




RADIO TEST REPORT

FCC ID : NKR-ATTCGW450
Equipment : 5G Residential Gateway
Brand Name : WNC
Model Name : CGW450-400
Applicant : Wistron NeWeb Corp.
20 Park Avenue II, Hsinchu Science Park, Hsinchu
308, Taiwan, R.O.C
Manufacturer : NEWEB VIET NAM CO., LTD.
Land Lot CN01, Dong Van III Industrial zone,
Dong Van Ward, Duy Tien Town, Ha Nam Province,
VietNam
Standard : 47 CFR FCC Part 15.407

The product was received on Aug. 01, 2022, and testing was started from Aug. 04, 2022 and completed on Sep. 19, 2022. 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



History of this test report

Report No.	Version	Description	Issued Date
FR280117-01AC	01	Initial issue of report	Sep. 21, 2022



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	-

Note: Reference to Sporton Project No.: 280117.

Declaration of Conformity:

1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Measurement Uncertainty".

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Penny Kao



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)	5955-7095	1-229 [58]
5925-7125	ax (HEW40)	5965-7085	3-227 [29]
5925-7125	ax (HEW80)	5985-7025	7-215 [14]
5925-7125	ax (HEW160)	6025-6985	15-207 [7]

Band	Mode	BWch (MHz)	Nant
UNII 5-8	ax (HEW20)	20	4TX
UNII 5-8	ax (HEW20)-BF	20	4TX
UNII 5-8	ax (HEW40)	40	4TX
UNII 5-8	ax (HEW40) -BF	40	4TX
UNII 5-8	ax (HEW80)	80	4TX
UNII 5-8	ax (HEW80) -BF	80	4TX
UNII 5-8	ax (HEW160)	160	4TX
UNII 5-8	ax (HEW160) -BF	160	4TX

Note:

- ◆ HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ◆ BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Modes of Operation
	2.4GHz	5GHz	6GHz					
1	1	1	-	WNC	48XKAC42	Dipole	I-PEX	WLAN 2.4GHz, 5GHz UNII 1~3
2	2	2	-	WNC	48XKAC3F	Dipole	I-PEX	
3	3	3	-	WNC	48XKAC45	Dipole	I-PEX	
4	4	4	-	WNC	48XKAC46	Dipole	I-PEX	
5	-	-	1	WNC	48XKAC3G	Dipole	I-PEX	WLAN 6GHz
6	-	-	2	WNC	48XKAC3G	Dipole	I-PEX	
7	-	-	3	WNC	48XKAC3G	Dipole	I-PEX	
8	-	-	4	WNC	48XKAC3N	Dipole	I-PEX	
9	-	5	-	WNC	48XKAC3H	Dipole	I-PEX	WLAN 5GHz UNII 2C
10	-	-	-	WNC	48XKAC3L	Dipole	I-PEX	WWAN full band
11	-	-	-	WNC	48XKAC3P	Dipole	I-PEX	
12	-	-	-	WNC	48XKAC3R	Dipole	I-PEX	WWAN dual band
13	-	-	-	WNC	48XKAC3X	Dipole	I-PEX	
14	-	-	-	WNC	48XKAC3J	Dipole	I-PEX	
15	-	-	-	WNC	48XKAC3K	Dipole	I-PEX	WWAN single band
16	-	-	-	WNC	48XKAC3Y	Dipole	I-PEX	
17	-	-	-	WNC	48XKAC3Z	Dipole	I-PEX	

Note 1: <WLAN Antenna Gain>

Ant.	Antenna Gain (dBi)								
	2.4GHz	5GHz UNII 1	5GHz UNII 2A	5GHz UNII 2C	5GHz UNII 3	6GHz UNII 5	6GHz UNII 6	6GHz UNII 7	6GHz UNII 8
1	4.48	4.76	4.98	5.04	4.67	-	-	-	-
2	3.97	2.47	3.56	5.02	5.63	-	-	-	-
3	3.69	3.02	3.54	4.16	4.1	-	-	-	-
4	2.02	2.2	3.17	4.01	3.22	-	-	-	-
5	-	-	-	-	-	5.53	5.69	6.01	6.01
6	-	-	-	-	-	4.52	2.62	2.86	3.33
7	-	-	-	-	-	2.55	3.17	3.17	3.73
8	-	-	-	-	-	4.07	3.97	3.97	2.64
9	-	-	-	4.54	-	-	-	-	-

<Directional Gain>

Item	Directional Gain (dBi)				
	2.4GHz	5GHz UNII 1	5GHz UNII 2A	5GHz UNII 2C	5GHz UNII 3
4T1S	6.22	5.96	6.11	5.91	6.41

<WWAN Antenna Gain>

Freq.	Antenna Gain (dBi)							
	700 MHz	780 MHz	850 MHz	1800 MHz	2100 MHz	2300 MHz	3300 MHz	4200 MHz
10	1.7	2.1	3.8	2.8	2.6	5.6	5.0	2.2
11	2.2	2.8	0.9	3.9	2.4	3.9	4.5	3.4
Freq.	1800 MHz	2100 MHz	2300 MHz	3300 MHz	4200 MHz			
12	4.1	3.2	3.3	2.8	3.1			
13	3.3	4.1	4.2	3.6	3.5			
14	2.8	3.6	2.7	5.2	4.5			
Freq.	3300 MHz				4200 MHz			
15	4.2				3.6			
16	4.2				3.7			
17	3.0				3.0			



Note1: The above information (except Ant.1~4 antenna gain) was declared by manufacturer.

Note2: WLAN 2.4GHz/5GHz directional gain is measured which follows the procedure of KDB 662911 D03.

Note3: **For WLAN 2.4GHz function:**

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

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

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

For WLAN 5GHz function:

For IEEE 802.11a/n/ac/ax (4TX/5RX that it includes 1RX for UNII 2C):

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

Port 1, Port 2, Port 3, Port 4 and Port 5 could transmit/receive simultaneously.

For WLAN 6GHz function:

For IEEE 802.11ax (4TX/4RX):

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

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

1.1.3 Mode Test Duty Cycle

Non-beamforming mode

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20	0.992	0.03	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40	0.992	0.03	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW80	0.992	0.03	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW160	0.992	0.03	n/a (DC>=0.98)	n/a (DC>=0.98)

Beamforming mode

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20-BF	0.947	0.24	2.925m	1k
802.11ax HEW40-BF	0.964	0.16	4.357m	300
802.11ax HEW80-BF	0.801	0.96	1.734m	1k
802.11ax HEW160-BF	0.46	3.37	910u	3k

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	The product has beamforming function for 11n/VHT/ax in 2.4GHz, 11n/ac/ax in 5GHz and ax in 6GHz.			
Device Type	<input checked="" type="checkbox"/>	Indoor Access Point	<input type="checkbox"/>	Subordinate
	<input type="checkbox"/>	Indoor Client	<input type="checkbox"/>	Standard Power Access Point
	<input type="checkbox"/>	Dual Client	<input type="checkbox"/>	Standard Client
	<input type="checkbox"/>	Fixed Client		
Test Software Version	Mtool_3.2.1.4			



Software / Firmware Version for CBP	3.12504020120.015
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Note: The above information was declared by manufacturer.

1.1.5 Table for Certified WWAN Module Information

Brand Name	Model Name	FCC ID	Bands
WNC	IMQC	NKRIMQC	4G Band (LTE): B2/B5/B12/B14/B30/B66 5G Band (NR): n2/n5/n12/n30/n66/n77(3450~3550MHz)/n77(3700~3980MHz)

Note: The above information was declared by manufacturer.

1.1.6 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: 280117

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

Modifications	Performance Checking
1. Adding UNII 2A and UNII 2C (5250~5350 MHz, 5470~5725 MHz) for this device. 2. Changing the measurement method of Ant.1~4 antenna gain.	After evaluating, it doesn't affect the test result of this test report.
3. Adding UNII 5~8 (5925~7125 MHz) for this device. 4. Adding 160MHz for this device. 5. Adding beamforming function for this device.	All of the 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	TH02-CB	Jay Lo	23.1-23.9 / 52-59	Aug. 04, 2022~ Sep. 19, 2022
Radiated Below 1GHz	03CH05-CB	Simon Cheng	23.8~24.9 / 55~58	Sep. 01, 2022~ Sep. 06, 2022
Radiated Above 1GHz	03CH02-CB	Stim Sung	25.1~25.7 / 61~64	Aug. 12, 2022~ Sep. 16, 2022
	03CH03-CB		24.9~26.7 / 61~64	
	03CH04-CB		24.6~25.8 / 63~65	
AC Conduction	CO02-CB	Peter Wu	23~24 / 58~59	Sep. 02, 2022
RF Conducted <Contention-Based Protocol test>	DF02-CB	Kevin Huang	24.9~26.1 / 60~63	Aug. 16, 2022~ Aug. 17, 2022
Radiated (Maximum Equivalent Isotopically Radiated Power and Peak Power Spectral Density Tests)	03CH04-CB	Bruce Young	24~25.2 / 62~64	Aug. 13, 2022~ Sep. 01, 2022



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)	3.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%
Conducted Emission	3.2 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.2 dB	Confidence levels of 95%
Bandwidth Measurement	2.0 %	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Non-beamforming mode

Mode	Power Setting
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5955MHz	43
6175MHz	40
6415MHz	36
6435MHz	37
6475MHz	37
6515MHz	39
6535MHz	38
6695MHz	38
6855MHz	38
6875MHz Straddle 6.525-6.875GHz	39
6895MHz	39
6995MHz	43
7095MHz	44
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5965MHz	56
6165MHz	51
6405MHz	48
6445MHz	48
6485MHz	48
6525MHz Straddle 6.425-6.525GHz	49
6565MHz	49
6685MHz	47
6845MHz	46
6885MHz Straddle 6.525-6.875GHz	50
6925MHz	52
7005MHz	54
7085MHz	56
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5985MHz	66
6145MHz	65
6385MHz	62
6465MHz	60
6545MHz Straddle 6.425-6.525GHz	60



Mode	Power Setting
6625MHz	67
6705MHz	56
6785MHz	57
6865MHz Straddle 6.525-6.875GHz	60
6945MHz	66
7025MHz	66
802.11ax HEW160_Nss1,(MCS0)_4TX	-
6025MHz	74
6185MHz	73
6345MHz	74
6505MHz Straddle 6.425-6.525GHz	74
6665MHz	75
6825MHz Straddle 6.525-6.875GHz	73
6985MHz	77

Beamforming mode

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5955MHz	41
6175MHz	44
6415MHz	38
6435MHz	33
6475MHz	35
6515MHz	36
6535MHz	37
6695MHz	34
6855MHz	39
6875MHz Straddle 6.525-6.875GHz	34
6895MHz	35
6995MHz	36
7095MHz	37
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5965MHz	52
6165MHz	48
6405MHz	48
6445MHz	47
6485MHz	48
6525MHz Straddle 6.425-6.525GHz	44
6565MHz	49



Mode	Power Setting
6685MHz	46
6845MHz	54
6885MHz Straddle 6.525-6.875GHz	45
6925MHz	47
7005MHz	44
7085MHz	48
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5985MHz	61
6145MHz	54
6385MHz	59
6465MHz	60
6545MHz Straddle 6.425-6.525GHz	59
6625MHz	60
6705MHz	52
6785MHz	50
6865MHz Straddle 6.525-6.875GHz	57
6945MHz	54
7025MHz	56
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-
6025MHz	67
6185MHz	62
6345MHz	62
6505MHz Straddle 6.425-6.525GHz	61
6665MHz	62
6825MHz Straddle 6.525-6.875GHz	67
6985MHz	64



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	Normal Link
1	EUT_WLAN 2.4GHz+5GHz+6GHz+LTE Band2 link
2	EUT_WLAN 2.4GHz+5GHz+6GHz+5G NR n77 link
For operating mode 1 is the worst case and it was record in this test report.	

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 The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at X axis. So 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	Normal Link
1	EUT in X axis_ WLAN 2.4GHz+5GHz+6GHz+LTE Band2 link
2	EUT in Y axis_ WLAN 2.4GHz+5GHz+6GHz+LTE Band2 link
3	EUT in Z axis_ WLAN 2.4GHz+5GHz+6GHz+LTE Band2 link
Mode 2 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4 will follow this same test mode.	
4	EUT in Y axis_ WLAN 2.4GHz+5GHz+6GHz+5G NR n77 link
For operating mode 2 is the worst case and it was record in this test report.	



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. So the measurement will follow this same test configuration.
1	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 + WWAN
Refer to Sporton Test Report No.: FA280117-01 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

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

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under Mtool_3.2.1.4.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by WLAN module and transmit duty cycle no less than 98%.

For Normal Link:

During the test, the EUT operation to normal function.



2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
AC Adapter	AT&T	EPS72R0-16	INPUT: 120V~1.8A, 60Hz OUTPUT: 12V, 6A, 72W

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Flash disk3.0	Transcend	JetFlash-700	N/A
B	LAN1 10G PC	DELL	T3400	N/A
C	LAN2 2.5G PC	DELL	T3400	N/A
D	ont port 10G PC	DELL	T3400	N/A
E	Ethernet Switch	QNAP	QSW-2104-2S	N/A
F	LAN2 2.5G NB	DELL	E6430	N/A
G	2.4G NB	DELL	E6430	N/A
H	5G NB	DELL	E6430	N/A
I	6E NB	DELL	E6430	N/A
J	LTE+5G NR Base station	Anritsu	MT8821C	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN1 10G PC	DELL	T3400	N/A
B	LAN2 10G PC	DELL	T3400	N/A
C	10G PC Switch LAN	DELL	T3400	N/A
D	2.4G NB	DELL	E4300	N/A
E	5G NB	DELL	E4300	N/A
F	6E NB	DELL	E4300	N/A
G	5G NR Base Station	Anritsu	MT8000A	N/A
H	SIM Card	Anritsu	N/A	N/A
I	Flash disk3.0	Silicon Power	B06	N/A
J	Switch	QNAP	QSW-2104-2S	N/A



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

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

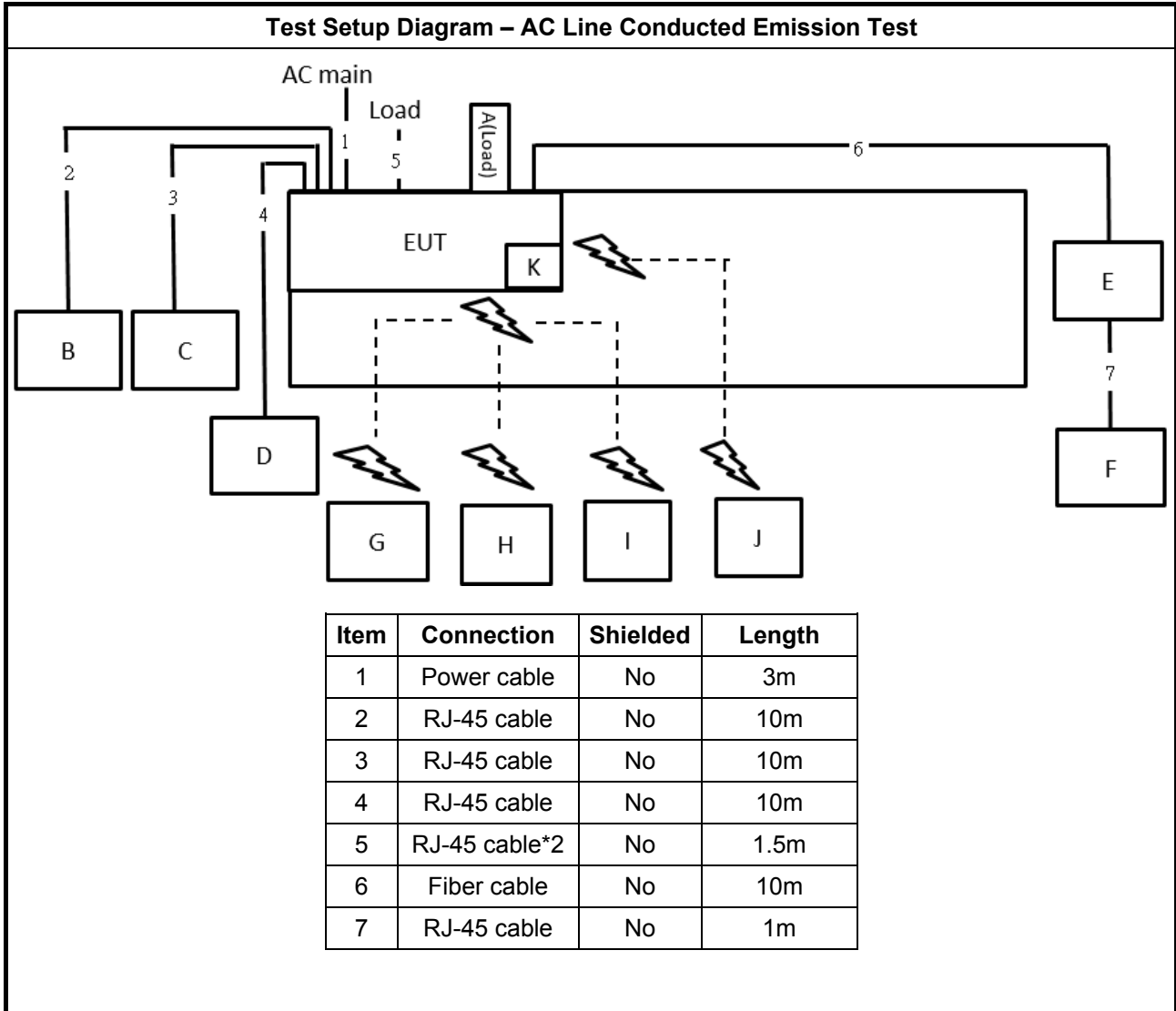
Beamforming mode

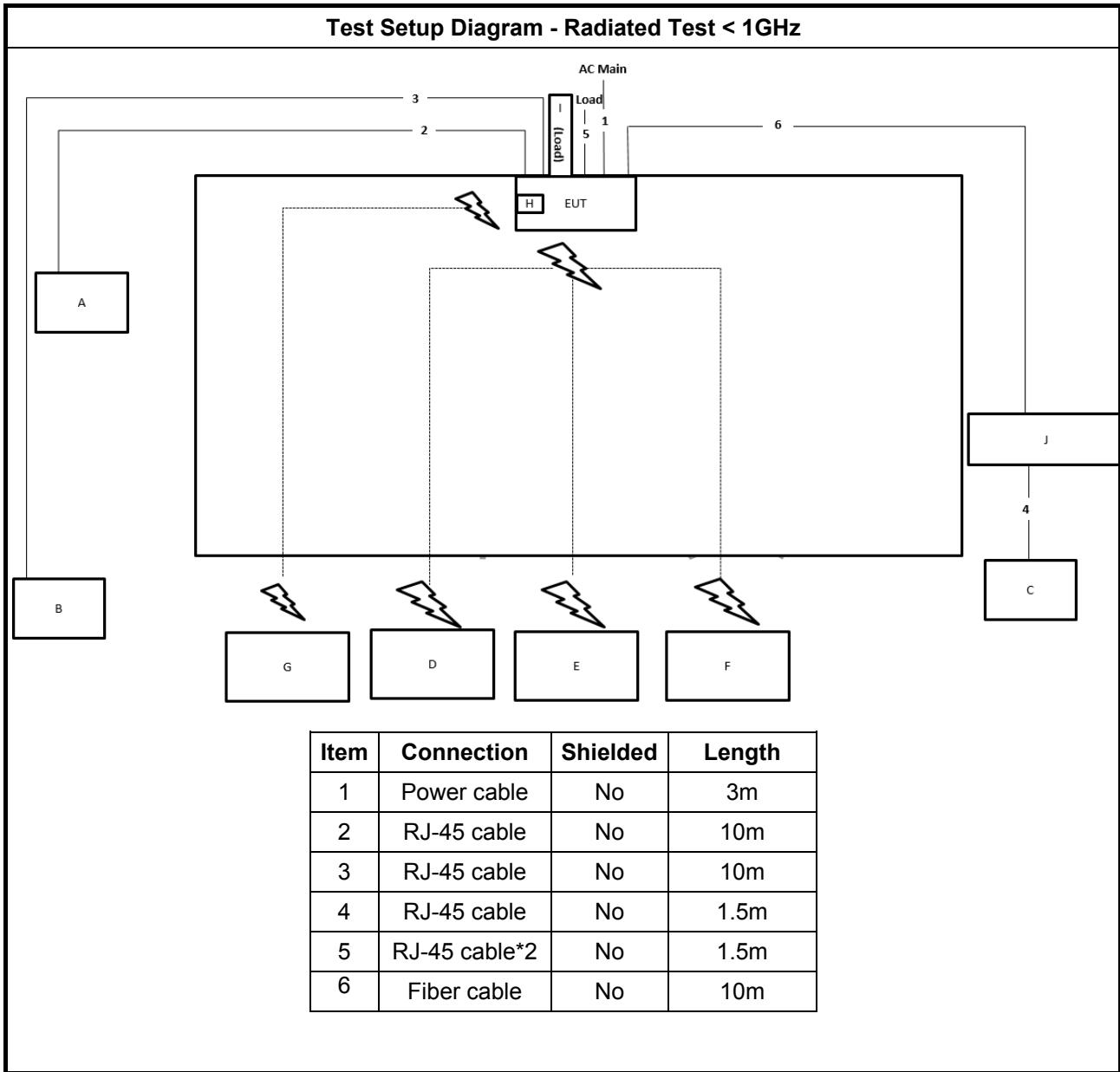
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	WLAN module	Intel	AX210NGW	PD9AX210NG

For RF Conducted, Maximum Equivalent Isotropically Radiated Power and Peak Power Spectral Density:

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

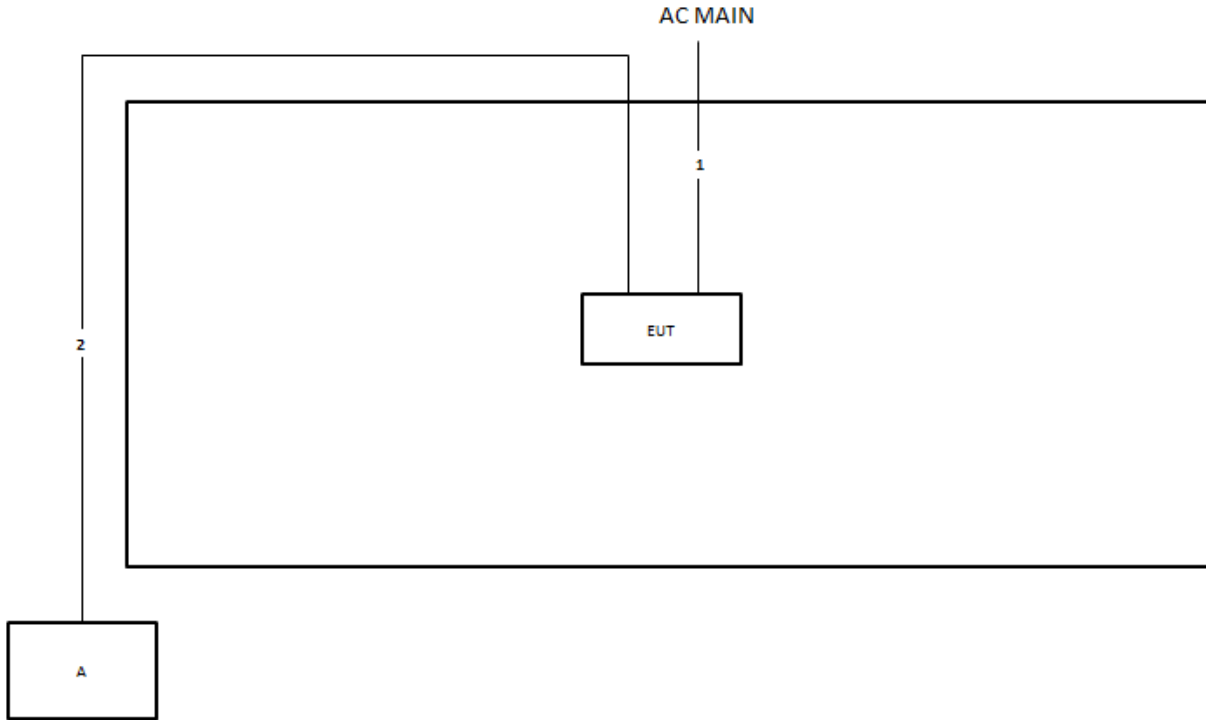
2.6 Test Setup Diagram





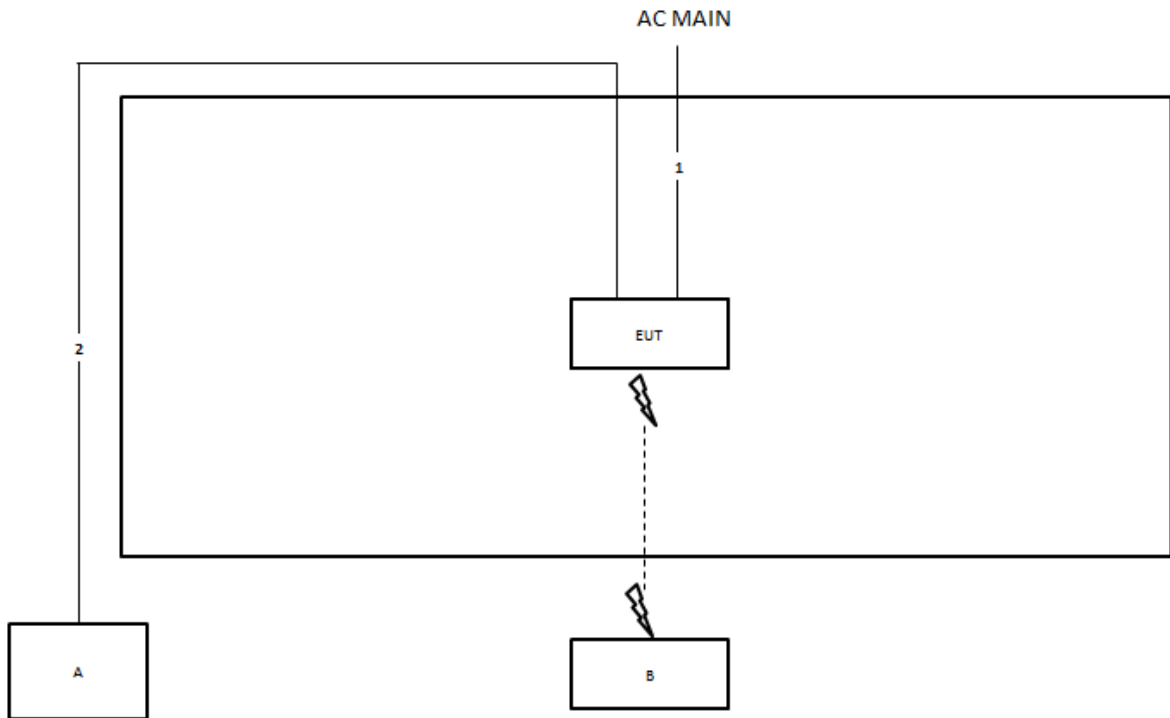


**Test Setup Diagram - Radiated Test > 1GHz
Non-beamforming mode**



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

**Test Setup Diagram - Radiated Test > 1GHz
Beamforming mode**



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



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.

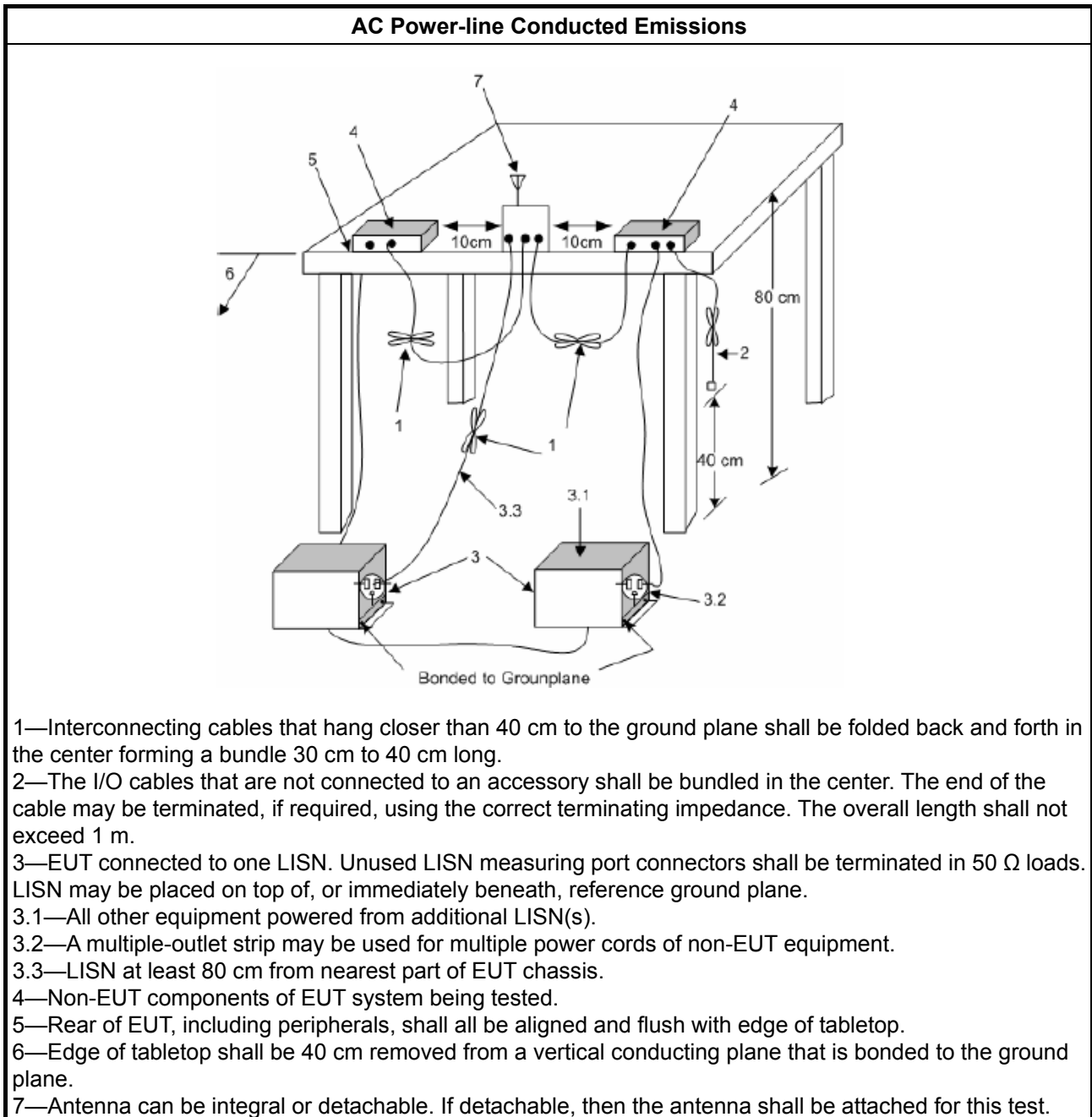
3.1.2 Measuring Instruments

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

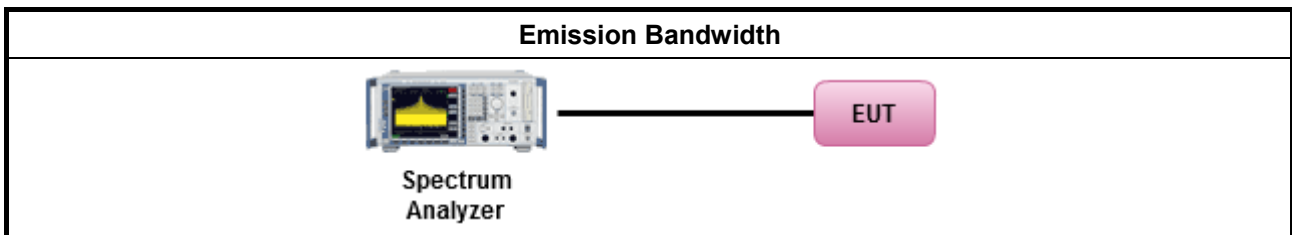
3.2.2 Measuring Instruments

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 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 RLAN devices(Indoor) other than client devices < 30 dBm / occupied bandwidth. ▪ For client devices(Indoor) < 24 dBm / occupied bandwidth.



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 factor)

where;

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

LP : Free Space Loss(dB)

PR Formula :

PR(dBm) = P 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)

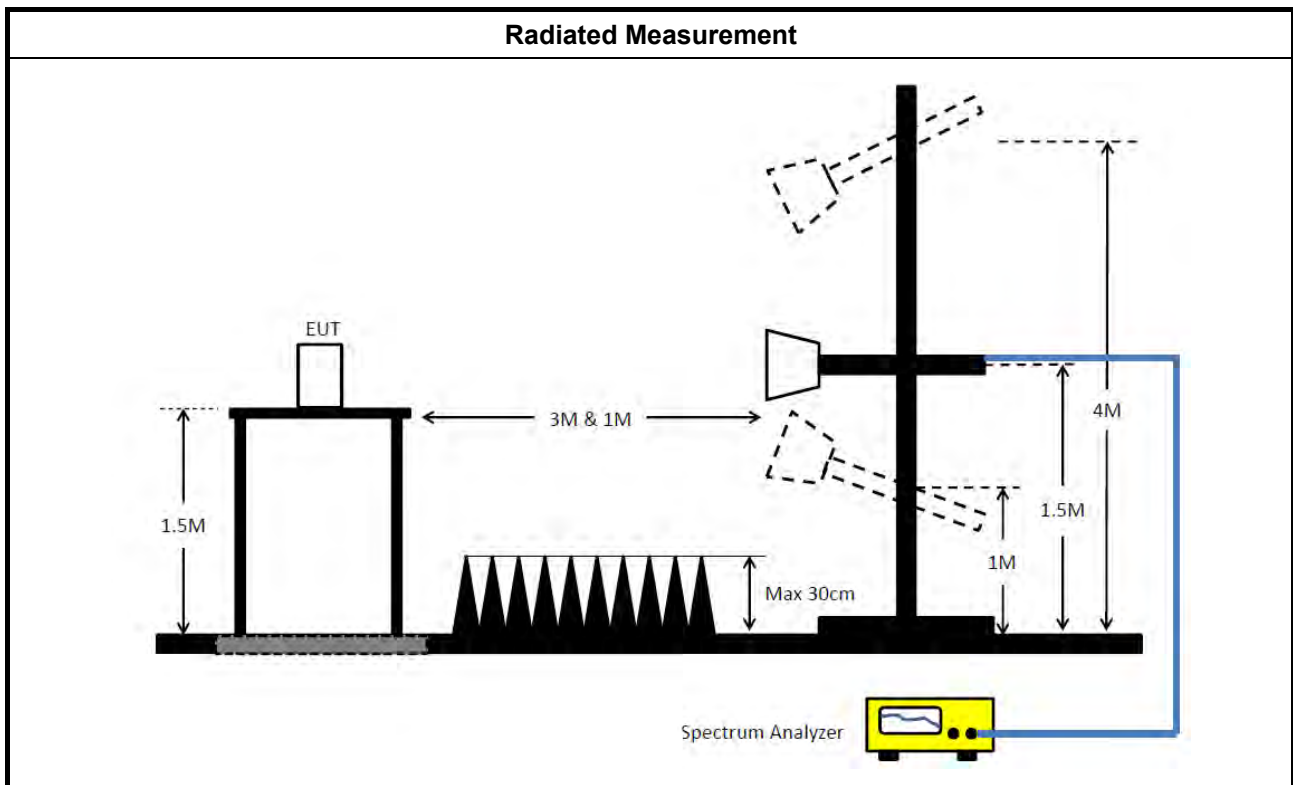
LP(FSL factor) Formula :
 $LP(dB) = 20 \log F + 20 \log D - 27.54$
 where;
 F(MHz) : EUT center frequency
 D(m) : Measurement distance

For Example:
 Test mode HE20 Non BF 4T1S 6175MHz EIRP measurement
 PR Formula :
 $PR(dBm) = -38.16 - 10.47 + 4.76 = -43.88$

LP(FSL factor) Formula :
 $LP(dB) = 20 \log(5955) + 20 \log(3) - 27.5 = 57.86$

EIRP Formula :
 $EIRP(dBm) = -43.88 + 57.86 = 13.98$

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 RLAN devices(Indoor) other than client devices < 5 dBm / MHz. ▪ For client devices(Indoor) < -1 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 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: <ul style="list-style-type: none"> <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. ▪ 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.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing" ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.



Test Method	
	▪ Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

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 HE20 Non BF 4T1S 6175MHz EIRP PSD measurement

PR Formula :

$$\text{PR(dBm/MHz)} = -47.19 - 10.47 + 4.76 = -52.90$$

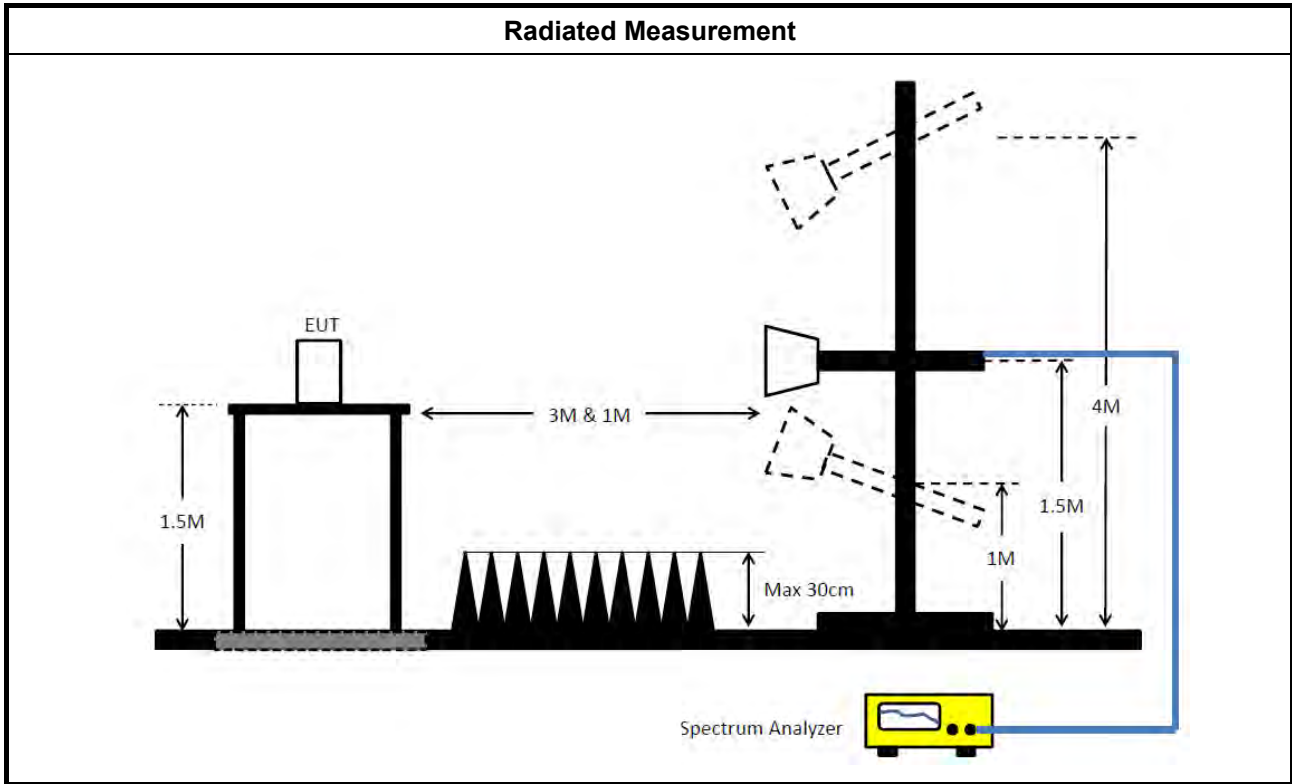
LP(FSL factor) Formula :

$$\text{LP(dB)} = 20 \log(5953.5) + 20 \log(3) - 27.5 = 57.85$$

EIRP PSD Formula

$$\text{EIRP PSD(dBm/MHz)} = -52.90 + 57.85 = 4.95$$

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).

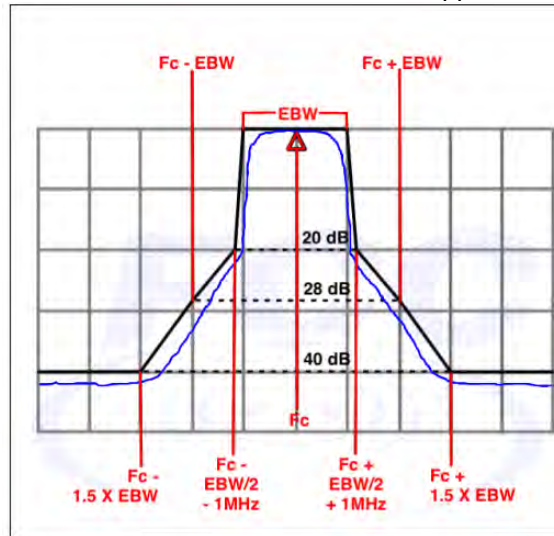
Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, 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	e.i.r.p. -27 dBm [68.2 dBuV/m@3m] 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) = $68.2\text{dBuV/m at } 3\text{m} + 9.54\text{dB} = 77.74\text{ dBuV/m at } 1\text{m}$. Note 2:-27 dBm EIRP OBE 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.
Frequency	Emission MASK Limit

5.945 – 7.125 GHz

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.





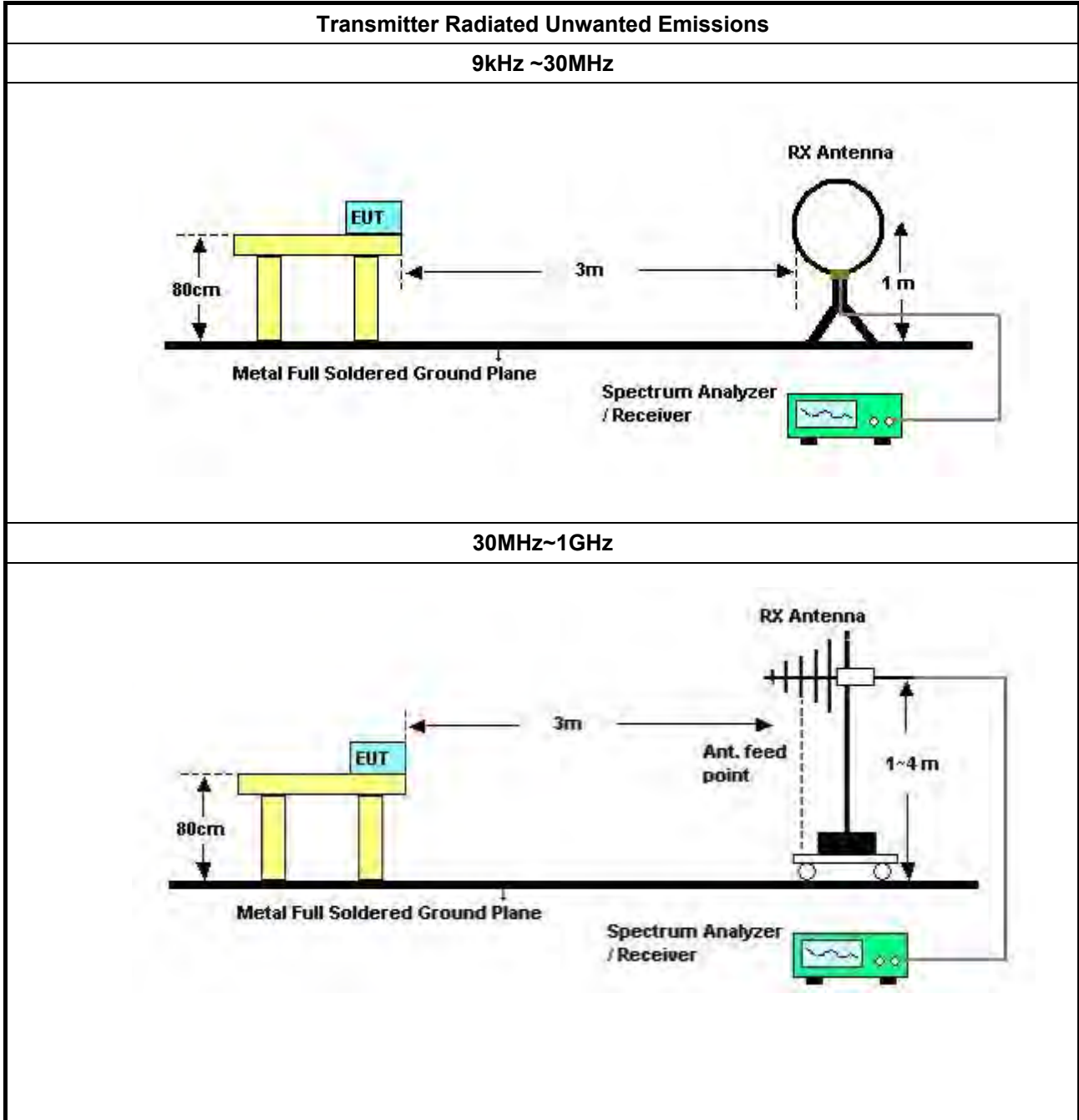
3.5.2 Measuring Instruments

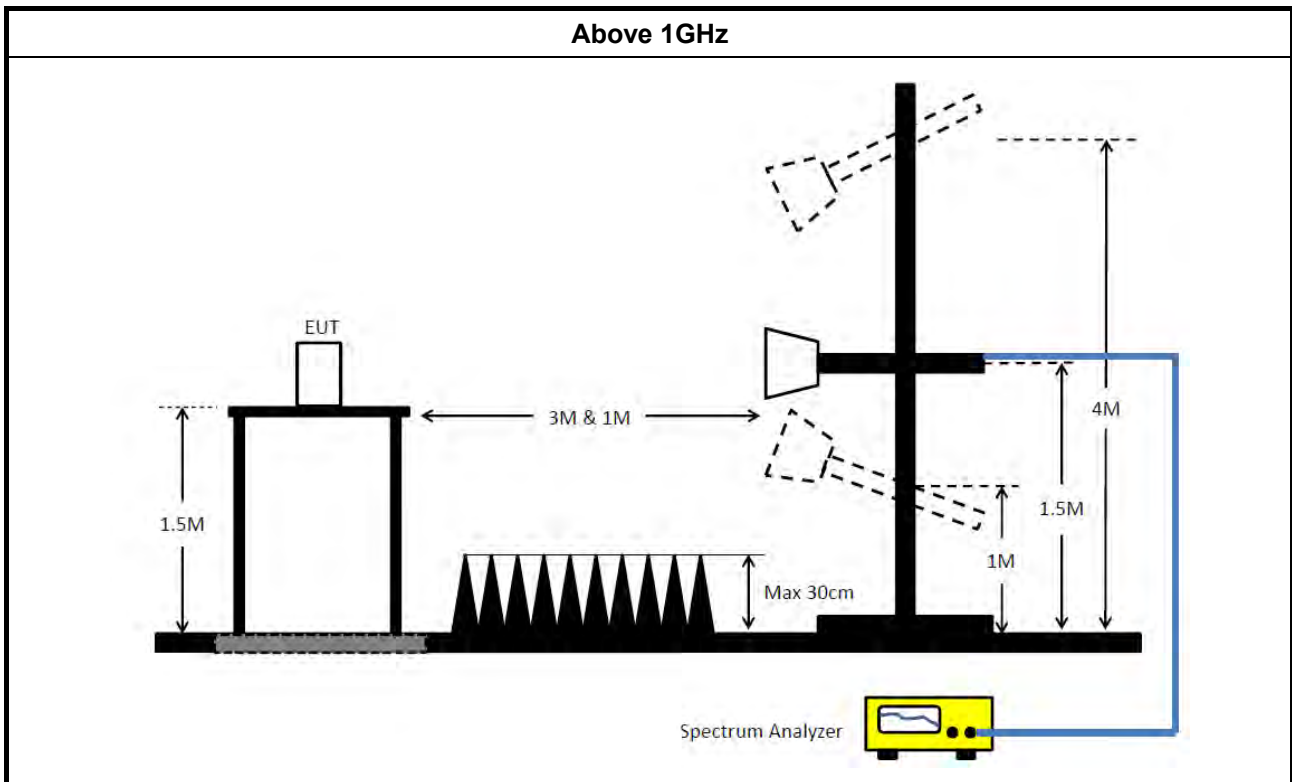
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ According to 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 draft 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.
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
<ul style="list-style-type: none"> ▪ The any unwanted emissions level shall not exceed the fundamental emission level. 	
<ul style="list-style-type: none"> ▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported. 	

3.5.4 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.

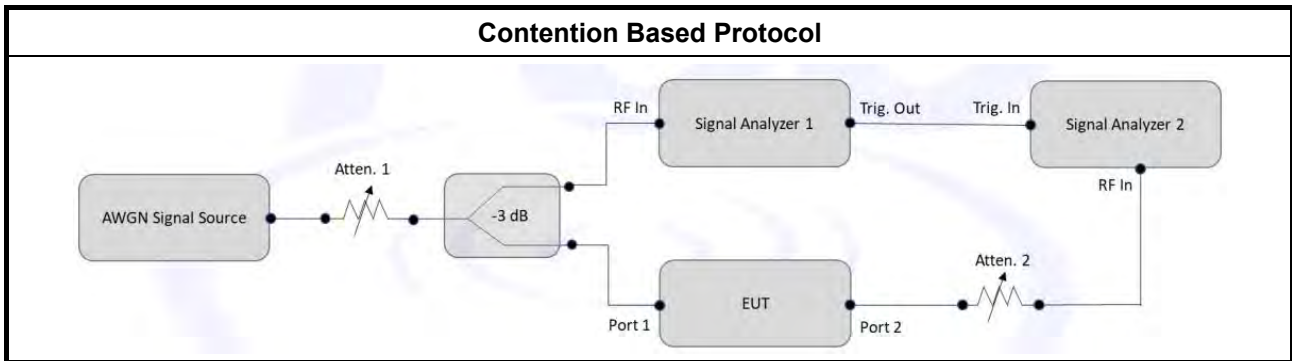
3.6.2 Measuring Instruments

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 draft KDB 987594 D02, I) In-Band Emissions

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.

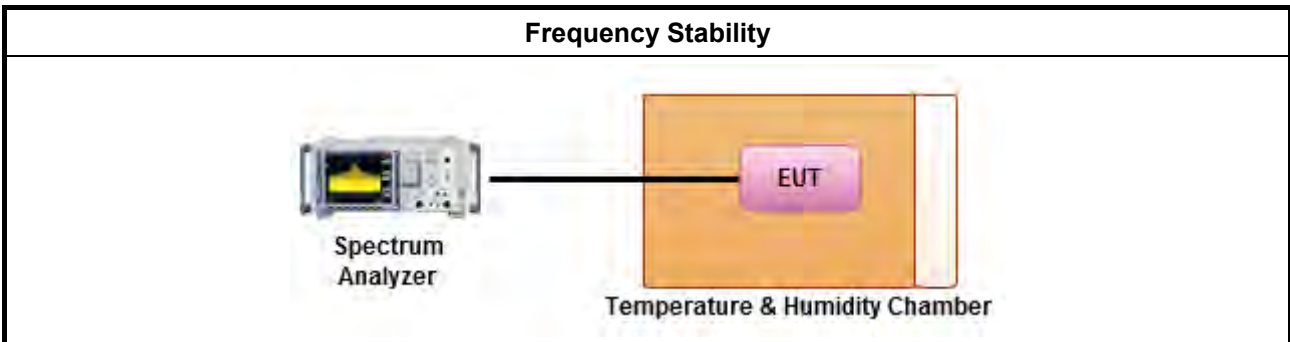
3.7.2 Measuring Instruments

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
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Dec. 22, 2021	Dec. 21, 2022	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	May 06, 2022	May 05, 2023	Conduction (CO02-CB)
COND Cable	Woken	Cable	2	0.15MHz ~ 30MHz	Oct. 19, 2021	Oct. 18, 2022	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F-N	00378	9kHz ~ 30MHz	Mar. 18, 2022	Mar. 17, 2023	Conduction (CO02-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO02-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	May 14, 2022	May 13, 2023	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 03, 2022	Aug. 02, 2023	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 25, 2022	Mar. 24, 2023	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Mar. 14, 2022	Mar. 13, 2023	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz	Mar. 26, 2022	Mar. 25, 2023	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 19, 2022	Apr. 18, 2023	Radiation (03CH02-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jul. 05, 2022	Jul. 04, 2023	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH02-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 20, 2022	Jul. 19, 2023	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSU	100015	9kHz~26GHz	Oct. 25, 2021	Oct. 24, 2022	Radiation (03CH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH02-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 05, 2022	May 04, 2023	Radiation (03CH03-CB)
Horn Antenna	ETS • Lindgren	3115	6821	750MHz~18GHz z	Jan. 21, 2022	Jan. 20, 2023	Radiation (03CH03-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jul. 05, 2022	Jul. 04, 2023	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 20, 2022	Jul. 19, 2023	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 10, 2022	Jun. 09, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	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	03CH04-CB	1GHz ~18GHz 3m	Feb. 24, 2022	Feb. 23, 2023	Radiation (03CH04-CB)
Horn Antenna	ETS • Lindgren	3115	00143147	750MHz~18GHz z	Oct. 25, 2021	Oct. 24, 2022	Radiation (03CH04-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jul. 05, 2022	Jul. 04, 2023	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 20, 2022	Jul. 19, 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 28, 2022	Mar. 27, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Apr. 26, 2022	Apr. 25, 2023	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GH z	Oct. 25, 2021	Oct. 24, 2022	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GH z	Oct. 25, 2021	Oct. 24, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-03-P1	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-03-P2	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-03-P3	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-03-P4	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-03-P5	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)
Spectrum Analyzer	R&S	FSV40	101025	9kHz ~ 40GHz	Nov. 06, 2021	Nov. 05, 2022	Conducted (DF02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Vector Signal generator	R&S	SMW200A	109426	100kHz- 7.5GHz	Dec. 28, 2021	Dec. 27, 2022	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -07	1GHz ~ 8GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Power Divider	STI	2 Way	DV-2way -08	1GHz ~ 8GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-61	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-62	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-63	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
RF Cable-high	Woken	RG402	High Cable-66	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (DF02-CB)
100MS/s Digitizer	N.I	USB-5133	F65206	N/A	Nov. 25, 2021	Nov. 24, 2022	Conducted (DF02-CB)

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

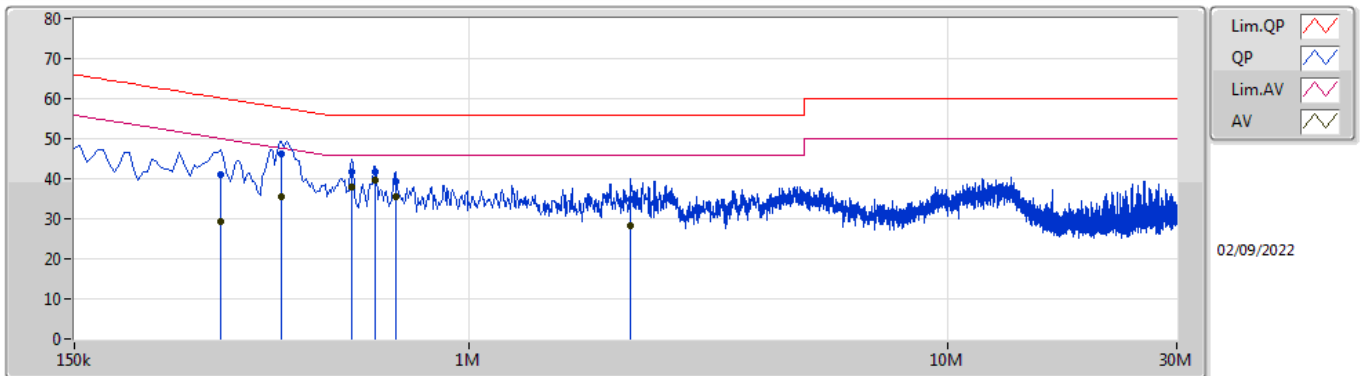
NCR means Non-Calibration required.



Summary

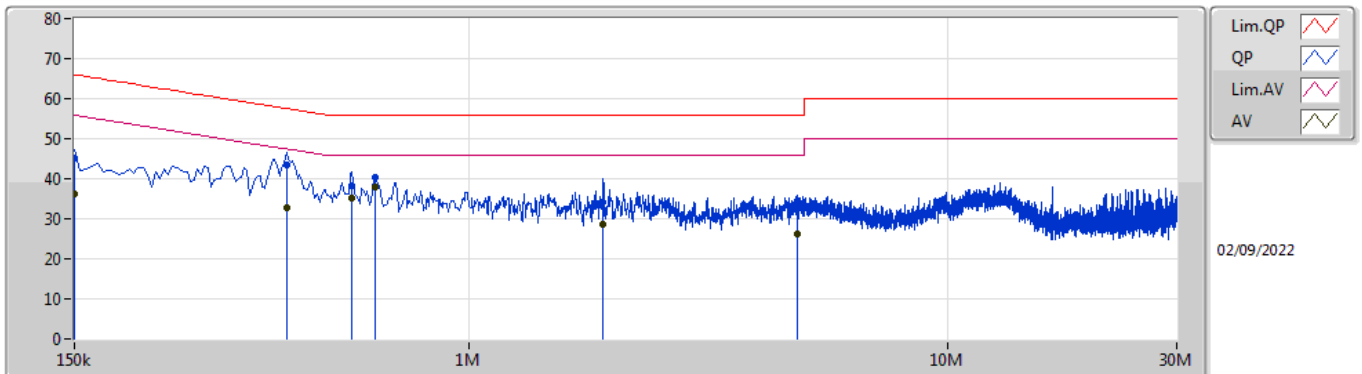
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	636k	39.49	46.00	-6.51	Line

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	303k	41.07	60.17	-19.10	10.23	Line	-	30.84	0.12	0.02	10.09
AV	303k	29.19	50.17	-20.98	10.23	Line	-	18.96	0.12	0.02	10.09
QP	406.5k	46.11	57.72	-11.61	10.25	Line	-	35.86	0.12	0.02	10.11
AV	406.5k	35.41	47.72	-12.31	10.25	Line	-	25.16	0.12	0.02	10.11
QP	568.5k	41.74	56.00	-14.26	10.27	Line	-	31.47	0.13	0.02	10.12
AV	568.5k	38.09	46.00	-7.91	10.27	Line	-	27.82	0.13	0.02	10.12
QP	636k	41.74	56.00	-14.26	10.28	Line	-	31.46	0.13	0.02	10.13
AV	636k	39.49	46.00	-6.51	10.28	Line	"Worst"	29.21	0.13	0.02	10.13
QP	703.5k	39.41	56.00	-16.59	10.28	Line	-	29.13	0.13	0.02	10.13
AV	703.5k	35.65	46.00	-10.35	10.28	Line	-	25.37	0.13	0.02	10.13
QP	2.175M	34.70	56.00	-21.30	10.38	Line	-	24.32	0.18	0.05	10.15
AV	2.175M	28.39	46.00	-17.61	10.38	Line	-	18.01	0.18	0.05	10.15

Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	150k	45.20	66.00	-20.80	10.29	Neutral	-	34.91	0.16	0.02	10.11
AV	150k	36.34	56.00	-19.66	10.29	Neutral	-	26.05	0.16	0.02	10.11
QP	415.5k	43.35	57.53	-14.18	10.29	Neutral	-	33.06	0.16	0.02	10.11
AV	415.5k	32.83	47.53	-14.70	10.29	Neutral	-	22.54	0.16	0.02	10.11
QP	568.5k	38.38	56.00	-17.62	10.30	Neutral	-	28.08	0.16	0.02	10.12
AV	568.5k	35.14	46.00	-10.86	10.30	Neutral	-	24.84	0.16	0.02	10.12
QP	636k	40.50	56.00	-15.50	10.32	Neutral	-	30.18	0.17	0.02	10.13
AV	636k	37.94	46.00	-8.06	10.32	Neutral	"Worst"	27.62	0.17	0.02	10.13
QP	1.905M	34.14	56.00	-21.86	10.39	Neutral	-	23.75	0.19	0.05	10.15
AV	1.905M	28.68	46.00	-17.32	10.39	Neutral	-	18.29	0.19	0.05	10.15
QP	4.848M	32.36	56.00	-23.64	10.49	Neutral	-	21.87	0.23	0.07	10.19
AV	4.848M	26.12	46.00	-19.88	10.49	Neutral	-	15.63	0.23	0.07	10.19

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	27.93M	19.28M	19M3D1D	22.38M	19.19M
802.11ax HEW40_Nss1,(MCS0)_4TX	49.02M	38.201M	38M2D1D	41.7M	38.081M
802.11ax HEW80_Nss1,(MCS0)_4TX	89.52M	78.081M	78M1D1D	83.16M	77.841M
802.11ax HEW160_Nss1,(MCS0)_4TX	227.28M	158.081M	158MD1D	164.64M	156.882M
6.425-6.525GHz	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	28.14M	19.31M	19M3D1D	22.26M	19.22M
802.11ax HEW40_Nss1,(MCS0)_4TX	46.38M	38.201M	38M2D1D	41.16M	38.081M
802.11ax HEW80_Nss1,(MCS0)_4TX	85.44M	78.201M	78M2D1D	82.44M	77.721M
802.11ax HEW160_Nss1,(MCS0)_4TX	165.6M	157.601M	158MD1D	164.4M	156.882M
6.525-6.875GHz	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	27.48M	19.31M	19M3D1D	22.92M	19.19M
802.11ax HEW40_Nss1,(MCS0)_4TX	45.6M	38.261M	38M3D1D	41.64M	38.081M
802.11ax HEW80_Nss1,(MCS0)_4TX	90.6M	78.201M	78M2D1D	82.44M	77.961M
802.11ax HEW160_Nss1,(MCS0)_4TX	165.84M	157.841M	158MD1D	165.12M	156.882M
6.875-7.125GHz	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	27.84M	19.31M	19M3D1D	23.13M	19.22M
802.11ax HEW40_Nss1,(MCS0)_4TX	48M	38.261M	38M3D1D	41.58M	38.081M
802.11ax HEW80_Nss1,(MCS0)_4TX	87.12M	78.201M	78M2D1D	82.68M	77.721M
802.11ax HEW160_Nss1,(MCS0)_4TX	165.6M	157.601M	158MD1D	164.64M	157.361M

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)
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5955MHz	Pass	Inf	23.7M	19.22M	22.53M	19.19M	22.68M	19.22M	26.97M	19.28M
6175MHz	Pass	Inf	22.44M	19.25M	22.8M	19.22M	22.38M	19.22M	23.49M	19.22M
6415MHz	Pass	Inf	27.93M	19.25M	26.43M	19.25M	22.8M	19.22M	25.59M	19.28M
6435MHz	Pass	Inf	24.72M	19.25M	24.3M	19.22M	23.73M	19.25M	28.14M	19.28M
6475MHz	Pass	Inf	24.27M	19.22M	25.77M	19.25M	25.14M	19.25M	24.33M	19.31M
6515MHz	Pass	Inf	22.26M	19.22M	22.8M	19.28M	23.97M	19.25M	24.78M	19.31M
6535MHz	Pass	Inf	25.74M	19.25M	23.34M	19.28M	25.02M	19.19M	22.98M	19.28M
6695MHz	Pass	Inf	22.92M	19.22M	27.48M	19.28M	24.78M	19.25M	25.29M	19.25M
6855MHz	Pass	Inf	25.77M	19.25M	26.67M	19.25M	26.49M	19.25M	23.61M	19.31M
6875MHz Straddle 6.525-6.875GHz	Pass	Inf	24.06M	19.28M	26.91M	19.25M	24.96M	19.25M	26.88M	19.31M
6895MHz	Pass	Inf	25.59M	19.25M	24.09M	19.28M	26.46M	19.25M	27.6M	19.31M
6995MHz	Pass	Inf	23.64M	19.31M	23.79M	19.28M	27.42M	19.22M	23.13M	19.25M
7095MHz	Pass	Inf	27.84M	19.28M	27M	19.28M	24.54M	19.28M	23.25M	19.31M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5965MHz	Pass	Inf	49.02M	38.141M	42.72M	38.081M	43.08M	38.201M	44.58M	38.141M
6165MHz	Pass	Inf	43.86M	38.141M	41.7M	38.081M	42.78M	38.141M	42.24M	38.201M
6405MHz	Pass	Inf	45.18M	38.201M	42.48M	38.141M	43.5M	38.141M	42.48M	38.081M
6445MHz	Pass	Inf	42.54M	38.141M	42.24M	38.201M	41.46M	38.201M	43.8M	38.141M
6485MHz	Pass	Inf	41.76M	38.201M	43.26M	38.201M	42.36M	38.141M	41.88M	38.141M
6525MHz Straddle 6.425-6.525GHz	Pass	Inf	45M	38.201M	46.38M	38.081M	41.16M	38.201M	42.3M	38.201M
6565MHz	Pass	Inf	42.12M	38.081M	44.46M	38.201M	44.22M	38.141M	43.62M	38.141M
6685MHz	Pass	Inf	43.08M	38.201M	43.08M	38.201M	41.94M	38.141M	41.64M	38.201M
6845MHz	Pass	Inf	42.6M	38.141M	42.24M	38.201M	42M	38.201M	43.56M	38.141M
6885MHz Straddle 6.525-6.875GHz	Pass	Inf	41.7M	38.261M	44.46M	38.141M	43.38M	38.141M	45.6M	38.141M
6925MHz	Pass	Inf	43.32M	38.201M	41.58M	38.201M	42.12M	38.141M	44.1M	38.081M
7005MHz	Pass	Inf	45.06M	38.081M	43.5M	38.141M	47.04M	38.261M	42.72M	38.201M
7085MHz	Pass	Inf	44.22M	38.261M	42.66M	38.141M	48M	38.261M	45.3M	38.261M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5985MHz	Pass	Inf	83.64M	77.841M	85.32M	77.961M	87.48M	77.841M	89.52M	78.081M
6145MHz	Pass	Inf	84M	77.961M	84.96M	77.841M	87.24M	77.961M	84.6M	78.081M
6385MHz	Pass	Inf	83.16M	77.961M	83.76M	78.081M	85.56M	77.961M	84.72M	78.081M
6465MHz	Pass	Inf	85.2M	77.961M	84.12M	77.721M	84.48M	78.081M	85.44M	77.961M
6545MHz Straddle 6.425-6.525GHz	Pass	Inf	85.08M	78.201M	84.24M	77.961M	82.44M	78.081M	85.08M	78.081M
6625MHz	Pass	Inf	83.76M	77.961M	84.36M	77.961M	84.72M	77.961M	85.44M	77.961M
6705MHz	Pass	Inf	84.6M	77.961M	83.16M	78.081M	84.6M	77.961M	85.8M	78.201M
6785MHz	Pass	Inf	86.16M	77.961M	84.48M	78.081M	85.8M	78.201M	87.72M	78.081M
6865MHz Straddle 6.525-6.875GHz	Pass	Inf	82.44M	77.961M	86.28M	78.081M	90.6M	77.961M	85.8M	78.081M
6945MHz	Pass	Inf	84.36M	78.081M	86.16M	78.201M	87.12M	78.201M	83.4M	78.201M
7025MHz	Pass	Inf	82.68M	78.081M	83.4M	78.081M	83.76M	77.721M	82.8M	77.841M
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
6025MHz	Pass	Inf	164.64M	157.121M	165.6M	156.882M	217.92M	157.121M	227.28M	157.361M
6185MHz	Pass	Inf	165.36M	158.081M	164.88M	157.361M	166.08M	157.601M	166.08M	157.361M
6345MHz	Pass	Inf	164.88M	157.361M	165.36M	157.361M	165.84M	157.121M	165.36M	157.601M
6505MHz Straddle 6.425-6.525GHz	Pass	Inf	164.64M	156.882M	164.88M	157.121M	165.6M	157.601M	164.4M	157.361M
6665MHz	Pass	Inf	165.12M	157.361M	165.12M	157.361M	165.84M	157.841M	165.6M	157.361M
6825MHz Straddle 6.525-6.875GHz	Pass	Inf	165.12M	157.361M	165.36M	156.882M	165.6M	157.121M	165.84M	157.121M
6985MHz	Pass	Inf	165.12M	157.361M	164.64M	157.361M	165.6M	157.601M	164.88M	157.361M

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

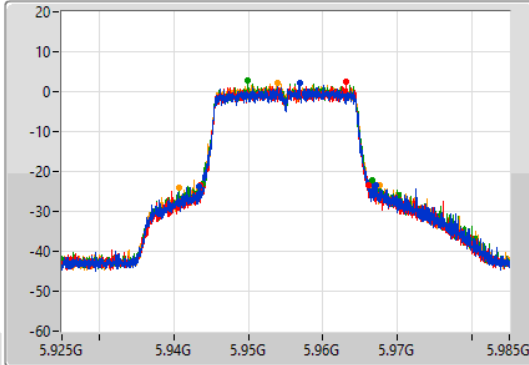
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

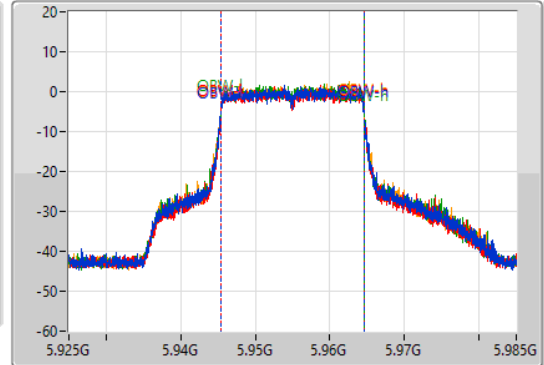
5955MHz

02/09/2022

CF
5.955GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.955GHz
Span
60MHz
RBW
300kHz
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
23.7M	5.94345G	5.96715G	19.22M	5.945375G	5.964595G	Inf	1
22.53M	5.94354G	5.96607G	19.19M	5.945405G	5.964595G	Inf	2
22.68M	5.94393G	5.96661G	19.22M	5.945375G	5.964595G	Inf	3
26.97M	5.94063G	5.9676G	19.28M	5.945345G	5.964625G	Inf	4

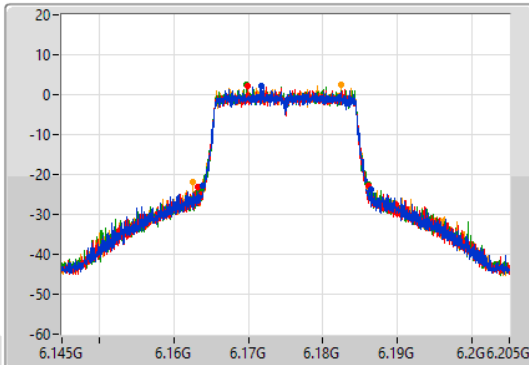
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

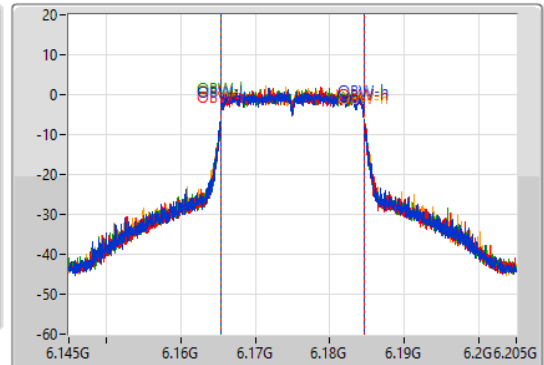
6175MHz

02/09/2022

CF
6.175GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
6.175GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

