

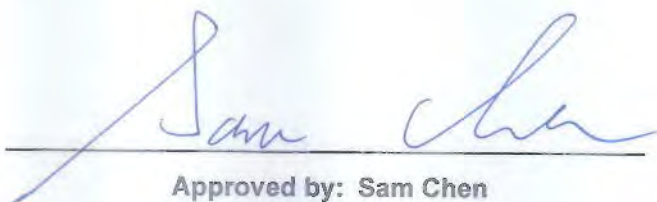


RADIO TEST REPORT

FCC ID : 2AF5PQ14
Equipment : AXE5400 Tri-band Mesh WiFi
Brand Name : Motorola
Model Name : Q14
Applicant : MTRLC LLC
275 Turnpike St., Suite 101, Canton, MA 02021
Manufacturer : MTRLC LLC
275 Turnpike St., Suite 101, Canton, MA 02021
Standard : 47 CFR FCC Part 15.407

The product was received on Nov. 12, 2021, and testing was started from Mar. 29, 2022 and completed on May 06, 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 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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TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A12_5 Ver1.1



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	-

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: Wendy Pan



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)	6115-7115	33-233 [51]
5925-7125	ax (HEW40)	6125-7085	35-227 [25]
5925-7125	ax (HEW80)	6145-7025	39-215 [12]
5925-7125	ax (HEW160)	6185-6985	47-207 [6]

Band	Mode	BWch (MHz)	Nant
UNII 5~8	802.11ax HEW20	20	2TX
UNII 5~8	802.11ax HEW20-BF	20	2TX
UNII 5~8	802.11ax HEW40	40	2TX
UNII 5~8	802.11ax HEW40-BF	40	2TX
UNII 5~8	802.11ax HEW80	80	2TX
UNII 5~8	802.11ax HEW80-BF	80	2TX
UNII 5~8	802.11ax HEW160	160	2TX
UNII 5~8	802.11ax HEW160-BF	160	2TX

Note:

- HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.
- The channel defined in the IEEE Standard P802.11ax™/D6.1.

**1.1.2 Antenna Information**

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	2.4GHz	5GHz	6GHz					
1	1	-	-	Antenna Company	AC10244-01A	PCB Antenna	I-PEX	Note4
2	2	-	-	Antenna Company	AC10244-01A	PCB Antenna	I-PEX	
3	-	2	-	Antenna Company	AC10503-01A	PCB Antenna	I-PEX	
4	-	1	-	Antenna Company	AC10503-01A	PCB Antenna	I-PEX	
5	-	-	2	Antenna Company	AC10601-01A	PCB Antenna	I-PEX	
6	-	-	1	Antenna Company	AC10601-01A	PCB Antenna	I-PEX	

Note1: The above information was declared by manufacturer.

Note2: WLAN 2.4GHz and 5GHz: Maximum Directional Gain following KDB662911 D03. The antenna report is provided in the operational description for this application.

Note3:

Gain (dBi)				
Ant.	2.4 GHz	2.45 GHz	2.4835 GHz	
1	2.73	2.56	2.24	
2	3.7	3.68	3.69	
Gain (dBi)				
Ant.	5.2 GHz	5.3 GHz	5.6 GHz	5.785 GHz
3	2.01	2.57	3.17	2.97
4	2.43	2.92	2.12	2.52
Gain (dBi)				
Ant.	6 GHz			
5	5.5			
6	5.5			

Note4: The antenna gain of 6GHz was declared by manufacturer.

Directional Gain (dBi)								
Ant.	2.4 GHz		2.45 GHz		2.4835 GHz			
	1SS	2SS	1SS	2SS	1SS	2SS		
1	4.14	1.23	3.83	1.42	3.67	1.33		
2								
Directional Gain (dBi)								
Ant.	5.2 GHz		5.3 GHz		5.6 GHz		5.785 GHz	
	1SS	2SS	1SS	2SS	1SS	2SS	1SS	2SS
3	3.94	1.06	3.74	0.74	4.38	1.41	4.51	1.57
4								

Note5:

For 2.4GHz:

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz UNII 1~3:

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 6GHz UNII 5~8:

For IEEE 802.11ax mode (2TX/2RX):

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

Port 1 and Port 2 could transmit/receive simultaneously.

**1.1.3 Mode Test Duty Cycle**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20	0.92	0.36	5.445m	300
802.11ax HEW20-BF	0.946	0.24	1.754m	1k
802.11ax HEW40	0.892	0.5	5.445m	300
802.11ax HEW40-BF	0.955	0.2	1.981m	1k
802.11ax HEW80	0.871	0.6	5.445m	300
802.11ax HEW80-BF	0.794	1	1.985m	1k
802.11ax HEW160	0.929	0.32	5.447m	300
802.11ax HEW160-BF	0.787	1.04	1.943m	1k

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for n/VHT/ax in 2.4GHz, n/ac/ax in 5GHz UNII 1~UNII 3 and ax in 6E UNII 5~8.			
Device Type	☒	Indoor Access Point	☒	Subordinate
	☐	Indoor Client	☐	Standard Power Access Point
	☐	Dual Client	☐	Standard Client
	☐	Fixed Client		
Test Software Version	QSPR 5.0-00197			
Software / Firmware Version for CBP	0.3.3M			

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT support function

Function	2.4GHz	5GHz	6GHz
AP Router	V	V	V
Extender	X	X	V
Mesh	X	X	V

Note1: After evaluating, AP Router was selected as representative model for the test and its data was recorded in this report.

Note2: The above information was declared by manufacturer.



1.2 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 412172 D01 v01r01
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	Gino Huang	22.6-22.54/57-62	Apr. 27, 2022
Radiated (Maximum Equivalent Isotopically Radiated Power (E.I.R.P.) Peak Power Spectral Density (E.I.R.P.))	03CH01-CB	Gino Huang	23.6-24.7 / 55-58	Apr. 28, 2022~ May 06, 2022
Radiated (Below 1GHz)	03CH06-CB	Kevin Huang	24.5-25.6 / 56-59	Mar. 29, 2022
AC Conduction	CO01-CB	Joe Chu	20~22 / 60~62	Mar. 31, 2022
RF Conducted <Contention-Based Protocol test>	DF02-CB	Jeff Wu	21.2~22.5 / 67~71	Apr. 04, 2022~ Apr. 05, 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)	4.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.5 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%
Output Power Measurement	1.3 dB	Confidence levels of 95%
Power Density Measurement	2.5 dB	Confidence levels of 95%
Bandwidth Measurement	0.9%	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

<For Non-Beamforming Mode>

Mode	Power Setting
802.11ax HEW20_Nss1,(MCS0)_2TX	-
6115MHz	8.5
6275MHz	10
6415MHz	8.5
6435MHz	8.5
6475MHz	9.5
6515MHz	10
6535MHz	9
6695MHz	11.5
6855MHz	12
6875MHz Straddle 6.525-6.875GHz	11.5
6895MHz	11.5
6995MHz	13.5
7095MHz	11.5
7115MHz	8
802.11ax HEW40_Nss1,(MCS0)_2TX	-
6125MHz	10
6285MHz	14.5
6405MHz	12
6445MHz	11
6485MHz	11.5
6525MHz Straddle 6.425-6.525GHz	11
6565MHz	10.5
6685MHz	13.5
6845MHz	13
6885MHz Straddle 6.525-6.875GHz	15.5
6925MHz	16
7005MHz	15
7085MHz	13.5
802.11ax HEW80_Nss1,(MCS0)_2TX	-
6145MHz	12.5
6305MHz	12.5
6385MHz	12.5
6465MHz	13



Mode	Power Setting
6545MHz Straddle 6.425-6.525GHz	13.5
6625MHz	14
6705MHz	14
6785MHz	15.5
6865MHz Straddle 6.525-6.875GHz	16.5
6945MHz	16.5
7025MHz	16.5
802.11ax HEW160_Nss1,(MCS0)_2TX	-
6185MHz	15.5
6345MHz	17
6505MHz Straddle 6.425-6.525GHz	16
6665MHz	16.5
6825MHz Straddle 6.525-6.875GHz	18.5
6985MHz	19.5

**<For Beamforming Mode>**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
6115MHz	12
6275MHz	16
6415MHz	13
6435MHz	14
6475MHz	15
6515MHz	14
6535MHz	14
6695MHz	15
6855MHz	15
6875MHz Straddle 6.525-6.875GHz	17
6895MHz	16
6995MHz	17
7095MHz	17
7115MHz	11
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
6125MHz	18
6285MHz	17
6405MHz	19
6445MHz	18
6485MHz	15
6525MHz Straddle 6.425-6.525GHz	17
6565MHz	17
6685MHz	18
6845MHz	17
6885MHz Straddle 6.525-6.875GHz	19
6925MHz	19
7005MHz	18
7085MHz	17
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
6145MHz	19
6305MHz	19
6385MHz	17
6465MHz	18
6545MHz Straddle 6.425-6.525GHz	18
6625MHz	18
6705MHz	18
6785MHz	19



Mode	Power Setting
6865MHz Straddle 6.525-6.875GHz	20
6945MHz	20
7025MHz	19
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-
6185MHz	20
6345MHz	20
6505MHz Straddle 6.425-6.525GHz	23
6665MHz	22
6825MHz Straddle 6.525-6.875GHz	23
6985MHz	21

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+Adapter

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Maximum Equivalent Isotropically Radiated Power (E.I.R.P.) Peak Power Spectral Density (E.I.R.P.)
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
	The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found as below. 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+Adapter
2	EUT in Y axis+Adapter
3	EUT in Z axis+Adapter
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 and the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Z axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz+WLAN 5GHz+WLAN 6GHz
Refer to Sporton Test Report No.: FA1N1226 for Co-location RF Exposure Evaluation.	



2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

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

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS [ver 6.1.7601].
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by Client and transmit duty cycle no less than 98%.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter	LEI	MU24D1120200-A1	INPUT: 100-240V~50/60Hz, 0.7A OUTPUT: 12V, 2A
Other			
RJ-45 cable, Non-shielded, 1.5m			



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	WAN NB	DELL	E6430	N/A
B	LAN NB	DELL	E6430	N/A
C	2.4G NB	DELL	E6430	N/A
D	5G NB	DELL	E6430	N/A
E	6E NB	DELL	E6430	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN NB	DELL	E4300	N/A
B	WAN NB	DELL	E4300	N/A
C	2.4G NB	DELL	E4300	N/A
D	5G NB	DELL	E4300	N/A
E	WLAN module	Intel	AX210NGW	PD9AX210NG
F	6E NB	DELL	E4300	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	Client	Motorola	ZWR-X686	Q14
C	Notebook	DELL	E4300	N/A

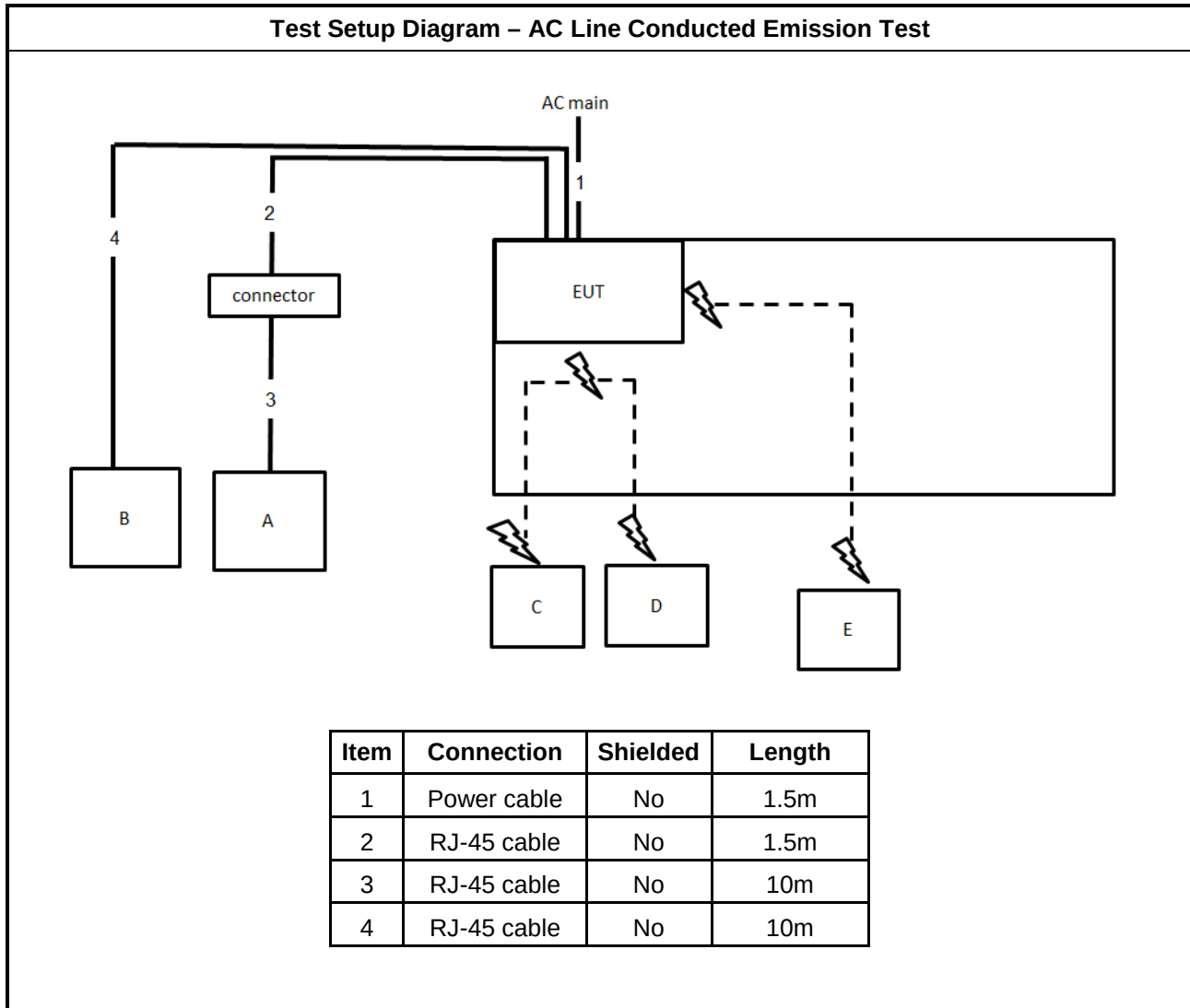
**For RF Conducted (Contention Based Protocol):**

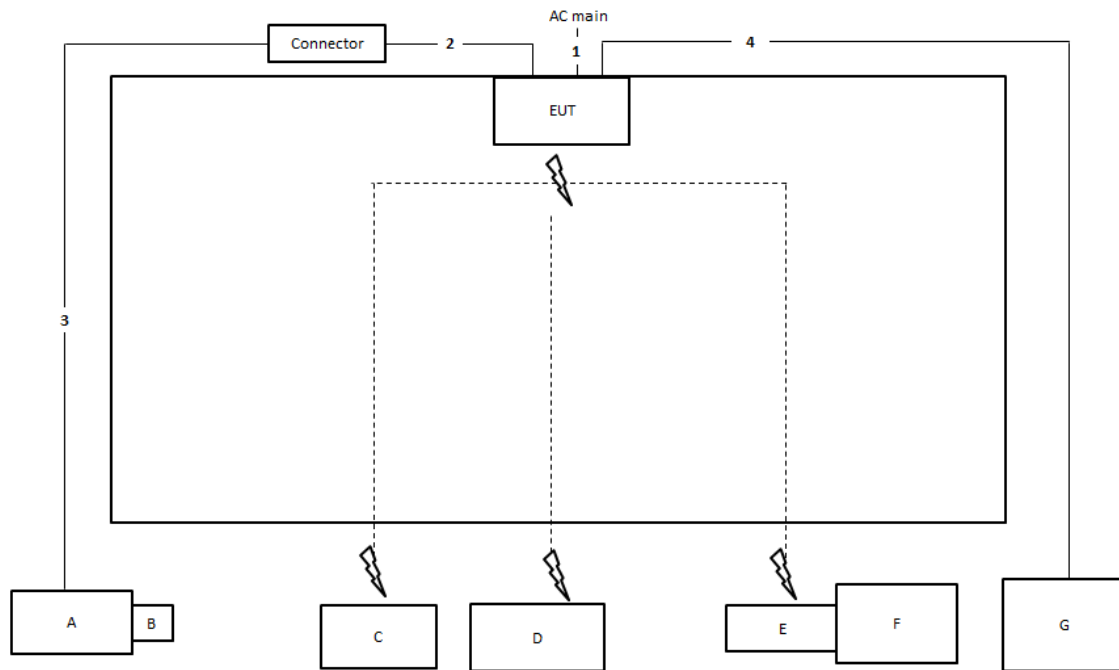
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	WLAN module	Intel	AX210NGW	PD9AX210NG

For RF Conducted:

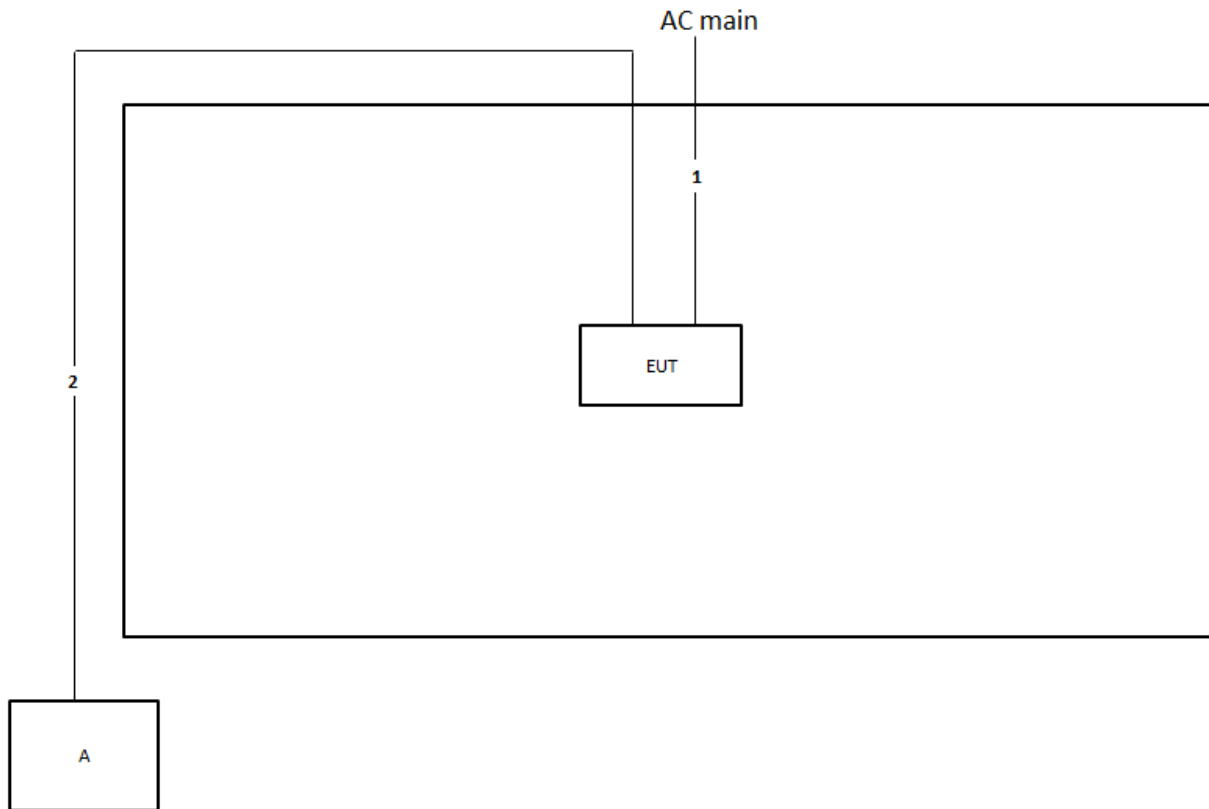
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram

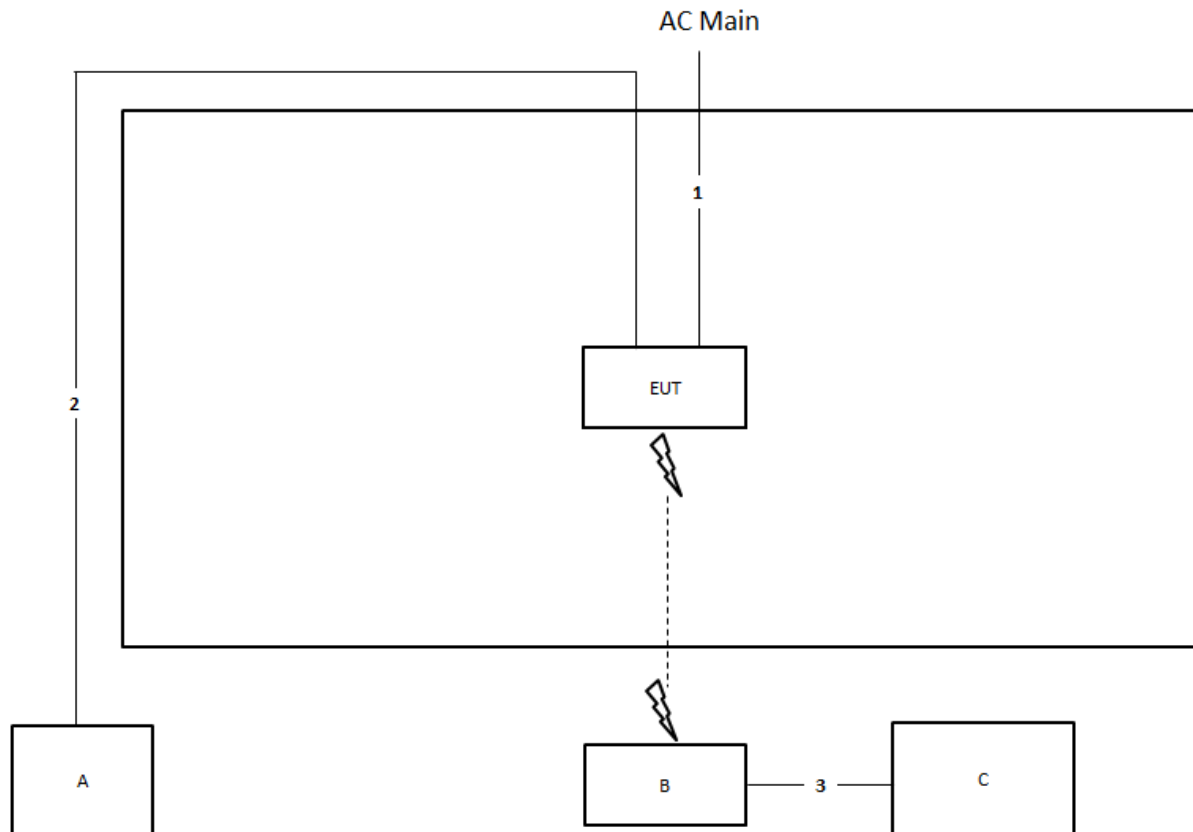


Test Setup Diagram - Radiated Test < 1GHz


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

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


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

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


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

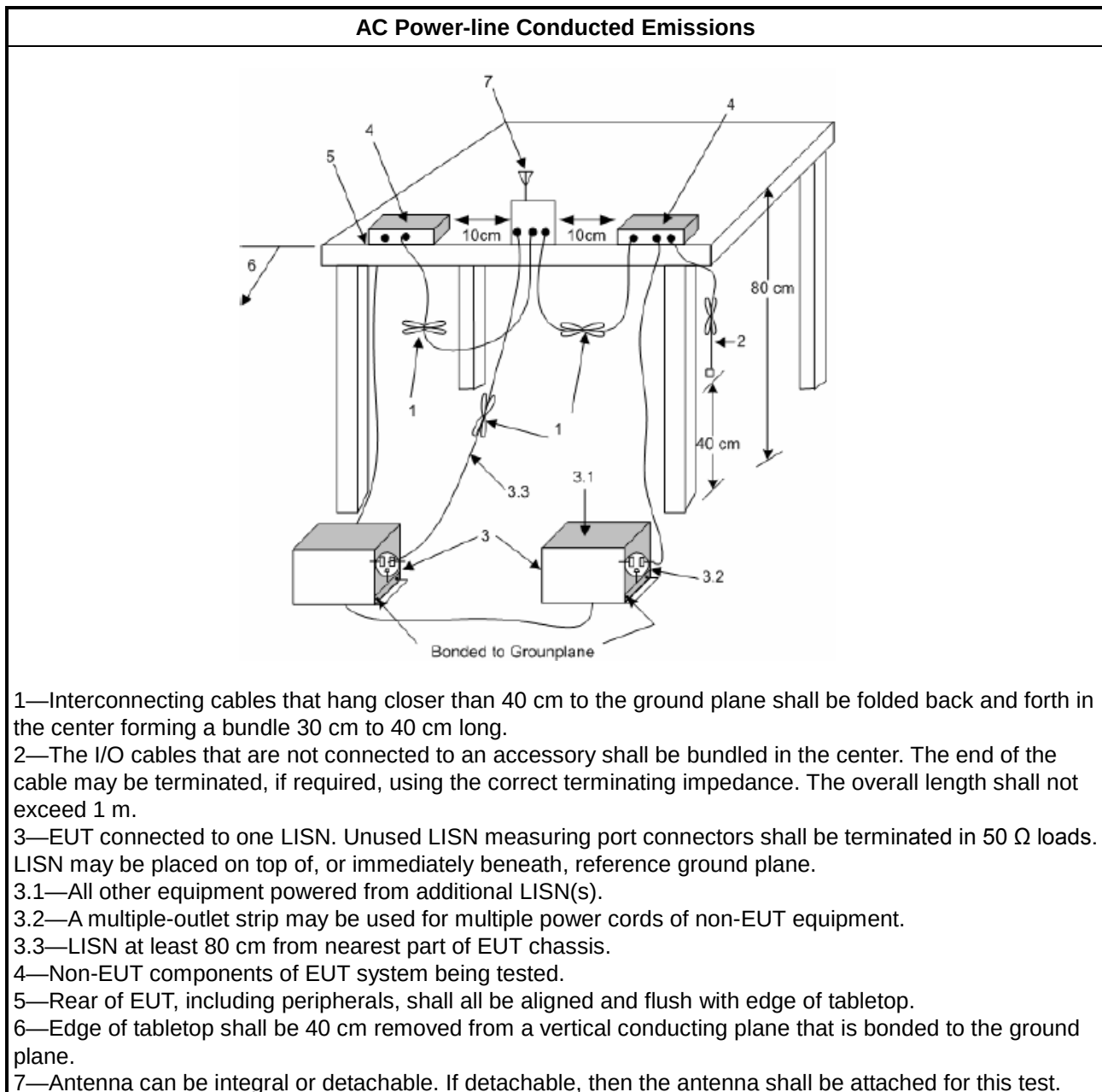
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
☒ 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:

- Corrected Reading (dBuV) = LISN Factor + Cable Loss + Read Level = Level
- 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	
☒	For the 5925-6425 GHz band, N/A
☒	For the 6425-6525 GHz band, N/A
☒	For the 6525-6875 GHz band, N/A
☒	For the 6875-7125 GHz band, N/A
RLAN Devices	
☐	For the 5925-6425 GHz band, N/A
☐	For the 6425-6525 GHz band, N/A
☐	For the 6525-6875 GHz band, N/A
☐	For the 6875-7125 GHz band, N/A

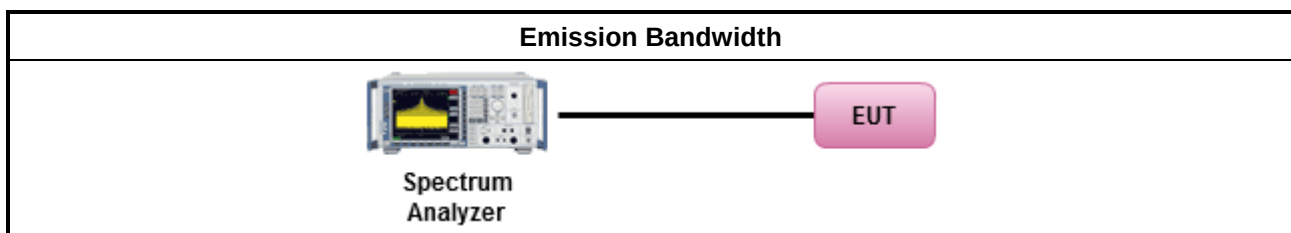
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	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.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☐	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 Isotopically Radiated Power (E.I.R.P.)

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

Maximum Equivalent Isotopically Radiated Power (E.I.R.P.) Limit	
UNII Devices	
☒ For the 5.925 ~ 6.425 GHz band:	
	■ 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.
☒ For the 6.425 ~ 6.525 GHz band:	
	■ 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.
☒ For the 6.525 ~ 6.875 GHz band:	
	■ 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.
☒ For the 6.875 ~ 7.125 GHz band:	
	■ 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	
☐ For the 5.925 ~ 7.125 GHz band:	
	■ 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	
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	
☒	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.
☐	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	
☐	Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).
☐ For conducted measurement.	
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]) $EIRP_{total} = P_{total} + DG$	
☒ For radiated measurement.	
Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"	
Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.	
Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.	

Note :

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

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

EIRP Formula :

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

where;

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

LP : Free Space Loss(dB)

PR Formula :

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

where;

P Meas(dBm) : Power measurement level

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

LC(dB) : Measurement cable loss (dB)

LP(FSL factor) Formula :

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

where;

F(MHz) : EUT center frequency

D(m) : Measurement distance

For Example:

Test mode nonTXBF HE20 4T1S 6115MHz EIRP measurement

PR Formula :

$$PR(dBm) = -39.92 - 10.64 + 5.24 = -45.32$$

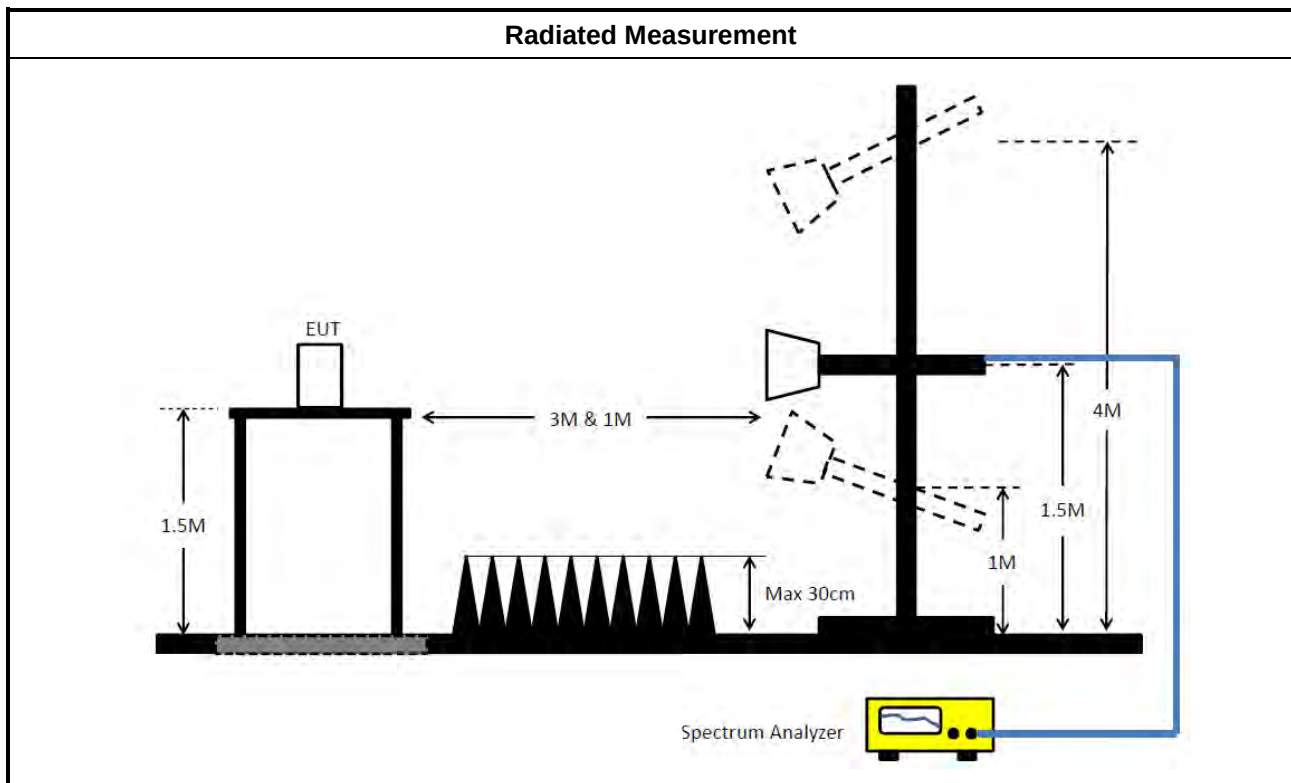
LP(FSL factor) Formula :

$$LP(dB) = 20 \log(5955) + 20 \log(3) - 27.5 = 57.77$$

EIRP Formula :

$$EIRP(dBm) = -45.32 + 57.77 = 12.45$$

3.3.4 Test Setup



3.3.5 Test Result of Maximum Equivalent Isotopically 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	
☒	For the 5.925 ~ 6.425 GHz band:
☐	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.
☒	For the 6.425 ~ 6.525 GHz band:
☐	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.
☒	For the 6.525 ~ 6.875 GHz band:
☐	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.
☒	For the 6.875 ~ 7.125 GHz band:
☐	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	
☐	For the 5.925 ~ 7.125 GHz band:
☐	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	
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:	
☐	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]	
☒	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
☐	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	
☒	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
☐	For conducted measurement.
If the EUT supports multiple transmit chains using options given below:	
☐	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.
☐	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,
☐	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]) $EIRP_{total} = PPSD_{total} + DG$	
☒	For radiated measurement.
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 nonTXBF HE20 4T1S 6115MHz EIRP PSD measurement

PR Formula :

$$\text{PR(dBm/MHz)} = -47.46 - 10.64 + 5.24 = -52.86$$

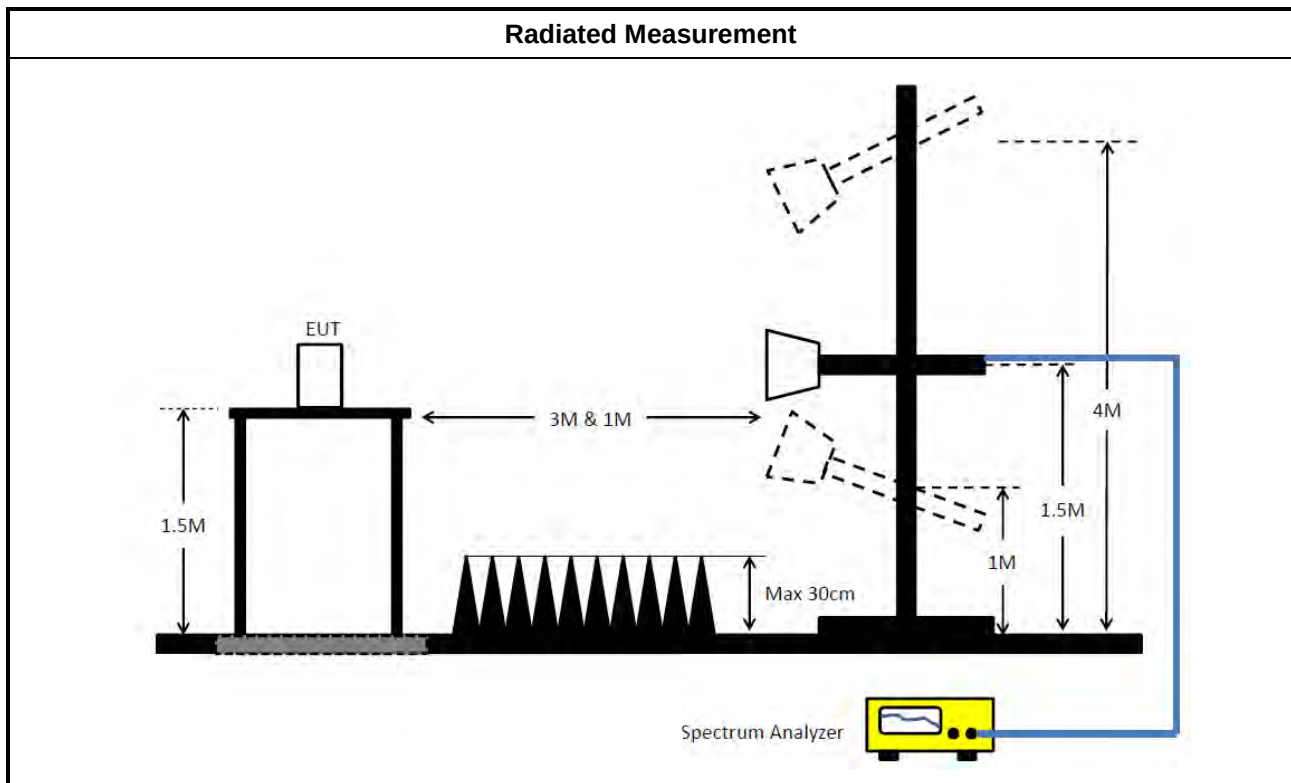
LP(FSL factor) Formula :

$$\text{LP(dB)} = 20 \log(6113.68) + 20 \log(3) - 27.5 = 57.77$$

EIRP PSD Formula

$$\text{EIRP PSD(dBm/MHz)} = -52.86 + 57.77 = 4.91$$

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

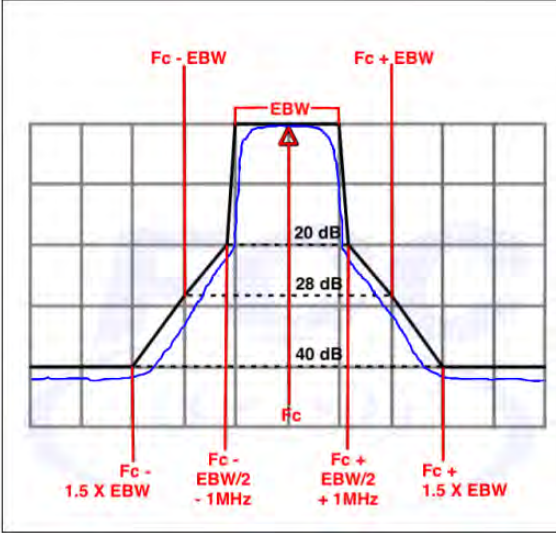
3.5.1 Transmitter Unwanted Emissions Limit

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) = 54dBuV/m at 3m + 9.54dB = 63.54 dBuV/m at 1m.

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) = 68.2dBuV/m at 3m + 9.54dB = 77.74 dBuV/m at 1m. Note 2:-27 dBm EIRP OOBE is measured RMS which is a deviation from the current 15E rules for 5 GHz bands. In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit.
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.

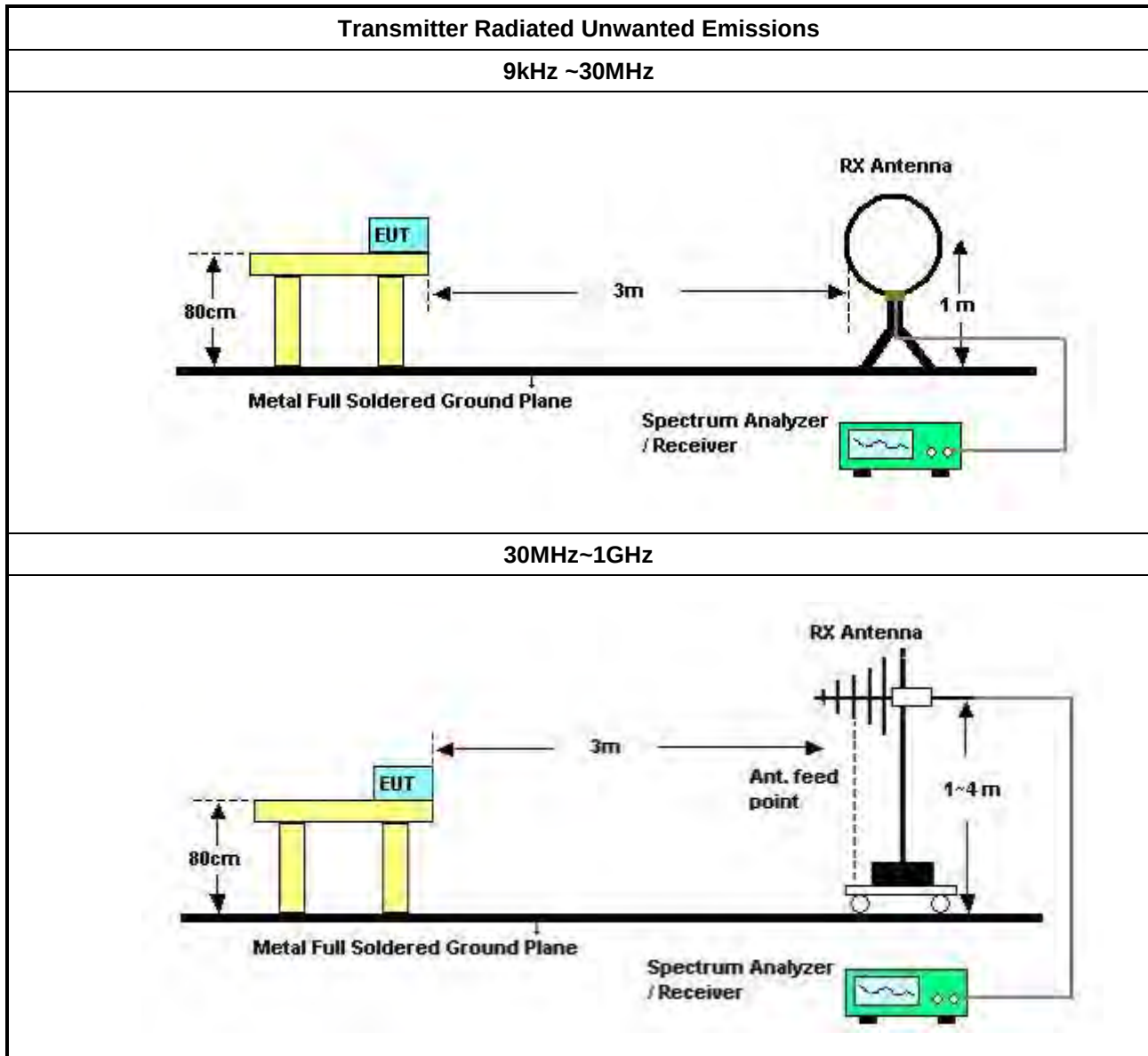
3.5.3 Test Procedures

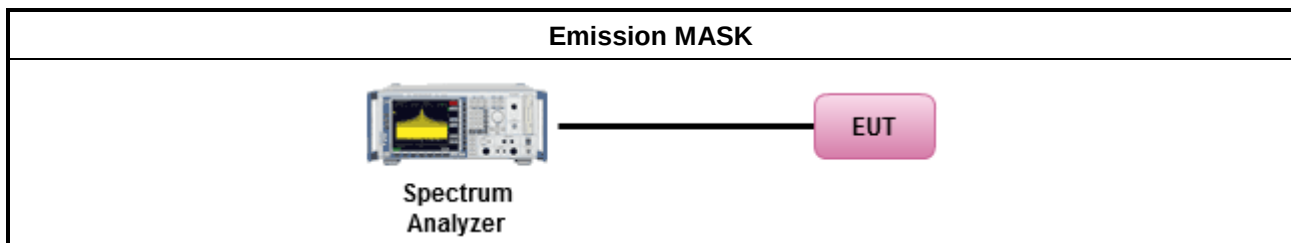
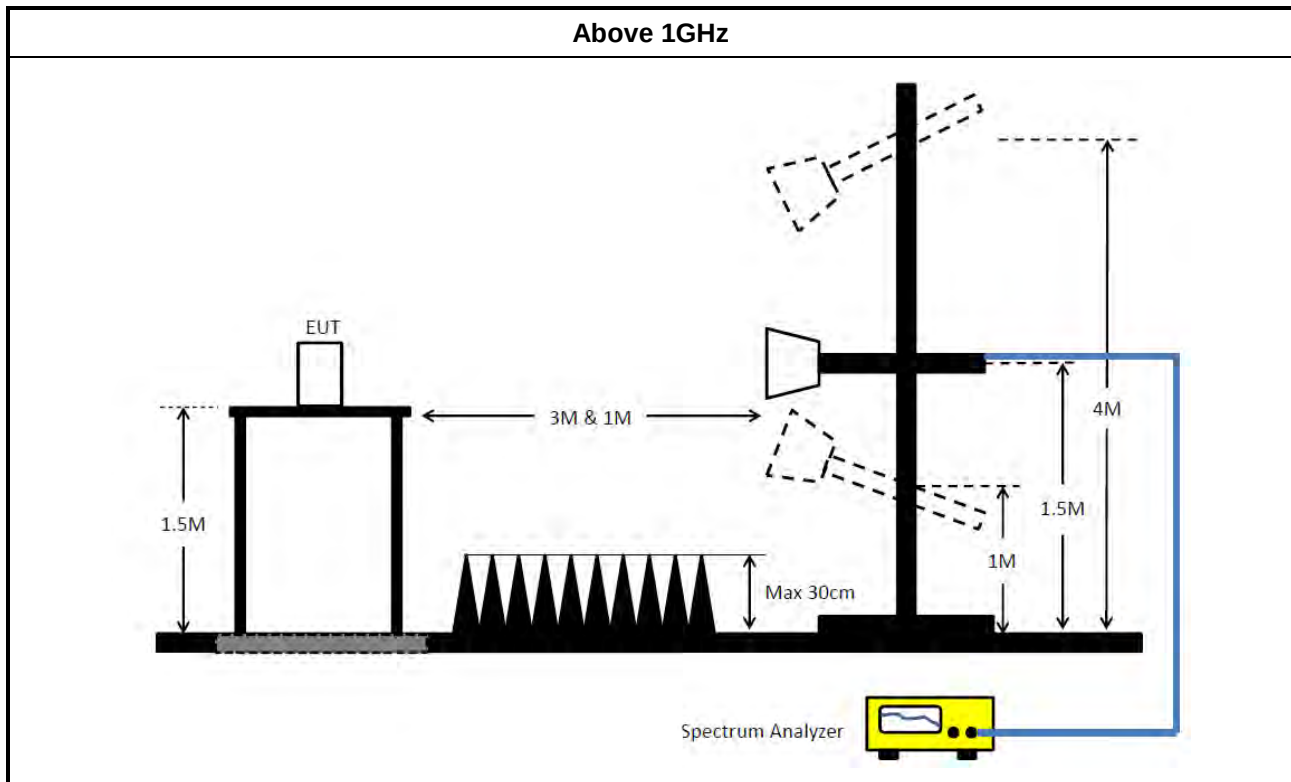
Test Method	
According to KDB 987594 D02 II.G. the unwanted emission measurement procedure shall refer to KDB 789300(except emission MASK). Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can 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).	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.
	☒ Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging). (For unrestricted band measurement)
	☐ Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
	☒ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). $VBW \geq 1/T$, where T is pulse time.(For restricted band average measurement)
	☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	☒ Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.
	☐ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
Refer as FCC KDB 789033 D02, clause G)3)d)ii) for Band edge Integration measurements.	
For emission MASK shall be measured using following options below:	
	☒ Refer as FCC draft KDB 987594 D02, J) In-Band Emissions
For radiated measurement.	
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
The any unwanted emissions level shall not exceed the fundamental emission level.	
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	



Test Method	
▪ For conducted and cabinet radiation measurement, refer as FCC KDB 789033 D02, clause G)3).	
	▪ For conducted unwanted emissions into non-restricted bands (relative emission limits). Devices with multiple transmit chains: Refer as FCC KDB 662911, when testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding 10 log(N) if the measurements are made relative to the in-band emissions on the individual outputs.
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

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.

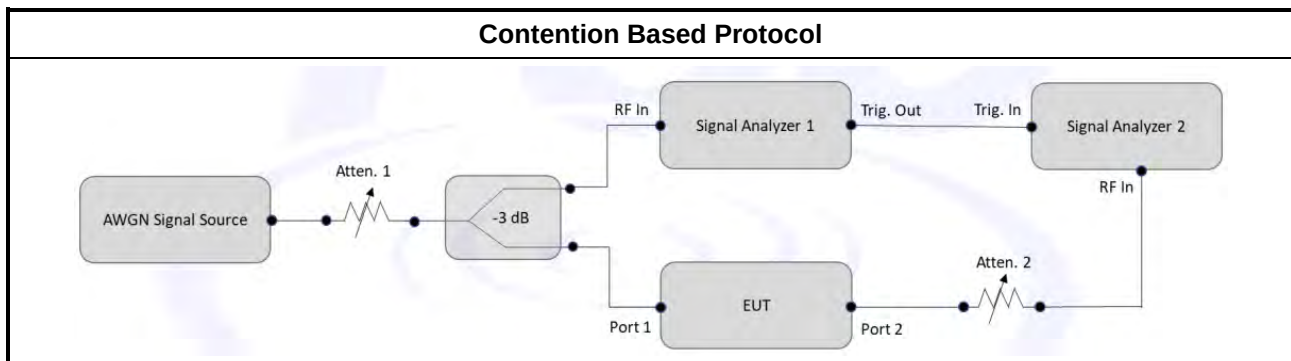
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method	
■	For Contention Based Protocol shall be measured using following options below:
☒	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.

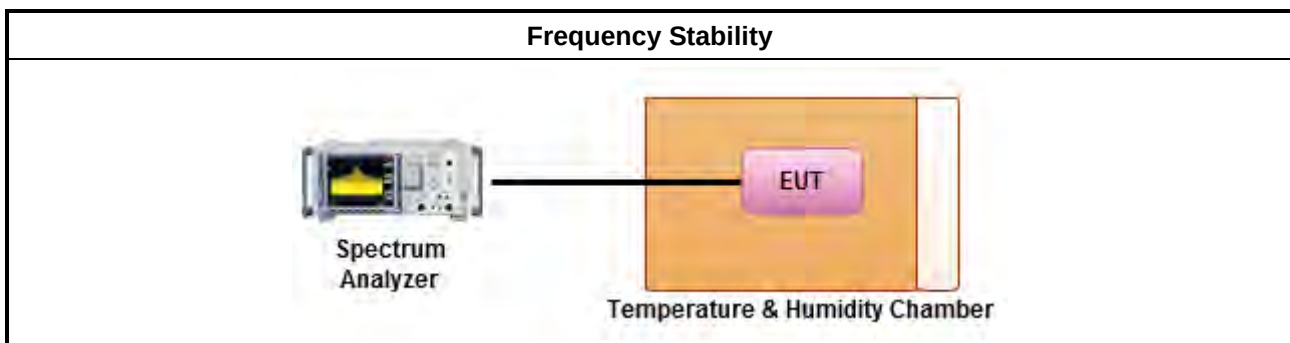
3.7.2 Measuring Instruments

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
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 22, 2022	Feb. 21, 2023	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Feb. 09, 2022	Feb. 08, 2023	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Jan. 07, 2022	Jan. 06, 2023	Conduction (CO01-CB)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 10, 2022	Feb. 09, 2023	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 19, 2021	May 18, 2022	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH06-CB	30 MHz ~ 1 GHz	Aug. 09, 2021	Aug. 08, 2022	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Jul. 31, 2021	Jul. 30, 2022	Radiation (03CH06-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 14, 2021	Apr. 13, 2022	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	Nov. 04, 2021	Nov. 03, 2022	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Dec. 24, 2021	Dec. 23, 2022	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 21, 2021	Jun. 20, 2022	Radiation (03CH06-CB)
RF Cable-low	Woken	RG402	Low Cable-05+24	30MHz~1GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 07, 2021	May 06, 2022	Radiation (03CH01-CB)
Horn Antenna	ETS-LINDGREN	3115	00075790	750MHz ~ 18GHz	Nov. 06, 2021	Nov. 05, 2022	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 20, 2021	May 19, 2022	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH01-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	May 03, 2021	May 02, 2022	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	Apr. 26, 2022	Apr. 25, 2023	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 08, 2021	Dec. 07, 2022	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#7	1GHz ~ 40 GHz	Dec. 14, 2021	Dec. 13, 2022	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 02, 2021	Aug. 01, 2022	Conducted (TH02-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-C2SP	TBN-1010206	-20~150 degree	Feb. 18. 2022	Feb. 17. 2023	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Oct. 25, 2021	Oct. 24, 2022	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	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-02	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-02-P1	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-02-P2	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-02-P3	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	SWI-02-P4	1 GHz ~26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	SWI-02-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)
VEKTOR 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)

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

NCR means Non-Calibration required.



Conducted Emissions at Powerline

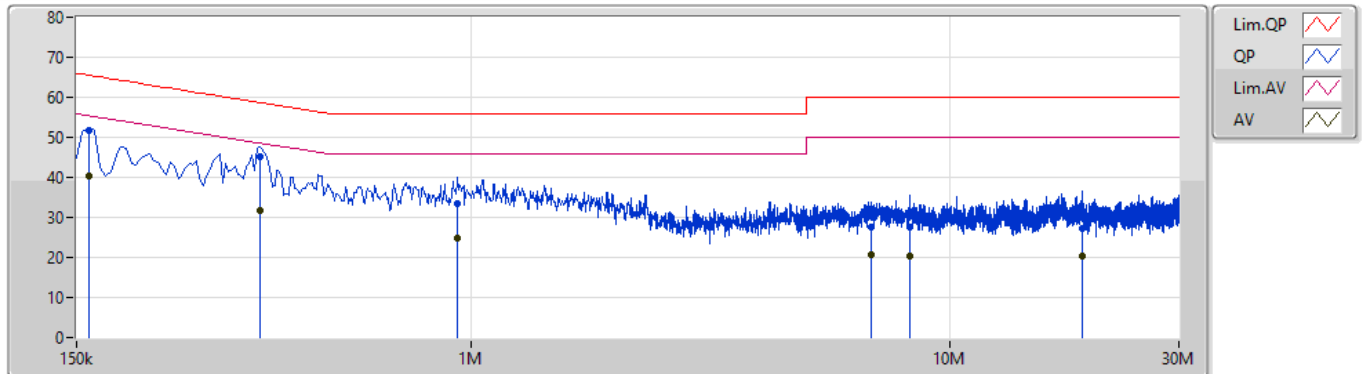
Appendix A

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	343.5k	39.84	49.12	-9.28	Neutral

Mode 1

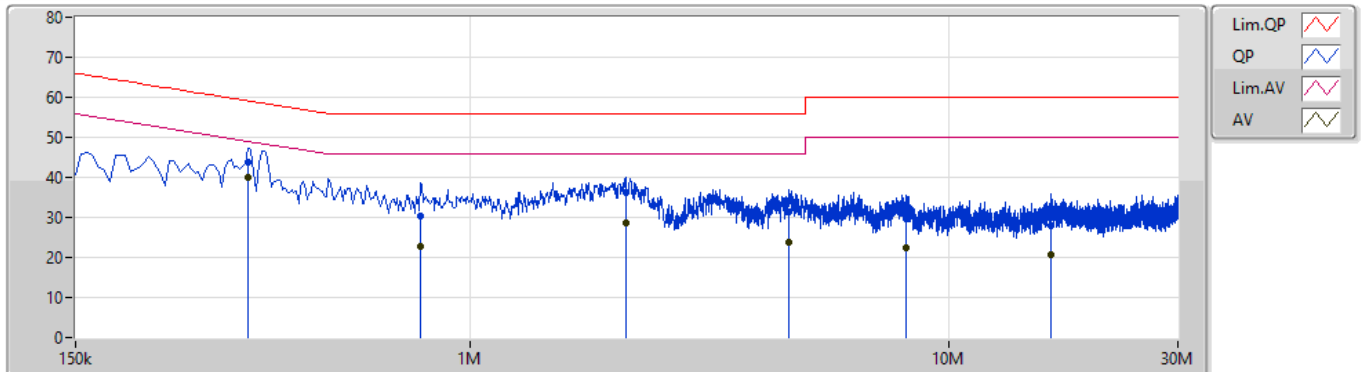
31/03/2022



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	159k	51.77	65.52	-13.75	10.03	Line	-	41.74	0.12	0.02	9.89			
AV	159k	40.18	55.52	-15.34	10.03	Line	-	30.15	0.12	0.02	9.89			
QP	361.5k	45.15	58.70	-13.55	10.03	Line	"Worst"	35.12	0.12	0.02	9.89			
AV	361.5k	31.70	48.70	-17.00	10.03	Line	-	21.67	0.12	0.02	9.89			
QP	937.5k	33.60	56.00	-22.40	10.05	Line	-	23.55	0.14	0.02	9.89			
AV	937.5k	24.75	46.00	-21.25	10.05	Line	-	14.70	0.14	0.02	9.89			
QP	6.833M	27.59	60.00	-32.41	10.26	Line	-	17.33	0.29	0.07	9.90			
AV	6.833M	20.56	50.00	-29.44	10.26	Line	-	10.30	0.29	0.07	9.90			
QP	8.246M	27.55	60.00	-32.45	10.30	Line	-	17.25	0.32	0.07	9.91			
AV	8.246M	20.40	50.00	-29.60	10.30	Line	-	10.10	0.32	0.07	9.91			
QP	18.888M	27.08	60.00	-32.92	10.46	Line	-	16.62	0.38	0.12	9.96			
AV	18.888M	20.30	50.00	-29.70	10.46	Line	-	9.84	0.38	0.12	9.96			

Mode 1

31/03/2022



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	343.5k	43.91	59.12	-15.21	10.07	Neutral	-	33.84	0.16	0.02	9.89			
AV	343.5k	39.84	49.12	-9.28	10.07	Neutral	"Worst"	29.77	0.16	0.02	9.89			
QP	789k	30.25	56.00	-25.75	10.08	Neutral	-	20.17	0.17	0.02	9.89			
AV	789k	22.79	46.00	-23.21	10.08	Neutral	-	12.71	0.17	0.02	9.89			
QP	2.108M	36.35	56.00	-19.65	10.13	Neutral	-	26.22	0.19	0.05	9.89			
AV	2.108M	28.54	46.00	-17.46	10.13	Neutral	-	18.41	0.19	0.05	9.89			
QP	4.619M	31.47	56.00	-24.53	10.19	Neutral	-	21.28	0.23	0.07	9.89			
AV	4.619M	23.96	46.00	-22.04	10.19	Neutral	-	13.77	0.23	0.07	9.89			
QP	8.133M	29.72	60.00	-30.28	10.25	Neutral	-	19.47	0.27	0.07	9.91			
AV	8.133M	22.57	50.00	-27.43	10.25	Neutral	-	12.32	0.27	0.07	9.91			
QP	16.283M	28.05	60.00	-31.95	10.37	Neutral	-	17.68	0.31	0.11	9.95			
AV	16.283M	20.55	50.00	-29.45	10.37	Neutral	-	10.18	0.31	0.11	9.95			

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)_2TX	20.91M	18.861M	18M9D1D	20.25M	18.771M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.2M	37.661M	37M7D1D	39.66M	37.421M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.24M	76.882M	76M9D1D	80.88M	76.522M
802.11ax HEW160_Nss1,(MCS0)_2TX	164.16M	154.963M	155MD1D	162.96M	154.483M
6.425-6.525GHz	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	21.03M	18.861M	18M9D1D	20.37M	18.741M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.14M	37.601M	37M6D1D	39.9M	37.481M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.36M	76.682M	76M7D1D	80.88M	76.402M
802.11ax HEW160_Nss1,(MCS0)_2TX	163.68M	155.122M	155MD1D	163.68M	154.803M
6.525-6.875GHz	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	20.88M	18.831M	18M8D1D	20.4M	18.771M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.14M	37.661M	37M7D1D	39.78M	37.541M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.24M	76.882M	76M9D1D	80.64M	76.522M
802.11ax HEW160_Nss1,(MCS0)_2TX	164.96M	155.202M	155MD1D	163.2M	155.122M
6.875-7.125GHz	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	20.73M	18.891M	18M9D1D	20.4M	18.741M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.08M	37.661M	37M7D1D	39.9M	37.481M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.72M	76.762M	76M8D1D	81.12M	76.402M
802.11ax HEW160_Nss1,(MCS0)_2TX	163.92M	154.963M	155MD1D	163.2M	154.963M

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

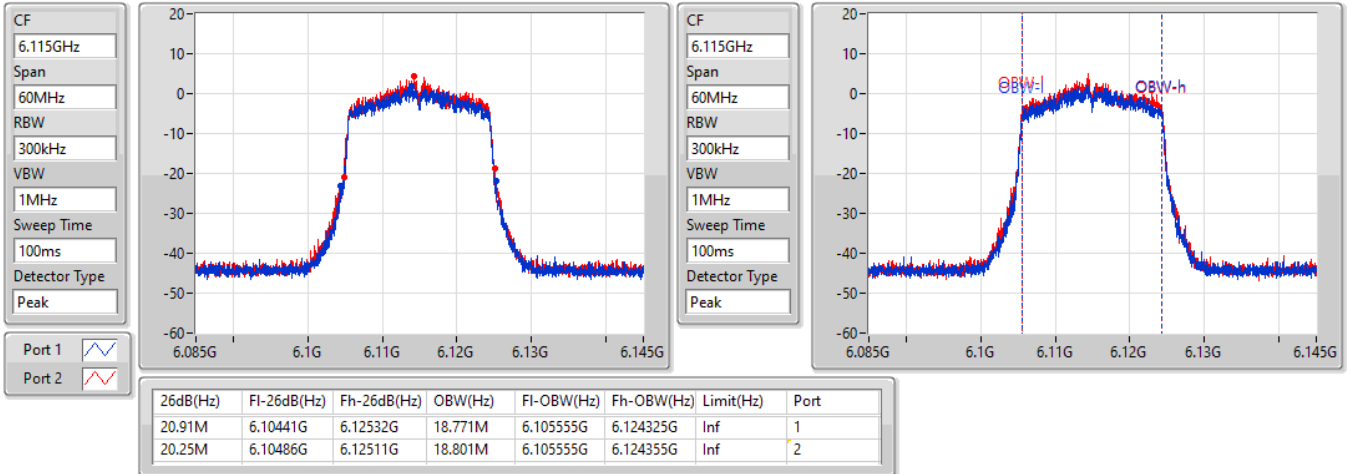
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6115MHz	Pass	Inf	20.91M	18.771M	20.25M	18.801M
6275MHz	Pass	Inf	20.76M	18.831M	20.46M	18.771M
6415MHz	Pass	Inf	20.58M	18.861M	20.55M	18.771M
6435MHz	Pass	Inf	20.79M	18.861M	20.55M	18.771M
6475MHz	Pass	Inf	21.03M	18.861M	20.4M	18.741M
6515MHz	Pass	Inf	20.67M	18.831M	20.37M	18.771M
6535MHz	Pass	Inf	20.76M	18.831M	20.61M	18.801M
6695MHz	Pass	Inf	20.46M	18.801M	20.4M	18.831M
6855MHz	Pass	Inf	20.52M	18.771M	20.88M	18.801M
6875MHz Straddle 6.525-6.875GHz	Pass	Inf	20.72M	18.771M	20.52M	18.831M
6895MHz	Pass	Inf	20.55M	18.741M	20.46M	18.801M
6995MHz	Pass	Inf	20.61M	18.831M	20.4M	18.771M
7095MHz	Pass	Inf	20.7M	18.831M	20.64M	18.771M
7115MHz	Pass	Inf	20.73M	18.891M	20.46M	18.771M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6125MHz	Pass	Inf	39.9M	37.601M	40.08M	37.601M
6285MHz	Pass	Inf	40.2M	37.661M	39.96M	37.421M
6405MHz	Pass	Inf	39.66M	37.601M	39.78M	37.421M
6445MHz	Pass	Inf	40.14M	37.601M	39.9M	37.481M
6485MHz	Pass	Inf	39.96M	37.601M	39.96M	37.481M
6525MHz Straddle 6.425-6.525GHz	Pass	Inf	40M	37.581M	40.12M	37.541M
6565MHz	Pass	Inf	39.9M	37.541M	39.9M	37.601M
6685MHz	Pass	Inf	39.78M	37.541M	39.96M	37.661M
6845MHz	Pass	Inf	40.08M	37.541M	40.14M	37.601M
6885MHz Straddle 6.525-6.875GHz	Pass	Inf	40M	37.541M	40.12M	37.661M
6925MHz	Pass	Inf	40.02M	37.601M	40.08M	37.661M
7005MHz	Pass	Inf	39.96M	37.601M	39.9M	37.601M
7085MHz	Pass	Inf	39.96M	37.601M	40.02M	37.481M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6145MHz	Pass	Inf	81.12M	76.642M	81.24M	76.522M
6305MHz	Pass	Inf	80.88M	76.642M	81M	76.522M
6385MHz	Pass	Inf	81.12M	76.882M	80.88M	76.522M
6465MHz	Pass	Inf	80.88M	76.522M	81.12M	76.402M
6545MHz Straddle 6.425-6.525GHz	Pass	Inf	81.2M	76.522M	81.36M	76.682M
6625MHz	Pass	Inf	81.24M	76.642M	80.64M	76.882M
6705MHz	Pass	Inf	81M	76.642M	80.88M	76.642M
6785MHz	Pass	Inf	80.88M	76.642M	81.12M	76.642M
6865MHz Straddle 6.525-6.875GHz	Pass	Inf	81.04M	76.522M	81.2M	76.762M
6945MHz	Pass	Inf	81.12M	76.642M	81.72M	76.762M
7025MHz	Pass	Inf	81.6M	76.522M	81.12M	76.402M
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6185MHz	Pass	Inf	164.16M	154.723M	163.44M	154.483M
6345MHz	Pass	Inf	162.96M	154.963M	163.44M	154.483M
6505MHz Straddle 6.425-6.525GHz	Pass	Inf	163.68M	155.122M	163.68M	154.803M
6665MHz	Pass	Inf	163.44M	155.202M	163.2M	155.202M
6825MHz Straddle 6.525-6.875GHz	Pass	Inf	163.68M	155.122M	164.96M	155.122M
6985MHz	Pass	Inf	163.2M	154.963M	163.92M	154.963M

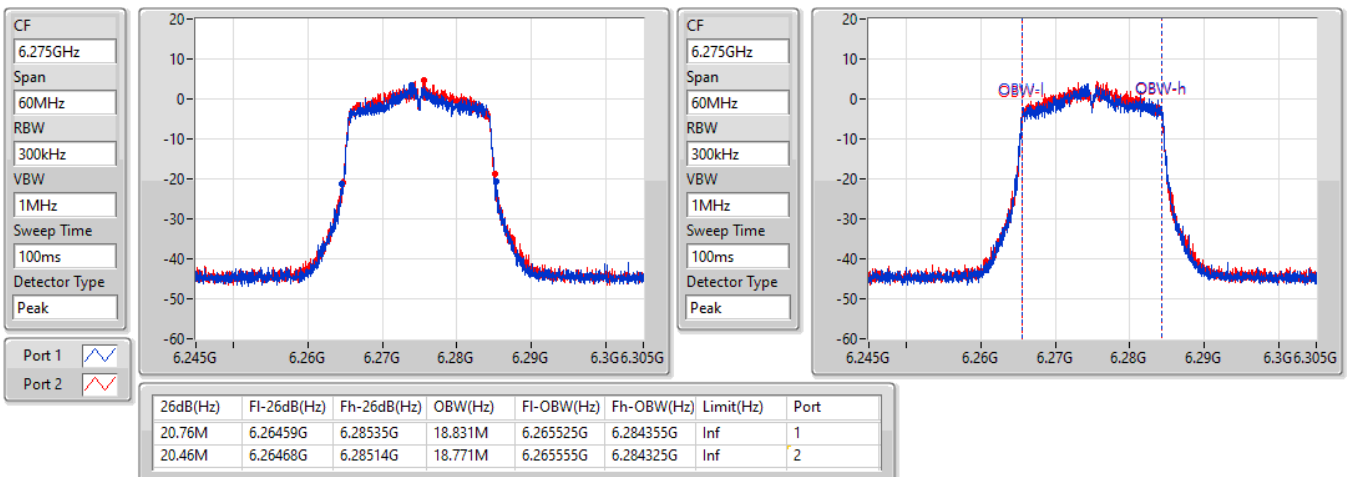
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
6115MHz

