

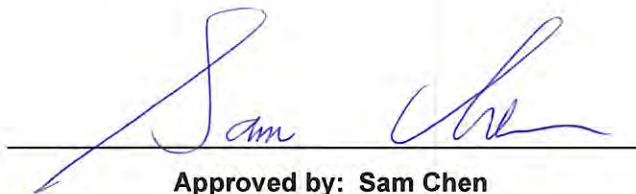


RADIO TEST REPORT

FCC ID : MSQ-RTBE6G00
Equipment : BE19000 Tri-band WiFi Router
Brand Name : ASUS
Model Name : RT-BE96U
Applicant : 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 Dec. 26, 2022, and testing was started from Jan. 18, 2023 and completed on May 31, 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 variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

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



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Photographs of EUT v01



Summary of Test Result

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

Note: Reference to Sporton Project No.: 262427-02.

Conformity Assessment Condition:

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

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen
Report Producer: 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
5.15-5.35GHz	802.11be EHT160	160	4TX
5.15-5.35GHz	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
5.47-5.725GHz	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



Band	Mode	BWch (MHz)	Nant
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
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



Band	Mode	BWch (MHz)	Nant
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 6GHz	WLAN 2.4GHz	WLAN 5GHz					
1	1	-	-	WHA Yu	C660-510587-A	Dipole Antenna	I-PEX	Note 1
2	2	-	-	WHA Yu	C660-510588-A	Dipole Antenna	I-PEX	
3	3	-	-	WHA Yu	C660-510589-A	Dipole Antenna	I-PEX	
4	4	-	-	WHA Yu	C660-510590-A	Dipole Antenna	I-PEX	
5	-	1	1	WHA Yu	C660-510591-A	Dipole Antenna	I-PEX	
6	-	4	4	WHA Yu	C660-510592-A	Dipole Antenna	I-PEX	
7	-	3	3	WHA Yu	C660-510593-A	Dipole Antenna	I-PEX	
8	-	2	2	WHA Yu	C660-510594-A	Dipole Antenna	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
1	-	-	-	-	-	2.44
2	-	-	-	-	-	2.39
3	-	-	-	-	-	2.44
4	-	-	-	-	-	2.43
5	2.09	1.52	1.17	1.98	1.08	-
6	1.84	2.29	2.9	3.09	2.51	-
7	2.91	2.7	3.04	2.48	3.39	-
8	2.14	1.21	1.19	3.23	1.87	-

Item	Directional gain (dBi)				
	WLAN 2.4GHz	WLAN 5GHz			
		WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3
4T1S	5.99	4.72	5.97	5.72	5.64
4T2S	2.99	2.7	3.04	3.23	3.39
4T4S	2.91	2.7	3.04	3.23	3.39

Note 2: The above information (except antenna 5~8 gain and directional gain) was declared by manufacturer.

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

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

For IEEE 802.11 b/g/n/VHT/ax/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 802.11a/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 802.11ax/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

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	0.929	0.32	3.105m	1k
802.11be EHT40-BF	0.976	0.11	4.77m	300
802.11be EHT80-BF	0.966	0.15	4.41m	300
802.11be EHT160-BF	0.98	0.09	n/a (DC>=0.98)	n/a (DC>=0.98)

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for n/VHT/ax/be in 2.4GHz, n/ac/ax/be in 5GHz and ax/be in 6GHz.			
Weather Band	<input checked="" type="checkbox"/>	With 5600~5650MHz	<input type="checkbox"/>	Without 5600~5650MHz
Function	<input type="checkbox"/>	Outdoor P2M	<input checked="" type="checkbox"/>	Indoor P2M
	<input type="checkbox"/>	Fixed P2P	<input type="checkbox"/>	Client
	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
TPC Function	<input checked="" type="checkbox"/>	With TPC	<input type="checkbox"/>	Without TPC
Channel Puncturing Function	<input type="checkbox"/>	Supported	<input checked="" type="checkbox"/>	Unsupported
Support RU	<input checked="" type="checkbox"/>	Full RU	<input type="checkbox"/>	Partial RU
Test Software Version	accessMtool 3.3.0.4			

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT supports functions

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

Note: The above information was declared by manufacturer.



1.1.6 Table for Radio function

Radio 1	Radio 2	Radio 3
WLAN 2.4GHz	WLAN 5GHz UNII 1~3	WLAN 6GHz UNII 5~8

Note: The above information was declared by manufacturer.

1.1.7 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR262427-01AB.

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

Modifications	Performance Checking
1. Adding the second source for capacitance and resistance on path of CPU.	1. DTS Bandwidth 2. Maximum Conducted Output Power 3. Power Spectral Density
2. Changing the EUT hardware version to "R1.20" from "R1.00". The difference with R1.00 is listed below: (1) Revising enclosure design for device and antennas. (2) Revising the heatsink of the bottom of EUT. (3) Revising the shape of the PCB board to fit the new enclosure.	Unwanted Emissions below 1GHz.
3. Adding accessory: RJ-45 cable 2*1 (Shielded, 1.5m).	
4. Removing manufacturers' company names and addresses in the report.	After evaluation, it does not need to re-test.



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	Mason Chan	23.6-24.1 / 63-67	Jan. 18, 2023~ May 31, 2023
Radiated < 1GHz	03CH06-CB	Alex Kuo	21.7~22.9 / 58~62	Apr. 24, 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))

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



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	88
5200MHz	94
5240MHz	95
5260MHz	69
5300MHz	70
5320MHz	72
5500MHz	72
5580MHz	71
5700MHz	70
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	82
5200MHz	93
5240MHz	94
5260MHz	67
5300MHz	69
5320MHz	72
5500MHz	71
5580MHz	70
5700MHz	61
5720MHz Straddle 5.47-5.725GHz	68
5720MHz Straddle 5.725-5.85GHz	68
5745MHz	92
5785MHz	94
5825MHz	100
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-
5190MHz	70
5230MHz	93
5270MHz	68
5310MHz	70
5510MHz	71



Mode	Power Setting
5550MHz	69
5670MHz	67
5710MHz Straddle 5.47-5.725GHz	69
5710MHz Straddle 5.725-5.85GHz	69
5755MHz	95
5795MHz	99
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-
5210MHz	76
5290MHz	72
5530MHz	72
5610MHz	68
5690MHz Straddle 5.47-5.725GHz	68
5690MHz Straddle 5.725-5.85GHz	68
5775MHz	93
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	72
5250MHz Straddle 5.25-5.35GHz	72
5570MHz	68

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	
Tests Item	Emission Bandwidth Maximum Output Power Power Spectral Density
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
	<ol style="list-style-type: none"> The EUT performed the testing with Adapter 1 and Adapter 3. "Adapter 3" generated the worst case. Consequently, measurement will follow this same test mode. After evaluating, the worst case was found at Z axis, thus the measurement will follow this same test configuration.
1	EUT in Z axis_WLAN 2.4GHz + Adapter 3 + RJ-45 cable 1
2	EUT in Z axis_WLAN 5GHz + Adapter 3 + RJ-45 cable 1
3	EUT in Z axis_WLAN 6GHz + Adapter 3 + RJ-45 cable 1
Mode 2 has been evaluated to be the worst case among Mode 1~3, so measurement for Mode 4 will follow this same test mode.	
4	EUT in Z axis_WLAN 5GHz + Adapter 3 + RJ-45 cable 2
For operating, Mode 4 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz
Refer to Sporton Test Report No.: FA262427-05 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.



2.4 Accessories

Power	Brand	Model	Rating	Remark
Adapter 1	DELTA	ADP-65DE B	INPUT: 100-240V~1.5A, 50-60Hz OUTPUT: 19.0V, 3.42A, 65.0W	With the DC cable: Non-shielded, 1.5m
Adapter 2	DELTA	ADP-65DE B	INPUT: 100-240V~1.5A, 50-60Hz OUTPUT: 19.0V, 3.42A, 65.0W	With the DC cable: Non-shielded, 1.5m
Adapter 3	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
Adapter 4	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*1: Shielded, 1.5m				
RJ-45 cable 2*1: Shielded, 1.5m				
Power cord*1: Non-shielded, 0.9m Power cord*1: Non-shielded, 0.9m				

Note1: Adapter 1 & Adapter 2 and Adapter 3 & Adapter 4 are identical.

Note2: Refer to photographs of EUT for the detail information of difference between Adapter 1 & Adapter 2 and Adapter 3 & Adapter 4.

2.5 Support Equipment

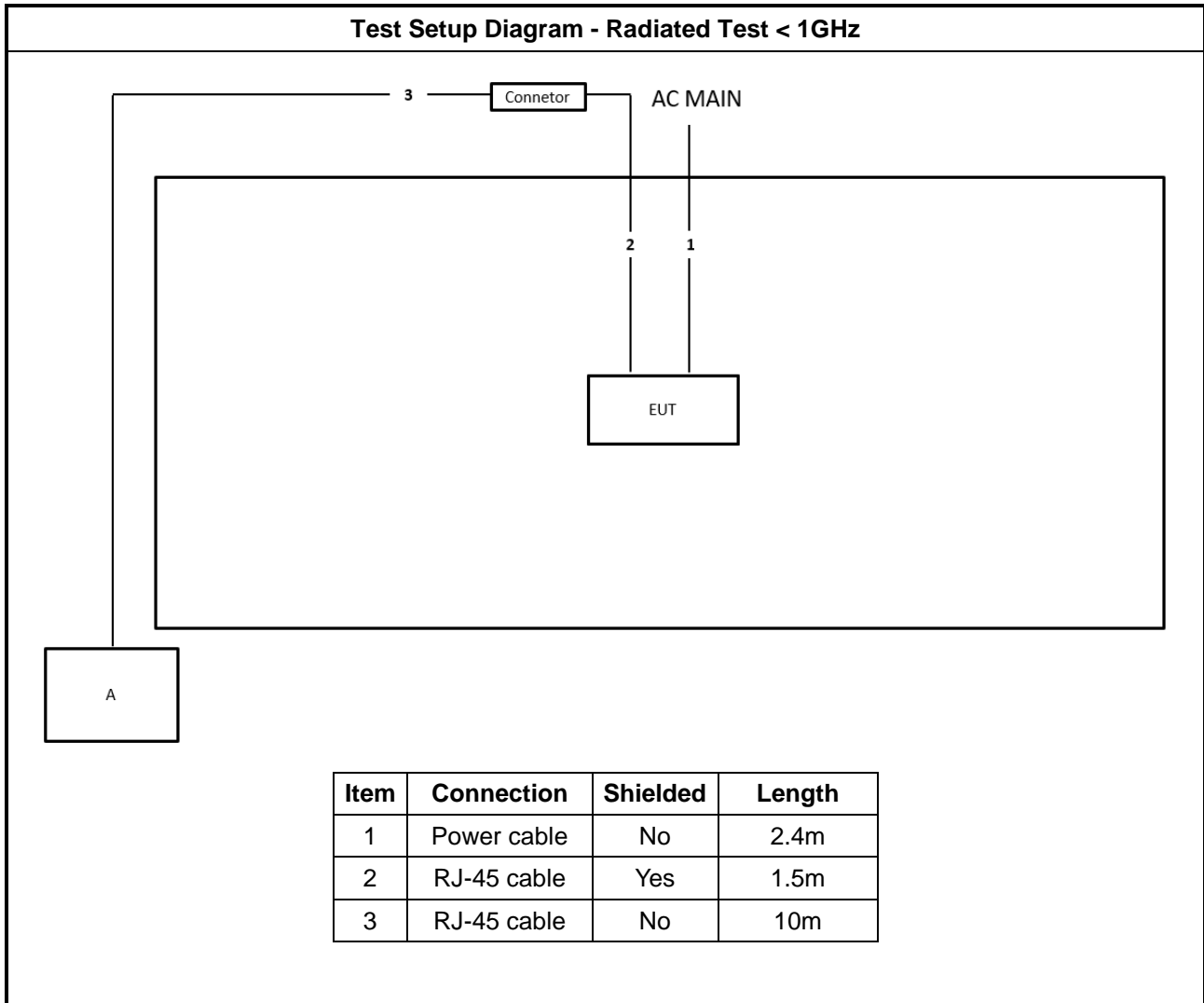
For Radiated (below 1GHz):

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

For RF Conducted:

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

2.6 Test Setup Diagram



3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.725-5.85 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth ≥ 500kHz.
LE-LAN Devices	
<input type="checkbox"/>	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

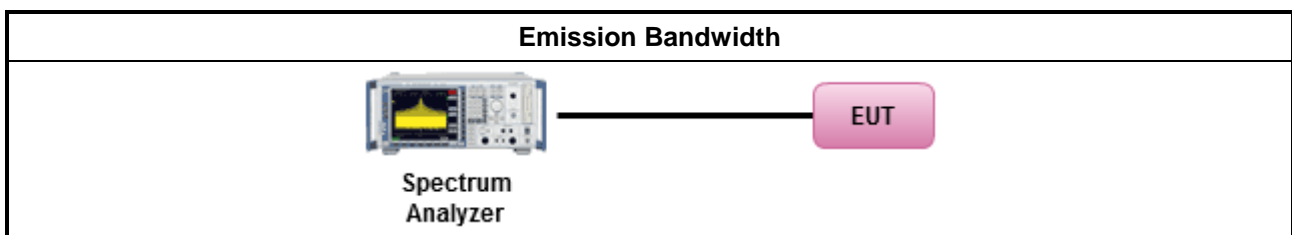
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup





3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A



3.2 Maximum Output Power

3.2.1 Limit

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

3.2.2 Measuring Instruments

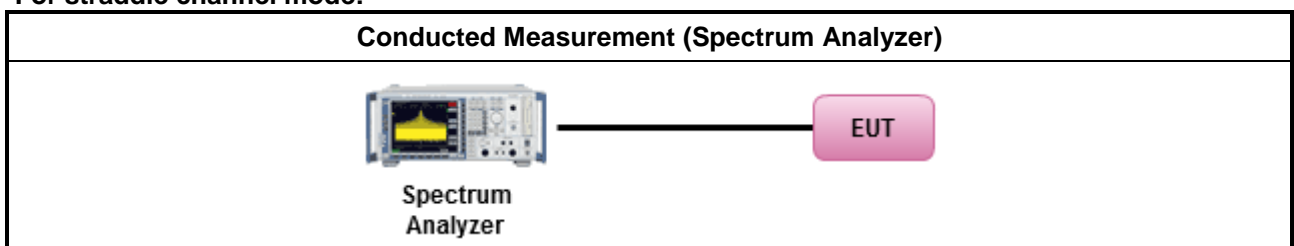
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

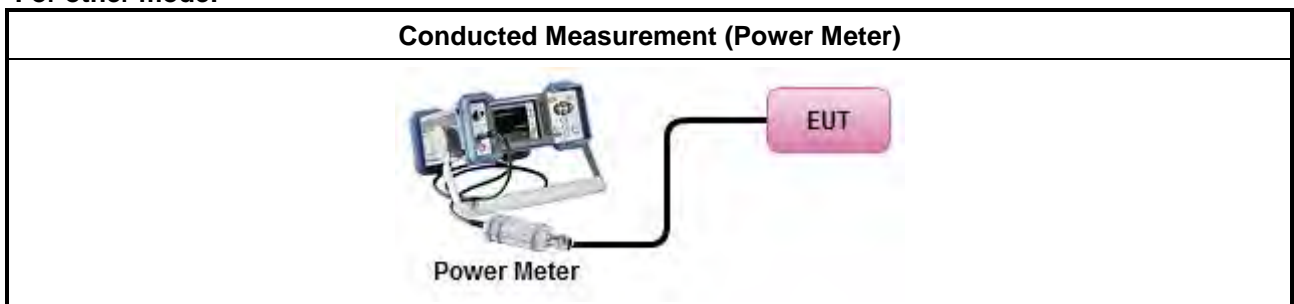
Test Method	
<input type="checkbox"/>	Average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow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

3.2.4 Test Setup

For straddle channel mode:



For other mode:





3.2.5 Test Result of Maximum Output Power

Refer as Appendix B



3.3 Power Spectral Density

3.3.1 Limit

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

3.3.2 Measuring Instruments

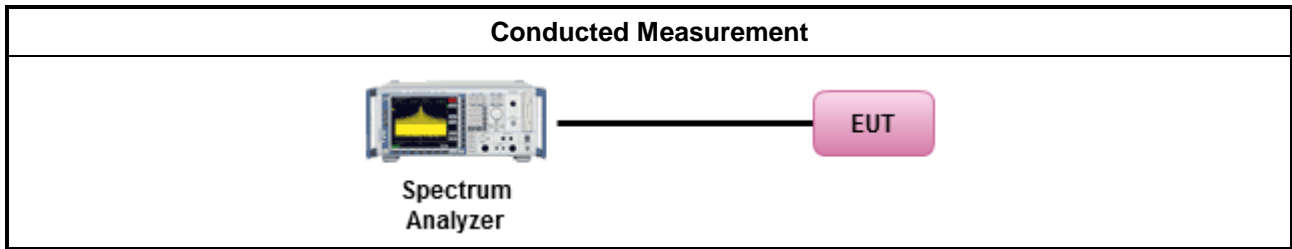
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options: 	
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
[duty cycle ≥ 98% or external video / power trigger]	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<input checked="" type="checkbox"/> For conducted measurement.	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: 	
<input checked="" type="checkbox"/>	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
<input type="checkbox"/>	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
<input type="checkbox"/>	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$ 	
<input type="checkbox"/> For radiated measurement.	
<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing" ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. ▪ Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation. 	

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Refer as Appendix C



3.4 Unwanted Emissions

3.4.1 Transmitter Unwanted Emissions Limit

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

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

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

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



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

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

3.4.2 Measuring Instruments

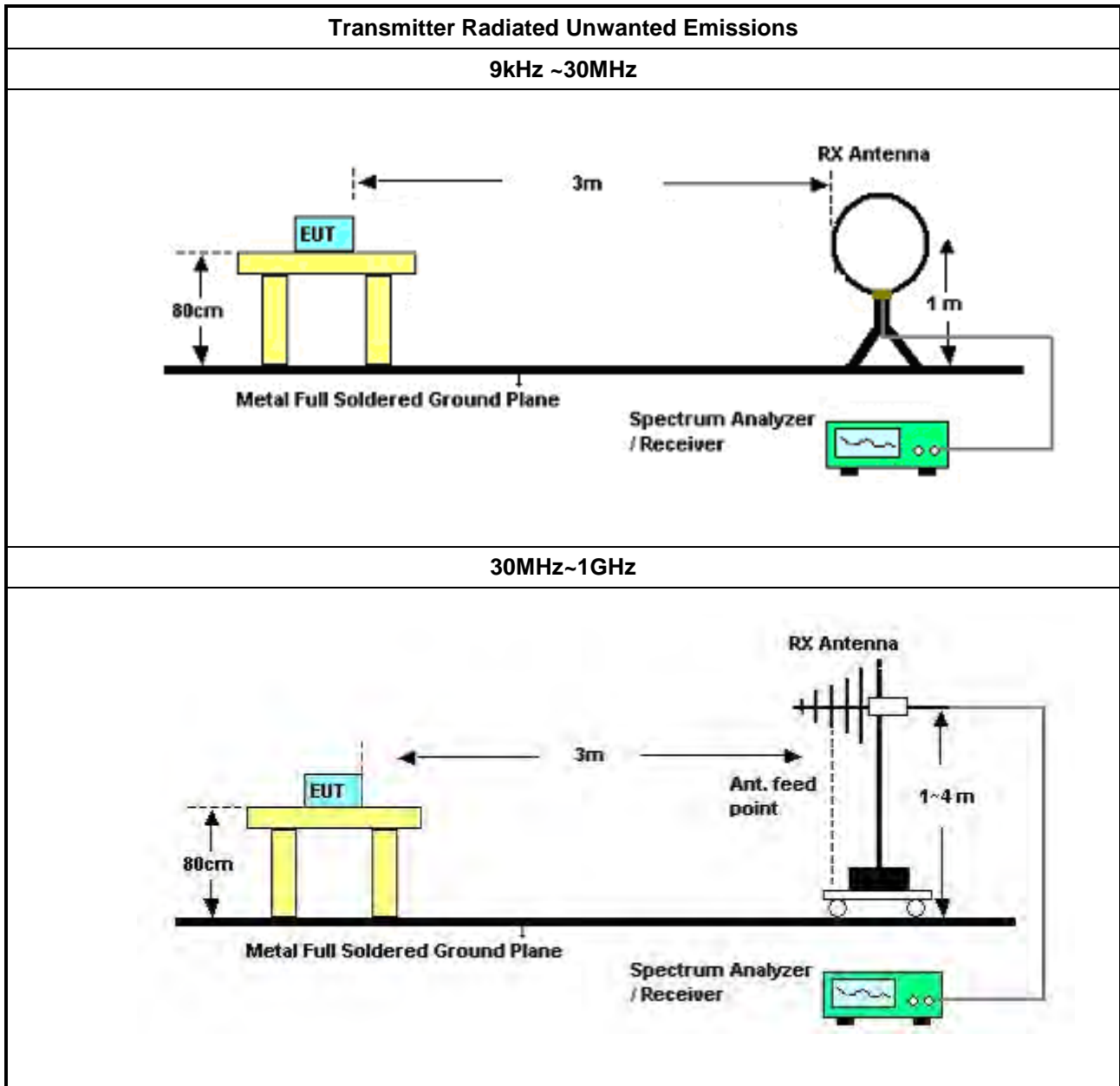
Refer a test equipment and calibration data table in this test report.



3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). 	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
<input type="checkbox"/>	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ For radiated measurement. 	
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level. 	
<ul style="list-style-type: none"> ▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported. 	

3.4.4 Test Setup





3.4.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.4.6 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.

3.4.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	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)
Bilog Antenna with 6 dB attenuator	TESEQ & EMC1	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Jul. 31, 2022	Jul. 30, 2023	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	Nov. 04, 2022	Nov. 03, 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. 17, 2022	Jun. 16, 2023	Radiation (03CH06-CB)
RF Cable-low	Woken	RG402	Low Cable-24+68	30MHz~1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 15, 2022	Aug. 14, 2023	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)

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

NCR means Non-Calibration required.

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	37.35M	17.841M	17M8D1D	25.14M	17.204M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	40.26M	19.394M	19M4D1D	24.39M	19.189M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	73.92M	38.201M	38M2D1D	41.36M	37.881M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	86.02M	77.561M	77M6D1D	84.26M	77.261M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	83.2M	77.801M	77M8D1D	82.88M	77.641M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.73M	17.102M	17M1D1D	21.45M	16.694M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	28.8M	19.218M	19M2D1D	21.48M	19.012M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	46.92M	37.907M	37M9D1D	40.44M	37.731M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	85.92M	77.342M	77M3D1D	82.68M	77.342M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	83.68M	77.721M	77M7D1D	82.96M	77.641M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	25.44M	17.076M	17M1D1D	15.81M	13.418M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	29.07M	19.218M	19M2D1D	15.84M	14.573M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	49.86M	37.907M	37M9D1D	35.21M	33.723M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	85.2M	77.46M	77M5D1D	75.675M	73.163M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	166.56M	156.33M	156MD1D	166.08M	155.86M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.335M	25.221M	25M2D1D	3.14M	4.038M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	18.92M	26.062M	26M1D1D	4.38M	4.538M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	37.62M	38.231M	38M2D1D	3.9M	4.018M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	76.78M	77.461M	77M5D1D	3.8M	4.038M

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	25.14M	17.229M	29.91M	17.433M	28.65M	17.28M	28.23M	17.28M
5200MHz	Pass	Inf	30.6M	17.28M	34.77M	17.663M	33.51M	17.306M	29.52M	17.204M
5240MHz	Pass	Inf	37.35M	17.51M	36.45M	17.841M	37.2M	17.79M	35.07M	17.484M
5260MHz	Pass	Inf	21.81M	16.796M	21.45M	16.771M	21.63M	16.72M	21.57M	16.72M
5300MHz	Pass	Inf	21.63M	16.796M	21.6M	16.822M	21.66M	16.694M	21.6M	16.745M
5320MHz	Pass	Inf	23.22M	17.051M	23.01M	17.076M	26.73M	17.051M	25.35M	17.102M
5500MHz	Pass	Inf	25.08M	17.025M	23.79M	17.025M	23.88M	17.076M	25.44M	17.076M
5580MHz	Pass	Inf	21.63M	16.771M	21.57M	16.771M	21.57M	16.72M	21.48M	16.694M
5700MHz	Pass	Inf	21.81M	16.796M	21.48M	16.745M	21.57M	16.745M	21.45M	16.72M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.885M	13.478M	15.855M	13.463M	15.81M	13.418M	15.825M	13.433M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	4.038M	3.18M	4.078M	3.14M	4.078M	3.14M	4.058M
5745MHz	Pass	500k	16.28M	17.239M	16.335M	17.591M	16.28M	17.261M	16.28M	17.217M
5785MHz	Pass	500k	16.335M	17.437M	16.335M	17.547M	16.335M	17.261M	16.335M	17.261M
5825MHz	Pass	500k	16.335M	25.221M	16.28M	23.044M	16.335M	23.594M	16.28M	24.21M
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	29.85M	19.189M	28.56M	19.189M	24.39M	19.218M	27.69M	19.189M
5200MHz	Pass	Inf	33.51M	19.189M	33.66M	19.394M	33.12M	19.247M	34.14M	19.218M
5240MHz	Pass	Inf	40.26M	19.277M	38.76M	19.365M	35.07M	19.365M	33.09M	19.247M
5260MHz	Pass	Inf	21.96M	19.1M	21.57M	19.071M	21.81M	19.071M	21.6M	19.012M
5300MHz	Pass	Inf	21.6M	19.1M	21.69M	19.071M	21.48M	19.1M	21.63M	19.071M
5320MHz	Pass	Inf	28.8M	19.218M	23.7M	19.159M	26.13M	19.189M	27.69M	19.159M
5500MHz	Pass	Inf	23.37M	19.159M	23.1M	19.218M	29.07M	19.189M	22.2M	19.13M
5580MHz	Pass	Inf	21.84M	19.071M	21.54M	19.071M	21.75M	19.071M	21.75M	19.042M
5700MHz	Pass	Inf	21.66M	19.1M	21.54M	19.13M	21.54M	19.1M	21.66M	19.071M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.125M	14.573M	15.915M	14.588M	15.93M	14.573M	15.84M	14.588M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.46M	4.538M	4.38M	4.538M	4.48M	4.538M	4.44M	4.538M
5745MHz	Pass	500k	18.92M	19.265M	18.81M	19.29M	18.92M	19.265M	18.92M	19.24M
5785MHz	Pass	500k	18.92M	19.39M	18.81M	19.365M	18.92M	19.34M	18.92M	19.29M
5825MHz	Pass	500k	18.865M	26.062M	18.48M	23.663M	18.59M	23.788M	18.81M	25.162M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	48.29M	37.931M	47.74M	37.881M	41.36M	37.881M	43.45M	37.881M
5230MHz	Pass	Inf	70.14M	37.907M	73.92M	38.083M	71.52M	38.201M	70.62M	38.025M
5270MHz	Pass	Inf	40.74M	37.731M	40.44M	37.731M	40.68M	37.731M	40.56M	37.731M
5310MHz	Pass	Inf	46.92M	37.848M	42.78M	37.848M	44.1M	37.848M	44.76M	37.907M
5510MHz	Pass	Inf	47.4M	37.79M	44.64M	37.848M	45.54M	37.848M	49.86M	37.907M
5550MHz	Pass	Inf	40.62M	37.672M	40.38M	37.731M	40.32M	37.672M	40.26M	37.672M
5670MHz	Pass	Inf	40.68M	37.672M	40.32M	37.731M	40.5M	37.731M	40.44M	37.79M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.595M	33.723M	35.21M	33.828M	35.245M	33.723M	35.245M	33.723M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.9M	4.058M	4M	4.038M	3.9M	4.058M	4.04M	4.018M
5755MHz	Pass	500k	37.18M	37.881M	37.51M	38.031M	36.85M	37.881M	37.4M	37.881M
5795MHz	Pass	500k	37.62M	38.231M	37.07M	38.231M	37.18M	38.081M	37.07M	38.031M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	84.26M	77.561M	86.02M	77.361M	84.26M	77.361M	84.92M	77.261M
5290MHz	Pass	Inf	83.16M	77.342M	82.68M	77.342M	83.04M	77.342M	85.92M	77.342M
5530MHz	Pass	Inf	82.2M	77.225M	84.48M	77.342M	85.08M	77.342M	85.2M	77.46M
5610MHz	Pass	Inf	81.84M	77.107M	81.72M	76.99M	81.96M	77.107M	81.48M	77.107M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.125M	73.163M	75.675M	73.238M	75.75M	73.163M	75.825M	73.238M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.94M	4.038M	3.84M	4.058M	3.8M	4.058M	3.88M	4.038M
5775MHz	Pass	500k	74.36M	77.261M	75.24M	77.461M	76.34M	77.361M	76.78M	77.461M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	83.2M	77.721M	82.96M	77.801M	82.88M	77.641M	83.04M	77.721M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	82.96M	77.721M	83.44M	77.641M	83.12M	77.721M	83.68M	77.721M
5570MHz	Pass	Inf	166.56M	156.095M	166.32M	156.33M	166.32M	156.095M	166.08M	155.86M



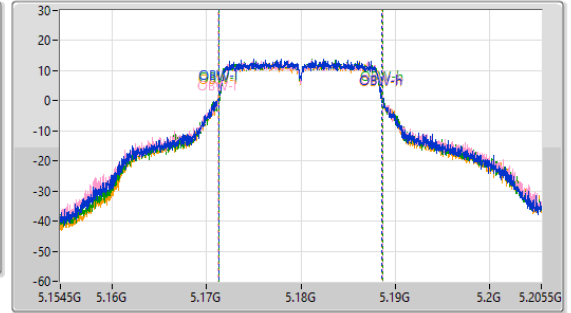
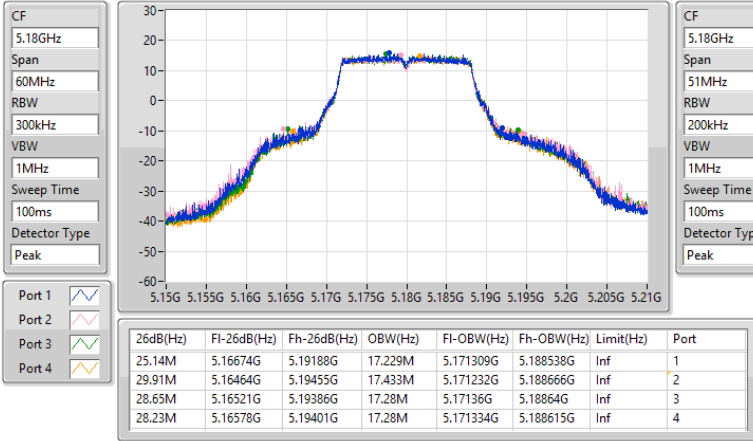
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

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

EBW

5180MHz

18/01/2023

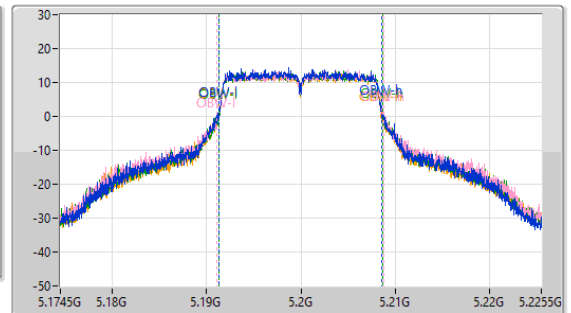
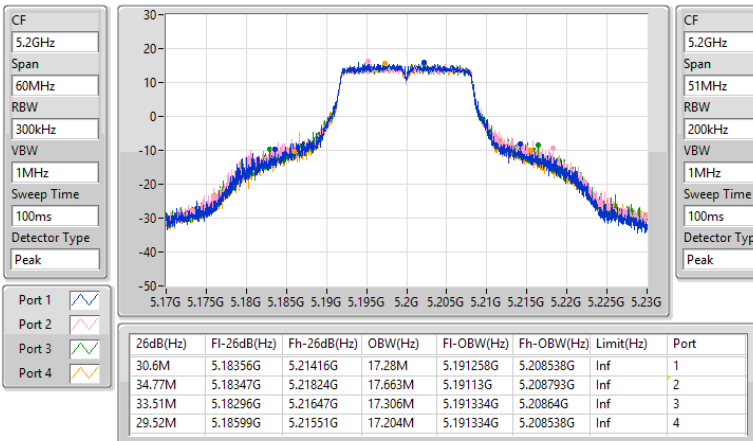


5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5200MHz

18/01/2023

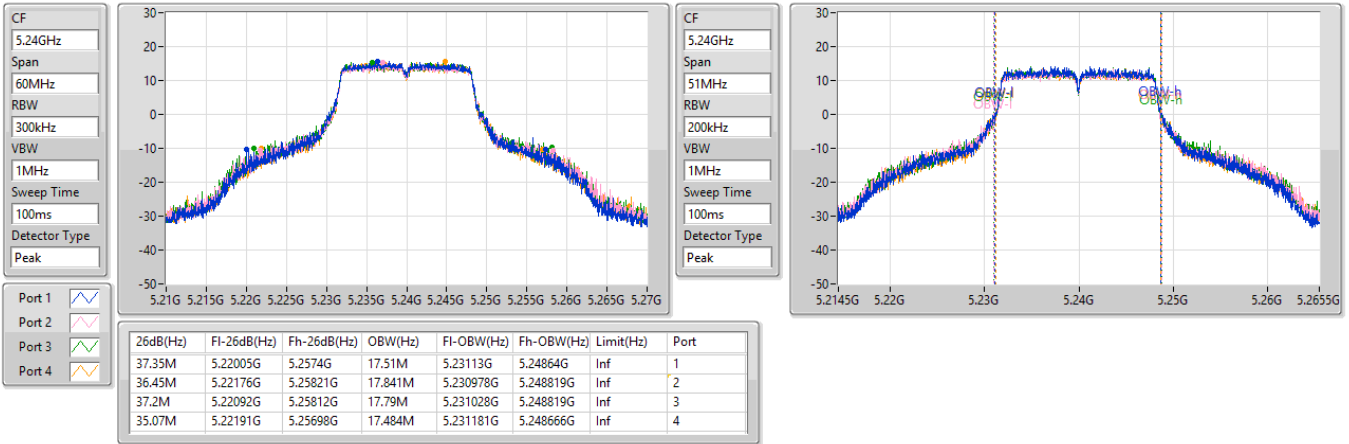


5.15-5.25GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5240MHz

18/01/2023

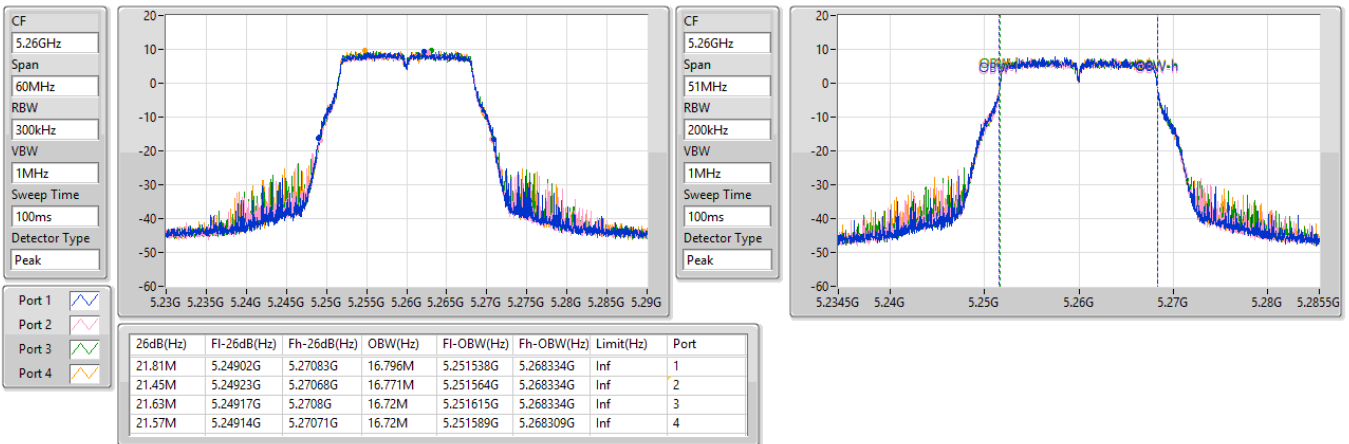


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5260MHz

18/01/2023

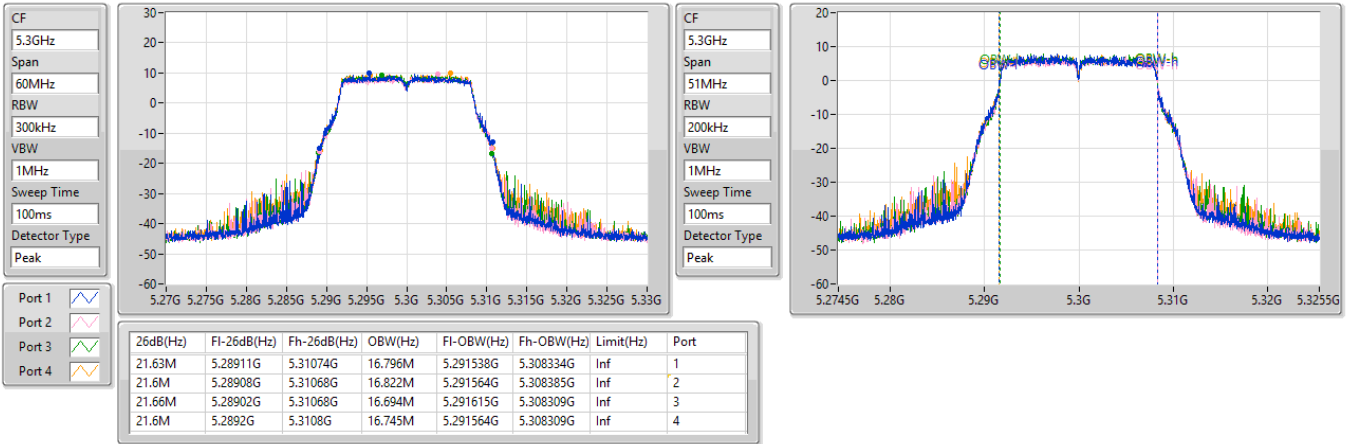


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5300MHz

18/01/2023

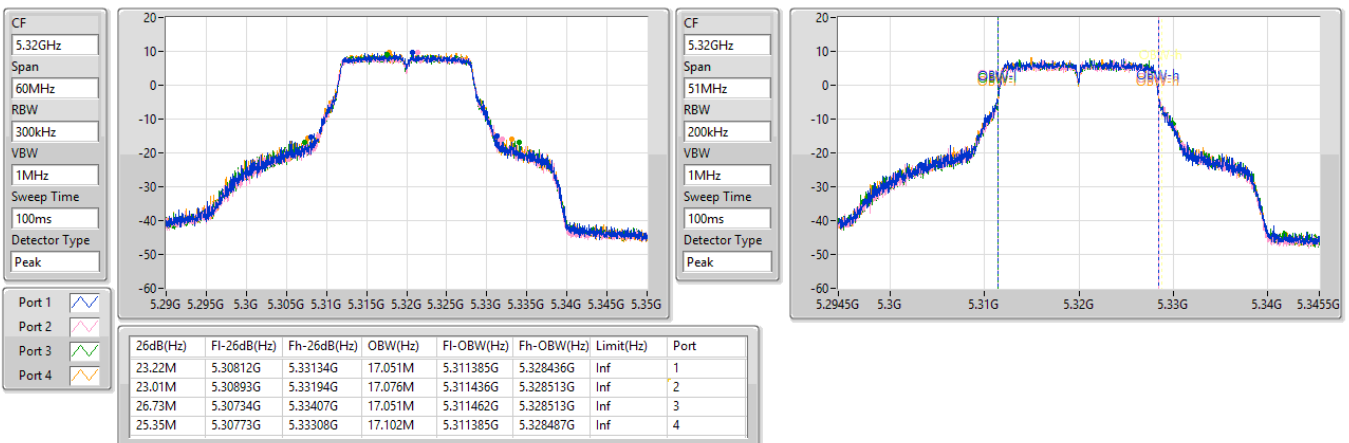


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5320MHz

18/01/2023

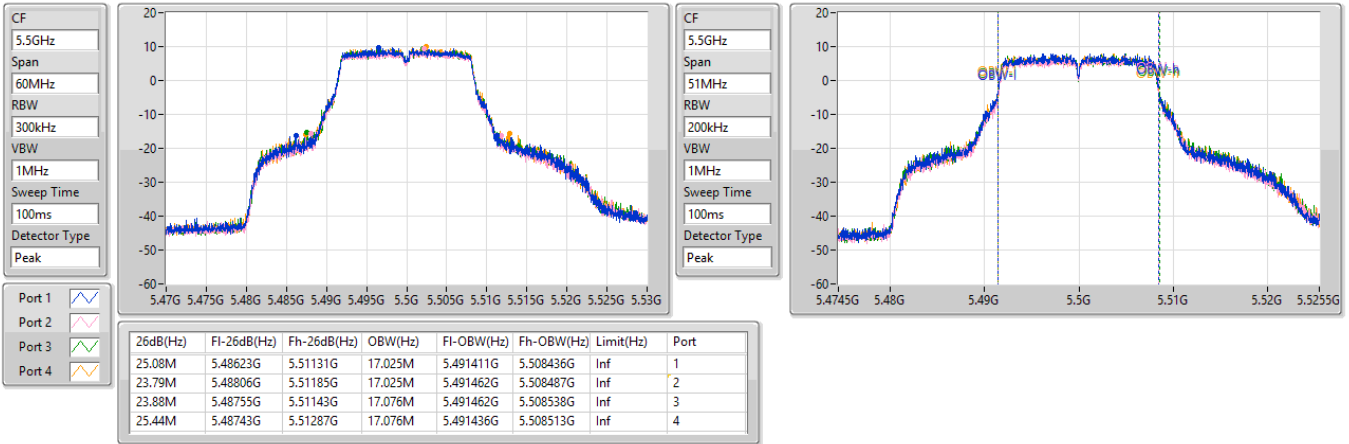


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5500MHz

18/01/2023

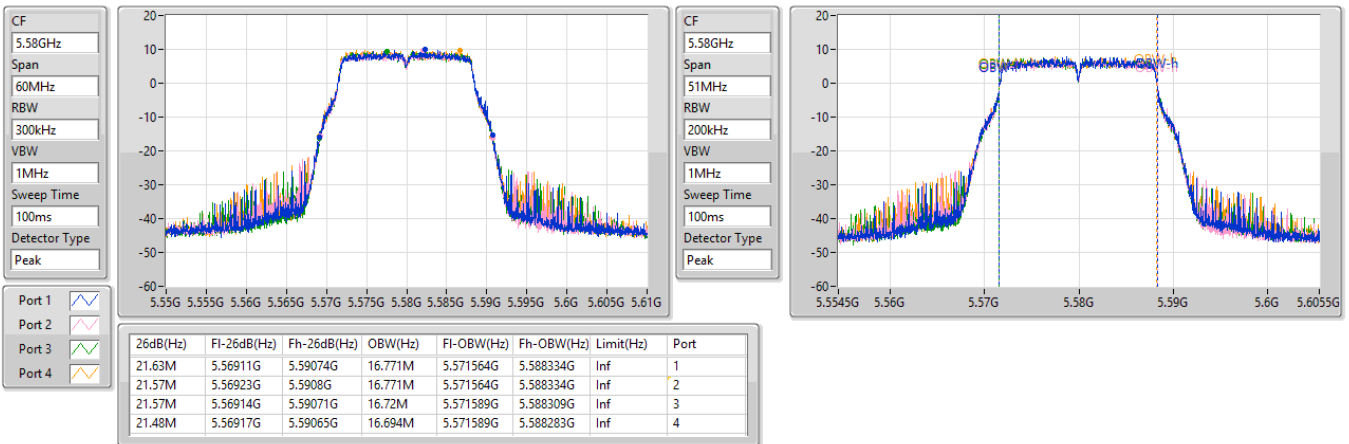


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5580MHz

18/01/2023



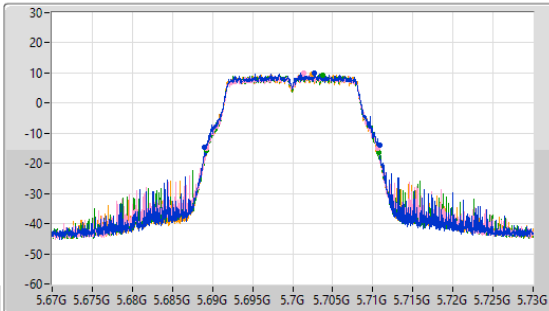
5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

