

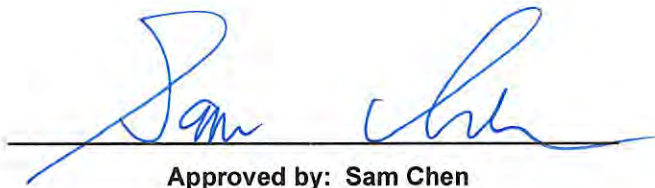


RADIO TEST REPORT

FCC ID : QXO-AP5020
Equipment : Access Point
Brand Name : Extreme Networks
Model Name : AP5020
Applicant : Extreme Networks, Inc.
2121 RDU Center Drive Morrisville North Carolina
United States 27560
Manufacturer : Extreme Networks, Inc.
2121 RDU Center Drive Morrisville North Carolina
United States 27560
Standard : 47 CFR FCC Part 15.407

The product was received on Jan. 16, 2024, and testing was started from Jan. 16, 2024 and completed on Apr. 27, 2024. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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Summary of Test Result

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

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/manufacturer 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:

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.

Reviewed by: Sam Chen

Report Producer: Lavender Zeng



1 General Description

1.1 Information

1.1.1 RF General Information

For Radio 1

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20), be (EHT20)	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), be (EHT40)	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), be (EHT80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]

For Radio 2

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20), be (EHT20)	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), be (EHT40)	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), be (EHT80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]
5150-5350	ac (VHT160), ax (HEW160), be (EHT160)	5250	50 [1]
5470-5725		5570	114 [1]



For Radio 1

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	2TX
5.15-5.25GHz	802.11n HT20	20	2TX
5.15-5.25GHz	802.11n HT20-BF	20	2TX
5.15-5.25GHz	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11ac VHT20-BF	20	2TX
5.15-5.25GHz	802.11ax HEW20	20	2TX
5.15-5.25GHz	802.11ax HEW20-BF	20	2TX
5.15-5.25GHz	802.11be EHT20	20	2TX
5.15-5.25GHz	802.11be EHT20-BF	20	2TX
5.15-5.25GHz	802.11n HT40	40	2TX
5.15-5.25GHz	802.11n HT40-BF	40	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT40-BF	40	2TX
5.15-5.25GHz	802.11ax HEW40	40	2TX
5.15-5.25GHz	802.11ax HEW40-BF	40	2TX
5.15-5.25GHz	802.11be EHT40	40	2TX
5.15-5.25GHz	802.11be EHT40-BF	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.15-5.25GHz	802.11ac VHT80-BF	80	2TX
5.15-5.25GHz	802.11ax HEW80	80	2TX
5.15-5.25GHz	802.11ax HEW80-BF	80	2TX
5.15-5.25GHz	802.11be EHT80	80	2TX
5.15-5.25GHz	802.11be EHT80-BF	80	2TX
5.25-5.35GHz	802.11a	20	2TX
5.25-5.35GHz	802.11n HT20	20	2TX
5.25-5.35GHz	802.11n HT20-BF	20	2TX
5.25-5.35GHz	802.11ac VHT20	20	2TX
5.25-5.35GHz	802.11ac VHT20-BF	20	2TX
5.25-5.35GHz	802.11ax HEW20	20	2TX
5.25-5.35GHz	802.11ax HEW20-BF	20	2TX
5.25-5.35GHz	802.11be EHT20	20	2TX
5.25-5.35GHz	802.11be EHT20-BF	20	2TX
5.25-5.35GHz	802.11n HT40	40	2TX
5.25-5.35GHz	802.11n HT40-BF	40	2TX
5.25-5.35GHz	802.11ac VHT40	40	2TX
5.25-5.35GHz	802.11ac VHT40-BF	40	2TX
5.25-5.35GHz	802.11ax HEW40	40	2TX
5.25-5.35GHz	802.11ax HEW40-BF	40	2TX
5.25-5.35GHz	802.11be EHT40	40	2TX
5.25-5.35GHz	802.11be EHT40-BF	40	2TX
5.25-5.35GHz	802.11ac VHT80	80	2TX
5.25-5.35GHz	802.11ac VHT80-BF	80	2TX
5.25-5.35GHz	802.11ax HEW80	80	2TX
5.25-5.35GHz	802.11ax HEW80-BF	80	2TX
5.25-5.35GHz	802.11be EHT80	80	2TX
5.25-5.35GHz	802.11be EHT80-BF	80	2TX



Radio 2

Band	Mode	BWch	Nant
5.15-5.25GHz	802.11a	20	2TX/4TX
5.15-5.25GHz	802.11n HT20	20	2TX/4TX
5.15-5.25GHz	802.11n HT20-BF	20	2TX/4TX
5.15-5.25GHz	802.11ac VHT20	20	2TX/4TX
5.15-5.25GHz	802.11ac VHT20-BF	20	2TX/4TX
5.15-5.25GHz	802.11ax HEW20	20	2TX/4TX
5.15-5.25GHz	802.11ax HEW20-BF	20	2TX/4TX
5.15-5.25GHz	802.11be EHT20	20	2TX/4TX
5.15-5.25GHz	802.11be EHT20-BF	20	2TX/4TX
5.15-5.25GHz	802.11n HT40	40	2TX/4TX
5.15-5.25GHz	802.11n HT40-BF	40	2TX/4TX
5.15-5.25GHz	802.11ac VHT40	40	2TX/4TX
5.15-5.25GHz	802.11ac VHT40-BF	40	2TX/4TX
5.15-5.25GHz	802.11ax HEW40	40	2TX/4TX
5.15-5.25GHz	802.11ax HEW40-BF	40	2TX/4TX
5.15-5.25GHz	802.11be EHT40	40	2TX/4TX
5.15-5.25GHz	802.11be EHT40-BF	40	2TX/4TX
5.15-5.25GHz	802.11ac VHT80	80	2TX/4TX
5.15-5.25GHz	802.11ac VHT80-BF	80	2TX/4TX
5.15-5.25GHz	802.11ax HEW80	80	2TX/4TX
5.15-5.25GHz	802.11ax HEW80-BF	80	2TX/4TX
5.15-5.25GHz	802.11be EHT80	80	2TX/4TX
5.15-5.25GHz	802.11be EHT80-BF	80	2TX/4TX
5.15-5.35GHz	802.11ac VHT160	160	2TX/4TX
5.15-5.35GHz	802.11ac VHT160-BF	160	2TX/4TX
5.15-5.35GHz	802.11ax HEW160	160	2TX/4TX
5.15-5.35GHz	802.11ax HEW160-BF	160	2TX/4TX
5.15-5.35GHz	802.11be EHT160	160	2TX/4TX
5.15-5.35GHz	802.11be EHT160-BF	160	2TX/4TX
5.25-5.35GHz	802.11a	20	2TX/4TX
5.25-5.35GHz	802.11n HT20	20	2TX/4TX
5.25-5.35GHz	802.11n HT20-BF	20	2TX/4TX
5.25-5.35GHz	802.11ac VHT20	20	2TX/4TX
5.25-5.35GHz	802.11ac VHT20-BF	20	2TX/4TX
5.25-5.35GHz	802.11ax HEW20	20	2TX/4TX
5.25-5.35GHz	802.11ax HEW20-BF	20	2TX/4TX
5.25-5.35GHz	802.11be EHT20	20	2TX/4TX
5.25-5.35GHz	802.11be EHT20-BF	20	2TX/4TX
5.25-5.35GHz	802.11n HT40	40	2TX/4TX
5.25-5.35GHz	802.11n HT40-BF	40	2TX/4TX
5.25-5.35GHz	802.11ac VHT40	40	2TX/4TX
5.25-5.35GHz	802.11ac VHT40-BF	40	2TX/4TX
5.25-5.35GHz	802.11ax HEW40	40	2TX/4TX
5.25-5.35GHz	802.11ax HEW40-BF	40	2TX/4TX
5.25-5.35GHz	802.11be EHT40	40	2TX/4TX
5.25-5.35GHz	802.11be EHT40-BF	40	2TX/4TX
5.25-5.35GHz	802.11ac VHT80	80	2TX/4TX
5.25-5.35GHz	802.11ac VHT80-BF	80	2TX/4TX



5.25-5.35GHz	802.11ax HEW80	80	2TX/4TX
5.25-5.35GHz	802.11ax HEW80-BF	80	2TX/4TX
5.25-5.35GHz	802.11be EHT80	80	2TX/4TX
5.25-5.35GHz	802.11be EHT80-BF	80	2TX/4TX
5.47-5.725GHz	802.11a	20	2TX/4TX
5.47-5.725GHz	802.11n HT20	20	2TX/4TX
5.47-5.725GHz	802.11n HT20-BF	20	2TX/4TX
5.47-5.725GHz	802.11ac VHT20	20	2TX/4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	2TX/4TX
5.47-5.725GHz	802.11ax HEW20	20	2TX/4TX
5.47-5.725GHz	802.11ax HEW20-BF	20	2TX/4TX
5.47-5.725GHz	802.11be EHT20	20	2TX/4TX
5.47-5.725GHz	802.11be EHT20-BF	20	2TX/4TX
5.47-5.725GHz	802.11n HT40	40	2TX/4TX
5.47-5.725GHz	802.11n HT40-BF	40	2TX/4TX
5.47-5.725GHz	802.11ac VHT40	40	2TX/4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	2TX/4TX
5.47-5.725GHz	802.11ax HEW40	40	2TX/4TX
5.47-5.725GHz	802.11ax HEW40-BF	40	2TX/4TX
5.47-5.725GHz	802.11be EHT40	40	2TX/4TX
5.47-5.725GHz	802.11be EHT40-BF	40	2TX/4TX
5.47-5.725GHz	802.11ac VHT80	80	2TX/4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	2TX/4TX
5.47-5.725GHz	802.11ax HEW80	80	2TX/4TX
5.47-5.725GHz	802.11ax HEW80-BF	80	2TX/4TX
5.47-5.725GHz	802.11be EHT80	80	2TX/4TX
5.47-5.725GHz	802.11be EHT80-BF	80	2TX/4TX
5.47-5.725GHz	802.11ac VHT160	160	2TX/4TX
5.47-5.725GHz	802.11ac VHT160-BF	160	2TX/4TX
5.47-5.725GHz	802.11ax HEW160	160	2TX/4TX
5.47-5.725GHz	802.11ax HEW160-BF	160	2TX/4TX
5.47-5.725GHz	802.11be EHT160	160	2TX/4TX
5.47-5.725GHz	802.11be EHT160-BF	160	2TX/4TX
5.725-5.85GHz	802.11a	20	2TX/4TX
5.725-5.85GHz	802.11n HT20	20	2TX/4TX
5.725-5.85GHz	802.11n HT20-BF	20	2TX/4TX
5.725-5.85GHz	802.11ac VHT20	20	2TX/4TX
5.725-5.85GHz	802.11ac VHT20-BF	20	2TX/4TX
5.725-5.85GHz	802.11ax HEW20	20	2TX/4TX
5.725-5.85GHz	802.11ax HEW20-BF	20	2TX/4TX
5.725-5.85GHz	802.11be EHT20	20	2TX/4TX
5.725-5.85GHz	802.11be EHT20-BF	20	2TX/4TX
5.725-5.85GHz	802.11n HT40	40	2TX/4TX
5.725-5.85GHz	802.11n HT40-BF	40	2TX/4TX
5.725-5.85GHz	802.11ac VHT40	40	2TX/4TX
5.725-5.85GHz	802.11ac VHT40-BF	40	2TX/4TX
5.725-5.85GHz	802.11ax HEW40	40	2TX/4TX
5.725-5.85GHz	802.11ax HEW40-BF	40	2TX/4TX
5.725-5.85GHz	802.11be EHT40	40	2TX/4TX
5.725-5.85GHz	802.11be EHT40-BF	40	2TX/4TX



5.725-5.85GHz	802.11ac VHT80	80	2TX/4TX
5.725-5.85GHz	802.11ac VHT80-BF	80	2TX/4TX
5.725-5.85GHz	802.11ax HEW80	80	2TX/4TX
5.725-5.85GHz	802.11ax HEW80-BF	80	2TX/4TX
5.725-5.85GHz	802.11be EHT80	80	2TX/4TX
5.725-5.85GHz	802.11be EHT80-BF	80	2TX/4TX

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 and VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ EHT20, EHT40, EHT80 and EHT160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM modulation.
- ♦ BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Operating Band	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	WLAN 2.4GHz / 5GHz	Sercomm	6172001TJH.20	PIFA	I-PEX	Note 1
2	WLAN 2.4GHz / 5GHz	Sercomm	6172001TJH.21	PIFA	I-PEX	
3	WLAN 2.4GHz / 5GHz	Sercomm	6172001TJH.22	PIFA	I-PEX	
4	WLAN 2.4GHz / 5GHz	Sercomm	6172001TJH.23	PIFA	I-PEX	
5	WLAN 6GHz	Sercomm	6172001TJH.24	PIFA	I-PEX	
6	WLAN 6GHz	Sercomm	6172001TJH.25	PIFA	I-PEX	
7	WLAN 6GHz	Sercomm	6172001TJH.26	PIFA	I-PEX	
8	WLAN 6GHz	Sercomm	6172001TJH.27	PIFA	I-PEX	
9	WLAN 5GHz / 6GHz	Sercomm	6172001TJH.28	PIFA	I-PEX	
10	WLAN 5GHz / 6GHz	Sercomm	6172001TJH.29	PIFA	I-PEX	
11	Bluetooth / Zigbee	Sercomm	6172001TJH.30	PIFA	I-PEX	4.22
12	Bluetooth / Zigbee	Sercomm	6172001TJH.31	PIFA	I-PEX	4.12
13	Bluetooth / Zigbee	Sercomm	6172001TJH.32	PIFA	I-PEX	4.19
14	GPS	Sercomm	6172001TJH.33	PIFA	I-PEX	1.176GHz: 4.50 1.575GHz: 4.20

Ant.	Port							
	2.4GHz (Radio 1)	2.4GHz (Radio 3)	5GHz (Radio 1)	5GHz (Radio 2)	6GHz (Radio 1)	6GHz (Radio 3)	Bluetooth / Zigbee	GPS
1	1	-	-	1	-	-	-	-
2	2	-	-	2	-	-	-	-
3	3	1	-	3	-	-	-	-
4	4	2	-	4	-	-	-	-
5	-	-	-	-	-	1	-	-
6	-	-	-	-	-	2	-	-
7	-	-	-	-	-	3	-	-
8	-	-	-	-	-	4	-	-
9	-	-	1	-	1	-	-	-
10	-	-	2	-	2	-	-	-
11	-	-	-	-	-	-	1	-
12	-	-	-	-	-	-	2	-
13	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	1



Note 1:

Ant.	Antenna Gain (dBi)								
	2.4GHz	5GHz UNII 1	5GHz UNII 2A	5GHz UNII 2C	5GHz UNII 3	6GHz UNII 5	6GHz UNII 6	6GHz UNII 7	6GHz UNII 8
1	2.91	4.88	4.99	5.07	5.29	-	-	-	-
2	3.17	3.95	3.41	5.00	5.07	-	-	-	-
3	2.98	4.49	4.06	4.40	3.93	-	-	-	-
4	2.64	4.75	4.07	4.71	4.40	-	-	-	-
5	-	-	-	-	-	5.33	4.93	5.50	4.83
6	-	-	-	-	-	5.41	4.54	5.26	5.39
7	-	-	-	-	-	5.95	5.96	4.82	4.77
8	-	-	-	-	-	5.79	5.88	5.89	5.91
9	-	3.07	2.35	2.59	3.21	2.71	2.66	4.37	3.21
10	-	3.01	2.66	3.88	4.23	4.41	3.82	3.37	4.42
11	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-

Ant.	Item	Directional gain (dBi)								
		2.4GHz	5GHz UNII 1	5GHz UNII 2A	5GHz UNII 2C	5GHz UNII 3	6GHz UNII 5	6GHz UNII 6	6GHz UNII 7	6GHz UNII 8
1~4 (4TX)	4T1S	6.00	8.49	7.89	8.04	7.52	-	-	-	-
	4T2S	3.17	5.49	4.99	5.07	5.29	-	-	-	-
	4T3S	3.17	4.88	4.99	5.07	5.29	-	-	-	-
1~2 (2TX)	2T1S	3.9	7.09	6.19	6.33	5.81	-	-	-	-
	2T2S	3.17	4.88	4.99	5.07	5.29	-	-	-	-
3~4 (2TX)	2T1S	3.05	5.48	5.79	6.26	5.87	-	-	-	-
	2T2S	2.98	4.75	4.07	4.71	4.40	-	-	-	-
5~8 (4TX)	4T1S	-	-	-	-	-	9.23	8.77	9.49	9.13
	4T2S	-	-	-	-	-	6.23	5.96	6.49	6.13
	4T3S	-	-	-	-	-	5.95	5.96	5.89	5.91
5~6 (2TX)	2T1S	-	-	-	-	-	7.38	6.63	8.00	7.03
	2T2S	-	-	-	-	-	5.41	4.93	5.50	5.39
9~10 (2TX)	2T1S	-	4.51	4.52	6.00	5.95	5.82	4.82	5.36	5.47
	2T2S	-	3.07	2.66	3.88	4.23	4.41	3.82	4.37	4.42

Note 2: The above information (excepting WLAN gain) was declared by manufacturer.



Note 3: The antenna gain (WLAN) and directional gain (WLAN) are measured which follow the procedure of KDB 662911 D03.

Note 4: The Bluetooth / Zigbee function of Antenna 13 is not enabled at this time.

Note 5:

<For Radio 1>

2.4GHz Function

IEEE 802.11b/g/n/VHT/ax/be

For 2TX/2RX:

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 2TX/4RX:

Port 1, Port 2, Port 3 and Port 4 can be used as receiving antenna, but only Port 1 and Port 2 can be used as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could receive simultaneously, but only Port 1 and Port 2 could transmit simultaneously.

For 4TX/4RX:

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

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

5GHz Function

IEEE 802.11a/n/ac/ax/be

UNII 1~UNII 3:

For 2RX:

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

Port 1 and Port 2 could receive simultaneously.

UNII1~UNII 2A:

For 2TX/2RX:

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

Port 1 and Port 2 could transmit/receive simultaneously.

6GHz Function

IEEE 802.11ax/be

For 2TX/2RX:

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

Port 1 and Port 2 could transmit/receive simultaneously.

<For Radio 2>

5GHz Function

IEEE 802.11a/n/ac/ax/be

For 2TX/4RX:

Port 1, Port 2, Port 3 and Port 4 can be used as receiving antenna, but only Port 1 and Port 2 can be used as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could receive simultaneously, but only Port 1 and Port 2 could transmit simultaneously.

For 4TX/4RX:

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

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



<For Radio 3>

2.4GHz Function

IEEE 802.11b/g/n/VHT/ax/be

For 1TX/2RX:

Port 1 and Port 2 can be used as receiving antenna, but only Port 1 can be used as transmitting antenna.
Port 1 and Port 2 could receive simultaneously.

For 2TX/2RX:

Port 1 and Port 2 can be used as transmitting/receiving antenna.
Port 1 and Port 2 could transmit/receive simultaneously.

6GHz Function

IEEE 802.11ax/be

For 2TX/4RX:

Port 1, Port 2, Port 3 and Port 4 can be used as receiving antenna, but only Port 1 and Port 2 can be used as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could receive simultaneously, but only Port 1 and Port 2 could transmit simultaneously.

For 4TX/4RX:

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.
Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

<For Radio 4>

Bluetooth/Zigbee Functions

For 1TX/1RX:

The EUT supports the antenna with TX and RX diversity functions.

Both Port 1 and Port 2 support transmit and receive functions, but only one of them will be used at one time.
The Port 1 generated the worst case, so it was selected to test and record in the report.



1.1.3 Mode Test Duty Cycle

<For Radio 1>

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss 1,(6D)	0.983	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11be EHT20_Nss 1,(M0)	0.978	0.1	1.496m	1k
802.11be EHT40_Nss 1,(M0)	0.959	0.18	780.937u	3k
802.11be EHT80_Nss 1,(M0)	0.925	0.34	409.687u	3k
802.11be EHT20_Nss 2,(M0)	0.958	0.19	788.437u	3k
802.11be EHT40_Nss 2,(M0)	0.928	0.32	431.25u	3k
802.11be EHT80_Nss 2,(M0)	0.883	0.54	248.437u	10k
802.11be EHT20-BF_Nss 1,(M0)	0.978	0.1	1.496m	1k
802.11be EHT40-BF_Nss 1,(M0)	0.959	0.18	780.937u	3k
802.11be EHT80-BF_Nss 1,(M0)	0.925	0.34	409.687u	3k

<For Radio 2>

2TX

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss 1,(6D)	0.944	0.25	2.064m	1k
802.11be EHT20_Nss 1,(M0)	0.979	0.09	1.496m	1k
802.11be EHT40_Nss 1,(M0)	0.96	0.18	780.313u	3k
802.11be EHT80_Nss 1,(M0)	0.923	0.35	409.375u	3k
802.11be EHT160_Nss 1,(M0)	0.877	0.57	240.313u	10k
802.11be EHT20_Nss 2,(M0)	0.959	0.18	787.5u	3k
802.11be EHT40_Nss 2,(M0)	0.929	0.32	430u	3k
802.11be EHT80_Nss 2,(M0)	0.884	0.54	247.813u	10k
802.11be EHT160_Nss 2,(M0)	0.831	0.8	161.875u	10k
802.11be EHT20-BF_Nss 1,(M0)	0.979	0.09	1.496m	1k
802.11be EHT40-BF_Nss 1,(M0)	0.96	0.18	780.313u	3k
802.11be EHT80-BF_Nss 1,(M0)	0.923	0.35	409.375u	3k
802.11be EHT160-BF_Nss 1,(M0)	0.877	0.57	240.313u	10k



4TX

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11a_Nss 1,(6D)	0.983	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11be EHT20_Nss 1,(M0)	0.976	0.11	1.496m	1k
802.11be EHT40_Nss 1,(M0)	0.96	0.18	780.625u	3k
802.11be EHT80_Nss 1,(M0)	0.924	0.34	409.375u	3k
802.11be EHT160_Nss 1,(M0)	0.877	0.57	240.625u	10k
802.11be EHT20_Nss 4,(M0)	0.928	0.32	444.375u	3k
802.11be EHT40_Nss 4,(M0)	0.889	0.51	267.5u	10k
802.11be EHT80_Nss 4,(M0)	0.84	0.76	176.563u	10k
802.11be EHT160_Nss 4,(M0)	0.802	0.96	132.187u	10k
802.11be EHT20-BF_Nss 1,(M0)	0.976	0.11	1.496m	1k
802.11be EHT40-BF_Nss 1,(M0)	0.96	0.18	780.625u	3k
802.11be EHT80-BF_Nss 1,(M0)	0.924	0.34	409.375u	3k
802.11be EHT160-BF_Nss 1,(M0)	0.877	0.57	240.625u	10k

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter / PoE			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for 11n/VHT/11ax/11be in 2.4GHz, 11n/11ac/11ax/11be in 5GHz and 11ax/11be 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	AccessMTool 3.3.0.4			

Note: The above information was declared by manufacturer.



1.1.5 Table for EUT Information

EUT	GPS Integrated Module
1	With
2	Without

Note 1: From the above EUTs, EUT 1 was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.1.6 Table for Radio Function

Radio	Support Band		
	2.4GHz	5GHz	6GHz
1	BW: 20MHz	2TX: UNII 1~2A, 2RX: UNII 1~3 (scan) BW: 20/40/80MHz	UNII 5 or UNII 5~8 (scan) BW: 20/40/80/160MHz
2	-	UNII 2C~3 or UNII 1~3 BW: 20/40/80/160MHz	-
3	BW: 20MHz	-	UNII 7~8 or UNII 5~8 BW: 20/40/80/160/320MHz
4	Bluetooth / Zigbee		
5	GPS		

Note: The above information was declared by manufacturer.

1.1.7 Table for EUT Operation Mode

Mode	Radio 1	Radio 2	Radio 3	Radio 4	Radio 5	Note
1	2.4GHz 4x4	5GHz (UNII 1~3) 4x4	6GHz (UNII 5~8) 4x4	Bluetooth or Zigbee	GPS	Tri Radio
2	2.4GHz 2x2 (TX) / 5GHz (2RX) / 6GHz (2RX)	5GHz (UNII 1~3) 4x4	6GHz (UNII 5~8) 4x4	Bluetooth or Zigbee	GPS	Full Band w/Scan
3	5GHz (UNII 1~2A) 2x2	5GHz (UNII 2C~3) 4x4	6GHz (UNII 5~8) 4x4	Bluetooth or Zigbee	GPS	Dual 5GHz w/6GHz
4	6GHz 2x2 (TX) / 2.4GHz (2RX) / 5GHz (2RX)	5GHz (UNII 1~3) 4x4	2.4GHz 2x2	Bluetooth or Zigbee	GPS	DBDC w/Scan
5	5GHz (UNII 1~2A) 2x2	5GHz (UNII 2C~3) 4x4	2.4GHz 2x2	Bluetooth or Zigbee	GPS	Dual 5GHz w/2.4GHz
6	6GHz (UNII 5) 2x2	5GHz (UNII 1~3) 4x4	6GHz (UNII 7~8) 4x4	Bluetooth or Zigbee	GPS	Dual 6GHz w/5GHz

Note: The above information was declared by manufacturer.



1.1.8 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR410321AB

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

Modifications	Performance Checking
1. Adding UNII 2A and UNII 2C (5250~5350 MHz, 5470~5725 MHz) for this device. 2. Adding 160MHz for Radio 2 for this device.	1. Emission Bandwidth 2. Maximum Conducted Output Power 3. Peak Power Spectral Density 4. Unwanted Emissions Above 1GHz



1.2 Applicable Standards

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

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

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

- ◆ FCC KDB 662911 D03 v01
- ◆ FCC KDB 412172 D01 v01r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH01-CB	KJ Chang	21.7~23.2 / 65~69	Jan. 16, 2024~ Apr. 27, 2024
Radiated above 1GHz	03CH01-CB	George Fan	21.2-22.3 / 56-59	Jan. 20, 2024~ Apr. 24, 2024
	03CH02-CB		21.9-22.4 / 55-58	
	03CH03-CB		21.5-22.5 / 55-58	

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))

Parameter	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	3.1 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.1 dB	Confidence levels of 95%
Bandwidth Measurement	2.2%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

<For Radio 1>

Mode
802.11a_Nss1,(6Mbps)_2TX
5260MHz
5300MHz
5320MHz
802.11be EHT20_Nss1,(MCS0)_2TX
5260MHz
5300MHz
5320MHz
802.11be EHT40_Nss1,(MCS0)_2TX
5270MHz
5310MHz
802.11be EHT80_Nss1,(MCS0)_2TX
5290MHz
802.11be EHT20_Nss2,(MCS0)_2TX
5260MHz
5300MHz
5320MHz
802.11be EHT40_Nss2,(MCS0)_2TX
5270MHz
5310MHz
802.11be EHT80_Nss2,(MCS0)_2TX
5290MHz
802.11be EHT20-BF_Nss1,(MCS0)_2TX
5260MHz
5300MHz
5320MHz
802.11be EHT40-BF_Nss1,(MCS0)_2TX
5270MHz
5310MHz
802.11be EHT80-BF_Nss1,(MCS0)_2TX
5290MHz



<For Radio 2>

2TX:

Mode
802.11a_Nss1,(6Mbps)_2TX
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
802.11be EHT20_Nss1,(MCS0)_2TX
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
802.11be EHT40_Nss1,(MCS0)_2TX
5270MHz
5310MHz
5510MHz
5550MHz
5670MHz
5710MHz Straddle 5.47-5.725GHz
5710MHz Straddle 5.725-5.85GHz
802.11be EHT80_Nss1,(MCS0)_2TX
5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
802.11be EHT160_Nss1,(MCS0)_2TX
5250MHz Straddle 5.15-5.25GHz
5250MHz Straddle 5.25-5.35GHz
5570MHz
802.11be EHT20_Nss2,(MCS0)_2TX
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
802.11be EHT40_Nss2,(MCS0)_2TX
5270MHz



5310MHz
5510MHz
5550MHz
5670MHz
5710MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
802.11be EHT80_Nss2,(MCS0)_2TX
5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
802.11be EHT160_Nss2,(MCS0)_2TX
5250MHz Straddle 5.15-5.25GHz
5250MHz Straddle 5.25-5.35GHz
5570MHz
802.11be EHT20-BF_Nss1,(MCS0)_2TX
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
802.11be EHT40-BF_Nss1,(MCS0)_2TX
5270MHz
5310MHz
5510MHz
5550MHz
5670MHz
5710MHz Straddle 5.47-5.725GHz
5710MHz Straddle 5.725-5.85GHz
802.11be EHT80-BF_Nss1,(MCS0)_2TX
5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
802.11be EHT160-BF_Nss1,(MCS0)_2TX
5250MHz Straddle 5.15-5.25GHz
5250MHz Straddle 5.25-5.35GHz
5570MHz

4TX:

Mode
802.11a_Nss1,(6Mbps)_4TX
5260MHz
5300MHz
5320MHz



5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
802.11be EHT20_Nss1,(MCS0)_4TX
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
802.11be EHT40_Nss1,(MCS0)_4TX
5270MHz
5310MHz
5510MHz
5550MHz
5670MHz
5710MHz Straddle 5.47-5.725GHz
5710MHz Straddle 5.725-5.85GHz
802.11be EHT80_Nss1,(MCS0)_4TX
5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
802.11be EHT160_Nss1,(MCS0)_4TX
5250MHz Straddle 5.15-5.25GHz
5250MHz Straddle 5.25-5.35GHz
5570MHz
802.11be EHT20_Nss4,(MCS0)_4TX
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
802.11be EHT40_Nss4,(MCS0)_4TX
5270MHz
5310MHz
5510MHz
5550MHz
5670MHz
5710MHz Straddle 5.47-5.725GHz
5710MHz Straddle 5.725-5.85GHz
802.11be EHT80_Nss4,(MCS0)_4TX



5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
802.11be EHT160_Nss4,(MCS0)_4TX
5250MHz Straddle 5.15-5.25GHz
5250MHz Straddle 5.25-5.35GHz
5570MHz
802.11be EHT20-BF_Nss1,(MCS0)_4TX
5260MHz
5300MHz
5320MHz
5500MHz
5580MHz
5700MHz
5720MHz Straddle 5.47-5.725GHz
5720MHz Straddle 5.725-5.85GHz
802.11be EHT40-BF_Nss1,(MCS0)_4TX
5270MHz
5310MHz
5510MHz
5550MHz
5670MHz
5710MHz Straddle 5.47-5.725GHz
5710MHz Straddle 5.725-5.85GHz
802.11be EHT80-BF_Nss1,(MCS0)_4TX
5290MHz
5530MHz
5610MHz
5690MHz Straddle 5.47-5.725GHz
5690MHz Straddle 5.725-5.85GHz
802.11be EHT160-BF_Nss1,(MCS0)_4TX
5250MHz Straddle 5.15-5.25GHz
5250MHz Straddle 5.25-5.35GHz
5570MHz

Note:

- EHT20 / EHT40 / EHT80 / EHT160 covers HT20 / HT40 / VHT20 / VHT40 / VHT80 / HEW20 / HEW40 / HEW80 / HEW160 due to similar modulation. The power setting for HT20 / HT40 / VHT20 / VHT40 / VHT80 / VHT160 / HEW20 / HEW40 / HEW80 / HEW160 is the same or lower than EHT20 / EHT40 / EHT80 / EHT160.
- The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all test items are evaluated in the report. The beamforming mode only evaluates the output power.

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Output Power Power Spectral Density
Test Condition	Conducted measurement at transmit chains
1	EUT 1 + Radio 1
2	EUT 1 + Radio 2_2TX
3	EUT 1 + Radio 2_4TX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at Z axis in Radio 1 and Radio 2_2TX and Y axis in Radio 2_4TX. So, the measurement will follow this same test configuration
1	EUT 1 in Z axis + Radio 1
2	EUT 1 in Z axis + Radio 2_2TX
3	EUT 1 in Y axis + Radio 2_4TX



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	Radio 1 (WLAN 2.4GHz) + Radio 2 (WLAN 5GHz/UNII 1~3) + Radio 3 (WLAN 6GHz/UNII 5~8) + Radio 4 (Zigbee)
2	Radio 1 (WLAN 2.4GHz) + Radio 2 (WLAN 5GHz/UNII 1~3) + Radio 3 (WLAN 6GHz/UNII 5~8) + Radio 4 (Bluetooth)
3	Radio 1 (WLAN 5GHz/UNII 1~2A) + Radio 2 (WLAN 5GHz/UNII 2C~3) + Radio 3 (WLAN 6GHz/UNII 5~8) + Radio 4 (Zigbee)
4	Radio 1 (WLAN 5GHz/UNII 1~2A) + Radio 2 (WLAN 5GHz/UNII 2C~3) + Radio 3 (WLAN 6GHz/UNII 5~8) + Radio 4 (Bluetooth)
5	Radio 1 (WLAN 6GHz/UNII 5~8) + Radio 2 (WLAN 5GHz/UNII 1~3) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Zigbee)
6	Radio 1 (WLAN 6GHz/UNII 5~8) + Radio 2 (WLAN 5GHz/UNII 1~3) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)
7	Radio 1 (WLAN 5GHz/UNII 1~2A) + Radio 2 (WLAN 5GHz/UNII 2C~3) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Zigbee)
8	Radio 1 (WLAN 5GHz/UNII 1~2A) + Radio 2 (WLAN 5GHz/UNII 2C~3) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)
9	Radio 1 (WLAN 6GHz/UNII 5) + Radio 2 (WLAN 5GHz/UNII 1~3) + Radio 3 (WLAN 6GHz/UNII 7~8) + Radio 4 (Zigbee)
10	Radio 1 (WLAN 6GHz/UNII 5) + Radio 2 (WLAN 5GHz/UNII 1~3) + Radio 3 (WLAN 6GHz/UNII 7~8) + Radio 4 (Bluetooth)
Refer to Sporton Test Report No.: FA410321-01 for Co-location RF Exposure Evaluation.	

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

Adapter information as below:

Power	Brand Name	Model Name
Adapter	Powertron	PA1045-120HIB300

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.



2.4 Accessories

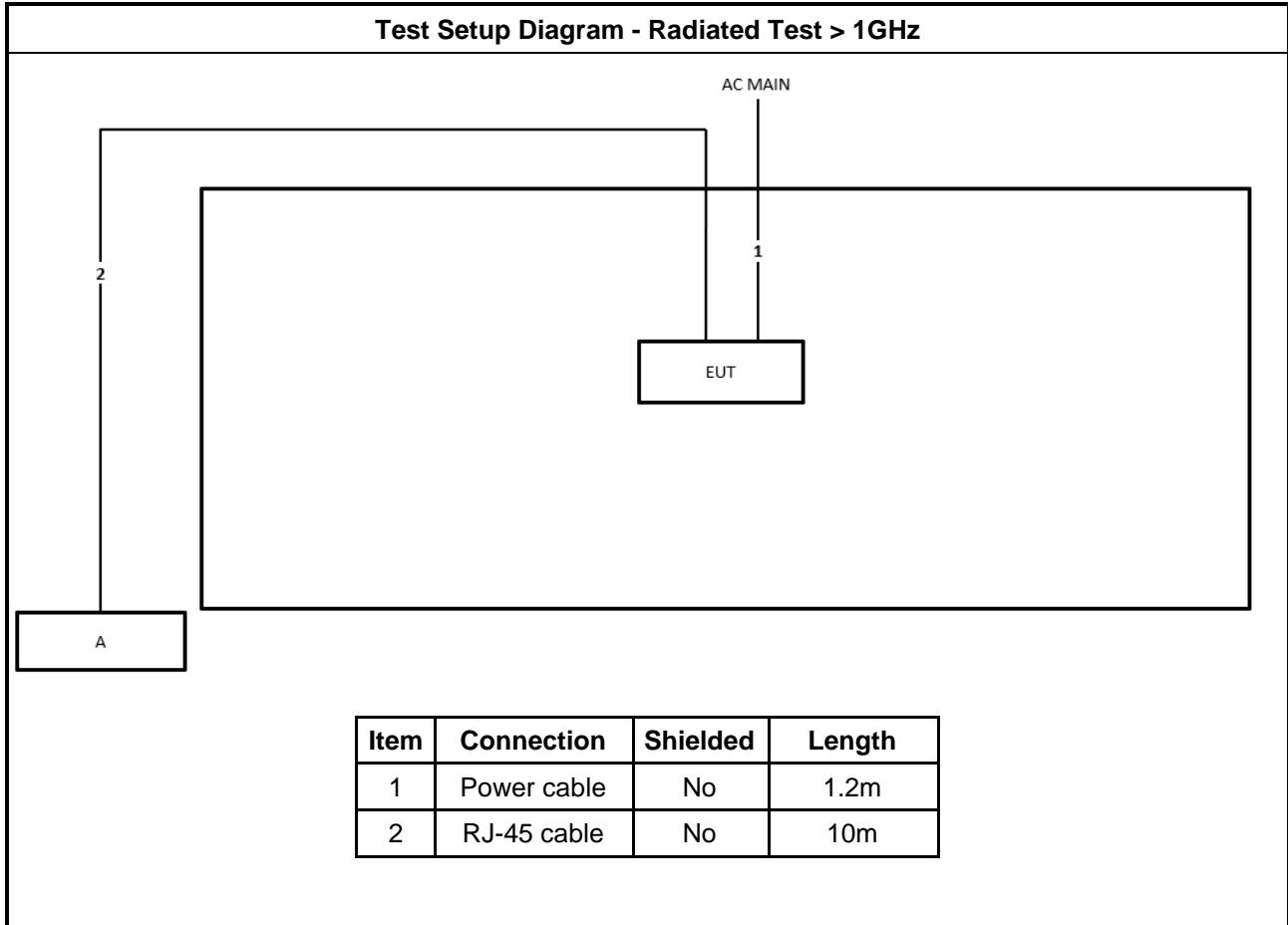
Accessories
Mount bracket *1

2.5 Support Equipment

For Radiated (above 1GHz) and RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	AC Adapter	Powertron	PA1045-120HIB300	N/A

2.6 Test Setup Diagram





3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input 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.

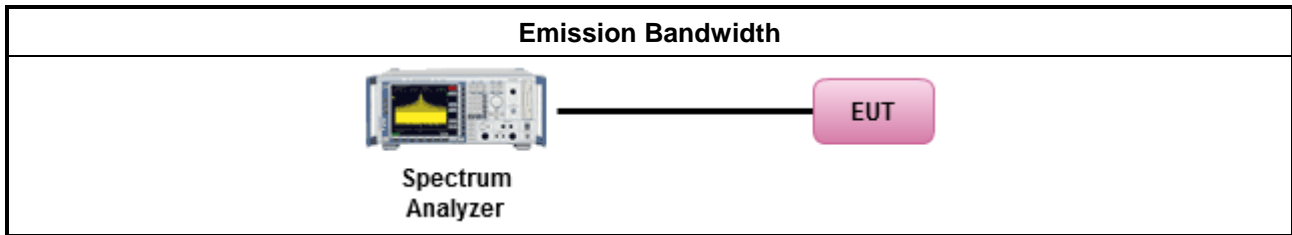
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.1.4 Test Setup



3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A



3.2 Maximum Output Power

3.2.1 Limit

Maximum Output Power Limit	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<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:	
<input type="checkbox"/>	<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:	
<input type="checkbox"/>	<ul style="list-style-type: none"> For other devices: 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. Vehicles devices: The maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
<input type="checkbox"/> For the 5.25-5.35 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> For other devices: The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log 10 B$, dBm, and 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 Vehicles devices: The maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log B$, 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 conducted output power shall not exceed 250 mW or $11 + 10 \log 10 B$, dBm, and 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 $P_{Out} = 30 - (G_{TX} - 6)$.
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.2.2 Measuring Instruments

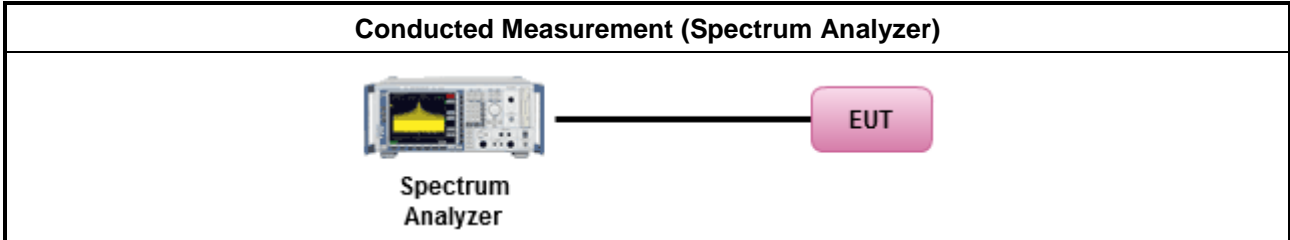
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

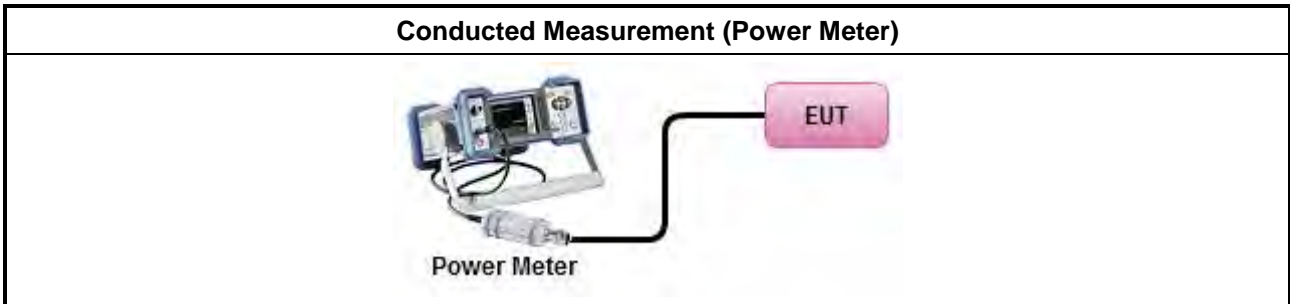
Test Method	
	Average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband 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.

3.2.4 Test Setup

For straddle channel



For other channel



3.2.5 Test Result of Maximum Output Power

Refer as Appendix B



3.3 Power Spectral Density

3.3.1 Limit

Peak Power Spectral Density Limit	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<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:	
<input type="checkbox"/>	<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.	
<input type="checkbox"/>	<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:	
<input type="checkbox"/>	<ul style="list-style-type: none"> Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.3.2 Measuring Instruments

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

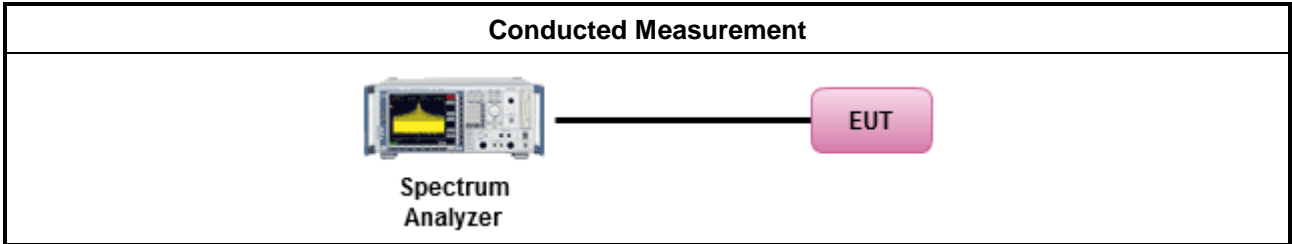


3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options: 	
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
[duty cycle ≥ 98% or external video / power trigger]	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<input checked="" type="checkbox"/>	For conducted measurement.
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: 	
<input checked="" type="checkbox"/>	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
<input type="checkbox"/>	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
<input type="checkbox"/>	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$ 	

<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" ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. ▪ Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Refer as Appendix C



3.4 Unwanted Emissions

3.4.1 Transmitter Unwanted Emissions Limit

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

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
<input 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).

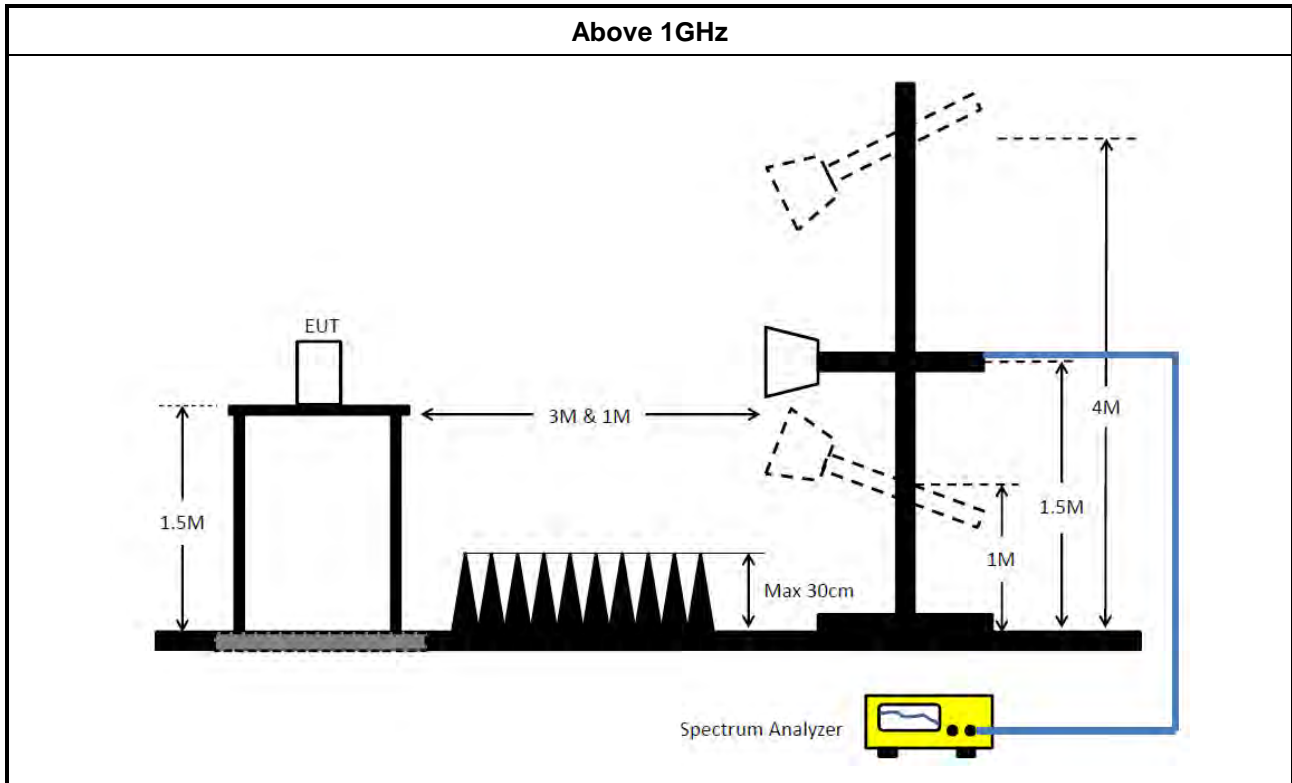
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method															
	<ul style="list-style-type: none"> ▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). 														
	<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. 														
	<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 5%;"></td> <td> <ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. </td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.</td> </tr> </table> 		<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. 	<input type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).	<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).	<input type="checkbox"/>	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.	<input type="checkbox"/>	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.	<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.	<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. 														
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).														
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).														
<input type="checkbox"/>	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.														
<input type="checkbox"/>	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.														
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.														
<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.														
	<ul style="list-style-type: none"> ▪ For radiated measurement. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 5%;"></td> <td> <ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. </td> </tr> </table> 		<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. 												
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. 														
	<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level. 														
	<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. 														

3.4.4 Test Setup



3.4.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.4.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 05, 2023	May 04, 2024	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120D-01816	1GHz~18GHz	Dec. 20, 2023	Dec. 19, 2024	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 18, 2023	May 17, 2024	Radiation (03CH01-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov. 28, 2023	Nov. 27, 2024	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Nov. 06, 2023	Nov. 05, 2024	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Nov. 06, 2023	Nov. 05, 2024	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	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. 25, 2023	Mar. 24, 2024	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 24, 2024	Mar. 23, 2025	Radiation (03CH02-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH02-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH02-CB)
Signal Analyzer	R&S	FSV40	101903	9kHz ~ 40GHz	May 29, 2023	May 28, 2024	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 02, 2023	Oct. 01, 2024	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 04, 2023	May 03, 2024	Radiation (03CH03-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Sep. 04, 2023	Sep. 03, 2024	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH03-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 24, 2023	Nov. 23, 2024	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 12, 2023	Jun. 11, 2024	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Nov. 07, 2023	Nov. 06, 2024	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Nov. 07, 2023	Nov. 06, 2024	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Jan. 11, 2024	Jan. 10, 2025	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 29, 2023	May 28, 2024	Conducted (TH01-CB)
Signal Analyzer	R&S	FSV3044	101320	9kHz ~ 44GHz	Jun. 13, 2023	Jun. 12, 2024	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1~26.5 GHz	Oct. 03, 2023	Oct. 02, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz – 18 GHz	Oct. 02, 2023	Oct. 01, 2024	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	1339408	300MHz~40GHz	Sep. 12, 2023	Sep. 11, 2024	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1517009	300MHz~40GHz	Sep. 12, 2023	Sep. 11, 2024	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.
N.C.R means Non-Calibration required.