27/04/2022

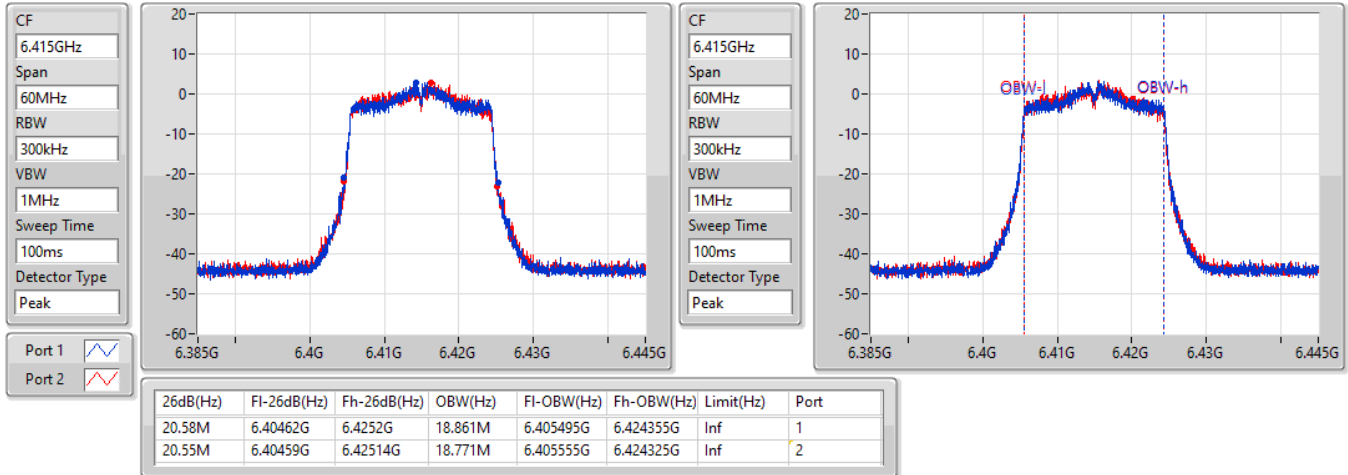

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
6275MHz

27/04/2022

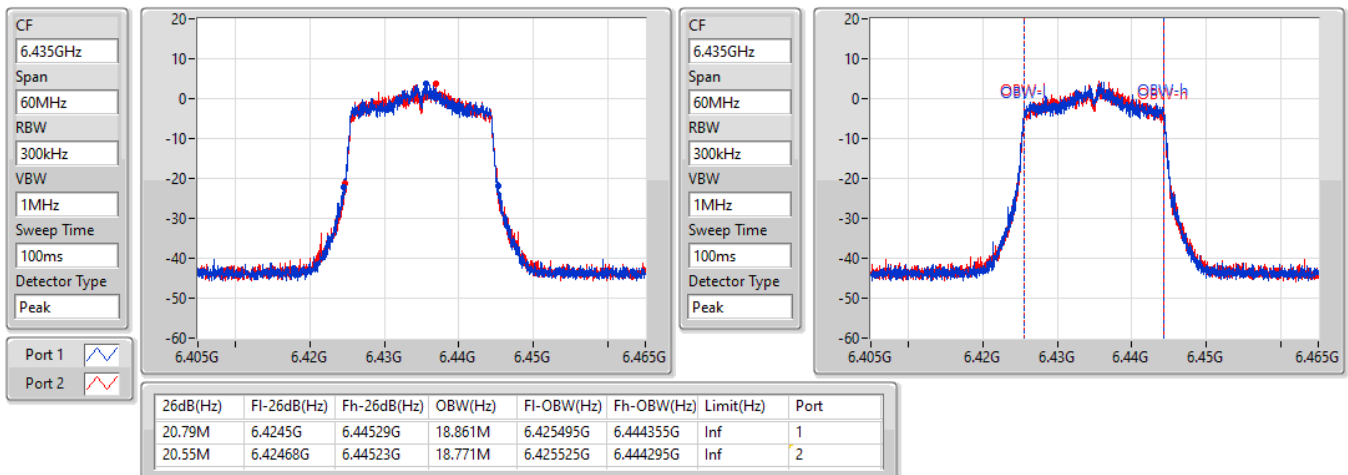


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
6415MHz

27/04/2022

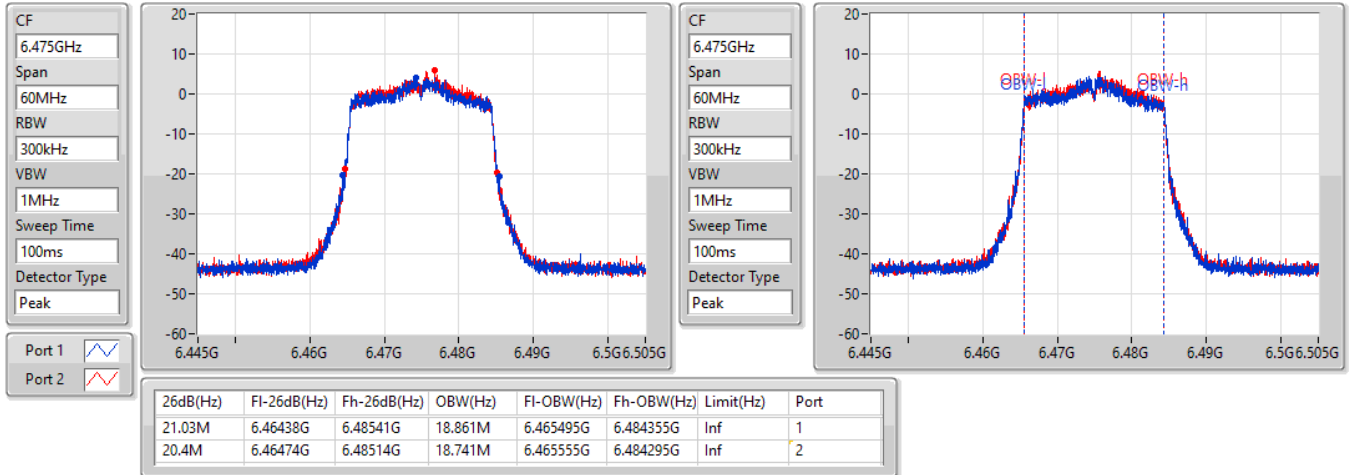

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
6435MHz

27/04/2022

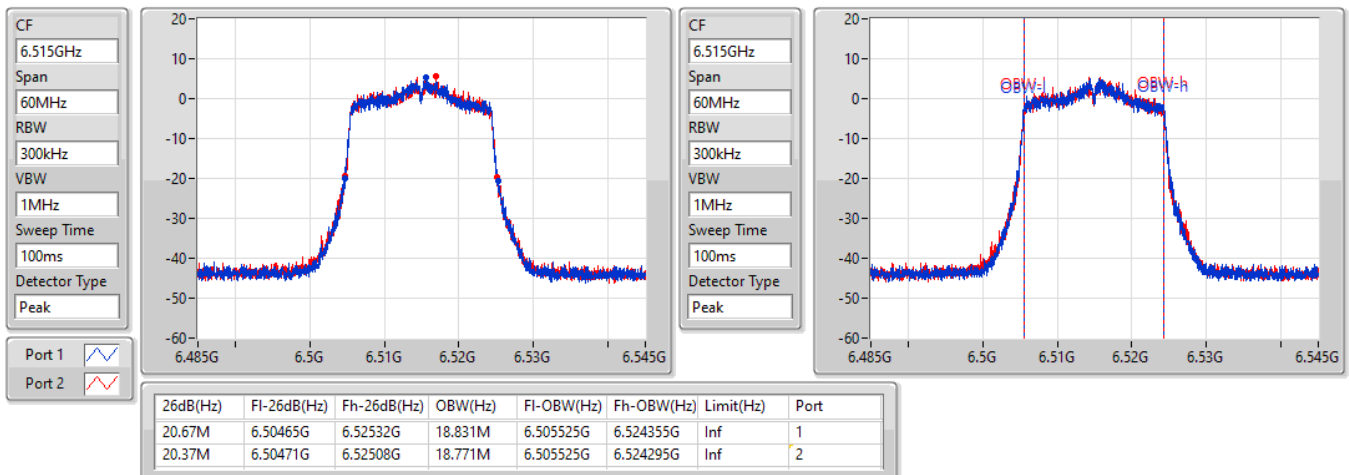


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EBW
6475MHz

27/04/2022

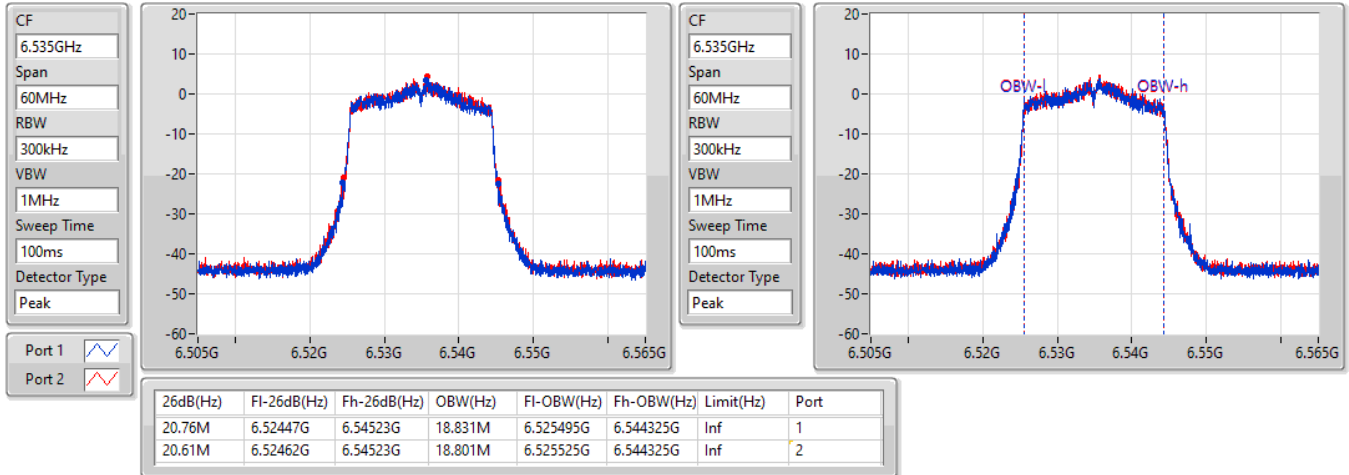

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
6515MHz

27/04/2022

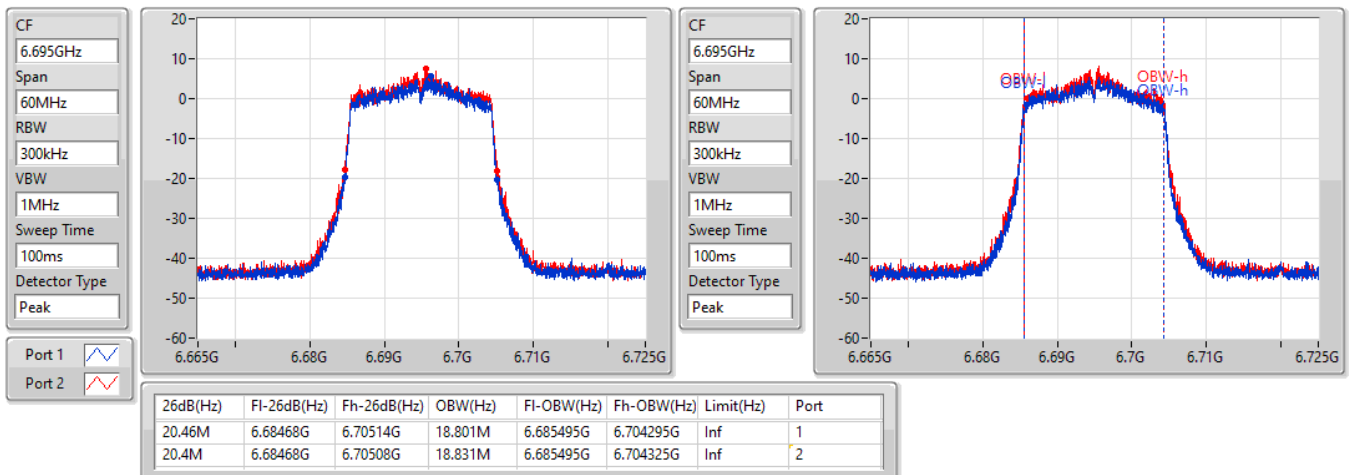


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
6535MHz

27/04/2022

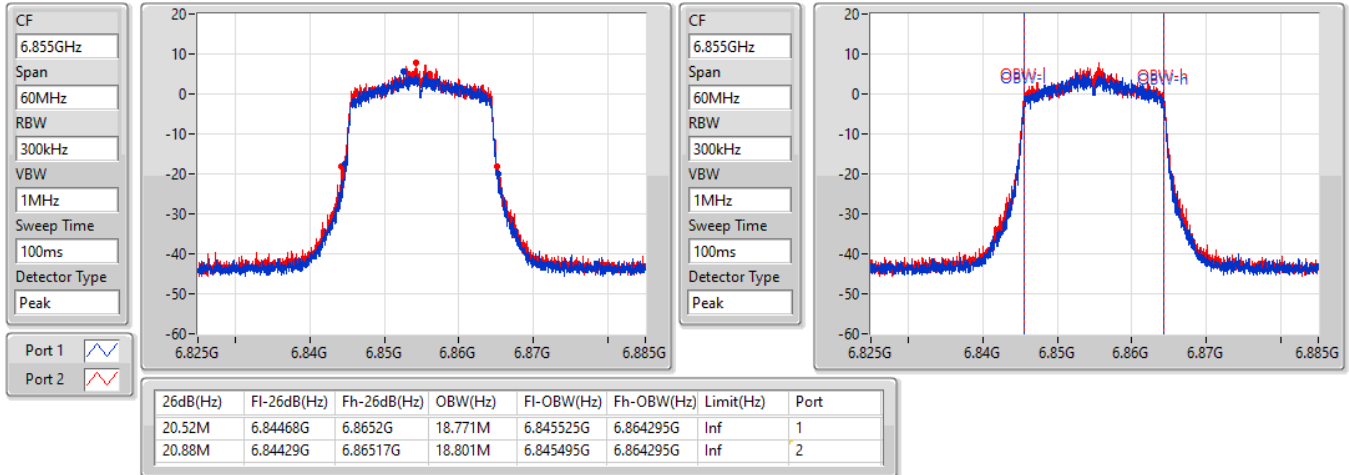

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EBW
6695MHz

27/04/2022

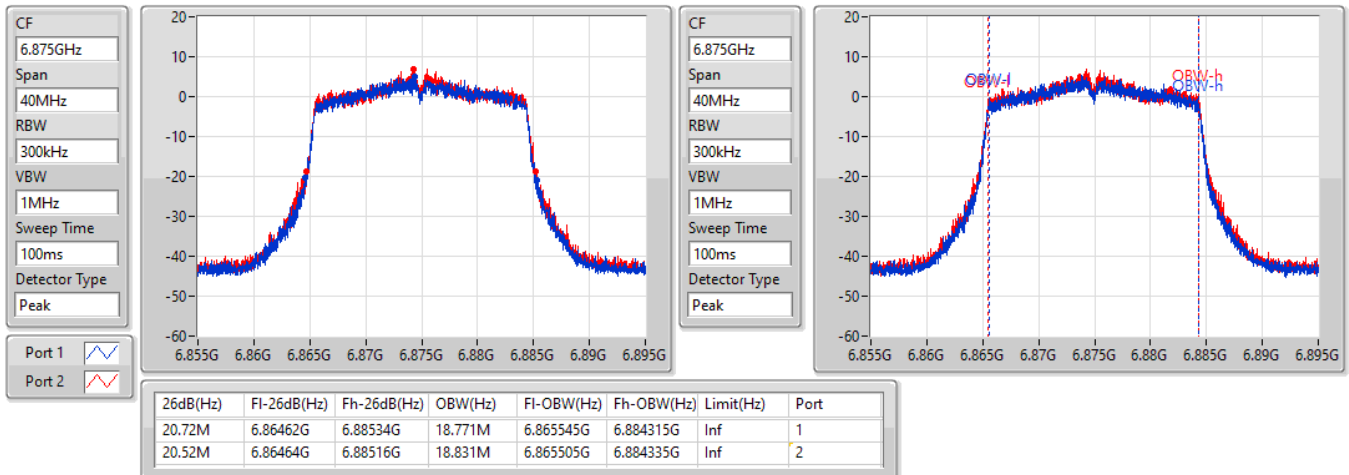


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EBW
6855MHz

27/04/2022

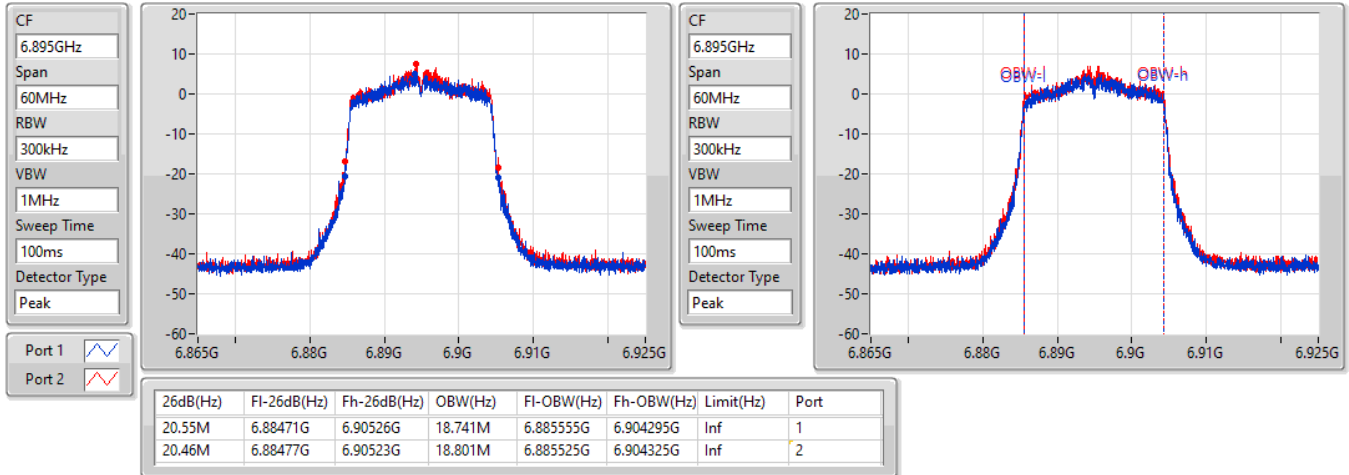

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EBW
6875MHz Straddle 6.525-6.875GHz

27/04/2022

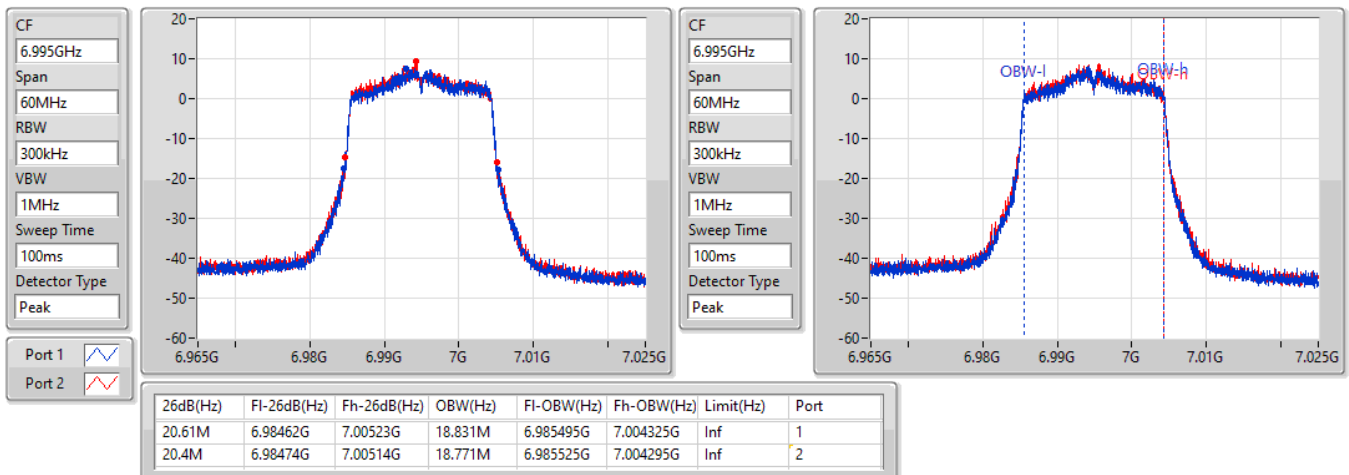


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
6895MHz

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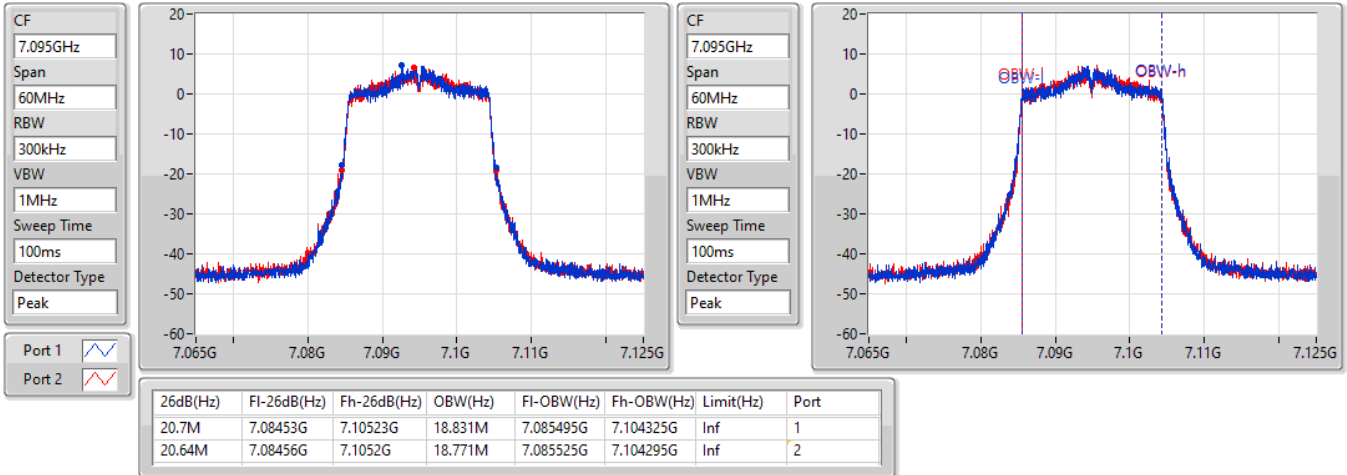

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
6995MHz

27/04/2022

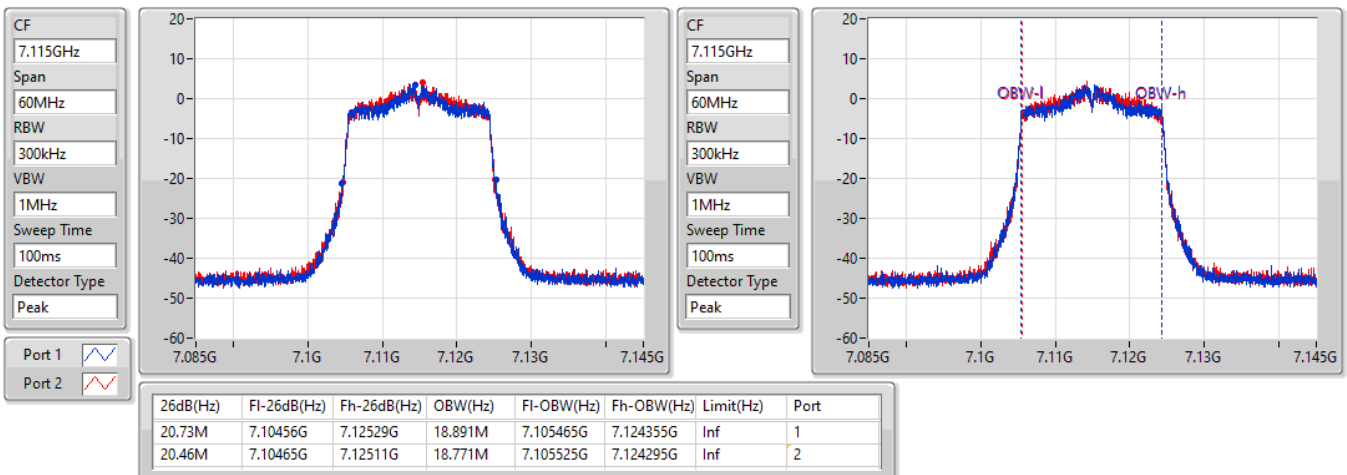


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
7095MHz

27/04/2022

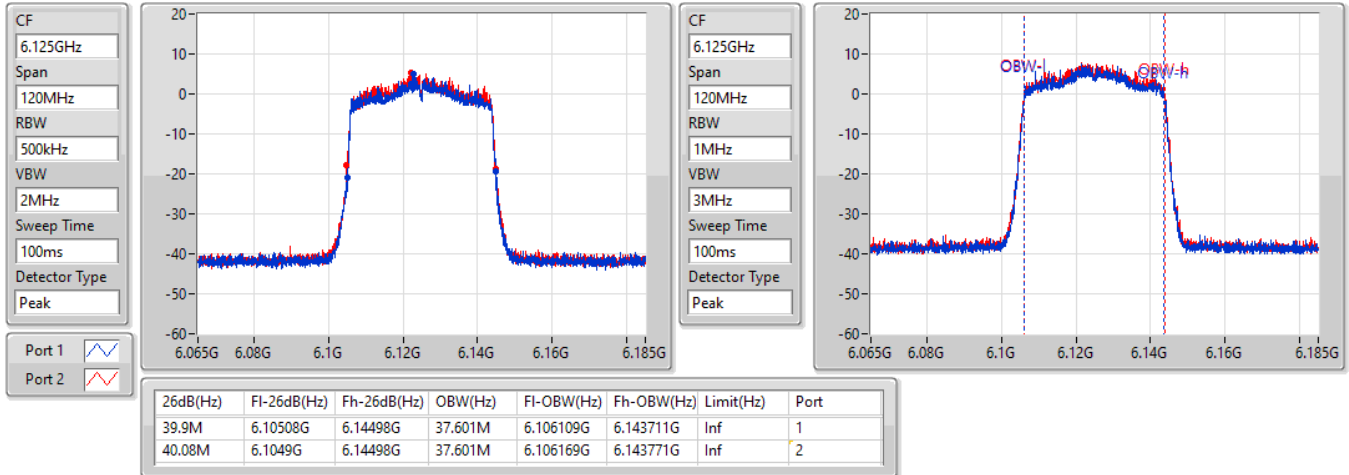

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
7115MHz

27/04/2022

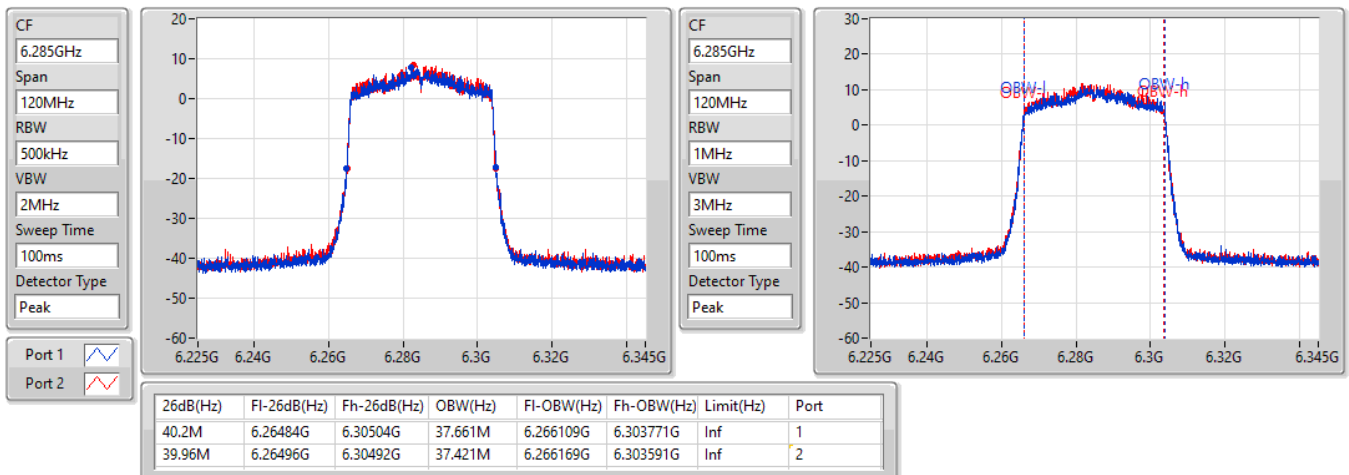


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6125MHz

27/04/2022

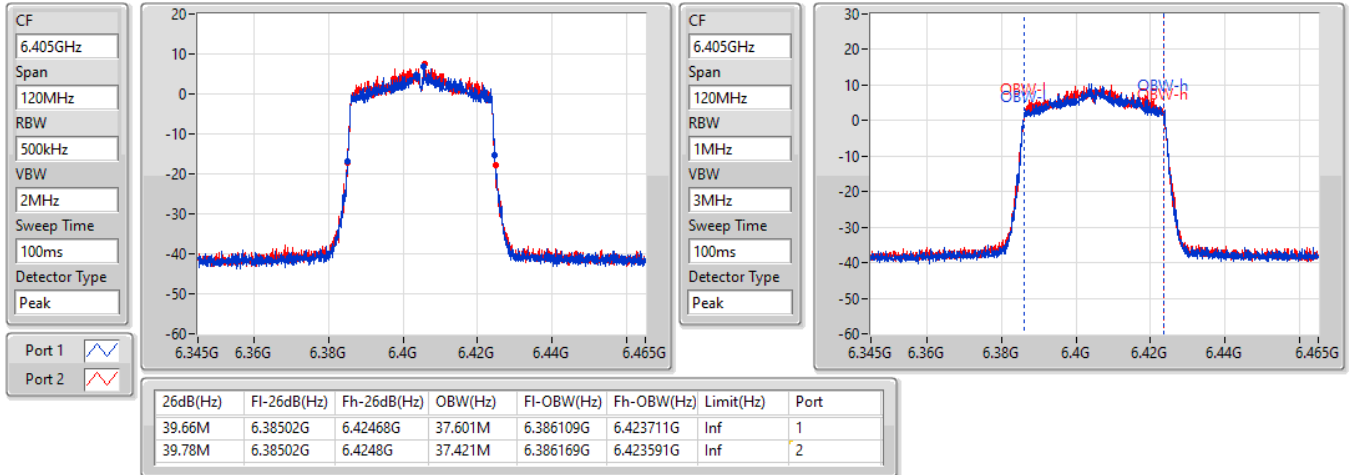

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6285MHz

27/04/2022

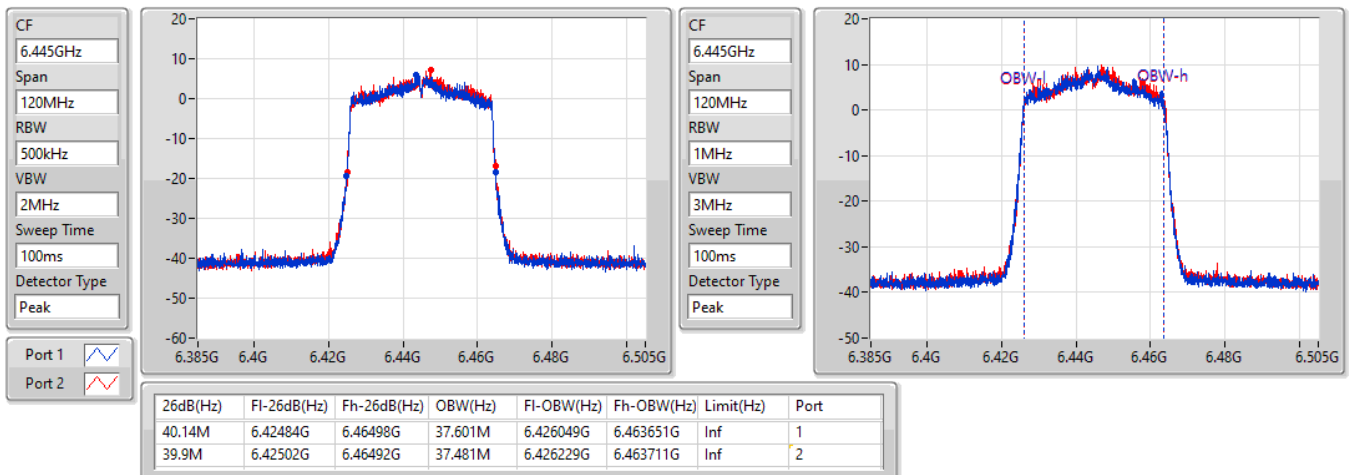


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6405MHz

27/04/2022

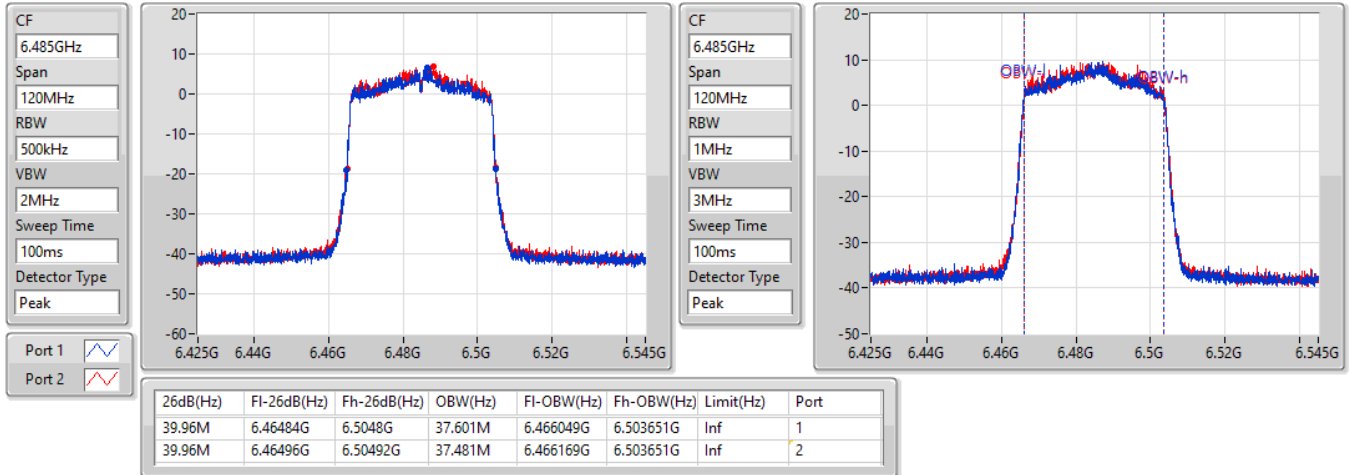

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6445MHz

27/04/2022

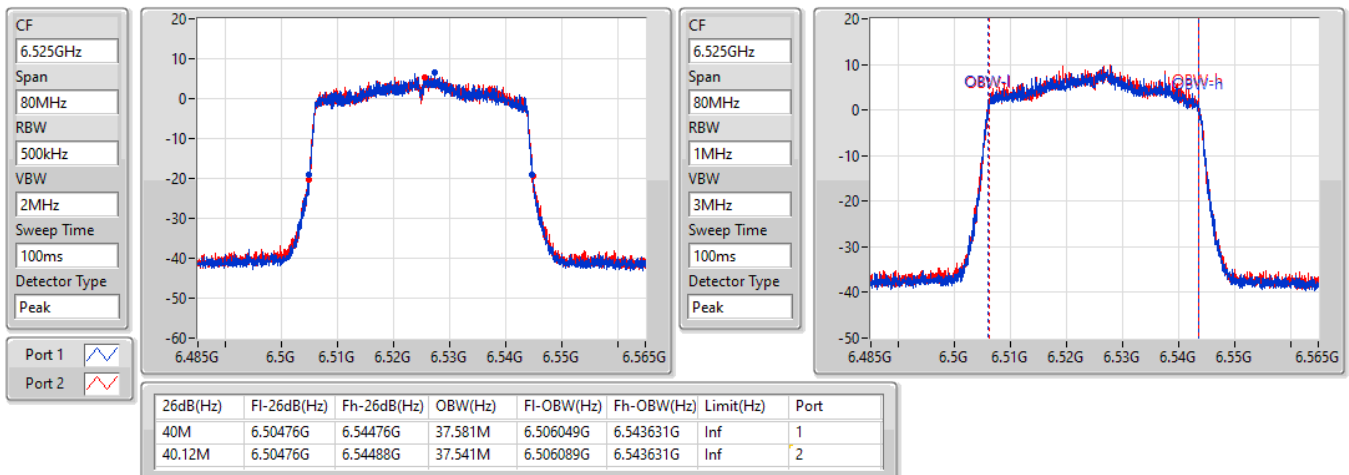


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6485MHz

27/04/2022

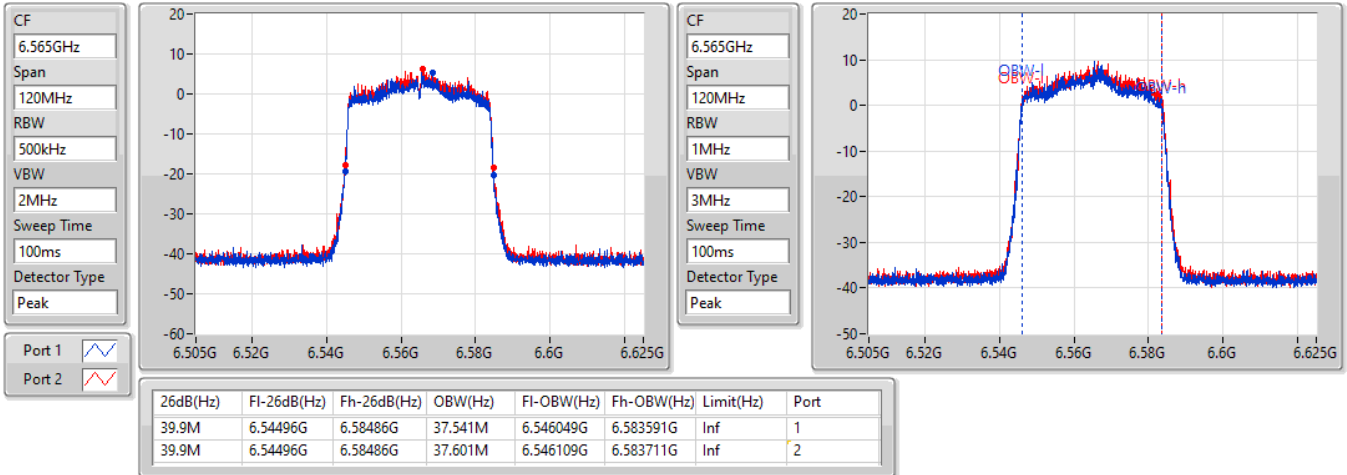

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6525MHz Straddle 6.425-6.525GHz

27/04/2022

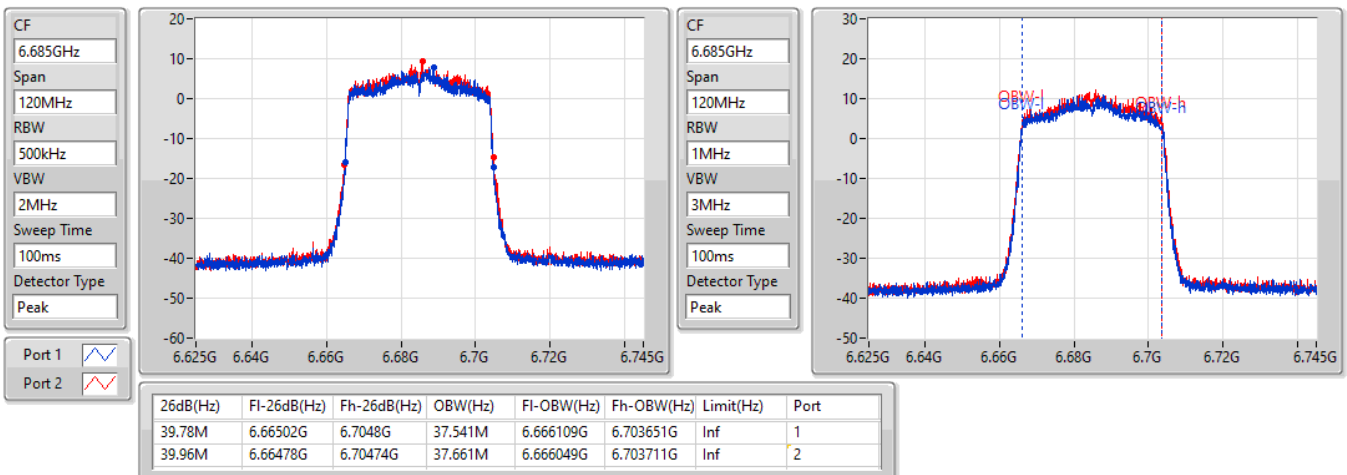


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6565MHz

27/04/2022

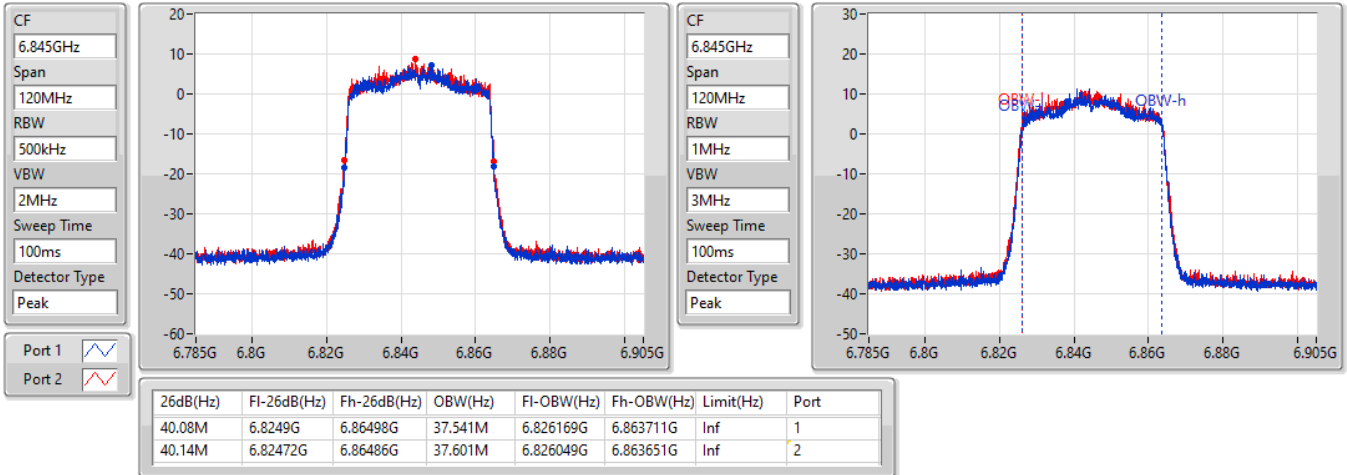

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6685MHz

27/04/2022

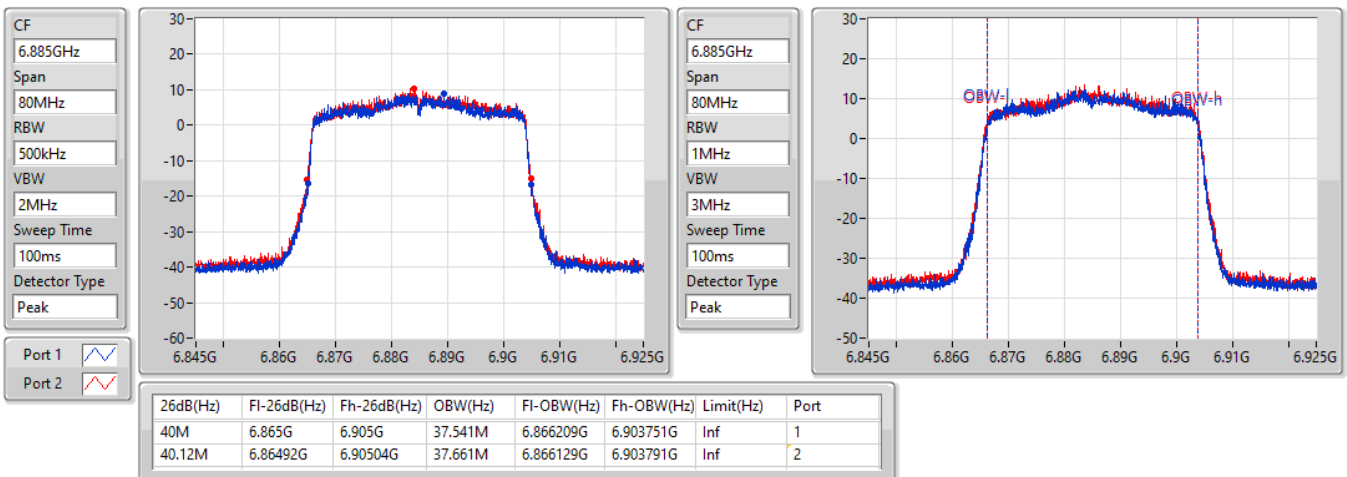


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6845MHz

27/04/2022

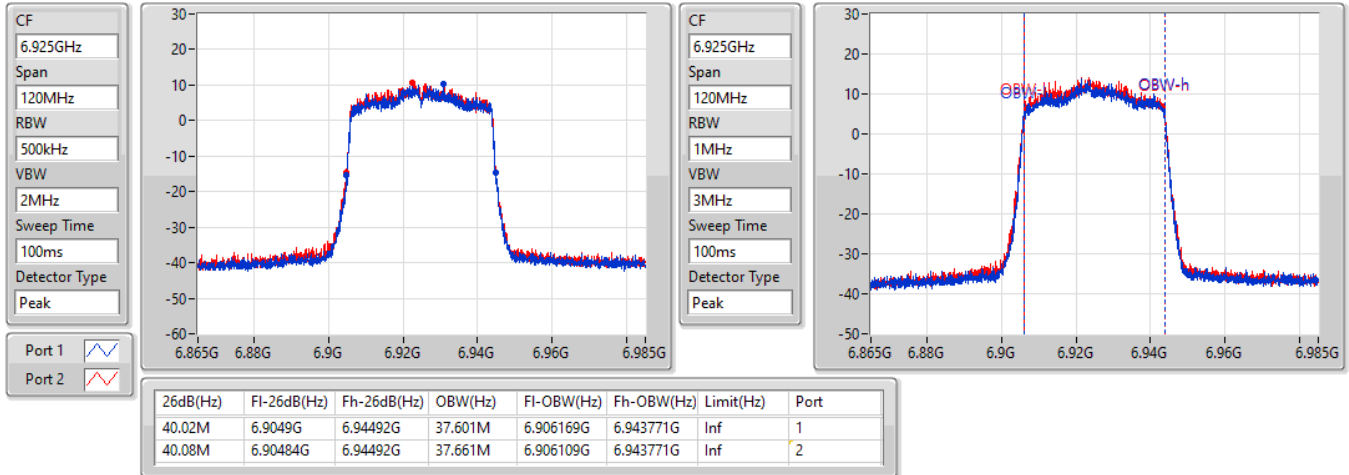

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6885MHz Straddle 6.525-6.875GHz

27/04/2022

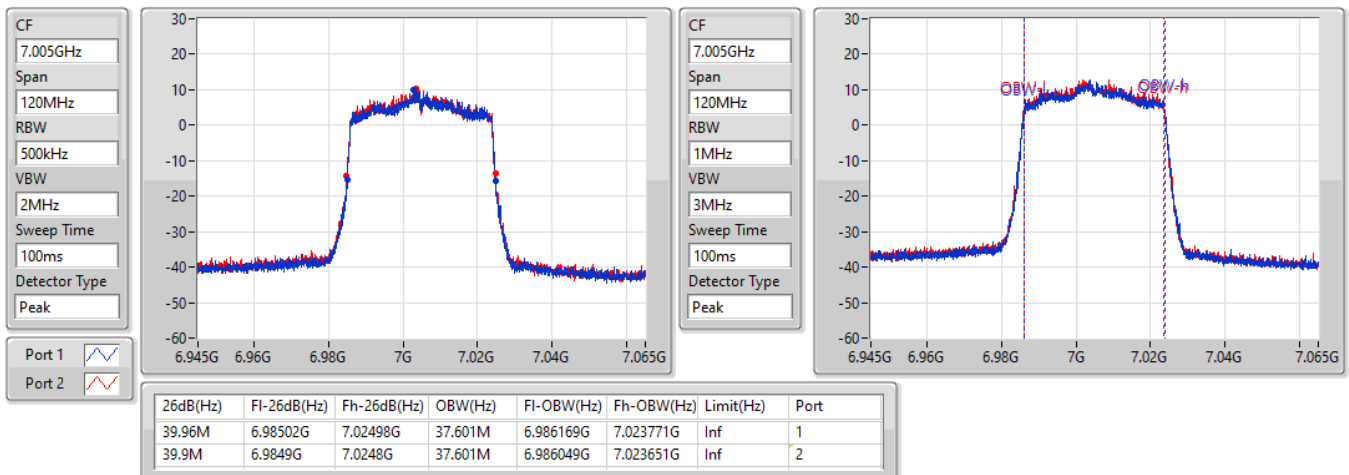


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
6925MHz

27/04/2022

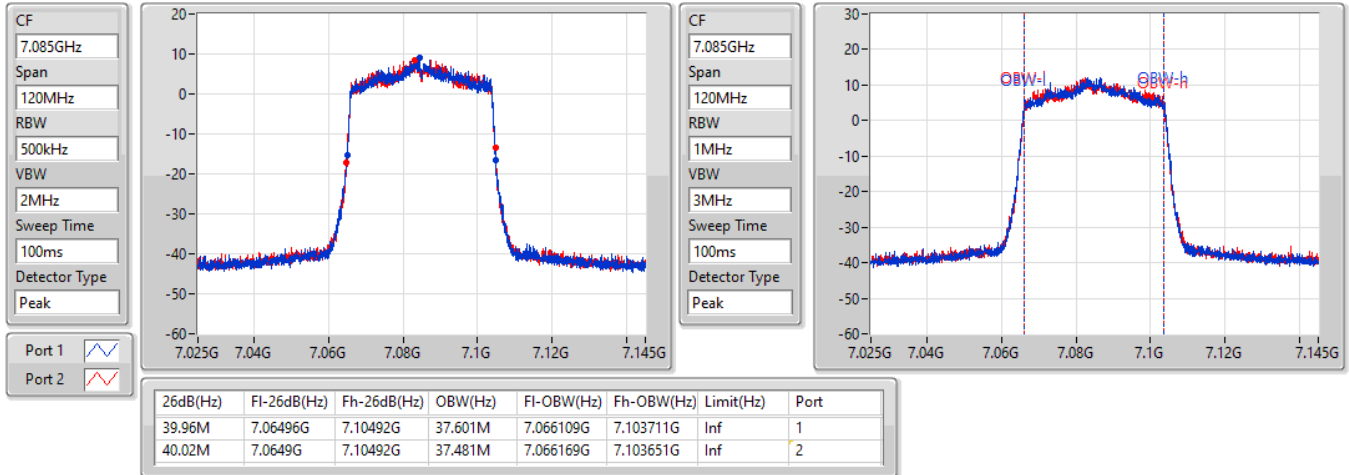

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
7005MHz

27/04/2022

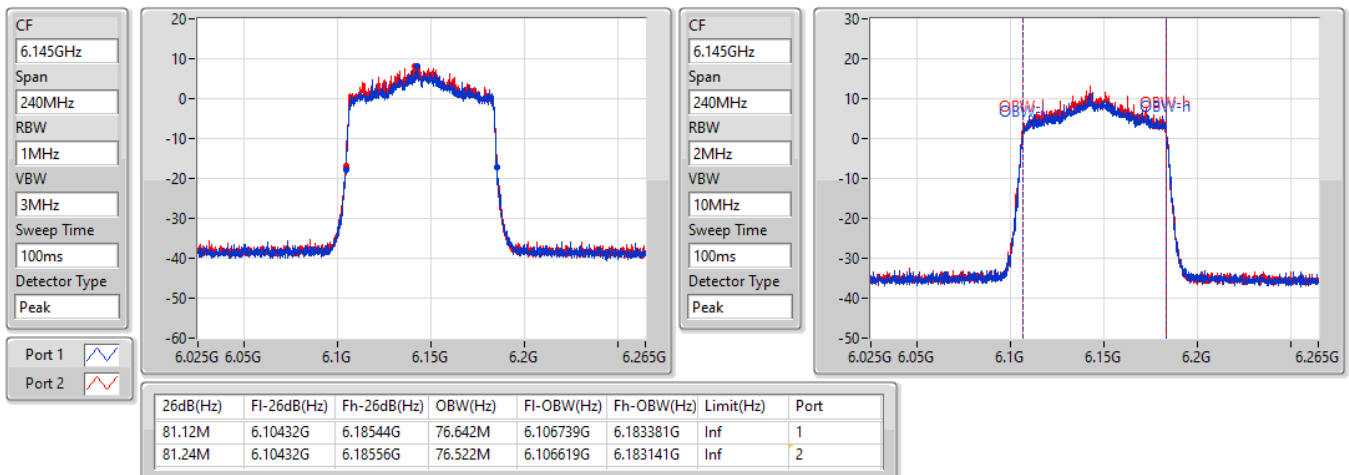


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
7085MHz

27/04/2022

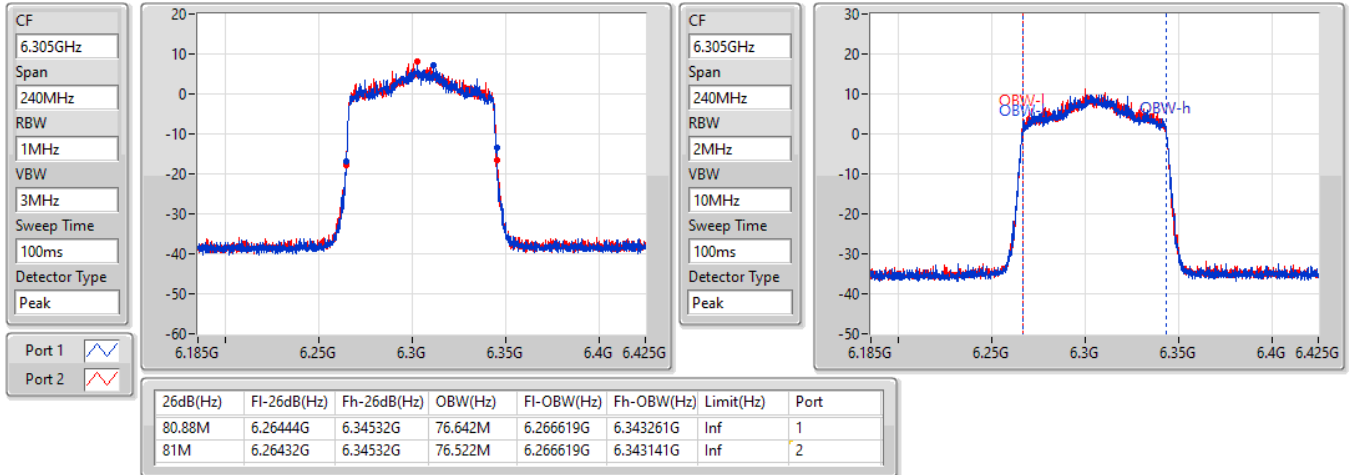

802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6145MHz

27/04/2022

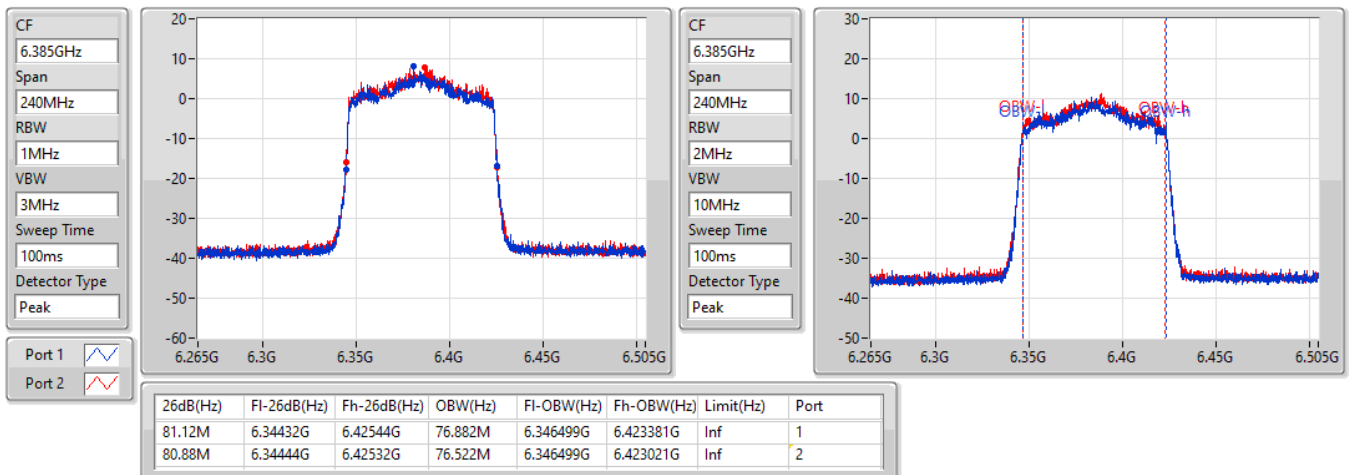


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6305MHz

27/04/2022

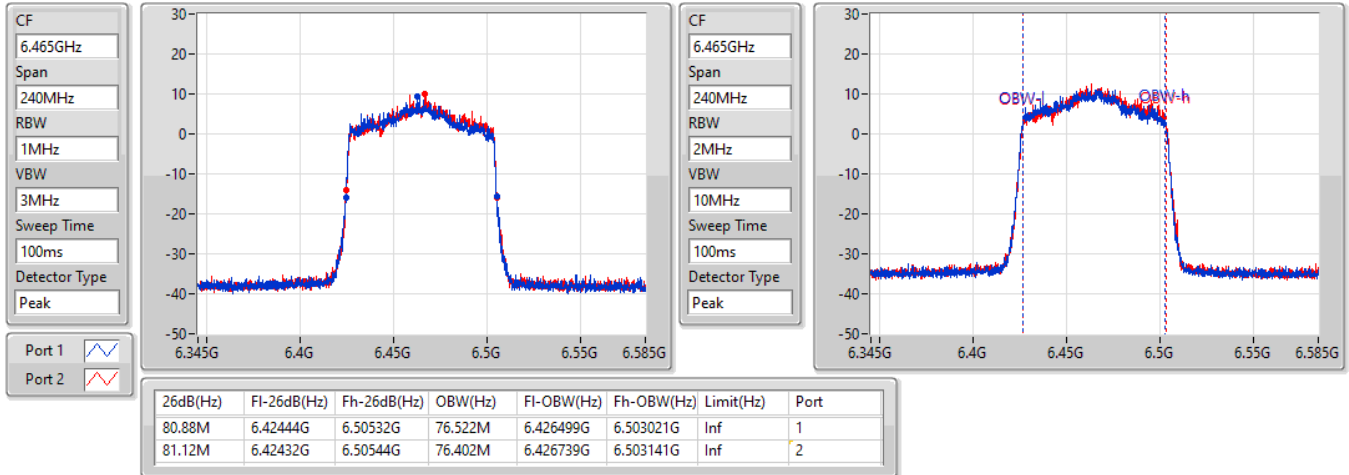

802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6385MHz

27/04/2022

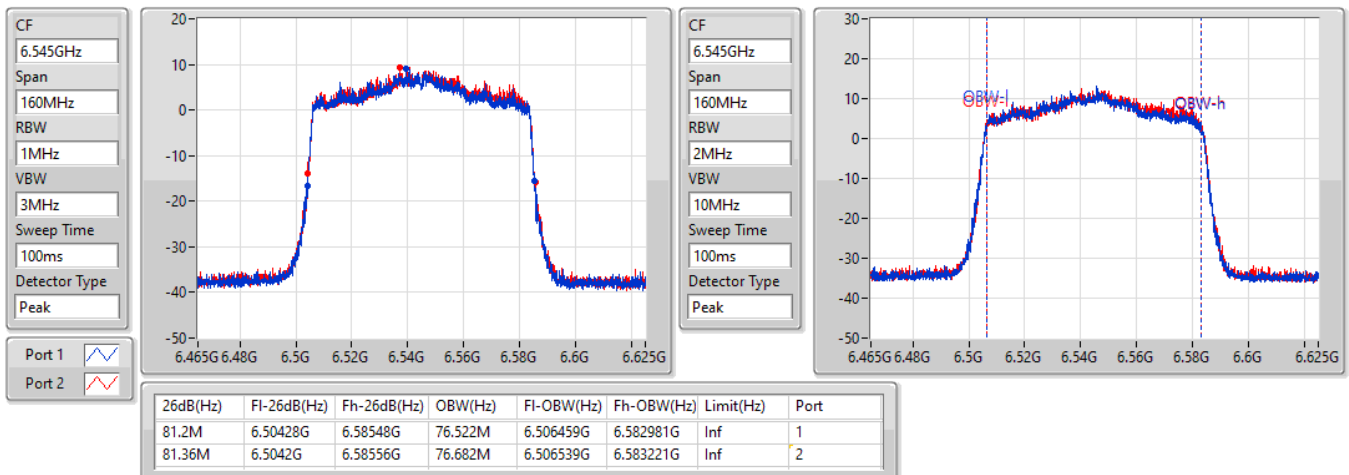


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6465MHz

27/04/2022

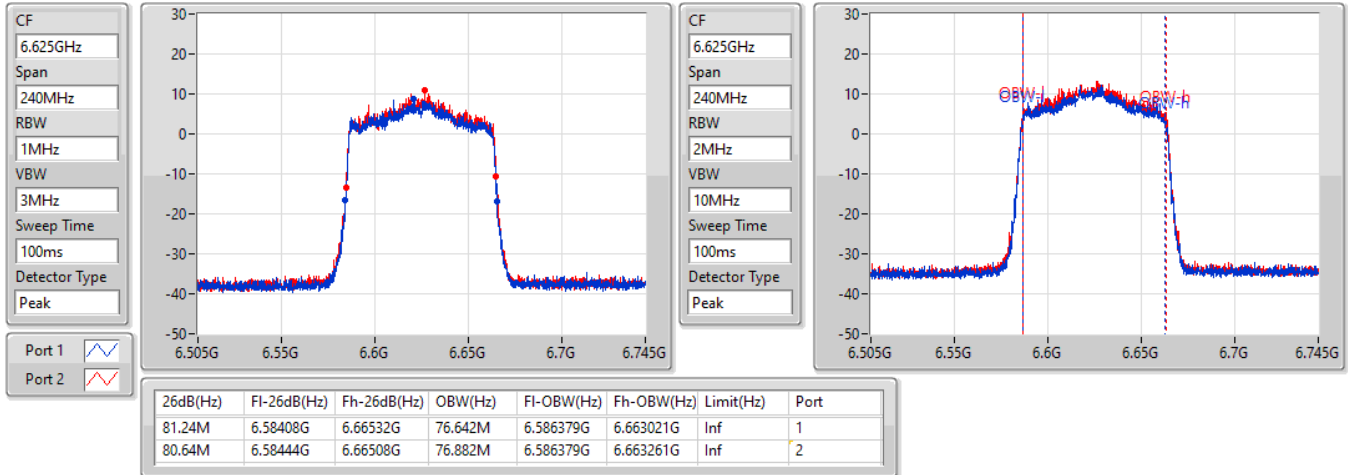

802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6545MHz Straddle 6.425-6.525GHz

27/04/2022

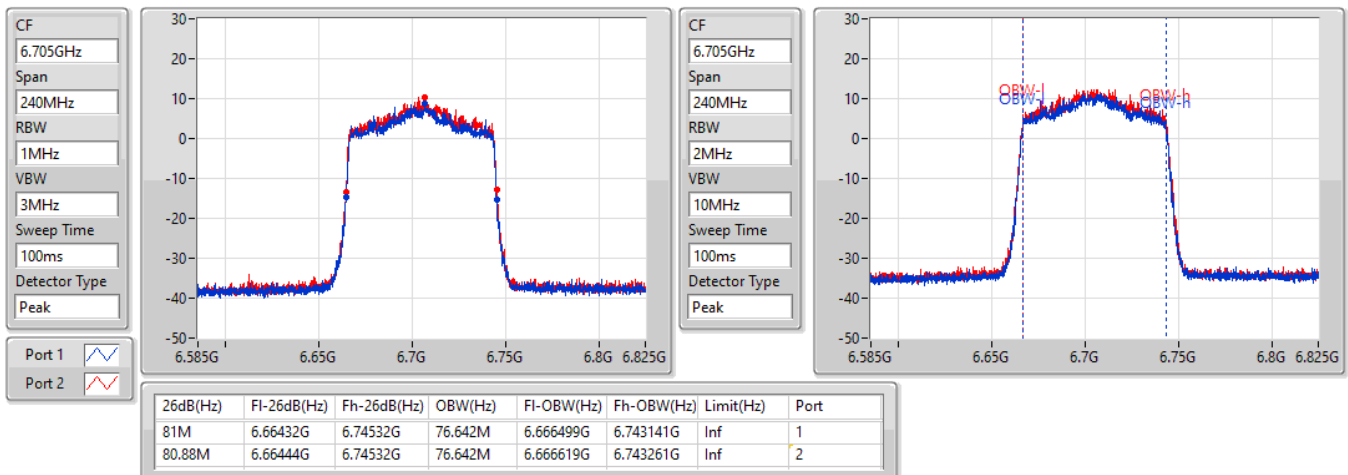


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6625MHz

27/04/2022

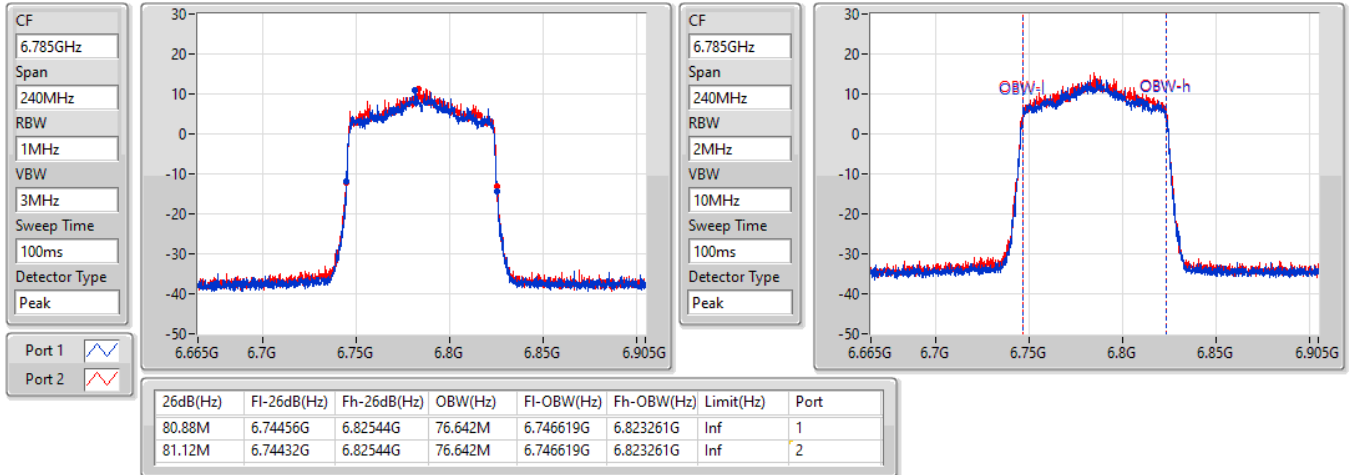

802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6705MHz

27/04/2022

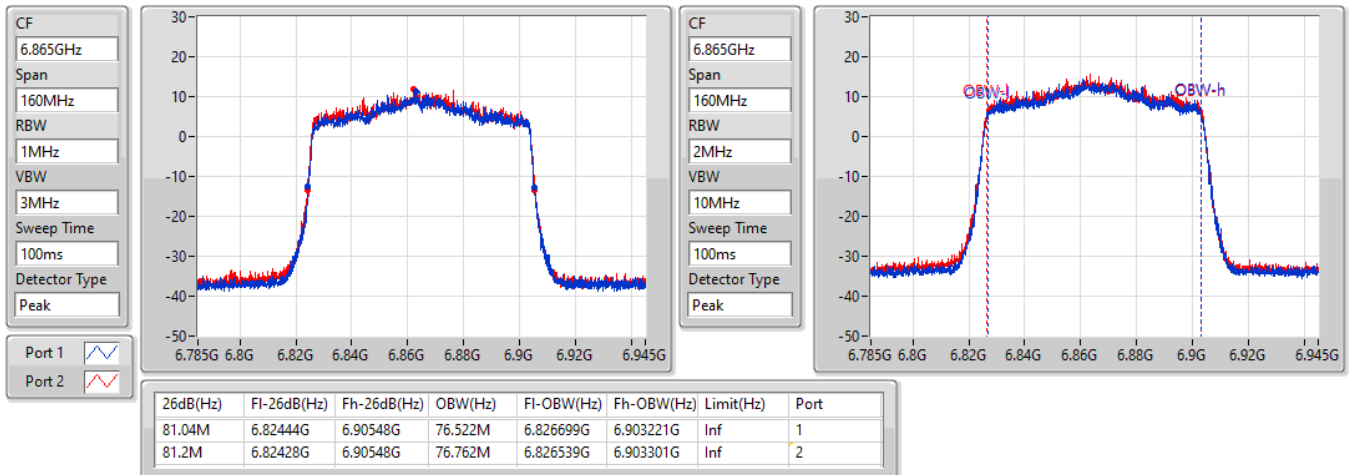


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6785MHz

27/04/2022

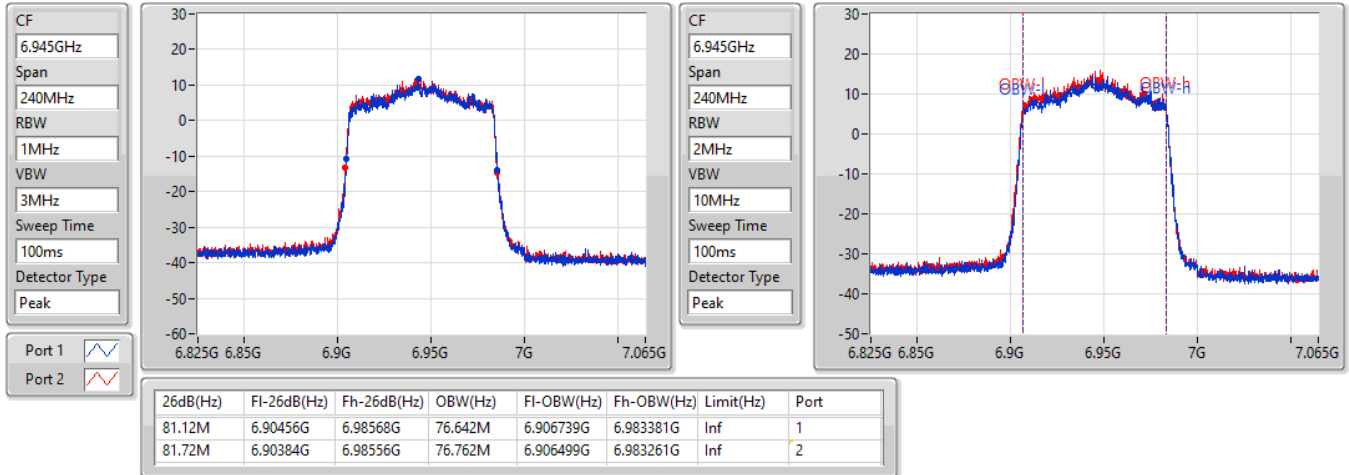

802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6865MHz Straddle 6.525-6.875GHz