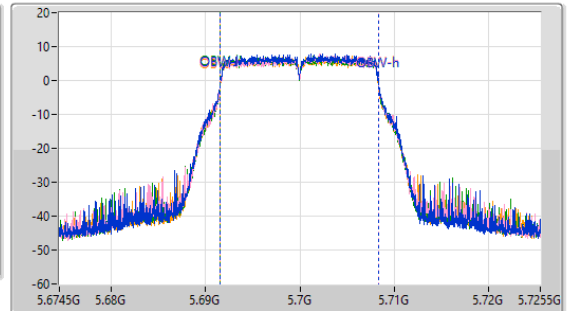
5700MHz

18/01/2023

CF: 5.7GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.7GHz
 Span: 51MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



Port 1: [Blue line]
 Port 2: [Pink line]
 Port 3: [Green line]
 Port 4: [Orange line]

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.81M	5.68905G	5.71086G	16.796M	5.691564G	5.70836G	Inf	1
21.48M	5.6892G	5.71068G	16.745M	5.691589G	5.708334G	Inf	2
21.57M	5.6892G	5.71077G	16.745M	5.691589G	5.708334G	Inf	3
21.45M	5.68923G	5.71068G	16.72M	5.691589G	5.708309G	Inf	4

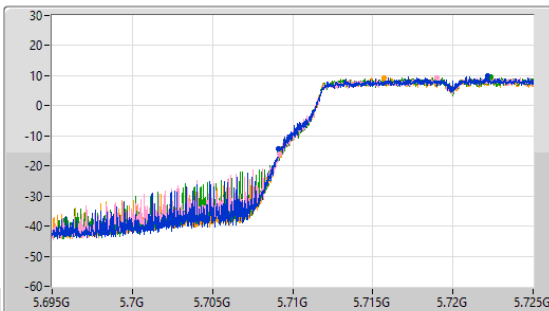
5.47-5.725GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

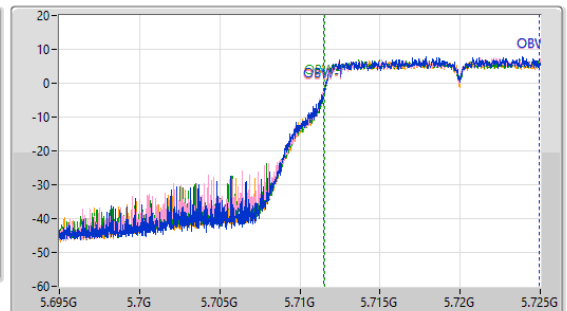
5720MHz Straddle 5.47-5.725GHz

18/01/2023

CF: 5.71GHz
 Span: 30MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.71GHz
 Span: 30MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



Port 1: [Blue line]
 Port 2: [Pink line]
 Port 3: [Green line]
 Port 4: [Orange line]

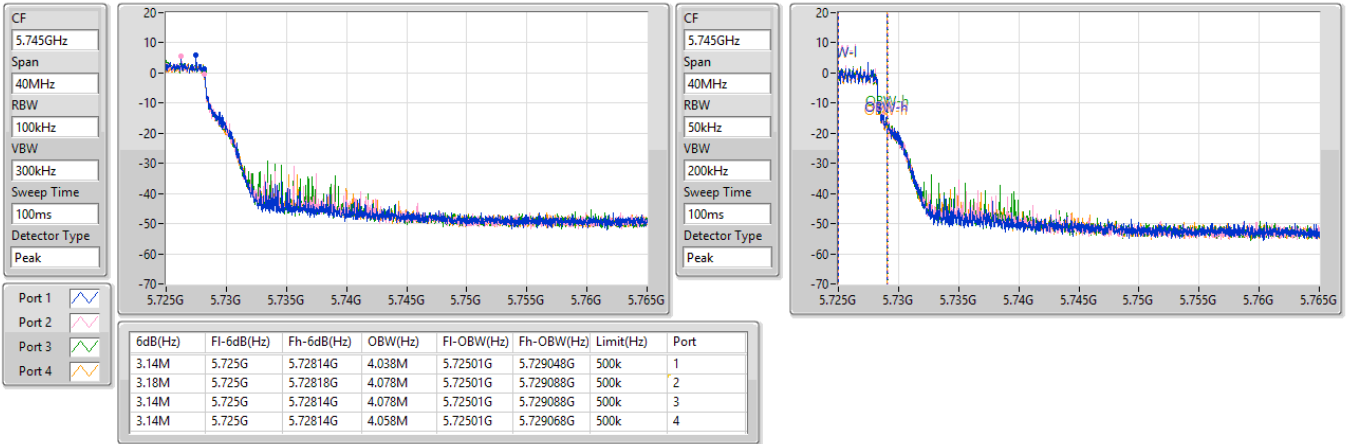
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.885M	5.709115G	5.725G	13.478M	5.711454G	5.724933G	Inf	1
15.855M	5.709145G	5.725G	13.463M	5.711484G	5.724948G	Inf	2
15.81M	5.70919G	5.725G	13.418M	5.711529G	5.724948G	Inf	3
15.825M	5.709175G	5.725G	13.433M	5.711514G	5.724948G	Inf	4

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

EBW

5720MHz Straddle 5.725-5.85GHz

18/01/2023

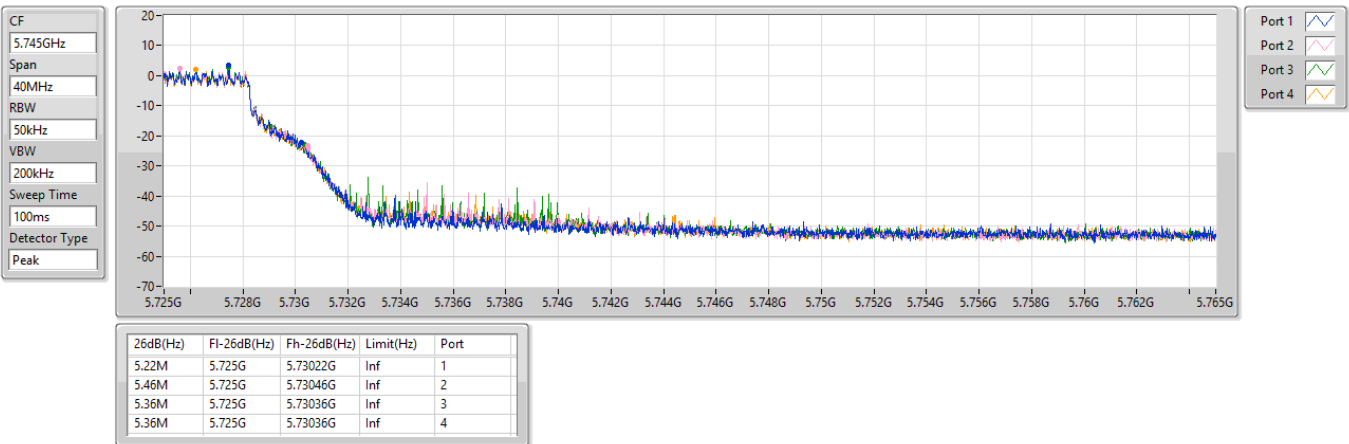


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

18/01/2023

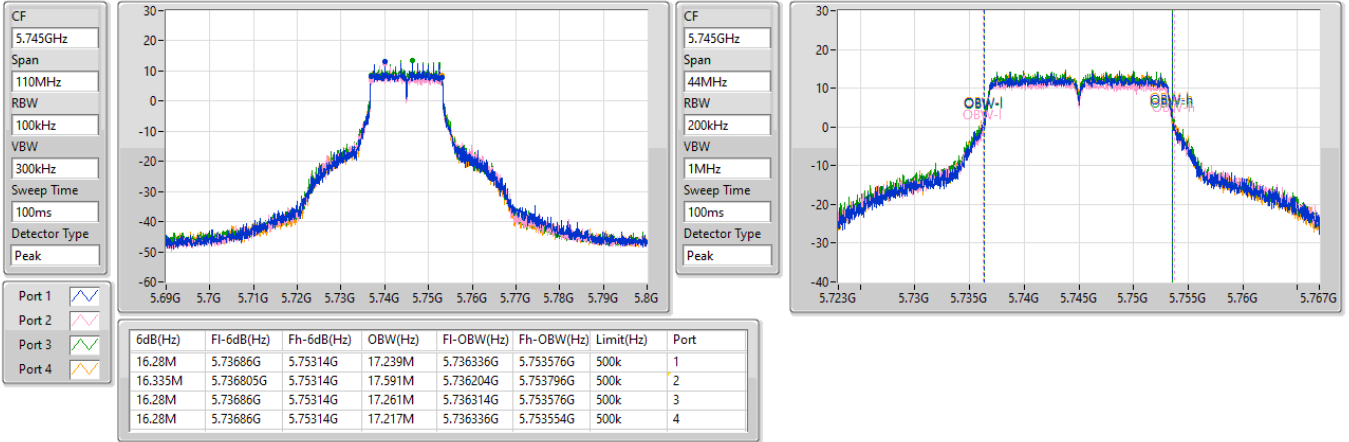


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5745MHz

22/02/2023

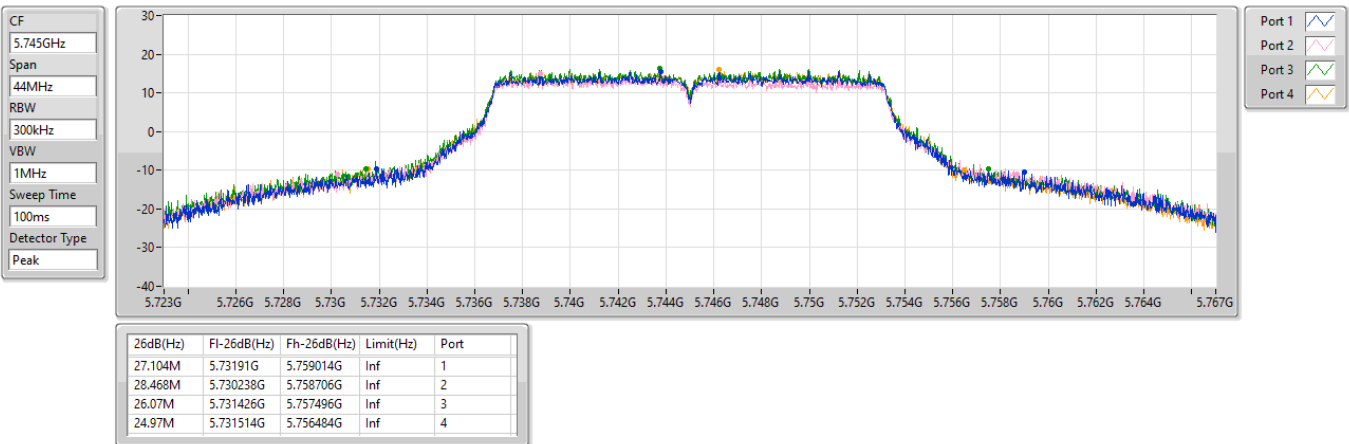


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5745MHz

22/02/2023



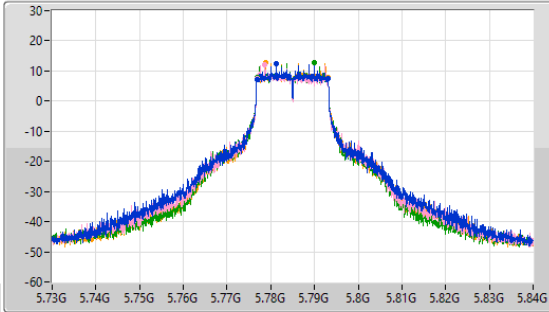
5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

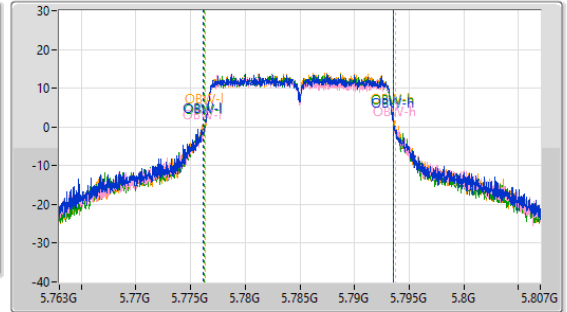
5785MHz

22/02/2023

CF: 5.785GHz
 Span: 110MHz
 RBW: 100kHz
 VBW: 300kHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.785GHz
 Span: 44MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.335M	5.776805G	5.79314G	17.437M	5.77616G	5.793598G	500k	1
16.335M	5.776805G	5.79314G	17.547M	5.77616G	5.793708G	500k	2
16.335M	5.776805G	5.79314G	17.261M	5.77627G	5.793532G	500k	3
16.335M	5.776805G	5.79314G	17.261M	5.776336G	5.793598G	500k	4

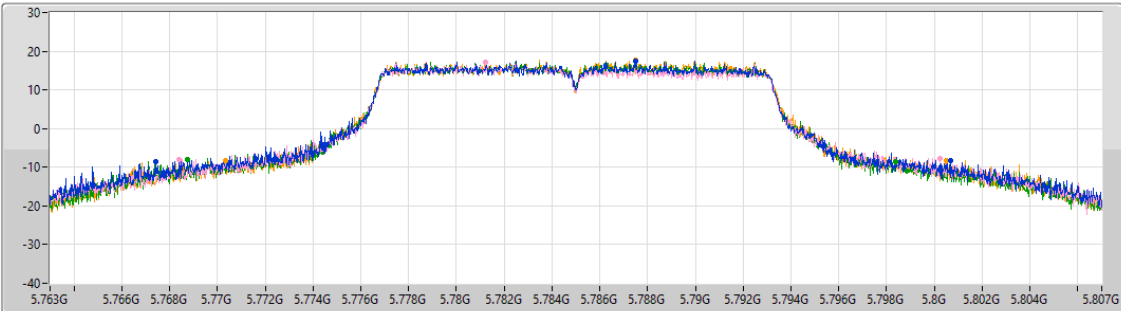
5.725-5.85GHz_802.11a_Nss1,(6Mbps)_4TX

EBW

5785MHz

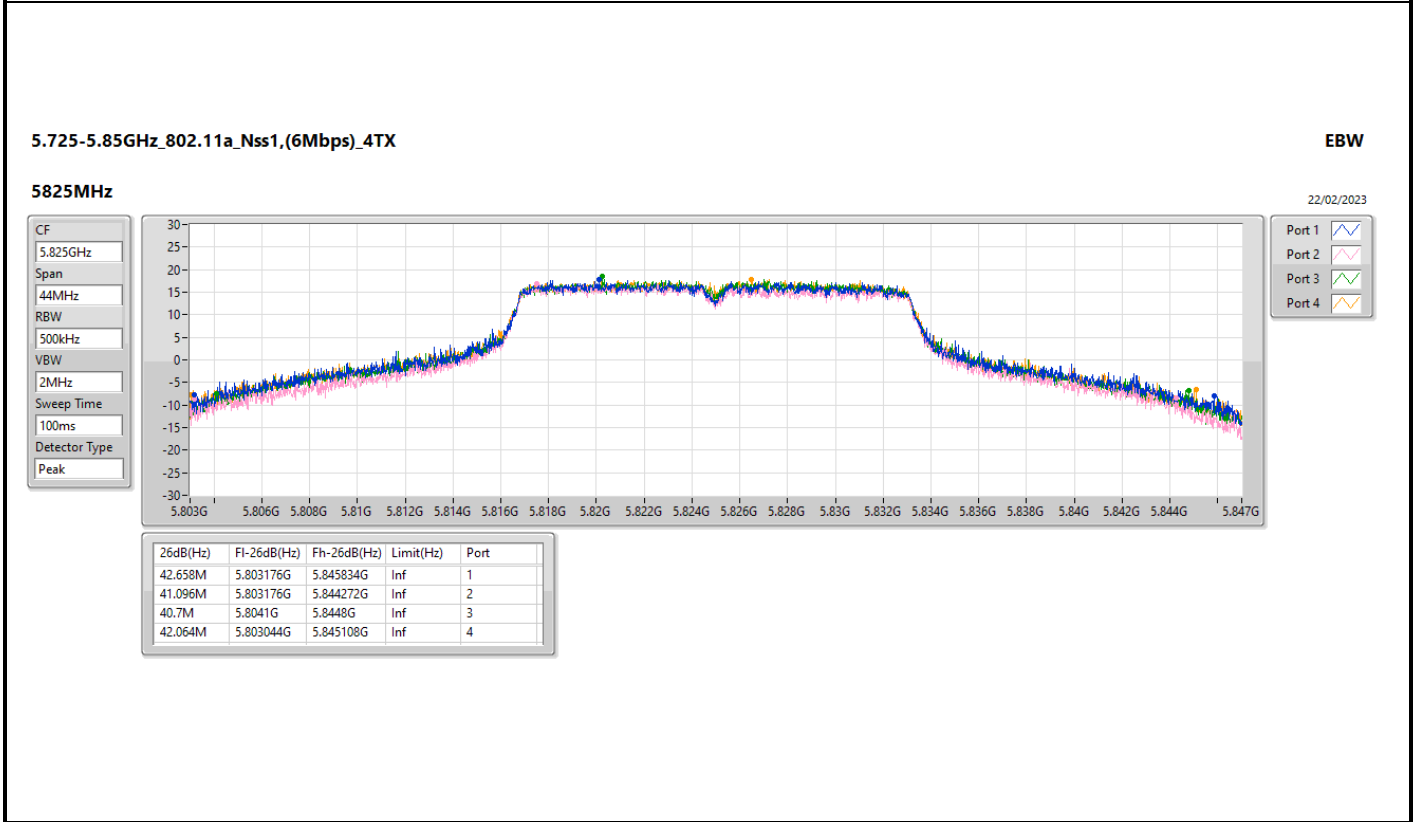
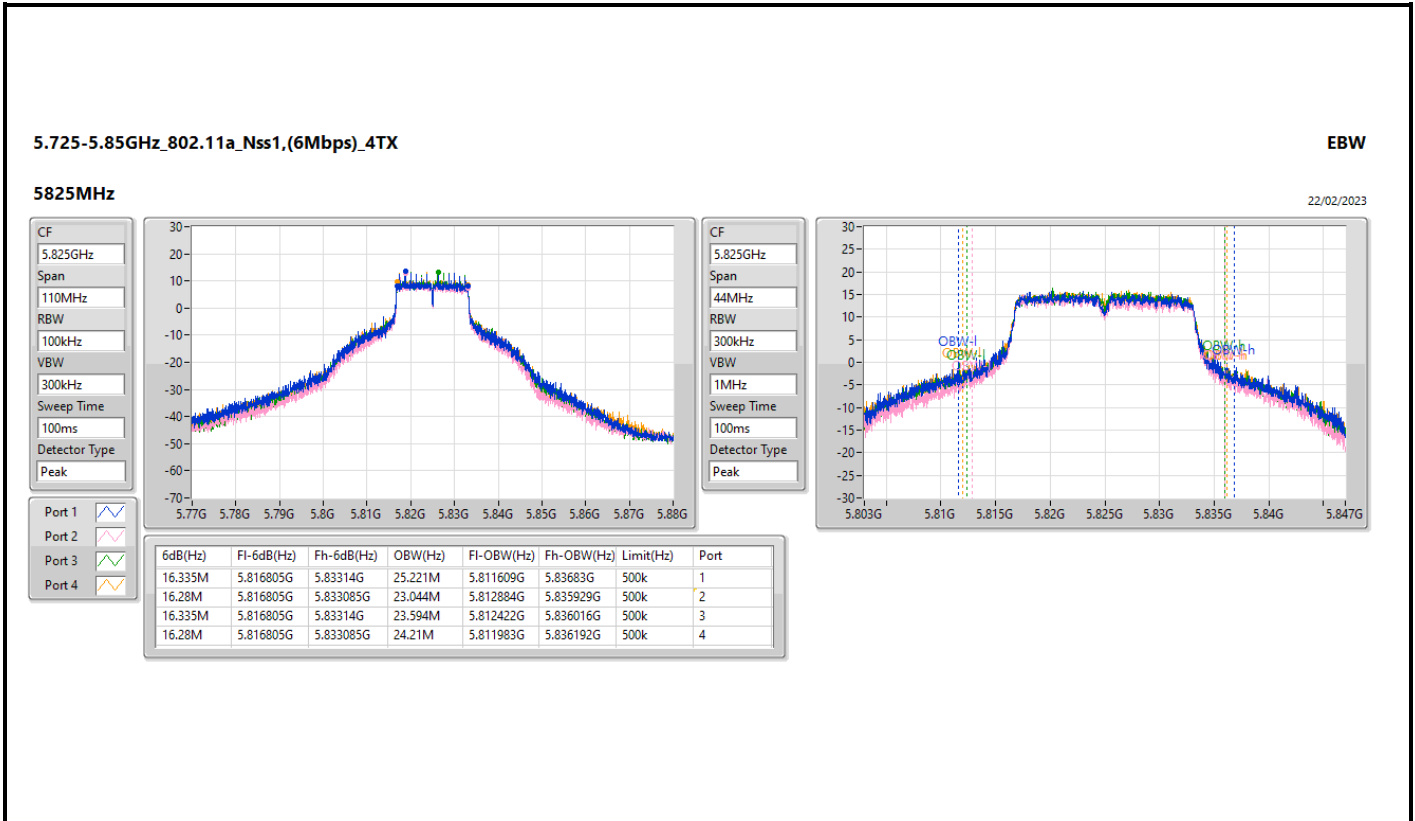
22/02/2023

CF: 5.785GHz
 Span: 44MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 100ms
 Detector Type: Peak



Port 1
 Port 2
 Port 3
 Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
33.286M	5.7674G	5.800686G	Inf	1
31.834M	5.768412G	5.800246G	Inf	2
29.634M	5.768764G	5.798398G	Inf	3
30.14M	5.770348G	5.800488G	Inf	4



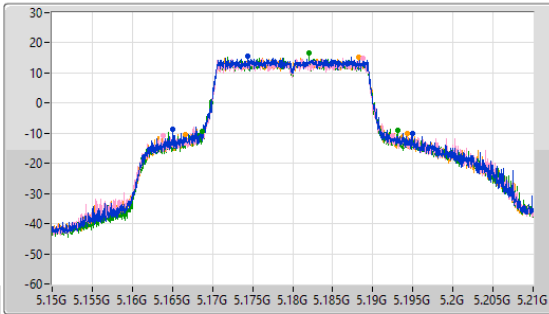
5.15-5.25GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

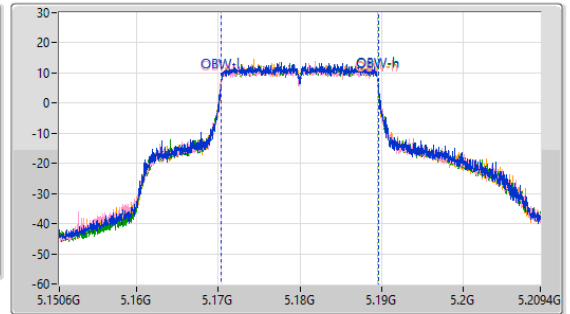
5180MHz

18/01/2023

CF
5.18GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.18GHz
Span
58.8MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
29.85M	5.16509G	5.19494G	19.189M	5.170391G	5.18958G	Inf	1
28.56M	5.16389G	5.19245G	19.189M	5.170362G	5.18955G	Inf	2
24.39M	5.16872G	5.19311G	19.218M	5.170362G	5.18958G	Inf	3
27.69M	5.16668G	5.19437G	19.189M	5.170362G	5.18955G	Inf	4

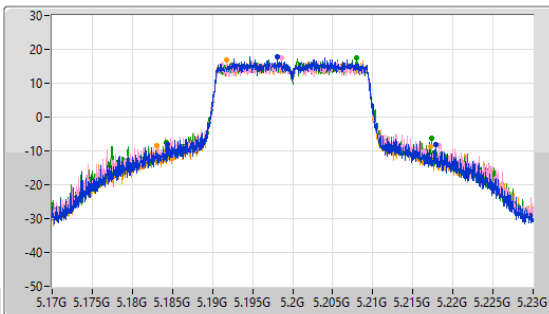
5.15-5.25GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

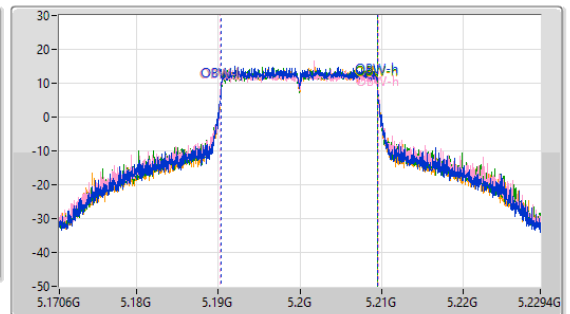
5200MHz

18/01/2023

CF
5.2GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.2GHz
Span
58.8MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.51M	5.18434G	5.21785G	19.189M	5.190362G	5.20955G	Inf	1
33.66M	5.18458G	5.21824G	19.394M	5.190244G	5.209638G	Inf	2
33.12M	5.18425G	5.21737G	19.247M	5.190303G	5.20955G	Inf	3
34.14M	5.18302G	5.21716G	19.218M	5.190332G	5.20955G	Inf	4

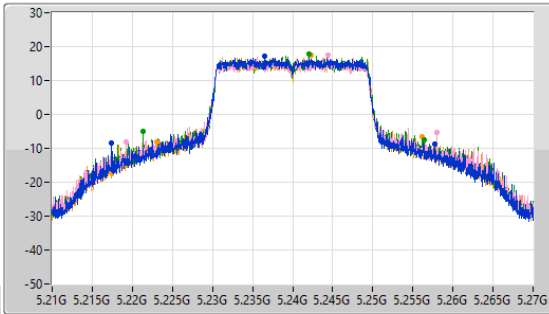
5.15-5.25GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

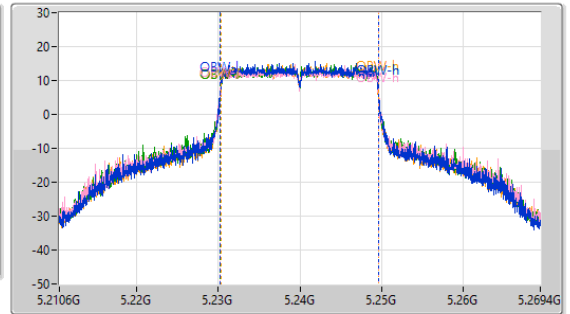
5240MHz

18/01/2023

CF
5.24GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.24GHz
Span
58.8MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.26M	5.21744G	5.2577G	19.277M	5.230303G	5.24958G	Inf	1
38.76M	5.21921G	5.25797G	19.365M	5.230244G	5.249609G	Inf	2
35.07M	5.2214G	5.25647G	19.365M	5.230244G	5.249609G	Inf	3
33.09M	5.22311G	5.2562G	19.247M	5.230332G	5.24958G	Inf	4

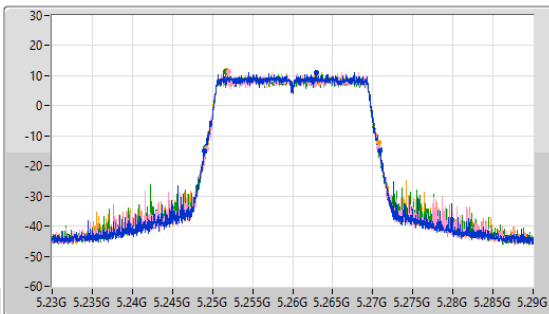
5.25-5.35GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

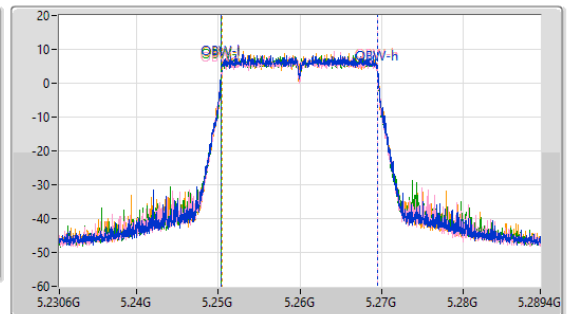
5260MHz

18/01/2023

CF
5.26GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.26GHz
Span
58.8MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



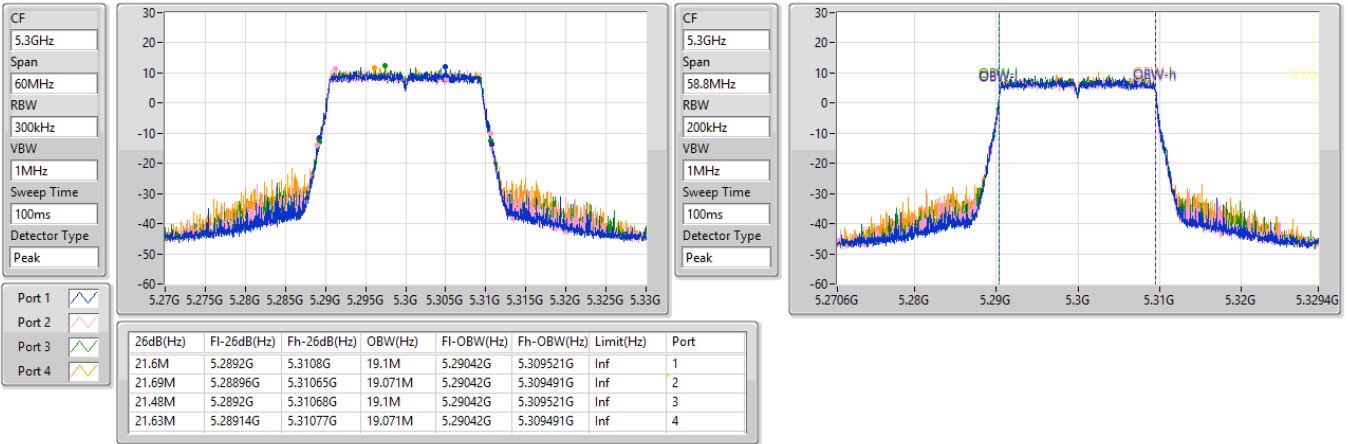
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.96M	5.24893G	5.27089G	19.1M	5.25042G	5.269521G	Inf	1
21.57M	5.2492G	5.27077G	19.071M	5.250391G	5.269462G	Inf	2
21.81M	5.24911G	5.27092G	19.071M	5.25042G	5.269491G	Inf	3
21.6M	5.24911G	5.27071G	19.012M	5.25045G	5.269462G	Inf	4

