

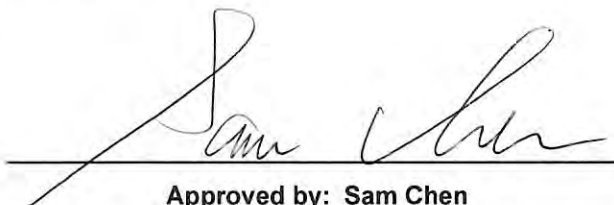


# RADIO TEST REPORT

**FCC ID** : MSQ-RTBE6M00  
**Equipment** : ROG Rapture GT-BE98 Pro BE30000 Quad-band Gaming Router  
**Brand Name** : ASUS  
**Model Name** : GT-BE98 Pro  
**Applicant** : ASUSTeK COMPUTER INC.  
1F., No. 15, Lide Rd., Beitou, Taipei City 112, Taiwan  
**Manufacturer** : ASUSTeK COMPUTER INC.  
1F., No. 15, Lide Rd., Beitou, Taipei City 112, Taiwan  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Jun. 16, 2023, and testing was started from Jul. 08, 2023 and completed on Sep. 07, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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



Approved by: Sam Chen

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



## Table of Contents

**History of this test report.....3**

**Summary of Test Result.....4**

**1 General Description .....5**

1.1 Information.....5

1.2 Applicable Standards .....13

1.3 Testing Location Information .....13

1.4 Measurement Uncertainty .....14

**2 Test Configuration of EUT .....15**

2.1 Test Channel Mode .....15

2.2 The Worst Case Measurement Configuration .....17

2.3 EUT Operation during Test .....18

2.4 Accessories .....19

2.5 Support Equipment.....19

2.6 Test Setup Diagram .....21

**3 Transmitter Test Result .....25**

3.1 AC Power-line Conducted Emissions .....25

3.2 Emission Bandwidth .....27

3.3 Maximum Output Power .....28

3.4 Power Spectral Density .....31

3.5 Unwanted Emissions .....34

**4 Test Equipment and Calibration Data .....38**

**Appendix A. Test Results of AC Power-line Conducted Emissions**

**Appendix B. Test Results of Emission Bandwidth**

**Appendix C. Test Results of Maximum Output Power**

**Appendix D. Test Results of Power Spectral Density**

**Appendix E. Test Results of Unwanted Emissions**

**Appendix F. Test Results of Radiated Emission Co-location**

**Appendix G. Test Photos**

**Photographs of EUT v01**



### History of this test report

Report No.	Version	Description	Issued Date
FR321615AB	01	Initial issue of report	Sep. 18, 2023



### Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Output Power	PASS	-
3.4	15.407(a)	Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

**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/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

**Disclaimer:**

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

Reviewed by: **Sam Chen**  
Report Producer: **Sandy Chuang**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20), 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]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	4TX
5.15-5.25GHz	802.11n HT20	20	4TX
5.15-5.25GHz	802.11n HT20-BF	20	4TX
5.15-5.25GHz	802.11ac VHT20	20	4TX
5.15-5.25GHz	802.11ac VHT20-BF	20	4TX
5.15-5.25GHz	802.11ax HEW20	20	4TX
5.15-5.25GHz	802.11ax HEW20-BF	20	4TX
5.15-5.25GHz	802.11be EHT20	20	4TX
5.15-5.25GHz	802.11be EHT20-BF	20	4TX
5.15-5.25GHz	802.11n HT40	40	4TX
5.15-5.25GHz	802.11n HT40-BF	40	4TX
5.15-5.25GHz	802.11ac VHT40	40	4TX
5.15-5.25GHz	802.11ac VHT40-BF	40	4TX
5.15-5.25GHz	802.11ax HEW40	40	4TX
5.15-5.25GHz	802.11ax HEW40-BF	40	4TX
5.15-5.25GHz	802.11be EHT40	40	4TX



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



<b>Band</b>	<b>Mode</b>	<b>BWch (MHz)</b>	<b>Nant</b>
5.25-5.35GHz	802.11be EHT160	160	4TX
5.25-5.35GHz	802.11be EHT160-BF	160	4TX
5.47-5.725GHz	802.11a	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT20-BF	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11ax HEW20	20	4TX
5.47-5.725GHz	802.11ax HEW20-BF	20	4TX
5.47-5.725GHz	802.11be EHT20	20	4TX
5.47-5.725GHz	802.11be EHT20-BF	20	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11ax HEW40	40	4TX
5.47-5.725GHz	802.11ax HEW40-BF	40	4TX
5.47-5.725GHz	802.11be EHT40	40	4TX
5.47-5.725GHz	802.11be EHT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	4TX
5.47-5.725GHz	802.11ax HEW80	80	4TX
5.47-5.725GHz	802.11ax HEW80-BF	80	4TX
5.47-5.725GHz	802.11be EHT80	80	4TX
5.47-5.725GHz	802.11be EHT80-BF	80	4TX
5.47-5.725GHz	802.11ac VHT160	160	4TX
5.47-5.725GHz	802.11ac VHT160-BF	160	4TX
5.47-5.725GHz	802.11ax HEW160	160	4TX
5.47-5.725GHz	802.11ax HEW160-BF	160	4TX
5.47-5.725GHz	802.11be EHT160	160	4TX
5.47-5.725GHz	802.11be EHT160-BF	160	4TX
5.725-5.85GHz	802.11a	20	4TX
5.725-5.85GHz	802.11n HT20	20	4TX
5.725-5.85GHz	802.11n HT20-BF	20	4TX
5.725-5.85GHz	802.11ac VHT20	20	4TX
5.725-5.85GHz	802.11ac VHT20-BF	20	4TX
5.725-5.85GHz	802.11ax HEW20	20	4TX
5.725-5.85GHz	802.11ax HEW20-BF	20	4TX
5.725-5.85GHz	802.11be EHT20	20	4TX
5.725-5.85GHz	802.11be EHT20-BF	20	4TX



Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11n HT40	40	4TX
5.725-5.85GHz	802.11n HT40-BF	40	4TX
5.725-5.85GHz	802.11ac VHT40	40	4TX
5.725-5.85GHz	802.11ac VHT40-BF	40	4TX
5.725-5.85GHz	802.11ax HEW40	40	4TX
5.725-5.85GHz	802.11ax HEW40-BF	40	4TX
5.725-5.85GHz	802.11be EHT40	40	4TX
5.725-5.85GHz	802.11be EHT40-BF	40	4TX
5.725-5.85GHz	802.11ac VHT80	80	4TX
5.725-5.85GHz	802.11ac VHT80-BF	80	4TX
5.725-5.85GHz	802.11ax HEW80	80	4TX
5.725-5.85GHz	802.11ax HEW80-BF	80	4TX
5.725-5.85GHz	802.11be EHT80	80	4TX
5.725-5.85GHz	802.11be EHT80-BF	80	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.	Port				Brand	Model Name			Antenna Type	Connector	Gain (dBi)
	WLAN 2.4GHz	WLAN 5GHz	WLAN 6GHz UNII 5	WLAN 6GHz UNII 7/8		WLAN 2.4GHz / WLAN5GHz	WLAN 6GHz UNII 5	WLAN 6GHz UNII 7/8			
1	-	-	1	-	Whayu	-	C660-510595-AW1	-	Dipole	I-PEX	Note 1
2	-	-	2	-	Whayu	-	C660-510596-AW1	-	Dipole	I-PEX	
3	-	-	3	-	Whayu	-	C660-510597-AW1	-	Dipole	I-PEX	
4	-	-	4	-	Whayu	-	C660-510598-AW1	-	Dipole	I-PEX	
5	-	-	-	1	Whayu	-	-	C660-510595-AW2	Dipole	I-PEX	
6	-	-	-	4	Whayu	-	-	C660-510596-AW2	Dipole	I-PEX	
7	-	-	-	2	Whayu	-	-	C660-510597-AW2	Dipole	I-PEX	
8	-	-	-	3	Whayu	-	-	C660-510598-AW2	Dipole	I-PEX	
9	4	1	-	-	Whayu	C660-510591-AW1	-	-	Dipole	I-PEX	
10	1	4	-	-	Whayu	C660-510592-AW1	-	-	Dipole	I-PEX	
11	2	3	-	-	Whayu	C660-510593-AW1	-	-	Dipole	I-PEX	
12	3	2	-	-	Whayu	C660-510594-AW1	-	-	Dipole	I-PEX	

Note 1

Ant.	Antenna Gain (dBi)							
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 6GHz		
						UNII 5	UNII7	UNII8
1	-	-	-	-	-	1.80	-	-
2	-	-	-	-	-	1.95	-	-
3	-	-	-	-	-	1.82	-	-
4	-	-	-	-	-	1.74	-	-
5	-	-	-	-	-	-	1.38	1.91
6	-	-	-	-	-	-	2.30	3.01
7	-	-	-	-	-	-	3.50	3.51
8	-	-	-	-	-	-	3.29	2.92
9	3.22	2.16	1.26	2.44	3.08	-	-	-
10	3.31	2.91	2.84	2.86	4.20	-	-	-
11	4.09	4.07	3.99	3.62	3.02	-	-	-
12	1.94	2.30	2.28	2.41	3.66	-	-	-



Item	Directional gain (dBi)							
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 6GHz		
						UNII 5	UNII7	UNII8
4T1S	6.24	5.90	5.76	5.94	5.78	5.66	5.48	5.92
4T2S	4.09	4.07	3.99	3.62	4.20	1.95	3.50	3.51
4T4S	4.09	4.07	3.99	3.62	4.20	1.95	3.50	3.51

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

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

Note 4: **For 2.4GHz function:**

**For IEEE 802.11 b/g/n/VHT/ax/be (4TX/4RX):**

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

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

**For 5GHz function:**

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

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

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

**For 6GHz function:**

**For IEEE 802.11 ax/be mode (4TX/4RX):**

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

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



**1.1.3 Mode Test Duty Cycle**

For 4T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.99	0.04	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11be EHT20-BF	0.953	0.21	3.104m	1k
802.11be EHT40-BF	0.962	0.17	4.623m	300
802.11be EHT80-BF	0.956	0.2	4.391m	300
802.11be EHT160-BF	0.967	0.15	5.101m	300

For 4T2S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11be EHT20-BF	0.966	0.15	4.628m	300
802.11be EHT40-BF	0.959	0.18	5.388m	300
802.11be EHT80-BF	0.965	0.15	5.123m	300

Note:

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

**1.1.4 EUT Operational Condition**

<b>EUT Power Type</b>	From power adapter		
<b>Beamforming Function</b>	<input checked="" type="checkbox"/> With beamforming	<input type="checkbox"/> Without beamforming	
<b>Weather Band</b>	<input checked="" type="checkbox"/> With 5600~5650MHz	<input type="checkbox"/> Without 5600~5650MHz	
<b>Function</b>	<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	
<b>TPC Function</b>	<input checked="" type="checkbox"/> With TPC	<input type="checkbox"/> Without TPC	
<b>Channel Puncturing Function</b>	<input type="checkbox"/> Supported	<input checked="" type="checkbox"/> Unsupported	
<b>Support RU</b>	<input checked="" type="checkbox"/> Full RU	<input type="checkbox"/> Partial RU	
<b>Test Software Version</b>	Others: access Mtool (ver 3.3.0.4) Beamforming: DOS [ver 6.1.7601]		

Note: The above information was declared by manufacturer.

**1.1.5 Table for EUT supports function**

Function	Type
AP Router	Master
Bridge	Slave without radar detection
Extender	Master
Mesh	Master

Note 1: From the above, after evaluating, AP Router was selected to test and record in the report.

Note 2: The above information was declared by manufacturer.



**1.1.6 Table for Radio function**

Radio	2.4GHz	5GHz UNII1~UNII3	6GHz UNII7~UNII8	6GHz UNII5
1	-	-	V	-
2	-	-	-	V
3	V	-	-	-
4	-	V	-	-

Note: The above information was declared by manufacturer.



### 1.2 Applicable Standards

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

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

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

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

### 1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	Kevin Huang	24.1-24.9 / 66-69	Aug. 01, 2023 ~ Aug. 30, 2023
Radiated < 1GHz	03CH06-CB	Gordon Hung	22.2-23.1 / 62-64	Jul. 08, 2023 ~ Sep. 07, 2023
Radiated > 1GHz	03CH01-CB		22.3-23.6 / 59-61	
	03CH06-CB		22.2-23.9 / 58-61	
Radiated (For Co-location)	03CH03-CB		21.2-22.6 / 62-65	
AC Conduction	CO02-CB	Peter Wu	23-24 / 61-62	Aug. 15, 2023



## 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
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 dB	Confidence levels of 95%
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 4T1S

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	83
5200MHz	92
5240MHz	92
5260MHz	68
5300MHz	68
5320MHz	70
5500MHz	72
5580MHz	68
5700MHz	66
5720MHz Straddle 5.47-5.725GHz	70
5720MHz Straddle 5.725-5.85GHz	70
5745MHz	93
5785MHz	95
5825MHz	101
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-
5180MHz	80
5200MHz	86
5240MHz	90
5260MHz	66
5300MHz	66
5320MHz	69
5500MHz	71
5580MHz	67
5700MHz	61
5720MHz Straddle 5.47-5.725GHz	70
5720MHz Straddle 5.725-5.85GHz	70
5745MHz	93
5785MHz	94
5825MHz	101
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-
5190MHz	65
5230MHz	84
5270MHz	66
5310MHz	65



Mode	Power Setting
5510MHz	70
5550MHz	67
5670MHz	68
5710MHz Straddle 5.47-5.725GHz	71
5710MHz Straddle 5.725-5.85GHz	71
5755MHz	92
5795MHz	96
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-
5210MHz	68
5290MHz	69
5530MHz	69
5610MHz	65
5690MHz Straddle 5.47-5.725GHz	69
5690MHz Straddle 5.725-5.85GHz	69
5775MHz	85
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	69
5250MHz Straddle 5.25-5.35GHz	69
5570MHz	68

**For 4T2S**

Mode	Power Setting
802.11be EHT20-BF_Nss2,(MCS0)_4TX	-
5180MHz	83
802.11be EHT40-BF_Nss2,(MCS0)_4TX	-
5190MHz	72
5230MHz	86
802.11be EHT80-BF_Nss2,(MCS0)_4TX	-
5210MHz	73

**Note:**

- ♦ EHT20 / EHT40 / EHT80 / EHT160 covers HT20 / HT40 / VHT20 / VHT40 / VHT80 / VHT160 / 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 non-beamforming and beamforming modes, after evaluating, the beamforming mode has been selected to test.





## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
<b>Operating Mode</b>	Normal Link
1	AP Router mode_EUT

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Emission Bandwidth Maximum Output Power Power Spectral Density
<b>Test Condition</b>	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Unwanted Emissions
<b>Test Condition</b>	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.
<b>Operating Mode &lt; 1GHz</b>	CTX After evaluating, the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Z axis + WLAN 2.4GHz
2	EUT in Z axis + WLAN 5GHz
3	EUT in Z axis + WLAN 6GHz UNII 5
4	EUT in Z axis + WLAN 6GHz UNII 7-8
For operating mode 2 is the worst case and it was record in this test report.	
<b>Operating Mode &gt; 1GHz</b>	CTX After evaluating, the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Z axis



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
	After evaluating, the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Z axis + WLAN 2.4GHz + WLAN 5GHz
Refer to Appendix F for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz UNII 5 + WLAN 6GHz UNII 7/8
Refer to Sporton Test Report No.: FA321615 for Co-location RF Exposure Evaluation.	

### 2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 7 were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by Client and transmit duty cycle no less than 98%.

For Normal Link:

During the test, the EUT operation to normal function.



## 2.4 Accessories

Accessories				
Power	Brand Name	Model Name	Rating	Remark
Adapter	AcBel	ADD011	Input: 100-240V~ 1.7A, 50-60Hz Output: +19.5V, 3.33A, 65.0W MAX	With the DC cable: Non-shielded, 1.5m
Others				
RJ-45 cable*1: Shielded, 1.5m				
Power cord*1: Non-shielded, 0.9m				

## 2.5 Support Equipment

### For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	HDD3.0	Transcend	TS1TSJ25A3K	N/A
B	HDD3.0	Transcend	TS1TSJ25A3K	N/A
C	WAN/LAN1(2.5G) NB	DELL	E6430	N/A
D	2.5G LAN4 NB	DELL	E6430	N/A
E	2.4G NB	DELL	E6430	N/A
F	5G NB	DELL	E6430	N/A
G	6E-Low NB	DELL	E6430	N/A
H	6E-High NB	DELL	E6430	N/A
I	10G LAN PC	DELL	T3400	N/A
J	WAN/LAN1(10G ) PC	DELL	T3400	N/A
K	1G LAN5 NB	DELL	E6430	N/A

### For Radiated (below 1GHz):

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



**For Radiated (above 1GHz):  
Non-beamforming mode:**

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

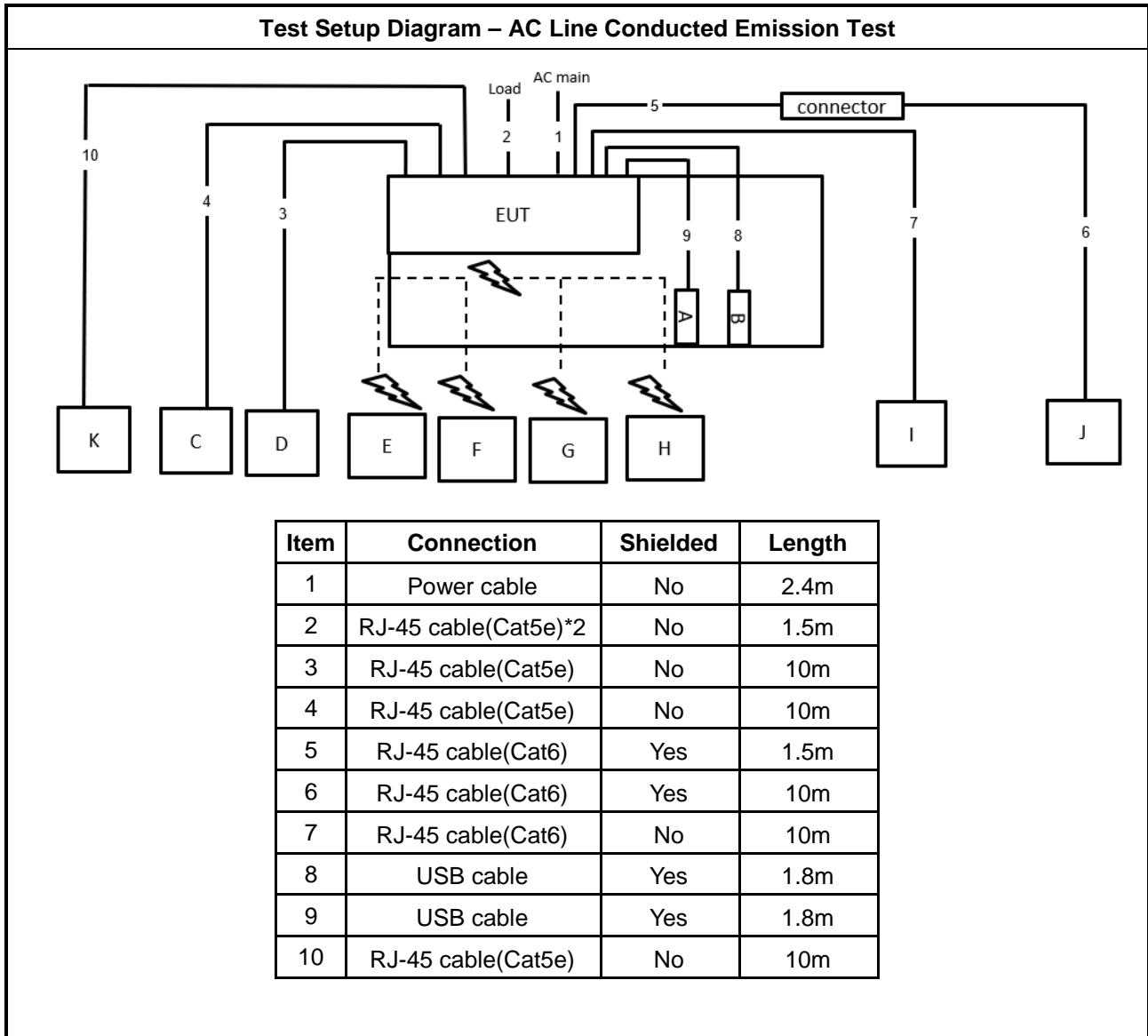
**Beamforming mode:**

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Client	ASUS	RT-BE96U	MSQ-RTBE6G00
C	Client NB	DELL	E4300	N/A

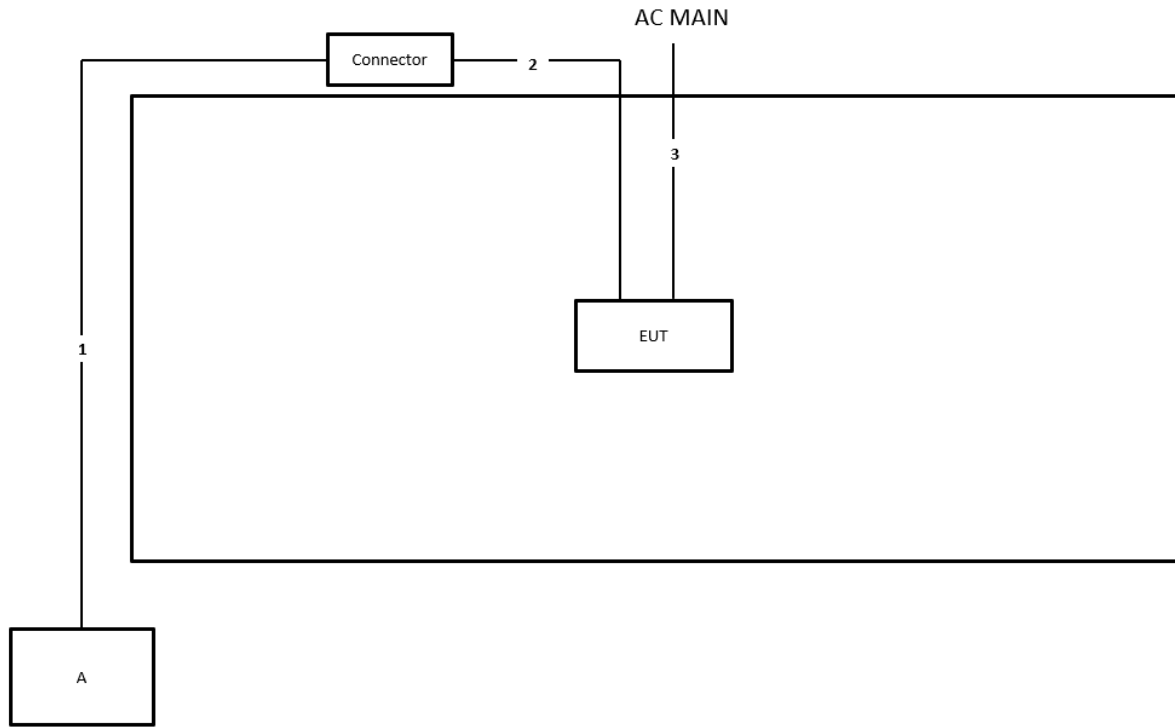
**For RF Conducted:**

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

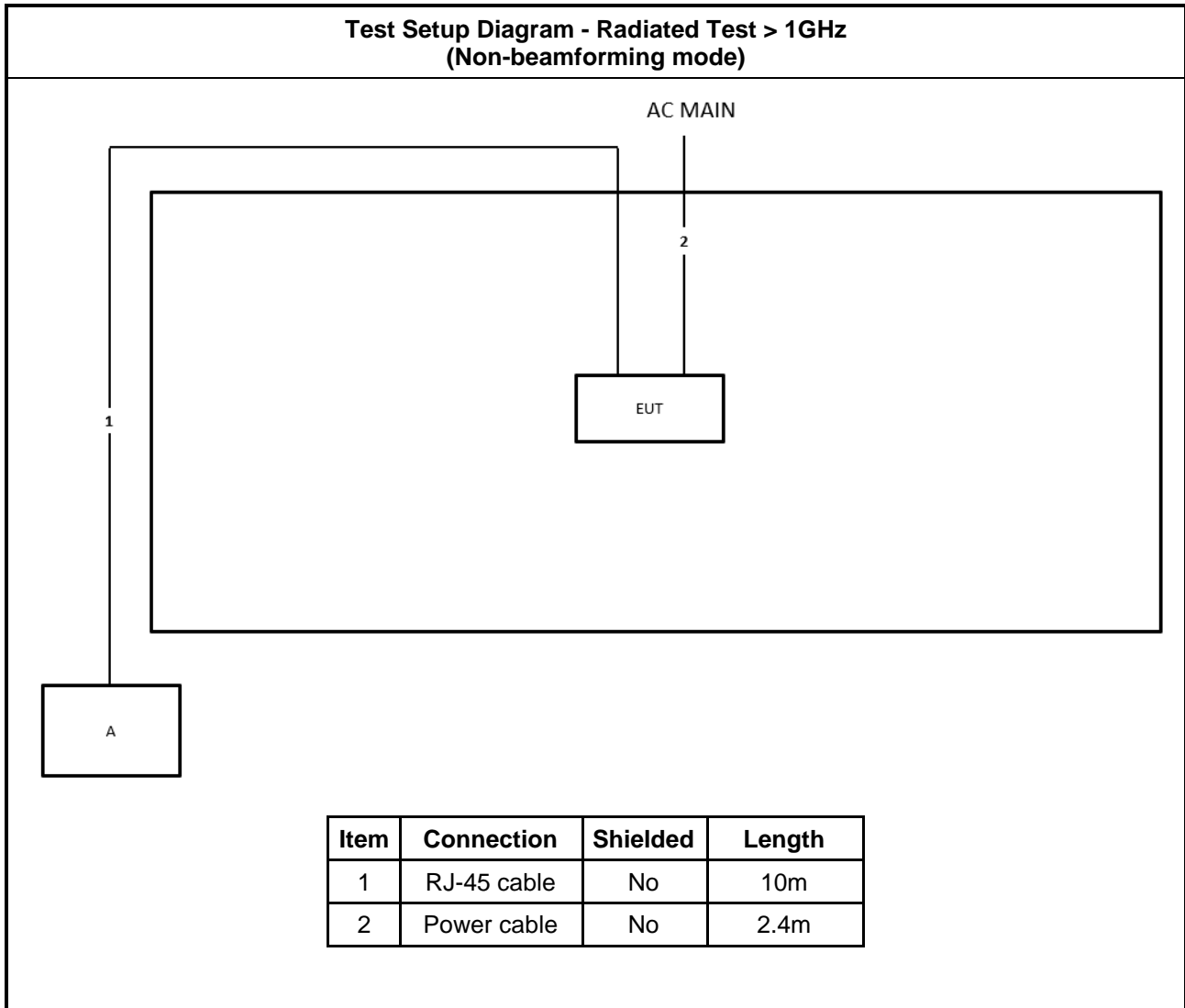
## 2.6 Test Setup Diagram

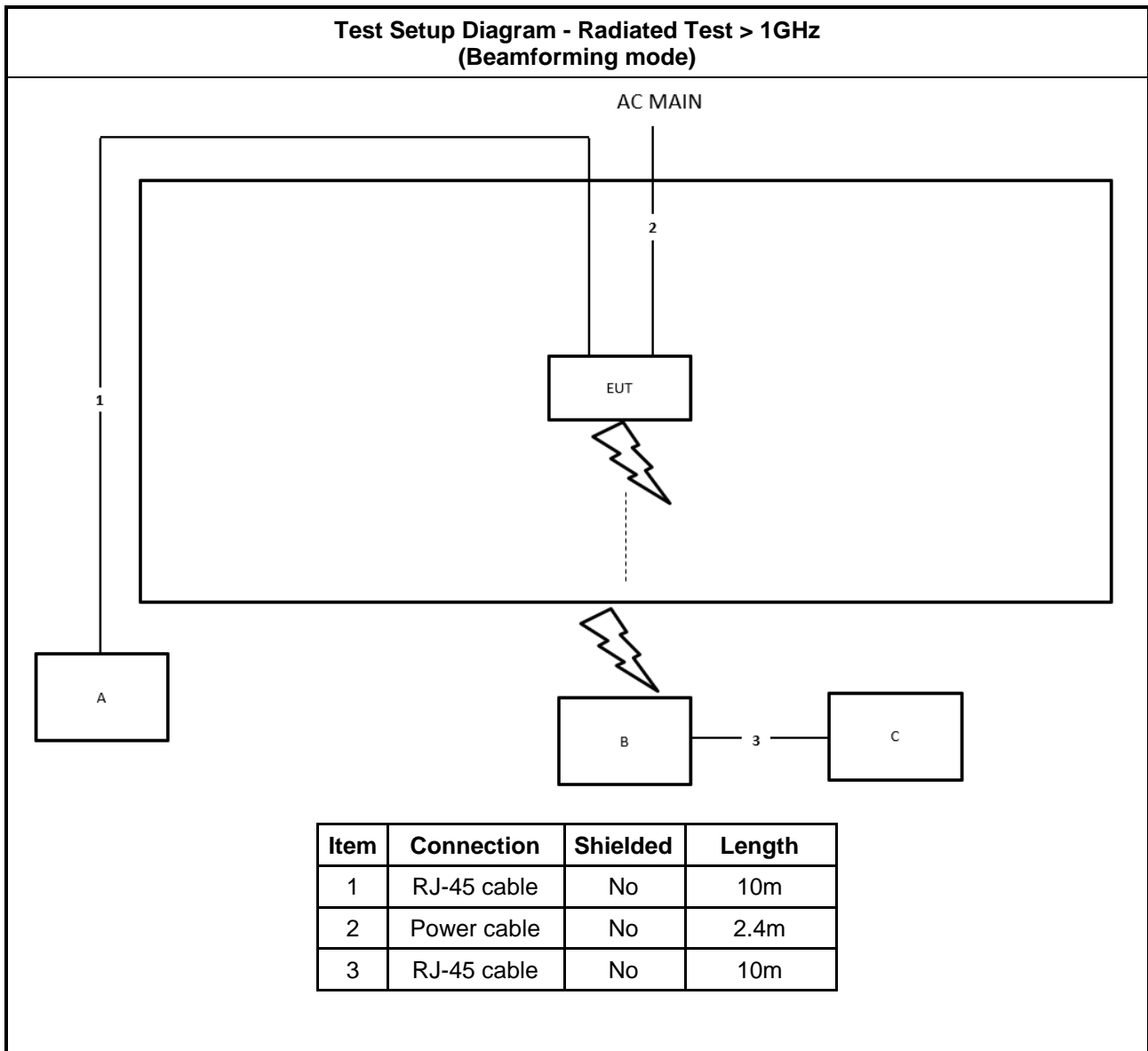


**Test Setup Diagram - Radiated Test < 1GHz**



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	RJ-45 cable	Yes	1.5m
3	Power cable	No	2.4m









### 3 Transmitter Test Result

#### 3.1 AC Power-line Conducted Emissions

##### 3.1.1 AC Power-line Conducted Emissions Limit

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

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

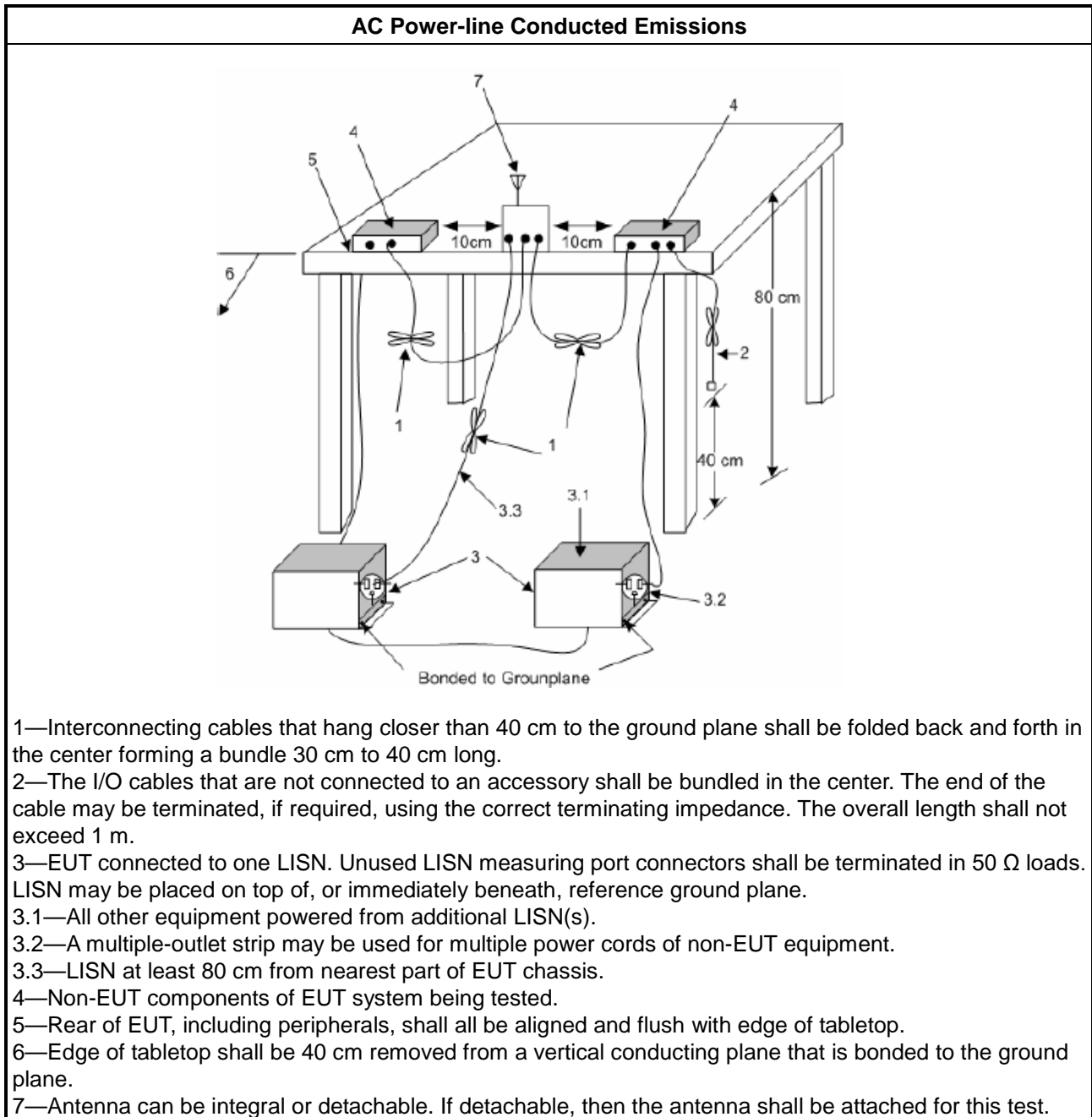
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

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

### 3.1.4 Test Setup



### 3.1.5 Measurement Results Calculation

The measured Level is calculated using:

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

### 3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

### 3.2 Emission Bandwidth

#### 3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
<b>UNII Devices</b>	
<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.
<b>LE-LAN Devices</b>	
<input type="checkbox"/>	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

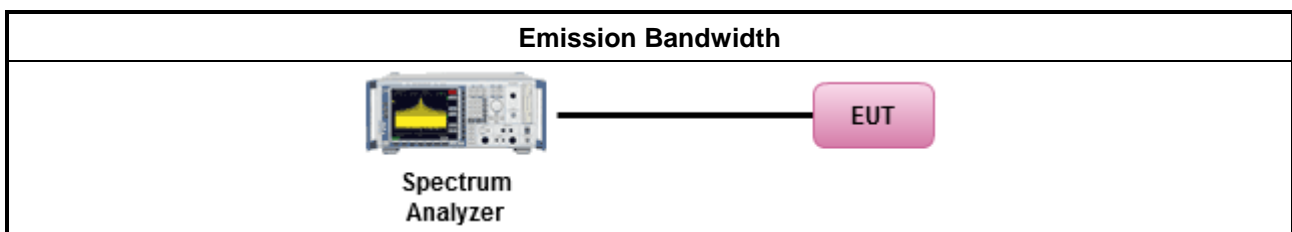
#### 3.2.2 Measuring Instruments

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

#### 3.2.3 Test Procedures

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

#### 3.2.4 Test Setup



#### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



### 3.3 Maximum Output Power

#### 3.3.1 Limit

<b>Maximum Output Power Limit</b>	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> <li>▪ Outdoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>. e.i.r.p. at any elevation angle above 30 degrees <math>\leq 125mW</math> [21dBm]</li> <li>▪ Indoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math></li> <li>▪ Point-to-point AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 23)</math>.</li> <li>▪ Mobile or Portable Client: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 250 mW. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 24 - (G_{TX} - 6)</math>.</li> </ul>
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>.</li> <li>▪ Point-to-point systems (P2P): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W.</li> </ul>
<b>LE-LAN Devices</b>	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>.</li> <li>▪ Point-to-point systems (P2P): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W.</li> </ul>
$P_{Out}$ = maximum conducted output power in dBm, $G_{TX}$ = the maximum transmitting antenna directional gain in dBi.	

### 3.3.2 Measuring Instruments

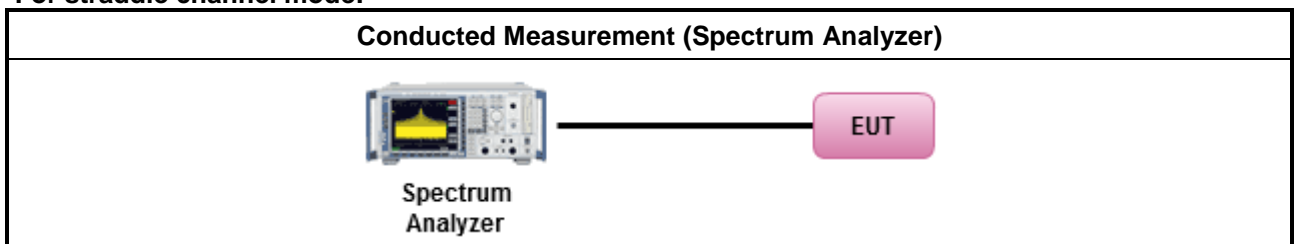
Refer a test equipment and calibration data table in this test report.

### 3.3.3 Test Procedures

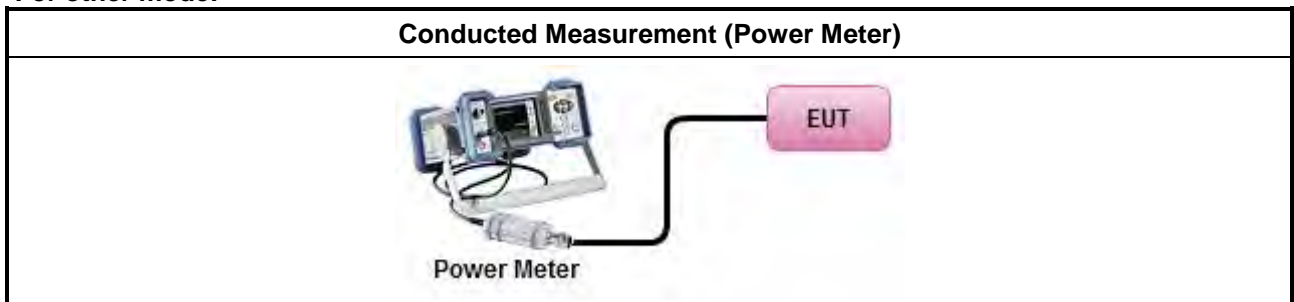
Test Method	
	Average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).
<input checked="" type="checkbox"/>	For conducted measurement.
	<ul style="list-style-type: none"> <li>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.</li> </ul>
	<ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:  <math>P_{total} = P_1 + P_2 + \dots + P_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = P_{total} + DG</math> </li> </ul>
<input type="checkbox"/>	For radiated measurement.
	<ul style="list-style-type: none"> <li>Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"</li> <li>Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> <li>Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.</li> </ul>

### 3.3.4 Test Setup

For straddle channel mode:



For other mode:





### **3.3.5 Test Result of Maximum Output Power**

Refer as Appendix C



### 3.4 Power Spectral Density

#### 3.4.1 Limit

Peak Power Spectral Density Limit	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li> <li>▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li> <li>▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 23)</math>.</li> <li>▪ Mobile or Portable Client: the peak power spectral density (PPSD) <math>\leq 11</math> dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 11 - (G_{TX} - 6)</math>.</li> </ul>
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq 11$ 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) $\leq 11$ 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"> <li>▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 30 - (G_{TX} - 6)</math>.</li> <li>▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li> </ul>
<b>LE-LAN Devices</b>	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) $\leq 10$ dBm/MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz.	
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>▪ e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where <math>\theta</math> is the angle above the local horizontal plane (of the Earth) as shown below:  -13 dBW/MHz for <math>0^\circ \leq \theta &lt; 8^\circ</math> ; -13 - 0.716 (<math>\theta-8</math>) dBW/MHz for <math>8^\circ \leq \theta &lt; 40^\circ</math>  -35.9 - 1.22 (<math>\theta-40</math>) dBW/MHz for <math>40^\circ \leq \theta \leq 45^\circ</math> ; -42 dBW/MHz for <math>\theta &gt; 45^\circ</math></li> </ul>
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 30 - (G_{TX} - 6)</math>.</li> <li>▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li> </ul>
<p><b>PPSD</b> = 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  <b>G<sub>TX</sub></b> = the maximum transmitting antenna directional gain in dBi.</p>	

#### 3.4.2 Measuring Instruments

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

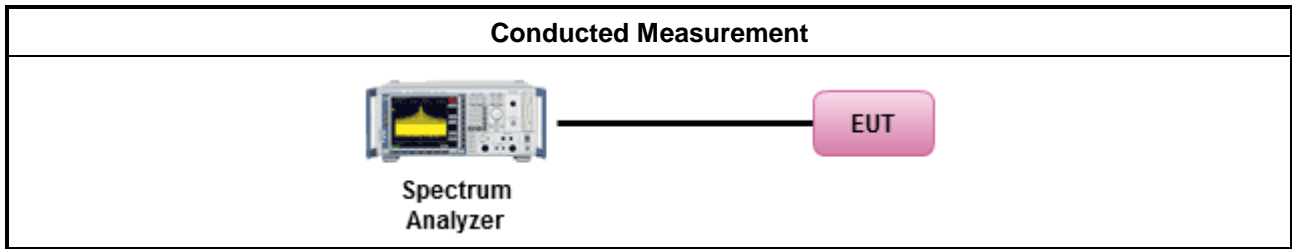


**3.4.3 Test Procedures**

<b>Test Method</b>	
<ul style="list-style-type: none"> <li>▪ 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:</li> </ul>	
<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"> <li>▪ If the EUT supports multiple transmit chains using options given below:</li> </ul>	
<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"> <li>▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods:  <math>PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = PPSD_{total} + DG</math> </li> </ul>	
<input type="checkbox"/> For radiated measurement.	
<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.</li> </ul>	



### 3.4.4 Test Setup



### 3.4.5 Test Result of Power Spectral Density

Refer as Appendix D



### 3.5 Unwanted Emissions

#### 3.5.1 Transmitter Unwanted Emissions Limit

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

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
<input checked="" type="checkbox"/> 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m @3m]
<input checked="" type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m @3m]
<input checked="" type="checkbox"/> 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m @3m]
<input checked="" type="checkbox"/> 5.725 - 5.85 GHz	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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



linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

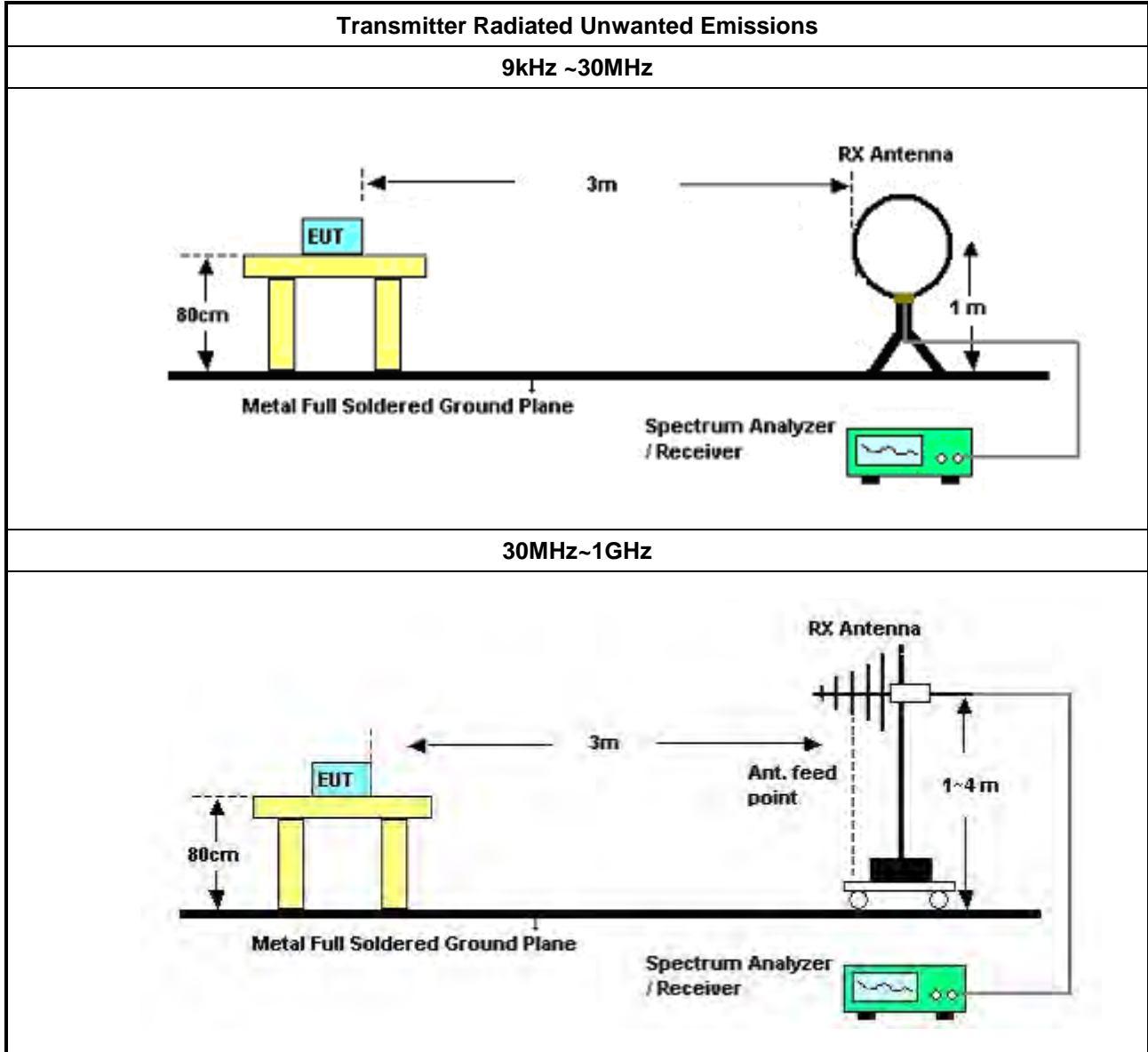
**3.5.2 Measuring Instruments**

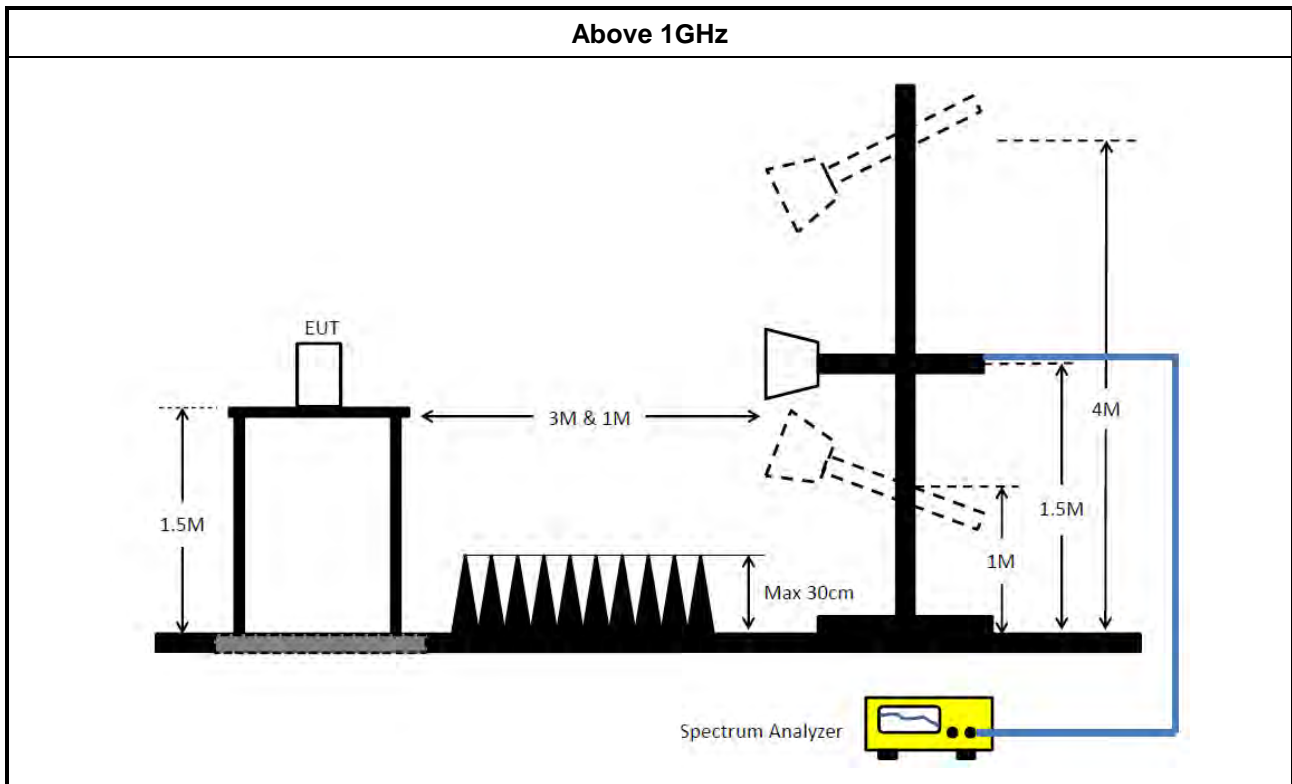
Refer a test equipment and calibration data table in this test report.

**3.5.3 Test Procedures**

<b>Test Method</b>															
<ul style="list-style-type: none"> <li>▪ 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).</li> </ul>															
<ul style="list-style-type: none"> <li>▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].</li> </ul>															
<ul style="list-style-type: none"> <li>▪ For the transmitter unwanted emissions shall be measured using following options below:               <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.</li> <li>▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.</li> </ul> </td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.</td> </tr> </table> </li> </ul>			<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.</li> <li>▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.</li> </ul>	<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"> <li>▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.</li> <li>▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.</li> </ul>														
<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"> <li>▪ For radiated measurement.               <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"></td> <td> <ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> <li>▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> <li>▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul> </td> </tr> </table> </li> </ul>			<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> <li>▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> <li>▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul>												
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> <li>▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> <li>▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul>														
<ul style="list-style-type: none"> <li>▪ The any unwanted emissions level shall not exceed the fundamental emission level.</li> </ul>															
<ul style="list-style-type: none"> <li>▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.</li> </ul>															

**3.5.4 Test Setup**





**3.5.5 Measurement Results Calculation**

The measured Level is calculated using:

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

**3.5.6 Transmitter Unwanted Emissions (Below 30MHz)**

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

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

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

**3.5.7 Test Result of Transmitter Unwanted Emissions**

Refer as Appendix E



## 4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Apr. 06, 2023	Apr. 05, 2024	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 20, 2022	Dec. 19, 2023	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	May 18, 2023	May 17, 2024	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 15, 2022	Aug. 14, 2023	Conducted (TH02-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 14, 2023	Aug. 13, 2024	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Oct. 17, 2022	Oct. 16, 2023	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Oct. 17, 2022	Oct. 16, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
Switch	SPTCB	SP-SWI	SWI-02	1 GHz ~26.5 GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 23, 2023	Mar. 22, 2024	Radiation (03CH06-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH06-CB	30 MHz ~ 1 GHz	Aug. 04, 2022	Aug. 03, 2023	Radiation (03CH06-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH06-CB	30 MHz ~ 1 GHz	Aug. 03, 2023	Aug. 02, 2024	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Sep. 30, 2022	Sep. 29, 2023	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Jul. 31, 2022	Jul. 30, 2023	Radiation (03CH06-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Bilog Antenna with 6 dB attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Jul. 30, 2023	Jul. 29, 2024	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 28, 2023	Jun. 27, 2024	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	Nov. 04, 2022	Nov. 03, 2023	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	Aug. 02, 2022	Aug. 01, 2023	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	Aug. 01, 2023	Jul. 31, 2024	Radiation (03CH06-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Dec. 21, 2022	Dec. 20, 2023	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 13, 2023	Jun. 12, 2024	Radiation (03CH06-CB)
RF Cable-low	Woken	RG402	Low Cable-24+68	30MHz~1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH06-CB)
RF Cable-low	Woken	RG402	Low Cable-24+68	30MHz~1GHz	Aug. 15, 2023	Aug. 14, 2024	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-05+68	1GHz~18GHz	Dec. 21, 2022	Dec. 20, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 05, 2023	May 04, 2024	Radiation (03CH01-CB)
Horn Antenna	ETS-LINDGREN	3115	00075790	750MHz ~ 18GHz	Nov. 04, 2022	Nov. 03, 2023	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 28, 2023	Jun. 27, 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. 16, 2022	Nov. 15, 2023	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov. 29, 2022	Nov. 29, 2023	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 04, 2023	May 03, 2024	Radiation (03CH03-CB)
Horn Antenna	ETS · Lindgren	3115	6821	750MHz~18GHz	Feb. 03, 2023	Feb. 02, 2024	Radiation (03CH03-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 28, 2023	Jun. 27, 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. 16, 2022	Nov. 15, 2023	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	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)

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

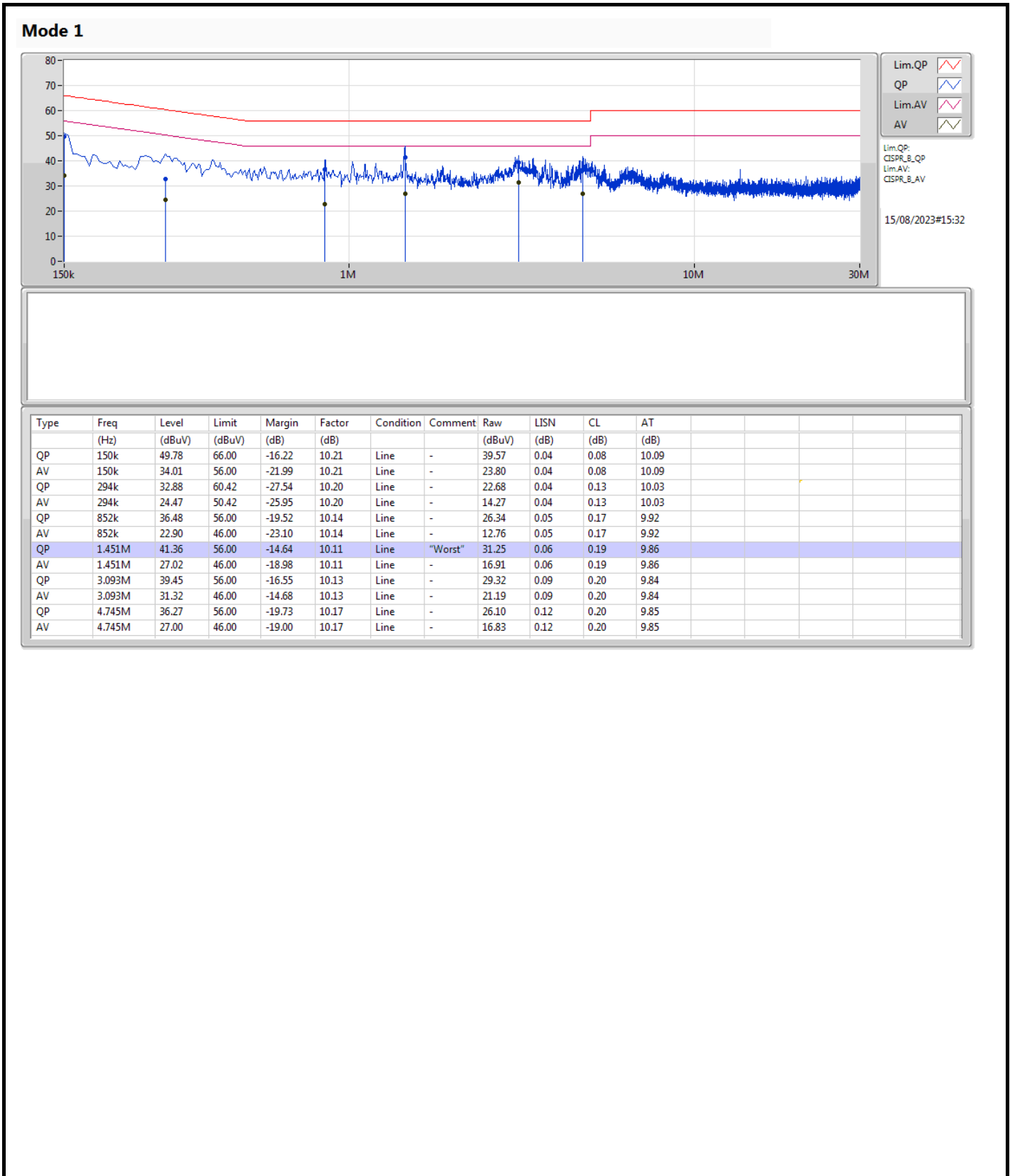
N.C.R means Non-Calibration required.