27/04/2022

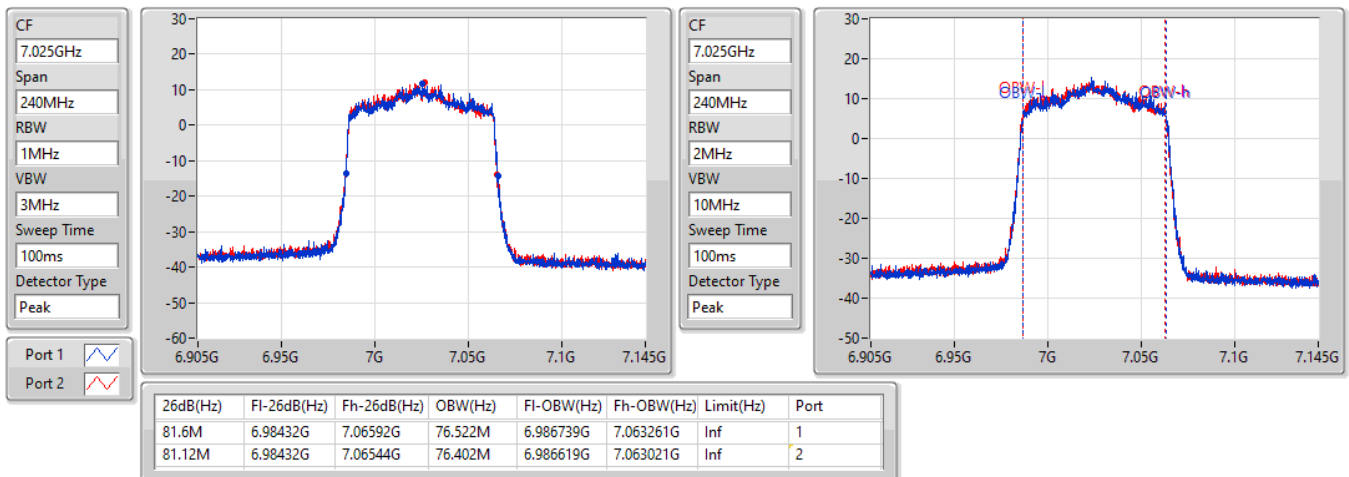


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
6945MHz

27/04/2022

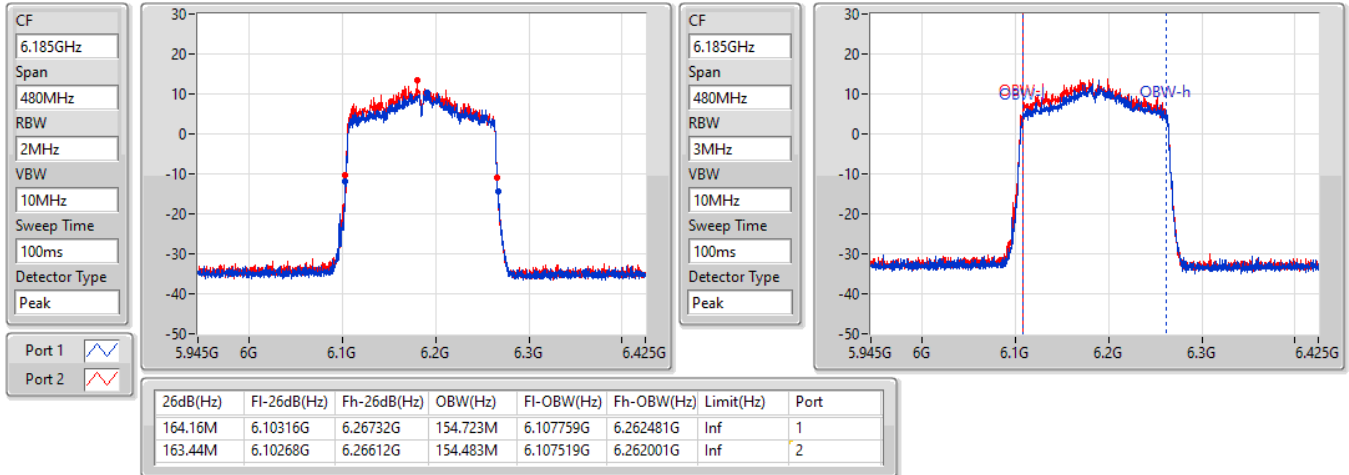

802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
7025MHz

27/04/2022

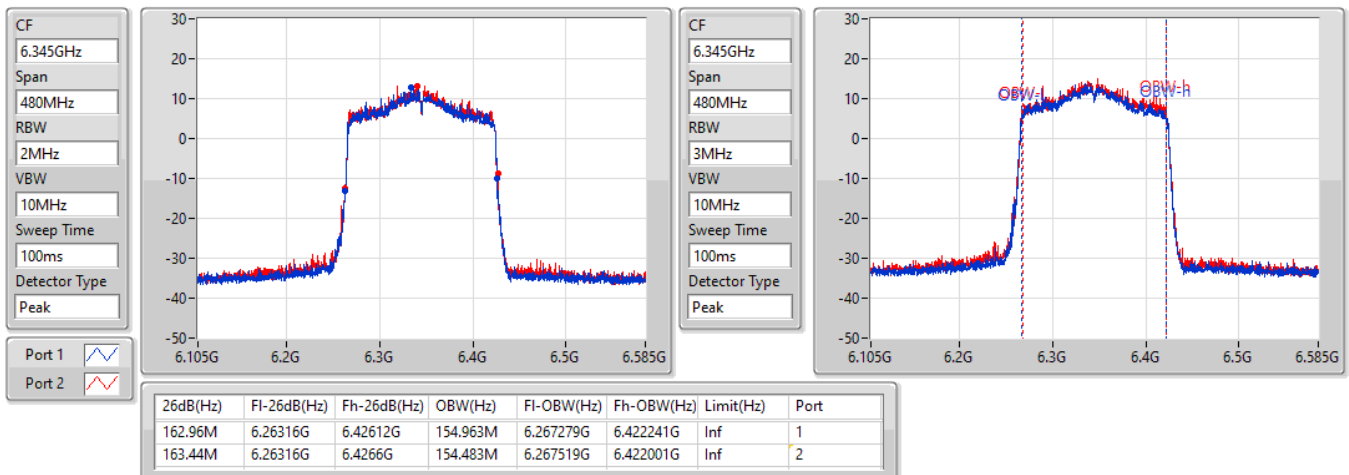


802.11ax HEW160_Nss1,(MCS0)_2TX
EBW
6185MHz

27/04/2022

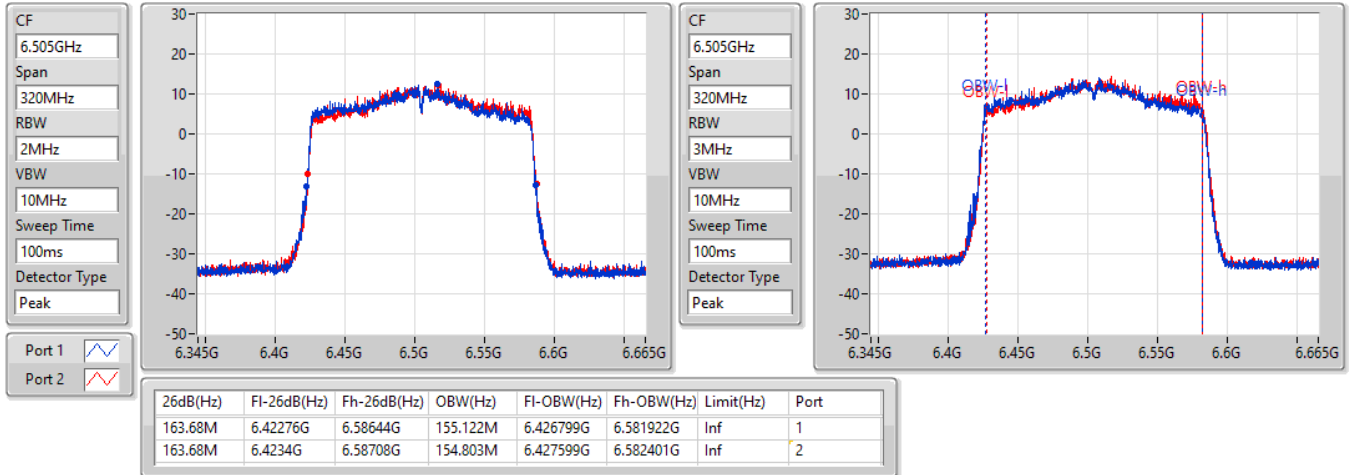

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EBW
6345MHz

27/04/2022

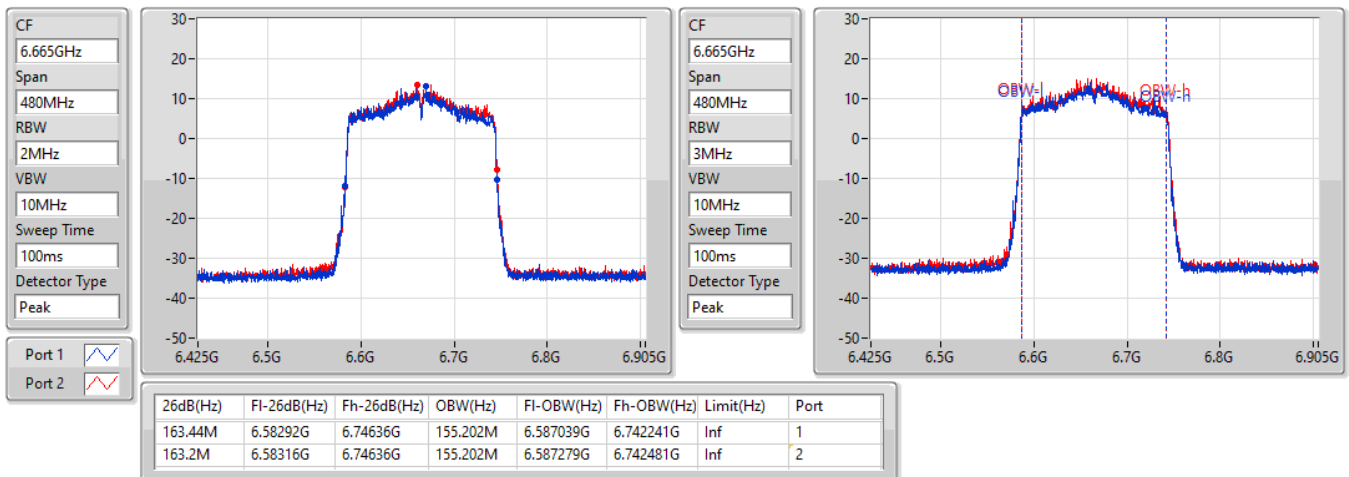


802.11ax HEW160_Nss1,(MCS0)_2TX
EBW
6505MHz Straddle 6.425-6.525GHz

27/04/2022

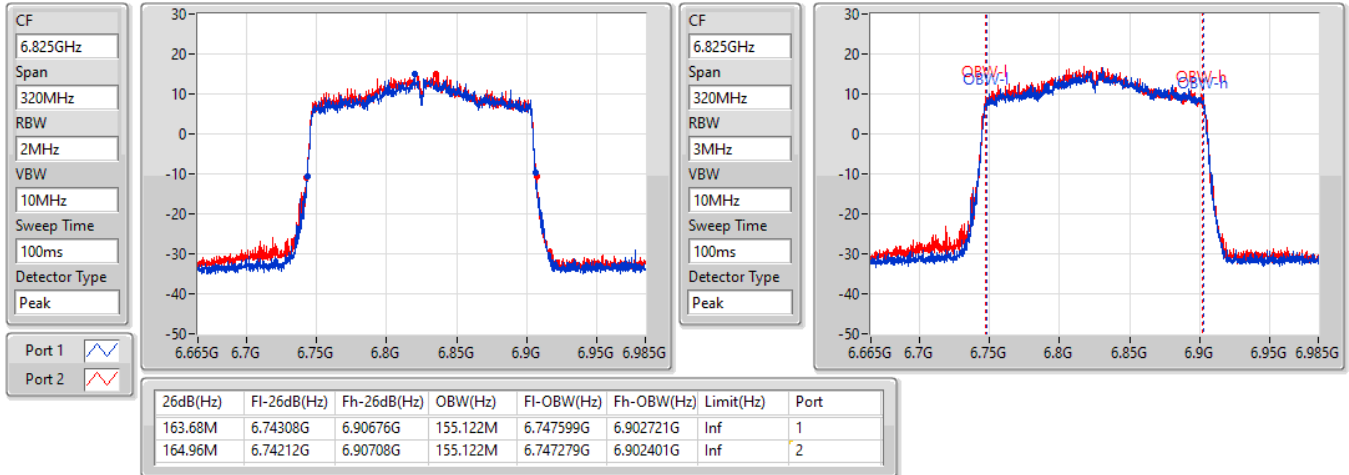

802.11ax HEW160_Nss1,(MCS0)_2TX
EBW
6665MHz

27/04/2022

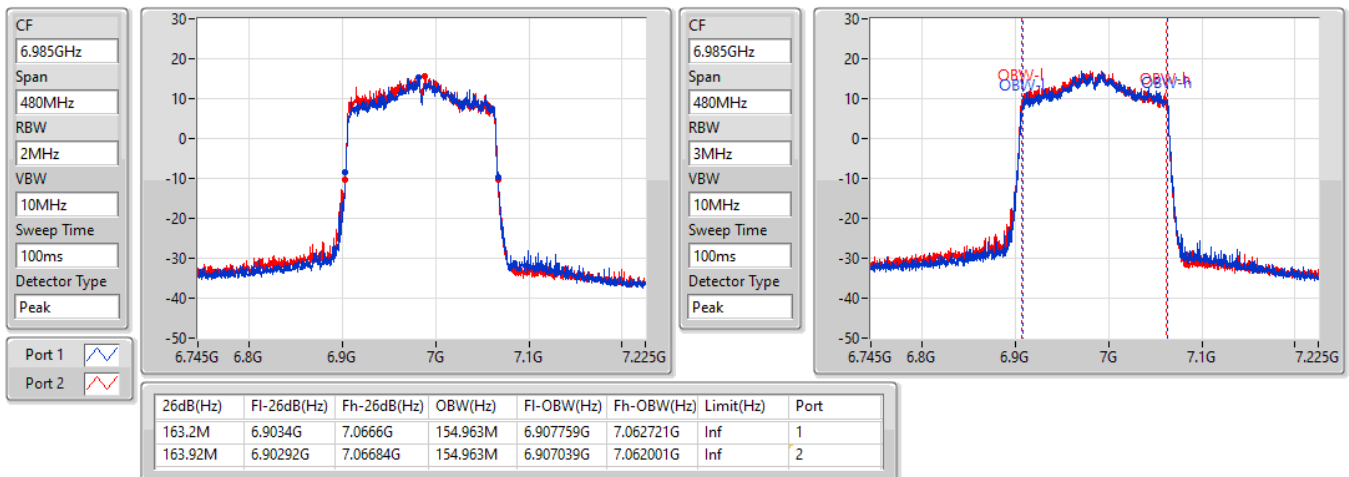


802.11ax HEW160_Nss1,(MCS0)_2TX
EBW
6825MHz Straddle 6.525-6.875GHz

27/04/2022


802.11ax HEW160_Nss1,(MCS0)_2TX
EBW
6985MHz

27/04/2022



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)_2TX	20.94M	18.861M	18M9D1D	20.37M	18.711M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	40.14M	37.601M	37M6D1D	39.9M	37.421M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81.72M	76.762M	76M8D1D	80.88M	76.522M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	164.16M	155.202M	155MD1D	163.44M	154.723M
6.425-6.525GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	20.91M	18.861M	18M9D1D	20.34M	18.711M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	40.26M	37.661M	37M7D1D	39.84M	37.481M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81.44M	76.682M	76M7D1D	81.04M	76.402M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	163.84M	154.963M	155MD1D	163.68M	154.803M
6.525-6.875GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	20.92M	18.831M	18M8D1D	20.43M	18.731M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	40.38M	37.701M	37M7D1D	40.08M	37.461M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81.76M	76.762M	76M8D1D	81.12M	76.522M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	164.48M	155.202M	155MD1D	163.04M	154.963M
6.875-7.125GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	20.7M	18.861M	18M9D1D	20.4M	18.711M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	40.38M	37.661M	37M7D1D	39.84M	37.481M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81.6M	76.642M	76M6D1D	81.12M	76.522M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	163.68M	154.243M	154MD1D	163.68M	154.243M

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

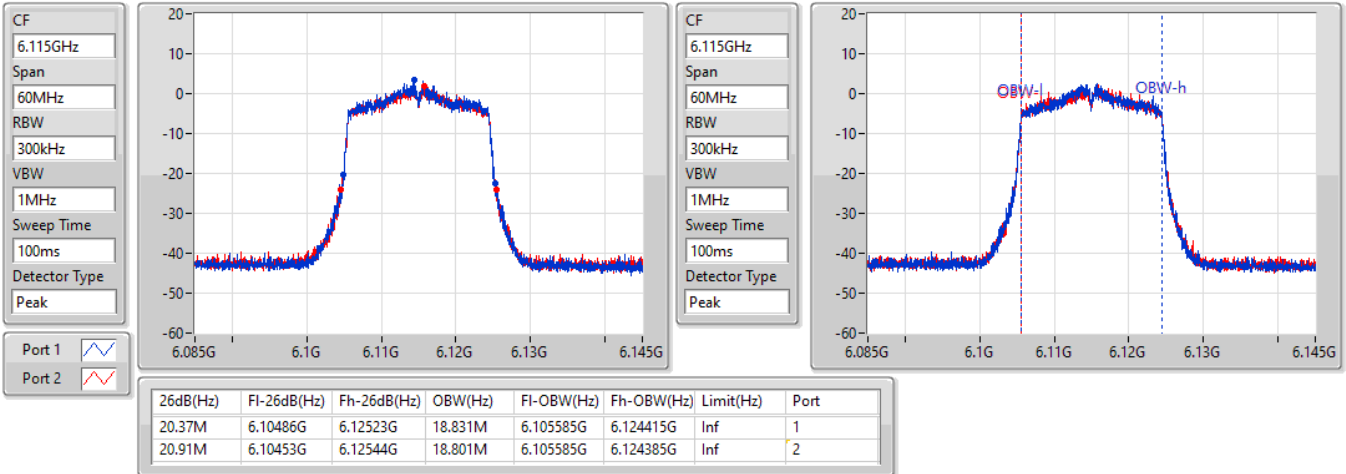
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6115MHz	Pass	Inf	20.37M	18.831M	20.91M	18.801M
6275MHz	Pass	Inf	20.85M	18.711M	20.76M	18.831M
6415MHz	Pass	Inf	20.49M	18.741M	20.94M	18.861M
6435MHz	Pass	Inf	20.85M	18.711M	20.58M	18.831M
6475MHz	Pass	Inf	20.85M	18.771M	20.7M	18.831M
6515MHz	Pass	Inf	20.34M	18.771M	20.91M	18.861M
6535MHz	Pass	Inf	20.58M	18.771M	20.67M	18.831M
6695MHz	Pass	Inf	20.43M	18.831M	20.79M	18.771M
6855MHz	Pass	Inf	20.49M	18.831M	20.61M	18.741M
6875MHz Straddle 6.525-6.875GHz	Pass	Inf	20.48M	18.831M	20.92M	18.731M
6895MHz	Pass	Inf	20.4M	18.831M	20.7M	18.771M
6995MHz	Pass	Inf	20.43M	18.801M	20.52M	18.801M
7095MHz	Pass	Inf	20.46M	18.741M	20.67M	18.861M
7115MHz	Pass	Inf	20.58M	18.711M	20.61M	18.861M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6125MHz	Pass	Inf	39.96M	37.541M	40.08M	37.541M
6285MHz	Pass	Inf	39.96M	37.481M	40.14M	37.541M
6405MHz	Pass	Inf	39.9M	37.421M	40.08M	37.601M
6445MHz	Pass	Inf	39.84M	37.481M	40.14M	37.661M
6485MHz	Pass	Inf	40.26M	37.481M	40.02M	37.601M
6525MHz Straddle 6.425-6.525GHz	Pass	Inf	40M	37.501M	40M	37.621M
6565MHz	Pass	Inf	40.14M	37.481M	40.14M	37.661M
6685MHz	Pass	Inf	40.14M	37.661M	40.14M	37.541M
6845MHz	Pass	Inf	40.14M	37.601M	40.38M	37.541M
6885MHz Straddle 6.525-6.875GHz	Pass	Inf	40.16M	37.701M	40.08M	37.461M
6925MHz	Pass	Inf	40.38M	37.601M	39.96M	37.541M
7005MHz	Pass	Inf	39.84M	37.601M	40.14M	37.541M
7085MHz	Pass	Inf	39.9M	37.481M	40.08M	37.661M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6145MHz	Pass	Inf	81.36M	76.642M	81.72M	76.522M
6305MHz	Pass	Inf	81.24M	76.642M	80.88M	76.762M
6385MHz	Pass	Inf	81.48M	76.642M	81.12M	76.642M
6465MHz	Pass	Inf	81.12M	76.402M	81.36M	76.642M
6545MHz Straddle 6.425-6.525GHz	Pass	Inf	81.04M	76.522M	81.44M	76.682M
6625MHz	Pass	Inf	81.24M	76.642M	81.12M	76.642M
6705MHz	Pass	Inf	81.36M	76.762M	81.36M	76.642M
6785MHz	Pass	Inf	81.24M	76.642M	81.48M	76.642M
6865MHz Straddle 6.525-6.875GHz	Pass	Inf	81.76M	76.682M	81.28M	76.522M
6945MHz	Pass	Inf	81.24M	76.642M	81.6M	76.642M
7025MHz	Pass	Inf	81.12M	76.522M	81.36M	76.642M
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6185MHz	Pass	Inf	163.44M	154.723M	164.16M	155.202M
6345MHz	Pass	Inf	163.92M	154.963M	163.44M	154.963M
6505MHz Straddle 6.425-6.525GHz	Pass	Inf	163.68M	154.803M	163.84M	154.963M
6665MHz	Pass	Inf	164.16M	154.963M	163.68M	155.202M
6825MHz Straddle 6.525-6.875GHz	Pass	Inf	163.04M	155.122M	164.48M	154.963M
6985MHz	Pass	Inf	163.68M	154.243M	163.68M	154.243M

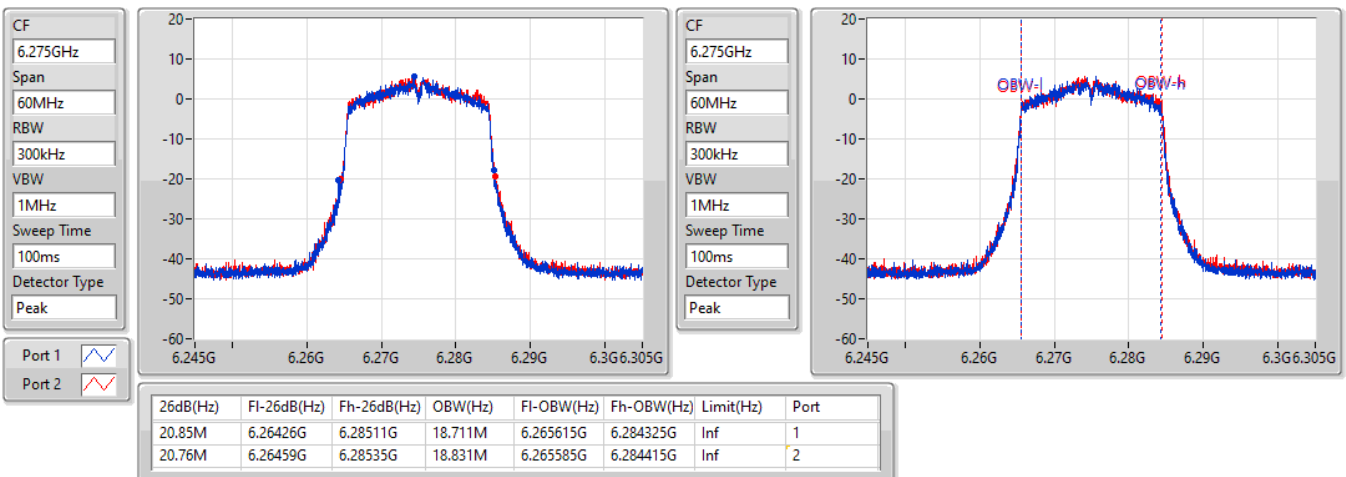
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6115MHz

04/05/2022

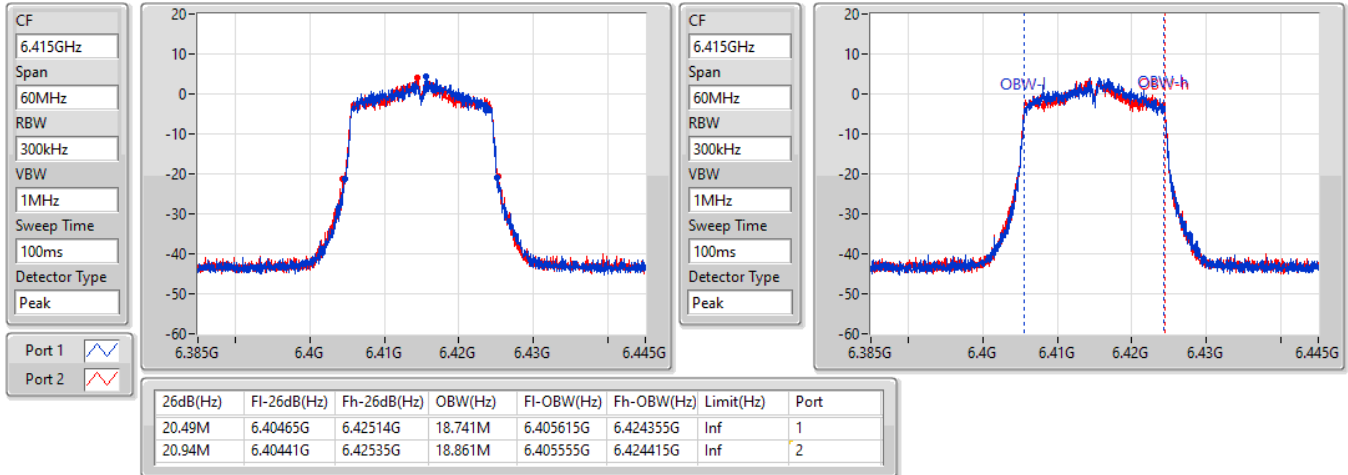

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6275MHz

04/05/2022

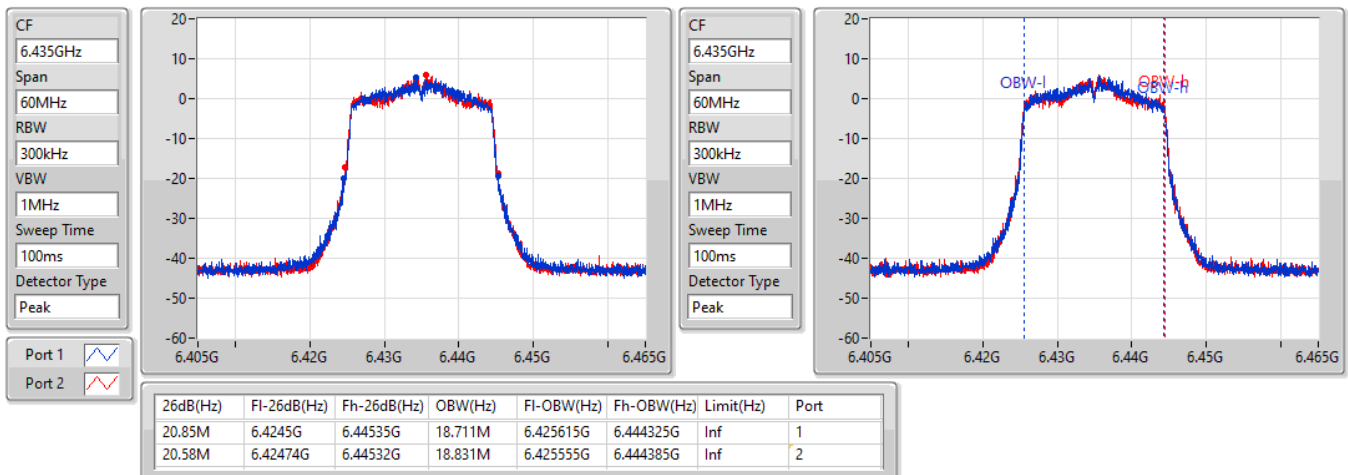


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6415MHz

04/05/2022

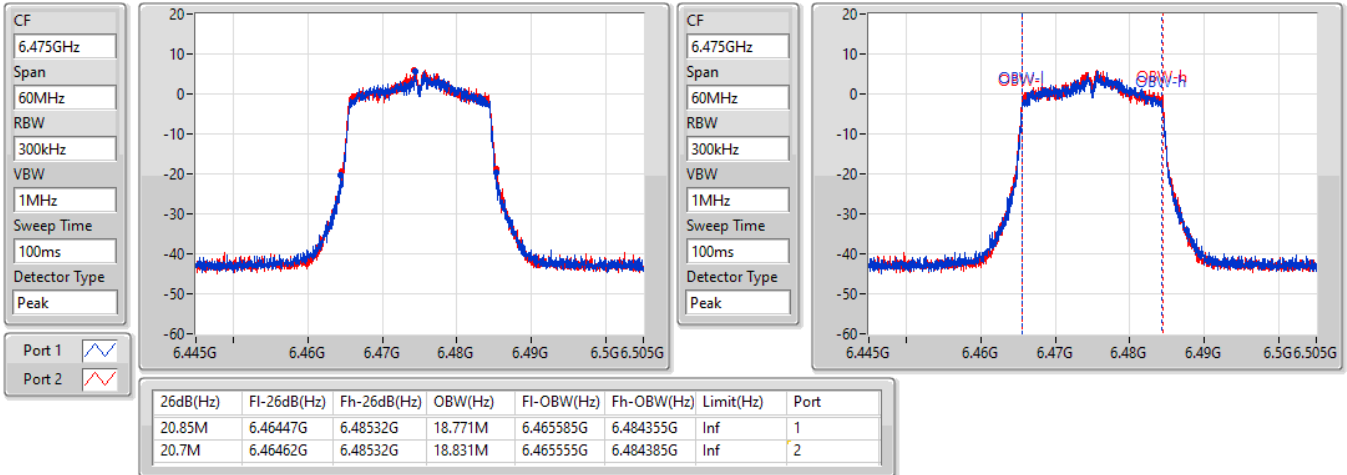

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6435MHz

04/05/2022

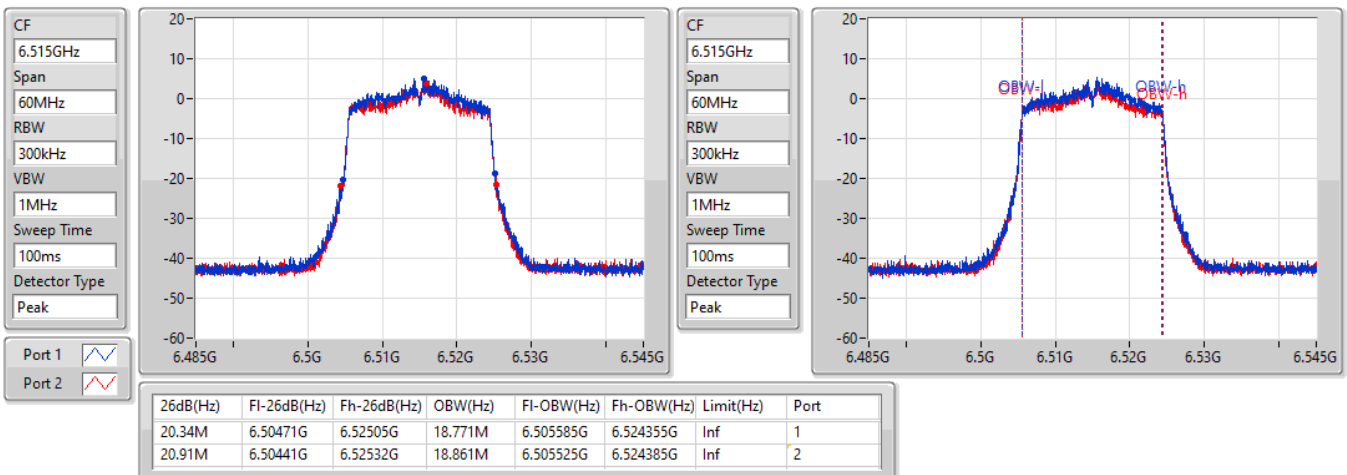


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6475MHz

04/05/2022

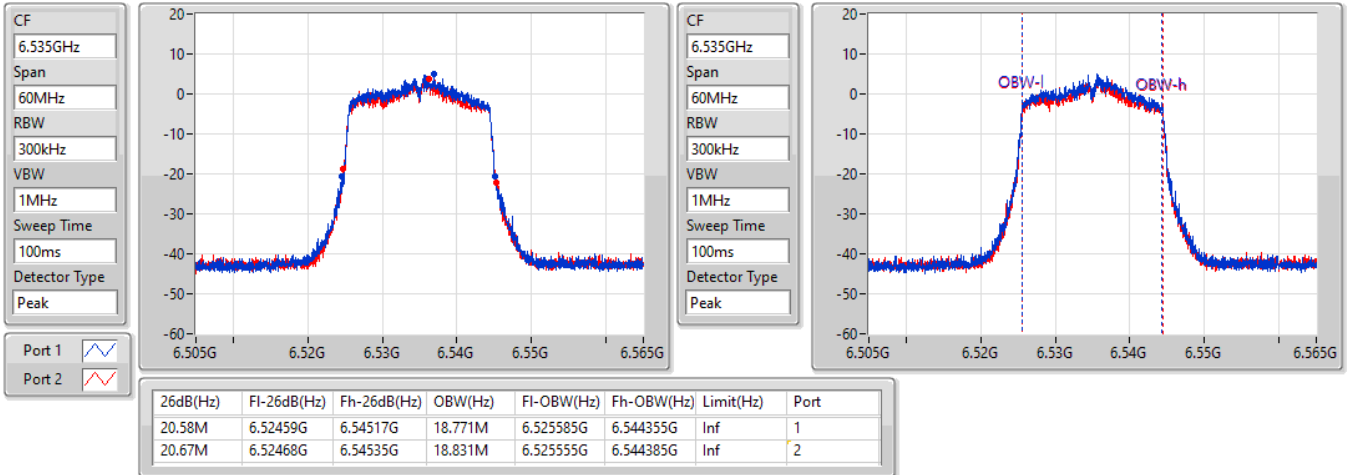

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6515MHz

04/05/2022

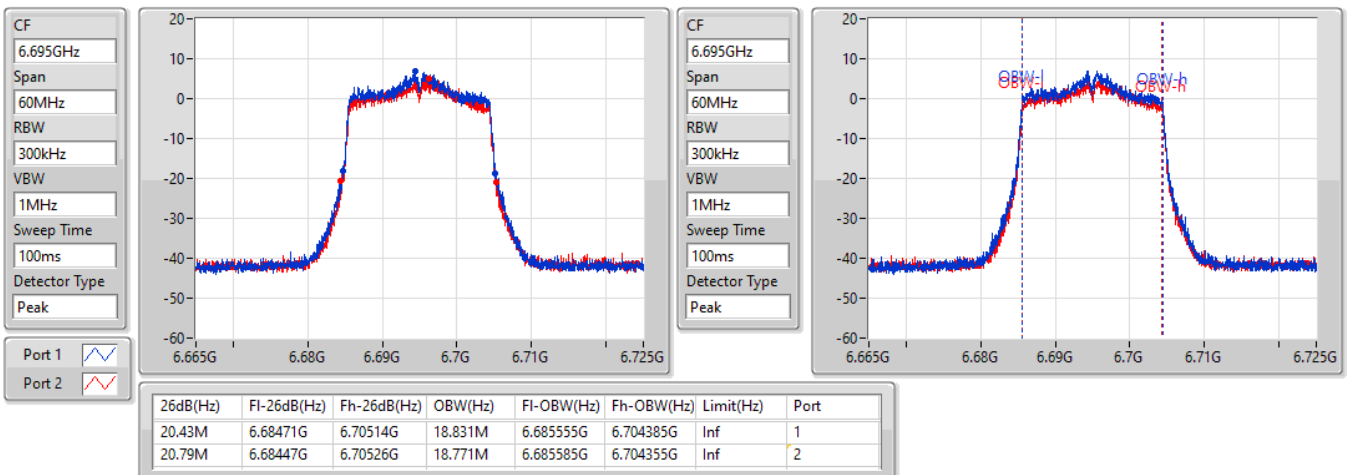


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6535MHz

04/05/2022

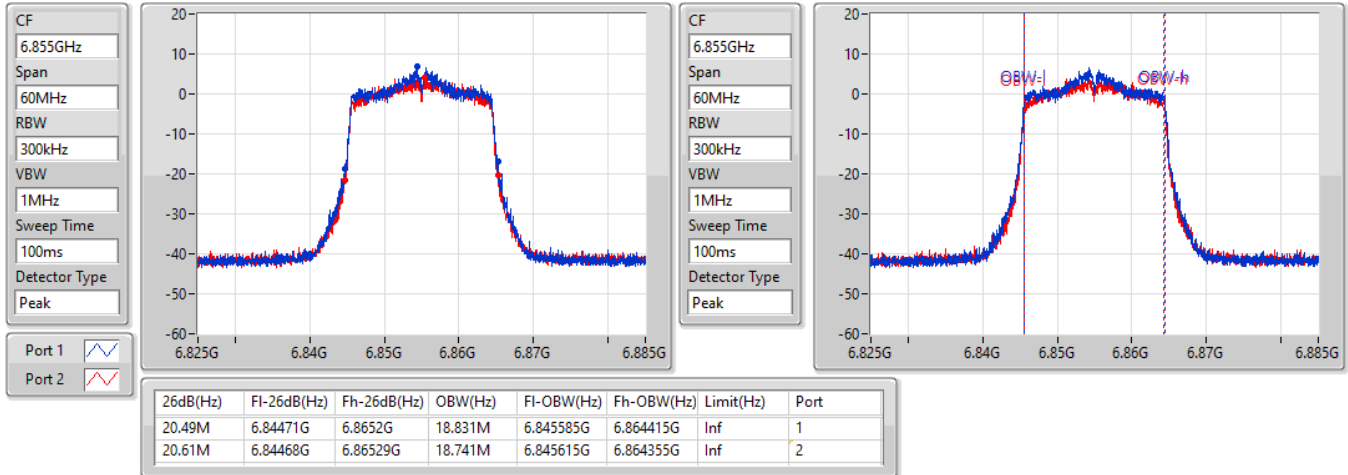

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6695MHz

04/05/2022

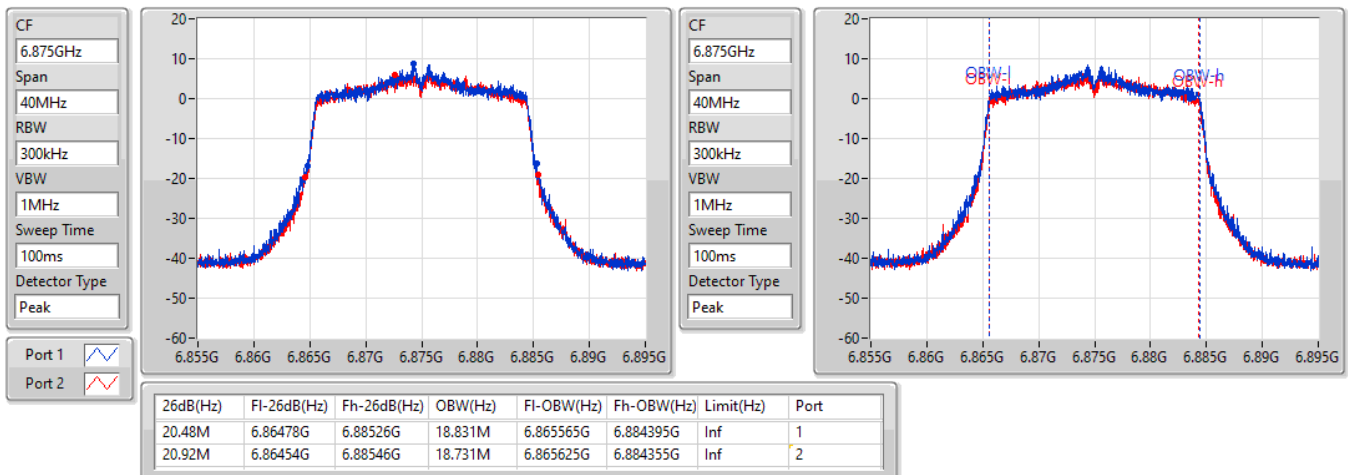


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6855MHz

04/05/2022

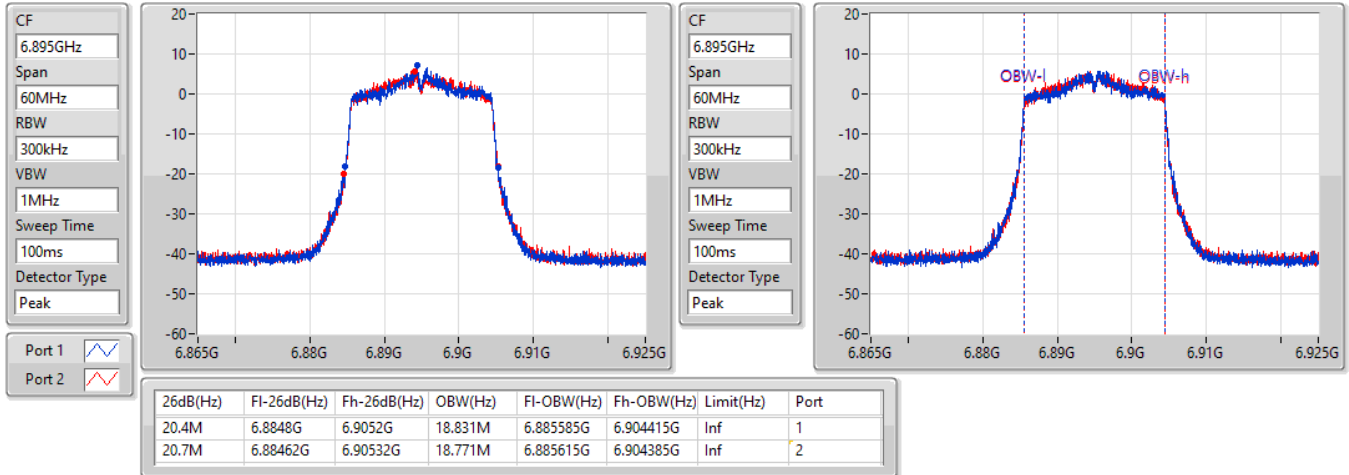

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6875MHz Straddle 6.525-6.875GHz

04/05/2022

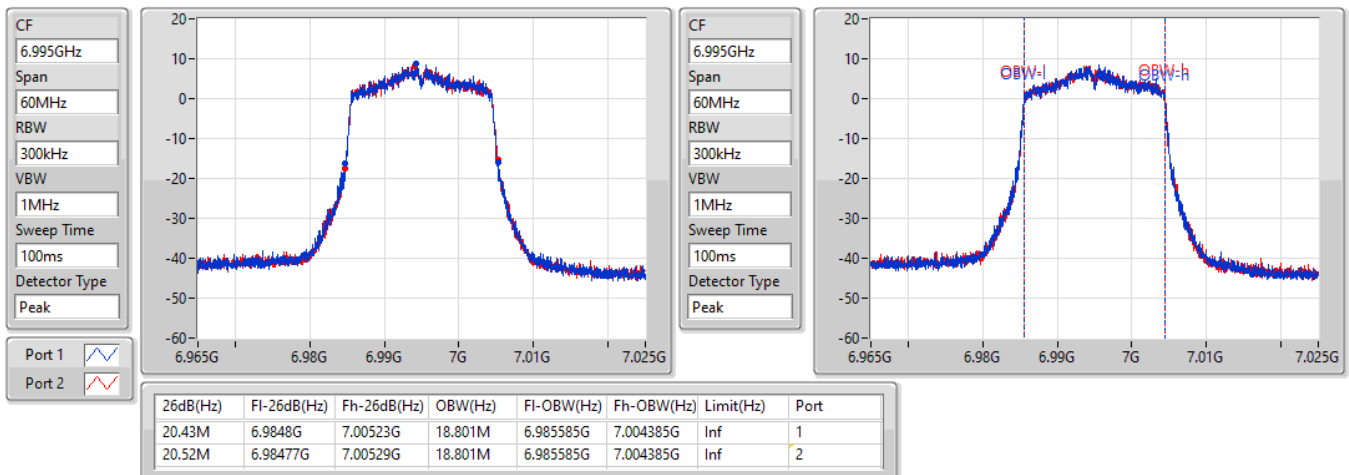


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6895MHz

04/05/2022

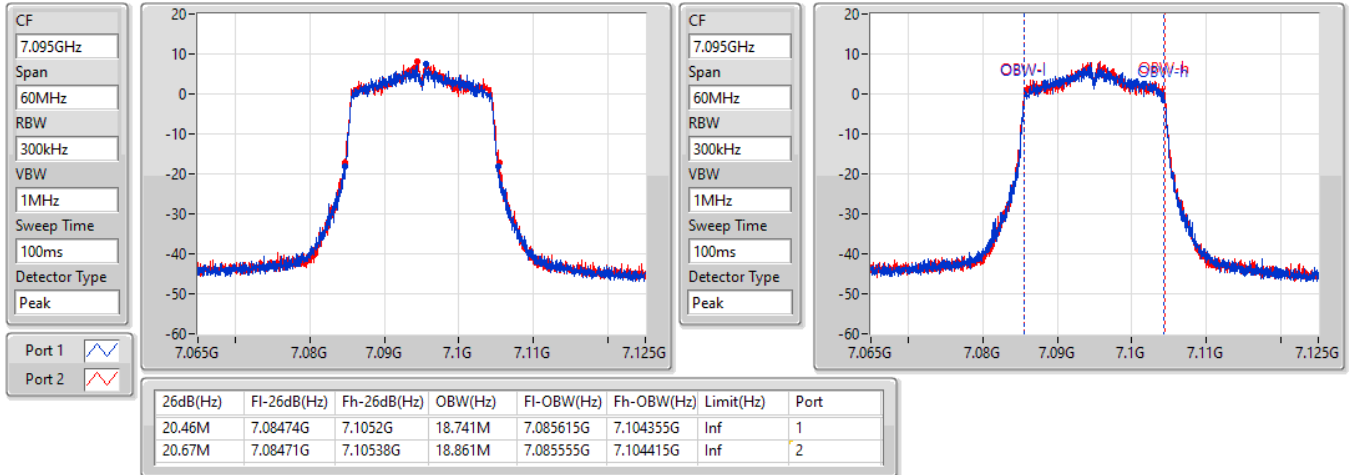

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
6995MHz

04/05/2022

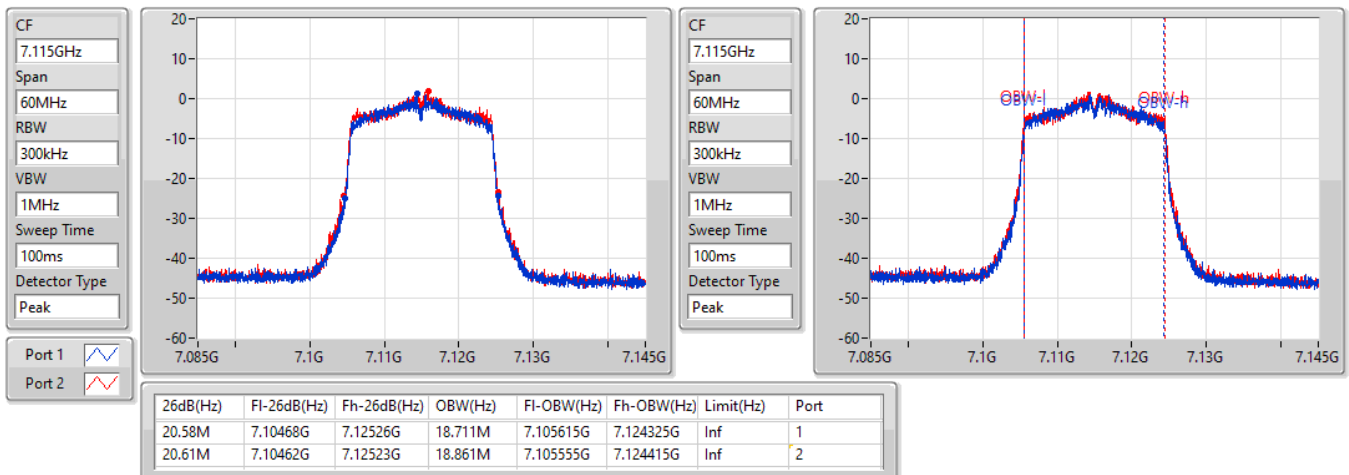


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
7095MHz

04/05/2022

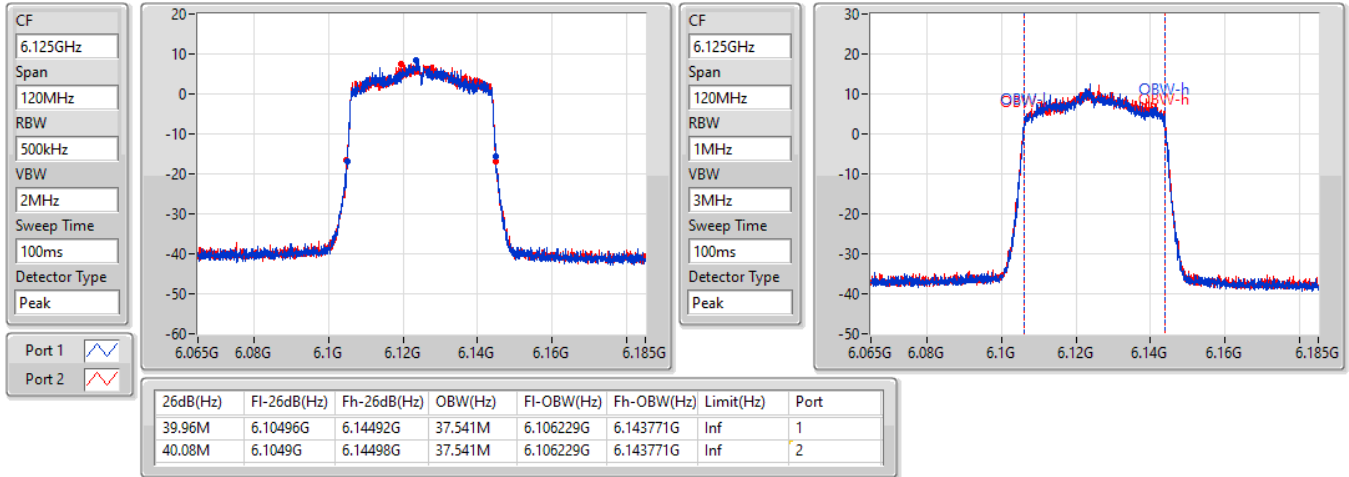

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
7115MHz

04/05/2022

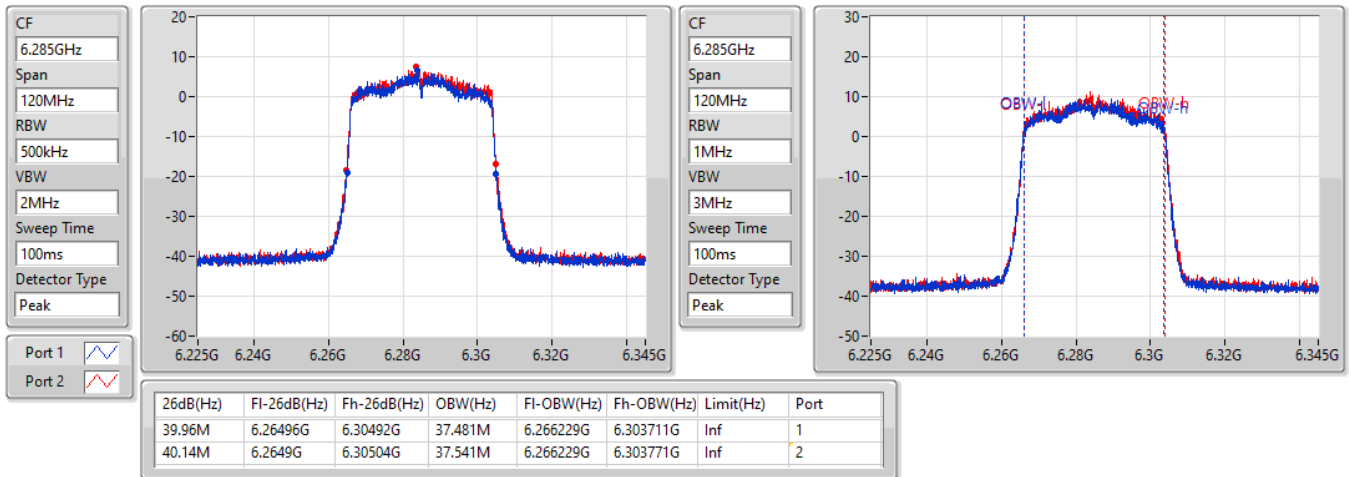


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6125MHz

04/05/2022

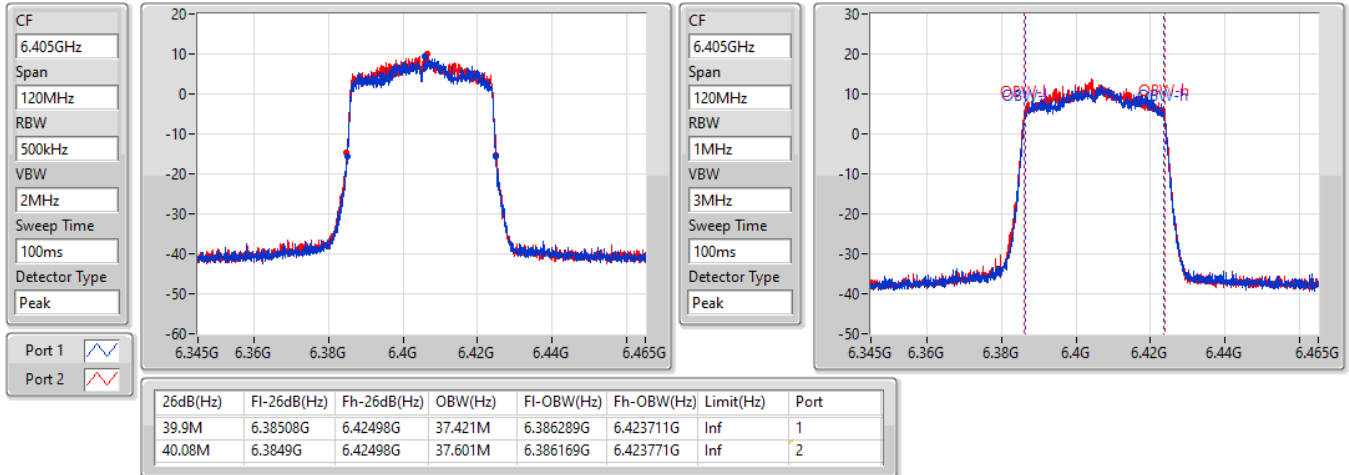

802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6285MHz

04/05/2022

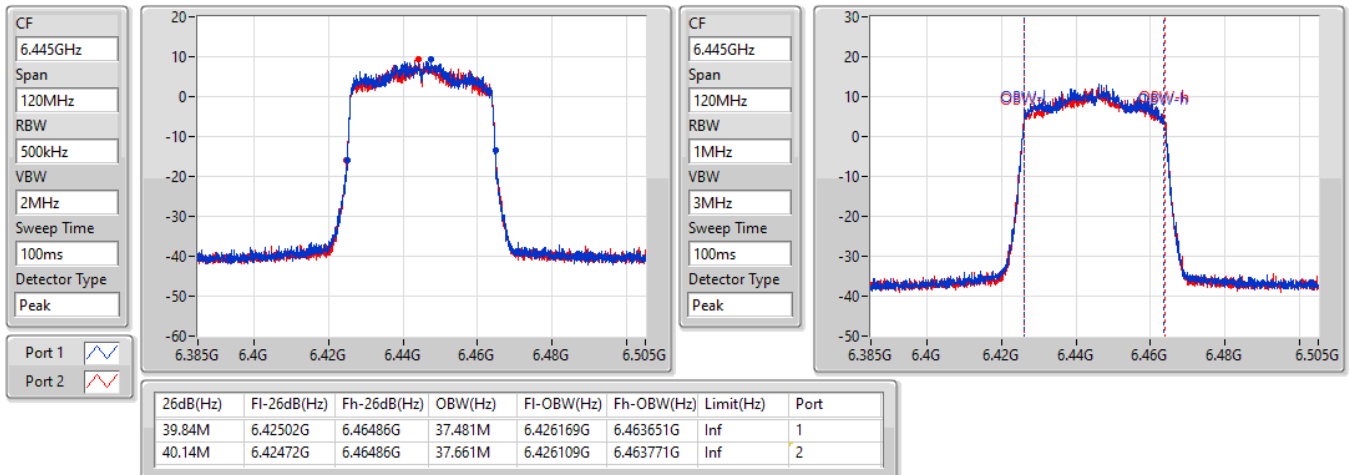


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6405MHz

04/05/2022

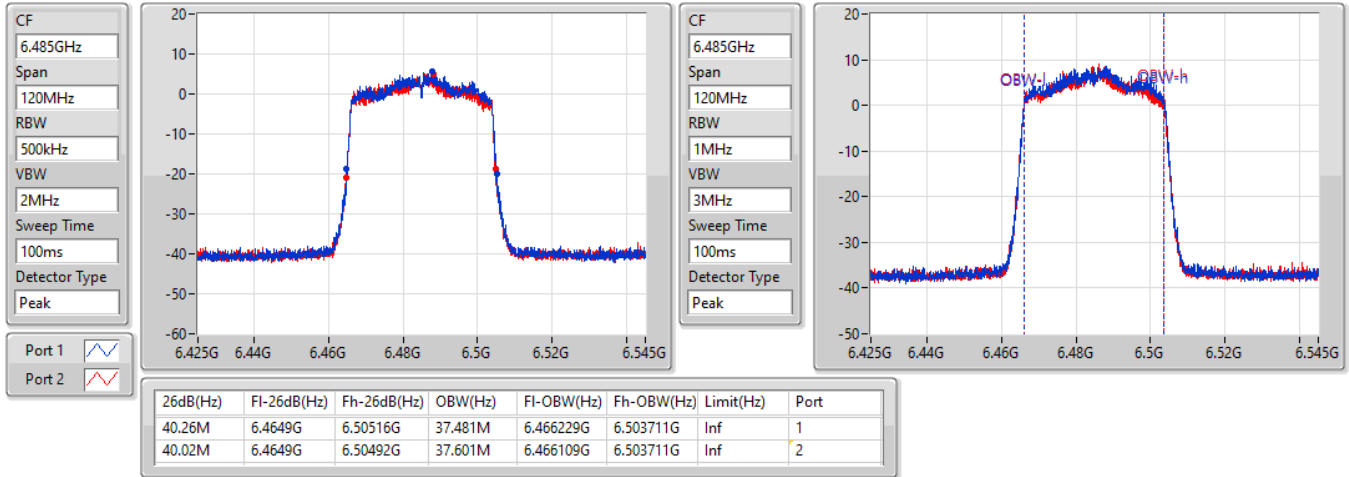

802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6445MHz

04/05/2022

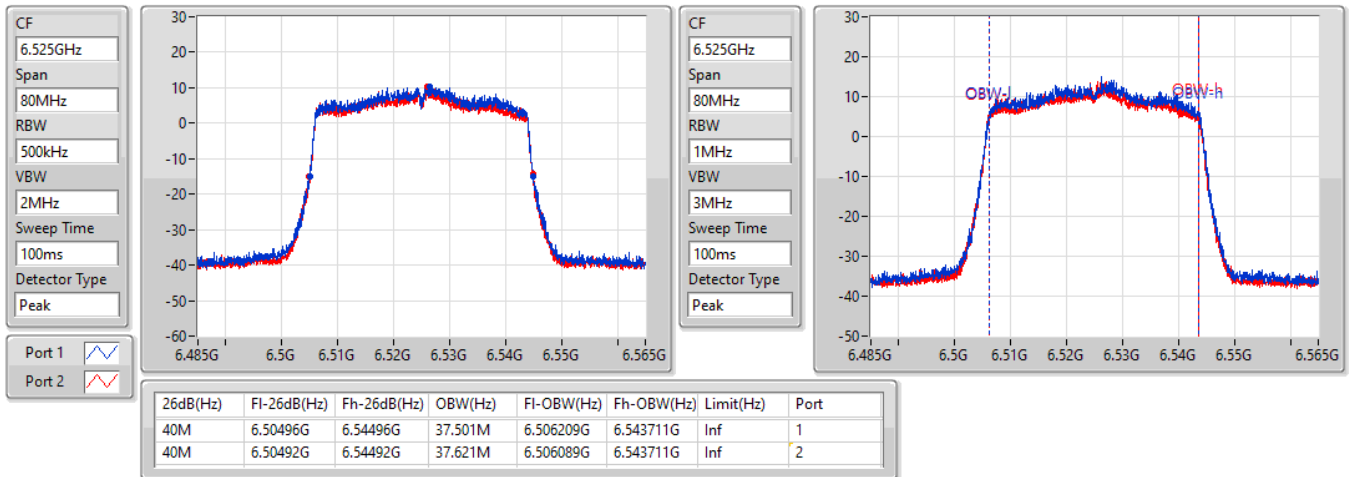


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6485MHz

04/05/2022

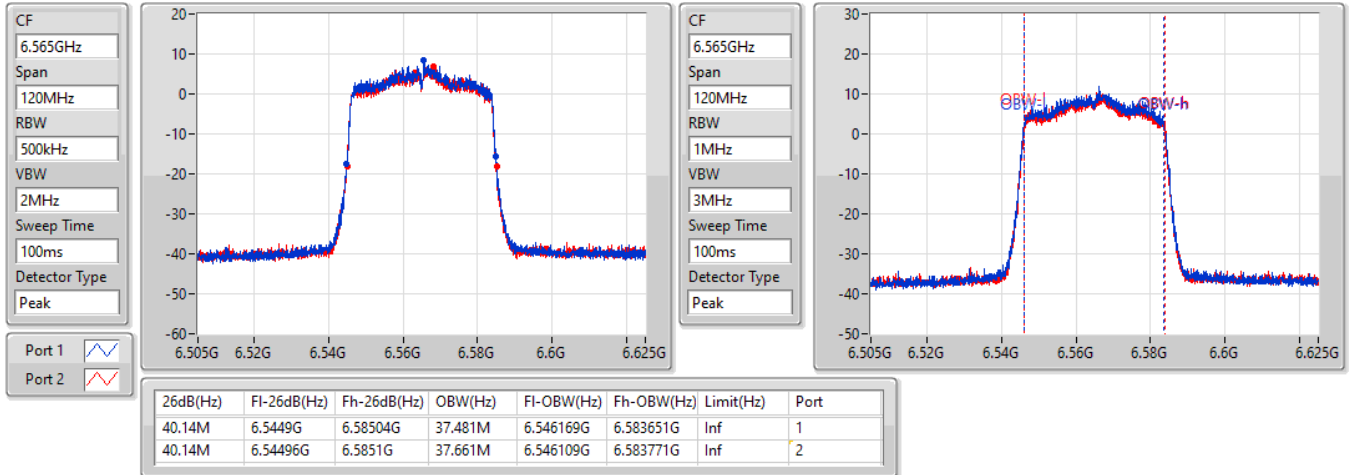

802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6525MHz Straddle 6.425-6.525GHz

04/05/2022

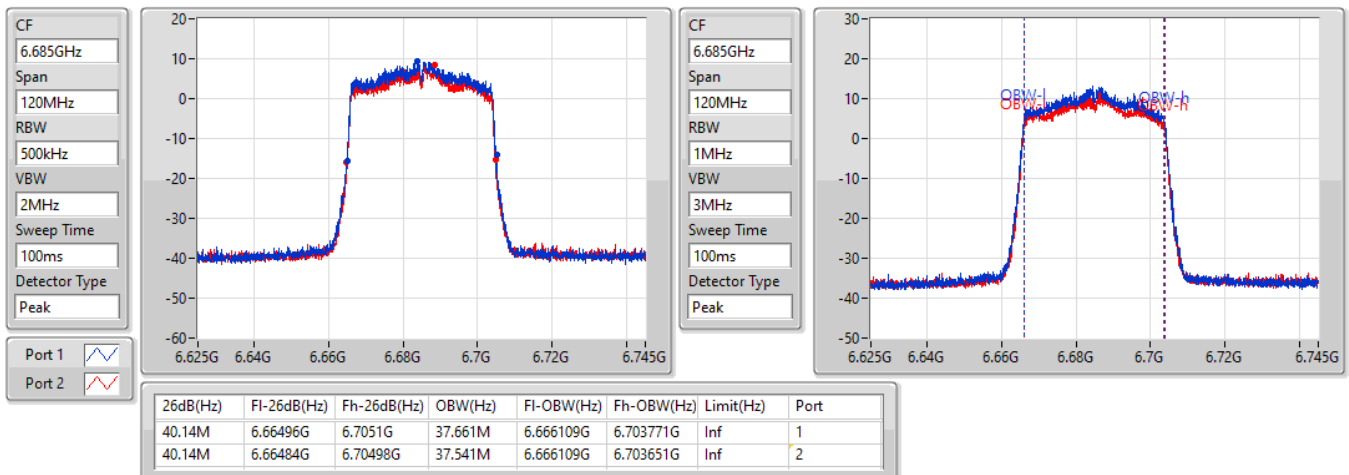


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6565MHz

04/05/2022

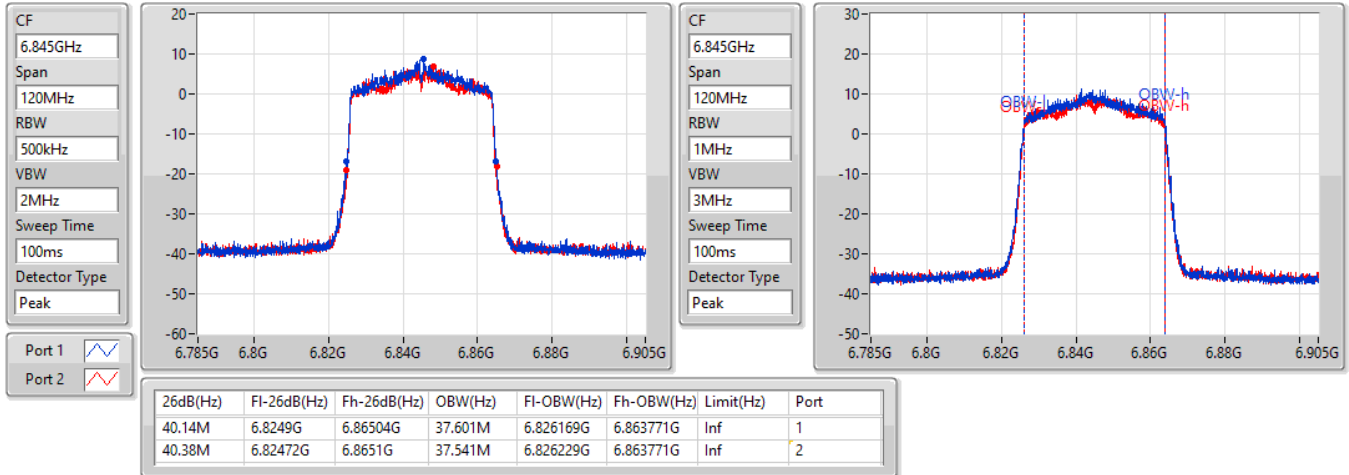

802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6685MHz

04/05/2022

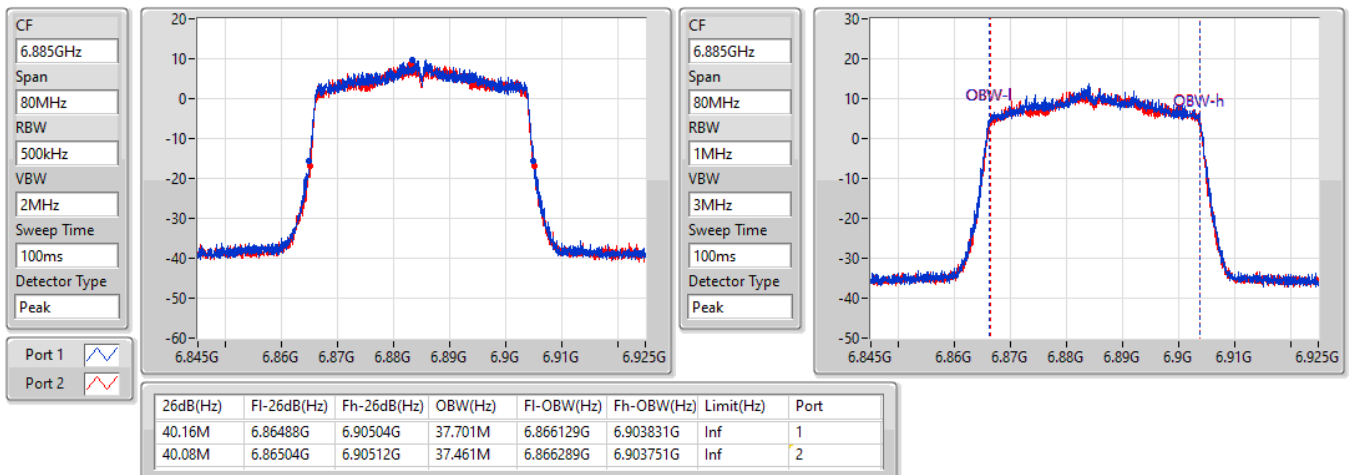


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6845MHz

04/05/2022

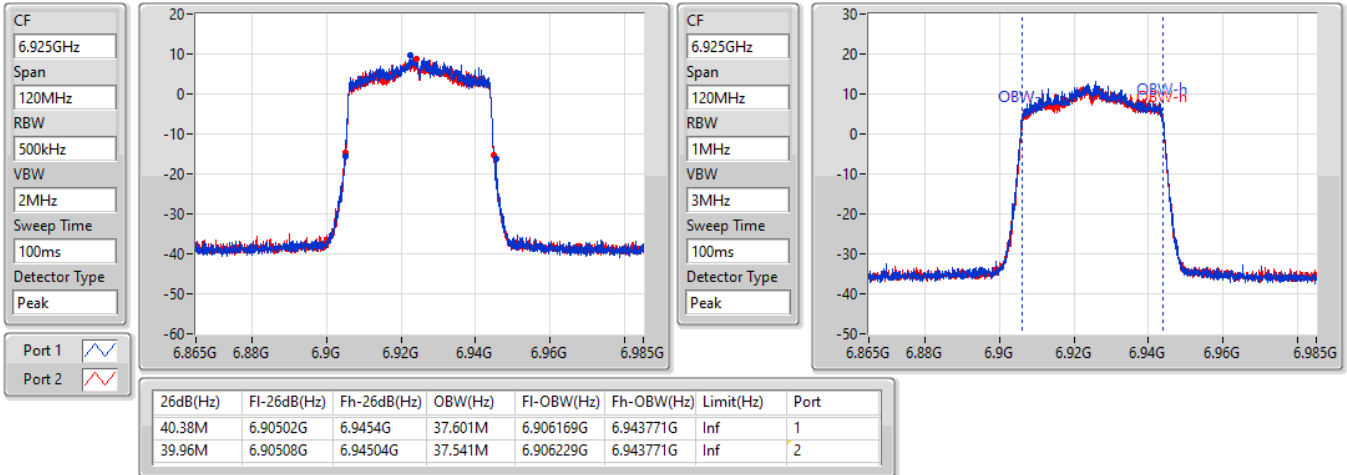

802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6885MHz Straddle 6.525-6.875GHz