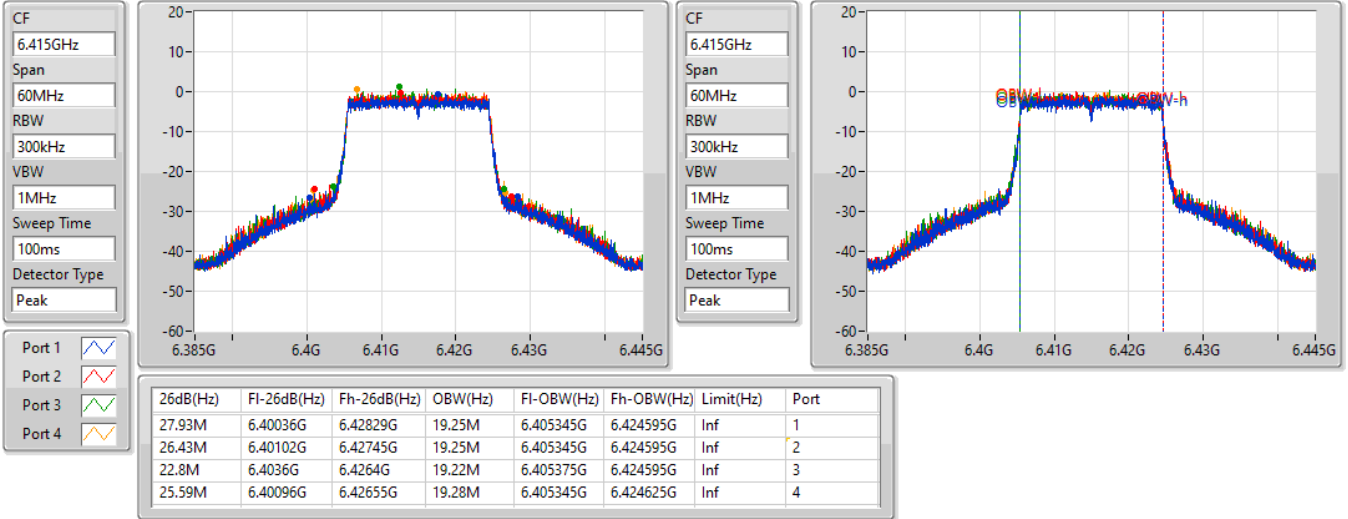
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.44M	6.16393G	6.18637G	19.25M	6.165345G	6.184595G	Inf	1
22.8M	6.16324G	6.18604G	19.22M	6.165375G	6.184595G	Inf	2
22.38M	6.16375G	6.18613G	19.22M	6.165345G	6.184565G	Inf	3
23.49M	6.16258G	6.18607G	19.22M	6.165375G	6.184595G	Inf	4

802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6415MHz

02/09/2022

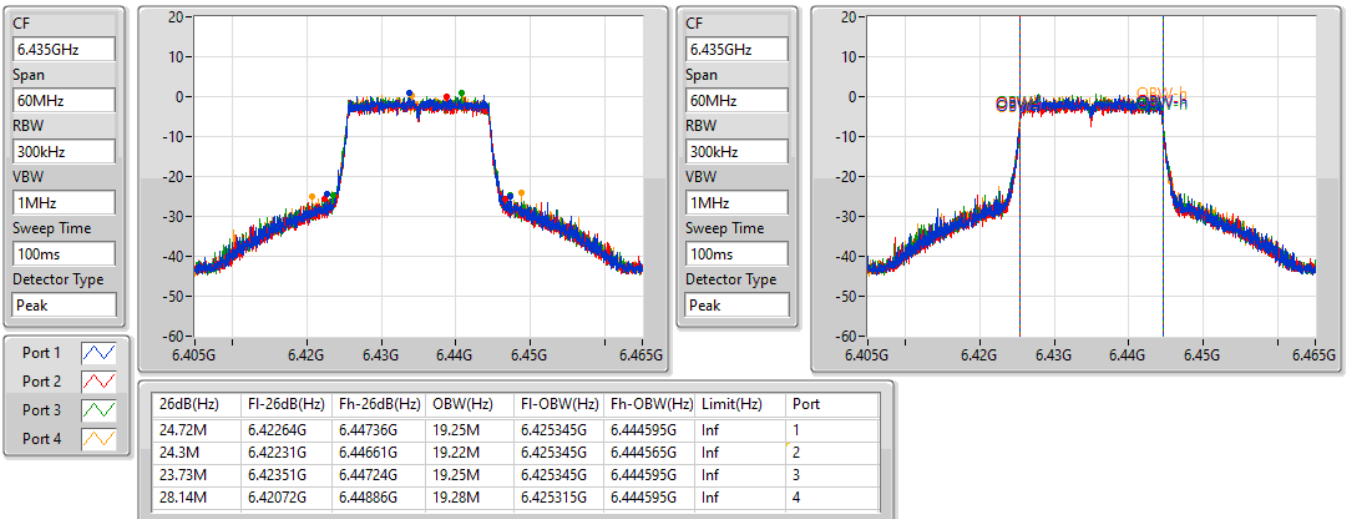


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6435MHz

02/09/2022

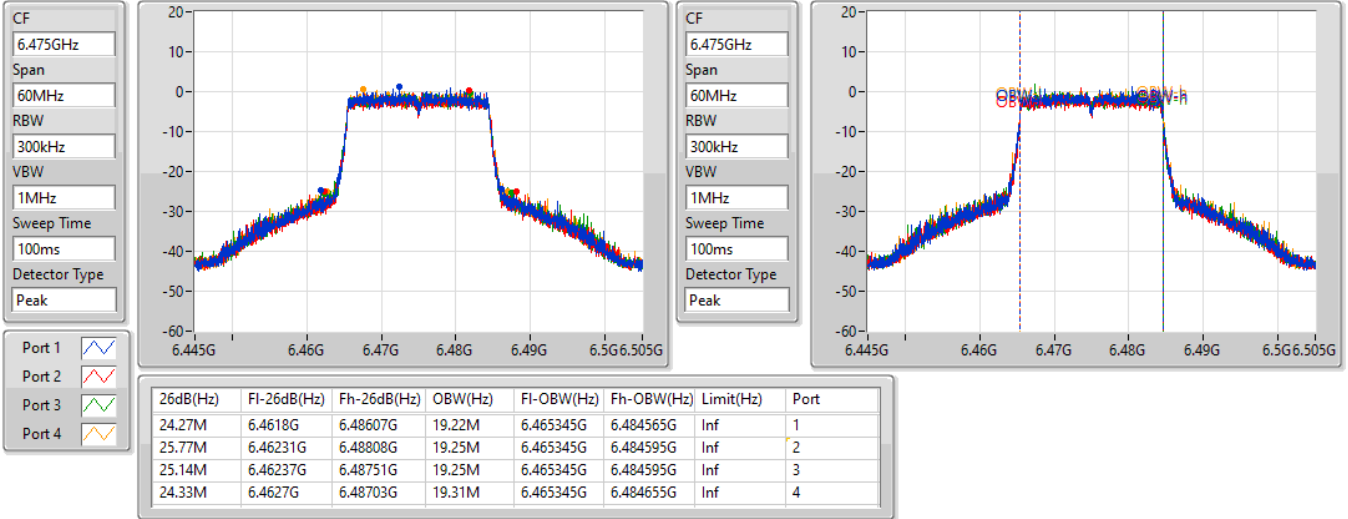


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6475MHz

02/09/2022

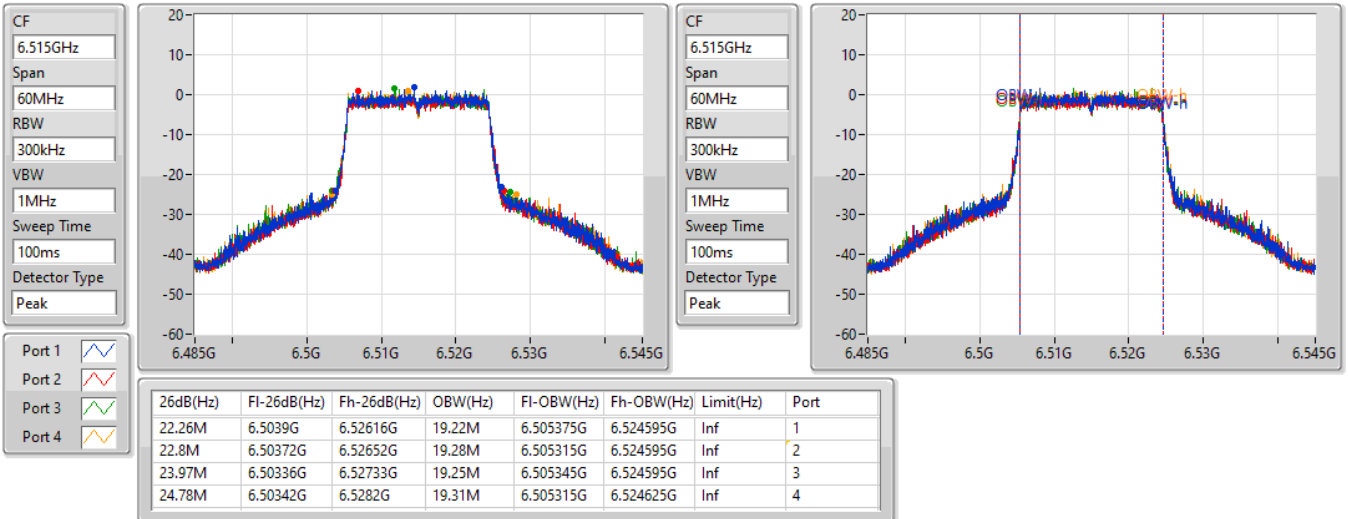


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6515MHz

02/09/2022

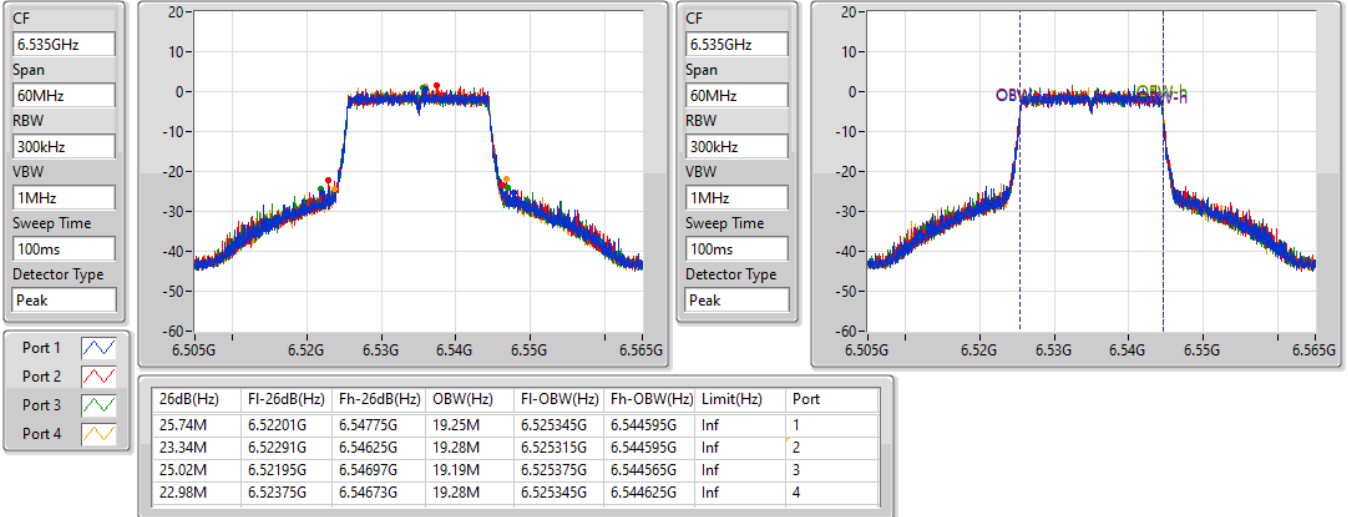


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6535MHz

02/09/2022

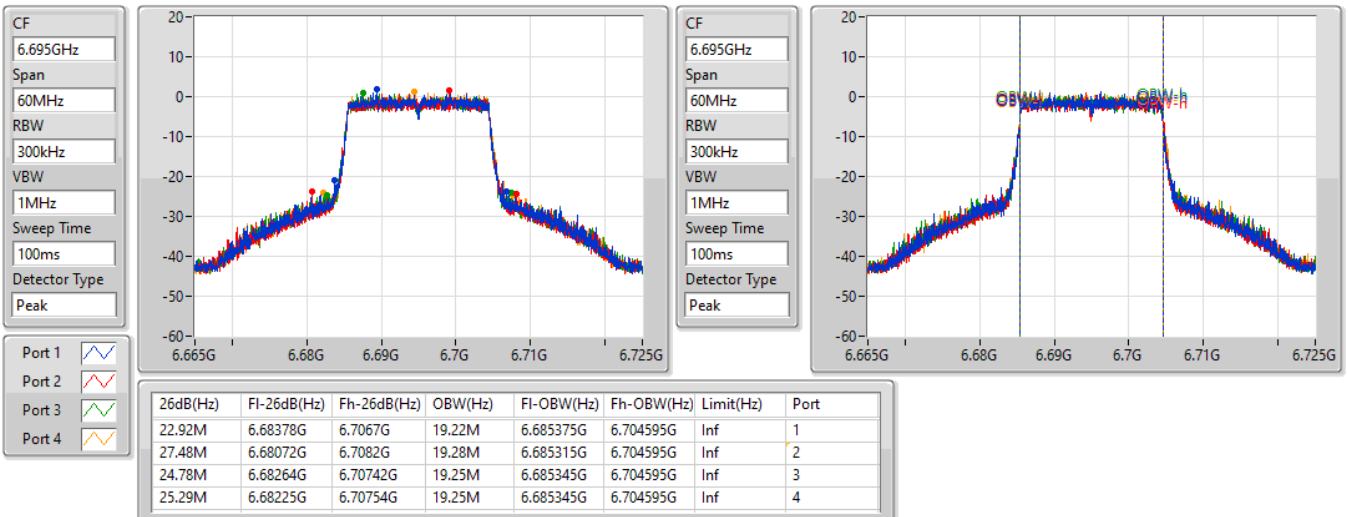


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6695MHz

02/09/2022

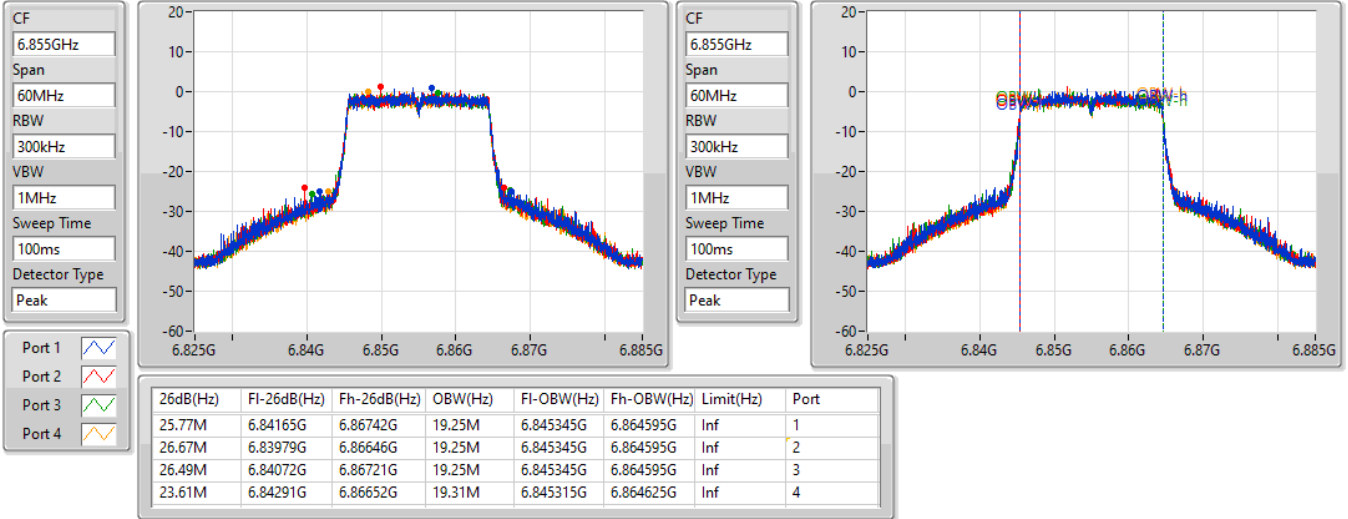


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6855MHz

02/09/2022

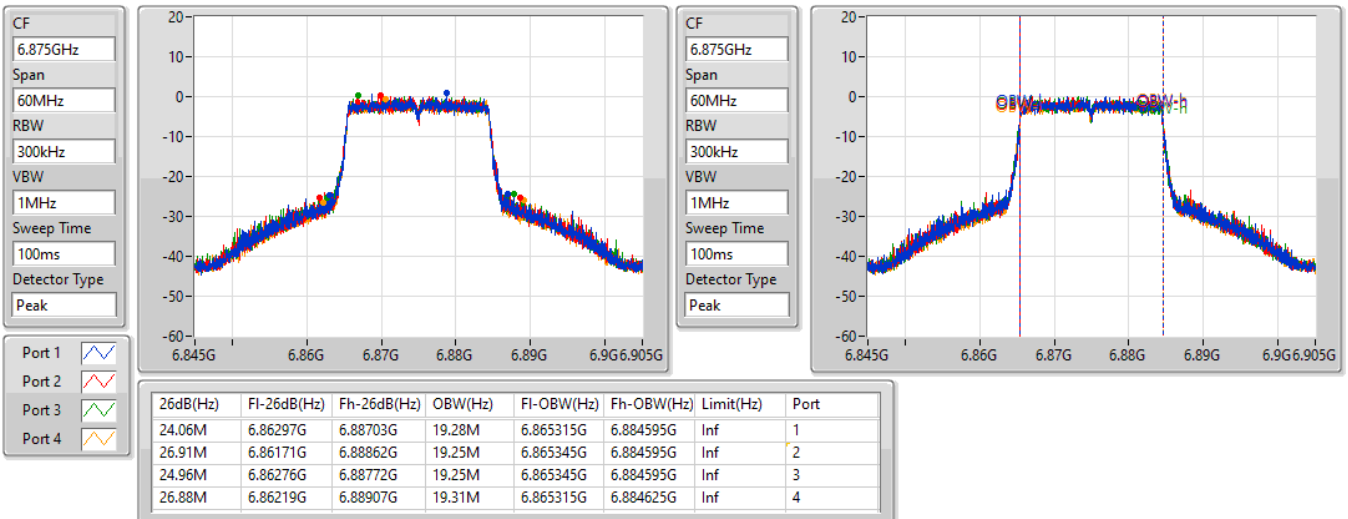


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6875MHz Straddle 6.525-6.875GHz

02/09/2022



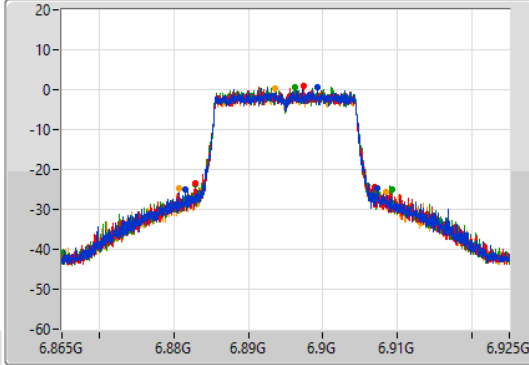
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

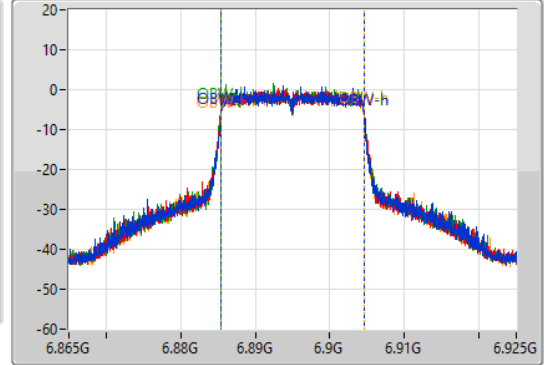
6895MHz

02/09/2022

CF
6.895GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
6.895GHz
Span
60MHz
RBW
300kHz
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
25.59M	6.88162G	6.90721G	19.25M	6.885375G	6.904625G	Inf	1
24.09M	6.88282G	6.90691G	19.28M	6.885315G	6.904595G	Inf	2
26.46M	6.88291G	6.90937G	19.25M	6.885375G	6.904625G	Inf	3
27.6M	6.88078G	6.90838G	19.31M	6.885315G	6.904625G	Inf	4

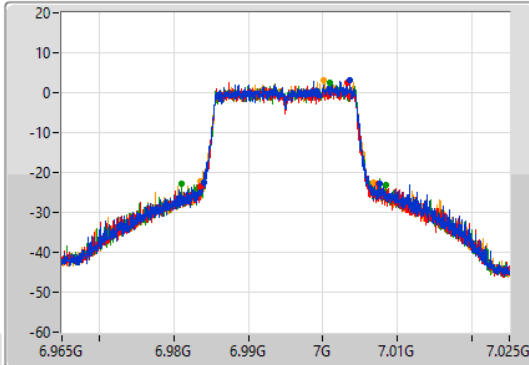
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

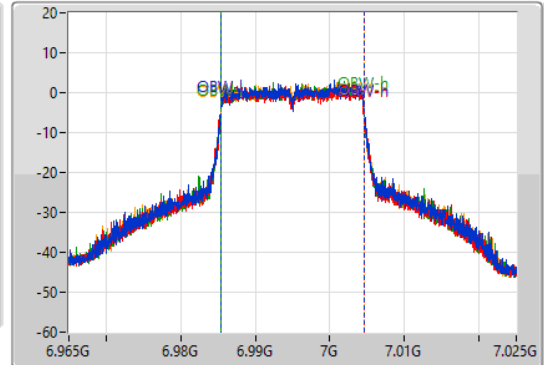
6995MHz

02/09/2022

CF
6.995GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
6.995GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

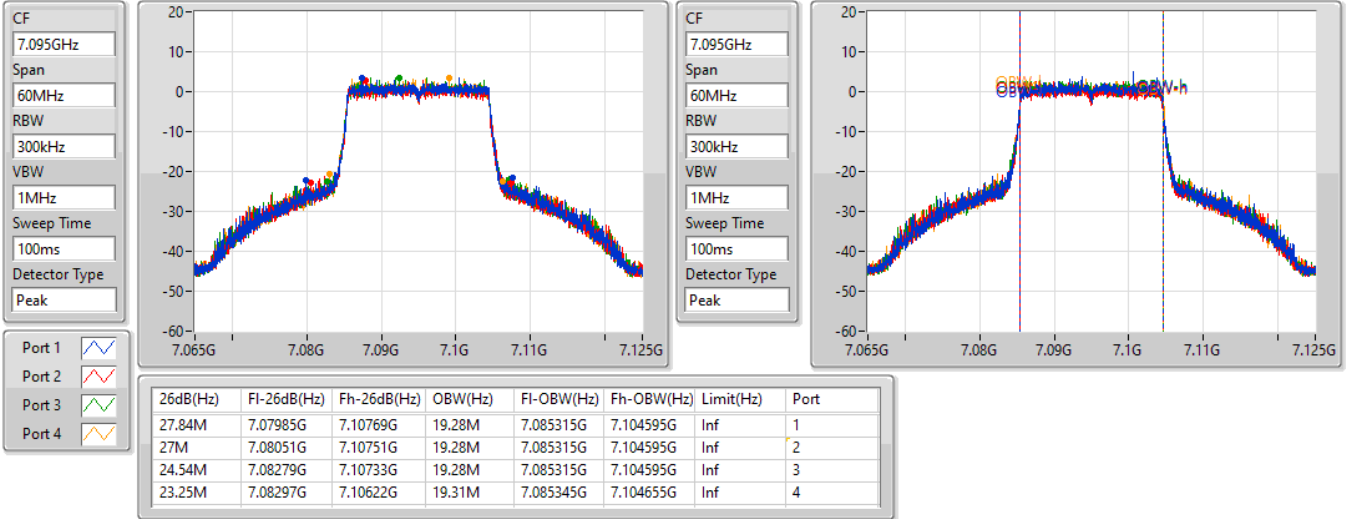
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.64M	6.98399G	7.00763G	19.31M	6.985345G	7.004655G	Inf	1
23.79M	6.9836G	7.00739G	19.28M	6.985345G	7.004625G	Inf	2
27.42M	6.98102G	7.00844G	19.22M	6.985375G	7.004595G	Inf	3
23.13M	6.9836G	7.00673G	19.25M	6.985375G	7.004625G	Inf	4

802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

7095MHz

02/09/2022

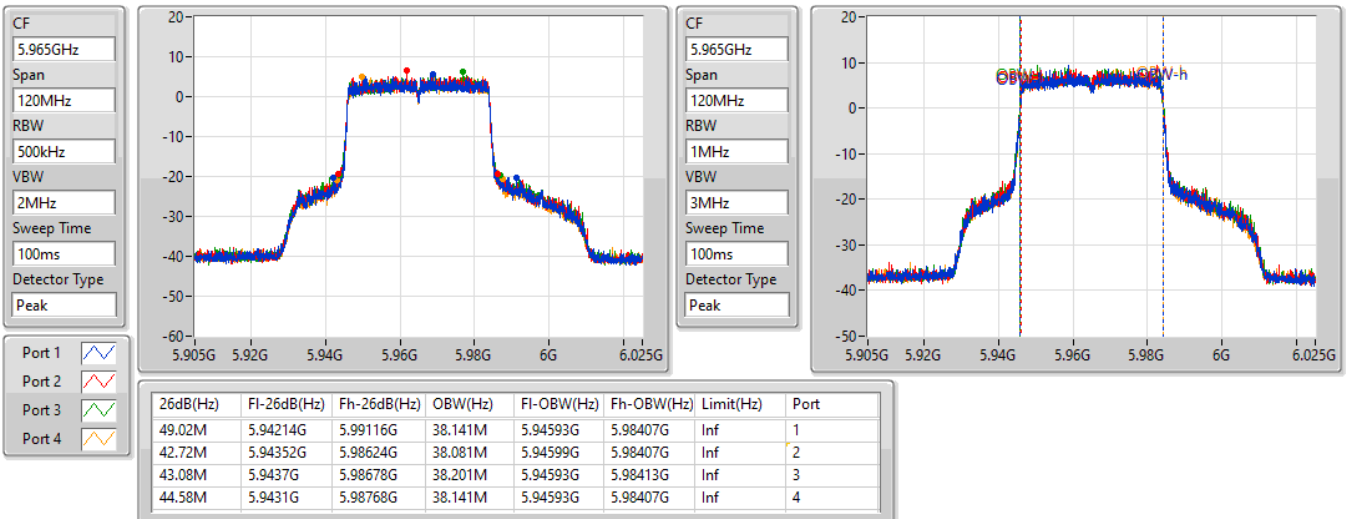


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5965MHz

02/09/2022



802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6165MHz

02/09/2022

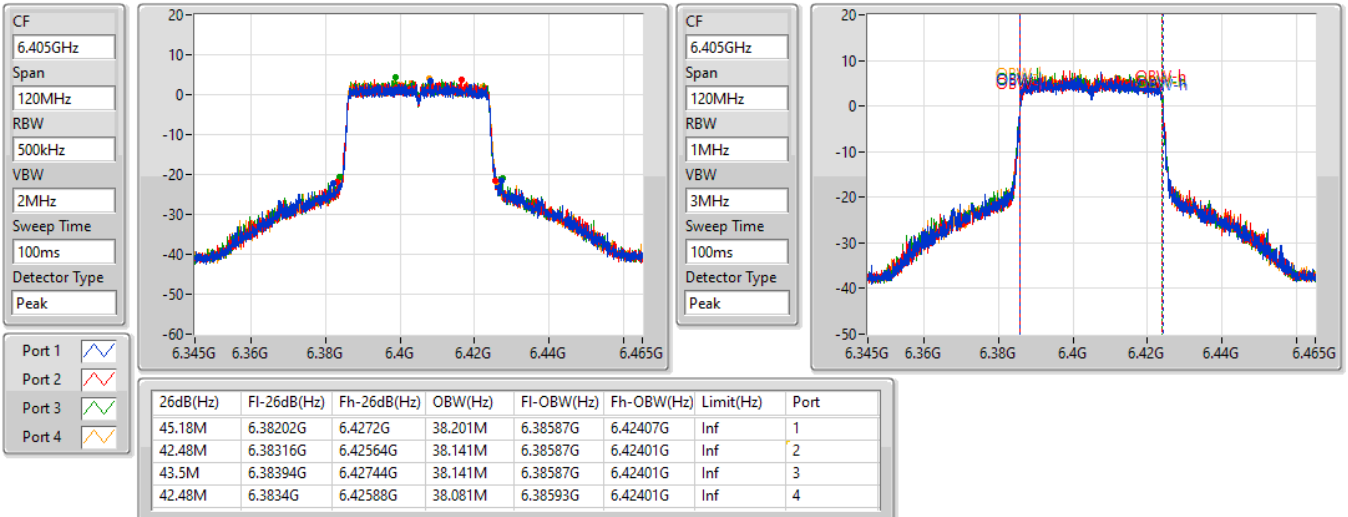


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6405MHz

02/09/2022

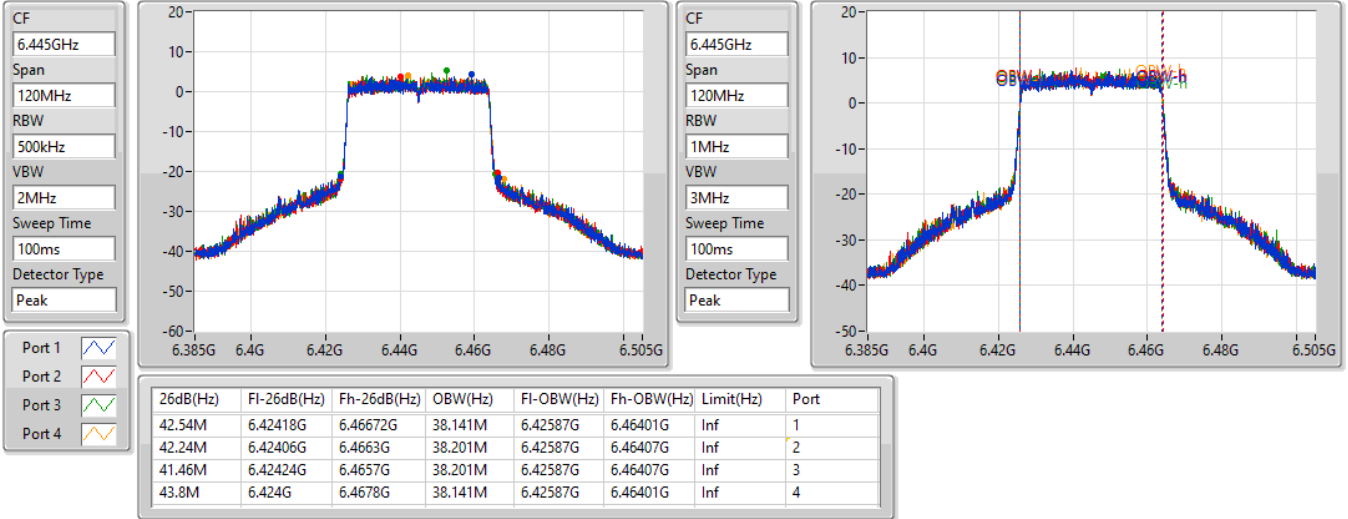


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6445MHz

02/09/2022

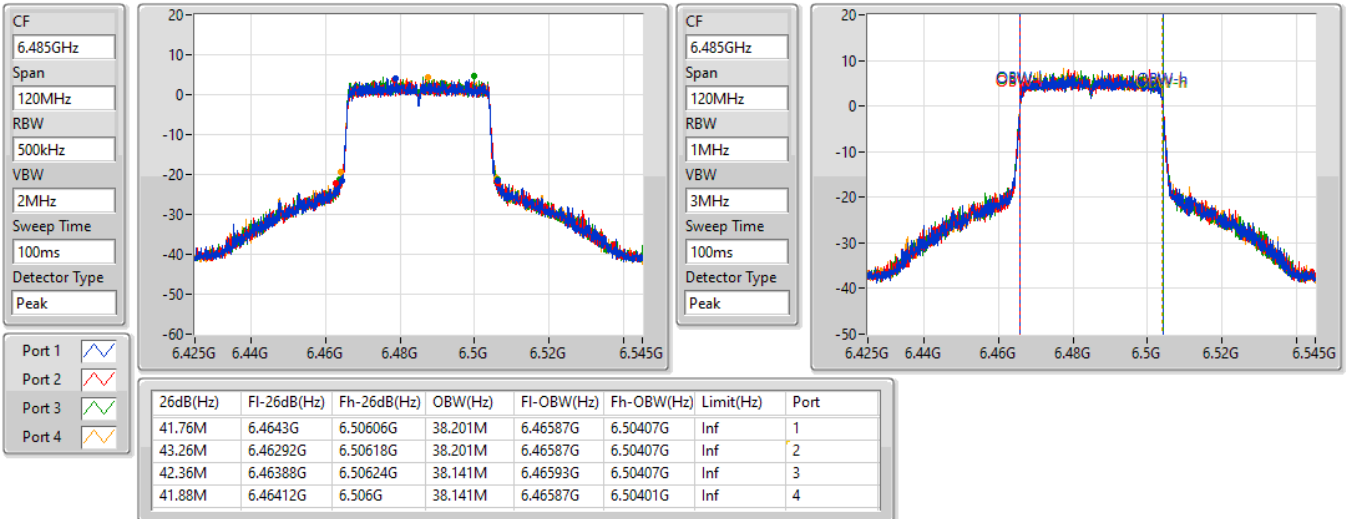


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6485MHz

02/09/2022

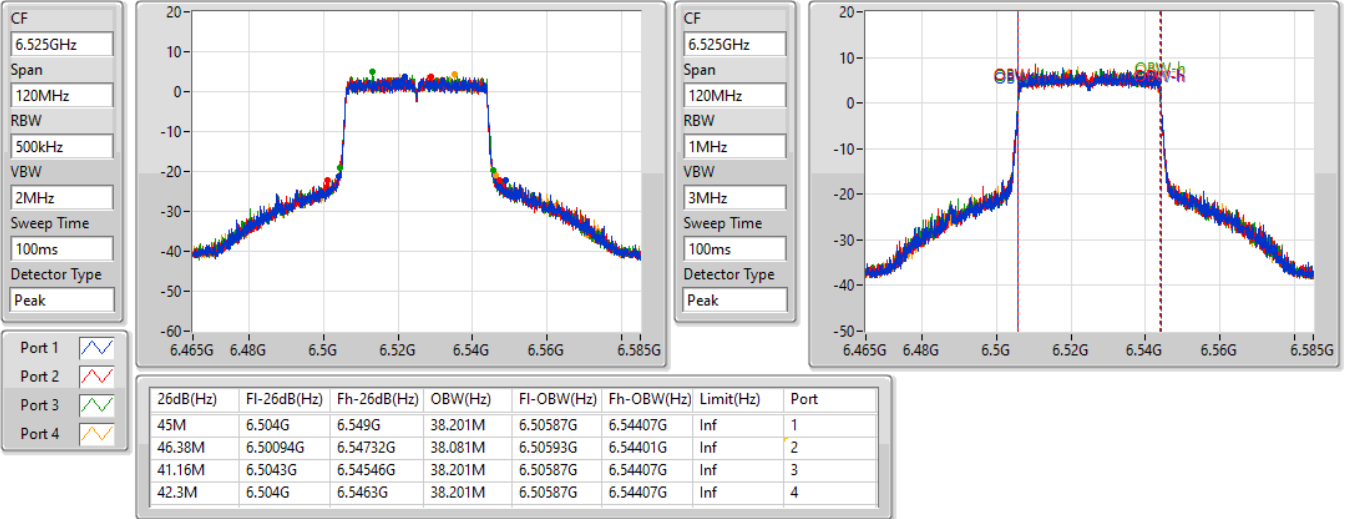


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6525MHz Straddle 6.425-6.525GHz

02/09/2022

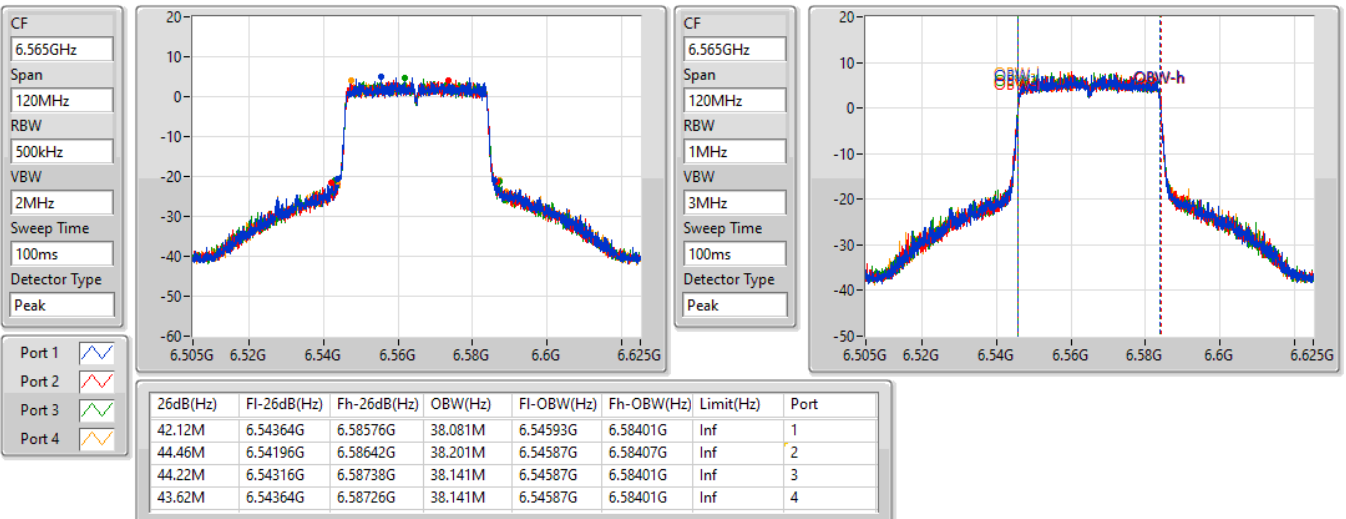


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6565MHz

02/09/2022

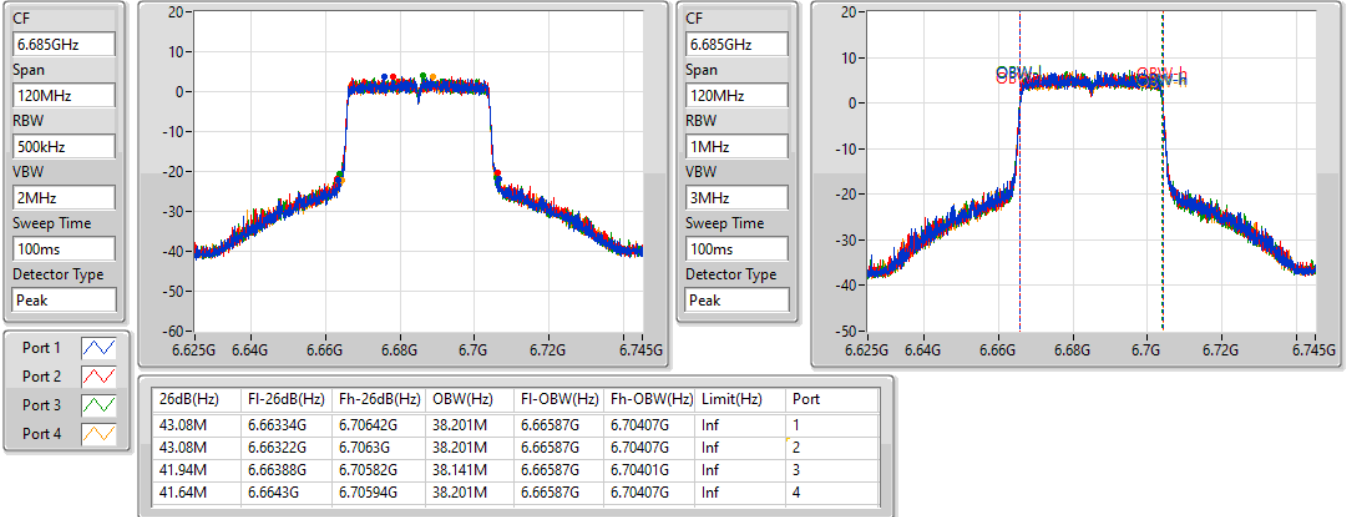


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6685MHz

02/09/2022

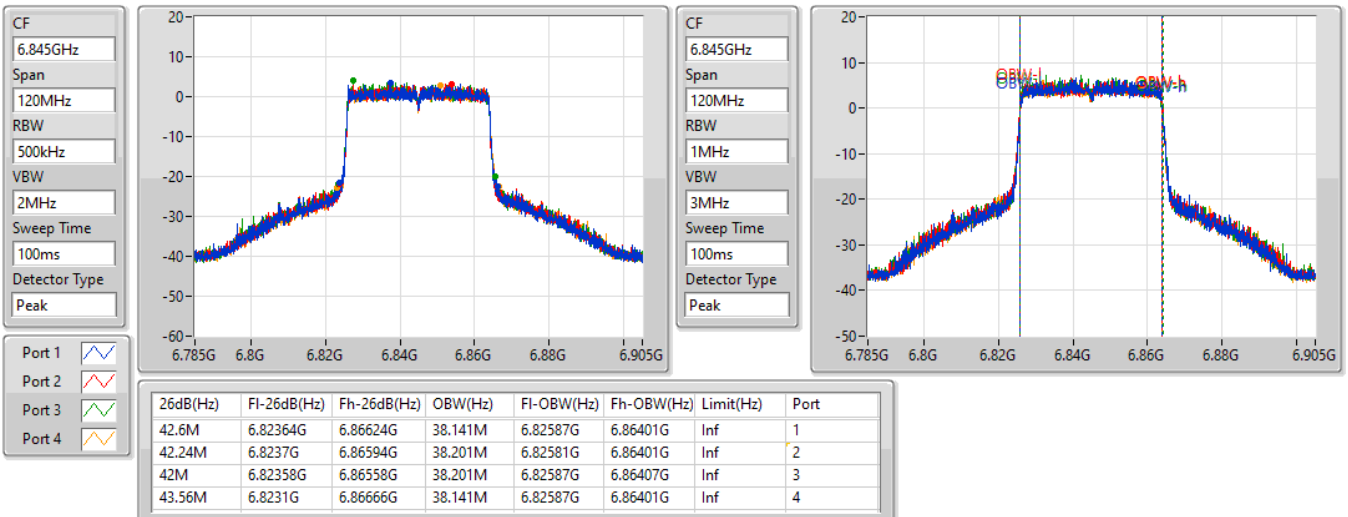


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6845MHz

02/09/2022

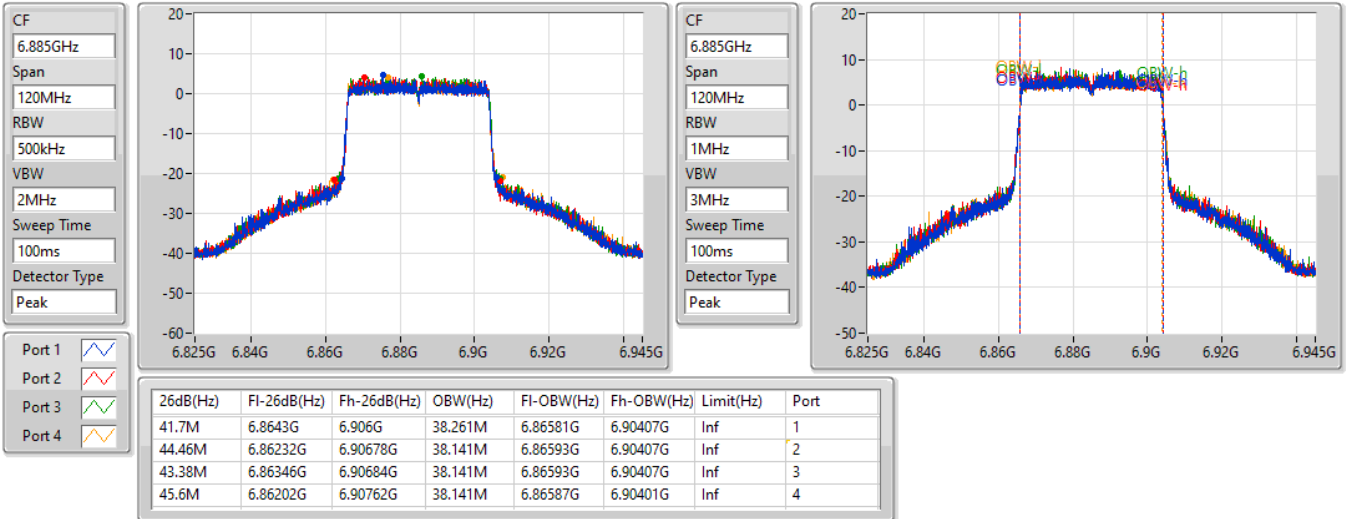


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6885MHz Straddle 6.525-6.875GHz

02/09/2022

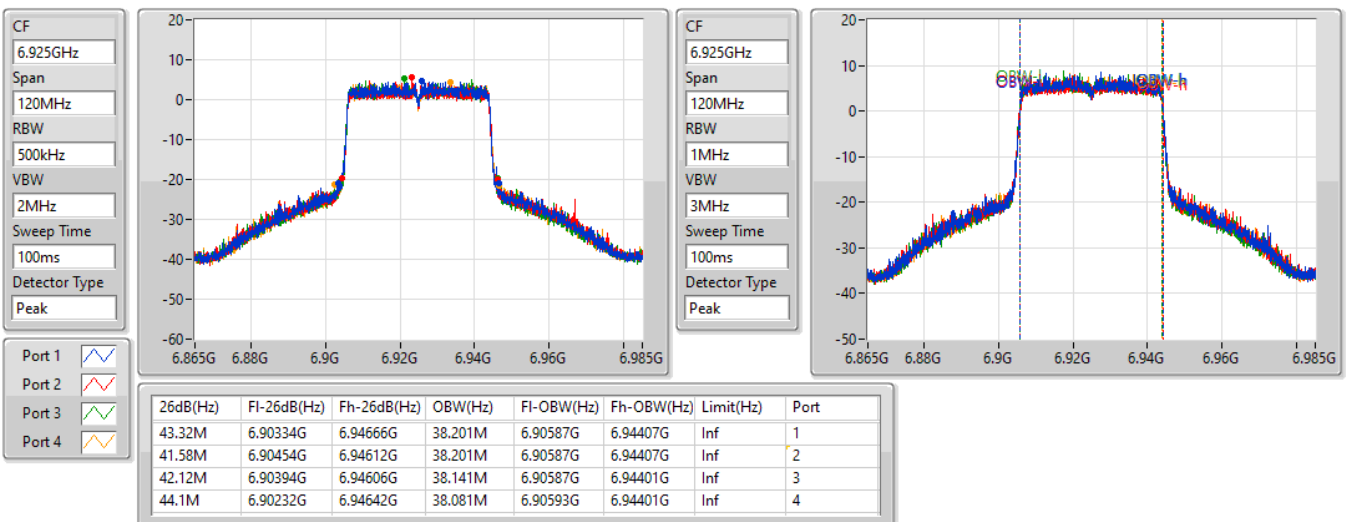


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6925MHz

02/09/2022

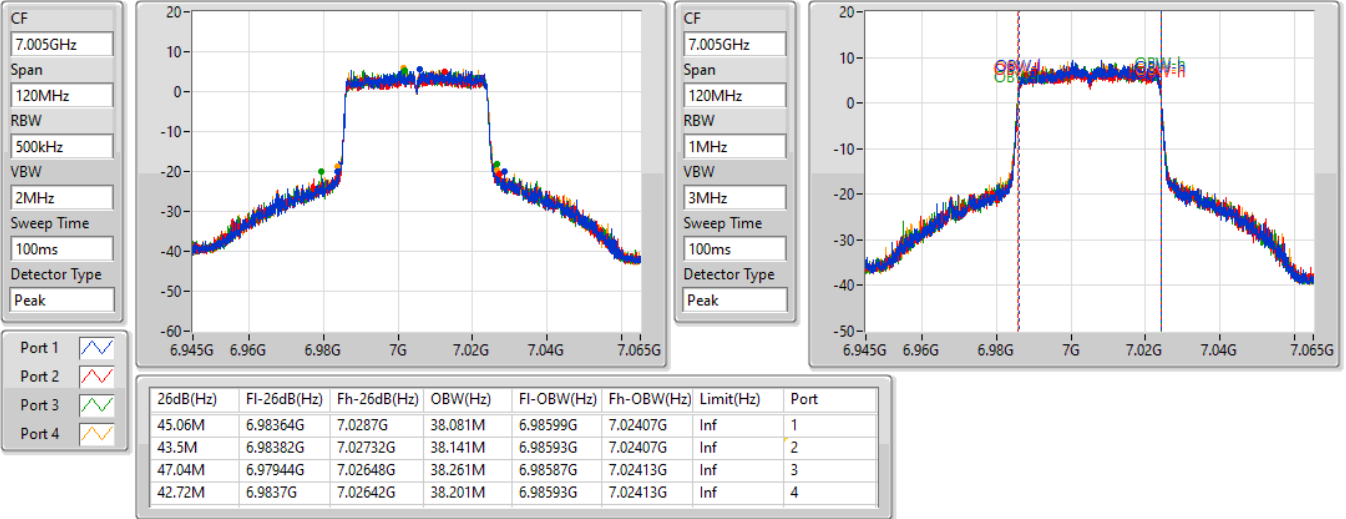


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

7005MHz

02/09/2022

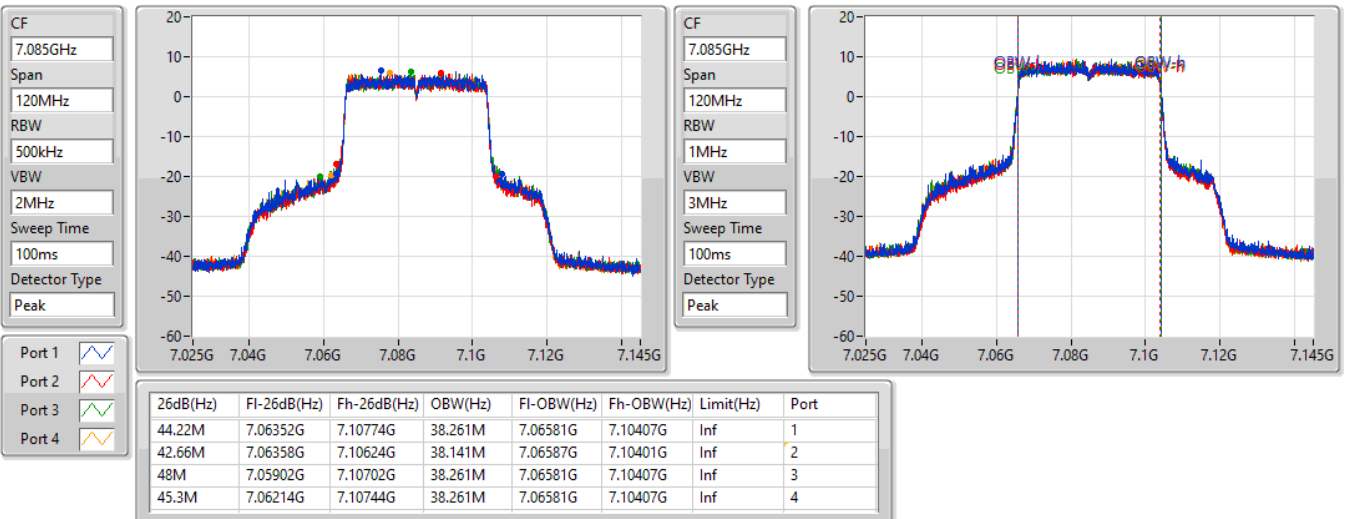


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

7085MHz

02/09/2022

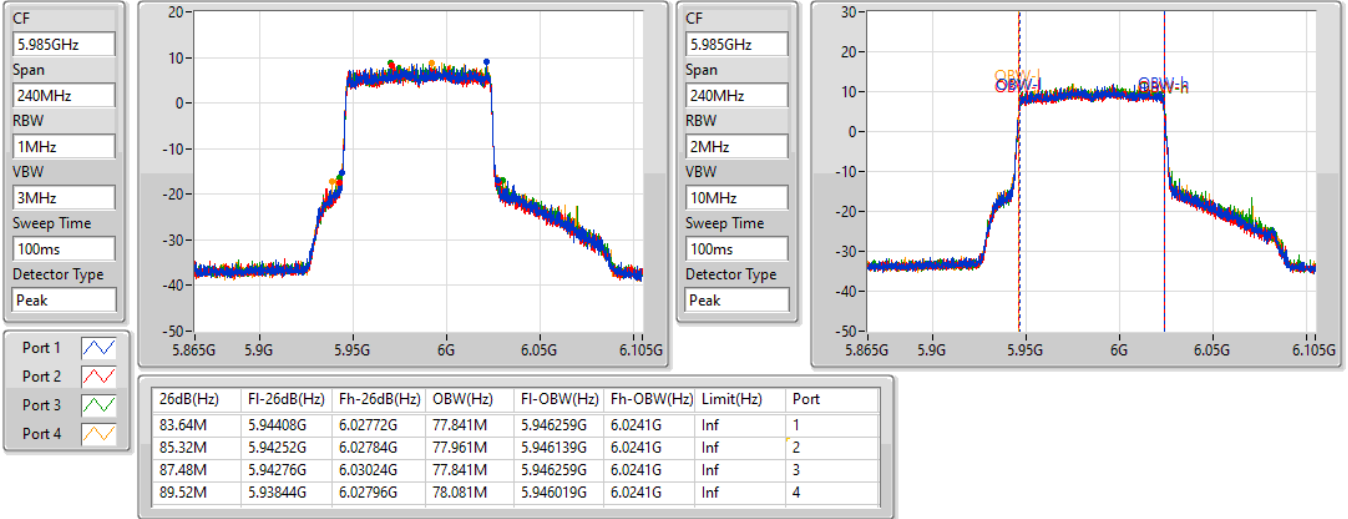


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5985MHz

02/09/2022

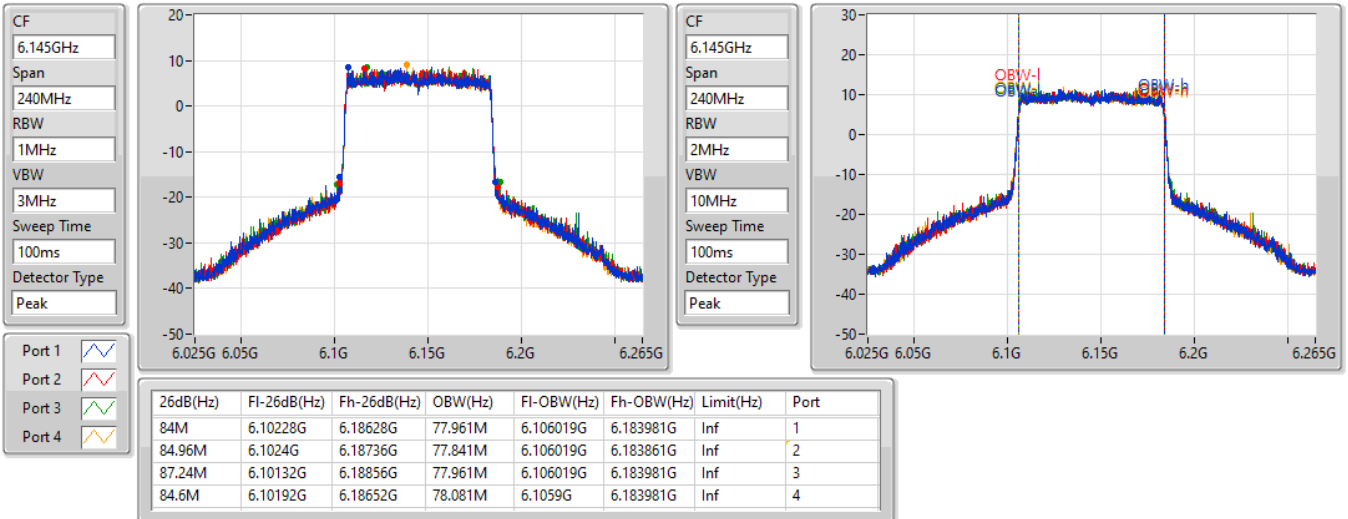


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6145MHz

02/09/2022

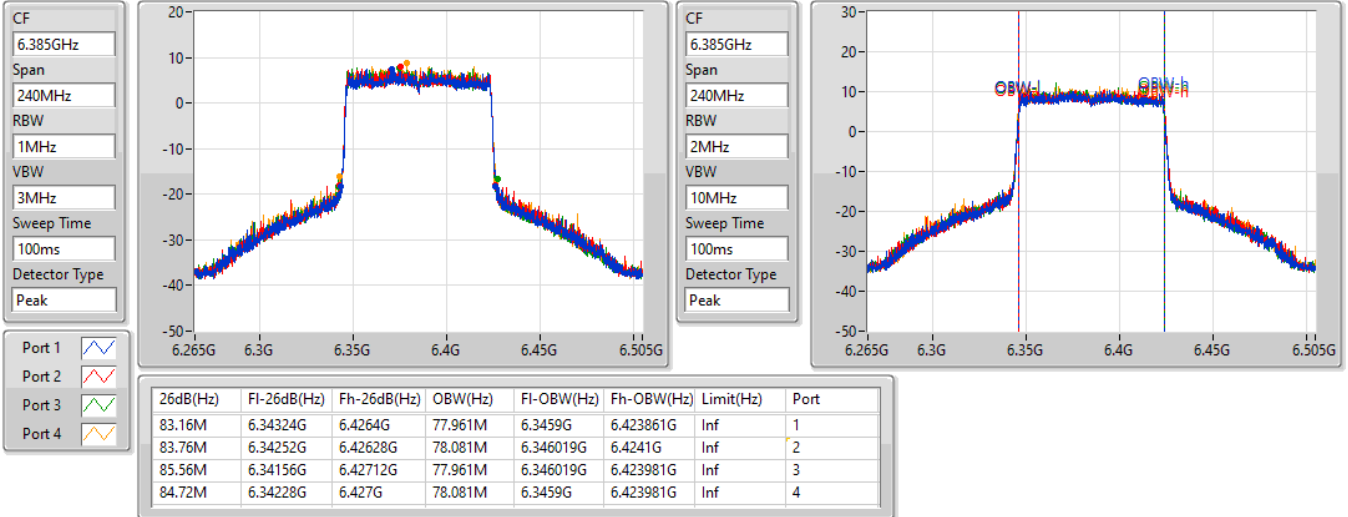


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6385MHz

02/09/2022

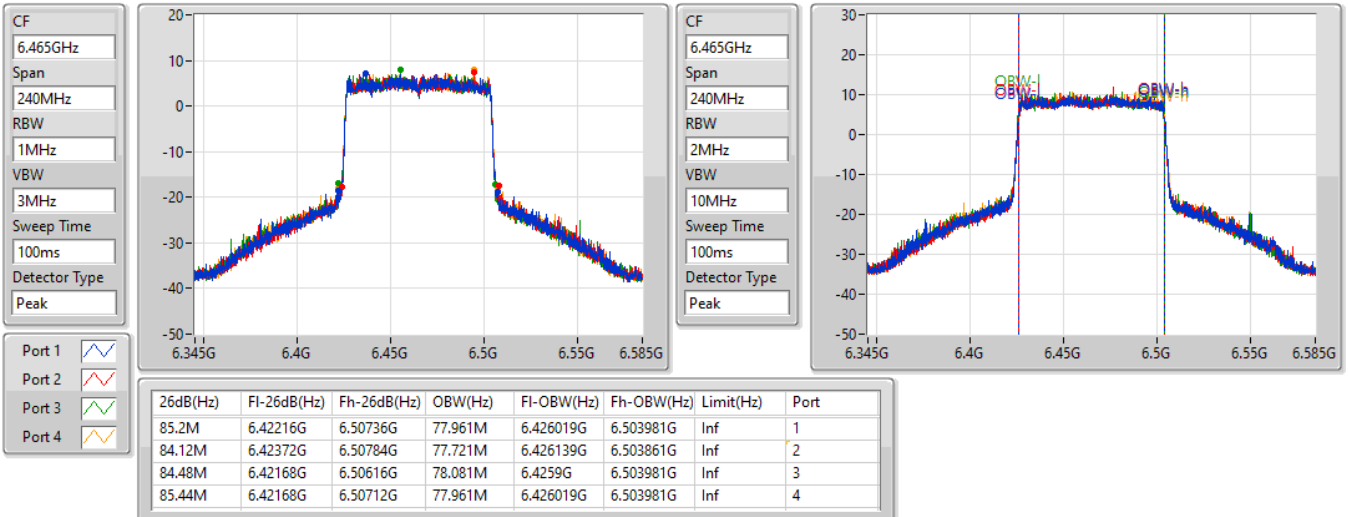


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6465MHz

02/09/2022

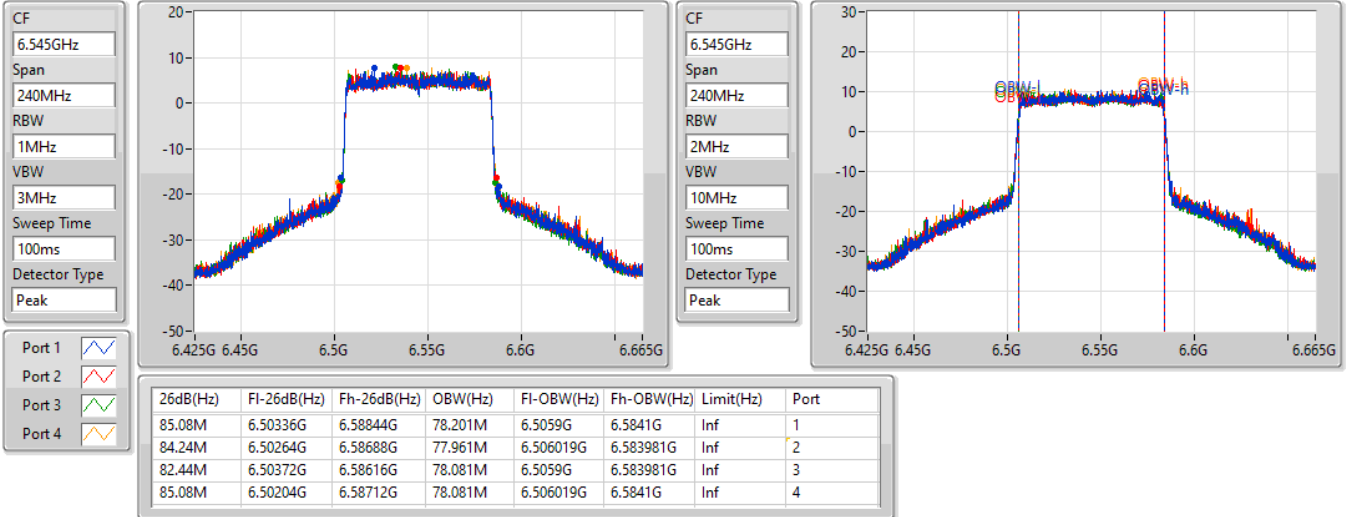


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6545MHz Straddle 6.425-6.525GHz

02/09/2022

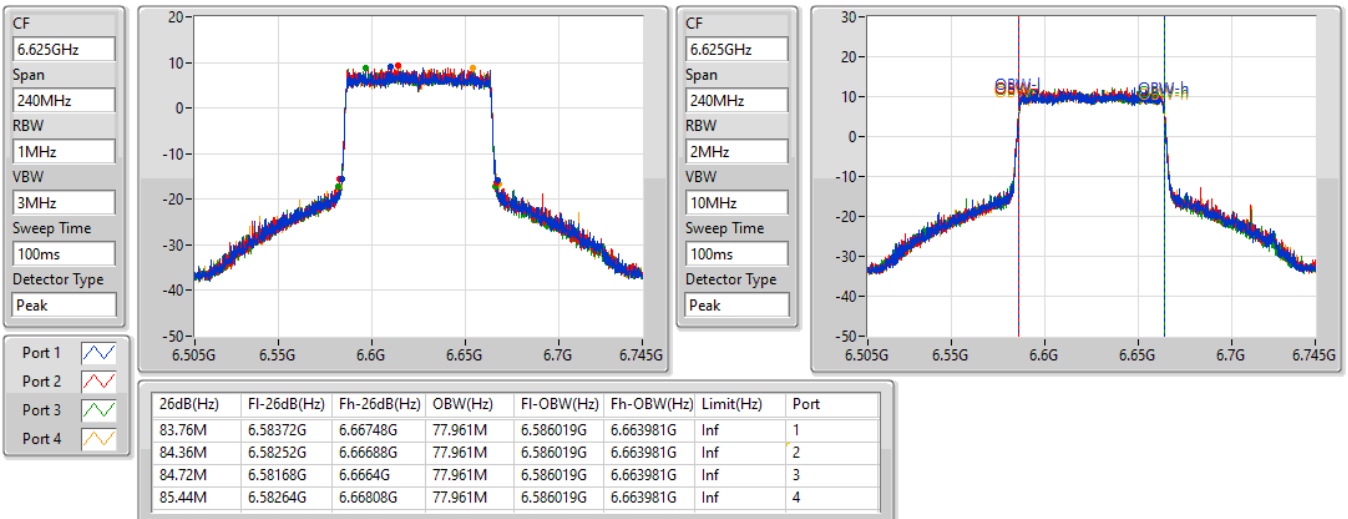


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6625MHz

02/09/2022

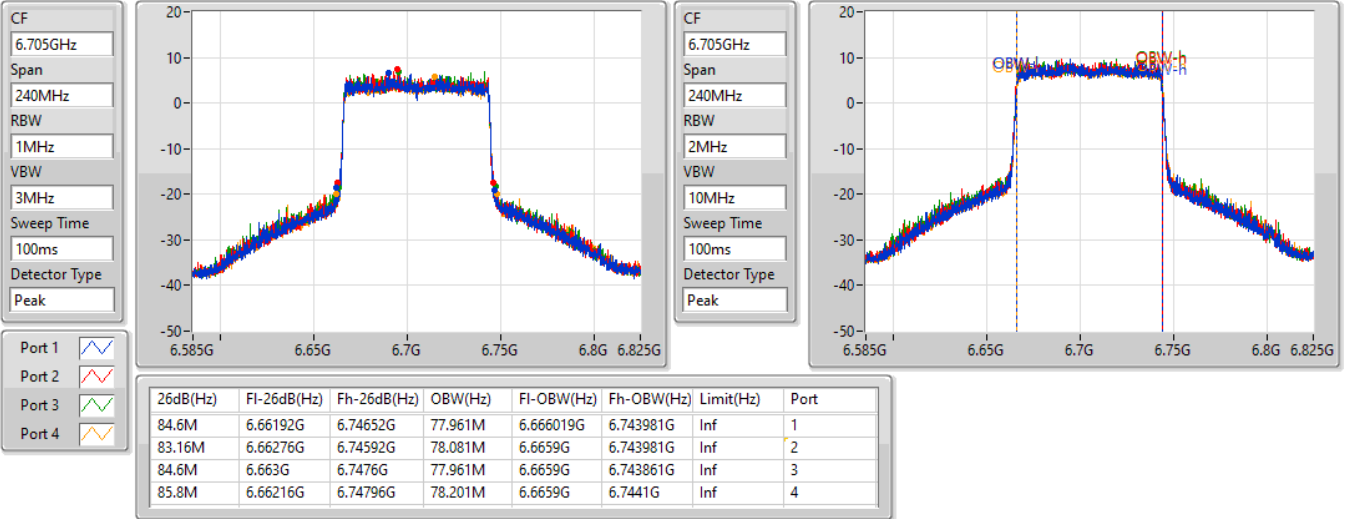


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6705MHz

02/09/2022

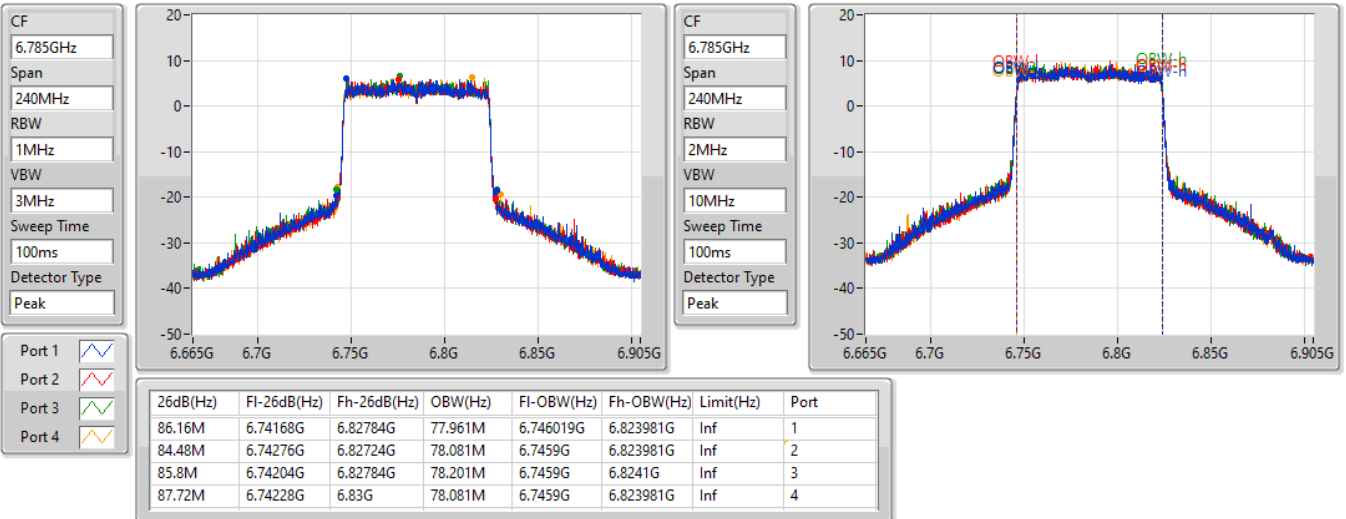


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6785MHz

02/09/2022



802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6865MHz Straddle 6.525-6.875GHz