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	30.36M	17.302M	17M3D1D	21.56M	16.797M
802.11be EHT20_Nss1,(MCS0)_2TX	30.36M	19.303M	19M3D1D	21.45M	19.061M
802.11be EHT20_Nss2,(MCS0)_2TX	34.43M	19.296M	19M3D1D	21.835M	19.101M
802.11be EHT40_Nss1,(MCS0)_2TX	51.15M	38.032M	38M0D1D	42.13M	37.875M
802.11be EHT40_Nss2,(MCS0)_2TX	50.49M	37.984M	38M0D1D	45.43M	37.86M
802.11be EHT80_Nss1,(MCS0)_2TX	82.72M	77.439M	77M4D1D	81.84M	77.33M
802.11be EHT80_Nss2,(MCS0)_2TX	86.68M	77.466M	77M5D1D	82.94M	77.341M

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

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	21.56M	16.931M	30.36M	17.302M
5300MHz	Pass	Inf	25.795M	16.944M	26.62M	16.889M
5320MHz	Pass	Inf	22.44M	16.888M	22M	16.797M
802.11be EHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	27.115M	19.119M	30.36M	19.303M
5300MHz	Pass	Inf	25.905M	19.152M	25.025M	19.131M
5320MHz	Pass	Inf	21.45M	19.061M	21.45M	19.107M
802.11be EHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	47.41M	37.875M	51.15M	38.032M
5310MHz	Pass	Inf	44M	37.924M	42.13M	37.91M
802.11be EHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	81.84M	77.33M	82.72M	77.439M
802.11be EHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	21.835M	19.101M	34.43M	19.296M
5300MHz	Pass	Inf	29.15M	19.174M	27.665M	19.167M
5320MHz	Pass	Inf	27.005M	19.178M	29.7M	19.173M
802.11be EHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	47.19M	37.891M	50.49M	37.984M
5310MHz	Pass	Inf	46.53M	37.86M	45.43M	37.88M
802.11be EHT80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	82.94M	77.341M	86.68M	77.466M

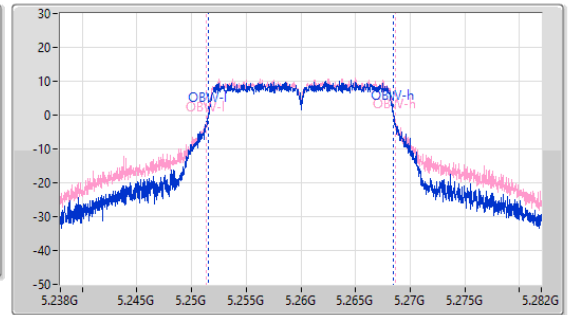
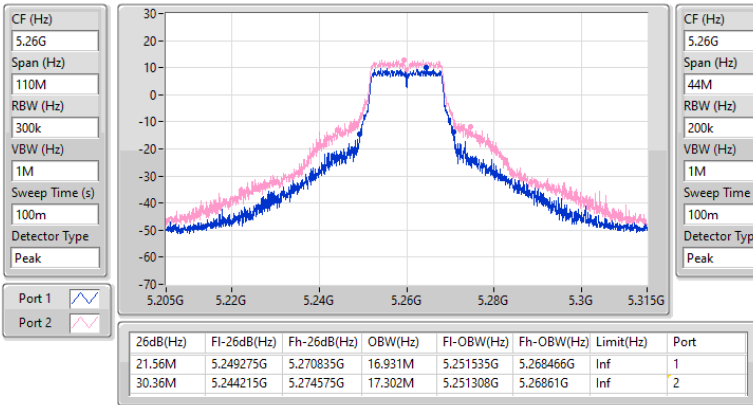
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
 Port X-OBW = Port X 99% occupied bandwidth

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5260MHz

27/01/2024

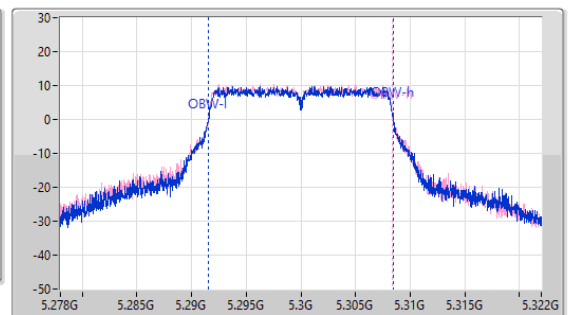
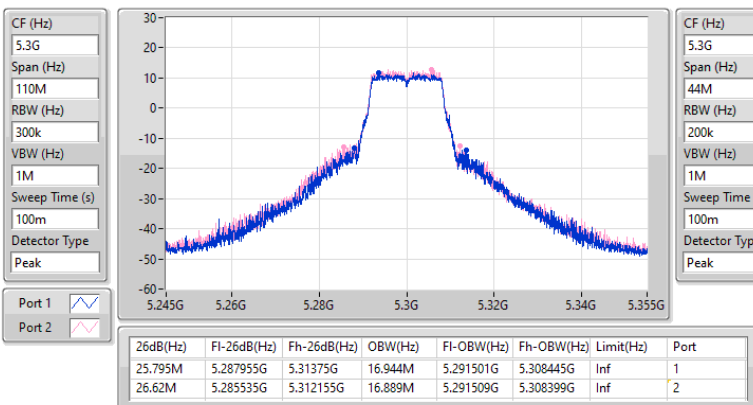


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5300MHz

27/01/2024

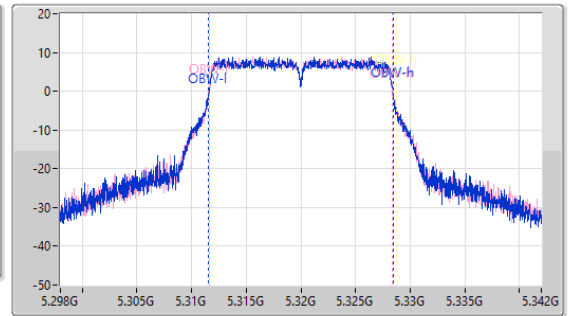
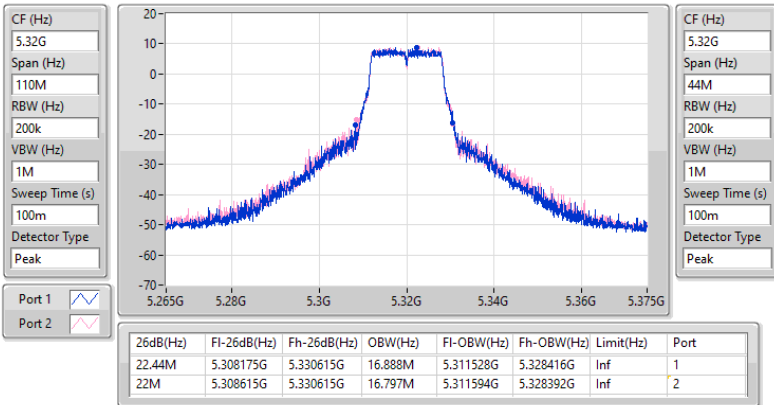


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5320MHz

27/01/2024

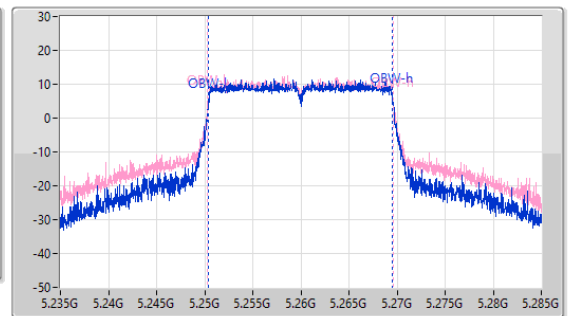
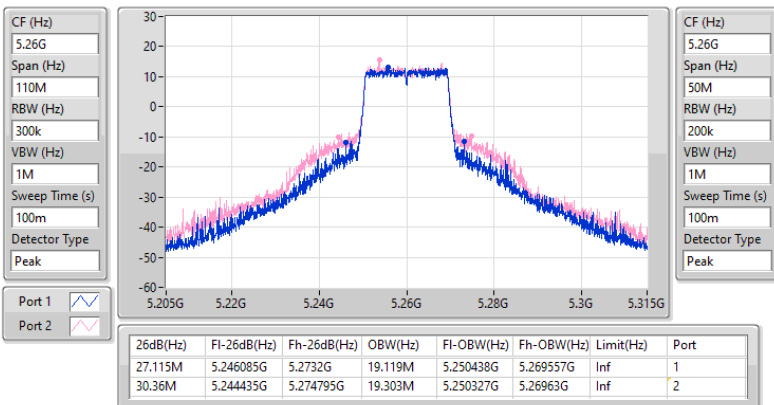


5.25-5.35GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5260MHz

27/01/2024

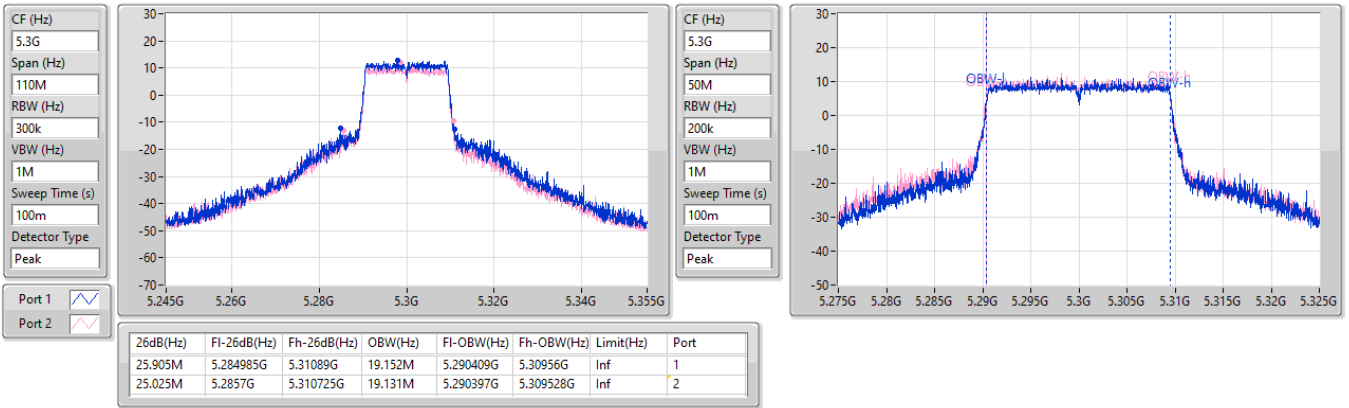


5.25-5.35GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5300MHz

27/01/2024

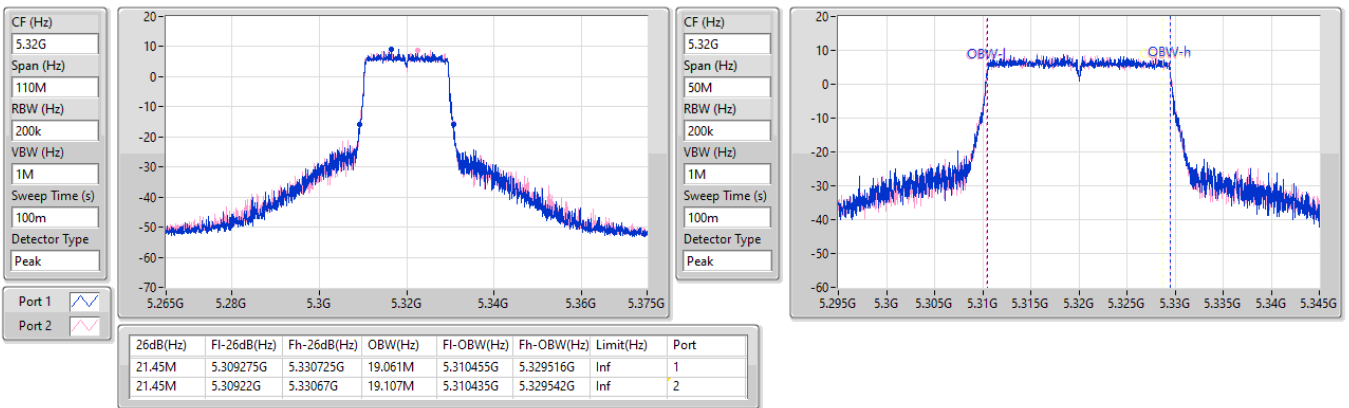


5.25-5.35GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5320MHz

27/01/2024

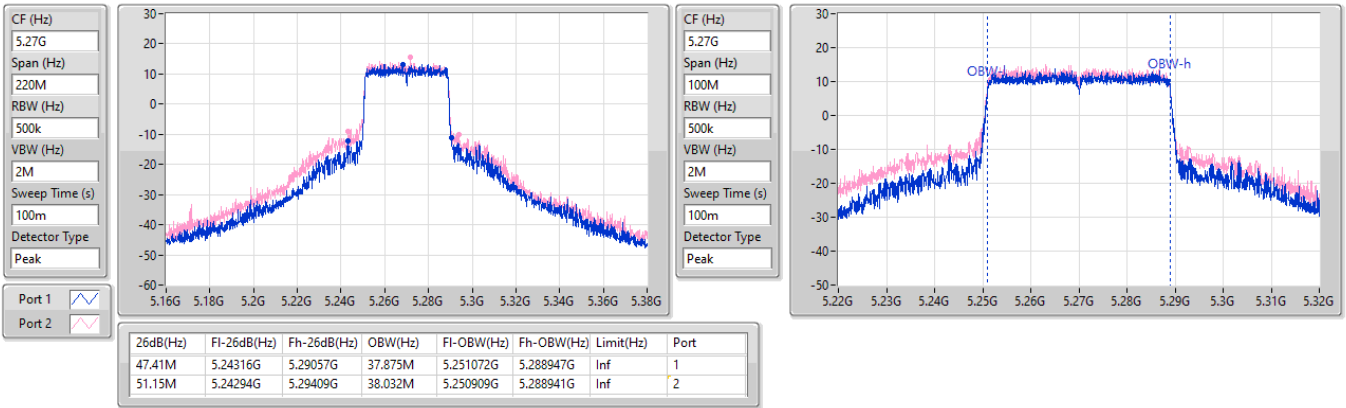


5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5270MHz

27/01/2024

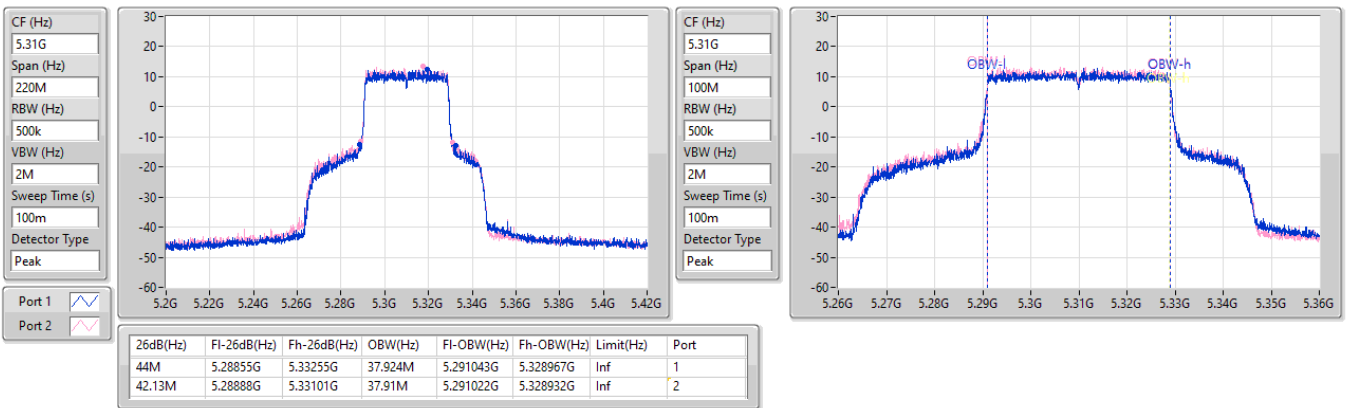


5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5310MHz

28/03/2024

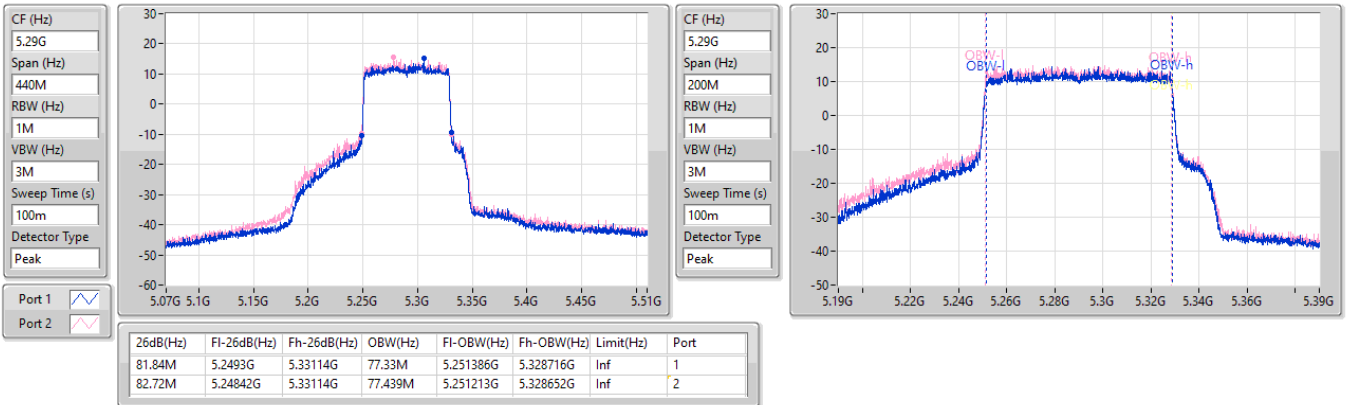


5.25-5.35GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5290MHz

28/03/2024

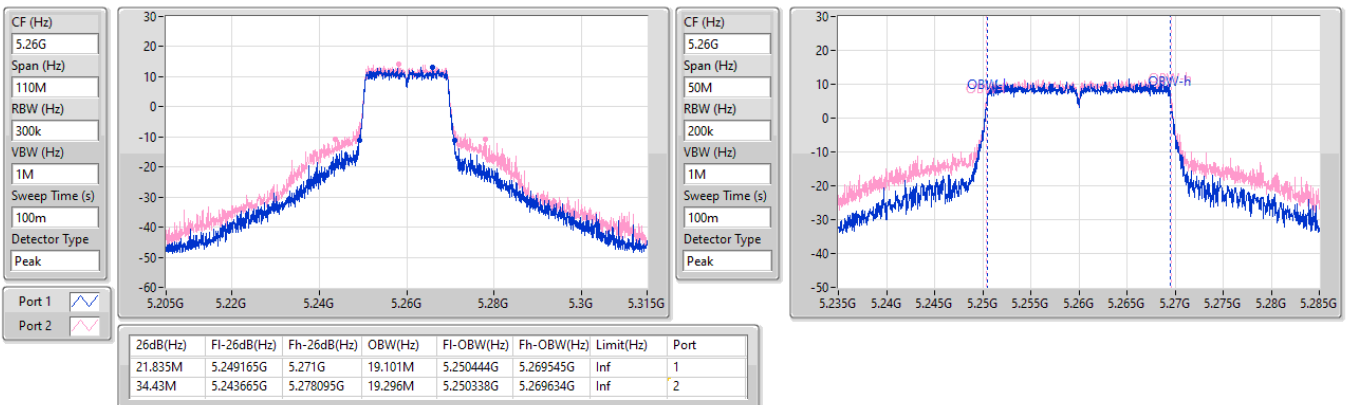


5.25-5.35GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5260MHz

27/01/2024

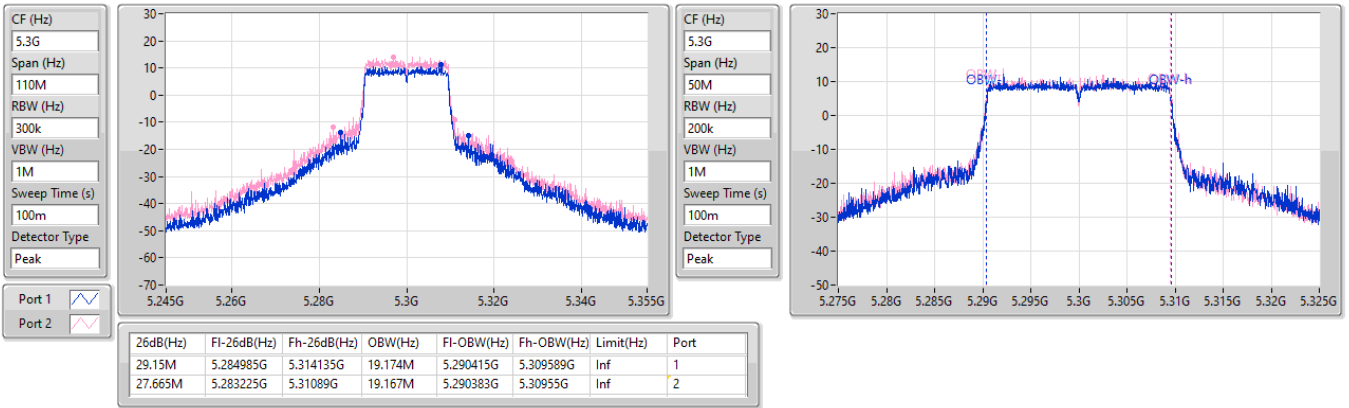


5.25-5.35GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5300MHz

27/01/2024

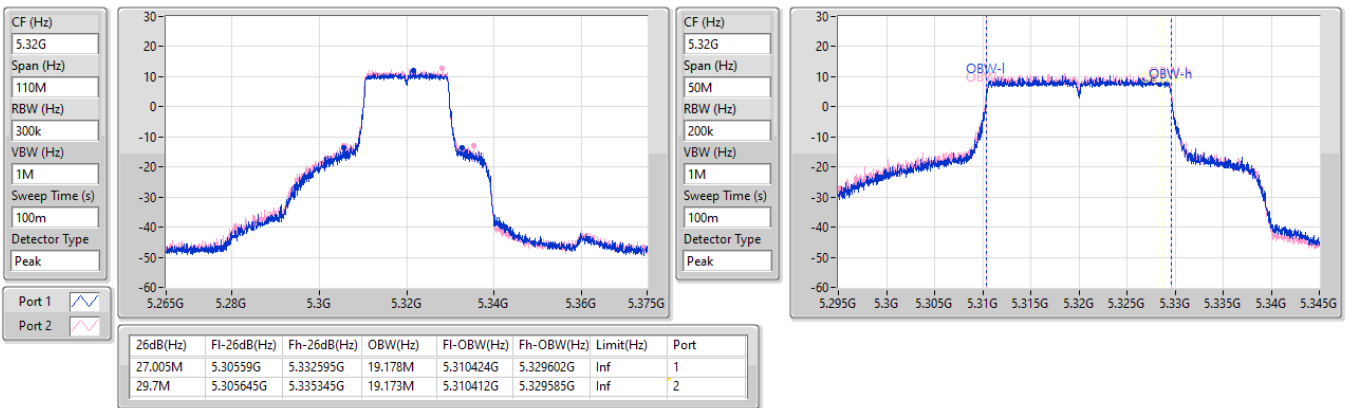


5.25-5.35GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5320MHz

28/03/2024

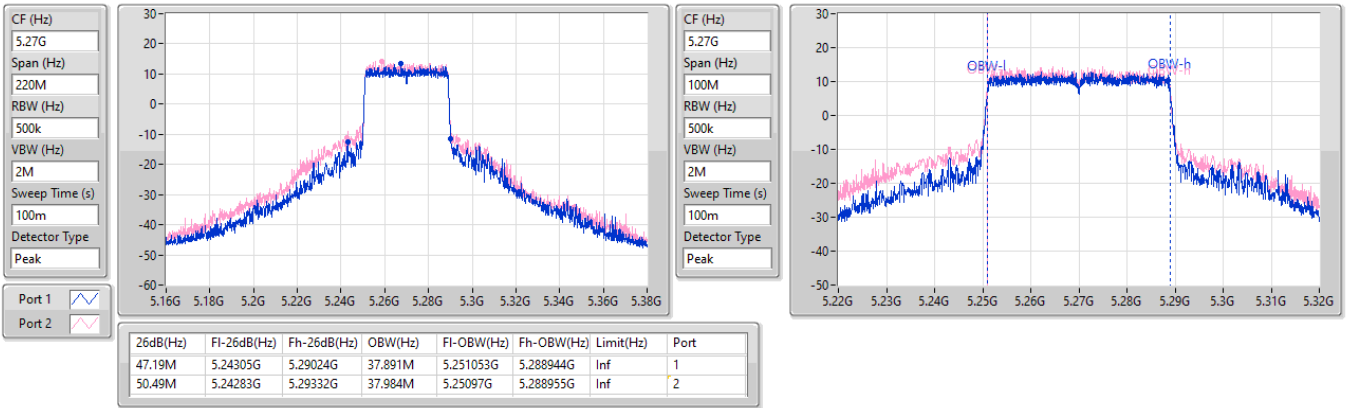


5.25-5.35GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5270MHz

27/01/2024

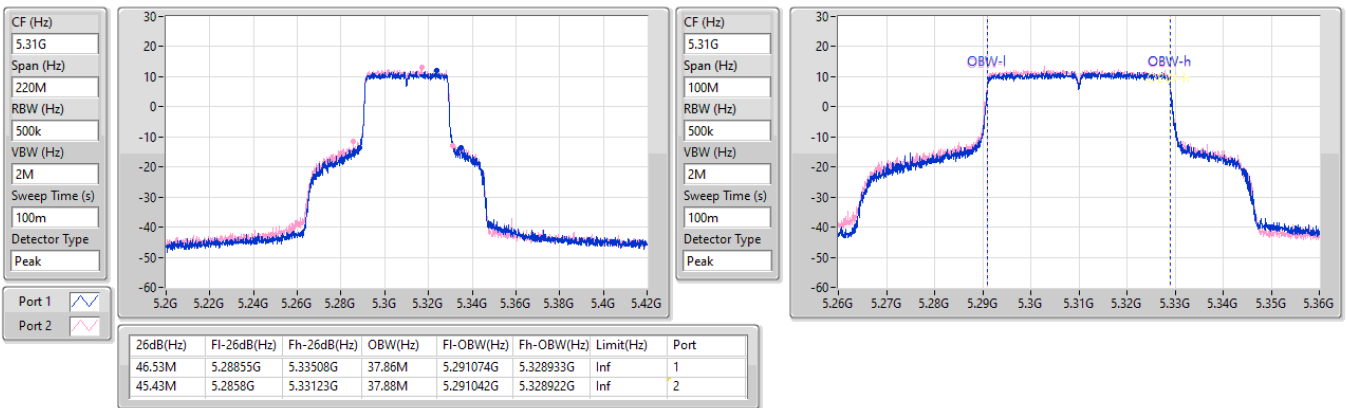


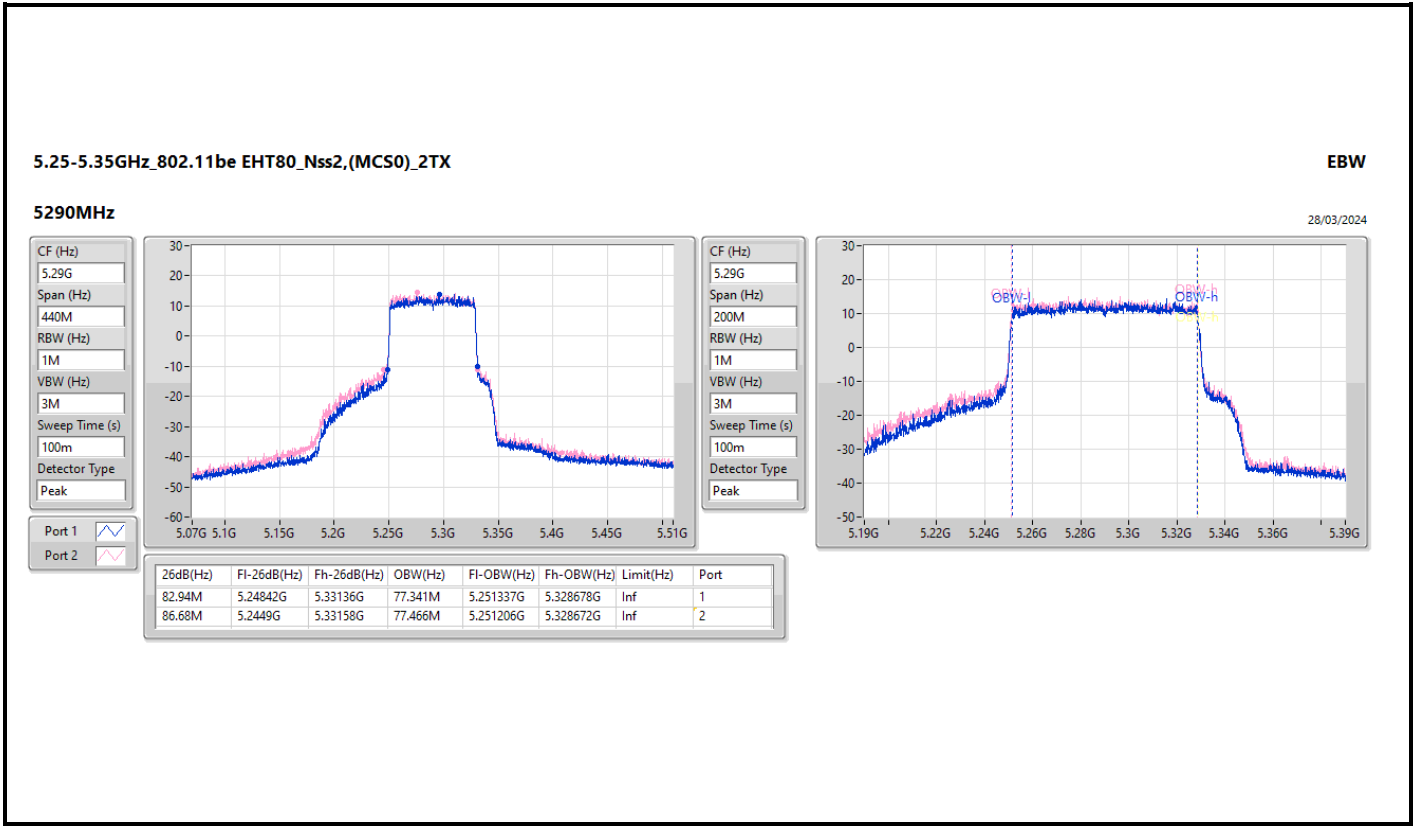
5.25-5.35GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5310MHz

28/03/2024





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11be EHT160_Nss1,(MCSO)_2TX	81.2M	77.327M	77M3D1D	81.04M	77.266M
802.11be EHT160_Nss2,(MCSO)_2TX	81.68M	77.281M	77M3D1D	81.12M	77.225M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.925M	16.935M	16M9D1D	21.34M	16.751M
802.11be EHT20_Nss1,(MCSO)_2TX	23.485M	19.153M	19M2D1D	21.45M	19.088M
802.11be EHT20_Nss2,(MCSO)_2TX	21.78M	19.147M	19M1D1D	21.34M	19.07M
802.11be EHT40_Nss1,(MCSO)_2TX	41.03M	37.834M	37M8D1D	40.48M	37.725M
802.11be EHT40_Nss2,(MCSO)_2TX	40.7M	37.834M	37M8D1D	40.37M	37.671M
802.11be EHT80_Nss1,(MCSO)_2TX	85.58M	77.486M	77M5D1D	84.92M	77.403M
802.11be EHT80_Nss2,(MCSO)_2TX	86.68M	77.495M	77M5D1D	84.92M	77.328M
802.11be EHT160_Nss1,(MCSO)_2TX	81.92M	77.385M	77M4D1D	81.2M	77.364M
802.11be EHT160_Nss2,(MCSO)_2TX	81.76M	77.431M	77M4D1D	81.36M	77.396M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	28.105M	16.964M	17M0D1D	17.94M	13.75M
802.11be EHT20_Nss1,(MCSO)_2TX	29.92M	19.166M	19M2D1D	21.45M	14.726M
802.11be EHT20_Nss2,(MCSO)_2TX	31.13M	19.215M	19M2D1D	21.56M	14.809M
802.11be EHT40_Nss1,(MCSO)_2TX	47.85M	37.915M	37M9D1D	40.59M	33.879M
802.11be EHT40_Nss2,(MCSO)_2TX	58.63M	37.923M	37M9D1D	36.505M	33.911M
802.11be EHT80_Nss1,(MCSO)_2TX	104.06M	77.582M	77M6D1D	82.06M	73.417M
802.11be EHT80_Nss2,(MCSO)_2TX	87.12M	77.487M	77M5D1D	76.05M	73.301M
802.11be EHT160_Nss1,(MCSO)_2TX	165.44M	156.449M	156MD1D	164.56M	156.413M
802.11be EHT160_Nss2,(MCSO)_2TX	165M	156.45M	156MD1D	164.56M	156.36M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	3.1M	4.893M	4M89D1D	3.1M	4.82M
802.11be EHT20_Nss1,(MCSO)_2TX	4.46M	5.789M	5M79D1D	4.42M	5.214M
802.11be EHT20_Nss2,(MCSO)_2TX	4.46M	7.265M	7M27D1D	4.42M	6.444M
802.11be EHT40_Nss1,(MCSO)_2TX	3.88M	14.494M	14M5D1D	3.86M	14.485M
802.11be EHT40_Nss2,(MCSO)_2TX	3.9M	15.029M	15M0D1D	3.84M	14.702M
802.11be EHT80_Nss1,(MCSO)_2TX	3.9M	21.557M	21M6D1D	3.74M	18.75M
802.11be EHT80_Nss2,(MCSO)_2TX	3.96M	21.437M	21M4D1D	3.78M	17.932M

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



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	23.925M	16.935M	22.055M	16.831M
5300MHz	Pass	Inf	21.45M	16.875M	21.67M	16.751M
5320MHz	Pass	Inf	21.34M	16.831M	21.34M	16.752M
5500MHz	Pass	Inf	21.285M	16.83M	21.67M	16.789M
5580MHz	Pass	Inf	24.2M	16.93M	28.105M	16.964M
5700MHz	Pass	Inf	21.285M	16.848M	21.34M	16.746M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17.94M	13.75M	23.805M	13.778M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	4.82M	3.1M	4.893M
802.11be EHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	23.485M	19.141M	21.615M	19.153M
5300MHz	Pass	Inf	21.615M	19.114M	21.615M	19.123M
5320MHz	Pass	Inf	21.835M	19.088M	21.45M	19.09M
5500MHz	Pass	Inf	21.45M	19.034M	21.56M	19.092M
5580MHz	Pass	Inf	21.505M	19.126M	29.92M	19.166M
5700MHz	Pass	Inf	21.56M	19.109M	21.725M	19.074M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	26.805M	14.726M	28.77M	14.767M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.46M	5.214M	4.42M	5.789M
802.11be EHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	40.81M	37.787M	41.03M	37.834M
5310MHz	Pass	Inf	40.59M	37.763M	40.48M	37.725M
5510MHz	Pass	Inf	40.92M	37.812M	42.46M	37.736M
5550MHz	Pass	Inf	42.9M	37.835M	47.85M	37.915M
5670MHz	Pass	Inf	40.7M	37.8M	40.59M	37.766M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	41.86M	33.879M	41.825M	33.945M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.88M	14.485M	3.86M	14.494M
802.11be EHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	85.58M	77.486M	84.92M	77.403M
5530MHz	Pass	Inf	84.48M	77.442M	88.88M	77.401M
5610MHz	Pass	Inf	82.06M	77.349M	104.06M	77.582M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	86.775M	73.432M	90.9M	73.417M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.9M	18.75M	3.74M	21.557M
802.11be EHT160_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	81.04M	77.327M	81.2M	77.266M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	81.92M	77.364M	81.2M	77.385M
5570MHz	Pass	Inf	164.56M	156.449M	165.44M	156.413M
802.11be EHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	21.505M	19.147M	21.615M	19.147M
5300MHz	Pass	Inf	21.78M	19.111M	21.34M	19.098M
5320MHz	Pass	Inf	21.78M	19.07M	21.505M	19.108M
5500MHz	Pass	Inf	21.725M	19.077M	21.56M	19.146M
5580MHz	Pass	Inf	22.66M	19.153M	31.13M	19.215M
5700MHz	Pass	Inf	21.725M	19.102M	21.56M	19.107M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	22.62M	14.809M	27.465M	14.918M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.46M	6.444M	4.42M	7.265M
802.11be EHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	40.7M	37.834M	40.37M	37.826M
5310MHz	Pass	Inf	40.7M	37.762M	40.7M	37.671M
5510MHz	Pass	Inf	58.63M	37.923M	51.92M	37.889M
5550MHz	Pass	Inf	44.11M	37.843M	43.45M	37.877M
5670MHz	Pass	Inf	40.59M	37.835M	40.7M	37.76M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	42.105M	33.911M	36.505M	33.93M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.9M	15.029M	3.84M	14.702M
802.11be EHT80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	86.68M	77.495M	84.92M	77.328M



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5530MHz	Pass	Inf	86.9M	77.482M	87.12M	77.487M
5610MHz	Pass	Inf	81.62M	77.28M	81.84M	77.329M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.2M	73.301M	76.05M	73.303M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.96M	17.932M	3.78M	21.437M
802.11be EHT160_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	81.68M	77.225M	81.12M	77.281M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	81.76M	77.431M	81.36M	77.396M
5570MHz	Pass	Inf	165M	156.45M	164.56M	156.36M

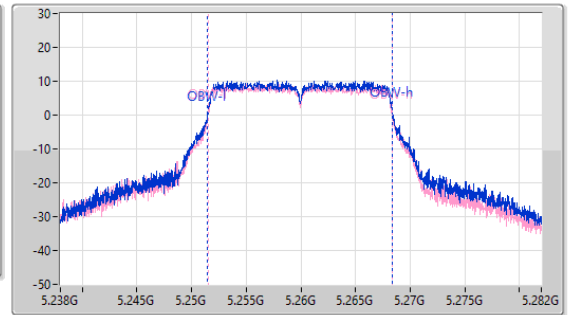
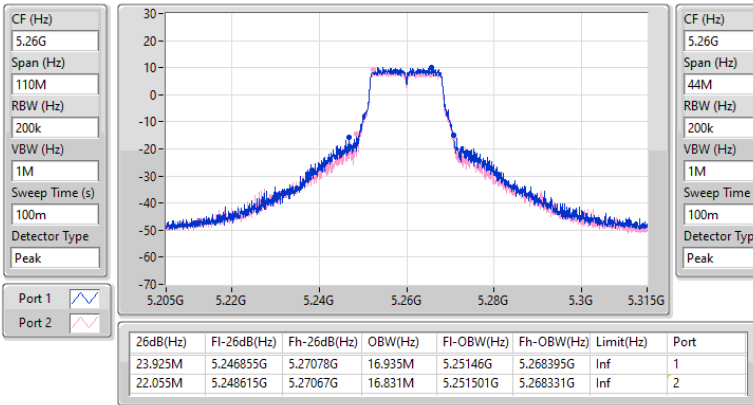
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
 Port X-OBW = Port X 99% occupied bandwidth

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5260MHz

27/01/2024

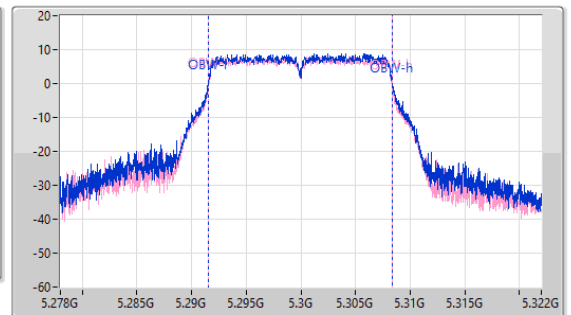
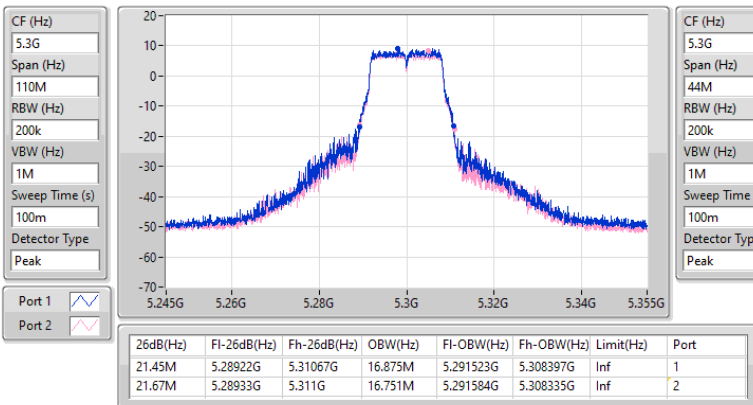


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5300MHz

27/01/2024

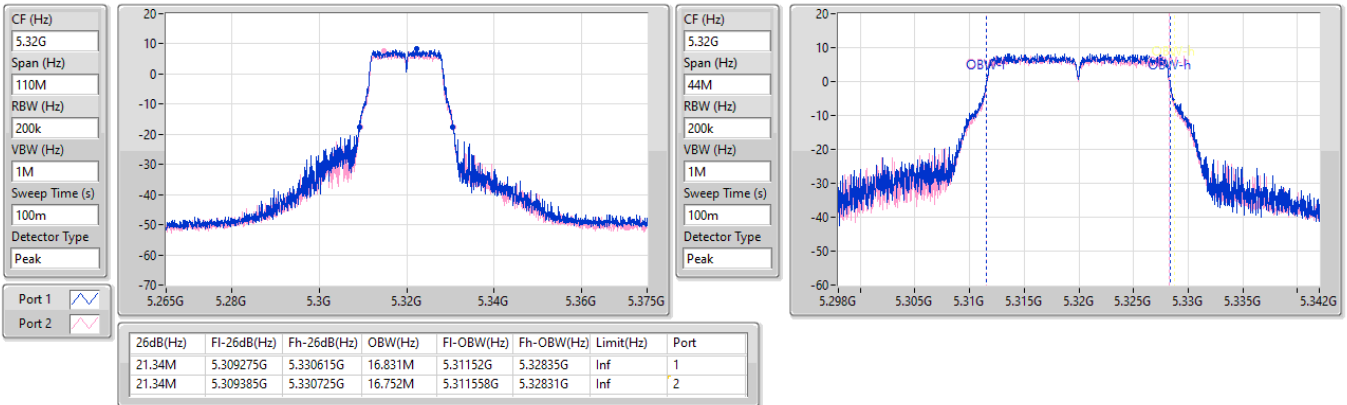


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5320MHz

27/01/2024

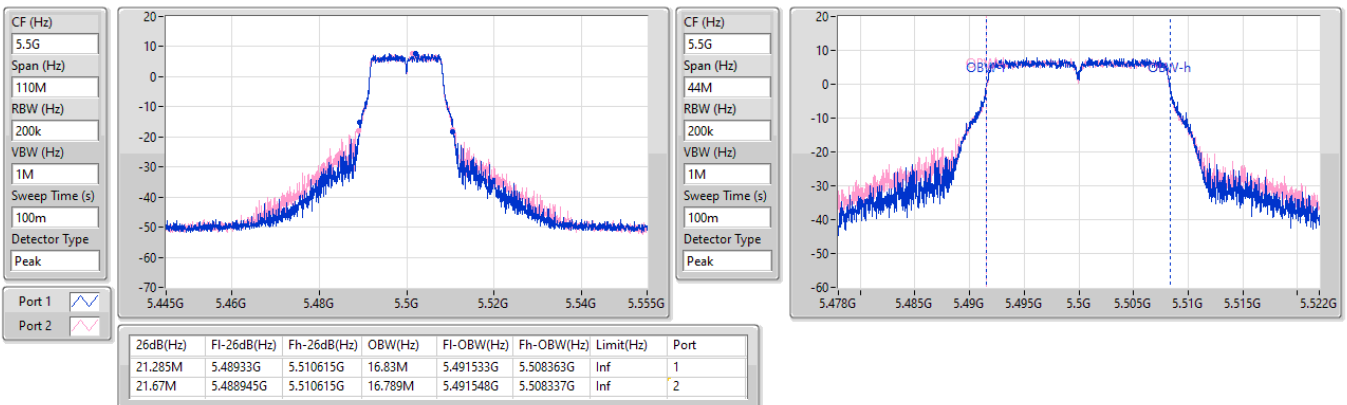


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5500MHz

27/01/2024

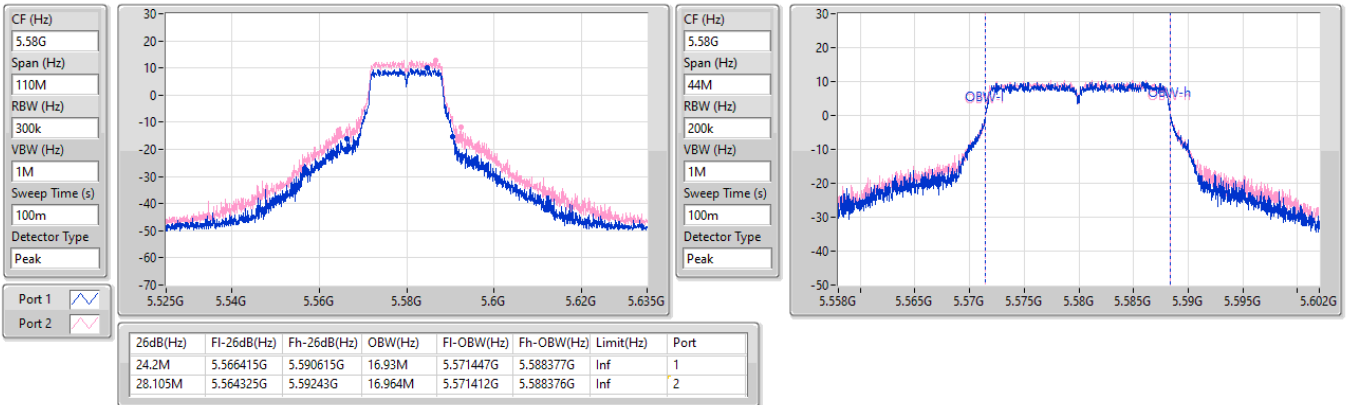


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5580MHz

27/01/2024

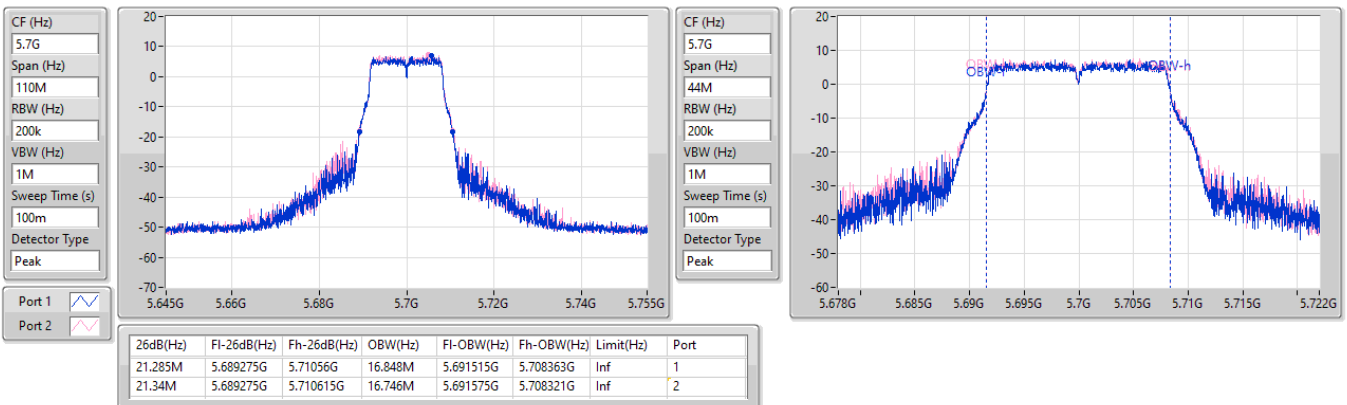


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5700MHz

27/01/2024

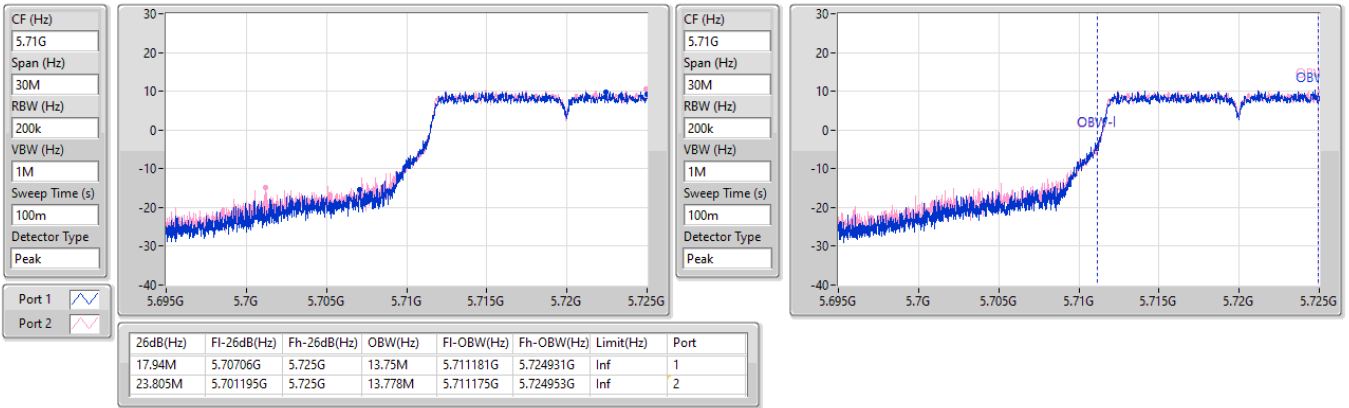


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5720MHz Straddle 5.47-5.725GHz

