

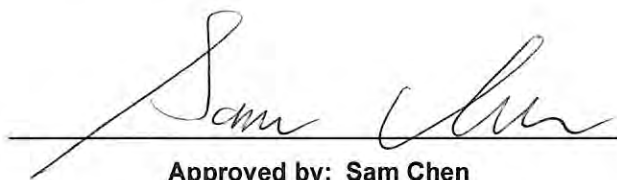


RADIO TEST REPORT

FCC ID : UDX-600191010
Equipment : Catalyst Wireless 9163E Series Wi-Fi 6E Access Point
Brand Name : CISCO
Model Name : CW9163E-B, CW9163E-MR
Applicant : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Standard : 47 CFR FCC Part 15.407

The product was received on Apr. 07, 2023, and testing was started from Apr. 12, 2023 and completed on Sep. 08, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory
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Photographs of EUT v01



History of this test report

Report No.	Version	Description	Issued Date
FR340101AD	01	Initial issue of report	Sep. 19, 2023



Summary of Test Result

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

Conformity Assessment Condition:

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

Disclaimer:

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: Viola Huang**



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5470-5725	a, n (HT20), ac (VHT20), ax (HEW20)	5500-5720	100-144 [12]
5470-5725	n (HT40), ac (VHT40), ax (HEW40)	5510-5710	102-142 [6]
5470-5725	ac (VHT80), ax (HEW80)	5530-5690	106-138 [3]

For Radio 1

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



For Scanning Radio 2

Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11a	20	1TX
5.47-5.725GHz	802.11n HT20	20	1TX
5.47-5.725GHz	802.11ac VHT20	20	1TX
5.47-5.725GHz	802.11ax HEW20	20	1TX
5.47-5.725GHz	802.11n HT40	40	1TX
5.47-5.725GHz	802.11ac VHT40	40	1TX
5.47-5.725GHz	802.11ax HEW40	40	1TX
5.47-5.725GHz	802.11ac VHT80	80	1TX
5.47-5.725GHz	802.11ax HEW80	80	1TX

Note:

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



1.1.2 Antenna Information

Ant.	2.4GHz Port	5GHz Port	Bluetooth / Zigbee	GPS	Brand	Model Name	Antenna Type	Connector	Remark	Gain (dBi)
1	2	2	-	-	CISCO	CW-ANT-O1-NS	Dipole	N-Type	External Antenna	Note 1
2	1	1	-	-	CISCO	CW-ANT-O1-NS	Dipole	N-Type	External Antenna	
3	-	-	-	-	CISCO	CW-ANT-O1-NS	Dipole	N-Type	External Antenna	
4	-	-	-	-	CISCO	CW-ANT-O1-NS	Dipole	N-Type	External Antenna	
5	1	1	-	-	AWAN	A8M6P-100005	PIFA	N-Type	Internal Antenna	
6	-	-	1	-	AWAN	A8M6P-100003	PIFA	N-Type	Internal Antenna	
7	-	-	-	1	AWAN	A8M6P-100004	PIFA	N-Type	Internal Antenna	
8	-	-	-	2	CISCO	CW-ANT-GPS2	Patch	SMA	External Antenna	

Note1:

Ant.	Gain (dBi)										
	2.4GHz	5GHz UNII 1	5GHz UNII 2A	5GHz UNII 2C	5GHz UNII 3	6GHz UNII 5	6GHz UNII 6	6GHz UNII 7	6GHz UNII 8	Bluetooth / Zigbee	GPS
1	4	8	8	8	8	-	-	-	-	-	-
2	4	8	8	8	8	-	-	-	-	-	-
3	-	-	-	-	-	8	8	8	8	-	-
4	-	-	-	-	-	8	8	8	8	-	-
5	4.9	3	3	3.1	3	2.8	3.2	3.2	2.7	-	-
6	-	-	-	-	-	-	-	-	-	5.7	-
7	-	-	-	-	-	-	-	-	-	-	3.7
8	-	-	-	-	-	-	-	-	-	-	3.18

Note2: The above information was declared by manufacturer.

Note3: The 6GHz function of Antennas 3~5 doesn't be enabled at this time.



Note4: Directional gain information

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$$

$NSS1(g1,1) = 10^{G1/20}$; $NSS1(g1,2) = 10^{G2/20}$;

$g_{j,k} = (Nss1(g1,1) + Nss1(g1,2))^2$

$DG = 10 \log[(Nss1(g1,1) + Nss1(g1,2))^2 / N_{ANT}] => 10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$

Where ;

Dipole

2.4G G1= 4 dBi ; G2= 4 dBi ;DG= 7.01dBi

5G G1= 8 dBi ; G2= 8 dBi ;DG= 11.01dBi

<For Radio 1 (2.4GHz/5GHz Functions)>

IEEE 802.11b/g/n/VHT/ax

For 1TX/2RX:

The EUT supports the antenna with TX diversity functions.

Both Port 1 and Port 2 support transmit and receive functions, but only one of them will be used to transmit at one time.

For 2TX/2RX:

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

Port 1 and Port 2 could transmit/receive simultaneously.

<For Scanning Radio 2 (2.4GHz/5GHz Functions)>

IEEE 802.11b/g/n/VHT/ax

For 1TX/1RX:

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

<For Radio 3 / Bluetooth/Zigbee Functions>

For 1TX/1RX:

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

<For Radio 4 / GPS Functions>

For 1RX:

The EUT supports the antenna with RX diversity functions.

Both Port 1 and Port 2 support receive functions, but only one of them will be used to receive at one time.



1.1.3 Mode Test Duty Cycle

For Radio 1

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.931	0.31	1.978m	1k
802.11ax HEW20	0.803	0.95	5.455m	300
802.11ax HEW20-BF	0.803	0.95	5.455m	300
802.11ax HEW40	0.8	0.97	5.453m	300
802.11ax HEW40-BF	0.8	0.97	5.453m	300
802.11ax HEW80	0.8	0.97	5.455m	300
802.11ax HEW80-BF	0.8	0.97	5.455m	300

For Scanning Radio 2

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.95	0.22	1.978m	1k
802.11ax HEW20	0.793	1.01	5.448m	300
802.11ax HEW40	0.786	1.05	5.448m	300
802.11ax HEW80	0.785	1.05	5.448m	300

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From PoE			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for 11n/VHT/11ax in 2.4GHz and 11n/11ac/11ax in 5GHz.			
Weather Band	<input checked="" type="checkbox"/>	With 5600~5650MHz	<input type="checkbox"/>	Without 5600~5650MHz
Function	<input checked="" type="checkbox"/>	Outdoor P2M	<input type="checkbox"/>	Indoor P2M
	<input type="checkbox"/>	Fixed P2P	<input type="checkbox"/>	Client
	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
TPC Function	<input checked="" type="checkbox"/>	With TPC	<input type="checkbox"/>	Without TPC
Channel Puncturing Function	<input type="checkbox"/>	Supported	<input checked="" type="checkbox"/>	Unsupported
Support RU	<input checked="" type="checkbox"/>	Full RU	<input type="checkbox"/>	Partial RU
Test Software Version	QSPR Version 5.0-00202			

Note: The above information was declared by manufacturer.



1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	SW
CW9163E-B	Cisco
CW9163E-MR	Meraki

Note1: From the above models, model: CW9163E-B was selected as representative model for the test and its data was recorded in this report.

Note2: The above information was declared by manufacturer.

1.1.6 Table of Serial Number

Test items	Serial Number
1. AC Power-line Conducted Emissions 2. Radiated Emission Co-location (As below for Non Beamforming mode) 3. Emission Bandwidth 4. Maximum Output Power 5. Power Spectral Density 6. Unwanted Emissions below 1GHz 7. Unwanted Emissions above 1GHz	DSM2711000W
(As below for Beamforming mode) 8. Maximum Output Power	DSM2711001S

Note: The above information was declared by manufacturer.

1.1.7 Table for Radio Function

Radio	Support Band
1	2.4GHz / 5GHz UNII 1~UNII 3
2	Scanning 2.4GHz / 5GHz UNII 1~UNII 3
3	Bluetooth / Zigbee
4	GPS

Note1: The above information was declared by manufacturer.

Note2: The Radio 1 and Radio 2 can't be operated simultaneously.



1.1.8 Table for EUT Information

EUT	RJ-45 Connector	Console Connector
1	Brand Name: UDE Model Name: R66-MK-3001	Brand Name: UDE Model Name: R66-MK-2001
2	Brand Name: ODS Model Name: CMK-RJ45-CAP	Brand Name: ODS Model Name: CMK-RJ45-CG

Note1: From the above EUTs, EUT 1 was selected as representative EUT for all the tests and its data was recorded in this report; EUT 2 was selected as representative EUT for AC Power-line Conducted Emissions, Emissions in Non-restricted Frequency Bands below 1GHz and its data was recorded in this report.

Note2: The above information was declared by manufacturer.



1.2 Applicable Standards

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

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

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

- ♦ FCC KDB 662911 D01 v02r01
- ♦ 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	TH01-CB	Eason Chen	22.9~24 / 61~63	Apr. 17, 2023~Jun. 06, 2023
Radiated below 1GHz	03CH04-CB	Chris Li	22~23.5 / 58~63	Apr. 12, 2023~May 27, 2023
	03CH02-CB	Chris Li	21.8~23.3 / 59~60	Sep. 04, 2023~Sep. 05, 2023
Radiated above 1GHz (for co-location test)	03CH04-CB	Chris Li	22~23.5 / 58~63	Apr. 12, 2023~May 27, 2023
Radiated above 1GHz	03CH02-CB	Chris Li	22.3~22.9 / 57~63	Apr. 12, 2023~May 27, 2023
AC Conduction	CO02-CB	Peter Wu	22~23 / 58~59	Jul. 19, 2023~Sep. 08, 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))

For test date before Jun. 01, 2023

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



For test date after May 31, 2023

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	3.1 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.1 dB	Confidence levels of 95%
Bandwidth Measurement	2.2%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For Radio 1

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX(1)	-
5500MHz	20.5
5580MHz	20.5
5700MHz	21
5720MHz Straddle 5.47-5.725GHz	21.5
5720MHz Straddle 5.725-5.85GHz	21.5
802.11ax HEW20_Nss1,(MCS0)_1TX(1)	-
5500MHz	21
5580MHz	21
5700MHz	21
5720MHz Straddle 5.47-5.725GHz	22.5
5720MHz Straddle 5.725-5.85GHz	22.5
802.11ax HEW40_Nss1,(MCS0)_1TX(1)	-
5510MHz	18
5550MHz	21
5670MHz	21
5710MHz Straddle 5.47-5.725GHz	22
5710MHz Straddle 5.725-5.85GHz	22
802.11ax HEW80_Nss1,(MCS0)_1TX(1)	-
5530MHz	17.5
5610MHz	21
5690MHz Straddle 5.47-5.725GHz	21.5
5690MHz Straddle 5.725-5.85GHz	21.5
802.11a_Nss1,(6Mbps)_1TX(2)	-
5500MHz	21
5580MHz	21
5700MHz	21
5720MHz Straddle 5.47-5.725GHz	21.5
5720MHz Straddle 5.725-5.85GHz	21.5
802.11ax HEW20_Nss1,(MCS0)_1TX(2)	-
5500MHz	21.5
5580MHz	21.5
5700MHz	21.5
5720MHz Straddle 5.47-5.725GHz	22.5
5720MHz Straddle 5.725-5.85GHz	22.5



Mode	Power Setting
802.11ax HEW40_Nss1,(MCS0)_1TX(2)	-
5510MHz	19
5550MHz	21
5670MHz	21.5
5710MHz Straddle 5.47-5.725GHz	22
5710MHz Straddle 5.725-5.85GHz	22
802.11ax HEW80_Nss1,(MCS0)_1TX(2)	-
5530MHz	17.5
5610MHz	22
5690MHz Straddle 5.47-5.725GHz	21.5
5690MHz Straddle 5.725-5.85GHz	21.5
802.11a_Nss1,(6Mbps)_2TX	-
5500MHz	14.5
5580MHz	14.5
5700MHz	15
5720MHz Straddle 5.47-5.725GHz	15.5
5720MHz Straddle 5.725-5.85GHz	15.5
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5500MHz	15.5
5580MHz	15.5
5700MHz	16
5720MHz Straddle 5.47-5.725GHz	16.5
5720MHz Straddle 5.725-5.85GHz	16.5
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5510MHz	17
5550MHz	17.5
5670MHz	18.5
5710MHz Straddle 5.47-5.725GHz	18
5710MHz Straddle 5.725-5.85GHz	18
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5530MHz	15.5
5610MHz	18
5690MHz Straddle 5.47-5.725GHz	18.5
5690MHz Straddle 5.725-5.85GHz	18.5
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5500MHz	15
5580MHz	15
5700MHz	15.5
5720MHz Straddle 5.47-5.725GHz	16.5
5720MHz Straddle 5.725-5.85GHz	16.5



Mode	Power Setting
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5510MHz	14.5
5550MHz	14.5
5670MHz	15.5
5710MHz Straddle 5.47-5.725GHz	15.5
5710MHz Straddle 5.725-5.85GHz	15.5
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5530MHz	14.5
5610MHz	15
5690MHz Straddle 5.47-5.725GHz	15
5690MHz Straddle 5.725-5.85GHz	15

For Scanning Radio 2

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5500MHz	19.5
5580MHz	24
5700MHz	20
5720MHz Straddle 5.47-5.725GHz	24
5720MHz Straddle 5.725-5.85GHz	24
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5500MHz	19
5580MHz	24
5700MHz	19.5
5720MHz Straddle 5.47-5.725GHz	24
5720MHz Straddle 5.725-5.85GHz	24
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5510MHz	17.5
5550MHz	22.5
5670MHz	21.5
5710MHz Straddle 5.47-5.725GHz	25
5710MHz Straddle 5.725-5.85GHz	25
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5530MHz	18
5610MHz	22
5690MHz Straddle 5.47-5.725GHz	24.5
5690MHz Straddle 5.725-5.85GHz	24.5



Note:

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



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
1	EUT 1 + Radio 1 (2.4GHz) + PoE 1
2	EUT 1 + Radio 1 (2.4GHz) + PoE 2
3	EUT 1 + Radio 1 (2.4GHz) + PoE 3
4	EUT 1 + Radio 1 (2.4GHz) + PoE 4
5	EUT 1 + Radio 1 (2.4GHz) + PoE 5
Mode 3 has been evaluated to be the worst case among Mode 1~5, thus measurement for Mode 6 ~ 9 will follow this same test mode.	
6	EUT 1 + Radio 1 (5GHz) + PoE 3
7	EUT 1 + Scanning Radio 2 (2.4GHz) + PoE 3
8	EUT 1 + Scanning Radio 2 (5GHz) + PoE 3
9	EUT 1 + Radio 3 (Bluetooth) + PoE 3
Mode 3 has been evaluated to be the worst case among Mode 1~9, thus measurement for Mode 10 will follow this same test mode.	
10	EUT 2 + Radio 1 (2.4GHz) + PoE 3
Mode 3 has been evaluated to be the worst case among Mode 1~10, thus measurement for Mode 11 will follow this same test mode.	
11	EUT 1 + Radio 3 (Zigbee) + PoE 3
For operating mode 3 is the worst case and it was record in this test report.	

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



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
1	EUT 1 in Y axis + Radio 1 (2.4GHz) + PoE 1
2	EUT 1 in Y axis + Radio 1 (2.4GHz) + PoE 2
3	EUT 1 in Y axis + Radio 1 (2.4GHz) + PoE 3
4	EUT 1 in Y axis + Radio 1 (2.4GHz) + PoE 4
5	EUT 1 in Y axis + Radio 1 (2.4GHz) + PoE 5
Mode 5 has been evaluated to be the worst case among Mode 1~5, thus measurement for Mode 6 ~ 9 will follow this same test mode.	
6	EUT 1 in Y axis + Radio 1 (5GHz) + PoE 5
7	EUT 1 in Y axis + Scanning Radio 2 (2.4GHz) + PoE 5
8	EUT 1 in Y axis + Scanning Radio 2 (5GHz) + PoE 5
9	EUT 1 in Y axis + Radio 3 (Bluetooth) + PoE 5
Mode 8 has been evaluated to be the worst case among Mode 1~9, thus measurement for Mode 10 will follow this same test mode.	
10	EUT 2 in Y axis + Scanning Radio 2 (5GHz) + PoE 5
Mode 8 has been evaluated to be the worst case among Mode 1~10, thus measurement for Mode 11 will follow this same test mode.	
11	EUT 1 in Y axis + Radio 3 (Zigbee) + PoE 5
For operating mode 8 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX After evaluating, the worst case was found at Y axis. So the measurement will follow this same test configuration.
1	EUT 1 in Y axis + Radio 1
2	EUT 1 in Y axis + Scanning Radio 2

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



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	Radio 1 (WLAN 2.4GHz+5GHz) + Scanning Radio 2 (WLAN 2.4GHz) + Radio 3 (Bluetooth)
2	Radio 1 (WLAN 2.4GHz+5GHz) + Scanning Radio 2 (WLAN 5GHz) + Radio 3 (Bluetooth)
3	Radio 1 (WLAN 2.4GHz+5GHz) + Scanning Radio 2 (WLAN 2.4GHz) + Radio 3 (Zigbee)
4	Radio 1 (WLAN 2.4GHz+5GHz) + Scanning Radio 2 (WLAN 5GHz) + Radio 3 (Zigbee)

Refer to Sporton Test Report No.: FA340101 for Co-location RF Exposure Evaluation.

Note: The PoEs are for measurement only, would not be marketed.

PoE information as below:

Power	Brand Name	Model Name
PoE 1	PHIHONG	POEA33U-1ATE
PoE 2	PHIHONG	POE60U-1BT-X
PoE 3	PHIHONG	POE29U-1AT(PL)
PoE 4	Delta	ADH-65AR B
PoE 5	Cisco	POEO75U-1BT

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Equipment	Brand Name	Model Name	Remark
Mount bracket 1*1	Meraki	MA-MNT-MR-16	Used for CW9163E-MR
Mount bracket 2*1	Cisco	AIR-MNT-VERT1	Used for CW9163E-B
Waterproof Covering (Cap) 1*1	UDE	R66-MK-3001	Used for EUT 1
Waterproof Covering (Cap) 2*1	ODS	CMK-RJ45-CAP	Used for EUT 2
Waterproof Covering (Cable Gland) 1*1	UDE	R66-MK-2001	Used for EUT 1
Waterproof Covering (Cable Gland) 2*1	ODS	CMK-RJ45-CG	Used for EUT 2



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	2.5G LAN PC	DELL	T3400	N/A
B	PoE 3	PHIHONG	POE29U-1AT(PL)	N/A

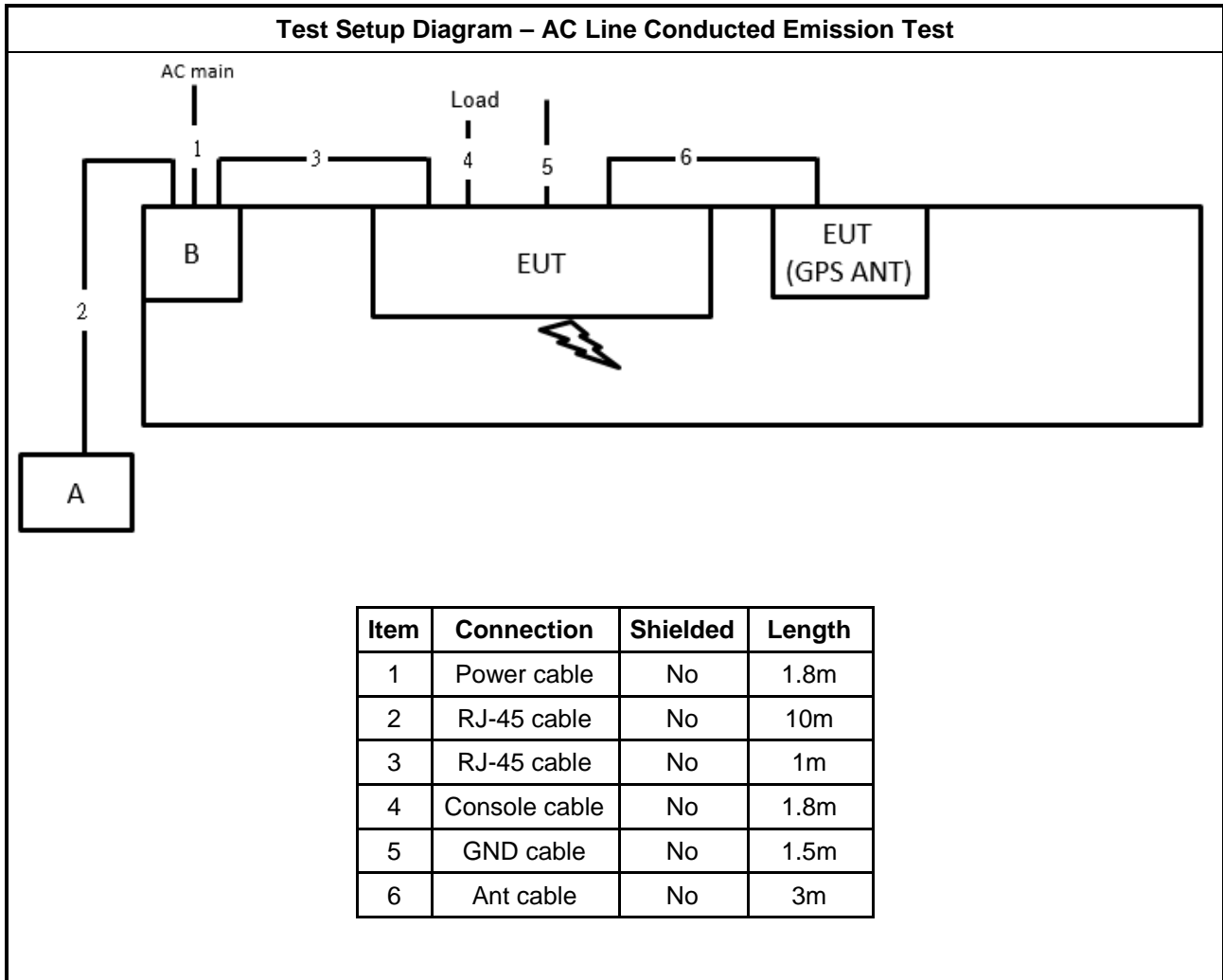
For Radiated:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE 5	Cisco	POEO75U-1BT	N/A
B	Notebook	DELL	E6430	N/A

For RF Conducted:

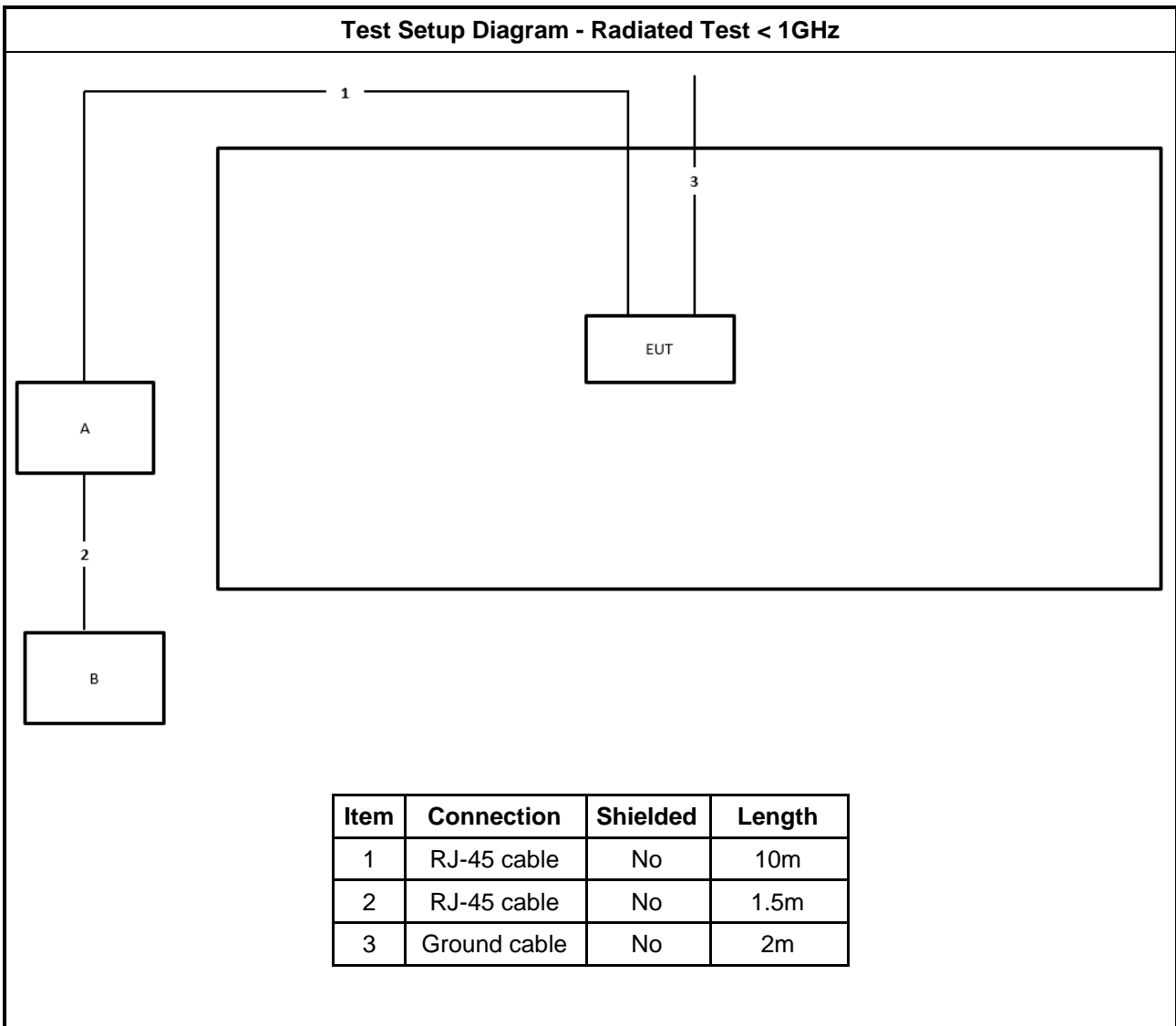
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	PoE 4	Delta	ADH-65AR B	N/A

2.6 Test Setup Diagram



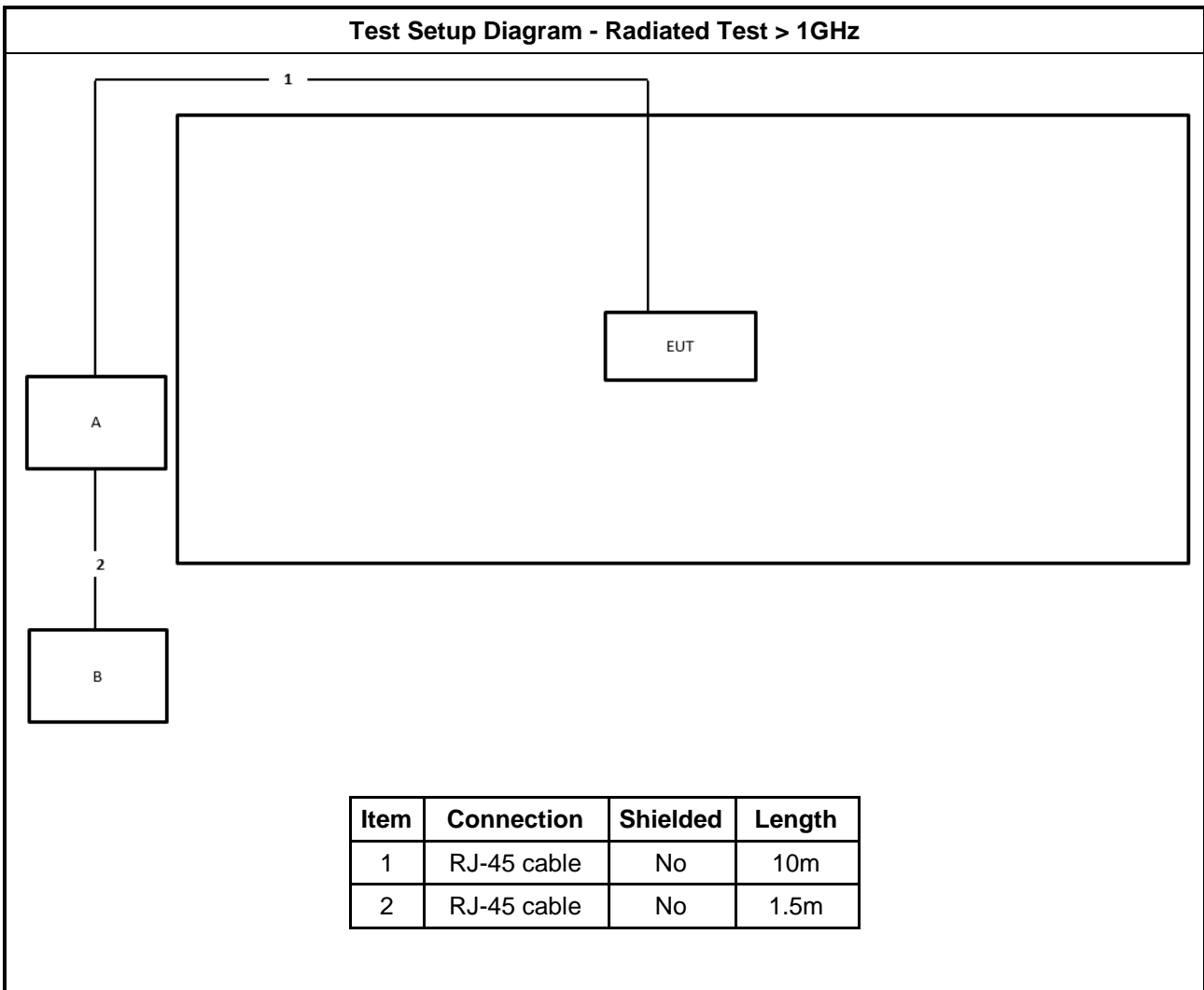


Test Setup Diagram - Radiated Test < 1GHz





Test Setup Diagram - Radiated Test > 1GHz





3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

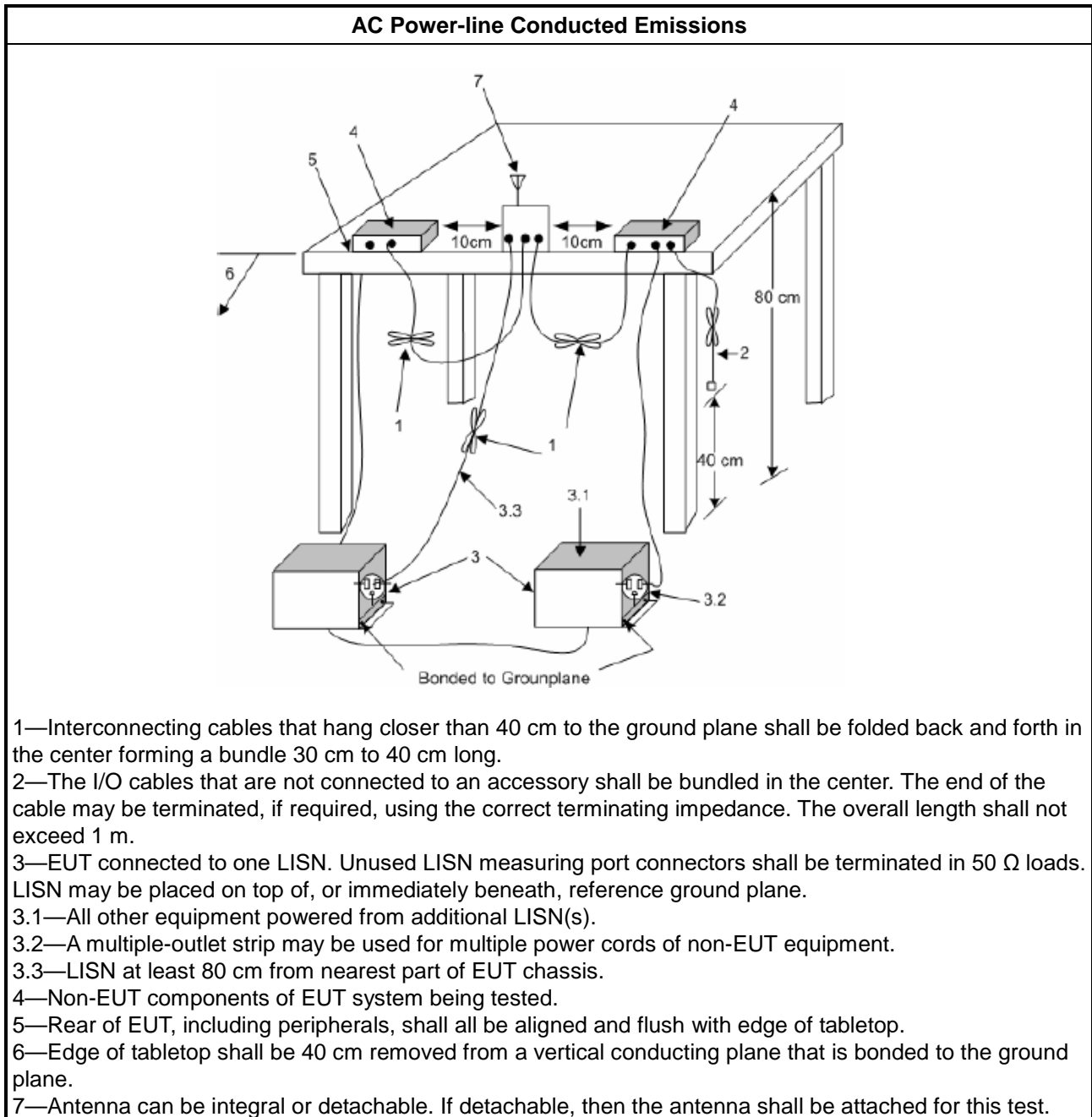
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

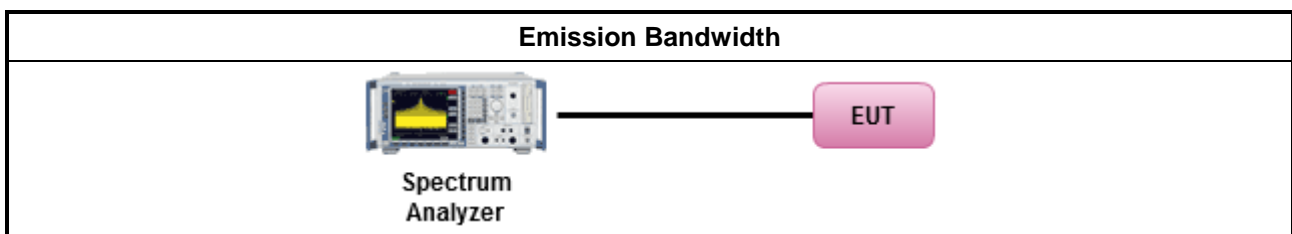
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Output Power

3.3.1 Limit

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



3.3.2 Measuring Instruments

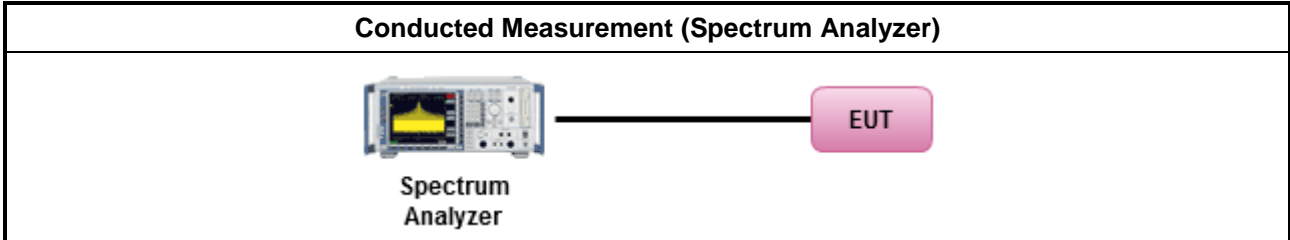
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

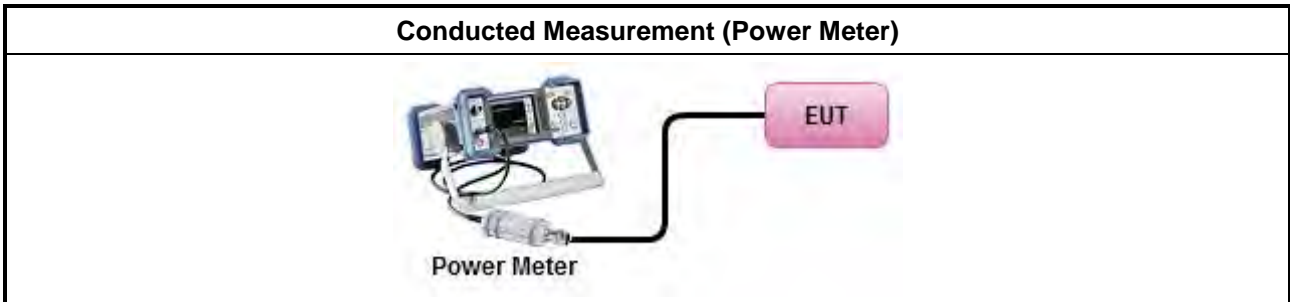
Test Method	
	Average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband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

3.3.4 Test Setup

For Straddle channel



For others channel



3.3.5 Test Result of Maximum Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Limit

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

3.4.2 Measuring Instruments

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

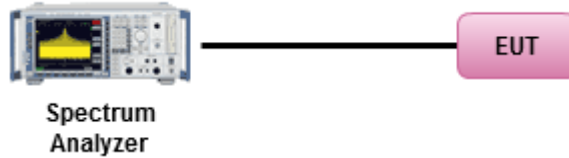


3.4.3 Test Procedures

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

Test Method

- Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

3.4.4 Test Setup**Conducted Measurement****3.4.5 Test Result of Power Spectral Density**

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Unwanted Emissions Limit

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

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

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

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

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

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



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

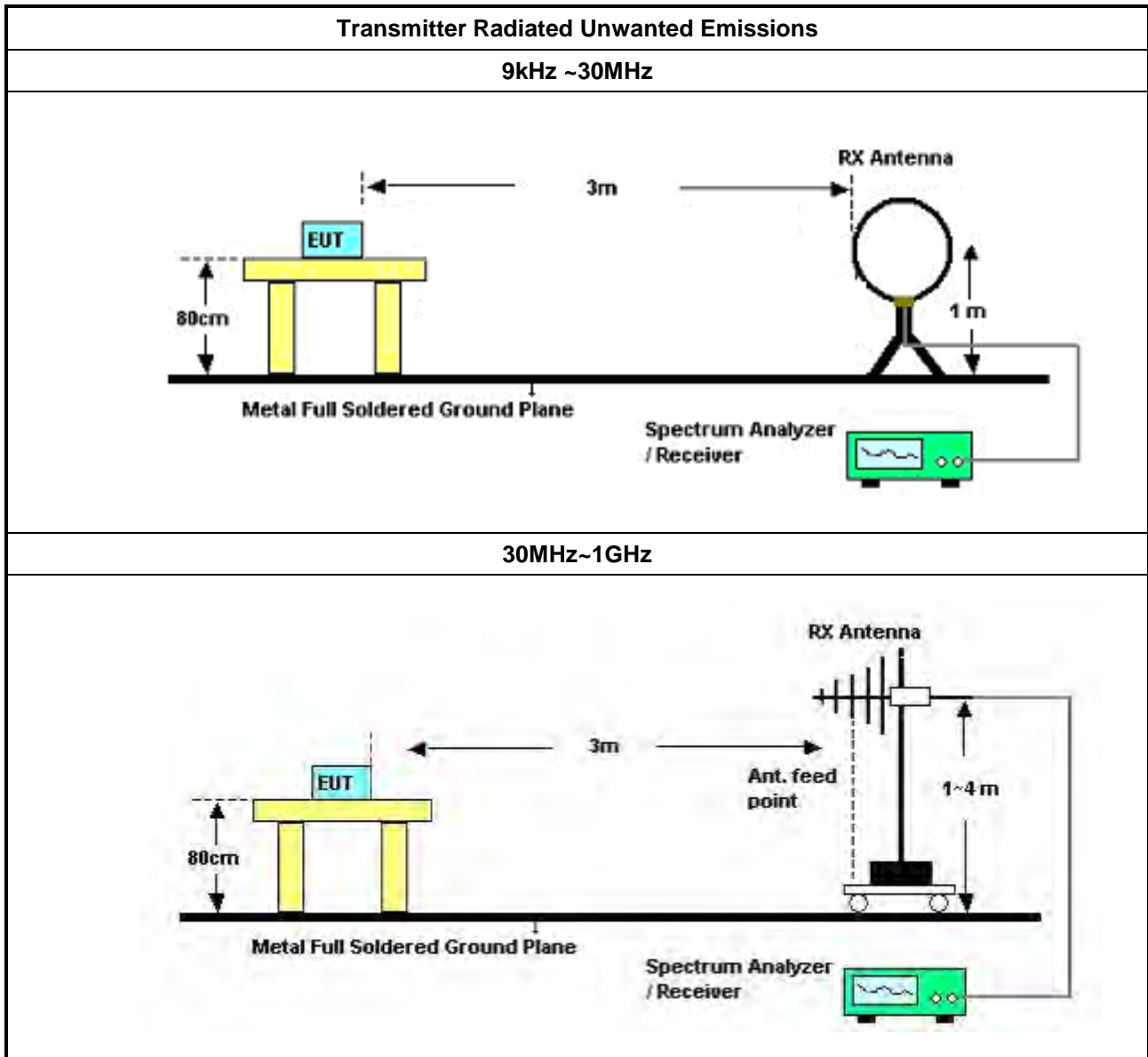
3.5.2 Measuring Instruments

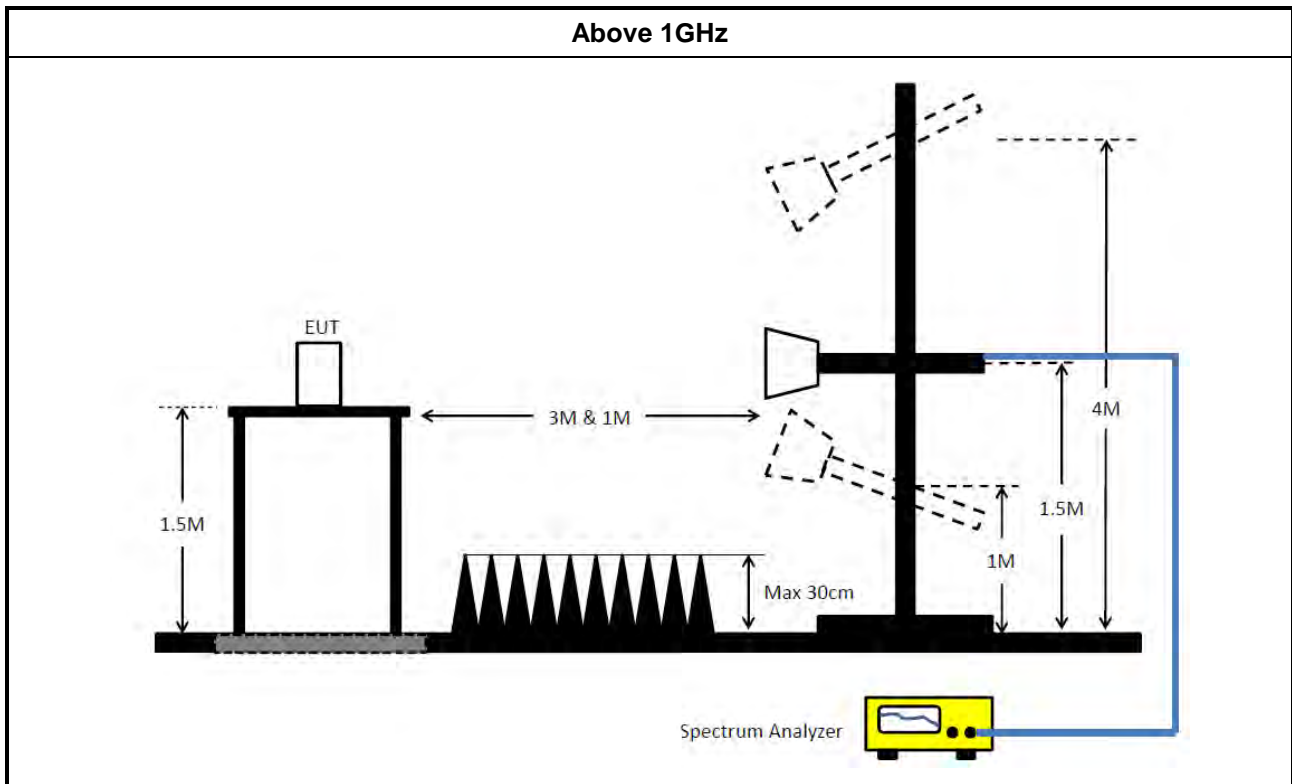
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method															
<ul style="list-style-type: none"> ▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). 															
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. 															
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"></td> <td> <ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. </td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.</td> </tr> </table> 			<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. 	<input type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).	<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).	<input type="checkbox"/>	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.	<input type="checkbox"/>	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.	<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.	<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. 														
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).														
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).														
<input type="checkbox"/>	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.														
<input type="checkbox"/>	Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.														
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.														
<input type="checkbox"/>	Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.														
<ul style="list-style-type: none"> ▪ For radiated measurement. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px;"></td> <td> <ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. </td> </tr> </table> 			<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. 												
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. 														
<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level. 															
<ul style="list-style-type: none"> ▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported. 															

3.5.4 Test Setup





3.5.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

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

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

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

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Apr. 06, 2023	Apr. 05, 2024	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 20, 2022	Dec. 19, 2023	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	May 18, 2023	May 17, 2024	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH04-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 23, 2023	Mar. 22, 2024	Radiation (03CH04-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH04-CB	30 MHz ~ 1 GHz	Aug. 02, 2022	Aug. 01, 2023	Radiation (03CH04-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH04-CB	30 MHz ~ 1 GHz	Aug. 01, 2023	Jul. 31, 2024	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 23, 2023	Feb. 22, 2024	Radiation (03CH04-CB)
BILOG ANTENNA with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	22021&AT-N06 07	30MHz ~ 1GHz	Oct. 08, 2022	Oct. 07, 2023	Radiation (03CH04-CB)
Horn Antenna	ETS-Lindgren	3115	00143147	750MHz~18GHz	Oct. 12, 2022	Oct. 11, 2023	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH04-CB)
Pre-Amplifier	SGH	SGH0301	20230109-2	10M~1GHz	Jan. 13, 2023	Jan. 12, 2024	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 21, 2023	Mar. 20, 2024	Radiation (03CH04-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH04-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 13, 2023	Jun. 12, 2024	Radiation (03CH04-CB)
RF Cable-low	Woken	RG402	Low Cable-03+67	30MHz - 1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 23, 2023	Mar. 22, 2024	Radiation (03CH02-CB)
3m Semi Anechoic Chamber (NSA)	RIKEN	SAC-3M	03CH02-CB	30 MHz ~ 1 GHz	Mar. 25, 2023	Mar. 24, 2024	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 25, 2023	Mar. 24, 2024	Radiation (03CH02-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jun. 23, 2022	Jun. 22, 2023	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH02-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Dec. 05, 2022	Dec. 04, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
Signal Analyzer	R&S	FSV3044	101320	9kHz ~ 44GHz	May 20, 2022	May 19, 2023	Conducted (TH01-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Apr. 21, 2023	Apr. 20, 2024	Conducted (TH01-CB)
Switch	SPTCB	SP-SWI	SWI-01	1 GHz ~26.5 GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Feb. 22, 2023	Feb. 21, 2024	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Feb. 22, 2023	Feb. 21, 2024	Conducted (TH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH01-CB)

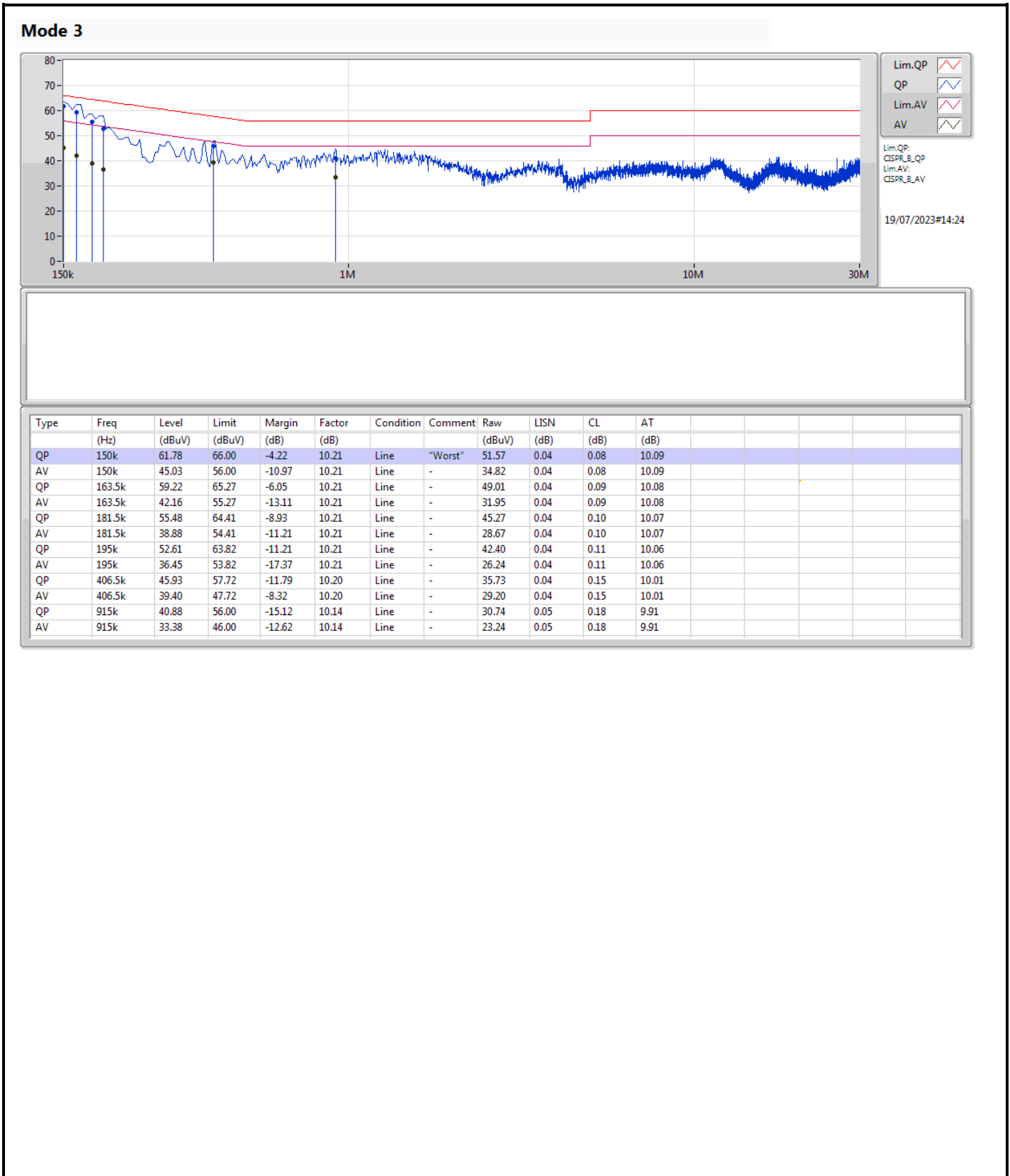
Note: Calibration Interval of instruments listed above is one year.

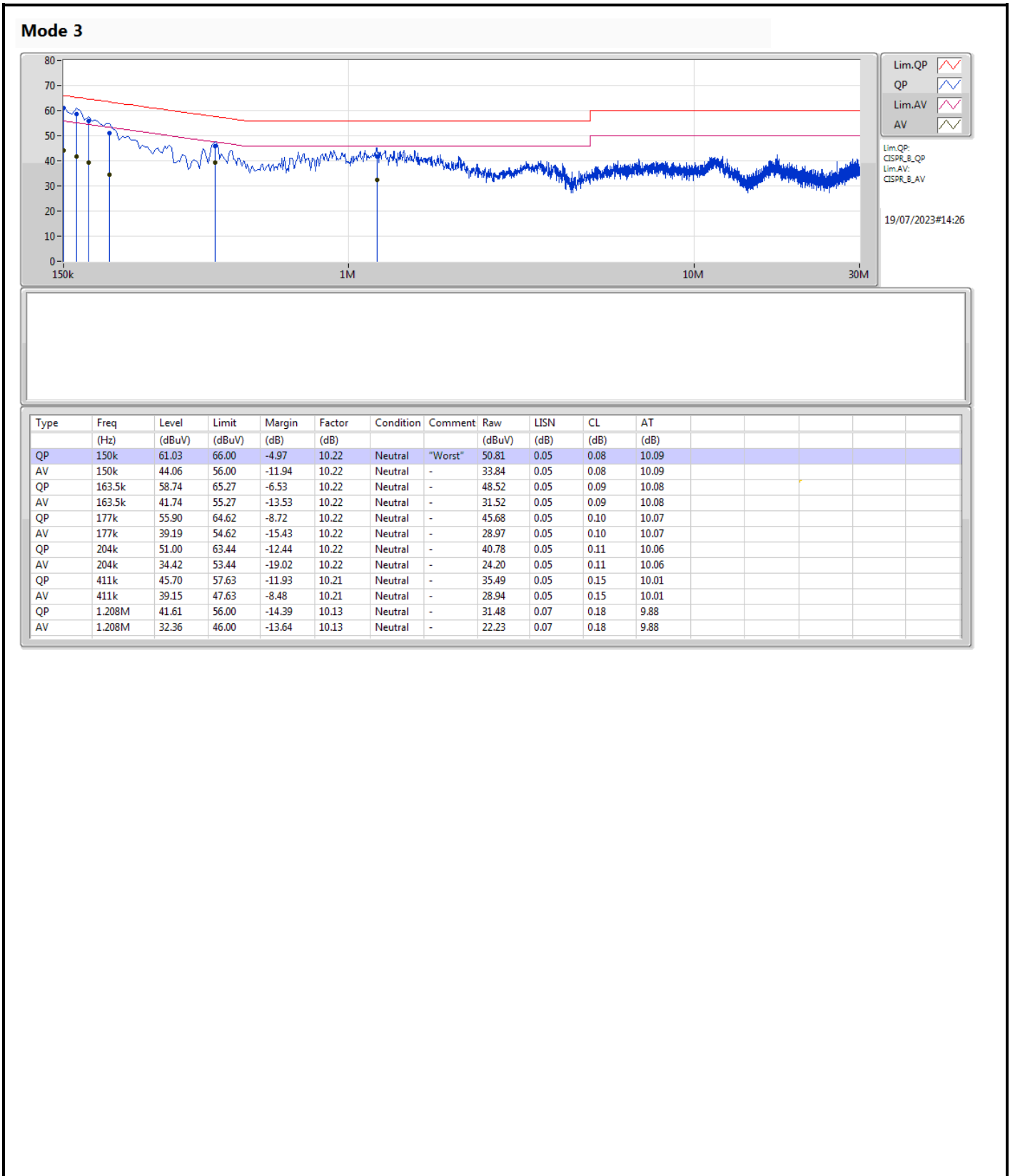
N.C.R. means Non-Calibration required.



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 3	Pass	QP	150k	61.78	66.00	-4.22	Line







Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	20.075M	16.382M	16M4D1D	15.255M	13.208M
802.11a_Nss1,(6Mbps)_1TX	20.24M	16.382M	16M4D1D	15.27M	13.193M
802.11a_Nss1,(6Mbps)_2TX	20.57M	16.382M	16M4D1D	15.255M	13.178M
802.11ax HEW20_Nss1,(MCS0)_1TX	20.955M	18.916M	18M9D1D	16.08M	14.423M
802.11ax HEW20_Nss1,(MCS0)_1TX	21.23M	18.916M	18M9D1D	15.705M	14.468M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.12M	18.916M	18M9D1D	15.63M	14.453M
802.11ax HEW40_Nss1,(MCS0)_1TX	41.25M	37.781M	37M8D1D	35.455M	33.828M
802.11ax HEW40_Nss1,(MCS0)_1TX	41.14M	37.731M	37M7D1D	35.525M	33.688M
802.11ax HEW40_Nss1,(MCS0)_2TX	41.36M	37.781M	37M8D1D	35.35M	33.688M
802.11ax HEW80_Nss1,(MCS0)_1TX	82.28M	77.161M	77M2D1D	76.05M	73.088M
802.11ax HEW80_Nss1,(MCS0)_1TX	82.5M	77.161M	77M2D1D	76.05M	73.013M
802.11ax HEW80_Nss1,(MCS0)_2TX	82.5M	77.161M	77M2D1D	76.425M	73.013M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	3.16M	3.558M	3M56D1D	3.16M	3.558M
802.11a_Nss1,(6Mbps)_1TX	3.12M	3.518M	3M52D1D	3.12M	3.518M
802.11a_Nss1,(6Mbps)_2TX	3.12M	3.598M	3M60D1D	3.12M	3.558M
802.11ax HEW20_Nss1,(MCS0)_1TX	4.36M	4.578M	4M58D1D	4.36M	4.578M
802.11ax HEW20_Nss1,(MCS0)_1TX	4.3M	4.538M	4M54D1D	4.3M	4.538M
802.11ax HEW20_Nss1,(MCS0)_2TX	4.44M	4.578M	4M58D1D	4.36M	4.558M
802.11ax HEW40_Nss1,(MCS0)_1TX	4.1M	4.138M	4M14D1D	4.1M	4.138M
802.11ax HEW40_Nss1,(MCS0)_2TX	4.08M	4.198M	4M20D1D	4.02M	4.138M
802.11ax HEW80_Nss1,(MCS0)_1TX	4M	4.918M	4M92D1D	4M	4.918M
802.11ax HEW80_Nss1,(MCS0)_1TX	3.94M	4.358M	4M36D1D	3.94M	4.358M
802.11ax HEW80_Nss1,(MCS0)_2TX	4M	4.338M	4M34D1D	3.98M	4.318M

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



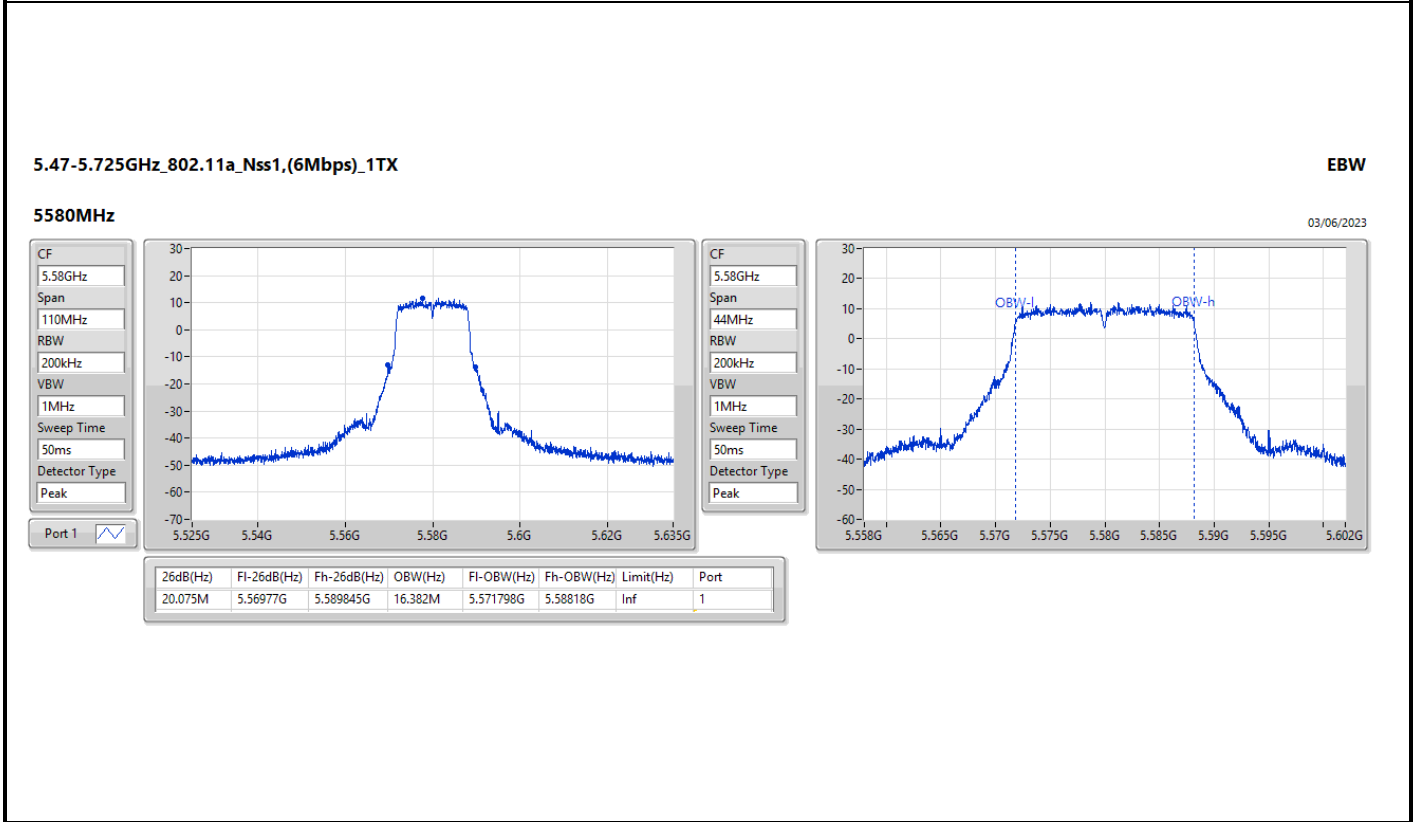
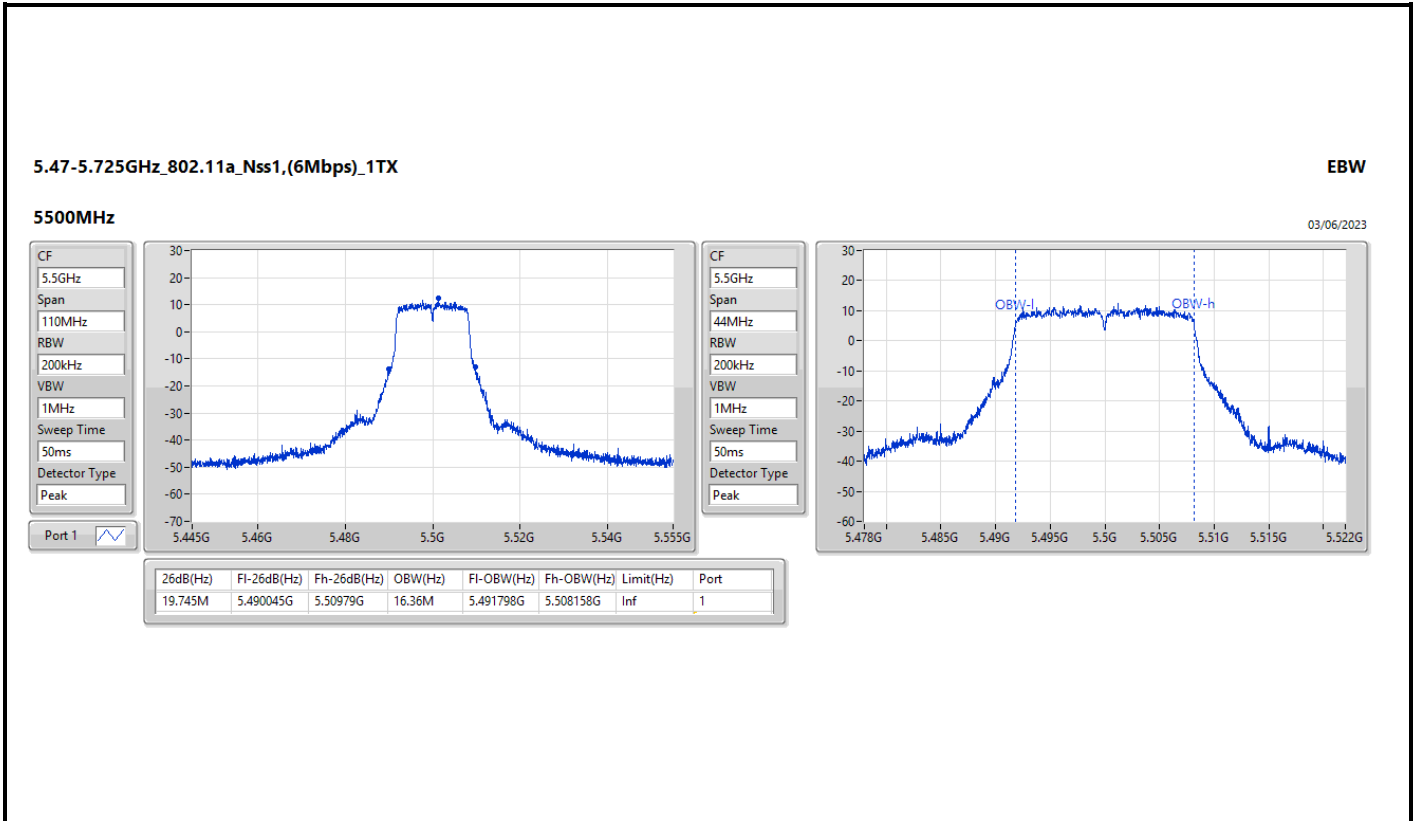
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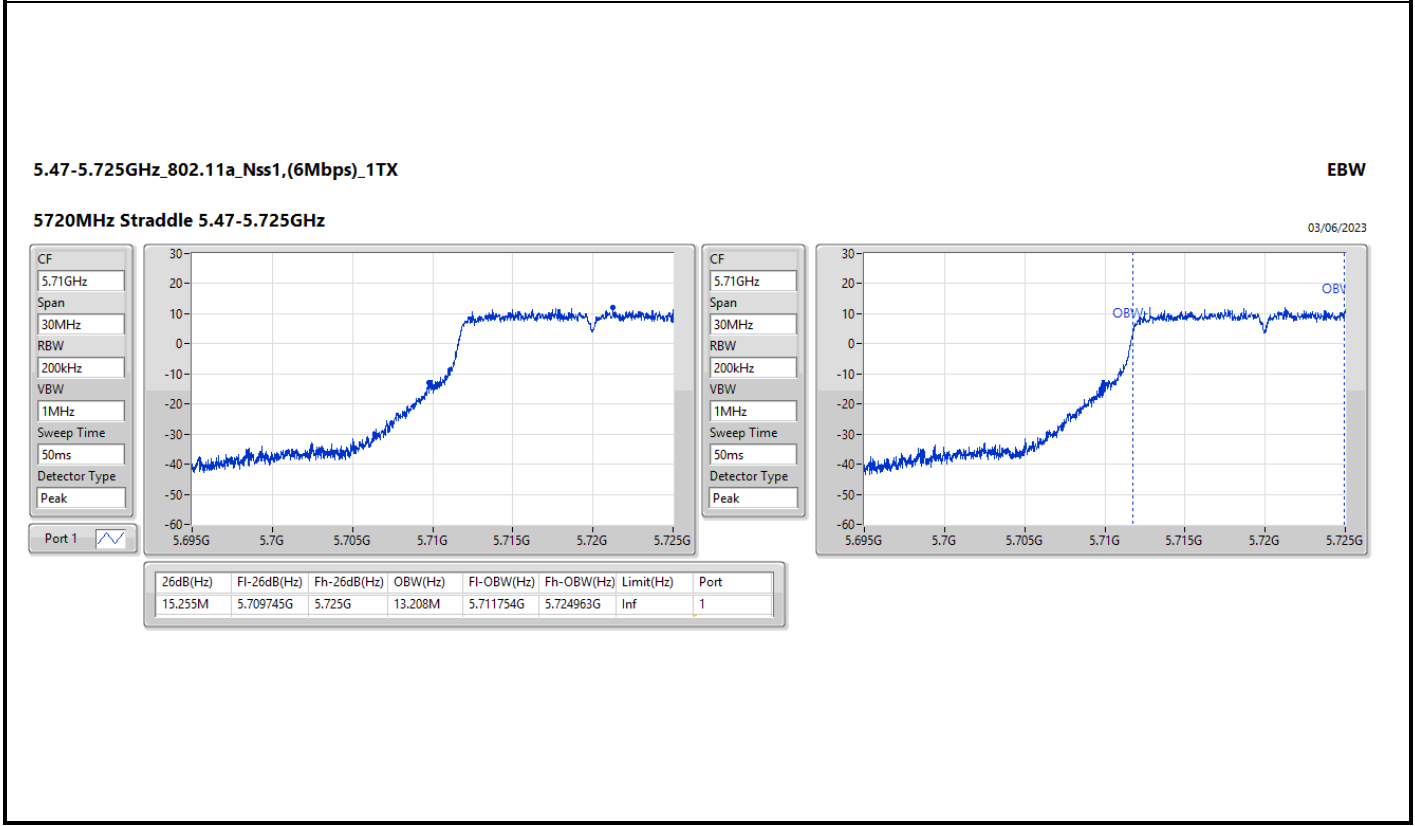
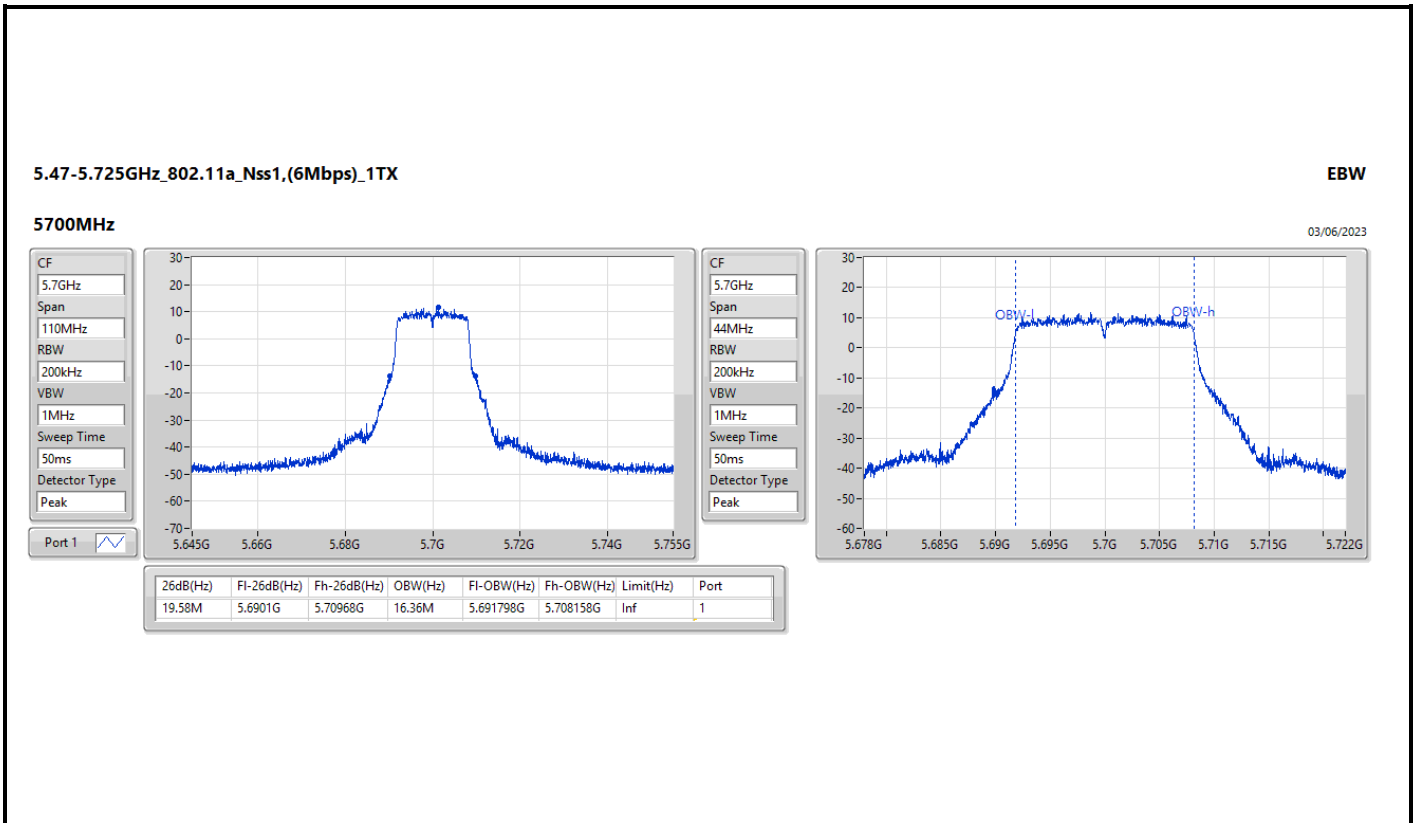
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-
5500MHz	Pass	Inf	19.745M	16.36M		
5580MHz	Pass	Inf	20.075M	16.382M		
5700MHz	Pass	Inf	19.58M	16.36M		
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.255M	13.208M		
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.16M	3.558M		
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5500MHz	Pass	Inf	20.955M	18.891M		
5580MHz	Pass	Inf	20.9M	18.916M		
5700MHz	Pass	Inf	20.955M	18.891M		
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.08M	14.423M		
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.36M	4.578M		
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5510MHz	Pass	Inf	40.7M	37.681M		
5550MHz	Pass	Inf	40.81M	37.781M		
5670MHz	Pass	Inf	41.25M	37.731M		
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.455M	33.828M		
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5530MHz	Pass	Inf	82.28M	77.161M		
5610MHz	Pass	Inf	81.84M	77.161M		
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.05M	73.088M		
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4M	4.918M		
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-
5500MHz	Pass	Inf			20.24M	16.382M
5580MHz	Pass	Inf			19.91M	16.36M
5700MHz	Pass	Inf			19.965M	16.36M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf			15.27M	13.193M
5720MHz Straddle 5.725-5.85GHz	Pass	500k			3.12M	3.518M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5500MHz	Pass	Inf			21.23M	18.916M
5580MHz	Pass	Inf			21.12M	18.891M
5700MHz	Pass	Inf			21.23M	18.891M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf			15.705M	14.468M
5720MHz Straddle 5.725-5.85GHz	Pass	500k			4.3M	4.538M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5510MHz	Pass	Inf			40.59M	37.681M
5550MHz	Pass	Inf			41.14M	37.731M
5670MHz	Pass	Inf			41.14M	37.731M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf			35.525M	33.688M
5710MHz Straddle 5.725-5.85GHz	Pass	500k			4.1M	4.138M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5530MHz	Pass	Inf			82.06M	76.962M
5610MHz	Pass	Inf			82.5M	77.161M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf			76.05M	73.013M
5690MHz Straddle 5.725-5.85GHz	Pass	500k			3.94M	4.358M
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5500MHz	Pass	Inf	20.35M	16.36M	20.515M	16.382M
5580MHz	Pass	Inf	20.13M	16.36M	20.46M	16.36M
5700MHz	Pass	Inf	20.24M	16.36M	20.57M	16.36M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.3M	13.178M	15.255M	13.193M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	3.598M	3.12M	3.558M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5500MHz	Pass	Inf	21.12M	18.916M	21.12M	18.891M
5580MHz	Pass	Inf	21.065M	18.916M	21.065M	18.866M
5700MHz	Pass	Inf	21.065M	18.916M	20.79M	18.891M

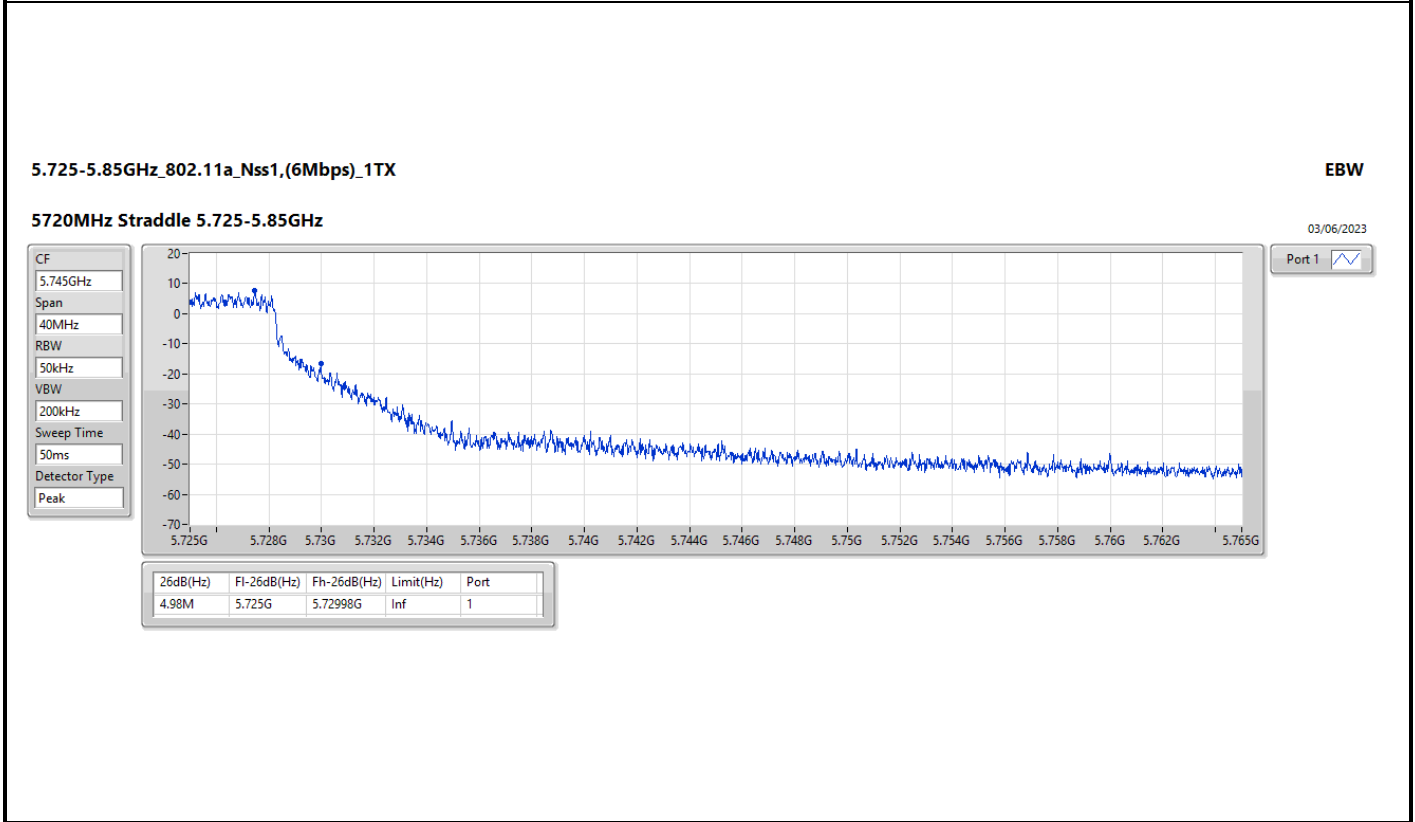
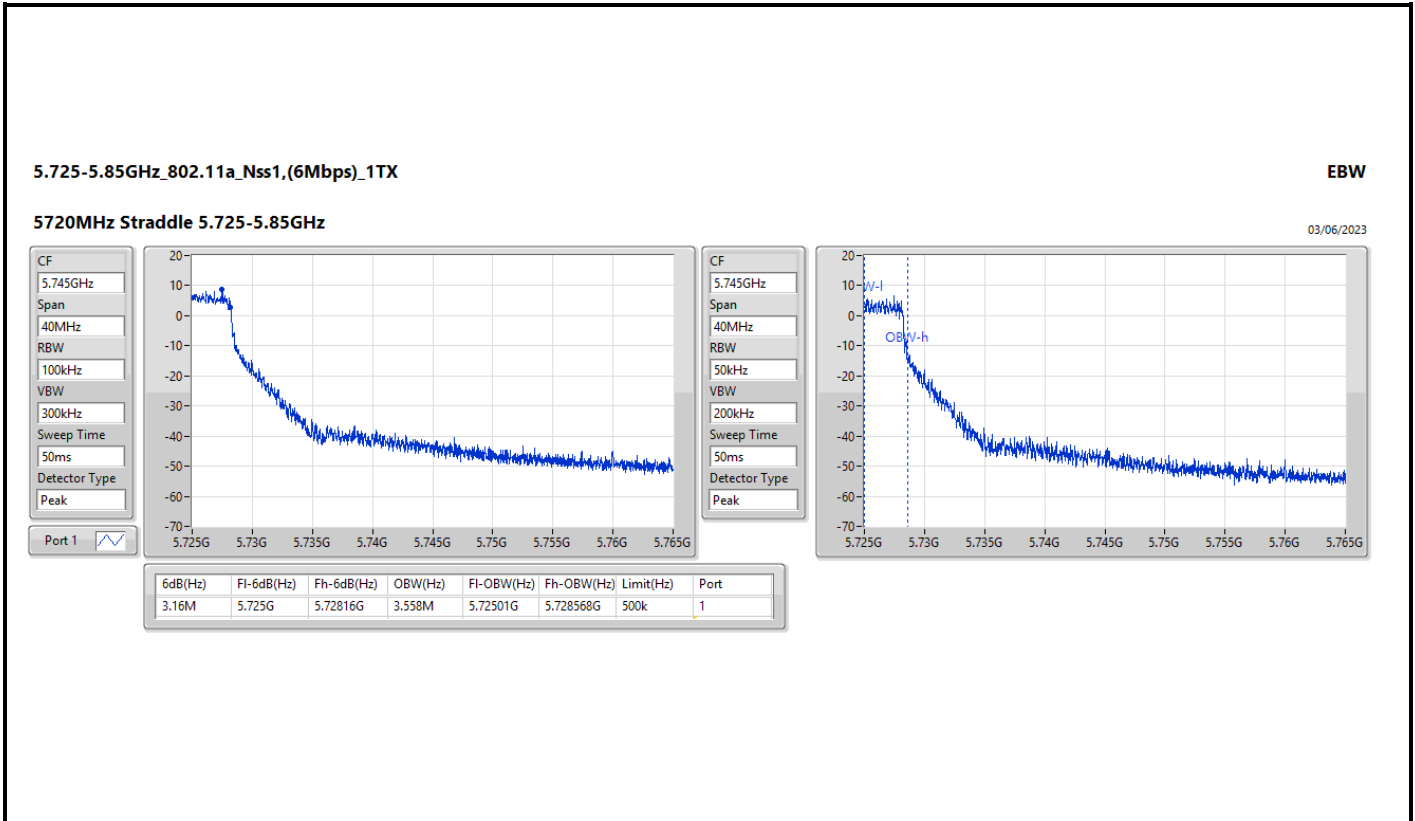


Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.63M	14.453M	15.645M	14.468M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.36M	4.578M	4.44M	4.558M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5510MHz	Pass	Inf	41.36M	37.781M	41.14M	37.581M
5550MHz	Pass	Inf	41.03M	37.731M	41.14M	37.731M
5670MHz	Pass	Inf	40.92M	37.681M	40.7M	37.731M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.56M	33.758M	35.35M	33.688M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4.02M	4.138M	4.08M	4.198M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5530MHz	Pass	Inf	82.28M	76.962M	82.5M	77.061M
5610MHz	Pass	Inf	82.5M	77.061M	82.28M	77.161M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.425M	73.013M	76.5M	73.013M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4M	4.318M	3.98M	4.338M