02/09/2022

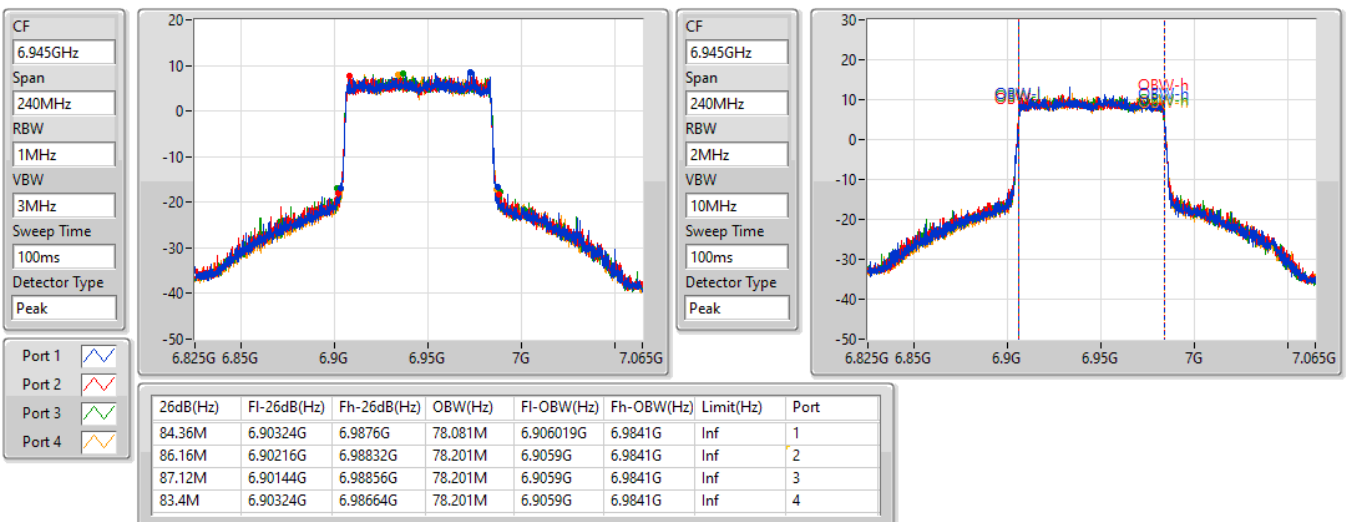


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6945MHz

02/09/2022

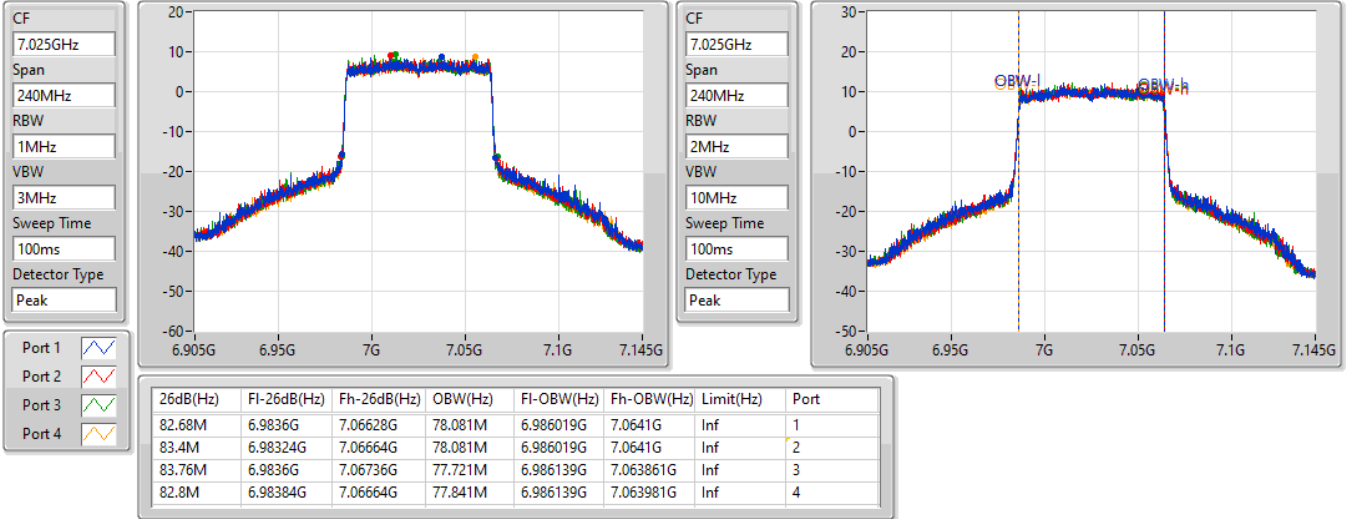


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

7025MHz

02/09/2022

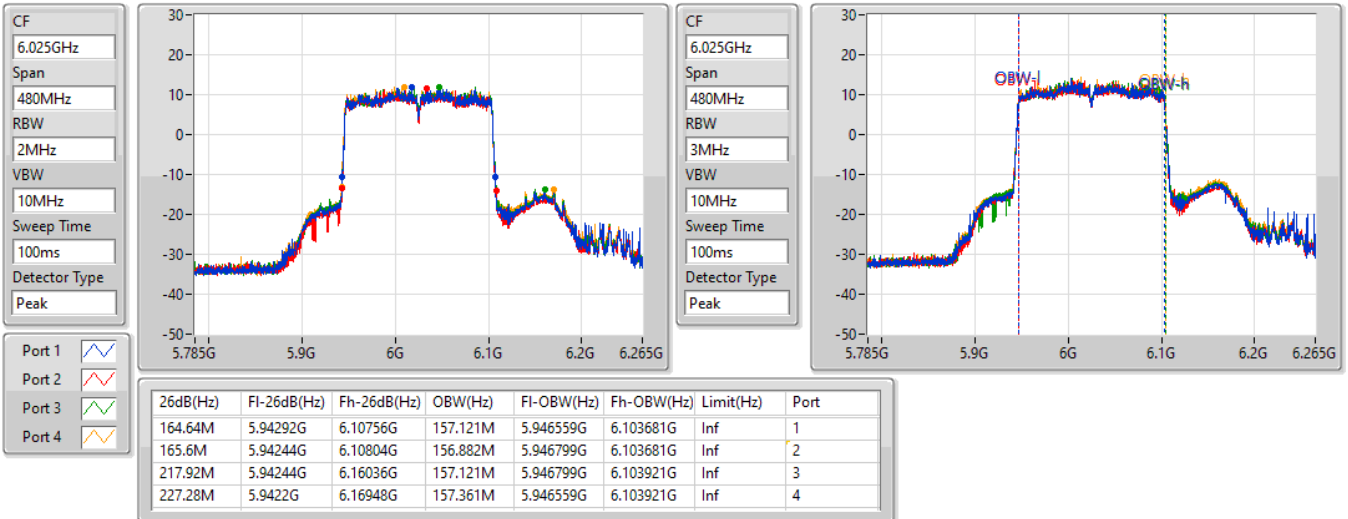


802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6025MHz

02/09/2022



802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6185MHz

03/09/2022

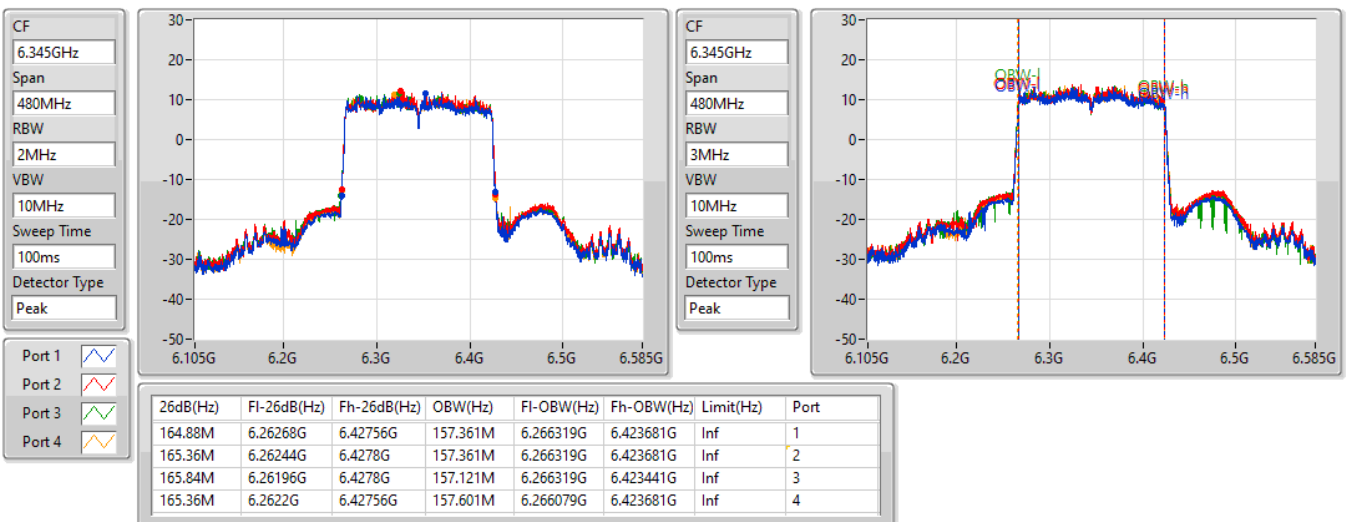


802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6345MHz

02/09/2022

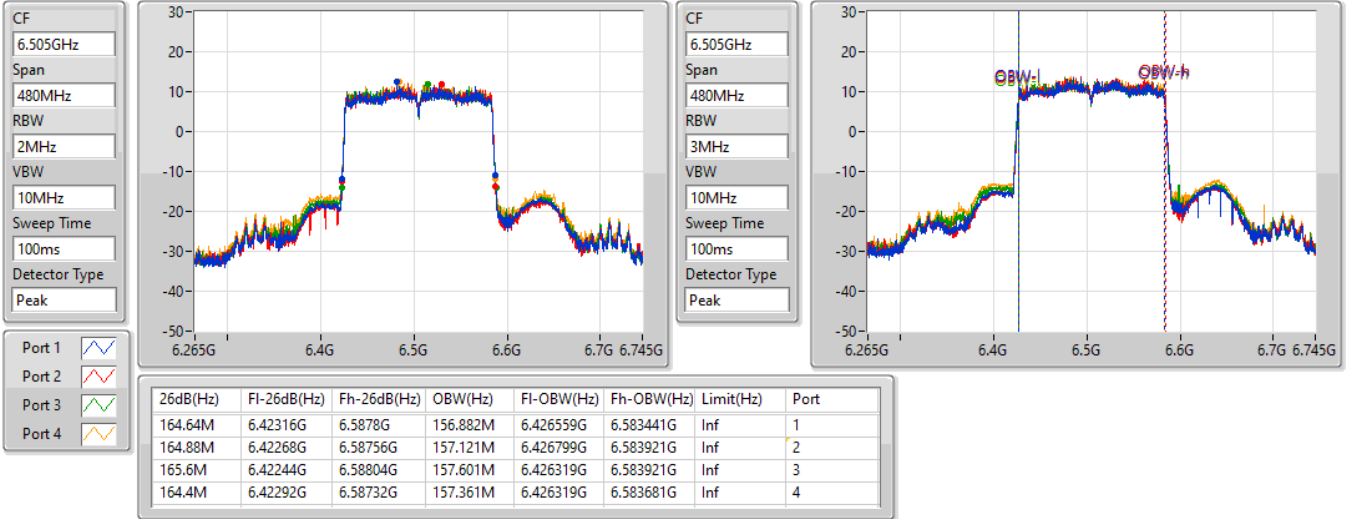


802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6505MHz Straddle 6.425-6.525GHz

02/09/2022

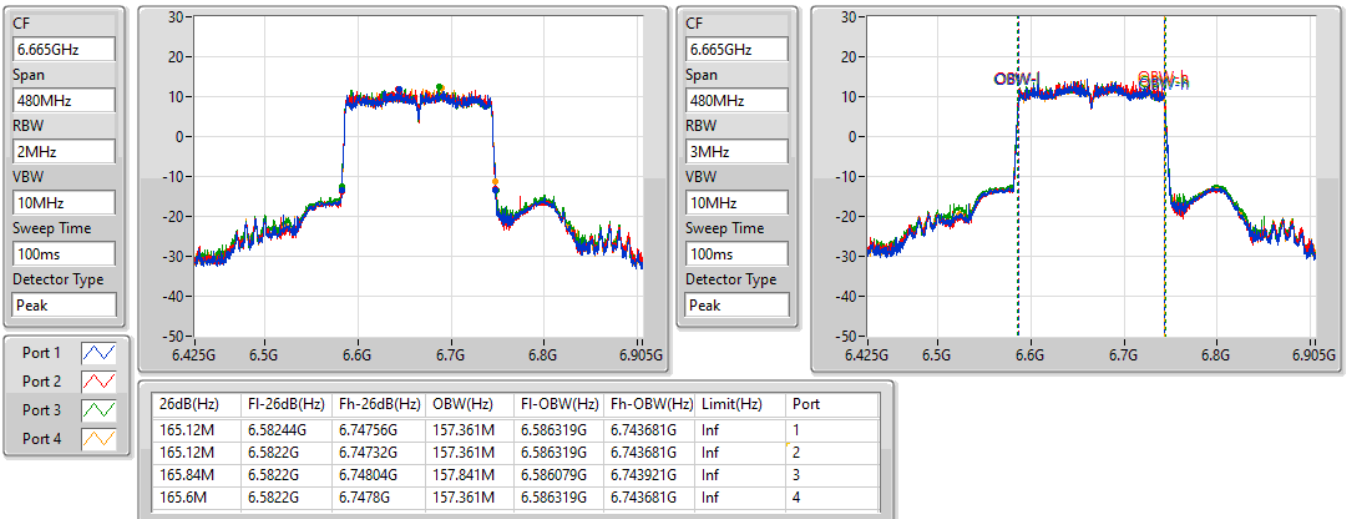


802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6665MHz

02/09/2022

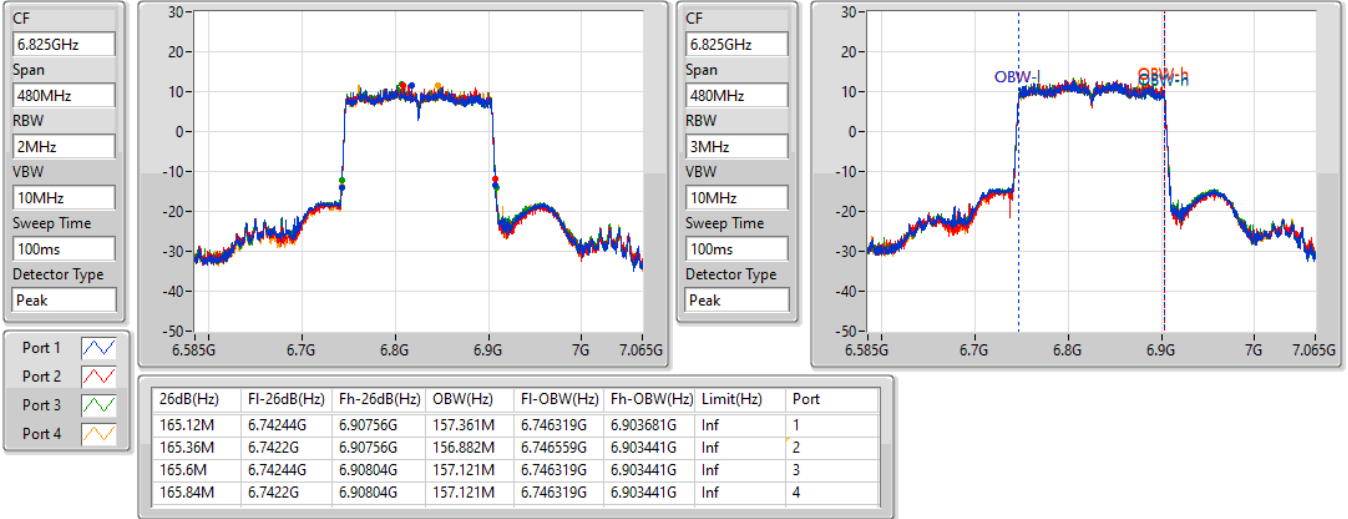


802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6825MHz Straddle 6.525-6.875GHz

02/09/2022

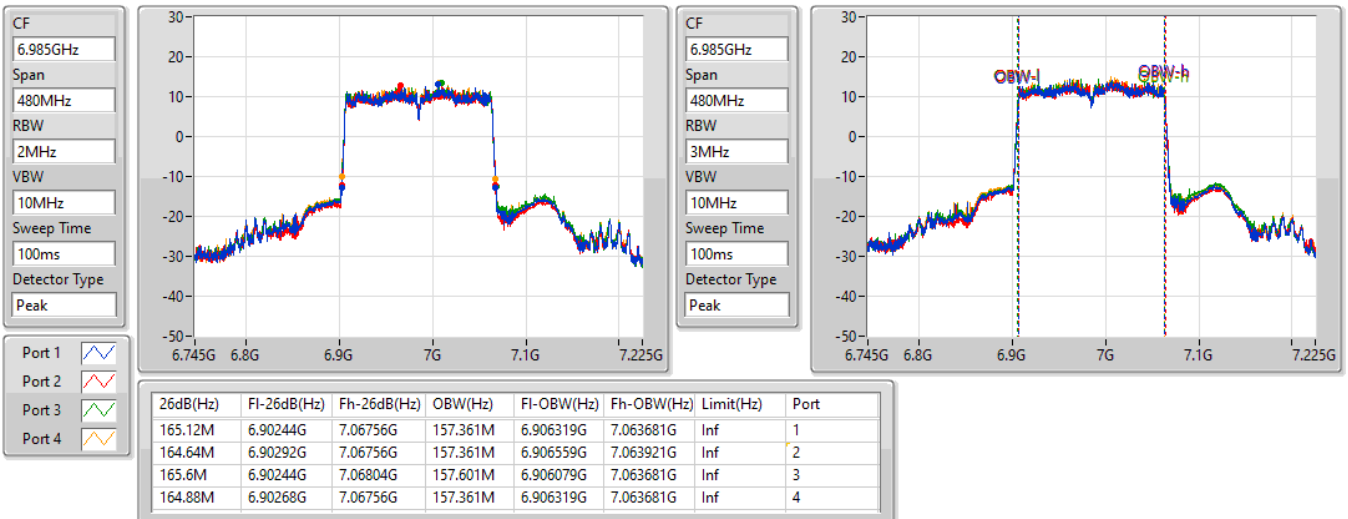


802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6985MHz

02/09/2022



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	28.41M	19.28M	19M3D1D	22.95M	19.22M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	47.16M	38.201M	38M2D1D	41.82M	38.081M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	90.12M	78.201M	78M2D1D	83.28M	77.721M
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	165.6M	158.321M	158MD1D	164.64M	156.642M
6.425-6.525GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	26.67M	19.31M	19M3D1D	24M	19.19M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	44.94M	38.201M	38M2D1D	41.52M	38.081M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	85.92M	78.081M	78M1D1D	83.52M	77.961M
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	165.6M	156.642M	157MD1D	164.4M	156.642M
6.525-6.875GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	27.63M	19.31M	19M3D1D	22.56M	19.22M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	44.88M	38.201M	38M2D1D	41.52M	38.081M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	92.64M	78.201M	78M2D1D	83.16M	77.961M
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	166.32M	156.882M	157MD1D	165.12M	156.642M
6.875-7.125GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	27.93M	19.31M	19M3D1D	21.9M	19.19M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	49.5M	38.261M	38M3D1D	41.7M	38.141M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	87.12M	78.201M	78M2D1D	83.88M	77.841M
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	165.84M	156.882M	157MD1D	164.64M	156.642M

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)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5955MHz	Pass	Inf	25.41M	19.22M	24.48M	19.28M	22.95M	19.22M	28.41M	19.25M
6175MHz	Pass	Inf	23.4M	19.22M	24.87M	19.28M	24.36M	19.22M	23.73M	19.25M
6415MHz	Pass	Inf	24.96M	19.22M	27.24M	19.25M	25.26M	19.22M	23.97M	19.28M
6435MHz	Pass	Inf	24.69M	19.25M	24M	19.25M	24.06M	19.22M	24.48M	19.25M
6475MHz	Pass	Inf	24.78M	19.19M	25.53M	19.28M	24.15M	19.22M	25.17M	19.28M
6515MHz	Pass	Inf	24.87M	19.25M	25.86M	19.31M	24.87M	19.25M	26.67M	19.28M
6535MHz	Pass	Inf	23.61M	19.22M	24.27M	19.22M	24.27M	19.28M	25.98M	19.25M
6695MHz	Pass	Inf	26.52M	19.28M	22.8M	19.28M	22.92M	19.28M	26.13M	19.28M
6855MHz	Pass	Inf	27.15M	19.22M	26.19M	19.28M	25.08M	19.28M	25.89M	19.25M
6875MHz Straddle 6.525-6.875GHz	Pass	Inf	27.63M	19.31M	26.94M	19.22M	22.56M	19.28M	26.52M	19.28M
6895MHz	Pass	Inf	23.19M	19.25M	26.13M	19.19M	24.93M	19.25M	26.31M	19.28M
6995MHz	Pass	Inf	22.5M	19.25M	25.38M	19.28M	25.26M	19.28M	24.36M	19.31M
7095MHz	Pass	Inf	27.93M	19.28M	26.73M	19.28M	21.9M	19.25M	24.21M	19.28M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5965MHz	Pass	Inf	44.82M	38.201M	43.32M	38.081M	47.16M	38.141M	45.06M	38.201M
6165MHz	Pass	Inf	42.66M	38.141M	42.3M	38.201M	42.6M	38.201M	42.3M	38.201M
6405MHz	Pass	Inf	43.98M	38.141M	41.82M	38.201M	42.54M	38.081M	42.9M	38.141M
6445MHz	Pass	Inf	44.94M	38.201M	42.48M	38.201M	42.18M	38.081M	42.06M	38.081M
6485MHz	Pass	Inf	43.38M	38.081M	43.08M	38.141M	41.52M	38.141M	43.02M	38.141M
6525MHz Straddle 6.425-6.525GHz	Pass	Inf	42M	38.201M	42.48M	38.141M	42.36M	38.081M	42.12M	38.141M
6565MHz	Pass	Inf	41.7M	38.201M	43.02M	38.201M	41.52M	38.141M	42.24M	38.201M
6685MHz	Pass	Inf	41.76M	38.141M	42.72M	38.141M	44.88M	38.201M	42.78M	38.141M
6845MHz	Pass	Inf	42.18M	38.141M	42.78M	38.141M	43.26M	38.201M	44.22M	38.081M
6885MHz Straddle 6.525-6.875GHz	Pass	Inf	44.34M	38.201M	43.26M	38.141M	42.24M	38.201M	43.68M	38.201M
6925MHz	Pass	Inf	42.3M	38.201M	42.12M	38.201M	43.14M	38.141M	43.98M	38.141M
7005MHz	Pass	Inf	41.88M	38.201M	42.3M	38.261M	41.7M	38.141M	43.2M	38.141M
7085MHz	Pass	Inf	49.5M	38.141M	44.94M	38.141M	44.46M	38.201M	46.02M	38.201M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5985MHz	Pass	Inf	84.36M	77.721M	85.92M	77.841M	90.12M	77.841M	86.16M	77.961M
6145MHz	Pass	Inf	83.88M	77.961M	86.76M	78.081M	87.12M	77.841M	83.28M	77.961M
6385MHz	Pass	Inf	85.32M	78.201M	83.88M	77.961M	85.08M	77.961M	85.92M	78.081M
6465MHz	Pass	Inf	85.2M	78.081M	83.52M	78.081M	84.72M	77.961M	83.64M	77.961M
6545MHz Straddle 6.425-6.525GHz	Pass	Inf	85.44M	78.081M	85.92M	78.081M	84.48M	77.961M	84M	78.081M
6625MHz	Pass	Inf	84.48M	78.081M	84.36M	77.961M	83.4M	77.961M	84M	78.081M
6705MHz	Pass	Inf	85.92M	78.081M	85.8M	78.081M	84.36M	78.201M	86.88M	77.961M
6785MHz	Pass	Inf	87.24M	77.961M	87.84M	78.201M	85.92M	78.081M	85.8M	77.961M
6865MHz Straddle 6.525-6.875GHz	Pass	Inf	92.64M	78.081M	85.56M	78.081M	83.16M	78.081M	83.76M	77.961M
6945MHz	Pass	Inf	84.24M	78.081M	84.96M	77.961M	85.92M	78.081M	87.12M	77.961M
7025MHz	Pass	Inf	83.88M	77.961M	86.4M	78.201M	84M	77.961M	84.12M	77.841M
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
6025MHz	Pass	Inf	164.88M	156.642M	165.12M	156.642M	165.6M	156.642M	164.88M	156.642M
6185MHz	Pass	Inf	164.64M	158.321M	165.6M	156.642M	165.36M	156.882M	165.6M	156.882M
6345MHz	Pass	Inf	165.12M	156.642M	165.12M	156.642M	165.36M	156.642M	165.6M	156.882M
6505MHz Straddle 6.425-6.525GHz	Pass	Inf	164.64M	156.642M	164.4M	156.642M	164.88M	156.642M	165.6M	156.642M
6665MHz	Pass	Inf	165.36M	156.882M	165.6M	156.642M	165.84M	156.882M	165.6M	156.882M
6825MHz Straddle 6.525-6.875GHz	Pass	Inf	165.12M	156.642M	165.36M	156.882M	165.84M	156.882M	166.32M	156.642M
6985MHz	Pass	Inf	164.64M	156.642M	165.36M	156.642M	165.84M	156.882M	165.84M	156.642M

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

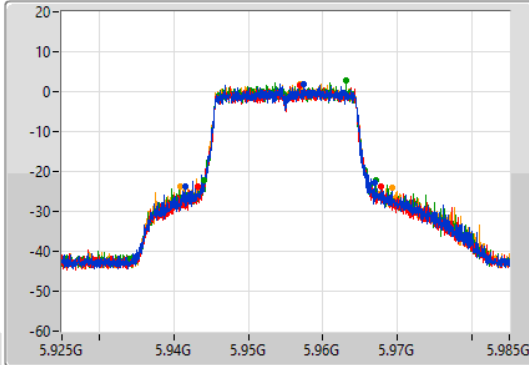
802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

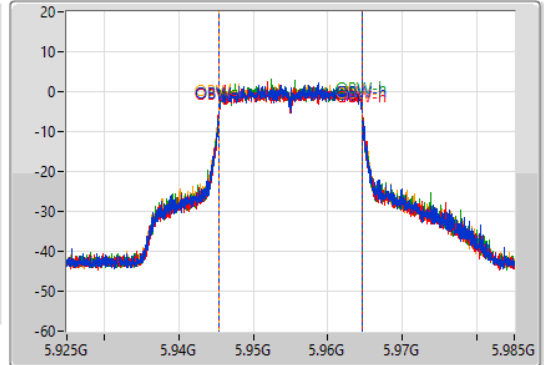
5955MHz

03/09/2022

CF
5.955GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.955GHz
Span
60MHz
RBW
300kHz
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
25.41M	5.94159G	5.967G	19.22M	5.945405G	5.964625G	Inf	1
24.48M	5.94324G	5.96772G	19.28M	5.945375G	5.964655G	Inf	2
22.95M	5.94411G	5.96706G	19.22M	5.945405G	5.964625G	Inf	3
28.41M	5.94087G	5.96928G	19.25M	5.945375G	5.964625G	Inf	4

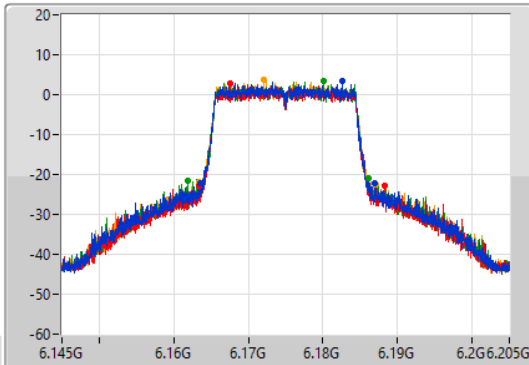
802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

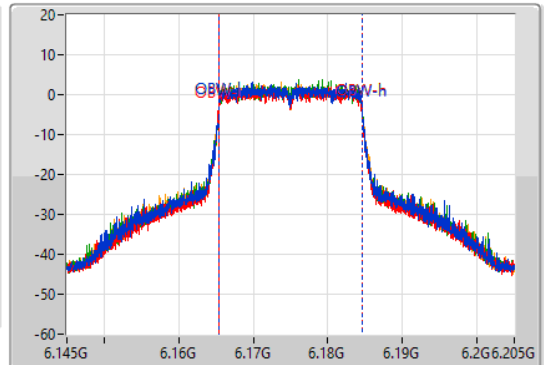
6175MHz

03/09/2022

CF
6.175GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
6.175GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2
Port 3
Port 4

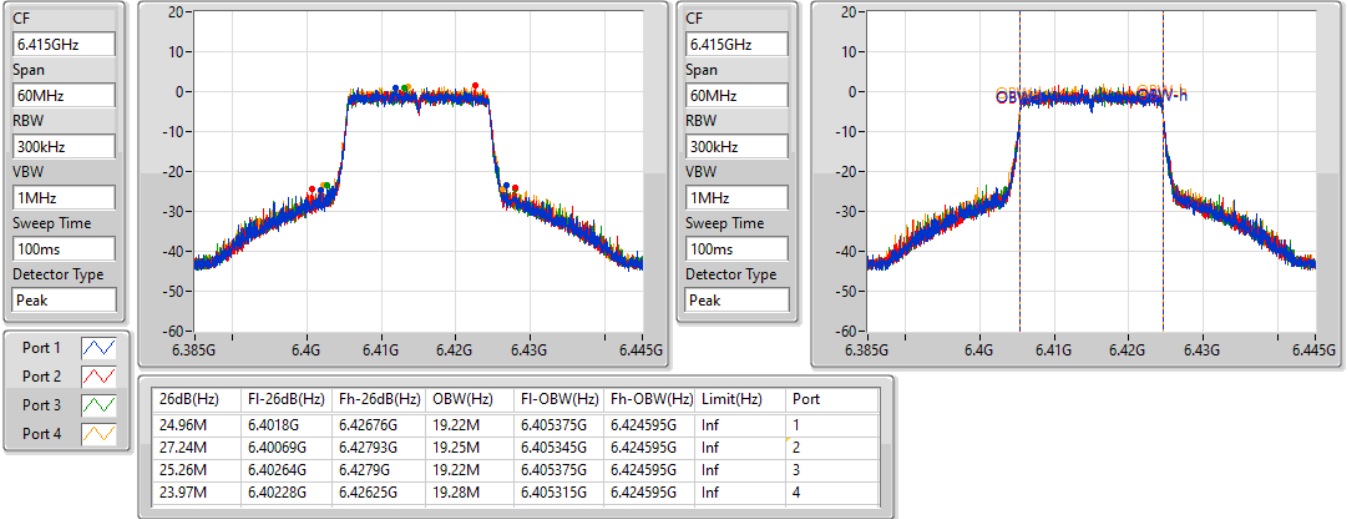
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.4M	6.16354G	6.18694G	19.22M	6.165375G	6.184595G	Inf	1
24.87M	6.16336G	6.18823G	19.28M	6.165315G	6.184595G	Inf	2
24.36M	6.1618G	6.18616G	19.22M	6.165375G	6.184595G	Inf	3
23.73M	6.16336G	6.18709G	19.25M	6.165345G	6.184595G	Inf	4

802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6415MHz

03/09/2022

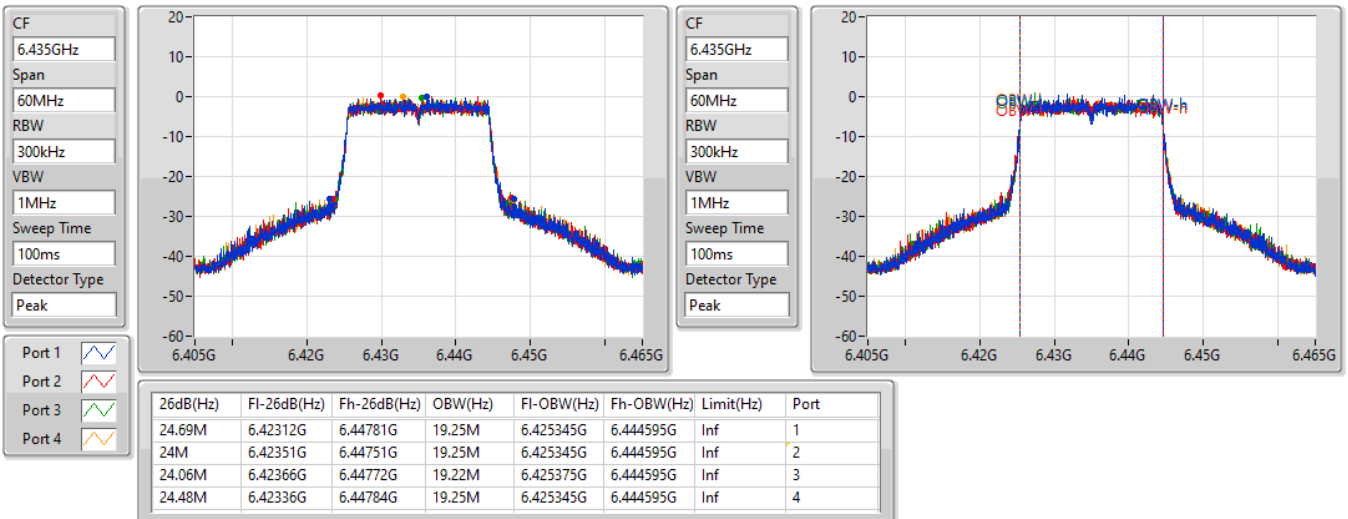


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6435MHz

03/09/2022

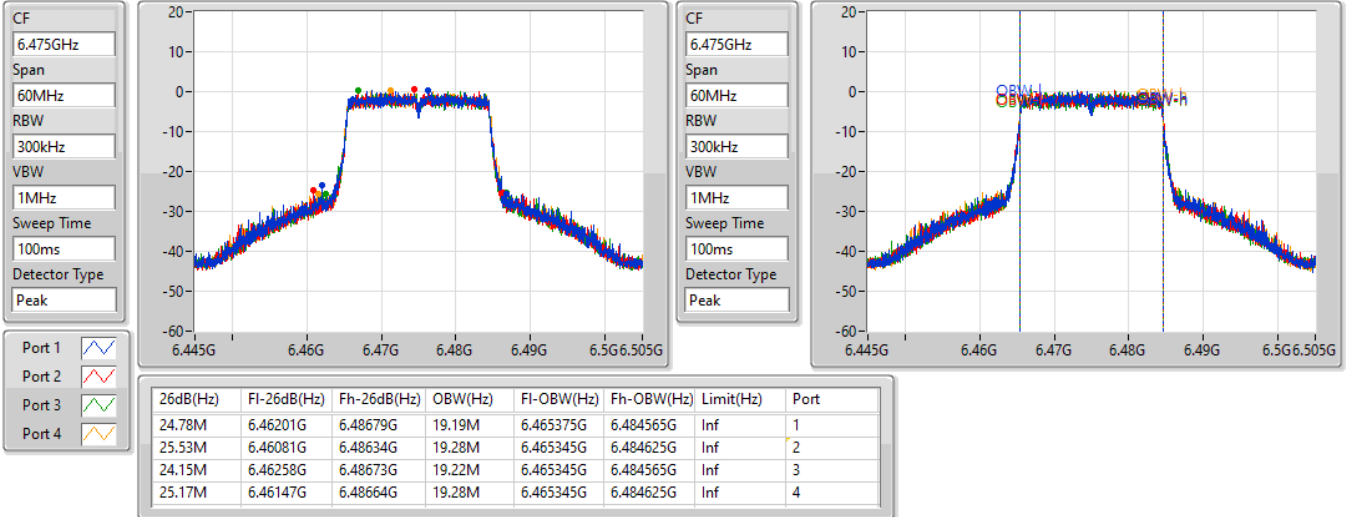


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6475MHz

03/09/2022

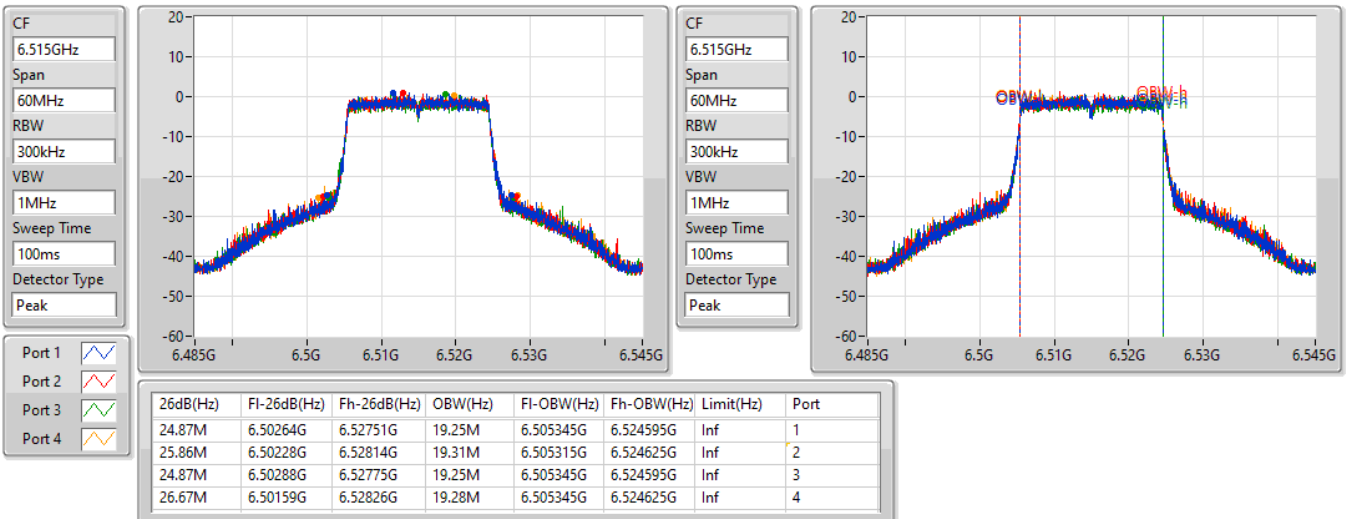


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6515MHz

03/09/2022

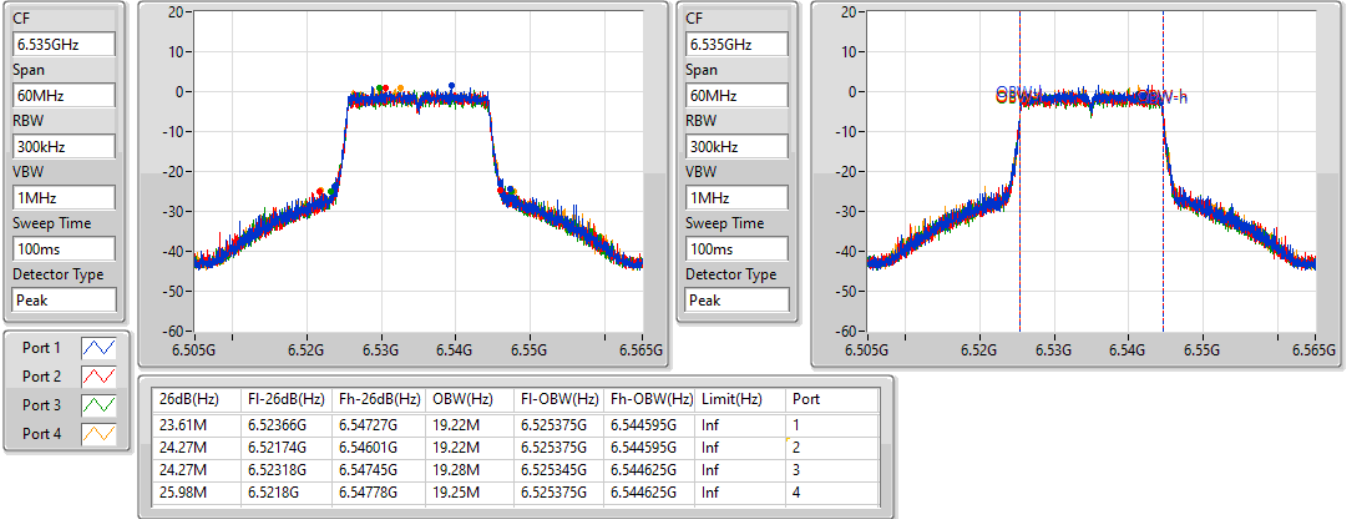


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6535MHz

03/09/2022

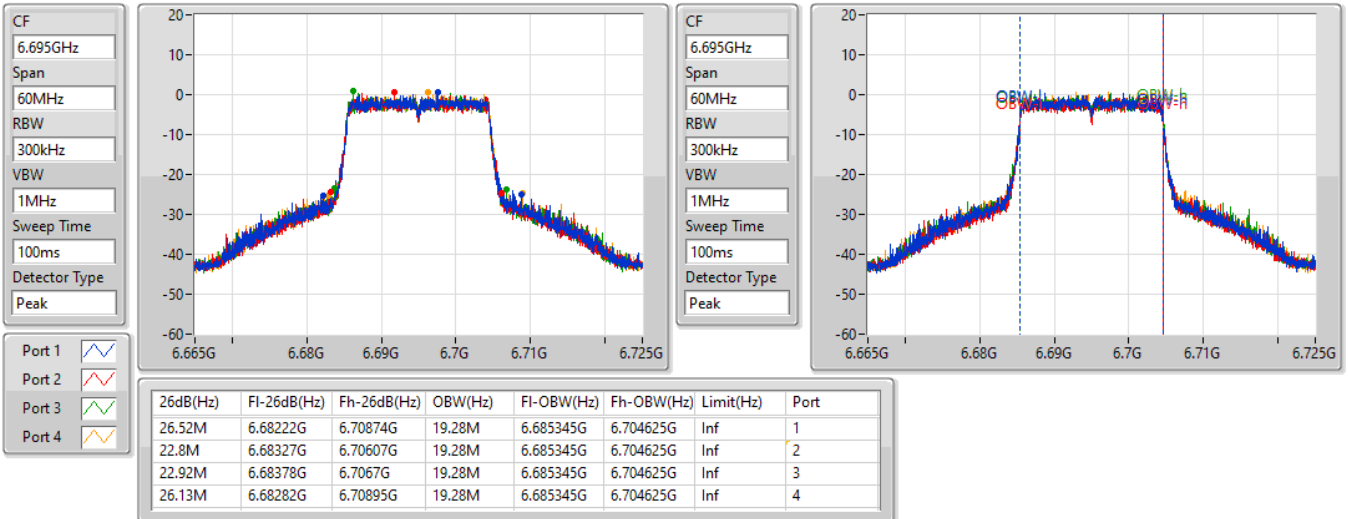


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6695MHz

03/09/2022

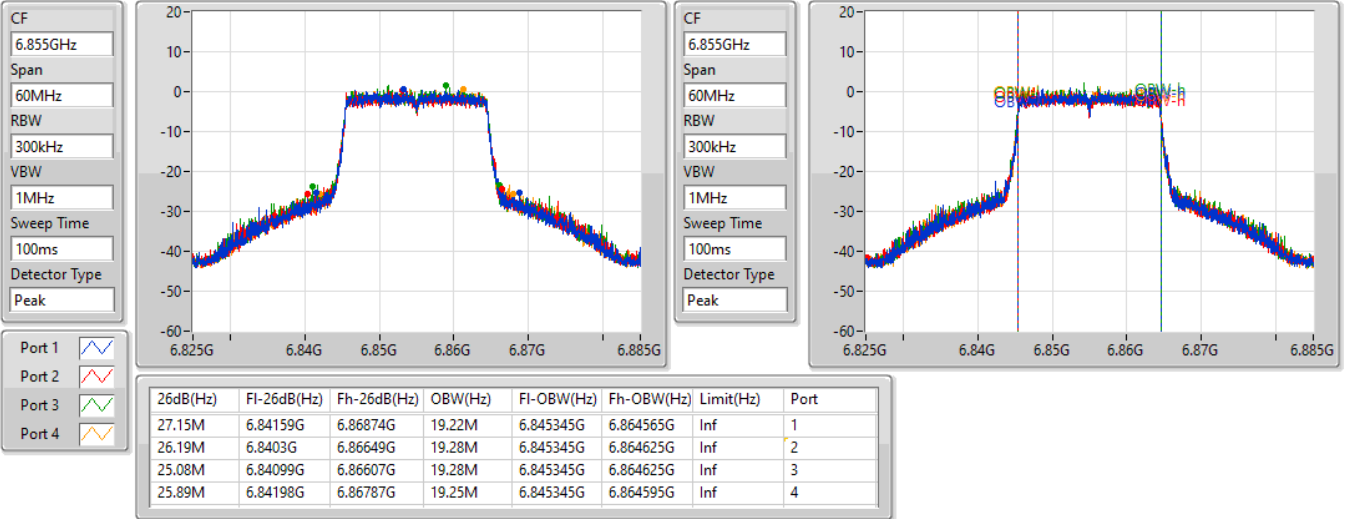


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6855MHz

03/09/2022

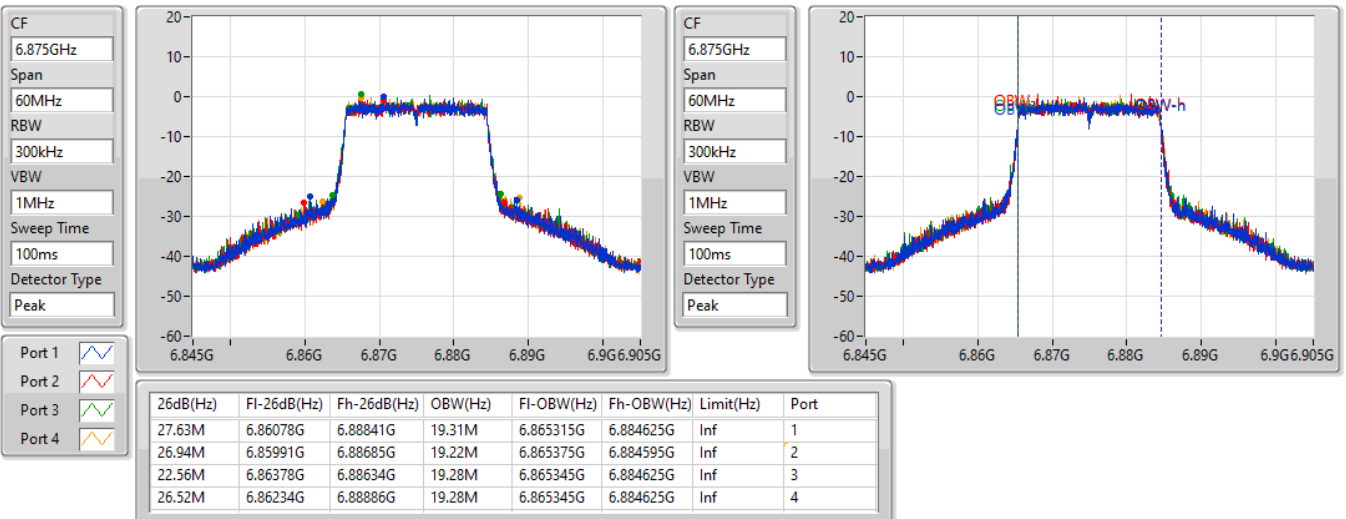


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6875MHz Straddle 6.525-6.875GHz

03/09/2022



802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6895MHz

03/09/2022

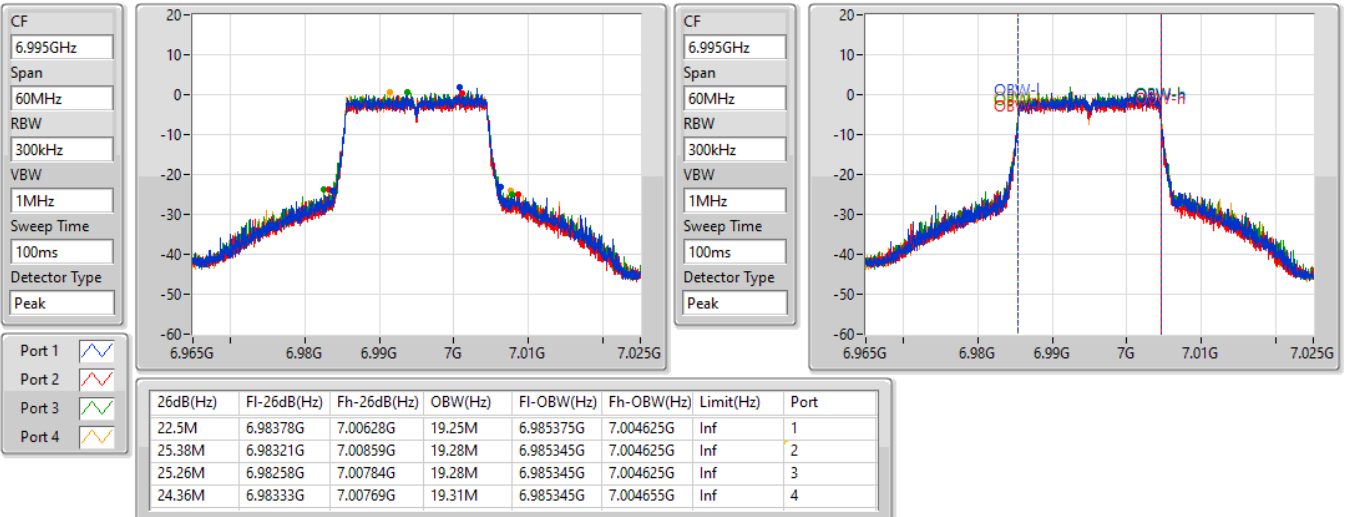


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

6995MHz

03/09/2022

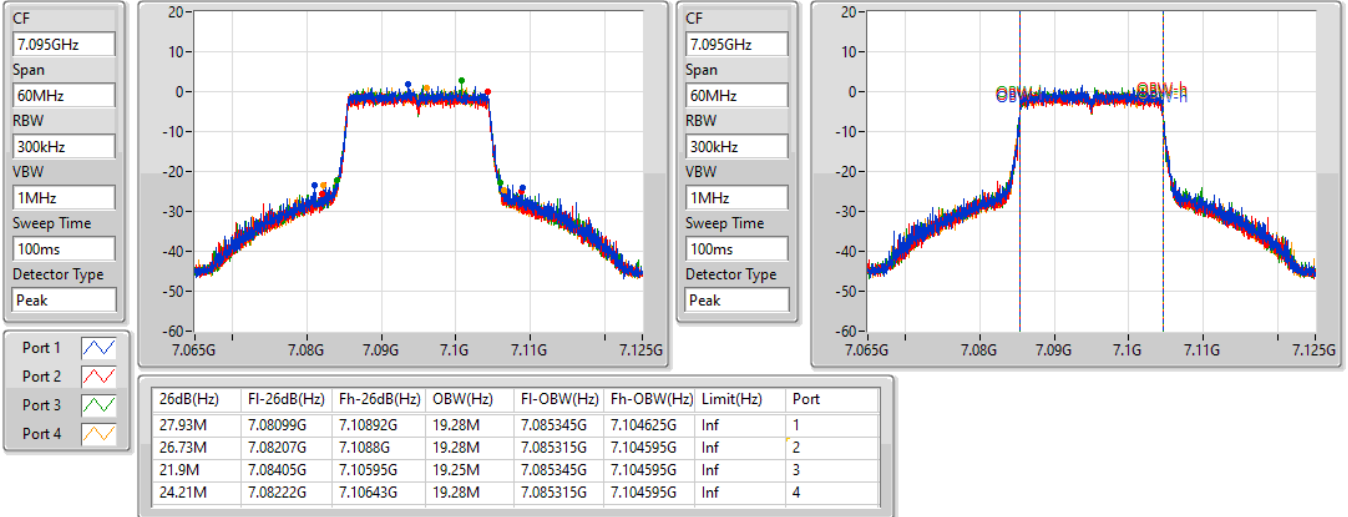


802.11ax HEW20-BF_Nss1,(MCS0)_4TX

EBW

7095MHz

03/09/2022

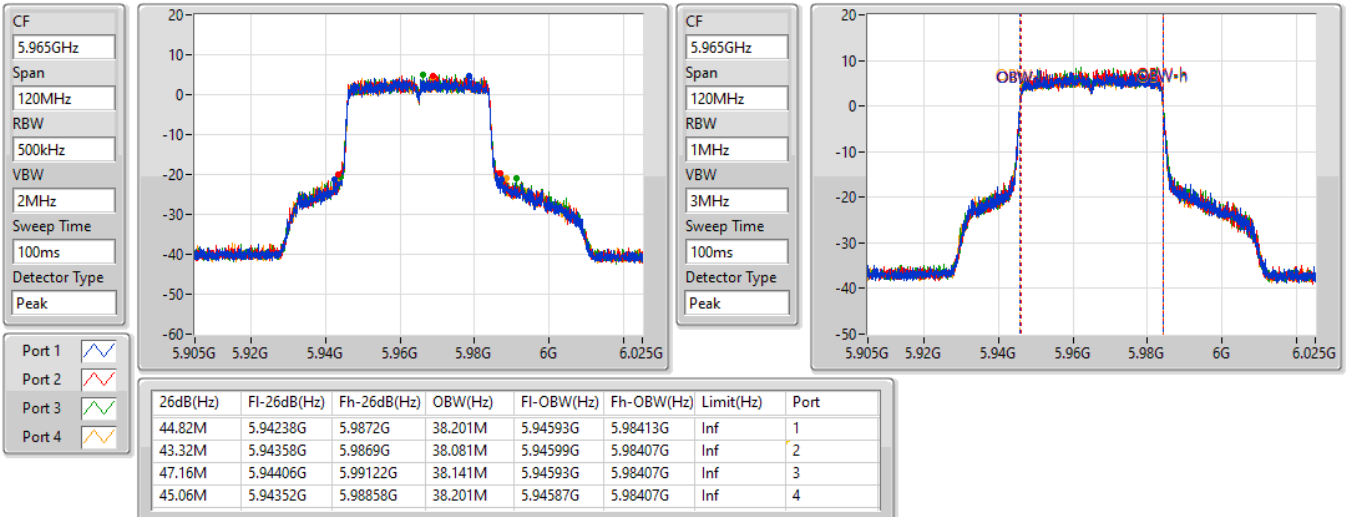


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

5965MHz

03/09/2022

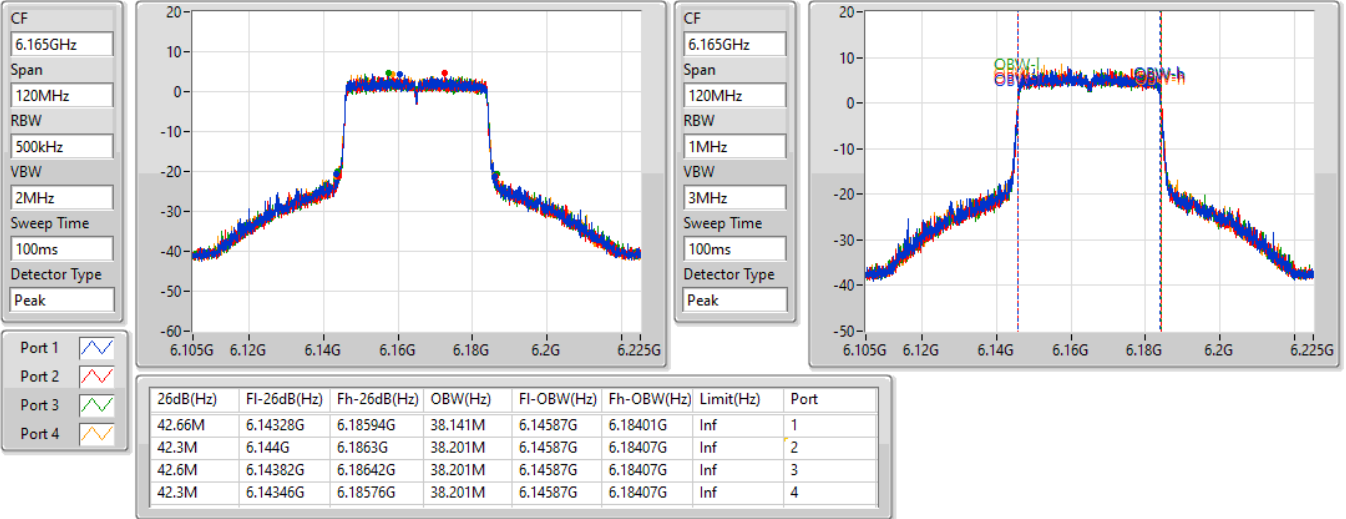


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6165MHz

03/09/2022

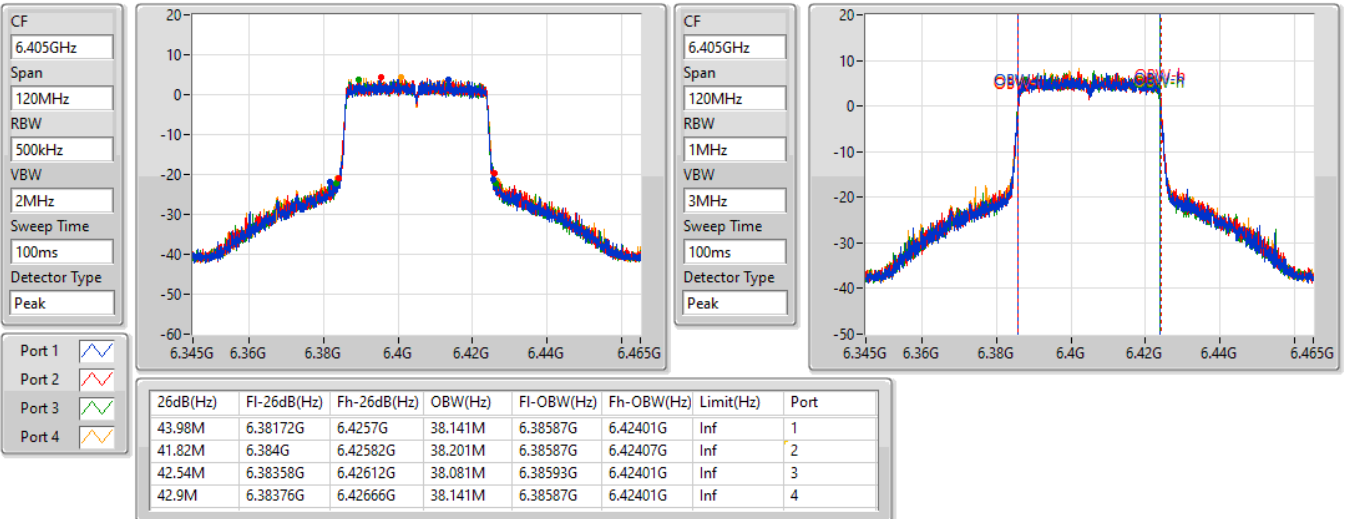


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6405MHz

03/09/2022

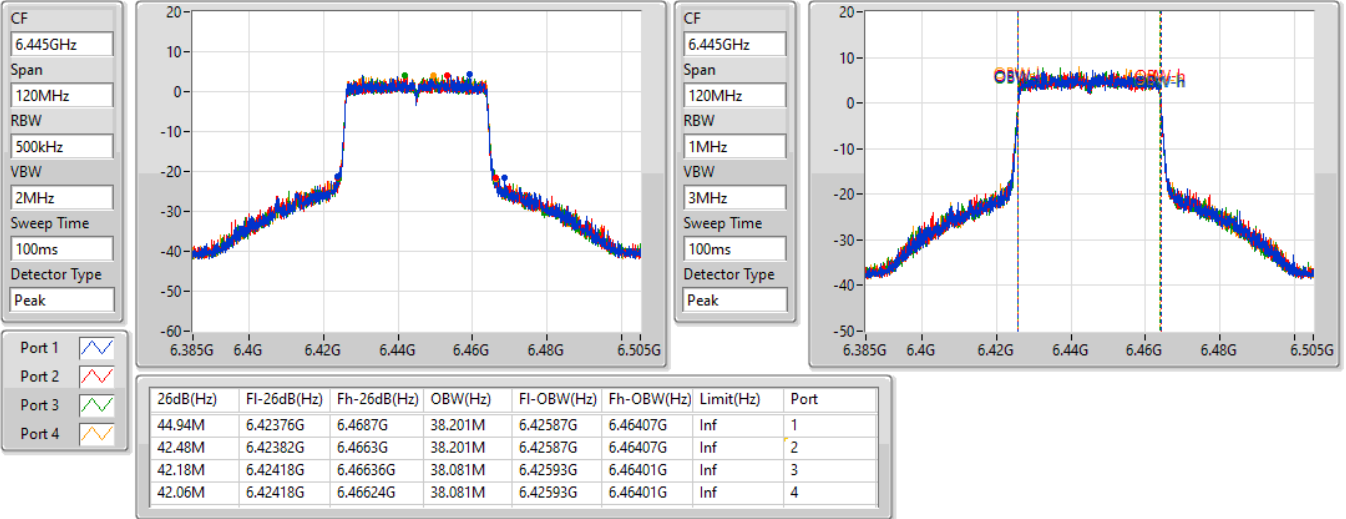


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6445MHz

03/09/2022

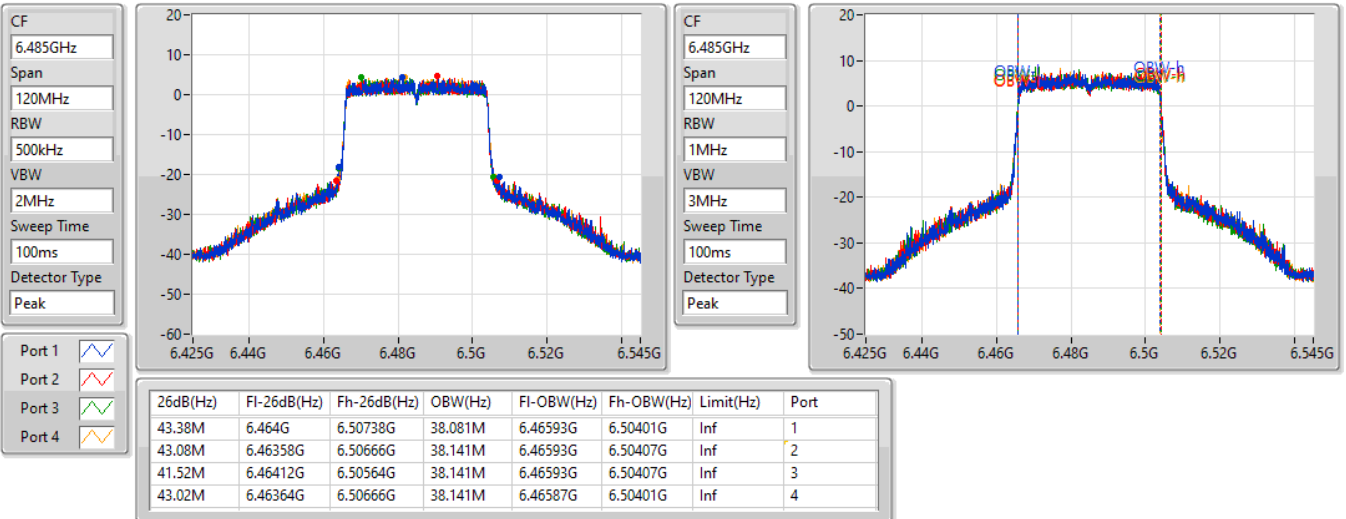


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6485MHz

03/09/2022

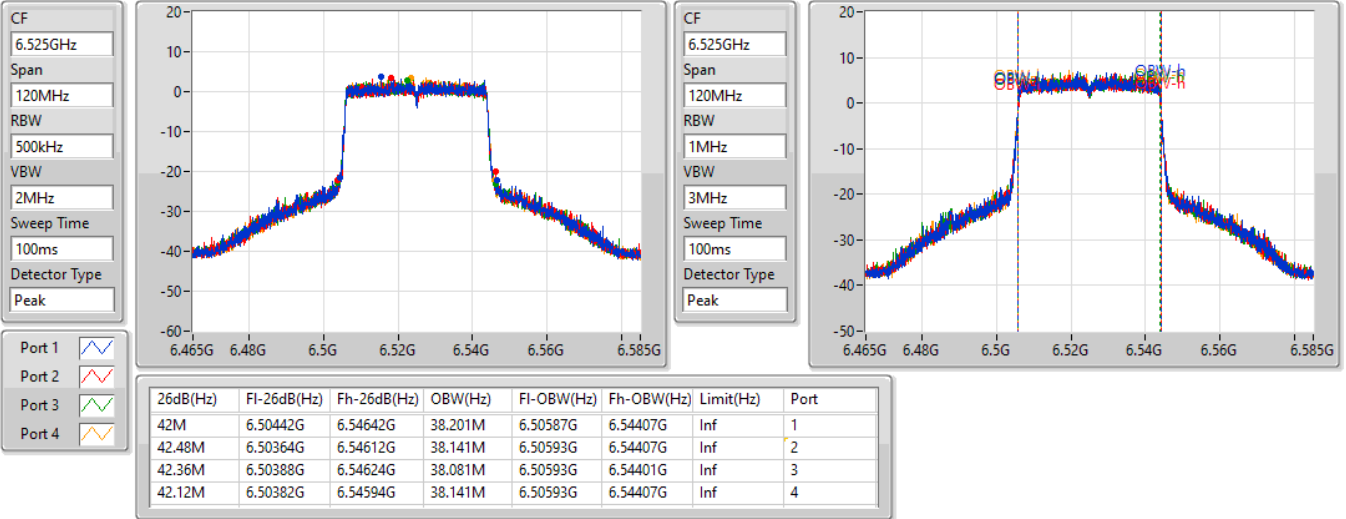


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6525MHz Straddle 6.425-6.525GHz

03/09/2022

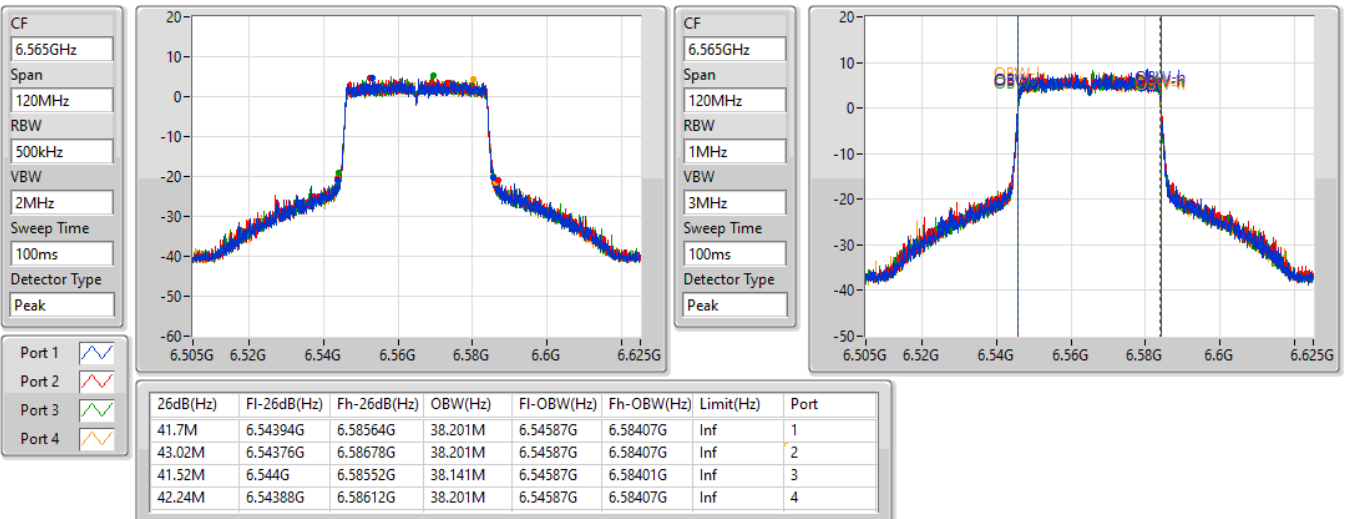


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6565MHz

03/09/2022

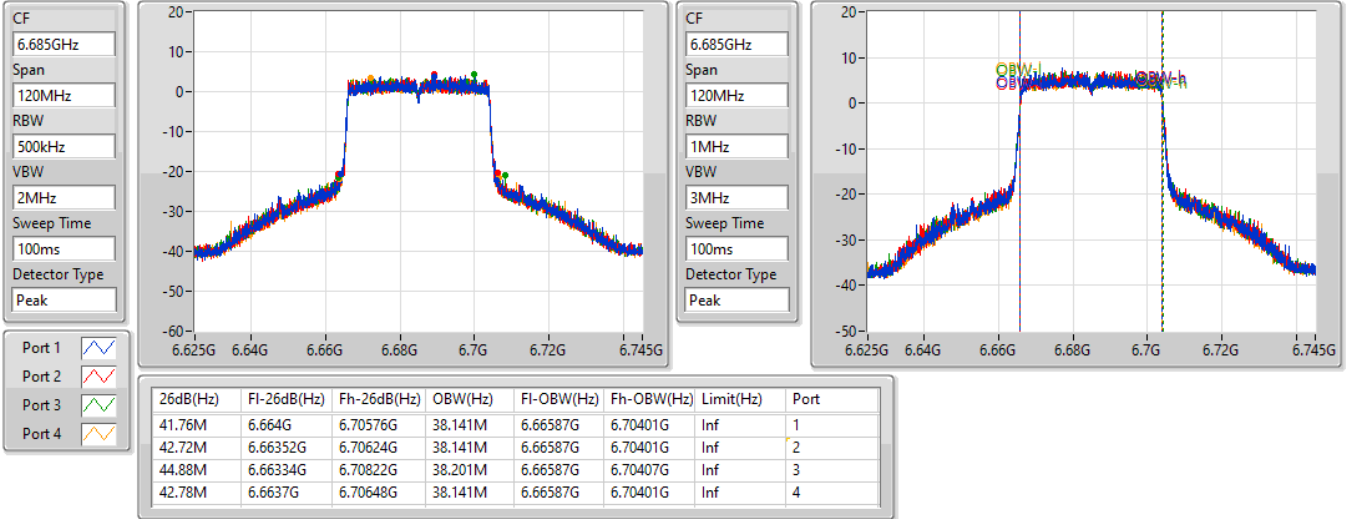


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6685MHz

03/09/2022



802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6845MHz

03/09/2022

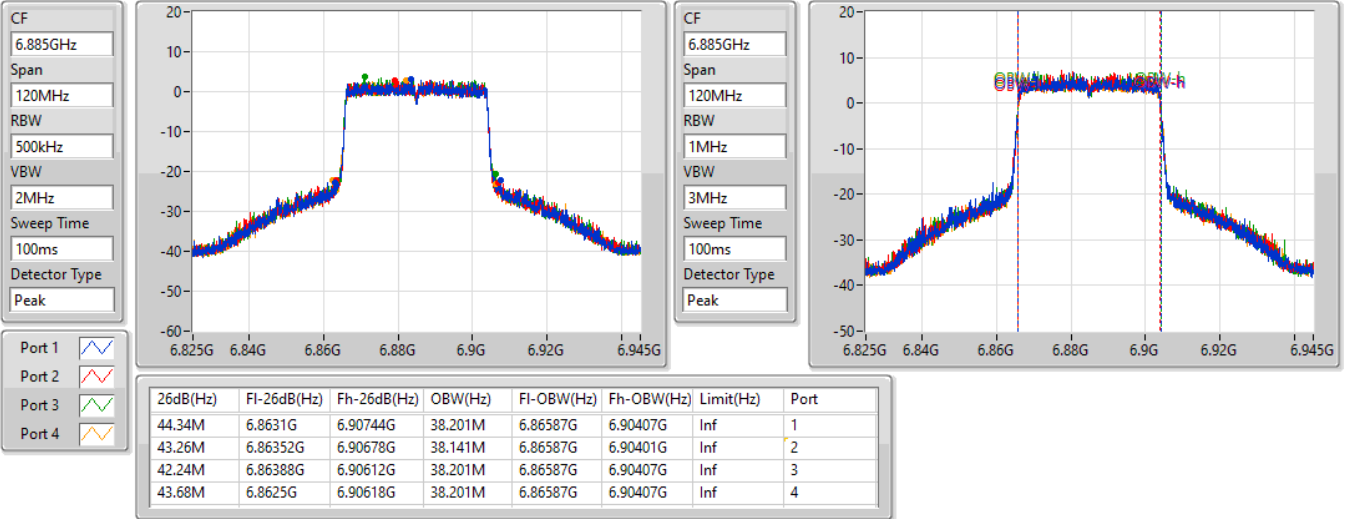


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6885MHz Straddle 6.525-6.875GHz