27/01/2024

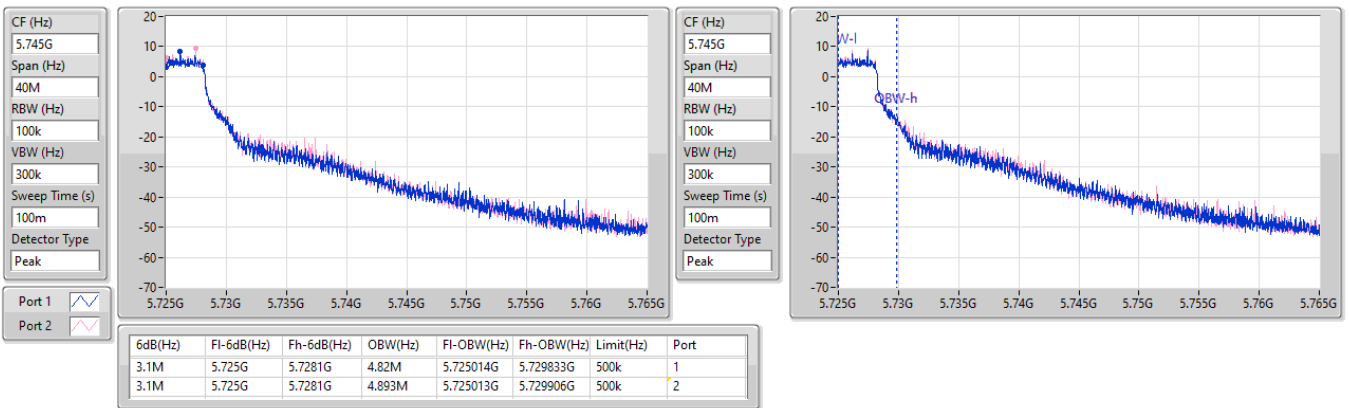


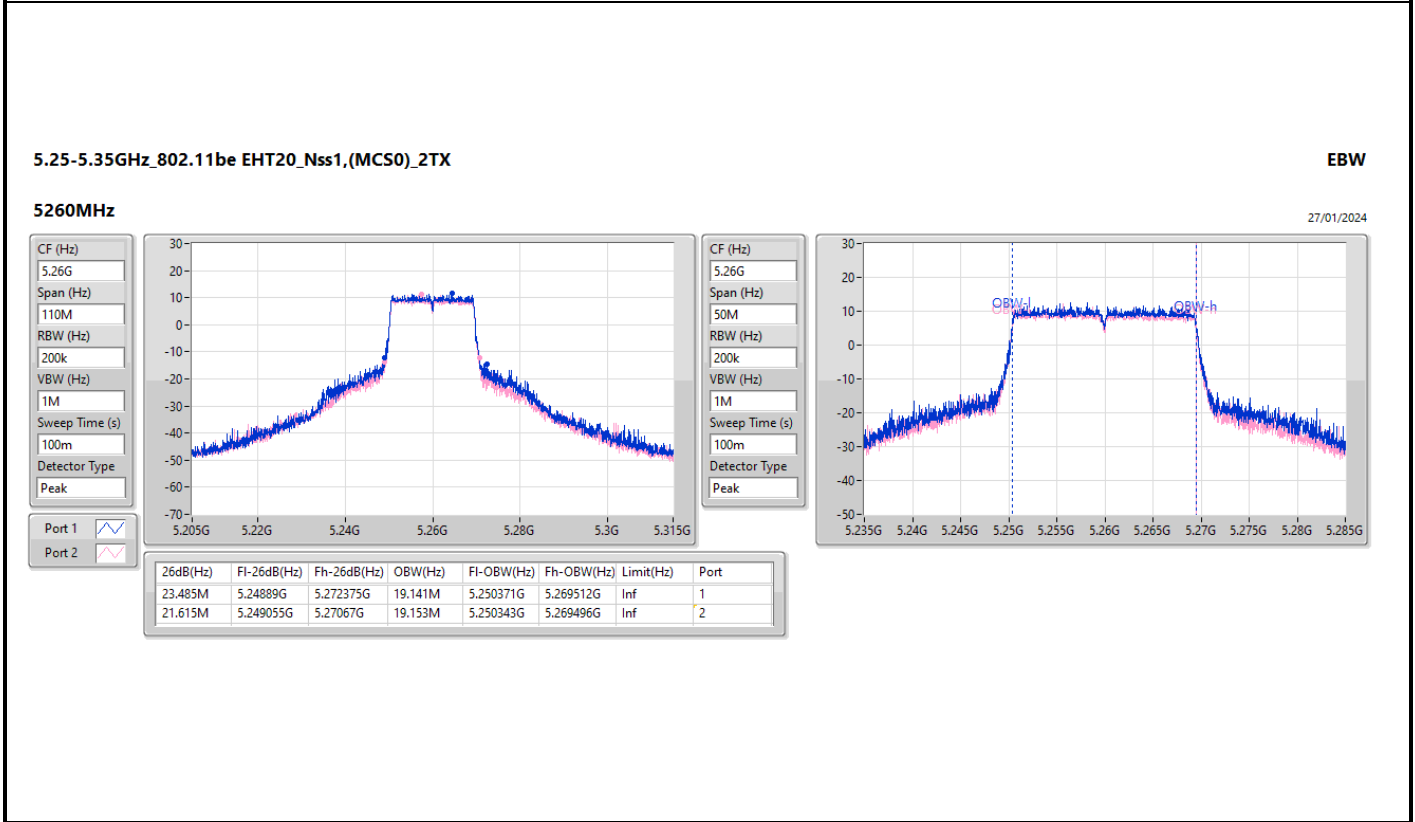
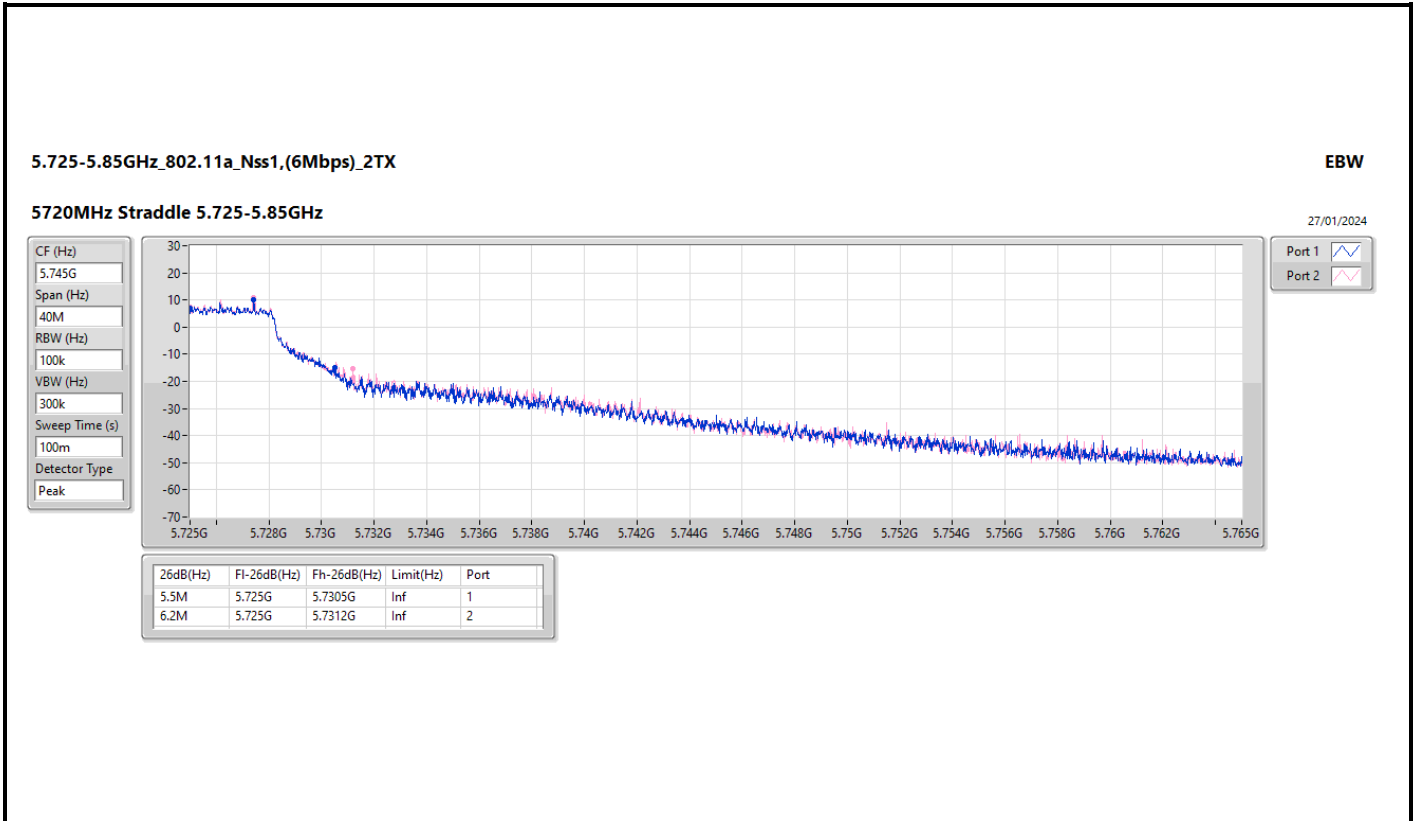
5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5720MHz Straddle 5.725-5.85GHz

27/01/2024



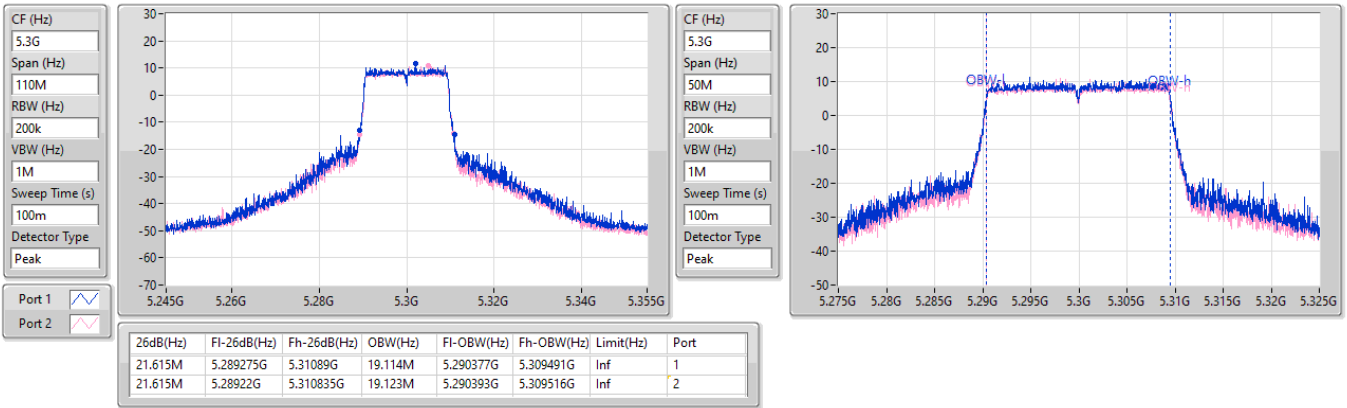


5.25-5.35GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5300MHz

27/01/2024

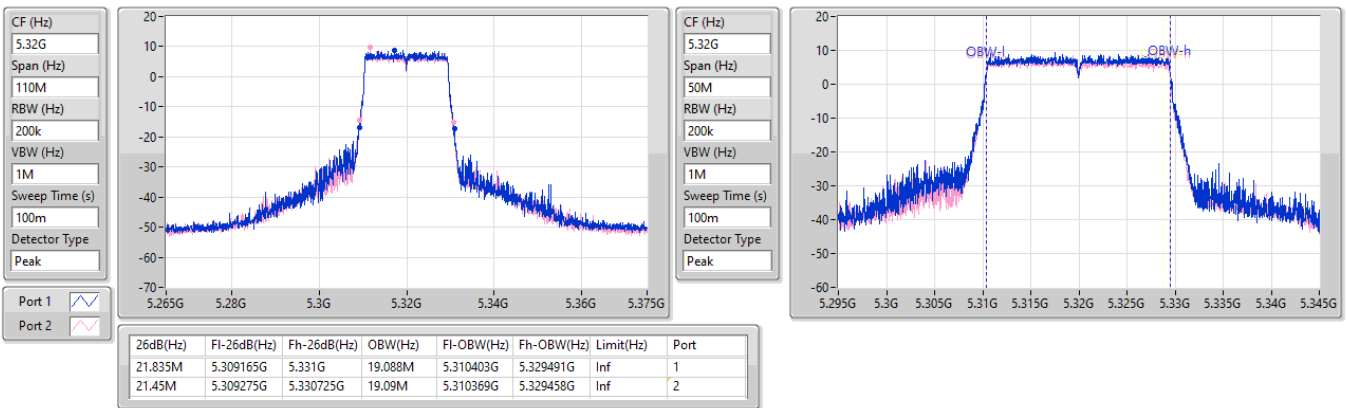


5.25-5.35GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5320MHz

27/01/2024

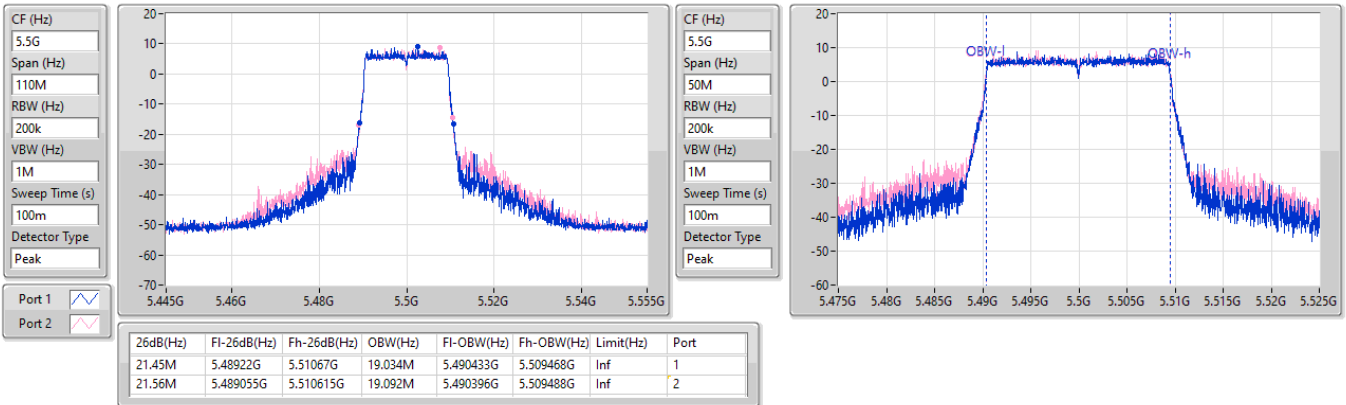


5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5500MHz

27/01/2024

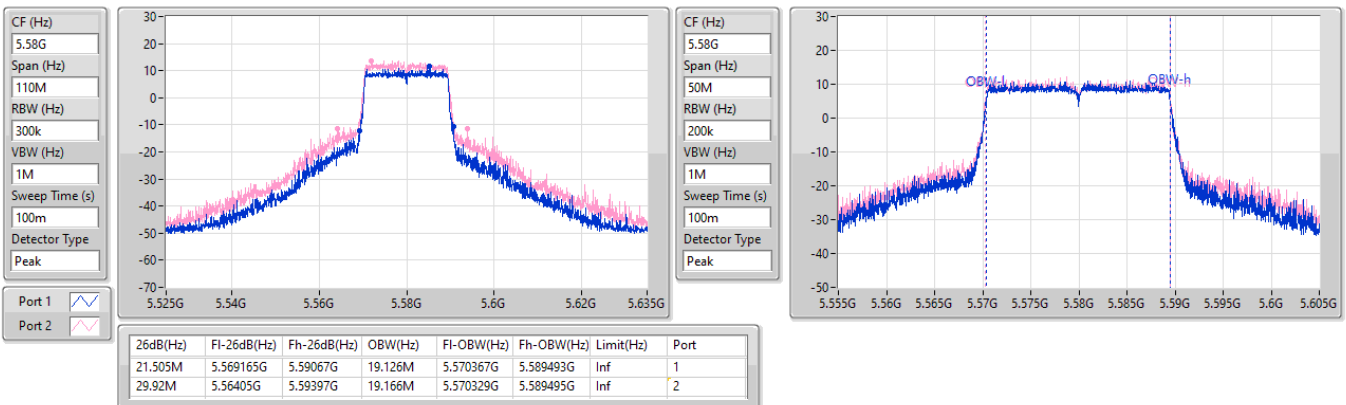


5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5580MHz

27/01/2024

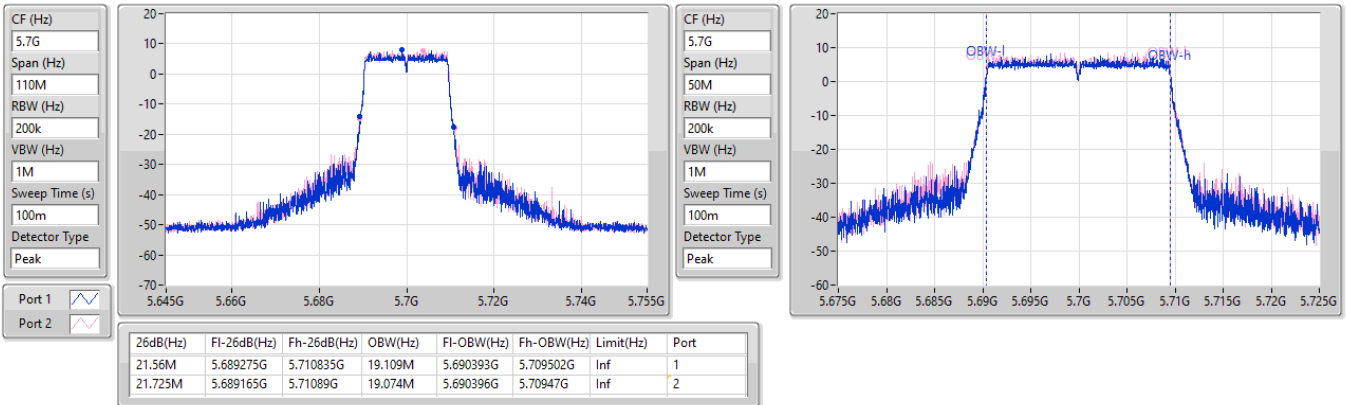


5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5700MHz

27/01/2024

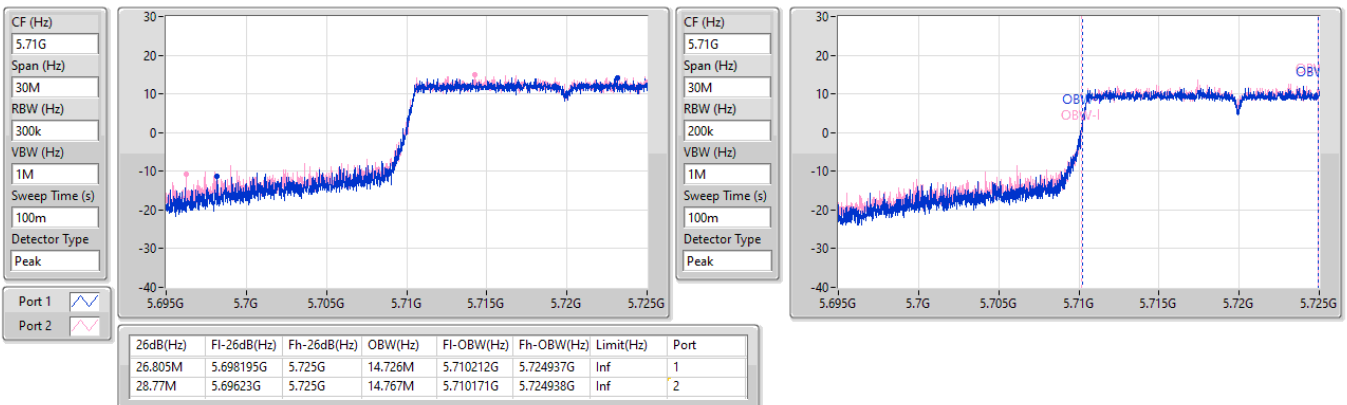


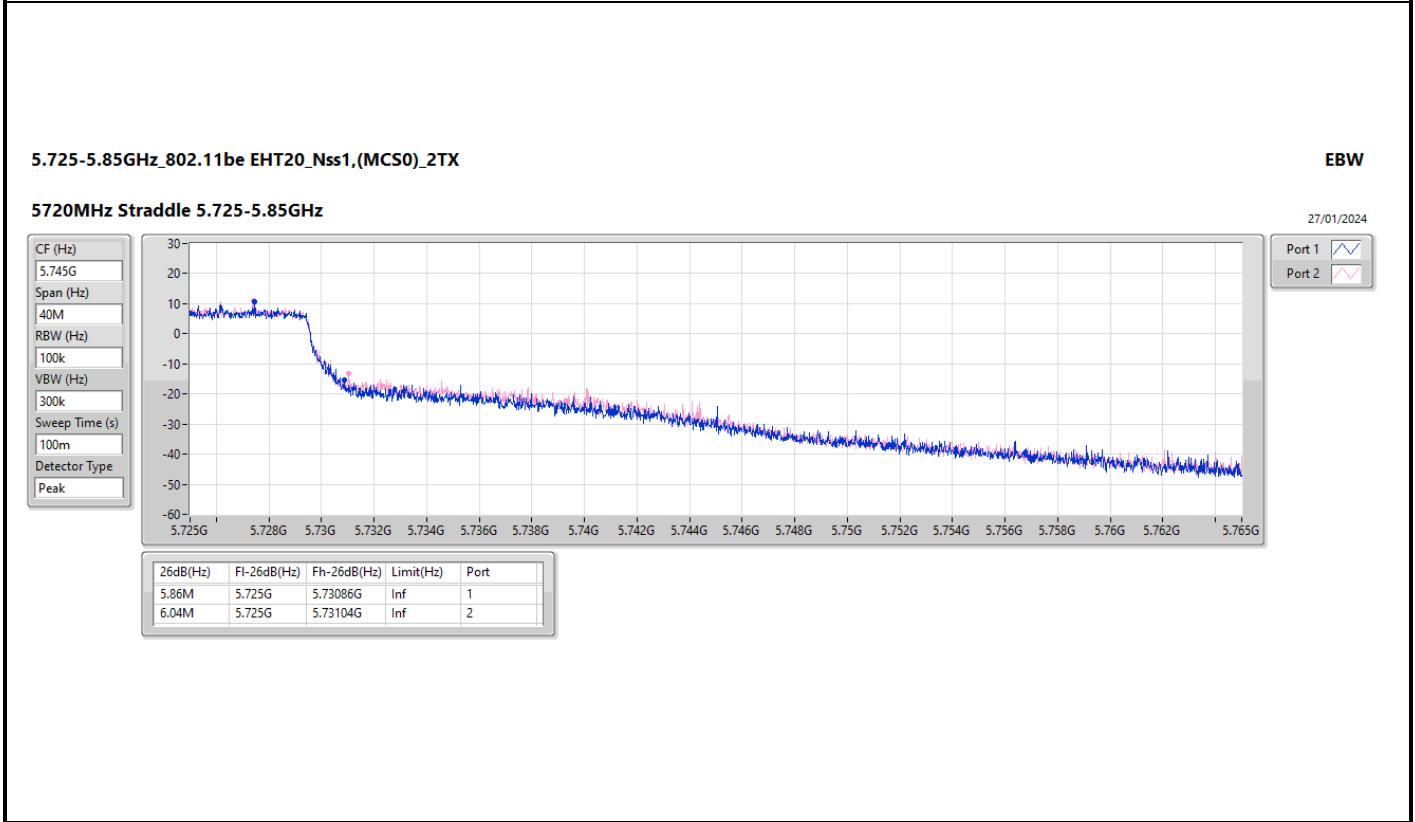
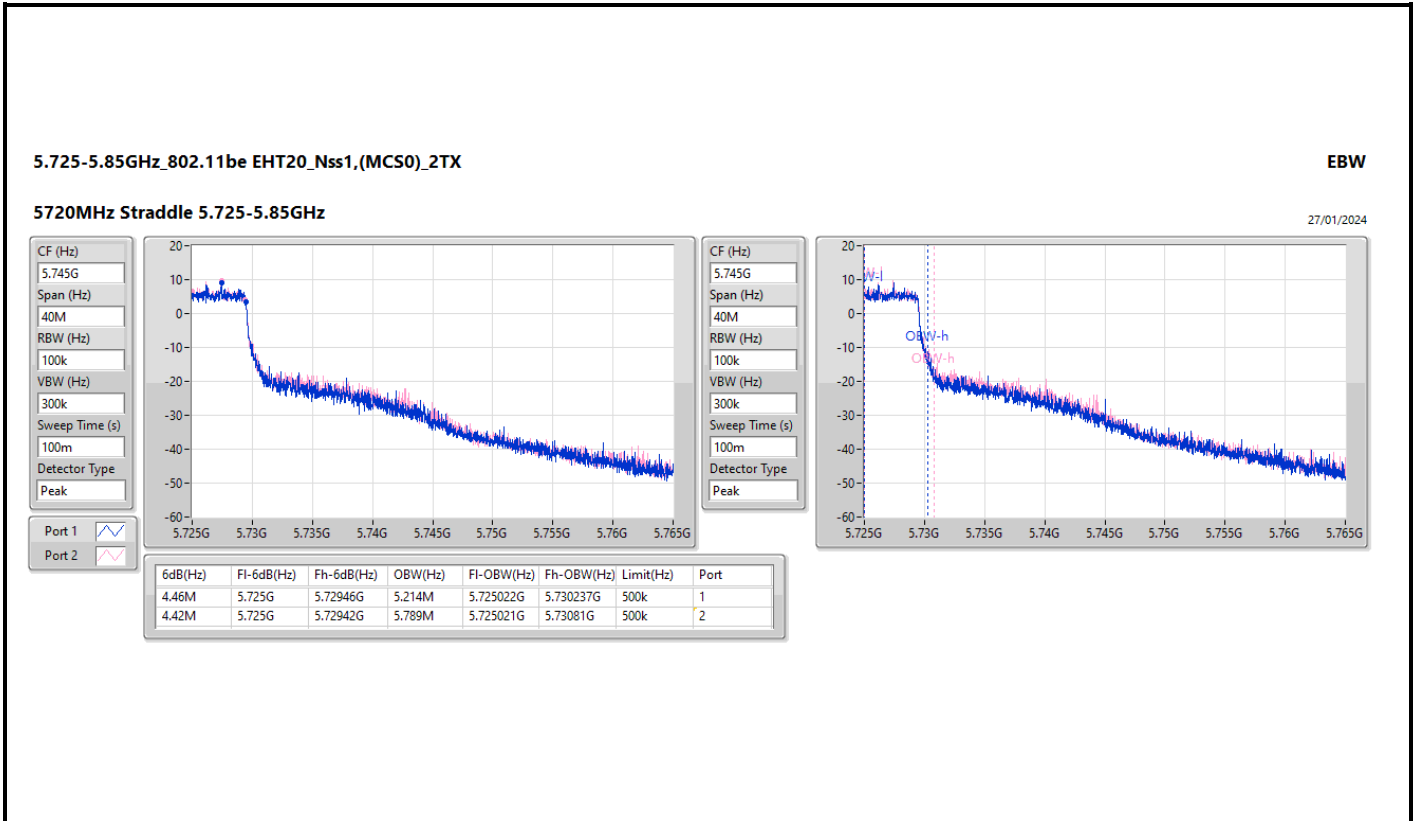
5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_2TX

EBW

5720MHz Straddle 5.47-5.725GHz

27/01/2024



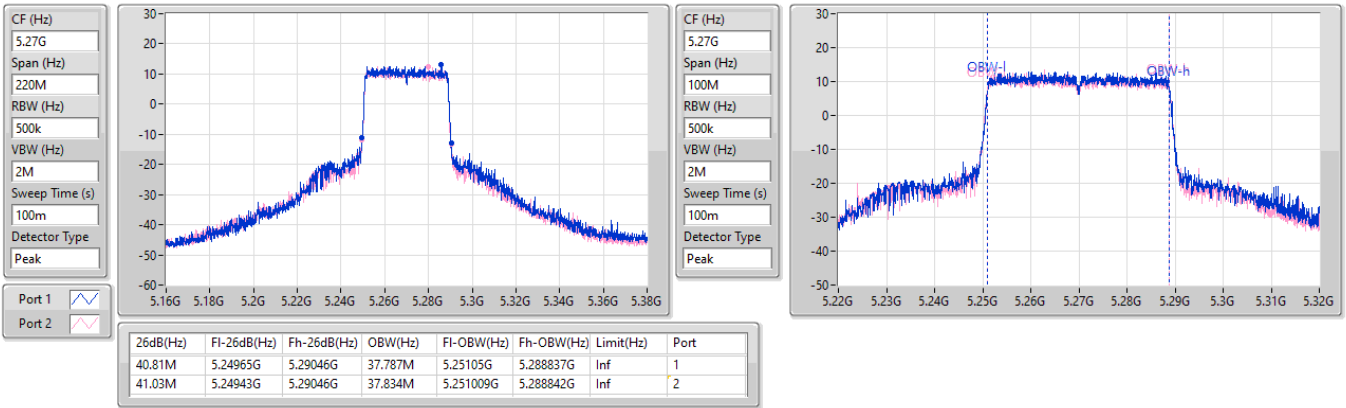


5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5270MHz

27/01/2024

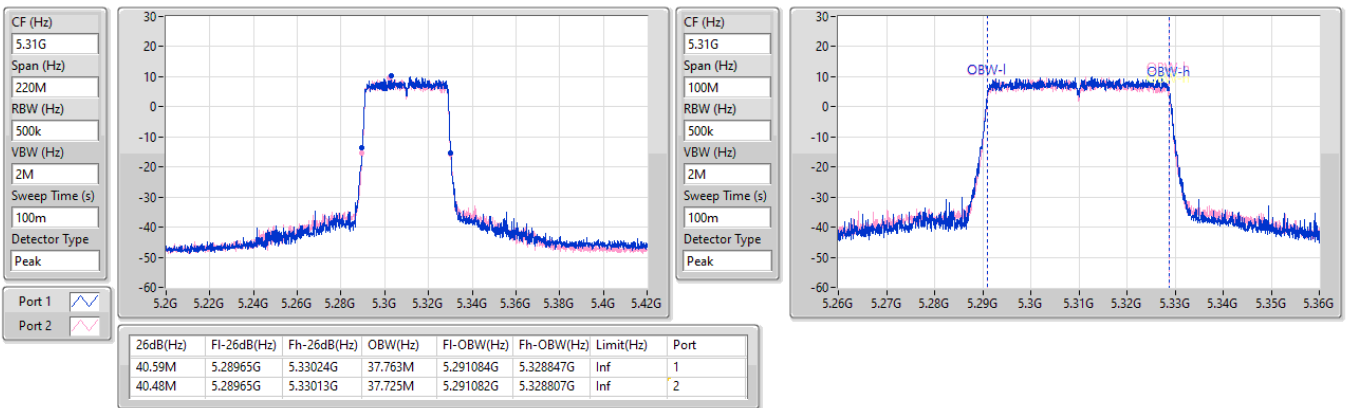


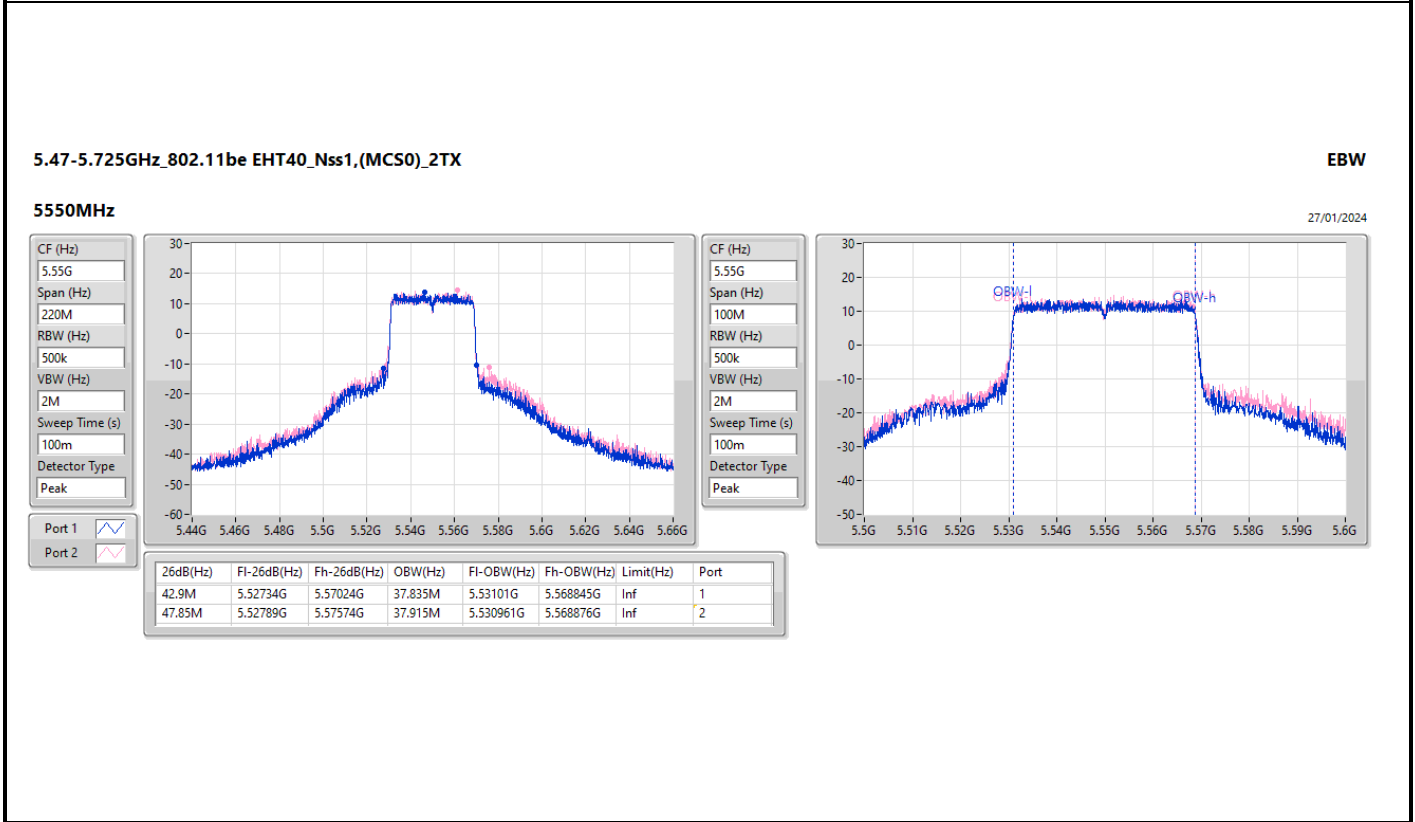
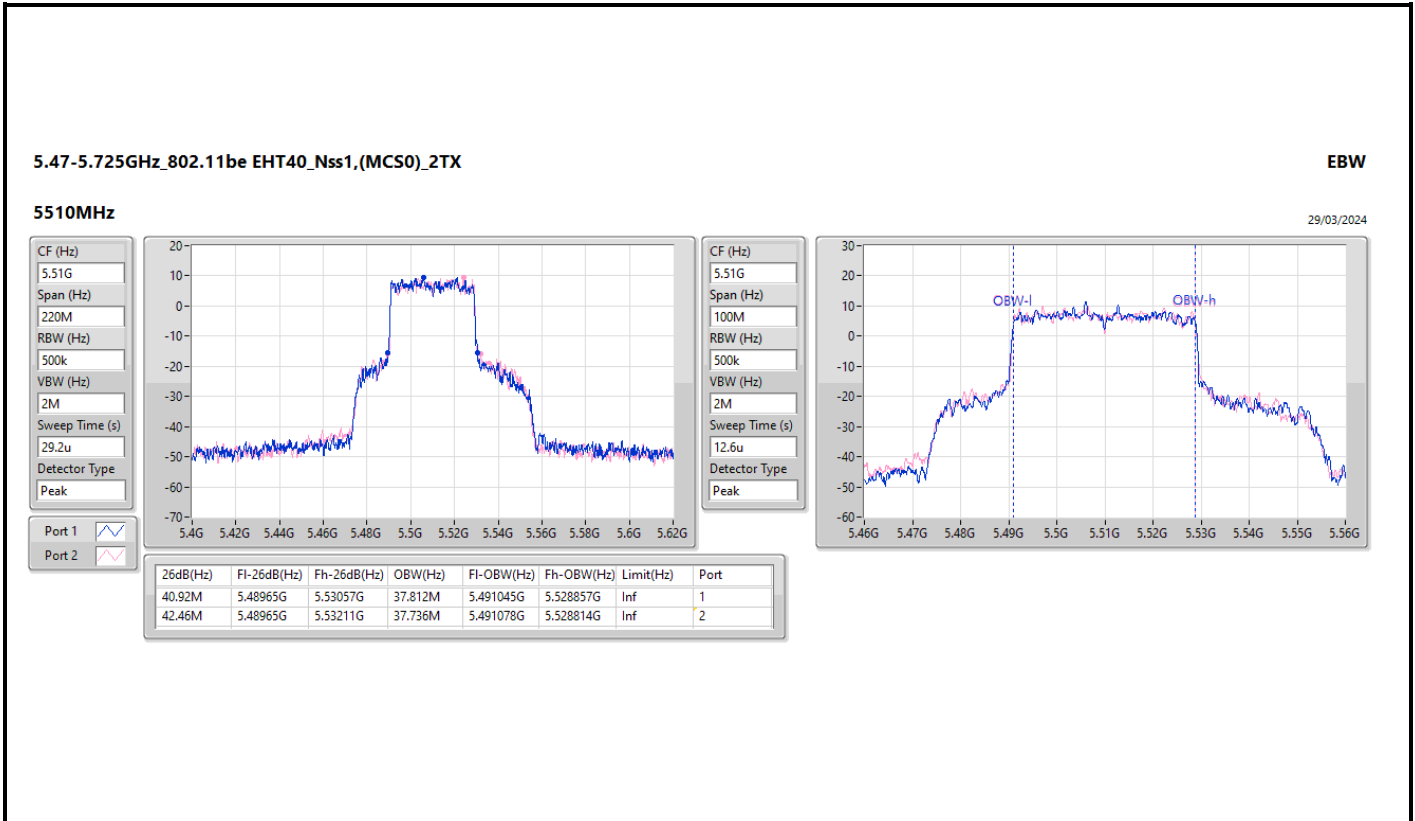
5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5310MHz

27/01/2024



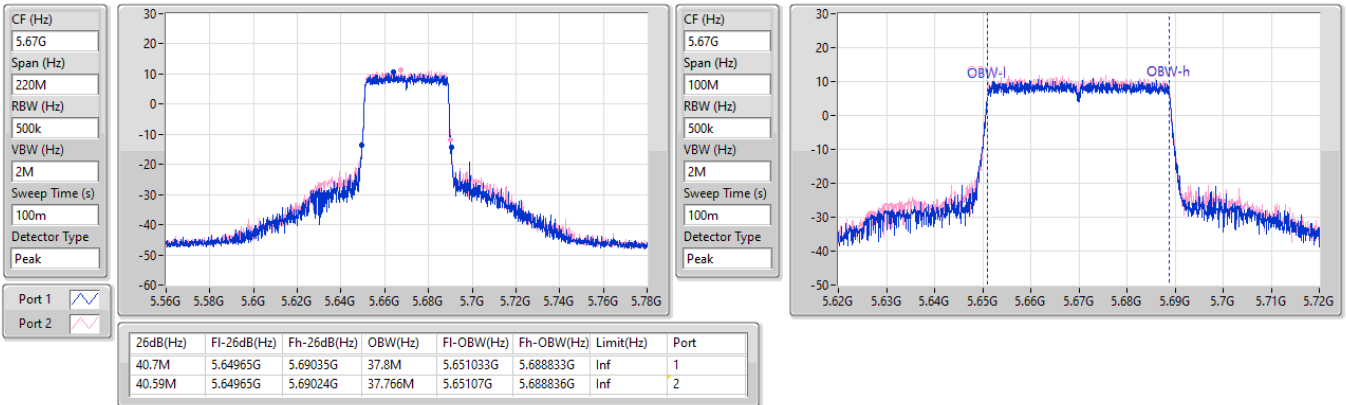


5.47-5.725GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5670MHz

27/01/2024

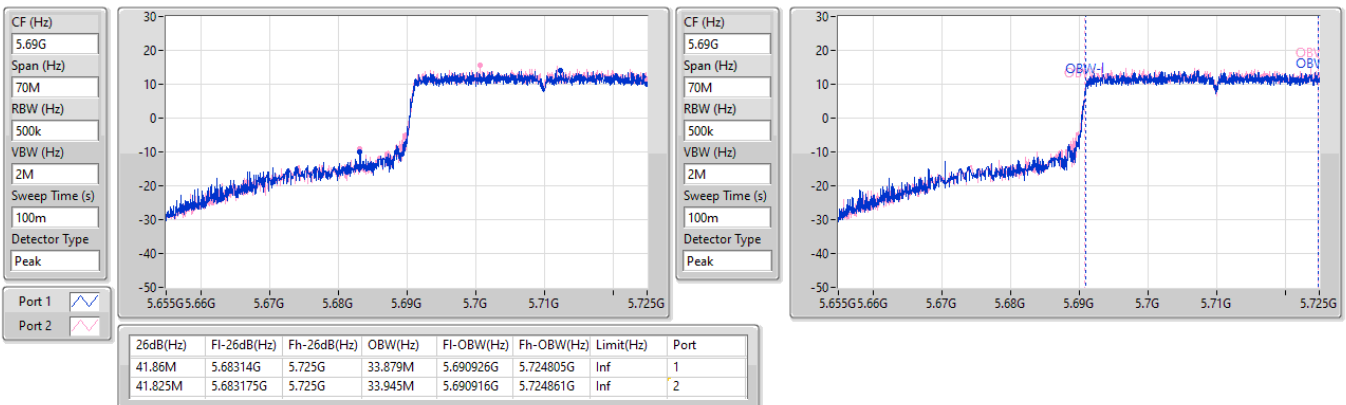


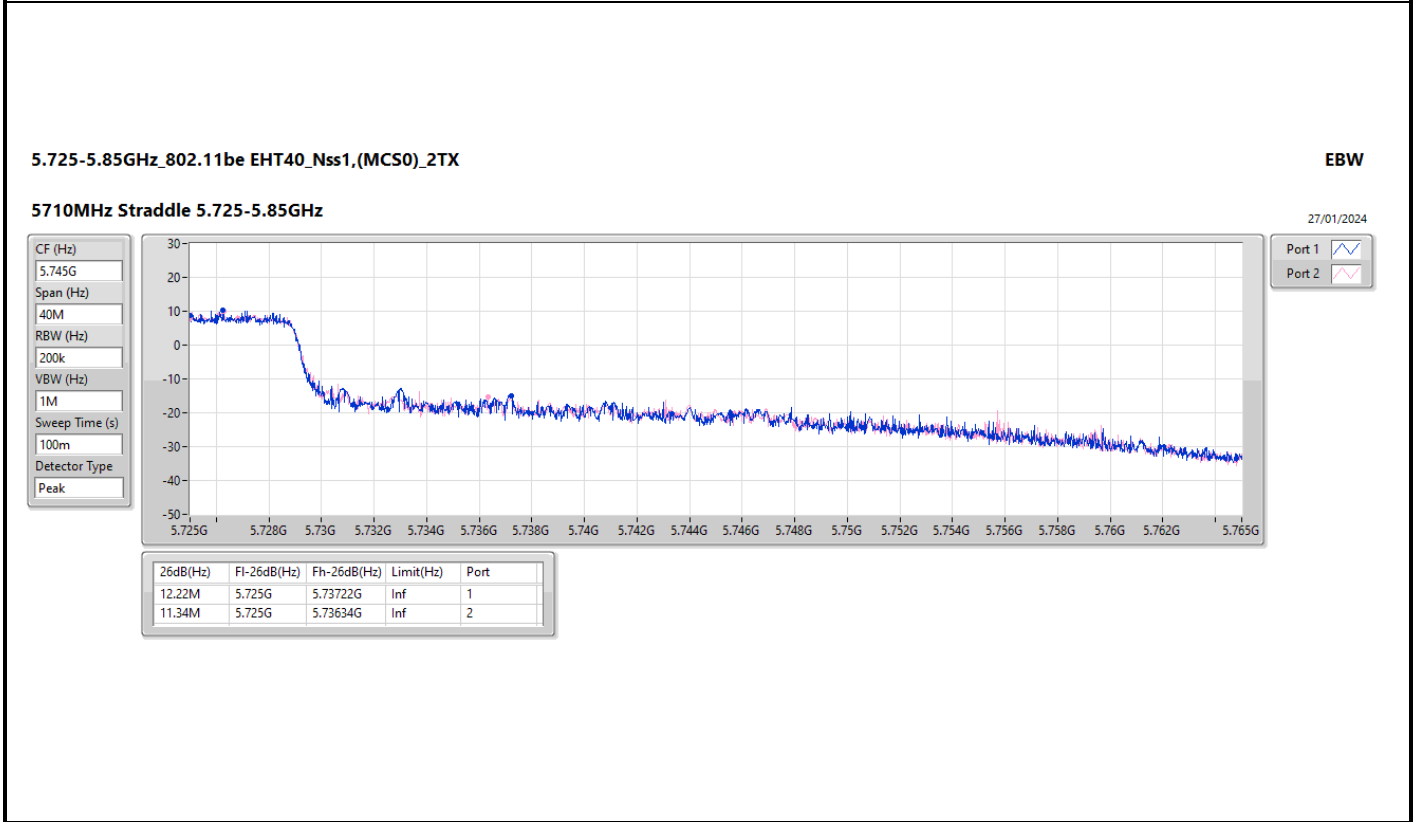
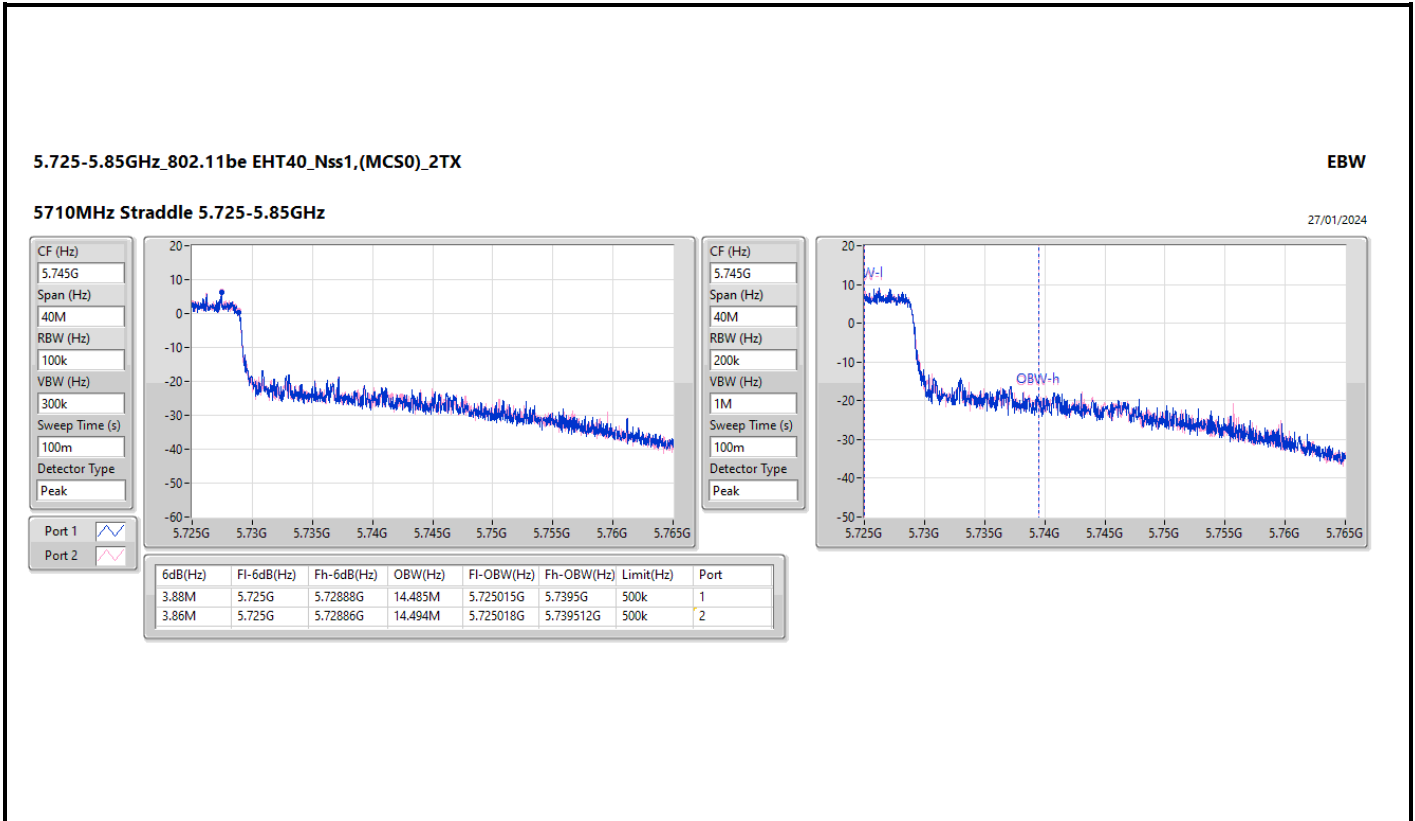
5.47-5.725GHz_802.11be EHT40_Nss1,(MCS0)_2TX

EBW

5710MHz Straddle 5.47-5.725GHz

27/01/2024



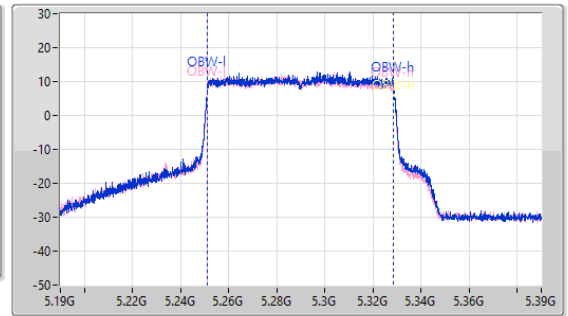
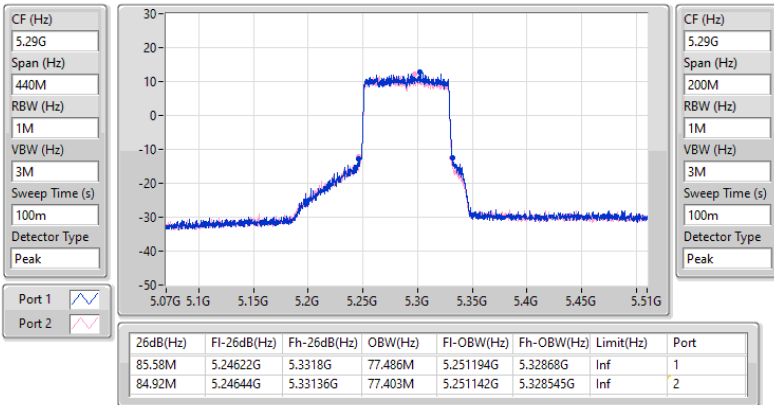