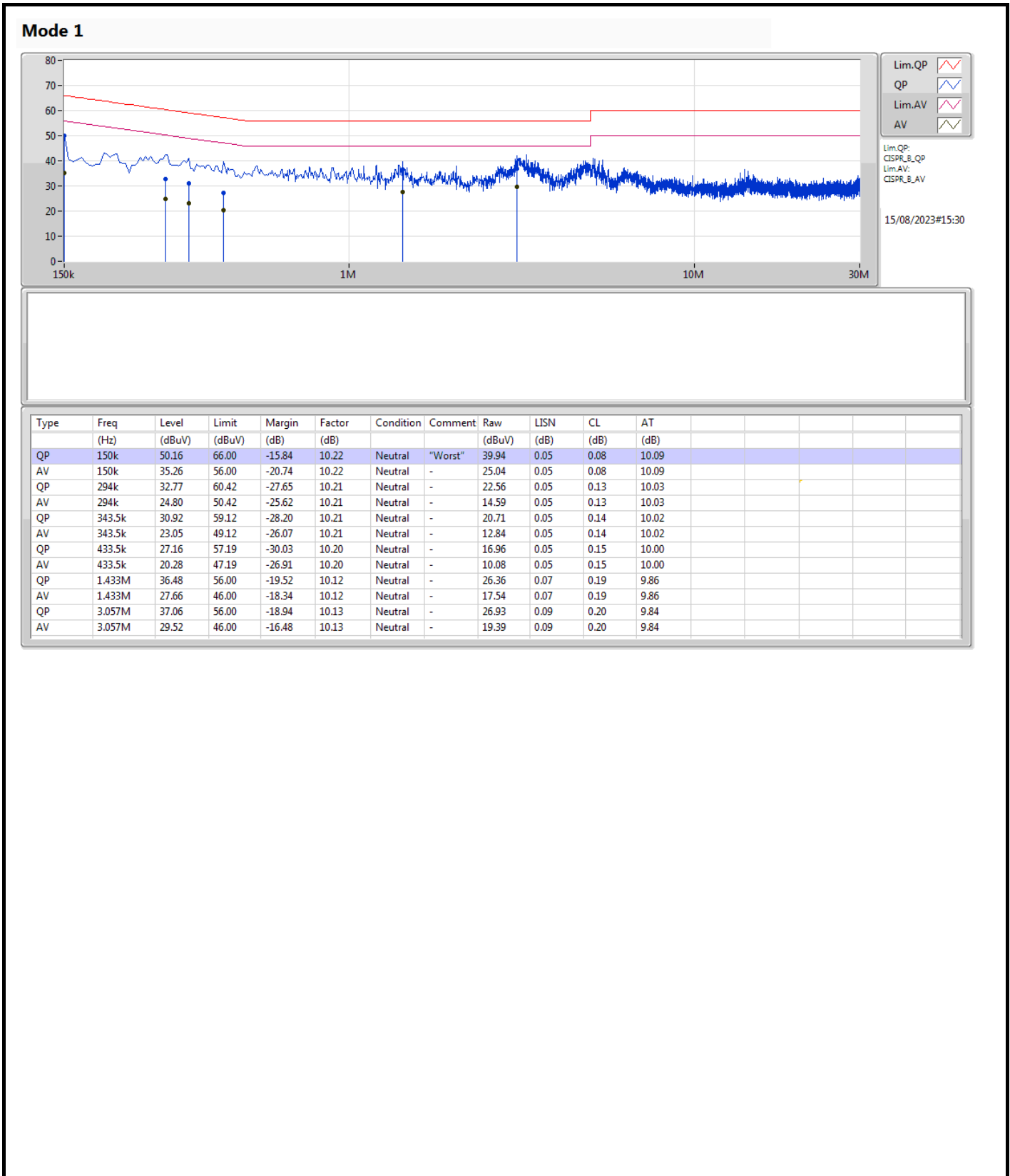




**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	1.451M	41.36	56.00	-14.64	Line





**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	23.595M	17.239M	17M2D1D	20.625M	16.517M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	24.585M	19.298M	19M3D1D	20.24M	18.989M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	47.08M	38.065M	38M1D1D	39.16M	37.724M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	86.46M	77.415M	77M4D1D	80.52M	76.946M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	80.96M	77.415M	77M4D1D	80M	76.891M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	22.88M	17.107M	17M1D1D	20.075M	16.536M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	26.07M	19.115M	19M1D1D	20.845M	18.936M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	43.34M	37.881M	37M9D1D	39.38M	37.63M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	83.16M	77.409M	77M4D1D	80.08M	77.12M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	81.04M	77.239M	77M2D1D	80M	77.153M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	22.22M	16.998M	17MOD1D	15.48M	13.228M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	24.365M	19.158M	19M2D1D	15.435M	14.454M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	44.33M	37.899M	37M9D1D	34.545M	33.676M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	85.36M	77.349M	77M3D1D	75.075M	73.125M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	163.24M	156.3M	156MD1D	161.48M	155.312M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.555M	18.291M	18M3D1D	3.2M	3.868M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	19.195M	20.42M	20M4D1D	4.48M	4.491M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	38.06M	38.143M	38M1D1D	3.98M	4.014M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	77.88M	77.561M	77M6D1D	4M	4.036M

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

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.835M	17.239M	23.595M	16.822M	21.23M	16.954M	21.505M	16.954M
5200MHz	Pass	Inf	21.56M	16.589M	21.67M	16.633M	22.165M	16.83M	21.12M	16.517M
5240MHz	Pass	Inf	20.625M	16.864M	20.68M	16.706M	20.955M	16.957M	20.79M	16.702M
5260MHz	Pass	Inf	20.79M	16.602M	20.9M	16.668M	20.955M	16.536M	20.57M	16.8M
5300MHz	Pass	Inf	20.185M	16.624M	20.79M	16.822M	20.625M	16.624M	20.075M	16.58M
5320MHz	Pass	Inf	21.065M	16.711M	21.89M	16.671M	22.22M	16.725M	22.88M	17.107M
5500MHz	Pass	Inf	21.065M	16.756M	22.22M	16.778M	21.945M	16.998M	21.34M	16.888M
5580MHz	Pass	Inf	21.285M	16.83M	20.845M	16.723M	20.9M	16.844M	21.12M	16.796M
5700MHz	Pass	Inf	21.12M	16.805M	20.955M	16.954M	20.955M	16.619M	21.12M	16.655M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.615M	13.228M	15.645M	13.454M	15.48M	13.299M	15.78M	13.389M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.2M	4.268M	3.2M	3.868M	3.22M	4.13M	3.2M	4.062M
5745MHz	Pass	500k	16.5M	17.363M	16.5M	17.173M	16.555M	17.055M	16.555M	16.893M
5785MHz	Pass	500k	16.445M	17.168M	16.5M	17.723M	16.5M	17.152M	16.5M	17.492M
5825MHz	Pass	500k	16.555M	17.368M	16.5M	17.805M	16.555M	18.215M	16.555M	18.291M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	23.21M	19.092M	22.66M	19.298M	24.585M	19.183M	22.495M	19.008M
5200MHz	Pass	Inf	20.68M	19.127M	21.505M	18.989M	21.23M	19.018M	21.56M	19.011M
5240MHz	Pass	Inf	21.175M	19.073M	20.24M	19.016M	22M	19.031M	20.9M	19.026M
5260MHz	Pass	Inf	21.065M	19.047M	20.845M	19.023M	21.175M	18.936M	20.9M	19.062M
5300MHz	Pass	Inf	21.56M	18.979M	21.505M	18.959M	21.23M	18.995M	20.845M	18.987M
5320MHz	Pass	Inf	23.265M	19.084M	24.475M	19.054M	26.07M	19.032M	22.99M	19.115M
5500MHz	Pass	Inf	21.01M	19.049M	24.2M	19.119M	21.835M	19.114M	24.365M	18.97M
5580MHz	Pass	Inf	20.13M	19.05M	21.12M	18.97M	20.9M	19.158M	20.845M	19.078M
5700MHz	Pass	Inf	21.45M	18.98M	20.68M	18.967M	20.79M	19.077M	20.515M	18.988M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.645M	14.501M	15.765M	14.524M	15.435M	14.548M	15.765M	14.454M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.48M	4.517M	4.5M	4.518M	4.48M	4.491M	4.48M	4.511M
5745MHz	Pass	500k	17.105M	19.203M	19.085M	19.116M	19.085M	19.103M	19.085M	19.232M
5785MHz	Pass	500k	19.03M	19.114M	19.085M	19.576M	19.03M	19.134M	19.195M	19.153M
5825MHz	Pass	500k	19.085M	19.523M	19.03M	19.264M	19.03M	19.638M	19.14M	20.42M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.37M	37.905M	44.66M	37.942M	46.64M	37.873M	47.08M	37.895M
5230MHz	Pass	Inf	39.16M	37.8M	39.6M	37.724M	39.6M	38.065M	39.6M	37.971M
5270MHz	Pass	Inf	40.15M	37.689M	39.93M	37.695M	39.38M	37.63M	39.82M	37.794M
5310MHz	Pass	Inf	41.8M	37.831M	42.57M	37.831M	41.25M	37.731M	43.34M	37.881M
5510MHz	Pass	Inf	44.33M	37.721M	43.45M	37.801M	40.37M	37.899M	44M	37.867M
5550MHz	Pass	Inf	39.49M	37.637M	39.49M	37.63M	39.27M	37.706M	39.82M	37.656M
5670MHz	Pass	Inf	39.6M	37.731M	39.27M	37.639M	39.38M	37.728M	39.93M	37.538M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.545M	33.676M	34.86M	33.905M	34.895M	33.785M	34.895M	33.72M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4M	4.016M	4.06M	4.031M	4.06M	4.042M	3.98M	4.014M
5755MHz	Pass	500k	33.33M	37.75M	38.06M	38.143M	37.62M	37.763M	37.95M	37.938M
5795MHz	Pass	500k	37.84M	37.796M	38.06M	37.985M	37.51M	38.008M	37.73M	38.01M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	86.46M	77.415M	80.52M	77.167M	84.04M	76.946M	81.62M	77.258M
5290MHz	Pass	Inf	83.16M	77.409M	82.28M	77.189M	80.08M	77.197M	81.18M	77.12M
5530MHz	Pass	Inf	80.08M	77.14M	85.36M	77.293M	81.62M	77.349M	80.3M	76.624M
5610MHz	Pass	Inf	81.4M	77.194M	79.86M	76.973M	80.3M	77.188M	80.74M	76.765M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.075M	73.137M	75.075M	73.125M	75.075M	73.151M	75.975M	73.16M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4.04M	4.039M	4M	4.036M	4M	4.056M	4M	4.038M
5775MHz	Pass	500k	77.88M	77.561M	77.66M	77.461M	77.88M	77.361M	77.22M	77.361M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	80.08M	77.076M	80M	77.372M	80.96M	76.891M	80.24M	77.415M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	80M	77.153M	80M	77.227M	81.04M	77.177M	80M	77.239M
5570MHz	Pass	Inf	163.24M	156.3M	161.48M	155.519M	162.36M	155.312M	162.36M	156.253M

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

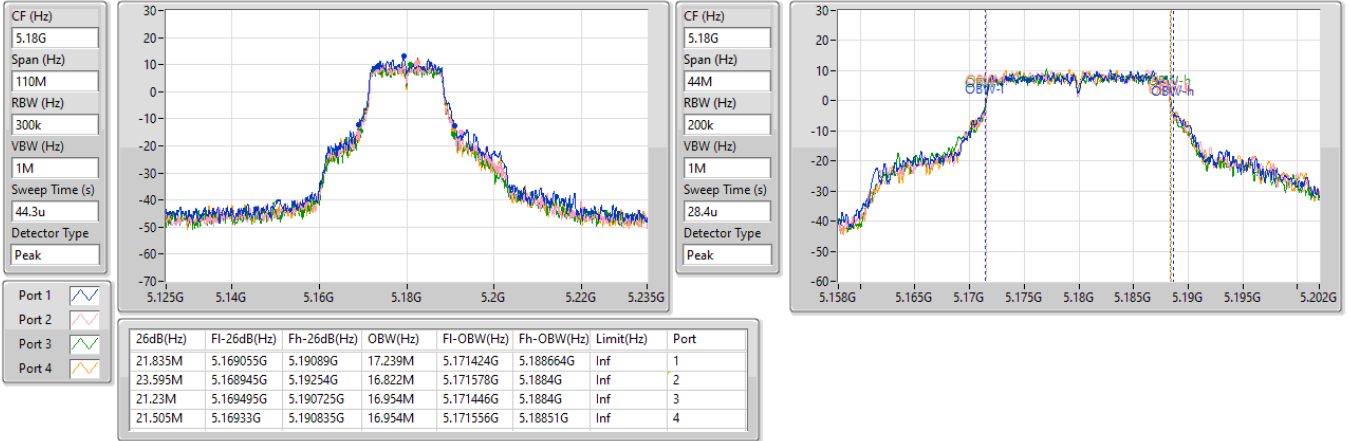
Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz\_802.11a\_Nss1,(6Mbps)\_4TX

EBW

5180MHz

07/08/2023

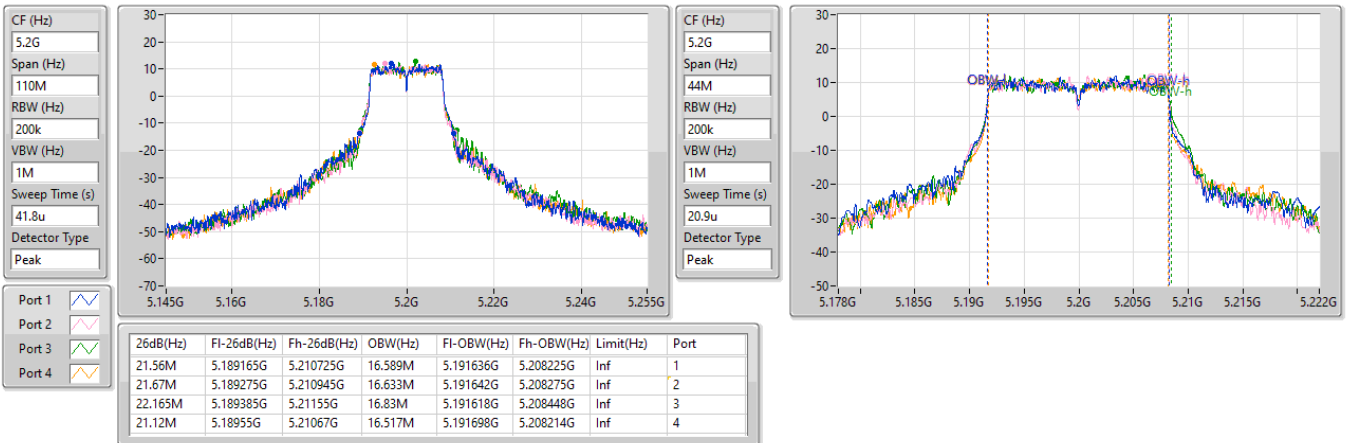


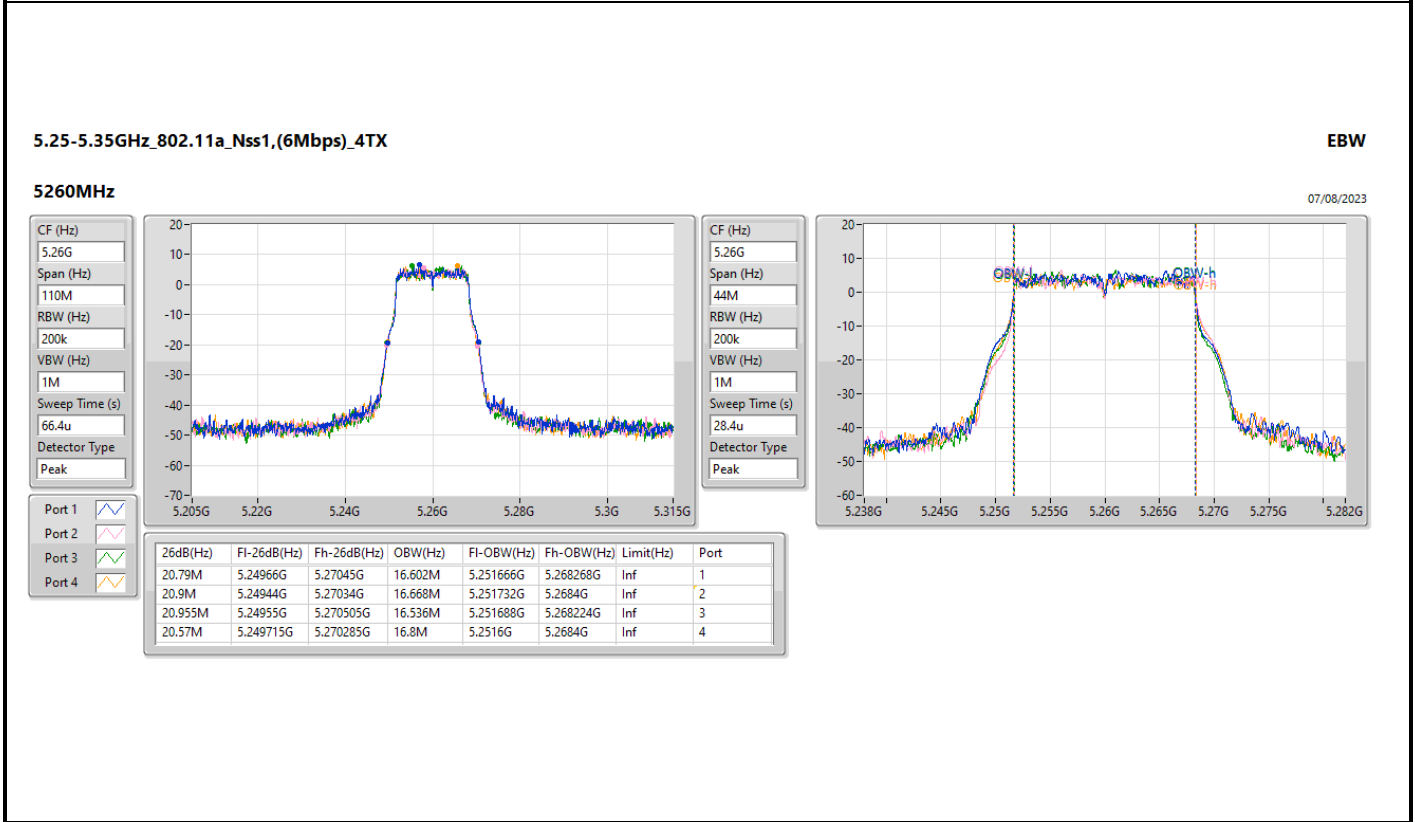
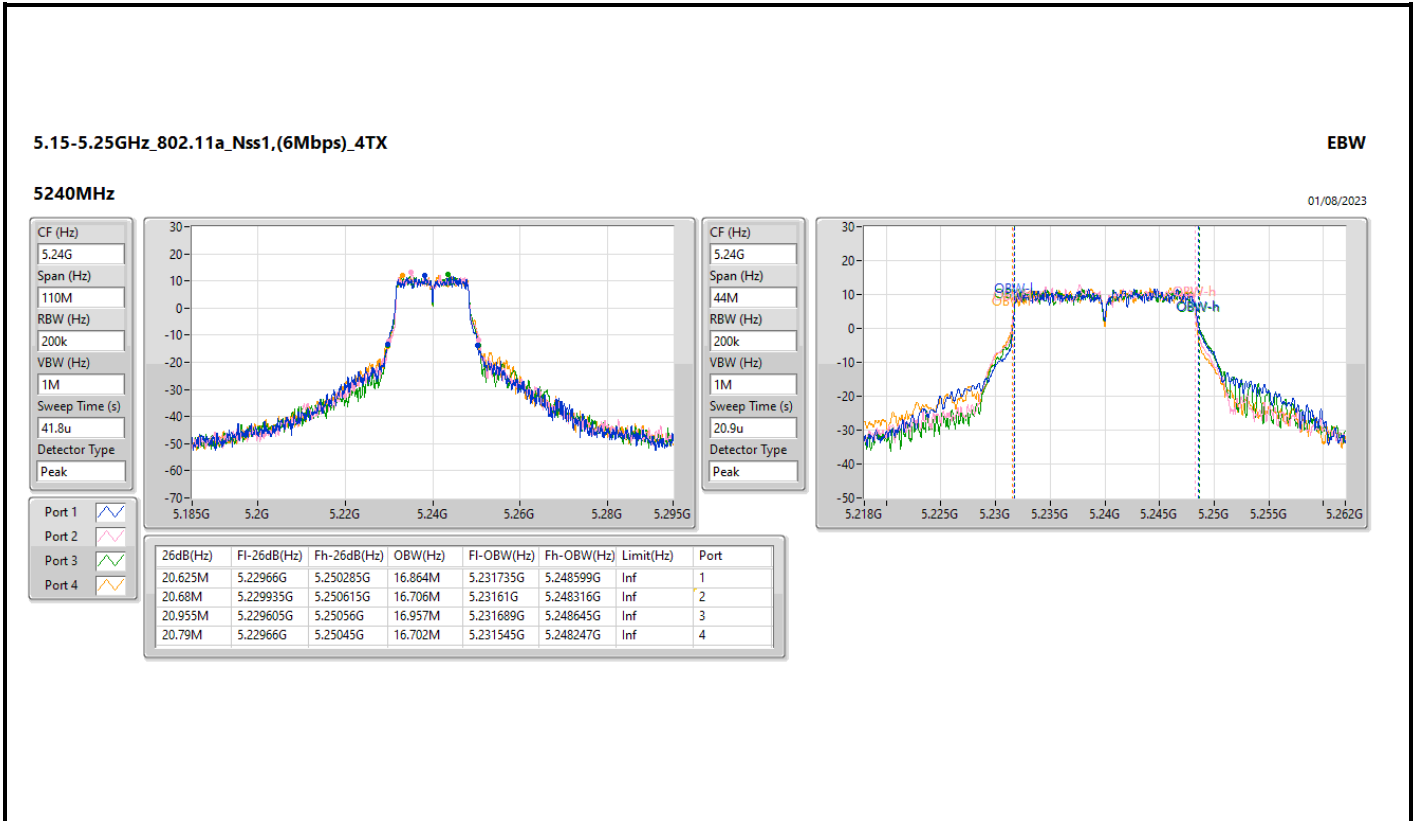
5.15-5.25GHz\_802.11a\_Nss1,(6Mbps)\_4TX

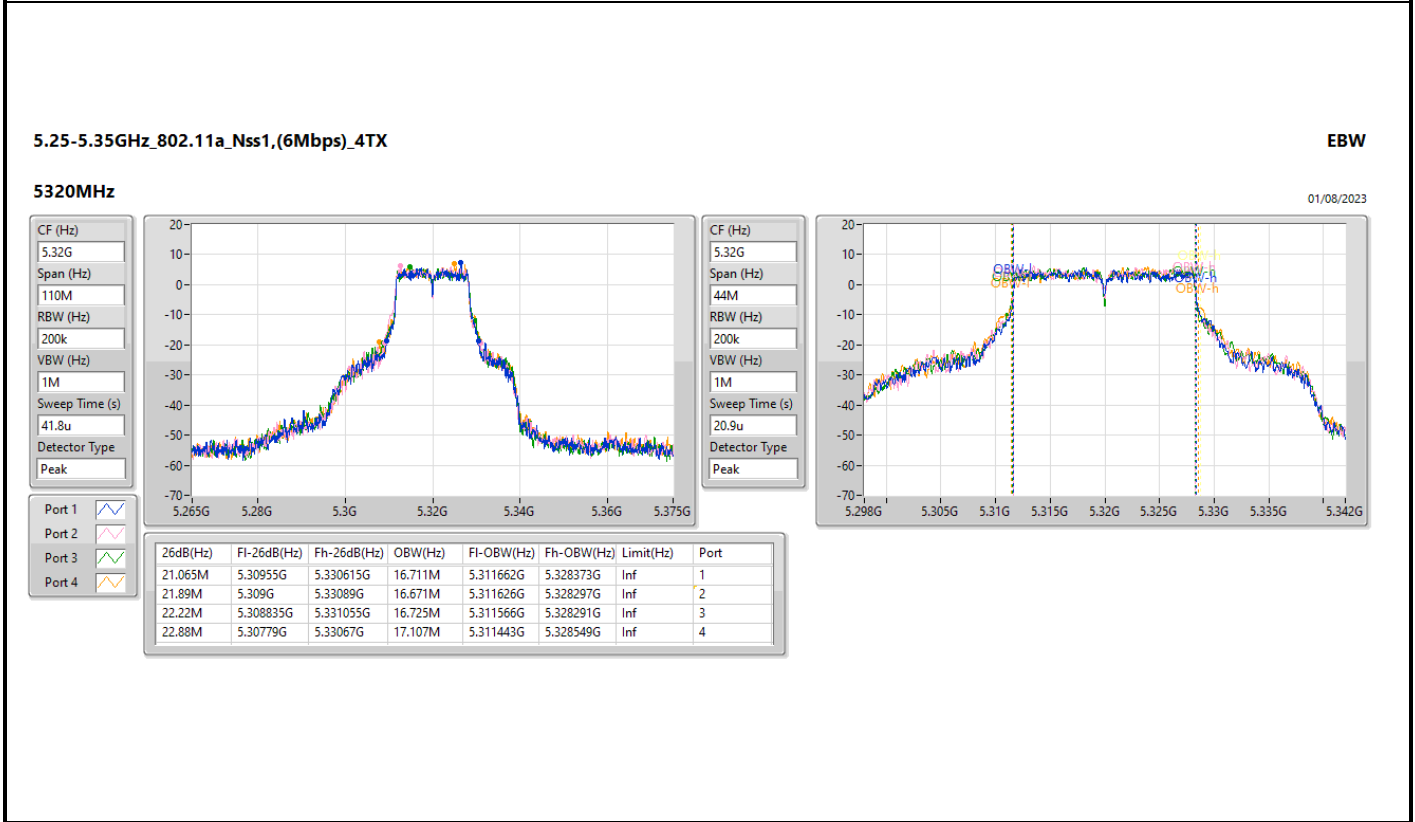
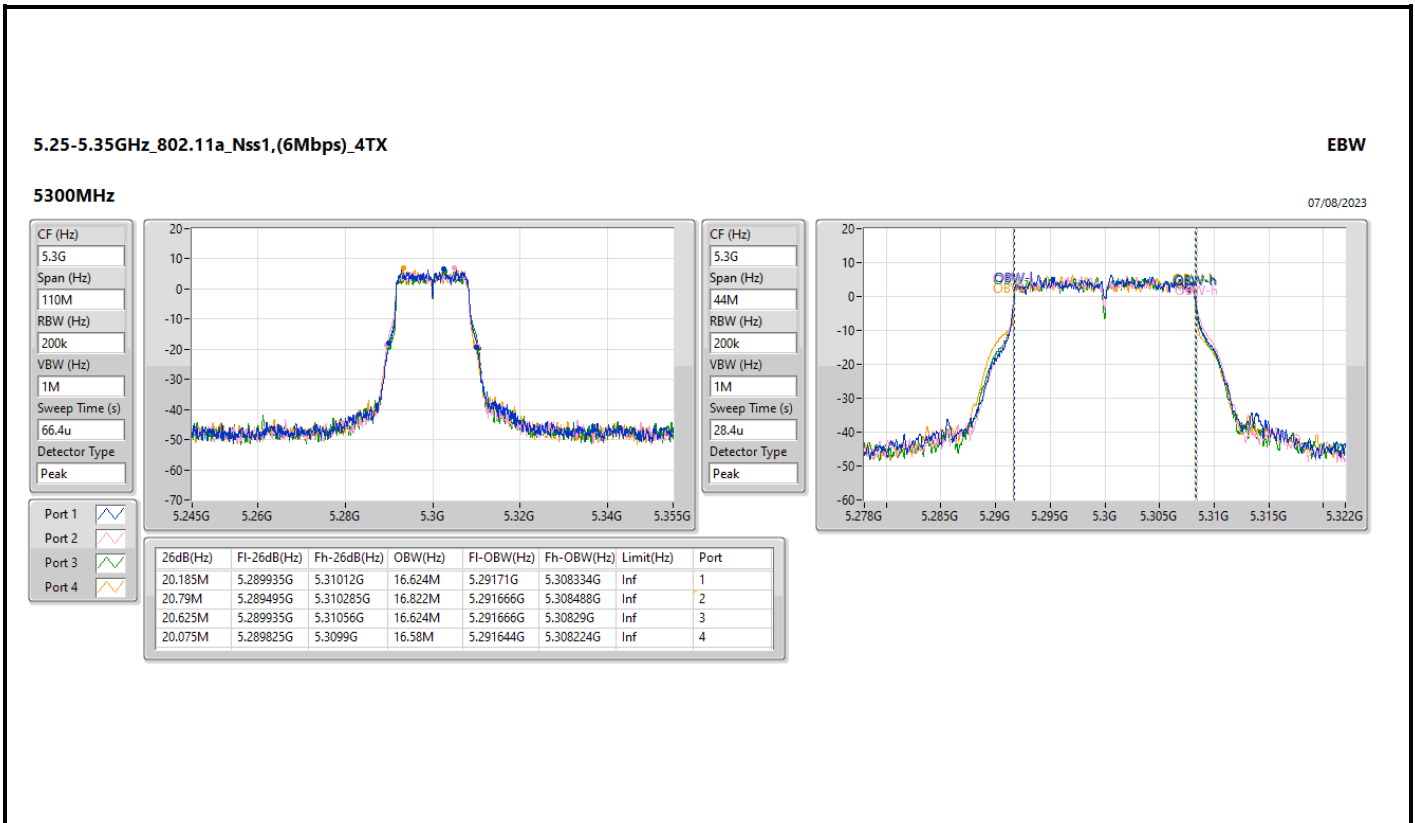
EBW

5200MHz

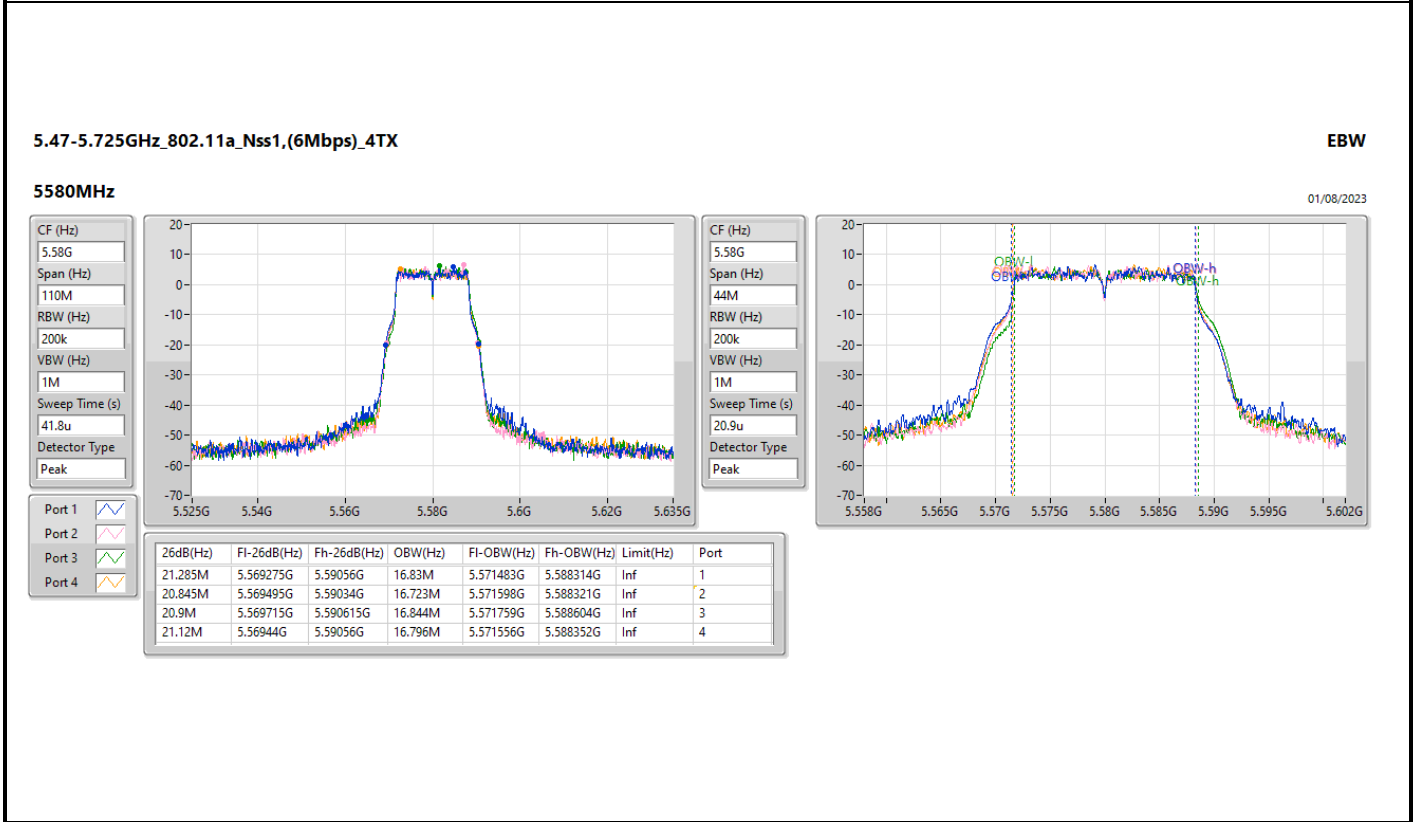
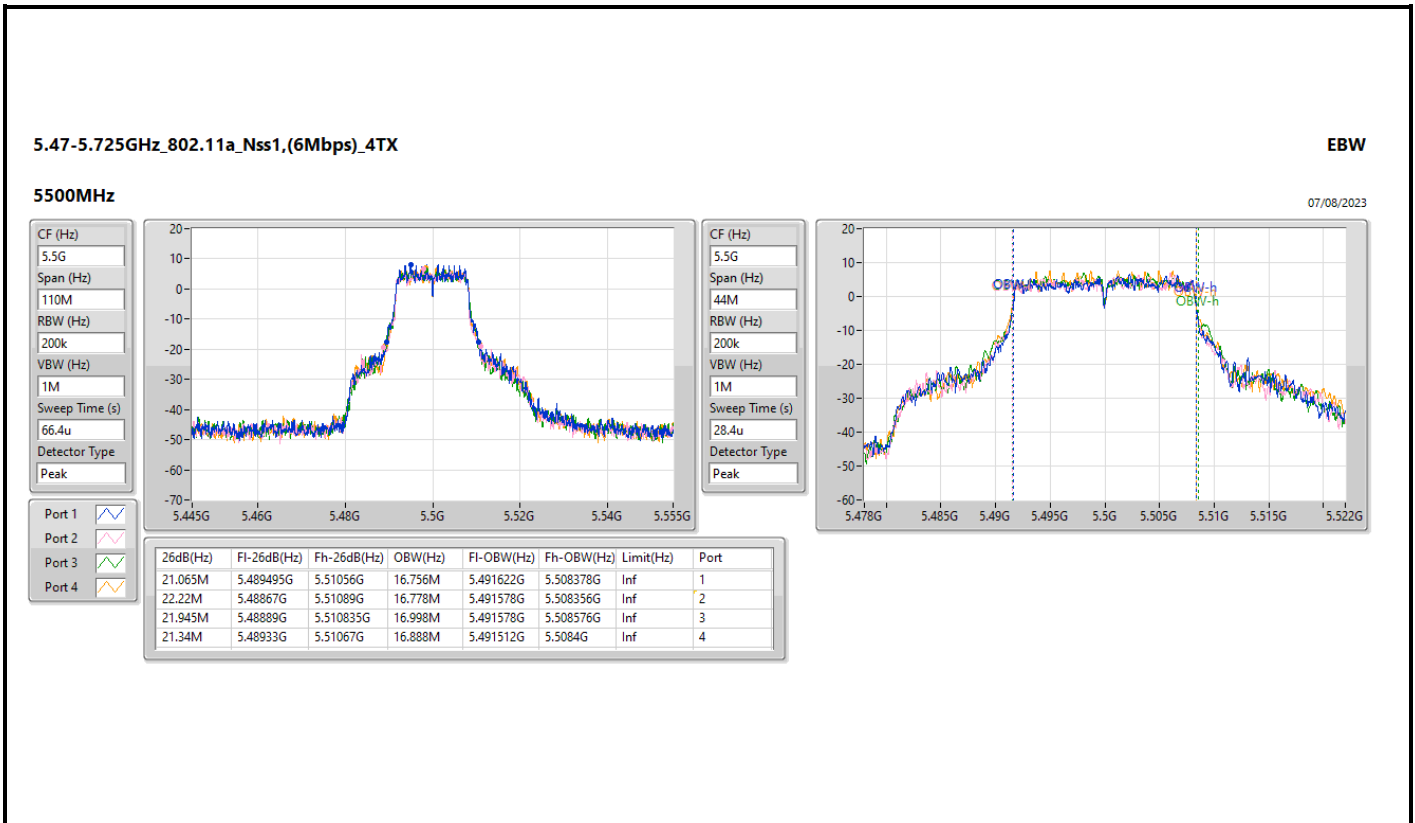
01/08/2023

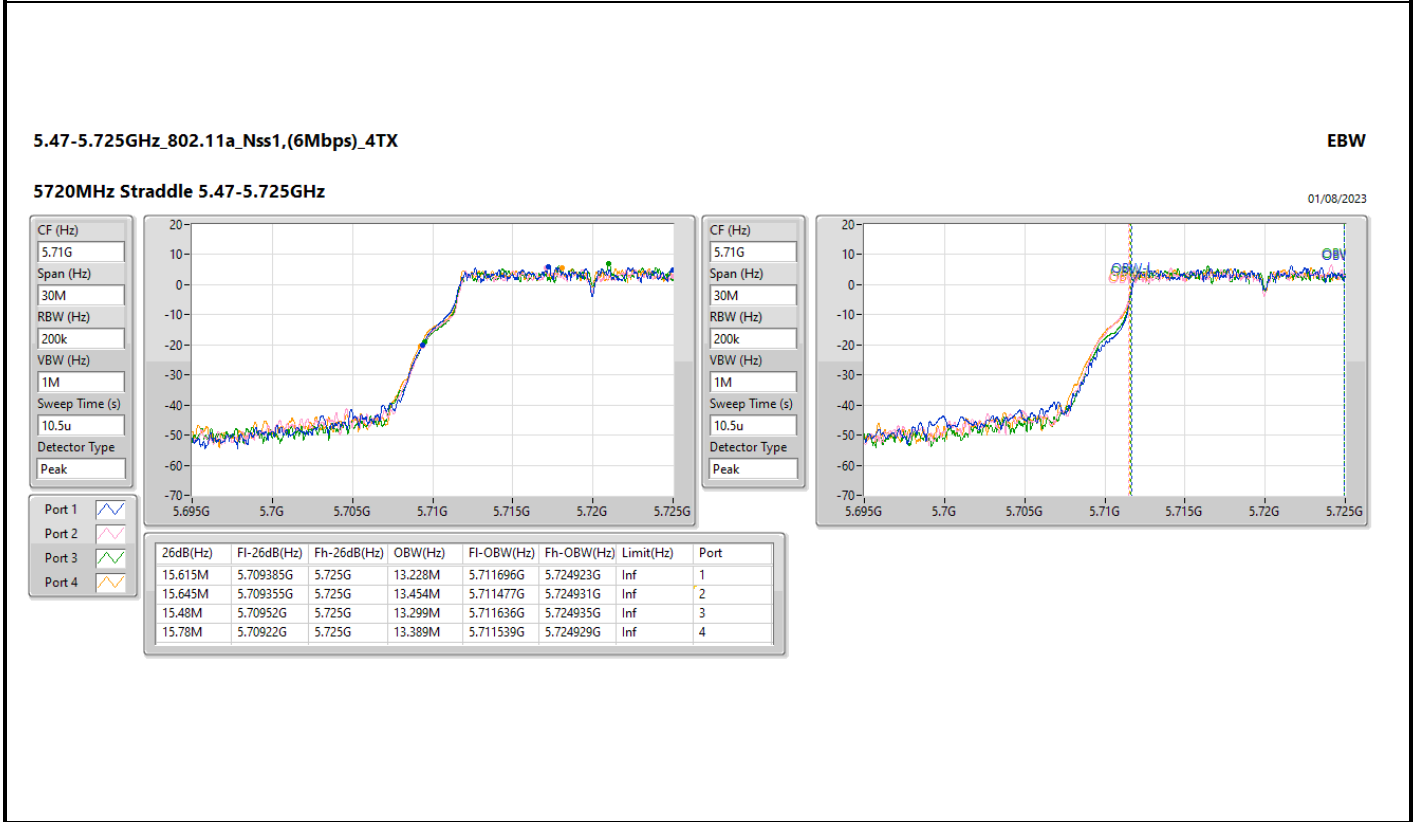
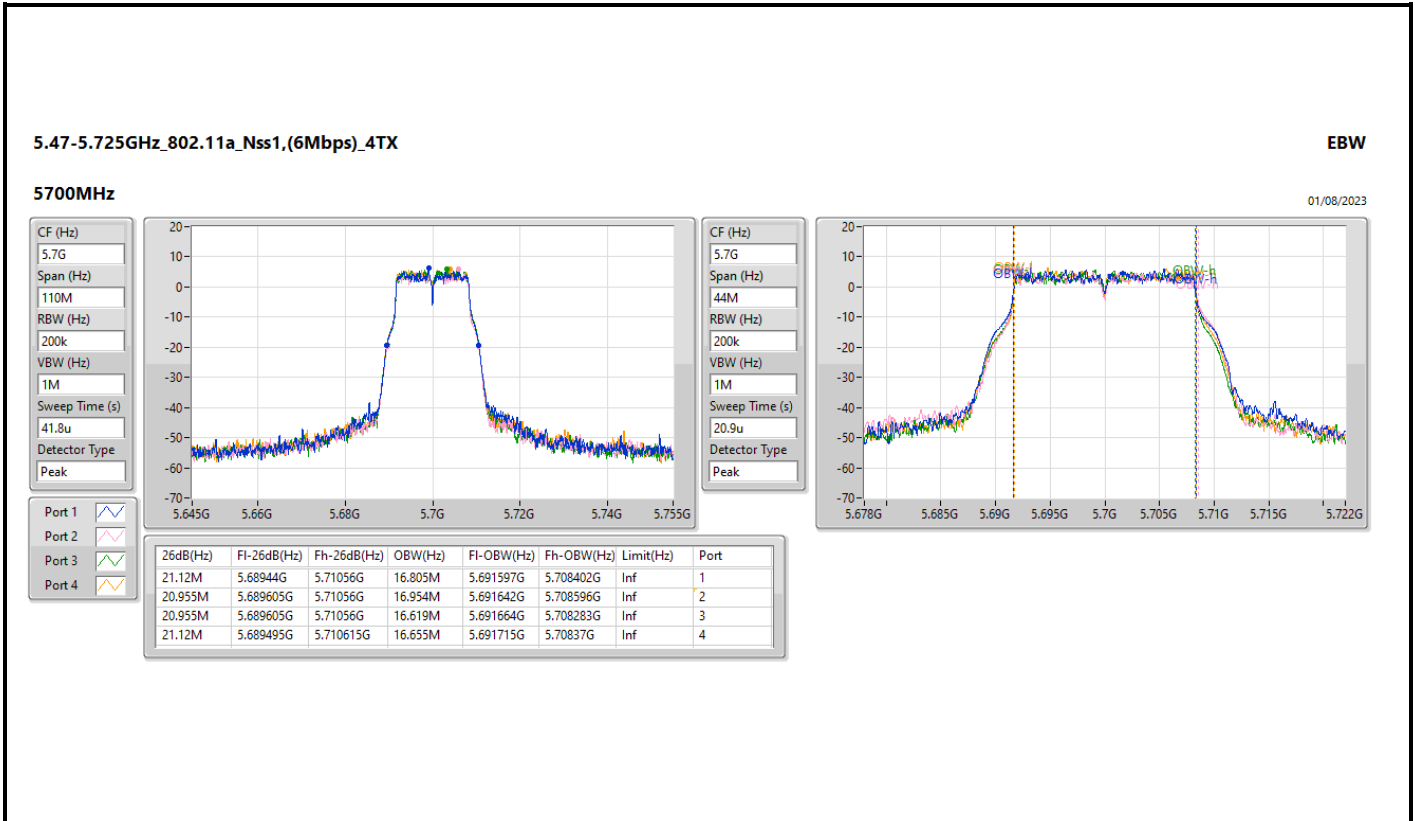


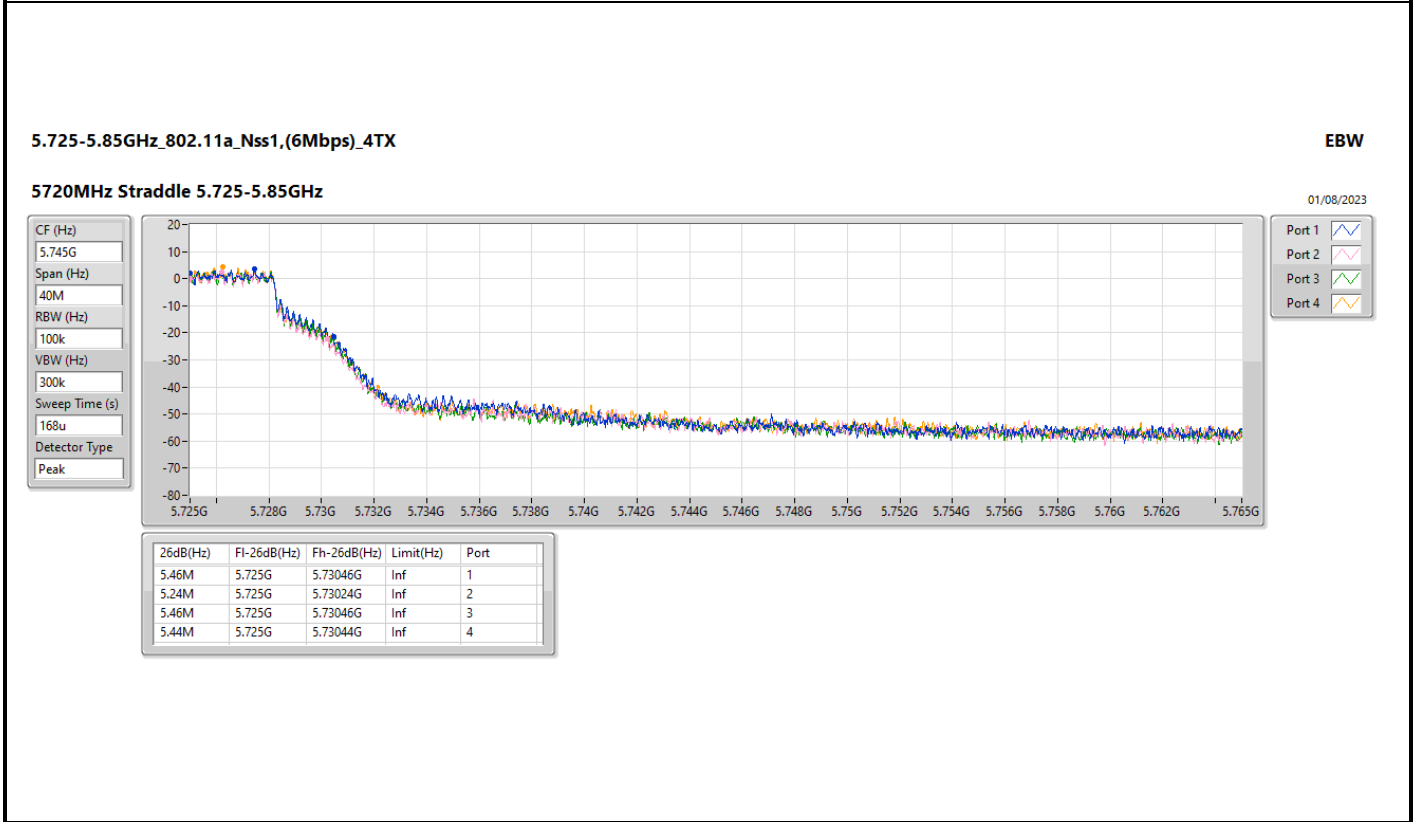
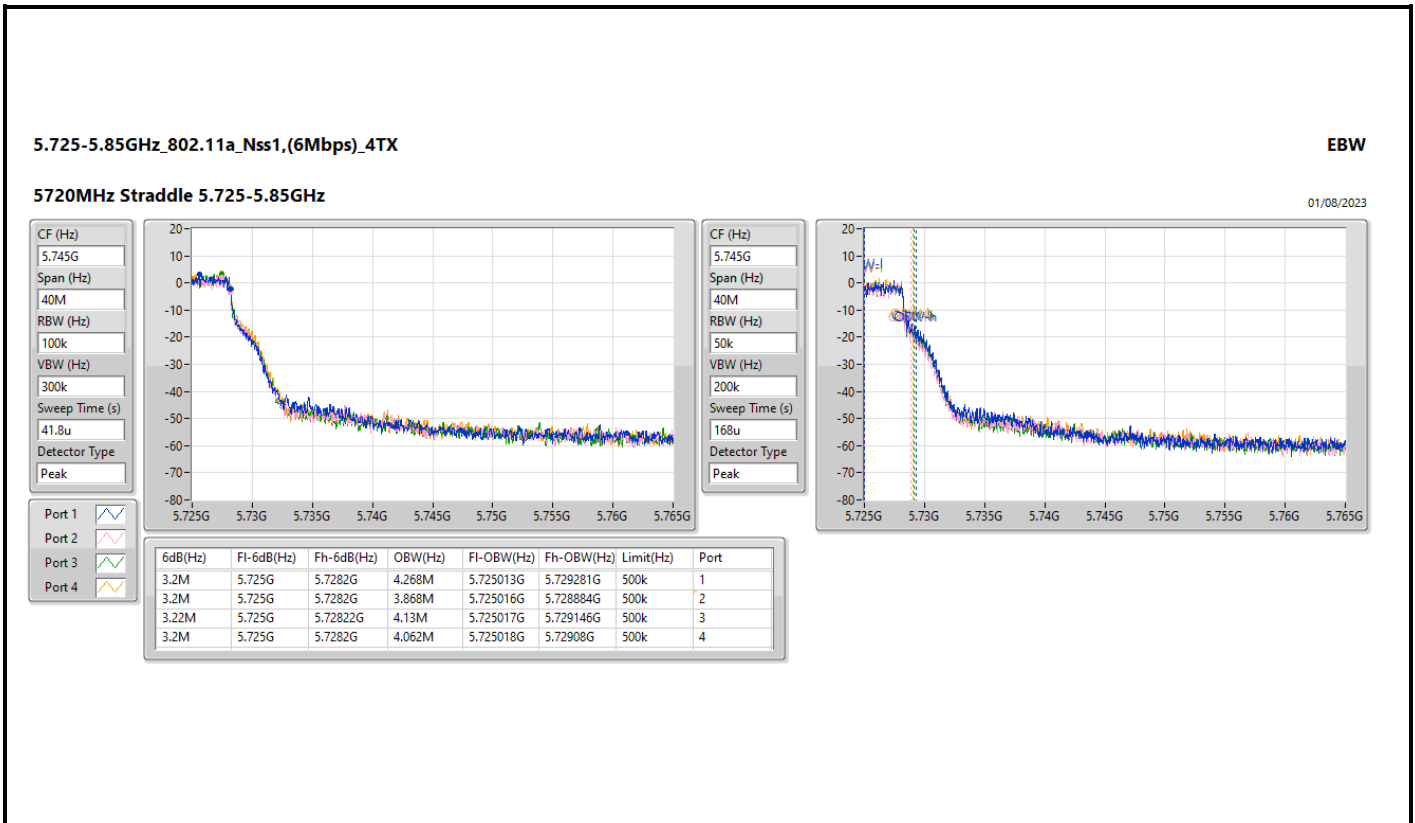


