



FCC RADIO TEST REPORT

FCC ID : 2AHBN-AP63
Equipment : Premium Outdoor 802.11ax WiFi and BLE Array AP
Brand Name : Mist
Model Name : AP63, AP63E
Applicant : Juniper Networks, Inc.
1133 Innovation Way, Sunnyvale, CA 94089, USA
Manufacturer : Juniper Networks, Inc.
1133 Innovation Way, Sunnyvale, CA 94089, USA
Standard : 47 CFR FCC Part 15.407

The product was received on Apr. 16, 2020, and testing was started from Jul. 03, 2020 and completed on Aug. 03, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.


Approved by: Cliff Chang

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

History of this test report.....3

Summary of Test Result.....4

1 General Description5

1.1 Information.....5

1.2 Applicable Standards15

1.3 Testing Location Information.....15

1.4 Measurement Uncertainty16

2 Test Configuration of EUT17

2.1 Test Channel Mode17

2.2 The Worst Case Measurement Configuration.....27

2.3 EUT Operation during Test30

2.4 Accessories31

2.5 Support Equipment.....31

2.6 Test Setup Diagram32

3 Transmitter Test Result35

3.1 AC Power-line Conducted Emissions35

3.2 Emission Bandwidth.....37

3.3 Maximum Conducted Output Power38

3.4 Peak Power Spectral Density.....40

3.5 Unwanted Emissions.....43

4 Test Equipment and Calibration Data48

Appendix A. Test Results of AC Power-line Conducted Emissions

Appendix B. Test Results of Emission Bandwidth

Appendix C. Test Results of Maximum Conducted Output Power

Appendix D. Test Results of Peak Power Spectral Density

Appendix E. Test Results of Unwanted Emissions

Appendix F. Test Results of Radiated Emission Co-location

Appendix G. Test Photos

Photographs of EUT v01



Summary of Test Result

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

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. 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
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20)	5180-5240	36-48 [4]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40), ax (HEW40)	5190-5230	38-46 [2]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80), ax (HEW80)	5210	42 [1]
5725-5850		5775	155 [1]

For Radio 1

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	4TX
5.15-5.25GHz	802.11n (HT20)	20	4TX
5.15-5.25GHz	802.11n (HT20)-BF	20	4TX
5.15-5.25GHz	802.11ac (VHT20)	20	4TX
5.15-5.25GHz	802.11ac (VHT20)-BF	20	4TX
5.15-5.25GHz	802.11ax HEW20	20	4TX
5.15-5.25GHz	802.11ax HEW20-BF	20	4TX
5.15-5.25GHz	802.11n (HT40)	40	4TX
5.15-5.25GHz	802.11n (HT40)-BF	40	4TX
5.15-5.25GHz	802.11ac (VHT40)	40	4TX
5.15-5.25GHz	802.11ac (VHT40)-BF	40	4TX
5.15-5.25GHz	802.11ac (VHT80)	80	4TX
5.15-5.25GHz	802.11ac (VHT80)-BF	80	4TX
5.15-5.25GHz	802.11ax HEW40	40	4TX
5.15-5.25GHz	802.11ax HEW40-BF	40	4TX
5.15-5.25GHz	802.11ax HEW80	80	4TX
5.15-5.25GHz	802.11ax HEW80-BF	80	4TX
5.725-5.85GHz	802.11a	20	4TX
5.725-5.85GHz	802.11n (HT20)	20	4TX
5.725-5.85GHz	802.11n (HT20)-BF	20	4TX
5.725-5.85GHz	802.11ac (VHT20)	20	4TX
5.725-5.85GHz	802.11ac (VHT20)-BF	20	4TX
5.725-5.85GHz	802.11ax HEW20	20	4TX



Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11ax HEW20-BF	20	4TX
5.725-5.85GHz	802.11n (HT40)	40	4TX
5.725-5.85GHz	802.11n (HT40)-BF	40	4TX
5.725-5.85GHz	802.11ac (VHT40)	40	4TX
5.725-5.85GHz	802.11ac (VHT40)-BF	40	4TX
5.725-5.85GHz	802.11ac (VHT80)	80	4TX
5.725-5.85GHz	802.11ac (VHT80)-BF	80	4TX
5.725-5.85GHz	802.11ax HEW40	40	4TX
5.725-5.85GHz	802.11ax HEW40-BF	40	4TX
5.725-5.85GHz	802.11ax HEW80	80	4TX
5.725-5.85GHz	802.11ax HEW80-BF	80	4TX



For Radio 2

Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11a	20	4TX
5.725-5.85GHz	802.11n (HT20)	20	4TX
5.725-5.85GHz	802.11n (HT20)-BF	20	4TX
5.725-5.85GHz	802.11ac (VHT20)	20	4TX
5.725-5.85GHz	802.11ac (VHT20)-BF	20	4TX
5.725-5.85GHz	802.11ax HEW20	20	4TX
5.725-5.85GHz	802.11ax HEW20-BF	20	4TX
5.725-5.85GHz	802.11n (HT40)	40	4TX
5.725-5.85GHz	802.11n (HT40)-BF	40	4TX
5.725-5.85GHz	802.11ac (VHT40)	40	4TX
5.725-5.85GHz	802.11ac (VHT40)-BF	40	4TX
5.725-5.85GHz	802.11ac (VHT80)	80	4TX
5.725-5.85GHz	802.11ac (VHT80)-BF	80	4TX
5.725-5.85GHz	802.11ax HEW40	40	4TX
5.725-5.85GHz	802.11ax HEW40-BF	40	4TX
5.725-5.85GHz	802.11ax HEW80	80	4TX
5.725-5.85GHz	802.11ax HEW80-BF	80	4TX



For Radio 3

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	2TX
5.15-5.25GHz	802.11n (HT20)	20	2TX
5.15-5.25GHz	802.11ac (VHT20)	20	2TX
5.15-5.25GHz	802.11ax HEW20	20	2TX
5.15-5.25GHz	802.11n (HT40)	40	2TX
5.15-5.25GHz	802.11ac (VHT40)	40	2TX
5.15-5.25GHz	802.11ac (VHT80)	80	2TX
5.15-5.25GHz	802.11ax HEW40	40	2TX
5.15-5.25GHz	802.11ax HEW80	80	2TX
5.725-5.85GHz	802.11a	20	2TX
5.725-5.85GHz	802.11n (HT20)	20	2TX
5.725-5.85GHz	802.11ac (VHT20)	20	2TX
5.725-5.85GHz	802.11ax HEW20	20	2TX
5.725-5.85GHz	802.11n (HT40)	40	2TX
5.725-5.85GHz	802.11ac (VHT40)	40	2TX
5.725-5.85GHz	802.11ac (VHT80)	80	2TX
5.725-5.85GHz	802.11ax HEW40	40	2TX
5.725-5.85GHz	802.11ax HEW80	80	2TX

Note:

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



1.1.2 Antenna Information

For Configuration 1 / Internal Antenna of EUT:

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Antenna Gain(dBi)			Radio
						WLAN 2.4GHz	WLAN 5GHz	Bluetooth	
1 ~ 4	1~4	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	6	-	R1-5GHz
5~8	1~4	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	4	-	-	R2-2.4GHz
9~10	1~2	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	2.3	4.7	-	R3-2.4GHz R3-5GHz
11 ~ 18	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	5.1	R4
19	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	4.3	R4
20	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	1.4	R4

Note: The above information was declared by manufacturer.

For Radio 1 / 5GHz function:

For IEEE 802.11a/n/ac/ax mode (4TX/4RX):

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

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

For Radio 2 / 2.4GHz function:

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

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

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

For Radio 3 / 2.4GHz function:

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For Radio 3 / 5GHz function:

For IEEE 802.11b/g/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 Radio 4 / Bluetooth function (1TX/1RX):

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



For Configuration 3 / Internal Antenna of EUT:

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Antenna Gain(dBi)					Radio
						WLAN 2.4GHz	WLAN 5GHz			Bluetooth	
							B1 (R1)	B4 (R2)	B1, B4 (R3)		
1 ~ 4	R1:4~1 R2:1~4	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	4	6	-	-	-	R1-5GHz R2-2.4GHz
5~8	1~4	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	6	-	-	R2-5GHz
9~10	1~2	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	2.3	-	-	4.7	-	R3-2.4GHz R3-5GHz
11~18	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	-	-	5.1	R4
19	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	-	-	4.3	R4
20	1	Juniper	81XKAF15,G35	PIFA Antenna	I-PEX	-	-	-	-	1.4	R4

Note: The above information was declared by manufacturer.

For Radio 1 / 5GHz function:

For IEEE 802.11a/n/ac/ax mode (4TX/4RX):

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

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

For Radio 2 / 2.4GHz function:

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

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

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

For Radio 2 / 5GHz Band 4 function:

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

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

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

For Radio 3 / 2.4GHz function:

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For Radio 3 / 5GHz function:

For IEEE 802.11b/g/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 Radio 4 / Bluetooth function (1TX/1RX):

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



For Configuration 2 / External Antenna of EUT:

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Antenna Gain(dBi)			Radio
						WLAN 2.4GHz	WLAN 5GHz	Bluetooth	
1	1~4	AccelTex	ATS-OO-245-46-6NP-36	Omni Antenna	N-Style	4	6	-	R2-2.4GHz R1-5GHz
	1~2	AccelTex	ATS-OO-245-46-6NP-36	Omni Antenna	N-Style	4	6	-	R3-2.4GHz R3-5GHz
2	1~4	AccelTex	ATS-OP-245-810-6NP-36	Patch Antenna	N-Style	8	10	-	R2-2.4GHz R1-5GHz
	1~2	AccelTex	ATS-OP-245-810-6NP-36	Patch Antenna	N-Style	8	10	-	R3-2.4GHz R3-5GHz
3 ~ 10	1	Juniper	81XKAF15,G36	PIFA Antenna	I-PEX	-	-	5.1	R4
11	1	Juniper	81XKAF15,G36	PIFA Antenna	I-PEX	-	-	4.3	R4
12	1	Juniper	81XKAF15,G36	PIFA Antenna	I-PEX	-	-	1.4	R4

Note: The above information was declared by manufacturer.

For Radio 1 / 5GHz function:

For IEEE 802.11a/n/ac/ax mode (4TX/4RX):

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

For Radio 2 / 2.4GHz function:

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

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

For Radio 3 / 2.4GHz function:

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

Port 1 and Port 2 can be used as transmitting/receiving antenna.
Port 1 and Port 2 could transmit/receive simultaneously.

For Radio 3 / 5GHz function:

For IEEE 802.11b/g/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 Radio 4 / Bluetooth function (1TX/1RX):

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

**1.1.3 Mode Test Duty Cycle****For Configuration 1 + EUT 1 / Radio 1:**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_4TX	0.947	0.24	2.065m	1k
802.11ax HEW20_Nss1,(MCS0)_4TX	0.98	0.09	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_4TX	0.964	0.16	781.25u	3k
802.11ax HEW80_Nss1,(MCS0)_4TX	0.931	0.31	415u	3k

For Configuration 3 + EUT 1 / Radio 2 (5GHz / Band 4):

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_4TX	0.947	0.24	2.066m	1k
802.11ax HEW20_Nss1,(MCS0)_4TX	0.978	0.1	1.489m	1k
802.11ax HEW40_Nss1,(MCS0)_4TX	0.964	0.16	781.25u	3k
802.11ax HEW80_Nss1,(MCS0)_4TX	0.931	0.31	415u	3k

For Configuration 1 + EUT 1 / Radio 3:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_2TX	0.957	0.19	2.065m	1k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.978	0.1	1.489m	1k
802.11ax HEW40_Nss1,(MCS0)_2TX	0.964	0.16	781.25u	3k
802.11ax HEW80_Nss1,(MCS0)_2TX	0.931	0.31	415u	3k

For Configuration 2 + EUT 2 / Radio 1 / External Ant.1:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_4TX	0.953	0.21	2.068m	1k
802.11ax HEW20_Nss1,(MCS0)_4TX	0.981	0.08	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_4TX	0.963	0.16	780.625u	3k
802.11ax HEW80_Nss1,(MCS0)_4TX	0.93	0.32	413.75u	3k

For Configuration 2 + EUT 2 / Radio 3 / External Ant.1:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_2TX	0.947	0.24	2.066m	1k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.978	0.1	1.489m	1k
802.11ax HEW40_Nss1,(MCS0)_2TX	0.964	0.16	781.25u	3k
802.11ax HEW80_Nss1,(MCS0)_2TX	0.931	0.31	415u	3k

For Configuration 2 + EUT 2 / Radio 1 / External Ant.2:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_4TX	0.953	0.21	2.068m	1k
802.11ax HEW20_Nss1,(MCS0)_4TX	0.981	0.08	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_4TX	0.963	0.16	780.625u	3k
802.11ax HEW80_Nss1,(MCS0)_4TX	0.93	0.32	413.75u	3k



For Configuration 2 + EUT 2 / Radio 3 / External Ant.2:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a_Nss1,(6Mbps)_2TX	0.947	0.24	2.066m	1k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.978	0.1	1.489m	1k
802.11ax HEW40_Nss1,(MCS0)_2TX	0.964	0.16	781.25u	3k
802.11ax HEW80_Nss1,(MCS0)_2TX	0.931	0.31	415u	3k

Note:

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



1.1.4 EUT Operational Condition

EUT Power Type	From PoE			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
	For 802.11n/VHT/ax in 2.4GHz and 802.11n/ac/ax in 5GHz.			
Function	<input checked="" type="checkbox"/>	Outdoor P2M	<input type="checkbox"/>	Indoor P2M
	<input type="checkbox"/>	Fixed P2P	<input type="checkbox"/>	Client
Test Software Version	accessMTool 3.2.0.2			

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

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

Model Name	EUT	Description
AP63	EUT 1	The model name: AP63 indicates that it comes with internal antennas and The model name: AP63E indicates that the access point comes with external antenna connectors.
AP63E	EUT 2	

1.1.6 Table for EUT Configuration

Configuration	EUT	Radio 1	Radio 2	Radio 3	Radio 4
1	1	WLAN 5GHz	WLAN 2.4GHz	WLAN 2.4GHz + WLAN 5GHz	Bluetooth
2	2	WLAN 5GHz	WLAN 2.4GHz	WLAN 2.4GHz + WLAN 5GHz	Bluetooth
3	1	WLAN 5GHz	WLAN 2.4GHz + WLAN 5GHz	WLAN 2.4GHz + WLAN 5GHz	Bluetooth

Note: 1. The Bluetooth antennas are the same for EUT 1 and EUT 2, so there's only EUT 1 was tested and recorded in the report.

2. The above information was declared by manufacturer.

3.Configuration 1: Radio 1 in 5GHz support Band 1/4, Radio 3 in 5GHz support Band 1/4.

Configuration 2: Radio 1 in 5GHz support Band 1/4, Radio 3 in 5GHz support Band 1/4.

Configuration 3: Radio 1 in 5GHz support Band 1, Radio 2 in 5GHz support Band 4, Radio 3 in 5GHz support Band 1/4.

4. For test items AC Power-line Conducted Emissions, Unwanted Emissions below 1GHz and Radiated Emission Co-location the test configuration was declared by manufacturer as below:

Radio 1:WLAN 5GHz (Low Band) + Radio 2: WLAN 2.4GHz + Radio 3: WLAN 5GHz (High Band) + Radio 4: Bluetooth.



1.2 Applicable Standards

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

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

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

- ◆ FCC KDB 662911 D01 v02r01
- ◆ FCC KDB 412172 D01 v01r01
- ◆ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location		
<input type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456 FAX : 886-3-327-0973
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH03-CB	Benson Su	24.8-26.6°C / 56-61%	Jul. 07, 2020 ~ Jul. 27, 2020
Radiated<1GHz	10CH01-CB	Ryo Fan	22~23°C / 59~60%	Jul. 10, 2020 ~ Jul. 11, 2020
Radiated Emission Co-location	03CH06-CB	Eason Chen	25.4-26.8°C / 59-61%	Aug. 03, 2020
Radiated>1GHz	03CH01-CB	Eason Chen	24.8-26.1°C / 59-61%	Jul. 03, 2020 ~ Jul. 24, 2020
	03CH03-CB	Eason Chen	25.1-26.9°C / 58-60%	Jul. 03, 2020 ~ Jul. 24, 2020
AC Conduction	CO01-CB	Max Lin	22~23°C / 61~62%	Jul. 13, 2020

Test site Designation No. TW0006 with FCC
Test site registered number IC 4086D with Industry Canada.



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)	2.0 dB	Confidence levels of 95%
Radiated Emissions below 1GHz	4.8 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.0 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.6 dB	Confidence levels of 95%
Radiated Emission (40GHz ~ 60GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (60GHz ~ 90GHz)	4.5 dB	Confidence levels of 95%
Radiated Emission (90GHz ~ 200GHz)	5.3 dB	Confidence levels of 95%
Conducted Emission	2.8 dB	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For Configuration 1 + EUT 1 / Radio 1:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	51
5200MHz	50
5240MHz	50
5745MHz	87
5785MHz	91
5825MHz	87
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5180MHz	50
5200MHz	50
5240MHz	49
5745MHz	88
5785MHz	96
5825MHz	89
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5190MHz	49
5230MHz	49
5755MHz	84
5795MHz	89
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5210MHz	51
5775MHz	74
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5180MHz	24
5200MHz	24
5240MHz	24
5745MHz	65
5785MHz	67
5825MHz	66
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5190MHz	23
5230MHz	22
5755MHz	67
5795MHz	68
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-



Mode	Power Setting
5210MHz	25
5775MHz	70



For Configuration 3 + EUT 1 / Radio 2 (5GHz / Band 4):

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5745MHz	99
5785MHz	96
5825MHz	91
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5745MHz	99
5785MHz	96
5825MHz	90
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5755MHz	93
5795MHz	92
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5775MHz	81
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5745MHz	70
5785MHz	72
5825MHz	72
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5755MHz	72
5795MHz	72
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5775MHz	73



For Configuration 1 + EUT 1 / Radio 3:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	67
5200MHz	67
5240MHz	67
5745MHz	108
5785MHz	108
5825MHz	108
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5180MHz	66
5200MHz	66
5240MHz	66
5745MHz	108
5785MHz	108
5825MHz	108
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5190MHz	63
5230MHz	66
5755MHz	100
5795MHz	100
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5210MHz	59
5775MHz	86



For Configuration 2 + EUT 2 / Radio 1 / External Ant.1:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	56
5200MHz	56
5240MHz	56
5745MHz	86
5785MHz	77
5825MHz	78
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5180MHz	55
5200MHz	55
5240MHz	55
5745MHz	85
5785MHz	90
5825MHz	81
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5190MHz	55
5230MHz	55
5755MHz	82
5795MHz	89
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5210MHz	57
5775MHz	79
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5180MHz	30
5200MHz	30
5240MHz	30
5745MHz	67
5785MHz	67
5825MHz	68
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5190MHz	30
5230MHz	29
5755MHz	69
5795MHz	69
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5210MHz	31
5775MHz	71



For Configuration 2 + EUT 2 / Radio 3 / External Ant.1:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	75
5200MHz	75
5240MHz	75
5745MHz	108
5785MHz	108
5825MHz	108
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5180MHz	73
5200MHz	74
5240MHz	74
5745MHz	108
5785MHz	108
5825MHz	108
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5190MHz	67
5230MHz	75
5755MHz	98
5795MHz	104
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5210MHz	65
5775MHz	86



**For Configuration 2 + EUT 2 / Radio 1 / External Ant.2:
For Conducted measurement and Band Edge Emission test:**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	43
5200MHz	43
5240MHz	42
5745MHz	79
5785MHz	77
5825MHz	78
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5180MHz	42
5200MHz	42
5240MHz	41
5745MHz	78
5785MHz	78
5825MHz	78
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5190MHz	42
5230MHz	42
5755MHz	80
5795MHz	79
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5210MHz	43
5775MHz	70
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5180MHz	59
5200MHz	59
5240MHz	59
5745MHz	49
5785MHz	50
5825MHz	51
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5190MHz	58
5230MHz	58
5755MHz	51
5795MHz	52
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5210MHz	57
5775MHz	54



For Radiated Emission:

Mode	Radiated Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	108
5200MHz	108
5240MHz	108
5745MHz	87
5785MHz	77
5825MHz	78
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5180MHz	108
5200MHz	108
5240MHz	108
5745MHz	88
5785MHz	90
5825MHz	81
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5190MHz	108
5230MHz	108
5755MHz	97
5795MHz	108
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5210MHz	108
5775MHz	108



**For Configuration 2 + EUT 2 / Radio 3 / External Ant.2:
For Conducted measurement and Band Edge Emission test:**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	63
5200MHz	63
5240MHz	63
5745MHz	91
5785MHz	91
5825MHz	92
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5180MHz	62
5200MHz	62
5240MHz	62
5745MHz	90
5785MHz	91
5825MHz	92
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5190MHz	63
5230MHz	63
5755MHz	93
5795MHz	93
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5210MHz	63
5775MHz	81



For Radiated Emission:

Mode	Radiated Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	108
5200MHz	108
5240MHz	108
5745MHz	108
5785MHz	108
5825MHz	108
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5180MHz	108
5200MHz	108
5240MHz	108
5745MHz	108
5785MHz	108
5825MHz	108
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5190MHz	108
5230MHz	108
5755MHz	108
5795MHz	108
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5210MHz	108
5775MHz	108

Note: The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all test items are evaluated in the report. The beamforming mode only evaluates the output power.