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





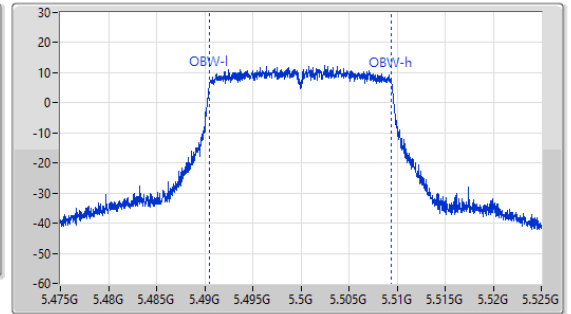
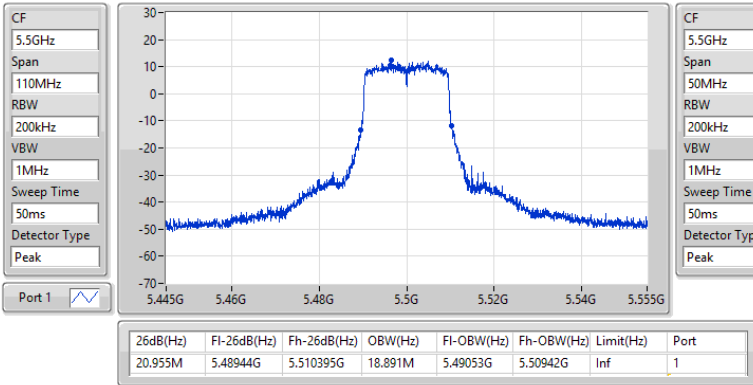


5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

5500MHz

03/06/2023

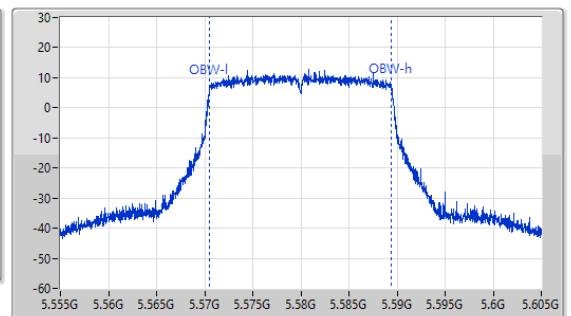
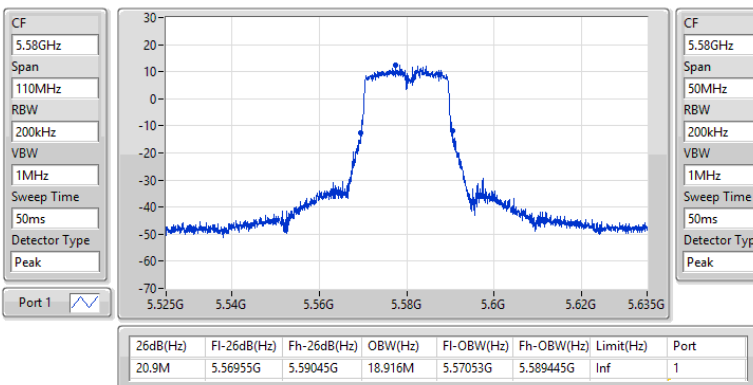


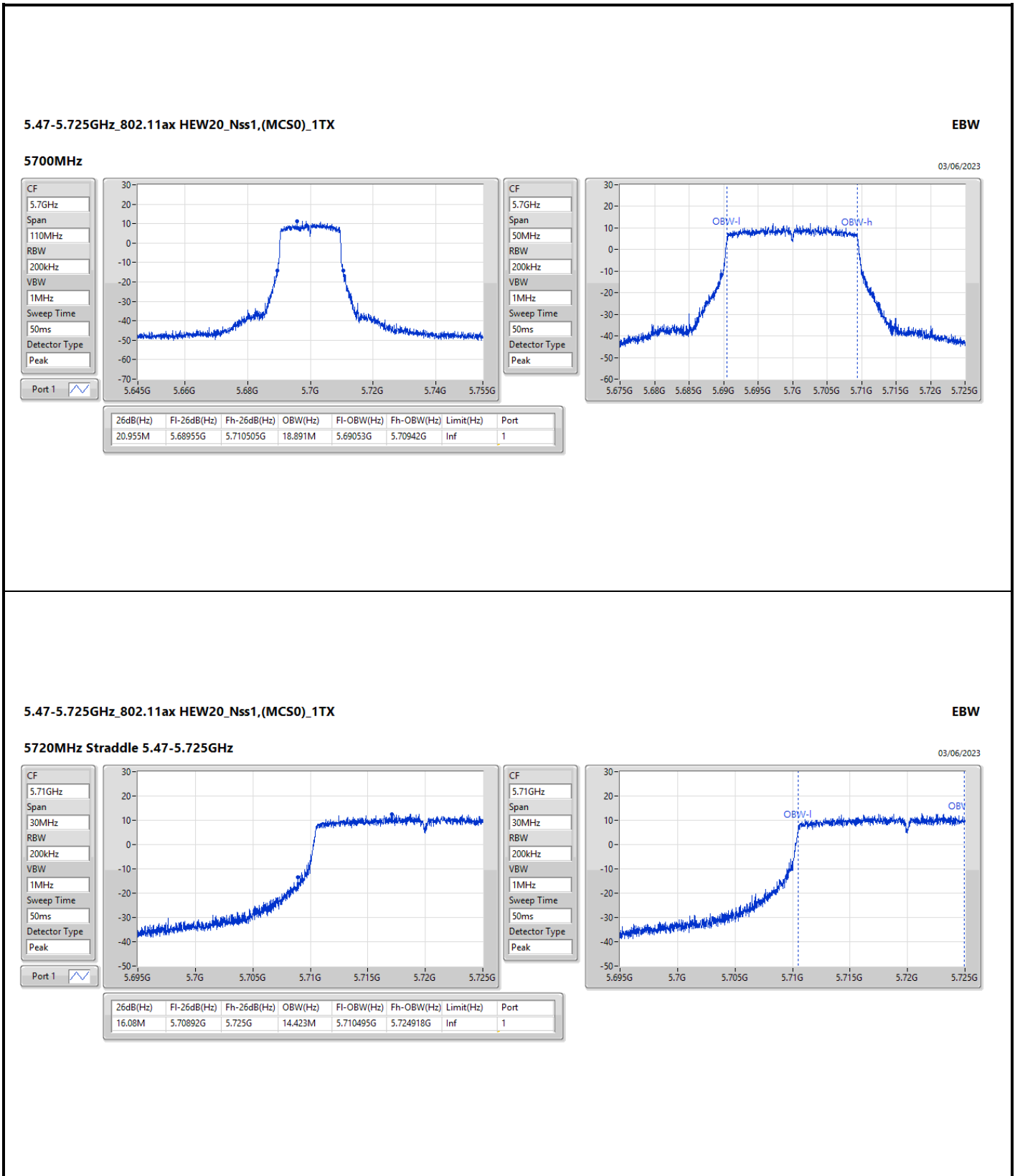
5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

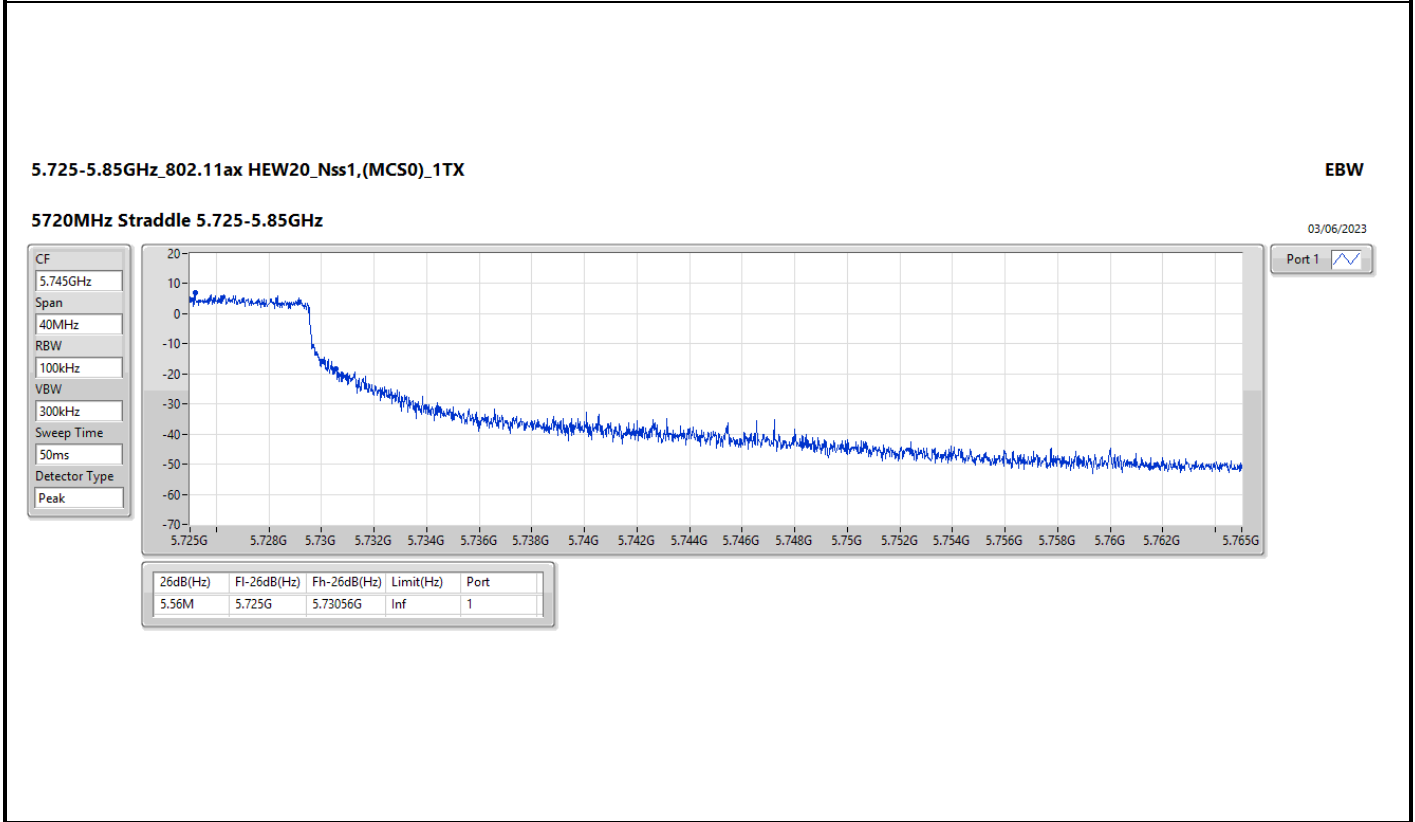
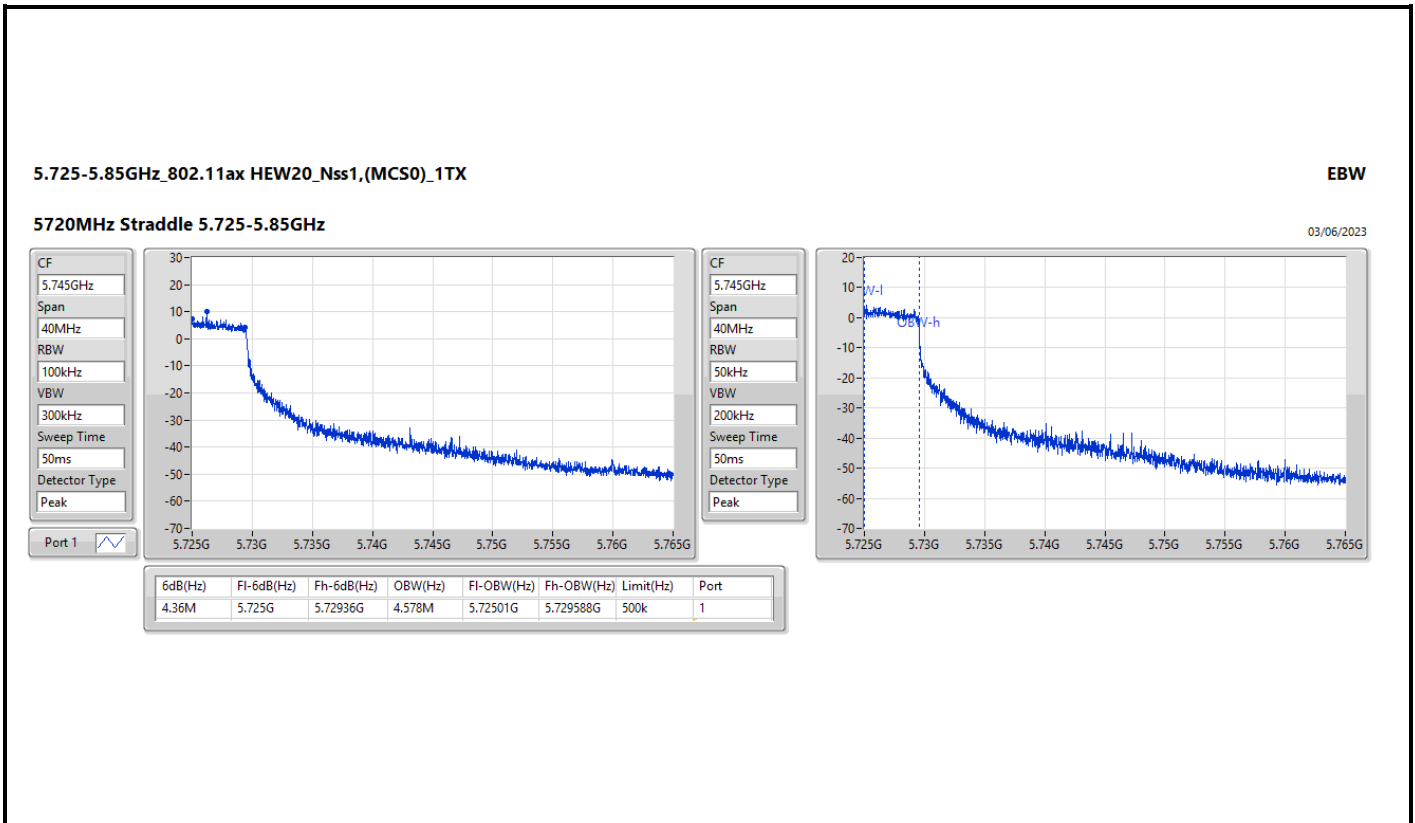
EBW

5580MHz

03/06/2023





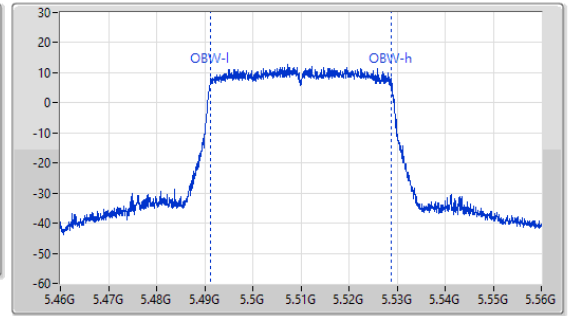
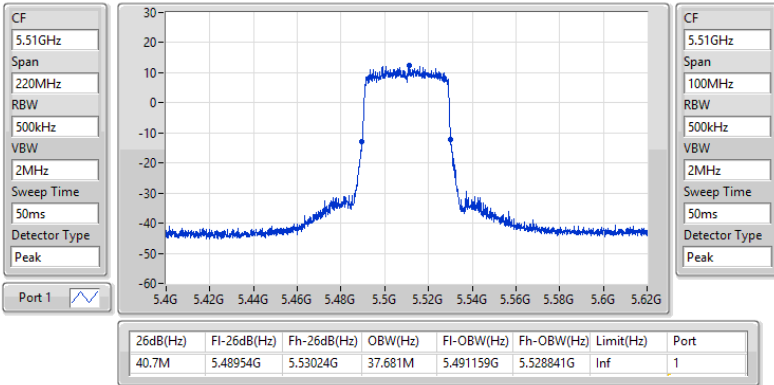


5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

5510MHz

03/06/2023

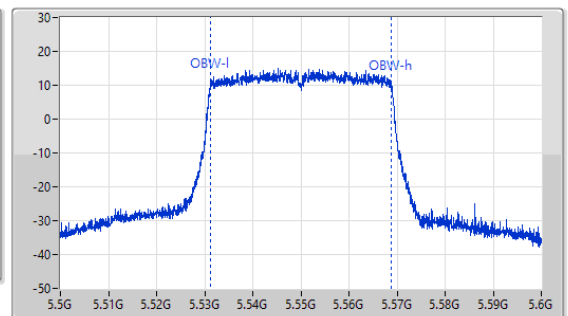
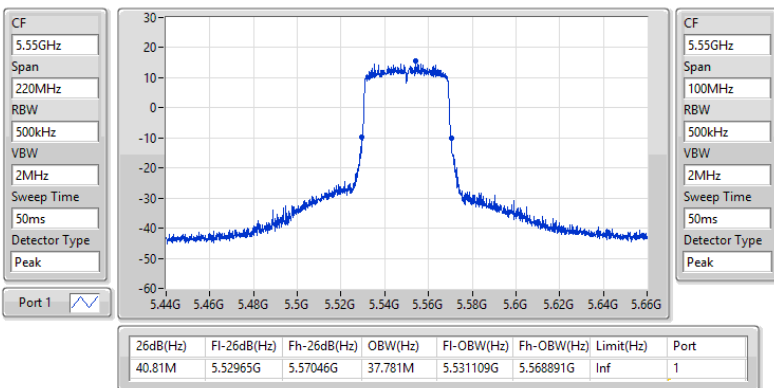


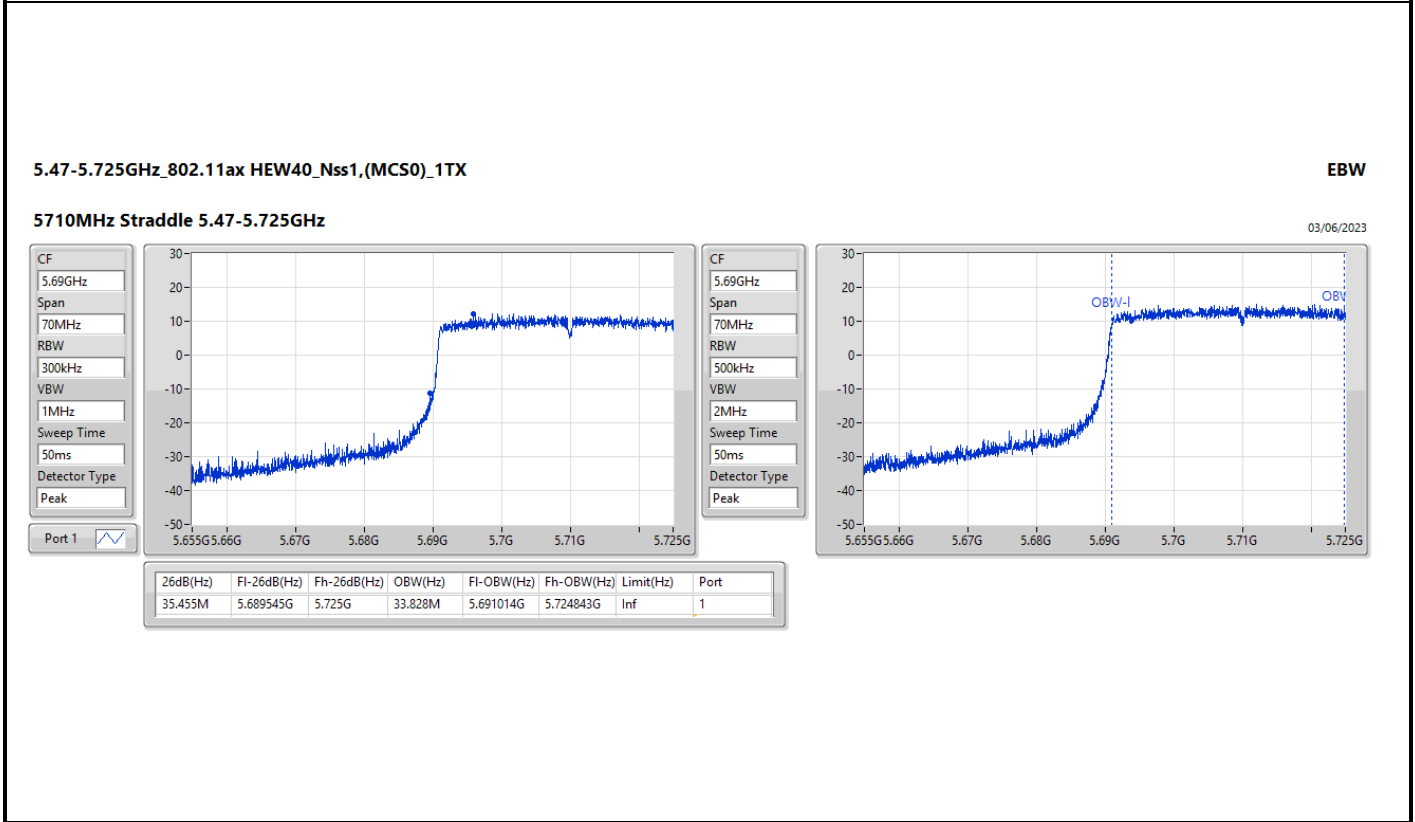
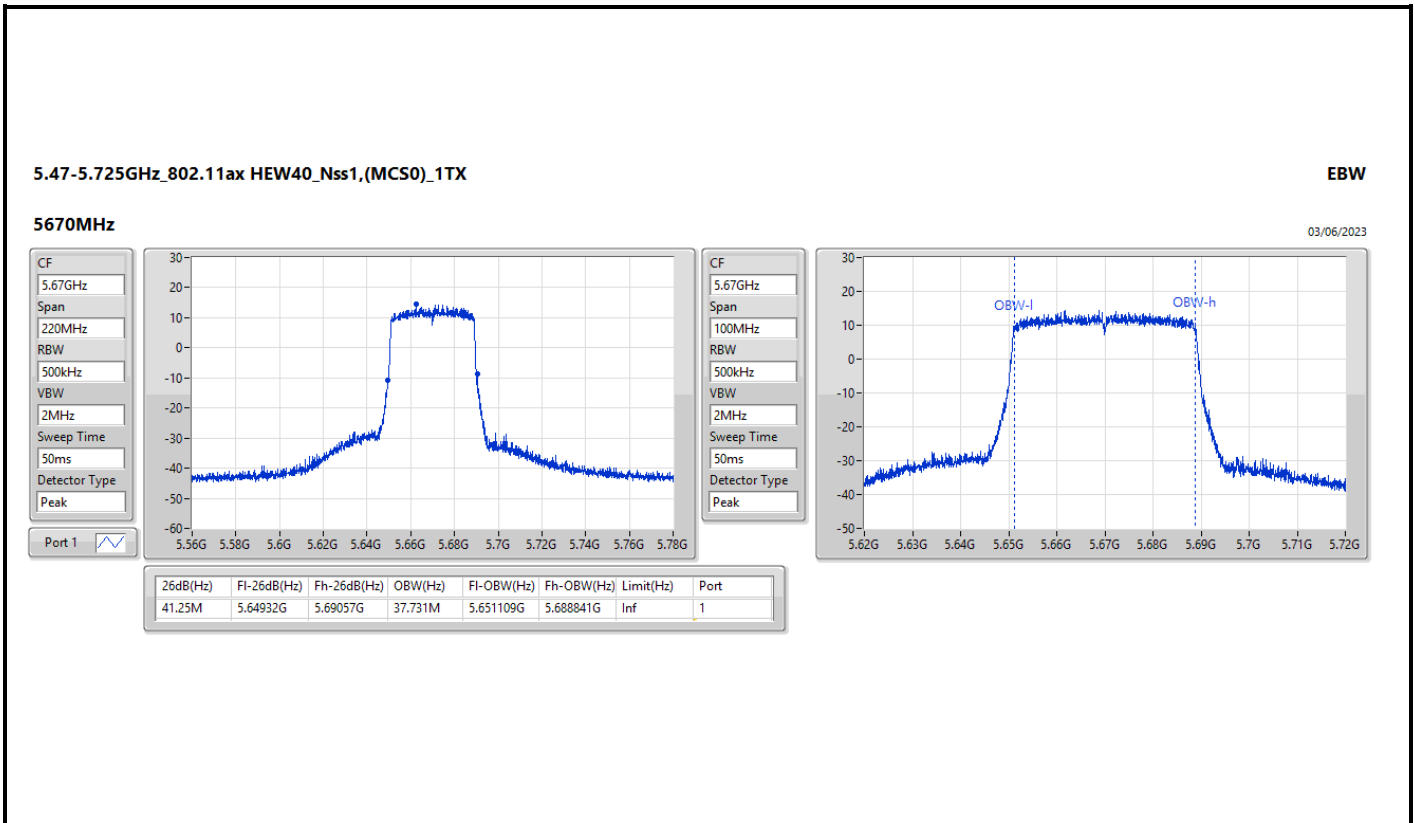
5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

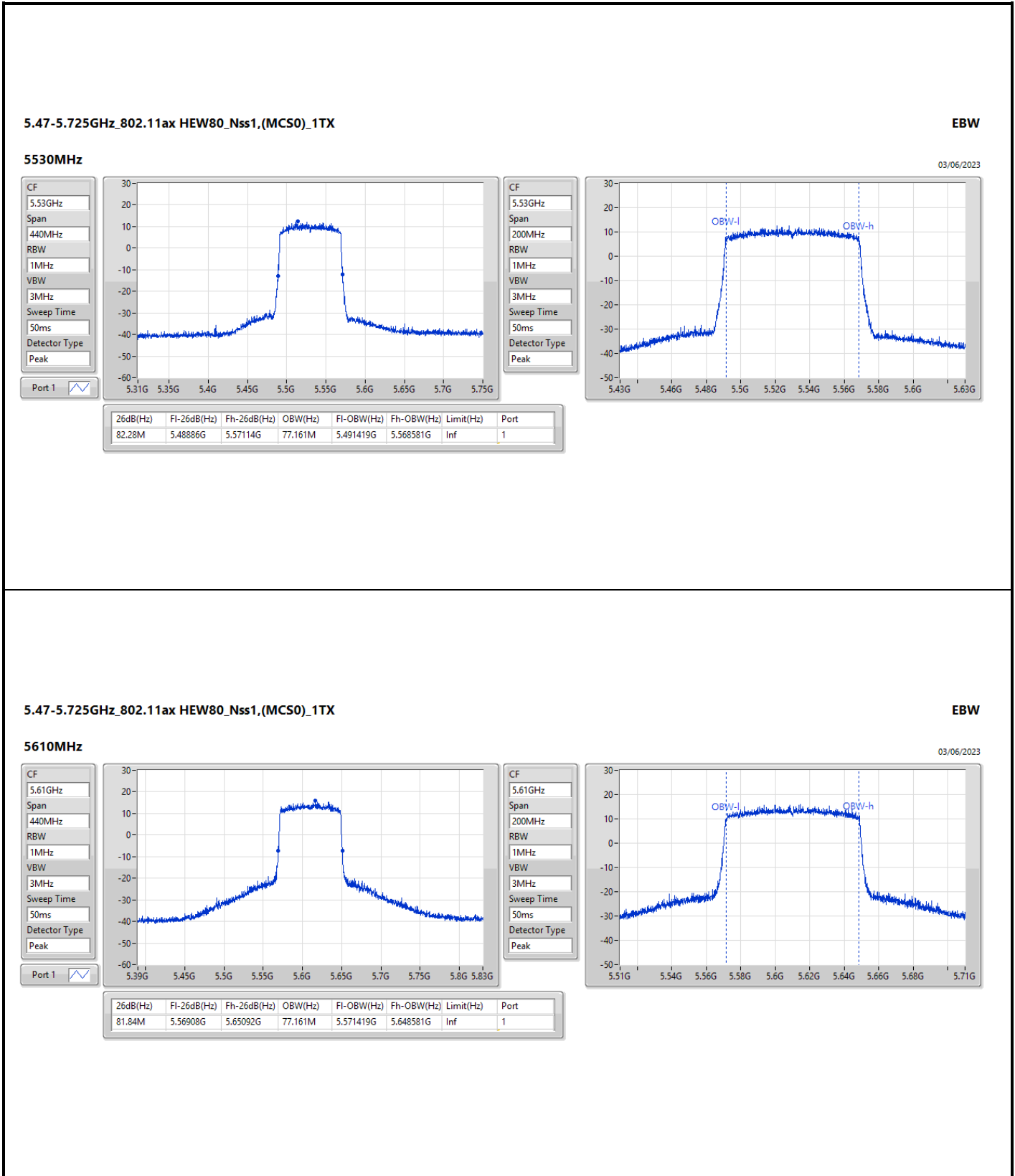
EBW

5550MHz

03/06/2023





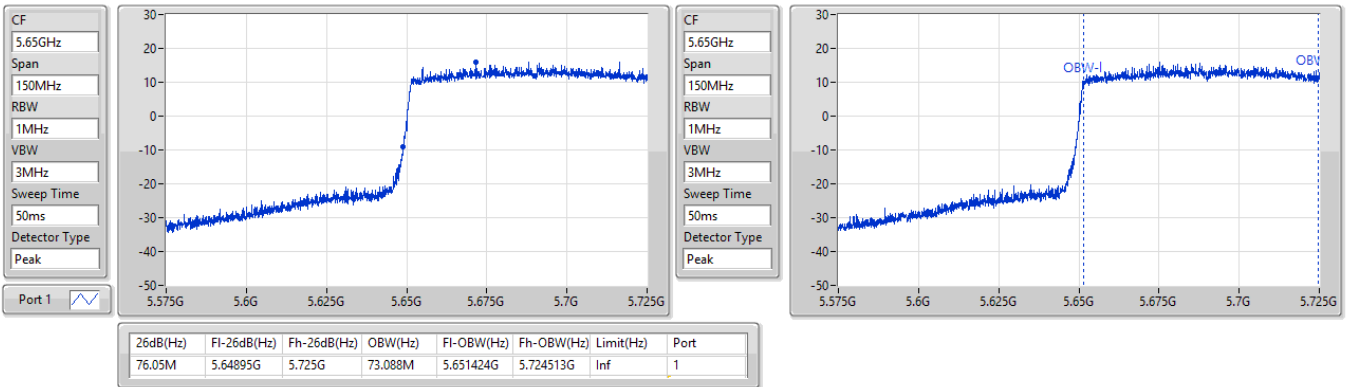


5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5690MHz Straddle 5.47-5.725GHz

03/06/2023

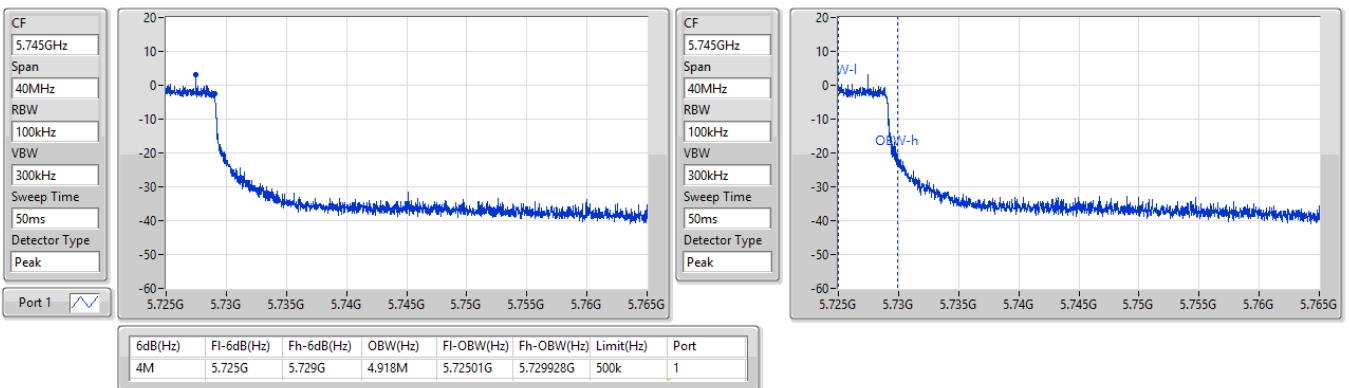


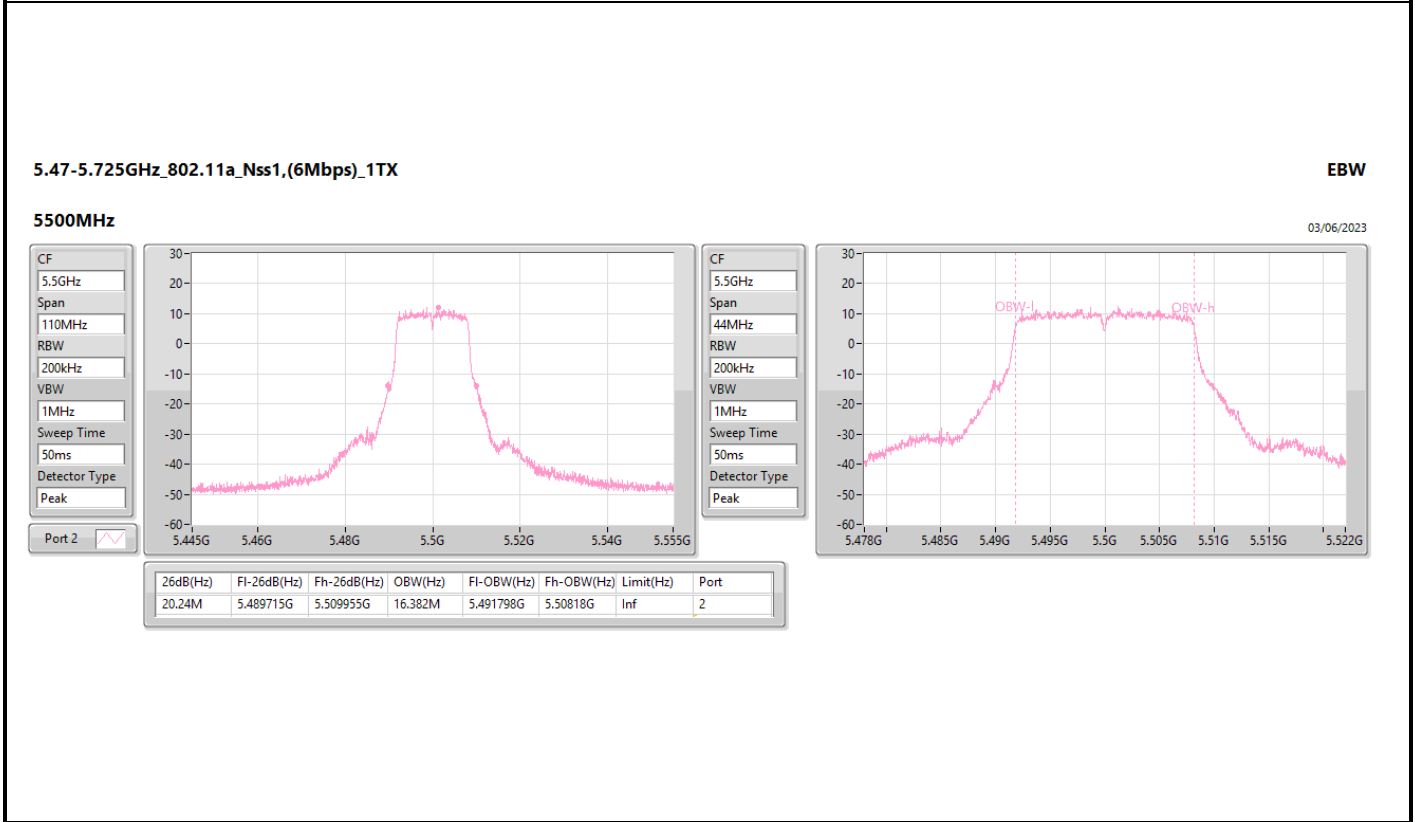
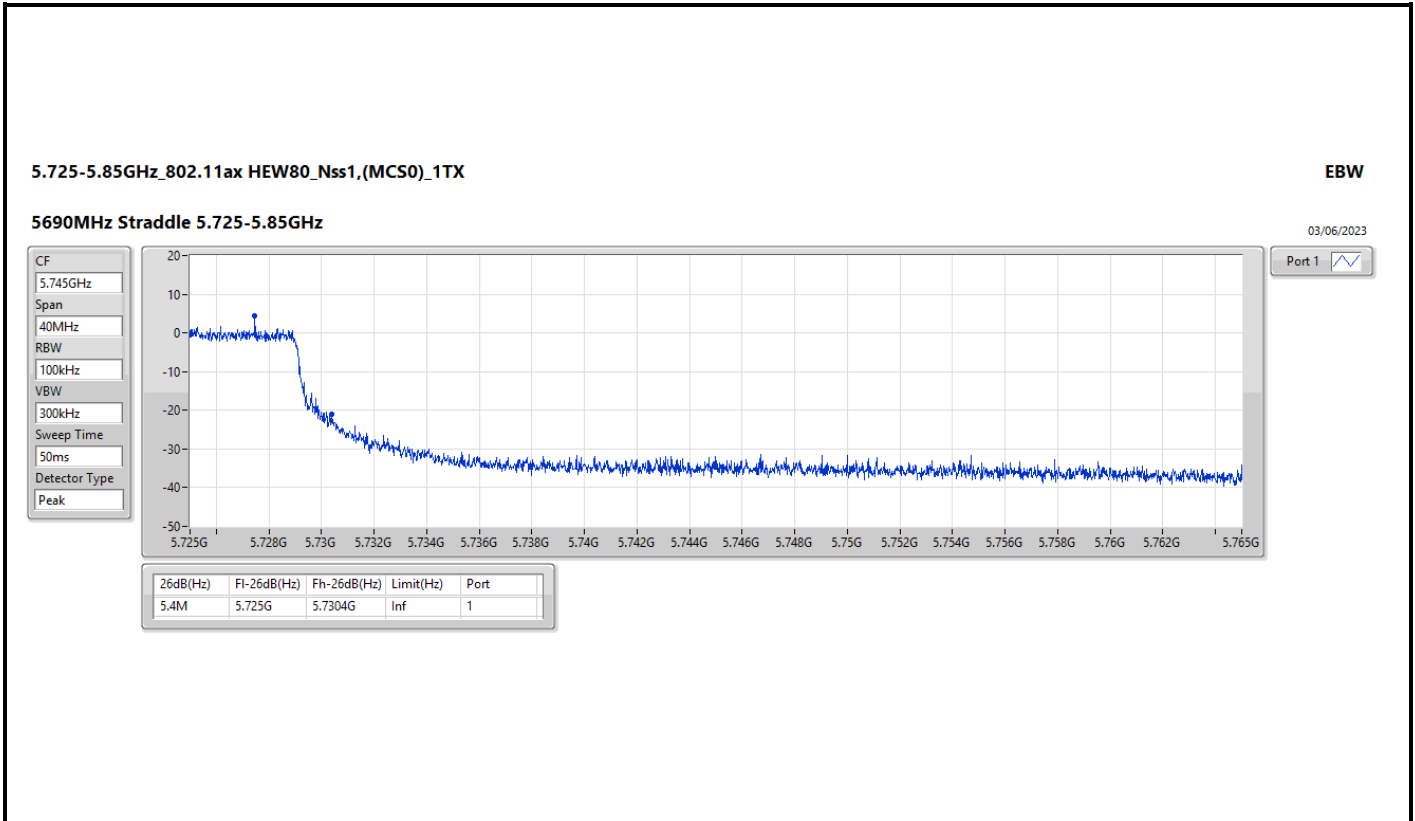
5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

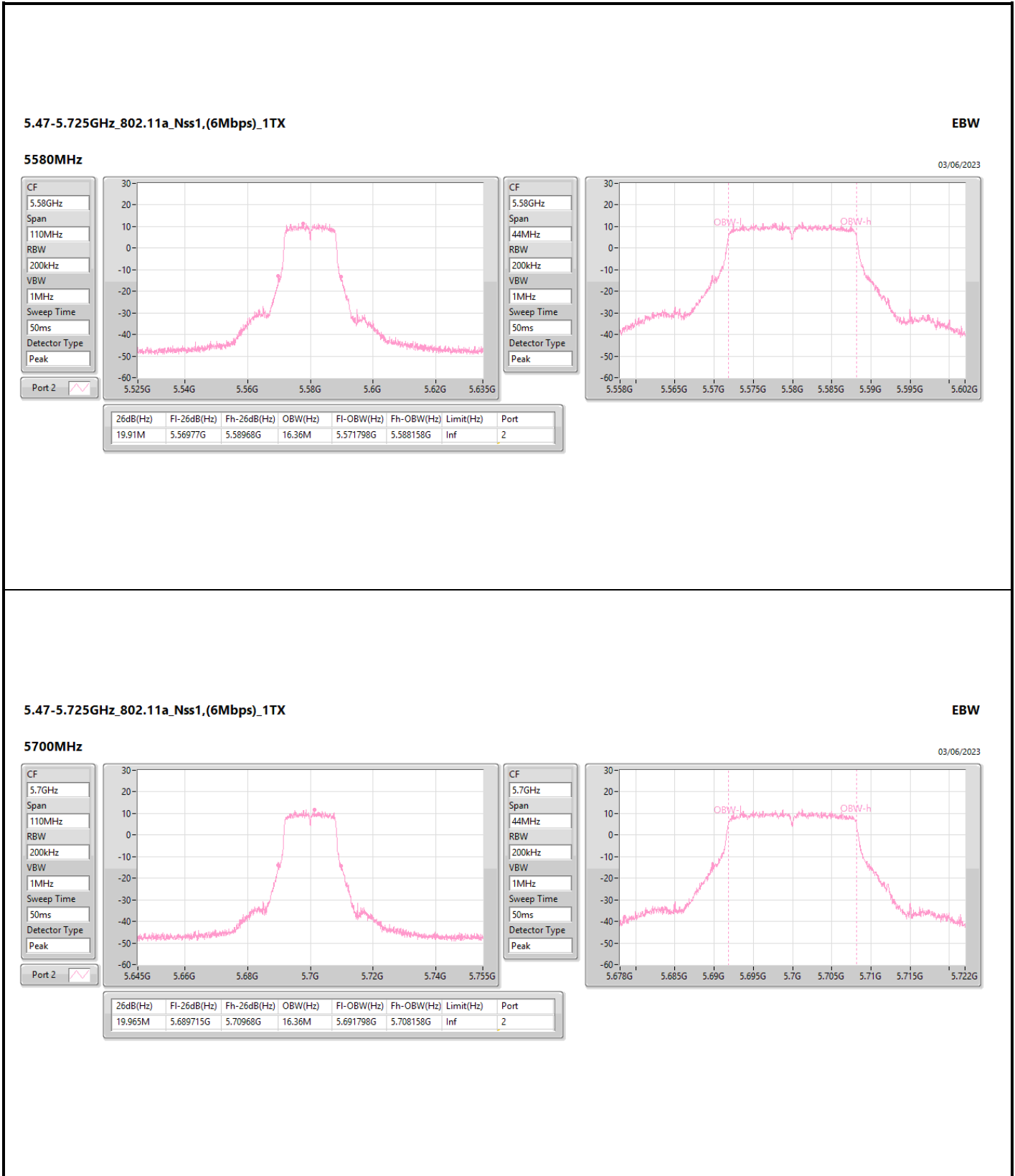
EBW

5690MHz Straddle 5.725-5.85GHz

03/06/2023





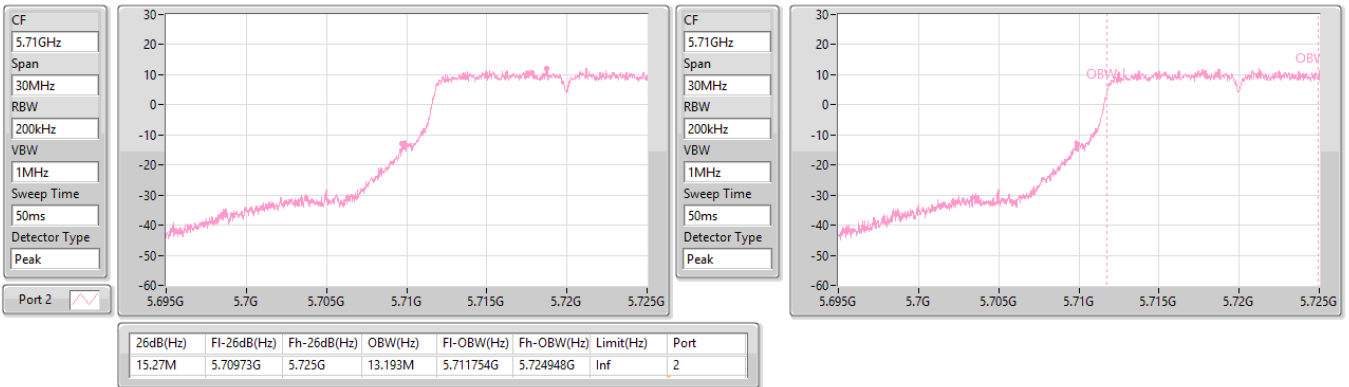


5.47-5.725GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5720MHz Straddle 5.47-5.725GHz

03/06/2023

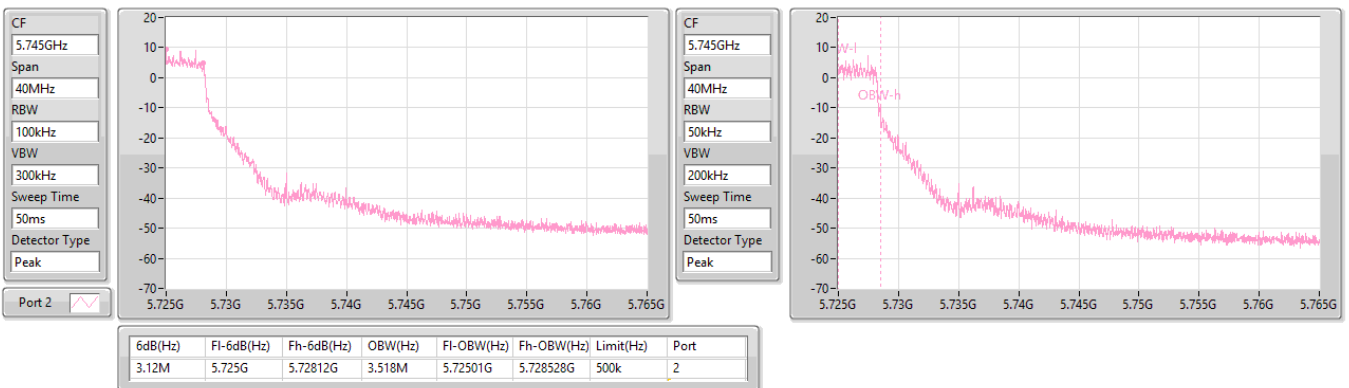


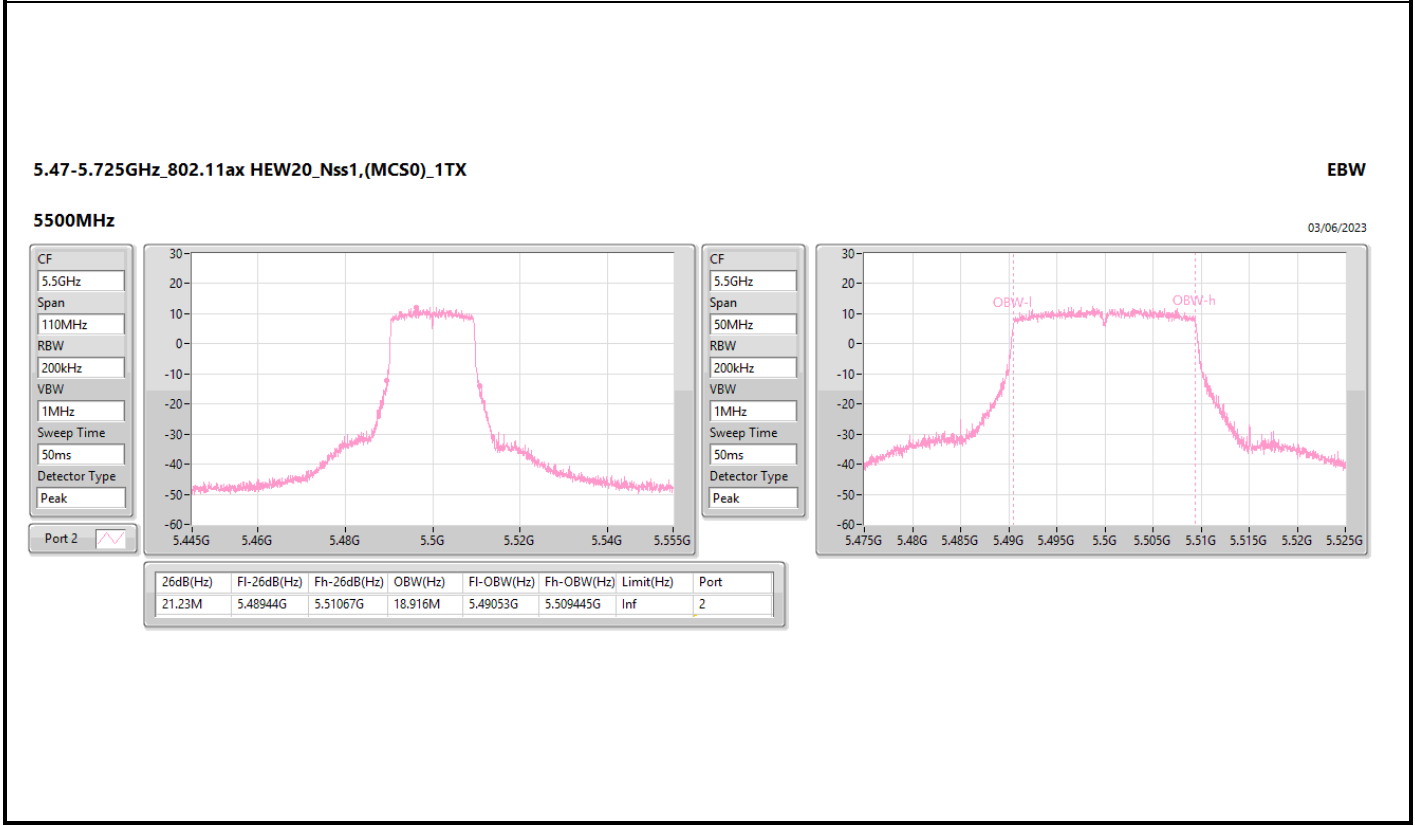
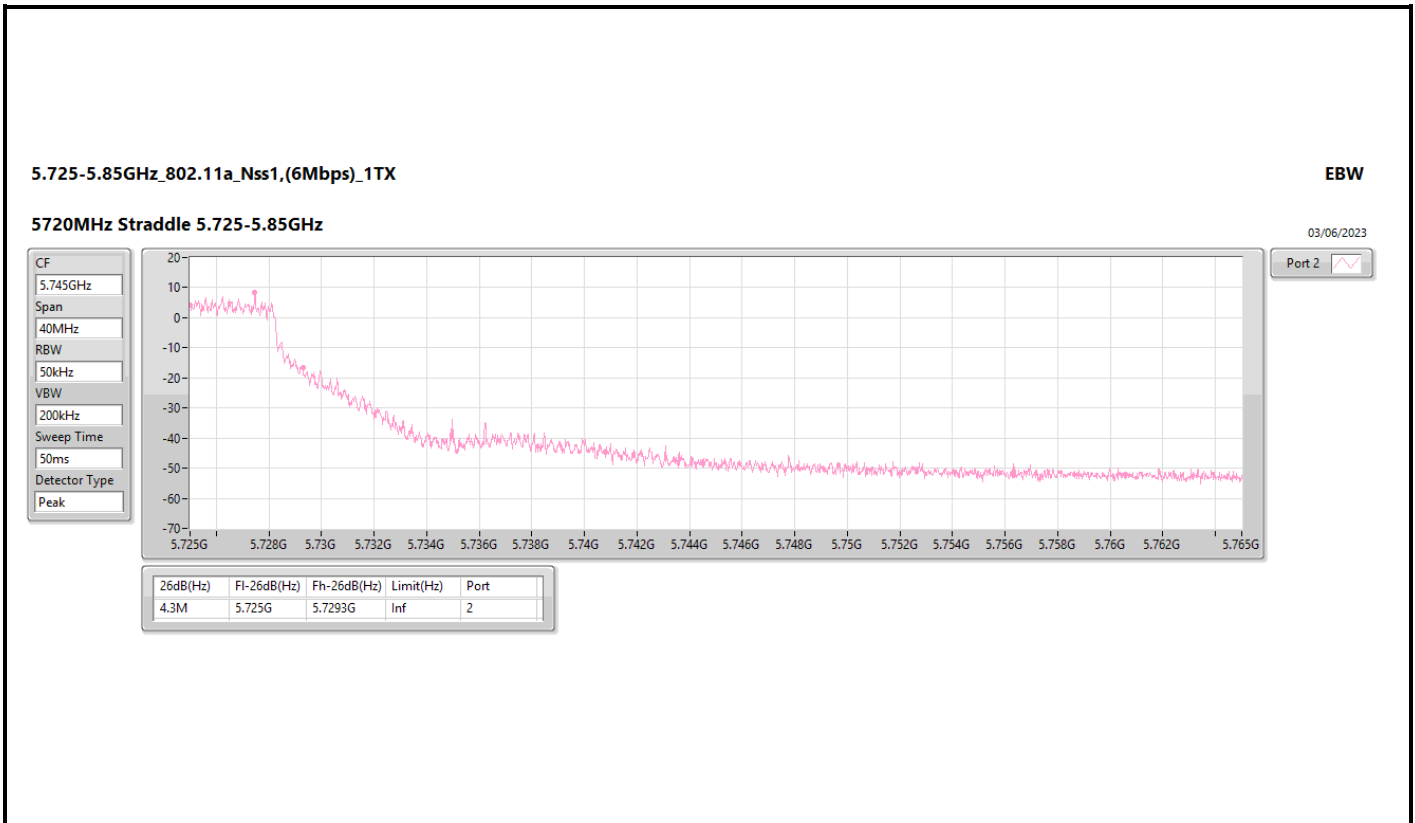
5.725-5.85GHz_802.11a_Nss1,(6Mbps)_1TX

EBW

5720MHz Straddle 5.725-5.85GHz

03/06/2023



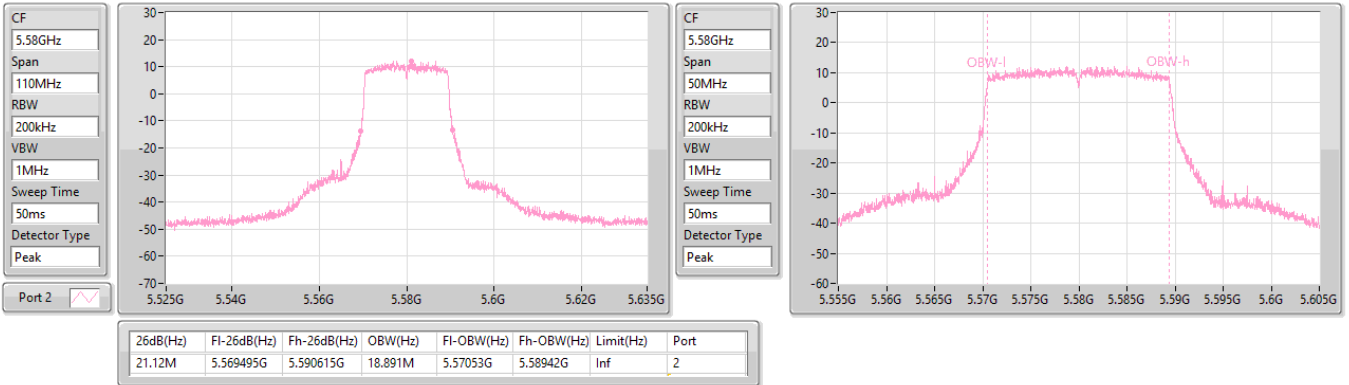


5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

5580MHz

03/06/2023

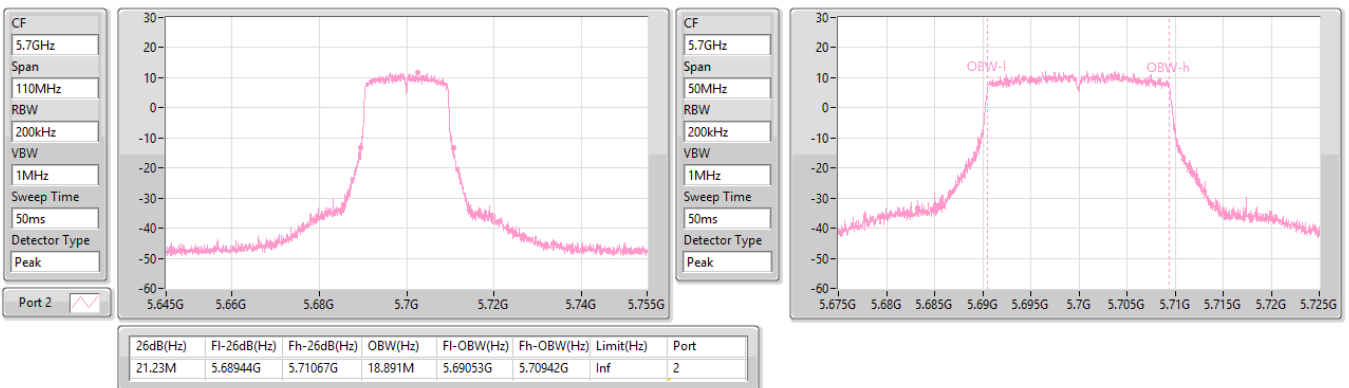


5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

5700MHz

03/06/2023

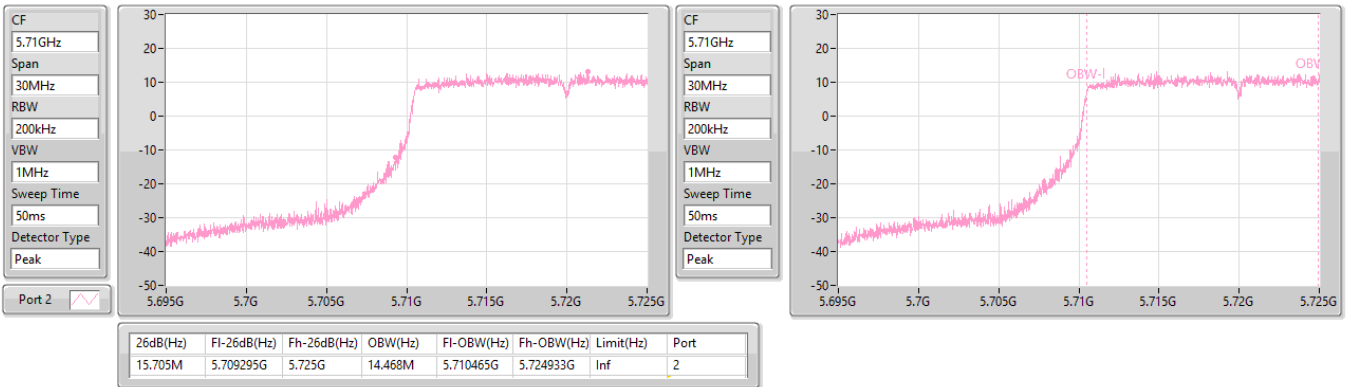


5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

5720MHz Straddle 5.47-5.725GHz

03/06/2023

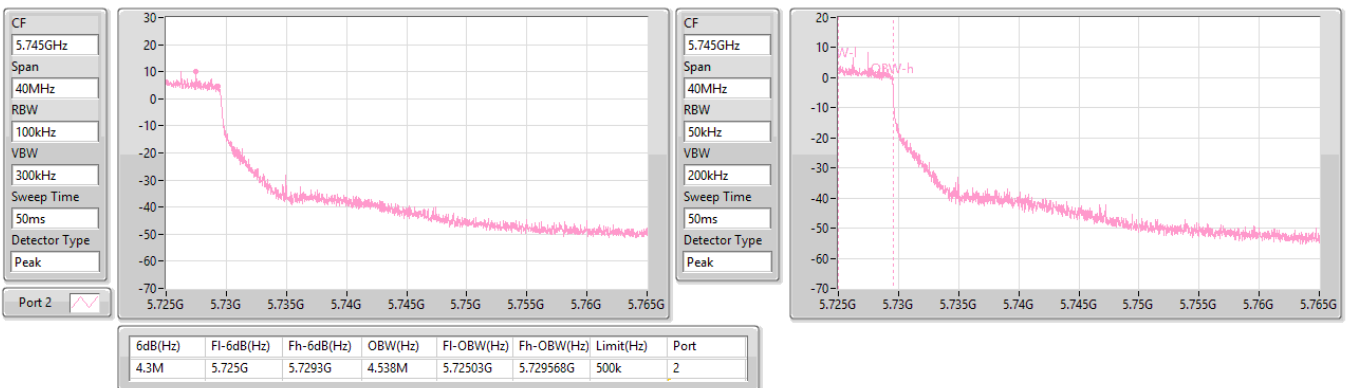


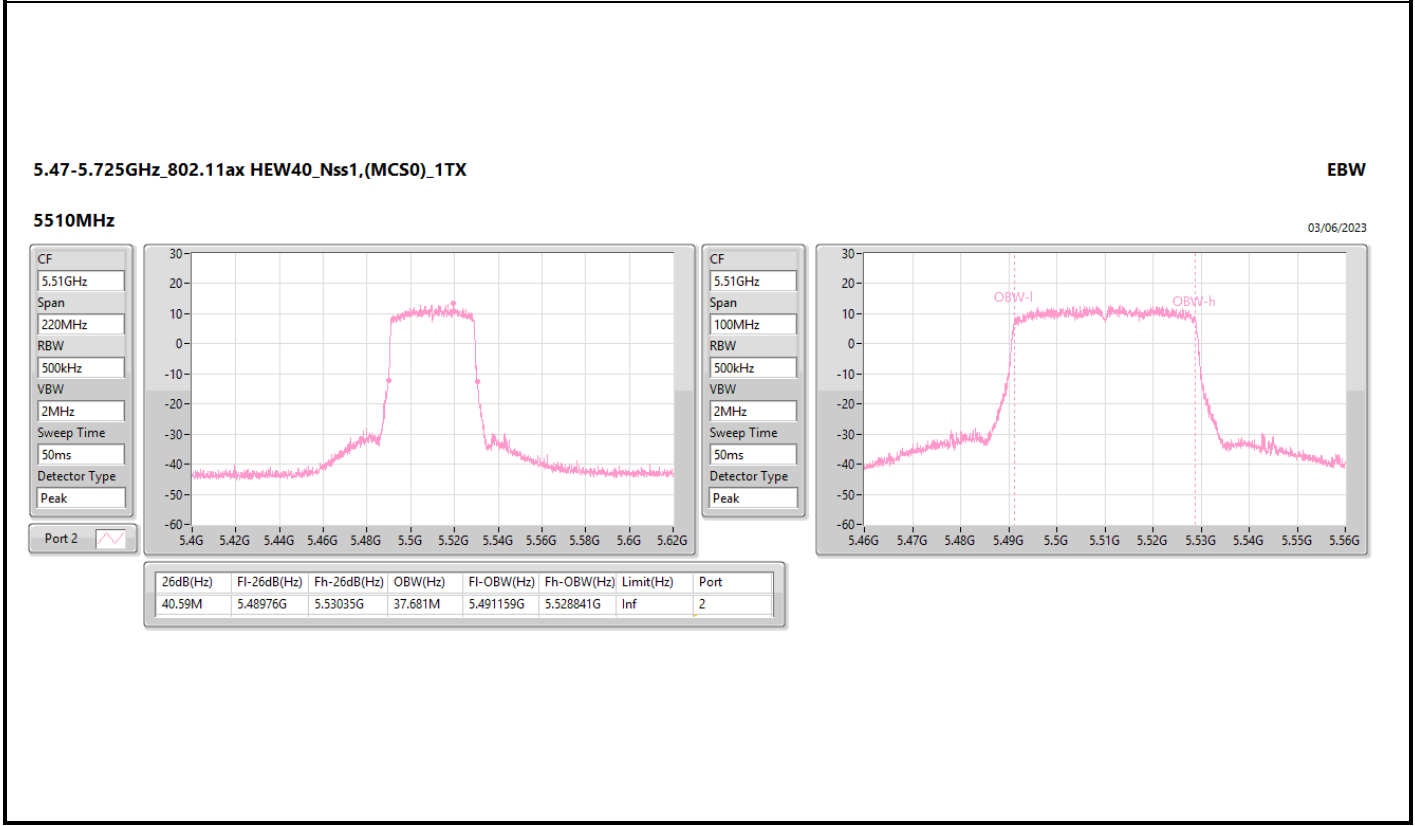
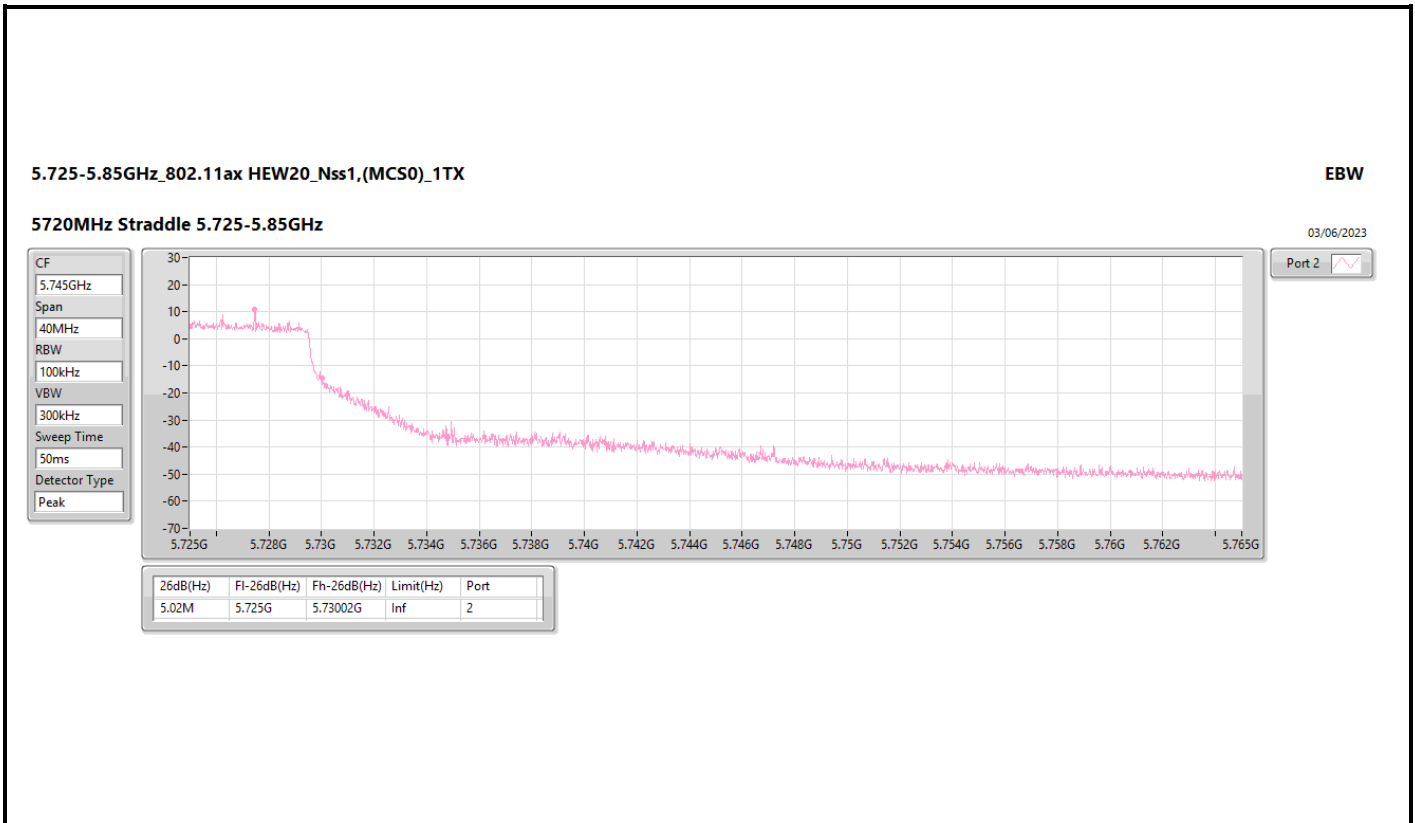
5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

5720MHz Straddle 5.725-5.85GHz

03/06/2023



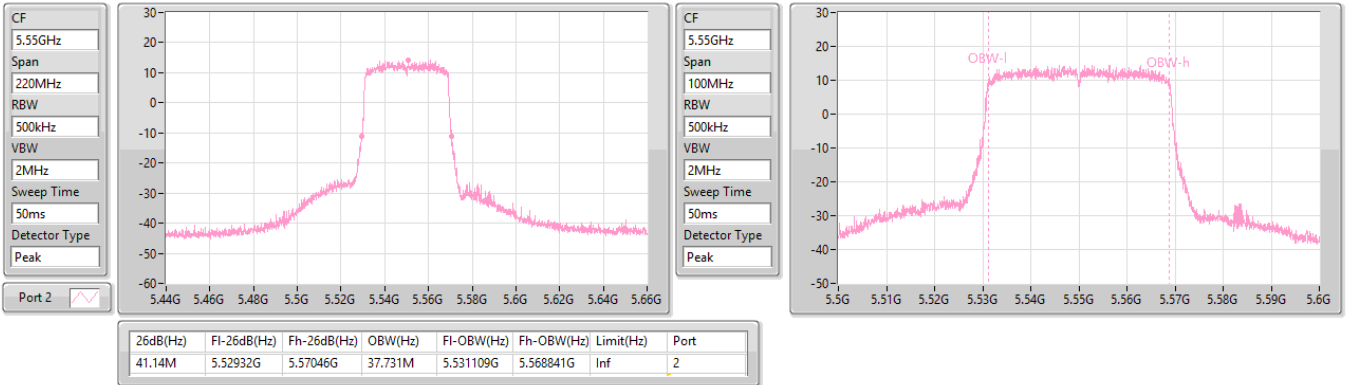


5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

5550MHz

03/06/2023

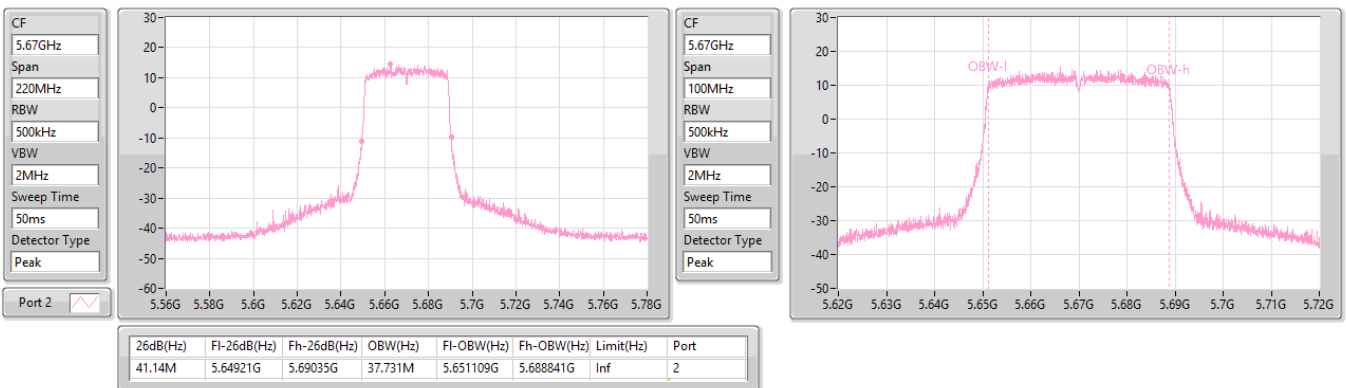


5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

5670MHz

03/06/2023

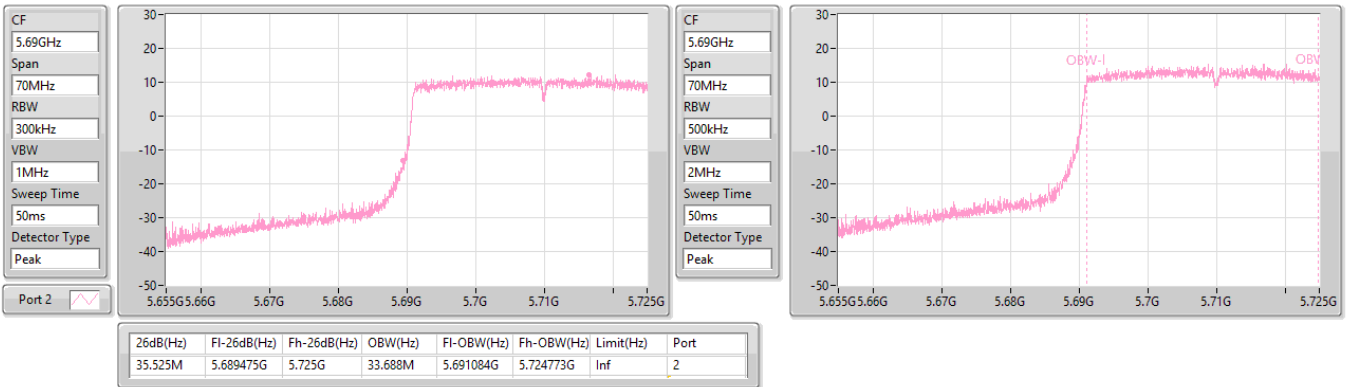


5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

5710MHz Straddle 5.47-5.725GHz

03/06/2023

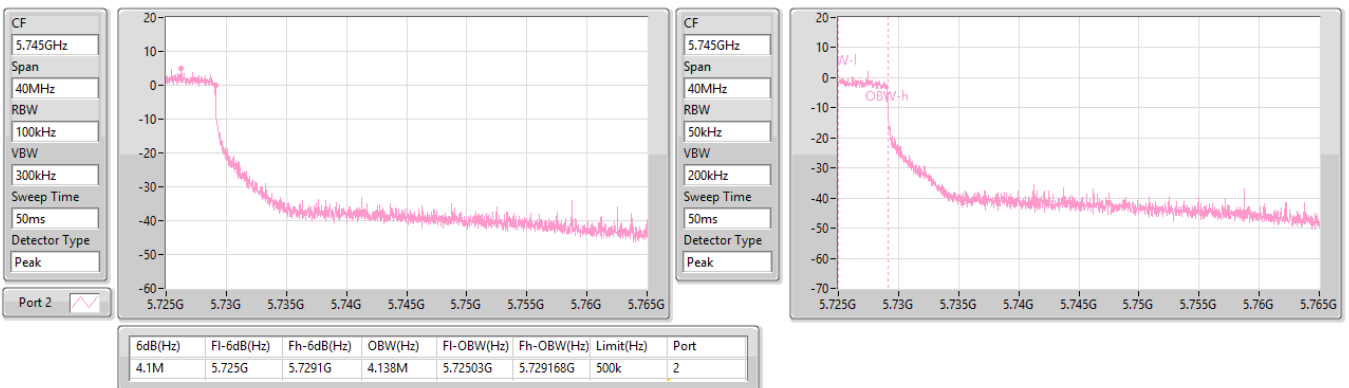


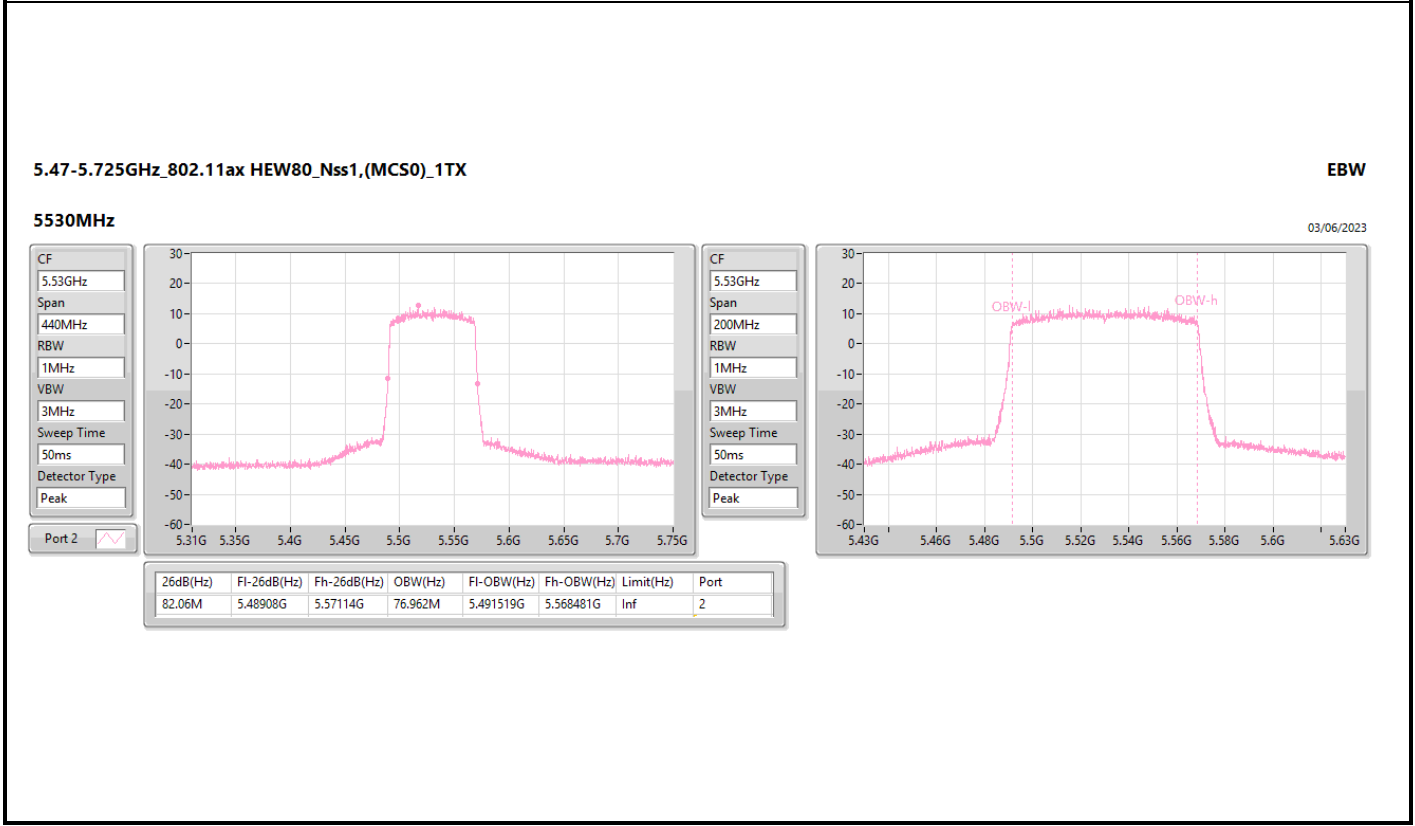
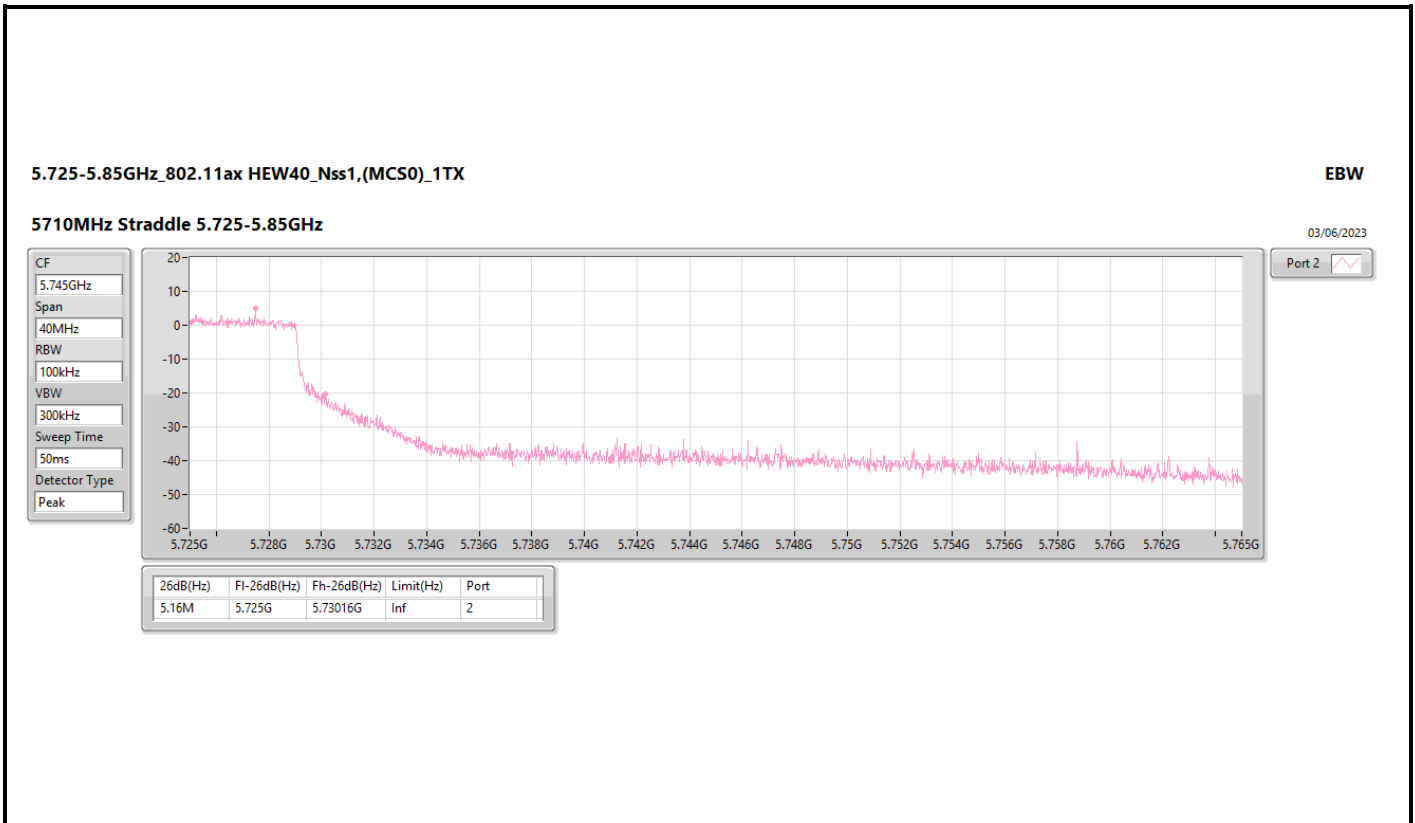
5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