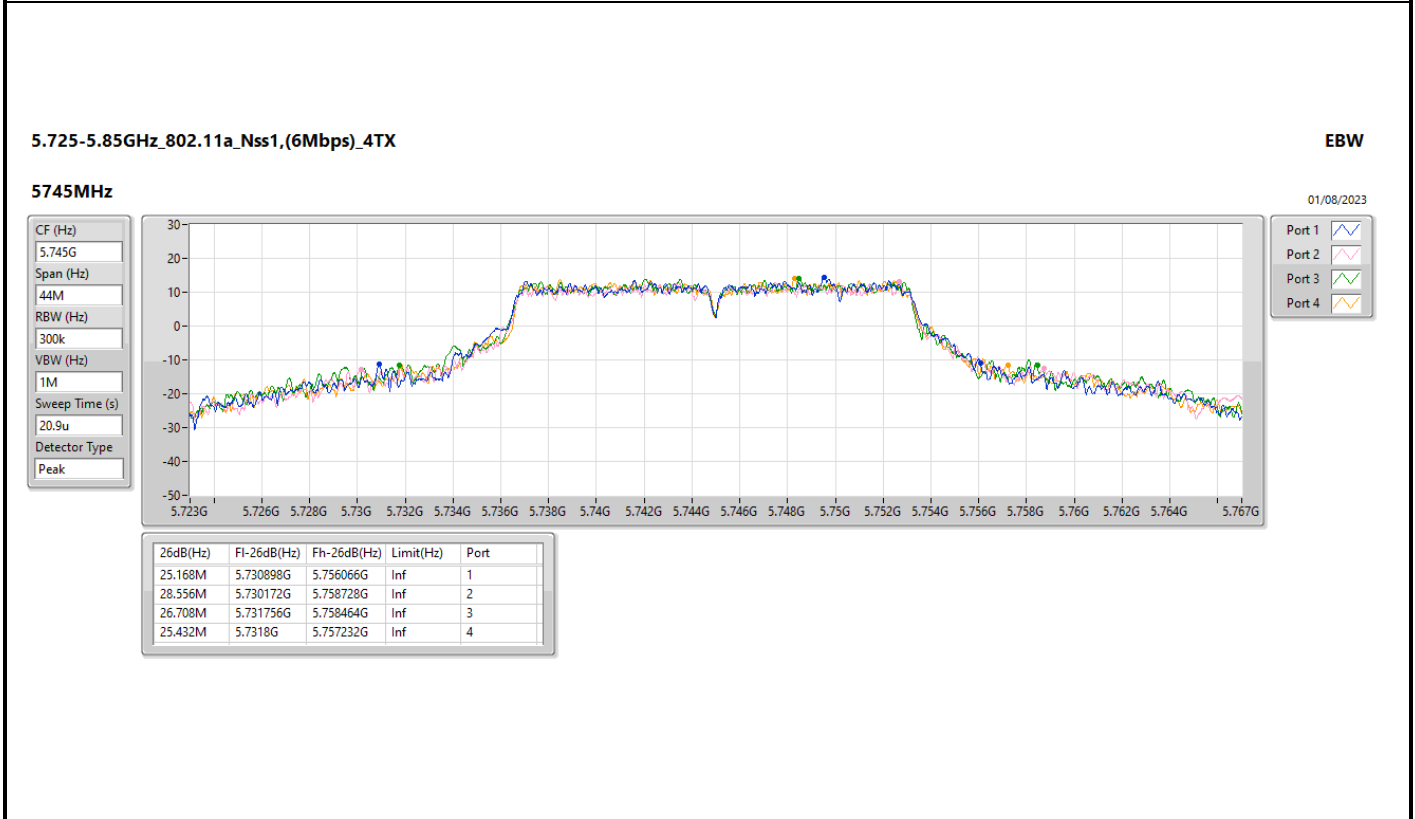
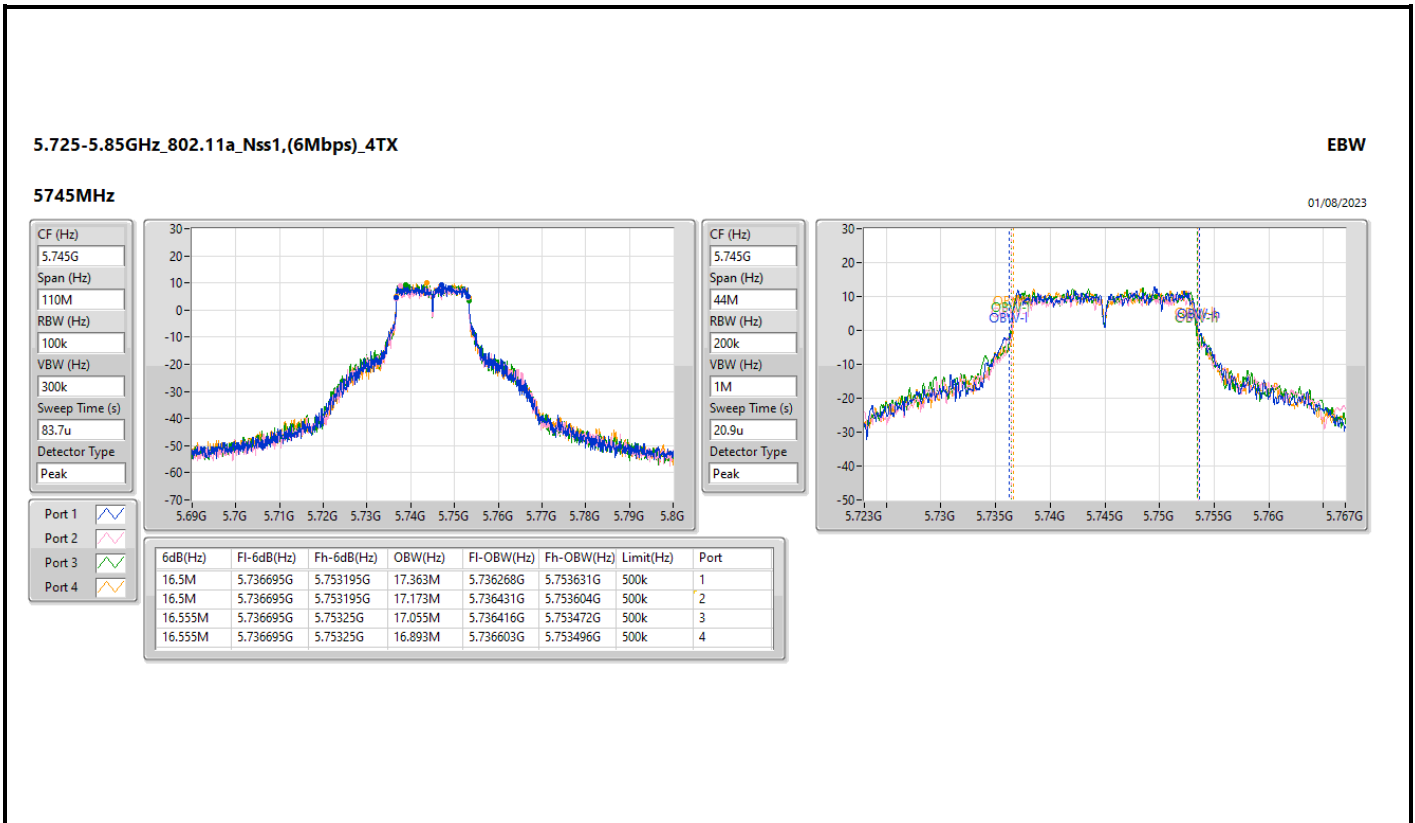


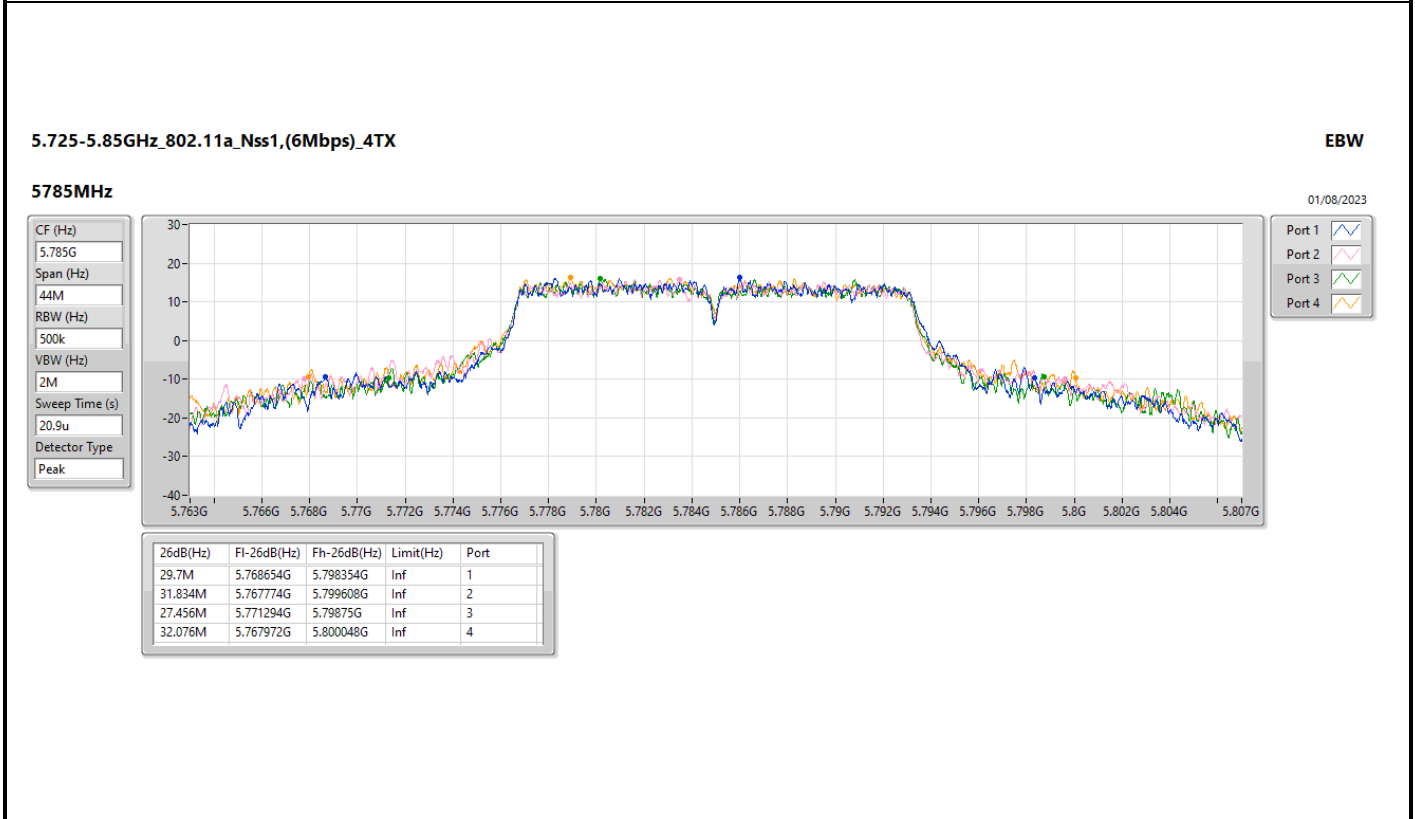
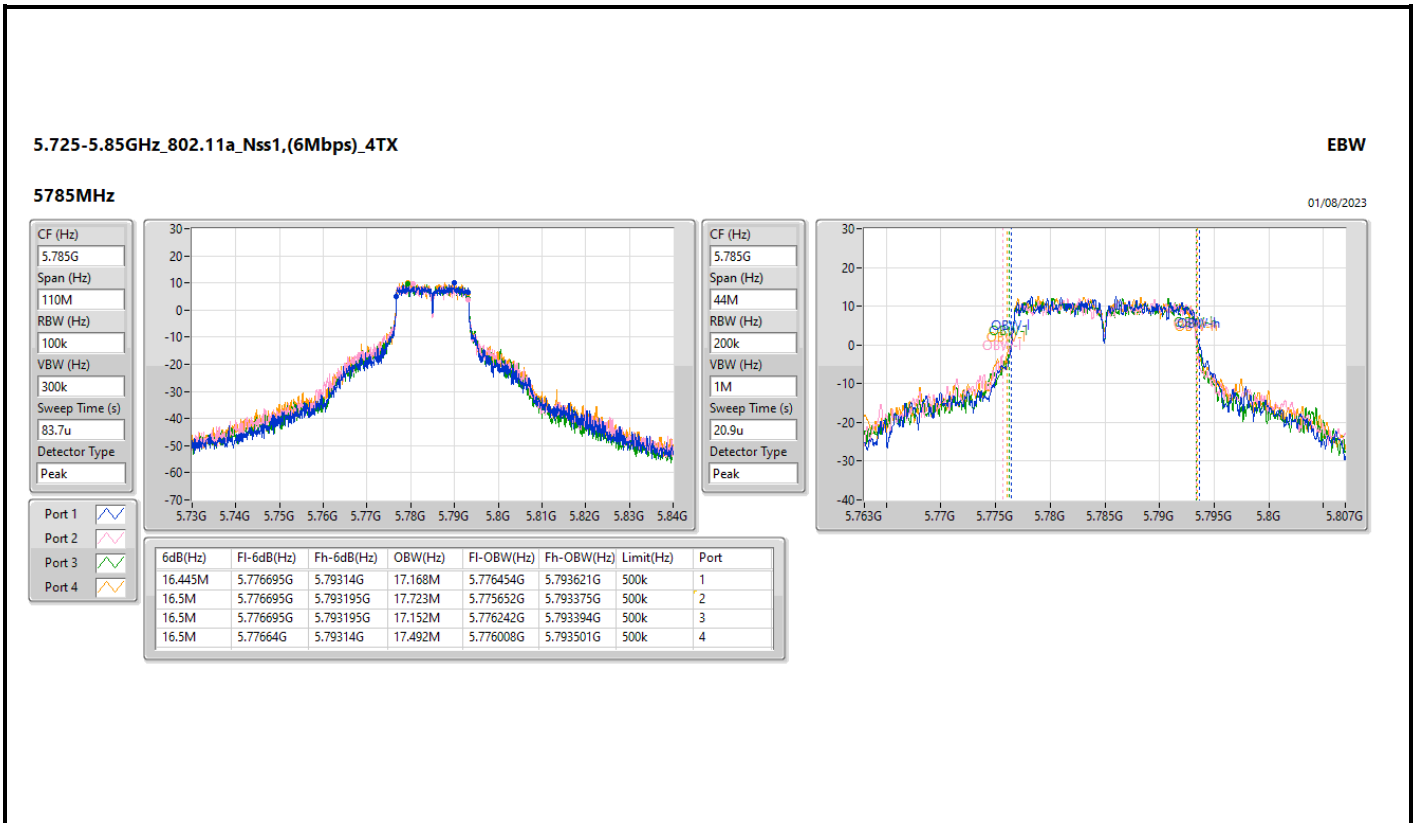


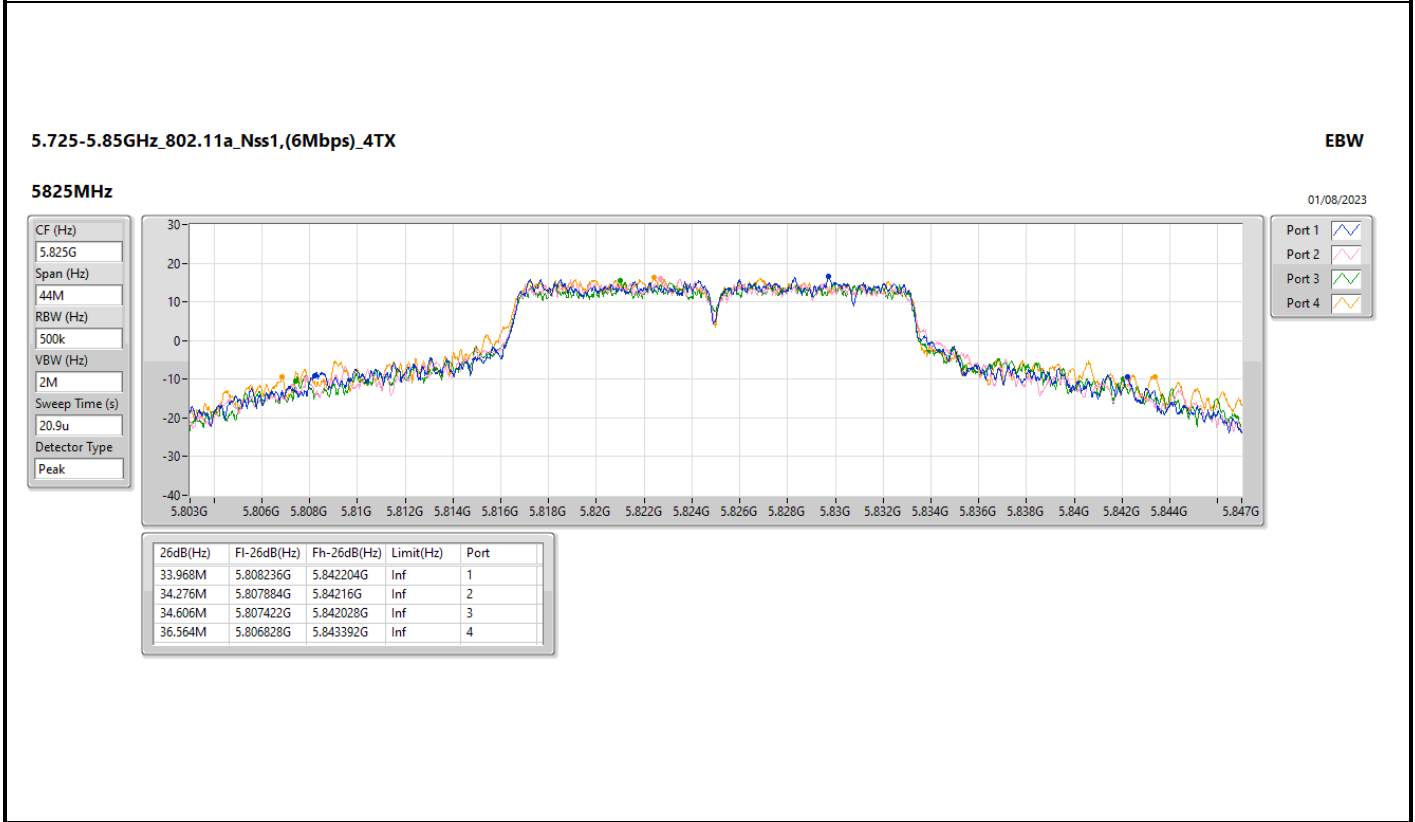
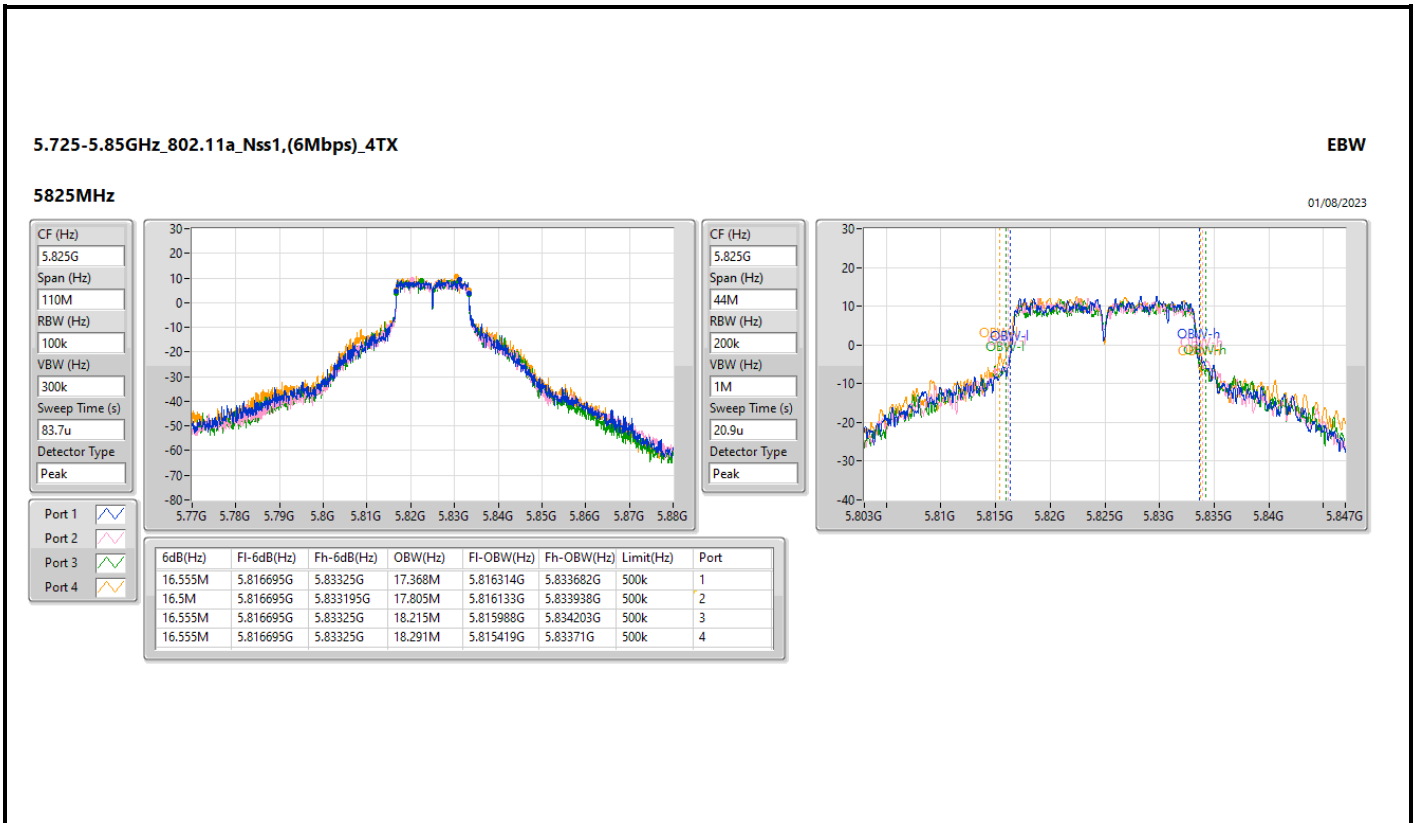










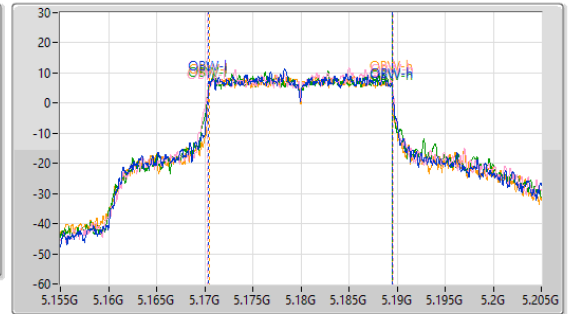
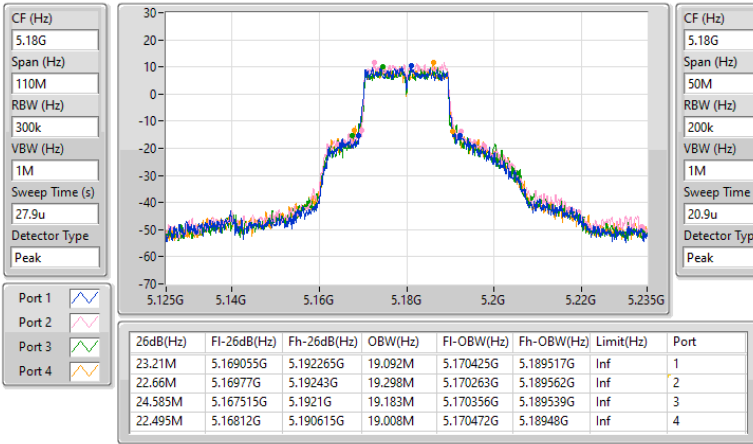


5.15-5.25GHz\_802.11be EHT20-BF\_Nss1,(MCS0)\_4TX

EBW

5180MHz

01/08/2023

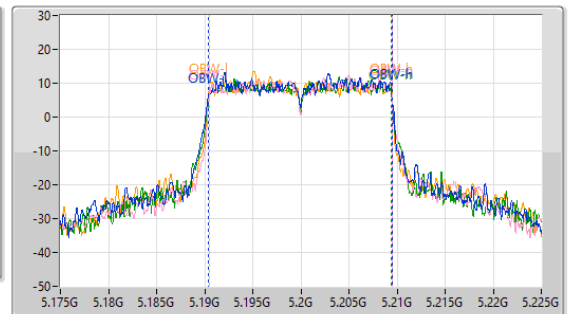
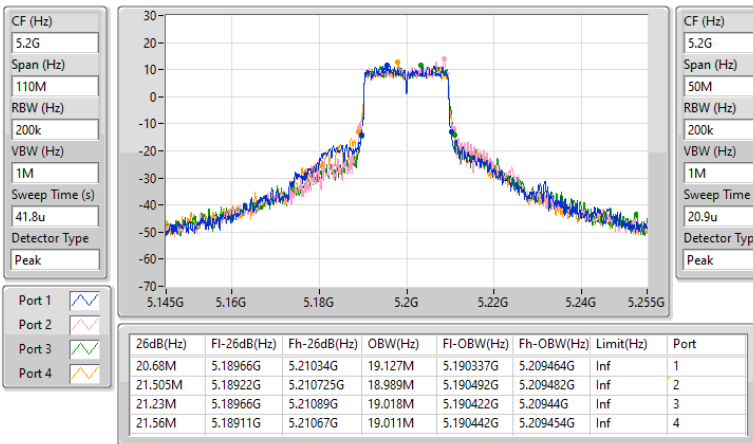


5.15-5.25GHz\_802.11be EHT20-BF\_Nss1,(MCS0)\_4TX

EBW

5200MHz

01/08/2023

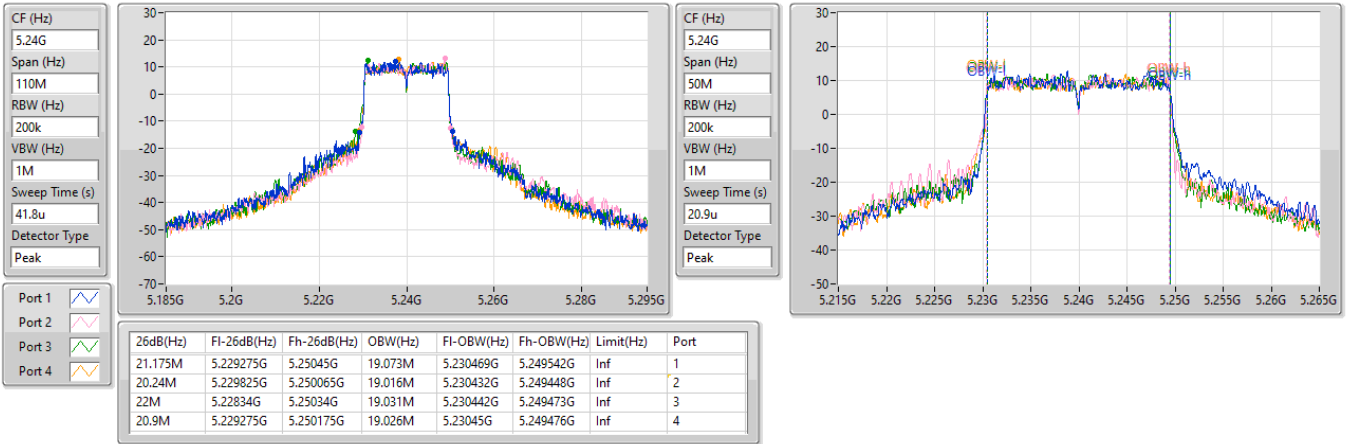


5.15-5.25GHz\_802.11be EHT20-BF\_Nss1,(MCS0)\_4TX

EBW

5240MHz

01/08/2023

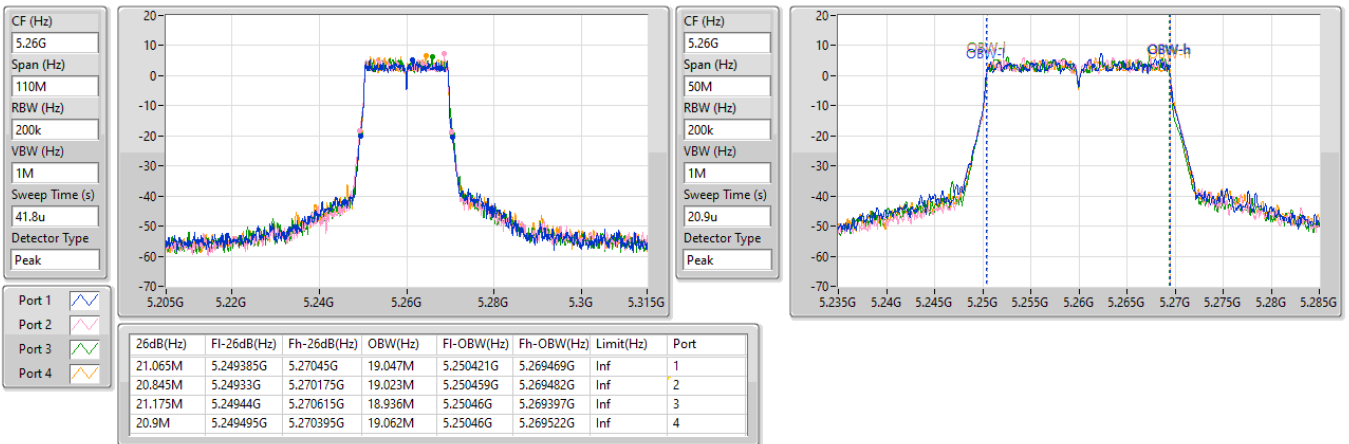


5.25-5.35GHz\_802.11be EHT20-BF\_Nss1,(MCS0)\_4TX

EBW

5260MHz

01/08/2023



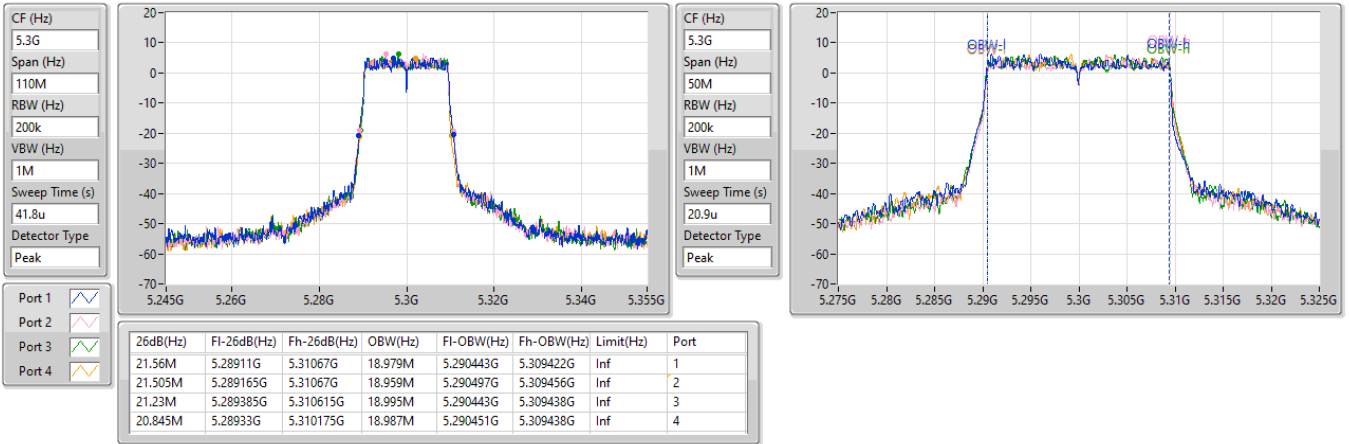


5.25-5.35GHz\_802.11be EHT20-BF\_Nss1,(MCS0)\_4TX

EBW

5300MHz

01/08/2023

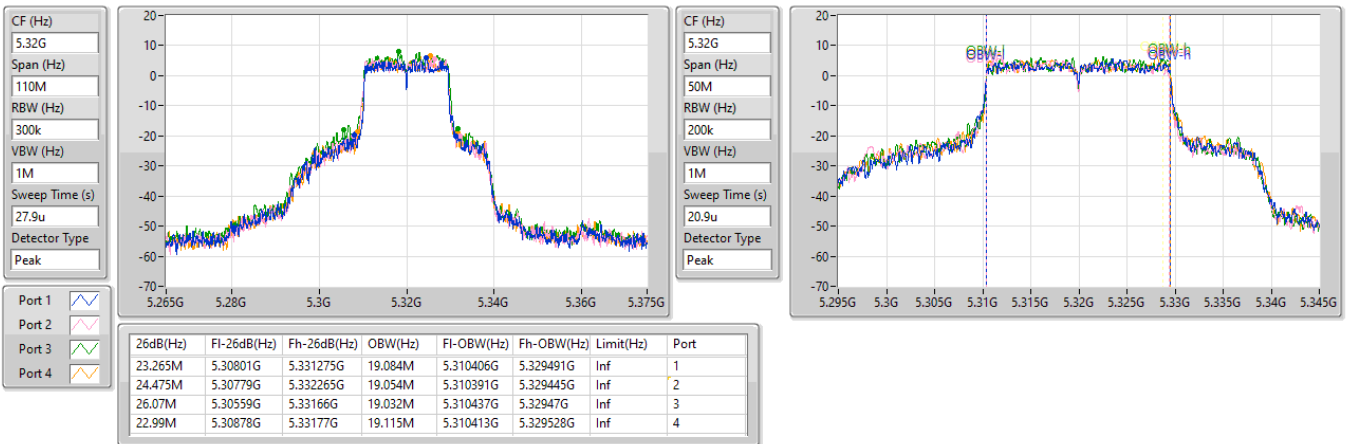


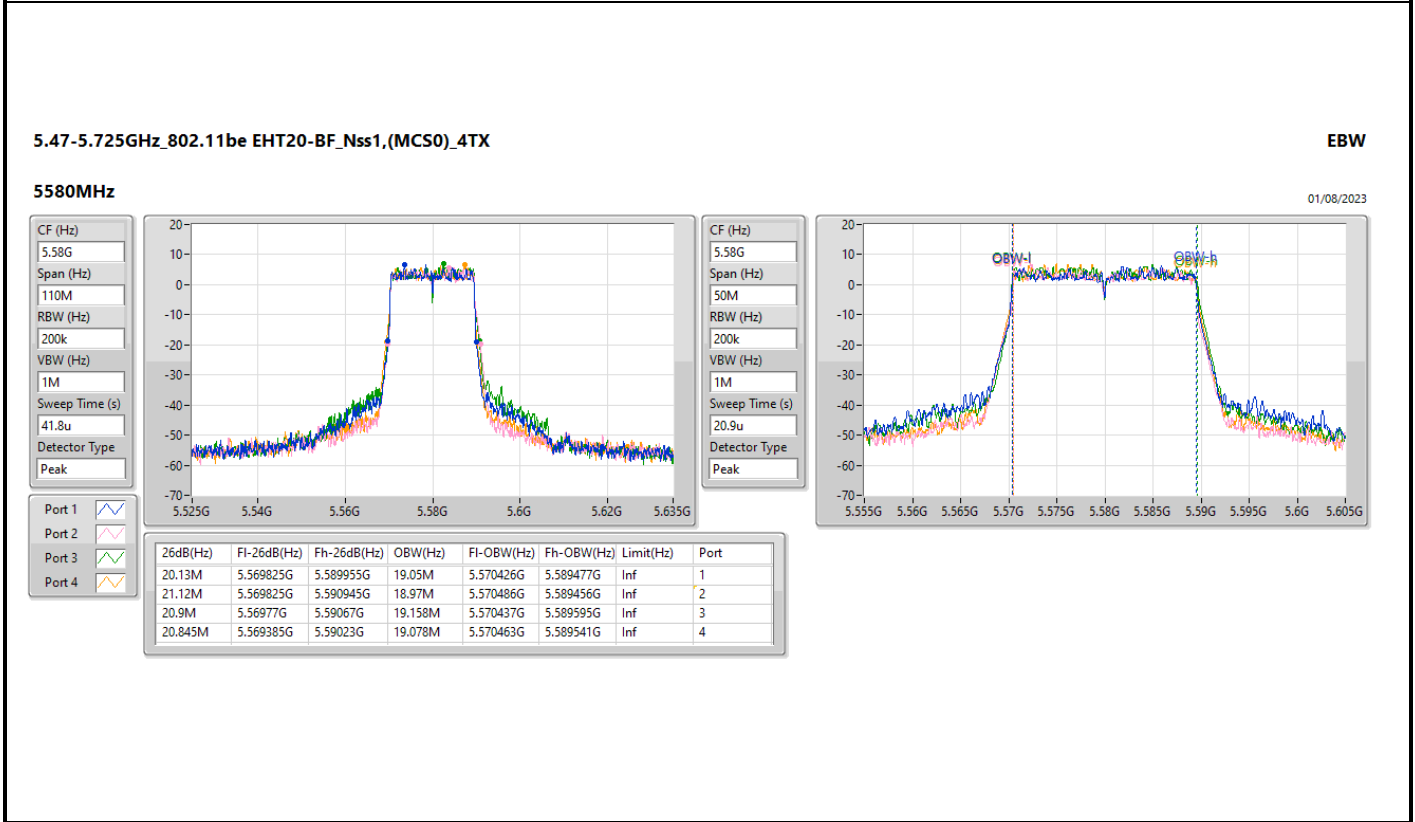
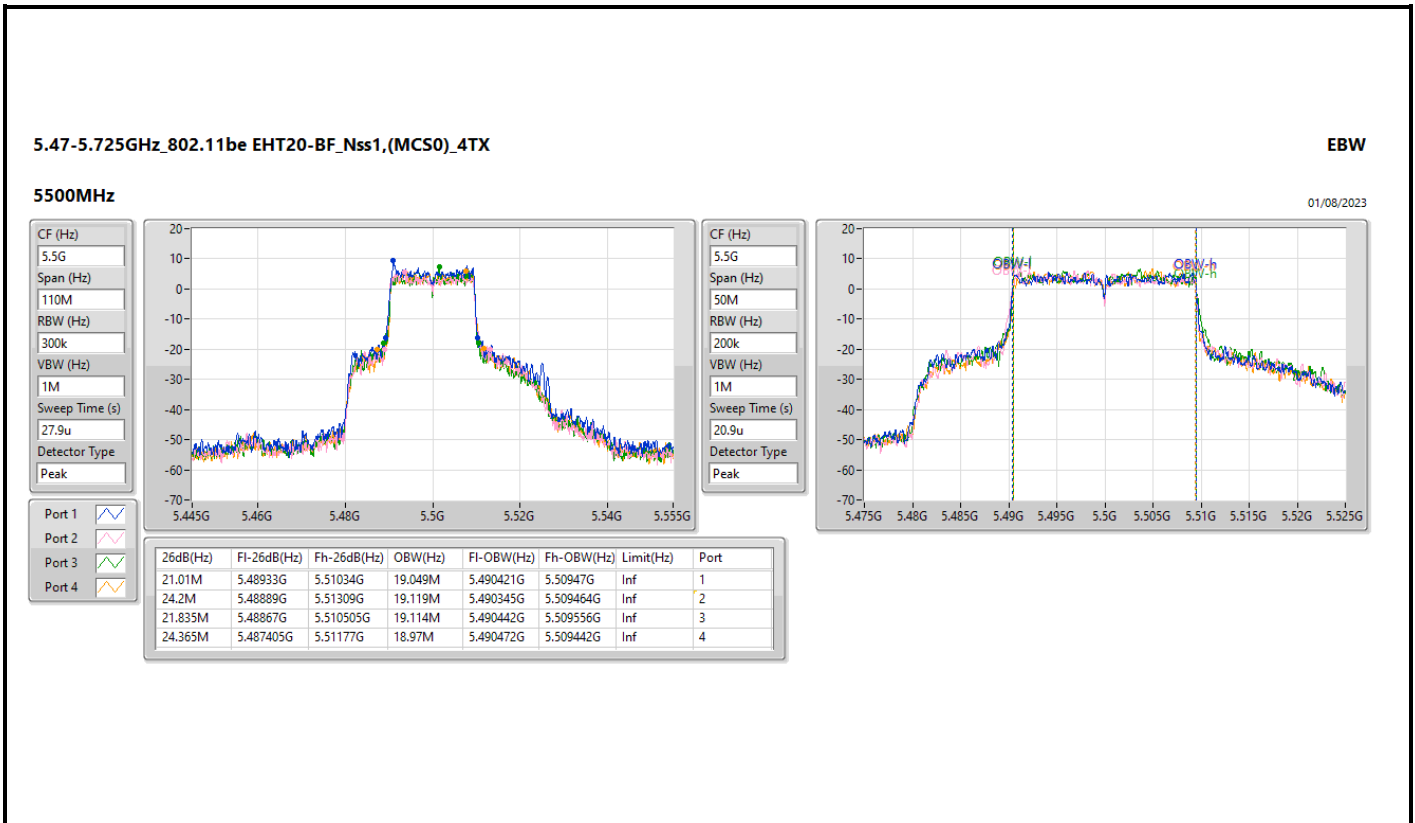
5.25-5.35GHz\_802.11be EHT20-BF\_Nss1,(MCS0)\_4TX

EBW

5320MHz

01/08/2023



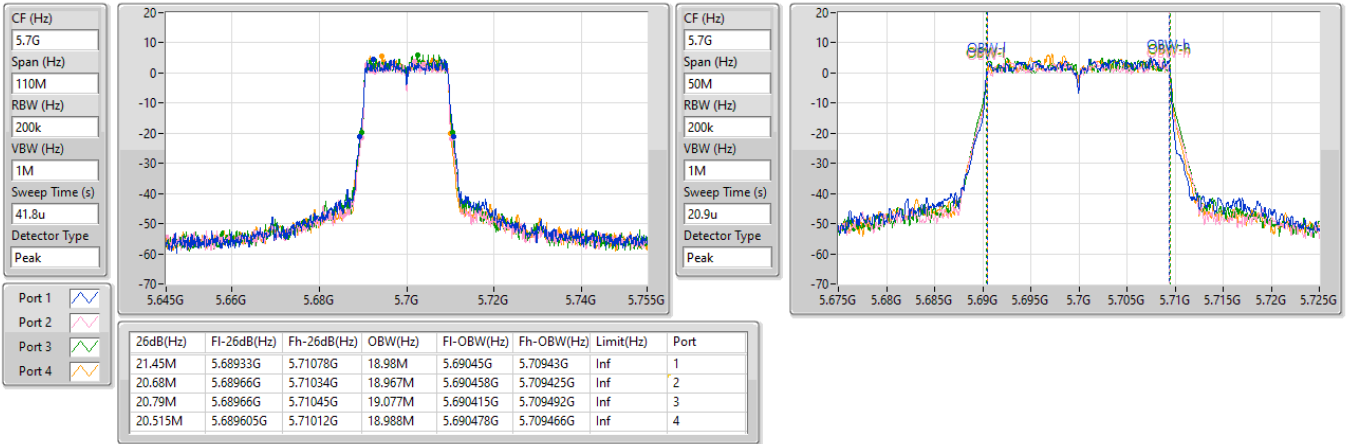


5.47-5.725GHz\_802.11be EHT20-BF\_Nss1,(MCS0)\_4TX

EBW

5700MHz

01/08/2023

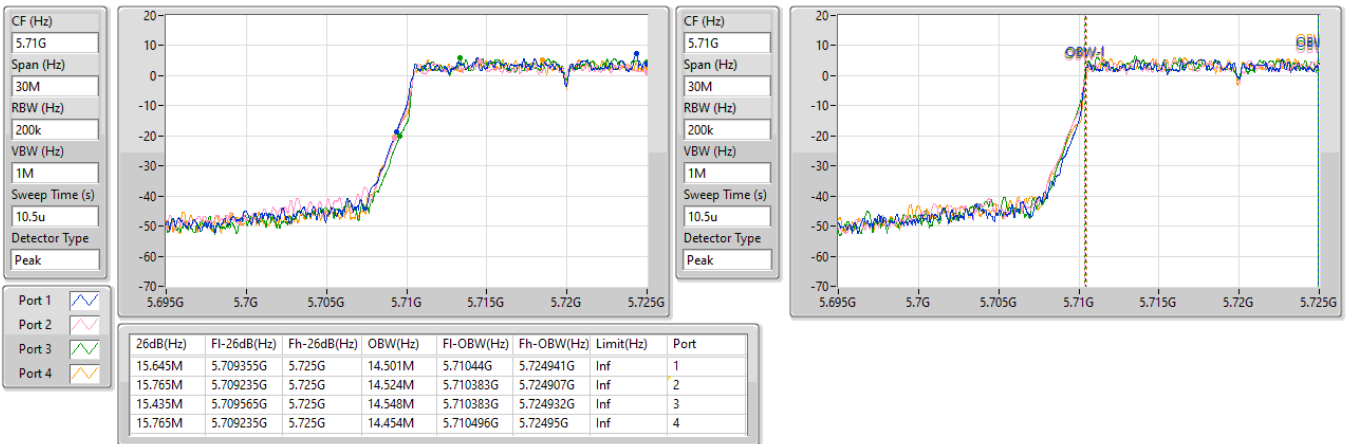


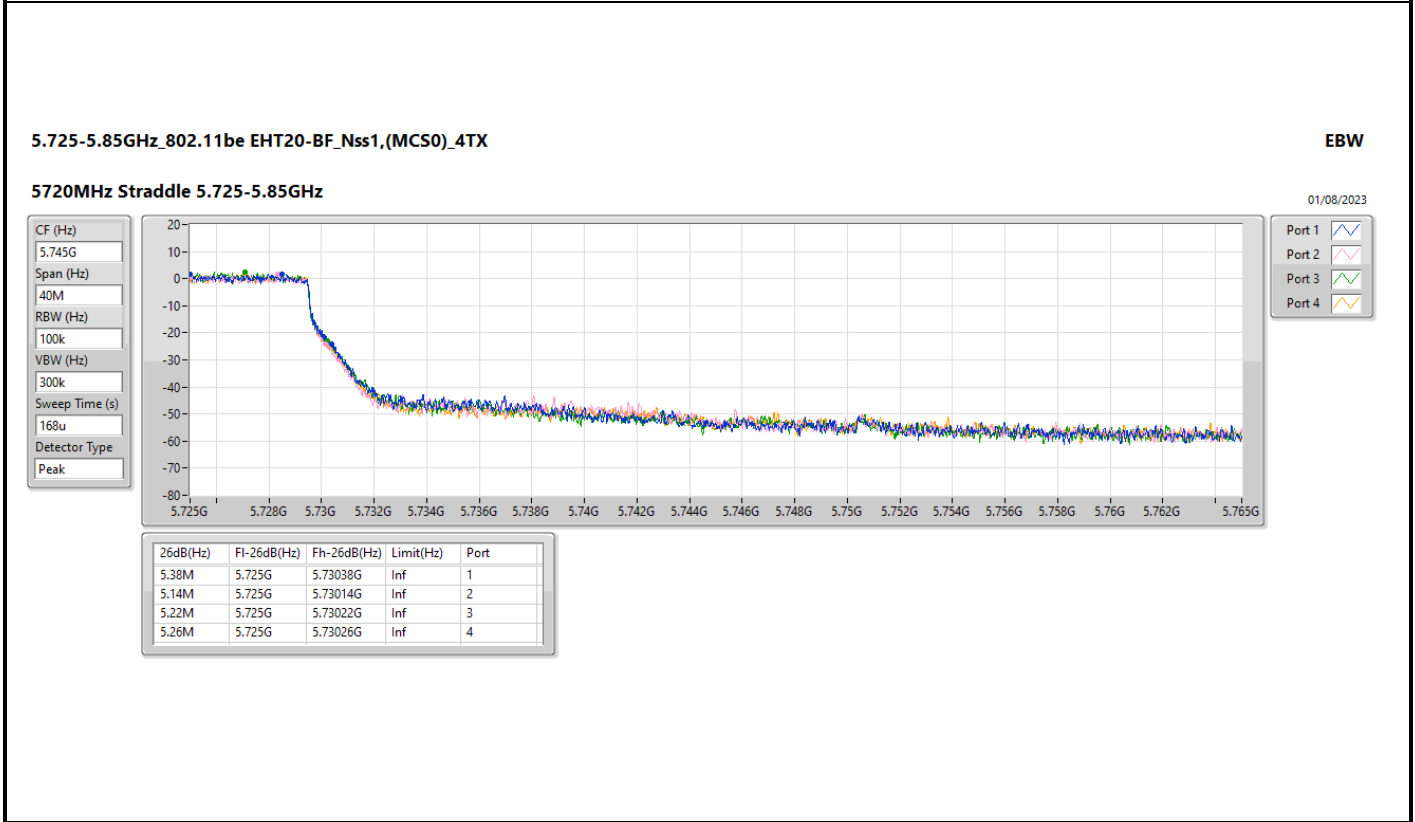
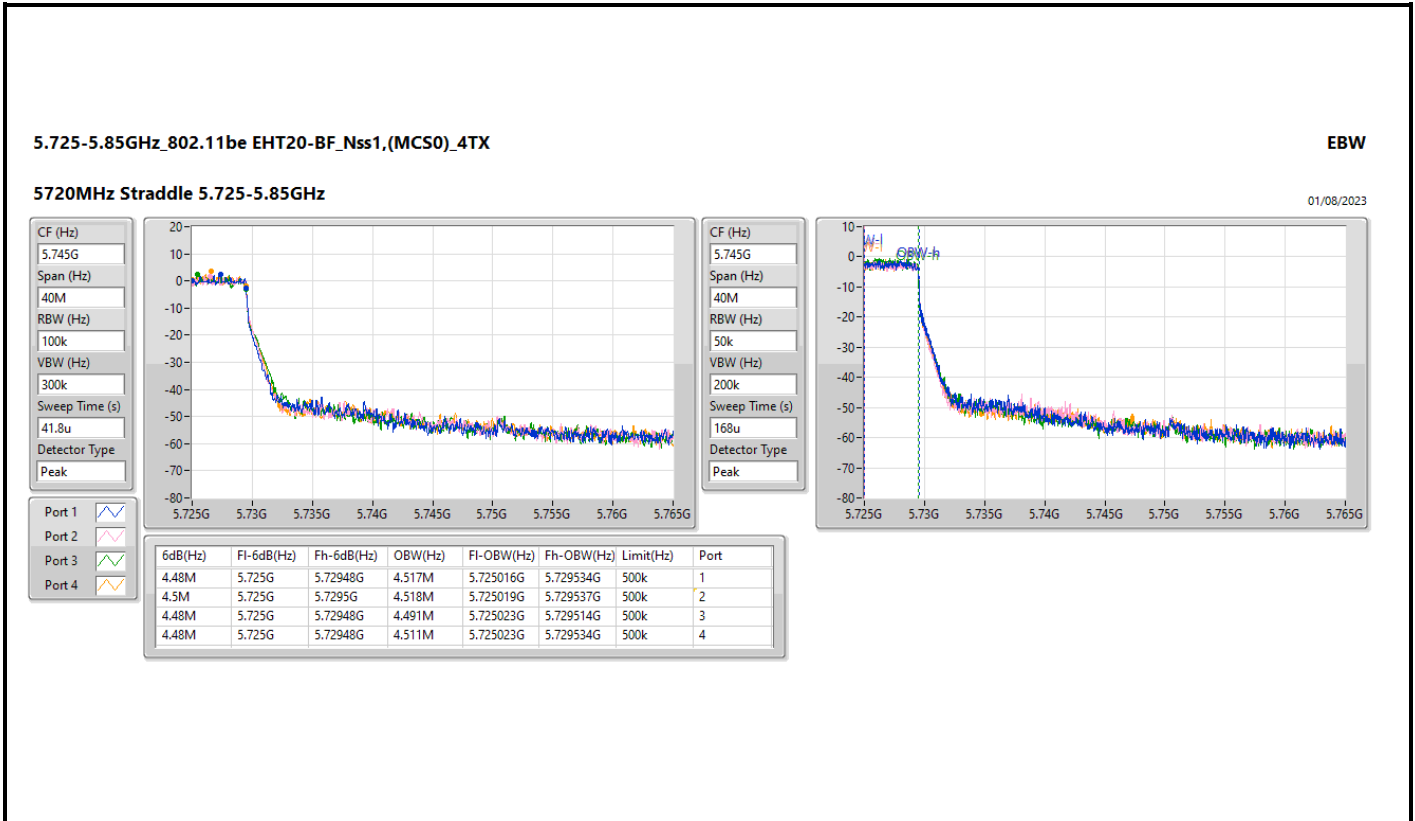
5.47-5.725GHz\_802.11be EHT20-BF\_Nss1,(MCS0)\_4TX

