



RADIO TEST REPORT

FCC ID : UIDG54
Equipment : Cable Modem
Brand Name : ARRIS
Model Name : G54
Applicant : ARRIS
3871 Lakefield Drive Suite 300 SUWANEE Georgia
United States 30024
Manufacturer : ARRIS
3871 Lakefield Drive Suite 300 SUWANEE Georgia
United States 30024
Standard : 47 CFR FCC Part 15.407

The product was received on Feb. 28, 2023, and testing was started from Feb. 28, 2023 and completed on Jun. 07, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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



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Photographs of EUT v01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Equivalent Isotropically Radiated Power (E.I.R.P.)	PASS	-
3.4	15.407(a)	Peak Power Spectral Density (E.I.R.P.)	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-
3.6	15.407(d)	Contention-Based Protocol	PASS	-
3.7	15.407(g)	Frequency Stability	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: Sophia Shiung**



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5925-7125	ax (HEW20), be (EHT20)	5955-7115	1-233 [59]
5925-7125	ax (HEW40), be (EHT40)	5965-7085	3-227 [29]
5925-7125	ax (HEW80), be (EHT80)	5985-7025	7-215 [14]
5925-7125	ax (HEW160), be (EHT160)	6025-6985	15-207 [7]
5925-7125	be (EHT320)	6105-6905	31-191 [6]

Band	Mode	BWch (MHz)	Nant
5925-7125 MHz	802.11ax HEW20	20	4TX
5925-7125 MHz	802.11ax HEW20-BF	20	4TX
5925-7125 MHz	802.11be EHT20	20	4TX
5925-7125 MHz	802.11be EHT20-BF	20	4TX
5925-7125 MHz	802.11ax HEW40	40	4TX
5925-7125 MHz	802.11ax HEW40-BF	40	4TX
5925-7125 MHz	802.11be EHT40	40	4TX
5925-7125 MHz	802.11be EHT40-BF	40	4TX
5925-7125 MHz	802.11ax HEW80	80	4TX
5925-7125 MHz	802.11ax HEW80-BF	80	4TX
5925-7125 MHz	802.11be EHT80	80	4TX
5925-7125 MHz	802.11be EHT80-BF	80	4TX
5925-7125 MHz	802.11ax HEW160	160	4TX
5925-7125 MHz	802.11ax HEW160-BF	160	4TX
5925-7125 MHz	802.11be EHT160	160	4TX
5925-7125 MHz	802.11be EHT160-BF	160	4TX
5925-7125 MHz	802.11be EHT320	320	4TX
5925-7125 MHz	802.11be EHT320-BF	320	4TX



Note:

- ♦ HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ EHT20, EHT40, EHT80 and EHT160, EHT320 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM modulation.
- ♦ BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Port				Brand	Model Name	Ant. Type	Connector	Support Band
	2.4GHz	5GHz		6GHz					
		UNII1 UNII2A	UNII2C UNII3						
1	-	2	-	-	Wanshih	WPB866	DIPOLE	I-PEX	5GHz UNII 1, 2A
2	1	-	1	-	Wanshih	WPB867	DIPOLE	I-PEX	2.4GHz/5GHz UNII 2C, 3
3	-	1	-	-	Wanshih	WPB868	DIPOLE	I-PEX	5GHz UNII 1, 2A
4	2	-	2	-	Wanshih	WPB869	DIPOLE	I-PEX	2.4GHz/5GHz UNII 2C, 3
5	-	-	-	2	Wanshih	WPB870	DIPOLE	I-PEX	6GHz
6	-	-	-	1	Wanshih	WPB871	DIPOLE	I-PEX	6GHz
7	-	-	-	4	Wanshih	WPB872	DIPOLE	I-PEX	6GHz
8	-	-	-	3	Wanshih	WPB873	DIPOLE	I-PEX	6GHz

Ant.	Antenna Gain (dBi)			Ant.	Antenna Gain (dBi)
	2.4GHz	5GHz UNII1 / UNII2A	5GHz UNII2C / UNII3		6GHz
1	-	4.92	-	5	4.94
2	4.14	-	4.75	6	5.86
3	-	4.78	-	7	4.77
4	2.64	-	4.60	8	5.83

Note 1: The above information was declared by manufacturer.

<For WLAN 2.4GHz>

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

<For WLAN 5GHz>

For IEEE 802.11a/n/ac/ax/be mode (2TX/2RX)

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

Port 1 and Port 2 could transmit/receive simultaneously.

<For WLAN 6GHz>

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

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

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



Note 2: 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	$Directional\ iGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} P_{j,k} \right)^2}{N_{ANT}} \right]$
BF	$Directional\ iGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} P_{j,k} \right)^2}{N_{ANT}} \right]$	$Directional\ iGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} P_{j,k} \right)^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$Directional\ iGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left(\sum_{k=1}^{N_{ANT}} P_{j,k} \right)^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,2) = 10^{G3/20} ; NSS1(g1,2) = 10^{G4/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] => 10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$$

Where ;

$$2.4G\ G1= 4.14\ dBi ; G2= 2.64\ dBi ; DG= 6.43dBi$$

$$5G\ UNII-1\ G1= 4.92\ dBi ; G2= 4.78\ dBi ; DG= 7.86dBi$$

$$5G\ UNII-2A\ G1= 4.92\ dBi ; G2= 4.78\ dBi ; DG= 7.86dBi$$

$$5G\ UNII-2C\ G1= 4.75\ dBi ; G2= 4.60\ dBi ; DG= 7.69dBi$$

$$5G\ UNII-3\ G1= 4.75\ dBi ; G2= 4.60\ dBi ; DG= 7.69dBi$$

$$6G\ UNII-4\ G1= 4.94\ dBi ; G2= 5.68\ dBi ; G3= 4.77\ dBi ; G4= 5.83\ dBi ; DG= 11.34dBi$$

$$6G\ UNII-5\ G1= 4.94\ dBi ; G2= 5.68\ dBi ; G3= 4.77\ dBi ; G4= 5.83\ dBi ; DG= 11.34dBi$$

$$6G\ UNII-6\ G1= 4.94\ dBi ; G2= 5.68\ dBi ; G3= 4.77\ dBi ; G4= 5.83\ dBi ; DG= 11.34dBi$$

$$6G\ UNII-7\ G1= 4.94\ dBi ; G2= 5.68\ dBi ; G3= 4.77\ dBi ; G4= 5.83\ dBi ; DG= 11.34dBi$$



1.1.3 Mode Test Duty Cycle

For non-beamforming mode

Table with 5 columns: Mode, DC, DCF(dB), T(s), VBW(Hz) ≥ 1/T. Rows include 802.11be EHT20, EHT40, EHT80, EHT160, and EHT320.

For beamforming mode

Table with 5 columns: Mode, DC, DCF(dB), T(s), VBW(Hz) ≥ 1/T. Rows include 802.11be EHT20-BF, EHT40-BF, EHT80-BF, EHT160-BF, and EHT320-BF.

Note:

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

1.1.4 EUT Operational Condition

Form with fields: EUT Power Type, Beamforming Function, Device Type, Channel Puncturing Function, Support RU, Test Software Version, Software / Firmware Version for CBP.

Note: The above information was declared by manufacturer.



1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: 321751.

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

Modifications	Performance Checking
1. Adding bands UNII 2A and UNII 2C for this device. 2. Adding the 160MHz for WLAN 5GHz.	After evaluation, this test report was not affected.
3. Adding bands UNII 5~8 for this device. 4. Revising typo of Ant. 6's gain to "5.86 dBi" from "5.68 dBi."	All test items



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 15.407
- ◆ 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 987594 D02 v01r01
- ◆ 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	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085
	Test site Designation No. TW3787 with FCC.
	Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted (For other tests)	TH01-CB	Mason Chen	24.1~25.0 / 58~62	Mar. 02, 2023~ Apr. 15, 2023
RF Radiated (E.I.R.P. Power/PSD)	03CH01-CB	Ederson Huang	21.2~22.3 / 56~59	Feb. 28, 2023~ Apr. 14, 2023
	03CH04-CB		22-23 / 55-58	
Radiated < 1GHz	03CH03-CB	Ederson Huang	22.7~24.5 / 60~62	Jun. 06, 2023
Radiated > 1GHz	03CH01-CB	Ederson Huang	21.2~22.3 / 56~59	Feb. 28, 2023~ Apr. 14, 2023
	03CH04-CB		22-23 / 55-58	
AC Conduction	CO01-CB	Peter Wu	22~23 / 57~58	Jun. 07, 2023
RF Conducted (Contention-Based Protocol test)	DF02-CB	Kevin Huang	23.2~23.8 / 61~64	Apr. 18, 2023~ May 31, 2023



1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	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%
Bandwidth Measurement	2.0 %	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For non-beamforming mode

Mode	Power Setting
802.11be EHT20_Nss1,(MCS0)_4TX	-
5955MHz	7
6175MHz	6
6415MHz	8
6435MHz	8.5
6475MHz	7.5
6515MHz	6.5
6535MHz	6.5
6695MHz	7.5
6855MHz	7.5
6875MHz Straddle 6.525-6.875GHz	8
6895MHz	8
6995MHz	9
7095MHz	8.5
7115MHz Straddle 6.875-7.125GHz	7.5
802.11be EHT40_Nss1,(MCS0)_4TX	-
5965MHz	10.5
6165MHz	9.5
6405MHz	10.5
6445MHz	10.5
6485MHz	10.5
6525MHz Straddle 6.425-6.525GHz	10
6565MHz	10
6685MHz	10
6845MHz	10
6885MHz Straddle 6.525-6.875GHz	11
6925MHz	11
7005MHz	12
7085MHz	12.5
802.11be EHT80_Nss1,(MCS0)_4TX	-
5985MHz	12.5
6145MHz	12
6385MHz	13
6465MHz	12.5



Mode	Power Setting
6545MHz Straddle 6.425-6.525GHz	12.5
6625MHz	13.5
6705MHz	14
6785MHz	14.5
6865MHz Straddle 6.525-6.875GHz	14
6945MHz	13.5
7025MHz	14.5
802.11be EHT160_Nss1,(MCS0)_4TX	-
6025MHz	15.5
6185MHz	15
6345MHz	15.5
6505MHz Straddle 6.425-6.525GHz	16.5
6665MHz	16.5
6825MHz Straddle 6.525-6.875GHz	16.5
6985MHz	16.5
802.11be EHT320_Nss1,(MCS0)_4TX	-
6105MHz	18
6265MHz	19
6425MHz	18
6585MHz	18
6745MHz	19
6905MHz	18.5

For beamforming mode

Mode	Power Setting
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-
5955MHz	15
6175MHz	13
6415MHz	14
6435MHz	13
6475MHz	12
6515MHz	13
6535MHz	12
6695MHz	12
6855MHz	13
6875MHz Straddle 6.525-6.875GHz	12
6895MHz	12
6995MHz	14
7095MHz	14



Mode	Power Setting
7115MHz Straddle 6.875-7.125GHz	11
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-
5965MHz	18
6165MHz	15
6405MHz	17
6445MHz	16
6485MHz	15
6525MHz Straddle 6.425-6.525GHz	14
6565MHz	15
6685MHz	15
6845MHz	15
6885MHz Straddle 6.525-6.875GHz	15
6925MHz	17
7005MHz	17
7085MHz	17
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-
5985MHz	21
6145MHz	19
6385MHz	22
6465MHz	18
6545MHz Straddle 6.425-6.525GHz	19
6625MHz	19
6705MHz	18
6785MHz	18
6865MHz Straddle 6.525-6.875GHz	19
6945MHz	18
7025MHz	18
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-
6025MHz	24
6185MHz	25
6345MHz	24
6505MHz Straddle 6.425-6.525GHz	24
6665MHz	24
6825MHz Straddle 6.525-6.875GHz	24
6985MHz	23
802.11be EHT320-BF_Nss1,(MCS0)_4TX	-
6105MHz	25
6265MHz	25
6425MHz	25



Mode	Power Setting
6585MHz	25
6745MHz	25
6905MHz	24

Note:

- ◆ Evaluated EHT20 / EHT40 / EHT80 / EHT 160 / EHT320 mode only. Due to similar modulation, the power setting of HEW20 / HEW40 / HEW80 / HEW 160 mode are the same or lower than EHT20 / EHT40 / EHT80 / EHT 160.



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
The EUT performed the testing with Adapter 1 and Adapter 2. "Adapter 1" generated the worst case. Consequently, measurement will follow this same test mode.	
1	EUT + Adapter 1_WLAN 6GHz

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Contention Based Protocol Frequency Stability
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Maximum Equivalent Isotropically Radiated Power (E.I.R.P.) Peak Power Spectral Density (E.I.R.P.)
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	CTX
The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at X axis. Thus the measurement will follow this same test configuration.	
1	EUT in X axis



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. The EUT performed the testing with Adapter 1 and Adapter 2. "Adapter 2" generated the worst case. Consequently, measurement will follow this same test mode. 2. The EUT was performed at X axis, Y axis and Z axis position at Unwanted Emissions above 1GHz, and the worst case was found at X axis. Thus the measurement will follow this same test configuration.
1	EUT in X axis + Adapter 2_WLAN 6GHz
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at X axis. Thus the measurement will follow this same test configuration.
21	EUT in X axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission MASK
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz
Refer to Sporton Test Report No.: FA321751-01 for Co-location RF Exposure Evaluation.	



2.3 EUT Operation during Test

Non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

Beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 10 were executed.

The program was executed as follows:

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

2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1	MOSO	MS-V4000R120-050A0-US	INPUT: 100-240V ~ 50/60Hz, 1.3A max. OUTPUT: 12.0V, 4.0A
Adapter 2	Frecom	F48L1-120400SPAU	INPUT: 100-240V ~ 50/60Hz, 1.4A OUTPUT: 12.0V, 4.0A, 48.0W



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN NB	Lenovo	L440	N/A

For Radiated < 1GHz:

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

For Radiated > 1GHz and RF Radiated (E.I.R.P. Power / PSD):
For Non-beamforming mode

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

For Beamforming mode

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Client	CBN	G54	N/A
C	Notebook	DELL	E4300	N/A

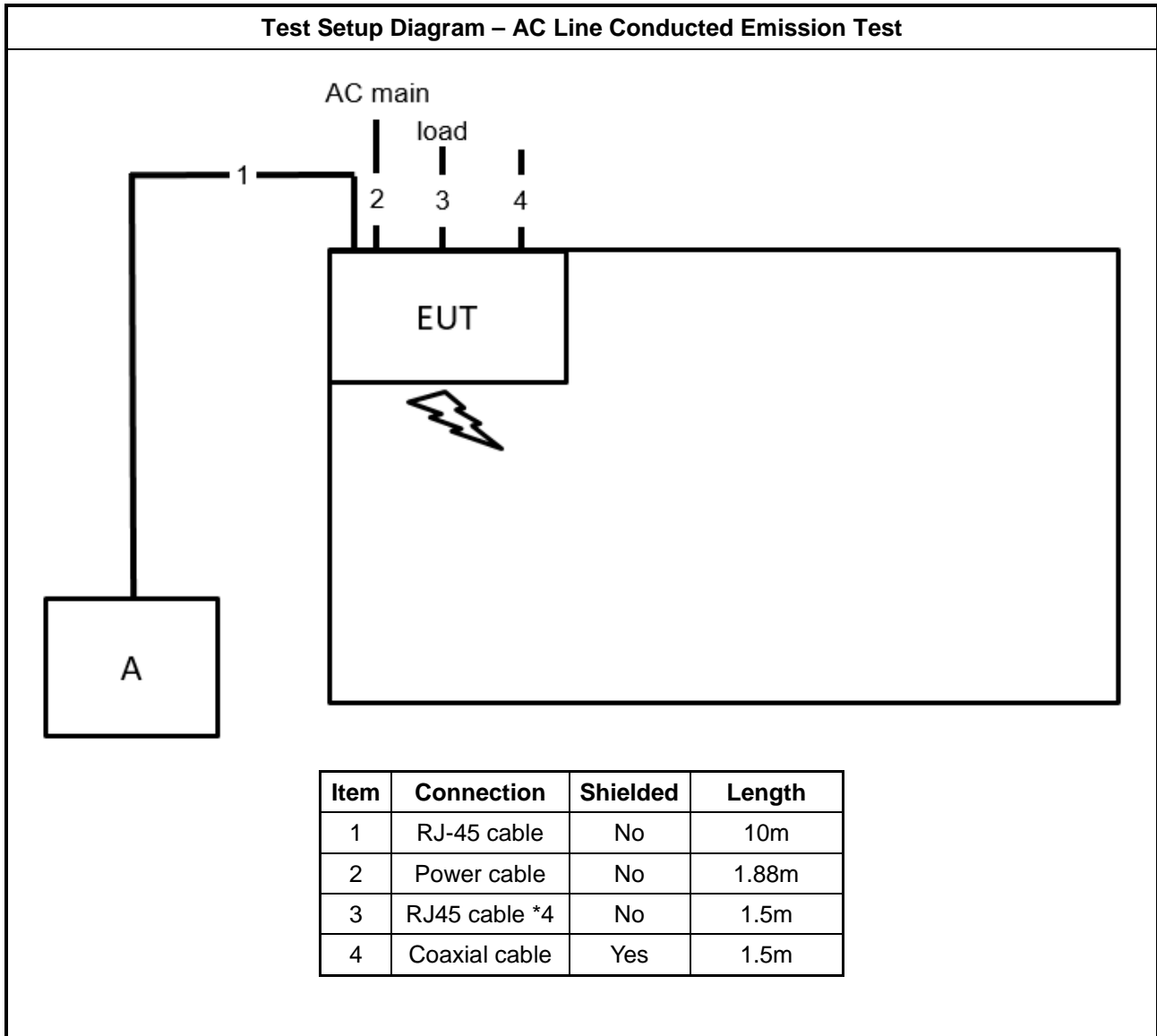
For RF Conducted (Other tests):

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

For RF Conducted (Contention Based Protocol test):

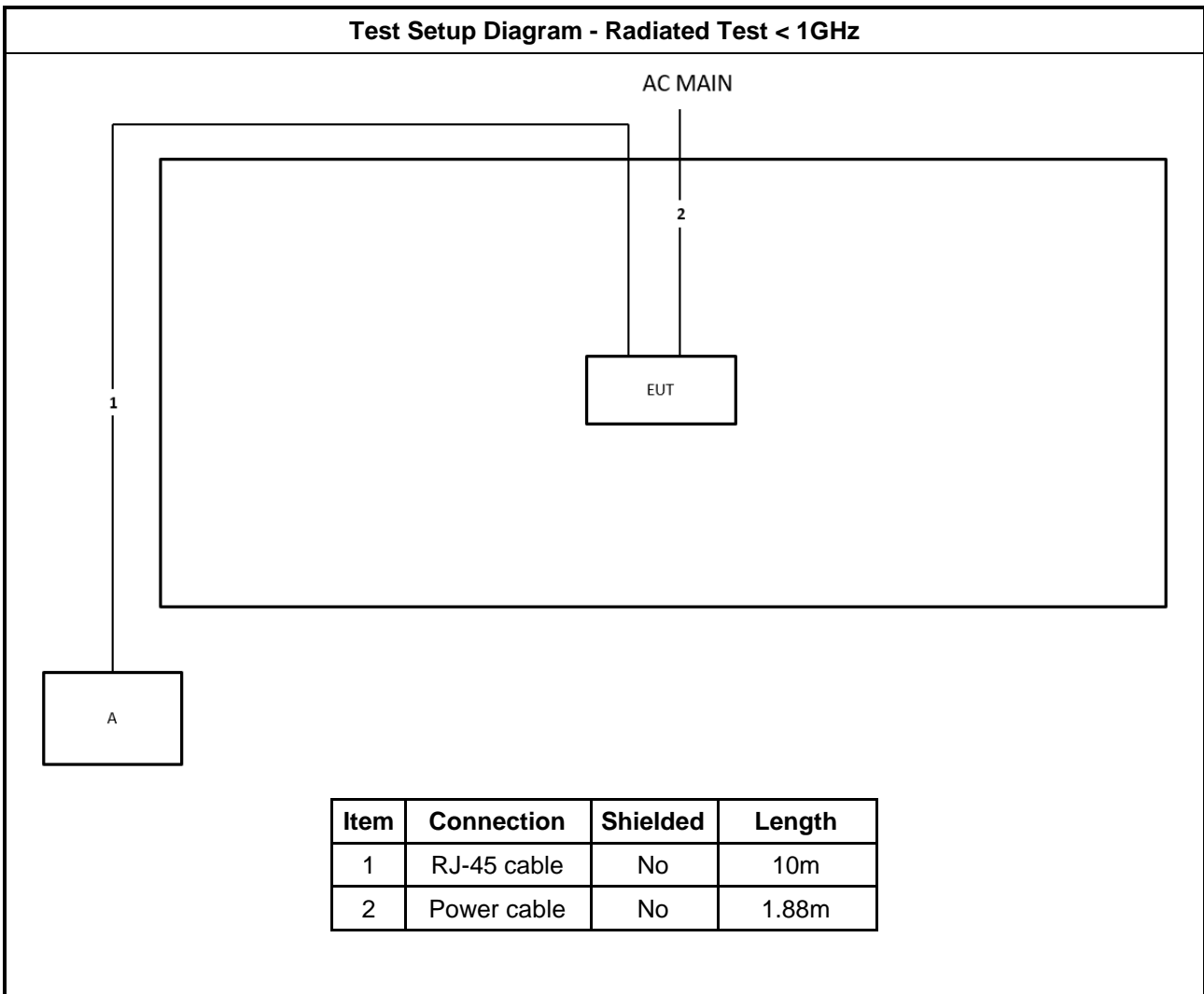
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	WLAN AP	CBN	G54	PD9AX210NG

2.6 Test Setup Diagram

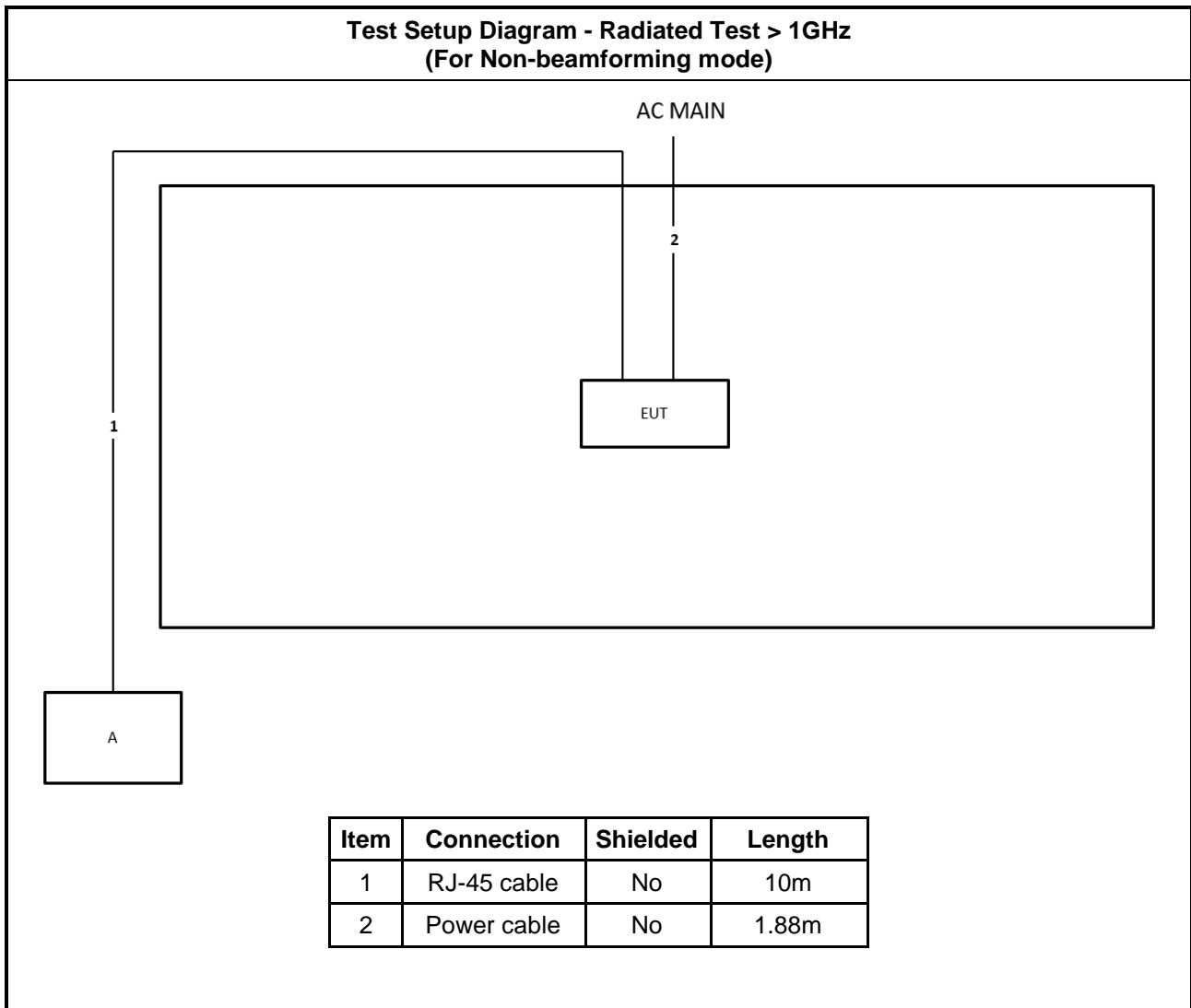


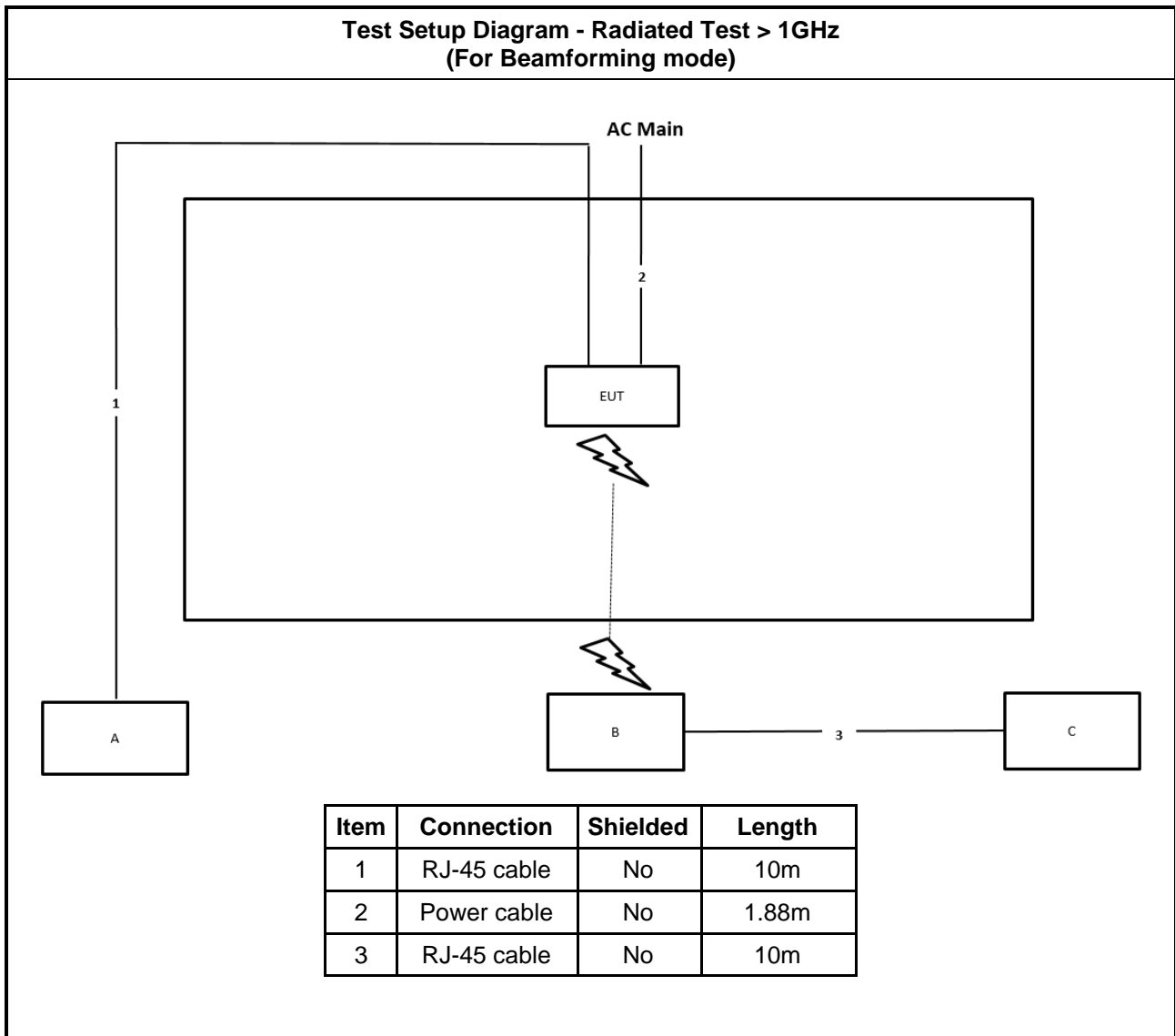


Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	1.88m







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.

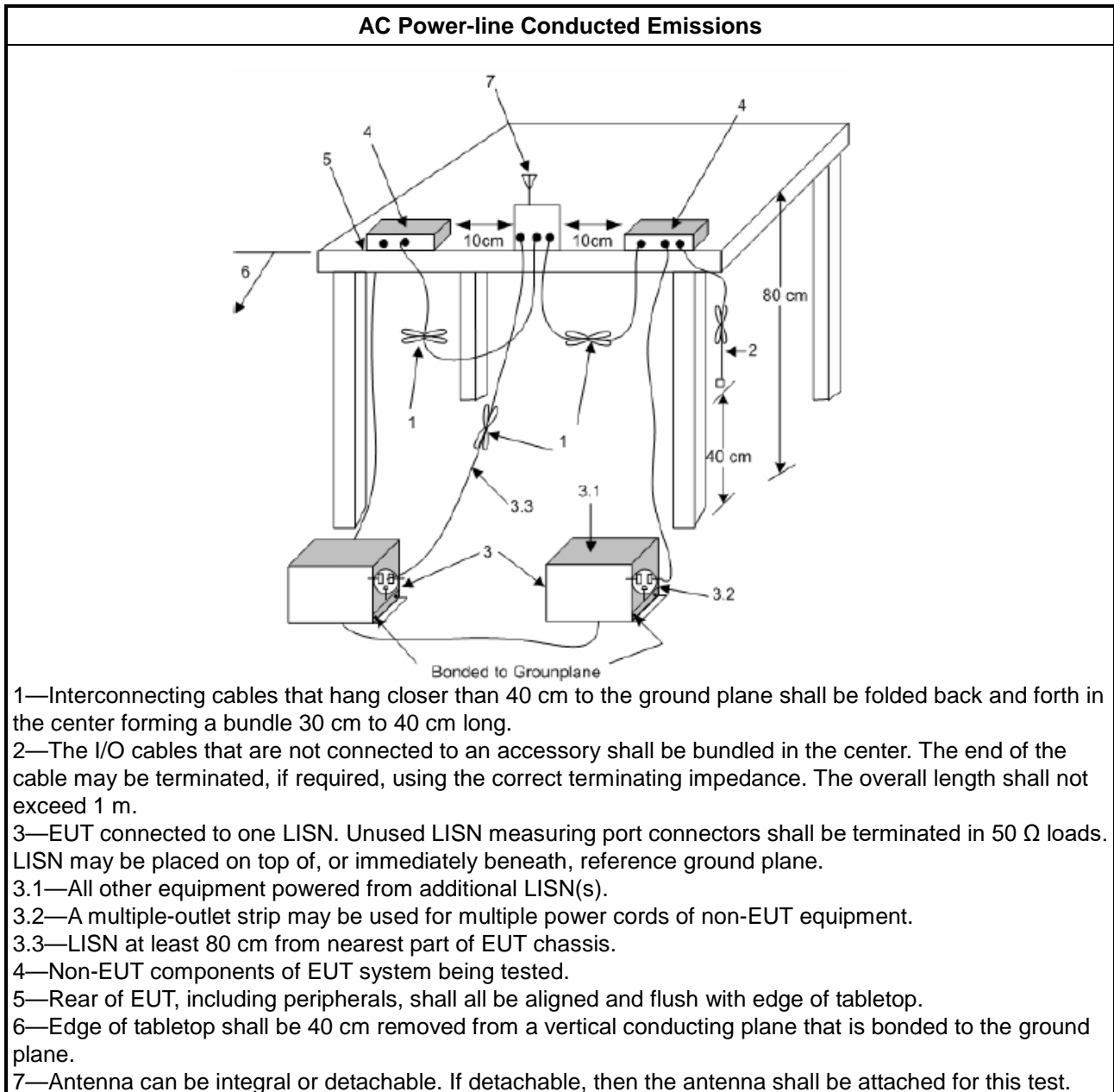
3.1.2 Measuring Instruments

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 (dBuV) = LISN Factor + Cable Loss + Read Level = Level
- b. Margin = - Limit + (Read Level + LISN Factor + Cable Loss)

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5925-6425 GHz band, N/A
<input checked="" type="checkbox"/>	For the 6425-6525 GHz band, N/A
<input checked="" type="checkbox"/>	For the 6525-6875 GHz band, N/A
<input checked="" type="checkbox"/>	For the 6875-7125 GHz band, N/A
RLAN Devices	
<input type="checkbox"/>	For the 5925-6425 GHz band, N/A
<input type="checkbox"/>	For the 6425-6525 GHz band, N/A
<input type="checkbox"/>	For the 6525-6875 GHz band, N/A
<input type="checkbox"/>	For the 6875-7125 GHz band, N/A

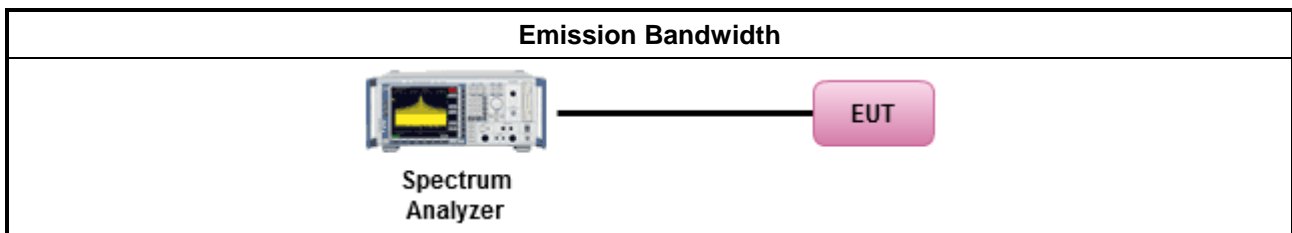
3.2.2 Measuring Instruments

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: 	
<input checked="" type="checkbox"/>	According to FCC KDB 987594 D02 clause II.C, measurement procedure shall refer to 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 Equivalent Isotropically Radiated Power (E.I.R.P.)

3.3.1 Maximum Equivalent Isotropically Radiated Power (E.I.R.P.) Limit

Maximum Equivalent Isotropically Radiated Power (E.I.R.P.) Limit	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5.925 ~ 6.425 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For standard power access point and fixed client device : e.i.r.p < 36 dBm , For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees not exceed 125 mW (21 dBm). ▪ For indoor access point : e.i.r.p < 30 dBm. ▪ For subordinate device control of an indoor access point : e.i.r.p < 30 dBm. ▪ For client device control of a standard power access point : e.i.r.p < 30 dBm. ▪ For client device control of an indoor access point : e.i.r.p < 24 dBm.
<input checked="" type="checkbox"/>	For the 6.425 ~ 6.525 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For indoor access point : e.i.r.p < 30 dBm. ▪ For client device control of an indoor access point : e.i.r.p < 24 dBm.
<input checked="" type="checkbox"/>	For the 6.525 ~ 6.875 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For standard power access point and fixed client device : e.i.r.p < 36 dBm , For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees not exceed 125 mW (21 dBm). ▪ For indoor access point : e.i.r.p < 30 dBm. ▪ For subordinate device control of an indoor access point : e.i.r.p < 30 dBm. ▪ For client device control of a standard power access point : e.i.r.p < 30 dBm. ▪ For client device control of an indoor access point : e.i.r.p < 24 dBm.
<input checked="" type="checkbox"/>	For the 6.875 ~ 7.125 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For indoor access point : e.i.r.p < 30 dBm. ▪ For client device control of an indoor access point : e.i.r.p < 24 dBm.
RLAN Devices	
<input type="checkbox"/>	For the 5.925 ~ 7.125 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For low-power indoor access-points & indoor subordinate devices < 30 dBm . ▪ For low-power client devices < 24 dBm.
<input type="checkbox"/>	For the 5.925 ~ 6.875 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For standard-power access points & fixed client devices < 36 dBm. ▪ For standard client devices < 30 dBm.

3.3.2 Measuring Instruments

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



3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ According to FCC KDB 987594 D02 clause II.E, the test measurement procedure shall refer to KDB 789033. 	
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). Spectrum analyzer setting: RBW/VBW : 1/3MHz ; Detector : RMS ; Trace mode : Average ; Sweep Count 100.
<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 type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).
<input 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. ▪ 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 checked="" type="checkbox"/> For radiated measurement.	
<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing" ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. ▪ Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation. 	

Note :

The test is the final test result, It includes antenna /cable loss factor & FSL factor.

The EIRP calculation refer to "KDB 412172 D01 Determining ERP and EIRP v01r01"

EIRP Formula :

$$EIRP(dBm) = PR(dBm) + LP(FSL \text{ factor})$$

where;

PR(dBm) : Power measurement level include antenna/cable loss

LP : Free Space Loss(dB)

PR Formula :

$$PR(dBm) = P \text{ Meas}(dBm) - GR(dBi) + LC(dB)$$

where;

P Meas(dBm) : Power measurement level

GR(dBi) : Gain of the receive(measurement) antenna (dBi)

LC(dB) : Measurement cable loss (dB)

LP(FSL factor) Formula :

$$LP(dB) = 20 \log F + 20 \log D - 27.54$$

where;

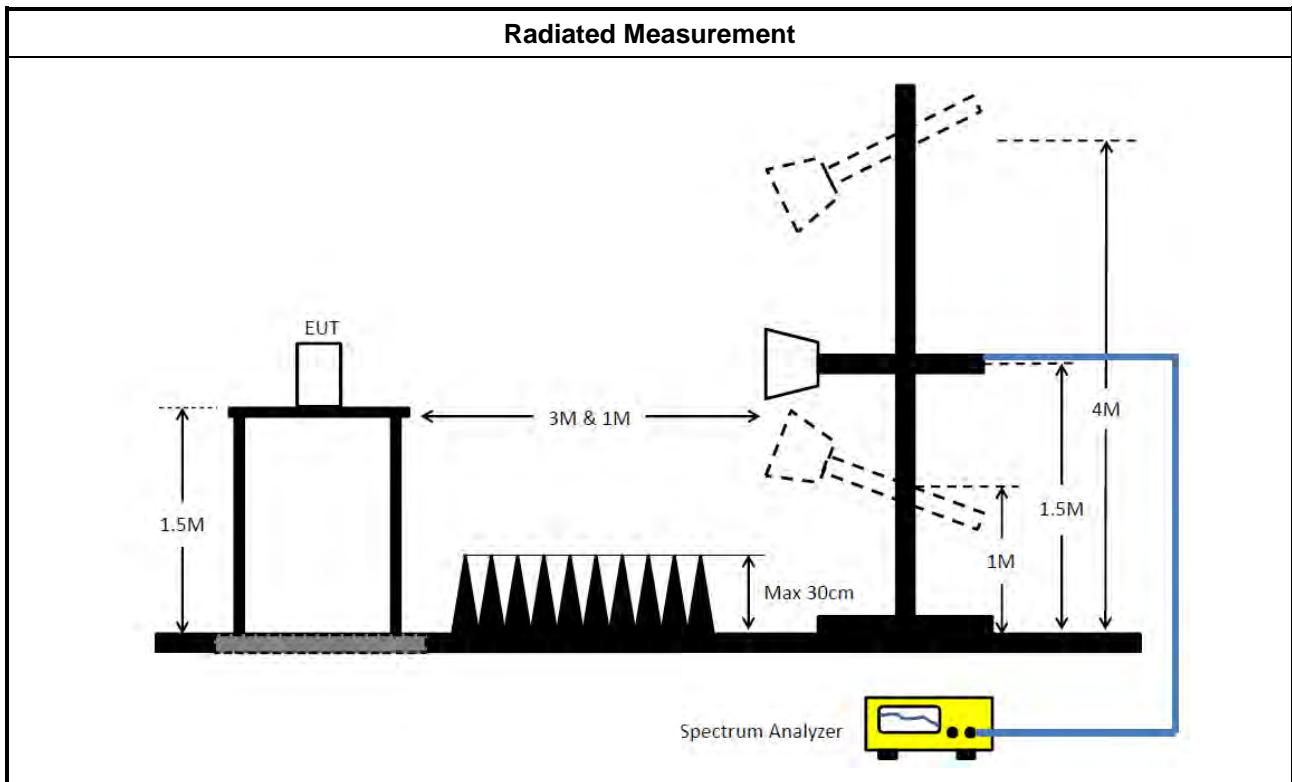
F(MHz) : EUT center frequency
 D(m) : Measurement distance

For Example:
 Test mode TXBF BE20 5955MHz EIRP measurement
 PR Formula :
 $PR(dBm) = -36.58 - 11.10 + 6.68 = -41.00$

LP(FSL factor) Formula :
 $LP(dB) = 20\log(5955) + 20\log(3) - 27.5 = 57.54$

EIRP Formula :
 $EIRP(dBm) = -41.00 + 57.54 = 16.54$

3.3.4 Test Setup



3.3.5 Test Result of Maximum Equivalent Isotropically Radiated Power (E.I.R.P)

Refer as Appendix C



3.4 Peak Power Spectral Density (E.I.R.P.)

3.4.1 Peak Power Spectral Density (E.I.R.P.) Limit

Peak Power Spectral Density (E.I.R.P.) Limit	
UNII Devices	
<input checked="" type="checkbox"/>	For the 5.925 ~ 6.425 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For standard power access point and fixed client device : e.i.r.p PSD < 23 dBm/MHz. ▪ For indoor access point : e.i.r.p PSD < 5 dBm/MHz. ▪ For subordinate device control of an indoor access point : e.i.r.p PSD < 5 dBm/MHz. ▪ For client device control of a standard power access point : e.i.r.p PSD < 17 dBm/MHz. ▪ For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
<input checked="" type="checkbox"/>	For the 6.425 ~ 6.525 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For indoor access point : e.i.r.p PSD < 5 dBm/MHz. ▪ For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
<input checked="" type="checkbox"/>	For the 6.525 ~ 6.875 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For standard power access point and fixed client device : e.i.r.p PSD < 23 dBm/MHz. ▪ For indoor access point : e.i.r.p PSD < 5 dBm/MHz. ▪ For subordinate device control of an indoor access point : e.i.r.p PSD < 5 dBm/MHz. ▪ For client device control of a standard power access point : e.i.r.p PSD < 17 dBm/MHz. ▪ For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
<input checked="" type="checkbox"/>	For the 6.875 ~ 7.125 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For indoor access point : e.i.r.p PSD < 5 dBm/MHz. ▪ For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
RLAN Devices	
<input type="checkbox"/>	For the 5.925 ~ 7.125 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For low-power indoor access-points & indoor subordinate devices < 5 dBm / MHz. ▪ For low-power client devices < -1 dBm / MHz.
<input type="checkbox"/>	For the 5.925 ~ 6.875 GHz band:
<input type="checkbox"/>	<ul style="list-style-type: none"> ▪ For standard-power access points & fixed client devices < 23 dBm / MHz. ▪ For standard client devices < 17 dBm / MHz.

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"> ▪ According to FCC KDB 987594 D02 clause II.F, the measurement procedure shall refer to KDB 789033. Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
	[duty cycle ≥ 98% or external video / power trigger]
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
	duty cycle < 98% and average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<input type="checkbox"/>	For conducted measurement.
	<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below:
<input 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 checked="" type="checkbox"/>	For radiated measurement.
<input type="checkbox"/>	Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
<input type="checkbox"/>	Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

Note :

The test is the final test result, It includes antenna /cable loss factor & FSL factor.
The EIRP PSD calculation refer to "KDB 412172 D01 Determining ERP and EIRP v01r01"

EIRP PSD Formula :

$$\text{EIRP PSD(dBm/MHz)} = \text{PR(dBm/MHz)} + \text{LP(FSL factor)}$$

where;

PR(dBm/MHz) : Power measurement level include antenna/cable loss

LP : Free Space Loss(dB)

PR Formula :

$$\text{PR(dBm/MHz)} = \text{P Meas(dBm/MHz)} - \text{GR(dBi)} + \text{LC(dB)}$$

where;

P Meas(dBm/MHz) : PSD measurement level

GR(dBi) : Gain of the receive(measurement) antenna (dBi)

LC(dB) : Measurement cable loss (dB)

LP(FSL factor) Formula :

$$\text{LP(dB)} = 20 \log F + 20 \log D - 27.54$$

where;

F(MHz) : EUT center frequency

D(m) : Measurement distance

For Example:

Test mode TXBF BE20 5955MHz EIRP PSD measurement

PR Formula :

$$\text{PR(dBm/MHz)} = -48.22 - 10.22 + 5.48 = -52.96$$

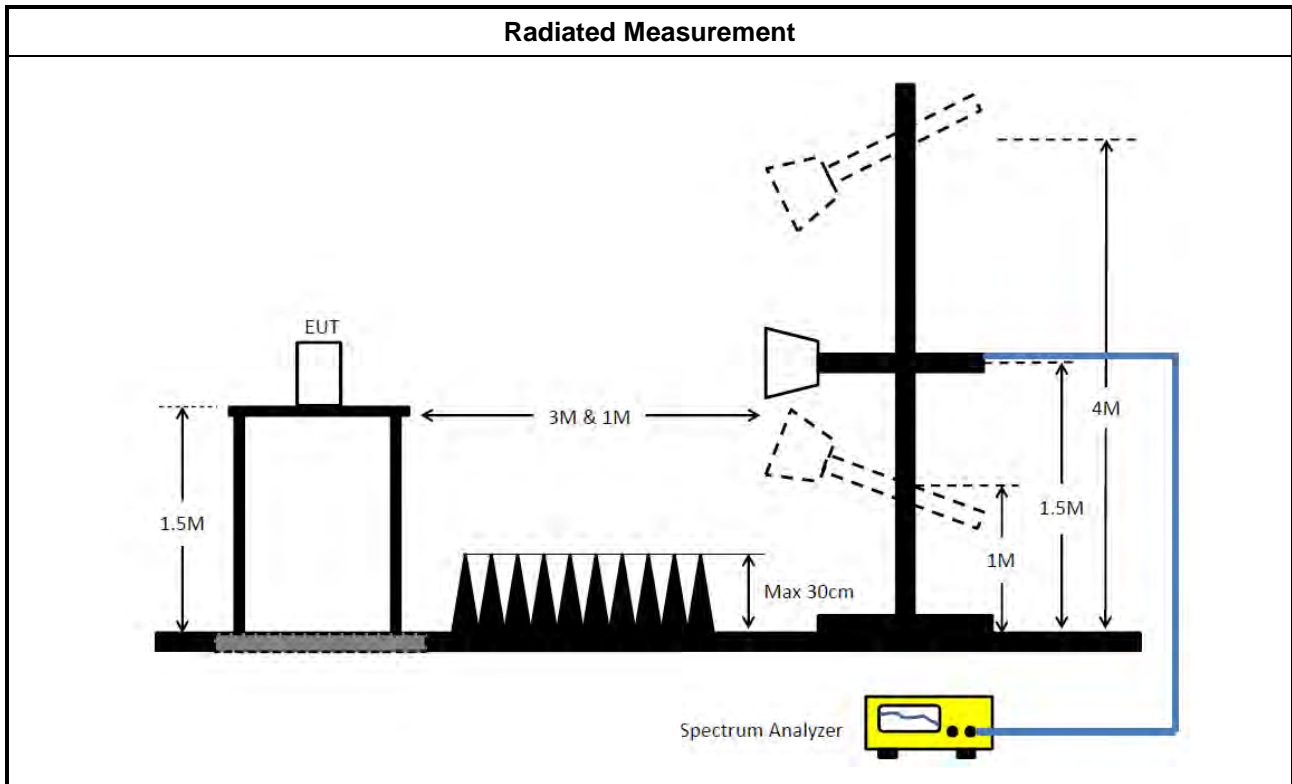
LP(FSL factor) Formula :

$$\text{LP(dB)} = 20 \log(5963.7) + 20 \log(3) - 27.5 = 57.55$$

EIRP PSD Formula

$$\text{EIRP PSD(dBm/MHz)} = -52.96 + 57.55 = 4.59$$

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density (E.I.R.P.)

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Unwanted Emissions Limit

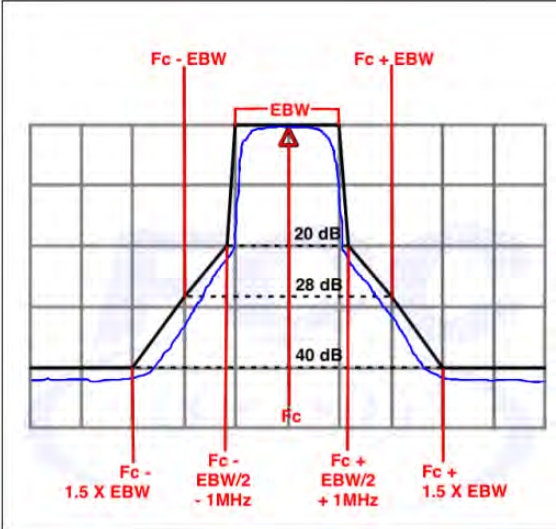
Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
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($20 \times \log(\text{standard distance}/\text{test distance}) = 20\log(3/1) = 9.54\text{dB}$).
EX. Above 18GHz emission limit calculation (3m to 1m) = $54\text{dBuV/m at } 3\text{m} + 9.54\text{dB} = 63.54\text{ dBuV/m at } 1\text{m}$.

Un-restricted band emissions above 1GHz Limit	
Frequency	Limit
Any outside the 5.945 – 7.125 GHz emission	<p>e.i.r.p. -27 dBm [68.2 dBuV/m@3m]</p> <p>Note 1: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m($20 \times \log(\text{standard distance}/\text{test distance}) = 20\log(3/1) = 9.54\text{dB}$). EX. Above 18GHz emission limit calculation (3m to 1m) = $68.2\text{dBuV/m at } 3\text{m} + 9.54\text{dB} = 77.74\text{ dBuV/m at } 1\text{m}$.</p> <p>Note 2:-27 dBm EIRP OOBE is measured RMS which is a deviation from the current 15E rules for 5 GHz bands. In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit.</p>

Frequency	Emission MASK Limit
5.945 – 7.125 GHz	<p>Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.</p> 

3.5.2 Measuring Instruments

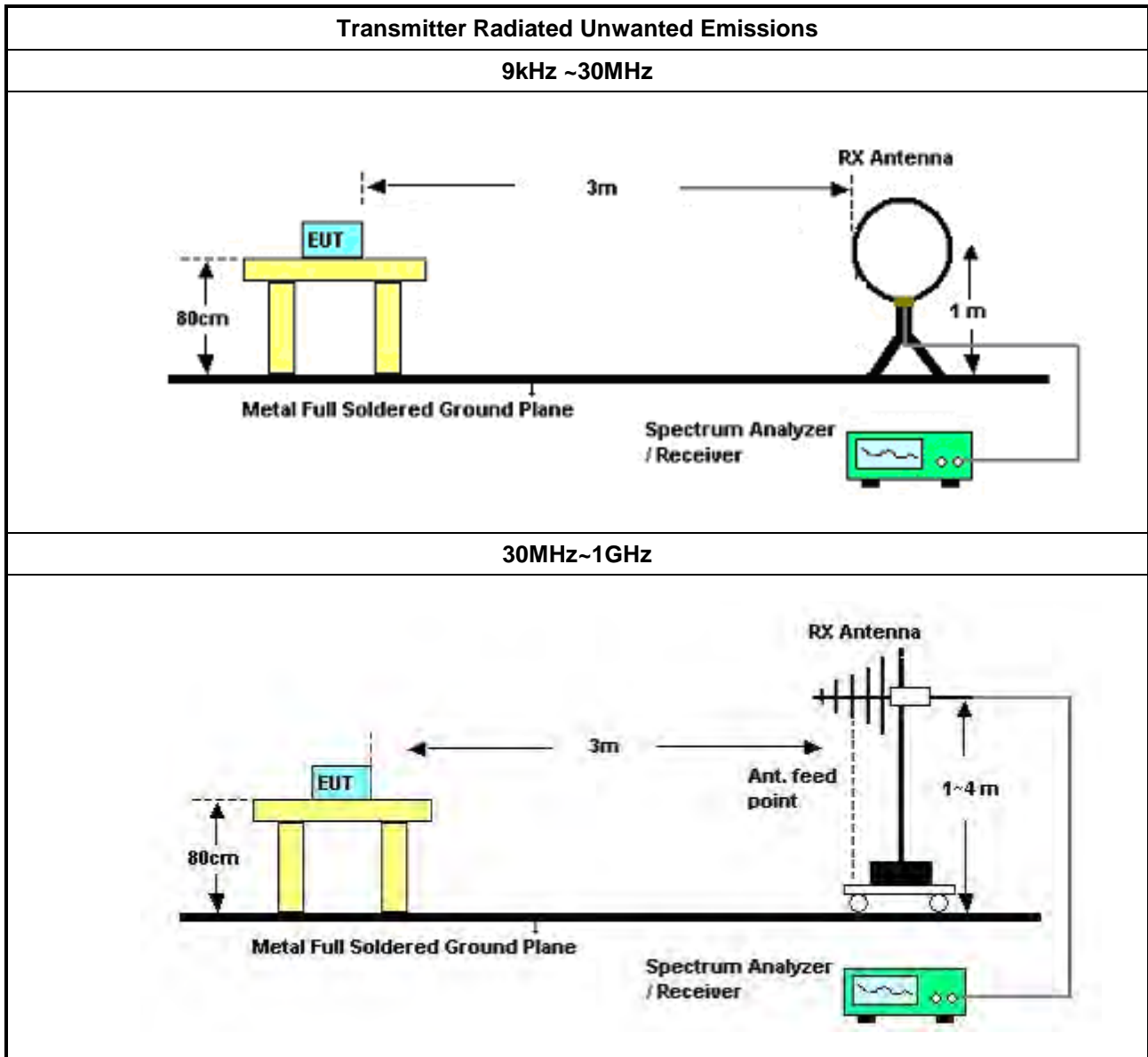
Refer a test equipment and calibration data table in this test report.

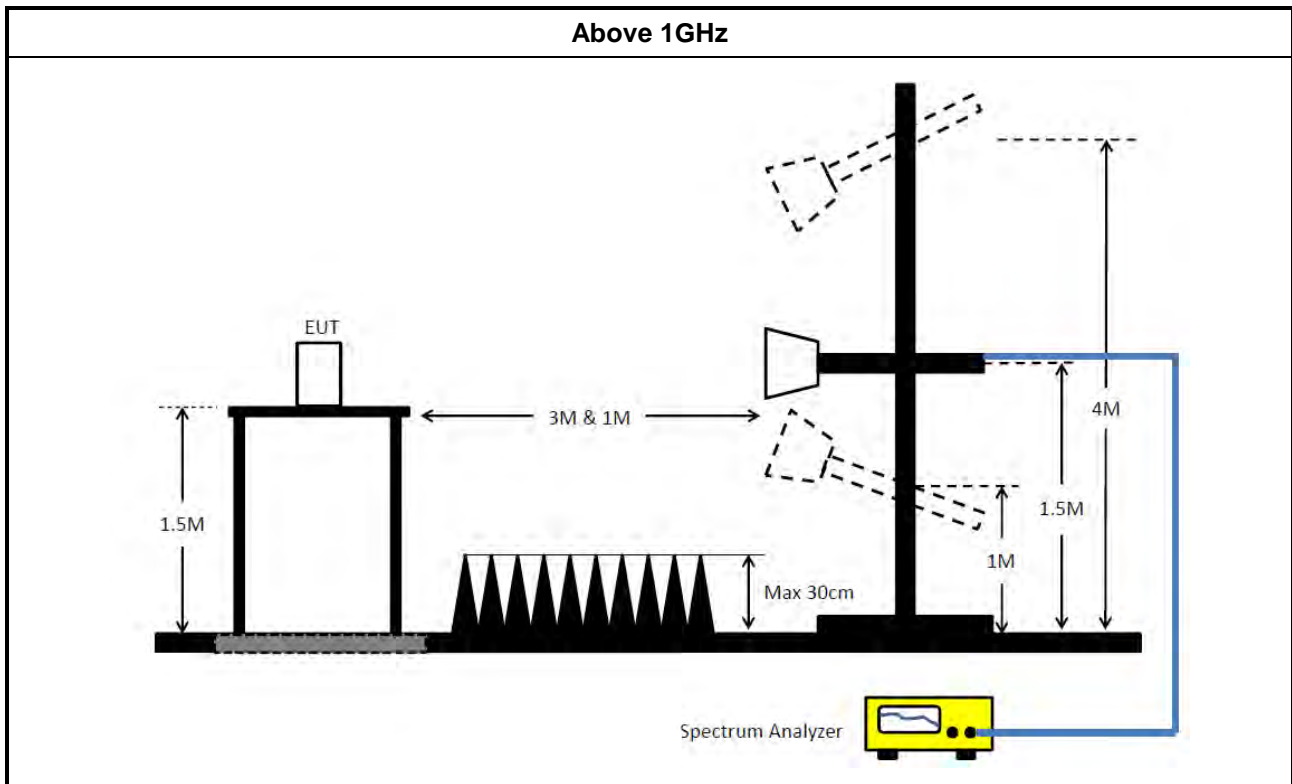


3.5.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ According to FCC KDB 987594 D02 II.G. the unwanted emission measurement procedure shall refer to KDB 789300(except emission MASK). Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). 	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging). (For unrestricted band measurement)
<input type="checkbox"/>	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
<input checked="" type="checkbox"/>	Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.(For restricted band average measurement)
<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)3)d)ii) for Band edge Integration measurements. 	
<ul style="list-style-type: none"> ▪ For emission MASK shall be measured using following options below: 	
<input checked="" type="checkbox"/>	Refer as FCC KDB 987594 D02, J) In-Band Emissions
<ul style="list-style-type: none"> ▪ For radiated measurement. 	
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. ▪ 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

3.6 Contention Based Protocol

3.6.1 Contention Based Protocol Limit

EUT can detect an AWGN signal with 90% (or better) level of certainty.

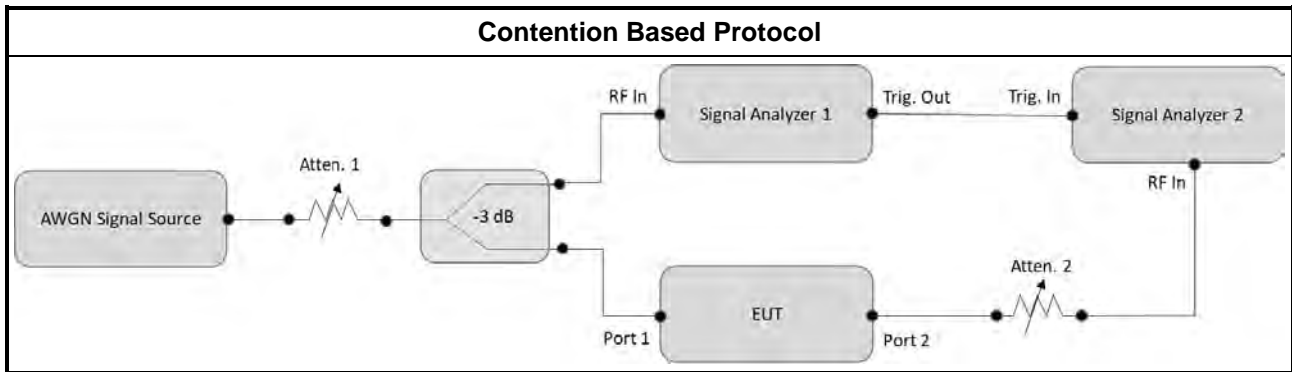
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method	
<input type="checkbox"/>	For Contention Based Protocol shall be measured using following options below:
<input checked="" type="checkbox"/>	Refer as FCC KDB 987594 D02, I) Contention Based Protocol.

3.6.4 Test Setup



3.6.5 Test Result of Contention Based Protocol

Refer as Appendix F

3.7 Frequency Stability

3.7.1 Frequency Stability Limit

Frequency Stability Limit	
▪	In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

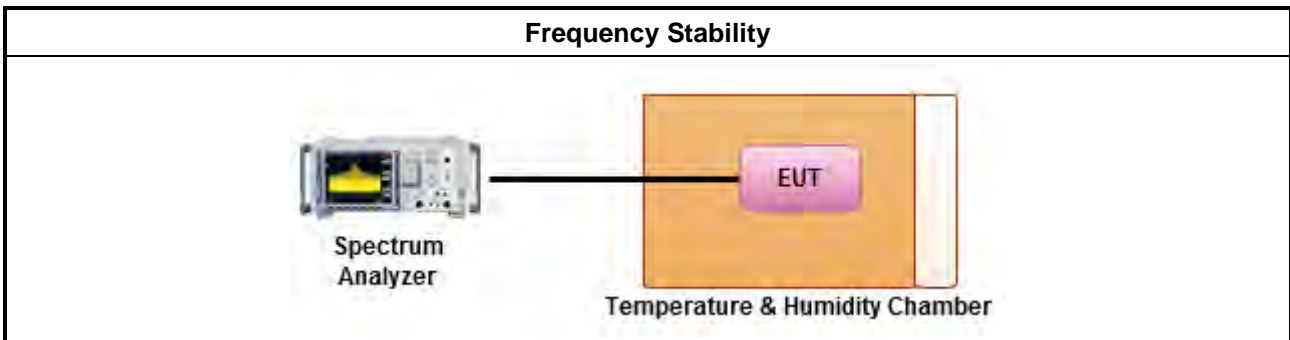
3.7.2 Measuring Instruments

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

3.7.3 Test Procedures

Test Method	
▪	Refer as ANSI C63.10, clause 6.8 for frequency stability tests
▪	Frequency stability with respect to ambient temperature
▪	Frequency stability when varying supply voltage
▪	Extreme temperature is -30°C~50°C.