5710MHz Straddle 5.725-5.85GHz

03/06/2023



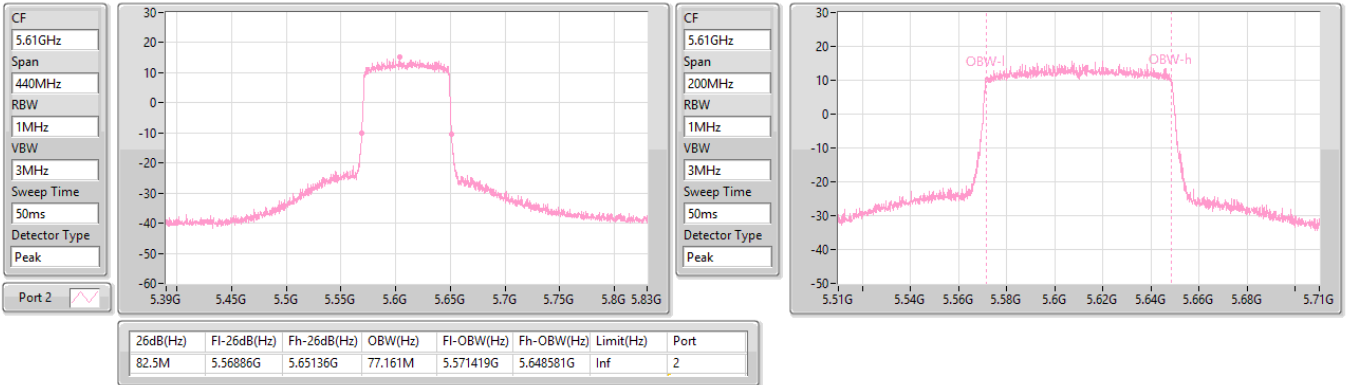


5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5610MHz

03/06/2023

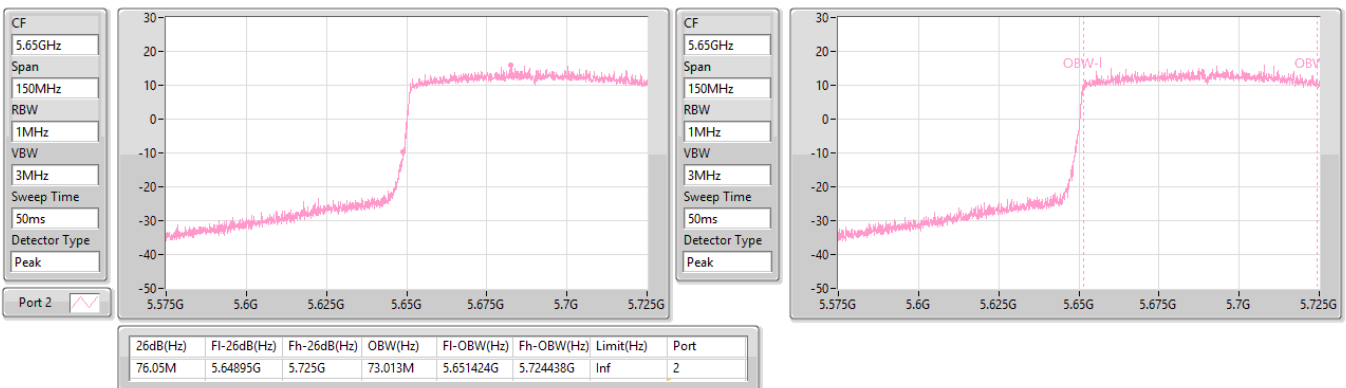


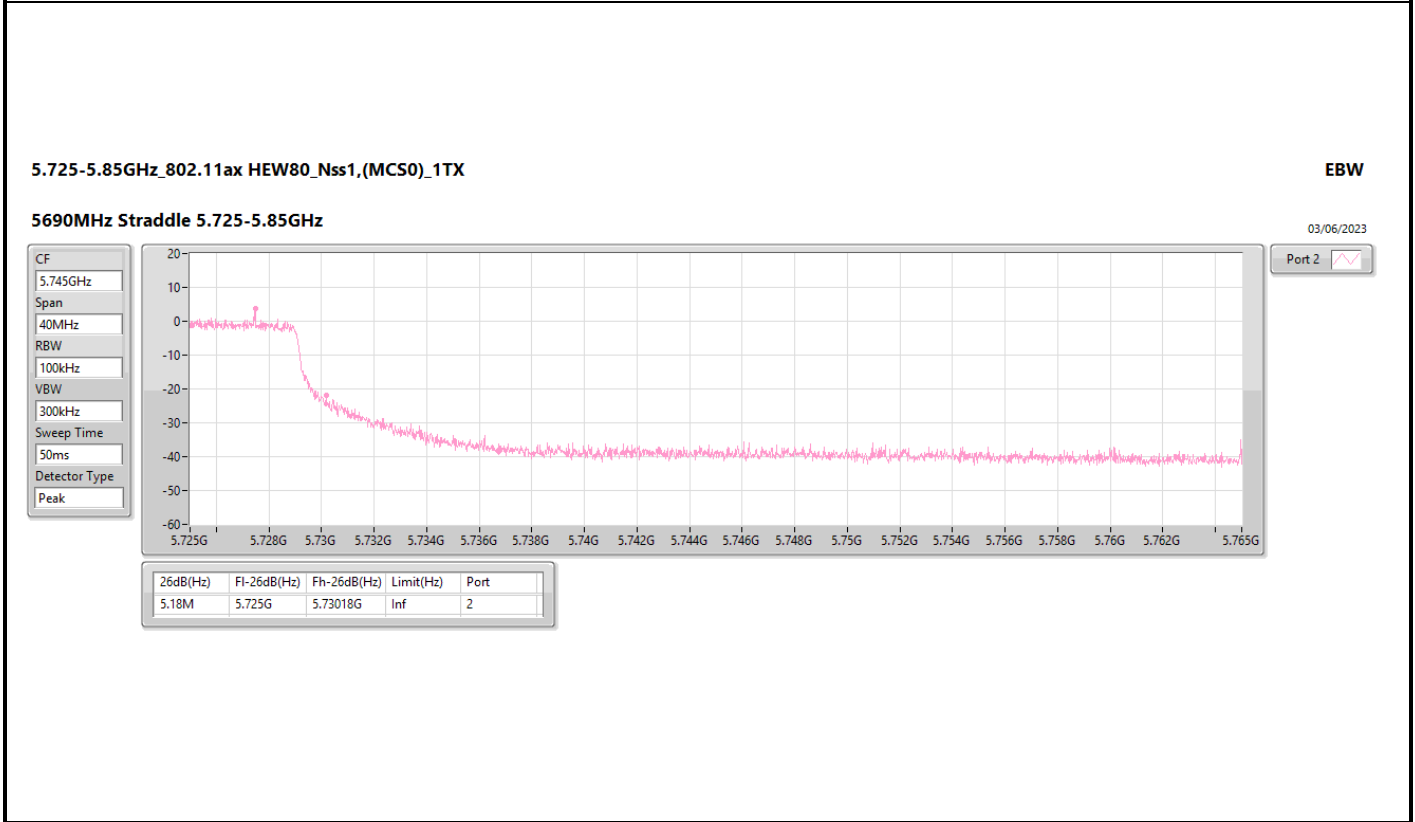
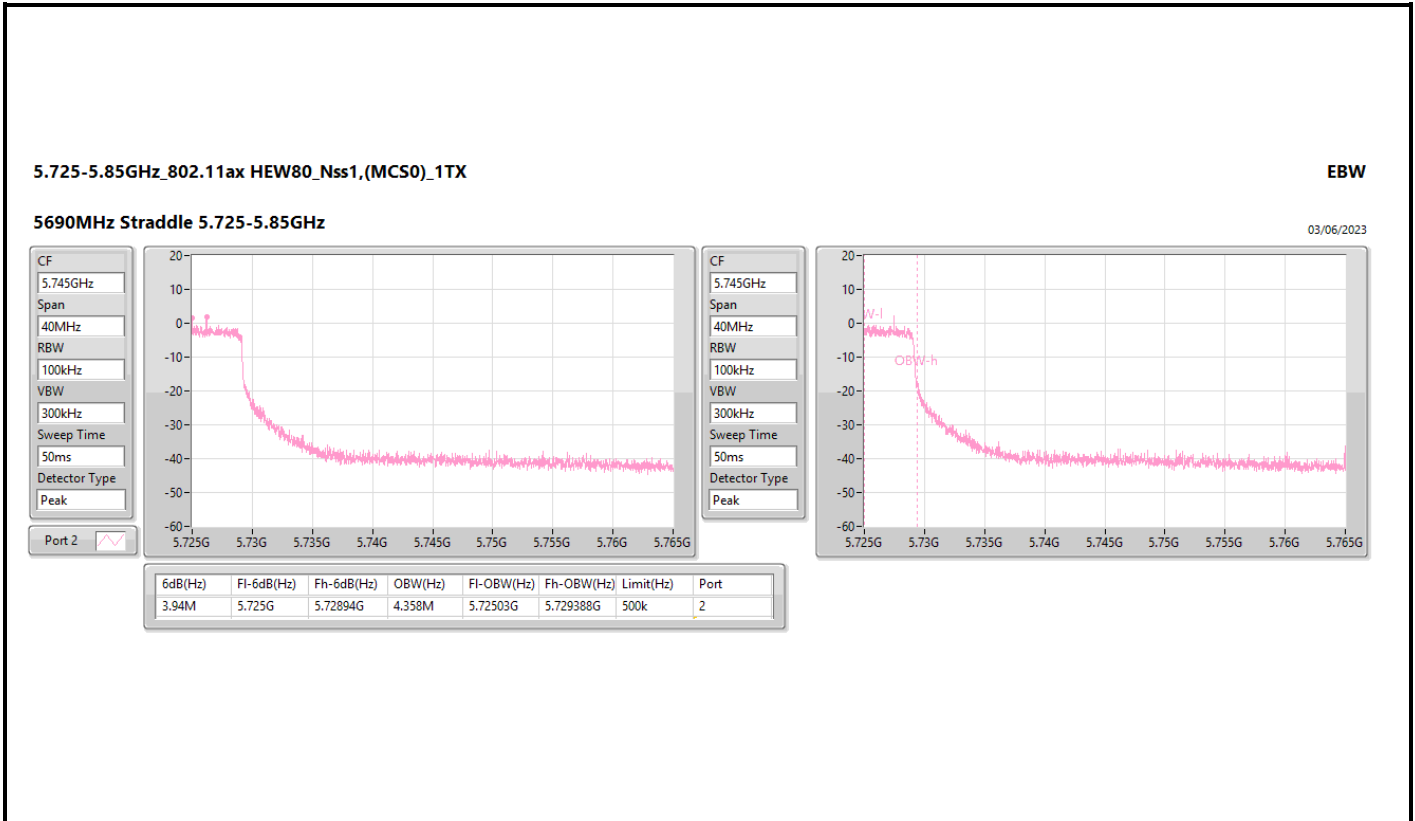
5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5690MHz Straddle 5.47-5.725GHz

03/06/2023





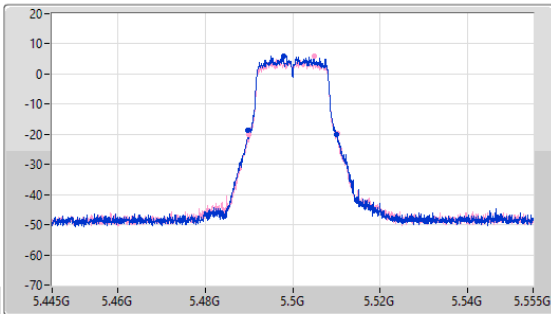
5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

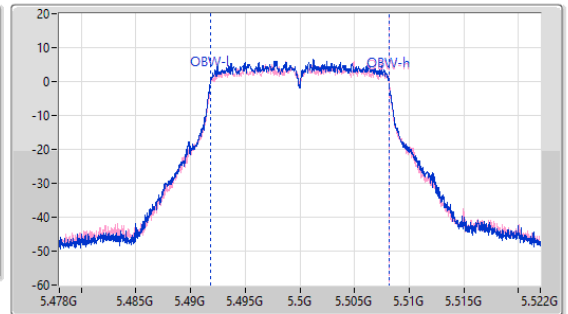
5500MHz

03/06/2023

CF: 5.5GHz
 Span: 110MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 50ms
 Detector Type: Peak



CF: 5.5GHz
 Span: 44MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 50ms
 Detector Type: Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.35M	5.489715G	5.510065G	16.36M	5.491798G	5.508158G	Inf	1
20.515M	5.48988G	5.510395G	16.382M	5.491798G	5.50818G	Inf	2

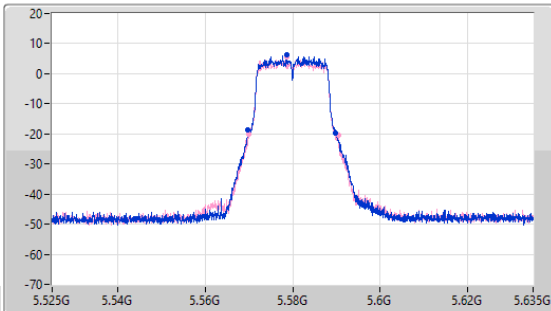
5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

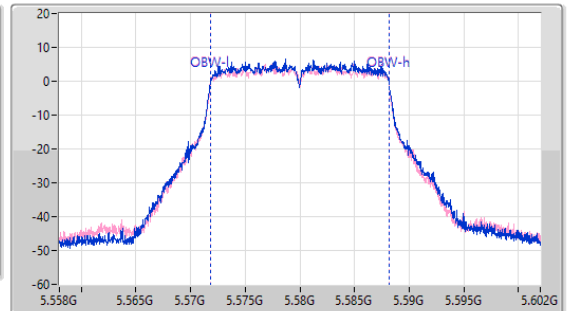
5580MHz

03/06/2023

CF: 5.58GHz
 Span: 110MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 50ms
 Detector Type: Peak



CF: 5.58GHz
 Span: 44MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 50ms
 Detector Type: Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.13M	5.569715G	5.589845G	16.36M	5.571798G	5.588158G	Inf	1
20.46M	5.56999G	5.59045G	16.36M	5.571798G	5.588158G	Inf	2

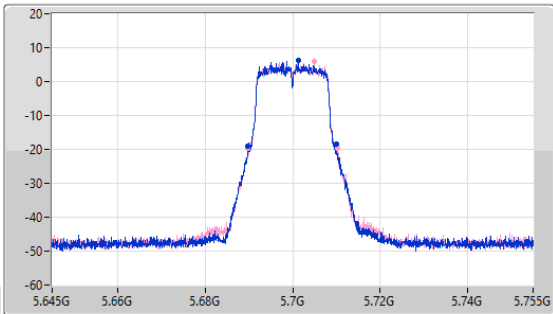
5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

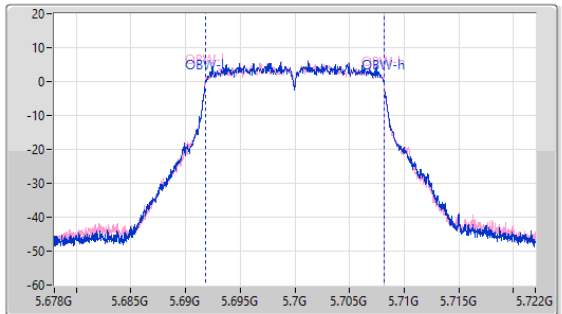
5700MHz

03/06/2023

CF: 5.7GHz
 Span: 110MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 50ms
 Detector Type: Peak



CF: 5.7GHz
 Span: 44MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 50ms
 Detector Type: Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.24M	5.689715G	5.709955G	16.36M	5.691798G	5.708158G	Inf	1
20.57M	5.689825G	5.710395G	16.36M	5.691798G	5.708158G	Inf	2

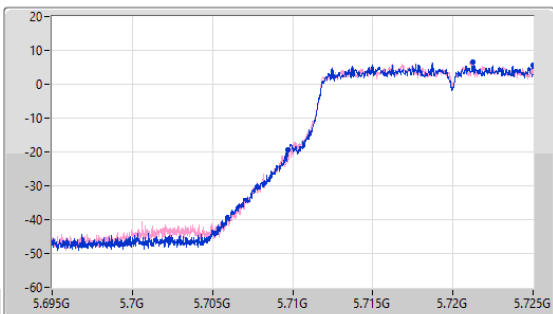
5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

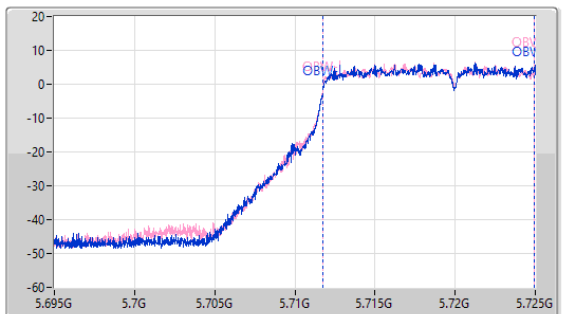
5720MHz Straddle 5.47-5.725GHz

03/06/2023

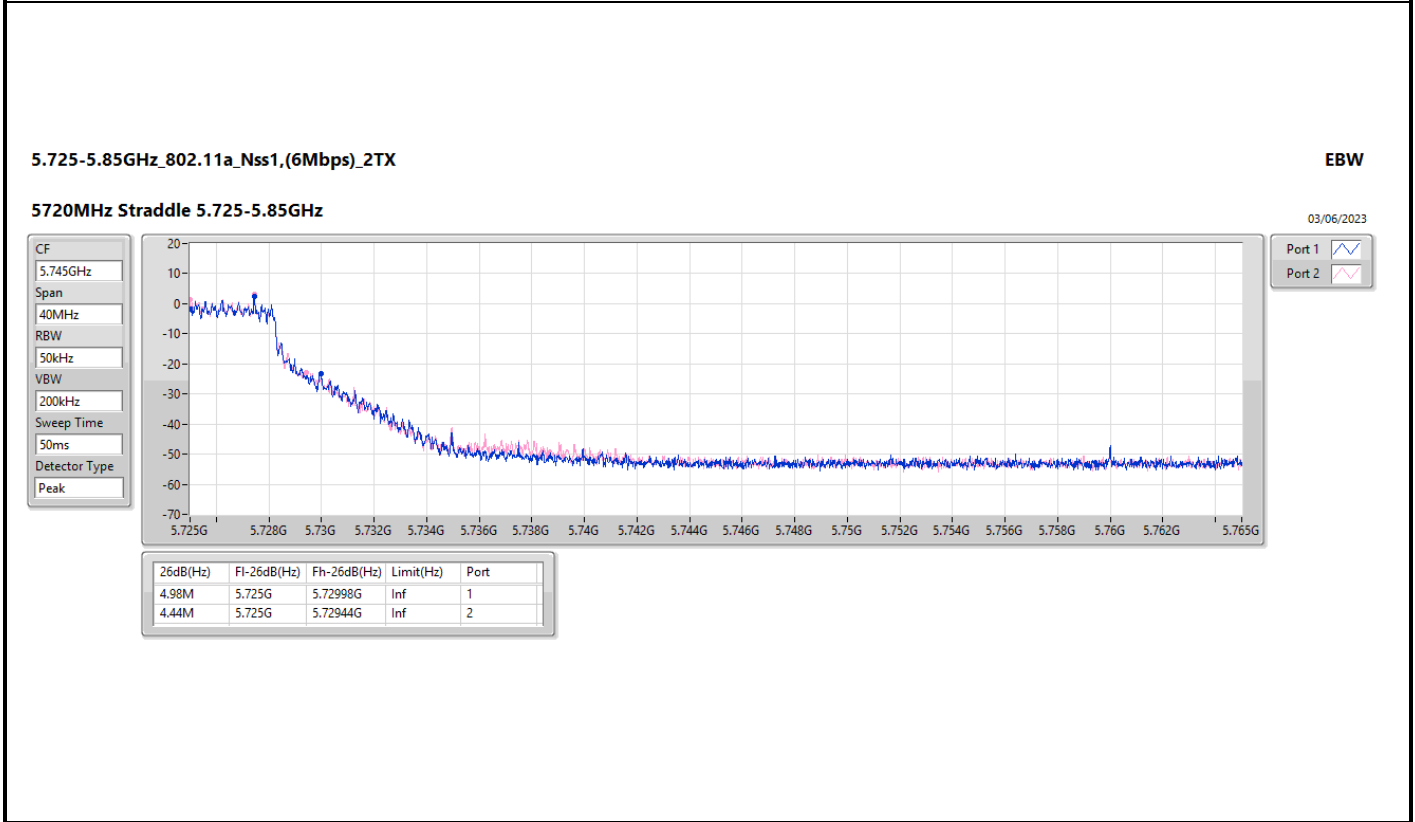
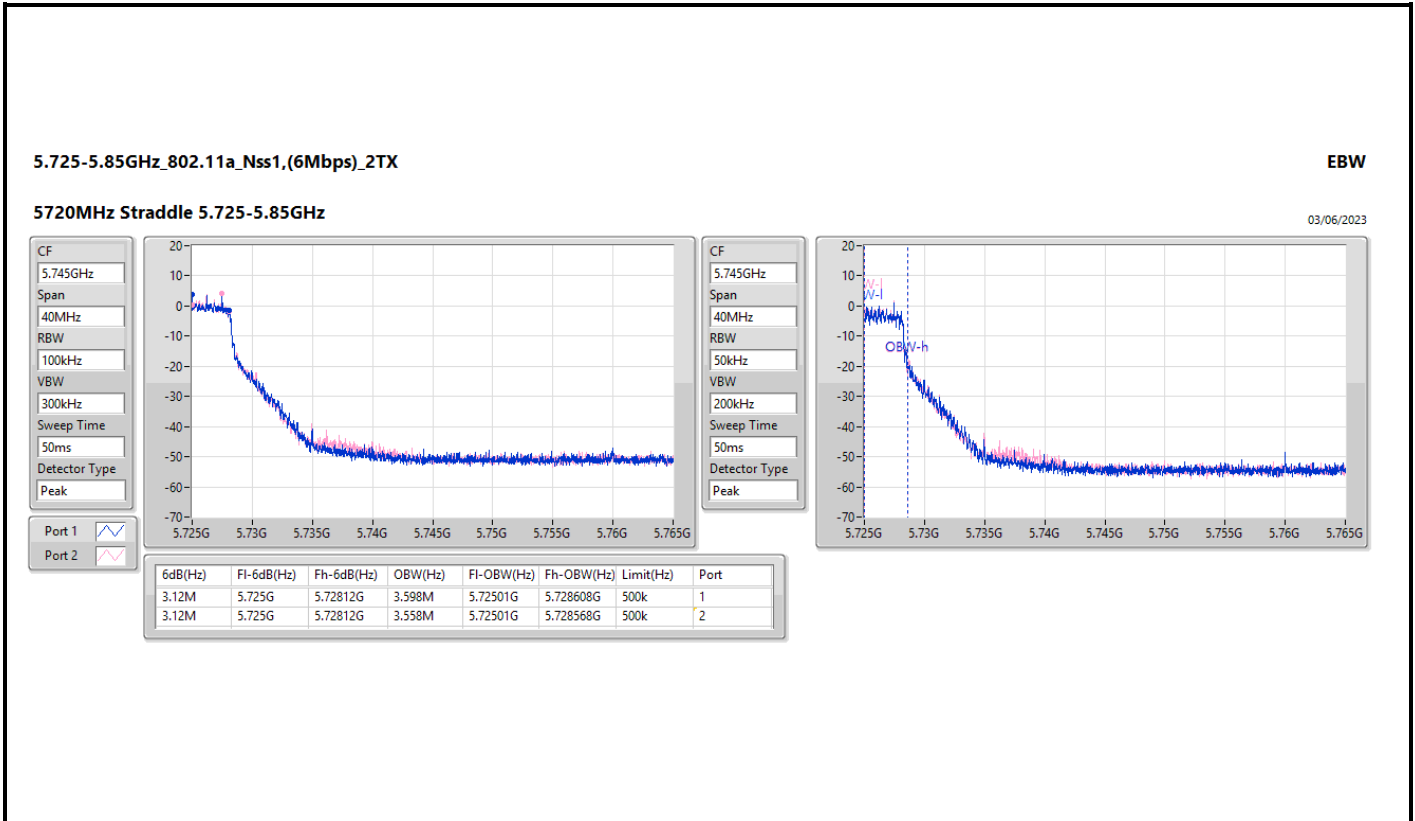
CF: 5.71GHz
 Span: 30MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 50ms
 Detector Type: Peak



CF: 5.71GHz
 Span: 30MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 50ms
 Detector Type: Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.3M	5.7097G	5.725G	13.178M	5.711754G	5.724933G	Inf	1
15.255M	5.709745G	5.725G	13.193M	5.711754G	5.724948G	Inf	2



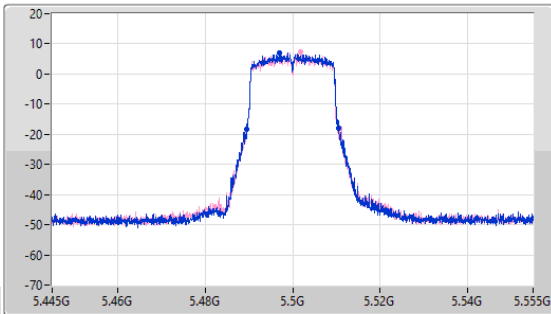
5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

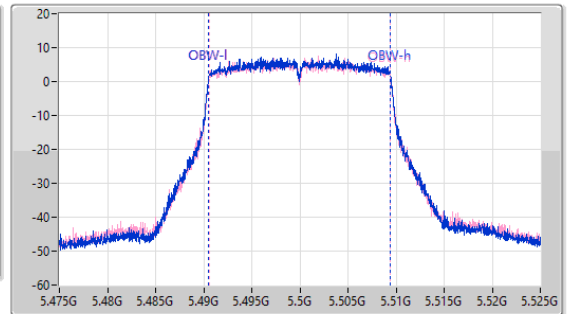
5500MHz

03/06/2023

CF
5.5GHz
Span
110MHz
RBW
200kHz
VBW
1MHz
Sweep Time
50ms
Detector Type
Peak



CF
5.5GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
50ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.12M	5.489495G	5.510615G	18.916M	5.49053G	5.509445G	Inf	1
21.12M	5.48955G	5.51067G	18.891M	5.490555G	5.509445G	Inf	2

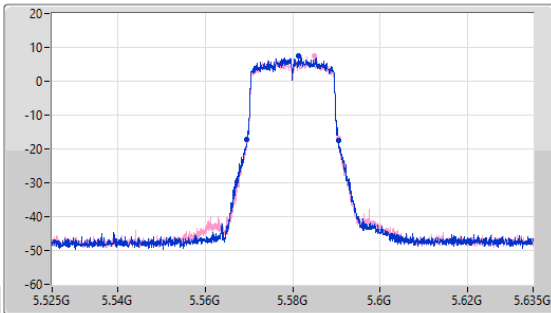
5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

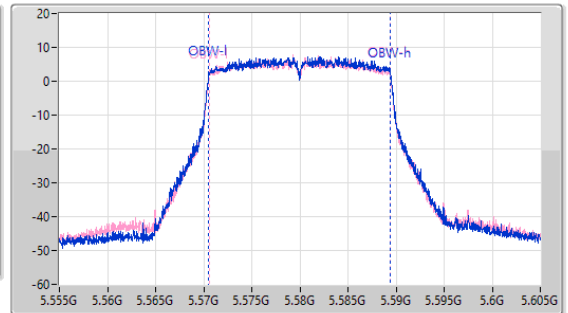
5580MHz

03/06/2023

CF
5.58GHz
Span
110MHz
RBW
200kHz
VBW
1MHz
Sweep Time
50ms
Detector Type
Peak



CF
5.58GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
50ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.065M	5.56944G	5.590505G	18.916M	5.57053G	5.589445G	Inf	1
21.065M	5.56944G	5.590505G	18.866M	5.570555G	5.58942G	Inf	2

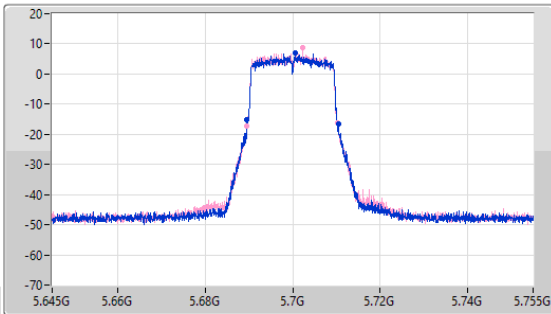
5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

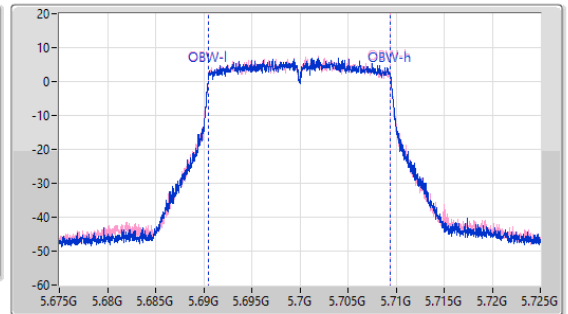
5700MHz

03/06/2023

CF
5.7GHz
Span
110MHz
RBW
200kHz
VBW
1MHz
Sweep Time
50ms
Detector Type
Peak



CF
5.7GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
50ms
Detector Type
Peak



Port 1
Port 2

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.065M	5.689495G	5.71056G	18.916M	5.69053G	5.709445G	Inf	1
20.79M	5.68955G	5.71034G	18.891M	5.69053G	5.70942G	Inf	2

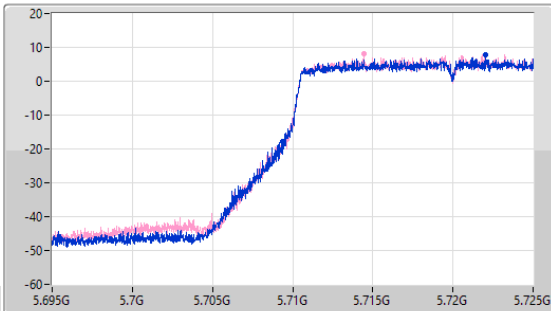
5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

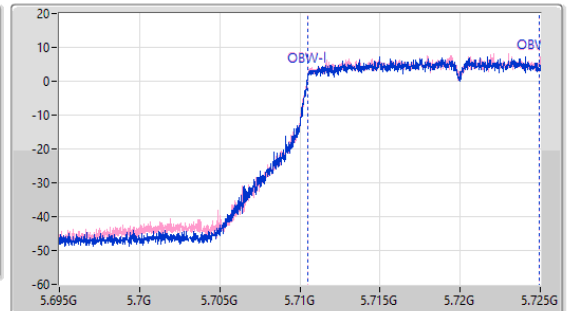
5720MHz Straddle 5.47-5.725GHz

03/06/2023

CF
5.71GHz
Span
30MHz
RBW
200kHz
VBW
1MHz
Sweep Time
50ms
Detector Type
Peak



CF
5.71GHz
Span
30MHz
RBW
200kHz
VBW
1MHz
Sweep Time
50ms
Detector Type
Peak



Port 1
Port 2

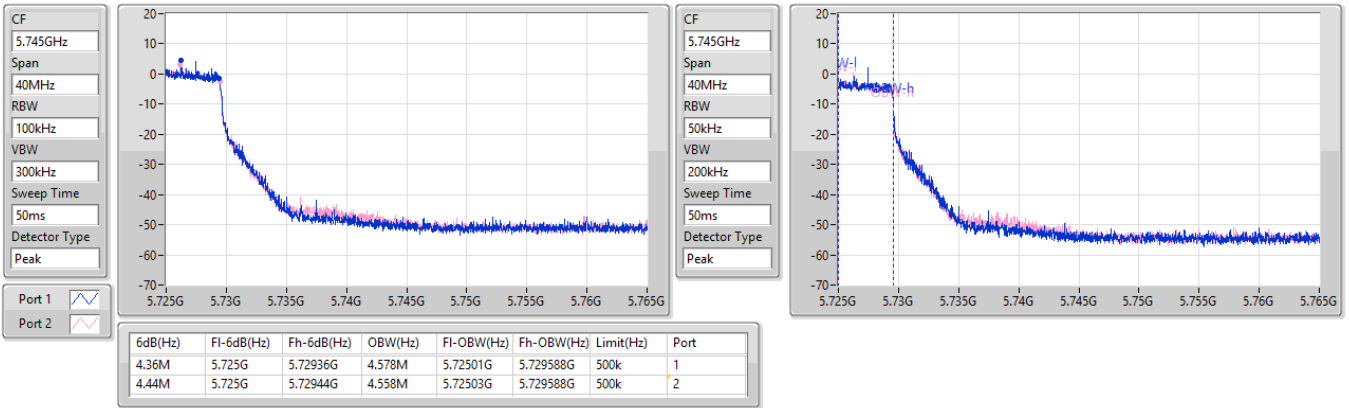
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.63M	5.70937G	5.725G	14.453M	5.71048G	5.724933G	Inf	1
15.645M	5.709355G	5.725G	14.468M	5.71048G	5.724948G	Inf	2

5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5720MHz Straddle 5.725-5.85GHz

03/06/2023

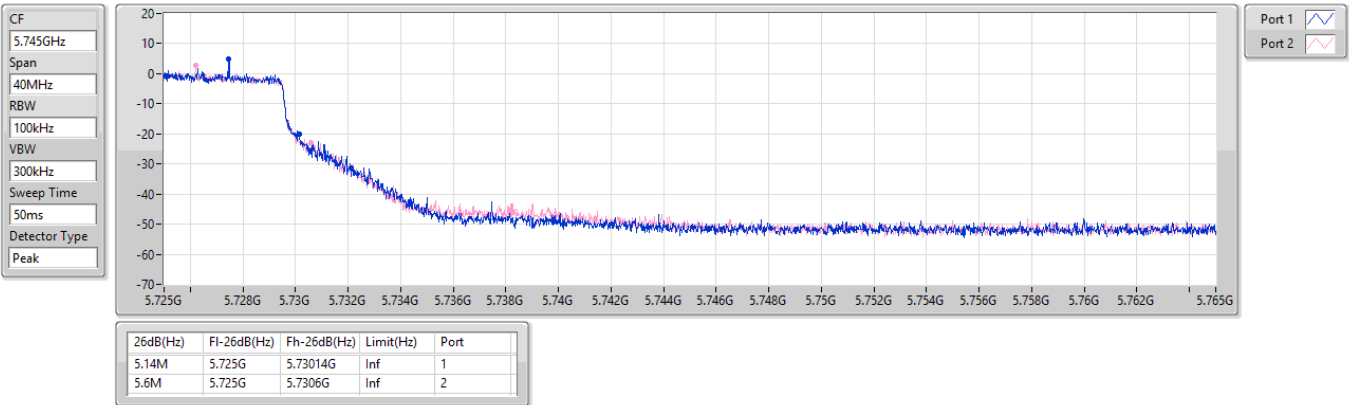


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5720MHz Straddle 5.725-5.85GHz

03/06/2023

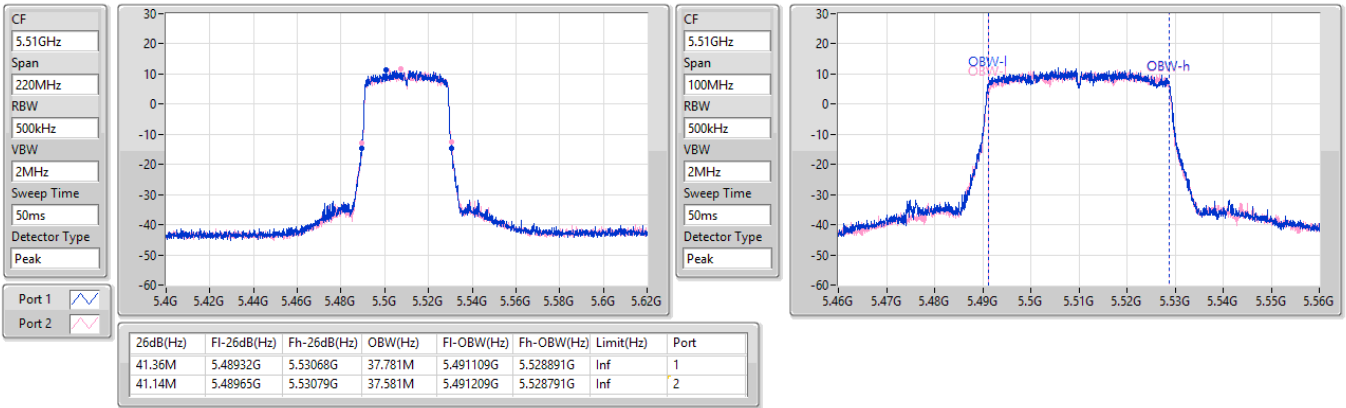


5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

5510MHz

03/06/2023

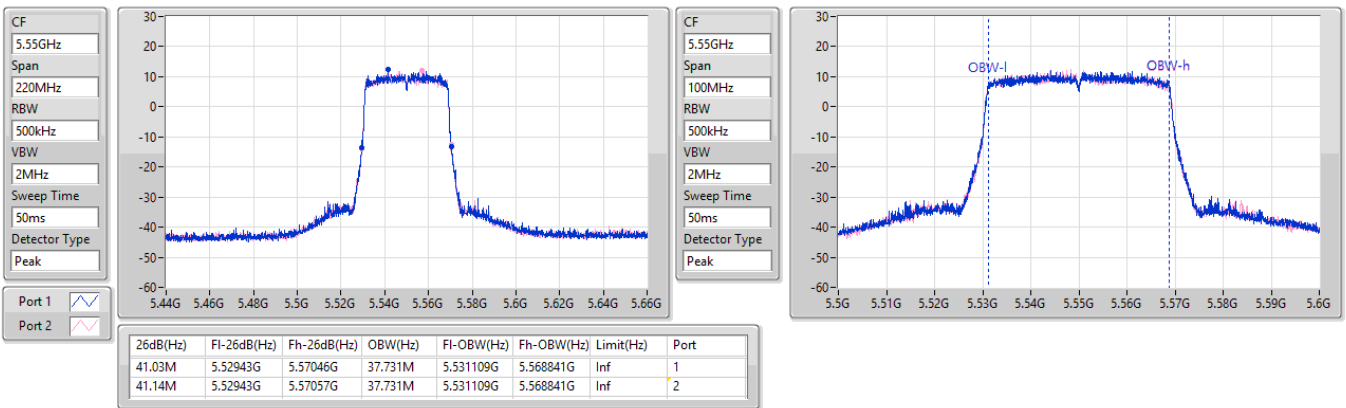


5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

5550MHz

03/06/2023



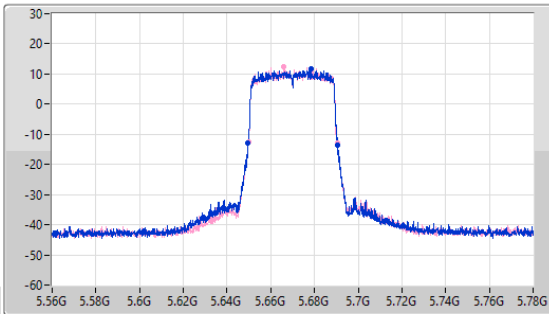
5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

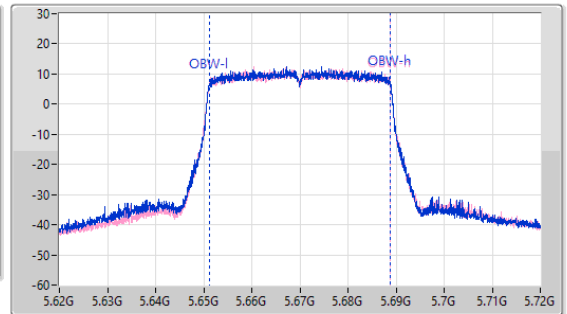
5670MHz

03/06/2023

CF: 5.67GHz
 Span: 220MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 50ms
 Detector Type: Peak



CF: 5.67GHz
 Span: 100MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 50ms
 Detector Type: Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.92M	5.64965G	5.69057G	37.681M	5.651109G	5.688791G	Inf	1
40.7M	5.64976G	5.69046G	37.731M	5.651109G	5.688841G	Inf	2

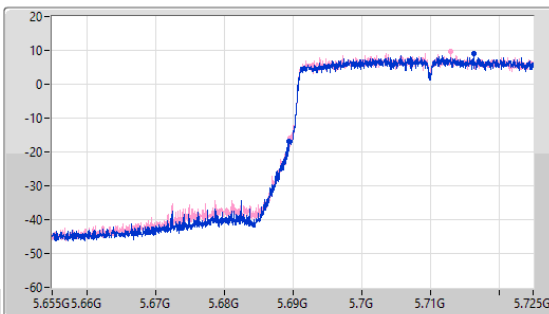
5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

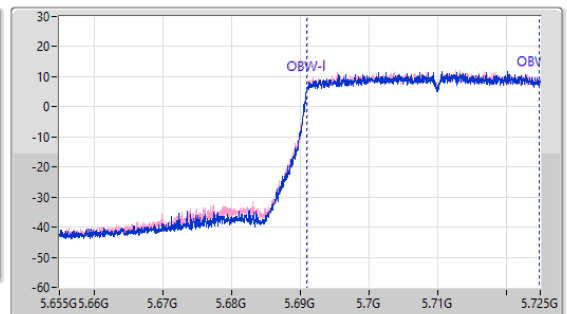
5710MHz Straddle 5.47-5.725GHz

03/06/2023

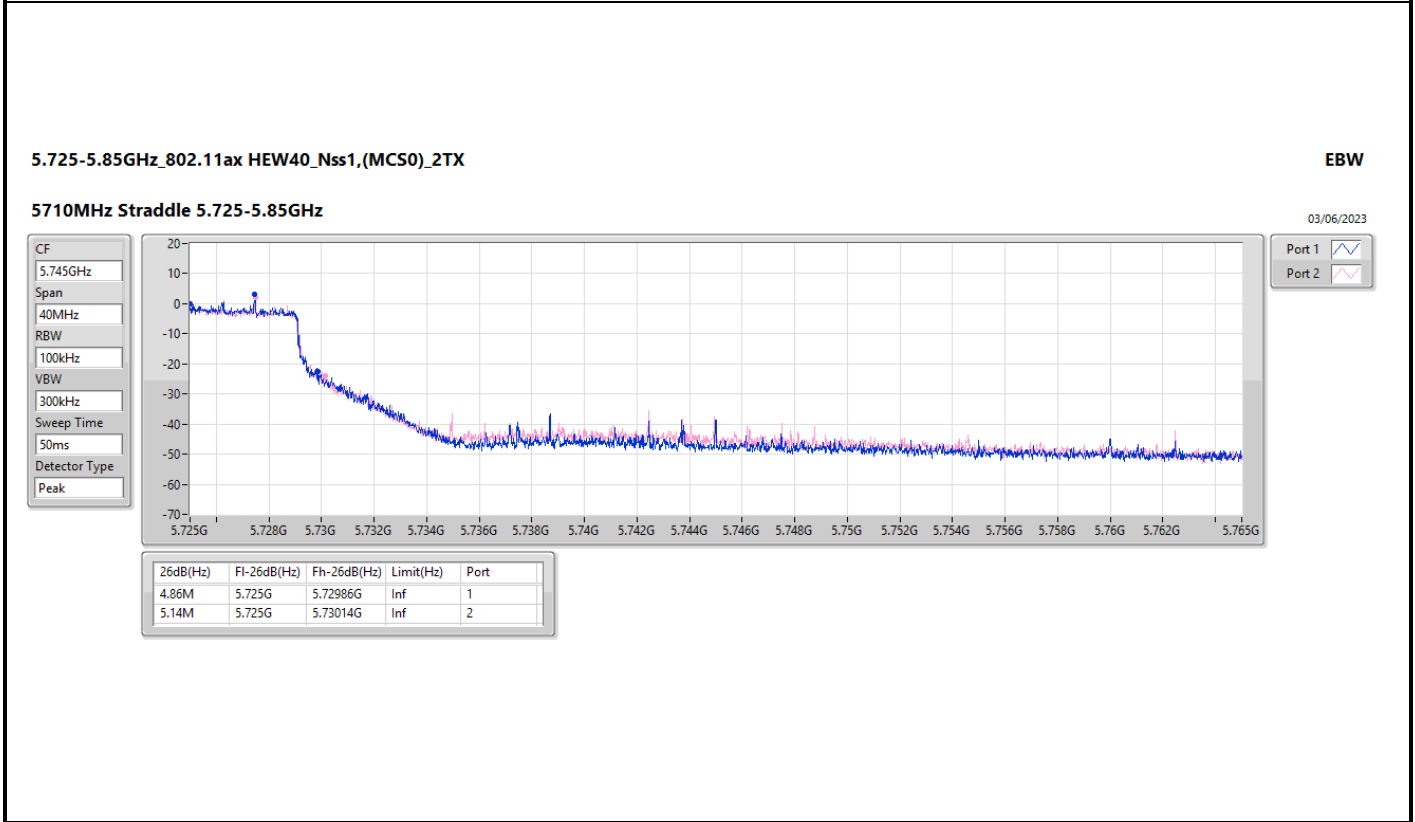
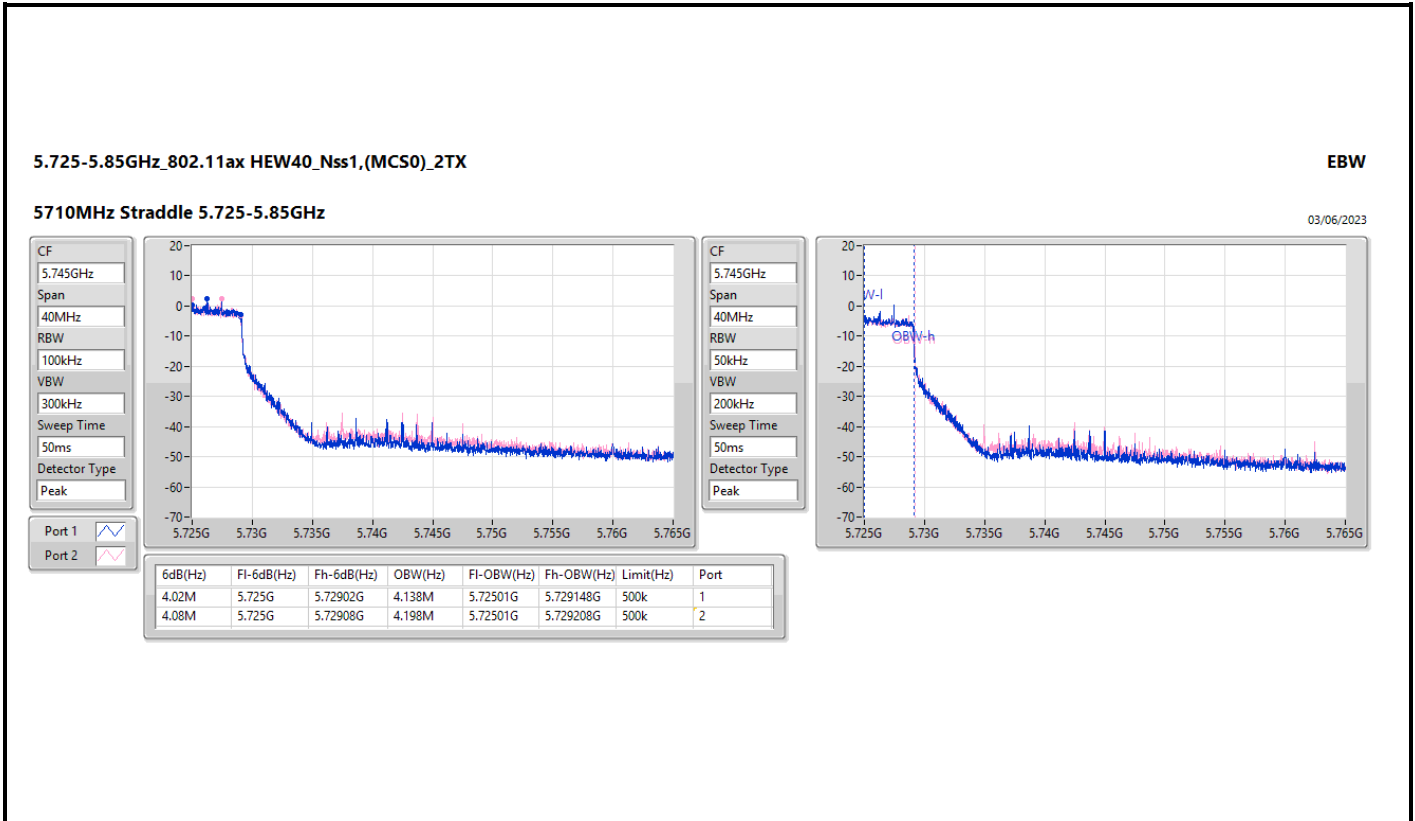
CF: 5.69GHz
 Span: 70MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 50ms
 Detector Type: Peak



CF: 5.69GHz
 Span: 70MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 50ms
 Detector Type: Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.56M	5.68944G	5.725G	33.758M	5.691049G	5.724808G	Inf	1
35.35M	5.68965G	5.725G	33.688M	5.691084G	5.724773G	Inf	2



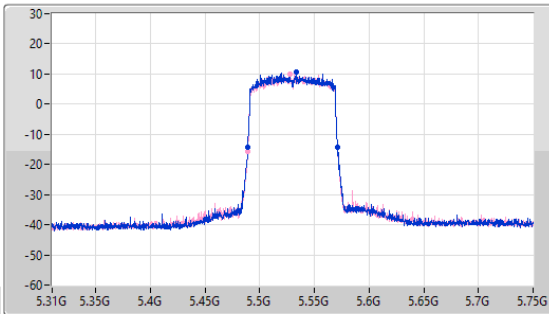
5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

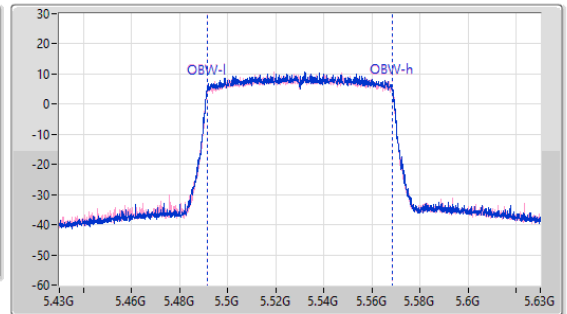
5530MHz

03/06/2023

CF: 5.53GHz
 Span: 440MHz
 RBW: 1MHz
 VBW: 3MHz
 Sweep Time: 50ms
 Detector Type: Peak



CF: 5.53GHz
 Span: 200MHz
 RBW: 1MHz
 VBW: 3MHz
 Sweep Time: 50ms
 Detector Type: Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.28M	5.48886G	5.57114G	76.962M	5.491519G	5.568481G	Inf	1
82.5M	5.48864G	5.57114G	77.061M	5.491519G	5.568581G	Inf	2

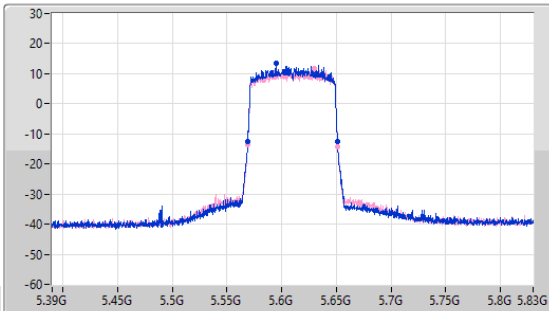
5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

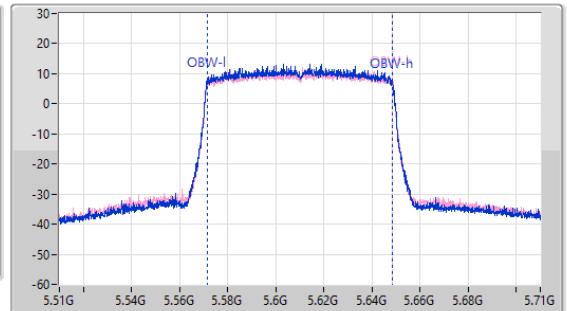
5610MHz

03/06/2023

CF: 5.61GHz
 Span: 440MHz
 RBW: 1MHz
 VBW: 3MHz
 Sweep Time: 50ms
 Detector Type: Peak



CF: 5.61GHz
 Span: 200MHz
 RBW: 1MHz
 VBW: 3MHz
 Sweep Time: 50ms
 Detector Type: Peak



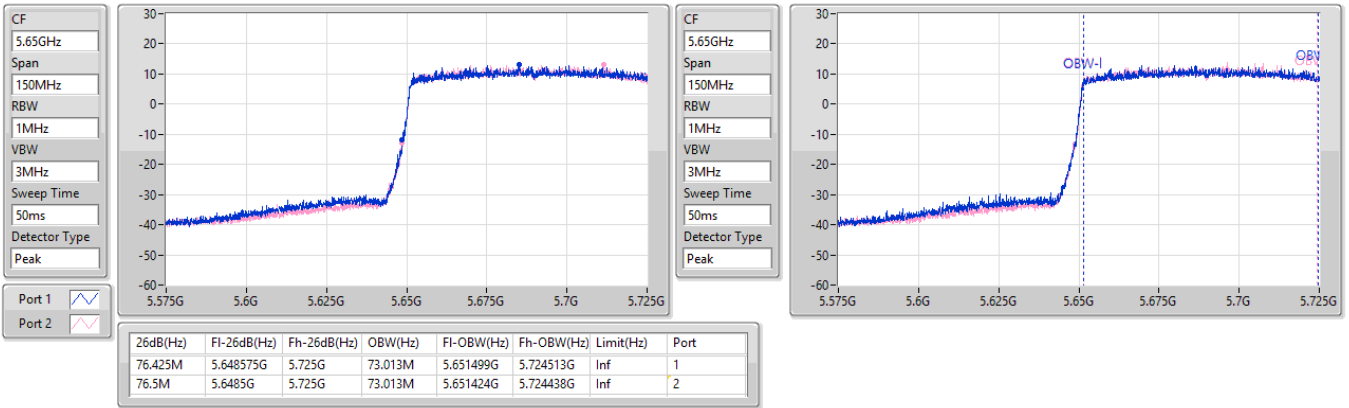
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.5M	5.56886G	5.65136G	77.061M	5.571419G	5.648481G	Inf	1
82.28M	5.56886G	5.65114G	77.161M	5.571419G	5.648581G	Inf	2

5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5690MHz Straddle 5.47-5.725GHz

03/06/2023

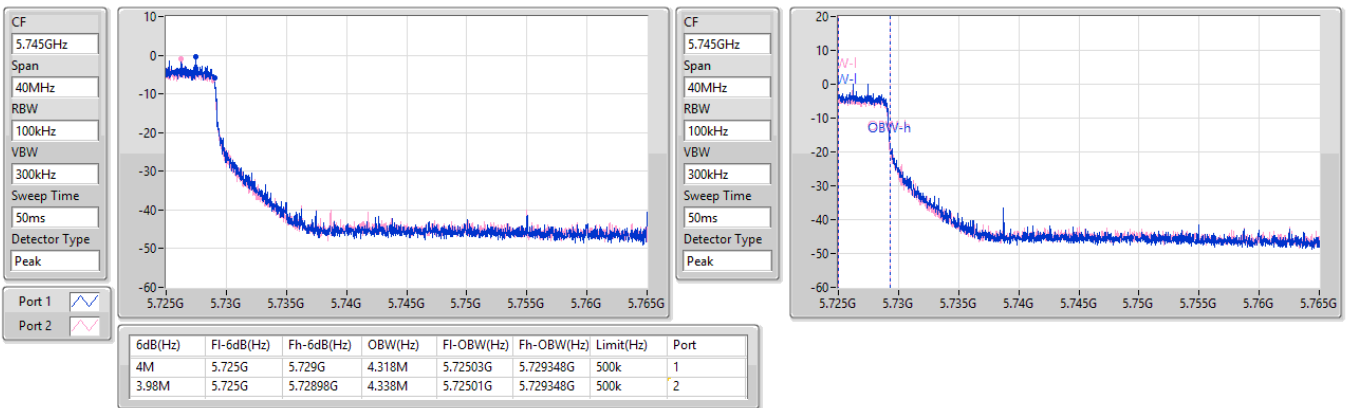


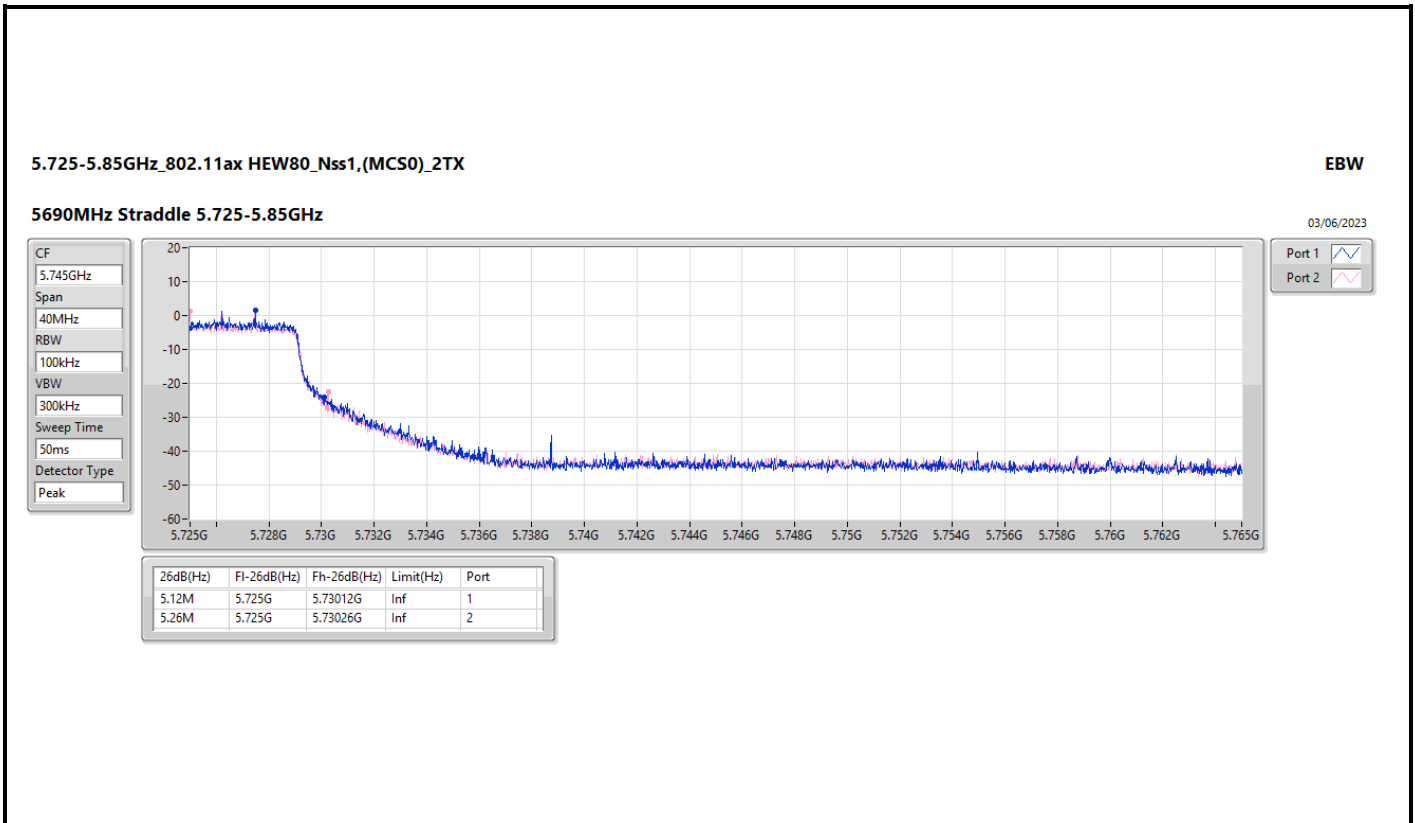
5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5690MHz Straddle 5.725-5.85GHz

03/06/2023







Summary

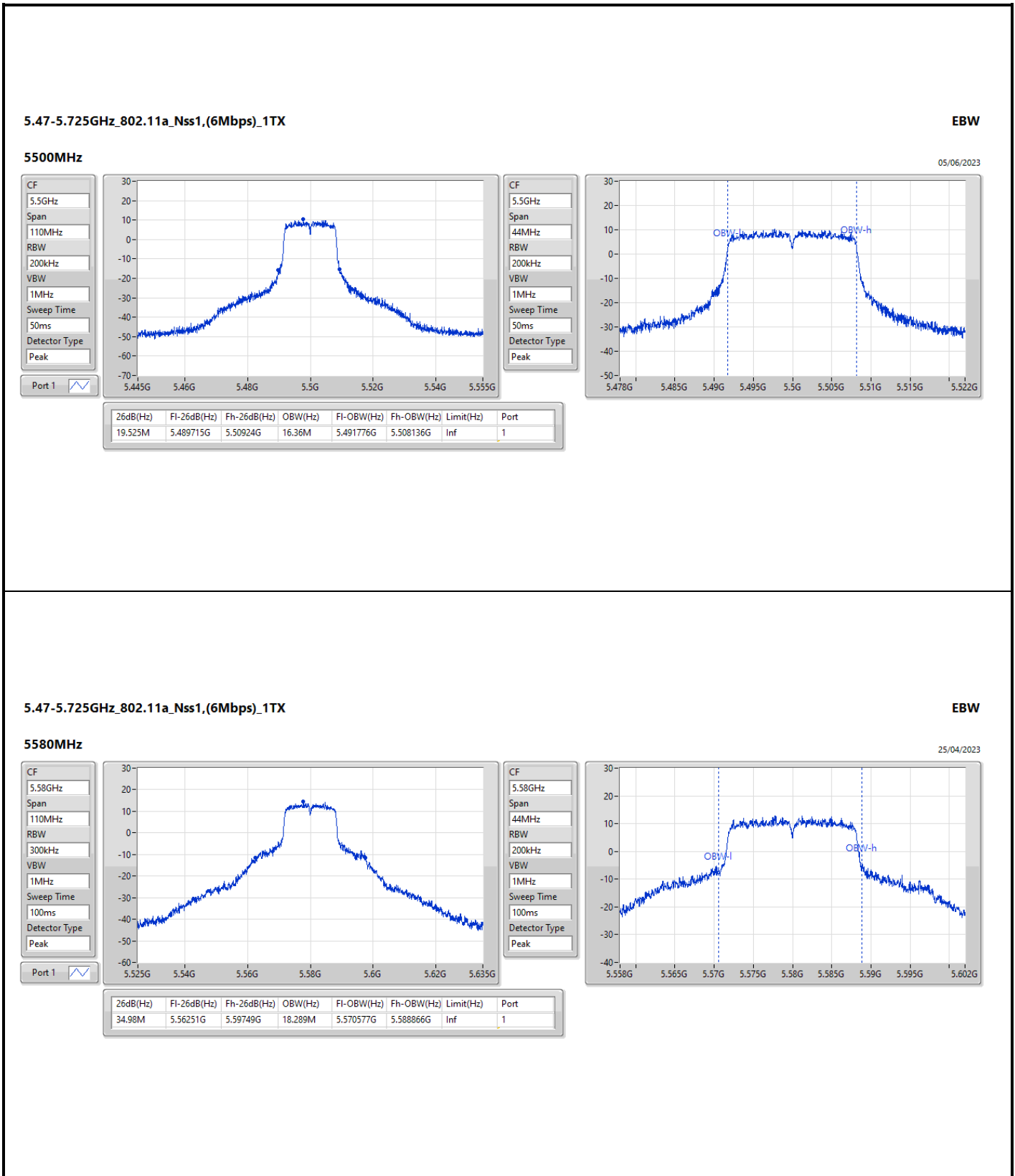
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	34.98M	18.289M	18M3D1D	19.195M	14.17M
802.11ax HEW20_Nss1,(MCS0)_1TX	35.09M	19.415M	19M4D1D	20.735M	14.806M
802.11ax HEW40_Nss1,(MCS0)_1TX	59.84M	37.834M	37M8D1D	39.71M	34.29M
802.11ax HEW80_Nss1,(MCS0)_1TX	115.575M	77.561M	77M6D1D	82.28M	74.072M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	3.12M	10.635M	10M6D1D	3.12M	10.635M
802.11ax HEW20_Nss1,(MCS0)_1TX	4.5M	10.409M	10M4D1D	4.5M	10.409M
802.11ax HEW40_Nss1,(MCS0)_1TX	3.98M	23.651M	23M7D1D	3.98M	23.651M
802.11ax HEW80_Nss1,(MCS0)_1TX	4.04M	34.802M	34M8D1D	4.04M	34.802M

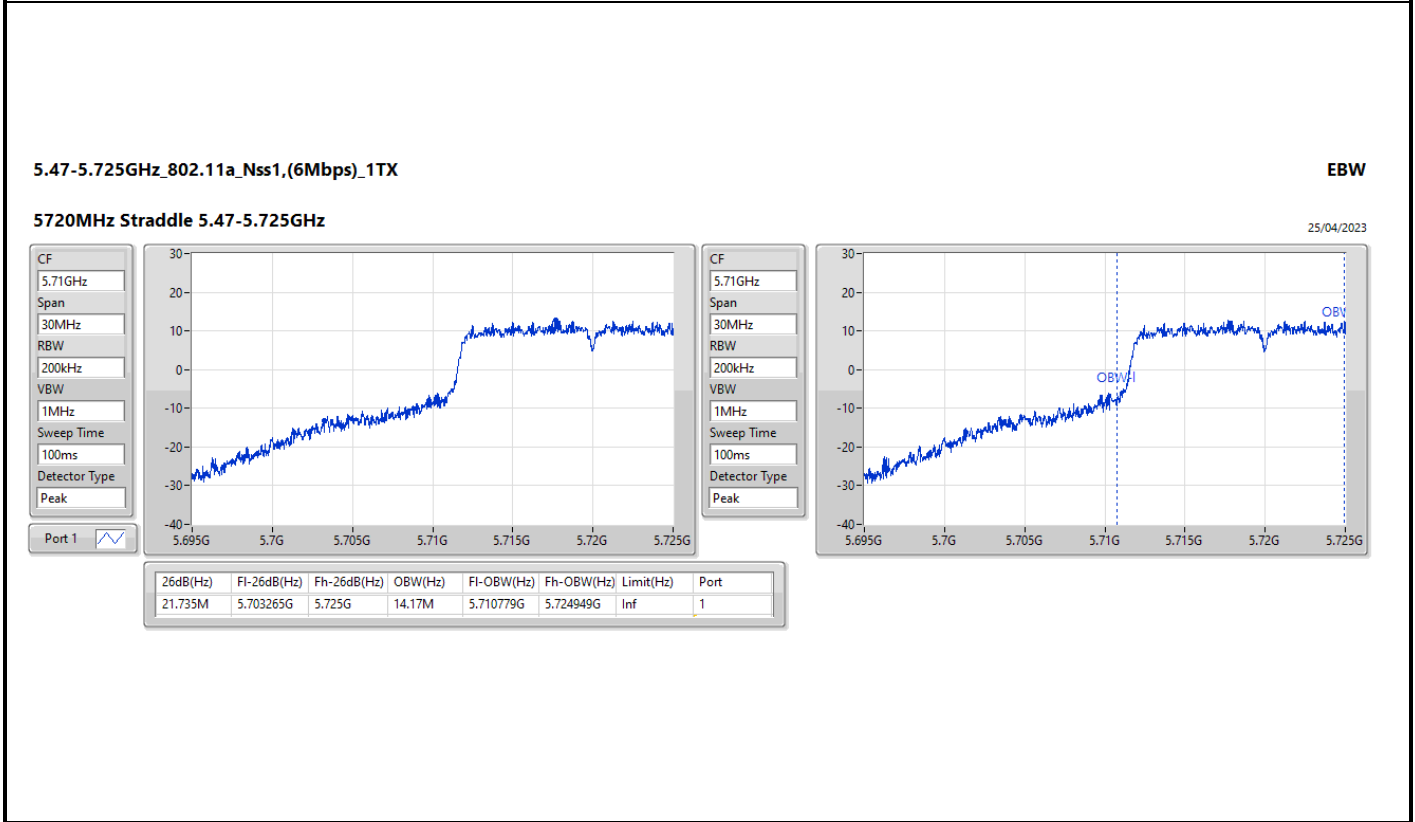
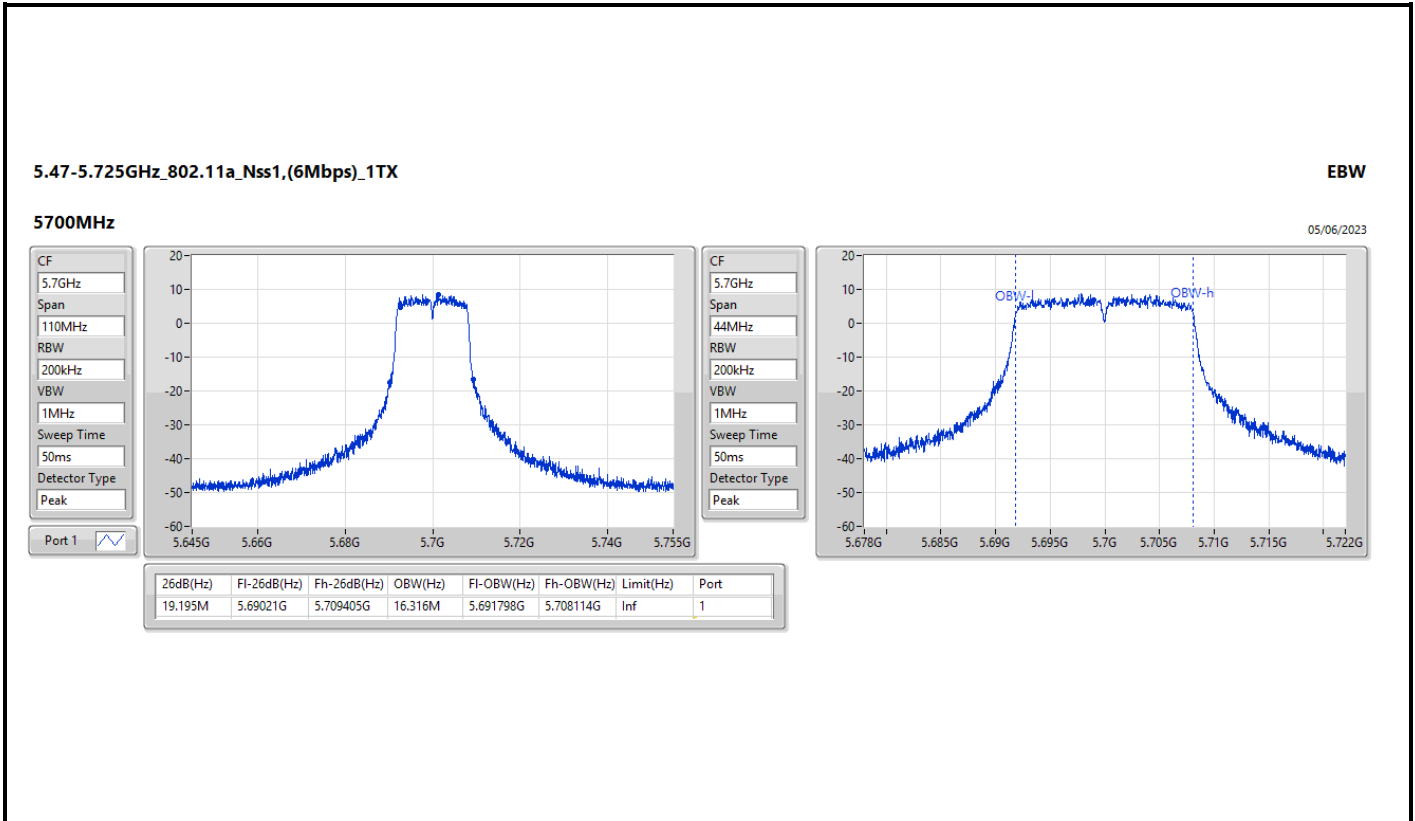
Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Max-OBW = Maximum 99% occupied bandwidth;
 Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Min-OBW = Minimum 99% occupied bandwidth

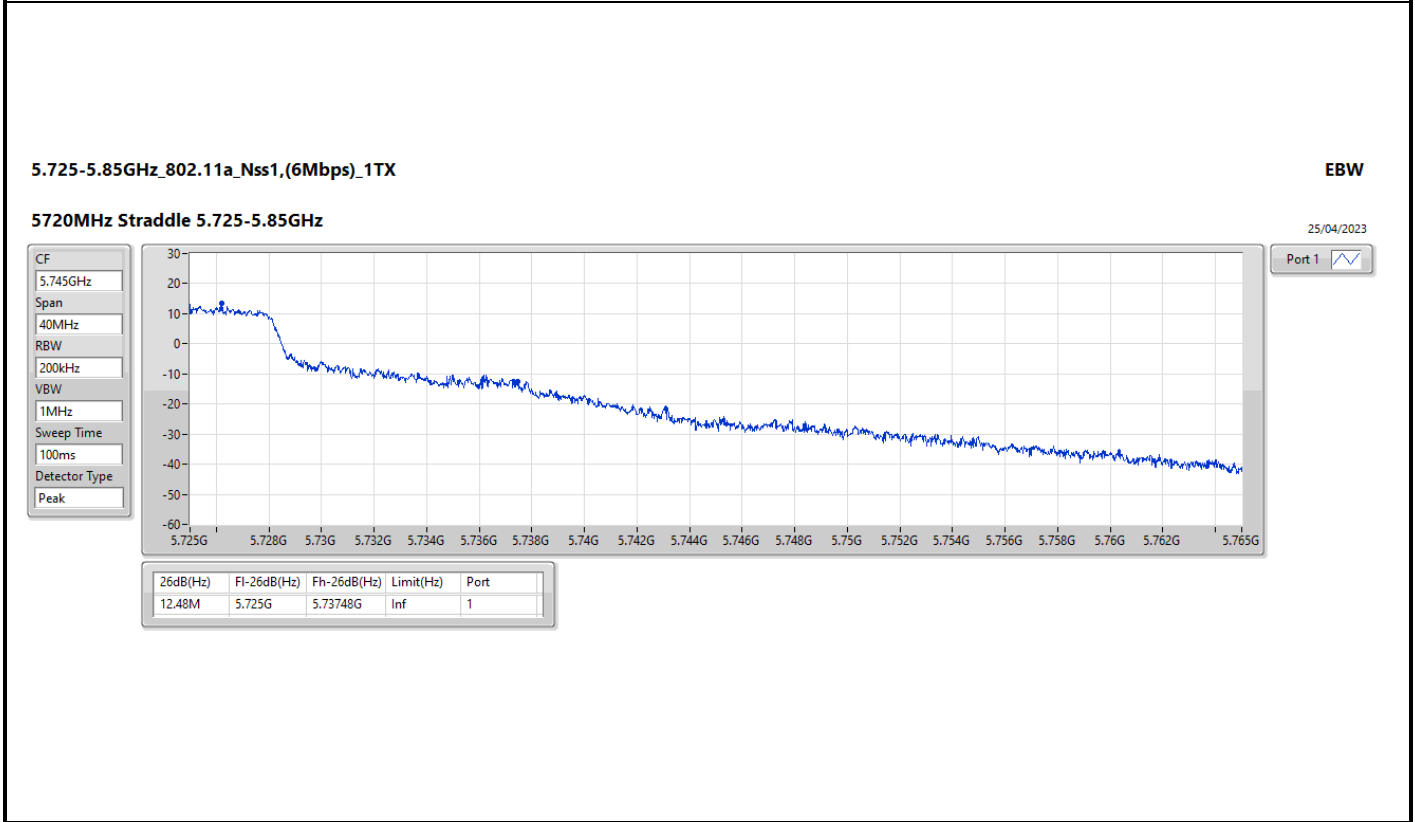
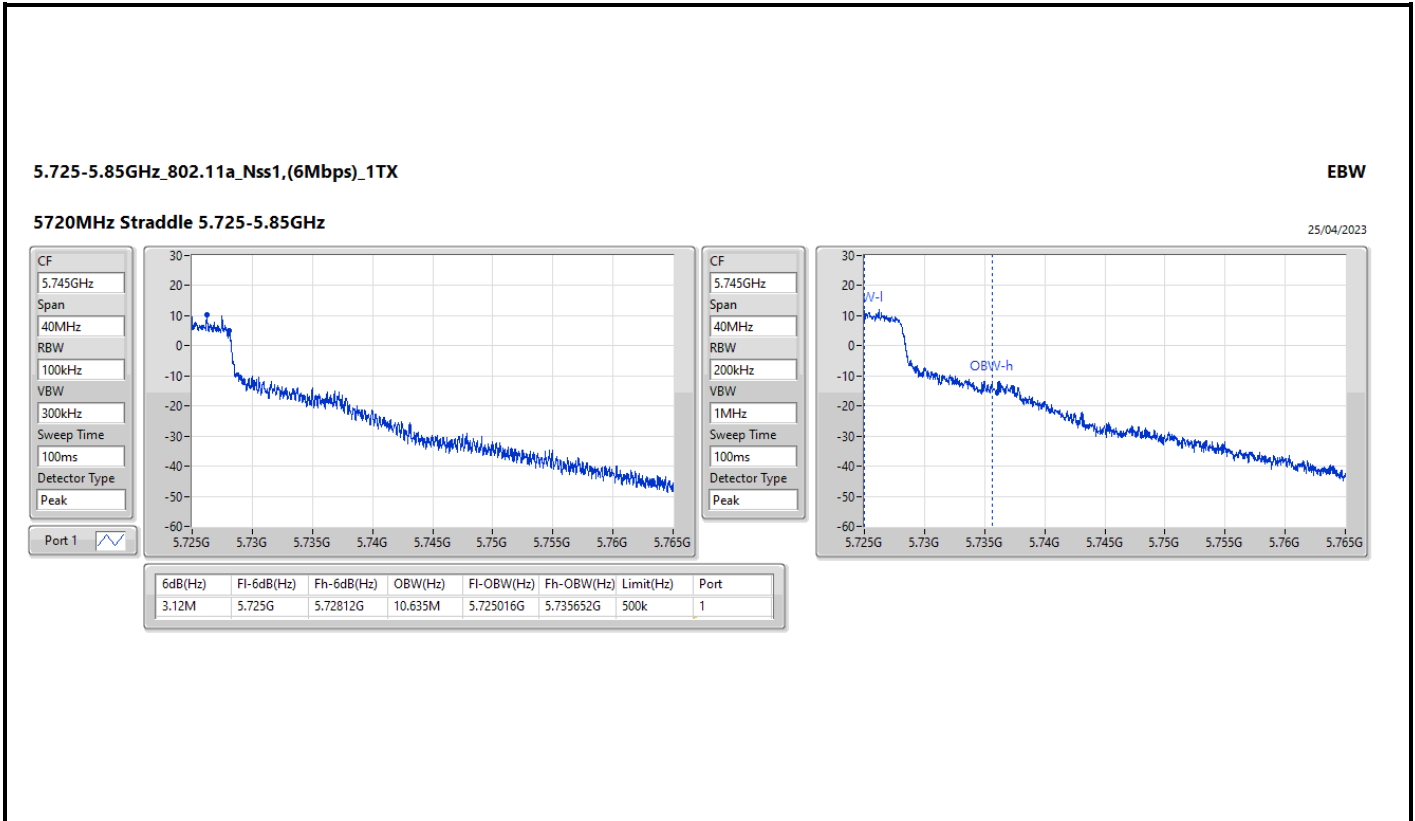
Result

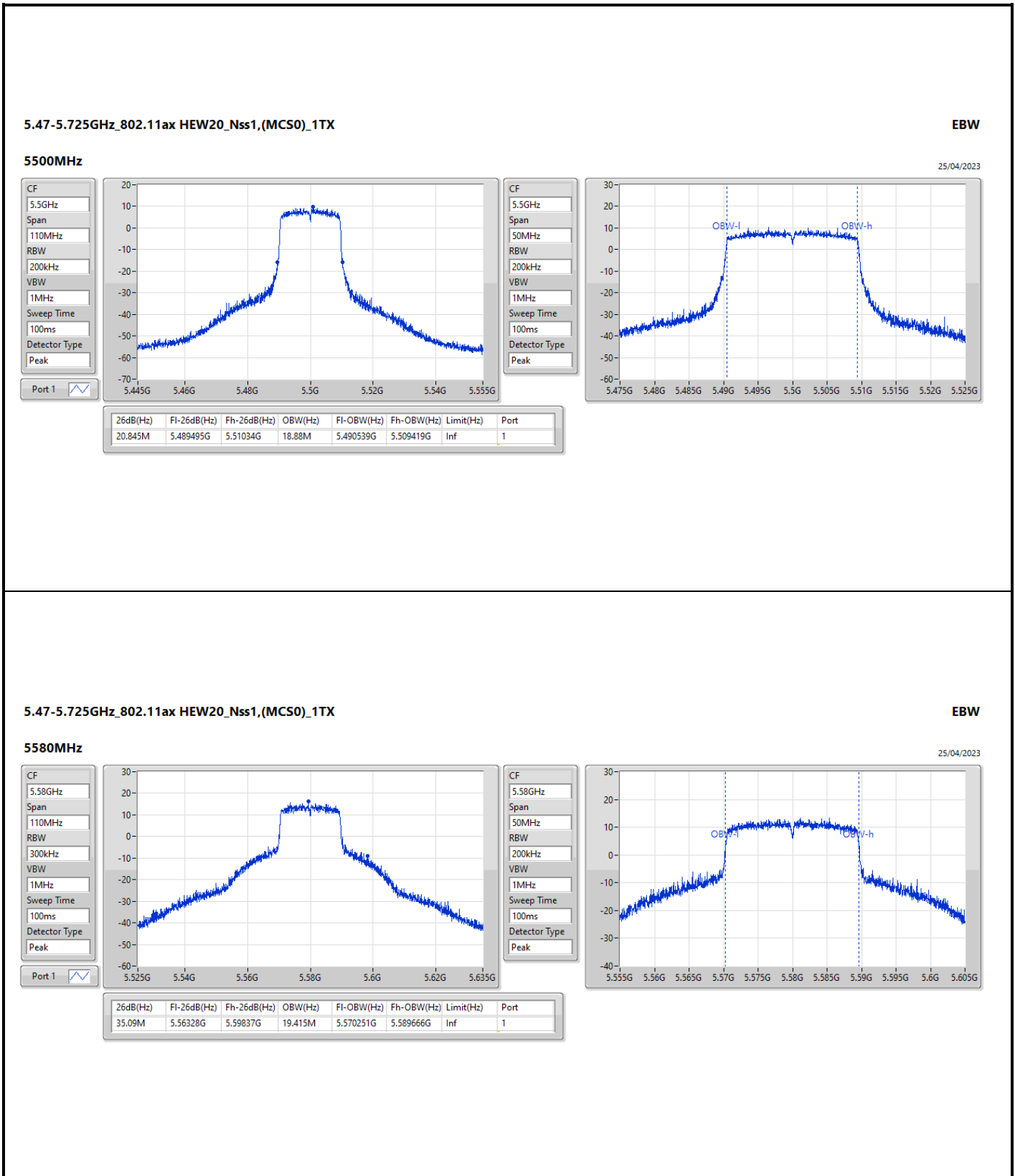
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5500MHz	Pass	Inf	19.525M	16.36M
5580MHz	Pass	Inf	34.98M	18.289M
5700MHz	Pass	Inf	19.195M	16.316M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	21.735M	14.17M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	10.635M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
5500MHz	Pass	Inf	20.845M	18.88M
5580MHz	Pass	Inf	35.09M	19.415M
5700MHz	Pass	Inf	20.735M	18.866M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	21.285M	14.806M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.5M	10.409M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
5510MHz	Pass	Inf	39.71M	37.681M
5550MHz	Pass	Inf	59.84M	37.834M
5670MHz	Pass	Inf	40.59M	37.781M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	53.34M	34.29M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.98M	23.651M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-
5530MHz	Pass	Inf	82.28M	76.962M
5610MHz	Pass	Inf	101.64M	77.561M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	115.575M	74.072M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4.04M	34.802M