5.25-5.35GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5290MHz

28/03/2024

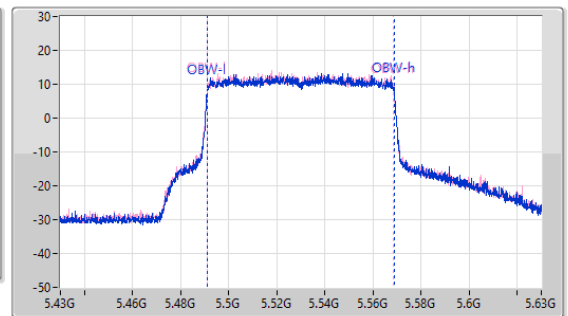
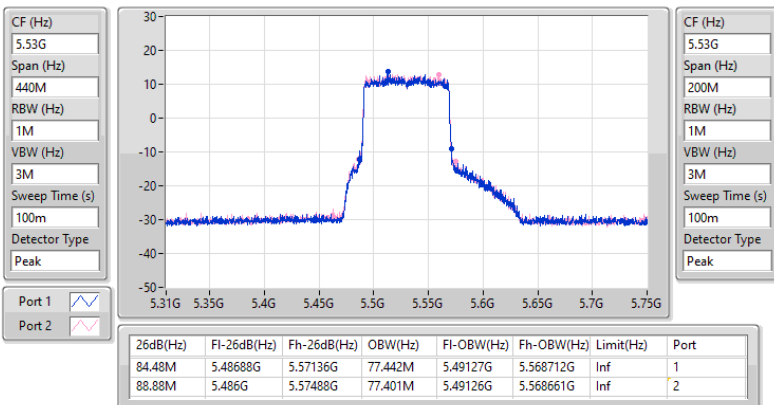


5.47-5.725GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5530MHz

28/03/2024



5.47-5.725GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5610MHz

27/01/2024

CF (Hz)
5.61G

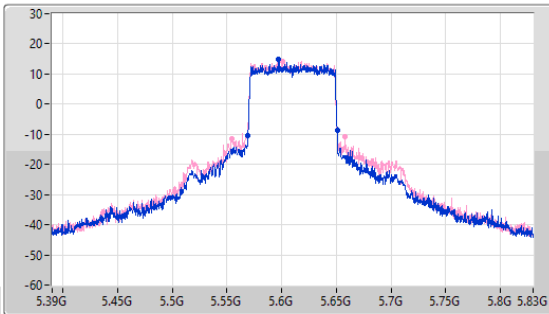
Span (Hz)
440M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.61G

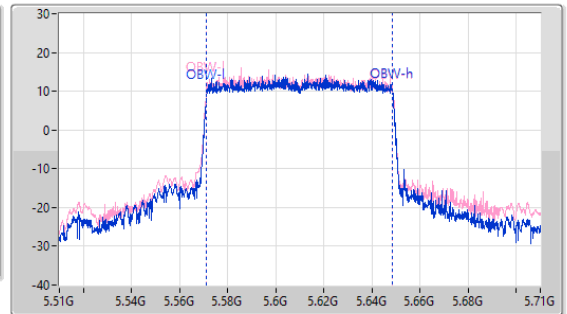
Span (Hz)
200M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
100m

Detector Type
Peak



Port 1

Port 2

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.06M	5.56864G	5.6507G	77.349M	5.571291G	5.64864G	Inf	1
104.06M	5.55412G	5.65818G	77.582M	5.571087G	5.648668G	Inf	2

5.47-5.725GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5690MHz Straddle 5.47-5.725GHz

27/01/2024

CF (Hz)
5.65G

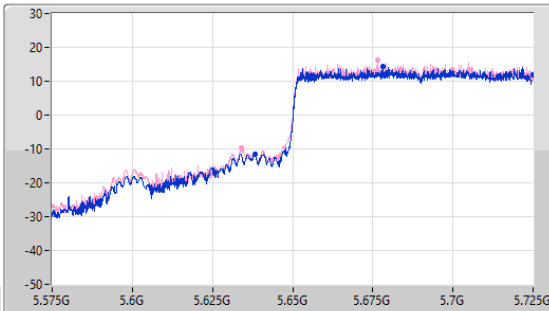
Span (Hz)
150M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.65G

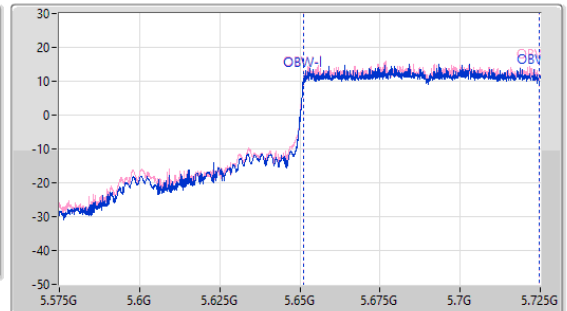
Span (Hz)
150M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
100m

Detector Type
Peak



Port 1

Port 2

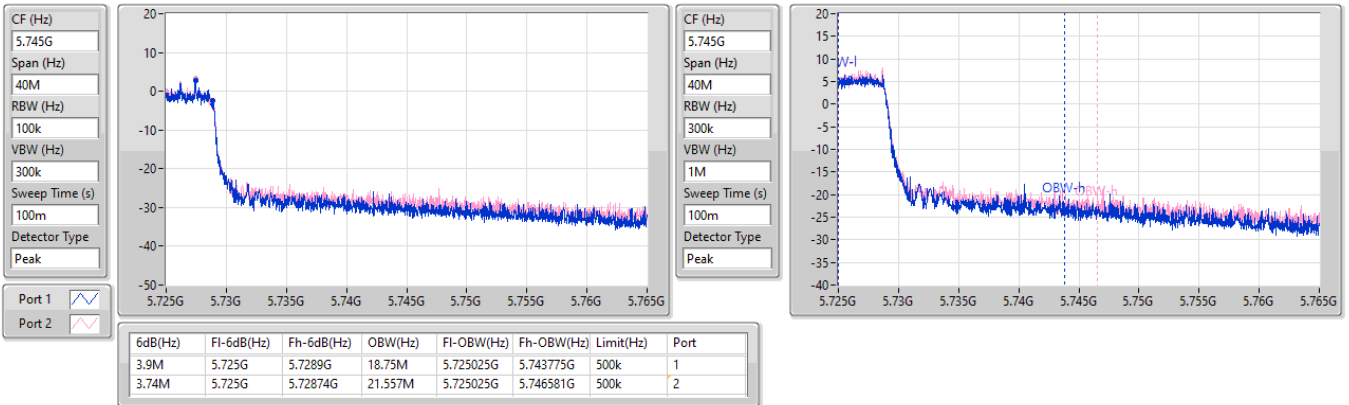
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
86.775M	5.638225G	5.725G	73.432M	5.651119G	5.724551G	Inf	1
90.9M	5.6341G	5.725G	73.417M	5.651141G	5.724558G	Inf	2

5.725-5.85GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5690MHz Straddle 5.725-5.85GHz

27/01/2024

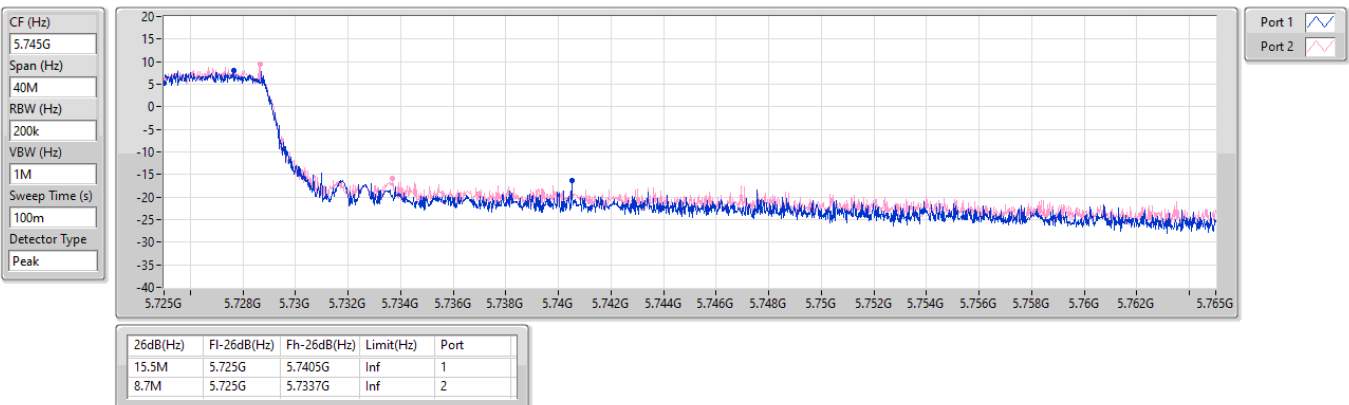


5.725-5.85GHz_802.11be EHT80_Nss1,(MCS0)_2TX

EBW

5690MHz Straddle 5.725-5.85GHz

27/01/2024

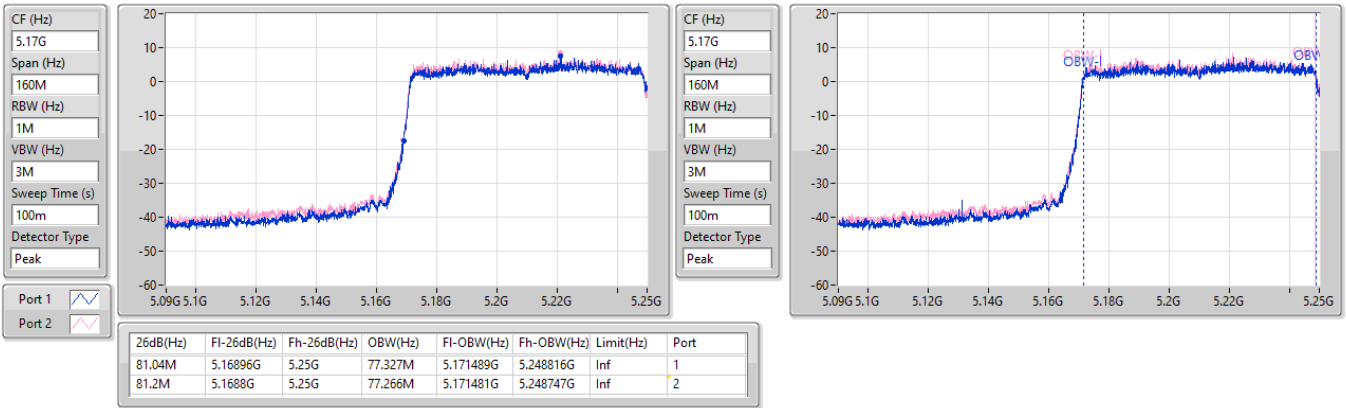


5.15-5.25GHz_802.11be EHT160_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.15-5.25GHz

27/01/2024

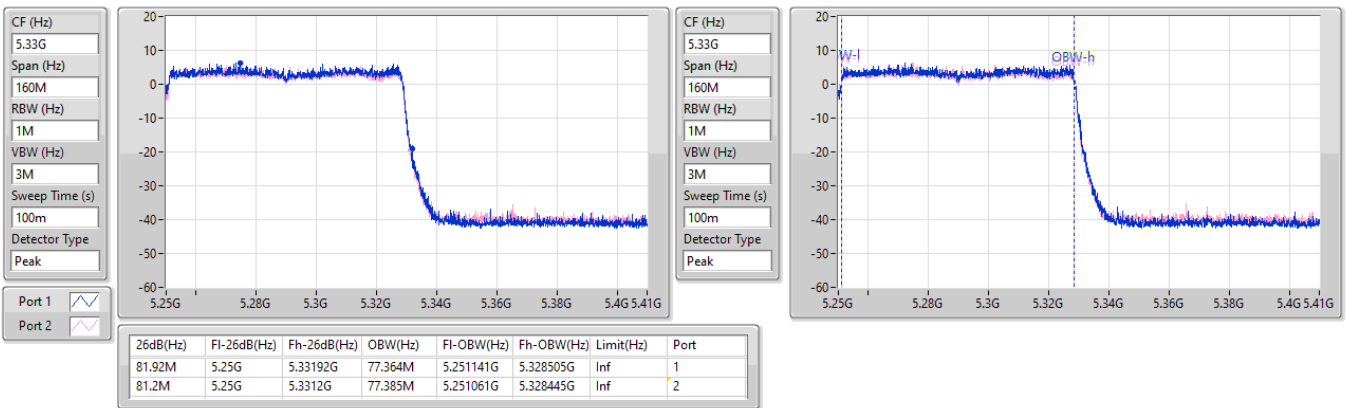


5.25-5.35GHz_802.11be EHT160_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.25-5.35GHz

27/01/2024

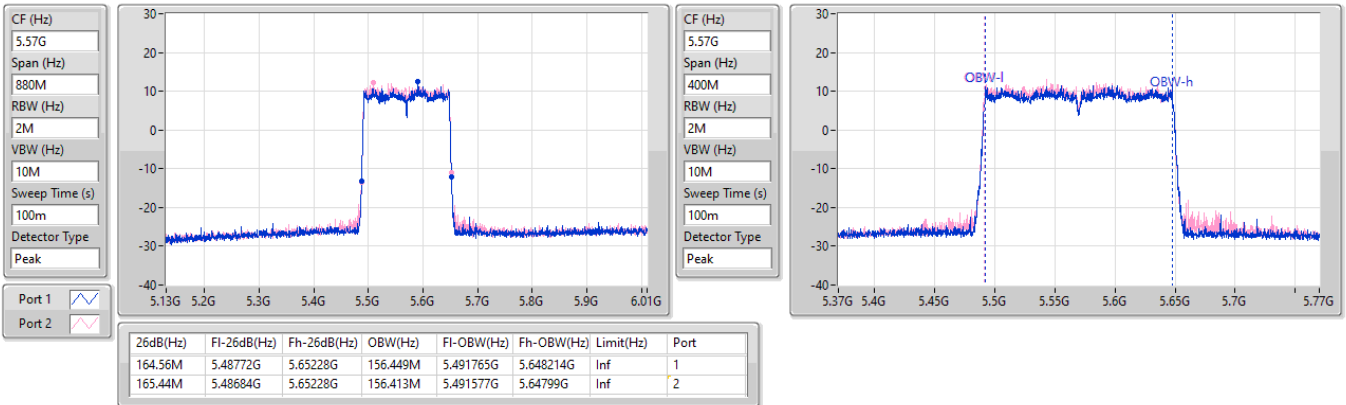


5.47-5.725GHz_802.11be EHT160_Nss1,(MCS0)_2TX

EBW

5570MHz

28/03/2024

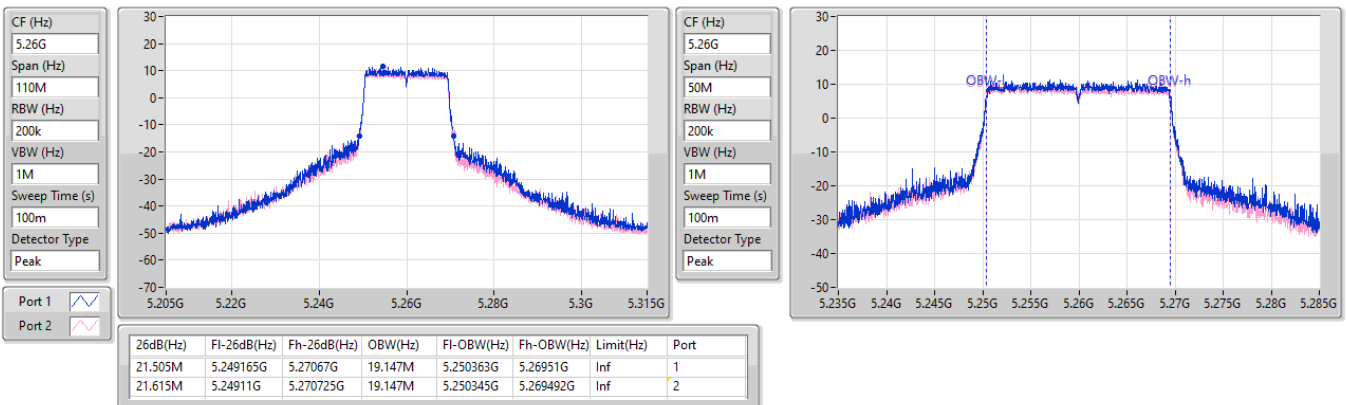


5.25-5.35GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5260MHz

27/01/2024

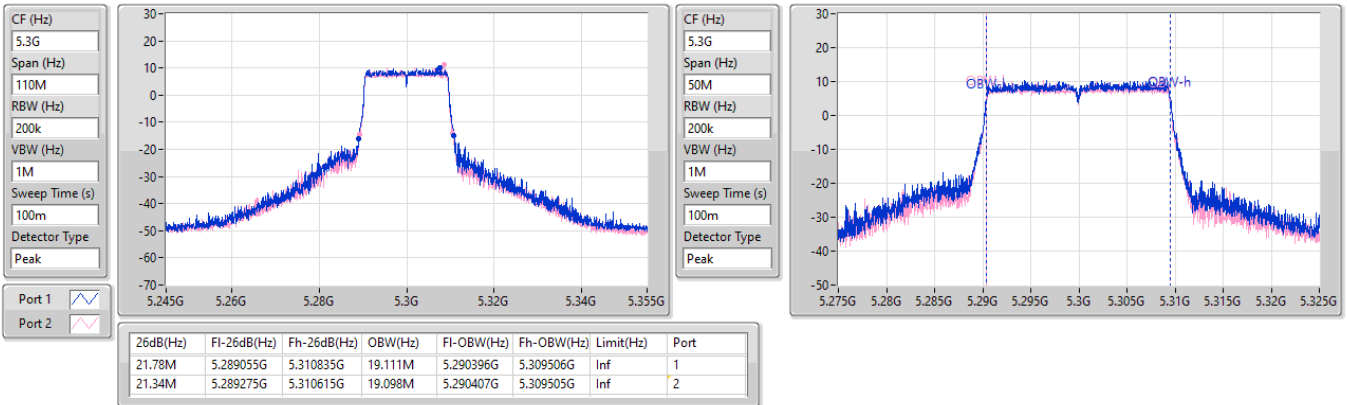


5.25-5.35GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5300MHz

27/01/2024

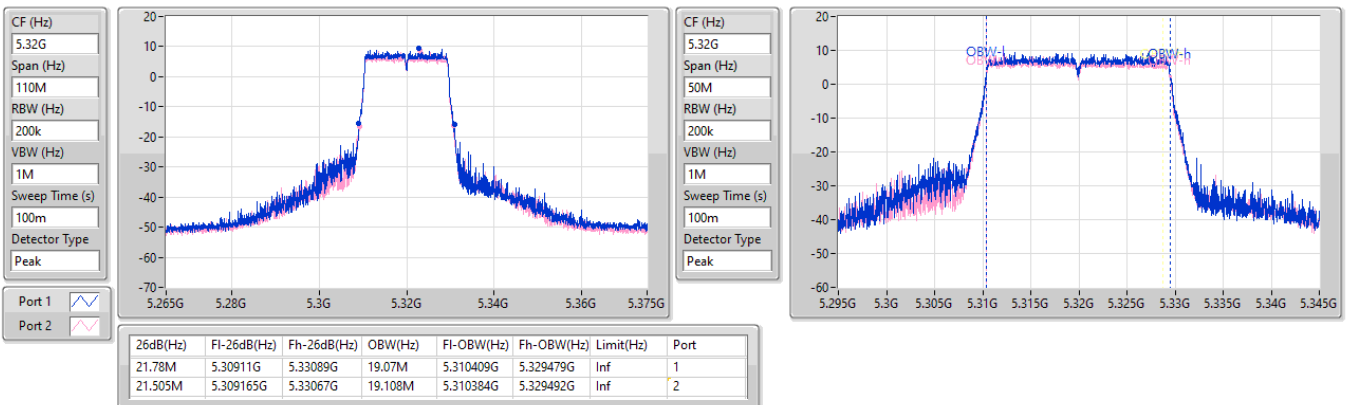


5.25-5.35GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5320MHz

27/01/2024

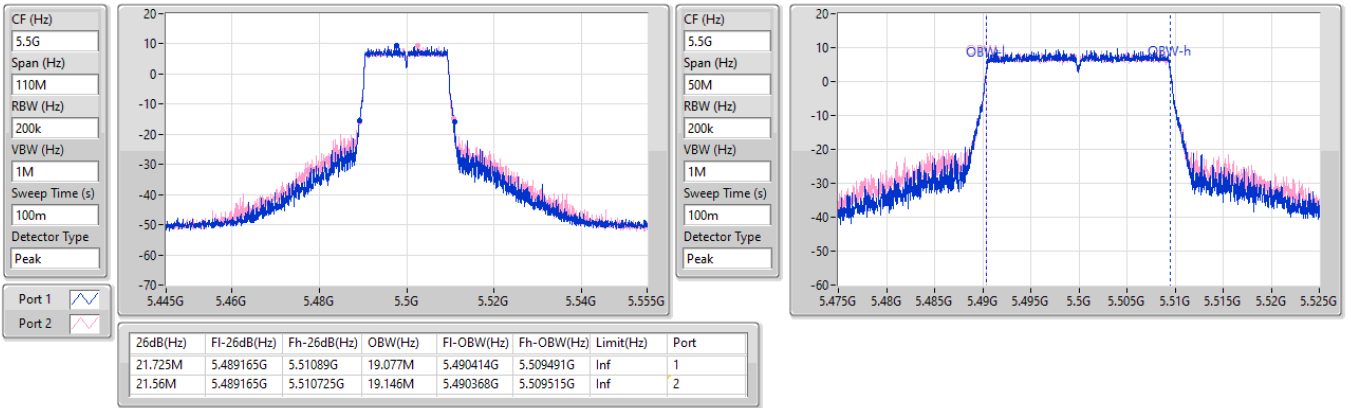


5.47-5.725GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5500MHz

27/01/2024

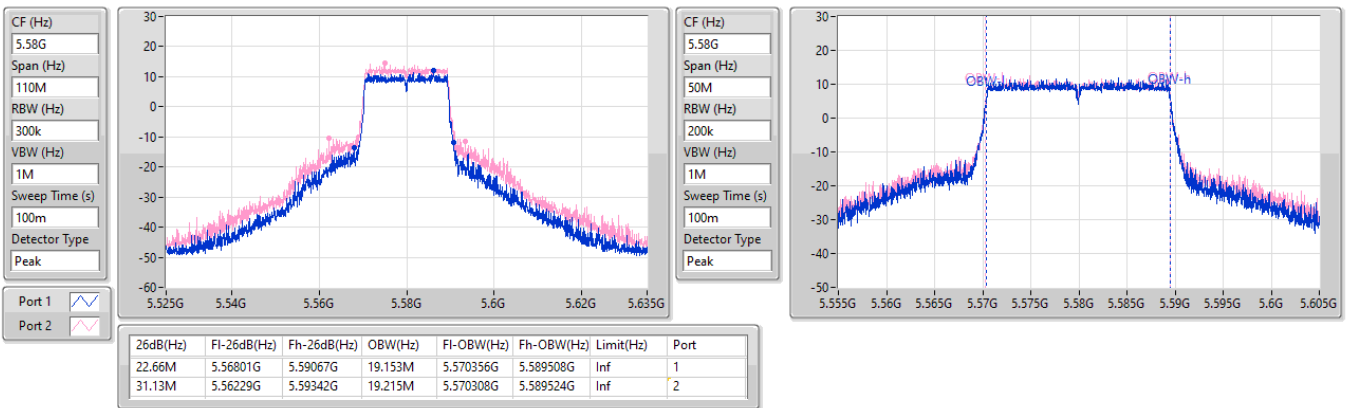


5.47-5.725GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5580MHz

27/01/2024

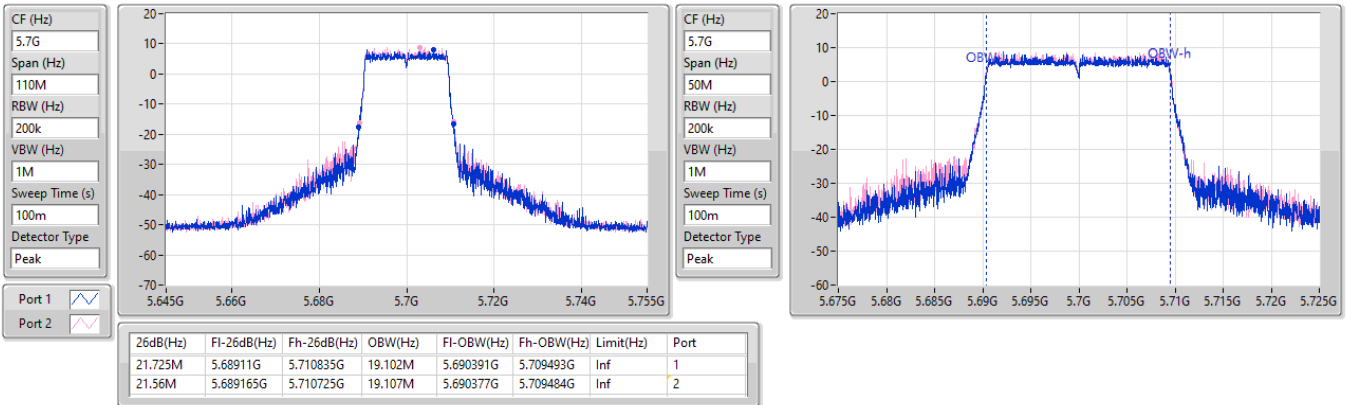


5.47-5.725GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5700MHz

27/01/2024

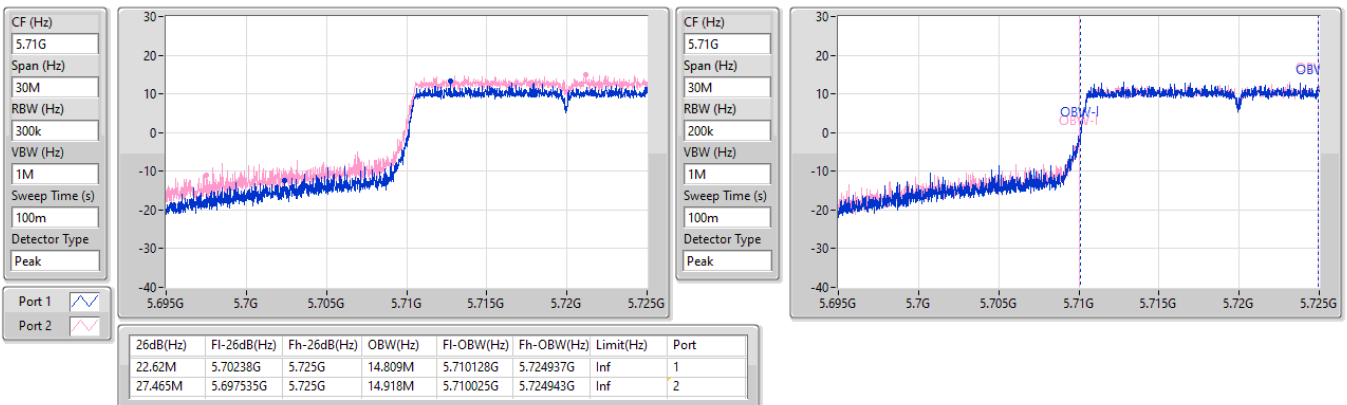


5.47-5.725GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5720MHz Straddle 5.47-5.725GHz

27/01/2024

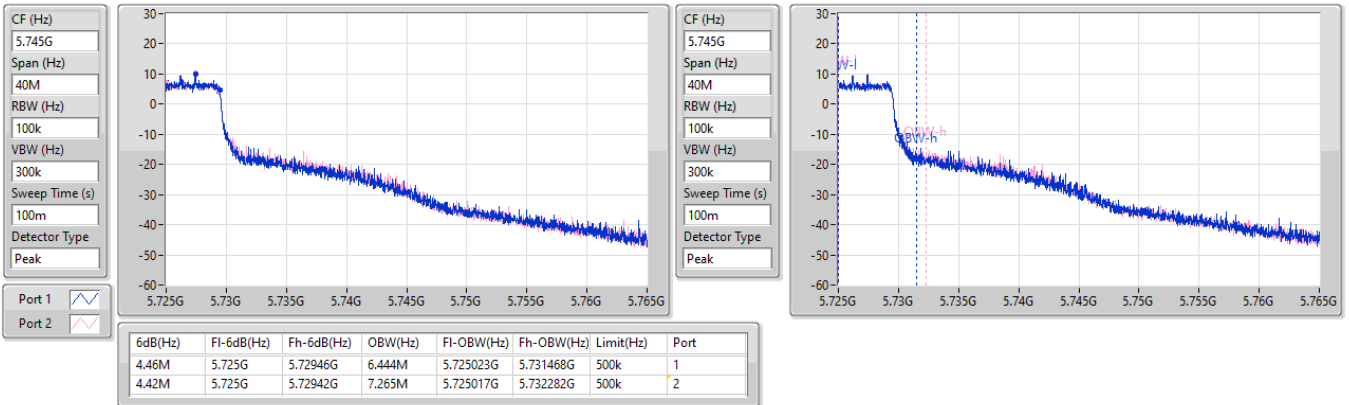


5.725-5.85GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5720MHz Straddle 5.725-5.85GHz

27/01/2024

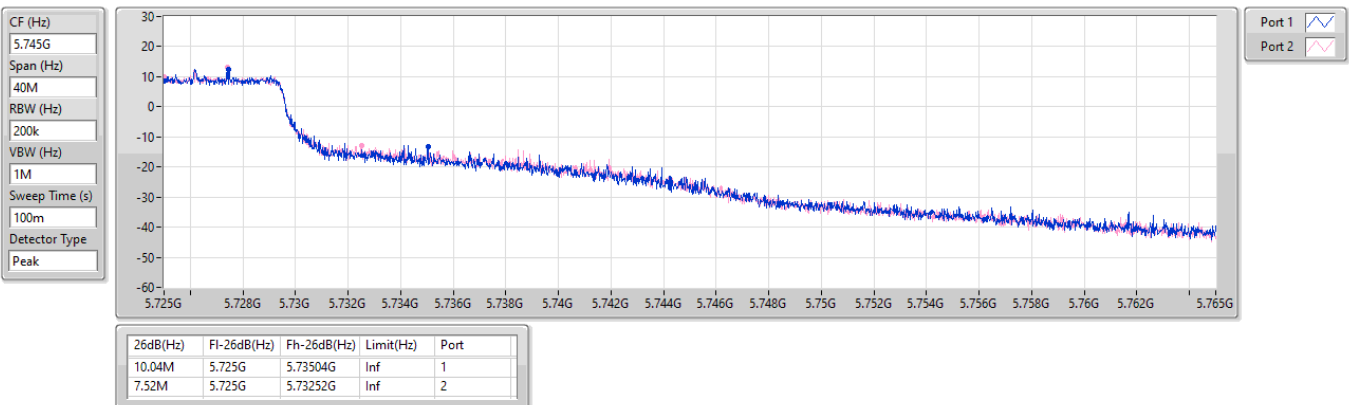


5.725-5.85GHz_802.11be EHT20_Nss2,(MCS0)_2TX

EBW

5720MHz Straddle 5.725-5.85GHz

27/01/2024

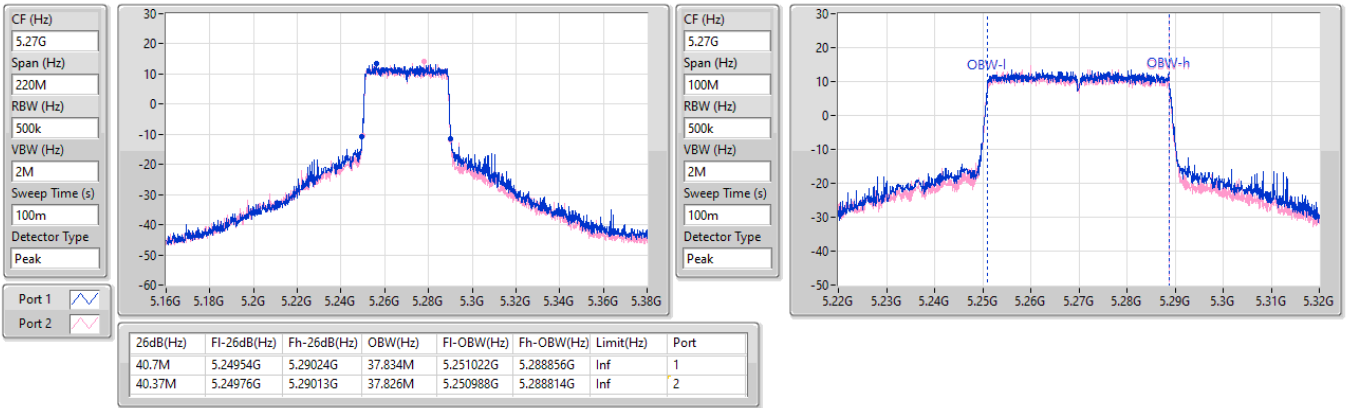


5.25-5.35GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5270MHz

27/01/2024

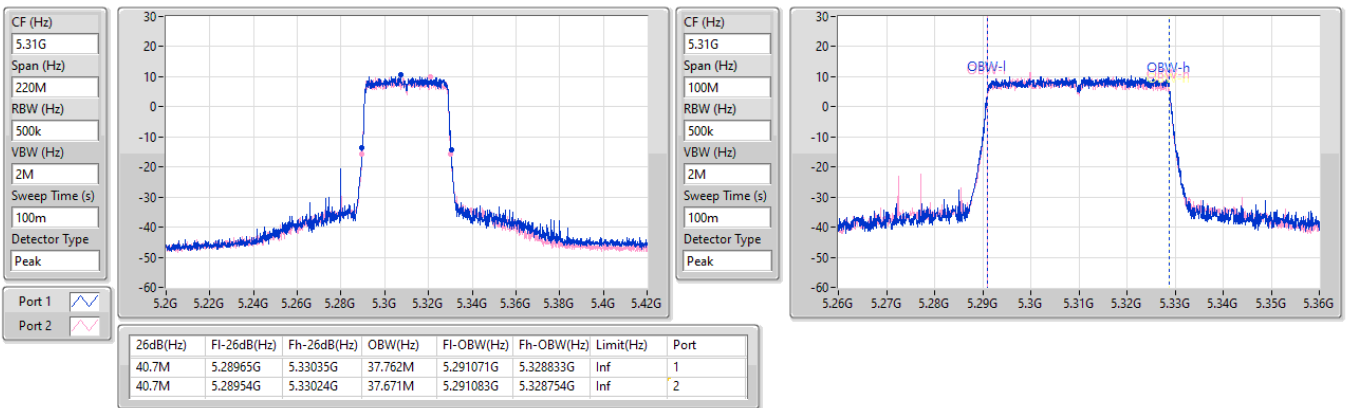


5.25-5.35GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5310MHz

27/01/2024

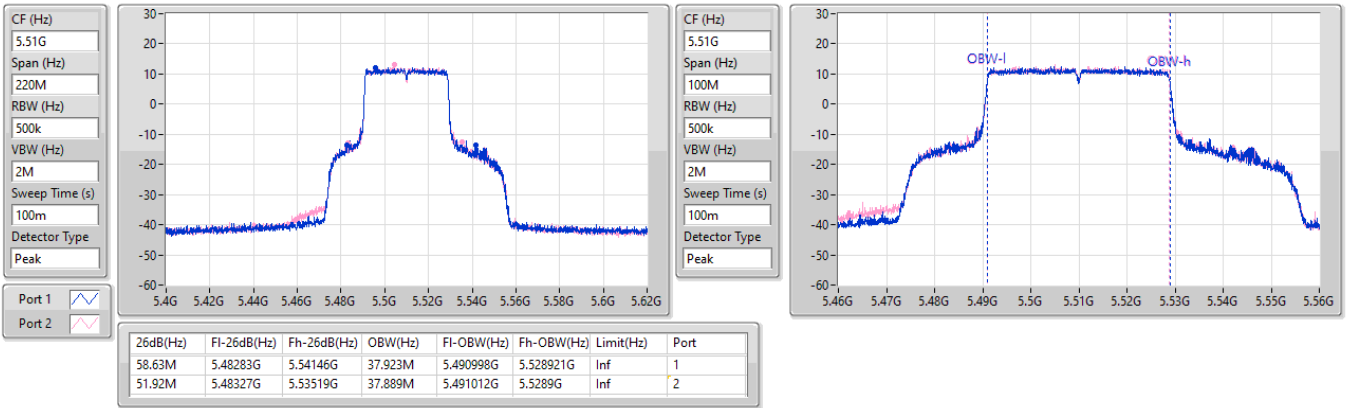


5.47-5.725GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5510MHz

28/03/2024

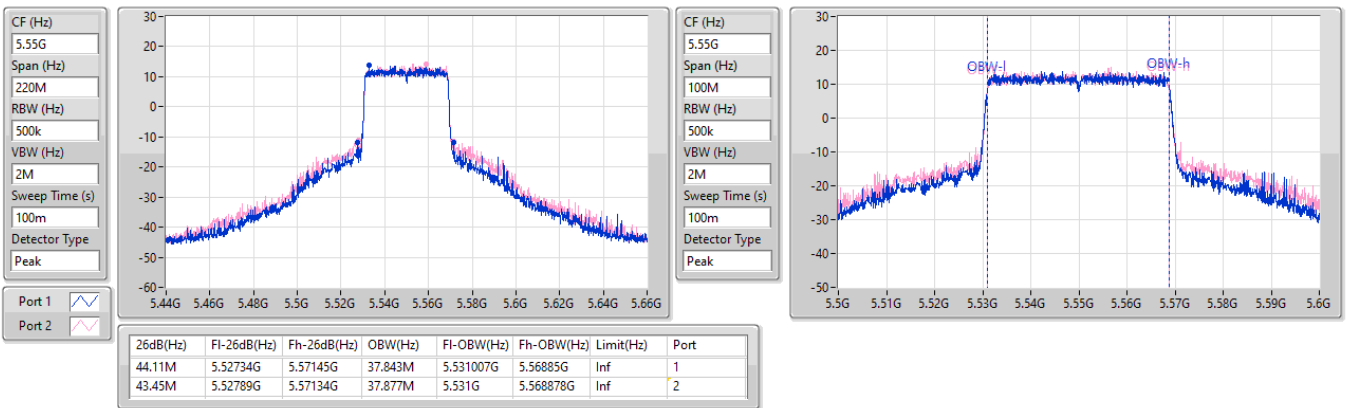


5.47-5.725GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5550MHz

27/01/2024

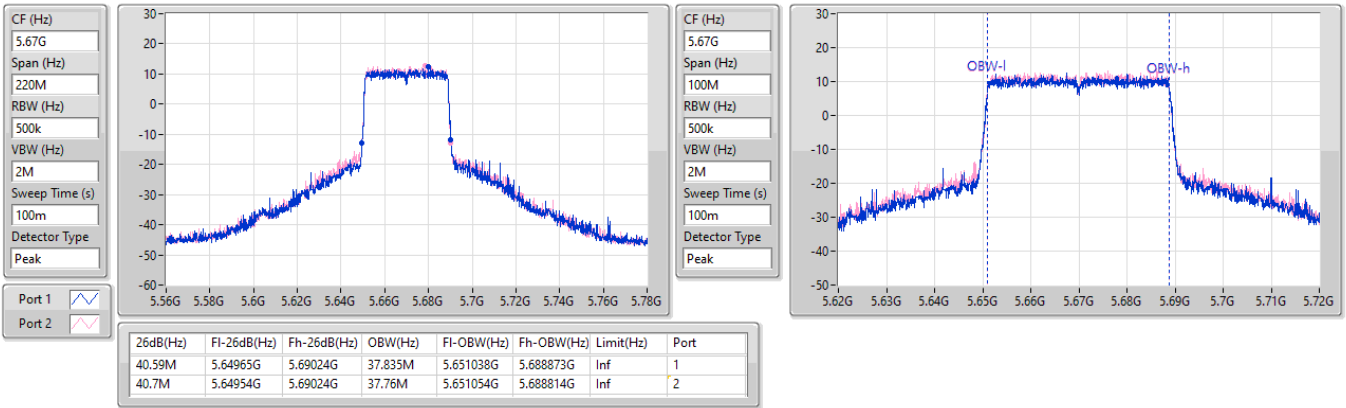


5.47-5.725GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5670MHz

27/01/2024

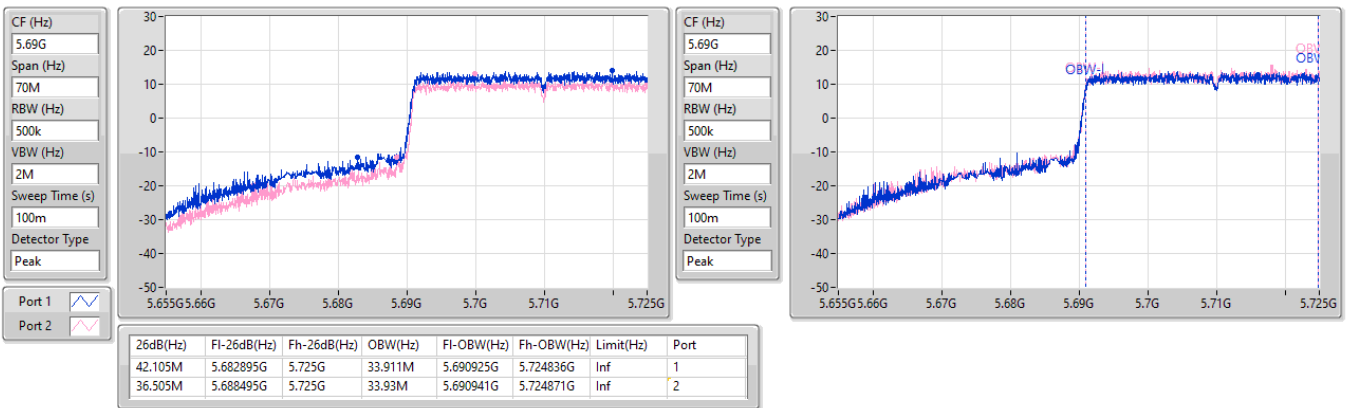


5.47-5.725GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5710MHz Straddle 5.47-5.725GHz

27/01/2024

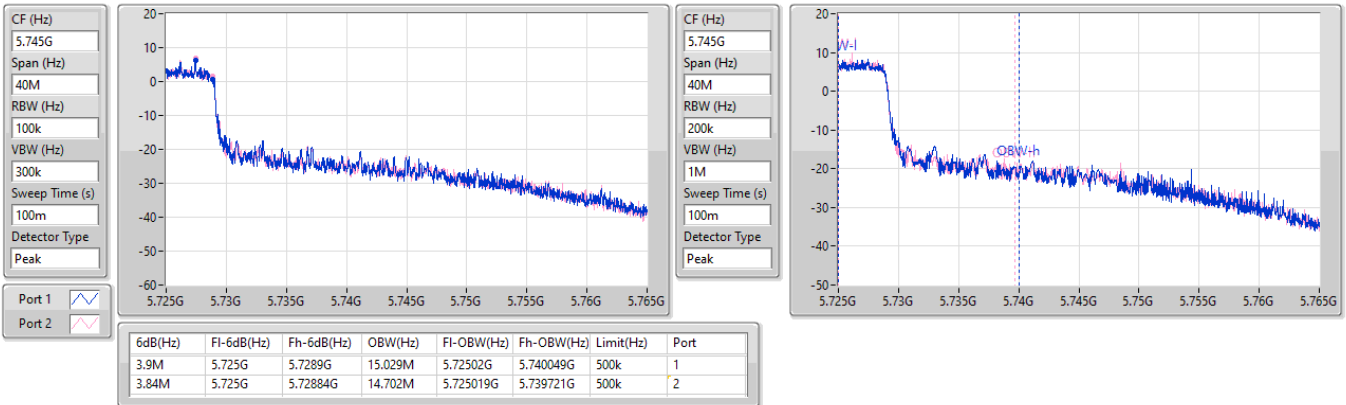


5.725-5.85GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5710MHz Straddle 5.725-5.85GHz

27/01/2024

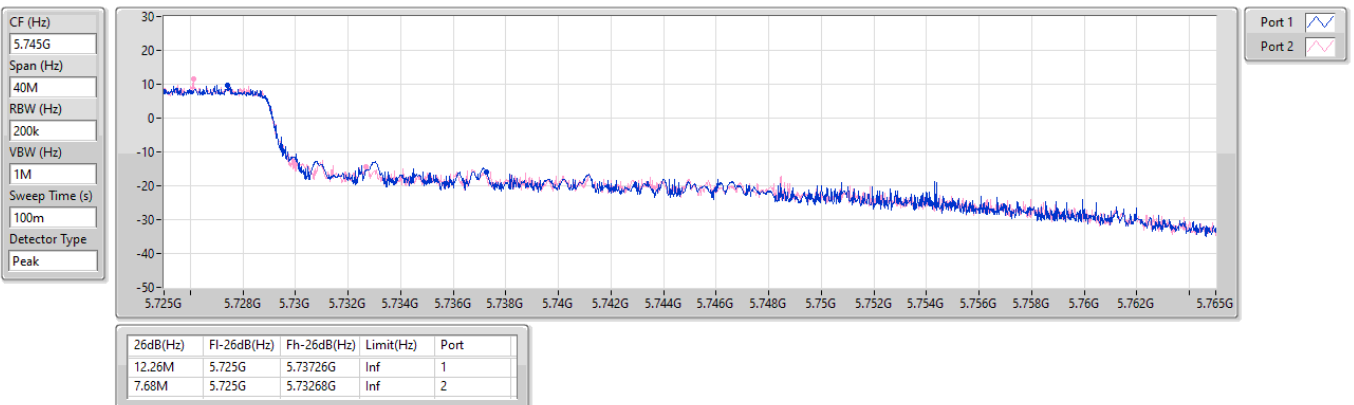


5.725-5.85GHz_802.11be EHT40_Nss2,(MCS0)_2TX

EBW

5710MHz Straddle 5.725-5.85GHz

27/01/2024



5.25-5.35GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5290MHz

28/03/2024

CF (Hz)
5.29G

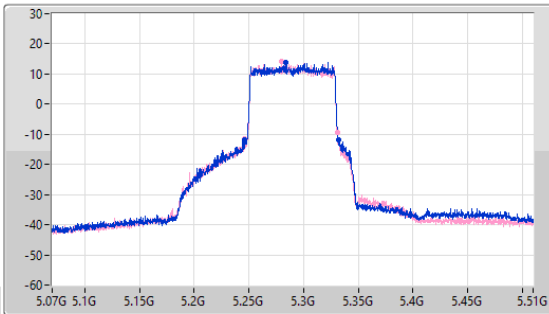
Span (Hz)
440M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.29G

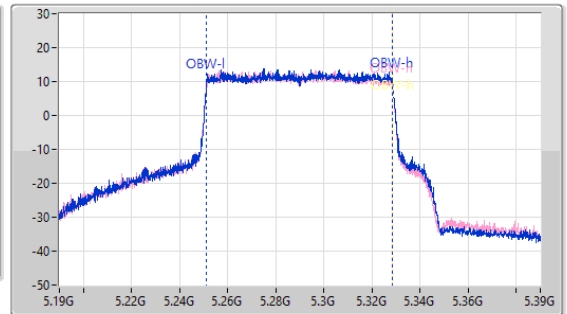
Span (Hz)
200M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
100m

Detector Type
Peak



Port 1

Port 2

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
86.68M	5.24556G	5.33224G	77.495M	5.251183G	5.328678G	Inf	1
84.92M	5.246G	5.33092G	77.328M	5.251183G	5.32851G	Inf	2

5.47-5.725GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5530MHz

28/03/2024

CF (Hz)
5.53G

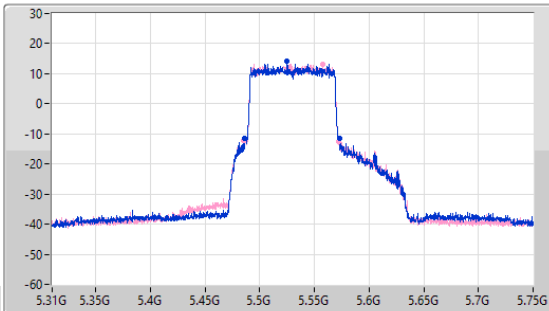
Span (Hz)
440M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.53G

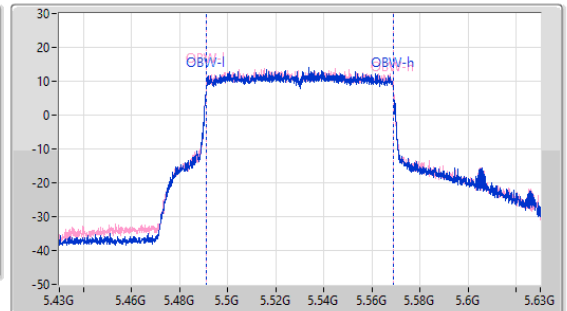
Span (Hz)
200M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
100m

Detector Type
Peak



Port 1

Port 2

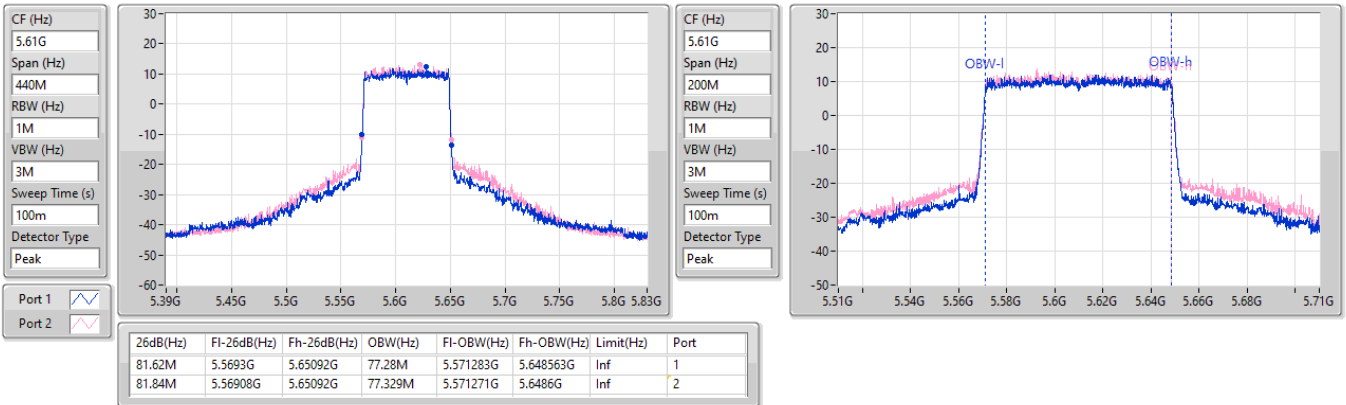
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
86.9M	5.48644G	5.57334G	77.482M	5.49121G	5.568692G	Inf	1
87.12M	5.48534G	5.57246G	77.487M	5.491239G	5.568727G	Inf	2