04/05/2022

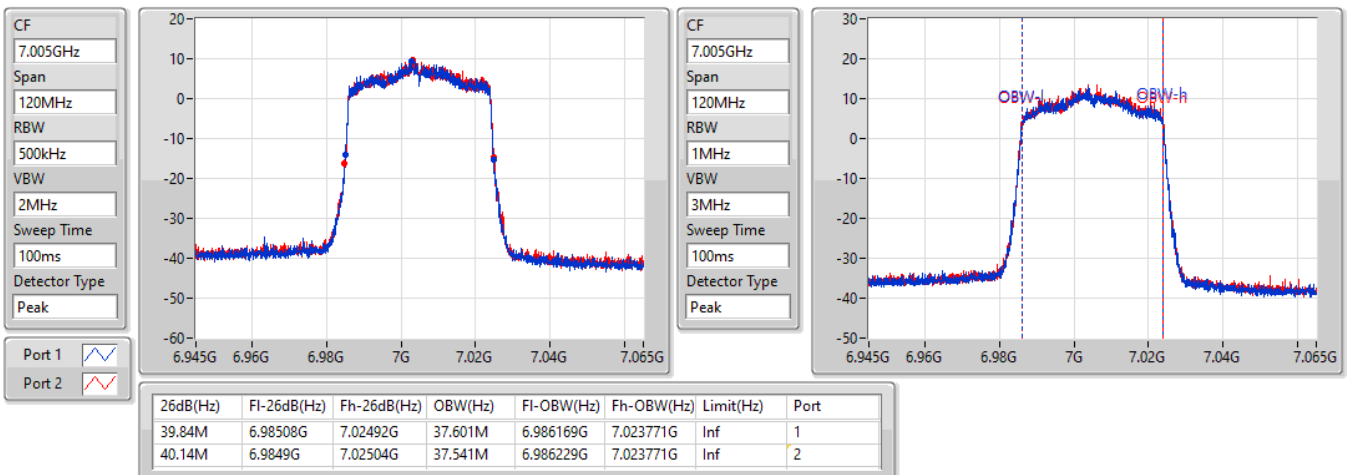


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
6925MHz

04/05/2022

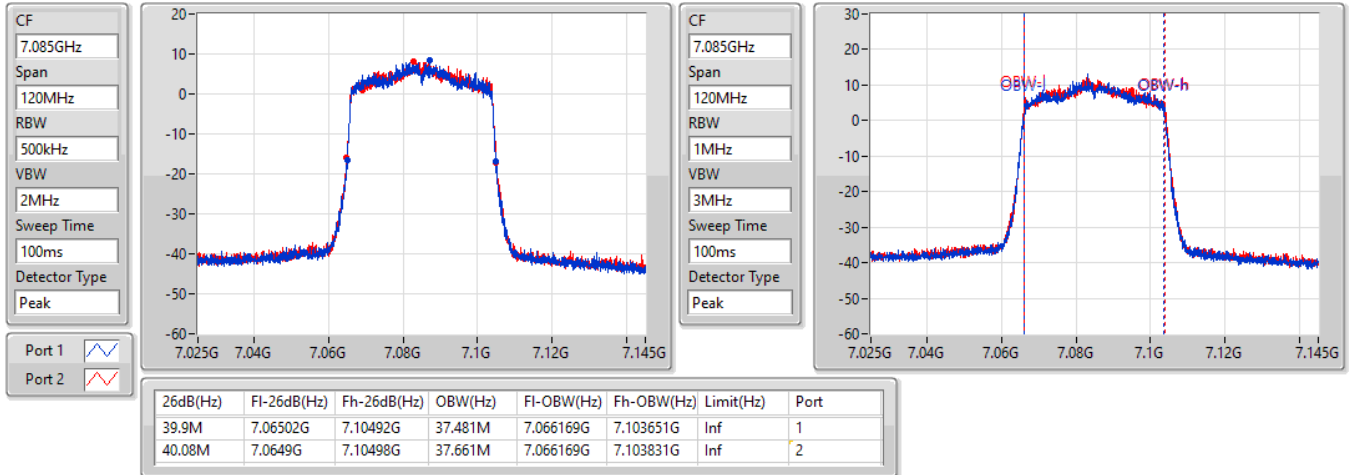

802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
7005MHz

04/05/2022

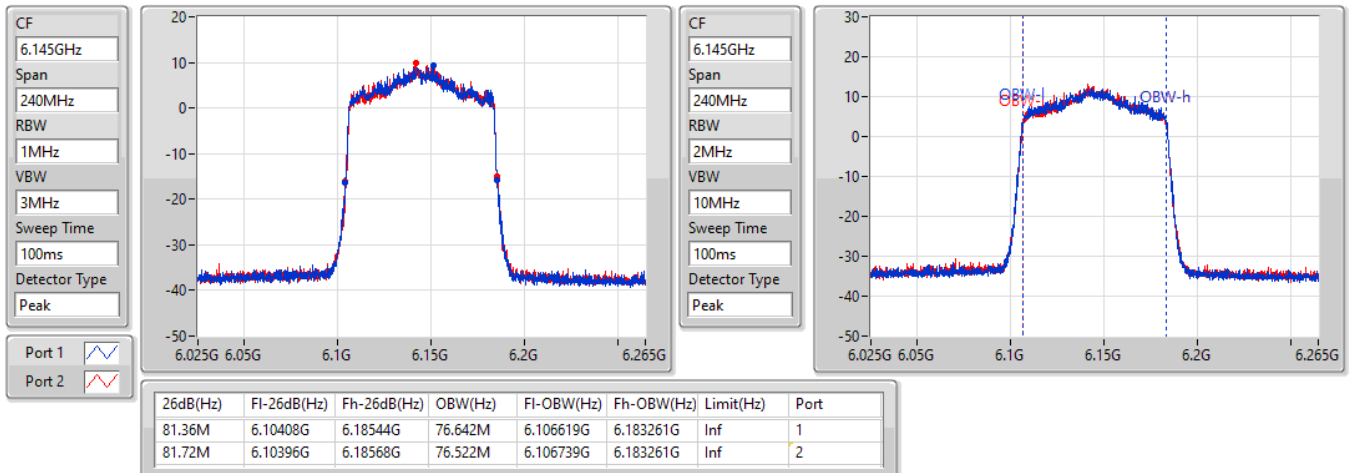


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
7085MHz

04/05/2022

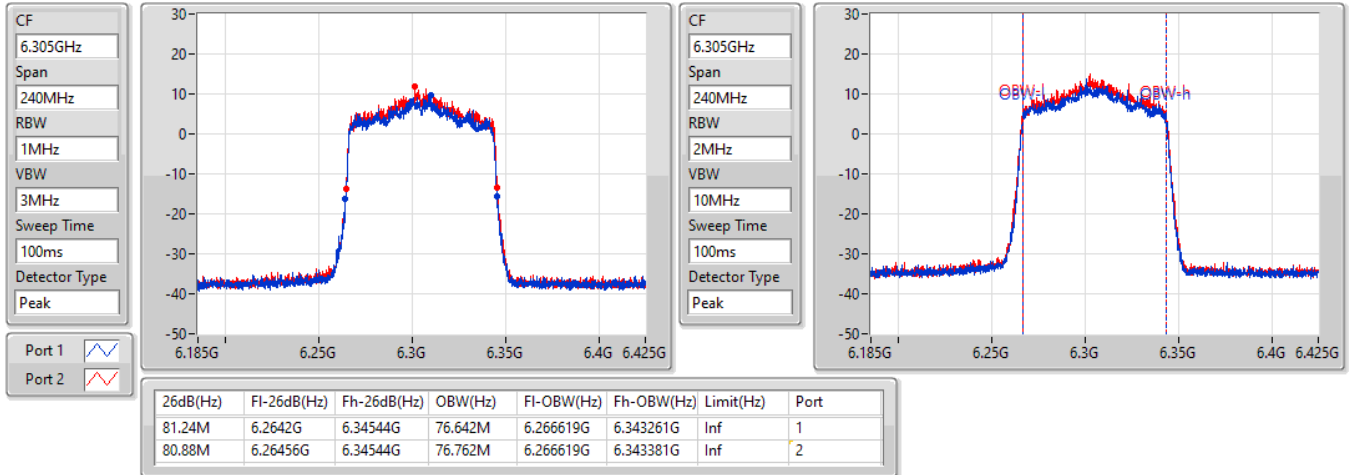

802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6145MHz

04/05/2022

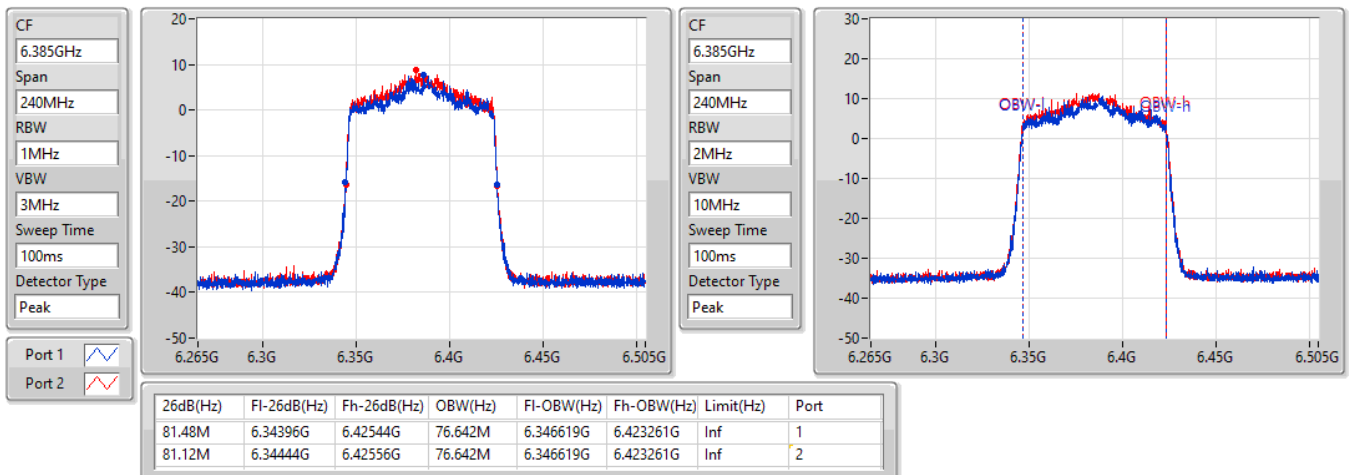


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6305MHz

04/05/2022

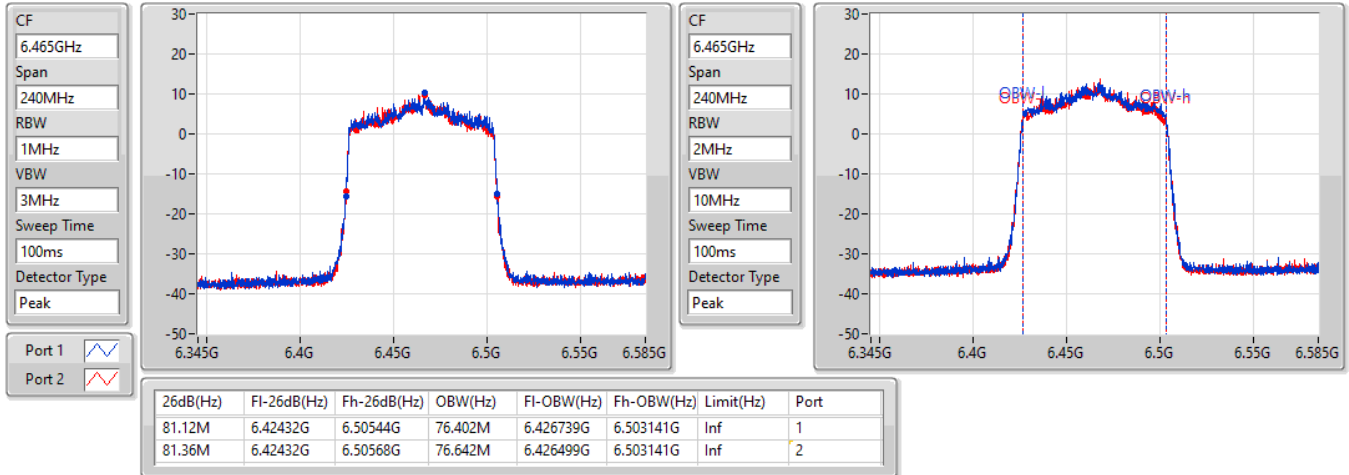

802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6385MHz

04/05/2022

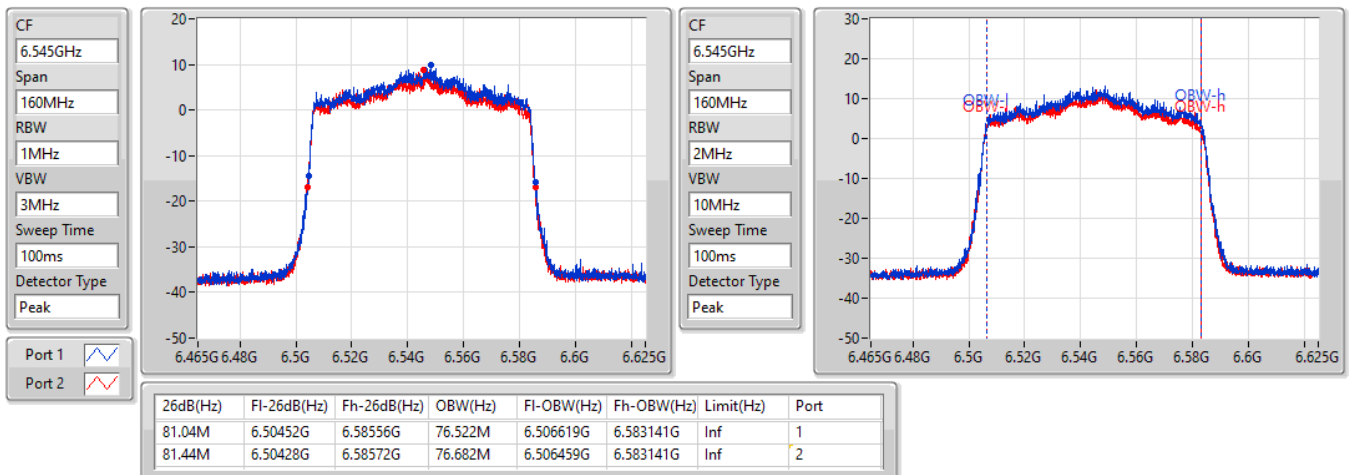


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6465MHz

04/05/2022

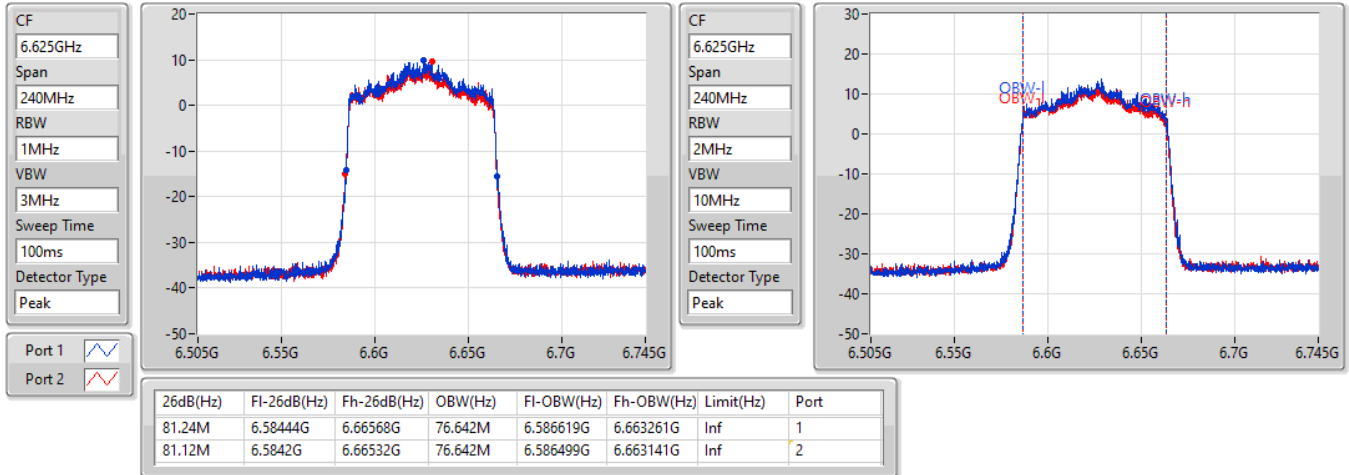

802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6545MHz Straddle 6.425-6.525GHz

04/05/2022

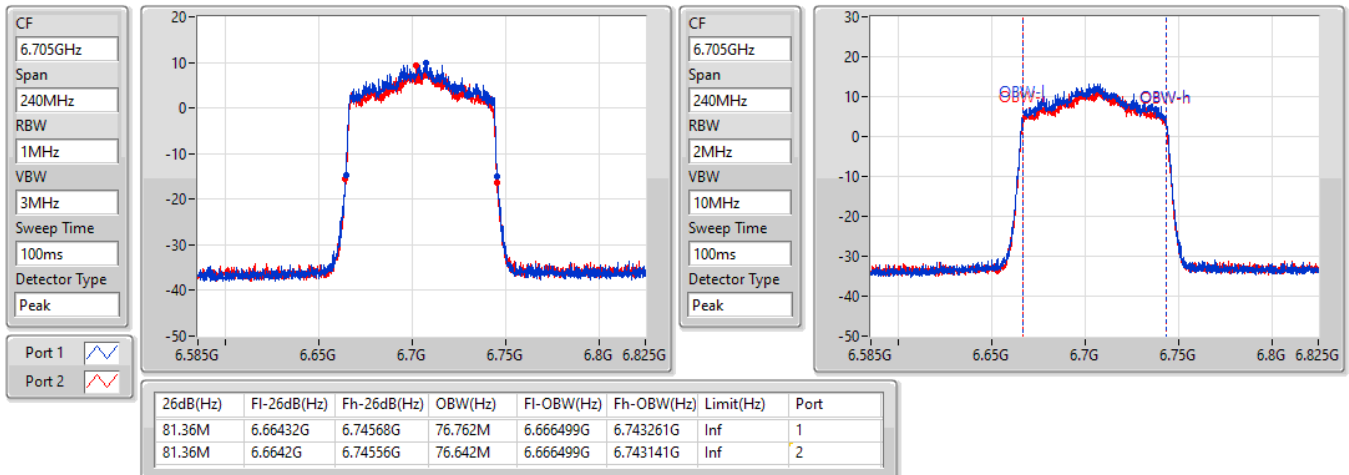


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6625MHz

04/05/2022

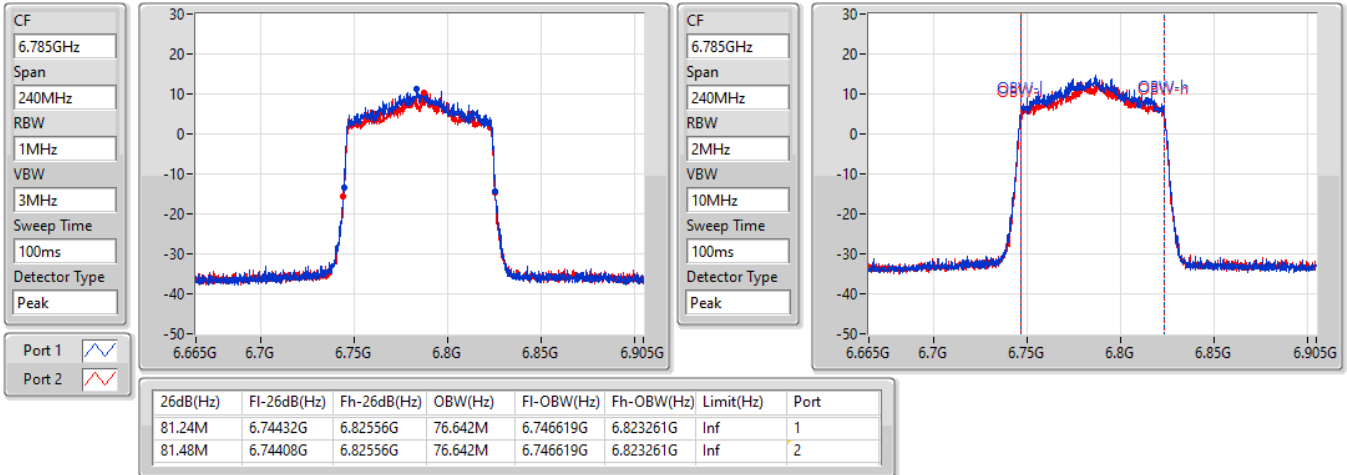

802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6705MHz

04/05/2022

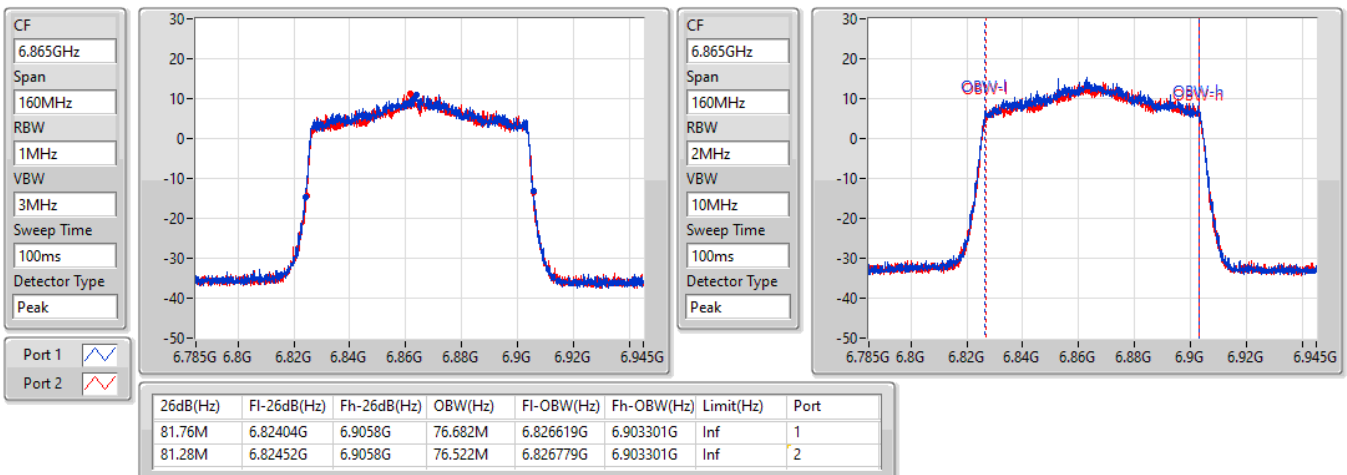


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6785MHz

04/05/2022

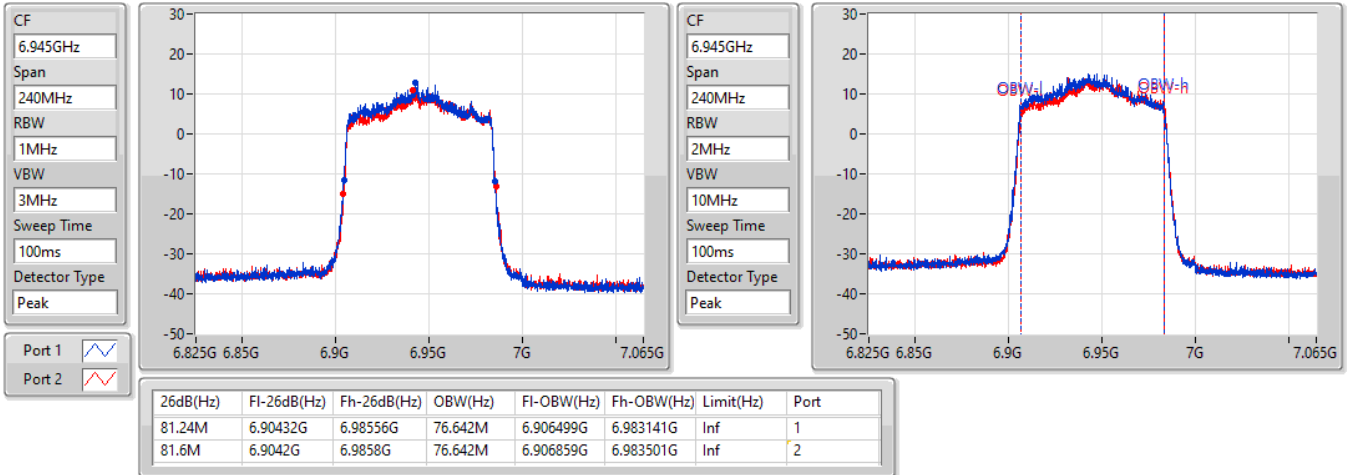

802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6865MHz Straddle 6.525-6.875GHz

04/05/2022

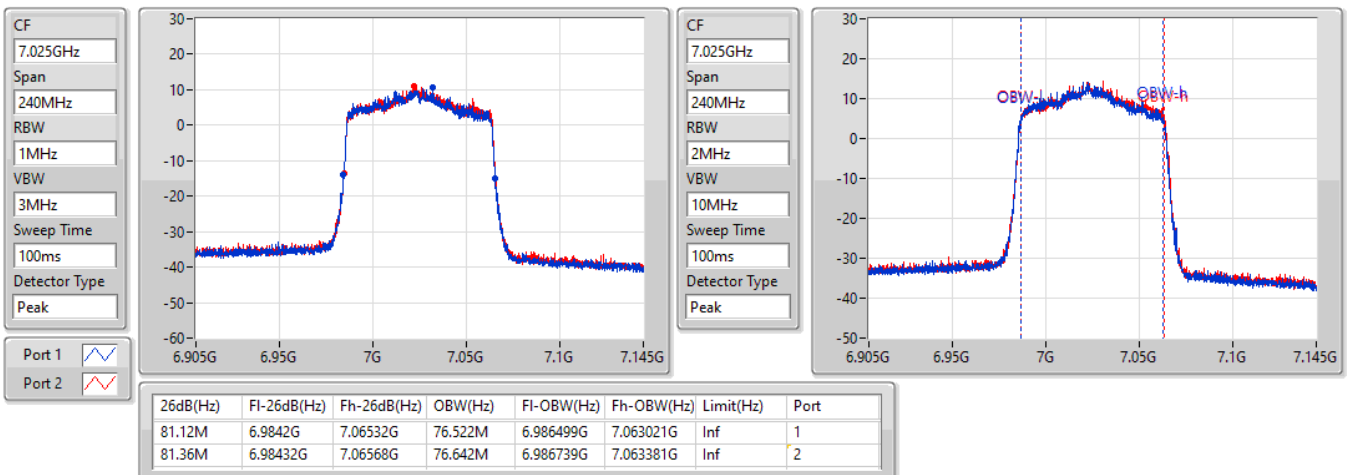


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
6945MHz

04/05/2022

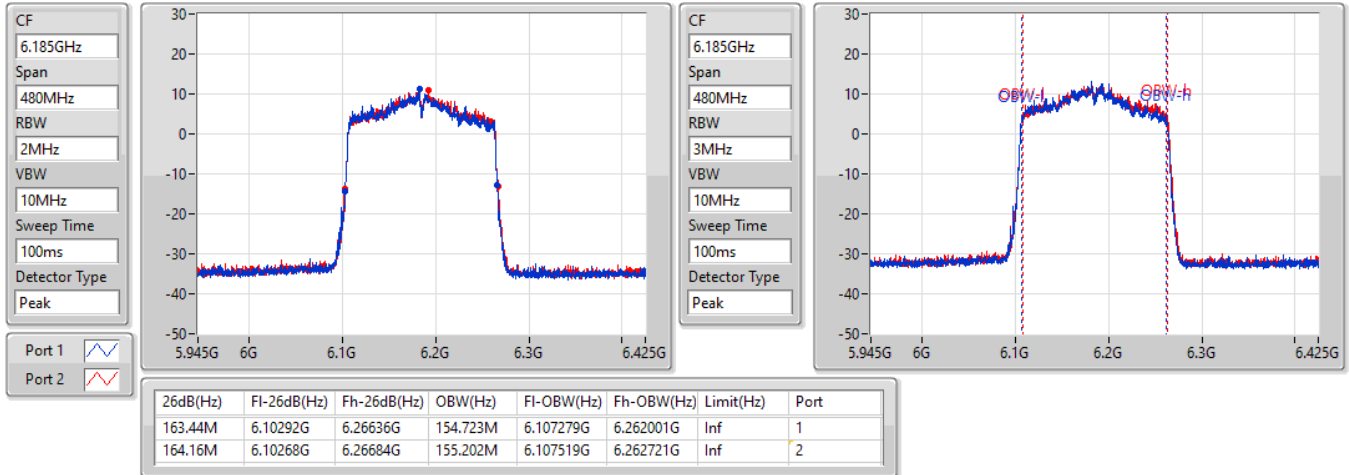

802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
7025MHz

04/05/2022

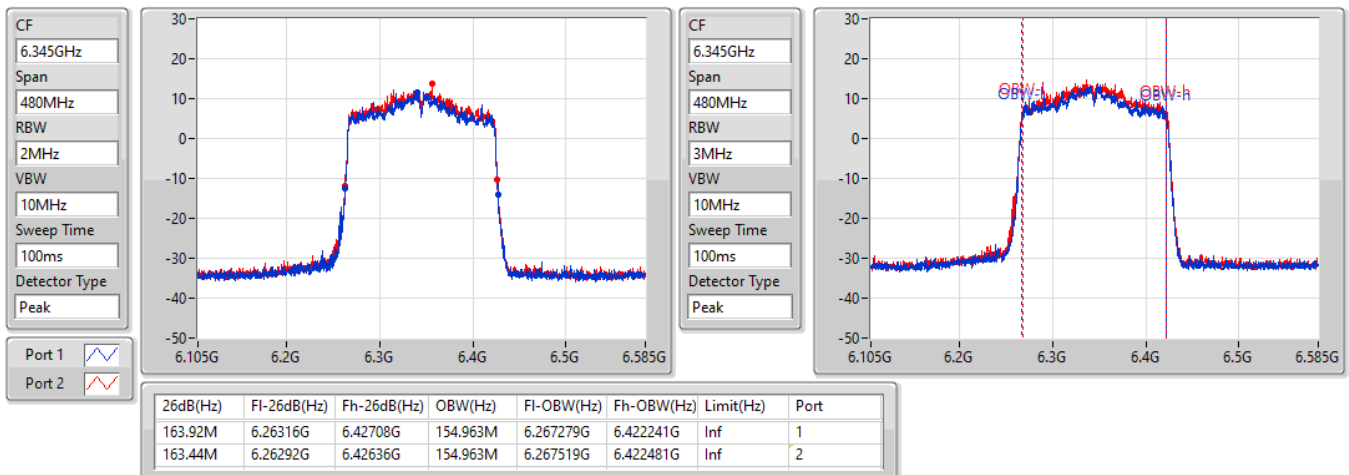


802.11ax HEW160-BF_Nss1,(MCS0)_2TX
EBW
6185MHz

04/05/2022

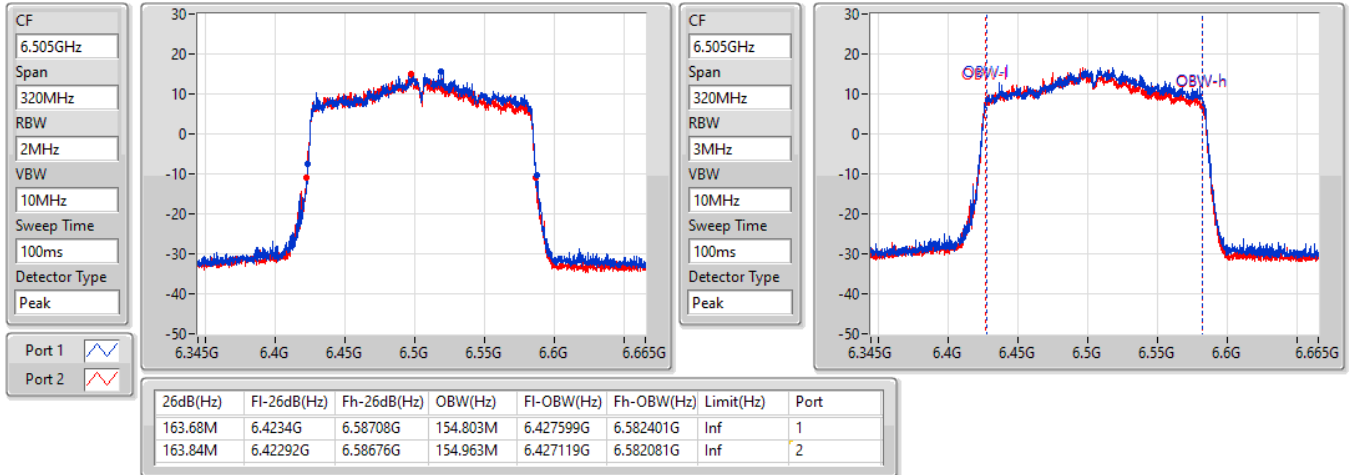

802.11ax HEW160-BF_Nss1,(MCS0)_2TX
EBW
6345MHz

04/05/2022

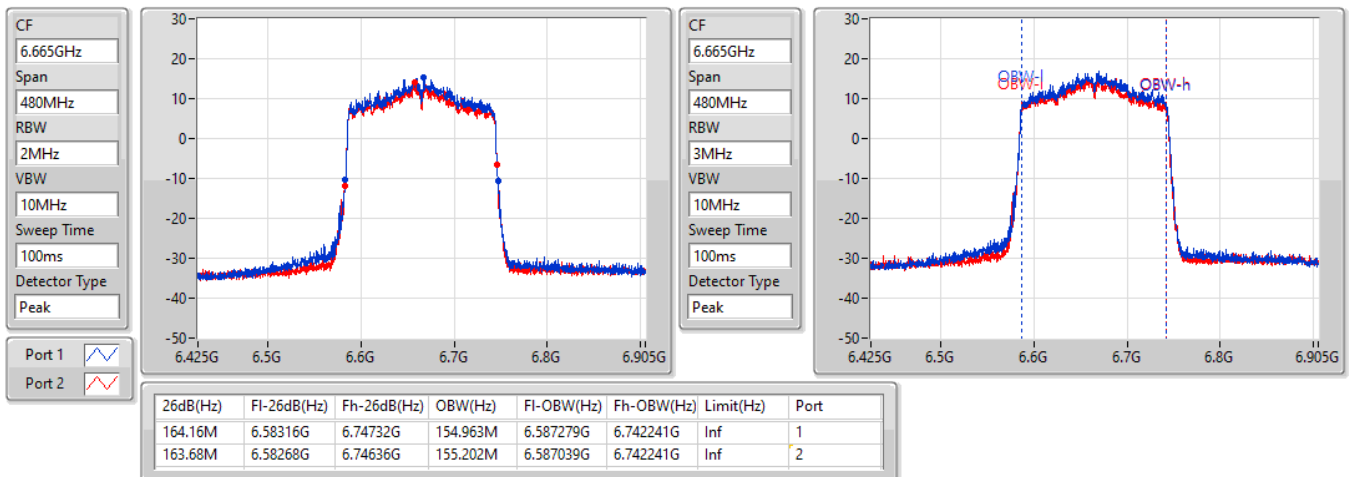


802.11ax HEW160-BF_Nss1,(MCS0)_2TX
EBW
6505MHz Straddle 6.425-6.525GHz

04/05/2022

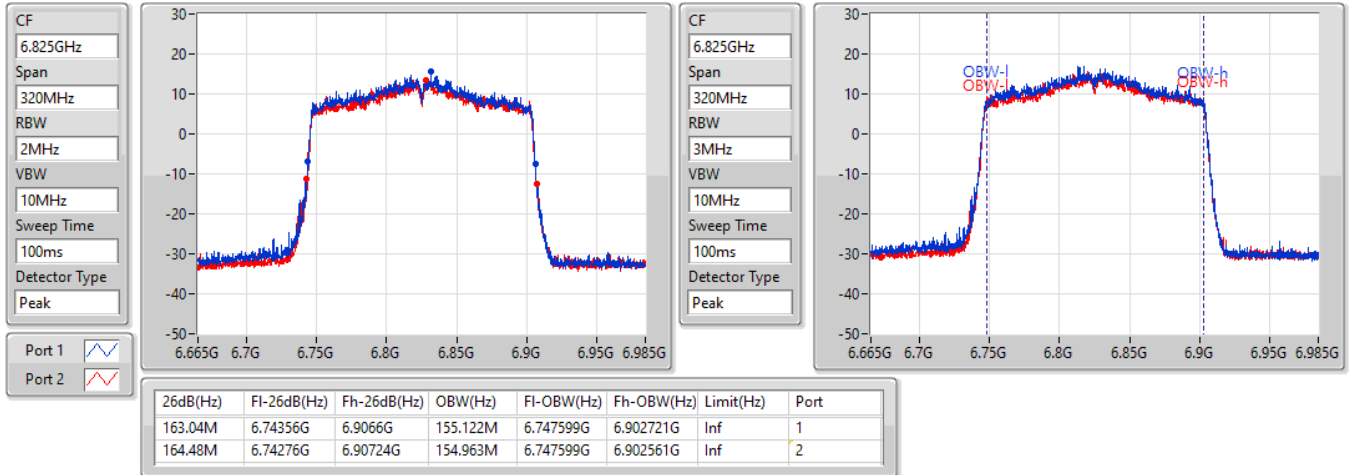

802.11ax HEW160-BF_Nss1,(MCS0)_2TX
EBW
6665MHz

04/05/2022

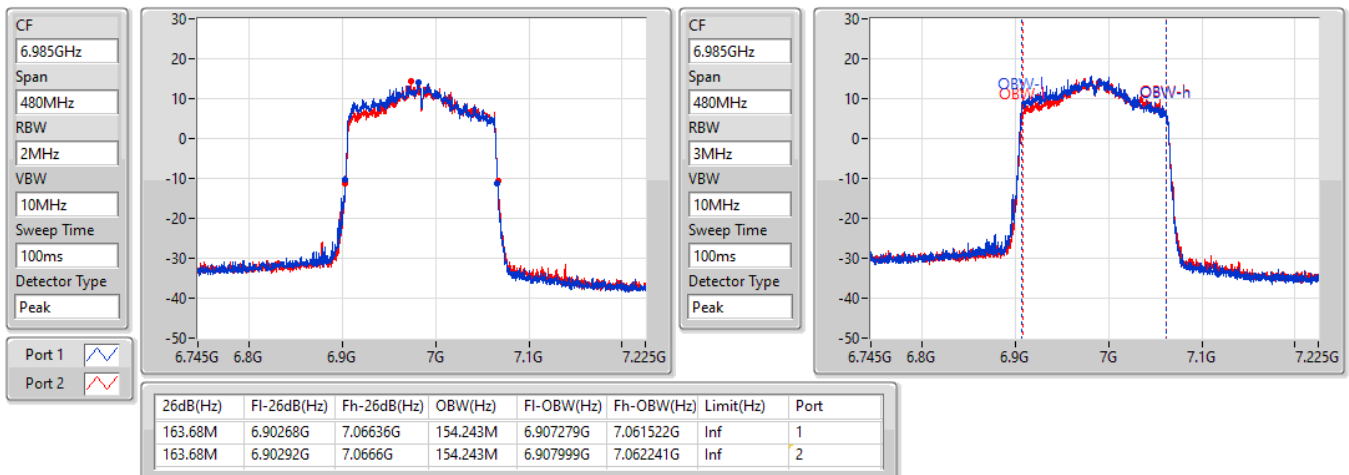


802.11ax HEW160-BF_Nss1,(MCS0)_2TX
EBW
6825MHz Straddle 6.525-6.875GHz

04/05/2022


802.11ax HEW160-BF_Nss1,(MCS0)_2TX
EBW
6985MHz

04/05/2022



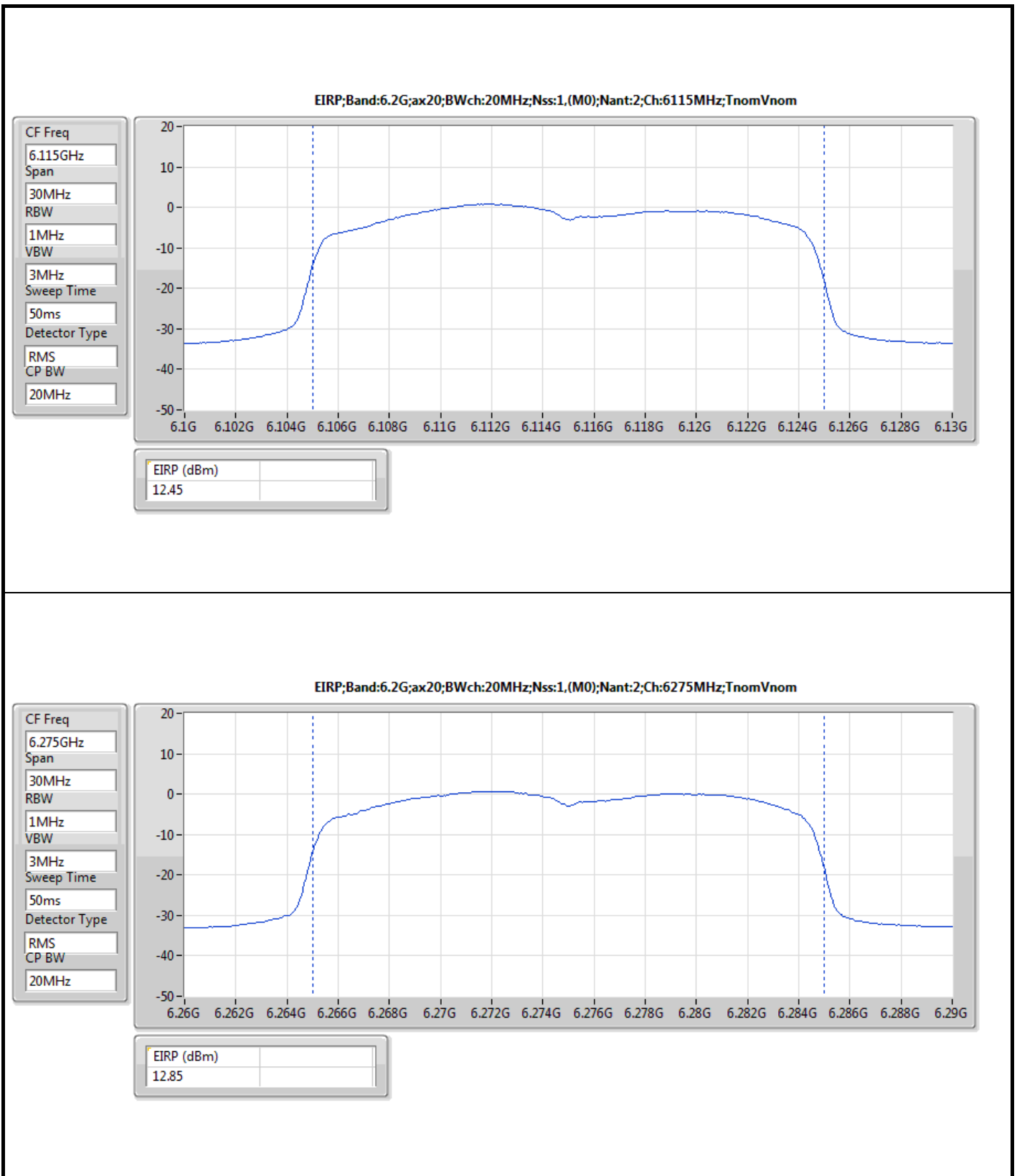
Summary

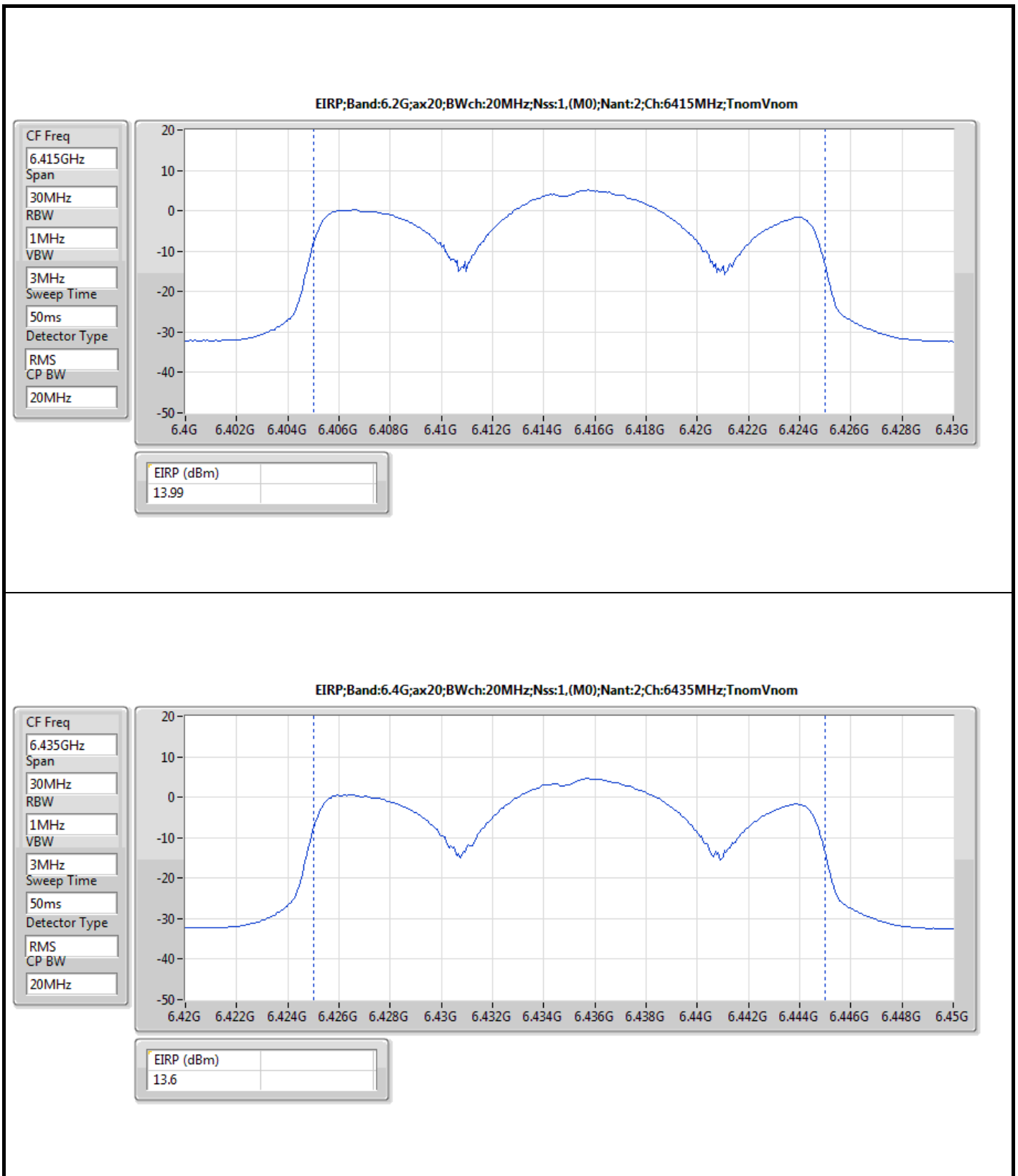
Mode	EIRP (dBm)	EIRP (W)
5.925-6.425GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	13.99	0.02506
802.11ax HEW40_Nss1,(MCS0)_2TX	17.77	0.05984
802.11ax HEW80_Nss1,(MCS0)_2TX	18.63	0.07295
802.11ax HEW160_Nss1,(MCS0)_2TX	21.36	0.13677
6.425-6.525GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	14.78	0.03006
802.11ax HEW40_Nss1,(MCS0)_2TX	17.38	0.05470
802.11ax HEW80_Nss1,(MCS0)_2TX	18.66	0.07345
802.11ax HEW160_Nss1,(MCS0)_2TX	21.18	0.13122
6.525-6.875GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	15.24	0.03342
802.11ax HEW40_Nss1,(MCS0)_2TX	18.59	0.07228
802.11ax HEW80_Nss1,(MCS0)_2TX	19.74	0.09419
802.11ax HEW160_Nss1,(MCS0)_2TX	22.19	0.16558
6.875-7.125GHz	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	15.23	0.03334
802.11ax HEW40_Nss1,(MCS0)_2TX	19.35	0.08610
802.11ax HEW80_Nss1,(MCS0)_2TX	19.60	0.09120
802.11ax HEW160_Nss1,(MCS0)_2TX	22.87	0.19364

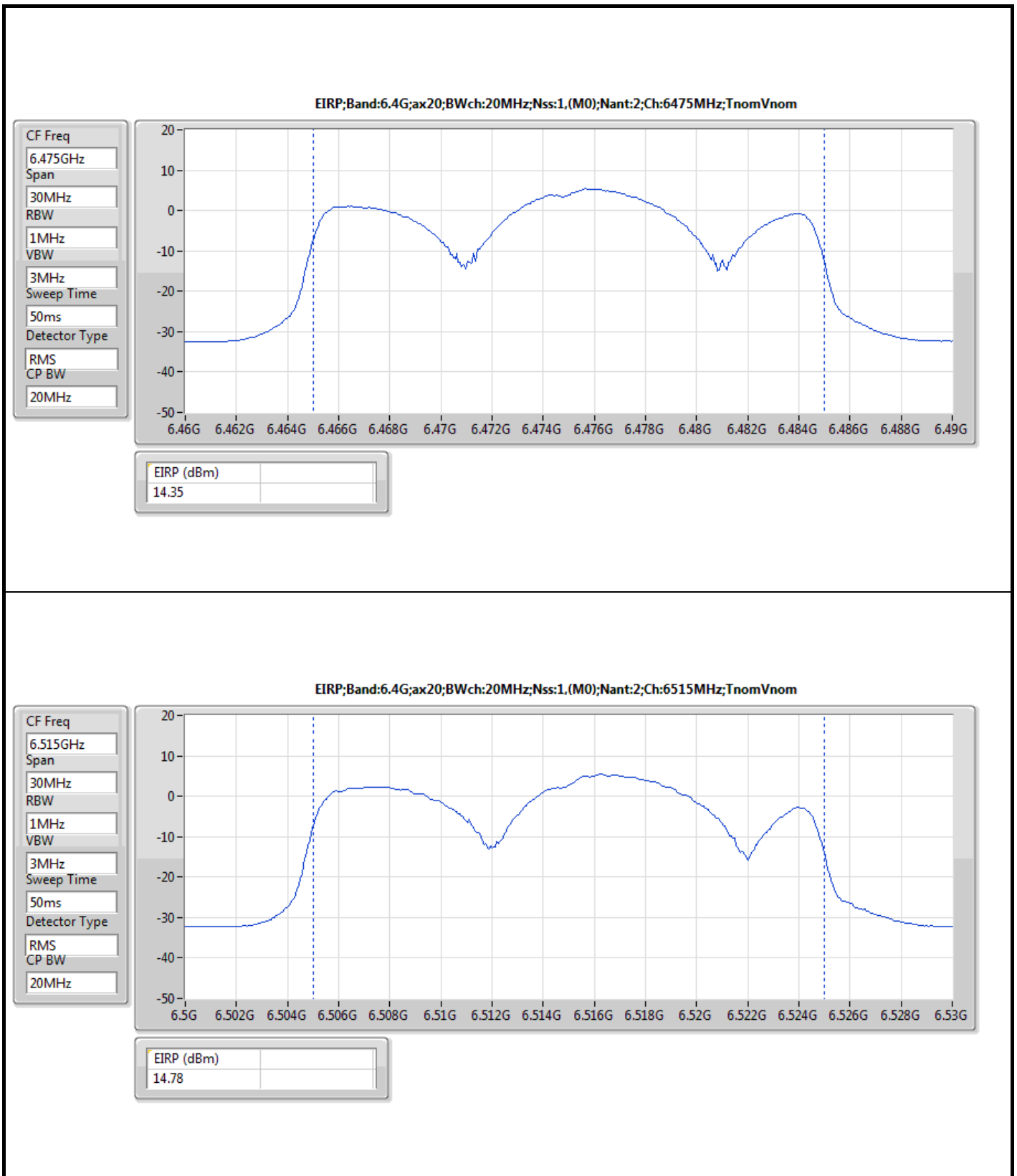
Result

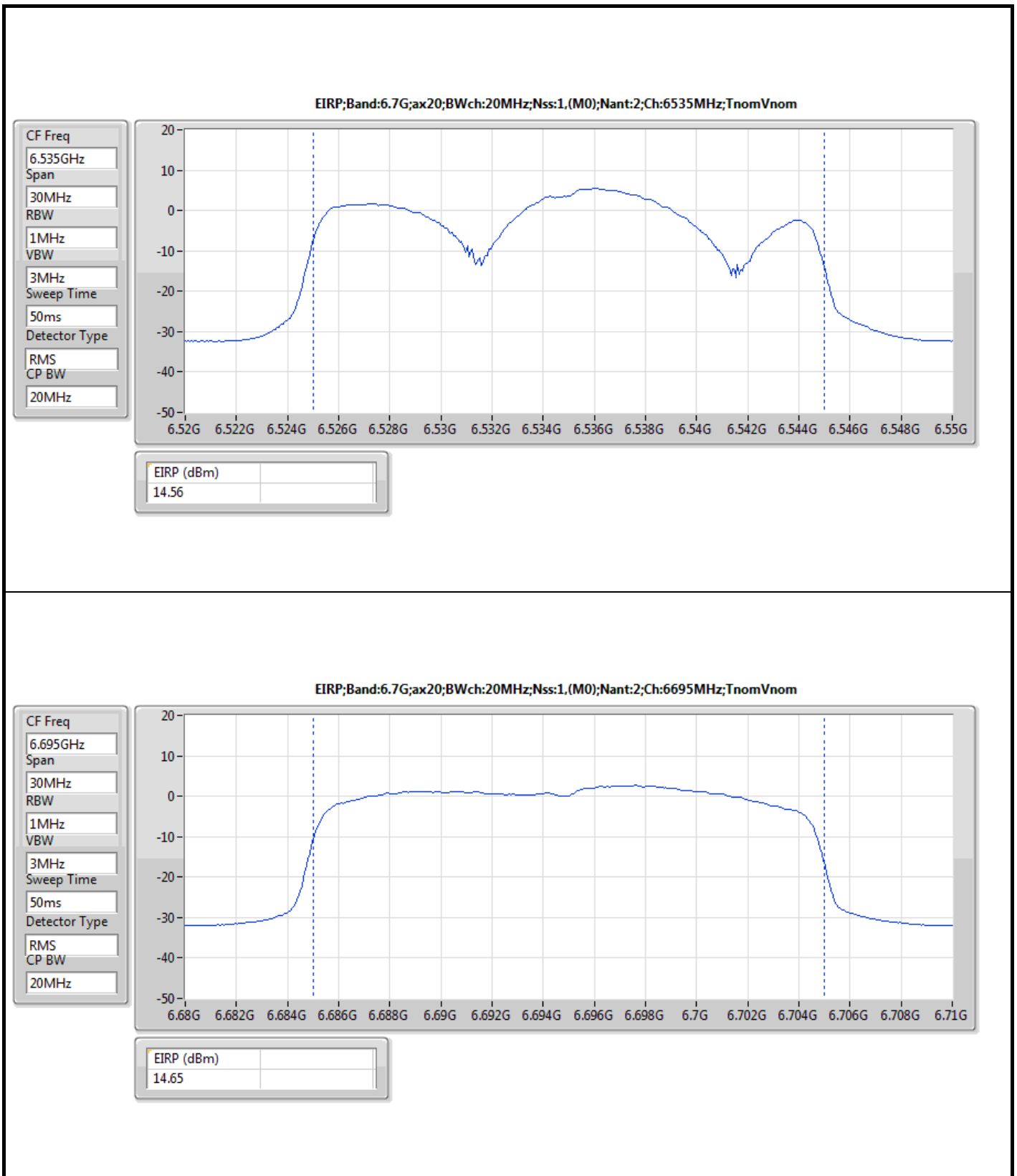
Mode	Result	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-
6115MHz	Pass	12.45	30.00
6275MHz	Pass	12.85	30.00
6415MHz	Pass	13.99	30.00
6435MHz	Pass	13.60	30.00
6475MHz	Pass	14.35	30.00
6515MHz	Pass	14.78	30.00
6535MHz	Pass	14.56	30.00
6695MHz	Pass	14.65	30.00
6855MHz	Pass	15.24	30.00
6875MHz Straddle 6.525-6.875GHz	Pass	13.89	30.00
6895MHz	Pass	14.16	30.00
6995MHz	Pass	15.23	30.00
7095MHz	Pass	14.75	30.00
7115MHz	Pass	11.26	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-
6125MHz	Pass	14.71	30.00
6285MHz	Pass	17.77	30.00
6405MHz	Pass	17.40	30.00
6445MHz	Pass	17.03	30.00
6485MHz	Pass	17.38	30.00
6525MHz Straddle 6.425-6.525GHz	Pass	15.07	30.00
6565MHz	Pass	15.22	30.00
6685MHz	Pass	17.60	30.00
6845MHz	Pass	16.51	30.00
6885MHz Straddle 6.525-6.875GHz	Pass	18.59	30.00
6925MHz	Pass	19.35	30.00
7005MHz	Pass	17.63	30.00
7085MHz	Pass	16.55	30.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-
6145MHz	Pass	18.63	30.00
6305MHz	Pass	15.49	30.00
6385MHz	Pass	17.93	30.00
6465MHz	Pass	18.66	30.00
6545MHz Straddle 6.425-6.525GHz	Pass	17.67	30.00
6625MHz	Pass	18.41	30.00
6705MHz	Pass	17.56	30.00
6785MHz	Pass	19.07	30.00
6865MHz Straddle 6.525-6.875GHz	Pass	19.74	30.00
6945MHz	Pass	19.60	30.00
7025MHz	Pass	19.13	30.00
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-
6185MHz	Pass	20.14	30.00
6345MHz	Pass	21.36	30.00
6505MHz Straddle 6.425-6.525GHz	Pass	21.18	30.00
6665MHz	Pass	20.89	30.00
6825MHz Straddle 6.525-6.875GHz	Pass	22.19	30.00
6985MHz	Pass	22.87	30.00

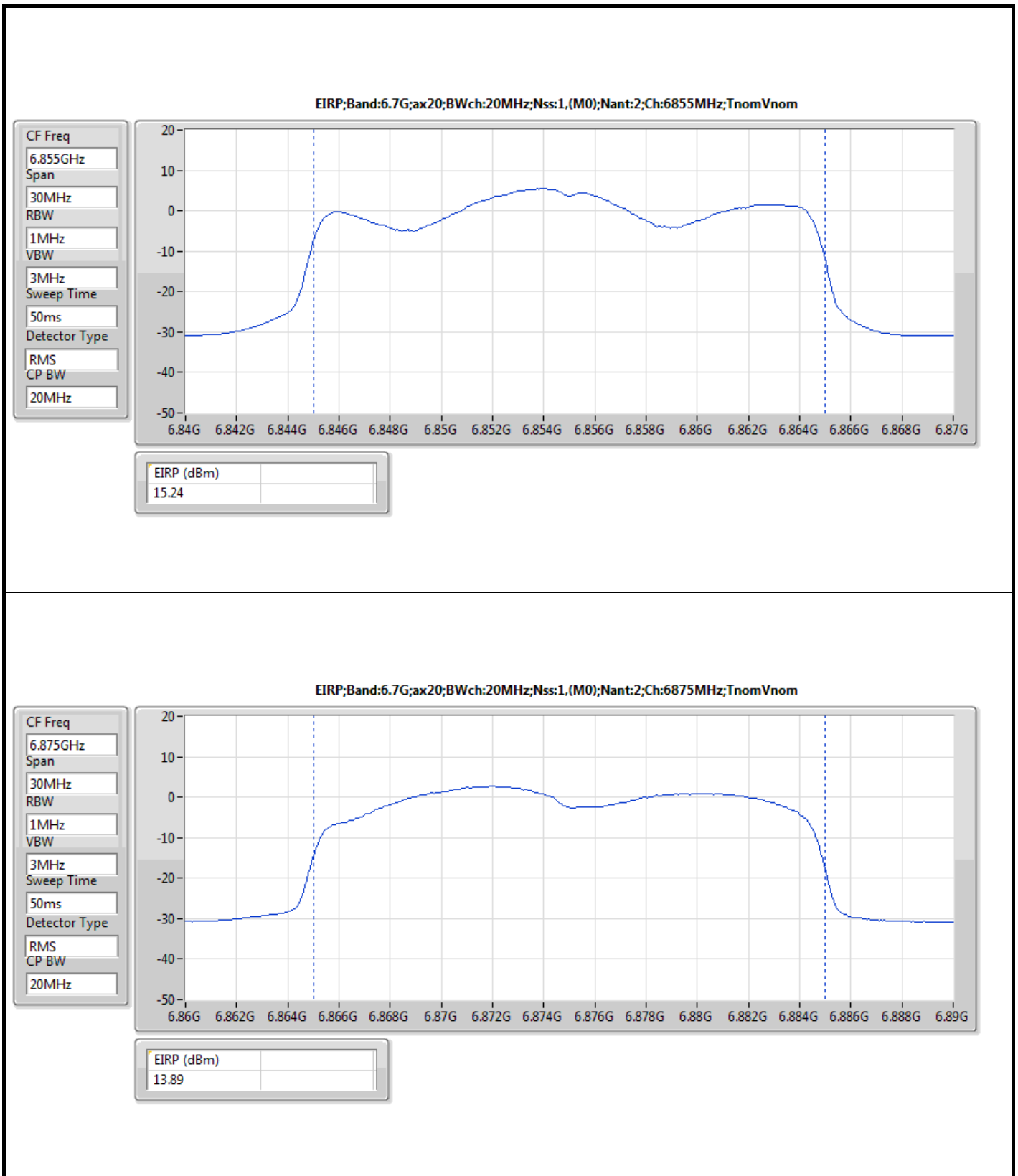
DG = Directional Gain; Port X = Port X output power