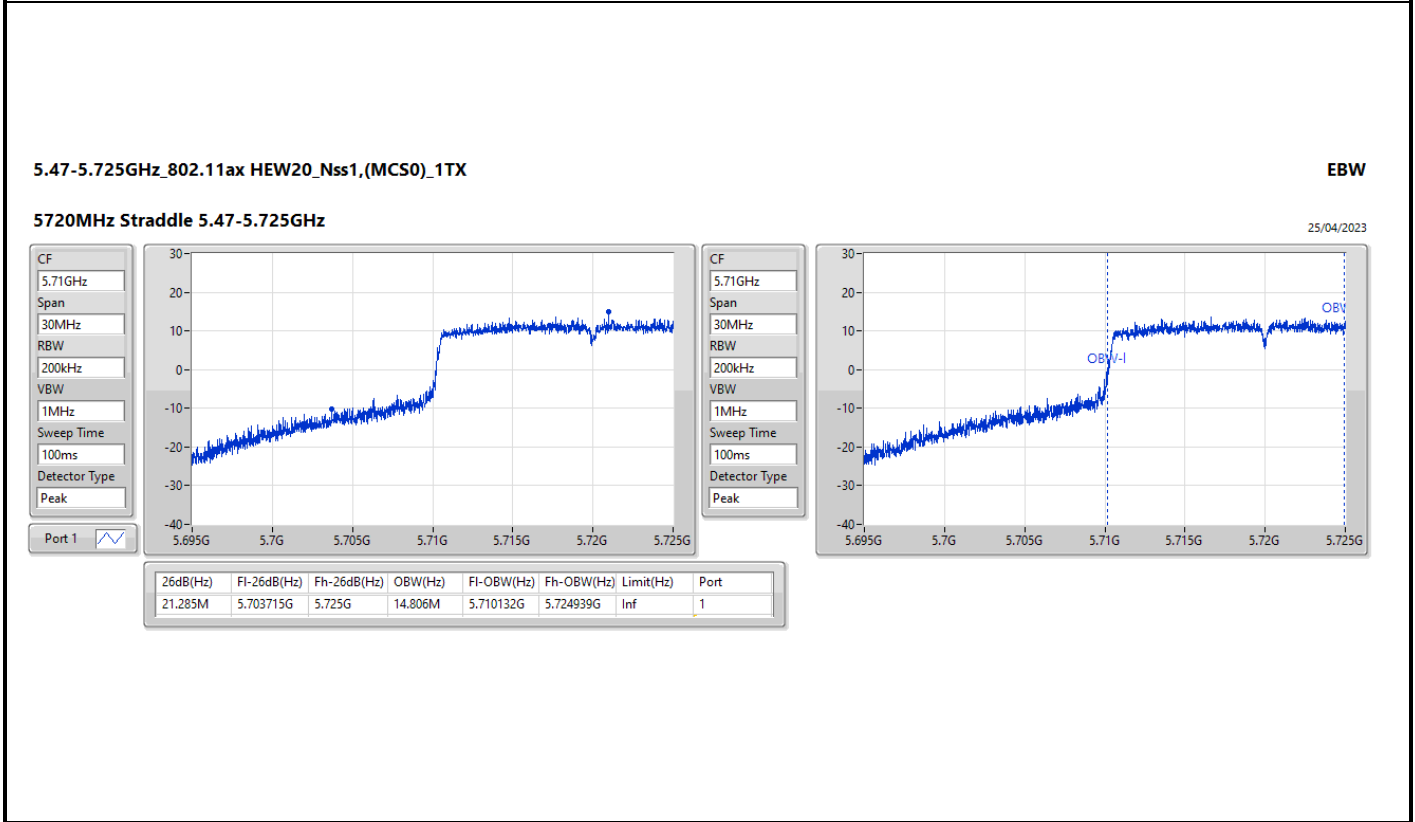
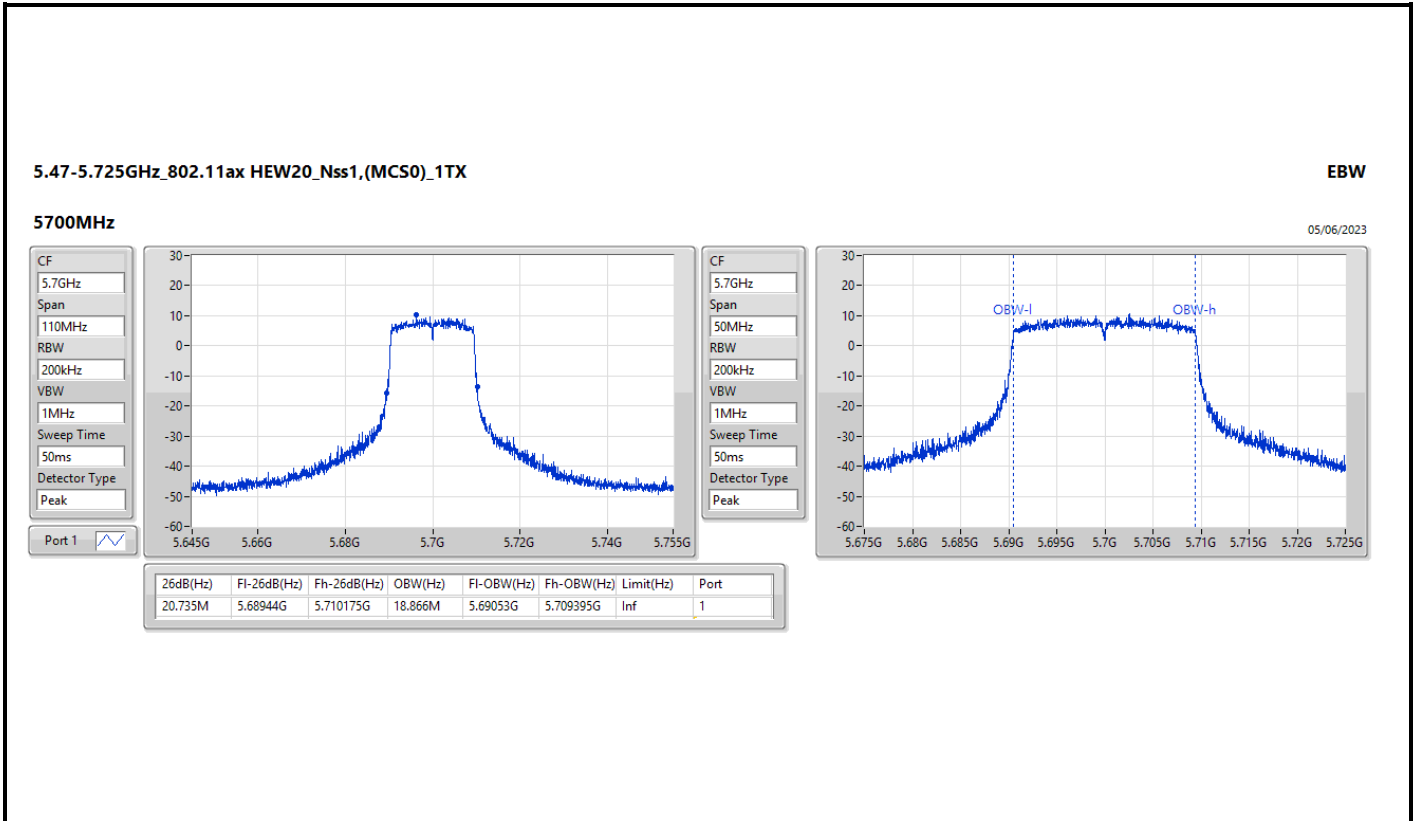
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
 Port X-OBW = Port X 99% occupied bandwidth

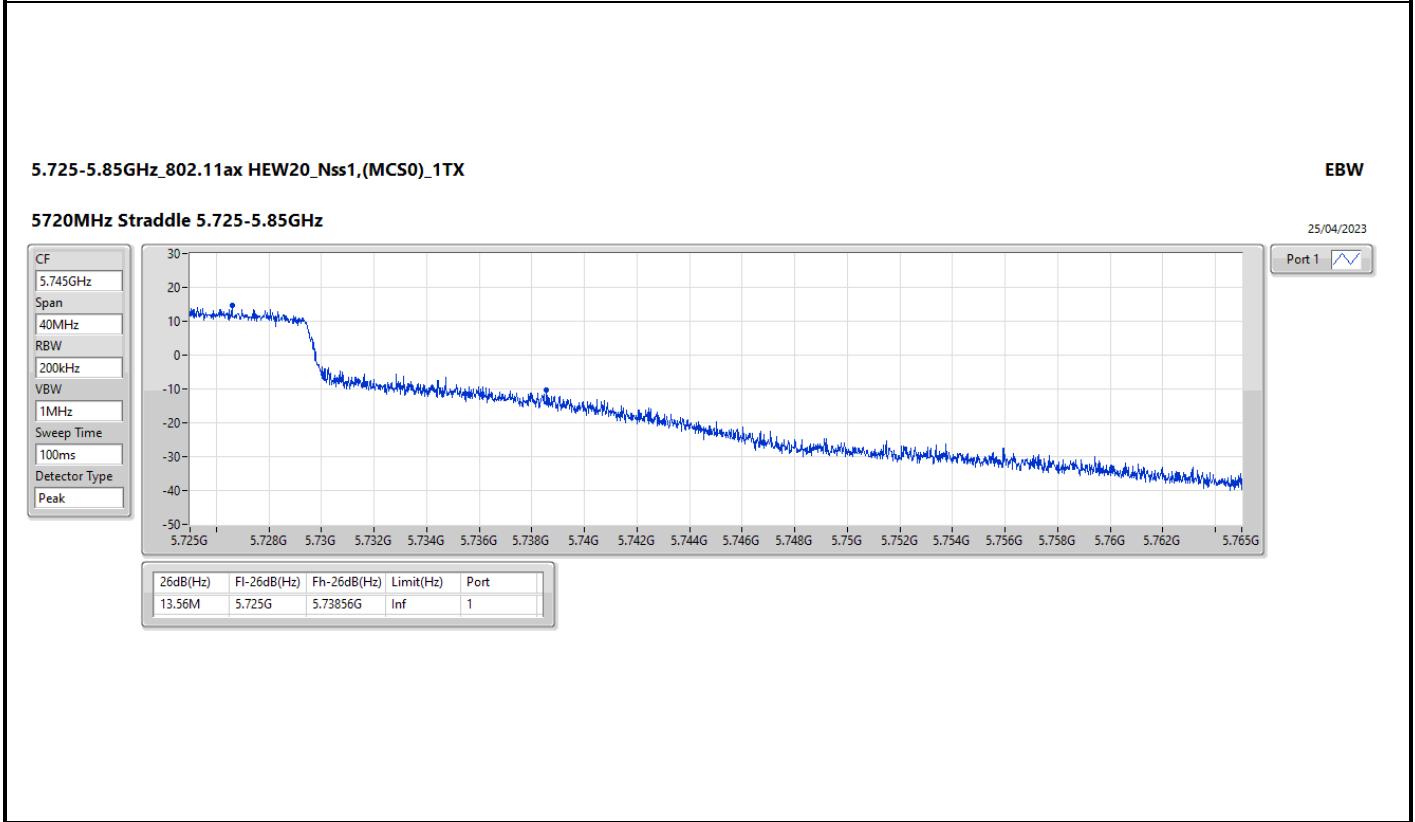
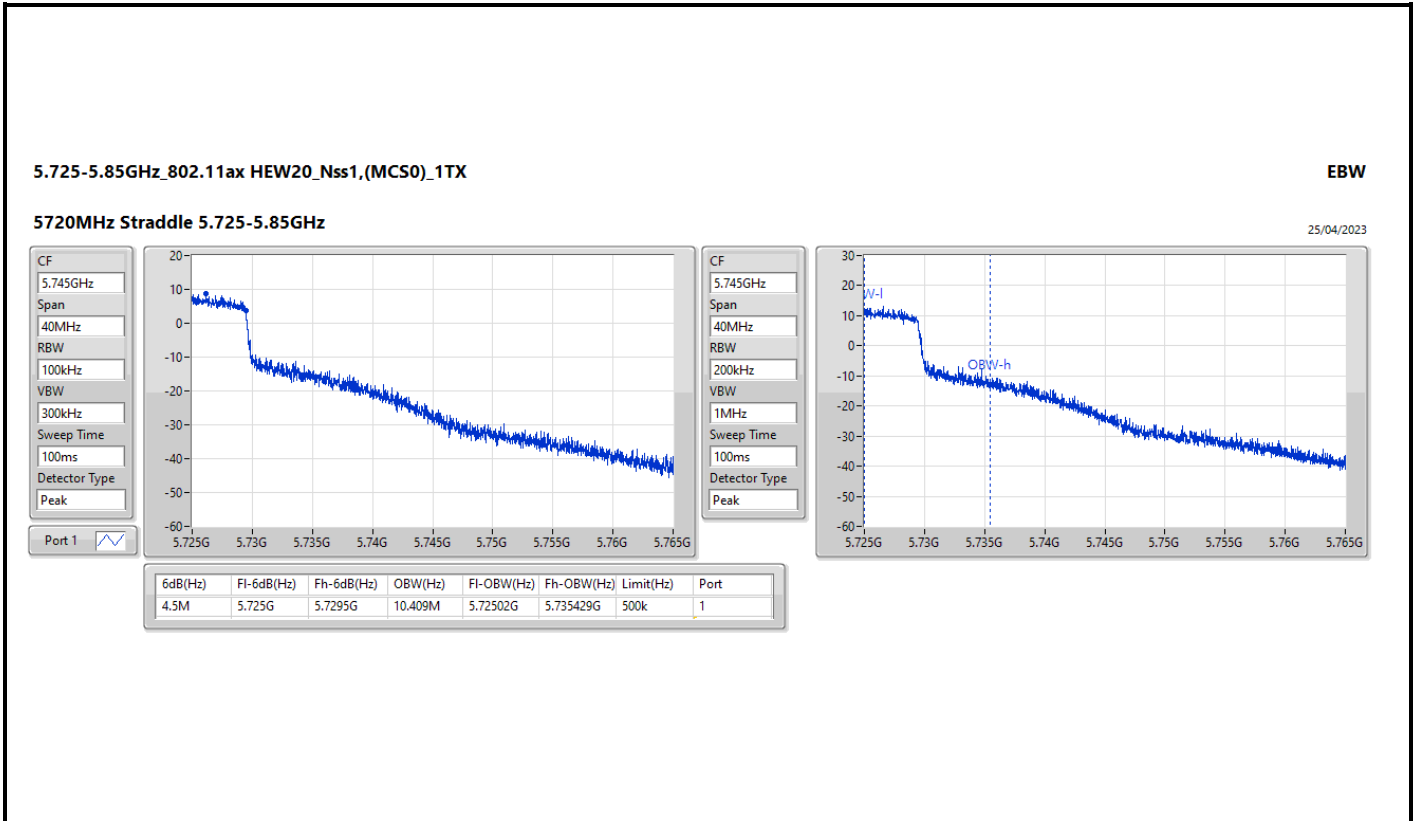


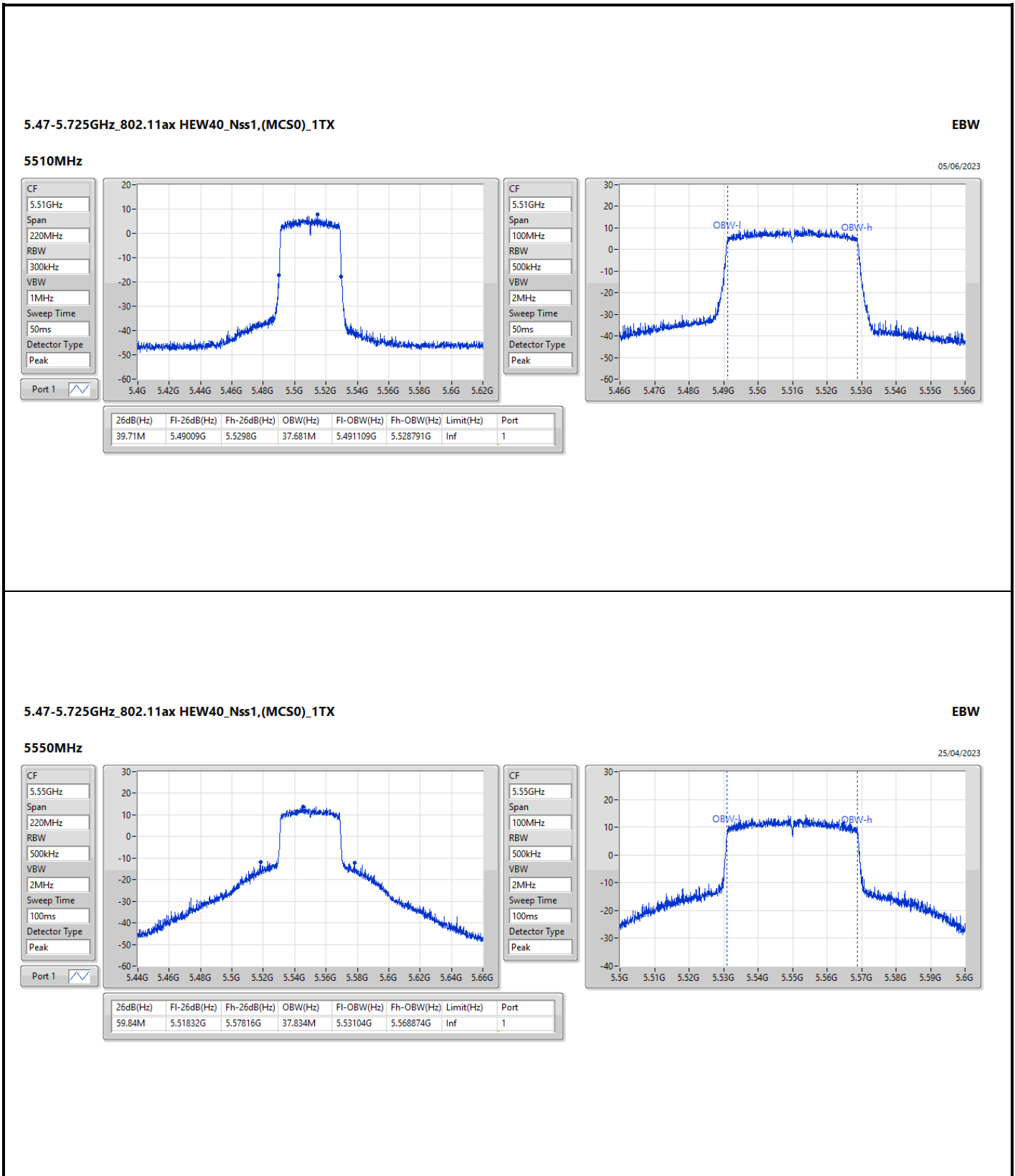


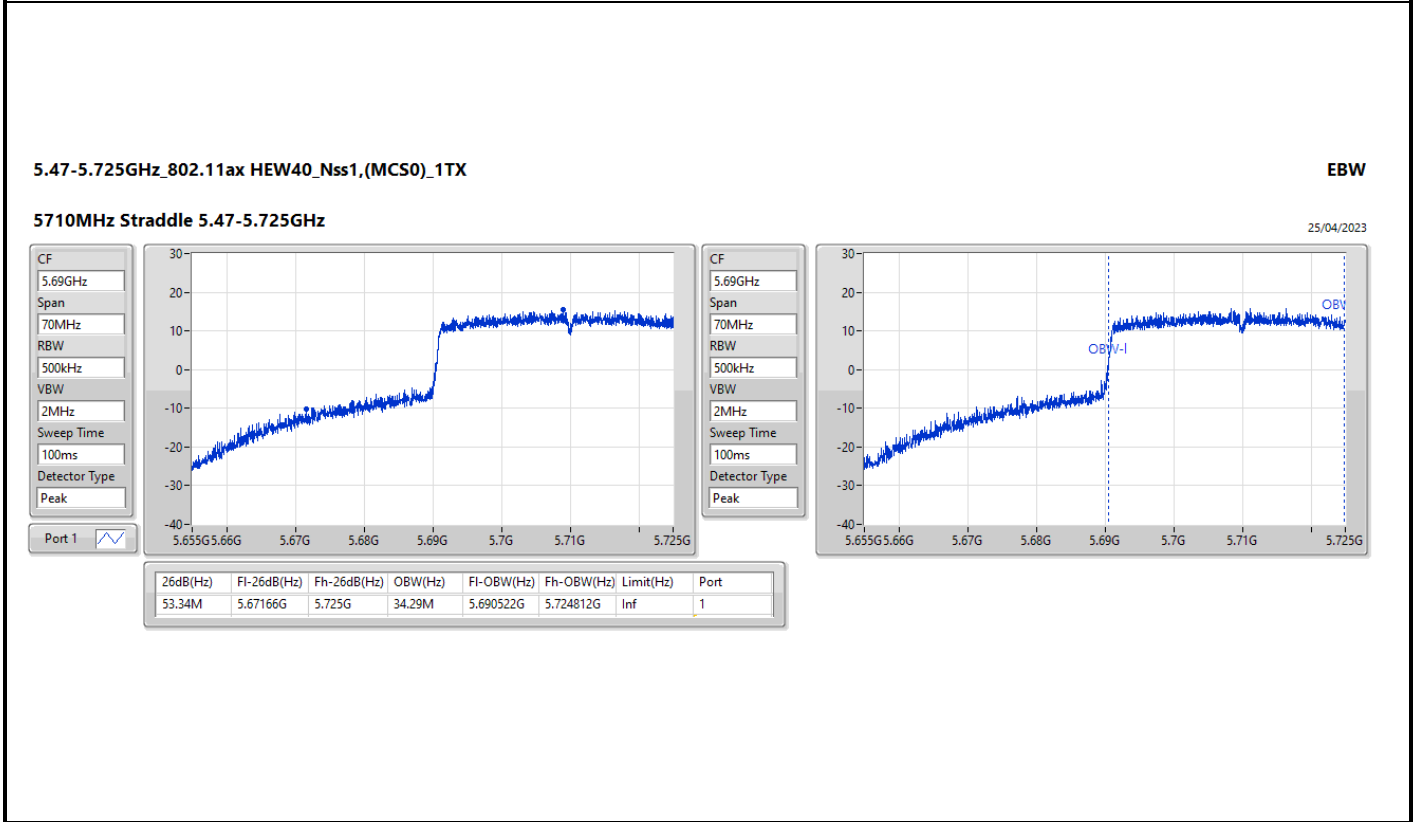
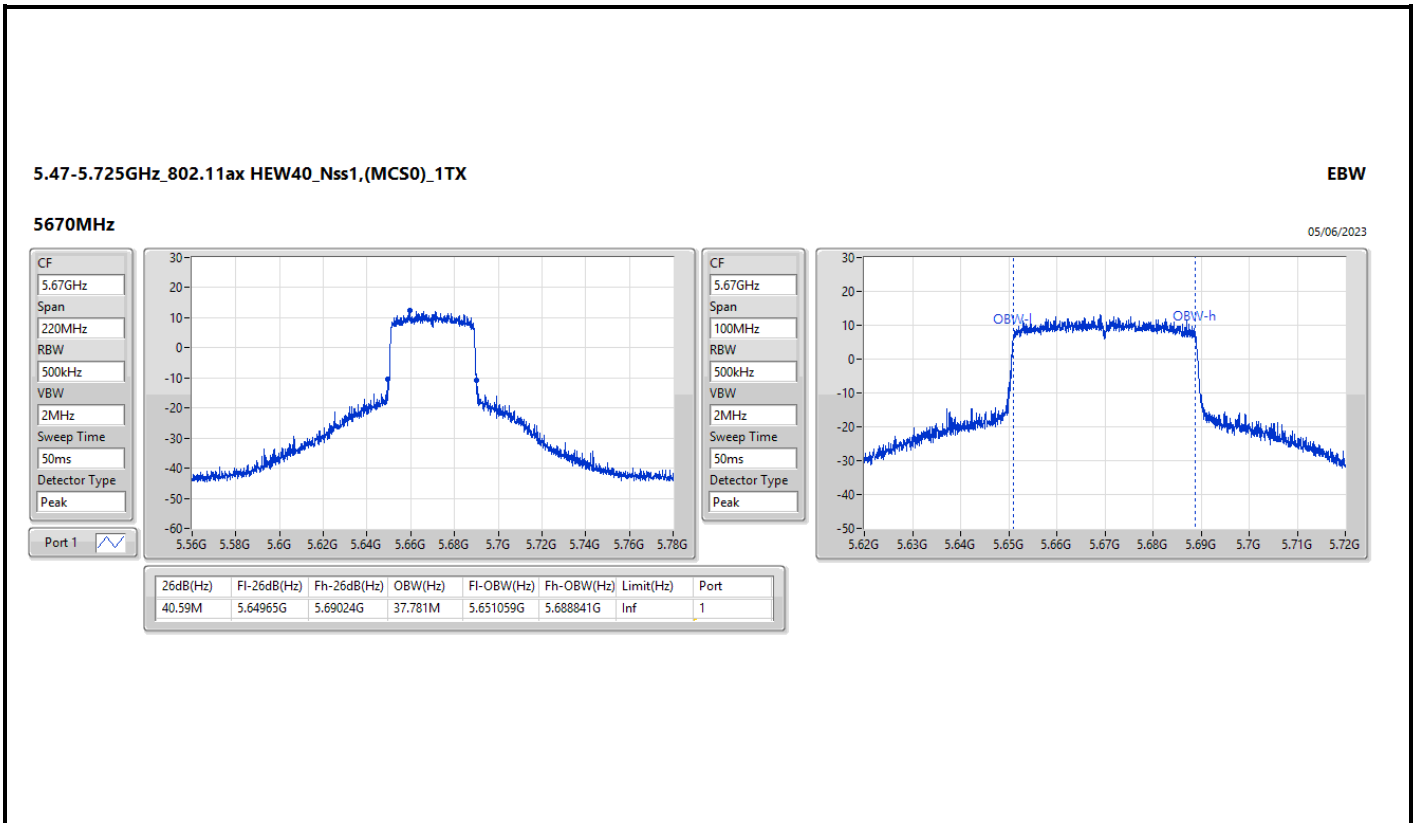


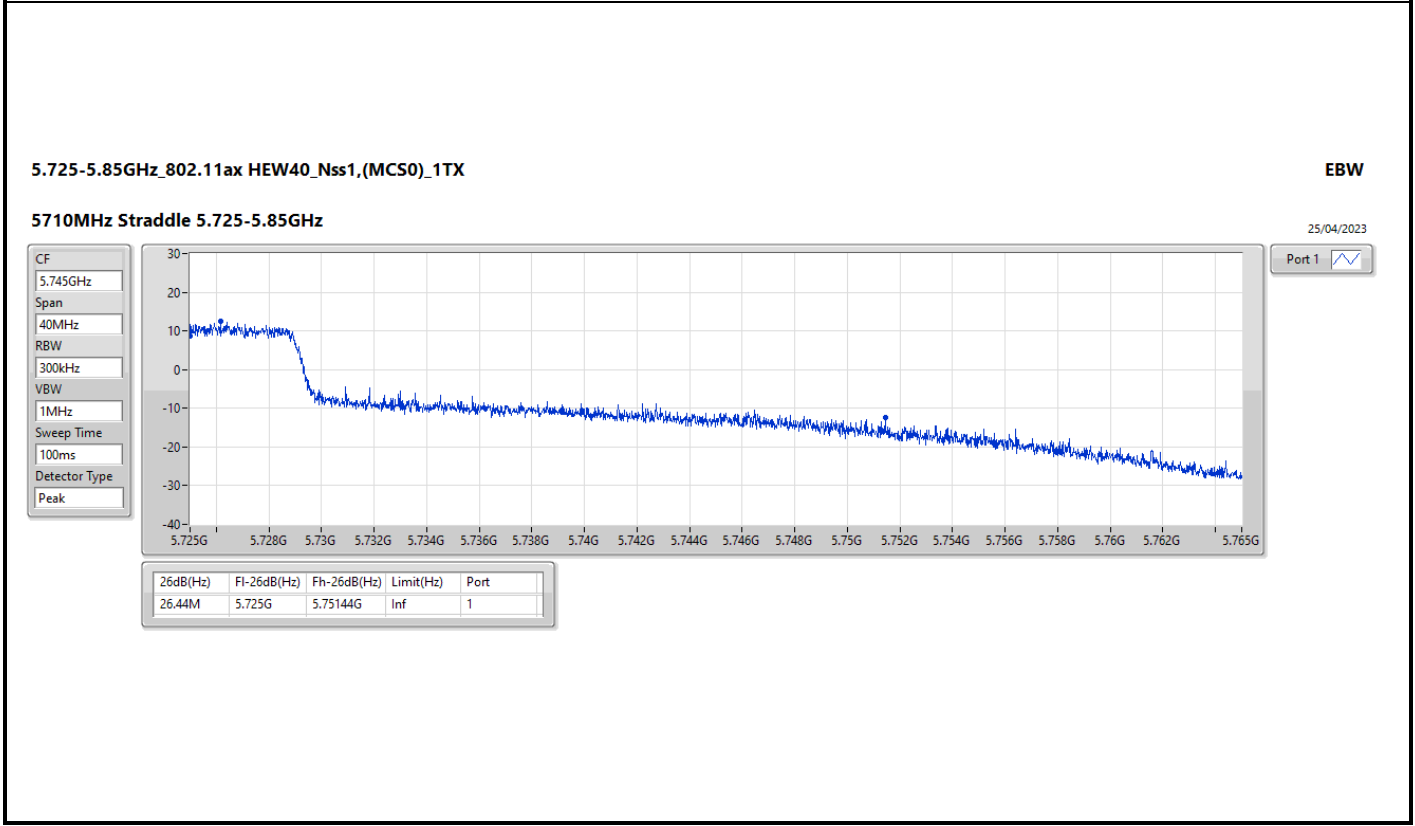
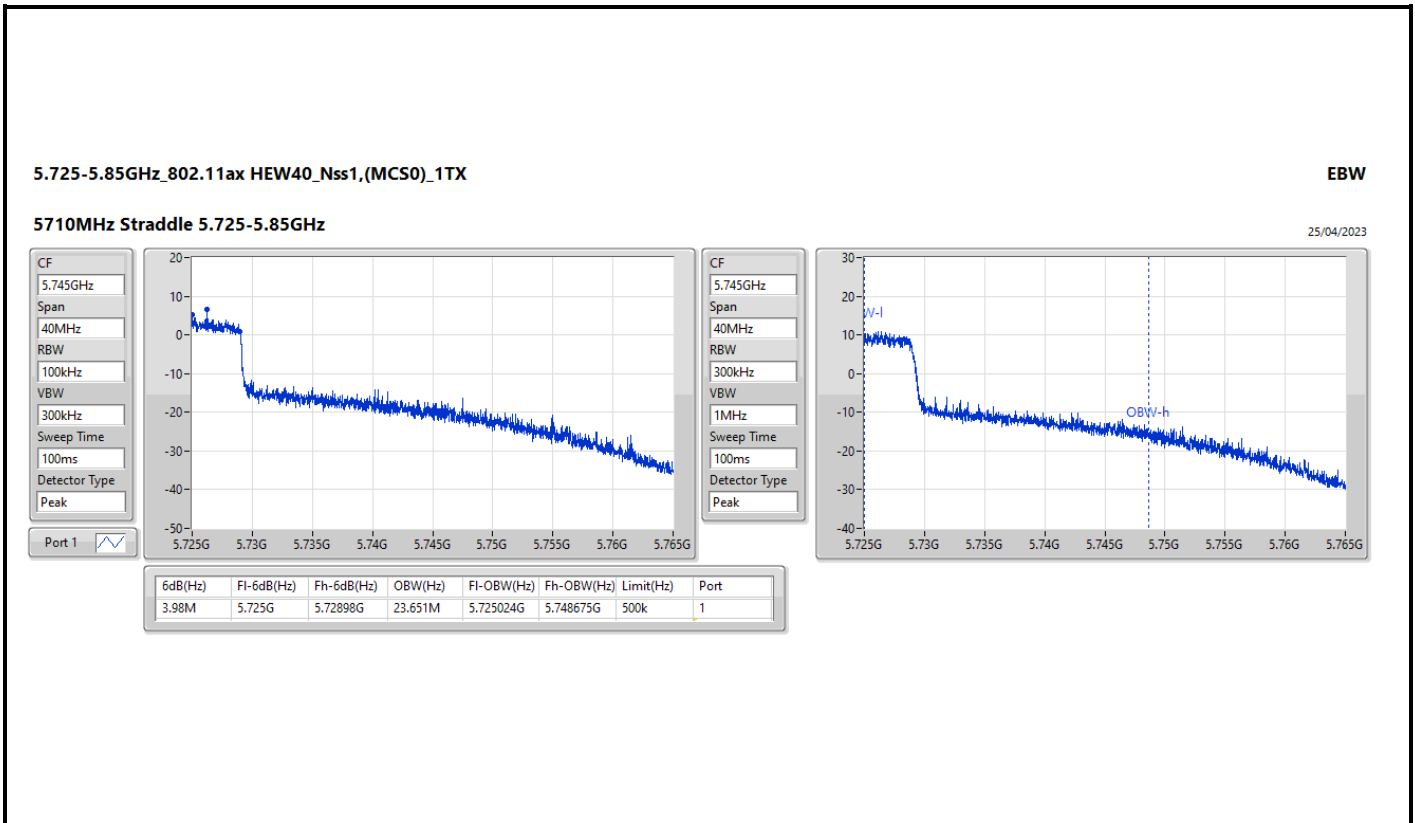


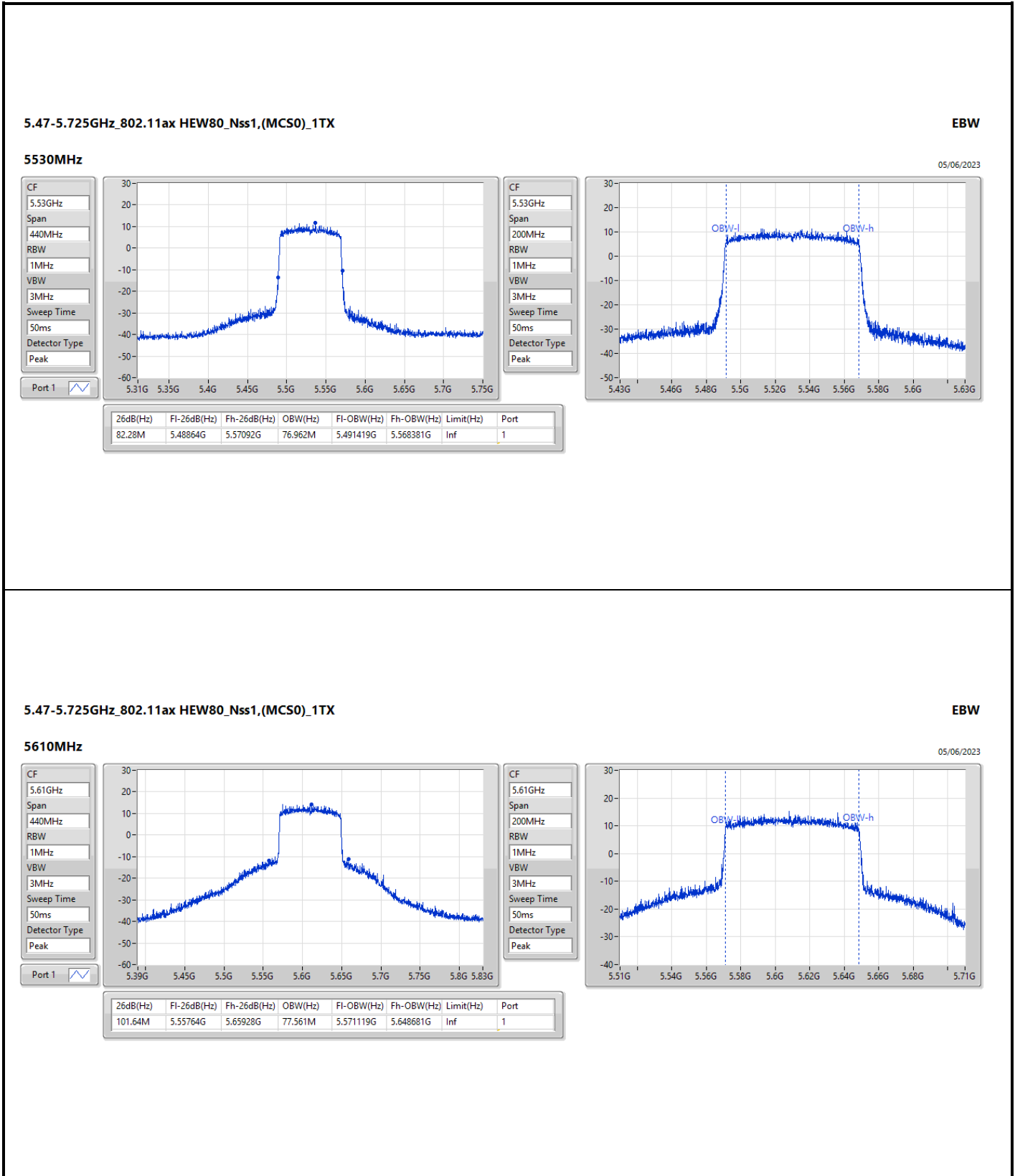










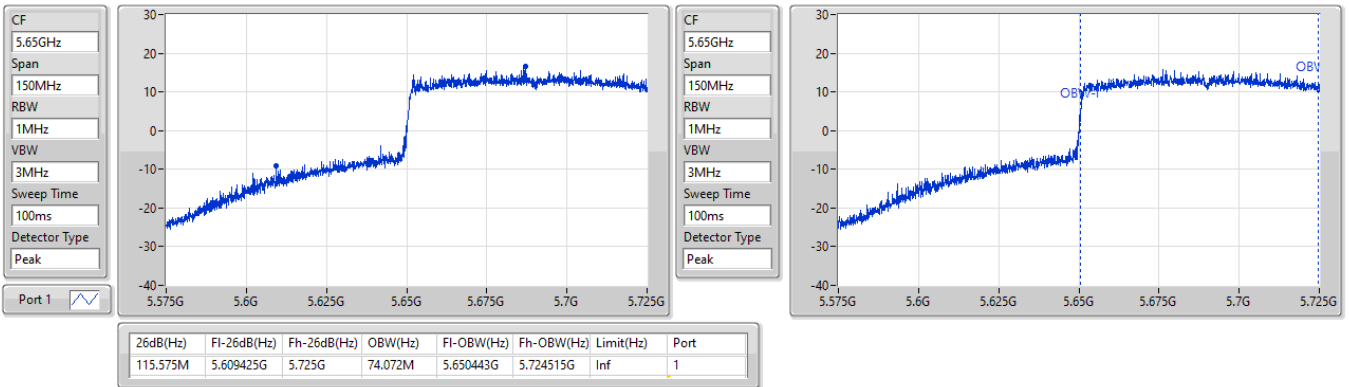


5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5690MHz Straddle 5.47-5.725GHz

25/04/2023

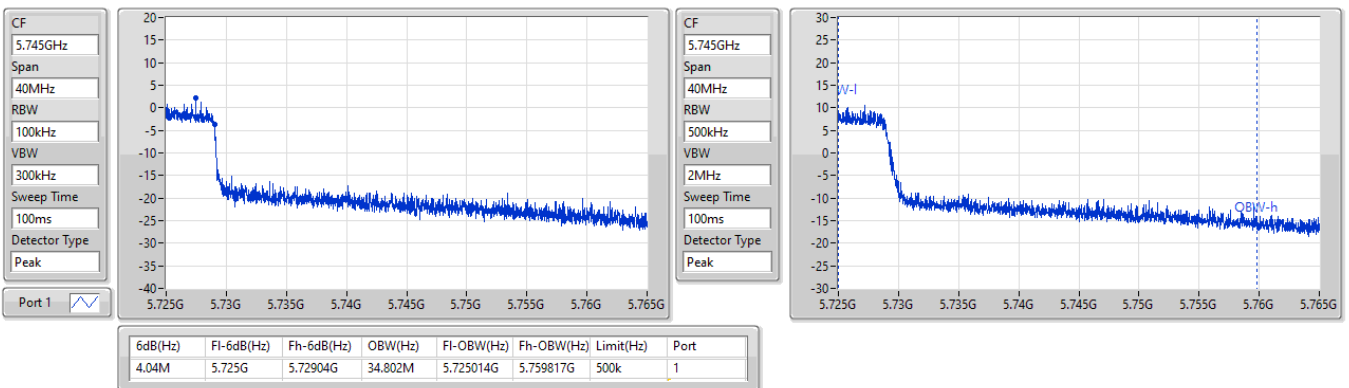


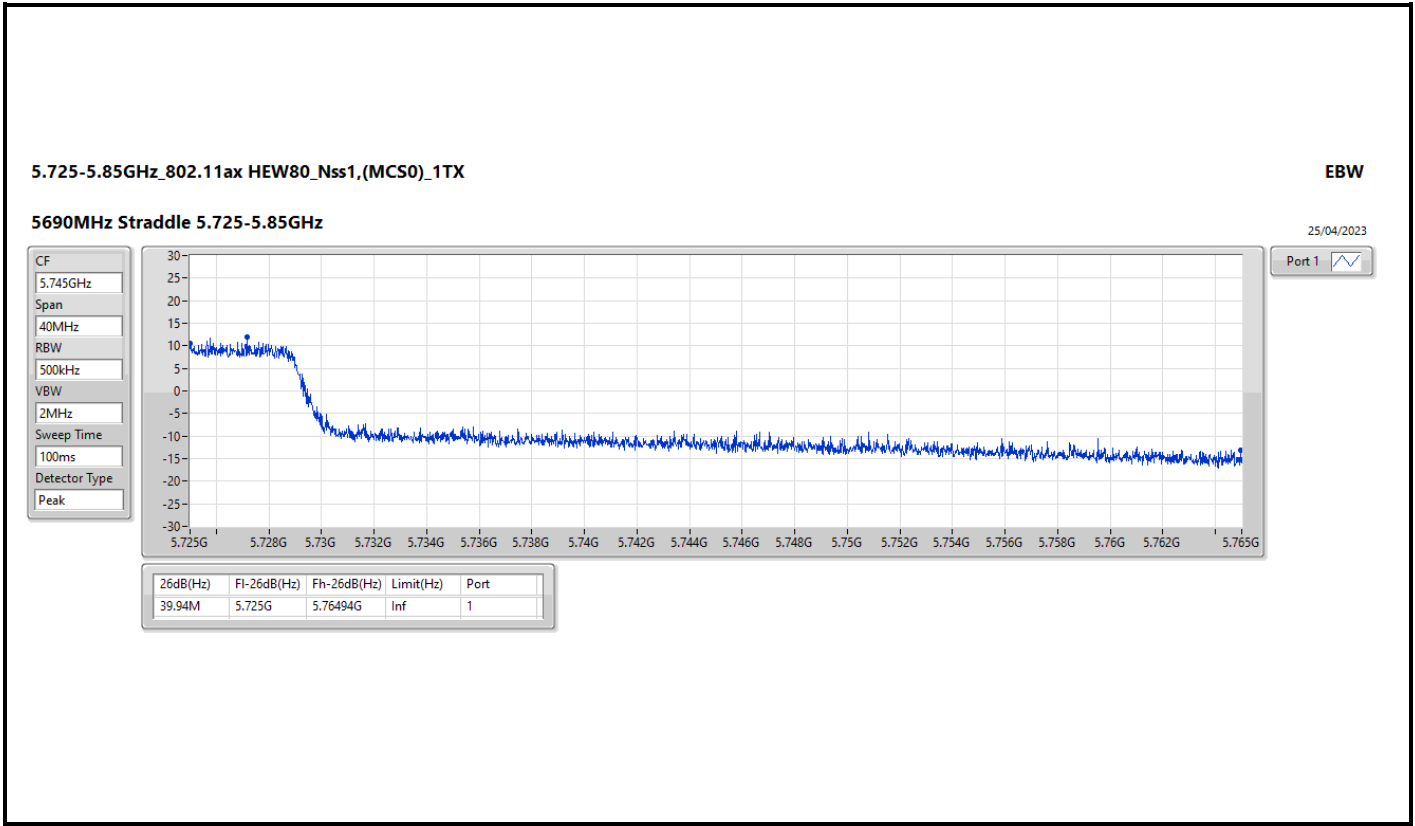
5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5690MHz Straddle 5.725-5.85GHz

25/04/2023







Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	21.76	0.14997	29.76	0.94624
802.11a_Nss1,(6Mbps)_1TX	21.67	0.14689	29.67	0.92683
802.11a_Nss1,(6Mbps)_2TX	18.78	0.07551	26.78	0.47643
802.11ax HEW20_Nss1,(MCS0)_1TX	21.63	0.14555	29.63	0.91833
802.11ax HEW20_Nss1,(MCS0)_1TX	21.56	0.14322	29.56	0.90365
802.11ax HEW20_Nss1,(MCS0)_2TX	19.17	0.08260	27.17	0.52119
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	18.67	0.07362	29.68	0.92897
802.11ax HEW40_Nss1,(MCS0)_1TX	21.93	0.15596	29.93	0.98401
802.11ax HEW40_Nss1,(MCS0)_1TX	21.70	0.14791	29.70	0.93325
802.11ax HEW40_Nss1,(MCS0)_2TX	21.81	0.15171	29.81	0.95719
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	18.91	0.07780	29.92	0.98175
802.11ax HEW80_Nss1,(MCS0)_1TX	21.76	0.14997	29.76	0.94624
802.11ax HEW80_Nss1,(MCS0)_1TX	21.82	0.15205	29.82	0.95940
802.11ax HEW80_Nss1,(MCS0)_2TX	21.97	0.15740	29.97	0.99312
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	18.81	0.07603	29.82	0.95940
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	14.20	0.02630	22.20	0.16596
802.11a_Nss1,(6Mbps)_1TX	14.12	0.02582	22.12	0.16293
802.11a_Nss1,(6Mbps)_2TX	11.43	0.01390	19.43	0.08770
802.11ax HEW20_Nss1,(MCS0)_1TX	15.10	0.03236	23.10	0.20417
802.11ax HEW20_Nss1,(MCS0)_1TX	15.02	0.03177	23.02	0.20045
802.11ax HEW20_Nss1,(MCS0)_2TX	12.36	0.01722	20.36	0.10864
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	12.36	0.01722	23.37	0.21727
802.11ax HEW40_Nss1,(MCS0)_1TX	11.26	0.01337	19.26	0.08433
802.11ax HEW40_Nss1,(MCS0)_2TX	10.54	0.01132	18.54	0.07145
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	8.08	0.00643	19.09	0.08110
802.11ax HEW80_Nss1,(MCS0)_1TX	7.65	0.00582	15.65	0.03673
802.11ax HEW80_Nss1,(MCS0)_1TX	7.13	0.00516	15.13	0.03258
802.11ax HEW80_Nss1,(MCS0)_2TX	7.68	0.00586	15.68	0.03698
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	4.20	0.00263	15.21	0.03319



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.00	21.76		21.76	21.95	29.76	29.95
5580MHz	Pass	8.00	21.53		21.53	21.98	29.53	30.00
5700MHz	Pass	8.00	21.24		21.24	21.92	29.24	29.92
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	20.54		20.54	20.83	28.54	28.83
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	14.20		14.20	28.00	22.20	36.00
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.00	21.63		21.63	21.98	29.63	30.00
5580MHz	Pass	8.00	21.48		21.48	21.98	29.48	30.00
5700MHz	Pass	8.00	20.72		20.72	21.98	28.72	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	20.63		20.63	21.06	28.63	29.06
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	15.10		15.10	28.00	23.10	36.00
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-
5510MHz	Pass	8.00	19.29		19.29	21.98	27.29	30.00
5550MHz	Pass	8.00	21.93		21.93	21.98	29.93	30.00
5670MHz	Pass	8.00	21.31		21.31	21.98	29.31	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	8.00	21.61		21.61	21.98	29.61	30.00
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-
5530MHz	Pass	8.00	18.83		18.83	21.98	26.83	30.00
5610MHz	Pass	8.00	21.76		21.76	21.98	29.76	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	8.00	21.76		21.76	21.98	29.76	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	8.00	7.65		7.65	28.00	15.65	36.00
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.00	-	21.67	21.67	21.98	29.67	30.00
5580MHz	Pass	8.00	-	21.50	21.50	21.98	29.50	30.00
5700MHz	Pass	8.00	-	21.44	21.44	21.98	29.44	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	-	20.64	20.64	20.84	28.64	28.84
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	-	14.12	14.12	28.00	22.12	36.00
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.00	-	21.56	21.56	21.98	29.56	30.00
5580MHz	Pass	8.00	-	21.50	21.50	21.98	29.50	30.00
5700MHz	Pass	8.00	-	21.36	21.36	21.98	29.36	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	-	20.80	20.80	20.96	28.80	28.96
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	-	15.02	15.02	28.00	23.02	36.00
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-
5510MHz	Pass	8.00	-	20.00	20.00	21.98	28.00	30.00
5550MHz	Pass	8.00	-	21.70	21.70	21.98	29.70	30.00
5670MHz	Pass	8.00	-	21.63	21.63	21.98	29.63	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	8.00	-	21.68	21.68	21.98	29.68	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	8.00	-	11.26	11.26	28.00	19.26	36.00
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-
5530MHz	Pass	8.00	-	18.61	18.61	21.98	26.61	30.00
5610MHz	Pass	8.00	-	21.82	21.82	21.98	29.82	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	8.00	-	21.48	21.48	21.98	29.48	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	8.00	-	7.13	7.13	28.00	15.13	36.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.00	16.06	15.45	18.78	21.98	26.78	30.00
5580MHz	Pass	8.00	15.87	15.36	18.63	21.98	26.63	30.00
5700MHz	Pass	8.00	15.61	15.74	18.69	21.98	26.69	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	14.76	15.01	17.90	20.83	25.90	28.83
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	8.40	8.43	11.43	28.00	19.43	36.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.00	16.38	15.92	19.17	21.98	27.17	30.00
5580MHz	Pass	8.00	16.34	15.85	19.11	21.98	27.11	30.00
5700MHz	Pass	8.00	15.98	16.24	19.12	21.98	27.12	30.00

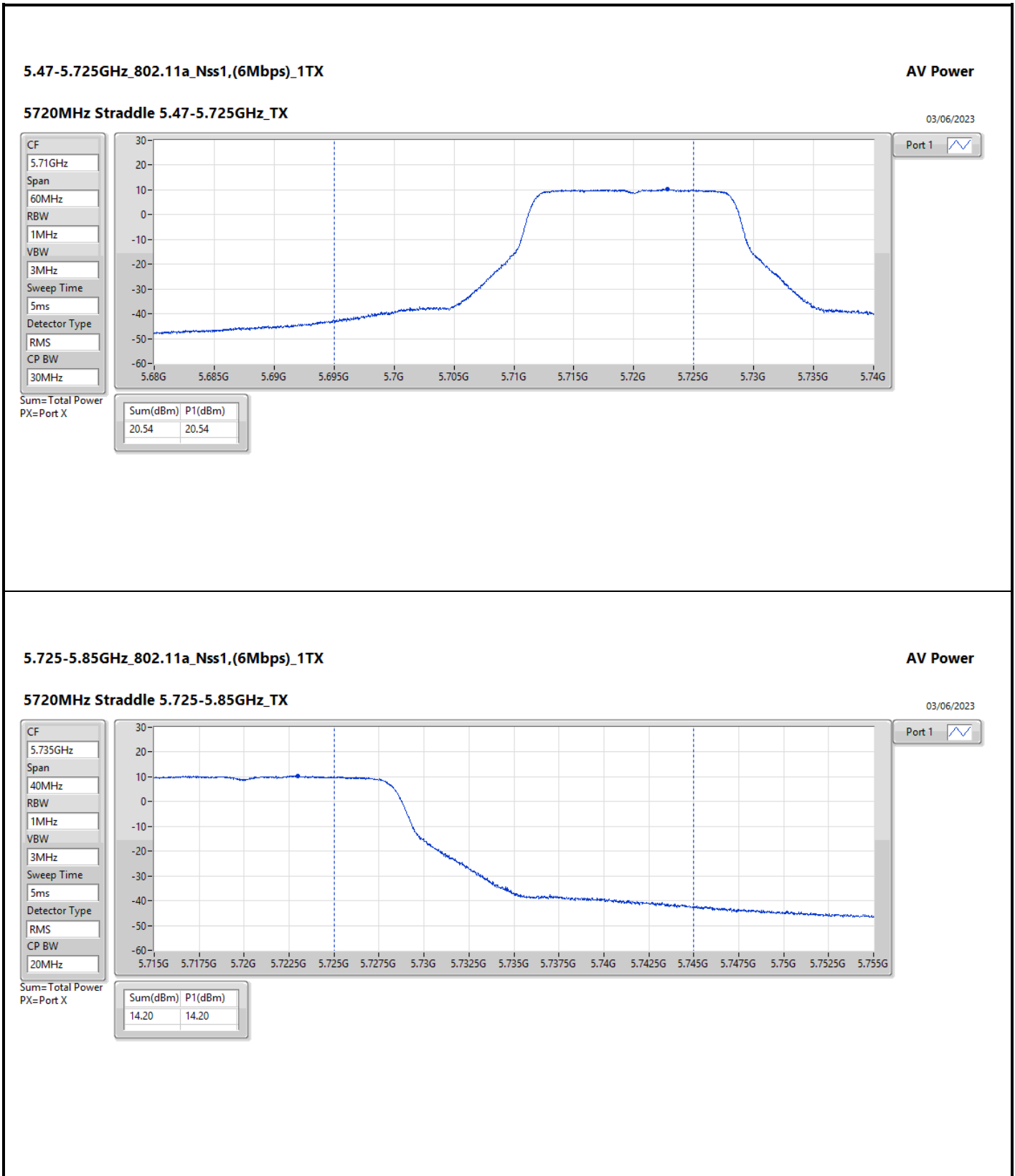


Average Power_For Radio 1

Appendix C.1

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	14.93	15.19	18.07	20.94	26.07	28.94
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	9.46	9.24	12.36	28.00	20.36	36.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5510MHz	Pass	8.00	18.47	18.24	21.37	21.98	29.37	30.00
5550MHz	Pass	8.00	18.64	18.45	21.56	21.98	29.56	30.00
5670MHz	Pass	8.00	18.90	18.69	21.81	21.98	29.81	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	8.00	17.84	18.09	20.98	21.98	28.98	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	8.00	7.65	7.40	10.54	28.00	18.54	36.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5530MHz	Pass	8.00	16.85	16.54	19.71	21.98	27.71	30.00
5610MHz	Pass	8.00	19.13	18.26	21.73	21.98	29.73	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	8.00	18.87	19.04	21.97	21.98	29.97	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	8.00	4.95	4.36	7.68	28.00	15.68	36.00
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5500MHz	Pass	11.01	15.87	15.32	18.61	18.97	29.62	30.00
5580MHz	Pass	11.01	15.91	15.40	18.67	18.97	29.68	30.00
5700MHz	Pass	11.01	15.48	15.61	18.56	18.97	29.57	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	11.01	14.93	15.19	18.07	18.97	29.08	30.00
5720MHz Straddle 5.725-5.85GHz	Pass	11.01	9.46	9.24	12.36	24.99	23.37	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5510MHz	Pass	11.01	16.01	15.58	18.81	18.97	29.82	30.00
5550MHz	Pass	11.01	15.69	15.55	18.63	18.97	29.64	30.00
5670MHz	Pass	11.01	15.97	15.82	18.91	18.97	29.92	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	11.01	15.36	15.57	18.48	18.97	29.49	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	11.01	5.16	4.98	8.08	24.99	19.09	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5530MHz	Pass	11.01	15.94	15.66	18.81	18.97	29.82	30.00
5610MHz	Pass	11.01	16.08	15.09	18.62	18.97	29.63	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	11.01	15.56	15.56	18.57	18.97	29.58	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	11.01	1.55	0.79	4.20	24.99	15.21	36.00

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



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_1TX

AV Power

5720MHz Straddle 5.725-5.85GHz_TX

03/06/2023

CF

5.735GHz

Span

40MHz

RBW

1MHz

VBW

3MHz

Sweep Time

5ms

Detector Type

RMS

CP BW

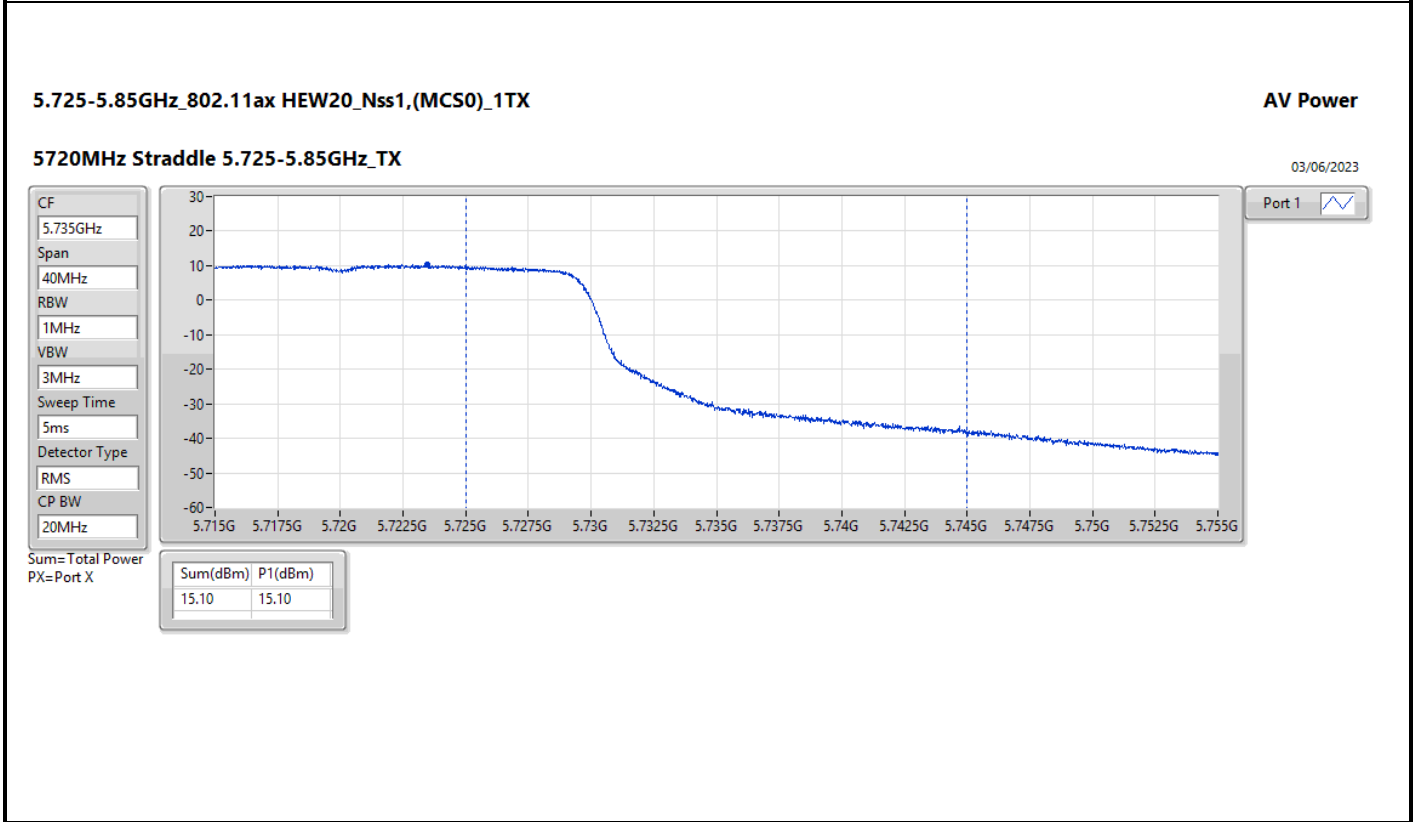
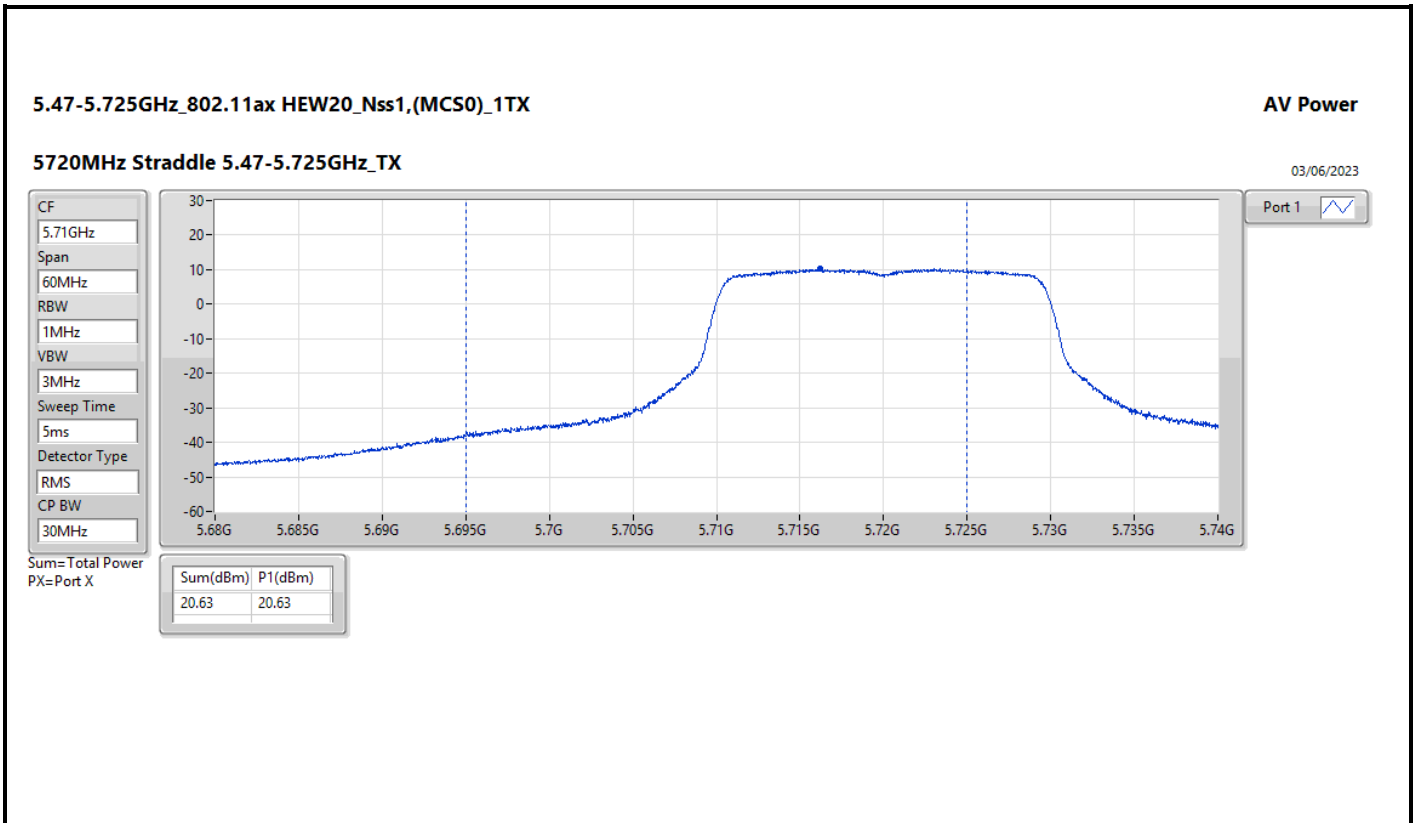
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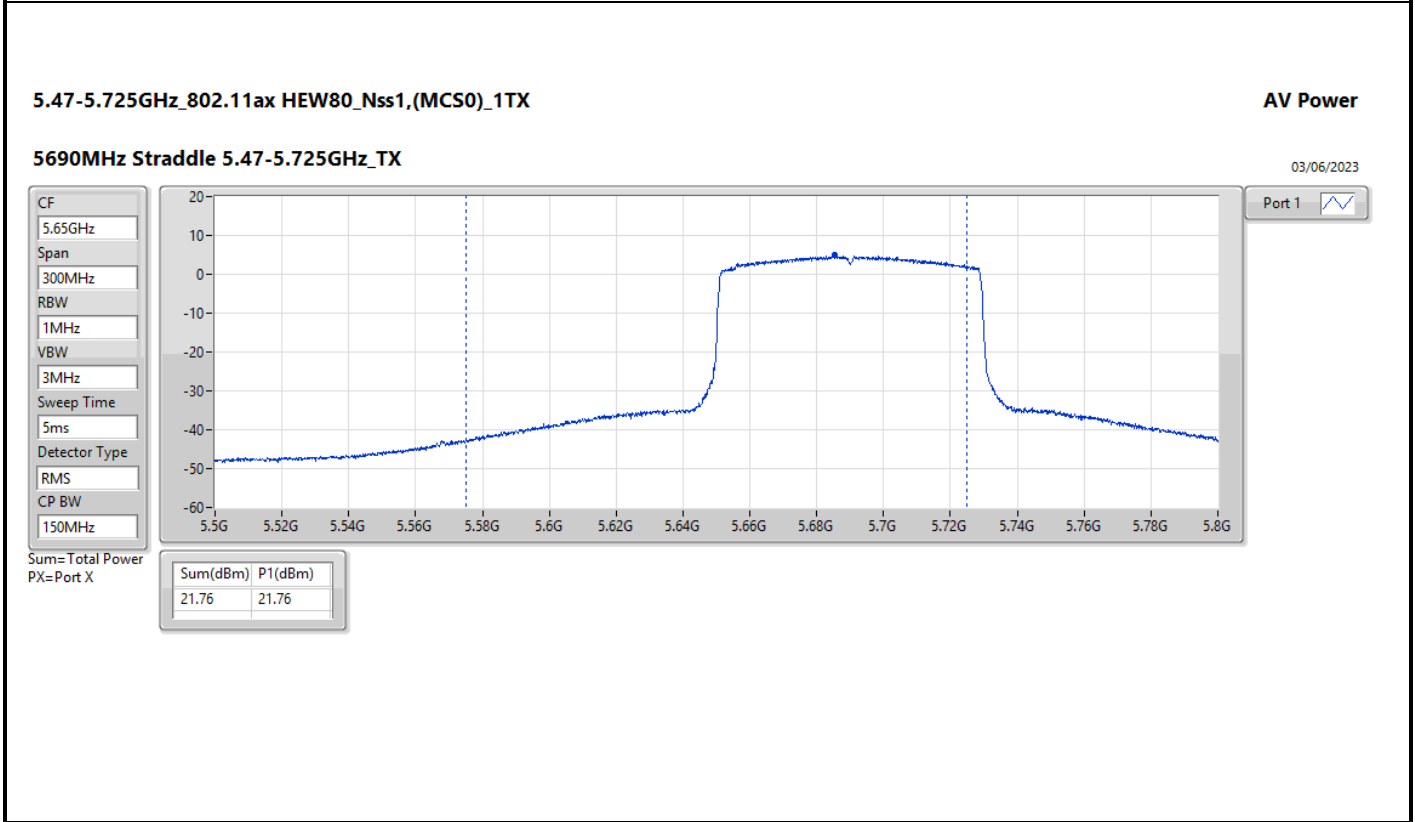
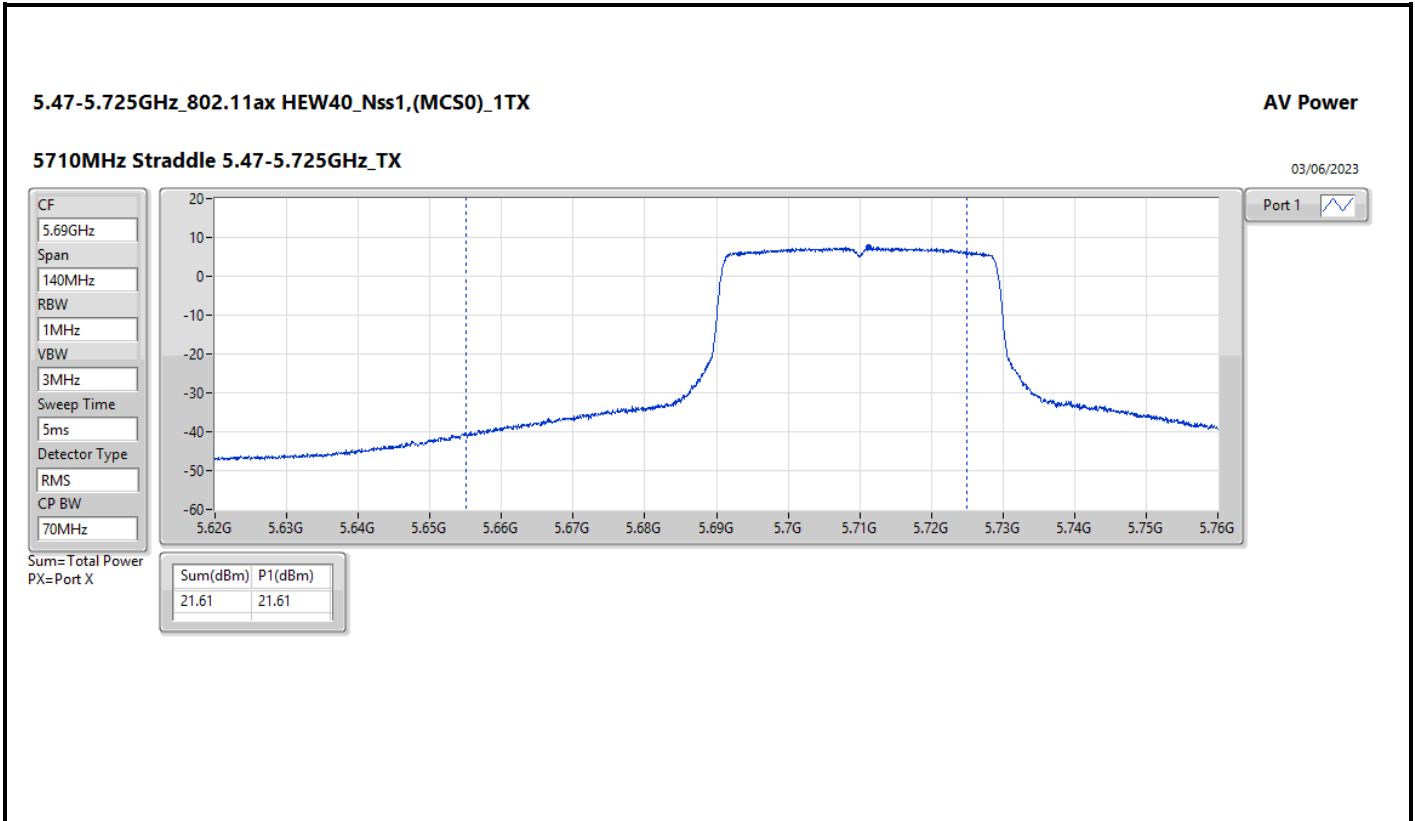


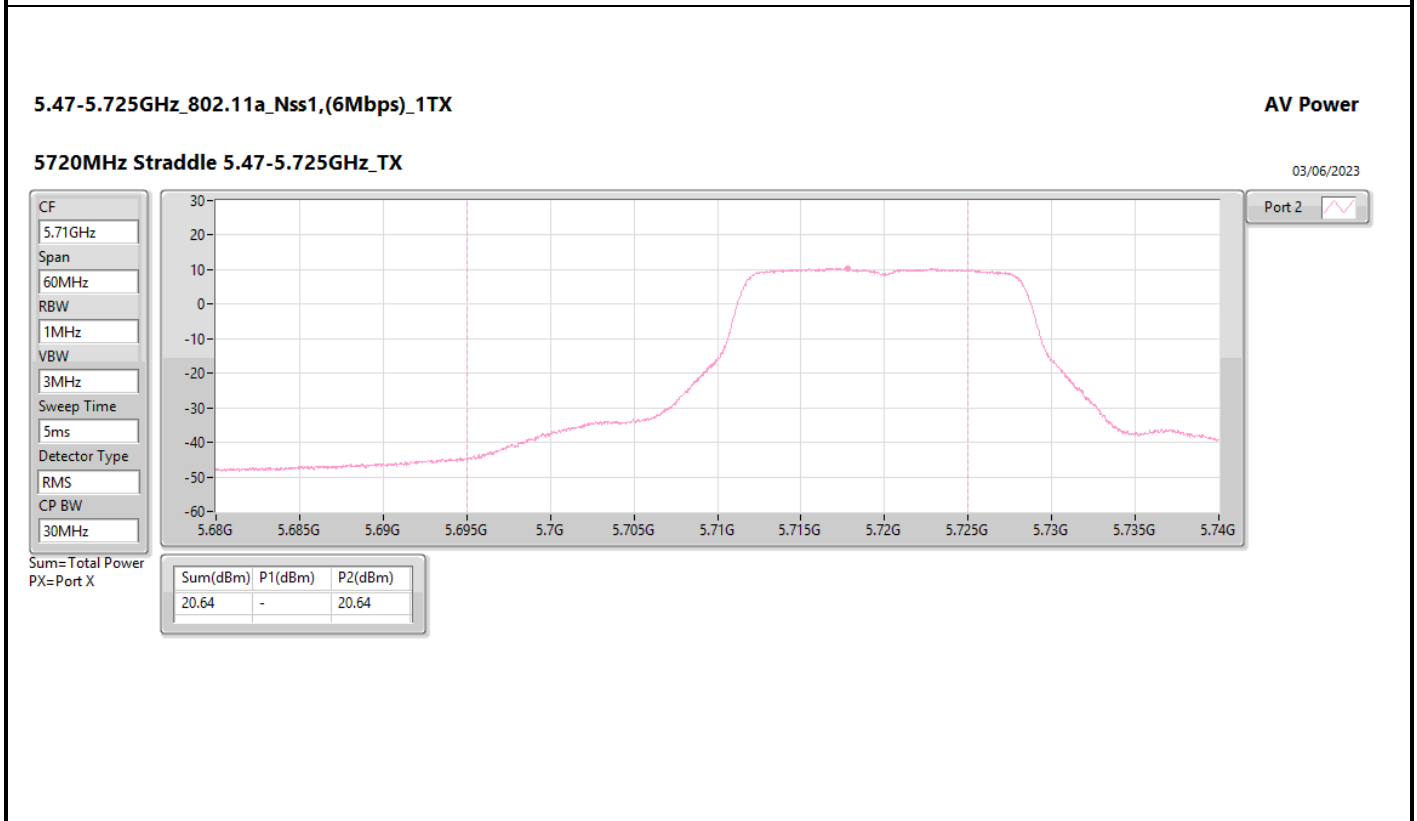
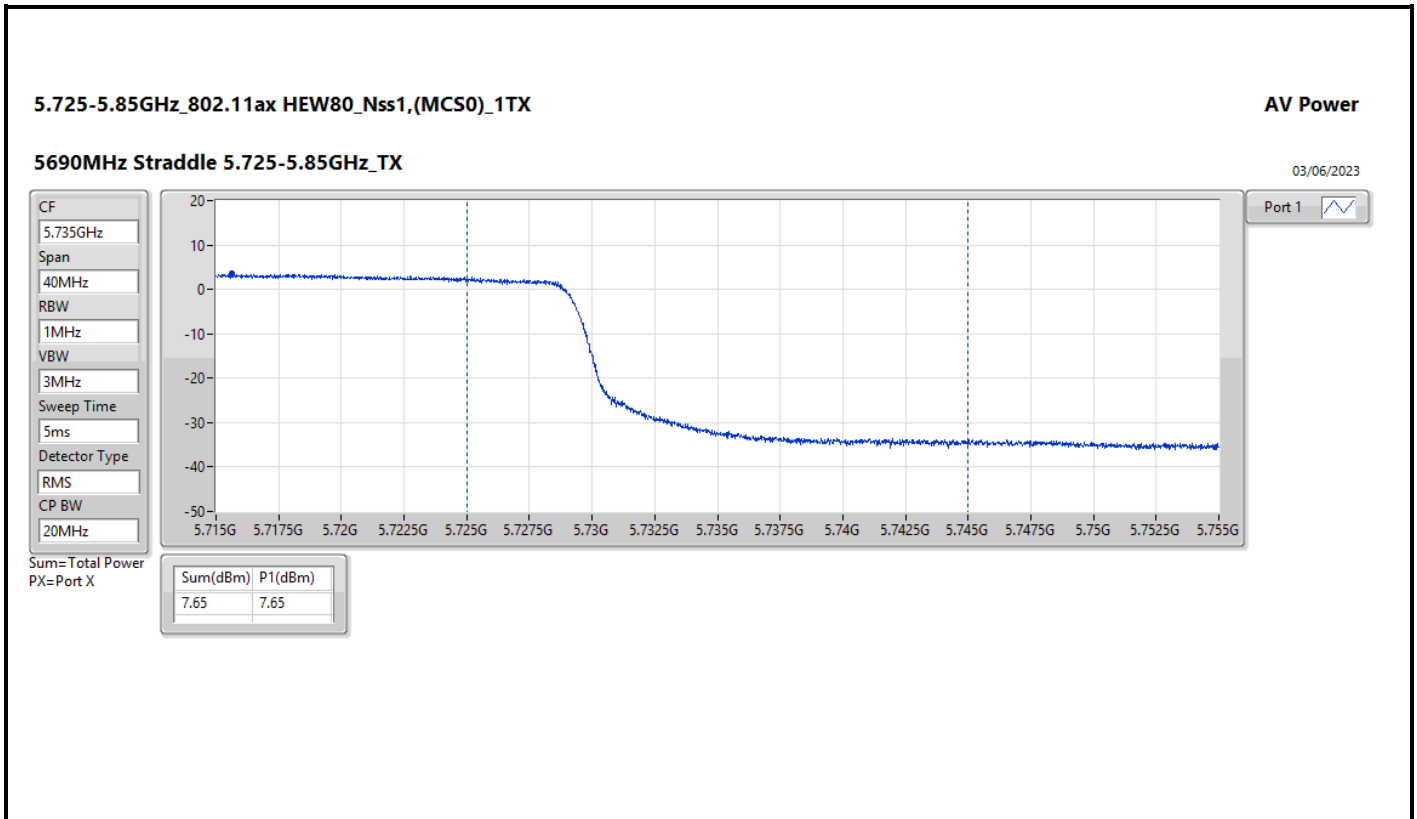
Port 1

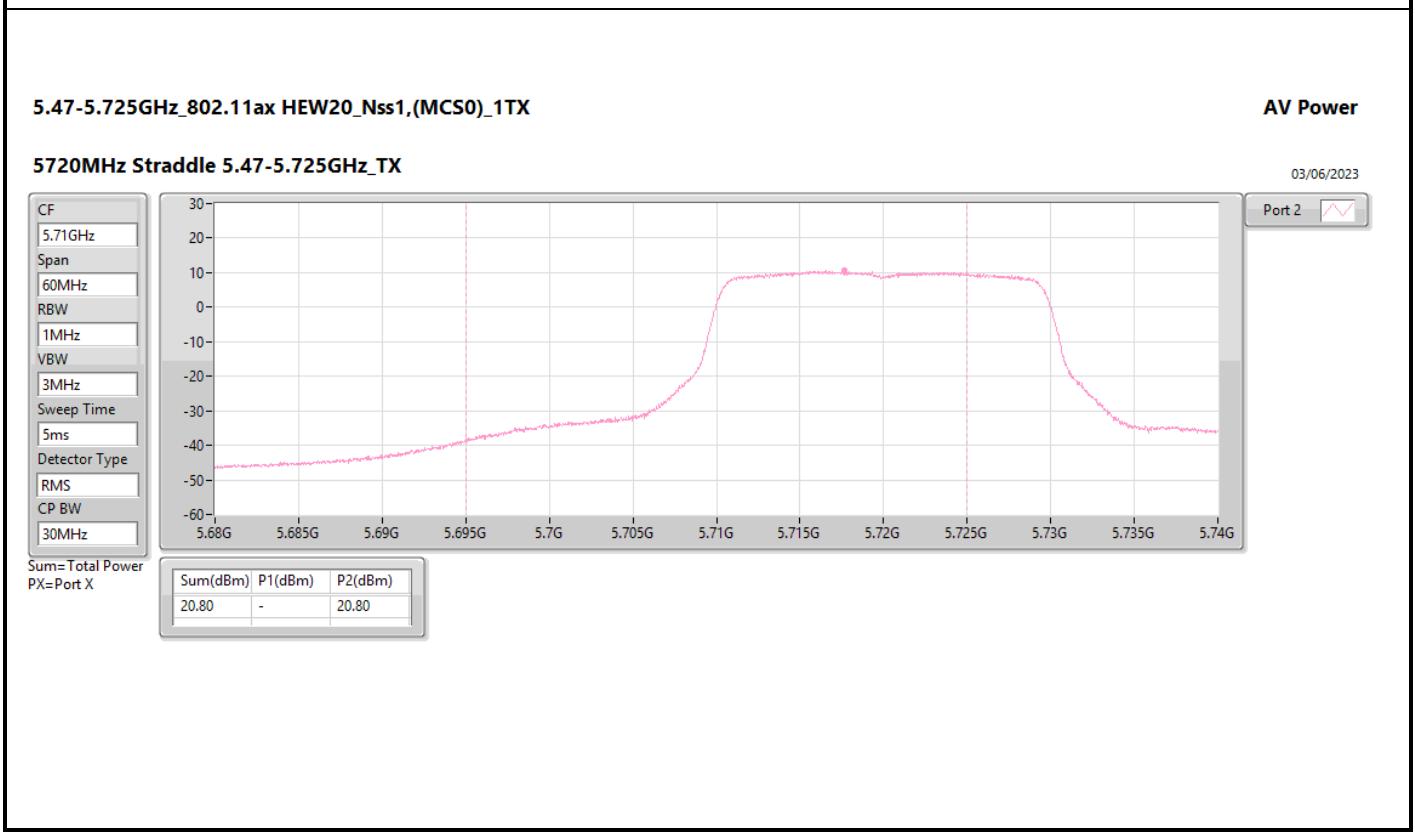
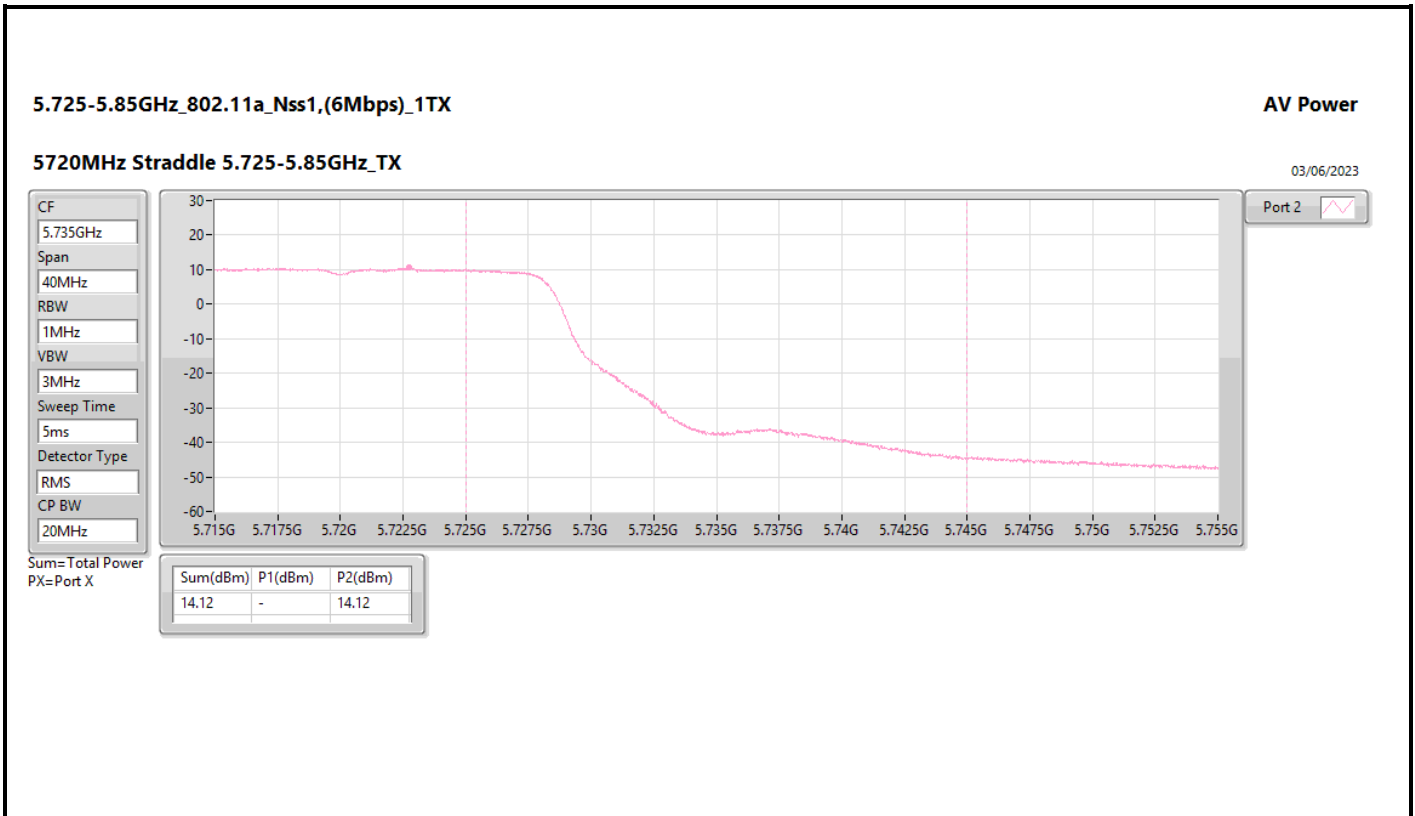
Sum=Total Power
PX=Port X