03/09/2022

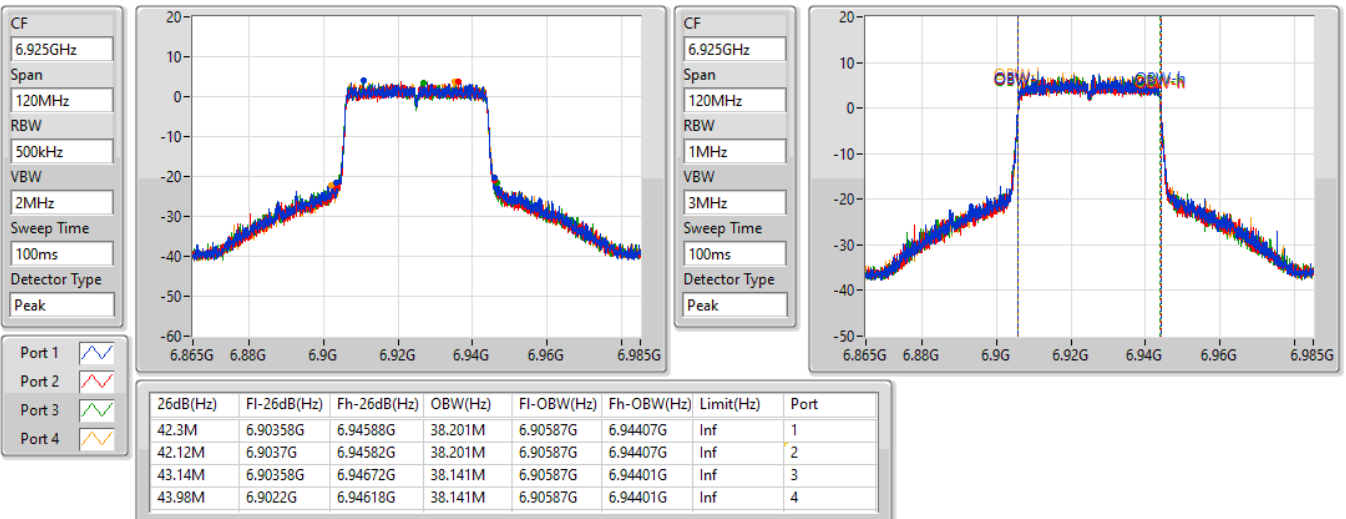


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

6925MHz

03/09/2022

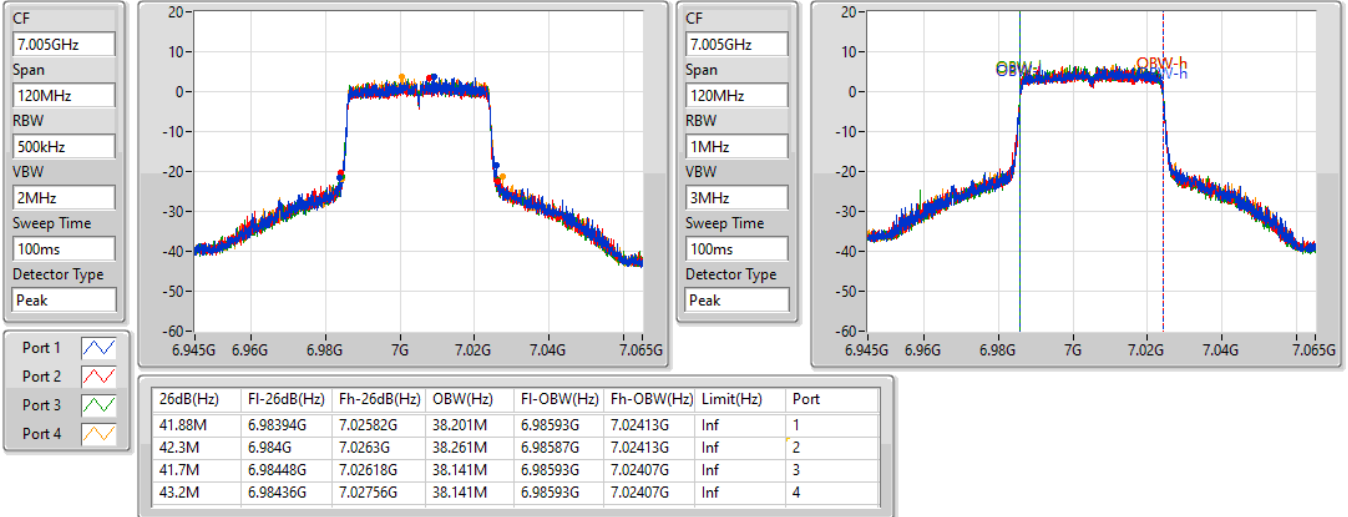


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

7005MHz

03/09/2022

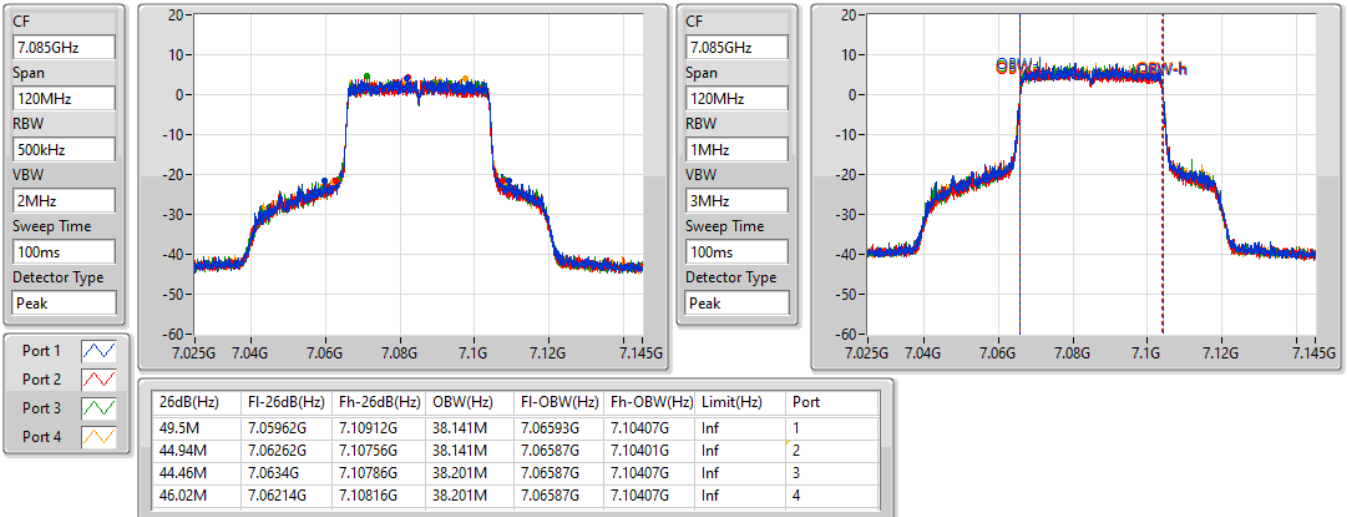


802.11ax HEW40-BF_Nss1,(MCS0)_4TX

EBW

7085MHz

03/09/2022

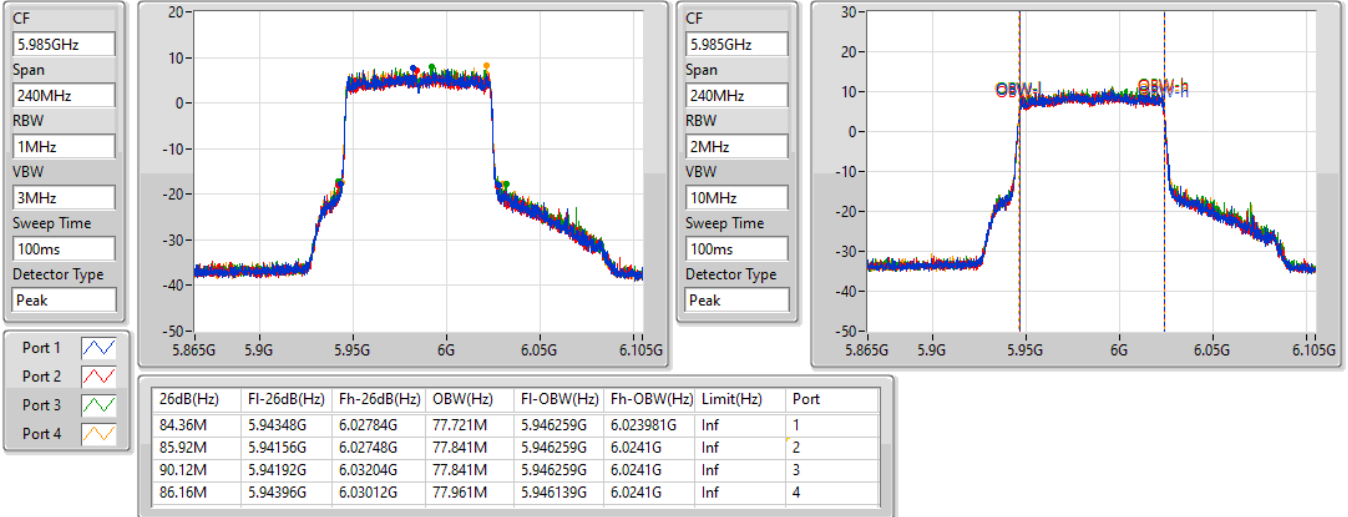


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

5985MHz

03/09/2022

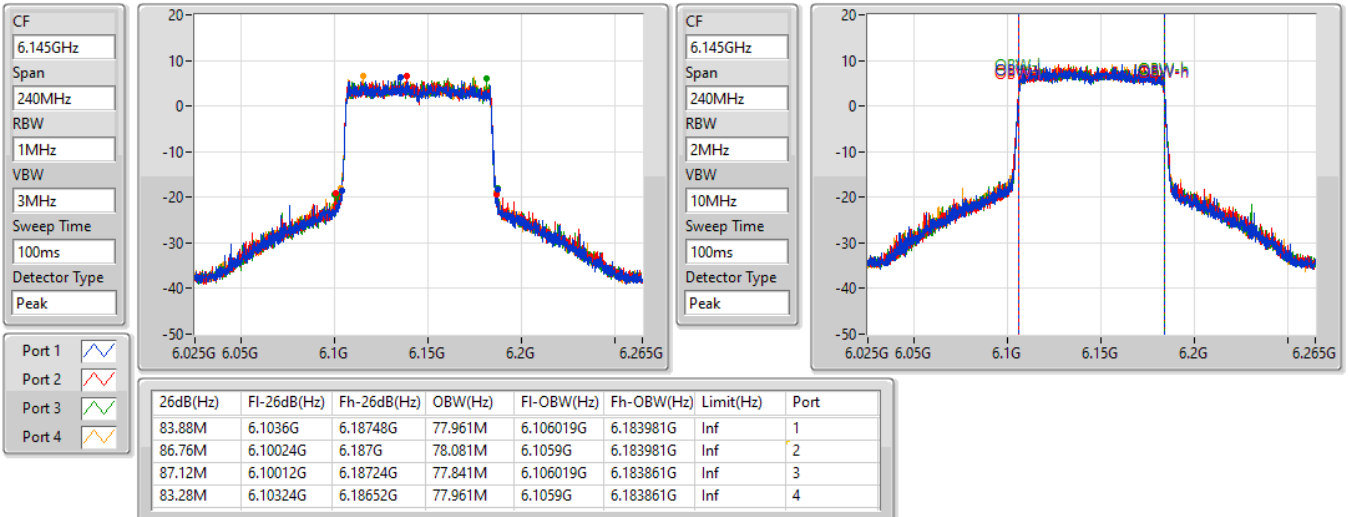


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

6145MHz

03/09/2022



802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

6385MHz

03/09/2022

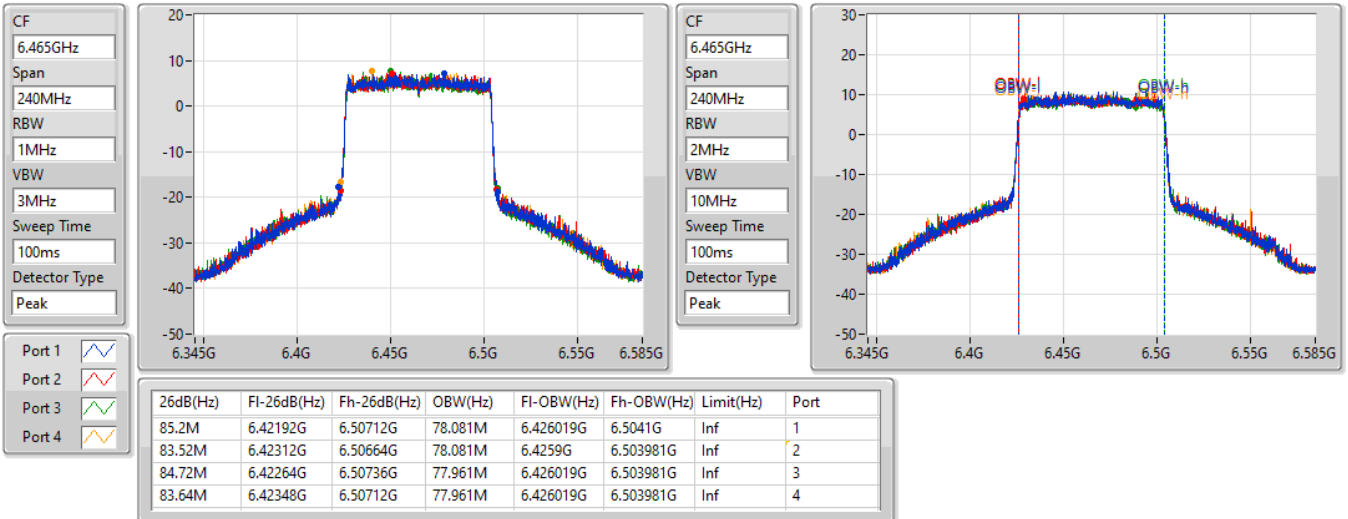


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

6465MHz

03/09/2022

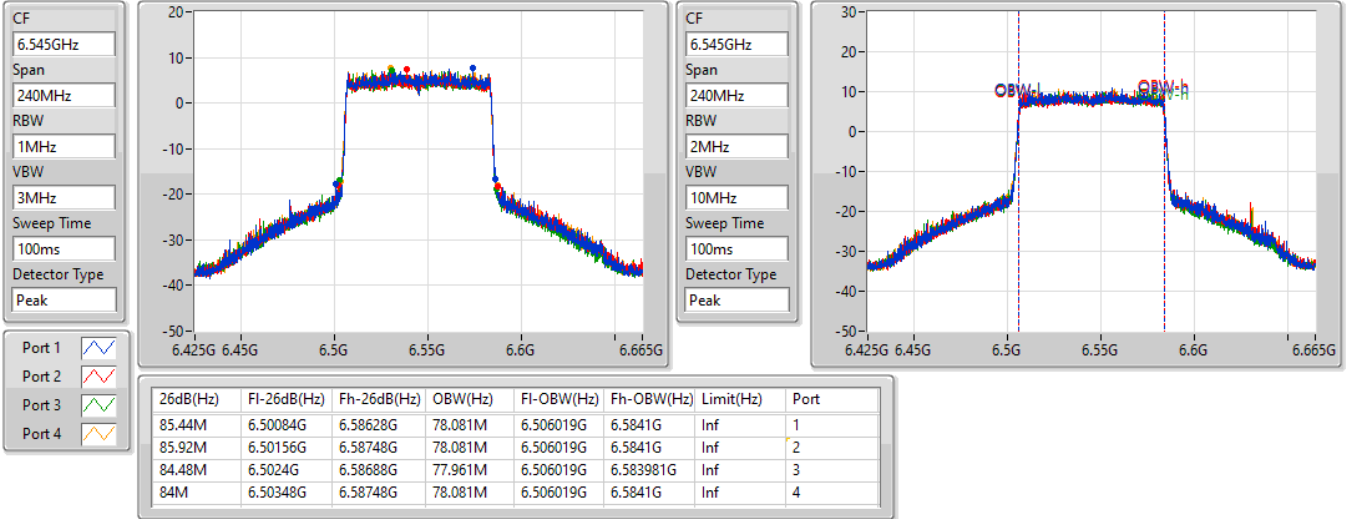


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

6545MHz Straddle 6.425-6.525GHz

03/09/2022

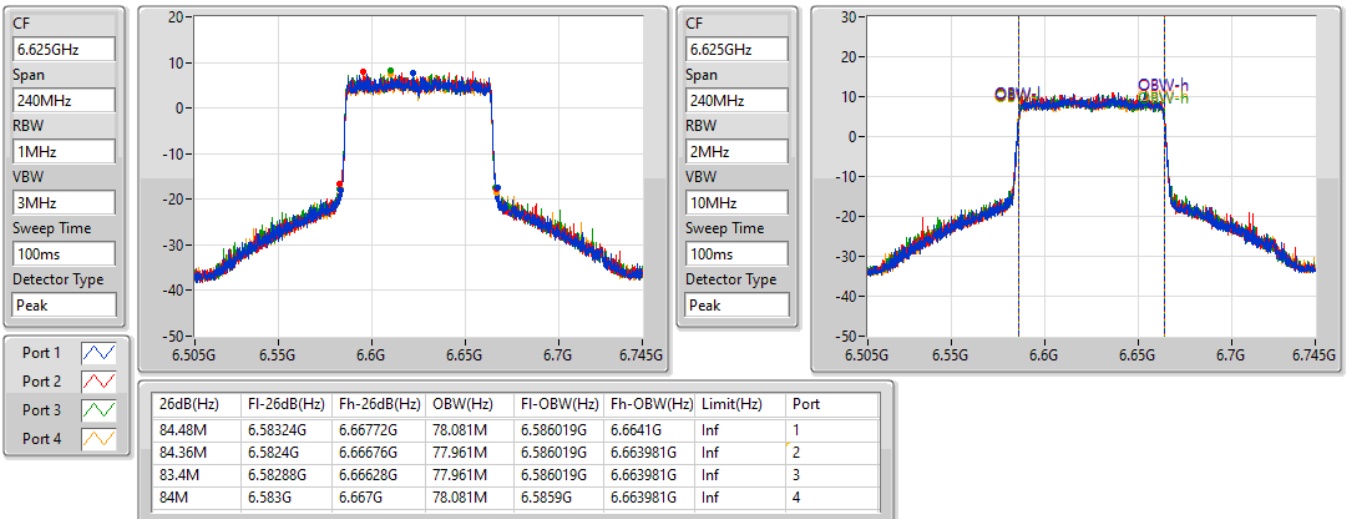


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

6625MHz

03/09/2022

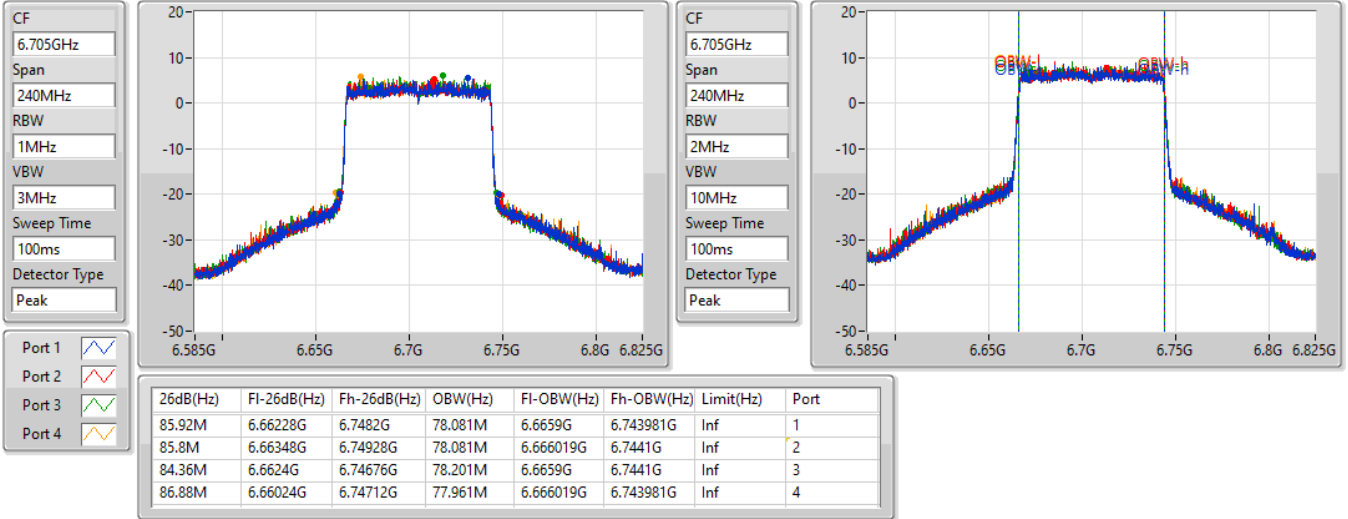


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

6705MHz

03/09/2022

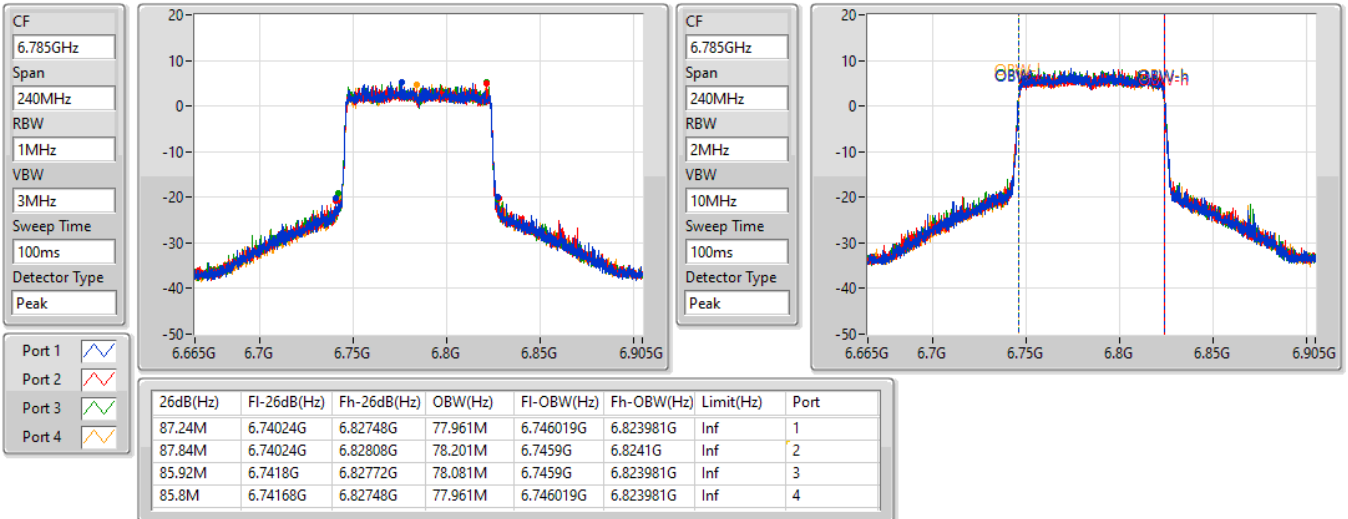


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

6785MHz

03/09/2022

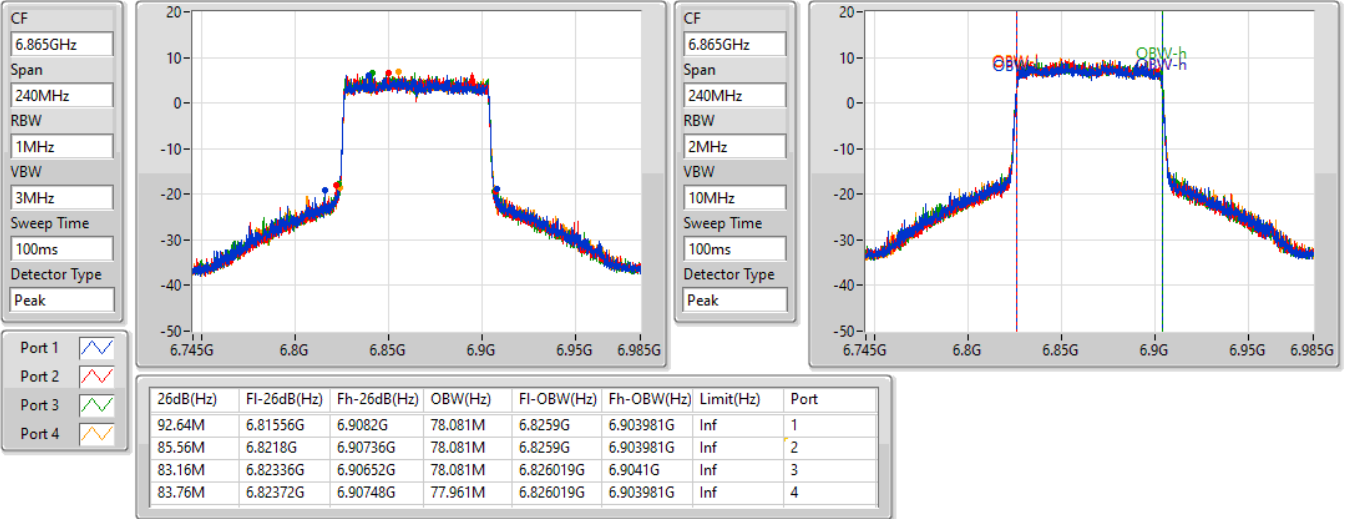


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

6865MHz Straddle 6.525-6.875GHz

03/09/2022

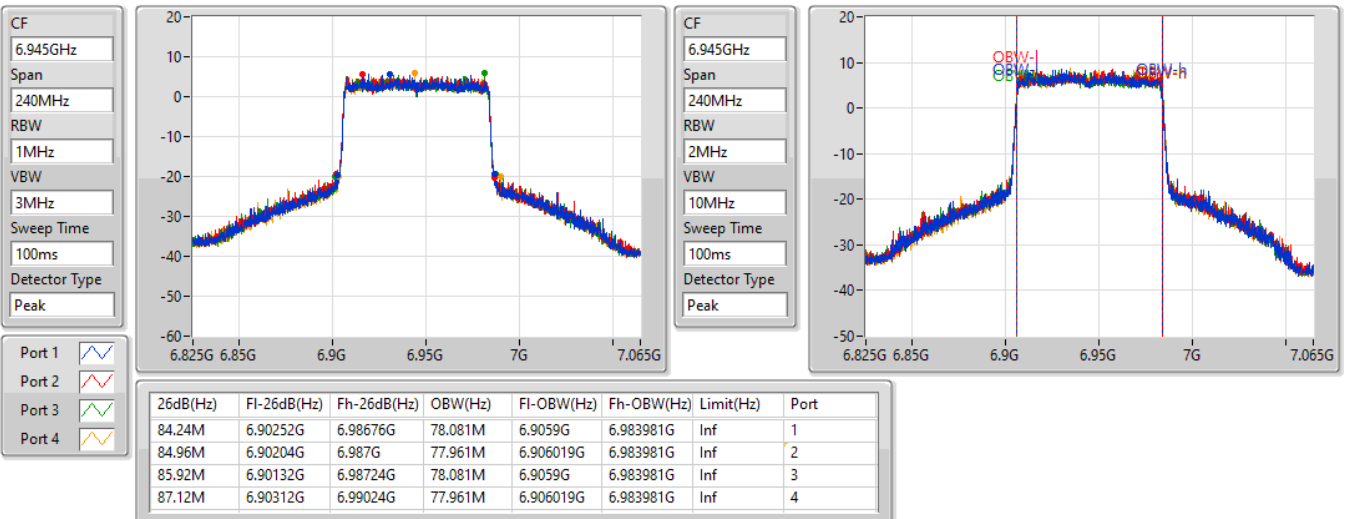


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

6945MHz

03/09/2022

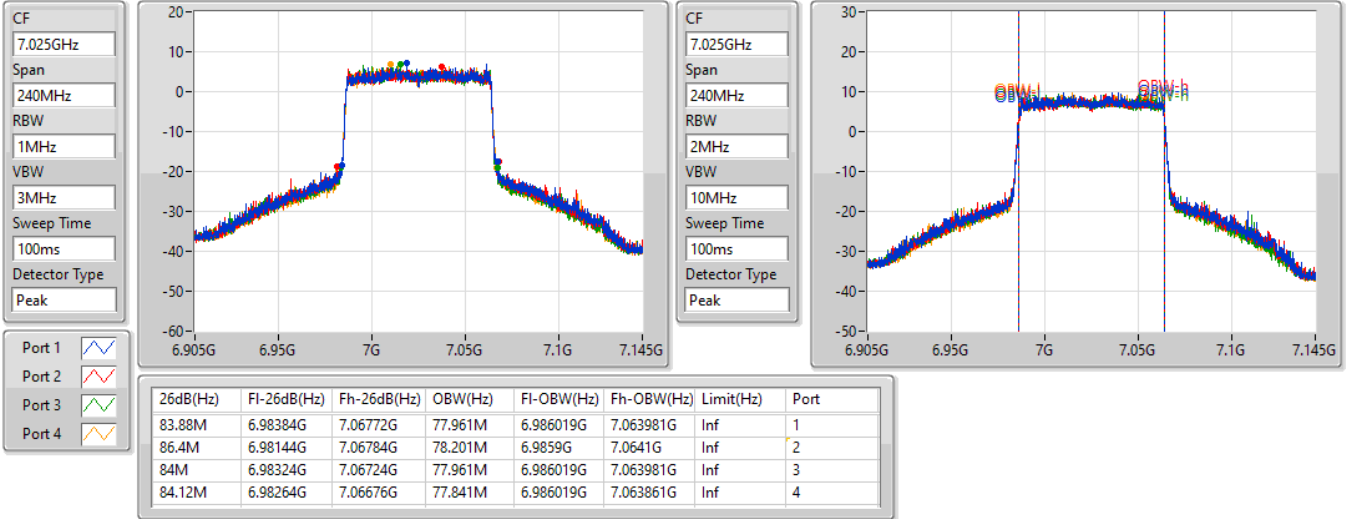


802.11ax HEW80-BF_Nss1,(MCS0)_4TX

EBW

7025MHz

03/09/2022

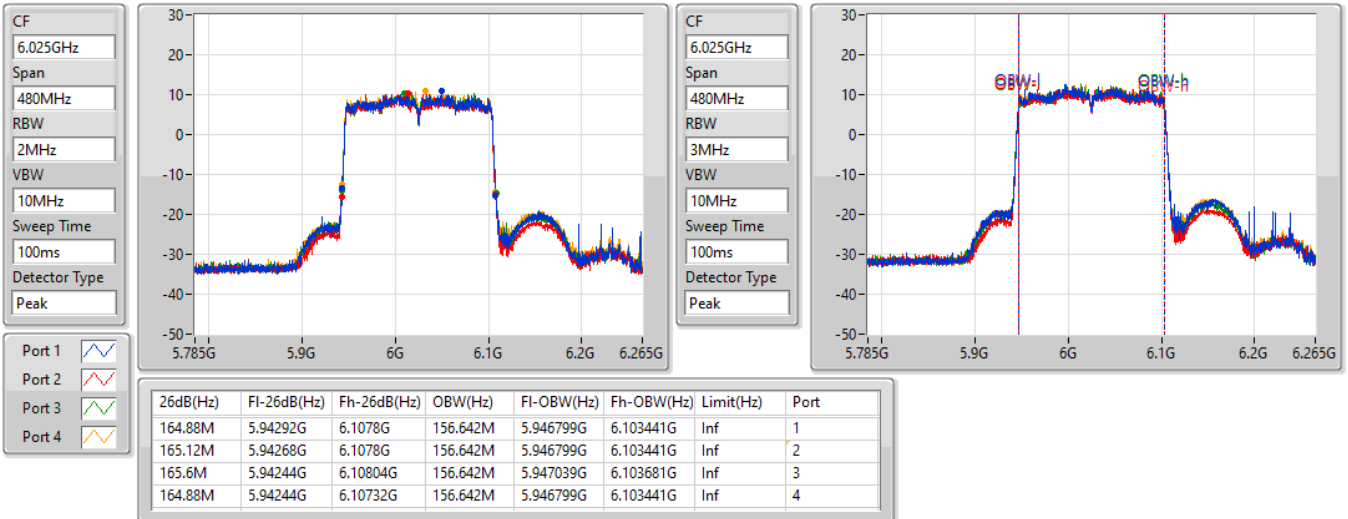


802.11ax HEW160-BF_Nss1,(MCS0)_4TX

EBW

6025MHz

03/09/2022

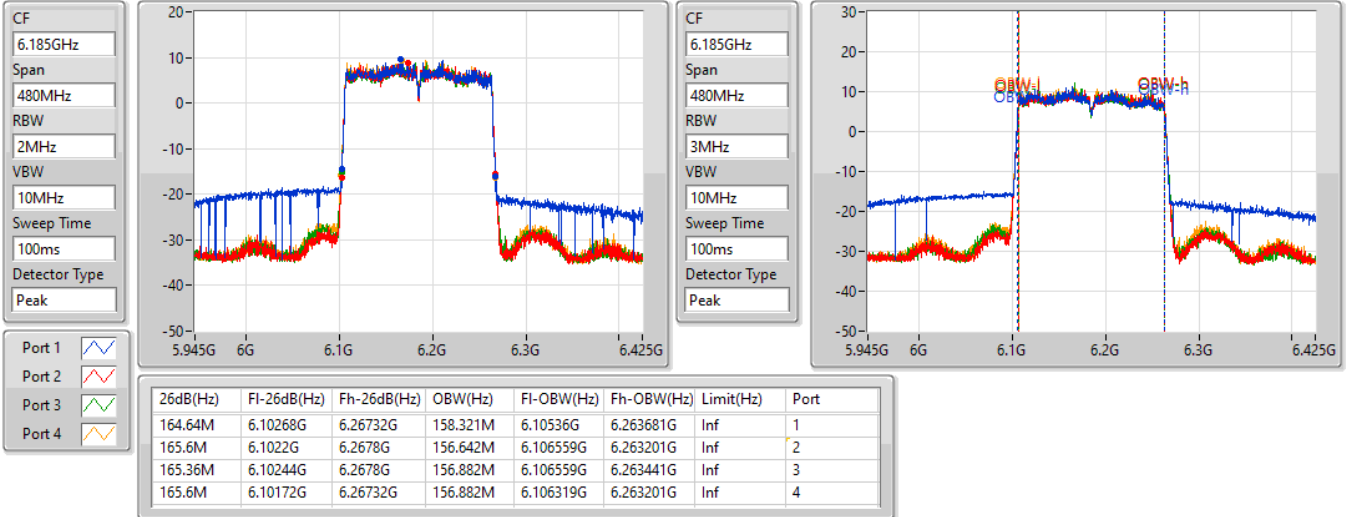


802.11ax HEW160-BF_Nss1,(MCS0)_4TX

EBW

6185MHz

03/09/2022

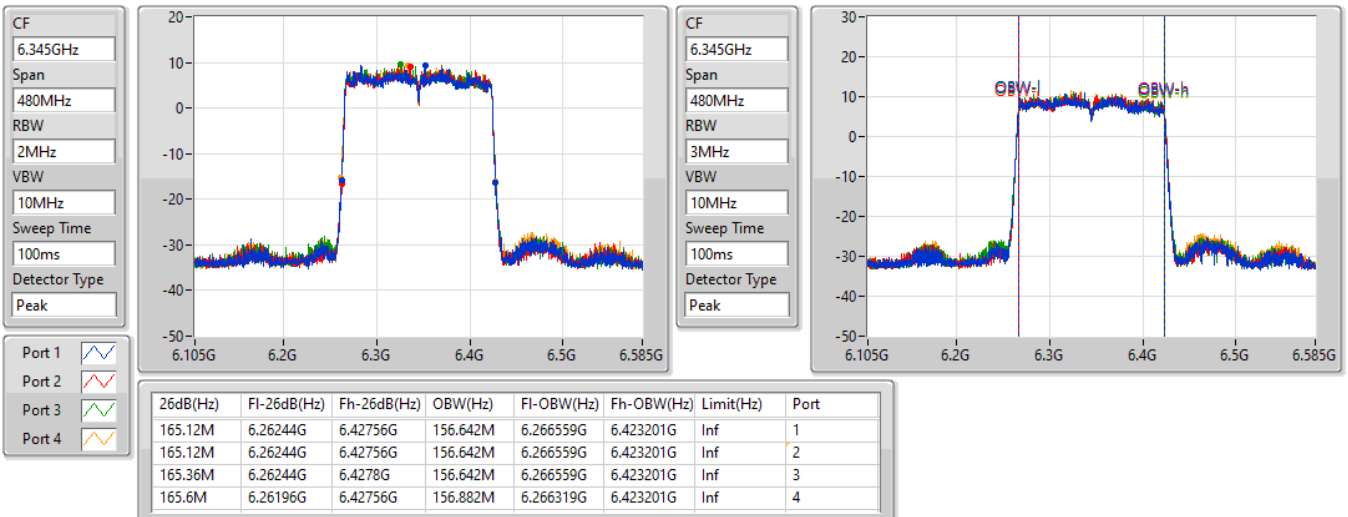


802.11ax HEW160-BF_Nss1,(MCS0)_4TX

EBW

6345MHz

03/09/2022

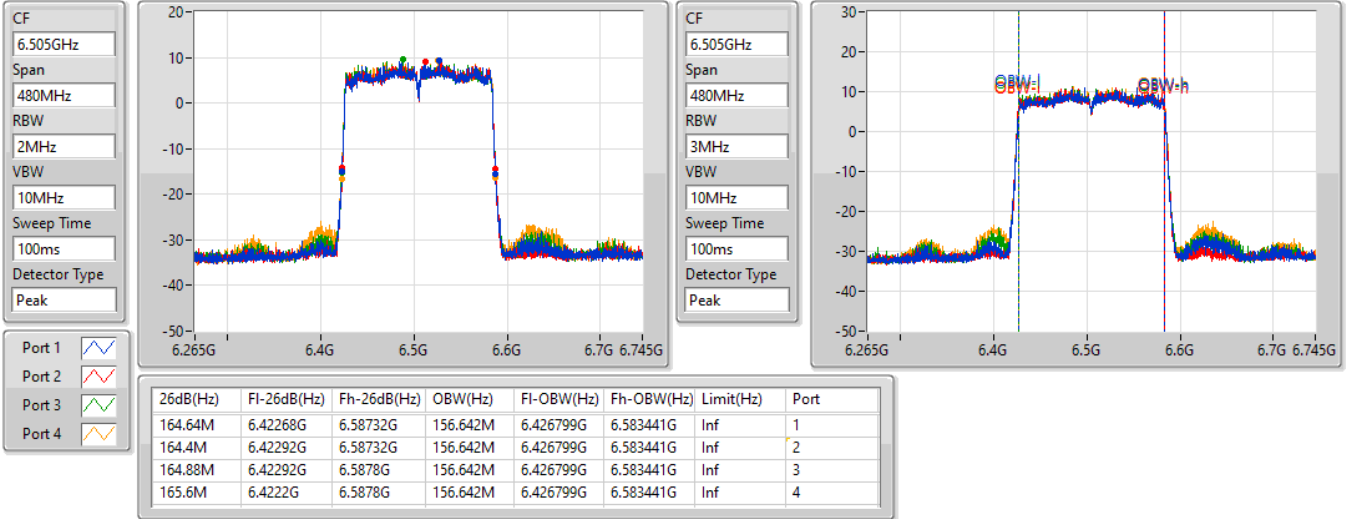


802.11ax HEW160-BF_Nss1,(MCS0)_4TX

EBW

6505MHz Straddle 6.425-6.525GHz

03/09/2022

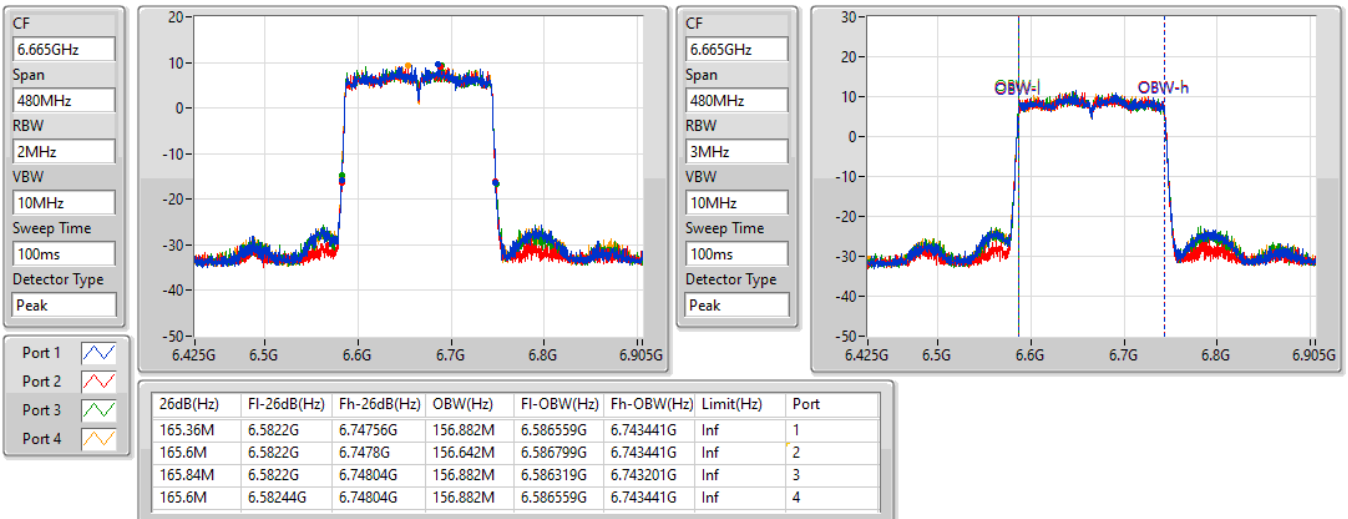


802.11ax HEW160-BF_Nss1,(MCS0)_4TX

EBW

6665MHz

03/09/2022

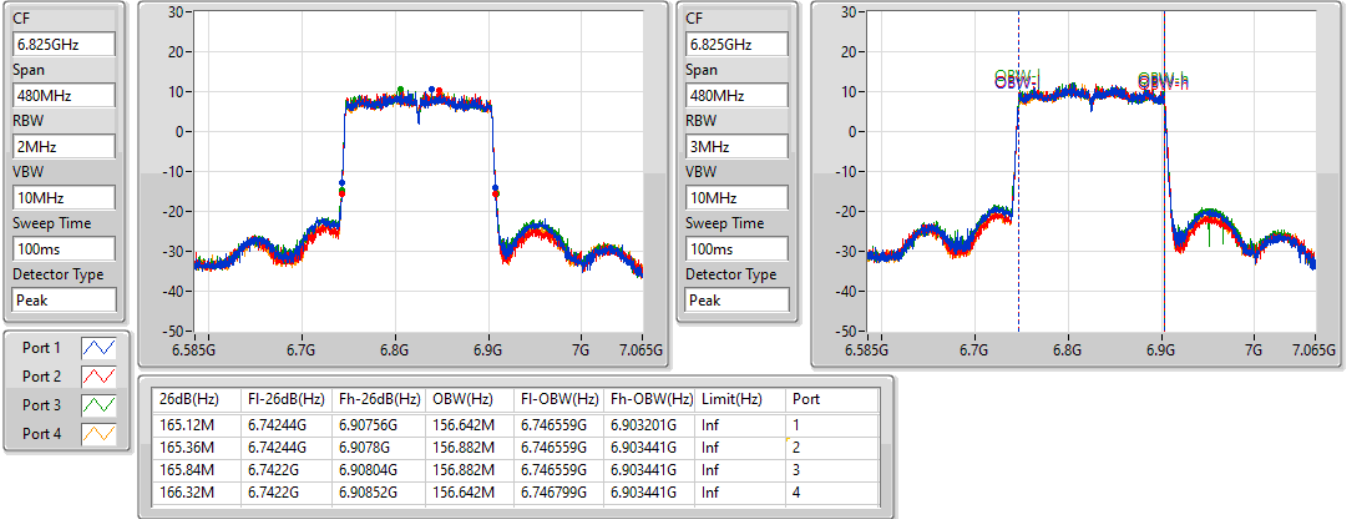


802.11ax HEW160-BF_Nss1,(MCS0)_4TX

EBW

6825MHz Straddle 6.525-6.875GHz

03/09/2022

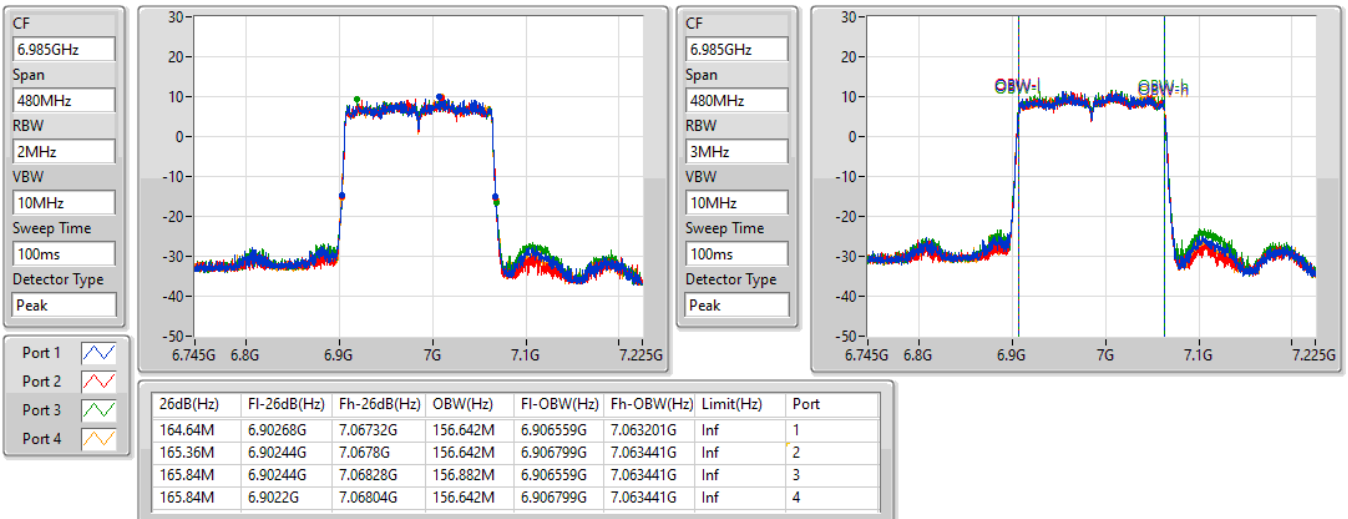


802.11ax HEW160-BF_Nss1,(MCS0)_4TX

EBW

6985MHz

03/09/2022





Summary

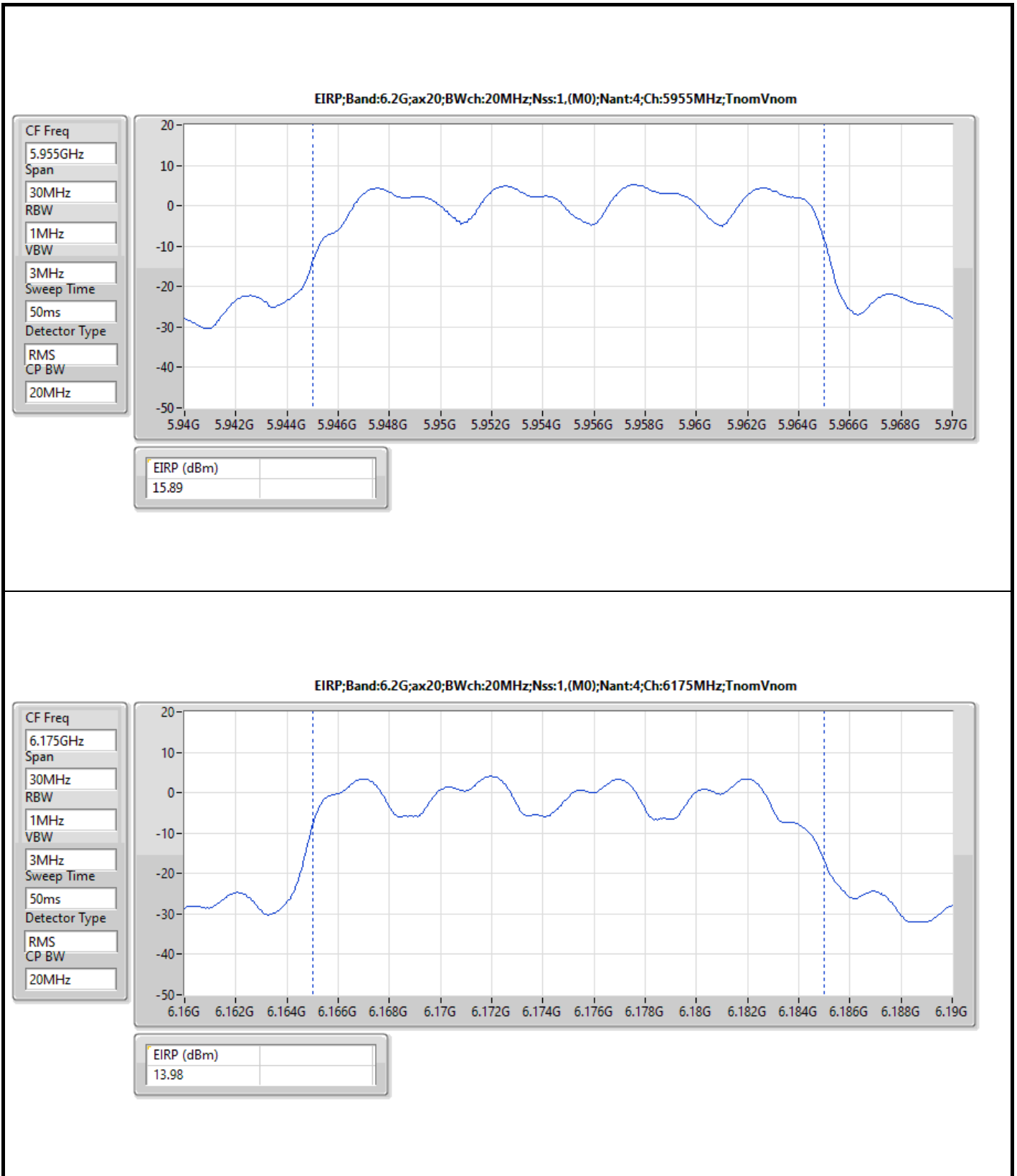
Mode	EIRP (dBm)	EIRP (W)
5.925-6.425GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	15.89	0.03882
802.11ax HEW40_Nss1,(MCS0)_4TX	17.09	0.05117
802.11ax HEW80_Nss1,(MCS0)_4TX	19.87	0.09705
802.11ax HEW160_Nss1,(MCS0)_4TX	24.66	0.29242
6.425-6.525GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	13.05	0.02018
802.11ax HEW40_Nss1,(MCS0)_4TX	16.22	0.04188
802.11ax HEW80_Nss1,(MCS0)_4TX	21.20	0.13183
802.11ax HEW160_Nss1,(MCS0)_4TX	23.47	0.22233
6.525-6.875GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	13.98	0.02500
802.11ax HEW40_Nss1,(MCS0)_4TX	18.44	0.06982
802.11ax HEW80_Nss1,(MCS0)_4TX	20.40	0.10965
802.11ax HEW160_Nss1,(MCS0)_4TX	23.59	0.22856
6.875-7.125GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	14.37	0.02735
802.11ax HEW40_Nss1,(MCS0)_4TX	17.20	0.05248
802.11ax HEW80_Nss1,(MCS0)_4TX	19.70	0.09333
802.11ax HEW160_Nss1,(MCS0)_4TX	23.59	0.22856

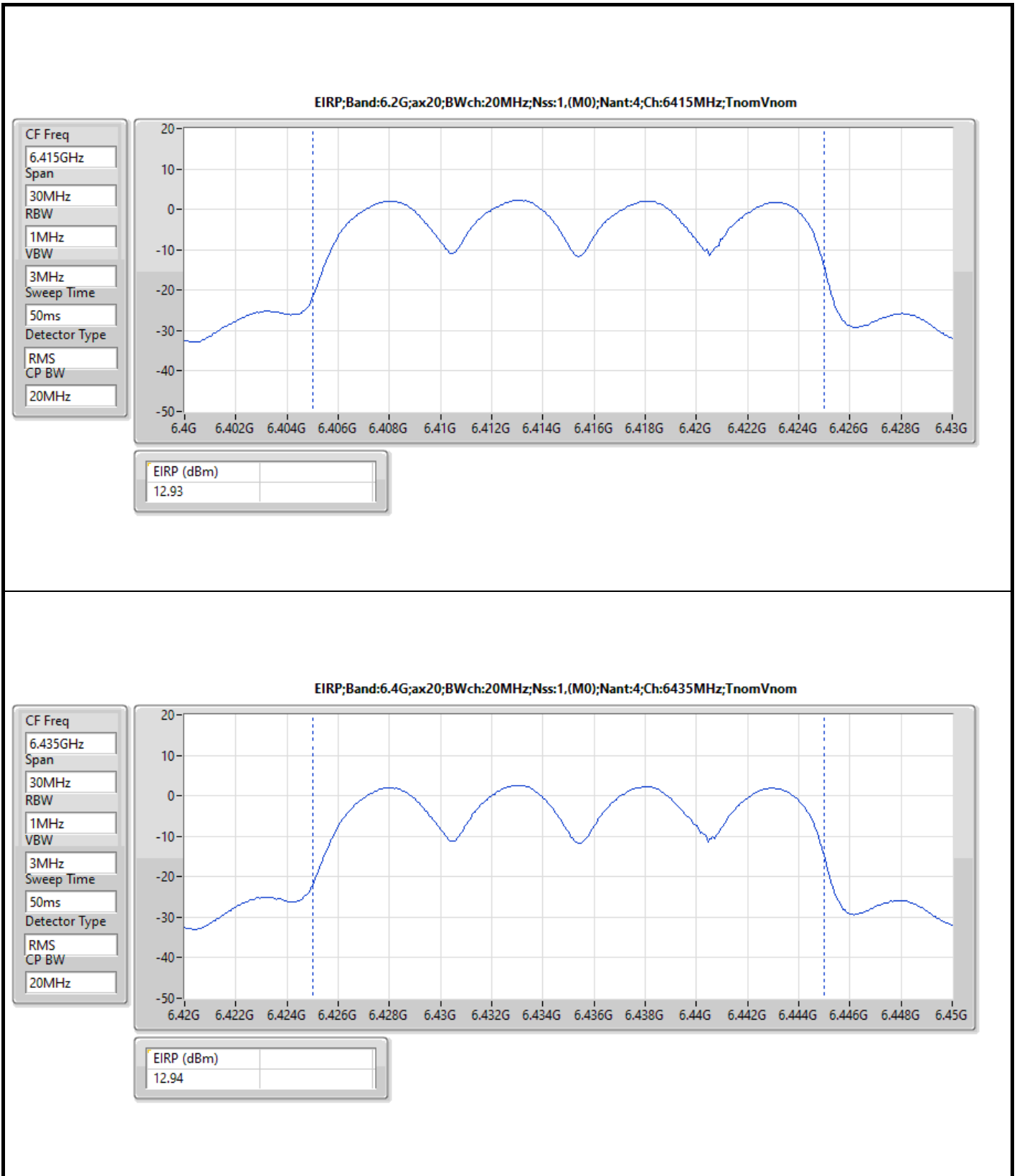


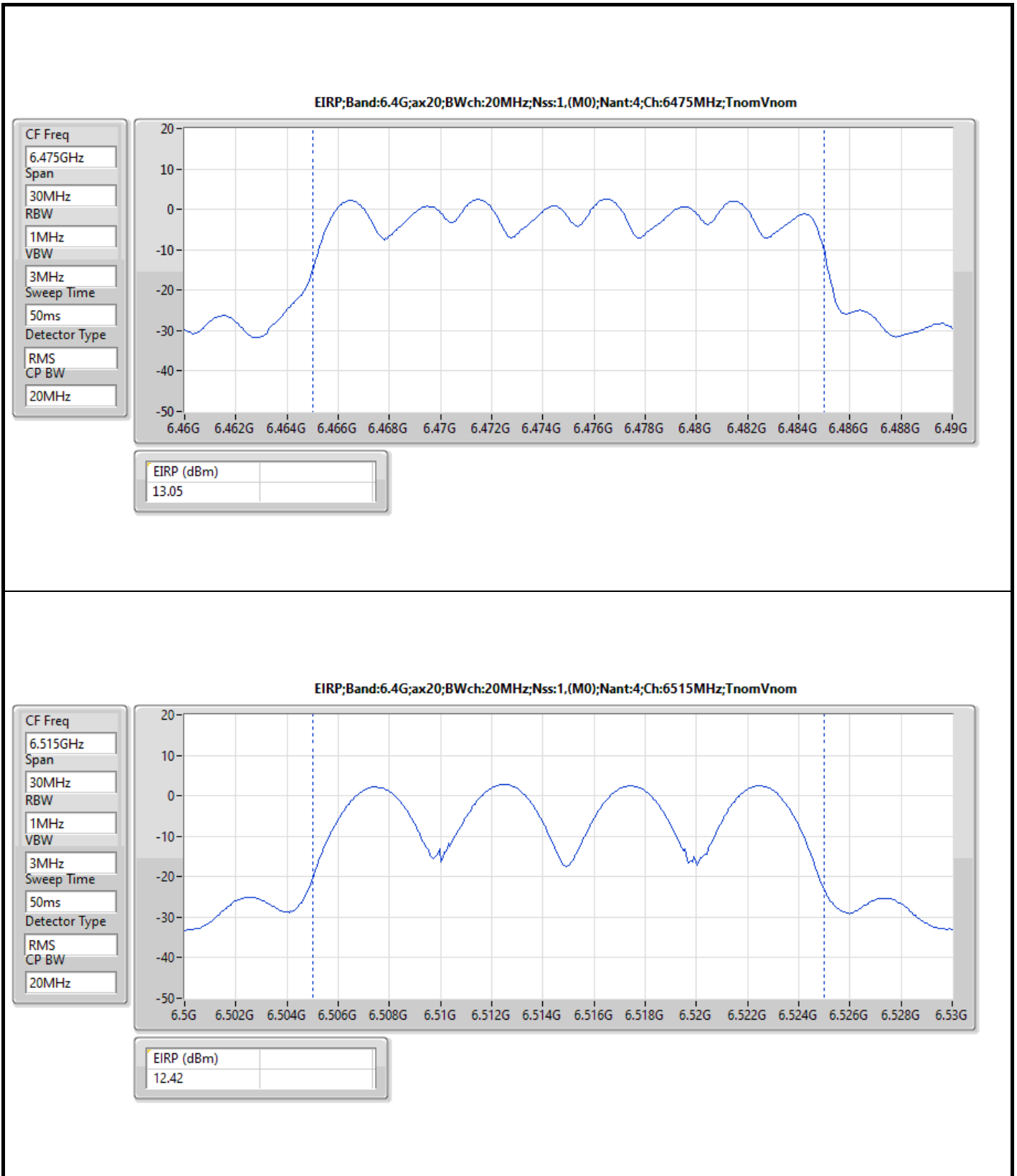
Result

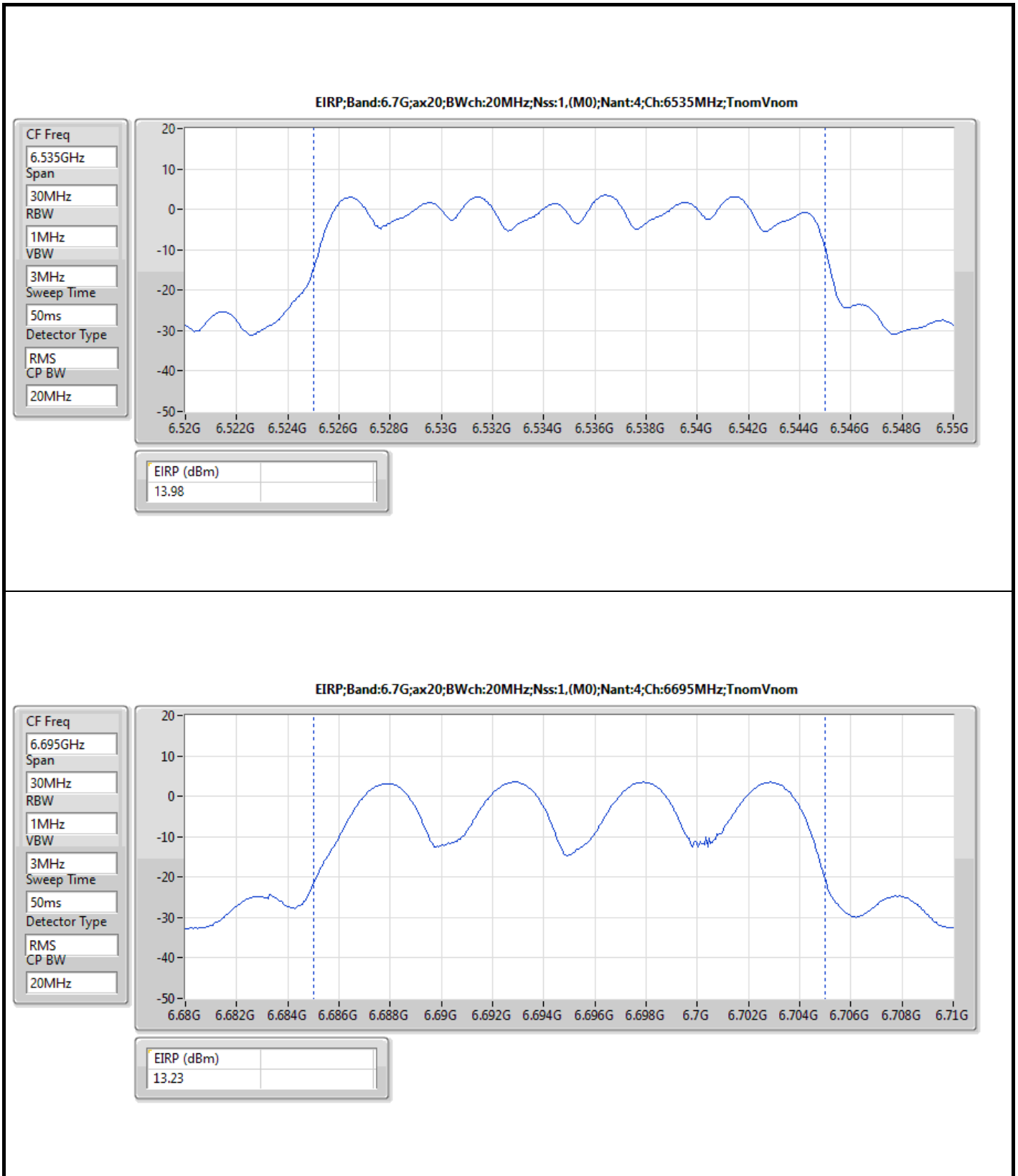
Mode	Result	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-
5955MHz	Pass	15.89	30.00
6175MHz	Pass	13.98	30.00
6415MHz	Pass	12.93	30.00
6435MHz	Pass	12.94	30.00
6475MHz	Pass	13.05	30.00
6515MHz	Pass	12.42	30.00
6535MHz	Pass	13.98	30.00
6695MHz	Pass	13.23	30.00
6855MHz	Pass	13.55	30.00
6875MHz Straddle 6.525-6.875GHz	Pass	13.13	30.00
6895MHz	Pass	13.01	30.00
6995MHz	Pass	14.07	30.00
7095MHz	Pass	14.37	30.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-
5965MHz	Pass	17.09	30.00
6165MHz	Pass	16.79	30.00
6405MHz	Pass	16.00	30.00
6445MHz	Pass	15.69	30.00
6485MHz	Pass	16.22	30.00
6525MHz Straddle 6.425-6.525GHz	Pass	16.01	30.00
6565MHz	Pass	18.44	30.00
6685MHz	Pass	18.28	30.00
6845MHz	Pass	15.79	30.00
6885MHz Straddle 6.525-6.875GHz	Pass	15.99	30.00
6925MHz	Pass	15.80	30.00
7005MHz	Pass	16.07	30.00
7085MHz	Pass	17.20	30.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-
5985MHz	Pass	19.23	30.00
6145MHz	Pass	19.87	30.00
6385MHz	Pass	19.70	30.00
6465MHz	Pass	18.25	30.00
6545MHz Straddle 6.425-6.525GHz	Pass	21.20	30.00
6625MHz	Pass	18.92	30.00
6705MHz	Pass	20.40	30.00
6785MHz	Pass	17.24	30.00
6865MHz Straddle 6.525-6.875GHz	Pass	18.16	30.00
6945MHz	Pass	18.99	30.00
7025MHz	Pass	19.70	30.00
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-
6025MHz	Pass	24.19	30.00
6185MHz	Pass	23.23	30.00
6345MHz	Pass	24.66	30.00
6505MHz Straddle 6.425-6.525GHz	Pass	23.47	30.00
6665MHz	Pass	23.59	30.00
6825MHz Straddle 6.525-6.875GHz	Pass	23.40	30.00
6985MHz	Pass	23.59	30.00