3.7.4 Test Setup



3.7.5 Test Result of Frequency Stability

Refer as Appendix G



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 20, 2023	Feb. 19, 2024	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 16, 2023	Feb. 15, 2024	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 27, 2023	Apr. 26, 2024	Conduction (CO01-CB)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 09, 2023	Feb. 08, 2024	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 23, 2023	Mar. 22, 2024	Radiation (03CH03-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH03-CB	30 MHz ~ 1 GHz	Jan. 17, 2023	Jan. 16, 2024	Radiation (03CH03-CB)
Bilog Antenna with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	2928 & AT-N0608	20MHz ~ 2GHz	Feb. 19, 2023	Feb. 18, 2024	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8447D	2944A10259	9kHz ~ 1.3GHz	Jan. 09, 2023	Jan. 08, 2024	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 10, 2022	Jun. 09, 2023	Radiation (03CH03-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH03-CB)
RF Cable-low	Woken	RG402	Low Cable-02+29	30MHz ~ 1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 06, 2022	May 05, 2023	Radiation (03CH01-CB)
Horn Antenna	ETS-LINDGRE N	3115	00075790	750MHz ~ 18GHz	Nov. 04, 2022	Nov. 03, 2023	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 19, 2022	May 18, 2023	Radiation (03CH01-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov 29, 2022	Nov 29, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 23, 2023	Feb. 22, 2024	Radiation (03CH04-CB)
Horn Antenna	ETS-Lindgren	3115	00143147	750MHz~18GHz	Oct. 12, 2022	Oct. 11, 2023	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)
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. 28, 2022	Mar. 27, 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 21, 2023	Mar. 20, 2024	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	May 27, 2022	May 26, 2023	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)
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)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
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)
Spectrum Analyzer	R&S	FSV40	101025	9kHz ~ 40GHz	Oct. 28, 2022	Oct. 27, 2023	Conducted (DF02-CB)
Signal generator	R&S	SMB100A	181239	1MHz-40GHz	Dec. 30, 2022	Dec. 29, 2023	Conducted (DF02-CB)
Vector Signal generator	R&S	SMW200A	109426	100kHz- 7.5GHz	Dec. 29, 2022	Dec. 28, 2023	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -05	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -06	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -07	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -08	1GHz ~ 8GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (DF02-CB)
100MS/s Digitizer	N.I	USB-5133	F65206	N/A	Mar. 17, 2023	Mar. 16, 2024	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-30	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (DF02-CB)

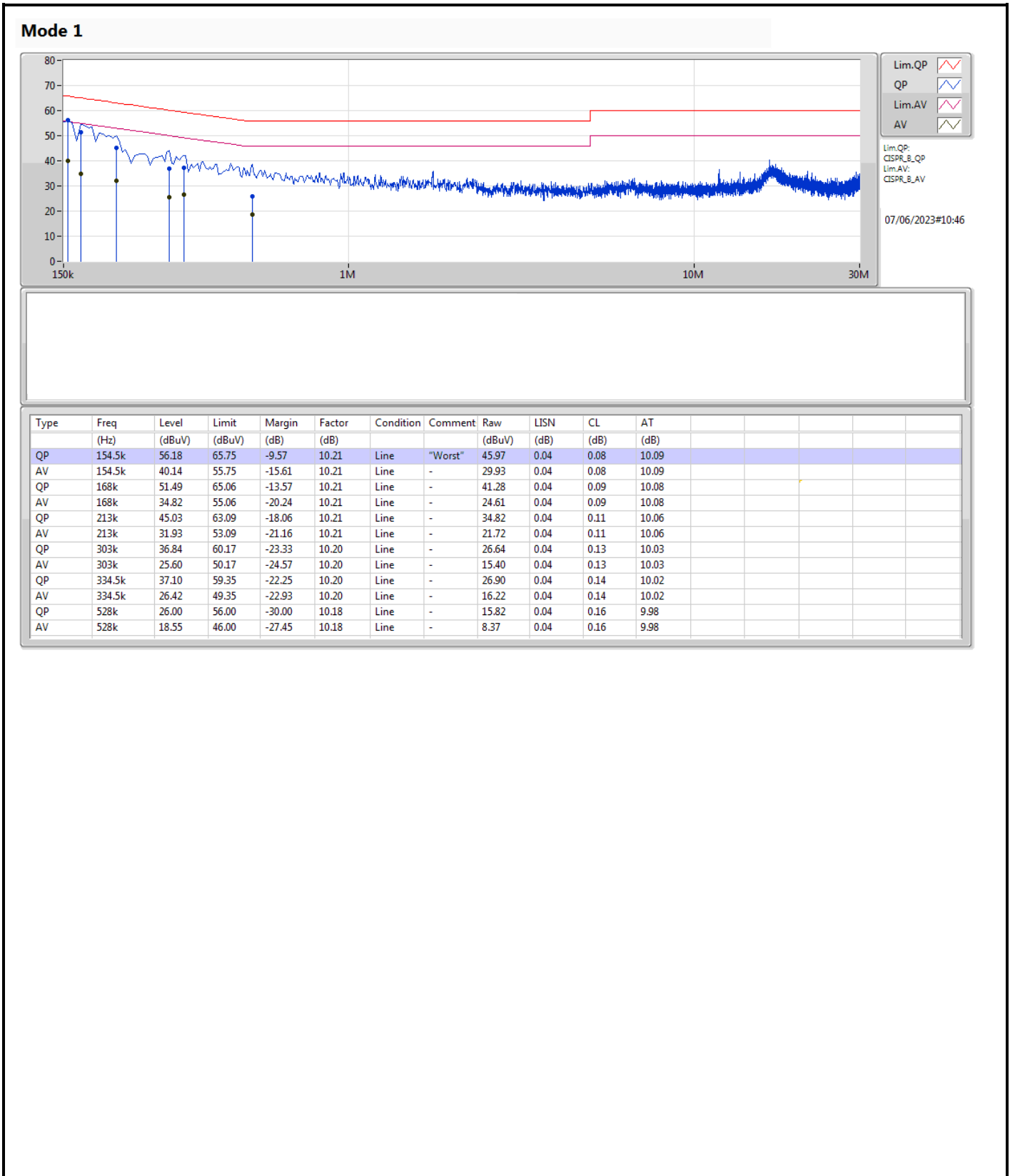
Note: Calibration Interval of instruments listed above is one year.

NCR means Non-Calibration required.

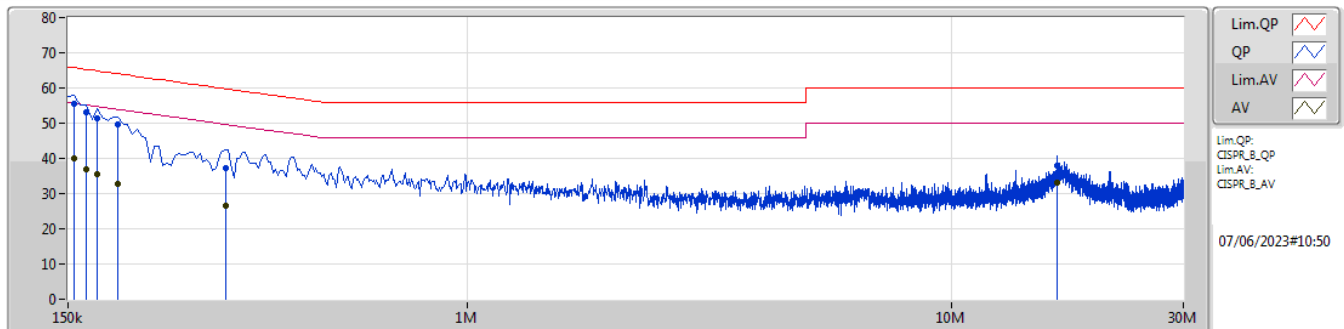


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	154.5k	56.18	65.75	-9.57	Line



Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	154.5k	55.58	65.75	-10.17	10.22	Neutral	"Worst"	45.36	0.05	0.08	10.09
AV	154.5k	39.94	55.75	-15.81	10.22	Neutral	-	29.72	0.05	0.08	10.09
QP	163.5k	53.22	65.27	-12.05	10.22	Neutral	-	43.00	0.05	0.09	10.08
AV	163.5k	36.99	55.27	-18.28	10.22	Neutral	-	26.77	0.05	0.09	10.08
QP	172.5k	51.36	64.83	-13.47	10.23	Neutral	-	41.13	0.05	0.10	10.08
AV	172.5k	35.39	54.83	-19.44	10.23	Neutral	-	25.16	0.05	0.10	10.08
QP	190.5k	49.75	64.01	-14.26	10.23	Neutral	-	39.52	0.05	0.11	10.07
AV	190.5k	32.60	54.01	-21.41	10.23	Neutral	-	22.37	0.05	0.11	10.07
QP	316.5k	37.13	59.80	-22.67	10.22	Neutral	-	26.91	0.05	0.14	10.03
AV	316.5k	26.47	49.80	-23.33	10.22	Neutral	-	16.25	0.05	0.14	10.03
QP	16.467M	37.83	60.00	-22.17	10.46	Neutral	-	27.37	0.22	0.25	9.99
AV	16.467M	32.97	50.00	-17.03	10.46	Neutral	-	22.51	0.22	0.25	9.99



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
802.11be EHT20_Nss1,(MCS0)_4TX	23.85M	19.13M	19M1D1D	22.59M	19.042M
802.11be EHT40_Nss1,(MCS0)_4TX	45.78M	38.142M	38M1D1D	43.62M	38.083M
802.11be EHT80_Nss1,(MCS0)_4TX	93M	77.93M	77M9D1D	88.8M	77.695M
802.11be EHT160_Nss1,(MCS0)_4TX	178.08M	157.505M	158MD1D	173.28M	156.8M
802.11be EHT320_Nss1,(MCS0)_4TX	346.56M	316.421M	316MD1D	338.88M	315.951M
6.425-6.525GHz	-	-	-	-	-
802.11be EHT20_Nss1,(MCS0)_4TX	23.76M	19.571M	19M6D1D	22.62M	19.1M
802.11be EHT40_Nss1,(MCS0)_4TX	45.12M	38.142M	38M1D1D	43.56M	38.025M
802.11be EHT80_Nss1,(MCS0)_4TX	91.56M	77.93M	77M9D1D	88.8M	77.695M
802.11be EHT160_Nss1,(MCS0)_4TX	176.4M	157.361M	157MD1D	173.52M	157.121M
802.11be EHT320_Nss1,(MCS0)_4TX	345.6M	316.891M	317MD1D	339.84M	315.481M
6.525-6.875GHz	-	-	-	-	-
802.11be EHT20_Nss1,(MCS0)_4TX	23.67M	19.13M	19M1D1D	22.68M	19.07M
802.11be EHT40_Nss1,(MCS0)_4TX	44.94M	38.142M	38M1D1D	43.74M	38.025M
802.11be EHT80_Nss1,(MCS0)_4TX	91.68M	78.047M	78MOD1D	87.36M	77.695M
802.11be EHT160_Nss1,(MCS0)_4TX	175.2M	157.361M	157MD1D	172.56M	156.882M
802.11be EHT320_Nss1,(MCS0)_4TX	348.48M	316.891M	317MD1D	338.88M	315.481M
6.875-7.125GHz	-	-	-	-	-
802.11be EHT20_Nss1,(MCS0)_4TX	23.85M	19.159M	19M2D1D	22.5M	19.07M
802.11be EHT40_Nss1,(MCS0)_4TX	44.4M	38.201M	38M2D1D	43.8M	38.025M
802.11be EHT80_Nss1,(MCS0)_4TX	90.96M	78.047M	78MOD1D	87.36M	77.695M
802.11be EHT160_Nss1,(MCS0)_4TX	176.16M	157.27M	157MD1D	172.32M	157.035M

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	Port 1-OBW	Port 2-N dB	Port 2-OBW	Port 3-N dB	Port 3-OBW	Port 4-N dB	Port 4-OBW
			(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	
802.11be EHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5955MHz	Pass	Inf	22.74M	19.1M	22.77M	19.1M	23.43M	19.1M	23.73M	19.1M
6175MHz	Pass	Inf	22.95M	19.071M	23.43M	19.1M	23.85M	19.1M	23.64M	19.13M
6415MHz	Pass	Inf	22.59M	19.042M	22.59M	19.13M	23.22M	19.1M	22.65M	19.071M
6435MHz	Pass	Inf	22.89M	19.1M	22.83M	19.1M	23.67M	19.1M	23.64M	19.571M
6475MHz	Pass	Inf	22.77M	19.13M	22.62M	19.13M	23.64M	19.1M	23.46M	19.1M
6515MHz	Pass	Inf	22.89M	19.1M	22.83M	19.13M	23.76M	19.1M	23.37M	19.13M
6535MHz	Pass	Inf	22.83M	19.13M	23.37M	19.13M	23.67M	19.1M	23.52M	19.1M
6695MHz	Pass	Inf	23.1M	19.1M	23.19M	19.13M	23.19M	19.071M	23.58M	19.13M
6855MHz	Pass	Inf	23.31M	19.071M	22.68M	19.13M	23.67M	19.13M	23.49M	19.13M
6875MHz Straddle 6.525-6.875GHz	Pass	Inf	23.25M	19.1M	22.71M	19.1M	22.92M	19.13M	23.37M	19.07M
6895MHz	Pass	Inf	22.86M	19.071M	22.95M	19.1M	23.64M	19.071M	23.85M	19.1M
6995MHz	Pass	Inf	23.16M	19.071M	23.07M	19.1M	23.73M	19.1M	23.49M	19.13M
7095MHz	Pass	Inf	23.01M	19.071M	22.5M	19.071M	23.55M	19.071M	23.16M	19.159M
7115MHz Straddle 6.875-7.125GHz	Pass	Inf	23.01M	19.07M	23.13M	19.1M	23.46M	19.1M	23.58M	19.1M
802.11be EHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5965MHz	Pass	Inf	43.98M	38.142M	44.76M	38.142M	44.1M	38.083M	43.98M	38.083M
6165MHz	Pass	Inf	44.82M	38.142M	45.78M	38.083M	44.22M	38.083M	43.92M	38.142M
6405MHz	Pass	Inf	45M	38.142M	43.98M	38.083M	45.24M	38.142M	43.62M	38.142M
6445MHz	Pass	Inf	44.28M	38.142M	43.56M	38.083M	44.34M	38.083M	43.8M	38.142M
6485MHz	Pass	Inf	45.12M	38.083M	44.16M	38.025M	44.22M	38.142M	43.92M	38.083M
6525MHz Straddle 6.425-6.525GHz	Pass	Inf	44.28M	38.081M	44.04M	38.081M	44.52M	38.141M	44.4M	38.081M
6565MHz	Pass	Inf	44.22M	38.083M	44.4M	38.142M	44.46M	38.083M	43.92M	38.083M
6685MHz	Pass	Inf	43.86M	38.142M	43.74M	38.083M	44.16M	38.083M	43.74M	38.025M
6845MHz	Pass	Inf	44.52M	38.142M	44.7M	38.083M	43.86M	38.142M	44.94M	38.083M
6885MHz Straddle 6.525-6.875GHz	Pass	Inf	44.04M	38.081M	44.88M	38.081M	44.04M	38.081M	44.22M	38.081M
6925MHz	Pass	Inf	44.16M	38.201M	44.28M	38.142M	43.8M	38.083M	44.4M	38.025M
7005MHz	Pass	Inf	44.1M	38.142M	43.98M	38.025M	43.8M	38.025M	44.1M	38.083M
7085MHz	Pass	Inf	44.28M	38.083M	44.4M	38.083M	44.1M	38.142M	44.28M	38.083M
802.11be EHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5985MHz	Pass	Inf	90M	77.93M	91.32M	77.695M	90.36M	77.812M	88.8M	77.695M
6145MHz	Pass	Inf	90.96M	77.812M	89.28M	77.93M	90.96M	77.812M	90.84M	77.812M
6385MHz	Pass	Inf	92.4M	77.93M	89.28M	77.812M	90.12M	77.812M	93M	77.812M
6465MHz	Pass	Inf	90.24M	77.93M	88.8M	77.812M	90M	77.93M	91.56M	77.695M
6545MHz Straddle 6.425-6.525GHz	Pass	Inf	90.96M	77.841M	90.72M	77.841M	89.64M	77.841M	90.72M	77.841M
6625MHz	Pass	Inf	90.96M	78.047M	88.8M	77.93M	89.4M	77.812M	90.84M	77.695M
6705MHz	Pass	Inf	91.68M	77.812M	89.64M	77.93M	90.36M	77.93M	89.52M	77.812M
6785MHz	Pass	Inf	90.12M	77.93M	89.76M	77.93M	90.36M	77.93M	90.48M	77.812M
6865MHz Straddle 6.525-6.875GHz	Pass	Inf	90.48M	77.961M	87.36M	77.841M	90.36M	77.841M	89.64M	77.721M
6945MHz	Pass	Inf	90.96M	77.93M	88.68M	78.047M	90.24M	77.93M	90.48M	77.812M
7025MHz	Pass	Inf	89.76M	77.812M	89.64M	77.695M	90.36M	77.812M	87.36M	77.695M
802.11be EHT160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
6025MHz	Pass	Inf	177.36M	157.035M	173.28M	156.8M	174M	157.035M	173.28M	156.8M
6185MHz	Pass	Inf	178.08M	157.27M	173.28M	157.035M	174M	157.035M	174.72M	157.27M
6345MHz	Pass	Inf	175.44M	157.505M	174.48M	157.505M	176.16M	157.035M	173.76M	157.27M
6505MHz Straddle 6.425-6.525GHz	Pass	Inf	176.4M	157.361M	173.52M	157.121M	174M	157.121M	174M	157.121M
6665MHz	Pass	Inf	174.72M	157.27M	174.24M	157.27M	174.24M	157.035M	174.48M	157.035M
6825MHz Straddle 6.525-6.875GHz	Pass	Inf	174.48M	157.361M	174.96M	157.361M	172.56M	157.121M	175.2M	156.882M
6985MHz	Pass	Inf	176.16M	157.035M	174M	157.035M	174.48M	157.27M	172.32M	157.035M
802.11be EHT320_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
6105MHz	Pass	Inf	344.64M	316.421M	340.32M	315.951M	340.32M	315.951M	338.88M	315.951M
6265MHz	Pass	Inf	340.32M	315.951M	341.28M	315.951M	343.2M	315.951M	346.56M	316.421M
6425MHz	Pass	Inf	341.28M	316.421M	340.32M	315.481M	341.76M	315.951M	342.72M	316.421M
6585MHz	Pass	Inf	342.72M	316.421M	339.84M	316.421M	345.6M	316.891M	342.24M	315.951M
6745MHz	Pass	Inf	348.48M	316.891M	341.28M	316.421M	340.32M	315.951M	342.72M	316.421M



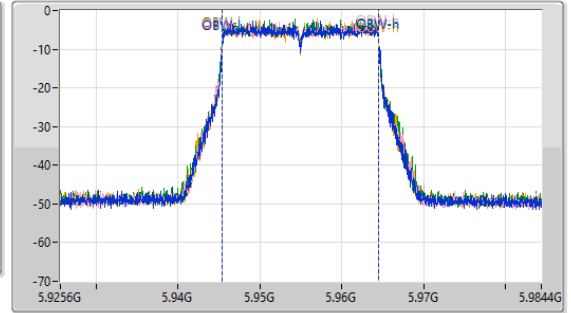
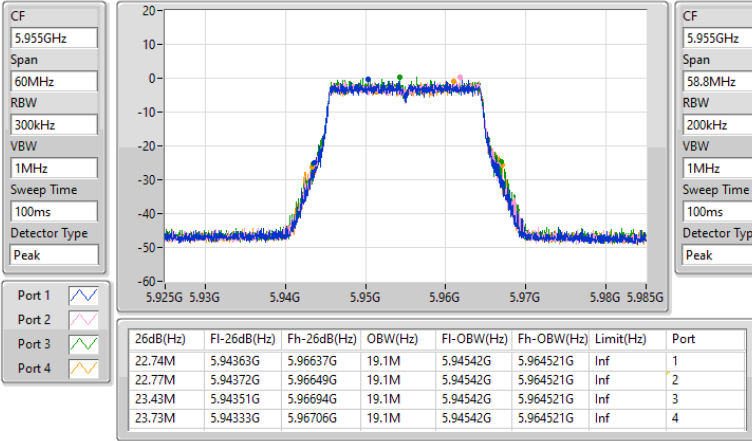
Mode	Result	Limit (Hz)	Port 1-N dB	Port 1-OBW	Port 2-N dB	Port 2-OBW	Port 3-N dB	Port 3-OBW	Port 4-N dB	Port 4-OBW
			(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)
6905MHz	Pass	Inf	338.88M	316.421M	343.2M	315.951M	341.76M	315.951M	341.76M	315.481M

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

5.925-6.425GHz_802.11be EHT20_Nss1,(MCS0)_4TX
5955MHz

EBW

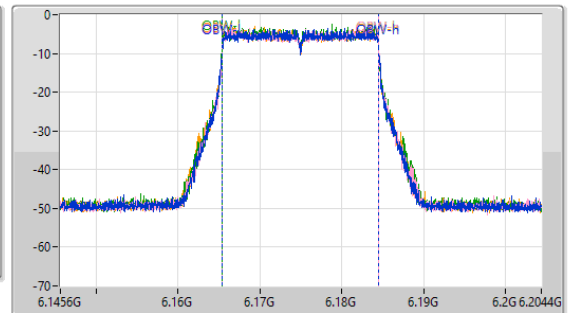
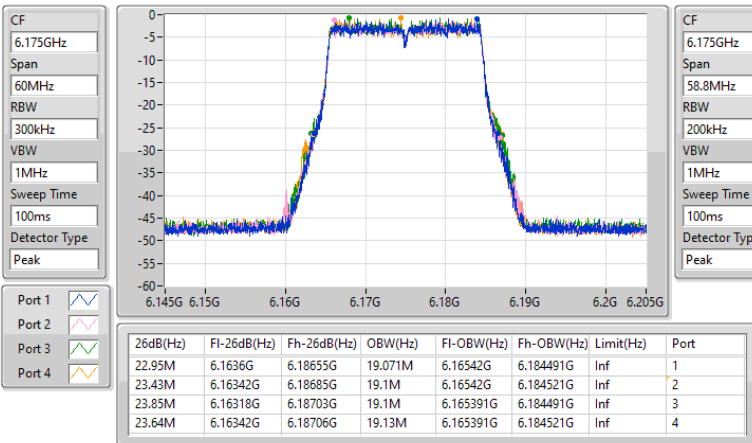
10/03/2023



5.925-6.425GHz_802.11be EHT20_Nss1,(MCS0)_4TX
6175MHz

EBW

10/03/2023

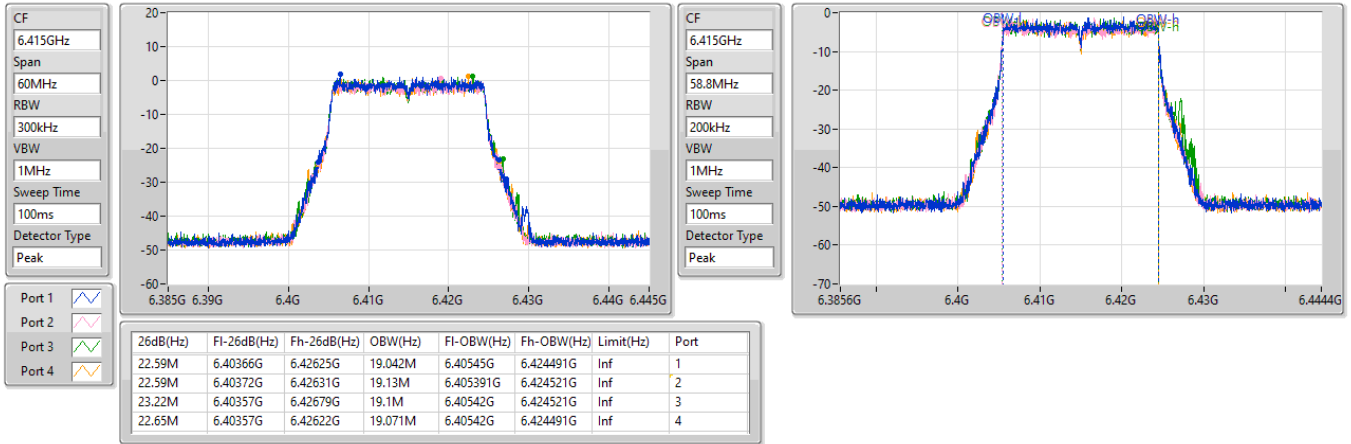


5.925-6.425GHz_802.11be EHT20_Nss1,(MCS0)_4TX

EBW

6415MHz

10/03/2023

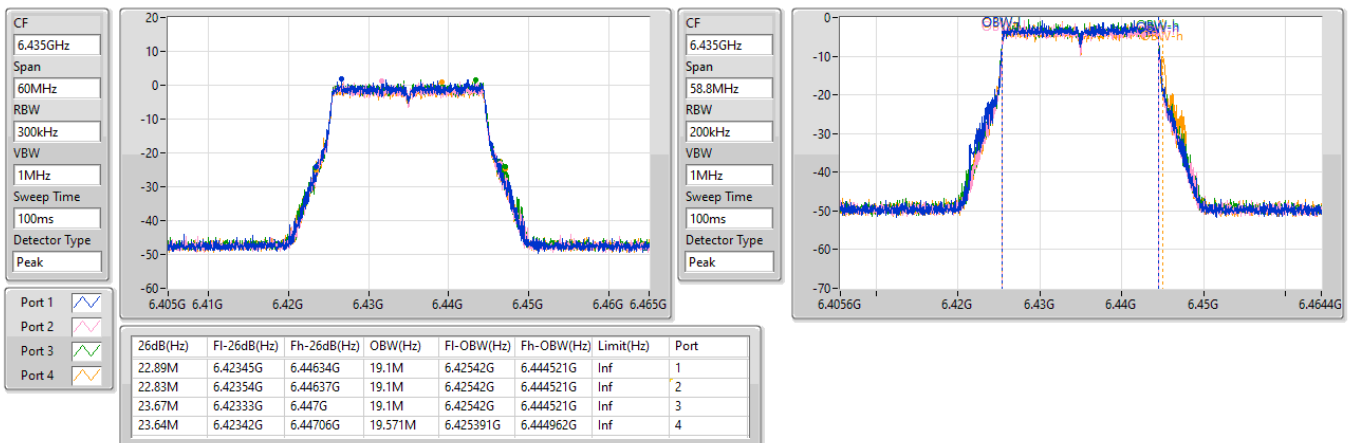


6.425-6.525GHz_802.11be EHT20_Nss1,(MCS0)_4TX

EBW

6435MHz

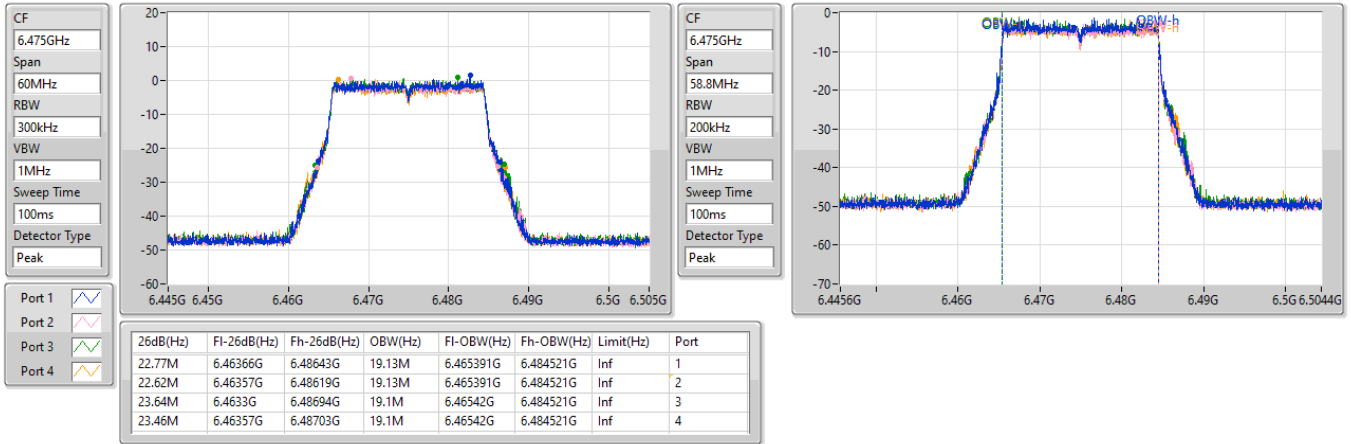
10/03/2023



6.425-6.525GHz_802.11be EHT20_Nss1,(MCS0)_4TX
6475MHz

EBW

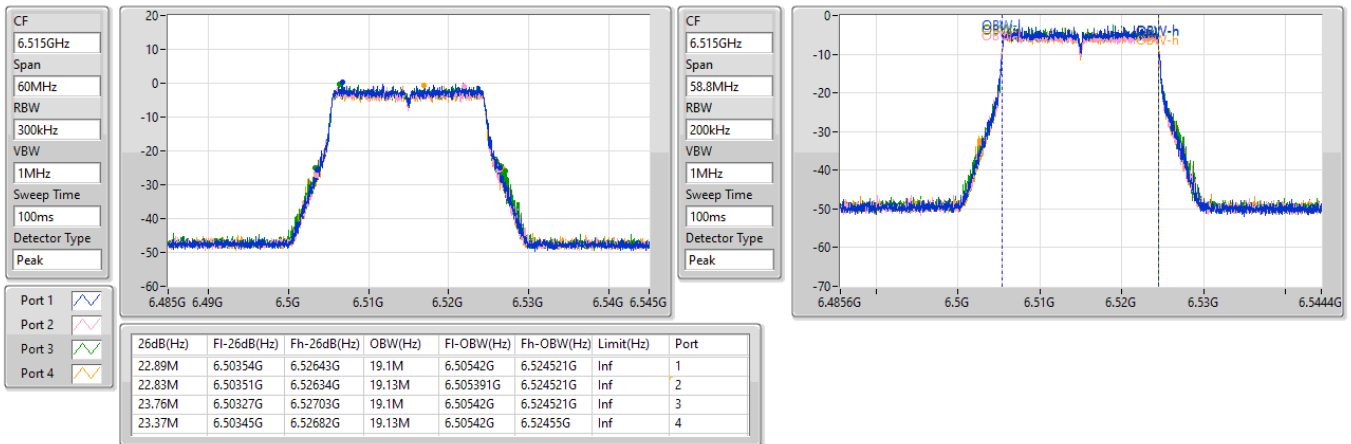
10/03/2023



6.425-6.525GHz_802.11be EHT20_Nss1,(MCS0)_4TX
6515MHz

EBW

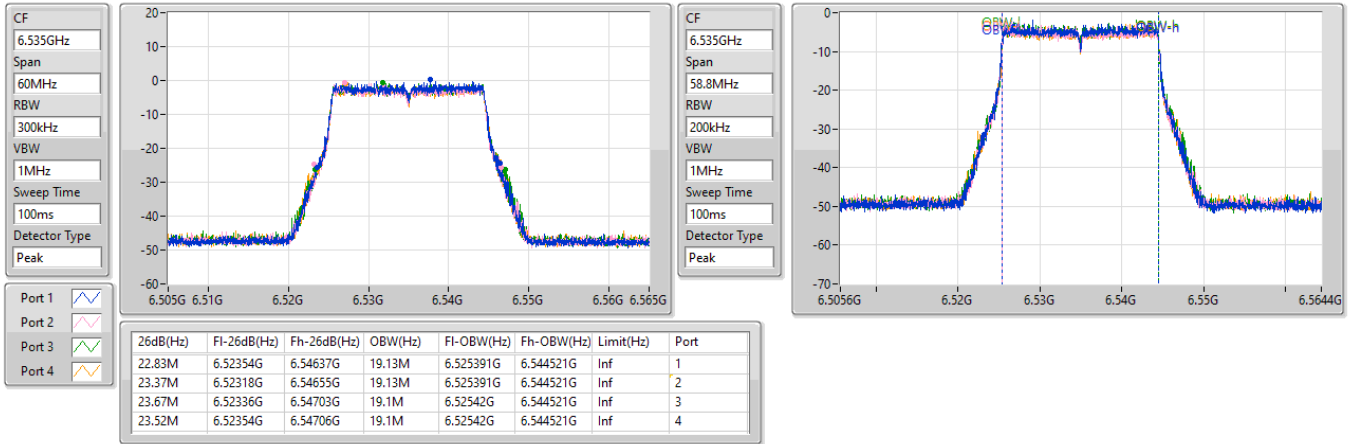
10/03/2023



6.525-6.875GHz_802.11be EHT20_Nss1,(MCS0)_4TX
6535MHz

EBW

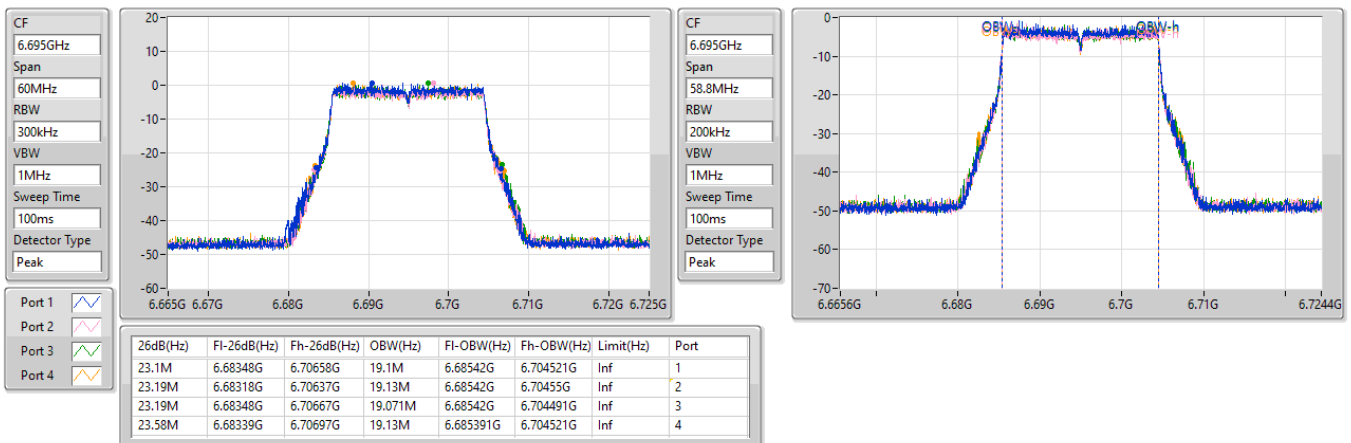
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6.525-6.875GHz_802.11be EHT20_Nss1,(MCS0)_4TX
6695MHz

EBW

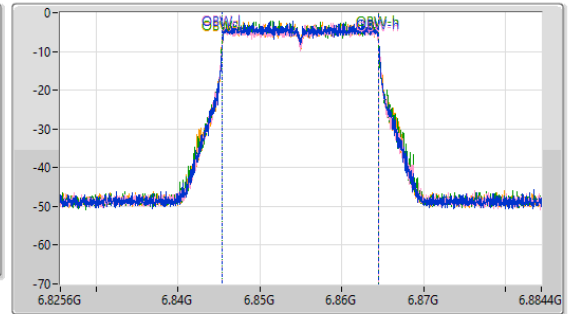
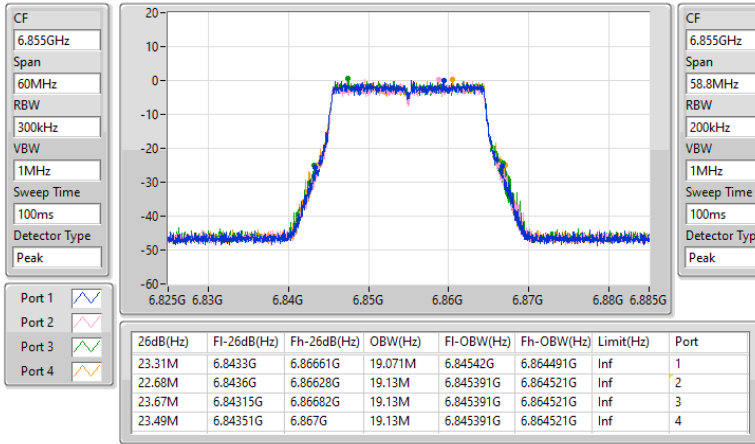
10/03/2023



6.525-6.875GHz_802.11be EHT20_Nss1,(MCS0)_4TX
6855MHz

EBW

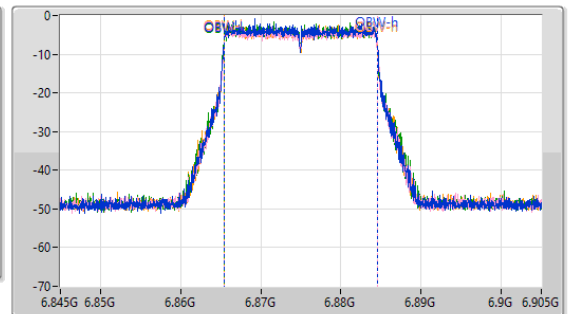
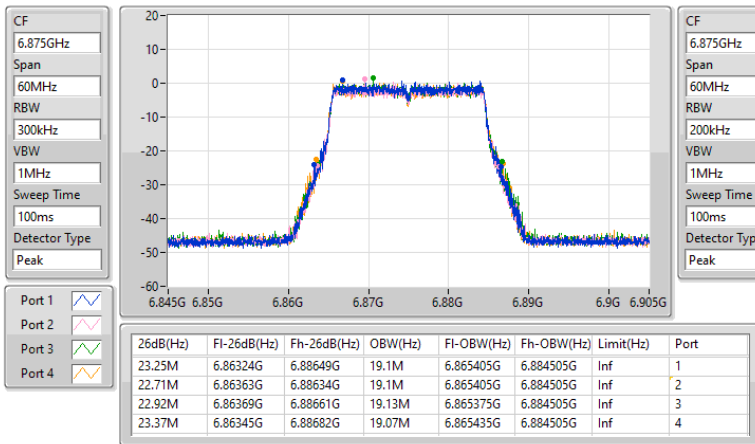
10/03/2023



6.525-6.875GHz_802.11be EHT20_Nss1,(MCS0)_4TX
6875MHz Straddle 6.525-6.875GHz

EBW

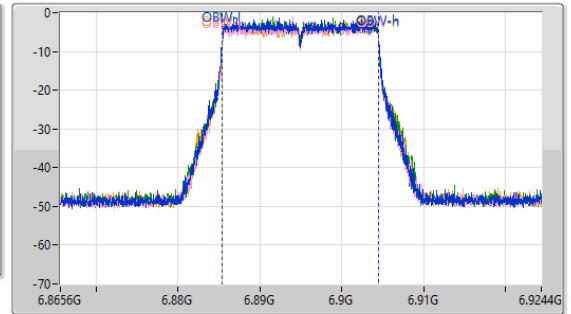
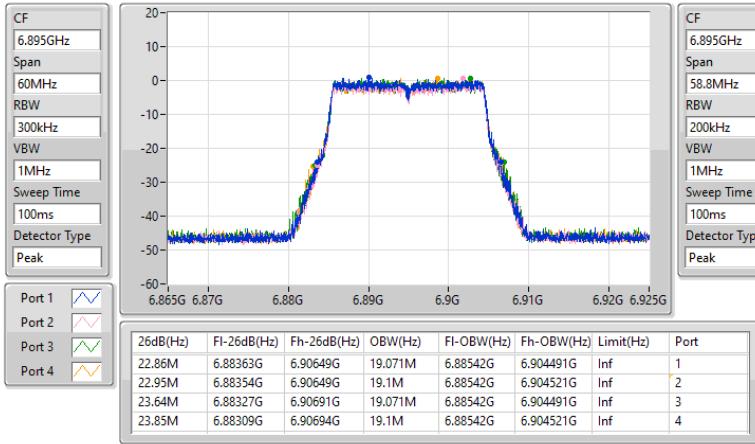
10/03/2023



6.875-7.125GHz_802.11be EHT20_Nss1,(MCS0)_4TX
6895MHz

EBW

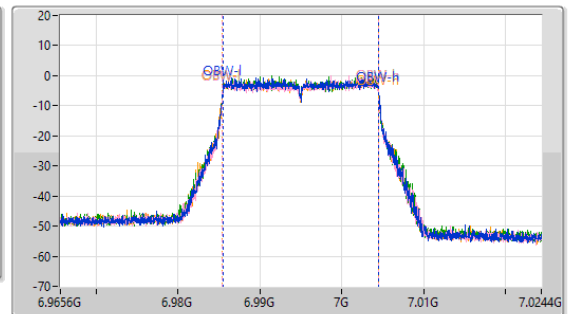
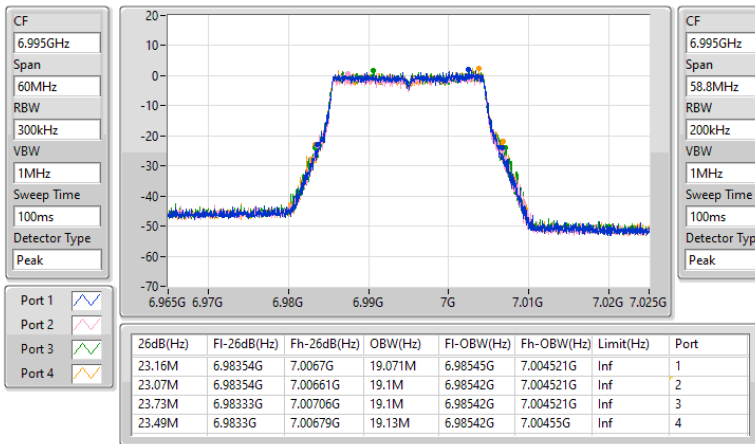
10/03/2023



6.875-7.125GHz_802.11be EHT20_Nss1,(MCS0)_4TX
6995MHz

EBW

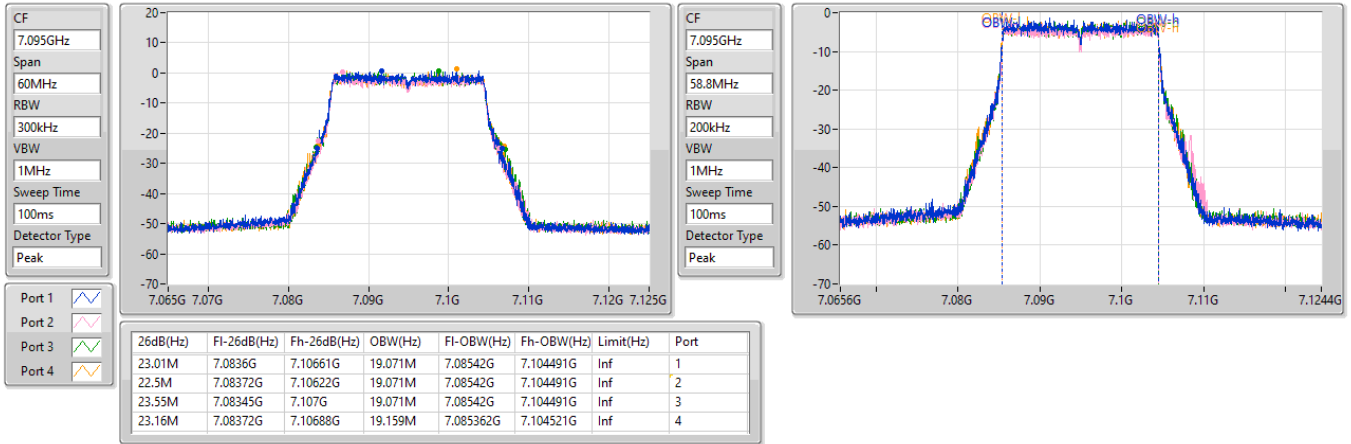
10/03/2023



6.875-7.125GHz_802.11be EHT20_Nss1,(MCS0)_4TX
7095MHz

EBW

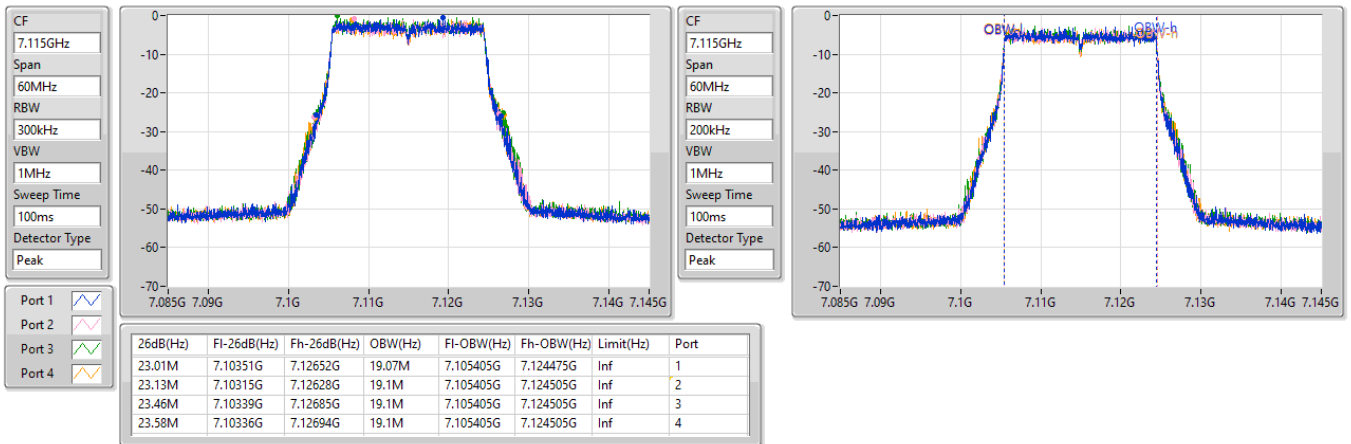
10/03/2023



6.875-7.125GHz_802.11be EHT20_Nss1,(MCS0)_4TX
7115MHz Straddle 6.875-7.125GHz

EBW

10/03/2023

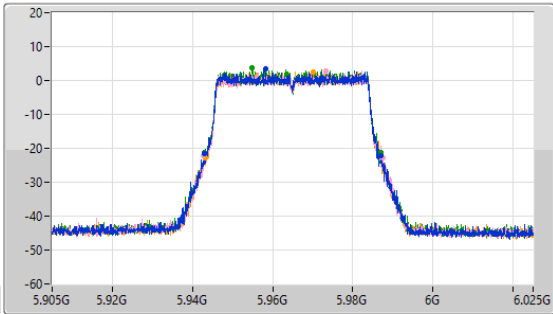


5.925-6.425GHz_802.11be EHT40_Nss1,(MCS0)_4TX
5965MHz

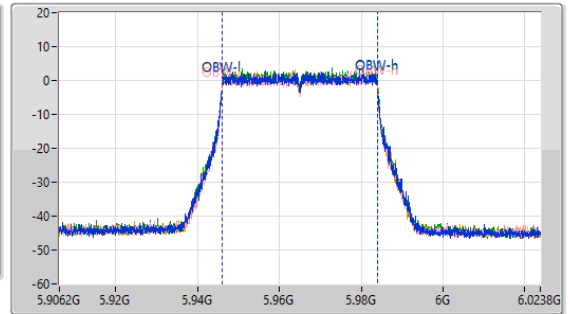
EBW

10/03/2023

CF
5.965GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.965GHz
Span
117.6MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

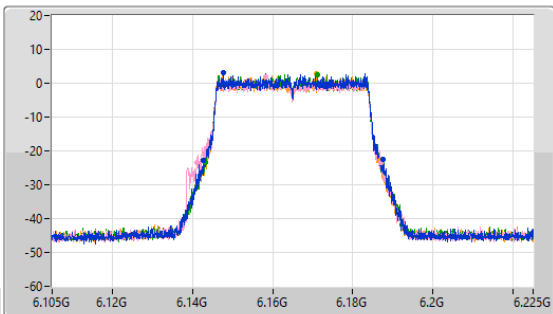
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43.98M	5.94298G	5.98696G	38.142M	5.9459G	5.984042G	Inf	1
44.76M	5.94274G	5.9875G	38.142M	5.9459G	5.984042G	Inf	2
44.1M	5.94304G	5.98714G	38.083M	5.945958G	5.984042G	Inf	3
43.98M	5.94328G	5.98726G	38.083M	5.945958G	5.984042G	Inf	4

5.925-6.425GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6165MHz

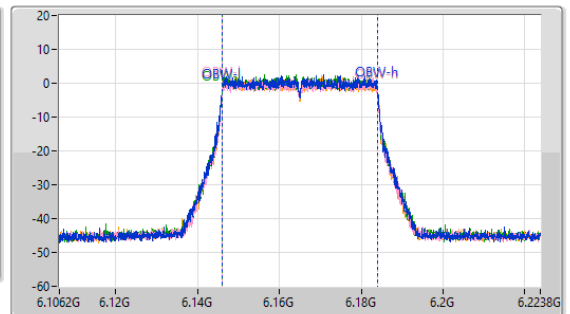
EBW

10/03/2023

CF
6.165GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
6.165GHz
Span
117.6MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



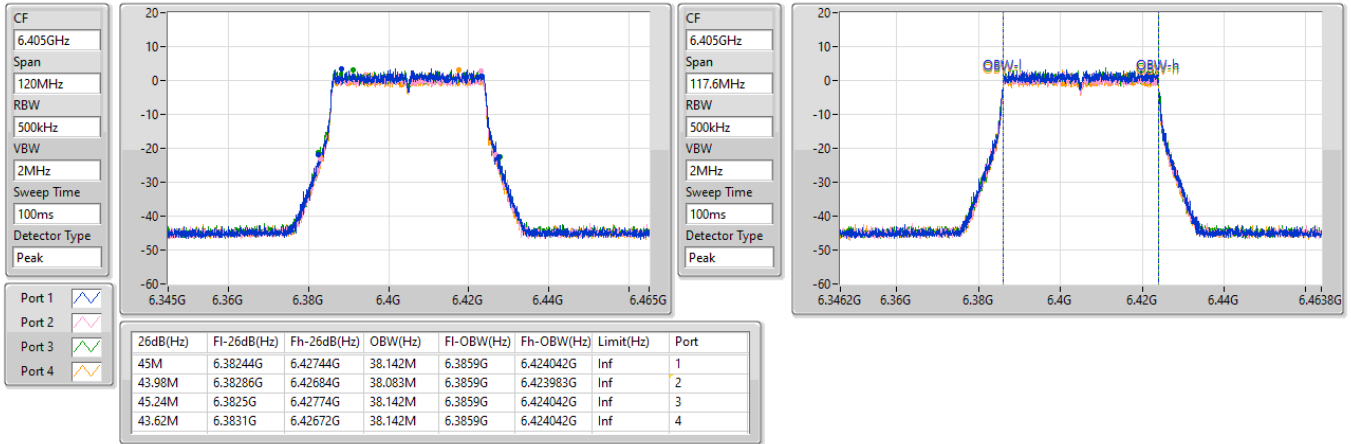
Port 1
Port 2
Port 3
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
44.82M	6.1428G	6.18762G	38.142M	6.1459G	6.184042G	Inf	1
45.78M	6.14118G	6.18696G	38.083M	6.145958G	6.184042G	Inf	2
44.22M	6.14316G	6.18738G	38.083M	6.1459G	6.183983G	Inf	3
43.92M	6.1428G	6.18672G	38.142M	6.1459G	6.184042G	Inf	4

5.925-6.425GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6405MHz

EBW

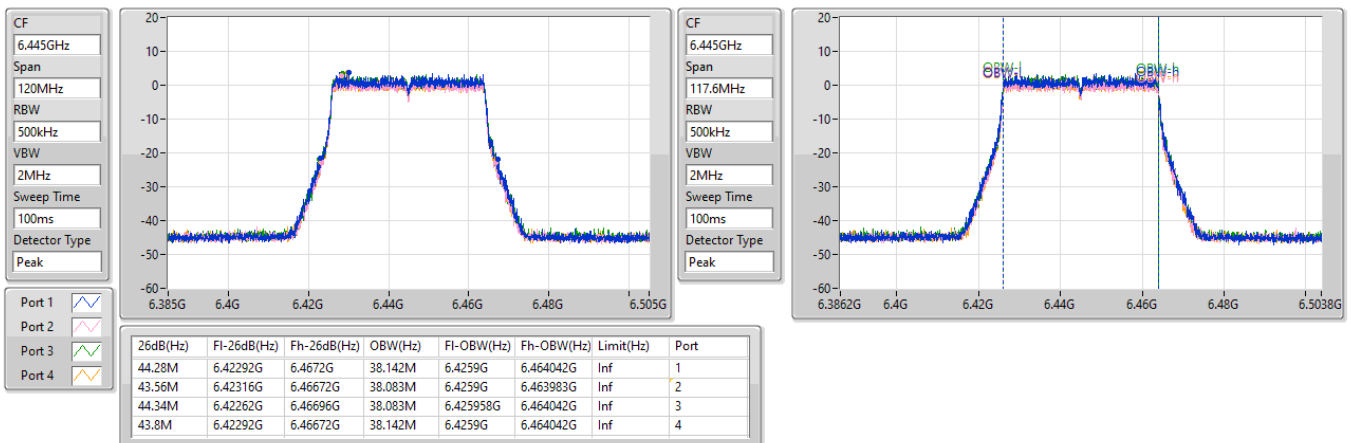
10/03/2023



6.425-6.525GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6445MHz

EBW

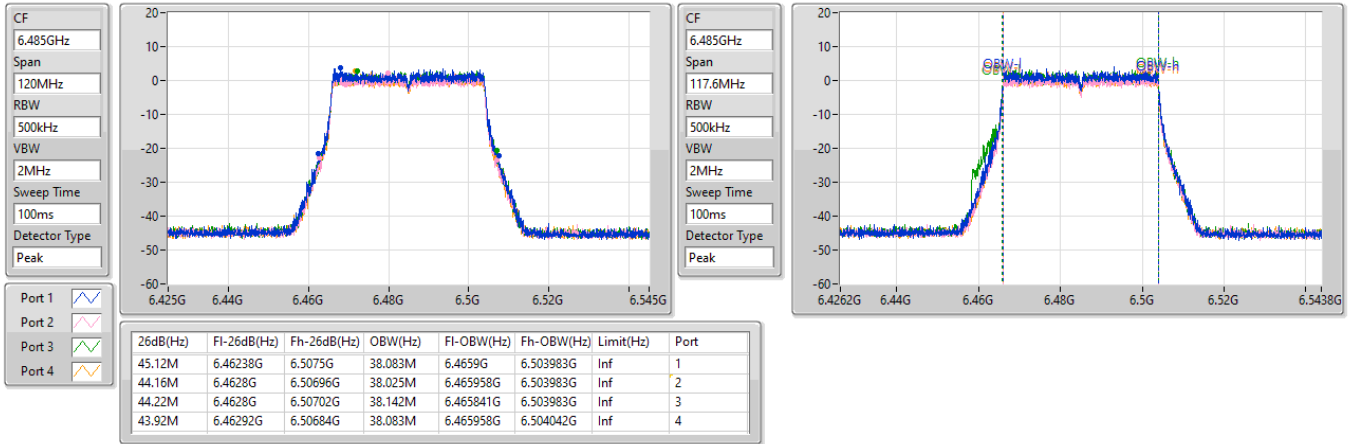
10/03/2023



6.425-6.525GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6485MHz

EBW

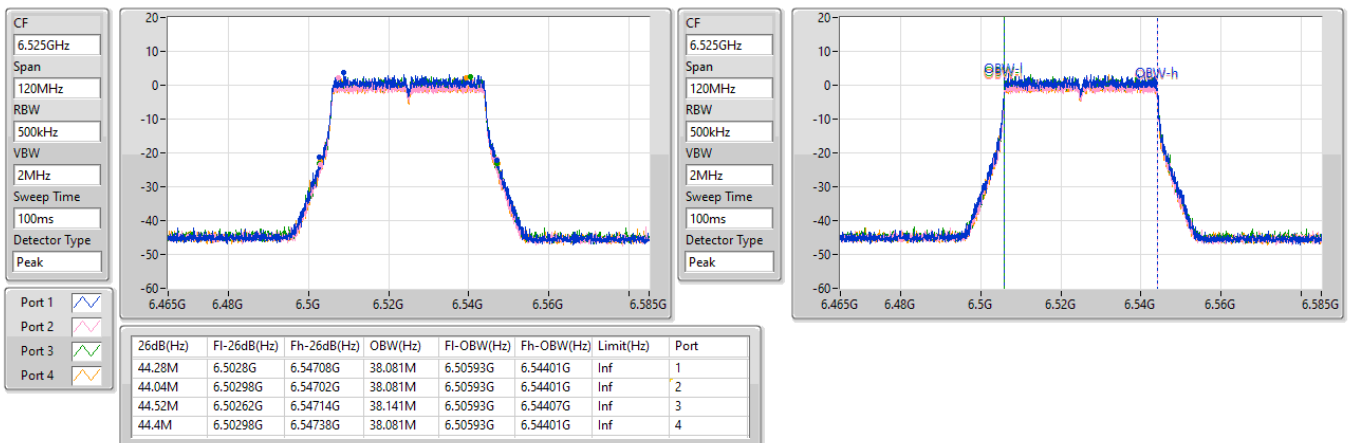
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6.425-6.525GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6525MHz Straddle 6.425-6.525GHz

EBW

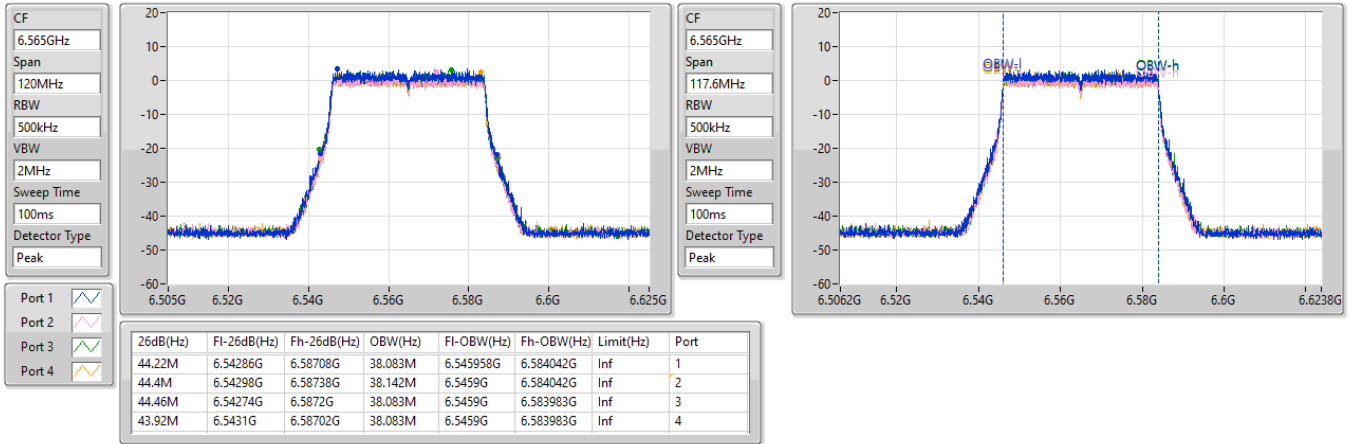
10/03/2023



6.525-6.875GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6565MHz

EBW

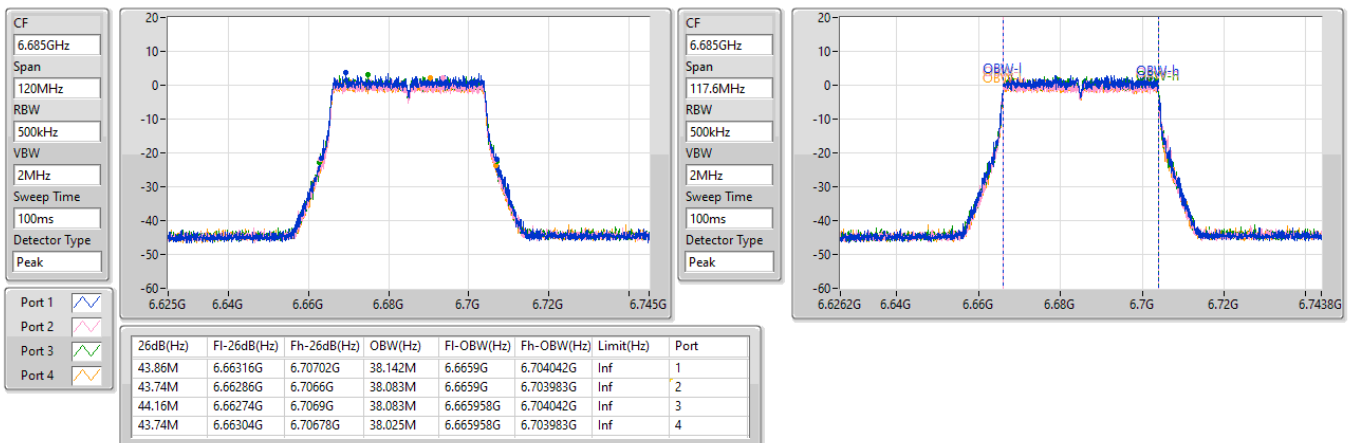
10/03/2023



6.525-6.875GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6685MHz

EBW

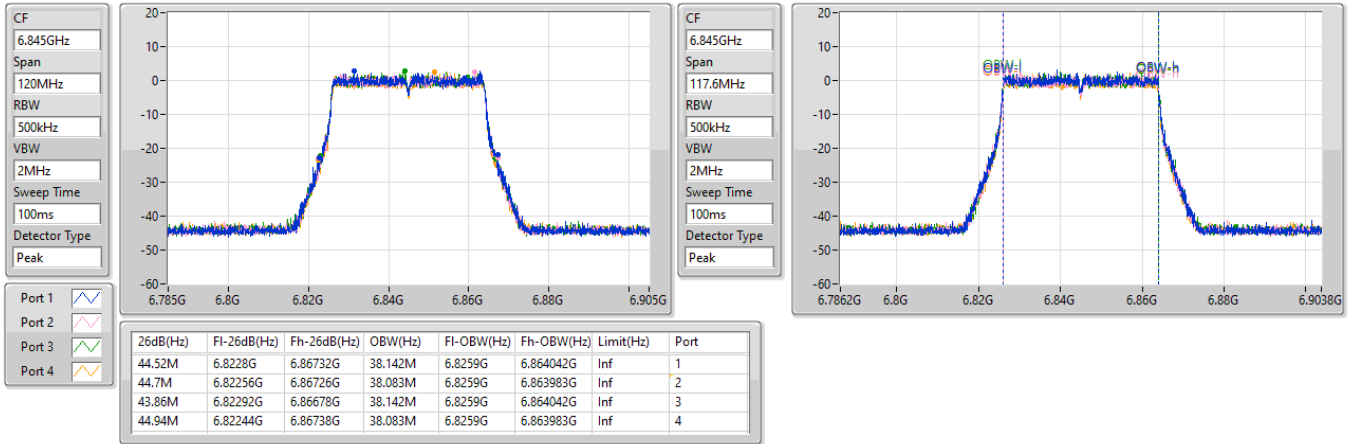
10/03/2023



6.525-6.875GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6845MHz

EBW

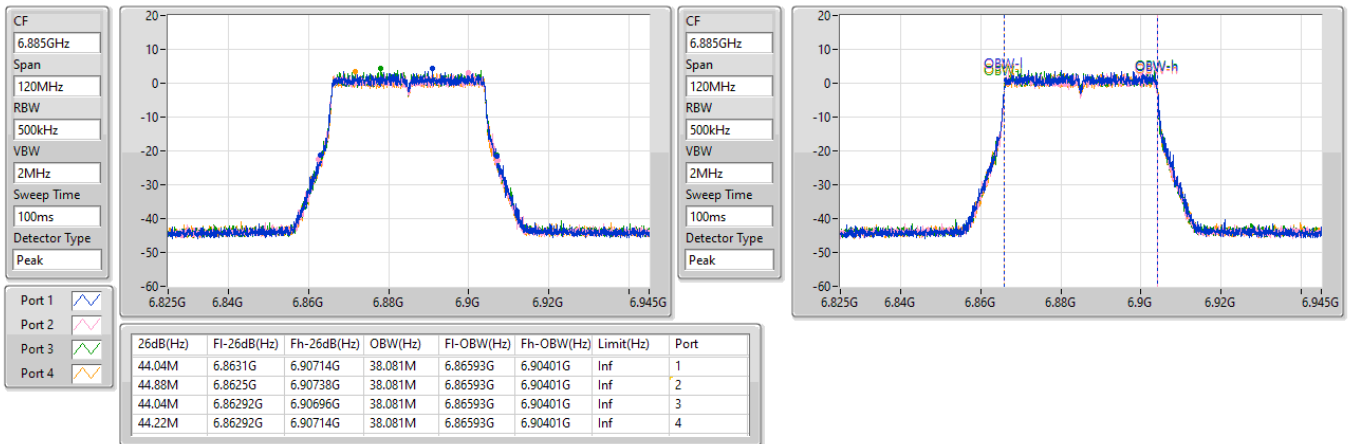
10/03/2023



6.525-6.875GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6885MHz Straddle 6.525-6.875GHz