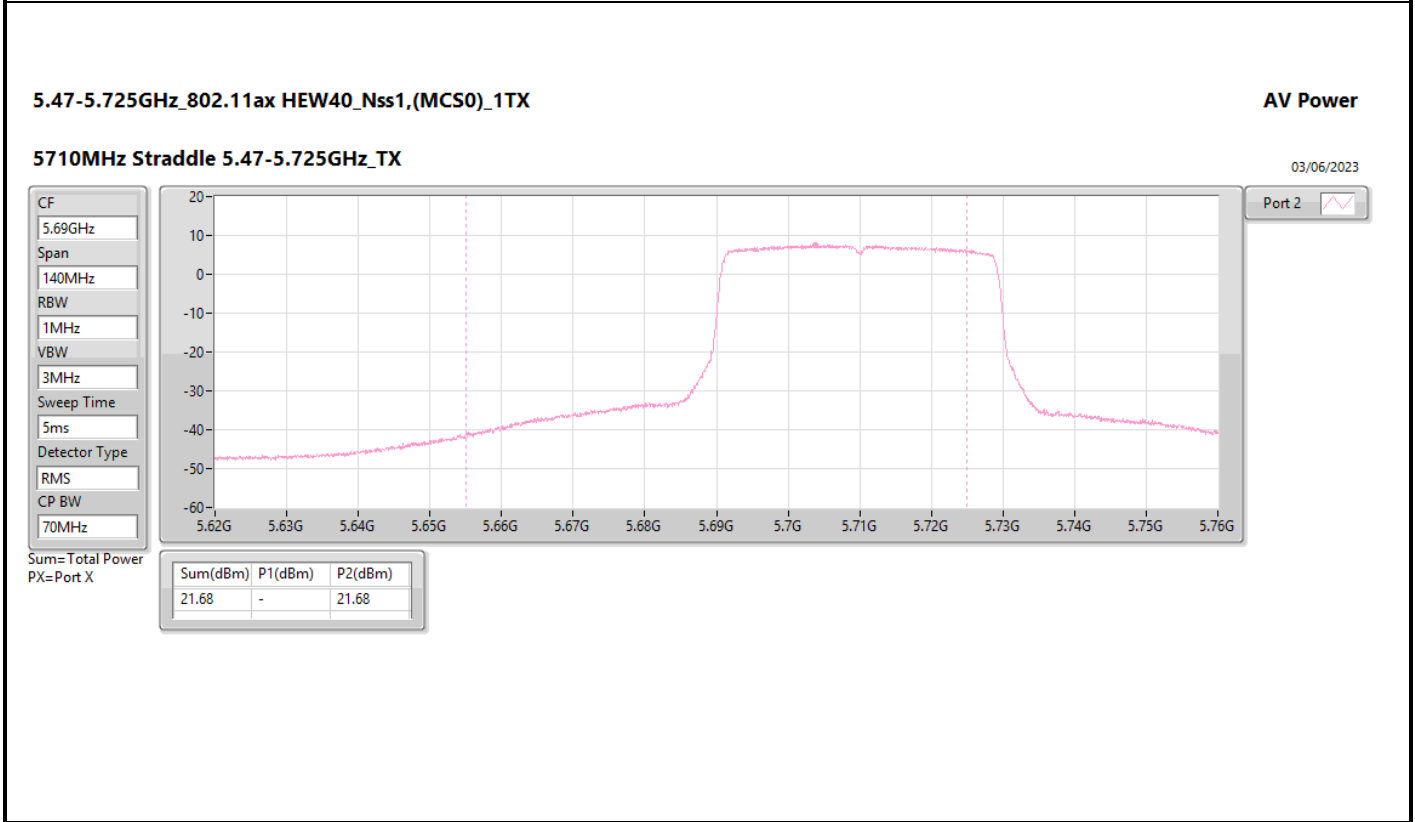
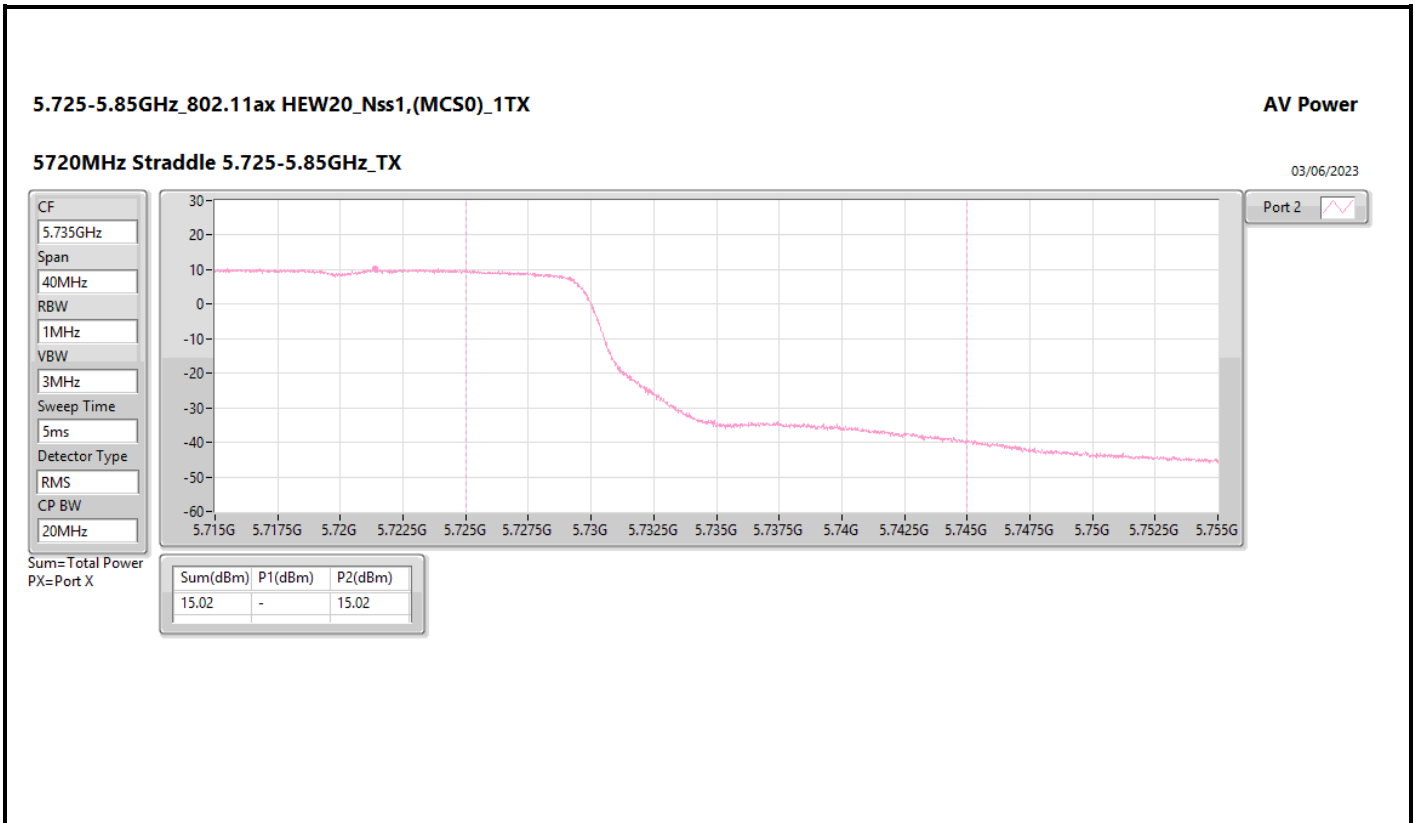
Sum(dBm)	P1(dBm)
14.20	14.20

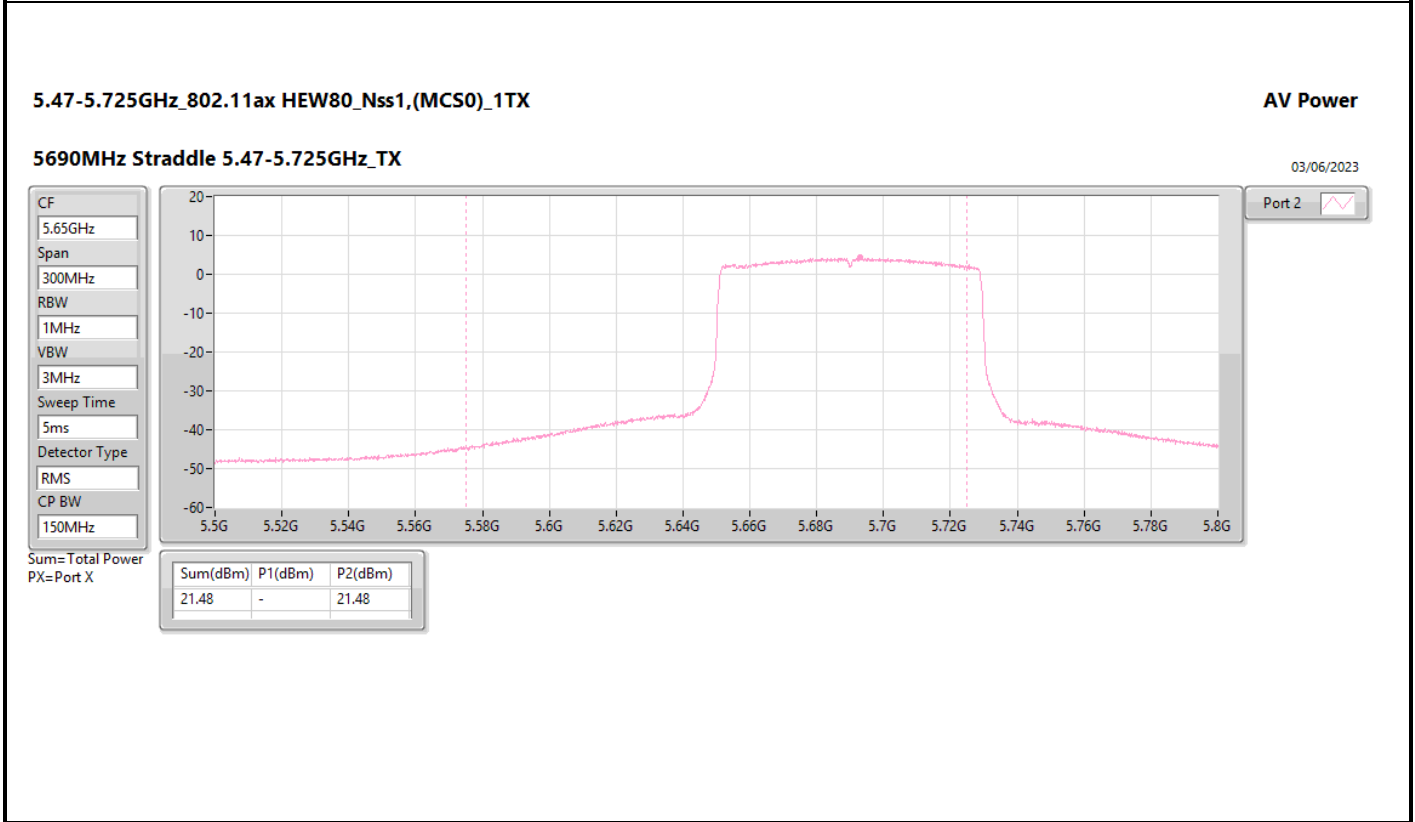
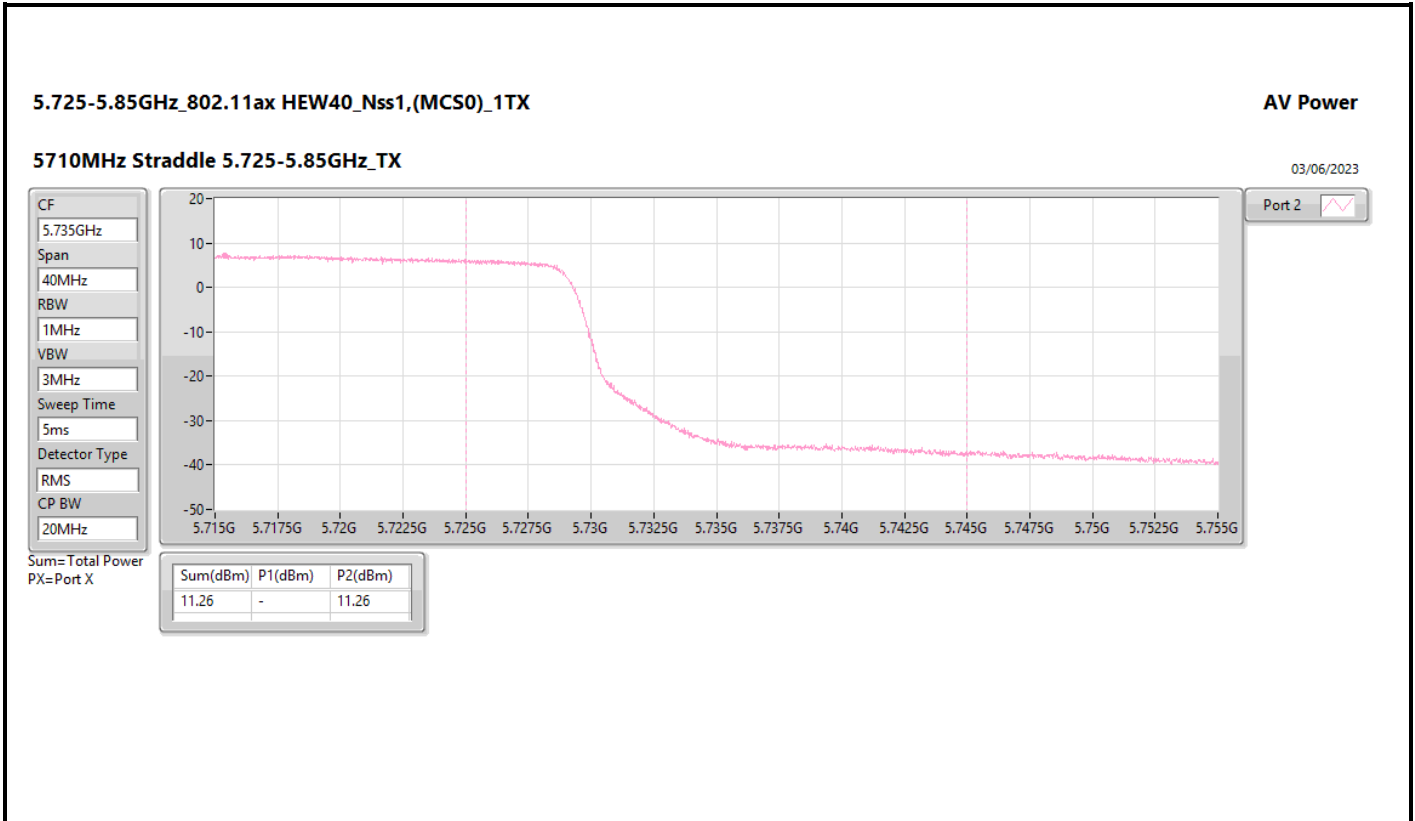


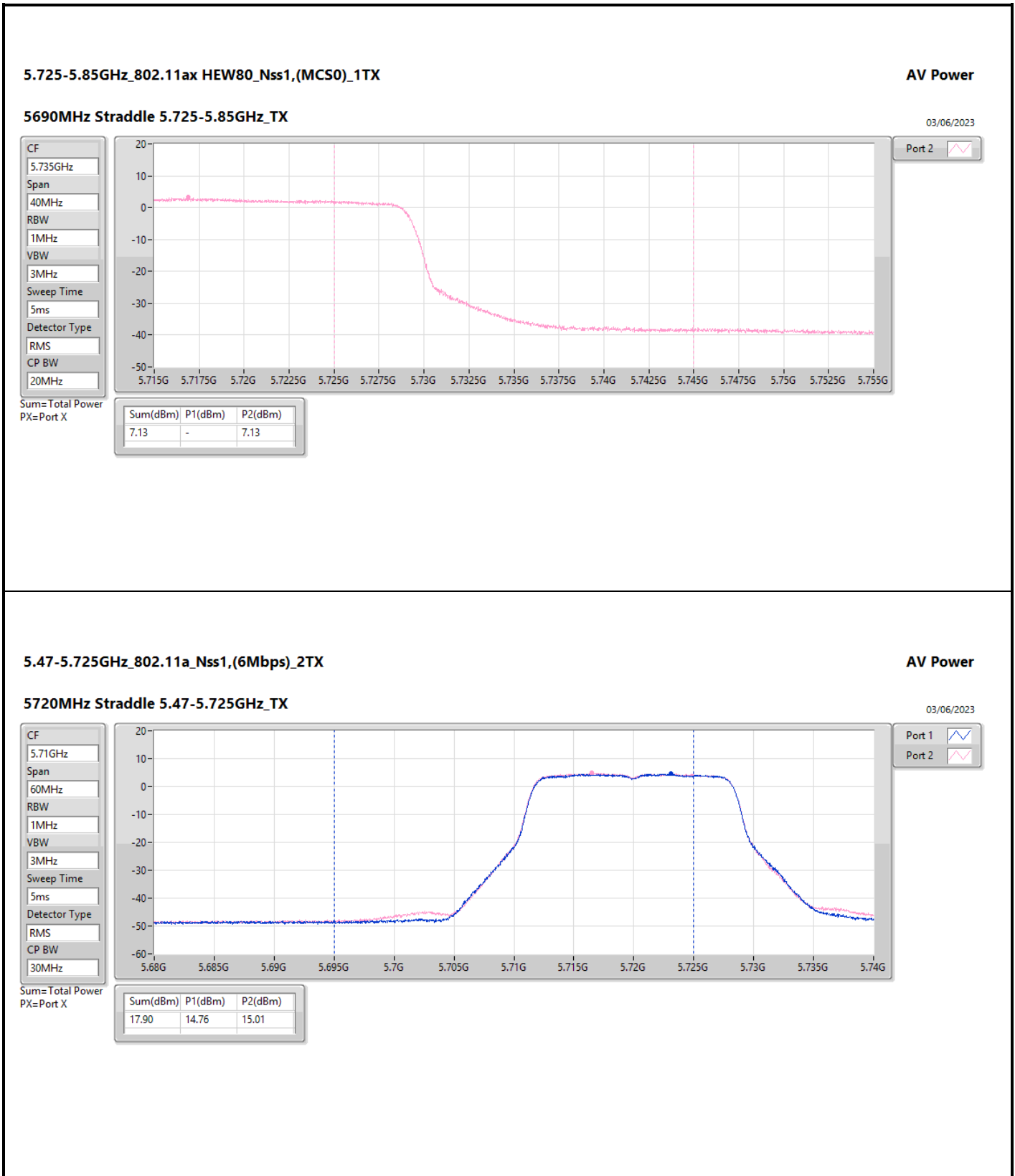


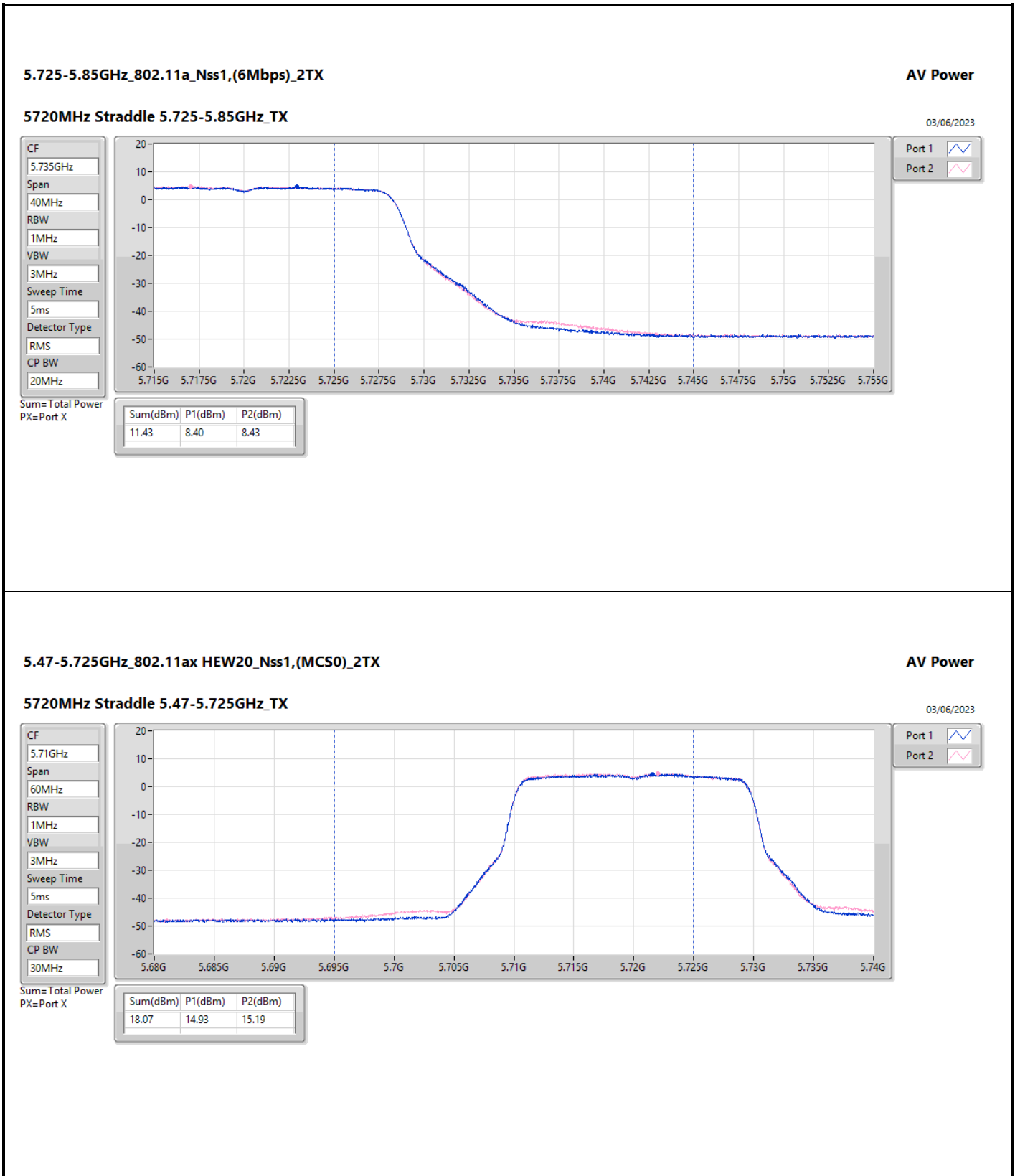












5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

AV Power

5720MHz Straddle 5.47-5.725GHz_TX

03/06/2023

CF

5.71GHz

Span

60MHz

RBW

1MHz

VBW

3MHz

Sweep Time

5ms

Detector Type

RMS

CP BW

30MHz

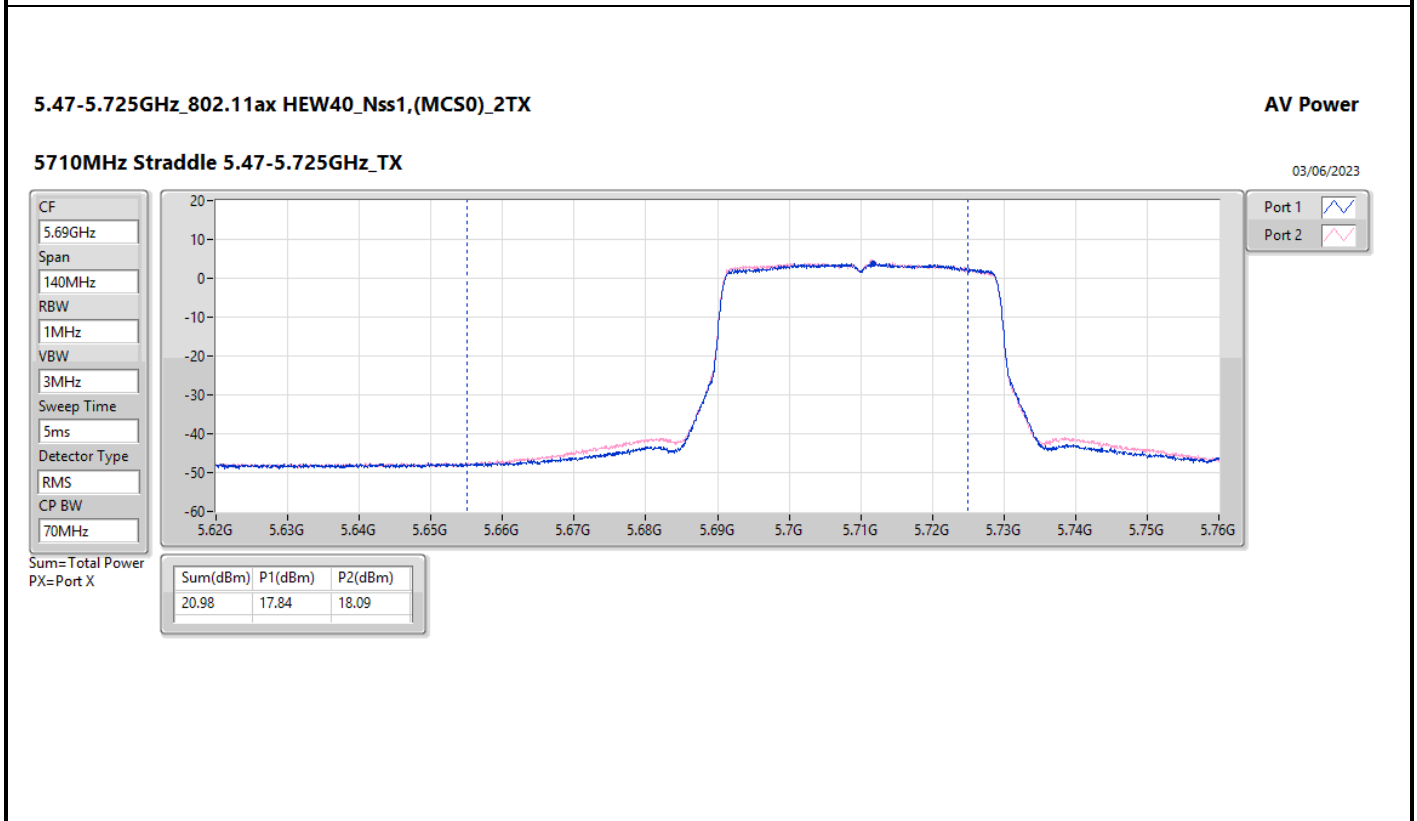
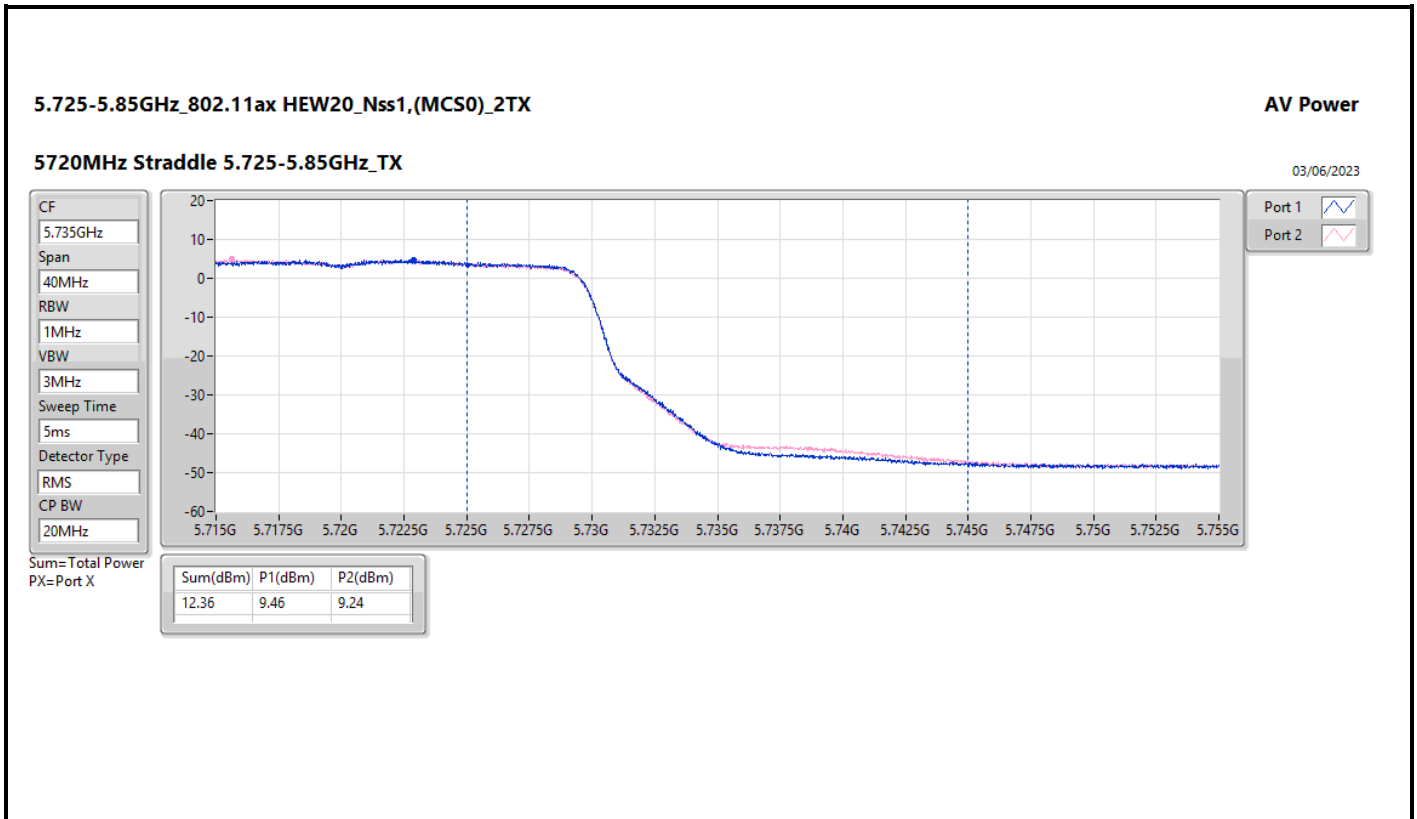


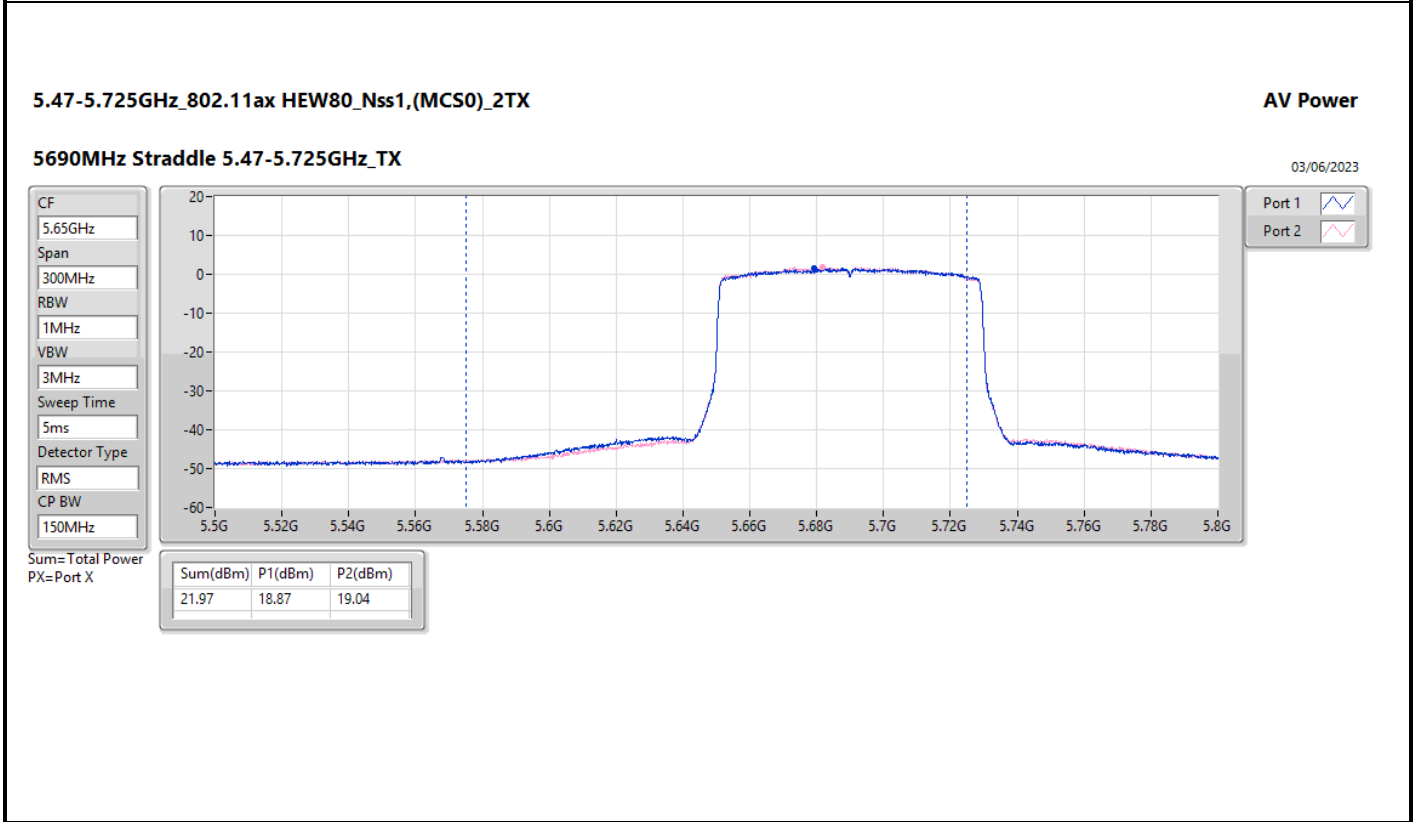
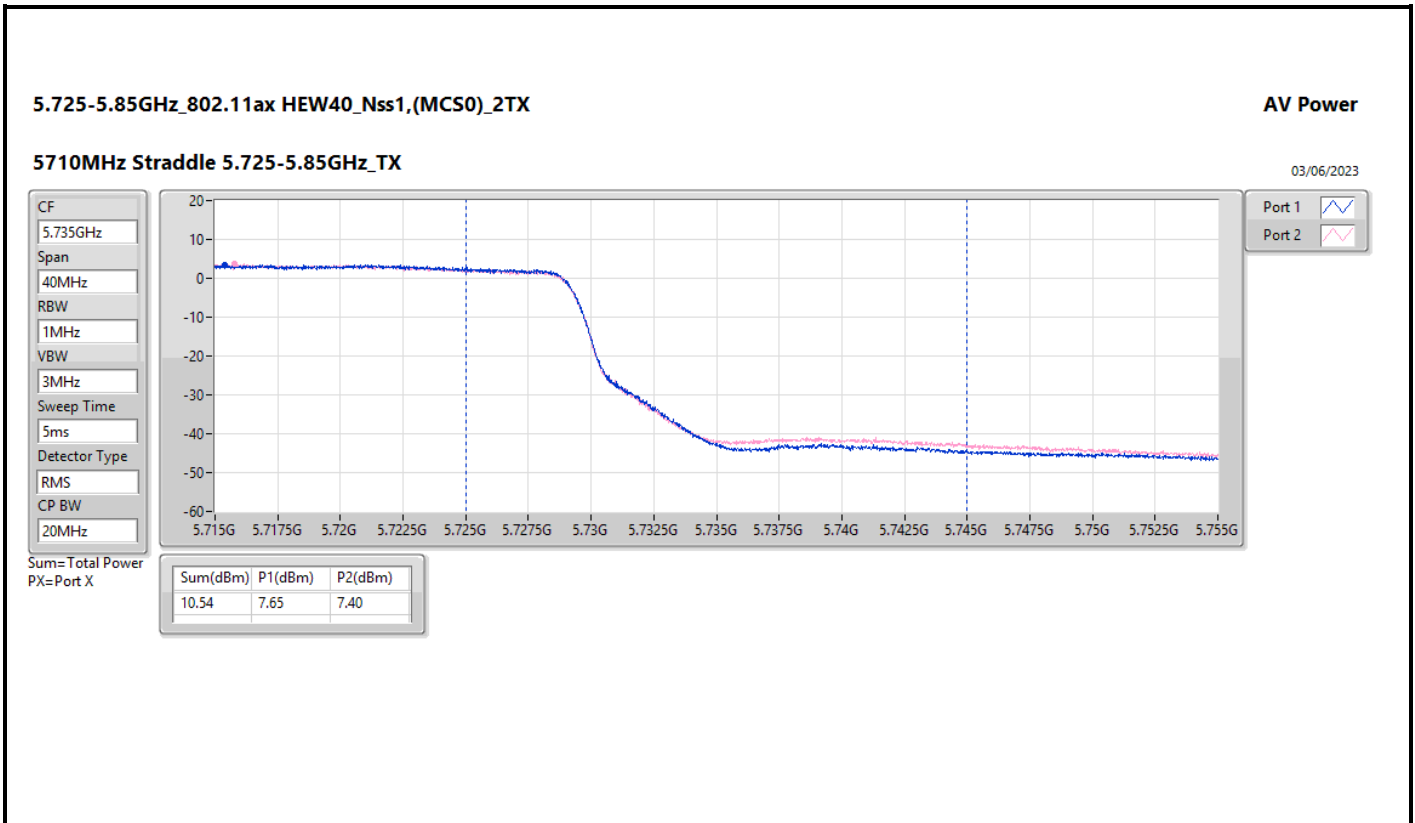
Port 1

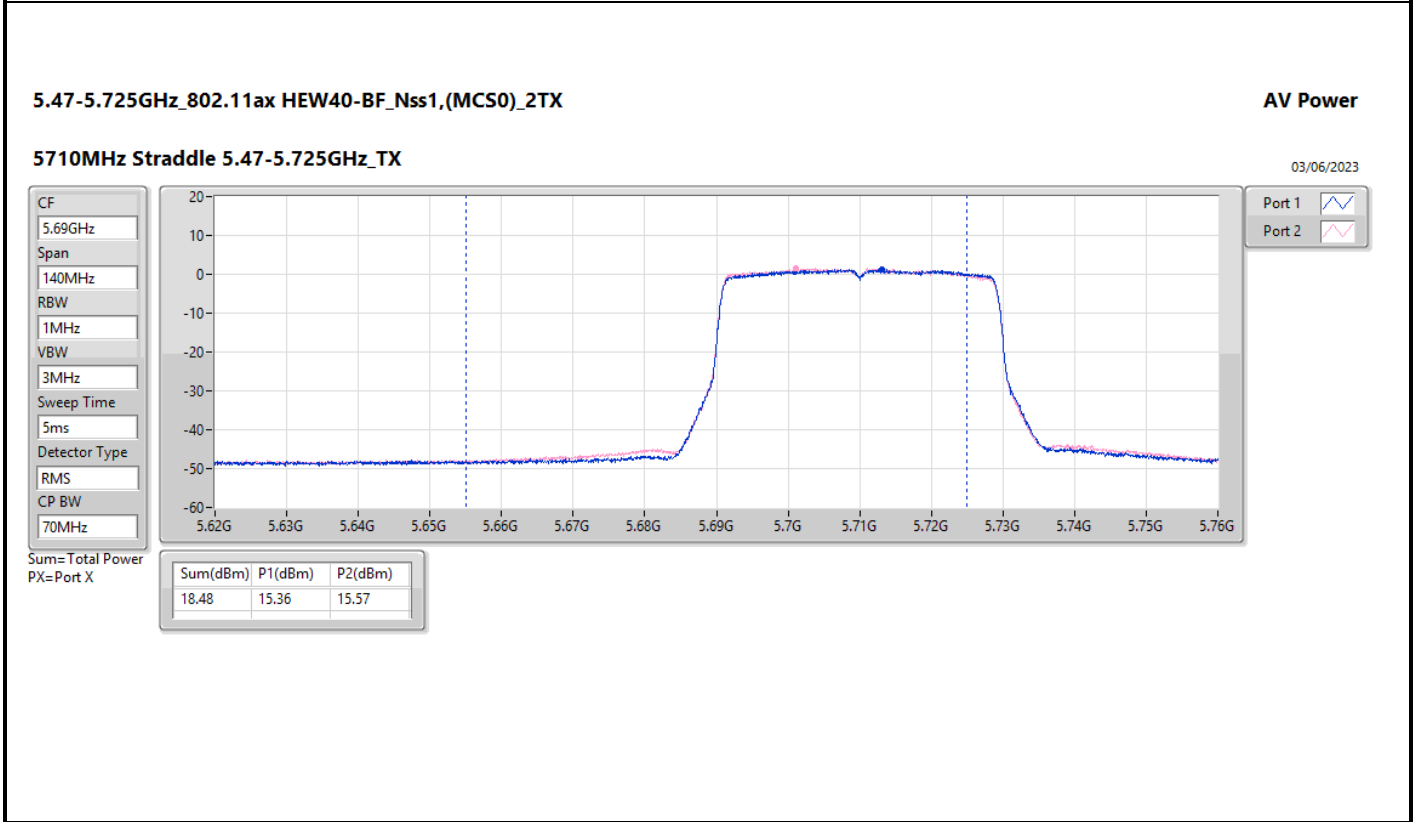
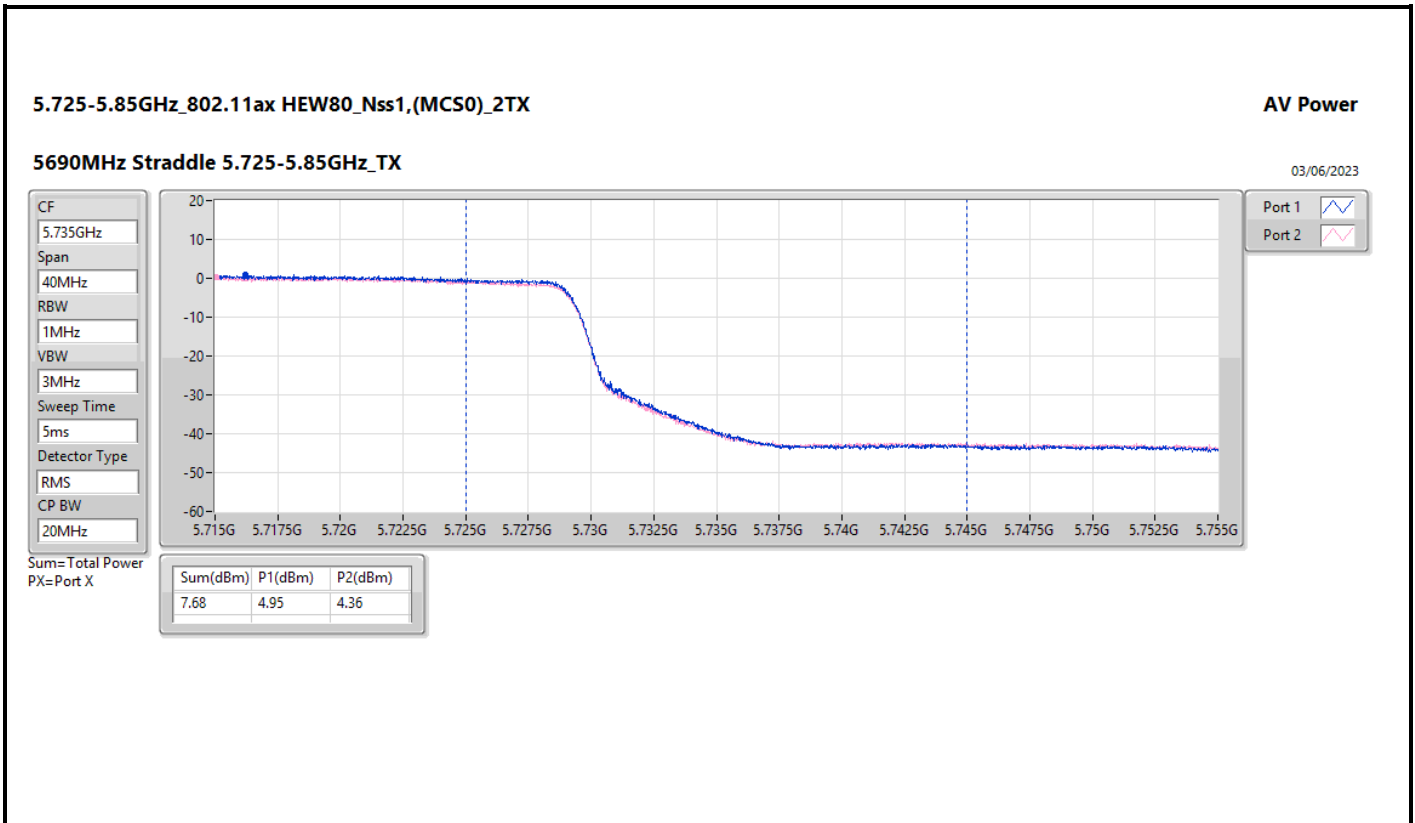
Port 2

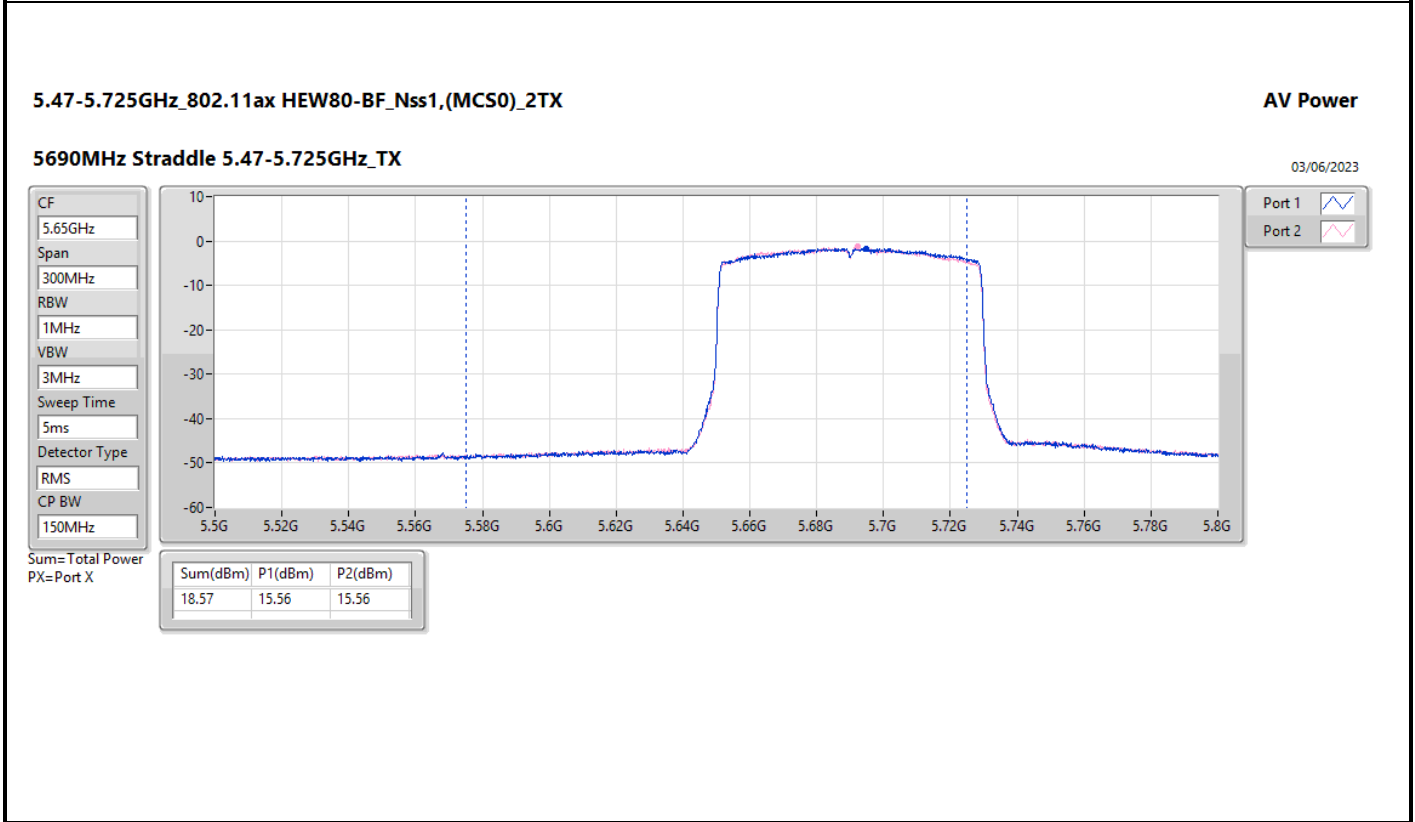
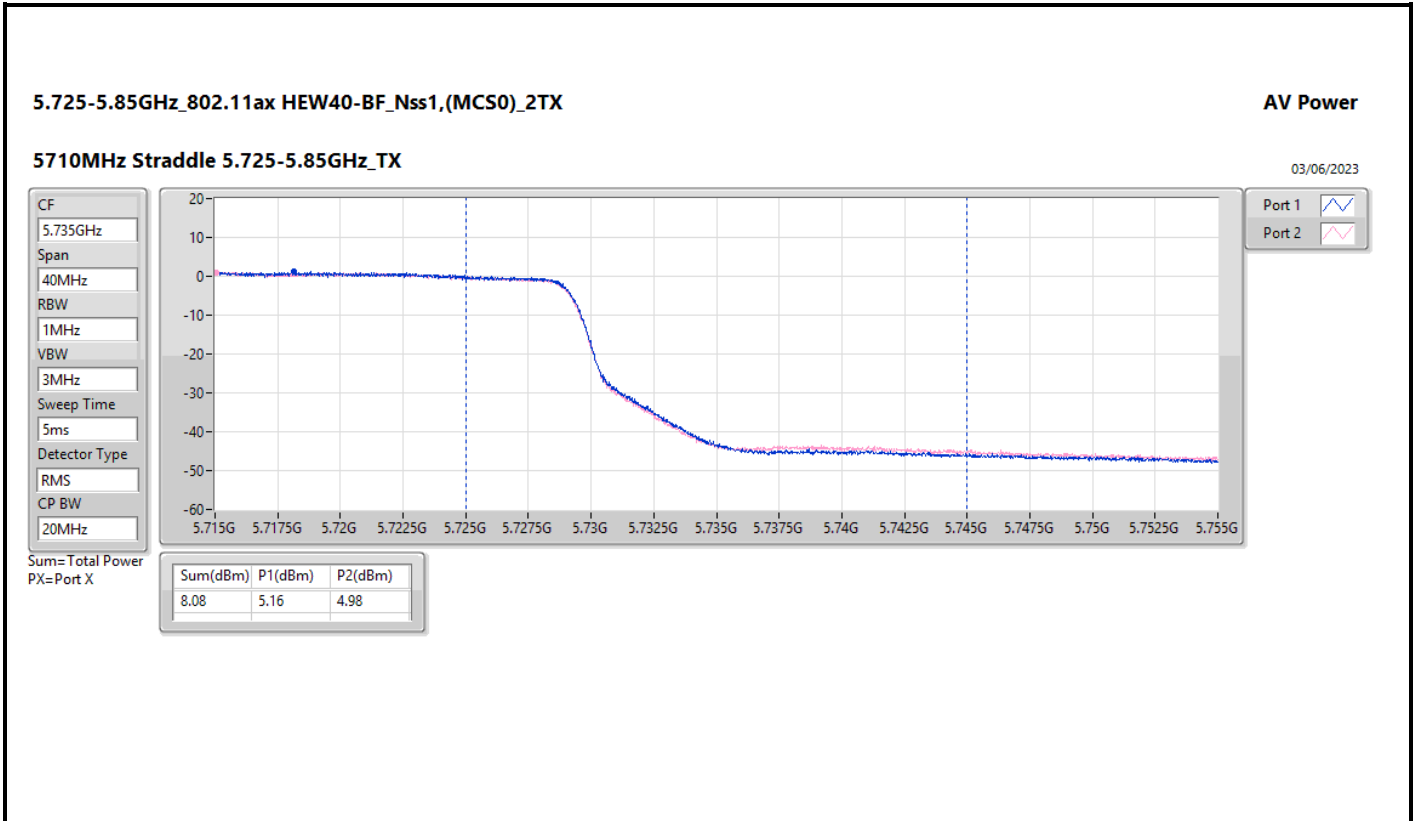
Sum=Total Power
PX=Port X

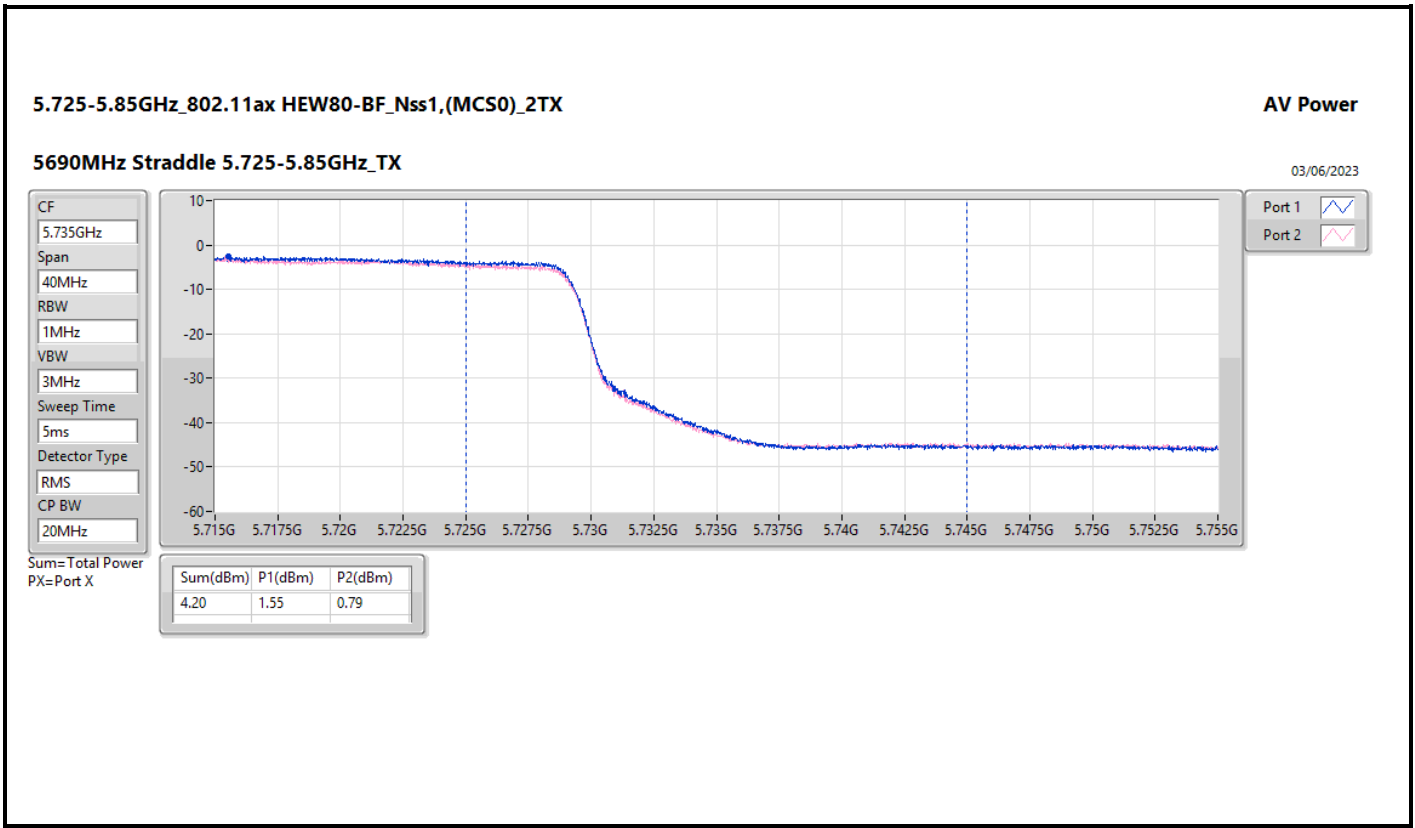
Sum(dBm)	P1(dBm)	P2(dBm)
18.07	14.93	15.19













Summary

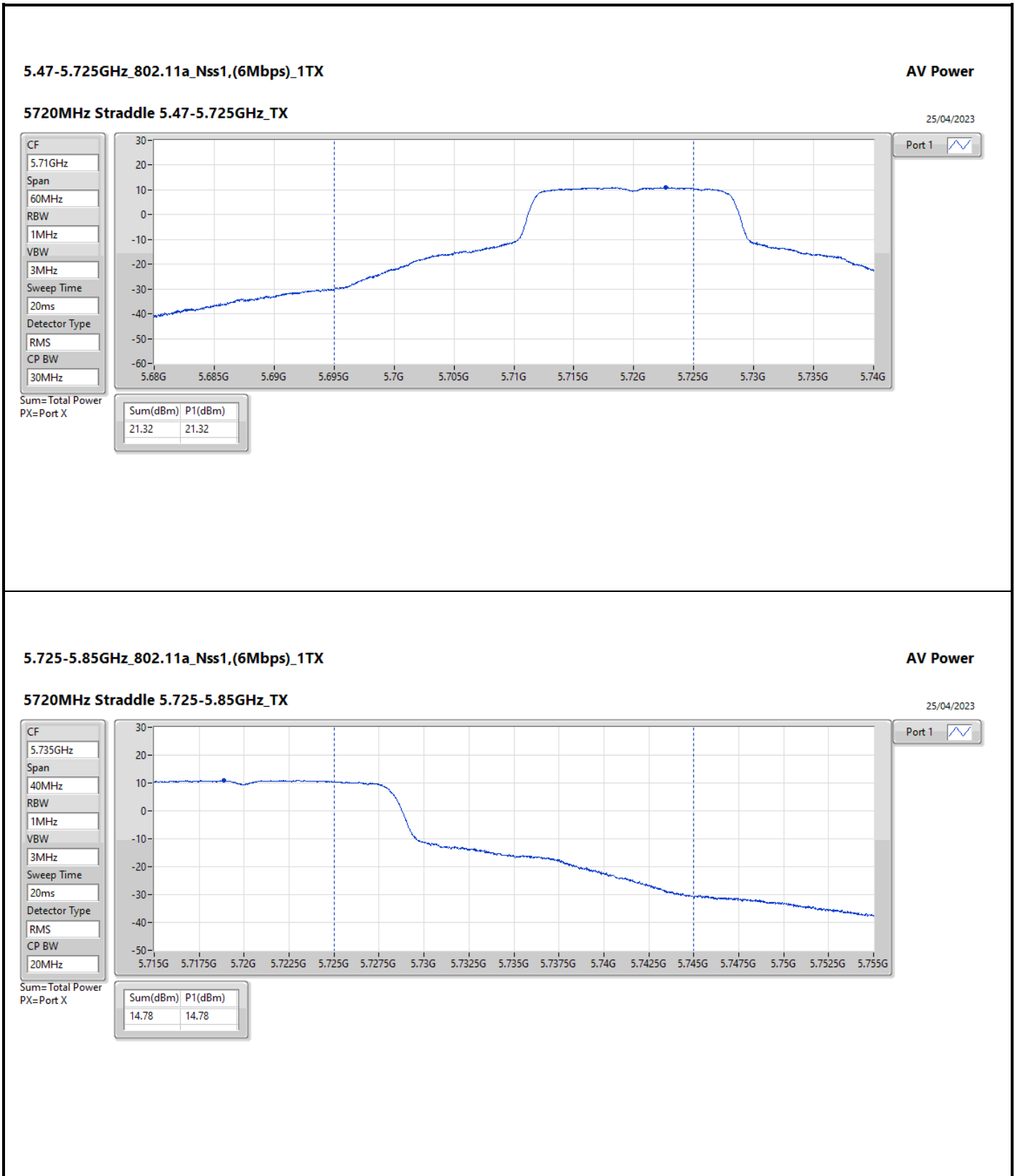
Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	22.50	0.17783	25.60	0.36308
802.11ax HEW20_Nss1,(MCS0)_1TX	22.81	0.19099	25.91	0.38994
802.11ax HEW40_Nss1,(MCS0)_1TX	22.00	0.15849	25.10	0.32359
802.11ax HEW80_Nss1,(MCS0)_1TX	21.90	0.15488	25.00	0.31623
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	14.78	0.03006	17.78	0.05998
802.11ax HEW20_Nss1,(MCS0)_1TX	15.78	0.03784	18.78	0.07551
802.11ax HEW40_Nss1,(MCS0)_1TX	11.78	0.01507	14.78	0.03006
802.11ax HEW80_Nss1,(MCS0)_1TX	7.96	0.00625	10.96	0.01247

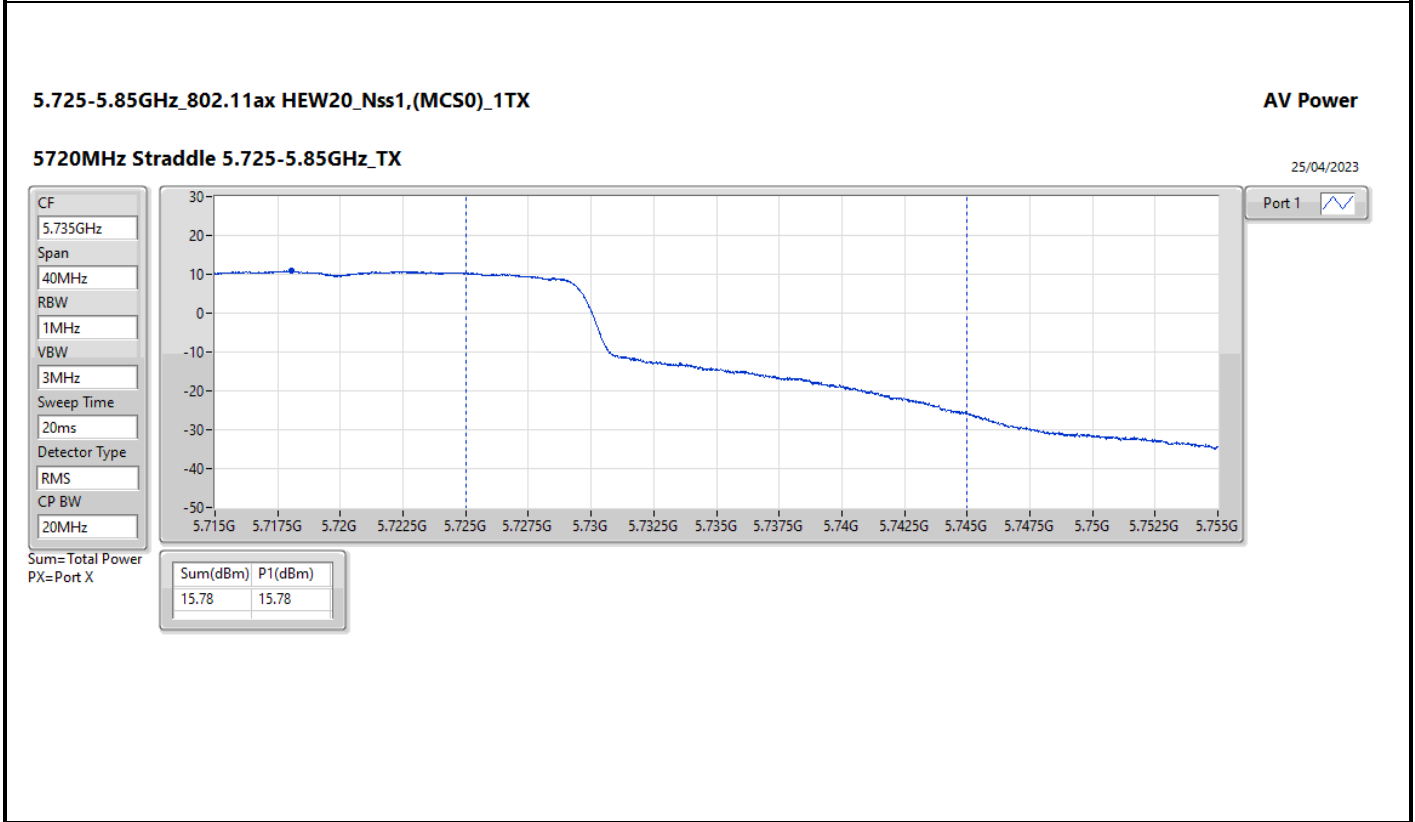
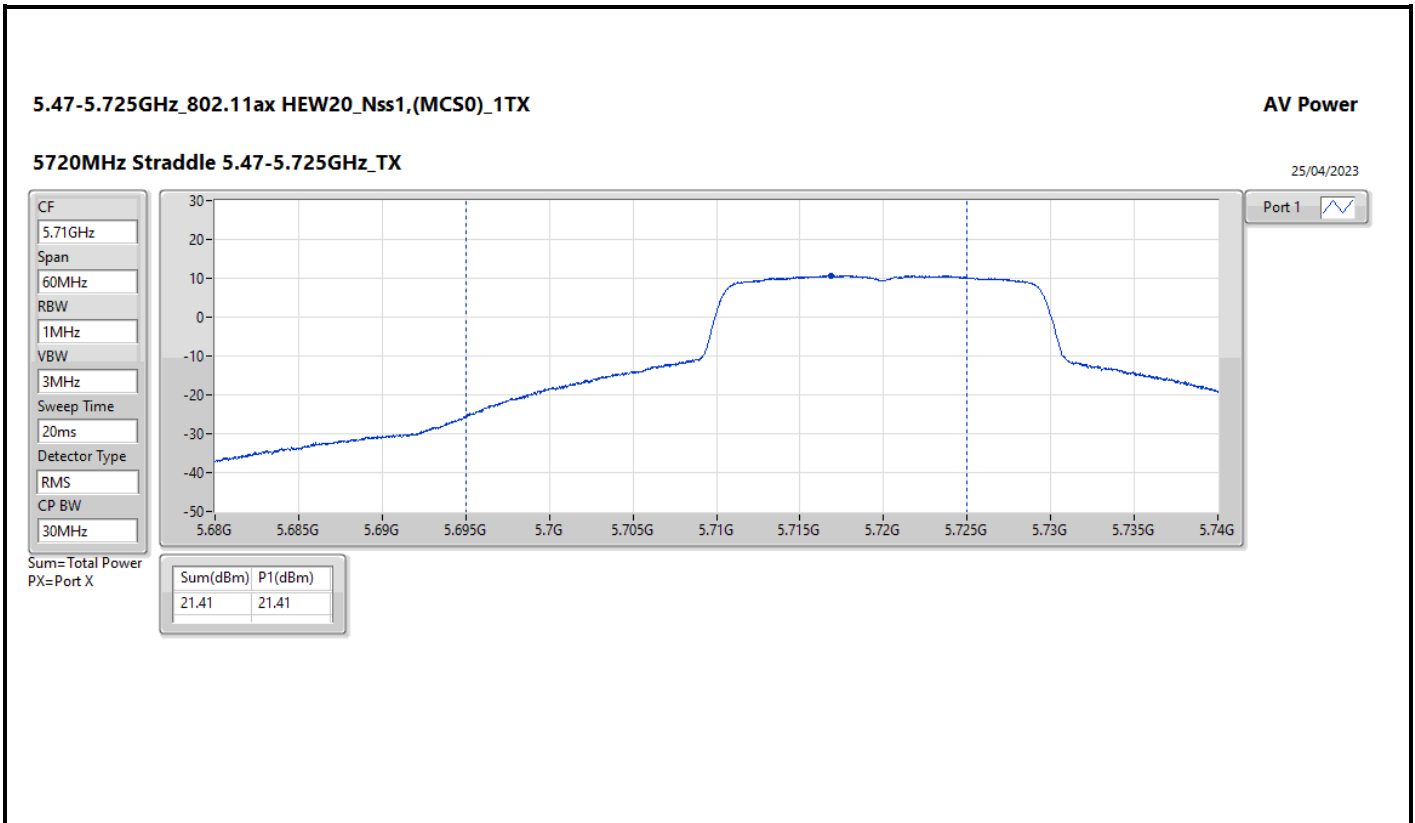


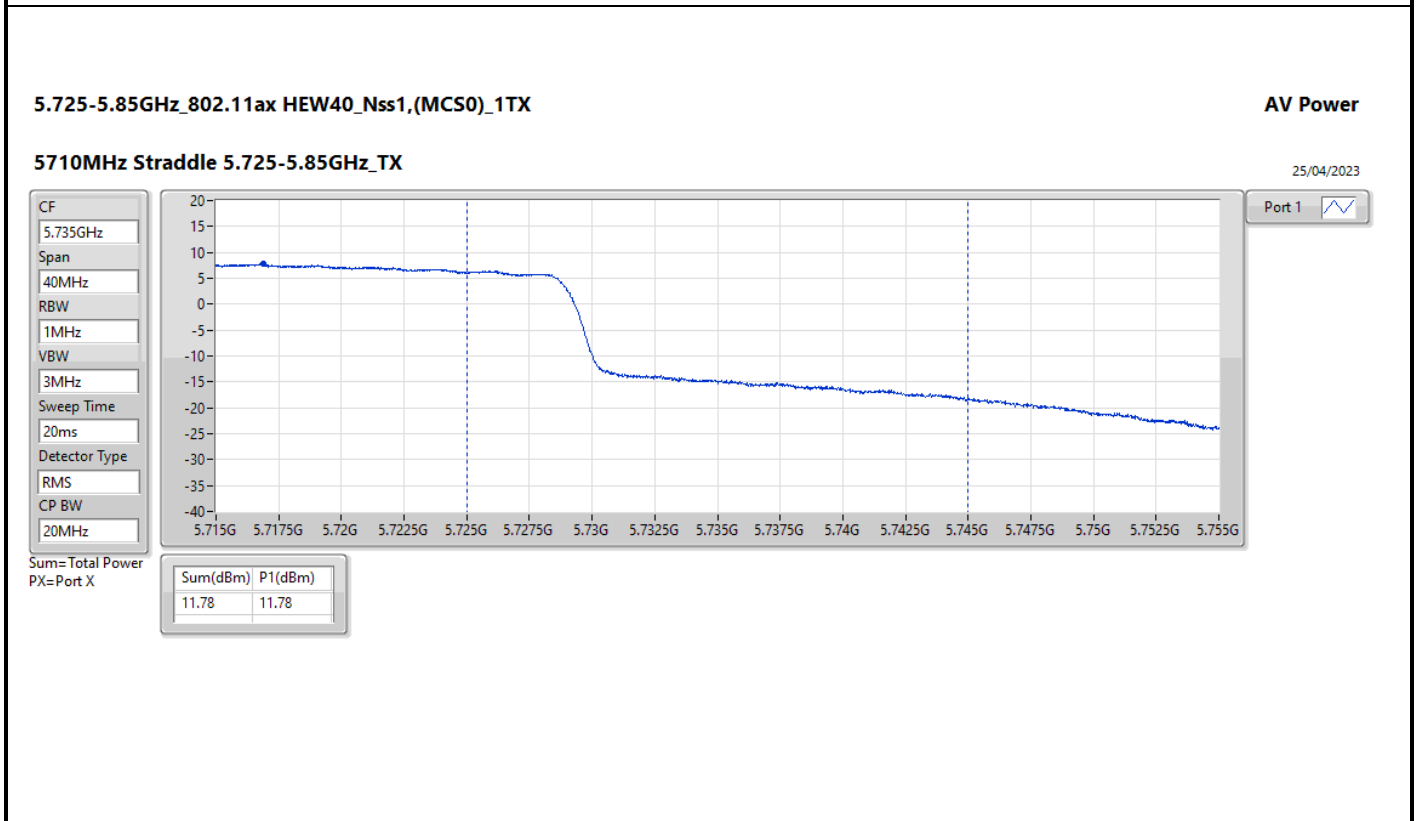
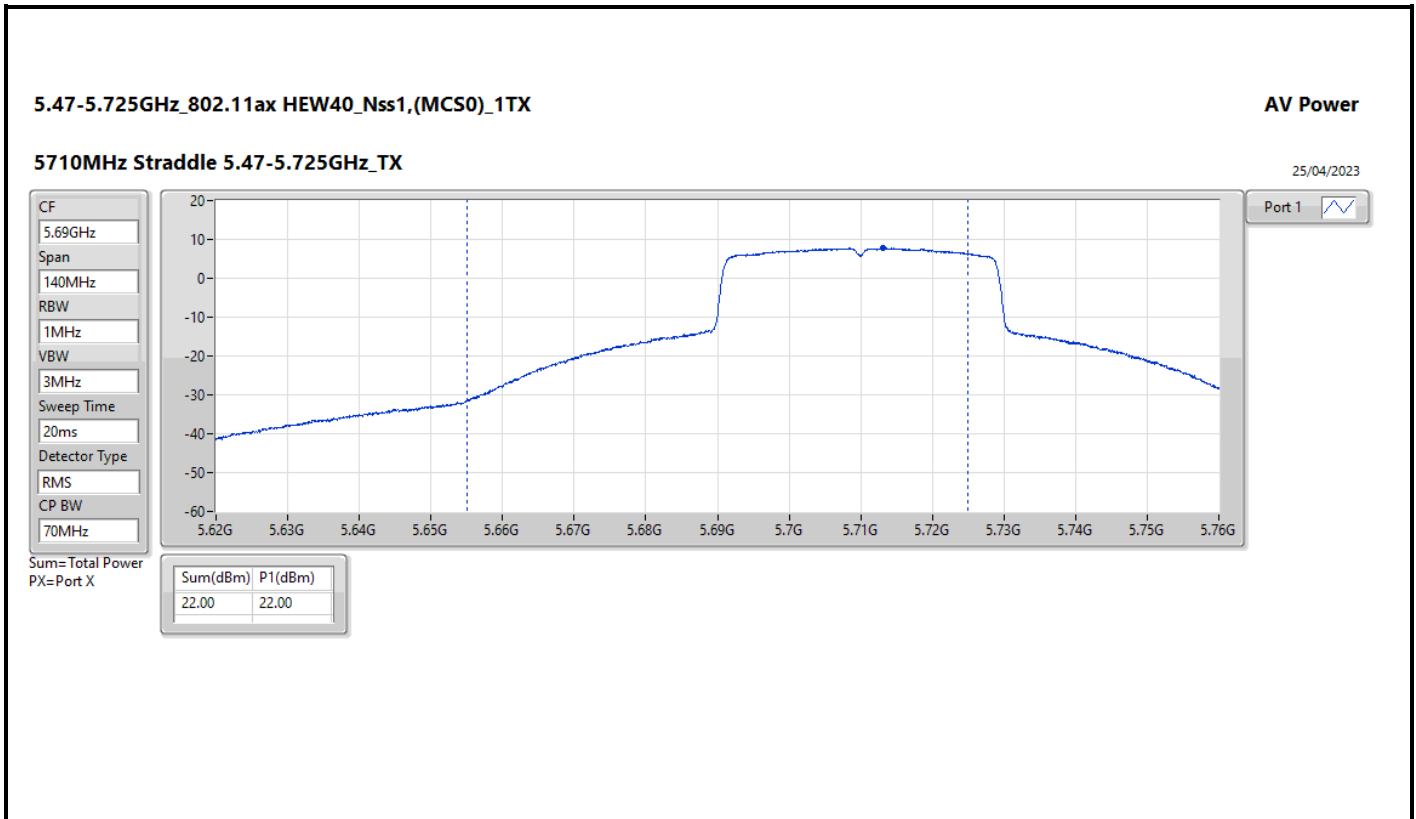
Result

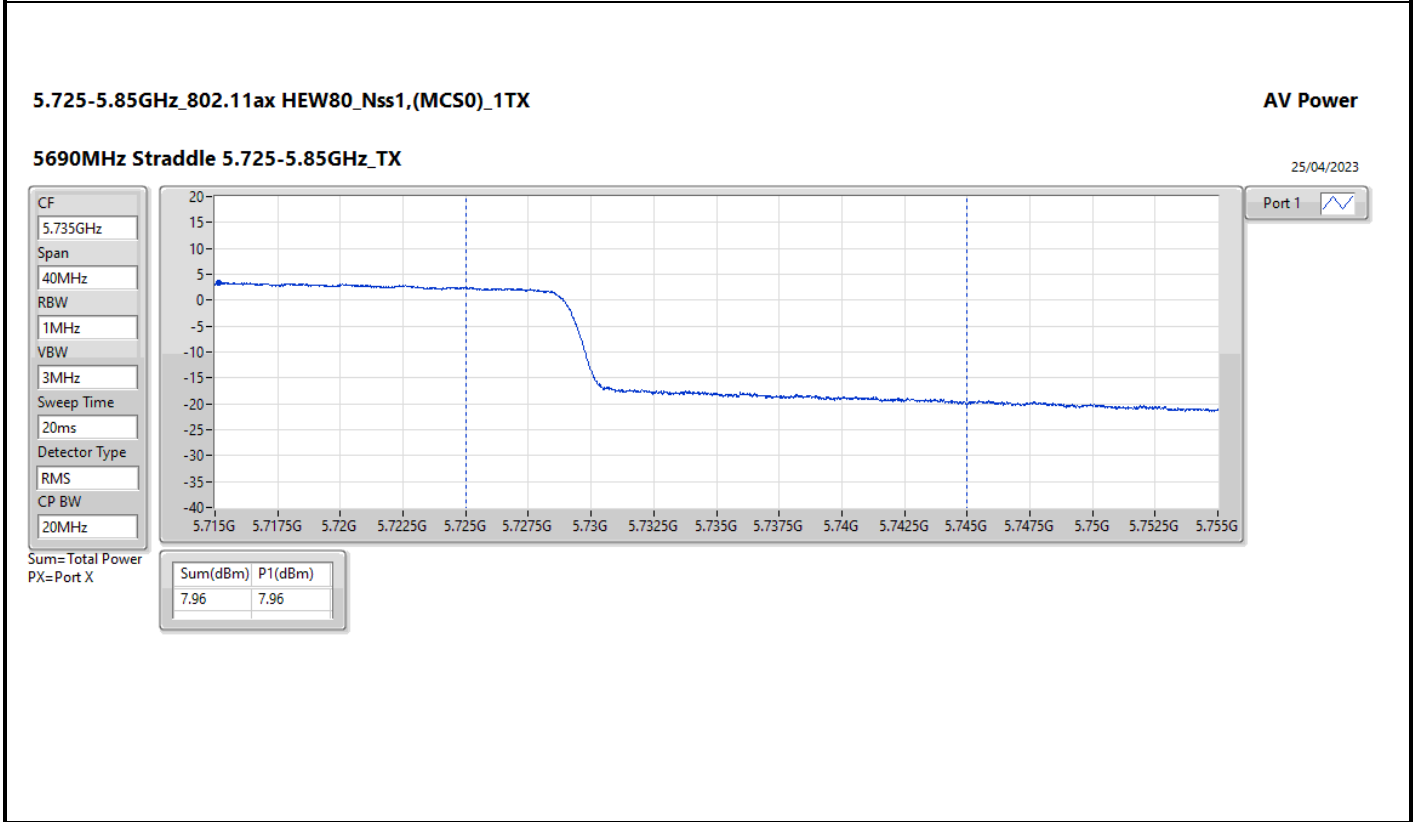
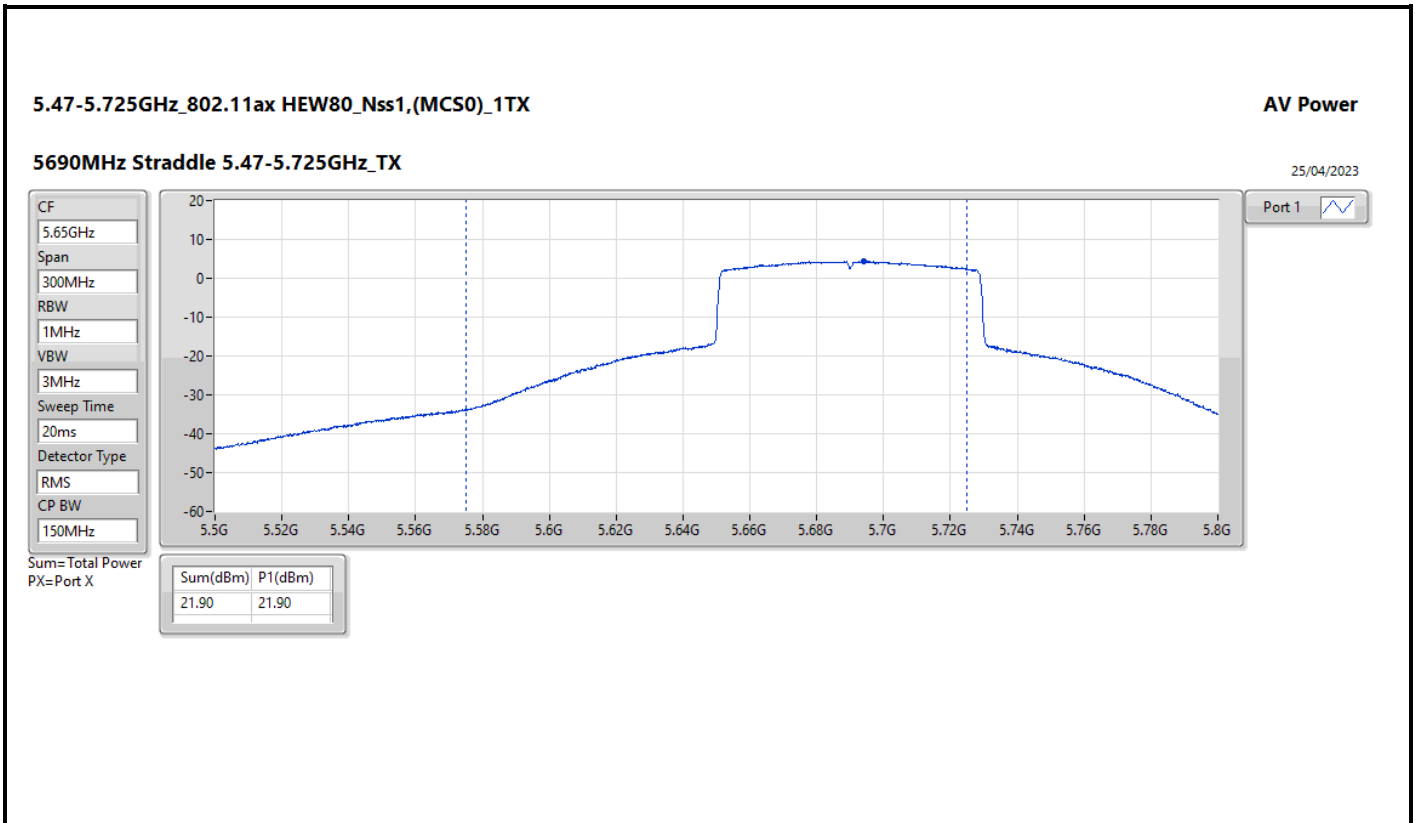
Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
5500MHz	Pass	3.10	19.77	19.77	23.91	22.87	29.91
5580MHz	Pass	3.10	22.50	22.50	23.98	25.60	30.00
5700MHz	Pass	3.10	18.29	18.29	23.83	21.39	29.83
5720MHz Straddle 5.47-5.725GHz	Pass	3.10	21.32	21.32	23.98	24.42	30.00
5720MHz Straddle 5.725-5.85GHz	Pass	3.00	14.78	14.78	30.00	17.78	36.00
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5500MHz	Pass	3.10	19.20	19.20	23.98	22.30	30.00
5580MHz	Pass	3.10	22.81	22.81	23.98	25.91	30.00
5700MHz	Pass	3.10	19.26	19.26	23.98	22.36	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	3.10	21.41	21.41	23.98	24.51	30.00
5720MHz Straddle 5.725-5.85GHz	Pass	3.00	15.78	15.78	30.00	18.78	36.00
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5510MHz	Pass	3.10	16.90	16.90	23.98	20.00	30.00
5550MHz	Pass	3.10	21.37	21.37	23.98	24.47	30.00
5670MHz	Pass	3.10	19.37	19.37	23.98	22.47	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	3.10	22.00	22.00	23.98	25.10	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	3.00	11.78	11.78	30.00	14.78	36.00
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5530MHz	Pass	3.10	17.45	17.45	23.98	20.55	30.00
5610MHz	Pass	3.10	20.83	20.83	23.98	23.93	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	3.10	21.90	21.90	23.98	25.00	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	3.00	7.96	7.96	30.00	10.96	36.00