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



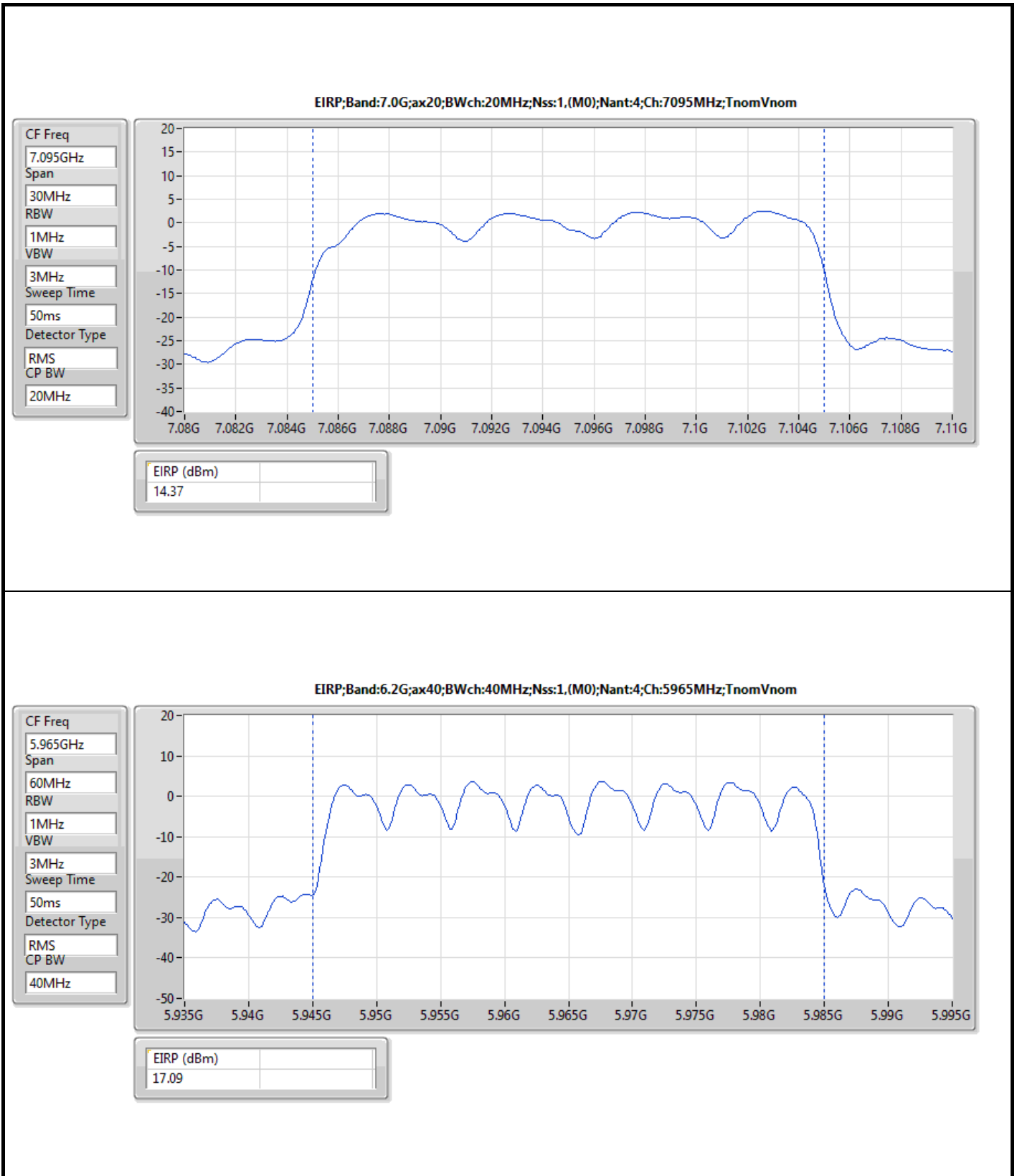


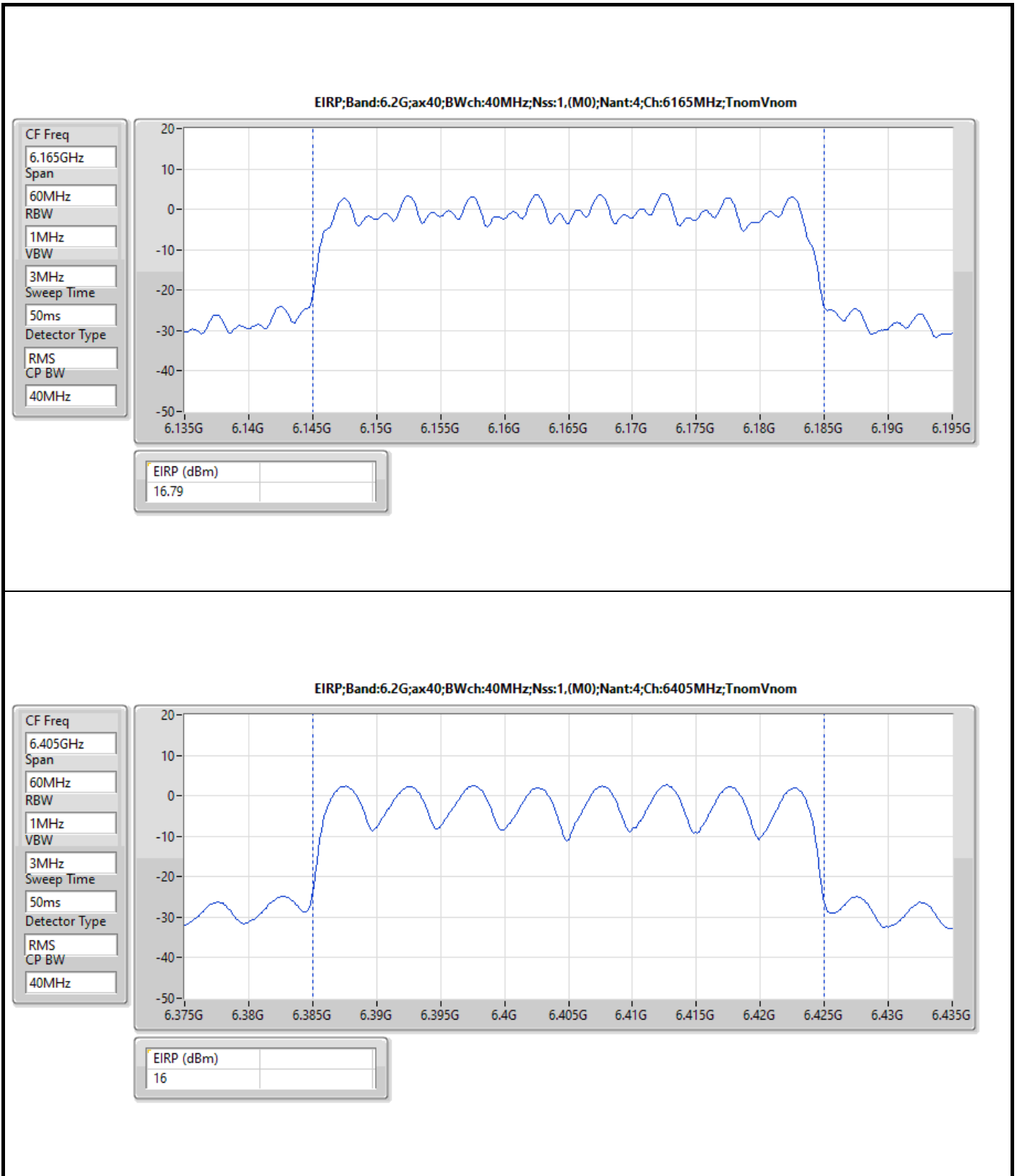


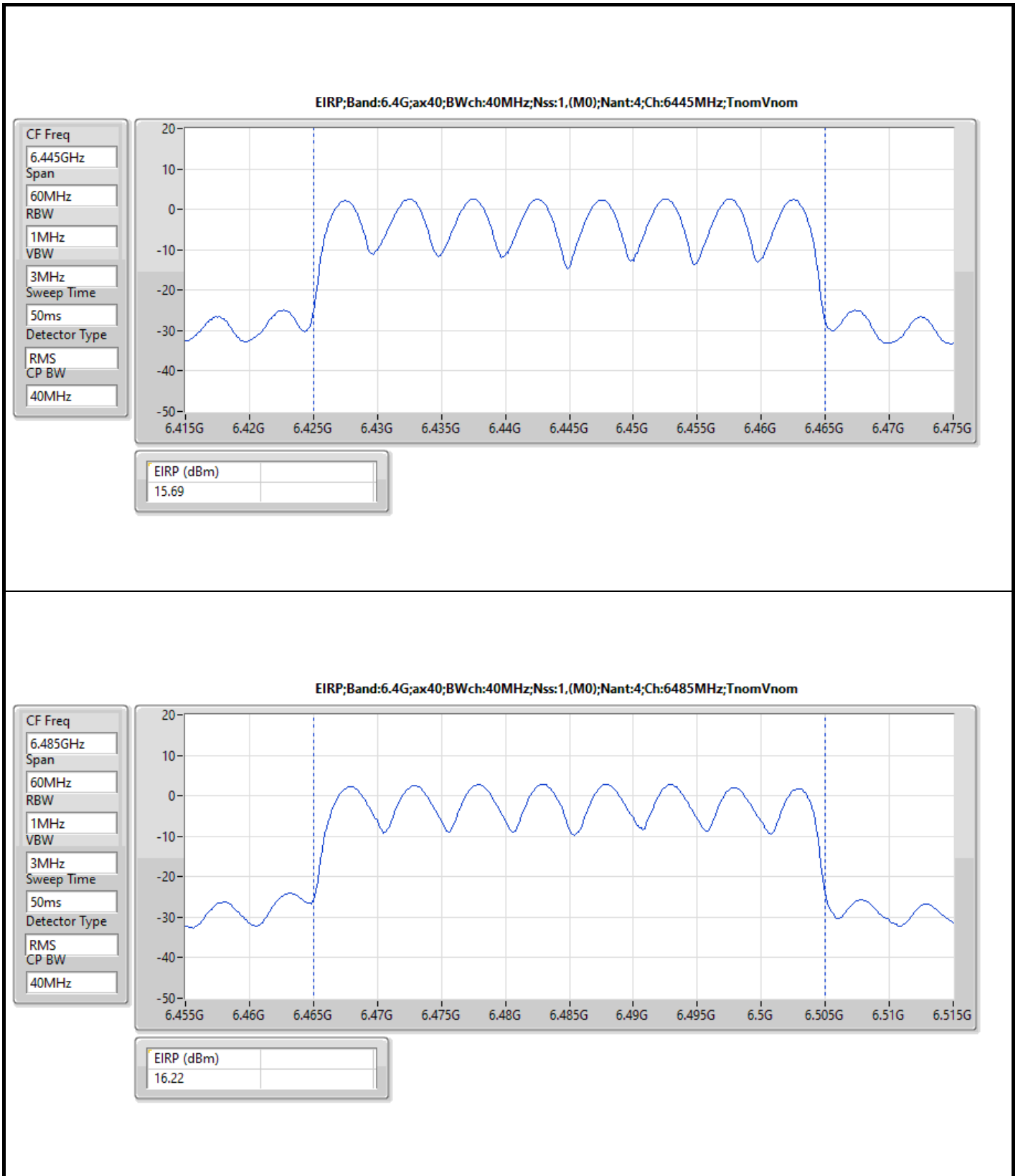


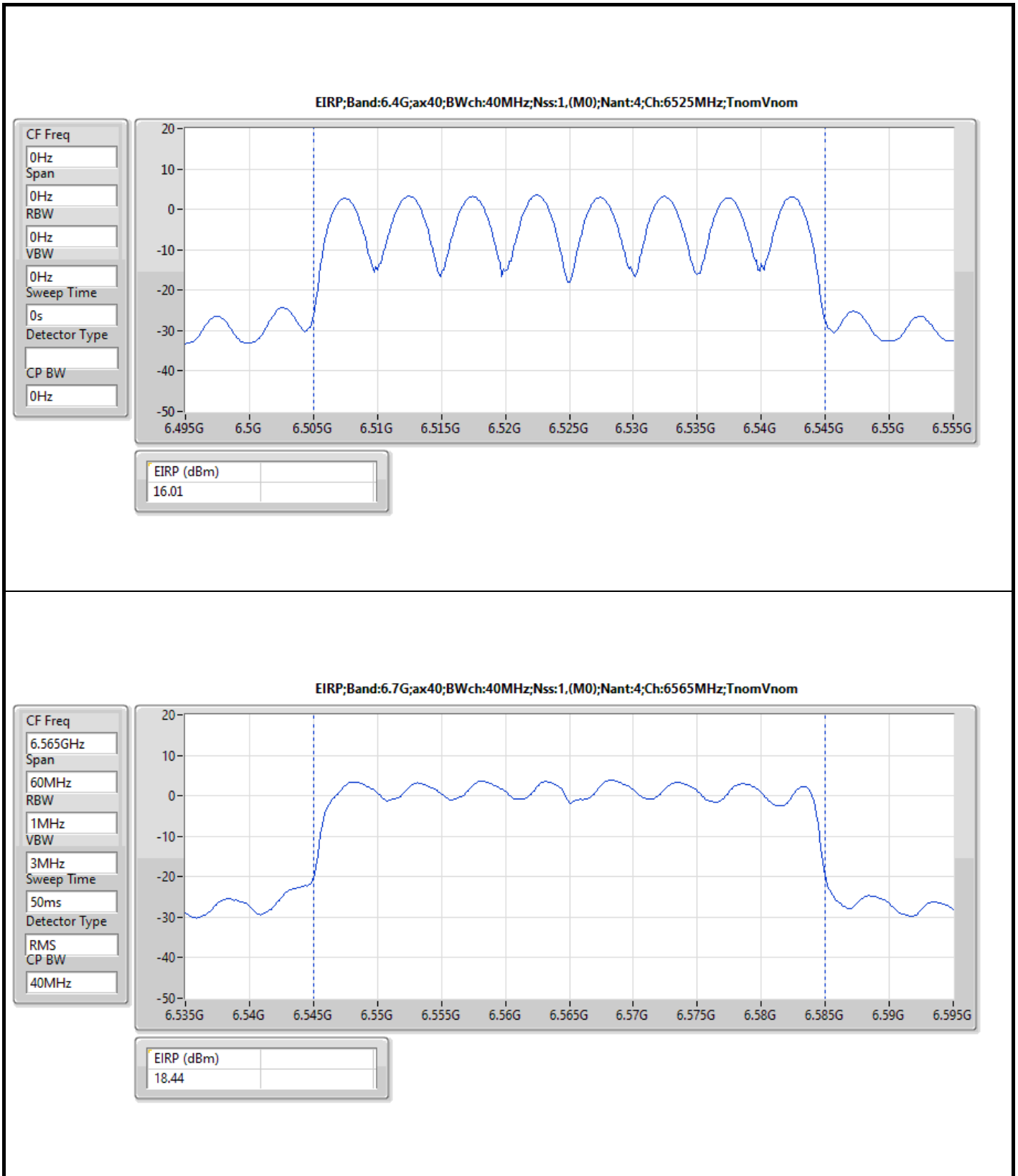


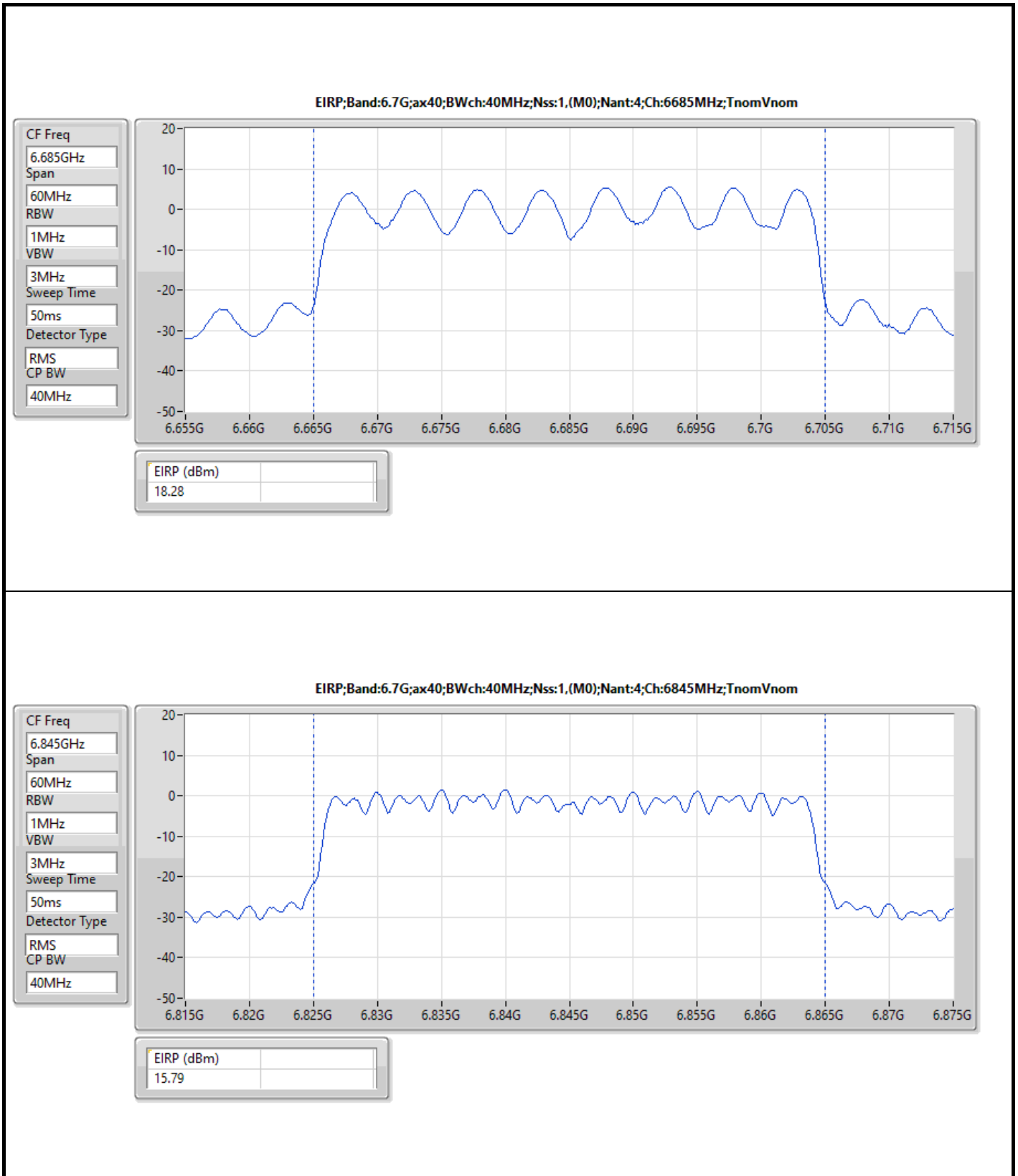






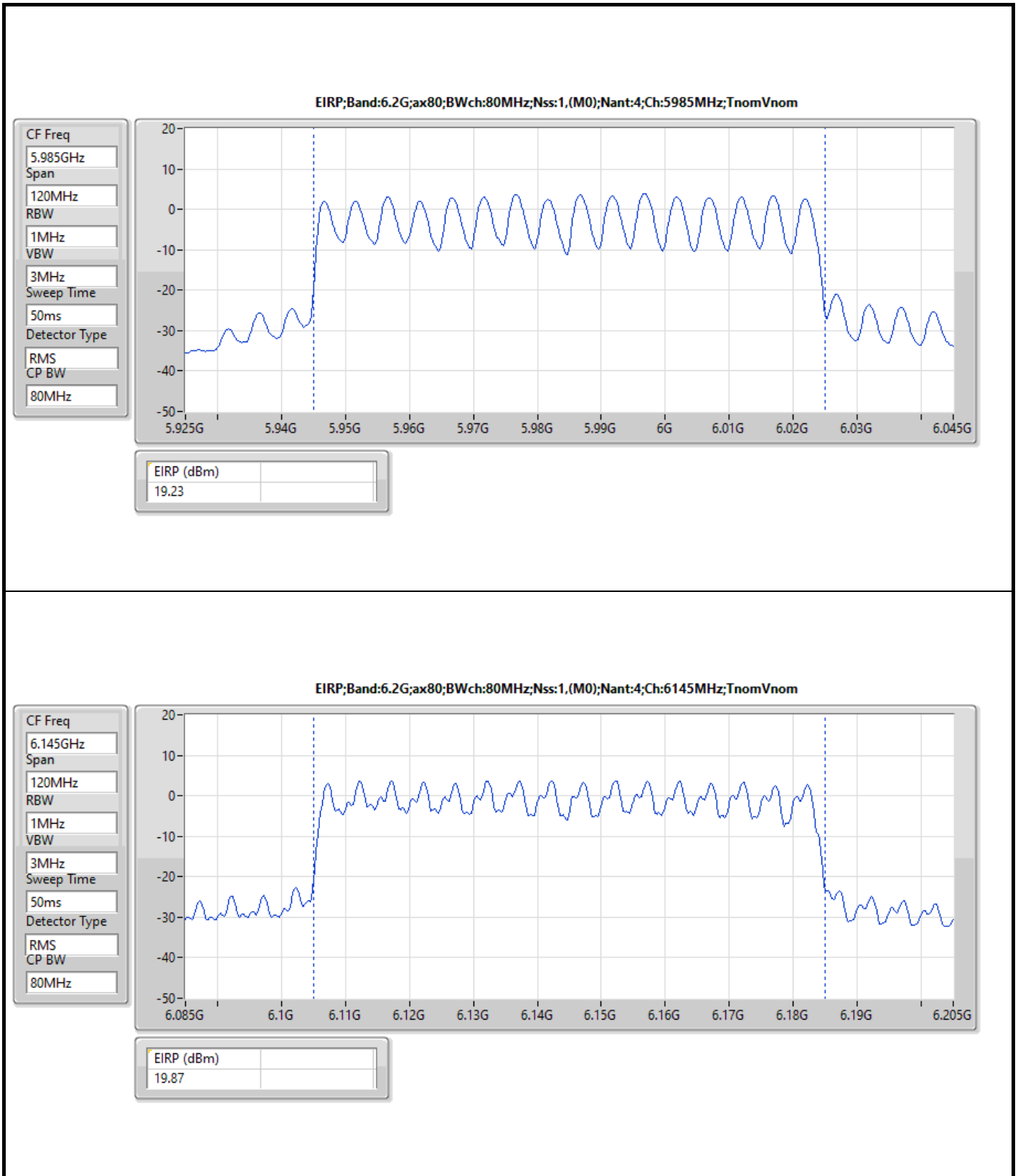


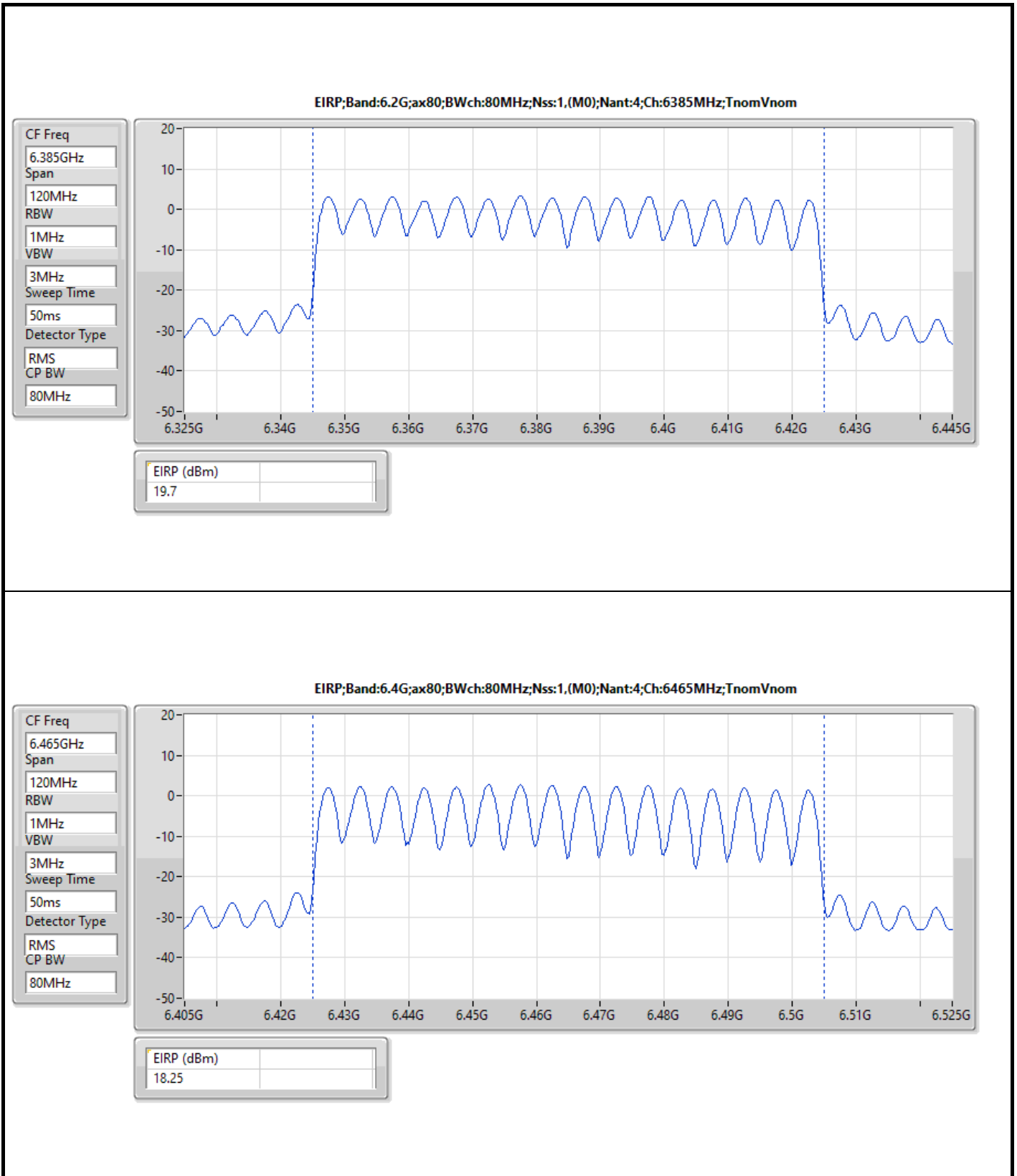


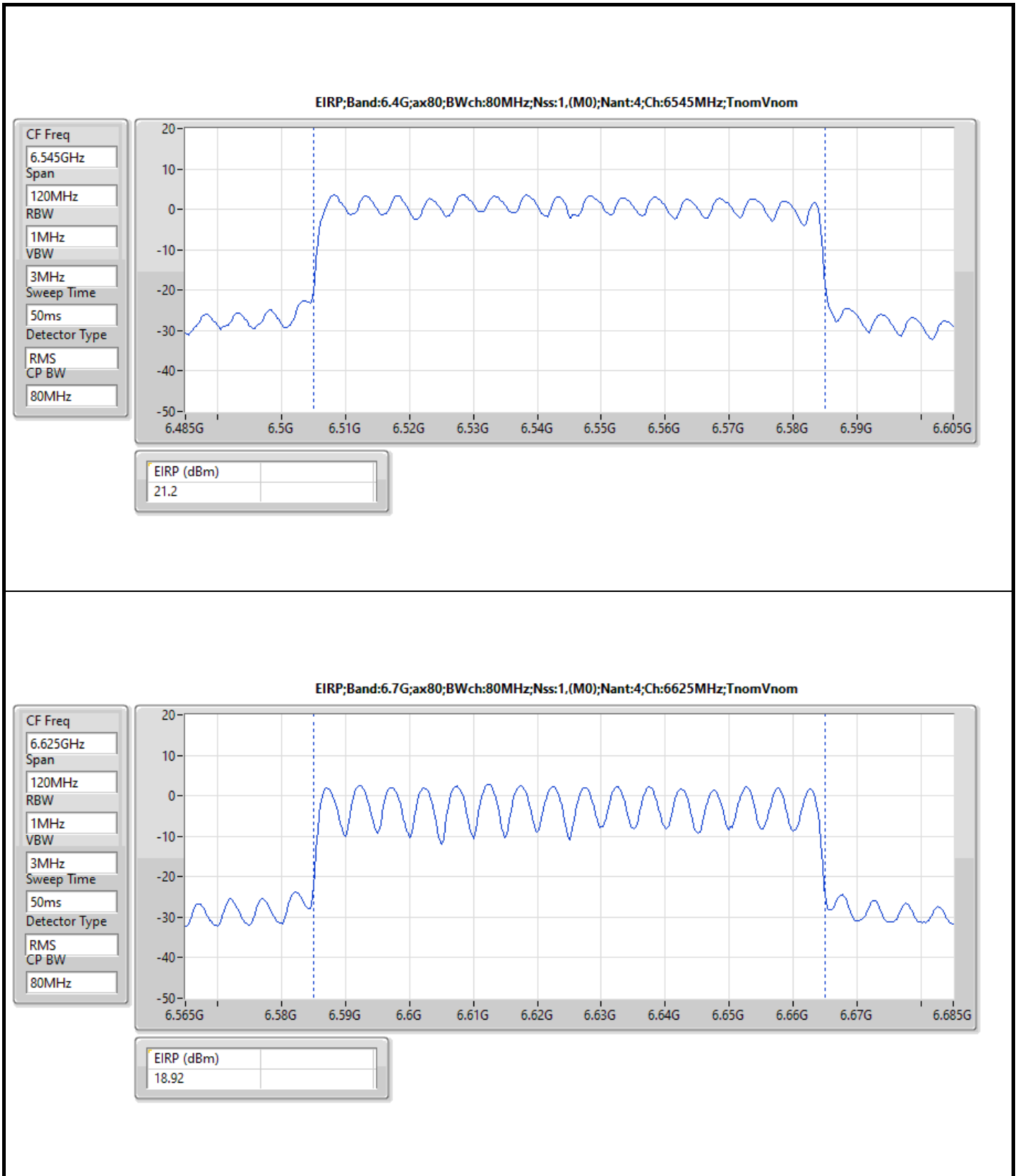


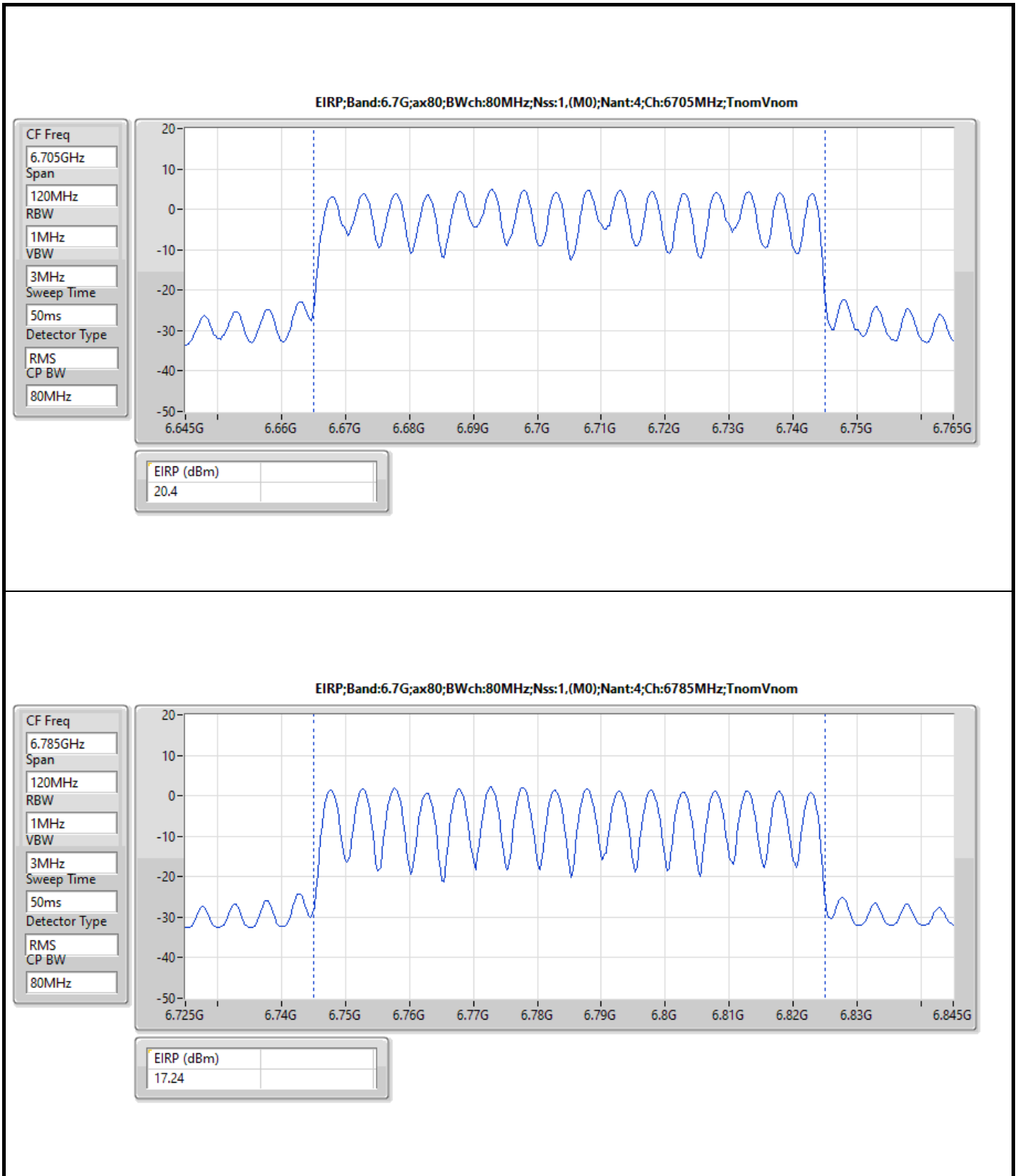


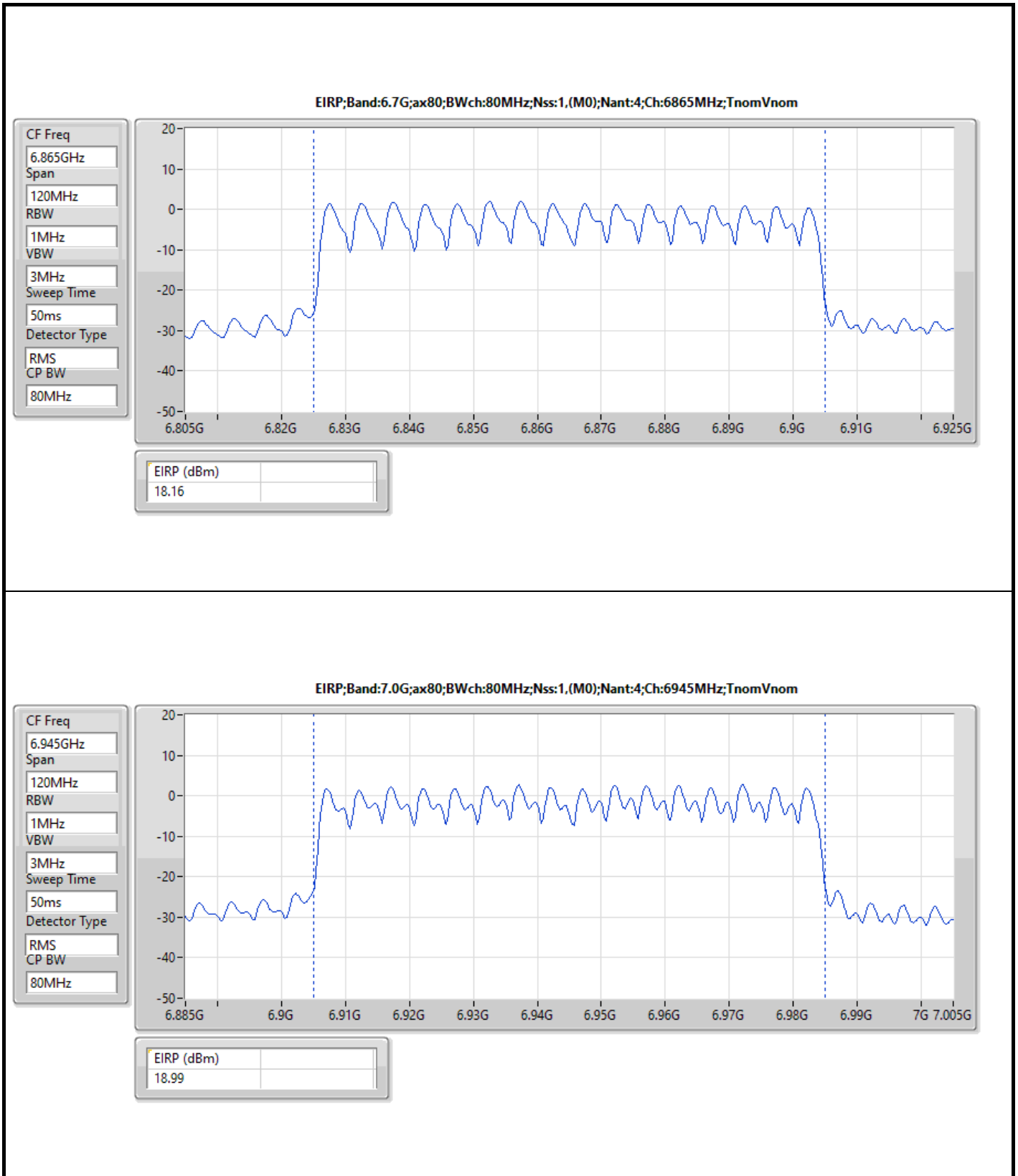


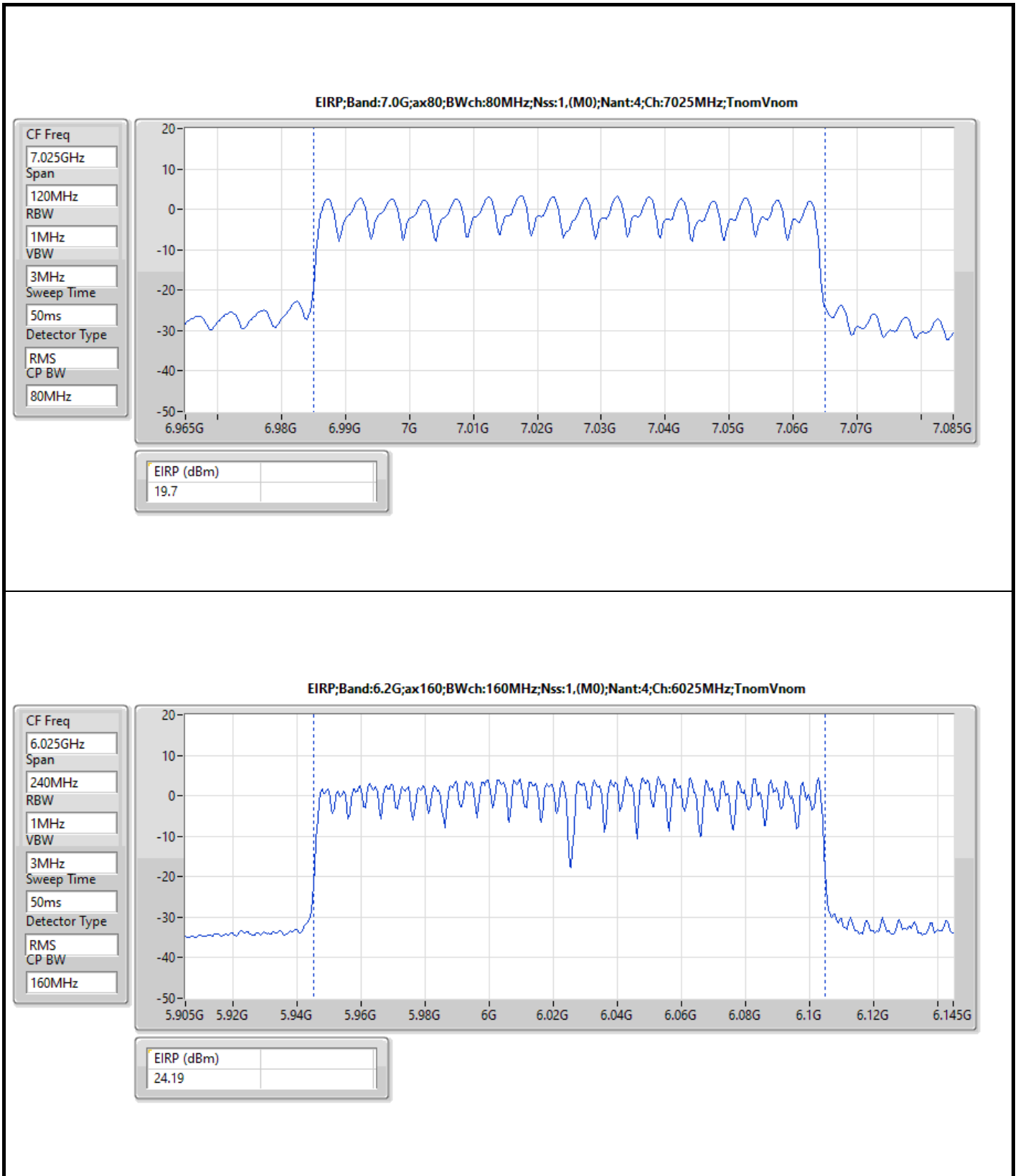


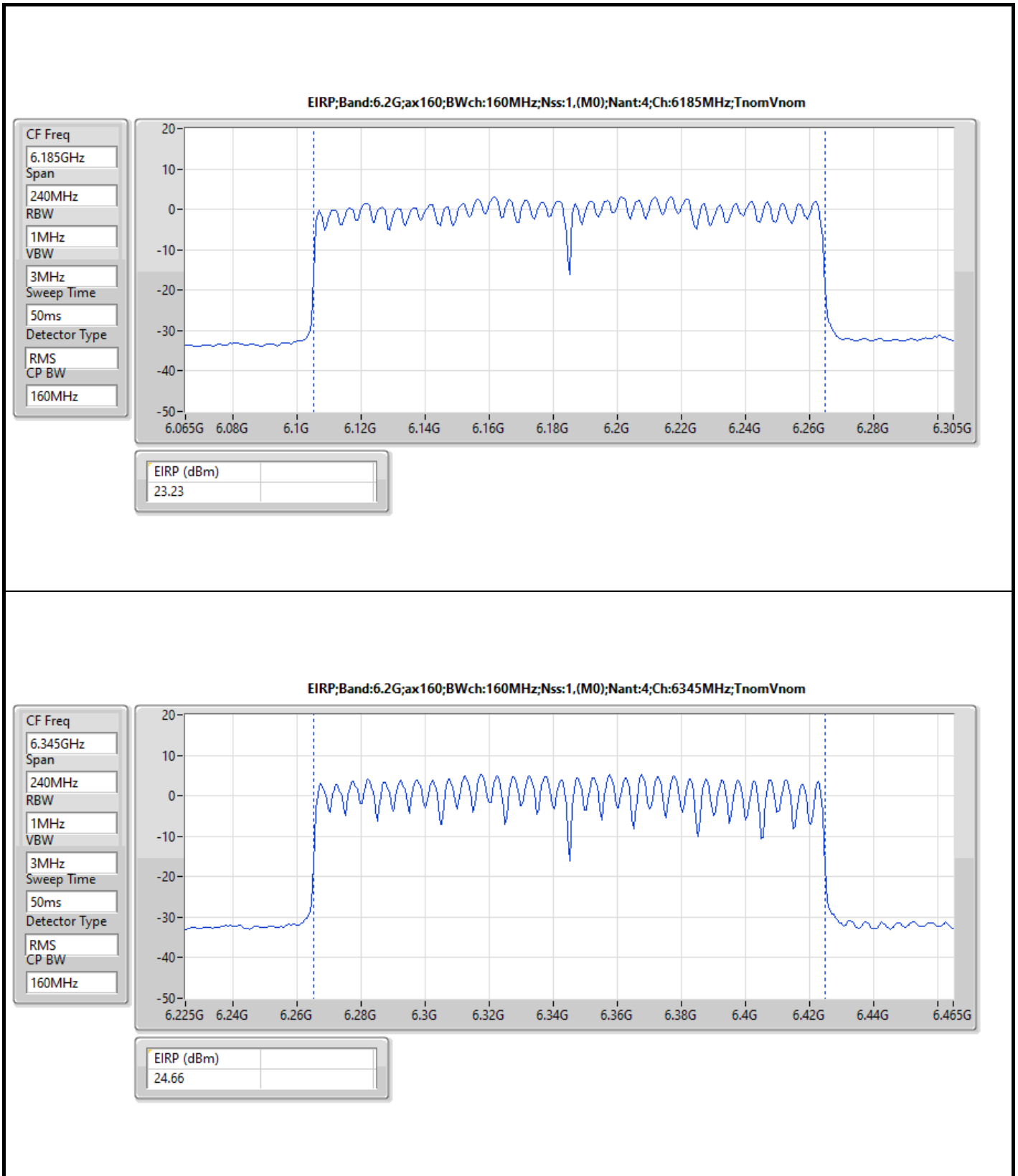


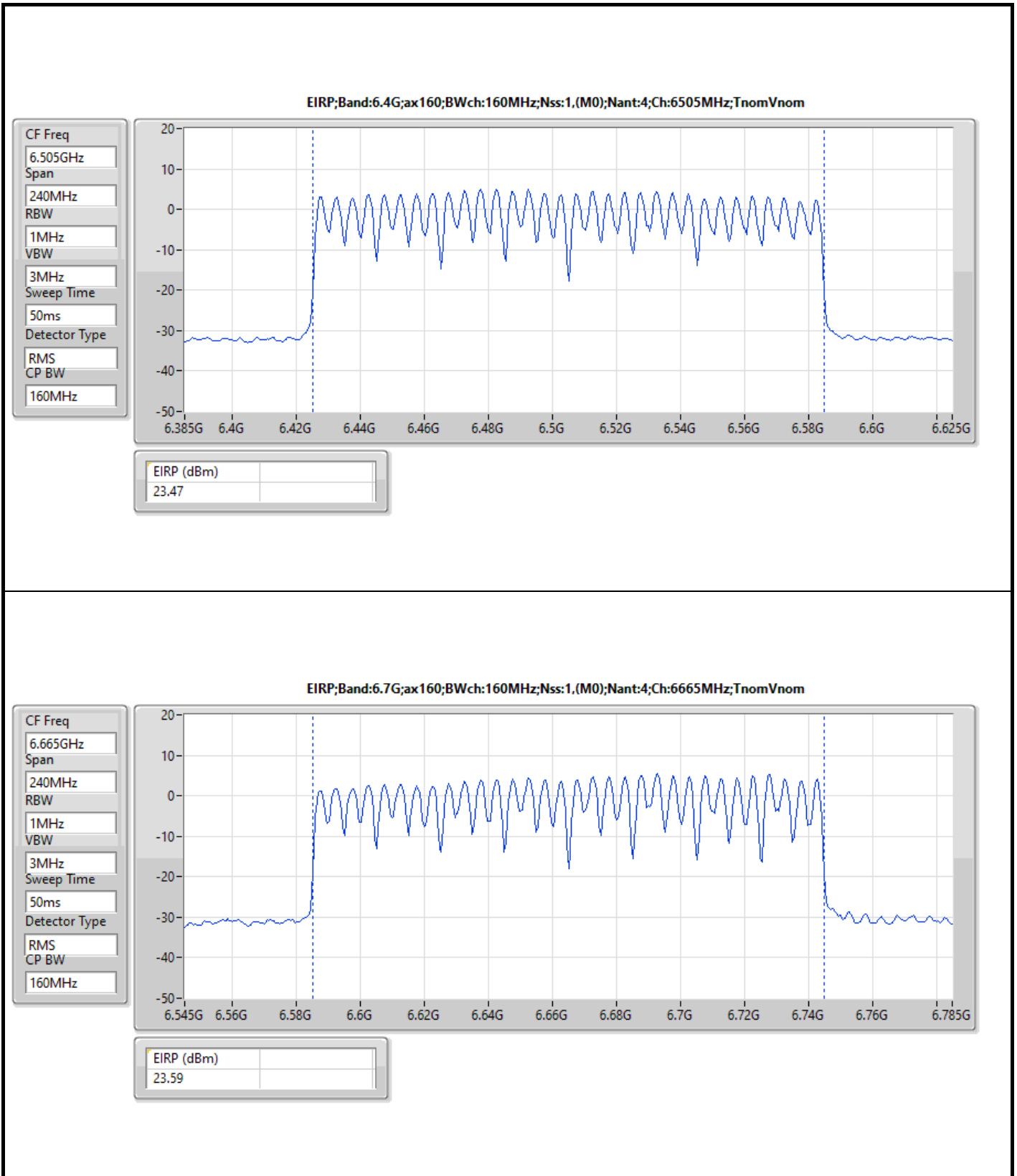


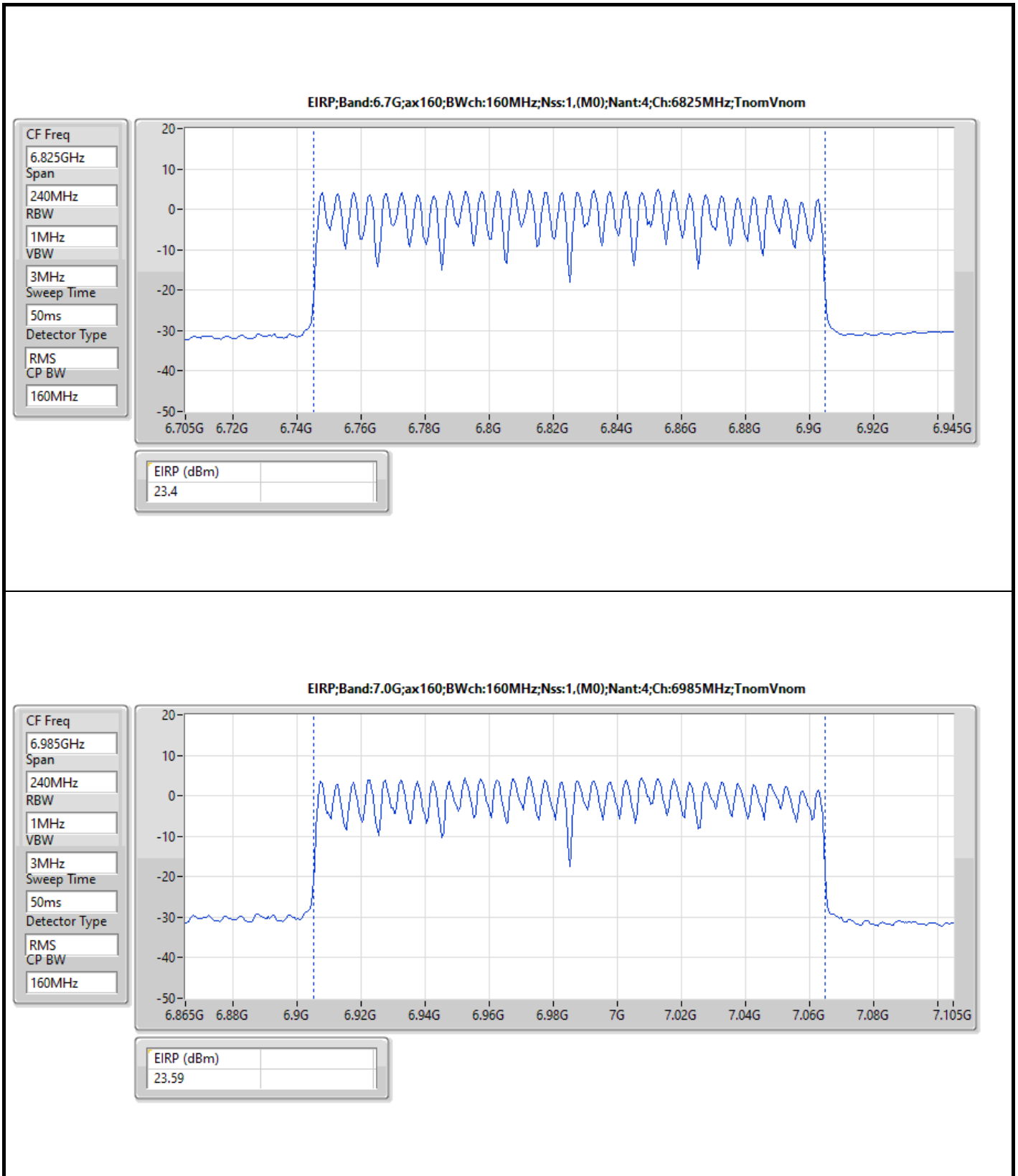














Summary

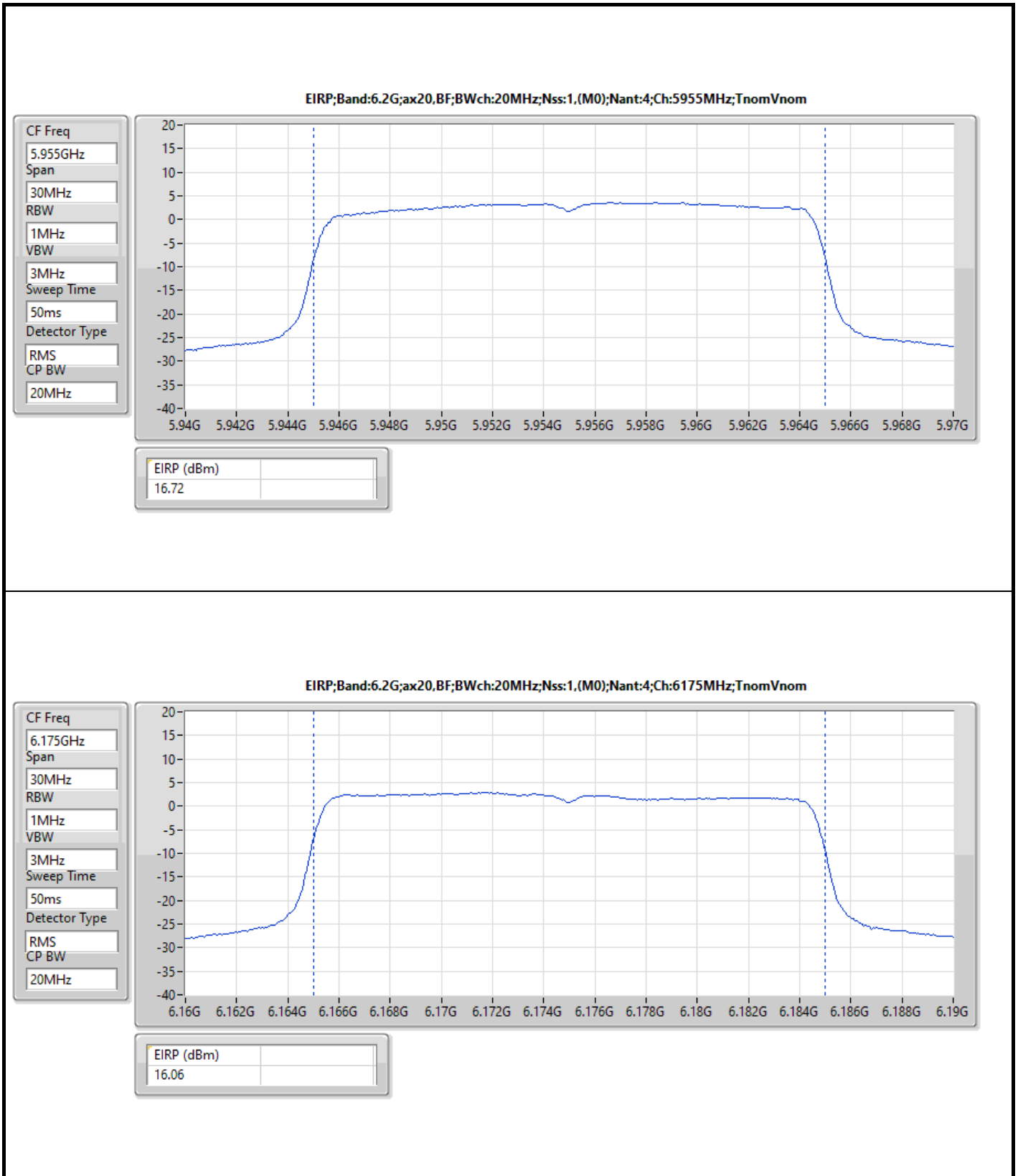
Mode	EIRP (dBm)	EIRP (W)
5.925-6.425GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	18.89	0.07745
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	22.52	0.17865
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	25.34	0.34198
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	29.37	0.86497
6.425-6.525GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	18.76	0.07516
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	22.82	0.19143
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	25.68	0.36983
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	29.02	0.79799
6.525-6.875GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	17.41	0.05508
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	22.35	0.17179
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	23.38	0.21777
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	27.82	0.60534
6.875-7.125GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	17.36	0.05445
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	21.82	0.15205
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	22.72	0.18707
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	27.08	0.51050

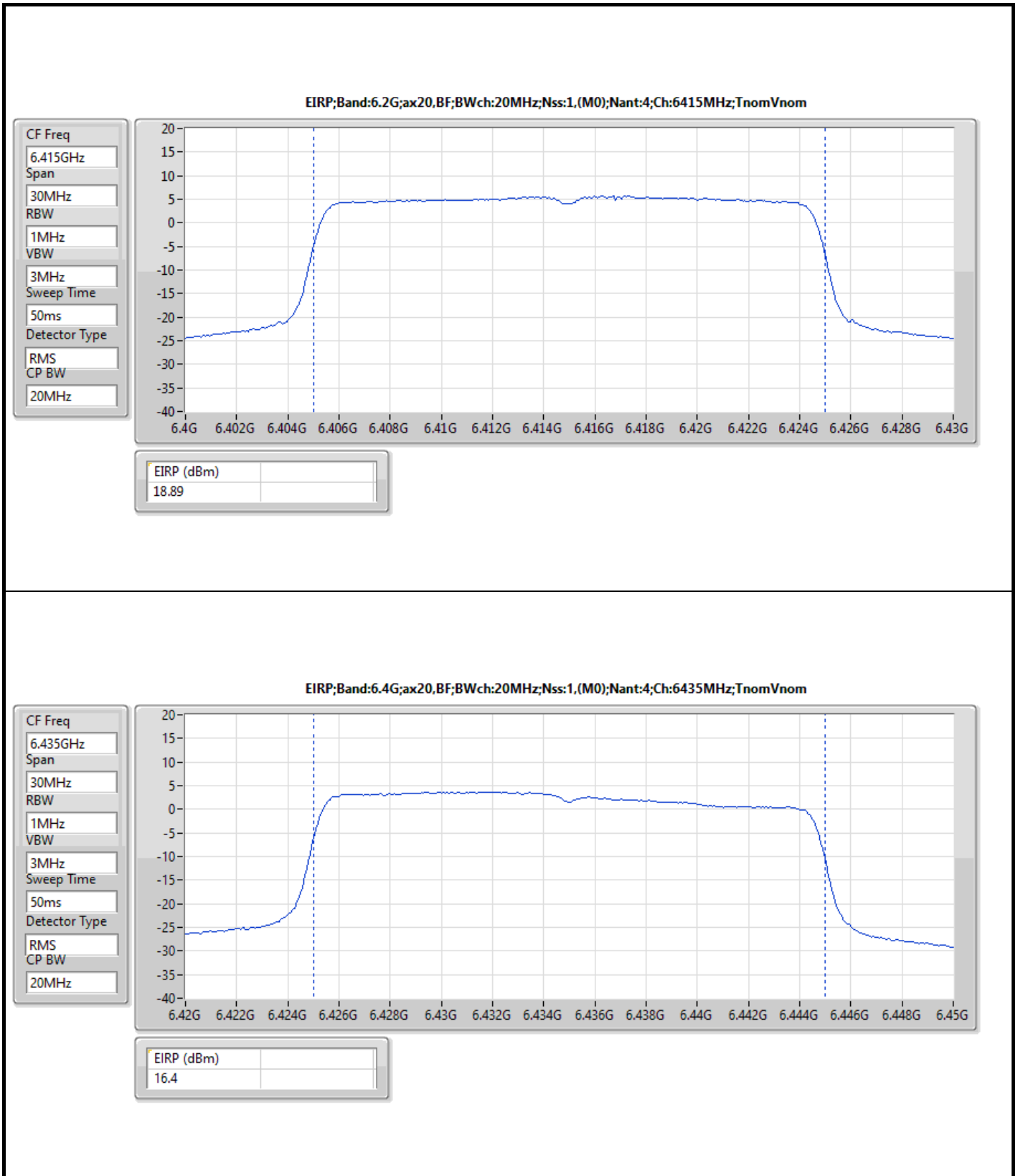


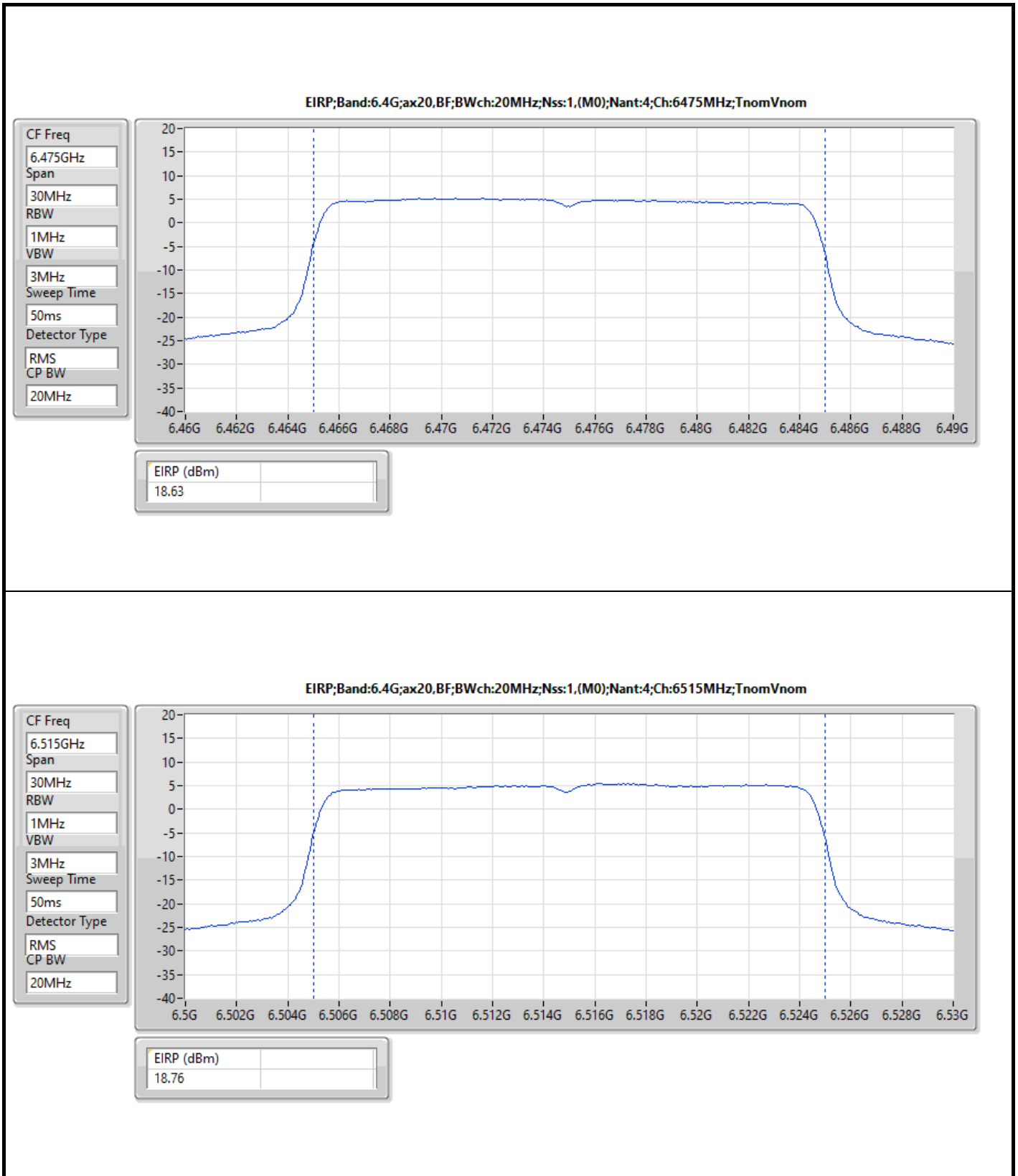
Result

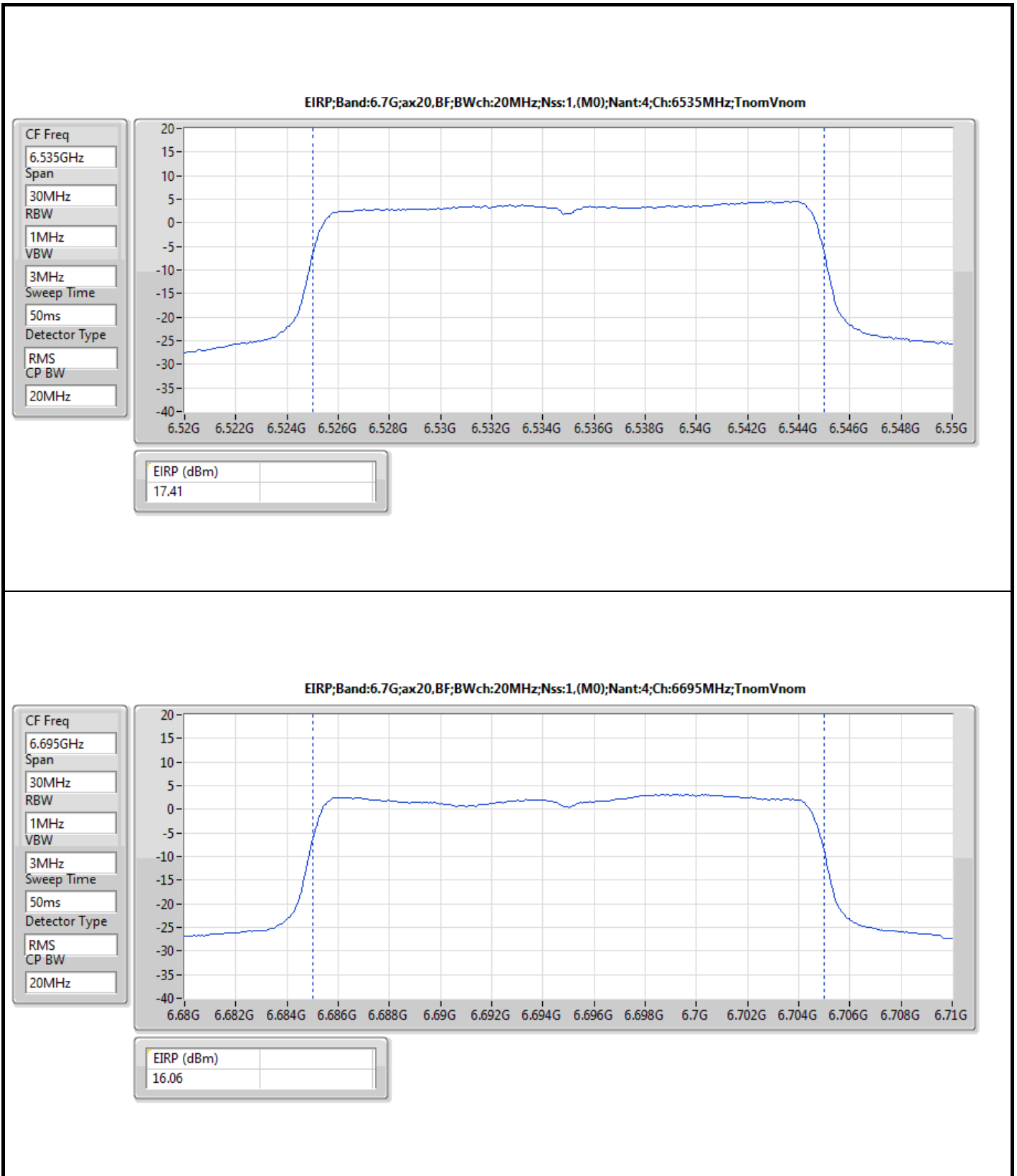
Mode	Result	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-
5955MHz	Pass	16.72	30.00
6175MHz	Pass	16.06	30.00
6415MHz	Pass	18.89	30.00
6435MHz	Pass	16.40	30.00
6475MHz	Pass	18.63	30.00
6515MHz	Pass	18.76	30.00
6535MHz	Pass	17.41	30.00
6695MHz	Pass	16.06	30.00
6855MHz	Pass	16.57	30.00
6875MHz Straddle 6.525-6.875GHz	Pass	16.82	30.00
6895MHz	Pass	15.44	30.00
6995MHz	Pass	16.89	30.00
7095MHz	Pass	17.36	30.00
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-
5965MHz	Pass	21.34	30.00
6165MHz	Pass	21.05	30.00
6405MHz	Pass	22.52	30.00
6445MHz	Pass	21.66	30.00
6485MHz	Pass	22.82	30.00
6525MHz Straddle 6.425-6.525GHz	Pass	21.14	30.00
6565MHz	Pass	22.35	30.00
6685MHz	Pass	21.28	30.00
6845MHz	Pass	20.79	30.00
6885MHz Straddle 6.525-6.875GHz	Pass	21.12	30.00
6925MHz	Pass	21.02	30.00
7005MHz	Pass	21.65	30.00
7085MHz	Pass	21.82	30.00
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-
5985MHz	Pass	24.86	30.00
6145MHz	Pass	22.78	30.00
6385MHz	Pass	25.34	30.00
6465MHz	Pass	25.52	30.00
6545MHz Straddle 6.425-6.525GHz	Pass	25.68	30.00
6625MHz	Pass	23.38	30.00
6705MHz	Pass	22.43	30.00
6785MHz	Pass	22.30	30.00
6865MHz Straddle 6.525-6.875GHz	Pass	22.78	30.00
6945MHz	Pass	22.58	30.00
7025MHz	Pass	22.72	30.00
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-
6025MHz	Pass	29.26	30.00
6185MHz	Pass	29.37	30.00
6345MHz	Pass	28.86	30.00
6505MHz Straddle 6.425-6.525GHz	Pass	29.02	30.00
6665MHz	Pass	27.82	30.00
6825MHz Straddle 6.525-6.875GHz	Pass	27.15	30.00
6985MHz	Pass	27.08	30.00

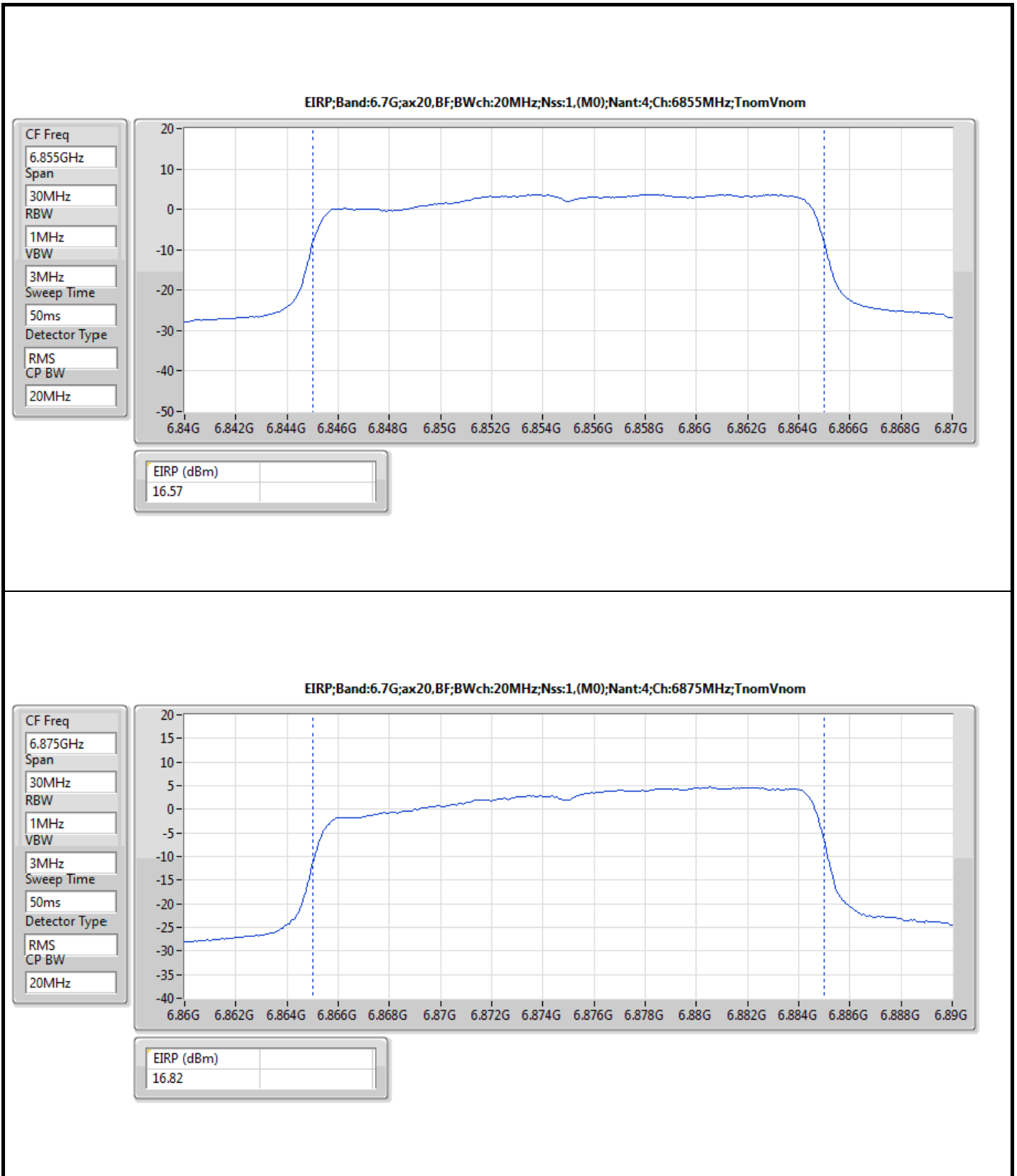
DG = Directional Gain; Port X = Port X output power