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	EUT 2 Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + External Ant. 2 + PoE 1

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density
Test Condition	Conducted measurement at transmit chains
Test Mdoe	1 Configuration 1 + EUT 1 / Radio 1
	2 Configuration 3 + EUT 1 / Radio 2 (5GHz / Band 4)
	3 Configuration 1 + EUT 1 / Radio 3
	4 Configuration 2 + EUT 2 / Radio 1 / External Ant.1
	5 Configuration 2 + EUT 2 / Radio 3 / External Ant.1
	6 Configuration 2 + EUT 2 / Radio 1 / External Ant.2
	7 Configuration 2 + EUT 2 / Radio 3 / External Ant.2



The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT 1 in Y axis Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + PoE 1
2	EUT 1 in Z axis Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + PoE 1
Mode 1 has been evaluated to be the worst case between Mode 1~2, thus measurement for Mode 3 ~ 4 will follow this same test mode.	
3	EUT 2 in Y axis Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + External Ant. 1 + PoE 1
4	EUT 2 in Y axis Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz / High Band) + Radio 4 (Bluetooth) + External Ant. 2 + PoE 1
For operating mode 1 is the worst case and it was record in this test report.	



Operating Mode > 1GHz		CTX				
1. The External Ant.1 was performed at 90° and 180° position and the worst case was found at 180°. So the measurement will follow this same test configuration.						
2. The EUT was performed at X、Y axis and Z axis and the worst case was found at below:						
Items	Radiated Emission			Band Edge Emission		
	Radio 1	Radio 2	Radio 3	Radio 1	Radio 2	Radio 3
EUT 1	Y axis	Y axis	X axis	Y axis	Y axis	X axis
EUT 2 + External Ant.1 in 180°	(Note 1)	Without support	(Note 1)	X axis	Without support	X axis
EUT 2 + External Ant.2	Z axis	Without support	X axis	Z axis	Without support	Y axis
Note 1	The EUT 2 accompanies with two types of external antennas. The External Ant.2 with the highest gain and highest power setting were selected to conduct the measurement, and the test result is recorded in this test report.					

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	Configuration 2: EUT 2 + Radio 1 (WLAN 5GHz) + Radio 2 (WLAN 2.4GHz)
2	Configuration 3: EUT 1 + Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz)
Refer to Appendix G for Radiated Emission Co-location.	



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
For Configuration 1: EUT 1	
1	Radio 1 (WLAN 5GHz) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)
2	Radio 1 (WLAN 5GHz) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz) + Radio 4 (Bluetooth)
For Configuration 2: EUT 2	
3	Radio 1 (WLAN 5GHz) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)
4	Radio 1 (WLAN 5GHz) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz) + Radio 4 (Bluetooth)
For Configuration 3: EUT 1	
5	Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)
6	Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 2.4GHz) + Radio 3 (WLAN 5GHz) + Radio 4 (Bluetooth)
7	Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 5GHz / High Band) + Radio 3 (WLAN 2.4GHz) + Radio 4 (Bluetooth)
8	Radio 1 (WLAN 5GHz / Low Band) + Radio 2 (WLAN 5GHz / High Band) + Radio 3 (WLAN 5GHz) + Radio 4 (Bluetooth)
Refer to Sporton Test Report No.: FA041650 for Co-location RF Exposure Evaluation.	

Note: The PoE is for measurement only, would not be marketed.

PoE information as below:

Power	Brand	Model
PoE 1	YAMAHA	YPS-PoE-AT
PoE 2	Buffalo	BIJ-POE-1P:T

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.



2.4 Accessories

Flush Mount Bracket*1
Mounting Bracket*2
Seal*2

2.5 Support Equipment

For AC Conduction and Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE 1	YAMAHA	YPS-PoE-AT	N/A
B	2.5G PC	DELL	T3400	N/A
C	PoE LOAD	N/A	N/A	N/A
D	PoE LOAD NB	DELL	E6430	N/A
E	2.4G NB	DELL	E6430	N/A
F	5G-1 NB	DELL	E6430	N/A
G	5G-2 NB	DELL	E6430	N/A
H	Smart phone	Samsung	Galaxy J2	N/A

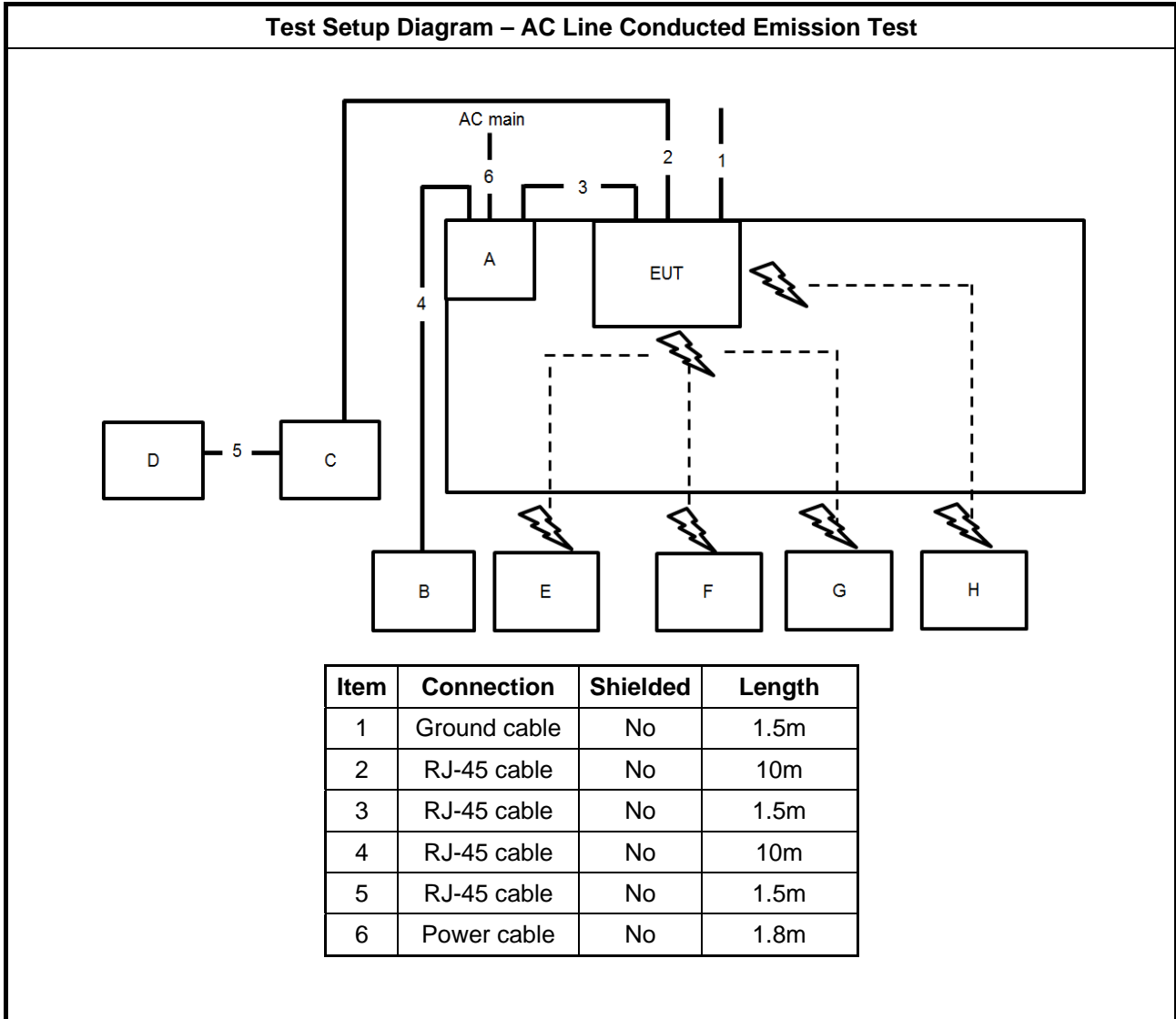
For Radiated (above 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE 2	Buffalo	BIJ-POE-1P:T	N/A
B	Notebook	DELL	E4300	N/A

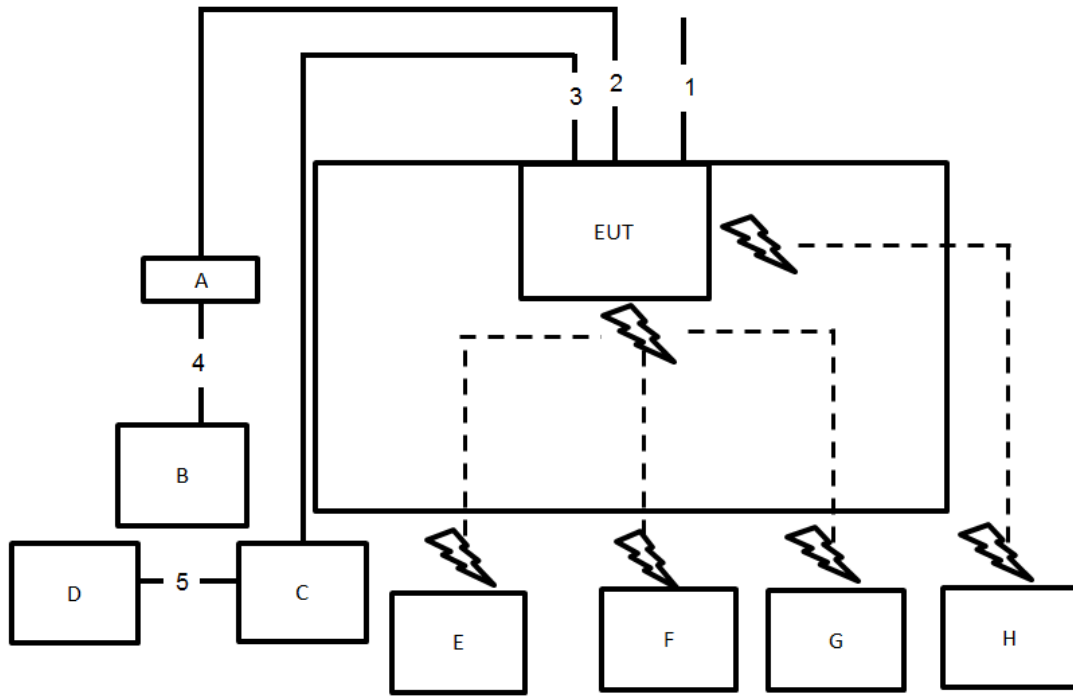
For RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	PoE 2	Buffalo	BIJ-POE-1P:T	N/A

2.6 Test Setup Diagram



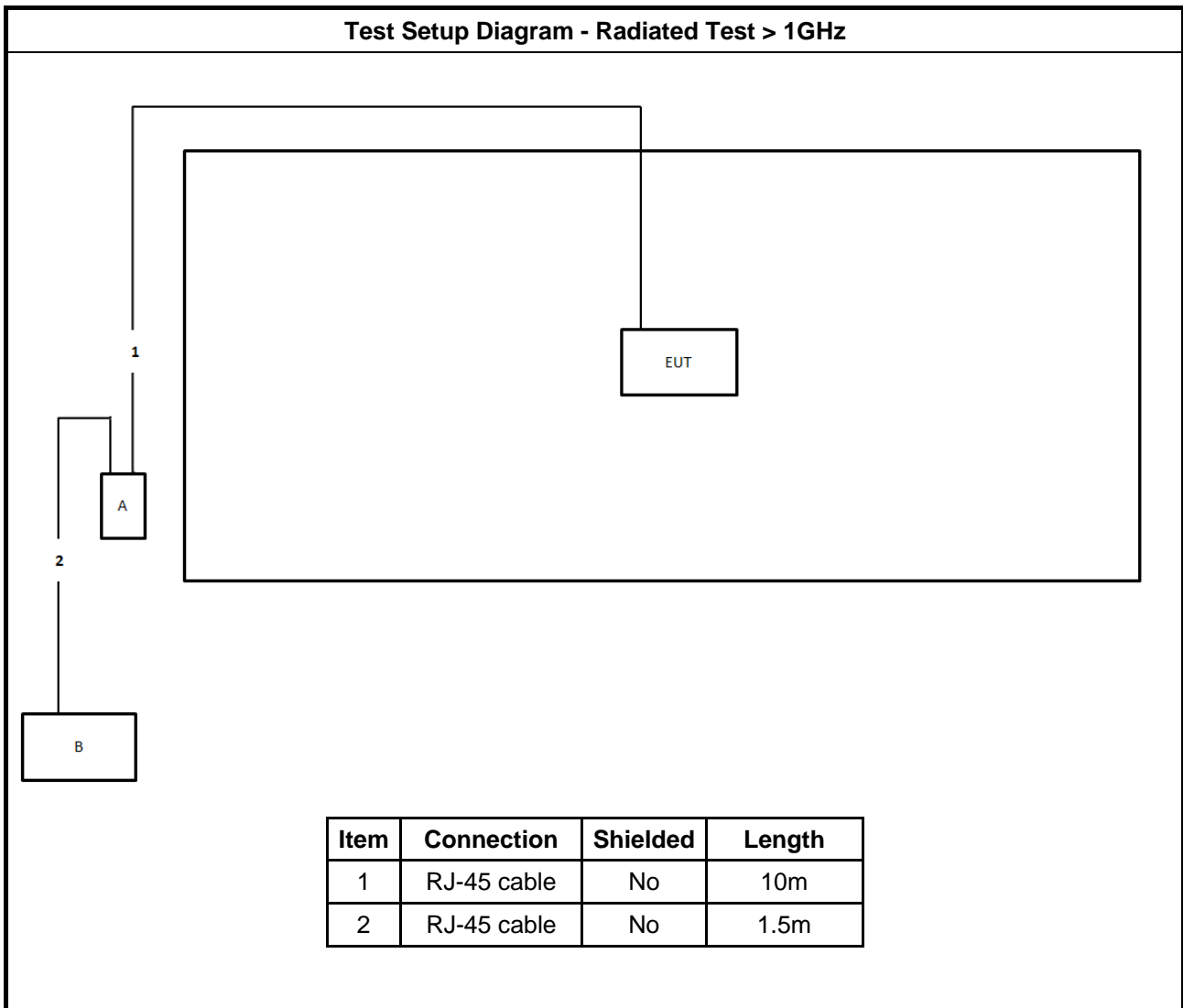
Test Setup Diagram - Radiated Test < 1GHz



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



Test Setup Diagram - Radiated Test > 1GHz



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



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

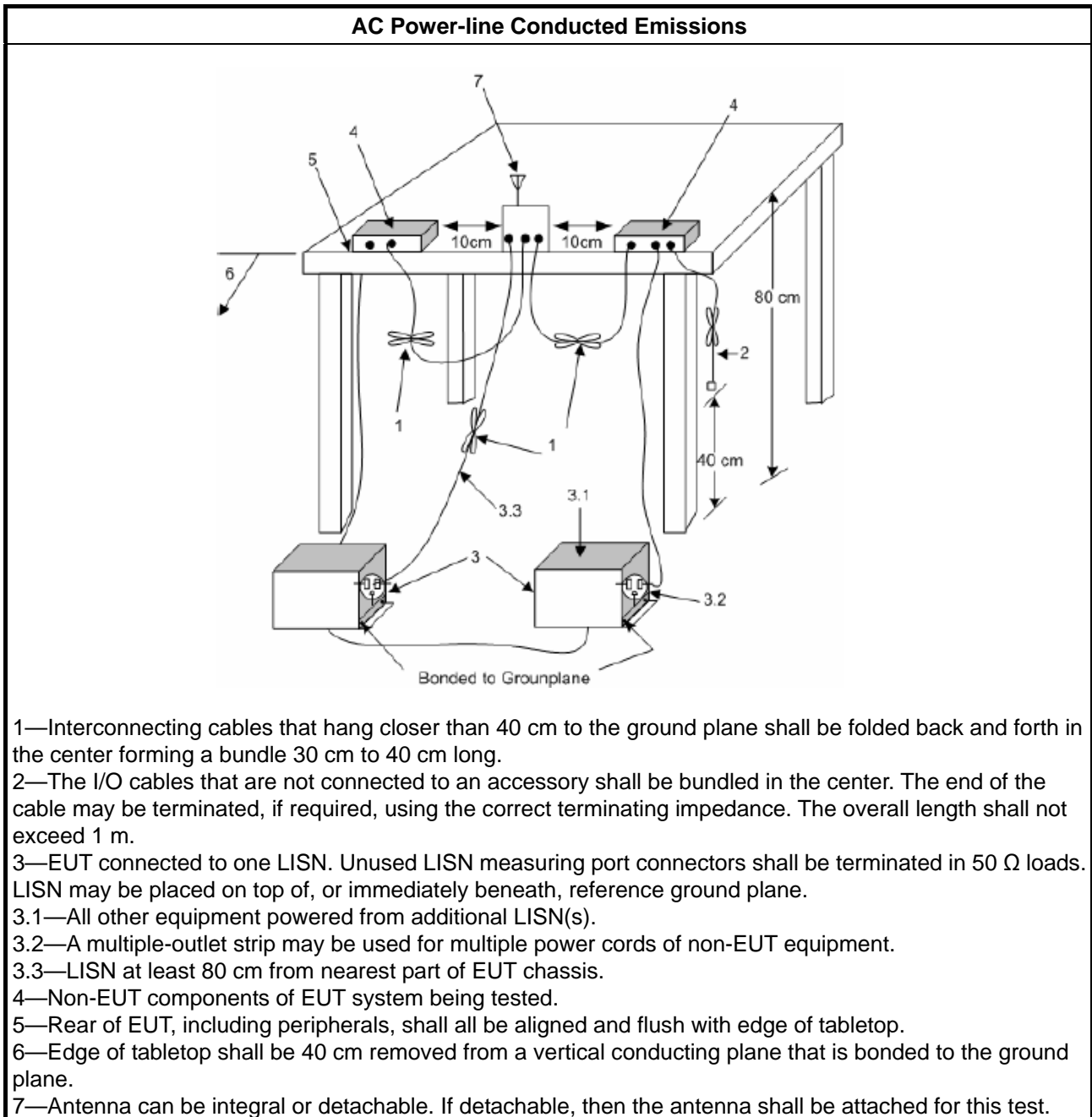
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

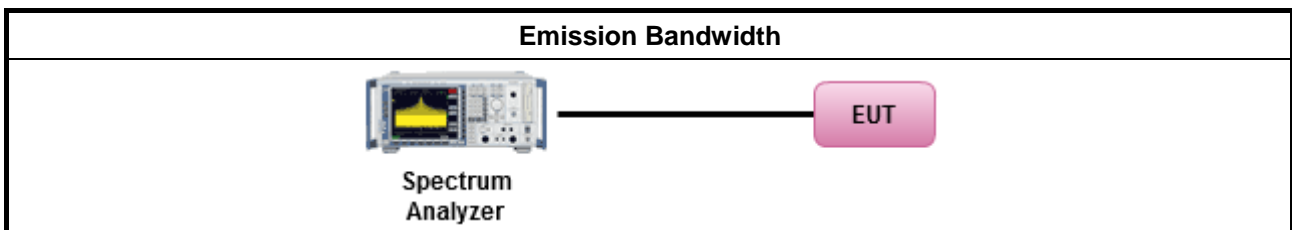
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method							
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30px;"><input checked="" type="checkbox"/></td> <td>Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.</td> </tr> </table> 		<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.	<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.	<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.						
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.						
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.						

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

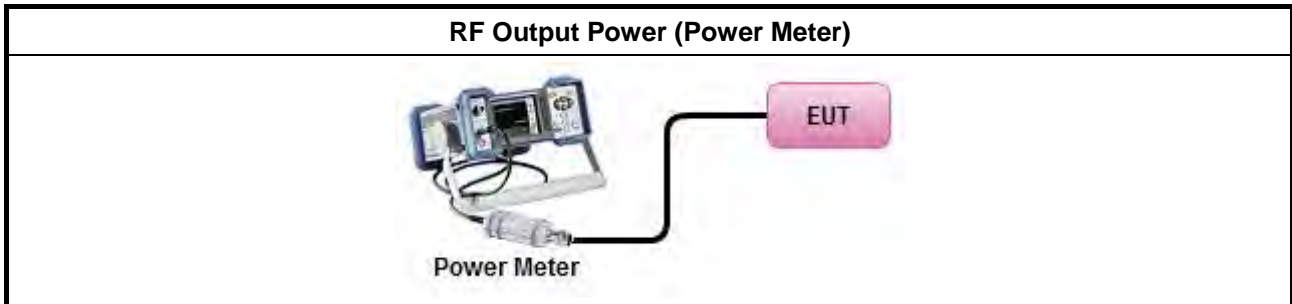
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

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

3.4.2 Measuring Instruments

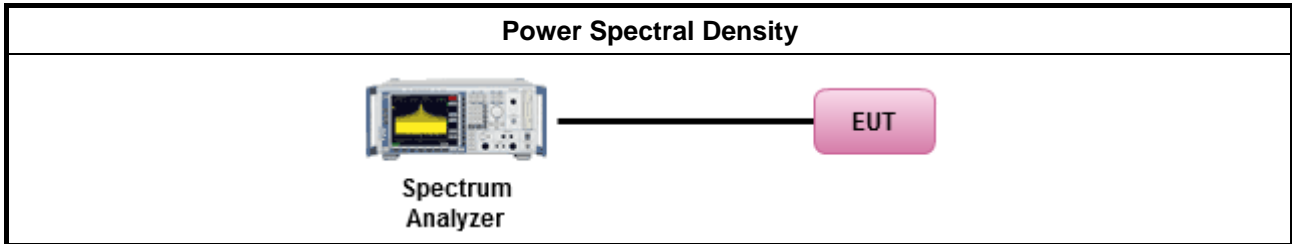
Refer a test equipment and calibration data table in this test report.