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











Summary

Mode	PD (dBm/RBW)
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_1TX	8.89
802.11a_Nss1,(6Mbps)_1TX	8.86
802.11a_Nss1,(6Mbps)_2TX	5.97
802.11ax HEW20_Nss1,(MCS0)_1TX	8.70
802.11ax HEW20_Nss1,(MCS0)_1TX	8.72
802.11ax HEW20_Nss1,(MCS0)_2TX	5.78
802.11ax HEW40_Nss1,(MCS0)_1TX	5.72
802.11ax HEW40_Nss1,(MCS0)_1TX	6.07
802.11ax HEW40_Nss1,(MCS0)_2TX	5.54
802.11ax HEW80_Nss1,(MCS0)_1TX	2.58
802.11ax HEW80_Nss1,(MCS0)_1TX	2.55
802.11ax HEW80_Nss1,(MCS0)_2TX	2.97
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_1TX	6.87
802.11a_Nss1,(6Mbps)_1TX	6.79
802.11a_Nss1,(6Mbps)_2TX	4.14
802.11ax HEW20_Nss1,(MCS0)_1TX	6.57
802.11ax HEW20_Nss1,(MCS0)_1TX	6.62
802.11ax HEW20_Nss1,(MCS0)_2TX	3.91
802.11ax HEW40_Nss1,(MCS0)_1TX	3.19
802.11ax HEW40_Nss1,(MCS0)_2TX	2.06
802.11ax HEW80_Nss1,(MCS0)_1TX	-0.13
802.11ax HEW80_Nss1,(MCS0)_1TX	-0.99
802.11ax HEW80_Nss1,(MCS0)_2TX	-0.67

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

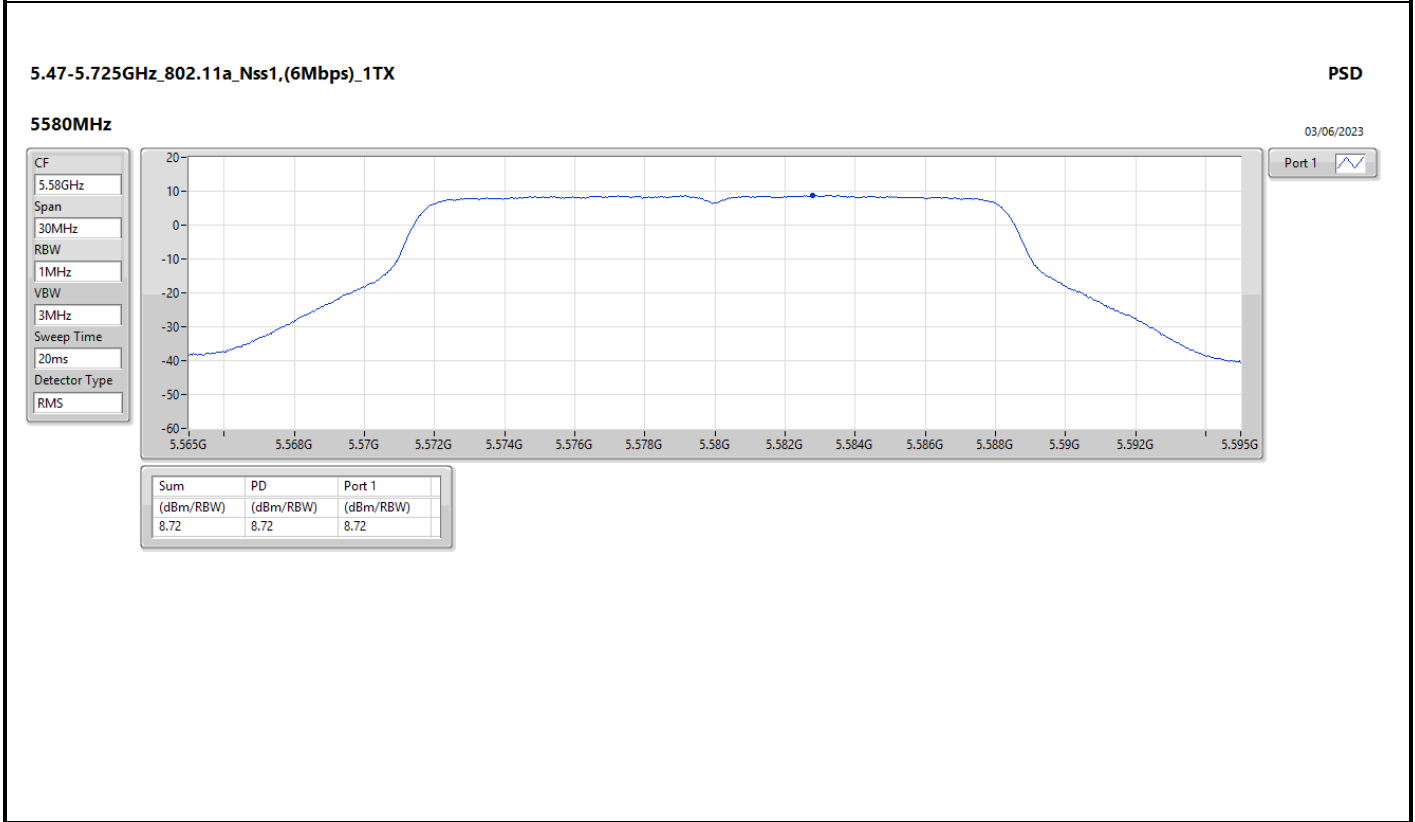
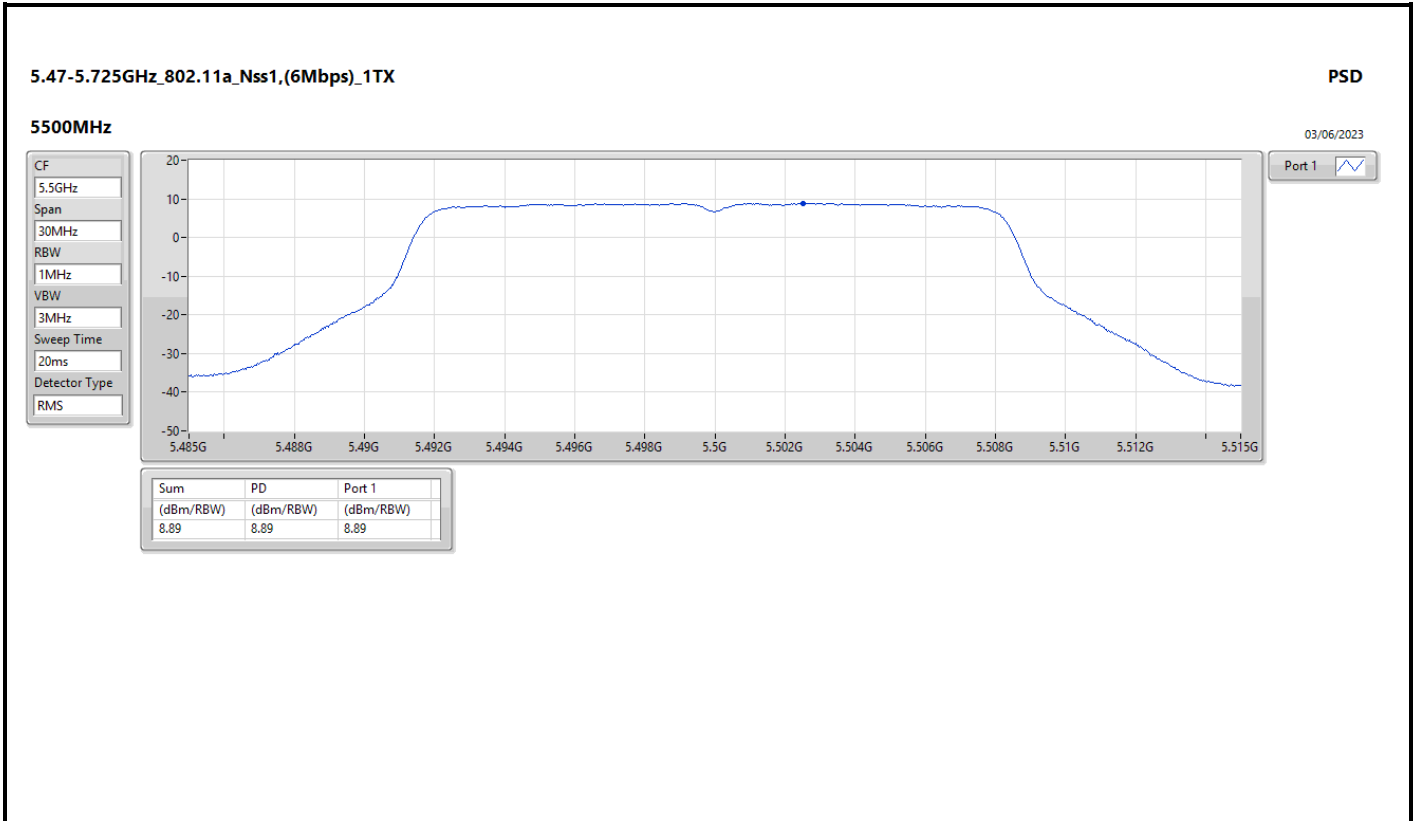
Result

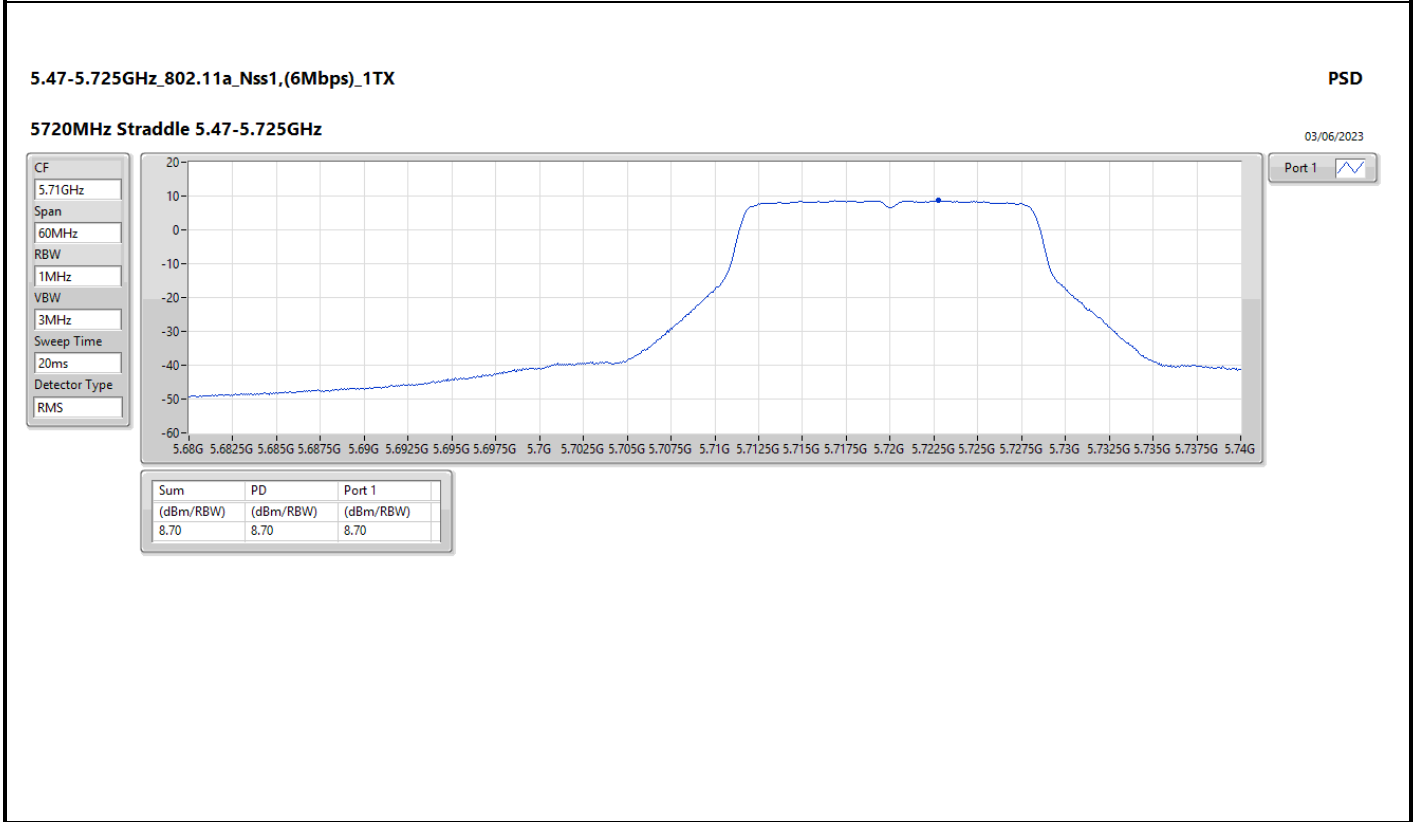
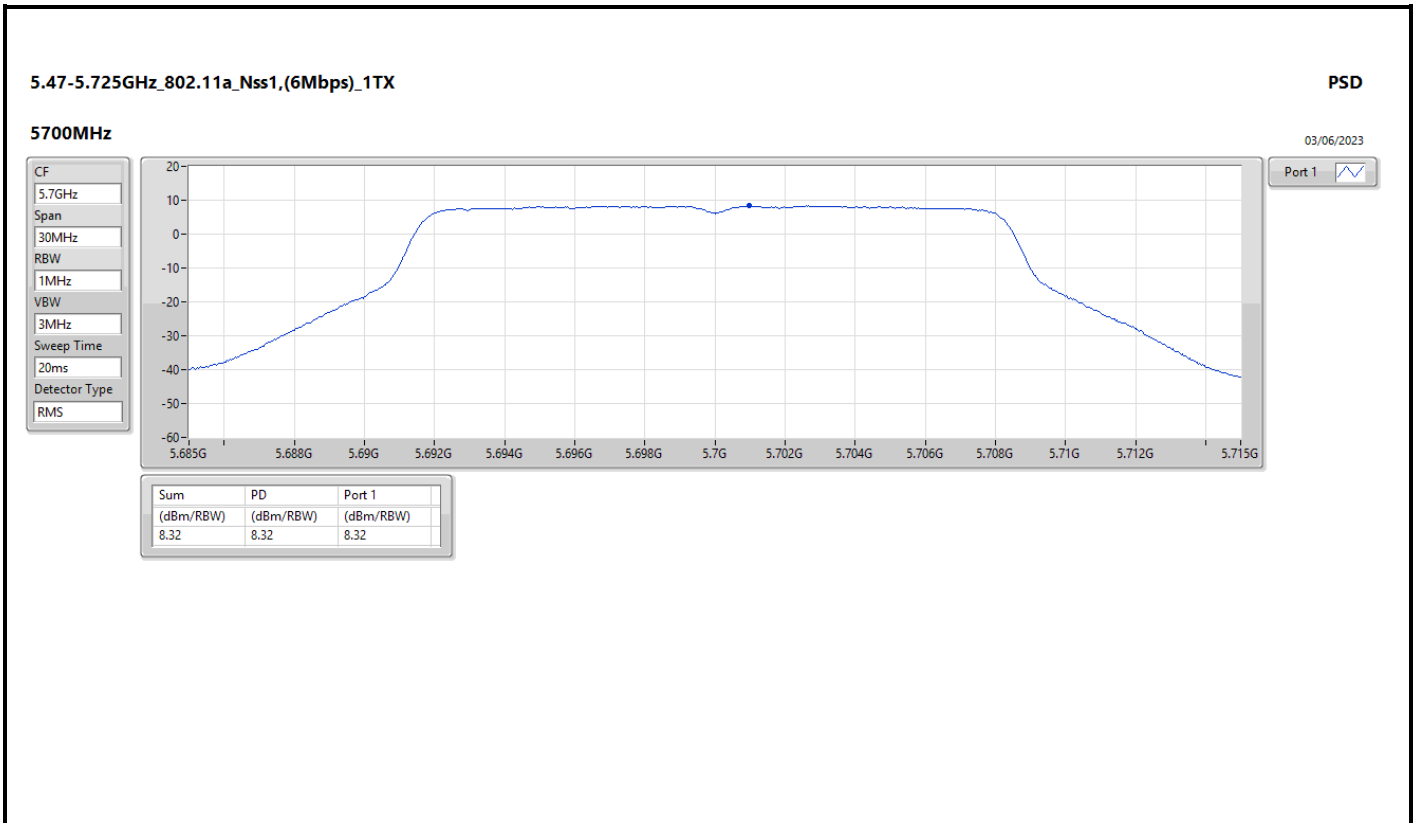
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-
5500MHz	Pass	8.00	8.89		8.89	9.00
5580MHz	Pass	8.00	8.72		8.72	9.00
5700MHz	Pass	8.00	8.32		8.32	9.00
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	8.70		8.70	9.00
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	6.87		6.87	28.00
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5500MHz	Pass	8.00	8.20		8.20	9.00
5580MHz	Pass	8.00	7.98		7.98	9.00
5700MHz	Pass	8.00	7.37		7.37	9.00
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	8.70		8.70	9.00
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	6.57		6.57	28.00
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5510MHz	Pass	8.00	2.92		2.92	9.00
5550MHz	Pass	8.00	5.58		5.58	9.00
5670MHz	Pass	8.00	5.04		5.04	9.00
5710MHz Straddle 5.47-5.725GHz	Pass	8.00	5.72		5.72	9.00
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5530MHz	Pass	8.00	-0.44		-0.44	9.00
5610MHz	Pass	8.00	2.58		2.58	9.00
5690MHz Straddle 5.47-5.725GHz	Pass	8.00	2.57		2.57	9.00
5690MHz Straddle 5.725-5.85GHz	Pass	8.00	-0.13		-0.13	28.00
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-
5500MHz	Pass	8.00	-	8.86	8.86	9.00
5580MHz	Pass	8.00	-	8.76	8.76	9.00
5700MHz	Pass	8.00	-	8.54	8.54	9.00
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	-	8.73	8.73	9.00
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	-	6.79	6.79	28.00
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5500MHz	Pass	8.00	-	8.10	8.10	9.00
5580MHz	Pass	8.00	-	8.04	8.04	9.00
5700MHz	Pass	8.00	-	7.96	7.96	9.00
5720MHz Straddle 5.47-5.725GHz	Pass	8.00	-	8.72	8.72	9.00
5720MHz Straddle 5.725-5.85GHz	Pass	8.00	-	6.62	6.62	28.00
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5510MHz	Pass	8.00	-	3.72	3.72	9.00
5550MHz	Pass	8.00	-	5.35	5.35	9.00
5670MHz	Pass	8.00	-	5.34	5.34	9.00
5710MHz Straddle 5.47-5.725GHz	Pass	8.00	-	6.07	6.07	9.00
5710MHz Straddle 5.725-5.85GHz	Pass	8.00	-	3.19	3.19	28.00
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-	-
5530MHz	Pass	8.00	-	-0.46	-0.46	9.00
5610MHz	Pass	8.00	-	2.55	2.55	9.00
5690MHz Straddle 5.47-5.725GHz	Pass	8.00	-	2.53	2.53	9.00
5690MHz Straddle 5.725-5.85GHz	Pass	8.00	-	-0.99	-0.99	28.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5500MHz	Pass	11.01	3.19	2.64	5.79	5.99
5580MHz	Pass	11.01	3.08	2.59	5.77	5.99
5700MHz	Pass	11.01	2.72	2.81	5.69	5.99
5720MHz Straddle 5.47-5.725GHz	Pass	11.01	2.90	3.13	5.97	5.99
5720MHz Straddle 5.725-5.85GHz	Pass	11.01	1.15	1.19	4.14	24.99
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5500MHz	Pass	11.01	2.92	2.51	5.65	5.99

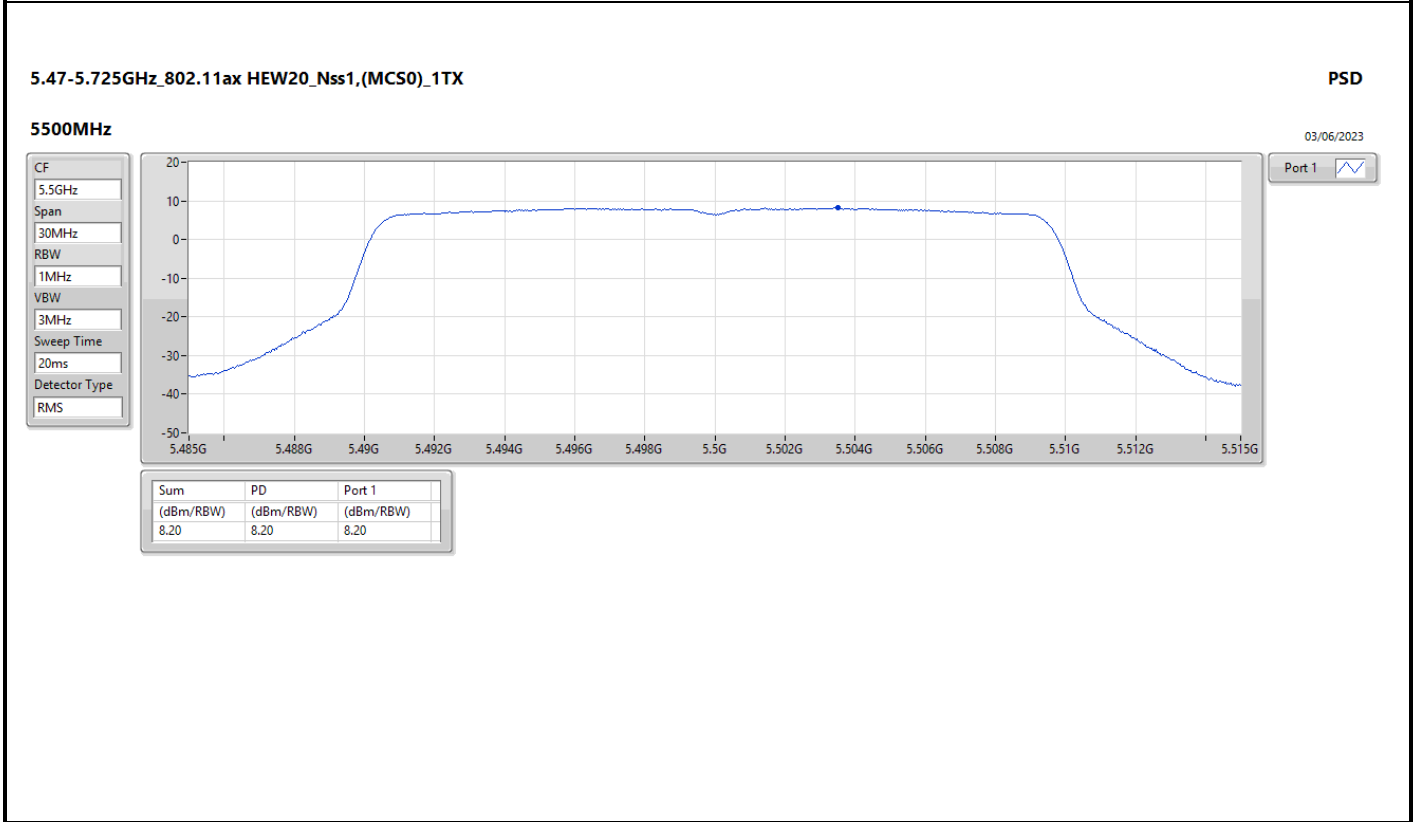
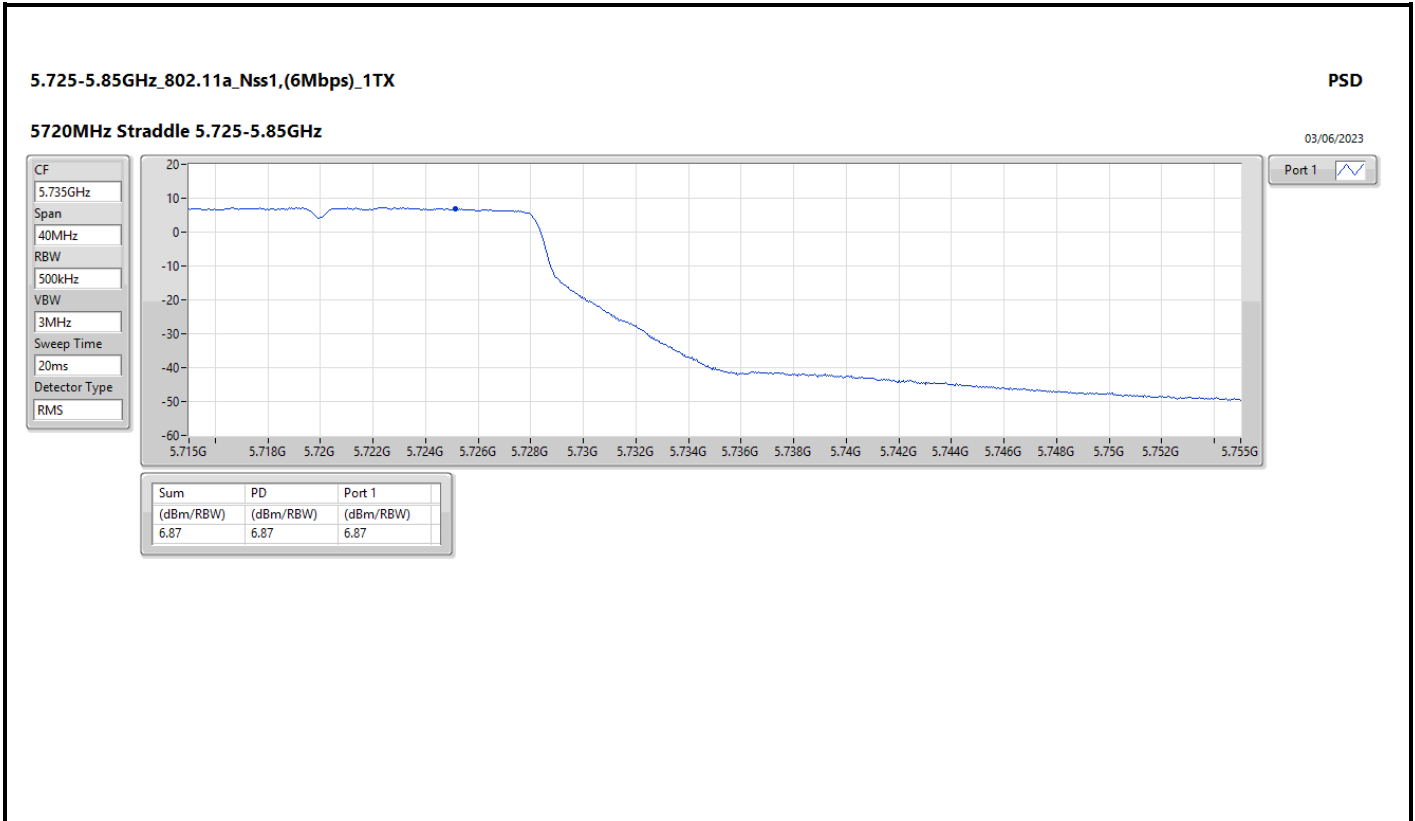


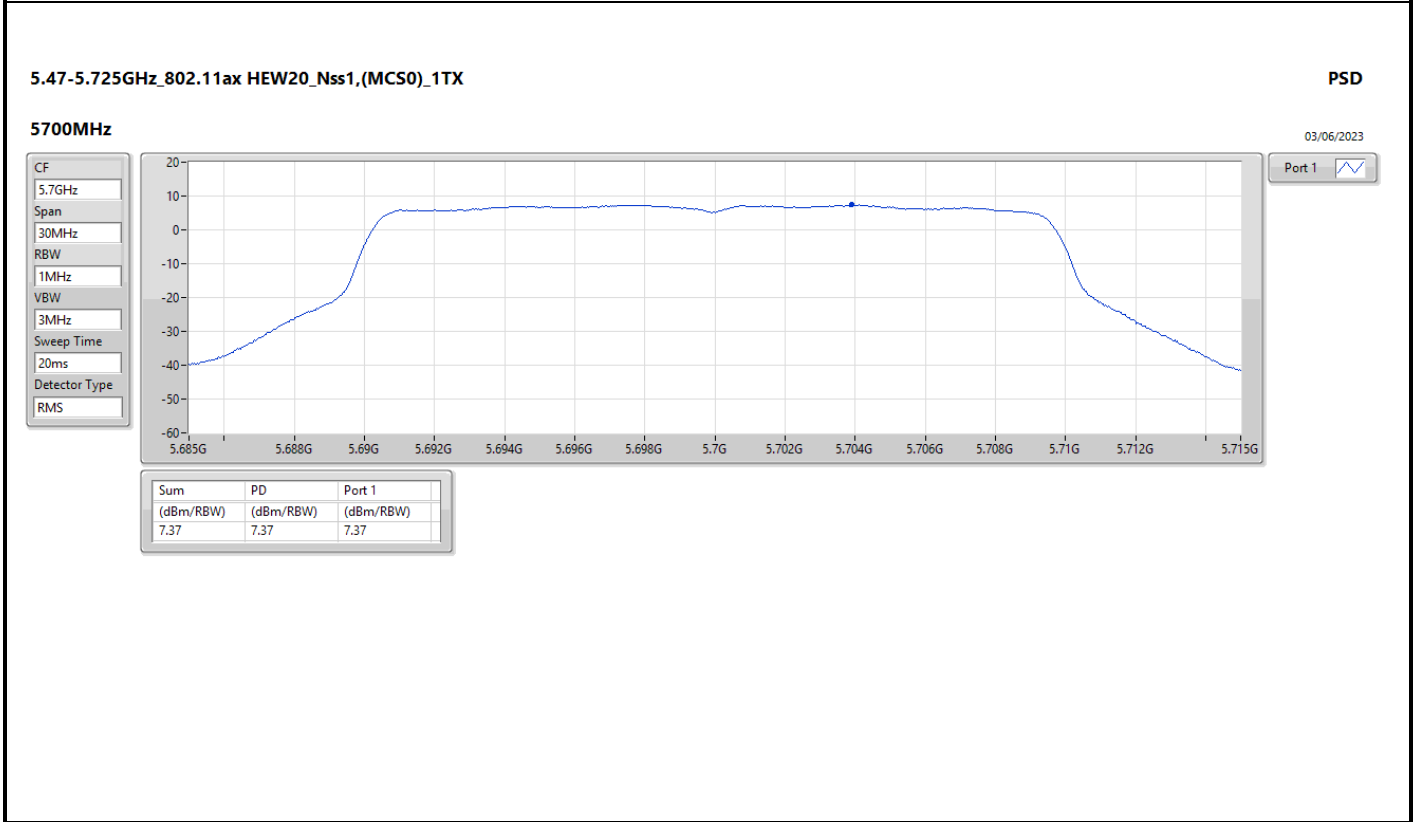
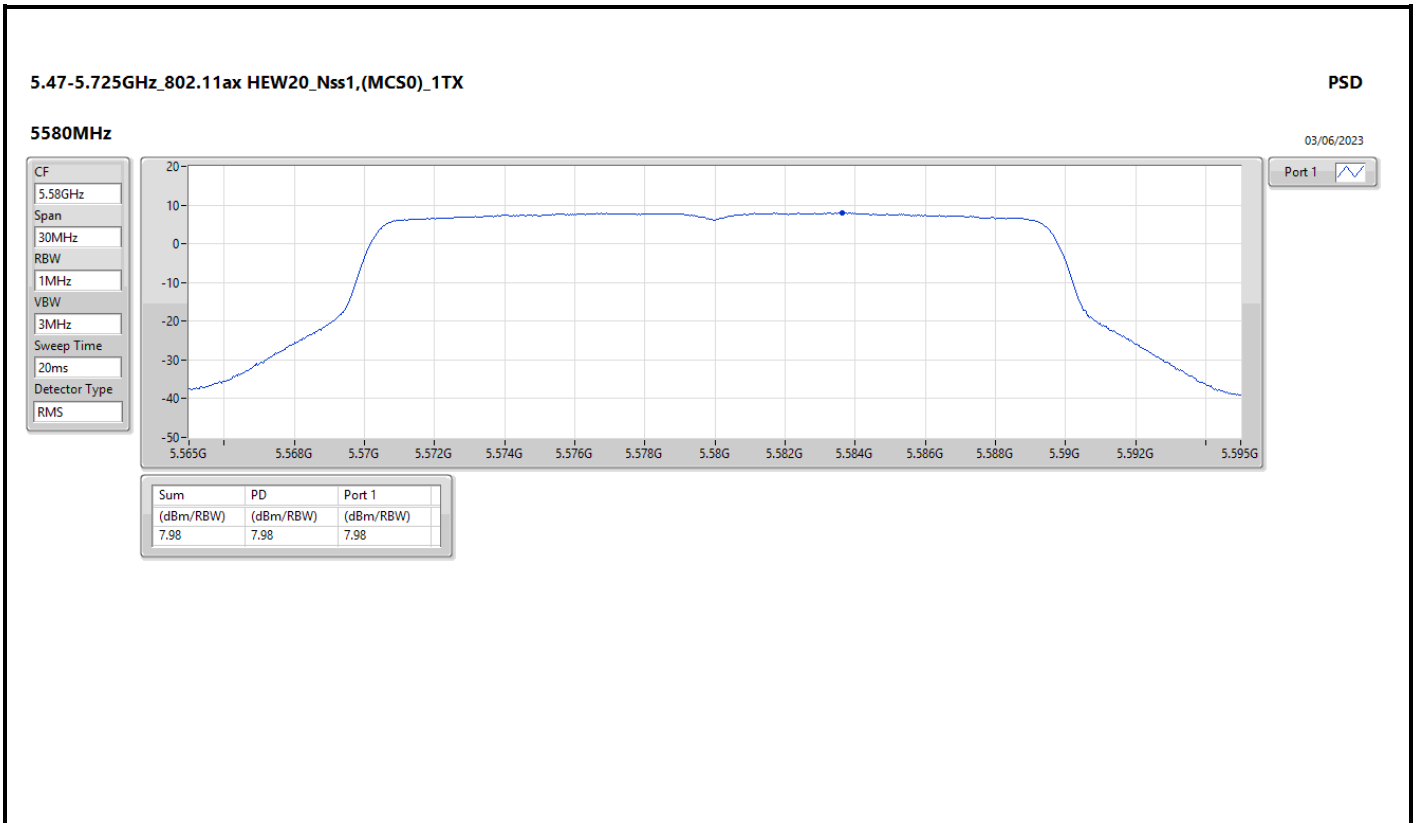
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
5580MHz	Pass	11.01	2.94	2.38	5.58	5.99
5700MHz	Pass	11.01	2.65	2.75	5.68	5.99
5720MHz Straddle 5.47-5.725GHz	Pass	11.01	2.79	2.89	5.78	5.99
5720MHz Straddle 5.725-5.85GHz	Pass	11.01	0.85	0.94	3.91	24.99
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5510MHz	Pass	11.01	2.21	1.81	4.95	5.99
5550MHz	Pass	11.01	2.33	2.21	5.18	5.99
5670MHz	Pass	11.01	2.70	2.62	5.54	5.99
5710MHz Straddle 5.47-5.725GHz	Pass	11.01	2.23	3.09	5.49	5.99
5710MHz Straddle 5.725-5.85GHz	Pass	11.01	-0.81	-0.93	2.06	24.99
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5530MHz	Pass	11.01	-2.38	-2.52	0.55	5.99
5610MHz	Pass	11.01	0.00	-0.99	2.31	5.99
5690MHz Straddle 5.47-5.725GHz	Pass	11.01	-0.09	0.05	2.97	5.99
5690MHz Straddle 5.725-5.85GHz	Pass	11.01	-3.63	-3.54	-0.67	24.99

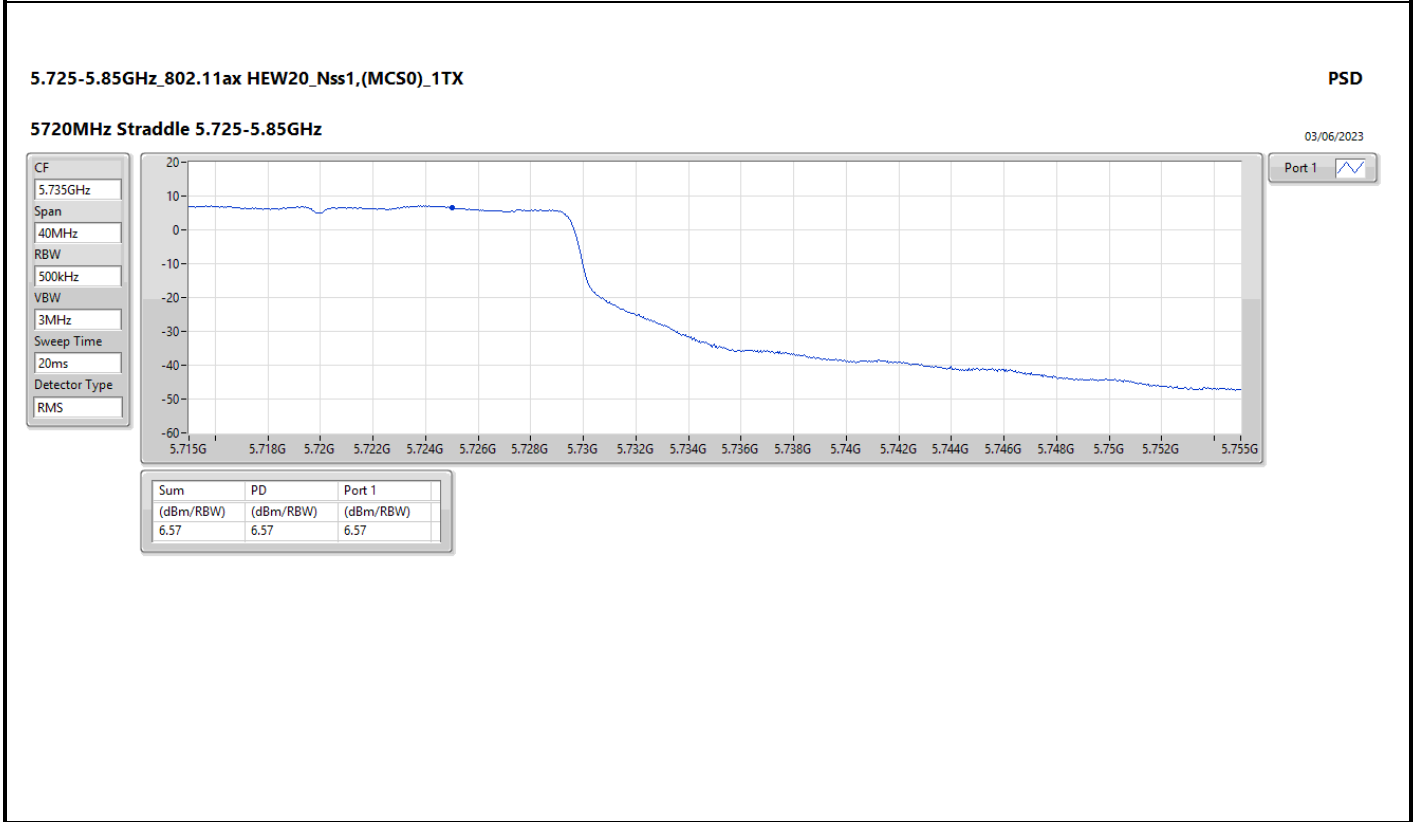
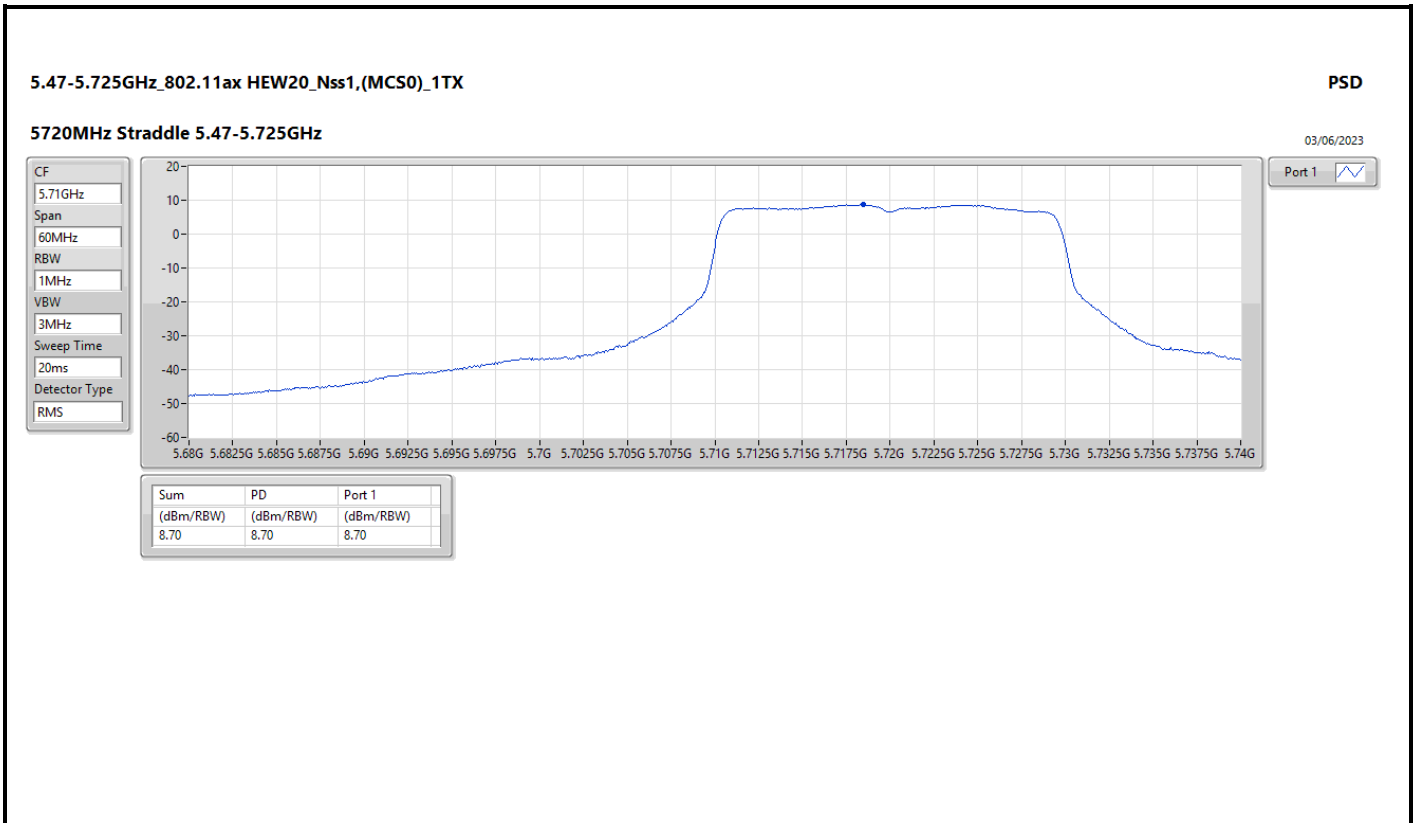
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

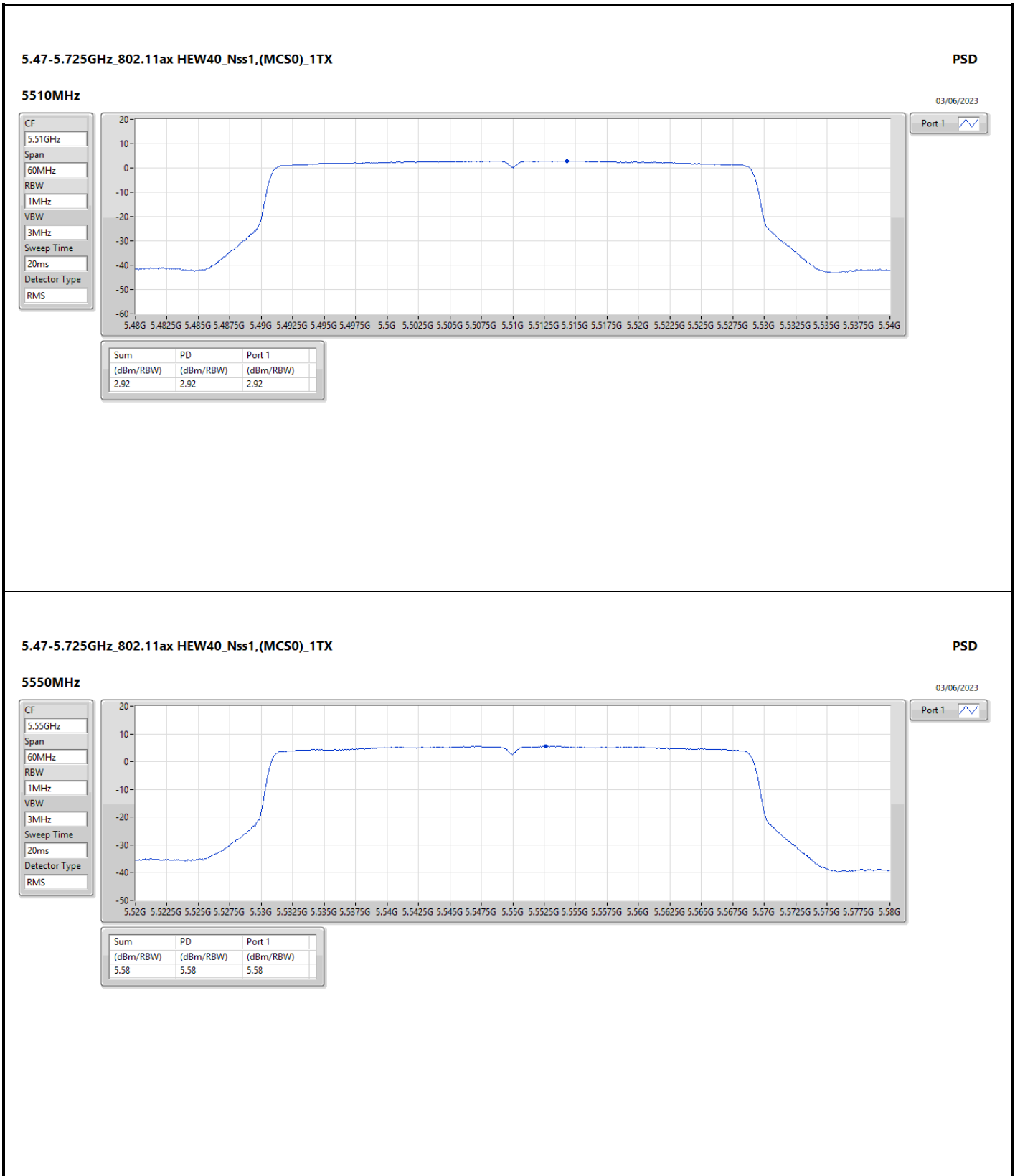


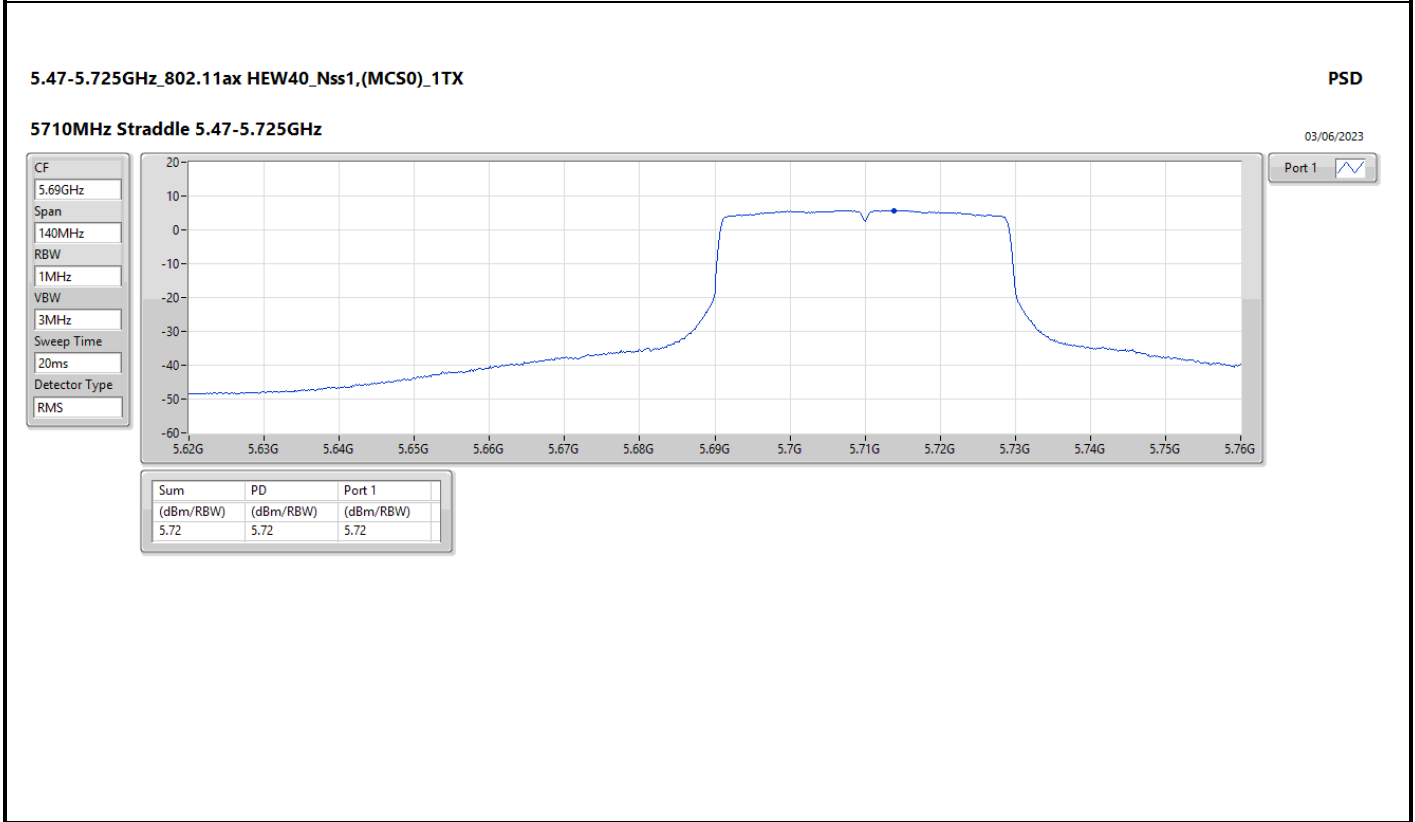
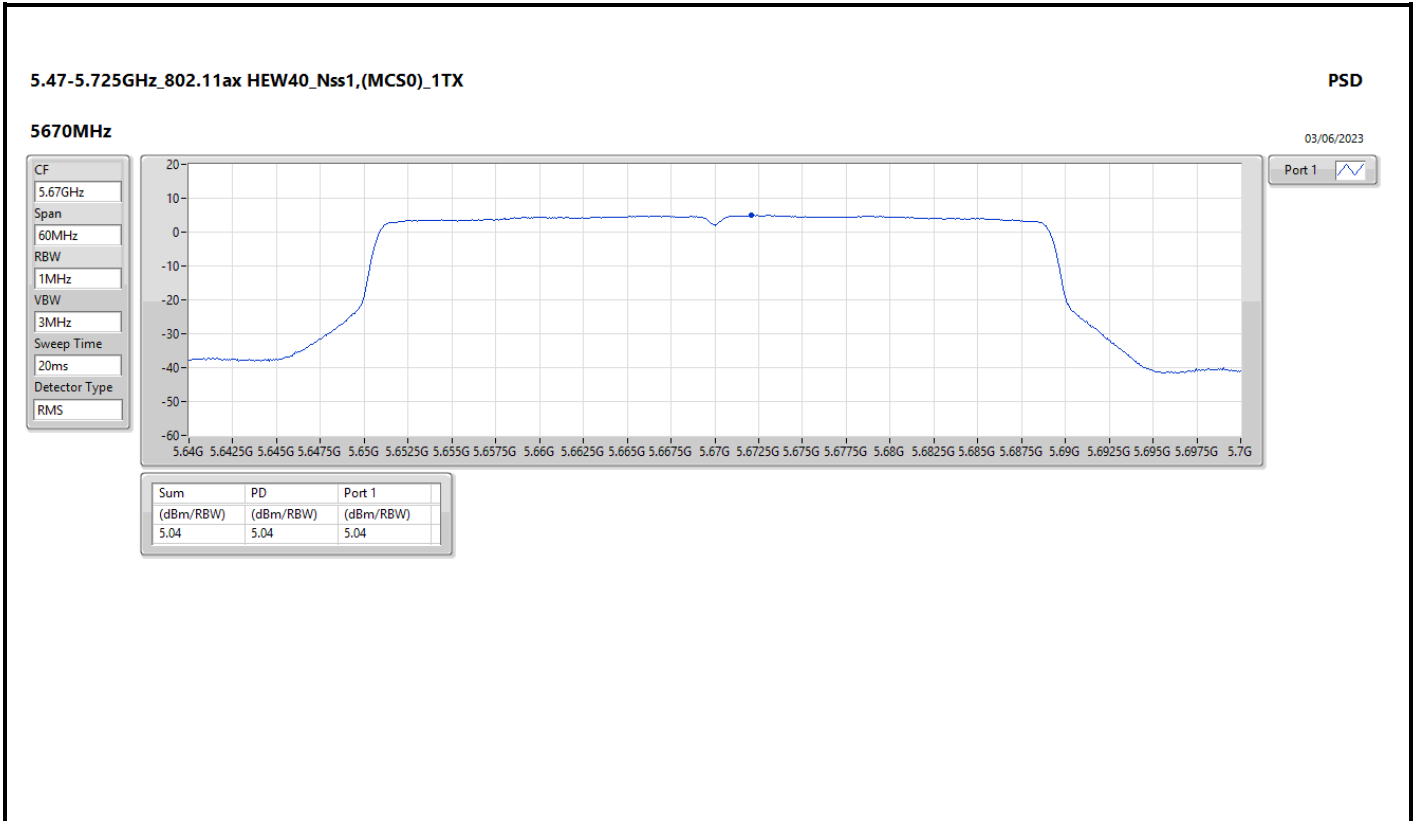


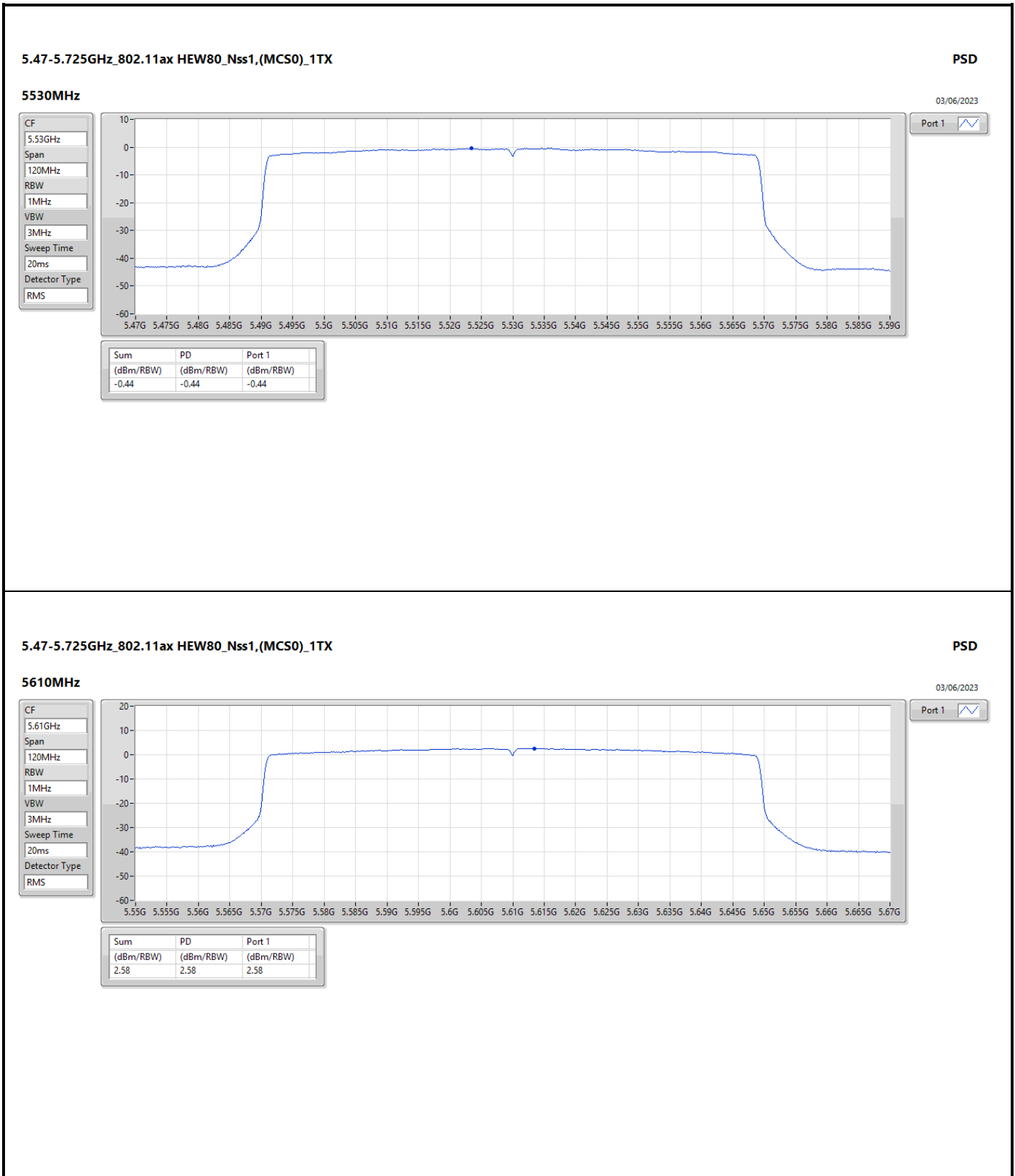


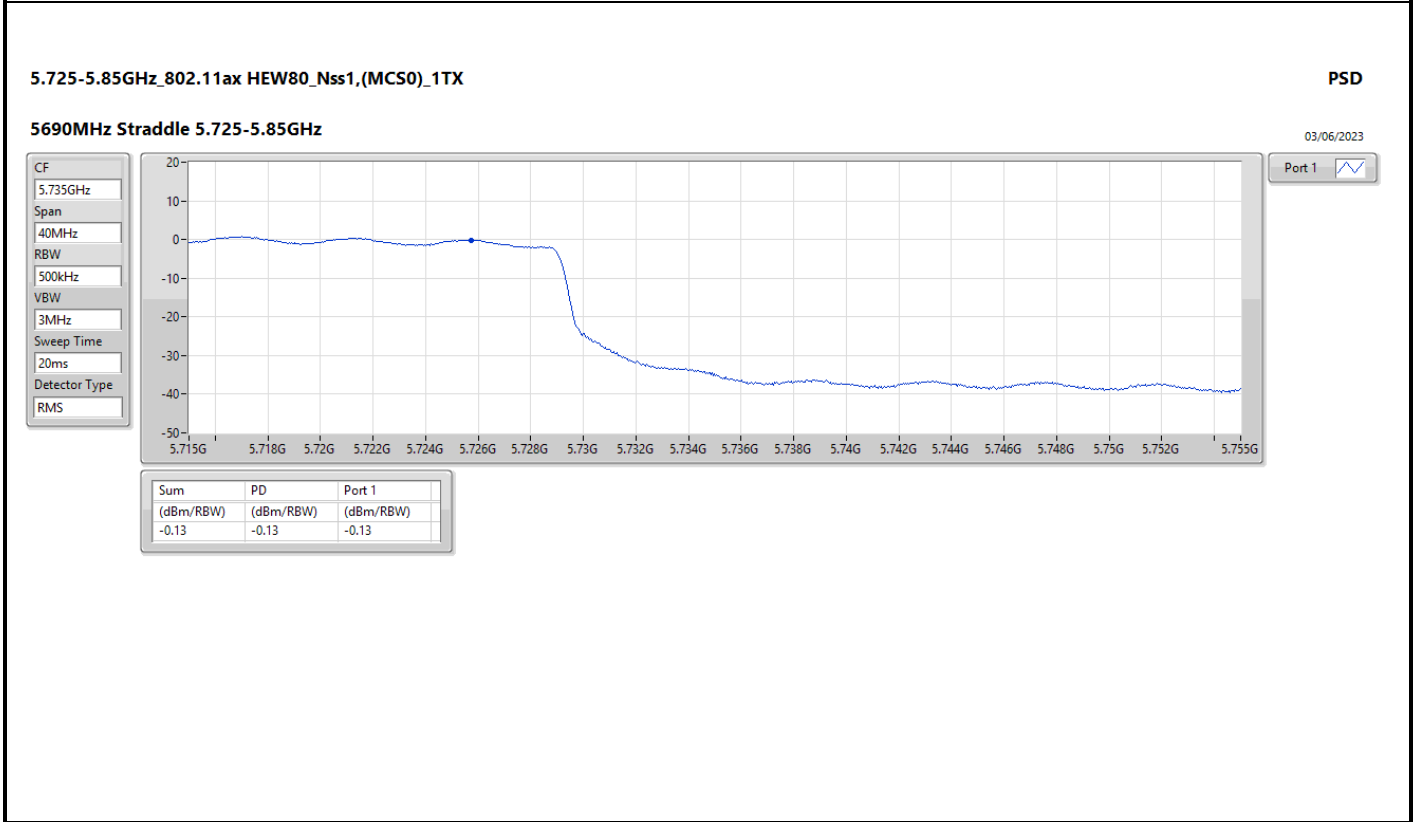
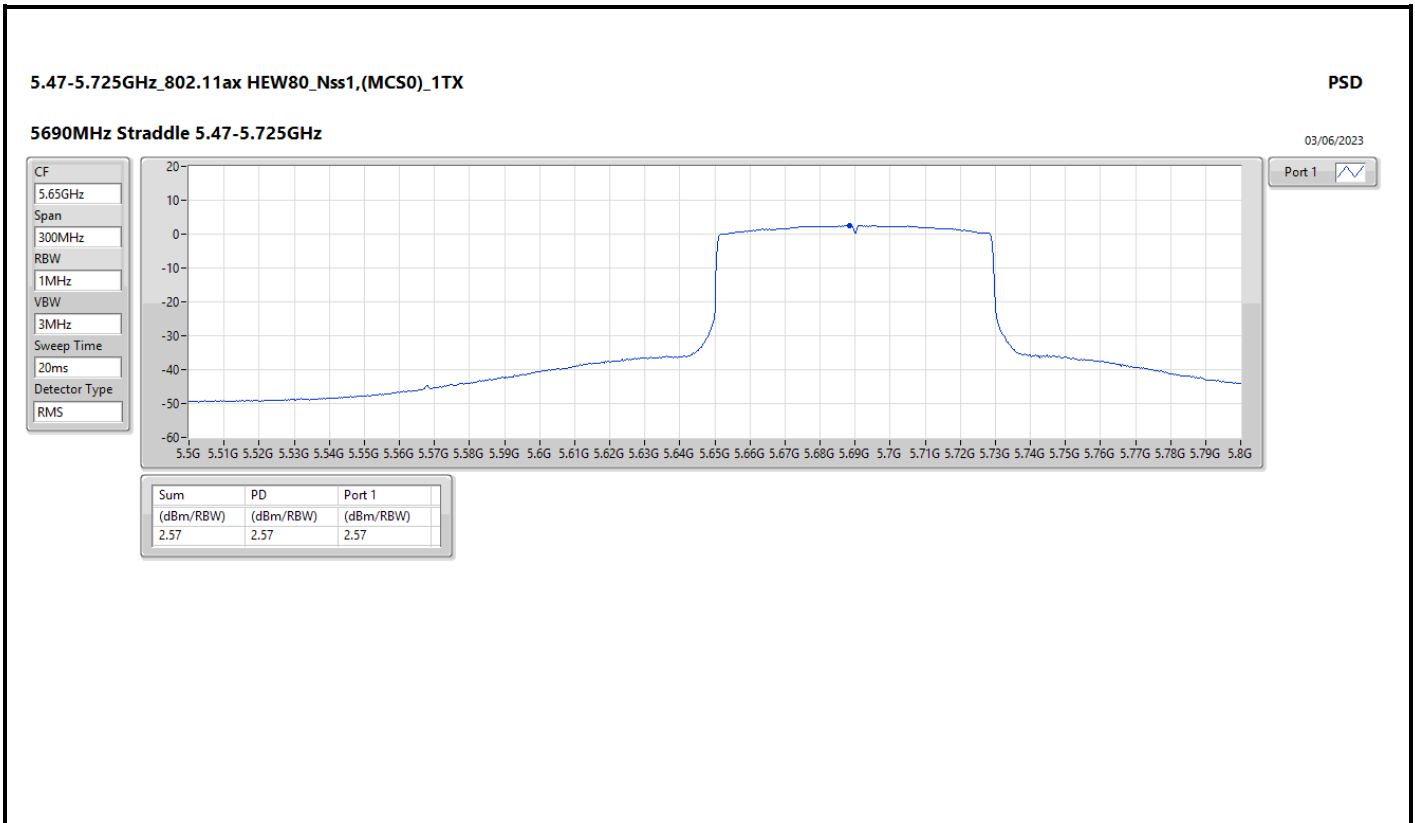


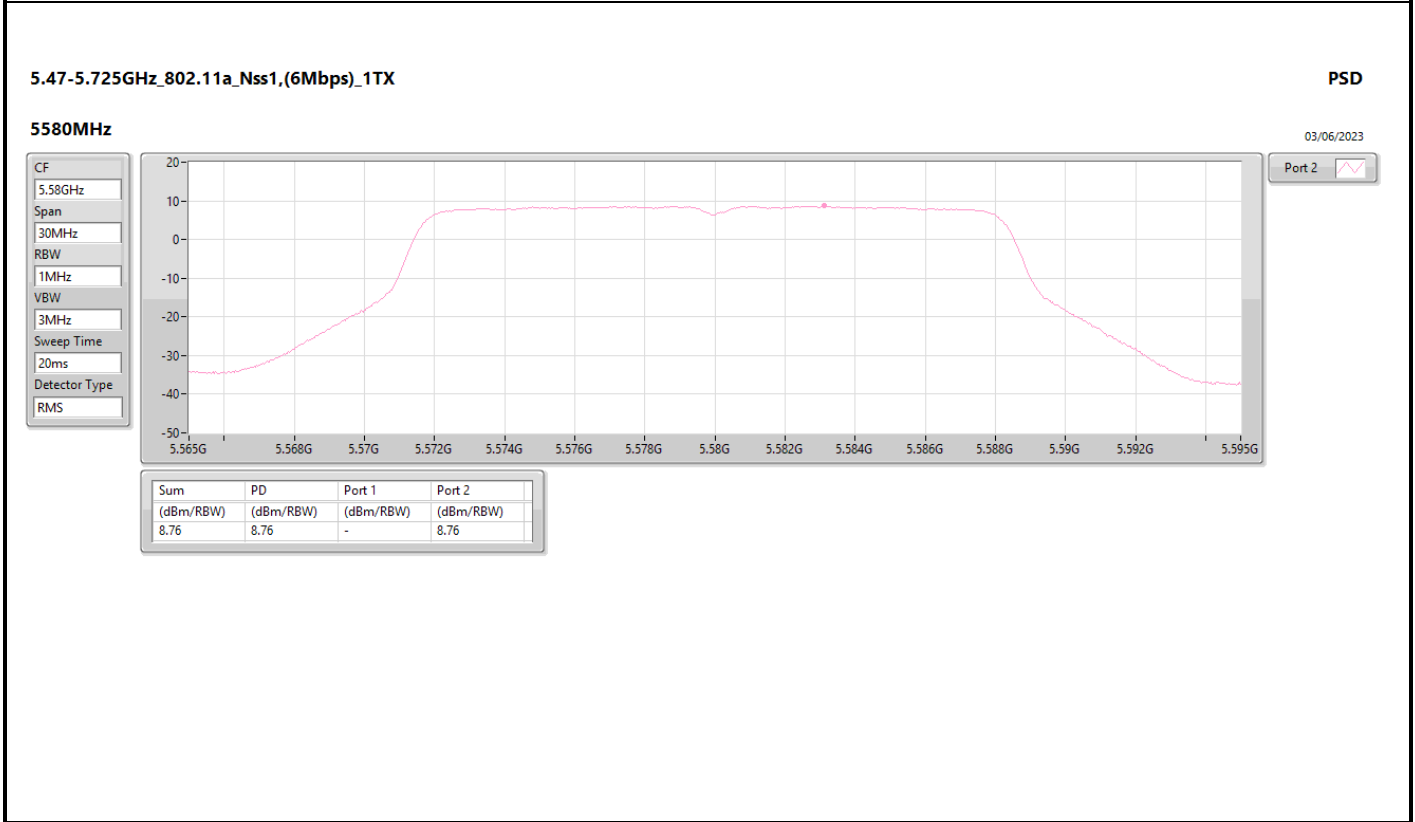
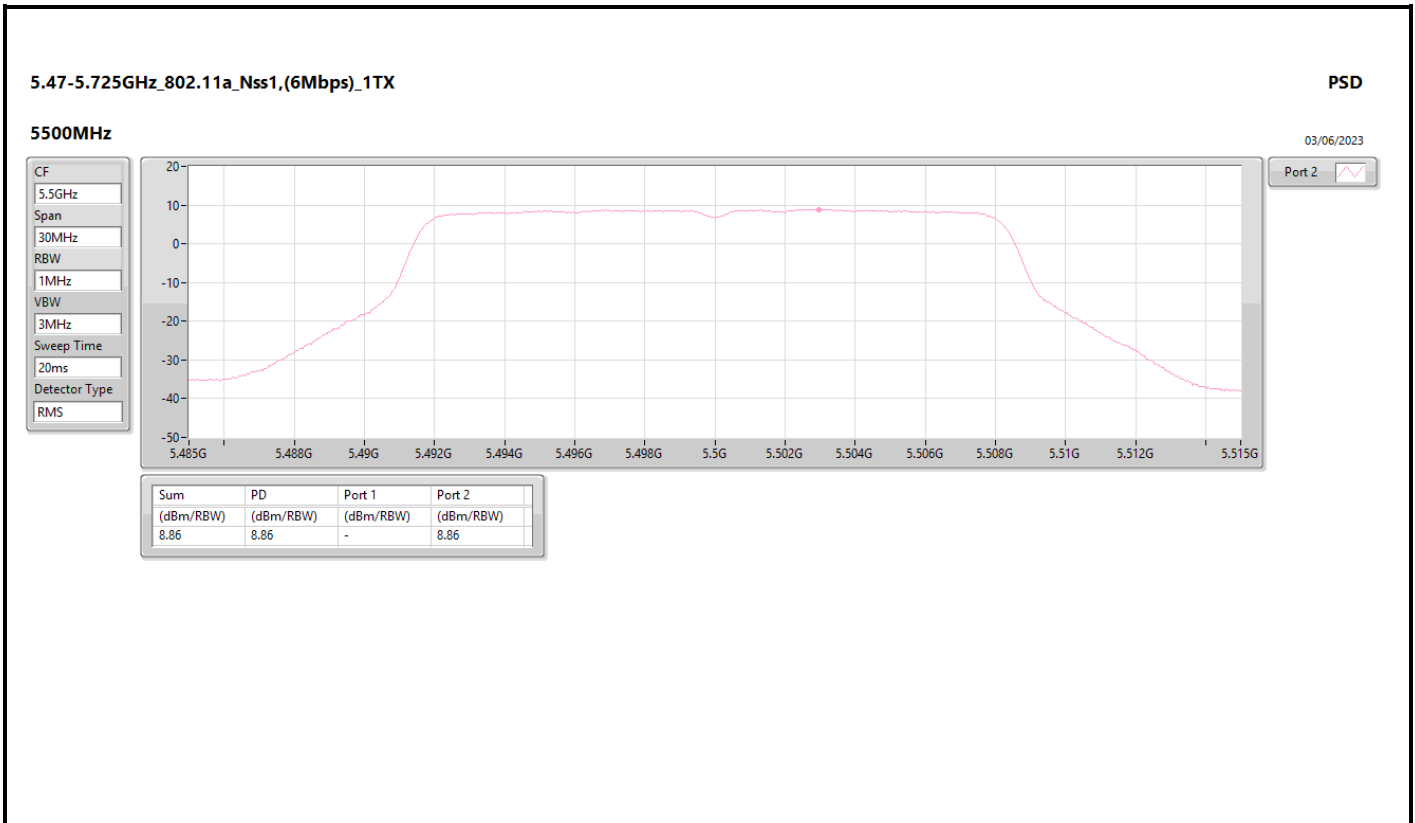


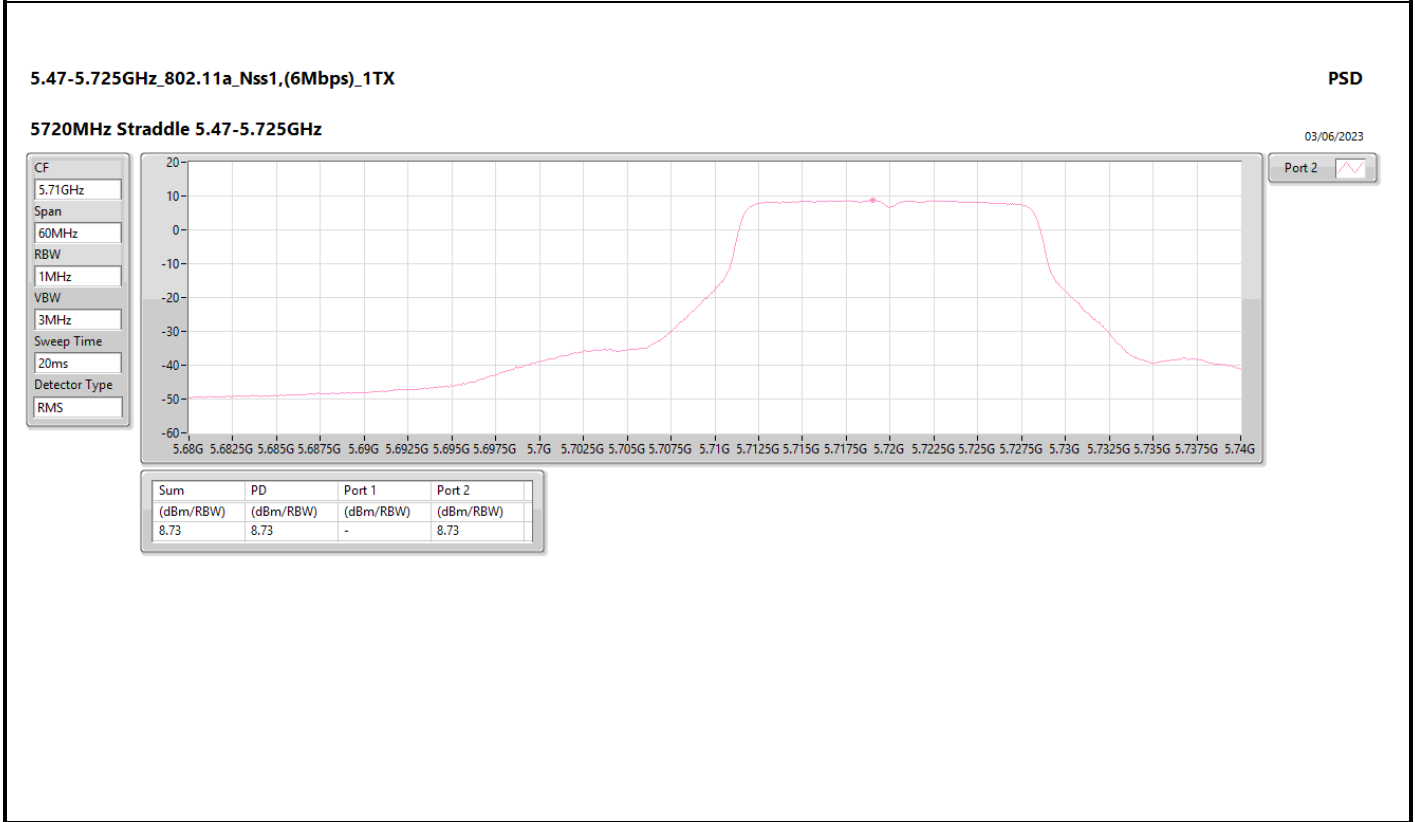
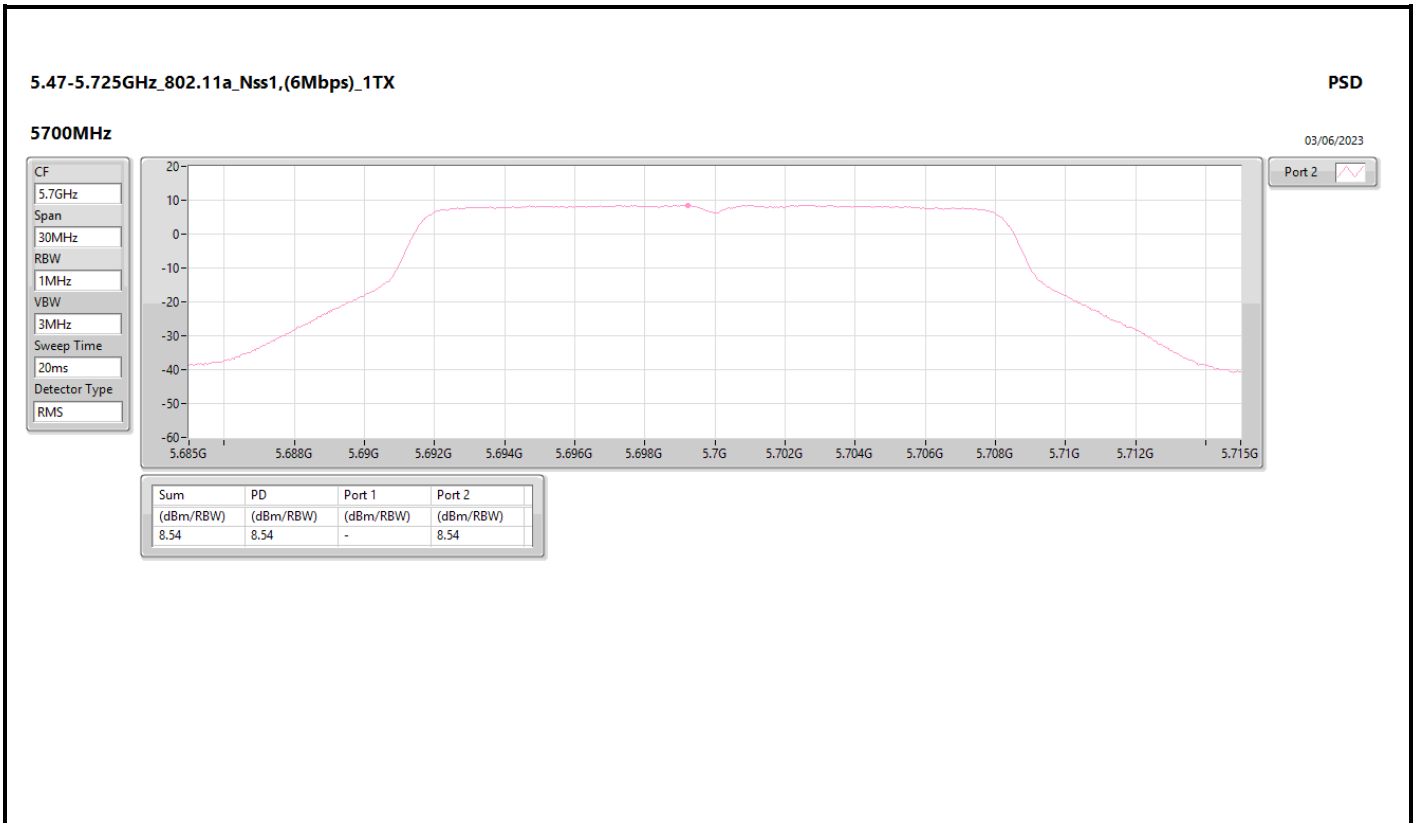