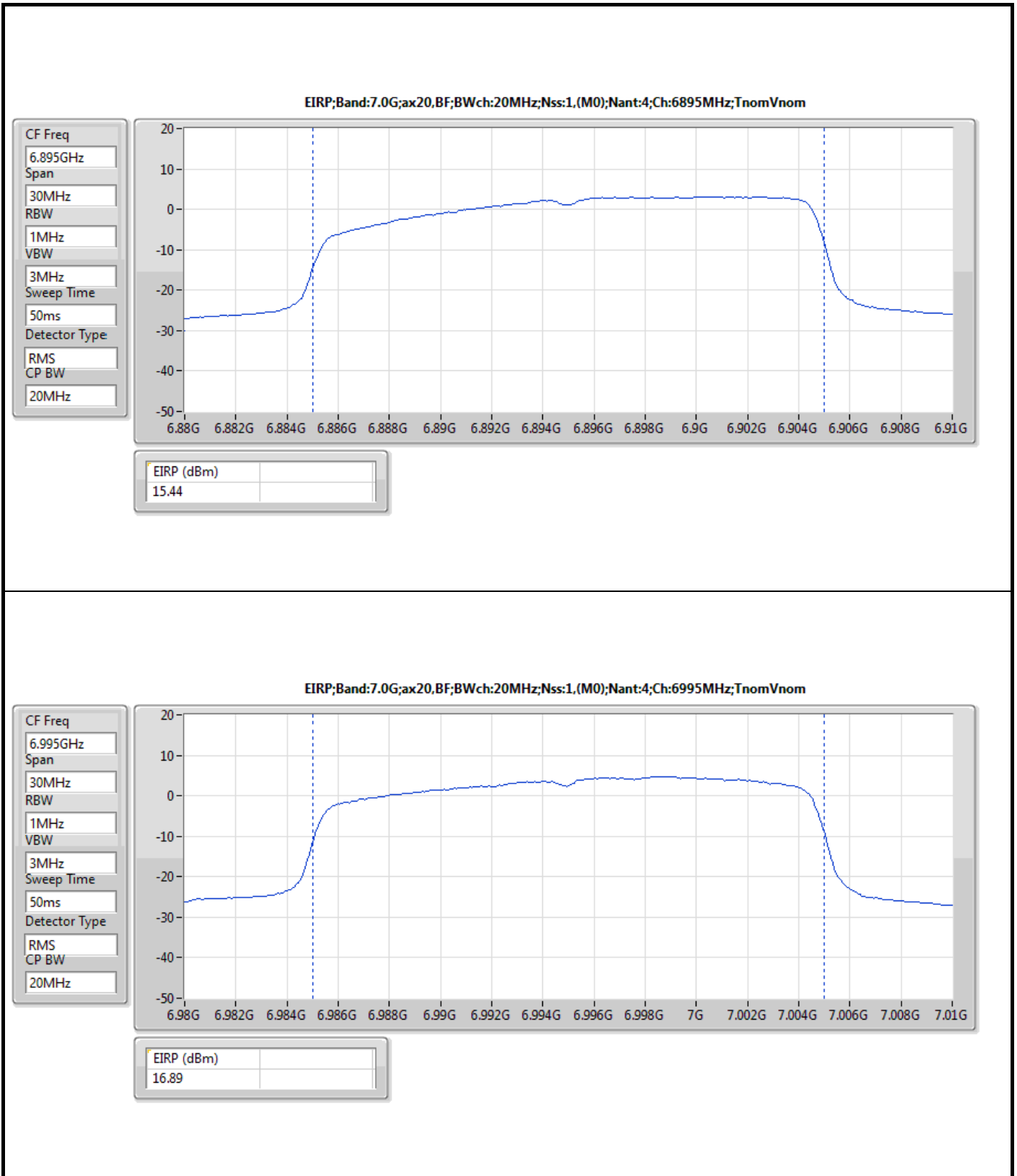


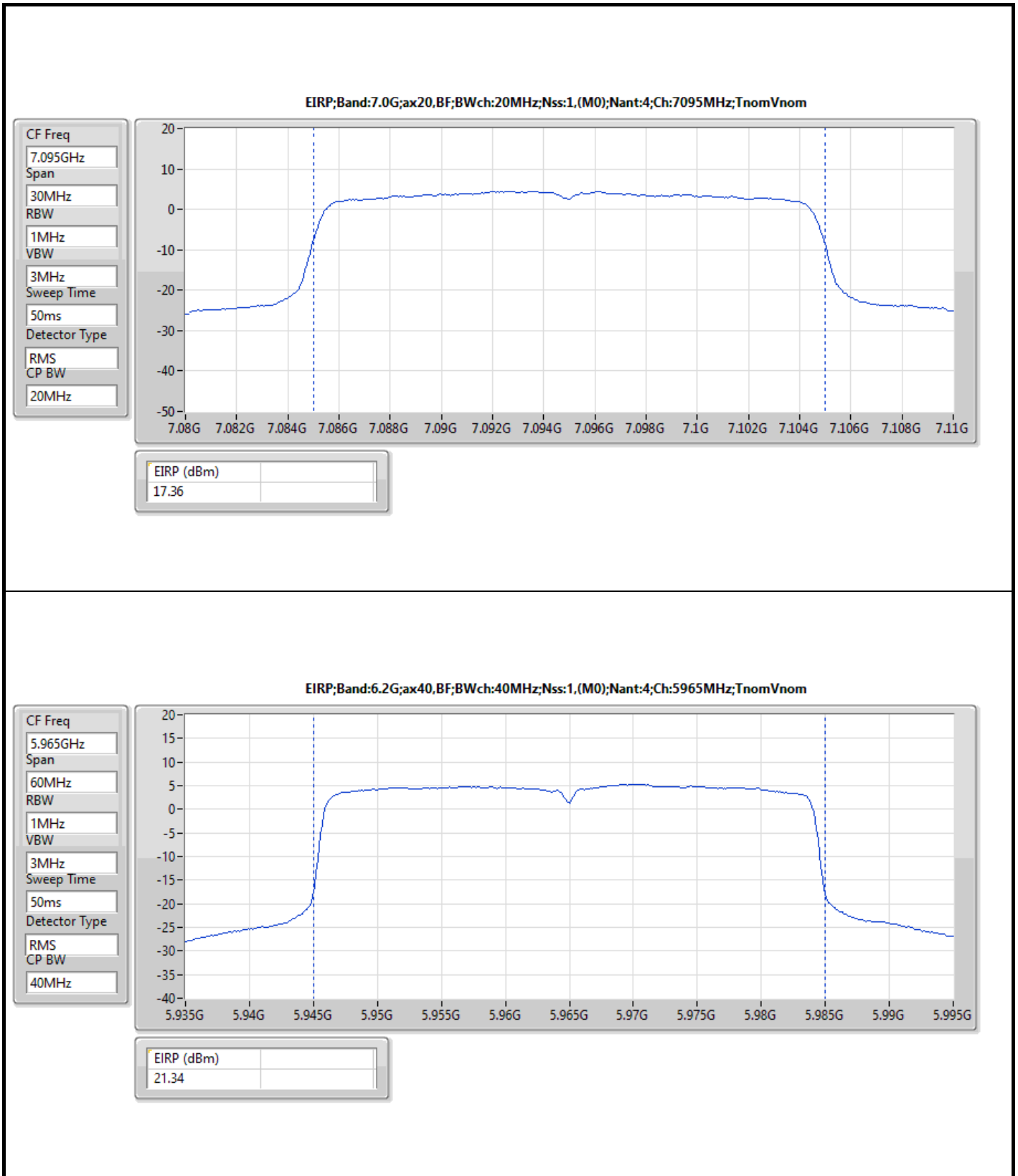


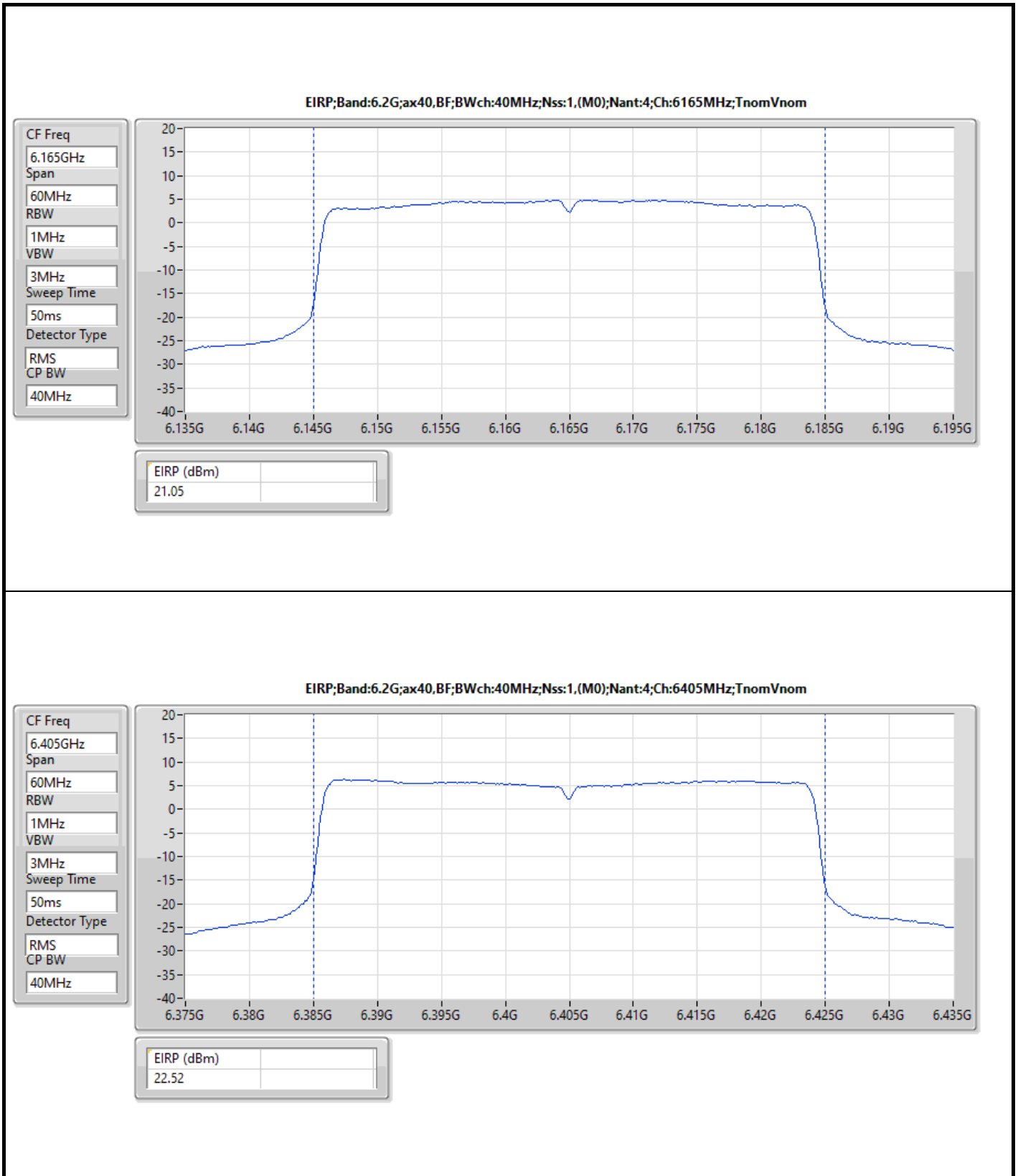


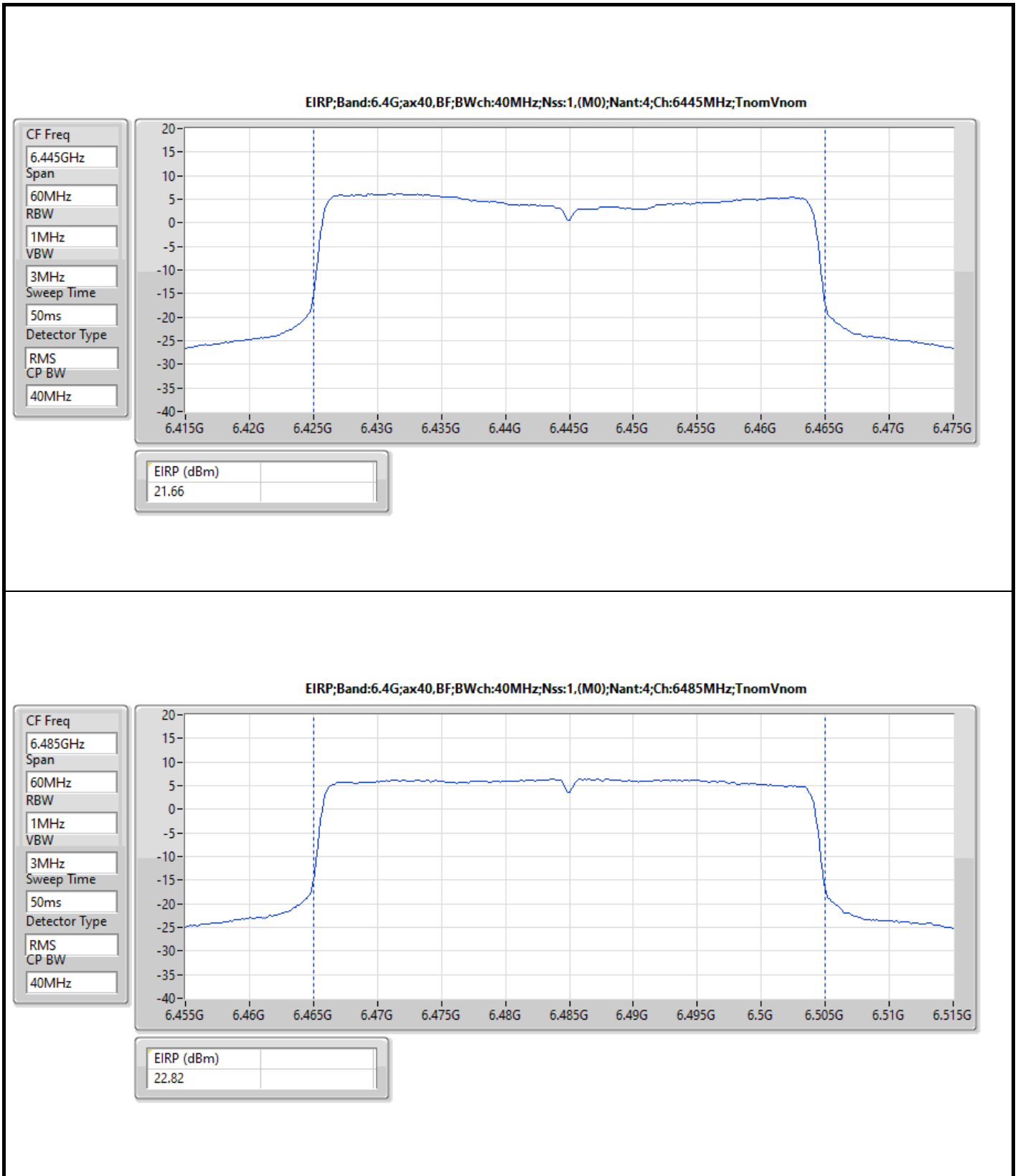


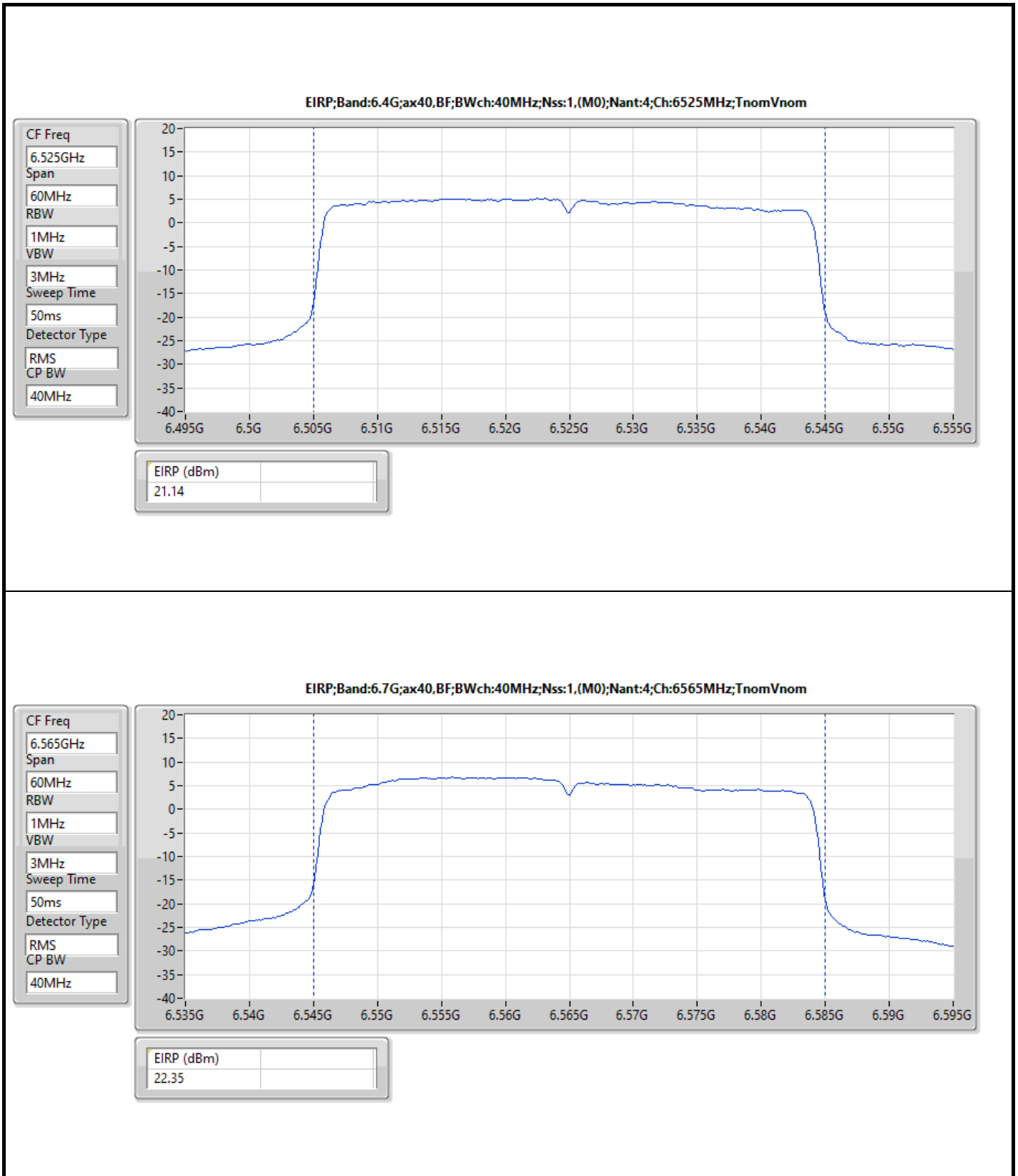


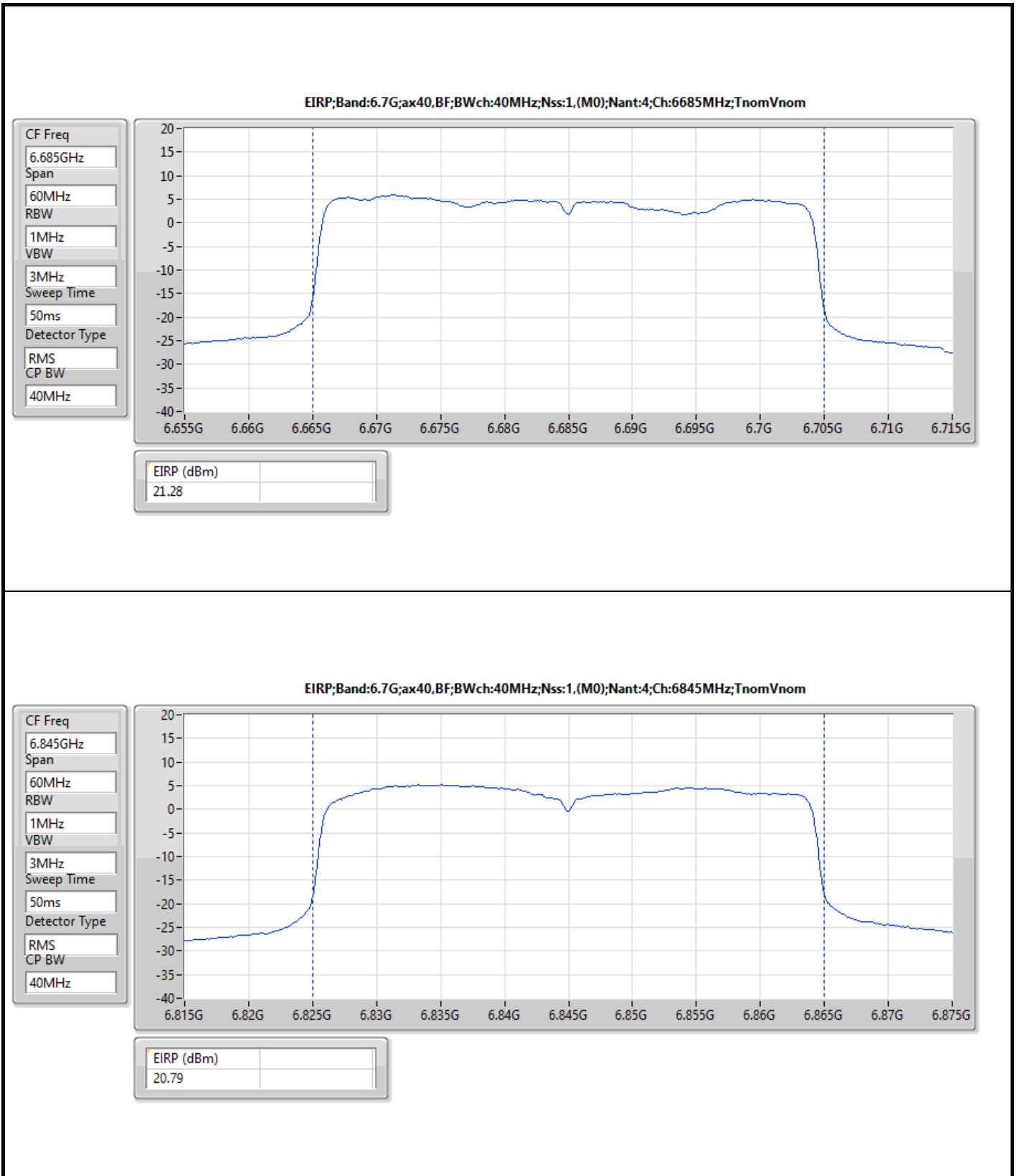


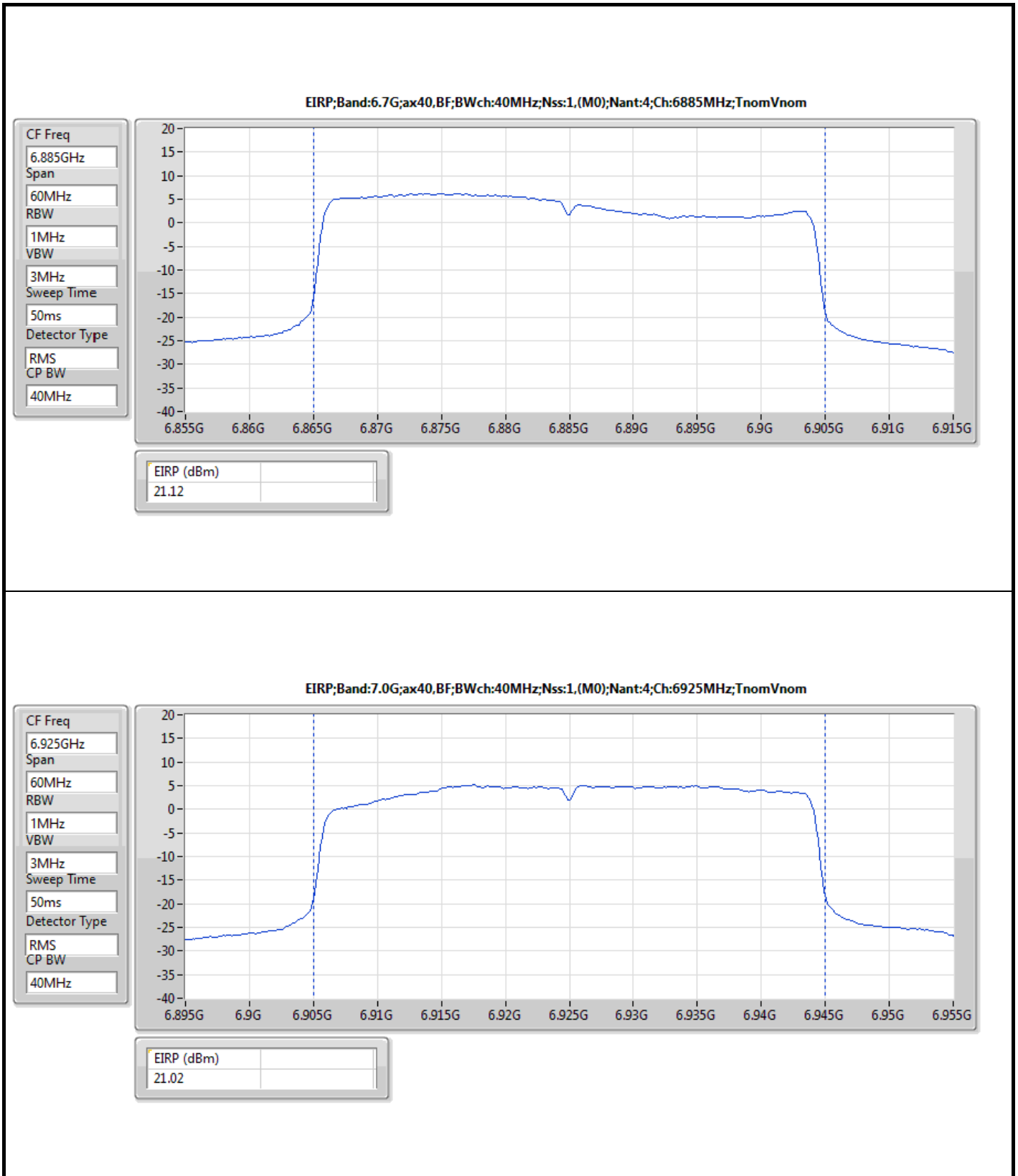


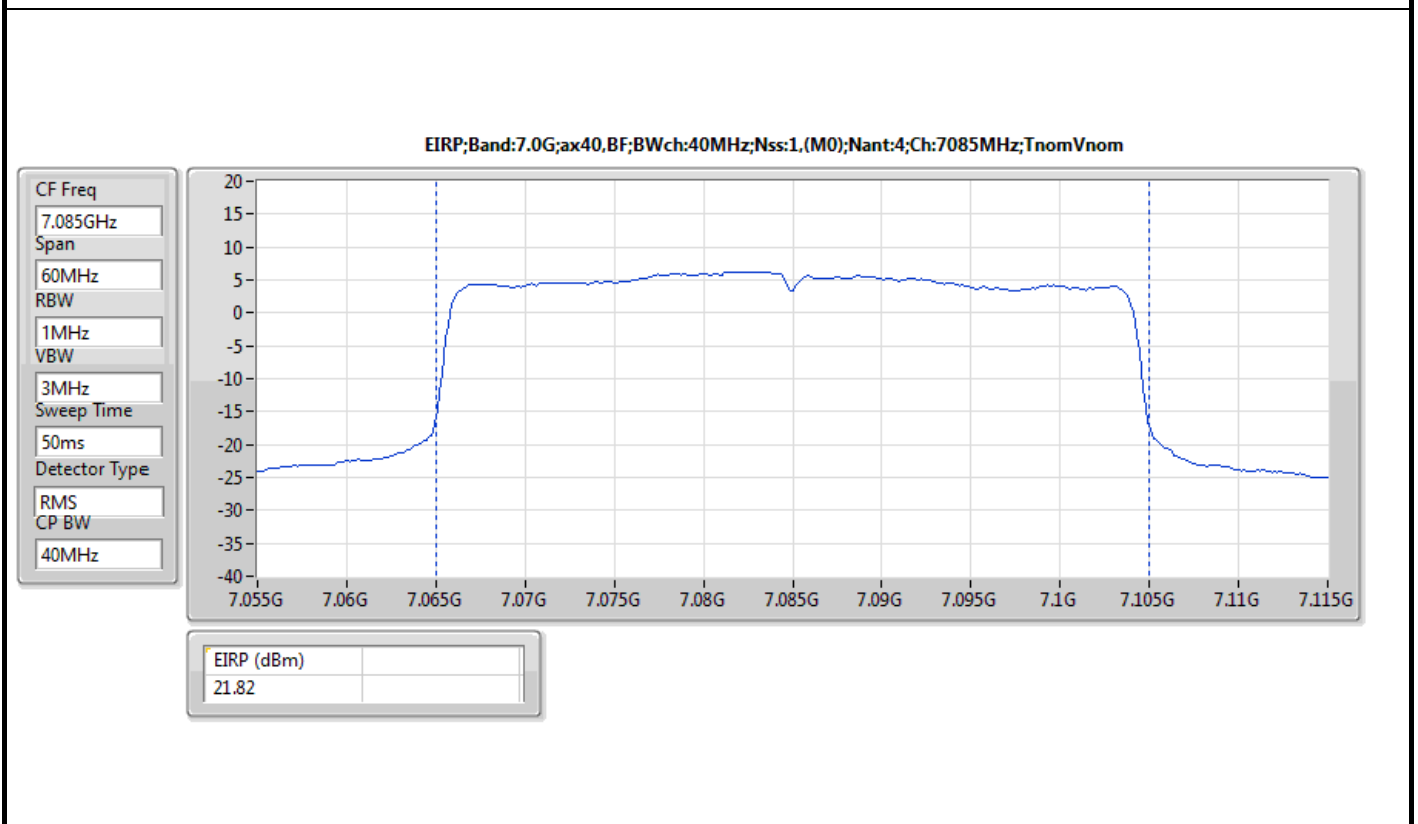
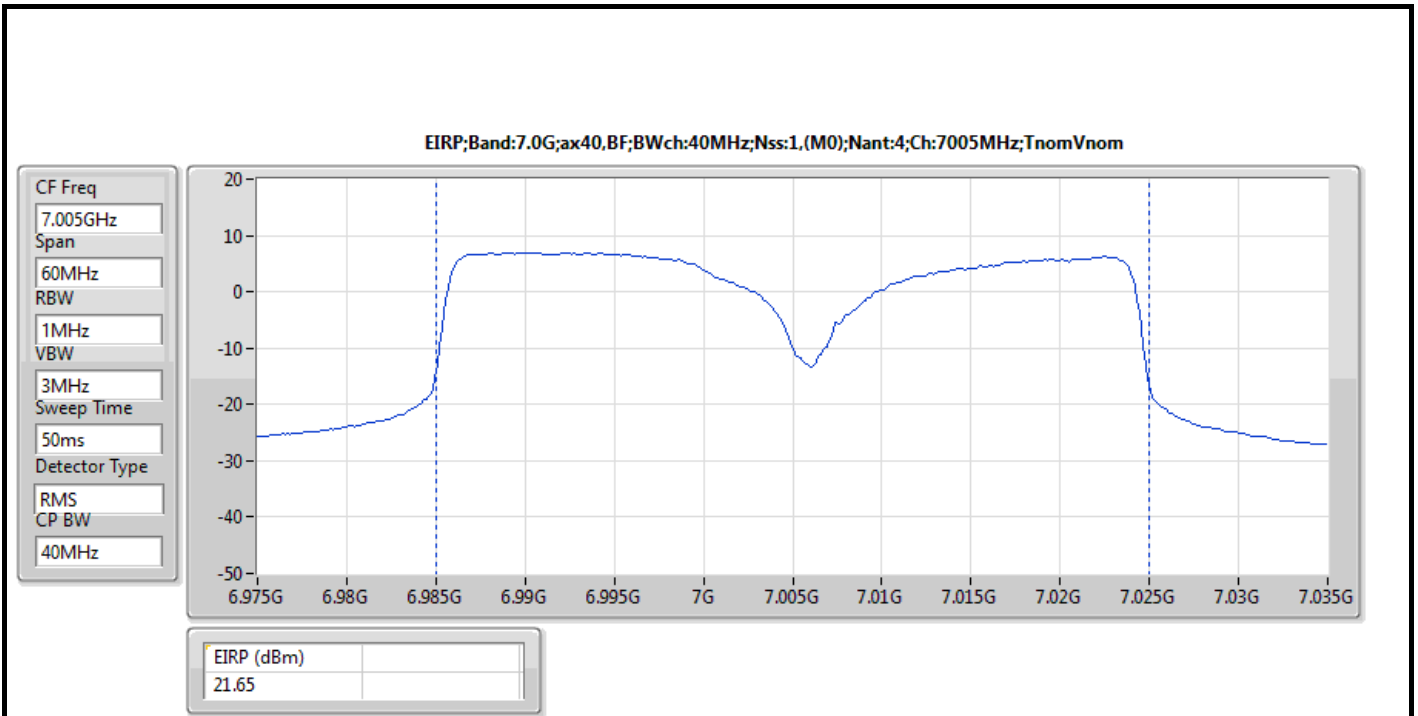


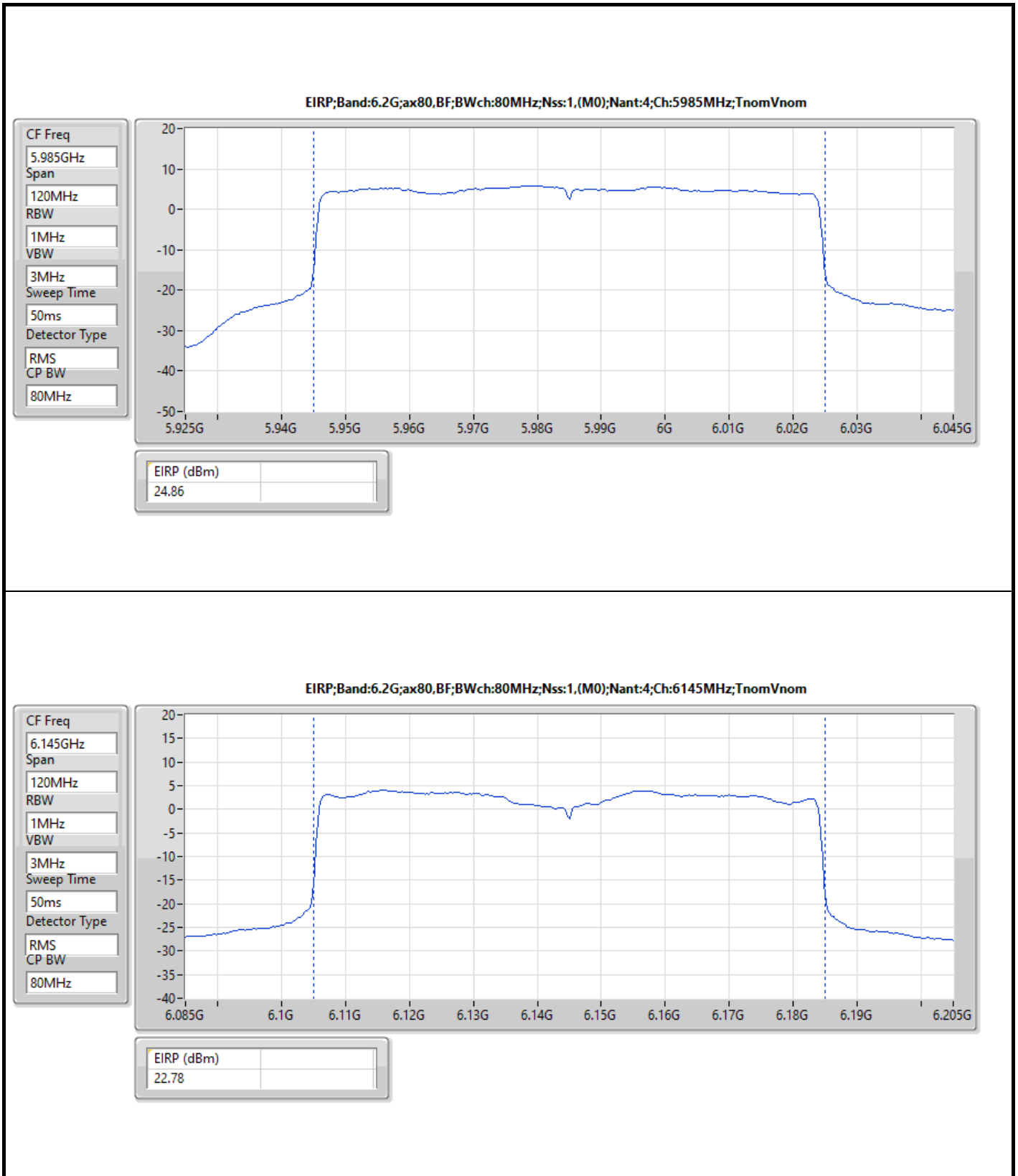


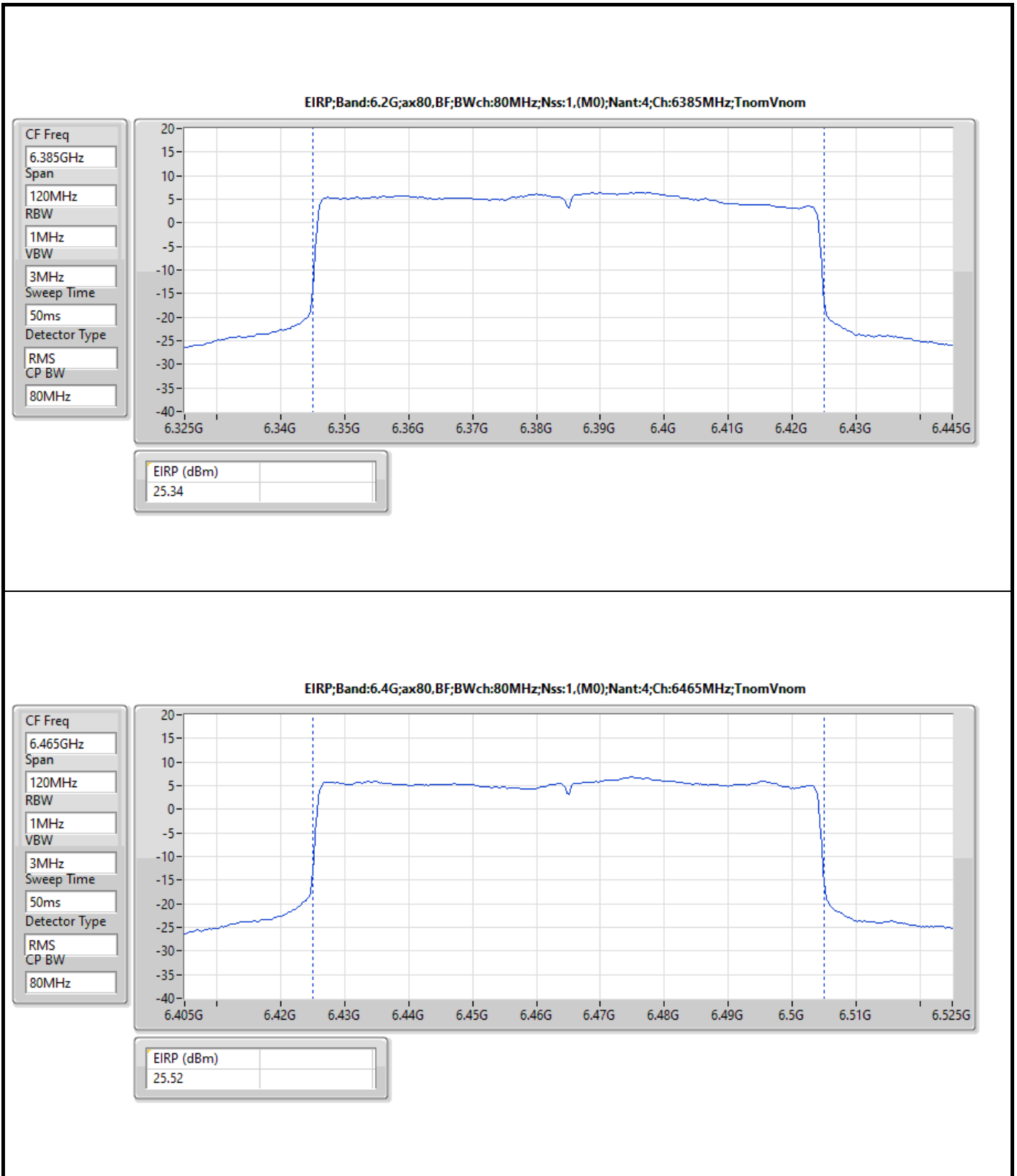


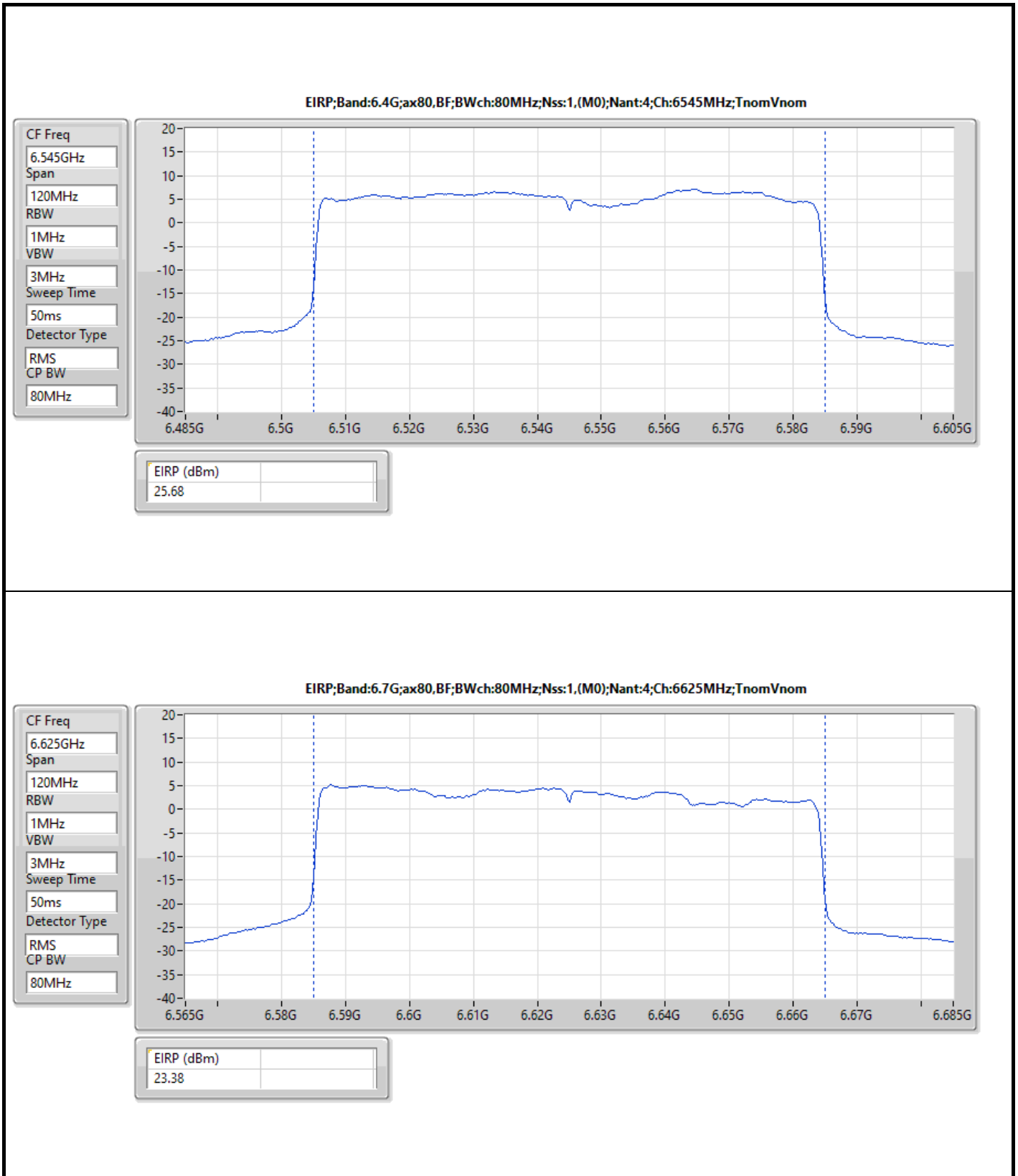


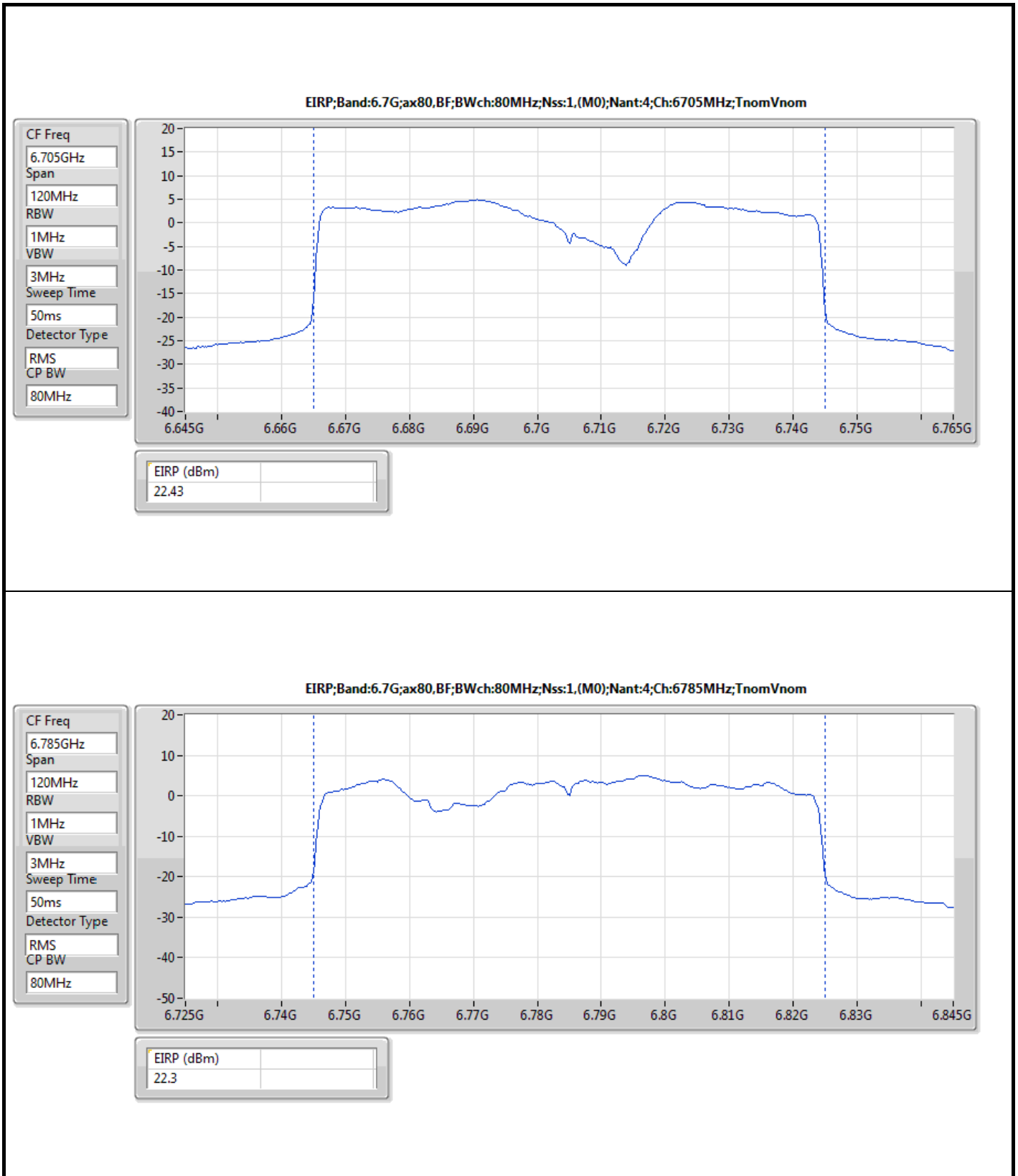




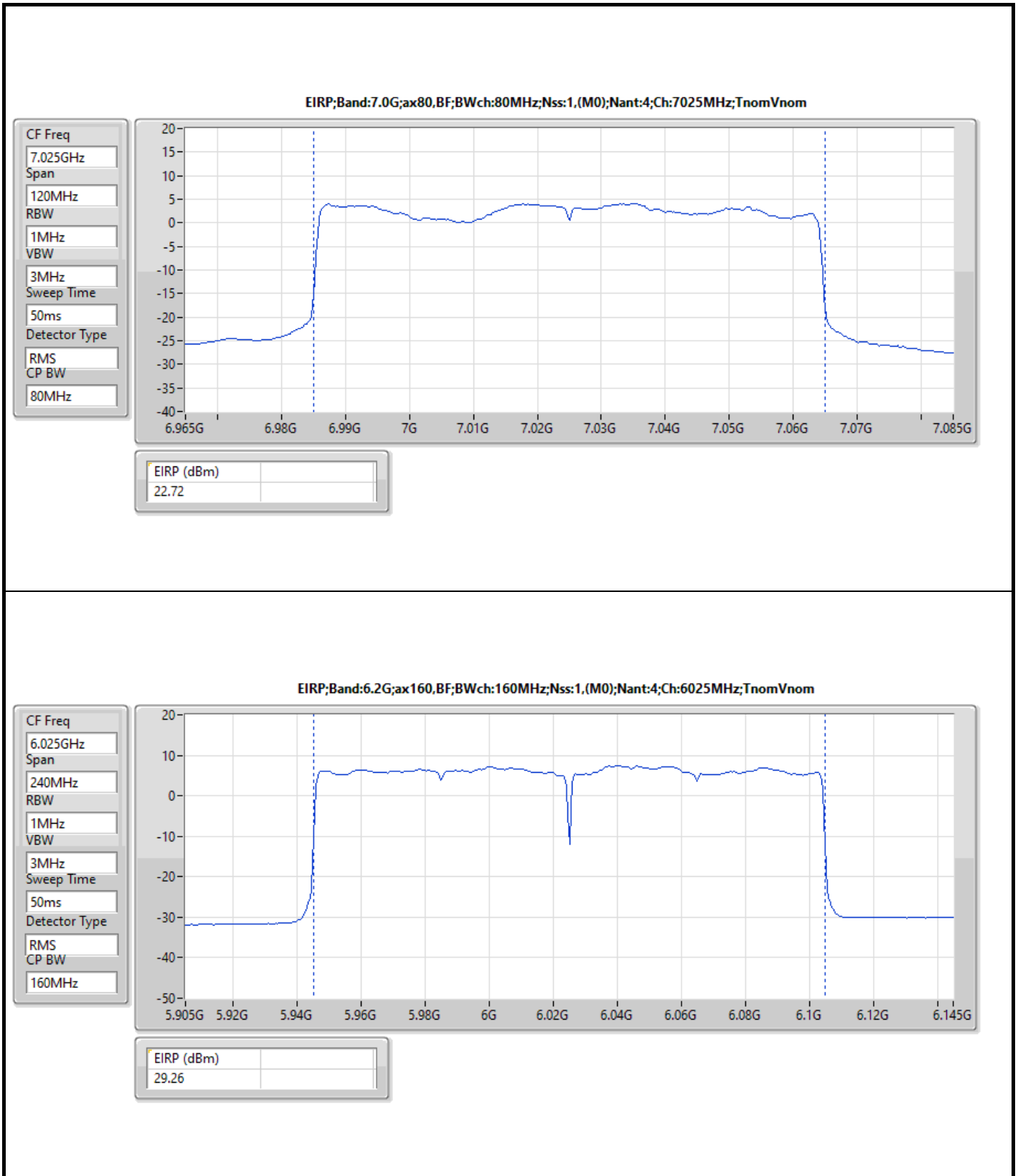


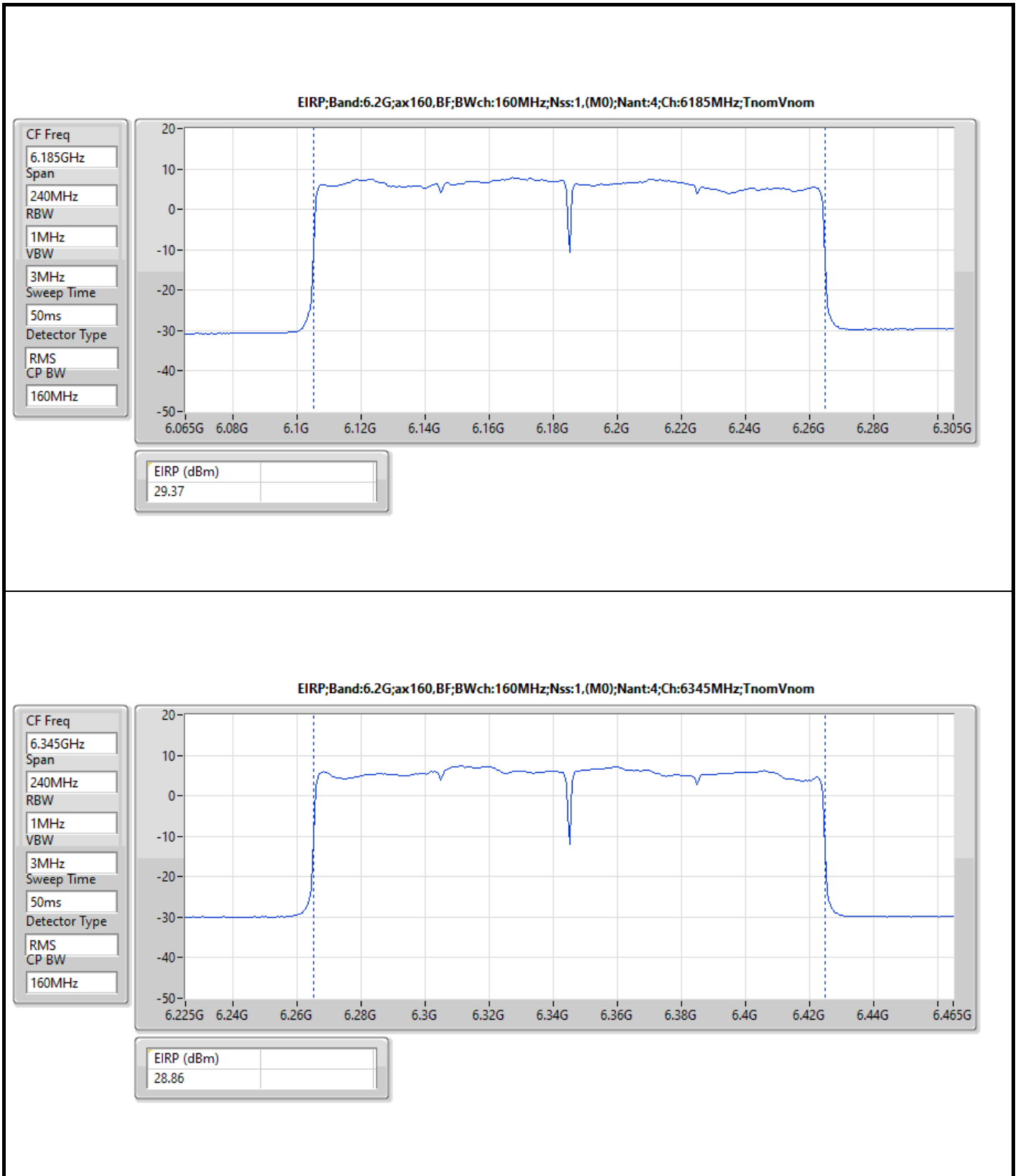
















Summary

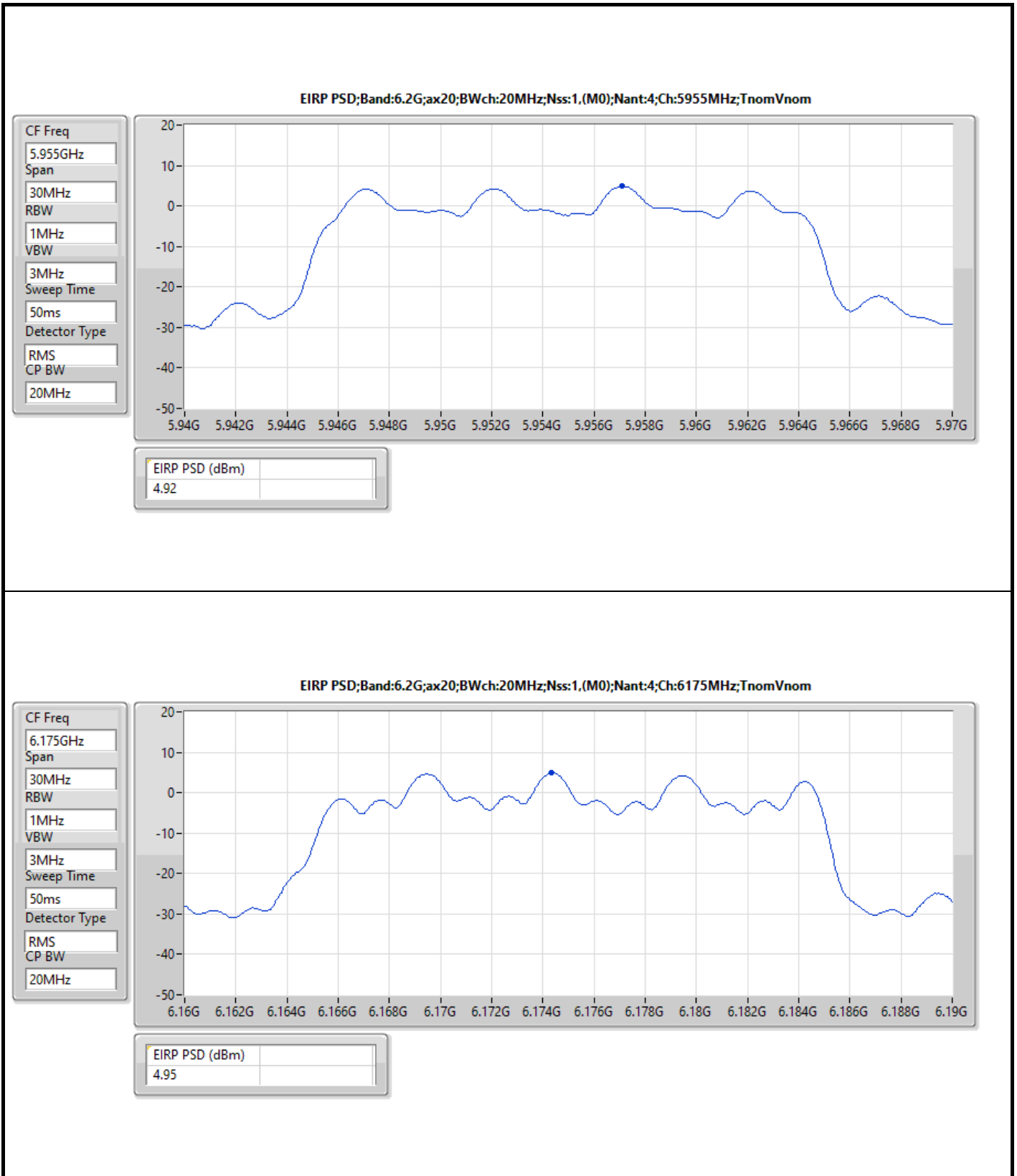
Mode	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
5.925-6.425GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	4.98	5.00
802.11ax HEW40_Nss1,(MCS0)_4TX	4.88	5.00
802.11ax HEW80_Nss1,(MCS0)_4TX	4.97	5.00
802.11ax HEW160_Nss1,(MCS0)_4TX	4.93	5.00
6.425-6.525GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	4.97	5.00
802.11ax HEW40_Nss1,(MCS0)_4TX	4.96	5.00
802.11ax HEW80_Nss1,(MCS0)_4TX	4.86	5.00
802.11ax HEW160_Nss1,(MCS0)_4TX	4.92	5.00
6.525-6.875GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	4.99	5.00
802.11ax HEW40_Nss1,(MCS0)_4TX	4.98	5.00
802.11ax HEW80_Nss1,(MCS0)_4TX	4.97	5.00
802.11ax HEW160_Nss1,(MCS0)_4TX	4.82	5.00
6.875-7.125GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	4.95	5.00
802.11ax HEW40_Nss1,(MCS0)_4TX	4.92	5.00
802.11ax HEW80_Nss1,(MCS0)_4TX	4.92	5.00
802.11ax HEW160_Nss1,(MCS0)_4TX	4.94	5.00

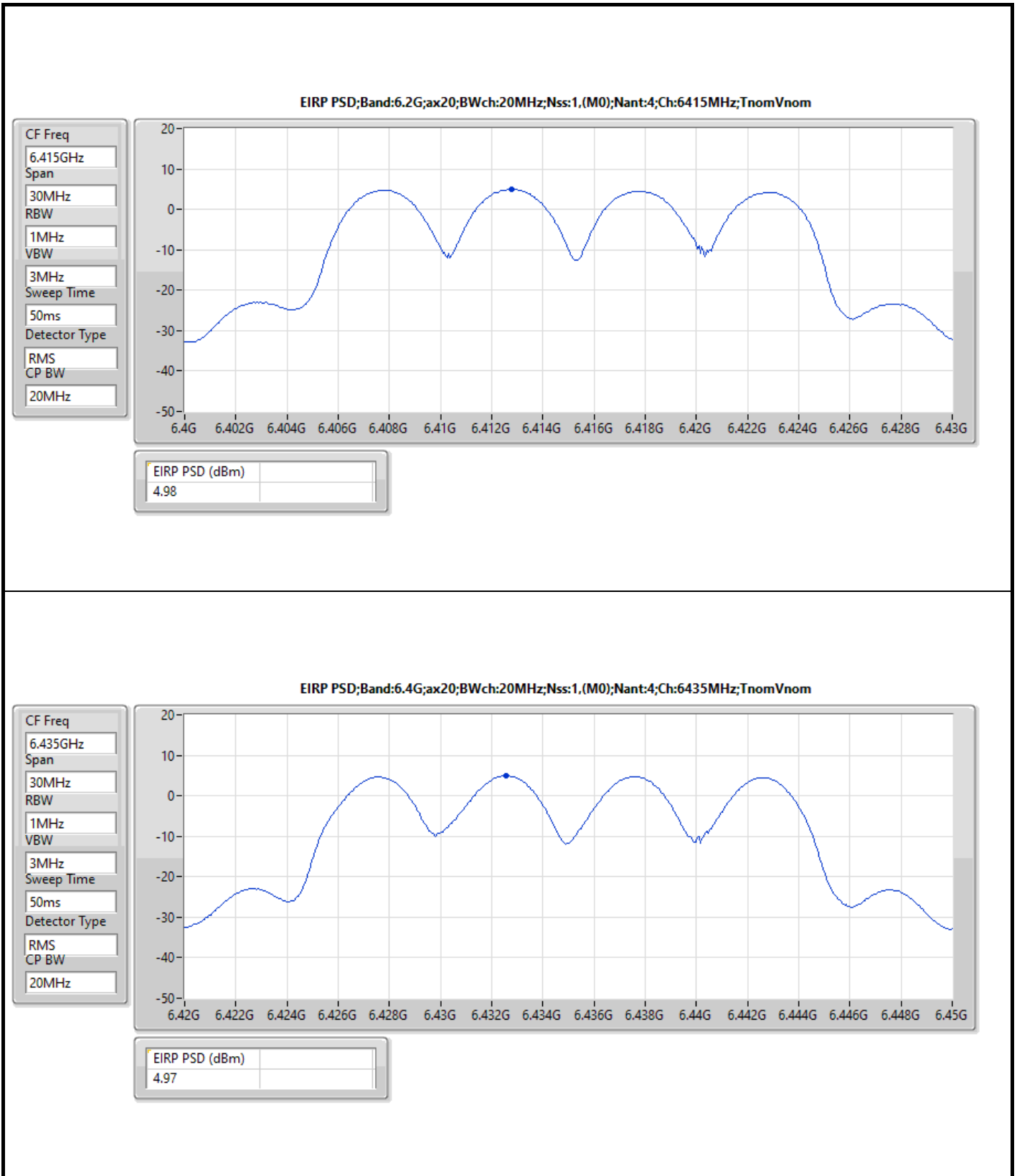
RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

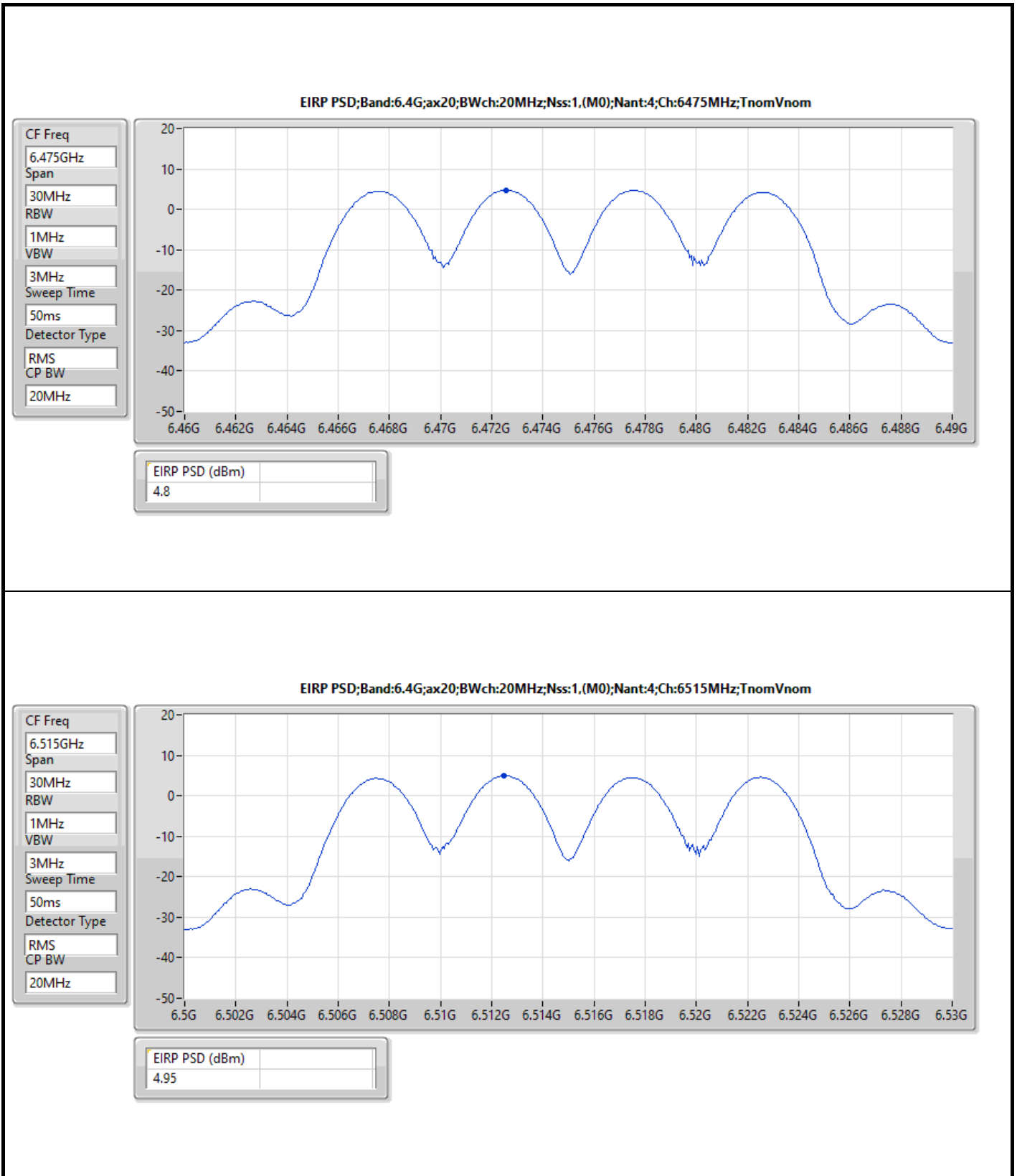
Result

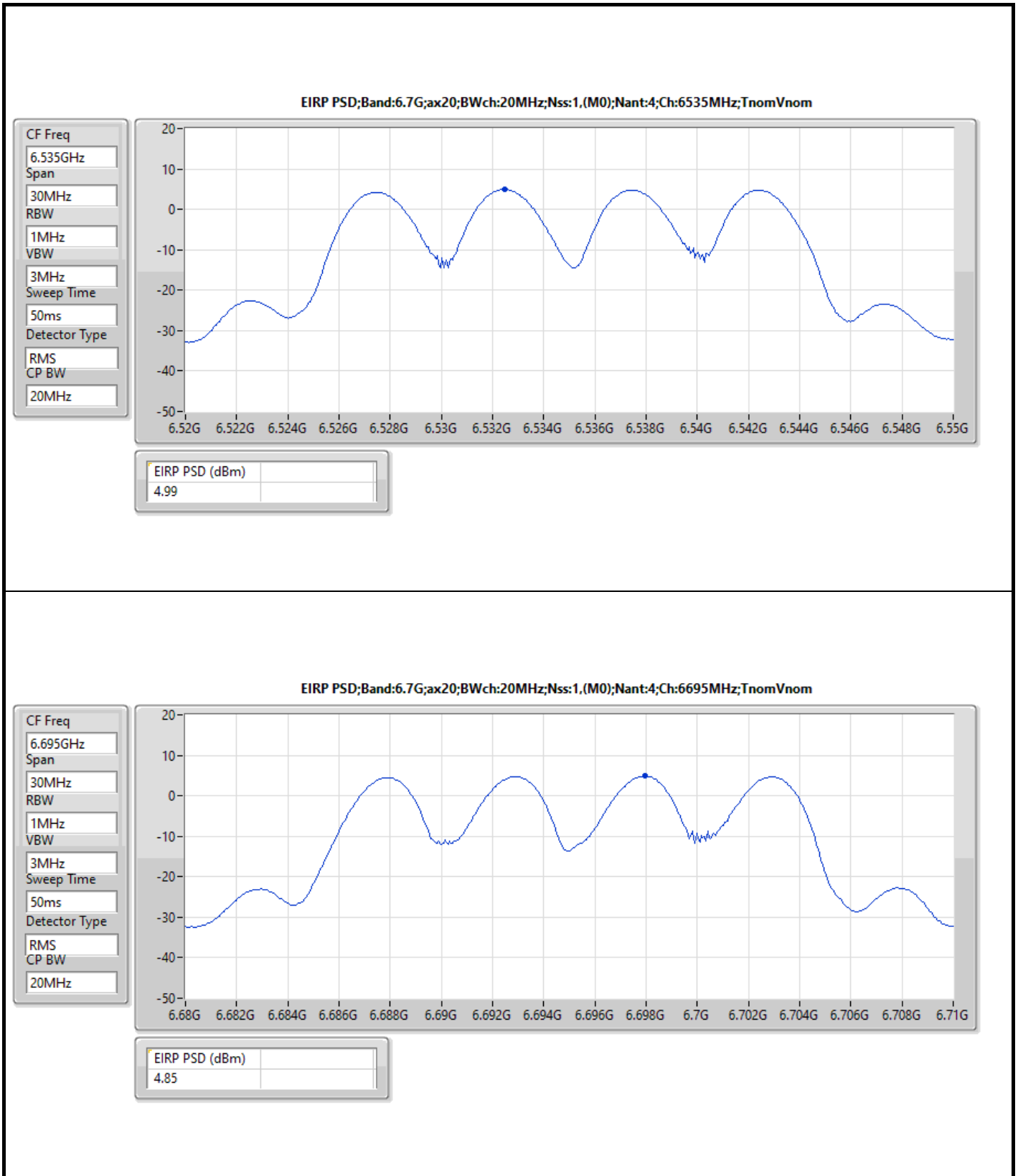
Mode	Result	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-
5955MHz	Pass	4.92	5.00
6175MHz	Pass	4.95	5.00
6415MHz	Pass	4.98	5.00
6435MHz	Pass	4.97	5.00
6475MHz	Pass	4.80	5.00
6515MHz	Pass	4.95	5.00
6535MHz	Pass	4.99	5.00
6695MHz	Pass	4.85	5.00
6855MHz	Pass	4.87	5.00
6875MHz Straddle 6.525-6.875GHz	Pass	4.93	5.00
6895MHz	Pass	4.83	5.00
6995MHz	Pass	4.95	5.00
7095MHz	Pass	4.81	5.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-
5965MHz	Pass	4.81	5.00
6165MHz	Pass	4.84	5.00
6405MHz	Pass	4.88	5.00
6445MHz	Pass	4.96	5.00
6485MHz	Pass	4.87	5.00
6525MHz Straddle 6.425-6.525GHz	Pass	4.88	5.00
6565MHz	Pass	4.89	5.00
6685MHz	Pass	4.98	5.00
6845MHz	Pass	4.93	5.00
6885MHz Straddle 6.525-6.875GHz	Pass	4.87	5.00
6925MHz	Pass	4.89	5.00
7005MHz	Pass	4.86	5.00
7085MHz	Pass	4.92	5.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-
5985MHz	Pass	4.85	5.00
6145MHz	Pass	4.97	5.00
6385MHz	Pass	4.79	5.00
6465MHz	Pass	4.86	5.00
6545MHz Straddle 6.425-6.525GHz	Pass	4.81	5.00
6625MHz	Pass	4.97	5.00
6705MHz	Pass	4.81	5.00
6785MHz	Pass	4.81	5.00
6865MHz Straddle 6.525-6.875GHz	Pass	4.95	5.00
6945MHz	Pass	4.79	5.00
7025MHz	Pass	4.92	5.00
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-
6025MHz	Pass	4.84	5.00
6185MHz	Pass	4.93	5.00
6345MHz	Pass	4.82	5.00
6505MHz Straddle 6.425-6.525GHz	Pass	4.92	5.00
6665MHz	Pass	4.80	5.00
6825MHz Straddle 6.525-6.875GHz	Pass	4.82	5.00
6985MHz	Pass	4.94	5.00