5.25-5.35GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5300MHz

18/01/2023

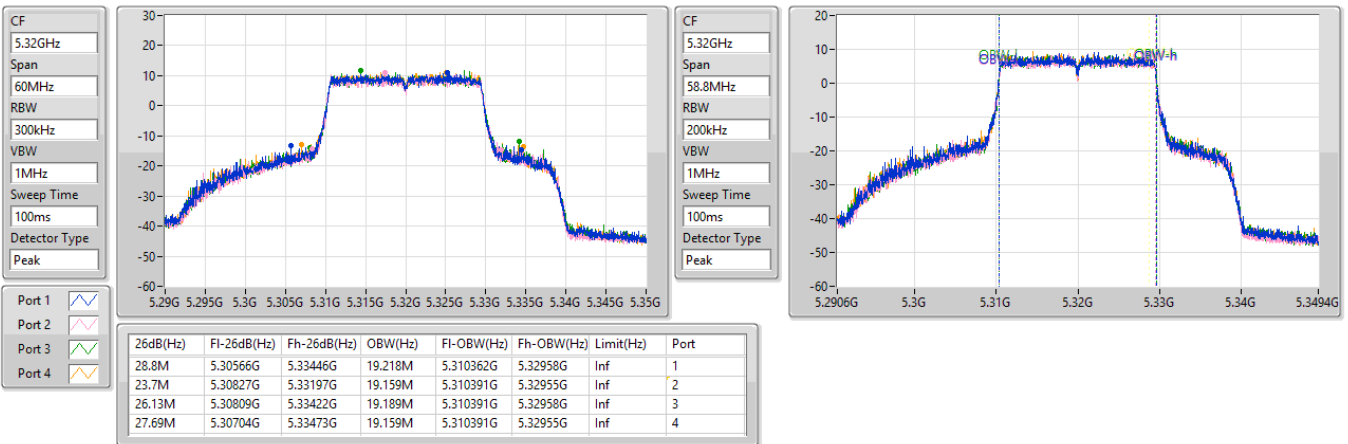


5.25-5.35GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5320MHz

18/01/2023

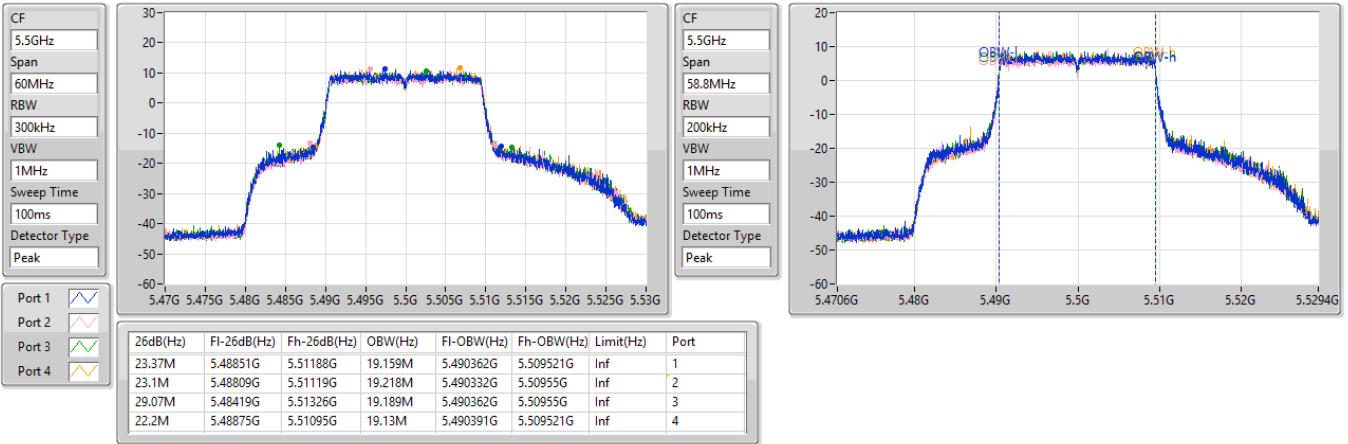


5.47-5.725GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5500MHz

18/01/2023

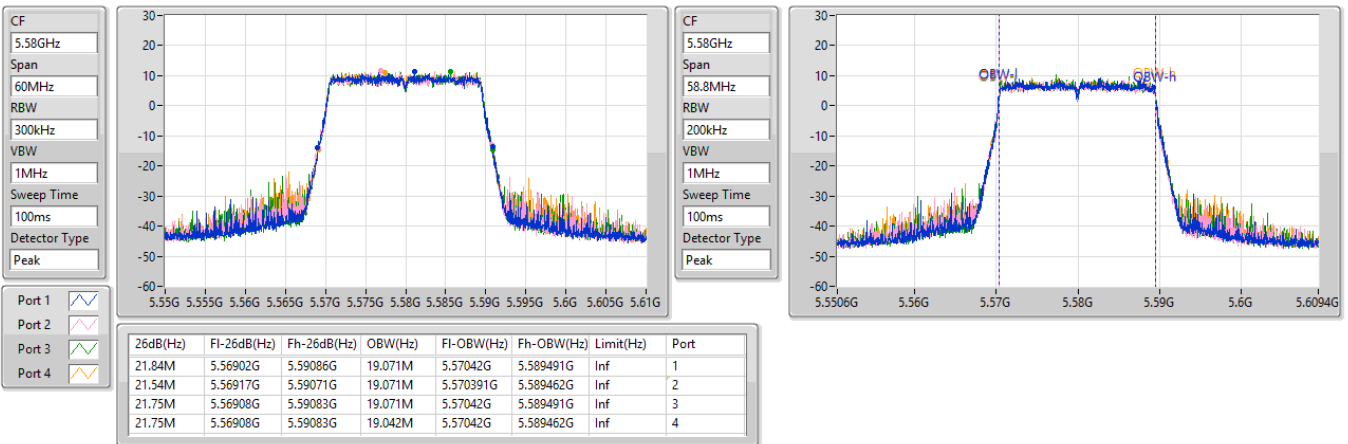


5.47-5.725GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5580MHz

18/01/2023

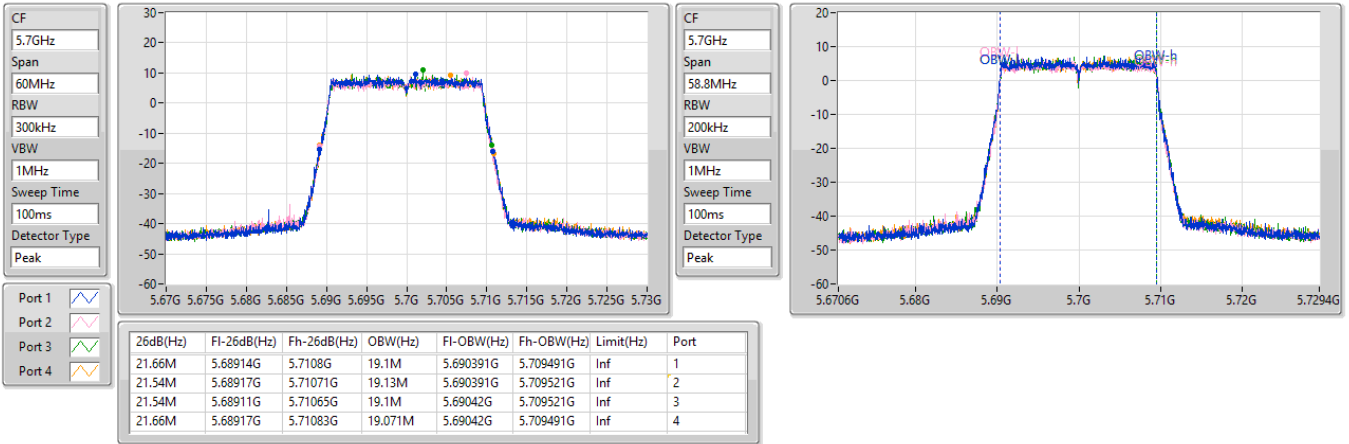


5.47-5.725GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5700MHz

18/01/2023

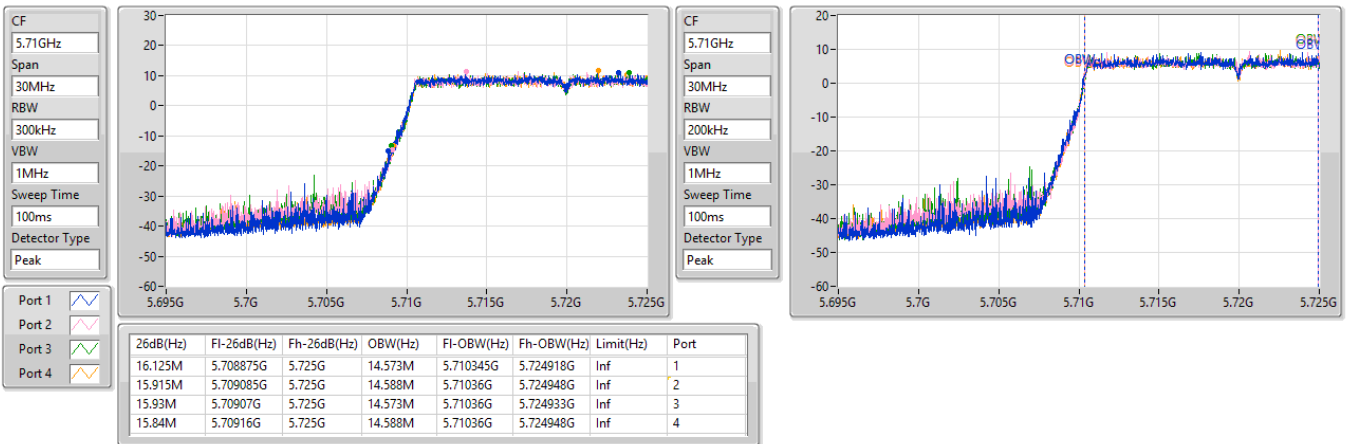


5.47-5.725GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

18/01/2023

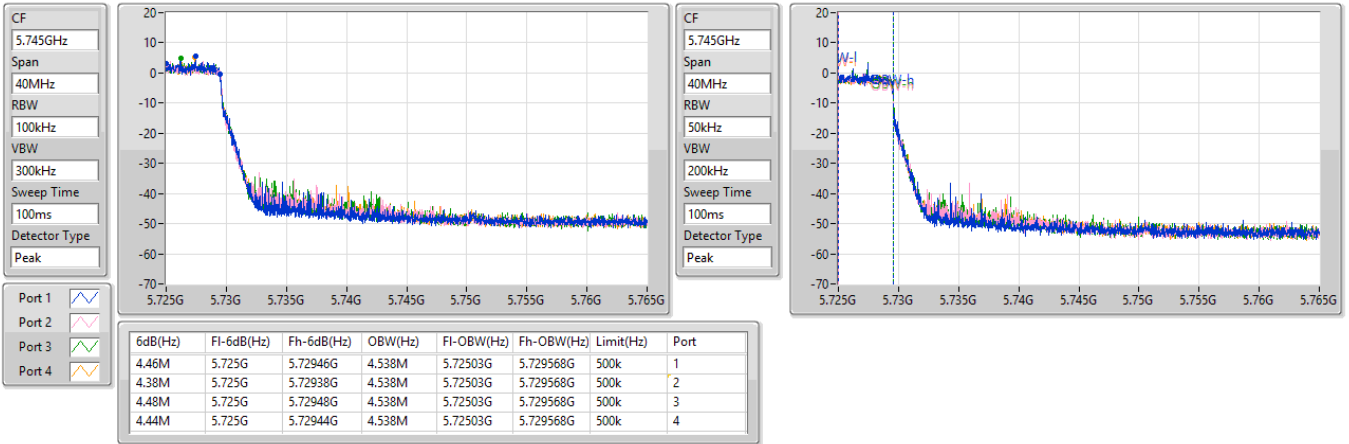


5.725-5.85GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

18/01/2023

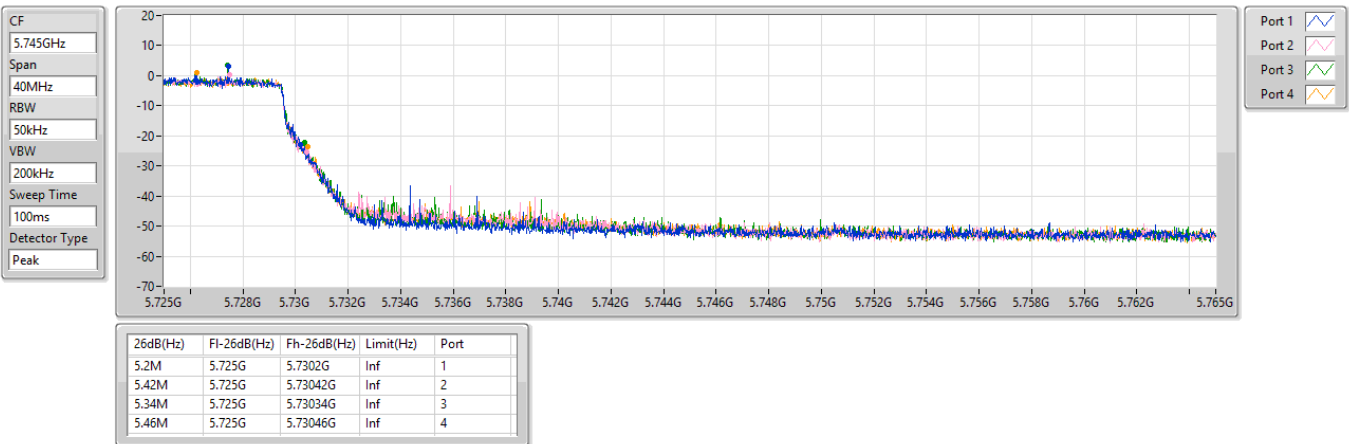


5.725-5.85GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

18/01/2023

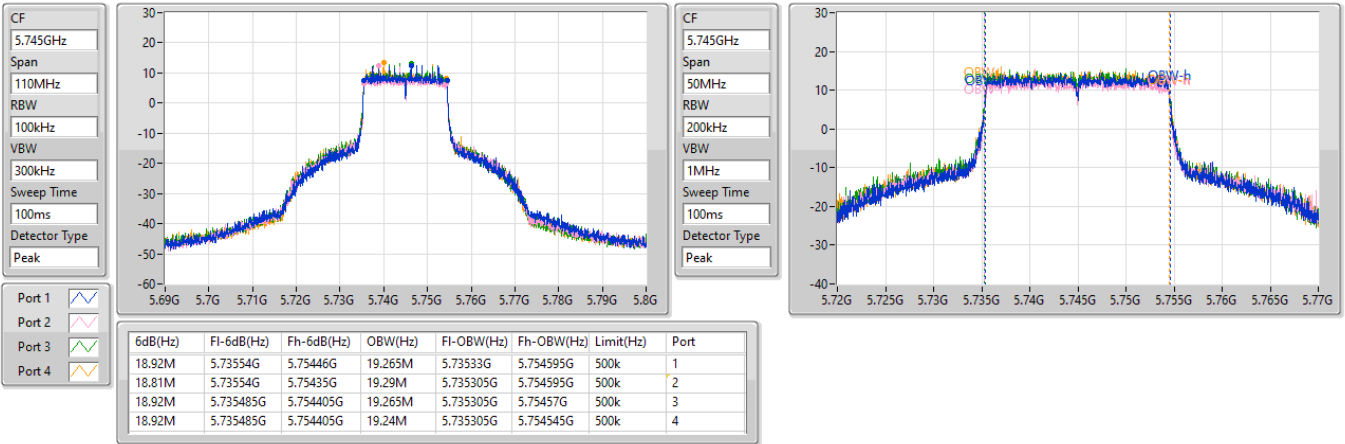


5.725-5.85GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5745MHz

22/02/2023



5.725-5.85GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5745MHz

22/02/2023

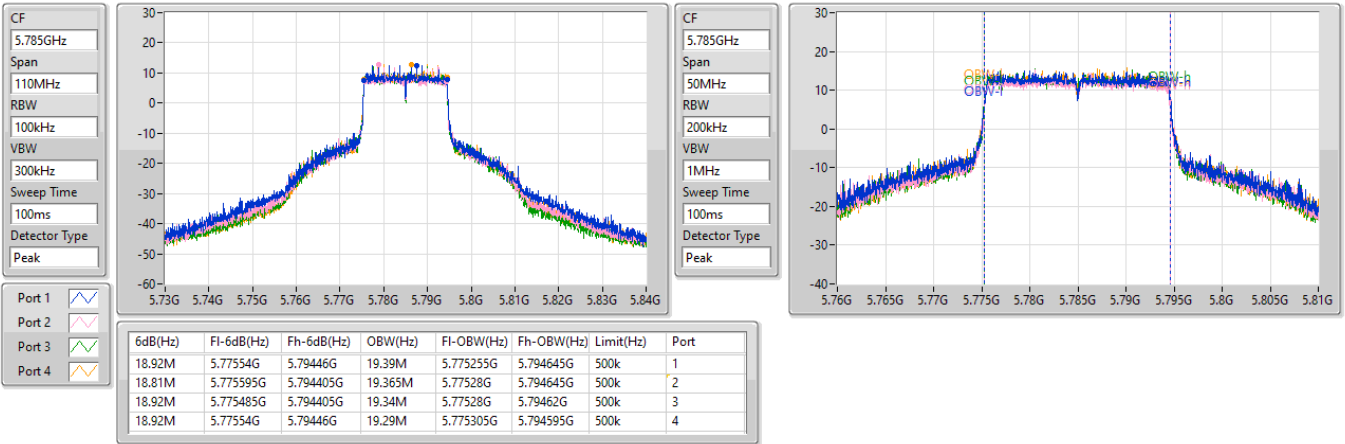


5.725-5.85GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5785MHz

22/02/2023

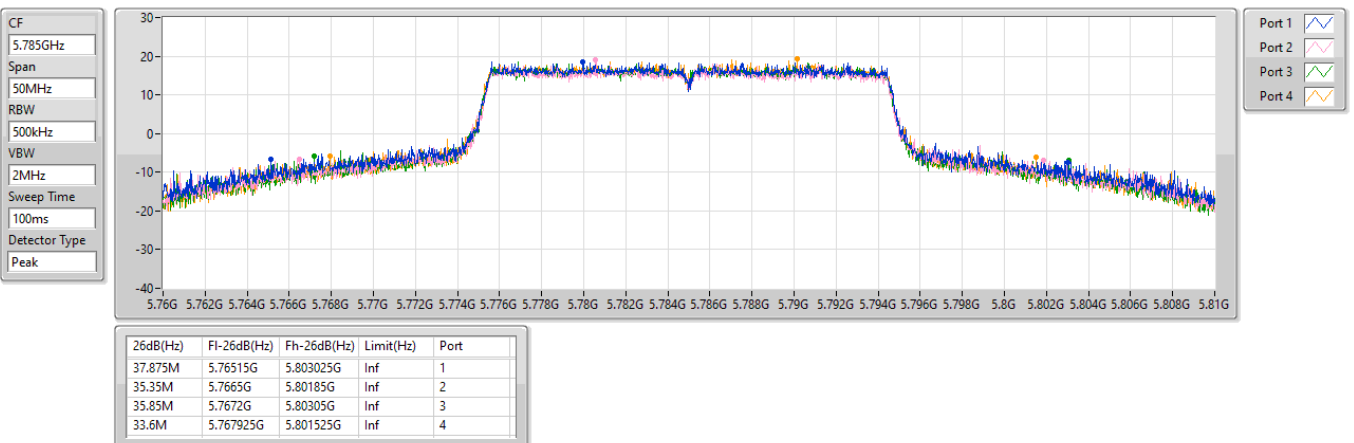


5.725-5.85GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5785MHz

22/02/2023

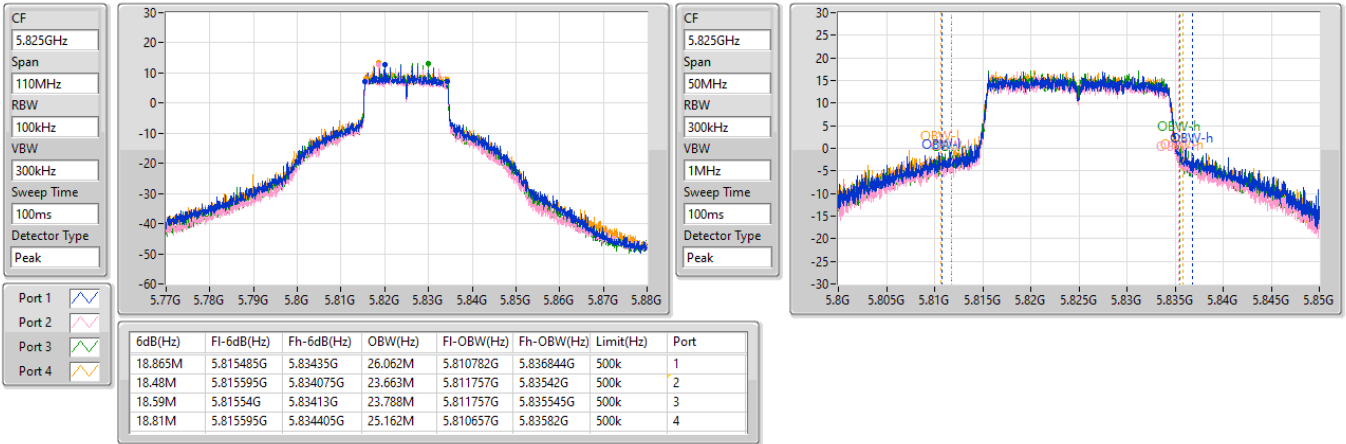


5.725-5.85GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5825MHz

22/02/2023



5.725-5.85GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

5825MHz

22/02/2023

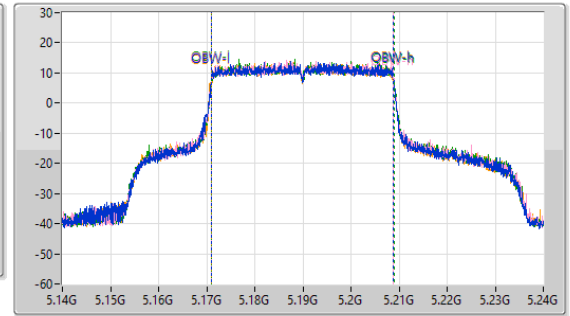
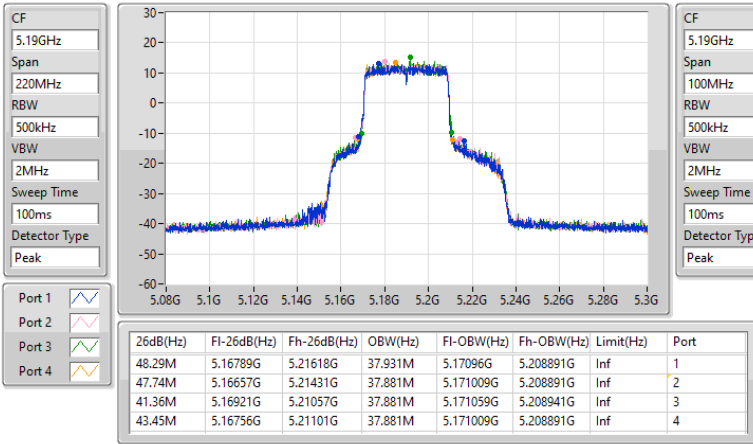


5.15-5.25GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5190MHz

22/02/2023

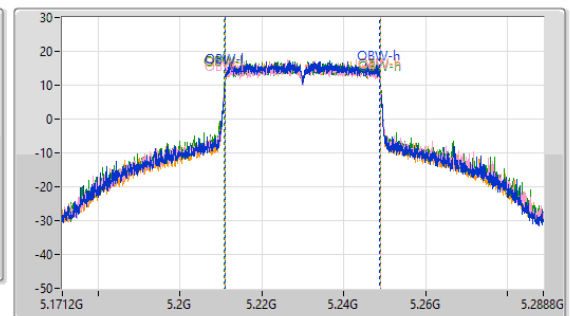
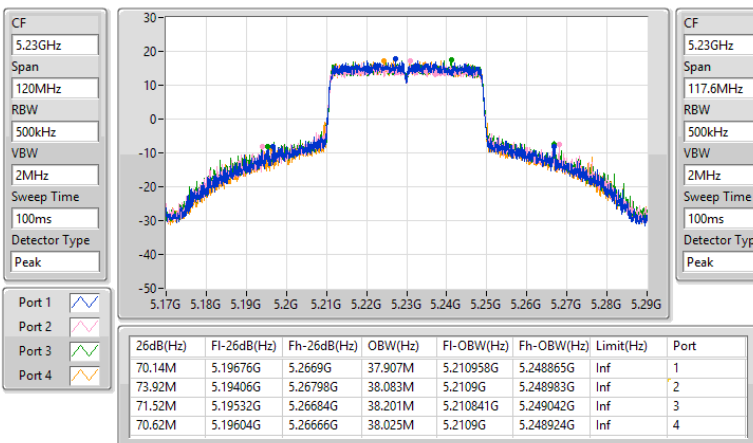


5.15-5.25GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5230MHz

18/01/2023



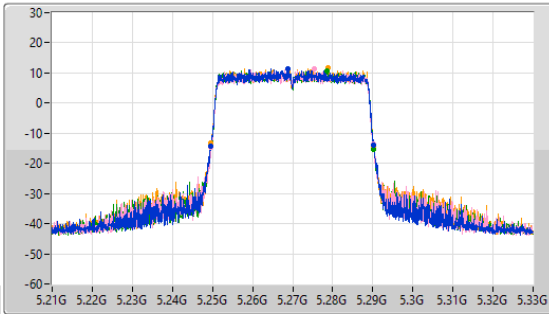
5.25-5.35GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

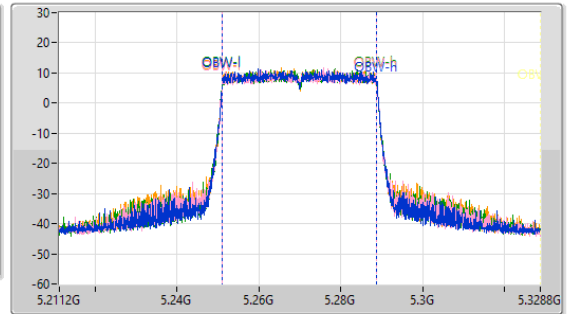
5270MHz

18/01/2023

CF
5.27GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.27GHz
Span
117.6MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
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
40.74M	5.24948G	5.29022G	37.731M	5.251076G	5.288807G	Inf	1
40.44M	5.24966G	5.2901G	37.731M	5.251076G	5.288807G	Inf	2
40.68M	5.2496G	5.29028G	37.731M	5.251076G	5.288807G	Inf	3
40.56M	5.24966G	5.29022G	37.731M	5.251076G	5.288807G	Inf	4

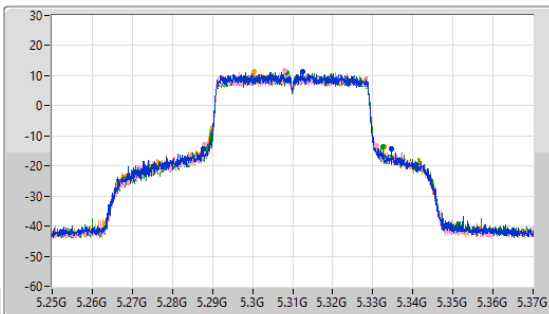
5.25-5.35GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

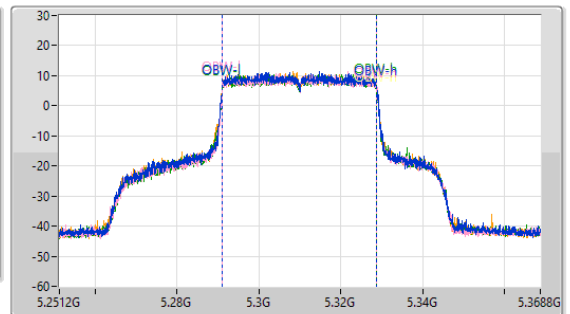
5310MHz

18/01/2023

CF
5.31GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.31GHz
Span
117.6MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

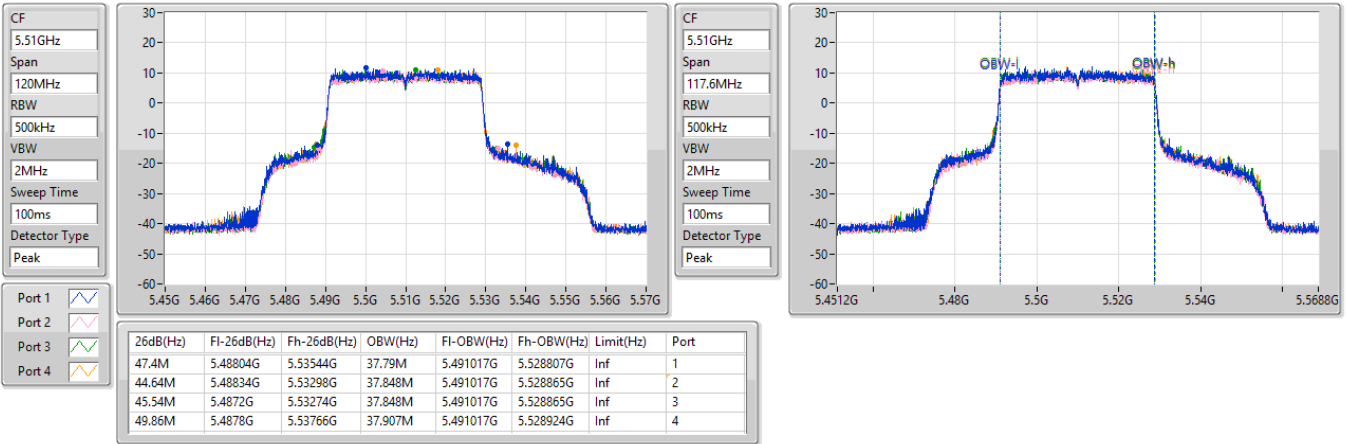
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
46.92M	5.28768G	5.3346G	37.848M	5.291017G	5.328865G	Inf	1
42.78M	5.2881G	5.33088G	37.848M	5.291017G	5.328865G	Inf	2
44.1M	5.28834G	5.33244G	37.848M	5.291017G	5.328865G	Inf	3
44.76M	5.2881G	5.33286G	37.907M	5.290958G	5.328865G	Inf	4

5.47-5.725GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5510MHz

18/01/2023

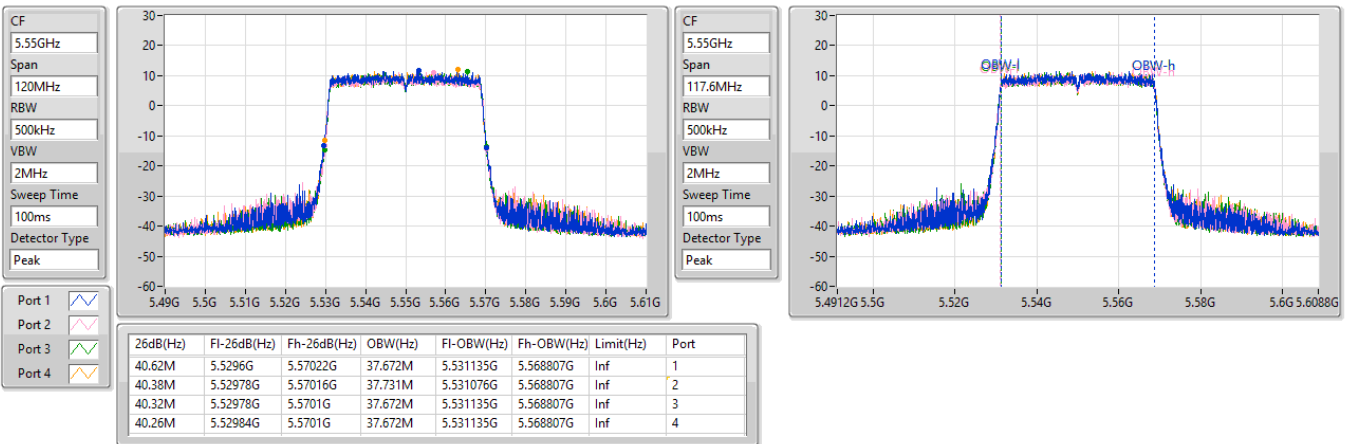


5.47-5.725GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5550MHz

18/01/2023

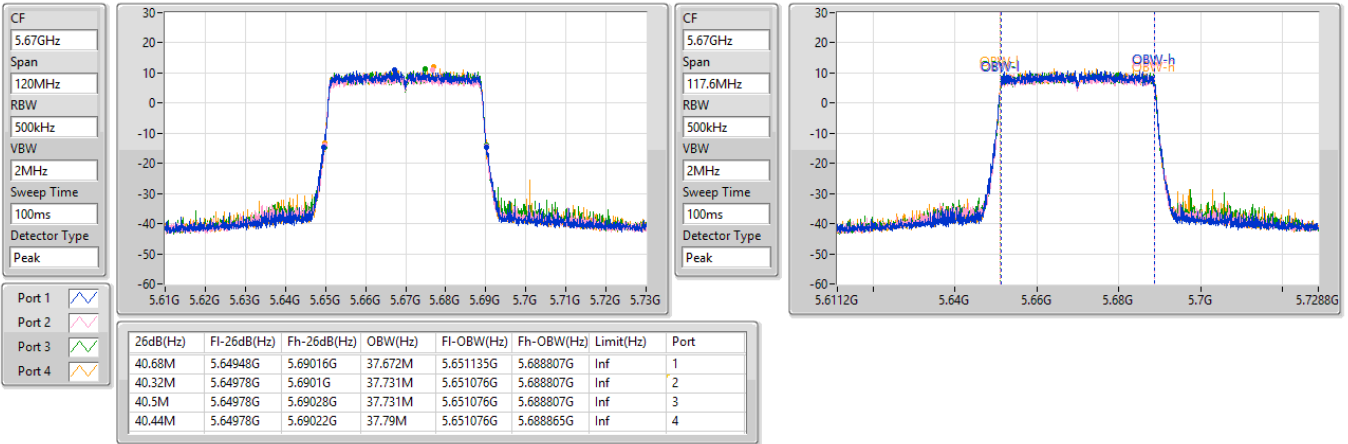


5.47-5.725GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5670MHz

18/01/2023

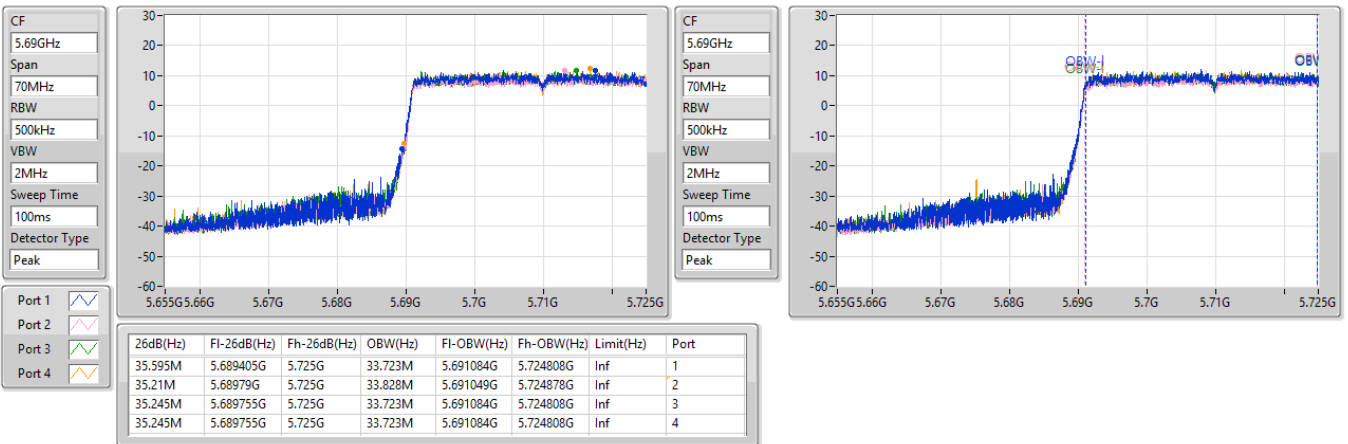


5.47-5.725GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.47-5.725GHz

18/01/2023

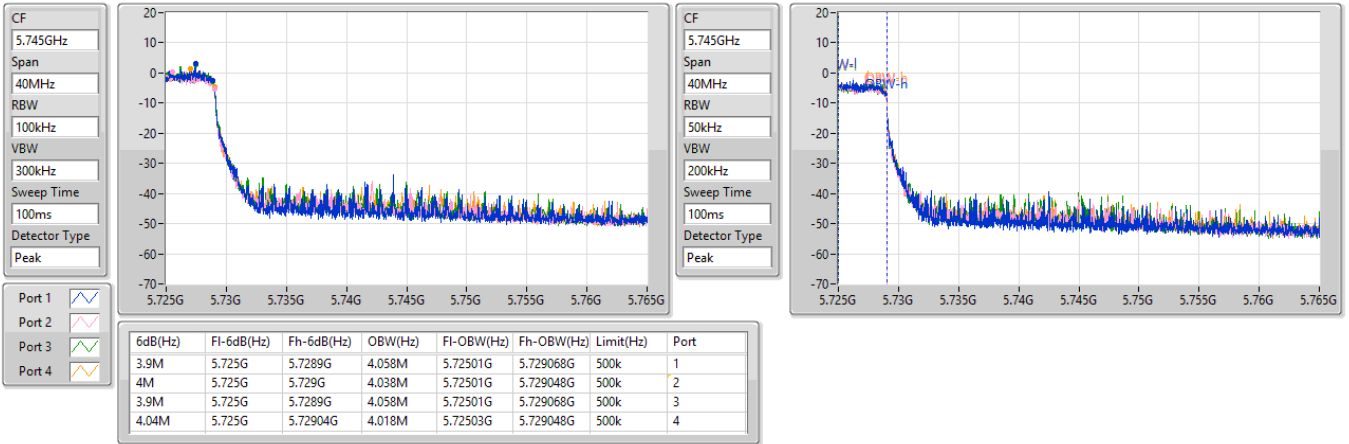


5.725-5.85GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

18/01/2023

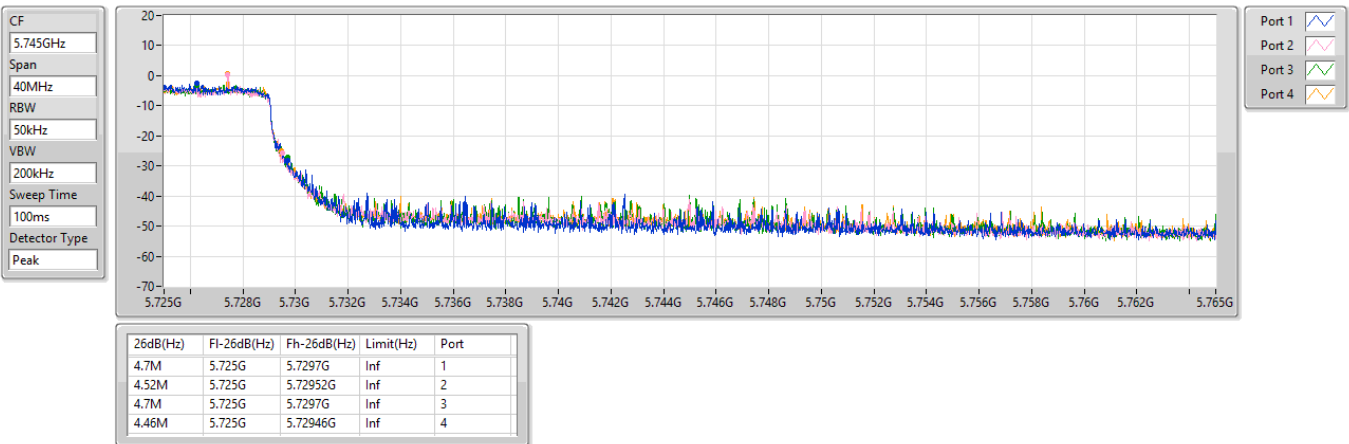


5.725-5.85GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

18/01/2023

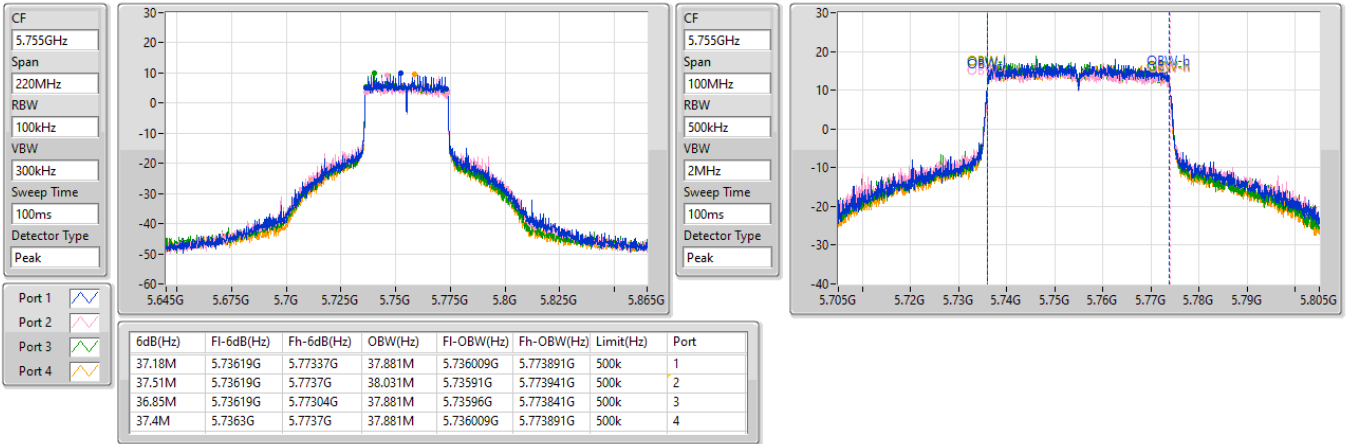


5.725-5.85GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5755MHz

22/02/2023

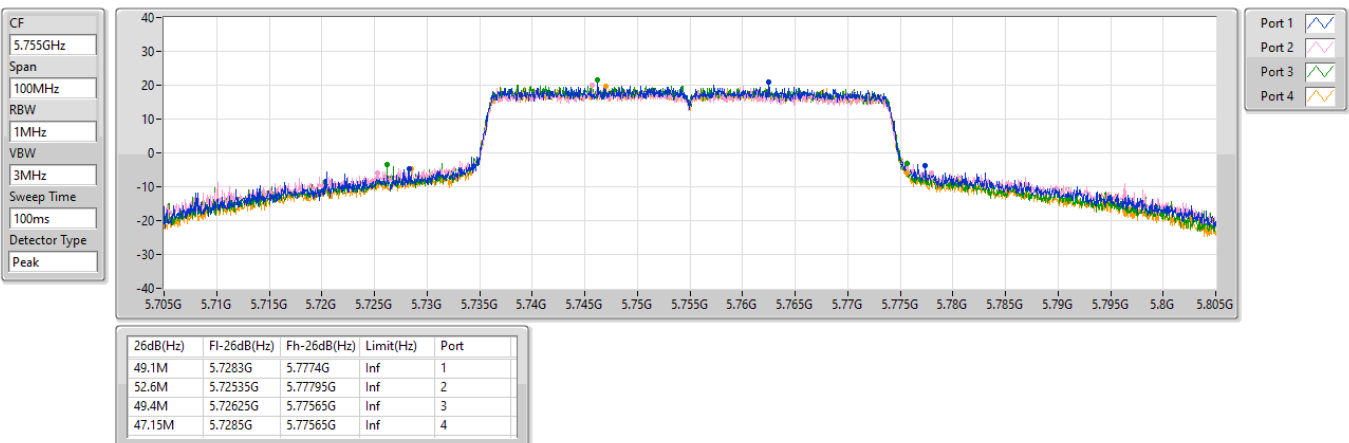


5.725-5.85GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5755MHz

22/02/2023

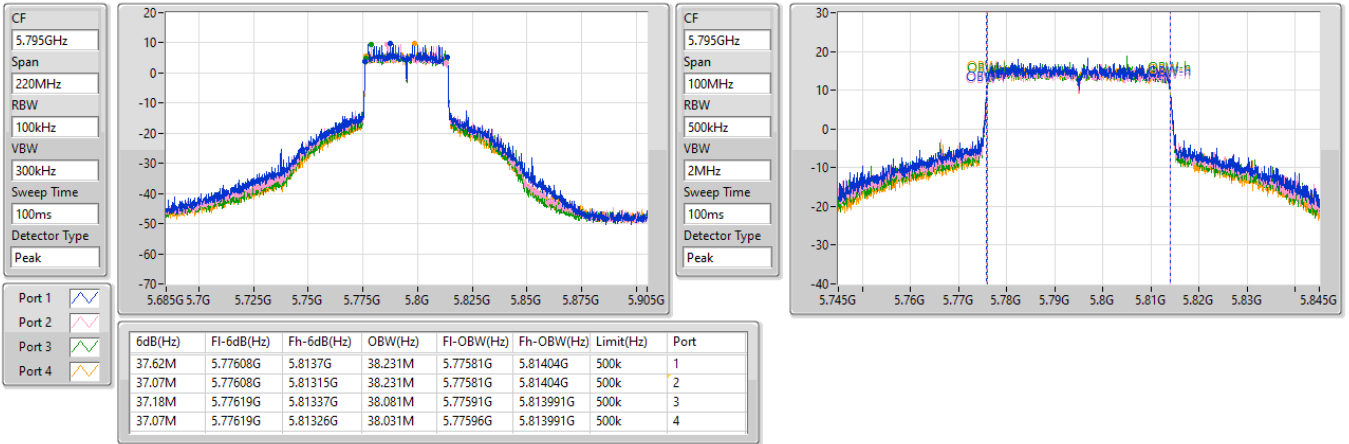


5.725-5.85GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5795MHz

22/02/2023

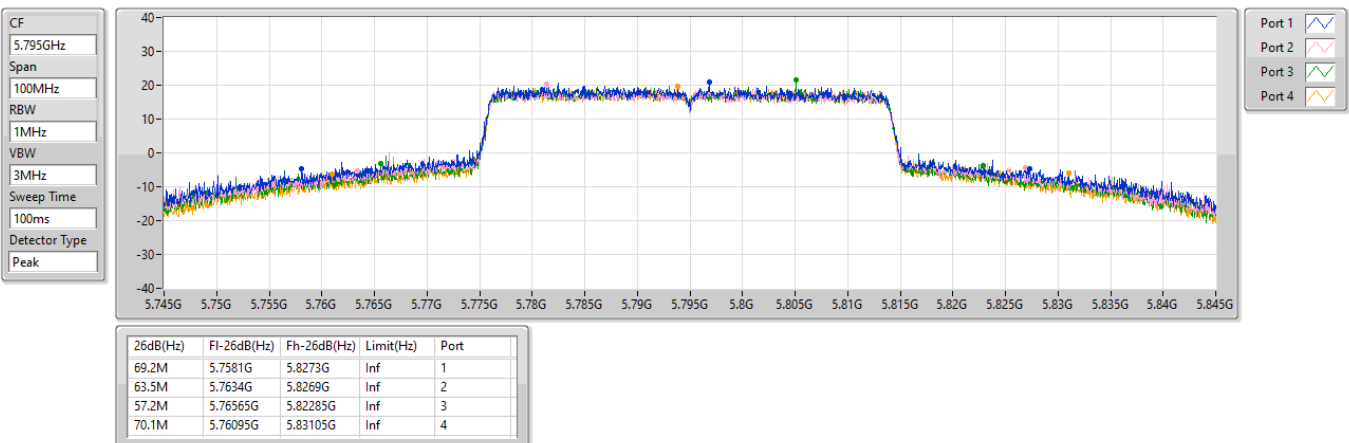


5.725-5.85GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

5795MHz

22/02/2023

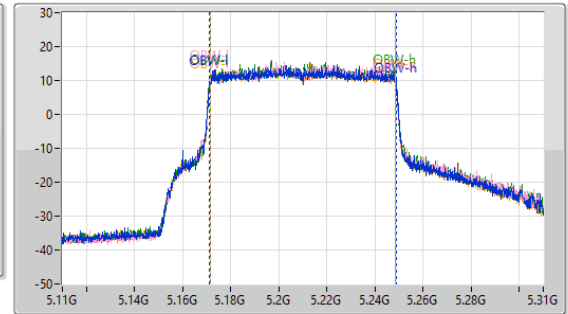
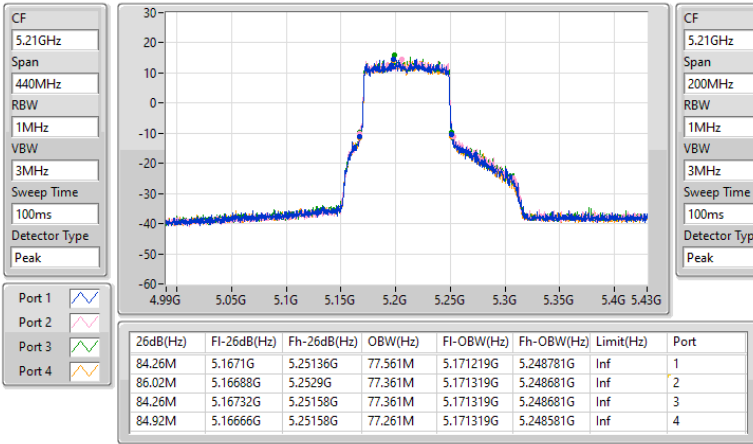


5.15-5.25GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

5210MHz

22/02/2023

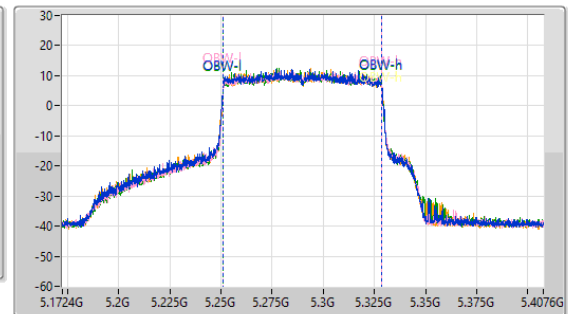
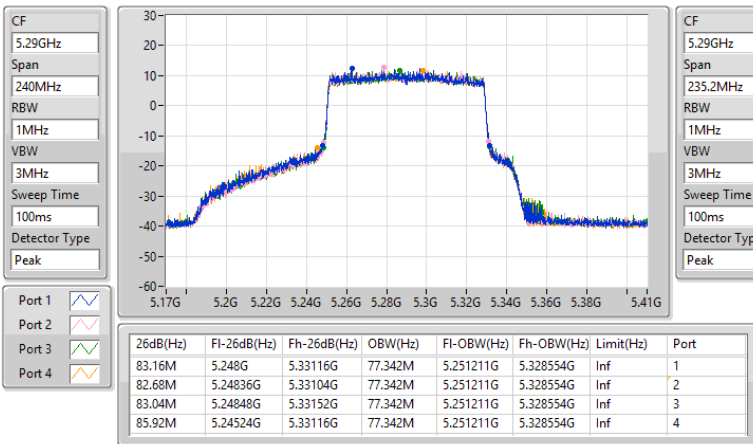