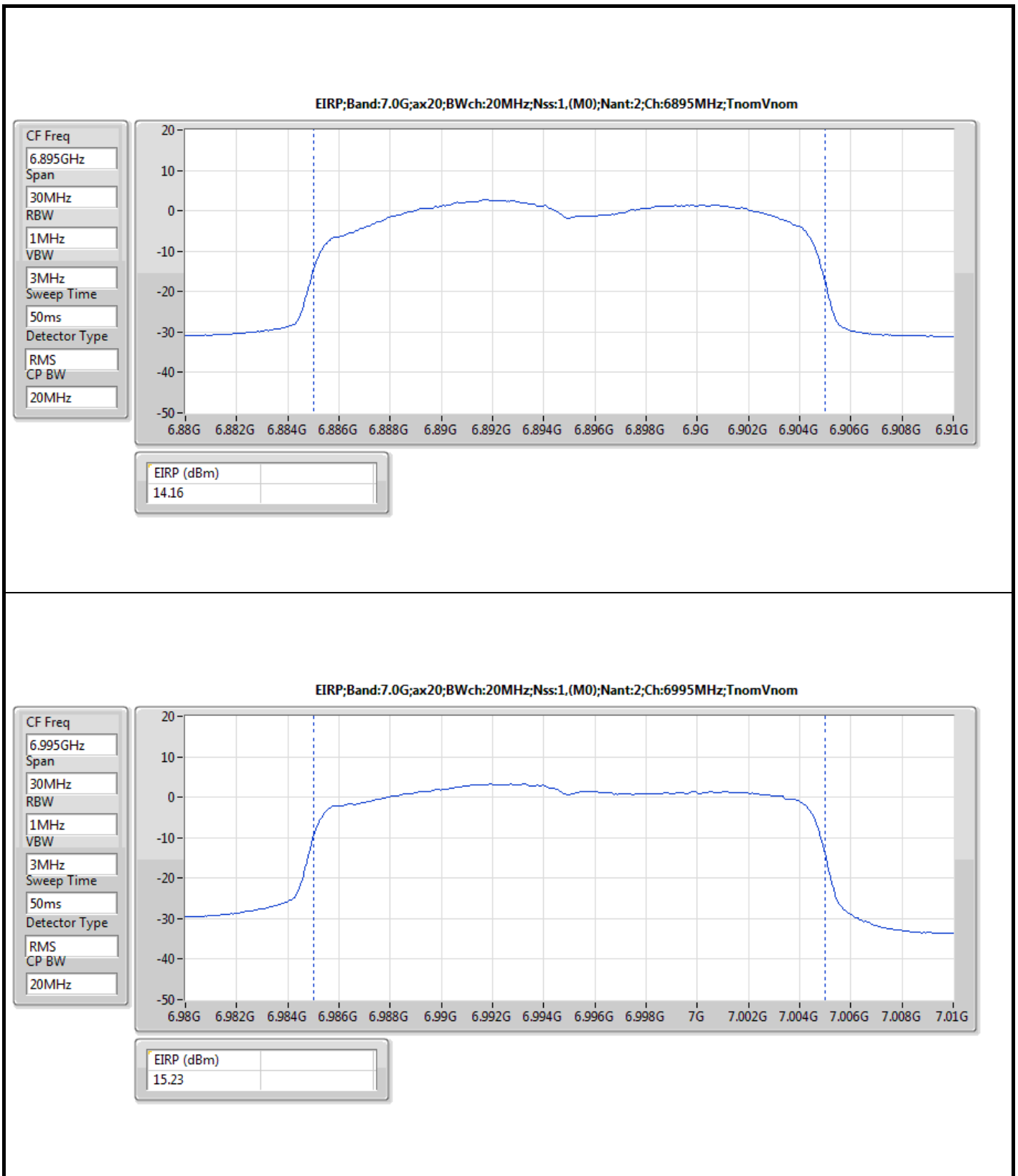




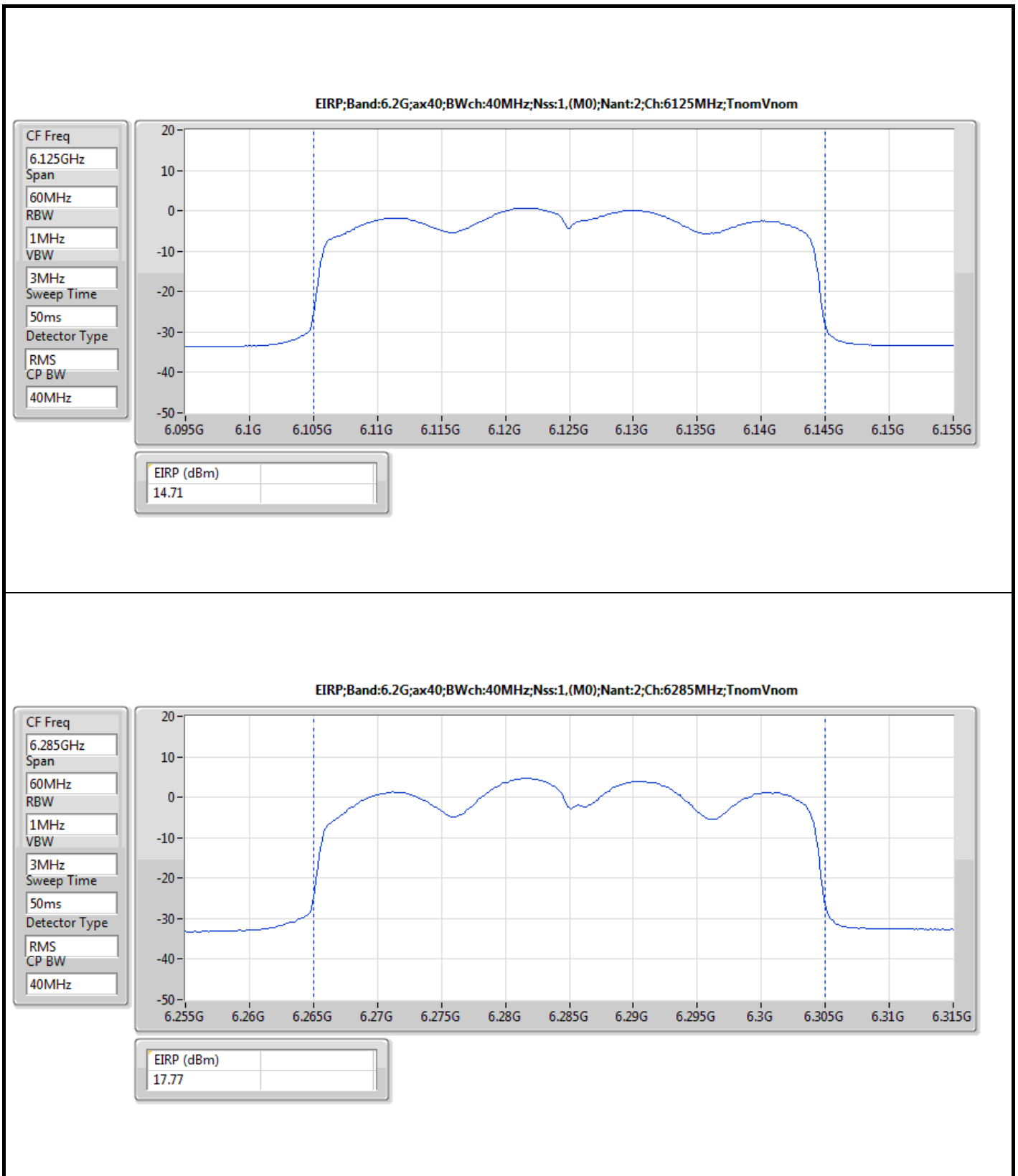


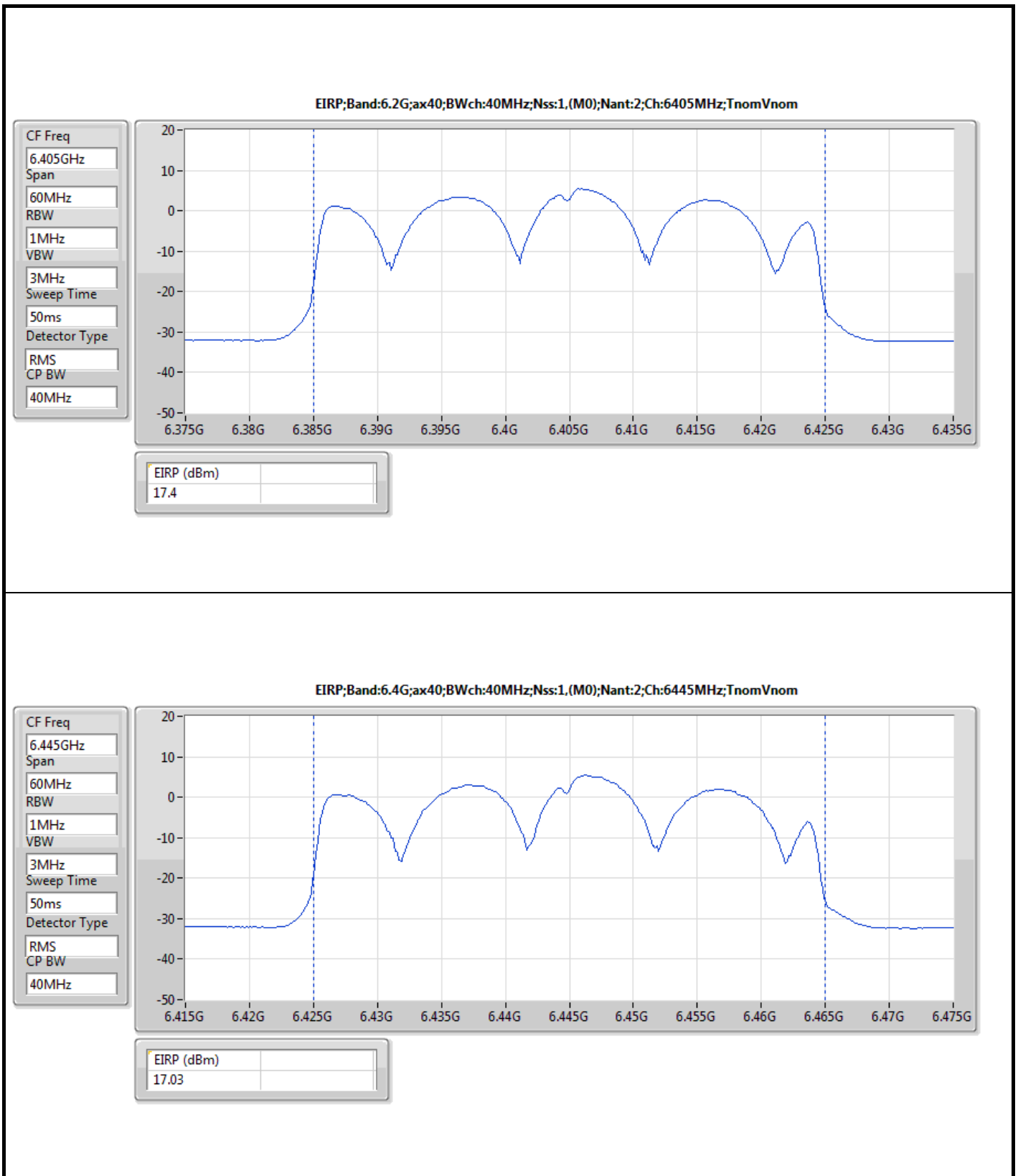


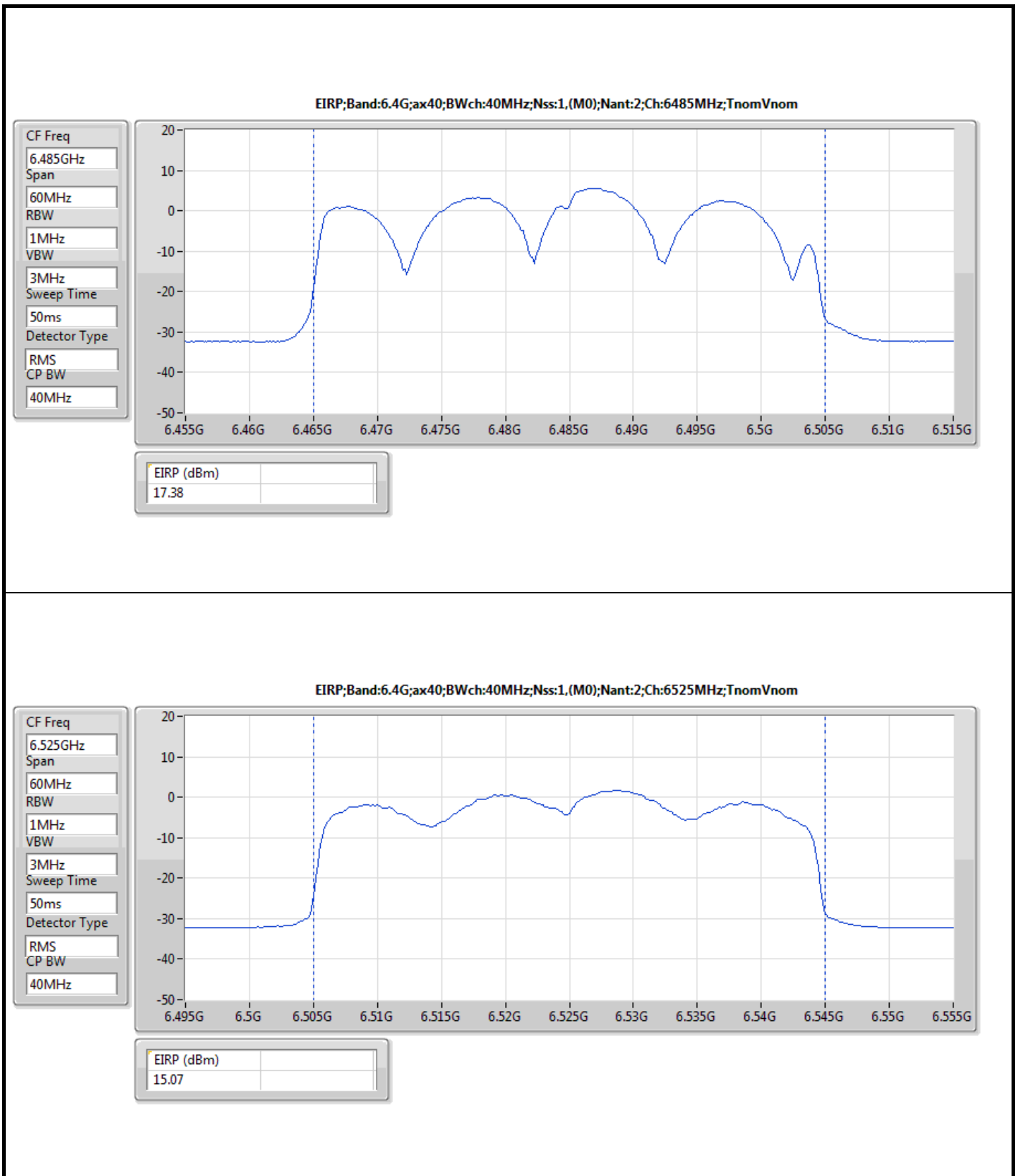


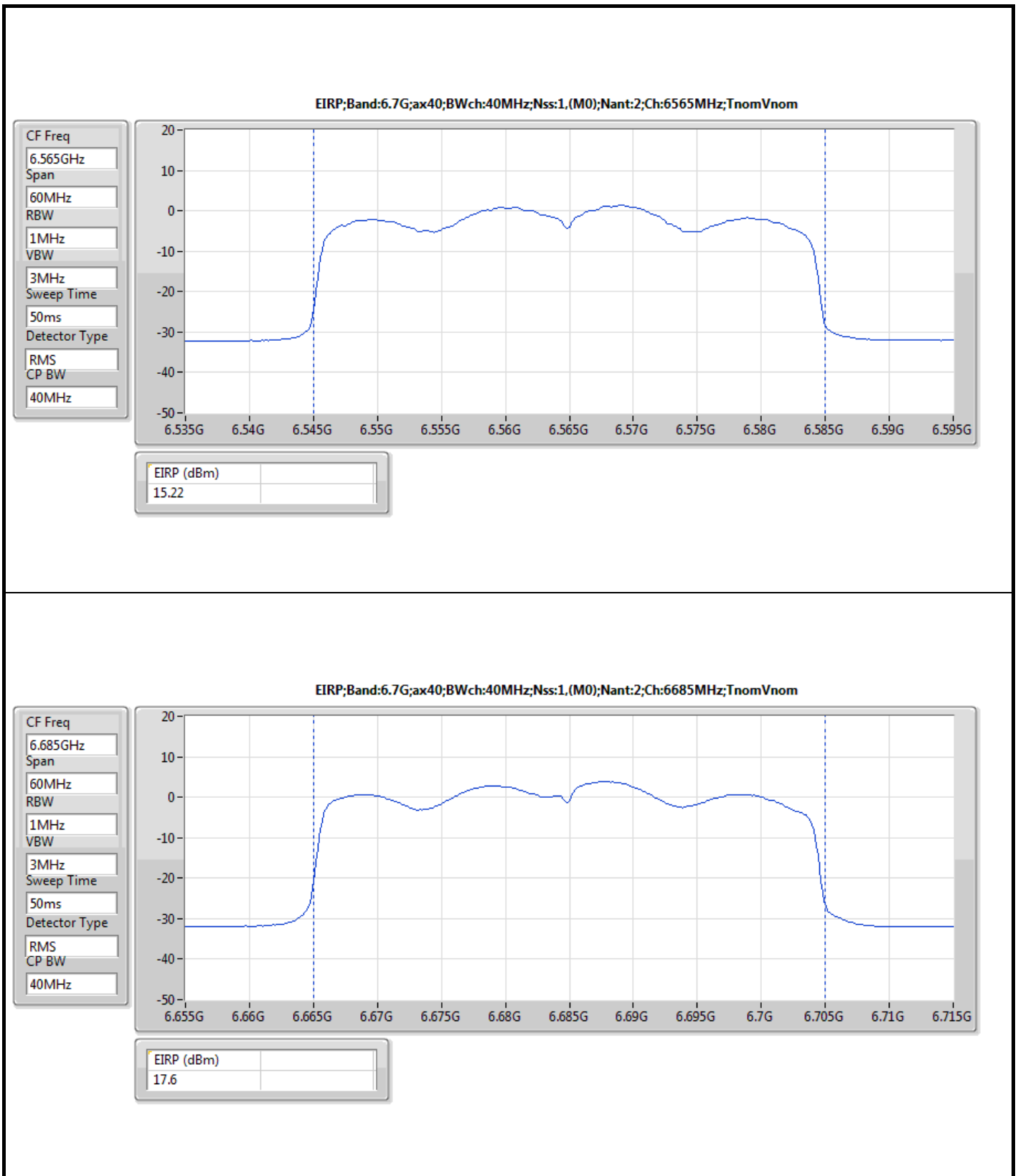


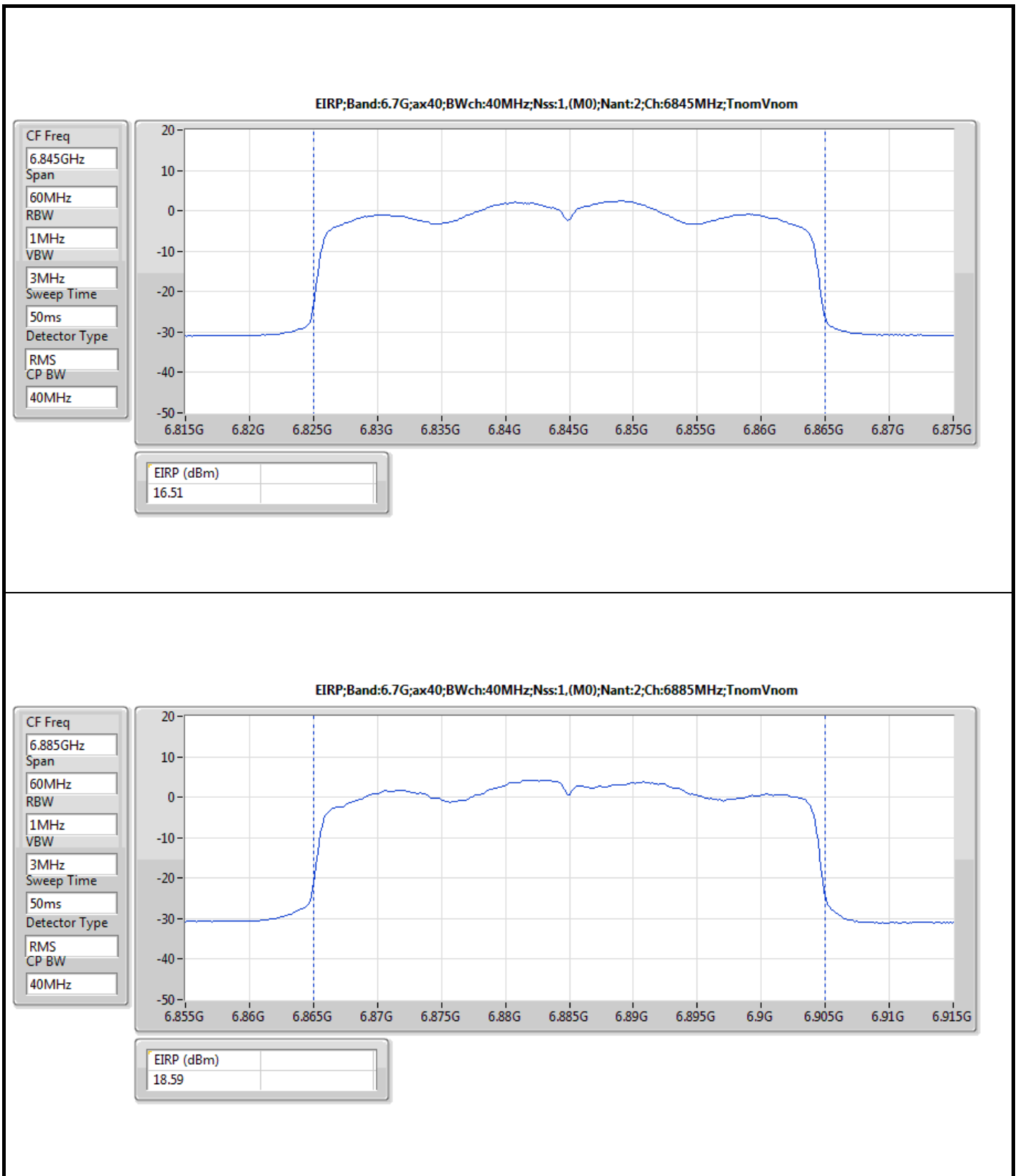


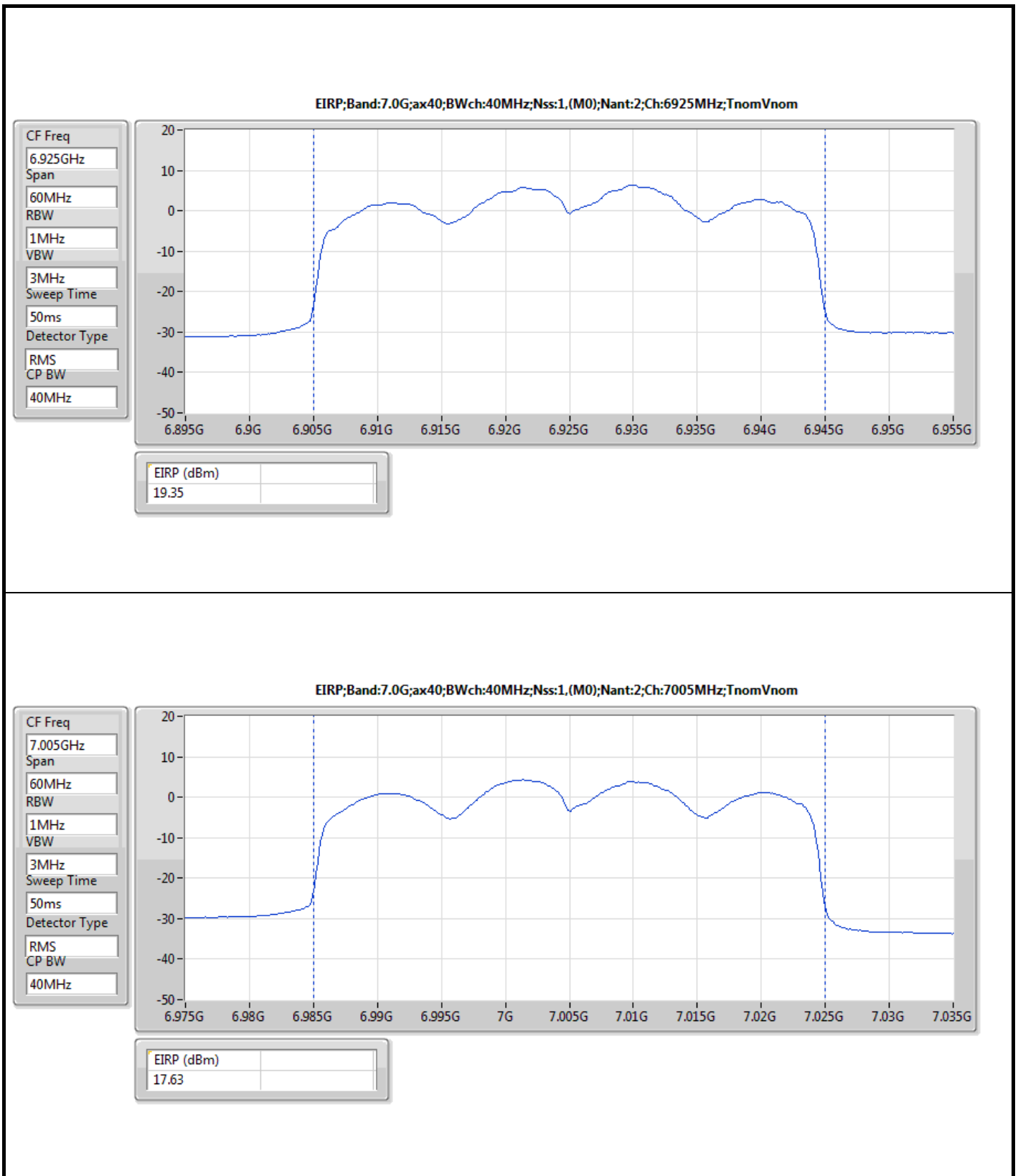


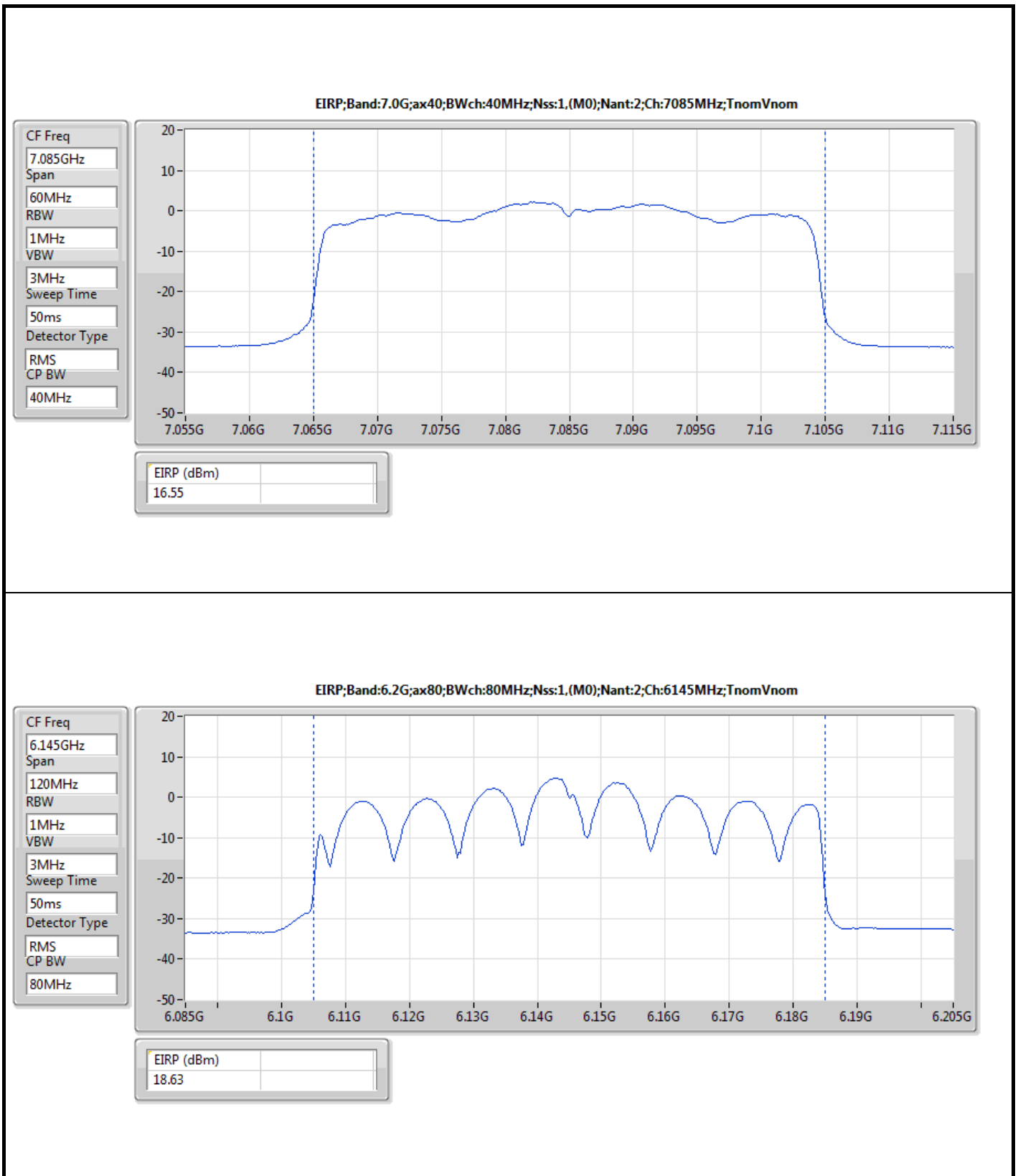


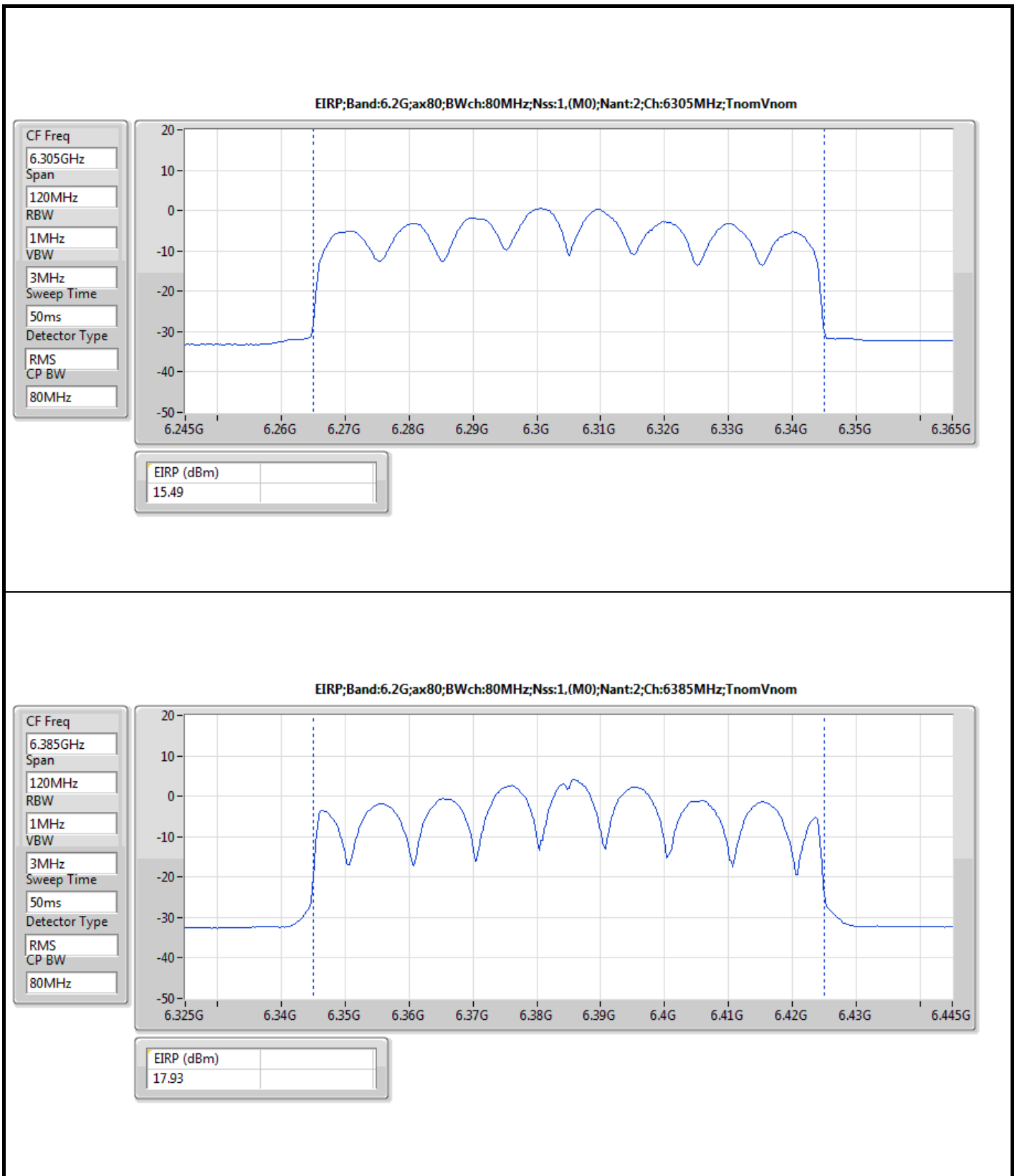


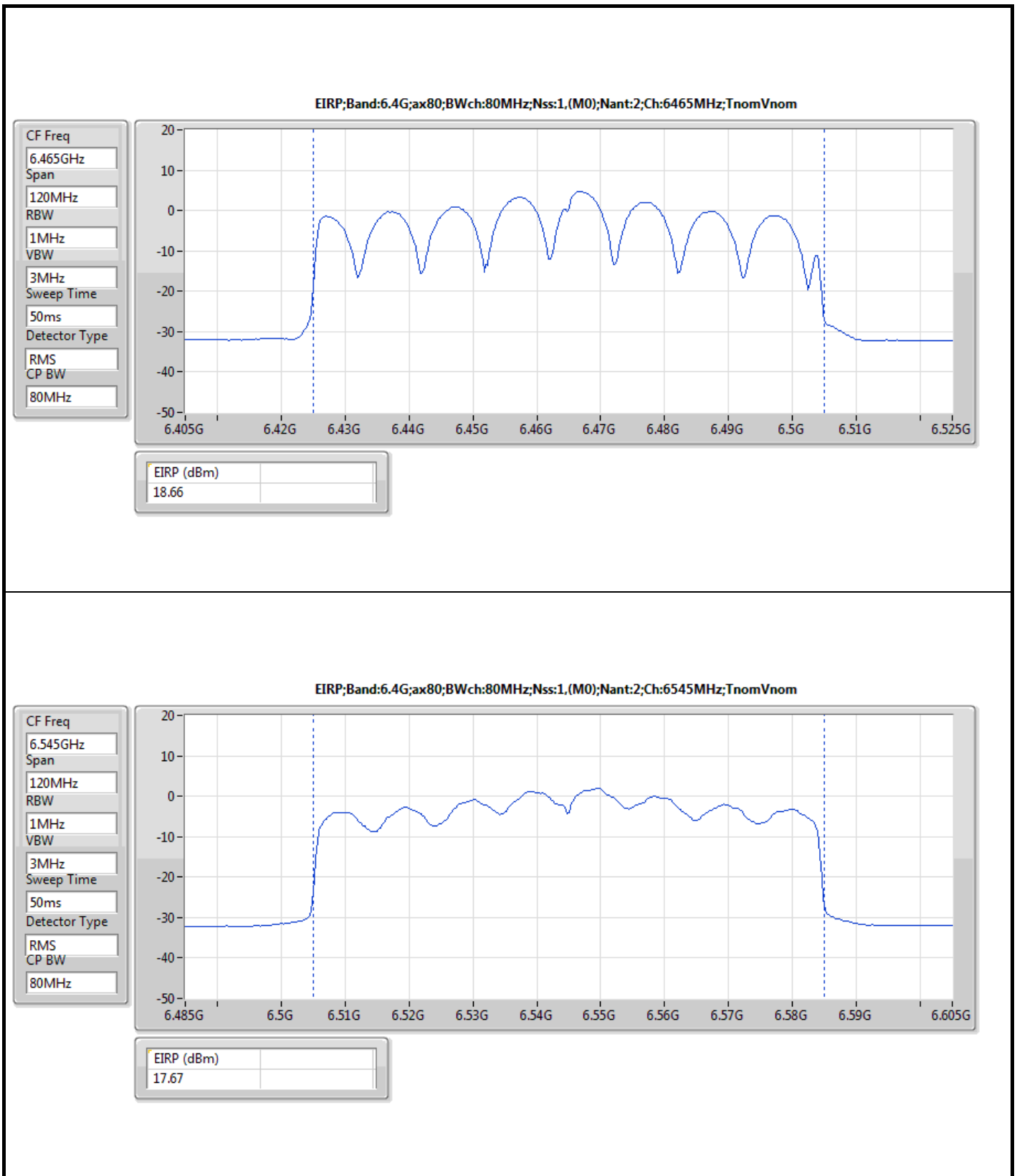








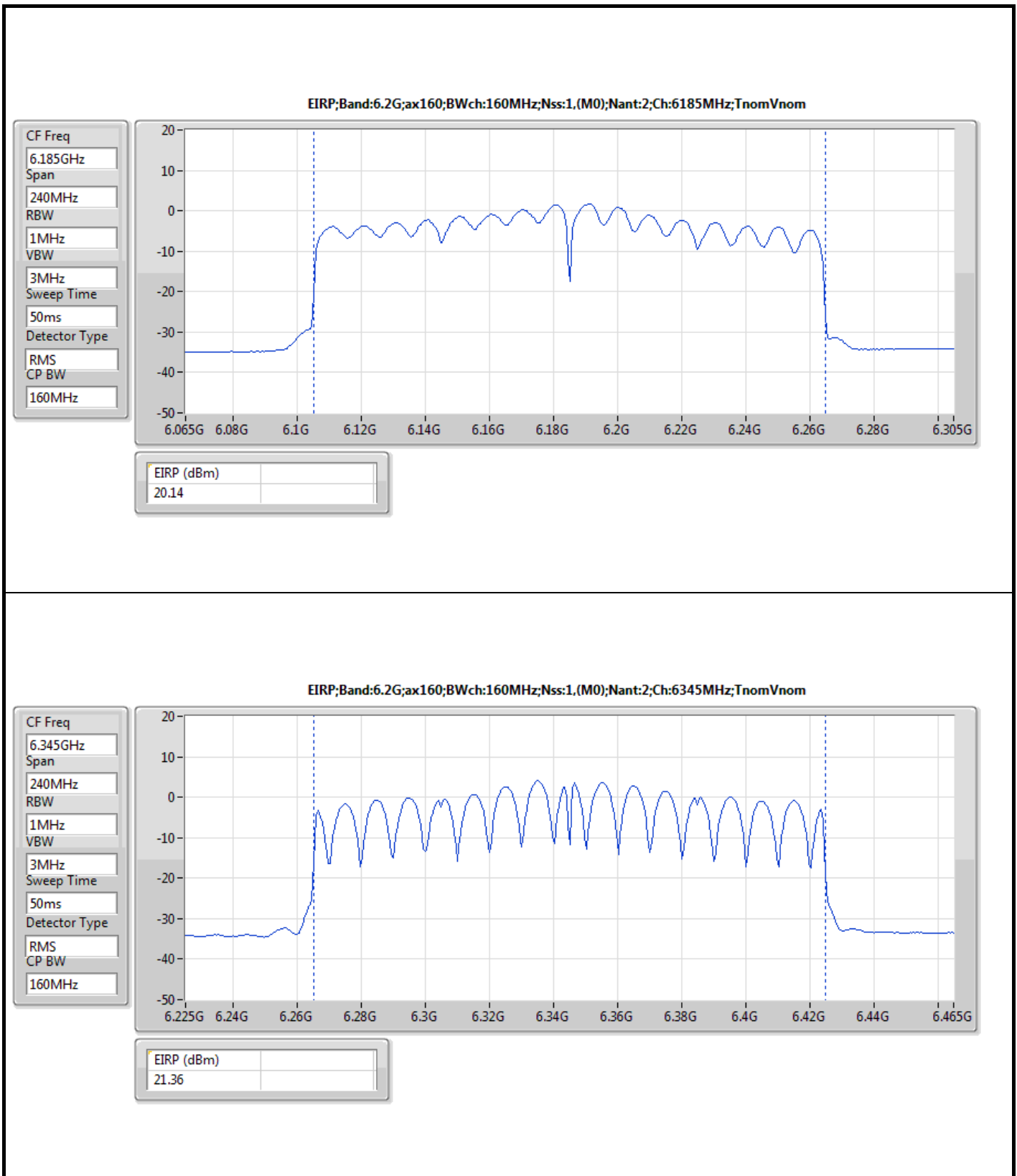


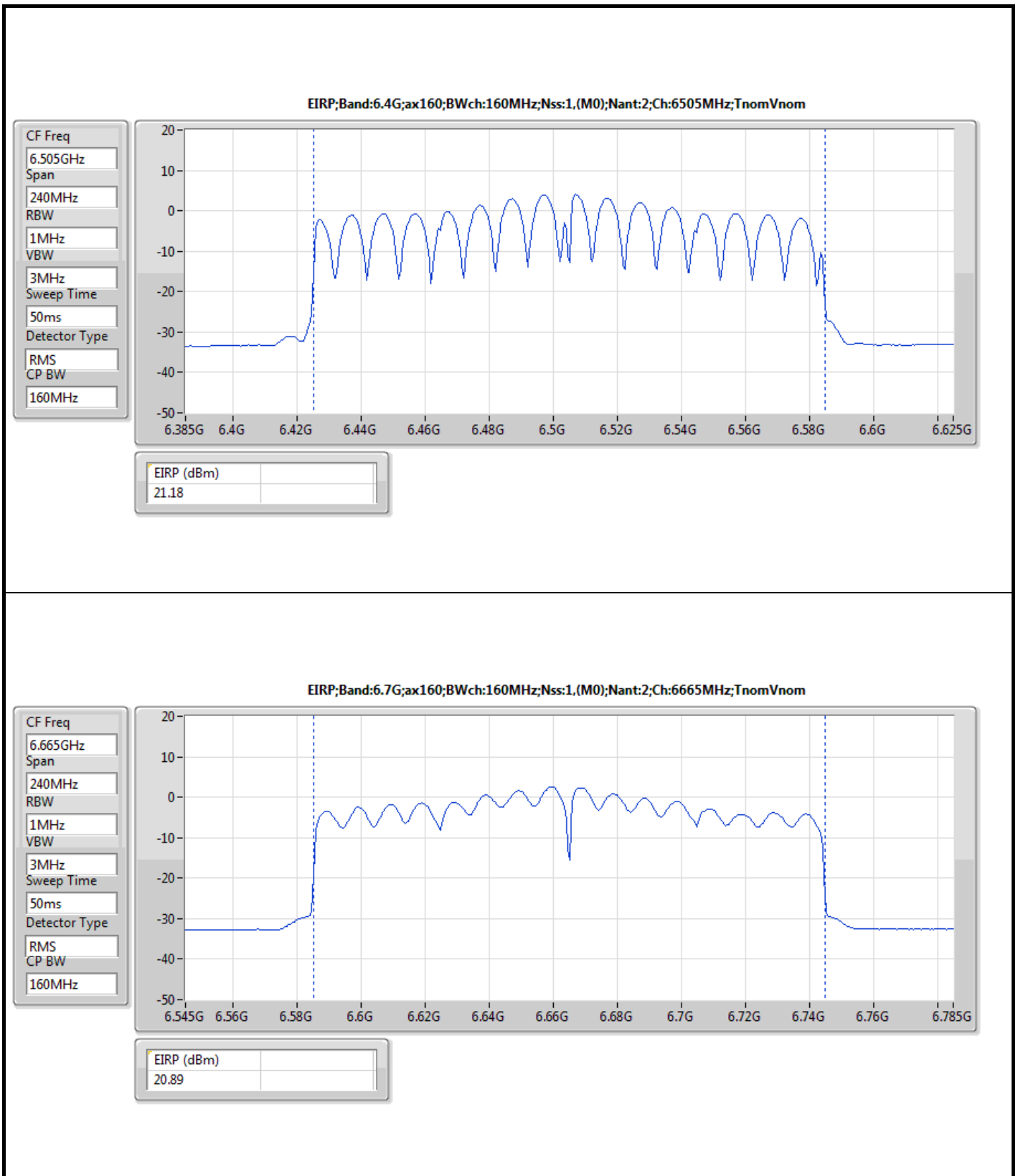


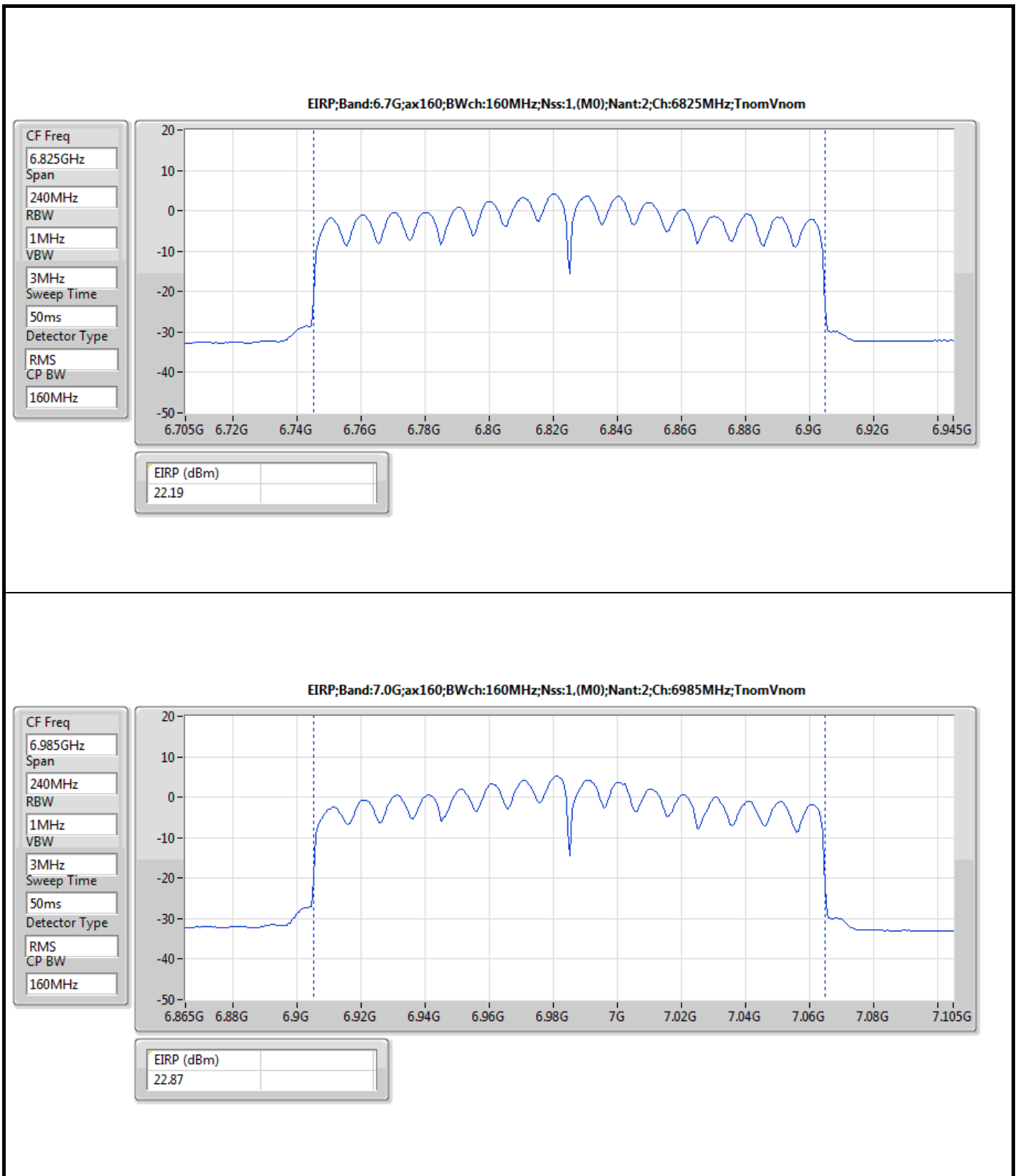












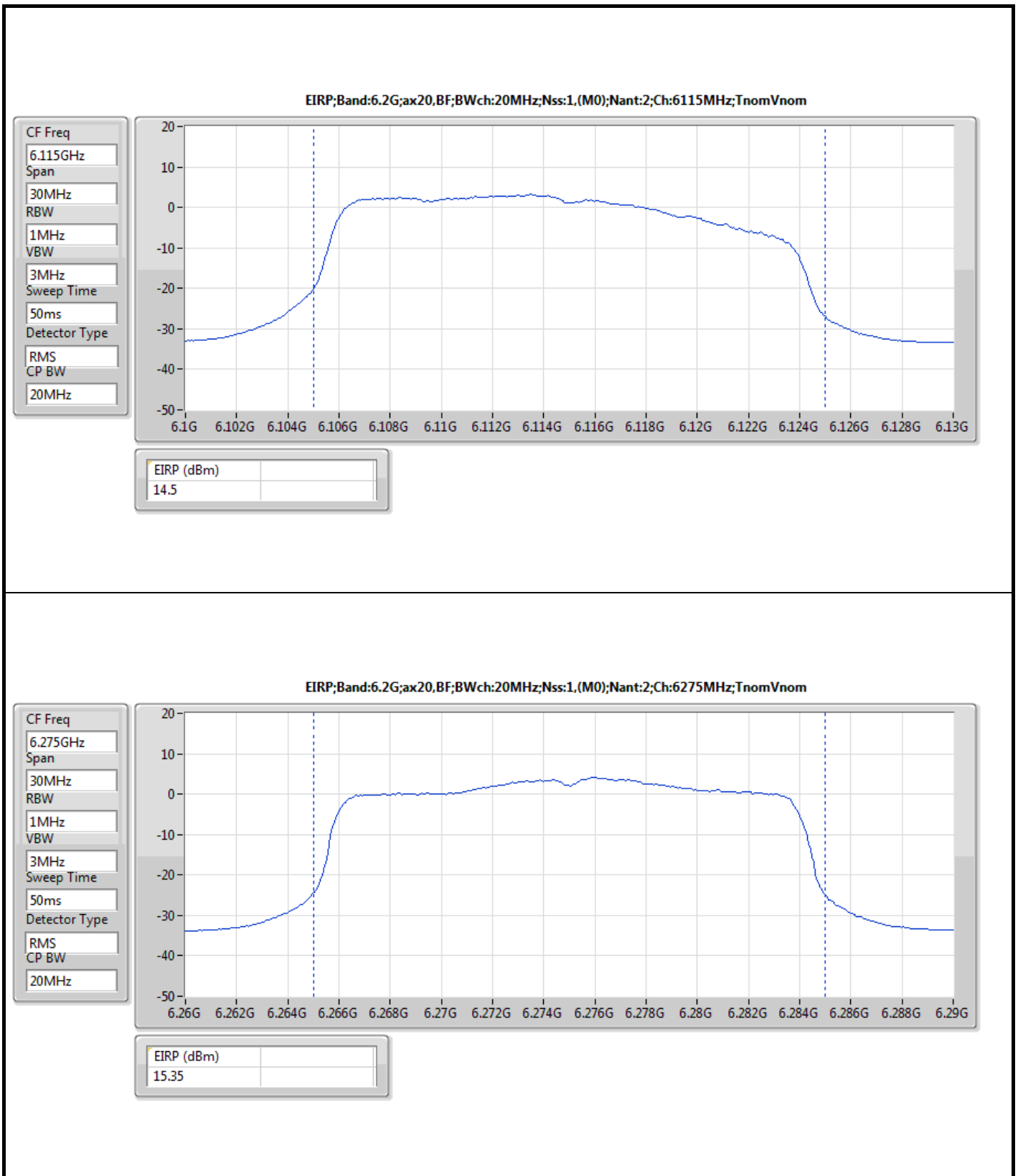
Summary

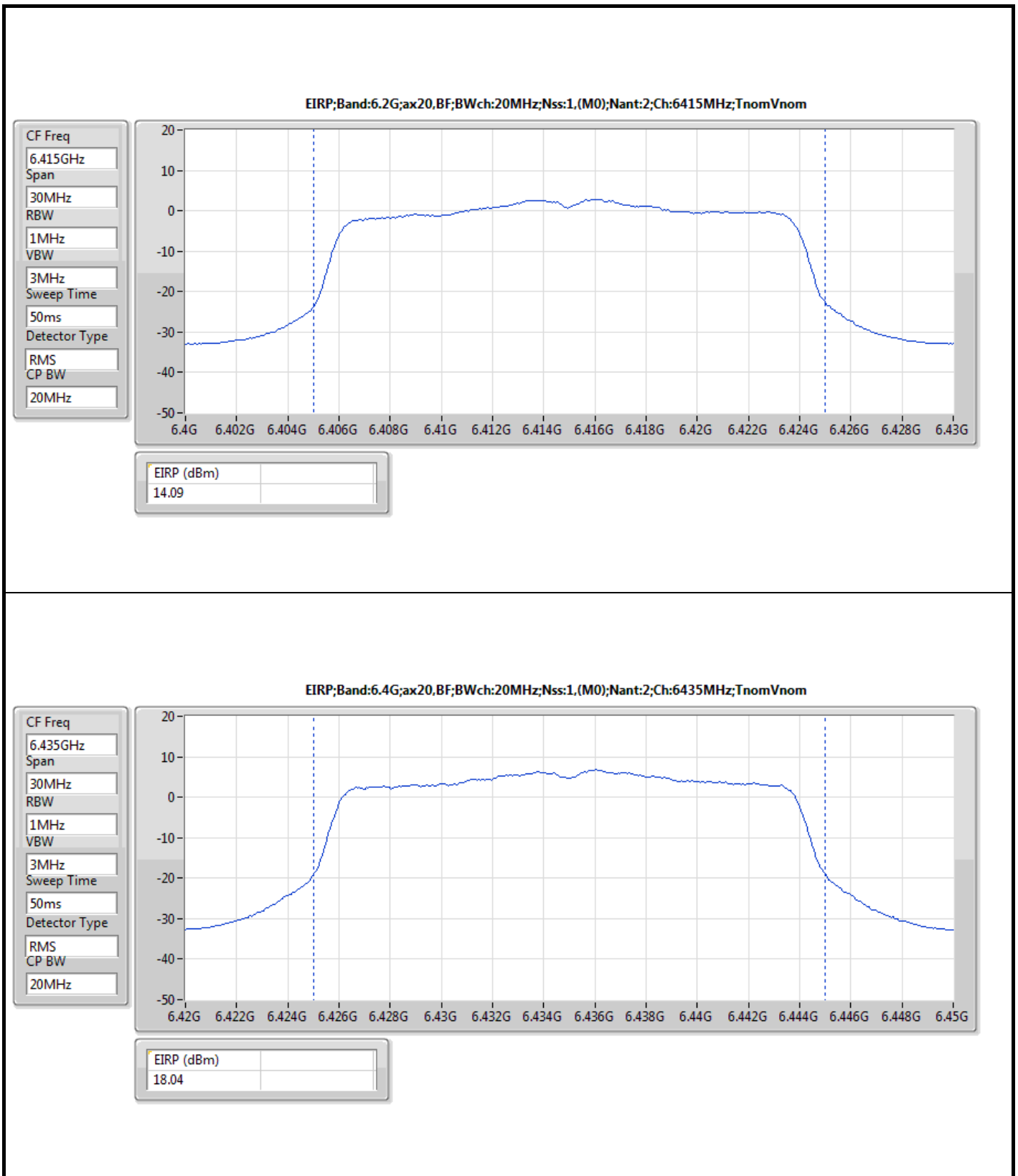
Mode	EIRP (dBm)	EIRP (W)
5.925-6.425GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	15.35	0.03428
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	22.38	0.17298
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	21.05	0.12735
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	23.07	0.20277
6.425-6.525GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	18.04	0.06368
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	22.10	0.16218
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	19.13	0.08185
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	23.95	0.24831
6.525-6.875GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	17.32	0.05395
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	21.13	0.12972
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	21.40	0.13804
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	24.39	0.27479
6.875-7.125GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	16.86	0.04853
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	19.79	0.09528
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	21.50	0.14125
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	22.53	0.17906

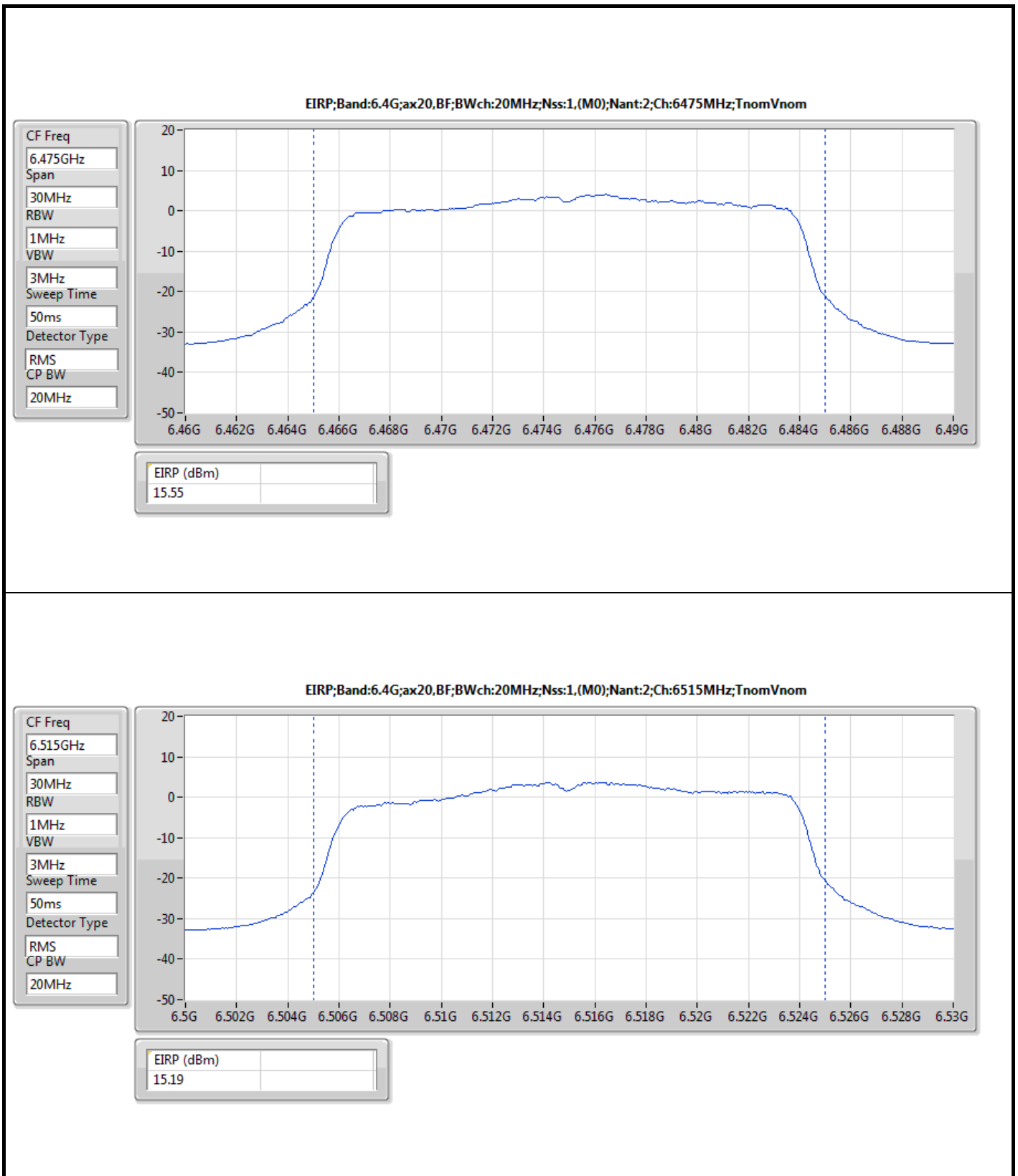
Result

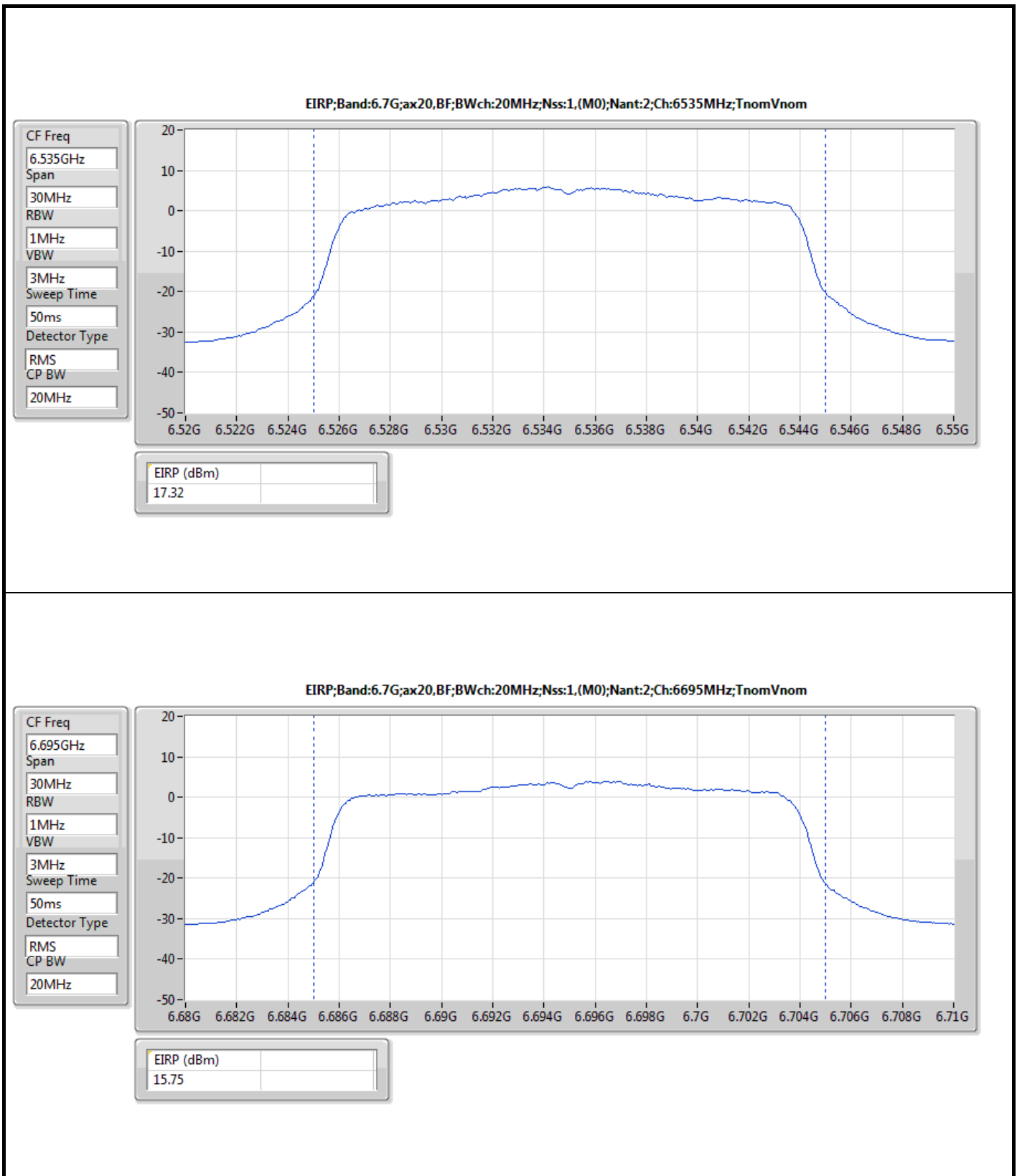
Mode	Result	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-
6115MHz	Pass	14.50	30.00
6275MHz	Pass	15.35	30.00
6415MHz	Pass	14.09	30.00
6435MHz	Pass	18.04	30.00
6475MHz	Pass	15.55	30.00
6515MHz	Pass	15.19	30.00
6535MHz	Pass	17.32	30.00
6695MHz	Pass	15.75	30.00
6855MHz	Pass	15.06	30.00
6875MHz Straddle 6.525-6.875GHz	Pass	16.25	30.00
6895MHz	Pass	16.21	30.00
6995MHz	Pass	16.86	30.00
7095MHz	Pass	16.71	30.00
7115MHz	Pass	12.41	30.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-
6125MHz	Pass	17.96	30.00
6285MHz	Pass	17.25	30.00
6405MHz	Pass	22.38	30.00
6445MHz	Pass	22.10	30.00
6485MHz	Pass	17.69	30.00
6525MHz Straddle 6.425-6.525GHz	Pass	17.62	30.00
6565MHz	Pass	18.39	30.00
6685MHz	Pass	21.13	30.00
6845MHz	Pass	17.98	30.00
6885MHz Straddle 6.525-6.875GHz	Pass	18.54	30.00
6925MHz	Pass	17.43	30.00
7005MHz	Pass	19.79	30.00
7085MHz	Pass	17.38	30.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-
6145MHz	Pass	21.05	30.00
6305MHz	Pass	20.14	30.00
6385MHz	Pass	19.35	30.00
6465MHz	Pass	18.58	30.00
6545MHz Straddle 6.425-6.525GHz	Pass	19.13	30.00
6625MHz	Pass	20.44	30.00
6705MHz	Pass	19.89	30.00
6785MHz	Pass	21.40	30.00
6865MHz Straddle 6.525-6.875GHz	Pass	19.97	30.00
6945MHz	Pass	21.50	30.00
7025MHz	Pass	21.43	30.00
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-	-	-
6185MHz	Pass	23.07	30.00
6345MHz	Pass	22.13	30.00
6505MHz Straddle 6.425-6.525GHz	Pass	23.95	30.00
6665MHz	Pass	24.39	30.00
6825MHz Straddle 6.525-6.875GHz	Pass	24.07	30.00
6985MHz	Pass	22.53	30.00

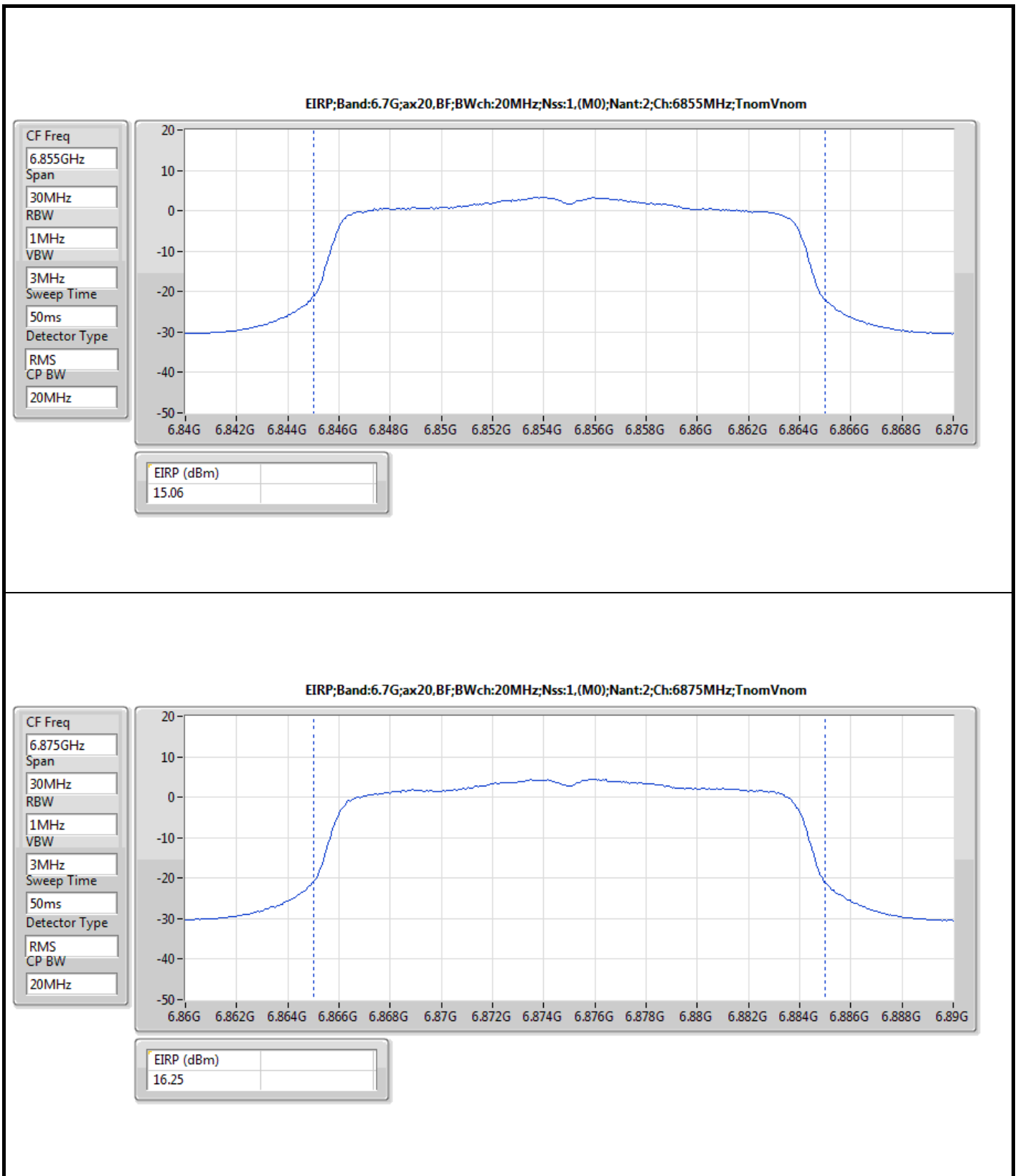
DG = Directional Gain; Port X = Port X output power