5.47-5.725GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5610MHz

27/01/2024

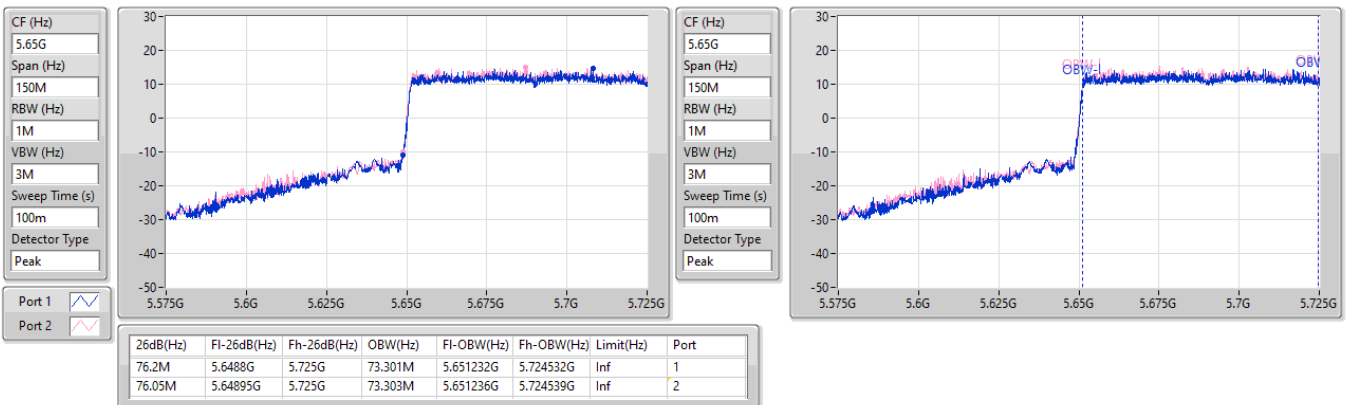


5.47-5.725GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5690MHz Straddle 5.47-5.725GHz

27/01/2024

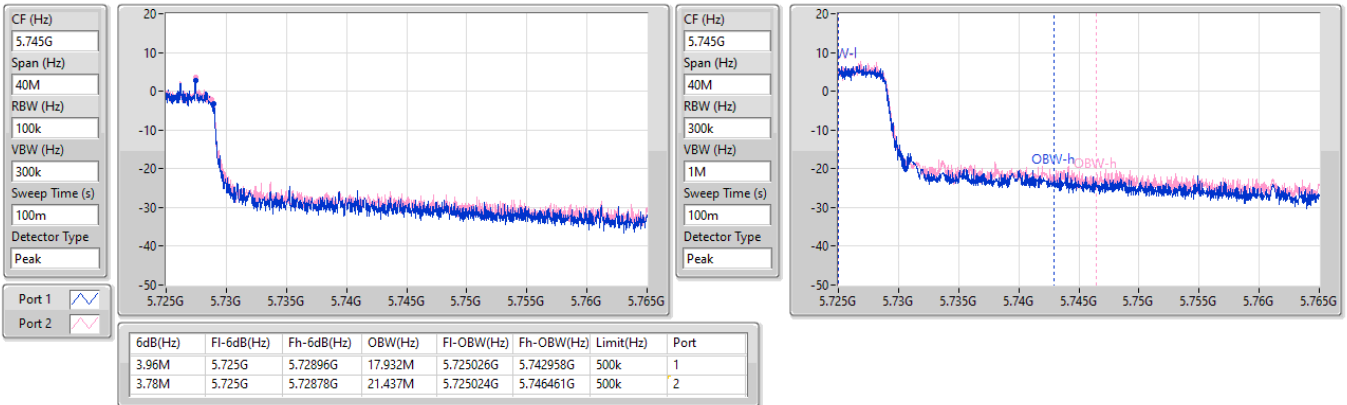


5.725-5.85GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5690MHz Straddle 5.725-5.85GHz

27/01/2024

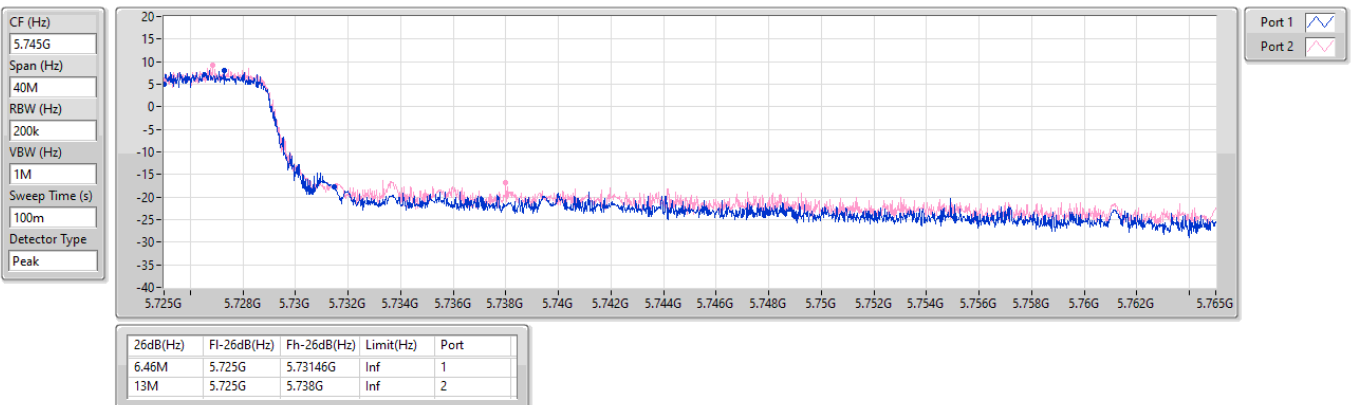


5.725-5.85GHz_802.11be EHT80_Nss2,(MCS0)_2TX

EBW

5690MHz Straddle 5.725-5.85GHz

27/01/2024

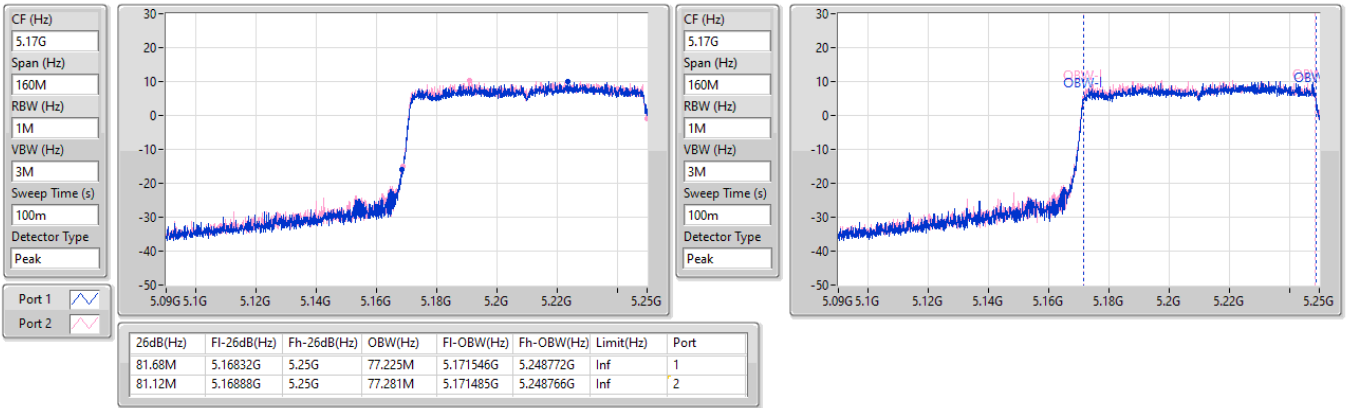


5.15-5.25GHz_802.11be EHT160_Nss2,(MCS0)_2TX

EBW

5250MHz Straddle 5.15-5.25GHz

28/03/2024

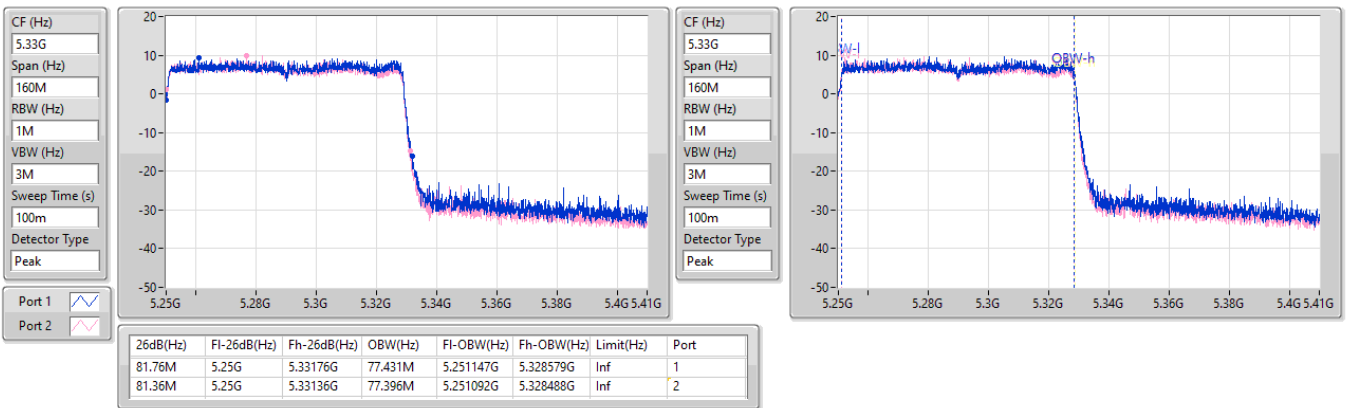


5.25-5.35GHz_802.11be EHT160_Nss2,(MCS0)_2TX

EBW

5250MHz Straddle 5.25-5.35GHz

28/03/2024



5.47-5.725GHz_802.11be EHT160_Nss2,(MCS0)_2TX

EBW

5570MHz

28/03/2024

CF (Hz)
5.57G

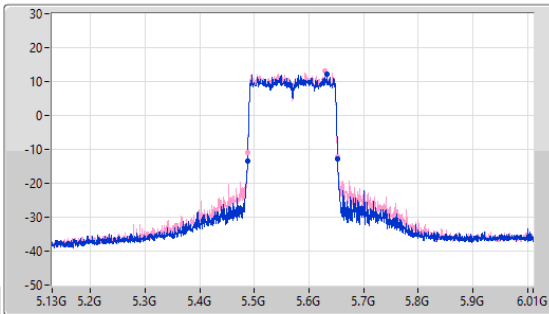
Span (Hz)
880M

RBW (Hz)
2M

VBW (Hz)
10M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.57G

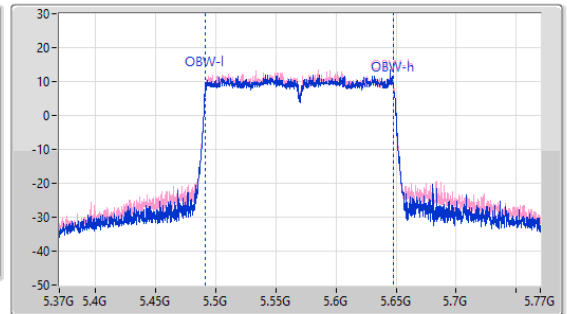
Span (Hz)
400M


RBW (Hz)
2M


VBW (Hz)
10M

Sweep Time (s)
100m

Detector Type
Peak



Port 1 

Port 2 

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
165M	5.48728G	5.65228G	156.45M	5.491652G	5.648102G	Inf	1
164.56M	5.48772G	5.65228G	156.36M	5.491712G	5.648072G	Inf	2

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11be EHT160_Nss1,(MCS0)_4TX	80.08M	77.262M	77M3D1D	79.92M	77.039M
802.11be EHT160_Nss4,(MCS0)_4TX	80.08M	77.243M	77M2D1D	80M	77.042M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.78M	16.832M	16M8D1D	21.23M	16.736M
802.11be EHT20_Nss1,(MCS0)_4TX	21.78M	19.124M	19M1D1D	21.34M	19.053M
802.11be EHT20_Nss4,(MCS0)_4TX	24.035M	19.104M	19M1D1D	21.285M	19.034M
802.11be EHT40_Nss1,(MCS0)_4TX	45.98M	37.901M	37M9D1D	40.26M	37.739M
802.11be EHT40_Nss4,(MCS0)_4TX	42.79M	37.893M	37M9D1D	40.15M	37.627M
802.11be EHT80_Nss1,(MCS0)_4TX	84.04M	77.419M	77M4D1D	80.3M	77.068M
802.11be EHT80_Nss4,(MCS0)_4TX	91.96M	77.558M	77M6D1D	79.86M	77.165M
802.11be EHT160_Nss1,(MCS0)_4TX	81.04M	77.393M	77M4D1D	79.84M	76.797M
802.11be EHT160_Nss4,(MCS0)_4TX	80M	77.387M	77M4D1D	79.84M	77.043M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.505M	16.834M	16M8D1D	15.75M	13.463M
802.11be EHT20_Nss1,(MCS0)_4TX	21.78M	19.107M	19M1D1D	15.75M	14.603M
802.11be EHT20_Nss4,(MCS0)_4TX	21.835M	19.099M	19M1D1D	15.81M	14.6M
802.11be EHT40_Nss1,(MCS0)_4TX	43.34M	37.882M	37M9D1D	35.21M	33.84M
802.11be EHT40_Nss4,(MCS0)_4TX	42.02M	37.97M	38M0D1D	35.105M	33.819M
802.11be EHT80_Nss1,(MCS0)_4TX	91.96M	77.557M	77M6D1D	75.975M	73.248M
802.11be EHT80_Nss4,(MCS0)_4TX	82.28M	77.339M	77M3D1D	75.9M	73.252M
802.11be EHT160_Nss1,(MCS0)_4TX	162.36M	156.763M	157MD1D	161.92M	156.031M
802.11be EHT160_Nss4,(MCS0)_4TX	163.68M	157.233M	157MD1D	161.92M	155.571M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	3.1M	4.059M	4M06D1D	3.08M	4.038M
802.11be EHT20_Nss1,(MCS0)_4TX	4.46M	4.526M	4M53D1D	4.4M	4.5M
802.11be EHT20_Nss4,(MCS0)_4TX	4.42M	4.515M	4M52D1D	4.38M	4.496M
802.11be EHT40_Nss1,(MCS0)_4TX	3.9M	4.032M	4M03D1D	3.82M	4.011M
802.11be EHT40_Nss4,(MCS0)_4TX	3.9M	4.424M	4M42D1D	3.74M	4.022M
802.11be EHT80_Nss1,(MCS0)_4TX	3.9M	4.312M	4M31D1D	3.76M	4.182M
802.11be EHT80_Nss4,(MCS0)_4TX	3.9M	4.126M	4M13D1D	3.72M	4.09M

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	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.505M	16.83M	21.56M	16.811M	21.395M	16.764M	21.23M	16.761M
5300MHz	Pass	Inf	21.56M	16.832M	21.78M	16.794M	21.285M	16.779M	21.285M	16.736M
5320MHz	Pass	Inf	21.395M	16.832M	21.23M	16.796M	21.285M	16.764M	21.23M	16.749M
5500MHz	Pass	Inf	21.285M	16.812M	21.45M	16.821M	21.23M	16.758M	21.285M	16.742M
5580MHz	Pass	Inf	21.395M	16.822M	21.175M	16.808M	21.285M	16.747M	21.34M	16.745M
5700MHz	Pass	Inf	21.395M	16.834M	21.34M	16.815M	21.34M	16.768M	21.505M	16.755M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.795M	13.518M	15.87M	13.525M	15.75M	13.463M	16.035M	13.492M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	4.044M	3.08M	4.059M	3.1M	4.042M	3.1M	4.038M
802.11be EHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.615M	19.124M	21.615M	19.098M	21.615M	19.053M	21.34M	19.093M
5300MHz	Pass	Inf	21.56M	19.104M	21.505M	19.121M	21.615M	19.123M	21.56M	19.077M
5320MHz	Pass	Inf	21.56M	19.108M	21.45M	19.088M	21.45M	19.079M	21.78M	19.059M
5500MHz	Pass	Inf	21.615M	19.058M	21.56M	19.099M	21.45M	19.074M	21.67M	19.1M
5580MHz	Pass	Inf	21.78M	19.082M	21.285M	19.069M	21.56M	19.094M	21.505M	19.083M
5700MHz	Pass	Inf	21.615M	19.096M	21.505M	19.098M	21.725M	19.107M	21.505M	19.097M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.975M	14.61M	15.855M	14.603M	15.9M	14.623M	15.75M	14.608M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.46M	4.5M	4.42M	4.516M	4.42M	4.526M	4.4M	4.513M
802.11be EHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	40.92M	37.751M	40.59M	37.786M	40.81M	37.768M	40.59M	37.774M
5310MHz	Pass	Inf	45.98M	37.869M	41.91M	37.815M	42.79M	37.739M	40.26M	37.901M
5510MHz	Pass	Inf	40.48M	37.729M	40.81M	37.635M	41.69M	37.882M	43.34M	37.663M
5550MHz	Pass	Inf	41.03M	37.802M	40.59M	37.755M	40.7M	37.755M	40.7M	37.756M
5670MHz	Pass	Inf	40.81M	37.822M	40.37M	37.767M	40.7M	37.796M	41.03M	37.778M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.35M	33.85M	35.21M	33.84M	35.665M	33.859M	35.56M	33.841M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.9M	4.011M	3.82M	4.028M	3.88M	4.032M	3.88M	4.019M
802.11be EHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	84.04M	77.084M	80.3M	77.068M	81.18M	77.419M	80.3M	77.288M
5530MHz	Pass	Inf	91.96M	77.557M	83.16M	77.405M	81.4M	77.232M	83.82M	76.802M
5610MHz	Pass	Inf	82.28M	77.257M	81.84M	77.273M	81.62M	77.291M	82.28M	77.314M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.5M	73.259M	77.4M	73.254M	75.975M	73.248M	75.975M	73.318M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.78M	4.182M	3.76M	4.312M	3.86M	4.262M	3.9M	4.205M
802.11be EHT160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	79.92M	77.039M	80M	77.208M	80M	77.075M	80.08M	77.262M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	79.84M	77.241M	79.84M	77.393M	81.04M	76.797M	80M	77.08M
5570MHz	Pass	Inf	162.36M	156.478M	161.92M	156.763M	161.92M	156.445M	161.92M	156.031M
802.11be EHT20_Nss4,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.67M	19.085M	21.45M	19.034M	21.34M	19.056M	21.45M	19.093M
5300MHz	Pass	Inf	21.725M	19.067M	21.45M	19.05M	21.67M	19.104M	21.395M	19.074M
5320MHz	Pass	Inf	21.285M	19.073M	21.505M	19.038M	24.035M	19.092M	21.56M	19.073M
5500MHz	Pass	Inf	21.835M	19.093M	21.34M	19.095M	21.34M	19.073M	21.45M	19.077M
5580MHz	Pass	Inf	21.835M	19.097M	21.56M	19.047M	21.505M	19.051M	21.67M	19.061M
5700MHz	Pass	Inf	20.955M	19.079M	20.515M	19M	21.065M	19.025M	21.285M	19.099M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.885M	14.625M	15.915M	14.6M	15.81M	14.618M	18.03M	14.613M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.42M	4.515M	4.4M	4.514M	4.4M	4.496M	4.38M	4.502M
802.11be EHT40_Nss4,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	40.92M	37.746M	40.15M	37.798M	42.79M	37.813M	40.26M	37.796M
5310MHz	Pass	Inf	42.57M	37.759M	41.47M	37.893M	40.48M	37.627M	41.91M	37.721M
5510MHz	Pass	Inf	41.36M	37.824M	41.47M	37.947M	42.02M	37.97M	40.59M	37.783M
5550MHz	Pass	Inf	40.15M	37.75M	40.37M	37.769M	40.48M	37.794M	40.15M	37.739M
5670MHz	Pass	Inf	41.58M	37.746M	40.48M	37.806M	40.48M	37.79M	40.59M	37.754M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.105M	33.825M	35.21M	33.819M	35.28M	33.87M	35.315M	33.851M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.9M	4.213M	3.78M	4.26M	3.82M	4.424M	3.74M	4.022M
802.11be EHT80_Nss4,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	84.04M	77.466M	79.86M	77.558M	84.26M	77.307M	91.96M	77.165M



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)
5530MHz	Pass	Inf	80.3M	77.146M	80.52M	77.272M	81.18M	77.158M	82.28M	76.902M
5610MHz	Pass	Inf	82.06M	77.25M	81.4M	77.206M	82.06M	77.301M	82.06M	77.339M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.65M	73.283M	75.9M	73.252M	75.975M	73.263M	75.9M	73.311M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.82M	4.093M	3.74M	4.126M	3.72M	4.108M	3.9M	4.09M
802.11be EHT160_Nss4,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	80.08M	77.169M	80.08M	77.094M	80M	77.243M	80.08M	77.042M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	79.92M	77.387M	80M	77.043M	79.84M	77.063M	79.92M	77.146M
5570MHz	Pass	Inf	161.92M	157.233M	161.92M	155.571M	162.36M	155.766M	163.68M	155.917M

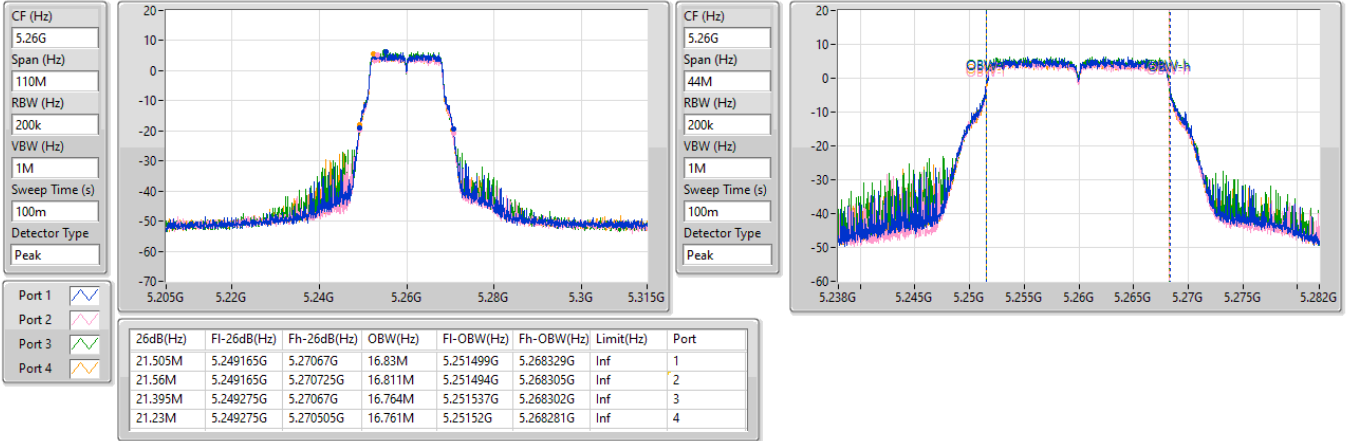
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
 Port X-OBW = Port X 99% occupied bandwidth

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

EBW

5260MHz

27/01/2024

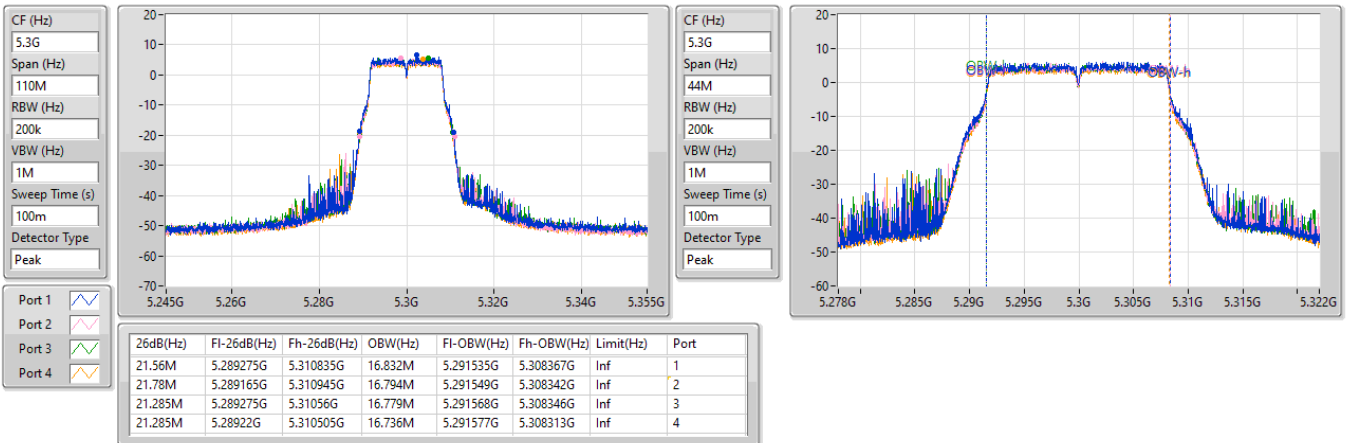


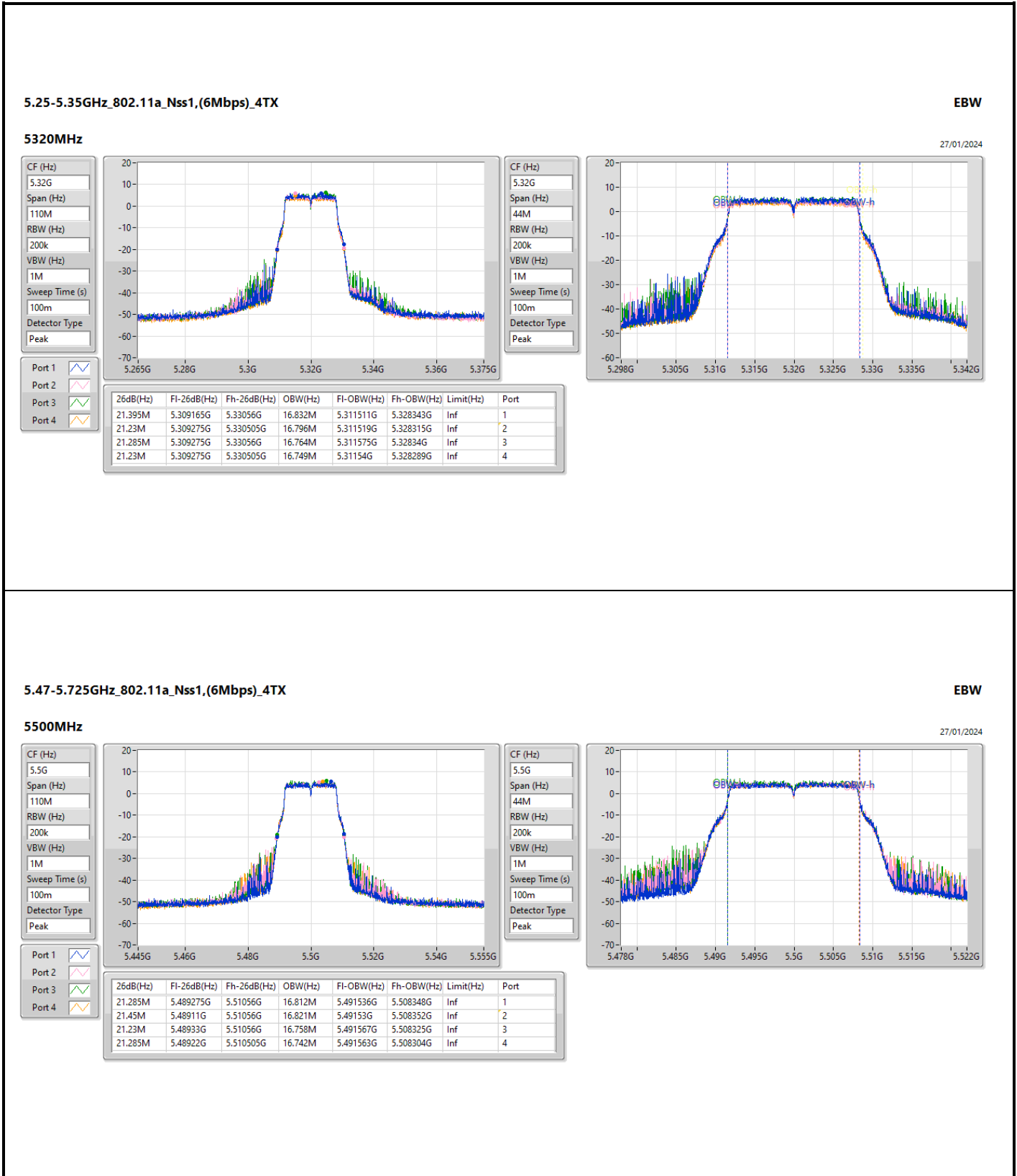
5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5300MHz

27/01/2024





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

EBW

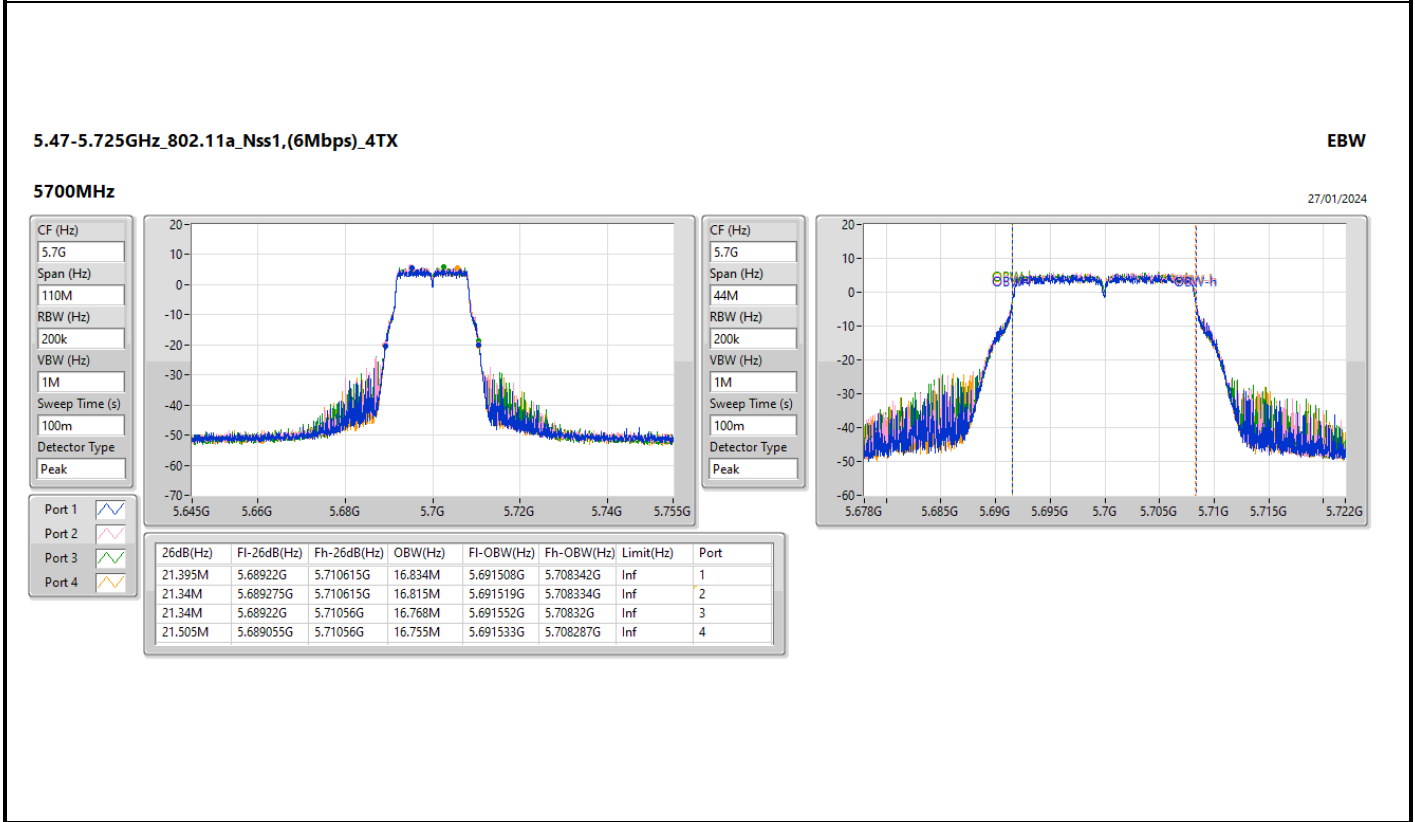
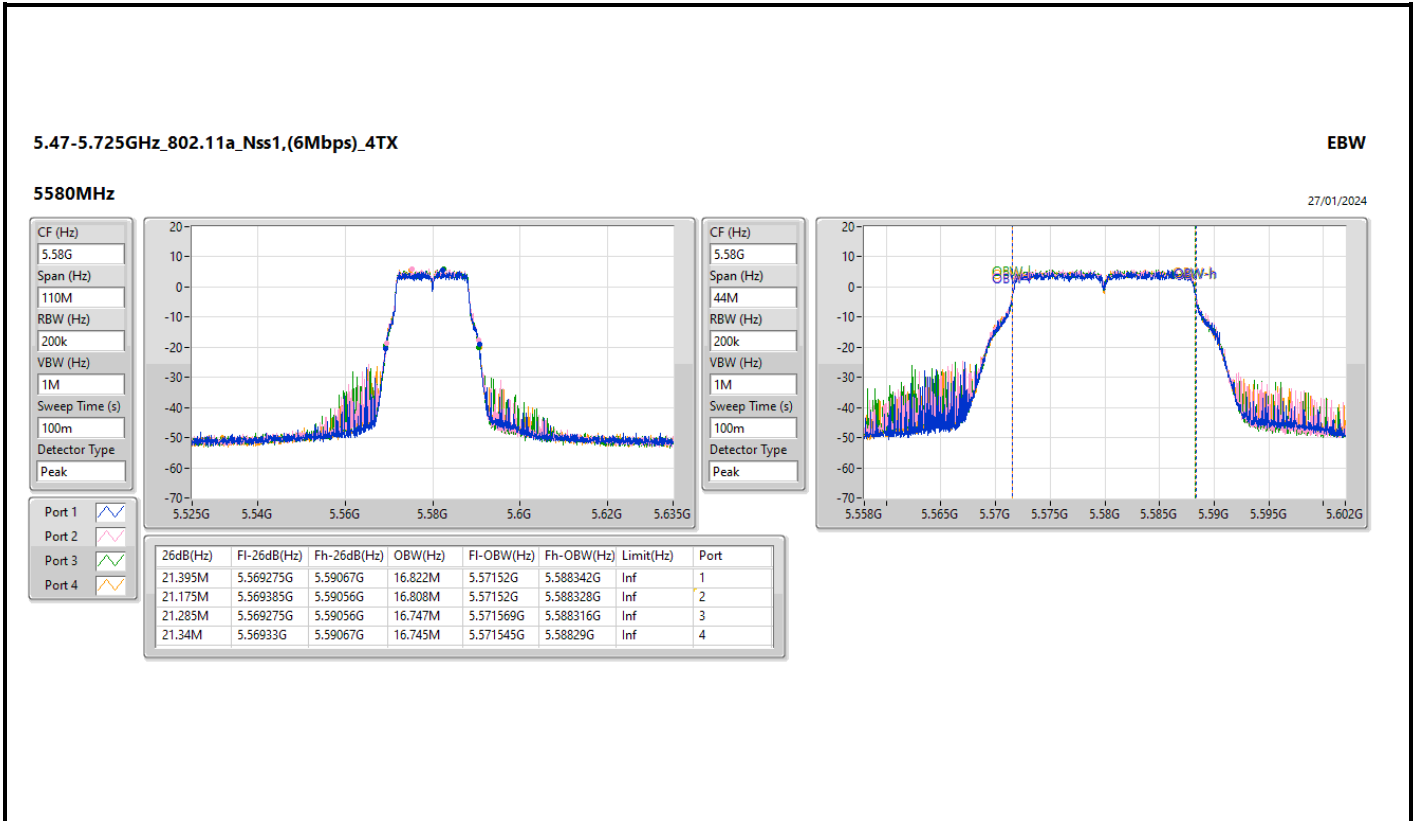
5500MHz

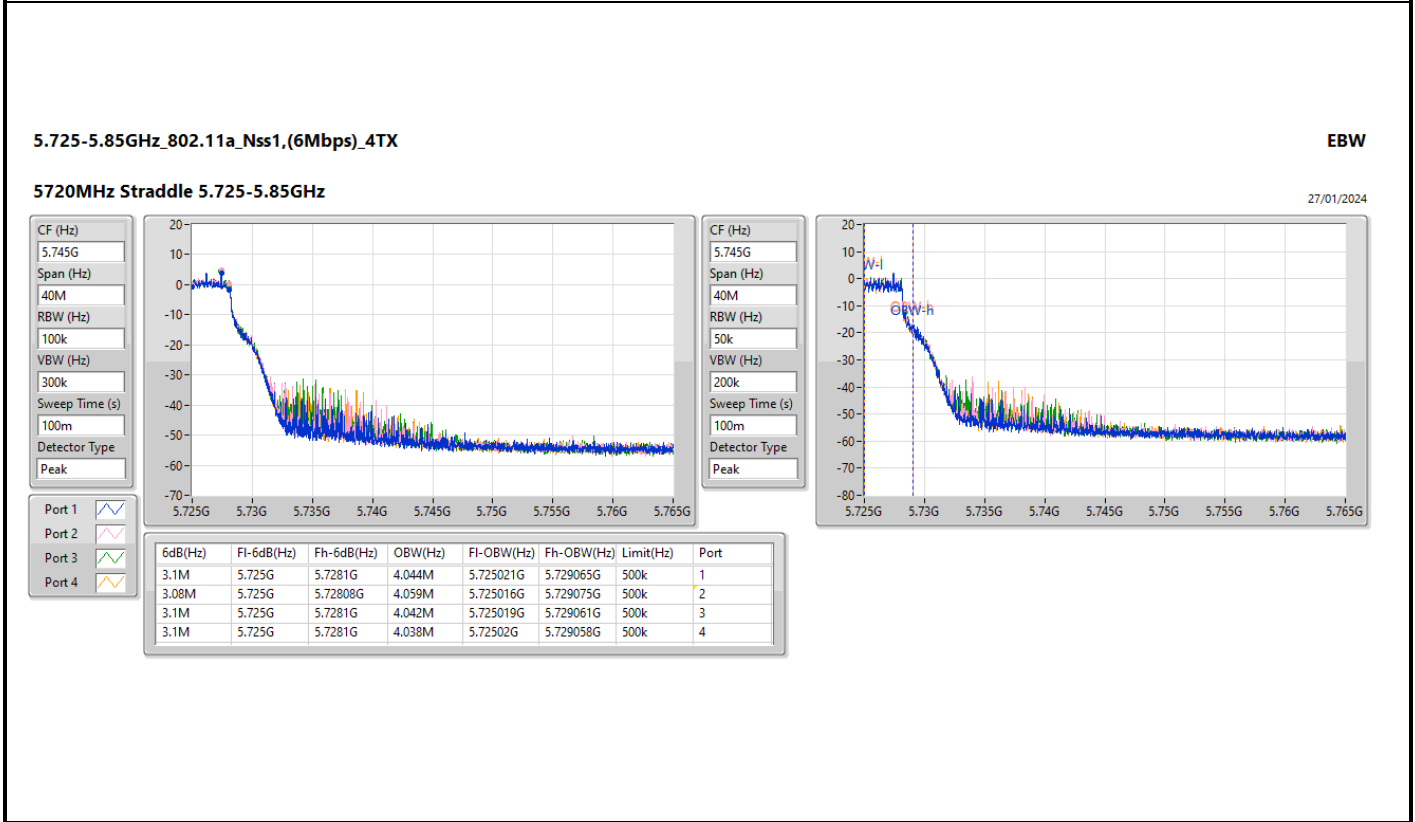
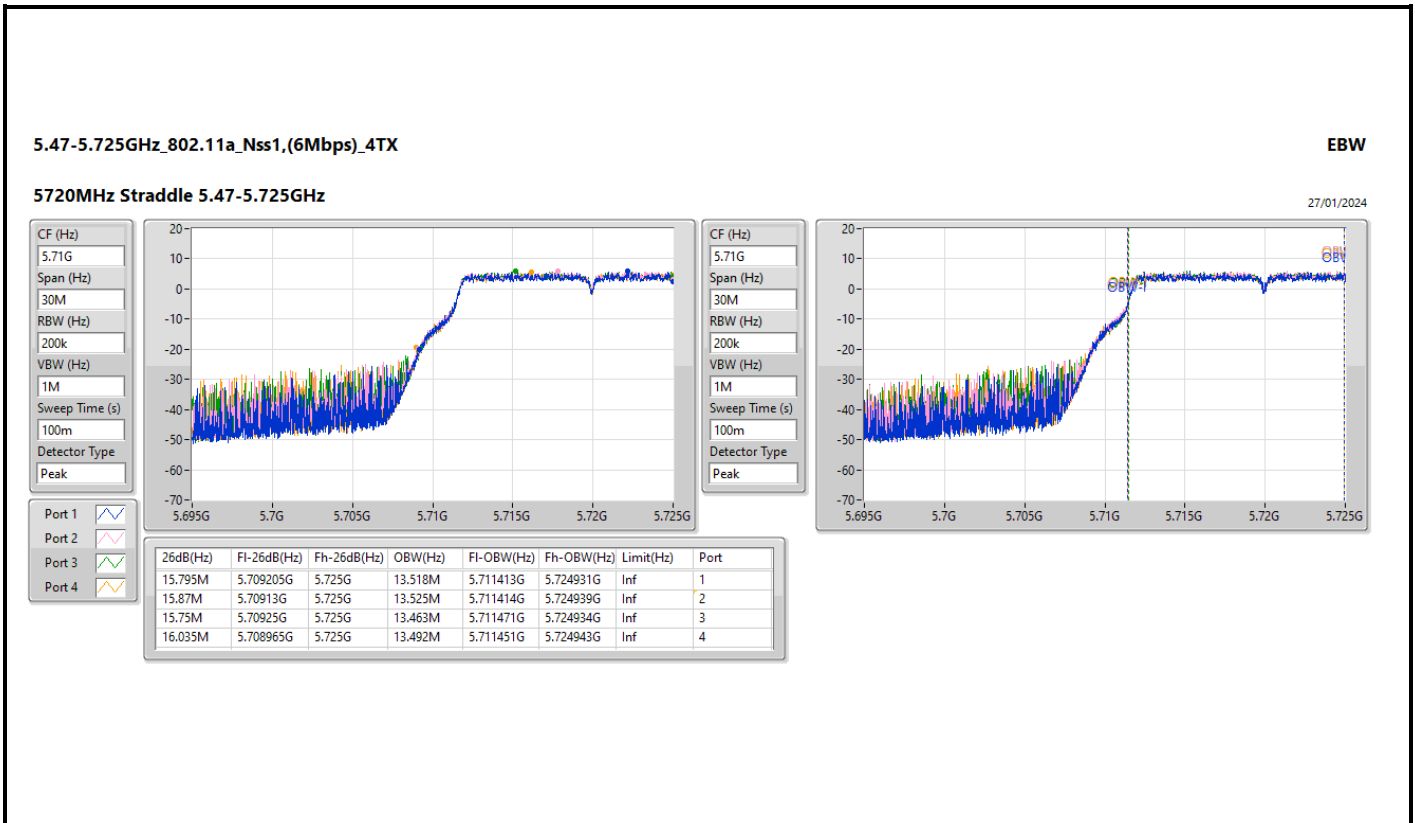
27/01/2024

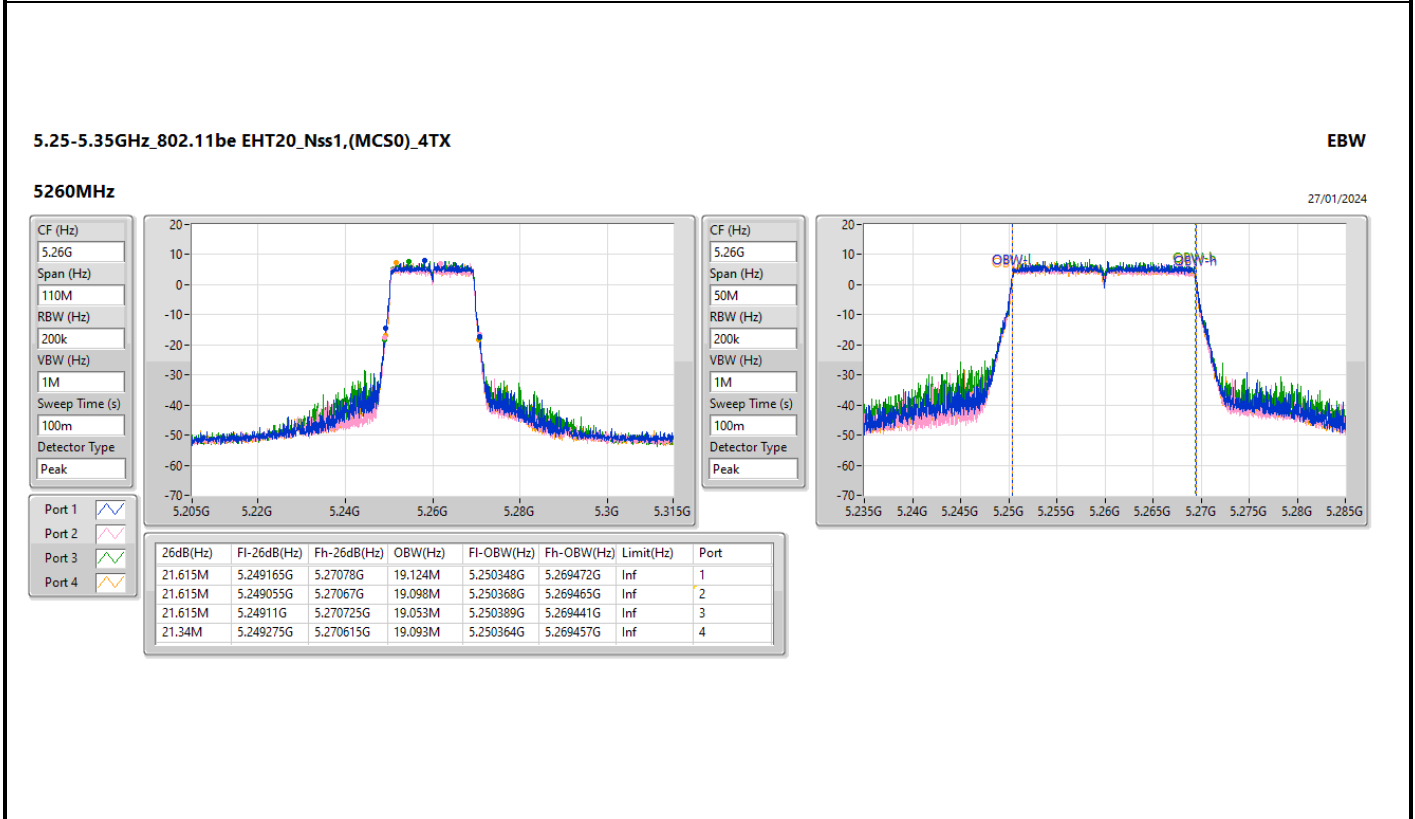
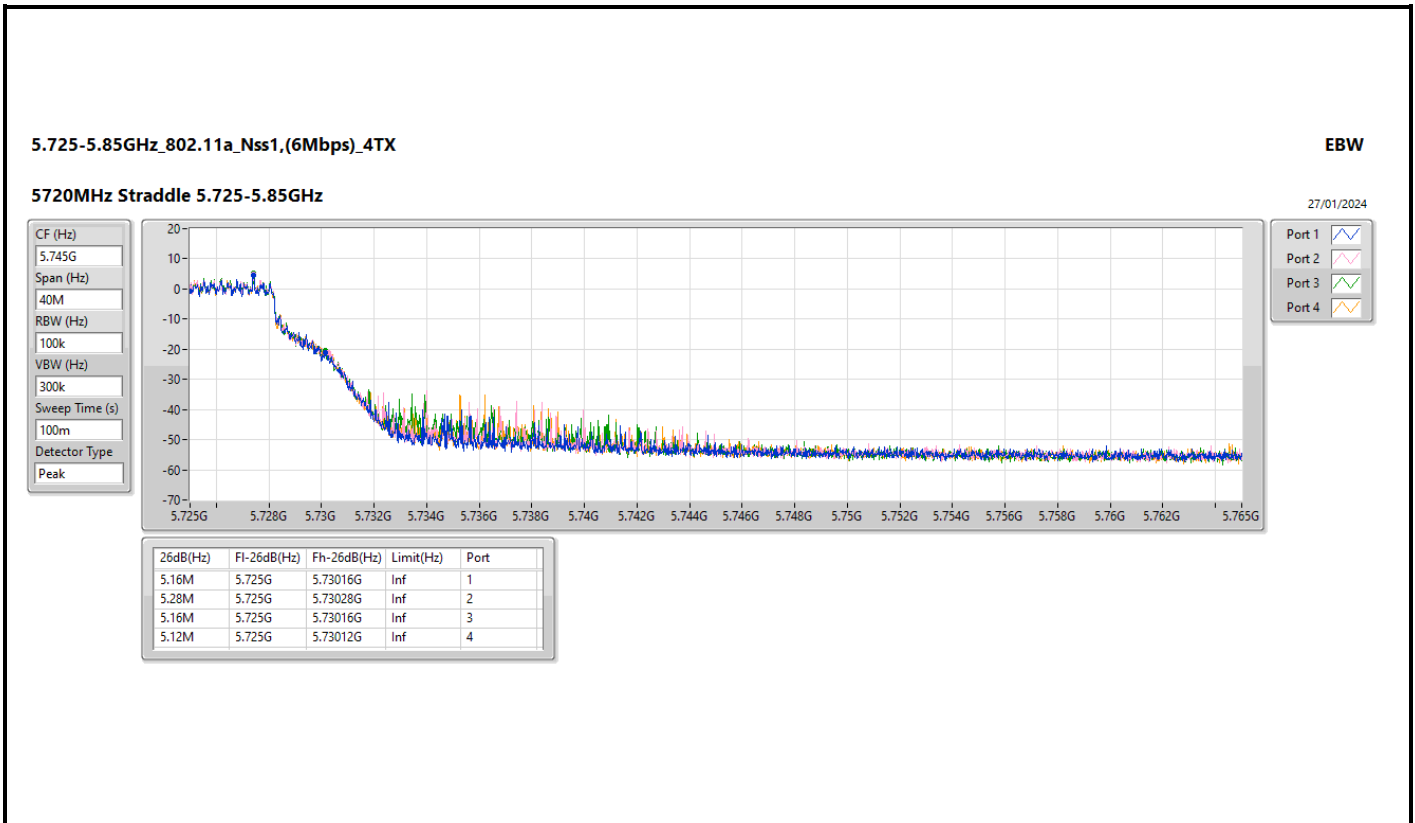
CF (Hz)
5.5G
Span (Hz)
110M
RBW (Hz)
200k
VBW (Hz)
1M
Sweep Time (s)
100m
Detector Type
Peak