3.4.3 Test Procedures

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

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Unwanted Emissions Limit

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

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

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

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



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

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

3.5.2 Measuring Instruments

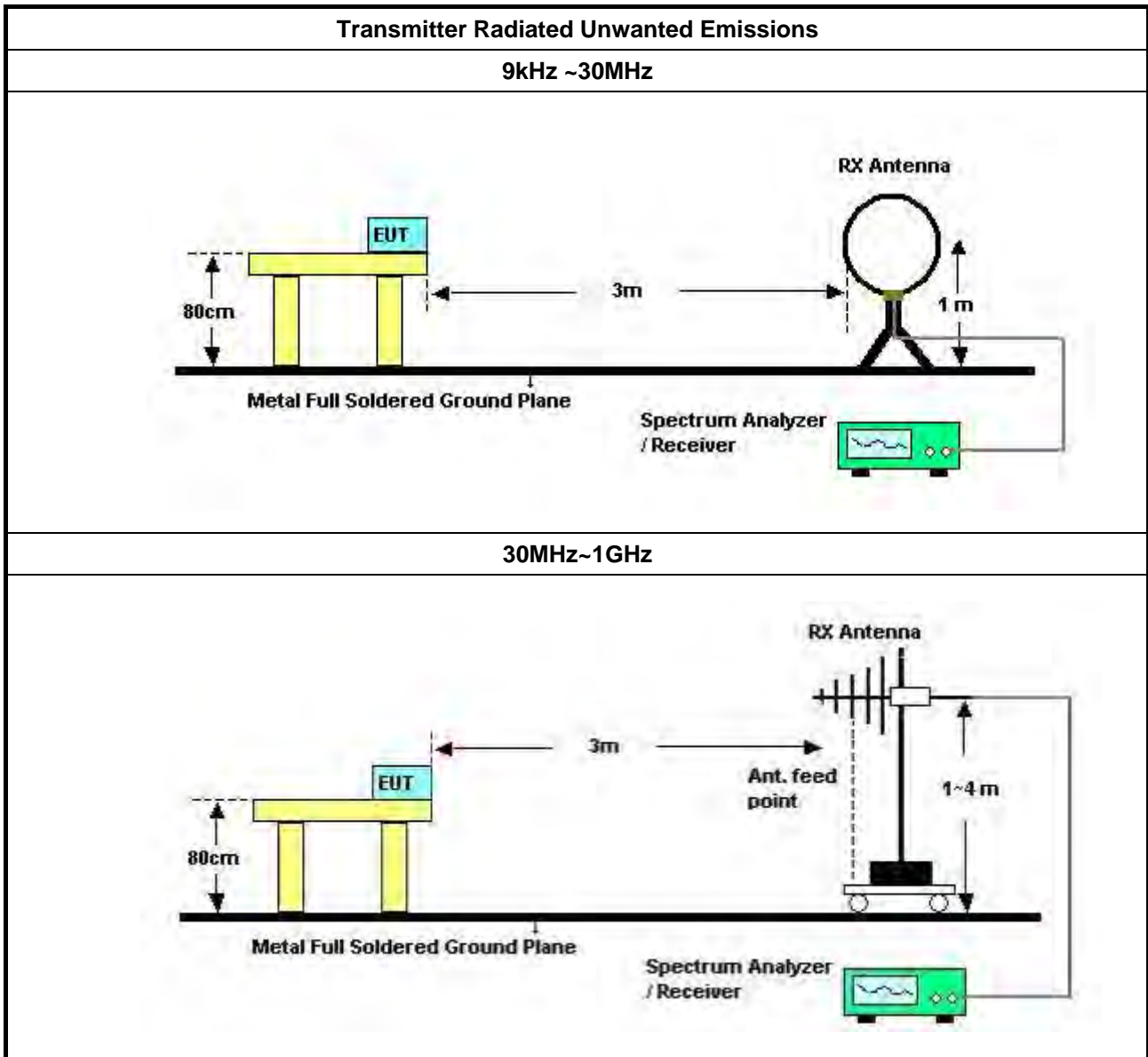
Refer a test equipment and calibration data table in this test report.

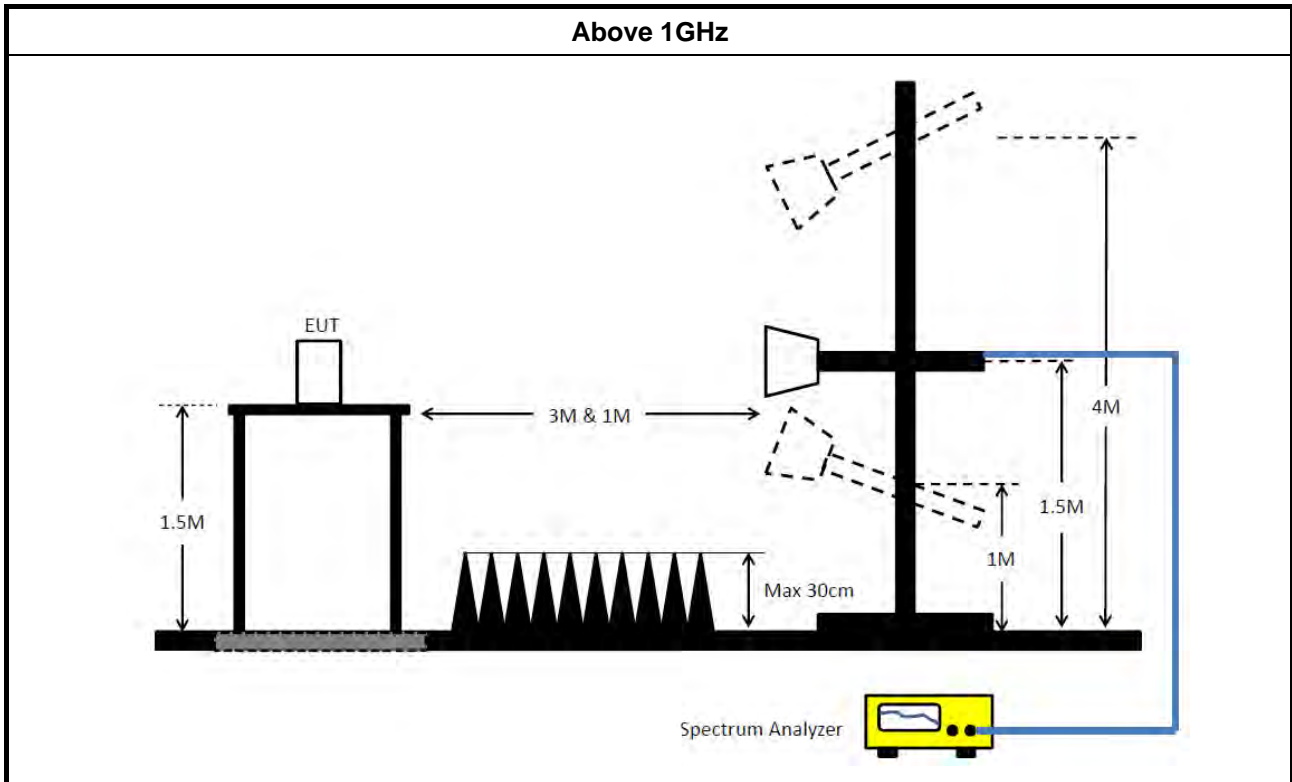


3.5.3 Test Procedures

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

3.5.4 Test Setup





3.5.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor (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 10 harmonic or 40 GHz, whichever is appropriate.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Feb. 26, 2020	Feb. 25, 2021	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 25, 2019	Dec. 24, 2020	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Feb. 25, 2020	Feb. 24, 2021	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Jan. 31, 2020	Jan. 30, 2021	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 20, 2020	May 19, 2021	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (10CH01-CB)
10m Semi Anechoic Chamber	TDK	NSA	10CH01-CB	30MHz~1GHz 10m,3m	Jan. 30, 2020	Jan. 29, 2021	Radiation (10CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10783	9kHz ~ 1.3GHz	Mar. 19, 2020	Mar. 18, 2021	Radiation (10CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10784	9kHz ~ 1.3GHz	Mar. 11, 2020	Mar. 10, 2021	Radiation (10CH01-CB)
Low Cable	Woken	SUCOFLEX 104	low cable-01	25MHz ~ 1GHz	Oct. 21, 2019	Oct. 20, 2020	Radiation (10CH01-CB)
High Cable	Woken	SUCOFLEX 104	low cable-02	25MHz ~ 1GHz	Oct. 21, 2019	Oct. 20, 2020	Radiation (10CH01-CB)
Biconical Antenna	Schwarzbeck	VHBB 9124	324	30MHz ~ 200MHz	Apr. 20, 2020	Apr. 19, 2021	Radiation (10CH01-CB)
Log Antenna	Schwarzbeck	VUSLP 9111	247	200MHz ~ 1GHz	May 25, 2020	May 24, 2021	Radiation (10CH01-CB)
EMI Test Receiver	Rohde&Schwarz	ESCI	100186	9kHz ~ 3GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (10CH01-CB)
Spectrum Analyzer	Rohde&Schwarz	FSV30	101026	9kHz ~ 30GHz	Mar. 03, 2020	Mar. 02, 2021	Radiation (10CH01-CB)
Software	Audix	E3	6.120210m	-	N.C.R.	N.C.R.	Radiation (10CH01-CB)
Horn Antenna	ETS-LINDGREN	3115	00075790	750MHz ~ 18GHz	Nov. 04, 2019	Nov. 03, 2020	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 11, 2020	Jun. 10, 2021	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 08, 2020	Jan. 07, 2021	Radiation (03CH01-CB)
Amplifier	-	-	TF-130N-R1	18GHz ~ 40GHz	Jun. 19, 2020	Jun. 18, 2021	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Apr. 16, 2020	Apr. 15, 2021	Radiation (03CH01-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH01-CB)
Horn Antenna	ETS • Lindgren	3115	6821	750MHz~18GHz	Jan. 20, 2020	Jan. 19, 2021	Radiation (03CH03-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 11, 2020	Jun. 10, 2021	Radiation (03CH03-CB)
Pre-Amplifier	EMCI	EMC12630SE	980383	1GHz ~ 26.5GHz	Aug. 02, 2019	Aug. 01, 2020	Radiation (03CH03-CB)
Amplifier	-	-	TF-130N-R1	18GHz ~ 40GHz	Jun. 19, 2020	Jun. 18, 2021	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 09, 2020	Jun. 08, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+27(spare)	1GHz ~ 18GHz	Jul. 03, 2020	Jun. 02, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-27(spare)	1GHz ~ 18GHz	Jul. 03, 2020	Jun. 02, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH03-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1292	1GHz~18GHz	Jul. 17, 2019	Jul. 16, 2020	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1291	1GHz~18GHz	Oct. 05, 2019	Oct. 04, 2020	Radiation (03CH06-CB)
Horn Antenna	COM-POWER	AH-118	071028	1GHz ~ 18GHz	Jun. 09, 2020	Jun. 08, 2021	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 11, 2020	Jun. 10, 2021	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	May 07, 2020	May 06, 2021	Radiation (03CH06-CB)



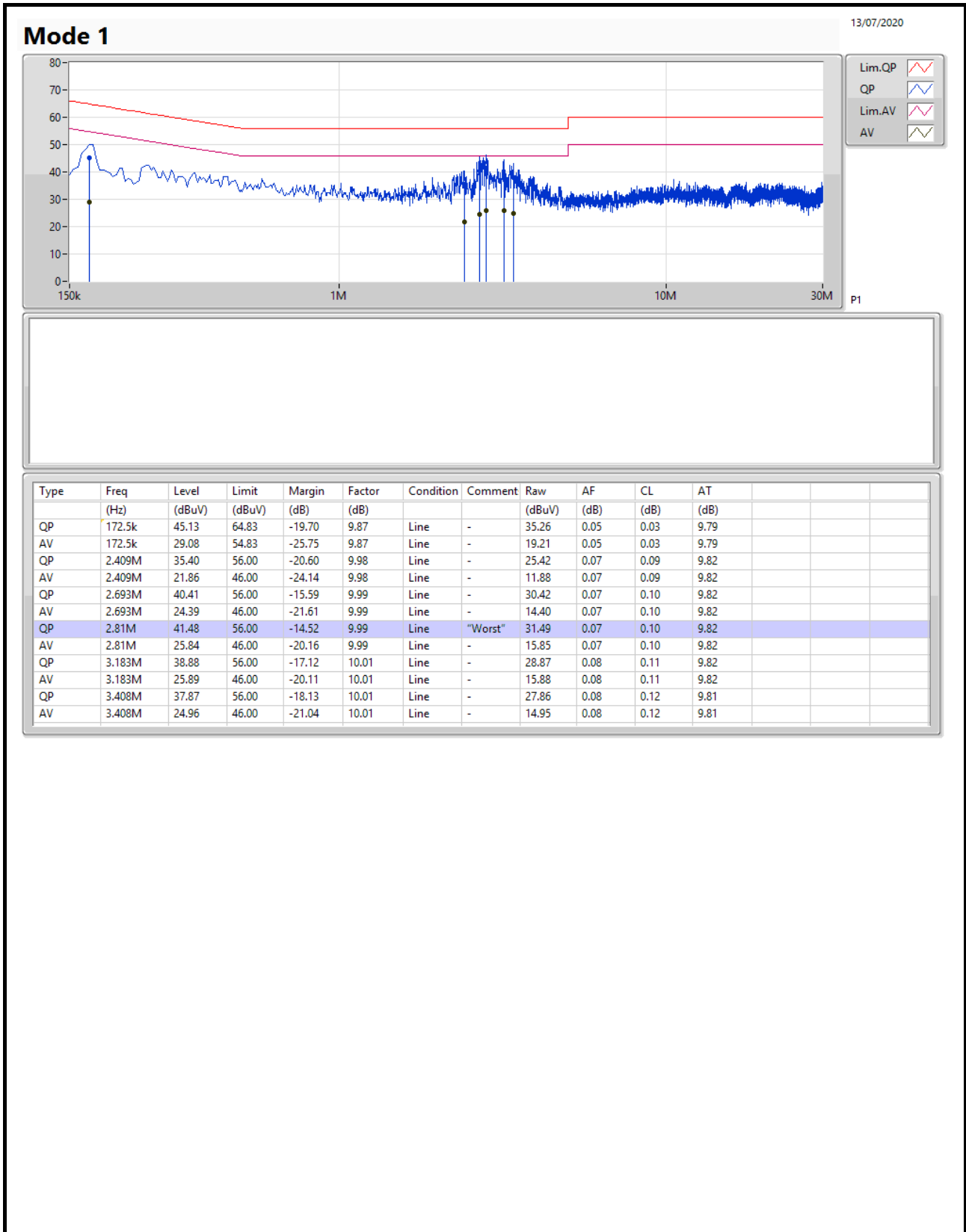
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Amplifier	-	-	TF-130N-R1	18GHz ~ 40GHz	Jun. 19, 2020	Jun. 18, 2021	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 21, 2019	Oct. 20, 2020	Radiation (03CH06-CB)
RF Cable-high	HUBER+SUHNER	RG402	High Cable-05	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	HUBER+SUHNER	RG402	High Cable-05+24	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Nov. 01, 2019	Oct. 31, 2020	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 13, 2019	Aug. 12, 2020	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 13, 2019	Aug. 12, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)

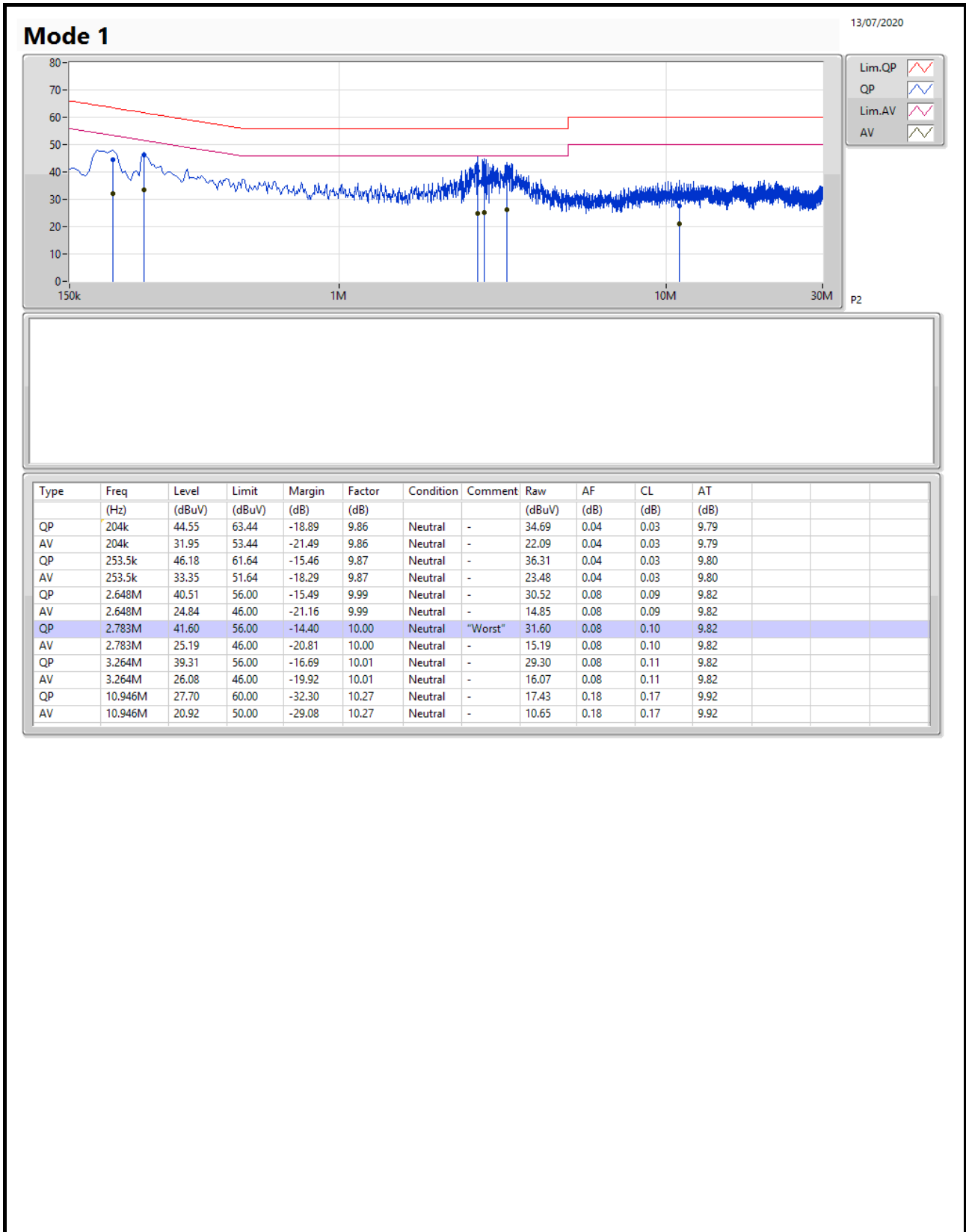
Note: Calibration Interval of instruments listed above is one year.
N.C.R. means Non-Calibration required.



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition
Mode 1	Pass	QP	2.783M	41.60	56.00	-14.40	10.00	Neutral







**For EUT 1 / Radio 1_Non-Beamforming Mode
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.45M	16.792M	16M8D1D	21.18M	16.672M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.63M	19.13M	19M1D1D	21.15M	19.01M
802.11ax HEW40_Nss1,(MCS0)_4TX	40.14M	37.541M	37M5D1D	39.84M	37.481M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.08M	76.762M	76M8D1D	81.12M	76.762M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.5M	44.408M	44M4D1D	16.29M	24.948M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.87M	46.027M	46M0D1D	18.63M	26.807M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.62M	70.645M	70M6D1D	36.06M	46.957M
802.11ax HEW80_Nss1,(MCS0)_4TX	75.6M	78.201M	78M2D1D	75.12M	77.361M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