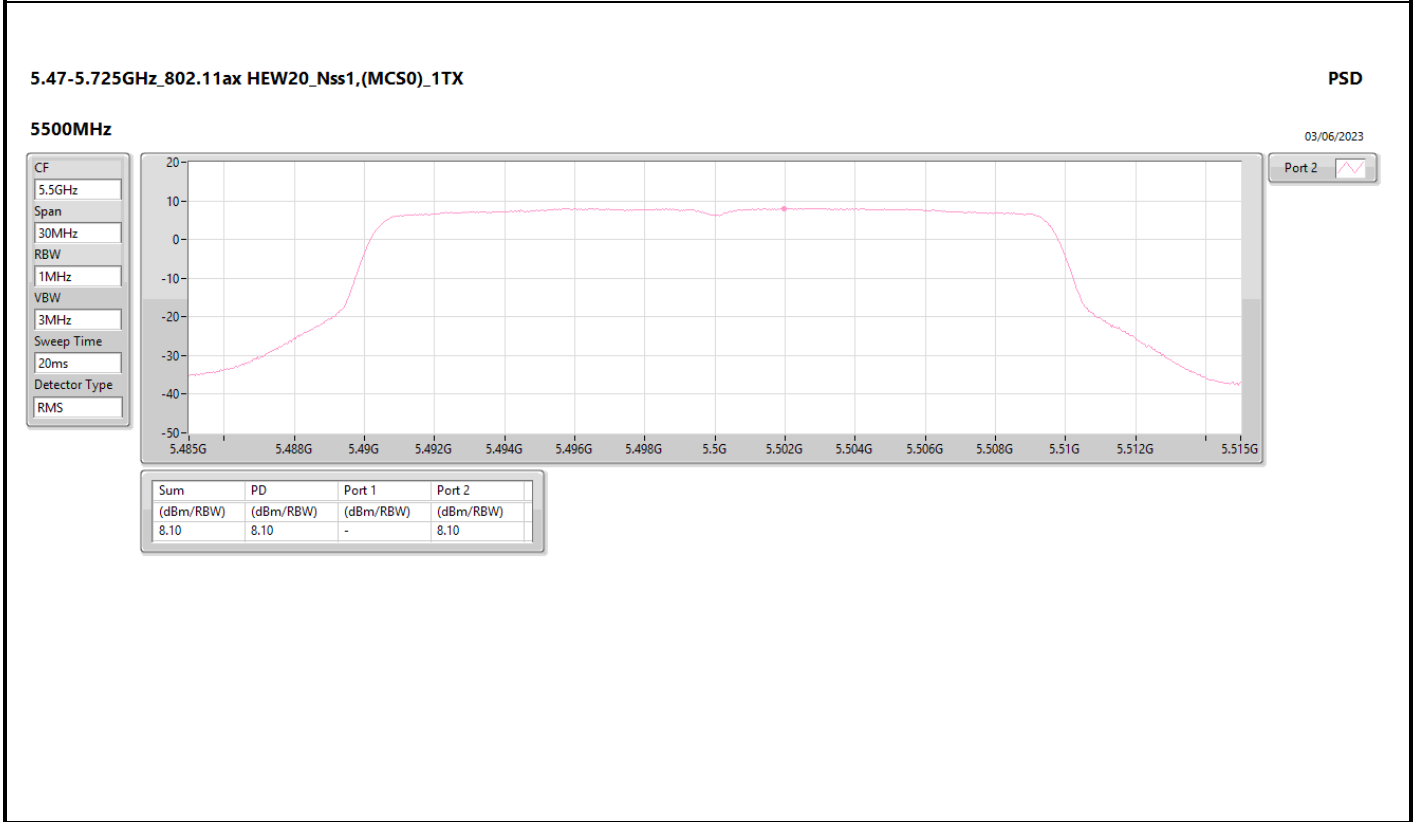
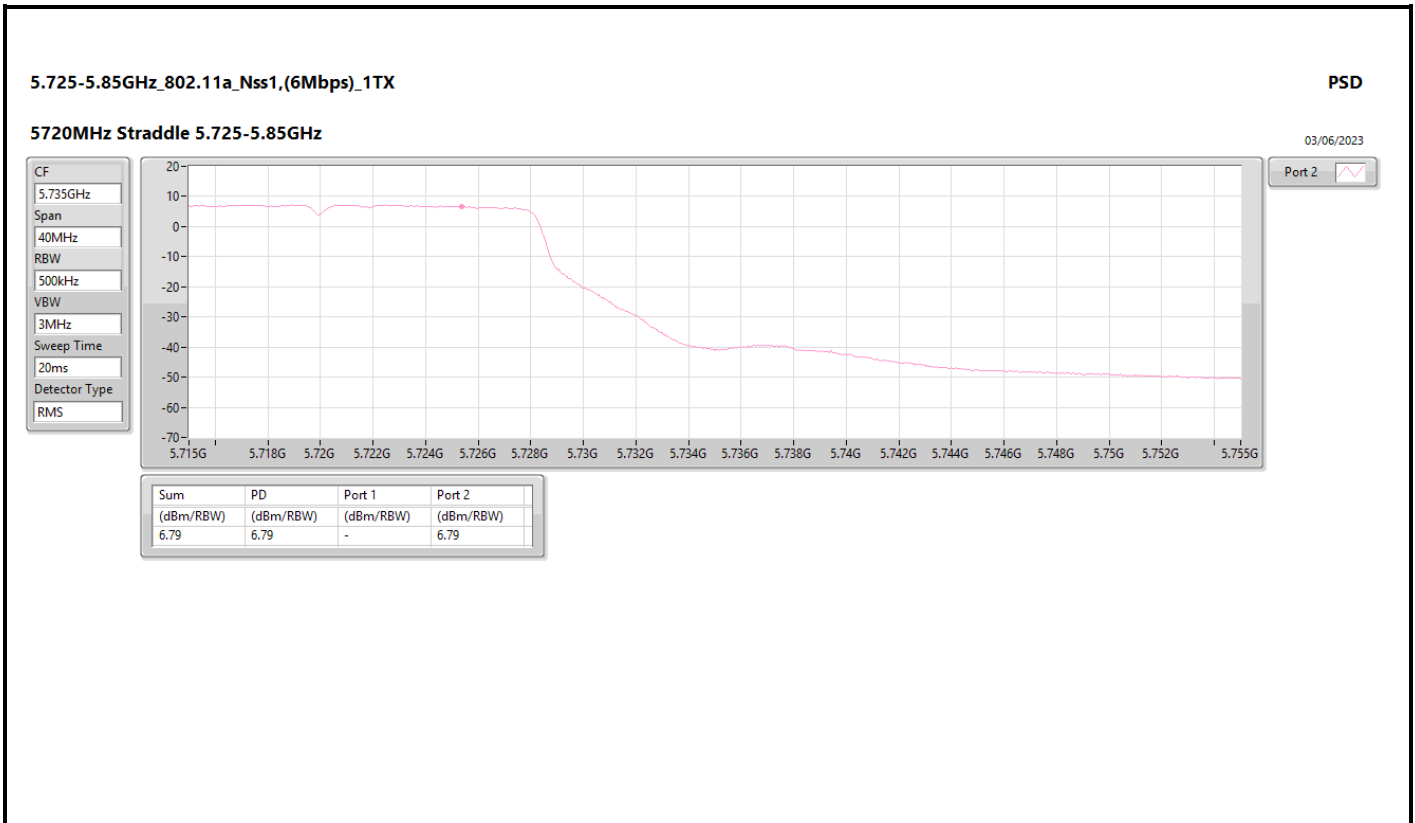


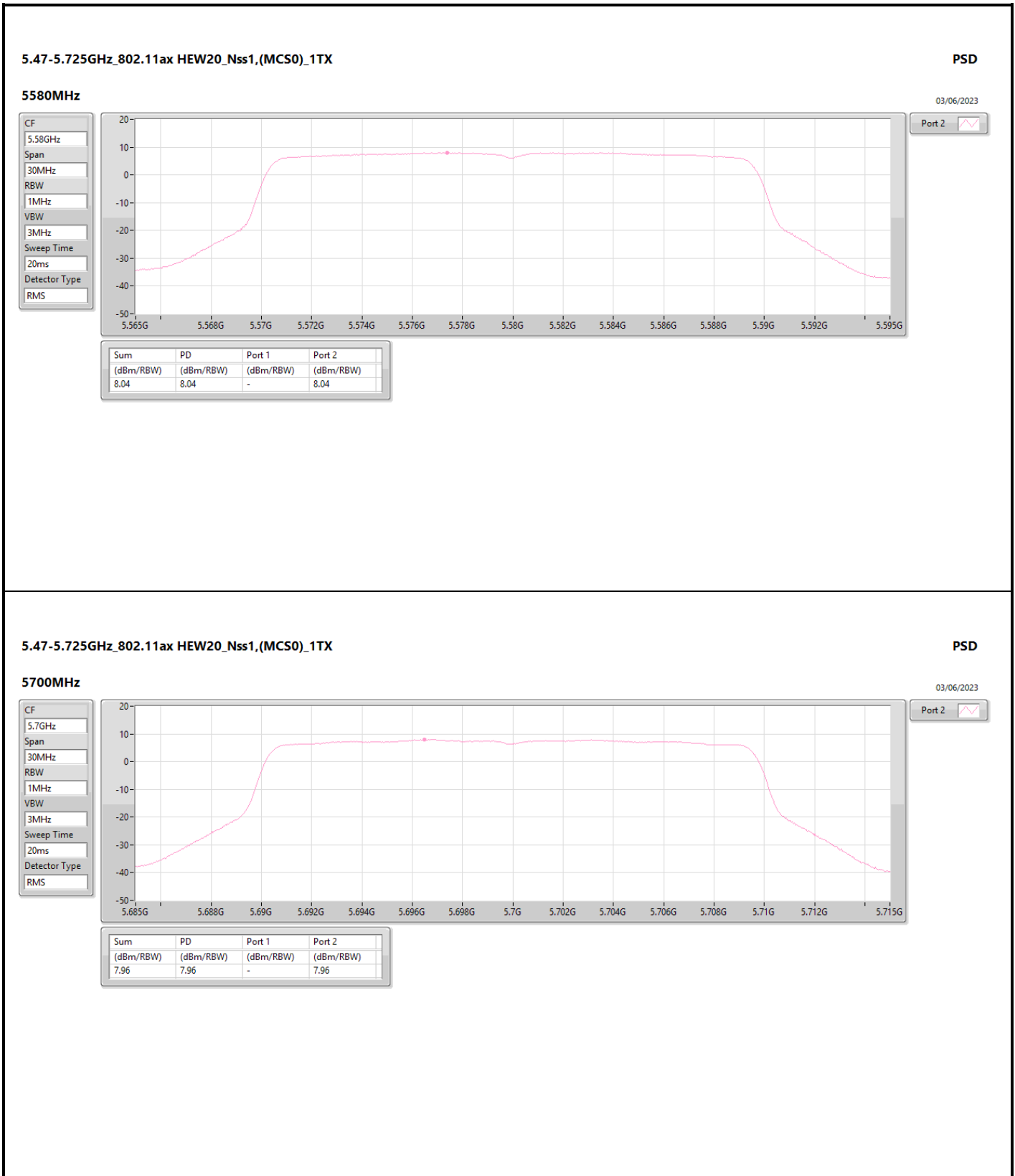


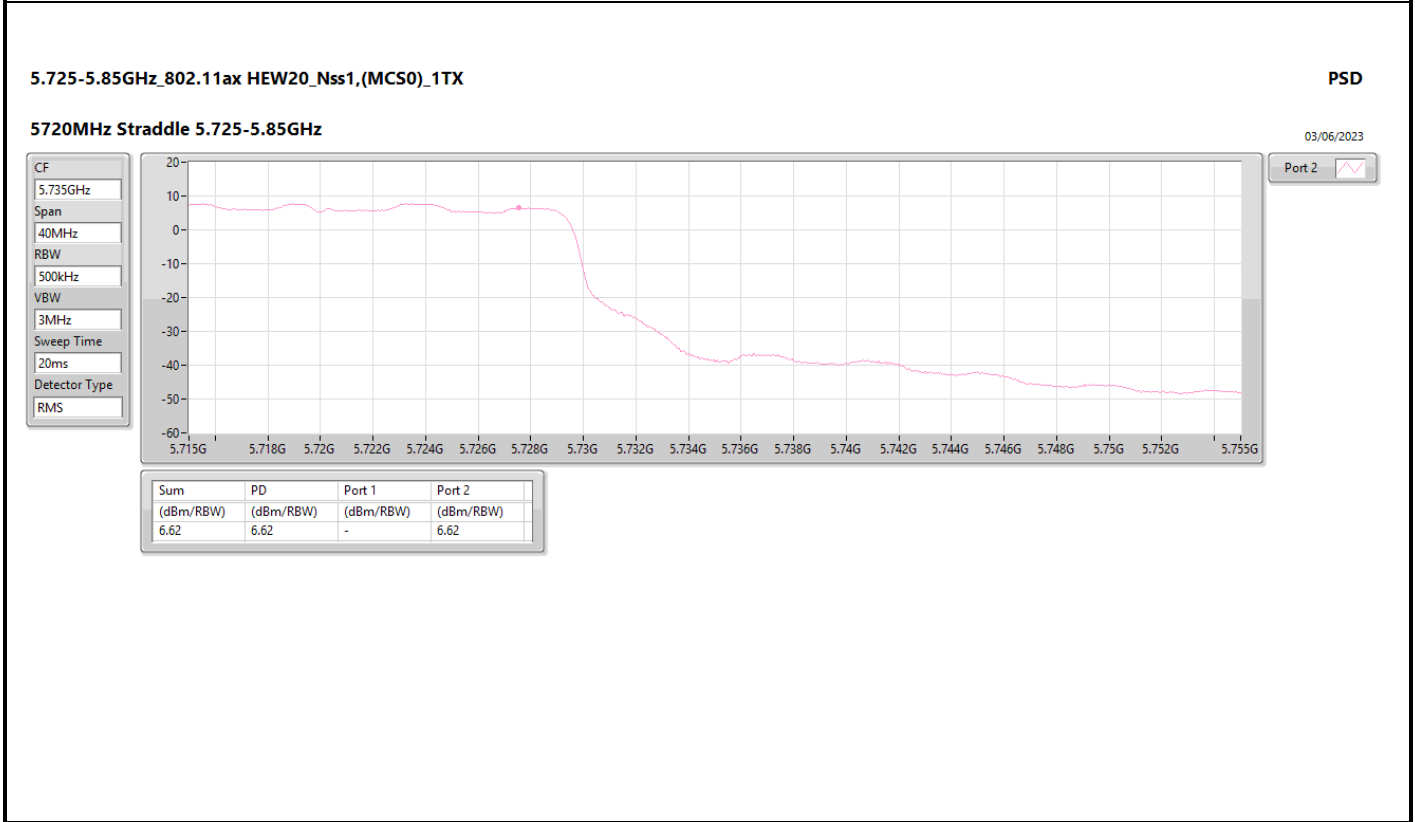
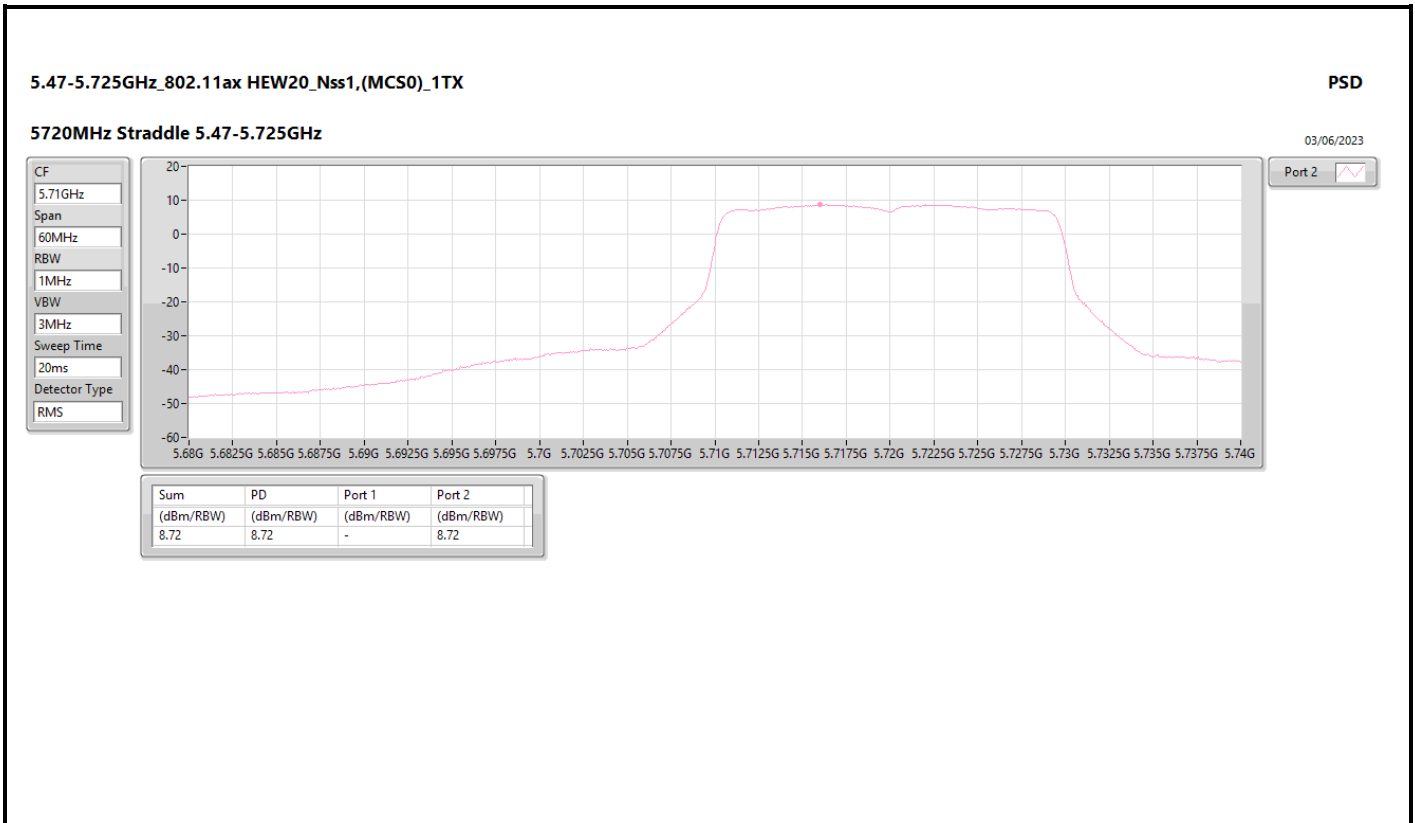


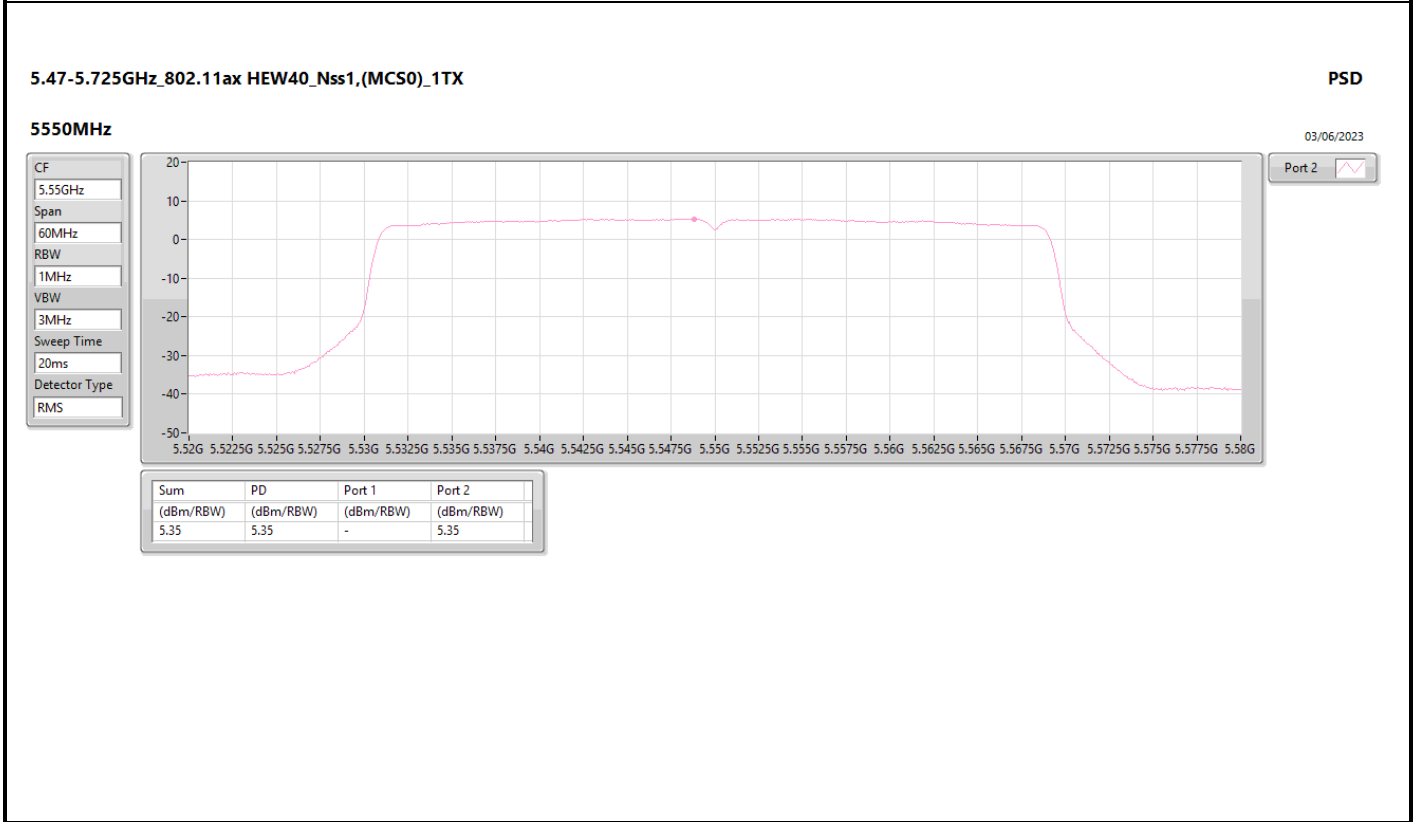
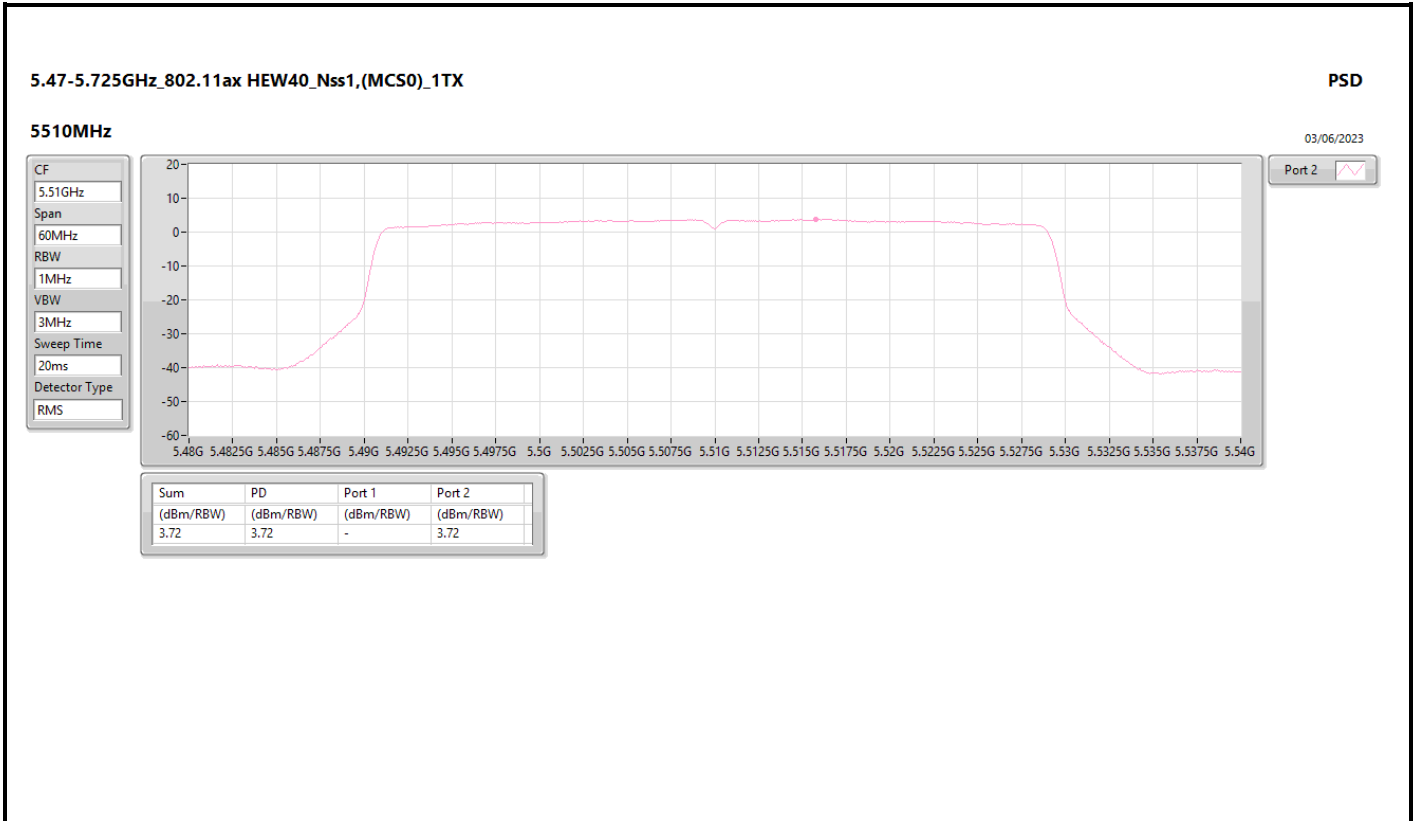


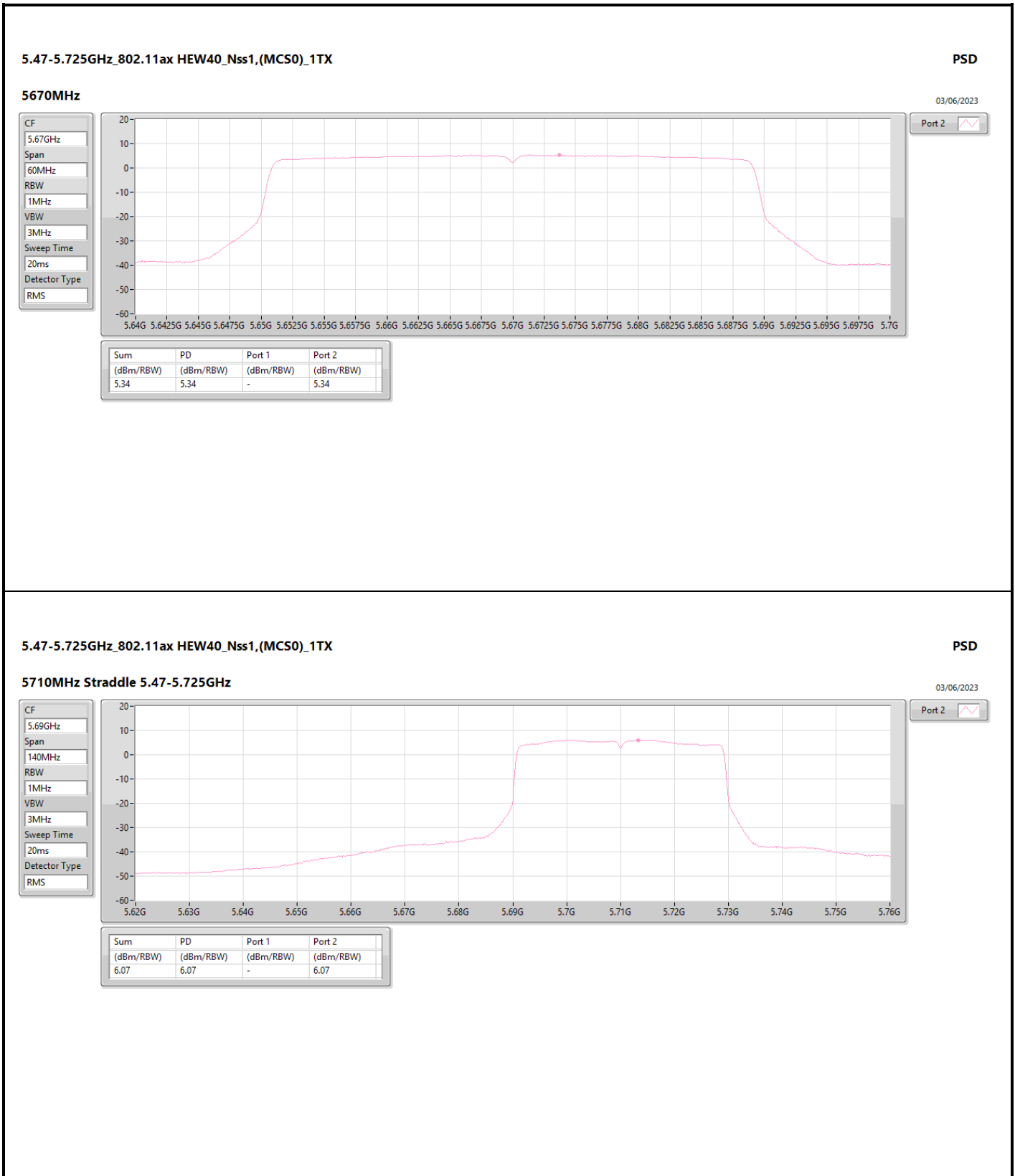


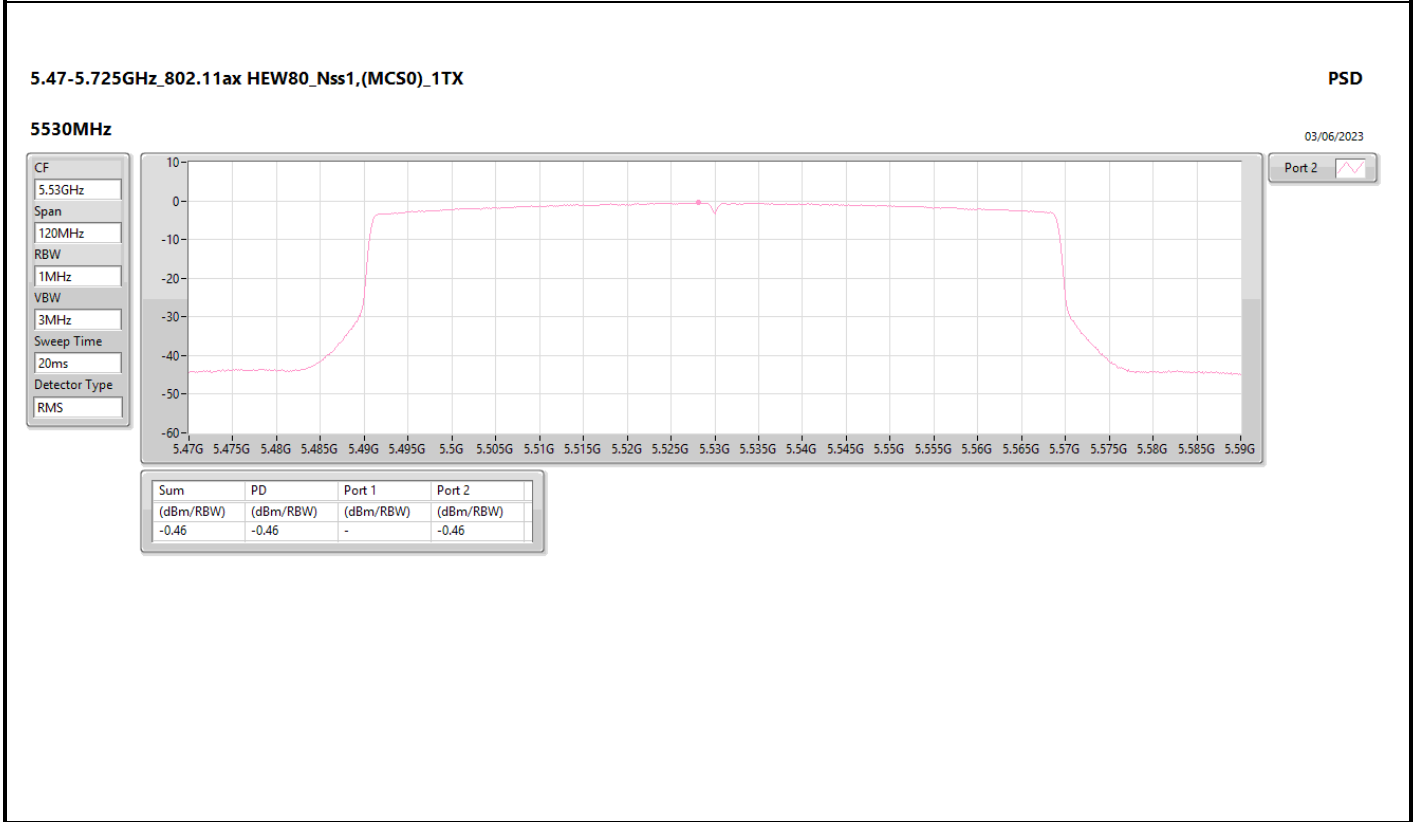
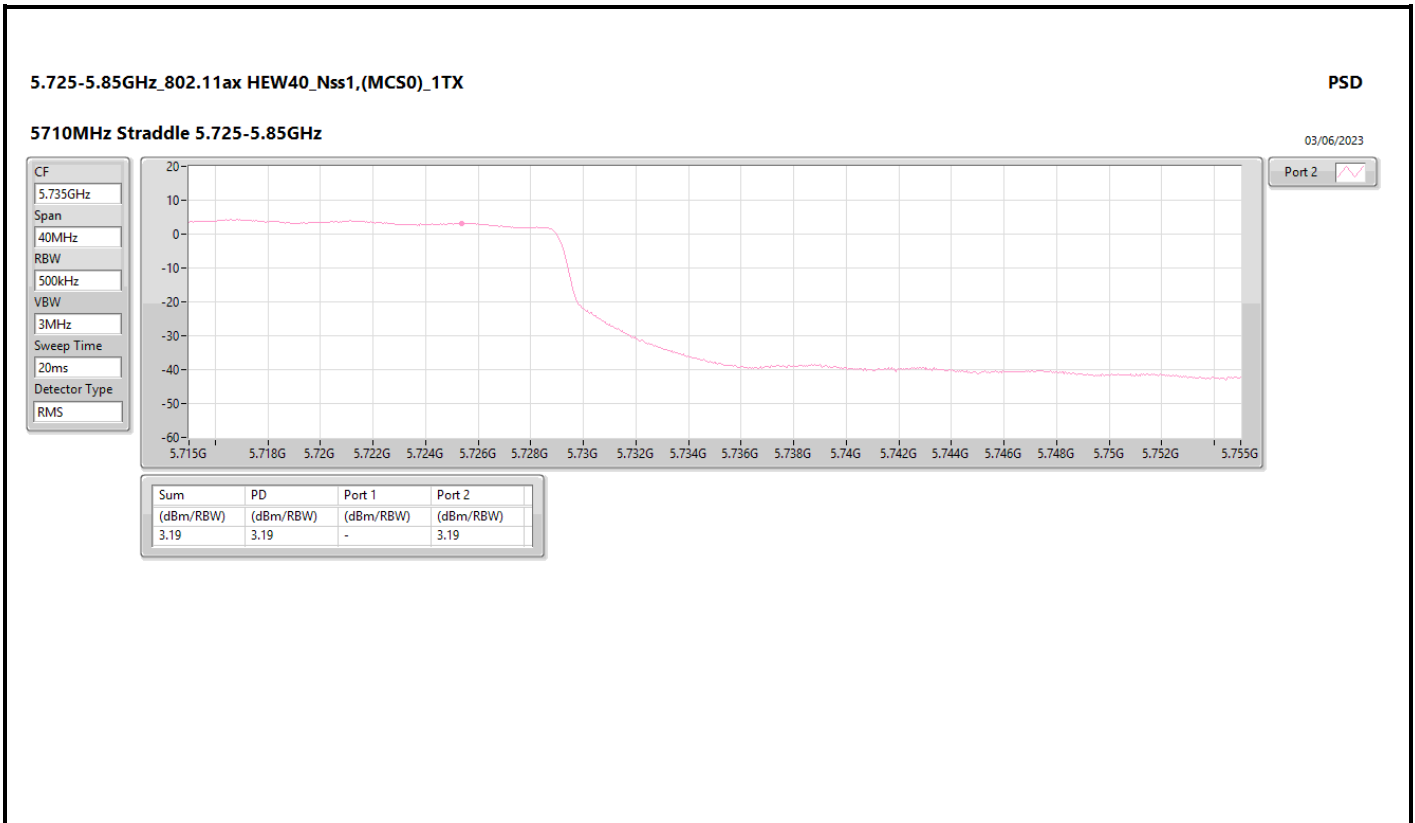


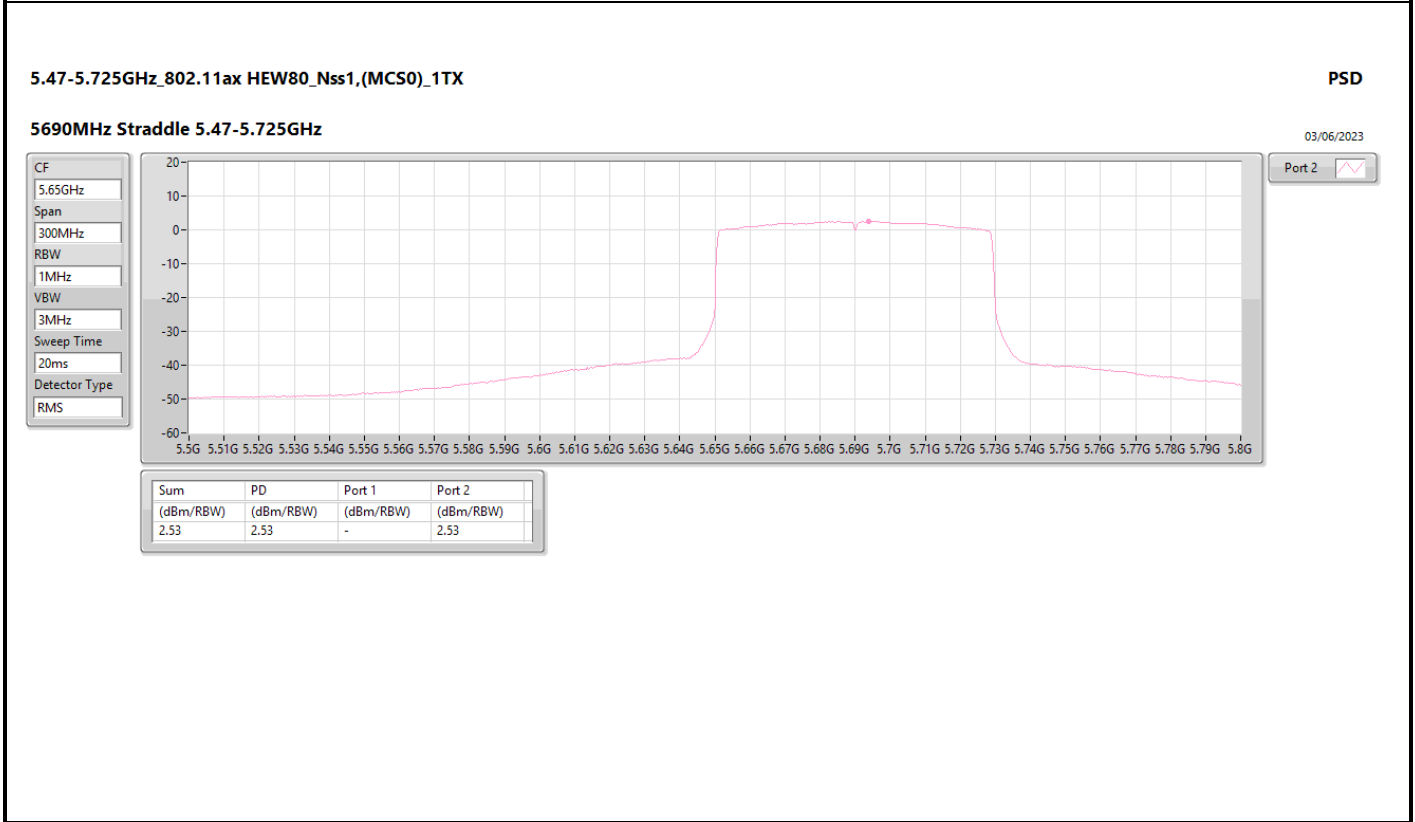
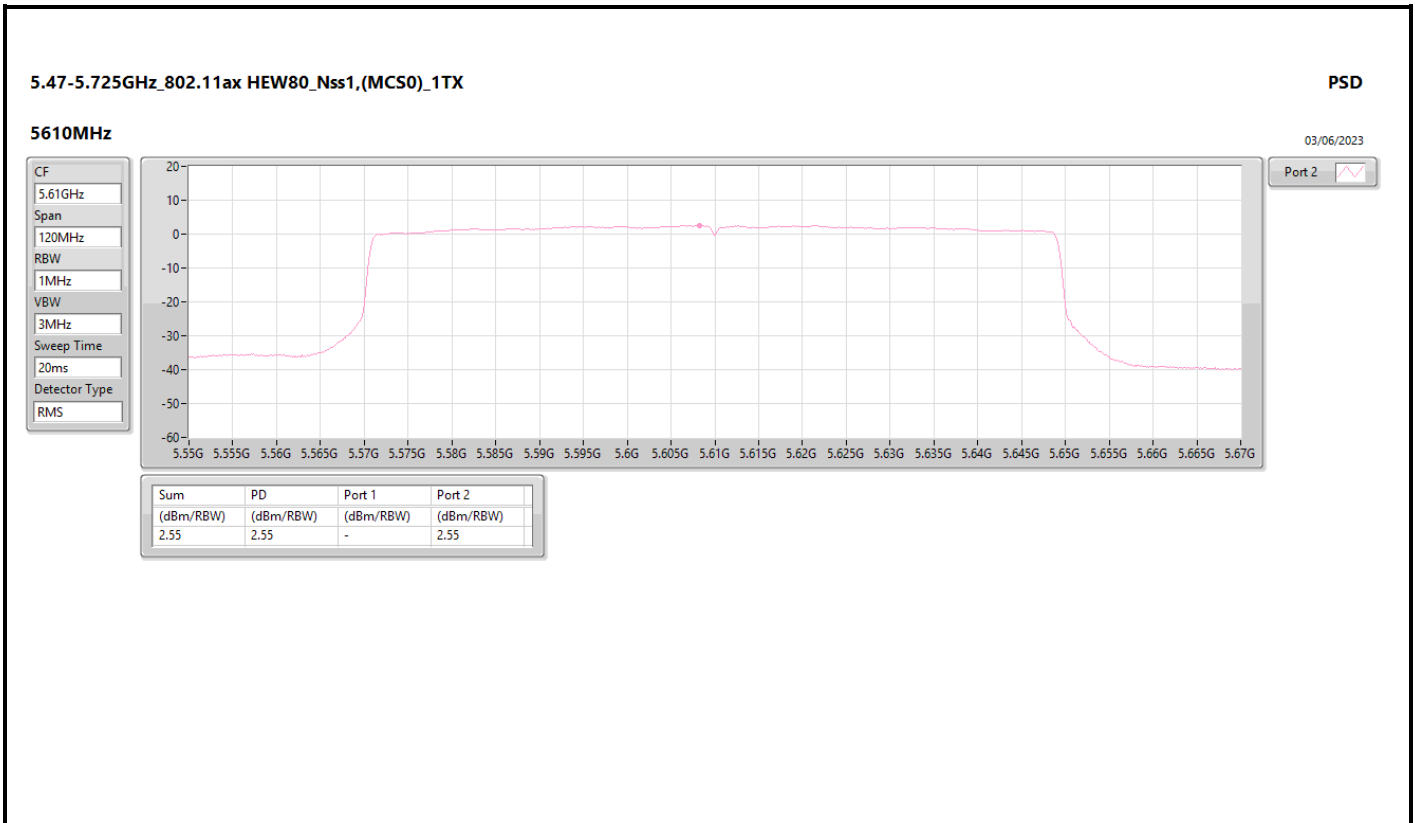


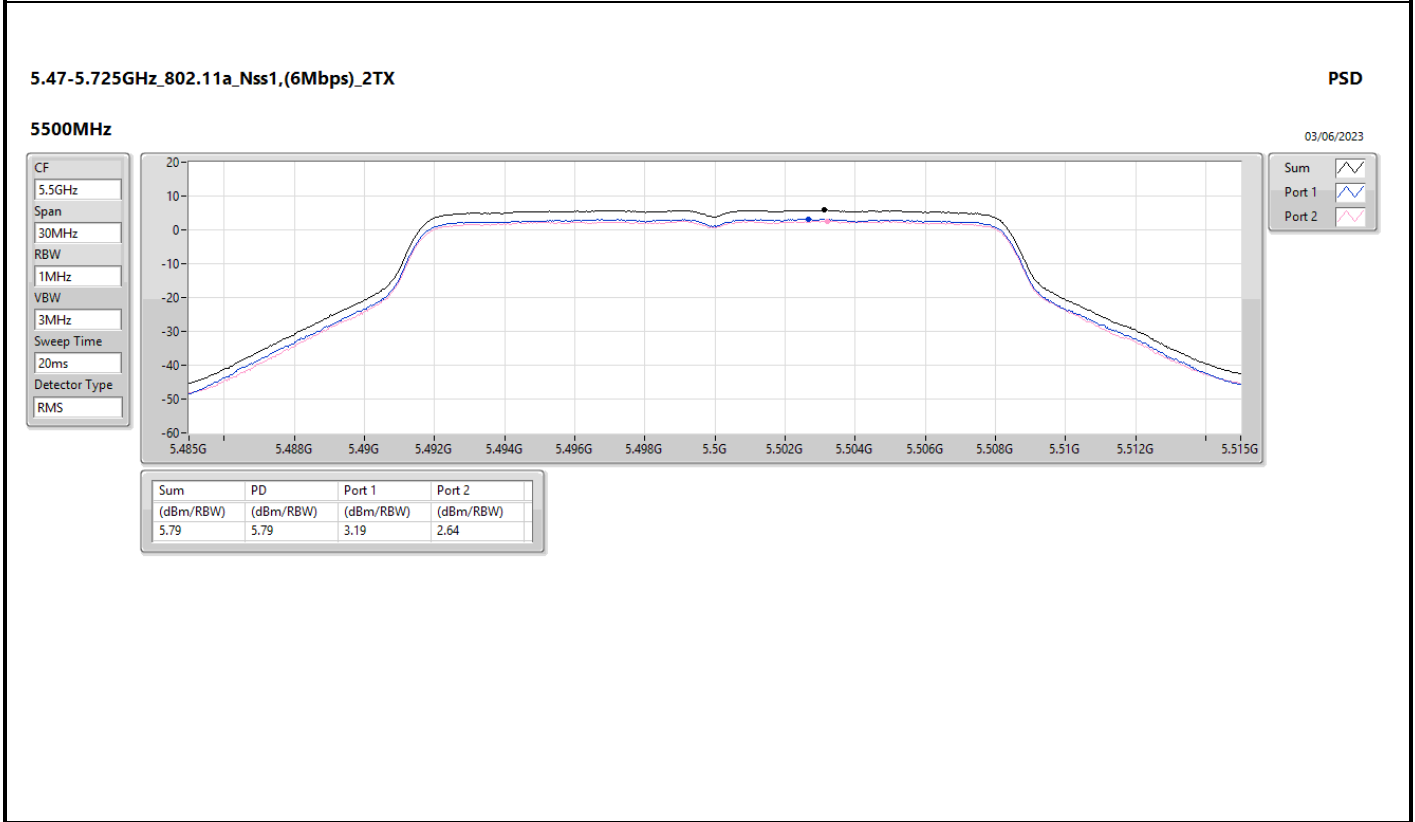
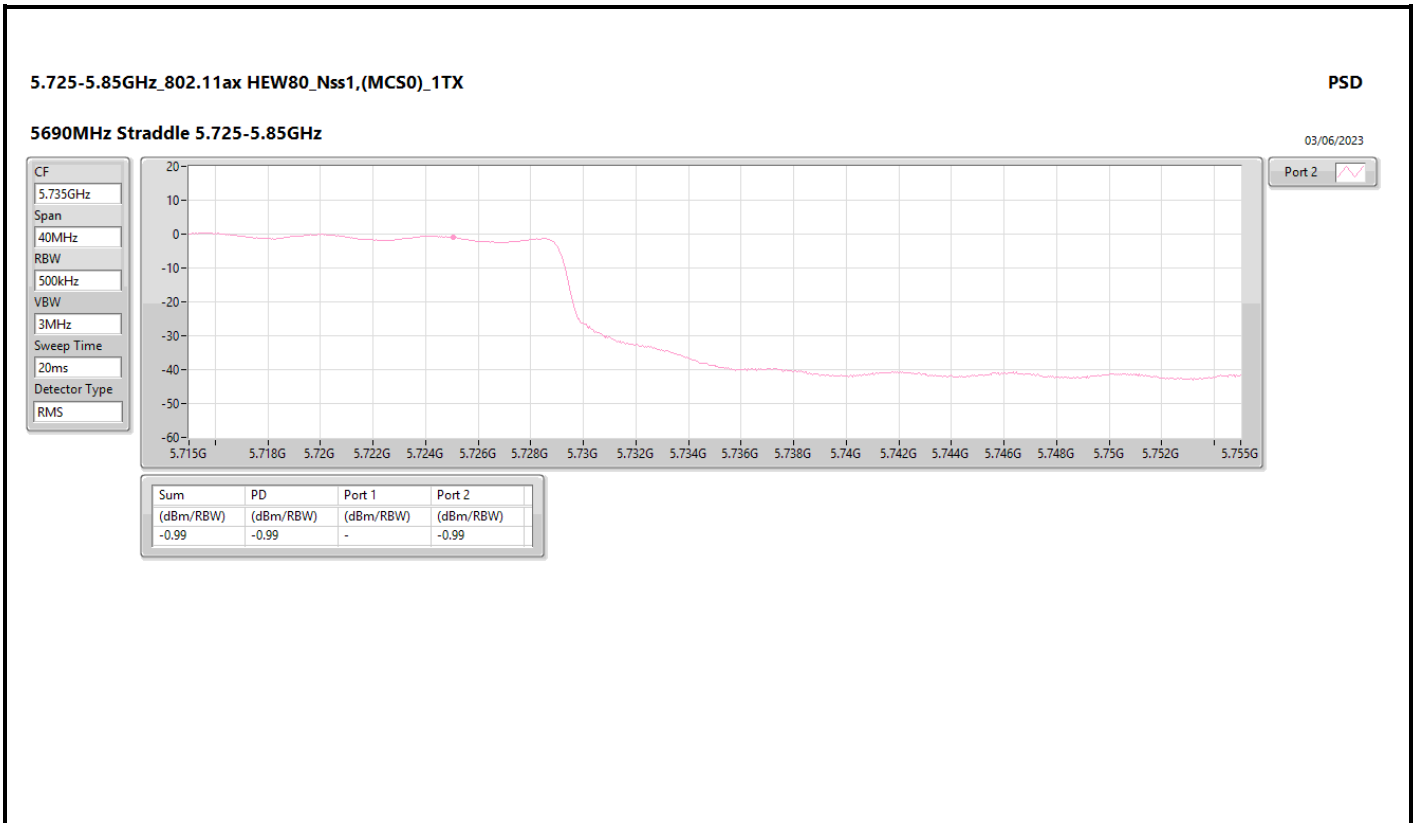


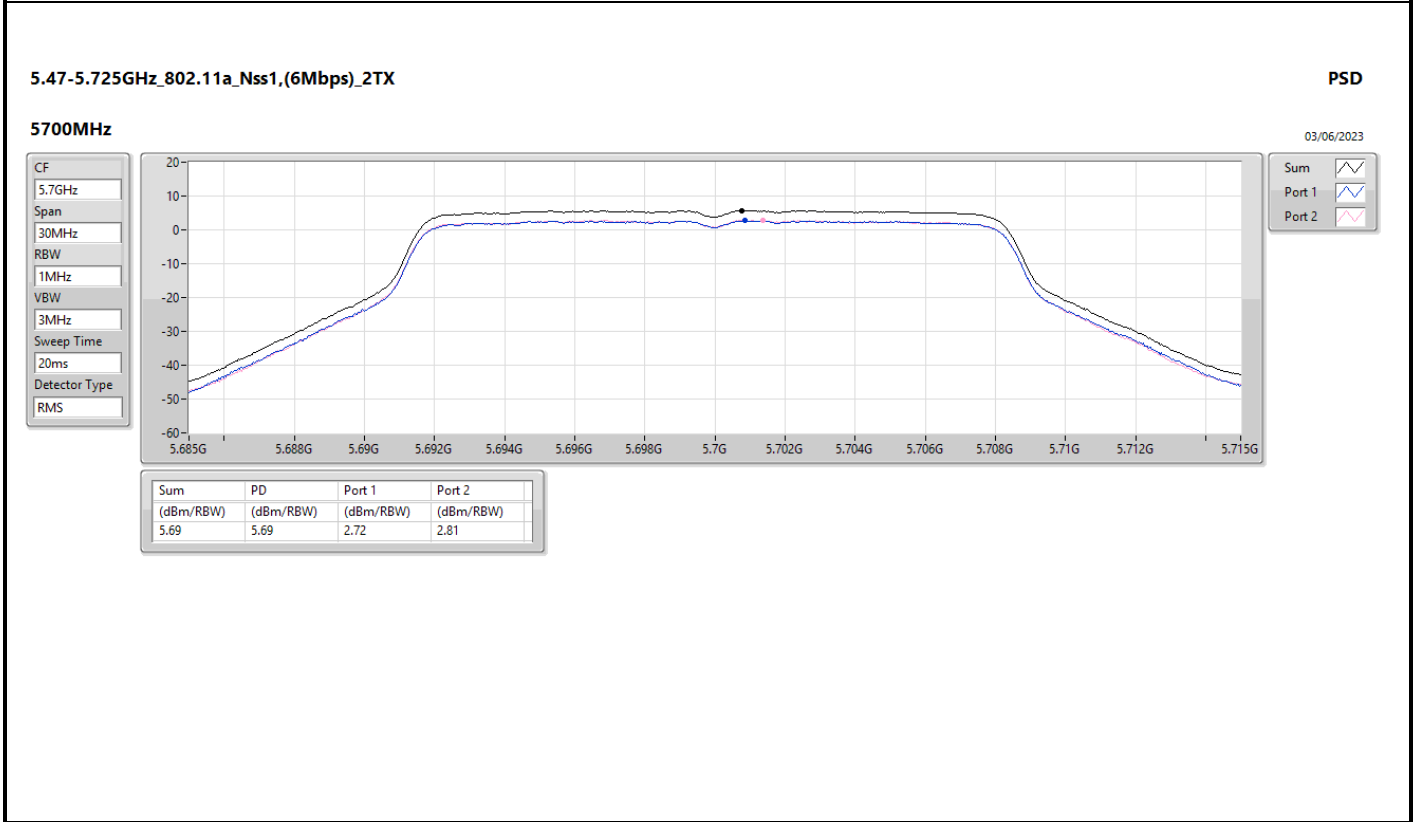
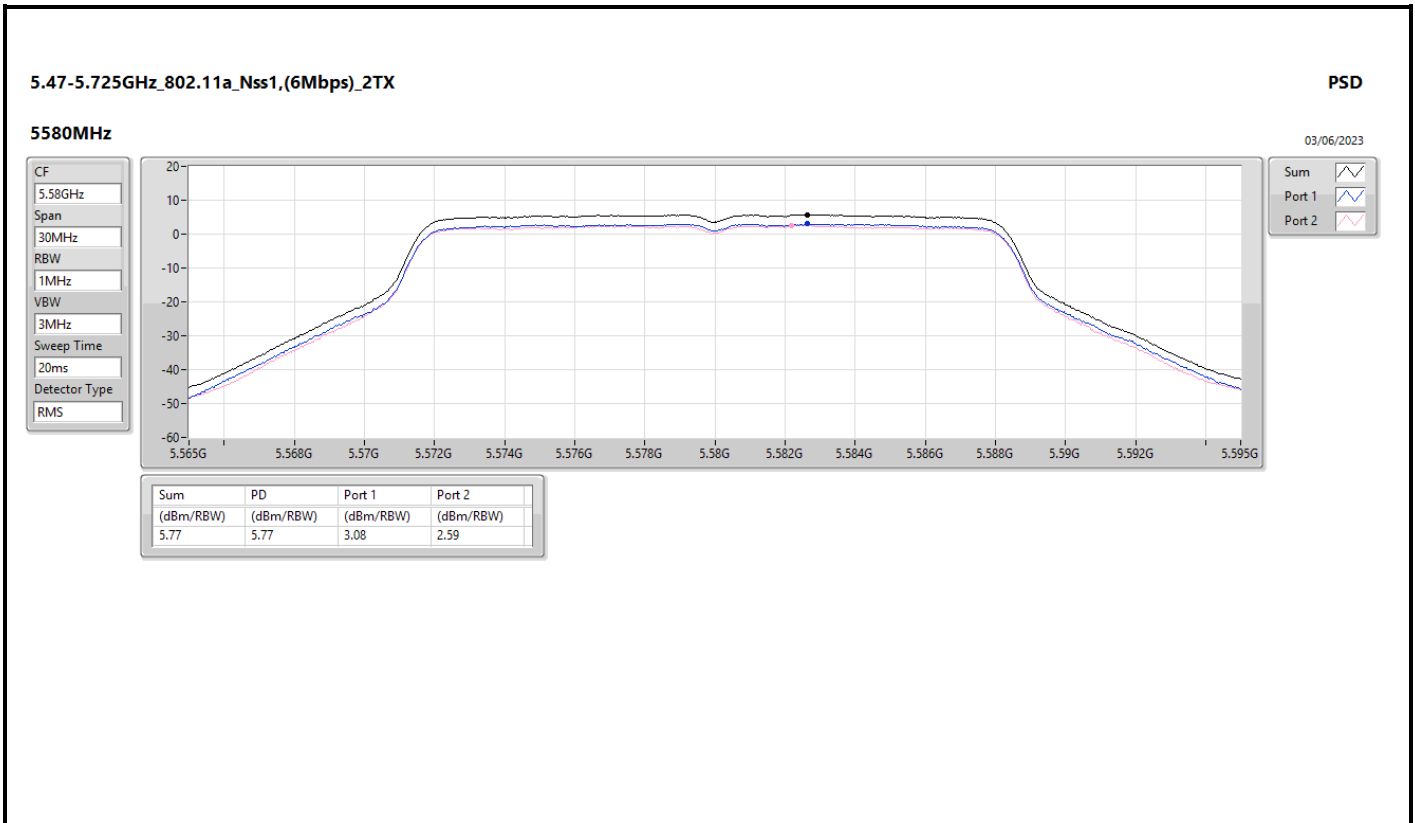


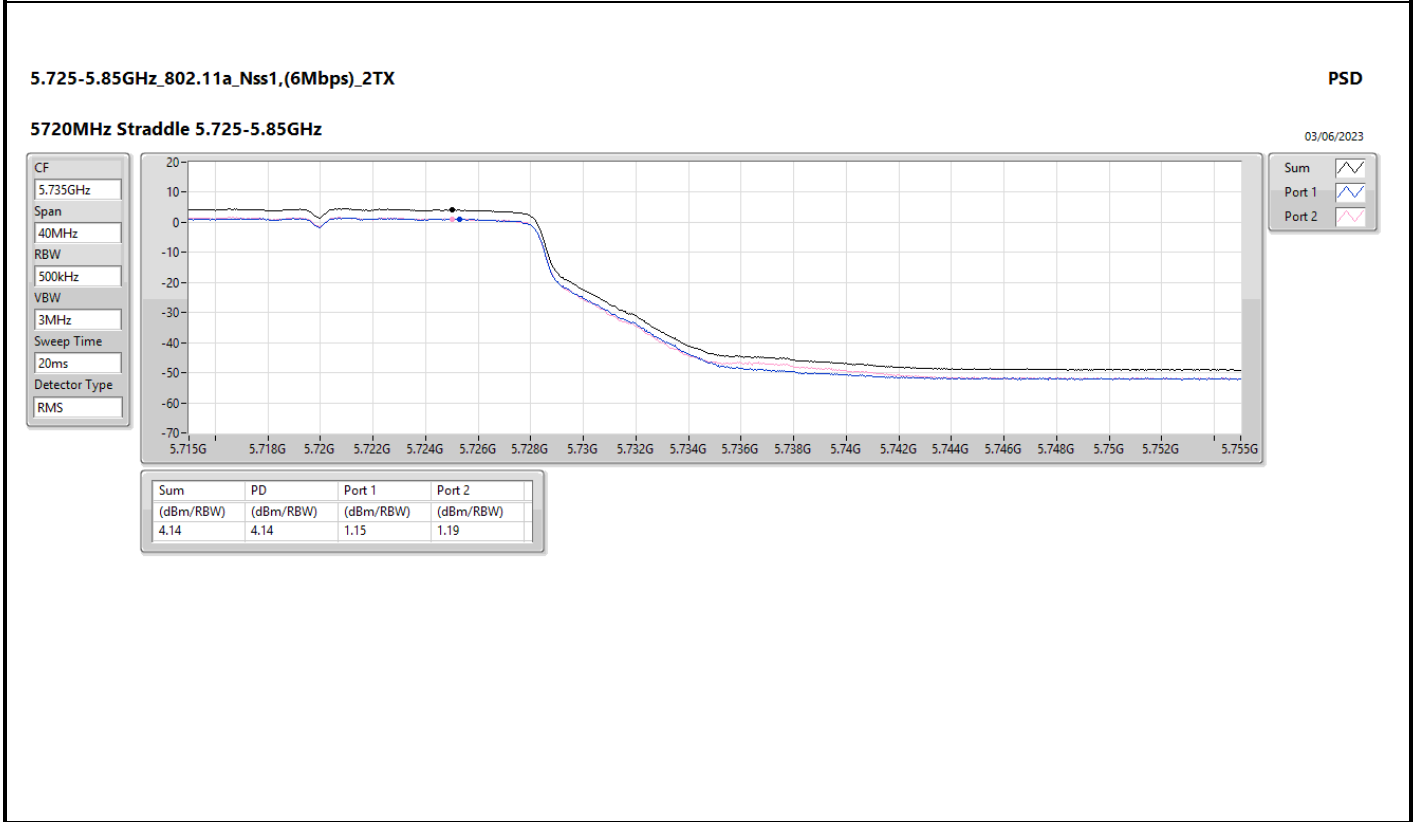
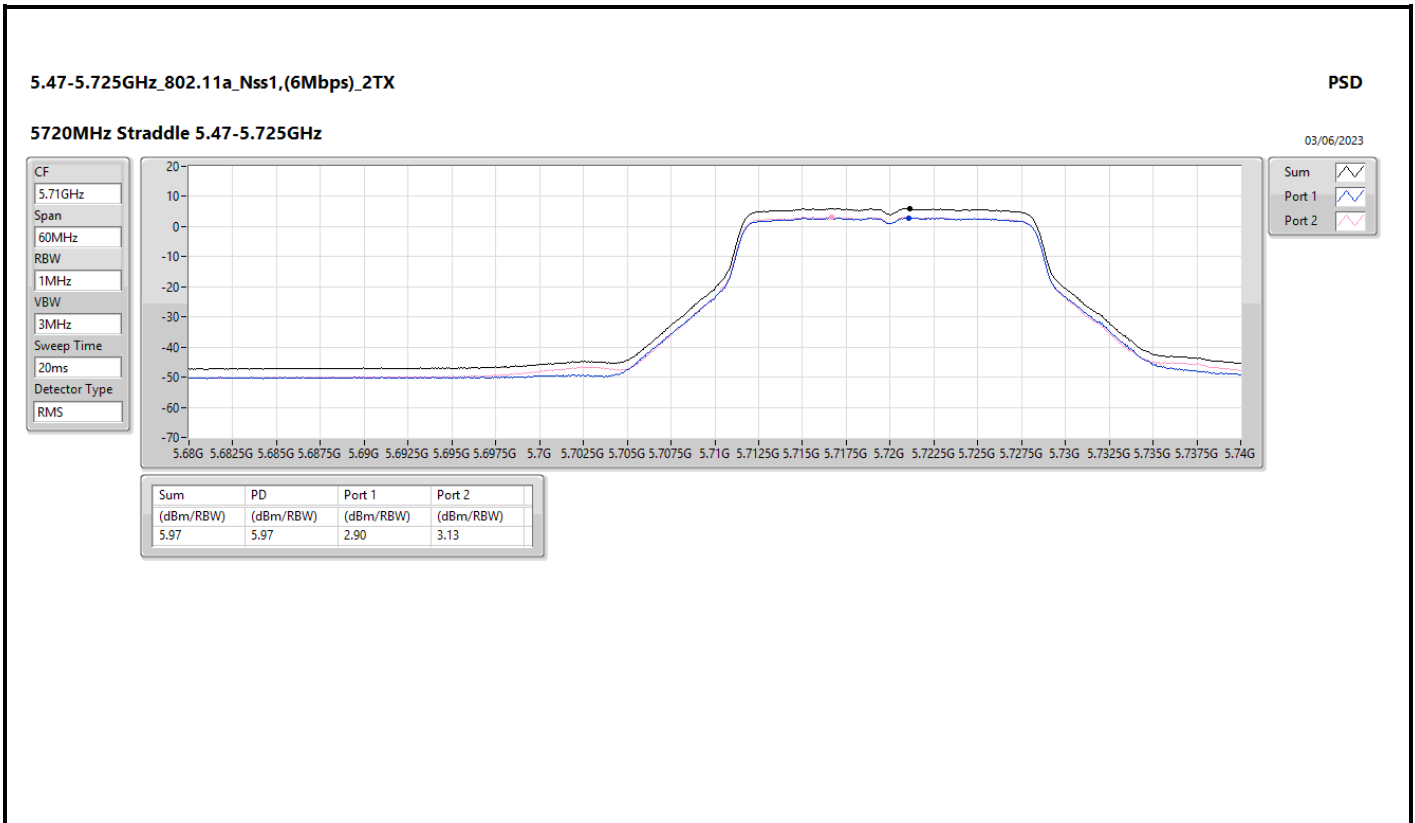




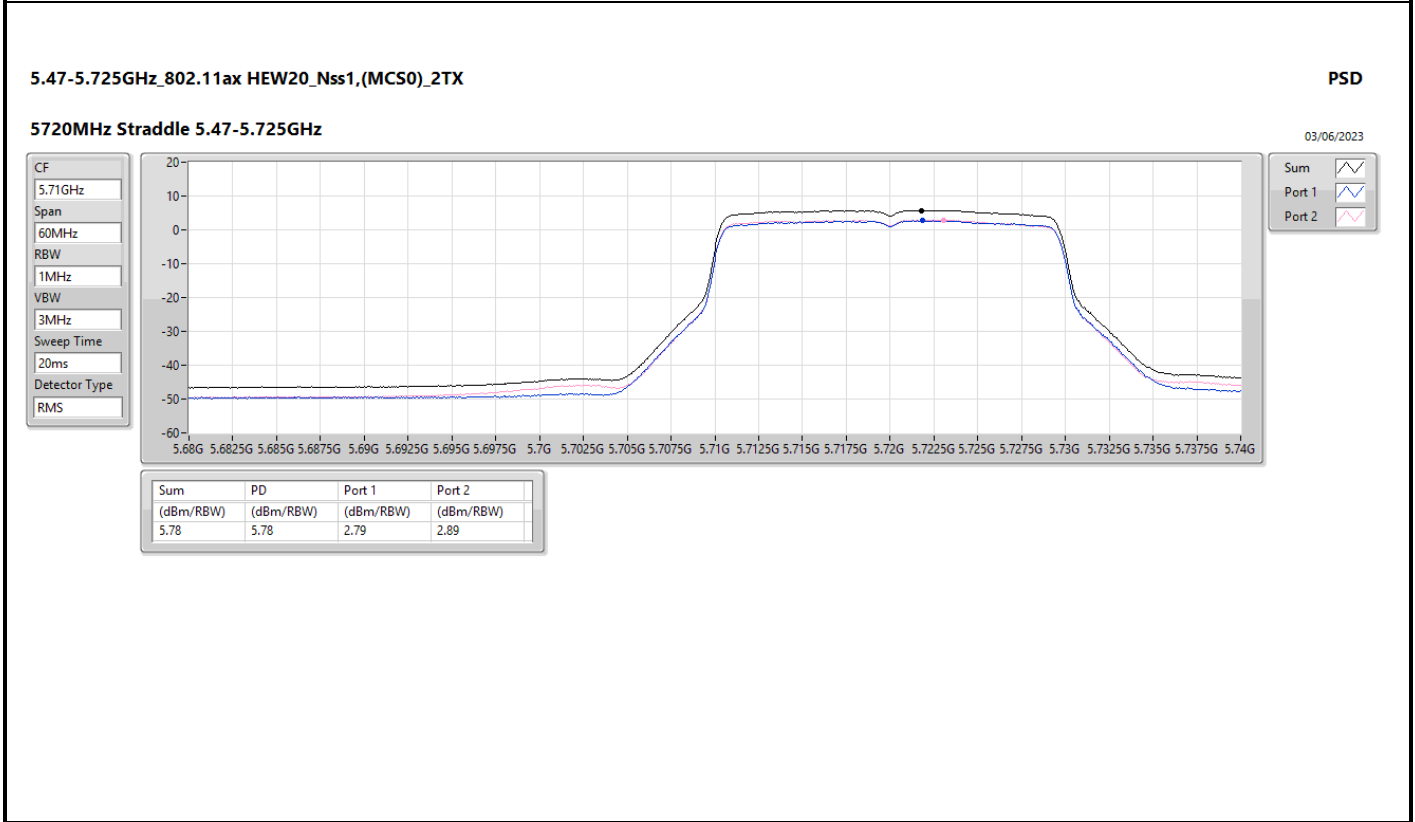
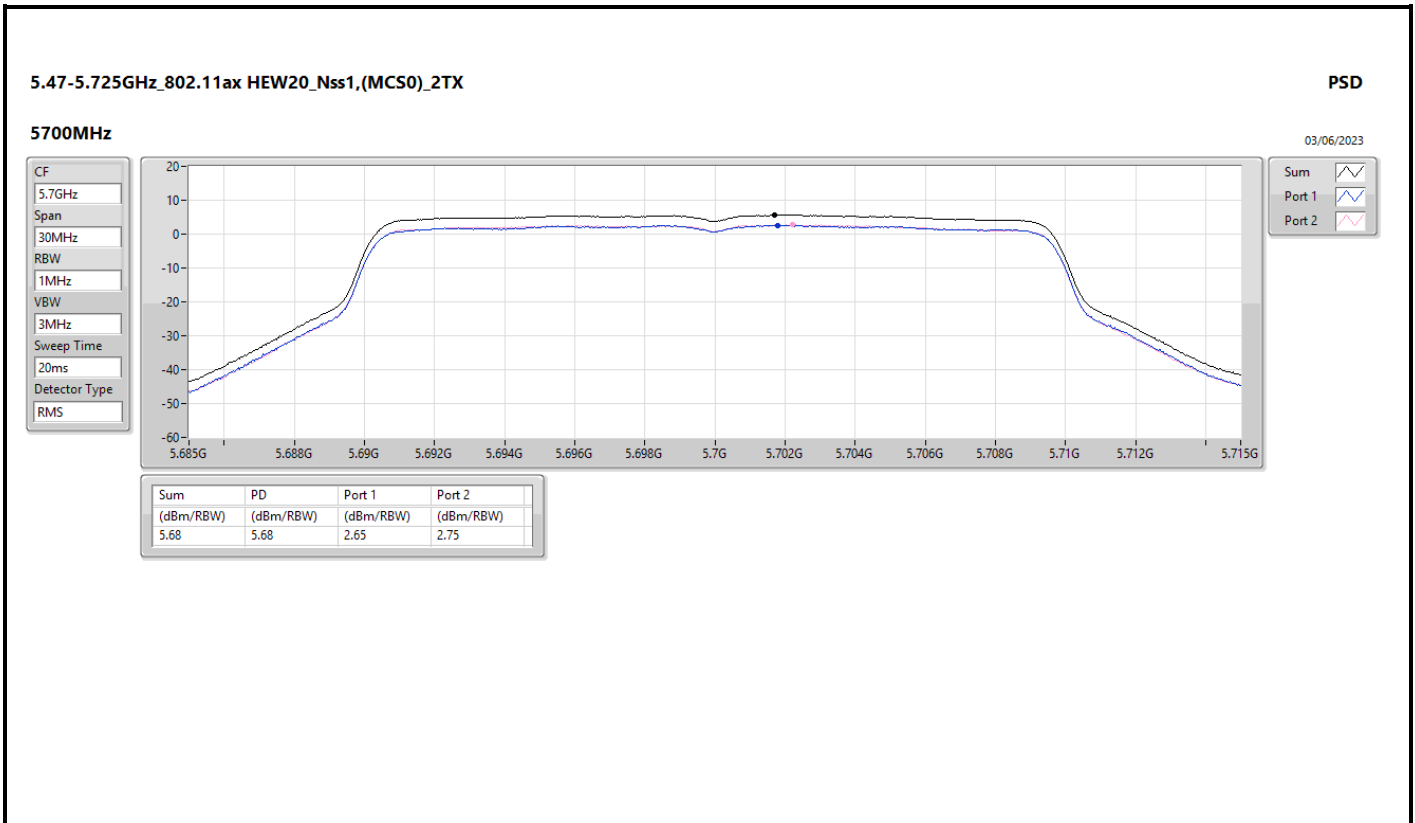


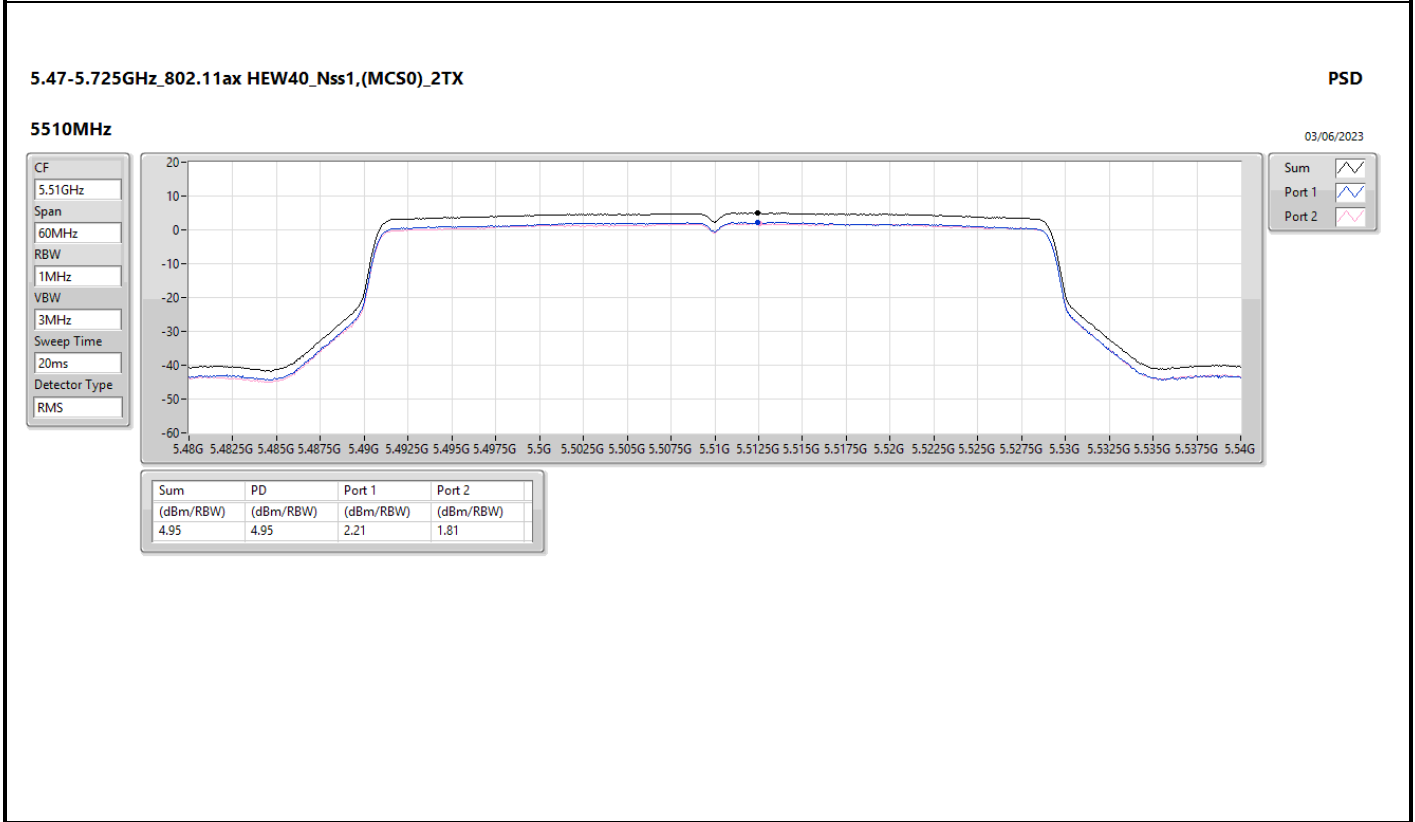
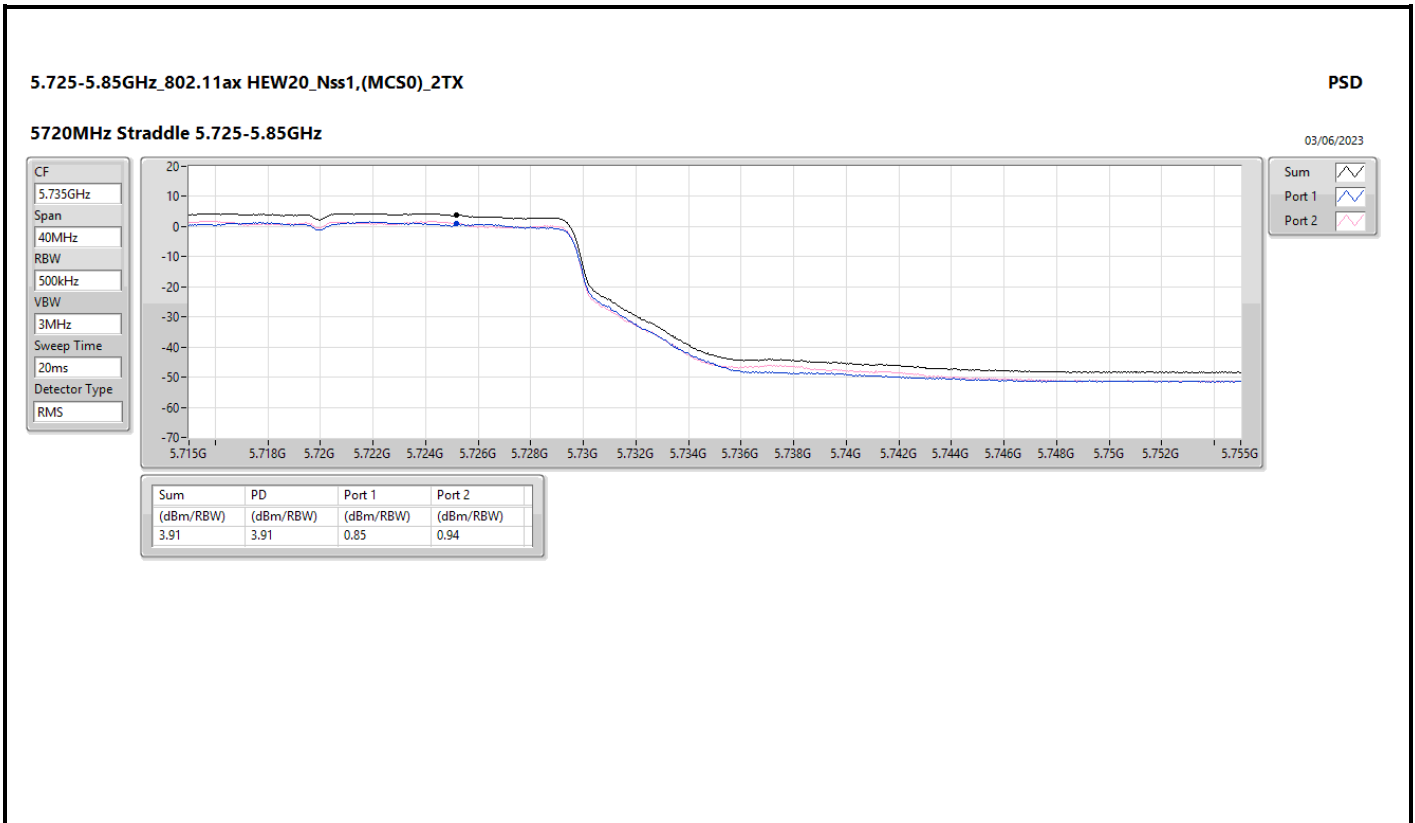