5.25-5.35GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

5290MHz

18/01/2023

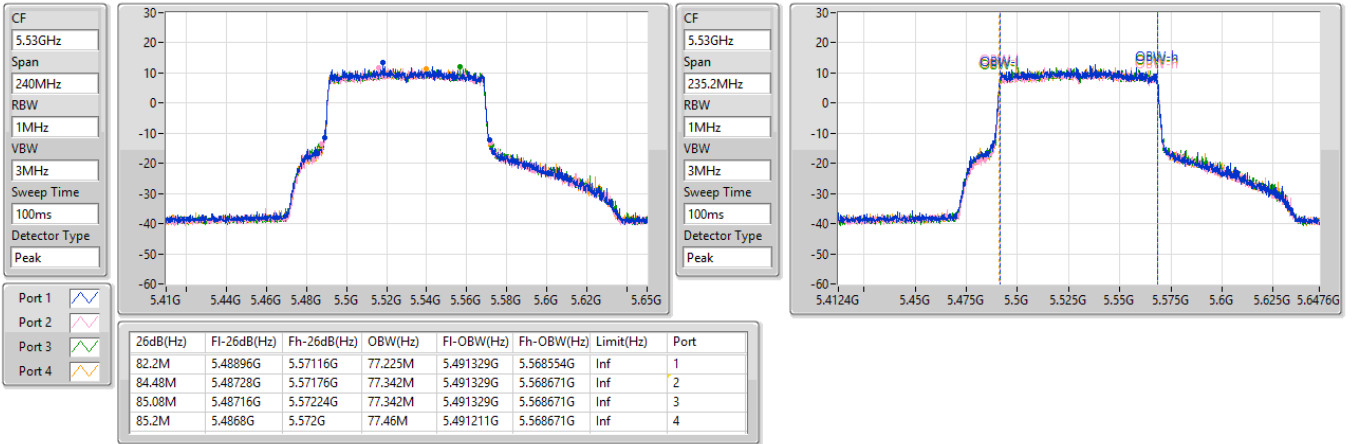


5.47-5.725GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

5530MHz

18/01/2023

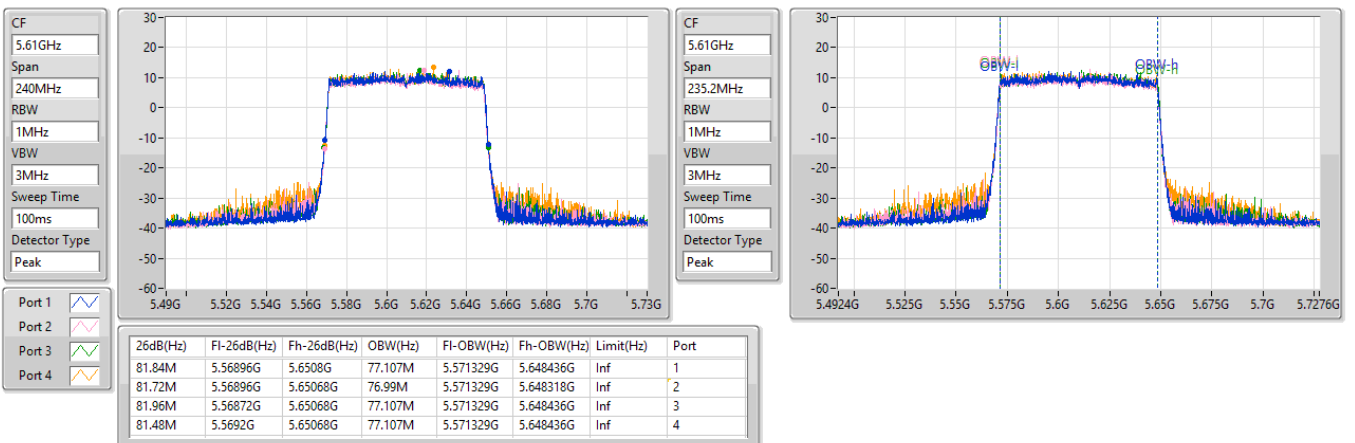


5.47-5.725GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

5610MHz

18/01/2023

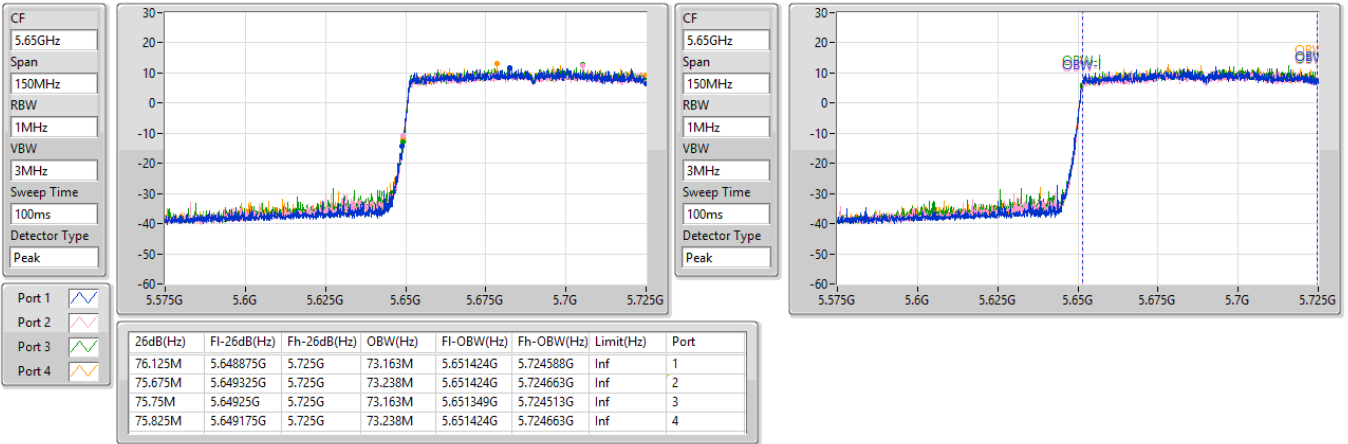


5.47-5.725GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

5690MHz Straddle 5.47-5.725GHz

18/01/2023

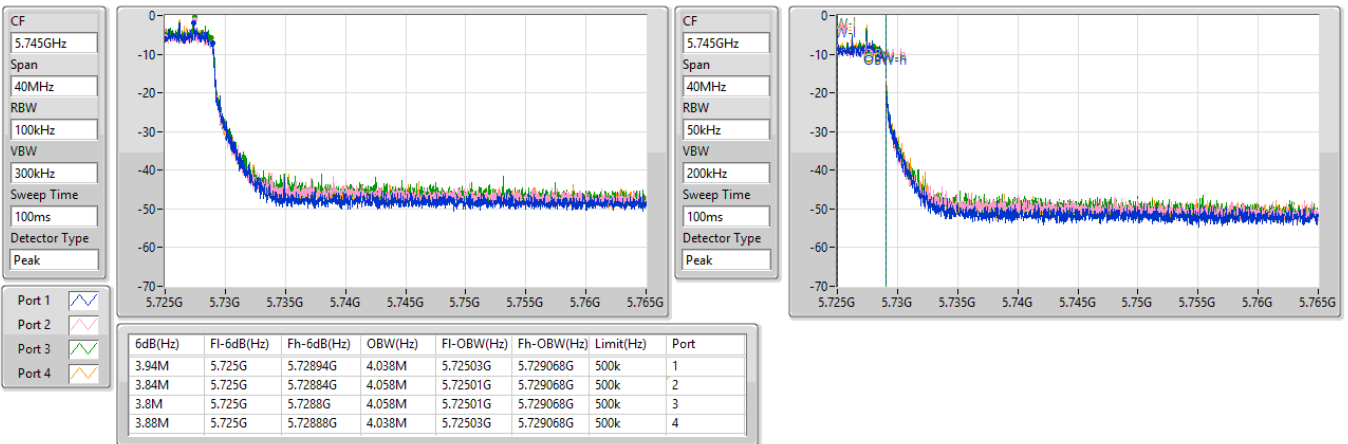


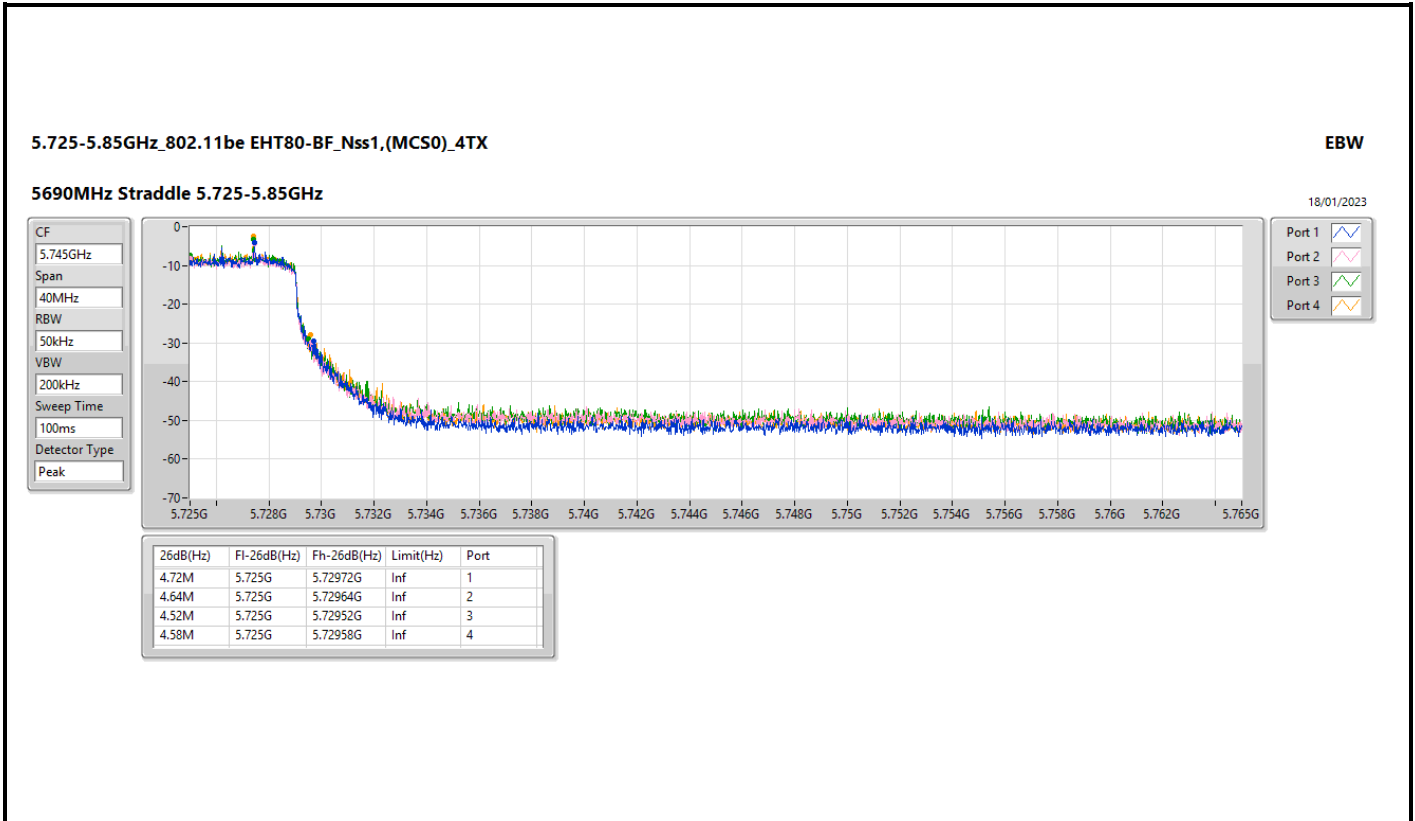
5.725-5.85GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

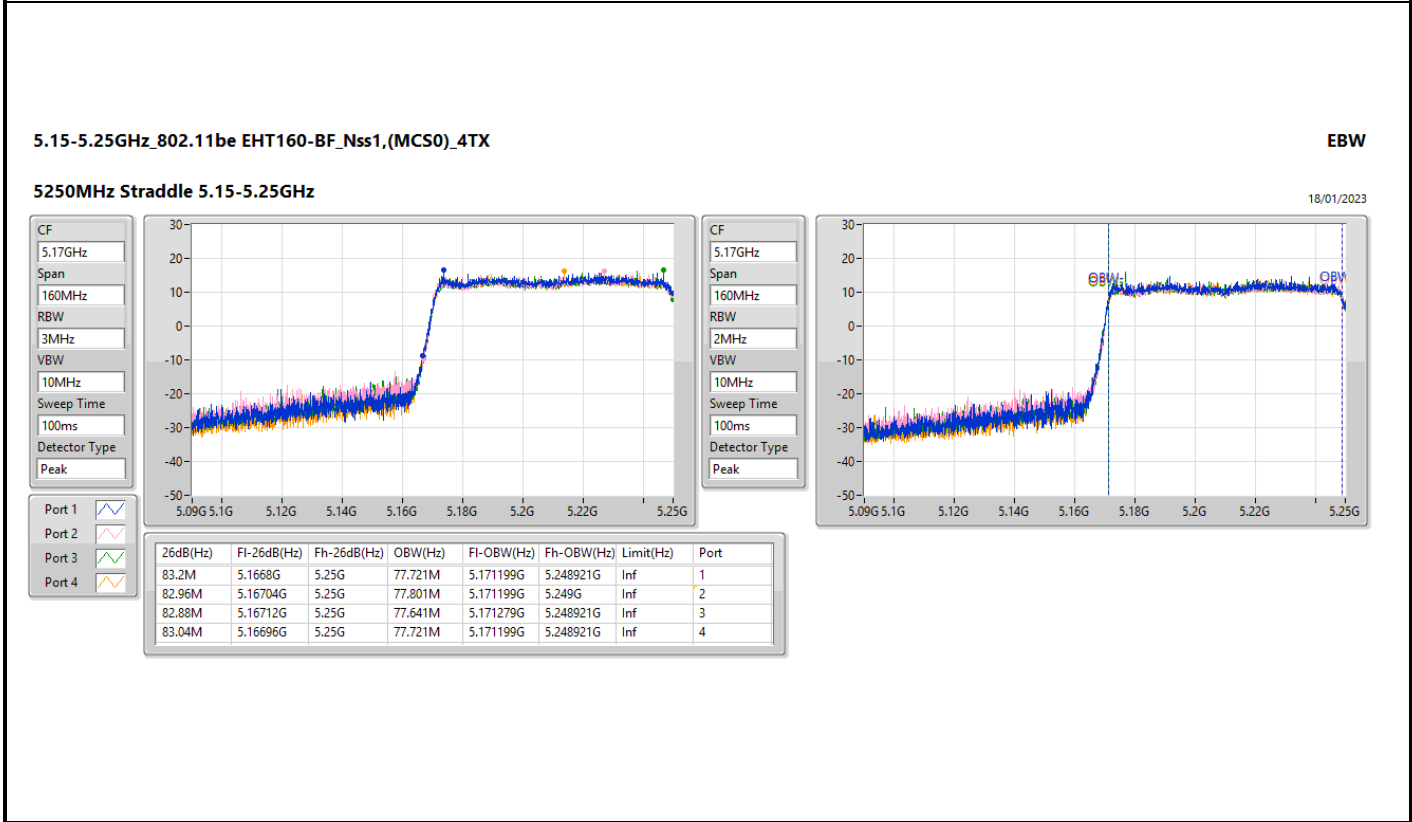
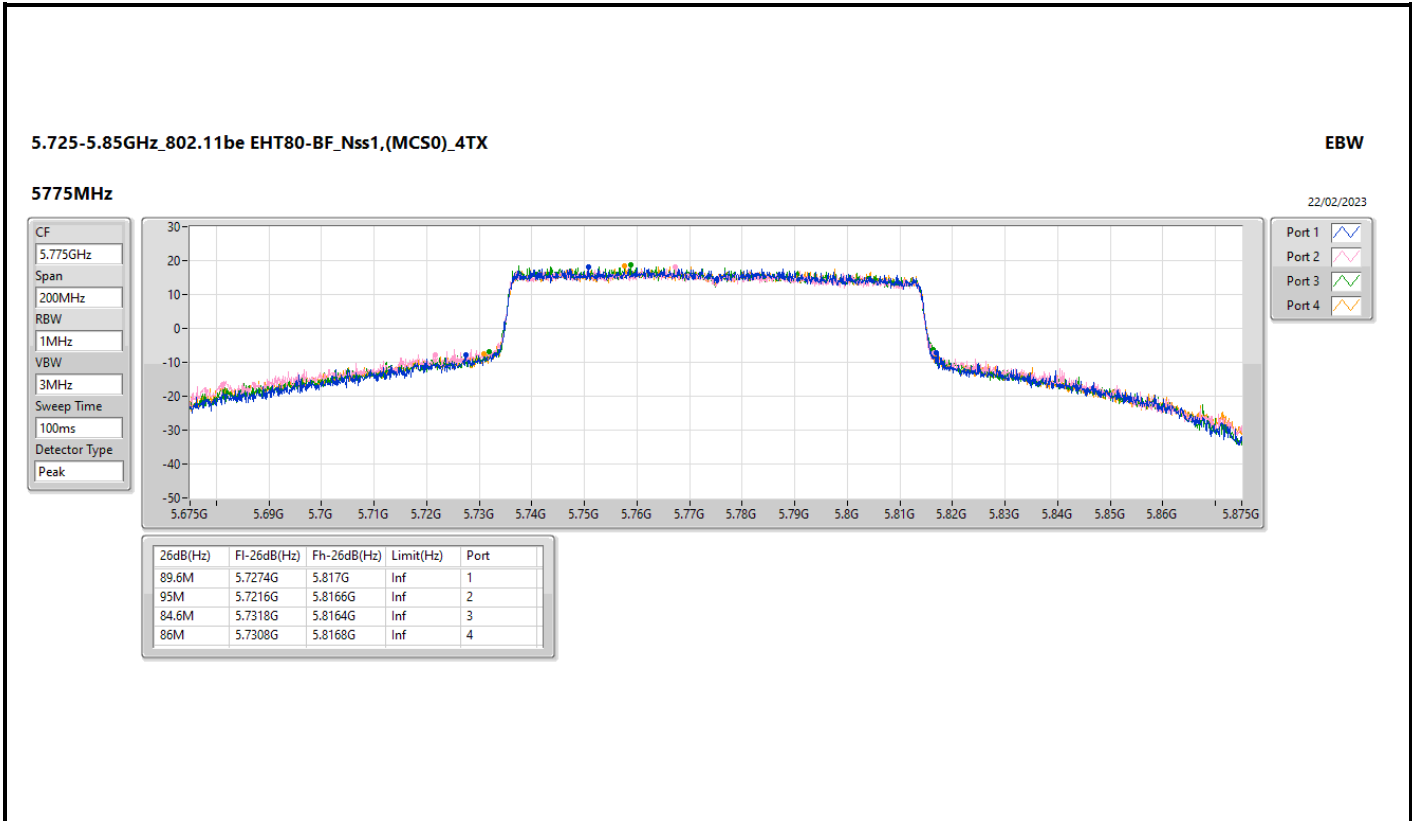
EBW

5690MHz Straddle 5.725-5.85GHz

18/01/2023





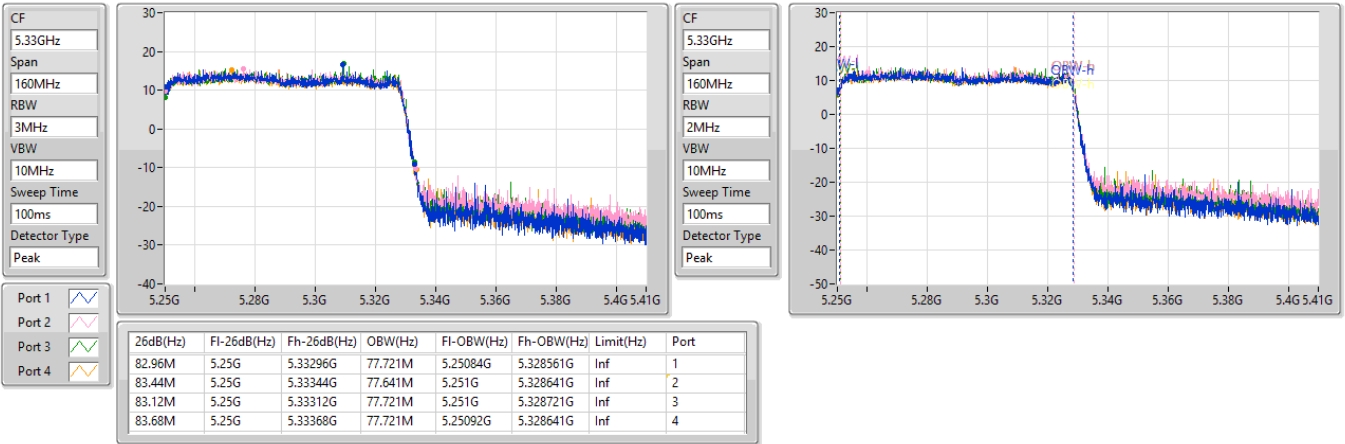


5.25-5.35GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

EBW

5250MHz Straddle 5.25-5.35GHz

18/01/2023

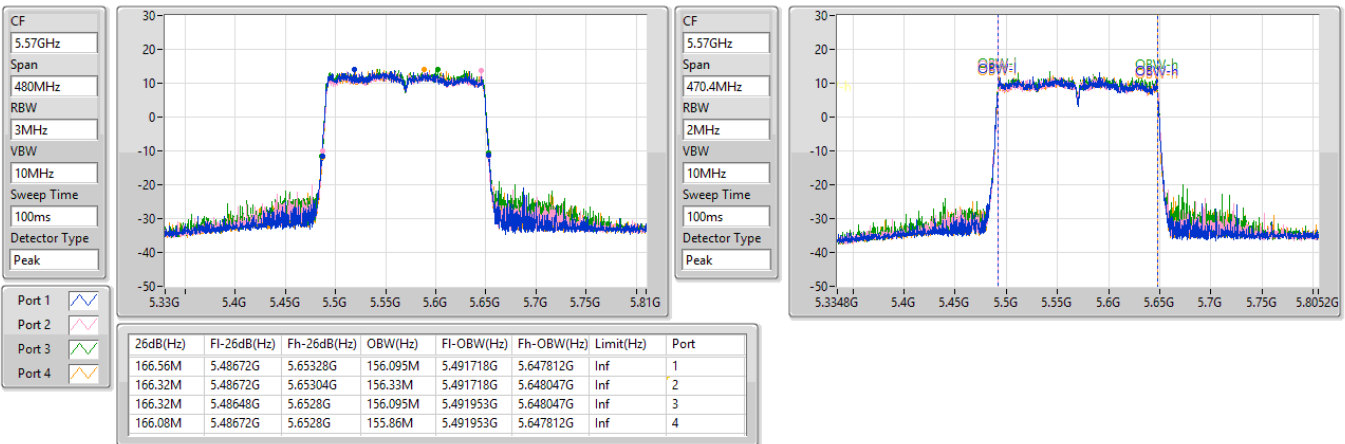


5.47-5.725GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

EBW

5570MHz

18/01/2023





Summary

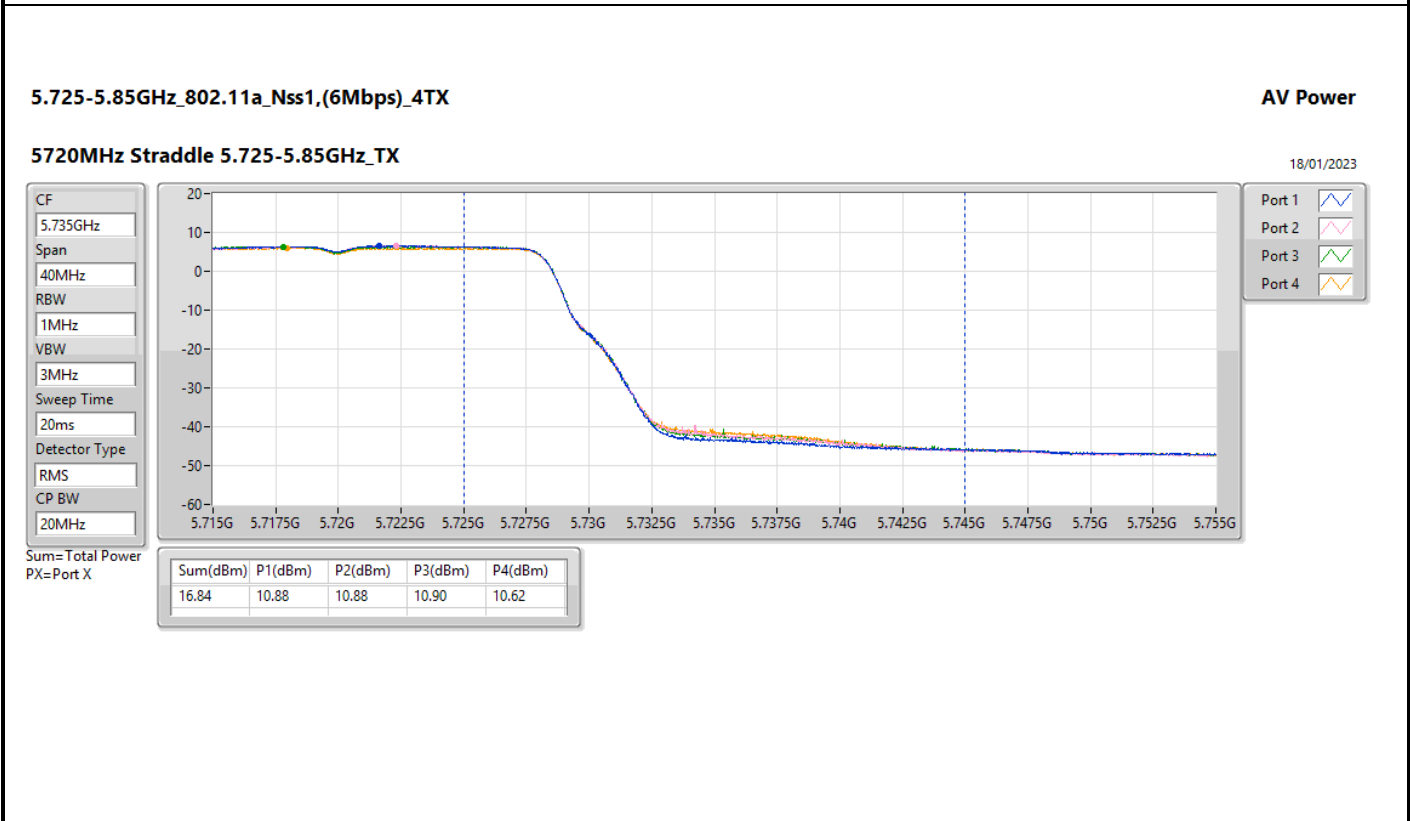
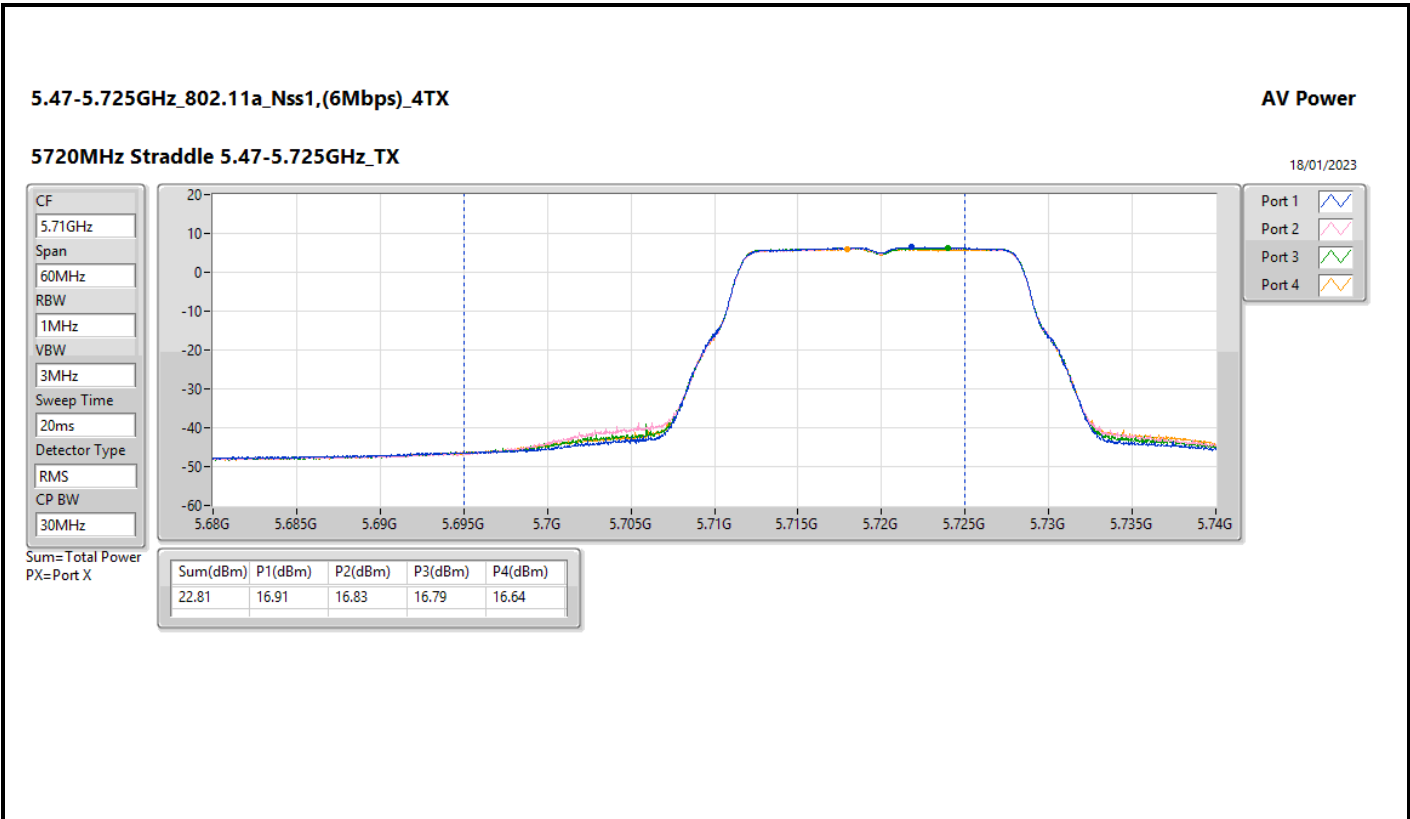
Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	29.88	0.97275
802.11be EHT20-BF_Nss1,(MCS0)_4TX	29.98	0.99541
802.11be EHT40-BF_Nss1,(MCS0)_4TX	29.90	0.97724
802.11be EHT80-BF_Nss1,(MCS0)_4TX	25.27	0.33651
802.11be EHT160-BF_Nss1,(MCS0)_4TX	21.91	0.15524
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	23.95	0.24831
802.11be EHT20-BF_Nss1,(MCS0)_4TX	23.95	0.24831
802.11be EHT40-BF_Nss1,(MCS0)_4TX	23.83	0.24155
802.11be EHT80-BF_Nss1,(MCS0)_4TX	23.95	0.24831
802.11be EHT160-BF_Nss1,(MCS0)_4TX	21.70	0.14791
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	23.95	0.24831
802.11be EHT20-BF_Nss1,(MCS0)_4TX	23.88	0.24434
802.11be EHT40-BF_Nss1,(MCS0)_4TX	23.93	0.24717
802.11be EHT80-BF_Nss1,(MCS0)_4TX	23.91	0.24604
802.11be EHT160-BF_Nss1,(MCS0)_4TX	23.91	0.24604
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	29.82	0.95940
802.11be EHT20-BF_Nss1,(MCS0)_4TX	29.97	0.99312
802.11be EHT40-BF_Nss1,(MCS0)_4TX	29.95	0.98855
802.11be EHT80-BF_Nss1,(MCS0)_4TX	29.07	0.80724

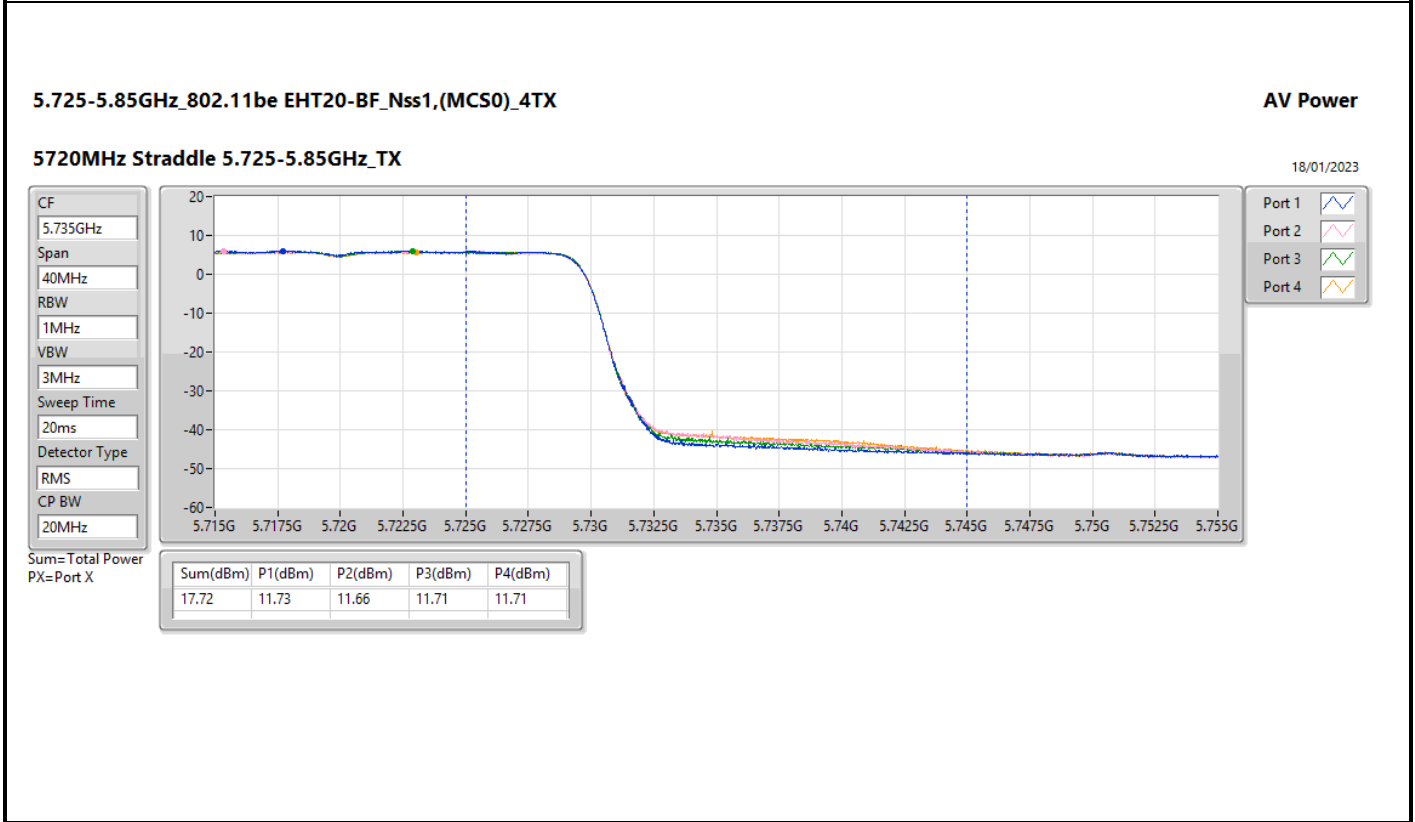
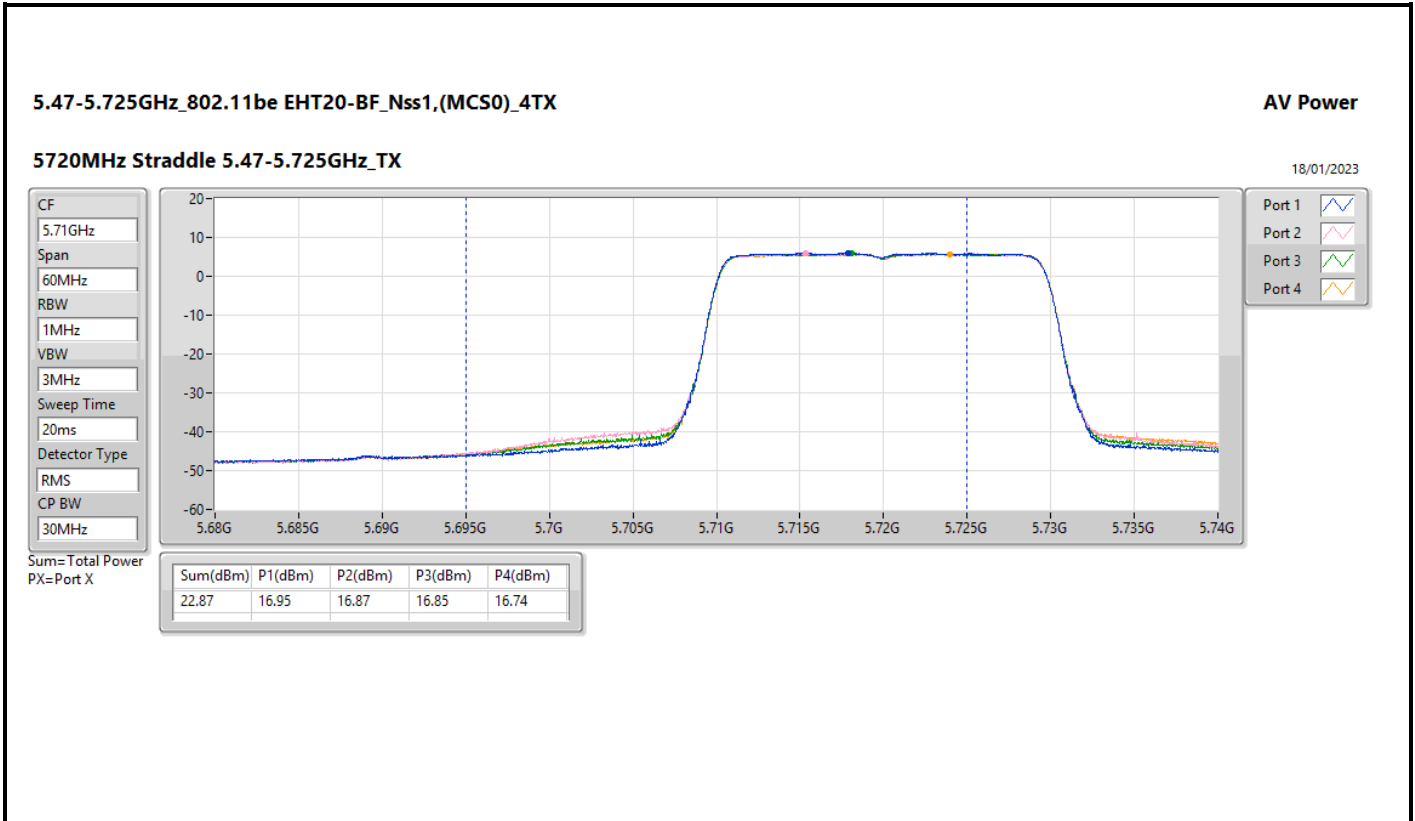