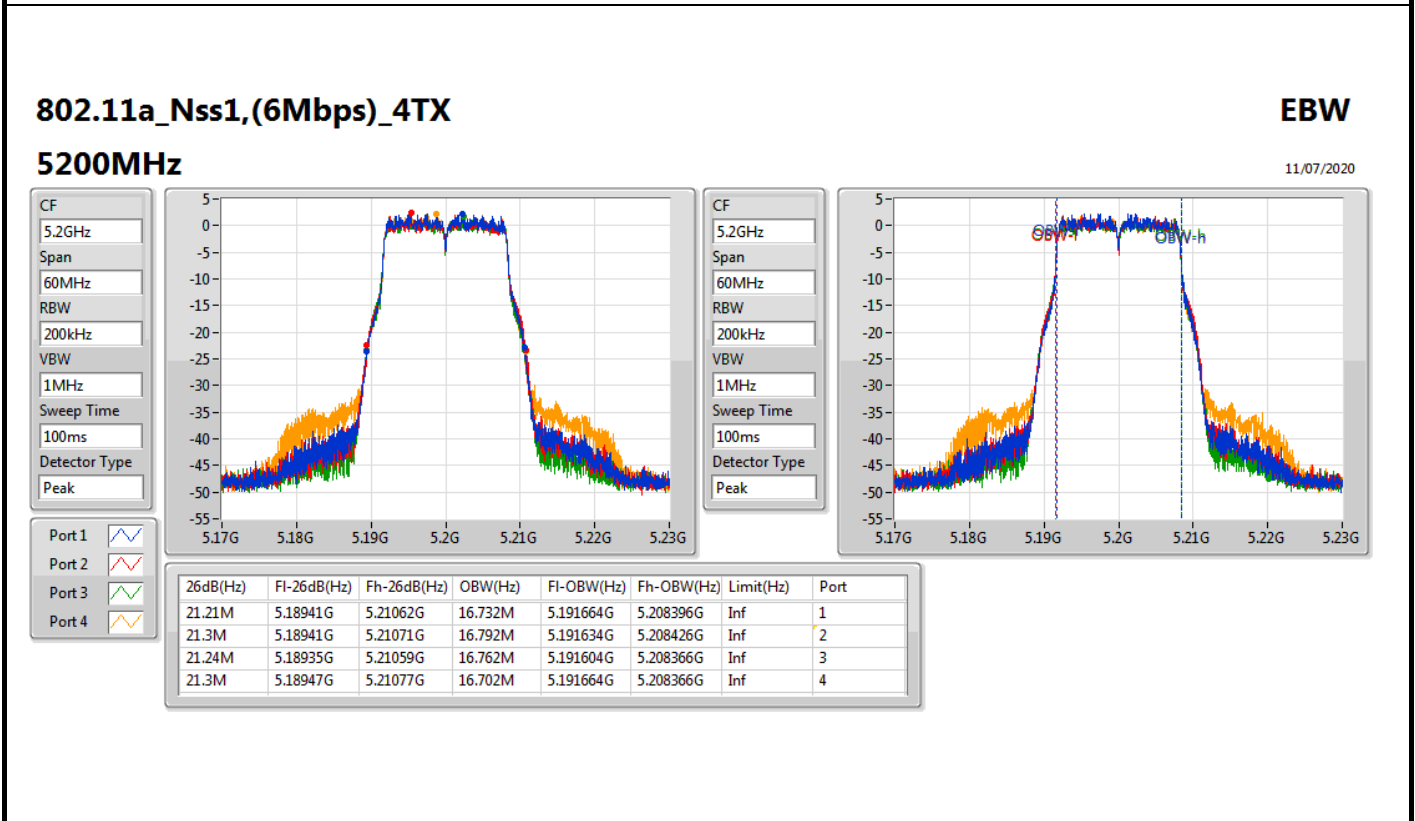
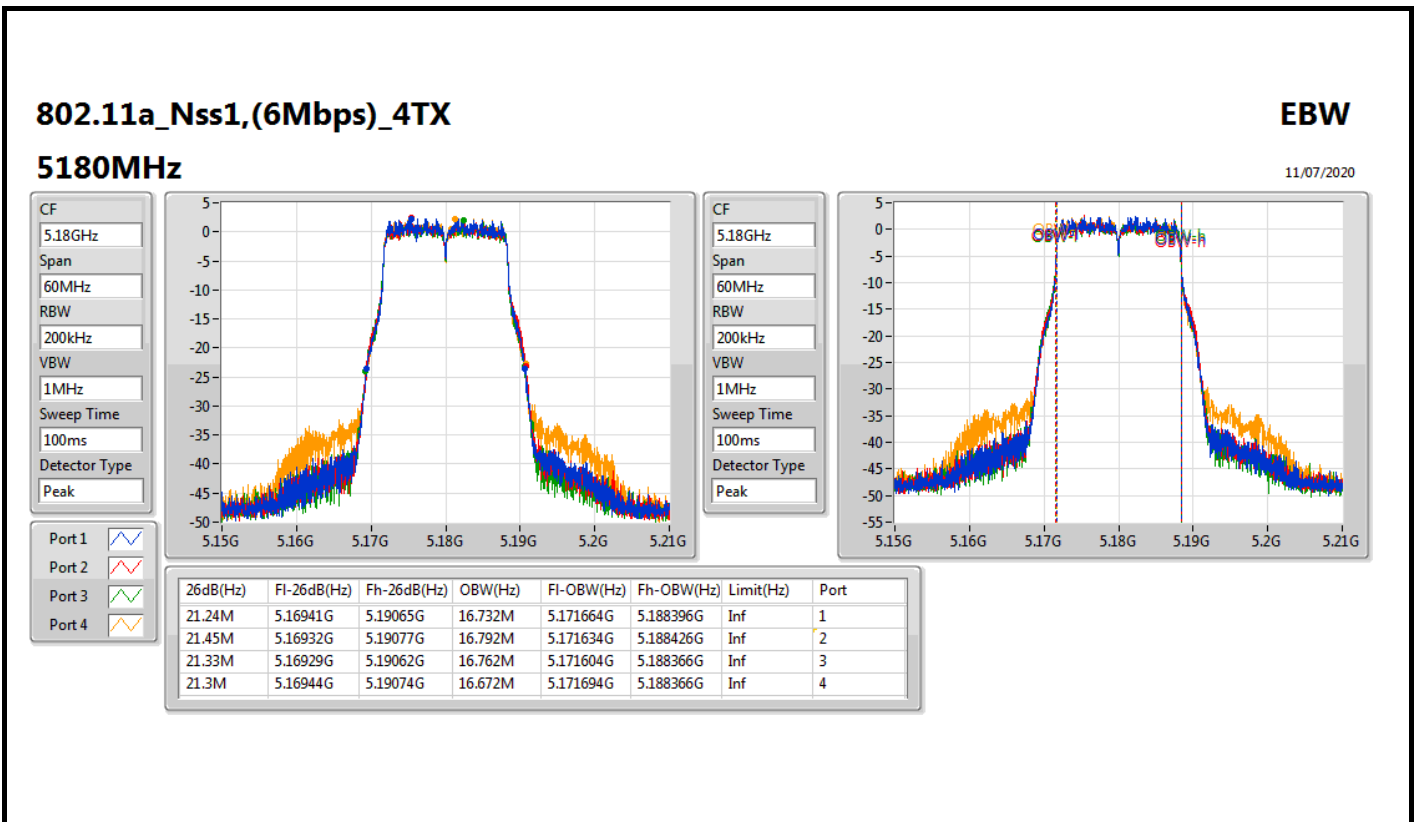
Min-OBW = Minimum 99% occupied bandwidth;

**For EUT 1 / Radio 1_Non-Beamforming Mode
Result**

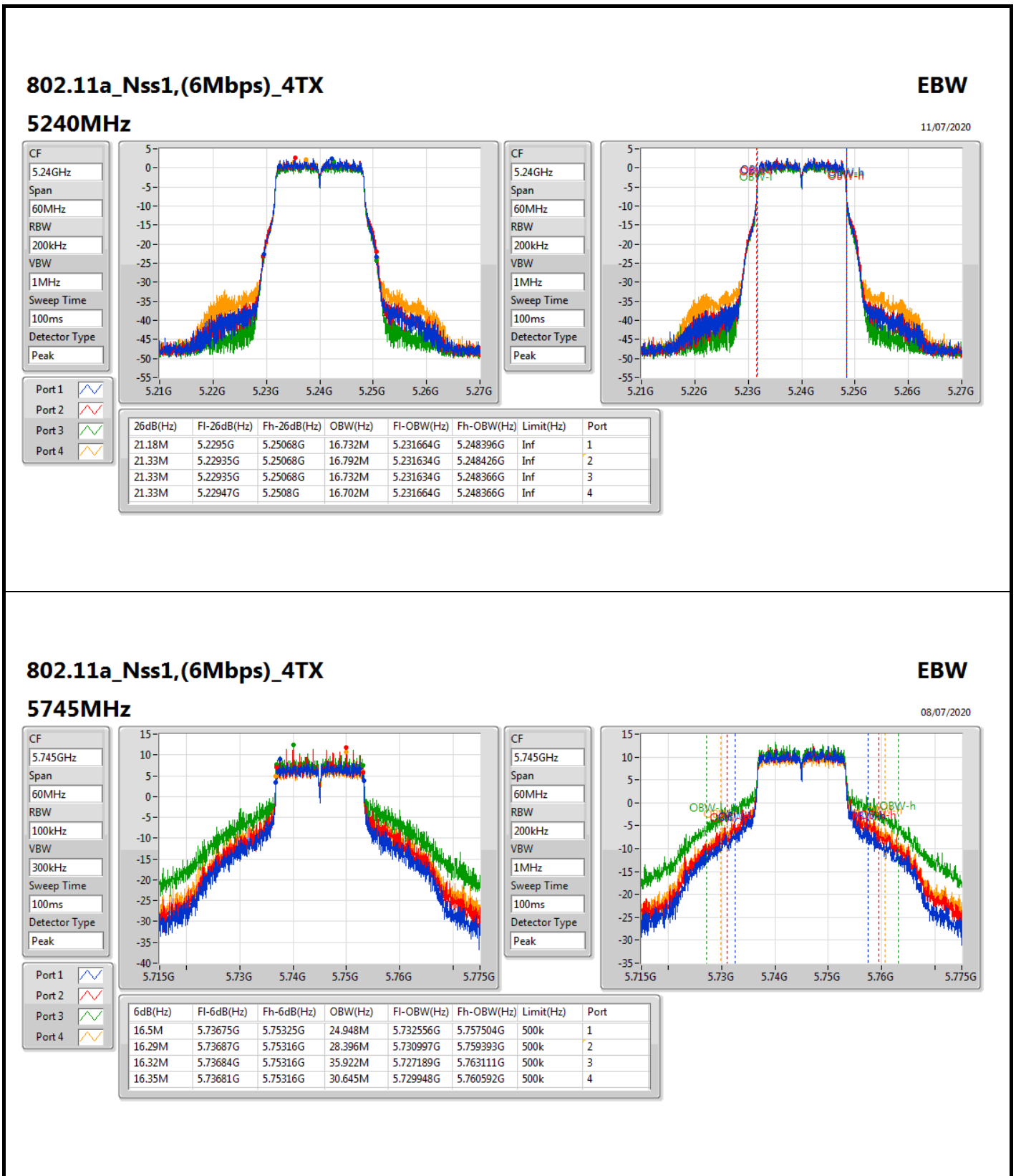
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.24M	16.732M	21.45M	16.792M	21.33M	16.762M	21.3M	16.672M
5200MHz	Pass	Inf	21.21M	16.732M	21.3M	16.792M	21.24M	16.762M	21.3M	16.702M
5240MHz	Pass	Inf	21.18M	16.732M	21.33M	16.792M	21.33M	16.732M	21.33M	16.702M
5745MHz	Pass	500k	16.5M	24.948M	16.29M	28.396M	16.32M	35.922M	16.35M	30.645M
5785MHz	Pass	500k	16.32M	28.216M	16.32M	32.054M	16.35M	44.408M	16.35M	33.463M
5825MHz	Pass	500k	16.32M	25.817M	16.32M	29.085M	16.35M	35.472M	16.32M	30.885M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.54M	19.01M	21.45M	19.07M	21.51M	19.1M	21.6M	19.13M
5200MHz	Pass	Inf	21.51M	19.01M	21.42M	19.07M	21.48M	19.07M	21.63M	19.13M
5240MHz	Pass	Inf	21.15M	19.01M	21.33M	19.04M	21.57M	19.1M	21.48M	19.13M
5745MHz	Pass	500k	18.75M	26.807M	18.66M	31.154M	18.66M	40.12M	18.63M	32.804M
5785MHz	Pass	500k	18.66M	33.433M	18.66M	39.61M	18.66M	46.027M	18.69M	41.169M
5825MHz	Pass	500k	18.75M	28.996M	18.69M	32.744M	18.87M	42.549M	18.66M	33.973M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.08M	37.541M	39.84M	37.541M	40.14M	37.481M	40.02M	37.541M
5230MHz	Pass	Inf	40.14M	37.541M	39.84M	37.481M	40.08M	37.541M	39.96M	37.541M
5755MHz	Pass	500k	37.14M	46.957M	37.62M	52.474M	37.38M	58.831M	36.84M	59.85M
5795MHz	Pass	500k	37.08M	59.19M	36.06M	62.909M	37.56M	68.306M	36.3M	70.645M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.36M	76.762M	81.12M	76.762M	81.48M	76.762M	82.08M	76.762M
5775MHz	Pass	500k	75.36M	77.361M	75.6M	77.721M	75.24M	77.841M	75.12M	78.201M

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;

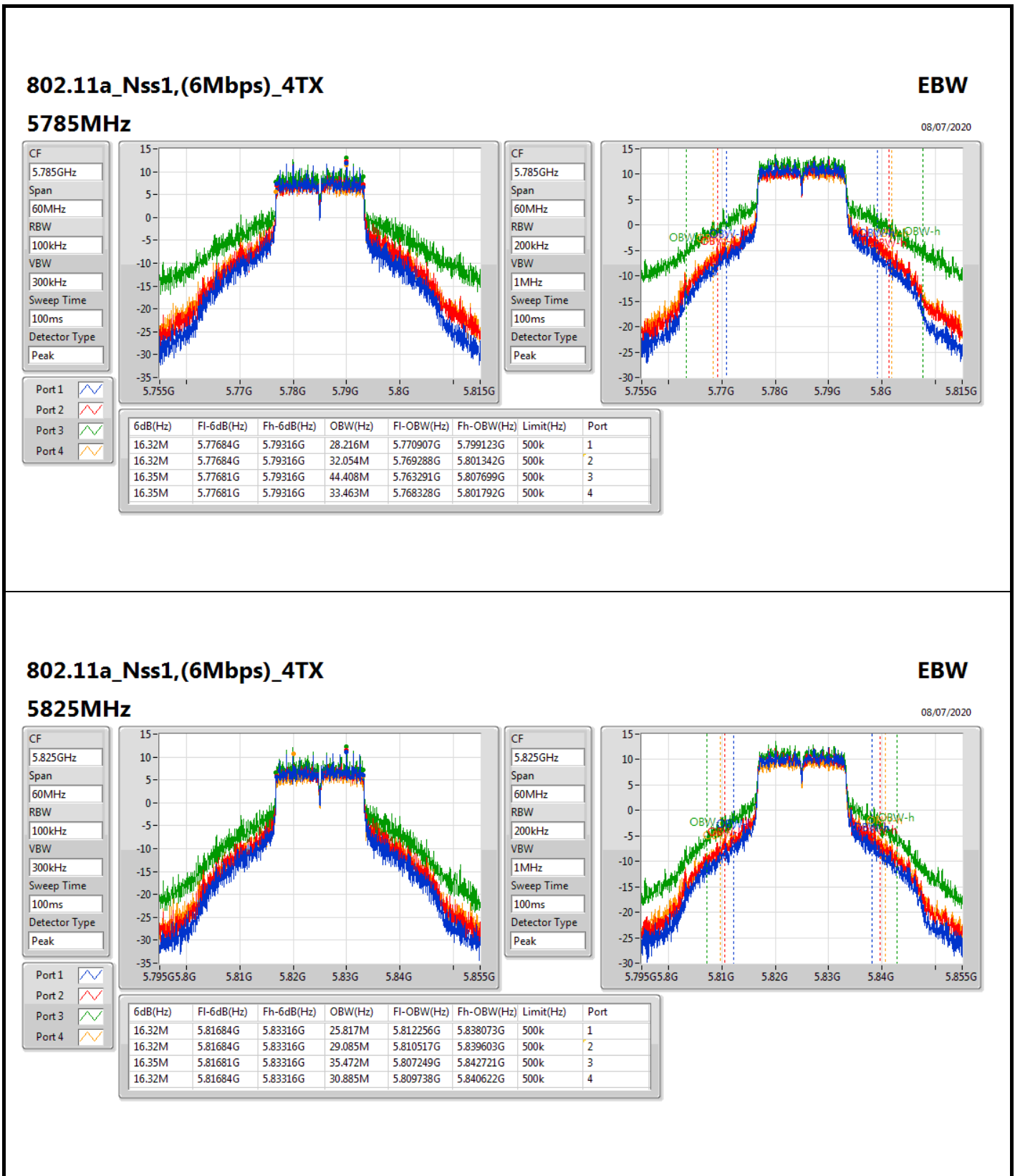
For EUT 1 / Radio 1_Non-Beamforming Mode



For EUT 1 / Radio 1_Non-Beamforming Mode



For EUT 1 / Radio 1_Non-Beamforming Mode



802.11a_Nss1,(6Mbps)_4TX

5825MHz

08/07/2020

EBW

CF: 5.825GHz

Span: 60MHz

RBW: 100kHz

VBW: 300kHz

Sweep Time: 100ms

Detector Type: Peak

CF: 5.825GHz

Span: 60MHz

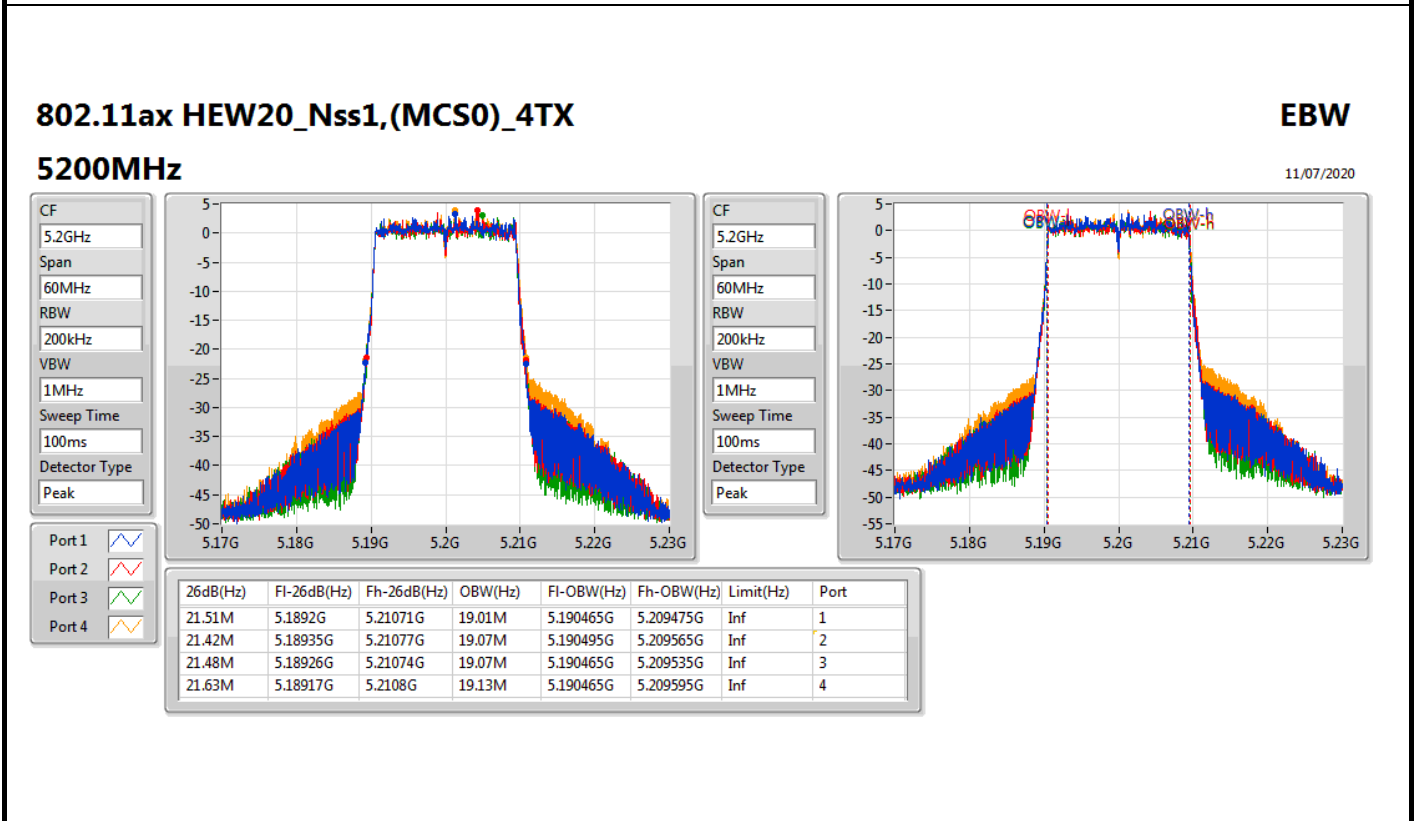
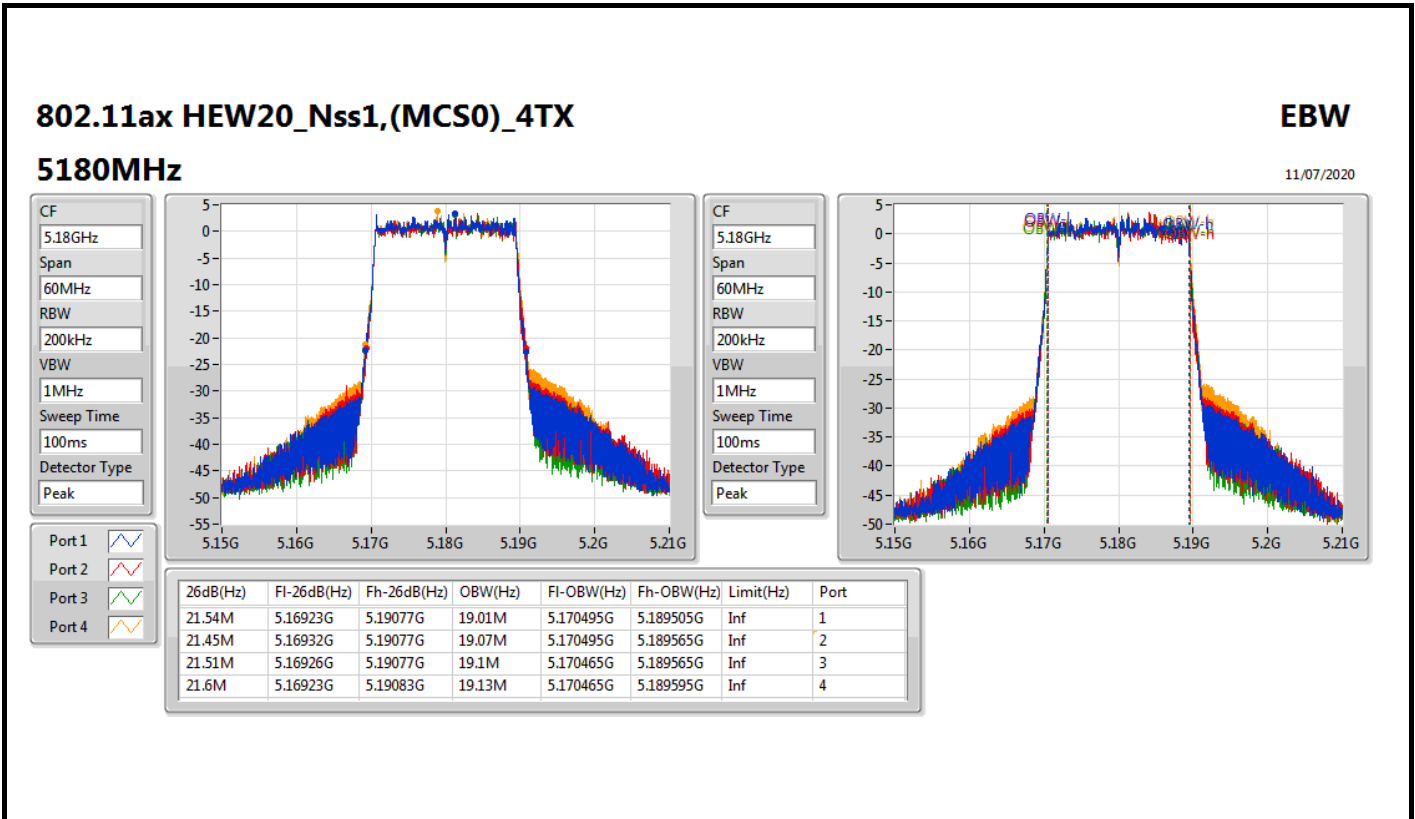
RBW: 200kHz