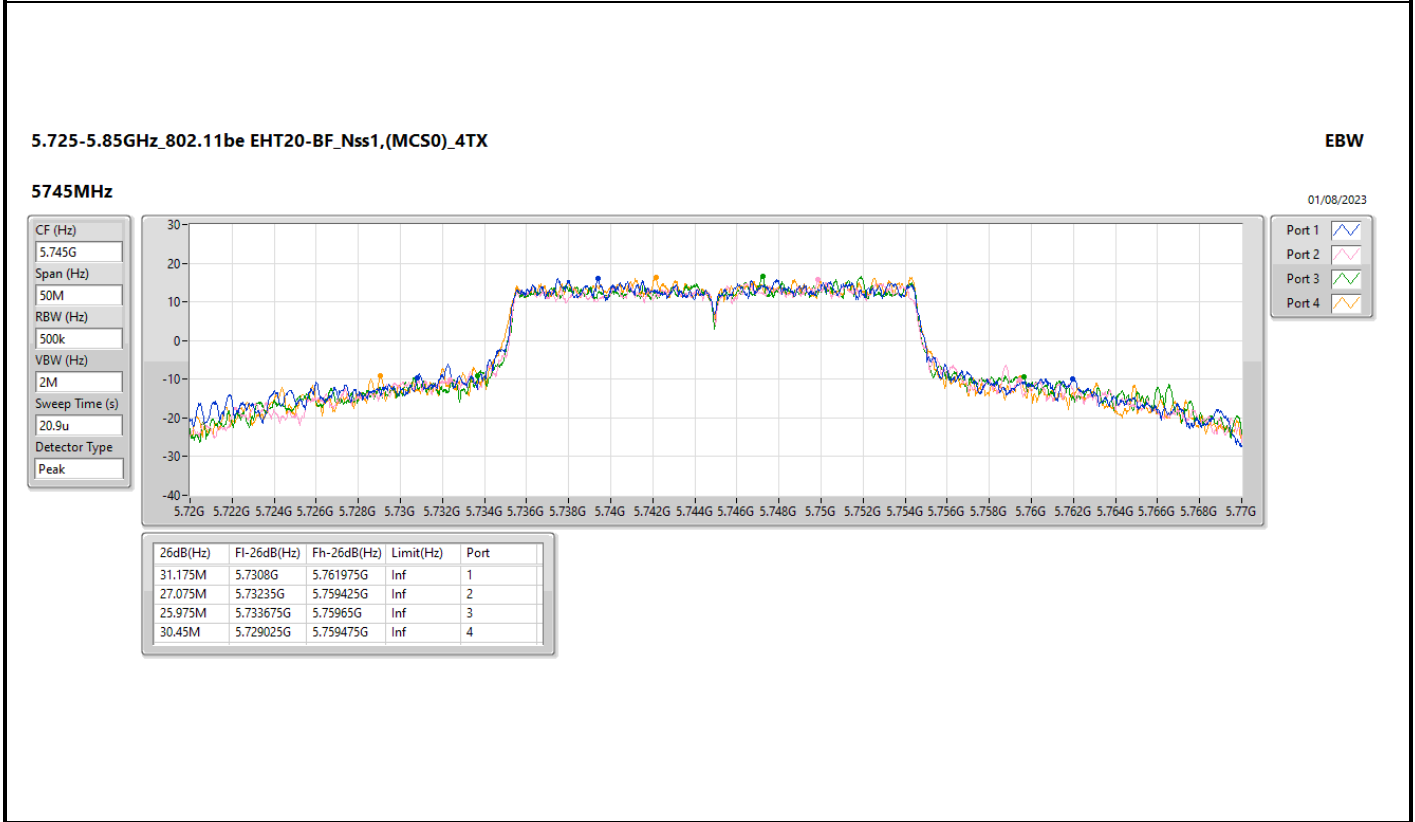
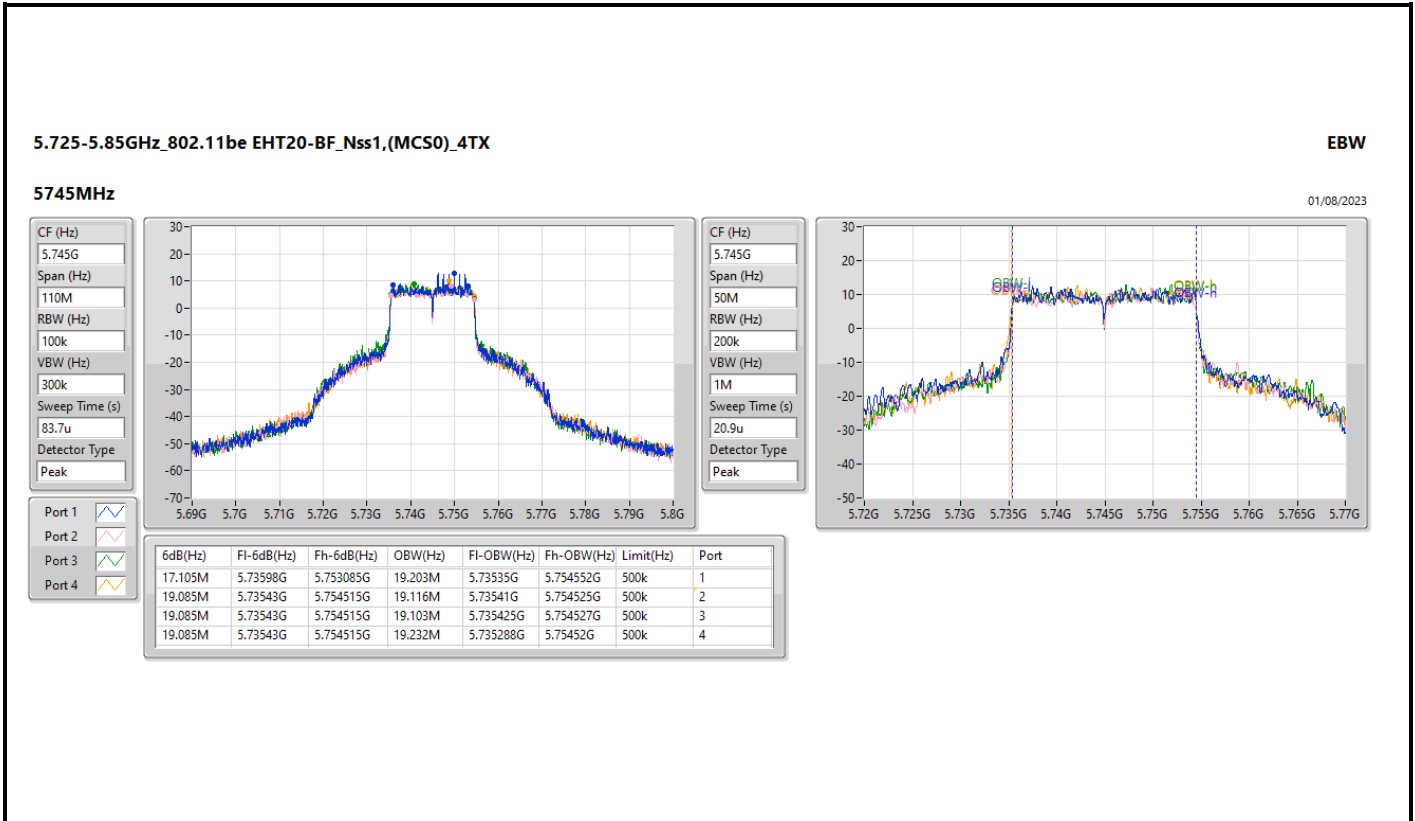
EBW

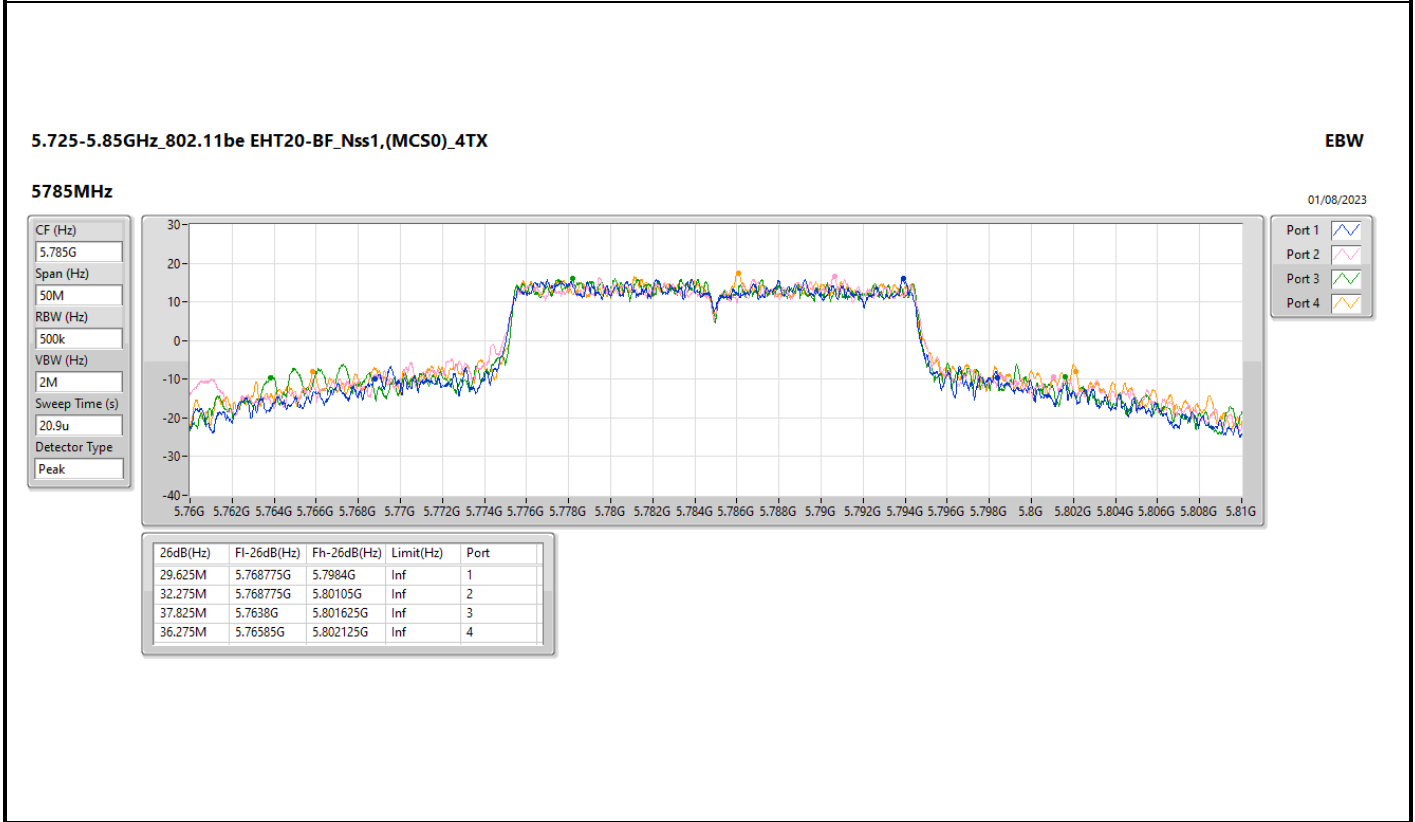
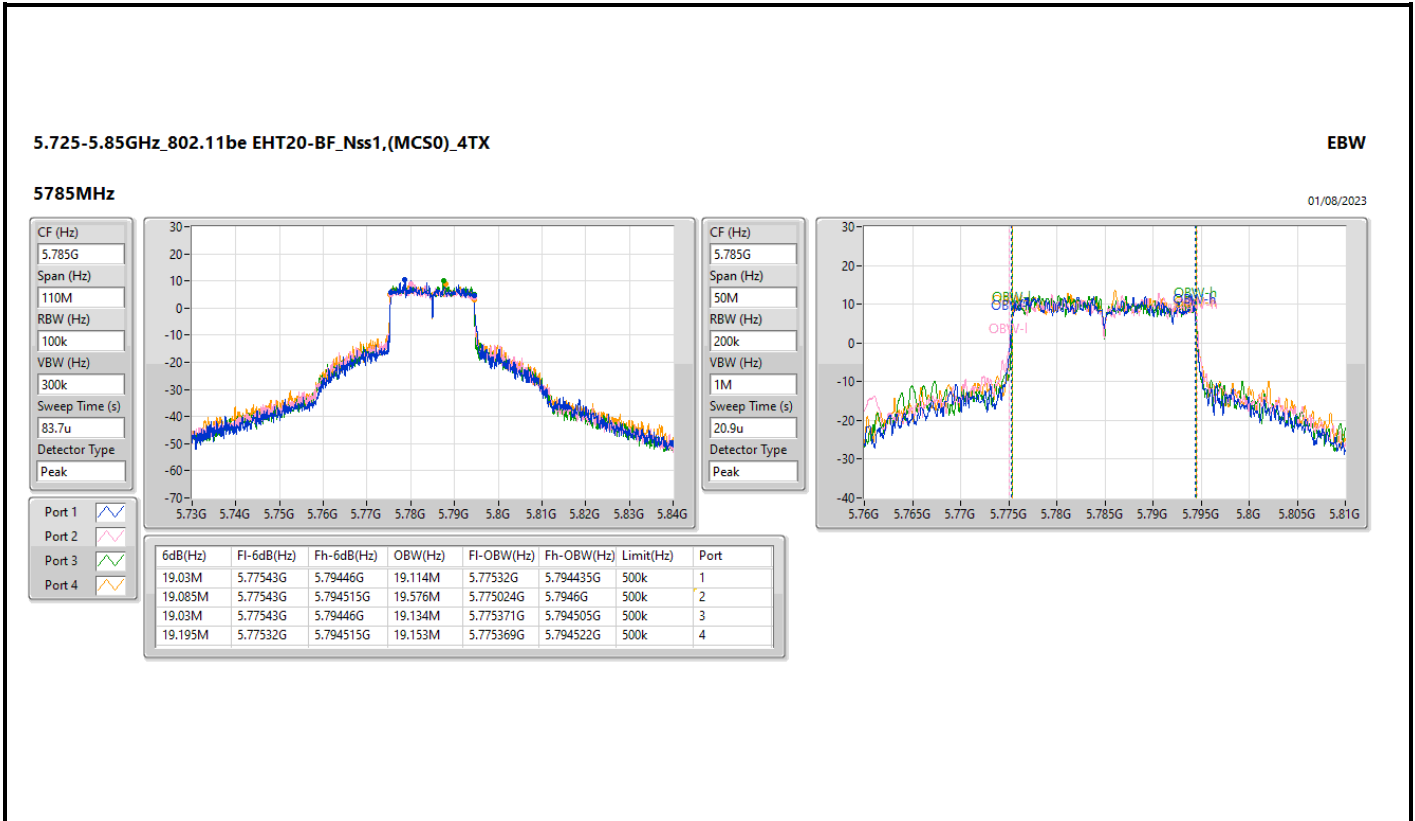
5720MHz Straddle 5.47-5.725GHz

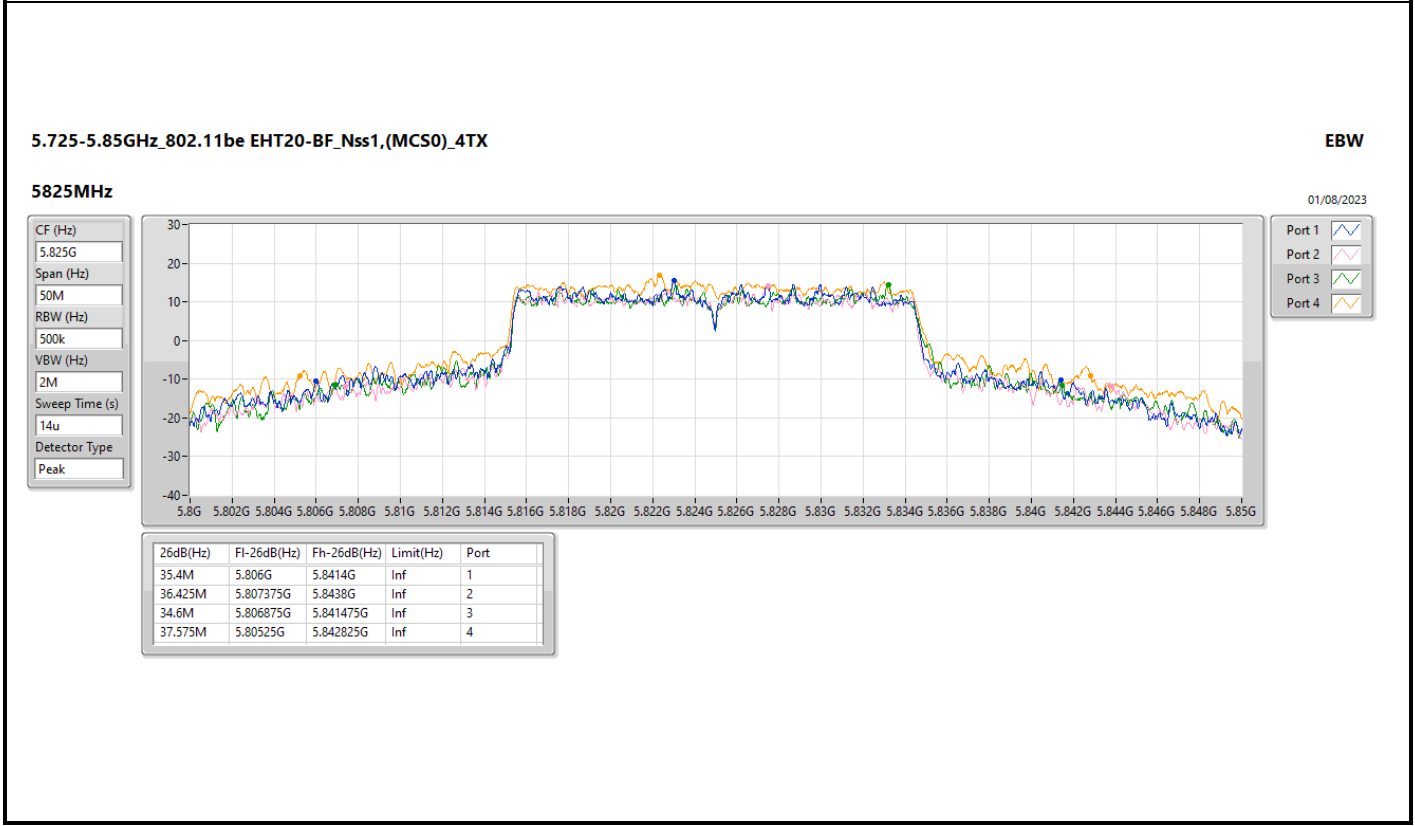
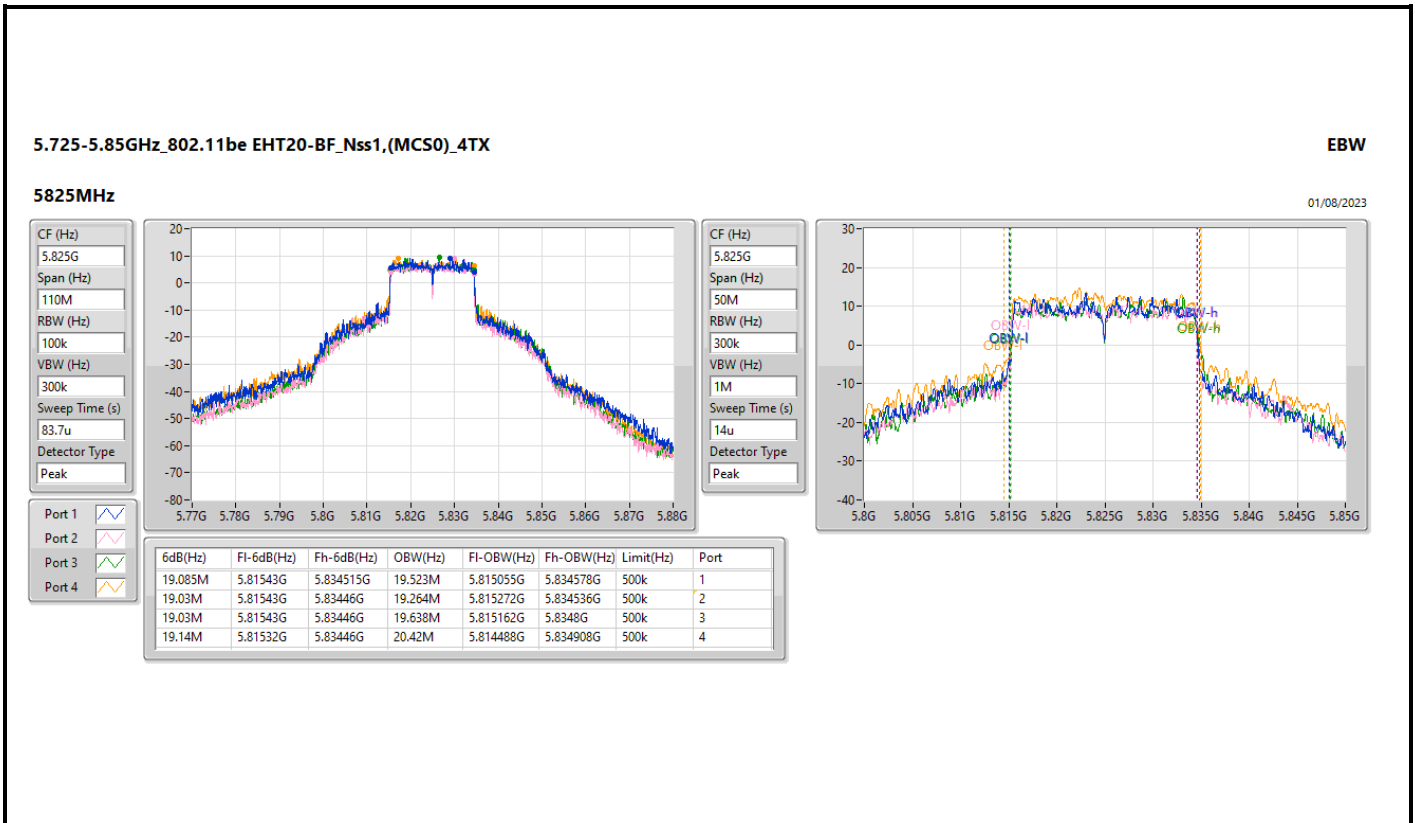
01/08/2023











5.15-5.25GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

EBW

5190MHz

01/08/2023

CF (Hz)  
5.19G

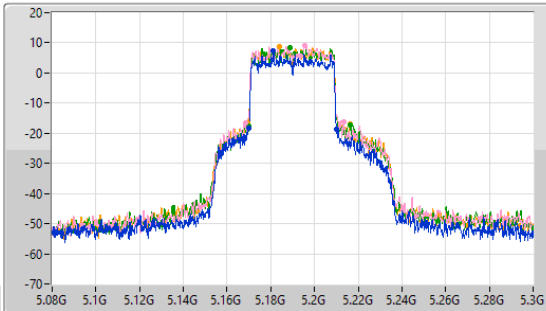
Span (Hz)  
220M

RBW (Hz)  
500k

VBW (Hz)  
2M

Sweep Time (s)  
29.2u

Detector Type  
Peak



CF (Hz)  
5.19G

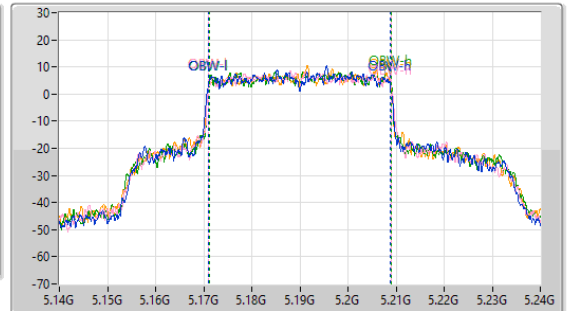
Span (Hz)  
100M

RBW (Hz)  
500k

VBW (Hz)  
2M

Sweep Time (s)  
12.6u

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
40.37M	5.16976G	5.21013G	37.905M	5.170944G	5.208848G	Inf	1
44.66M	5.16866G	5.21332G	37.942M	5.171078G	5.20902G	Inf	2
46.64M	5.16987G	5.21651G	37.873M	5.171111G	5.208984G	Inf	3
47.08M	5.16943G	5.21651G	37.895M	5.171047G	5.208942G	Inf	4

5.15-5.25GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

EBW

5230MHz

01/08/2023

CF (Hz)  
5.23G

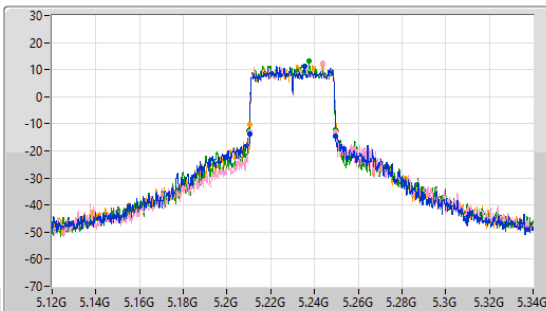
Span (Hz)  
220M

RBW (Hz)  
300k

VBW (Hz)  
1M

Sweep Time (s)  
48.7u

Detector Type  
Peak



CF (Hz)  
5.23G

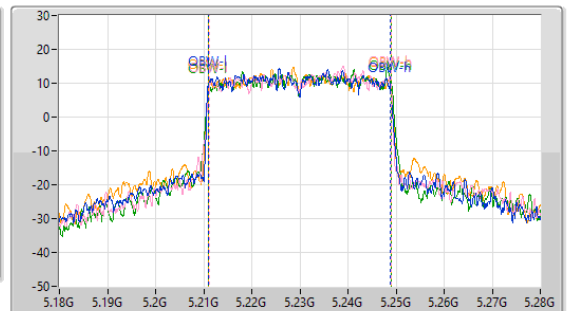
Span (Hz)  
100M

RBW (Hz)  
500k

VBW (Hz)  
2M

Sweep Time (s)  
12.6u

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
39.16M	5.21053G	5.24969G	37.8M	5.210966G	5.248766G	Inf	1
39.6M	5.2102G	5.2498G	37.724M	5.211206G	5.24893G	Inf	2
39.6M	5.20998G	5.24958G	38.065M	5.211056G	5.24912G	Inf	3
39.6M	5.21053G	5.25013G	37.971M	5.211035G	5.249006G	Inf	4

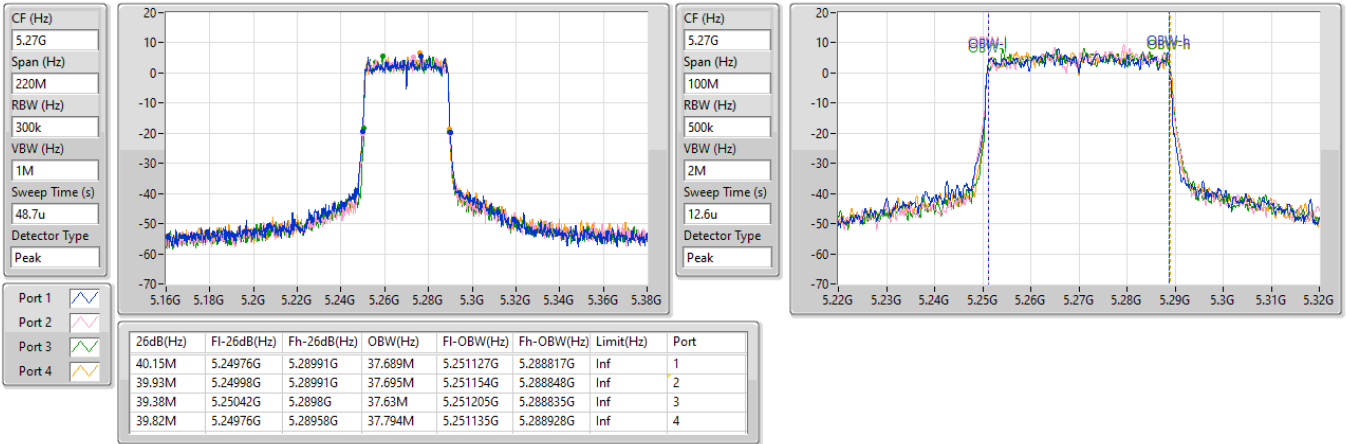


5.25-5.35GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

EBW

5270MHz

01/08/2023

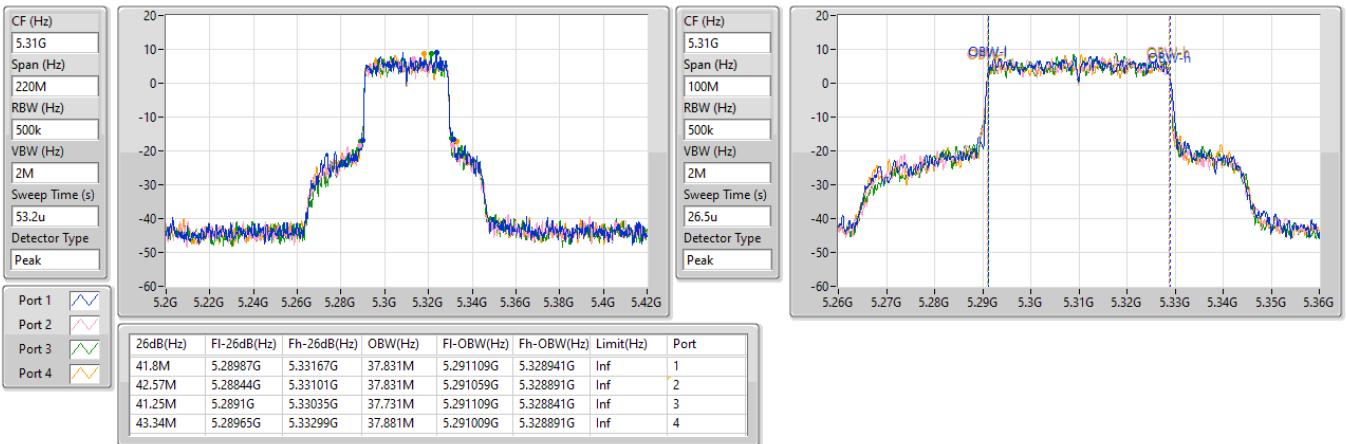


5.25-5.35GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

EBW

5310MHz

07/08/2023

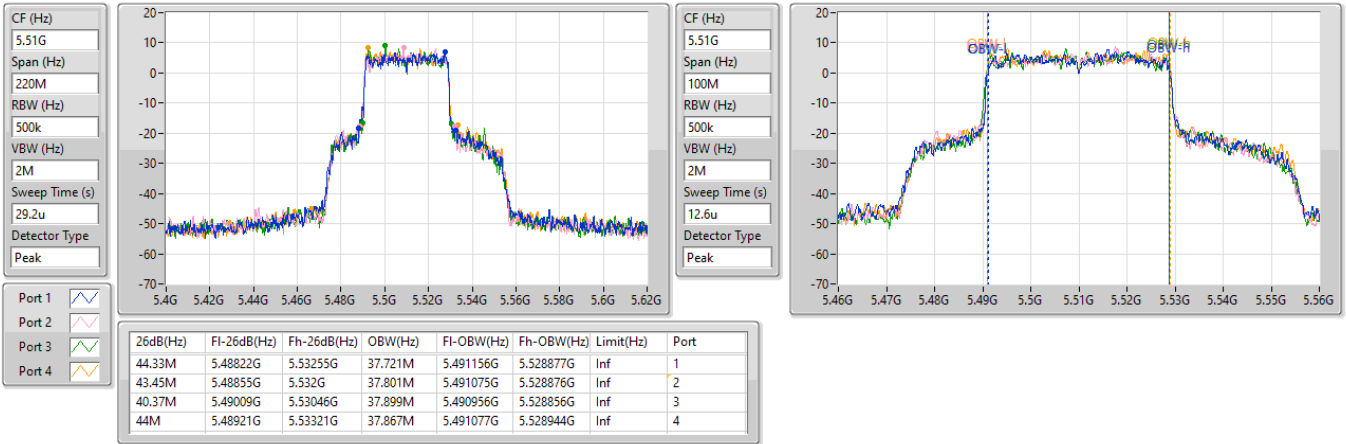


5.47-5.725GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

EBW

5510MHz

01/08/2023

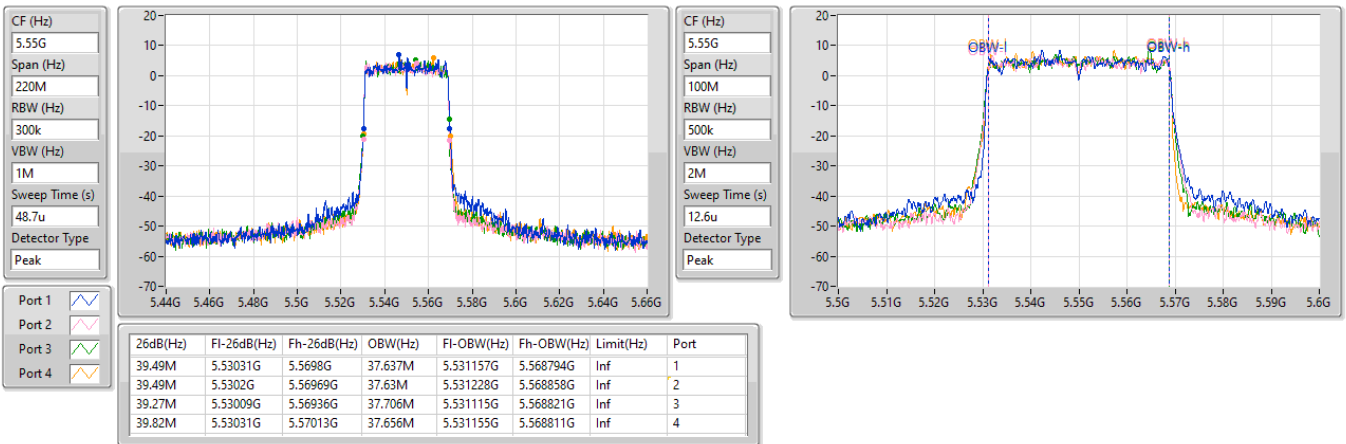


5.47-5.725GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

EBW

5550MHz

01/08/2023

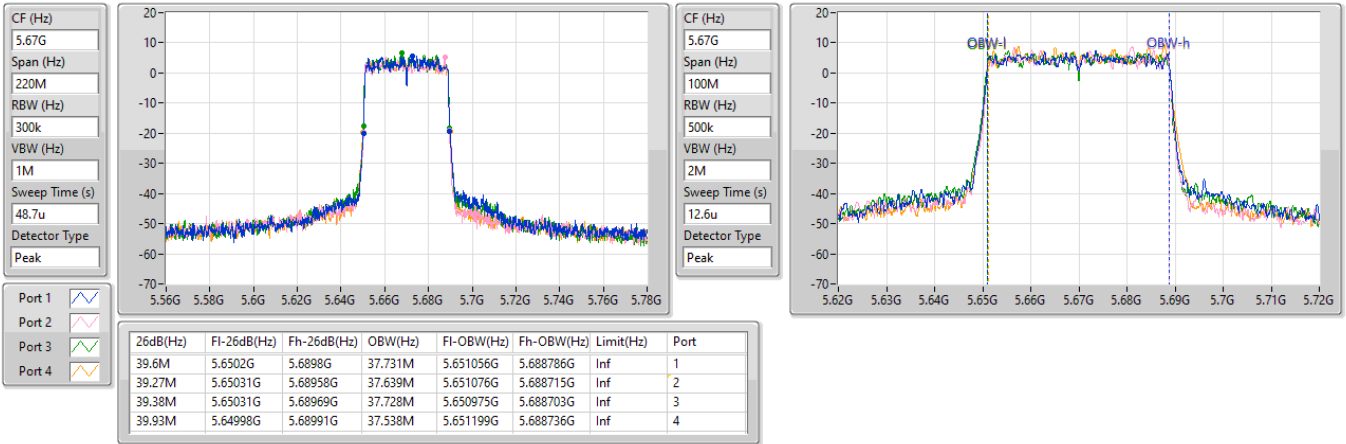


5.47-5.725GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

EBW

5670MHz

01/08/2023

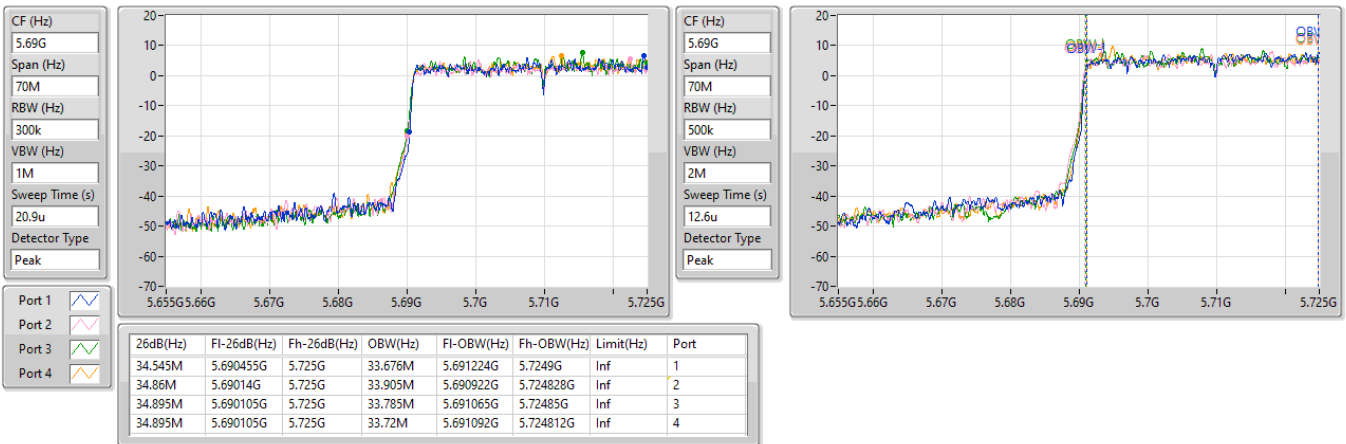


5.47-5.725GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

EBW

5710MHz Straddle 5.47-5.725GHz

01/08/2023

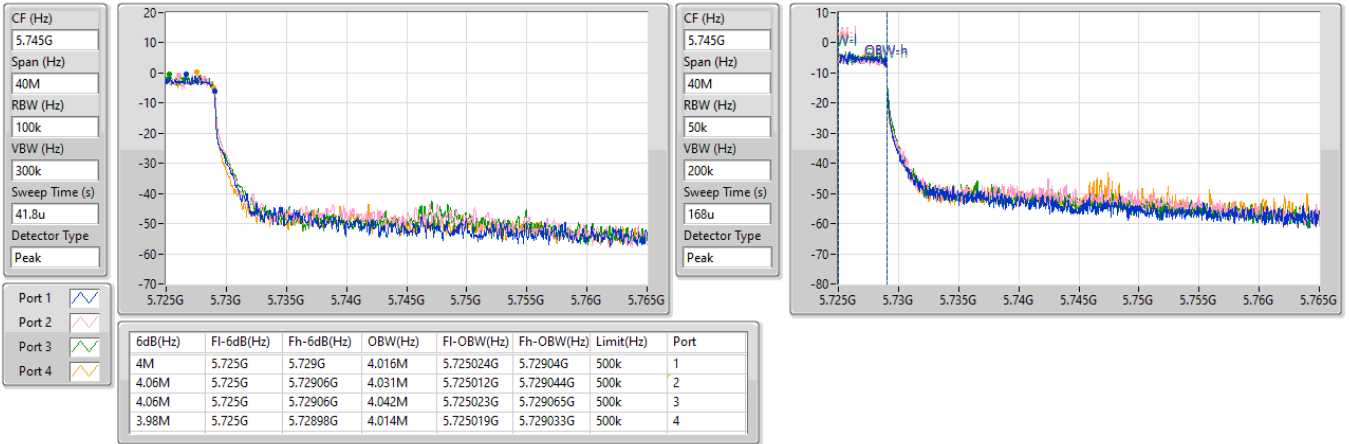


5.725-5.85GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

01/08/2023

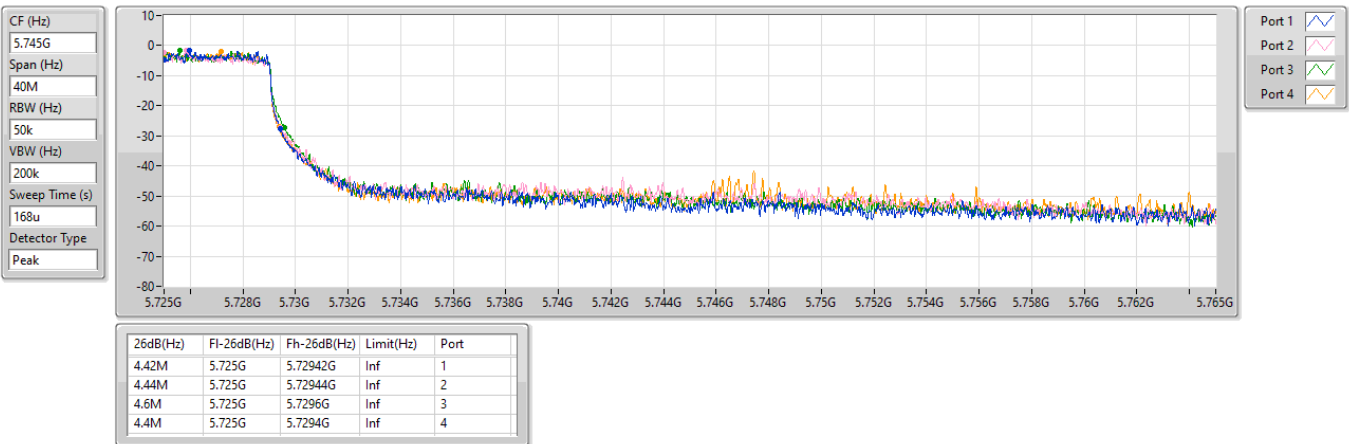


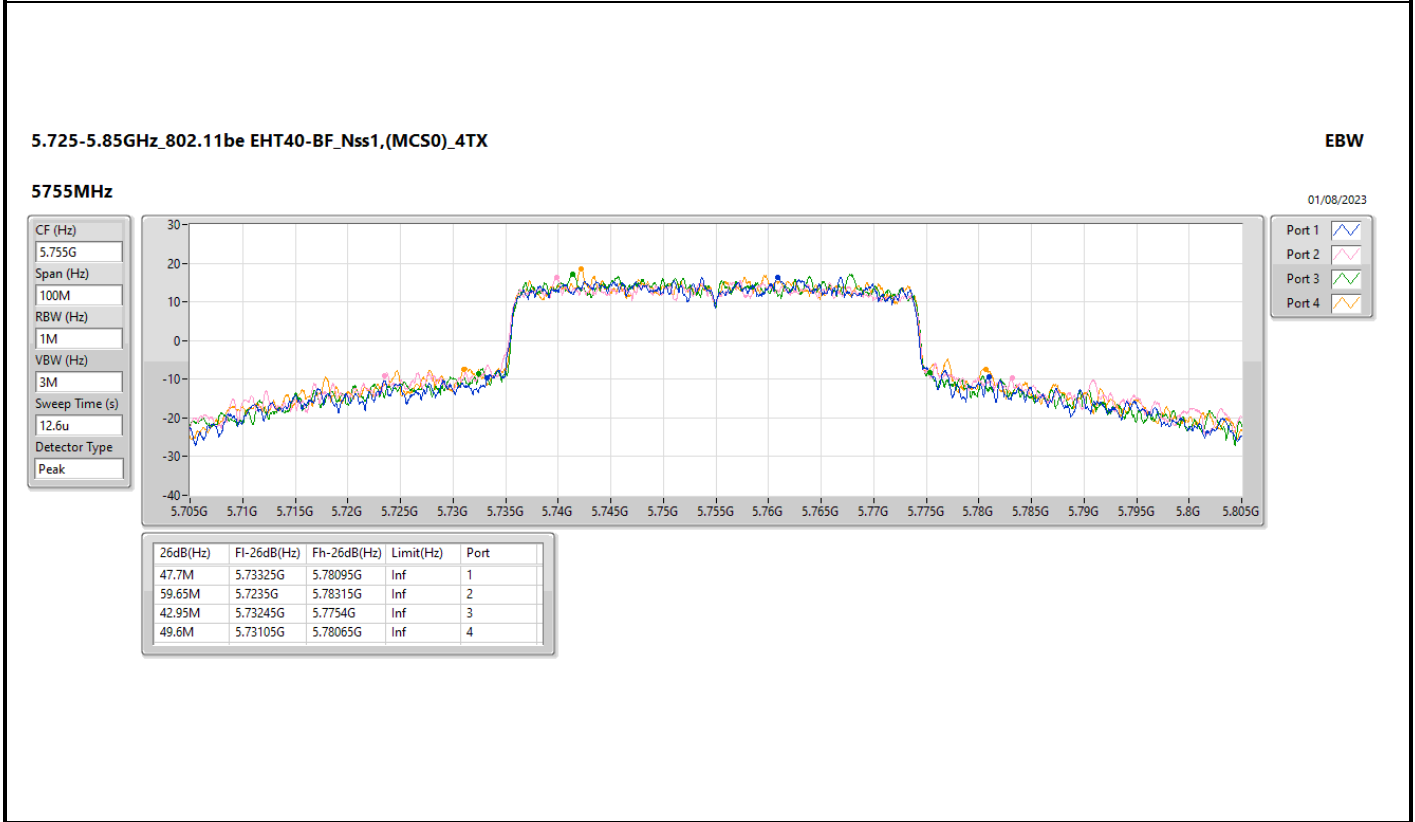
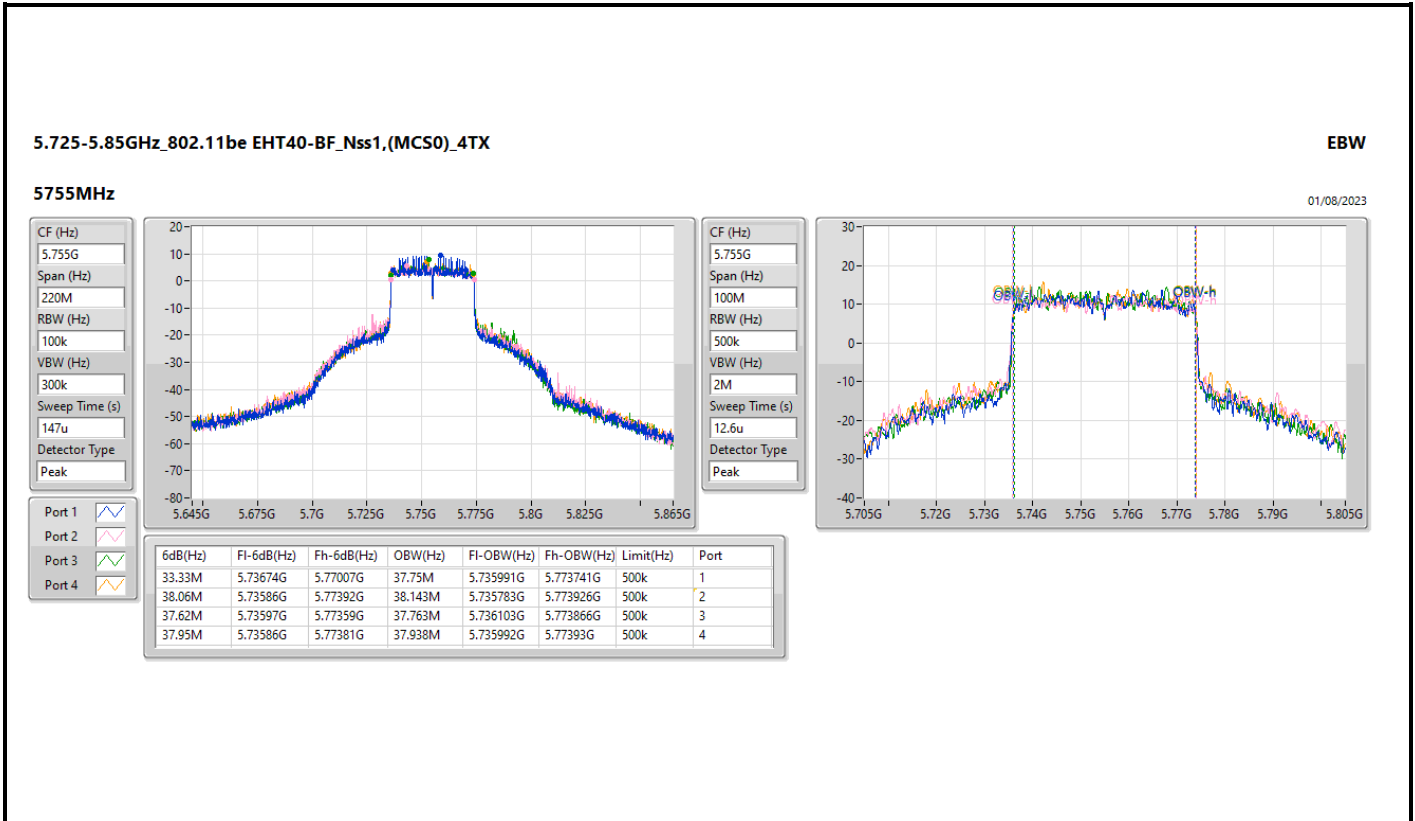
5.725-5.85GHz\_802.11be EHT40-BF\_Nss1,(MCS0)\_4TX

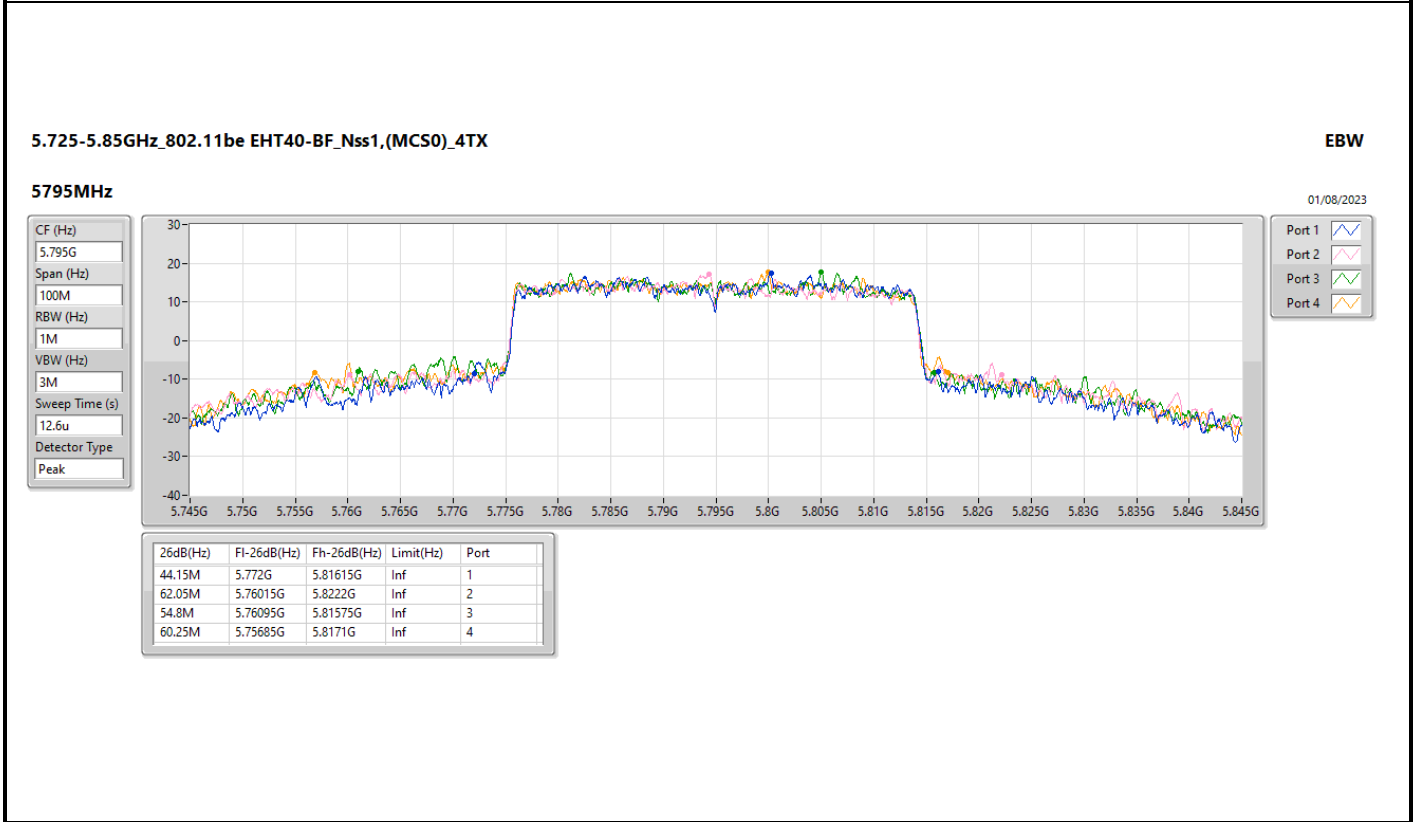
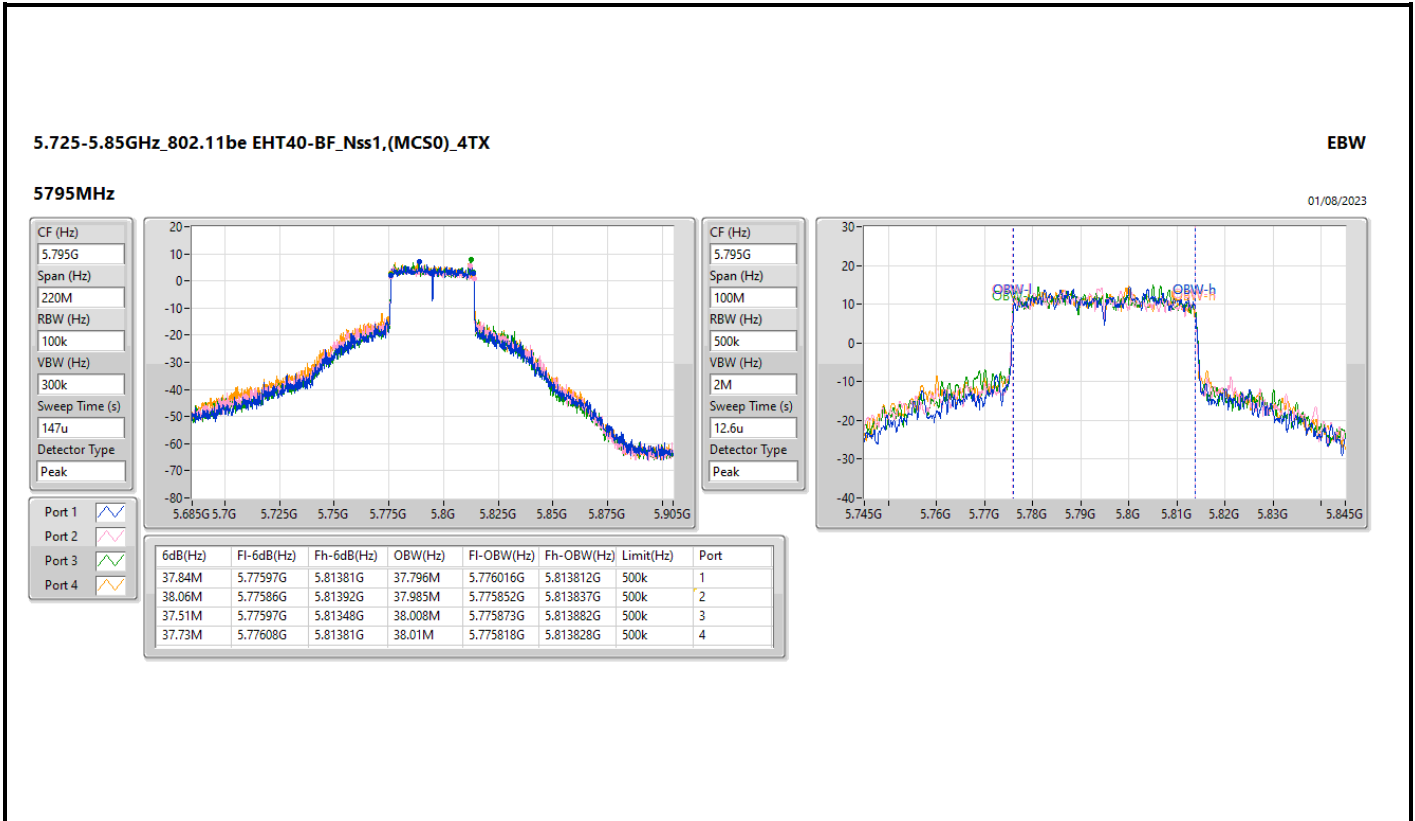
EBW