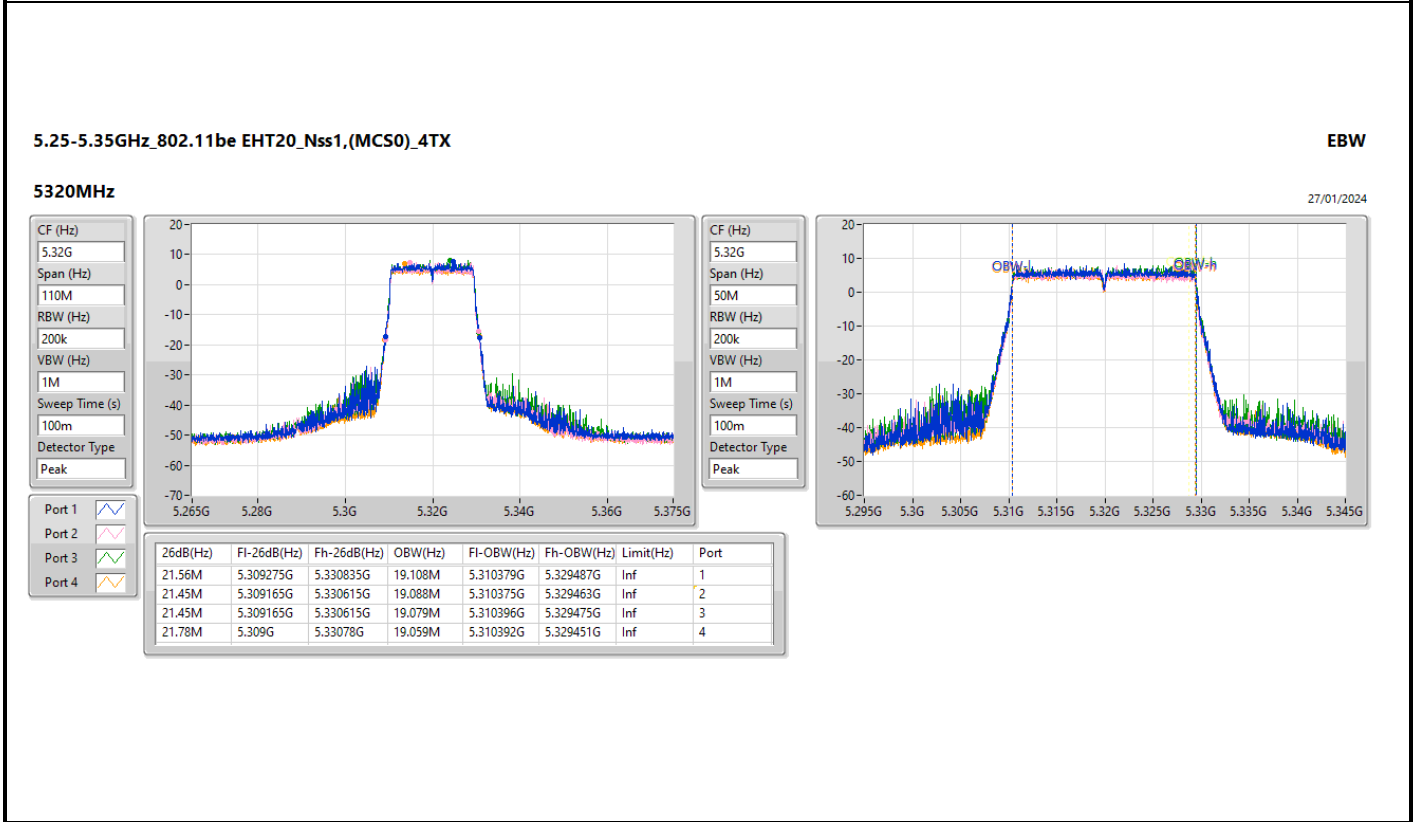
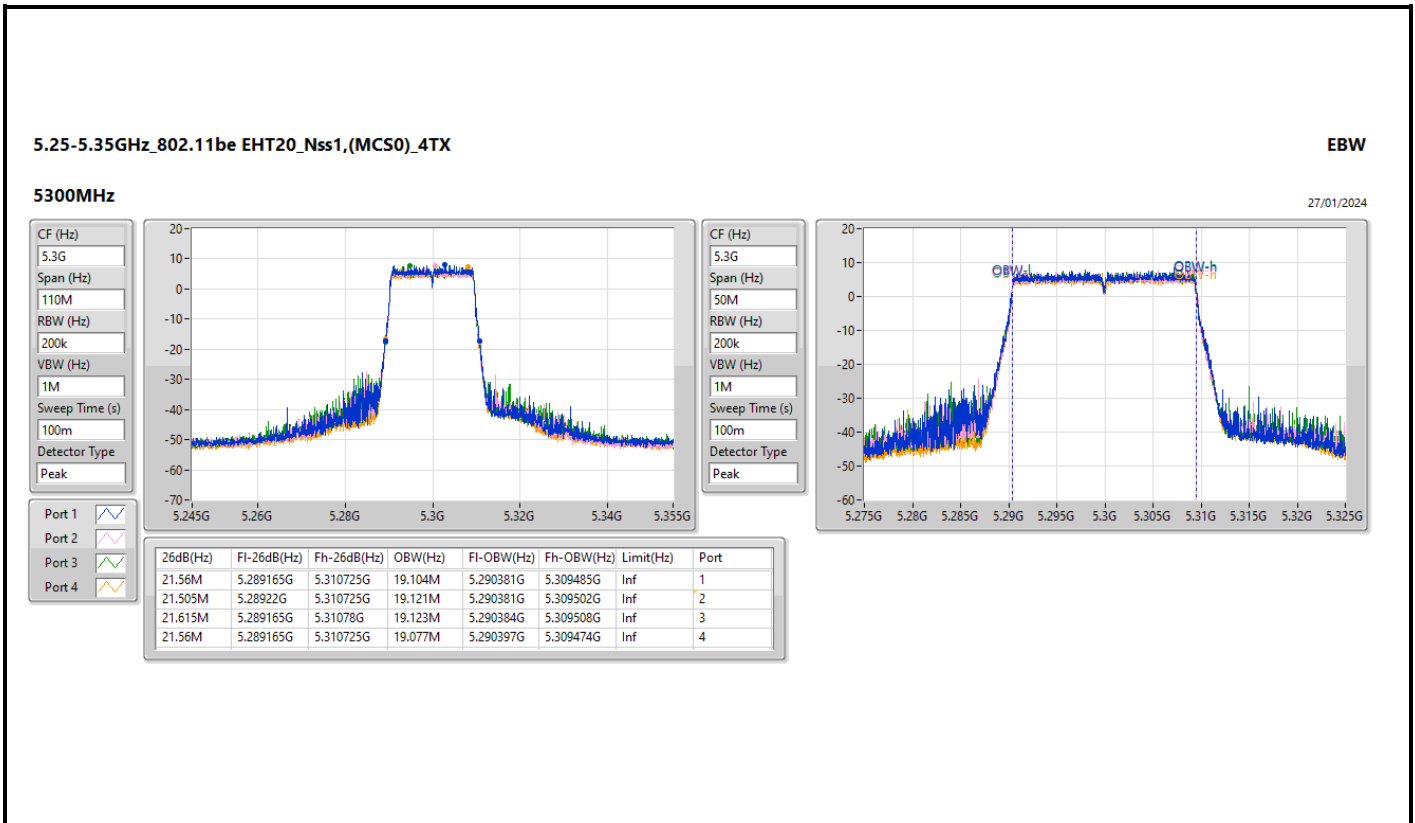
CF (Hz)
5.5G
Span (Hz)
44M
RBW (Hz)
200k
VBW (Hz)
1M
Sweep Time (s)
100m
Detector Type
Peak

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.285M	5.489275G	5.51056G	16.812M	5.491536G	5.508348G	Inf	1
21.45M	5.48911G	5.51056G	16.821M	5.49153G	5.508352G	Inf	2
21.23M	5.48933G	5.51056G	16.758M	5.491567G	5.508325G	Inf	3
21.285M	5.48922G	5.510505G	16.742M	5.491563G	5.508304G	Inf	4









5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_4TX

EBW

5500MHz

27/01/2024

CF (Hz)
5.5G

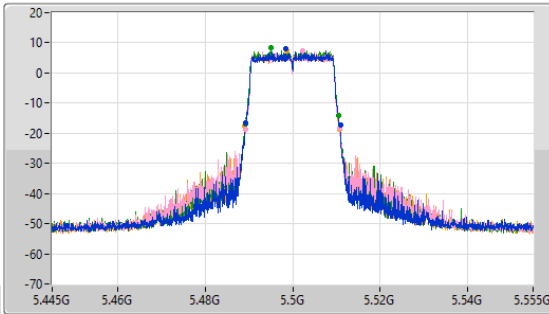
Span (Hz)
110M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.5G

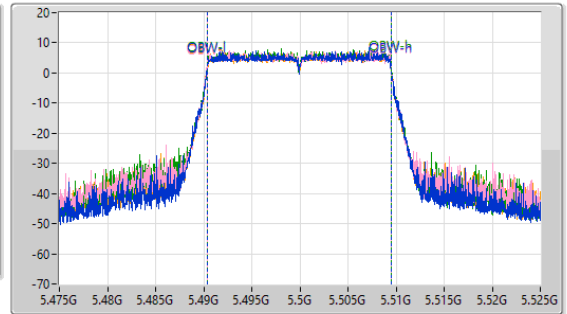
Span (Hz)
50M


RBW (Hz)
200k


VBW (Hz)
1M


Sweep Time (s)
100m


Detector Type
Peak



Port 1 

Port 2 

Port 3 

Port 4 

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.615M	5.489275G	5.51089G	19.058M	5.4904G	5.509459G	Inf	1
21.56M	5.489165G	5.510725G	19.099M	5.490368G	5.509468G	Inf	2
21.45M	5.489165G	5.510615G	19.074M	5.490393G	5.509467G	Inf	3
21.67M	5.489055G	5.510725G	19.1M	5.490369G	5.509469G	Inf	4

5.47-5.725GHz_802.11be EHT20_Nss1,(MCS0)_4TX

EBW

5580MHz

27/01/2024

CF (Hz)
5.58G

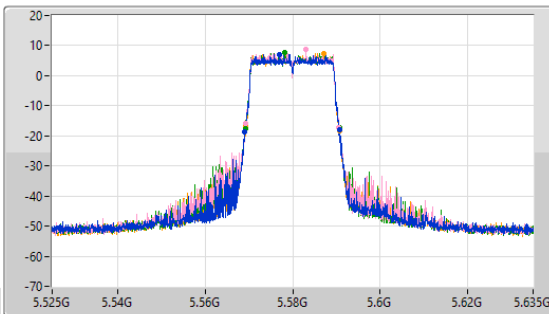
Span (Hz)
110M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.58G

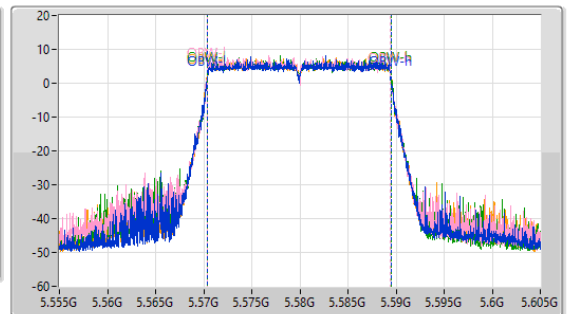
Span (Hz)
50M


RBW (Hz)
200k


VBW (Hz)
1M


Sweep Time (s)
100m


Detector Type
Peak



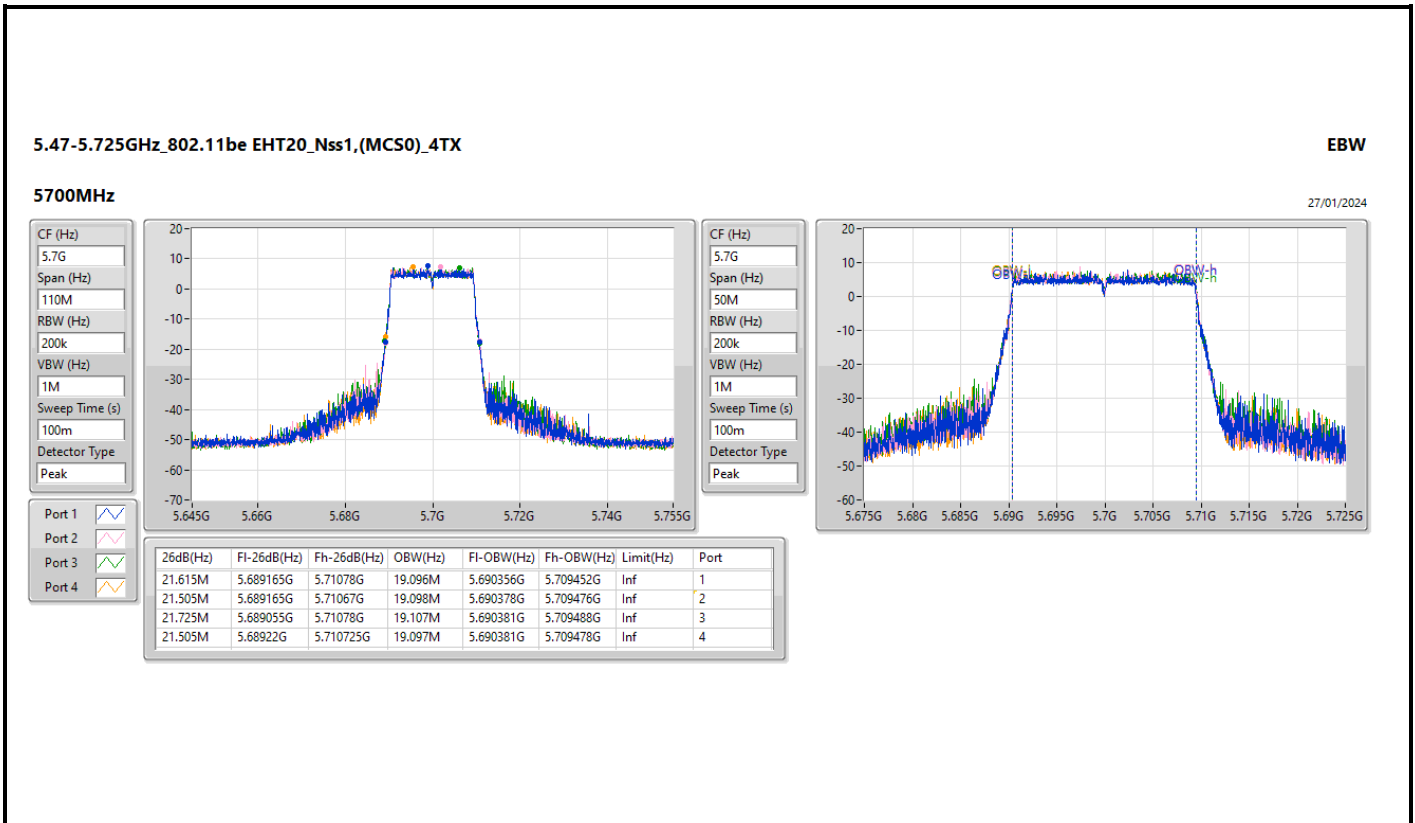
Port 1 

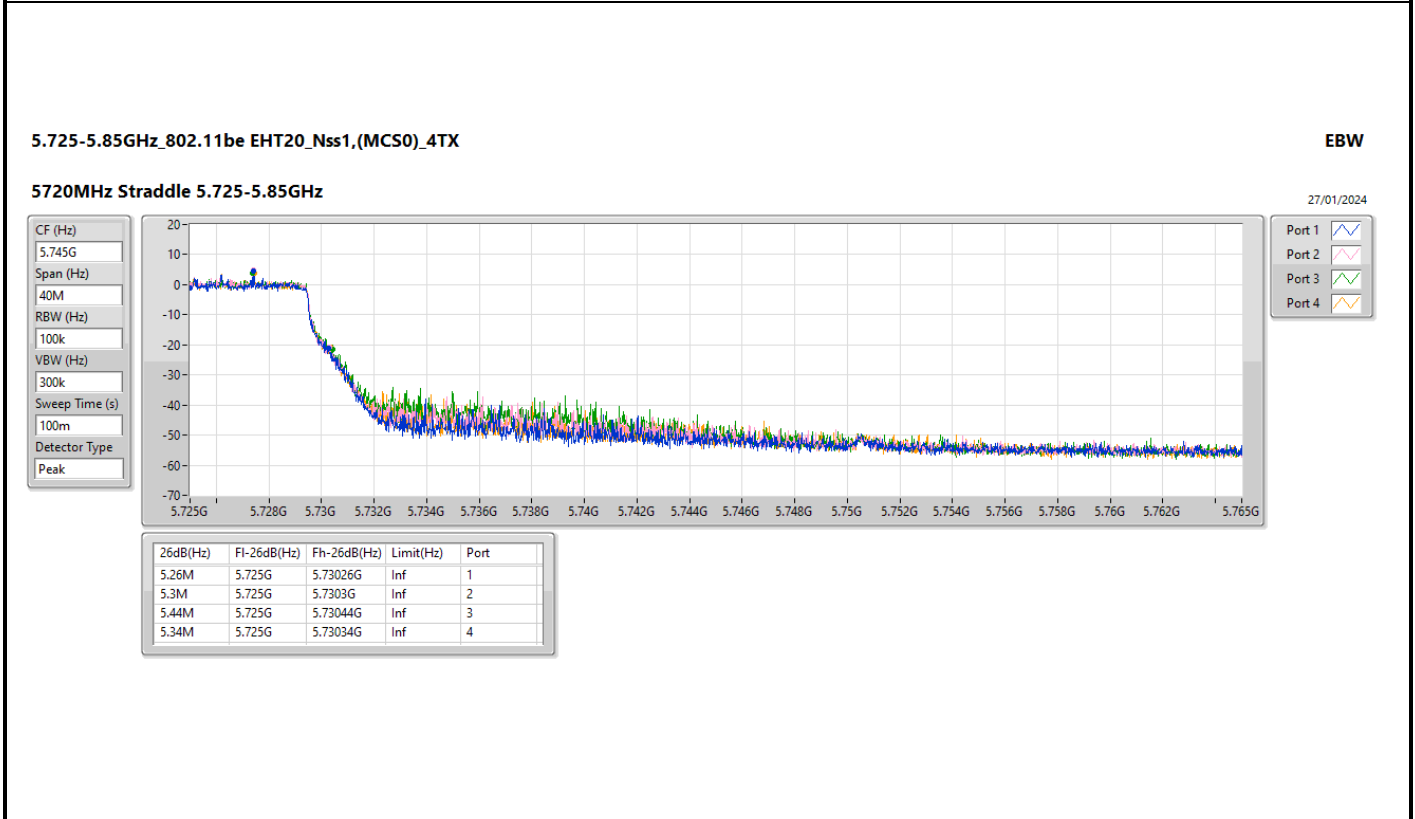
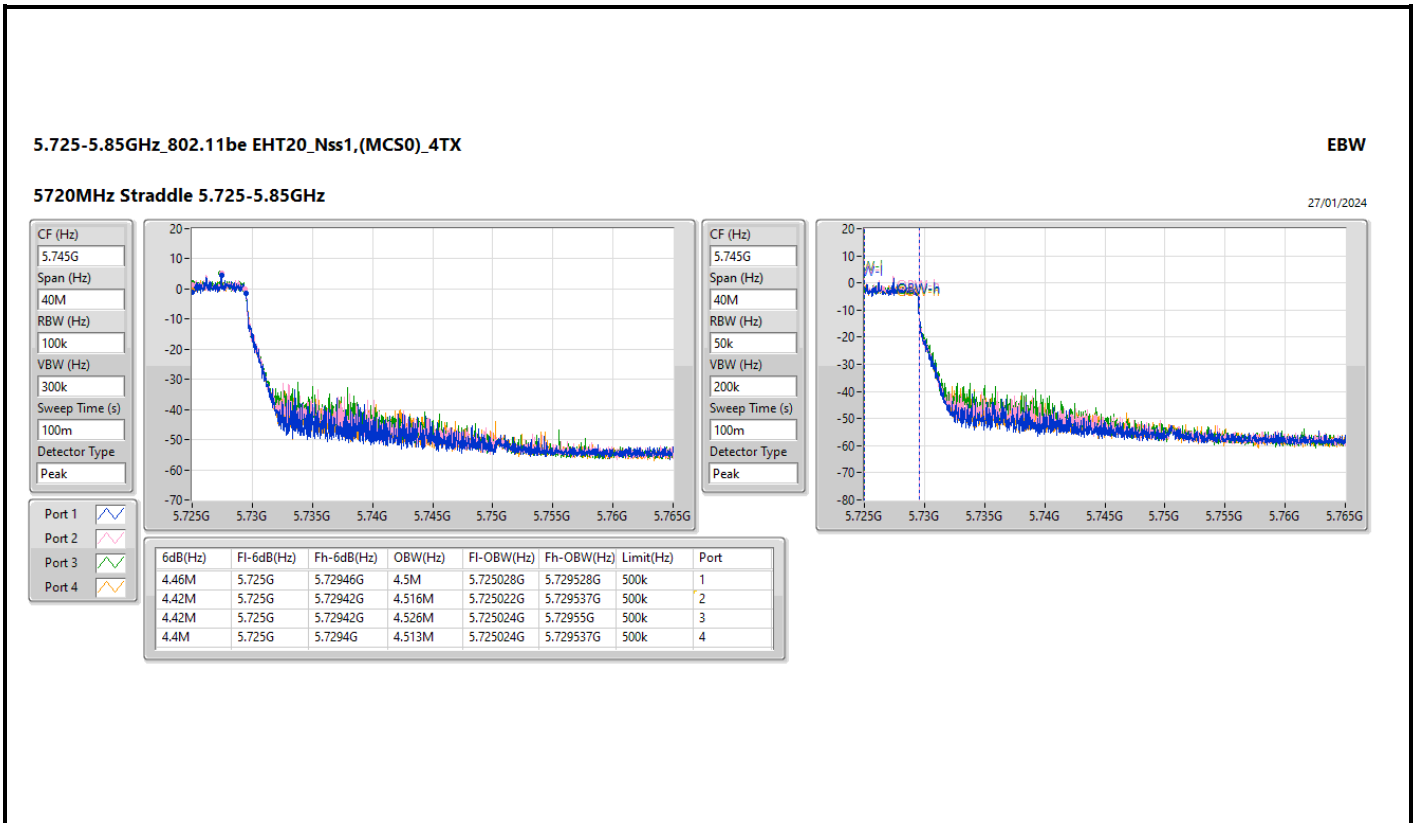
Port 2 

Port 3 

Port 4 

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.78M	5.569055G	5.590835G	19.082M	5.570389G	5.589471G	Inf	1
21.285M	5.56933G	5.590615G	19.069M	5.570372G	5.589441G	Inf	2
21.56M	5.569165G	5.590725G	19.094M	5.570384G	5.589478G	Inf	3
21.505M	5.56922G	5.590725G	19.083M	5.570383G	5.589466G	Inf	4



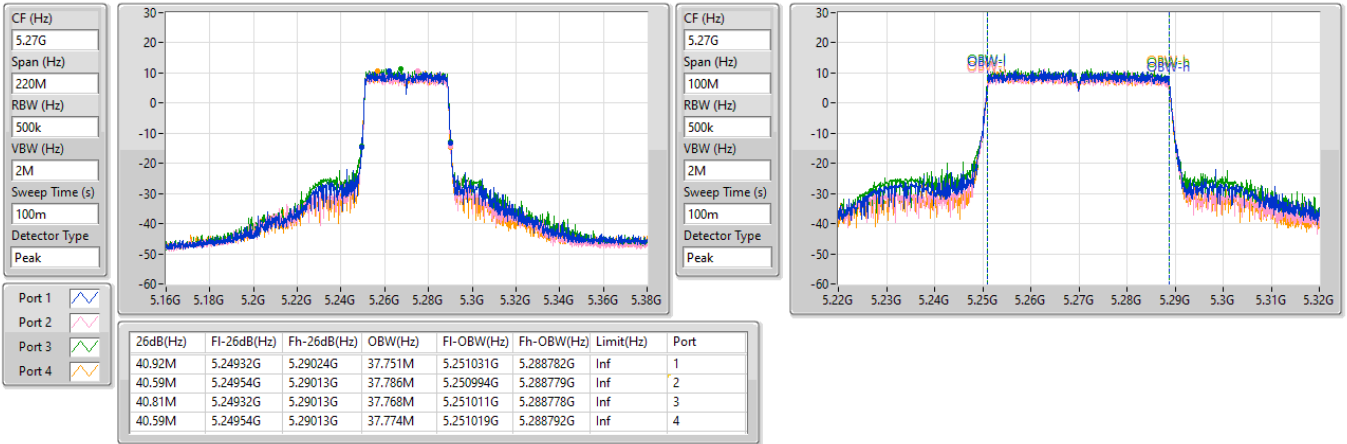


5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_4TX

EBW

5270MHz

27/01/2024

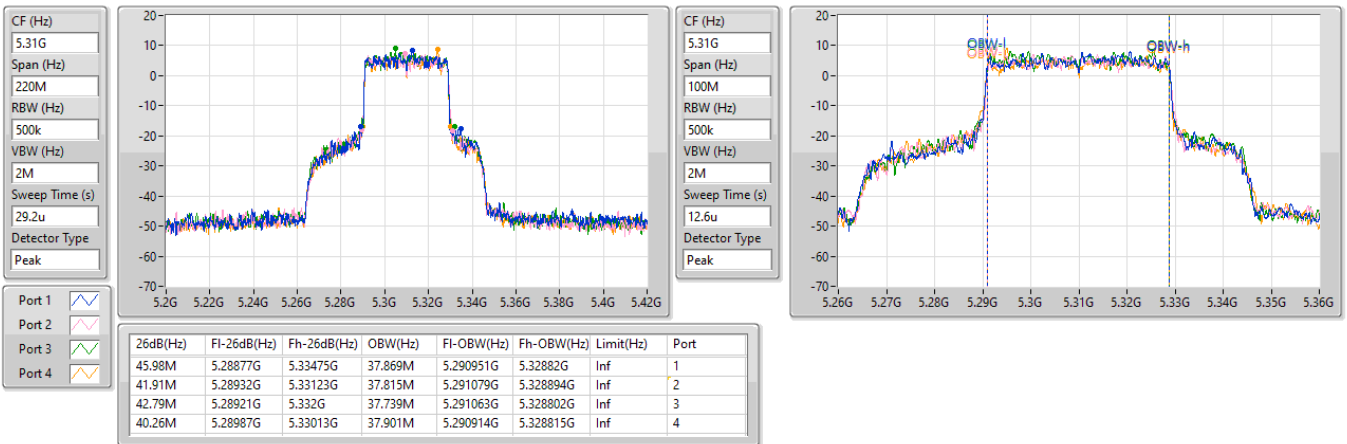


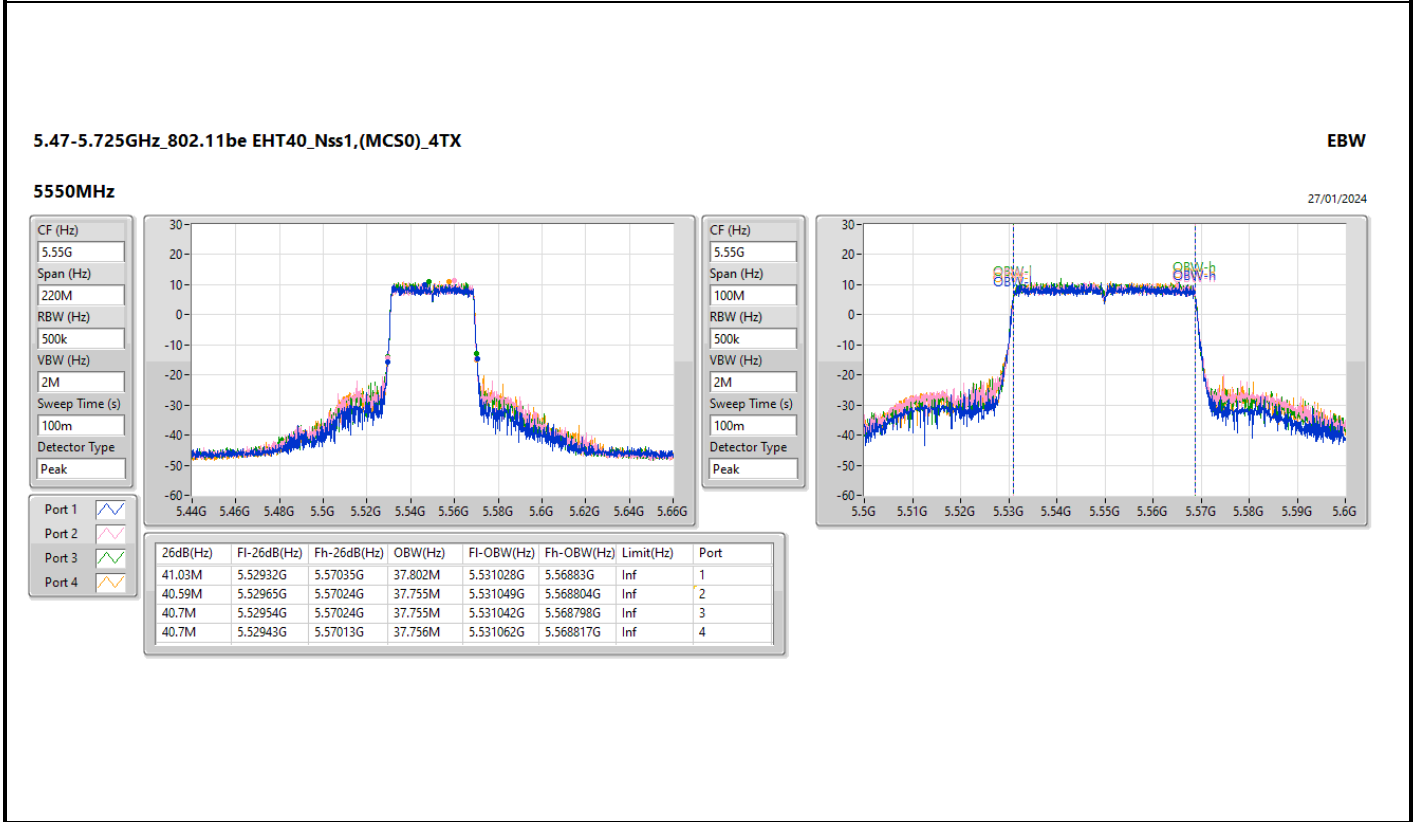
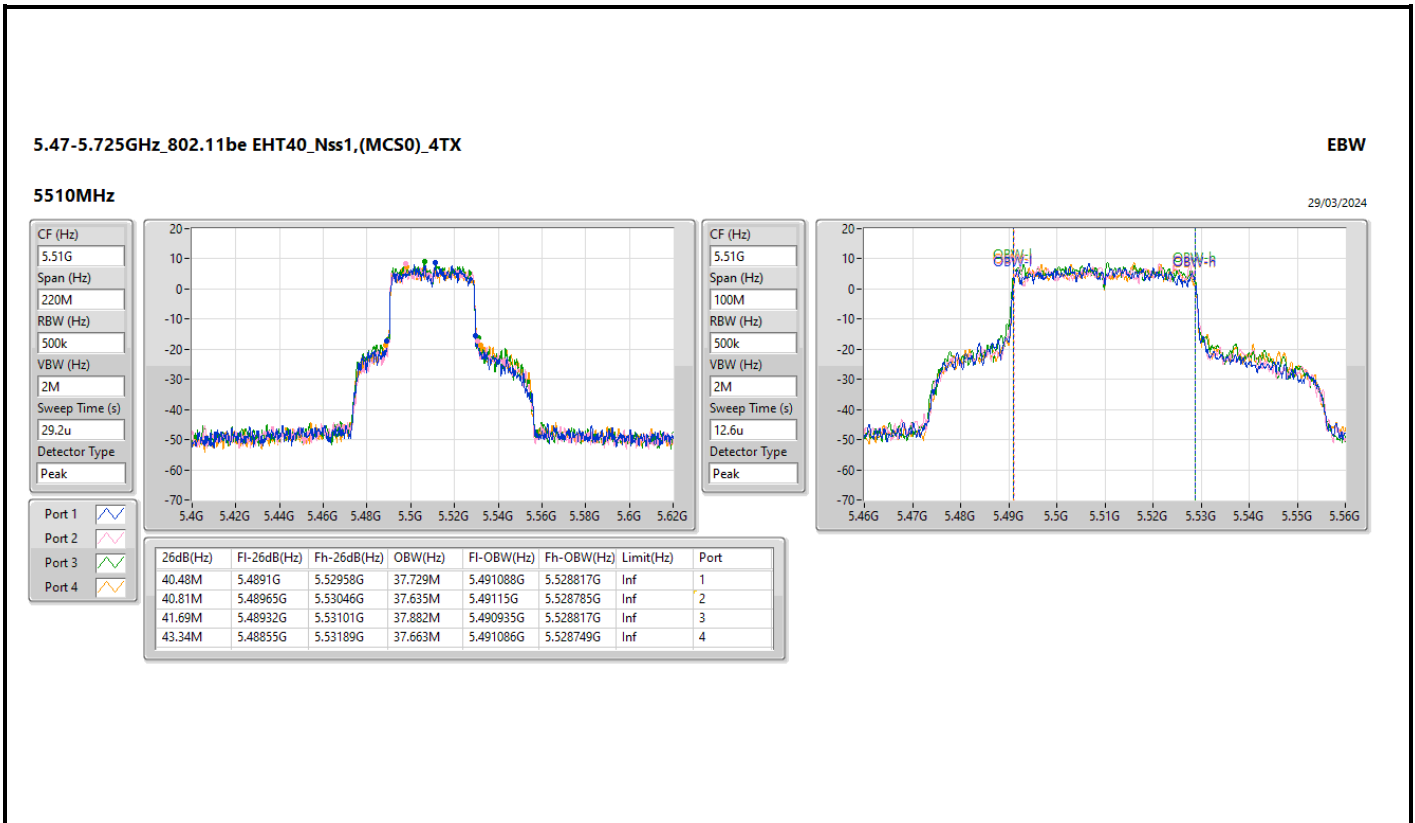
5.25-5.35GHz_802.11be EHT40_Nss1,(MCS0)_4TX

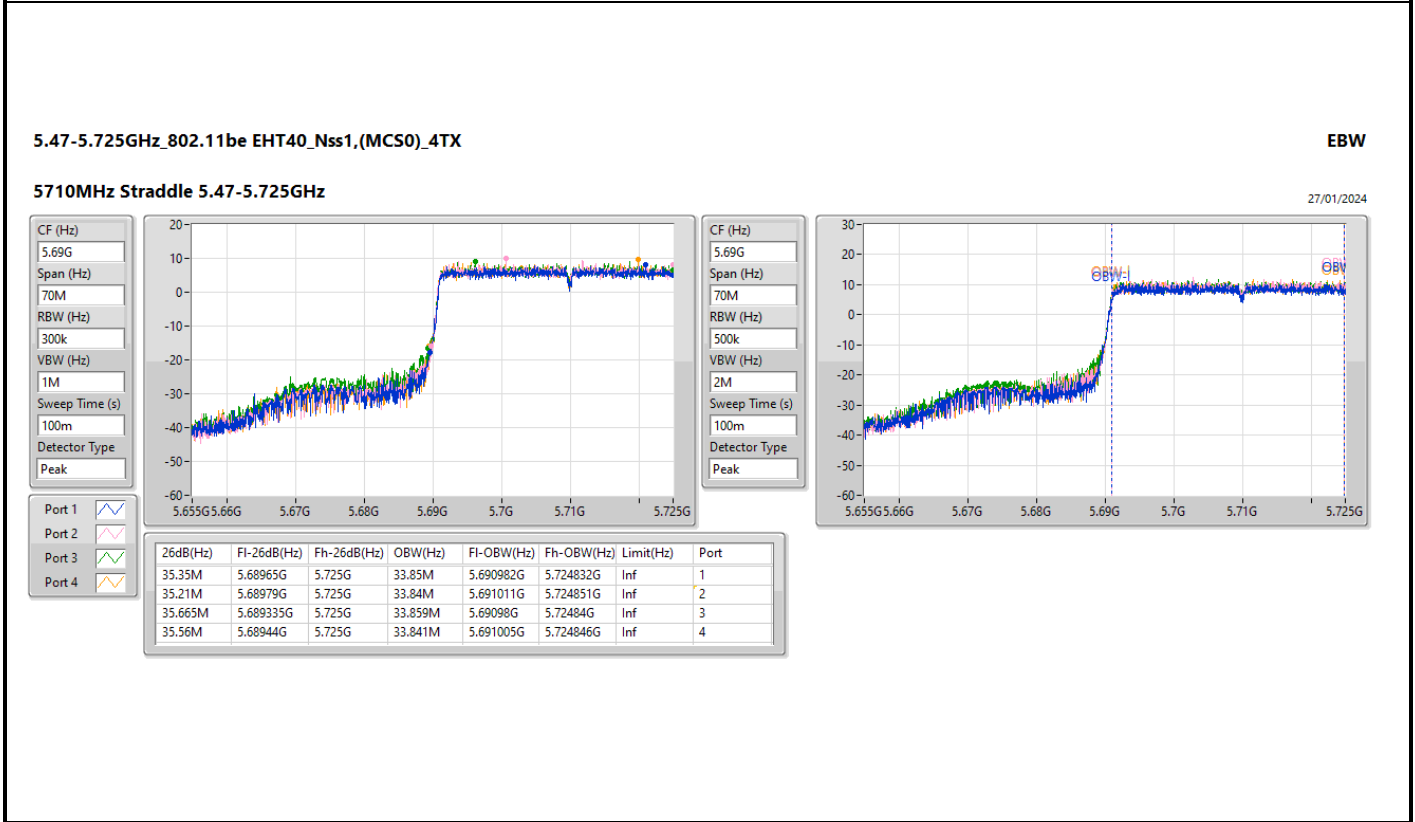
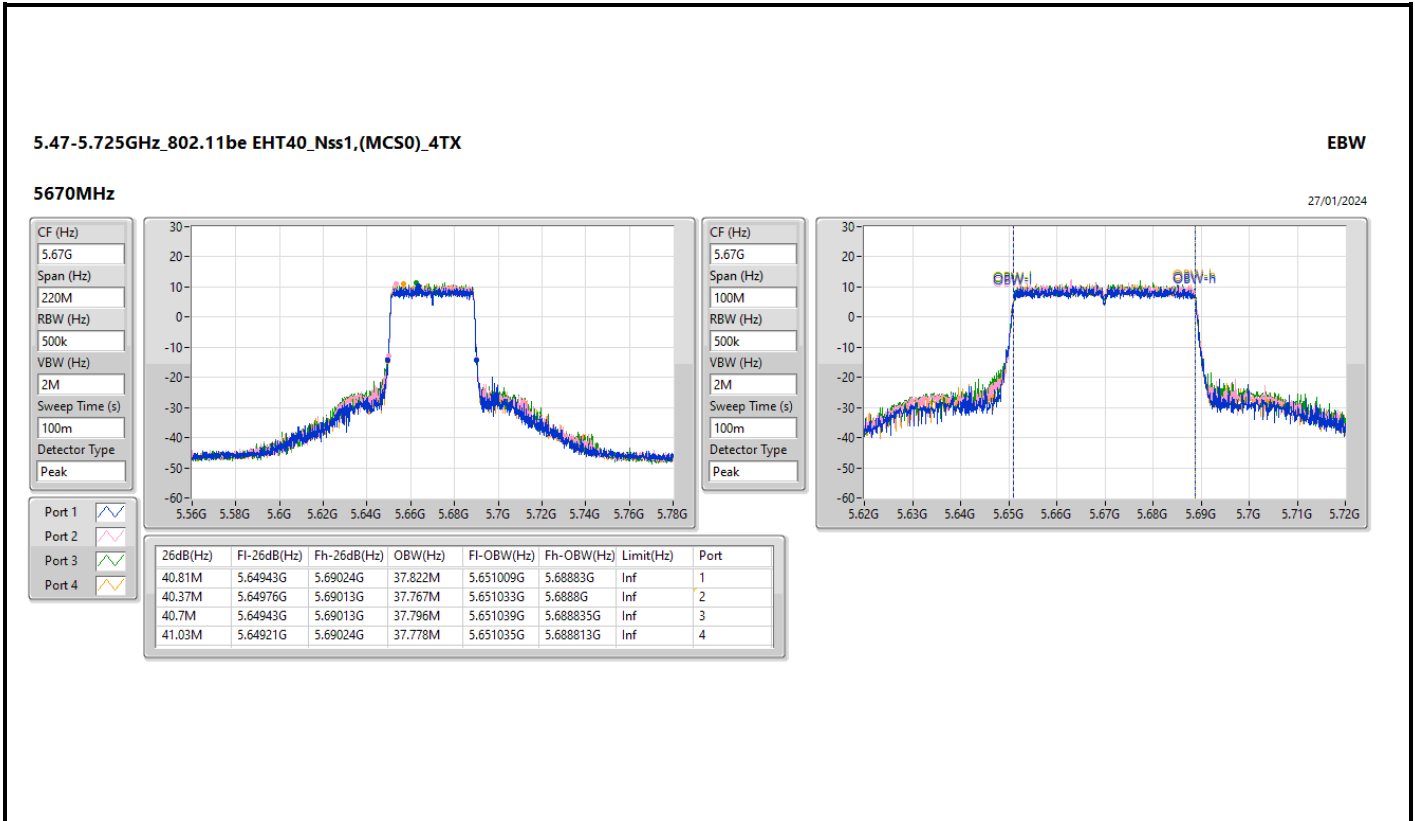
EBW

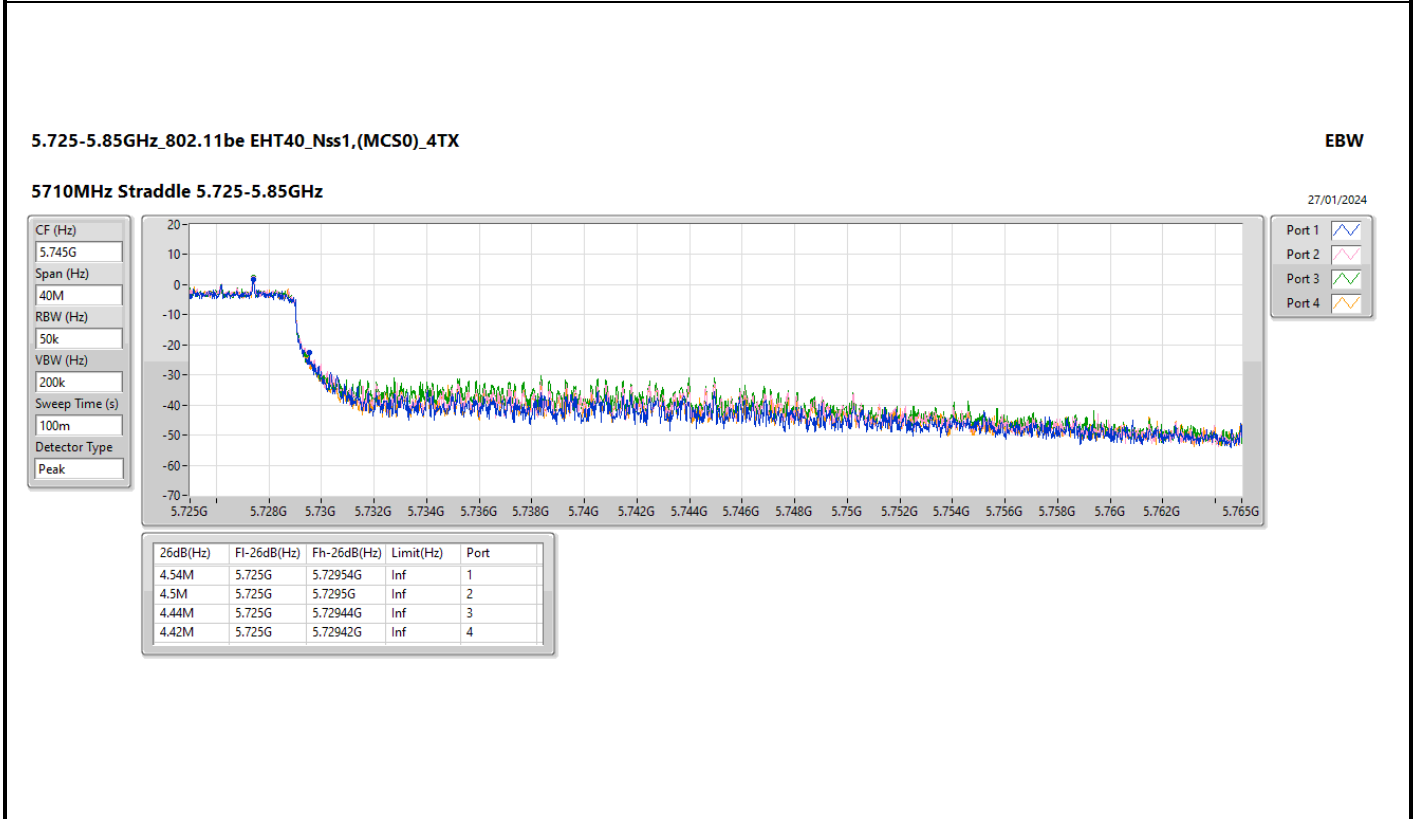
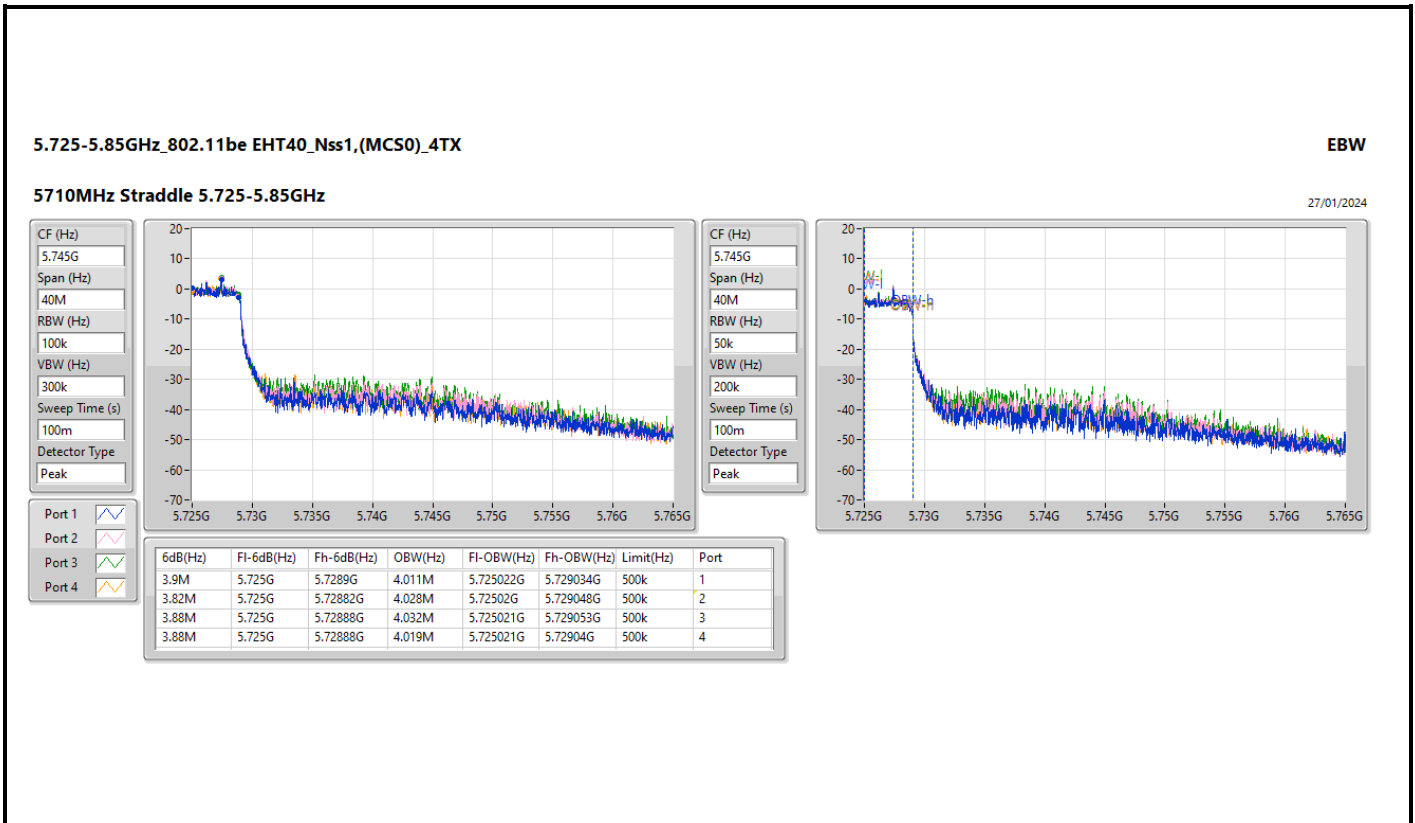
5310MHz