EBW

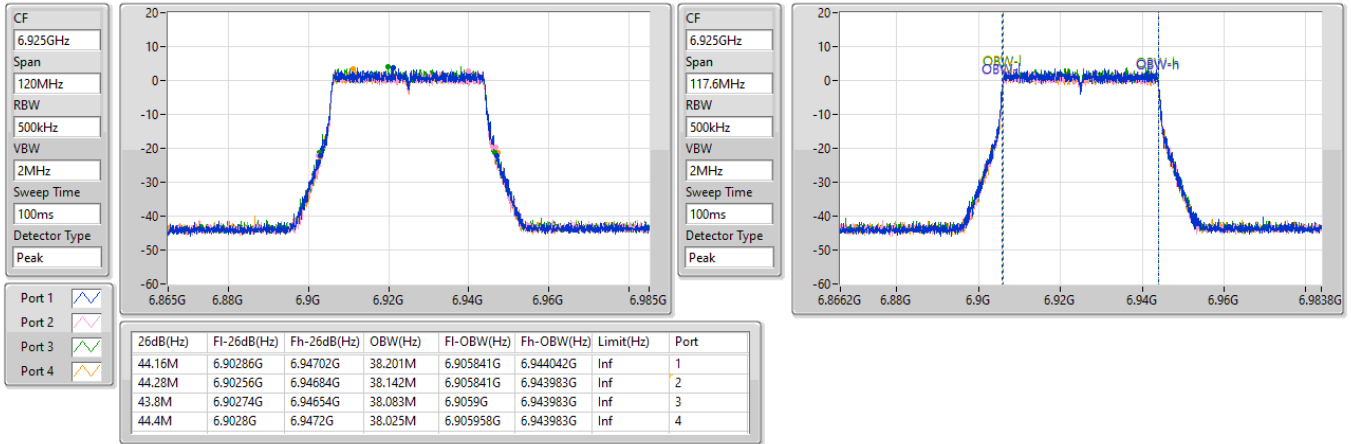
10/03/2023



6.875-7.125GHz_802.11be EHT40_Nss1,(MCS0)_4TX
6925MHz

EBW

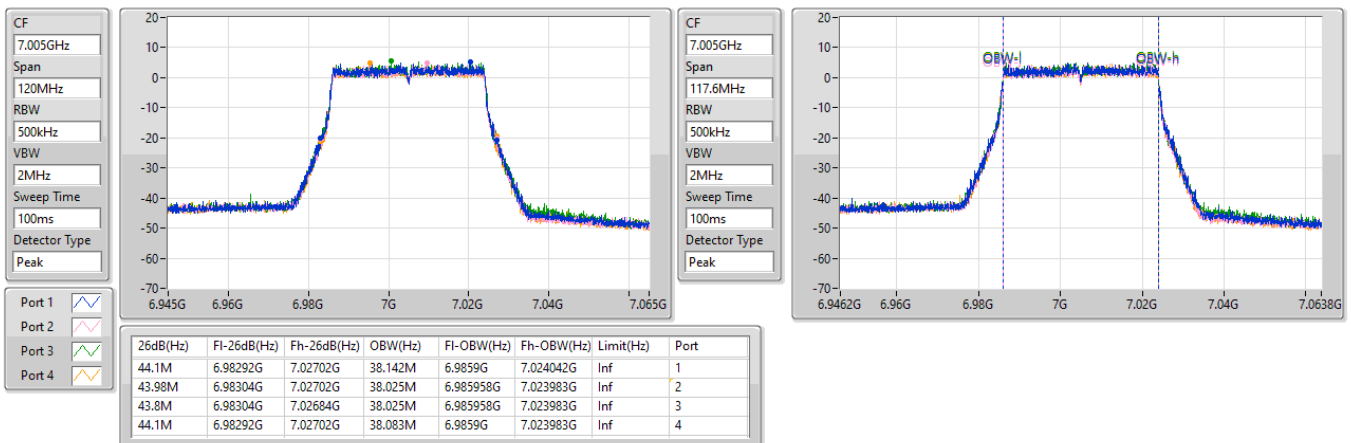
10/03/2023



6.875-7.125GHz_802.11be EHT40_Nss1,(MCS0)_4TX
7005MHz

EBW

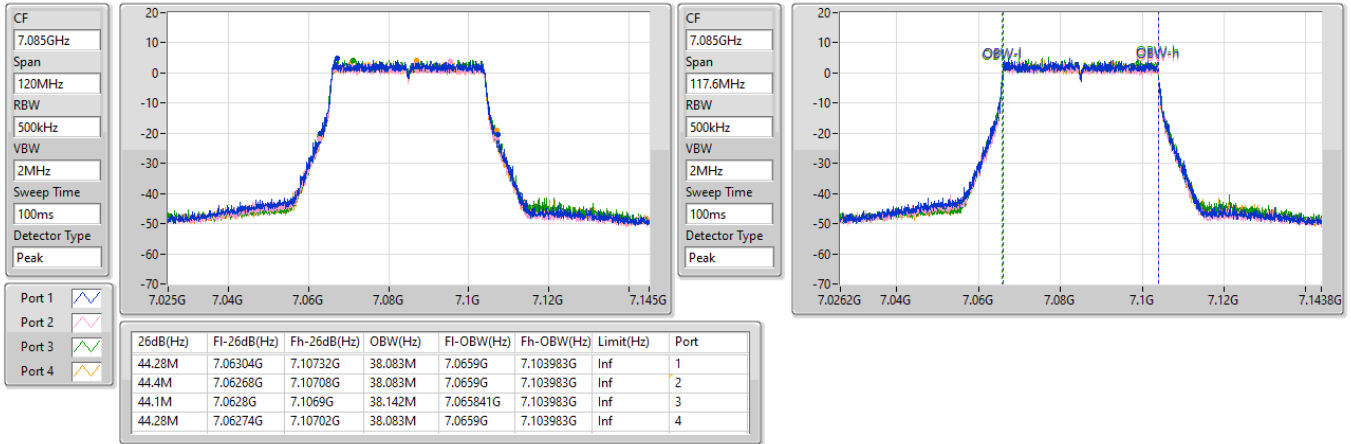
10/03/2023



6.875-7.125GHz_802.11be EHT40_Nss1,(MCS0)_4TX
7085MHz

EBW

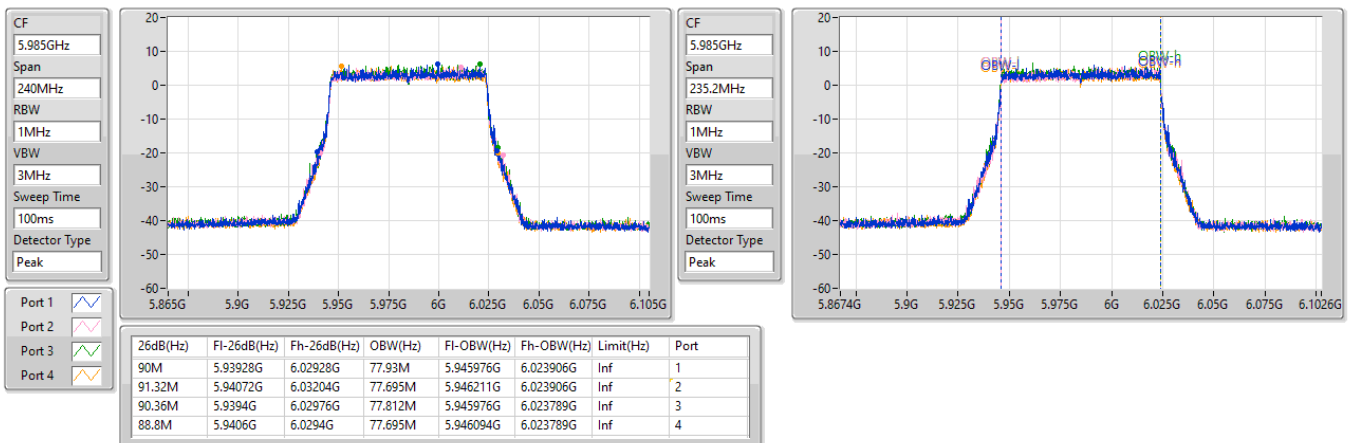
10/03/2023



5.925-6.425GHz_802.11be EHT80_Nss1,(MCS0)_4TX
5985MHz

EBW

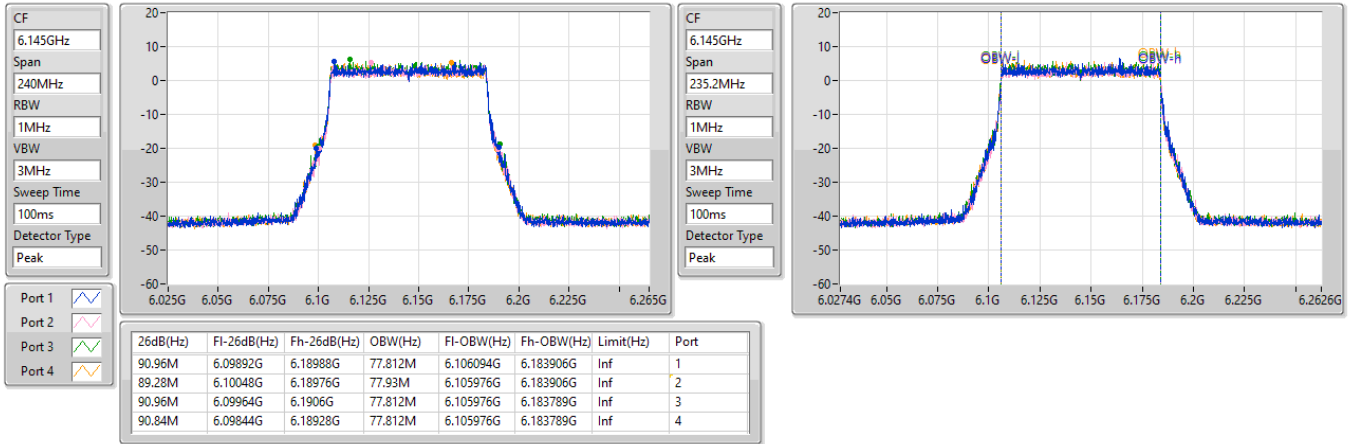
10/03/2023



5.925-6.425GHz_802.11be EHT80_Nss1,(MCS0)_4TX
6145MHz

EBW

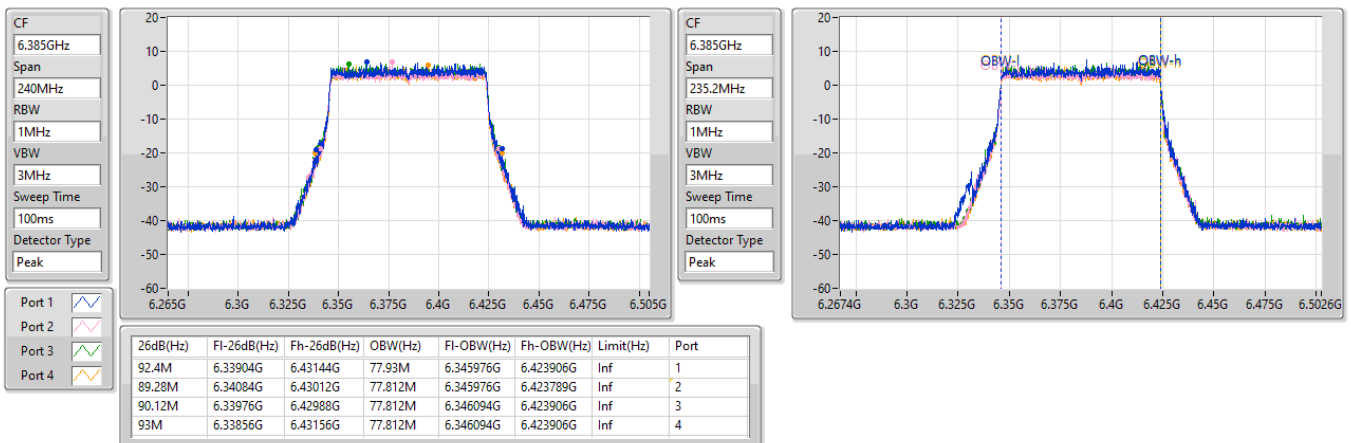
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5.925-6.425GHz_802.11be EHT80_Nss1,(MCS0)_4TX
6385MHz

EBW

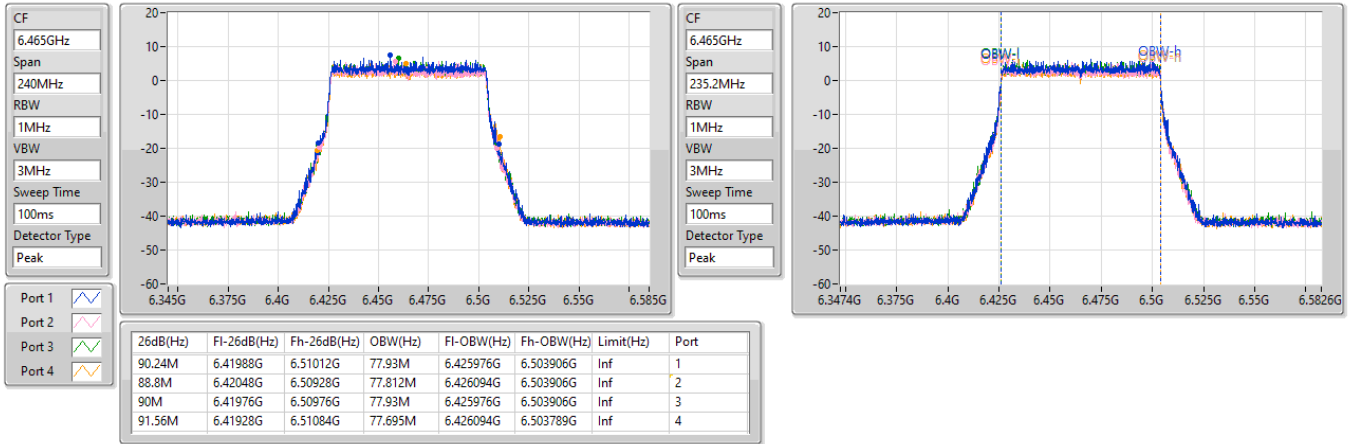
10/03/2023



6.425-6.525GHz_802.11be EHT80_Nss1,(MCS0)_4TX
6465MHz

EBW

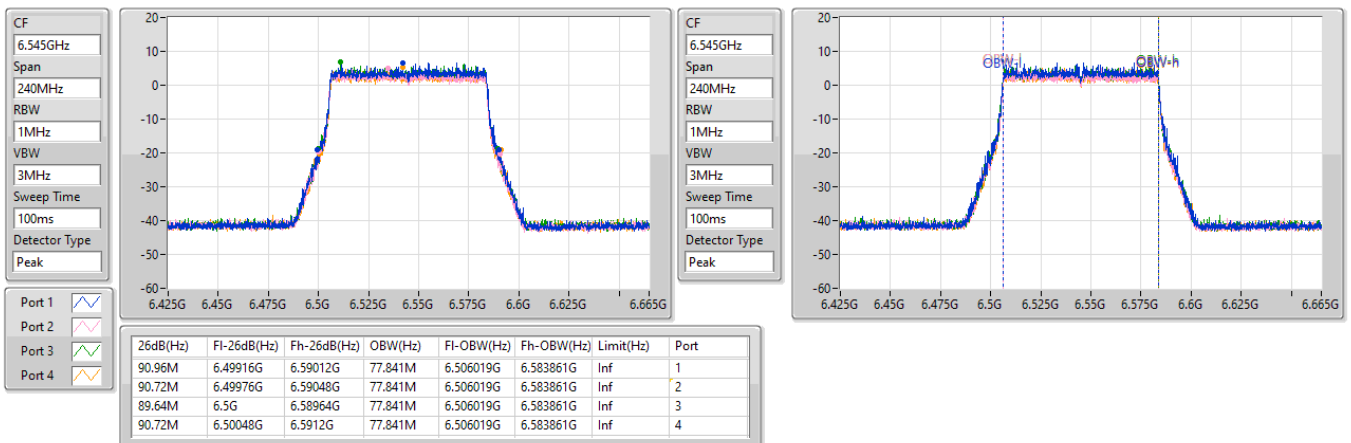
10/03/2023



6.425-6.525GHz_802.11be EHT80_Nss1,(MCS0)_4TX
6545MHz Straddle 6.425-6.525GHz

EBW

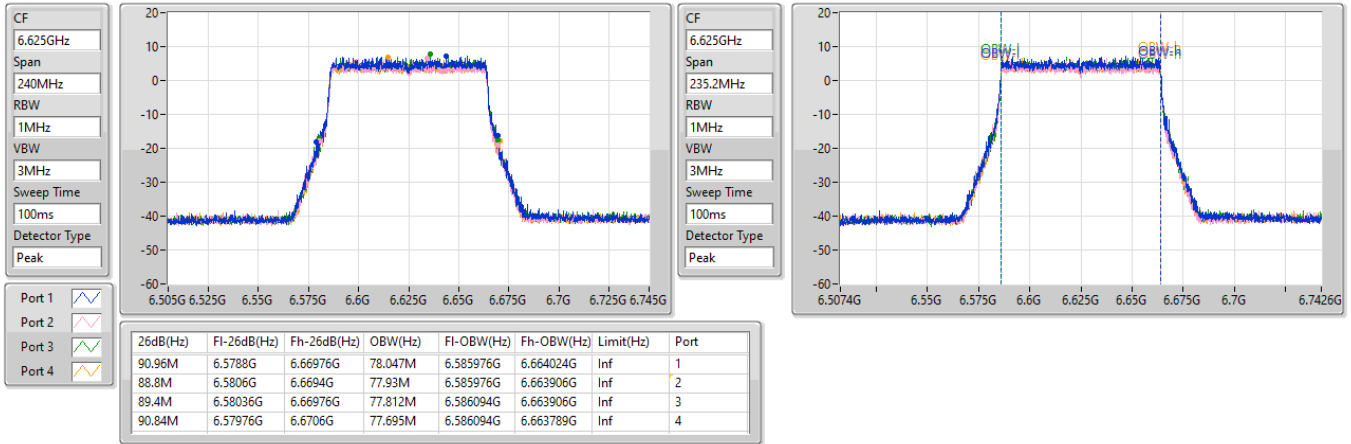
10/03/2023



6.525-6.875GHz_802.11be EHT80_Nss1,(MCS0)_4TX
6625MHz

EBW

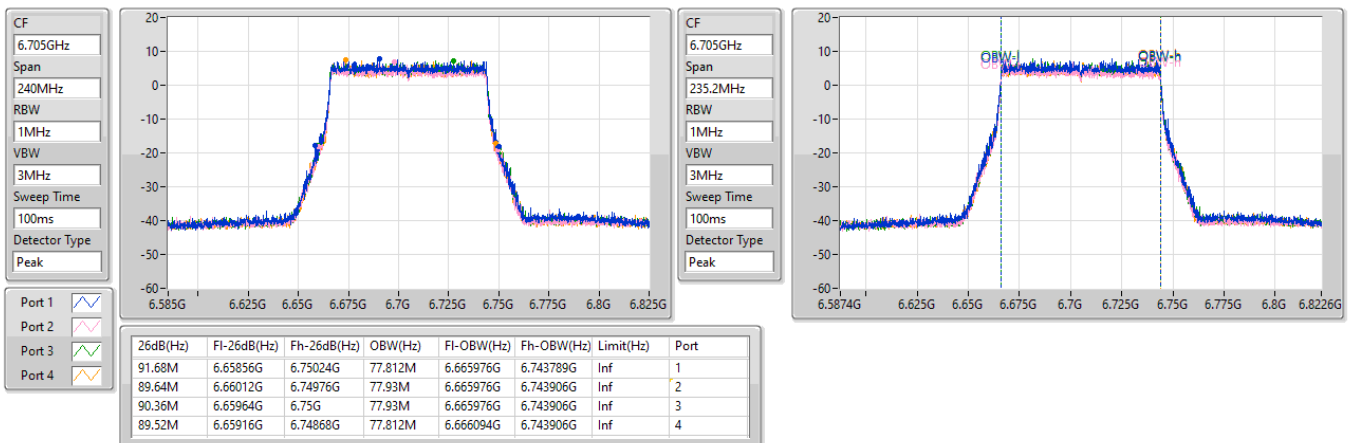
10/03/2023



6.525-6.875GHz_802.11be EHT80_Nss1,(MCS0)_4TX
6705MHz

EBW

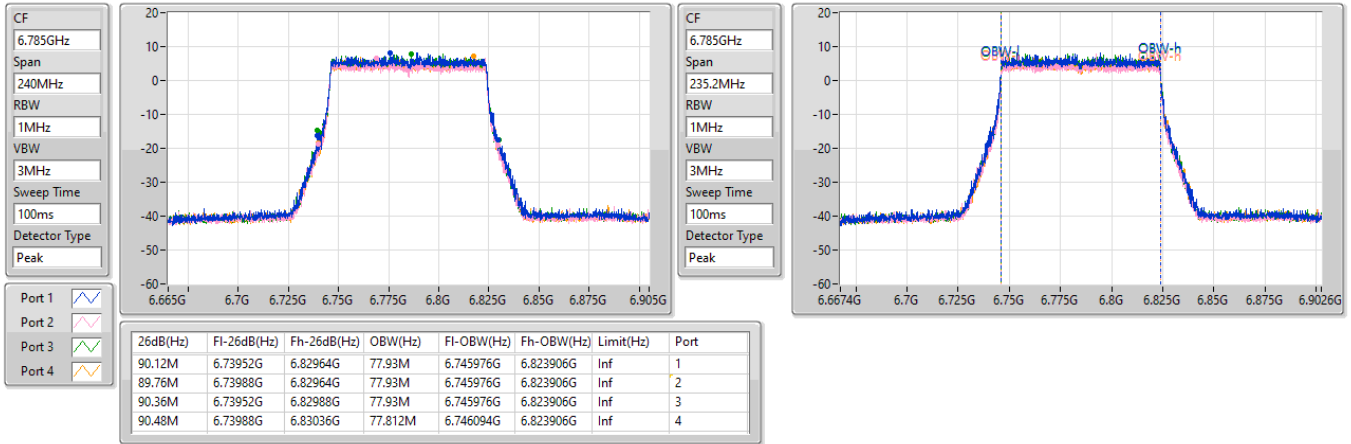
10/03/2023



6.525-6.875GHz_802.11be EHT80_Nss1,(MCS0)_4TX
6785MHz

EBW

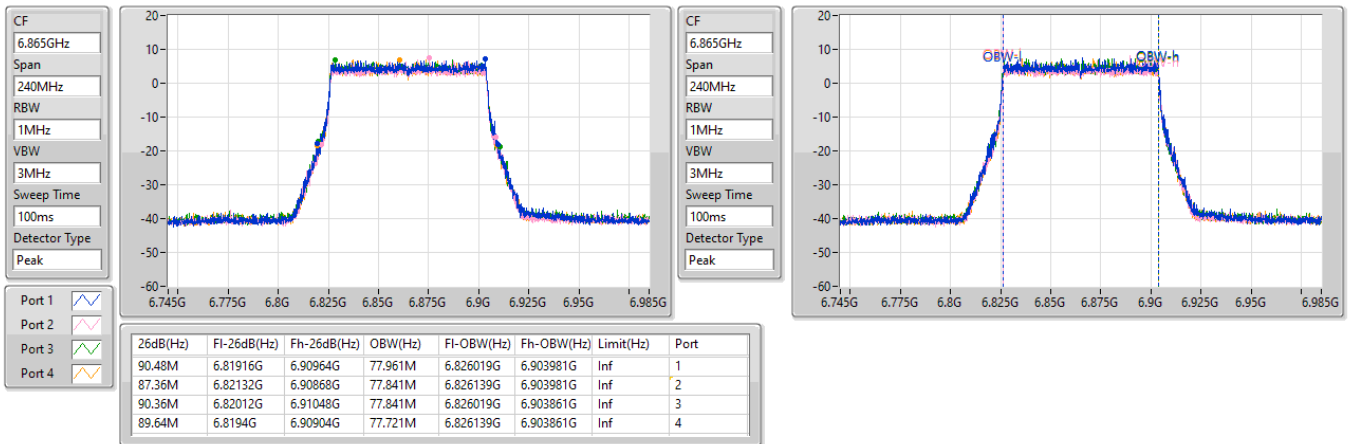
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6.525-6.875GHz_802.11be EHT80_Nss1,(MCS0)_4TX
6865MHz Straddle 6.525-6.875GHz

EBW

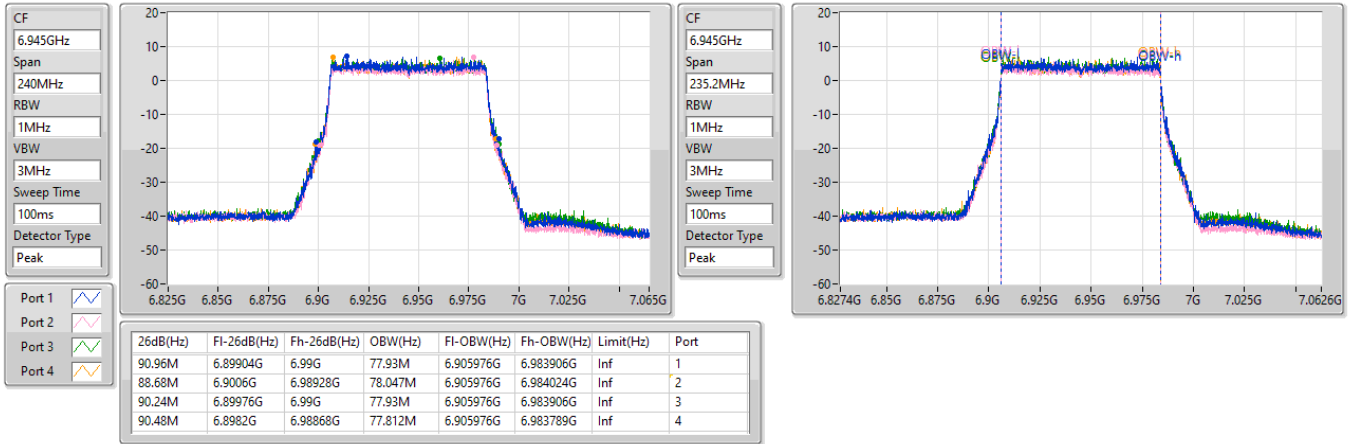
10/03/2023



6.875-7.125GHz_802.11be EHT80_Nss1,(MCS0)_4TX
6945MHz

EBW

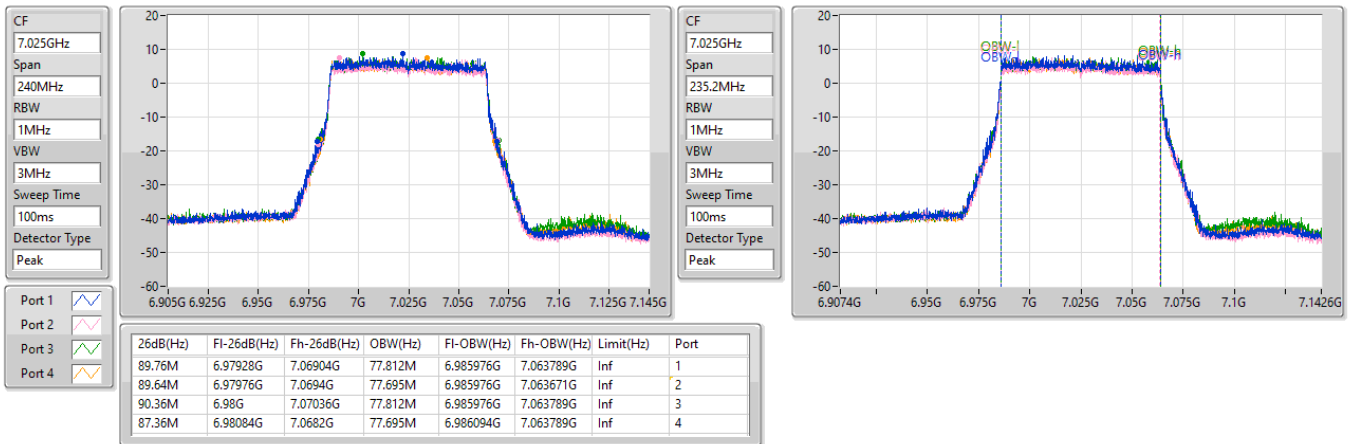
10/03/2023



6.875-7.125GHz_802.11be EHT80_Nss1,(MCS0)_4TX
7025MHz

EBW

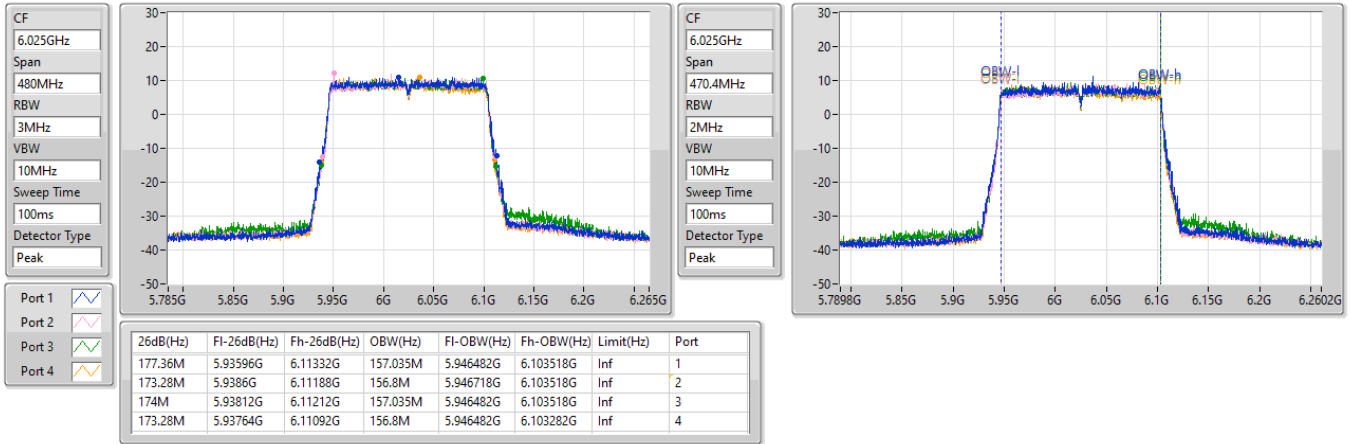
10/03/2023



5.925-6.425GHz_802.11be EHT160_Nss1,(MCS0)_4TX
6025MHz

EBW

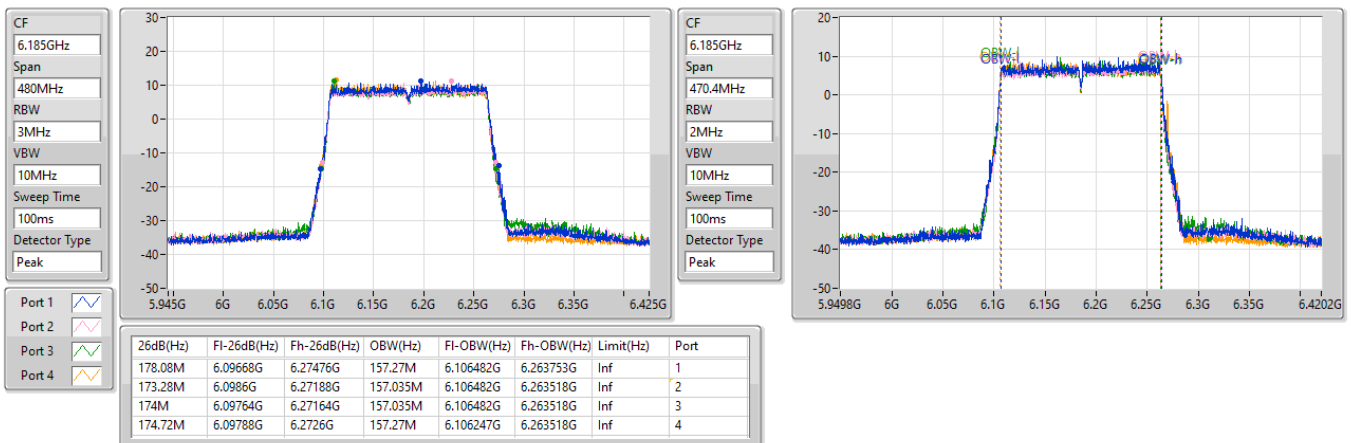
10/03/2023



5.925-6.425GHz_802.11be EHT160_Nss1,(MCS0)_4TX
6185MHz

EBW

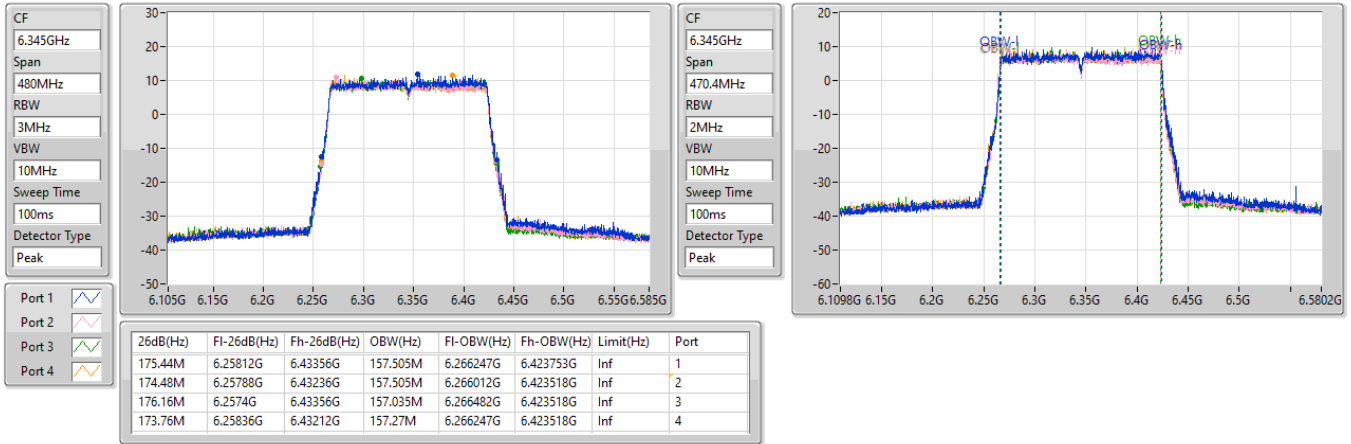
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5.925-6.425GHz_802.11be EHT160_Nss1,(MCS0)_4TX
6345MHz

EBW

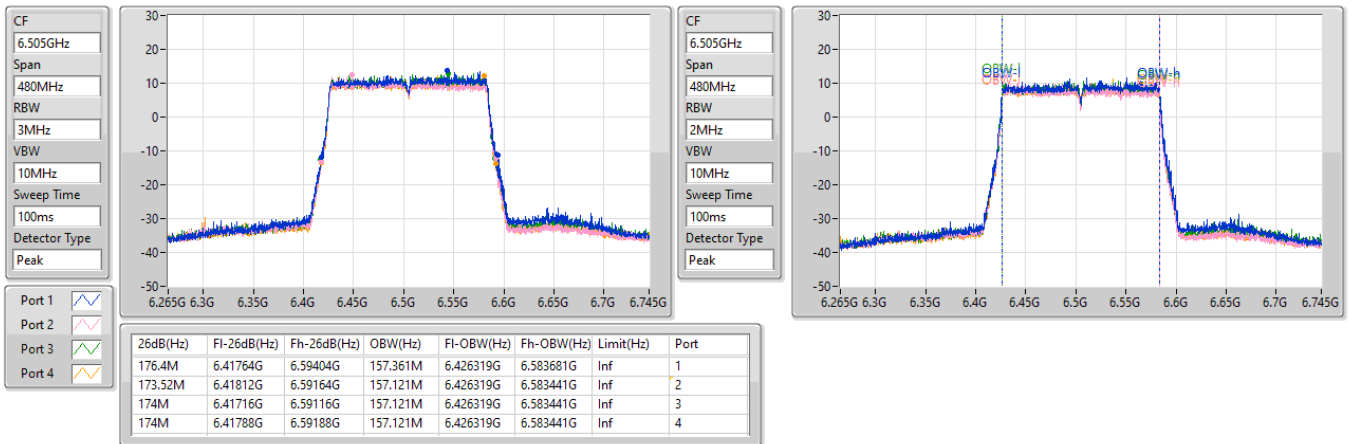
10/03/2023



6.425-6.525GHz_802.11be EHT160_Nss1,(MCS0)_4TX
6505MHz Straddle 6.425-6.525GHz

EBW

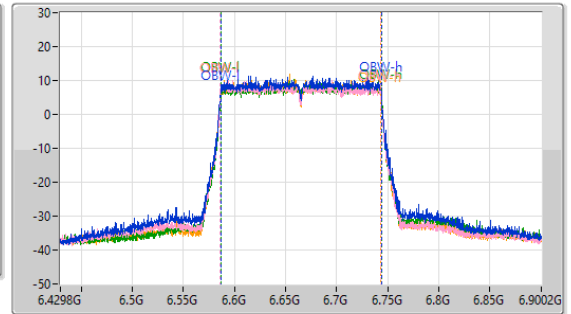
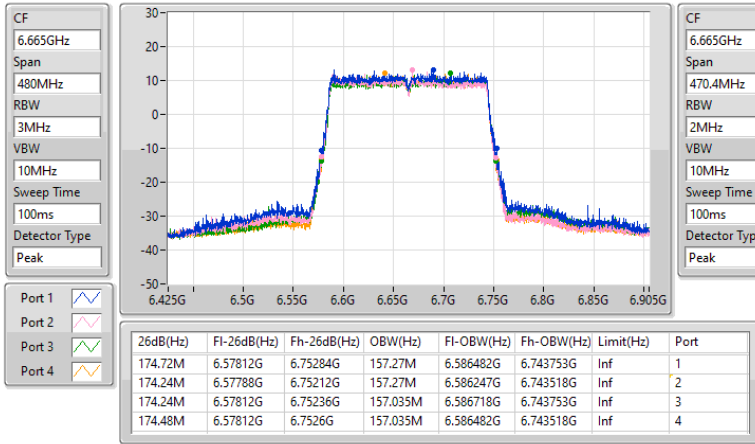
10/03/2023



6.525-6.875GHz_802.11be EHT160_Nss1,(MCS0)_4TX
6665MHz

EBW

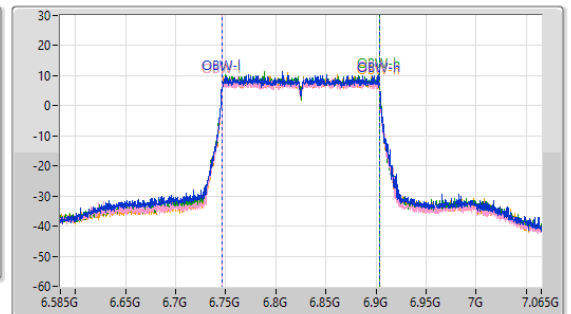
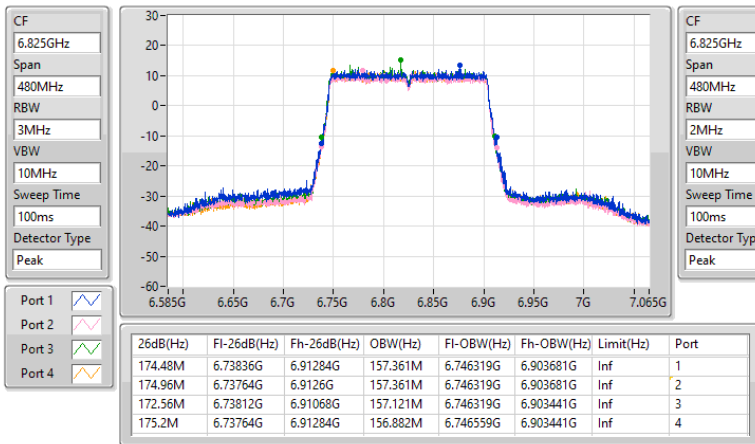
10/03/2023



6.525-6.875GHz_802.11be EHT160_Nss1,(MCS0)_4TX
6825MHz Straddle 6.525-6.875GHz

EBW

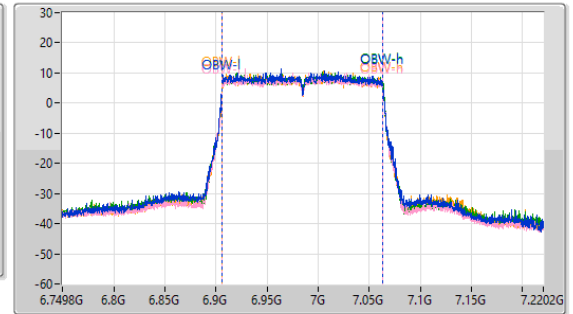
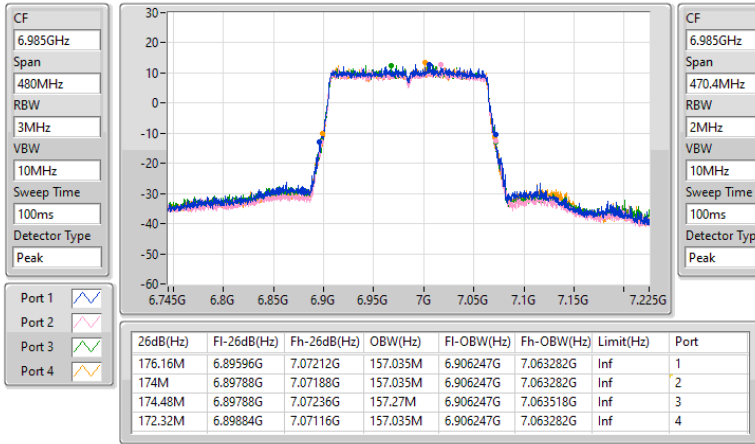
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6.875-7.125GHz_802.11be EHT160_Nss1,(MCS0)_4TX
6985MHz

EBW

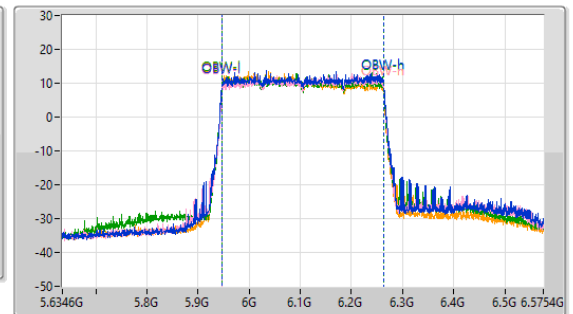
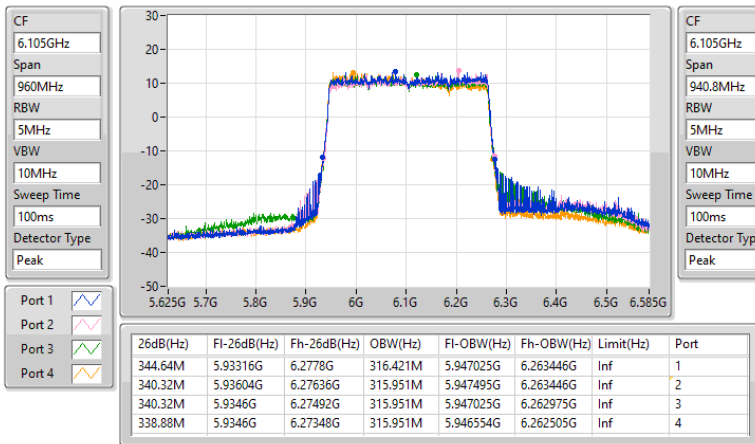
10/03/2023



5.925-6.425GHz_802.11be EHT320_Nss1,(MCS0)_4TX
6105MHz

EBW

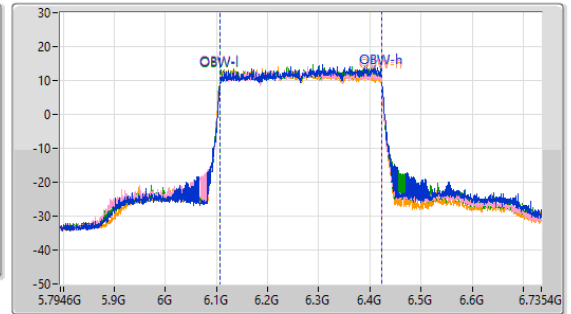
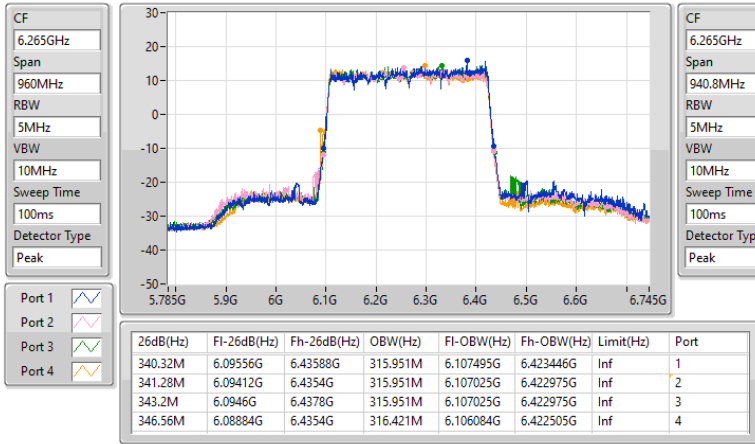
10/03/2023



5.925-6.425GHz_802.11be EHT320_Nss1,(MCS0)_4TX
6265MHz

EBW

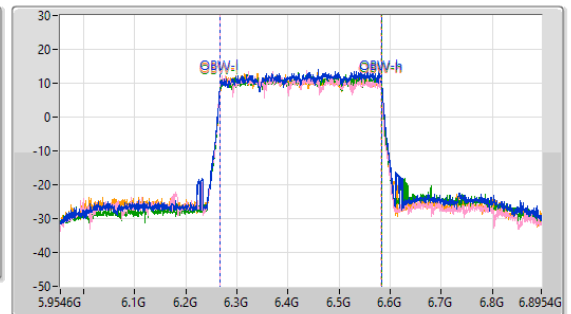
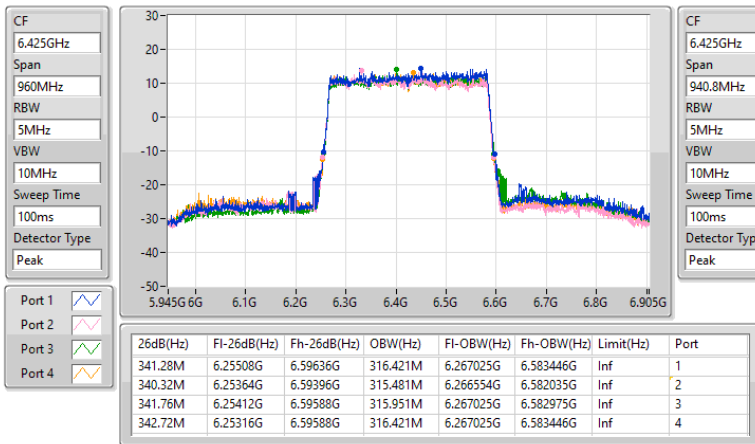
10/03/2023



6.425-6.525GHz_802.11be EHT320_Nss1,(MCS0)_4TX
6425MHz

EBW

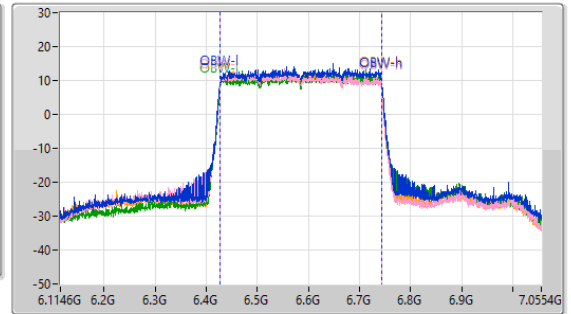
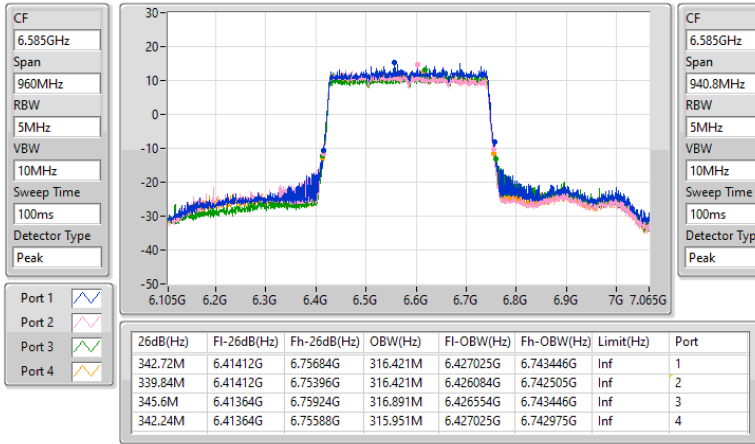
10/03/2023



6.425-6.525GHz_802.11be EHT320_Nss1,(MCS0)_4TX
6585MHz

EBW

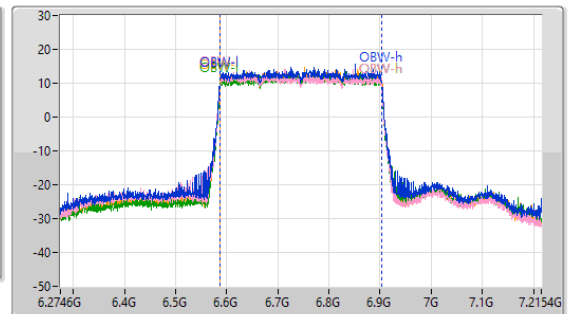
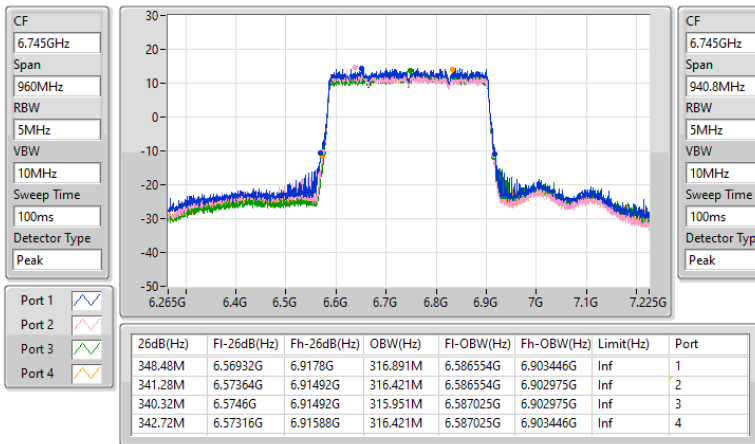
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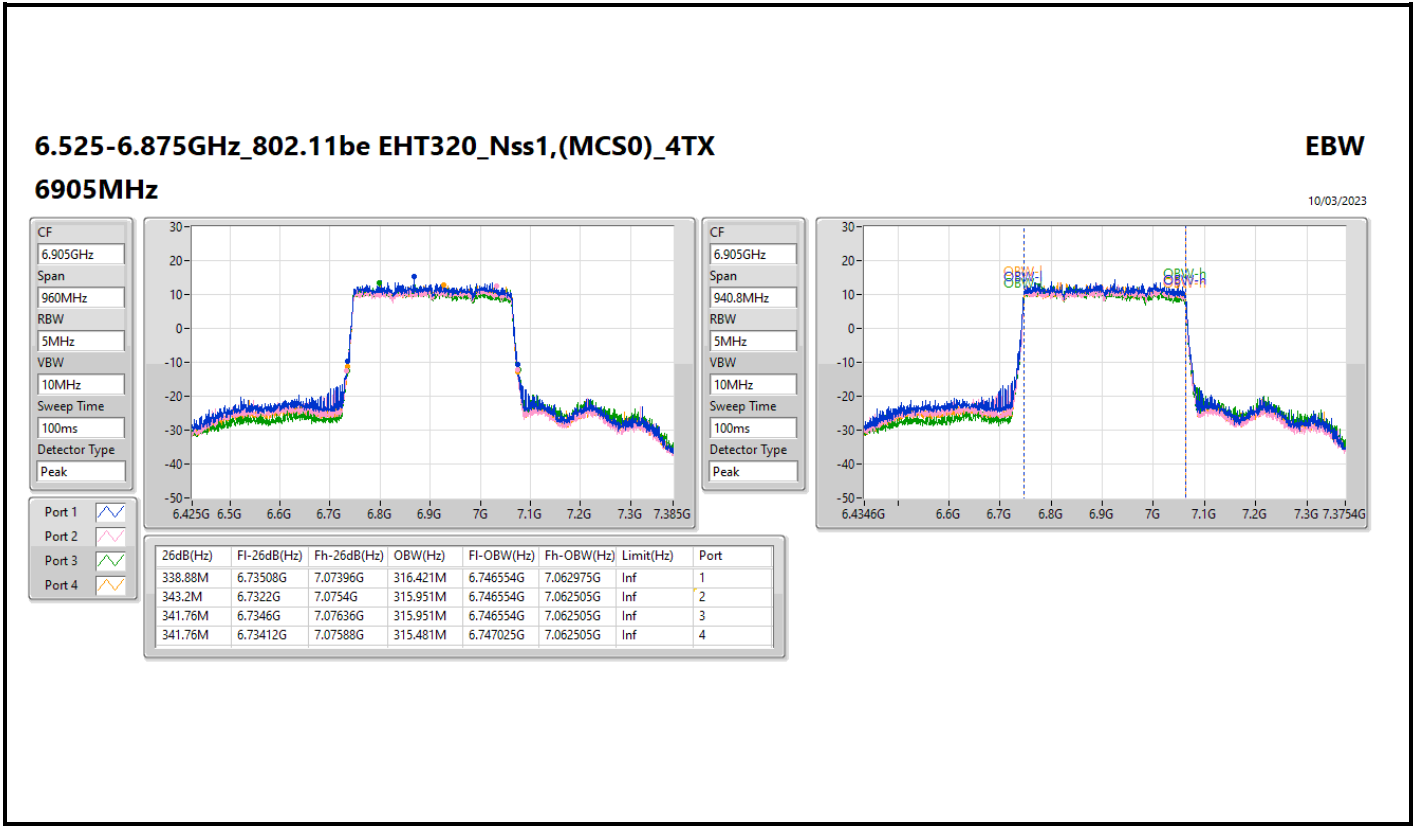


6.525-6.875GHz_802.11be EHT320_Nss1,(MCS0)_4TX
6745MHz

EBW

10/03/2023







Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX	22.44M	19.121M	19M1D1D	20.79M	18.89M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	45.21M	38.17M	38M2D1D	43.01M	37.772M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	99.22M	78.073M	78M1D1D	87.56M	77.353M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	324.72M	158.566M	159MD1D	277.64M	157.308M
802.11be EHT320-BF_Nss1,(MCS0)_4TX	652.08M	320.603M	321MD1D	491.04M	317.331M
6.425-6.525GHz	-	-	-	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX	22.385M	19.148M	19M1D1D	20.955M	18.857M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	47.3M	38.255M	38M3D1D	43.67M	37.934M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	141.02M	78.093M	78M1D1D	85.8M	77.289M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	320.32M	158.3M	158MD1D	312.84M	157.855M
802.11be EHT320-BF_Nss1,(MCS0)_4TX	655.6M	318.775M	319MD1D	630.96M	317.493M
6.525-6.875GHz	-	-	-	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX	22.55M	19.179M	19M2D1D	20.955M	18.849M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	45.87M	38.172M	38M2D1D	41.8M	37.87M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	101.2M	78.357M	78M4D1D	88.44M	77.498M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	323.4M	158.246M	158MD1D	318.56M	157.82M
802.11be EHT320-BF_Nss1,(MCS0)_4TX	653.84M	318.375M	318MD1D	625.68M	316.565M
6.875-7.125GHz	-	-	-	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX	22.495M	19.136M	19M1D1D	21.01M	18.867M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	45.1M	38.085M	38M1D1D	43.01M	37.88M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	102.96M	78.088M	78M1D1D	87.56M	77.19M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	319.88M	157.769M	158MD1D	292.6M	157.532M