5710MHz Straddle 5.725-5.85GHz

01/08/2023





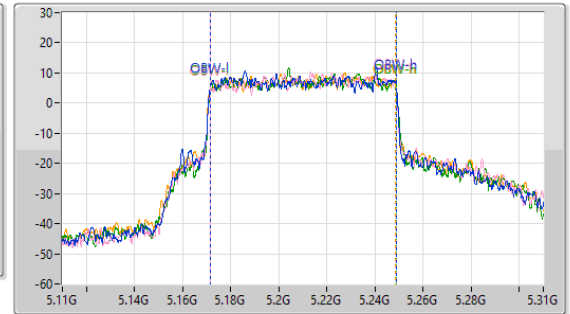
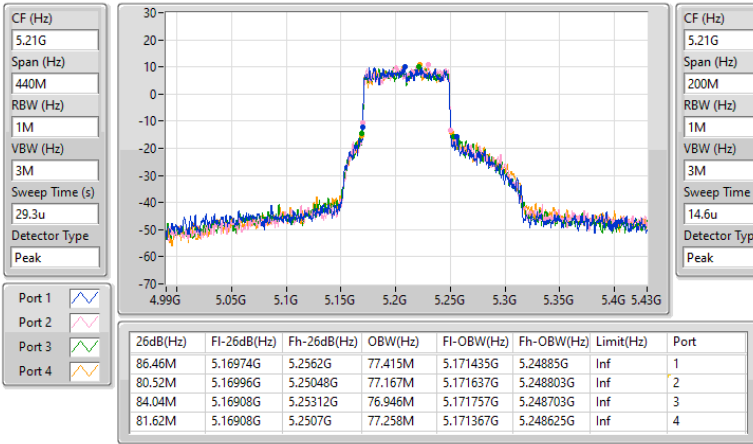


5.15-5.25GHz\_802.11be EHT80-BF\_Nss1,(MCS0)\_4TX

EBW

5210MHz

01/08/2023

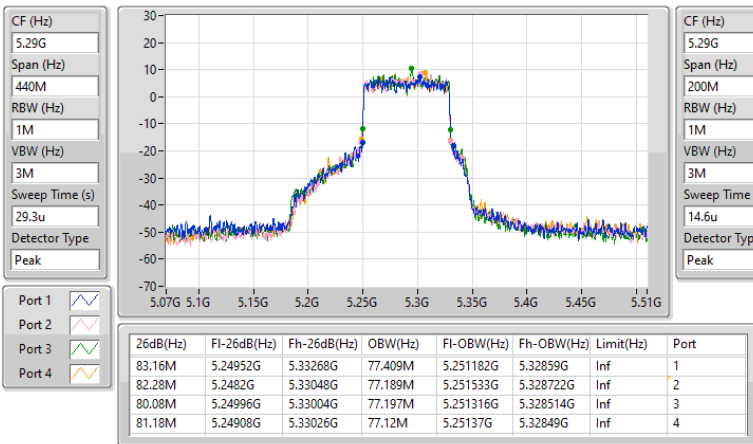


5.25-5.35GHz\_802.11be EHT80-BF\_Nss1,(MCS0)\_4TX

EBW

5290MHz

01/08/2023



5.47-5.725GHz\_802.11be EHT80-BF\_Nss1,(MCS0)\_4TX

EBW

5530MHz

01/08/2023

CF (Hz)  
5.53G

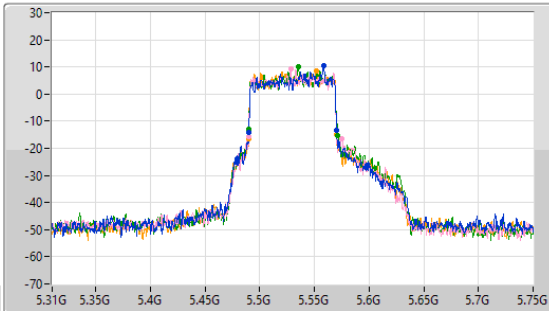
Span (Hz)  
440M

RBW (Hz)  
1M

VBW (Hz)  
3M

Sweep Time (s)  
29.3u

Detector Type  
Peak



CF (Hz)  
5.53G

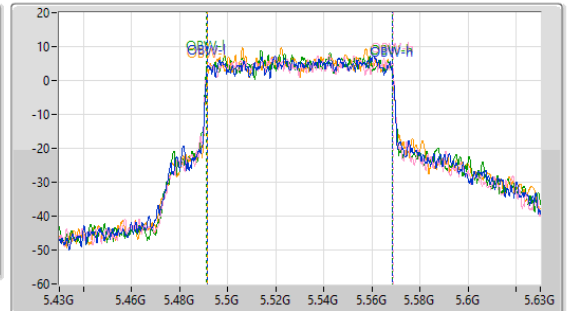
Span (Hz)  
200M

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
80.08M	5.48996G	5.57004G	77.14M	5.491457G	5.568597G	Inf	1
85.36M	5.48974G	5.5751G	77.293M	5.49142G	5.568714G	Inf	2
81.62M	5.48996G	5.57158G	77.349M	5.491273G	5.568622G	Inf	3
80.3M	5.48974G	5.57004G	76.624M	5.491745G	5.568369G	Inf	4

5.47-5.725GHz\_802.11be EHT80-BF\_Nss1,(MCS0)\_4TX

EBW

5610MHz

01/08/2023

CF (Hz)  
5.61G

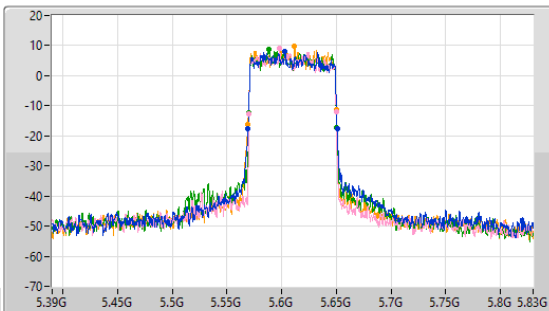
Span (Hz)  
440M

RBW (Hz)  
1M

VBW (Hz)  
3M

Sweep Time (s)  
29.3u

Detector Type  
Peak



CF (Hz)  
5.61G

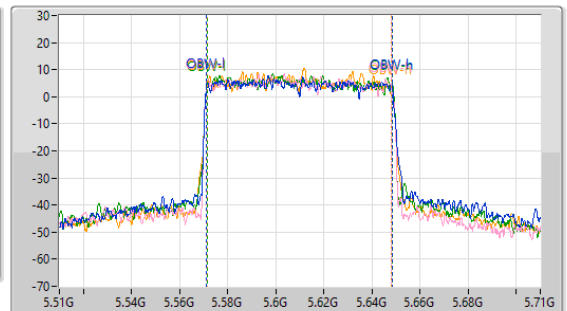
Span (Hz)  
200M

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
81.4M	5.5693G	5.6507G	77.194M	5.571215G	5.648409G	Inf	1
79.86M	5.56996G	5.64982G	76.973M	5.571258G	5.648231G	Inf	2
80.3M	5.56996G	5.65026G	77.188M	5.5714G	5.648588G	Inf	3
80.74M	5.56908G	5.64982G	76.765M	5.571472G	5.648237G	Inf	4

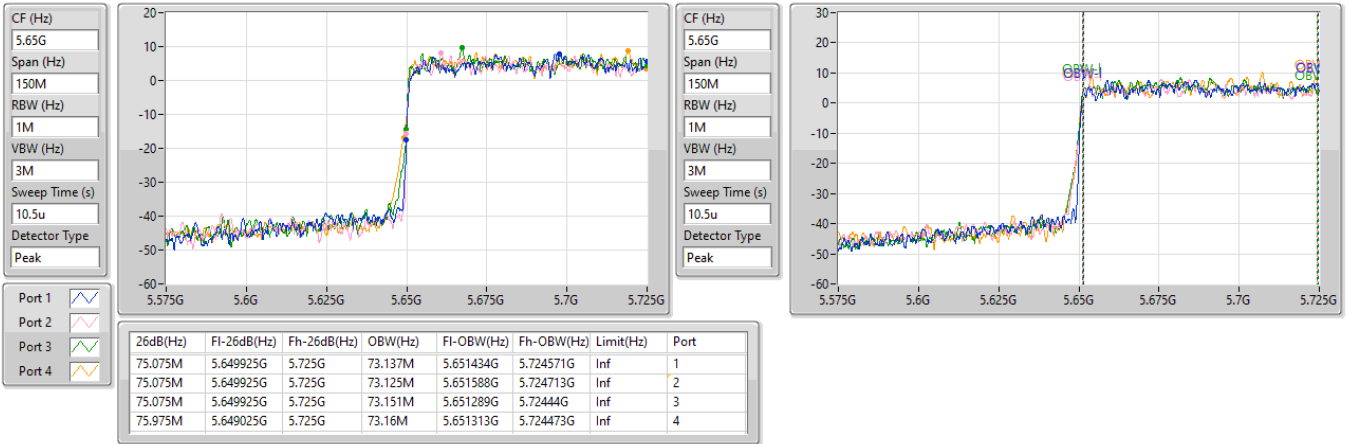


5.47-5.725GHz\_802.11be EHT80-BF\_Nss1,(MCS0)\_4TX

EBW

5690MHz Straddle 5.47-5.725GHz

01/08/2023

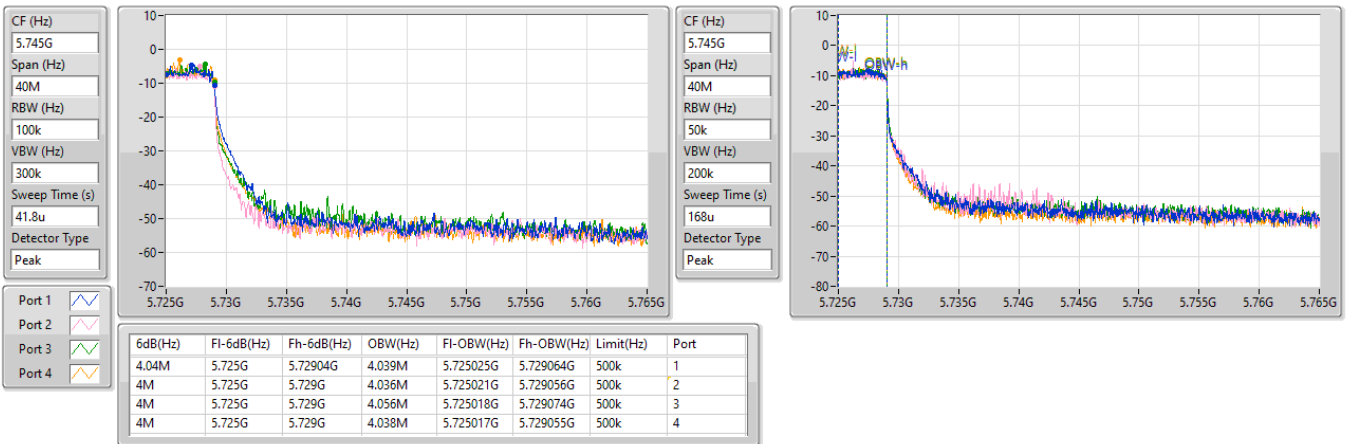


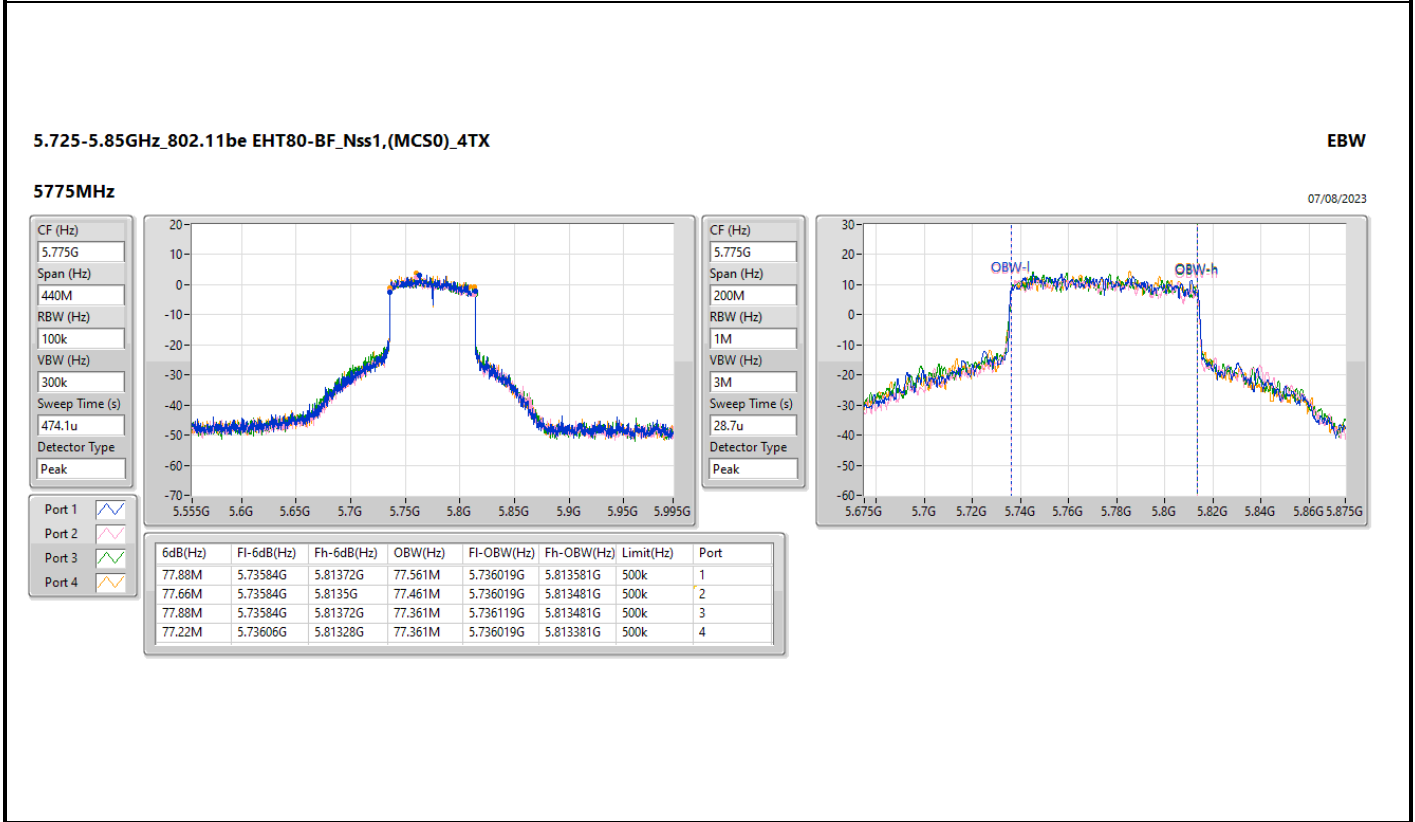
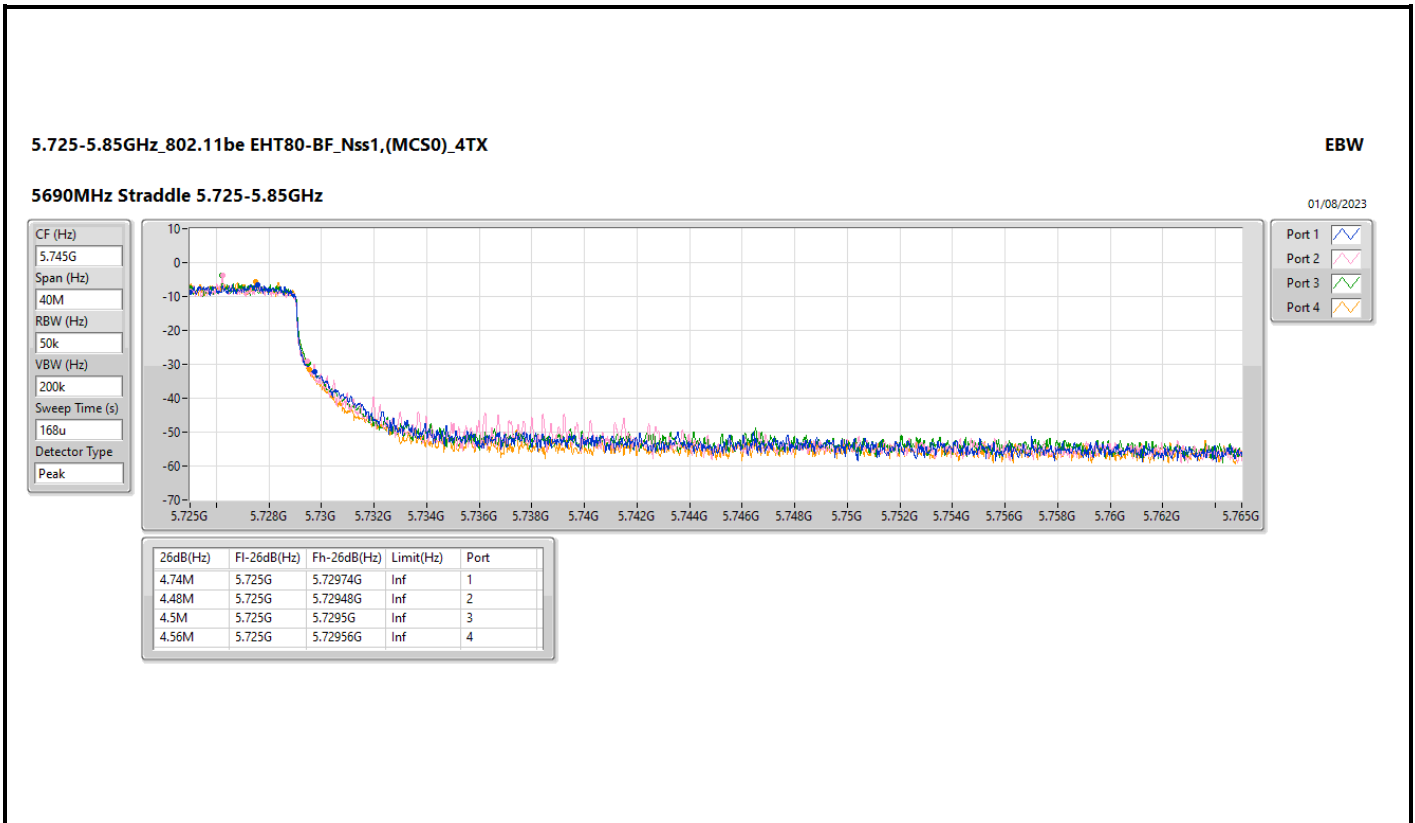
5.725-5.85GHz\_802.11be EHT80-BF\_Nss1,(MCS0)\_4TX

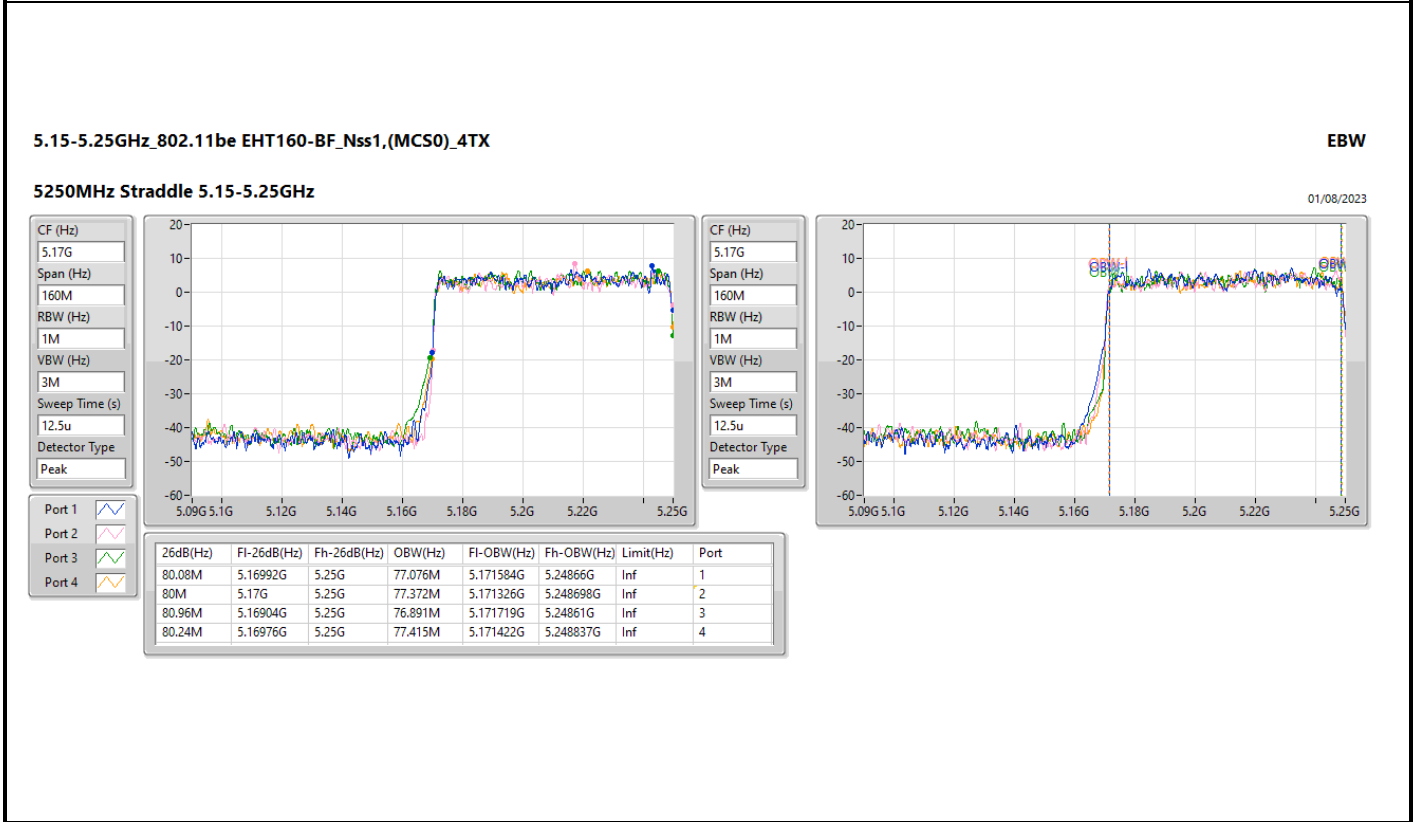
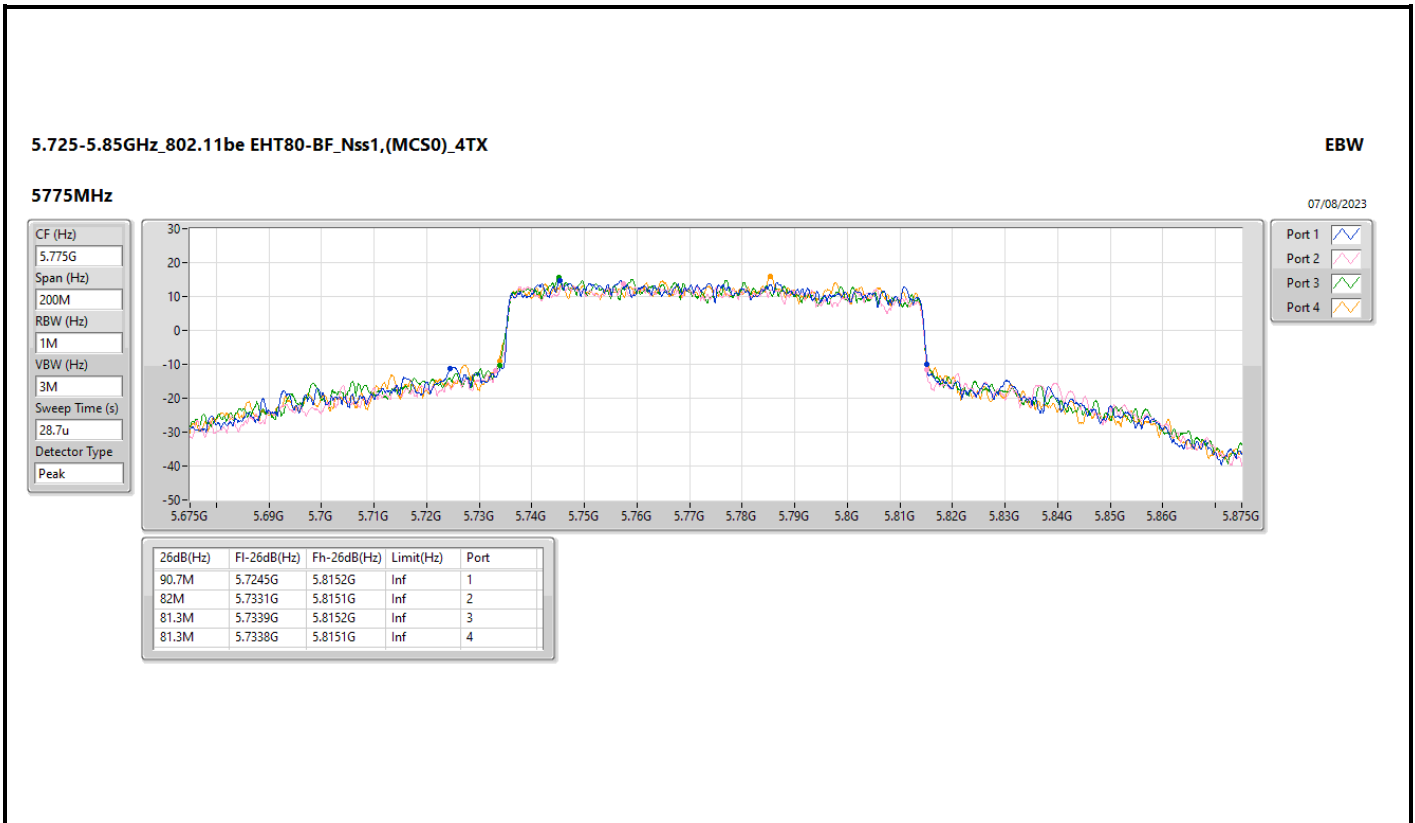
EBW

5690MHz Straddle 5.725-5.85GHz

01/08/2023





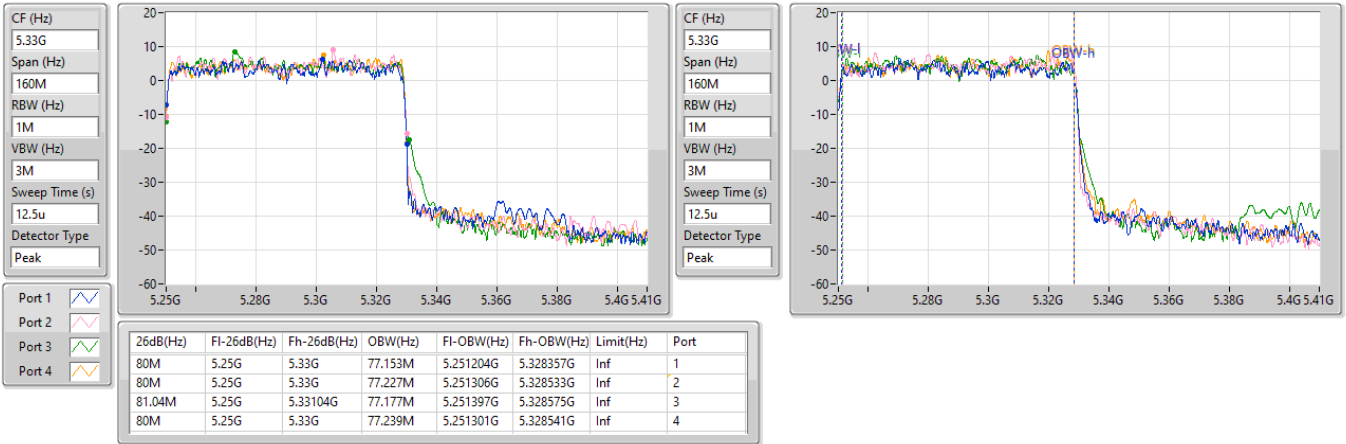


5.25-5.35GHz\_802.11be EHT160-BF\_Nss1,(MCS0)\_4TX

EBW

5250MHz Straddle 5.25-5.35GHz

01/08/2023

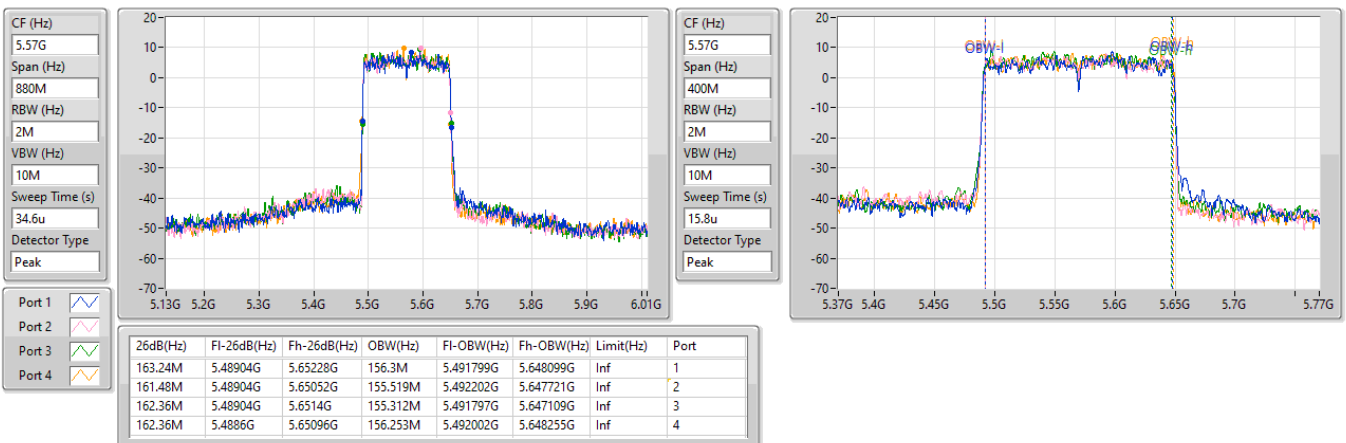


5.47-5.725GHz\_802.11be EHT160-BF\_Nss1,(MCS0)\_4TX

EBW

5570MHz

01/08/2023





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11be EHT20-BF_Nss2,(MCS0)_4TX	27.115M	19.14M	19M1D1D	21.725M	19.065M
802.11be EHT40-BF_Nss2,(MCS0)_4TX	43.67M	37.881M	37M9D1D	39.05M	37.681M
802.11be EHT80-BF_Nss2,(MCS0)_4TX	90.42M	77.561M	77M6D1D	82.5M	77.161M

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)
802.11be EHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	22.495M	19.09M	26.4M	19.14M	27.115M	19.09M	21.725M	19.065M
802.11be EHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	42.13M	37.831M	42.79M	37.881M	40.92M	37.881M	43.67M	37.681M
5230MHz	Pass	Inf	40.15M	37.681M	40.15M	37.781M	40.48M	37.731M	39.05M	37.681M
802.11be EHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	90.42M	77.461M	84.7M	77.261M	82.5M	77.561M	88M	77.161M

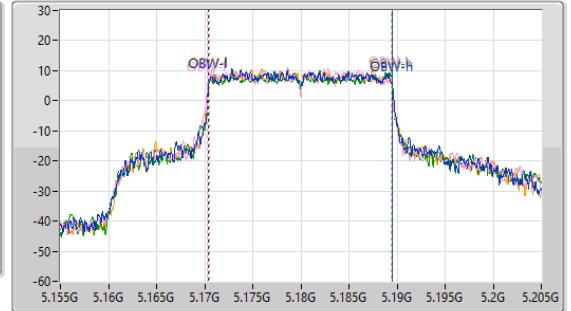
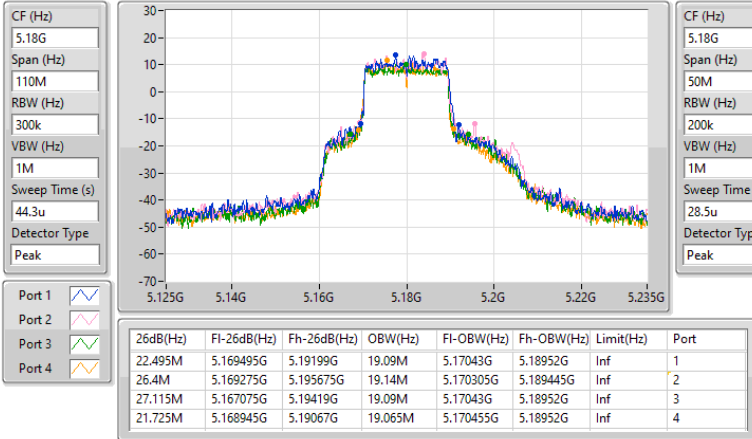
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band  
Port X-OBW = Port X 99% occupied bandwidth

5.15-5.25GHz\_802.11be EHT20-BF\_Nss2,(MCS0)\_4TX

EBW

5180MHz

21/08/2023

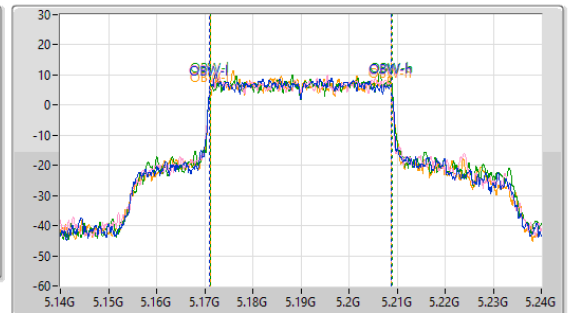
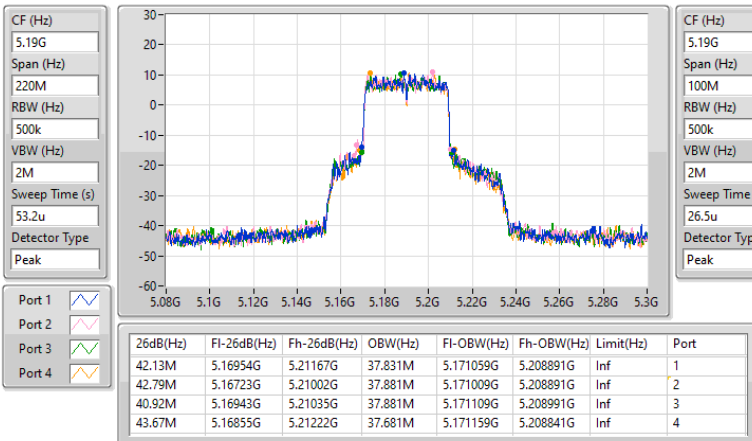


5.15-5.25GHz\_802.11be EHT40-BF\_Nss2,(MCS0)\_4TX

EBW

5190MHz

21/08/2023

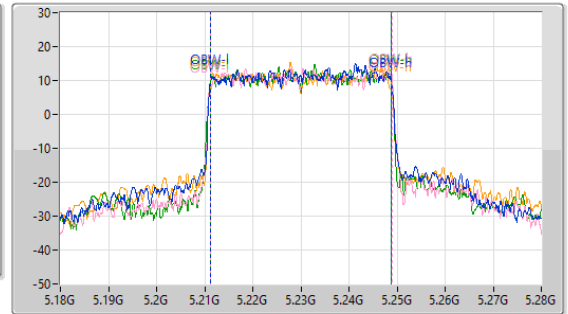
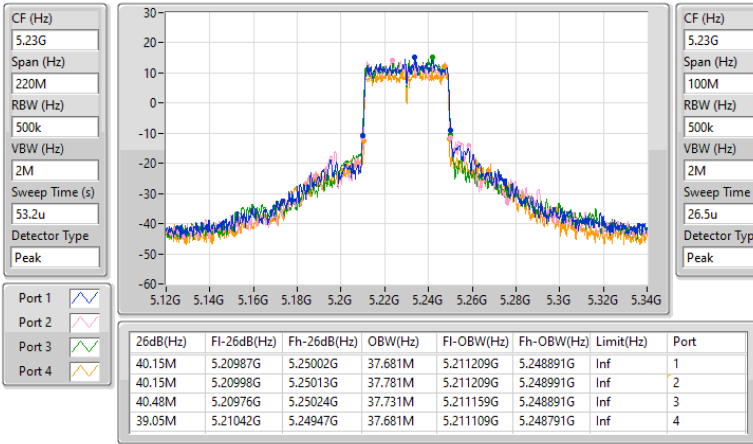


5.15-5.25GHz\_802.11be EHT40-BF\_Nss2,(MCS0)\_4TX

EBW

5230MHz

21/08/2023

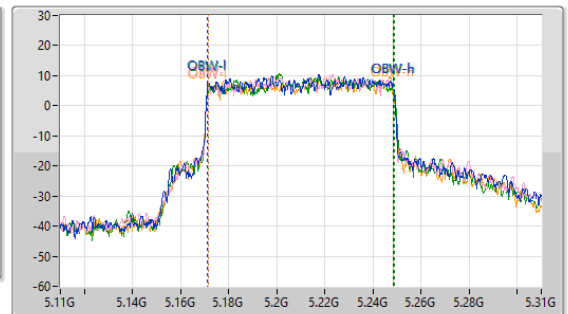
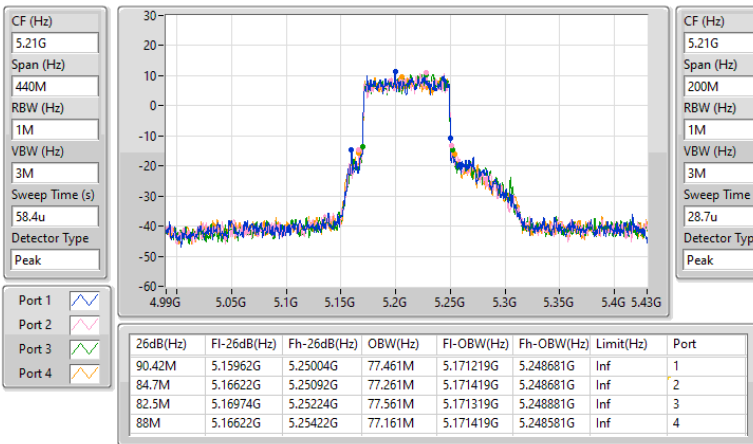


5.15-5.25GHz\_802.11be EHT80-BF\_Nss2,(MCS0)\_4TX

EBW

5210MHz

21/08/2023







Summary

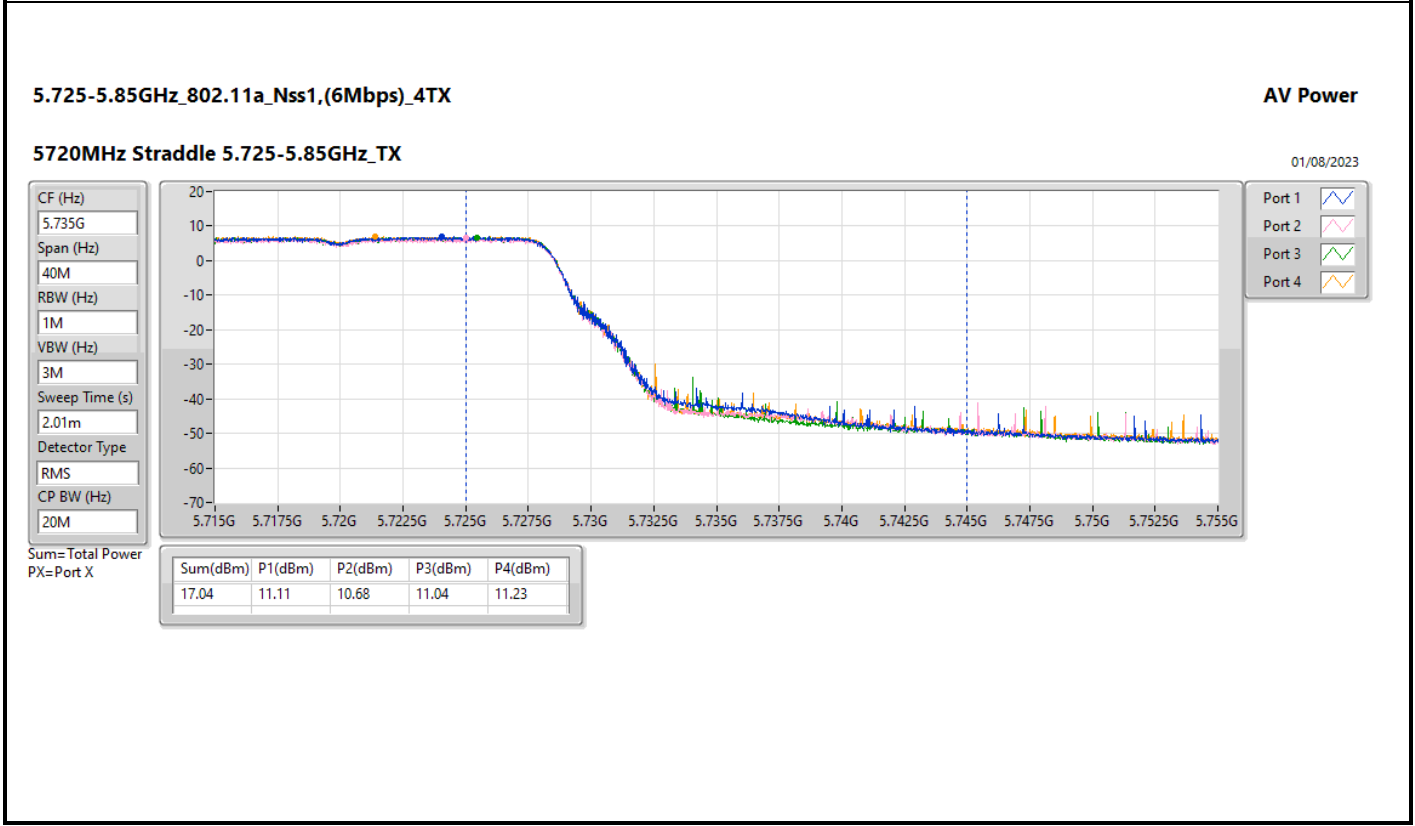
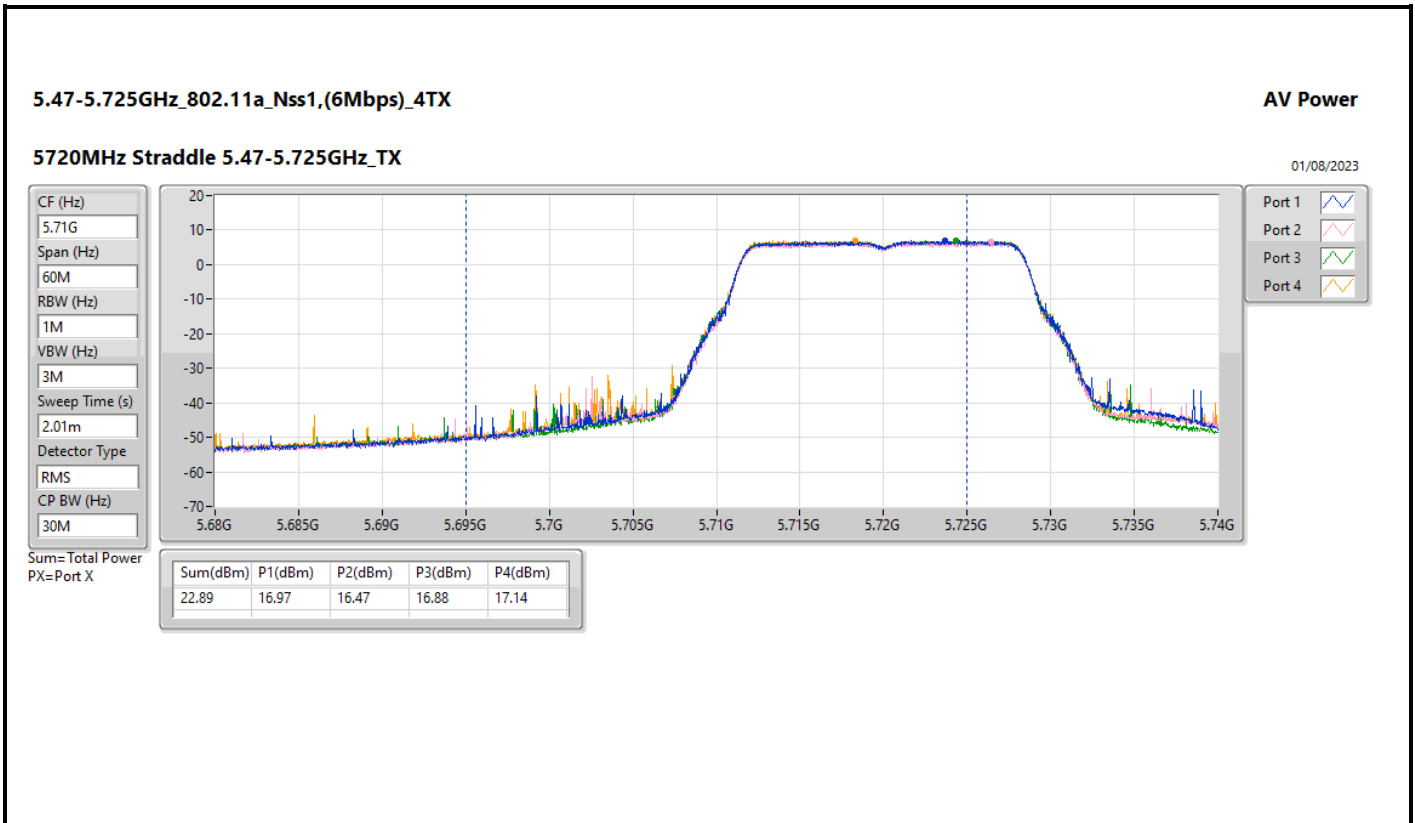
Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	29.91	0.97949
802.11be EHT20-BF_Nss1,(MCS0)_4TX	29.87	0.97051
802.11be EHT40-BF_Nss1,(MCS0)_4TX	27.82	0.60534
802.11be EHT80-BF_Nss1,(MCS0)_4TX	23.25	0.21135
802.11be EHT160-BF_Nss1,(MCS0)_4TX	20.80	0.12023
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	23.85	0.24266
802.11be EHT20-BF_Nss1,(MCS0)_4TX	23.88	0.24434
802.11be EHT40-BF_Nss1,(MCS0)_4TX	23.85	0.24266
802.11be EHT80-BF_Nss1,(MCS0)_4TX	23.93	0.24717
802.11be EHT160-BF_Nss1,(MCS0)_4TX	21.73	0.14894
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	23.87	0.24378
802.11be EHT20-BF_Nss1,(MCS0)_4TX	23.94	0.24774
802.11be EHT40-BF_Nss1,(MCS0)_4TX	23.95	0.24831
802.11be EHT80-BF_Nss1,(MCS0)_4TX	23.87	0.24378
802.11be EHT160-BF_Nss1,(MCS0)_4TX	23.90	0.24547
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	29.91	0.97949
802.11be EHT20-BF_Nss1,(MCS0)_4TX	29.96	0.99083
802.11be EHT40-BF_Nss1,(MCS0)_4TX	29.92	0.98175
802.11be EHT80-BF_Nss1,(MCS0)_4TX	27.57	0.57148

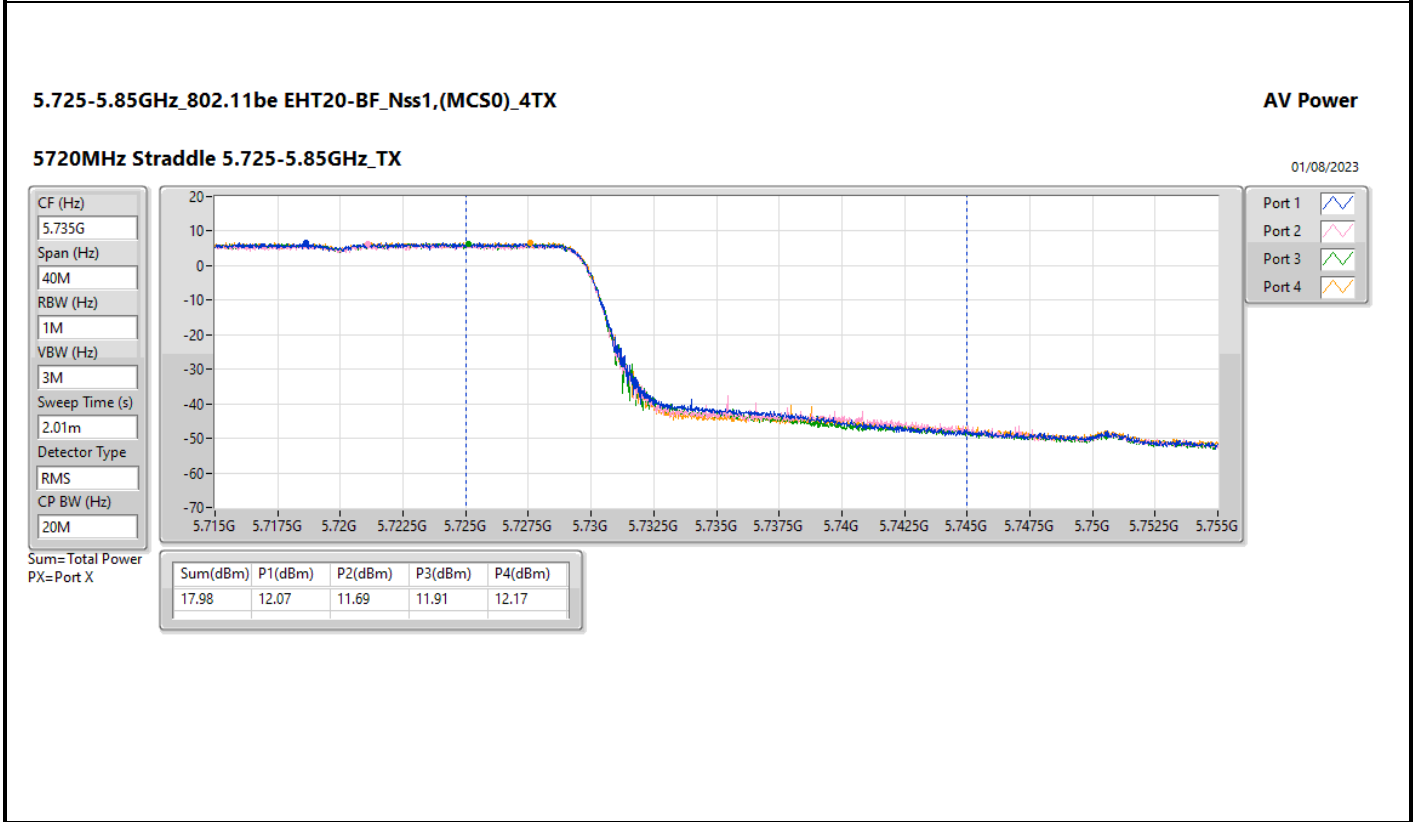
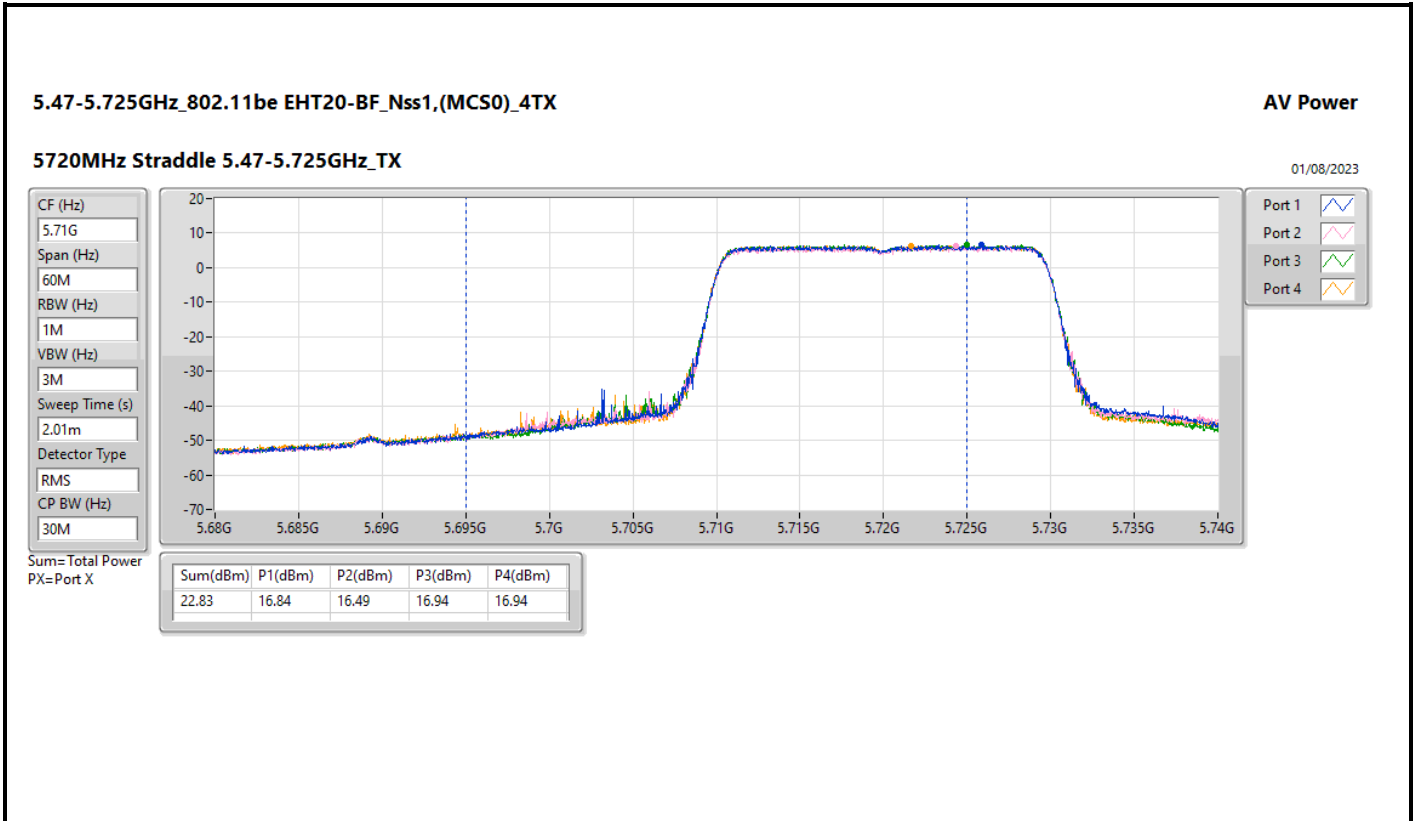