29/03/2024









5.25-5.35GHz_802.11be EHT80_Nss1,(MCS0)_4TX

EBW

5290MHz

29/03/2024

CF (Hz)
5.29G

Span (Hz)
440M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
29.3u

Detector Type
Peak



CF (Hz)
5.29G

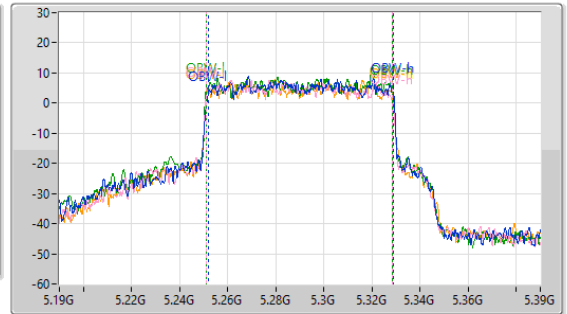
Span (Hz)
200M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
14.6u

Detector Type
Peak



Port 1

Port 2

Port 3

Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
84.04M	5.24688G	5.33092G	77.084M	5.25176G	5.328844G	Inf	1
80.3M	5.24974G	5.33004G	77.068M	5.251179G	5.328247G	Inf	2
81.18M	5.24908G	5.33026G	77.419M	5.251067G	5.328486G	Inf	3
80.3M	5.24974G	5.33004G	77.288M	5.251221G	5.328509G	Inf	4

5.47-5.725GHz_802.11be EHT80_Nss1,(MCS0)_4TX

EBW

5530MHz

29/03/2024

CF (Hz)
5.53G

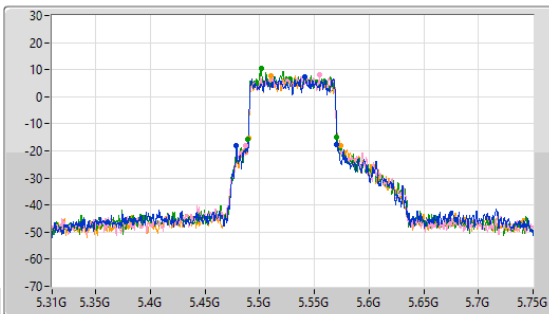
Span (Hz)
440M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
29.3u

Detector Type
Peak



CF (Hz)
5.53G

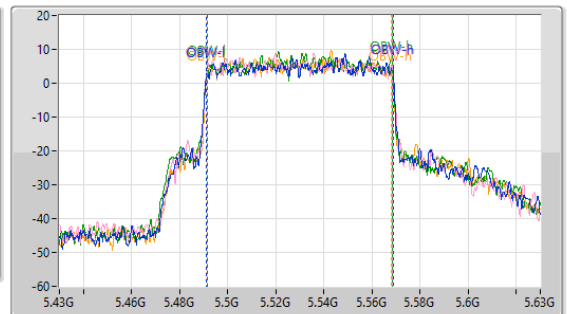
Span (Hz)
200M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
14.6u

Detector Type
Peak



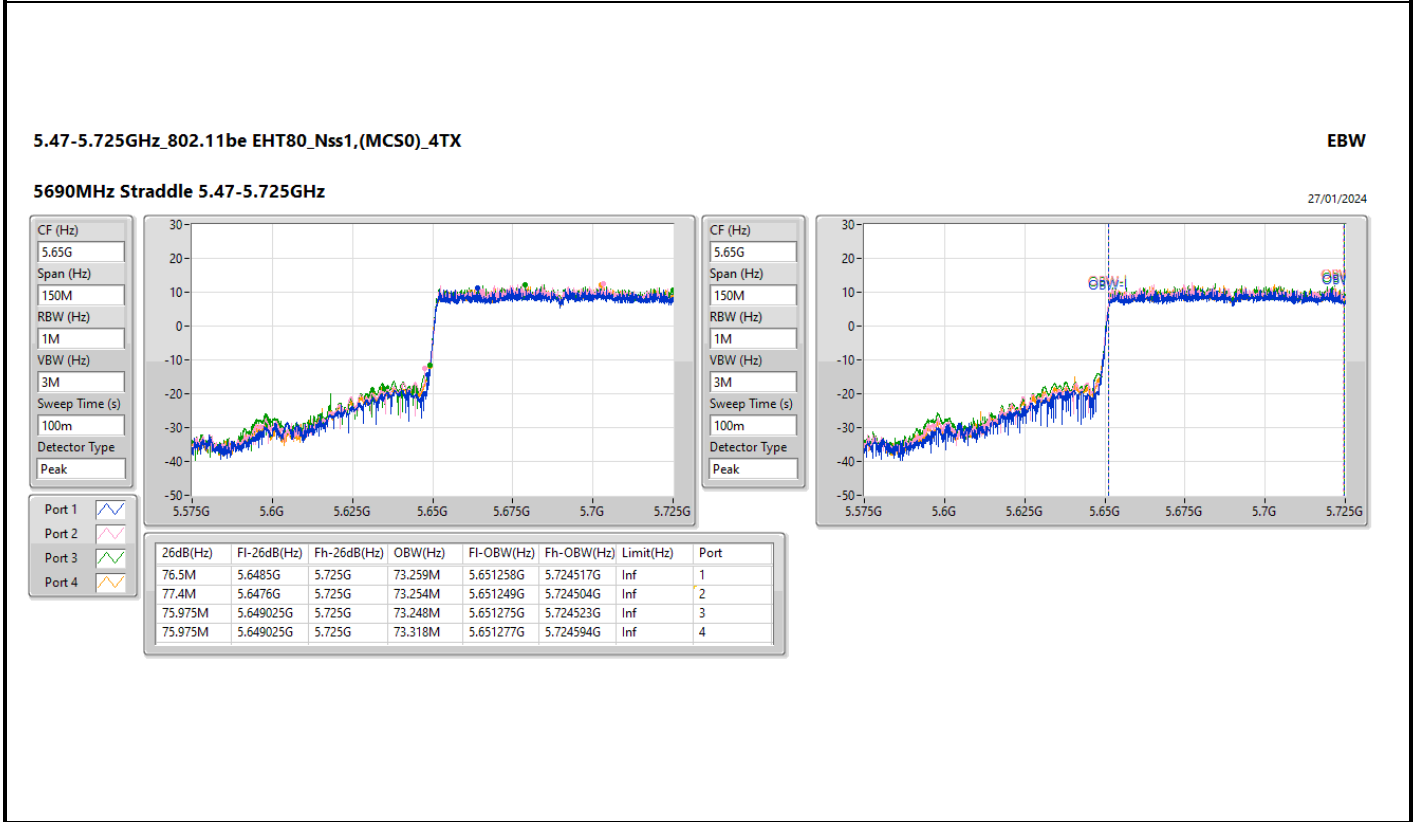
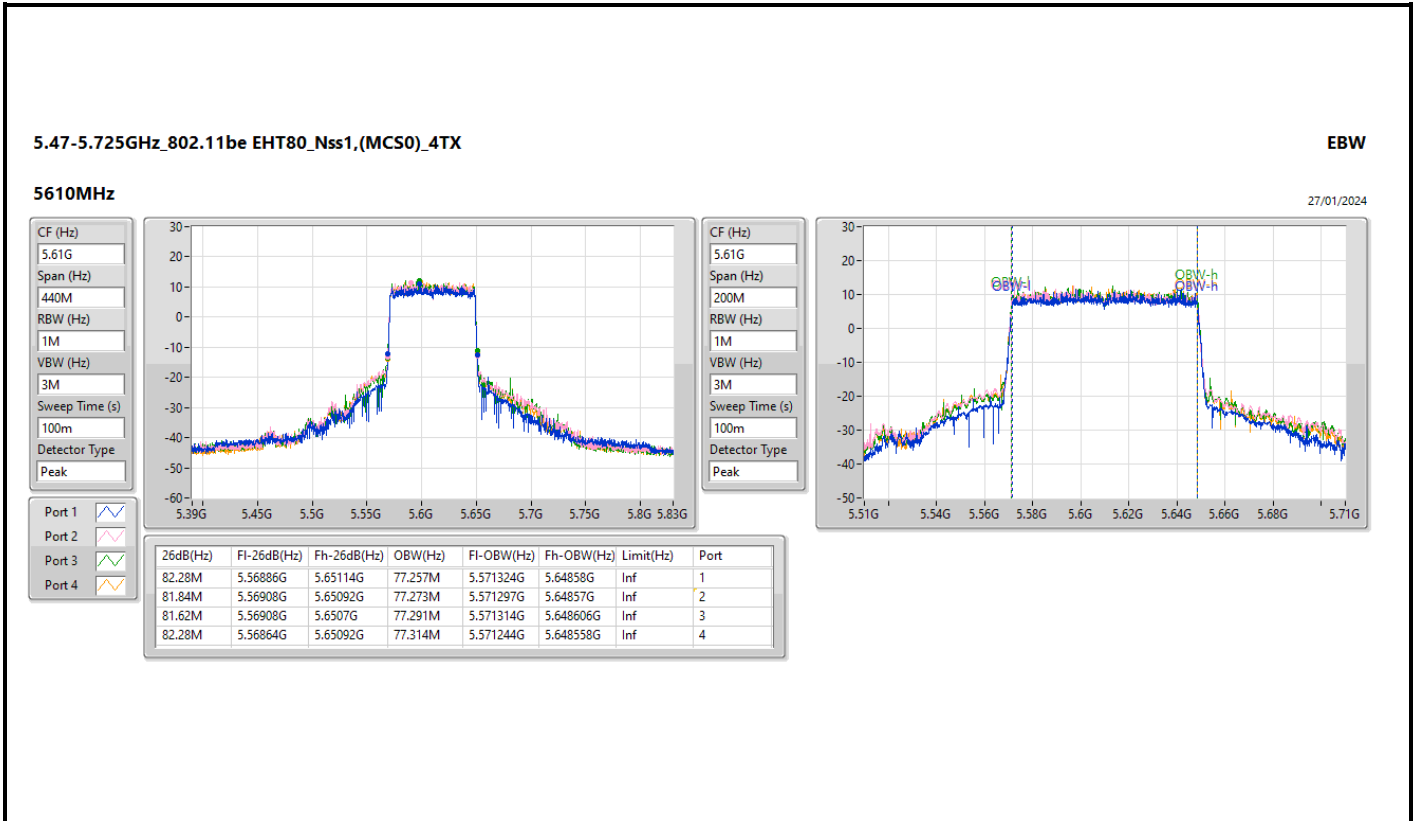
Port 1

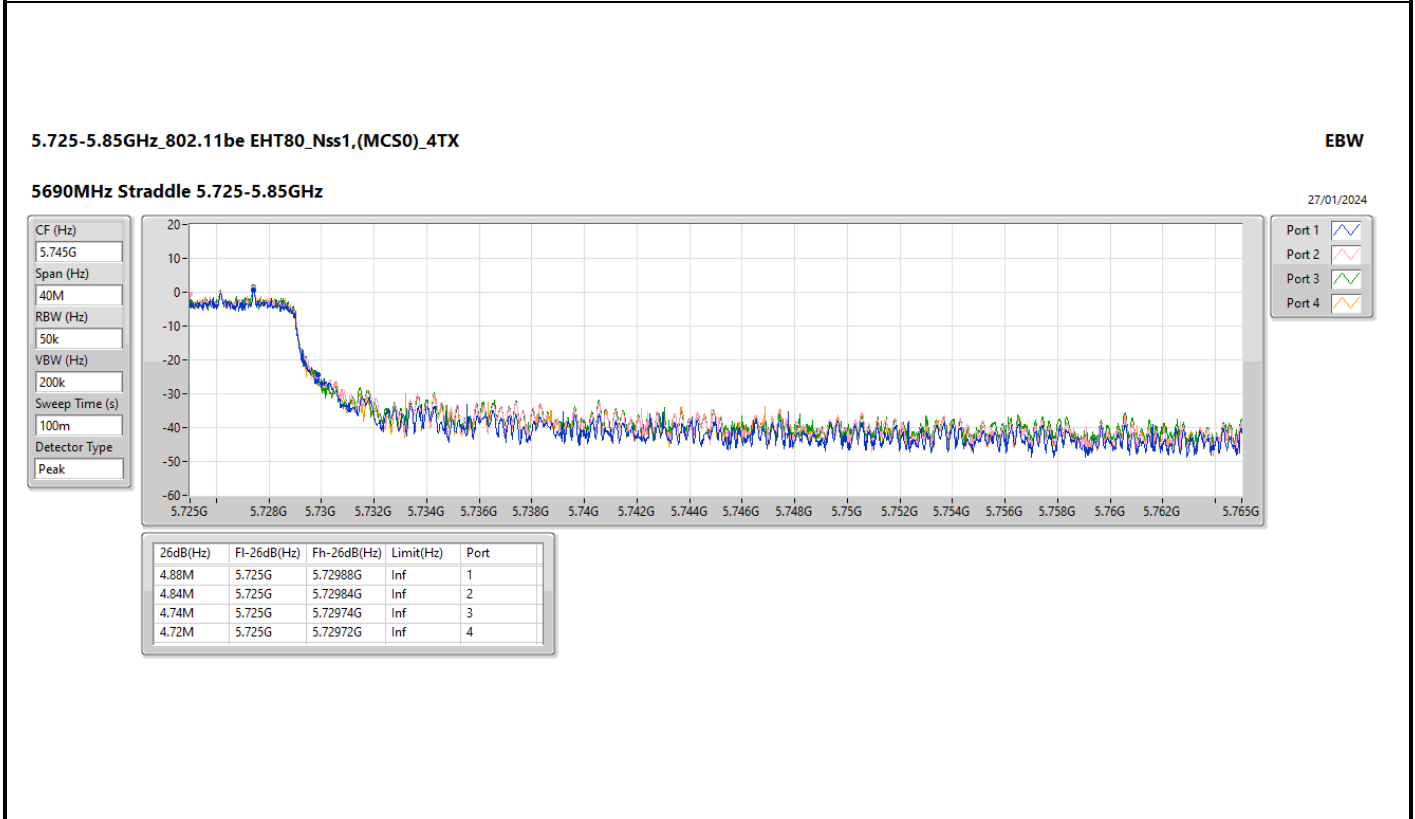
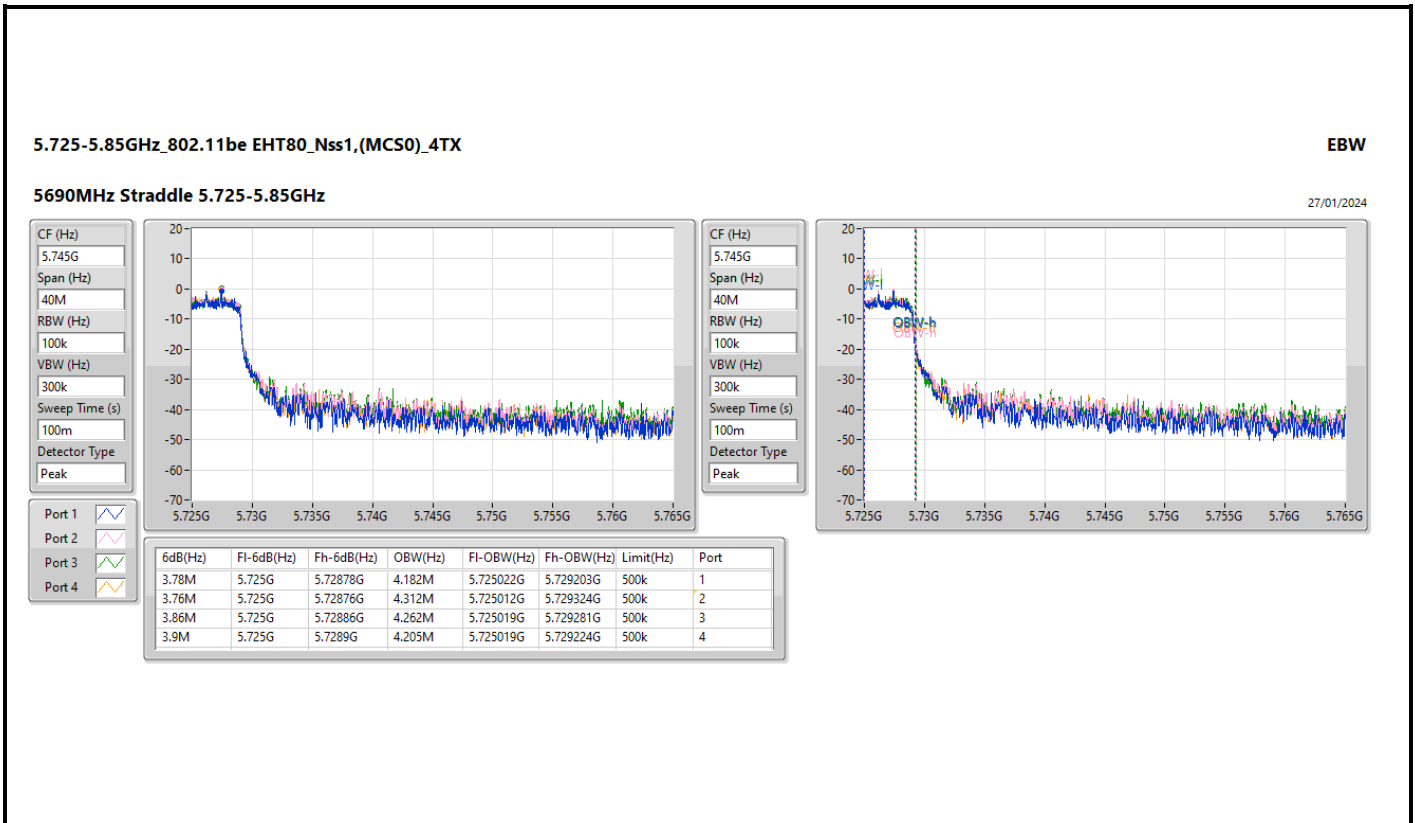
Port 2

Port 3

Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
91.96M	5.47852G	5.57048G	77.557M	5.491192G	5.568749G	Inf	1
83.16M	5.48732G	5.57048G	77.405M	5.491217G	5.568622G	Inf	2
81.4M	5.48986G	5.57026G	77.232M	5.491331G	5.568563G	Inf	3
83.82M	5.48974G	5.57356G	76.802M	5.491437G	5.568239G	Inf	4



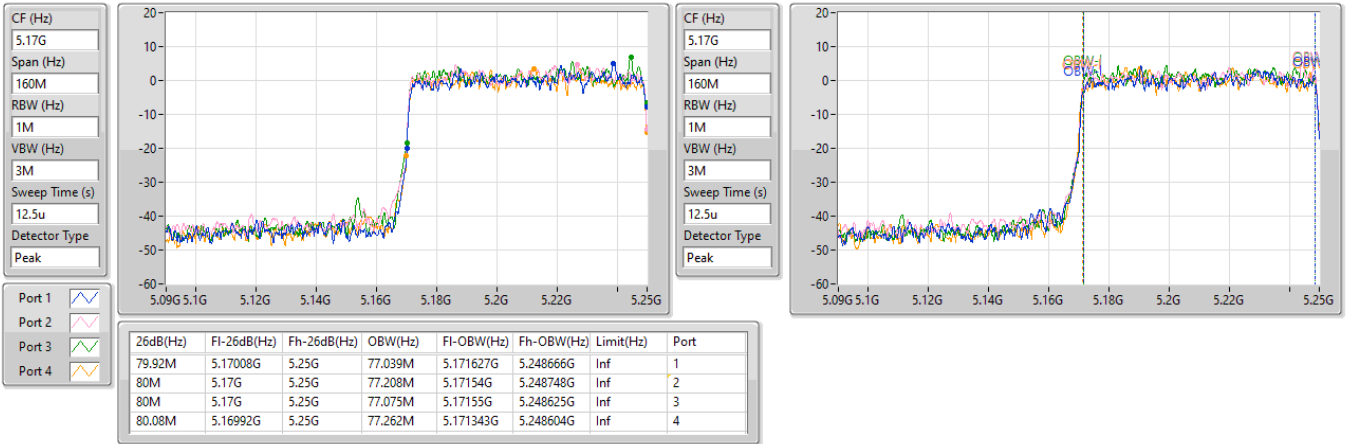


5.15-5.25GHz_802.11be EHT160_Nss1,(MCS0)_4TX

EBW

5250MHz Straddle 5.15-5.25GHz

29/03/2024

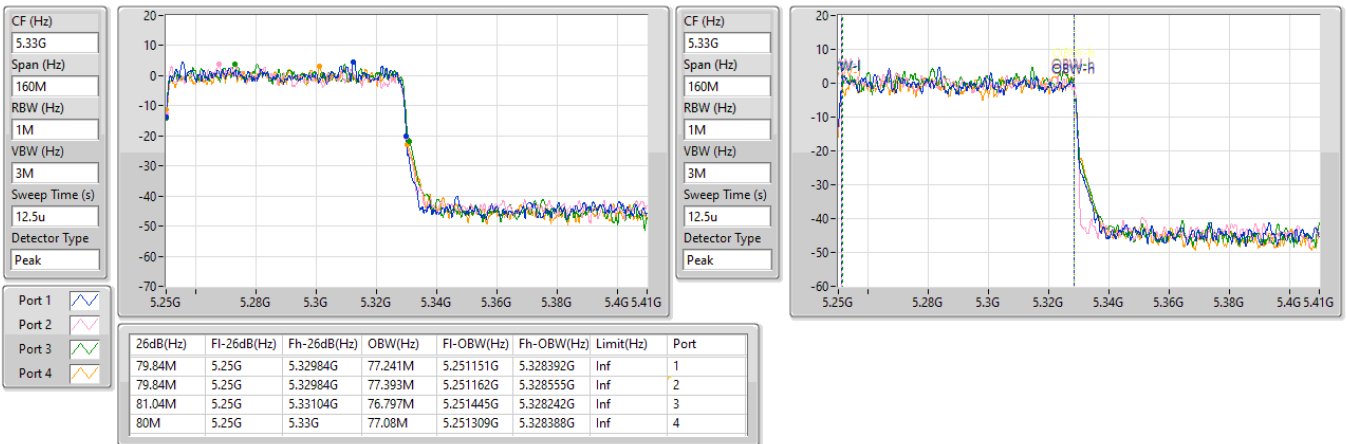


5.25-5.35GHz_802.11be EHT160_Nss1,(MCS0)_4TX

EBW

5250MHz Straddle 5.25-5.35GHz

29/03/2024



5.47-5.725GHz_802.11be EHT160_Nss1,(MCS0)_4TX

EBW

5570MHz

29/03/2024

CF (Hz)
5.57G

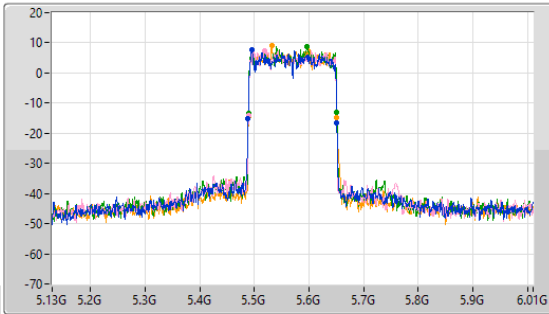
Span (Hz)
800M

RBW (Hz)
2M

VBW (Hz)
10M

Sweep Time (s)
34.6u

Detector Type
Peak



CF (Hz)
5.57G

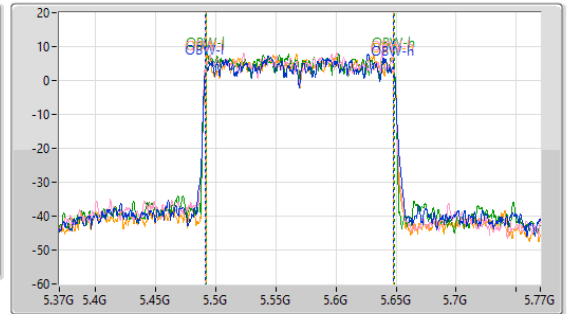
Span (Hz)
400M

RBW (Hz)
2M

VBW (Hz)
10M

Sweep Time (s)
15.8u

Detector Type
Peak



Port 1

Port 2

Port 3

Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
162.36M	5.4886G	5.65096G	156.478M	5.491593G	5.648071G	Inf	1
161.92M	5.48904G	5.65096G	156.763M	5.491334G	5.648097G	Inf	2
161.92M	5.48904G	5.65096G	156.445M	5.49182G	5.648265G	Inf	3
161.92M	5.48904G	5.65096G	156.031M	5.492082G	5.648113G	Inf	4

5.25-5.35GHz_802.11be EHT20_Nss4,(MCS0)_4TX

EBW

5260MHz

27/01/2024

CF (Hz)
5.26G

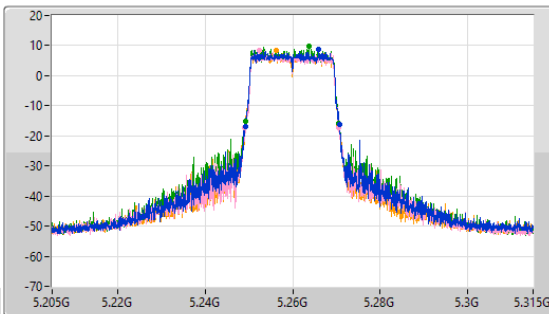
Span (Hz)
110M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.26G

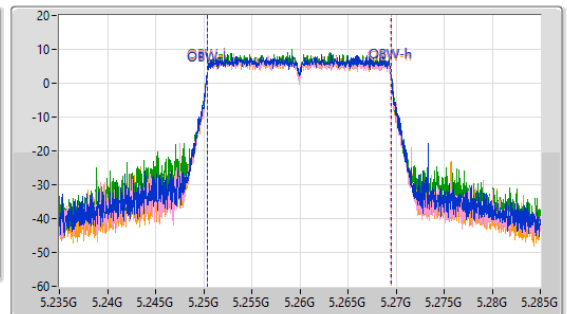
Span (Hz)
50M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
100m

Detector Type
Peak



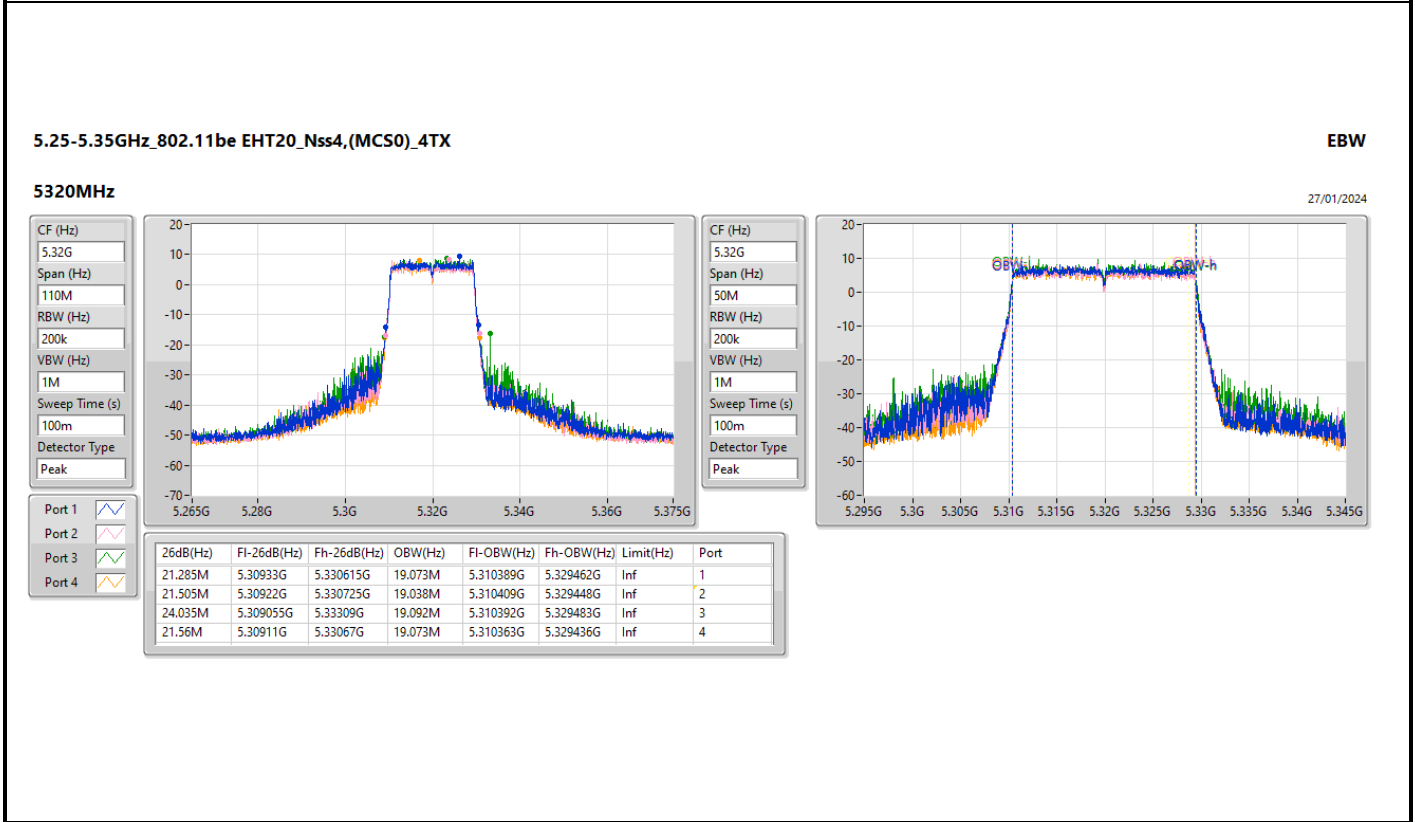
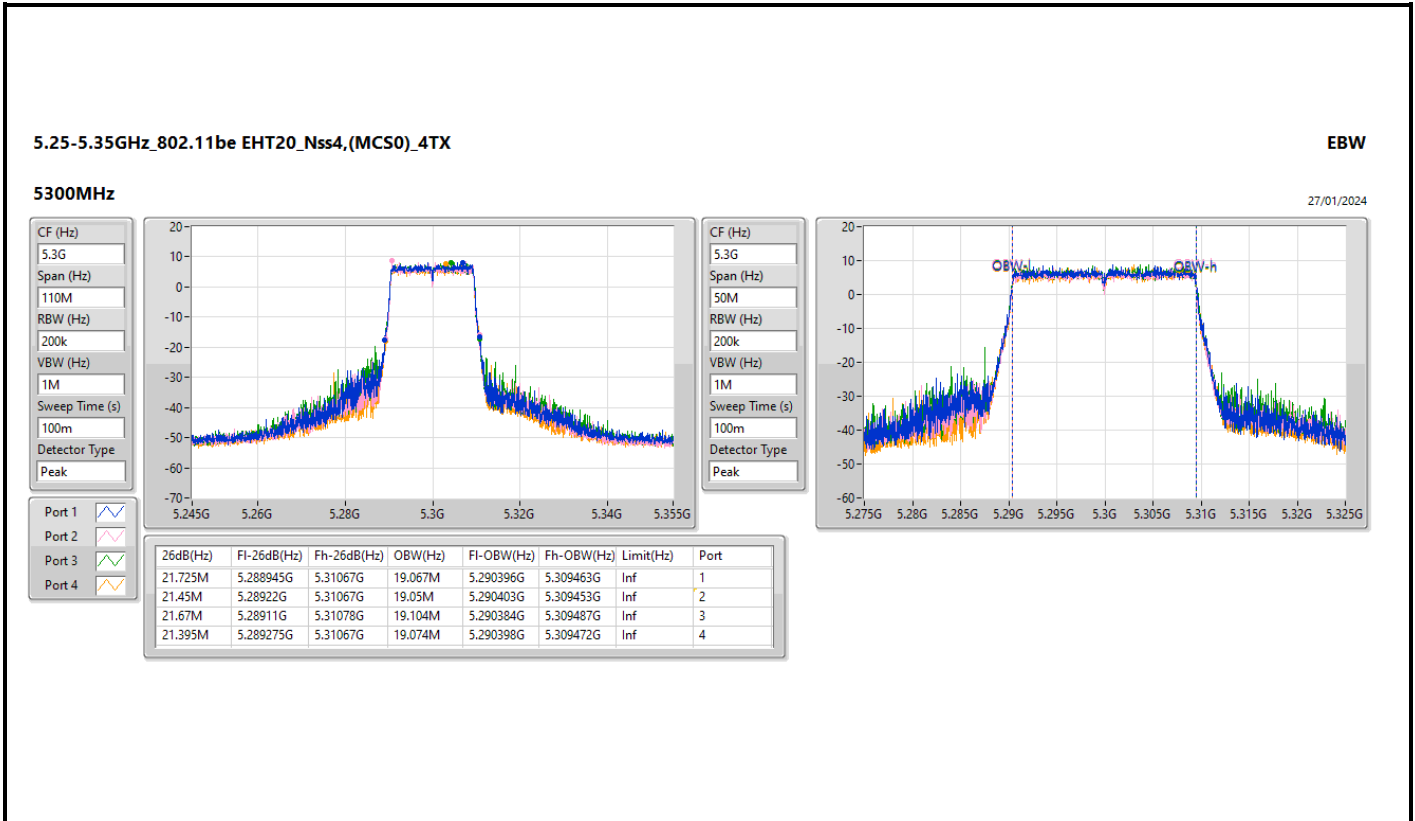
Port 1

Port 2

Port 3

Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.67M	5.249165G	5.270835G	19.085M	5.250377G	5.269462G	Inf	1
21.45M	5.24911G	5.27056G	19.034M	5.250389G	5.269423G	Inf	2
21.34M	5.249275G	5.270615G	19.056M	5.250387G	5.269444G	Inf	3
21.45M	5.249055G	5.270505G	19.093M	5.250379G	5.269473G	Inf	4



5.47-5.725GHz_802.11be EHT20_Nss4,(MCS0)_4TX

EBW

5500MHz

27/01/2024

CF (Hz)
5.5G

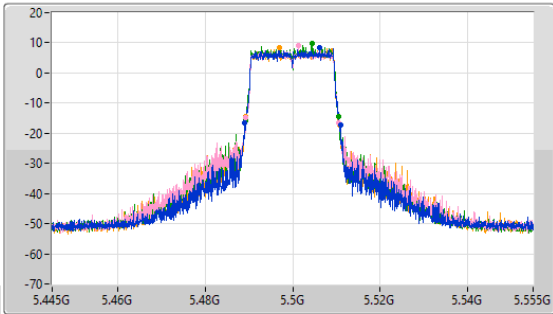
Span (Hz)
110M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.5G

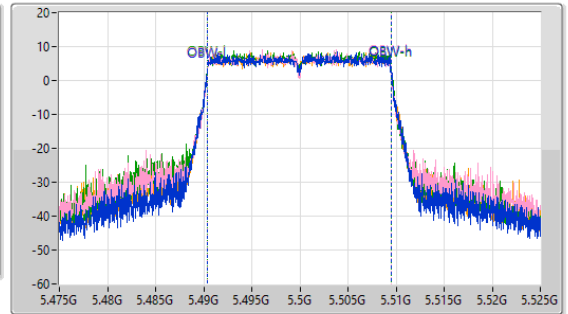
Span (Hz)
50M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
100m

Detector Type
Peak



Port 1

Port 2

Port 3

Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.835M	5.489055G	5.51089G	19.093M	5.490388G	5.509481G	Inf	1
21.34M	5.489275G	5.510615G	19.095M	5.490389G	5.509484G	Inf	2
21.34M	5.489275G	5.510615G	19.073M	5.490394G	5.509467G	Inf	3
21.45M	5.489275G	5.510725G	19.077M	5.490398G	5.509475G	Inf	4

5.47-5.725GHz_802.11be EHT20_Nss4,(MCS0)_4TX

EBW

5580MHz

27/01/2024

CF (Hz)
5.58G

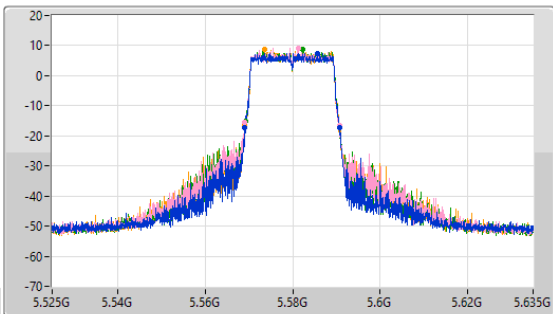
Span (Hz)
110M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
100m

Detector Type
Peak



CF (Hz)
5.58G

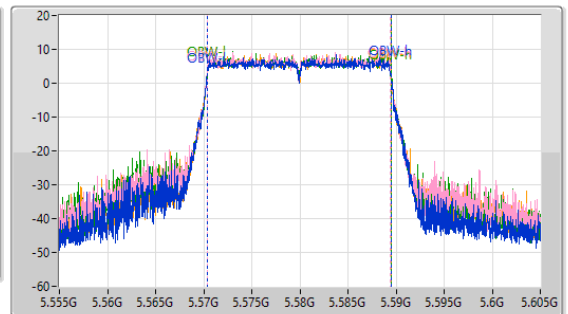
Span (Hz)
50M

RBW (Hz)
200k

VBW (Hz)
1M

Sweep Time (s)
100m

Detector Type
Peak



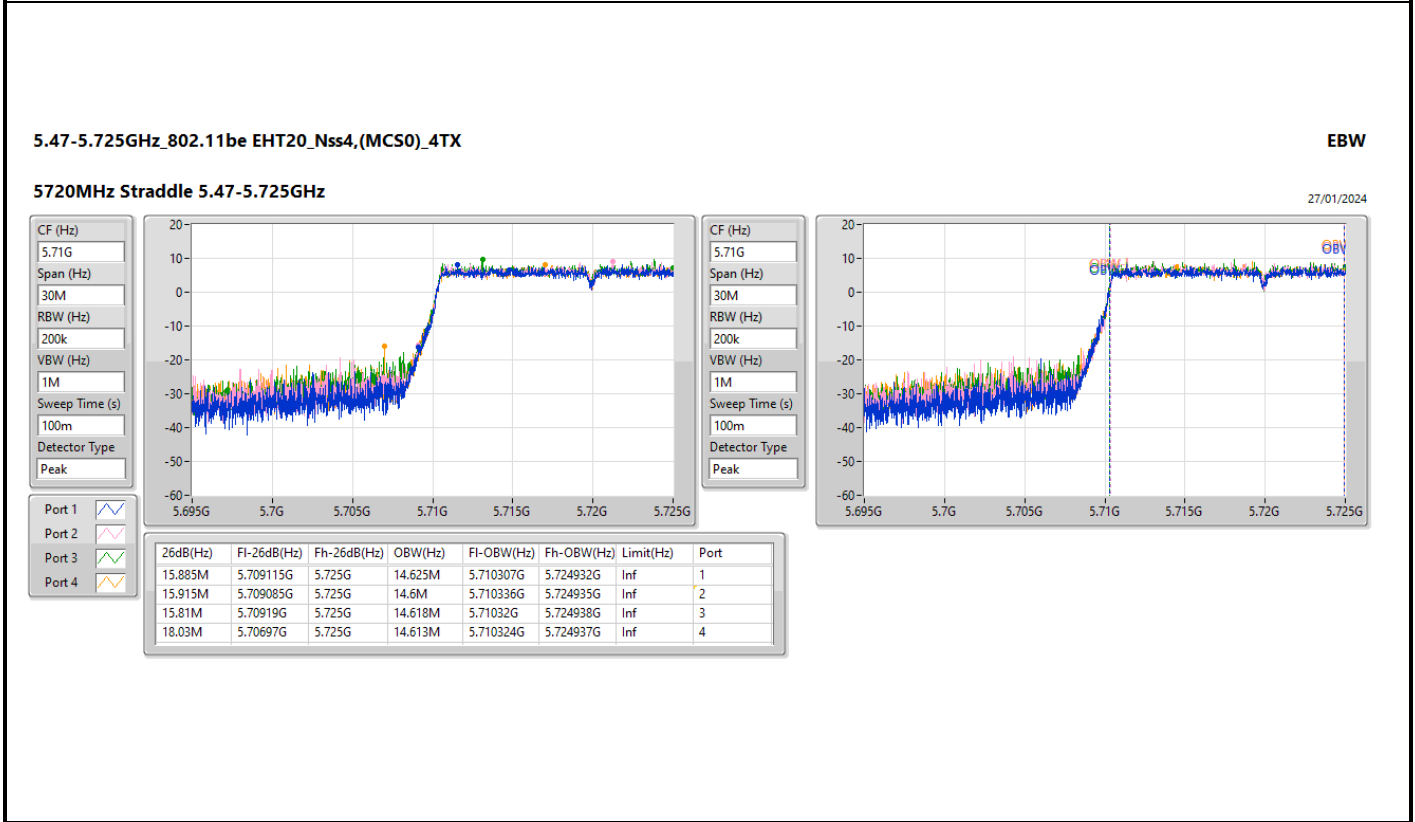
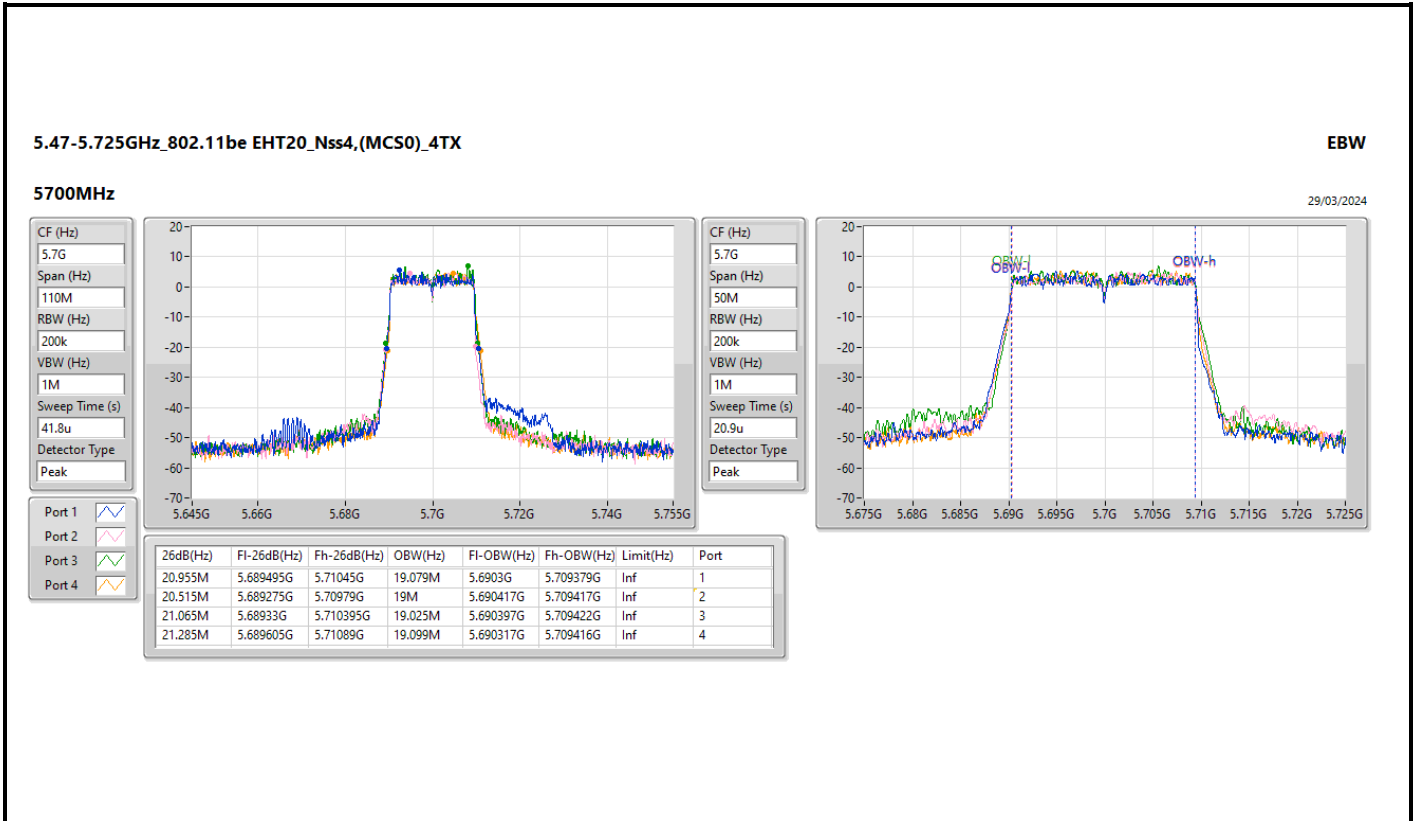
Port 1

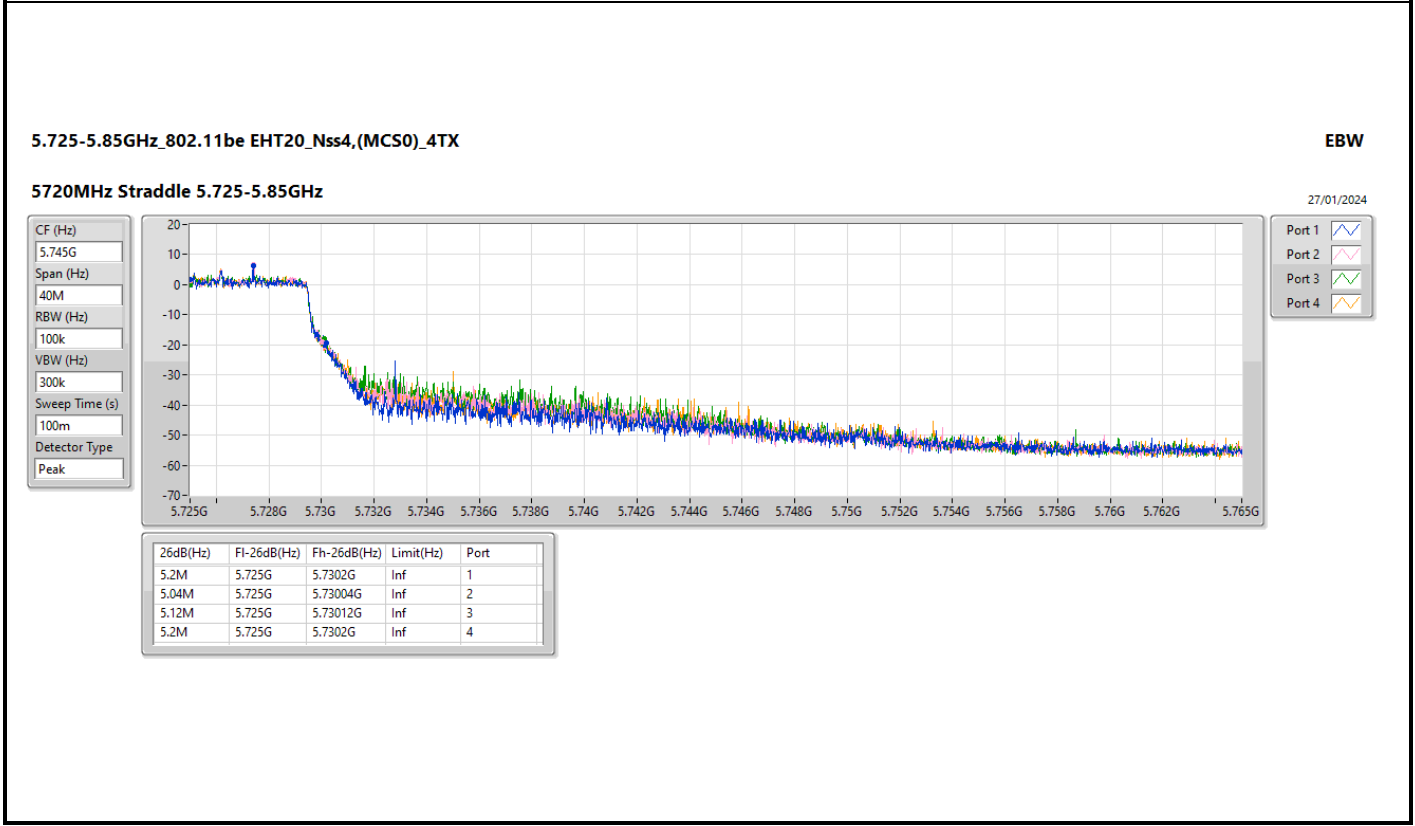
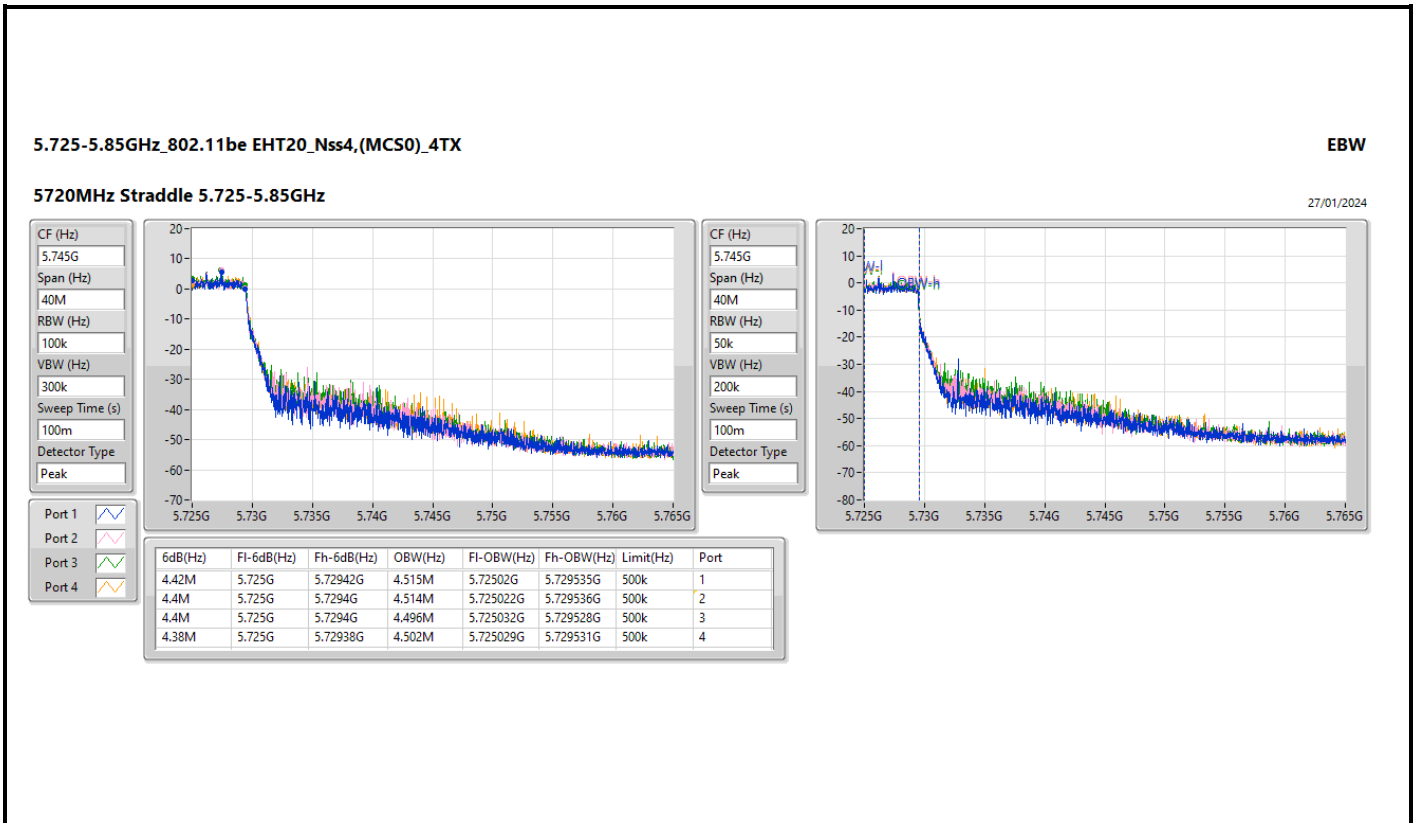
Port 2