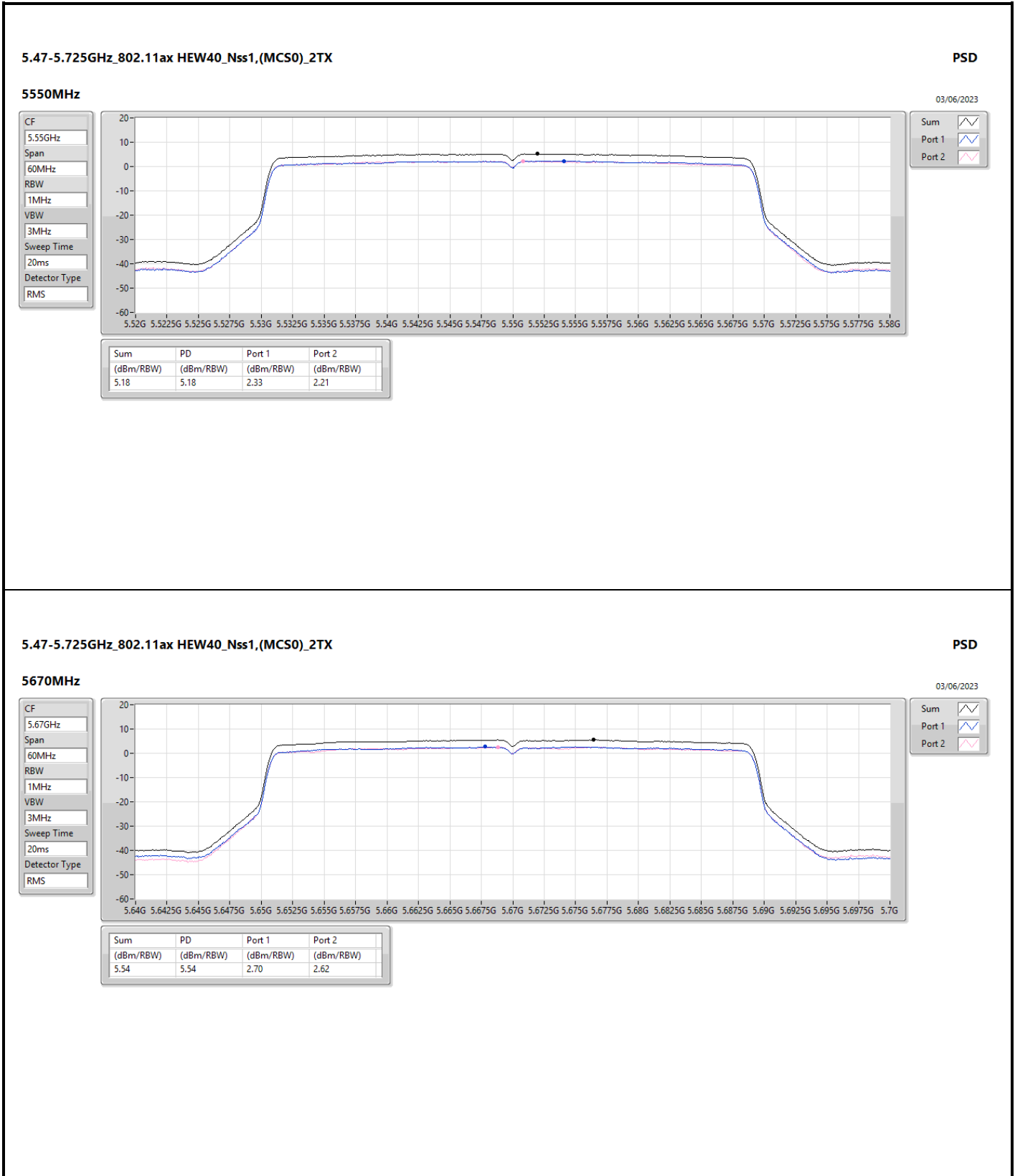


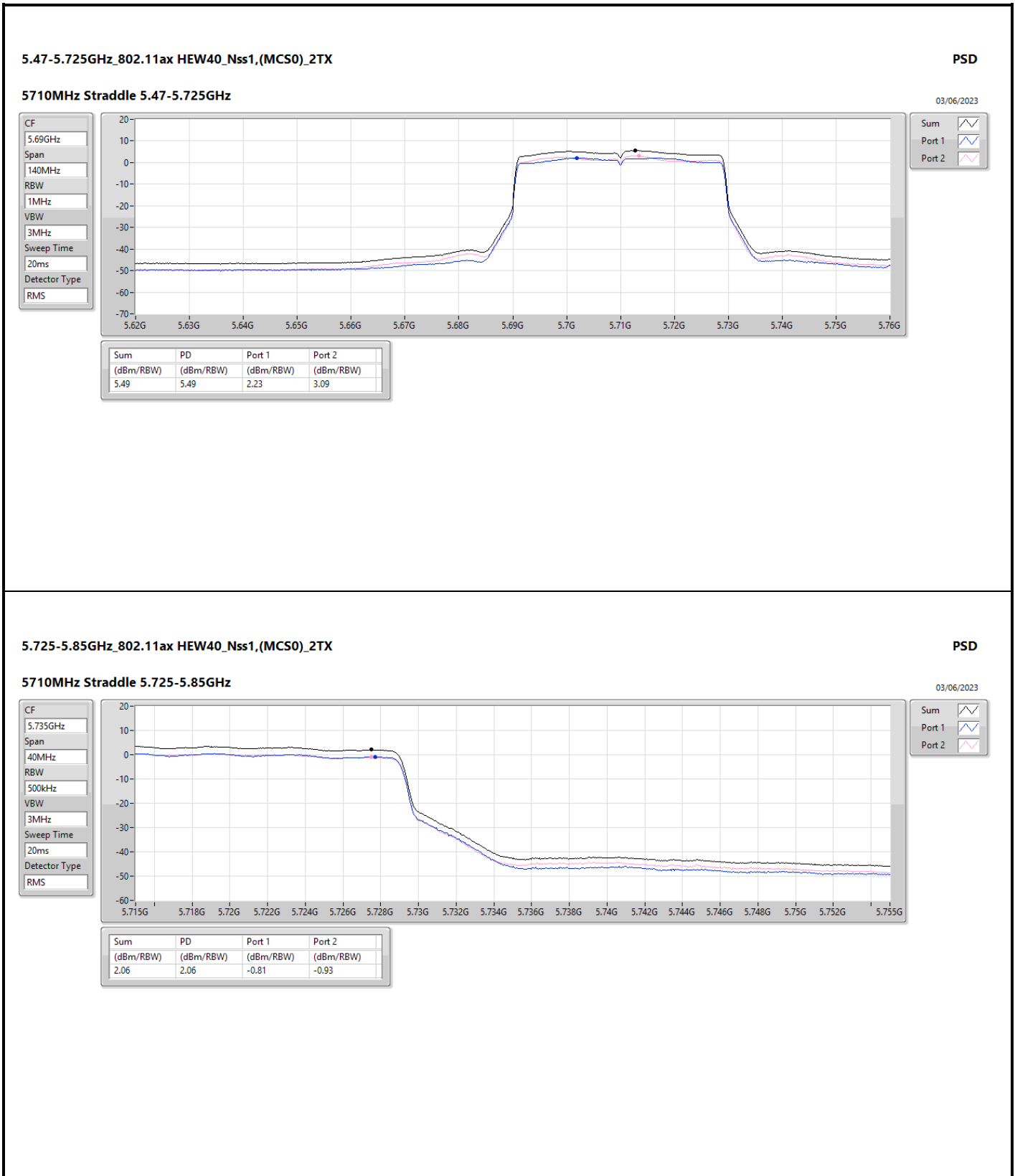


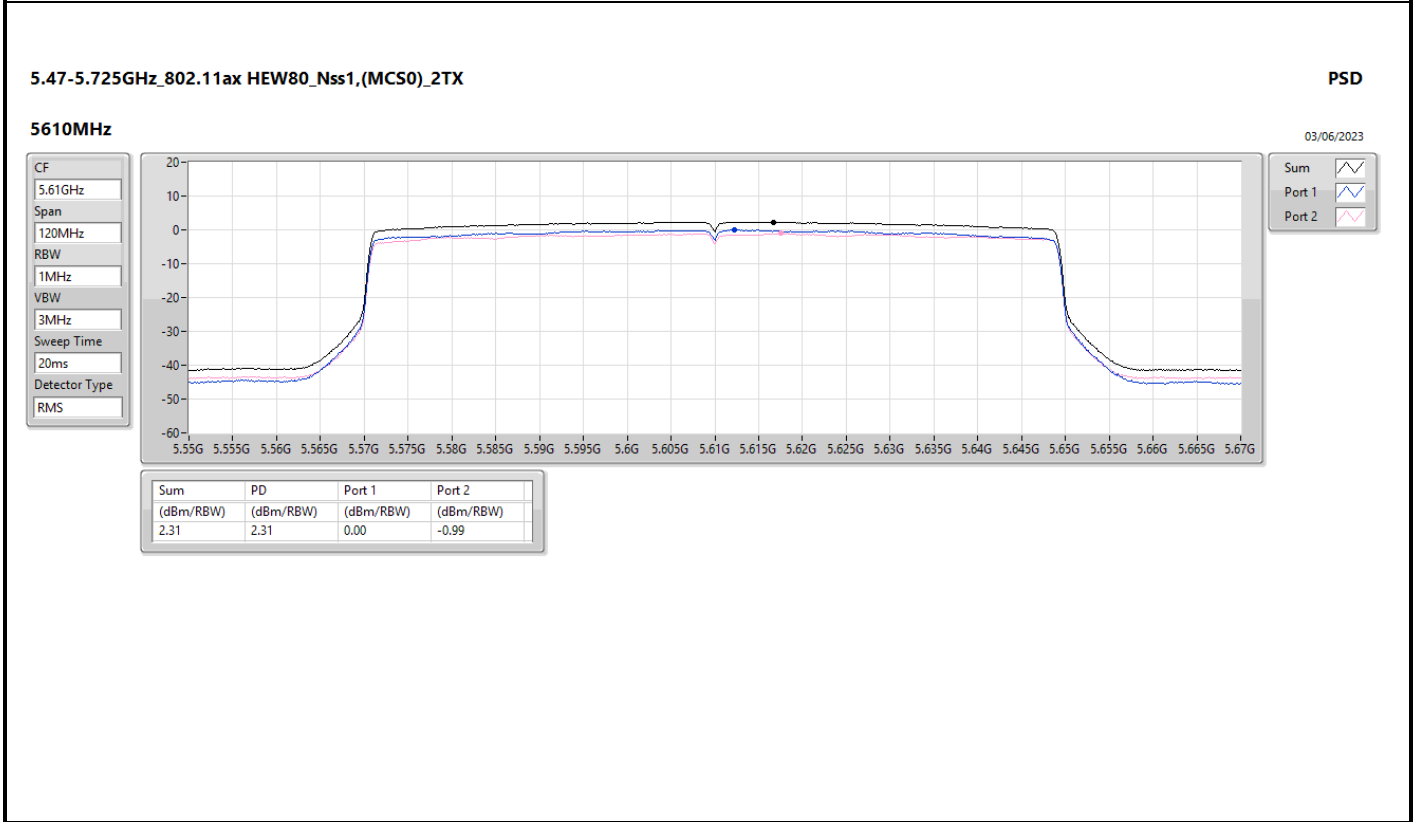
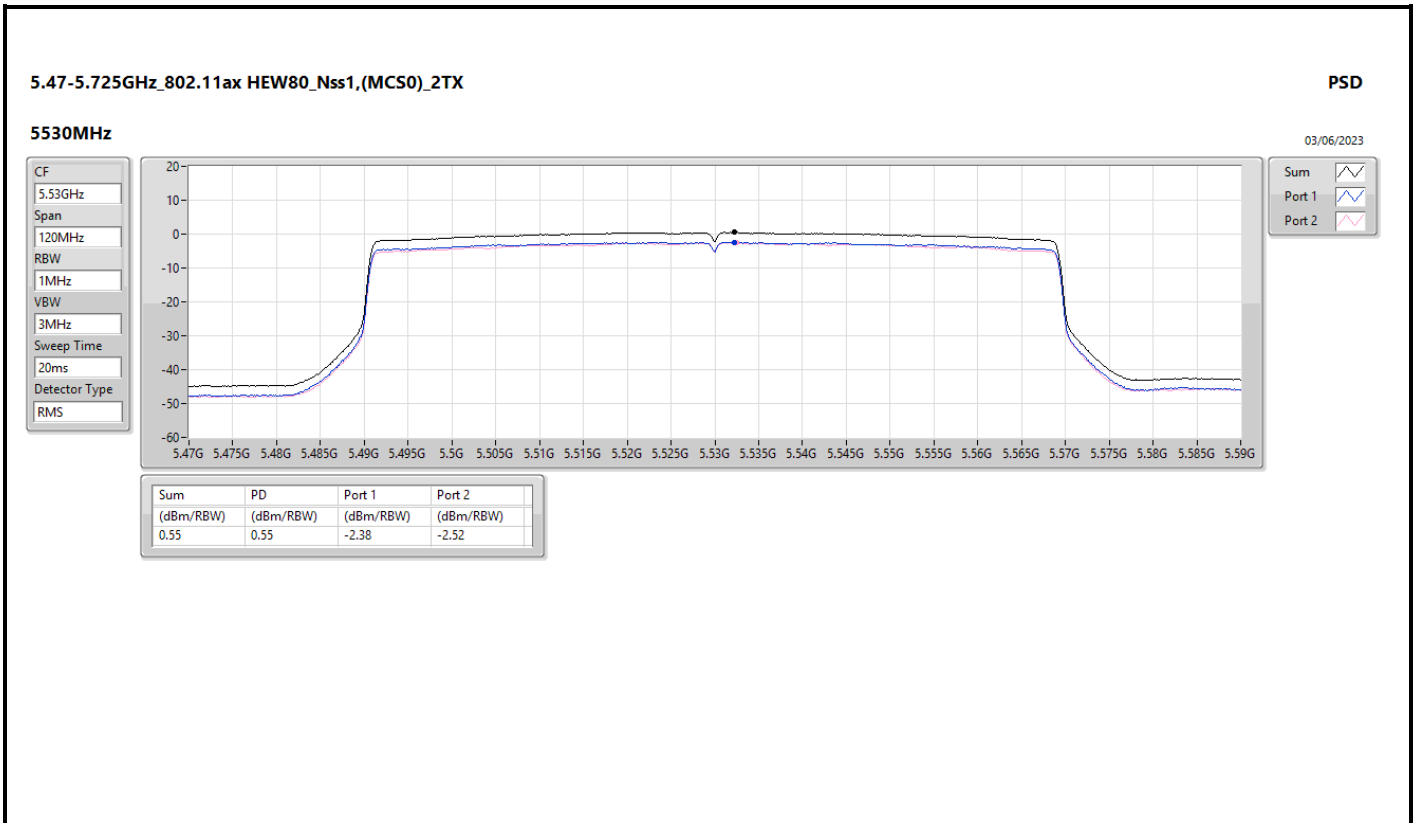


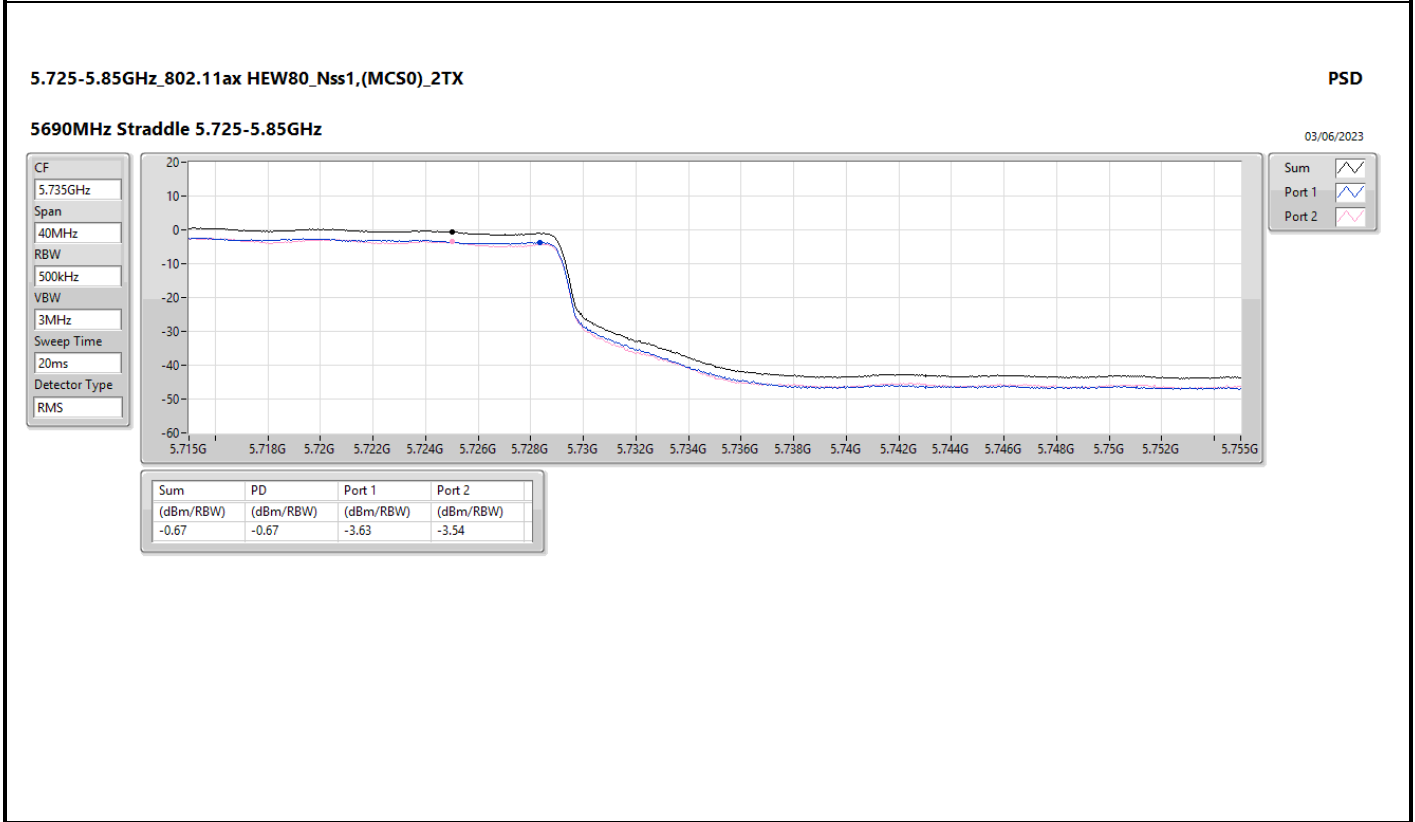
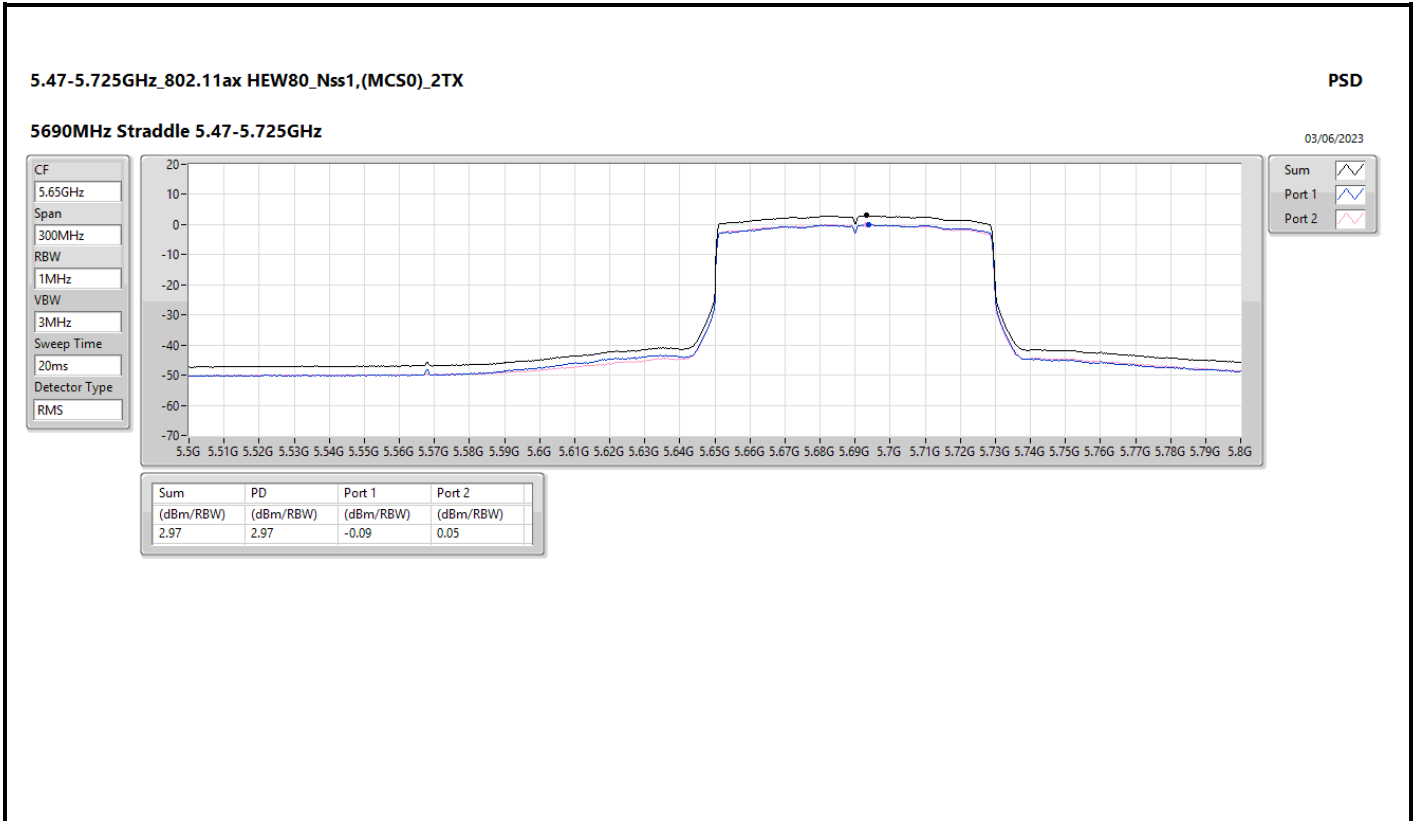














Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	9.42	12.52
802.11ax HEW20_Nss1,(MCS0)_1TX	9.12	12.22
802.11ax HEW40_Nss1,(MCS0)_1TX	6.19	9.29
802.11ax HEW80_Nss1,(MCS0)_1TX	2.72	5.82
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	7.61	10.61
802.11ax HEW20_Nss1,(MCS0)_1TX	7.27	10.27
802.11ax HEW40_Nss1,(MCS0)_1TX	3.35	6.35
802.11ax HEW80_Nss1,(MCS0)_1TX	-0.56	2.44

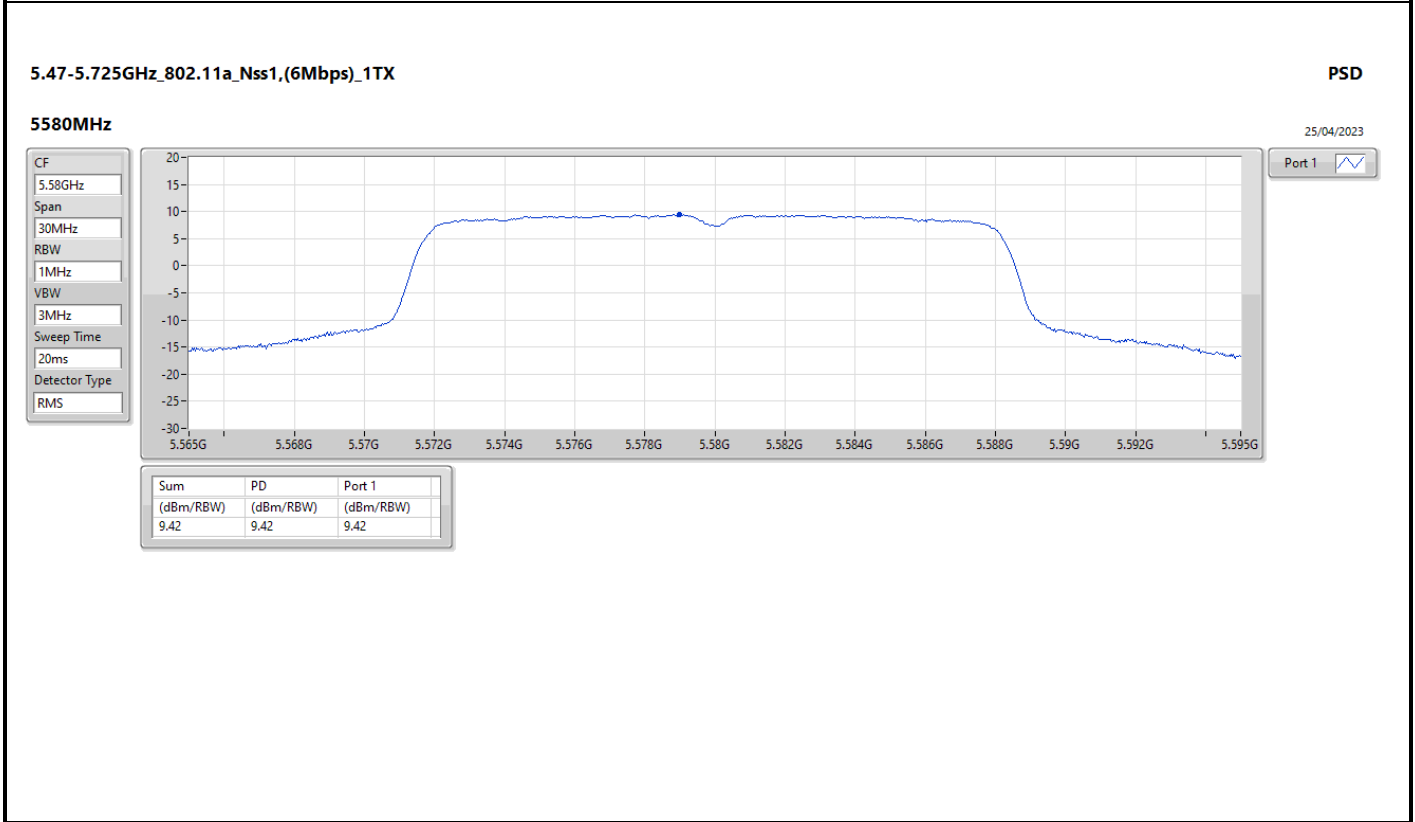
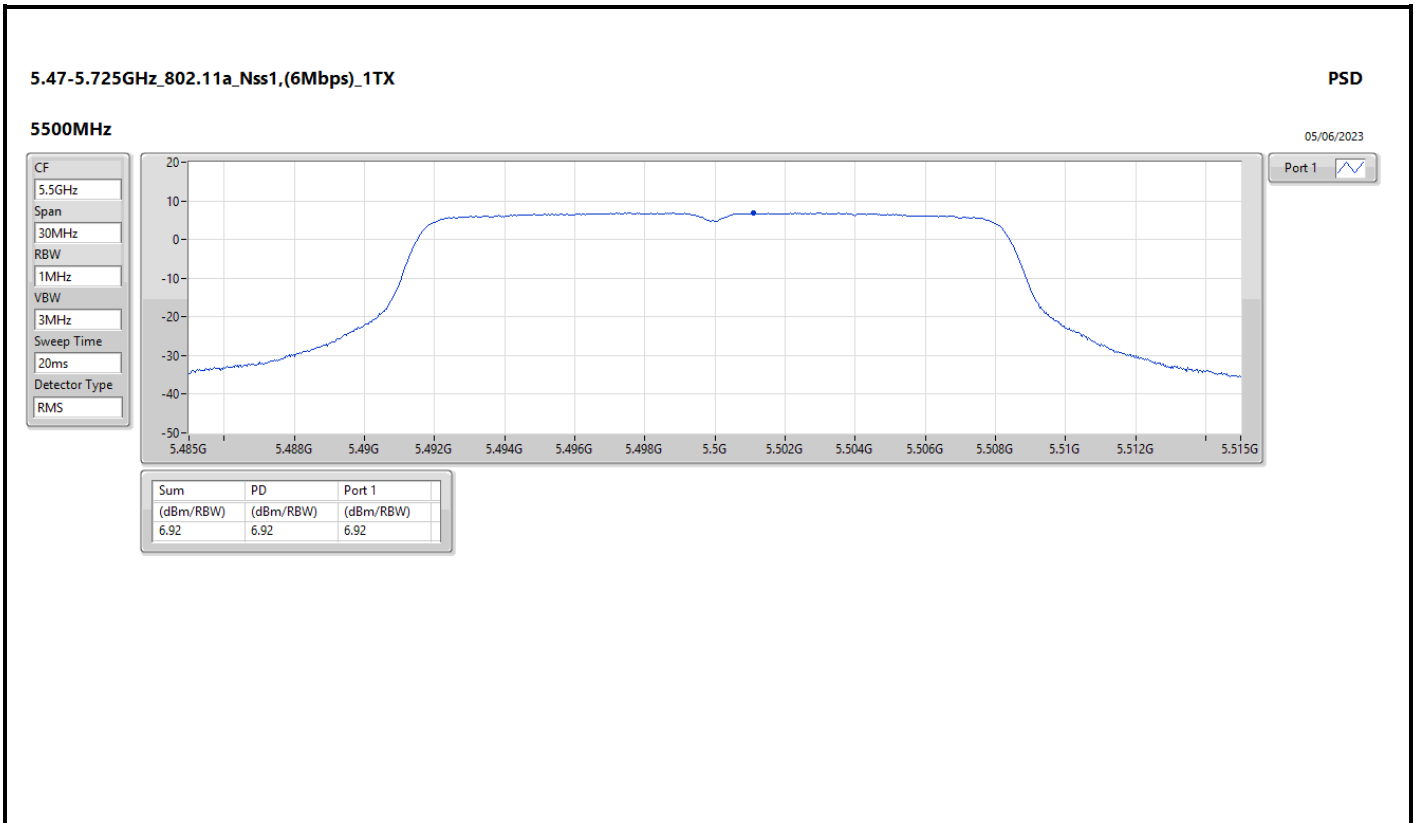
RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

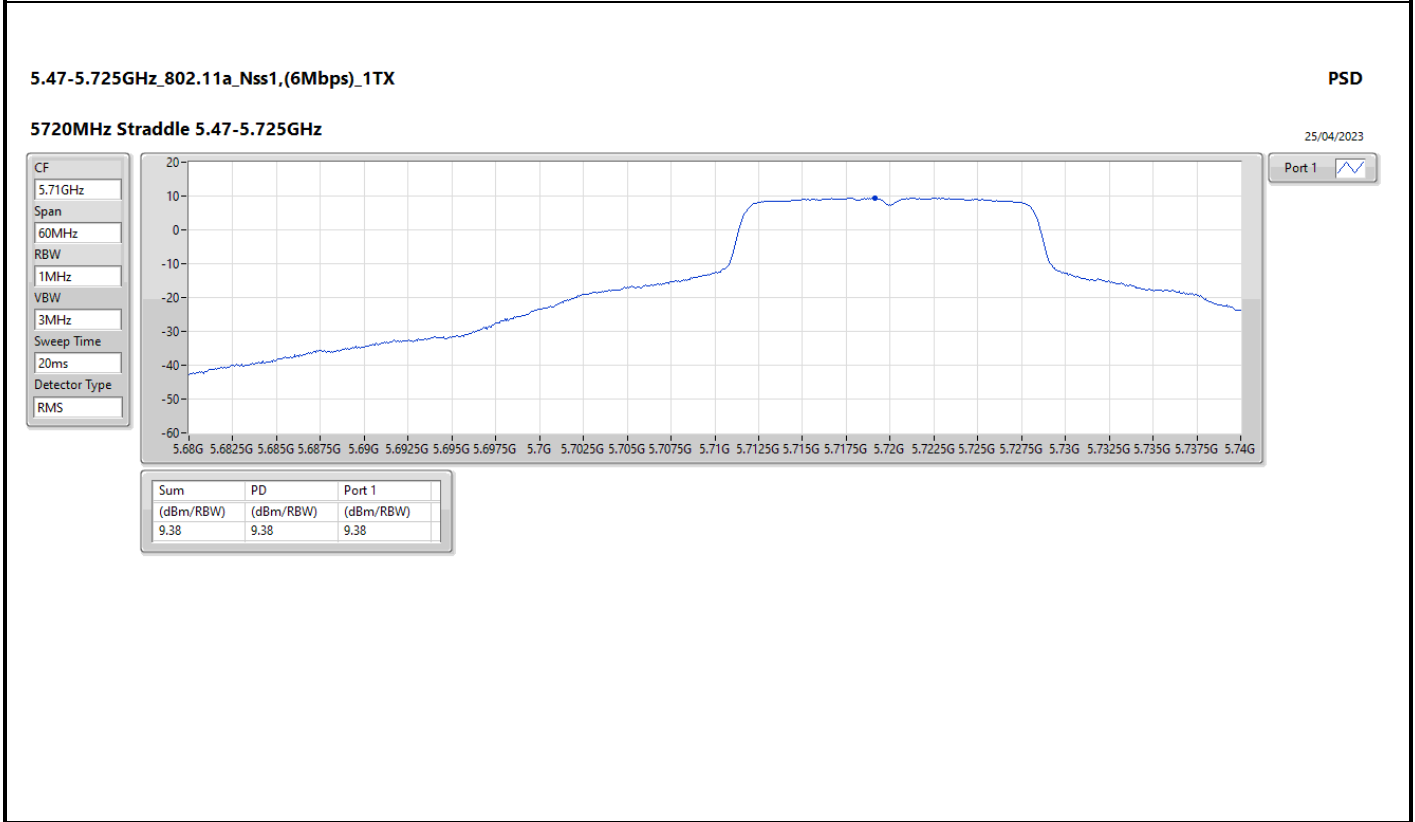
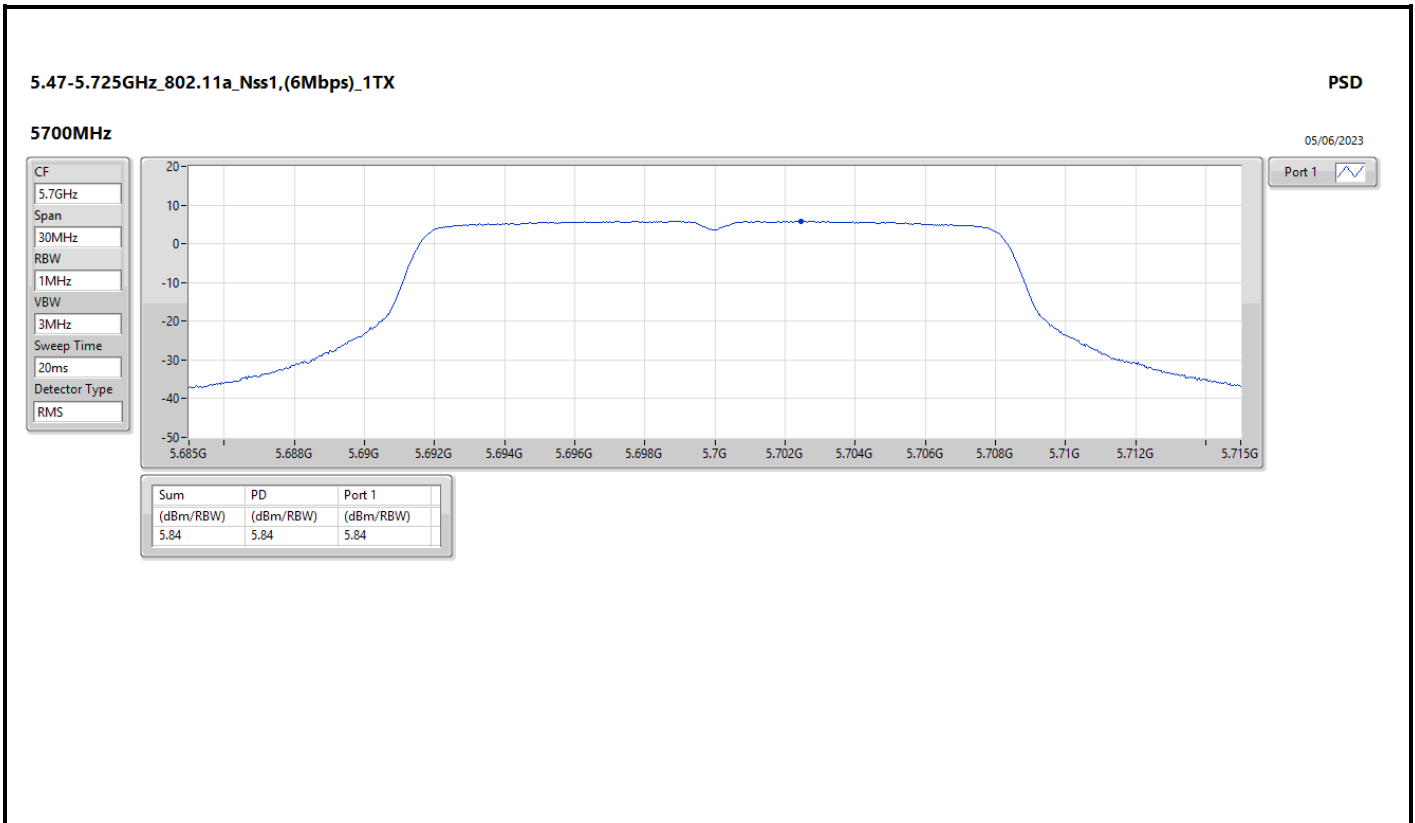


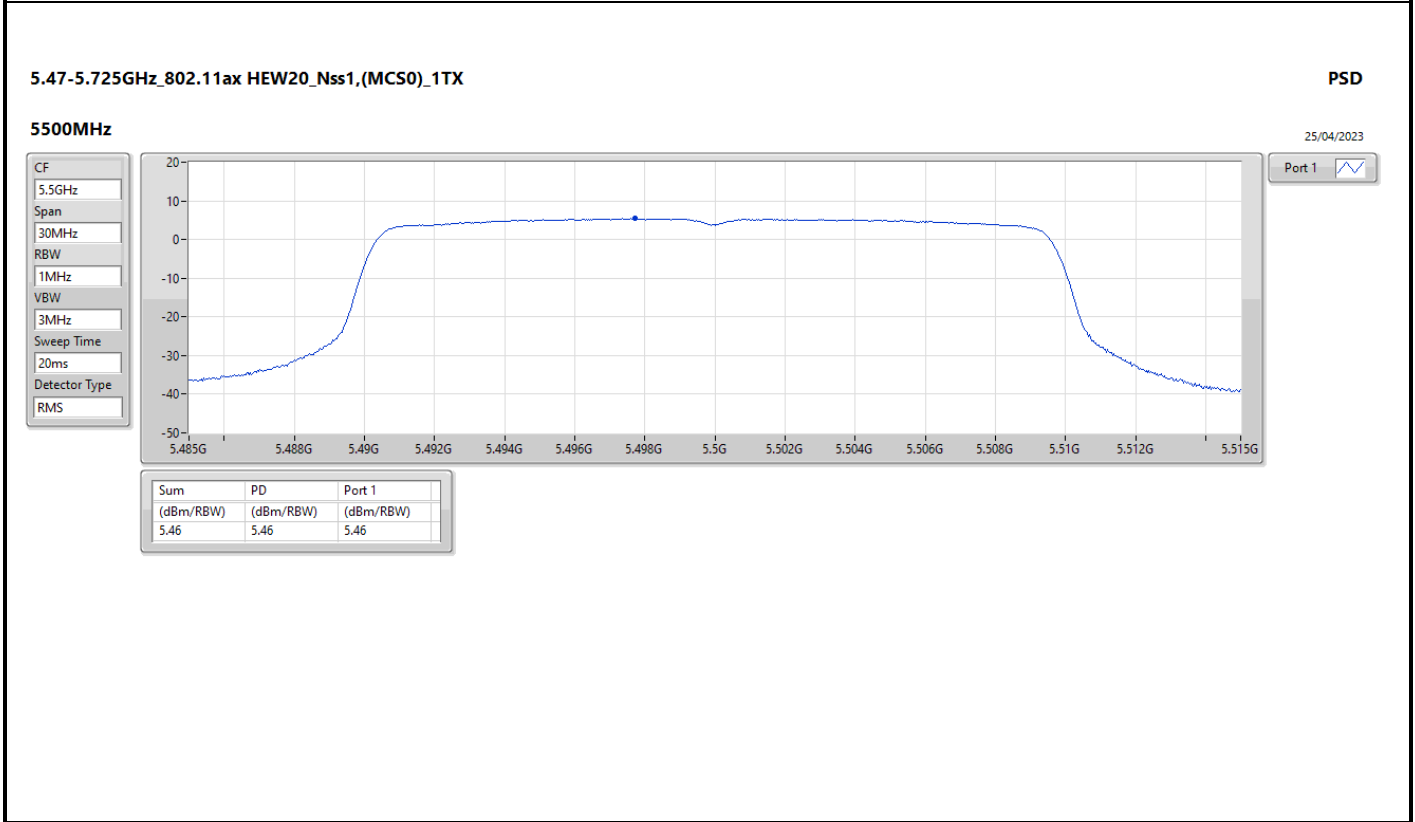
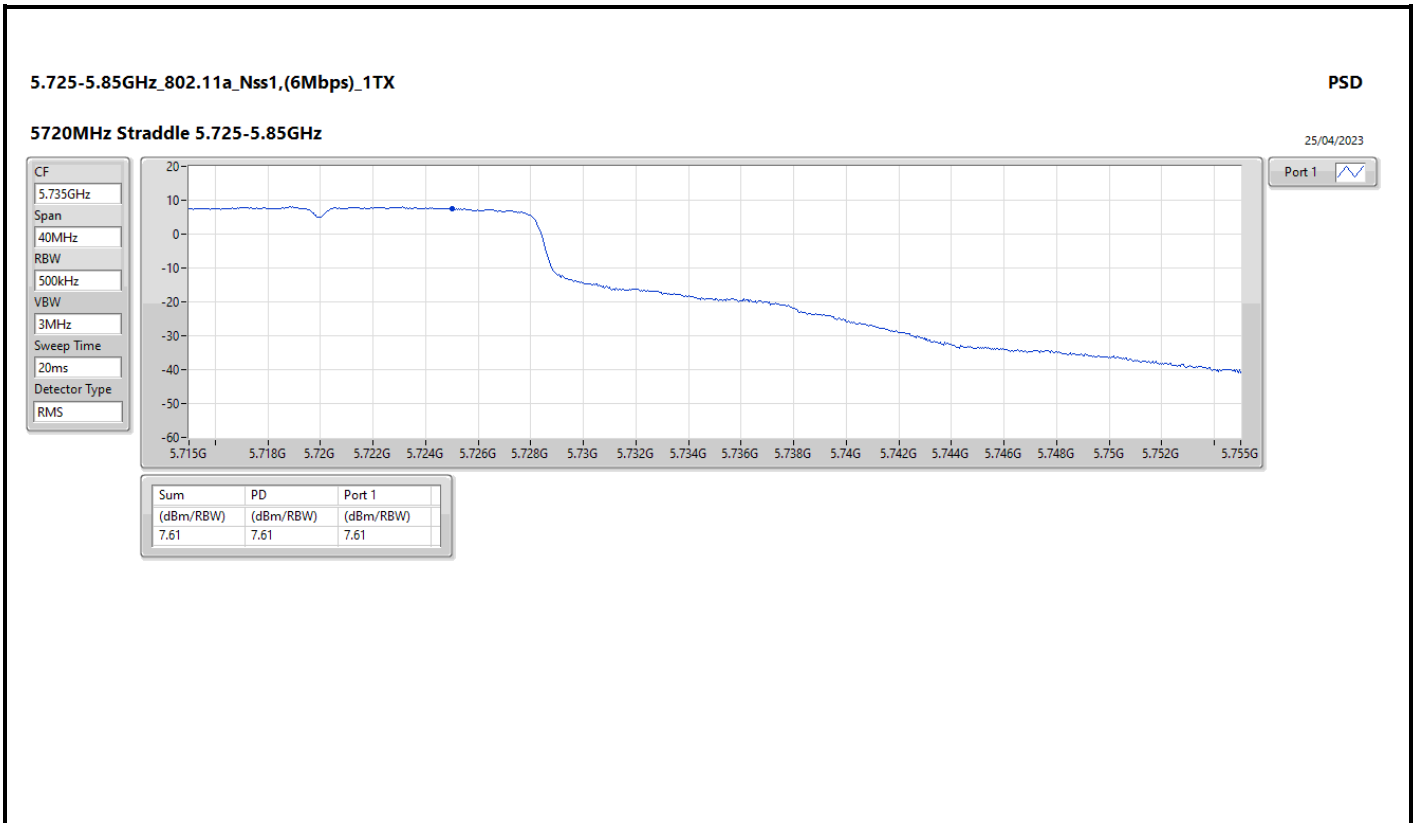
Result

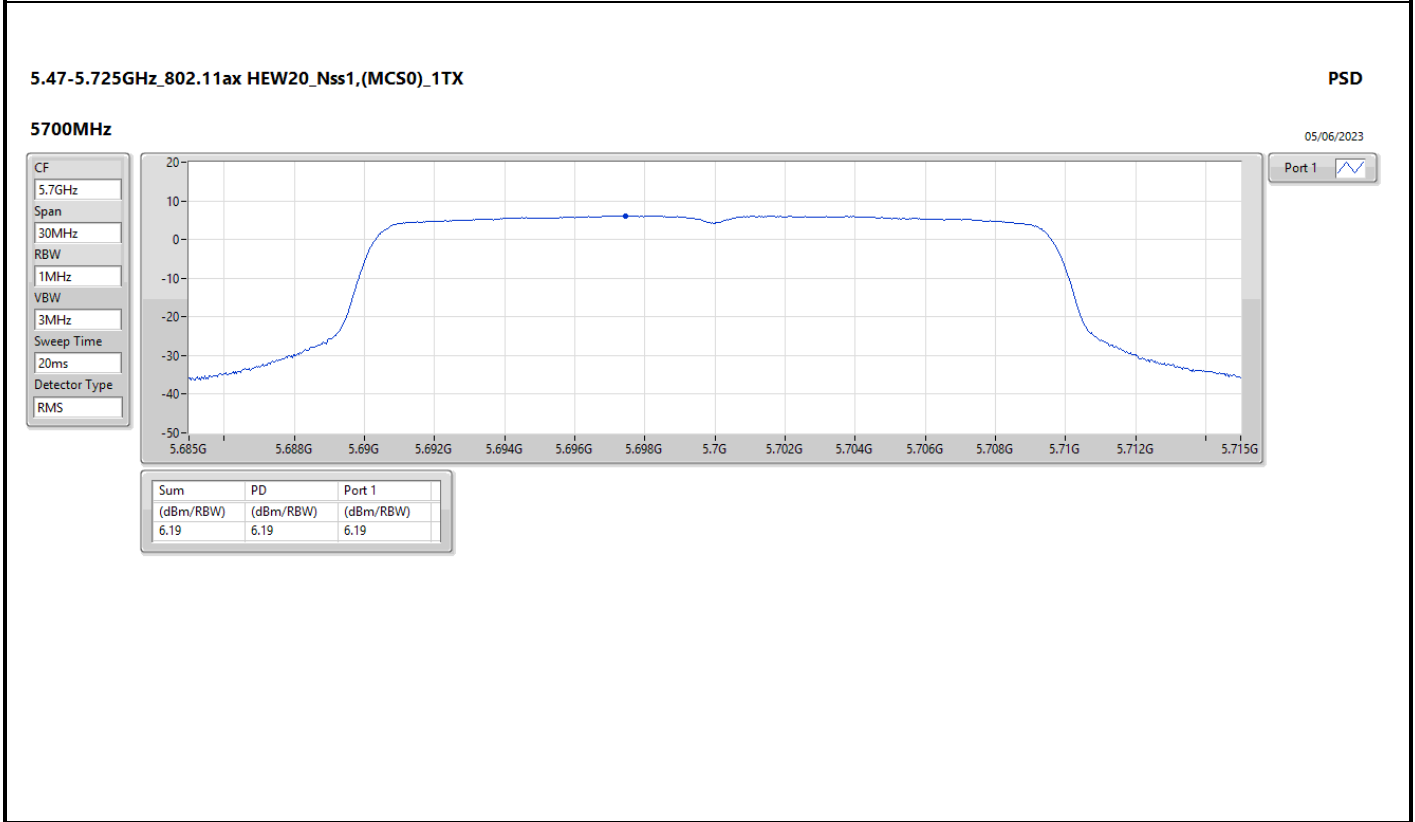
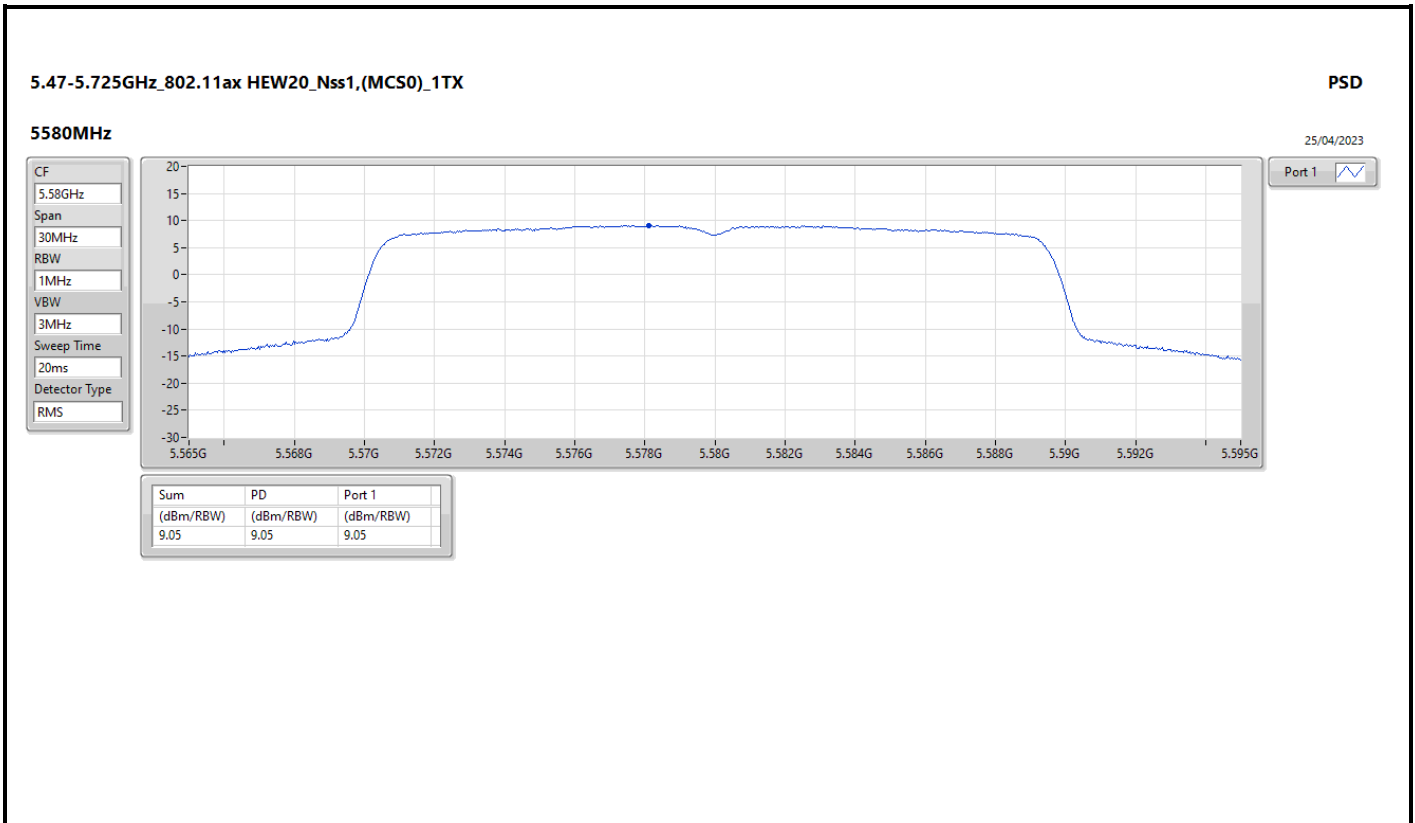
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-
5500MHz	Pass	3.10	6.92	6.92	11.00	10.02	17.00
5580MHz	Pass	3.10	9.42	9.42	11.00	12.52	17.00
5700MHz	Pass	3.10	5.84	5.84	11.00	8.94	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	3.10	9.38	9.38	11.00	12.48	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	3.00	7.61	7.61	30.00	10.61	36.00
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5500MHz	Pass	3.10	5.46	5.46	11.00	8.56	17.00
5580MHz	Pass	3.10	9.05	9.05	11.00	12.15	17.00
5700MHz	Pass	3.10	6.19	6.19	11.00	9.29	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	3.10	9.12	9.12	11.00	12.22	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	3.00	7.27	7.27	30.00	10.27	36.00
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5510MHz	Pass	3.10	1.13	1.13	11.00	4.23	17.00
5550MHz	Pass	3.10	4.86	4.86	11.00	7.96	17.00
5670MHz	Pass	3.10	3.64	3.64	11.00	6.74	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	3.10	6.19	6.19	11.00	9.29	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	3.00	3.35	3.35	30.00	6.35	36.00
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-
5530MHz	Pass	3.10	-1.26	-1.26	11.00	1.84	17.00
5610MHz	Pass	3.10	2.09	2.09	11.00	5.19	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	3.10	2.72	2.72	11.00	5.82	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	3.00	-0.56	-0.56	30.00	2.44	36.00

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

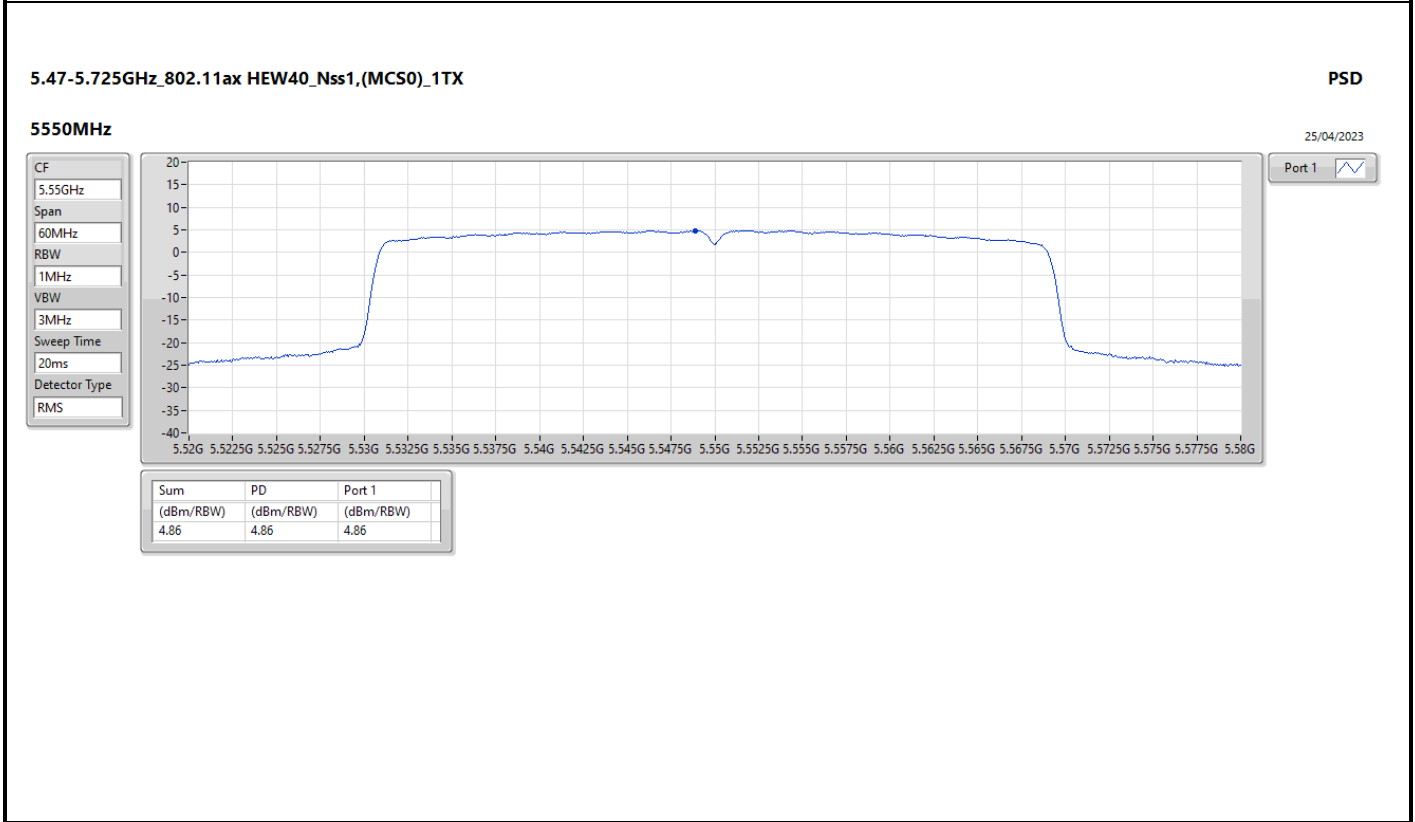
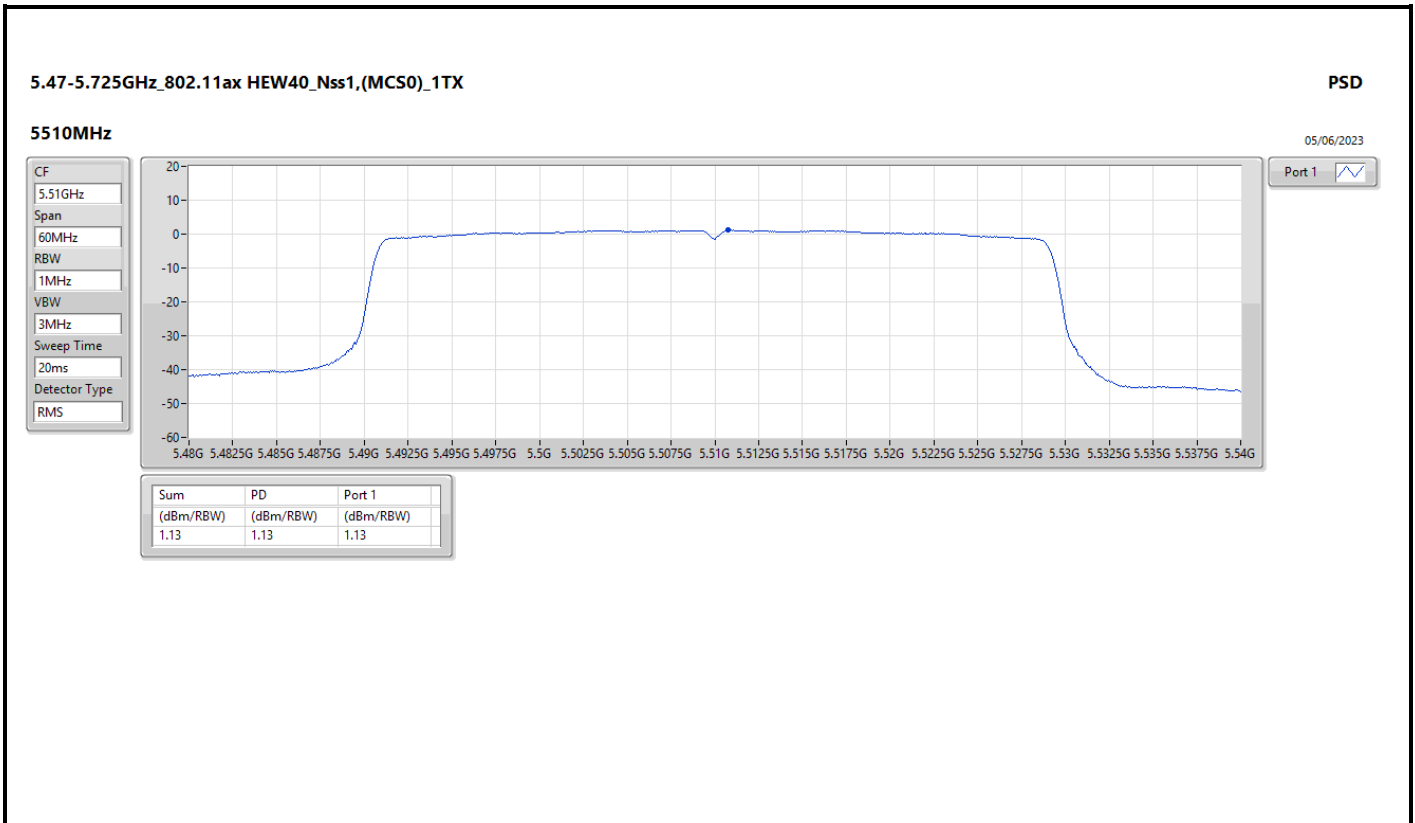


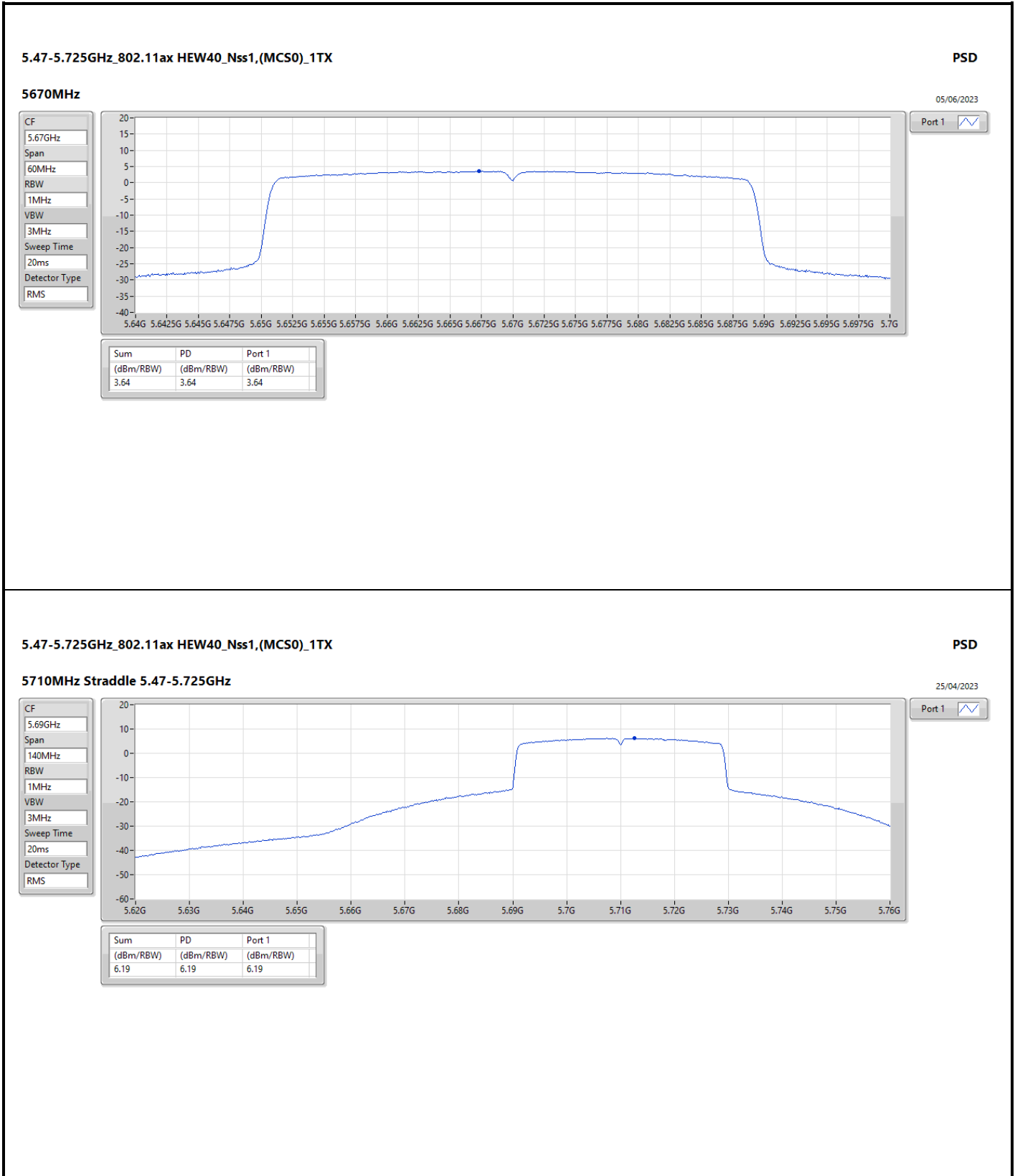


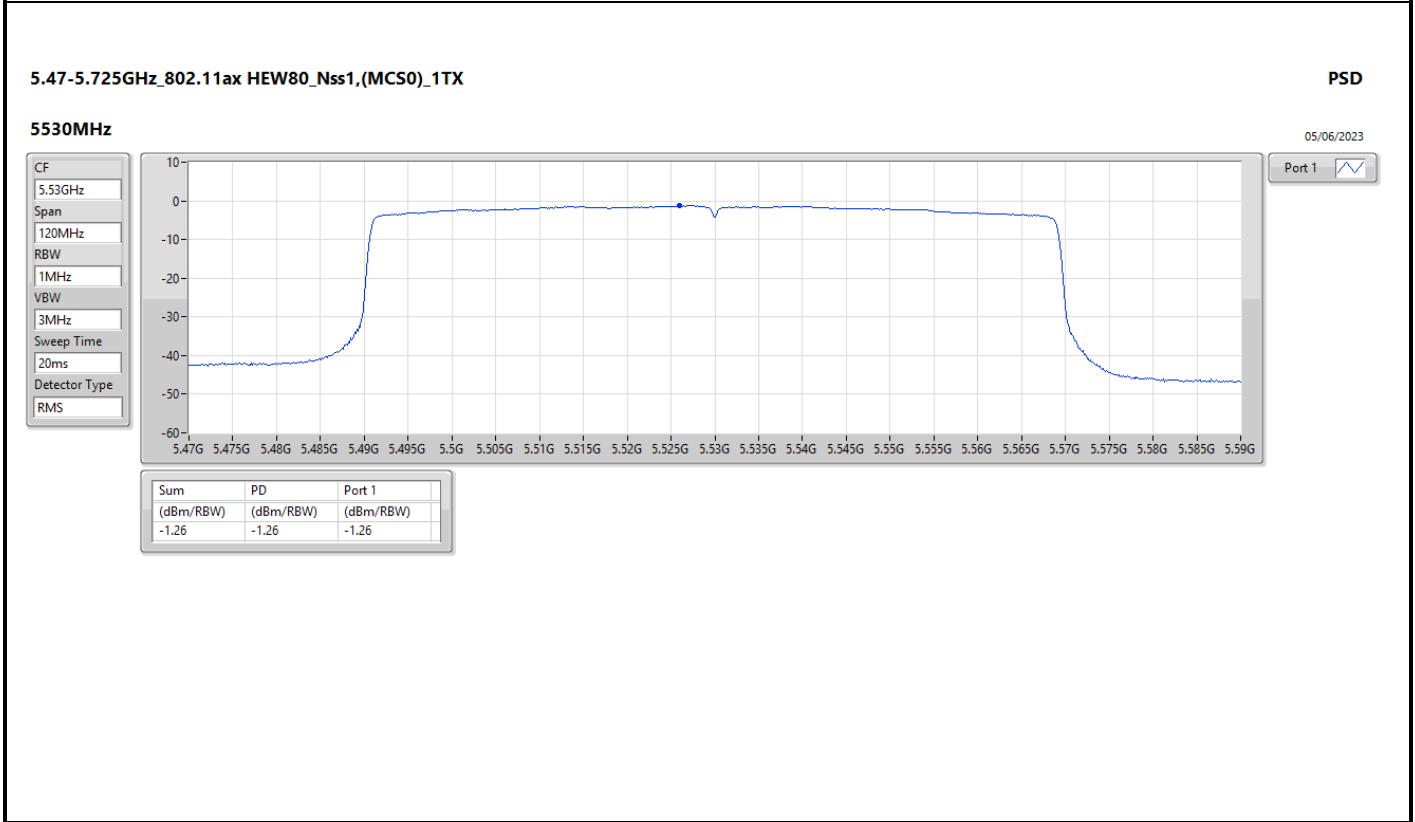
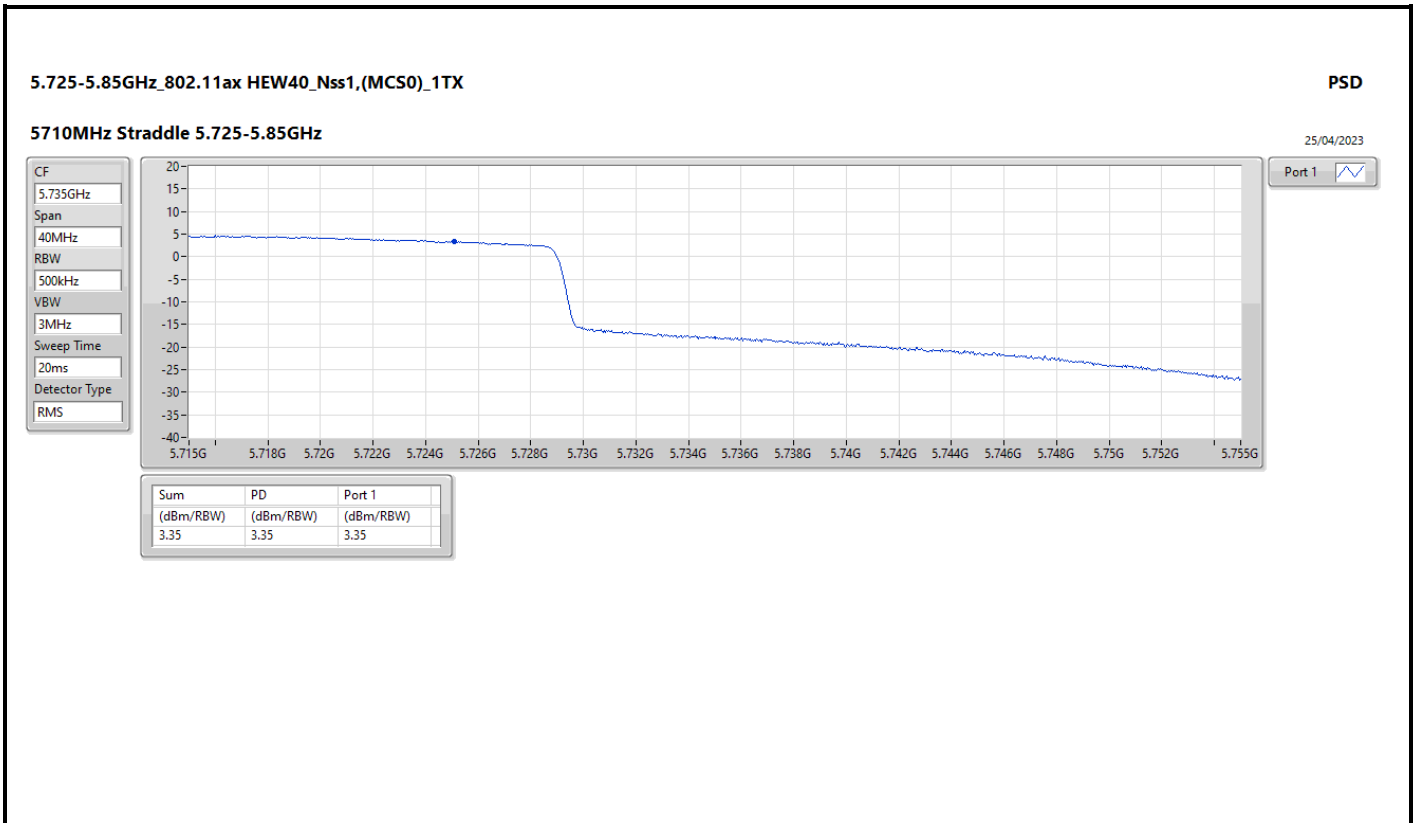


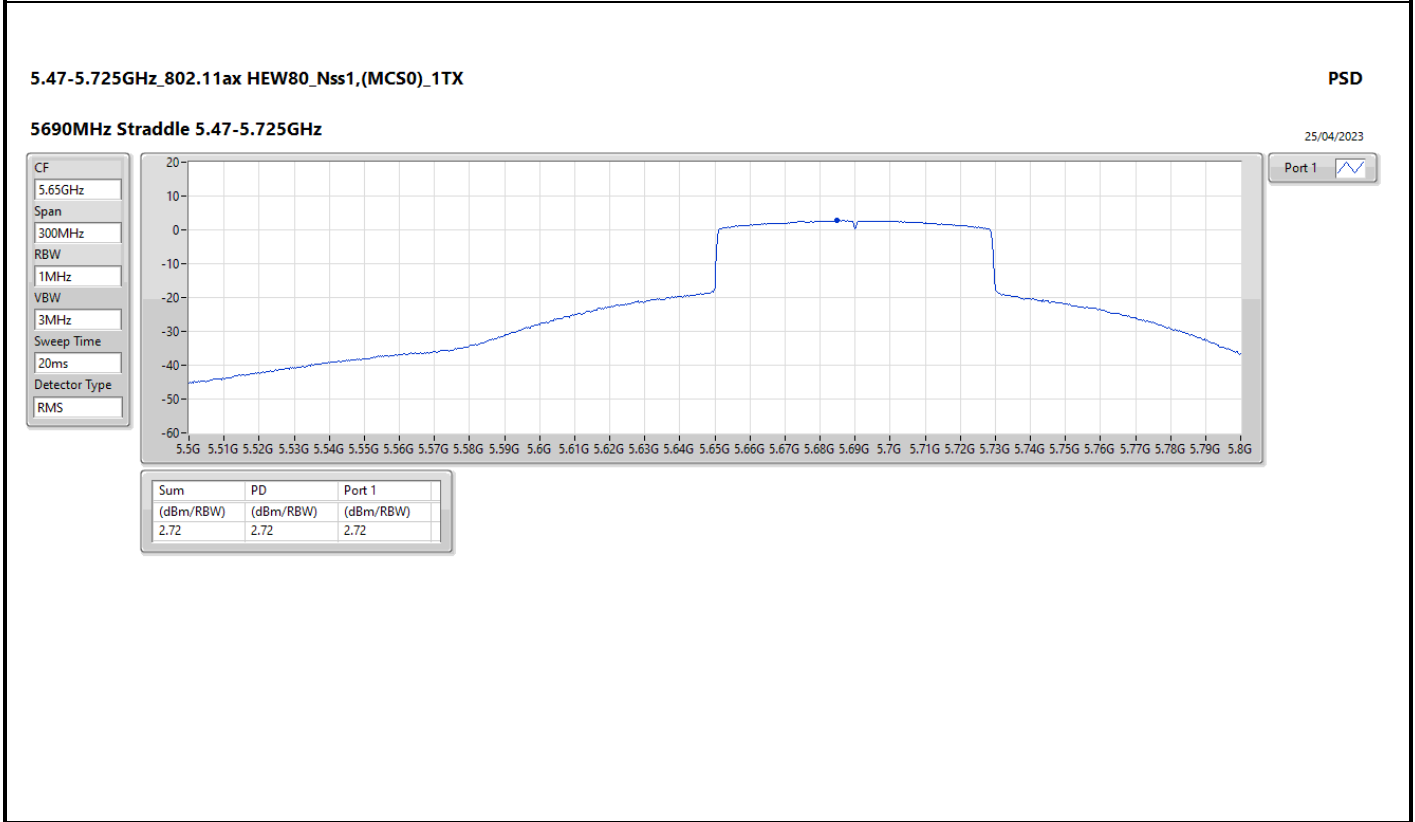
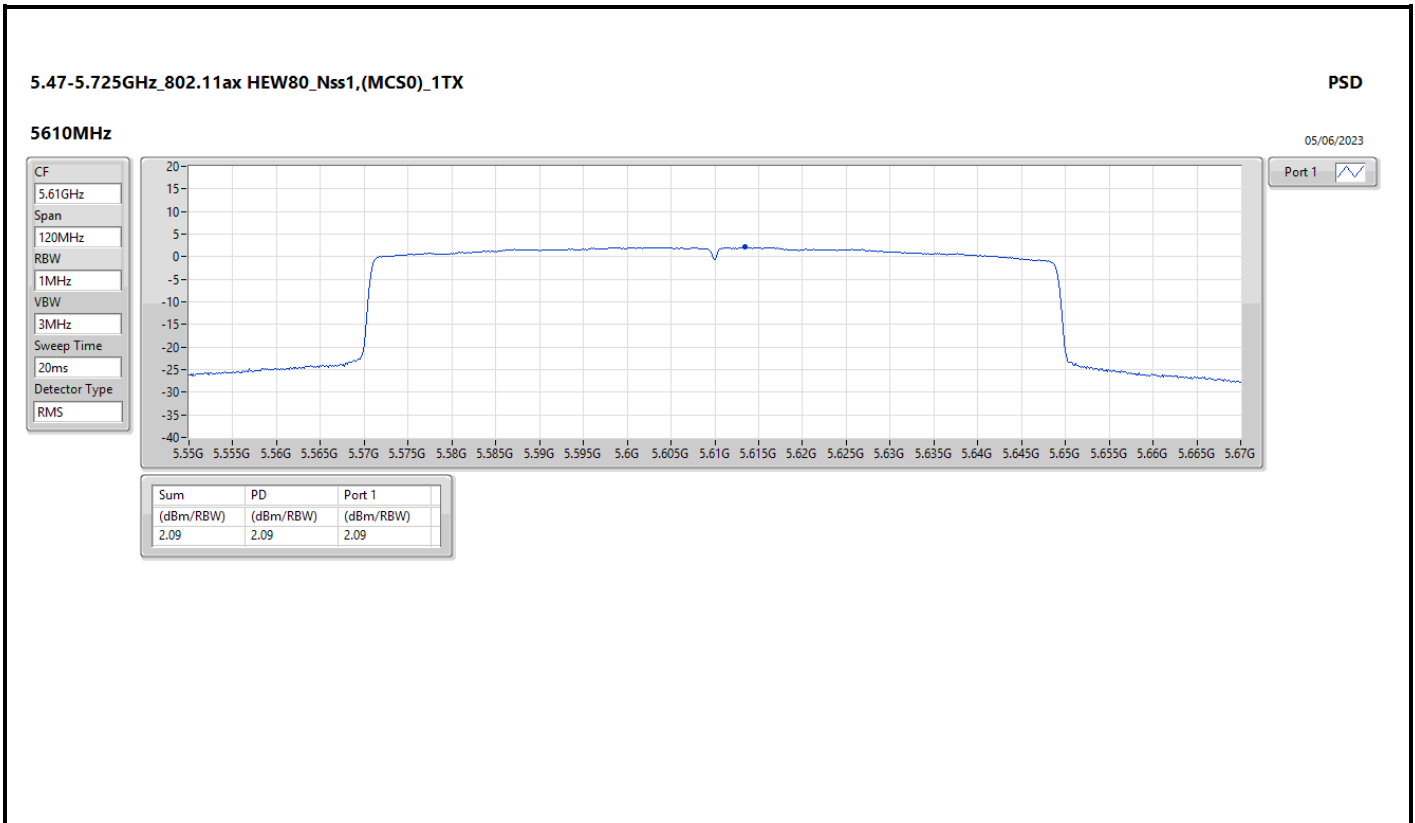


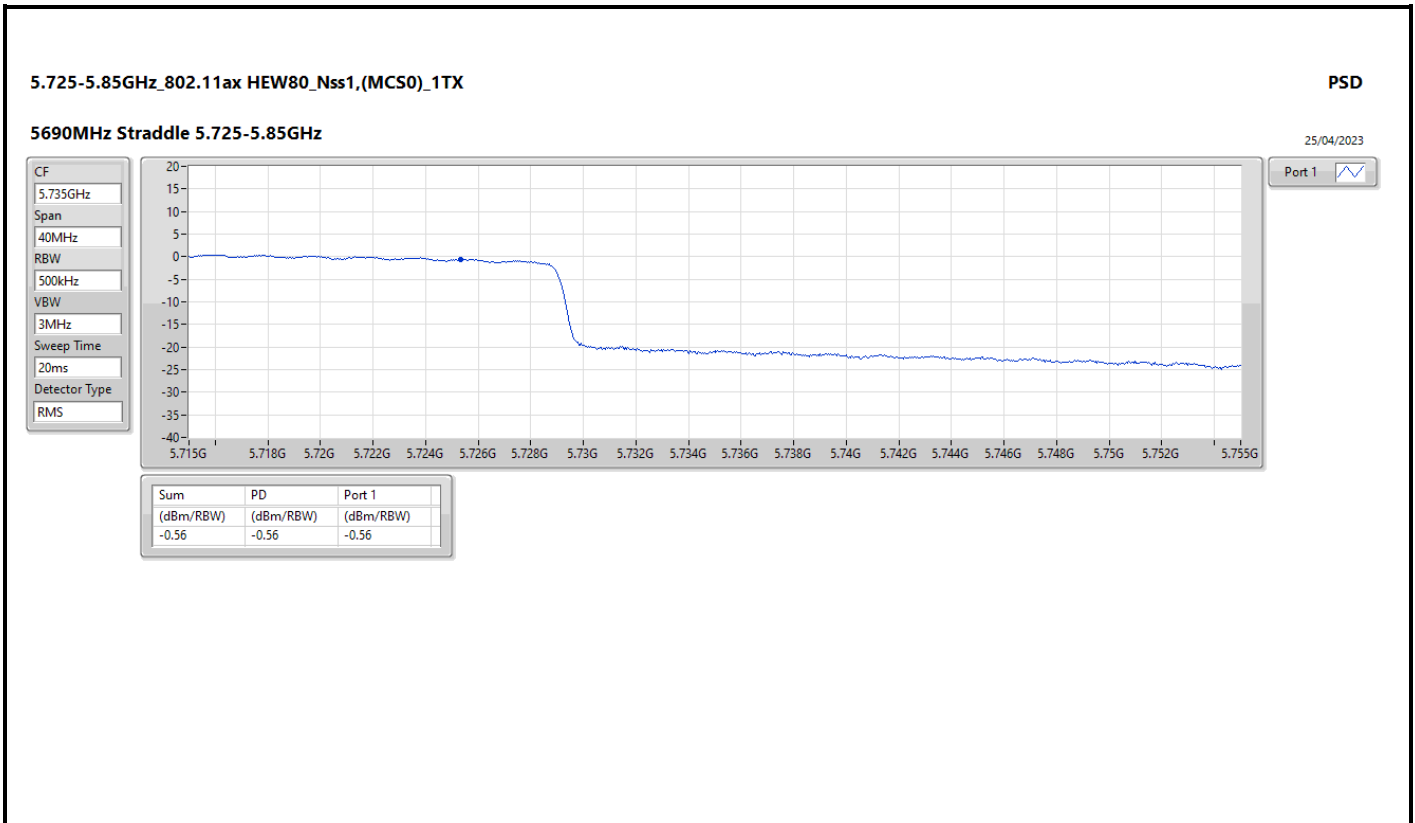










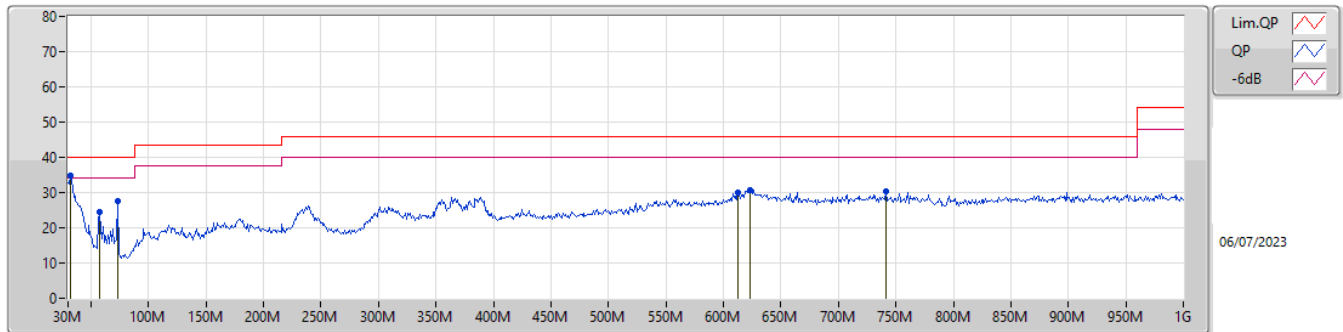




Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 8	Pass	PK	31.94M	34.87	40.00	-5.13	Vertical

Mode 8



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	31.94M	34.87	40.00	-5.13	-7.31	3	Vertical	94	2.00	"Worst"	42.18	23.26	0.65	31.22
PK	57.16M	24.54	40.00	-15.46	-17.70	3	Vertical	319	1.00	-	42.24	13.16	0.85	31.71
PK	73.65M	27.49	40.00	-12.51	-18.10	3	Vertical	187	1.25	-	45.59	12.65	0.95	31.70
PK	612.97M	30.15	46.00	-15.85	-4.42	3	Vertical	360	1.50	-	34.57	25.13	2.65	32.20
PK	623.64M	30.64	46.00	-15.36	-4.27	3	Vertical	2	1.50	-	34.91	25.29	2.68	32.24
PK	741.01M	30.28	46.00	-15.72	-3.65	3	Vertical	0	2.00	-	33.93	25.72	2.94	32.31