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



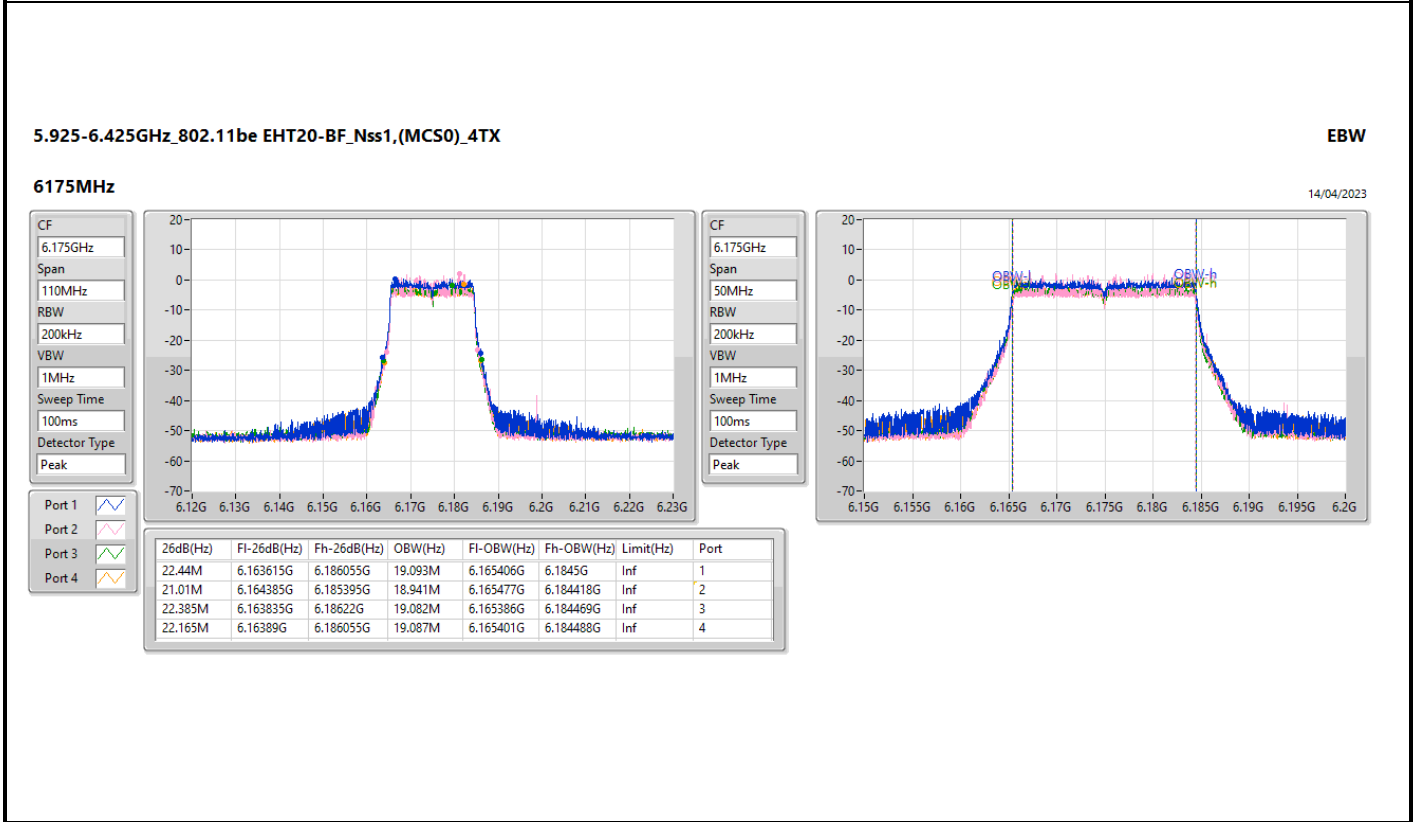
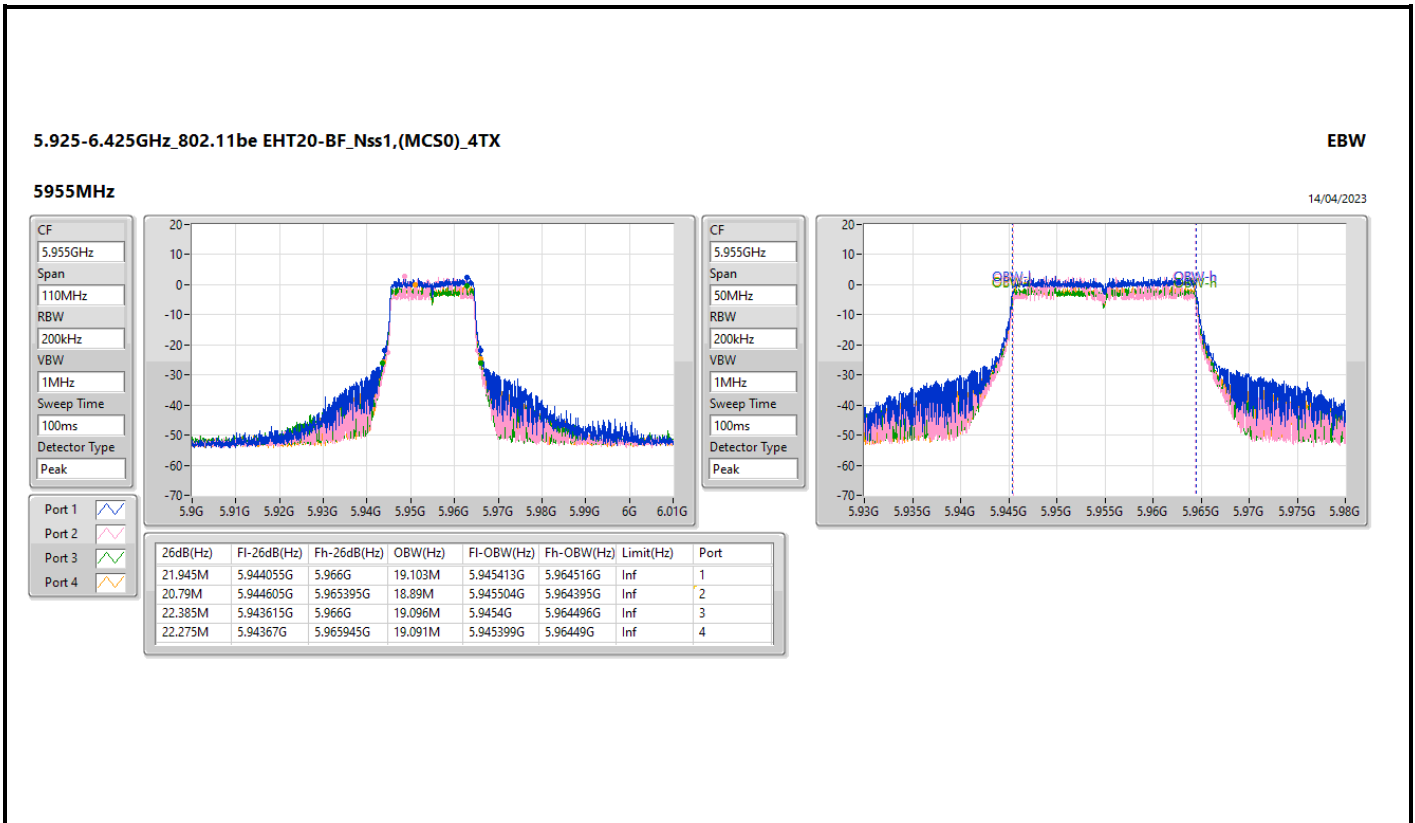
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5955MHz	Pass	Inf	21.945M	19.103M	20.79M	18.89M	22.385M	19.096M	22.275M	19.091M
6175MHz	Pass	Inf	22.44M	19.093M	21.01M	18.941M	22.385M	19.082M	22.165M	19.087M
6415MHz	Pass	Inf	22.055M	19.116M	20.955M	18.933M	22.22M	19.121M	22.33M	19.089M
6435MHz	Pass	Inf	22.33M	19.1M	21.01M	18.857M	22.385M	19.148M	22.055M	19.091M
6475MHz	Pass	Inf	22.165M	19.089M	20.955M	18.869M	21.945M	19.047M	22.11M	19.126M
6515MHz	Pass	Inf	22M	19.088M	20.955M	18.887M	22.33M	19.117M	22.165M	19.109M
6535MHz	Pass	Inf	21.835M	19.09M	21.505M	18.89M	22.275M	19.072M	22.055M	19.124M
6695MHz	Pass	Inf	22.055M	19.102M	20.955M	18.849M	22.055M	19.093M	22.385M	19.079M
6855MHz	Pass	Inf	22.165M	19.093M	21.615M	18.902M	22.385M	19.095M	22.275M	19.084M
6875MHz Straddle 6.525-6.875GHz	Pass	Inf	22.55M	19.179M	20.955M	18.935M	22.11M	19.088M	22.22M	19.082M
6895MHz	Pass	Inf	22.11M	19.103M	21.01M	18.867M	22.495M	19.119M	21.835M	19.116M
6995MHz	Pass	Inf	22.22M	19.096M	21.12M	18.911M	22.385M	19.1M	22.33M	19.108M
7095MHz	Pass	Inf	22.44M	19.092M	21.065M	18.996M	22.165M	19.084M	22.165M	19.099M
7115MHz Straddle 6.875-7.125GHz	Pass	Inf	22.33M	19.136M	21.34M	18.971M	22.22M	19.092M	22.165M	19.107M
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5965MHz	Pass	Inf	43.34M	38.055M	44.11M	37.989M	44M	37.976M	43.89M	38.081M
6165MHz	Pass	Inf	43.78M	38.076M	43.23M	37.987M	44.66M	38.046M	45.21M	38.072M
6405MHz	Pass	Inf	44.11M	38.095M	43.01M	37.772M	44.44M	38.17M	44M	38.066M
6445MHz	Pass	Inf	46.31M	38.121M	45.1M	37.934M	44.11M	38.158M	47.3M	38.148M
6485MHz	Pass	Inf	44.99M	38.122M	43.67M	38.255M	44.66M	38.066M	43.89M	38.07M
6525MHz Straddle 6.425-6.525GHz	Pass	Inf	43.89M	38.173M	43.78M	38.212M	44.11M	38.149M	44.99M	38.076M
6565MHz	Pass	Inf	45.87M	38.172M	43.78M	37.937M	43.67M	38.107M	45.21M	38.065M
6685MHz	Pass	Inf	43.67M	38.133M	42.35M	37.87M	44M	38.089M	43.78M	38.105M
6845MHz	Pass	Inf	43.67M	38.098M	42.46M	37.905M	44.22M	38.132M	44.11M	38.075M
6885MHz Straddle 6.525-6.875GHz	Pass	Inf	44M	38.075M	41.8M	37.926M	44M	38.103M	44.55M	38.12M
6925MHz	Pass	Inf	45.1M	38.066M	44.99M	37.882M	44.99M	38.061M	43.34M	38.063M
7005MHz	Pass	Inf	44.33M	38.085M	43.89M	37.88M	44.55M	38.053M	43.56M	38.078M
7085MHz	Pass	Inf	44.33M	38.083M	43.01M	37.91M	44.44M	38.062M	44.44M	38.054M
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5985MHz	Pass	Inf	94.82M	77.856M	88M	77.711M	87.56M	77.967M	89.32M	77.806M
6145MHz	Pass	Inf	94.82M	77.975M	95.48M	77.353M	89.76M	77.755M	89.54M	77.748M
6385MHz	Pass	Inf	95.04M	77.911M	99.22M	77.832M	89.1M	77.838M	89.98M	78.073M
6465MHz	Pass	Inf	87.34M	77.827M	85.8M	77.289M	89.76M	77.793M	88M	77.761M
6545MHz Straddle 6.425-6.525GHz	Pass	Inf	89.76M	78.093M	141.02M	77.651M	88.22M	77.961M	88M	77.806M
6625MHz	Pass	Inf	89.1M	77.843M	93.72M	78.357M	89.1M	77.882M	89.98M	77.887M
6705MHz	Pass	Inf	88.88M	77.931M	98.78M	77.719M	90.2M	77.856M	88.88M	77.819M
6785MHz	Pass	Inf	89.32M	77.865M	93.5M	77.594M	88.44M	77.825M	89.54M	77.831M
6865MHz Straddle 6.525-6.875GHz	Pass	Inf	88.88M	77.997M	101.2M	77.498M	90.42M	78.084M	90.64M	77.89M
6945MHz	Pass	Inf	88.22M	77.901M	102.96M	77.19M	89.32M	77.778M	88.66M	77.924M
7025MHz	Pass	Inf	87.56M	77.827M	89.76M	77.225M	90.2M	77.802M	89.32M	78.088M
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
6025MHz	Pass	Inf	277.64M	157.377M	285.56M	157.454M	286.88M	157.58M	283.8M	157.308M
6185MHz	Pass	Inf	320.32M	158.566M	324.72M	158.159M	321.2M	157.951M	318.56M	157.865M
6345MHz	Pass	Inf	320.76M	157.868M	322.08M	157.93M	318.12M	157.859M	316.8M	157.952M
6505MHz Straddle 6.425-6.525GHz	Pass	Inf	314.6M	158.3M	312.84M	157.855M	320.32M	157.876M	319.88M	157.948M
6665MHz	Pass	Inf	320.76M	157.934M	323.4M	158.246M	322.08M	157.82M	320.32M	158.028M
6825MHz Straddle 6.525-6.875GHz	Pass	Inf	320.76M	158.045M	320.32M	158.093M	318.56M	158.042M	322.08M	158.05M
6985MHz	Pass	Inf	292.6M	157.769M	295.24M	157.532M	314.16M	157.572M	319.88M	157.755M
802.11be EHT320-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
6105MHz	Pass	Inf	643.28M	320.603M	512.16M	319.32M	491.04M	319.34M	508.64M	317.331M
6265MHz	Pass	Inf	652.08M	318.555M	635.36M	318.555M	640.64M	318.164M	638M	318.029M
6425MHz	Pass	Inf	653.84M	317.493M	649.44M	318.105M	631.84M	317.51M	638M	317.963M
6585MHz	Pass	Inf	655.6M	318.303M	655.6M	318.775M	630.96M	318.219M	648.56M	318.012M
6745MHz	Pass	Inf	632.72M	318.317M	653.84M	318.296M	633.6M	318.375M	653.84M	318.184M



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
6905MHz	Pass	Inf	625.68M	317.232M	625.68M	317.344M	637.12M	316.565M	628.32M	317.253M

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



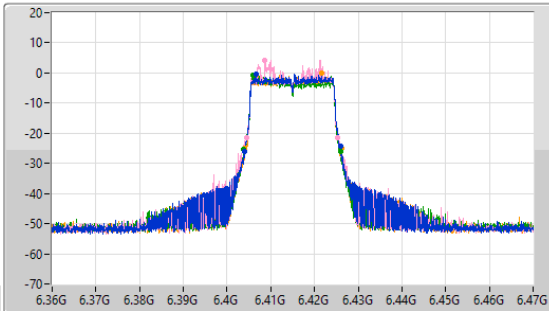
5.925-6.425GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

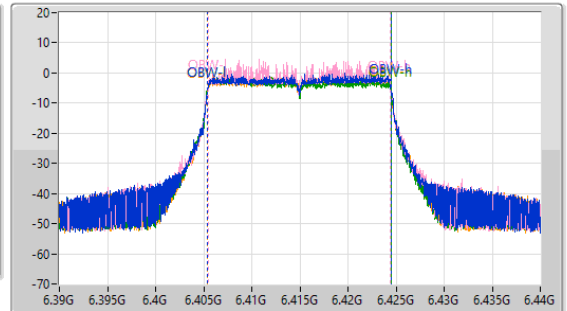
6415MHz

14/04/2023

CF
6.415GHz
Span
110MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
6.415GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.055M	6.403945G	6.426G	19.116M	6.405402G	6.424518G	Inf	1
20.955M	6.40444G	6.425395G	18.933M	6.40549G	6.424423G	Inf	2
22.22M	6.403835G	6.426055G	19.121M	6.405356G	6.424477G	Inf	3
22.33M	6.403945G	6.426275G	19.089M	6.405415G	6.424504G	Inf	4

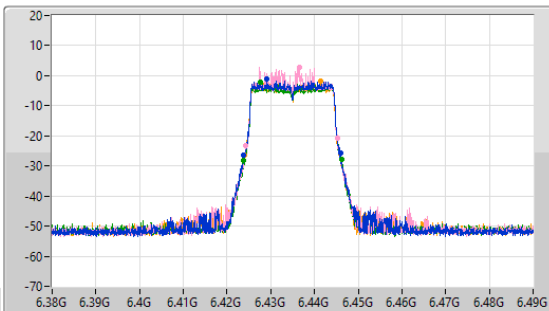
6.425-6.525GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

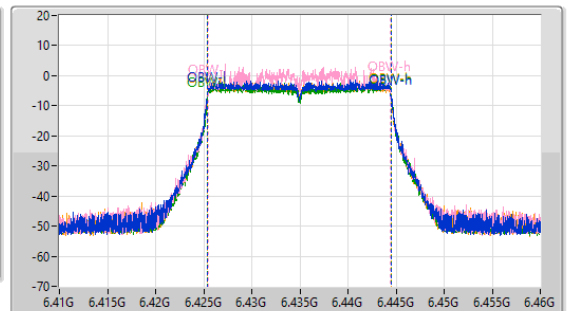
6435MHz

14/04/2023

CF
6.435GHz
Span
110MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
6.435GHz
Span
50MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

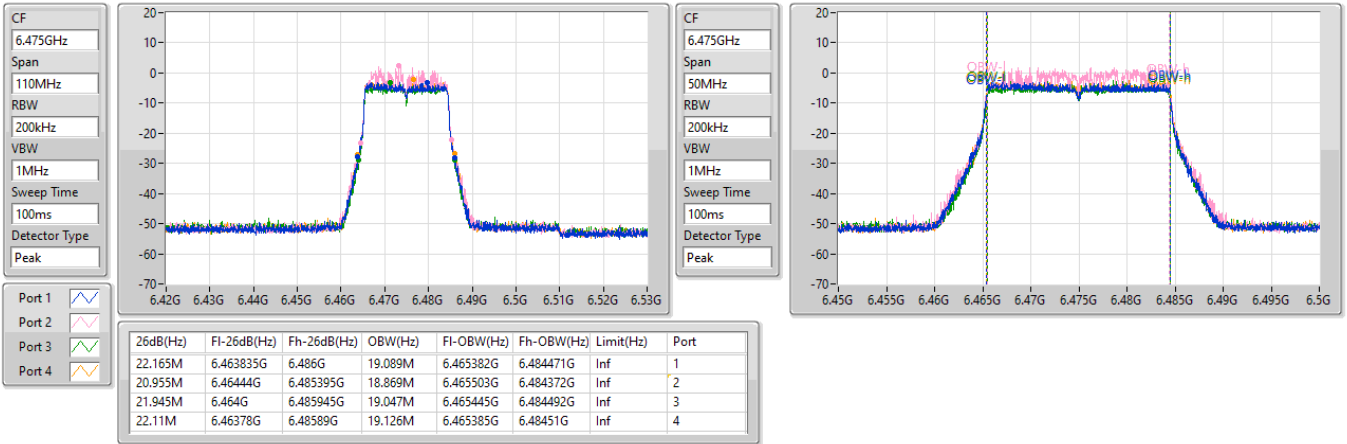
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.33M	6.42378G	6.44611G	19.1M	6.425393G	6.444493G	Inf	1
21.01M	6.42433G	6.44534G	18.857M	6.42552G	6.444376G	Inf	2
22.385M	6.423835G	6.44622G	19.148M	6.425394G	6.444541G	Inf	3
22.055M	6.42389G	6.445945G	19.091M	6.425393G	6.444484G	Inf	4

6.425-6.525GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

6475MHz

14/04/2023

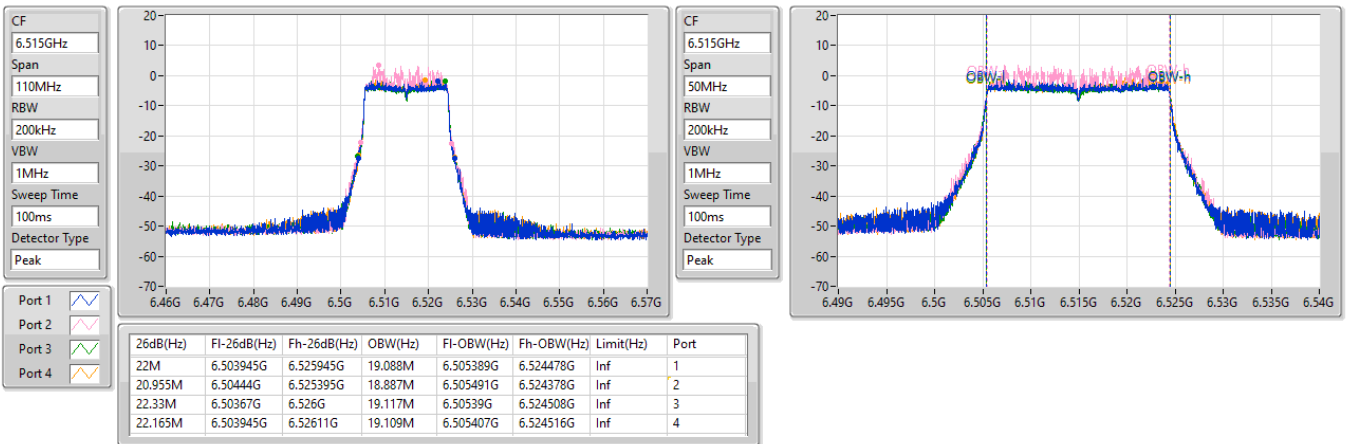


6.425-6.525GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

6515MHz

14/04/2023

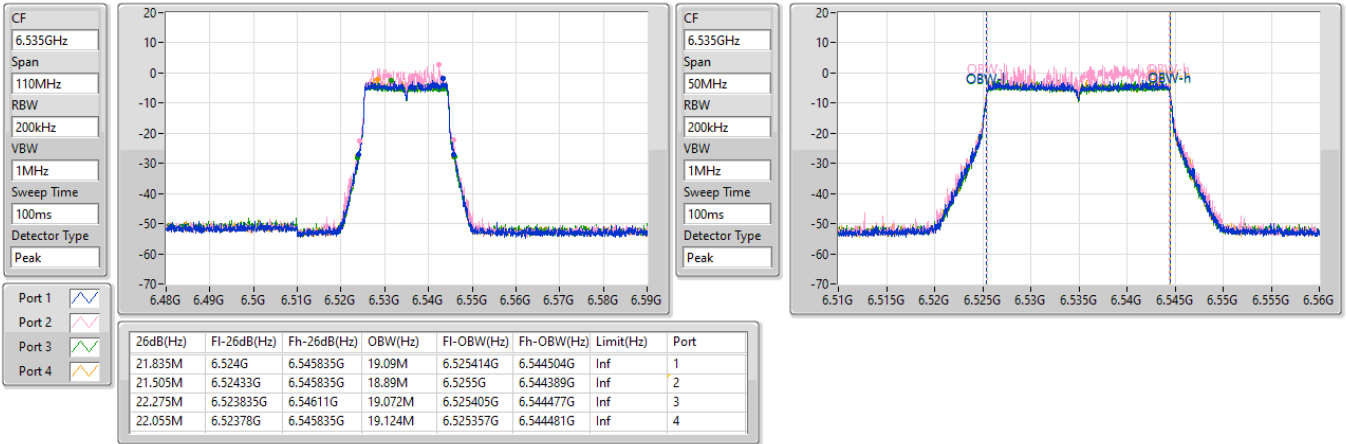


6.525-6.875GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

6535MHz

14/04/2023

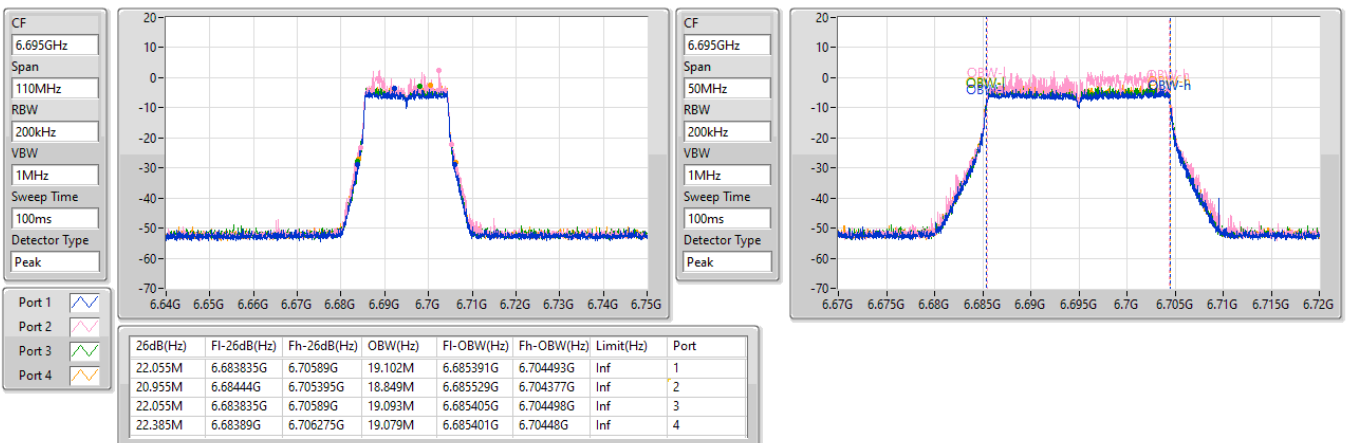


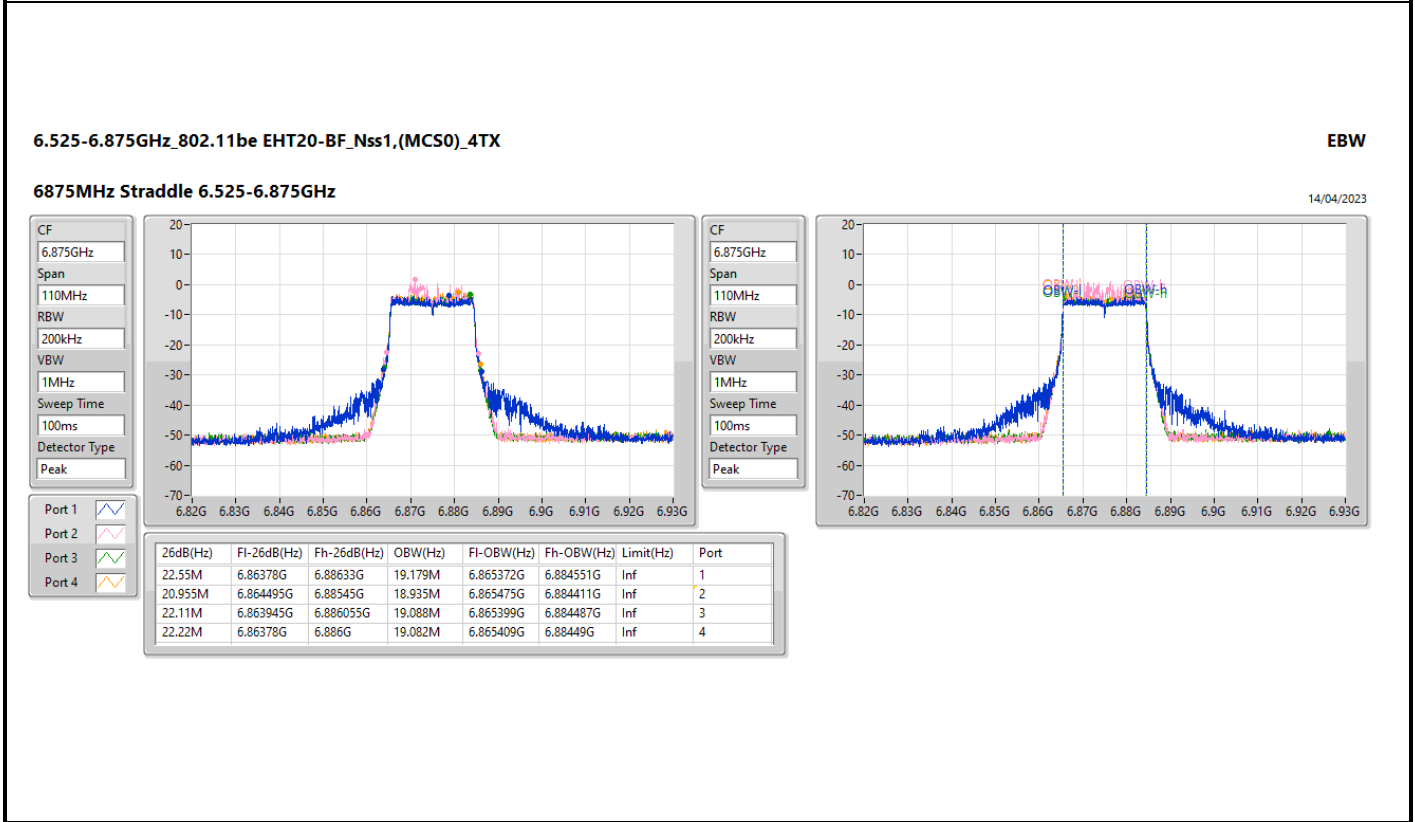
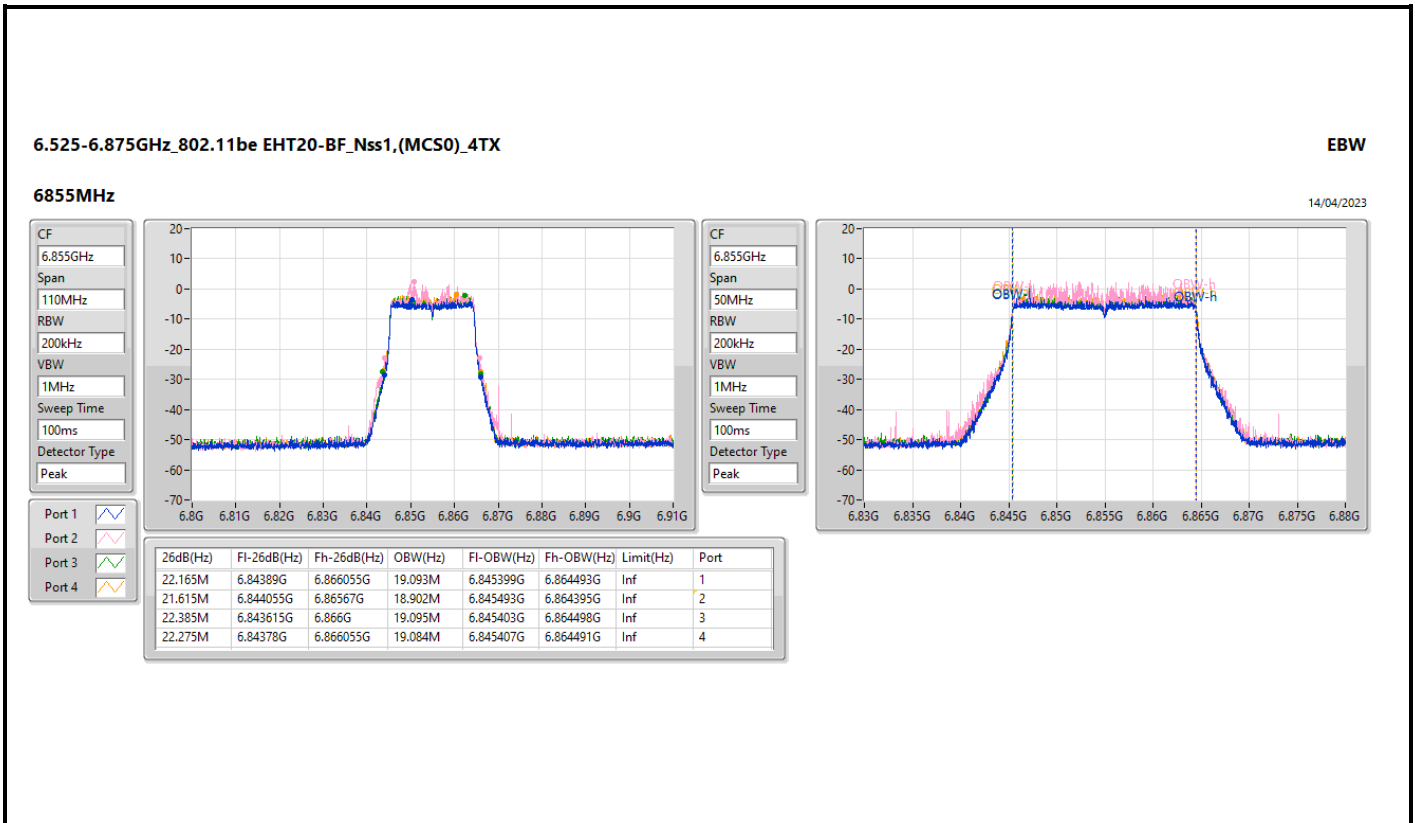
6.525-6.875GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

6695MHz

14/04/2023



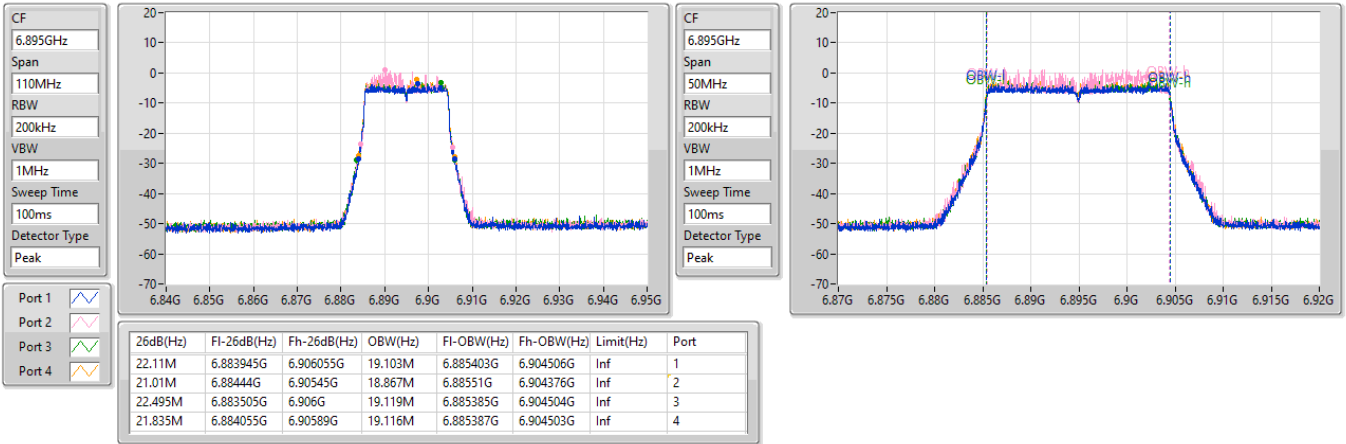


6.875-7.125GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

6895MHz

14/04/2023

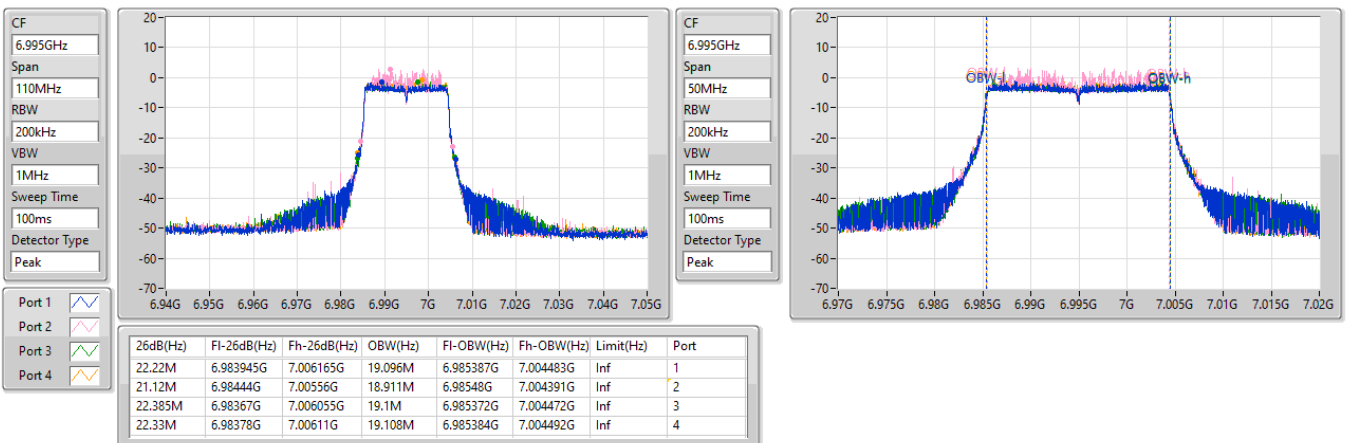


6.875-7.125GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

6995MHz

14/04/2023

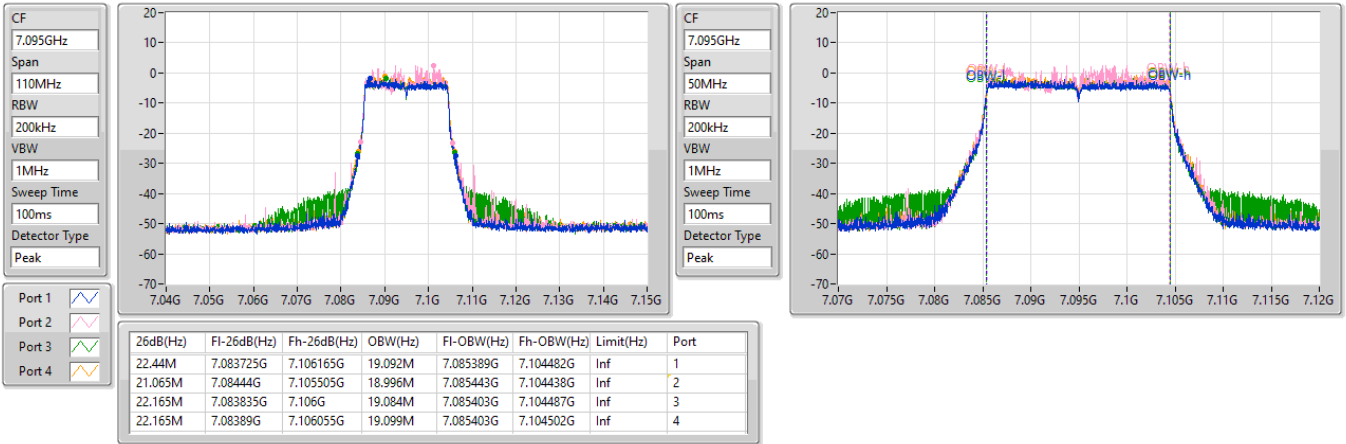


6.875-7.125GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

EBW

7095MHz

14/04/2023

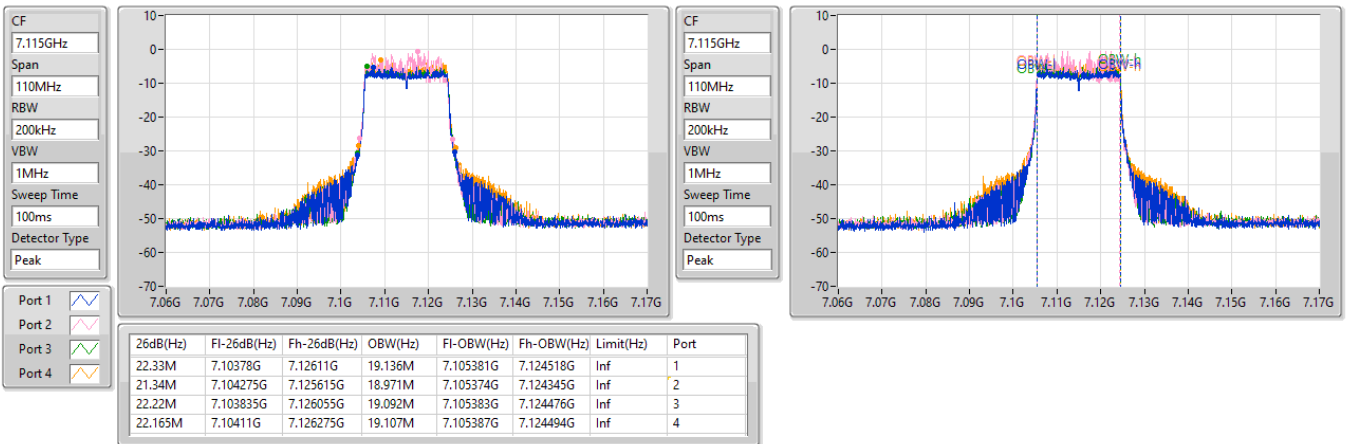


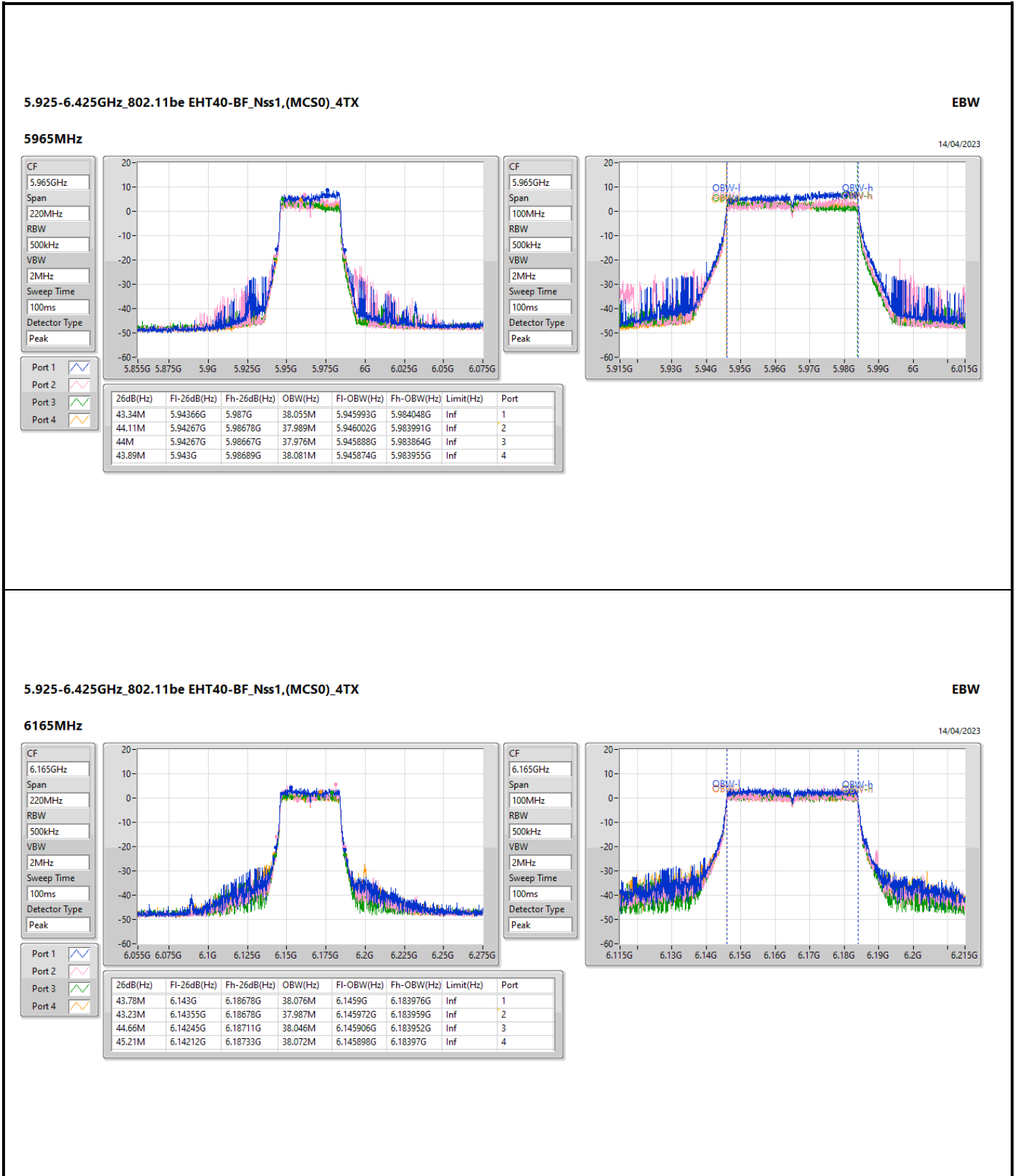
6.875-7.125GHz_802.11be EHT20-BF_Nss1,(MCS0)_4TX

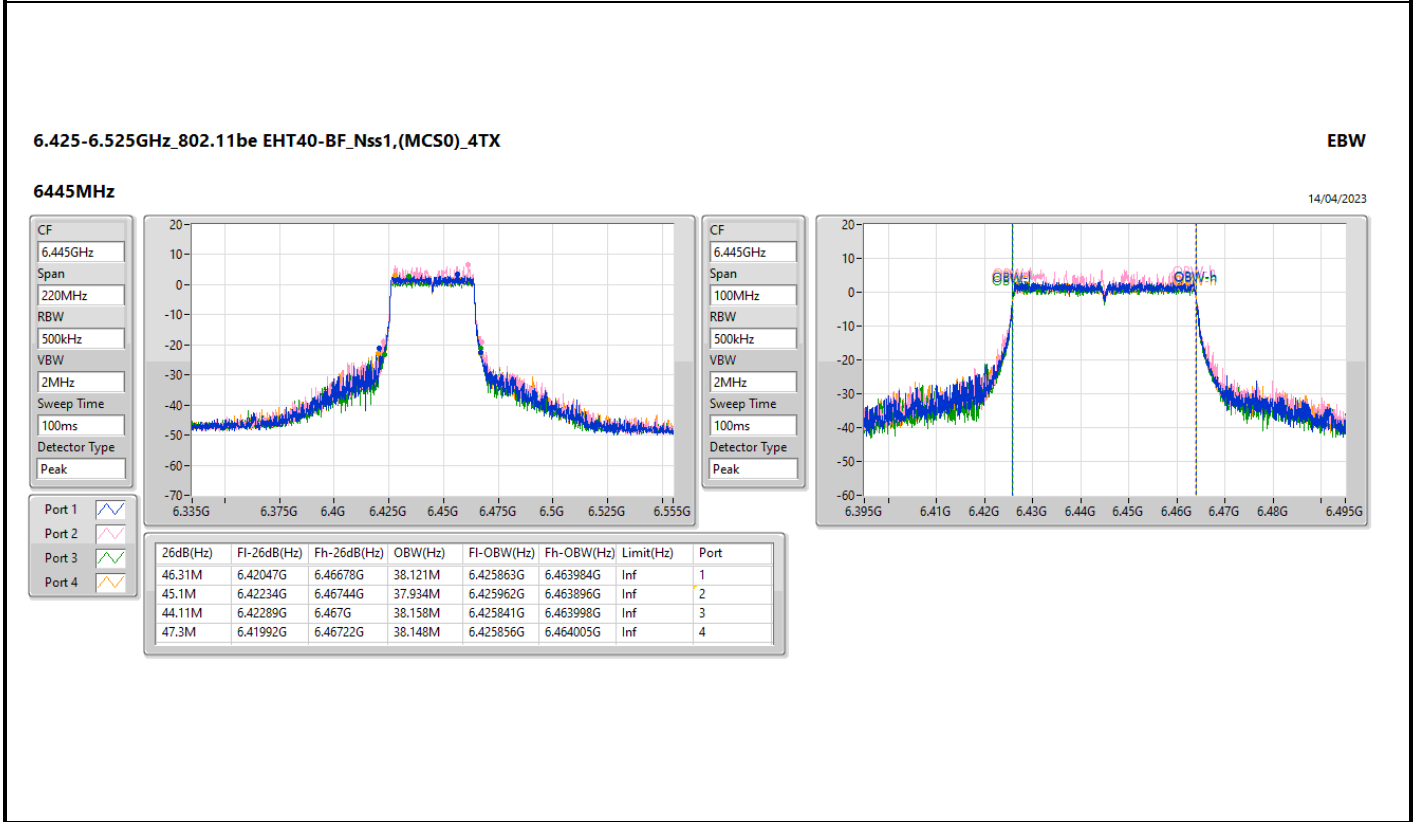
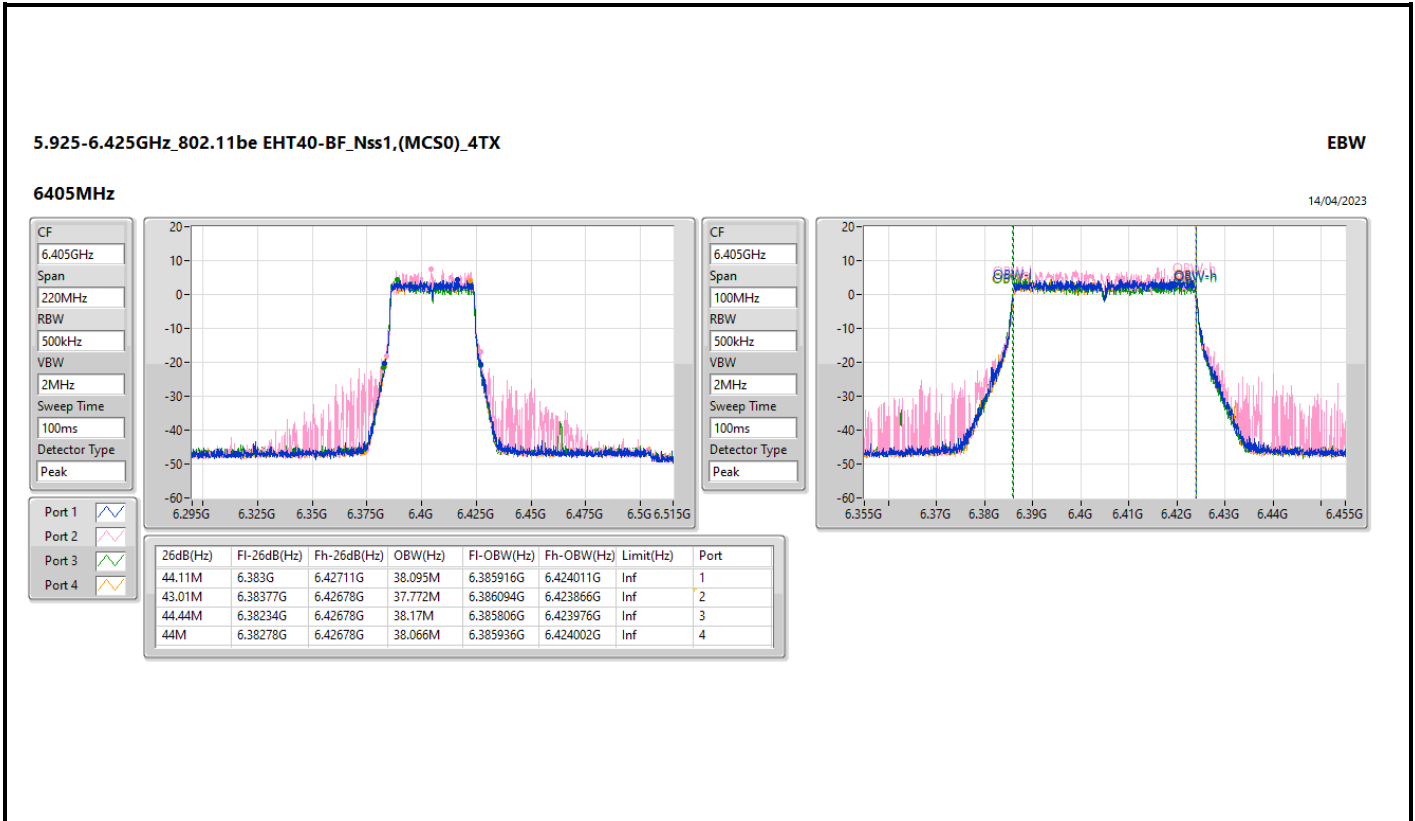
EBW

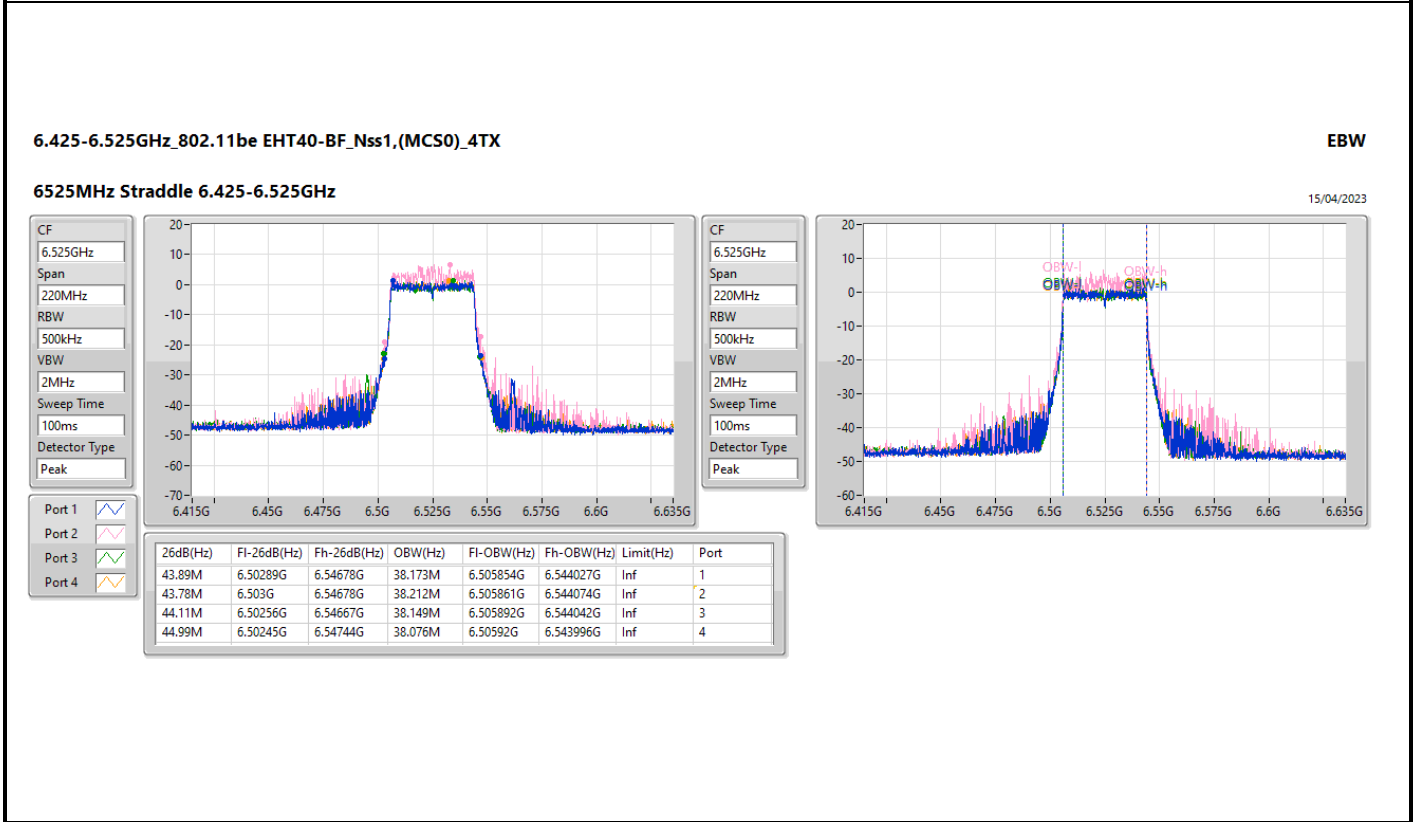
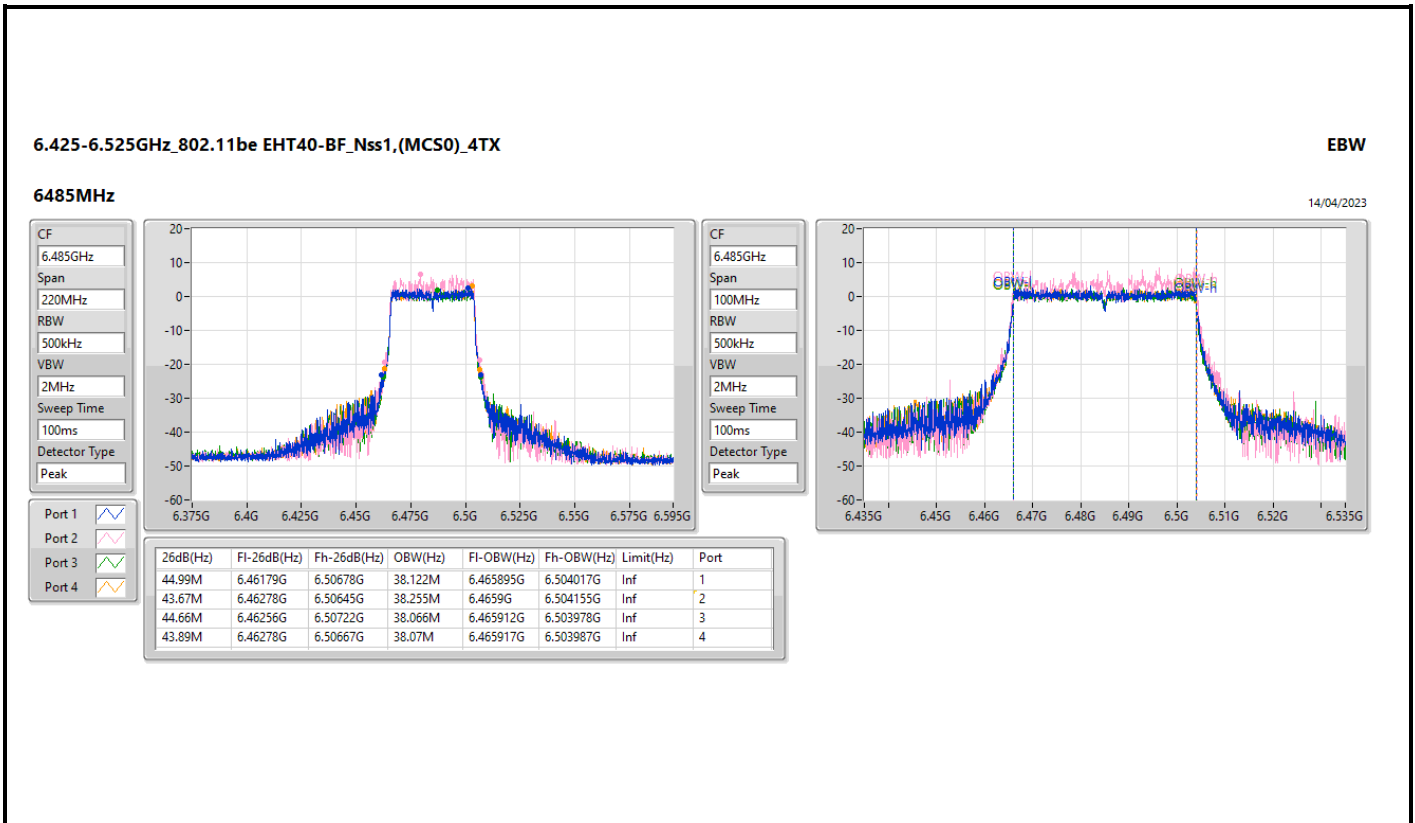
7115MHz Straddle 6.875-7.125GHz

14/04/2023







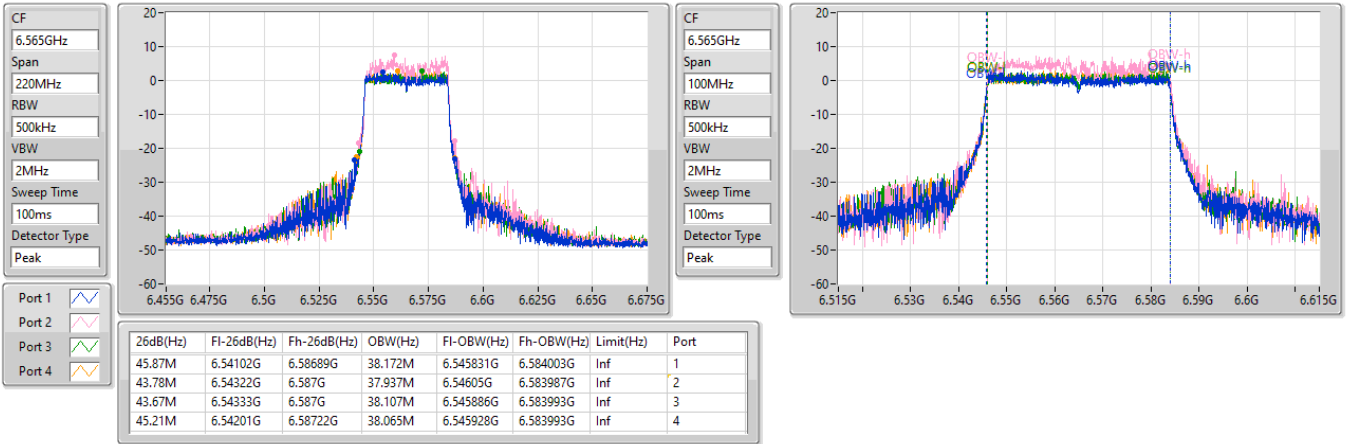


6.525-6.875GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

6565MHz

15/04/2023

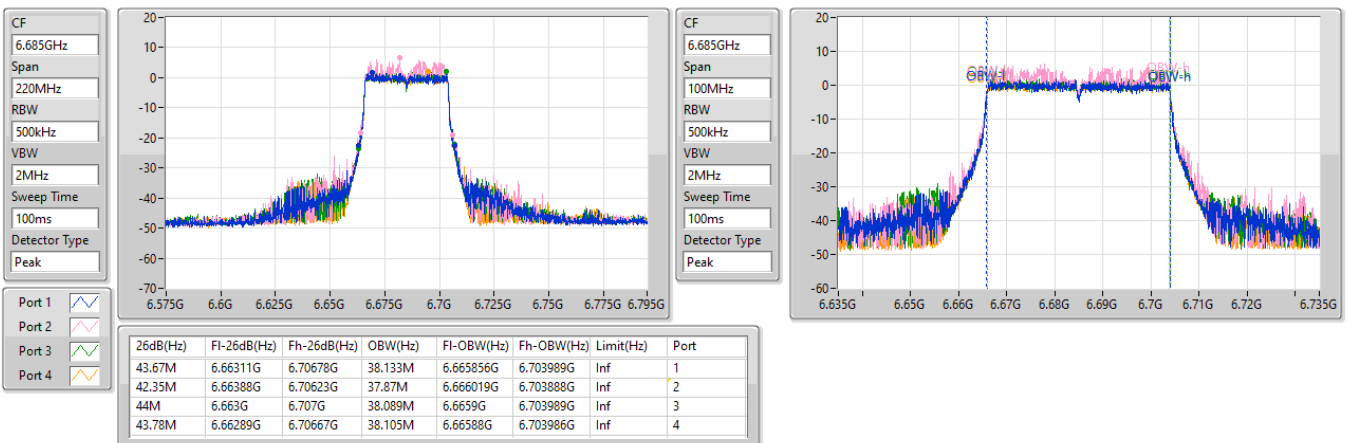


6.525-6.875GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

6685MHz

15/04/2023

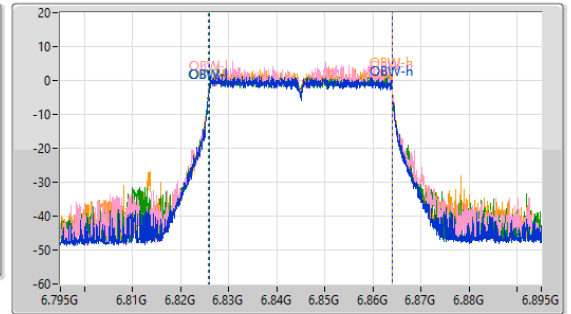
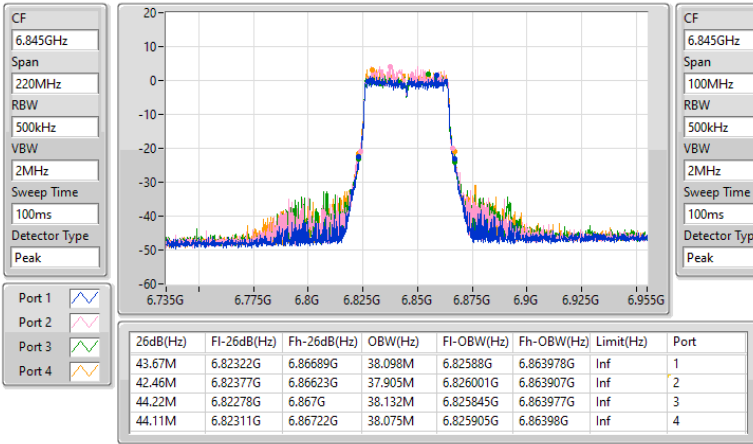


6.525-6.875GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

6845MHz

15/04/2023

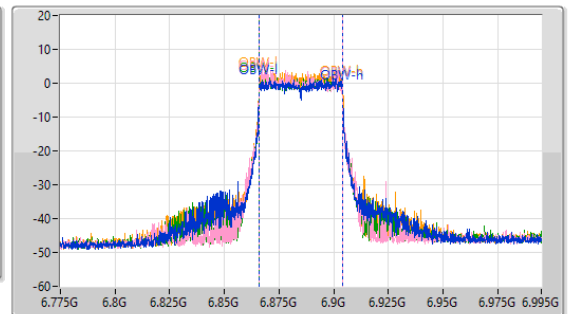
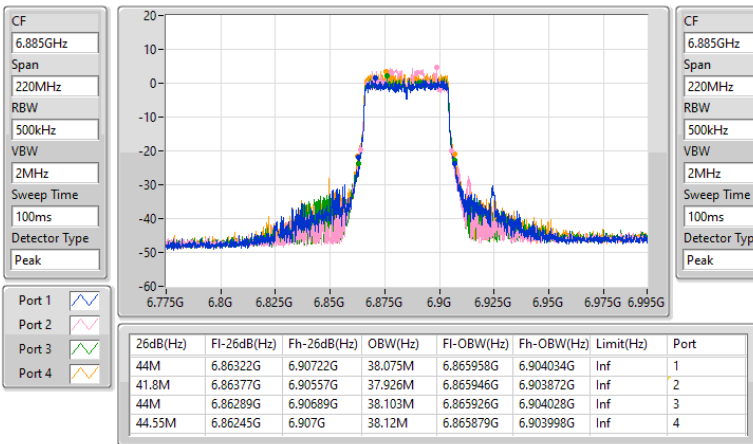


6.525-6.875GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

6885MHz Straddle 6.525-6.875GHz

15/04/2023

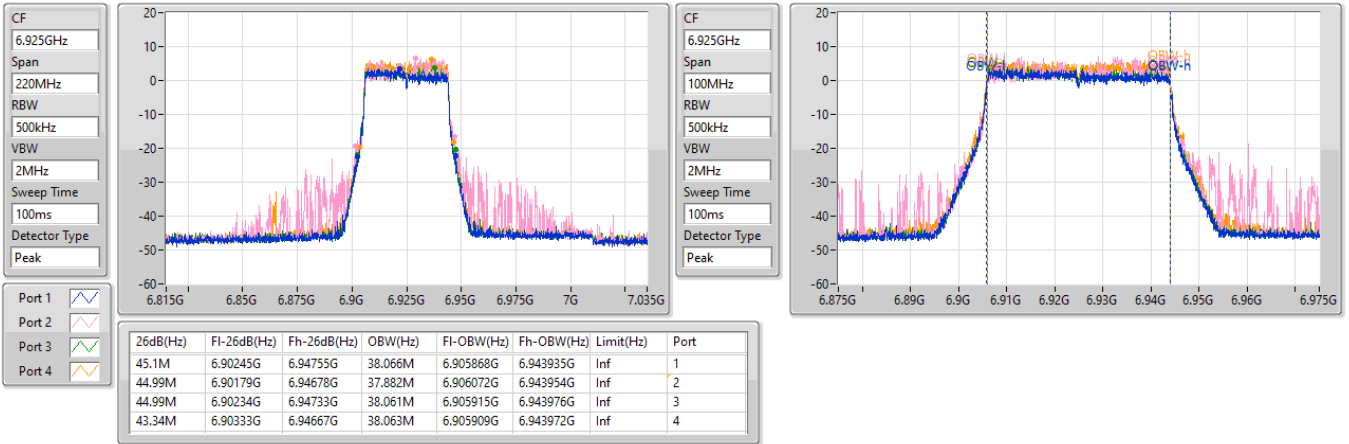


6.875-7.125GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

6925MHz

15/04/2023

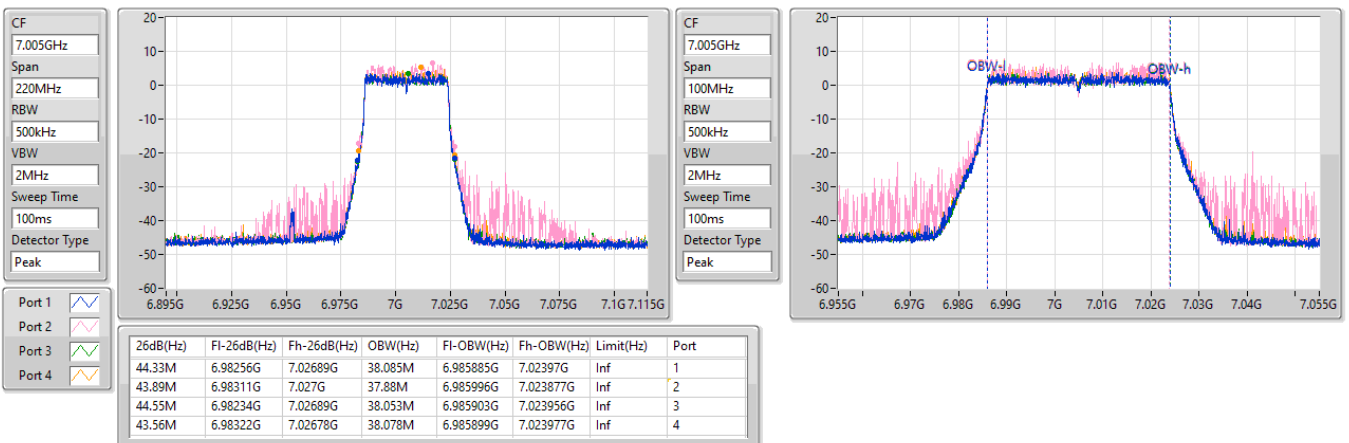


6.875-7.125GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

7005MHz

15/04/2023

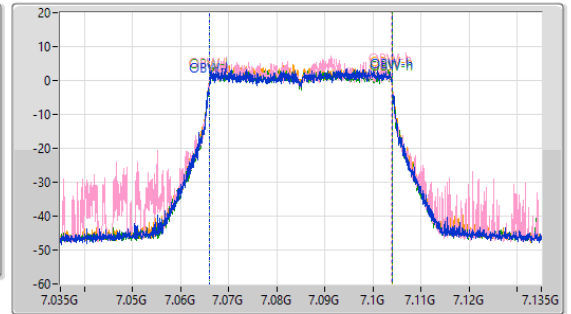
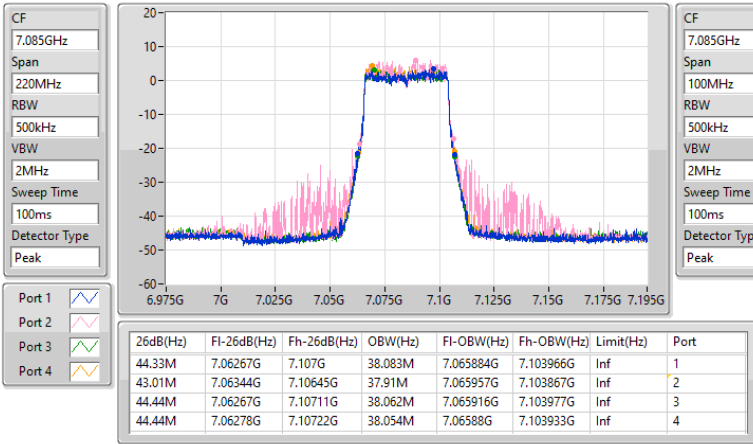