Port 3

Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.835M	5.569G	5.590835G	19.097M	5.57037G	5.589467G	Inf	1
21.56M	5.56911G	5.59067G	19.047M	5.570385G	5.589433G	Inf	2
21.505M	5.569165G	5.59067G	19.051M	5.5704G	5.589451G	Inf	3
21.67M	5.56911G	5.59078G	19.061M	5.570393G	5.589454G	Inf	4



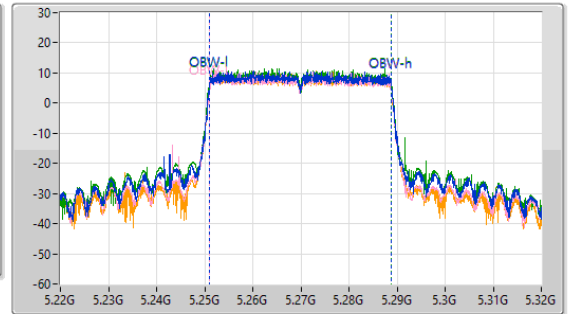
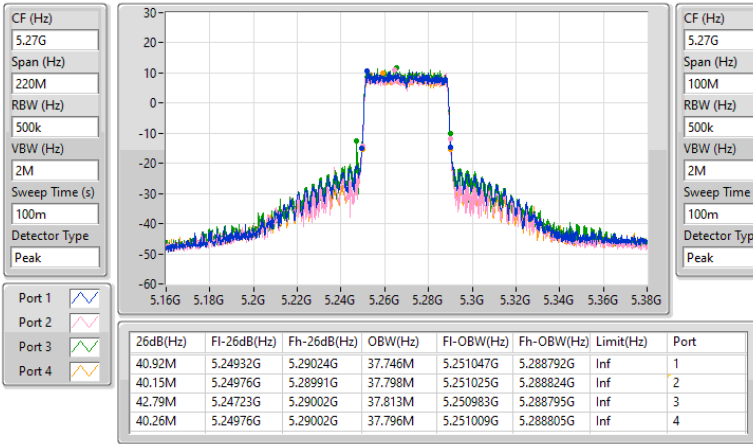


5.25-5.35GHz_802.11be EHT40_Nss4,(MCS0)_4TX

EBW

5270MHz

27/01/2024

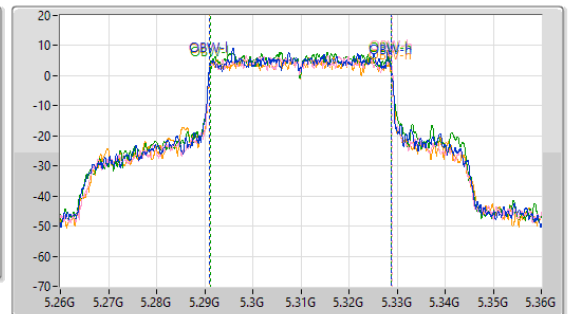
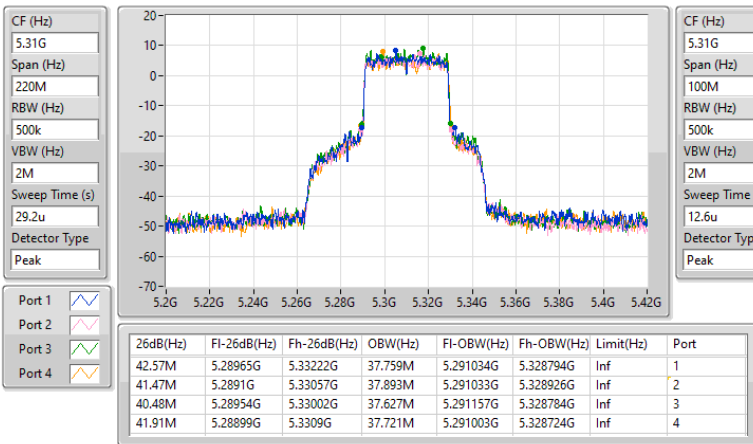


5.25-5.35GHz_802.11be EHT40_Nss4,(MCS0)_4TX

EBW

5310MHz

29/03/2024

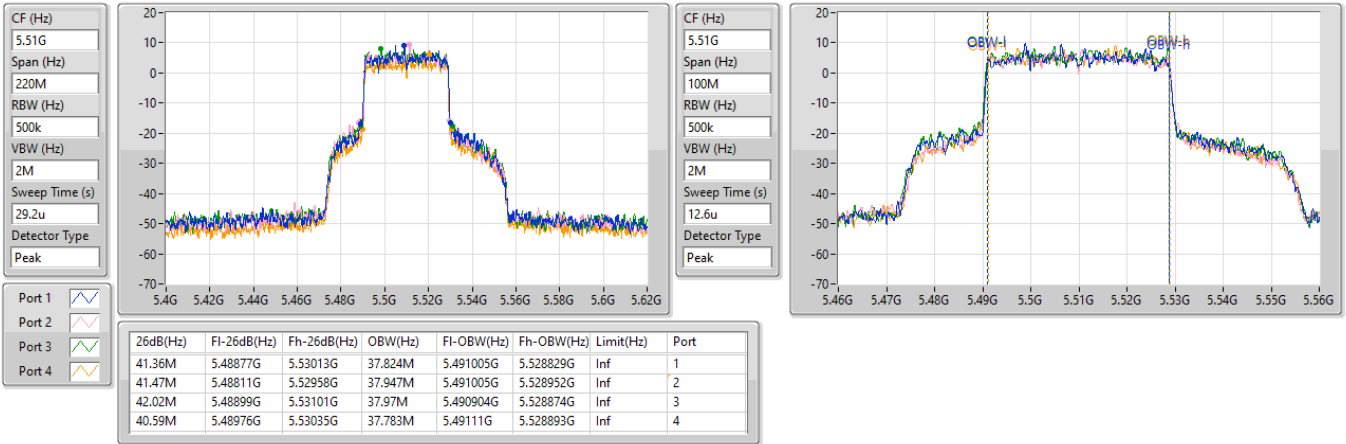


5.47-5.725GHz_802.11be EHT40_Nss4,(MCS0)_4TX

EBW

5510MHz

29/03/2024

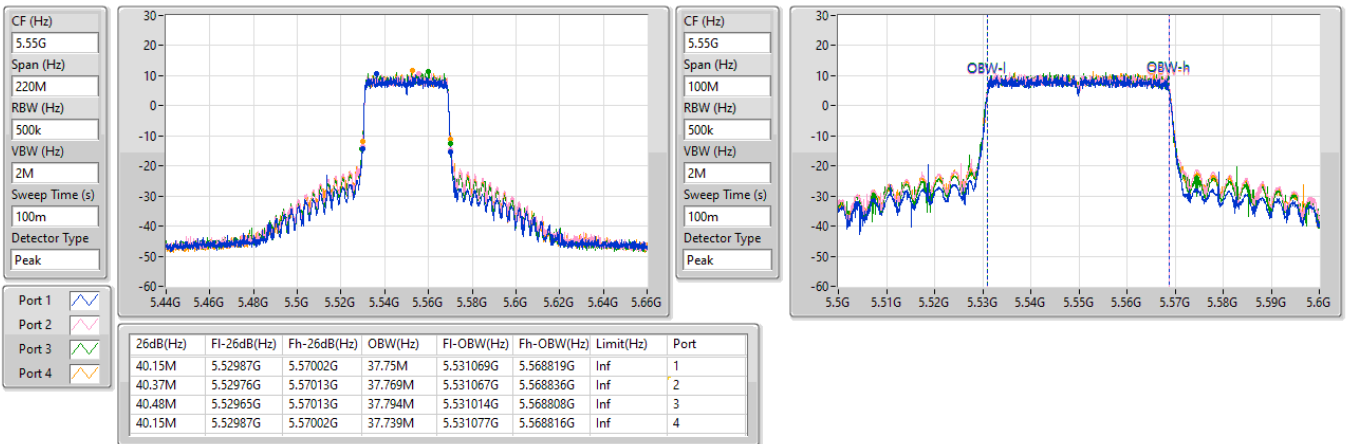


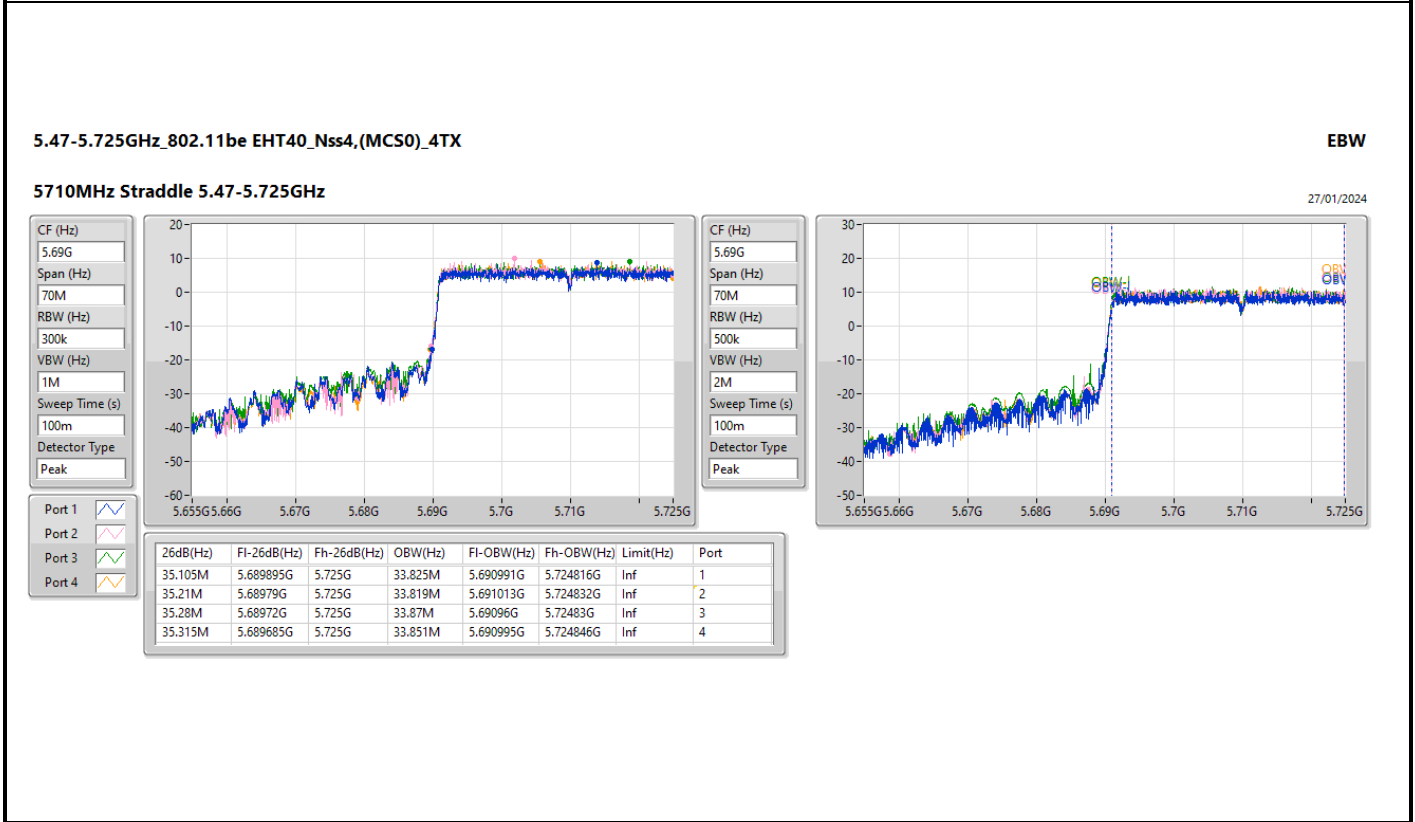
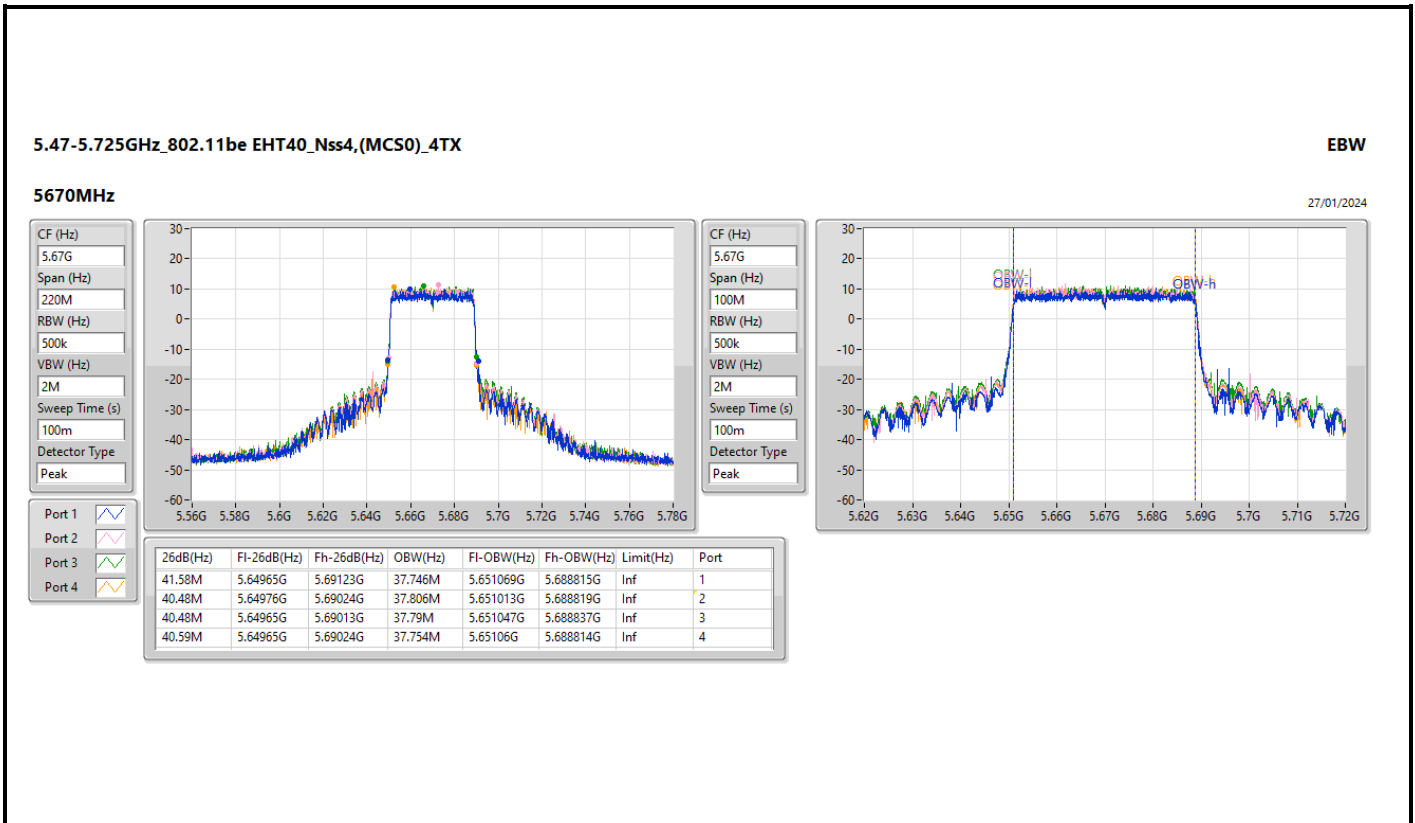
5.47-5.725GHz_802.11be EHT40_Nss4,(MCS0)_4TX

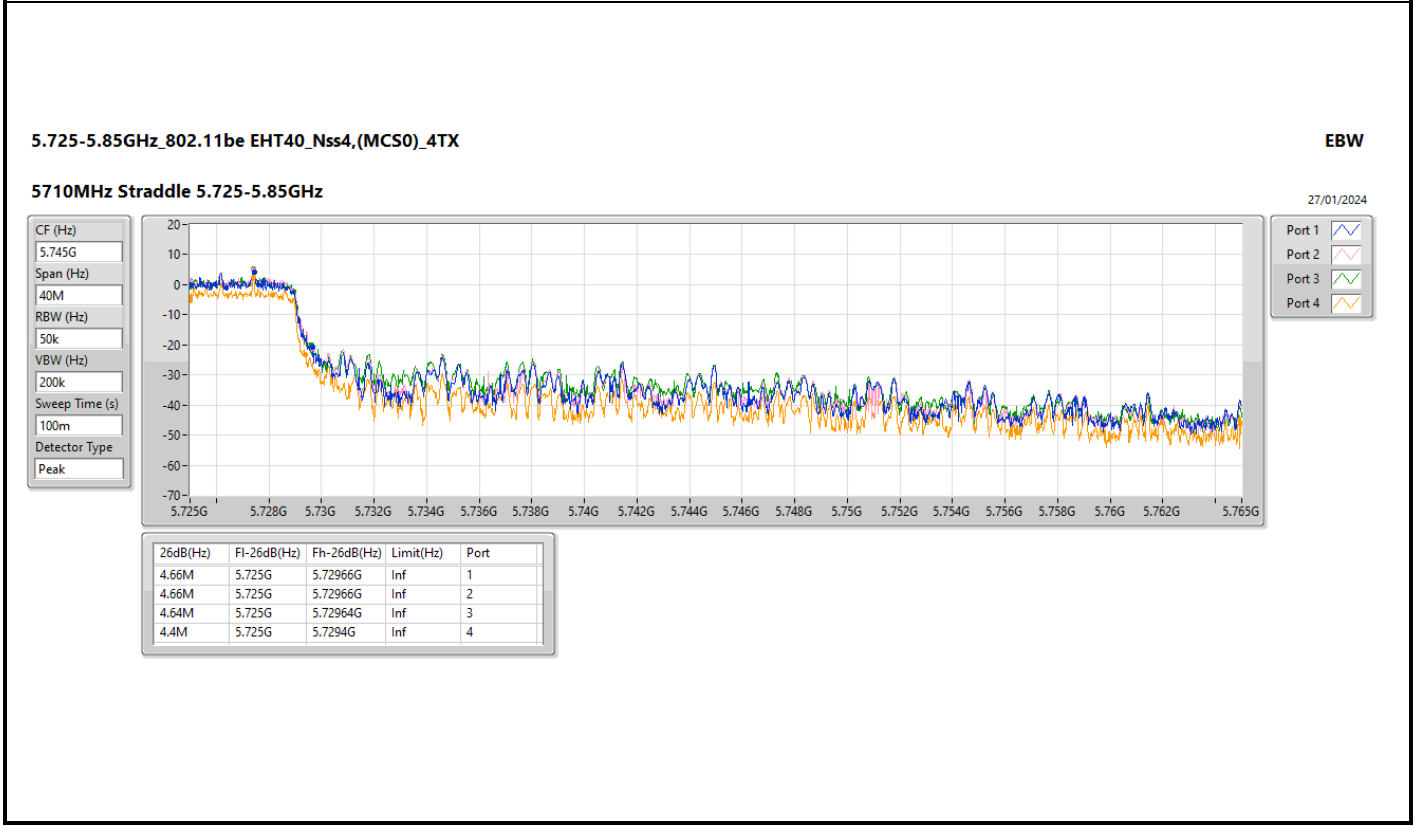
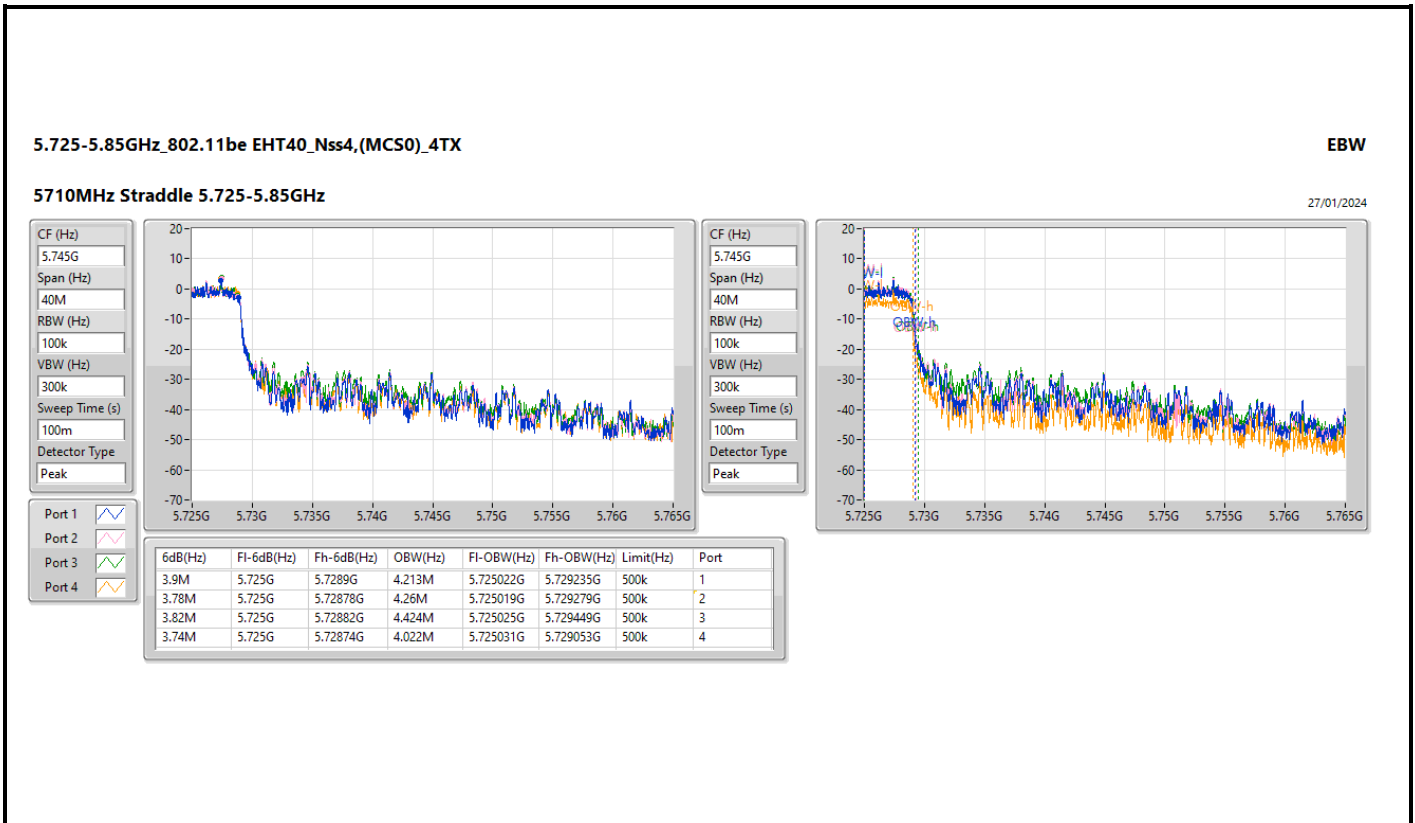
EBW

5550MHz

27/01/2024







5.25-5.35GHz_802.11be EHT80_Nss4,(MCS0)_4TX

EBW

5290MHz

29/03/2024

CF (Hz)
5.29G

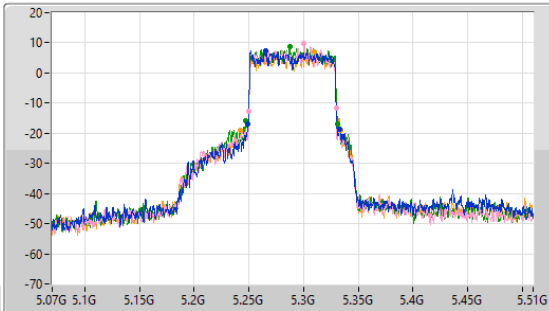
Span (Hz)
440M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
29.3u

Detector Type
Peak



CF (Hz)
5.29G

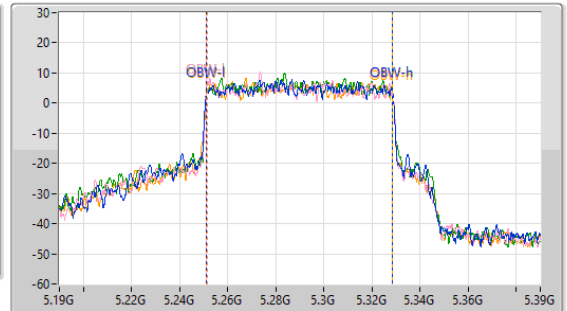
Span (Hz)
200M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
14.6u

Detector Type
Peak



Port 1

Port 2

Port 3

Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
84.04M	5.2493G	5.33334G	77.466M	5.251113G	5.328579G	Inf	1
79.86M	5.24996G	5.32982G	77.558M	5.25111G	5.328668G	Inf	2
84.26M	5.24688G	5.33114G	77.307M	5.251142G	5.328449G	Inf	3
91.96M	5.24182G	5.33378G	77.165M	5.251332G	5.328497G	Inf	4

5.47-5.725GHz_802.11be EHT80_Nss4,(MCS0)_4TX

EBW

5530MHz

29/03/2024

CF (Hz)
5.53G

Span (Hz)
440M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
29.3u

Detector Type
Peak



CF (Hz)
5.53G

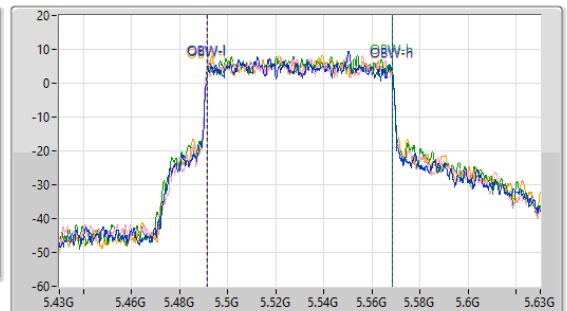
Span (Hz)
200M

RBW (Hz)
1M

VBW (Hz)
3M

Sweep Time (s)
14.6u

Detector Type
Peak



Port 1

Port 2

Port 3

Port 4

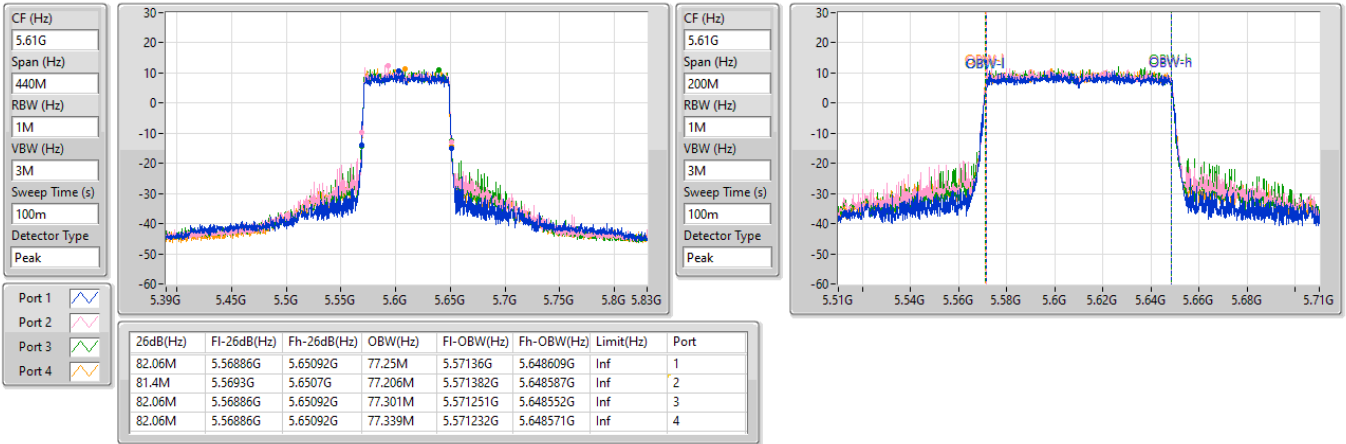
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
80.3M	5.48974G	5.57004G	77.146M	5.491391G	5.568538G	Inf	1
80.52M	5.48952G	5.57004G	77.272M	5.491177G	5.568449G	Inf	2
81.18M	5.48908G	5.57026G	77.158M	5.491354G	5.568512G	Inf	3
82.28M	5.48908G	5.57136G	76.902M	5.491553G	5.568456G	Inf	4

5.47-5.725GHz_802.11be EHT80_Nss4,(MCS0)_4TX

EBW

5610MHz

27/01/2024

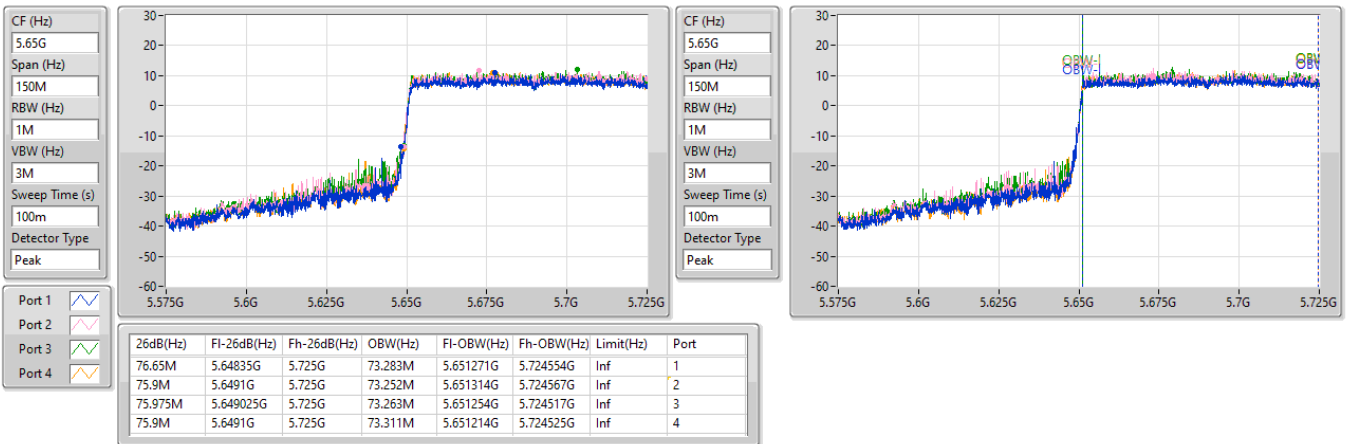


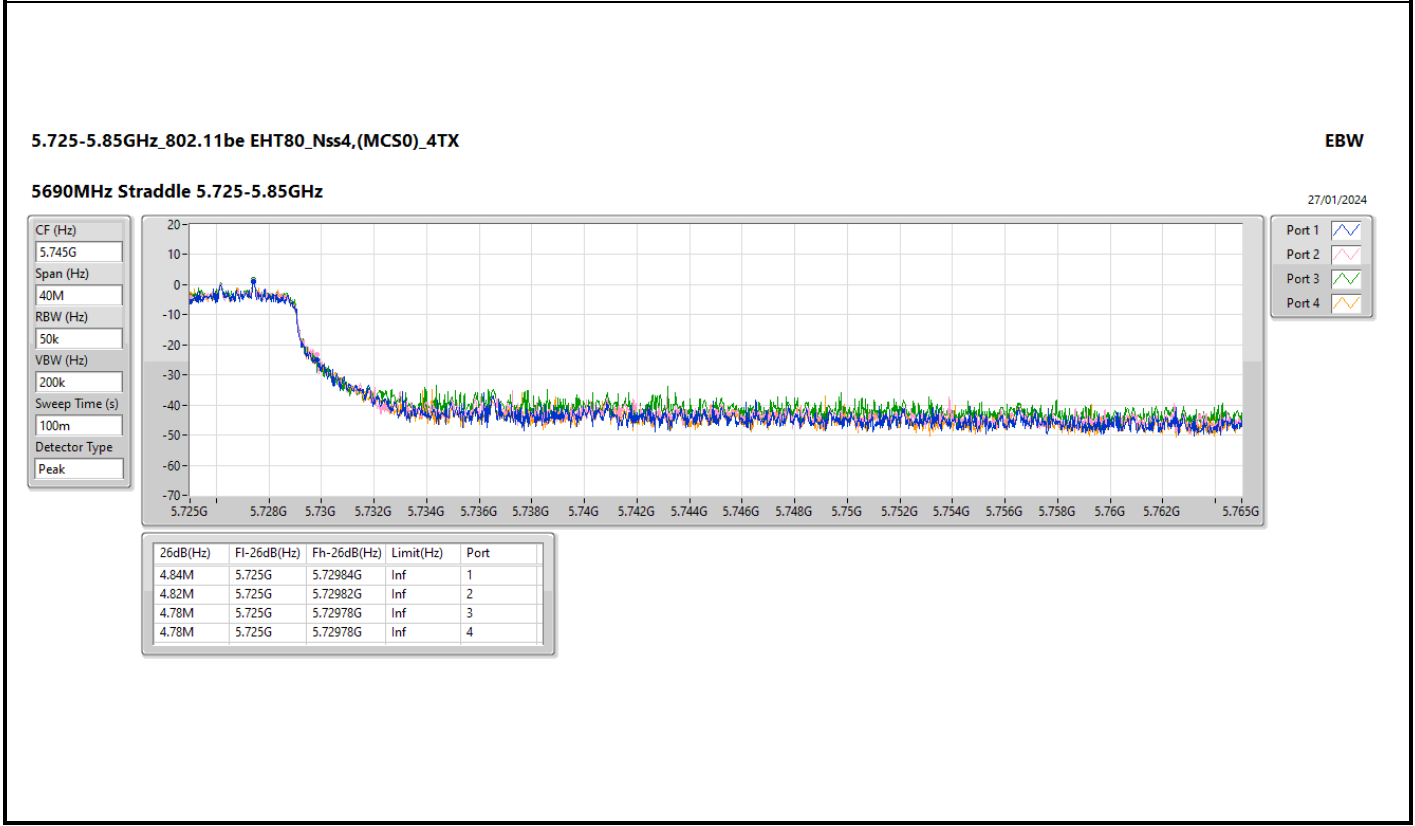
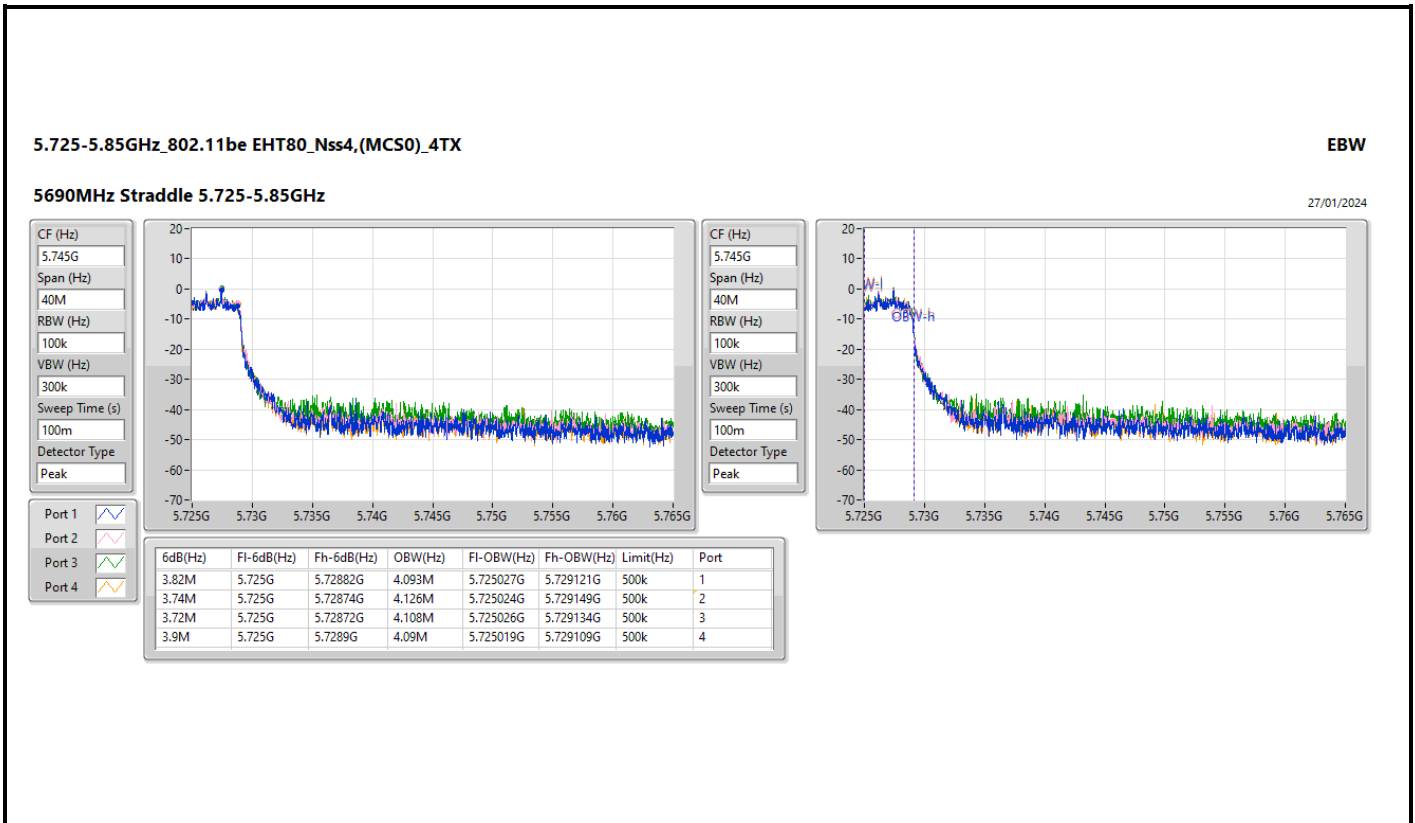
5.47-5.725GHz_802.11be EHT80_Nss4,(MCS0)_4TX

EBW

5690MHz Straddle 5.47-5.725GHz

27/01/2024



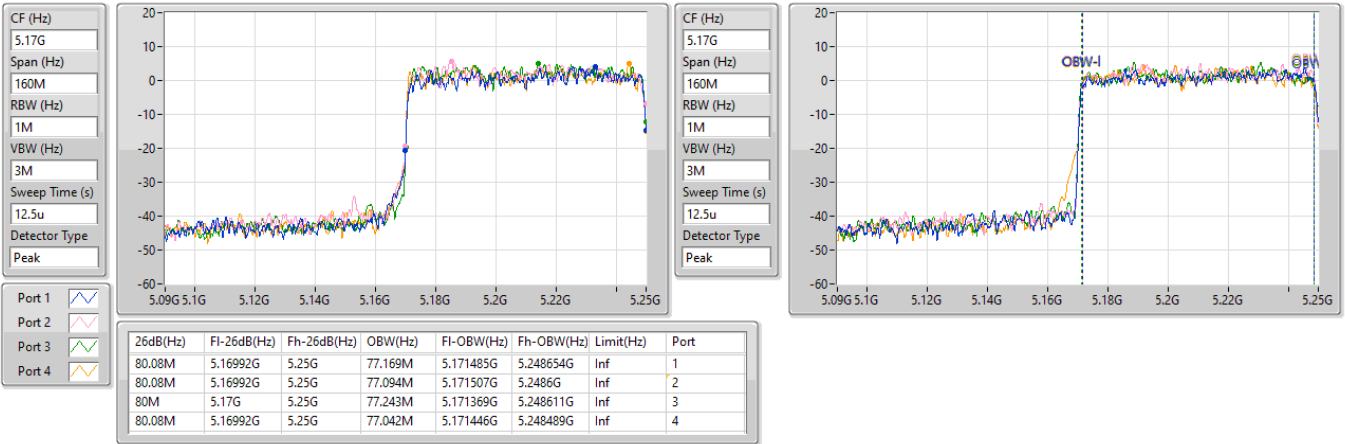


5.15-5.25GHz_802.11be EHT160_Nss4,(MCS0)_4TX

EBW

5250MHz Straddle 5.15-5.25GHz

29/03/2024

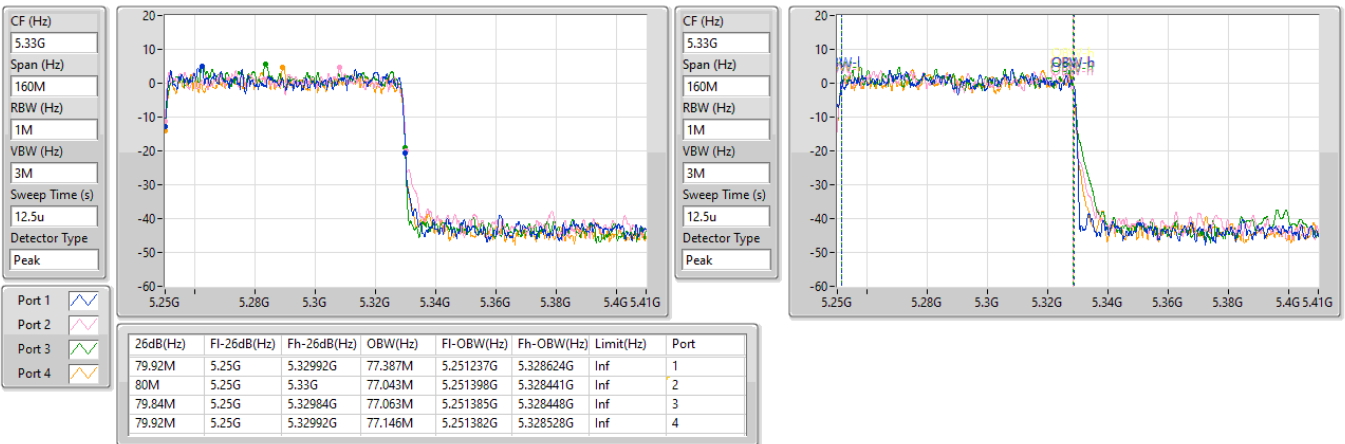


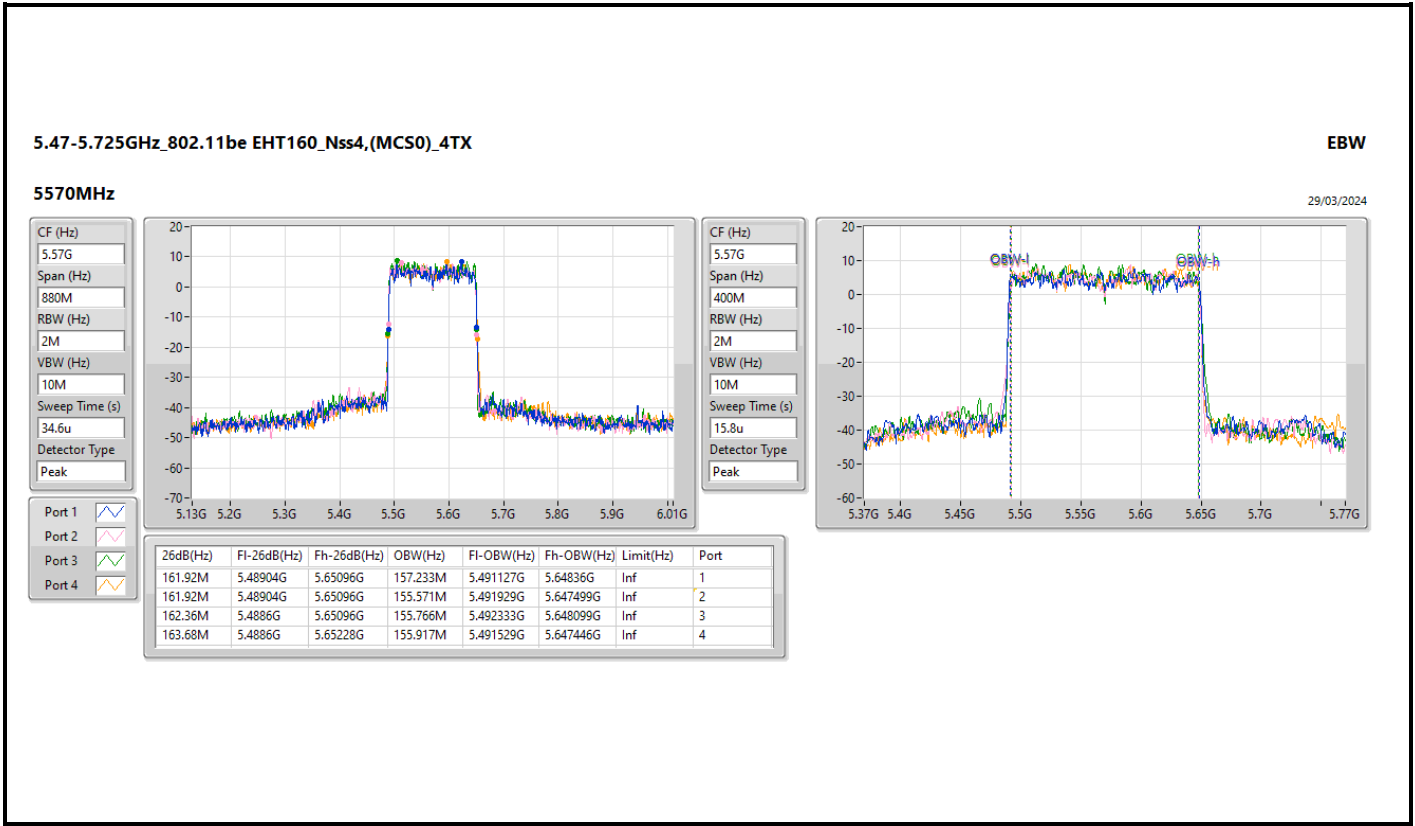
5.25-5.35GHz_802.11be EHT160_Nss4,(MCS0)_4TX

EBW

5250MHz Straddle 5.25-5.35GHz

29/03/2024







Summary

Mode	Total Power (dBm)	Total Power (W)
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	23.96	0.24889
802.11be EHT20_Nss1,(MCS0)_2TX	23.84	0.24210
802.11be EHT20_Nss2,(MCS0)_2TX	23.84	0.24210
802.11be EHT20-BF_Nss1,(MCS0)_2TX	23.84	0.24210
802.11be EHT40_Nss1,(MCS0)_2TX	23.90	0.24547
802.11be EHT40_Nss2,(MCS0)_2TX	23.83	0.24155
802.11be EHT40-BF_Nss1,(MCS0)_2TX	23.90	0.24547
802.11be EHT80_Nss1,(MCS0)_2TX	23.71	0.23496
802.11be EHT80_Nss2,(MCS0)_2TX	23.75	0.23714
802.11be EHT80-BF_Nss1,(MCS0)_2TX	23.71	0.23496



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	2.66	20.48	21.38	23.96	23.98
5300MHz	Pass	2.66	20.73	21.14	23.95	23.98
5320MHz	Pass	2.66	19.45	19.52	22.50	23.98
802.11be EHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	2.66	20.30	21.28	23.83	23.98
5300MHz	Pass	2.66	20.59	21.05	23.84	23.98
5320MHz	Pass	2.66	18.04	18.16	21.11	23.98
802.11be EHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	2.66	20.39	21.33	23.90	23.98
5310MHz	Pass	2.66	19.57	20.12	22.86	23.98
802.11be EHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	2.66	20.29	21.08	23.71	23.98
802.11be EHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	2.66	20.36	21.25	23.84	23.98
5300MHz	Pass	2.66	20.57	21.00	23.80	23.98
5320MHz	Pass	2.66	19.78	20.39	23.11	23.98
802.11be EHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	2.66	20.27	21.30	23.83	23.98
5310MHz	Pass	2.66	20.04	20.81	23.45	23.98
802.11be EHT80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	2.66	20.30	21.14	23.75	23.98
802.11be EHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	4.52	20.30	21.28	23.83	23.98
5300MHz	Pass	4.52	20.59	21.05	23.84	23.98
5320MHz	Pass	4.52	18.04	18.16	21.11	23.98
802.11be EHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	4.52	20.39	21.33	23.90	23.98
5310MHz	Pass	4.52	19.57	20.12	22.86	23.98
802.11be EHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	4.52	20.29	21.08	23.71	23.98

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