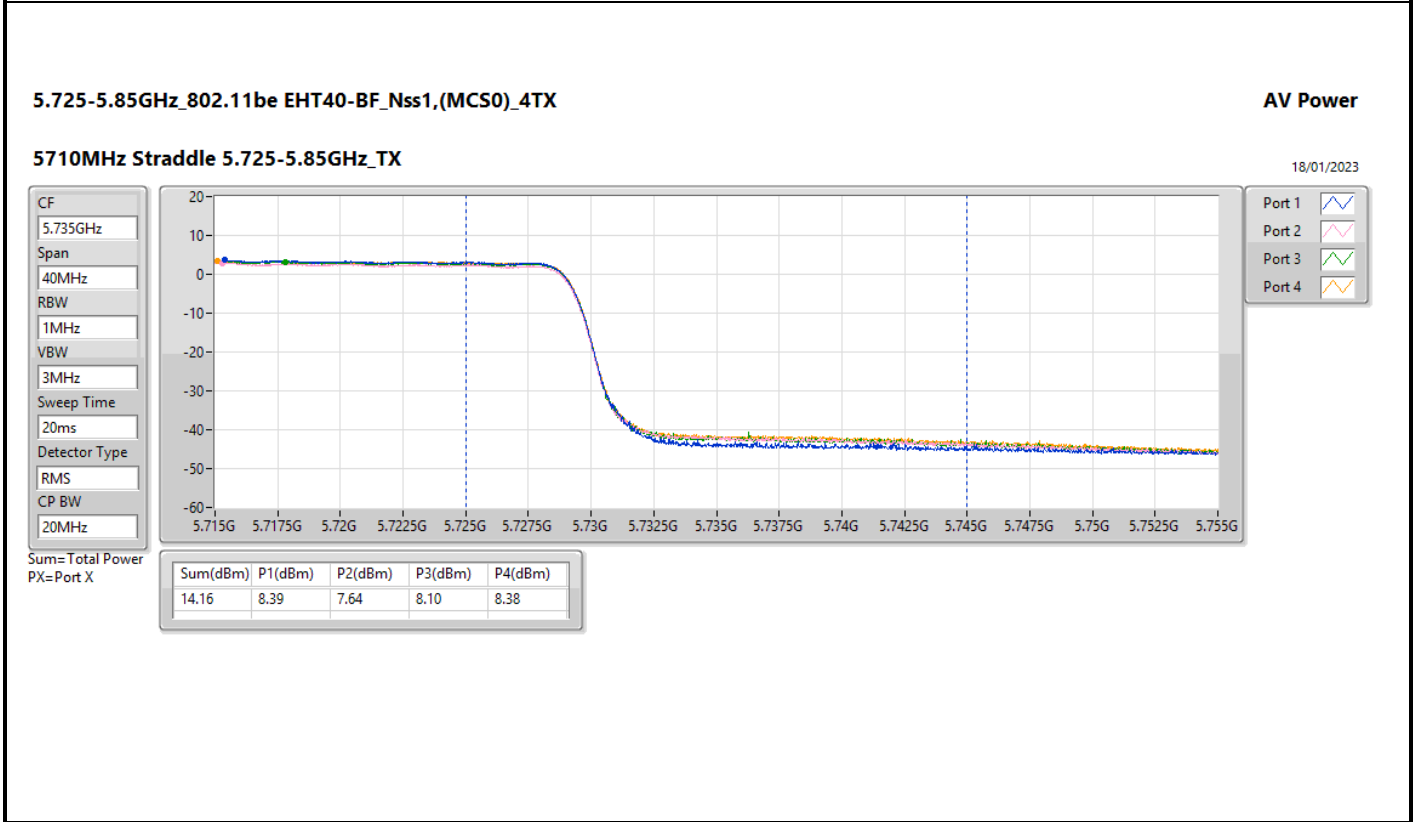
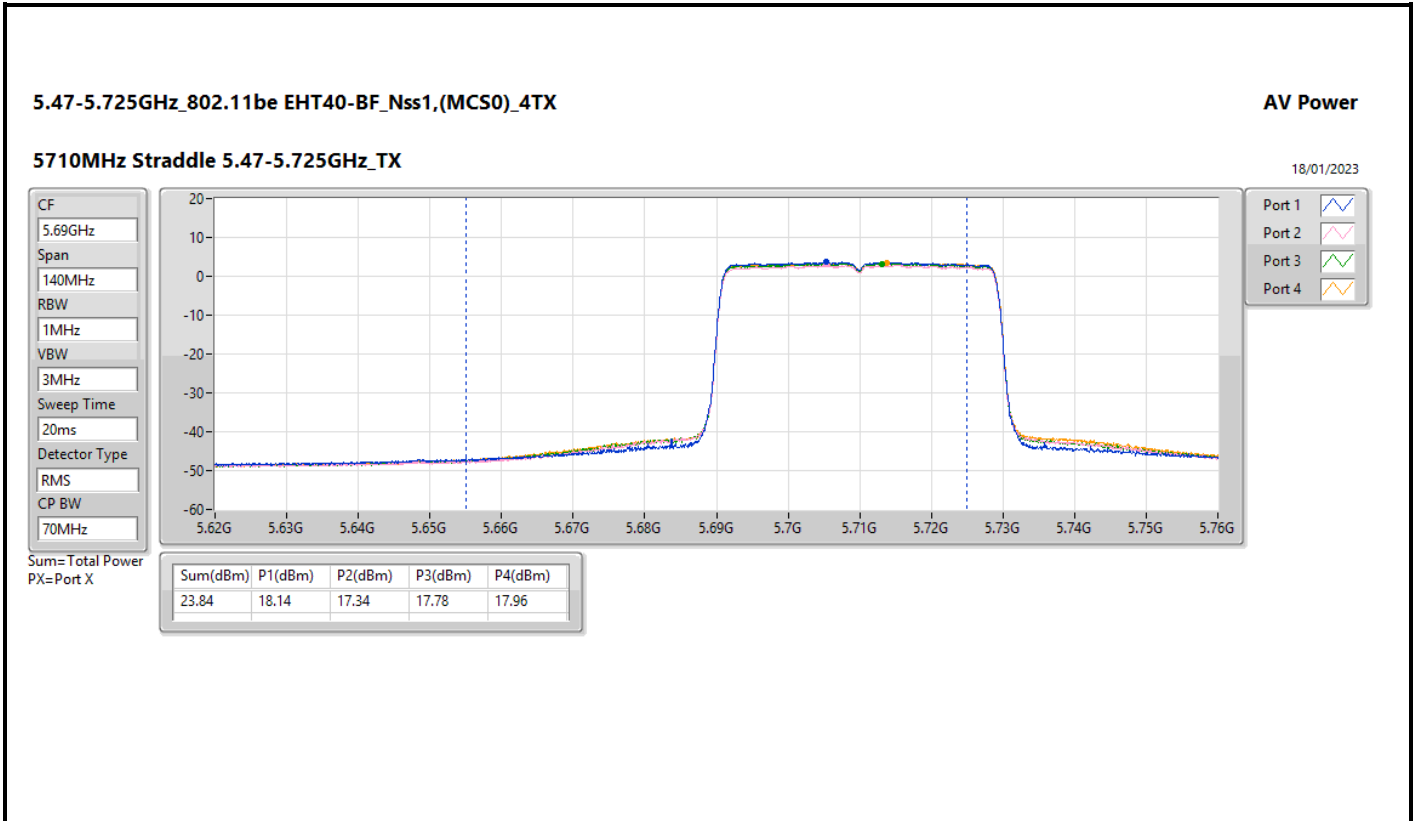
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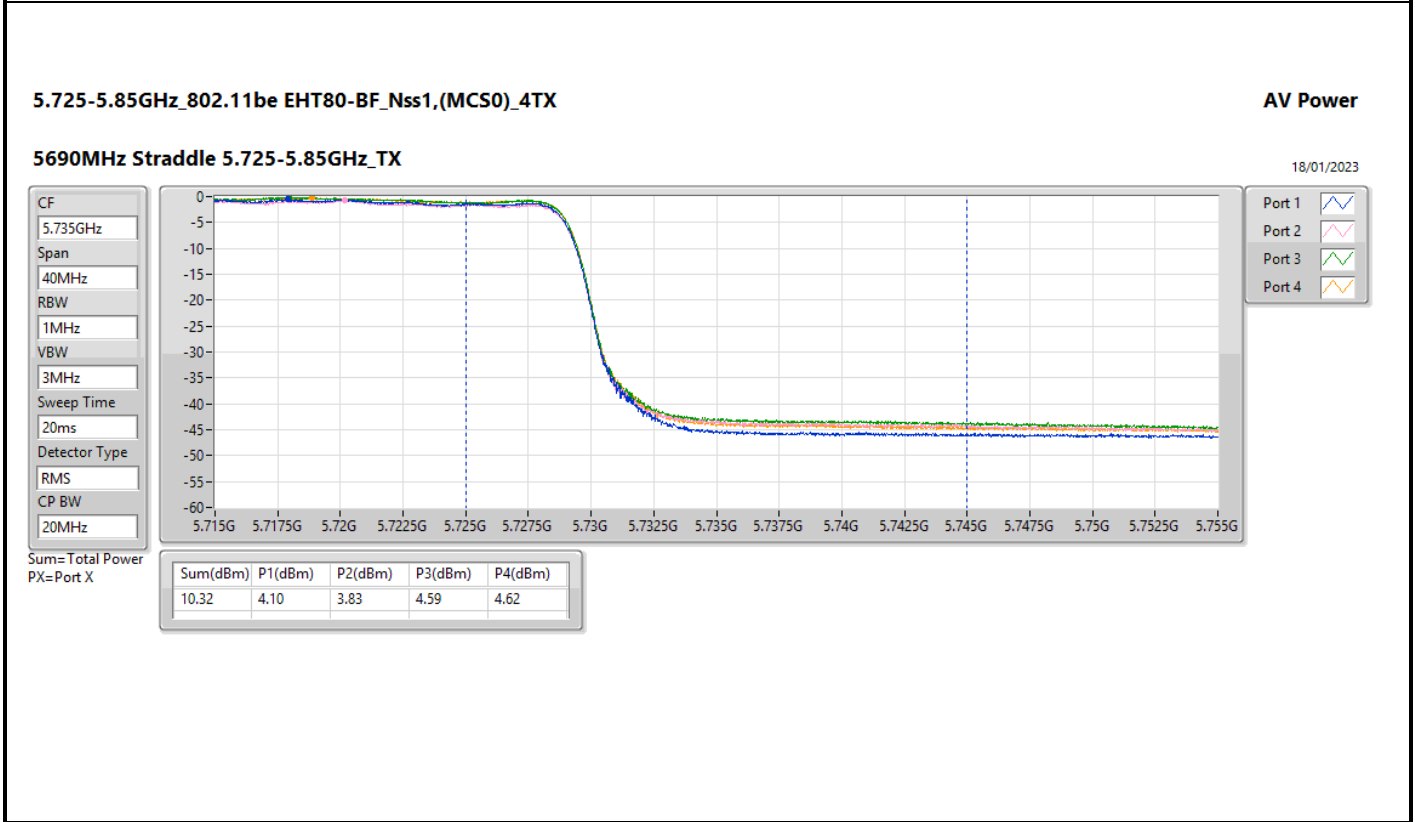
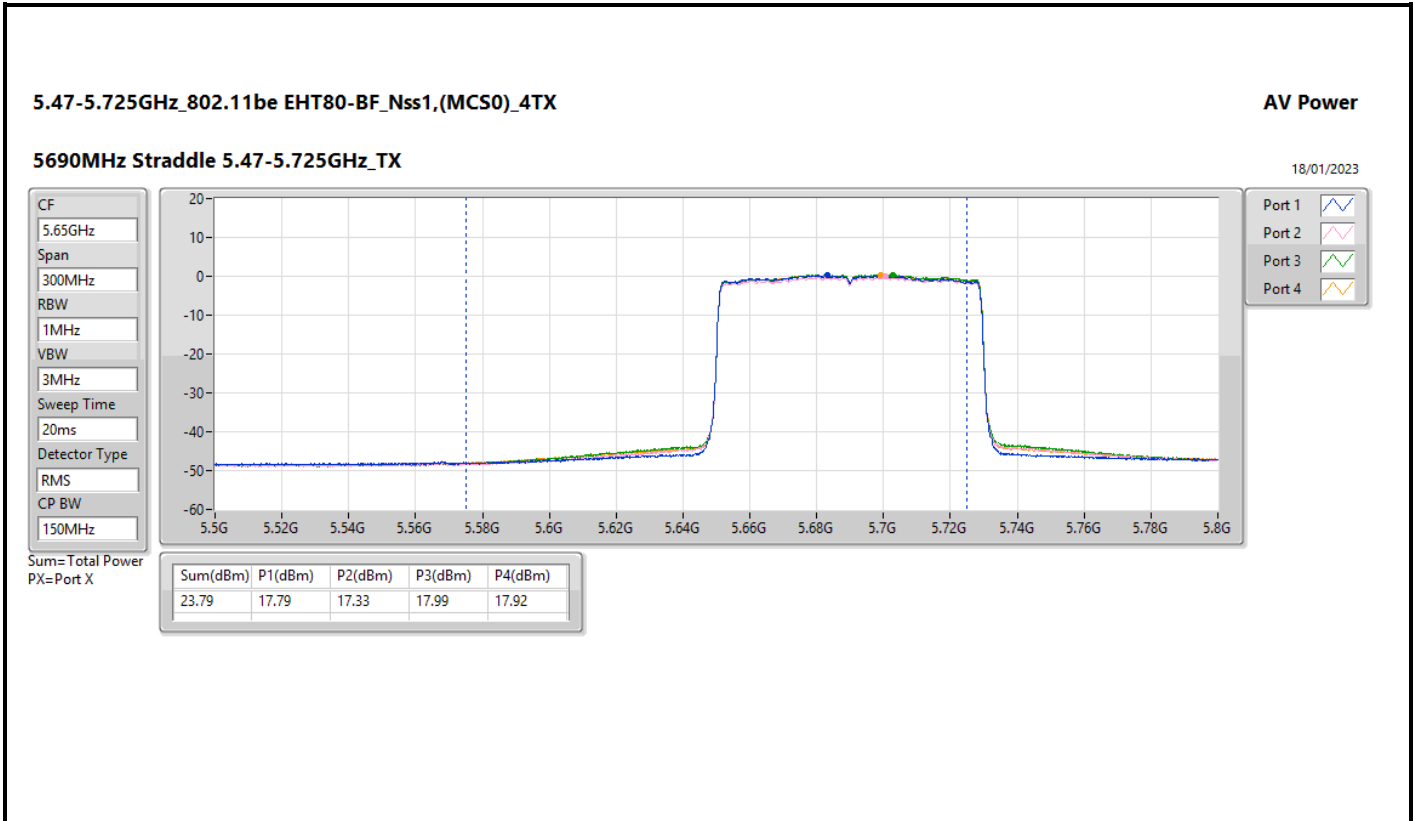
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	2.70	22.25	21.97	22.19	22.05	28.14	30.00
5200MHz	Pass	2.70	23.67	23.85	24.14	23.76	29.88	30.00
5240MHz	Pass	2.70	24.09	23.53	23.91	23.77	29.85	30.00
5260MHz	Pass	3.04	17.85	17.75	18.13	17.97	23.95	23.98
5300MHz	Pass	3.04	17.79	17.73	17.90	18.00	23.88	23.98
5320MHz	Pass	3.04	18.19	17.53	17.76	18.06	23.91	23.98
5500MHz	Pass	3.23	18.00	17.65	17.99	18.08	23.95	23.98
5580MHz	Pass	3.23	18.02	17.75	18.16	17.55	23.90	23.98
5700MHz	Pass	3.23	18.03	17.66	17.74	18.14	23.92	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	3.23	16.91	16.83	16.79	16.64	22.81	22.99
5720MHz Straddle 5.725-5.85GHz	Pass	3.39	10.88	10.88	10.90	10.62	16.84	30.00
5745MHz	Pass	3.39	23.73	22.82	24.29	24.13	29.80	30.00
5785MHz	Pass	3.39	23.87	23.35	23.86	24.05	29.81	30.00
5825MHz	Pass	3.39	23.83	23.18	24.07	24.06	29.82	30.00
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.72	21.14	20.01	20.47	20.86	26.66	30.00
5200MHz	Pass	4.72	24.08	23.37	23.79	23.83	29.80	30.00
5240MHz	Pass	4.72	24.12	23.90	23.88	23.92	29.98	30.00
5260MHz	Pass	5.97	17.69	17.64	17.66	17.93	23.75	23.98
5300MHz	Pass	5.97	17.87	17.70	18.16	17.98	23.95	23.98
5320MHz	Pass	5.97	18.03	17.55	17.87	18.13	23.92	23.98
5500MHz	Pass	5.72	17.96	17.29	17.62	18.35	23.84	23.98
5580MHz	Pass	5.72	17.77	17.72	17.83	18.11	23.88	23.98
5700MHz	Pass	5.72	16.11	15.45	15.72	15.91	21.82	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.72	16.95	16.87	16.85	16.74	22.87	23.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.64	11.73	11.66	11.71	11.71	17.72	30.00
5745MHz	Pass	5.64	23.86	23.12	24.50	24.19	29.97	30.00
5785MHz	Pass	5.64	24.14	23.39	23.89	24.16	29.93	30.00
5825MHz	Pass	5.64	23.76	23.29	23.99	24.12	29.82	30.00
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	4.72	18.28	17.99	18.12	18.03	24.13	30.00
5230MHz	Pass	4.72	24.26	23.51	23.88	23.82	29.90	30.00
5270MHz	Pass	5.97	18.13	17.39	17.72	17.96	23.83	23.98
5310MHz	Pass	5.97	18.03	17.69	17.56	17.78	23.79	23.98
5510MHz	Pass	5.72	18.35	17.32	17.95	17.96	23.93	23.98
5550MHz	Pass	5.72	17.99	17.15	17.71	18.36	23.85	23.98
5670MHz	Pass	5.72	17.66	16.94	17.52	17.80	23.51	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.72	18.14	17.34	17.78	17.96	23.84	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	5.64	8.39	7.64	8.10	8.38	14.16	30.00
5755MHz	Pass	5.64	24.28	23.41	24.24	23.74	29.95	30.00
5795MHz	Pass	5.64	24.24	23.72	23.72	23.68	29.87	30.00
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	4.72	19.33	19.32	19.27	19.08	25.27	30.00
5290MHz	Pass	5.97	18.07	17.70	18.07	17.87	23.95	23.98
5530MHz	Pass	5.72	18.09	17.61	17.84	18.00	23.91	23.98
5610MHz	Pass	5.72	18.03	17.39	17.78	18.24	23.89	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.72	17.79	17.33	17.99	17.92	23.79	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	5.64	4.10	3.83	4.59	4.62	10.32	30.00
5775MHz	Pass	5.64	23.20	22.64	23.18	23.16	29.07	30.00
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	4.72	15.73	15.66	16.23	15.93	21.91	30.00
5250MHz Straddle 5.25-5.35GHz	Pass	5.97	15.40	15.78	16.26	15.20	21.70	23.98
5570MHz	Pass	5.72	17.74	17.67	18.04	18.08	23.91	23.98

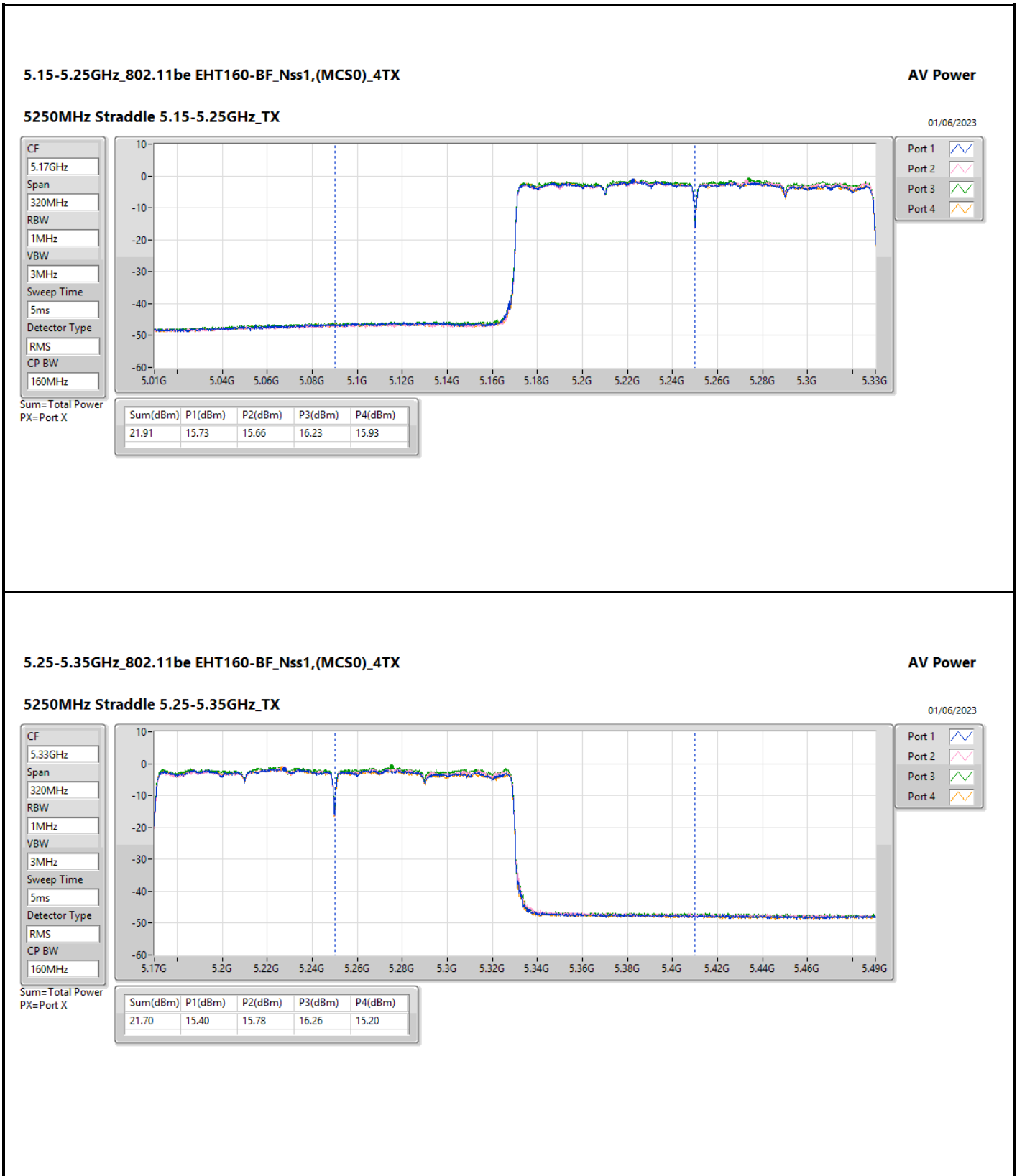
DG = Directional Gain; Port X = Port X output power











5.25-5.35GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

5250MHz Straddle 5.25-5.35GHz_TX

AV Power

01/06/2023

CF

5.33GHz

Span

320MHz

RBW

1MHz

VBW

3MHz

Sweep Time

5ms

Detector Type

RMS

CP BW

160MHz



Port 1

Port 2

Port 3

Port 4

Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
21.70	15.40	15.78	16.26	15.20

Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_4TX	16.82
802.11be EHT20-BF_Nss1,(MCS0)_4TX	16.62
802.11be EHT40-BF_Nss1,(MCS0)_4TX	13.72
802.11be EHT80-BF_Nss1,(MCS0)_4TX	6.30
802.11be EHT160-BF_Nss1,(MCS0)_4TX	2.78
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_4TX	10.87
802.11be EHT20-BF_Nss1,(MCS0)_4TX	10.70
802.11be EHT40-BF_Nss1,(MCS0)_4TX	7.68
802.11be EHT80-BF_Nss1,(MCS0)_4TX	5.09
802.11be EHT160-BF_Nss1,(MCS0)_4TX	2.77
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_4TX	10.96
802.11be EHT20-BF_Nss1,(MCS0)_4TX	10.78
802.11be EHT40-BF_Nss1,(MCS0)_4TX	7.86
802.11be EHT80-BF_Nss1,(MCS0)_4TX	5.15
802.11be EHT160-BF_Nss1,(MCS0)_4TX	2.20
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	15.17
802.11be EHT20-BF_Nss1,(MCS0)_4TX	15.13
802.11be EHT40-BF_Nss1,(MCS0)_4TX	12.17
802.11be EHT80-BF_Nss1,(MCS0)_4TX	8.69

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

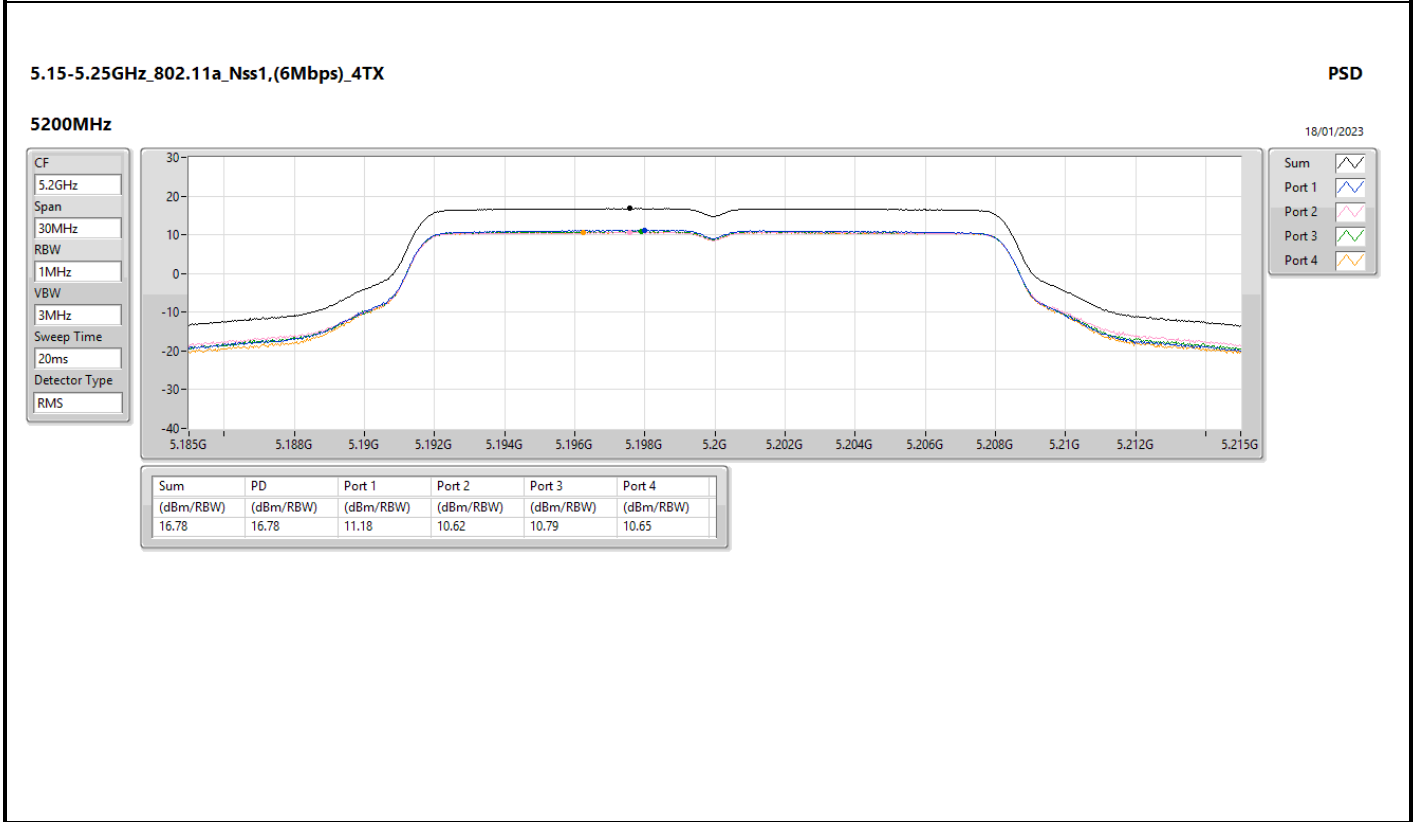
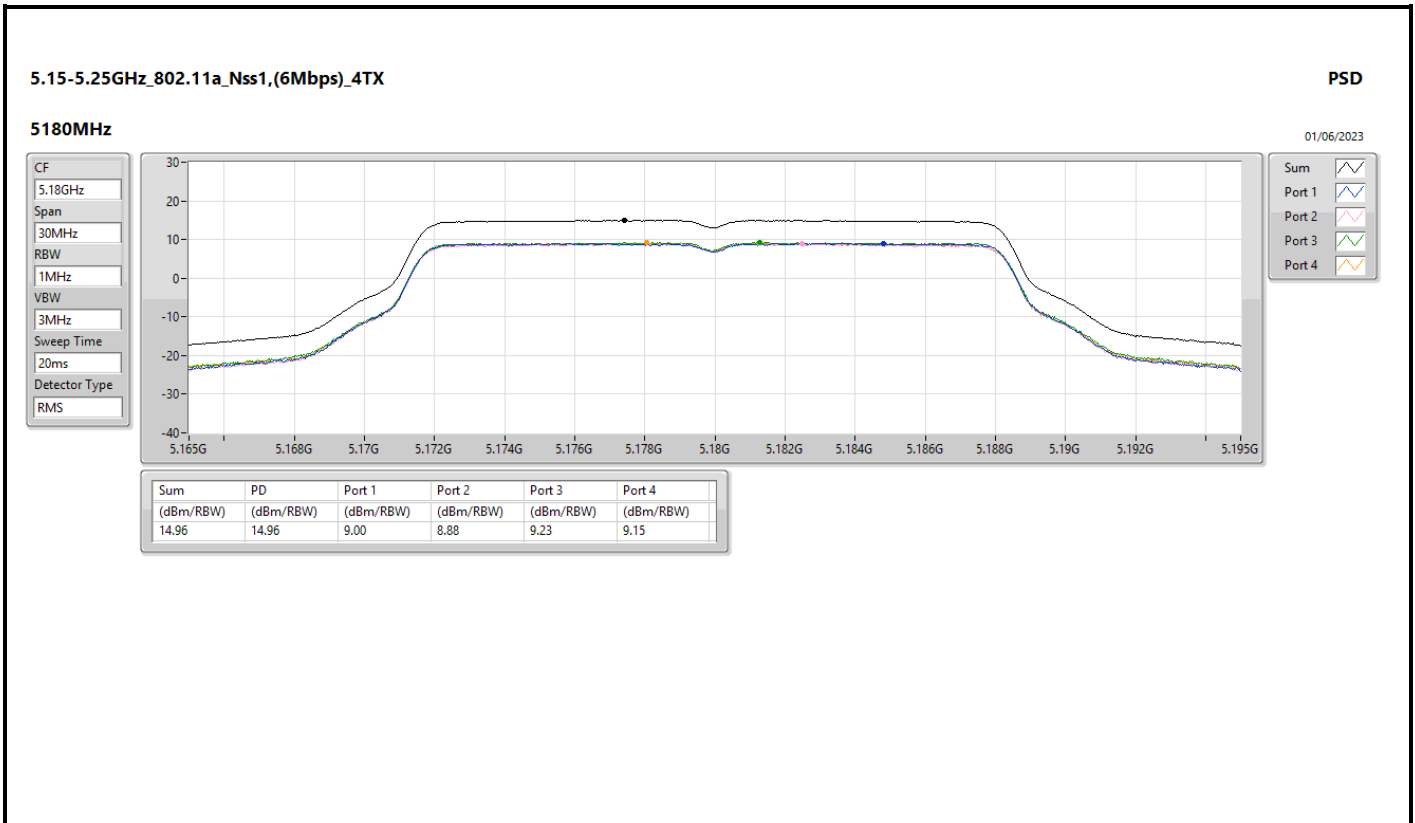
Result

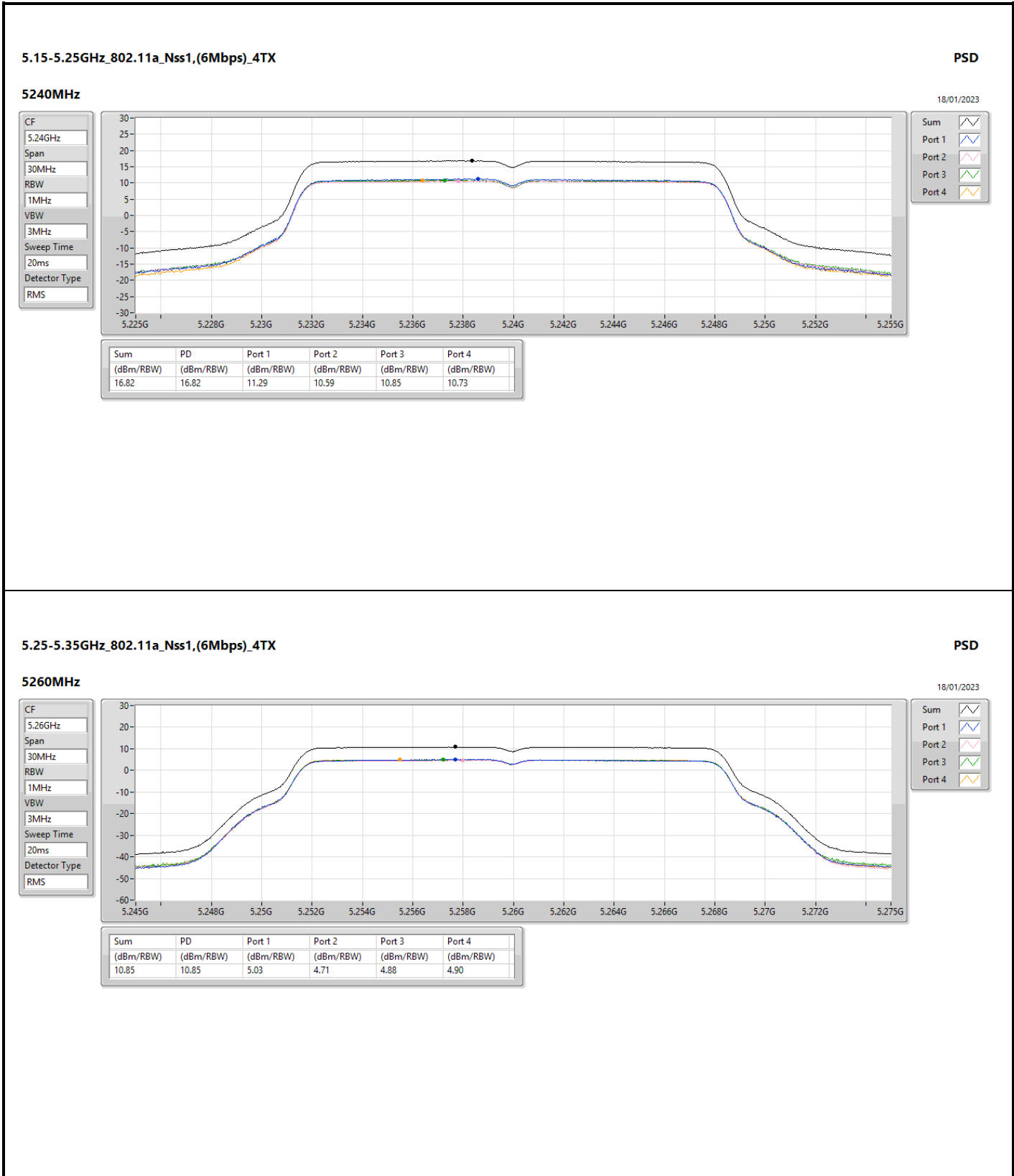
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.72	9.00	8.88	9.23	9.15	14.96	17.00
5200MHz	Pass	4.72	11.18	10.62	10.79	10.65	16.78	17.00
5240MHz	Pass	4.72	11.29	10.59	10.85	10.73	16.82	17.00
5260MHz	Pass	5.97	5.03	4.71	4.88	4.90	10.85	11.00
5300MHz	Pass	5.97	4.99	4.64	5.04	5.05	10.87	11.00
5320MHz	Pass	5.97	4.96	4.47	4.70	4.79	10.66	11.00
5500MHz	Pass	5.72	5.13	4.62	4.93	4.90	10.82	11.00
5580MHz	Pass	5.72	5.12	4.87	5.07	5.08	10.96	11.00
5700MHz	Pass	5.72	5.33	5.07	4.75	4.65	10.88	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.72	4.94	4.91	4.66	4.56	10.72	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.64	3.34	3.32	3.26	2.92	9.17	30.00
5745MHz	Pass	5.64	8.95	8.62	9.73	9.69	15.09	30.00
5785MHz	Pass	5.64	9.25	8.99	9.43	9.59	15.13	30.00
5825MHz	Pass	5.64	9.17	8.82	9.65	9.59	15.17	30.00
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.72	7.46	7.36	7.77	7.50	13.40	17.00
5200MHz	Pass	4.72	11.09	10.47	10.59	10.58	16.61	17.00
5240MHz	Pass	4.72	11.06	10.54	10.67	10.69	16.62	17.00
5260MHz	Pass	5.97	4.63	4.26	4.40	4.47	10.35	11.00
5300MHz	Pass	5.97	4.78	4.48	4.79	5.05	10.70	11.00
5320MHz	Pass	5.97	4.80	4.44	4.58	4.79	10.57	11.00
5500MHz	Pass	5.72	4.76	4.26	4.60	4.55	10.42	11.00
5580MHz	Pass	5.72	5.02	4.73	4.89	4.98	10.78	11.00
5700MHz	Pass	5.72	3.08	2.57	2.75	2.59	8.66	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.72	4.48	4.46	4.46	4.19	10.34	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.64	2.88	2.88	2.78	2.59	8.71	30.00
5745MHz	Pass	5.64	9.07	8.36	9.83	9.51	15.13	30.00
5785MHz	Pass	5.64	9.27	8.67	9.25	9.31	15.01	30.00
5825MHz	Pass	5.64	8.87	8.54	9.42	9.59	15.00	30.00
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	4.72	1.79	1.91	1.97	1.82	7.73	17.00
5230MHz	Pass	4.72	8.17	7.55	7.74	7.68	13.72	17.00
5270MHz	Pass	5.97	1.90	1.58	1.76	1.92	7.68	11.00
5310MHz	Pass	5.97	1.98	1.41	1.50	1.64	7.55	11.00
5510MHz	Pass	5.72	2.40	1.58	1.86	1.74	7.86	11.00
5550MHz	Pass	5.72	2.12	1.58	1.58	1.80	7.68	11.00
5670MHz	Pass	5.72	1.51	1.09	1.29	1.45	7.30	11.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.72	2.18	1.50	1.66	1.87	7.74	11.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.64	0.09	-0.47	-0.29	-0.06	5.78	30.00
5755MHz	Pass	5.64	6.44	5.79	6.55	6.20	12.17	30.00
5795MHz	Pass	5.64	6.33	5.95	6.12	6.10	12.02	30.00
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	4.72	0.36	0.57	0.41	0.05	6.30	17.00
5290MHz	Pass	5.97	-0.60	-0.91	-0.83	-0.95	5.09	11.00
5530MHz	Pass	5.72	-0.55	-0.95	-0.99	-1.02	5.05	11.00
5610MHz	Pass	5.72	-0.62	-1.01	-0.83	-0.56	5.15	11.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.72	-1.27	-1.59	-1.17	-1.28	4.61	11.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.64	-4.10	-4.54	-3.70	-3.71	1.98	30.00
5775MHz	Pass	5.64	2.89	2.48	2.97	2.72	8.69	30.00

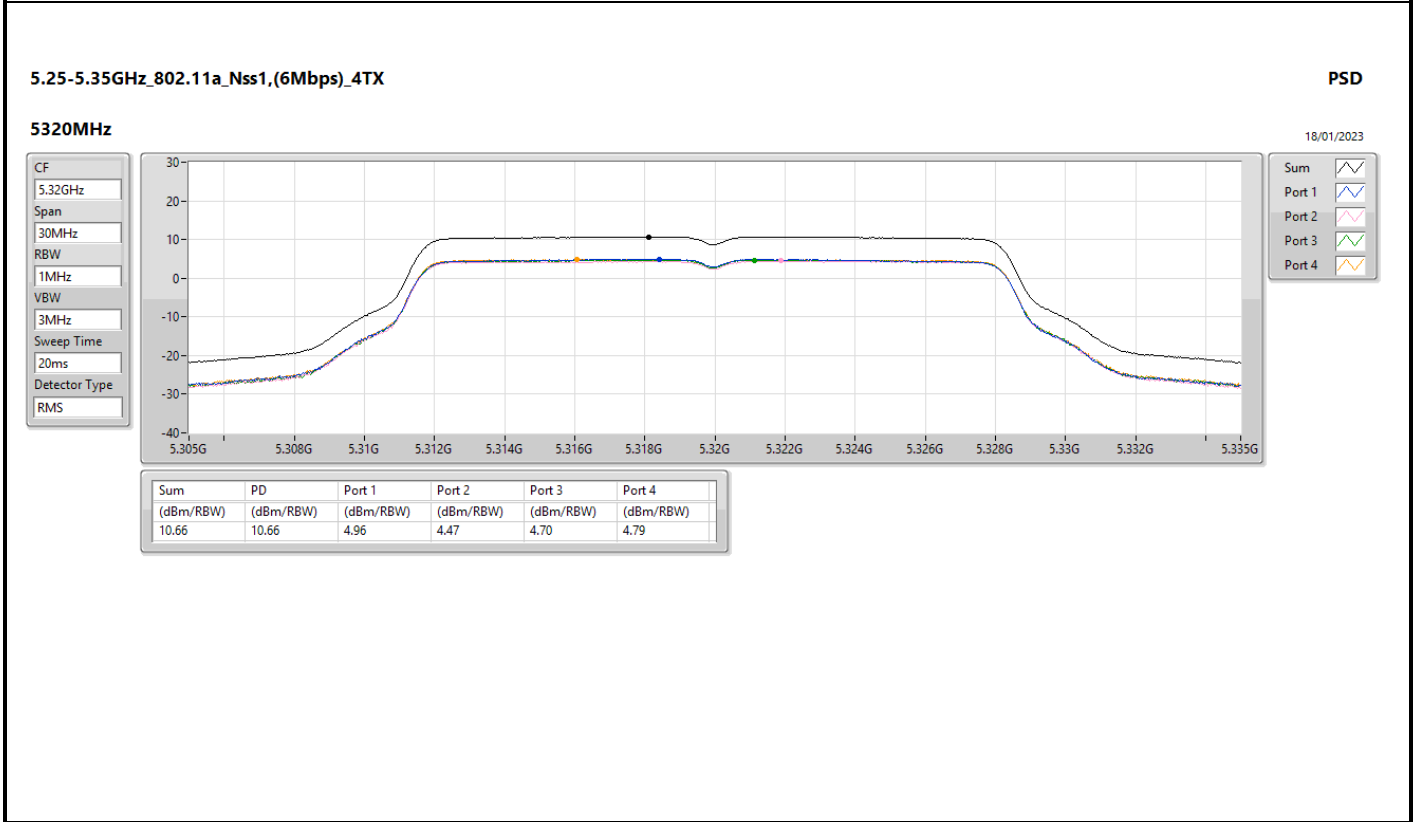
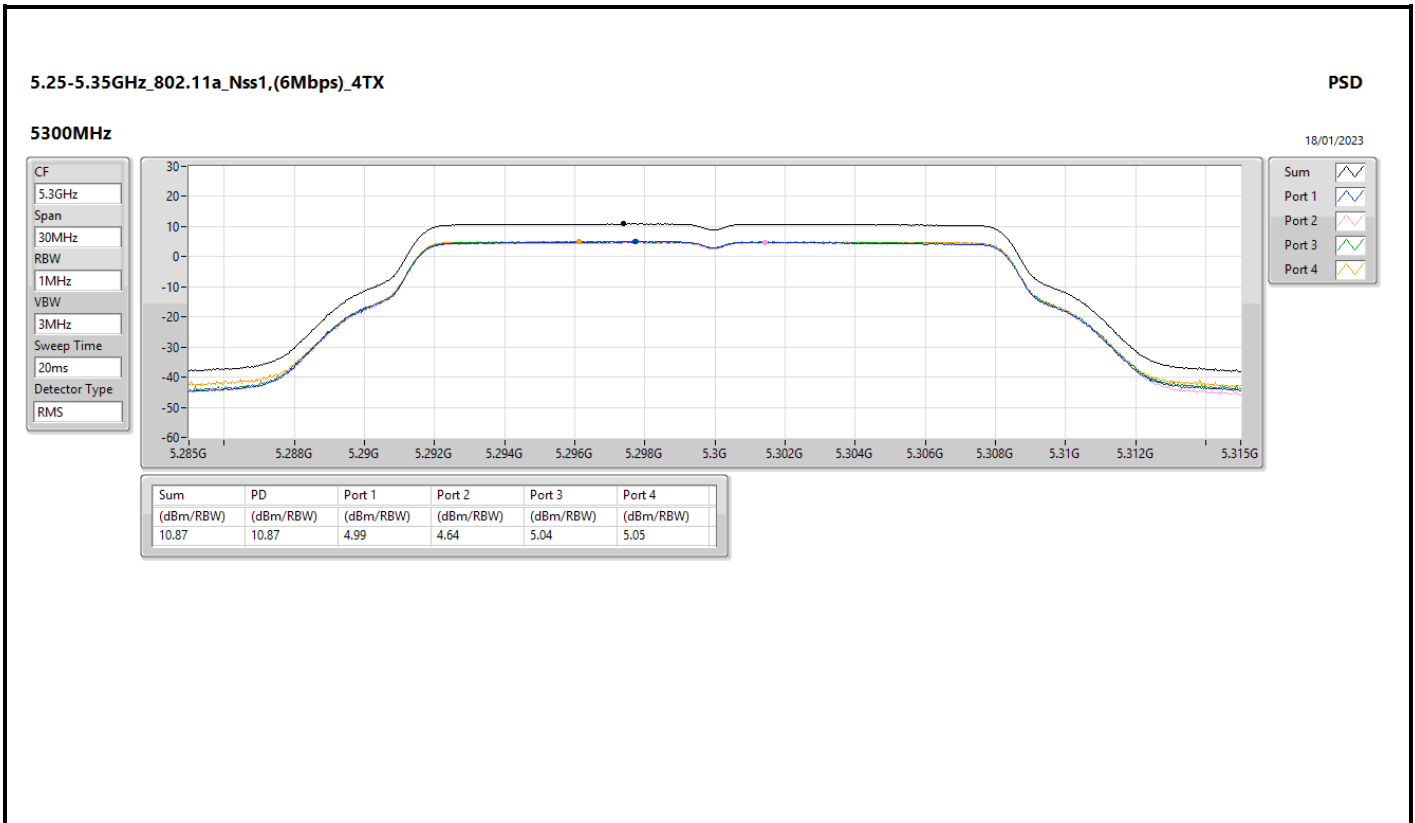