VBW: 1MHz

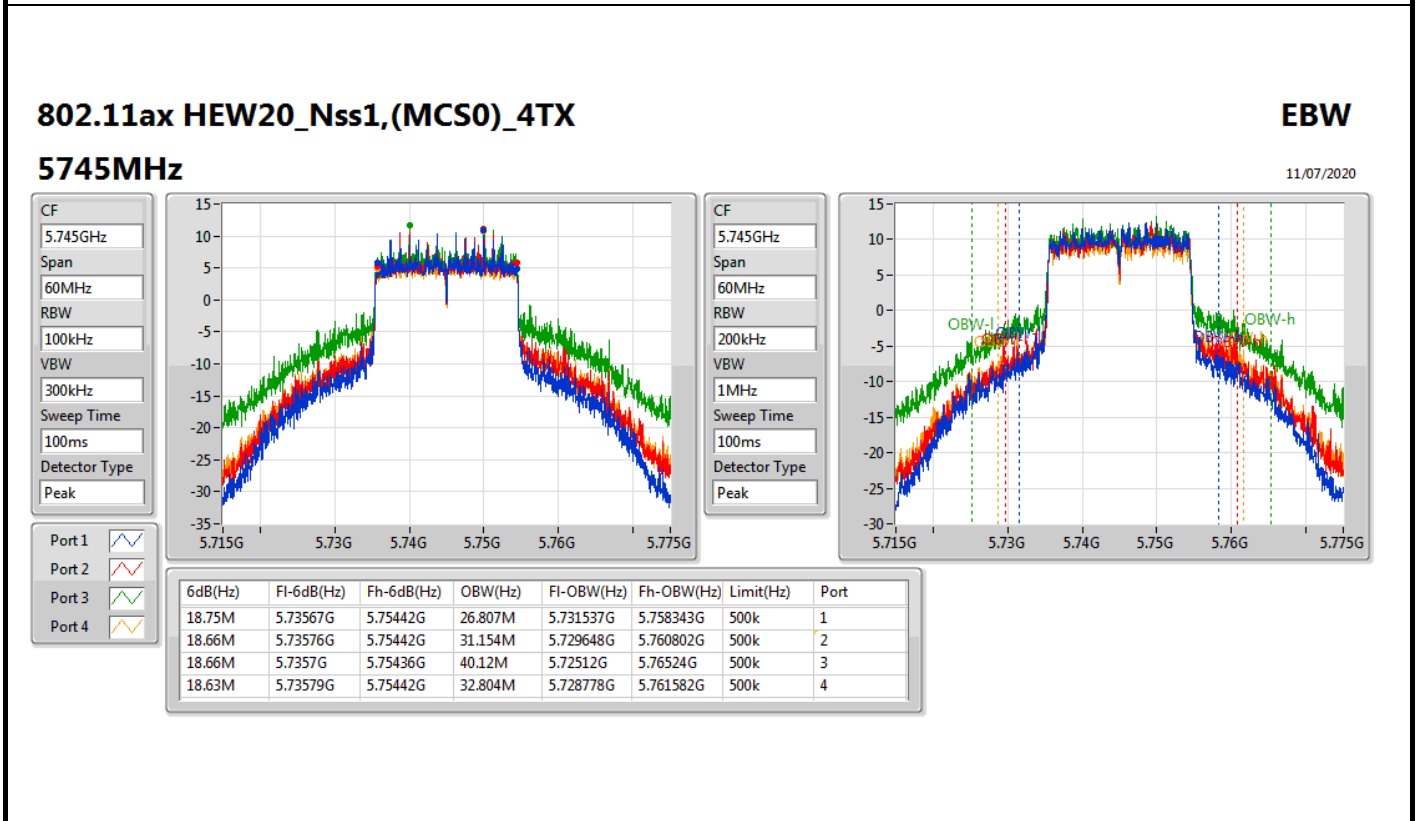
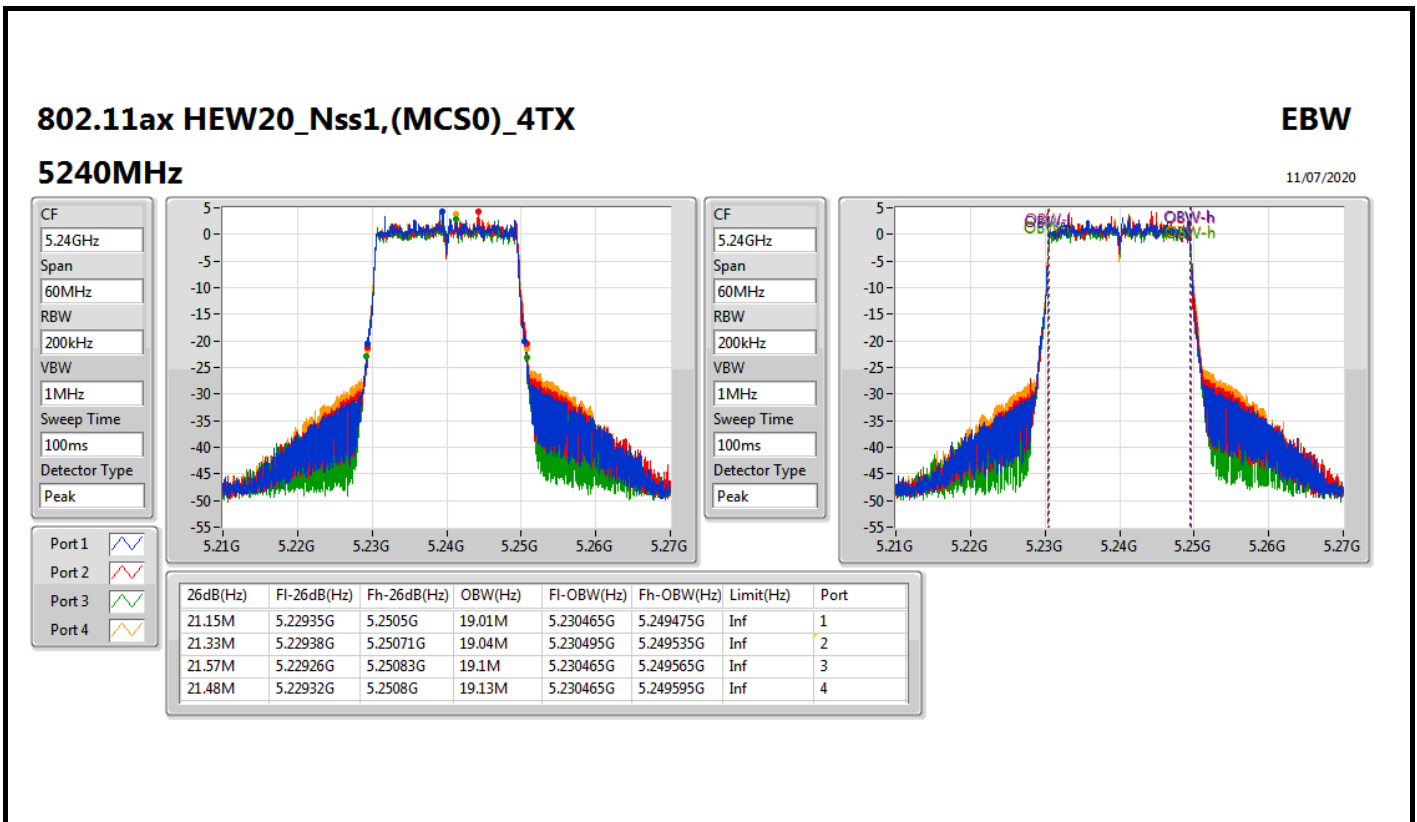
Sweep Time: 100ms

Detector Type: Peak

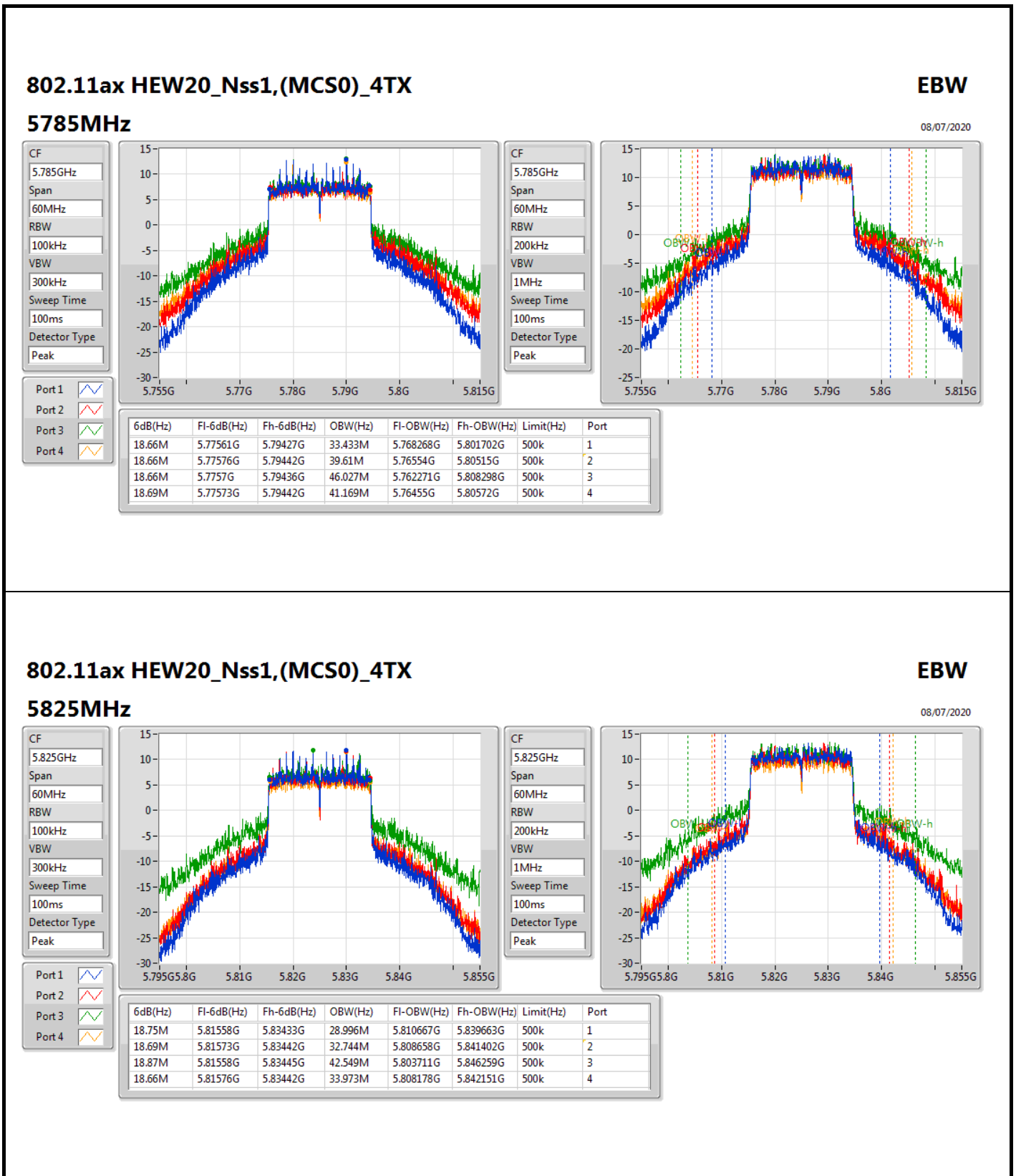
For EUT 1 / Radio 1_Non-Beamforming Mode



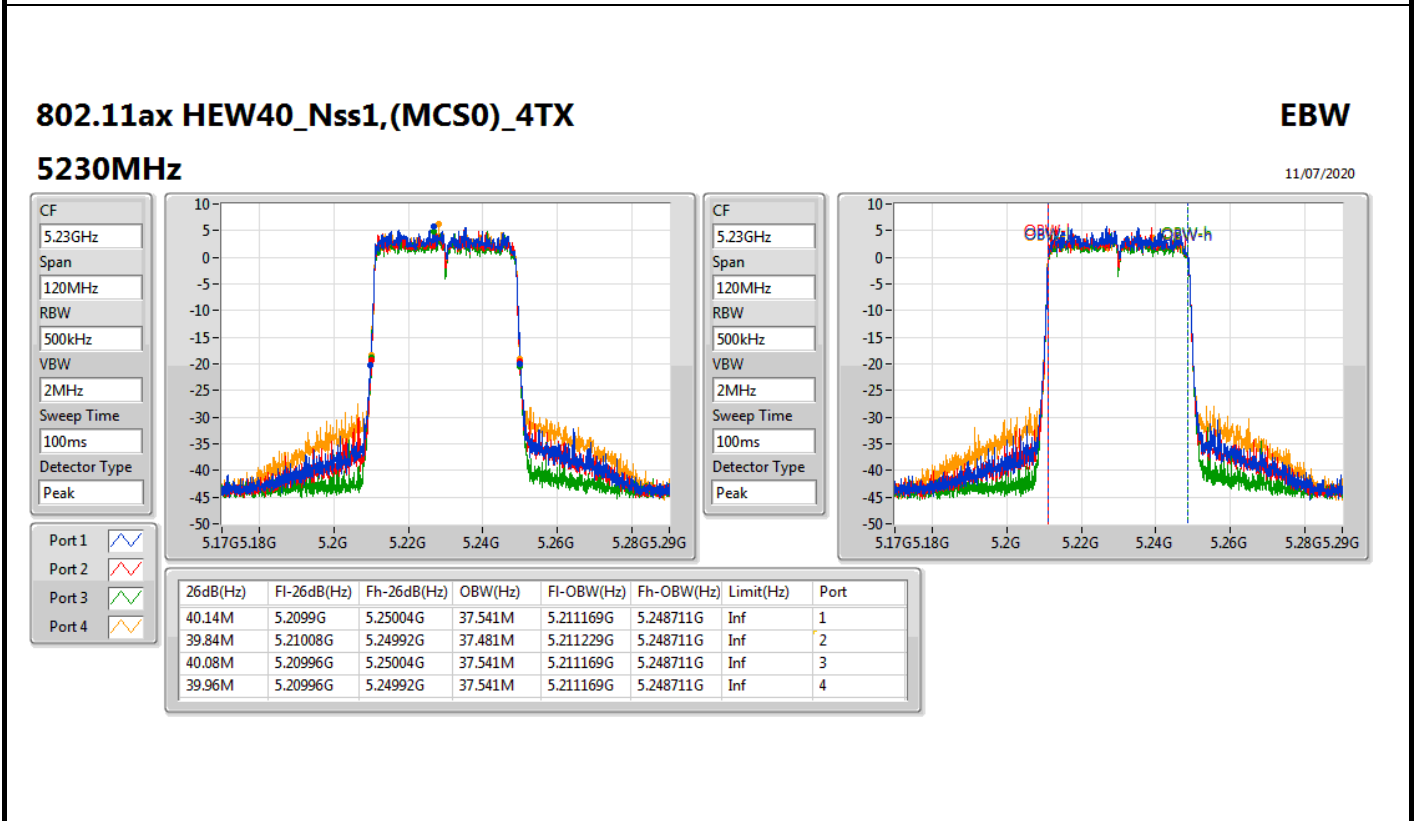
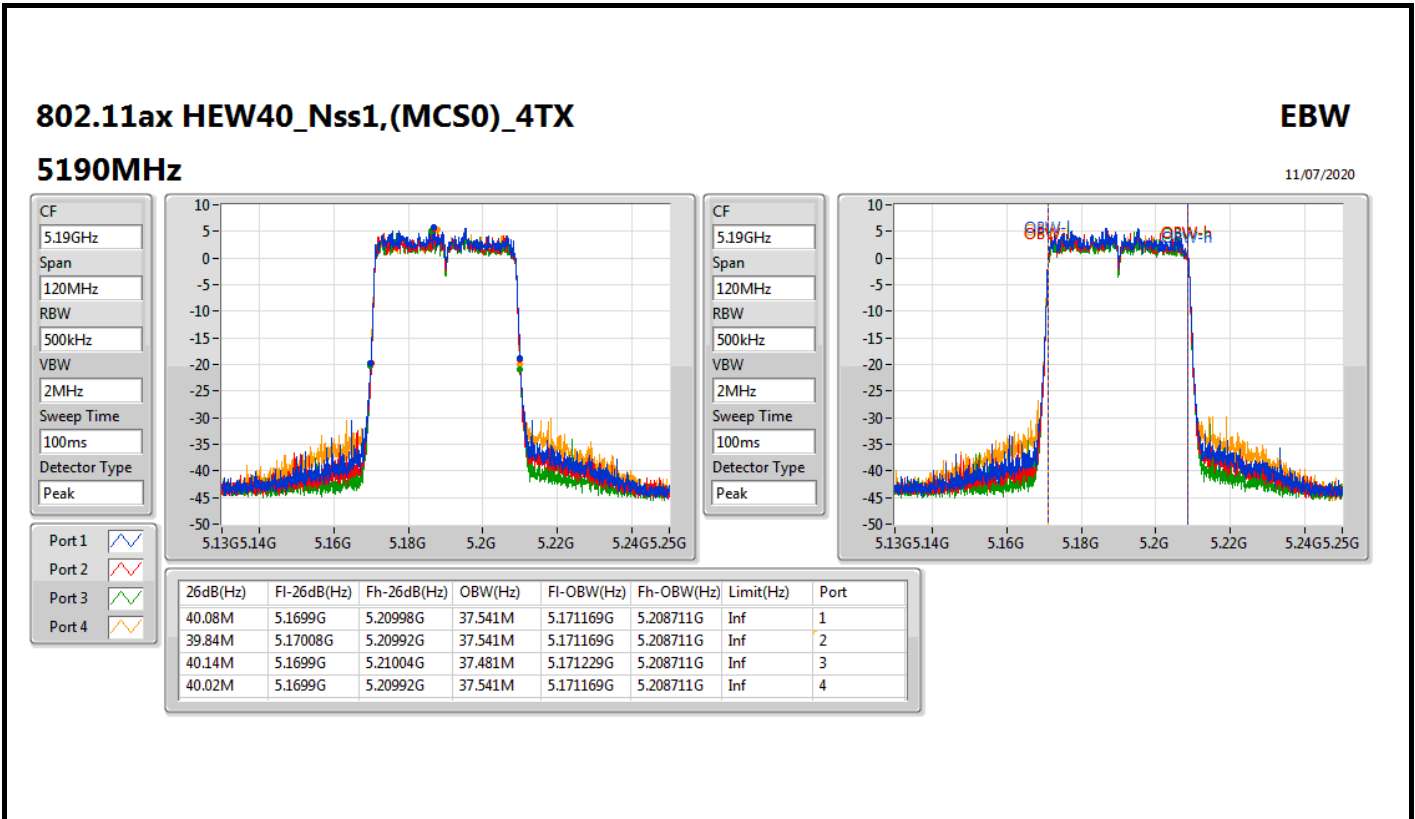
For EUT 1 / Radio 1_Non-Beamforming Mode