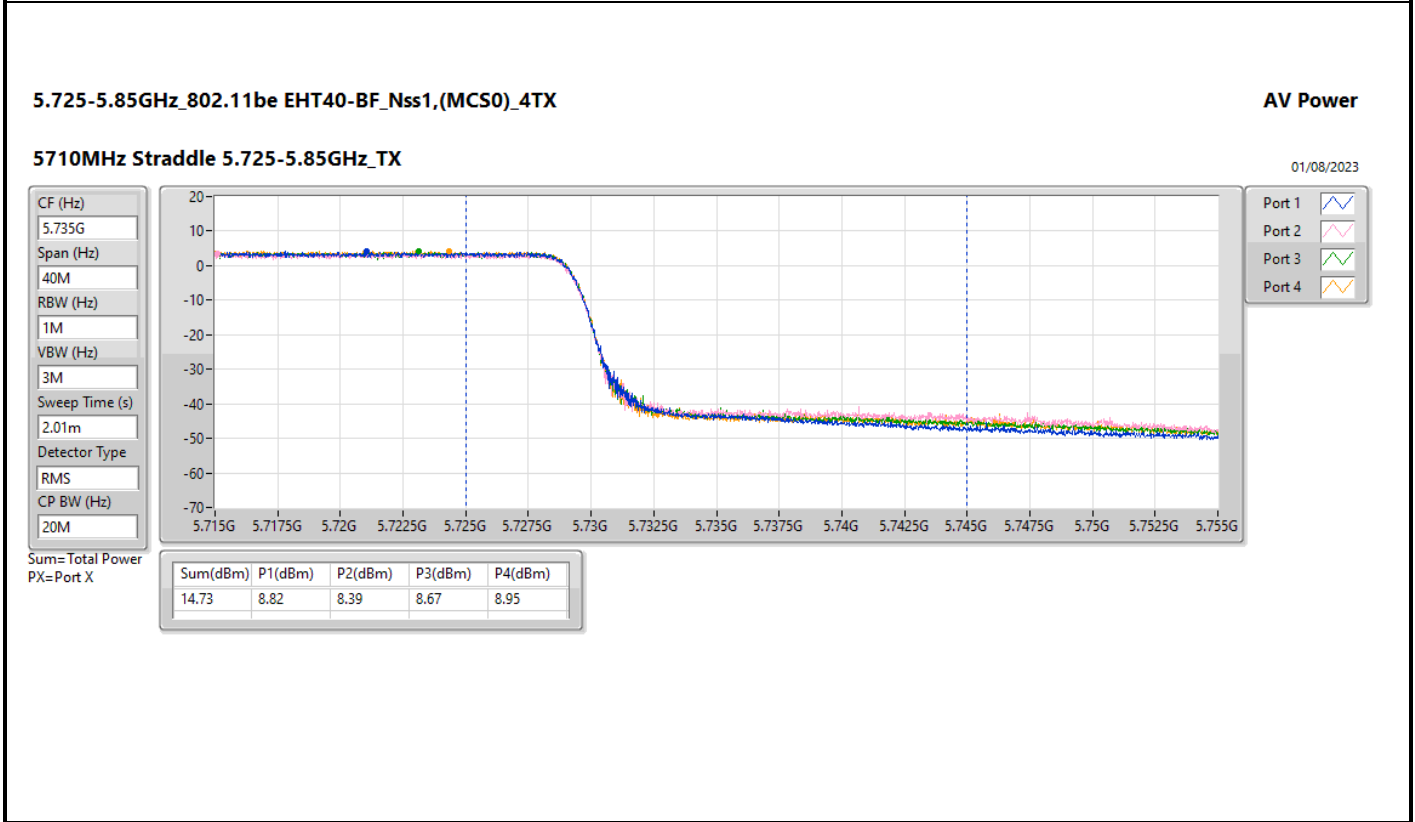
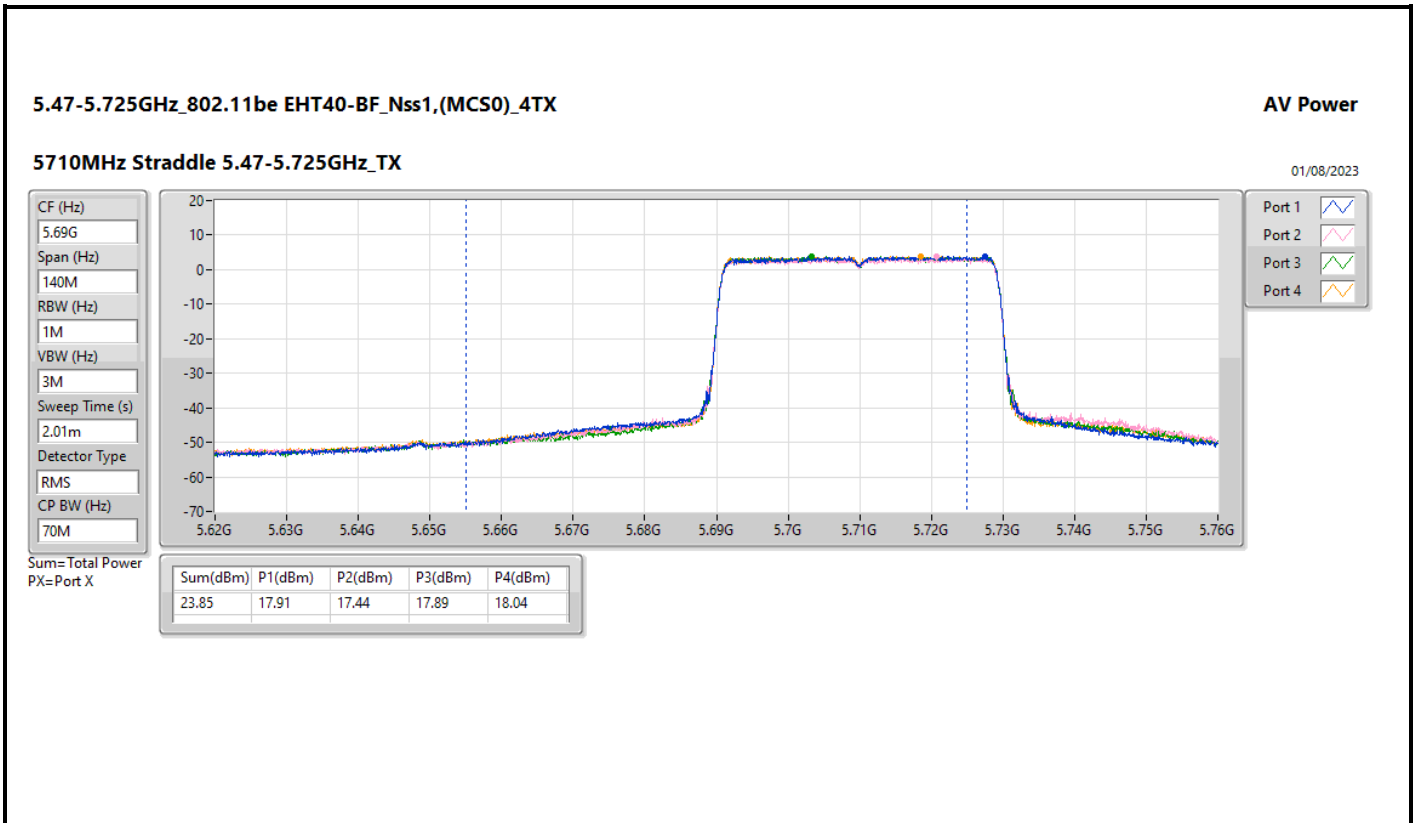
Result

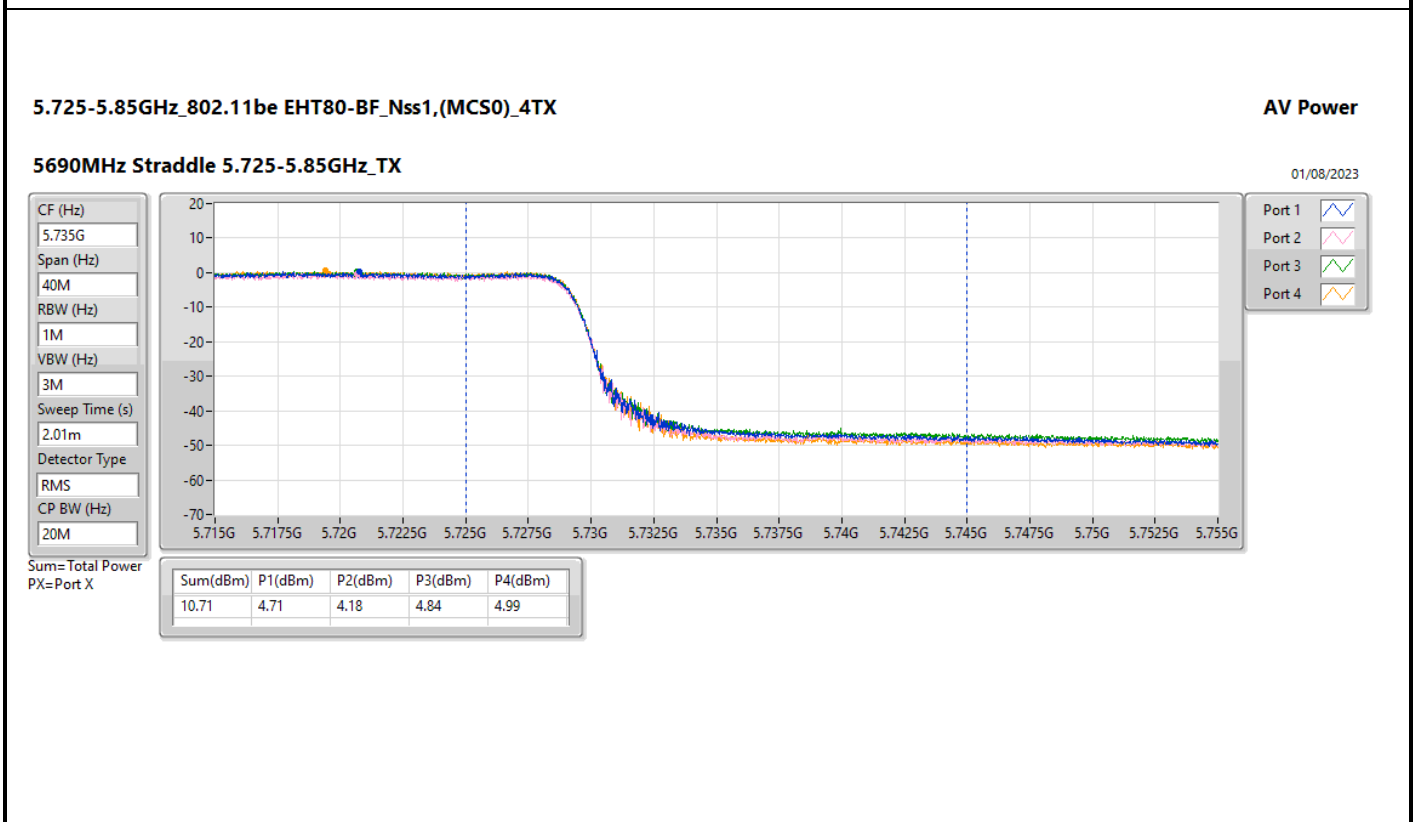
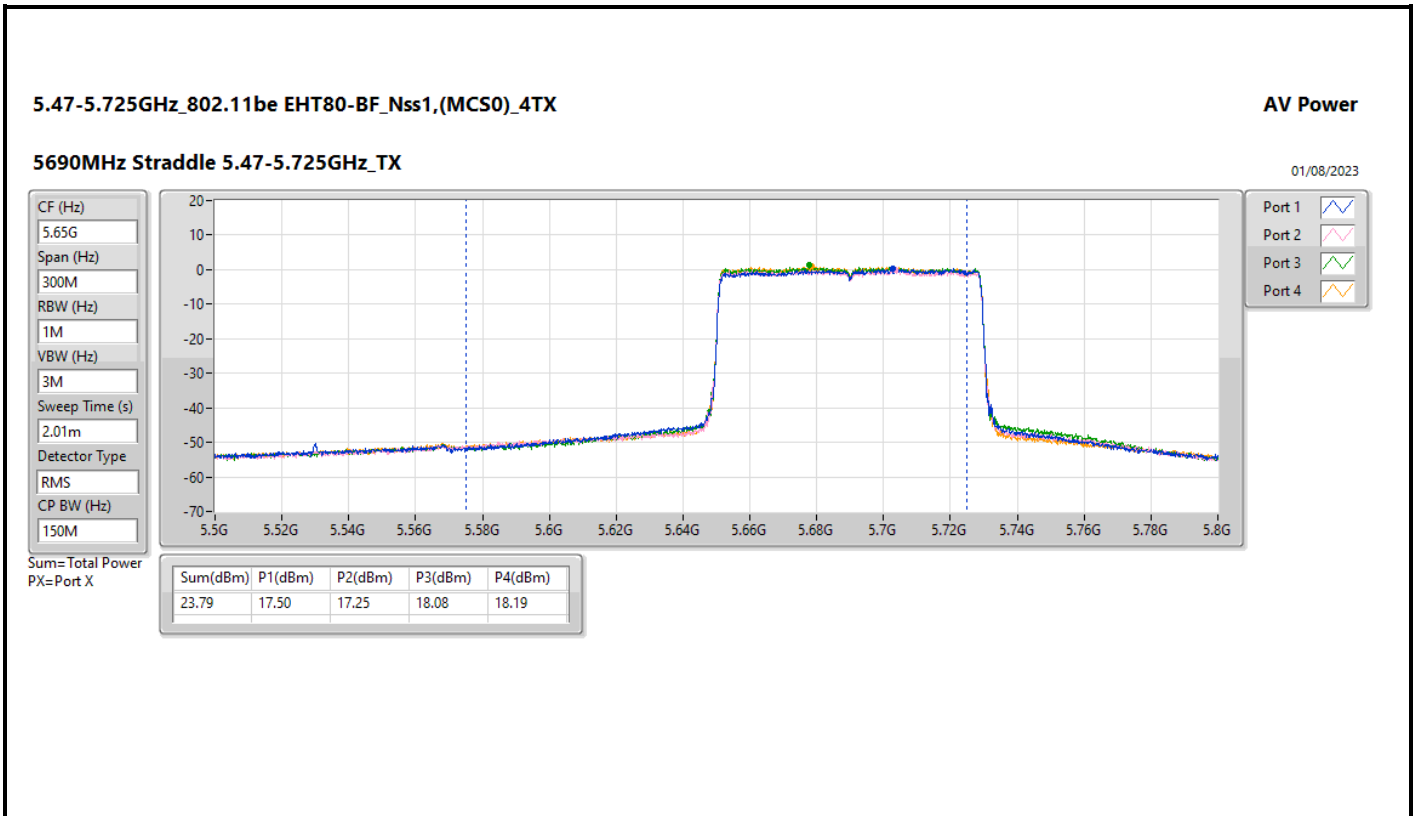
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.07	20.63	20.53	20.54	20.56	26.59	30.00
5200MHz	Pass	4.07	24.06	23.92	23.86	23.64	29.89	30.00
5240MHz	Pass	4.07	23.79	24.09	23.89	23.78	29.91	30.00
5260MHz	Pass	3.99	17.74	17.90	17.75	17.89	23.84	23.98
5300MHz	Pass	3.99	17.67	17.78	17.87	17.83	23.81	23.98
5320MHz	Pass	3.99	17.44	17.87	18.06	17.91	23.85	23.98
5500MHz	Pass	3.62	17.84	17.71	17.93	17.88	23.86	23.98
5580MHz	Pass	3.62	17.81	17.52	17.95	18.09	23.87	23.98
5700MHz	Pass	3.62	16.42	16.11	17.19	16.70	22.64	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	3.62	16.97	16.47	16.88	17.14	22.89	22.90
5720MHz Straddle 5.725-5.85GHz	Pass	4.20	11.11	10.68	11.04	11.23	17.04	30.00
5745MHz	Pass	4.20	23.93	23.46	24.10	23.96	29.89	30.00
5785MHz	Pass	4.20	23.85	23.71	23.79	24.14	29.90	30.00
5825MHz	Pass	4.20	23.97	23.70	23.56	24.28	29.91	30.00
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.90	20.22	19.98	19.96	20.06	26.08	30.00
5200MHz	Pass	5.90	22.47	22.48	22.53	22.58	28.54	30.00
5240MHz	Pass	5.90	23.87	23.96	23.96	23.60	29.87	30.00
5260MHz	Pass	5.76	17.63	17.88	17.84	17.77	23.80	23.98
5300MHz	Pass	5.76	17.77	18.00	17.88	17.79	23.88	23.98
5320MHz	Pass	5.76	17.46	17.86	17.82	17.84	23.77	23.98
5500MHz	Pass	5.94	17.98	17.72	18.11	17.86	23.94	23.98
5580MHz	Pass	5.94	17.82	17.65	18.02	18.01	23.90	23.98
5700MHz	Pass	5.94	15.56	15.23	15.82	15.80	21.63	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.94	16.84	16.49	16.94	16.94	22.83	22.89
5720MHz Straddle 5.725-5.85GHz	Pass	5.78	12.07	11.69	11.91	12.17	17.98	30.00
5745MHz	Pass	5.78	24.05	23.51	24.14	24.04	29.96	30.00
5785MHz	Pass	5.78	23.85	23.13	23.93	24.18	29.81	30.00
5825MHz	Pass	5.78	23.84	23.33	23.55	24.24	29.77	30.00
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.90	16.72	16.71	16.80	16.81	22.78	30.00
5230MHz	Pass	5.90	21.69	21.65	22.04	21.80	27.82	30.00
5270MHz	Pass	5.76	17.77	17.61	17.93	17.98	23.85	23.98
5310MHz	Pass	5.76	17.03	16.74	16.53	16.89	22.82	23.98
5510MHz	Pass	5.94	17.89	17.70	18.03	18.08	23.95	23.98
5550MHz	Pass	5.94	17.59	17.70	18.10	17.95	23.86	23.98
5670MHz	Pass	5.94	17.93	17.60	17.95	18.11	23.92	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.94	17.91	17.44	17.89	18.04	23.85	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	5.78	8.82	8.39	8.67	8.95	14.73	30.00
5755MHz	Pass	5.78	23.77	23.59	24.15	24.01	29.91	30.00
5795MHz	Pass	5.78	23.93	23.64	23.56	24.42	29.92	30.00
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.90	17.06	17.20	17.41	17.26	23.25	30.00
5290MHz	Pass	5.76	17.38	17.99	18.12	18.12	23.93	23.98
5530MHz	Pass	5.94	17.64	17.43	18.05	17.93	23.79	23.98
5610MHz	Pass	5.94	17.68	17.80	17.79	18.13	23.87	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.94	17.50	17.25	18.08	18.19	23.79	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	5.78	4.71	4.18	4.84	4.99	10.71	30.00
5775MHz	Pass	5.78	21.75	21.38	21.21	21.83	27.57	30.00
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	5.90	15.08	14.22	14.93	14.82	20.80	30.00
5250MHz Straddle 5.25-5.35GHz	Pass	5.76	15.61	15.76	15.54	15.93	21.73	23.98
5570MHz	Pass	5.94	17.64	17.63	18.14	18.07	23.90	23.98

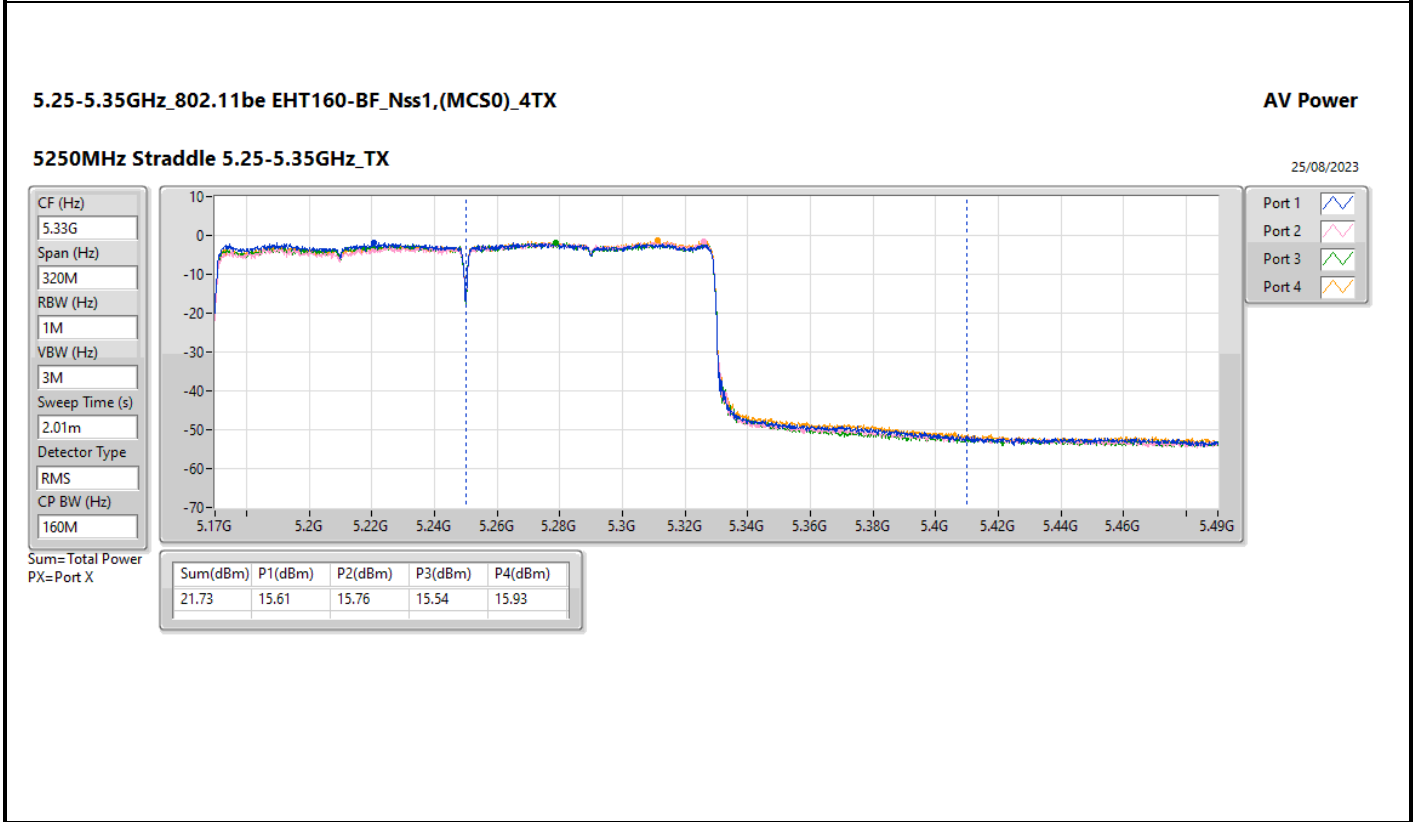
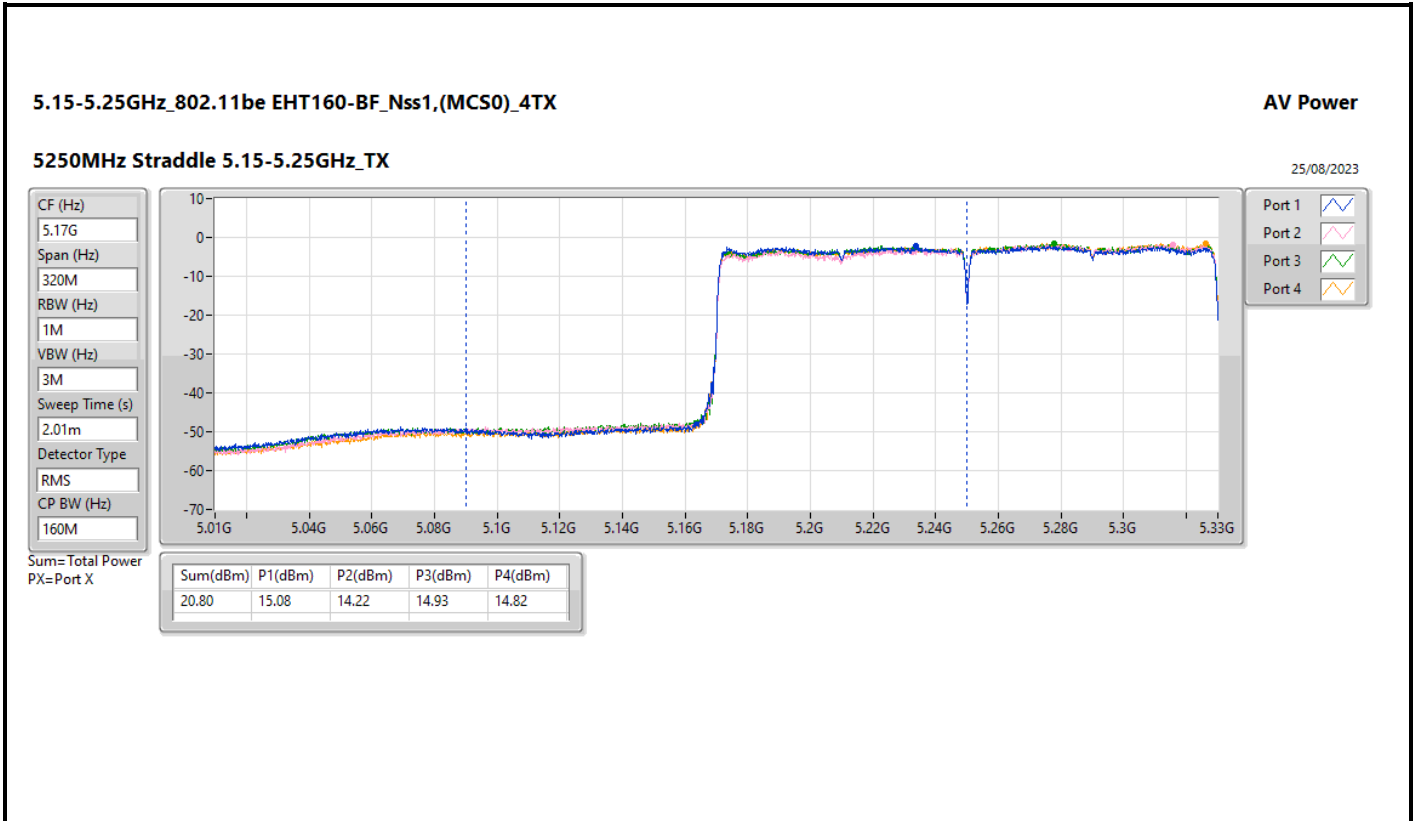
DG = Directional Gain; Port X = Port X output power













Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11be EHT20-BF_Nss2,(MCS0)_4TX	26.65	0.46238	30.72	1.18032
802.11be EHT40-BF_Nss2,(MCS0)_4TX	28.27	0.67143	32.34	1.71396
802.11be EHT80-BF_Nss2,(MCS0)_4TX	24.45	0.27861	28.52	0.71121





Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11be EHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	4.07	20.71	20.79	20.51	20.50	26.65	30.00	30.72	36.00
802.11be EHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	4.07	18.45	18.29	17.95	18.07	24.21	30.00	28.28	36.00
5230MHz	Pass	4.07	22.36	22.38	22.10	22.16	28.27	30.00	32.34	36.00
802.11be EHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	4.07	18.54	18.61	18.25	18.29	24.45	30.00	28.52	36.00

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



Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_4TX	16.61
802.11be EHT20-BF_Nss1,(MCS0)_4TX	15.88
802.11be EHT40-BF_Nss1,(MCS0)_4TX	11.41
802.11be EHT80-BF_Nss1,(MCS0)_4TX	3.89
802.11be EHT160-BF_Nss1,(MCS0)_4TX	1.37
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_4TX	10.84
802.11be EHT20-BF_Nss1,(MCS0)_4TX	10.03
802.11be EHT40-BF_Nss1,(MCS0)_4TX	7.16
802.11be EHT80-BF_Nss1,(MCS0)_4TX	4.54
802.11be EHT160-BF_Nss1,(MCS0)_4TX	2.18
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_4TX	10.87
802.11be EHT20-BF_Nss1,(MCS0)_4TX	10.31
802.11be EHT40-BF_Nss1,(MCS0)_4TX	7.72
802.11be EHT80-BF_Nss1,(MCS0)_4TX	4.82
802.11be EHT160-BF_Nss1,(MCS0)_4TX	1.82
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	15.52
802.11be EHT20-BF_Nss1,(MCS0)_4TX	14.66
802.11be EHT40-BF_Nss1,(MCS0)_4TX	12.09
802.11be EHT80-BF_Nss1,(MCS0)_4TX	7.06

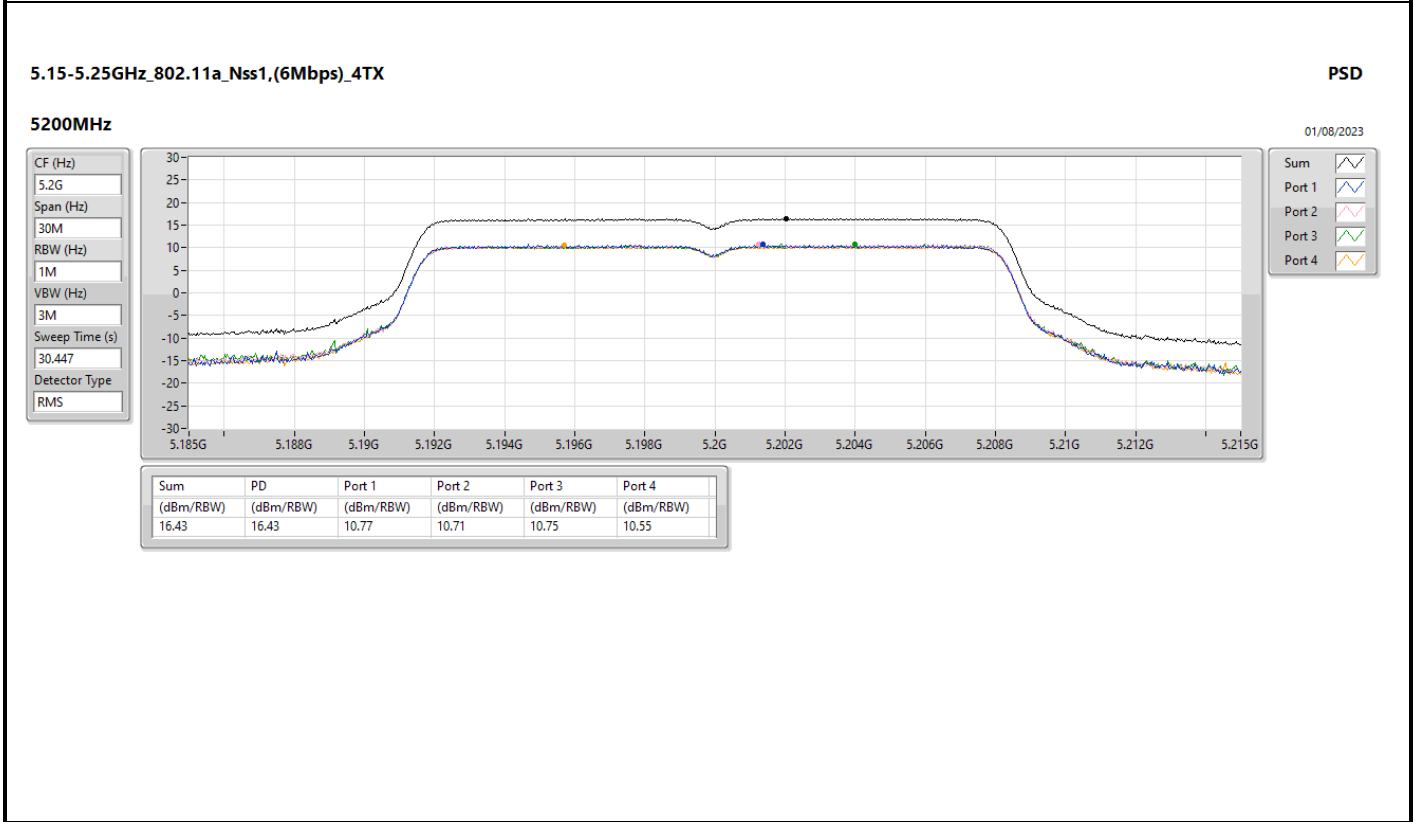
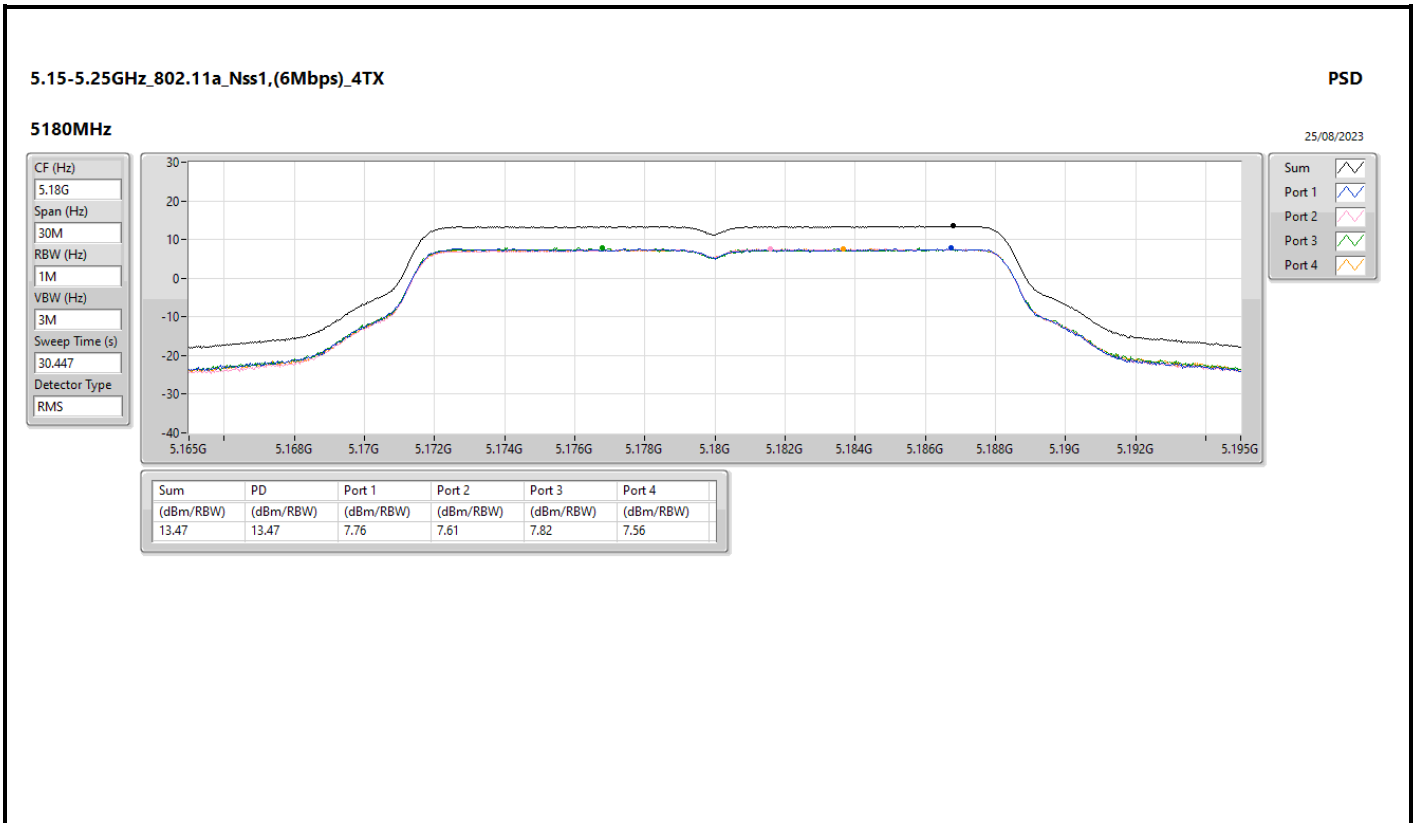
RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

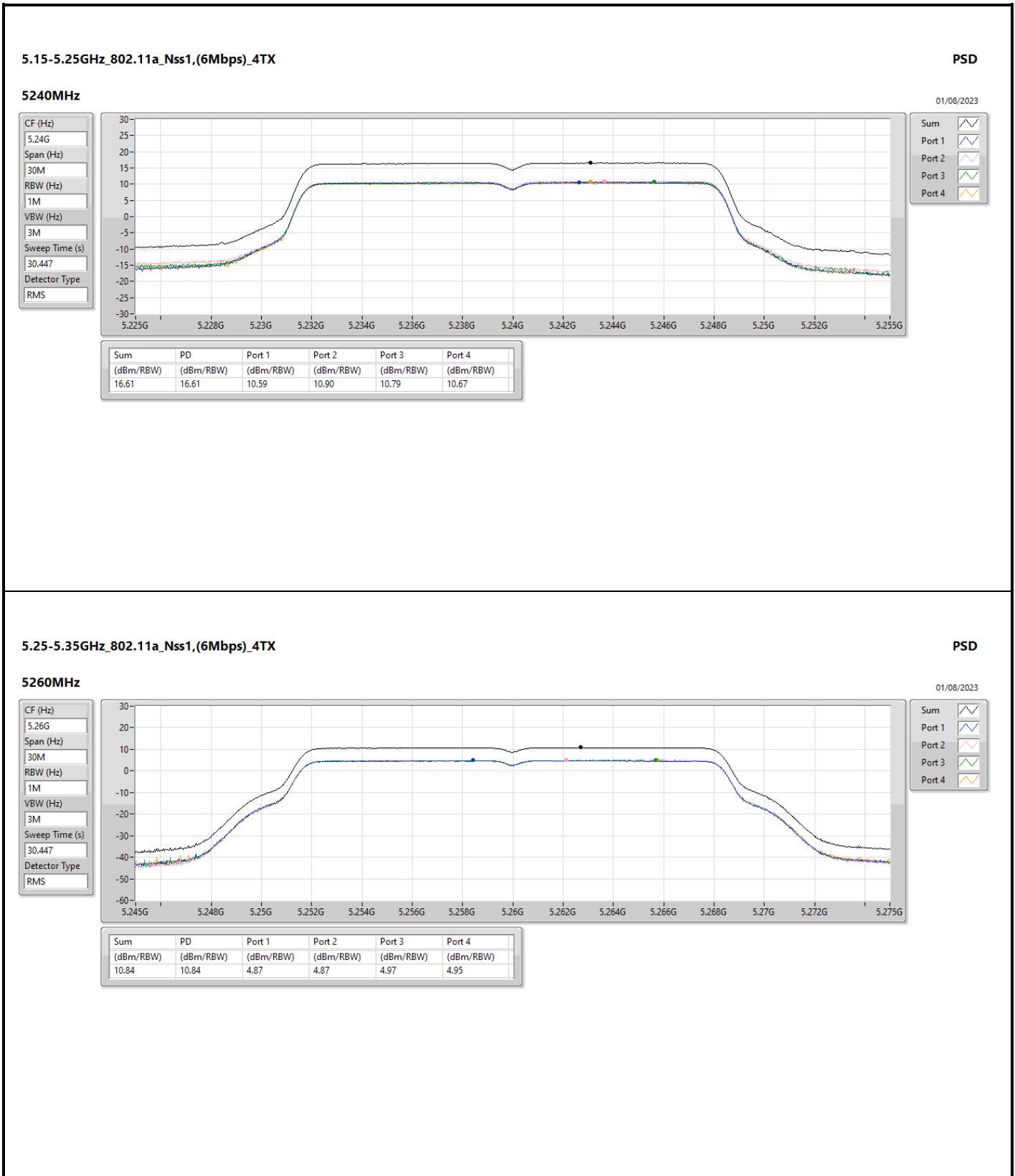


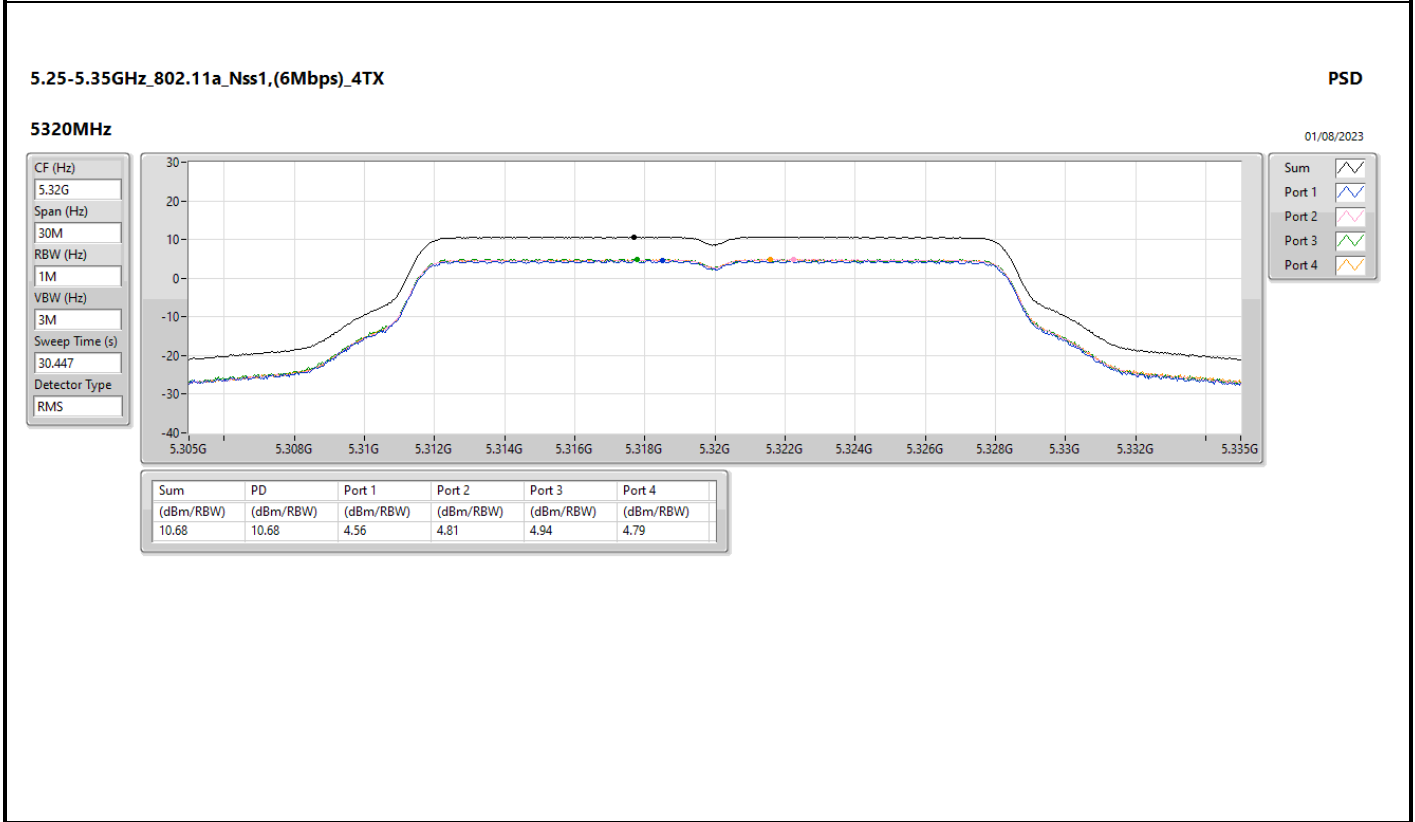
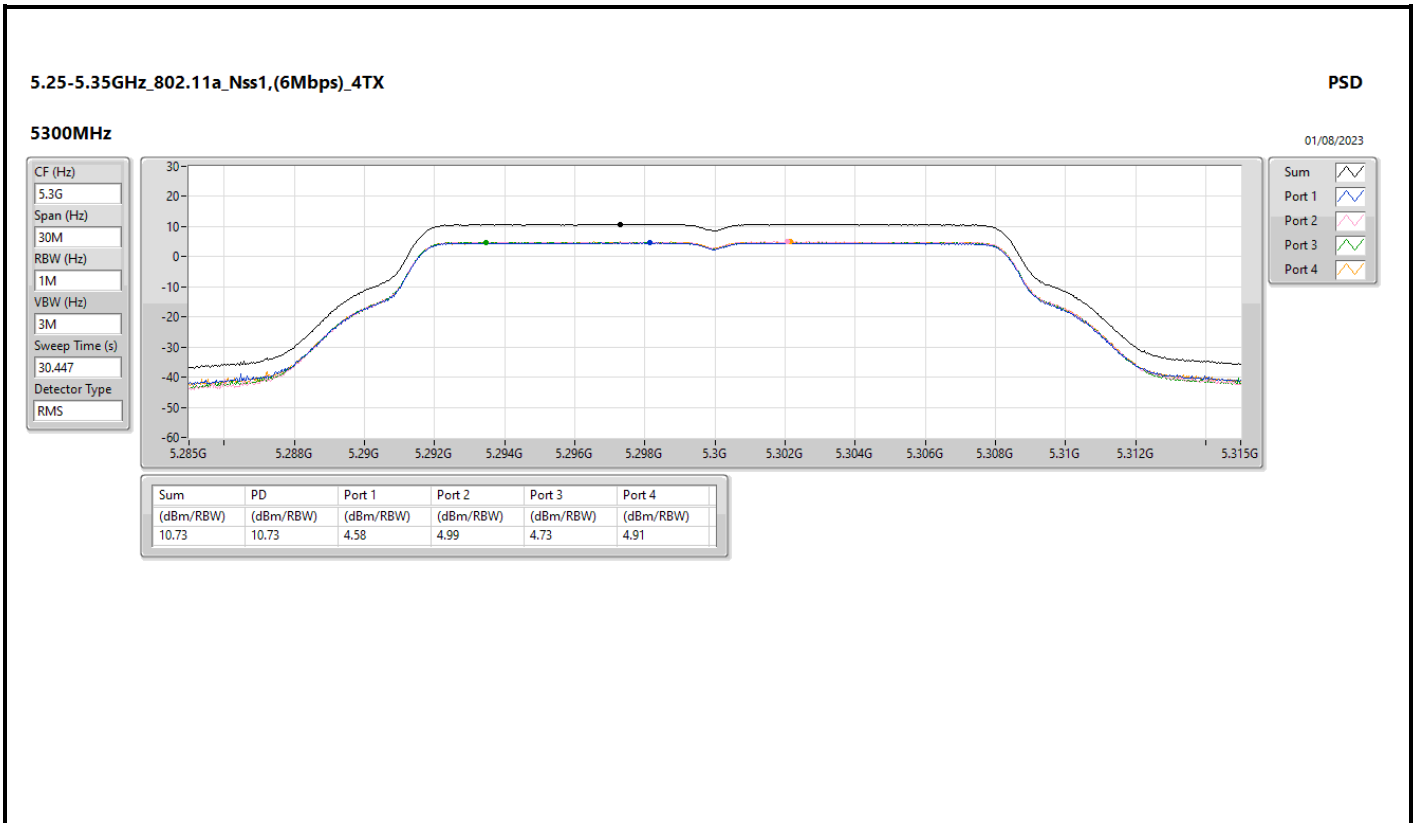
Result

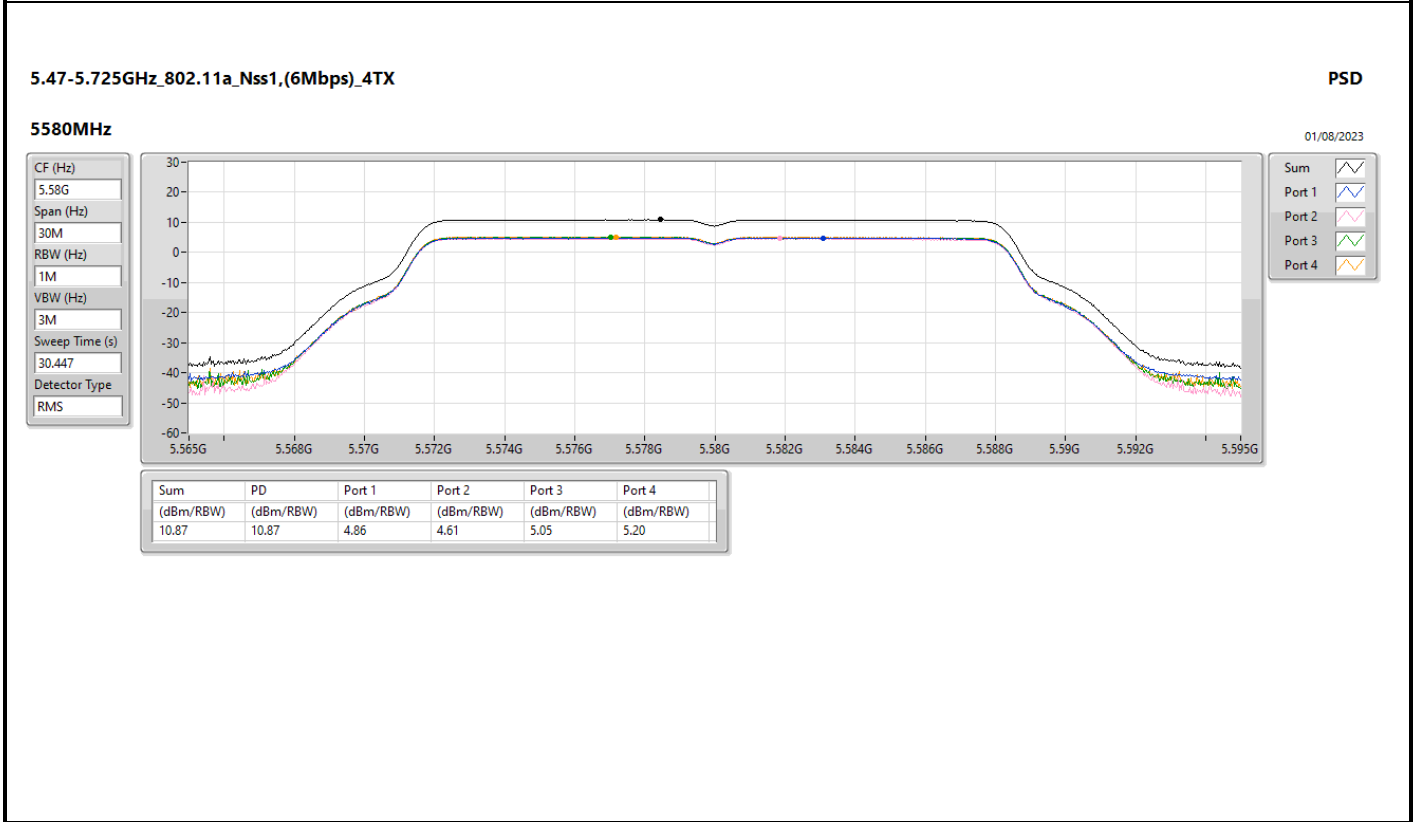
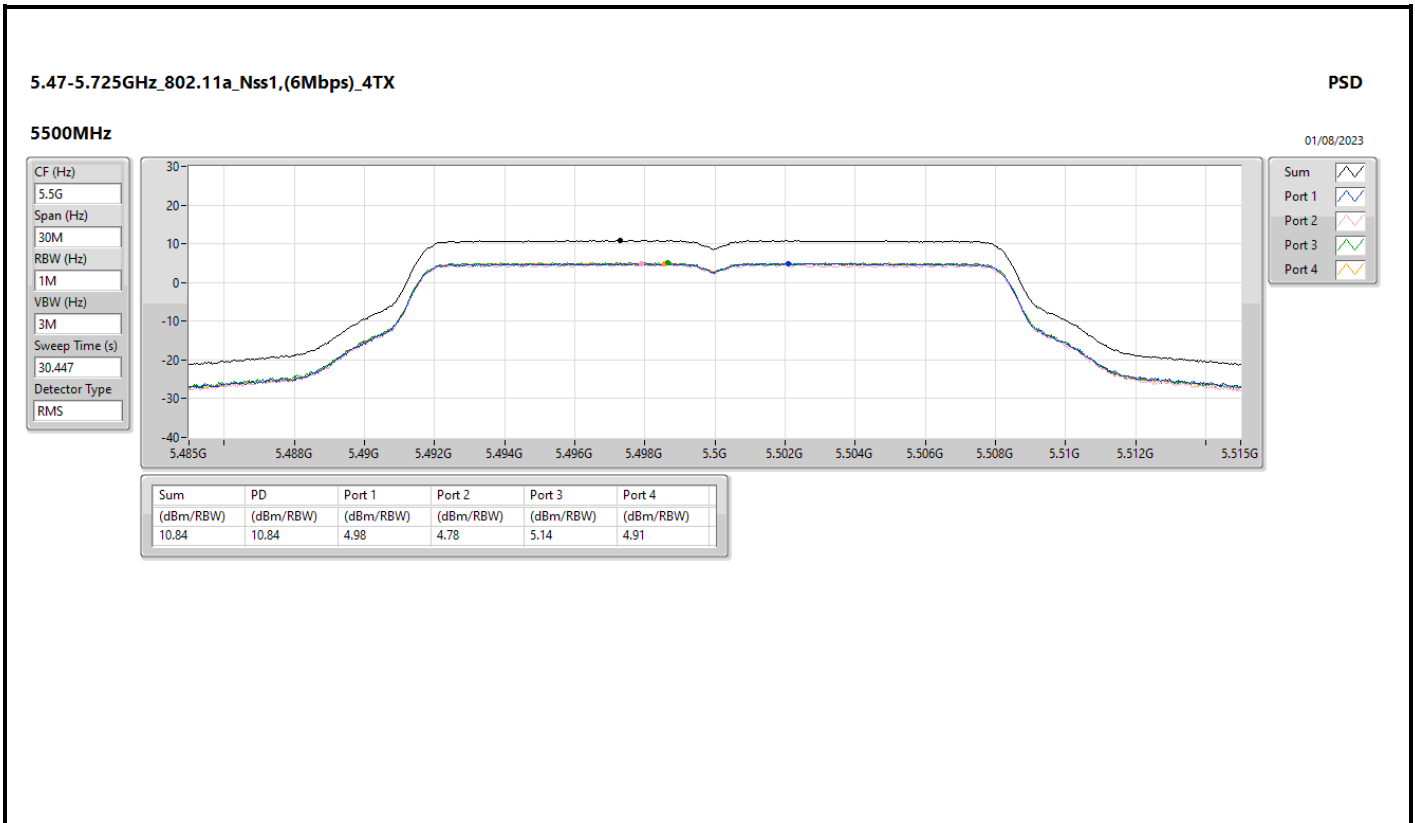
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.90	7.76	7.61	7.82	7.56	13.47	17.00
5200MHz	Pass	5.90	10.77	10.71	10.75	10.55	16.43	17.00
5240MHz	Pass	5.90	10.59	10.90	10.79	10.67	16.61	17.00
5260MHz	Pass	5.76	4.87	4.87	4.97	4.95	10.84	11.00
5300MHz	Pass	5.76	4.58	4.99	4.73	4.91	10.73	11.00
5320MHz	Pass	5.76	4.56	4.81	4.94	4.79	10.68	11.00
5500MHz	Pass	5.94	4.98	4.78	5.14	4.91	10.84	11.00
5580MHz	Pass	5.94	4.86	4.61	5.05	5.20	10.87	11.00
5700MHz	Pass	5.94	3.60	3.21	4.02	3.89	9.58	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.94	4.84	4.22	4.87	4.78	10.64	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.78	3.48	2.88	3.34	3.54	9.22	30.00
5745MHz	Pass	5.78	9.36	8.88	9.40	9.55	15.21	30.00
5785MHz	Pass	5.78	9.54	9.32	9.40	9.97	15.52	30.00
5825MHz	Pass	5.78	9.47	9.23	9.02	9.96	15.33	30.00
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.90	6.52	7.19	6.65	6.69	12.56	17.00
5200MHz	Pass	5.90	8.96	9.23	9.20	9.10	14.92	17.00
5240MHz	Pass	5.90	9.89	10.24	10.02	9.87	15.88	17.00
5260MHz	Pass	5.76	4.06	4.34	4.17	4.00	10.03	11.00
5300MHz	Pass	5.76	3.91	4.14	4.06	3.88	9.91	11.00
5320MHz	Pass	5.76	3.68	4.09	4.10	3.97	9.91	11.00
5500MHz	Pass	5.94	4.06	3.94	4.30	4.01	10.00	11.00
5580MHz	Pass	5.94	4.10	4.11	4.33	4.42	10.15	11.00
5700MHz	Pass	5.94	1.87	1.57	2.47	2.22	7.96	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.94	4.48	4.09	4.35	4.52	10.31	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.78	2.98	2.60	2.81	3.03	8.78	30.00
5745MHz	Pass	5.78	8.70	8.28	8.91	8.94	14.60	30.00
5785MHz	Pass	5.78	8.61	8.55	8.89	9.07	14.66	30.00
5825MHz	Pass	5.78	8.76	8.17	8.13	9.13	14.48	30.00
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.90	0.39	0.72	0.88	0.42	6.41	17.00
5230MHz	Pass	5.90	5.20	5.67	5.58	5.47	11.41	17.00
5270MHz	Pass	5.76	1.14	1.24	1.24	1.22	7.16	11.00
5310MHz	Pass	5.76	0.52	0.44	0.20	0.34	6.29	11.00
5510MHz	Pass	5.94	1.23	1.07	1.16	1.37	7.12	11.00
5550MHz	Pass	5.94	0.97	1.15	1.33	1.18	7.09	11.00
5670MHz	Pass	5.94	1.26	1.09	1.29	1.62	7.24	11.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.94	1.87	1.39	1.95	1.99	7.72	11.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.78	0.33	-0.09	0.13	0.42	6.15	30.00
5755MHz	Pass	5.78	5.72	5.53	6.11	6.04	11.75	30.00
5795MHz	Pass	5.78	5.95	5.97	6.14	6.59	12.09	30.00
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.90	-2.26	-1.93	-1.76	-1.88	3.89	17.00
5290MHz	Pass	5.76	-1.97	-1.31	-1.20	-1.22	4.54	11.00
5530MHz	Pass	5.94	-1.53	-1.47	-1.22	-1.23	4.55	11.00
5610MHz	Pass	5.94	-1.37	-1.09	-0.97	-0.97	4.82	11.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.94	-1.62	-2.13	-1.22	-1.12	4.38	11.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.78	-3.71	-4.31	-3.36	-3.50	2.27	30.00
5775MHz	Pass	5.78	1.18	1.02	0.82	1.46	7.06	30.00
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	5.90	-4.37	-4.91	-4.19	-4.54	1.37	17.00
5250MHz Straddle 5.25-5.35GHz	Pass	5.76	-3.82	-3.51	-3.89	-3.49	2.18	11.00
5570MHz	Pass	5.94	-4.32	-4.31	-3.87	-3.96	1.82	11.00