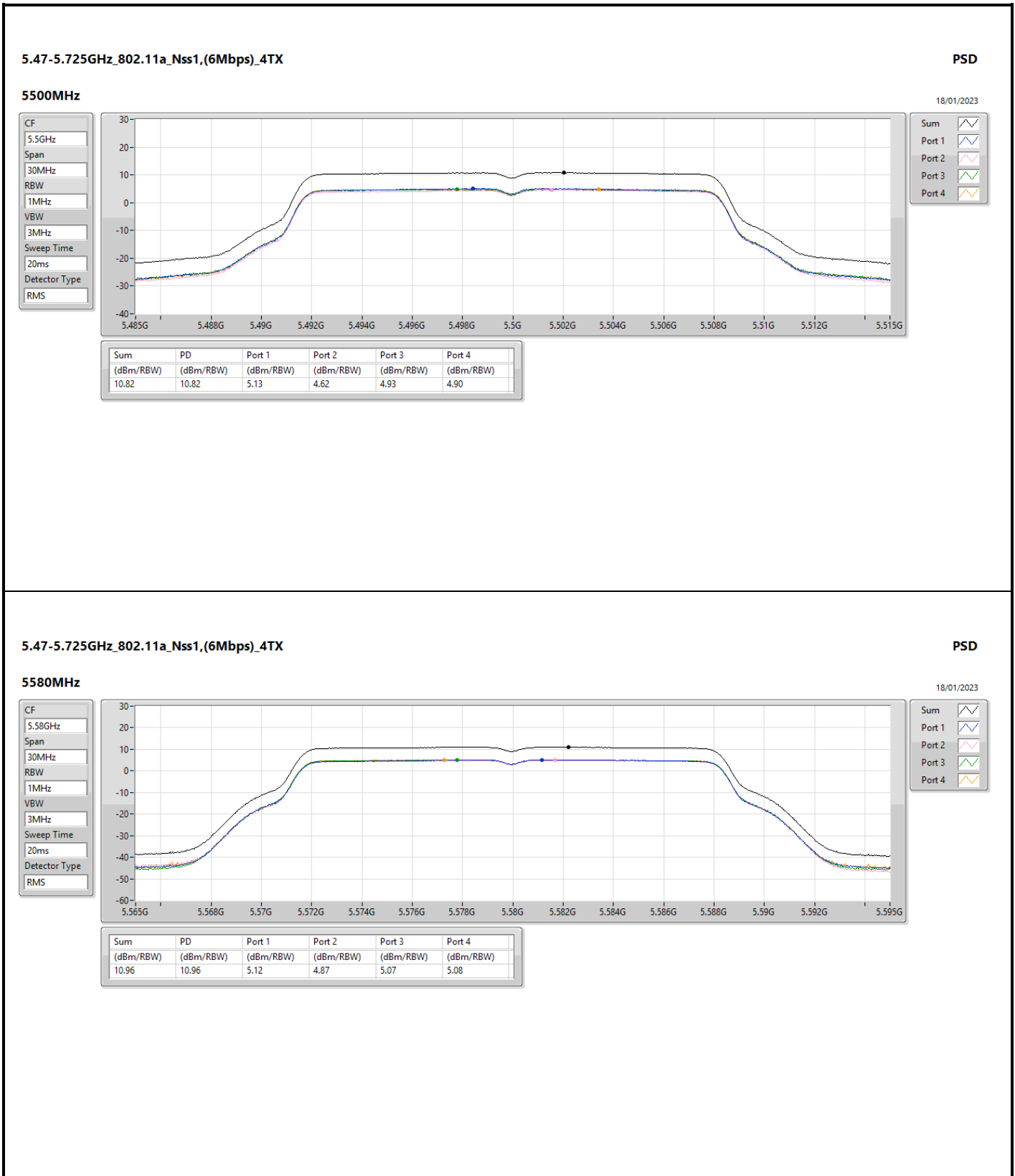
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	4.72	-3.38	-3.21	-2.86	-3.15	2.78	17.00
5250MHz Straddle 5.25-5.35GHz	Pass	5.97	-3.55	-3.14	-2.64	-3.45	2.77	11.00
5570MHz	Pass	5.72	-3.67	-3.86	-3.61	-3.68	2.20	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;









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

PSD

5580MHz

18/01/2023

CF

5.58GHz

Span

30MHz

RBW

1MHz

VBW

3MHz

Sweep Time

20ms

Detector Type

RMS



Sum

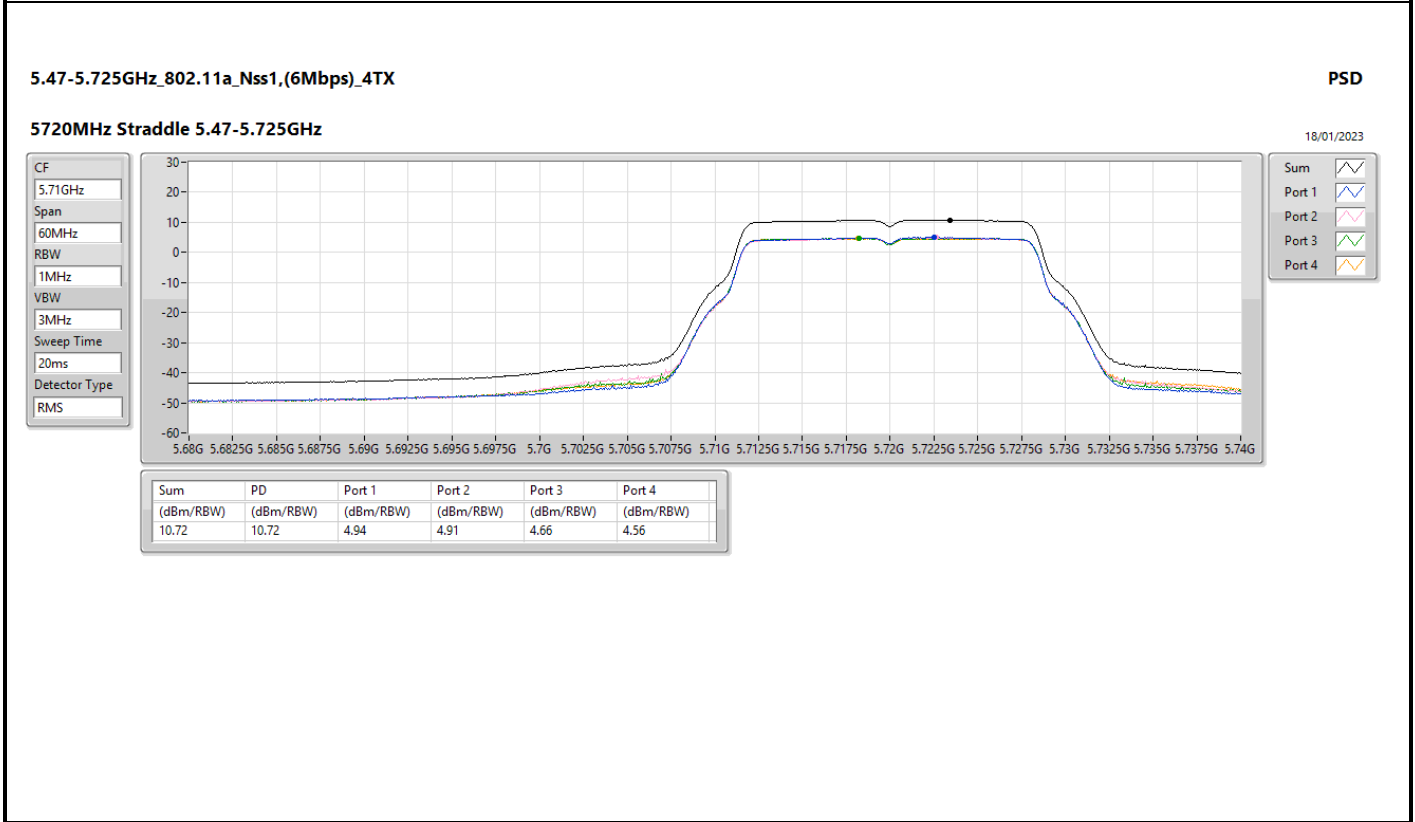
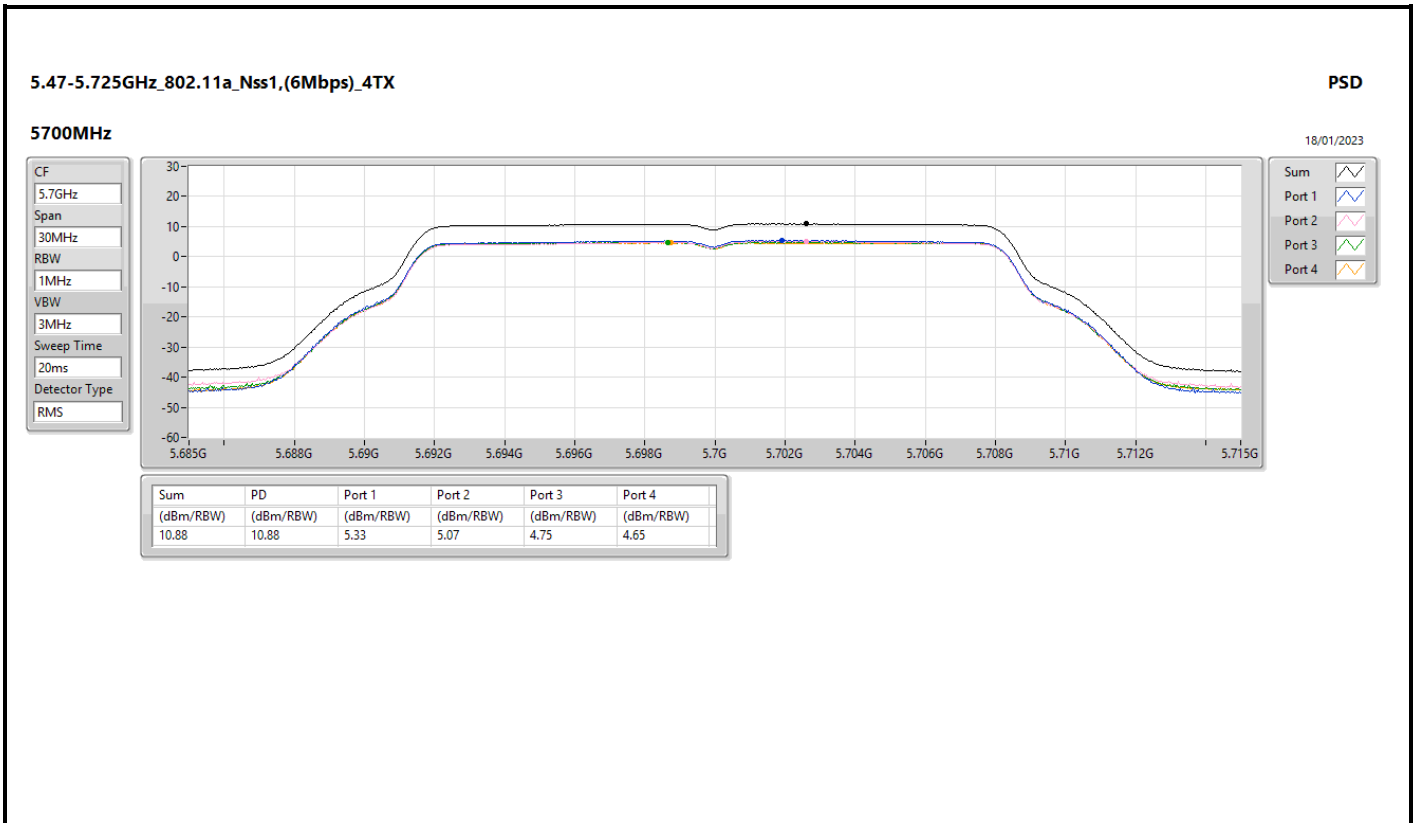
Port 1

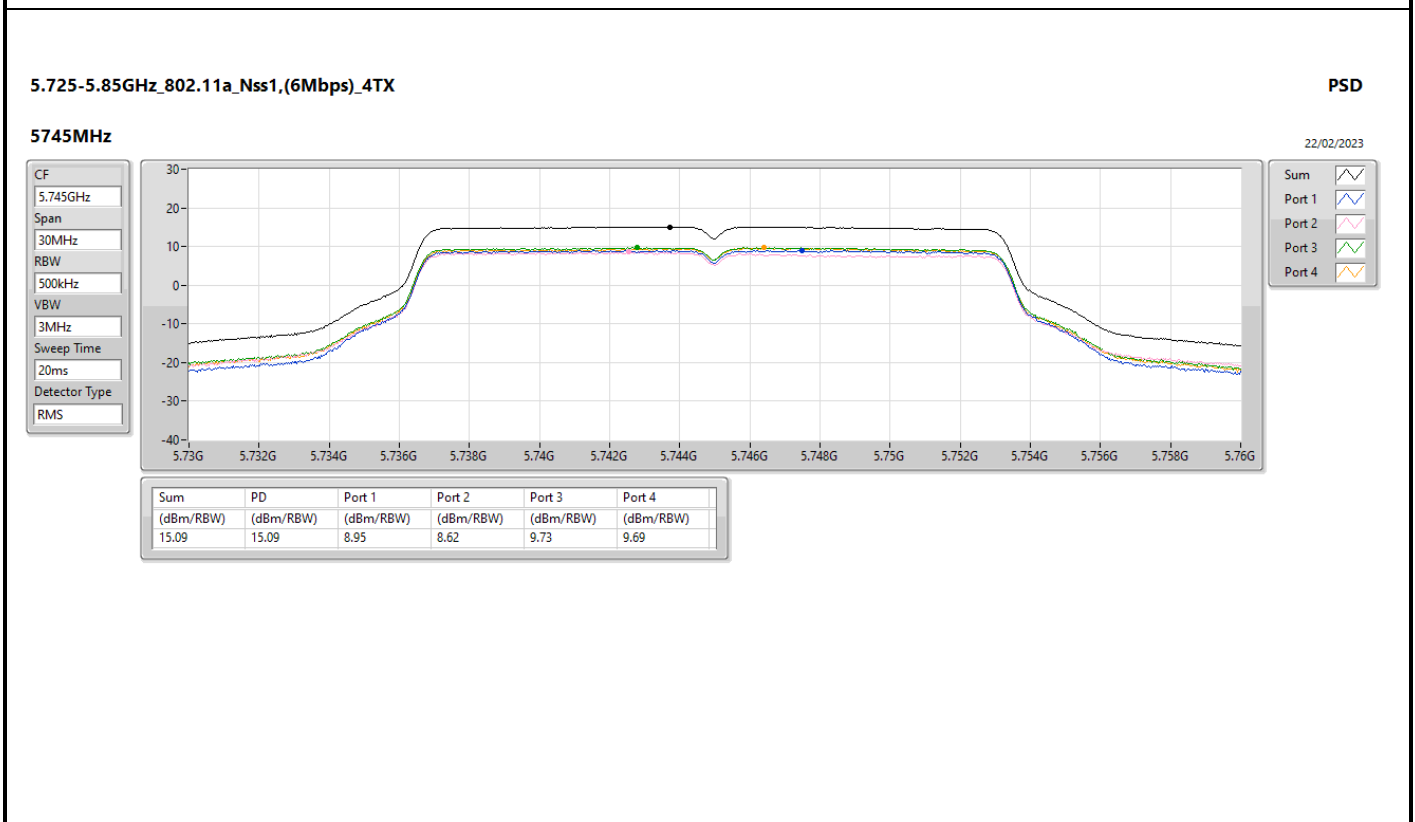
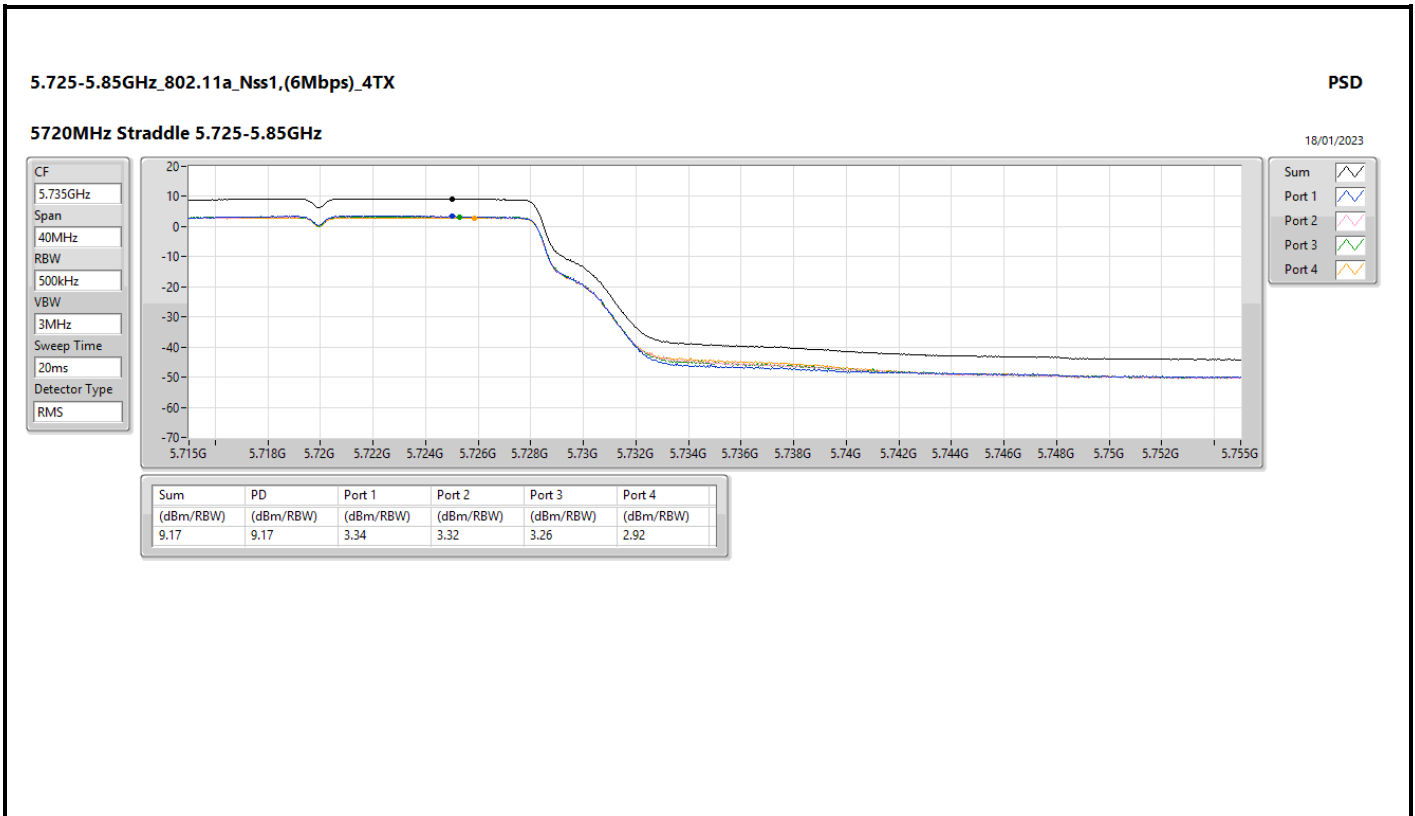
Port 2

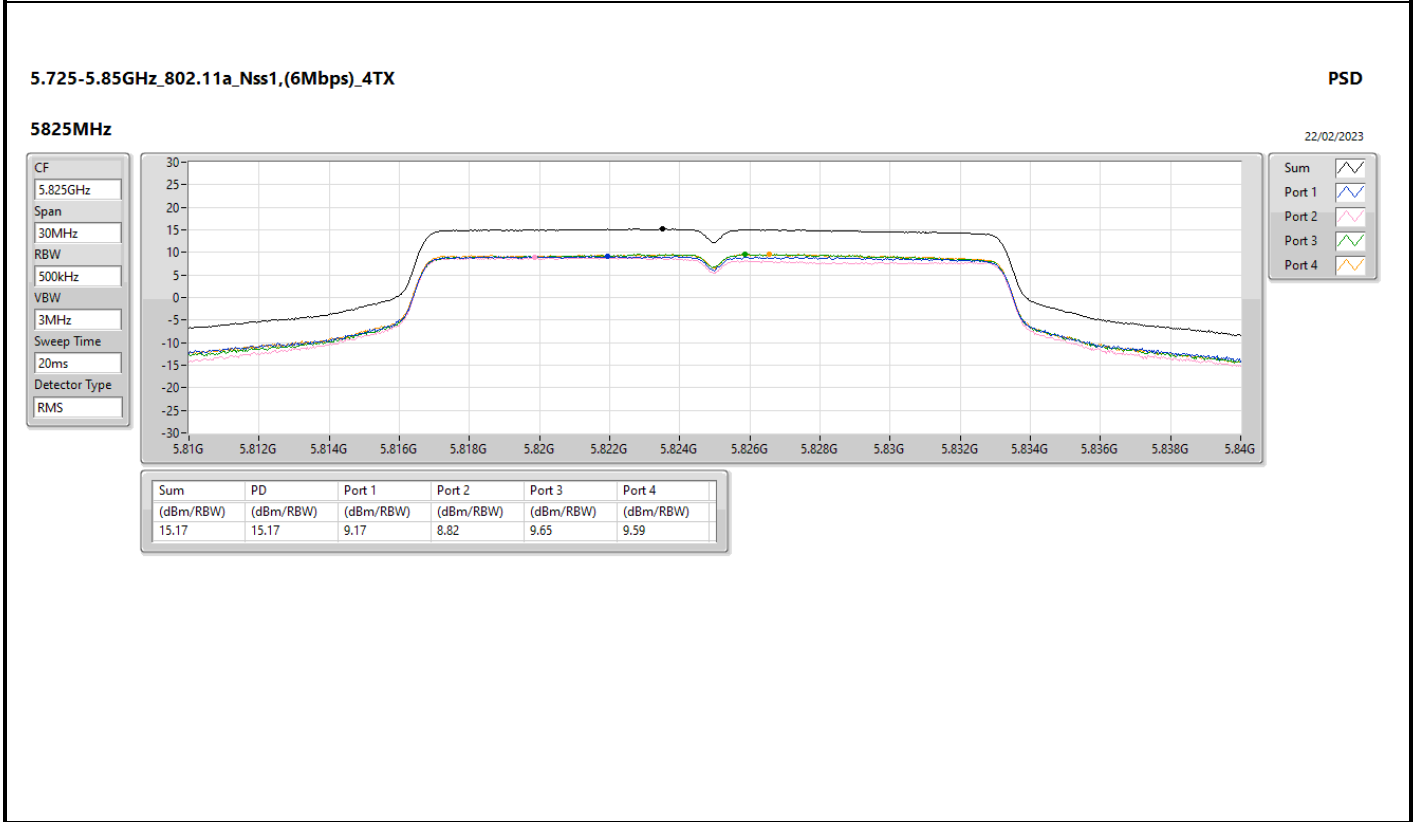
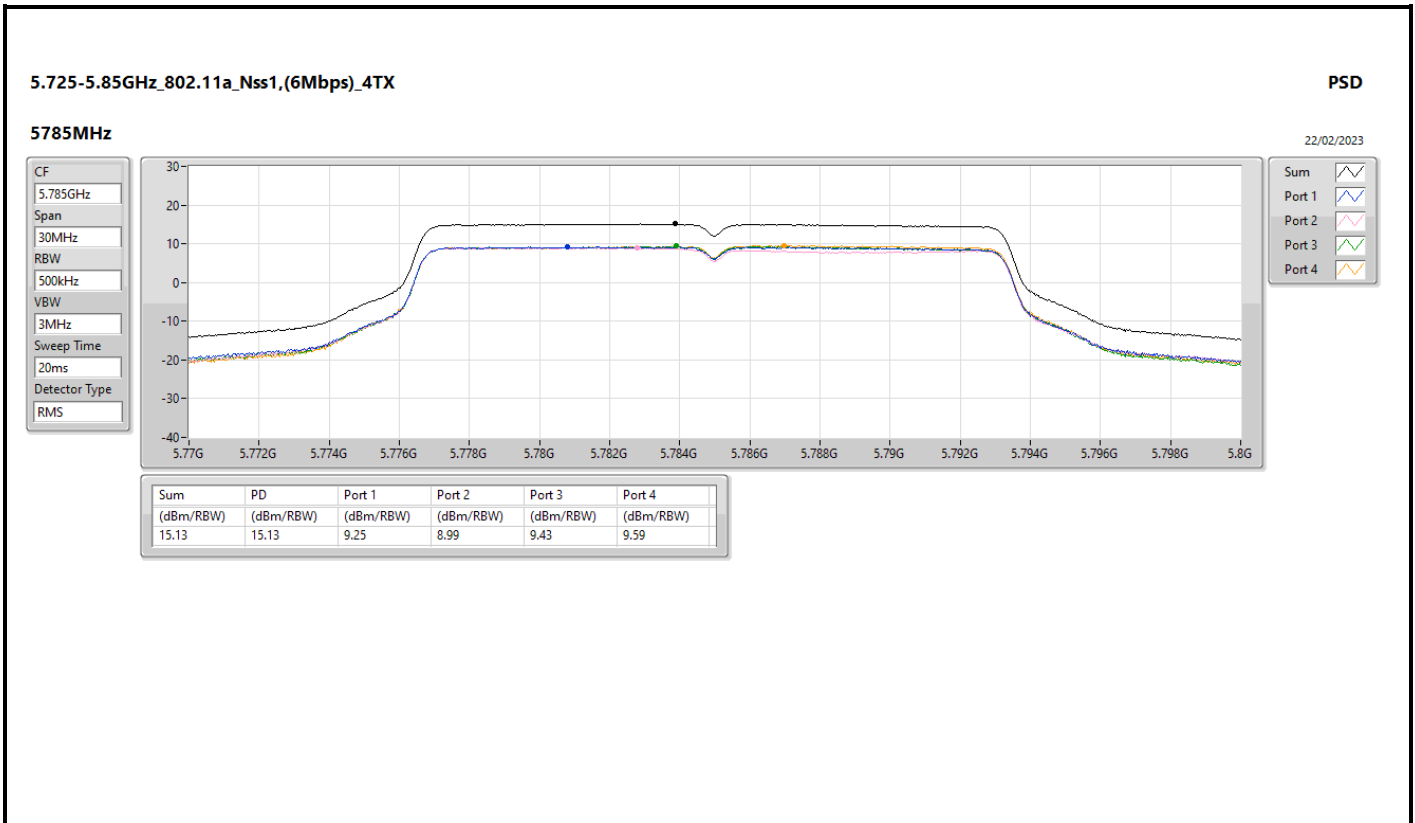
Port 3

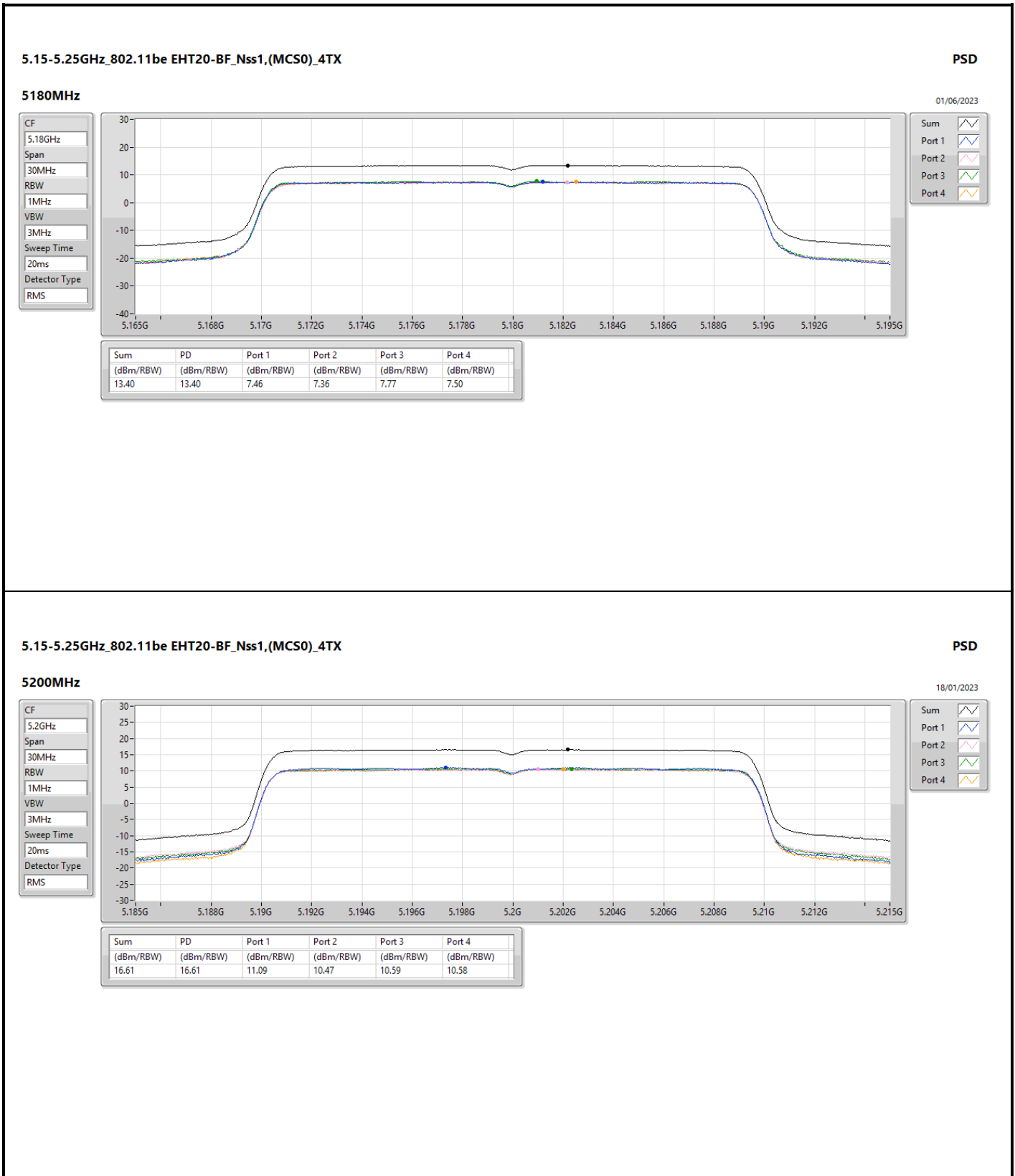
Port 4

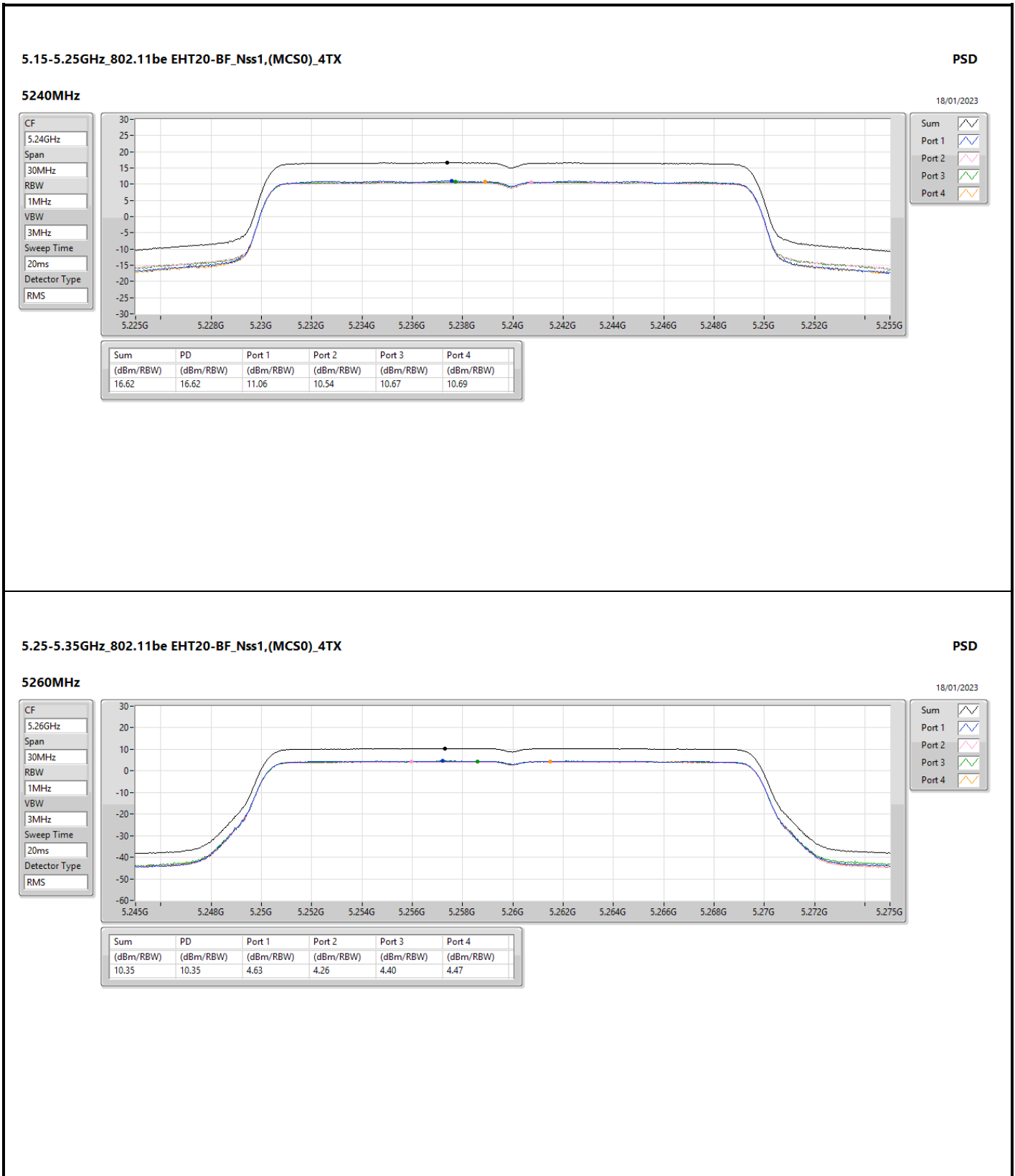
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.96	10.96	5.12	4.87	5.07	5.08

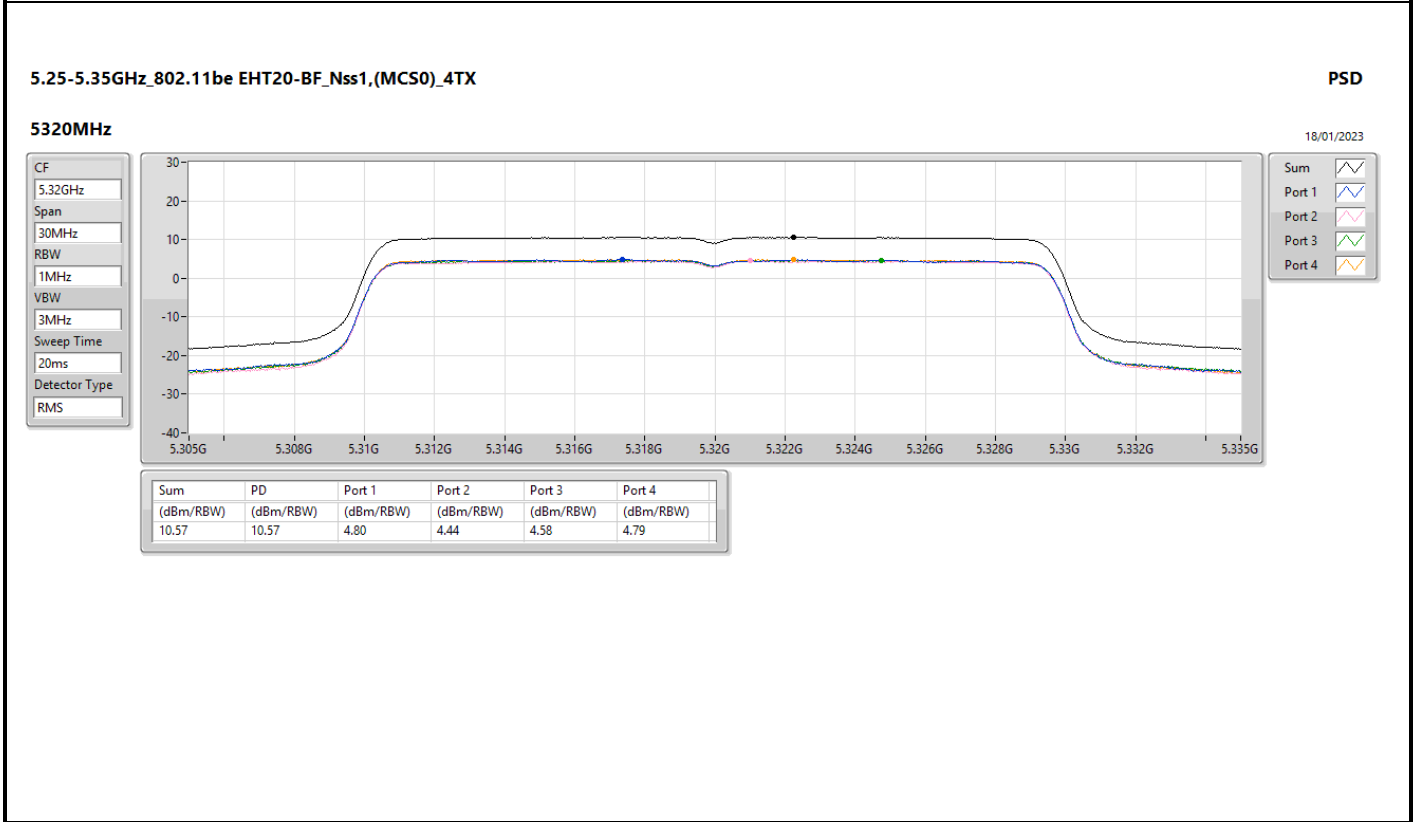
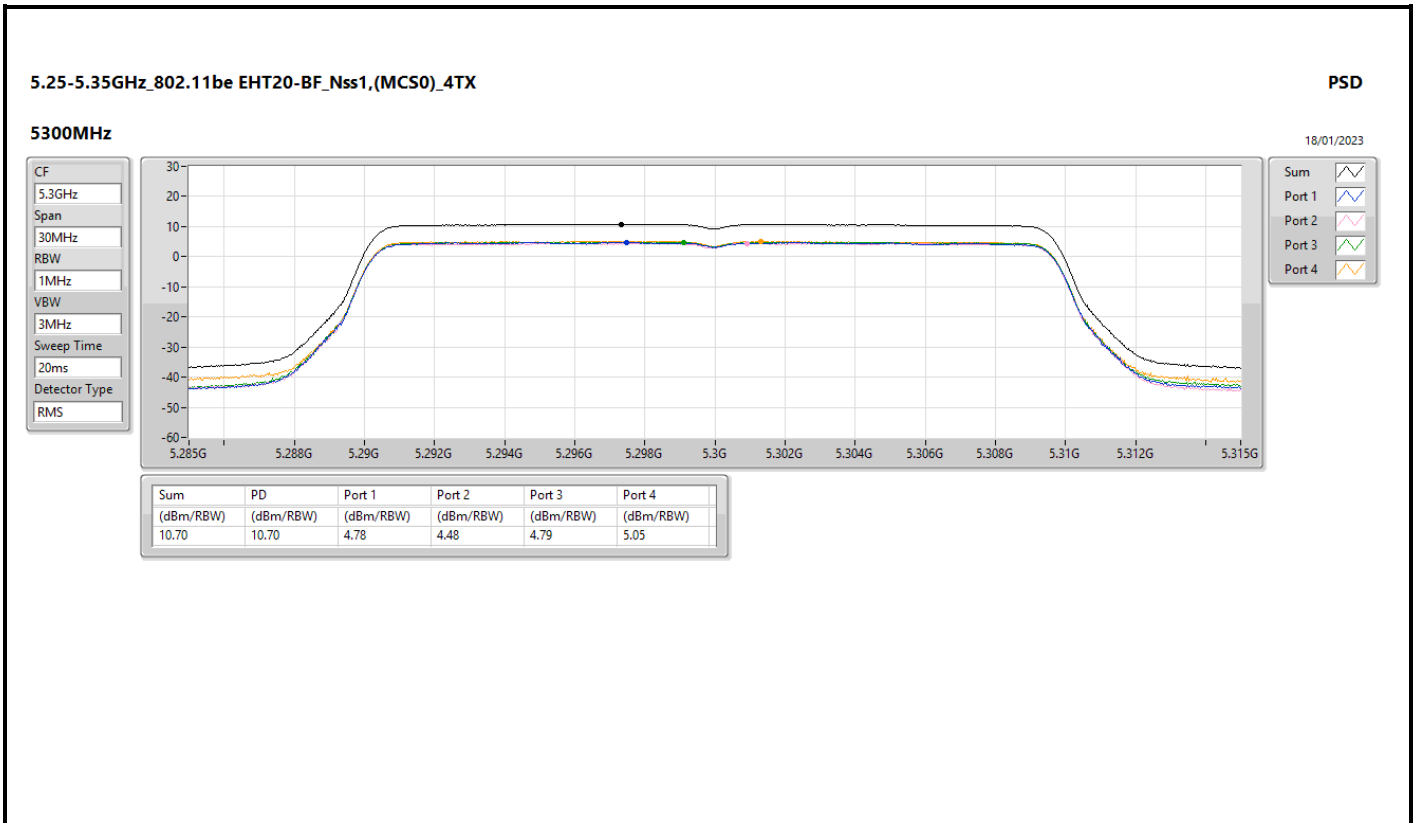