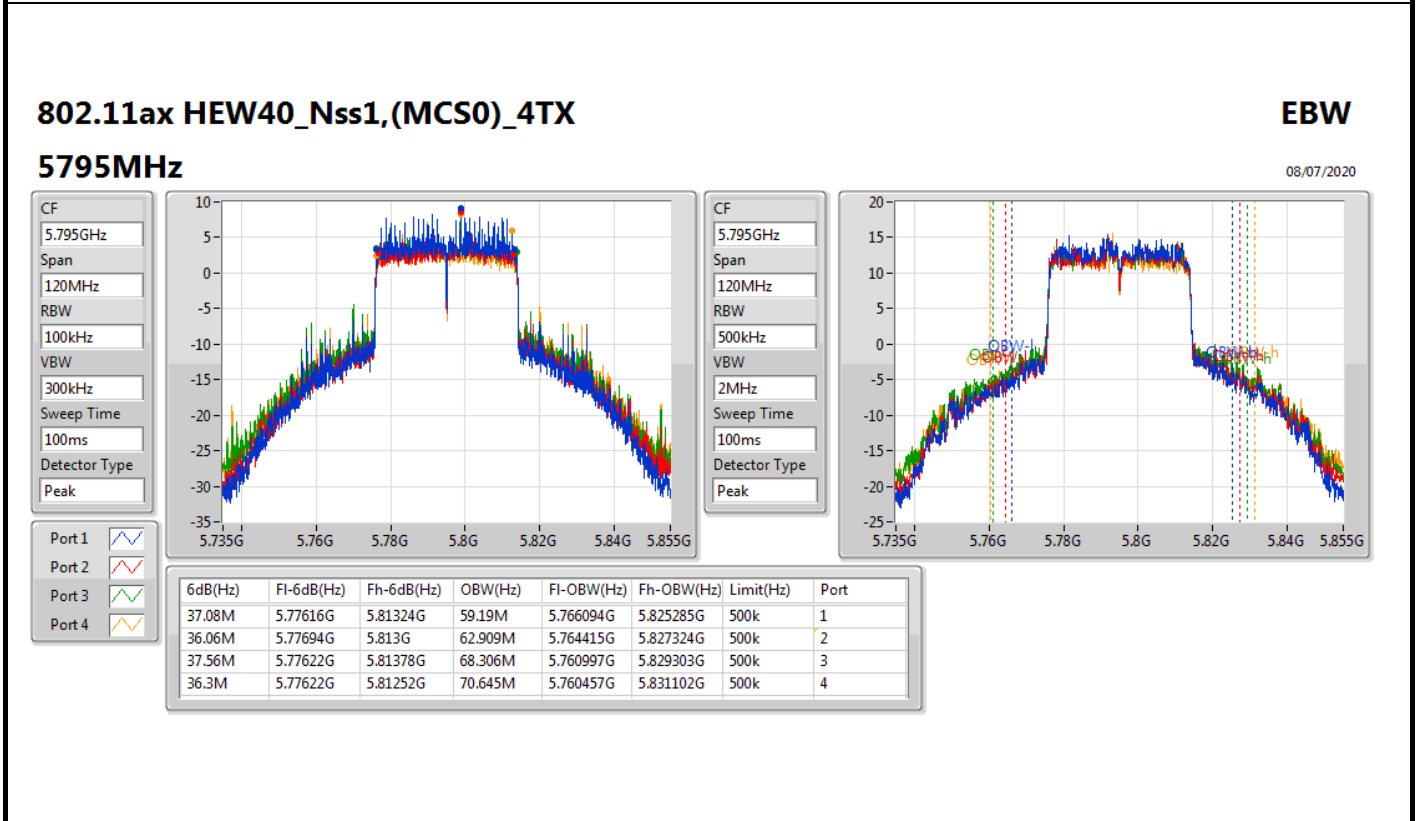
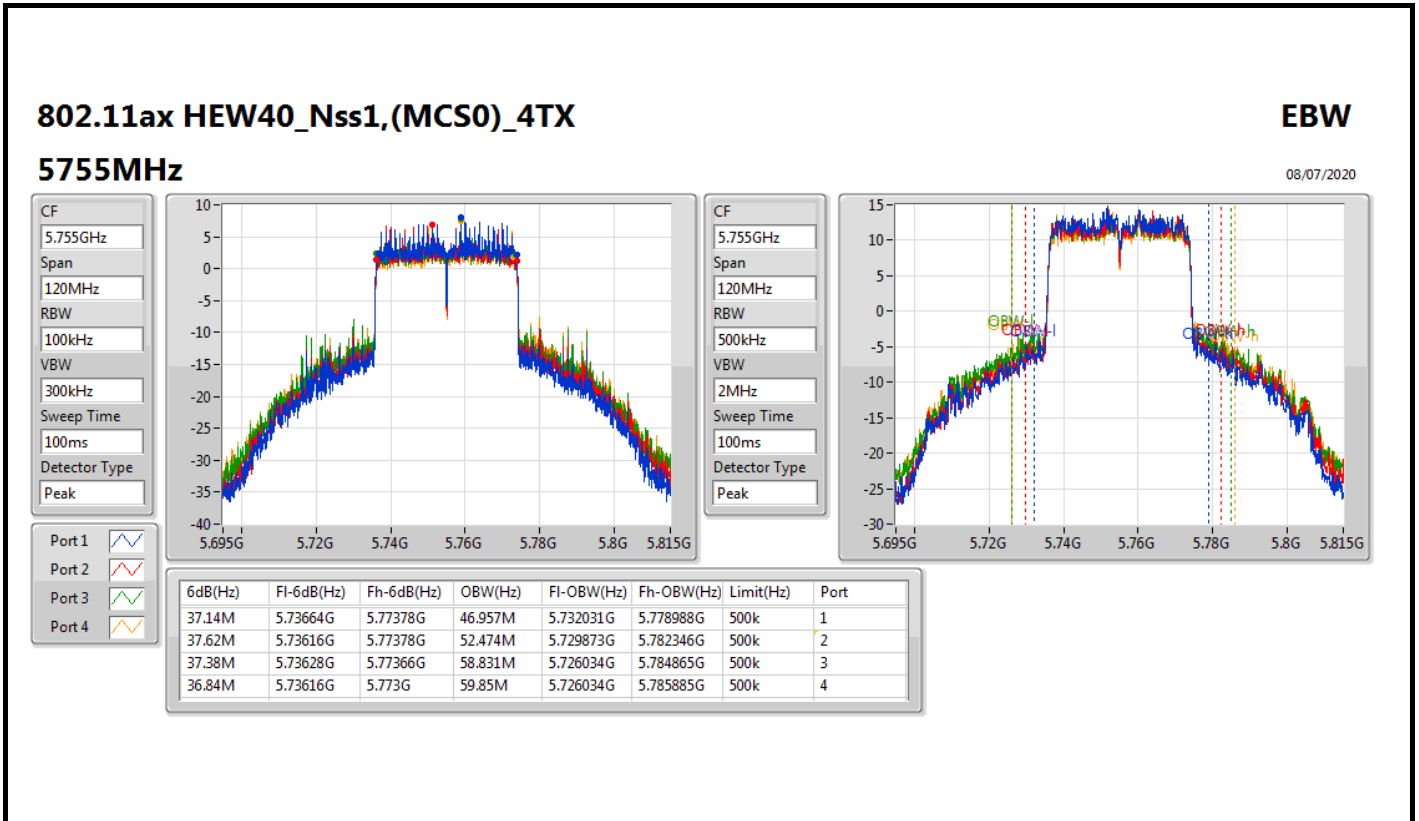
For EUT 1 / Radio 1_Non-Beamforming Mode



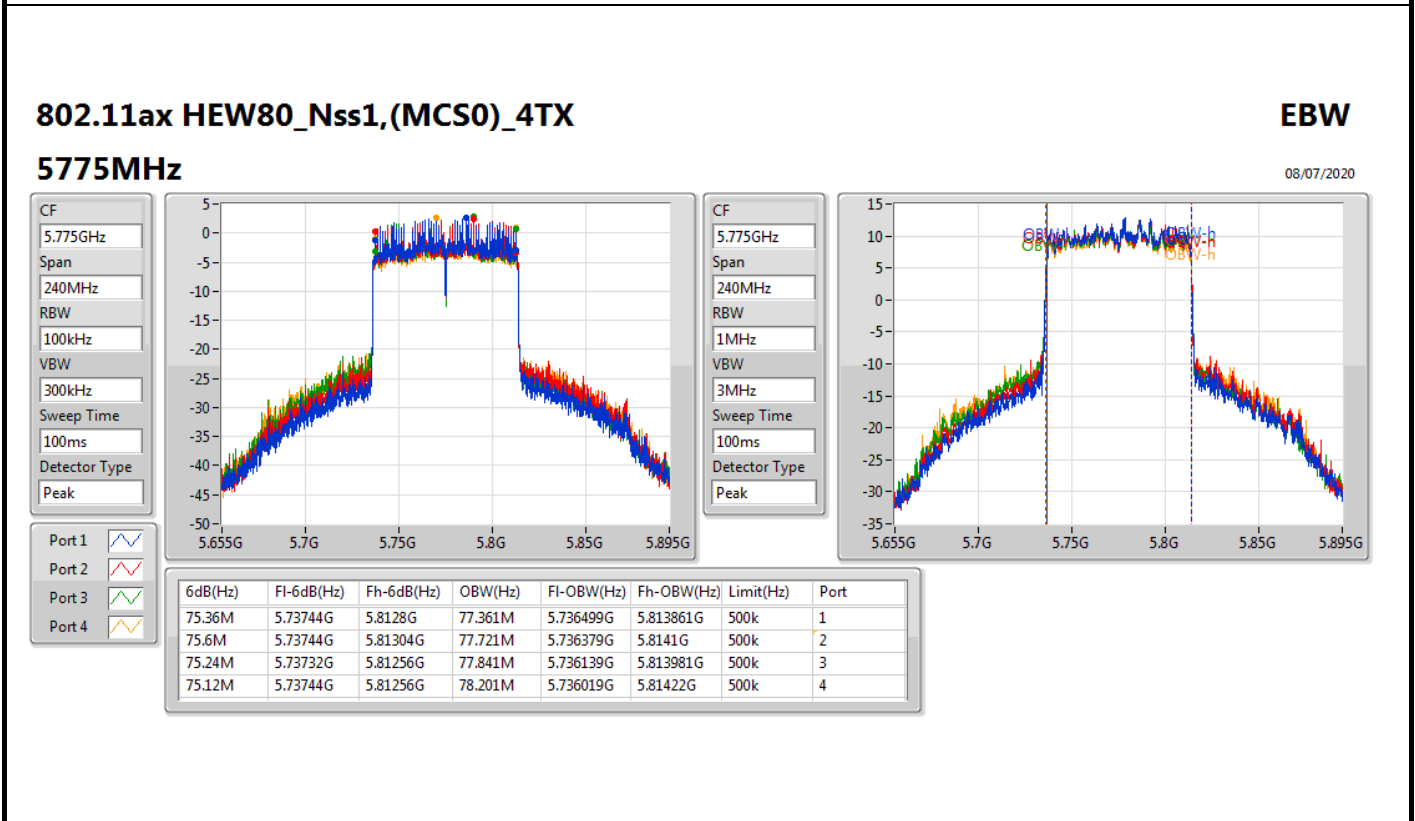
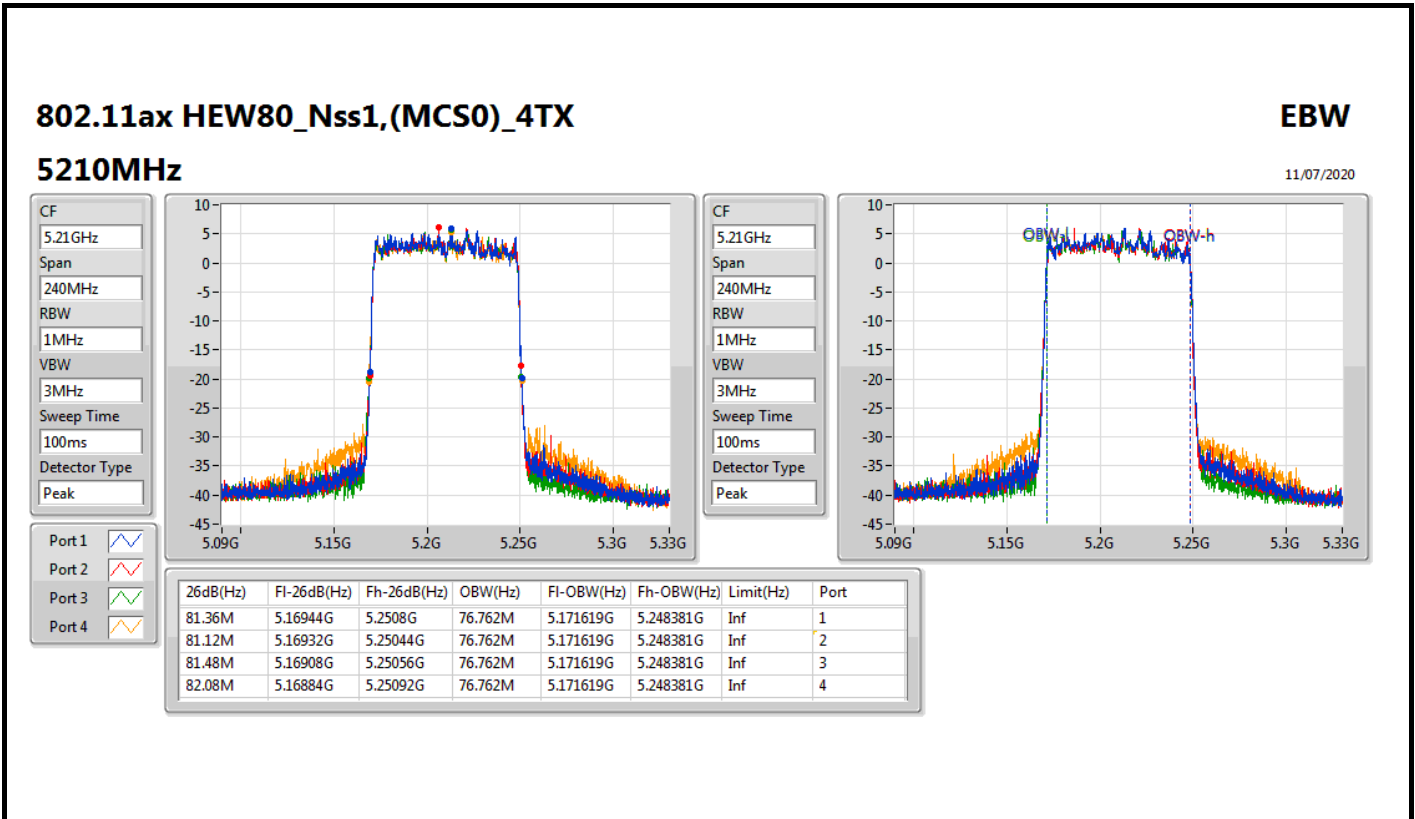
For EUT 1 / Radio 1_Non-Beamforming Mode



For EUT 1 / Radio 1_Non-Beamforming Mode



For EUT 1 / Radio 1_Non-Beamforming Mode





**For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.38M	29.625M	29M6D1D	16.29M	21.109M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.9M	31.514M	31M5D1D	18.66M	21.589M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.56M	50.615M	50M6D1D	36.42M	38.981M
802.11ax HEW80_Nss1,(MCS0)_4TX	76.8M	77.361M	77M4D1D	75.12M	77.121M

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;

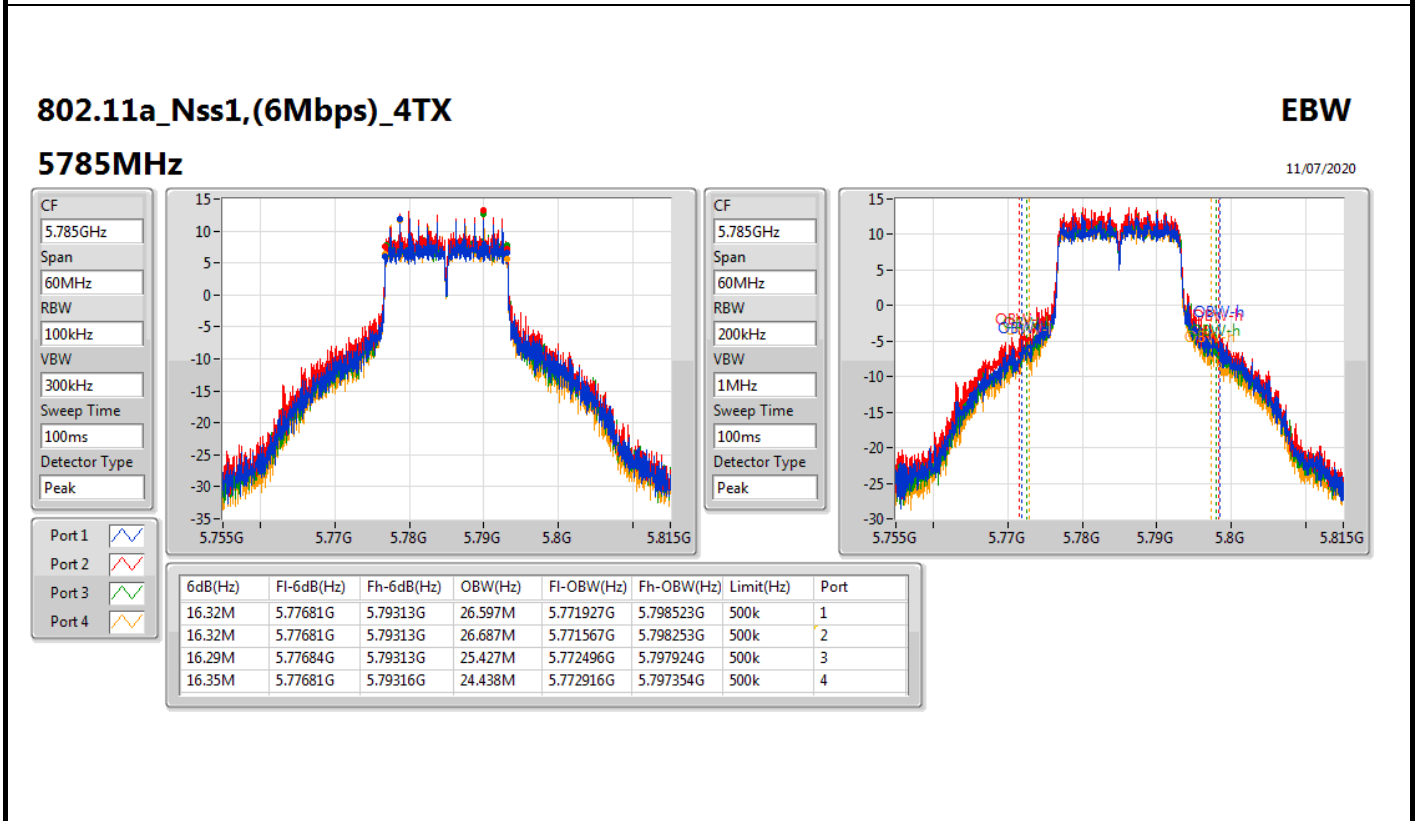
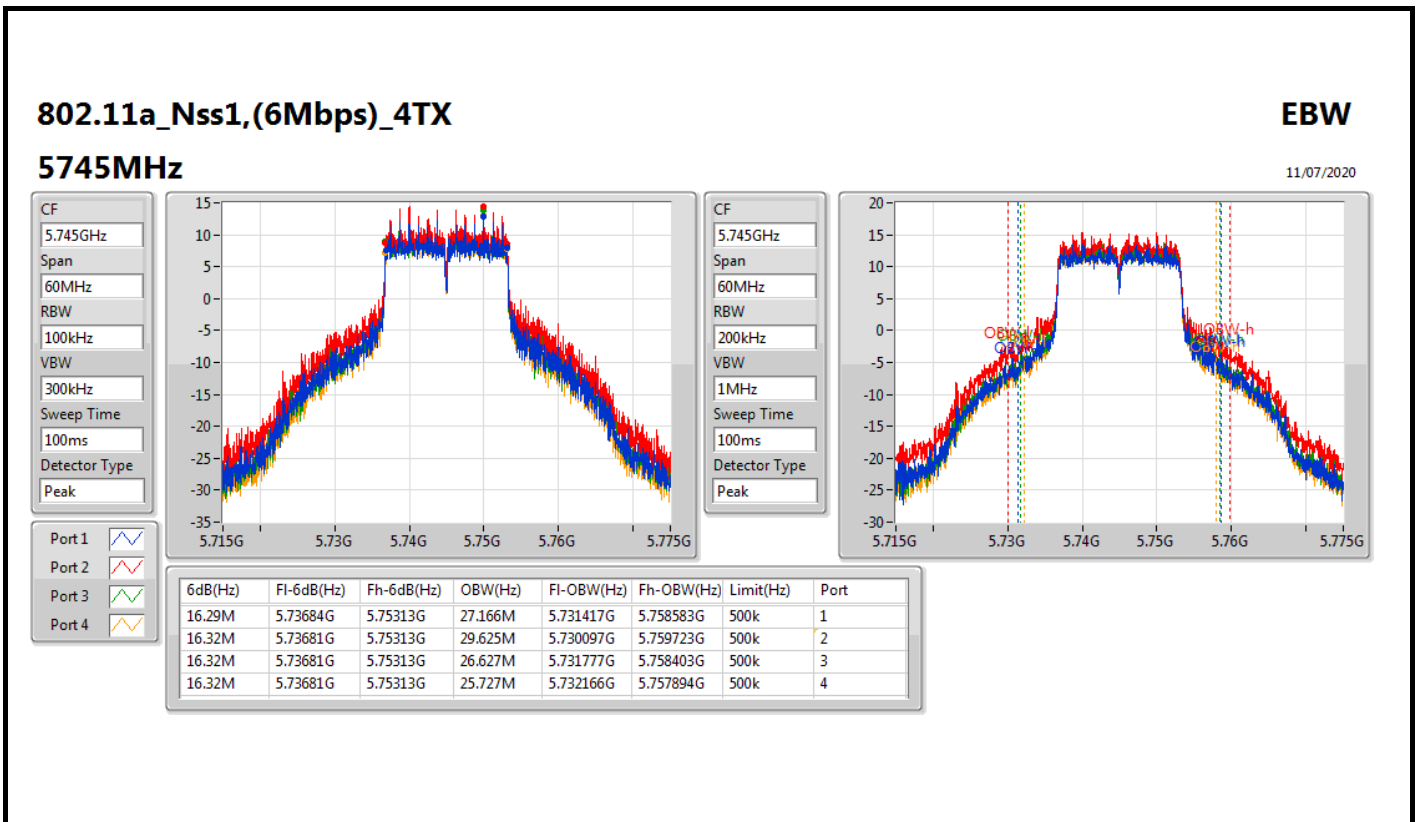
**For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode
Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	16.29M	27.166M	16.32M	29.625M	16.32M	26.627M	16.32M	25.727M
5785MHz	Pass	500k	16.32M	26.597M	16.32M	26.687M	16.29M	25.427M	16.35M	24.438M
5825MHz	Pass	500k	16.38M	23.418M	16.32M	23.208M	16.32M	22.669M	16.35M	21.109M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	18.69M	28.876M	18.66M	31.514M	18.78M	27.856M	18.72M	26.987M
5785MHz	Pass	500k	18.81M	28.036M	18.72M	28.516M	18.69M	26.987M	18.72M	25.727M
5825MHz	Pass	500k	18.78M	23.808M	18.9M	23.868M	18.66M	21.679M	18.72M	21.589M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	37.56M	47.856M	36.72M	44.978M	37.5M	39.82M	36.78M	38.981M
5795MHz	Pass	500k	37.08M	50.615M	36.42M	43.598M	37.56M	41.859M	36.84M	40.24M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.12M	77.361M	76.32M	77.241M	75.84M	77.121M	76.8M	77.121M

