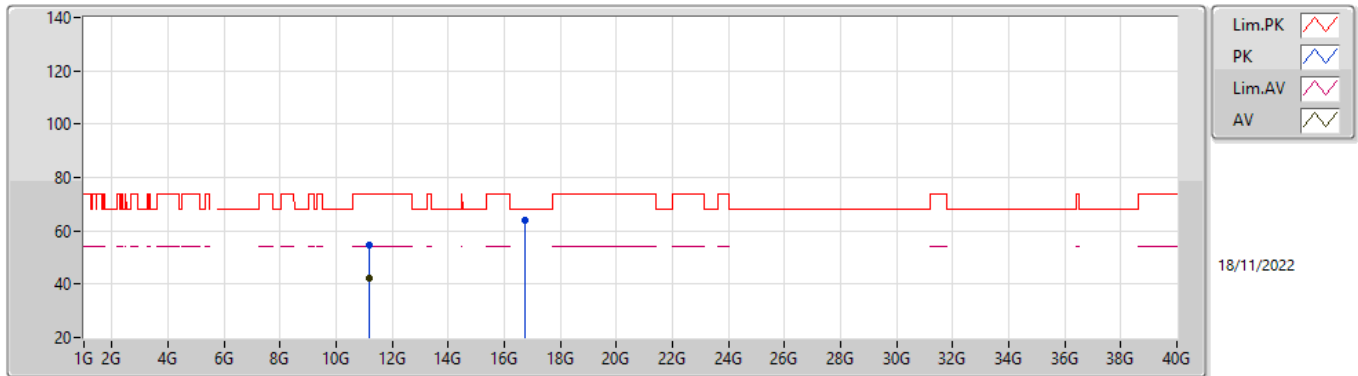


EUTY_4TX

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	11.15025G	54.00	74.00	-20.00	49.27	3	Vertical	50	1.00	30	38.65	8.76	42.68
AV	11.1654G	42.25	54.00	-11.75	37.53	3	Vertical	50	1.00	30	38.63	8.77	42.68
PK	16.74012G	62.83	68.20	-5.37	52.94	3	Vertical	30	1.80	30	40.76	11.00	41.87

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

5580MHz_TX

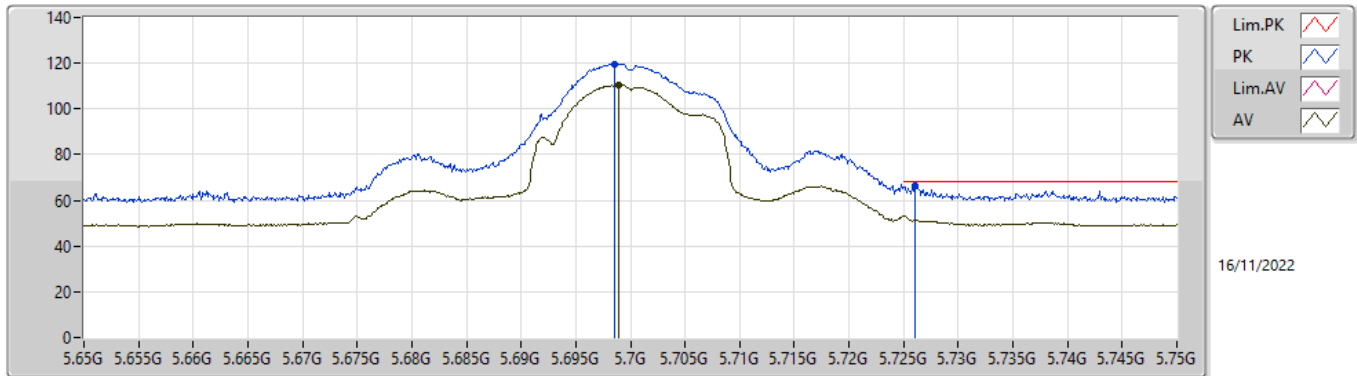


EUTY_4TX

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	11.16548G	54.42	74.00	-19.58	49.70	3	Horizontal	23	1.80	30	38.63	8.77	42.68
AV	11.15868G	42.17	54.00	-11.83	37.45	3	Horizontal	23	1.80	30	38.64	8.76	42.68
PK	16.7442G	64.07	68.20	-4.13	54.16	3	Horizontal	319	1.80	30	40.78	11.00	41.87

5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

5700MHz_TX



EUTY_4TX

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	5.6985G	119.66	Inf	-Inf	111.64	3	Vertical	218	2.18	18.5	34.49	6.25	32.72
AV	5.6989G	110.57	Inf	-Inf	102.54	3	Vertical	218	2.18	18.5	34.50	6.25	32.72
PK	5.7261G	66.67	68.20	-1.53	58.64	3	Vertical	218	2.18	18.5	34.50	6.26	32.73