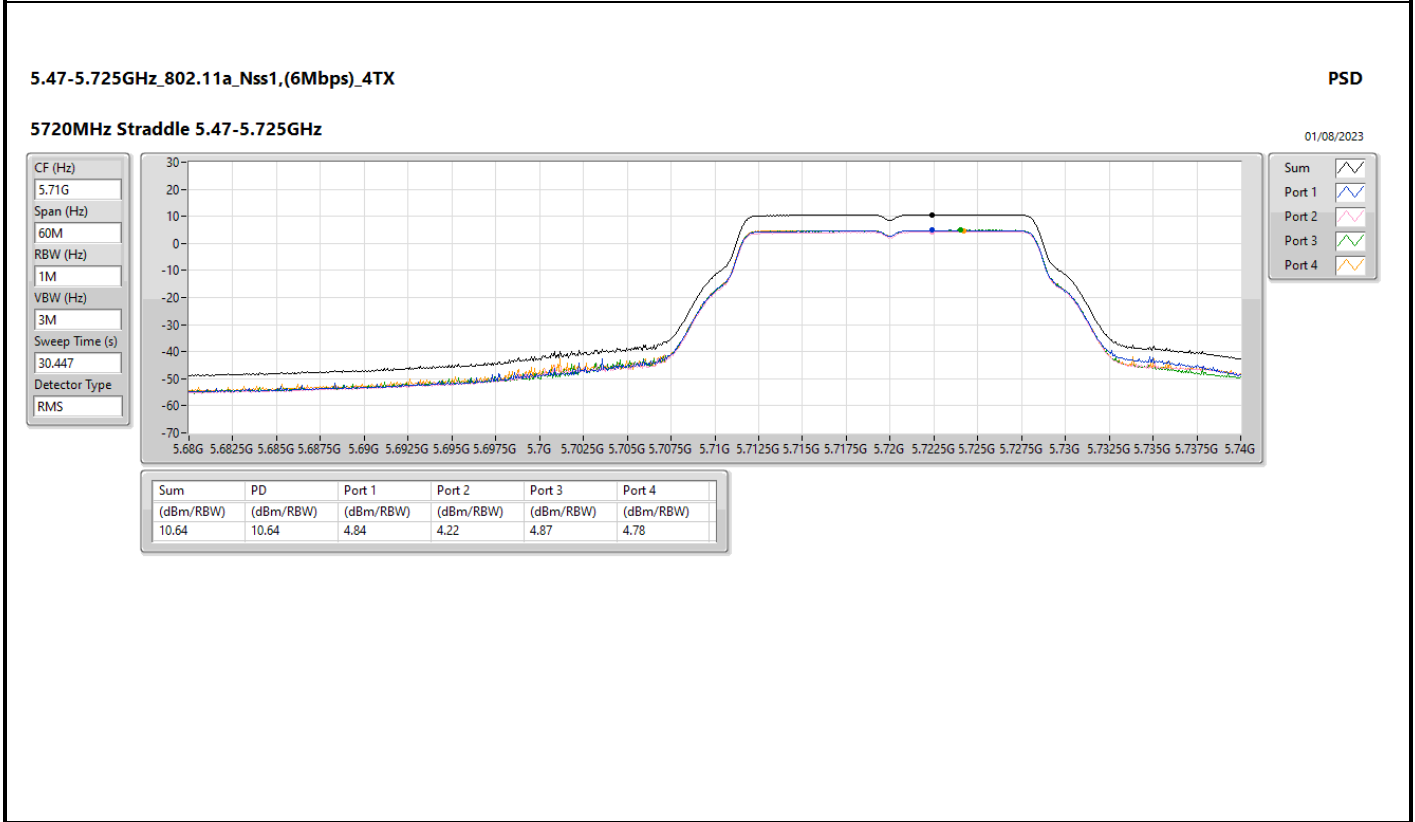
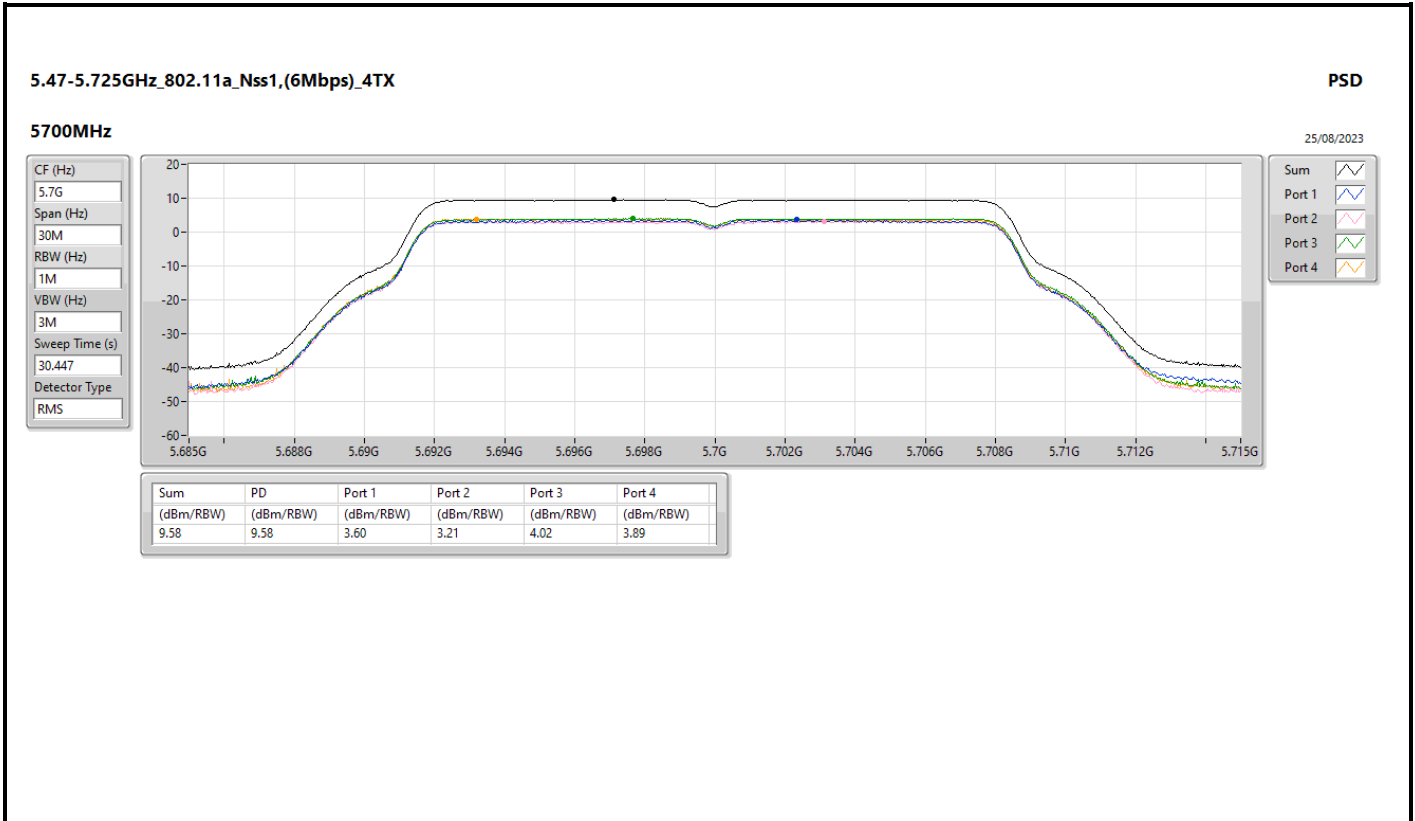
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;  
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;



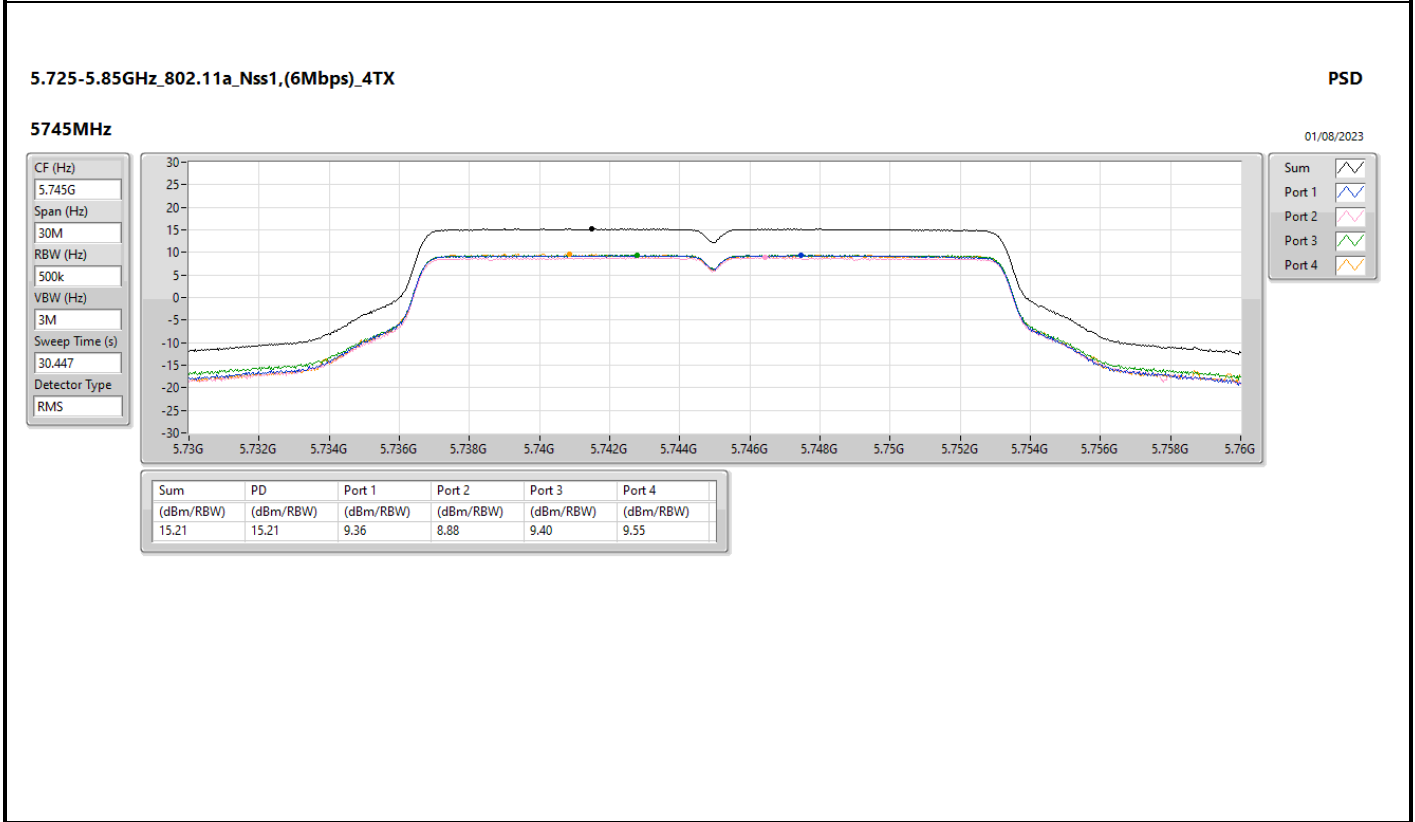
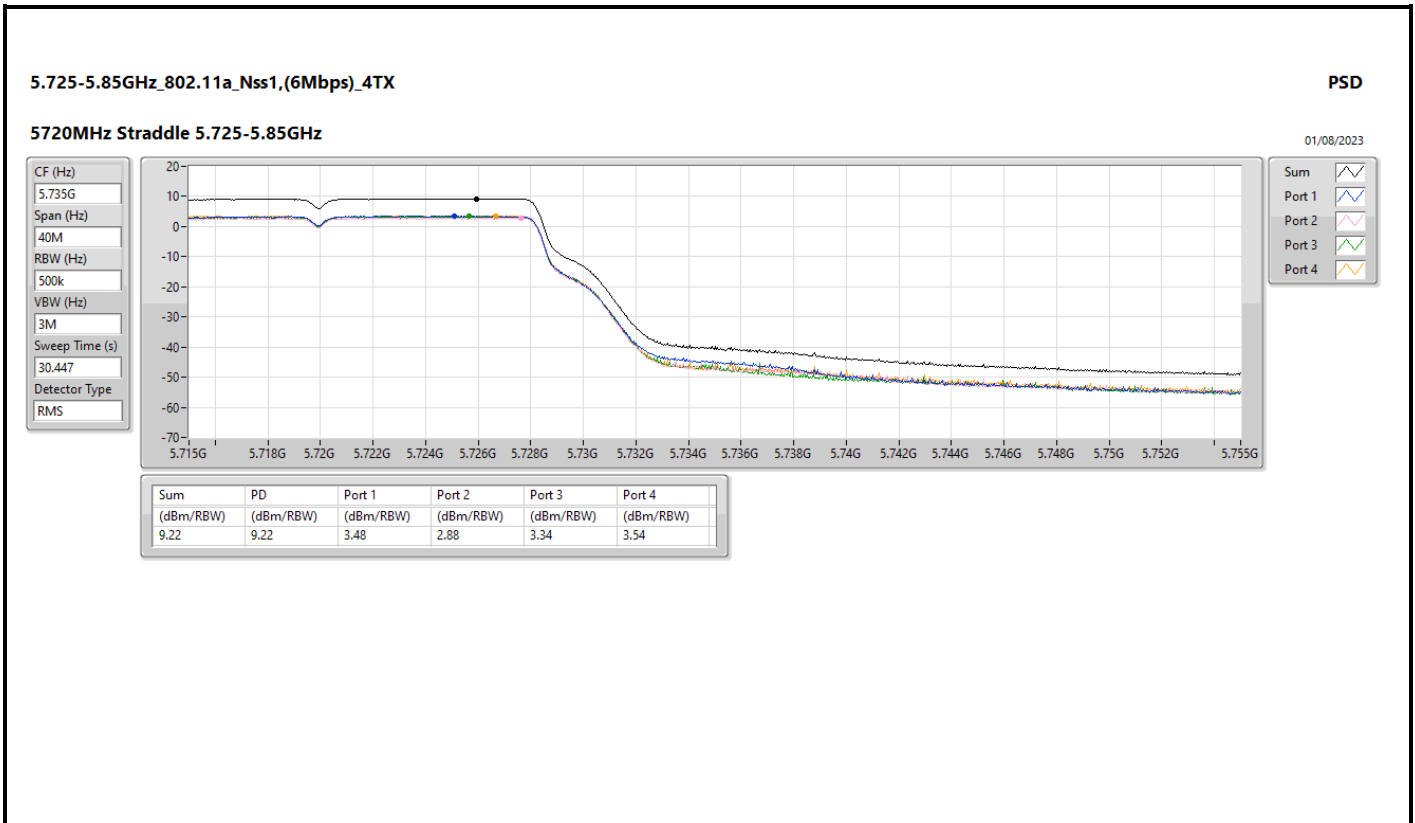


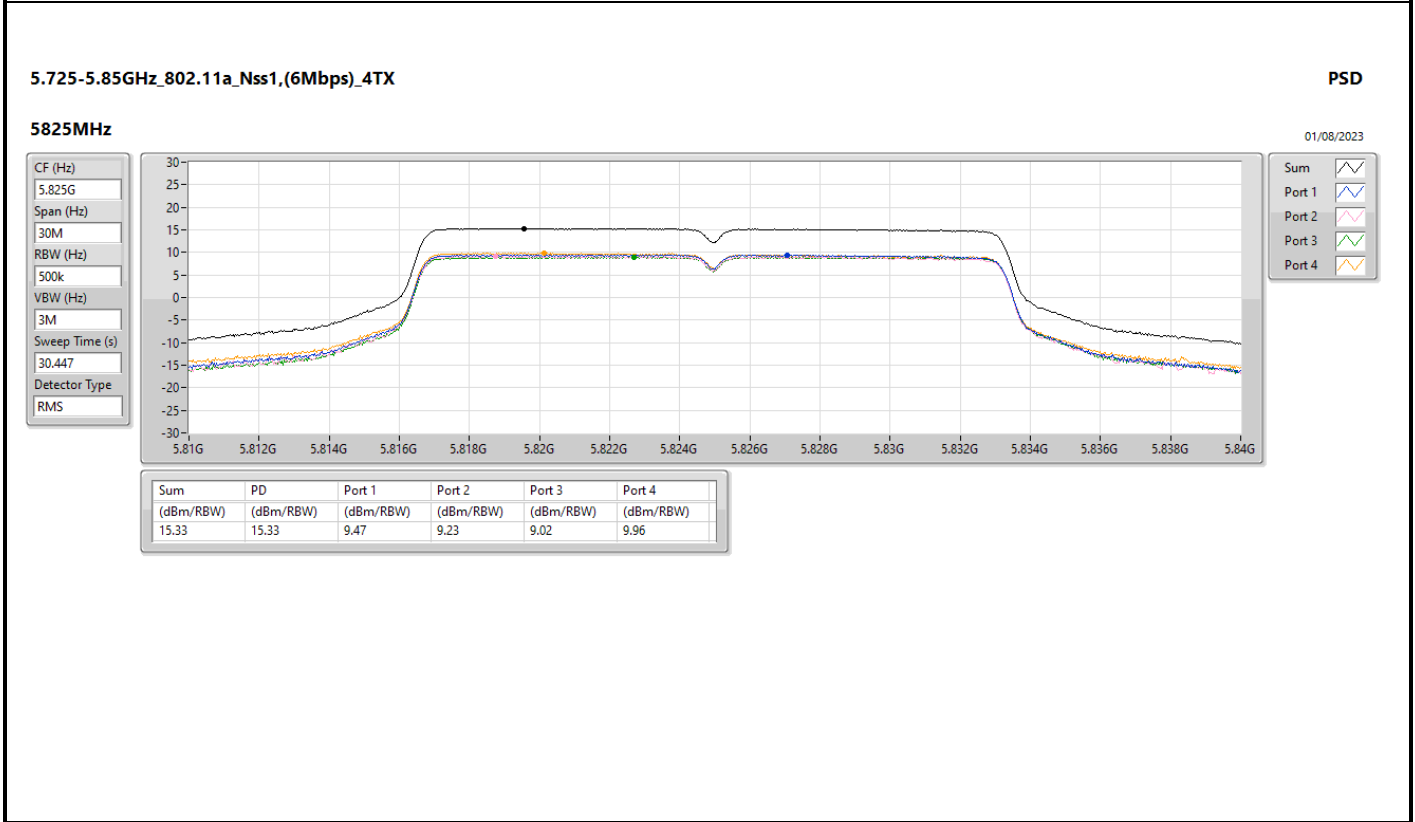
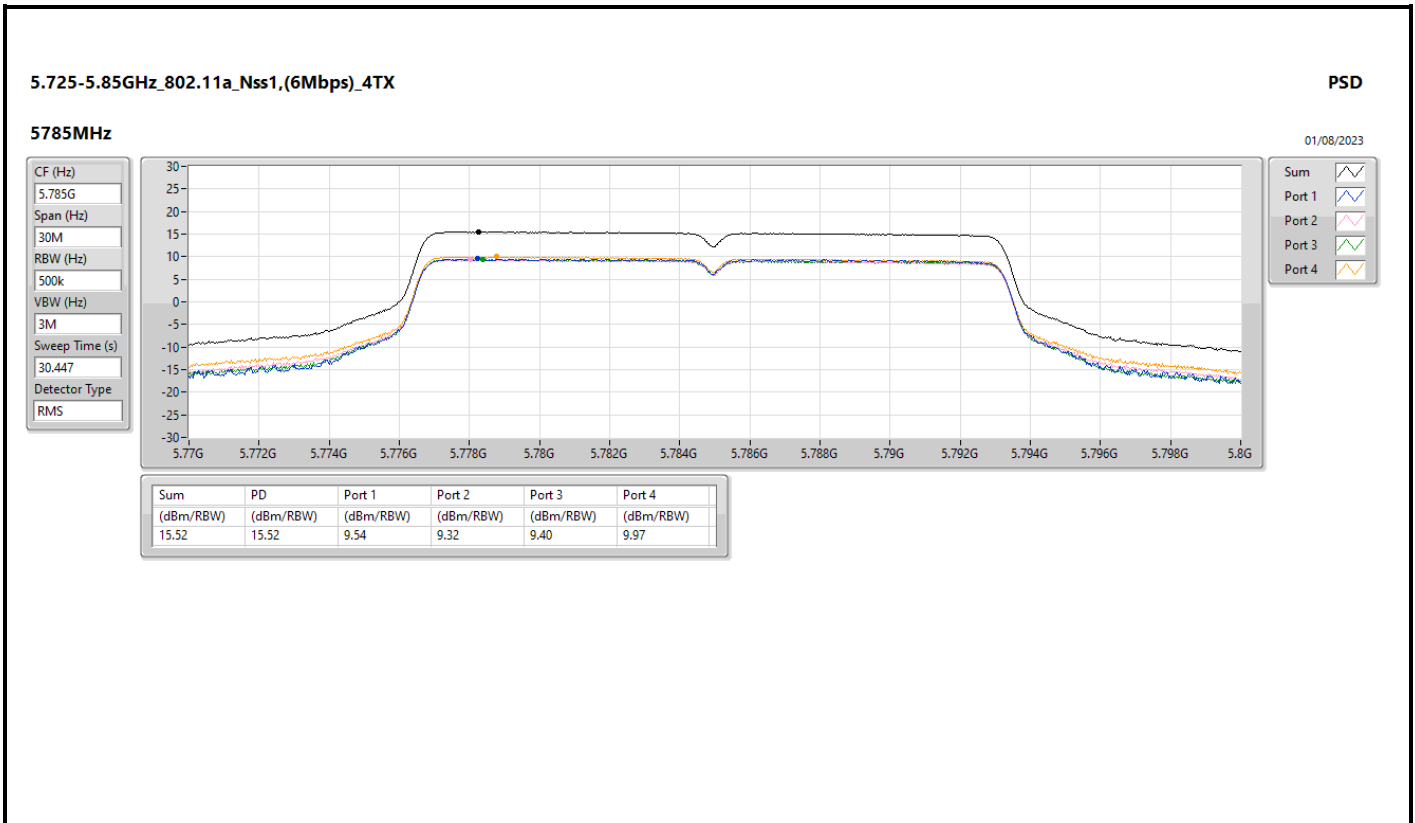


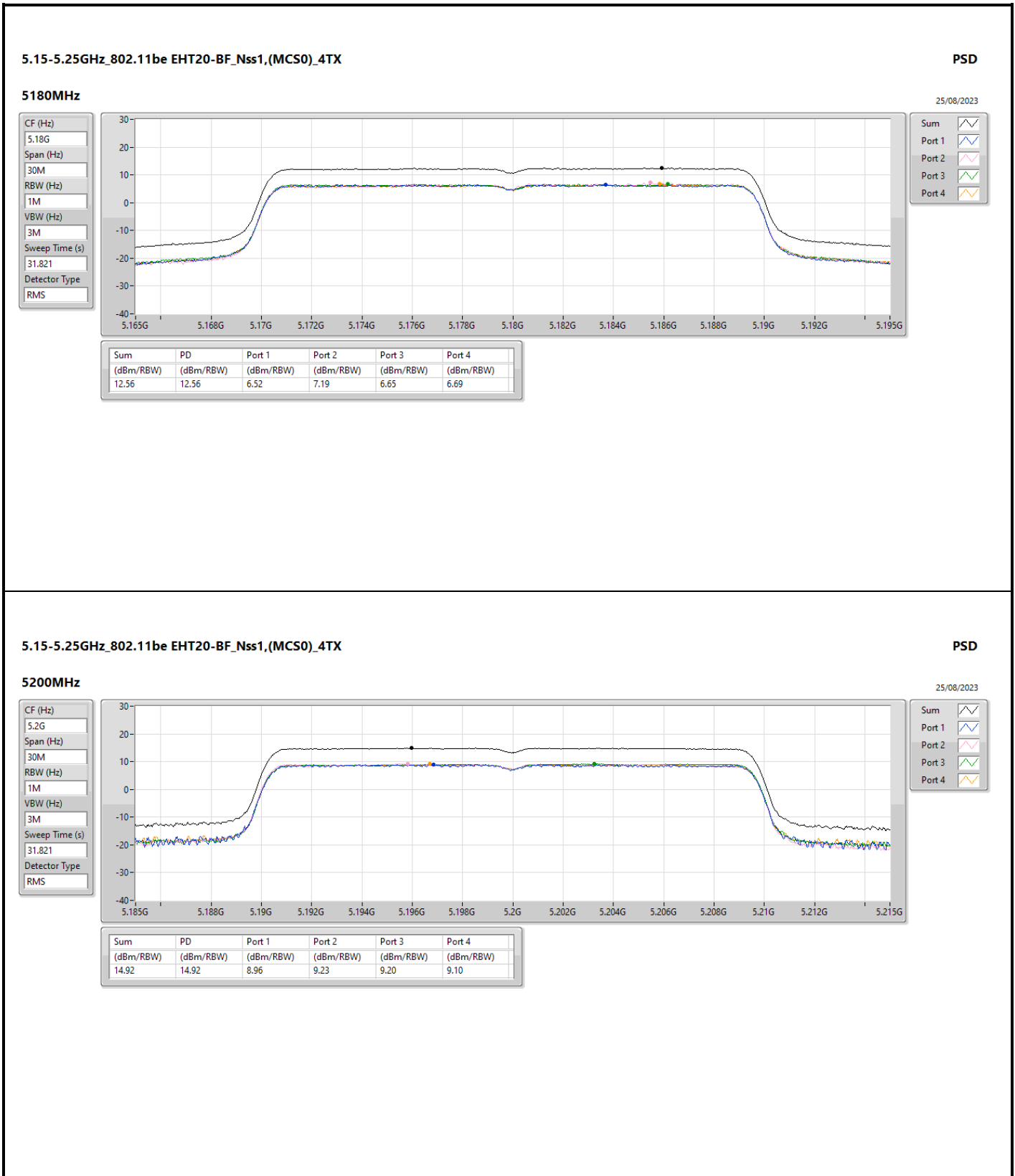


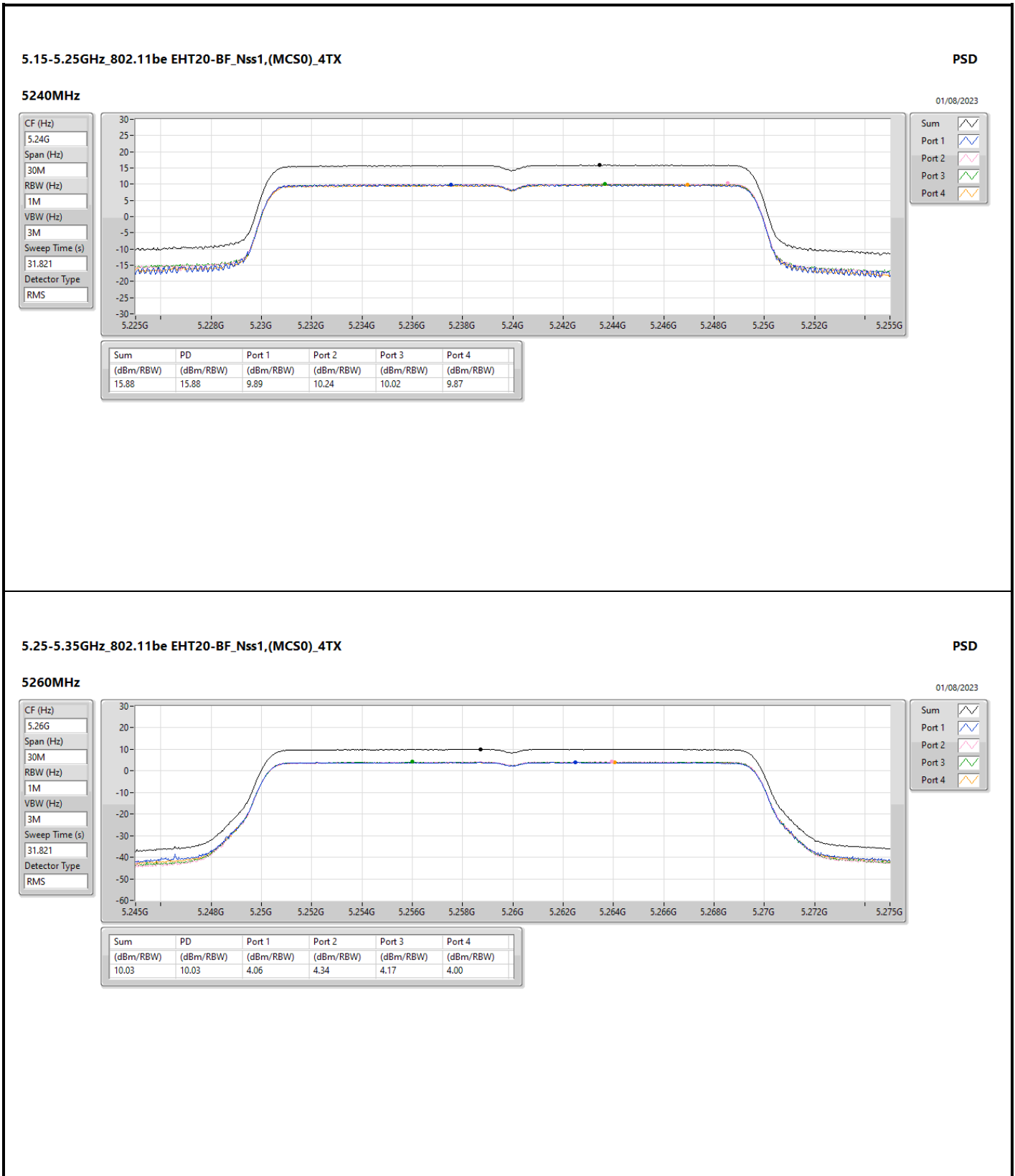


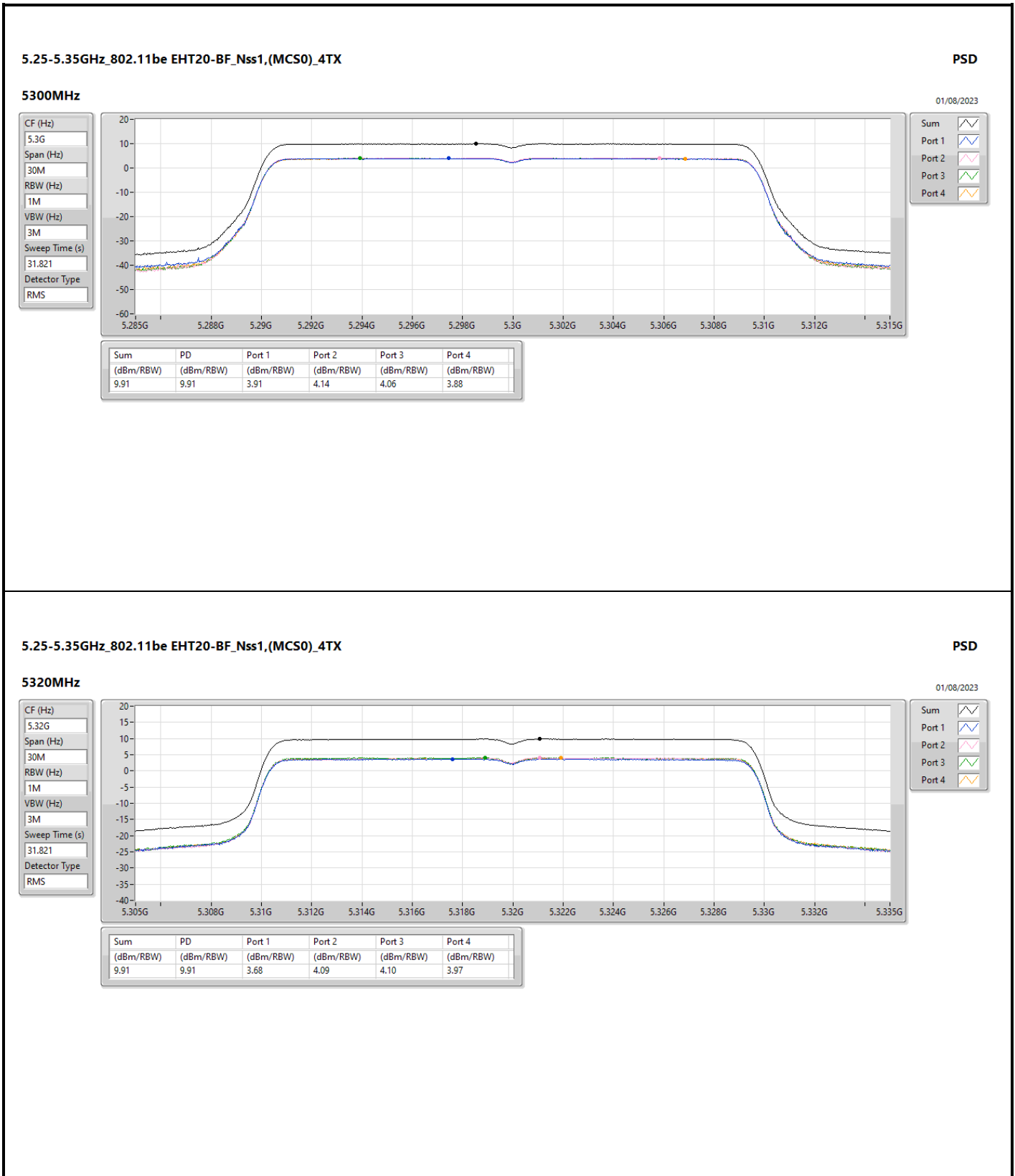


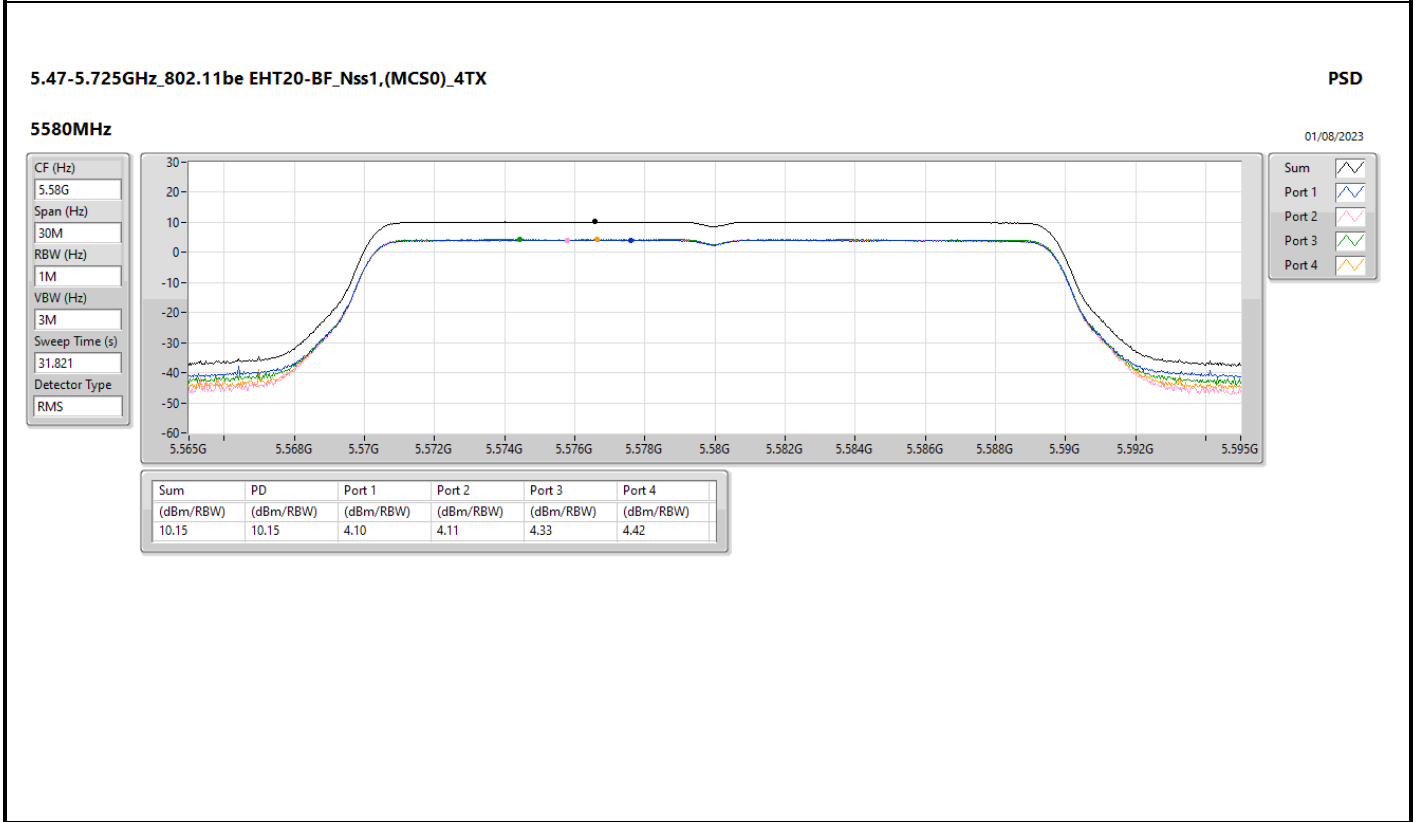
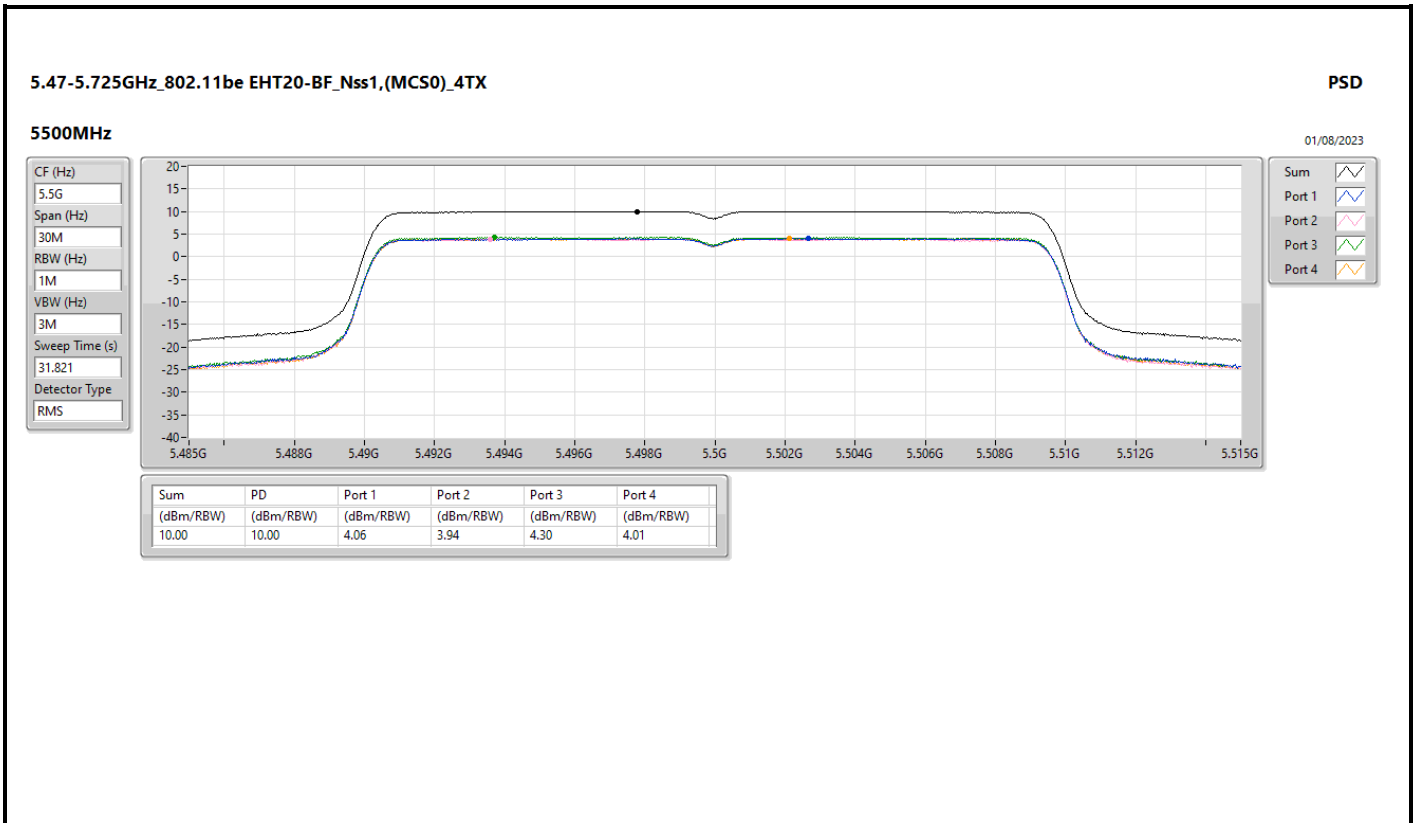


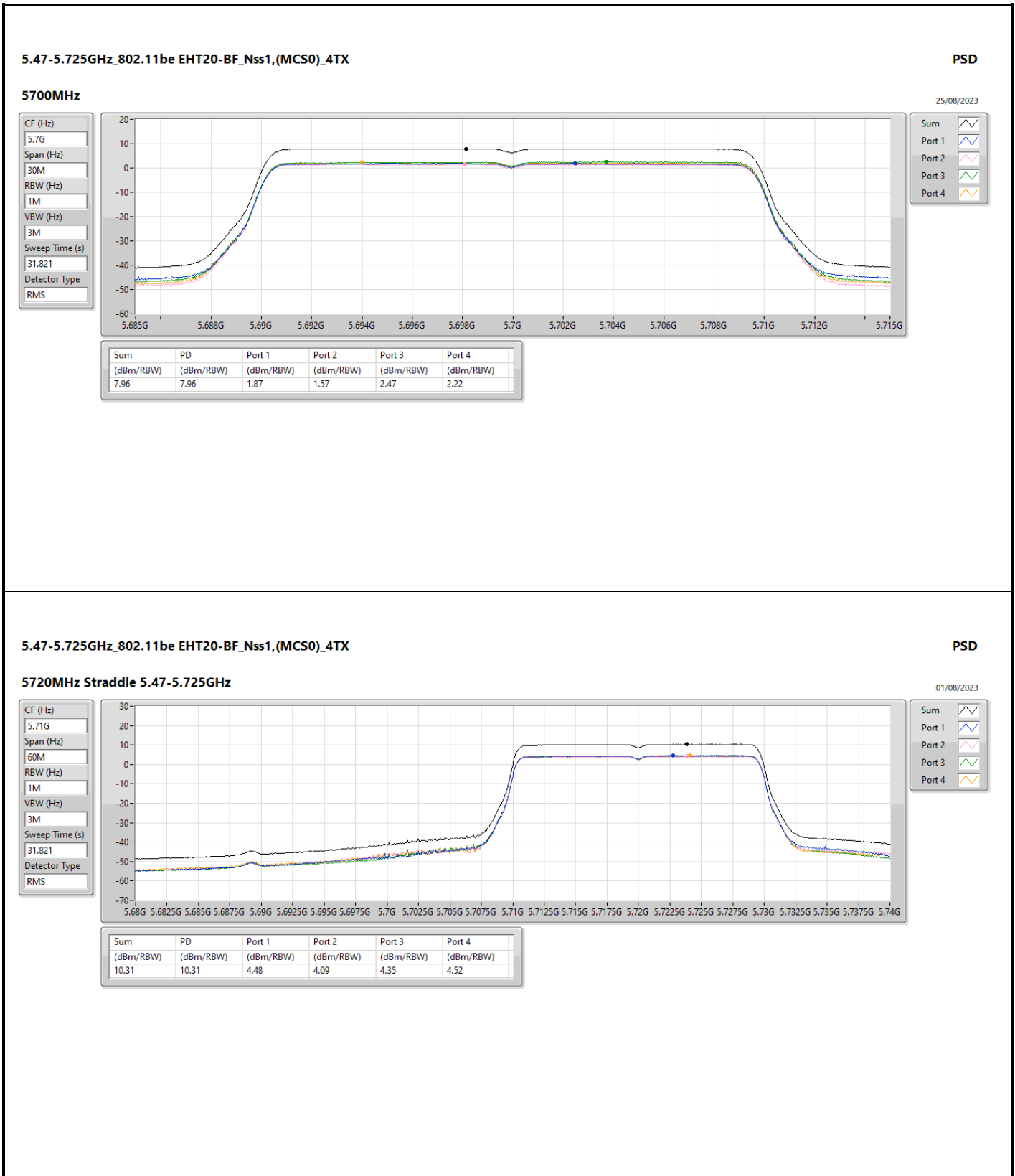


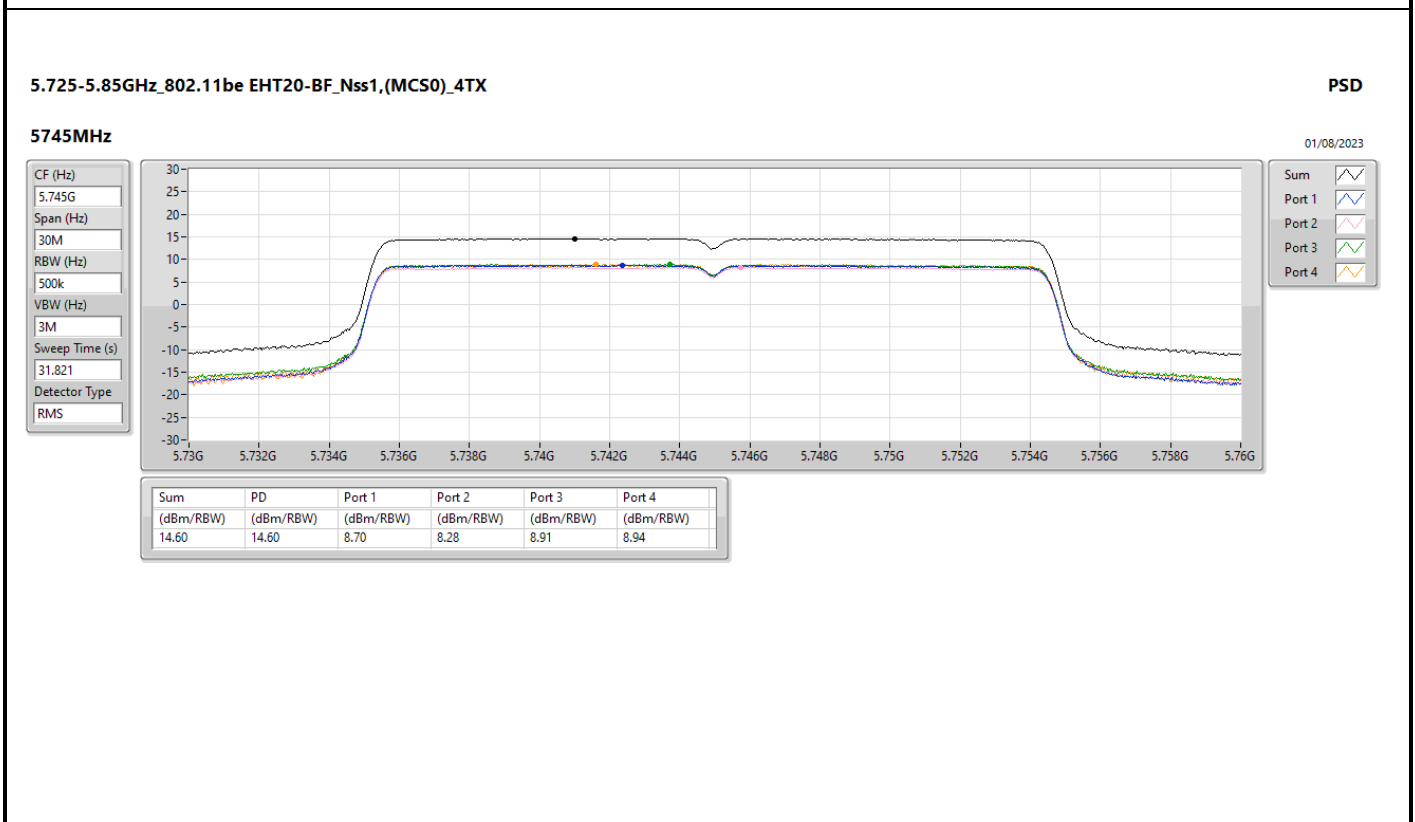
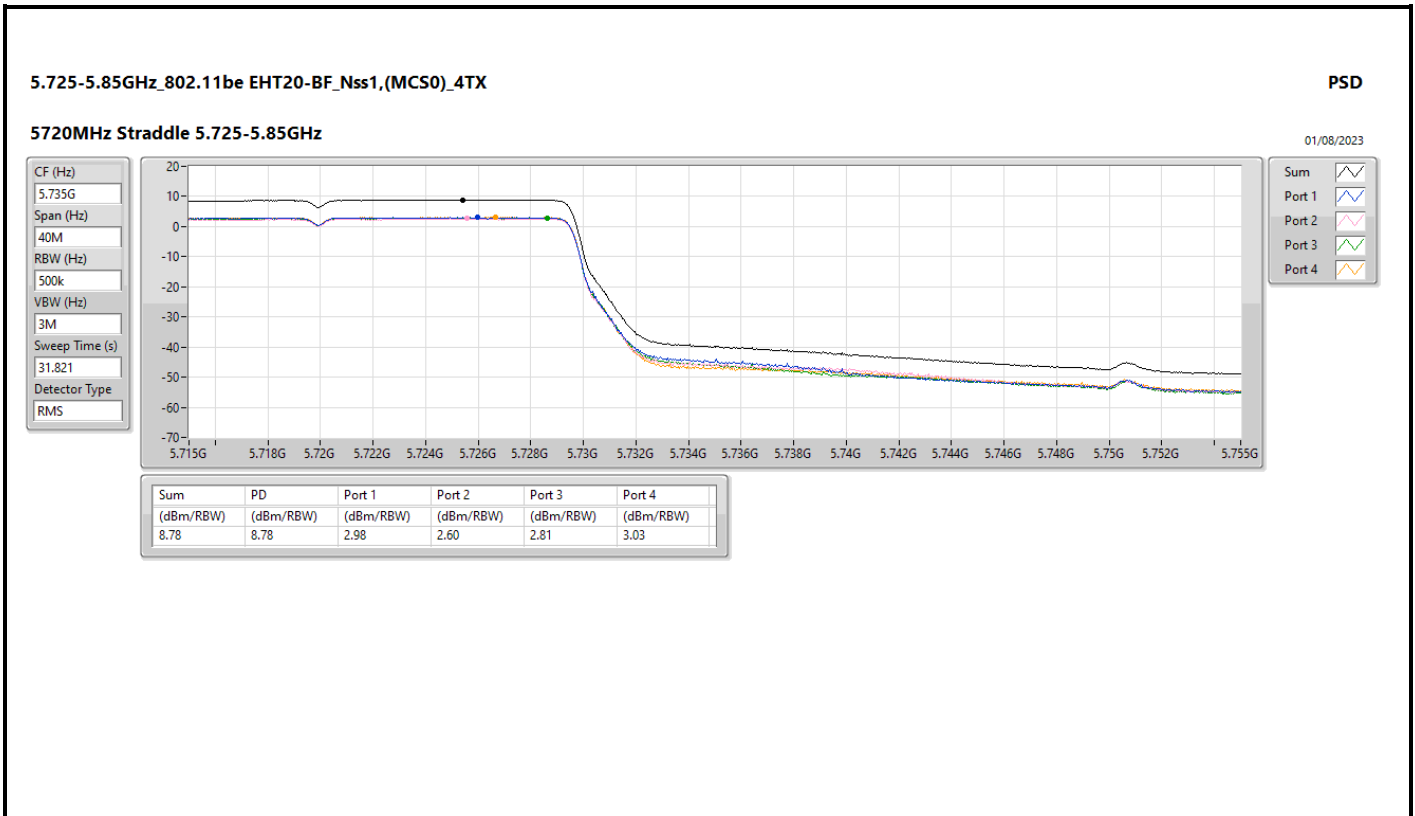