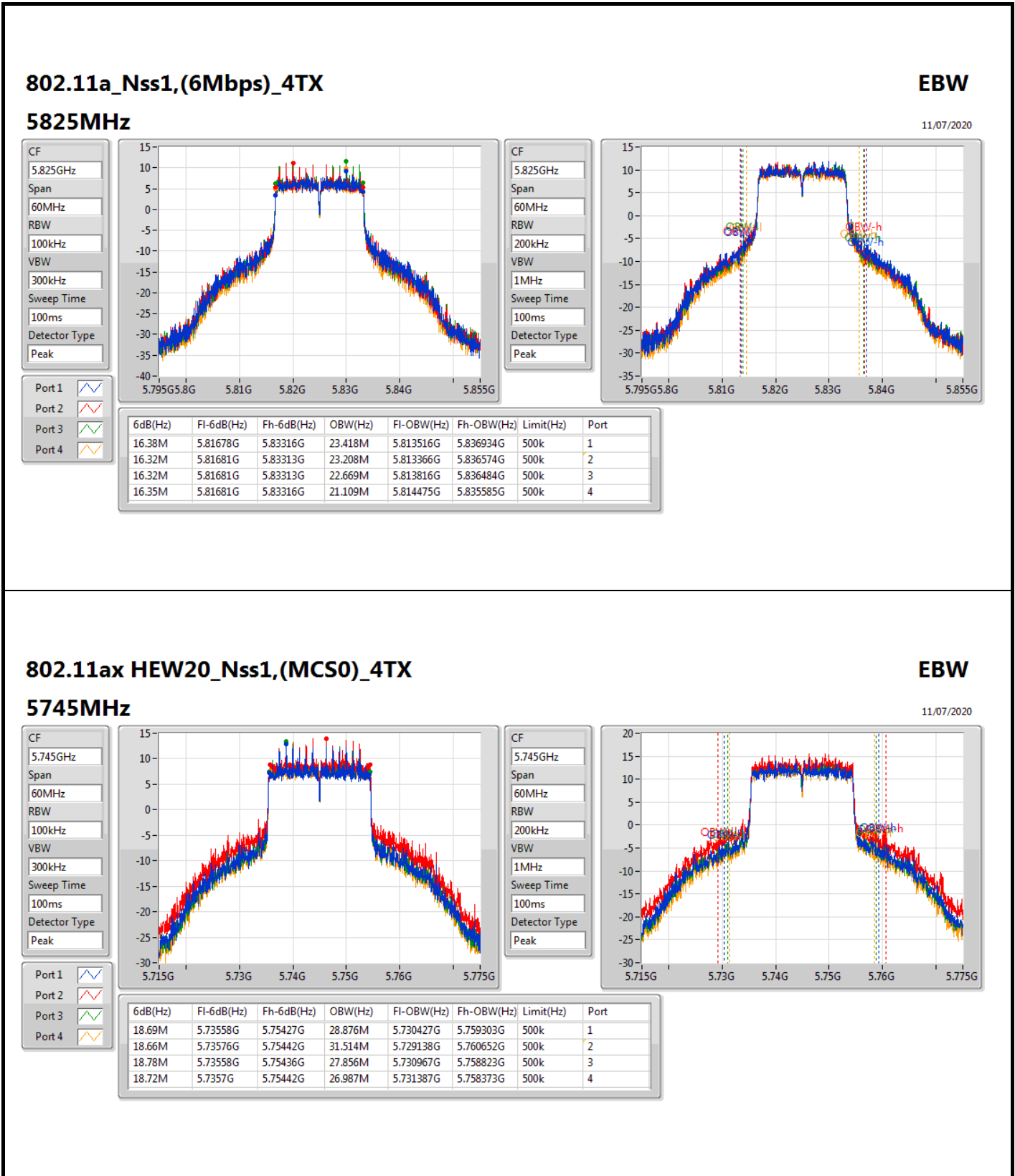
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

Port X-OBW = Port X 99% occupied bandwidth;

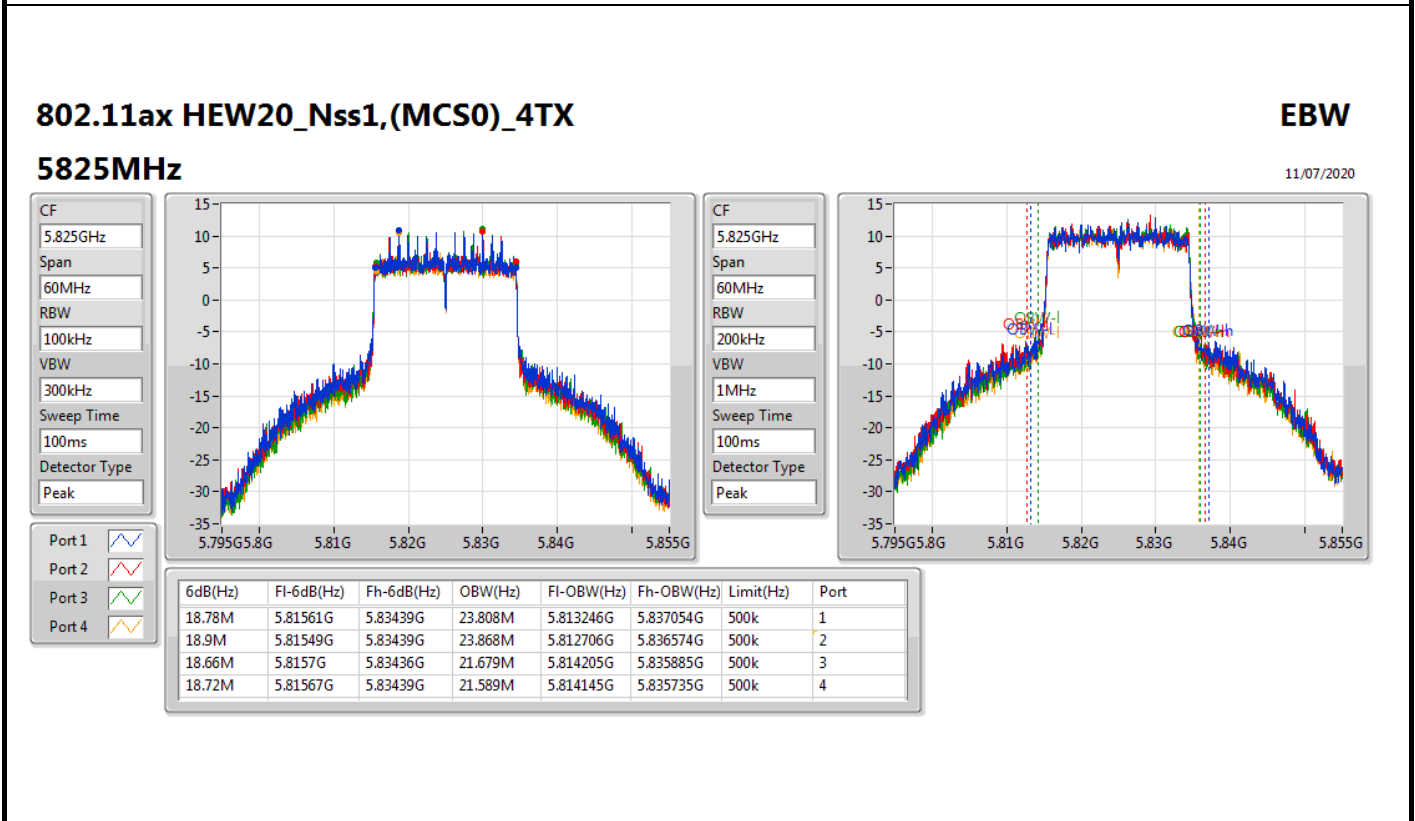
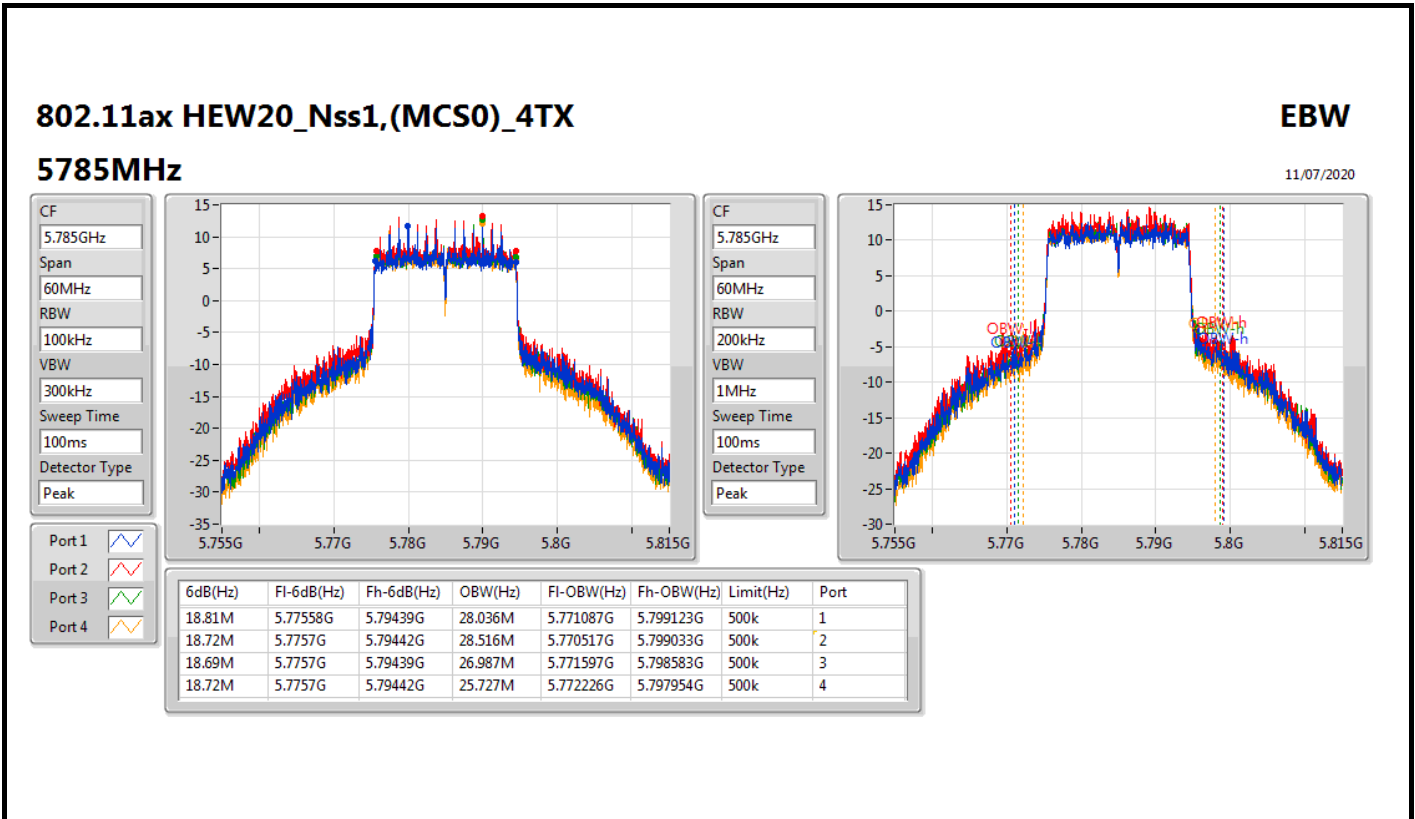
For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode



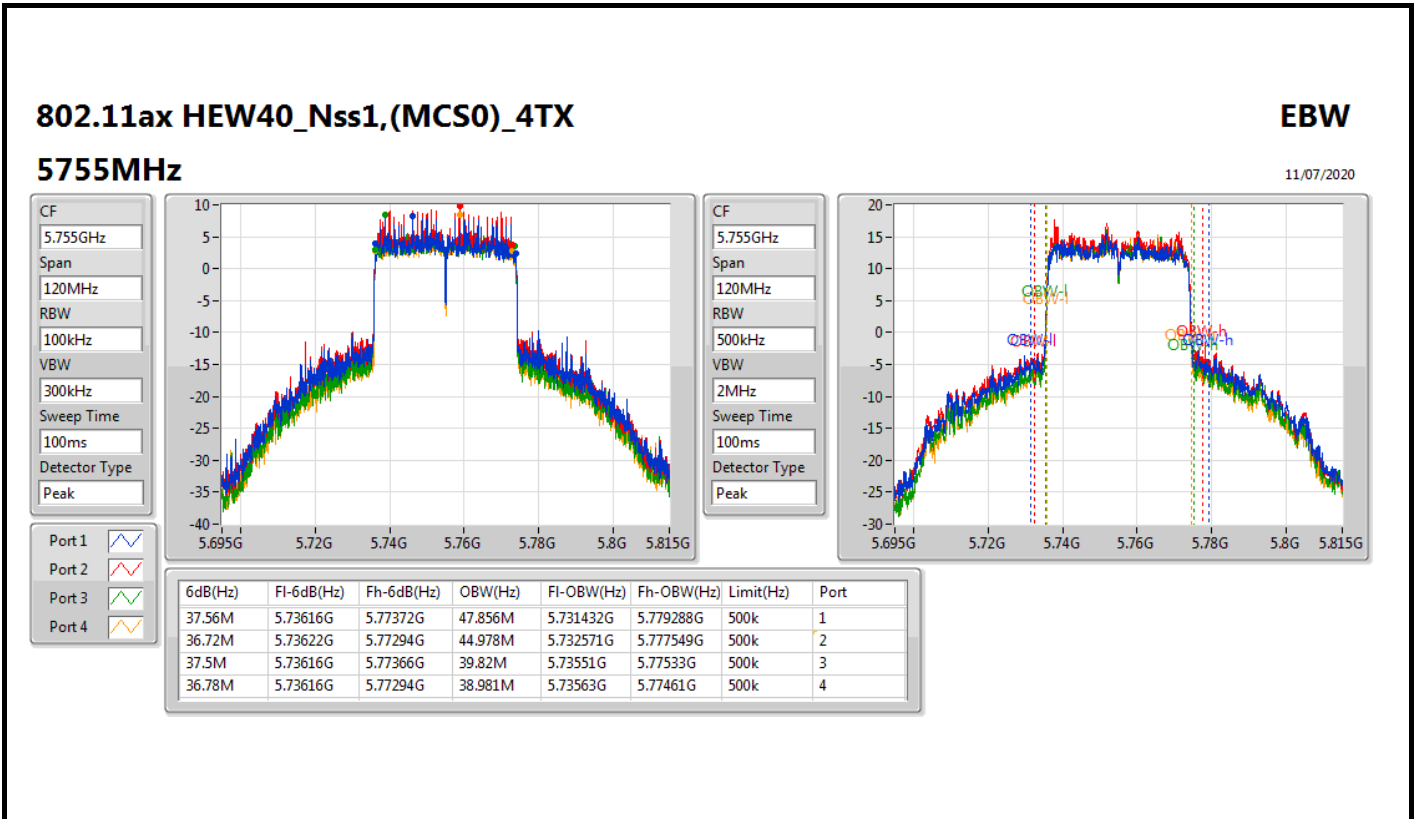
For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode



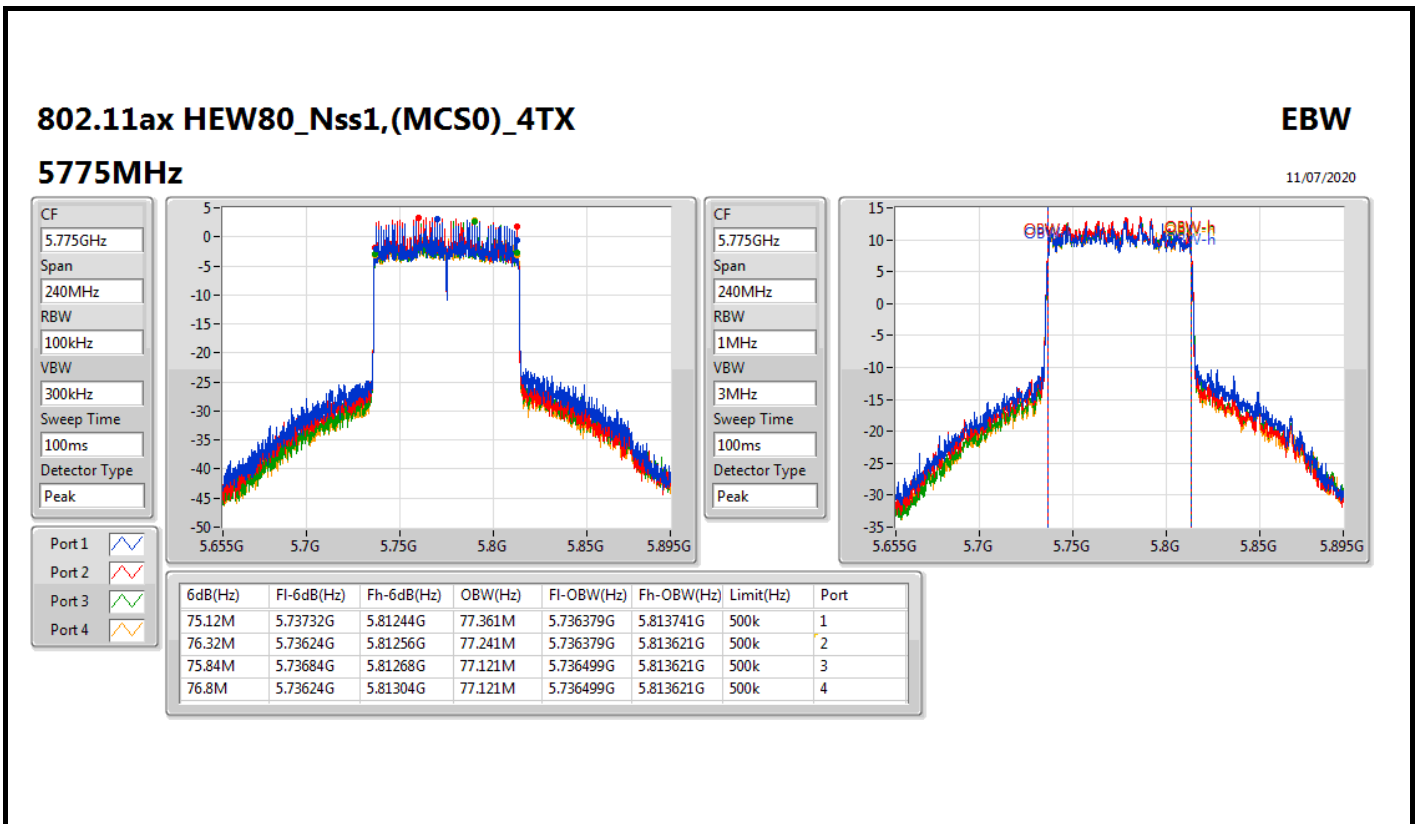
For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode



For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode



For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode





**For EUT 1 / Radio 3_Non-Beamforming Mode
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	21.78M	16.762M	16M8D1D	21.15M	16.672M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.45M	19.1M	19M1D1D	21.3M	19.01M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.08M	37.541M	37M5D1D	39.84M	37.481M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.24M	76.882M	76M9D1D	81.24M	76.762M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.44M	34.663M	34M7D1D	16.32M	32.264M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.63M	37.571M	37M6D1D	18.51M	34.543M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.56M	57.811M	57M8D1D	36.78M	55.652M
802.11ax HEW80_Nss1,(MCS0)_2TX	76.2M	78.201M	78M2D1D	75.12M	77.481M

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;

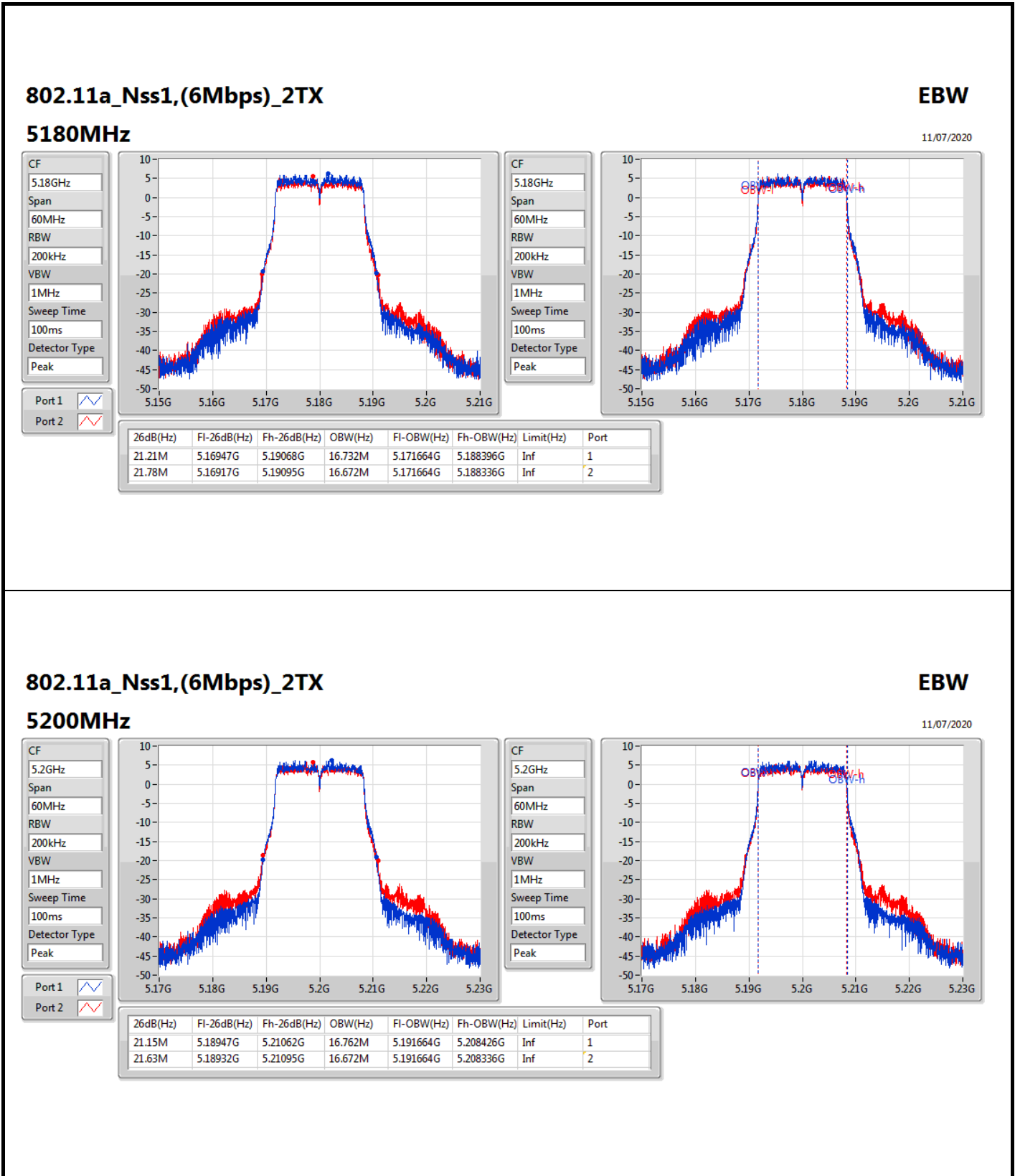
Min-OBW = Minimum 99% occupied bandwidth;