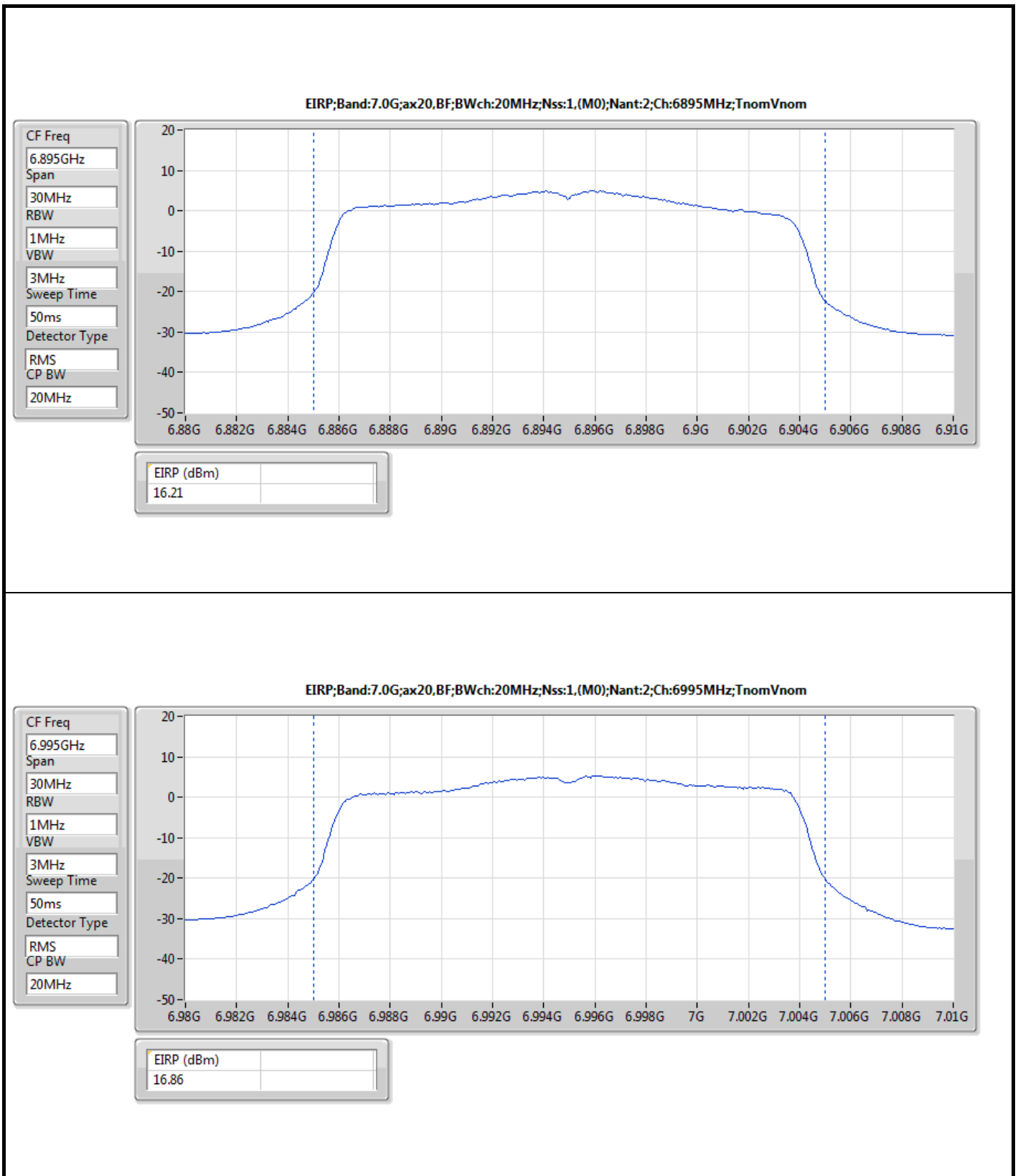


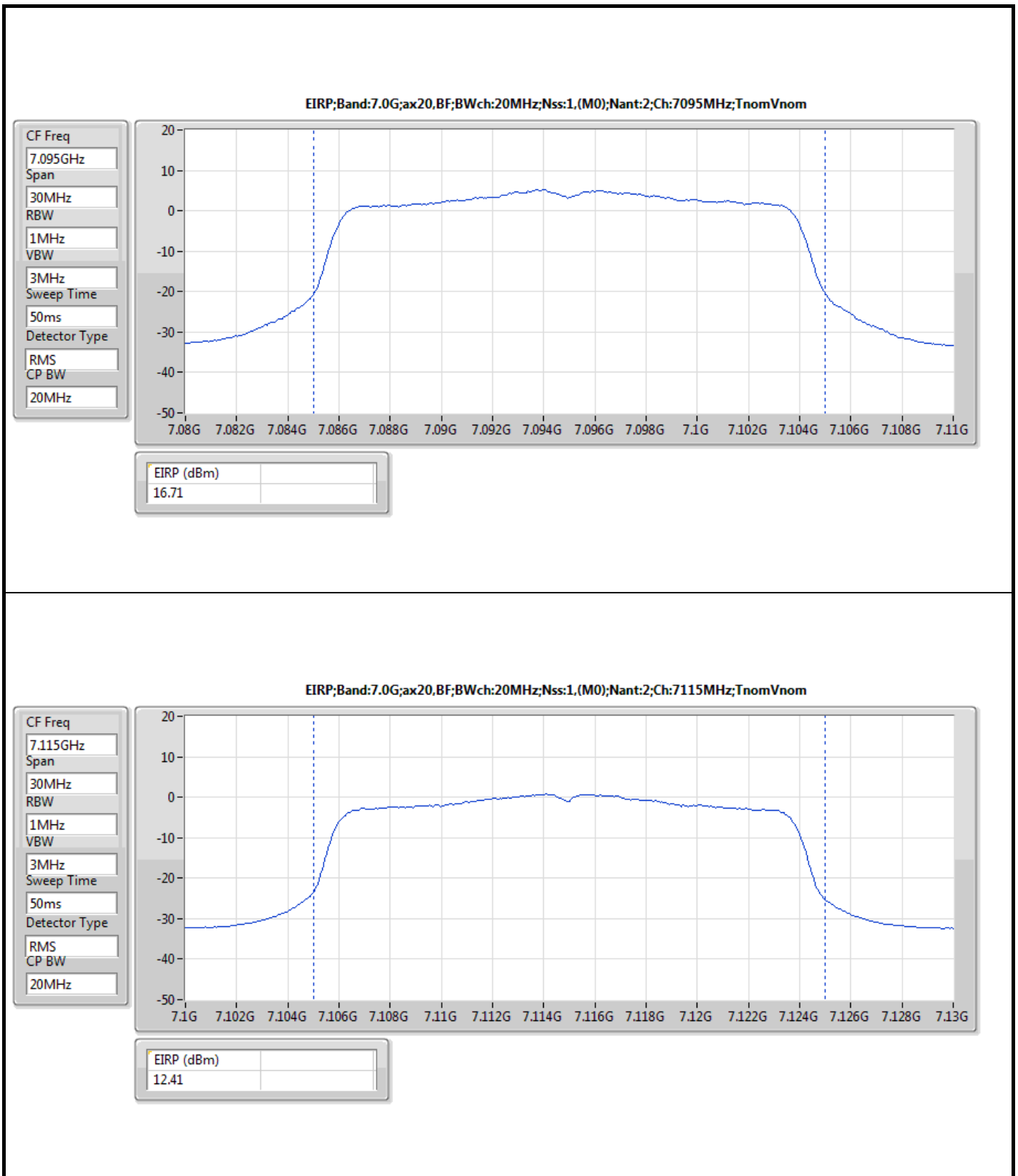


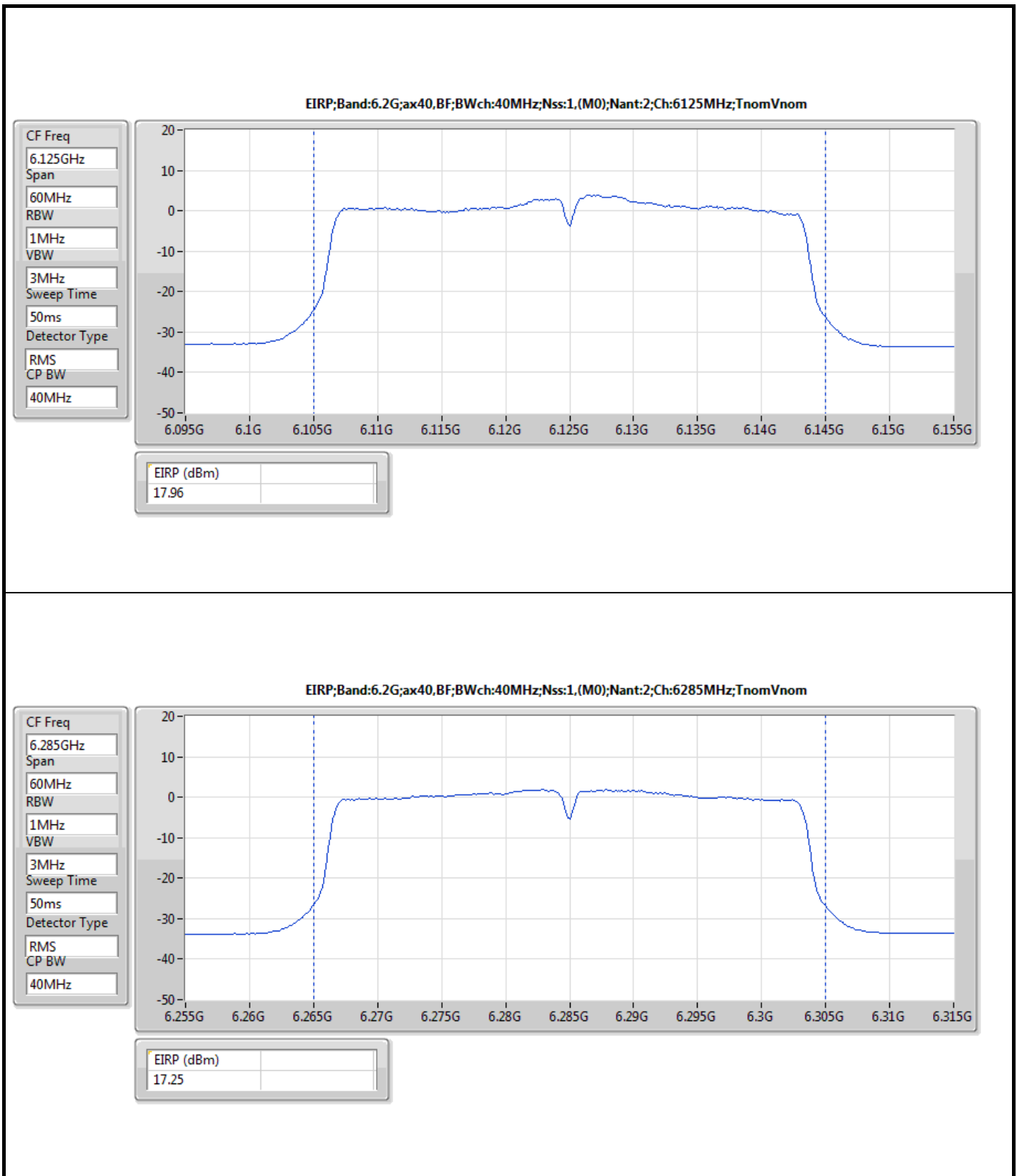


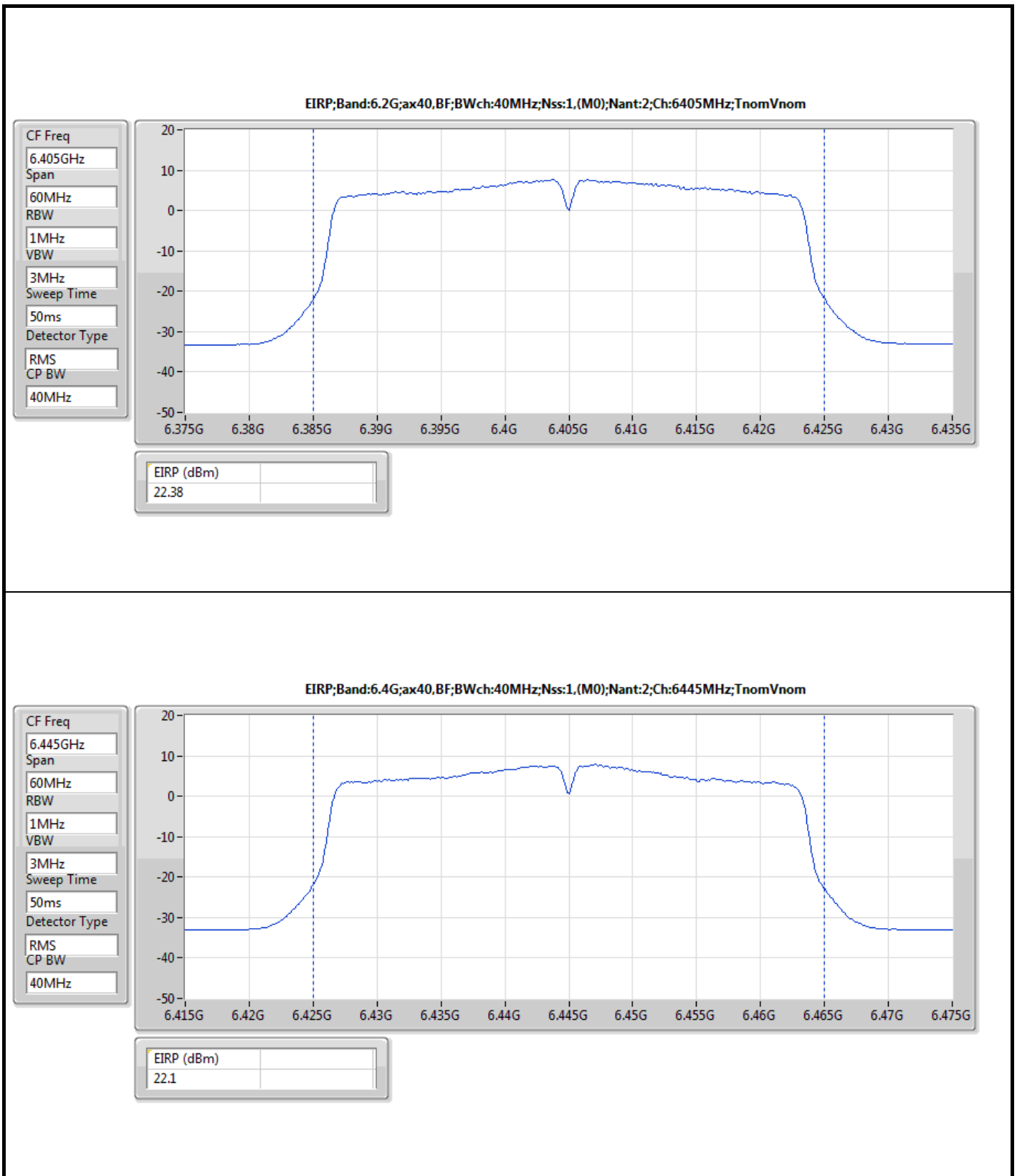


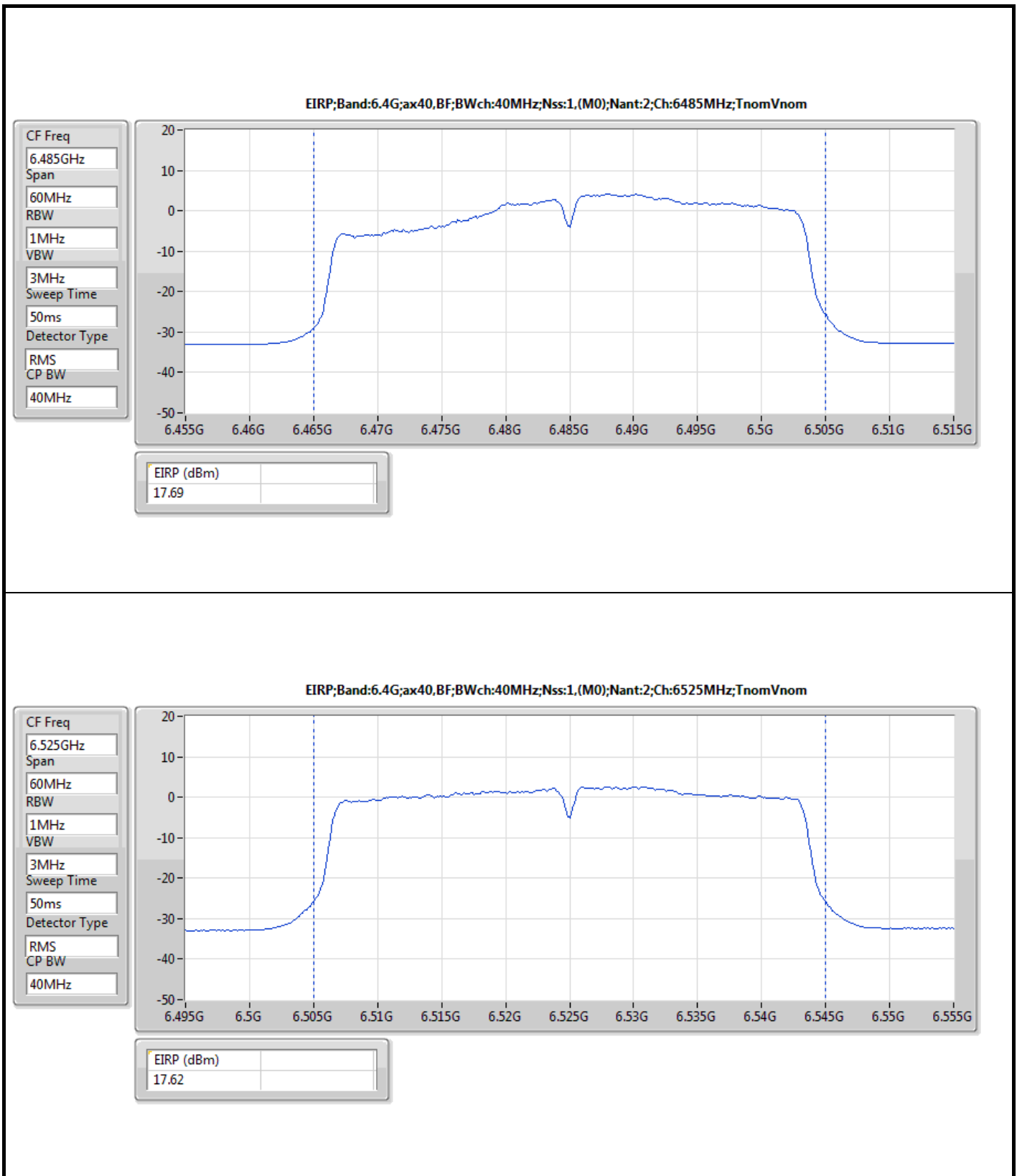


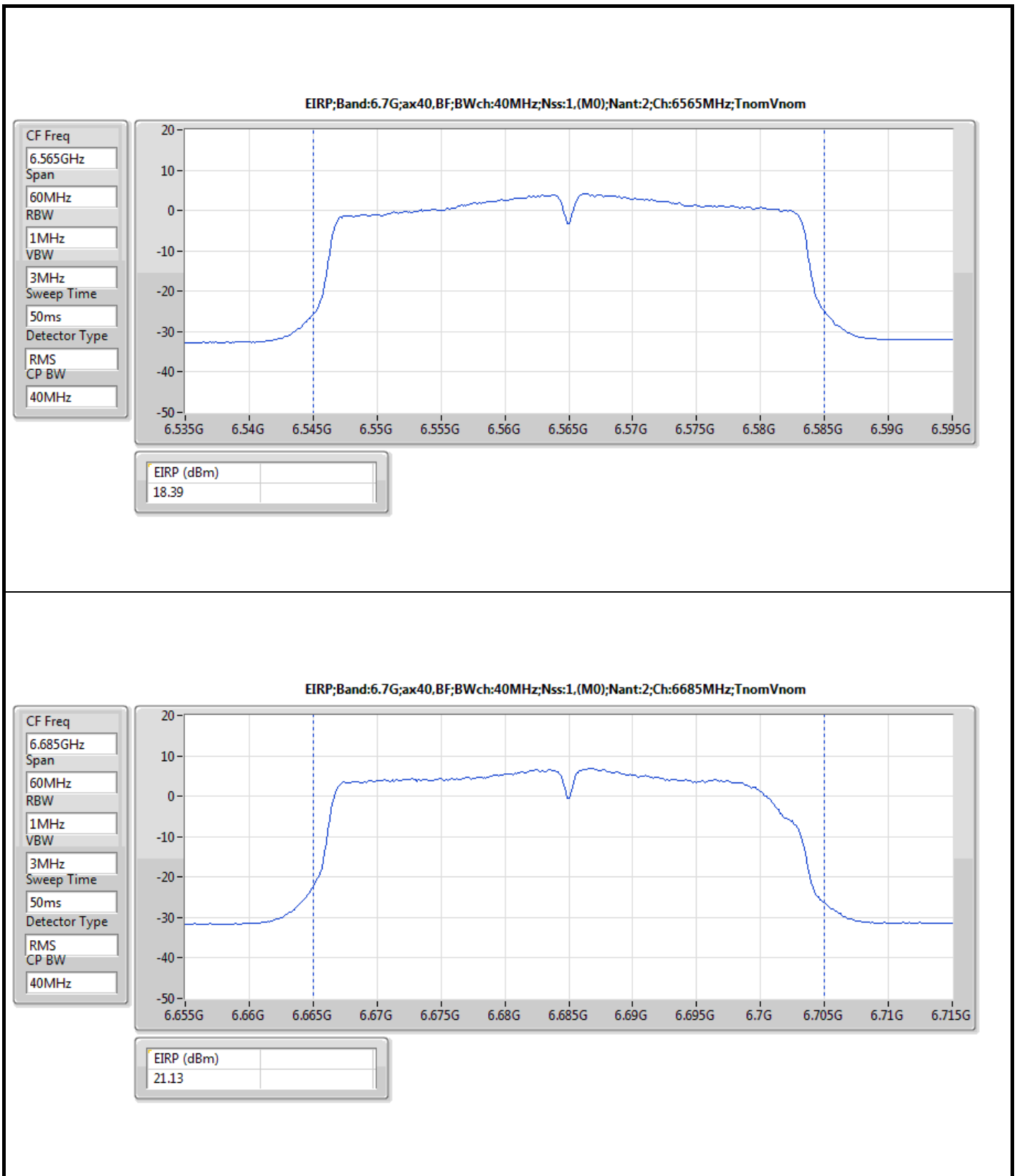


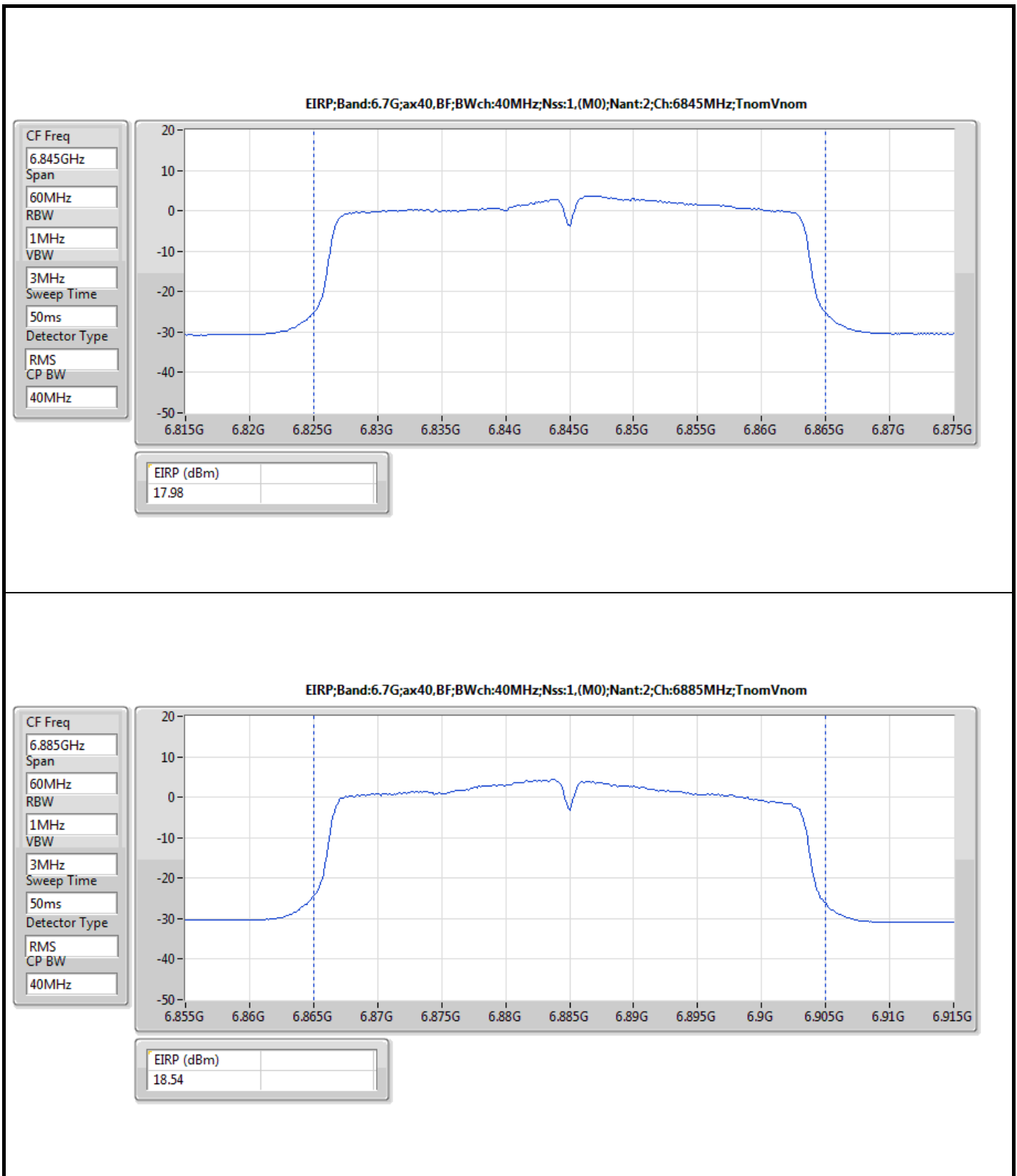


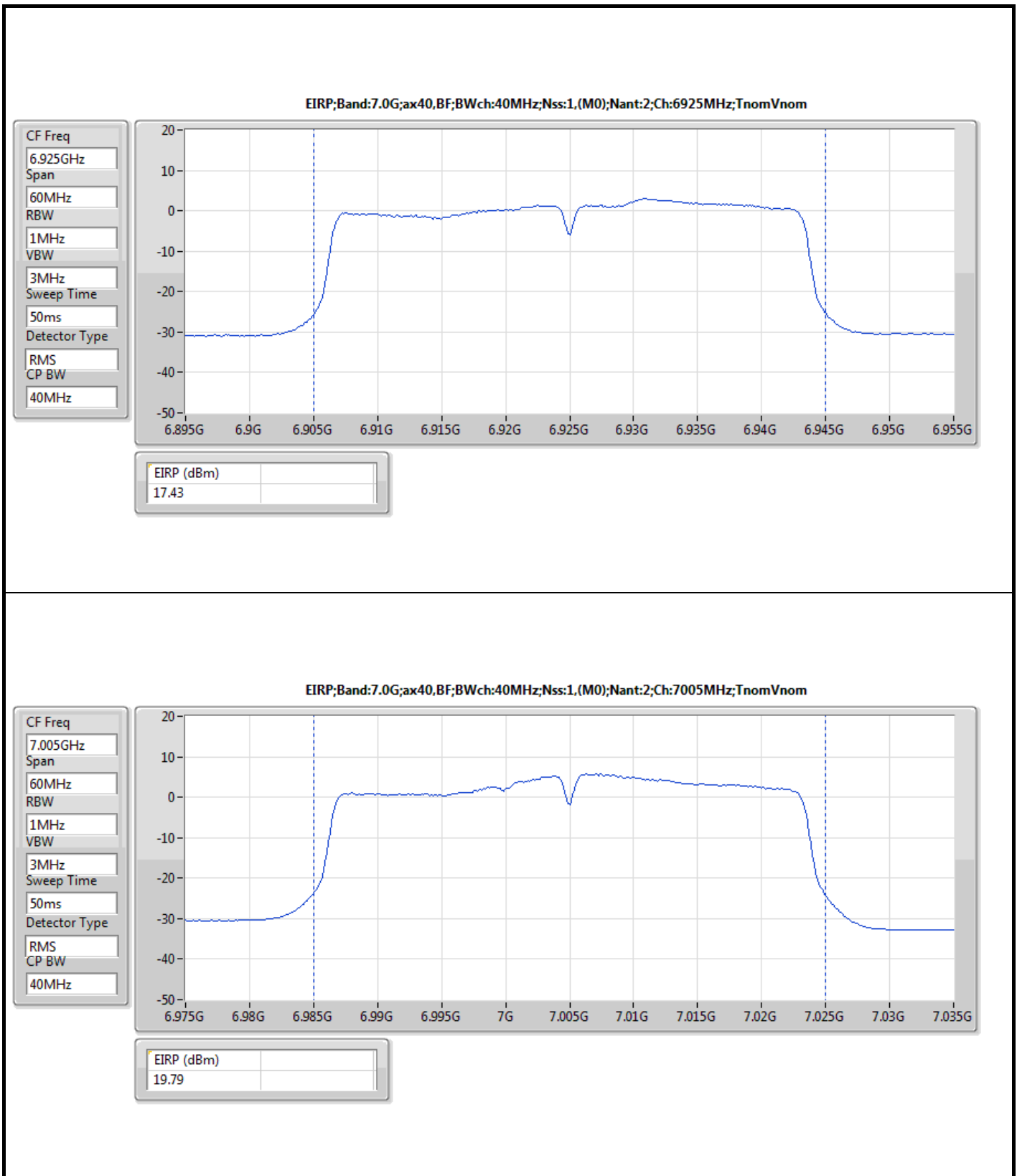


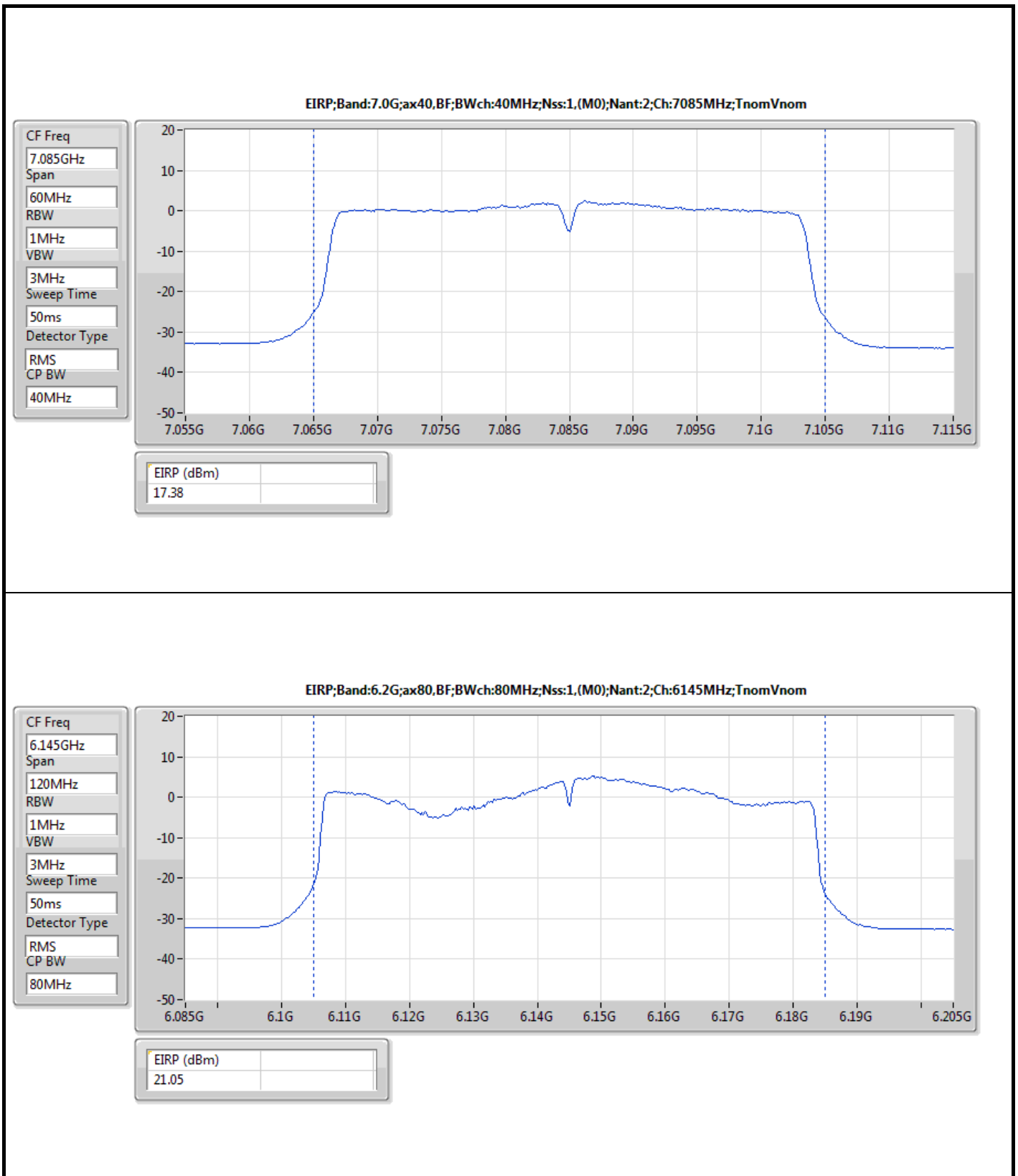


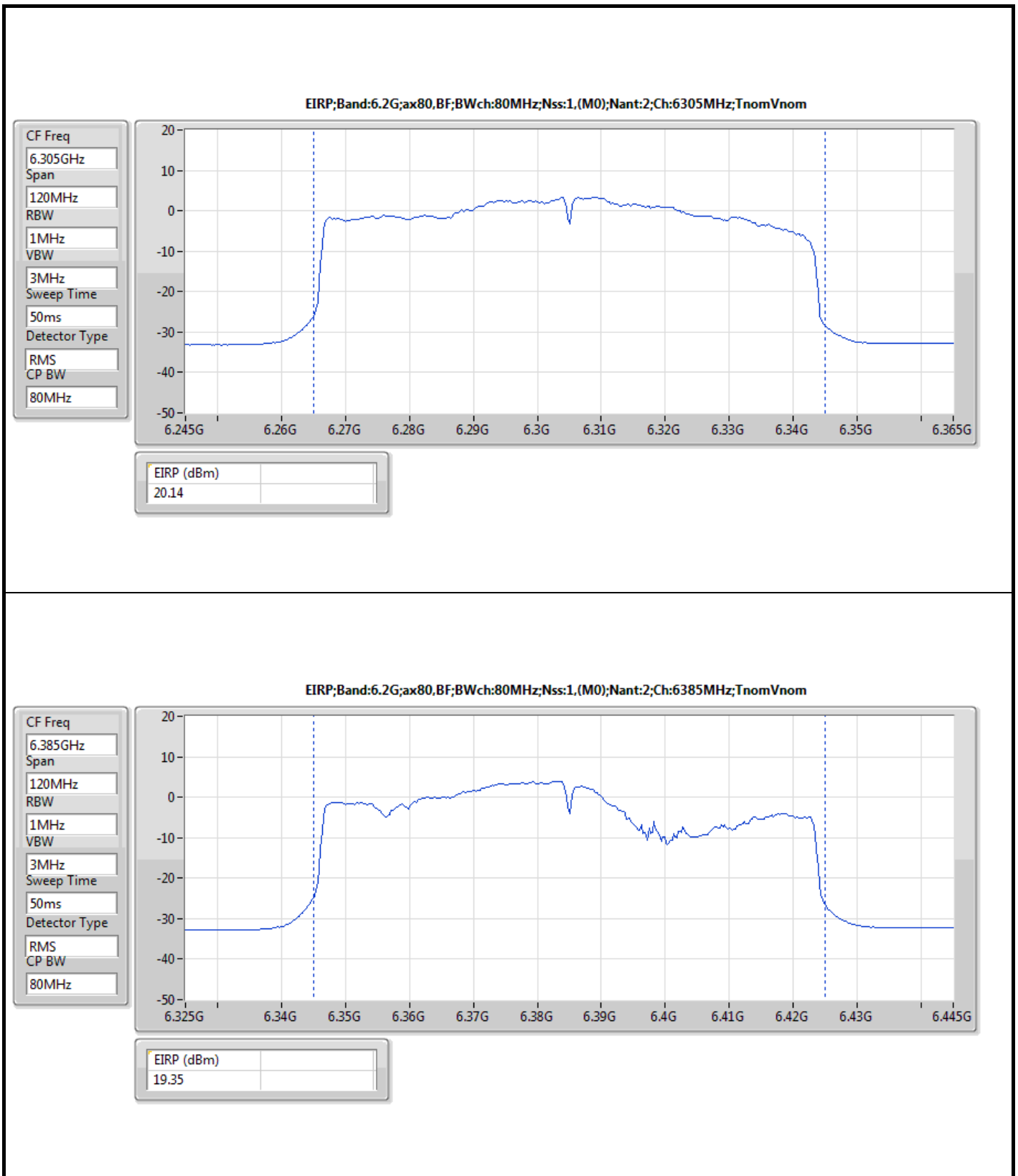


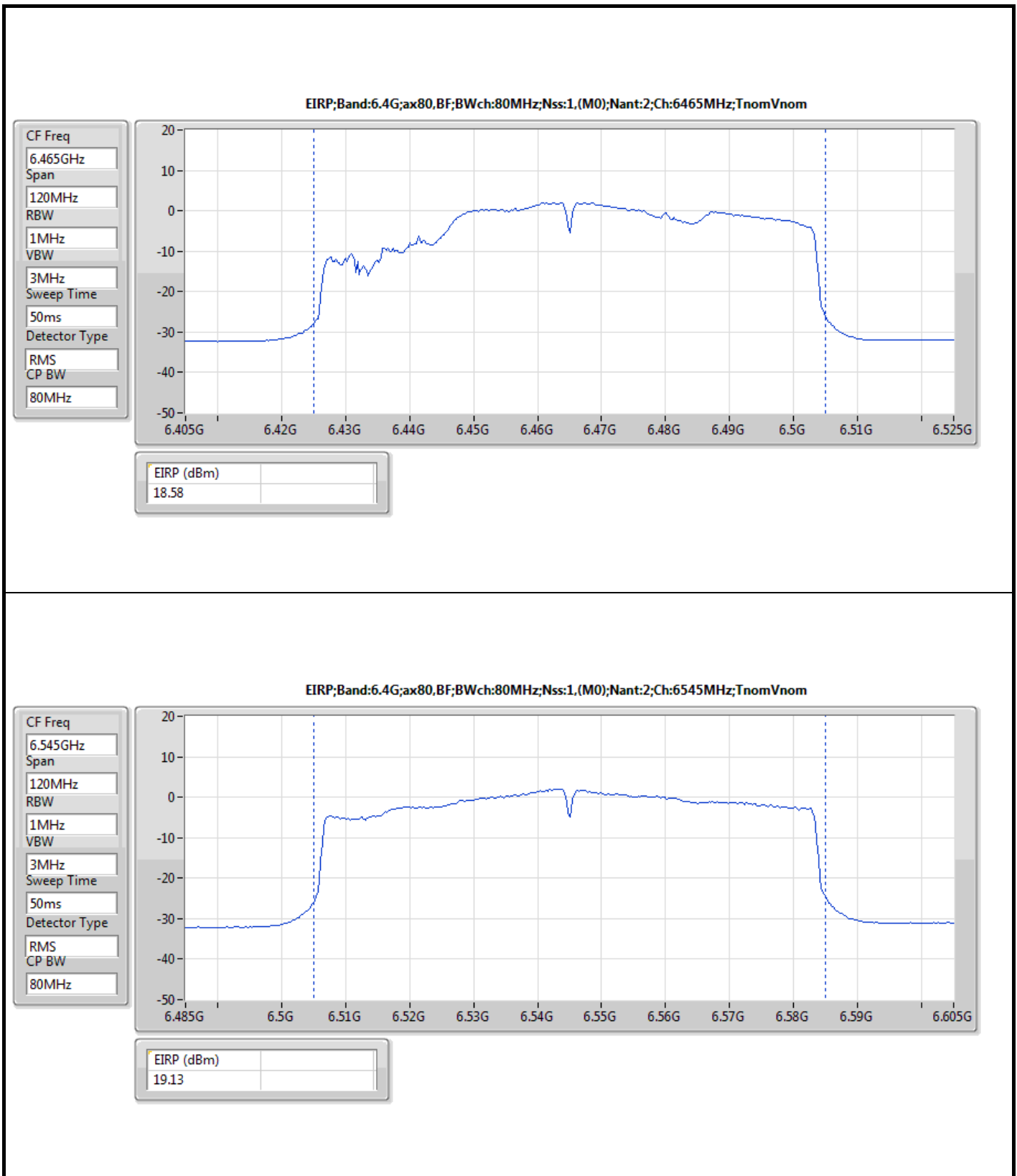


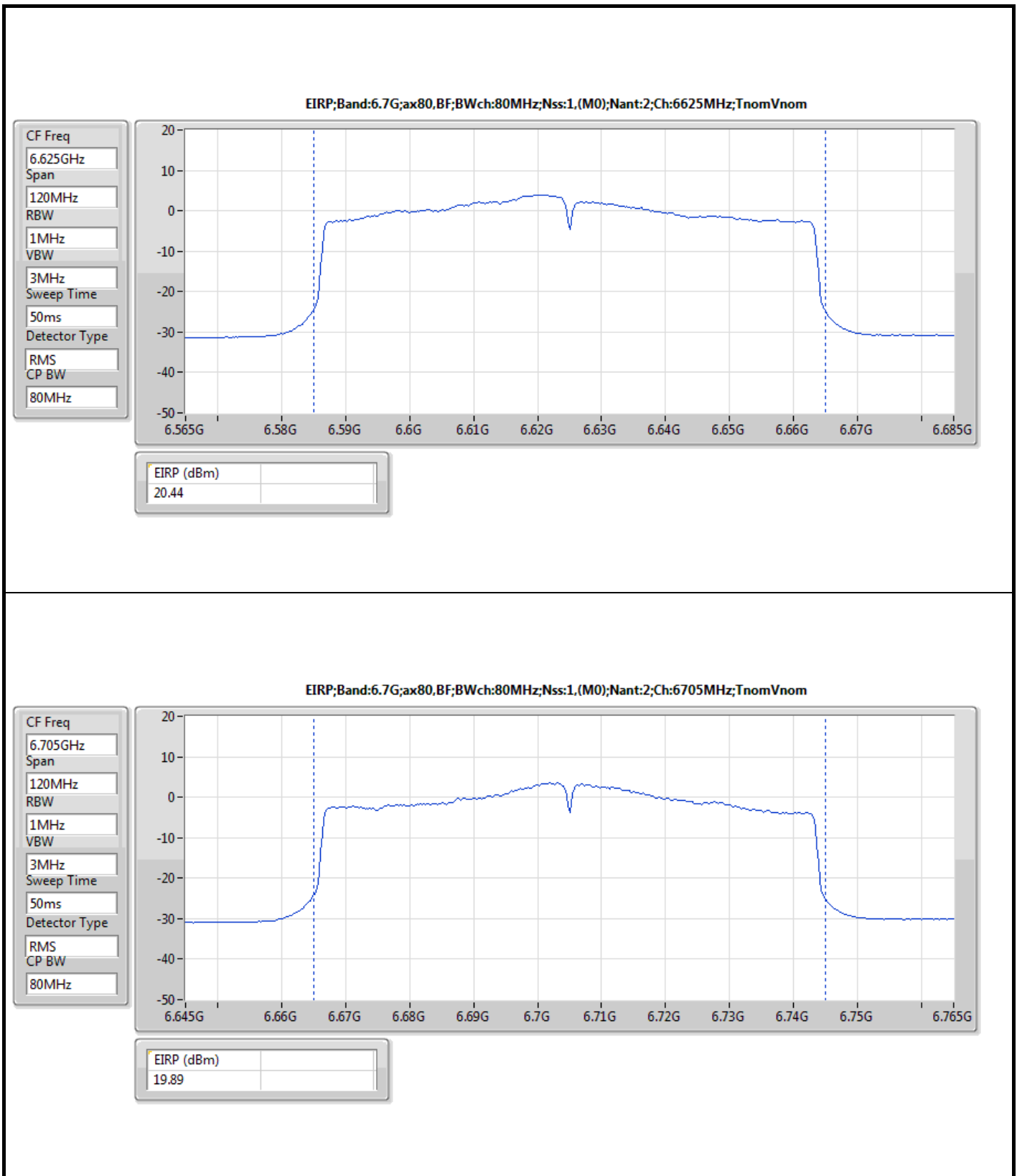


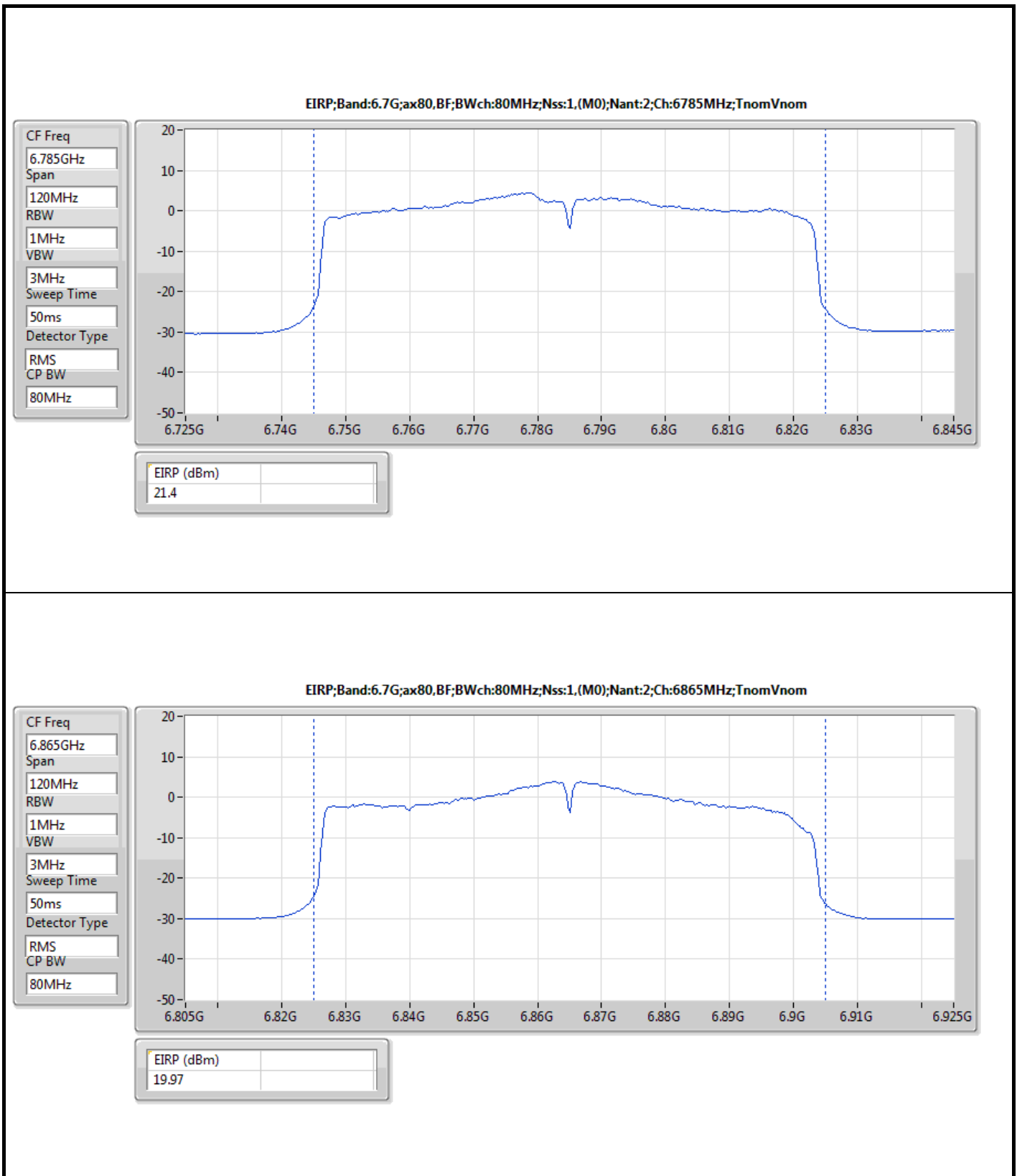


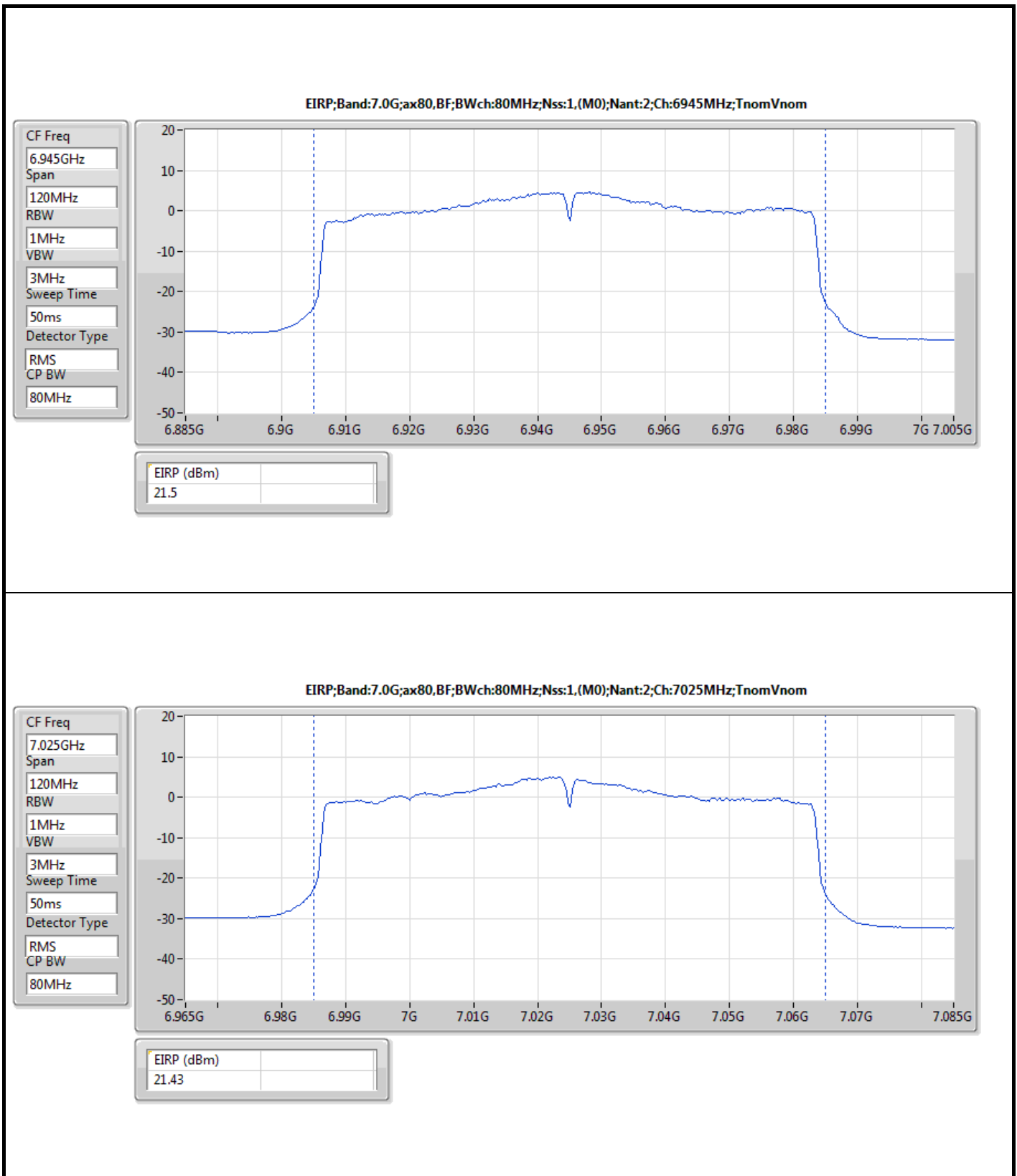




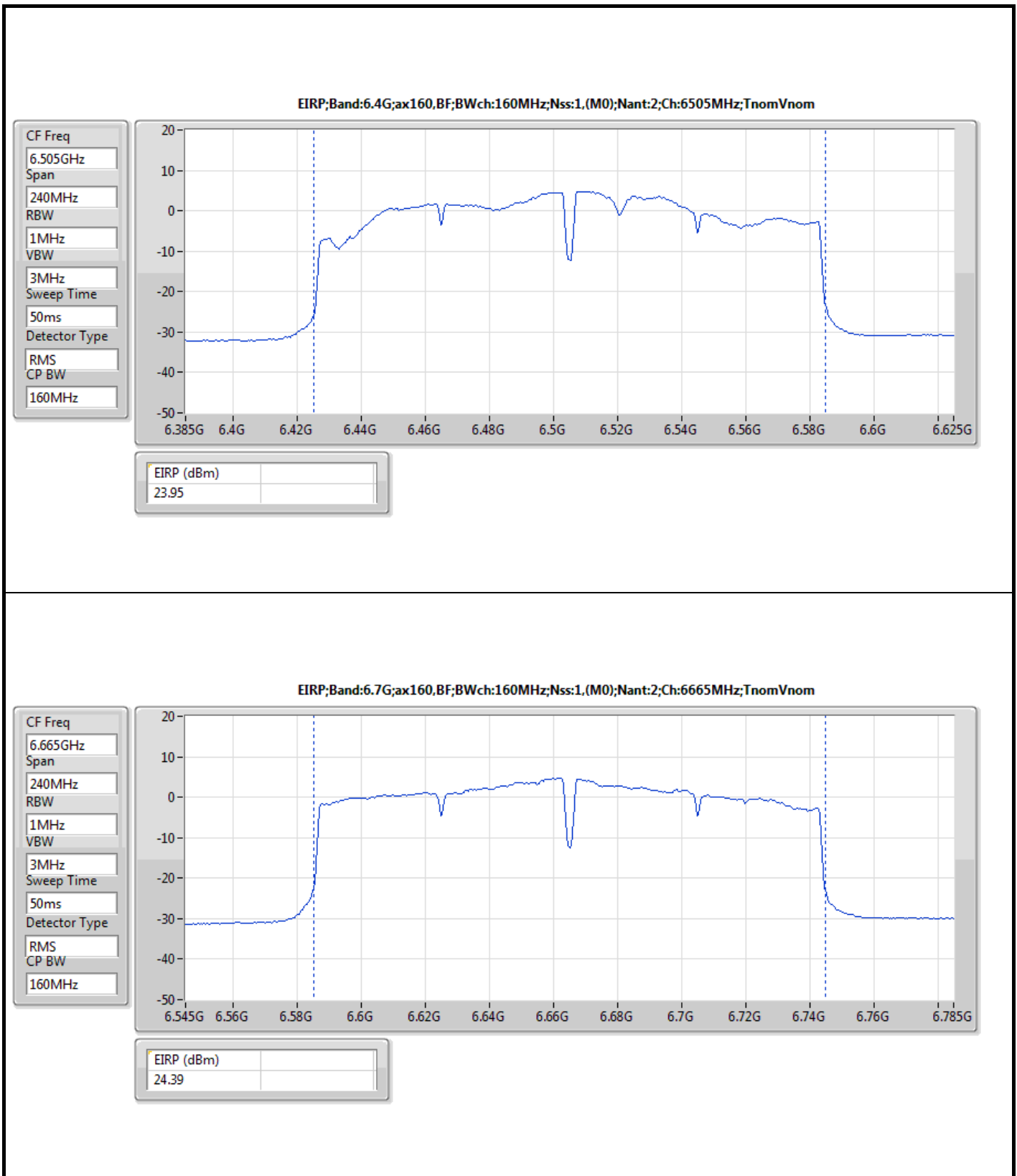














Summary

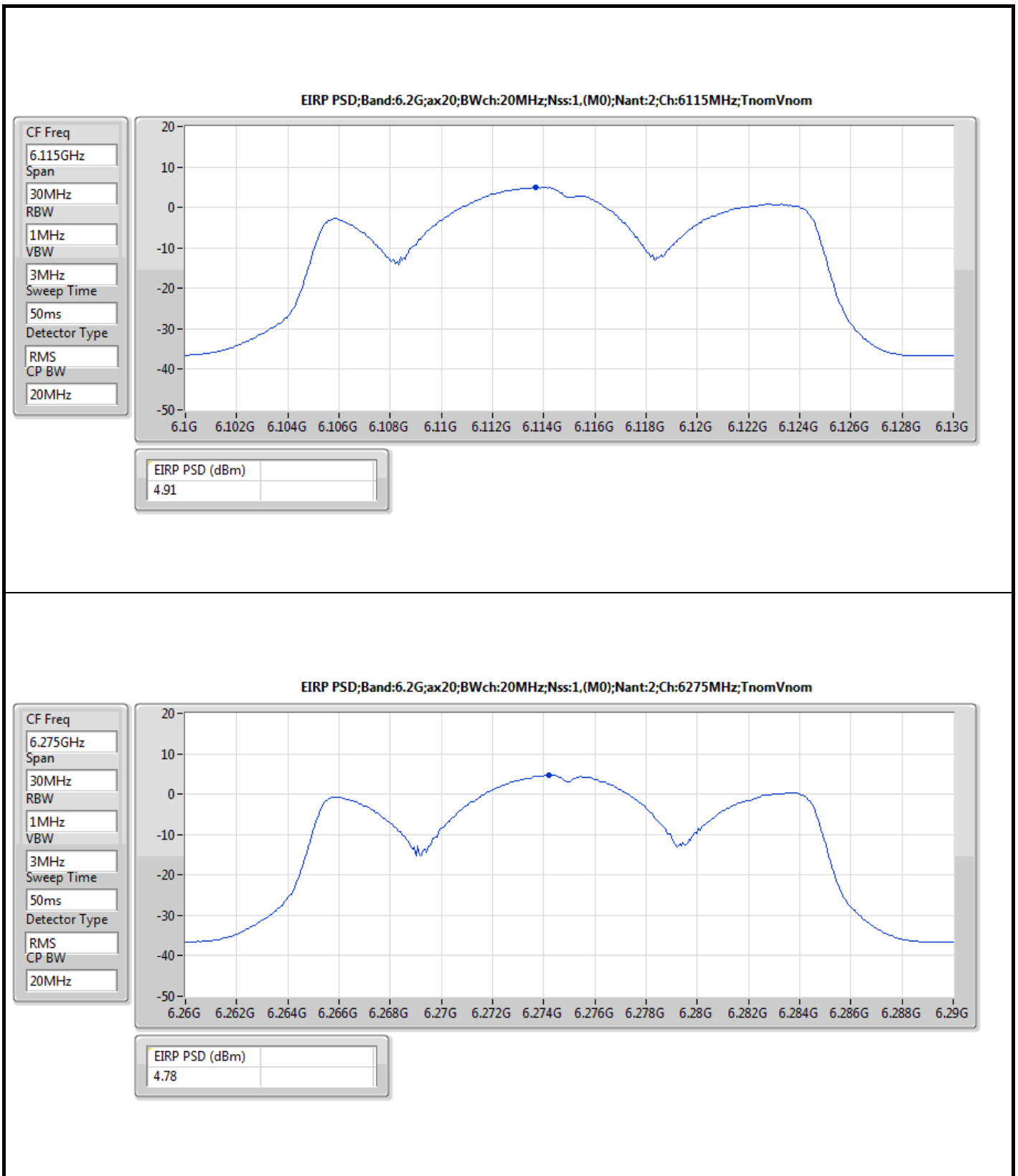
Mode	EIRP PD (dBm/RBW)
5.925-6.425GHz	-
802.11ax HEW20_Nss1,(MCS0)_2TX	4.93
802.11ax HEW40_Nss1,(MCS0)_2TX	4.84
802.11ax HEW80_Nss1,(MCS0)_2TX	4.98
802.11ax HEW160_Nss1,(MCS0)_2TX	4.98
6.425-6.525GHz	-
802.11ax HEW20_Nss1,(MCS0)_2TX	4.82
802.11ax HEW40_Nss1,(MCS0)_2TX	4.86
802.11ax HEW80_Nss1,(MCS0)_2TX	4.90
802.11ax HEW160_Nss1,(MCS0)_2TX	4.66
6.525-6.875GHz	-
802.11ax HEW20_Nss1,(MCS0)_2TX	4.94
802.11ax HEW40_Nss1,(MCS0)_2TX	4.71
802.11ax HEW80_Nss1,(MCS0)_2TX	4.96
802.11ax HEW160_Nss1,(MCS0)_2TX	4.82
6.875-7.125GHz	-
802.11ax HEW20_Nss1,(MCS0)_2TX	4.93
802.11ax HEW40_Nss1,(MCS0)_2TX	4.79
802.11ax HEW80_Nss1,(MCS0)_2TX	4.93
802.11ax HEW160_Nss1,(MCS0)_2TX	4.56

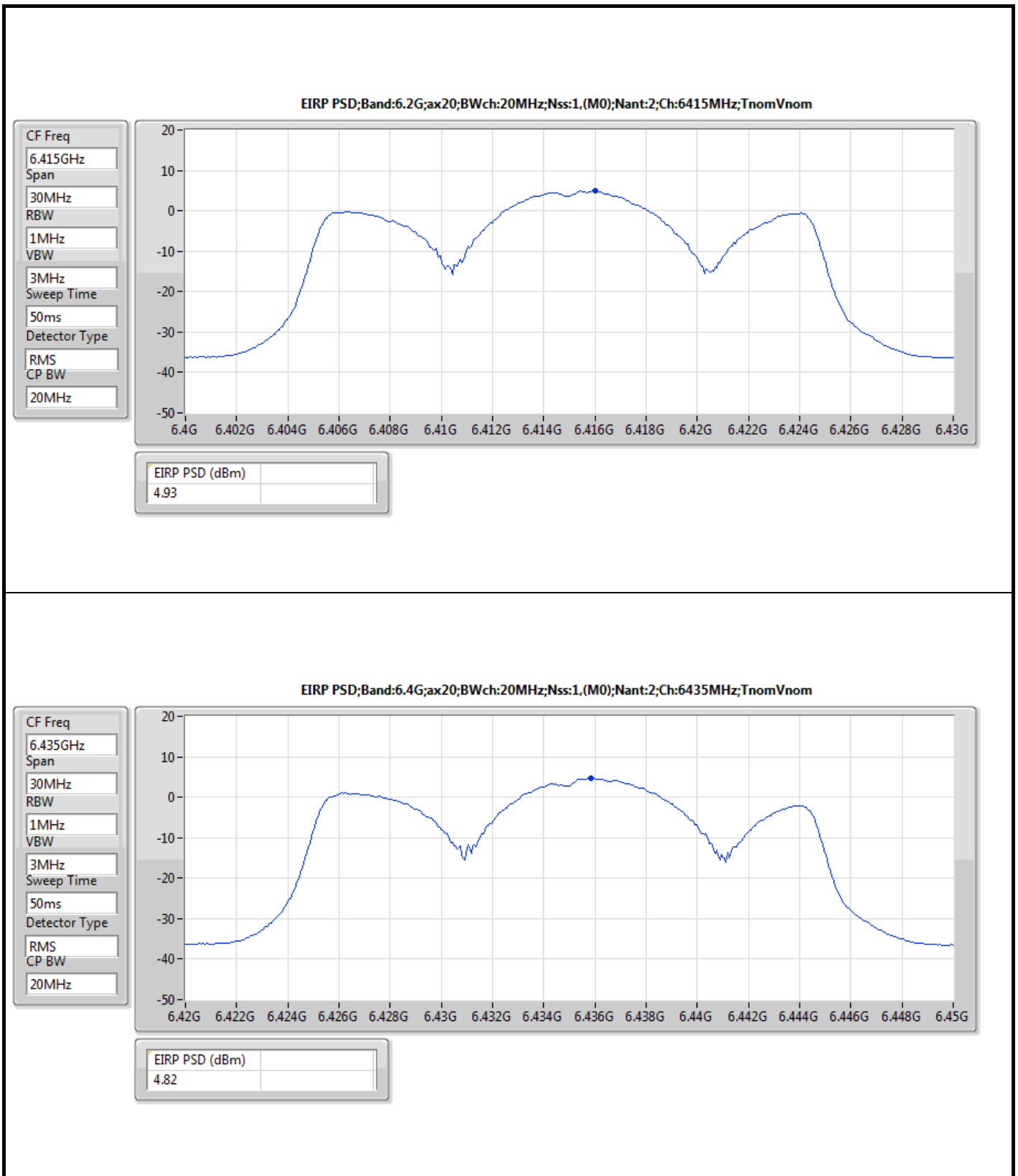
RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

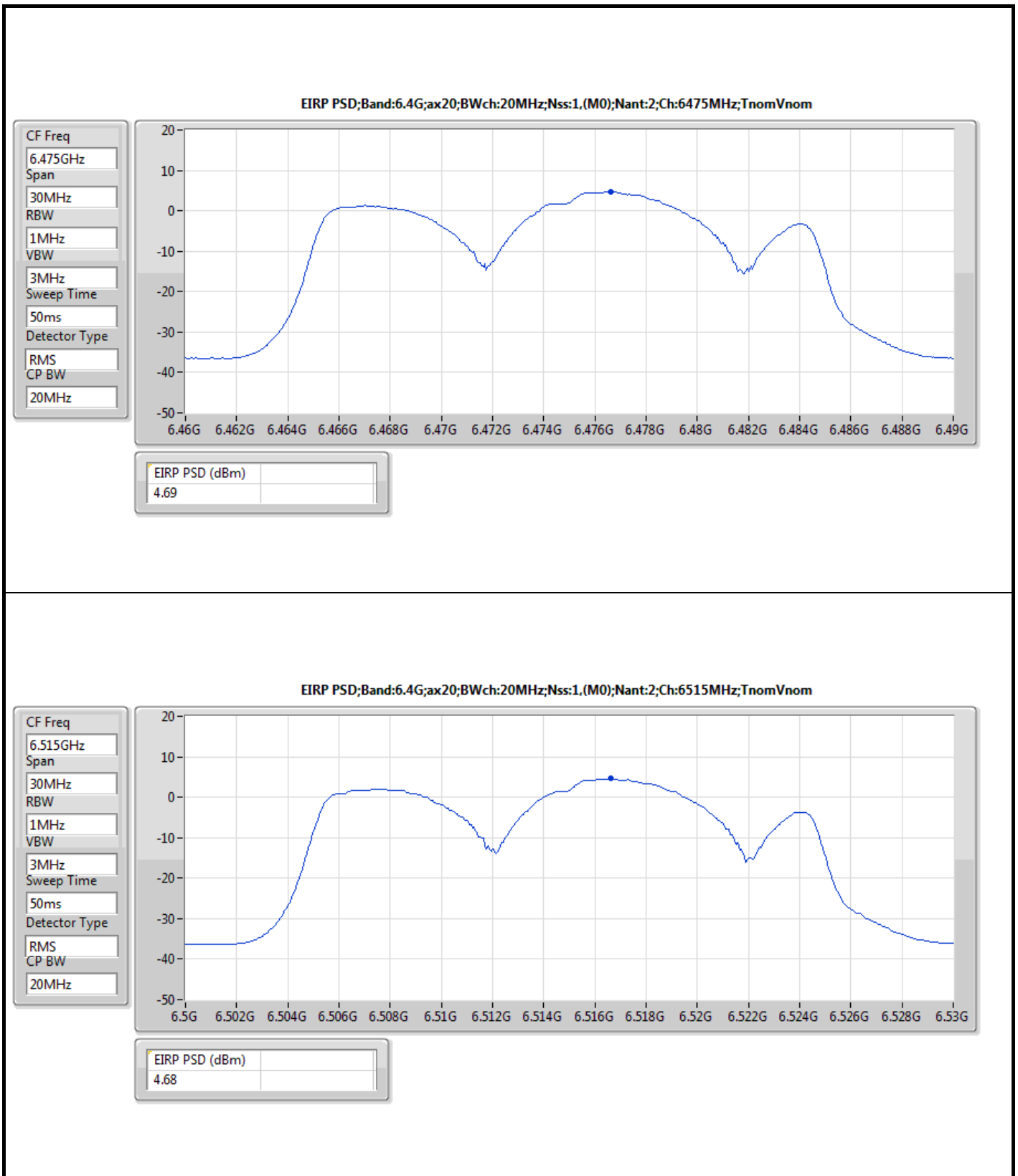
Result

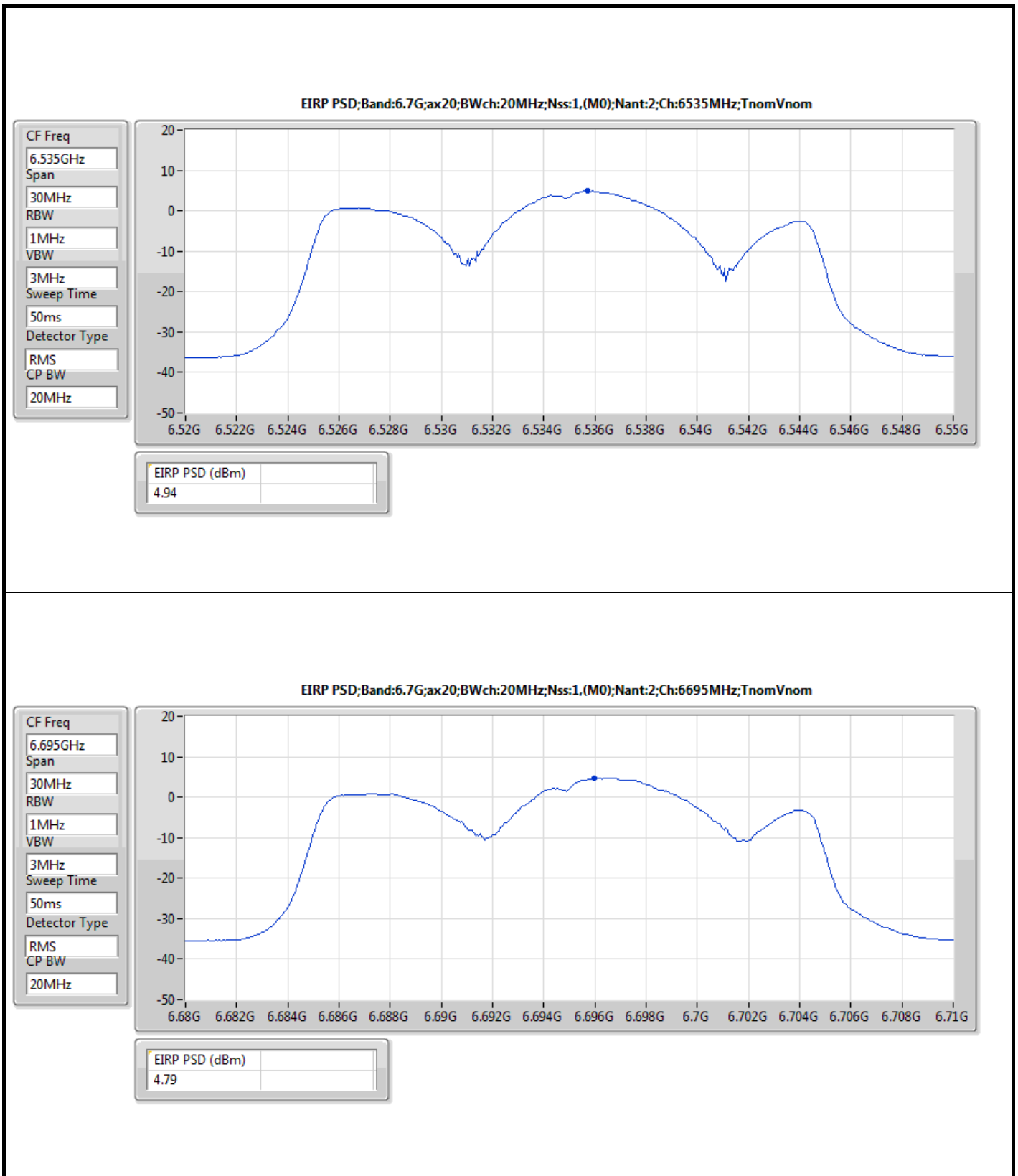
Mode	Result	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-
6115MHz	Pass	4.91	5.00
6275MHz	Pass	4.78	5.00
6415MHz	Pass	4.93	5.00
6435MHz	Pass	4.82	5.00
6475MHz	Pass	4.69	5.00
6515MHz	Pass	4.68	5.00
6535MHz	Pass	4.94	5.00
6695MHz	Pass	4.79	5.00
6855MHz	Pass	4.72	5.00
6875MHz Straddle 6.525-6.875GHz	Pass	4.65	5.00
6895MHz	Pass	4.84	5.00
6995MHz	Pass	4.63	5.00
7095MHz	Pass	4.93	5.00
7115MHz	Pass	1.79	5.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-
6125MHz	Pass	4.84	5.00
6285MHz	Pass	4.70	5.00
6405MHz	Pass	4.78	5.00
6445MHz	Pass	4.86	5.00
6485MHz	Pass	4.60	5.00
6525MHz Straddle 6.425-6.525GHz	Pass	4.58	5.00
6565MHz	Pass	4.57	5.00
6685MHz	Pass	4.54	5.00
6845MHz	Pass	4.71	5.00
6885MHz Straddle 6.525-6.875GHz	Pass	4.59	5.00
6925MHz	Pass	4.79	5.00
7005MHz	Pass	4.75	5.00
7085MHz	Pass	4.61	5.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-
6145MHz	Pass	4.98	5.00
6305MHz	Pass	4.70	5.00
6385MHz	Pass	4.68	5.00
6465MHz	Pass	4.51	5.00
6545MHz Straddle 6.425-6.525GHz	Pass	4.90	5.00
6625MHz	Pass	4.67	5.00
6705MHz	Pass	4.75	5.00
6785MHz	Pass	4.96	5.00
6865MHz Straddle 6.525-6.875GHz	Pass	4.91	5.00
6945MHz	Pass	4.86	5.00
7025MHz	Pass	4.93	5.00
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-
6185MHz	Pass	4.98	5.00
6345MHz	Pass	4.91	5.00
6505MHz Straddle 6.425-6.525GHz	Pass	4.66	5.00
6665MHz	Pass	4.82	5.00
6825MHz Straddle 6.525-6.875GHz	Pass	4.62	5.00
6985MHz	Pass	4.56	5.00

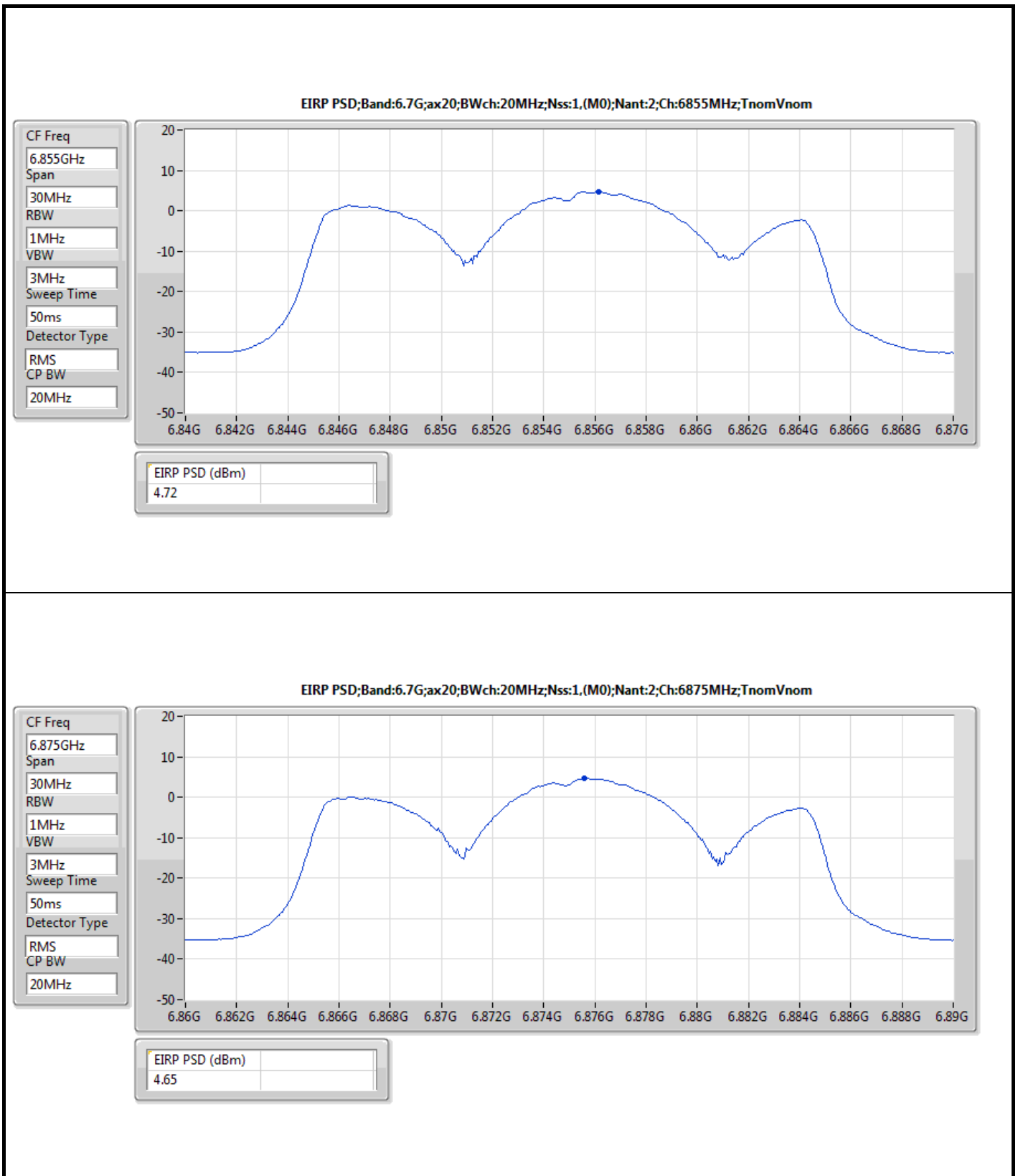
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;