6.875-7.125GHz_802.11be EHT40-BF_Nss1,(MCS0)_4TX

EBW

7085MHz

15/04/2023

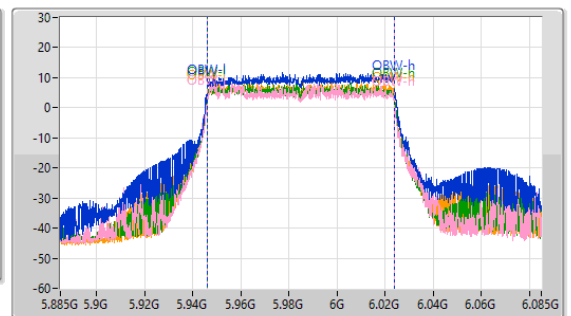
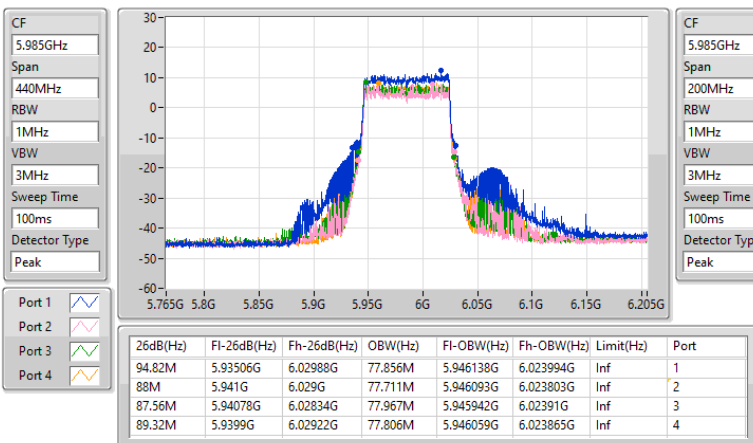


5.925-6.425GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

5985MHz

15/04/2023

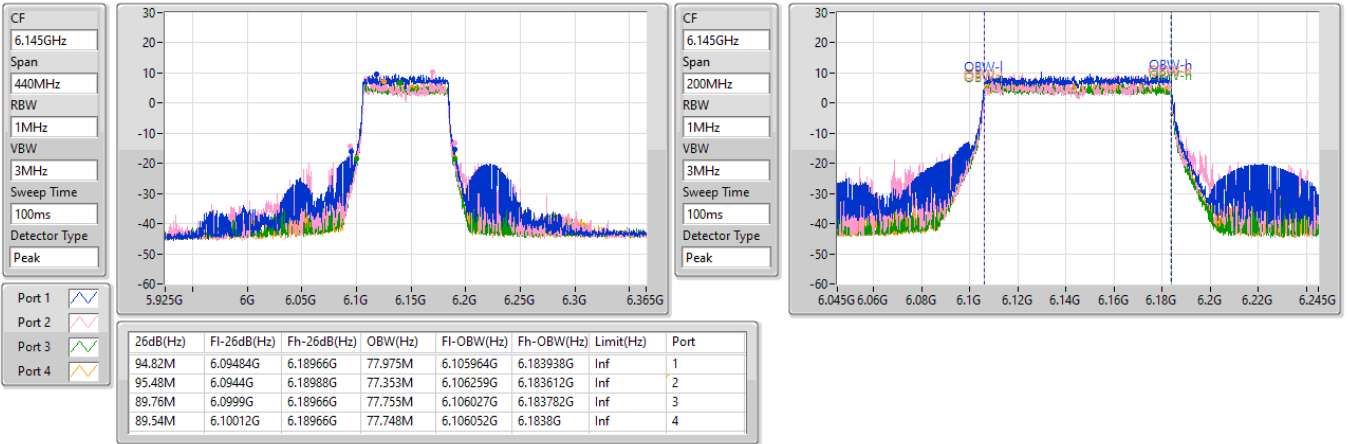


5.925-6.425GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

6145MHz

15/04/2023

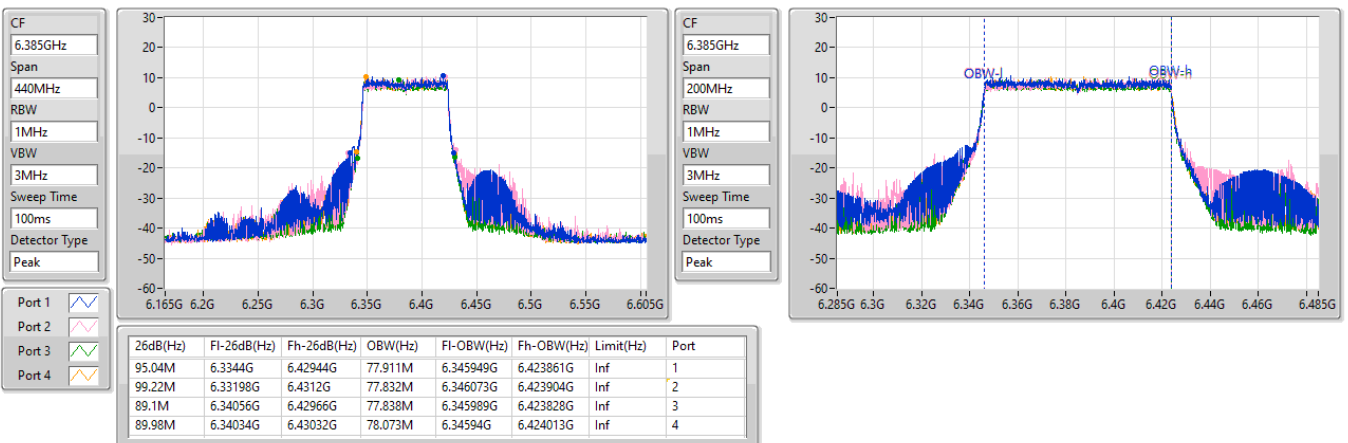


5.925-6.425GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

6385MHz

15/04/2023

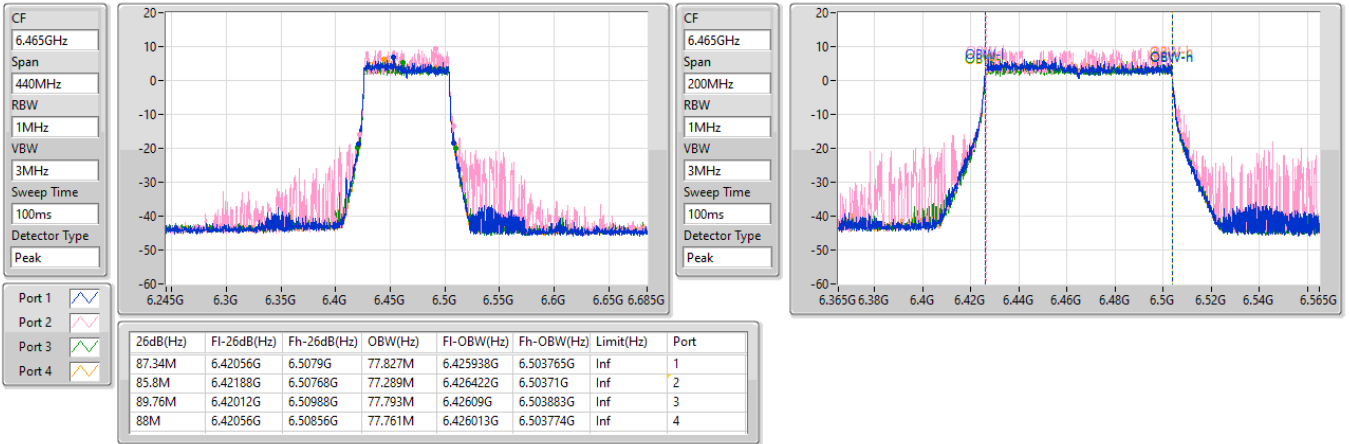


6.425-6.525GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

6465MHz

15/04/2023

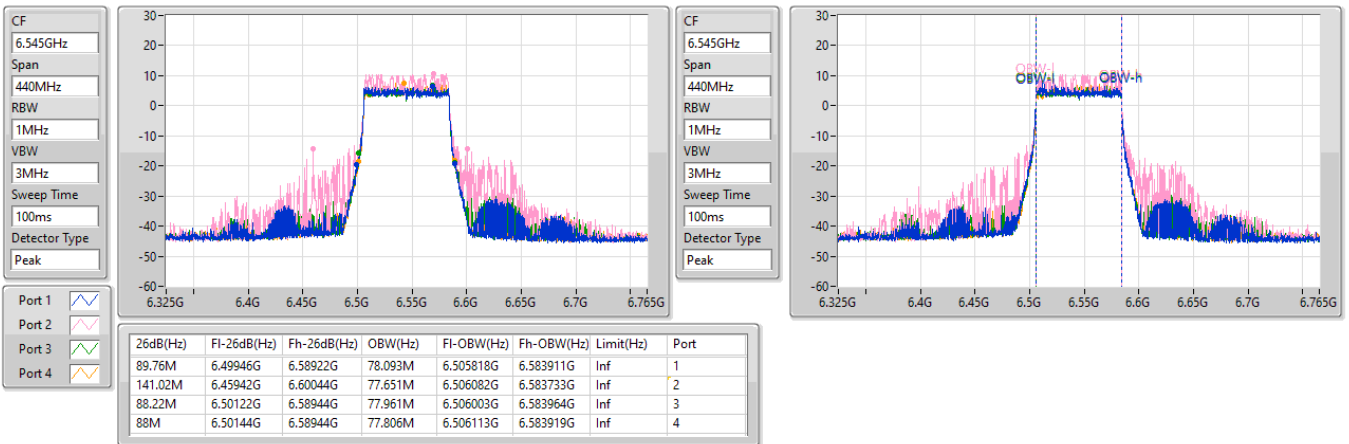


6.425-6.525GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

6545MHz Straddle 6.425-6.525GHz

15/04/2023

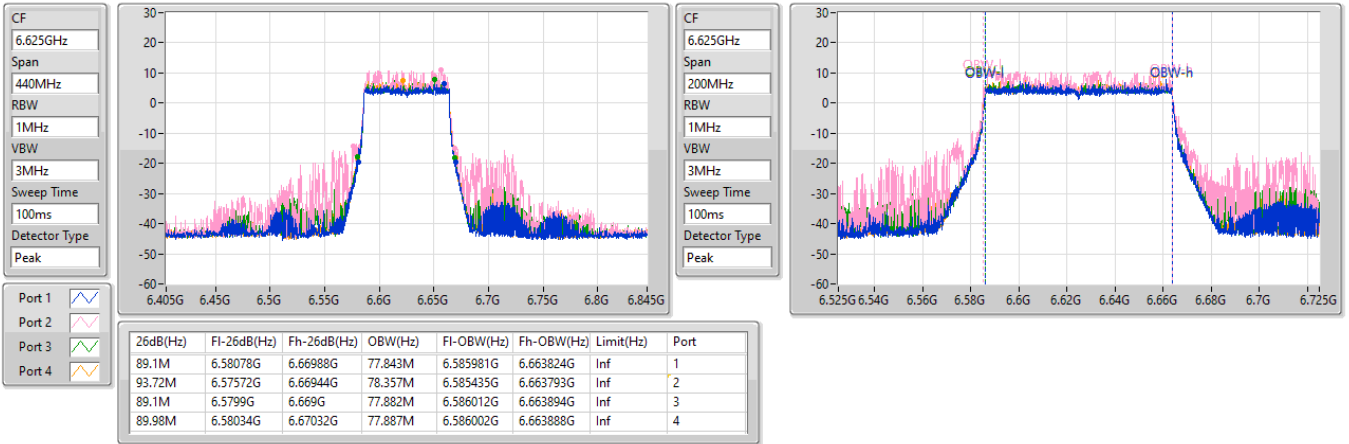


6.525-6.875GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

6625MHz

15/04/2023

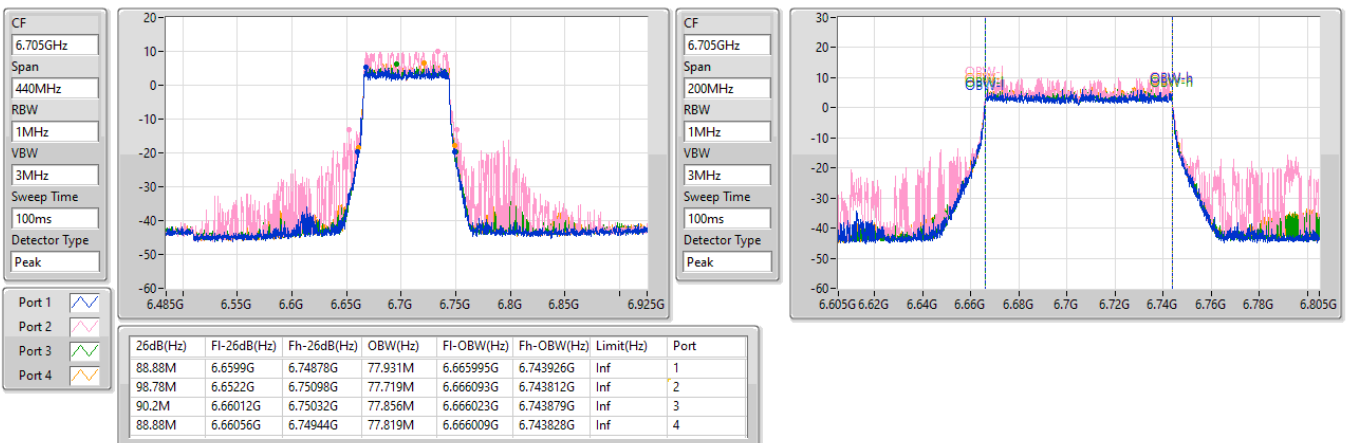


6.525-6.875GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

6705MHz

15/04/2023

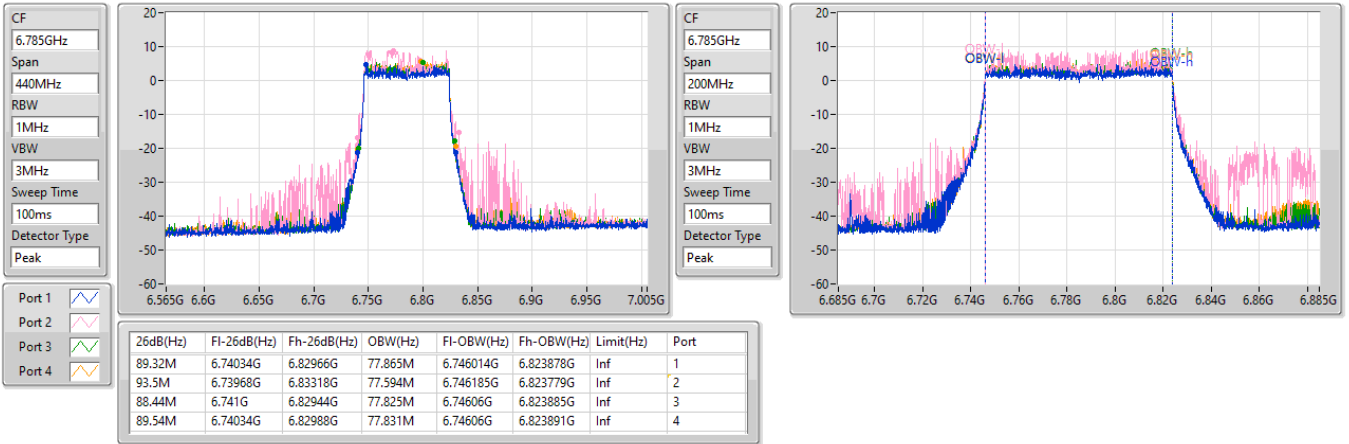


6.525-6.875GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

6785MHz

15/04/2023

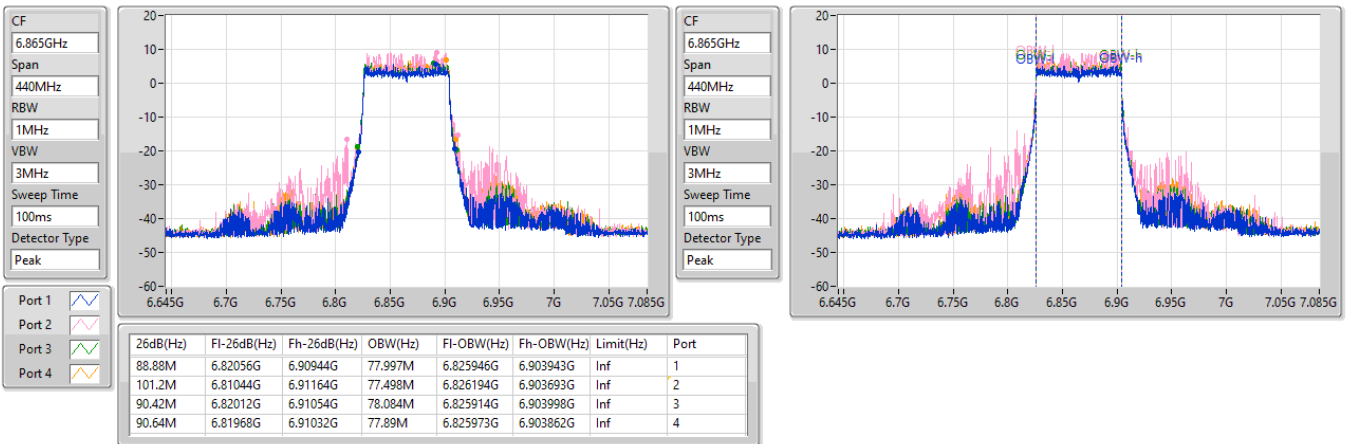


6.525-6.875GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

6865MHz Straddle 6.525-6.875GHz

15/04/2023

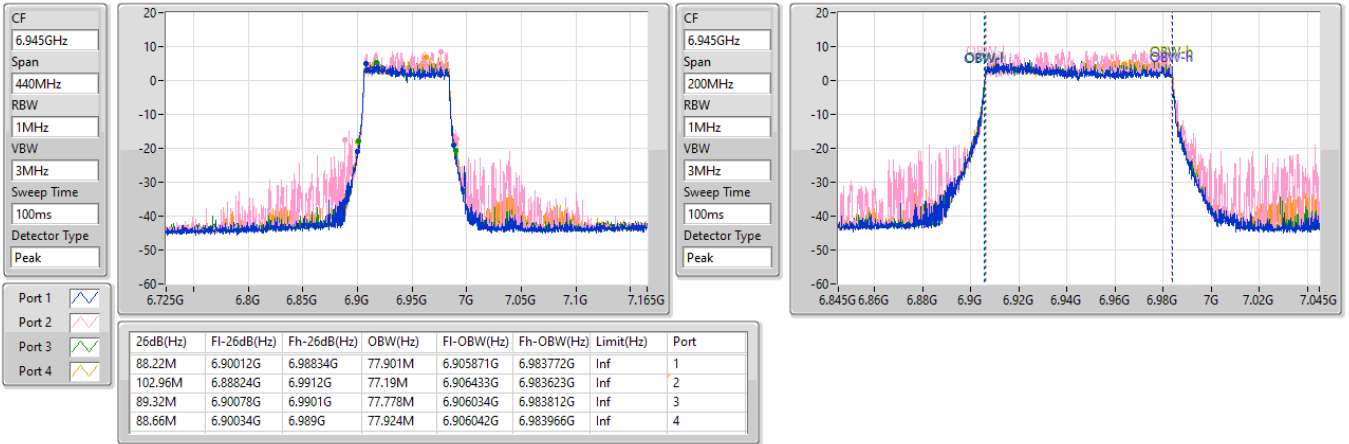


6.875-7.125GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

6945MHz

15/04/2023

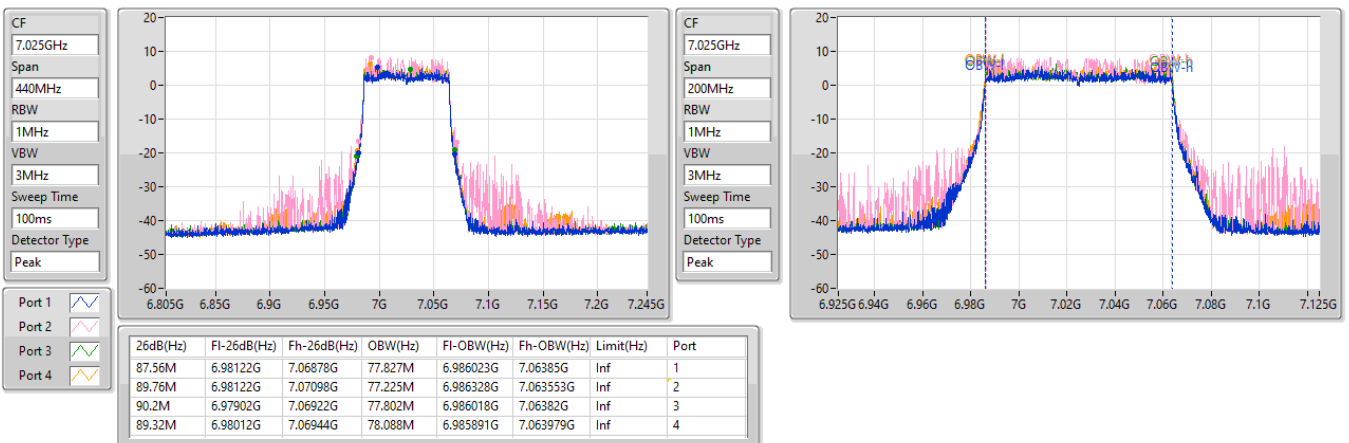


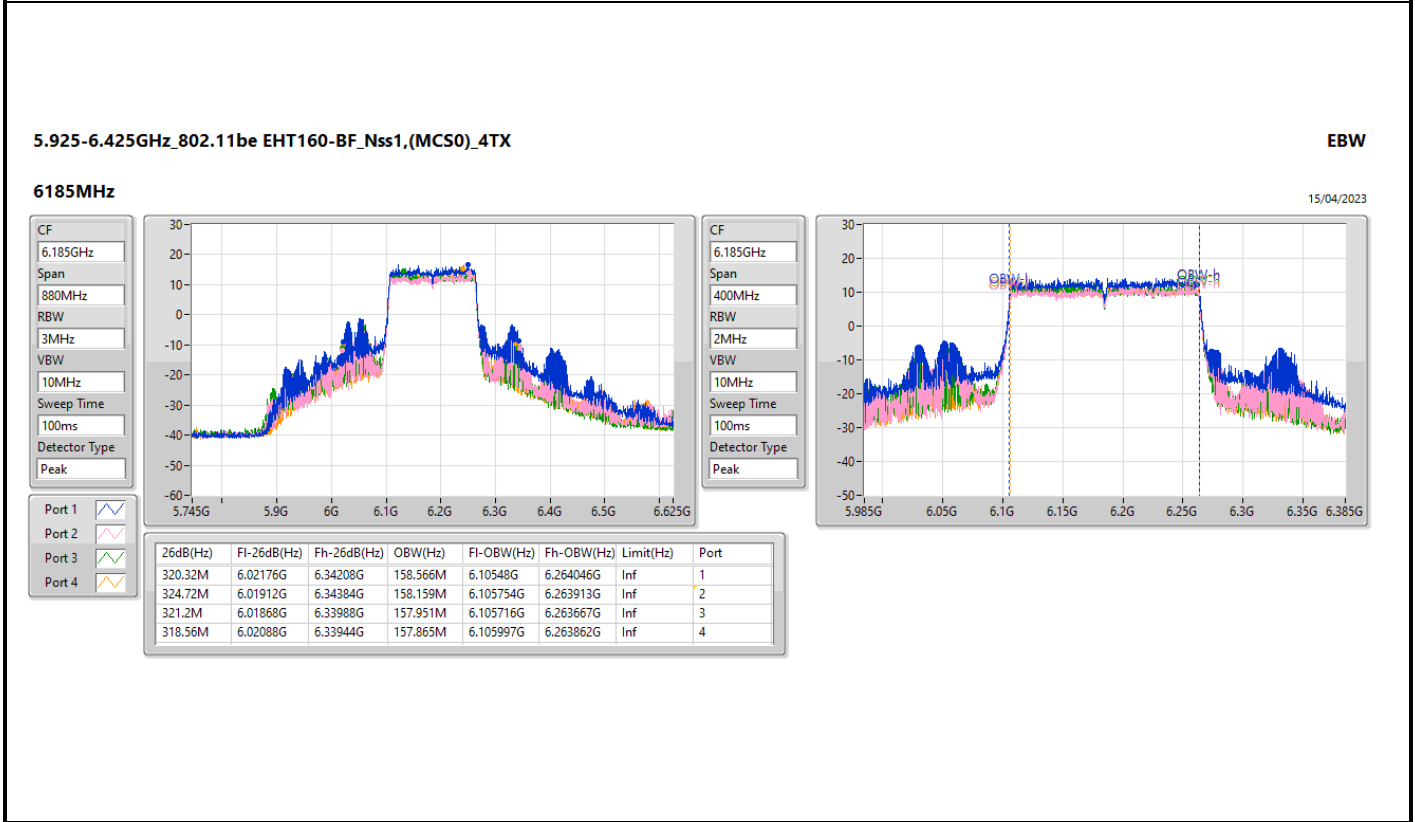
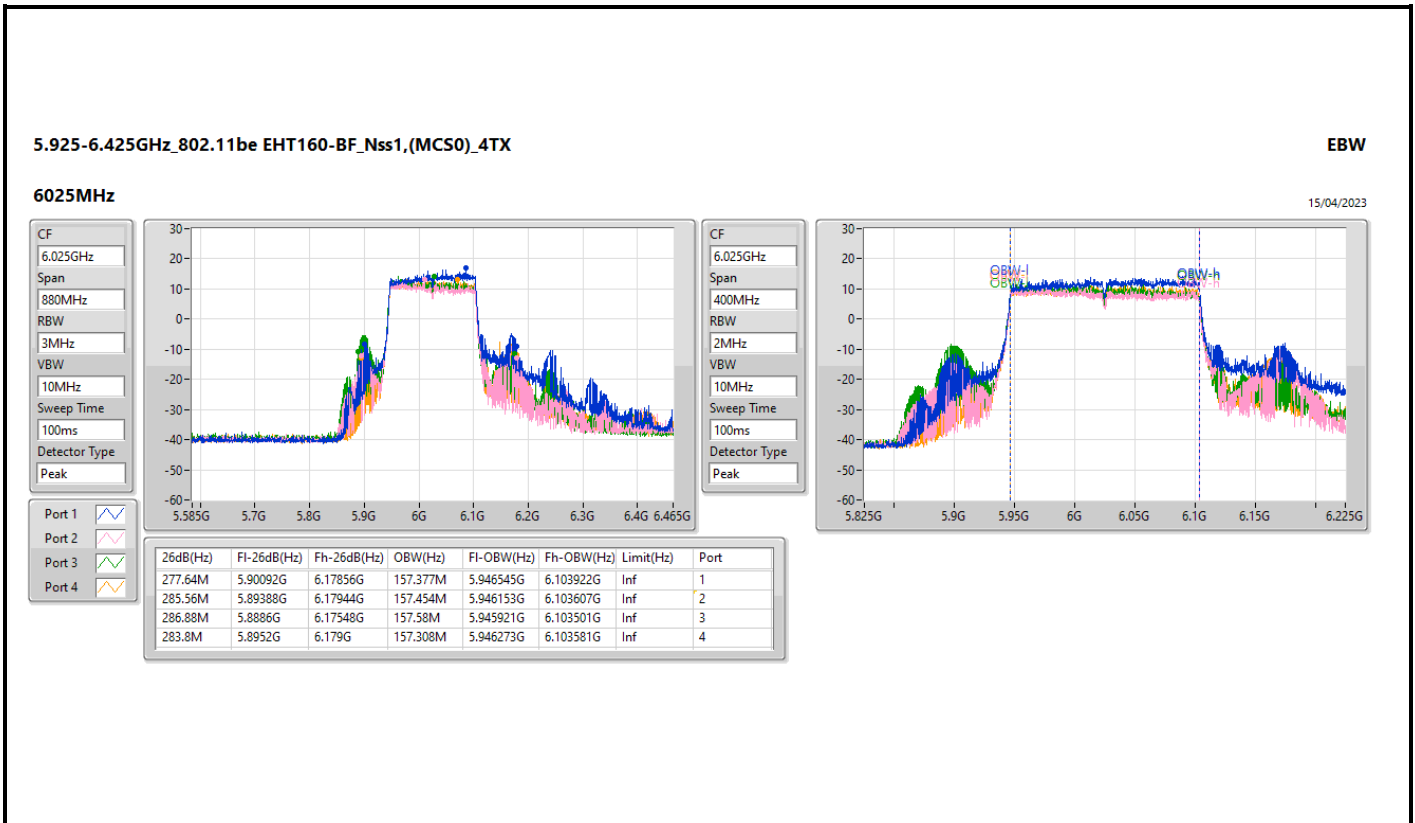
6.875-7.125GHz_802.11be EHT80-BF_Nss1,(MCS0)_4TX

EBW

7025MHz

15/04/2023



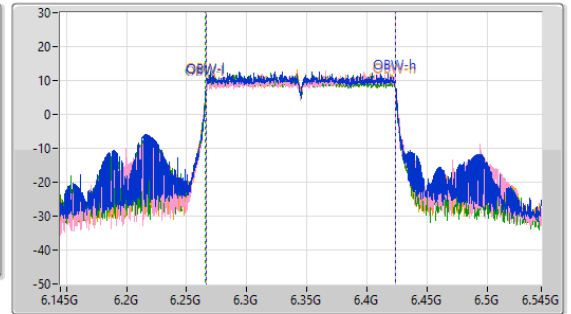
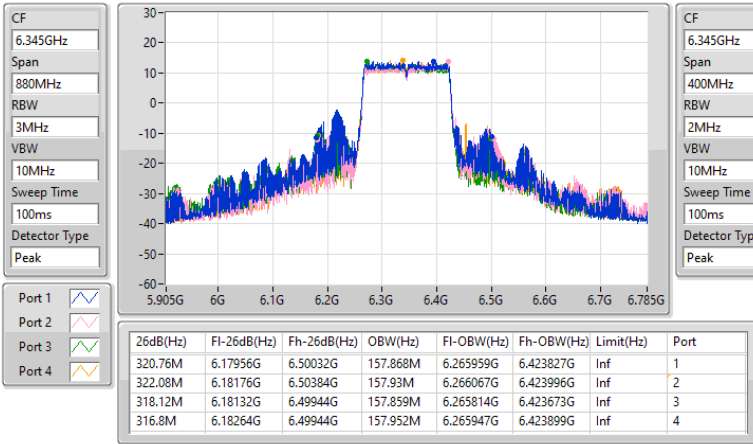


5.925-6.425GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

EBW

6345MHz

15/04/2023

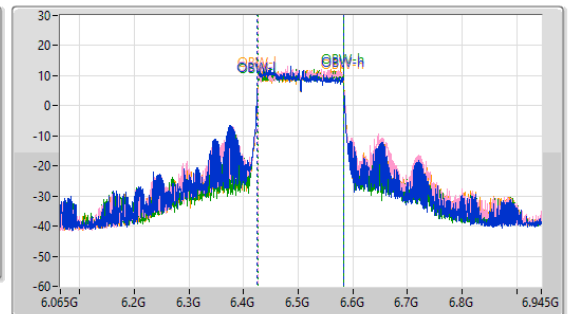
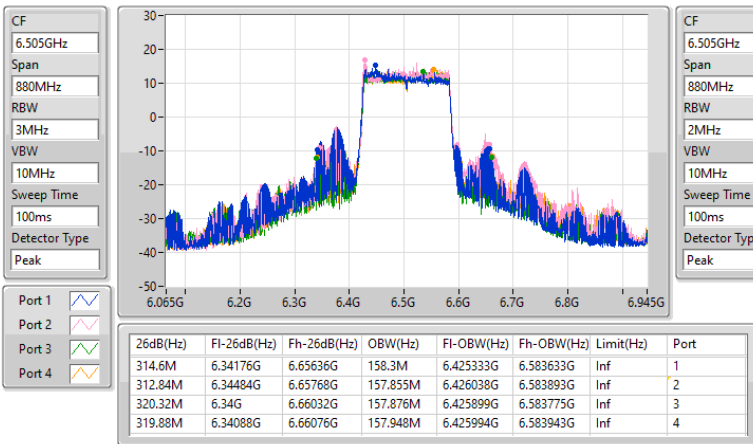


6.425-6.525GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

EBW

6505MHz Straddle 6.425-6.525GHz

15/04/2023

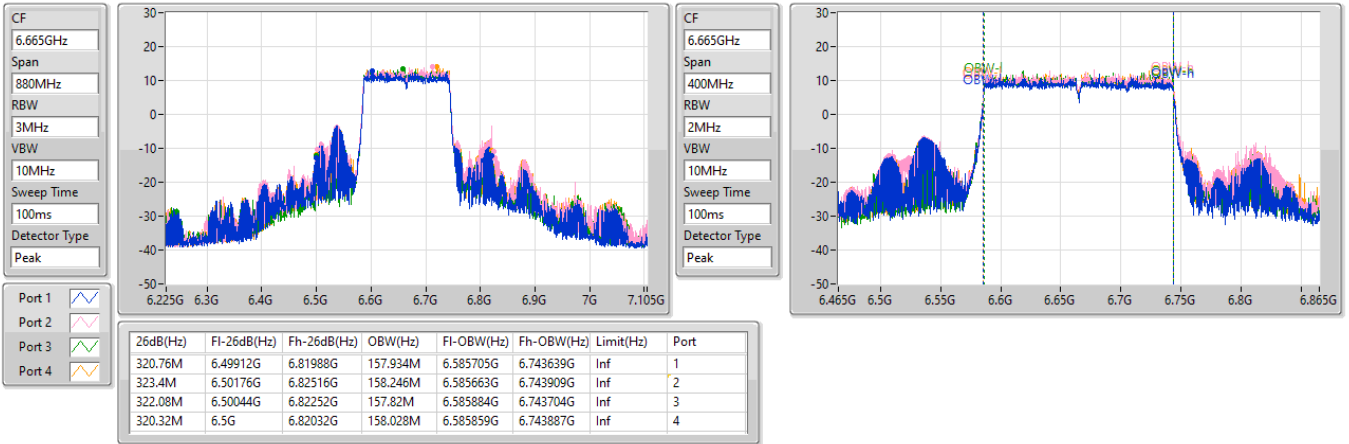


6.525-6.875GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

EBW

6665MHz

15/04/2023

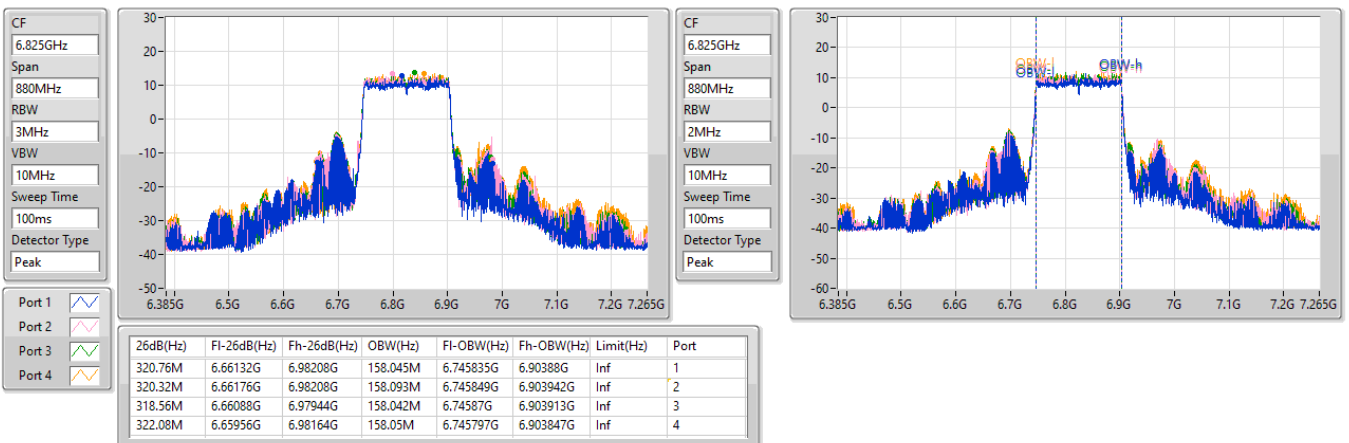


6.525-6.875GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

EBW

6825MHz Straddle 6.525-6.875GHz

15/04/2023



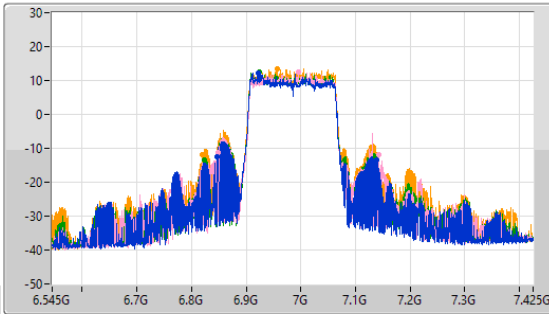
6.875-7.125GHz_802.11be EHT160-BF_Nss1,(MCS0)_4TX

EBW

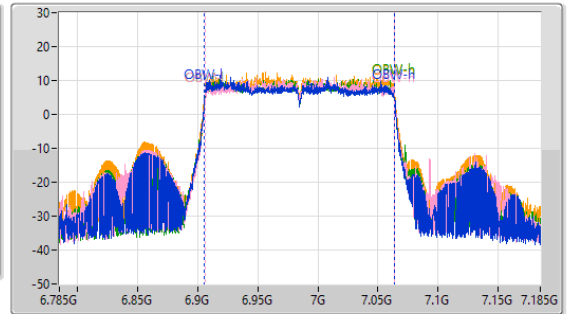
6985MHz

15/04/2023

CF
6.985GHz
Span
880MHz
RBW
3MHz
VBW
10MHz
Sweep Time
100ms
Detector Type
Peak



CF
6.985GHz
Span
400MHz
RBW
2MHz
VBW
10MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
292.6M	6.84596G	7.13856G	157.769M	6.905805G	7.063574G	Inf	1
295.24M	6.84816G	7.1434G	157.532M	6.906187G	7.063719G	Inf	2
314.16M	6.82352G	7.13768G	157.572M	6.905974G	7.063546G	Inf	3
319.88M	6.82044G	7.14032G	157.755M	6.905903G	7.063659G	Inf	4

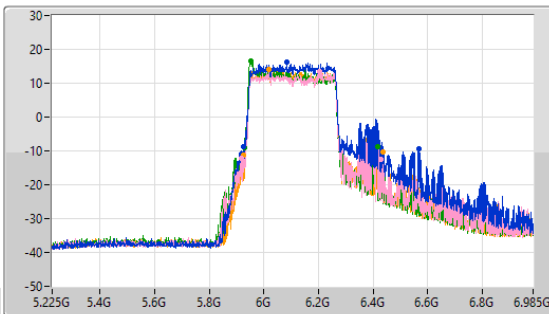
5.925-6.425GHz_802.11be EHT320-BF_Nss1,(MCS0)_4TX

EBW

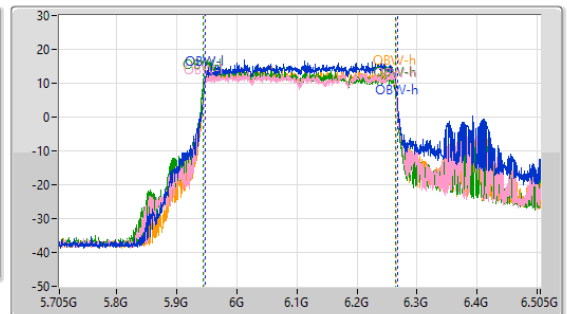
6105MHz

15/04/2023

CF
6.105GHz
Span
1.76GHz
RBW
5MHz
VBW
10MHz
Sweep Time
100ms
Detector Type
Peak

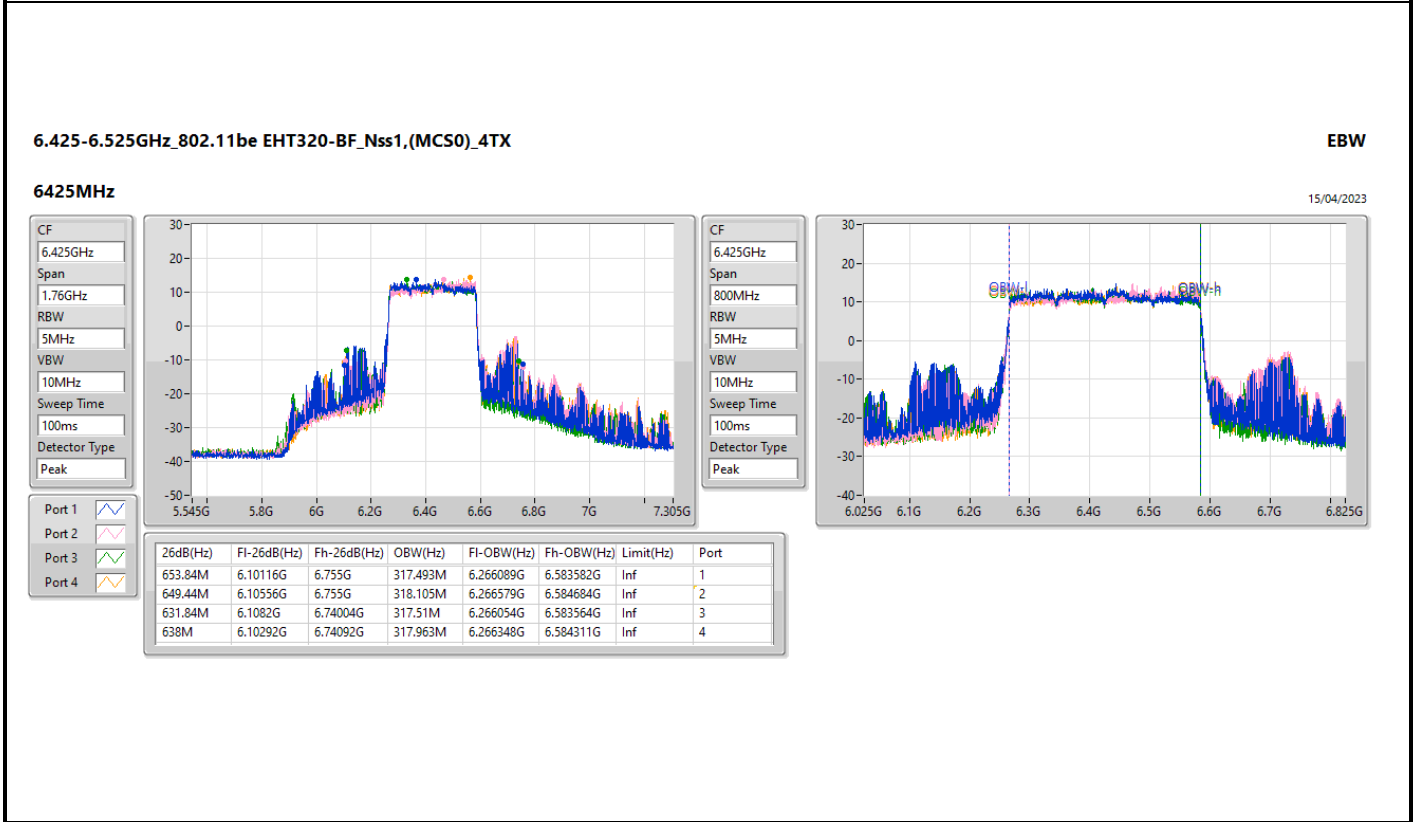
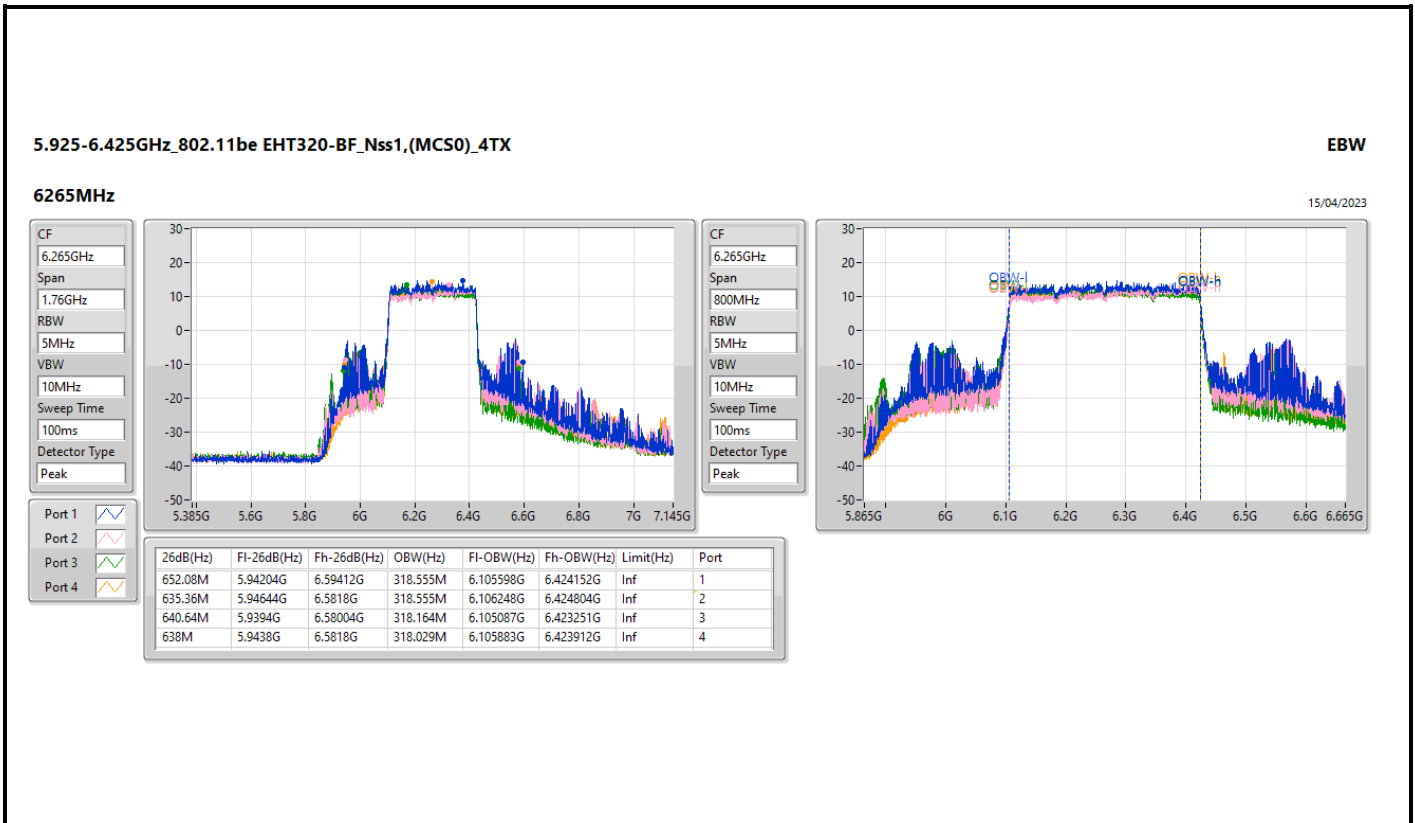


CF
6.105GHz
Span
800MHz
RBW
5MHz
VBW
10MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
643.28M	5.9246G	6.56788G	320.603M	5.9475G	6.268103G	Inf	1
512.16M	5.9158G	6.42796G	319.32M	5.946045G	6.265366G	Inf	2
491.04M	5.92724G	6.41828G	319.34M	5.944239G	6.263579G	Inf	3
508.64M	5.92636G	6.435G	317.331M	5.946947G	6.264278G	Inf	4

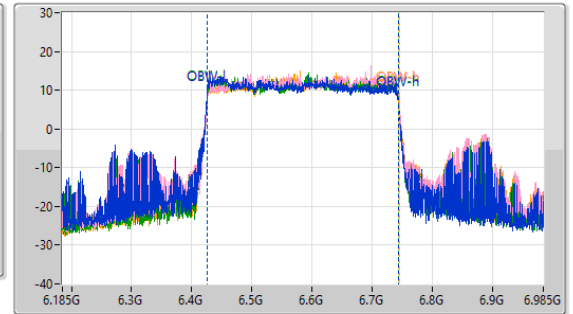
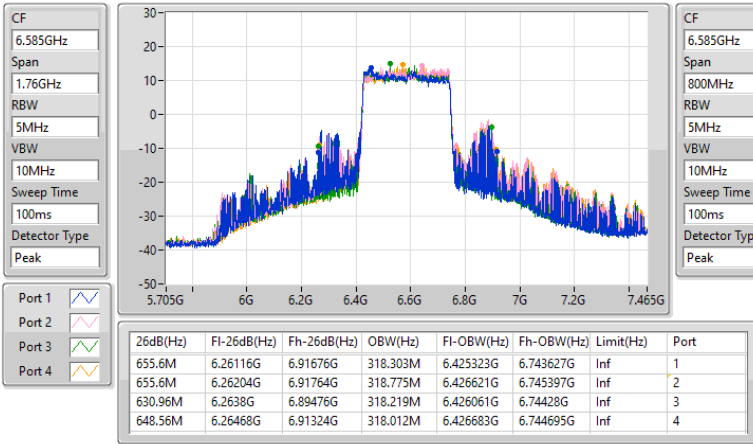


6.425-6.525GHz_802.11be EHT320-BF_Nss1,(MCS0)_4TX

EBW

6585MHz

15/04/2023

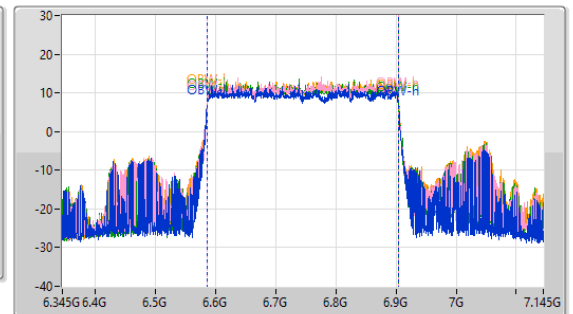
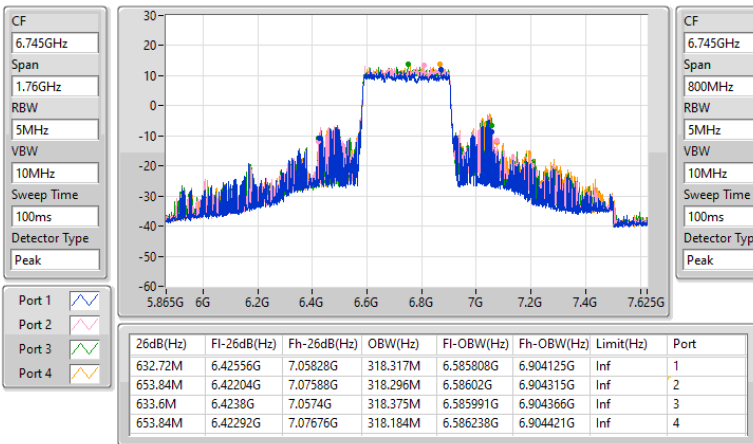


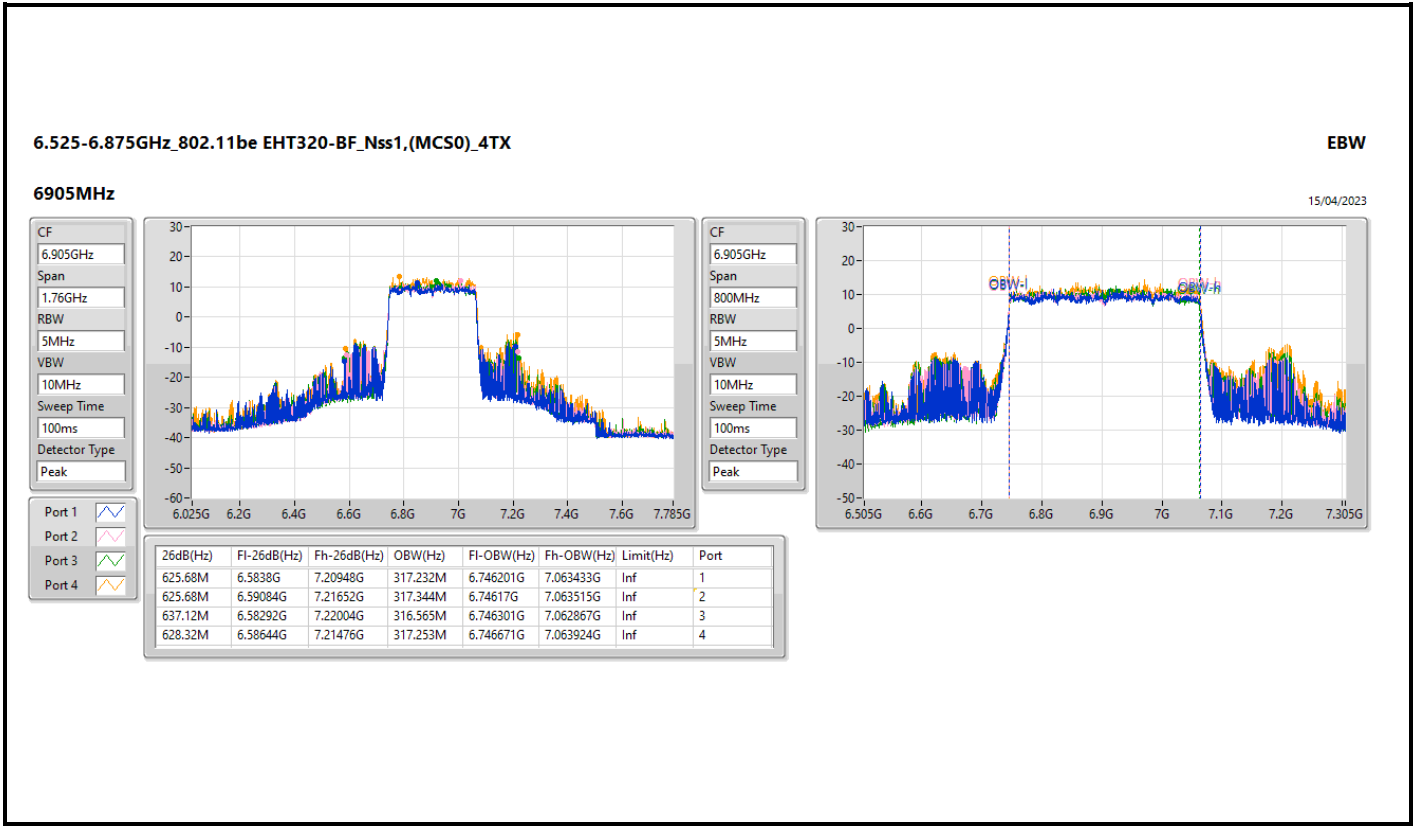
6.525-6.875GHz_802.11be EHT320-BF_Nss1,(MCS0)_4TX

EBW

6745MHz

15/04/2023







Summary

Mode	EIRP (dBm)
5.925-6.425GHz	-
802.11be EHT20_Nss1,(MCS0)_4TX	12.51
802.11be EHT40_Nss1,(MCS0)_4TX	16.10
802.11be EHT80_Nss1,(MCS0)_4TX	18.15
802.11be EHT160_Nss1,(MCS0)_4TX	20.27
802.11be EHT320_Nss1,(MCS0)_4TX	23.16
6.425-6.525GHz	-
802.11be EHT20_Nss1,(MCS0)_4TX	12.56
802.11be EHT40_Nss1,(MCS0)_4TX	15.47
802.11be EHT80_Nss1,(MCS0)_4TX	18.02
802.11be EHT160_Nss1,(MCS0)_4TX	21.59
802.11be EHT320_Nss1,(MCS0)_4TX	23.06
6.525-6.875GHz	-
802.11be EHT20_Nss1,(MCS0)_4TX	12.18
802.11be EHT40_Nss1,(MCS0)_4TX	15.34
802.11be EHT80_Nss1,(MCS0)_4TX	18.57
802.11be EHT160_Nss1,(MCS0)_4TX	20.85
802.11be EHT320_Nss1,(MCS0)_4TX	23.79
6.875-7.125GHz	-
802.11be EHT20_Nss1,(MCS0)_4TX	12.89
802.11be EHT40_Nss1,(MCS0)_4TX	15.18
802.11be EHT80_Nss1,(MCS0)_4TX	17.75
802.11be EHT160_Nss1,(MCS0)_4TX	20.06

Result

Mode	Result	EIRP (dBm)	EIRP Limit (dBm)
802.11be EHT20_Nss1,(MCS0)_4TX	-	-	-
5955MHz	Pass	12.51	30.00
6175MHz	Pass	11.20	30.00
6415MHz	Pass	11.79	30.00
6435MHz	Pass	12.36	30.00
6475MHz	Pass	12.56	30.00
6515MHz	Pass	11.55	30.00
6535MHz	Pass	11.54	30.00
6695MHz	Pass	11.64	30.00
6855MHz	Pass	11.75	30.00
6875MHz Straddle 6.525-6.875GHz	Pass	12.18	30.00
6895MHz	Pass	12.22	30.00
6995MHz	Pass	12.89	30.00
7095MHz	Pass	11.21	30.00
7115MHz Straddle 6.875-7.125GHz	Pass	12.50	30.00
802.11be EHT40_Nss1,(MCS0)_4TX	-	-	-
5965MHz	Pass	16.10	30.00
6165MHz	Pass	15.23	30.00
6405MHz	Pass	15.19	30.00
6445MHz	Pass	14.98	30.00
6485MHz	Pass	15.47	30.00
6525MHz Straddle 6.425-6.525GHz	Pass	15.28	30.00
6565MHz	Pass	15.34	30.00
6685MHz	Pass	14.02	30.00
6845MHz	Pass	14.32	30.00
6885MHz Straddle 6.525-6.875GHz	Pass	15.25	30.00
6925MHz	Pass	15.18	30.00
7005MHz	Pass	14.73	30.00
7085MHz	Pass	15.17	30.00
802.11be EHT80_Nss1,(MCS0)_4TX	-	-	-
5985MHz	Pass	18.15	30.00
6145MHz	Pass	17.76	30.00
6385MHz	Pass	18.03	30.00
6465MHz	Pass	14.64	30.00
6545MHz Straddle 6.425-6.525GHz	Pass	18.02	30.00
6625MHz	Pass	17.59	30.00
6705MHz	Pass	18.36	30.00
6785MHz	Pass	18.57	30.00
6865MHz Straddle 6.525-6.875GHz	Pass	17.92	30.00
6945MHz	Pass	17.26	30.00
7025MHz	Pass	17.75	30.00
802.11be EHT160_Nss1,(MCS0)_4TX	-	-	-
6025MHz	Pass	20.27	30.00
6185MHz	Pass	20.25	30.00
6345MHz	Pass	20.14	30.00
6505MHz Straddle 6.425-6.525GHz	Pass	21.59	30.00
6665MHz	Pass	20.75	30.00
6825MHz Straddle 6.525-6.875GHz	Pass	20.85	30.00
6985MHz	Pass	20.06	30.00
802.11be EHT320_Nss1,(MCS0)_4TX	-	-	-
6105MHz	Pass	22.47	30.00
6265MHz	Pass	23.16	30.00
6425MHz	Pass	23.06	30.00
6585MHz	Pass	21.93	30.00
6745MHz	Pass	23.79	30.00