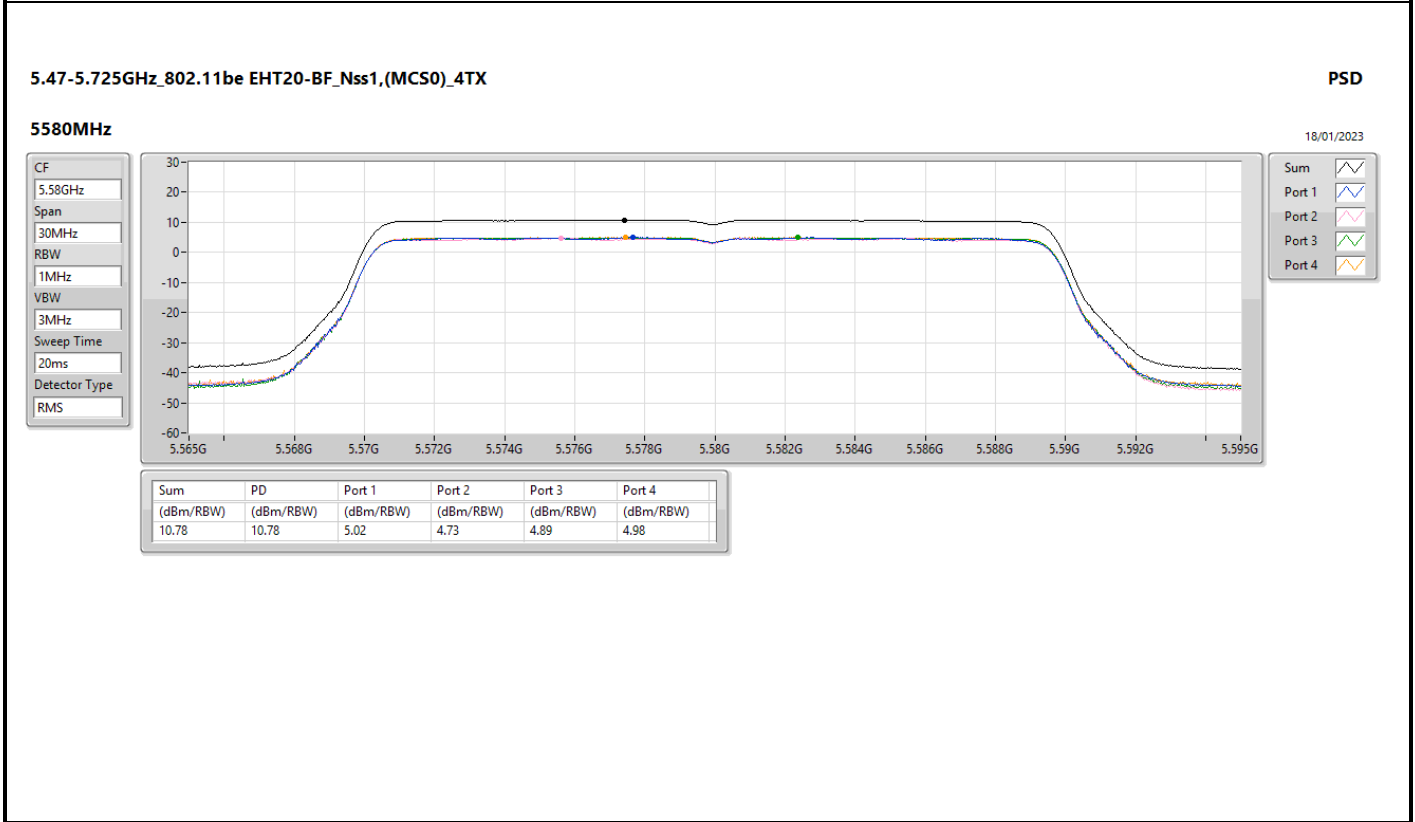
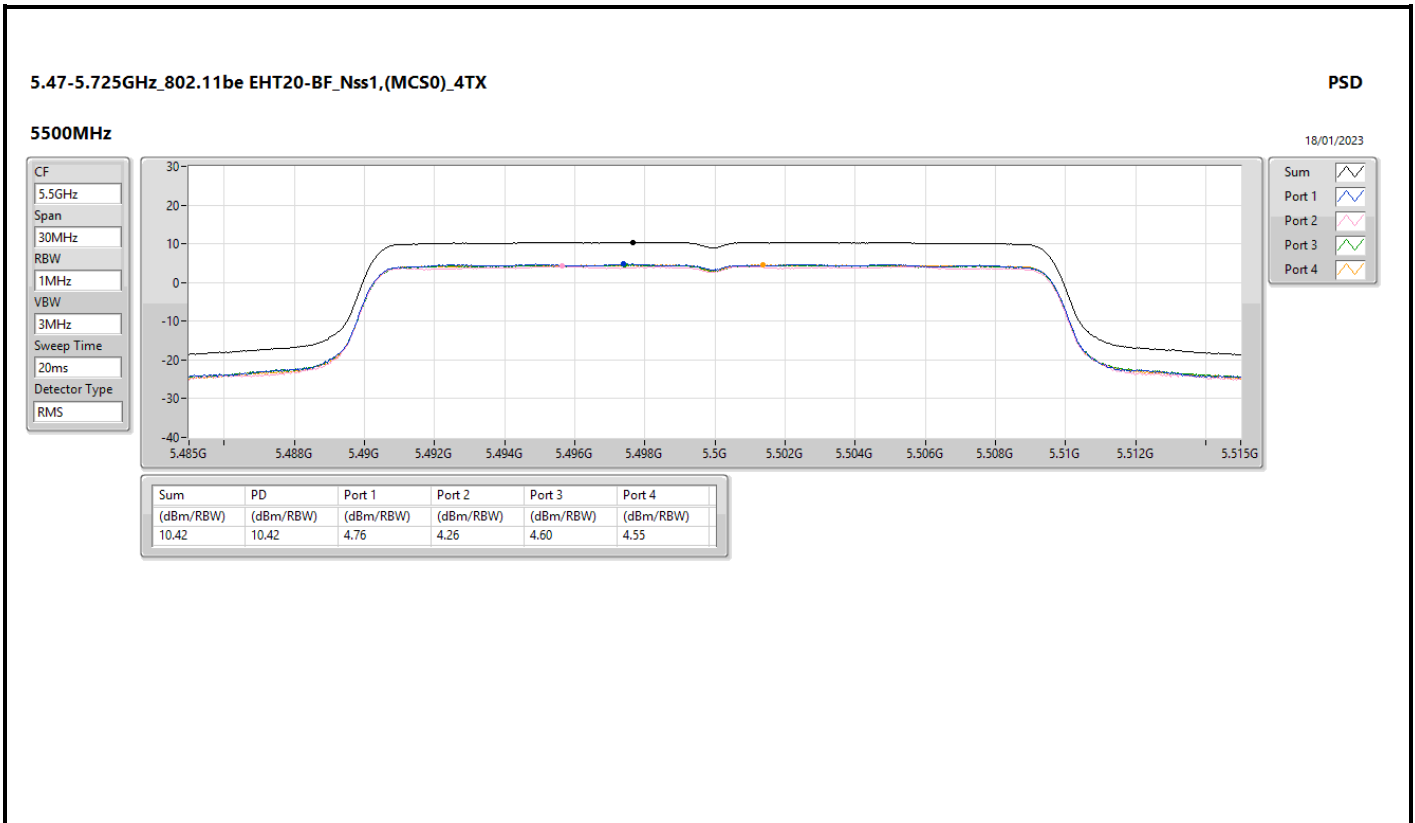


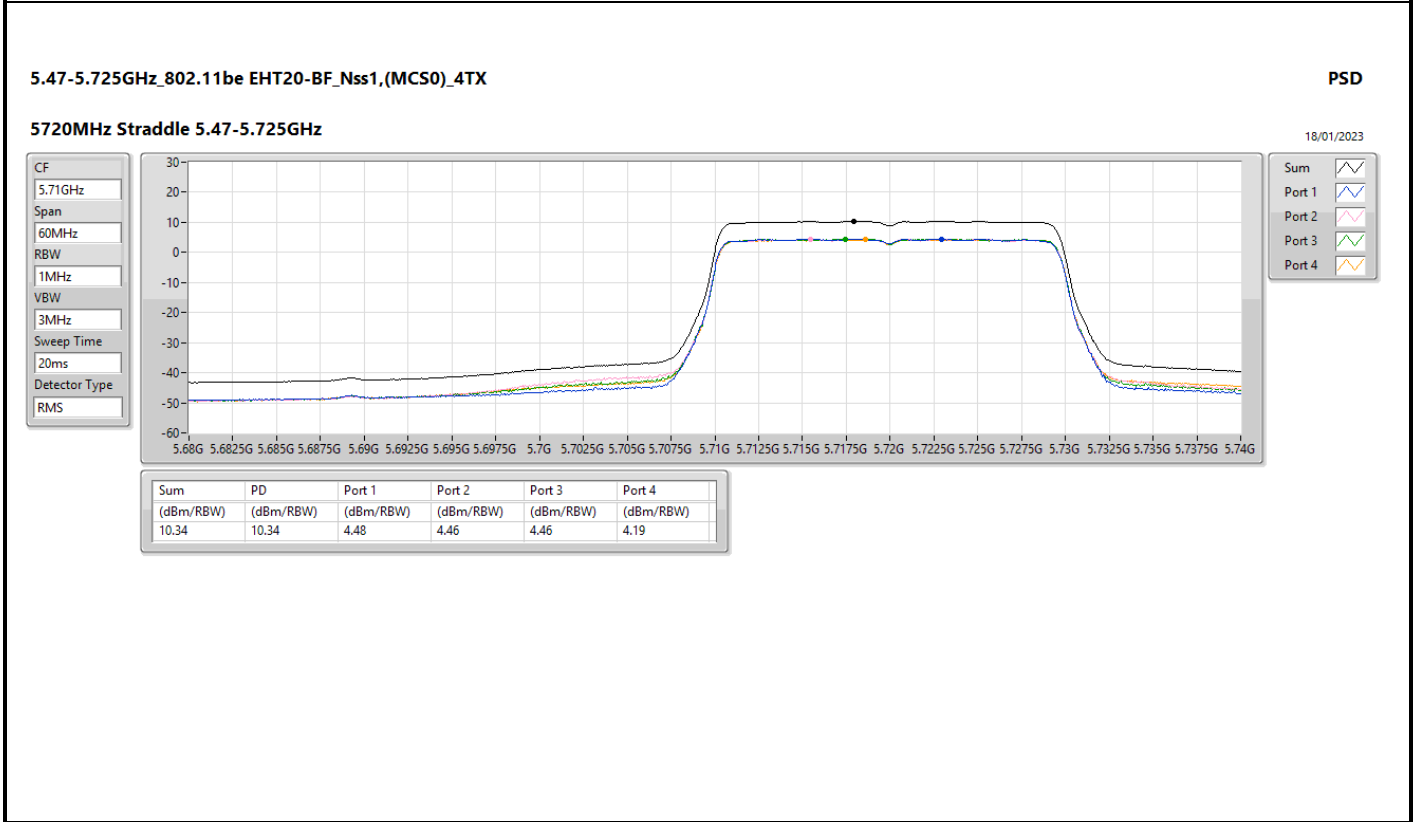
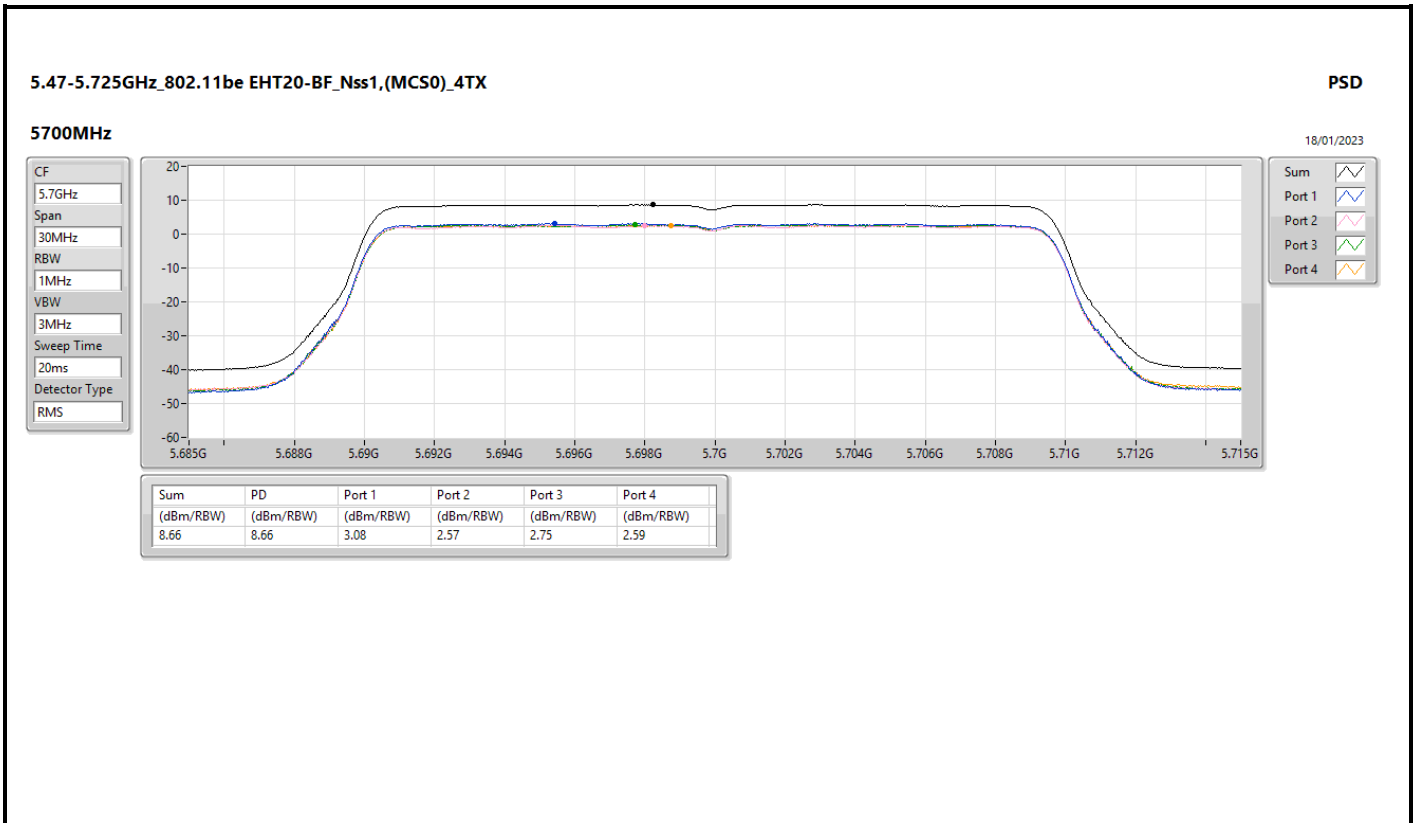


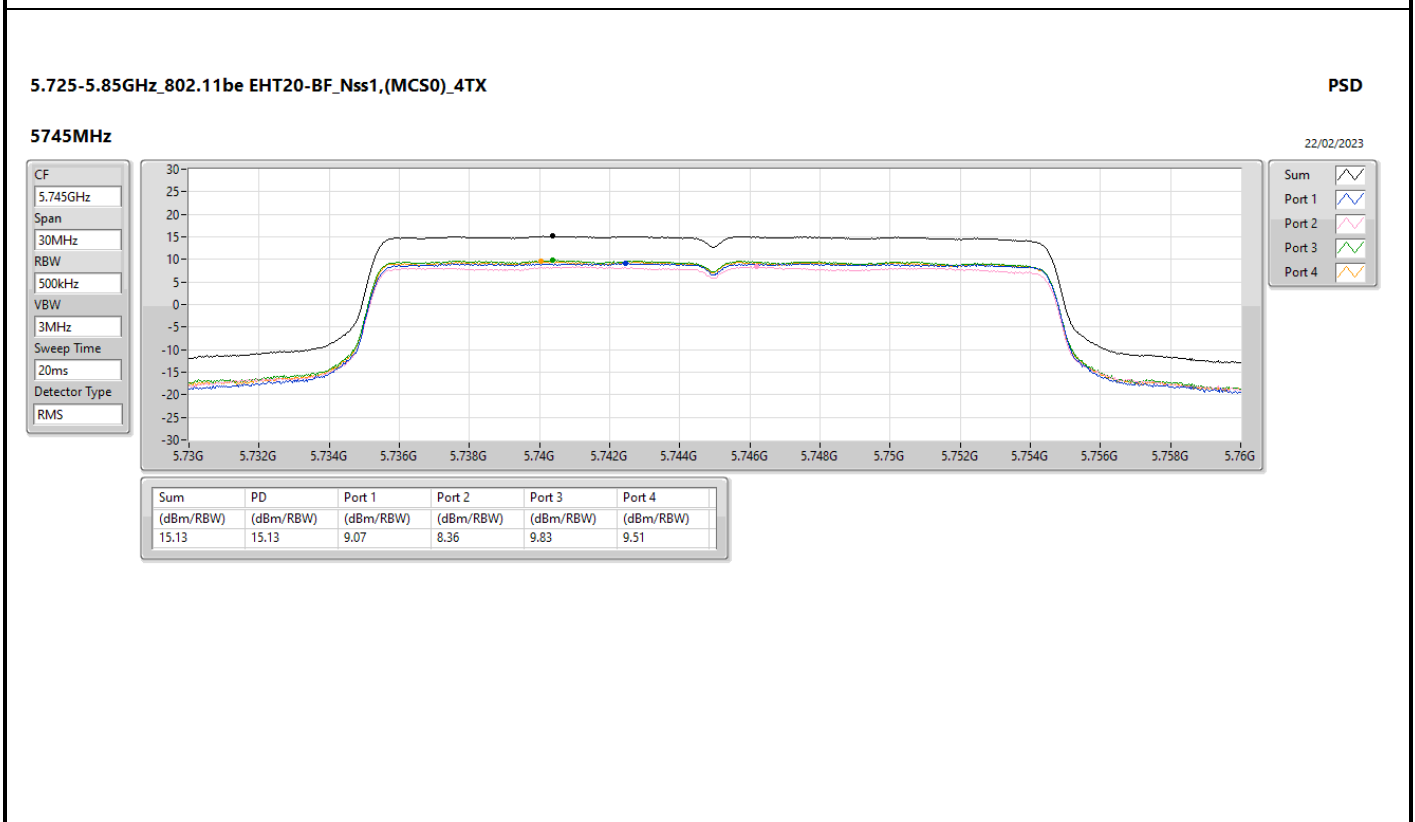
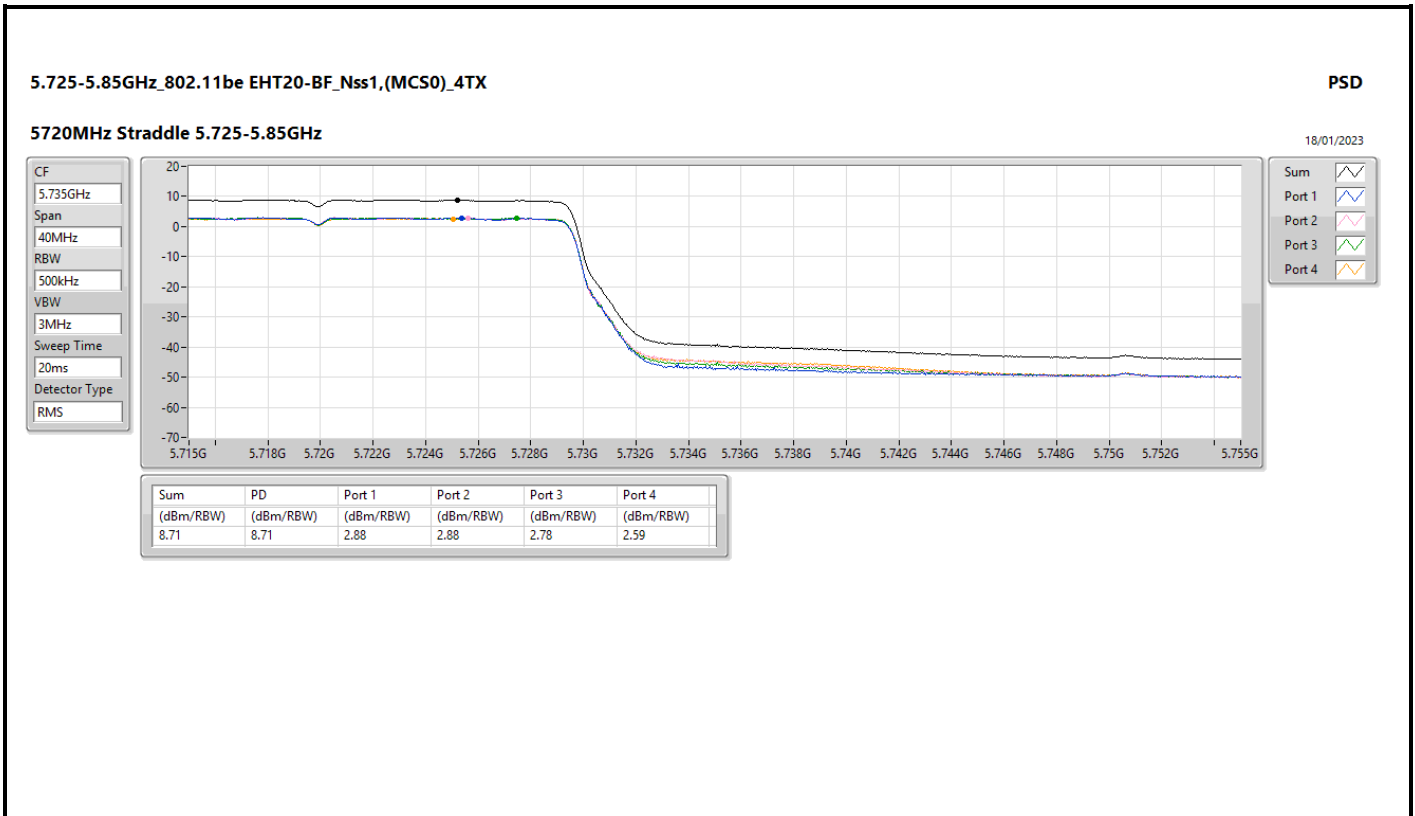


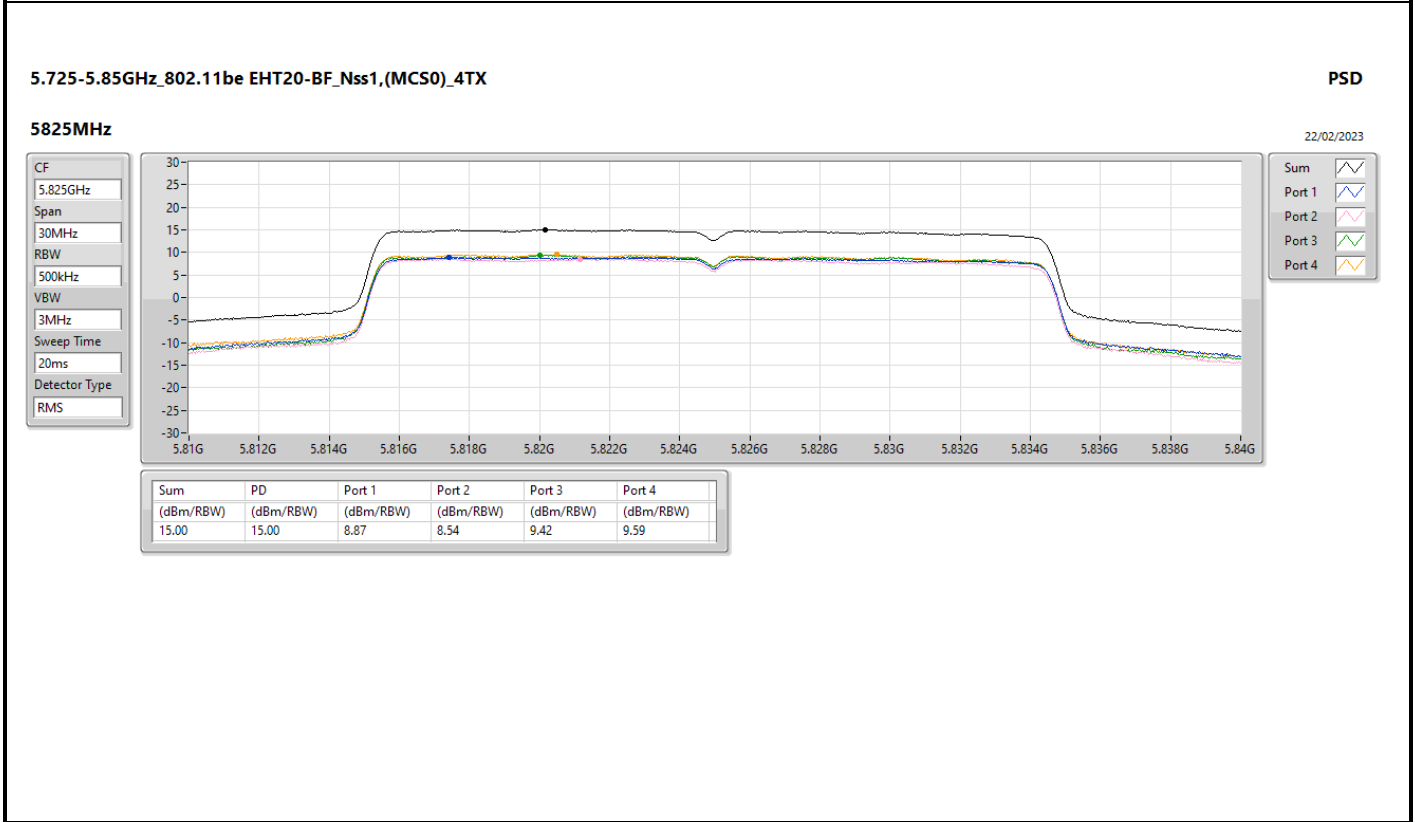
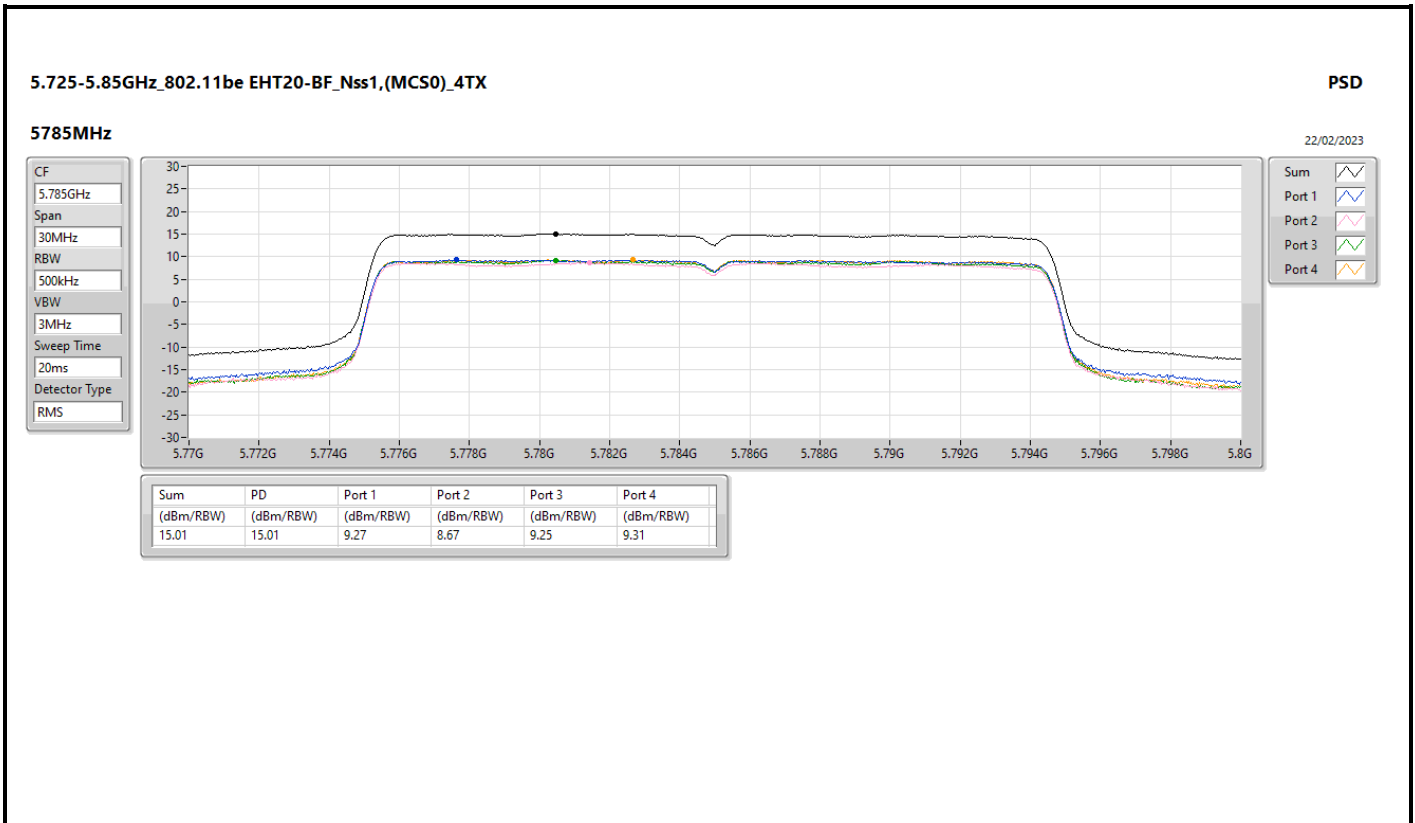


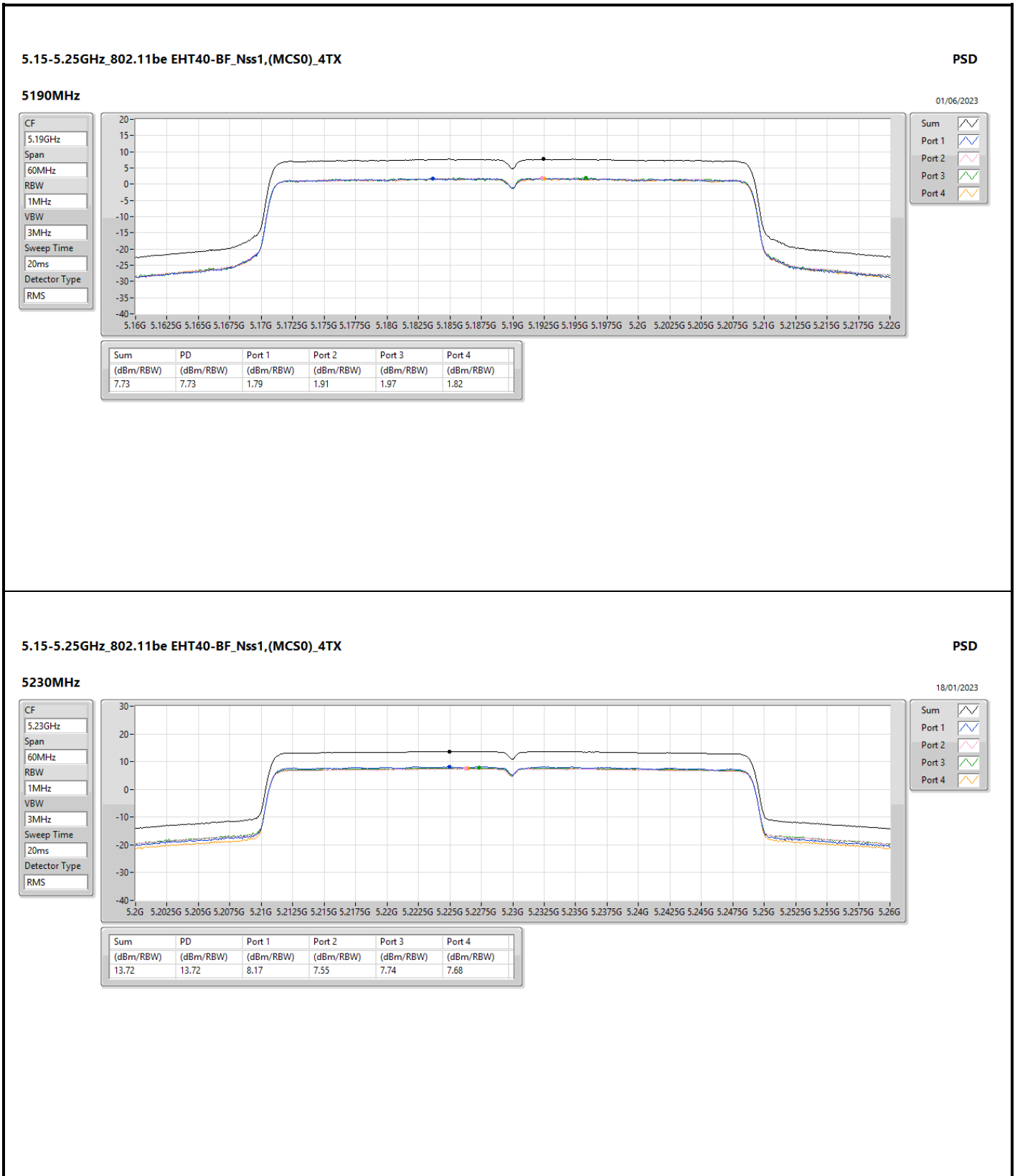


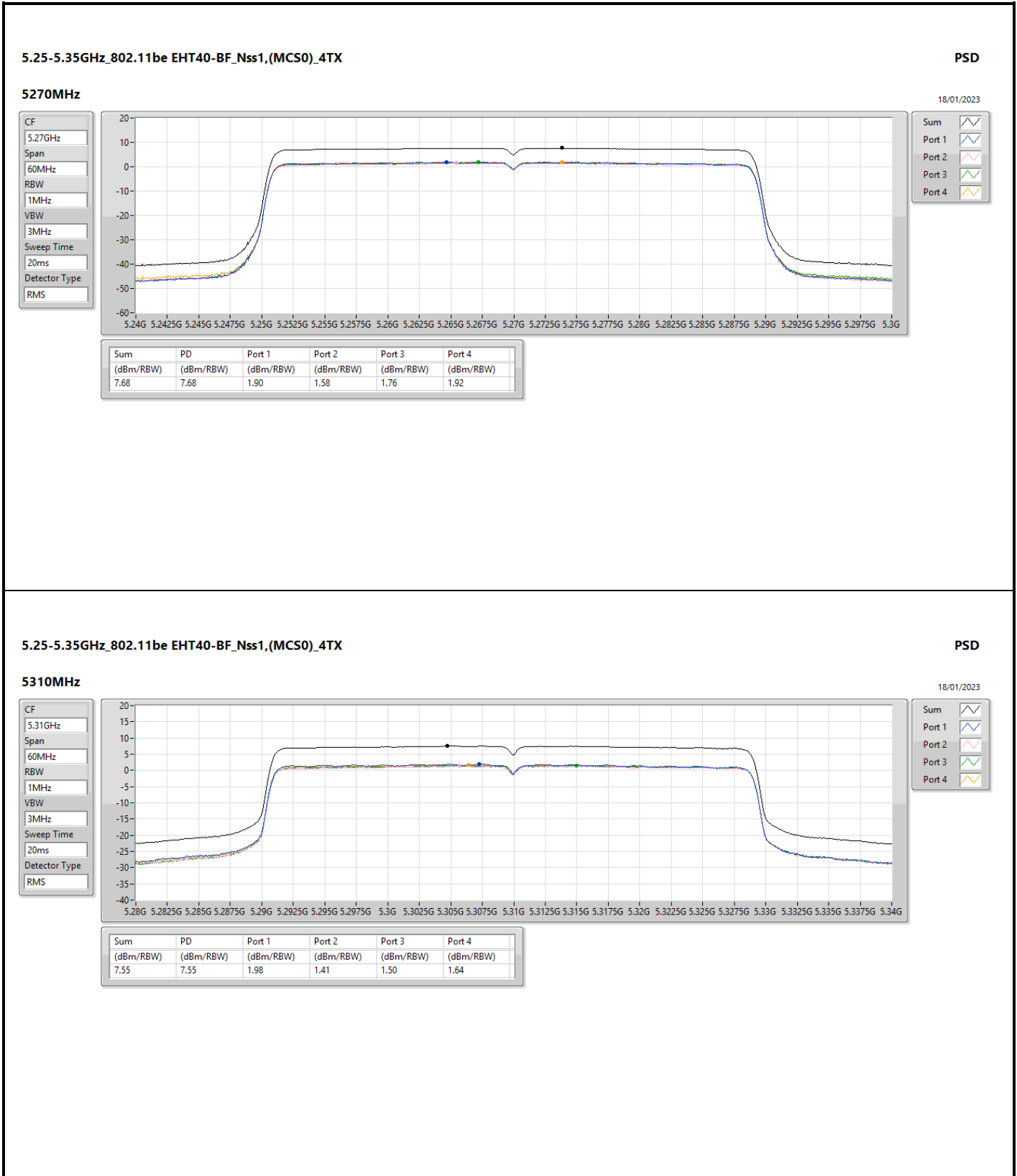


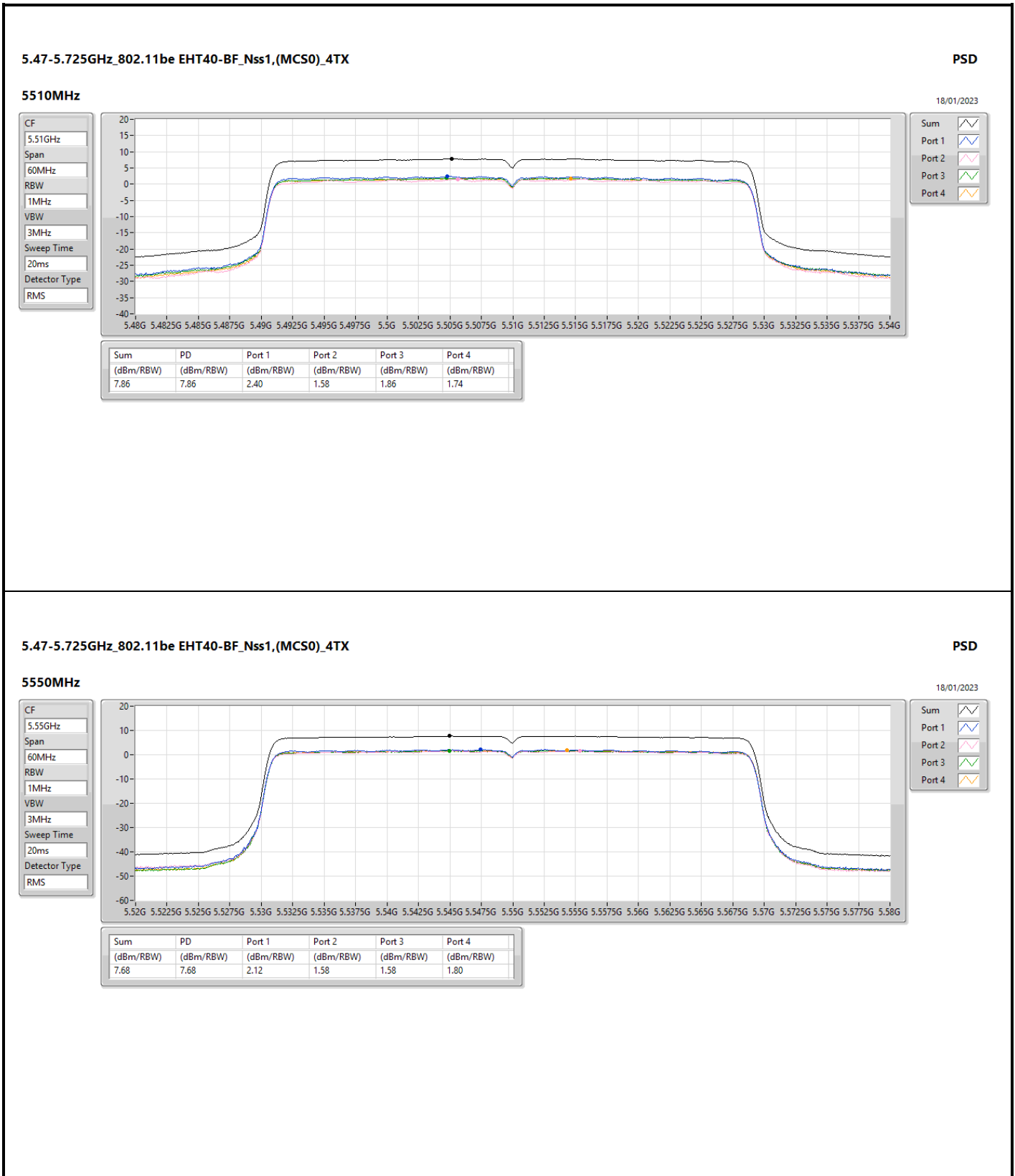


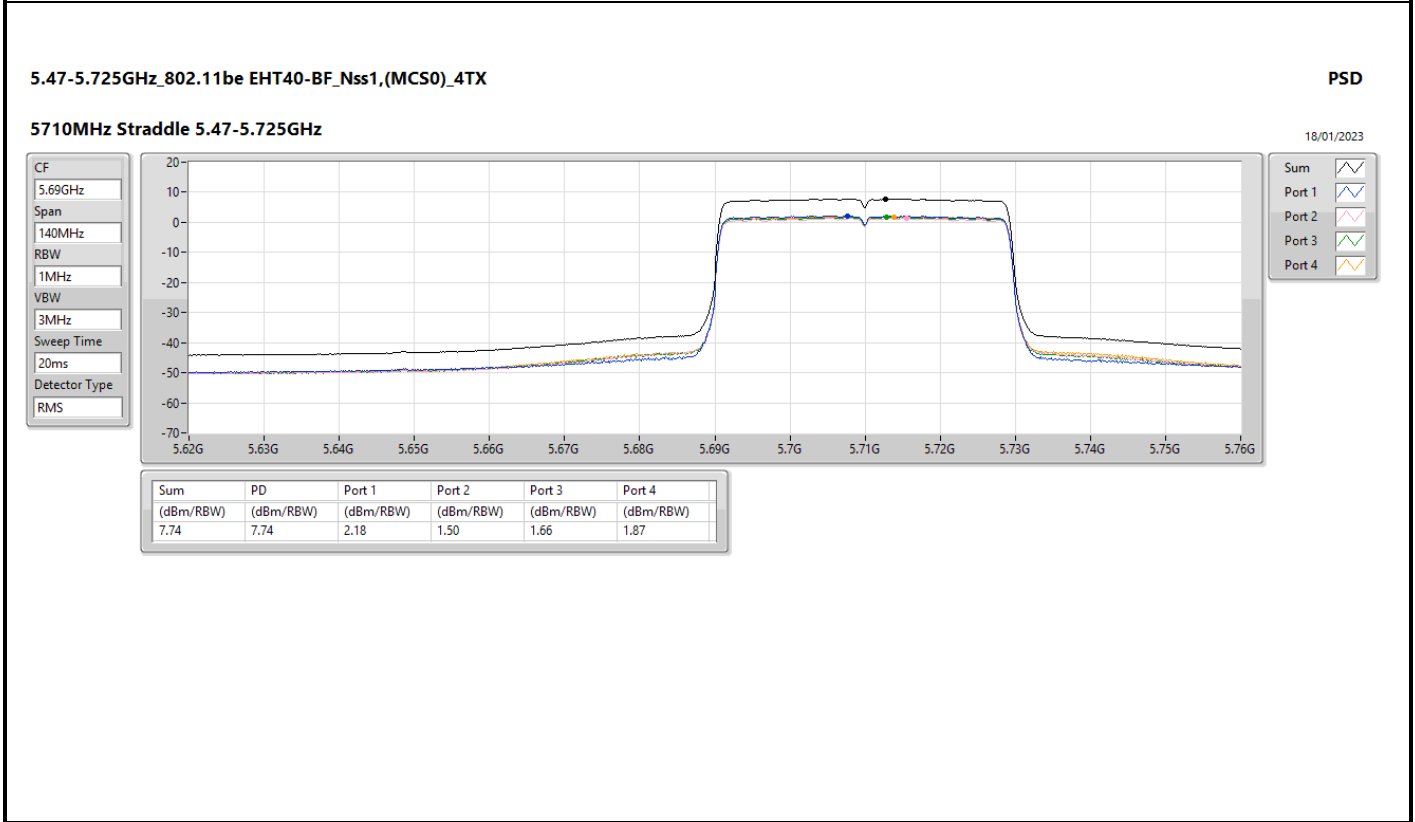
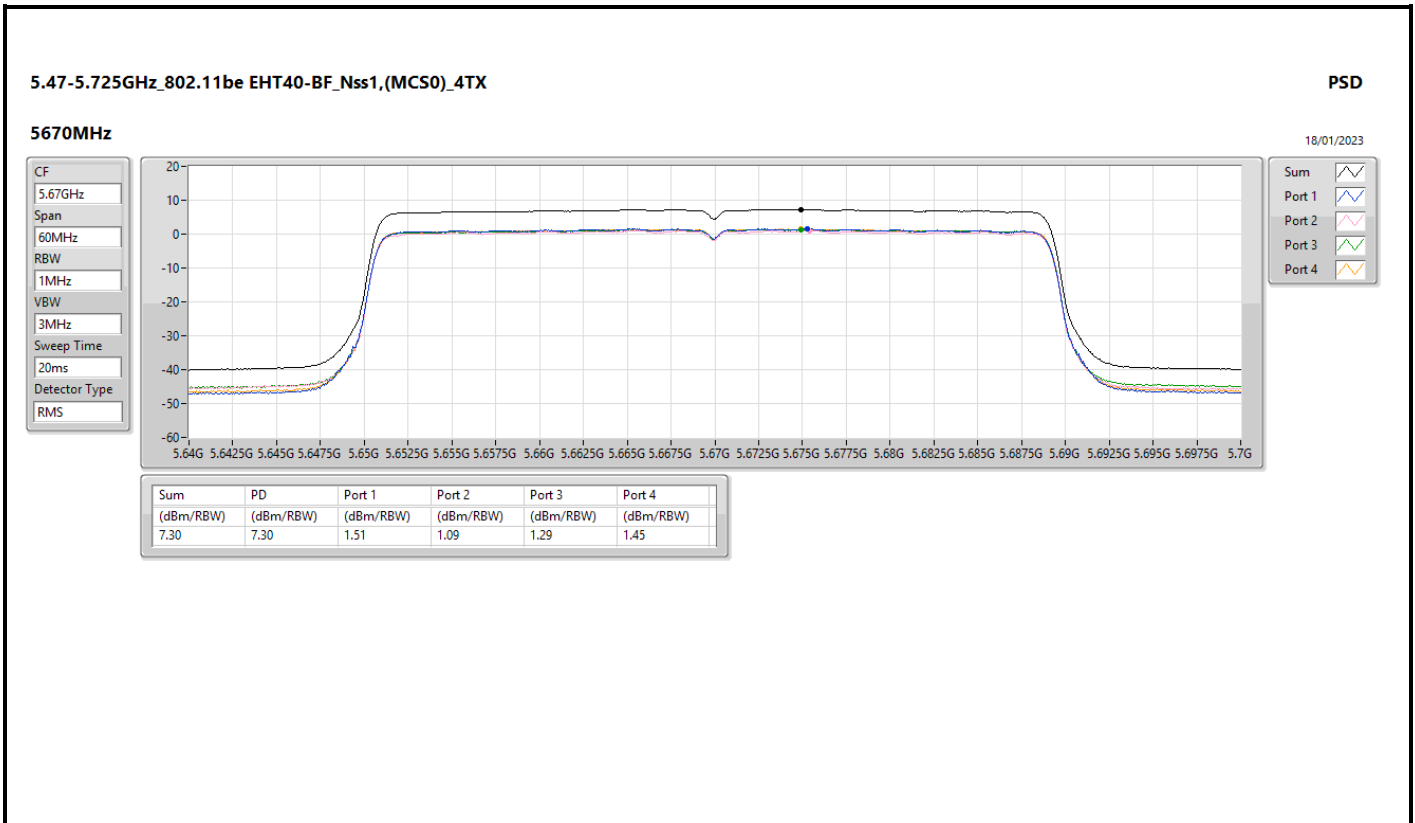