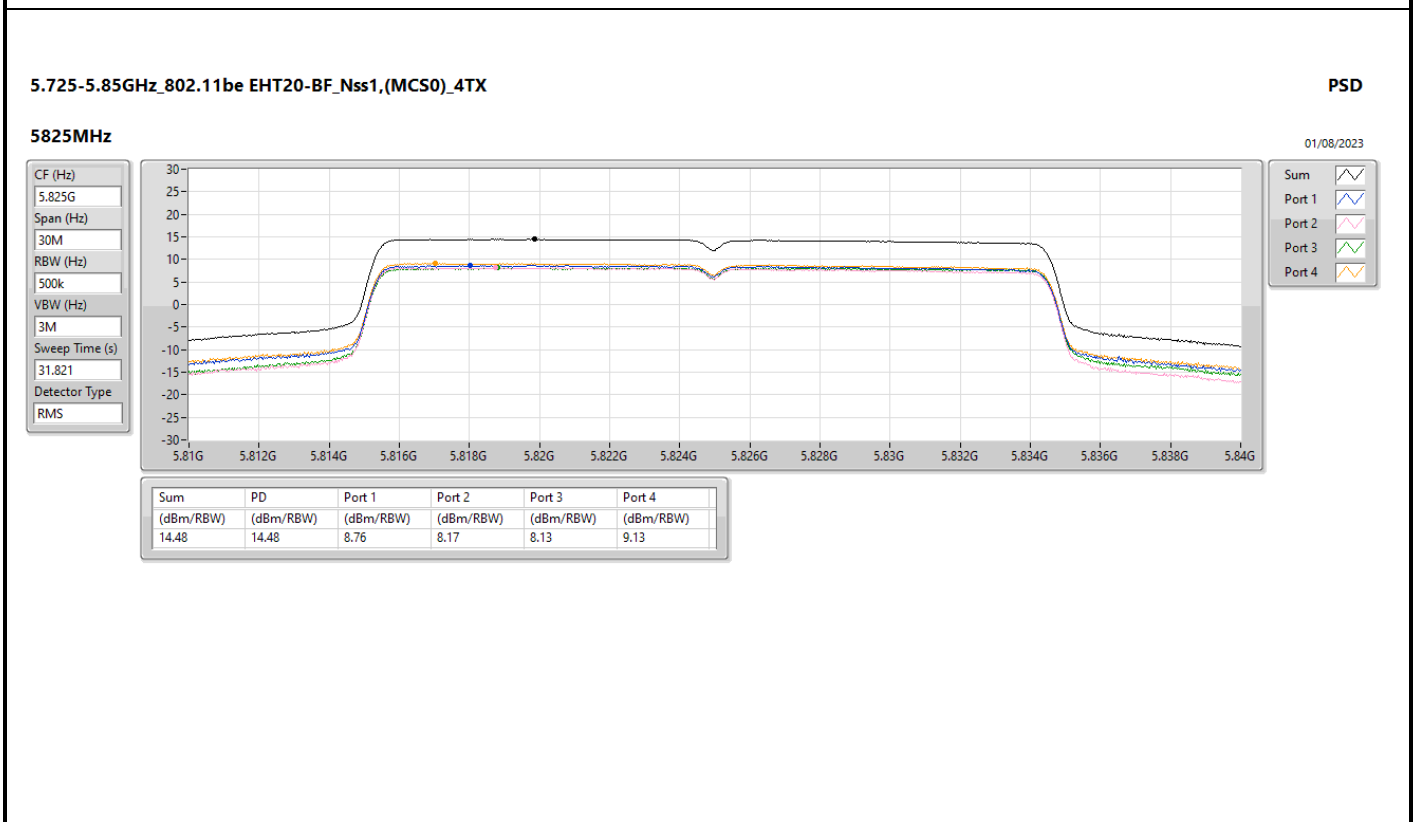
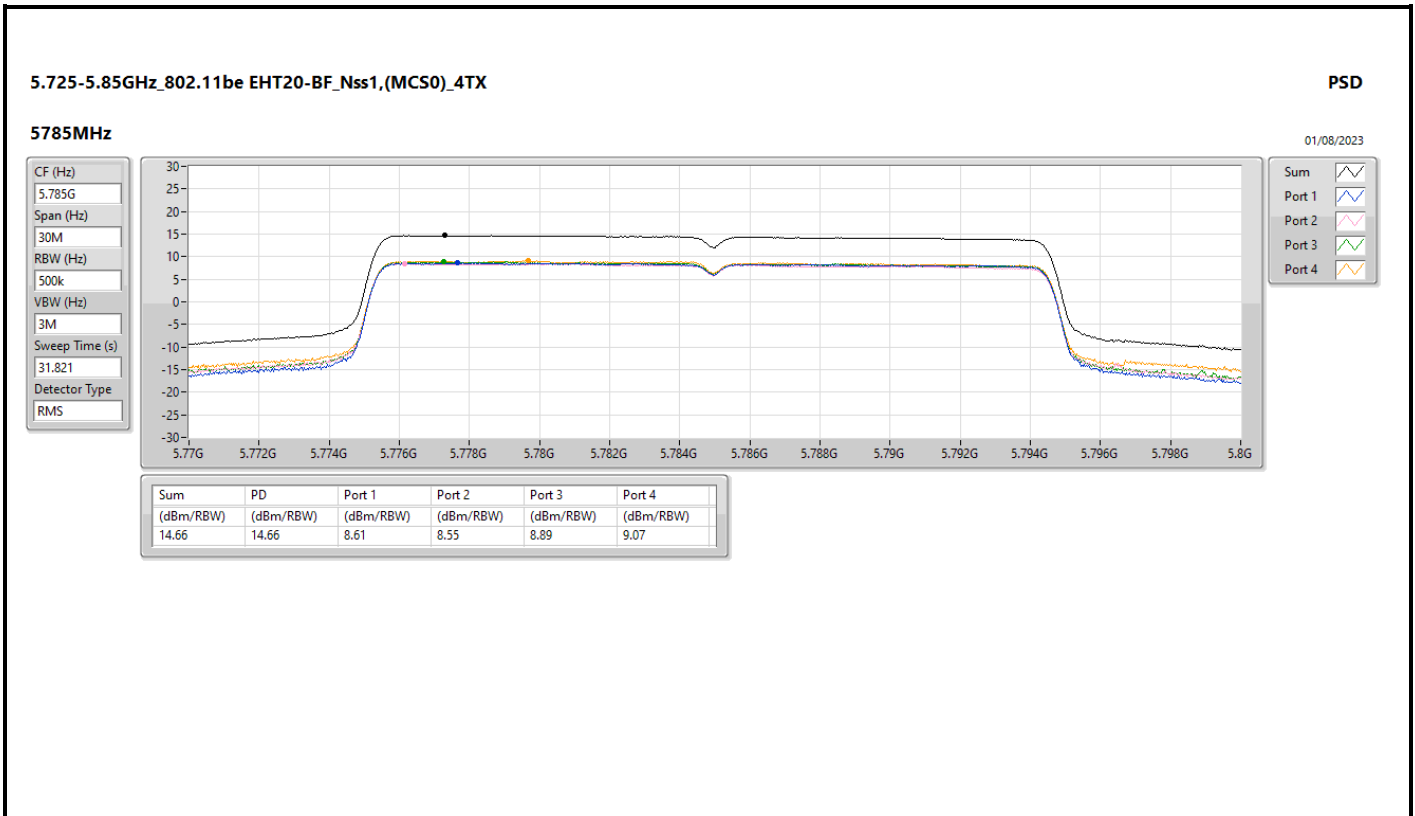


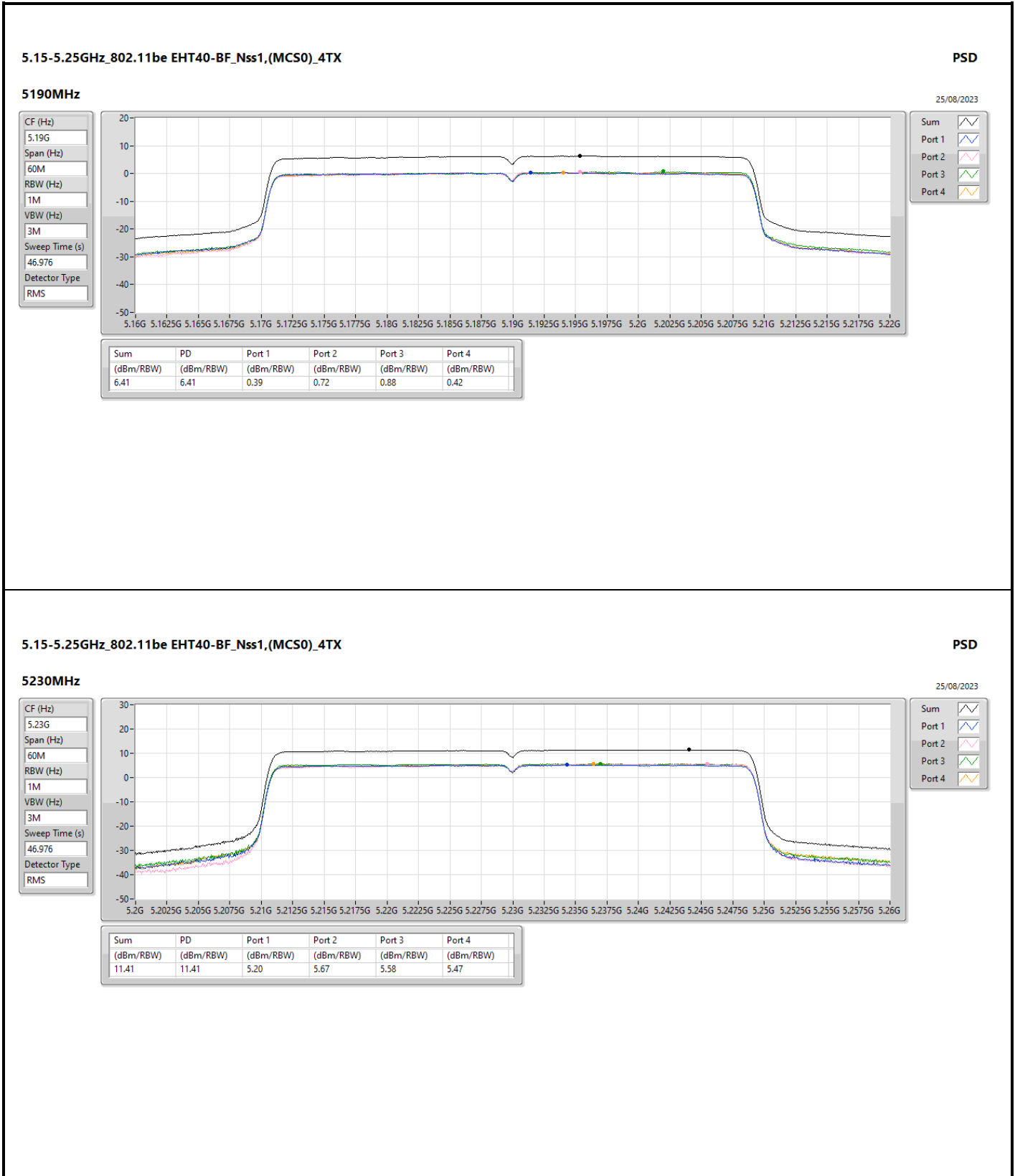


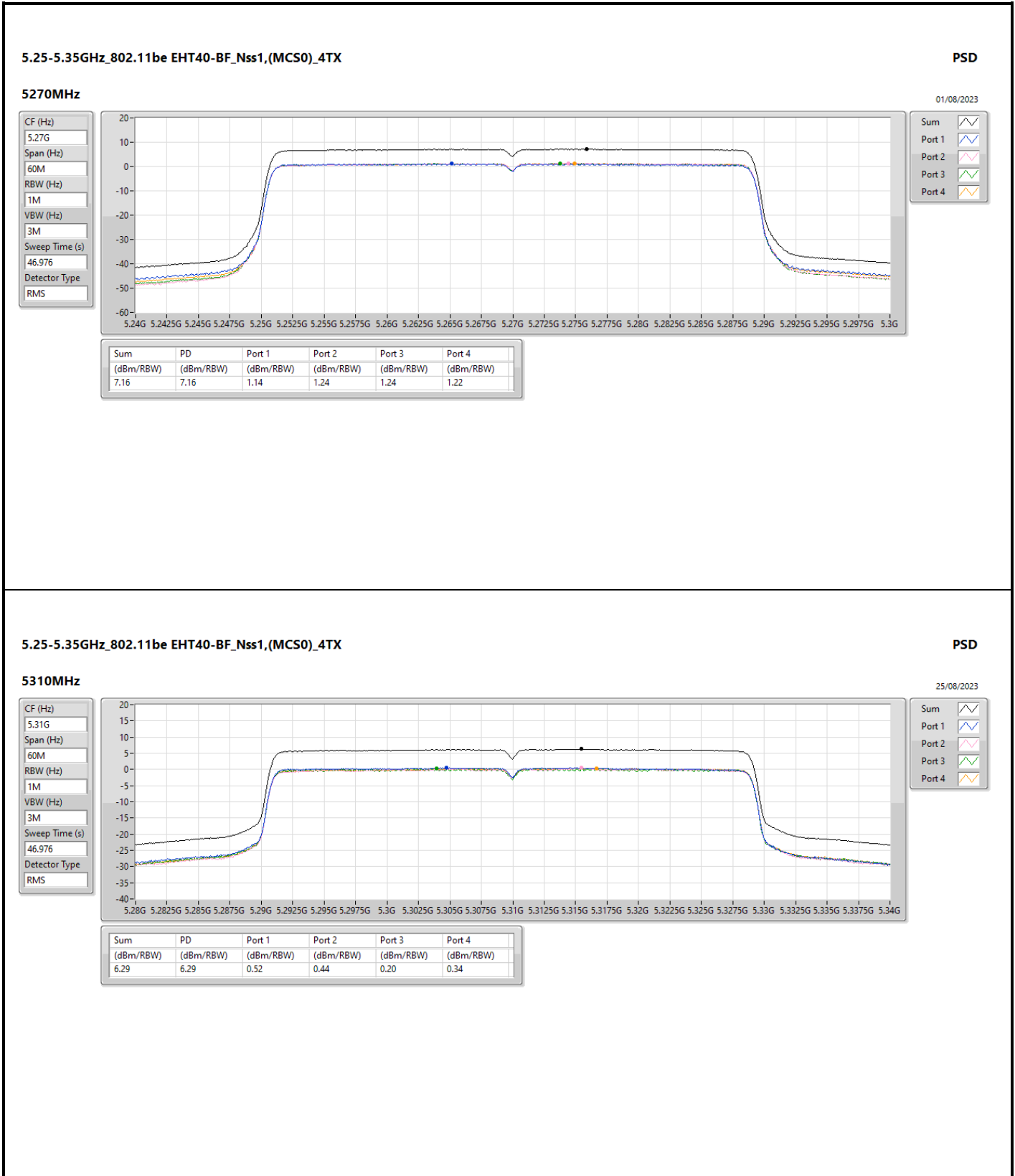


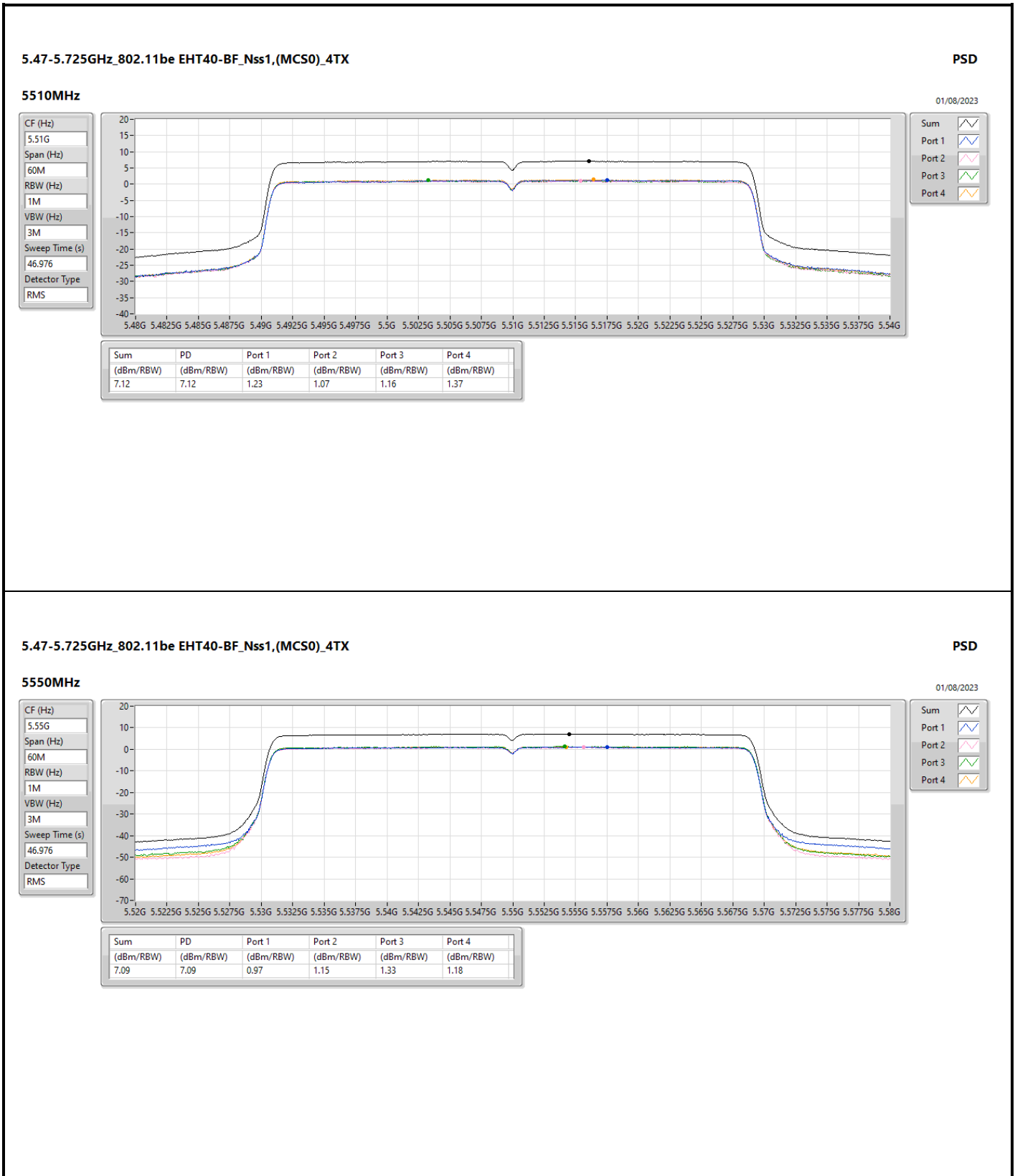


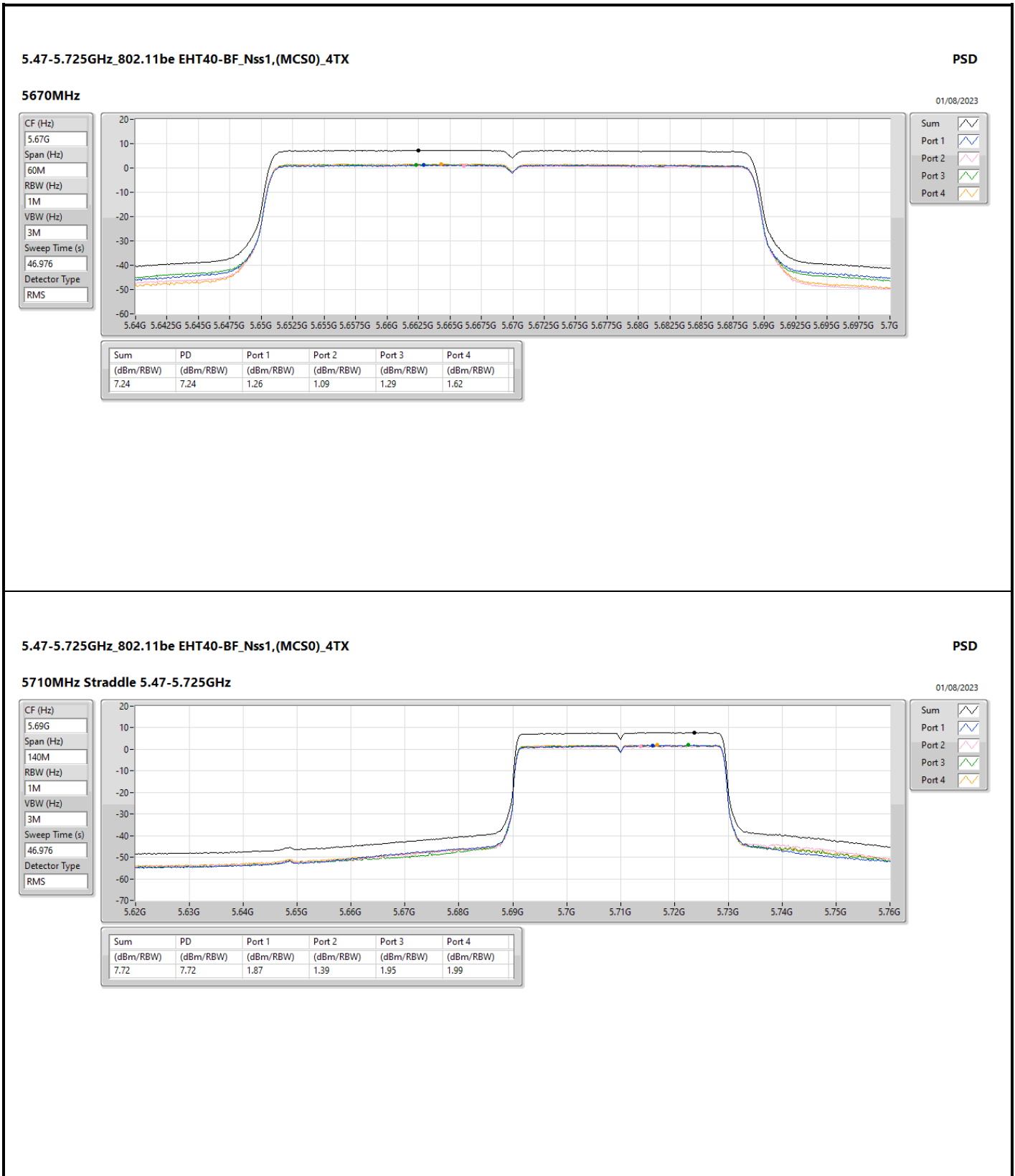


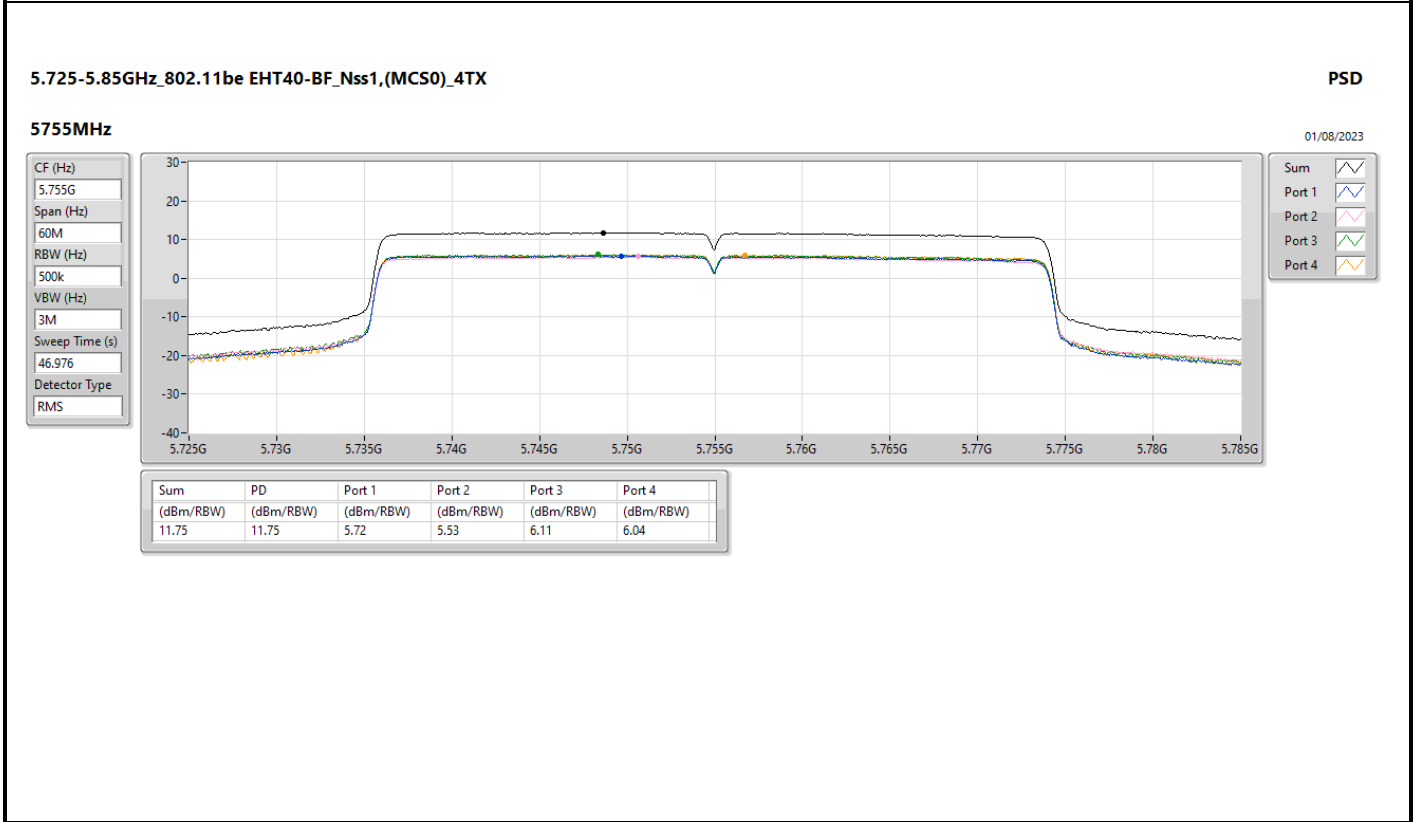
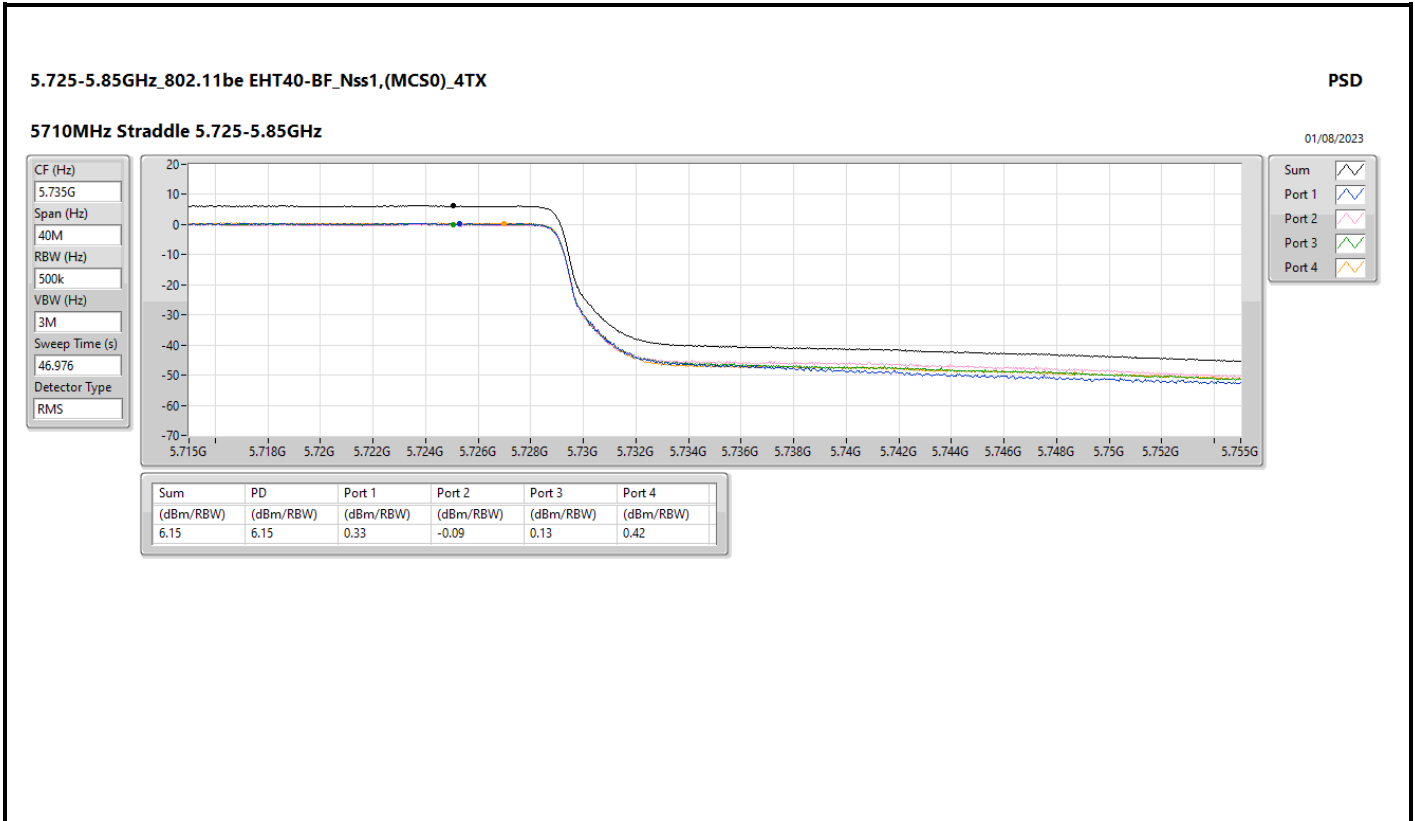


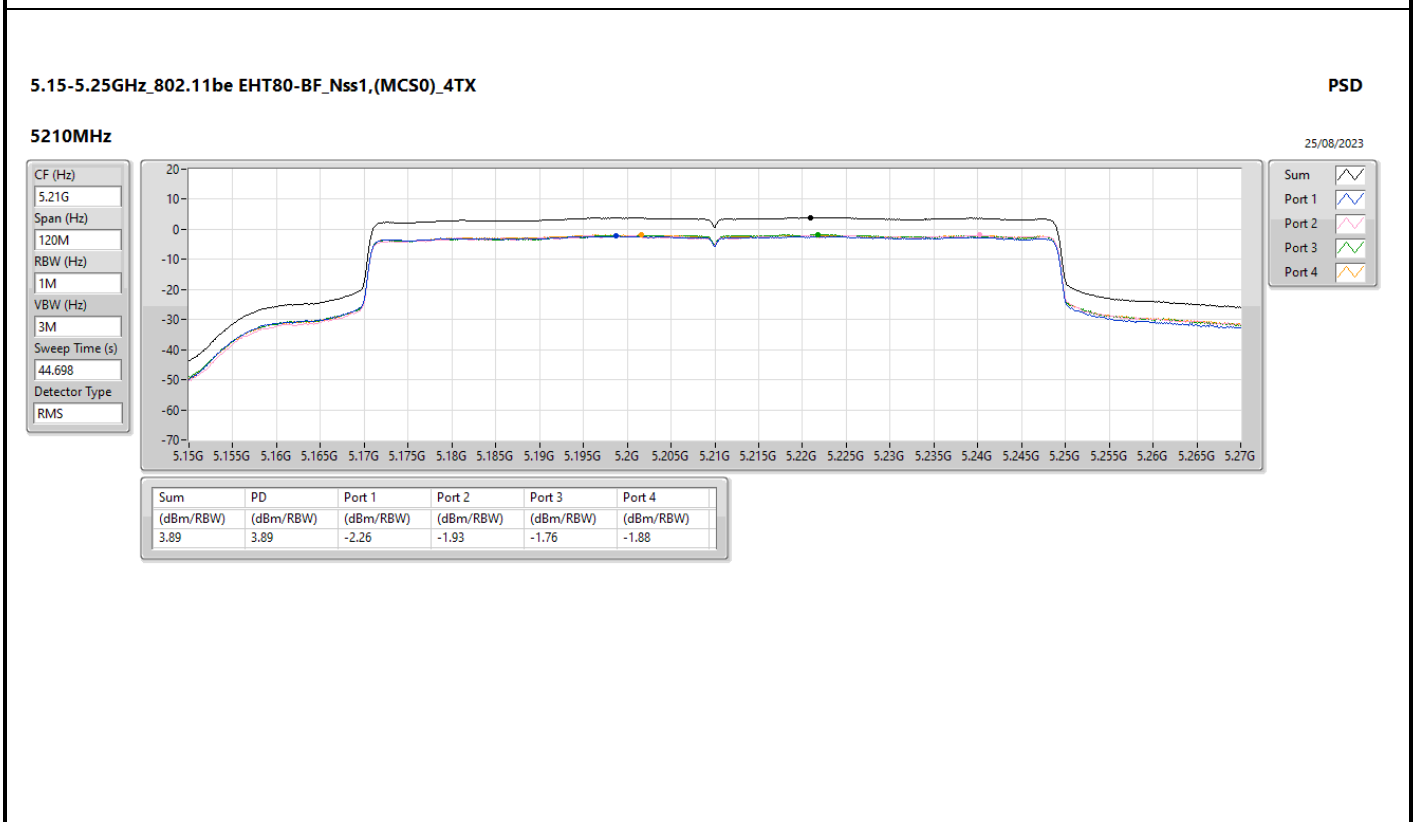
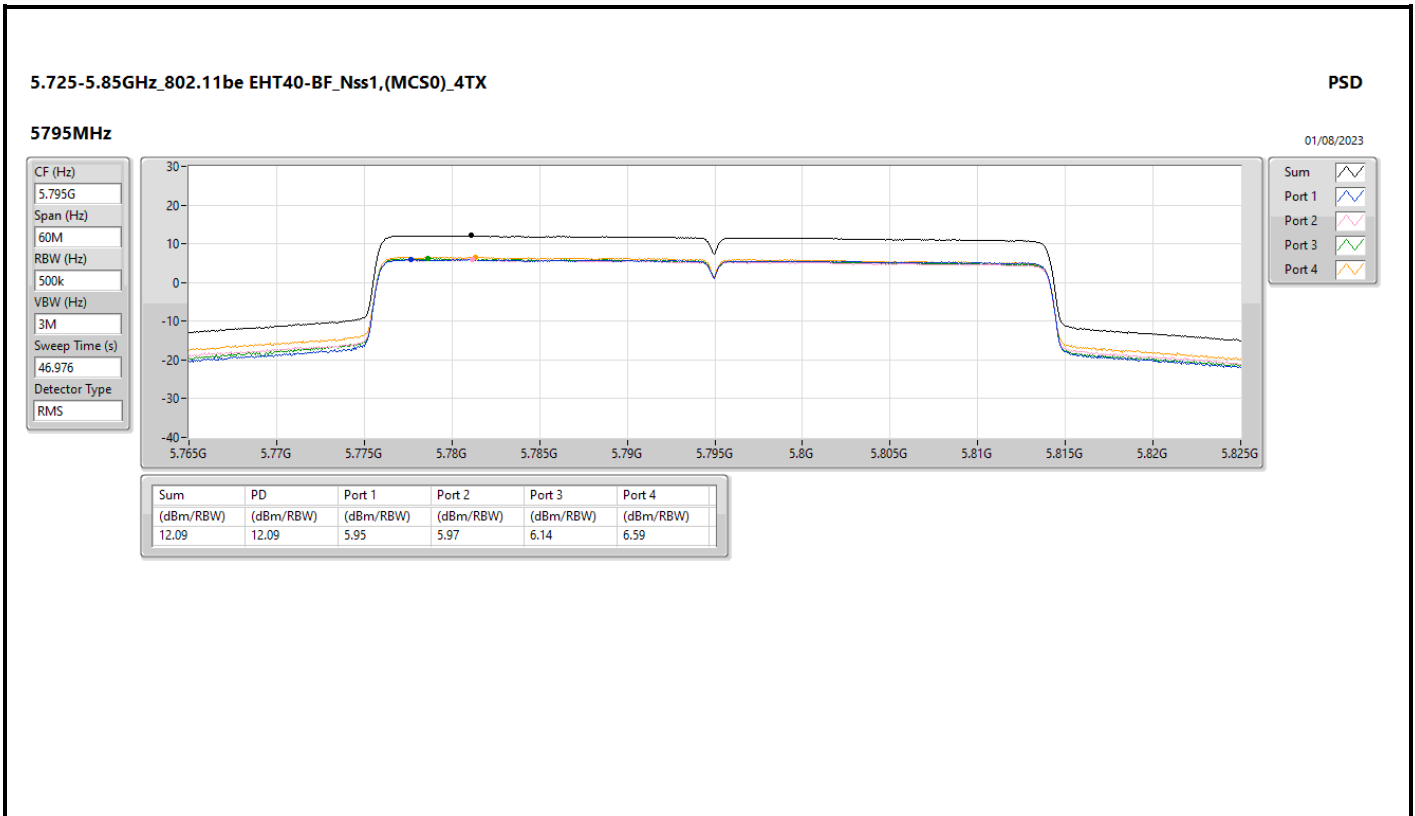


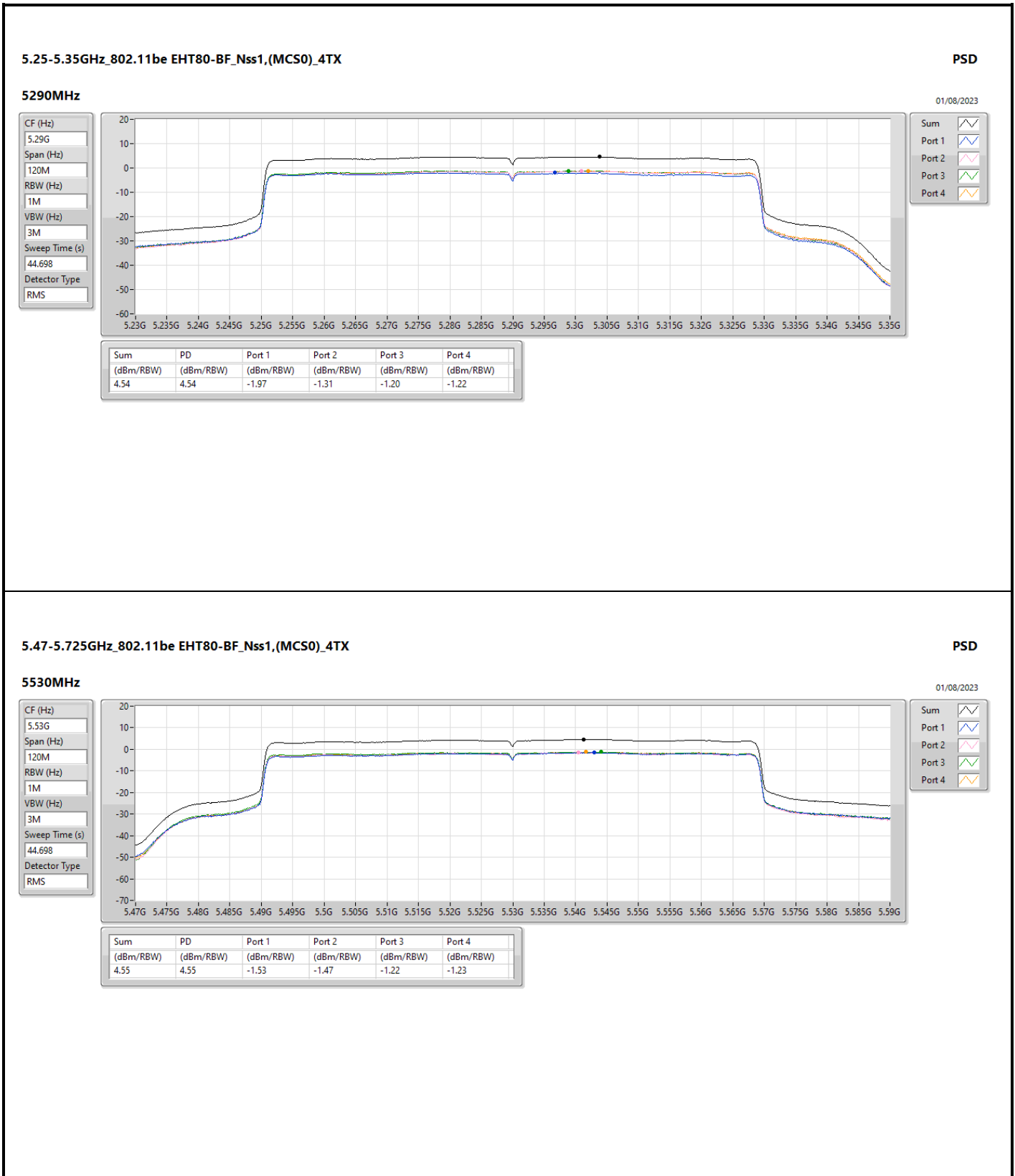






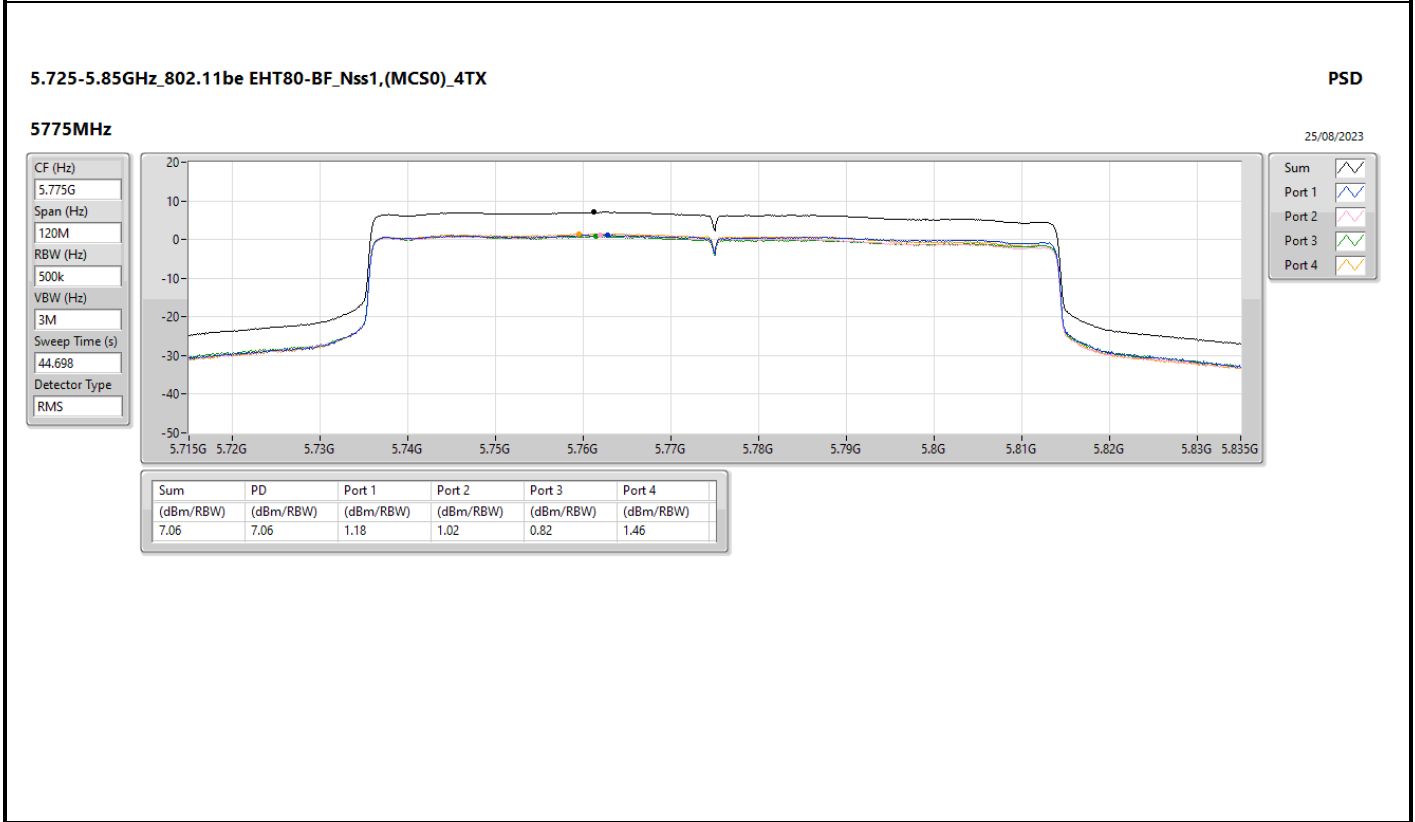
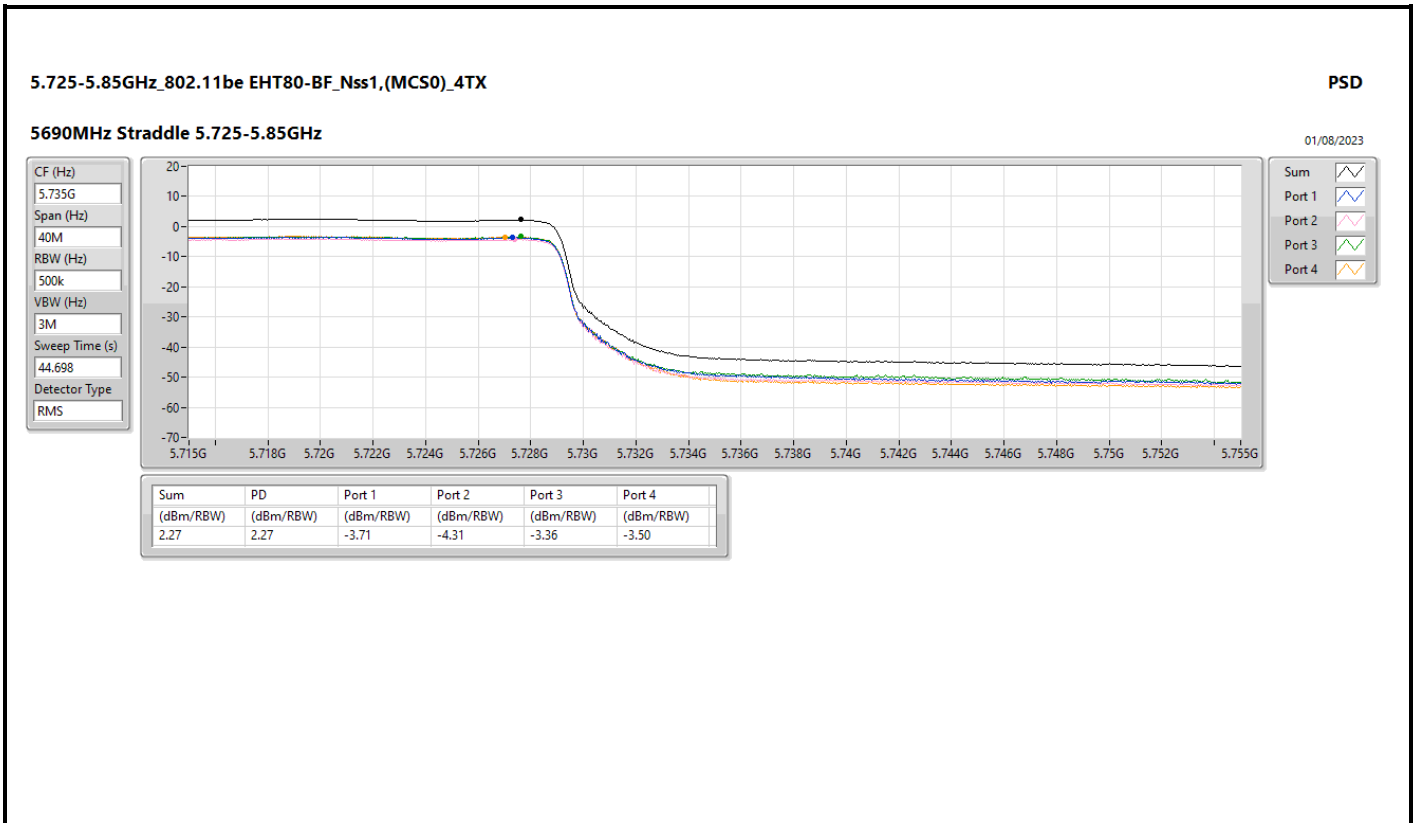




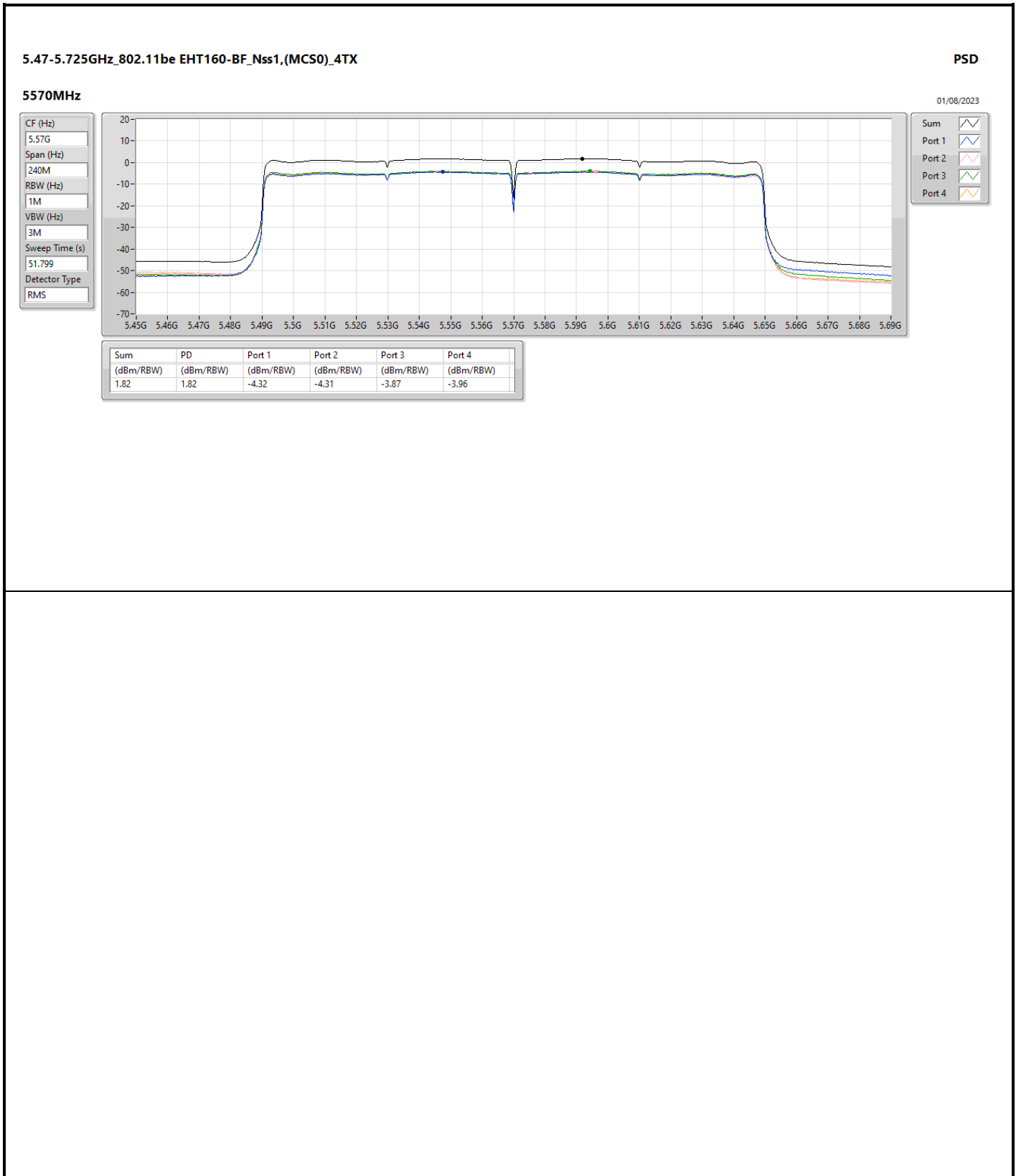














Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11be EHT20-BF_Nss2,(MCS0)_4TX	14.99	19.06
802.11be EHT40-BF_Nss2,(MCS0)_4TX	13.65	17.72
802.11be EHT80-BF_Nss2,(MCS0)_4TX	6.81	10.88

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



Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11be EHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	4.07	9.14	9.16	9.13	9.14	14.99	17.00	19.06	23.00
802.11be EHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	4.07	3.47	3.18	3.16	3.31	9.17	17.00	13.24	23.00
5230MHz	Pass	4.07	7.89	7.51	7.84	7.46	13.65	17.00	17.72	23.00
802.11be EHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	4.07	0.85	1.13	0.96	0.47	6.81	17.00	10.88	23.00

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