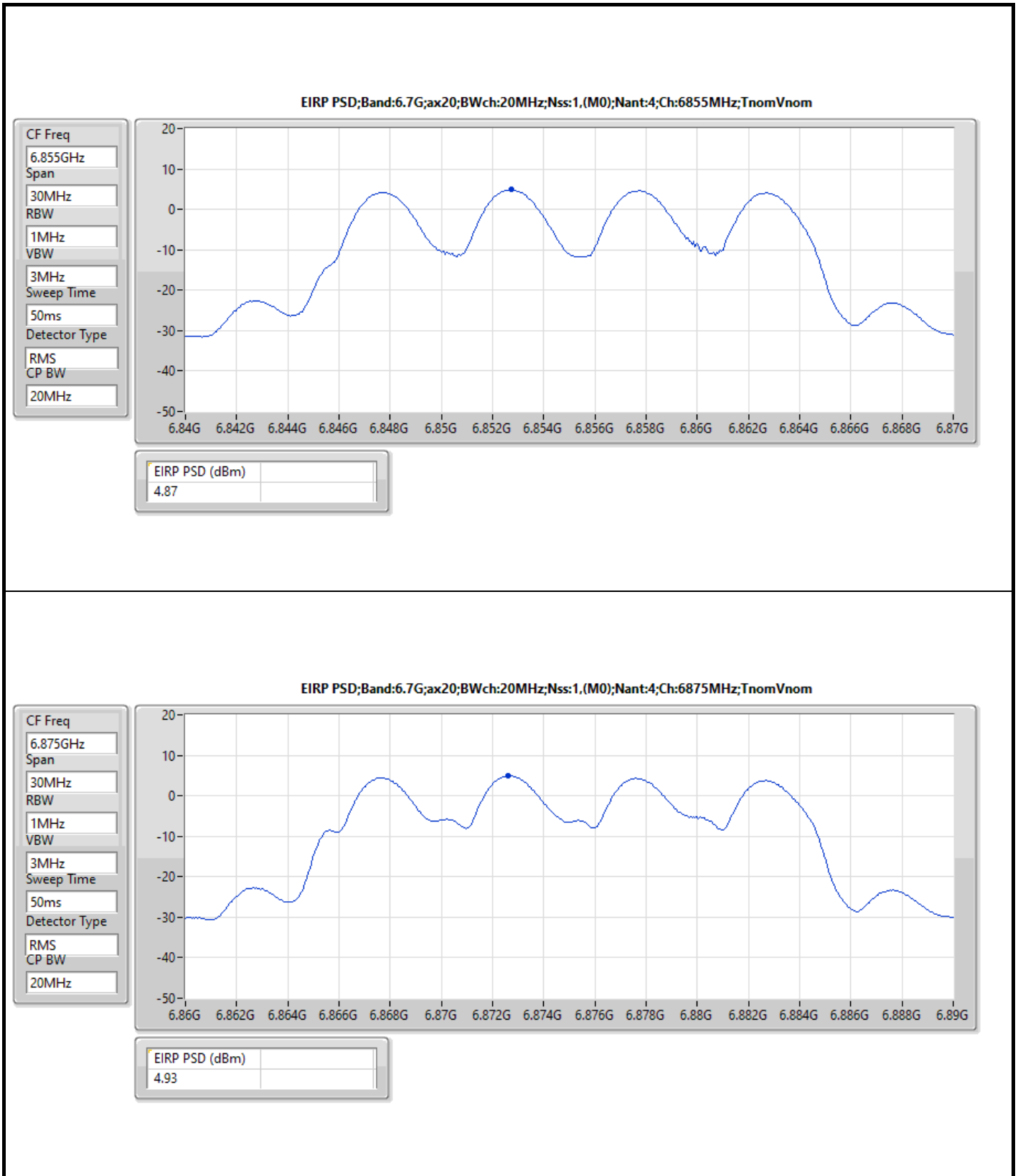
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;



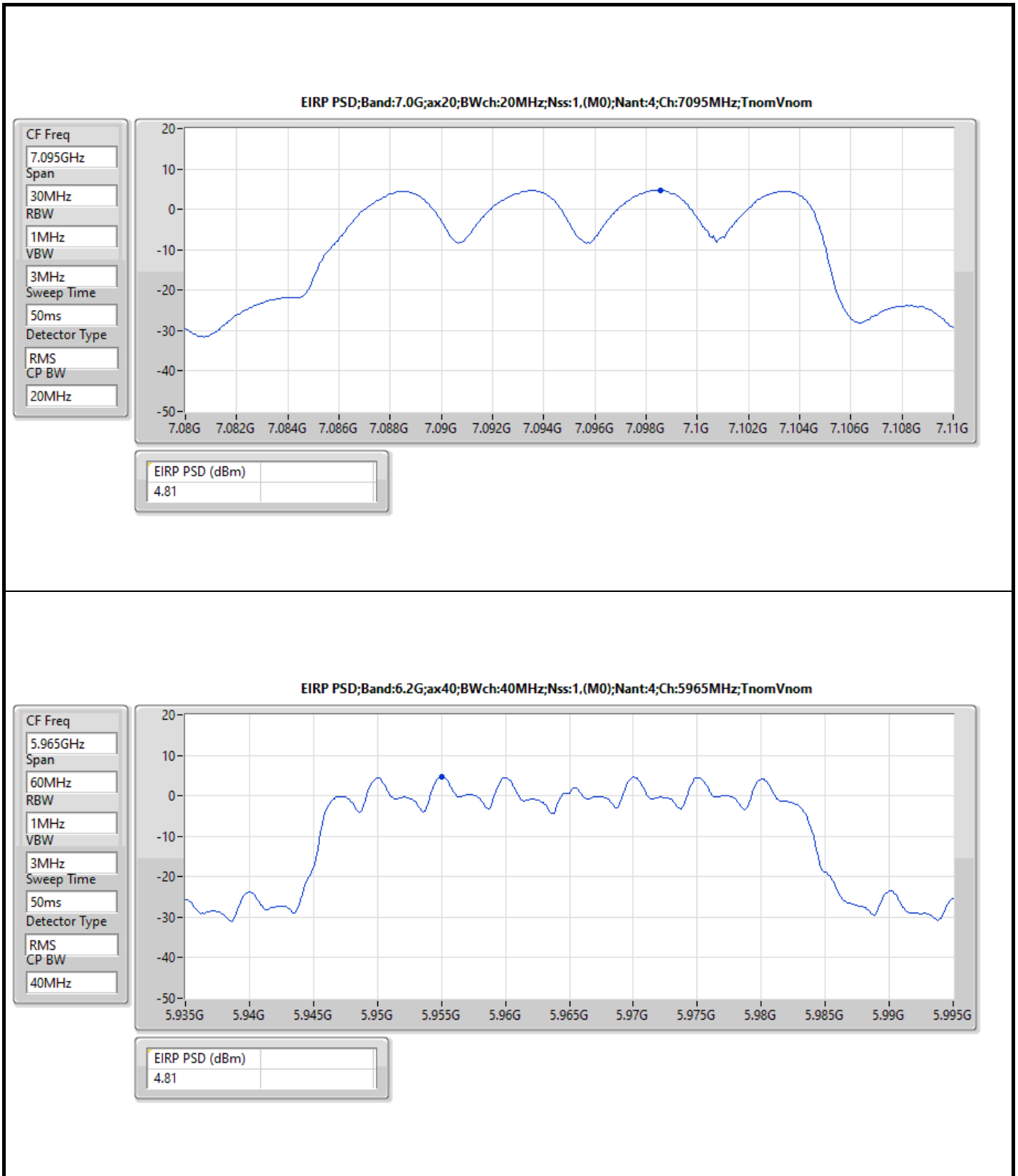




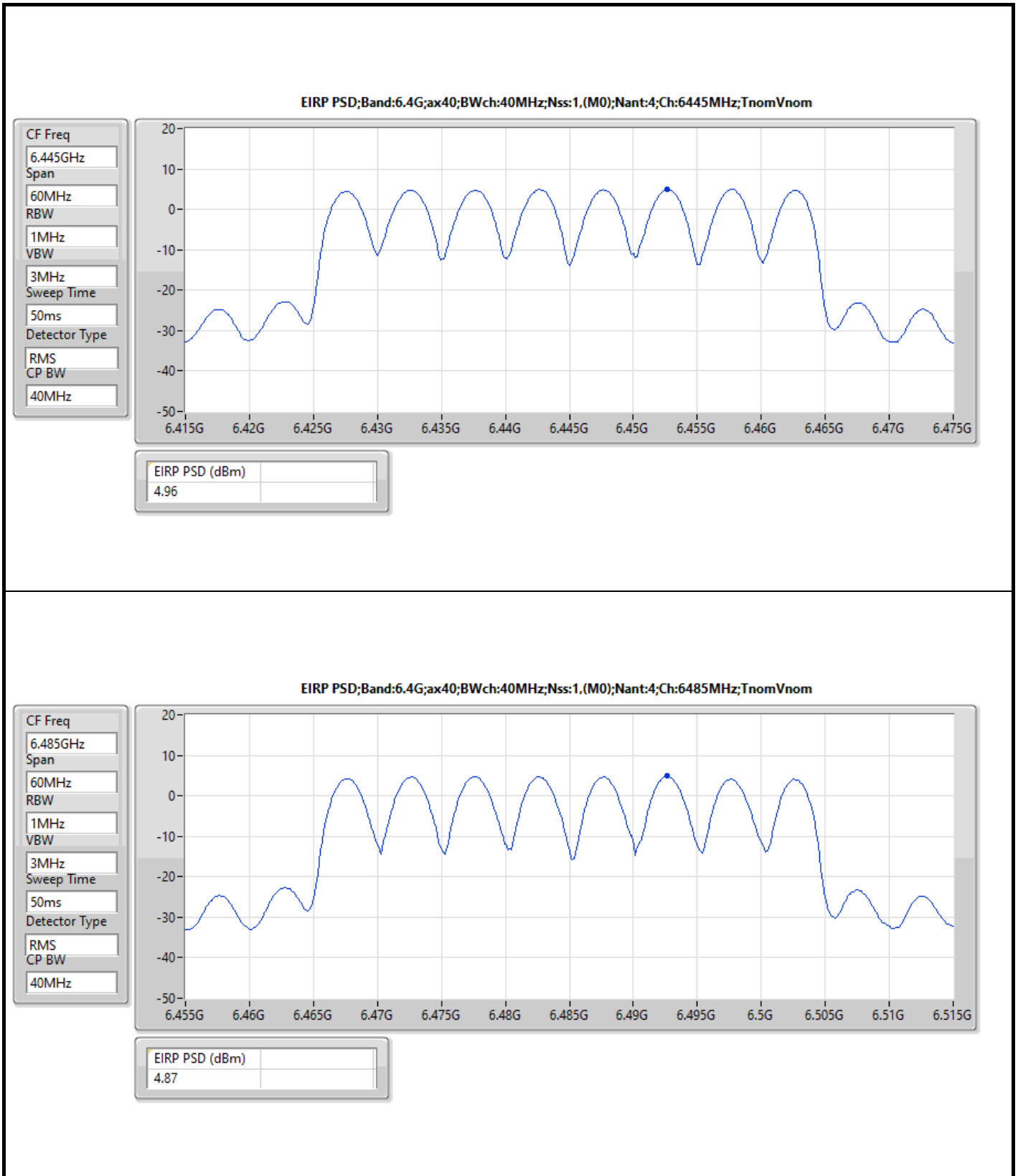


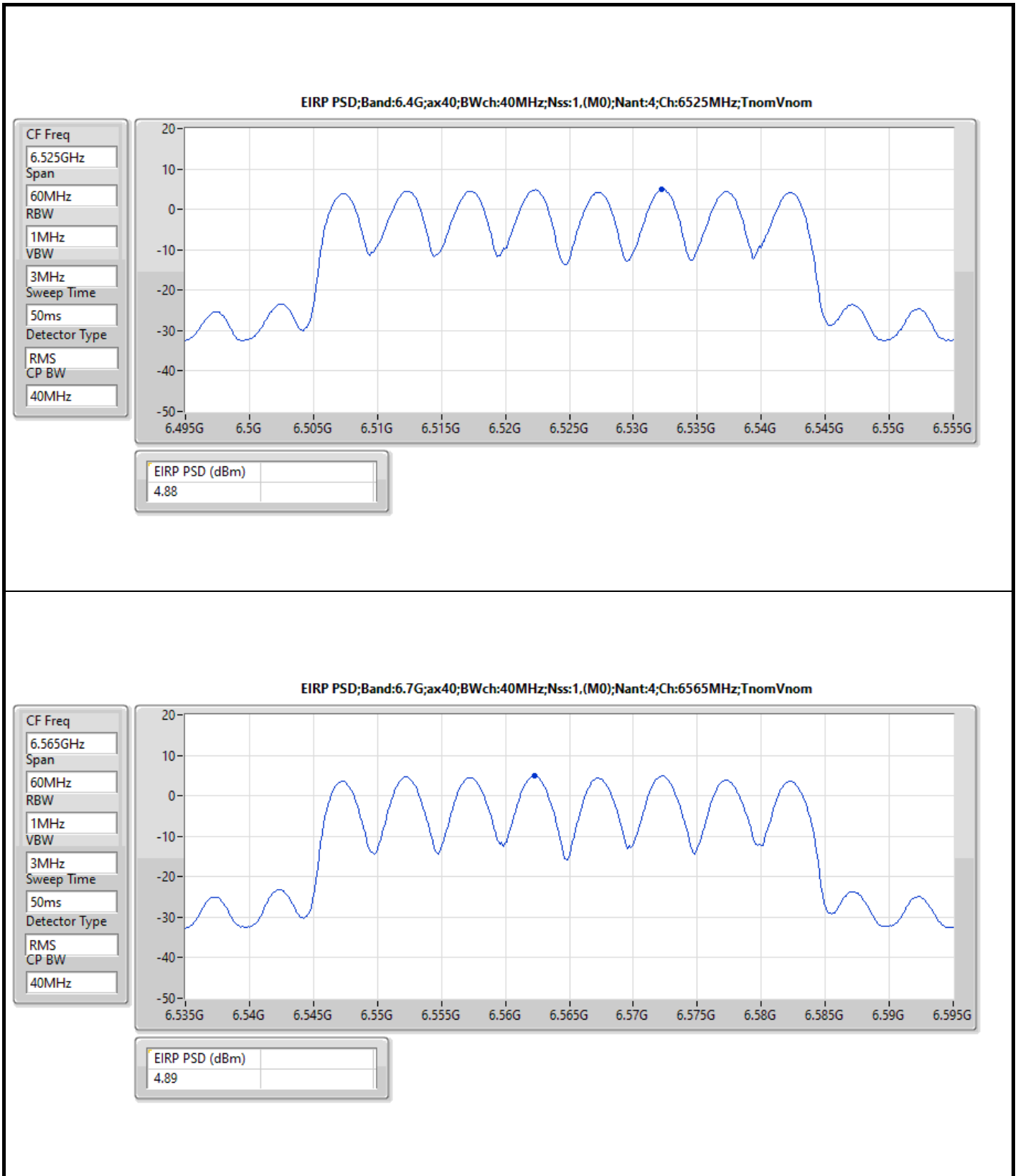


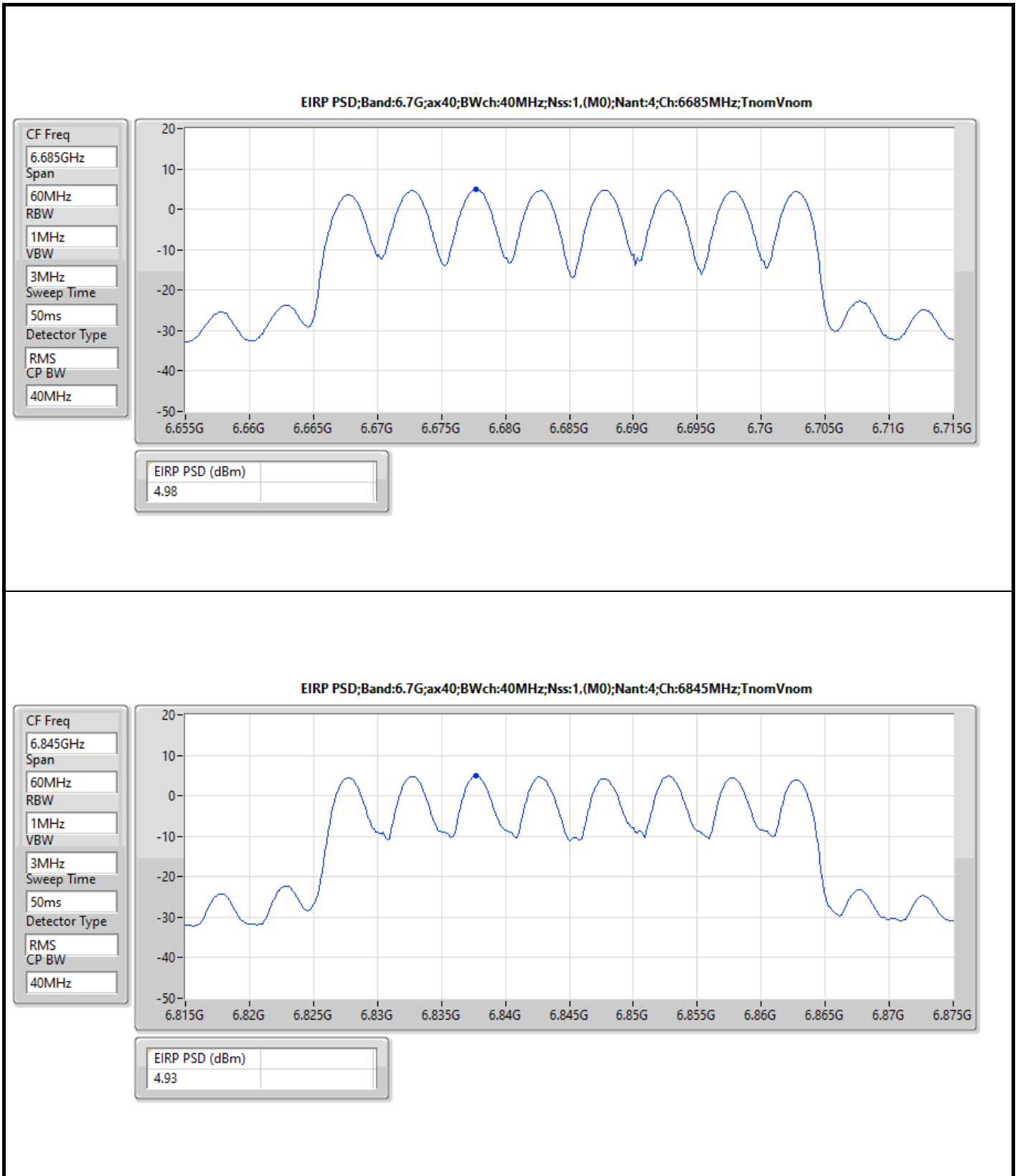








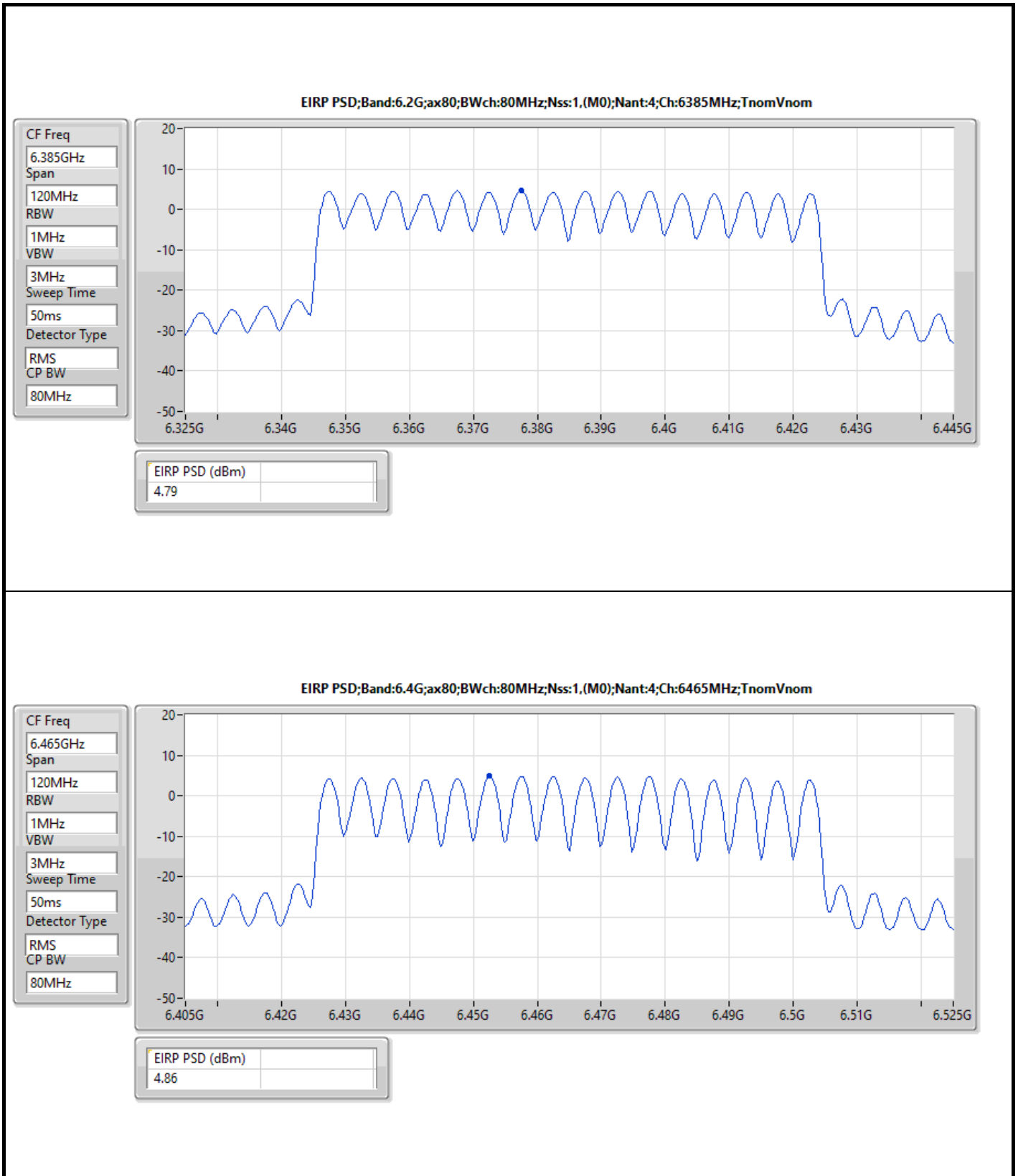


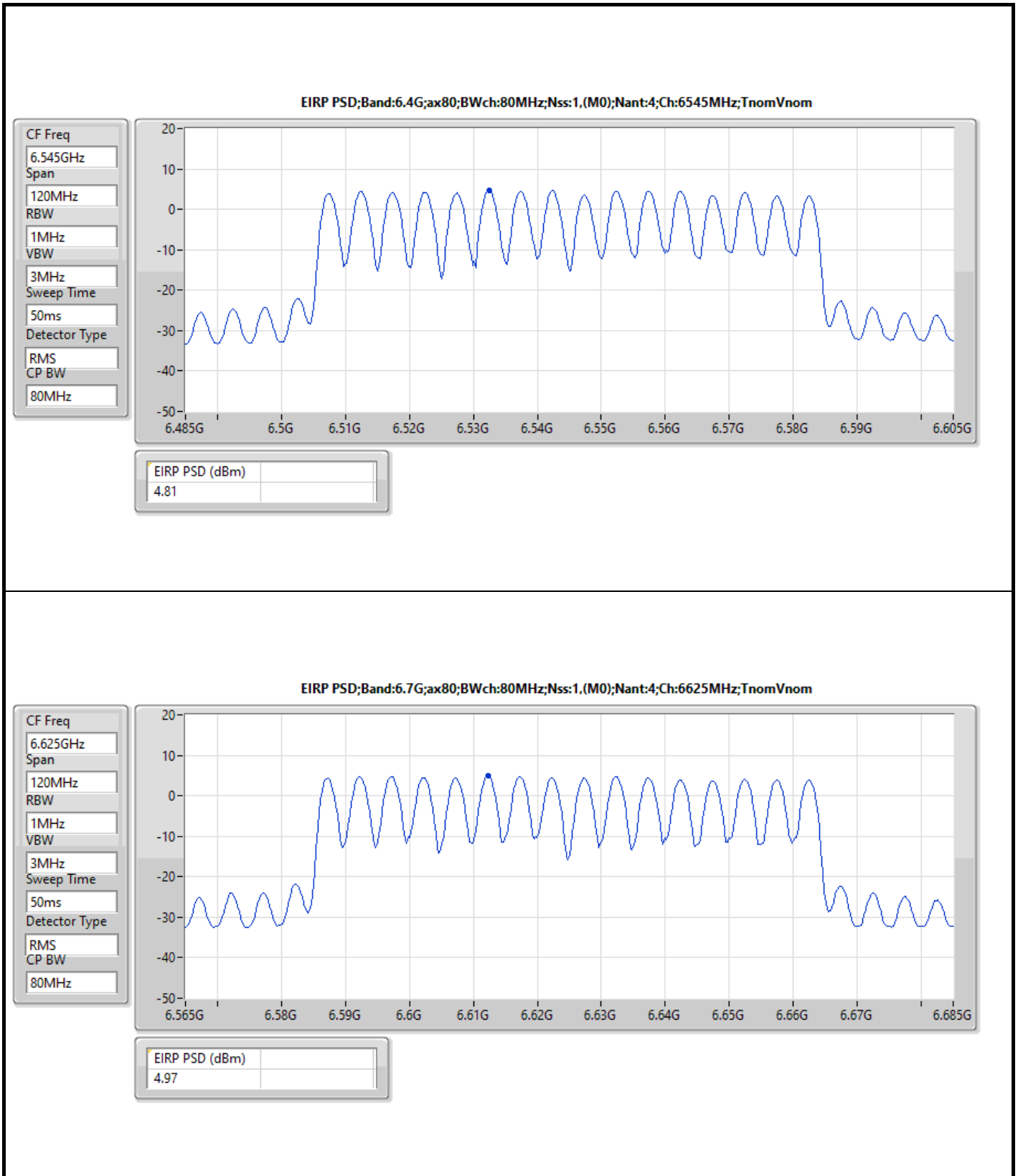


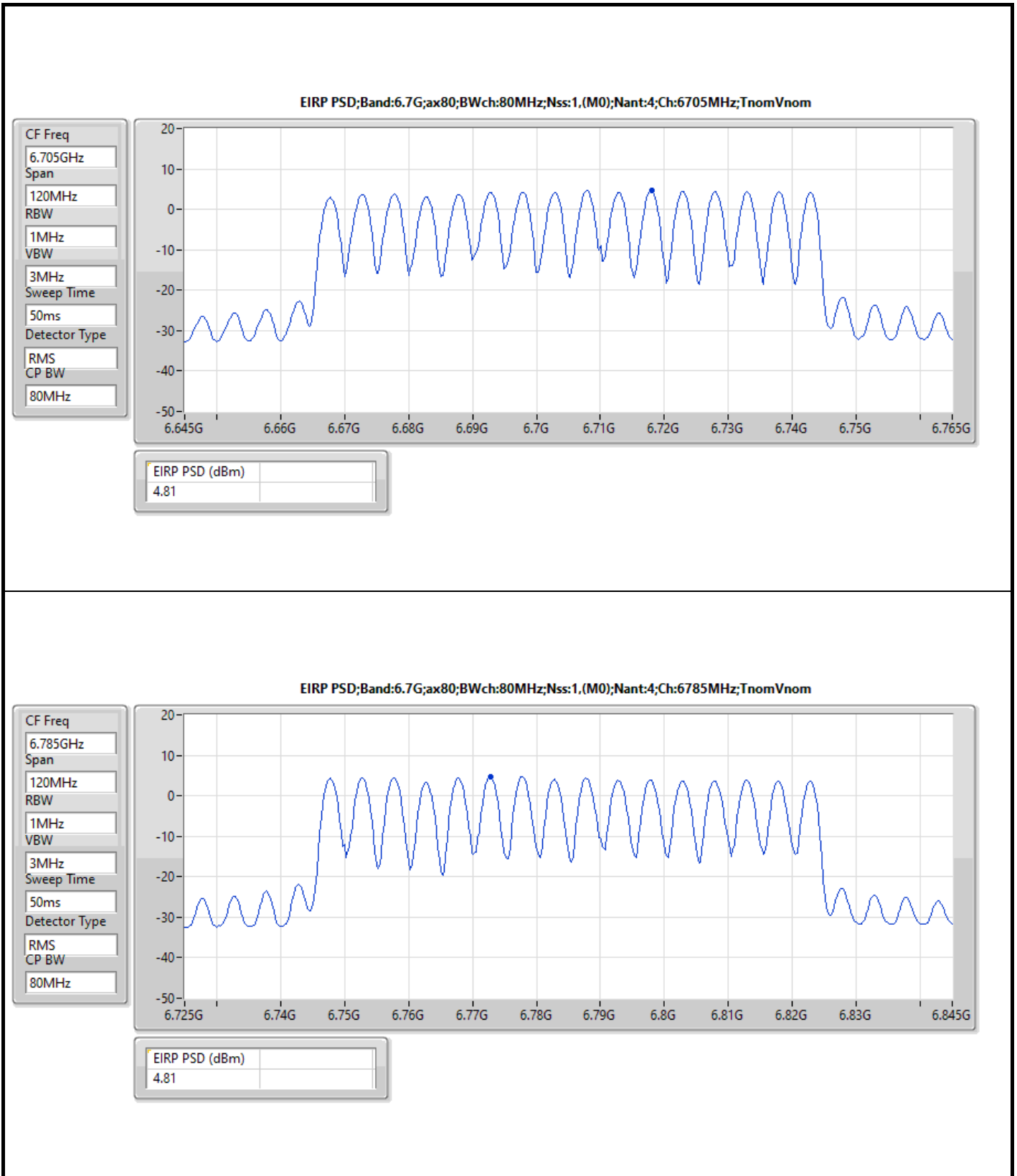


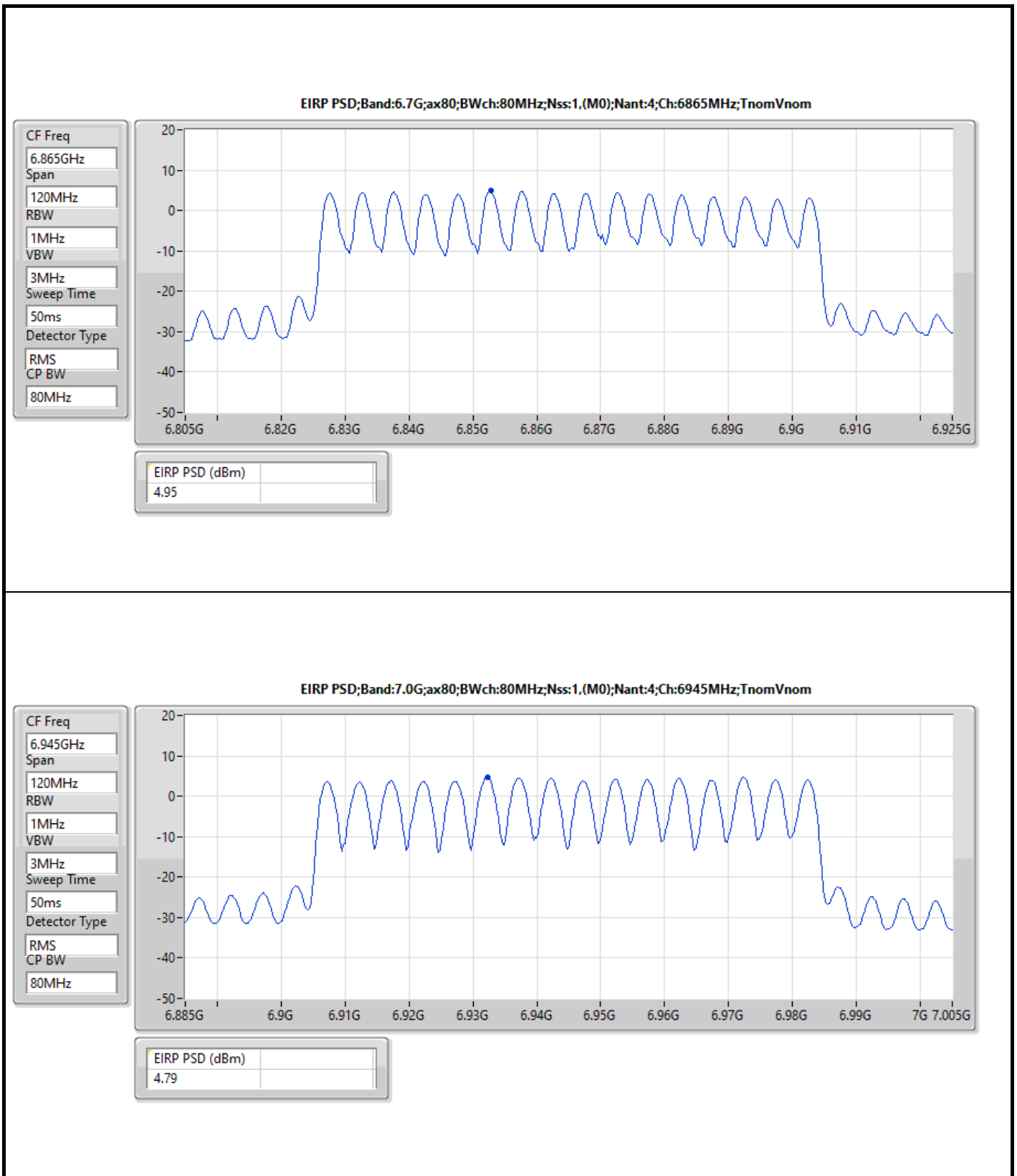


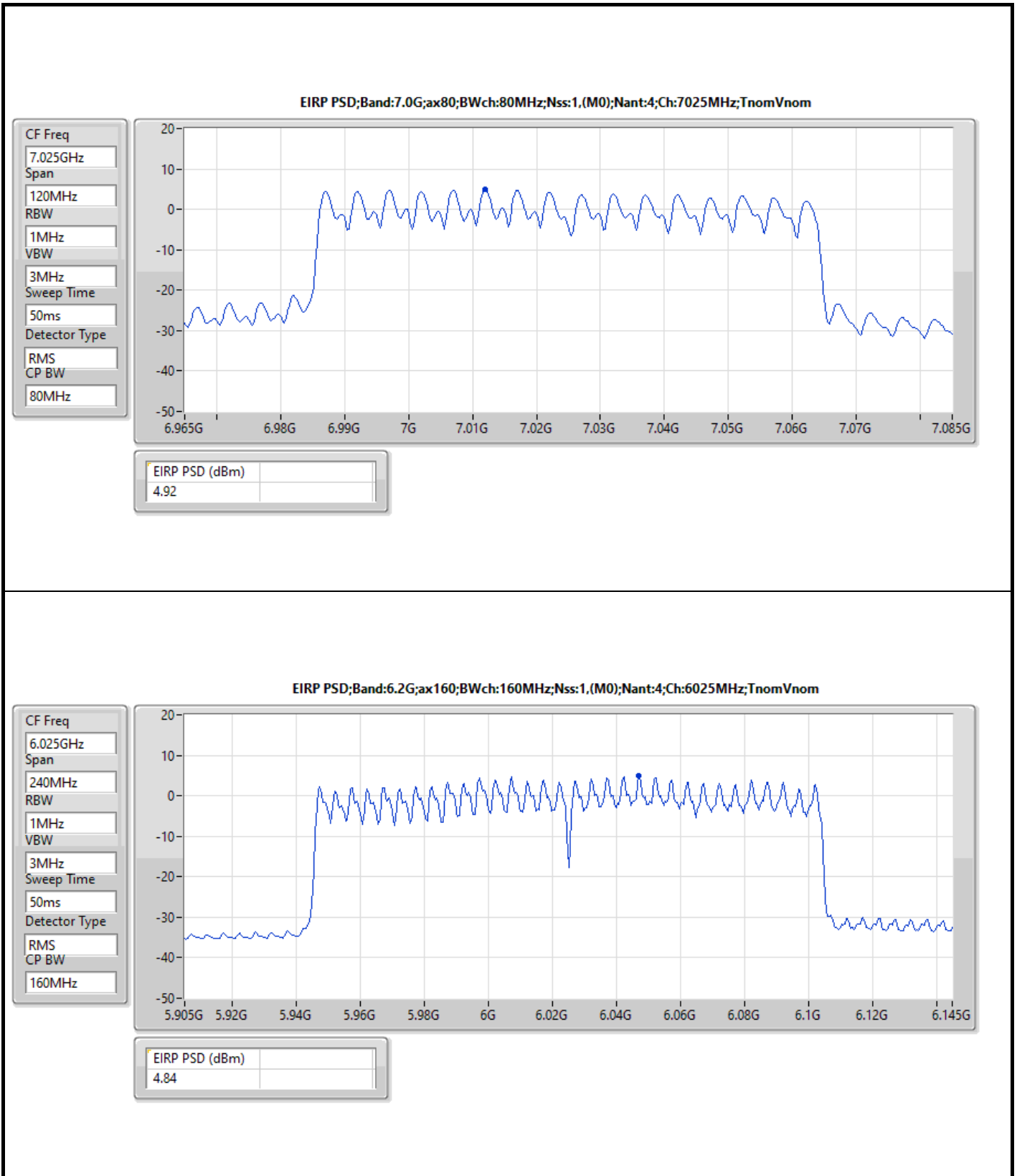


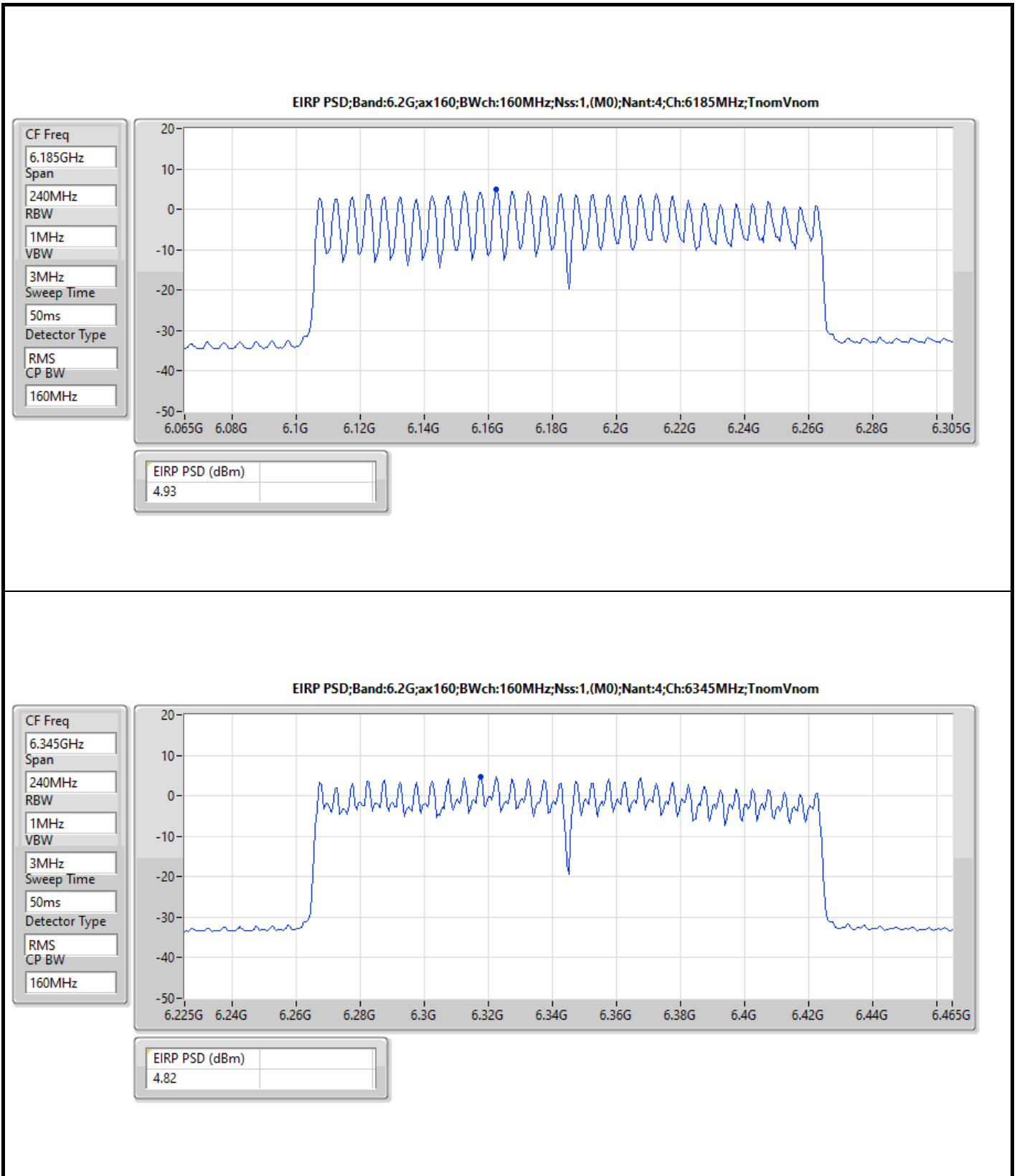


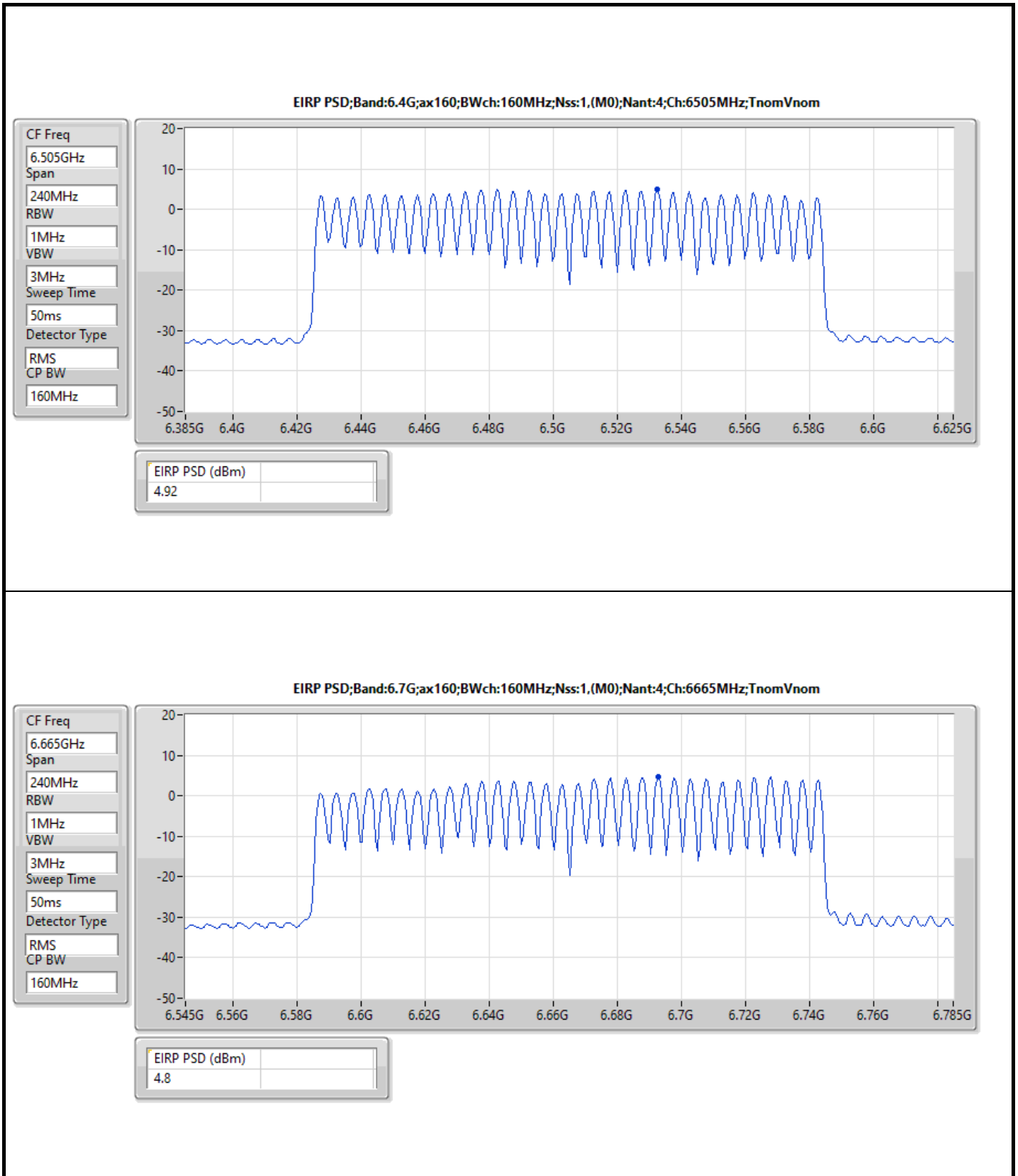


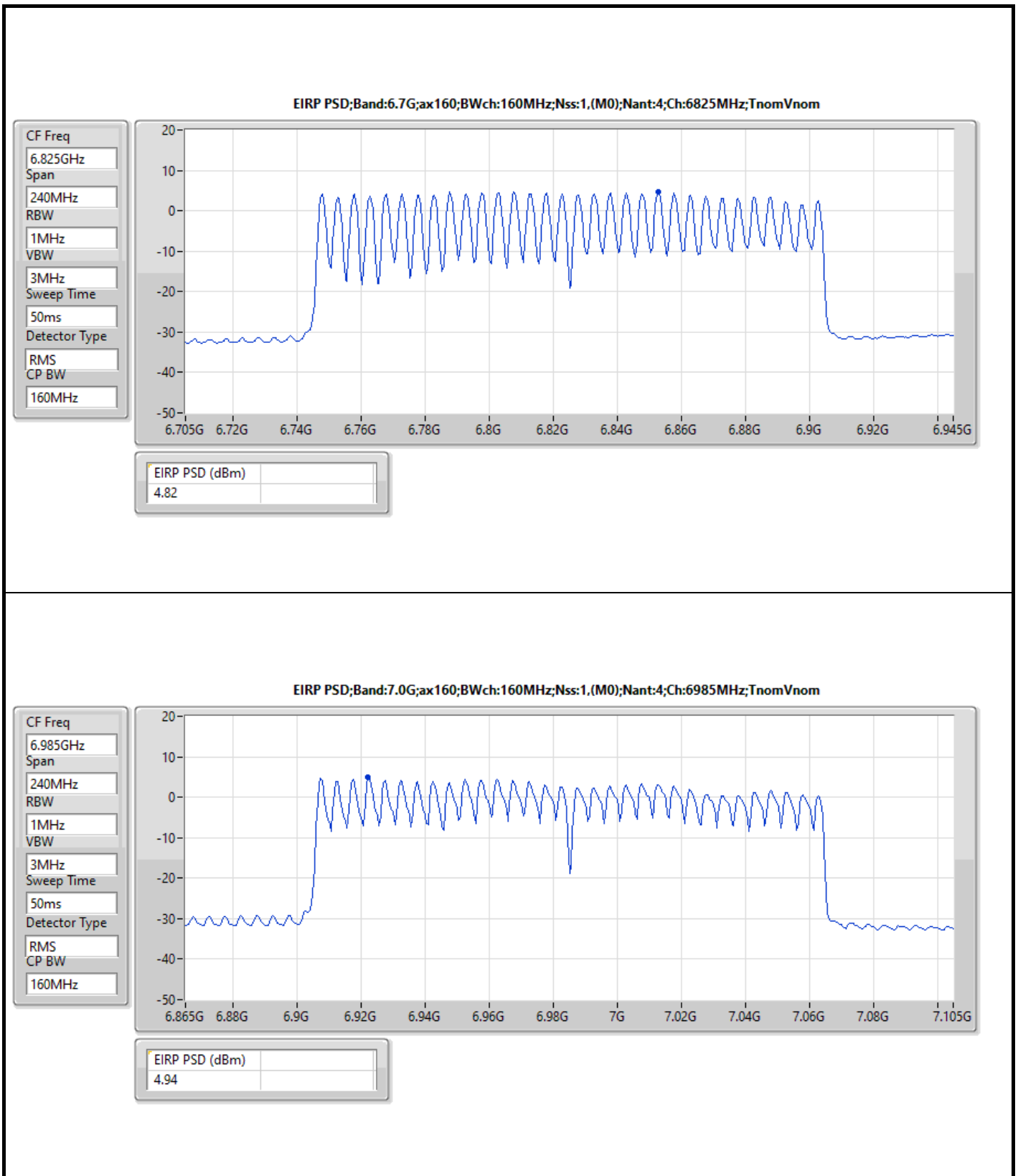












Summary

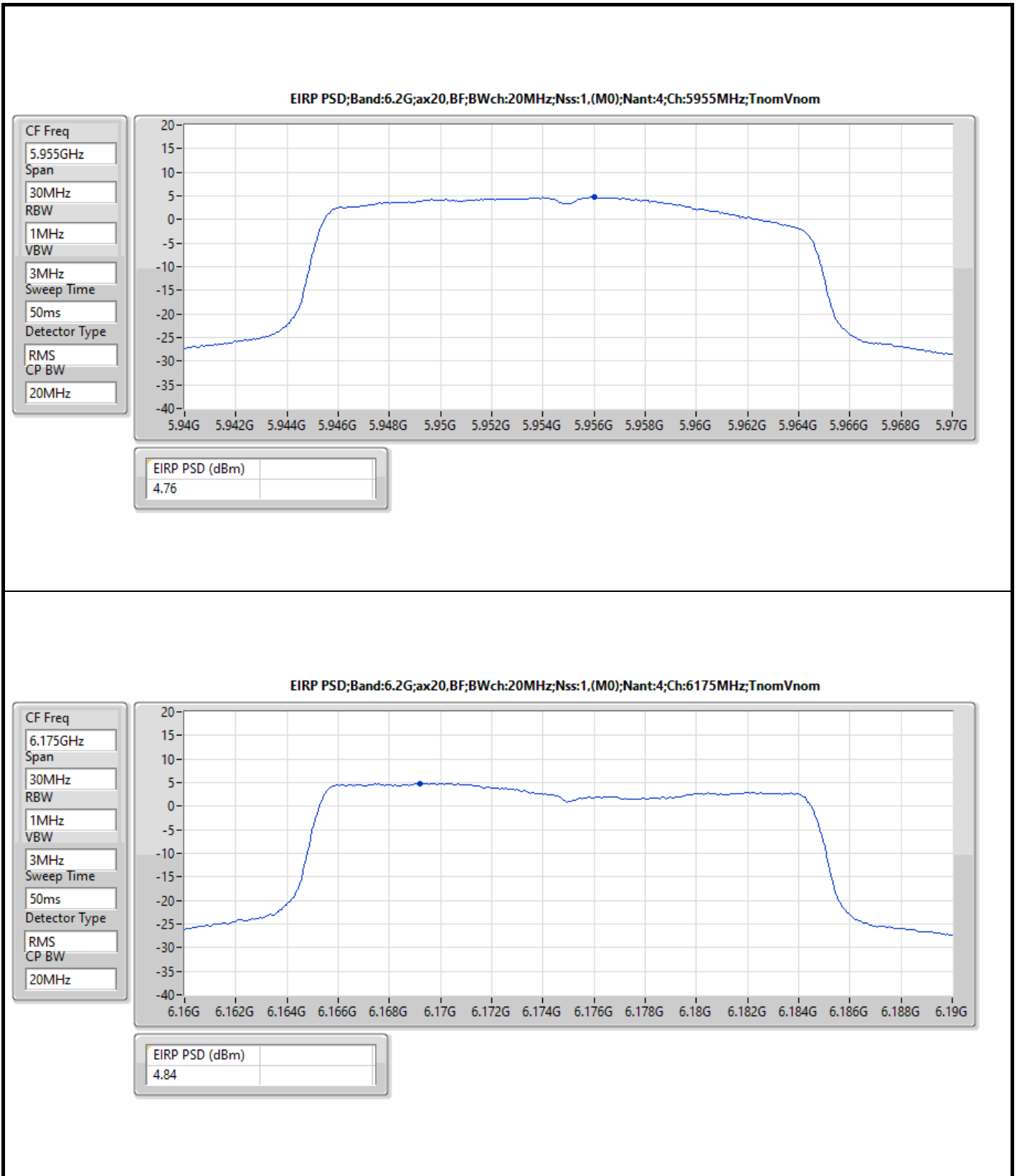
Mode	EIRP PD (dBm/RBW)
5.925-6.425GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	4.92
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	4.95
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	4.87
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	4.91
6.425-6.525GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	4.99
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	4.97
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	4.78
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	4.88
6.525-6.875GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	4.82
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	4.92
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	4.97
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	4.92
6.875-7.125GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	4.83
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	4.97
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	4.96
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	4.93

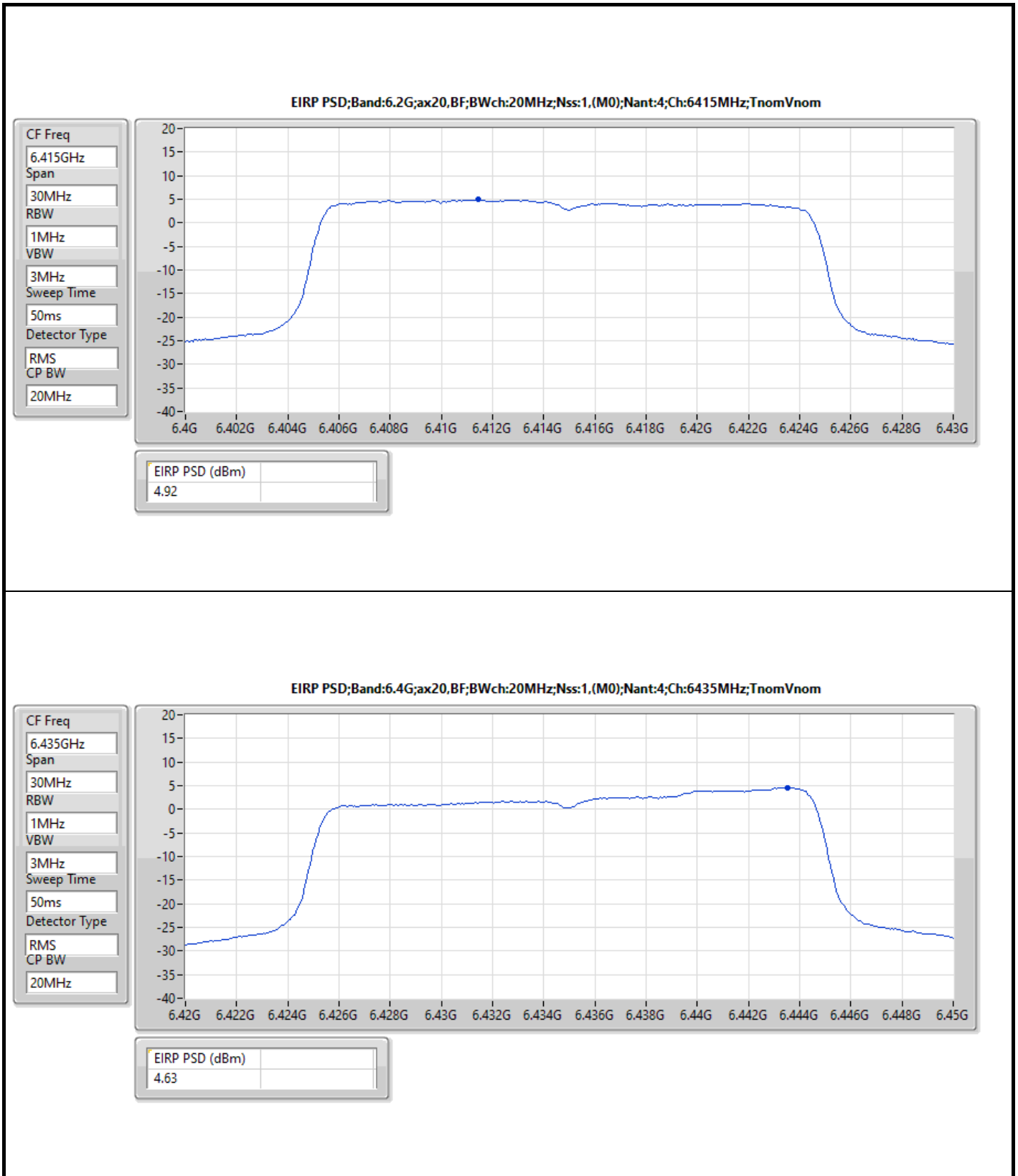
RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

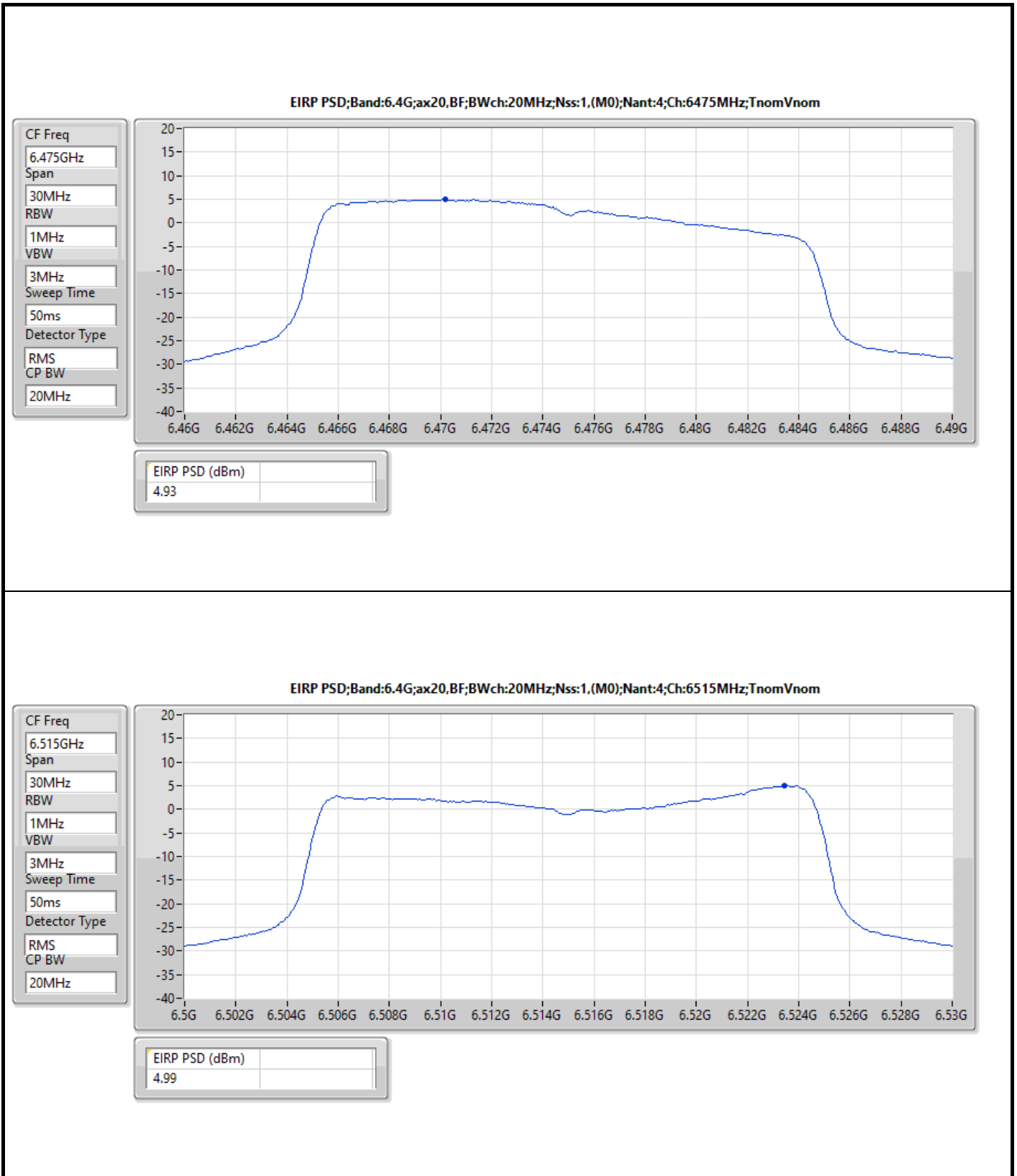
Result

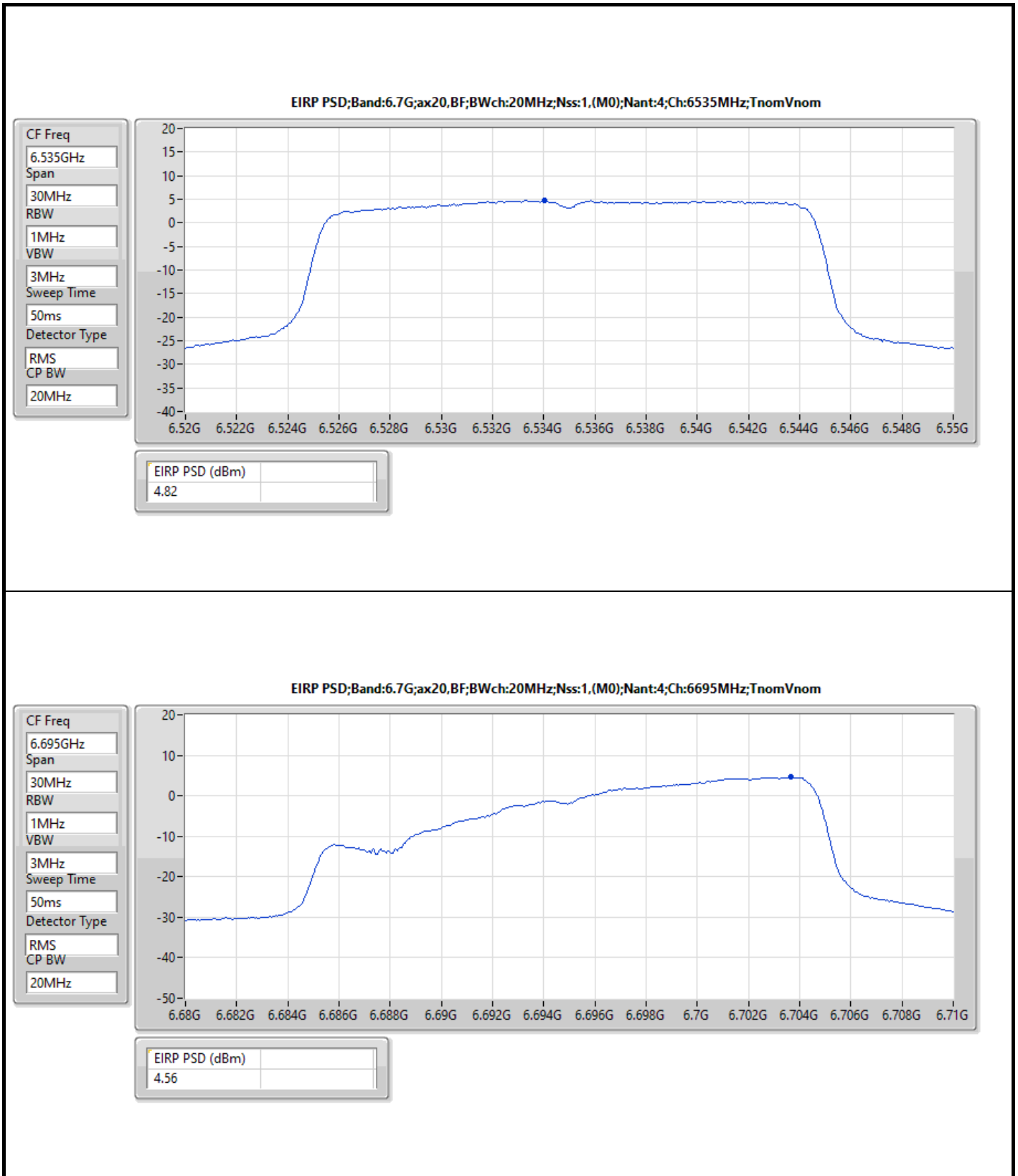
Mode	Result	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-
5955MHz	Pass	4.76	5.00
6175MHz	Pass	4.84	5.00
6415MHz	Pass	4.92	5.00
6435MHz	Pass	4.63	5.00
6475MHz	Pass	4.93	5.00
6515MHz	Pass	4.99	5.00
6535MHz	Pass	4.82	5.00
6695MHz	Pass	4.56	5.00
6855MHz	Pass	4.58	5.00
6875MHz Straddle 6.525-6.875GHz	Pass	4.72	5.00
6895MHz	Pass	4.83	5.00
6995MHz	Pass	4.83	5.00
7095MHz	Pass	4.78	5.00
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-
5965MHz	Pass	4.95	5.00
6165MHz	Pass	4.89	5.00
6405MHz	Pass	4.92	5.00
6445MHz	Pass	4.97	5.00
6485MHz	Pass	4.95	5.00
6525MHz Straddle 6.425-6.525GHz	Pass	4.93	5.00
6565MHz	Pass	4.76	5.00
6685MHz	Pass	4.87	5.00
6845MHz	Pass	4.78	5.00
6885MHz Straddle 6.525-6.875GHz	Pass	4.92	5.00
6925MHz	Pass	4.87	5.00
7005MHz	Pass	4.61	5.00
7085MHz	Pass	4.97	5.00
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-
5985MHz	Pass	4.82	5.00
6145MHz	Pass	4.87	5.00
6385MHz	Pass	4.64	5.00
6465MHz	Pass	4.78	5.00
6545MHz Straddle 6.425-6.525GHz	Pass	4.76	5.00
6625MHz	Pass	4.78	5.00
6705MHz	Pass	4.83	5.00
6785MHz	Pass	4.97	5.00
6865MHz Straddle 6.525-6.875GHz	Pass	4.82	5.00
6945MHz	Pass	4.78	5.00
7025MHz	Pass	4.96	5.00
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-	-	-
6025MHz	Pass	4.88	5.00
6185MHz	Pass	4.87	5.00
6345MHz	Pass	4.91	5.00
6505MHz Straddle 6.425-6.525GHz	Pass	4.88	5.00
6665MHz	Pass	4.92	5.00
6825MHz Straddle 6.525-6.875GHz	Pass	4.76	5.00
6985MHz	Pass	4.93	5.00

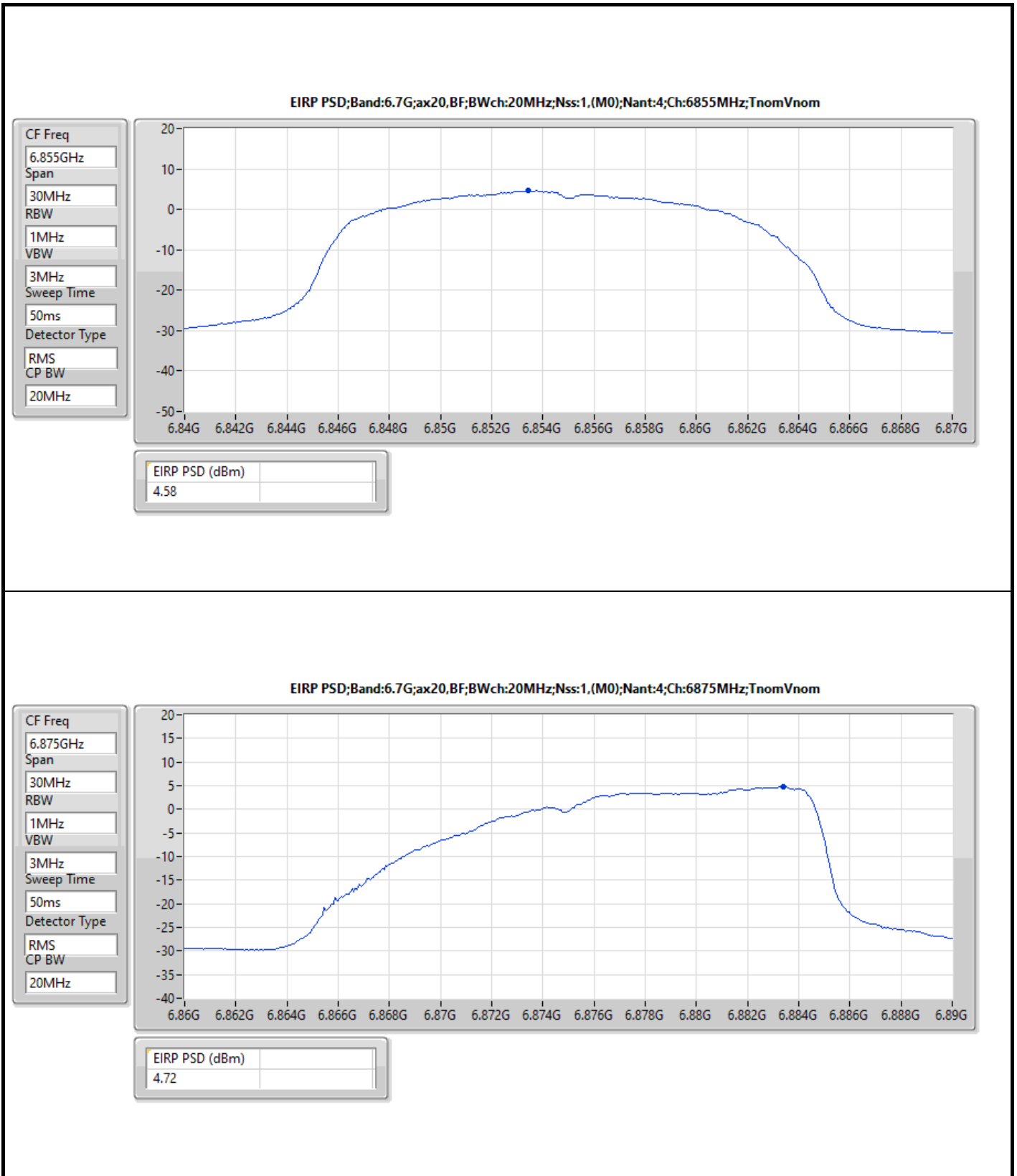
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;