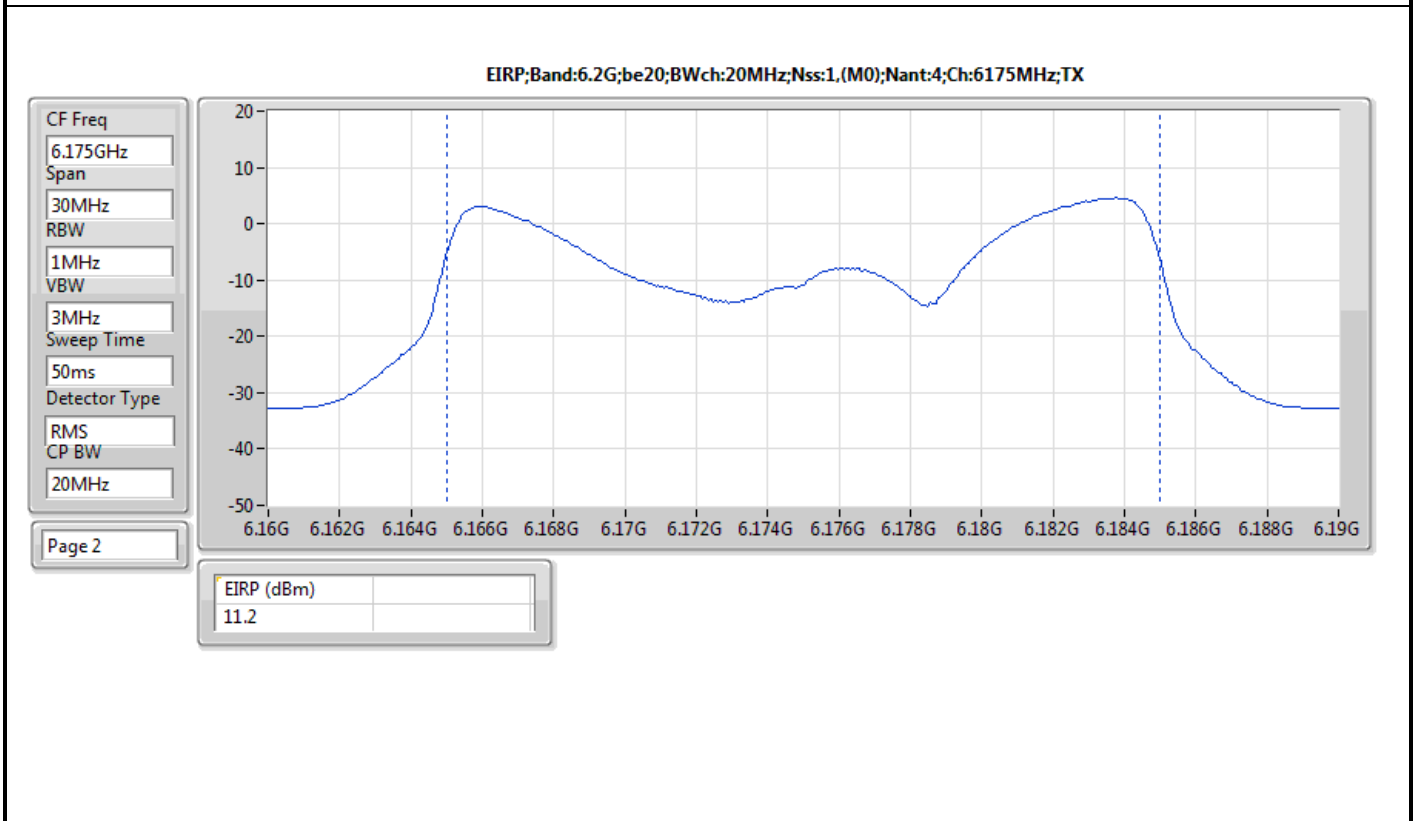
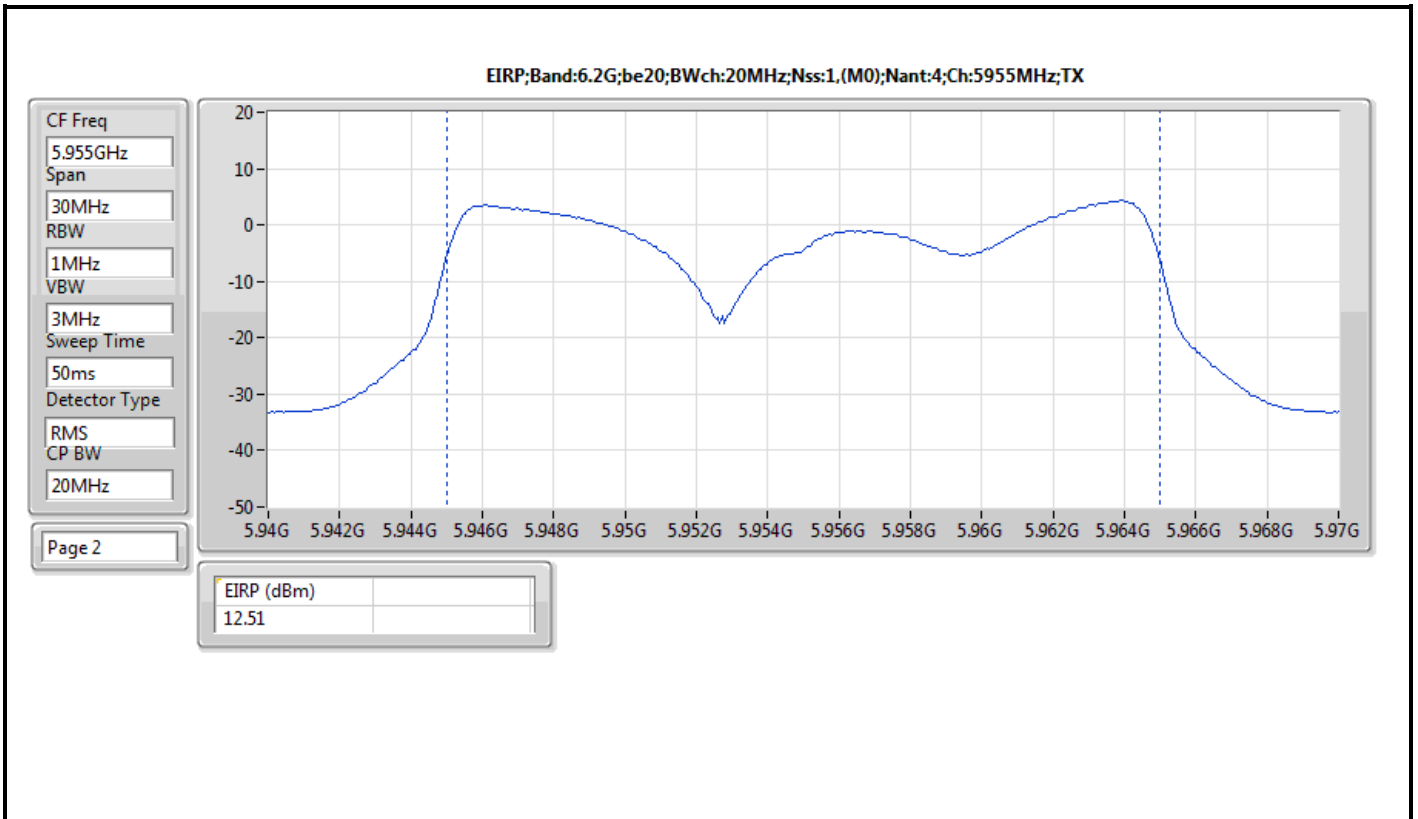


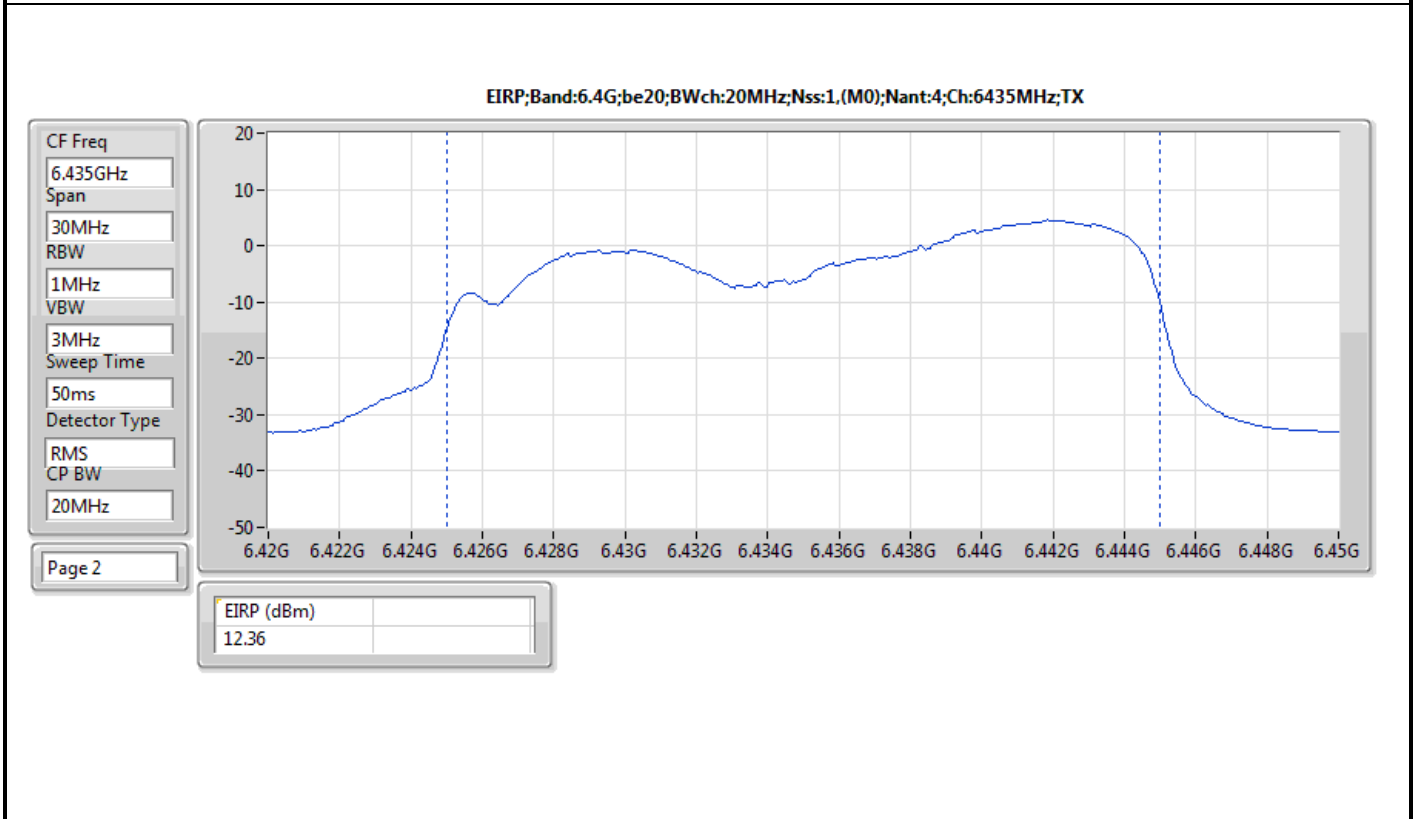
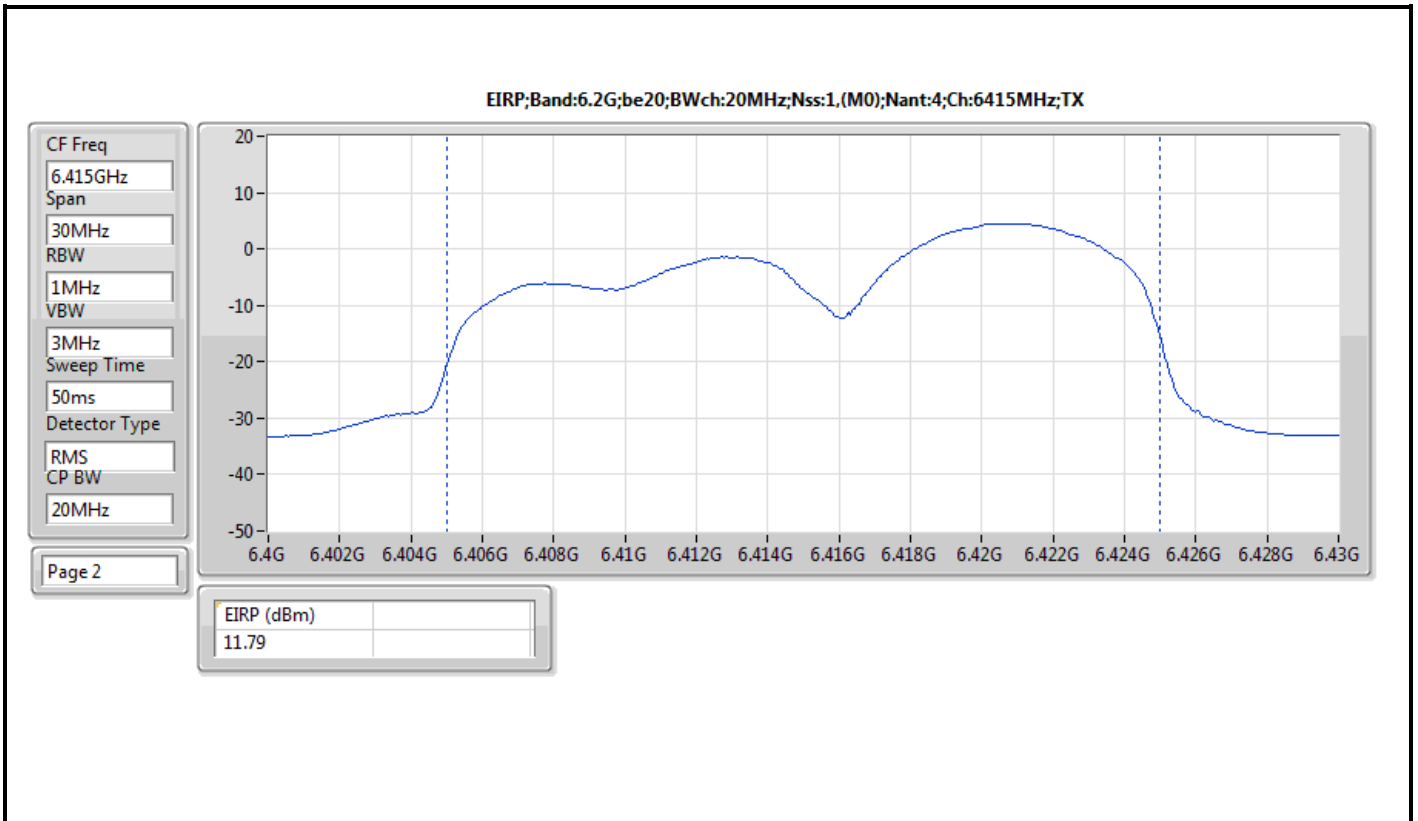
Average Power_Non-beamforming mode

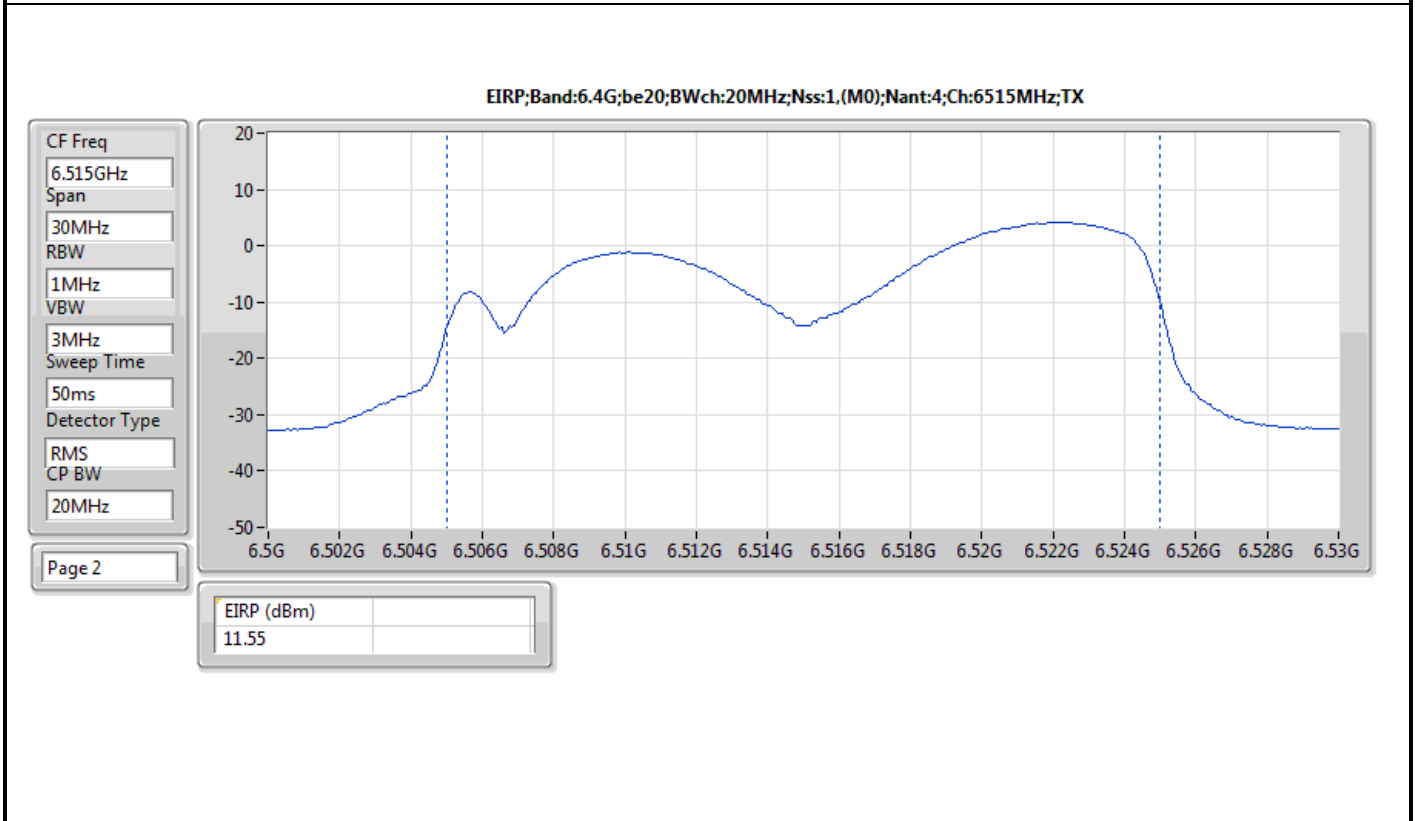
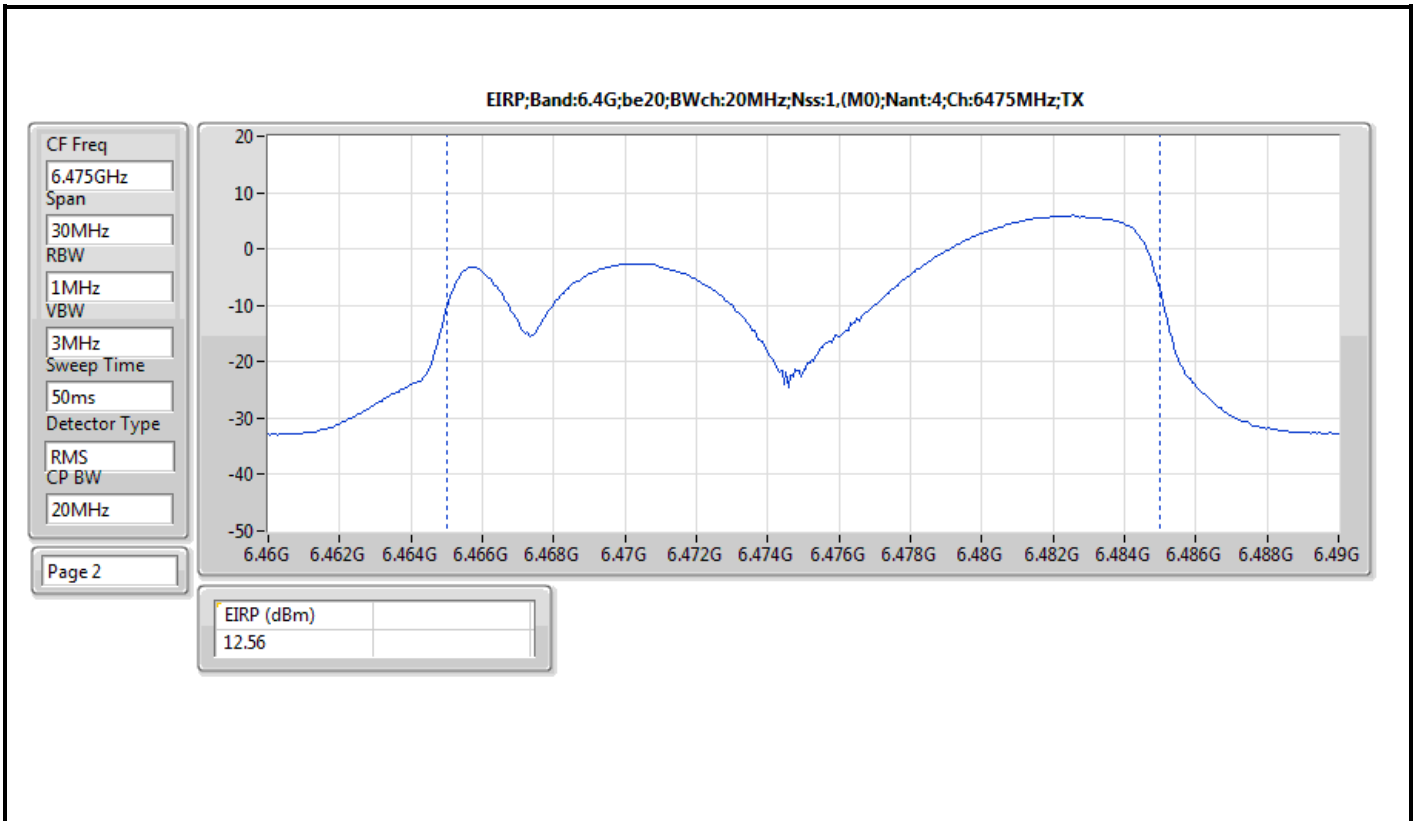
Appendix C.1

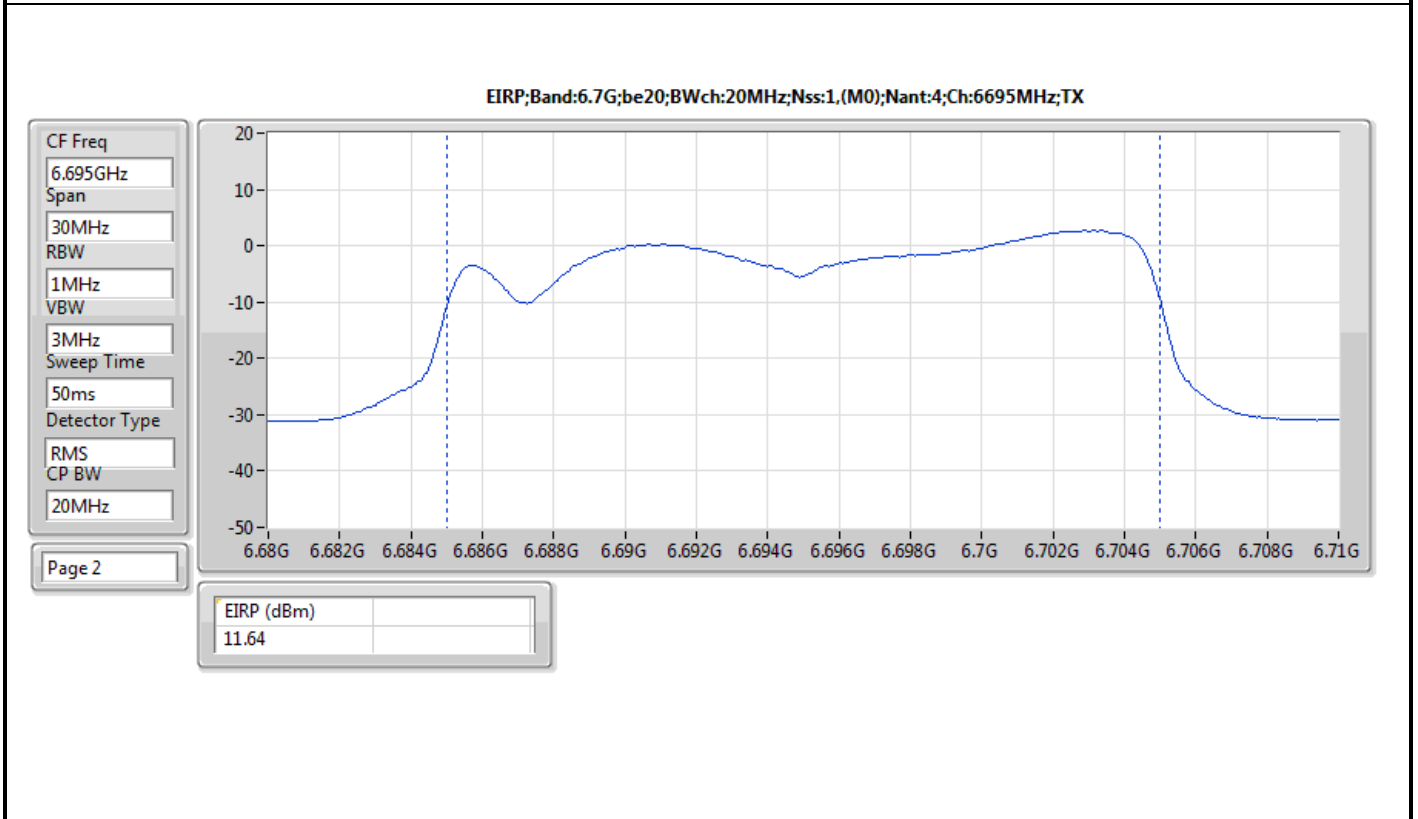
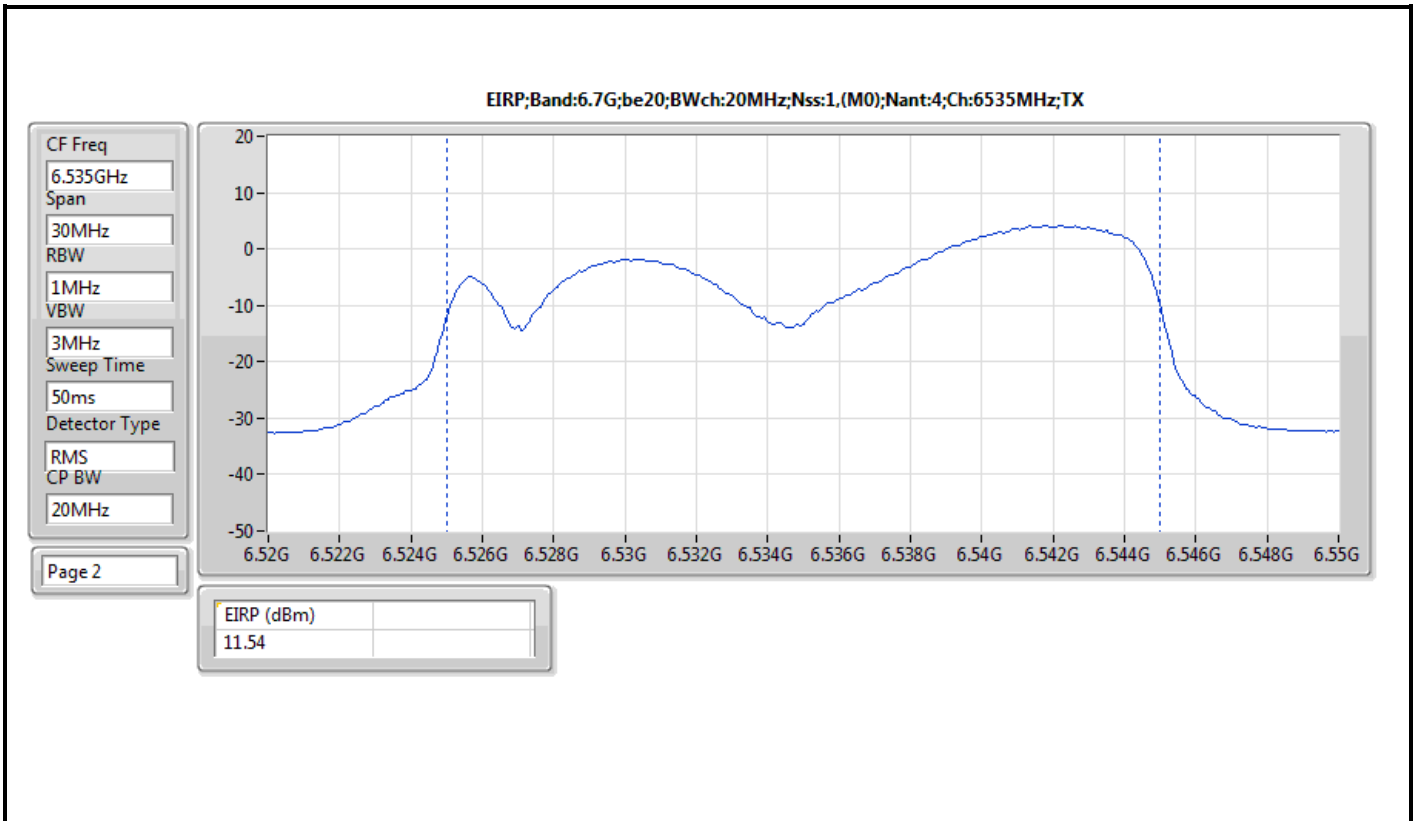
Mode	Result	EIRP (dBm)	EIRP Limit (dBm)
6905MHz	Pass	23.51	30.00

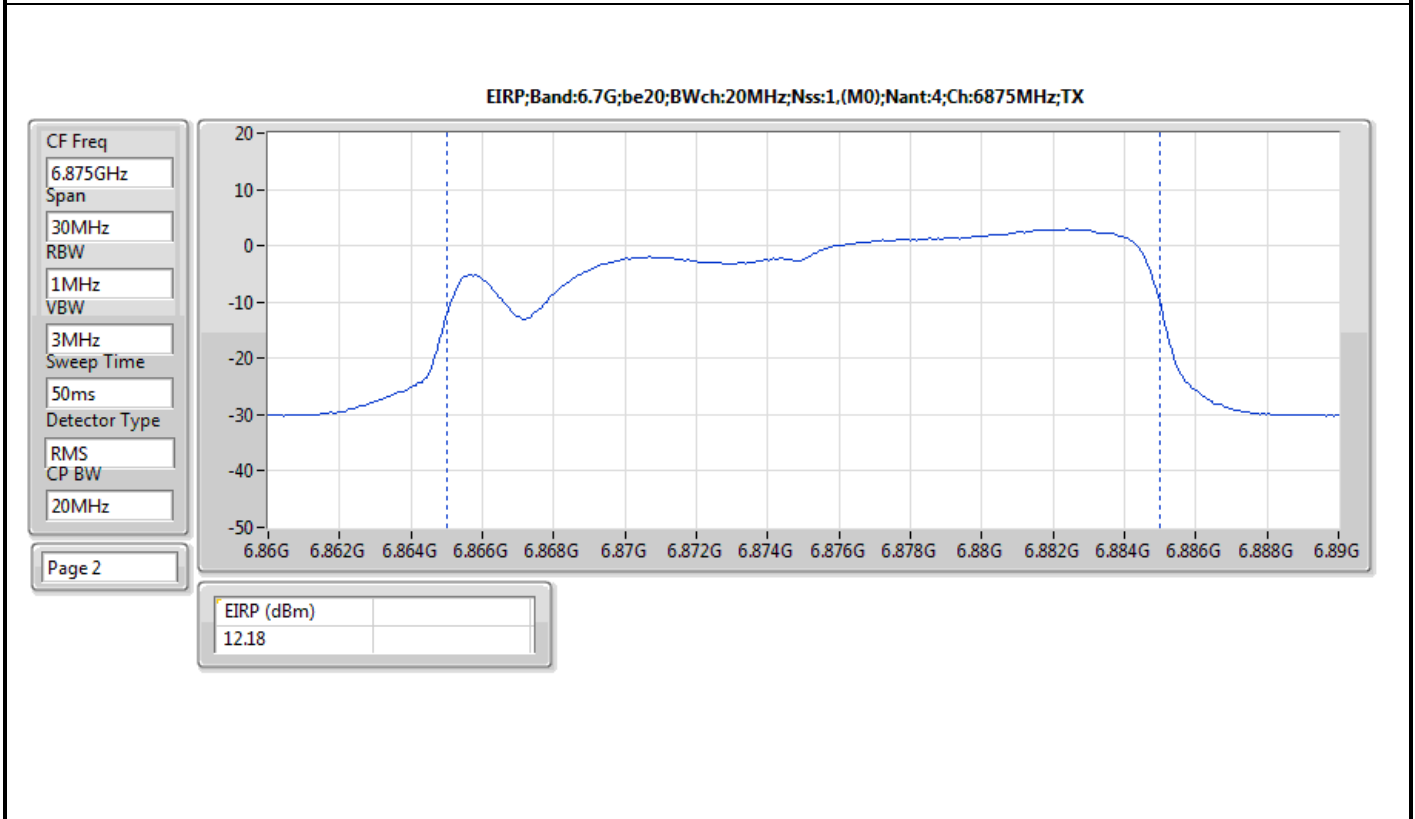
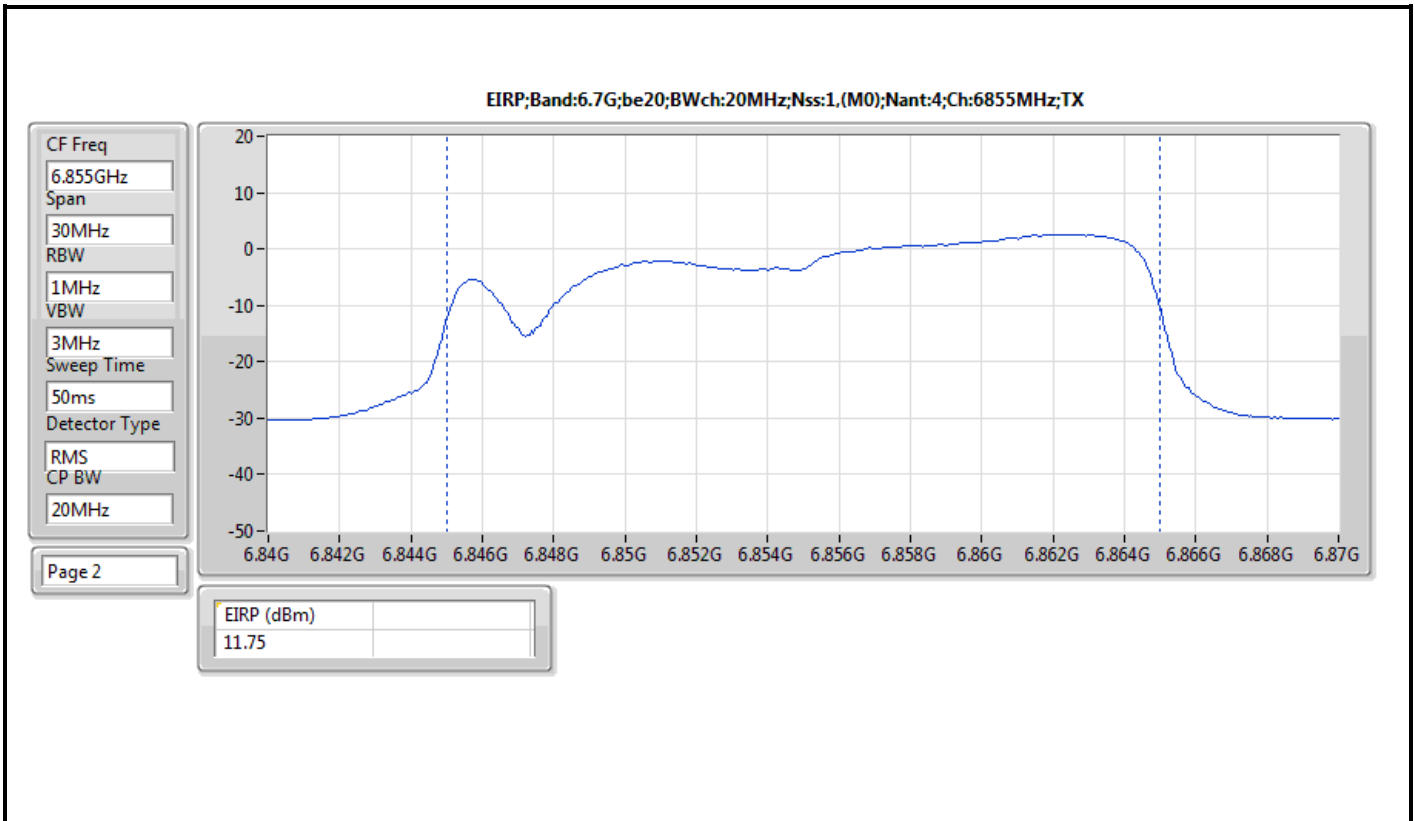
DG = Directional Gain; Port X = Port X output power

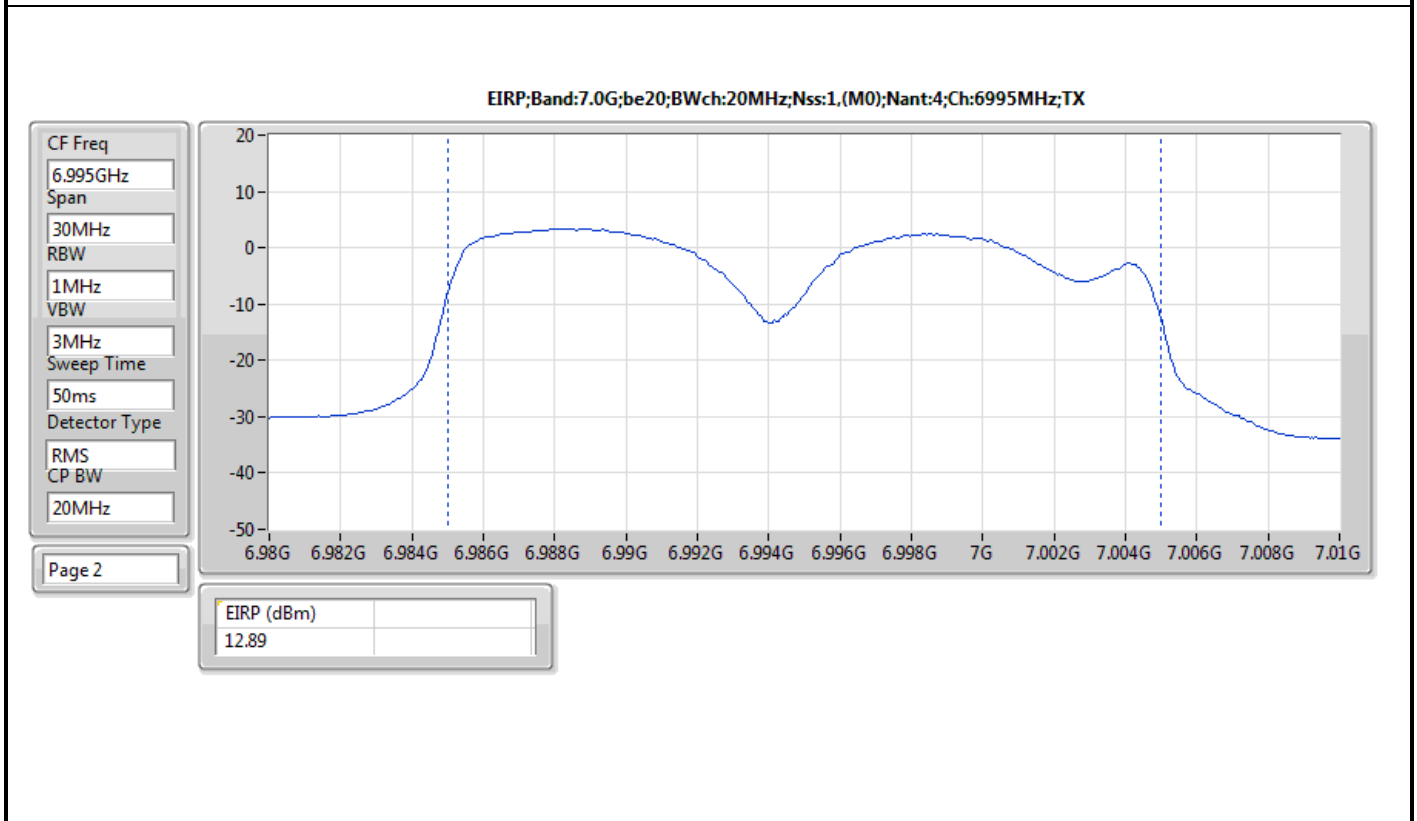
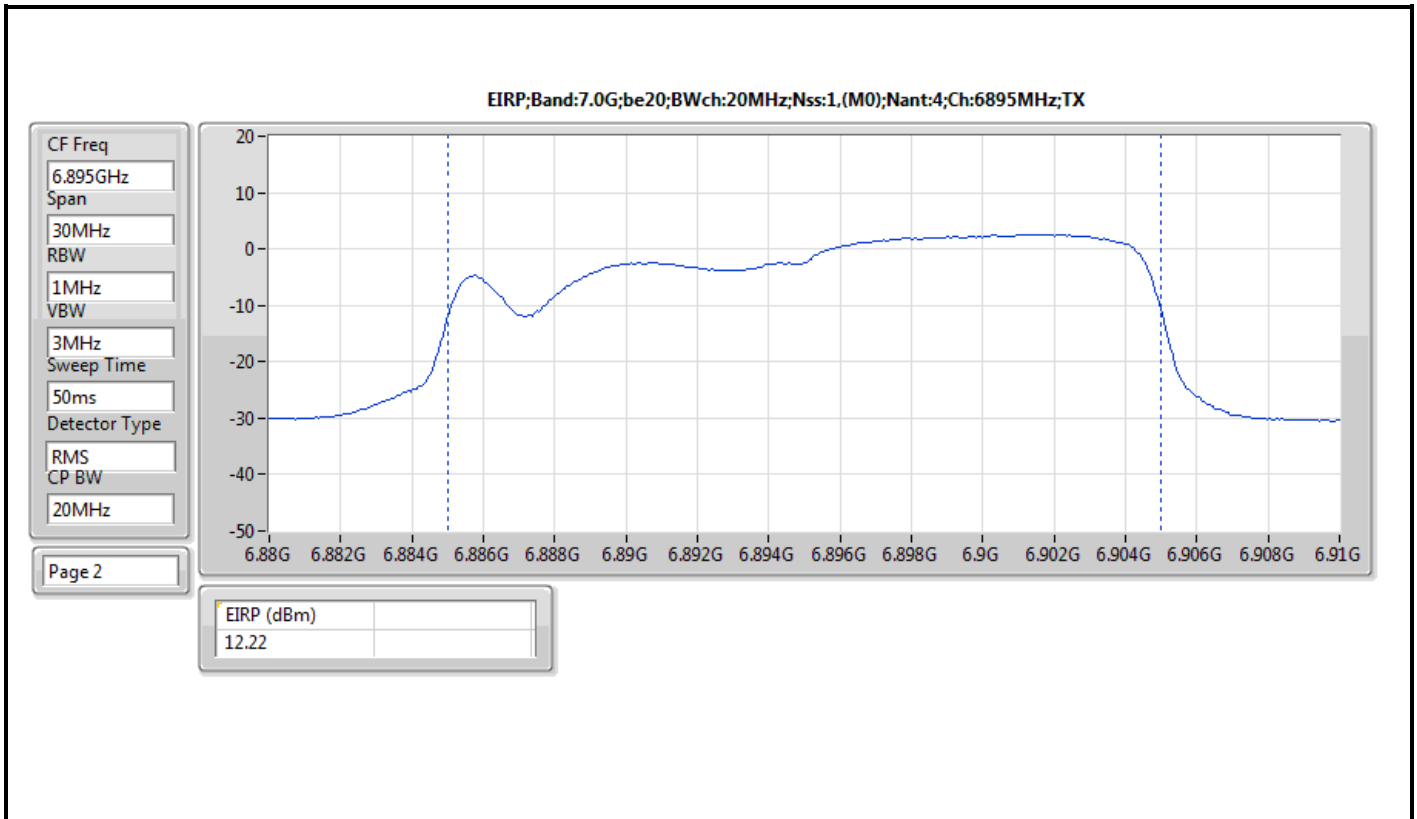


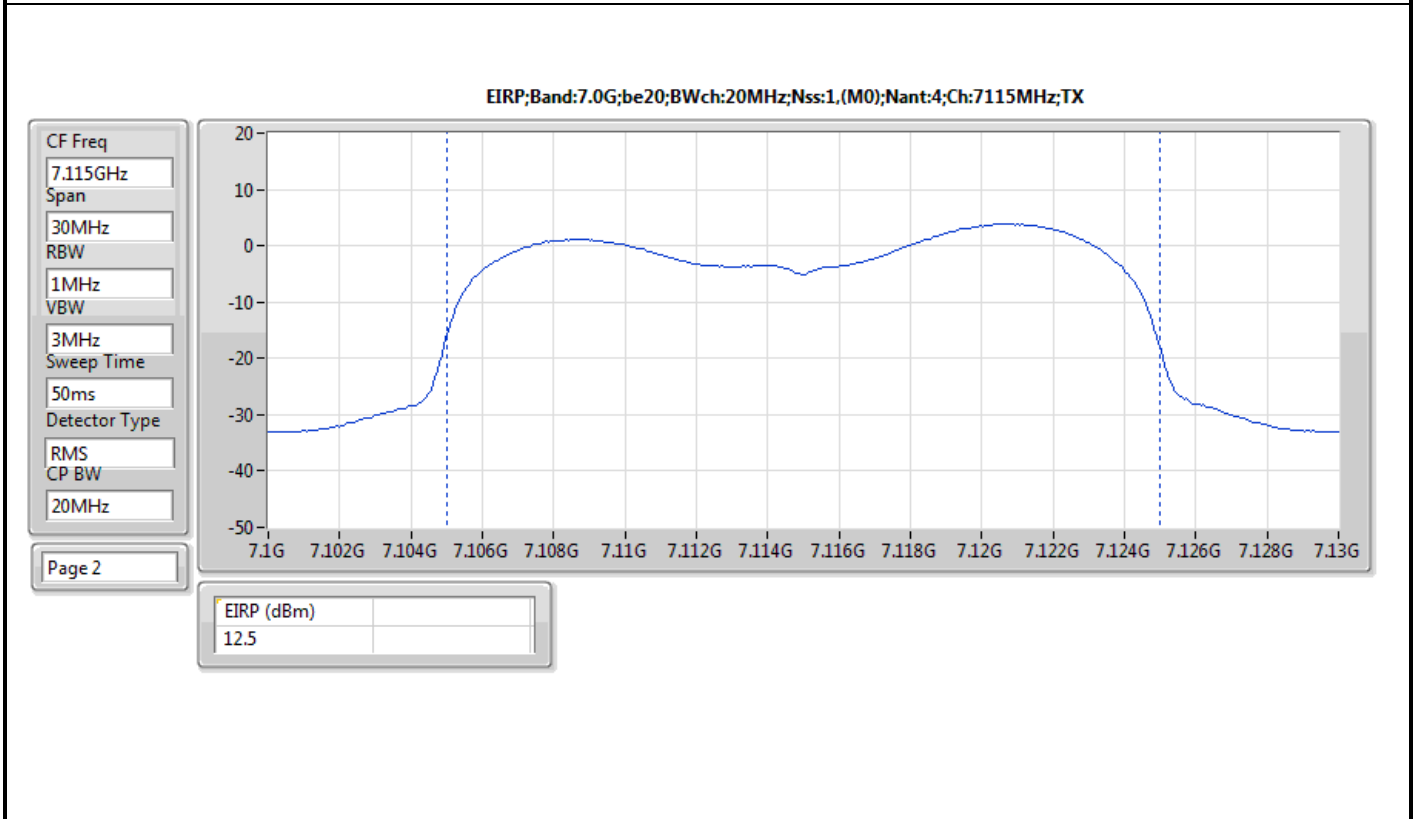
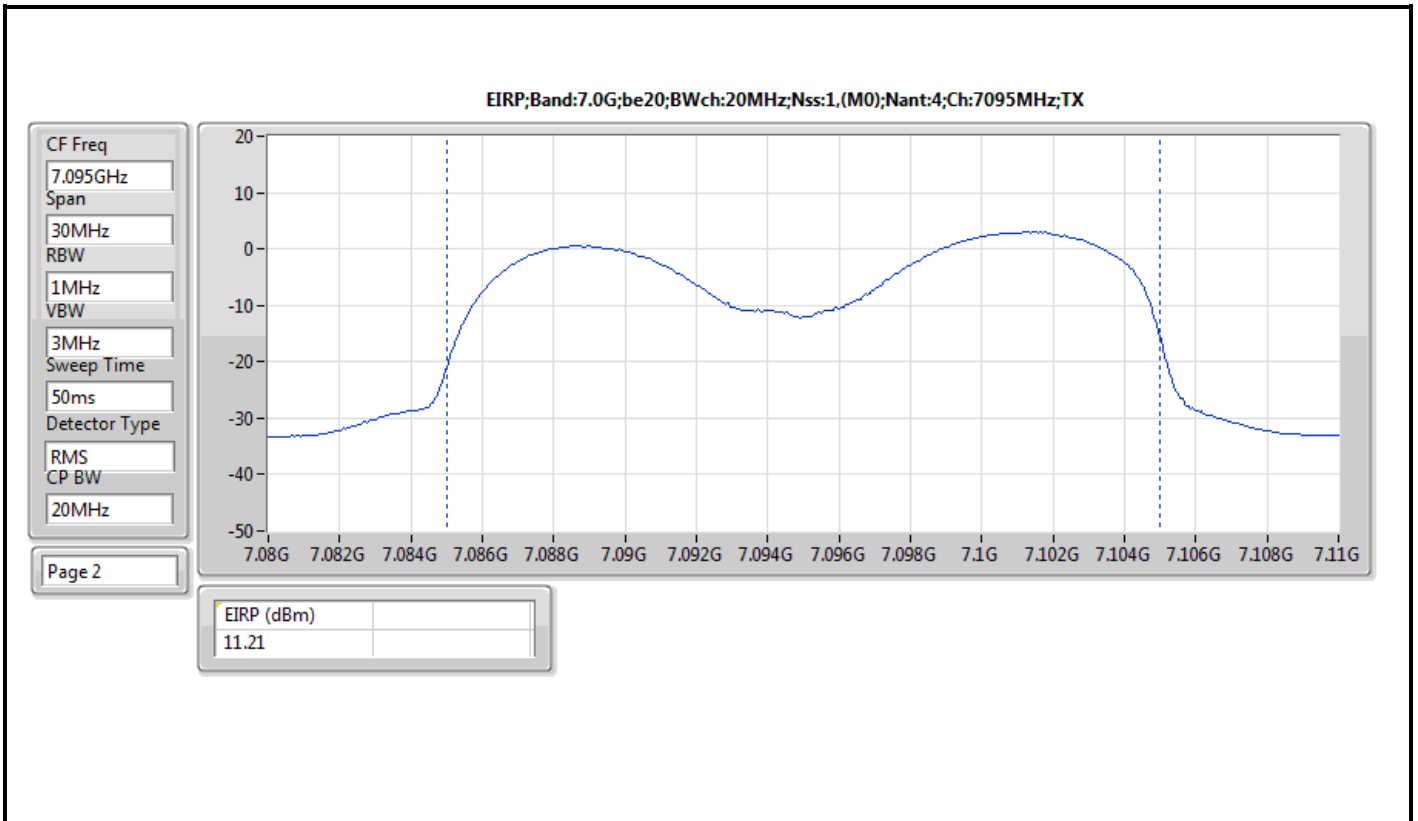


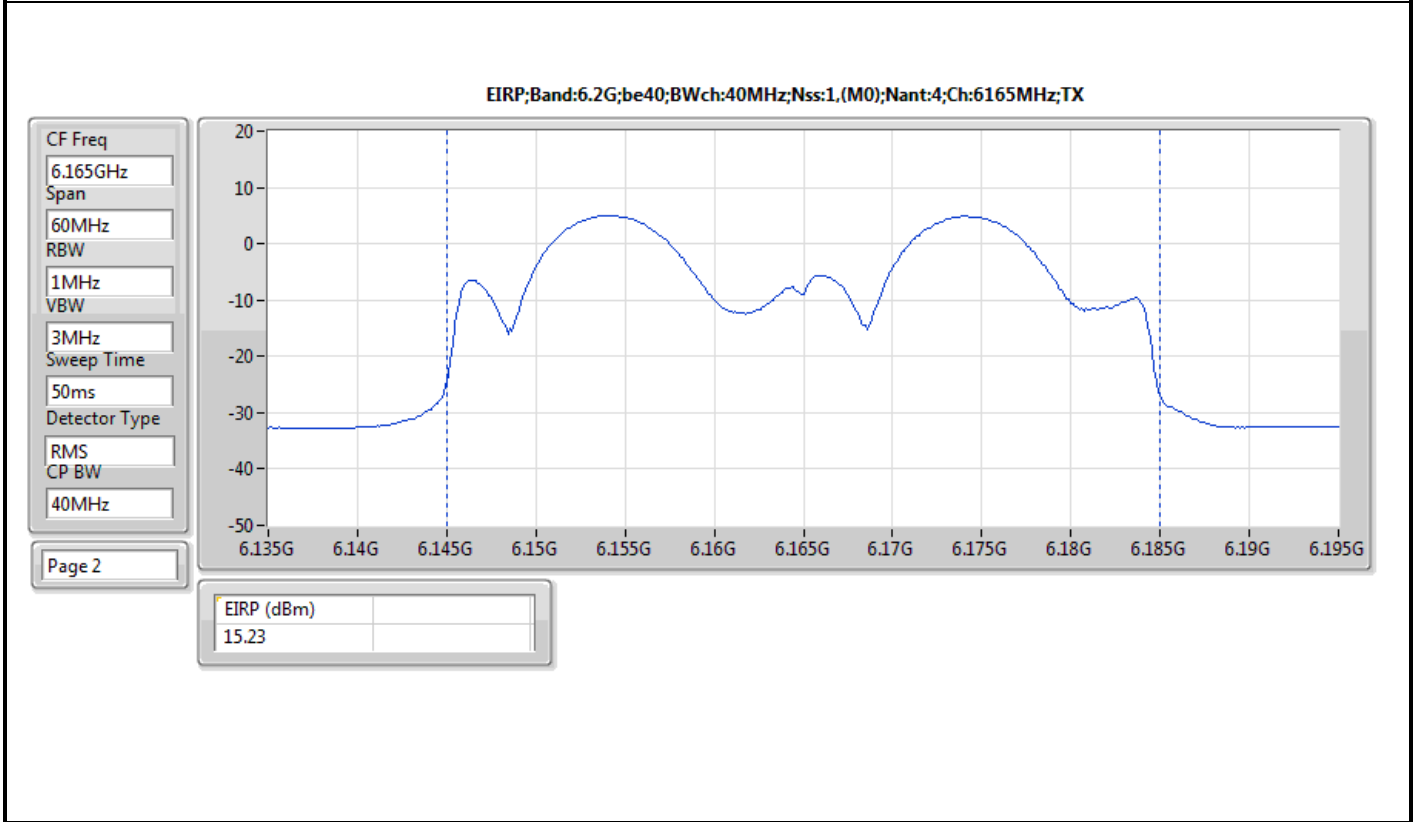
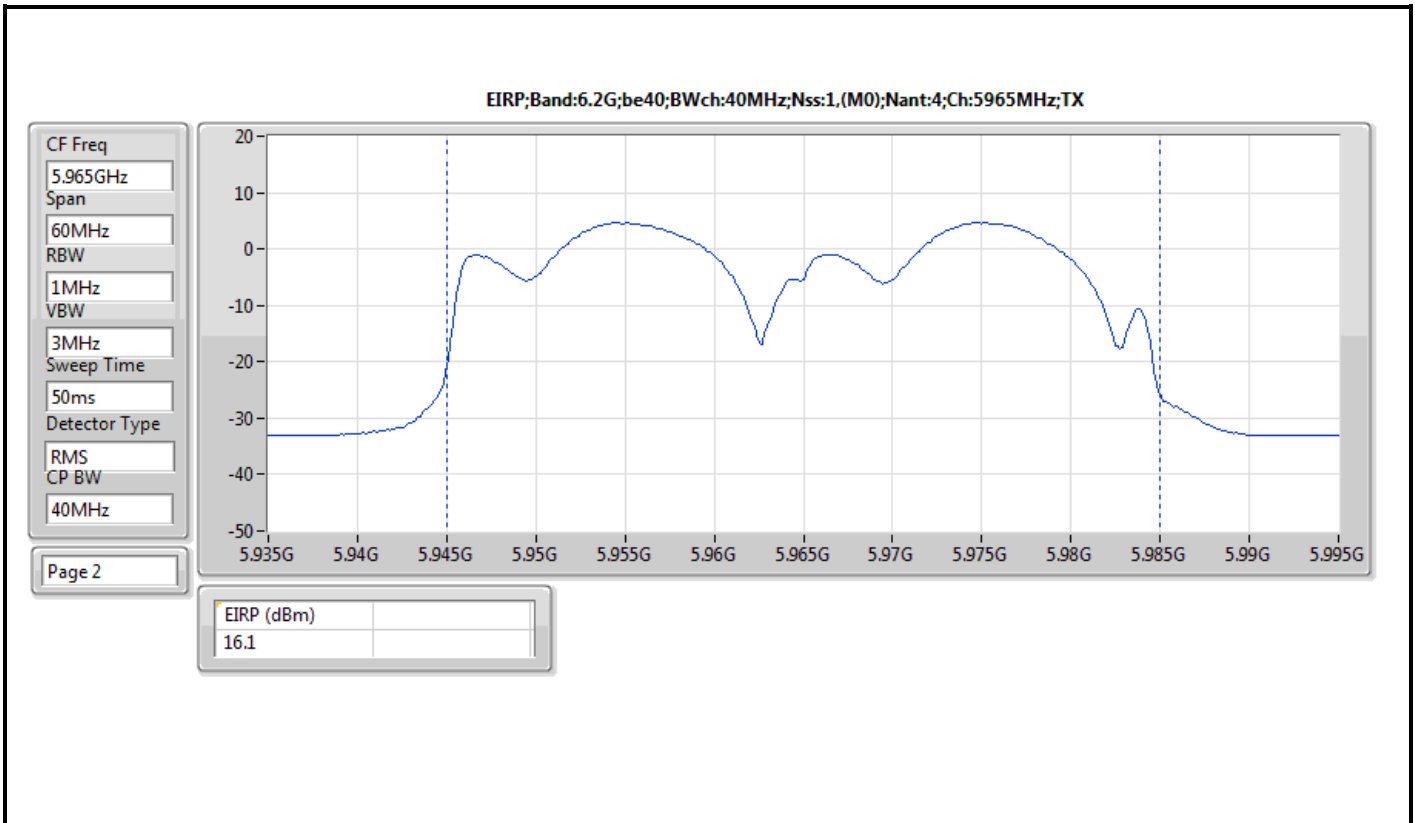


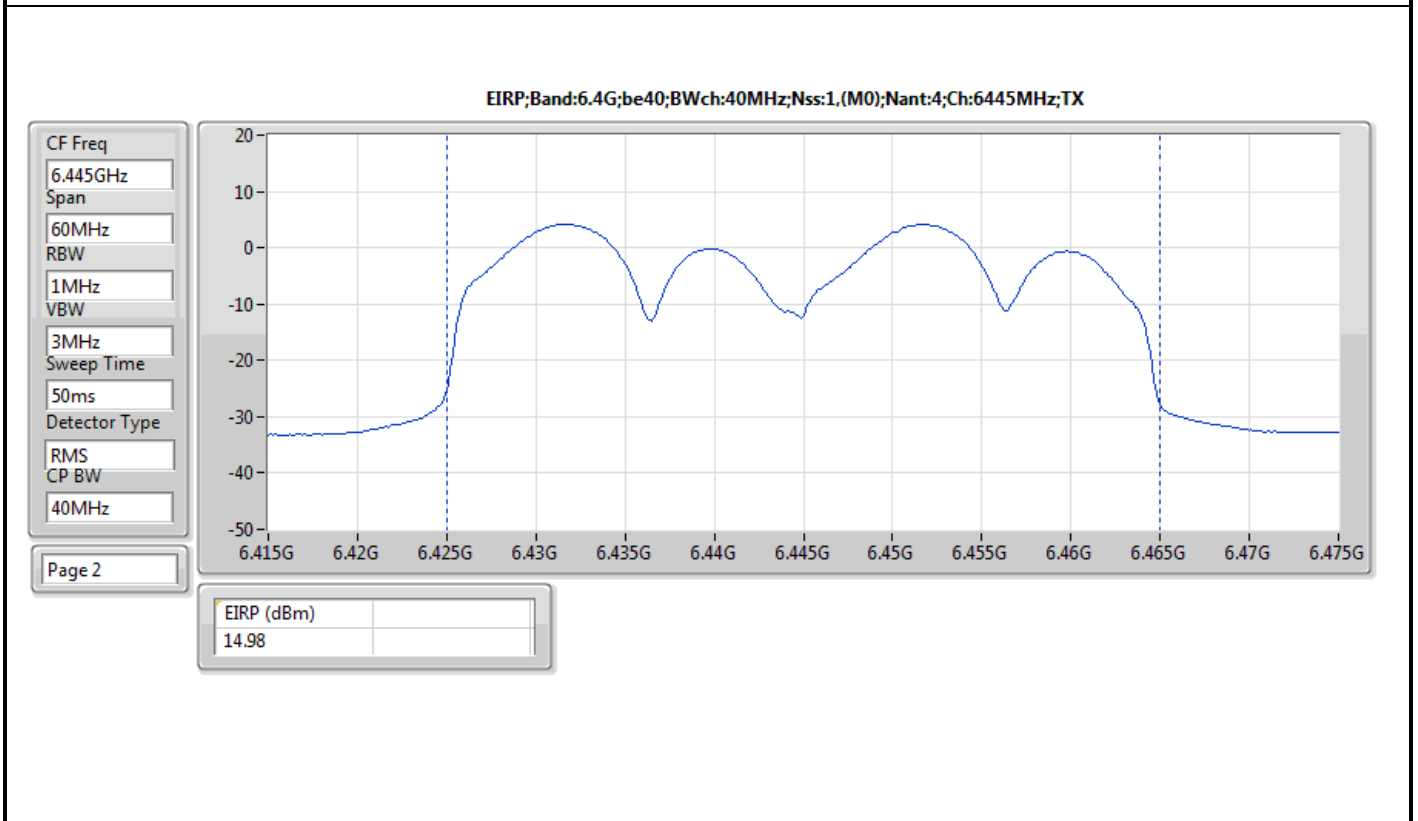
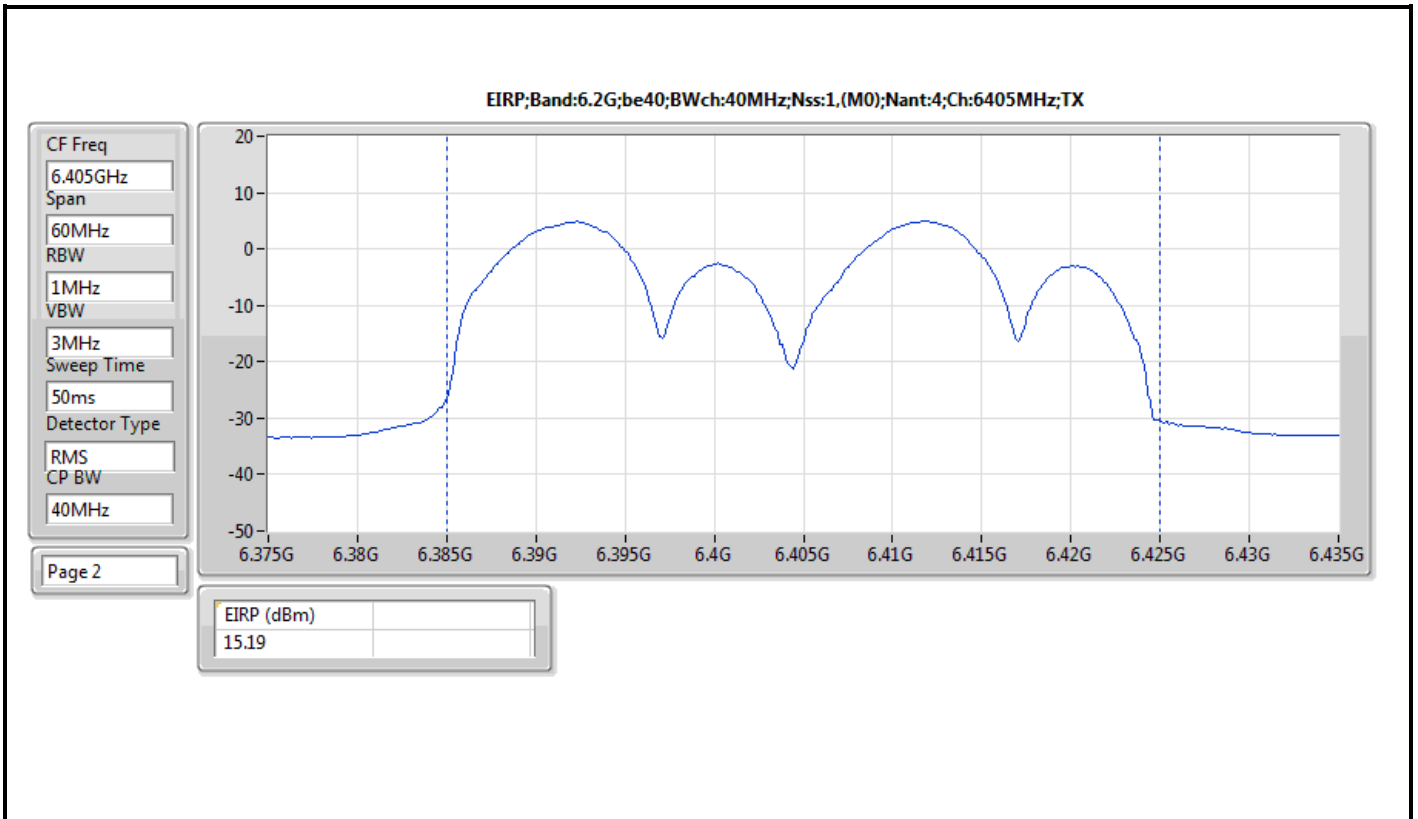