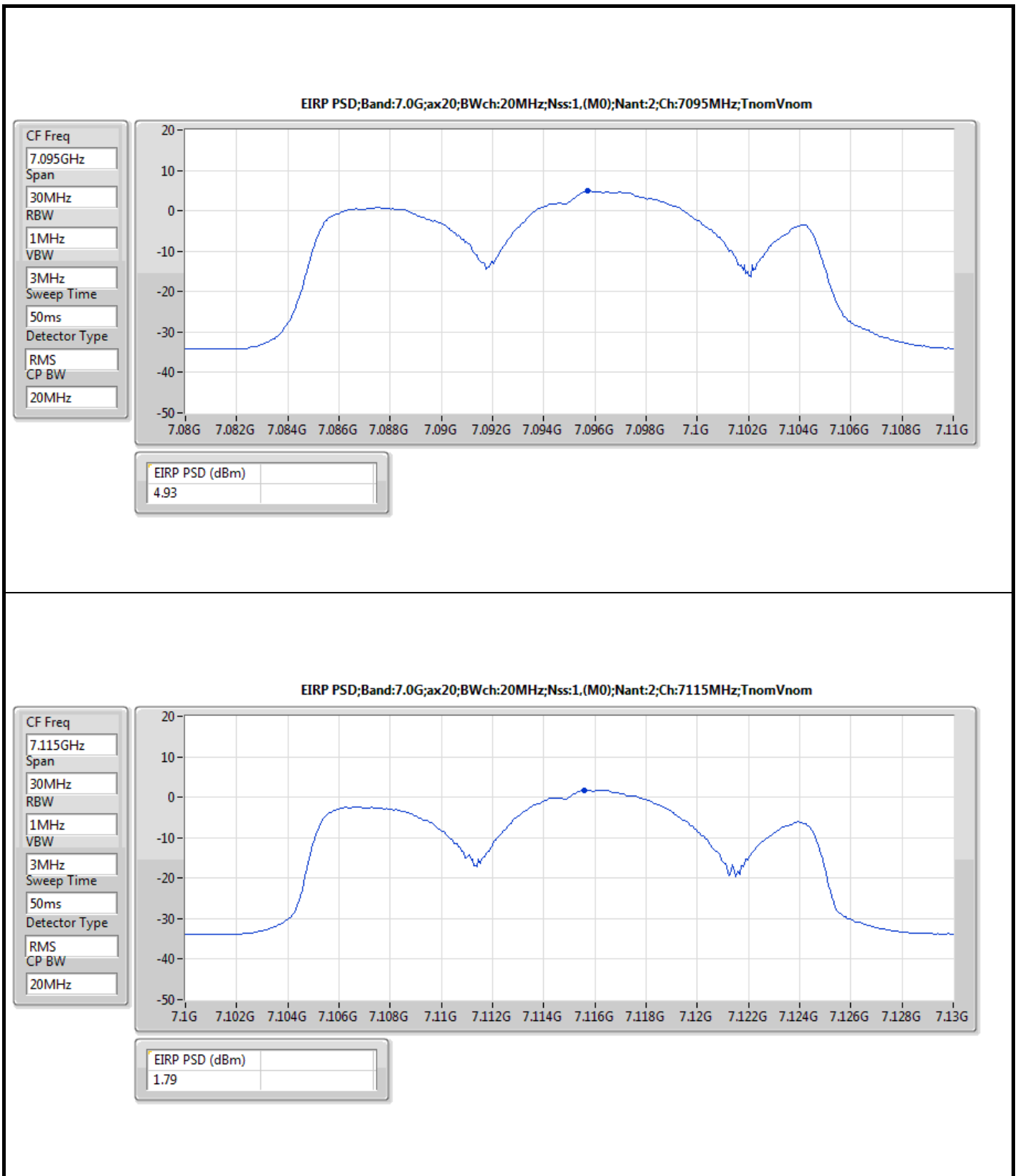


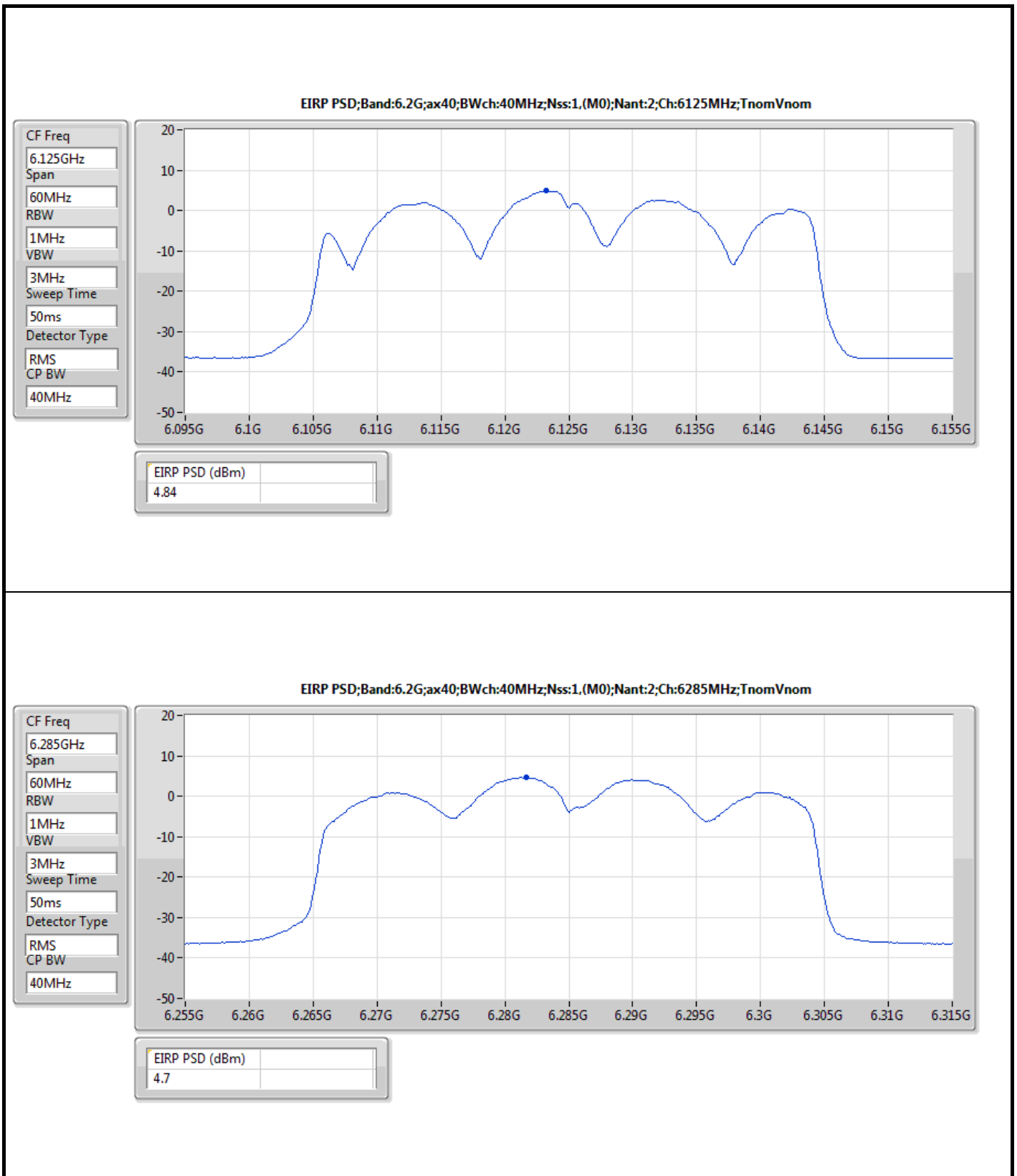


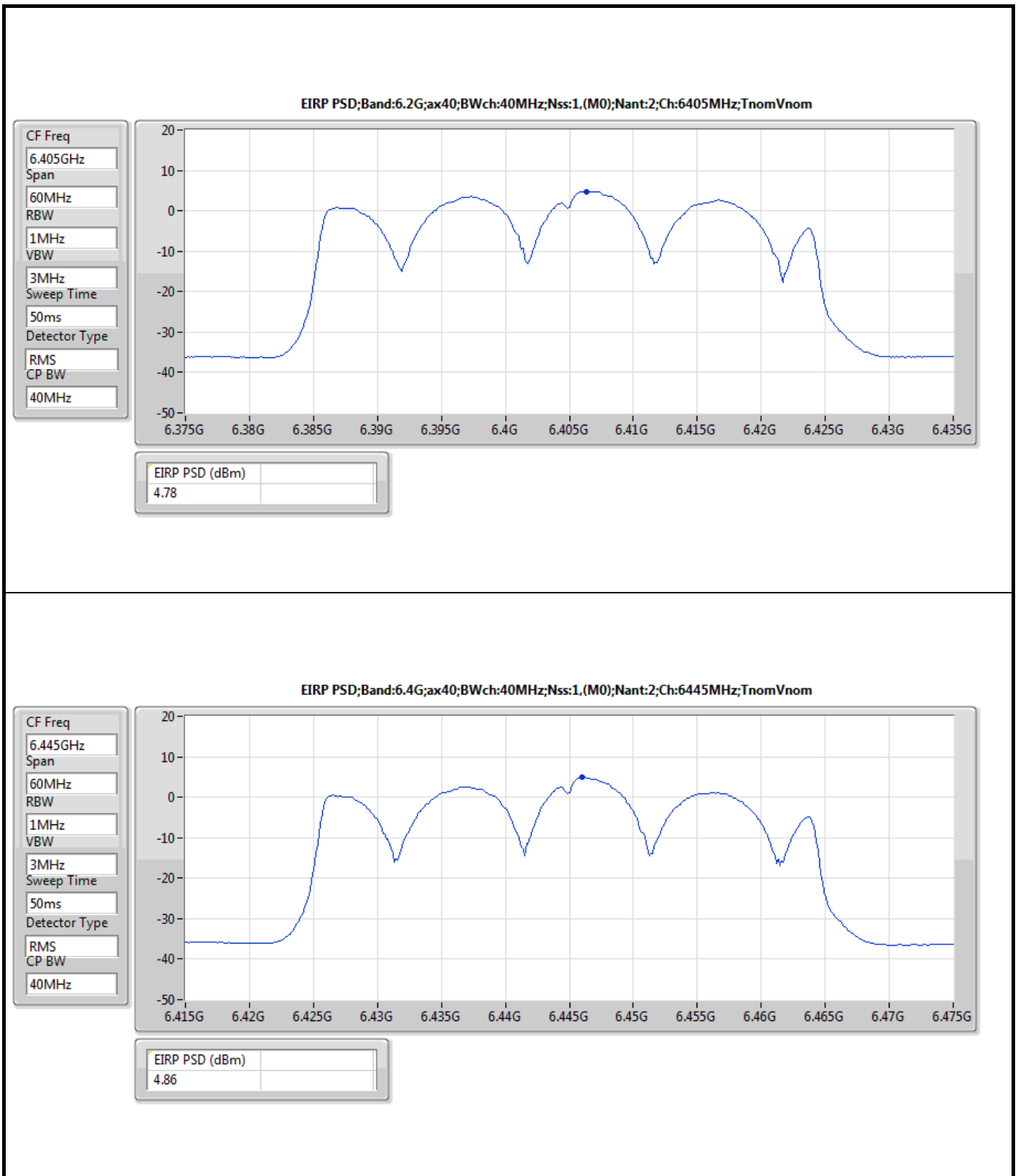


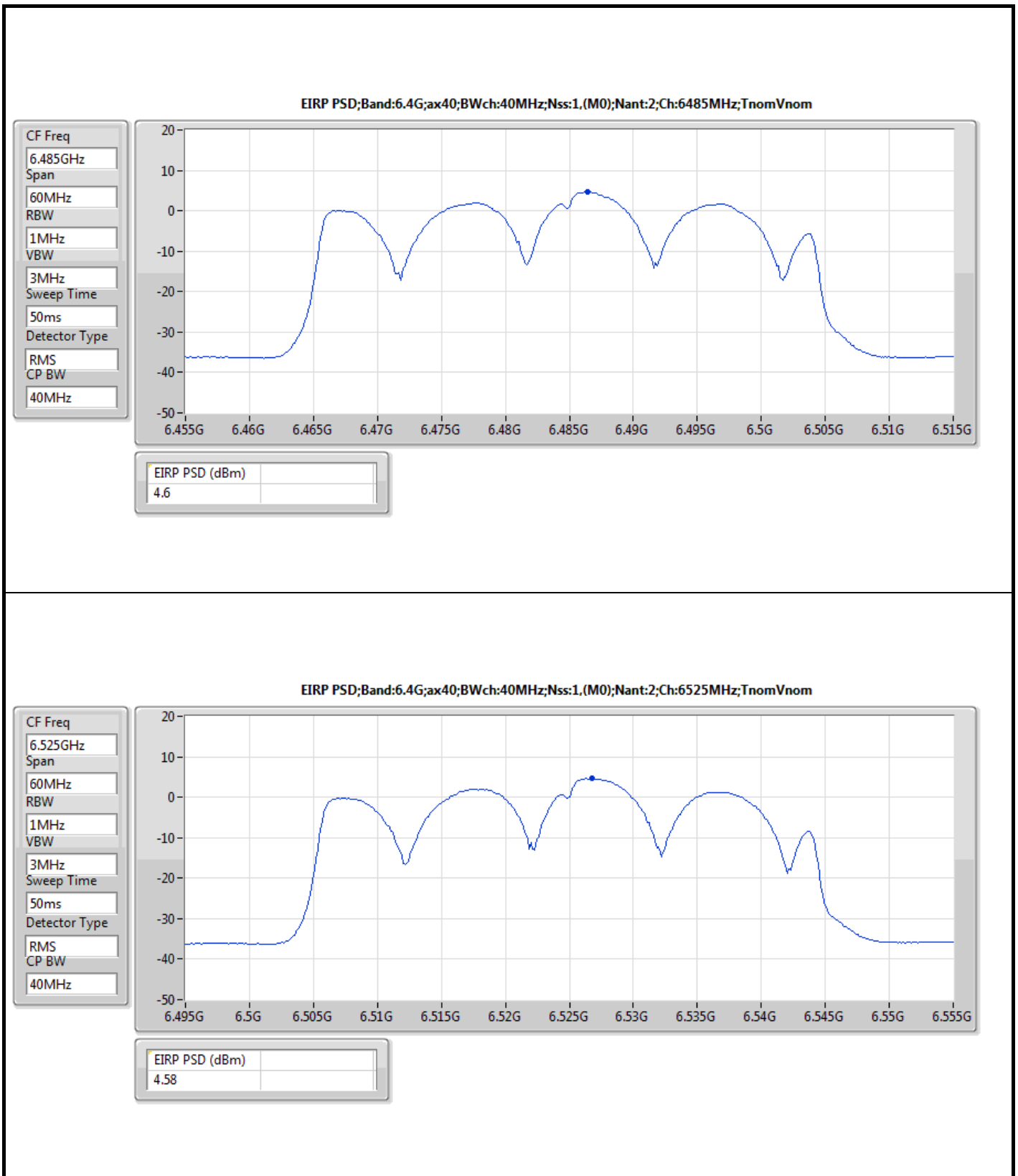


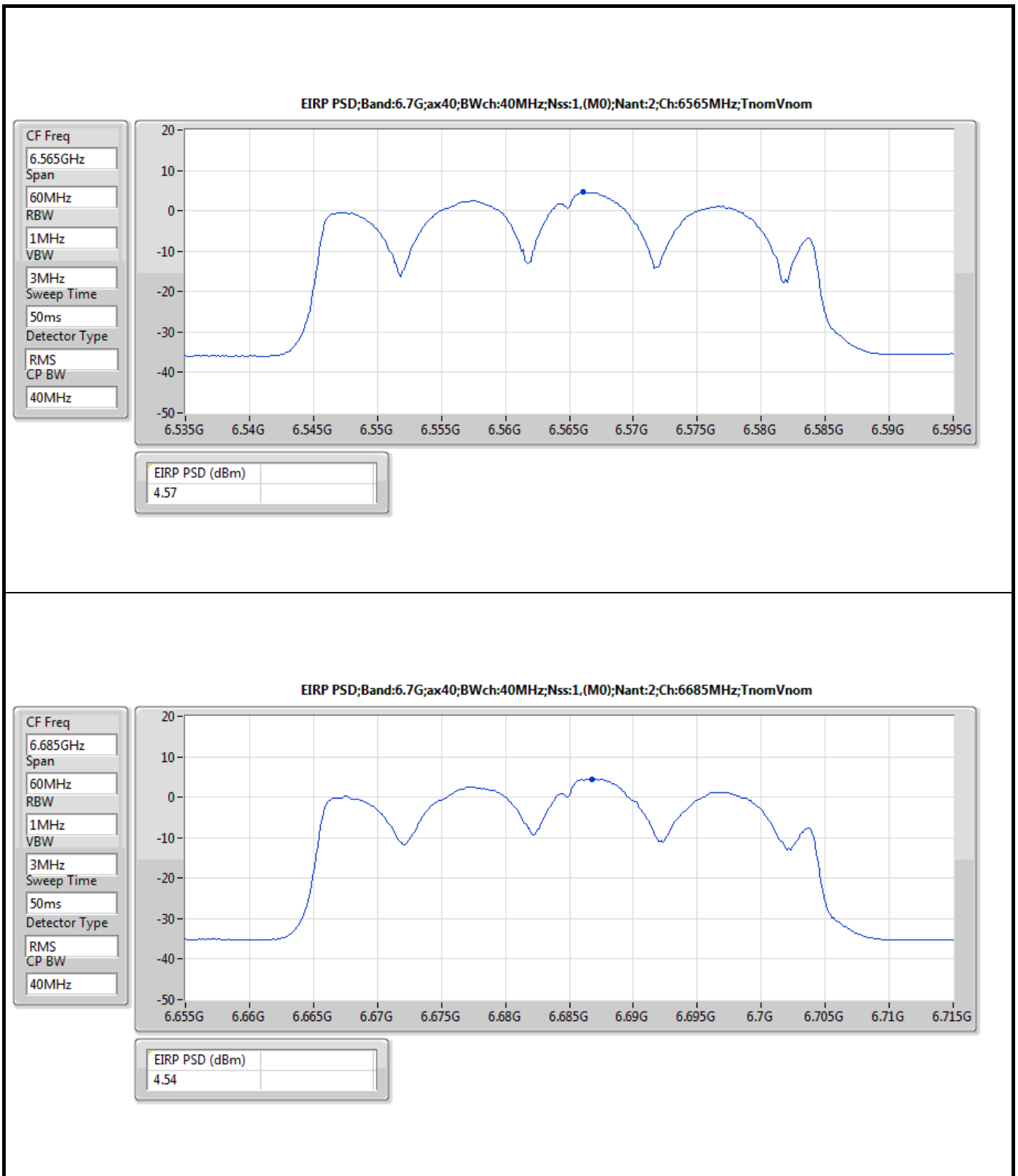






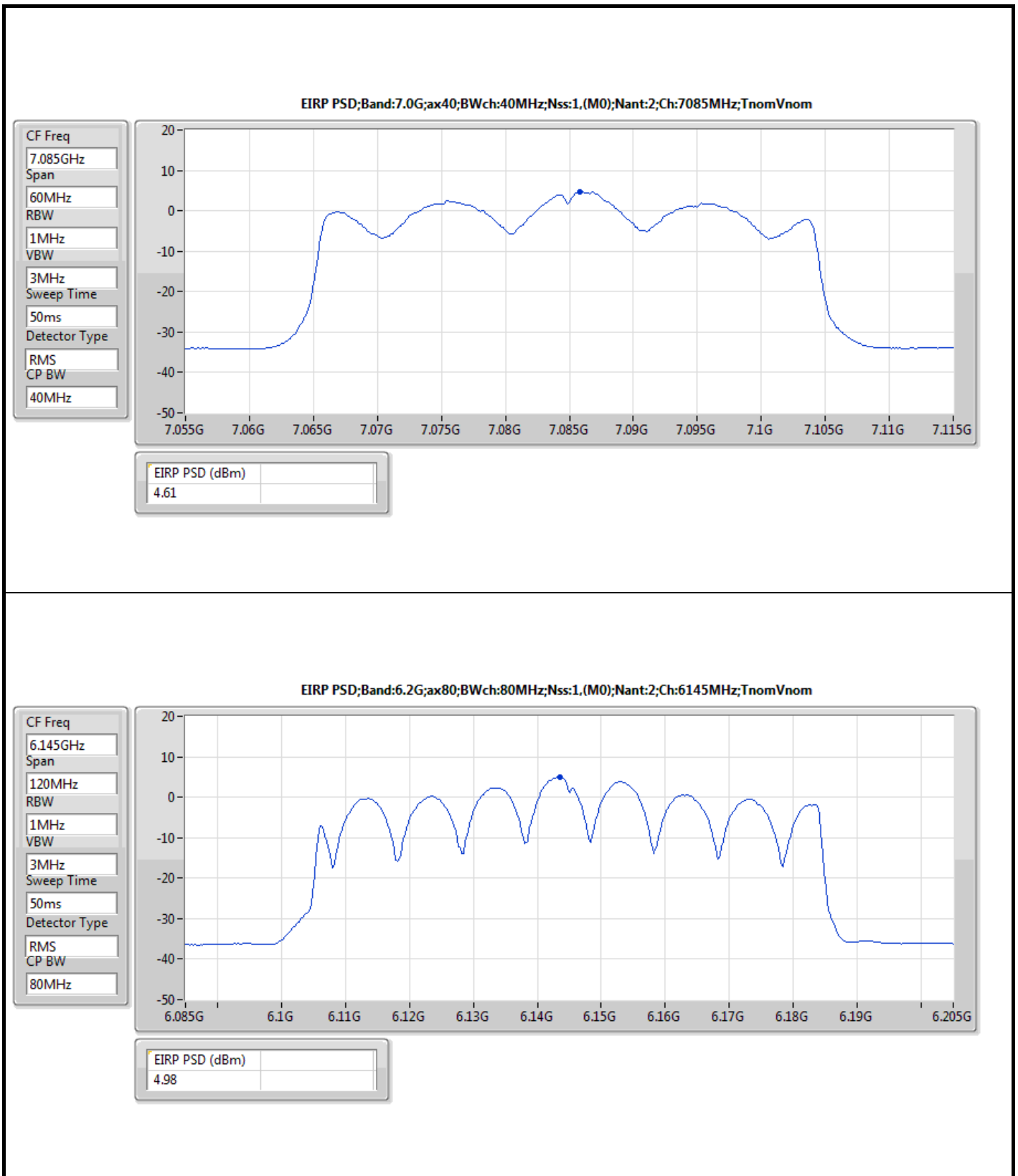


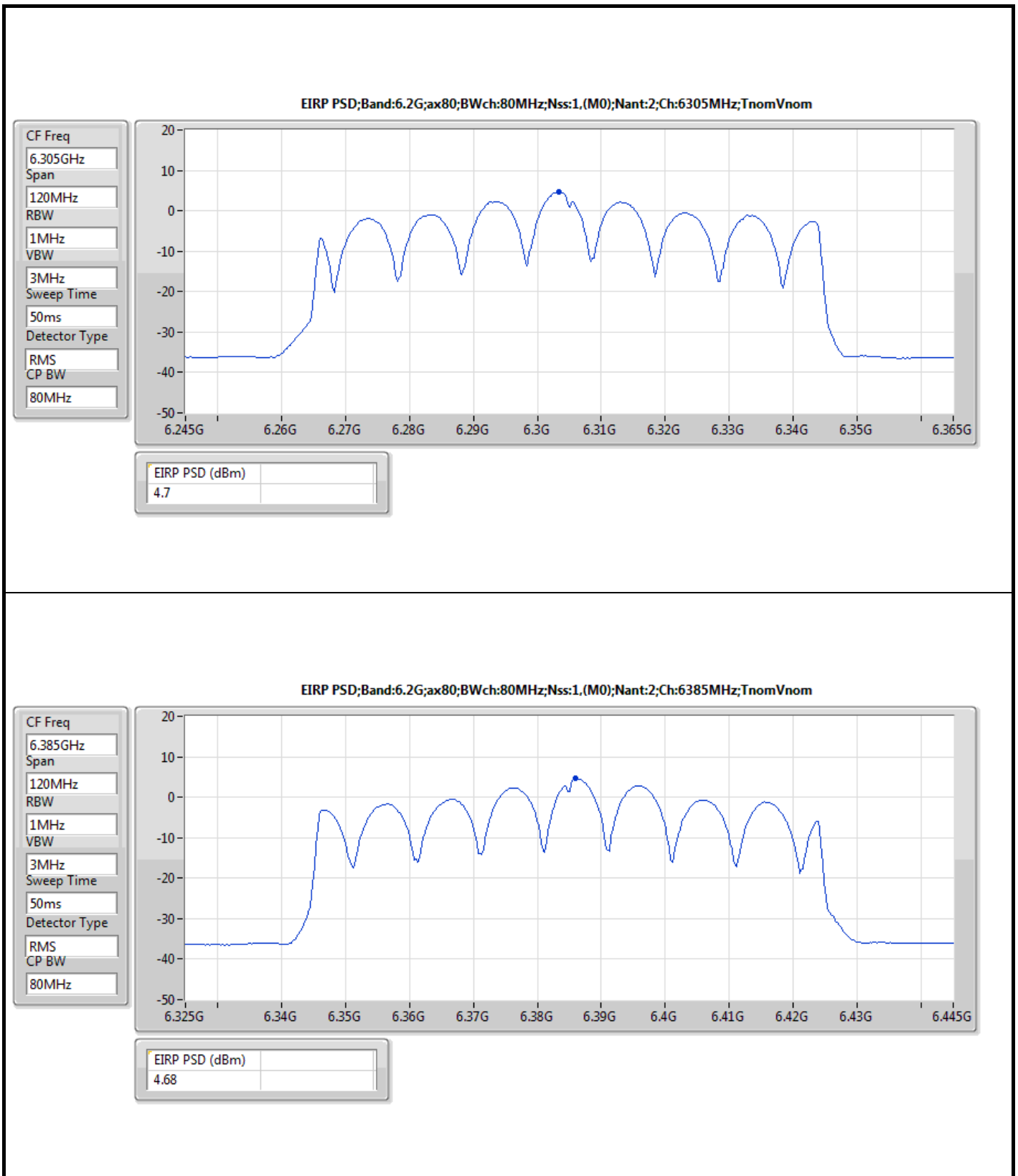


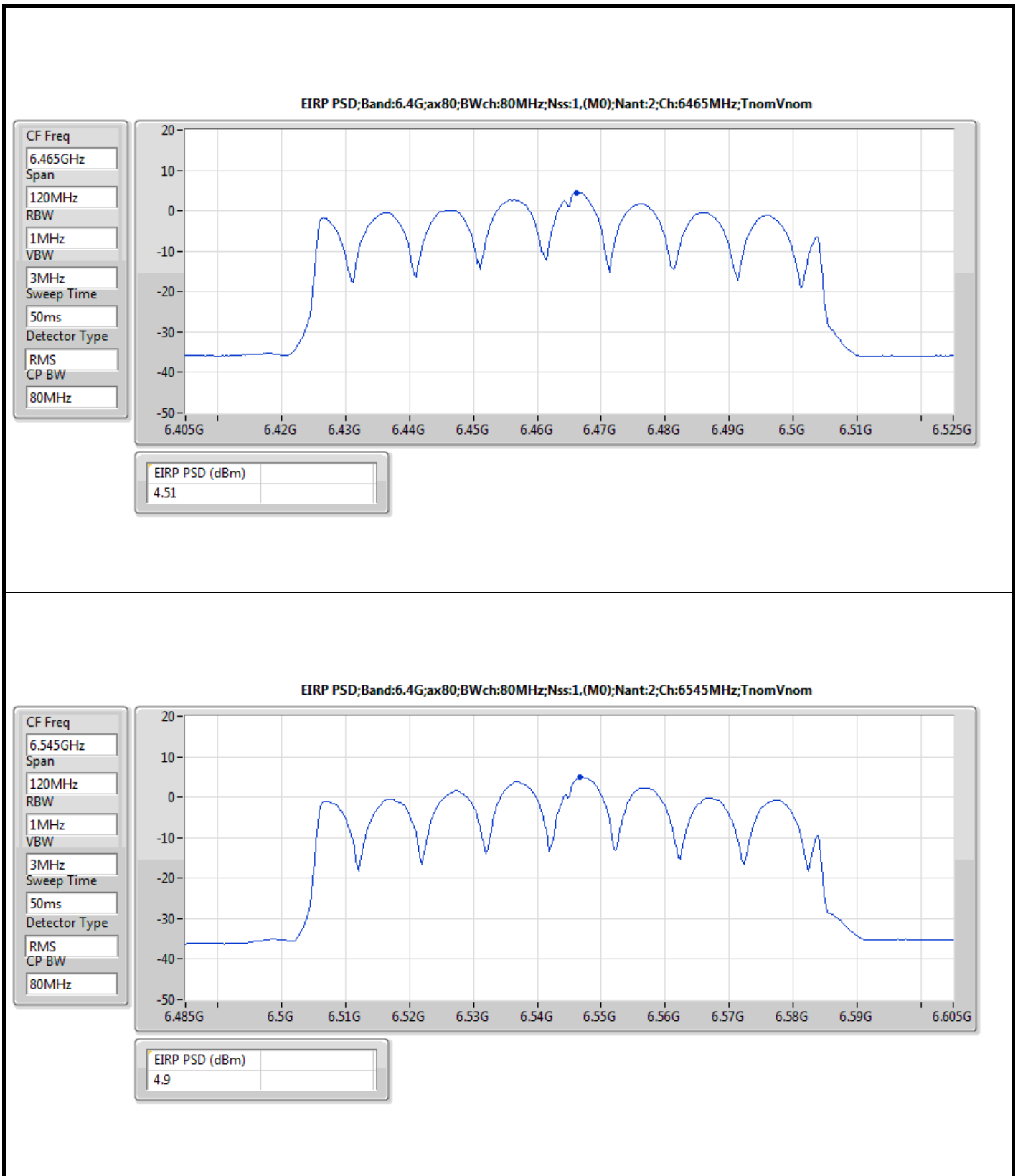


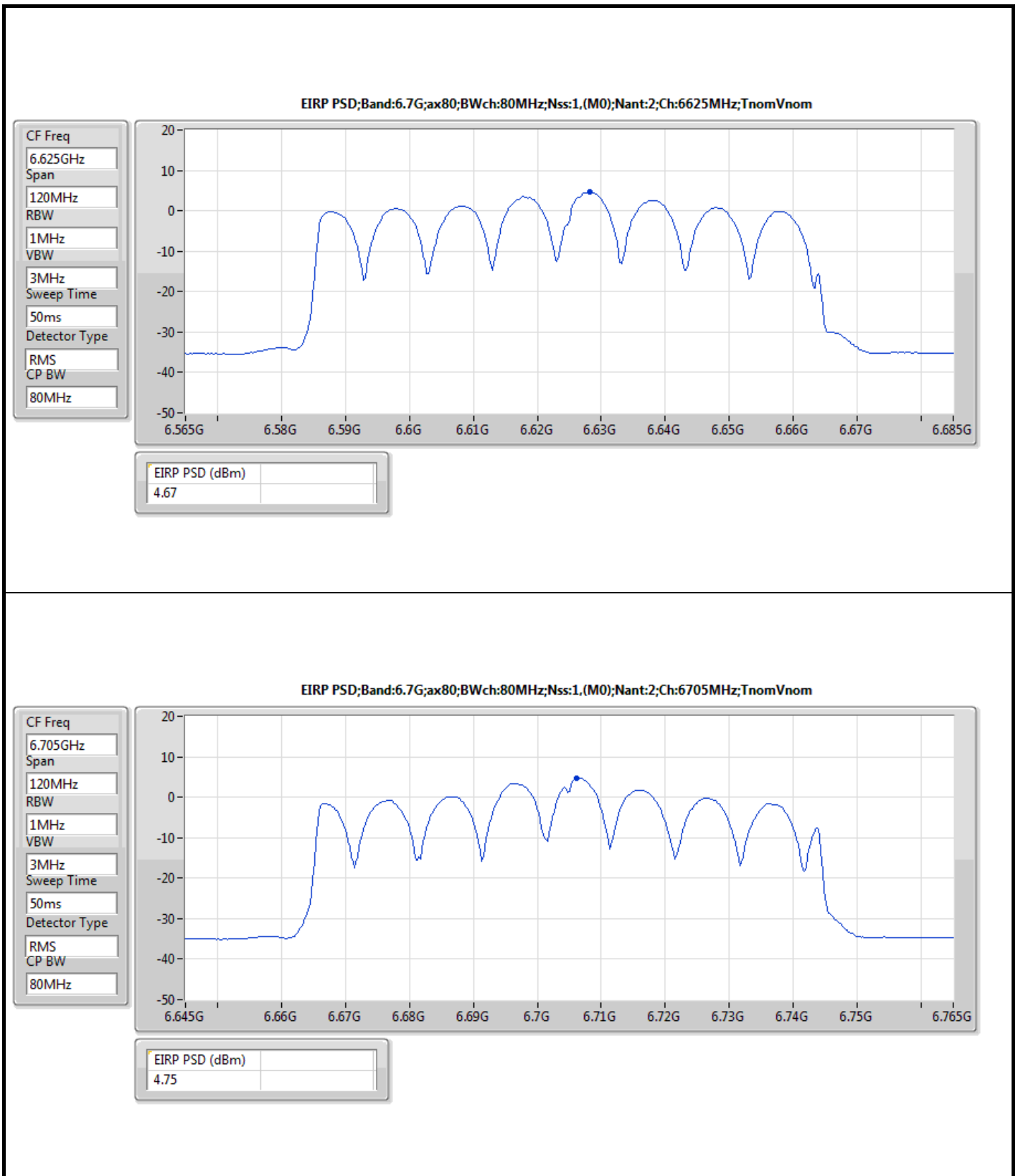






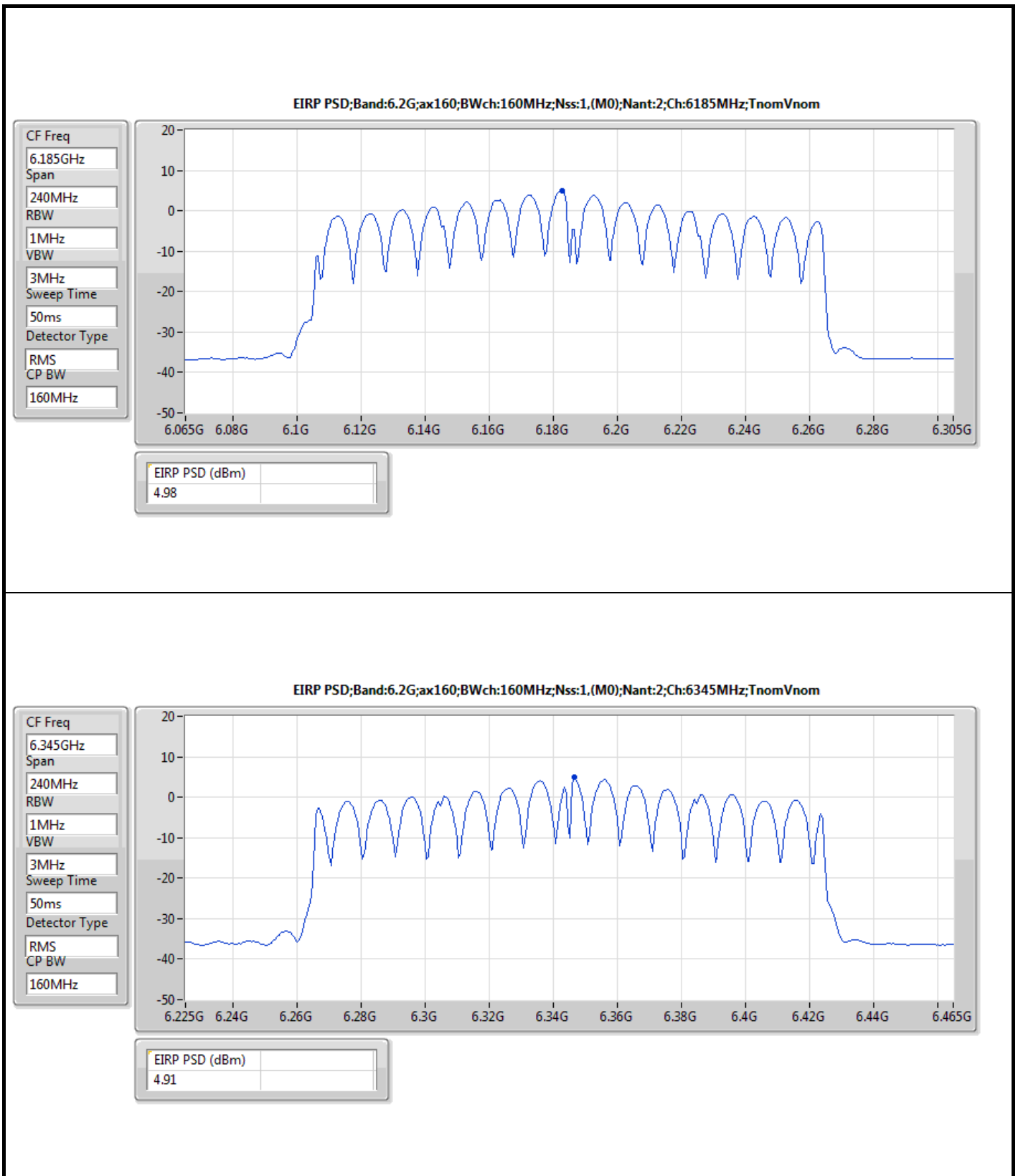


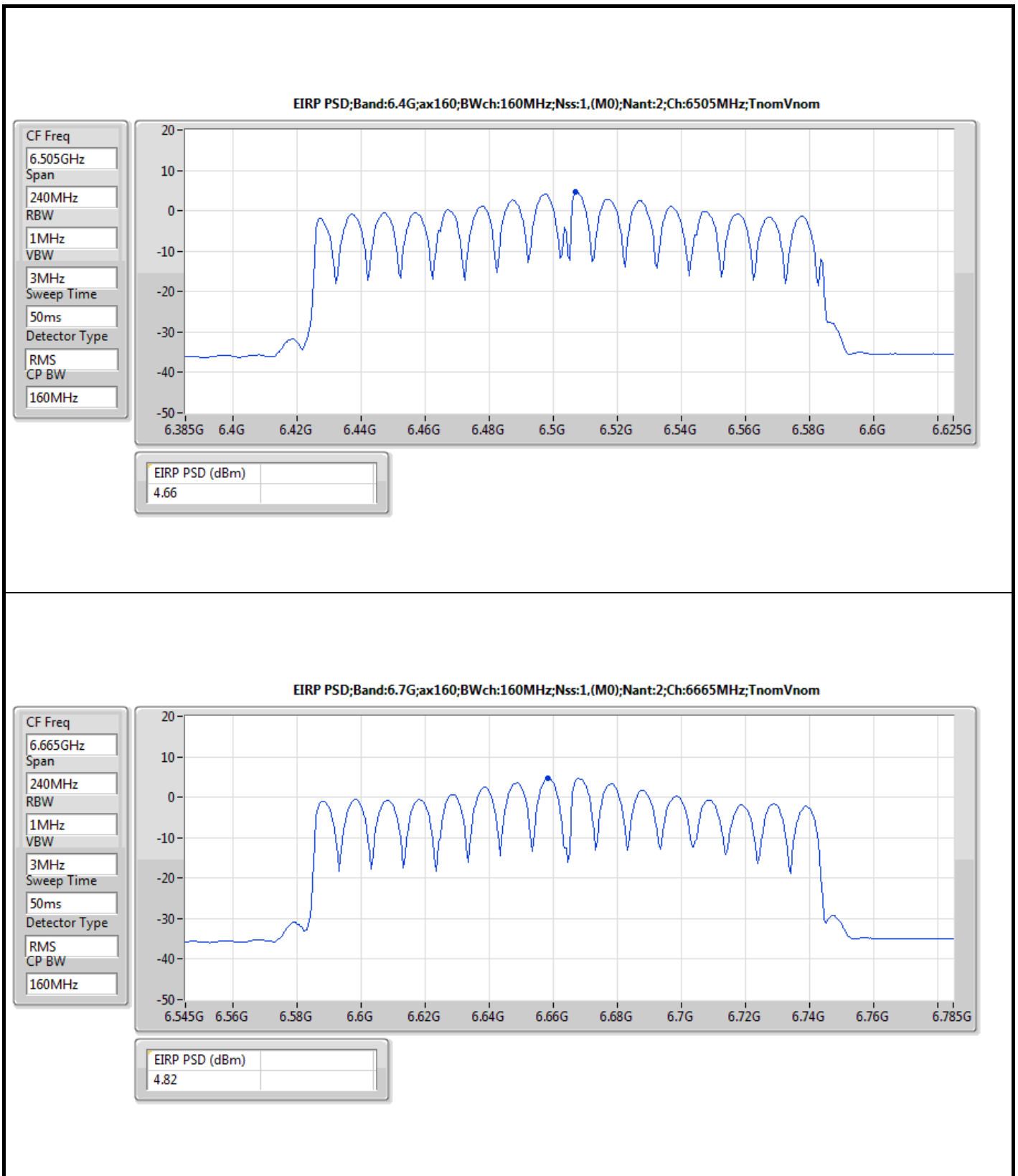














Summary

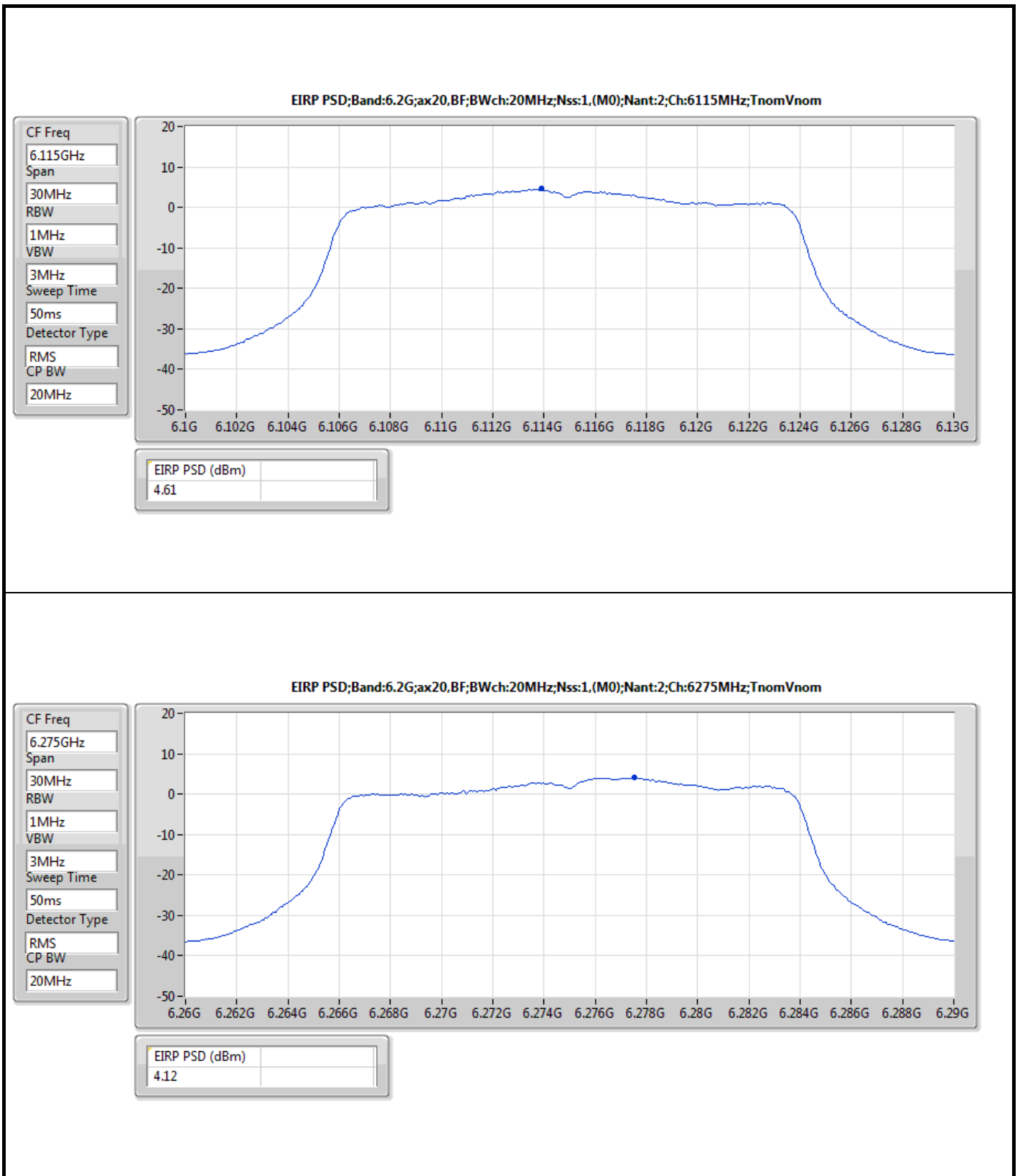
Mode	EIRP PD (dBm/RBW)
5.925-6.425GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	4.65
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	4.89
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	4.75
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	4.61
6.425-6.525GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	4.37
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	4.88
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	4.67
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	4.84
6.525-6.875GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	4.86
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	4.93
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	4.96
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	4.80
6.875-7.125GHz	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	4.81
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	4.86
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	4.94
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	4.35

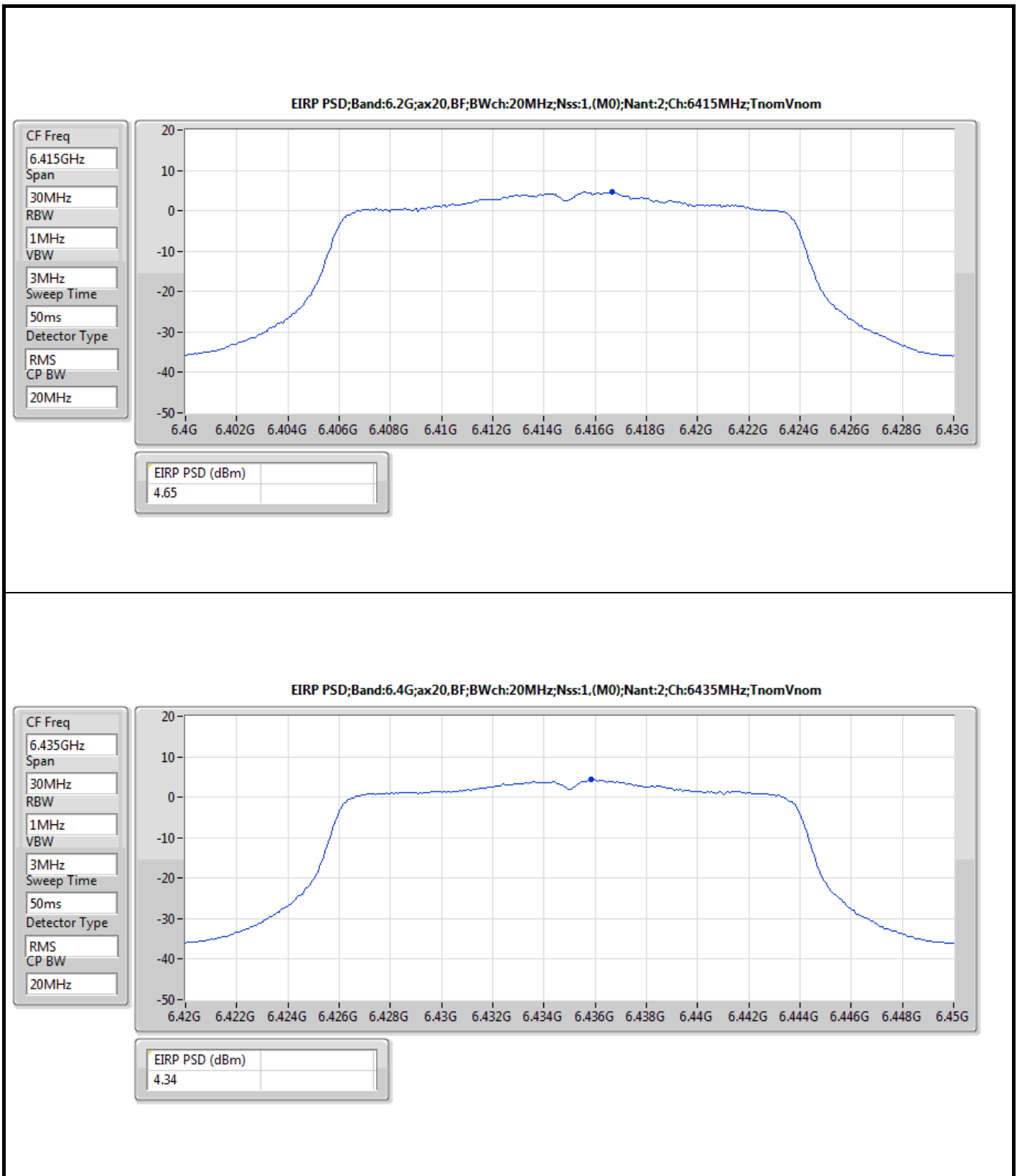
RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

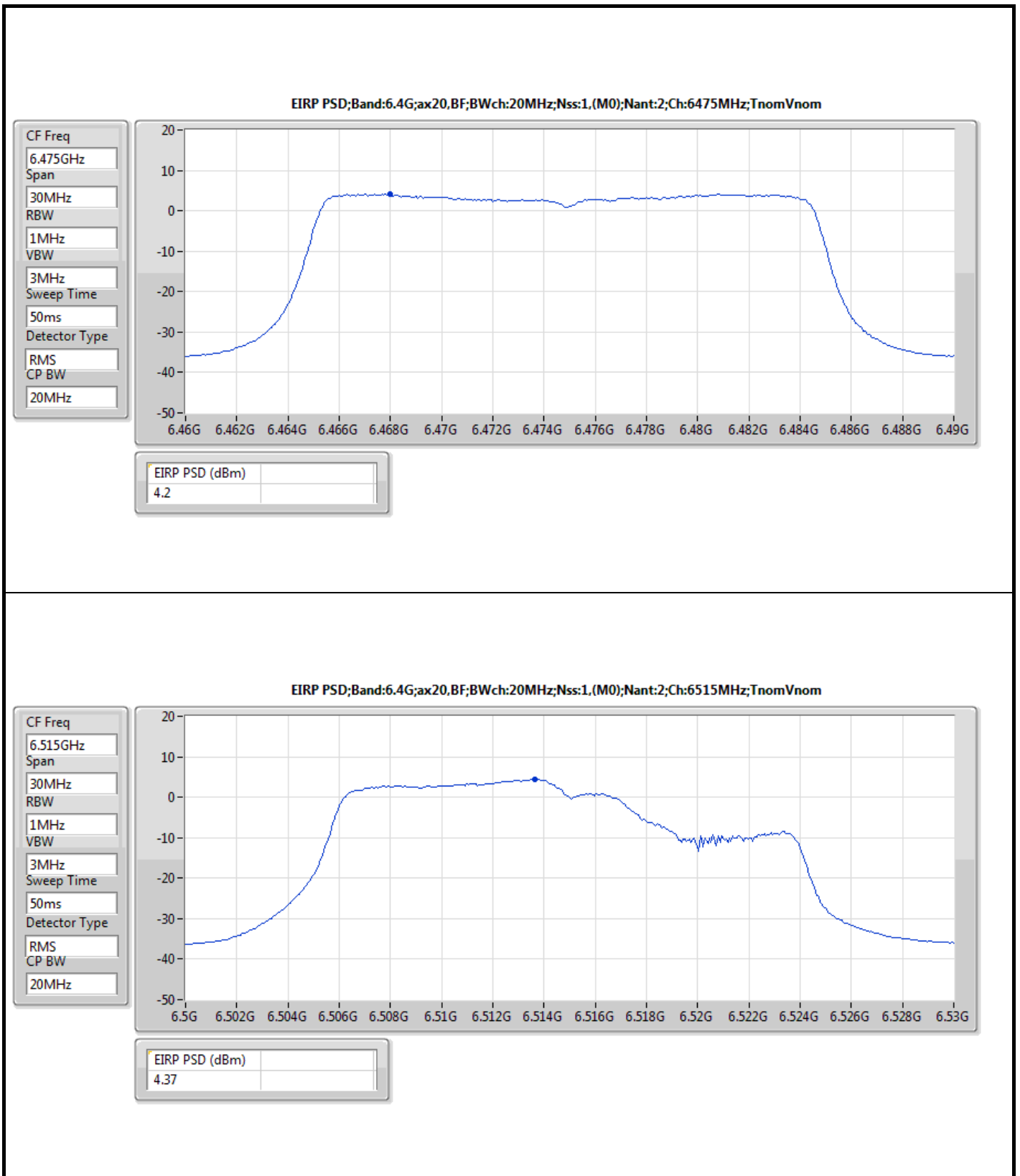
Result

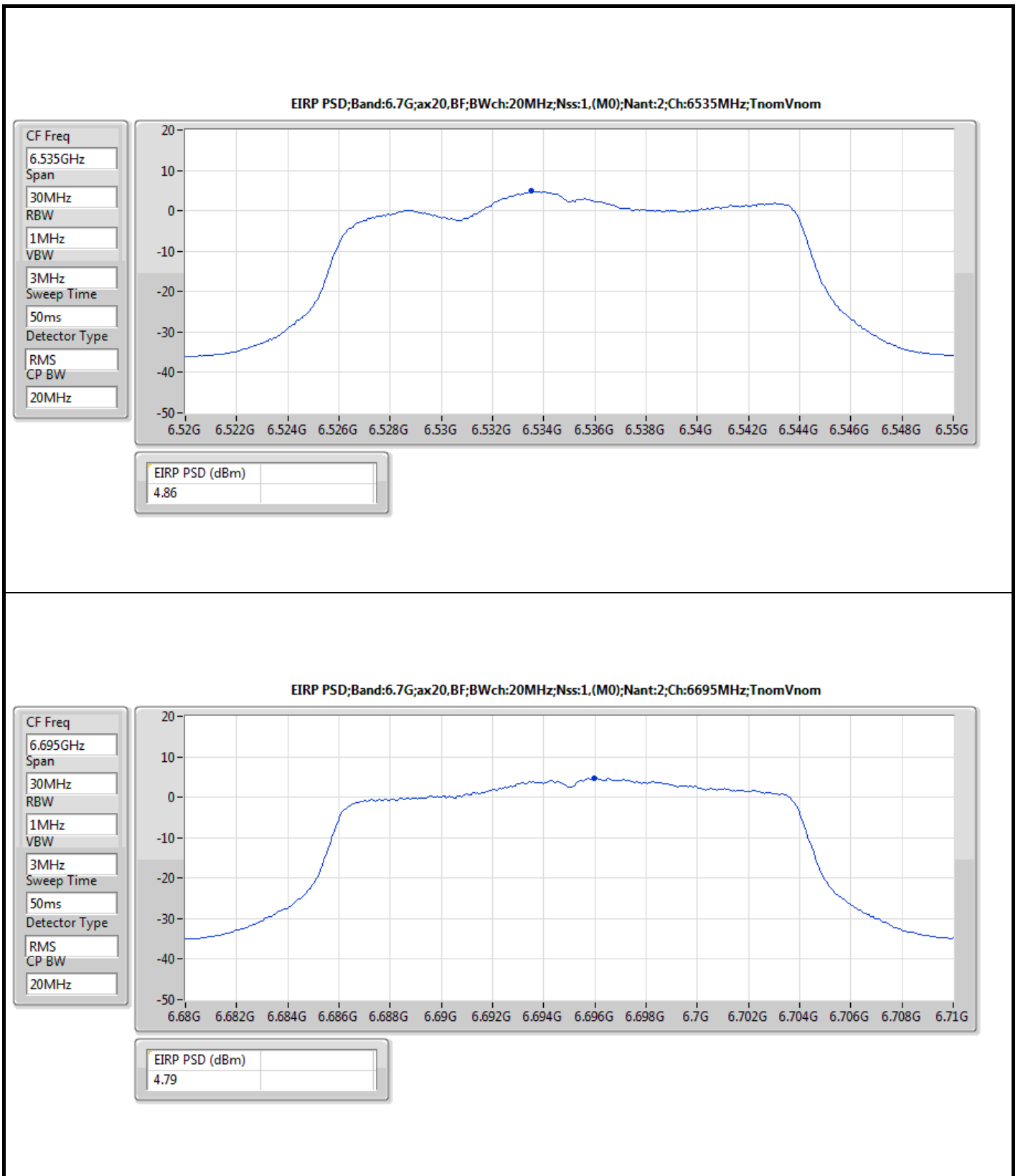
Mode	Result	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-
6115MHz	Pass	4.61	5.00
6275MHz	Pass	4.12	5.00
6415MHz	Pass	4.65	5.00
6435MHz	Pass	4.34	5.00
6475MHz	Pass	4.20	5.00
6515MHz	Pass	4.37	5.00
6535MHz	Pass	4.86	5.00
6695MHz	Pass	4.79	5.00
6855MHz	Pass	4.33	5.00
6875MHz Straddle 6.525-6.875GHz	Pass	4.11	5.00
6895MHz	Pass	4.64	5.00
6995MHz	Pass	4.81	5.00
7095MHz	Pass	4.19	5.00
7115MHz	Pass	0.80	5.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-
6125MHz	Pass	4.89	5.00
6285MHz	Pass	4.17	5.00
6405MHz	Pass	4.69	5.00
6445MHz	Pass	4.88	5.00
6485MHz	Pass	4.58	5.00
6525MHz Straddle 6.425-6.525GHz	Pass	4.15	5.00
6565MHz	Pass	4.93	5.00
6685MHz	Pass	4.83	5.00
6845MHz	Pass	4.71	5.00
6885MHz Straddle 6.525-6.875GHz	Pass	4.71	5.00
6925MHz	Pass	4.81	5.00
7005MHz	Pass	4.66	5.00
7085MHz	Pass	4.86	5.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-
6145MHz	Pass	4.49	5.00
6305MHz	Pass	4.71	5.00
6385MHz	Pass	4.75	5.00
6465MHz	Pass	4.67	5.00
6545MHz Straddle 6.425-6.525GHz	Pass	4.65	5.00
6625MHz	Pass	4.71	5.00
6705MHz	Pass	4.53	5.00
6785MHz	Pass	4.77	5.00
6865MHz Straddle 6.525-6.875GHz	Pass	4.96	5.00
6945MHz	Pass	4.91	5.00
7025MHz	Pass	4.94	5.00
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-	-	-
6185MHz	Pass	4.61	5.00
6345MHz	Pass	4.24	5.00
6505MHz Straddle 6.425-6.525GHz	Pass	4.84	5.00
6665MHz	Pass	4.80	5.00
6825MHz Straddle 6.525-6.875GHz	Pass	4.80	5.00
6985MHz	Pass	4.35	5.00

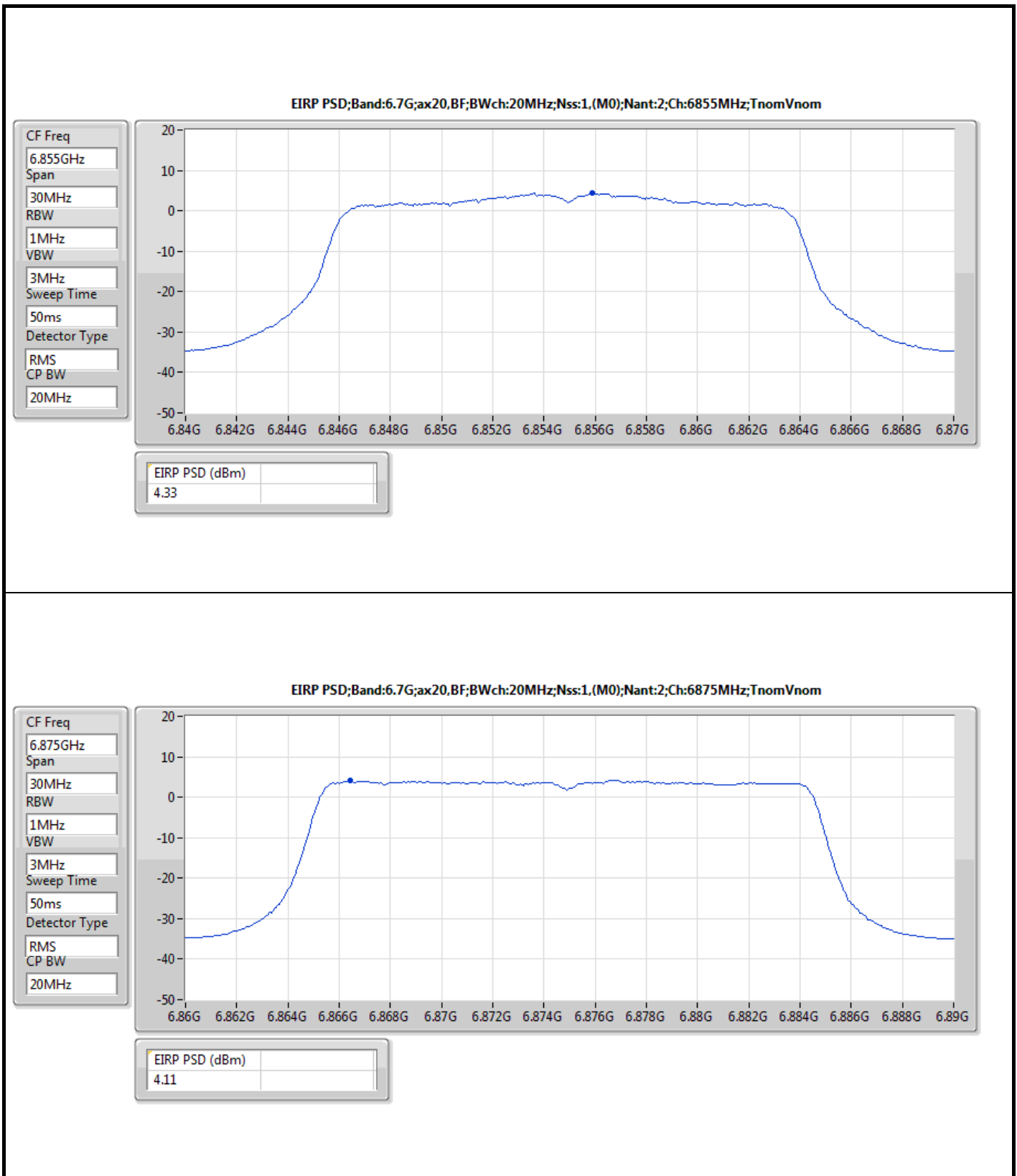
DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