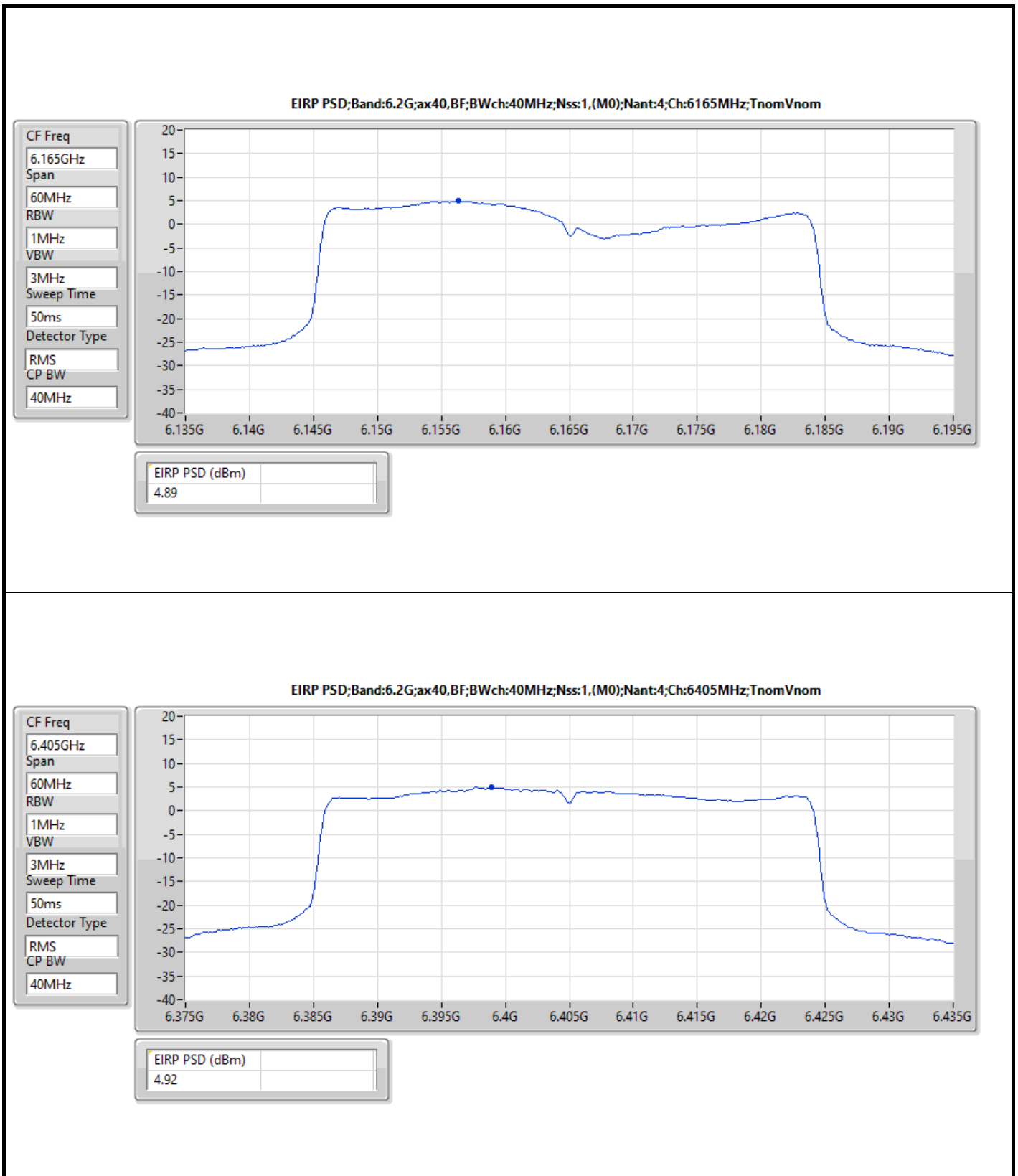


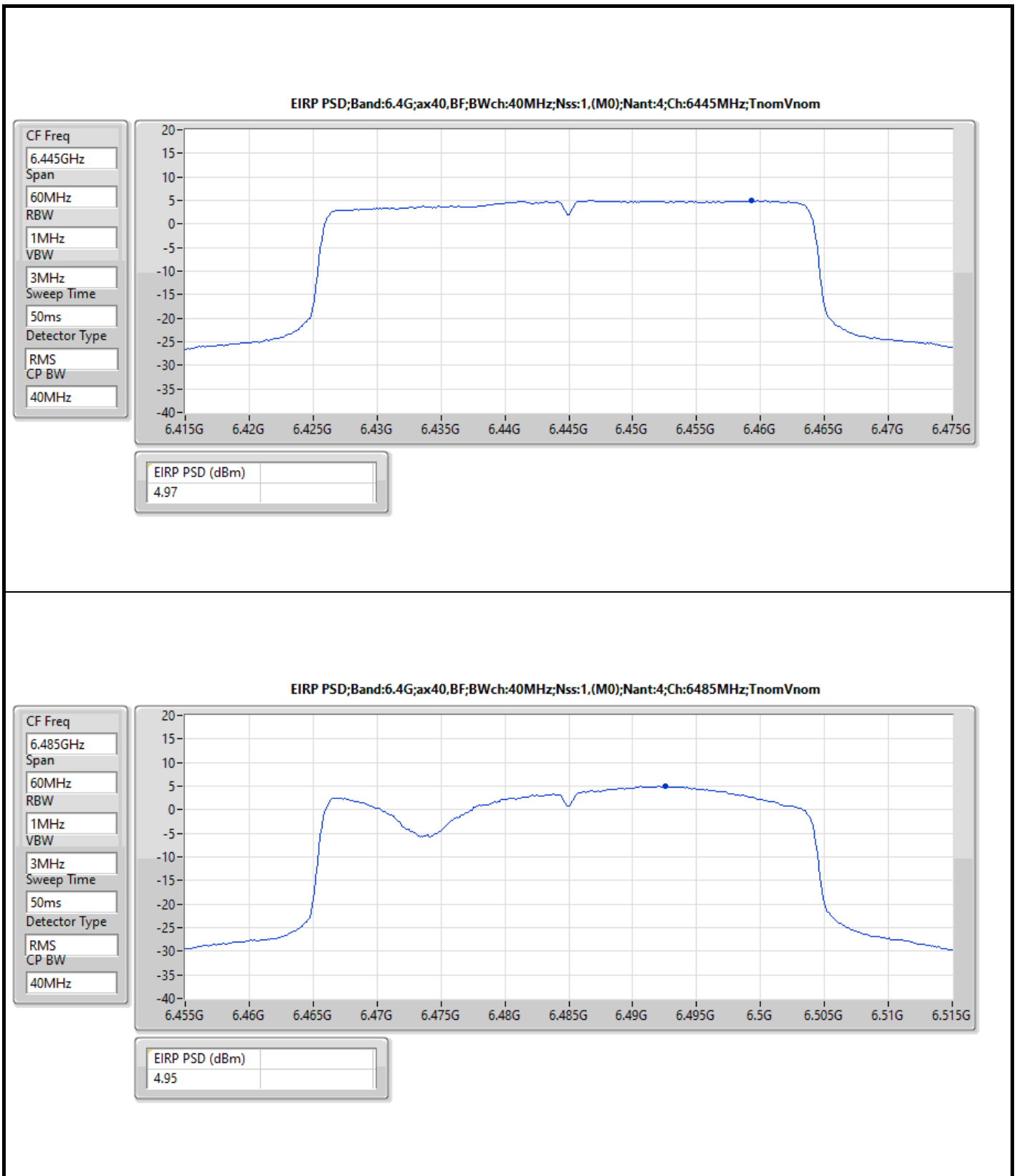


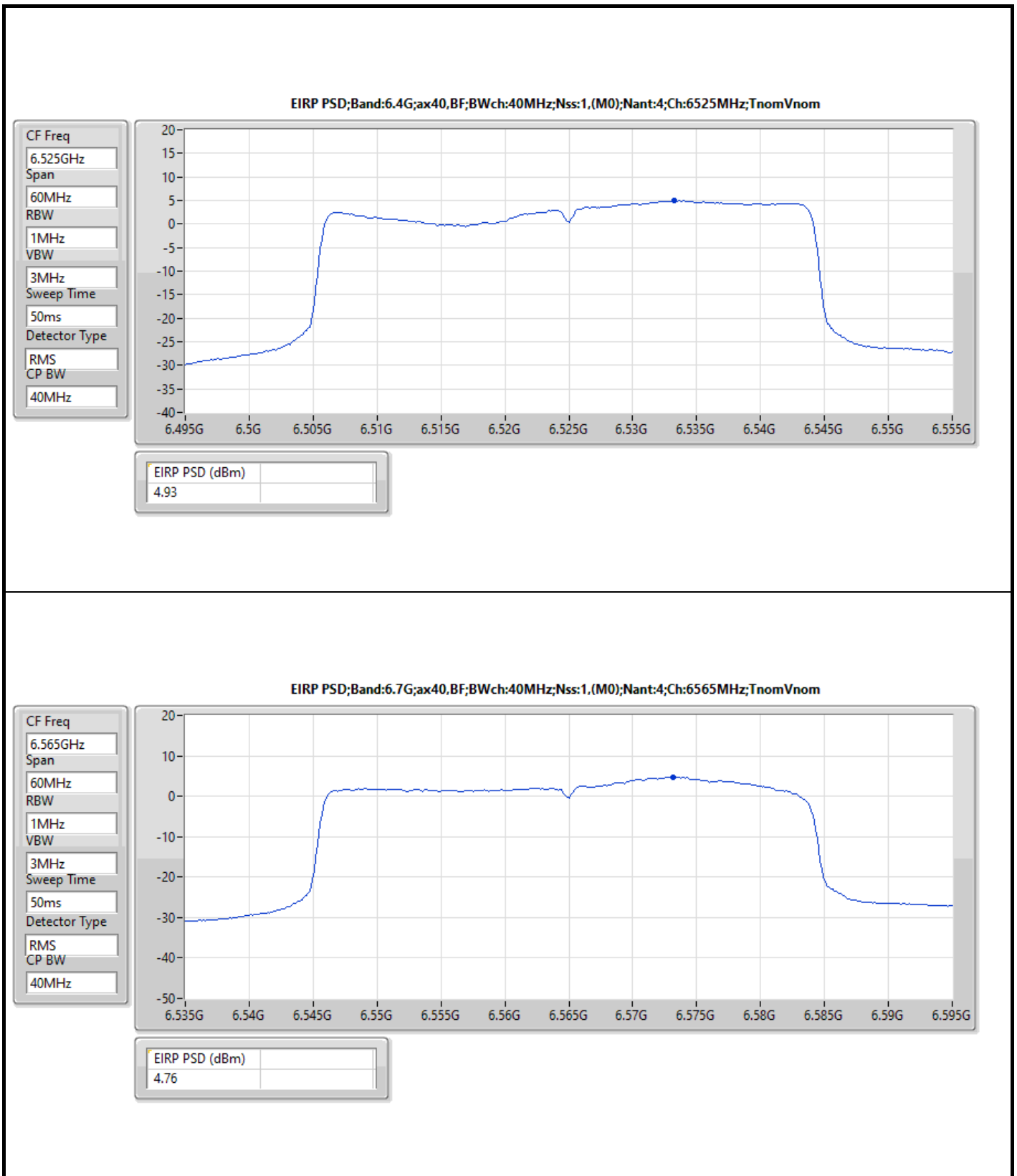


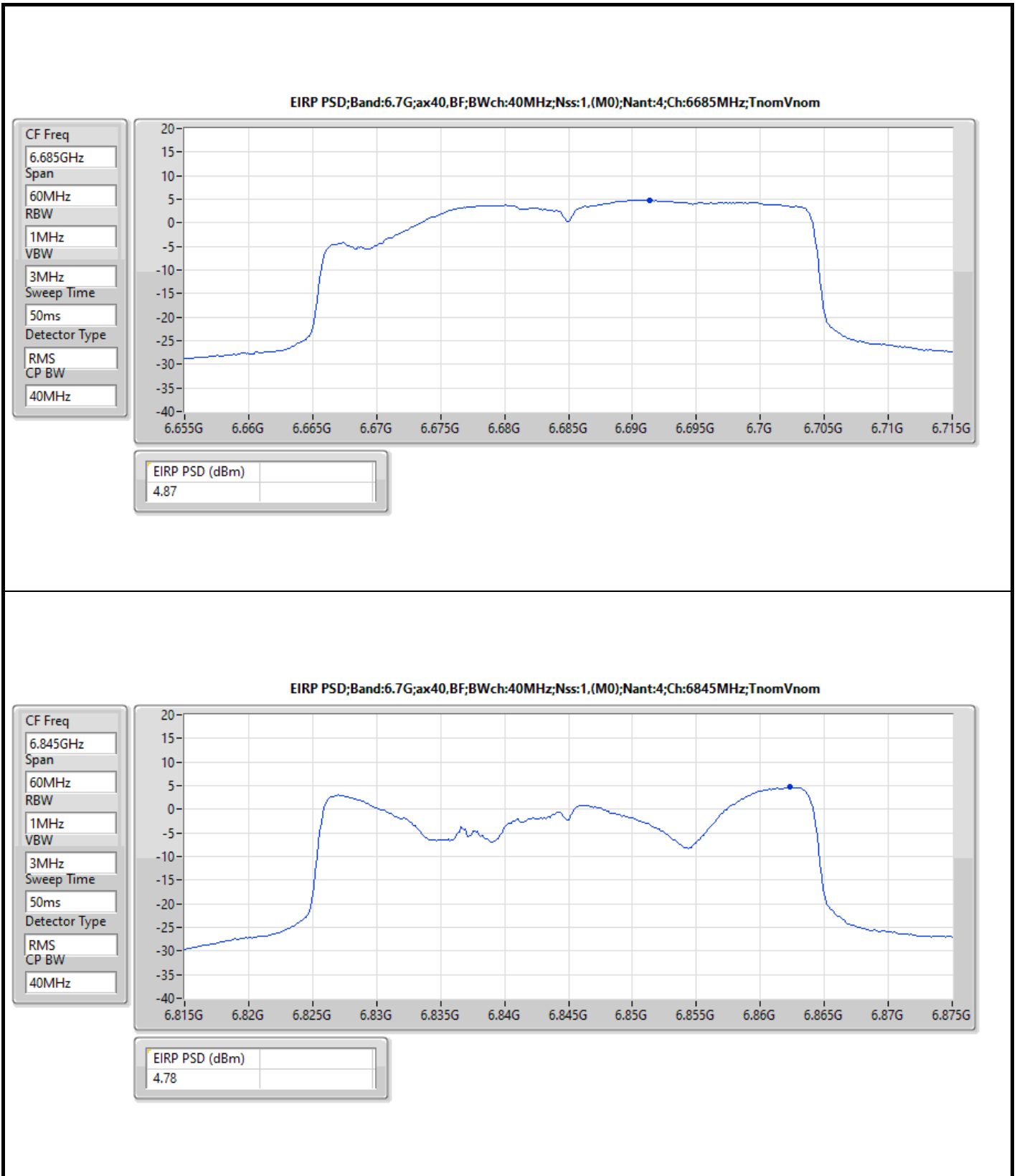






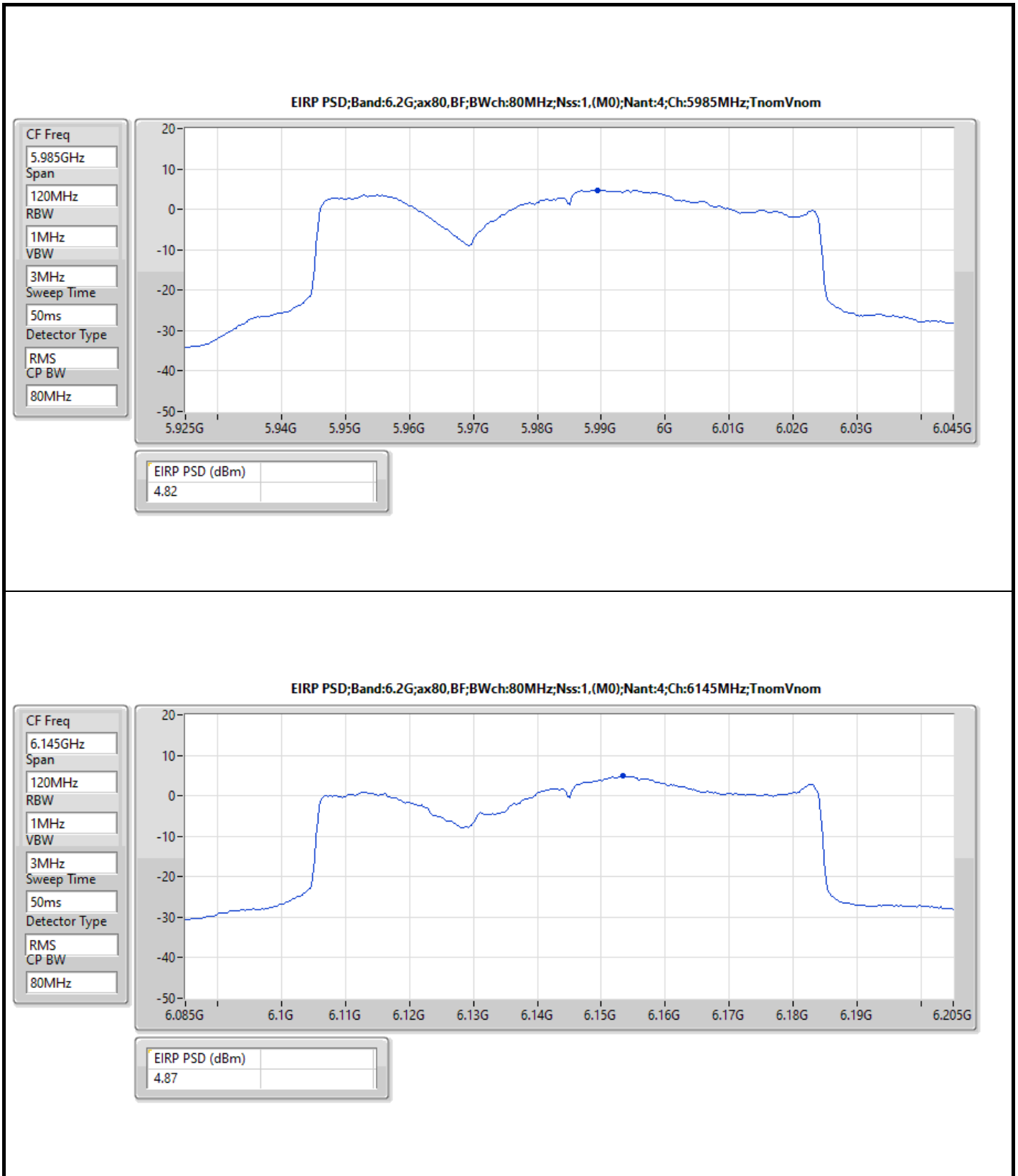


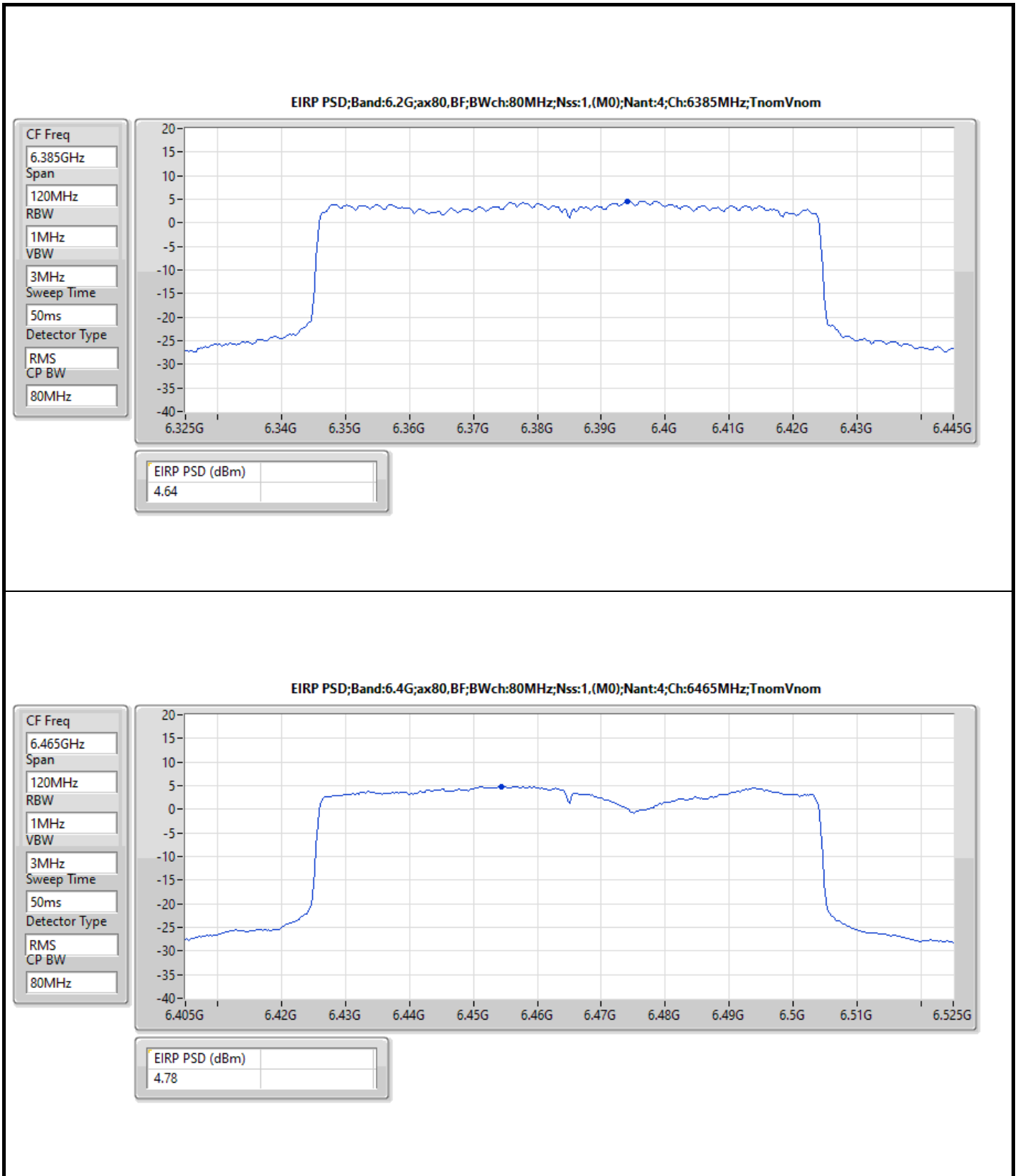


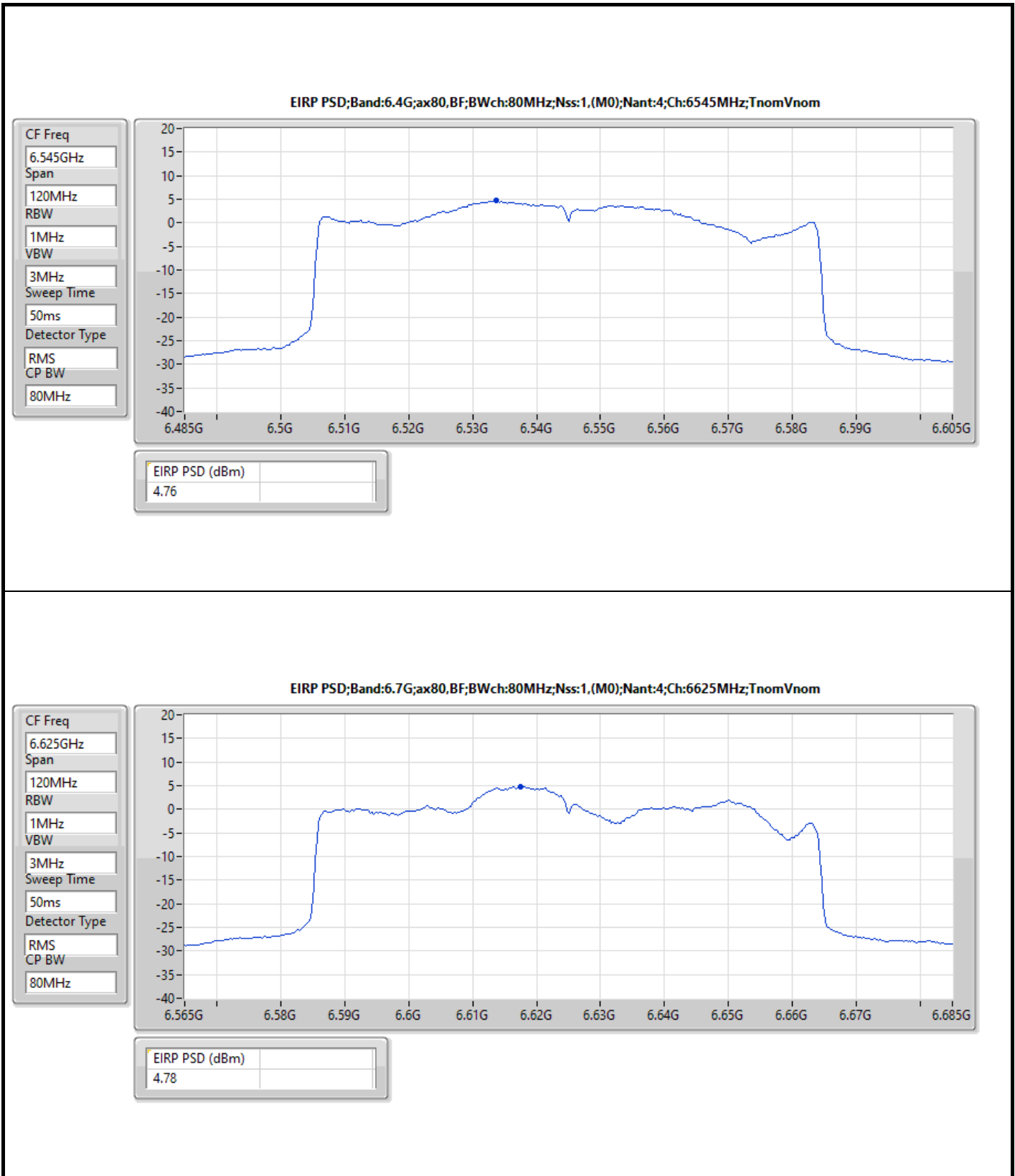






















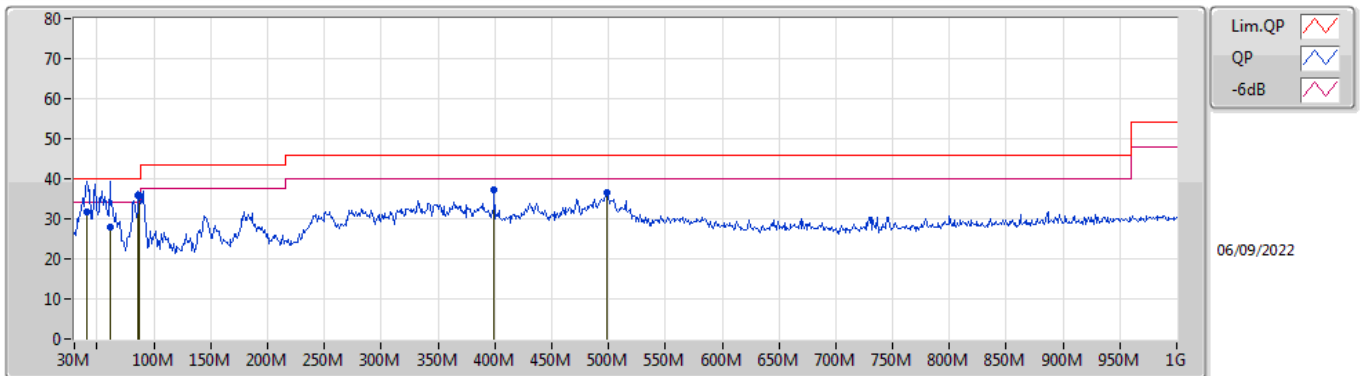




Summary

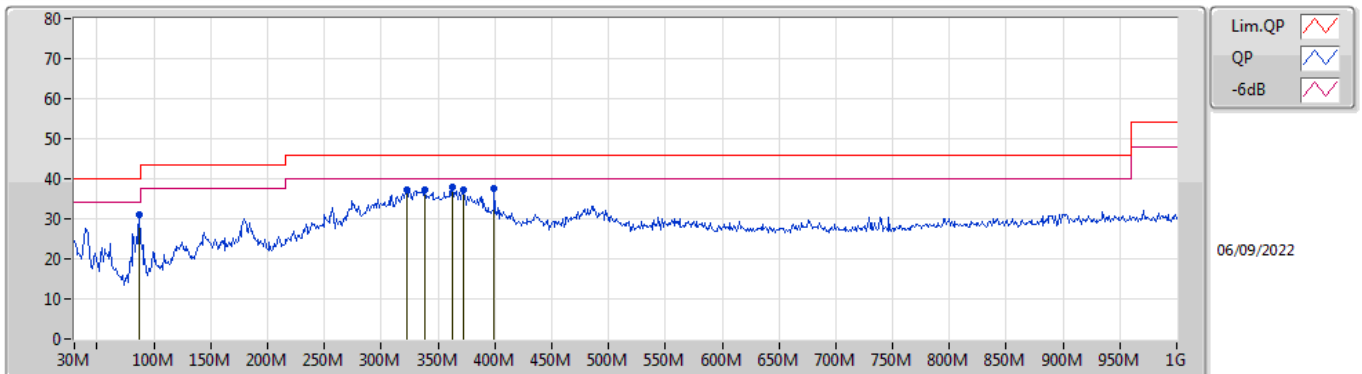
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 2	Pass	PK	87.23M	35.99	40.00	-4.01	Vertical

Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	40.67M	31.87	40.00	-8.13	-12.63	3	Vertical	315	1.50	-	44.50	18.22	0.91	31.76
QP	61.04M	28.01	40.00	-11.99	-18.49	3	Vertical	358	1.50	-	46.50	12.23	1.20	31.92
QP	86.26M	35.94	40.00	-4.06	-16.63	3	Vertical	122	1.50	-	52.57	13.89	1.43	31.95
PK	87.23M	35.99	40.00	-4.01	-16.49	3	Vertical	89	2.00	"Worst"	52.48	14.02	1.44	31.95
PK	399.57M	37.40	46.00	-8.60	-7.43	3	Vertical	205	1.50	-	44.83	21.53	3.20	32.16
PK	498.51M	36.51	46.00	-9.49	-5.61	3	Vertical	205	1.00	-	42.12	23.19	3.60	32.40

Mode 2



Type	Freq (Hz)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBUV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	87.23M	31.08	40.00	-8.92	-16.49	3	Horizontal	98	1.50	-	47.57	14.02	1.44	31.95
PK	322.94M	37.38	46.00	-8.62	-9.72	3	Horizontal	360	2.00	-	47.10	19.58	2.84	32.14
PK	338.46M	37.26	46.00	-8.74	-9.43	3	Horizontal	31	1.25	-	46.69	19.80	2.93	32.16
PK	362.71M	37.95	46.00	-8.05	-8.43	3	Horizontal	189	1.50	"Worst"	46.38	20.69	3.05	32.17
PK	372.41M	37.12	46.00	-8.88	-8.30	3	Horizontal	170	1.25	-	45.42	20.78	3.09	32.17
PK	399.57M	37.75	46.00	-8.25	-7.43	3	Horizontal	360	1.25	-	45.18	21.53	3.20	32.16

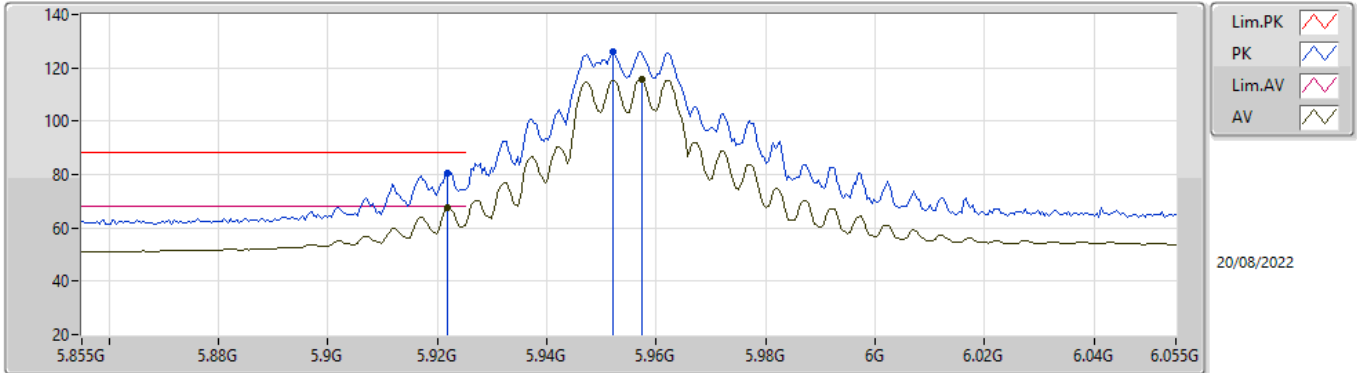


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.925-6.425GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_4TX	Pass	RMS	5.925G	68.10	68.20	-0.10	3	Horizontal	53	1.80	-

802.11ax HEW20_Nss1,(MCS0)_4TX

5955MHz_TnomVnom

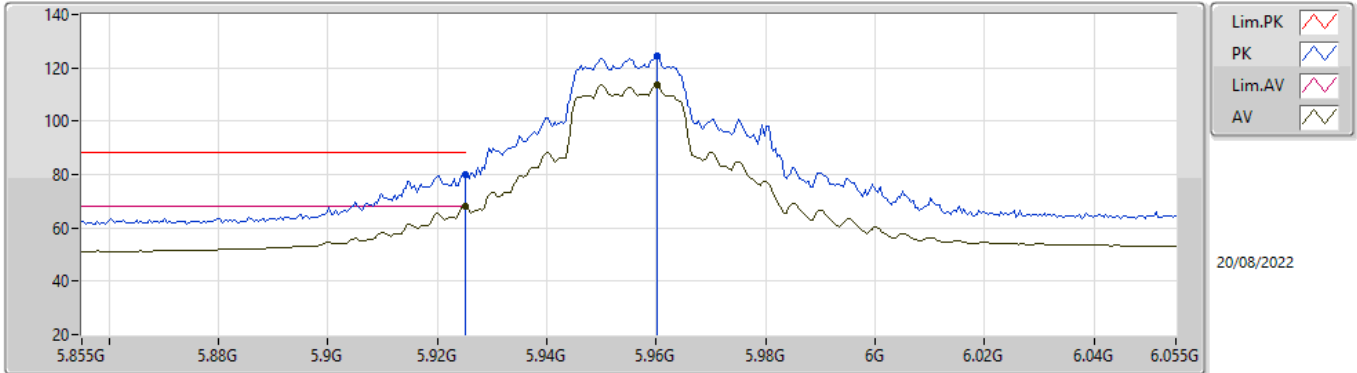


EUT_X_4TX
Setting 97
04-G-C-6-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.9218G	80.76	88.20	-7.44	72.93	3	Vertical	44	2.40	-	35.03	5.36	32.56
RMS	5.9218G	67.48	68.20	-0.72	59.65	3	Vertical	44	2.40	-	35.03	5.36	32.56
PK	5.9522G	126.20	Inf	-Inf	118.18	3	Vertical	44	2.40	-	35.21	5.38	32.57
RMS	5.9574G	115.45	Inf	-Inf	107.41	3	Vertical	44	2.40	-	35.23	5.38	32.57

802.11ax HEW20_Nss1,(MCS0)_4TX

5955MHz_TnomVnom

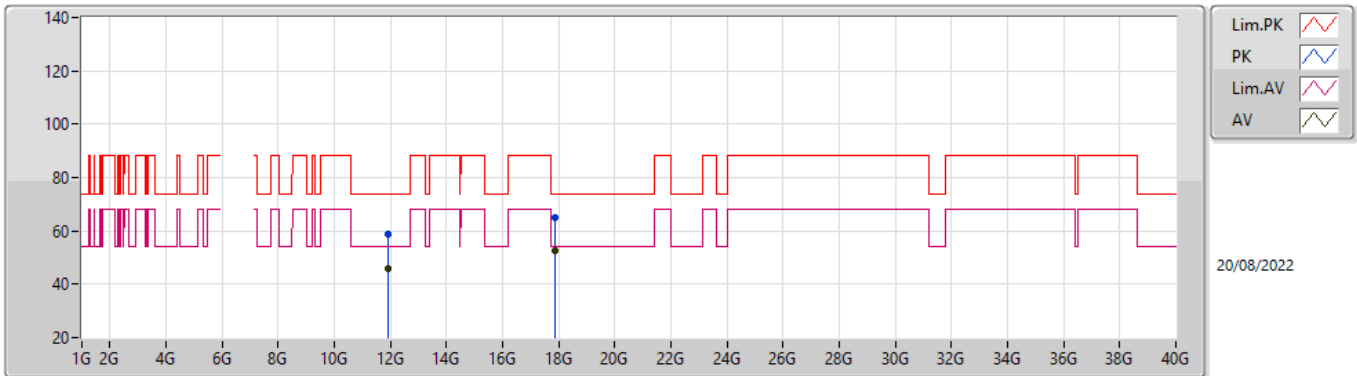


EUT_X_4TX
Setting 97
04-G-C-6-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.925G	80.12	88.20	-8.08	72.27	3	Horizontal	53	1.80	-	35.05	5.36	32.56
RMS	5.925G	68.10	68.20	-0.10	60.25	3	Horizontal	53	1.80	-	35.05	5.36	32.56
PK	5.9602G	124.59	Inf	-Inf	116.54	3	Horizontal	53	1.80	-	35.24	5.38	32.57
RMS	5.9602G	113.71	Inf	-Inf	105.66	3	Horizontal	53	1.80	-	35.24	5.38	32.57

802.11ax HEW20_Nss1,(MCS0)_4TX

5955MHz_TnomVnom

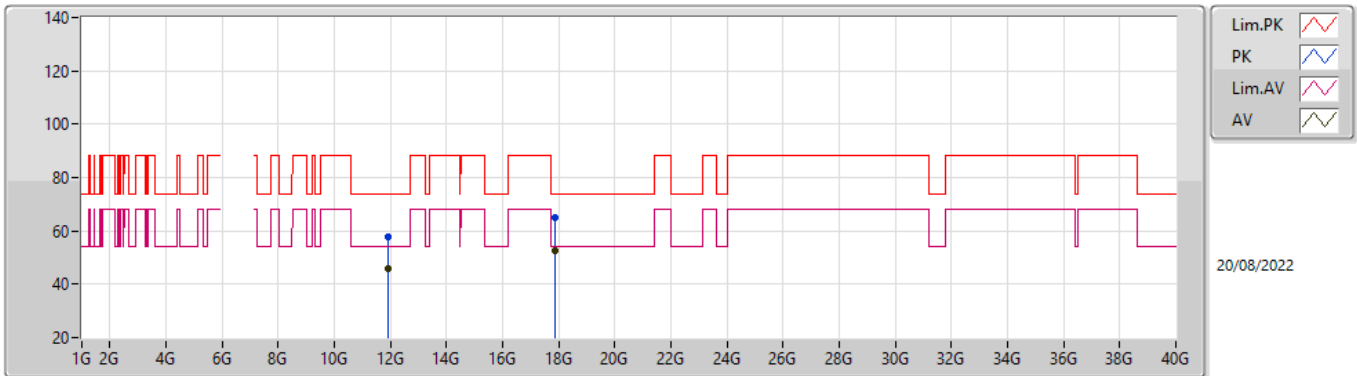


EUT_X_4TX
Setting 97
04-G-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.9247G	58.82	74.00	-15.18	45.08	3	Vertical	333	1.79	-	39.13	8.95	34.34
AV	11.91234G	45.96	54.00	-8.04	32.19	3	Vertical	333	1.79	-	39.16	8.94	34.33
PK	17.8695G	64.83	74.00	-9.17	46.76	3	Vertical	183	1.53	-	41.91	9.75	33.59
AV	17.87514G	52.75	54.00	-1.25	34.64	3	Vertical	183	1.53	-	41.93	9.76	33.58

802.11ax HEW20_Nss1,(MCS0)_4TX

5955MHz_TnomVnom

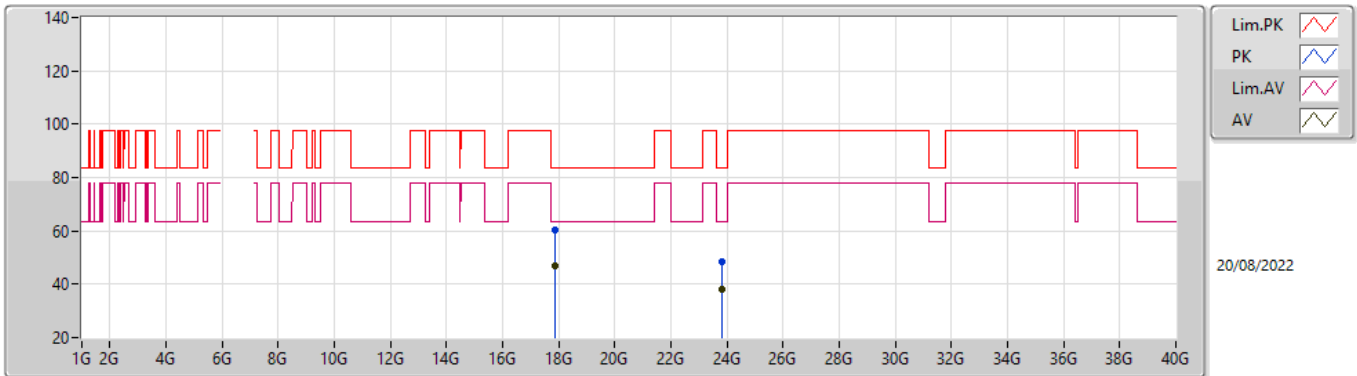


EUT_X_4TX
Setting 97
04-G-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	11.91414G	57.92	74.00	-16.08	44.15	3	Horizontal	308	1.62	-	39.16	8.94	34.33
AV	11.91342G	45.67	54.00	-8.33	31.90	3	Horizontal	308	1.62	-	39.16	8.94	34.33
PK	17.8524G	65.14	74.00	-8.86	47.12	3	Horizontal	47	1.88	-	41.86	9.75	33.59
AV	17.87196G	52.81	54.00	-1.19	34.72	3	Horizontal	47	1.88	-	41.92	9.76	33.59

802.11ax HEW20_Nss1,(MCS0)_4TX

5955MHz_TnomVnom

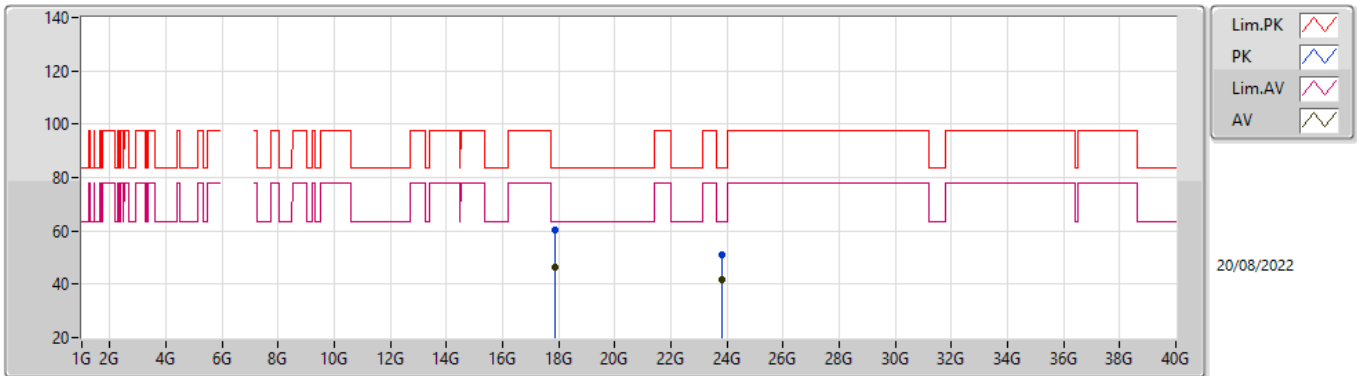


EUT_X_4TX
Setting 97
04-G-S-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	17.8581G	60.60	83.54	-22.94	59.12	1	Vertical	39	1.66	-	37.01	14.37	49.90
AV	17.85816G	47.14	63.54	-16.40	45.66	1	Vertical	39	1.66	-	37.01	14.37	49.90
PK	23.81994G	48.67	83.54	-34.87	42.82	1	Vertical	357	1.67	-	38.96	15.96	49.07
AV	23.81976G	38.02	63.54	-25.52	32.17	1	Vertical	357	1.67	-	38.96	15.96	49.07

802.11ax HEW20_Nss1,(MCS0)_4TX

5955MHz_TnomVnom

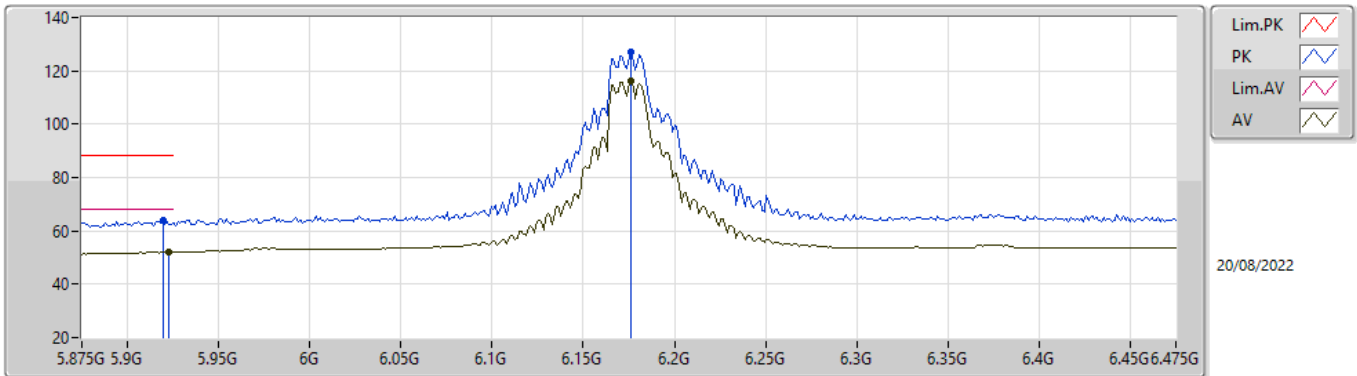


EUT X_4TX
Setting 97
04-G-S-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	17.85342G	60.54	83.54	-23.00	59.06	1	Horizontal	11.4	1.50	-	37.00	14.37	49.89
AV	17.8635G	46.34	63.54	-17.20	44.87	1	Horizontal	11.4	1.50	-	37.02	14.37	49.92
PK	23.82018G	50.97	83.54	-32.57	45.12	1	Horizontal	326	1.51	-	38.96	15.96	49.07
AV	23.81976G	41.54	63.54	-22.00	35.69	1	Horizontal	326	1.51	-	38.96	15.96	49.07

802.11ax HEW20_Nss1,(MCS0)_4TX

6175MHz_TnomVnom

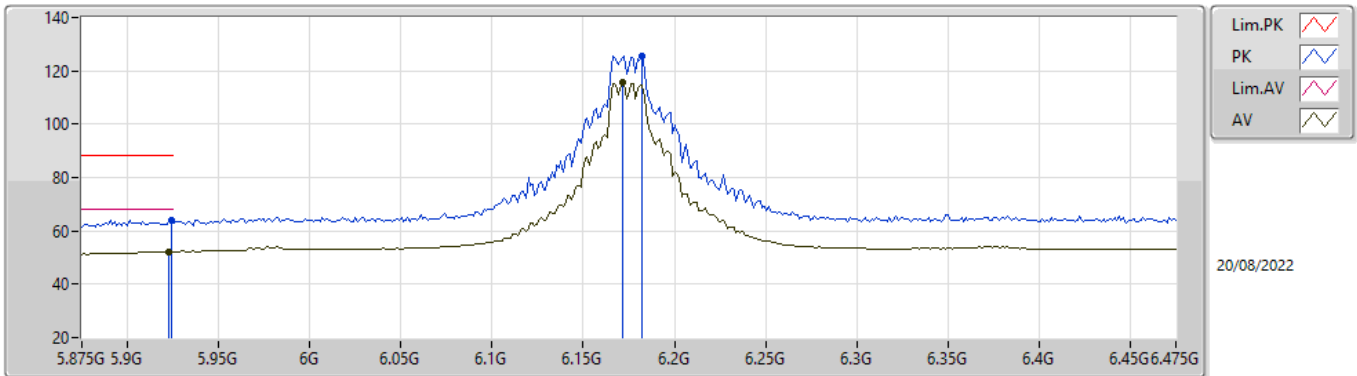


EUTX_4TX
Setting 104
04-G-C-6-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.9194G	63.93	88.20	-24.27	56.11	3	Vertical	40	1.85	-	35.02	5.36	32.56
RMS	5.923G	52.07	68.20	-16.13	44.23	3	Vertical	40	1.85	-	35.04	5.36	32.56
PK	6.1762G	127.05	Inf	-Inf	118.56	3	Vertical	40	1.85	-	35.56	5.58	32.65
RMS	6.1762G	116.03	Inf	-Inf	107.54	3	Vertical	40	1.85	-	35.56	5.58	32.65

802.11ax HEW20_Nss1,(MCS0)_4TX

6175MHz_TnomVnom

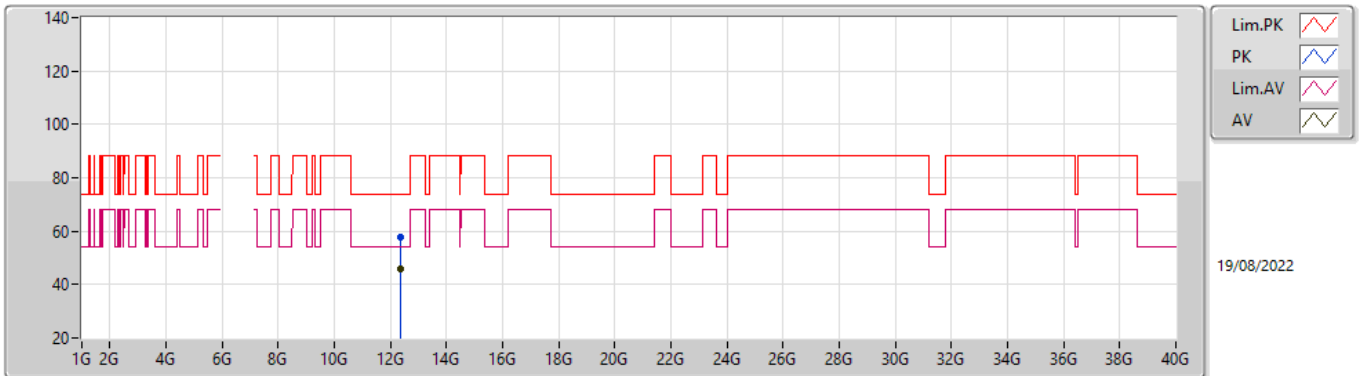


EUT X_4TX
Setting 104
04-G-C-6-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.9242G	64.19	88.20	-24.01	56.34	3	Horizontal	73	2.25	-	35.05	5.36	32.56
RMS	5.923G	52.22	68.20	-15.98	44.38	3	Horizontal	73	2.25	-	35.04	5.36	32.56
PK	6.1822G	125.73	Inf	-Inf	117.21	3	Horizontal	73	2.25	-	35.59	5.58	32.65
RMS	6.1714G	115.57	Inf	-Inf	107.12	3	Horizontal	73	2.25	-	35.53	5.57	32.65

802.11ax HEW20_Nss1,(MCS0)_4TX

6175MHz_TnomVnom

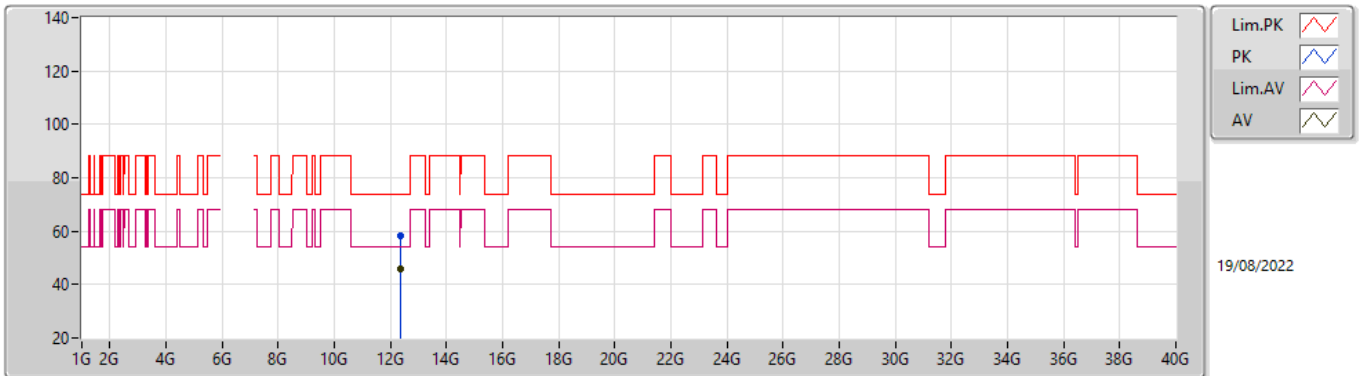


EUT X_4TX
Setting 104
04-G-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	12.35852G	57.76	74.00	-16.24	44.17	3	Vertical	128	2.83	-	38.88	8.93	34.22
AV	12.35726G	45.82	54.00	-8.18	32.24	3	Vertical	128	2.83	-	38.87	8.93	34.22

802.11ax HEW20_Nss1,(MCS0)_4TX

6175MHz_TnomVnom

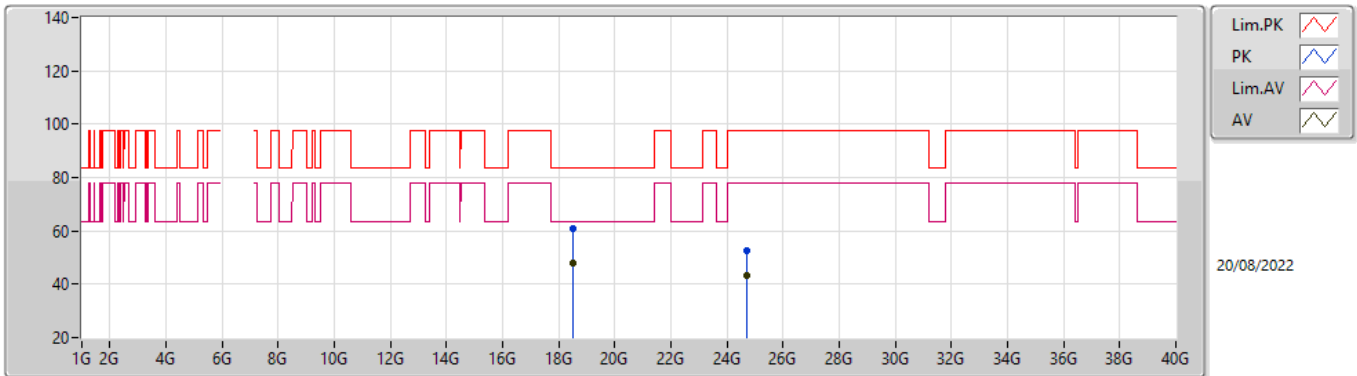


EUT_X_4TX
Setting 104
04-G-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	12.35036G	58.12	74.00	-15.88	44.56	3	Horizontal	39	1.75	-	38.85	8.93	34.22
AV	12.3569G	45.82	54.00	-8.18	32.24	3	Horizontal	39	1.75	-	38.87	8.93	34.22

802.11ax HEW20_Nss1,(MCS0)_4TX

6175MHz_TnomVnom

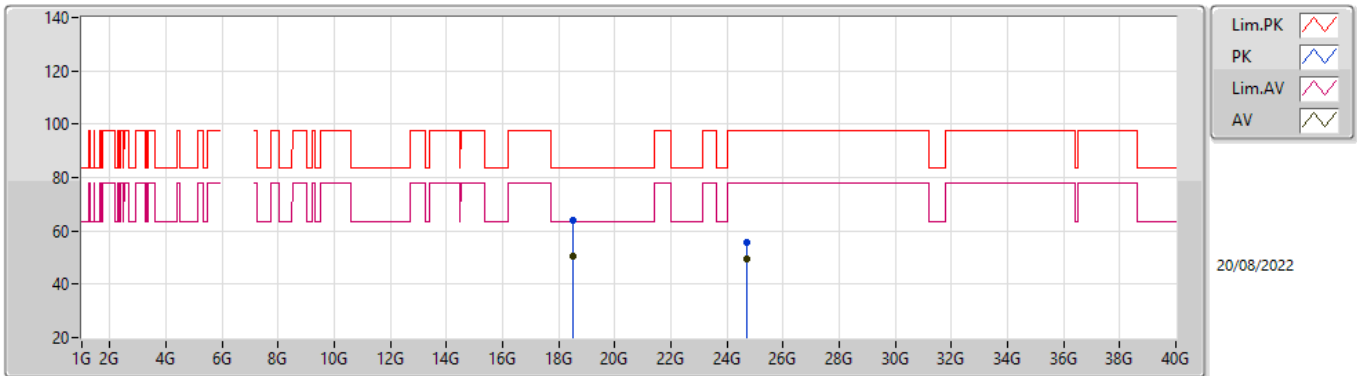


EUT_X_4TX
Setting 104
04-G-S-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	18.51936G	60.84	83.54	-22.70	59.03	1	Vertical	340.7	1.50	-	37.83	14.58	50.60
AV	18.5238G	47.88	63.54	-15.66	46.06	1	Vertical	340.7	1.50	-	37.84	14.58	50.60
PK	24.69994G	52.82	97.74	-44.92	45.83	1	Vertical	349	1.50	-	39.22	16.35	48.58
RMS	24.69976G	43.10	77.74	-34.64	36.11	1	Vertical	349	1.50	-	39.22	16.35	48.58

802.11ax HEW20_Nss1,(MCS0)_4TX

6175MHz_TnomVnom

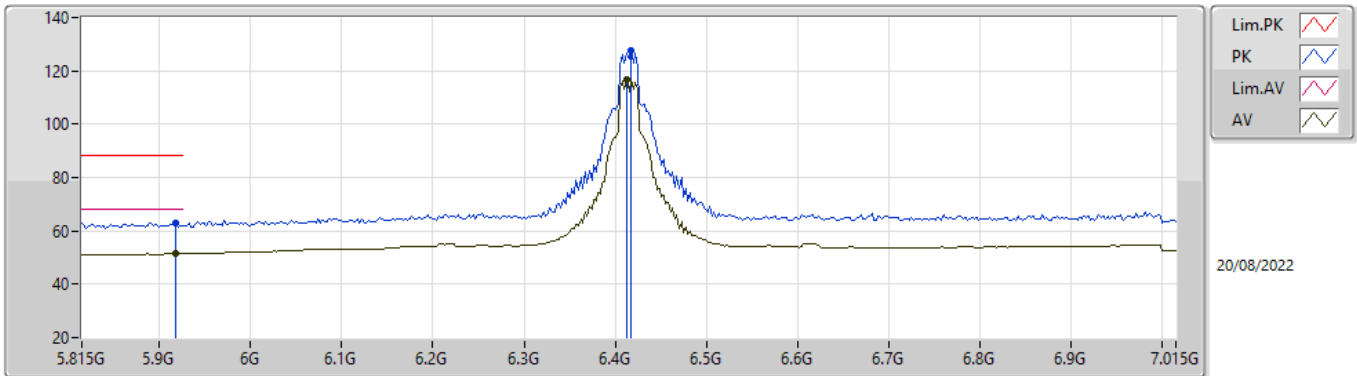


EUT_X_4TX
Setting 104
04-G-S-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	18.52146G	63.79	83.54	-19.75	61.98	1	Horizontal	341	1.50	-	37.83	14.58	50.60
AV	18.52188G	50.44	63.54	-13.10	48.62	1	Horizontal	341	1.50	-	37.84	14.58	50.60
PK	24.69976G	55.76	97.74	-41.98	48.77	1	Horizontal	318	1.46	-	39.22	16.35	48.58
RMS	24.69982G	49.34	77.74	-28.40	42.35	1	Horizontal	318	1.46	-	39.22	16.35	48.58

802.11ax HEW20_Nss1,(MCS0)_4TX

6415MHz_TnomVnom

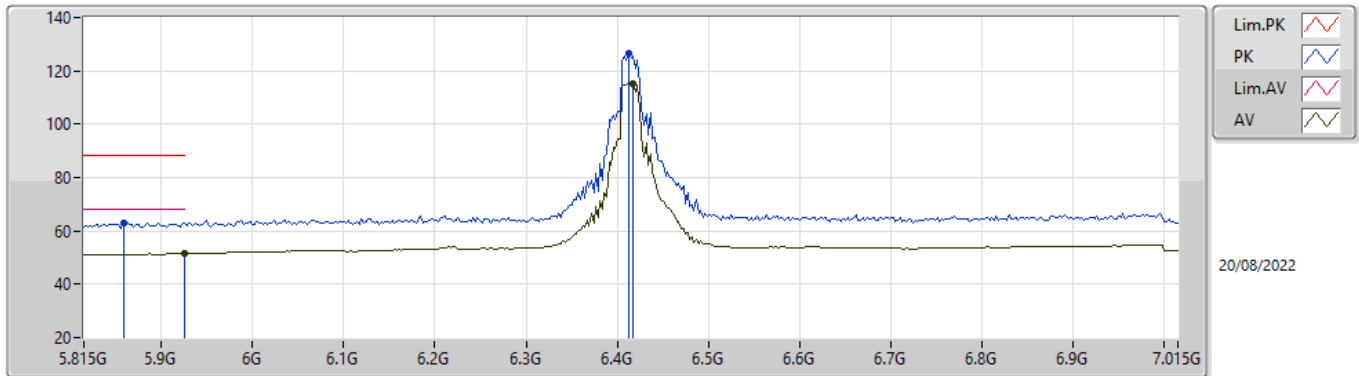


EUT_X_4TX
Setting 104
04-G-C-6-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.9182G	63.13	88.20	-25.07	55.32	3	Vertical	33	1.93	-	35.01	5.36	32.56
RMS	5.9182G	51.59	68.20	-16.61	43.78	3	Vertical	33	1.93	-	35.01	5.36	32.56
PK	6.4174G	127.75	Inf	-Inf	119.12	3	Vertical	33	1.93	-	35.67	5.70	32.74
RMS	6.4126G	116.96	Inf	-Inf	108.33	3	Vertical	33	1.93	-	35.67	5.70	32.74

802.11ax HEW20_Nss1,(MCS0)_4TX

6415MHz_TnomVnom

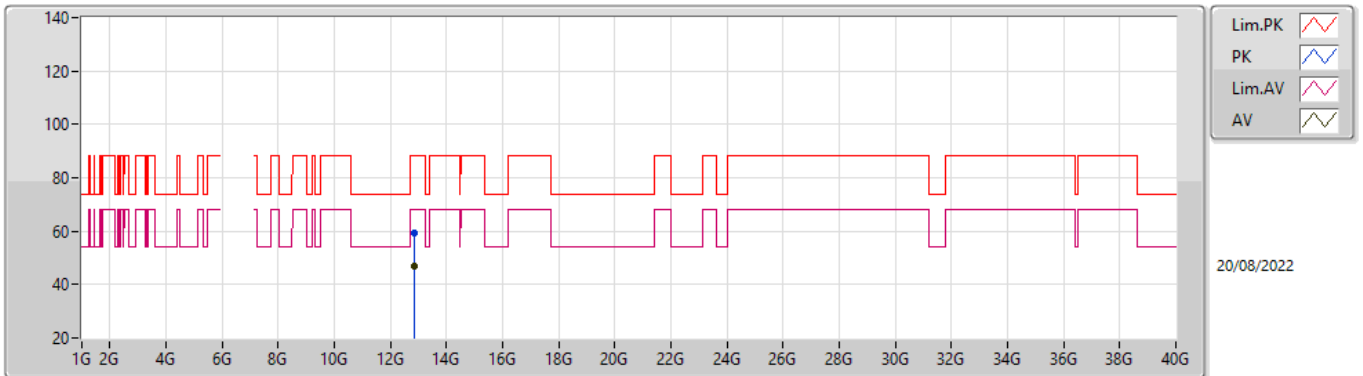


EUT_X_4TX
Setting 104
04-G-C-6-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.8582G	62.85	88.20	-25.35	55.24	3	Horizontal	104	1.87	-	34.82	5.33	32.54
RMS	5.925G	51.60	68.20	-16.60	43.75	3	Horizontal	104	1.87	-	35.05	5.36	32.56
PK	6.4126G	126.41	Inf	-Inf	117.78	3	Horizontal	104	1.87	-	35.67	5.70	32.74
RMS	6.4174G	115.33	Inf	-Inf	106.70	3	Horizontal	104	1.87	-	35.67	5.70	32.74

802.11ax HEW20_Nss1,(MCS0)_4TX

6415MHz_TnomVnom

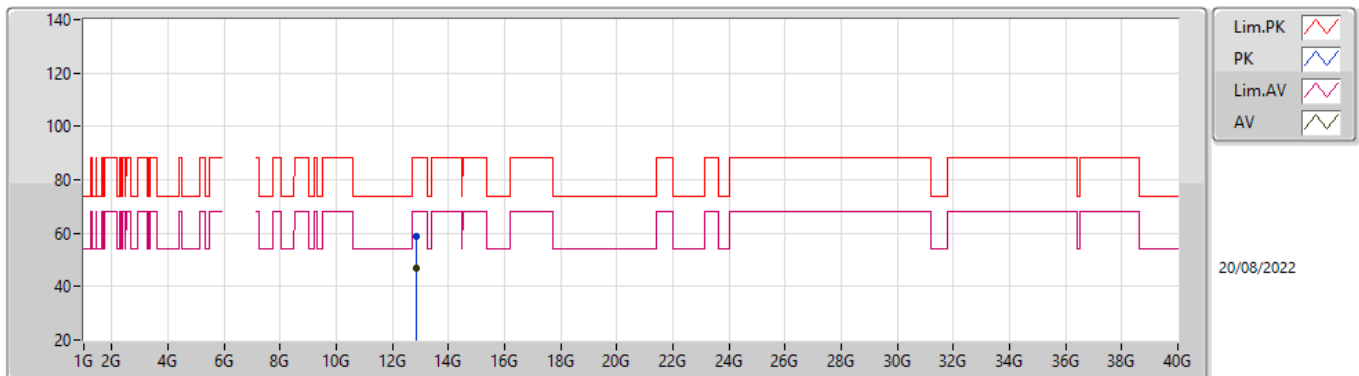


EUT X_4TX
Setting 104
04-G-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	12.83204G	59.32	88.20	-28.88	45.11	3	Vertical	0	1.40	-	39.43	8.83	34.05
RMS	12.83072G	46.80	68.20	-21.40	32.59	3	Vertical	0	1.40	-	39.43	8.83	34.05

802.11ax HEW20_Nss1,(MCS0)_4TX

6415MHz_TnomVnom

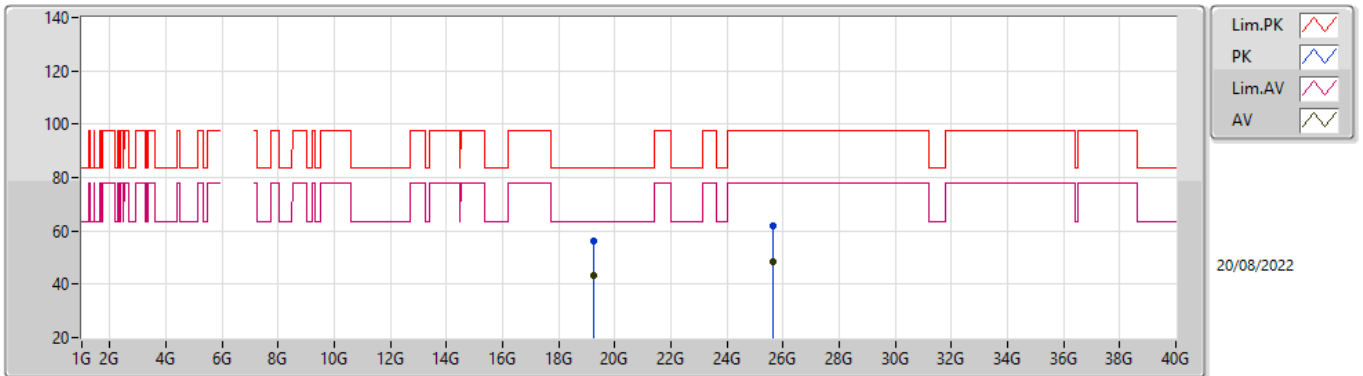


EUT X_4TX
Setting 104
04-G-C-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	12.84392G	58.82	88.20	-29.38	44.60	3	Horizontal	360	1.38	-	39.44	8.83	34.05
RMS	12.83054G	46.73	68.20	-21.47	32.52	3	Horizontal	360	1.38	-	39.43	8.83	34.05

802.11ax HEW20_Nss1,(MCS0)_4TX

6415MHz_TnomVnom

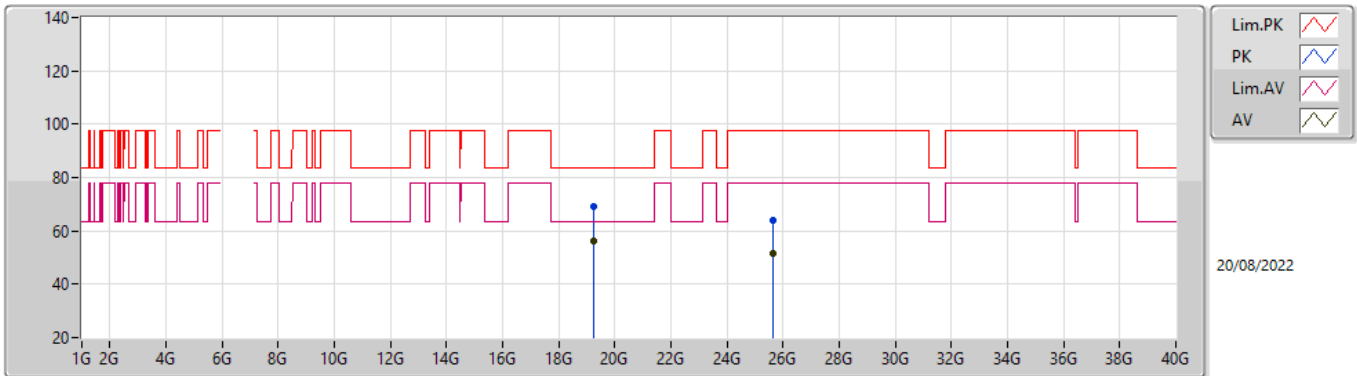


EUT_X_4TX
Setting 104
04-G-S-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	19.24596G	56.41	83.54	-27.13	54.17	1	Vertical	26.7	1.50	-	38.00	14.84	50.60
AV	19.24068G	43.26	63.54	-20.28	41.03	1	Vertical	26.7	1.50	-	38.00	14.83	50.60
PK	25.65784G	61.66	97.74	-36.08	53.92	1	Vertical	349	1.52	-	38.88	16.83	47.97
RMS	25.65808G	48.31	77.74	-29.43	40.57	1	Vertical	349	1.52	-	38.88	16.83	47.97

802.11ax HEW20_Nss1,(MCS0)_4TX

6415MHz_TnomVnom



EUT_X_4TX
Setting 104
04-G-S-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	19.24812G	69.29	83.54	-14.25	67.05	1	Horizontal	56	1.50	-	38.00	14.84	50.60
AV	19.236G	56.05	63.54	-7.49	53.81	1	Horizontal	56	1.50	-	38.01	14.83	50.60
PK	25.64848G	64.08	97.74	-33.66	56.34	1	Horizontal	53.5	1.60	-	38.90	16.82	47.98
RMS	25.65838G	51.32	77.74	-26.42	43.58	1	Horizontal	53.5	1.60	-	38.88	16.83	47.97