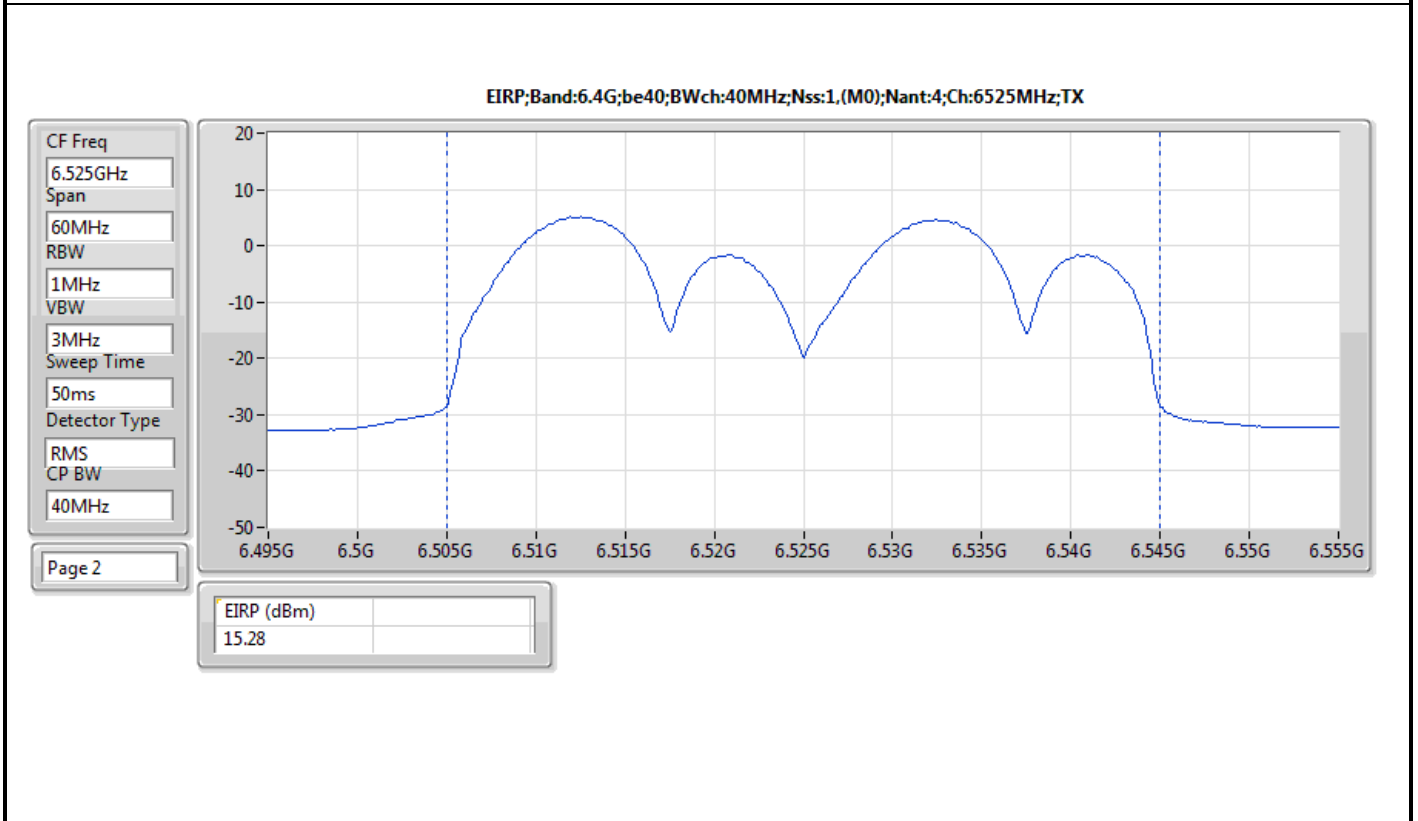
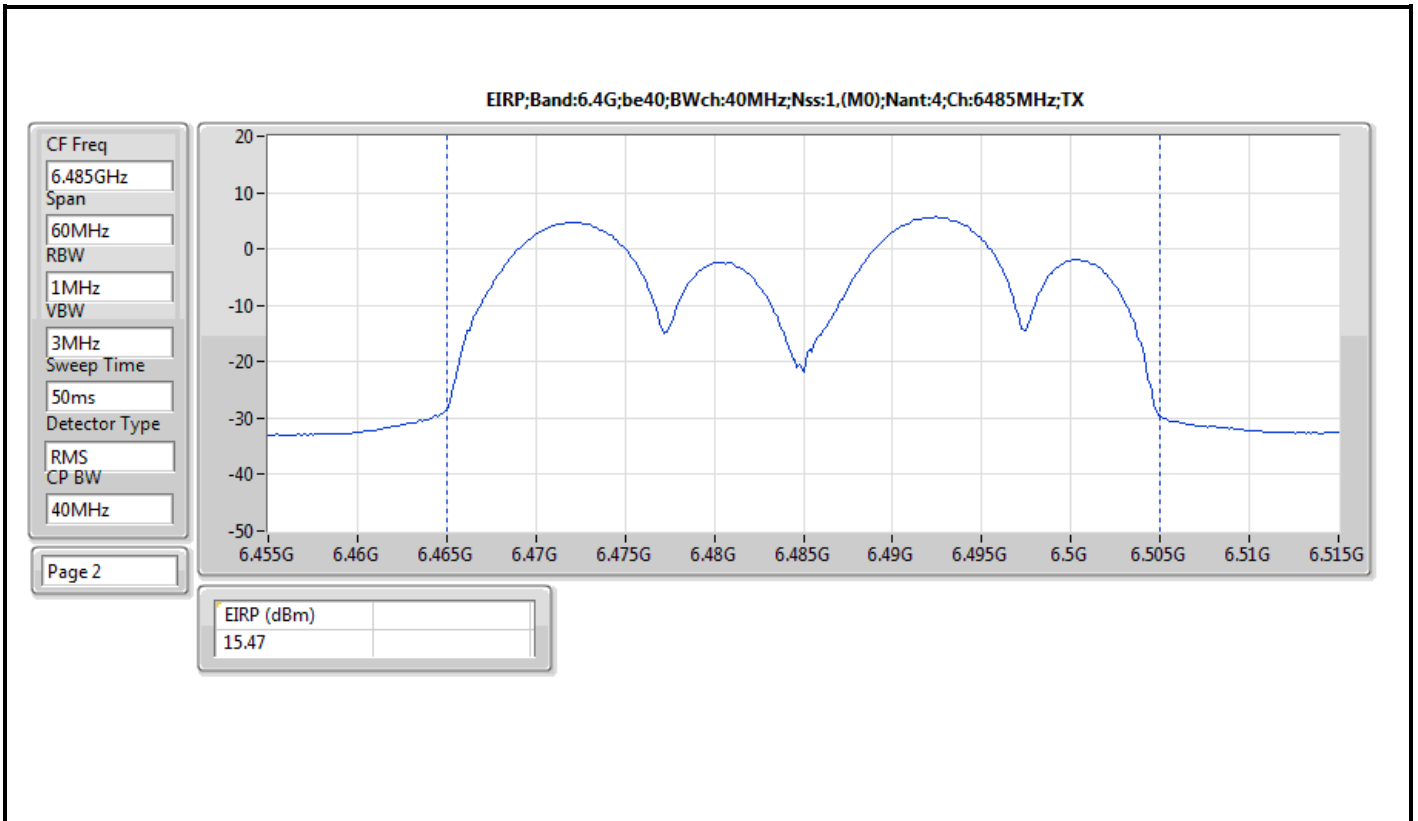


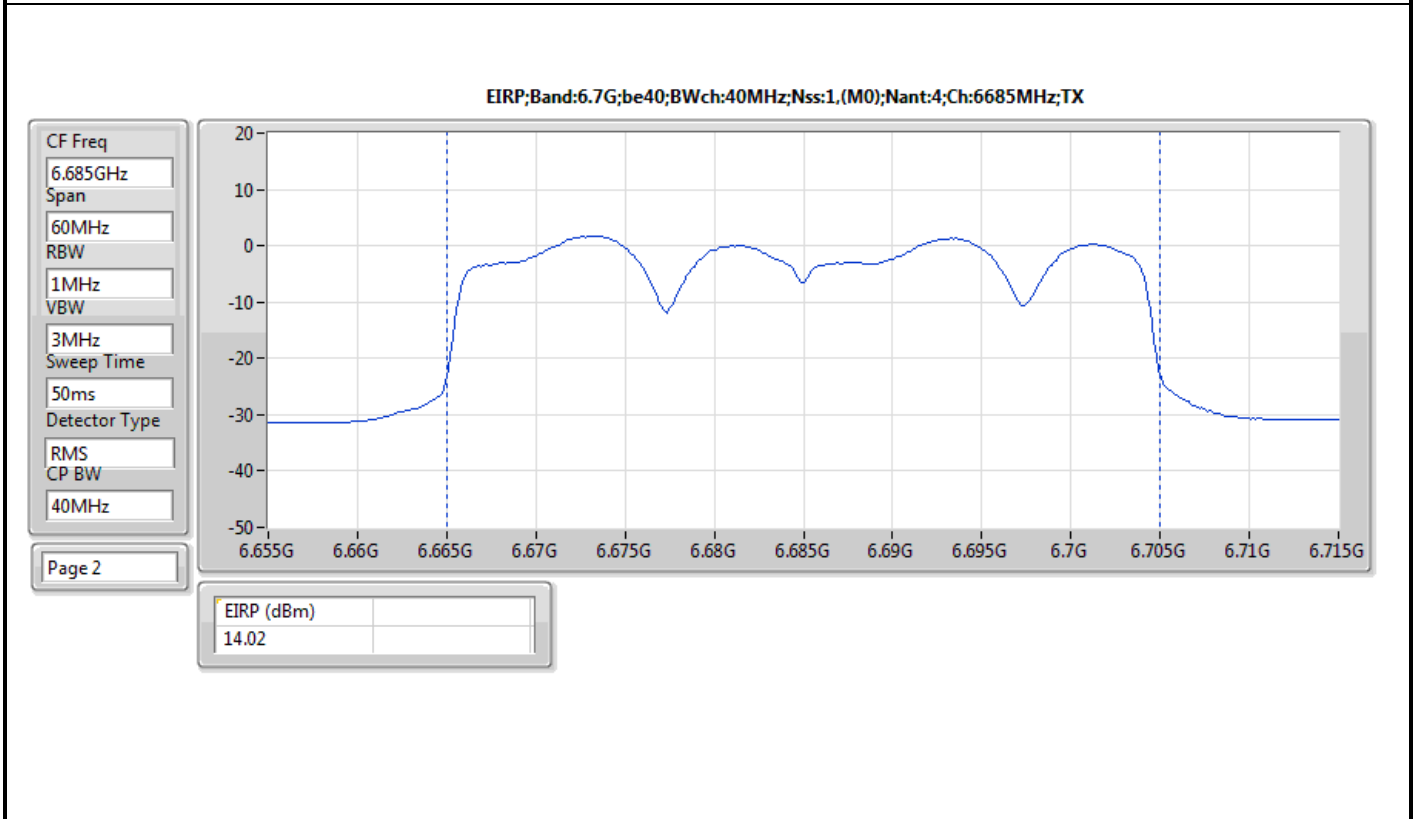
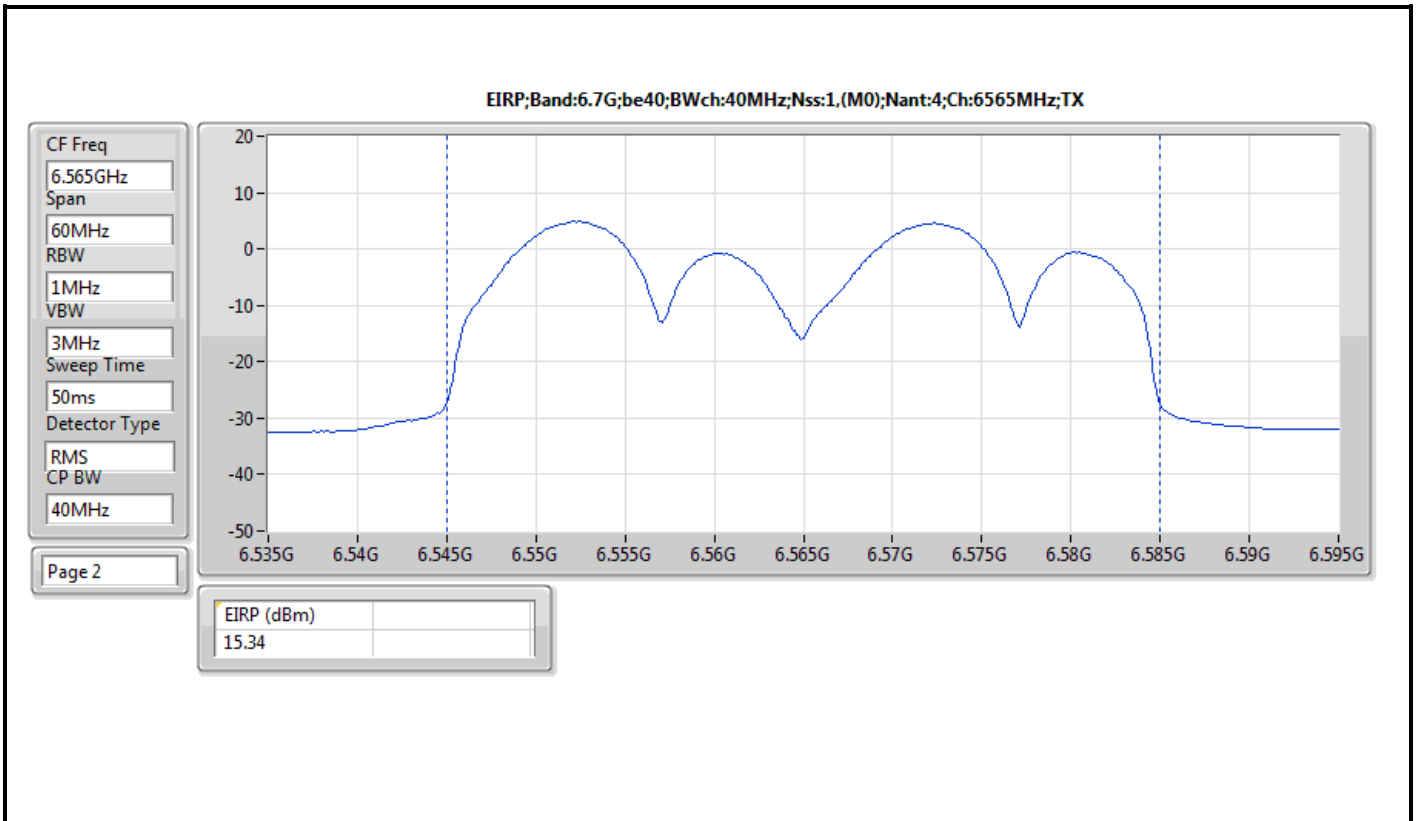


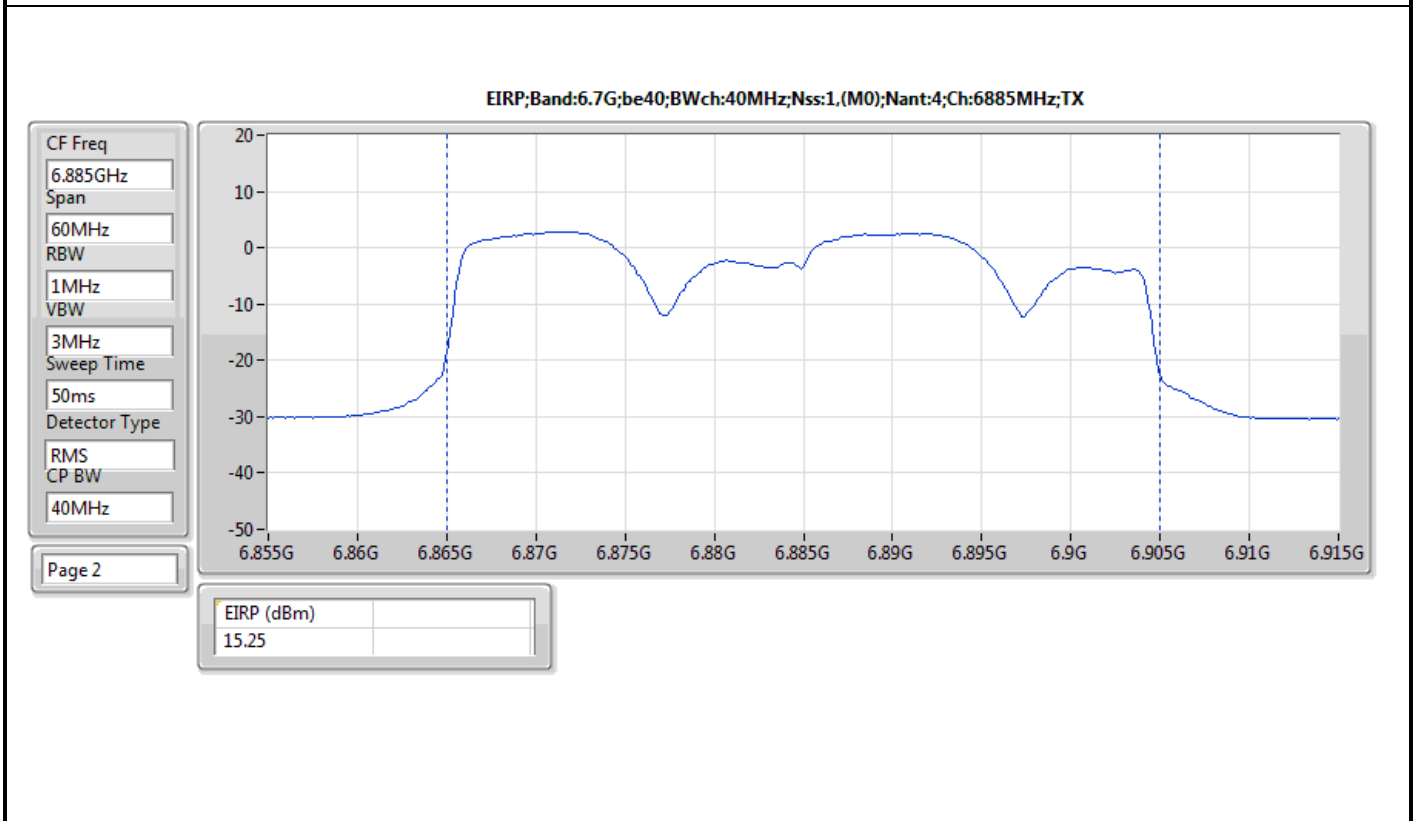
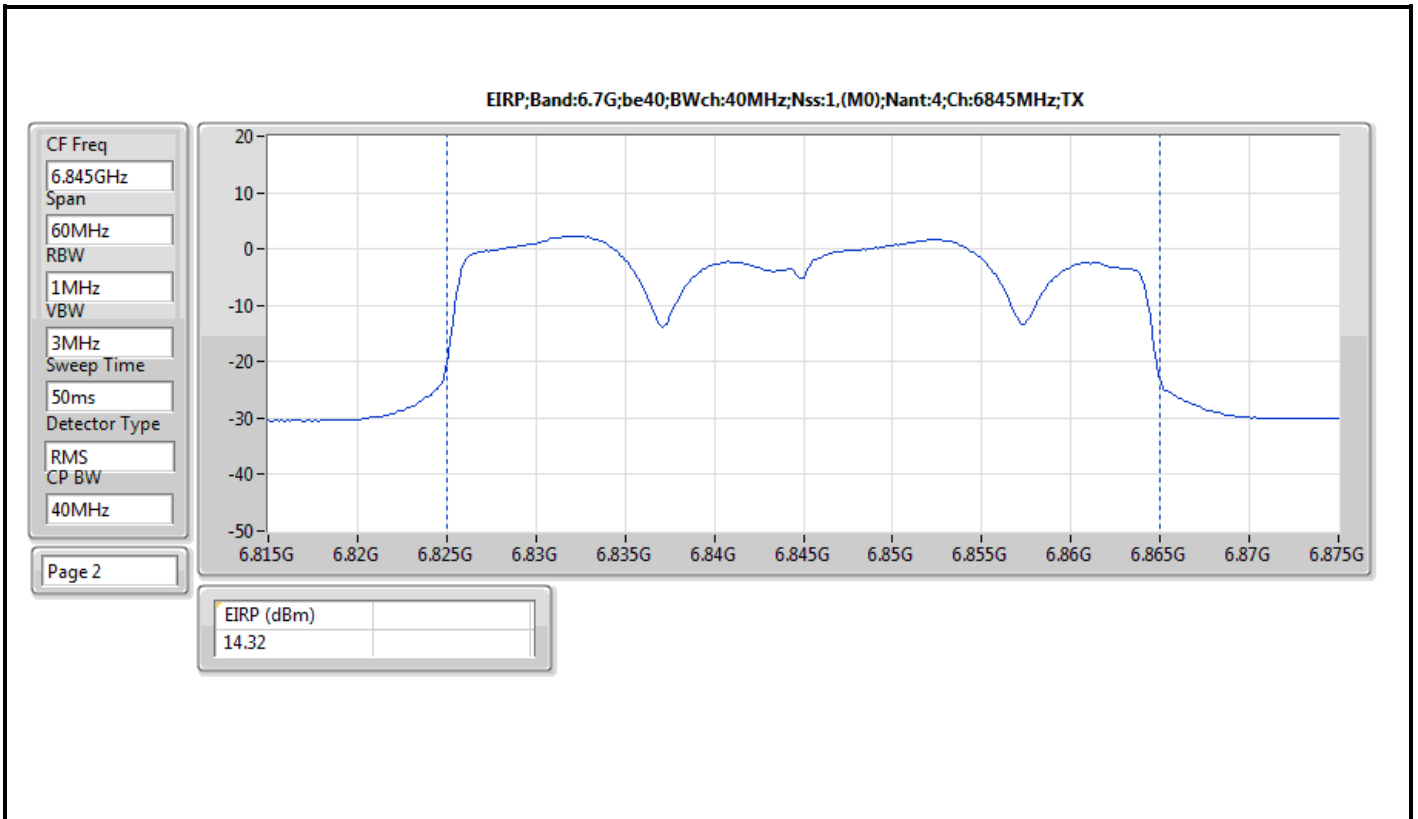


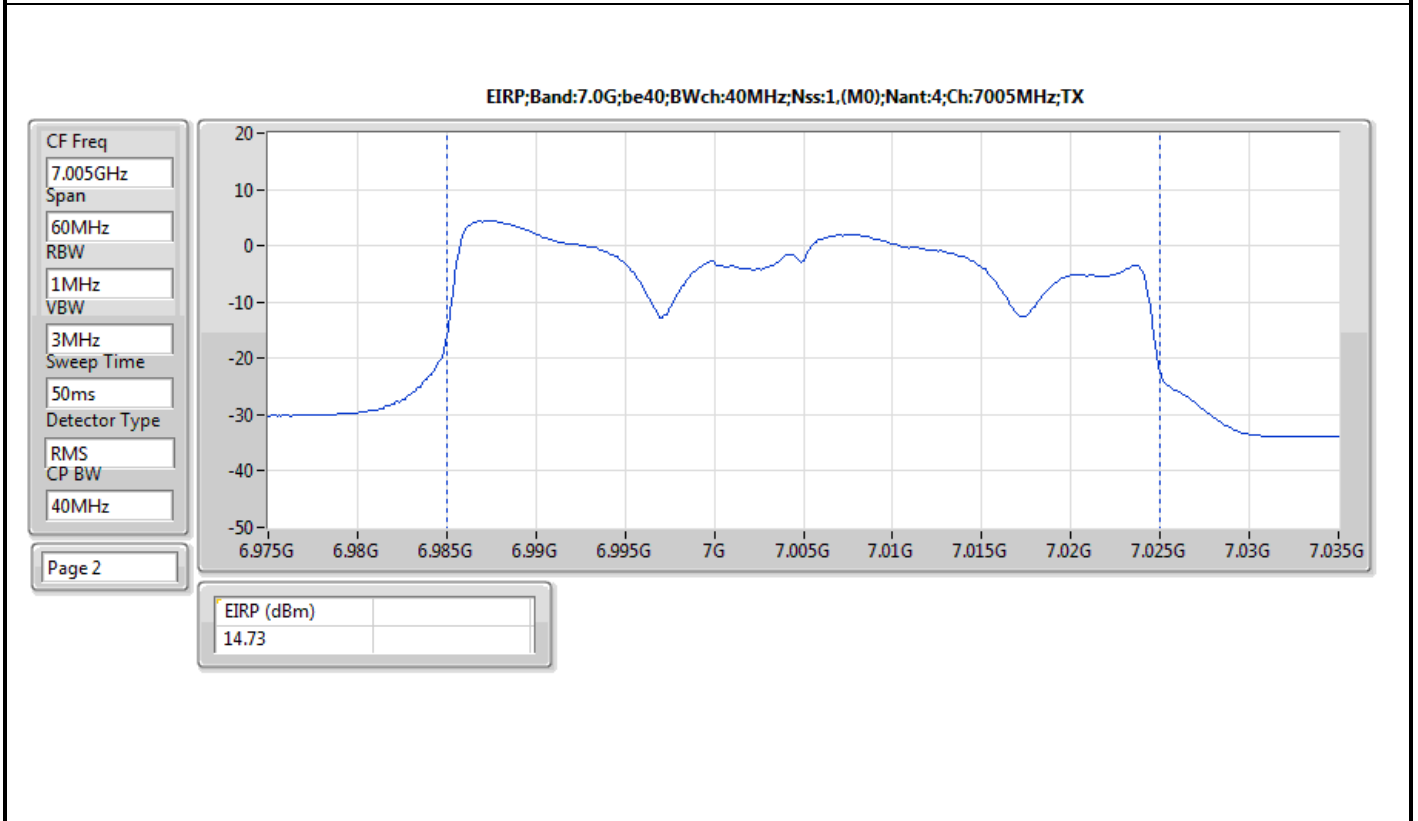
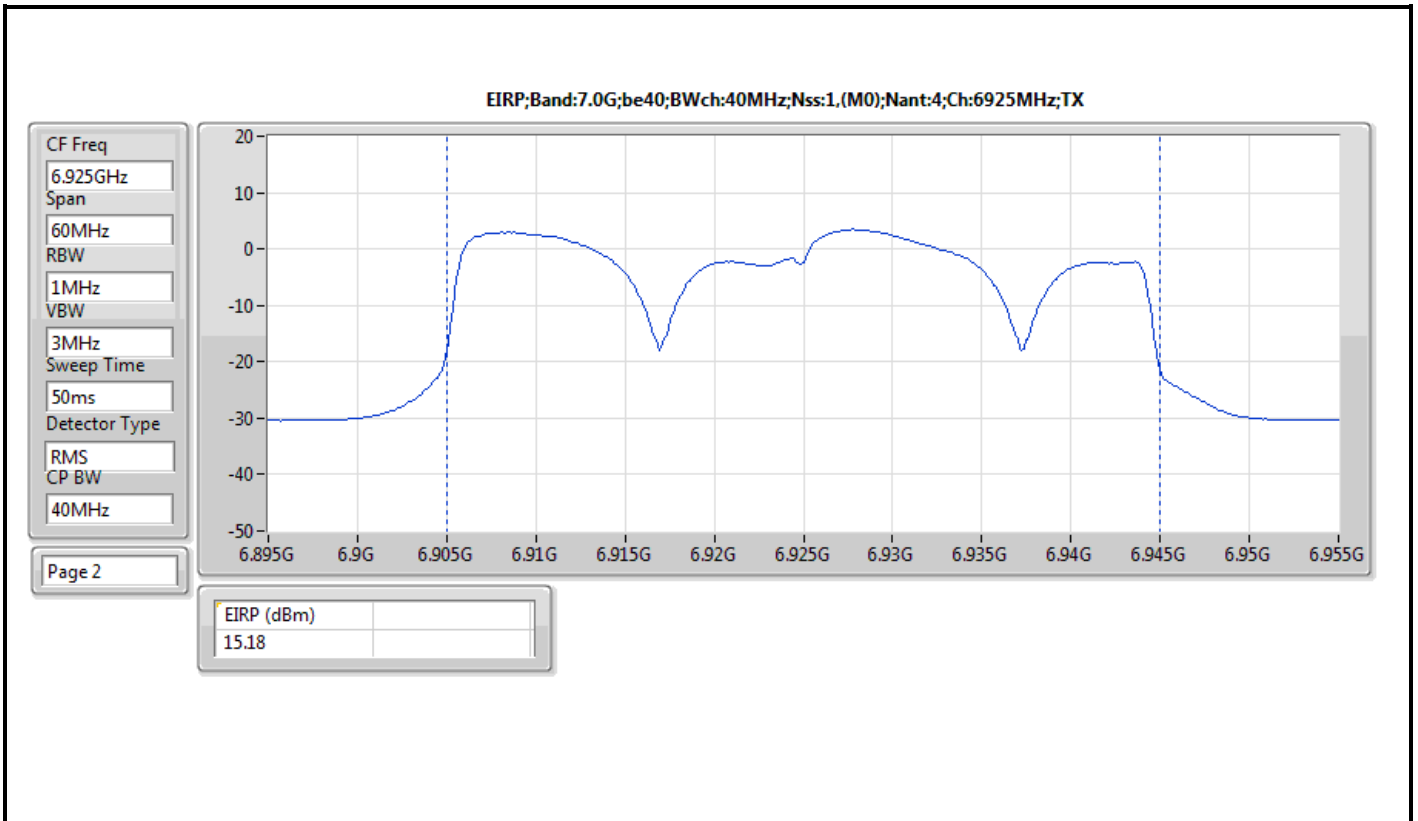


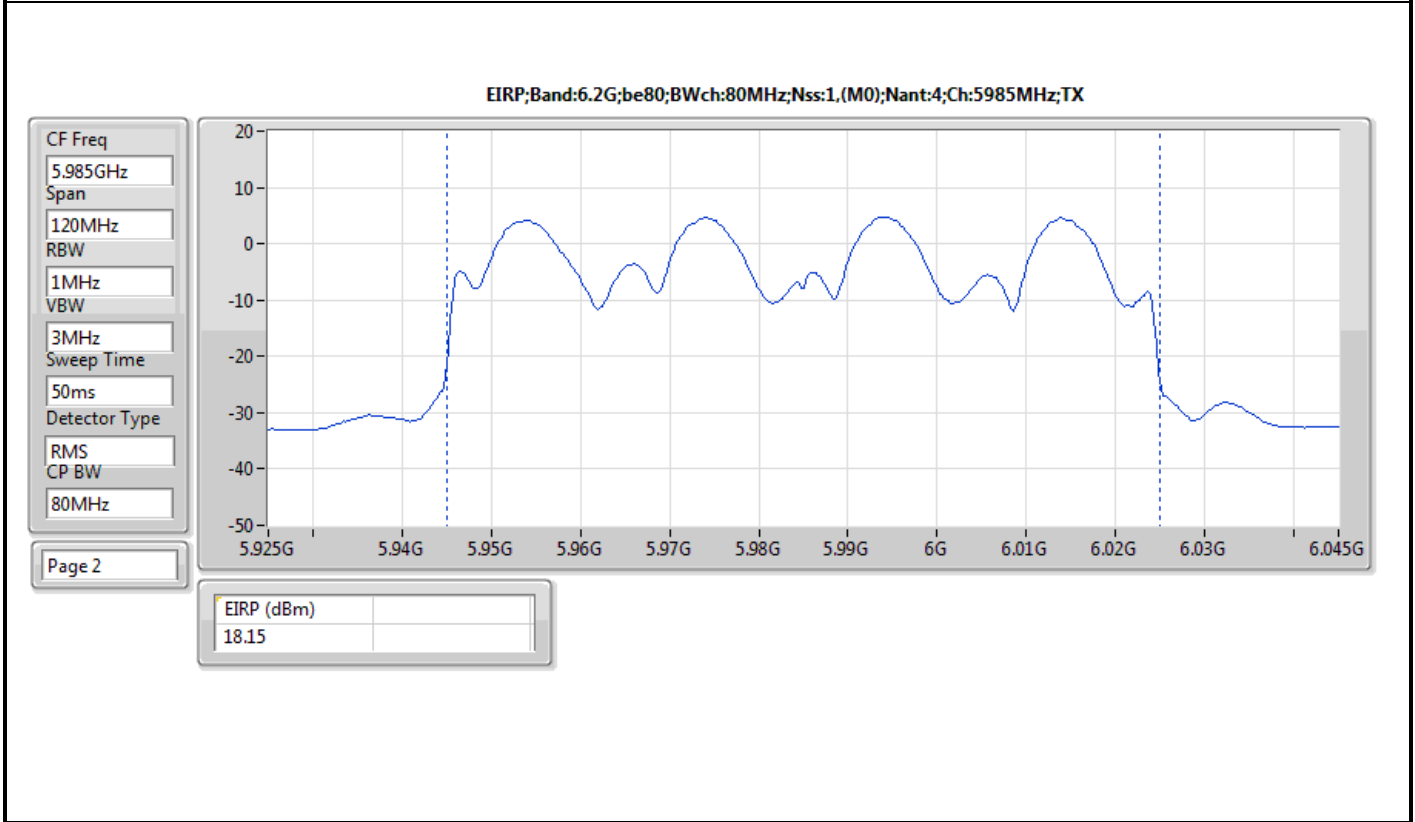
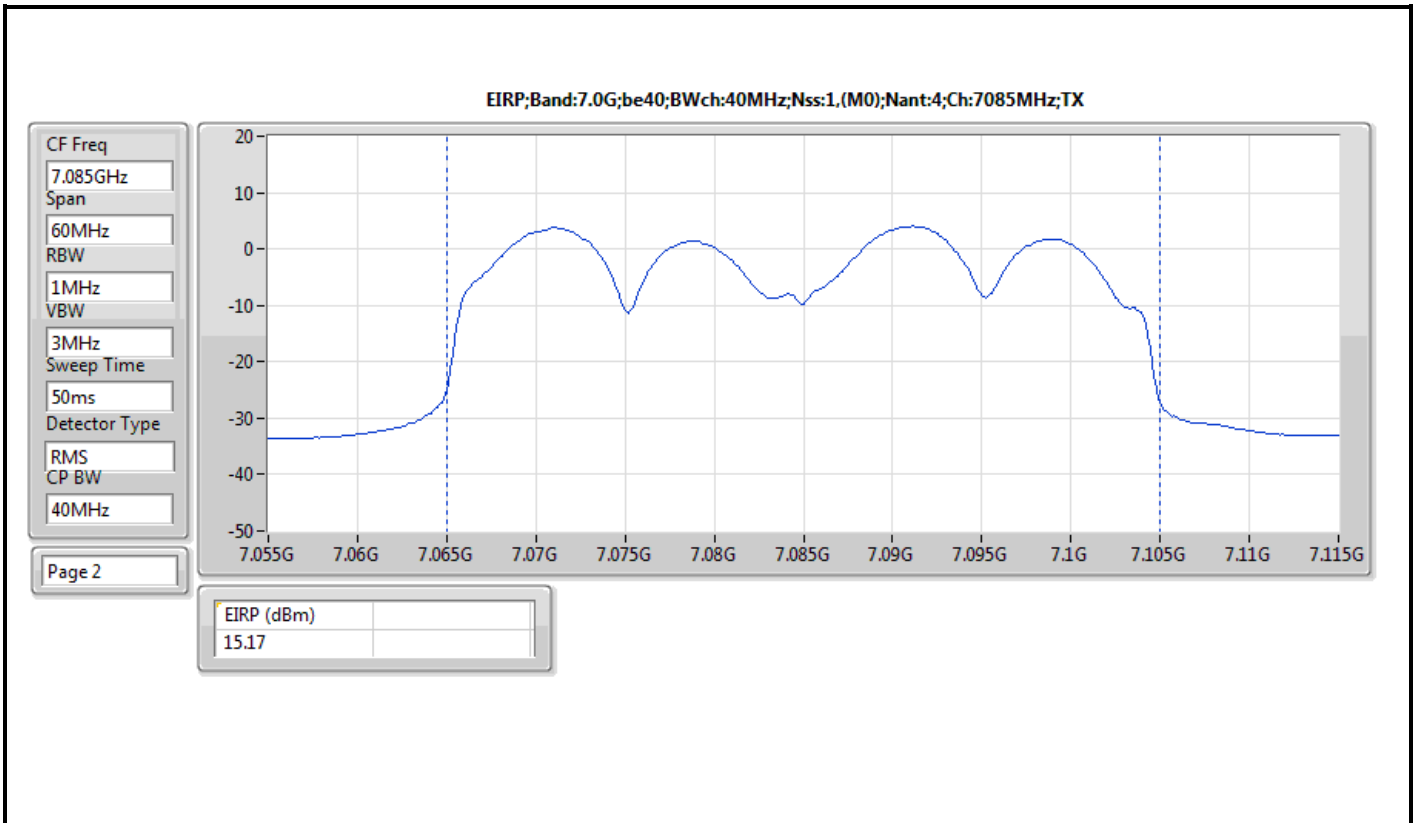


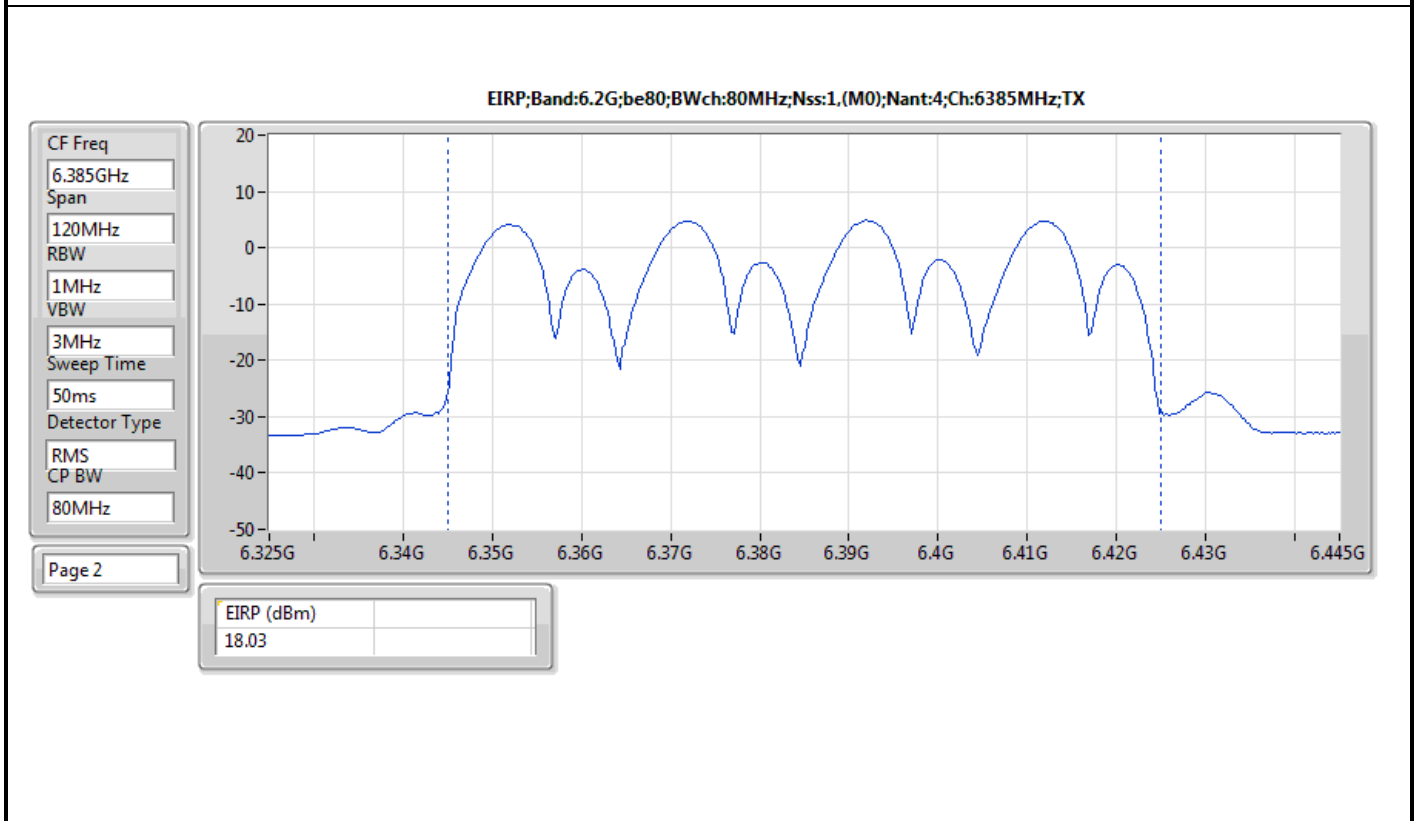
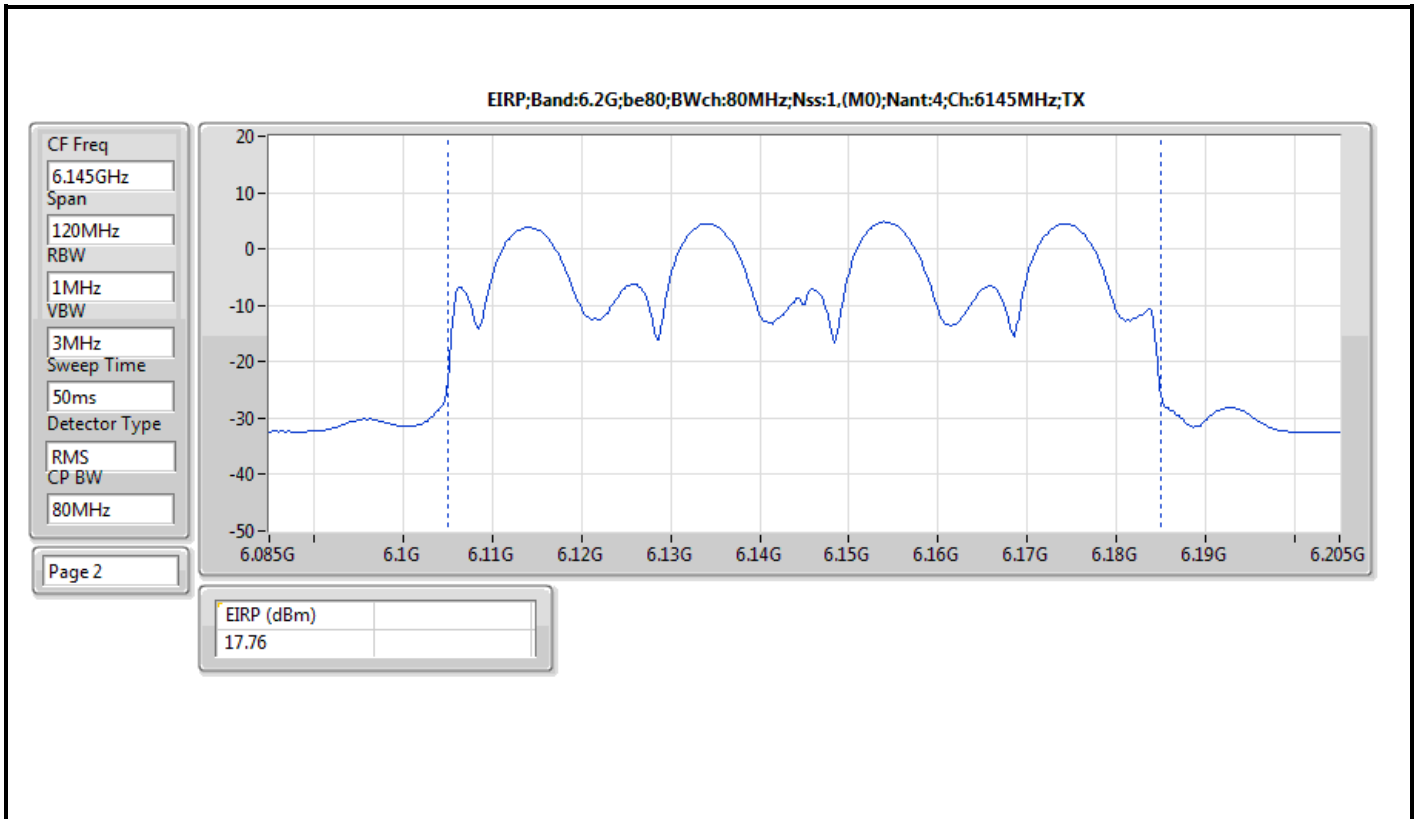


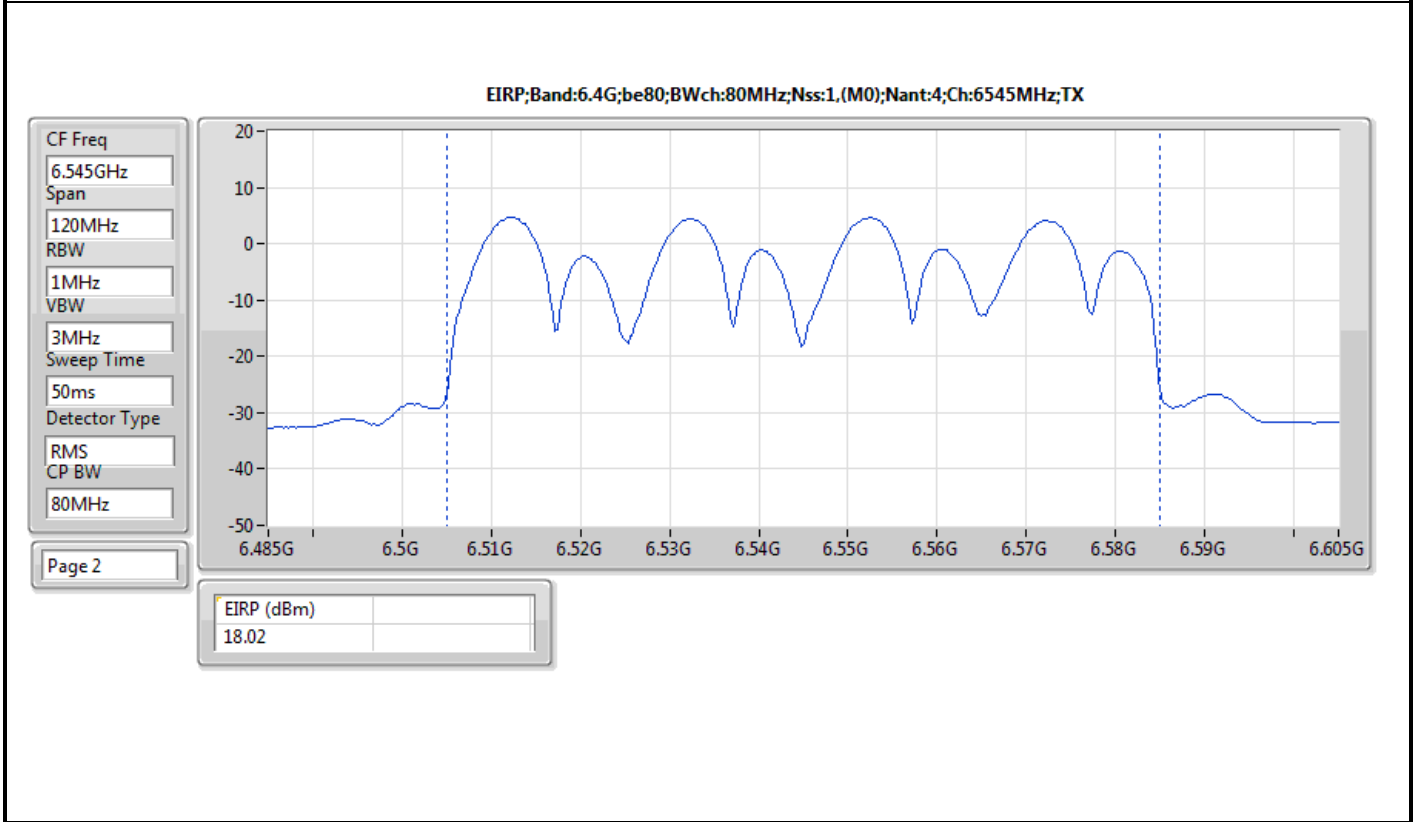
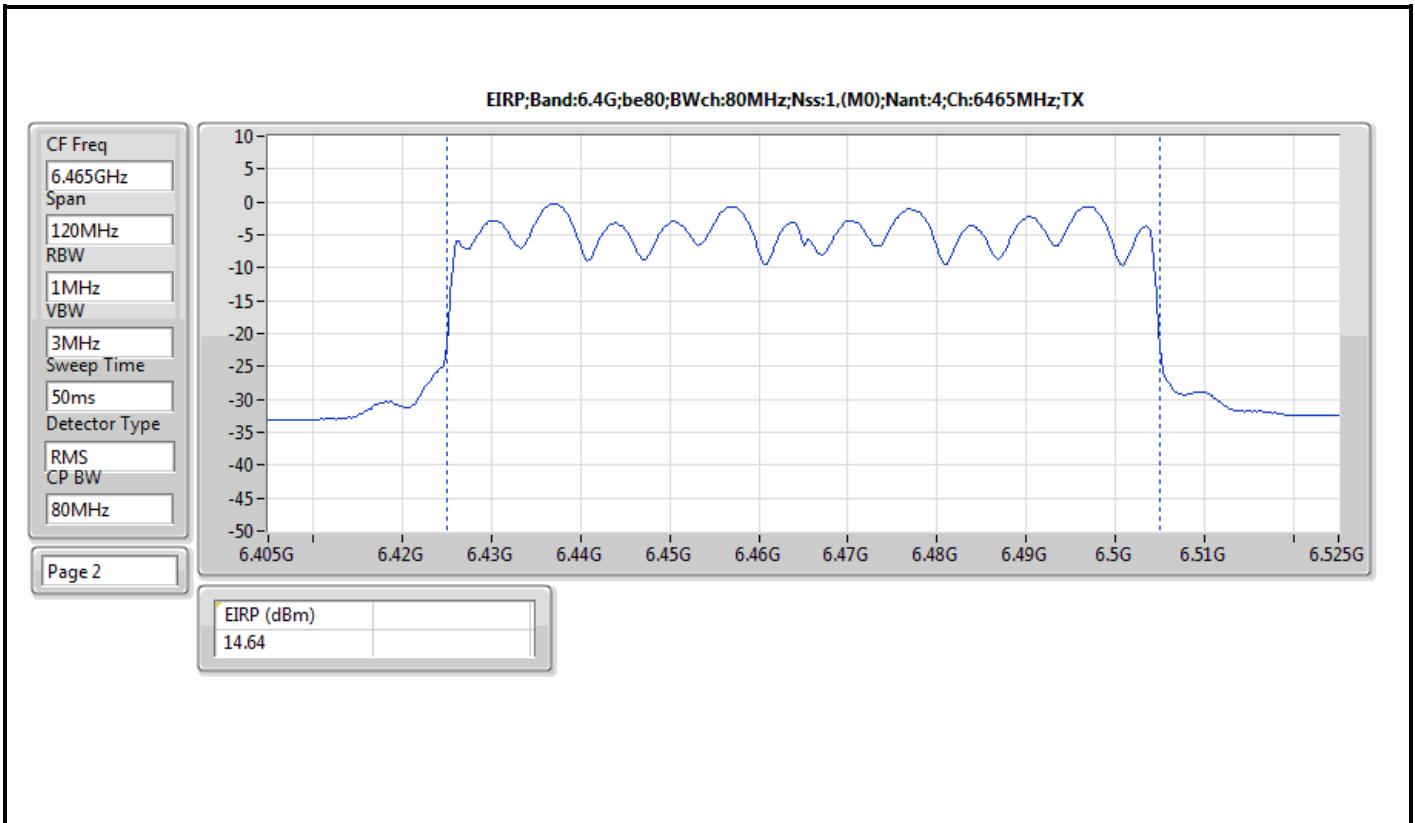


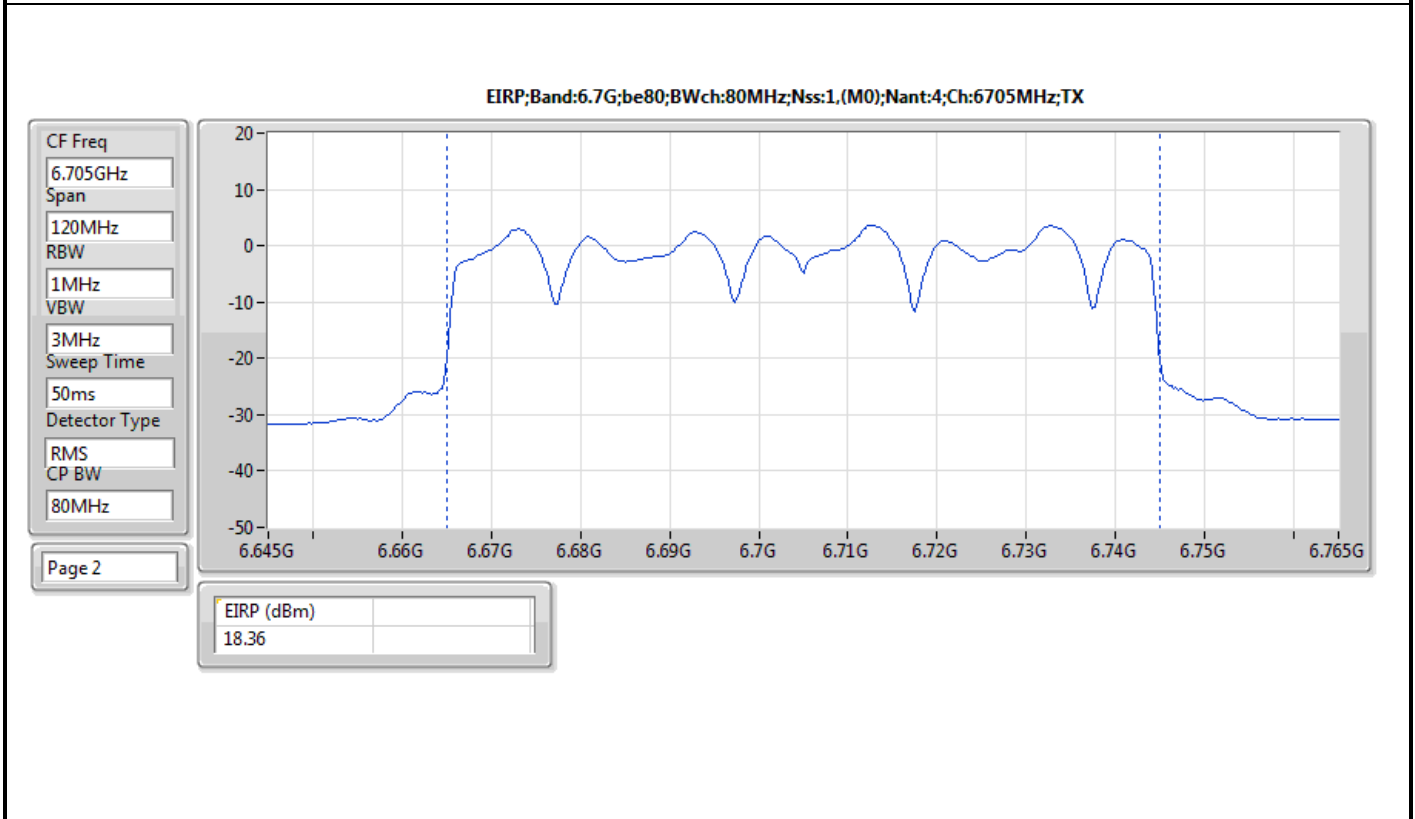
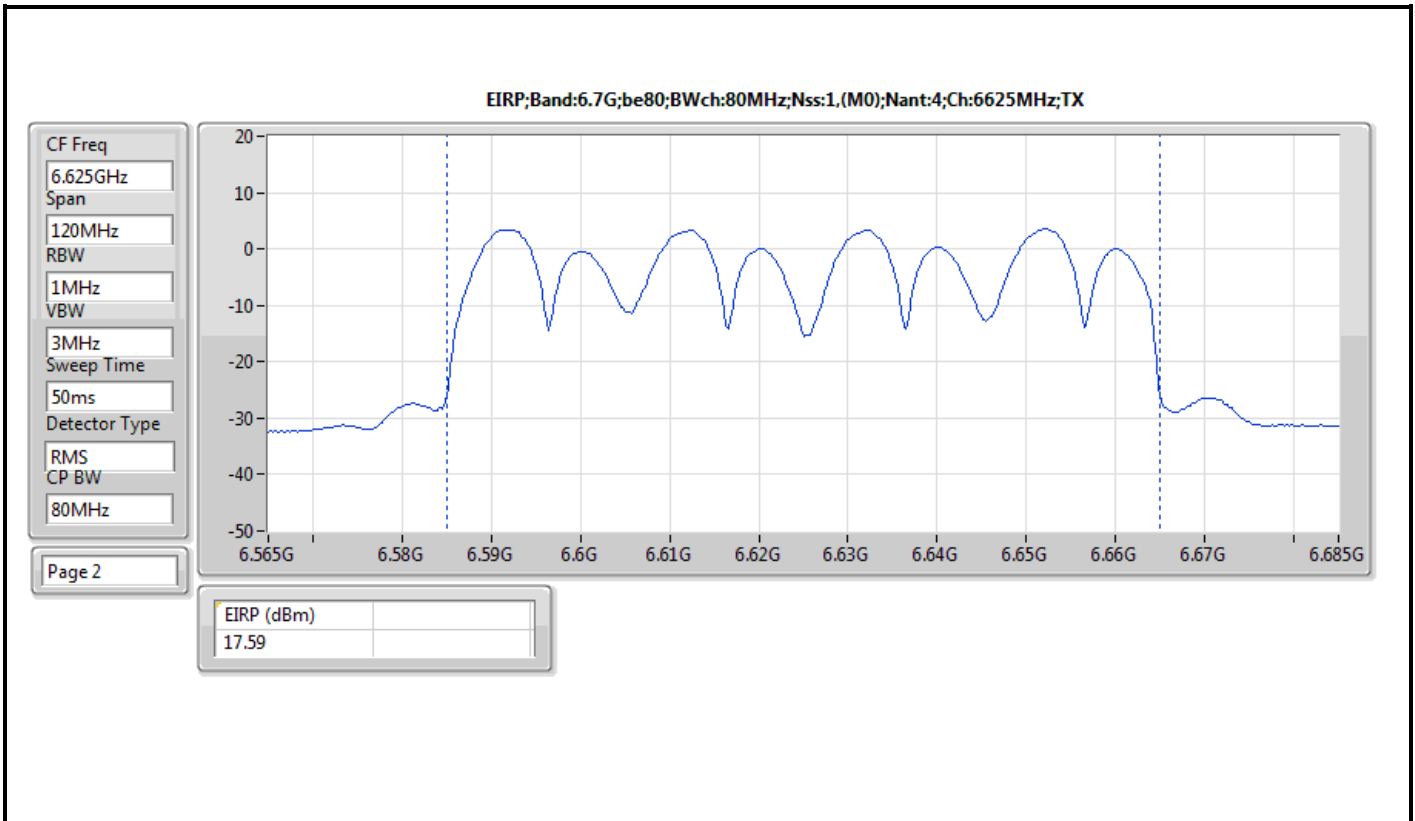


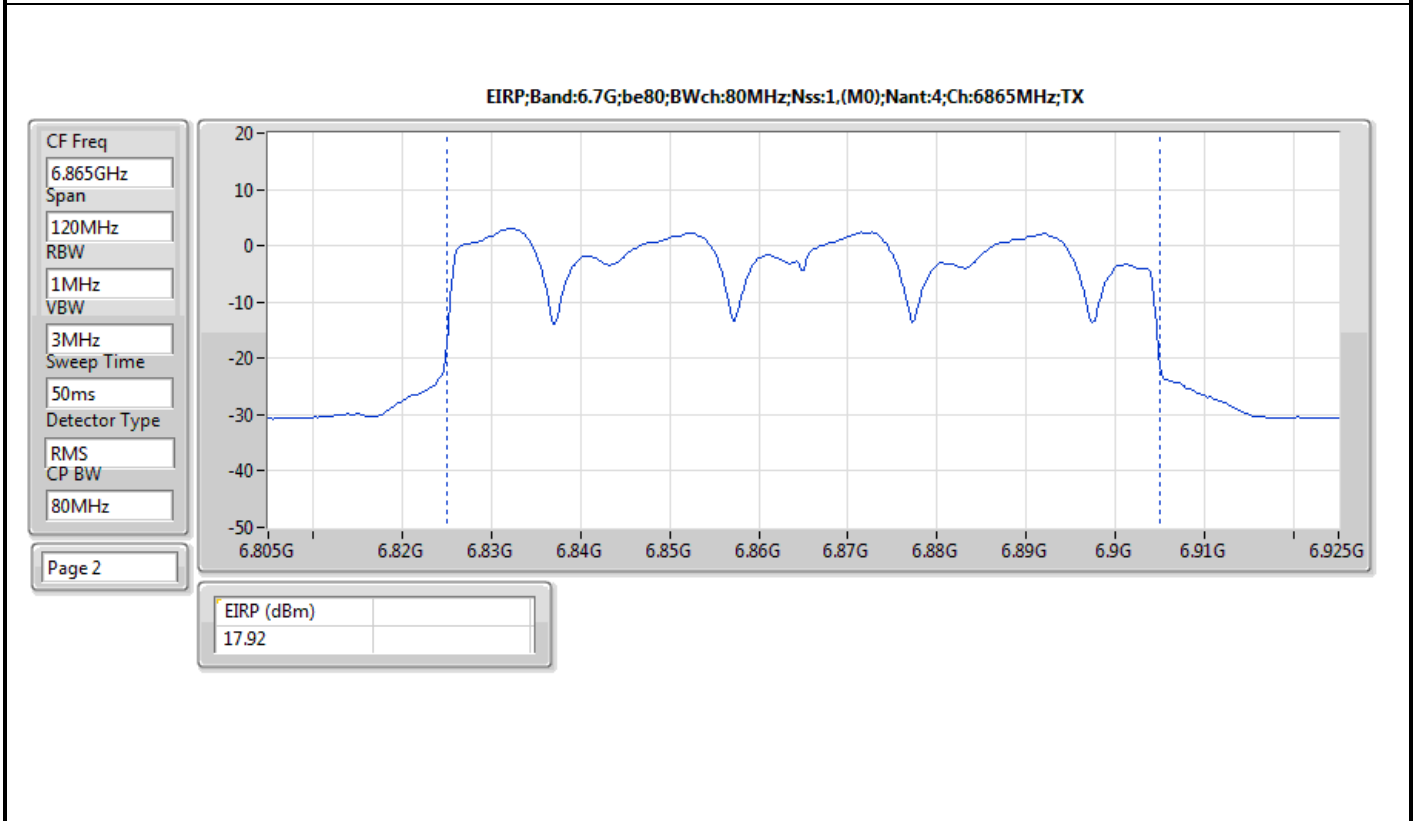
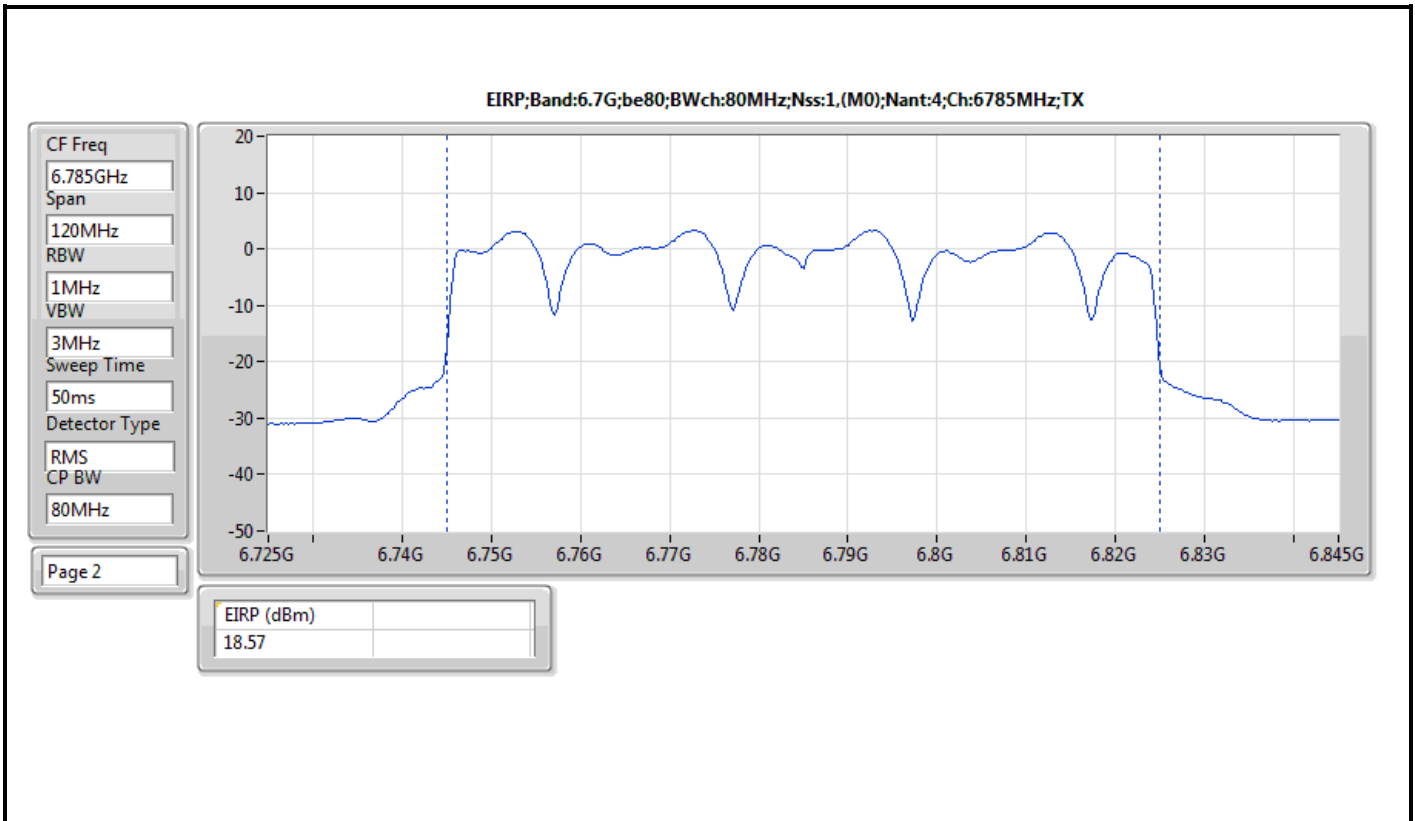