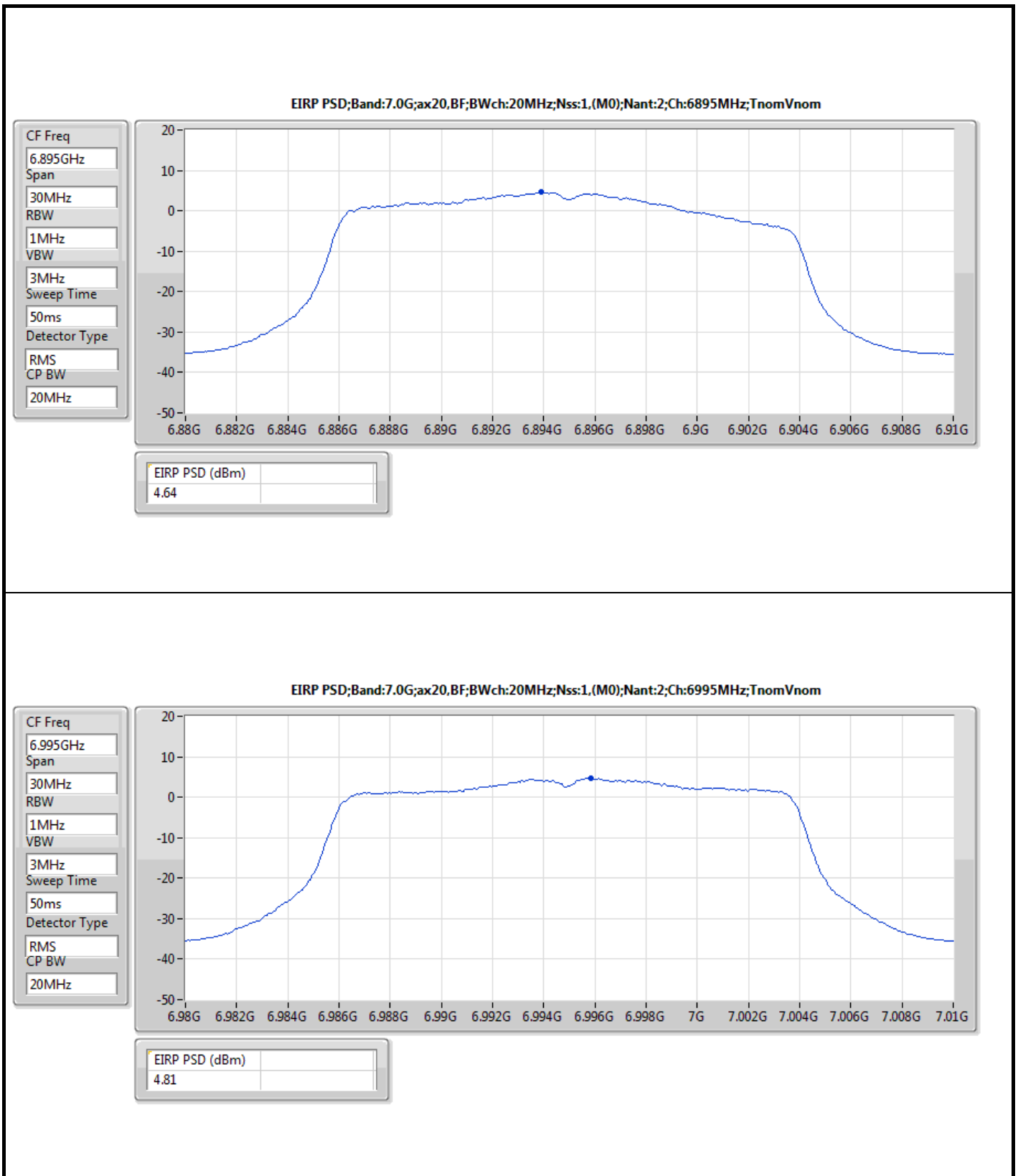


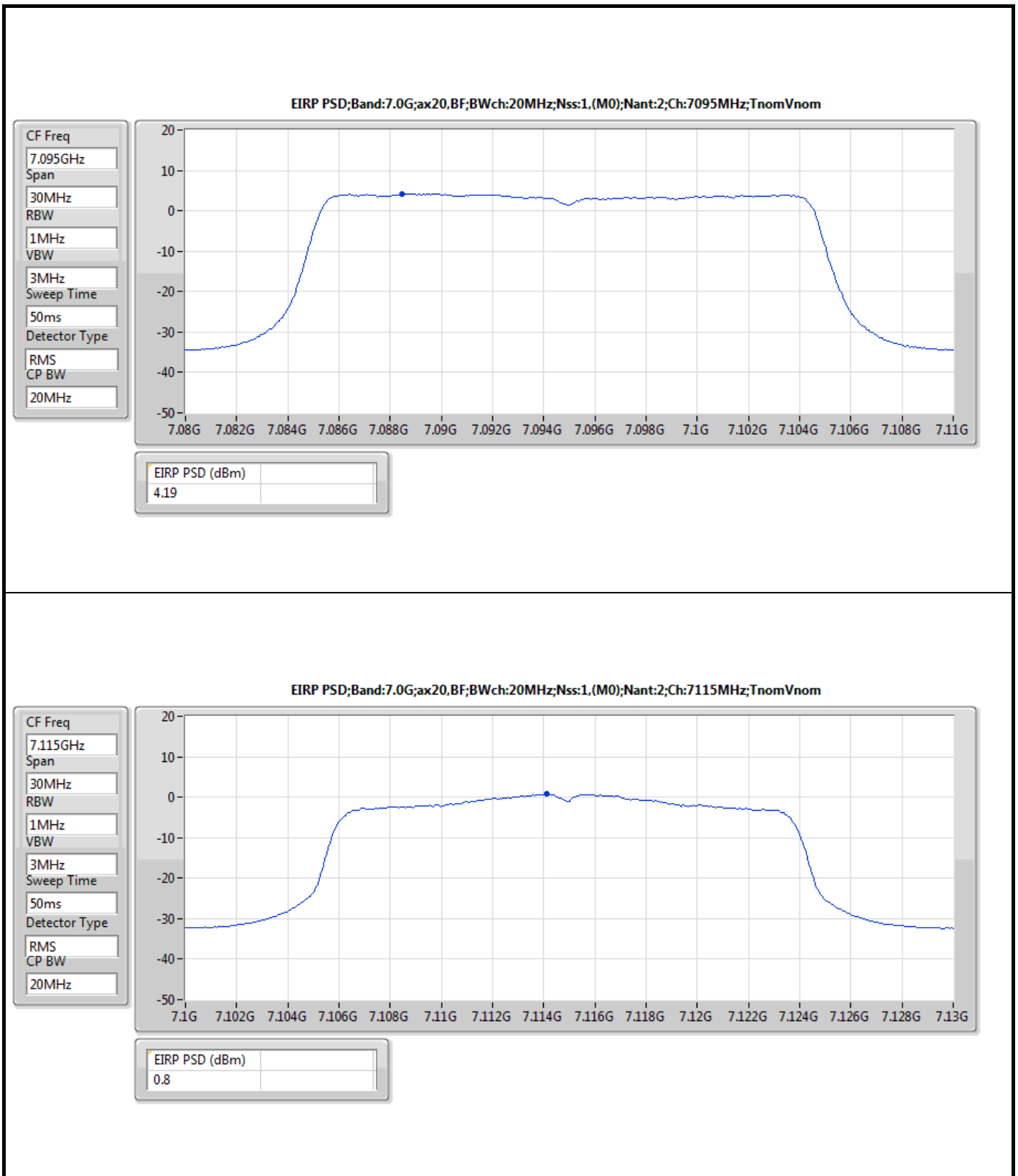


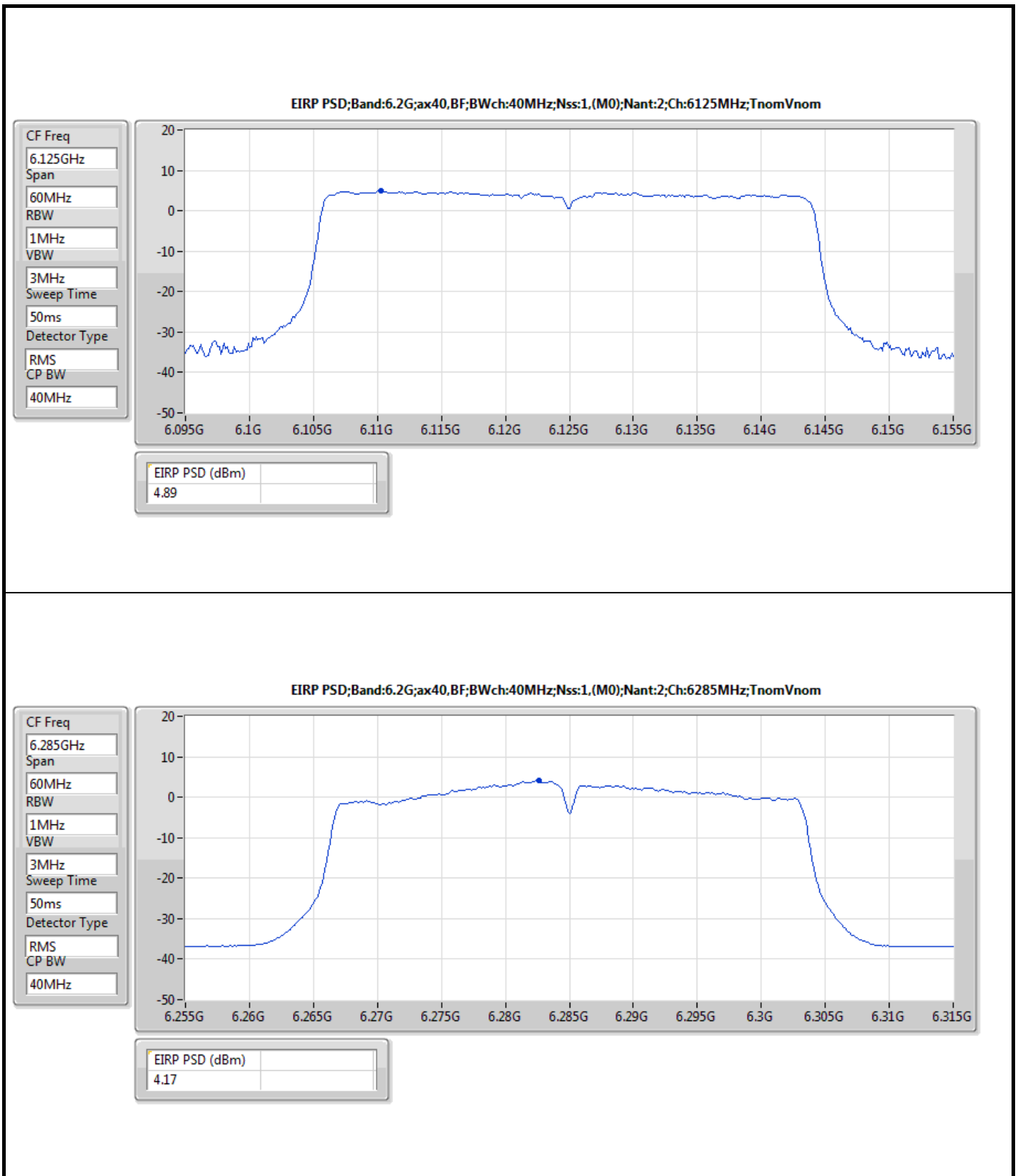


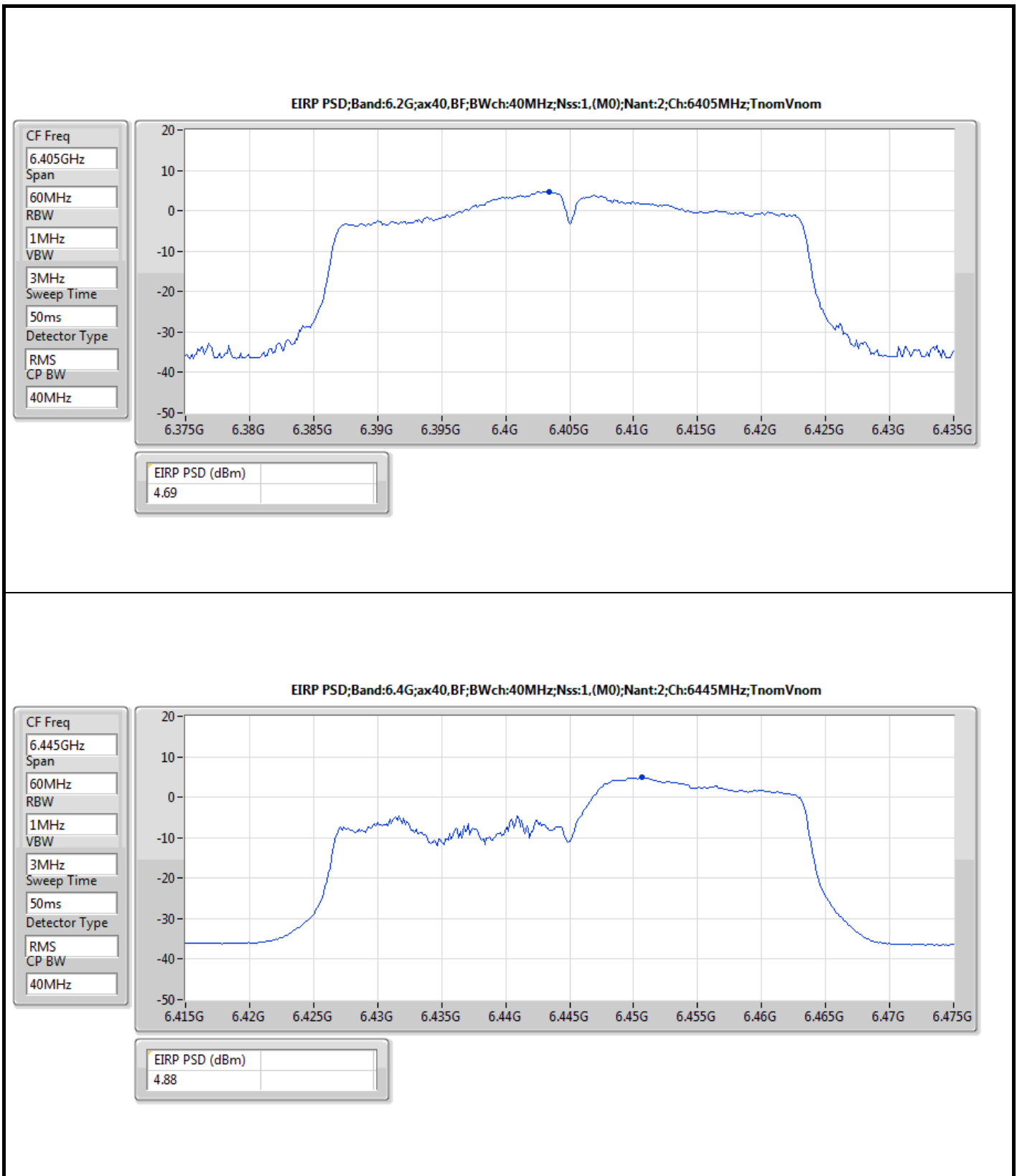


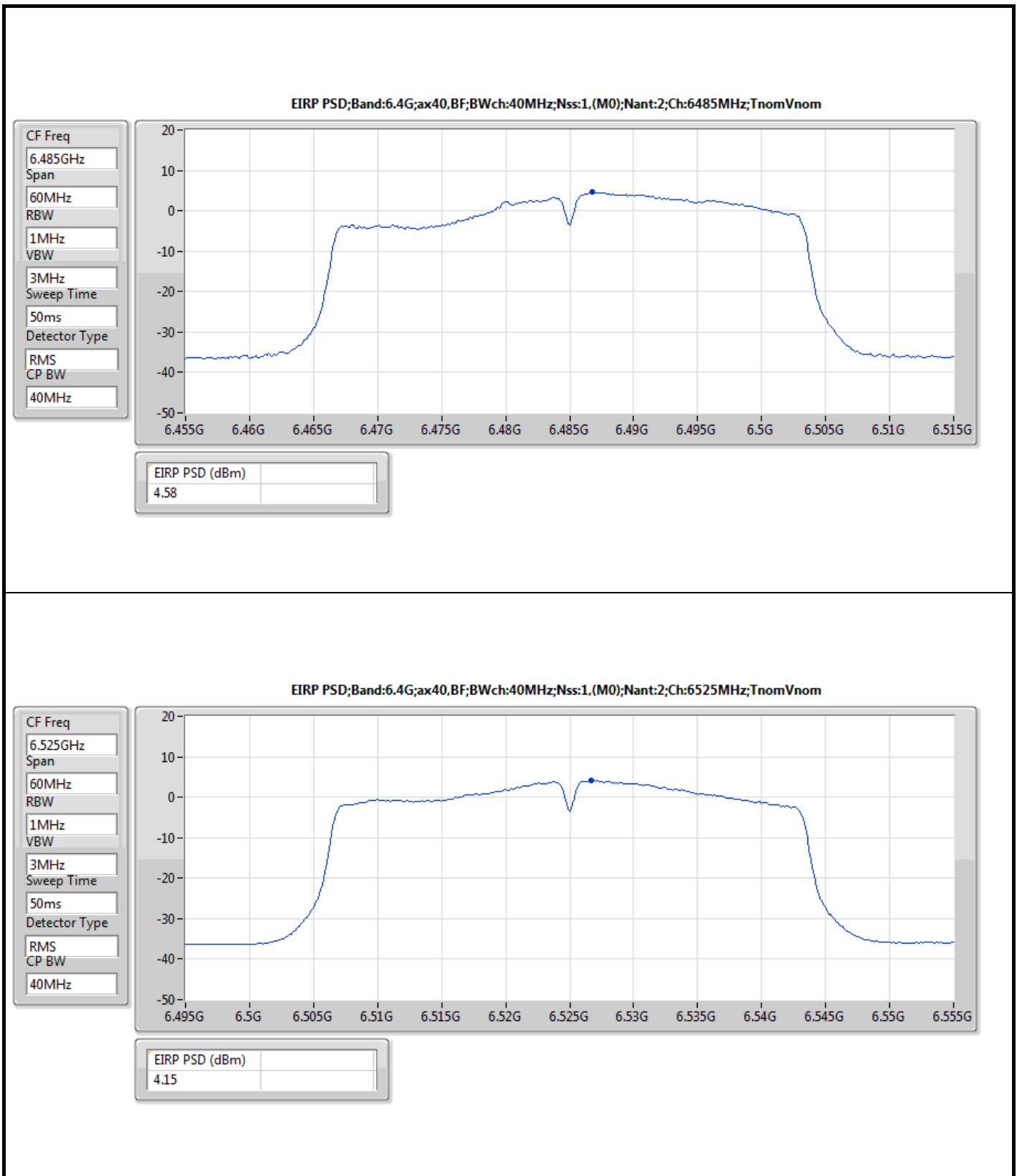


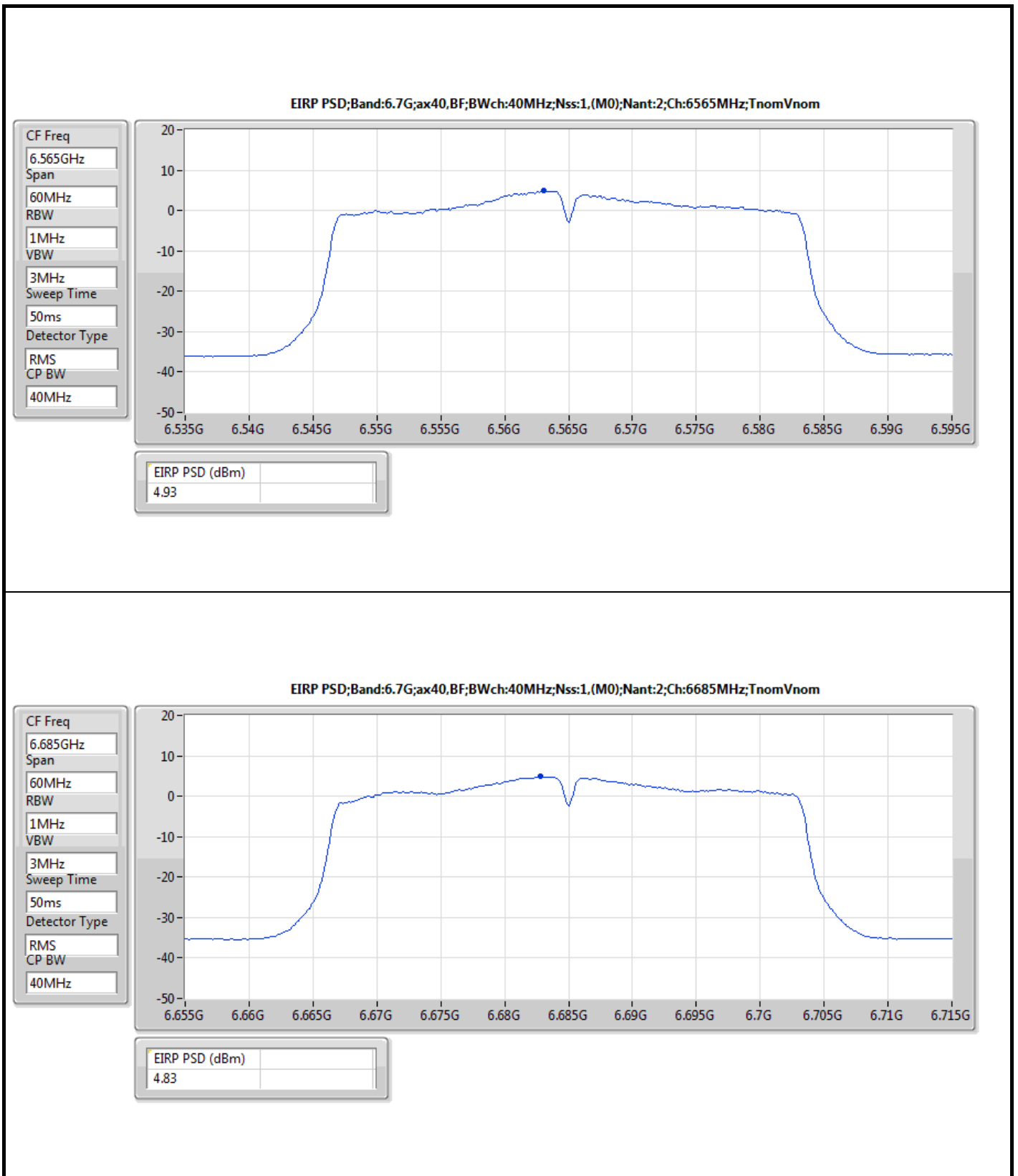


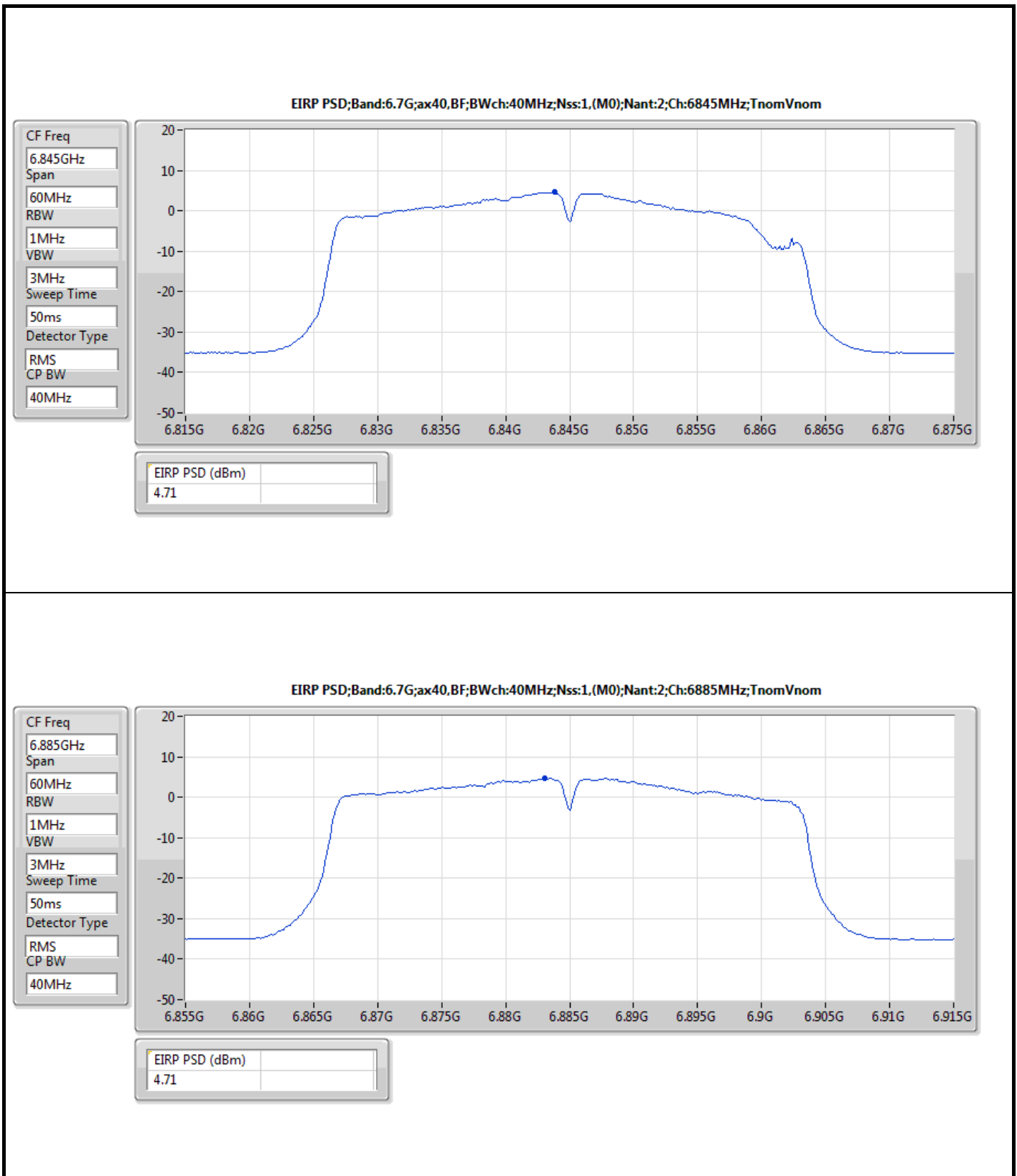


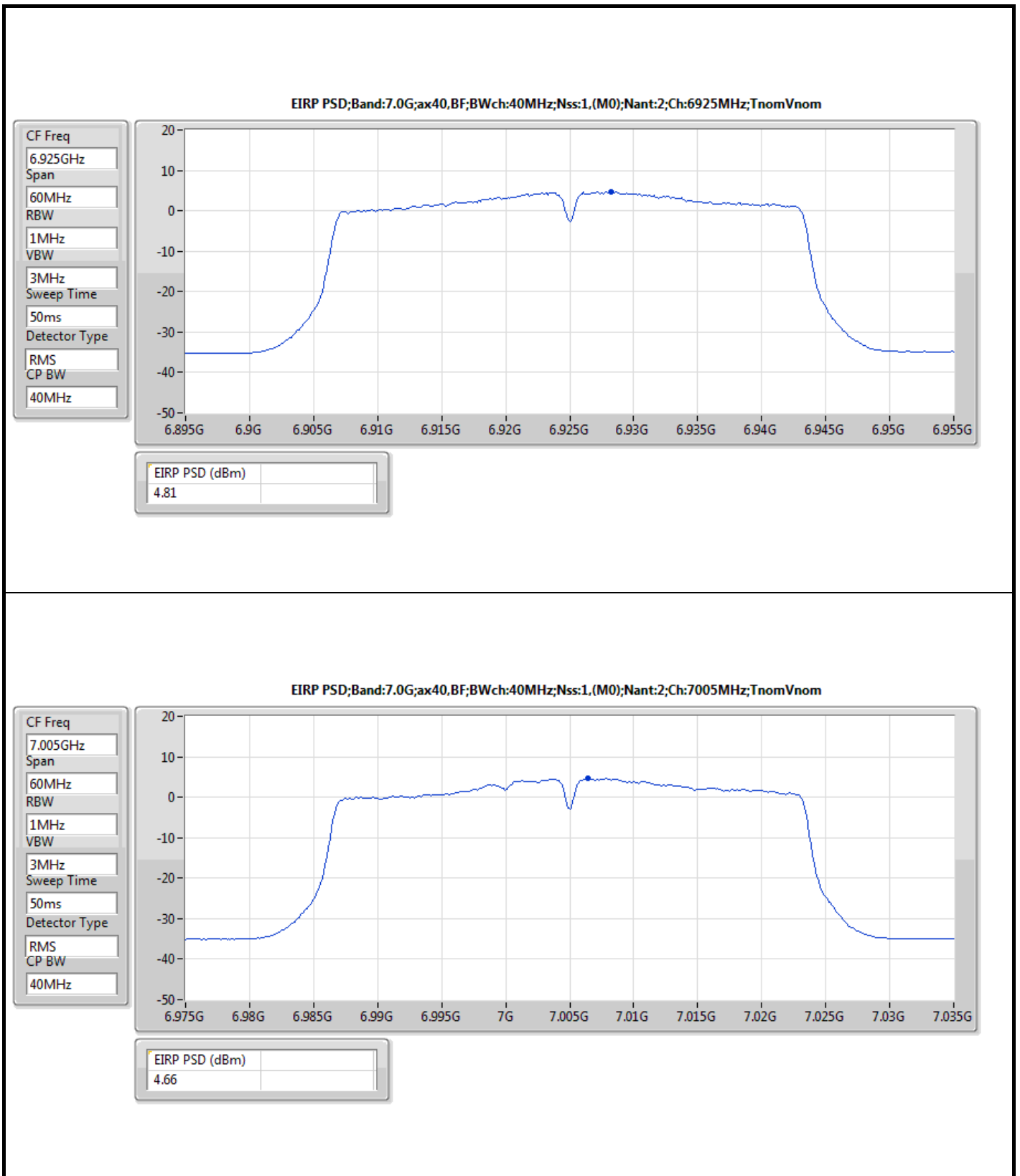


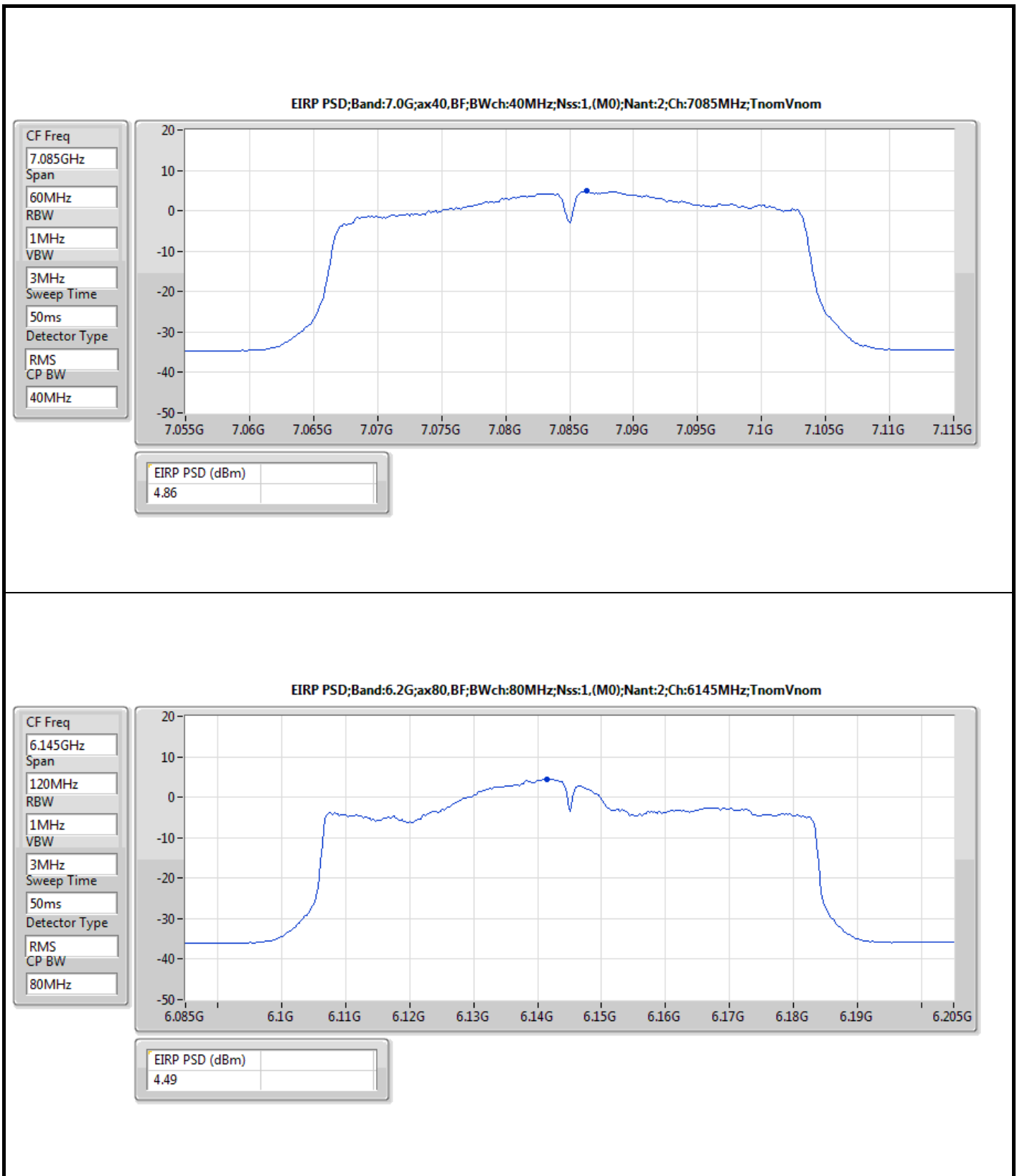




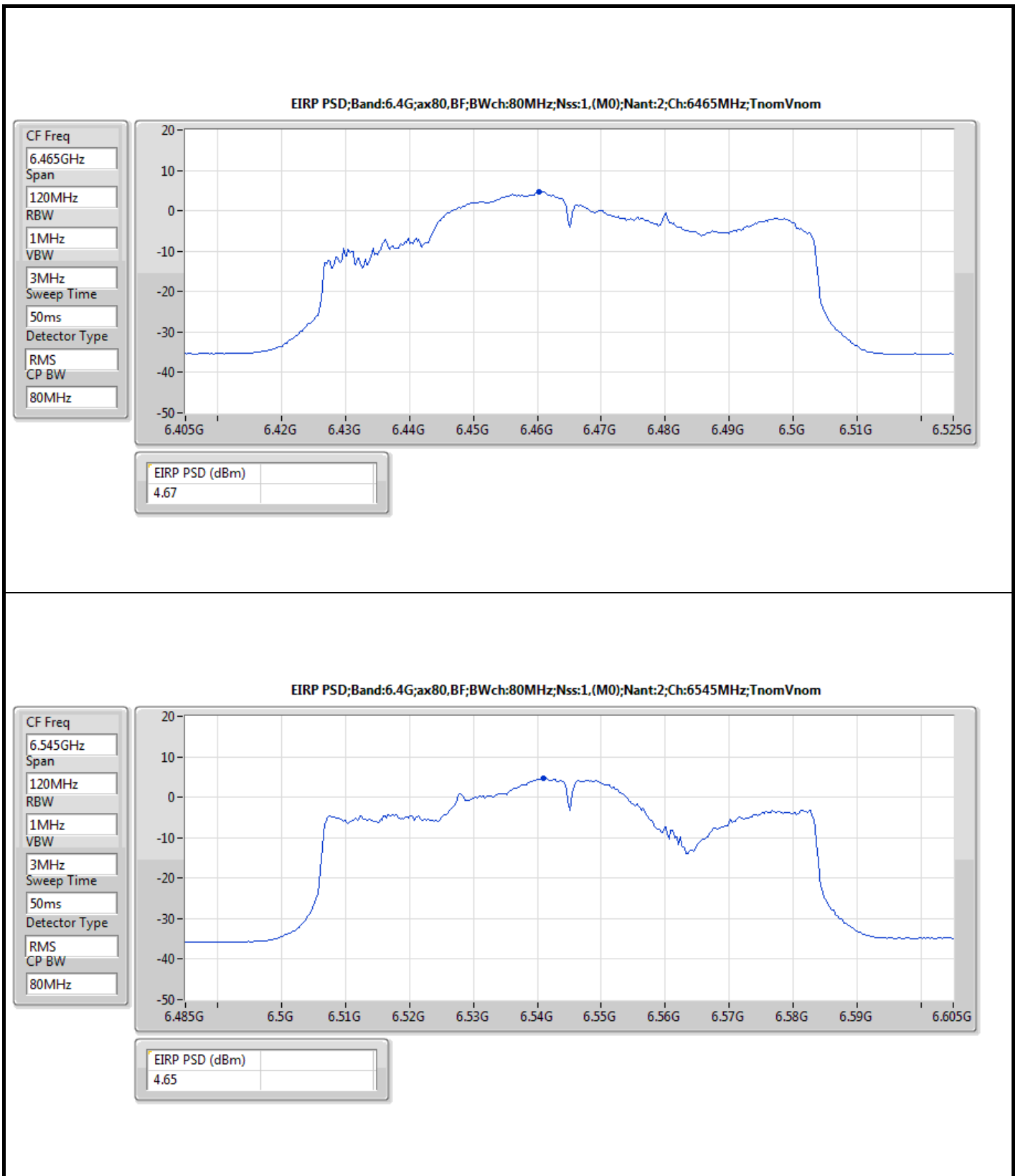


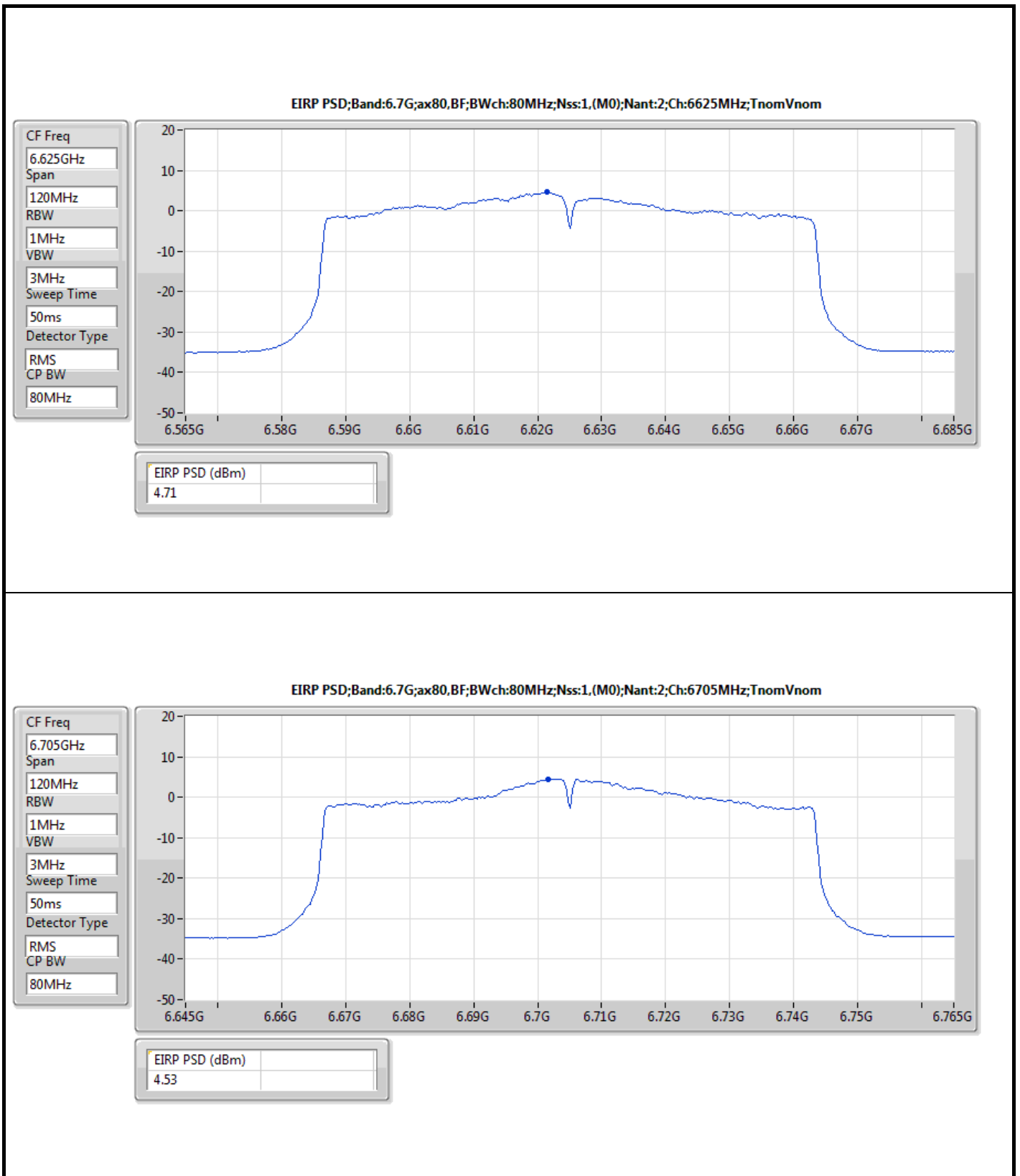


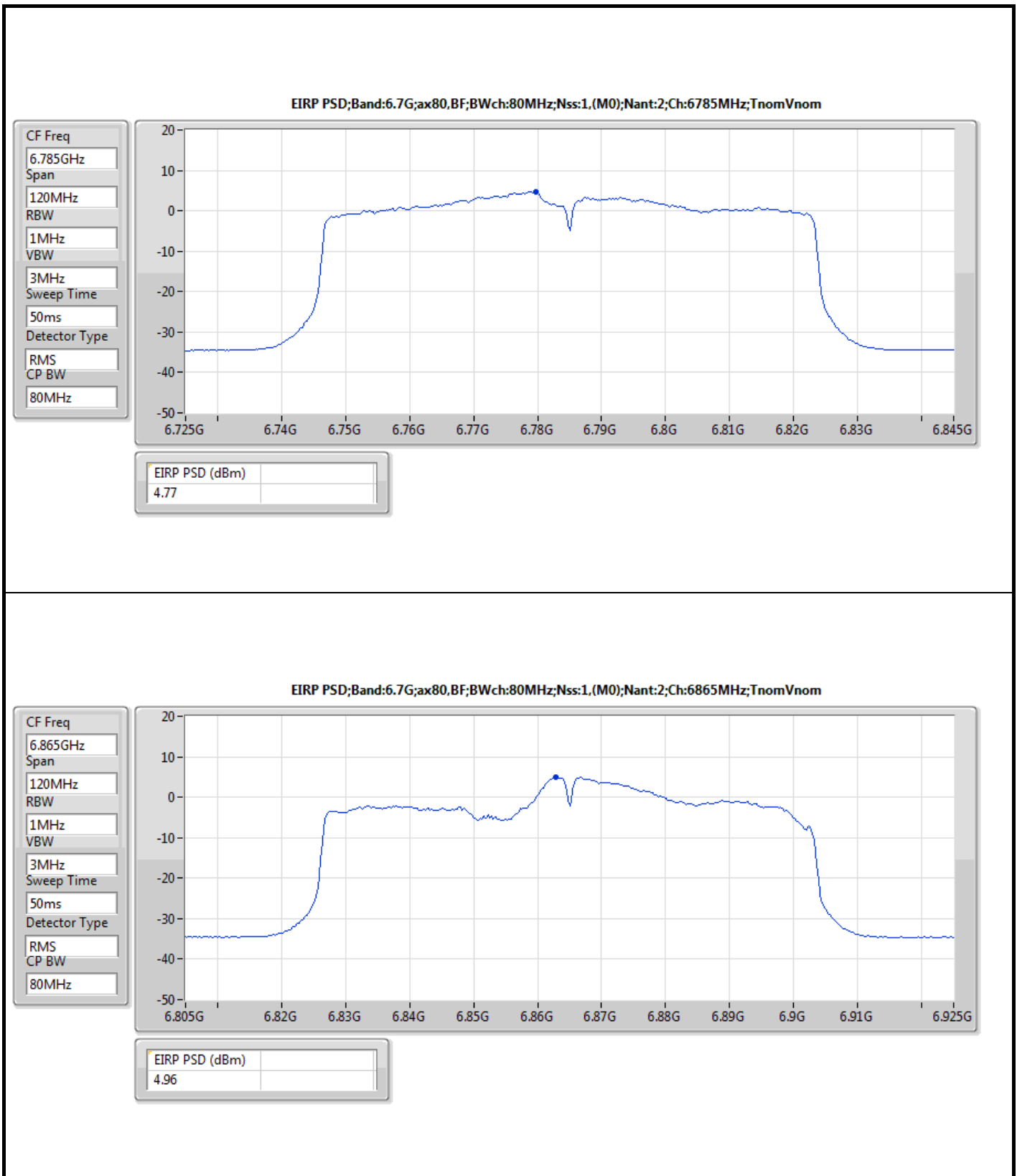


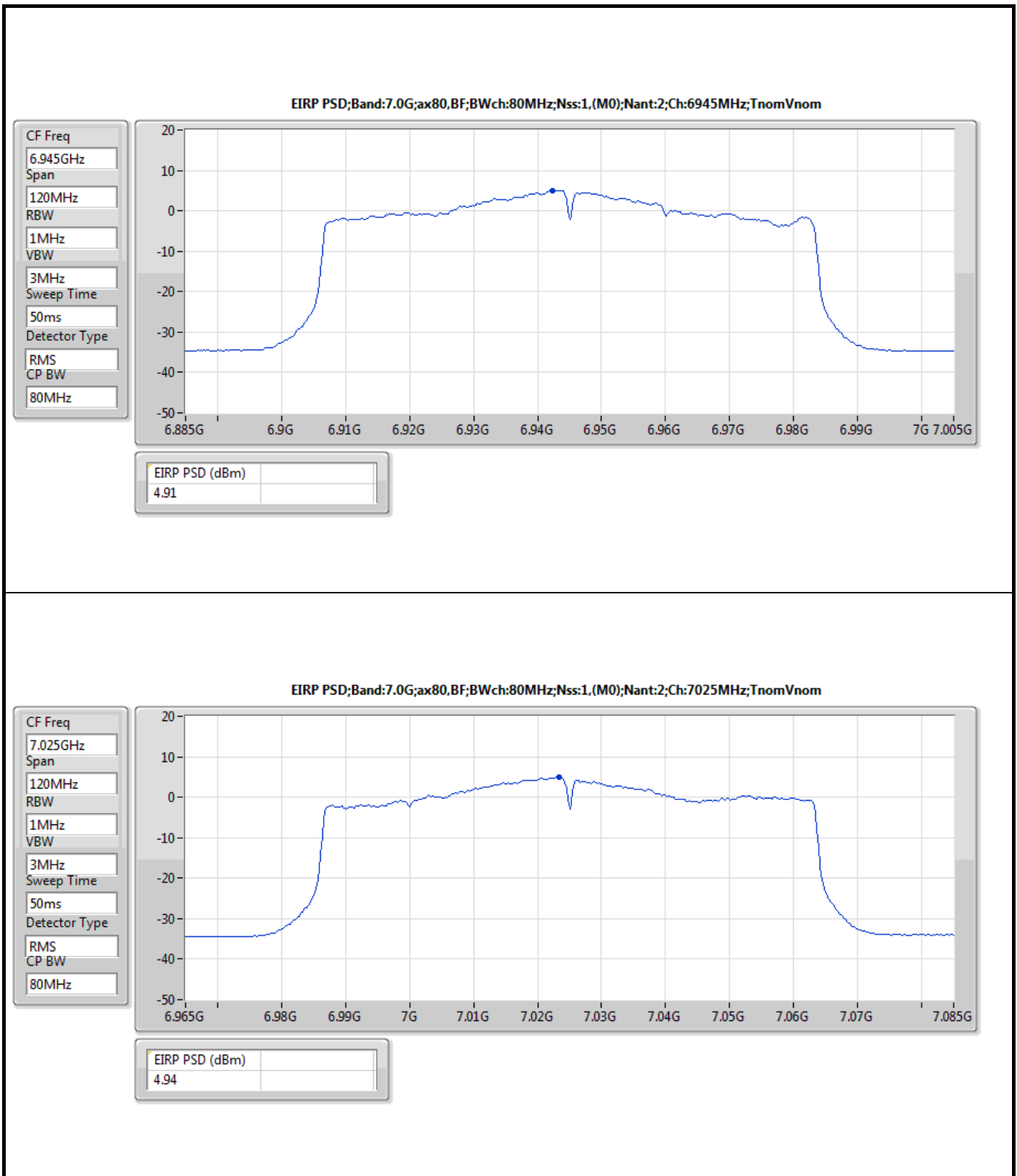


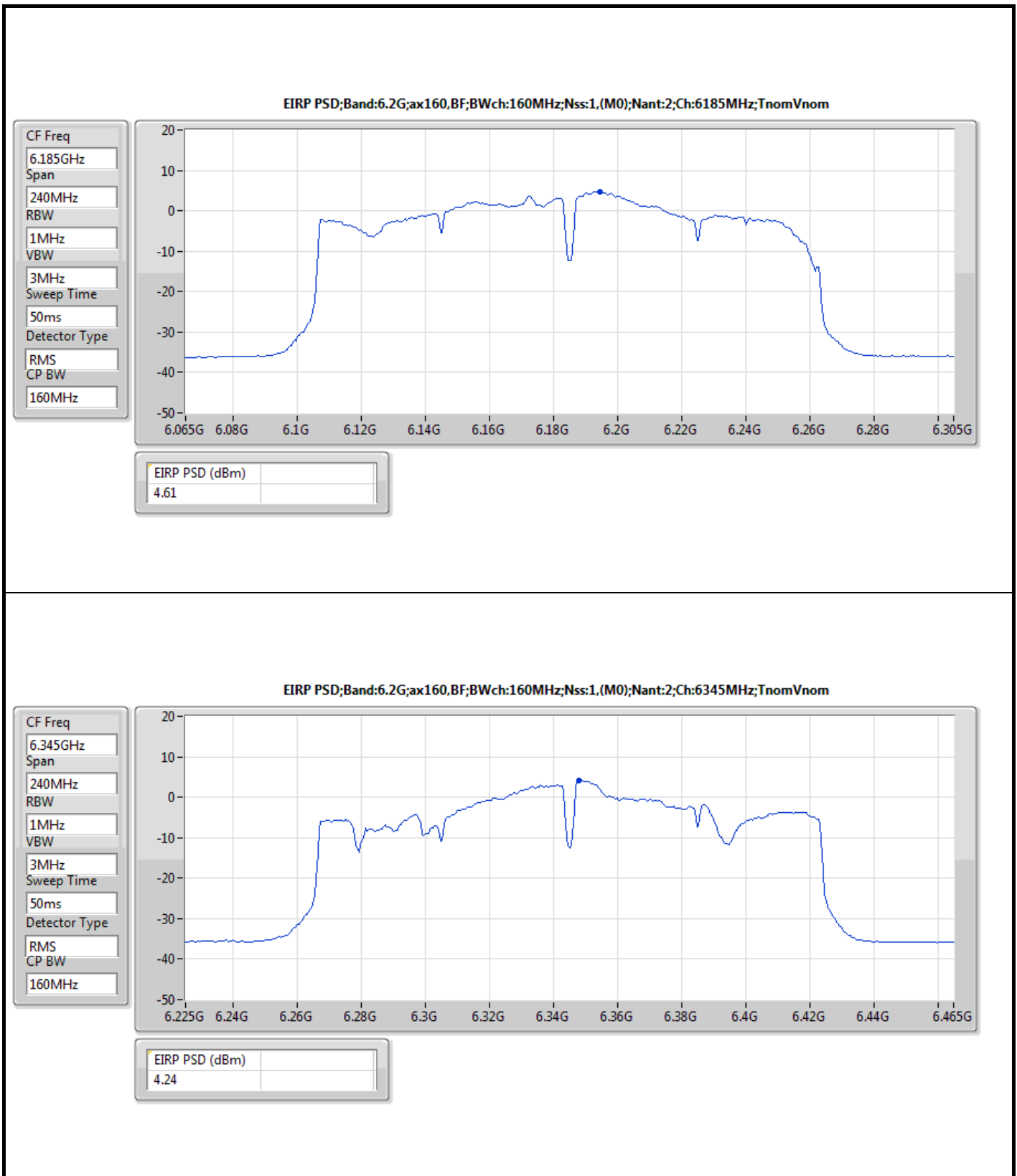


















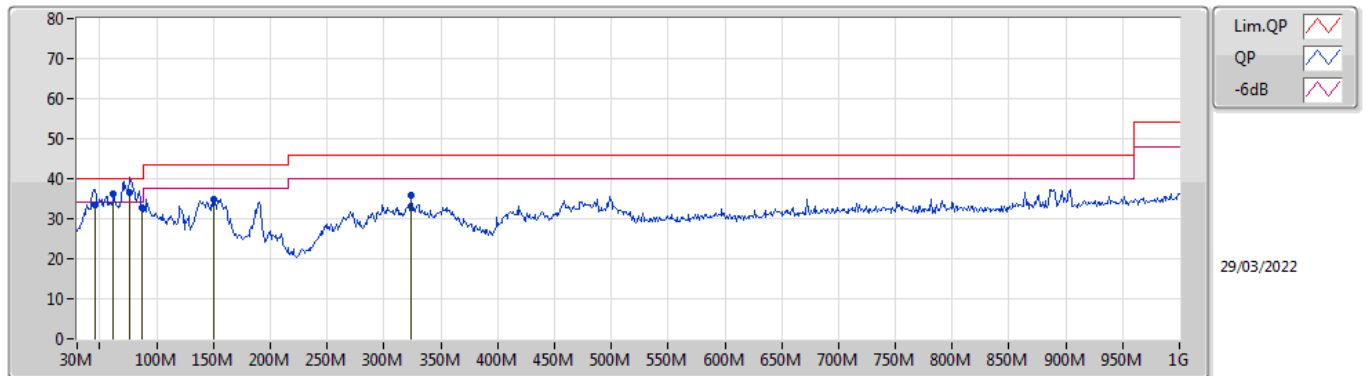
Radiated Emissions below 1GHz

Appendix E.1

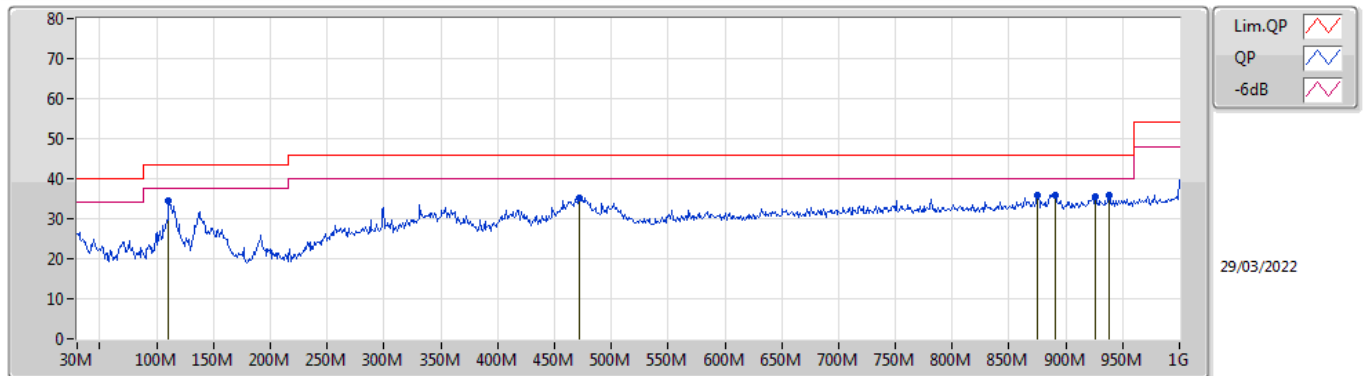
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 2	Pass	QP	76.56M	36.46	40.00	-3.54	Vertical

Test Mode: Mode 2



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
QP	45.52M	33.47	40.00	-6.53	-14.35	3	Vertical	271	1.00	-	47.82	16.33	1.80	32.48
PK	62.01M	36.20	40.00	-3.80	-18.01	3	Vertical	160	1.25	-	54.21	12.34	2.10	32.45
QP	76.56M	36.46	40.00	-3.54	-17.64	3	Vertical	211	1.50	"Worst"	54.10	12.56	2.20	32.40
PK	87.23M	32.78	40.00	-7.22	-15.95	3	Vertical	140	1.00	-	48.73	14.20	2.20	32.35
PK	150.28M	34.88	43.50	-8.62	-13.24	3	Vertical	196	1.25	-	48.12	16.45	2.70	32.39
PK	323.91M	35.69	46.00	-10.31	-9.00	3	Vertical	192	1.50	-	44.69	19.42	3.85	32.27



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	110.51M	34.49	43.50	-9.01	-12.27	3	Horizontal	321	1.50	"Worst"	46.76	17.65	2.45	32.37
PK	472.32M	35.15	46.00	-10.85	-4.48	3	Horizontal	284	1.00	-	39.63	23.00	4.69	32.17
PK	874.87M	36.03	46.00	-9.97	1.01	3	Horizontal	322	1.00	-	35.02	26.22	6.35	31.56
PK	890.39M	35.92	46.00	-10.08	1.16	3	Horizontal	216	1.25	-	34.76	26.26	6.44	31.54
PK	926.28M	35.50	46.00	-10.50	1.55	3	Horizontal	1	1.25	-	33.95	26.28	6.55	31.28
PK	937.92M	35.92	46.00	-10.08	1.81	3	Horizontal	194	1.00	-	34.11	26.40	6.58	31.17

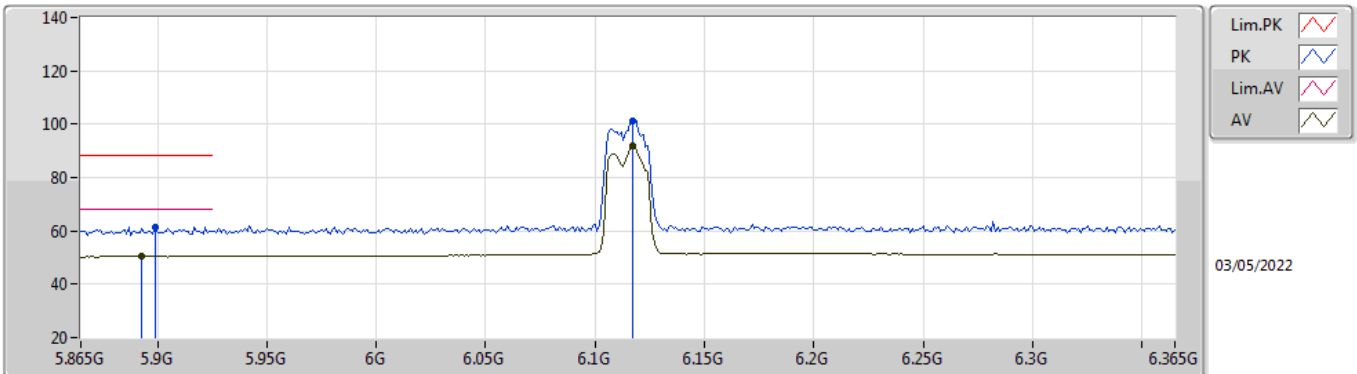


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
6.875-7.125GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	RMS	7.1255G	67.84	68.20	-0.36	3	Horizontal	318	1.00	-

802.11ax HEW20_Nss1,(MCS0)_2TX

6115MHz_TnomVnom

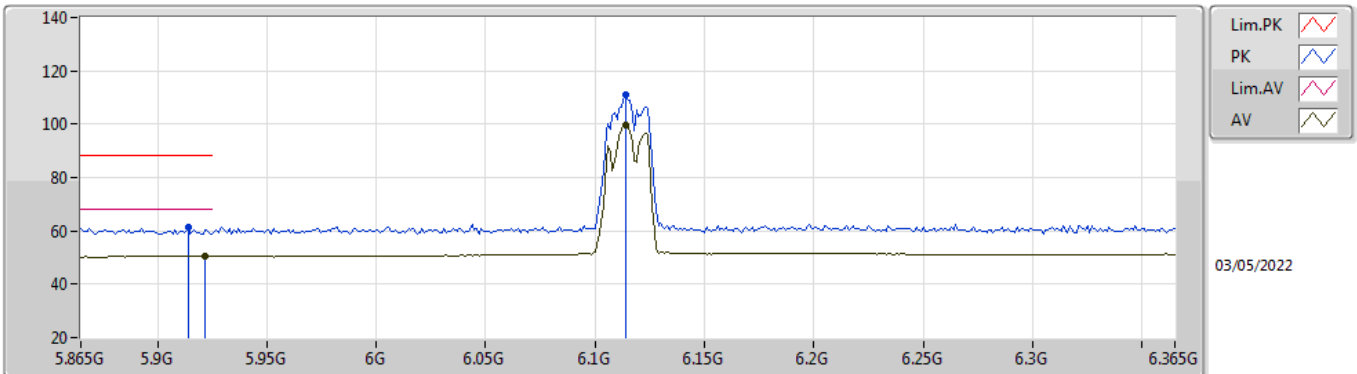


EUT_Z_2TX
Setting 8.5
01-A-K-4-10

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	5.899G	61.59	88.20	-26.61	53.03	3	Vertical	279	2.93	-	34.90	6.60	32.94	
RMS	5.893G	50.43	68.20	-17.77	41.88	3	Vertical	279	2.93	-	34.89	6.60	32.94	
PK	6.117G	101.40	Inf	-Inf	92.27	3	Vertical	279	2.93	-	35.30	6.78	32.95	
RMS	6.117G	91.84	Inf	-Inf	82.71	3	Vertical	279	2.93	-	35.30	6.78	32.95	

802.11ax HEW20_Nss1,(MCS0)_2TX

6115MHz_TnomVnom

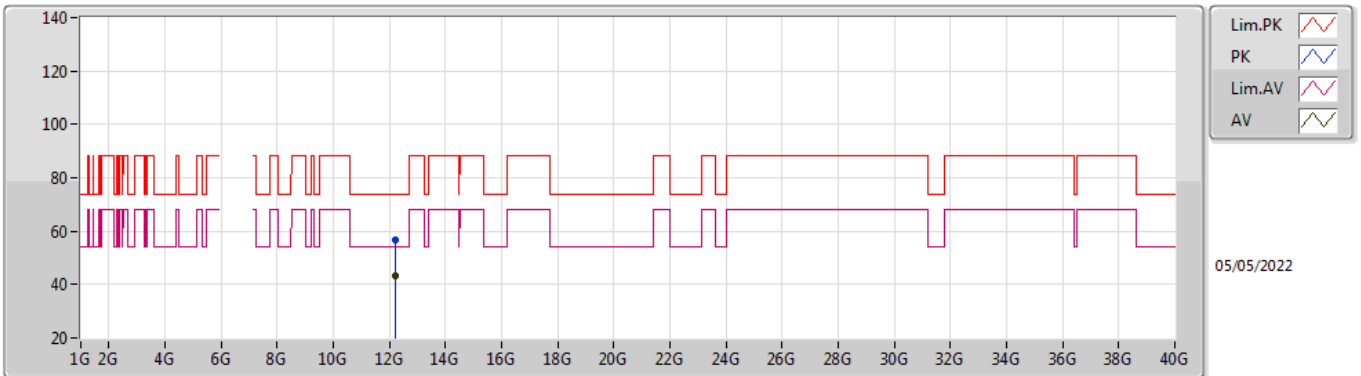


EUT Z_2TX
Setting 8.5
01-A-K-4-10

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	5.914G	61.33	88.20	-26.87	52.71	3	Horizontal	43	2.67	-	34.96	6.60	32.94
RMS	5.922G	50.45	68.20	-17.75	41.80	3	Horizontal	43	2.67	-	34.99	6.60	32.94
PK	6.114G	111.07	Inf	-Inf	101.95	3	Horizontal	43	2.67	-	35.30	6.77	32.95
RMS	6.114G	99.90	Inf	-Inf	90.78	3	Horizontal	43	2.67	-	35.30	6.77	32.95

802.11ax HEW20_Nss1,(MCS0)_2TX

6115MHz_TnomVnom

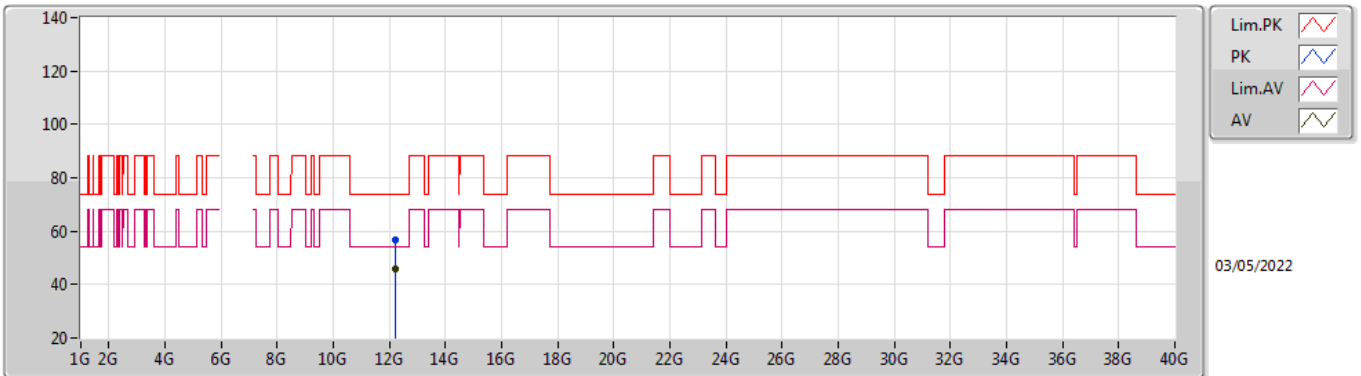


EUT_Z_2TX
Setting 8.5
01-A-G-2

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	12.22982G	56.76	74.00	-17.24	41.90	3	Vertical	260	1.79	-	38.36	9.10	32.60
AV	12.22988G	43.17	54.00	-10.83	28.30	3	Vertical	260	1.79	-	38.36	9.10	32.59

802.11ax HEW20_Nss1,(MCS0)_2TX

6115MHz_TnomVnom

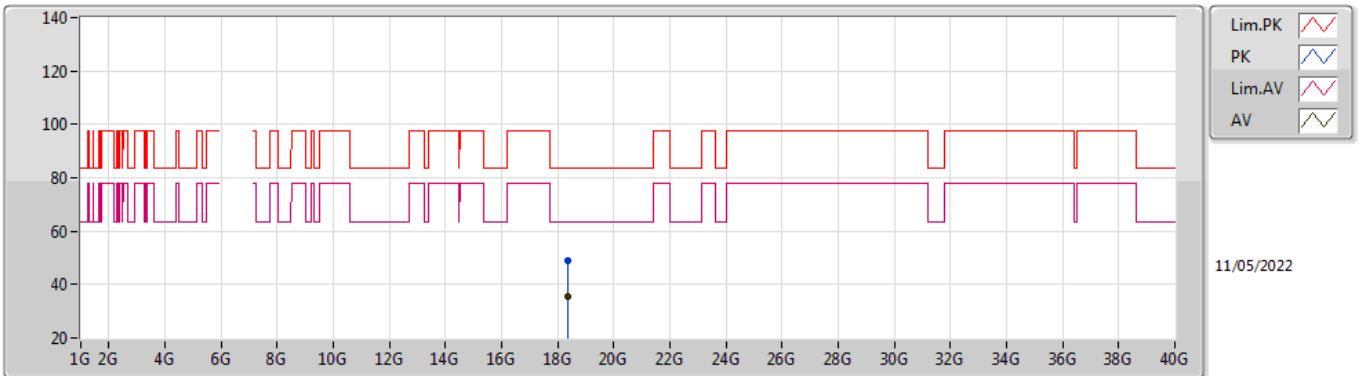


EUT_Z_2TX
Setting 8.5
01-A-G-2

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	12.23G	56.84	74.00	-17.16	41.97	3	Horizontal	113	1.63	-	38.36	9.10	32.59
AV	12.23G	45.61	54.00	-8.39	30.74	3	Horizontal	113	1.63	-	38.36	9.10	32.59

802.11ax HEW20_Nss1,(MCS0)_2TX

6115MHz_TnomVnom

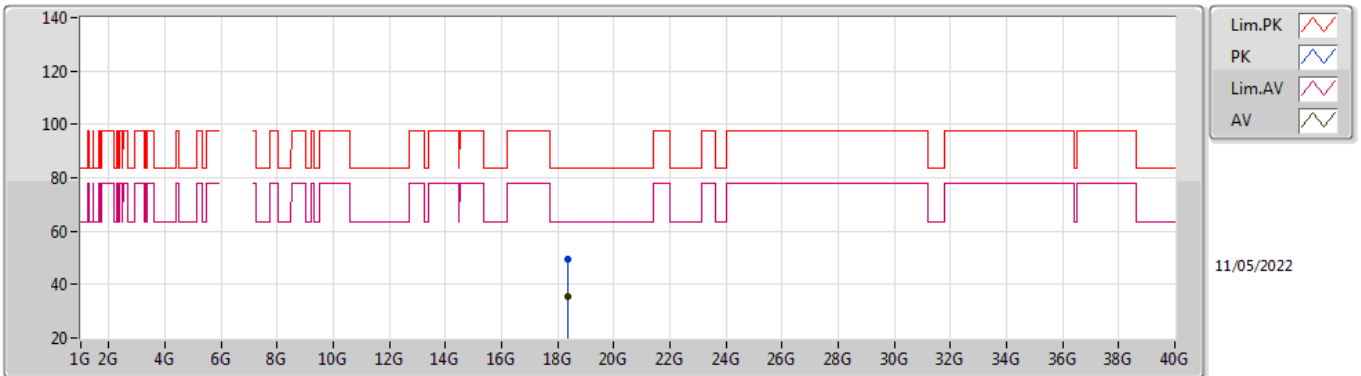


EUT_Z_2TX
Setting 8.5
01-A-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	18.34346G	48.82	83.54	-34.72	46.53	1	Vertical	83	1.51	-	37.61	14.84	50.16
AV	18.34214G	35.62	63.54	-27.92	33.33	1	Vertical	83	1.51	-	37.61	14.84	50.16

802.11ax HEW20_Nss1,(MCS0)_2TX

6115MHz_TnomVnom

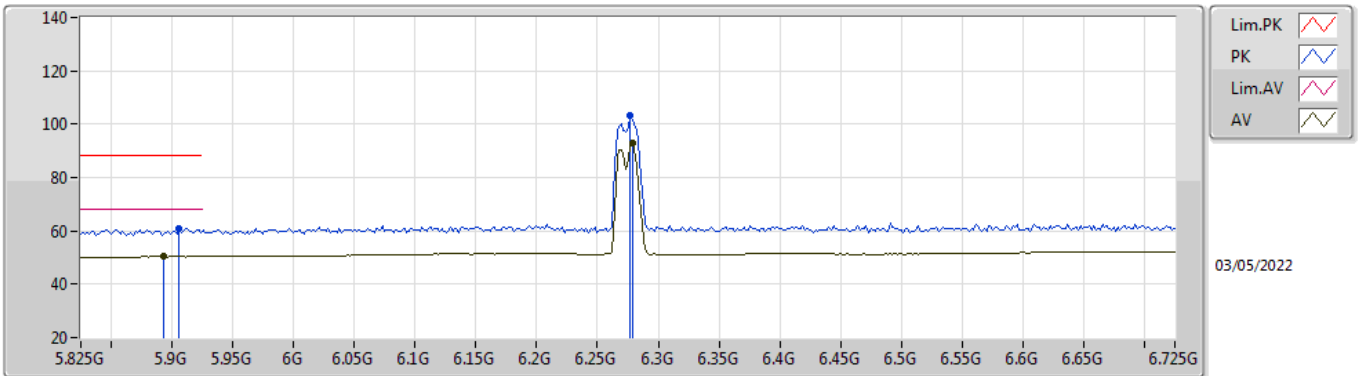


EUT_Z_2TX
Setting 8.5
01-A-K-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)
PK	18.34236G	49.38	83.54	-34.16	47.09	1	Horizontal	172	1.52	-	37.61	14.84	50.16
AV	18.34374G	35.68	63.54	-27.86	33.39	1	Horizontal	172	1.52	-	37.61	14.84	50.16

802.11ax HEW20_Nss1,(MCS0)_2TX

6275MHz_TnomVnom

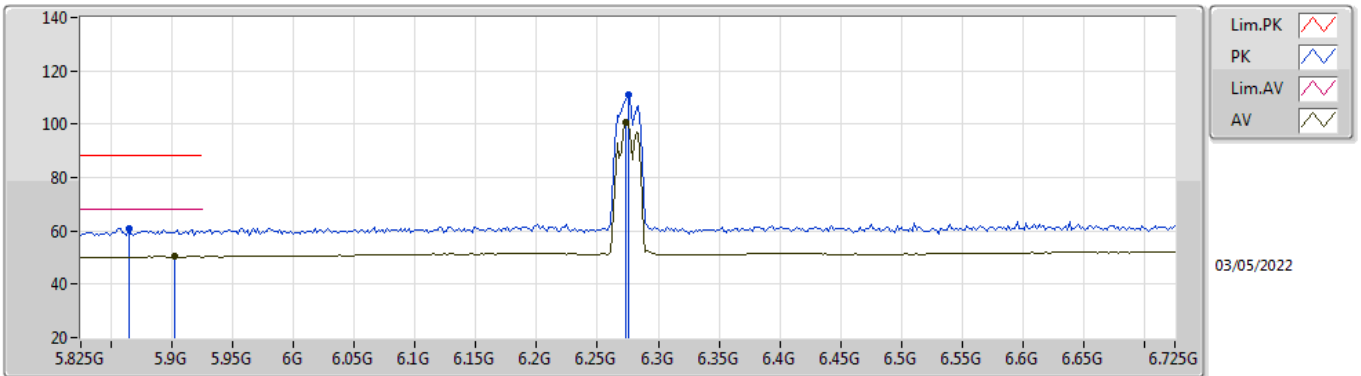


EUT_Z_2TX
Setting 10
01-A-K-4-10

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	5.906G	60.88	88.20	-27.32	52.30	3	Vertical	283	2.97	-	34.92	6.60	32.94	
RMS	5.8934G	50.37	68.20	-17.83	41.82	3	Vertical	283	2.97	-	34.89	6.60	32.94	
PK	6.2768G	103.06	Inf	-Inf	93.86	3	Vertical	283	2.97	-	35.21	6.94	32.95	
RMS	6.2786G	92.68	Inf	-Inf	83.48	3	Vertical	283	2.97	-	35.21	6.94	32.95	

802.11ax HEW20_Nss1,(MCS0)_2TX

6275MHz_TnomVnom

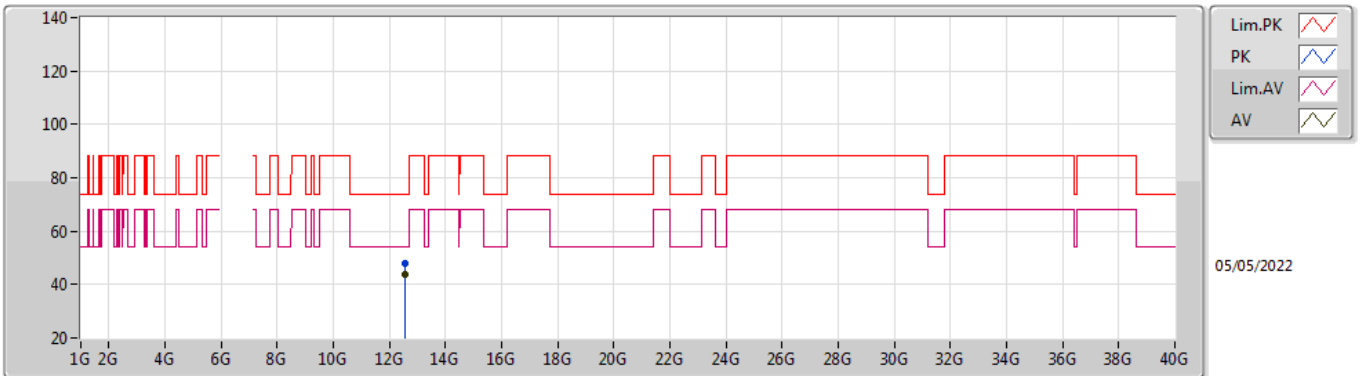


EUT_Z_2TX
Setting 10
01-A-K-4-10

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	5.8646G	60.99	88.20	-27.21	52.50	3	Horizontal	37	2.68	-	34.83	6.60	32.94	
RMS	5.9024G	50.35	68.20	-17.85	41.78	3	Horizontal	37	2.68	-	34.91	6.60	32.94	
PK	6.275G	111.06	Inf	-Inf	101.87	3	Horizontal	37	2.68	-	35.20	6.94	32.95	
RMS	6.2732G	100.55	Inf	-Inf	91.37	3	Horizontal	37	2.68	-	35.19	6.94	32.95	

802.11ax HEW20_Nss1,(MCS0)_2TX

6275MHz_TnomVnom

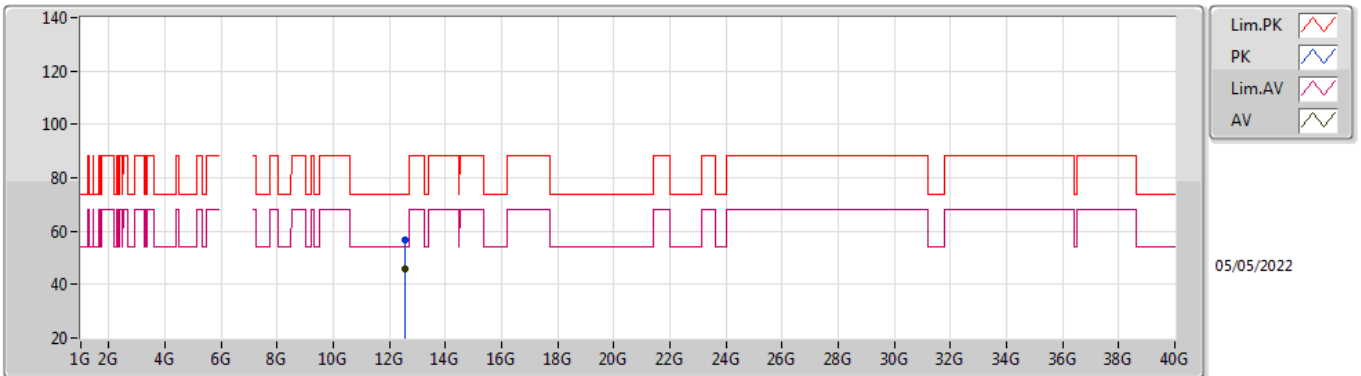


EUT_Z_2TX
Setting 10
01-A-G-2

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	12.55172G	47.91	74.00	-26.09	32.25	3	Vertical	85	1.30	-	38.60	9.25	32.19
AV	12.55262G	43.90	54.00	-10.10	28.23	3	Vertical	85	1.30	-	38.61	9.25	32.19

802.11ax HEW20_Nss1,(MCS0)_2TX

6275MHz_TnomVnom

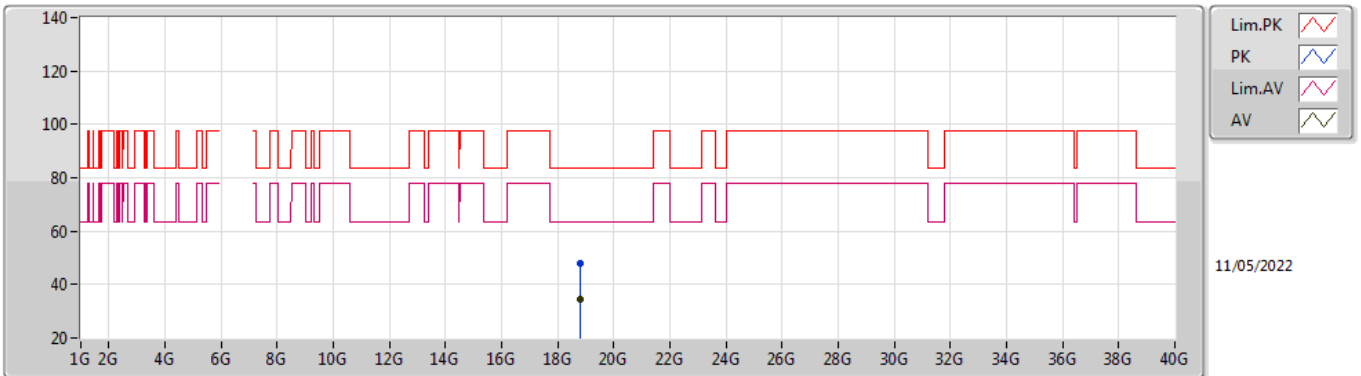


EUT_Z_2TX
Setting 10
01-A-G-2

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)
AV	12.55G	45.72	54.00	-8.28	30.07	3	Horizontal	169	1.80	-	38.60	9.25	32.20
PK	12.54988G	56.77	74.00	-17.23	41.12	3	Horizontal	169	1.80	-	38.60	9.25	32.20

802.11ax HEW20_Nss1,(MCS0)_2TX

6275MHz_TnomVnom

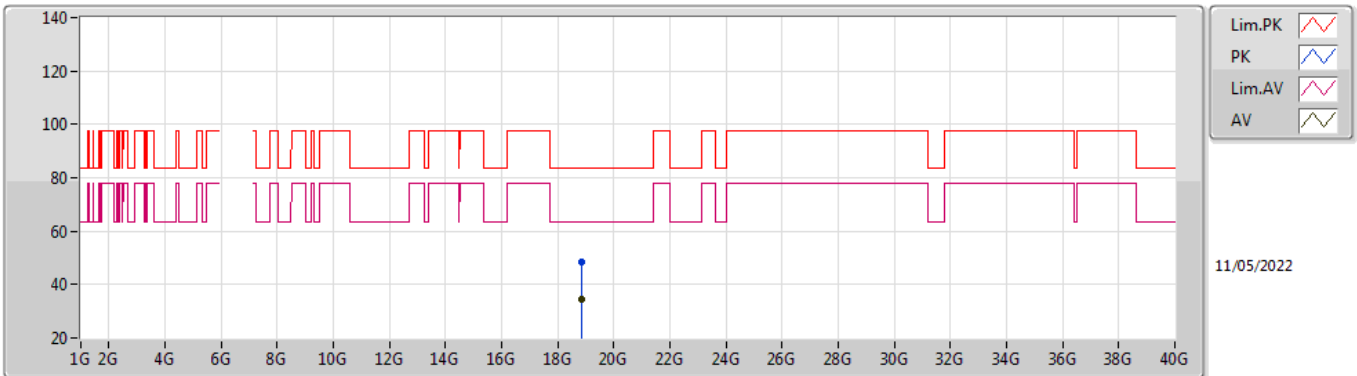


EUT_Z_2TX
Setting 10
01-A-G-2

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	18.8252G	48.09	83.54	-35.45	45.04	1	Vertical	201	1.51	-	37.79	15.03	49.77
AV	18.82706G	34.73	63.54	-28.81	31.68	1	Vertical	201	1.51	-	37.79	15.03	49.77

802.11ax HEW20_Nss1,(MCS0)_2TX

6275MHz_TnomVnom

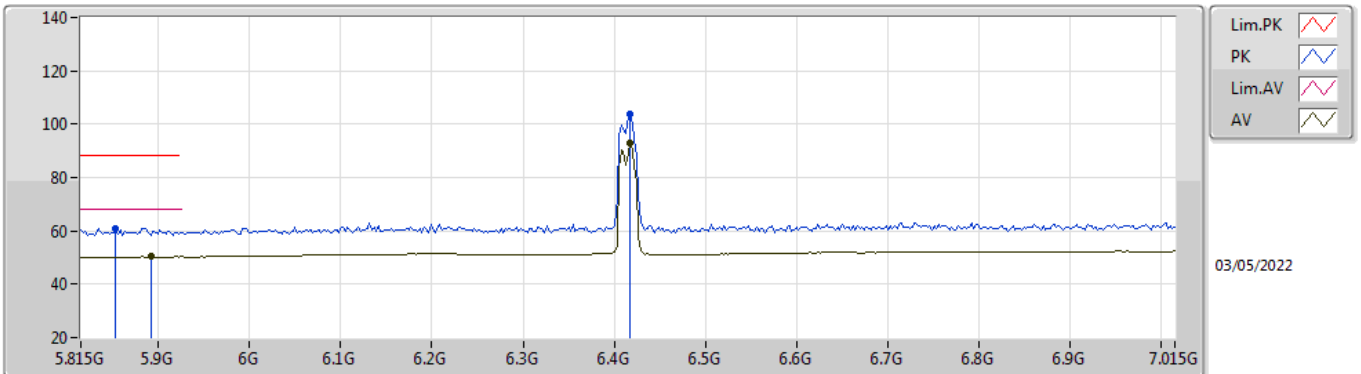


EUT_Z_2TX
Setting 10
01-A-G-2

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	18.8293G	48.62	83.54	-34.92	45.56	1	Horizontal	322	1.55	-	37.80	15.03	49.77
AV	18.8286G	34.74	63.54	-28.80	31.69	1	Horizontal	322	1.55	-	37.79	15.03	49.77

802.11ax HEW20_Nss1,(MCS0)_2TX

6415MHz_TnomVnom

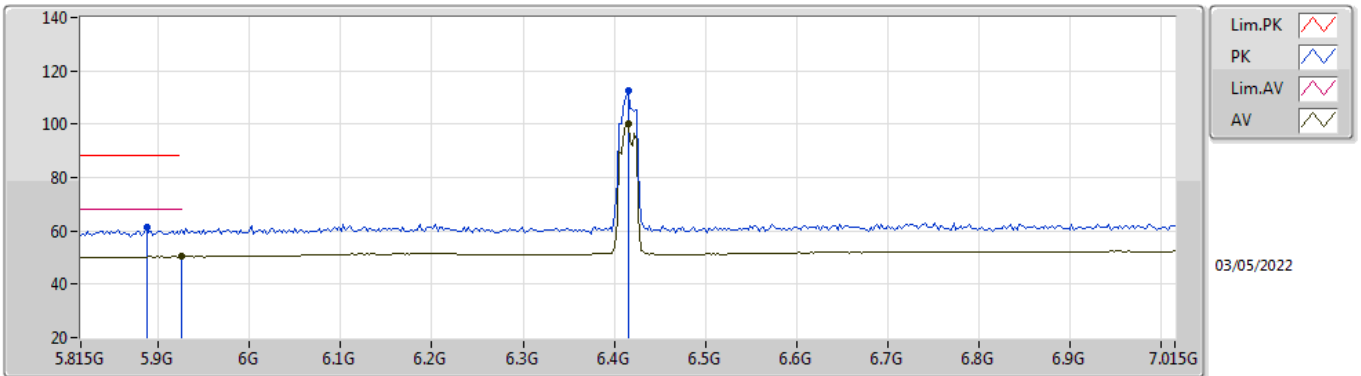


EUT_Z_2TX
Setting 8.5
01-A-K-4-10

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	5.8534G	60.72	88.20	-27.48	52.25	3	Vertical	284	2.87	-	34.81	6.60	32.94	
RMS	5.8918G	50.30	68.20	-17.90	41.76	3	Vertical	284	2.87	-	34.88	6.60	32.94	
PK	6.4174G	103.70	Inf	-Inf	94.12	3	Vertical	284	2.87	-	35.53	7.00	32.95	
RMS	6.4174G	92.74	Inf	-Inf	83.16	3	Vertical	284	2.87	-	35.53	7.00	32.95	

802.11ax HEW20_Nss1,(MCS0)_2TX

6415MHz_TnomVnom

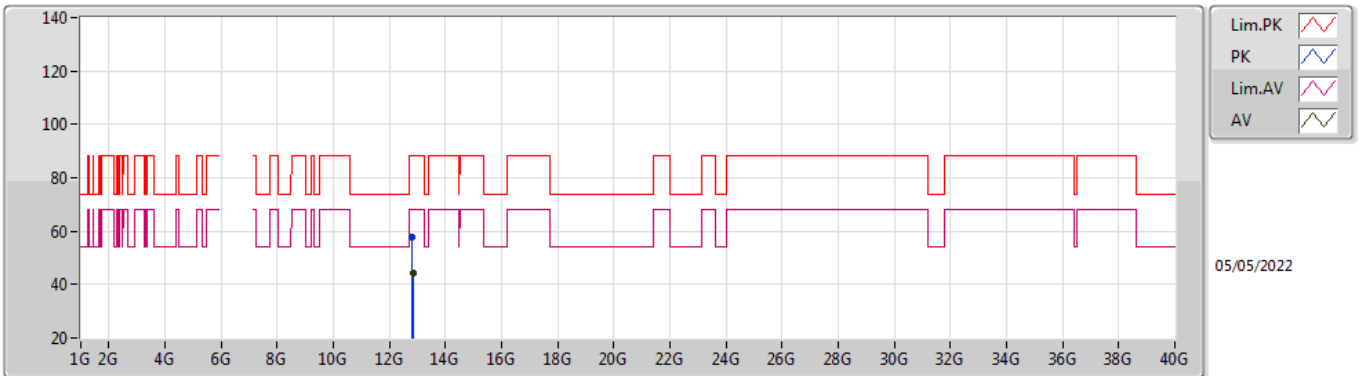


EUT_Z_2TX
Setting 8.5
01-A-K-4-10

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	5.887G	61.56	88.20	-26.64	53.03	3	Horizontal	23	2.64	-	34.87	6.60	32.94	
RMS	5.925G	50.33	68.20	-17.87	41.67	3	Horizontal	23	2.64	-	35.00	6.60	32.94	
PK	6.415G	112.53	Inf	-Inf	102.94	3	Horizontal	23	2.64	-	35.54	7.00	32.95	
RMS	6.415G	100.22	Inf	-Inf	90.63	3	Horizontal	23	2.64	-	35.54	7.00	32.95	

802.11ax HEW20_Nss1,(MCS0)_2TX

6415MHz_TnomVnom

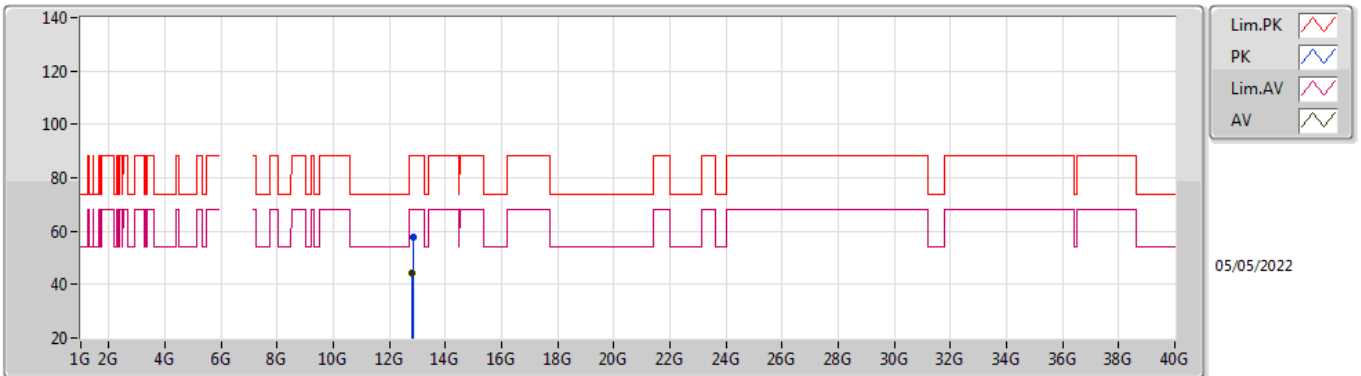


EUT_Z_2TX
Setting 8.5
01-A-G-2

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	12.8277G	57.92	88.20	-30.28	41.16	3	Vertical	85	2.59	-	39.23	9.37	31.84	
RMS	12.83424G	44.29	68.20	-23.91	27.51	3	Vertical	85	2.59	-	39.23	9.38	31.83	

802.11ax HEW20_Nss1,(MCS0)_2TX

6415MHz_TnomVnom

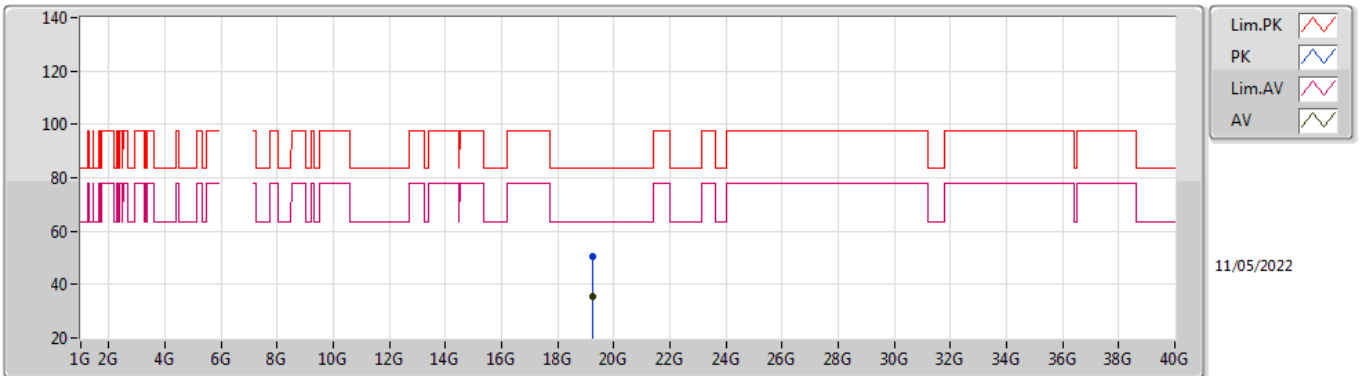


EUT_Z_2TX
Setting 8.5
01-A-G-2

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	12.83402G	57.68	88.20	-30.52	40.90	3	Horizontal	251	2.78	-	39.23	9.38	31.83
RMS	12.82558G	44.22	68.20	-23.98	27.46	3	Horizontal	251	2.78	-	39.23	9.37	31.84

802.11ax HEW20_Nss1,(MCS0)_2TX

6415MHz_TnomVnom



EUT_Z_2TX
Setting 8.5
01-A-K-4

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	19.24758G	50.31	83.54	-33.23	47.06	1	Vertical	34	1.53	-	37.70	15.20	49.65
AV	19.24946G	35.57	63.54	-27.97	32.32	1	Vertical	34	1.53	-	37.70	15.20	49.65