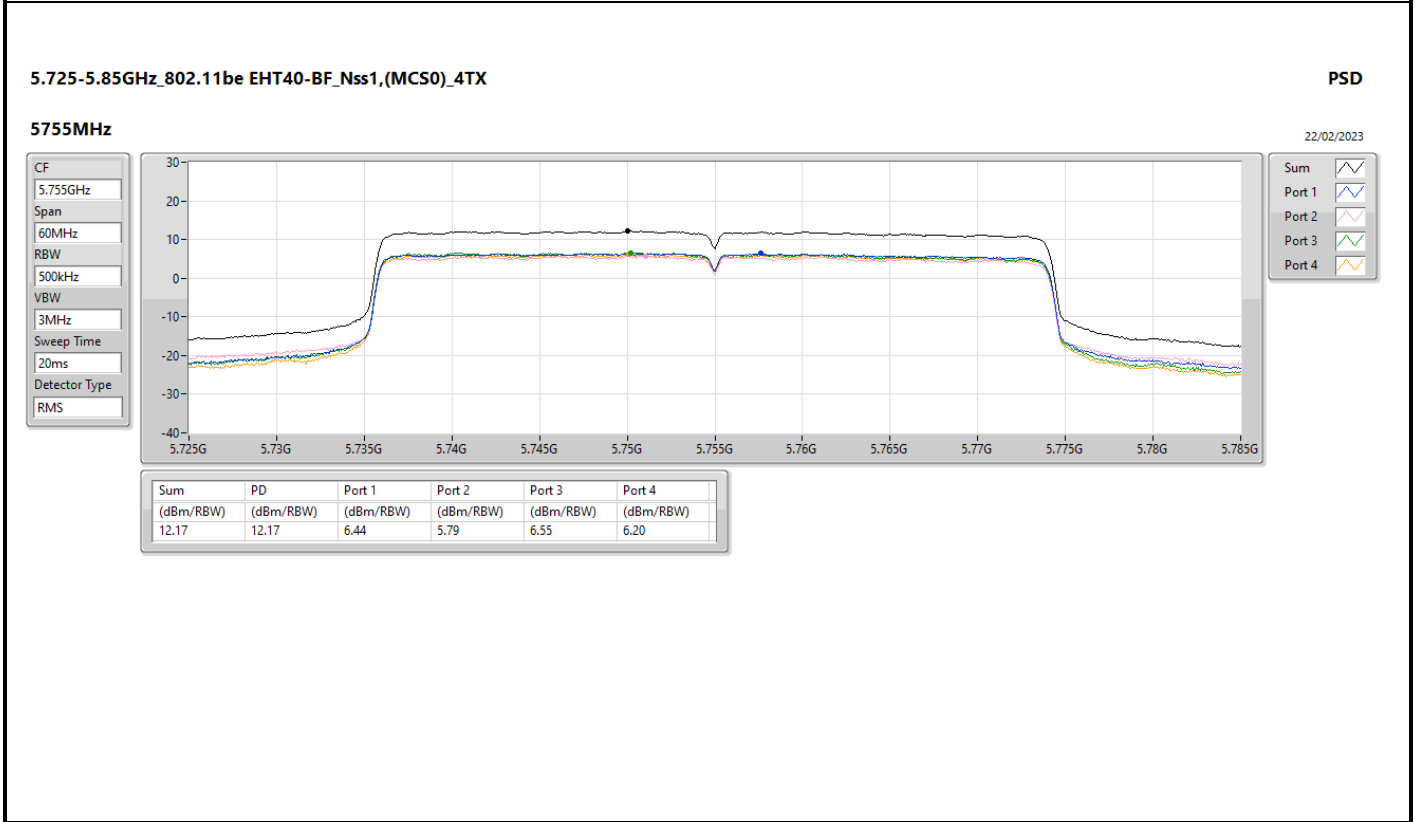
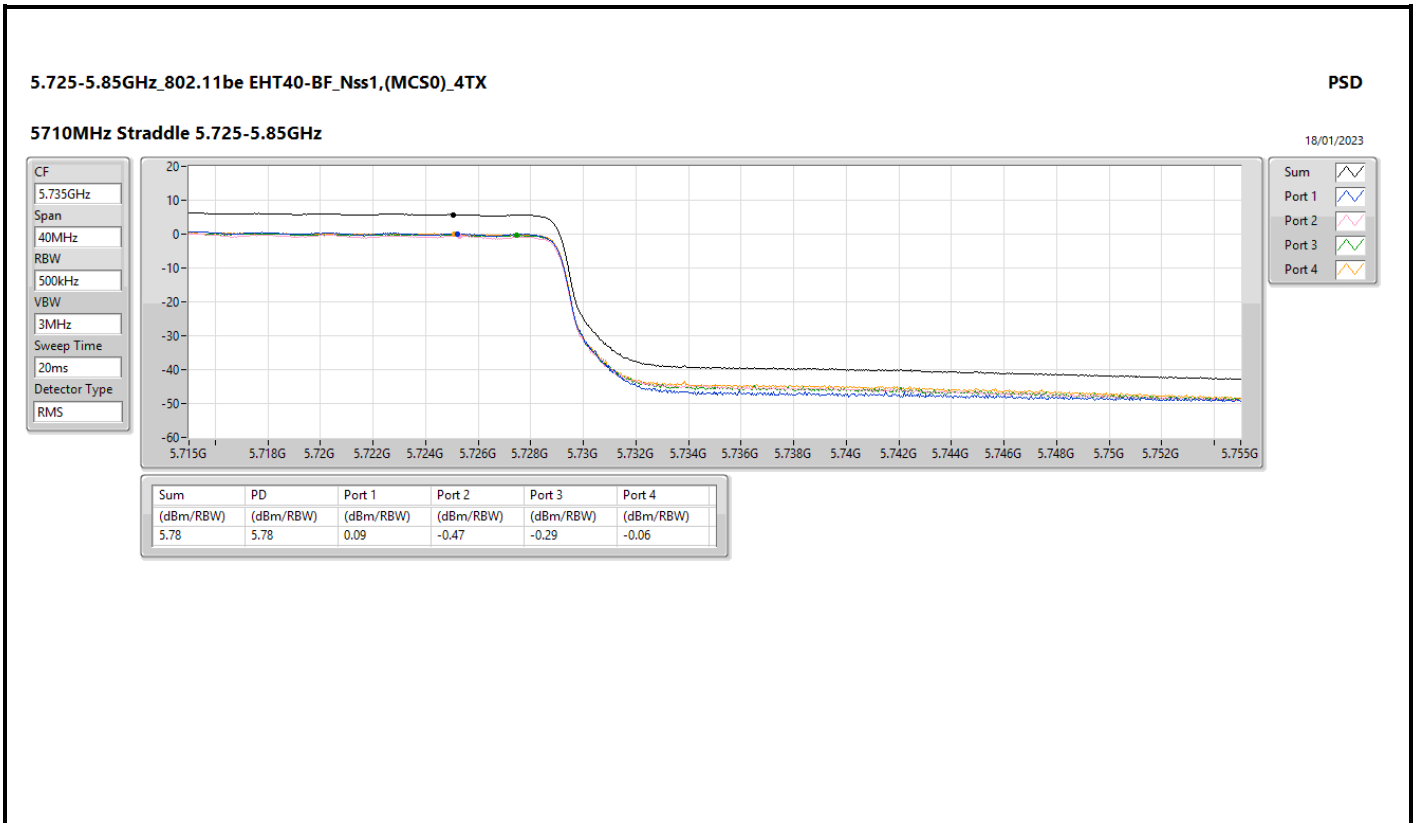


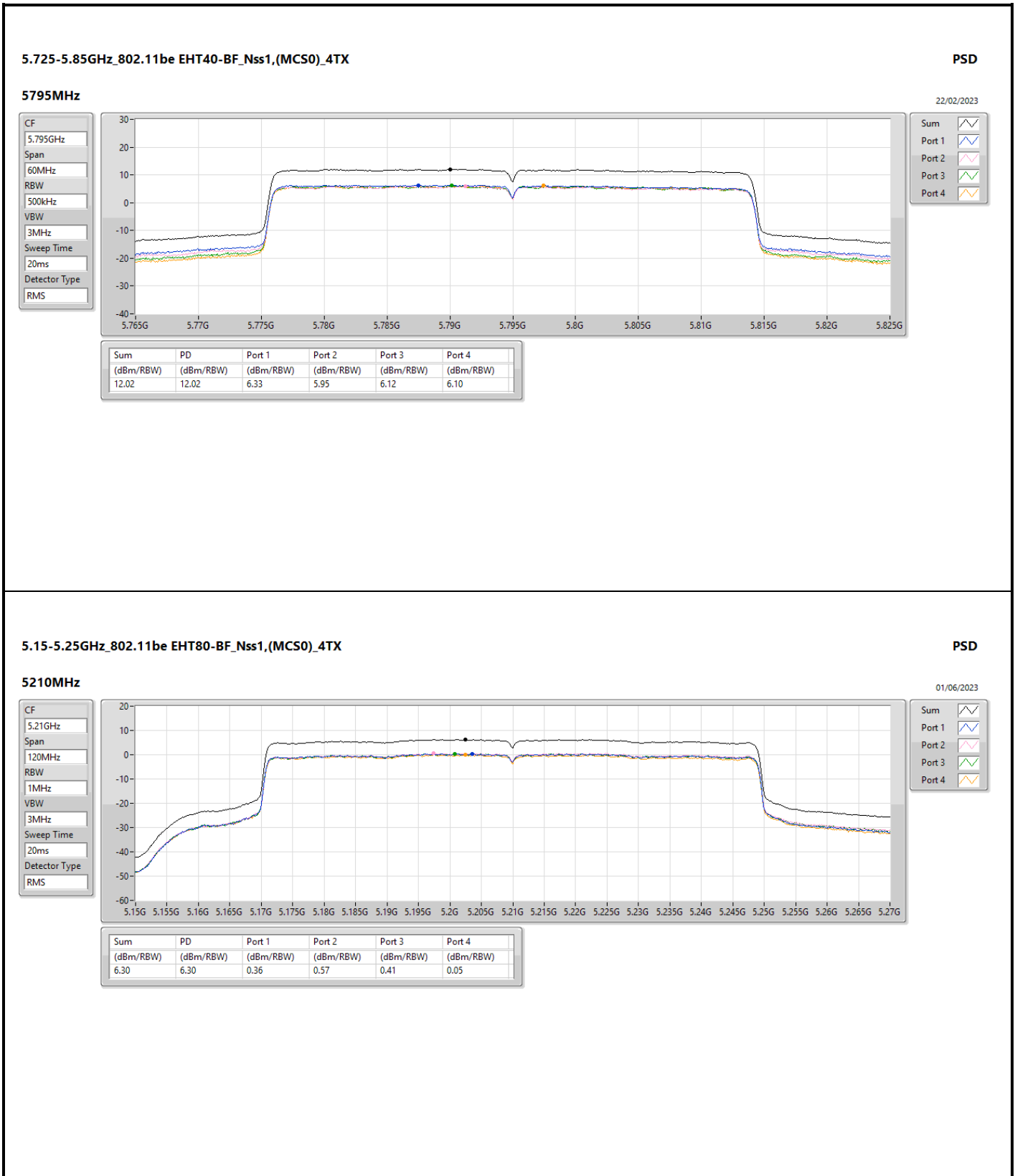


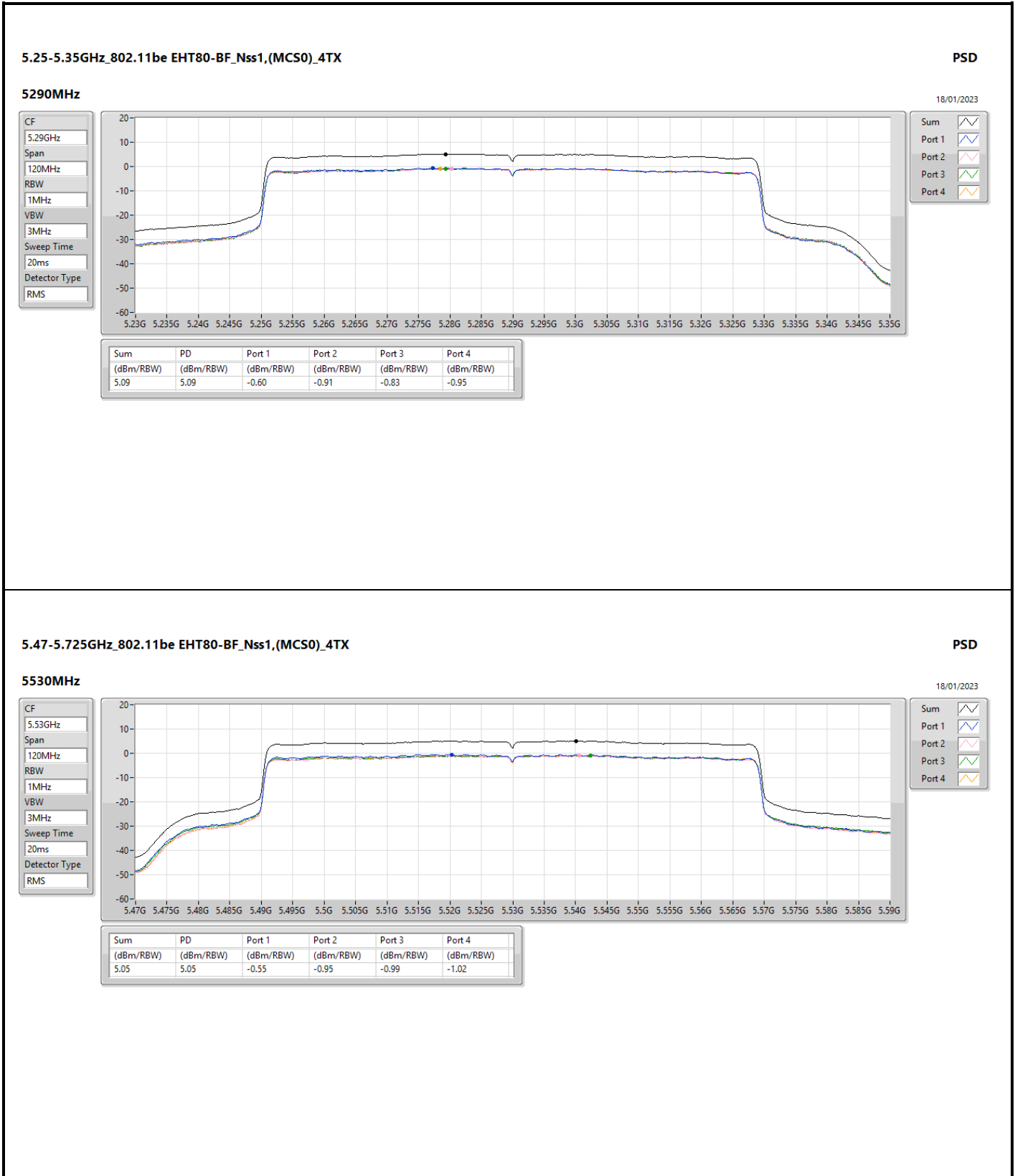


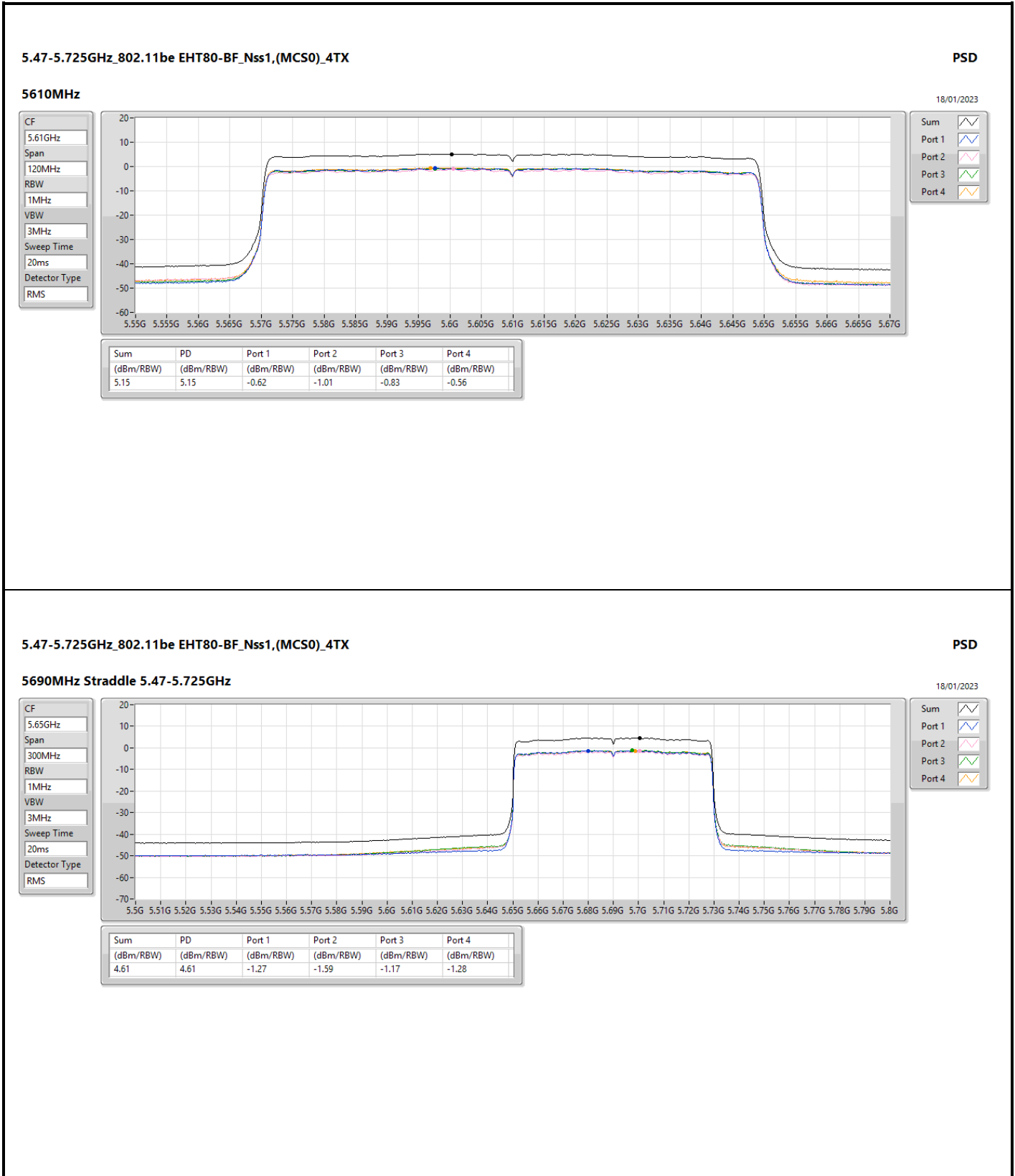


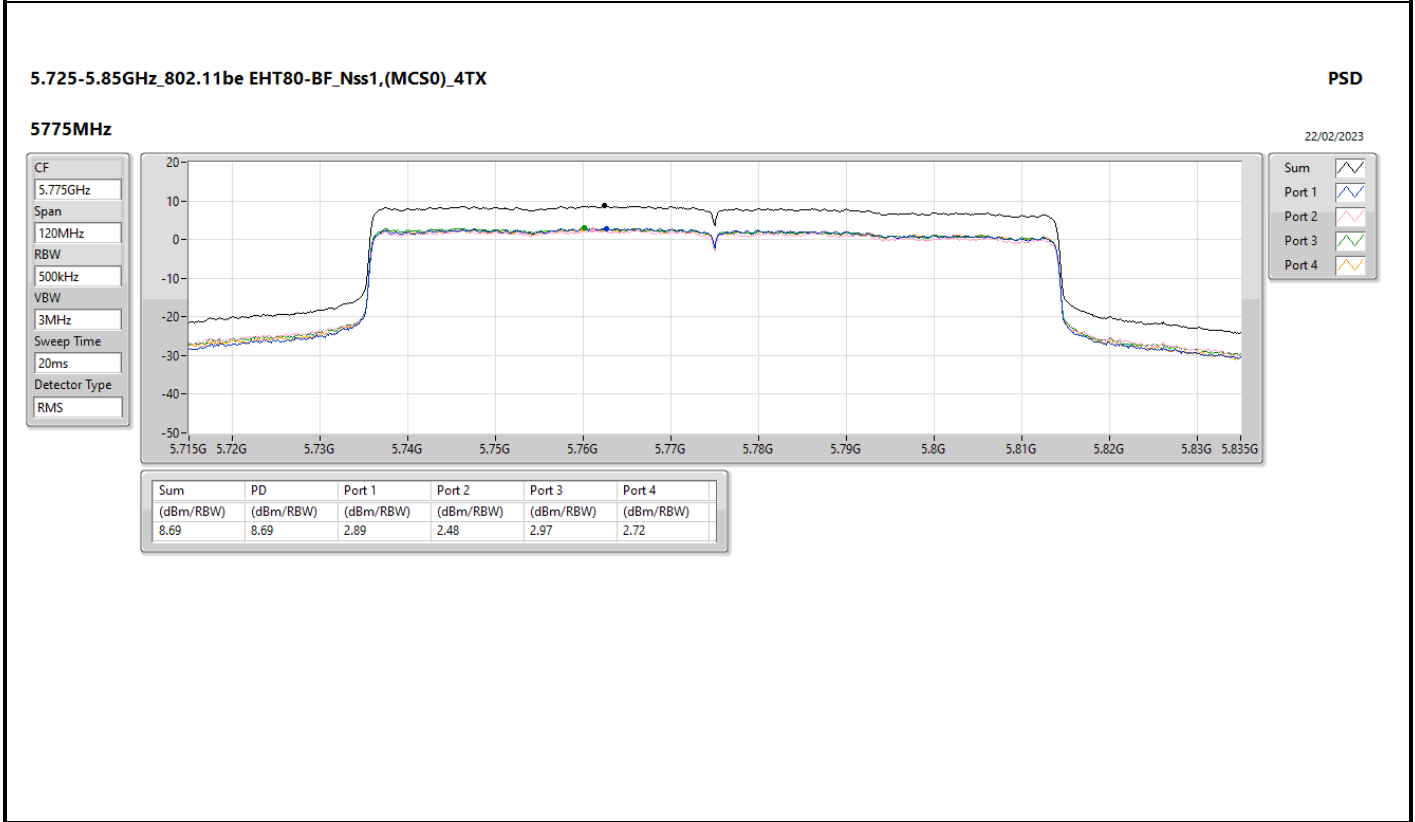
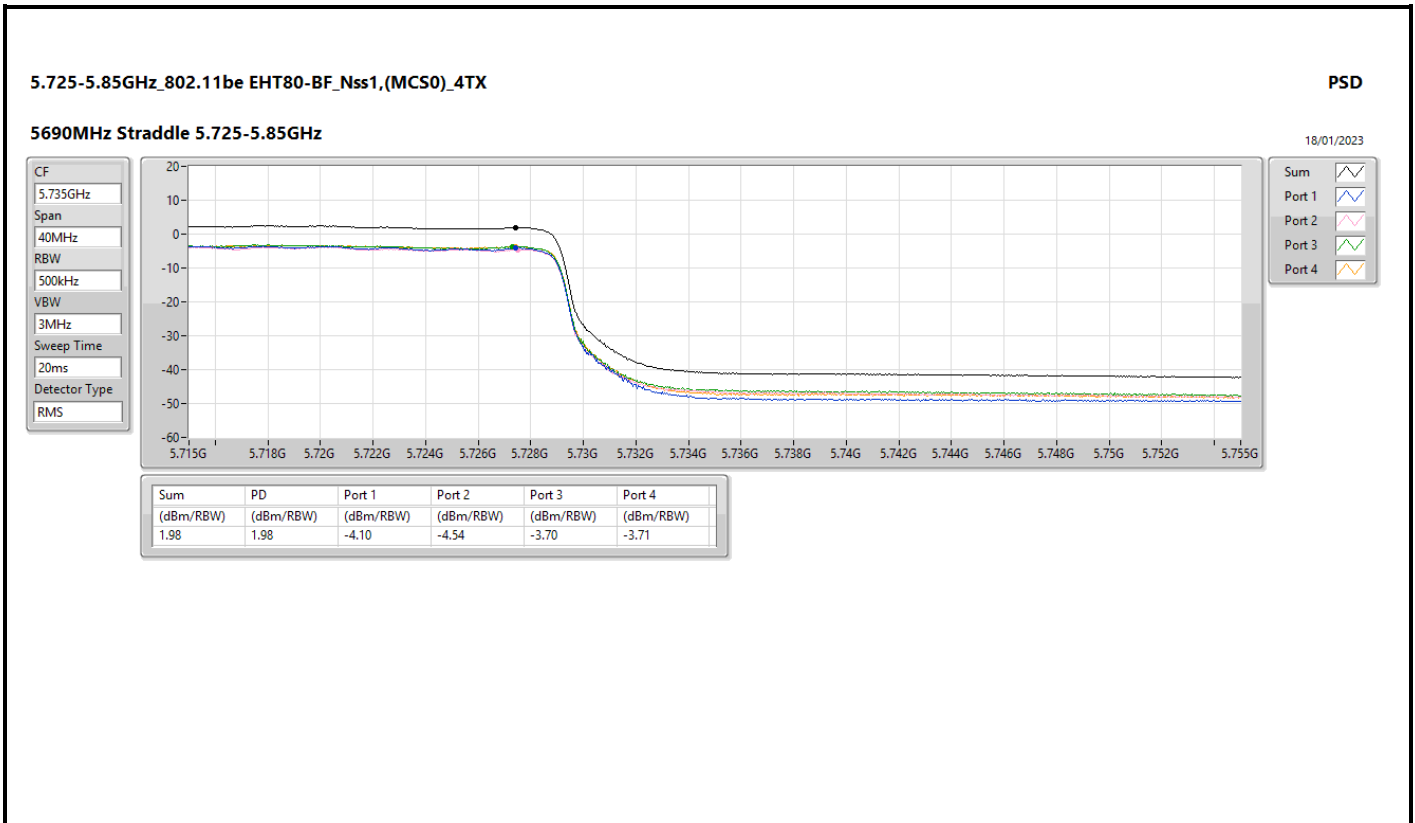


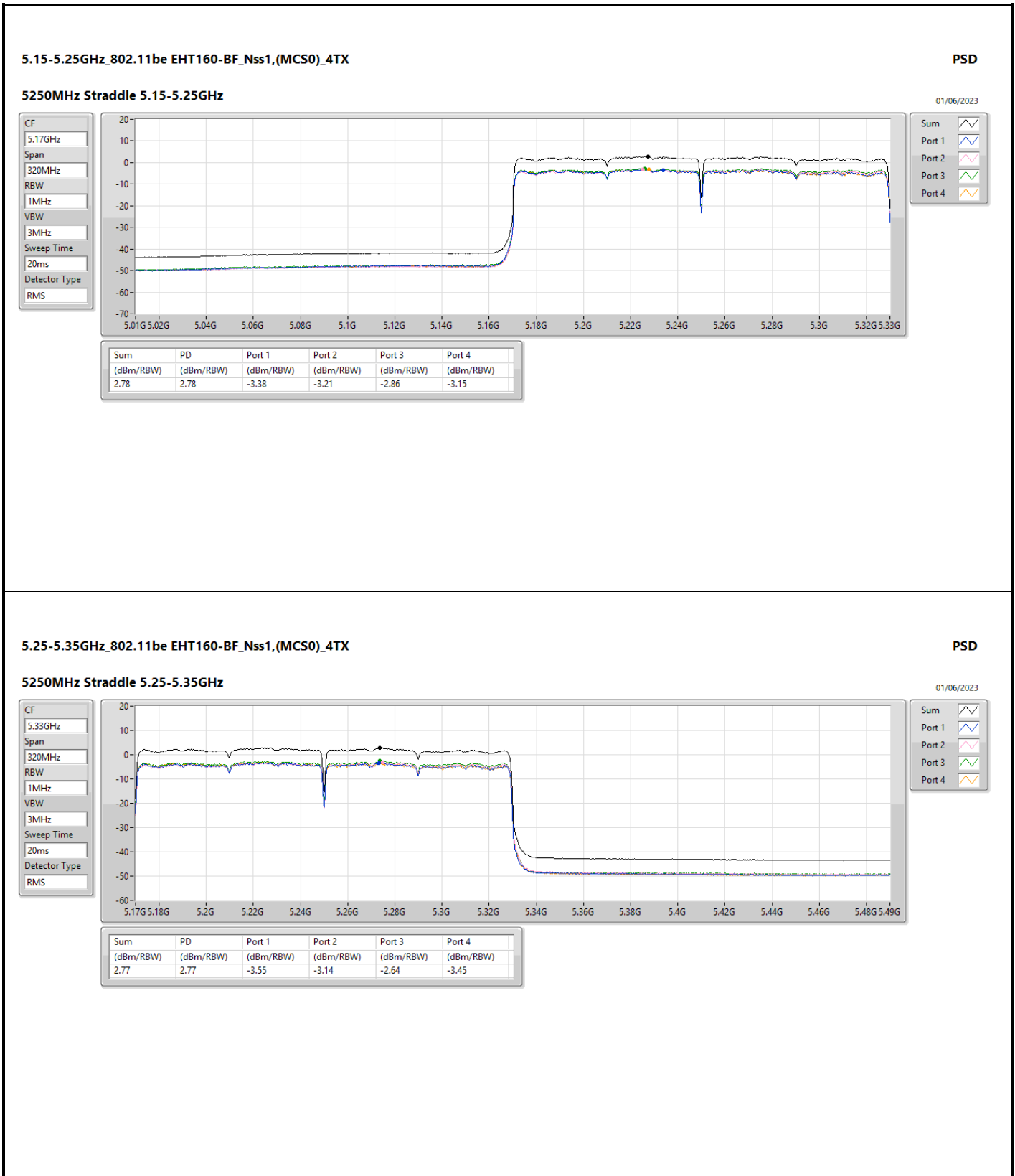


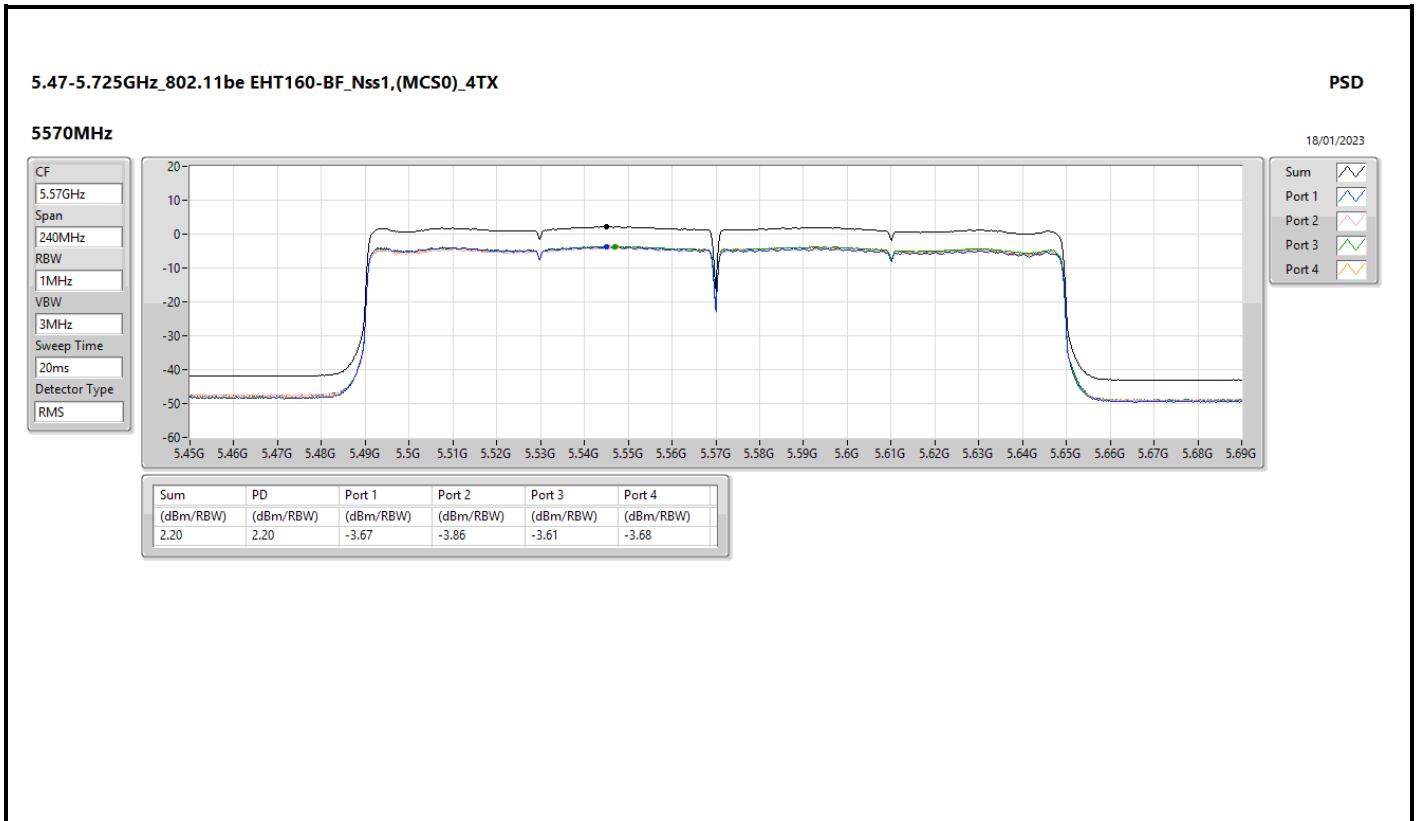










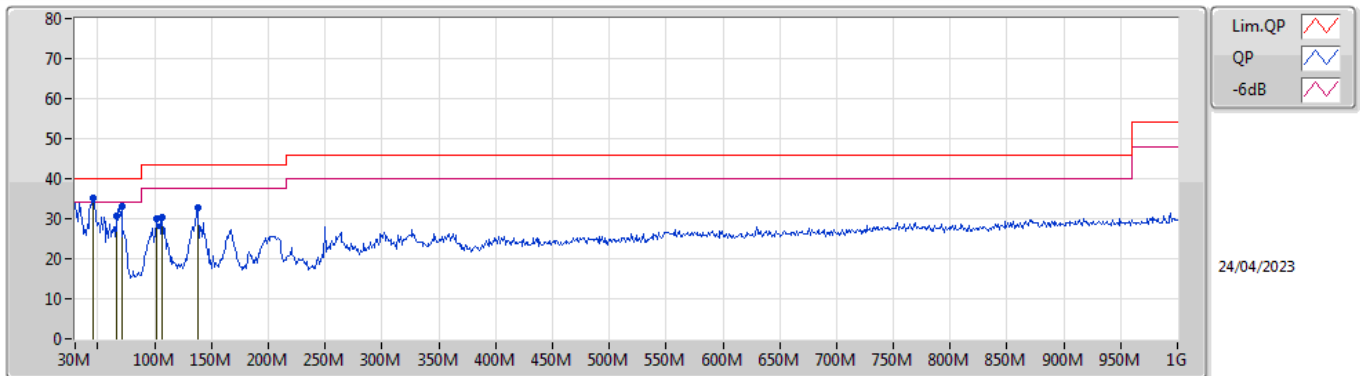




Summary

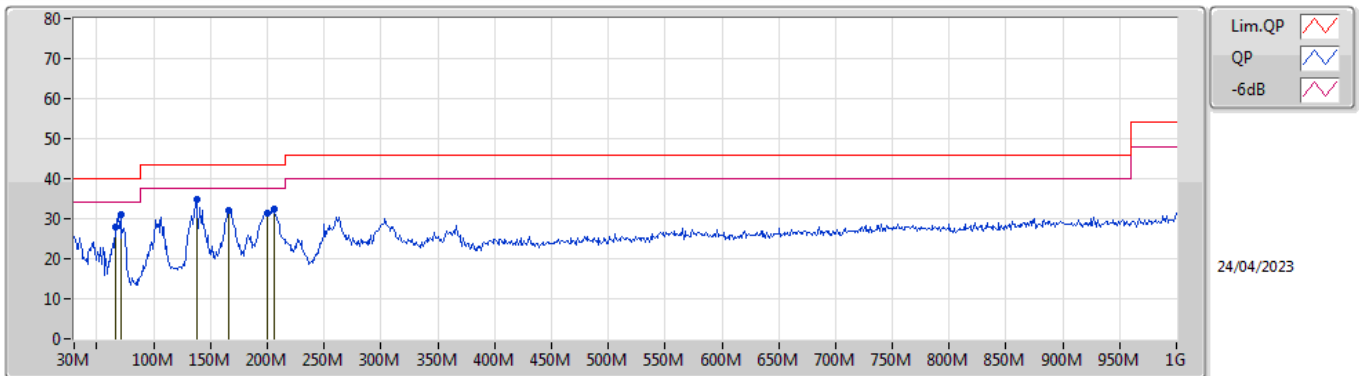
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 4	Pass	PK	45.52M	35.23	40.00	-4.77	Vertical

Mode 4



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	45.52M	35.23	40.00	-4.77	-14.88	3	Vertical	358	1.00	"Worst"	50.11	16.34	0.95	32.17
PK	65.89M	30.54	40.00	-9.46	-18.67	3	Vertical	149	3.00	-	49.21	12.32	1.12	32.11
PK	70.74M	32.98	40.00	-7.02	-18.56	3	Vertical	202	1.50	-	51.54	12.33	1.14	32.03
PK	101.78M	30.07	43.50	-13.43	-13.90	3	Vertical	158	1.25	-	43.97	16.91	1.34	32.15
PK	106.63M	30.21	43.50	-13.29	-13.28	3	Vertical	202	1.25	-	43.49	17.41	1.39	32.08
PK	137.67M	32.68	43.50	-10.82	-13.18	3	Vertical	217	1.00	-	45.86	17.30	1.52	32.00

Mode 4



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	65.89M	27.82	40.00	-12.18	-18.67	3	Horizontal	245	3.00	-	46.49	12.32	1.12	32.11
PK	70.74M	31.07	40.00	-8.93	-18.56	3	Horizontal	97	2.00	-	49.63	12.33	1.14	32.03
PK	137.67M	34.75	43.50	-8.75	-13.18	3	Horizontal	259	2.00	"Worst"	47.93	17.30	1.52	32.00
PK	165.8M	32.10	43.50	-11.40	-14.45	3	Horizontal	272	1.50	-	46.55	15.88	1.70	32.03
PK	199.75M	31.26	43.50	-12.24	-14.94	3	Horizontal	185	1.50	-	46.20	15.22	1.82	31.98
PK	205.57M	32.47	43.50	-11.03	-14.81	3	Horizontal	220	1.50	-	47.28	15.31	1.85	31.97