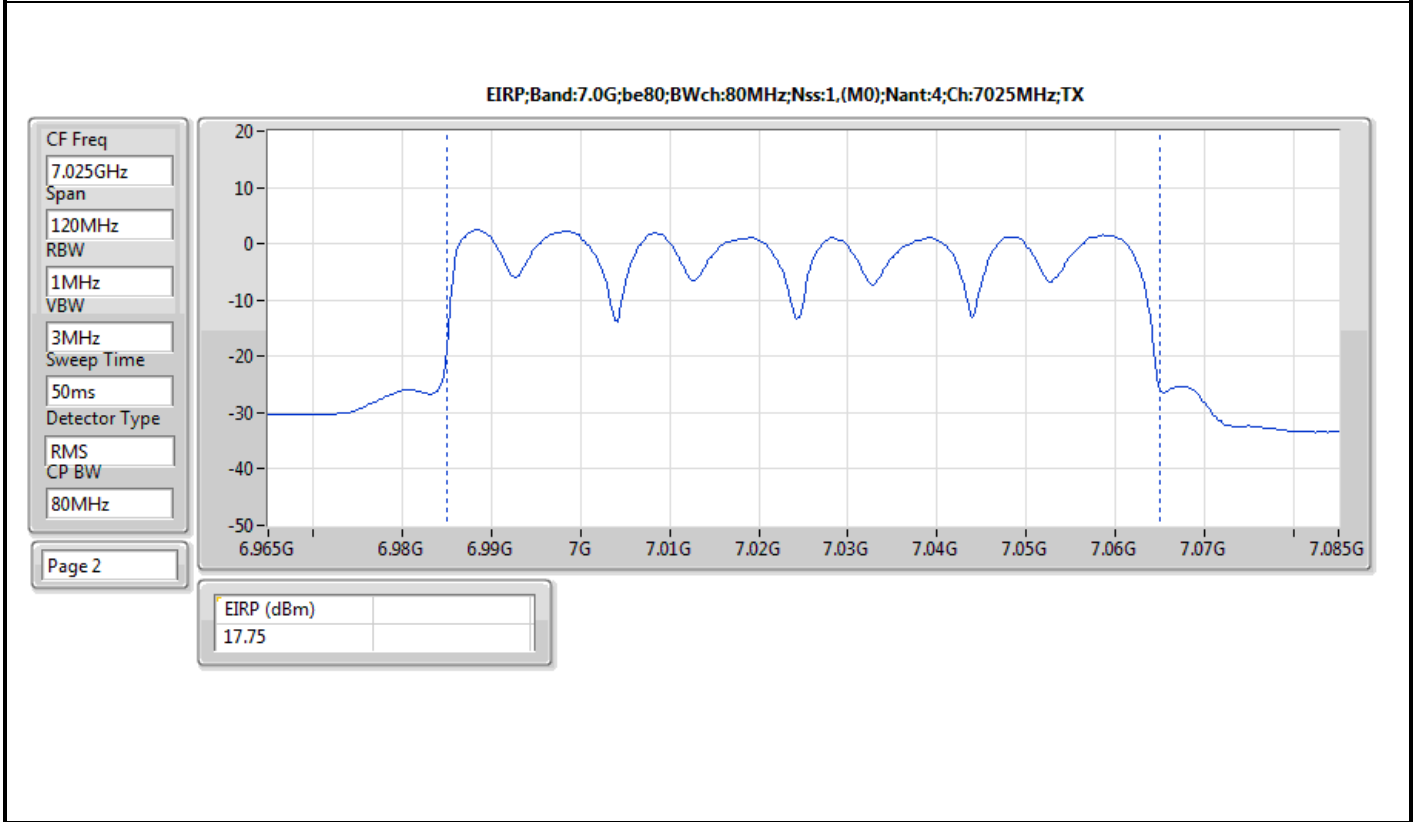
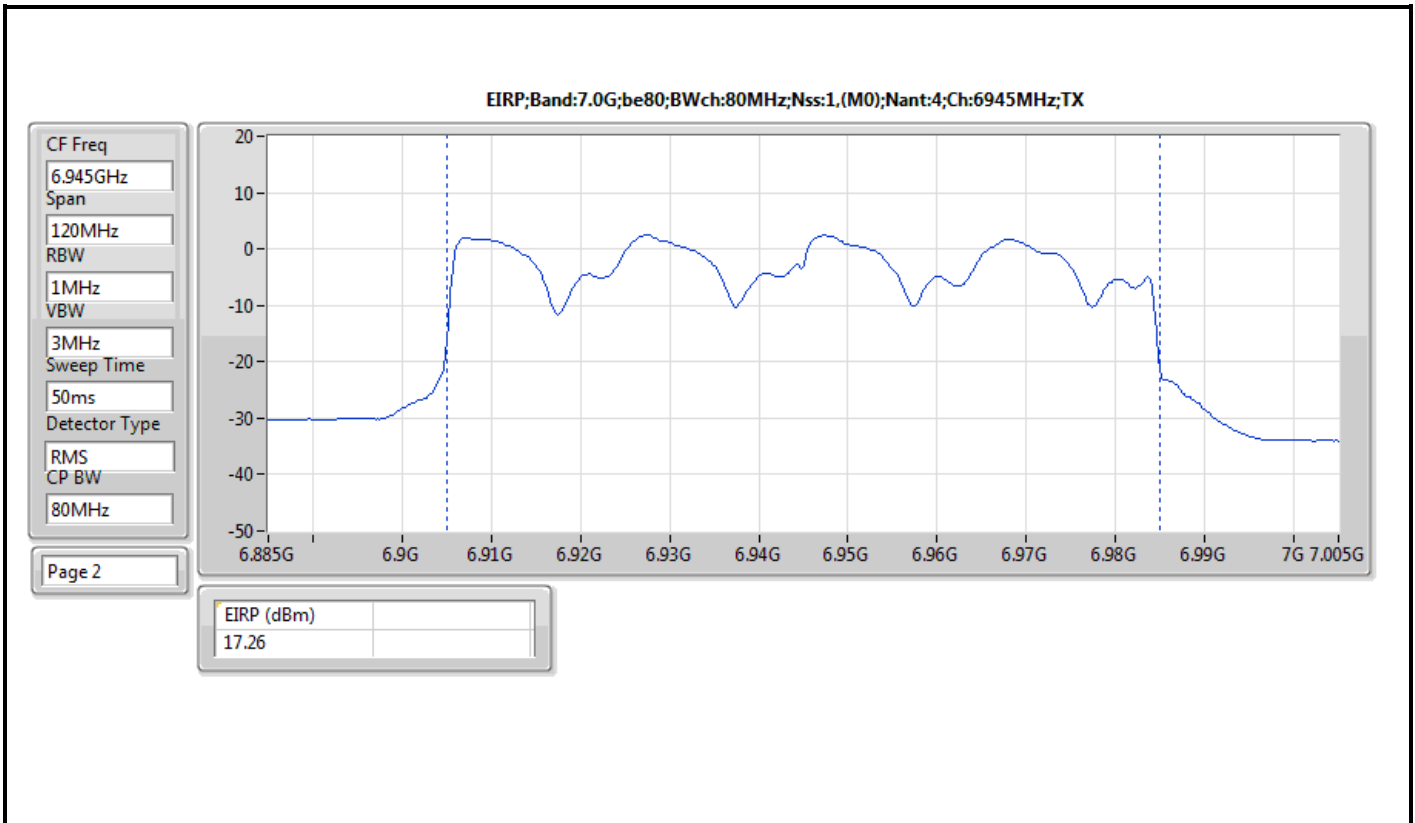


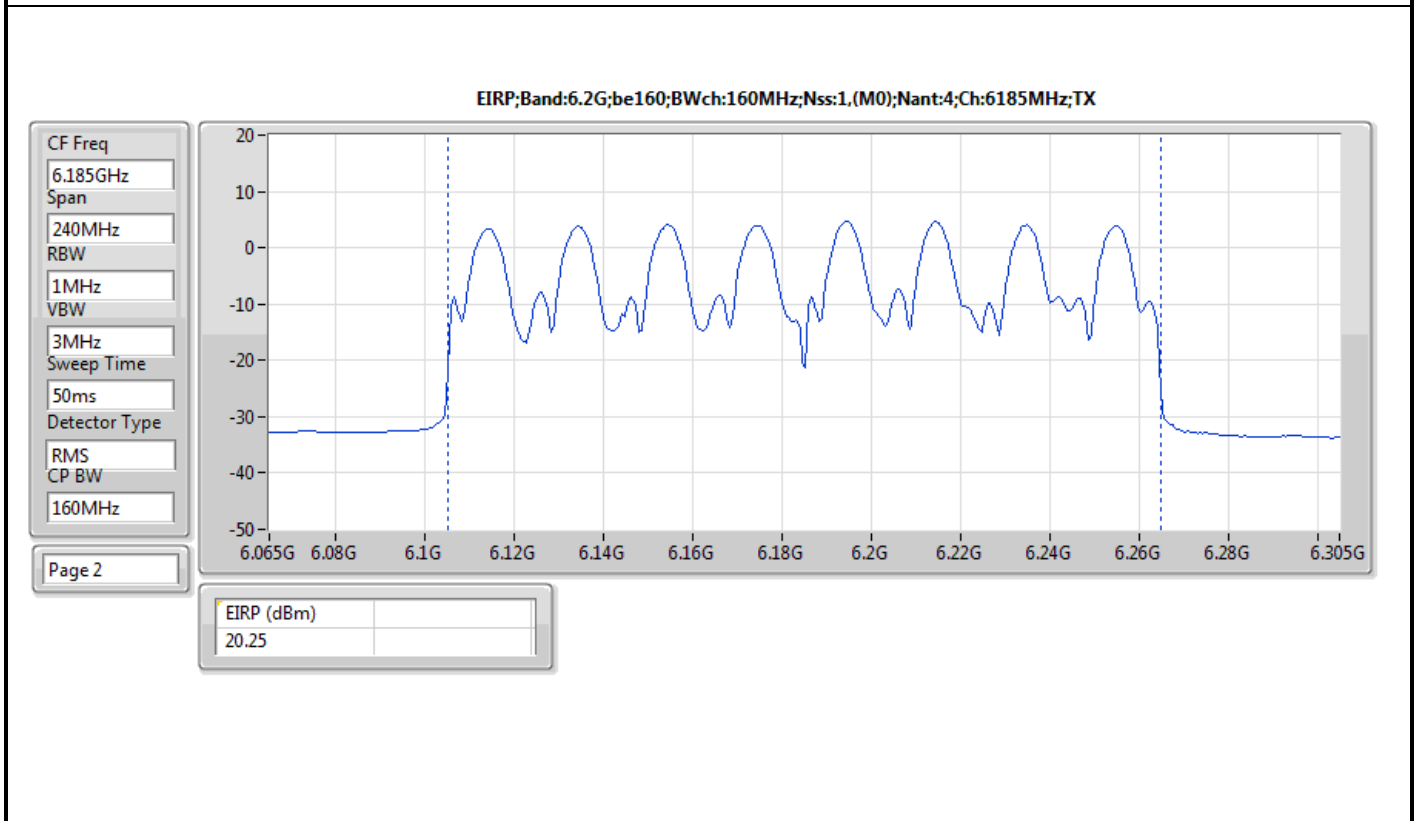
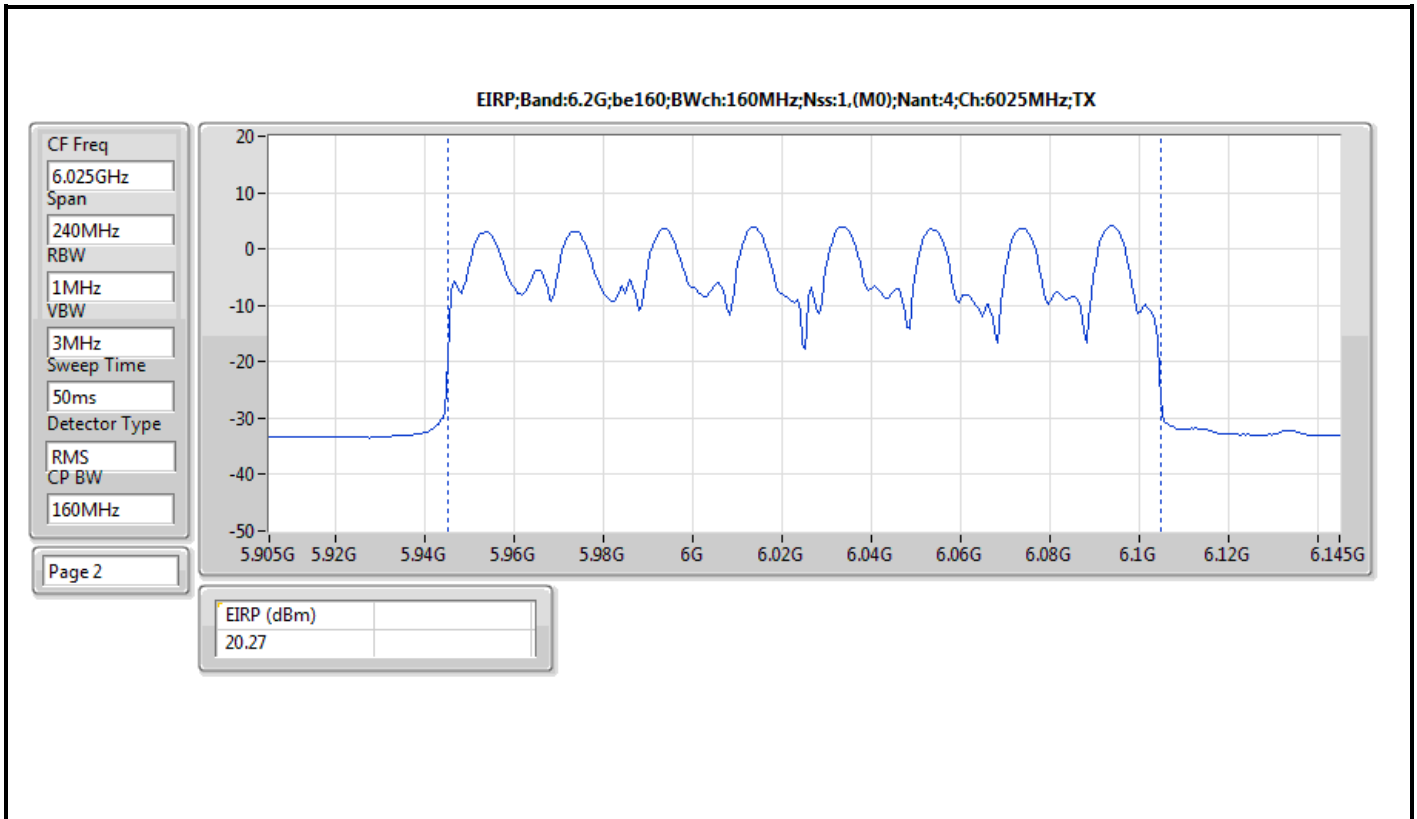


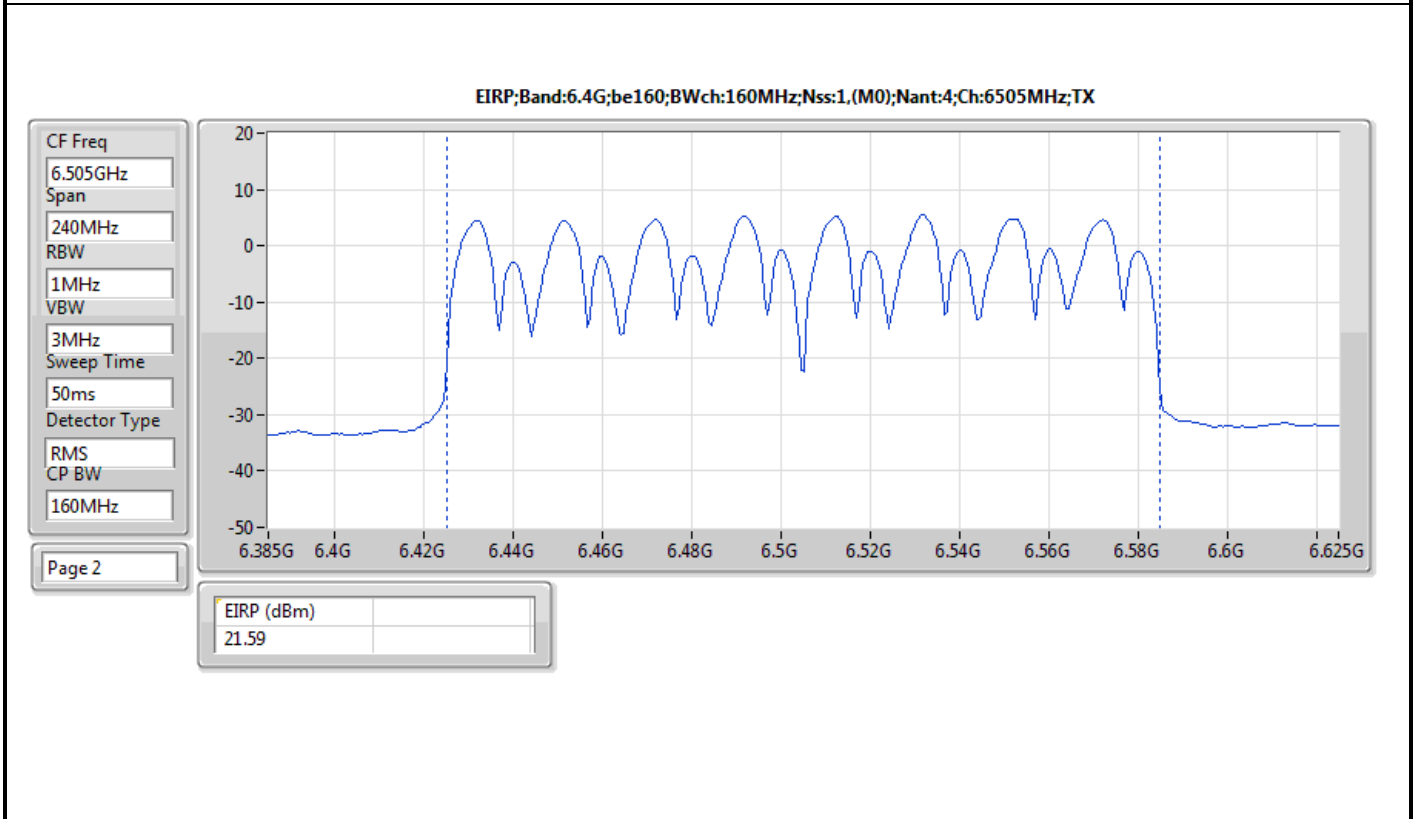
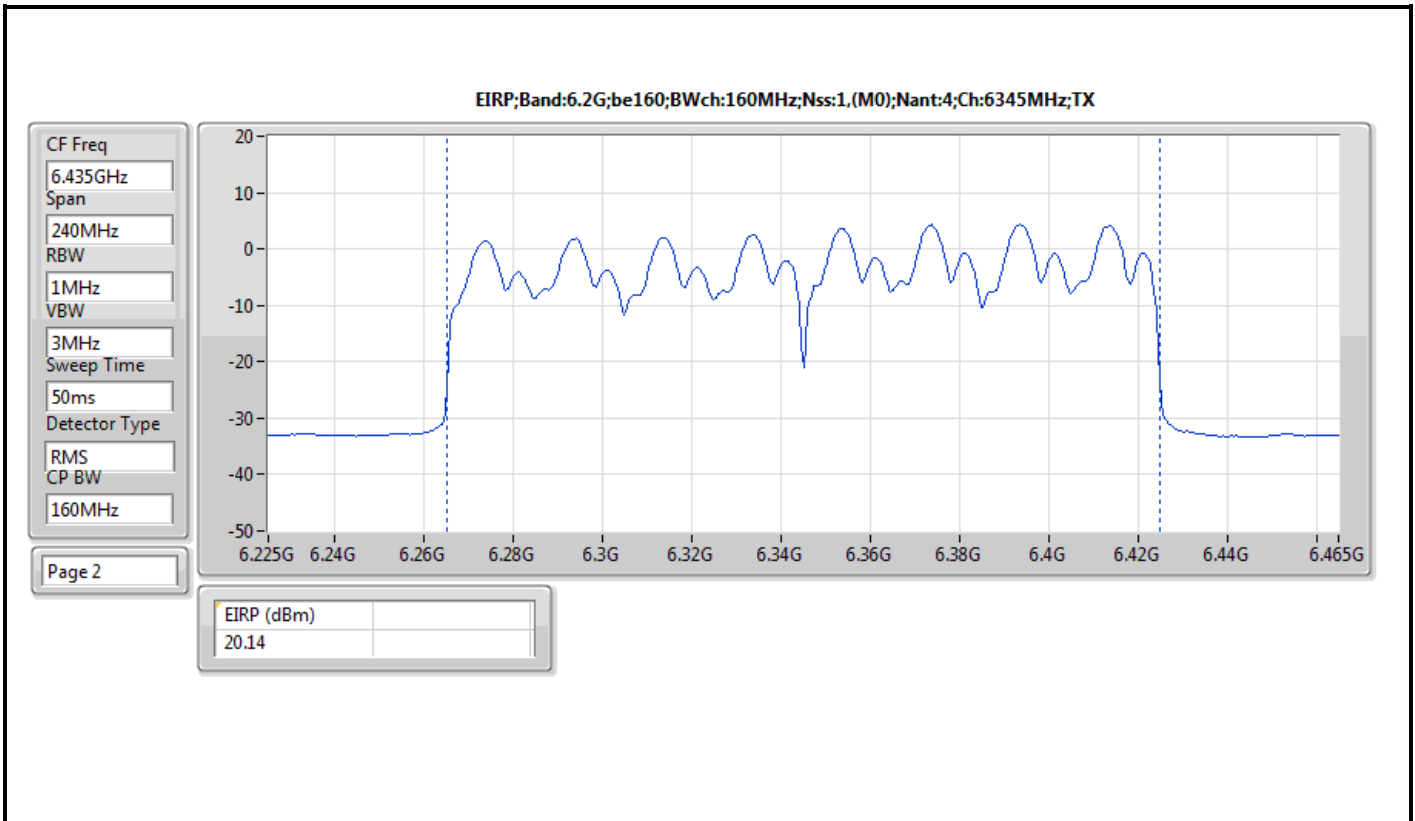


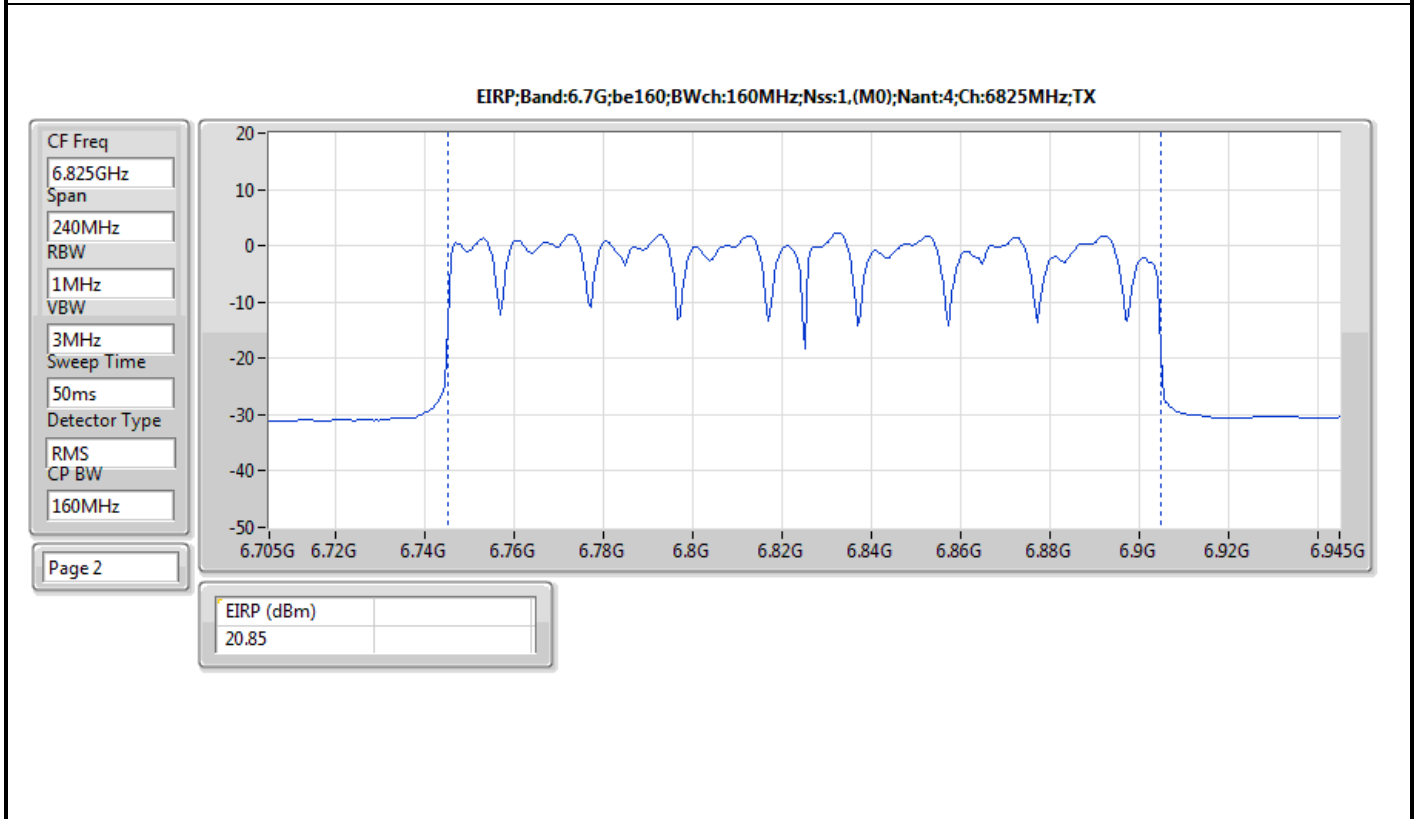
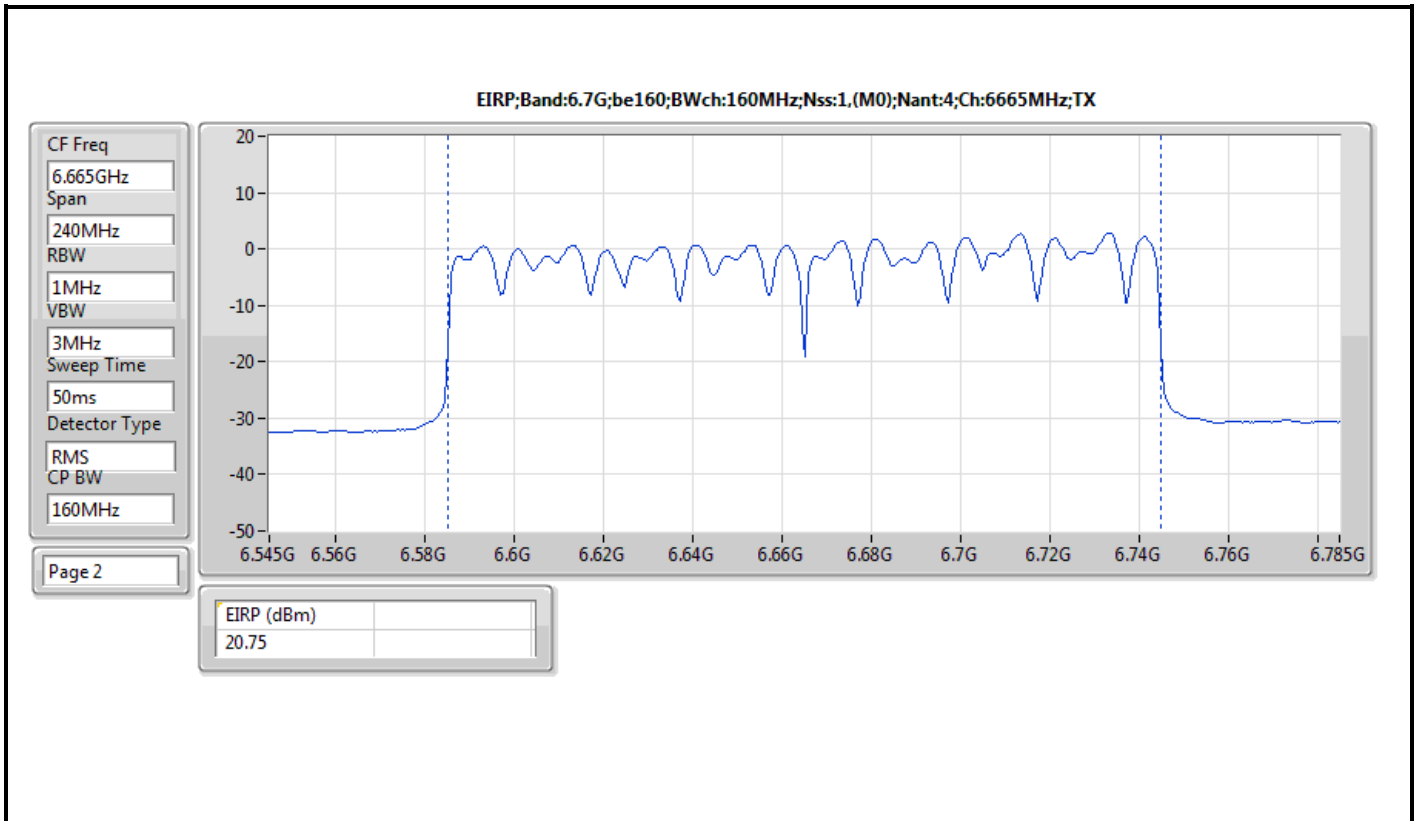


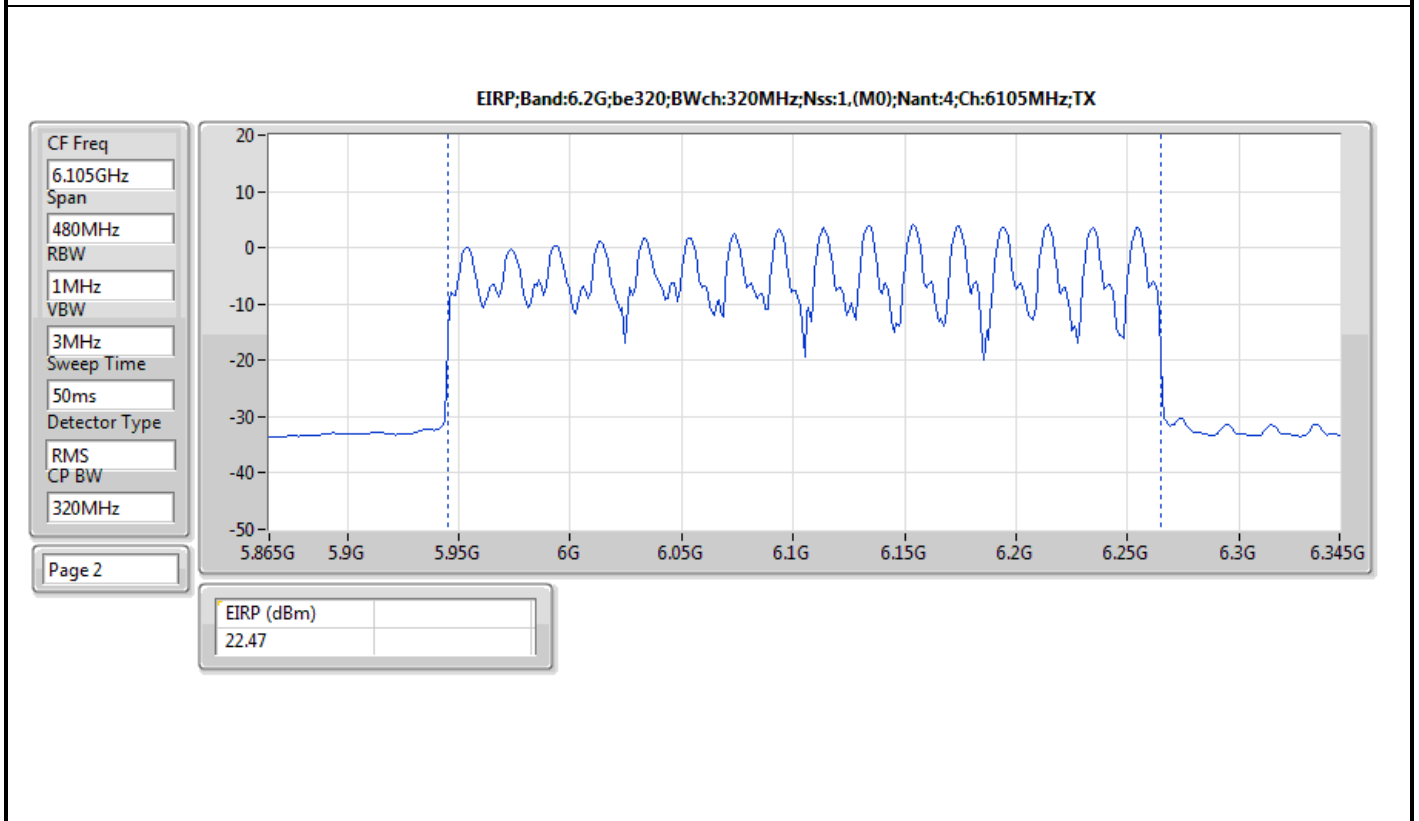
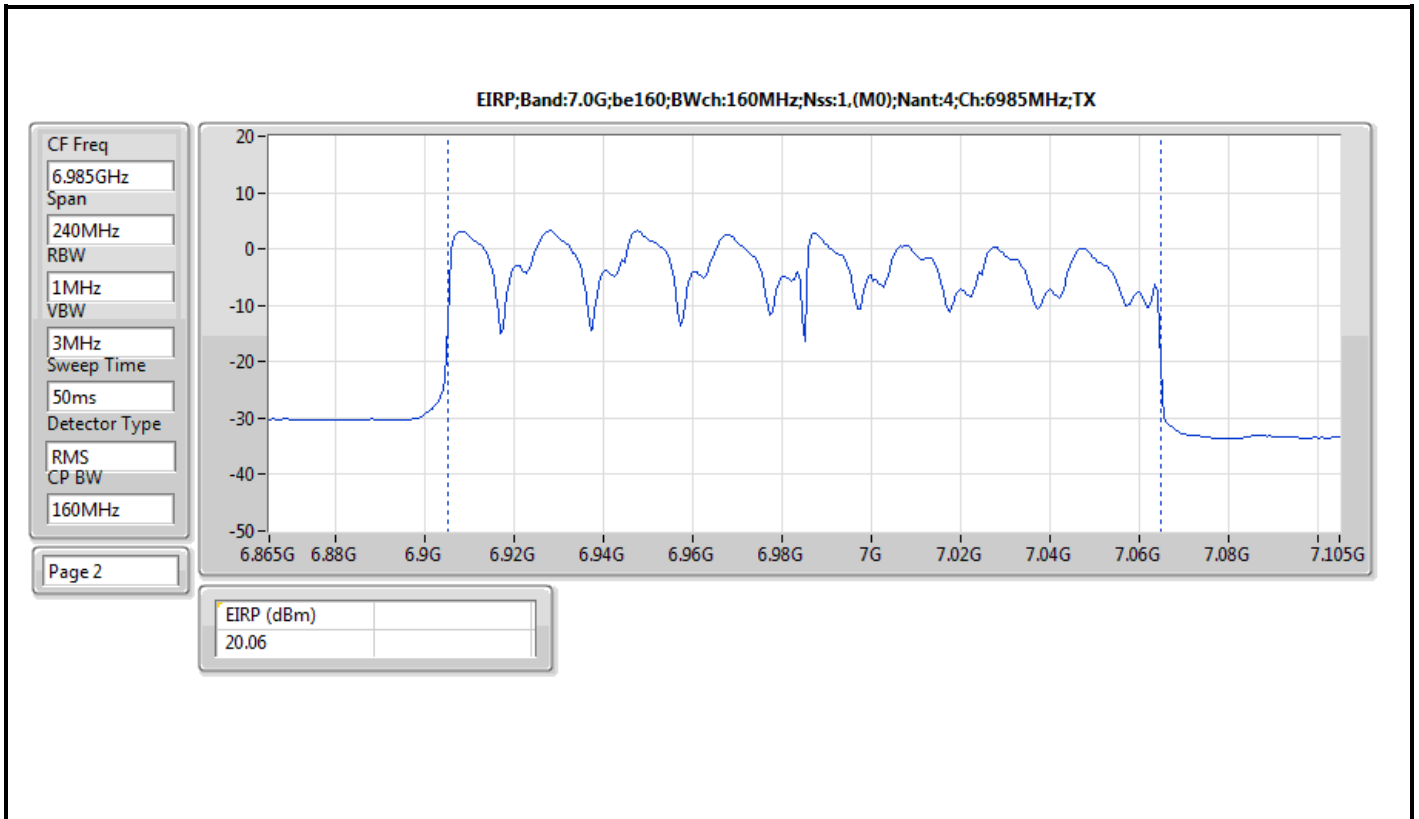


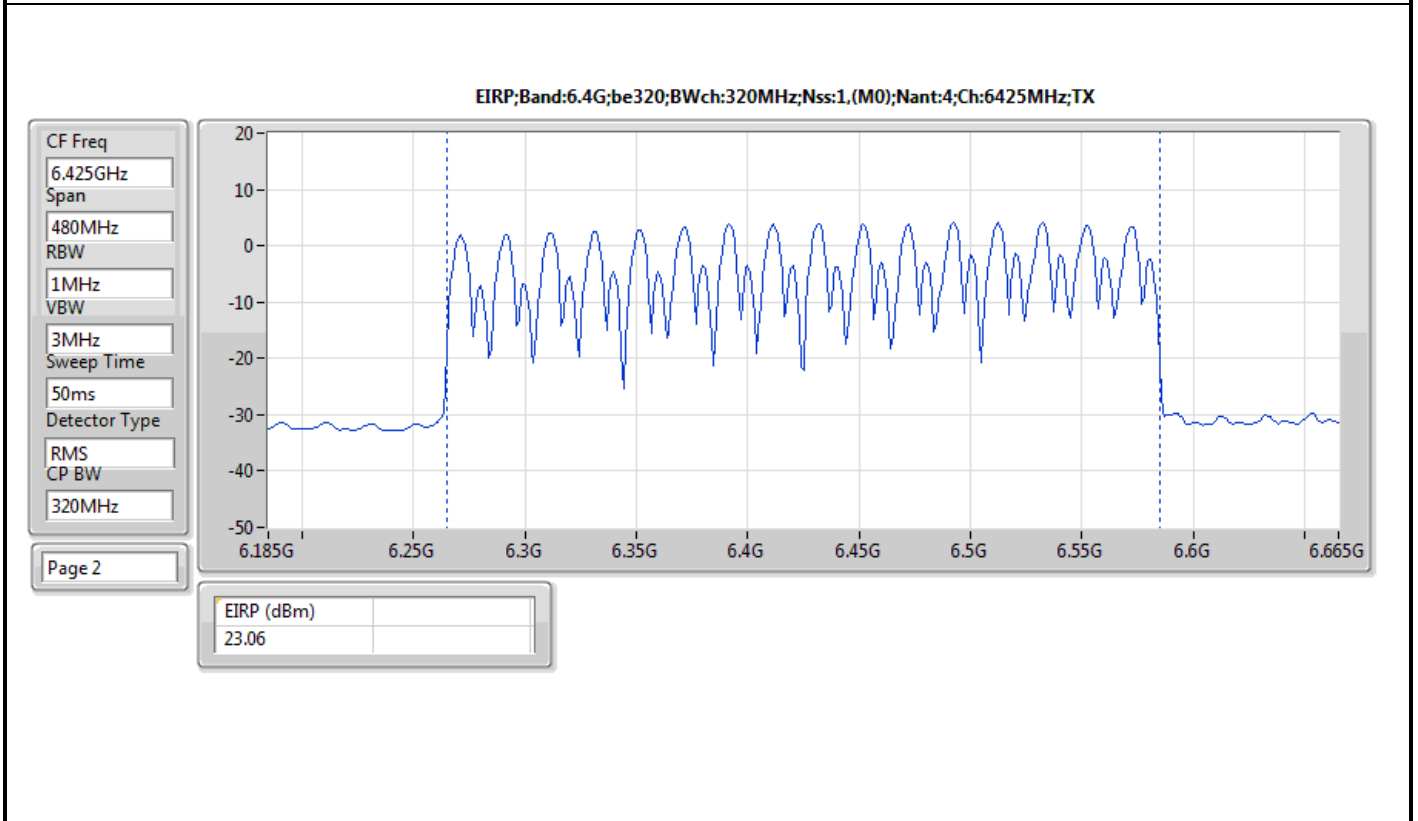
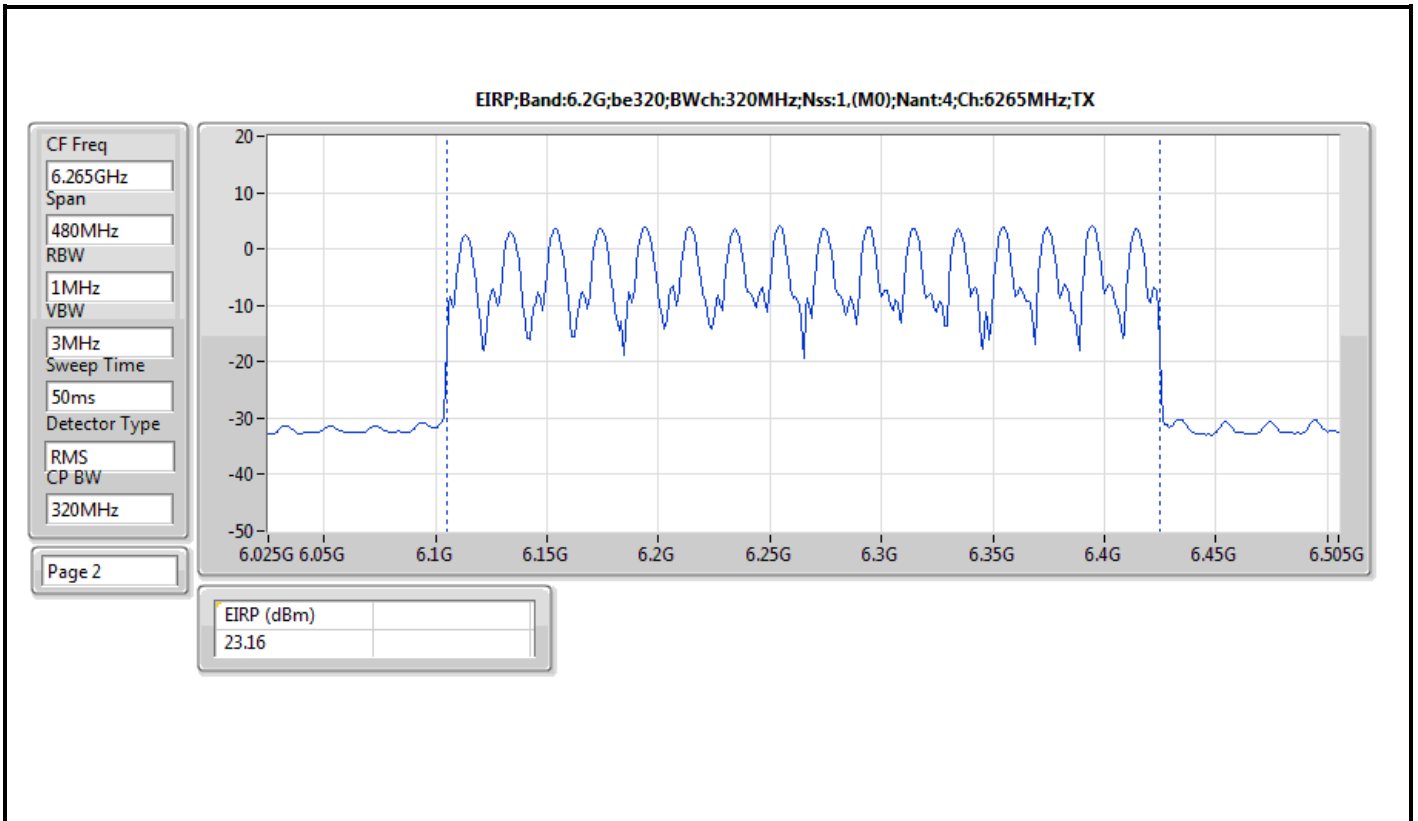


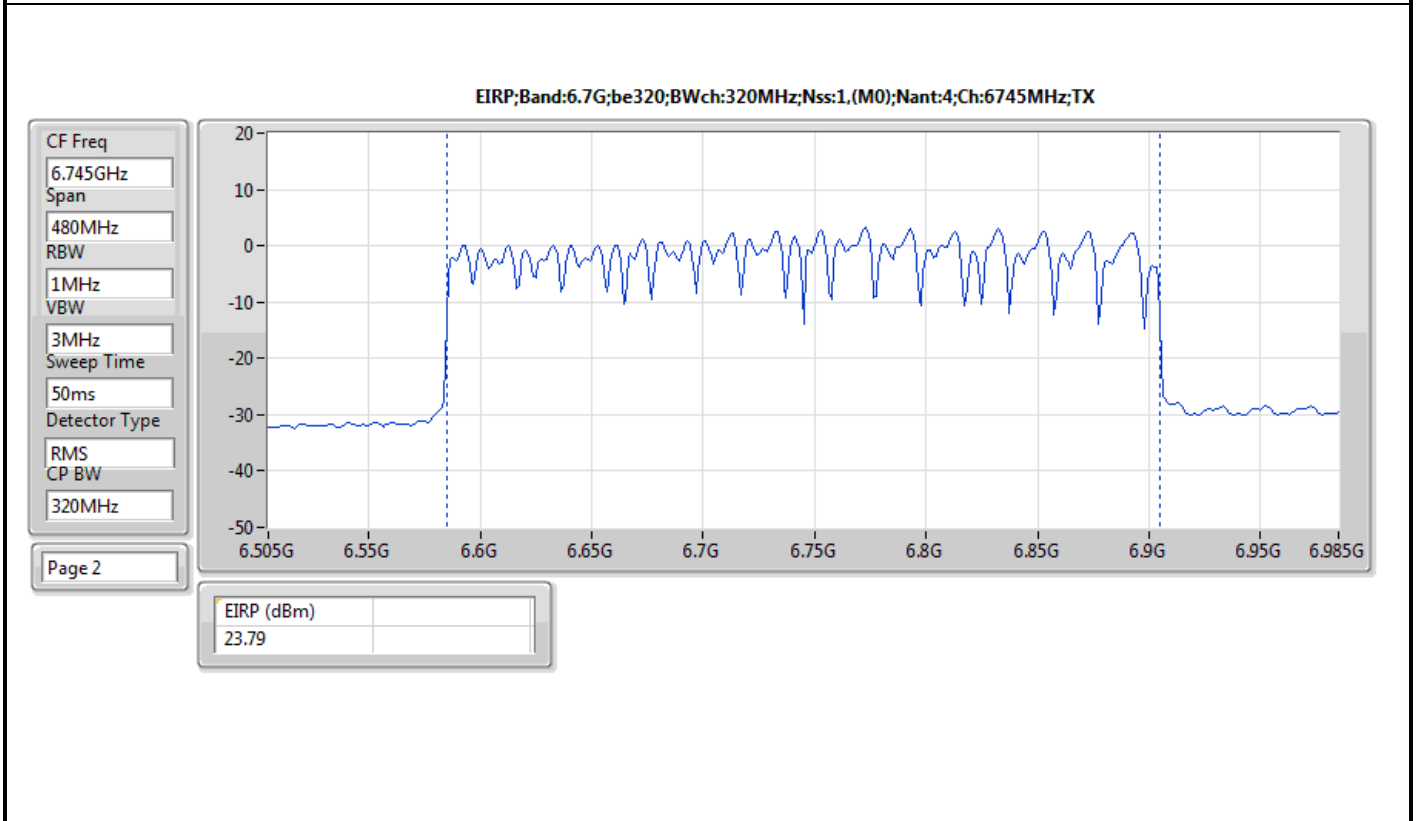
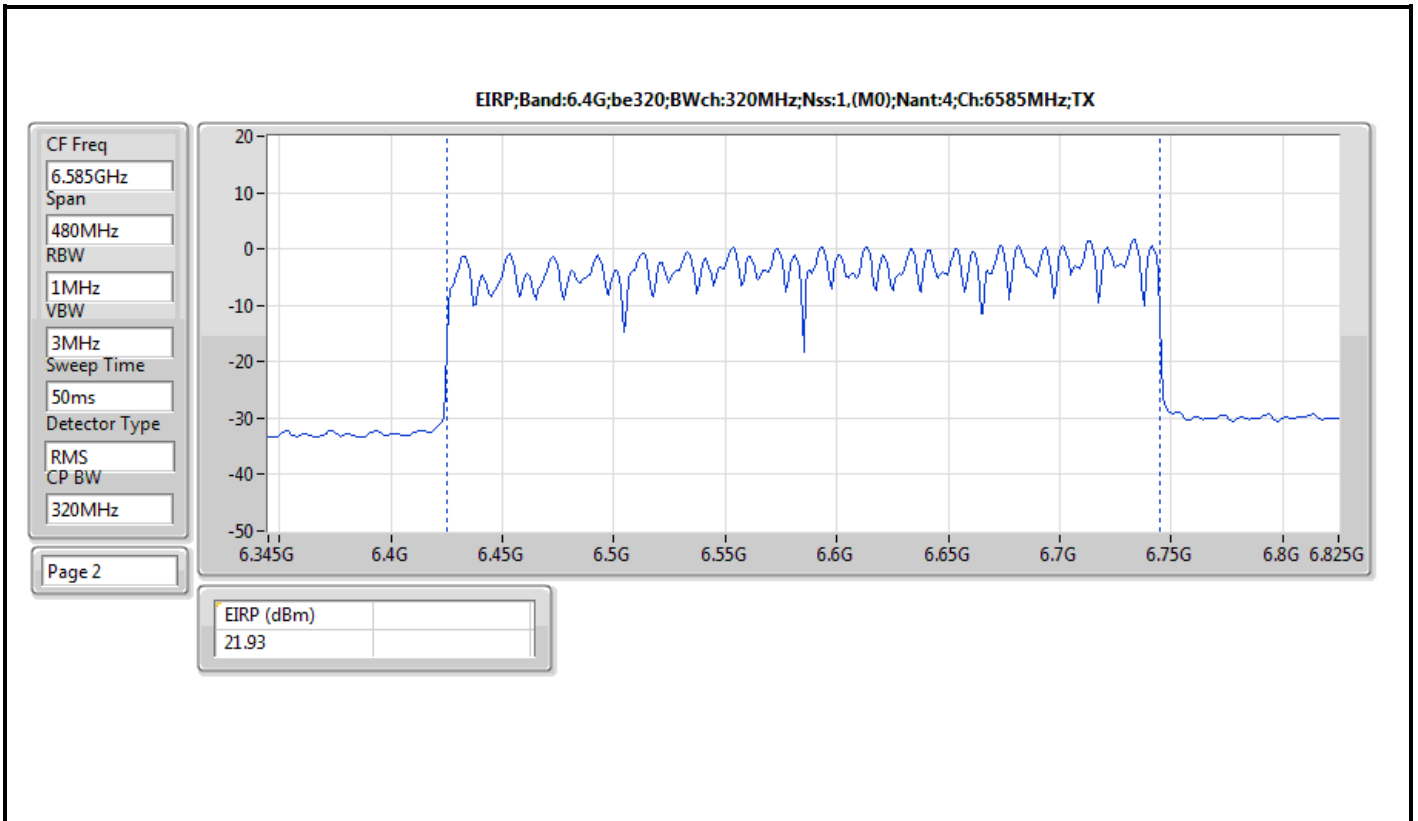


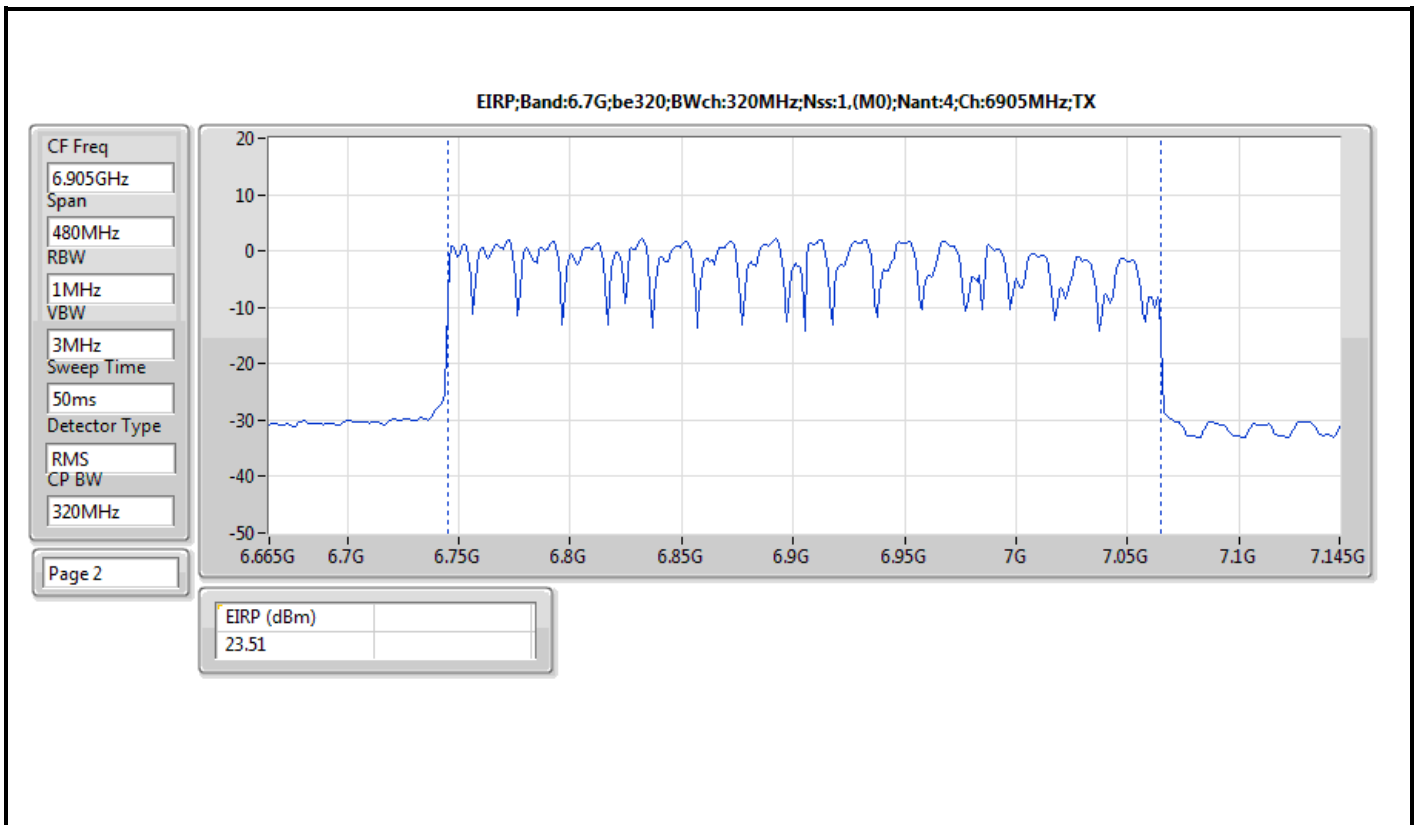














Summary

Mode	EIRP (dBm)	EIRP (W)
5.925-6.425GHz	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX	16.54	0.04508
802.11be EHT40-BF_Nss1,(MCS0)_4TX	19.26	0.08433
802.11be EHT80-BF_Nss1,(MCS0)_4TX	23.11	0.20464
802.11be EHT160-BF_Nss1,(MCS0)_4TX	24.44	0.27797
802.11be EHT320-BF_Nss1,(MCS0)_1TX	24.85	0.30549
6.425-6.525GHz	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX	14.59	0.02877
802.11be EHT40-BF_Nss1,(MCS0)_4TX	16.32	0.04285
802.11be EHT80-BF_Nss1,(MCS0)_4TX	20.94	0.12417
802.11be EHT160-BF_Nss1,(MCS0)_4TX	25.08	0.32211
802.11be EHT320-BF_Nss1,(MCS0)_1TX	25.46	0.35156
6.525-6.875GHz	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX	14.12	0.02582
802.11be EHT40-BF_Nss1,(MCS0)_4TX	17.73	0.05929
802.11be EHT80-BF_Nss1,(MCS0)_4TX	19.78	0.09506
802.11be EHT160-BF_Nss1,(MCS0)_4TX	24.12	0.25823
802.11be EHT320-BF_Nss1,(MCS0)_1TX	26.80	0.47863
6.875-7.125GHz	-	-
802.11be EHT20-BF_Nss1,(MCS0)_4TX	19.67	0.09268
802.11be EHT40-BF_Nss1,(MCS0)_4TX	20.17	0.10399
802.11be EHT80-BF_Nss1,(MCS0)_4TX	21.78	0.15066
802.11be EHT160-BF_Nss1,(MCS0)_4TX	25.90	0.38905



Result

Mode	Result	EIRP (dBm)	EIRP Limit (dBm)
802.11be EHT20-BF_Nss1,(MCS0)_4TX	-	-	-
5955MHz	Pass	16.54	30.00
6175MHz	Pass	14.80	30.00
6415MHz	Pass	15.59	30.00
6435MHz	Pass	14.22	30.00
6475MHz	Pass	13.13	30.00
6515MHz	Pass	14.59	30.00
6535MHz	Pass	14.08	30.00
6695MHz	Pass	13.20	30.00
6855MHz	Pass	14.12	30.00
6875MHz Straddle 6.525-6.875GHz	Pass	13.86	30.00
6895MHz	Pass	14.27	30.00
6995MHz	Pass	16.44	30.00
7095MHz	Pass	19.67	30.00
7115MHz Straddle 6.875-7.125GHz	Pass	14.65	30.00
802.11be EHT40-BF_Nss1,(MCS0)_4TX	-	-	-
5965MHz	Pass	19.26	30.00
6165MHz	Pass	15.38	30.00
6405MHz	Pass	17.88	30.00
6445MHz	Pass	16.32	30.00
6485MHz	Pass	16.02	30.00
6525MHz Straddle 6.425-6.525GHz	Pass	16.02	30.00
6565MHz	Pass	15.89	30.00
6685MHz	Pass	16.00	30.00
6845MHz	Pass	17.02	30.00
6885MHz Straddle 6.525-6.875GHz	Pass	17.73	30.00
6925MHz	Pass	19.38	30.00
7005MHz	Pass	18.72	30.00
7085MHz	Pass	20.17	30.00
802.11be EHT80-BF_Nss1,(MCS0)_4TX	-	-	-
5985MHz	Pass	21.49	30.00
6145MHz	Pass	20.20	30.00
6385MHz	Pass	23.11	30.00
6465MHz	Pass	19.34	30.00
6545MHz Straddle 6.425-6.525GHz	Pass	20.94	30.00
6625MHz	Pass	19.78	30.00
6705MHz	Pass	19.40	30.00
6785MHz	Pass	19.24	30.00
6865MHz Straddle 6.525-6.875GHz	Pass	19.56	30.00
6945MHz	Pass	21.62	30.00
7025MHz	Pass	21.78	30.00
802.11be EHT160-BF_Nss1,(MCS0)_4TX	-	-	-
6025MHz	Pass	24.44	30.00
6185MHz	Pass	20.65	30.00
6345MHz	Pass	23.83	30.00
6505MHz Straddle 6.425-6.525GHz	Pass	25.08	30.00
6665MHz	Pass	24.12	30.00
6825MHz Straddle 6.525-6.875GHz	Pass	20.57	30.00
6985MHz	Pass	25.90	30.00
802.11be EHT320-BF_Nss1,(MCS0)_1TX	-	-	-
6105MHz	Pass	24.85	30.00
6265MHz	Pass	24.29	30.00
6425MHz	Pass	25.46	30.00
6585MHz	Pass	24.73	30.00
6745MHz	Pass	26.01	30.00



Average Power_Beamforming mode

Appendix C.2

Mode	Result	EIRP (dBm)	EIRP Limit (dBm)
6905MHz	Pass	26.80	30.00

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