**For EUT 1 / Radio 3_Non-Beamforming Mode
Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.21M	16.732M	21.78M	16.672M
5200MHz	Pass	Inf	21.15M	16.762M	21.63M	16.672M
5240MHz	Pass	Inf	21.18M	16.732M	21.78M	16.702M
5745MHz	Pass	500k	16.32M	32.264M	16.41M	34.663M
5785MHz	Pass	500k	16.44M	32.414M	16.32M	34.003M
5825MHz	Pass	500k	16.35M	32.984M	16.35M	33.523M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.45M	19.01M	21.36M	19.1M
5200MHz	Pass	Inf	21.3M	19.01M	21.42M	19.07M
5240MHz	Pass	Inf	21.45M	19.01M	21.33M	19.07M
5745MHz	Pass	500k	18.54M	35.052M	18.57M	37.571M
5785MHz	Pass	500k	18.63M	34.543M	18.6M	36.852M
5825MHz	Pass	500k	18.63M	35.292M	18.51M	36.672M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.08M	37.481M	39.84M	37.481M
5230MHz	Pass	Inf	40.08M	37.541M	39.96M	37.541M
5755MHz	Pass	500k	37.5M	55.652M	37.02M	57.571M
5795MHz	Pass	500k	37.56M	57.811M	36.78M	56.192M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.24M	76.762M	81.24M	76.882M
5775MHz	Pass	500k	76.2M	78.201M	75.12M	77.481M

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

For EUT 1 / Radio 3_Non-Beamforming Mode



802.11a_Nss1,(6Mbps)_2TX

5200MHz

11/07/2020

EBW

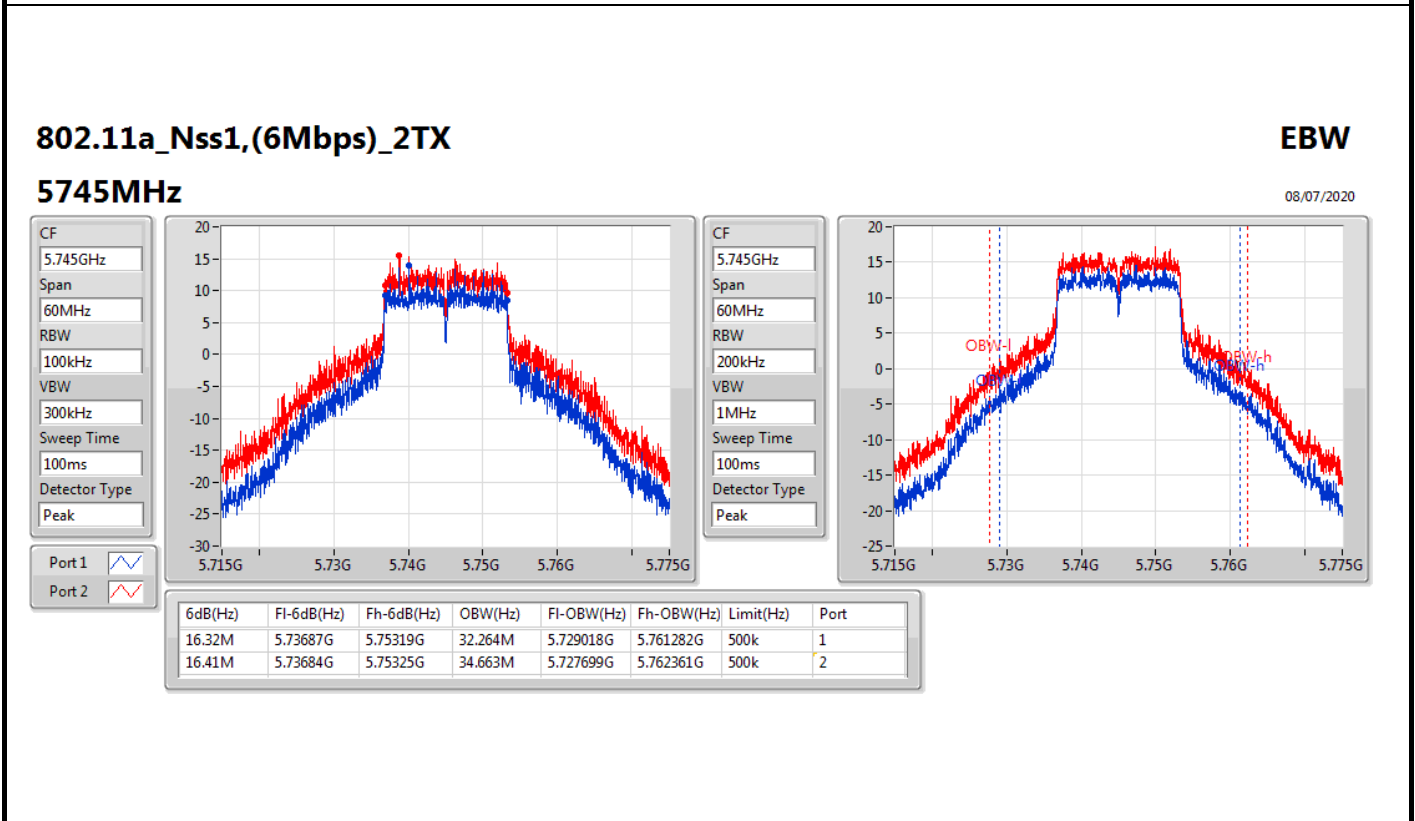
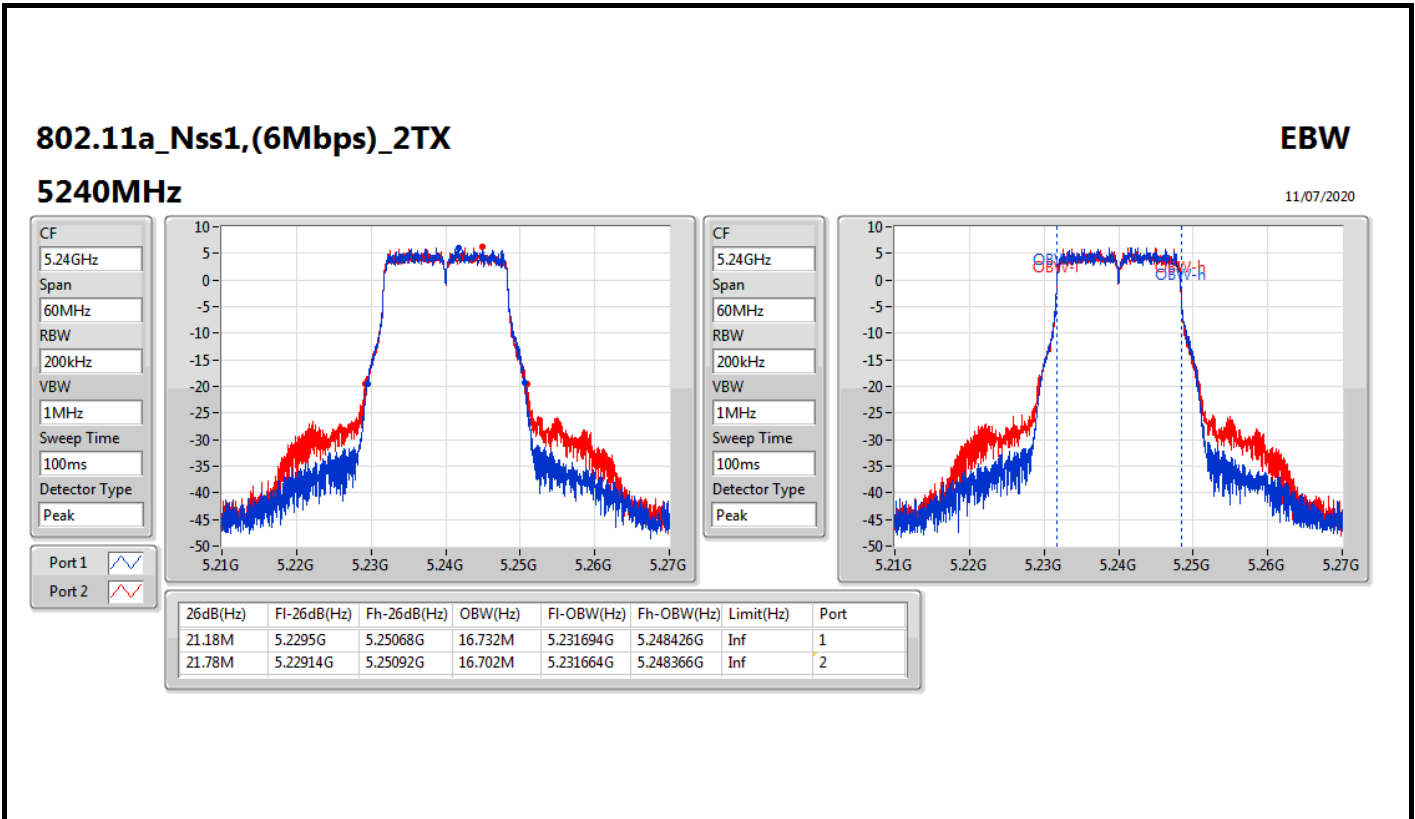
CF: 5.2GHz
Span: 60MHz
RBW: 200kHz
VBW: 1MHz
Sweep Time: 100ms
Detector Type: Peak

Port 1:

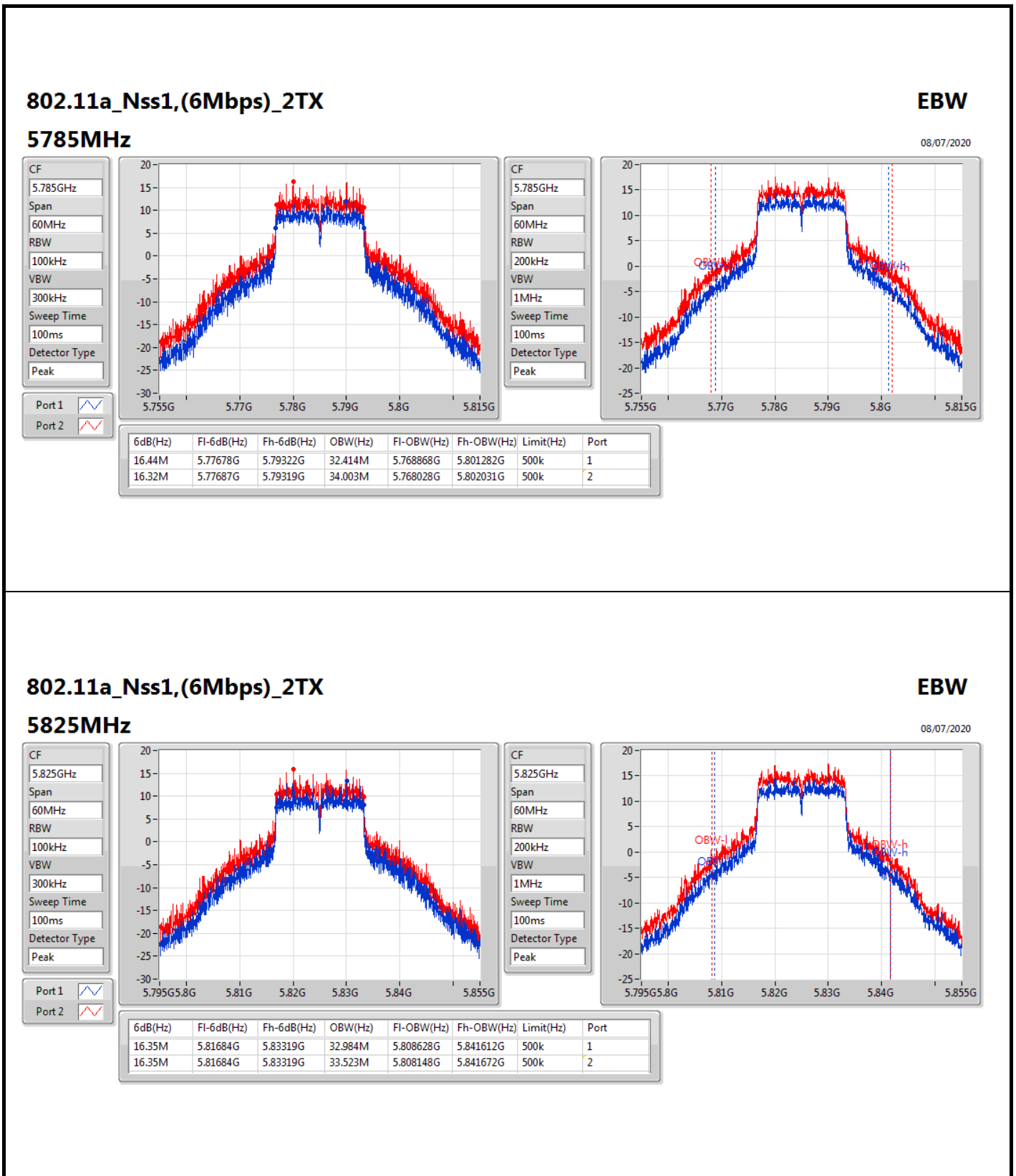
Port 2:

CF: 5.2GHz
Span: 60MHz
RBW: 200kHz
VBW: 1MHz
Sweep Time: 100ms
Detector Type: Peak

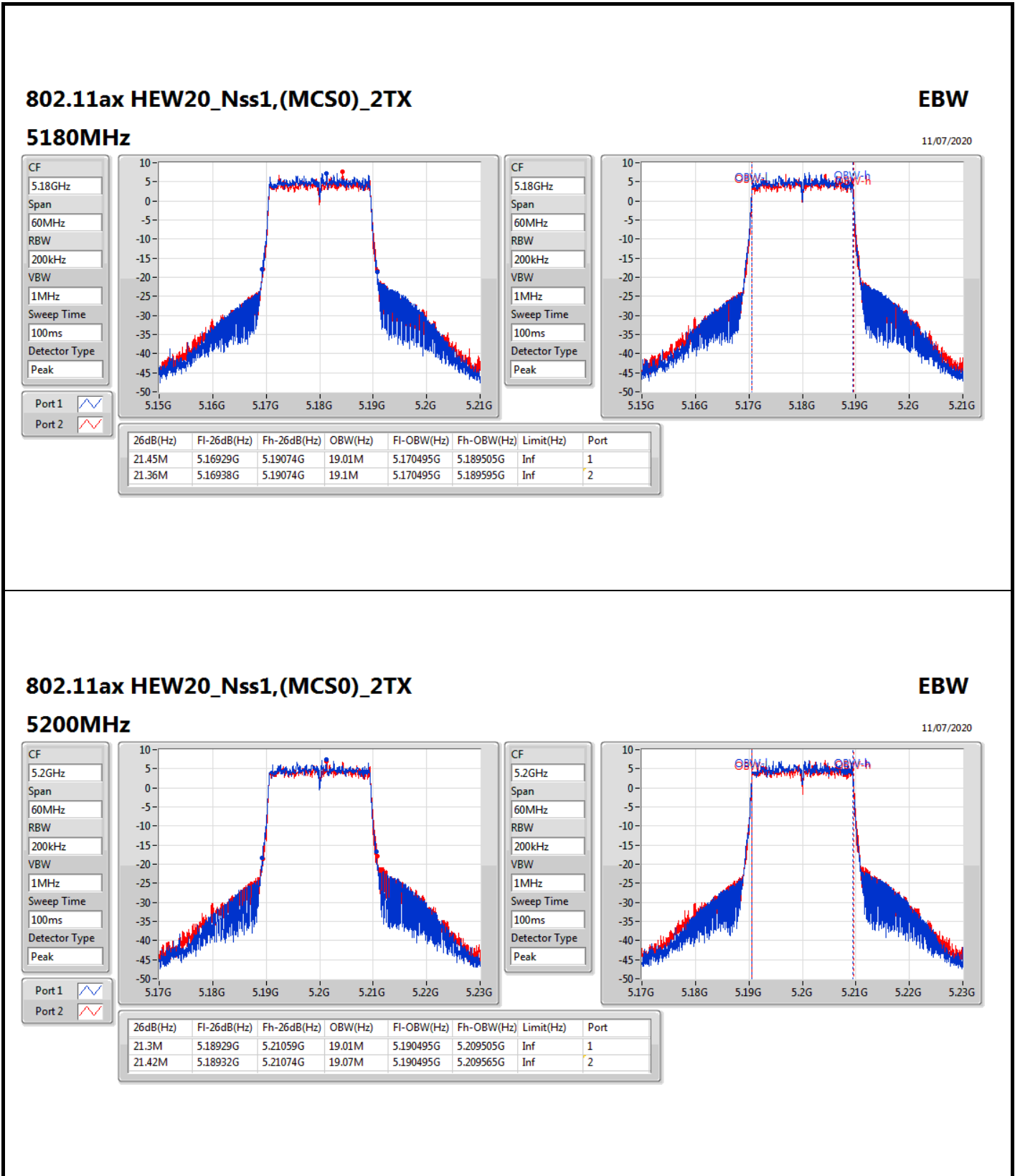
For EUT 1 / Radio 3_Non-Beamforming Mode



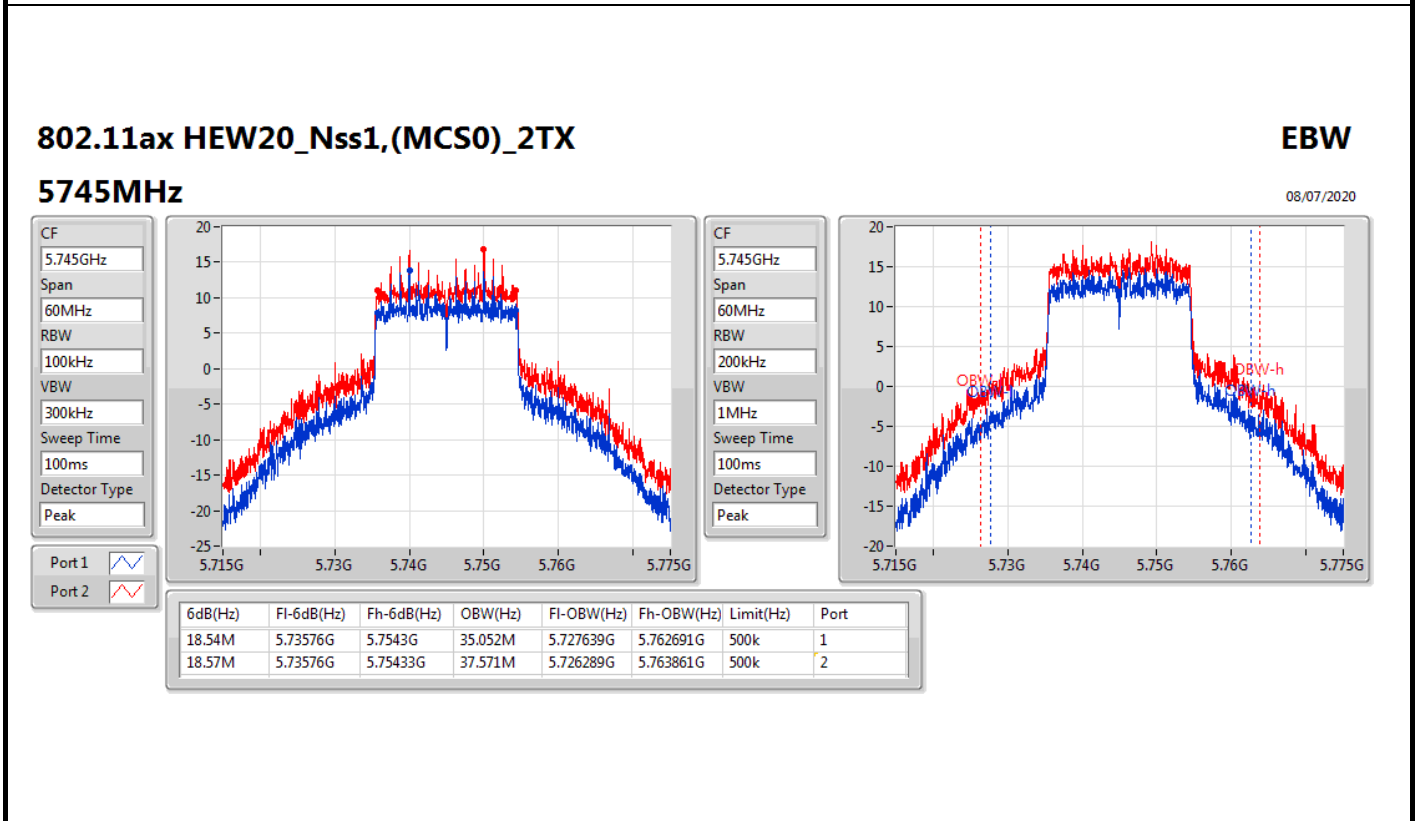
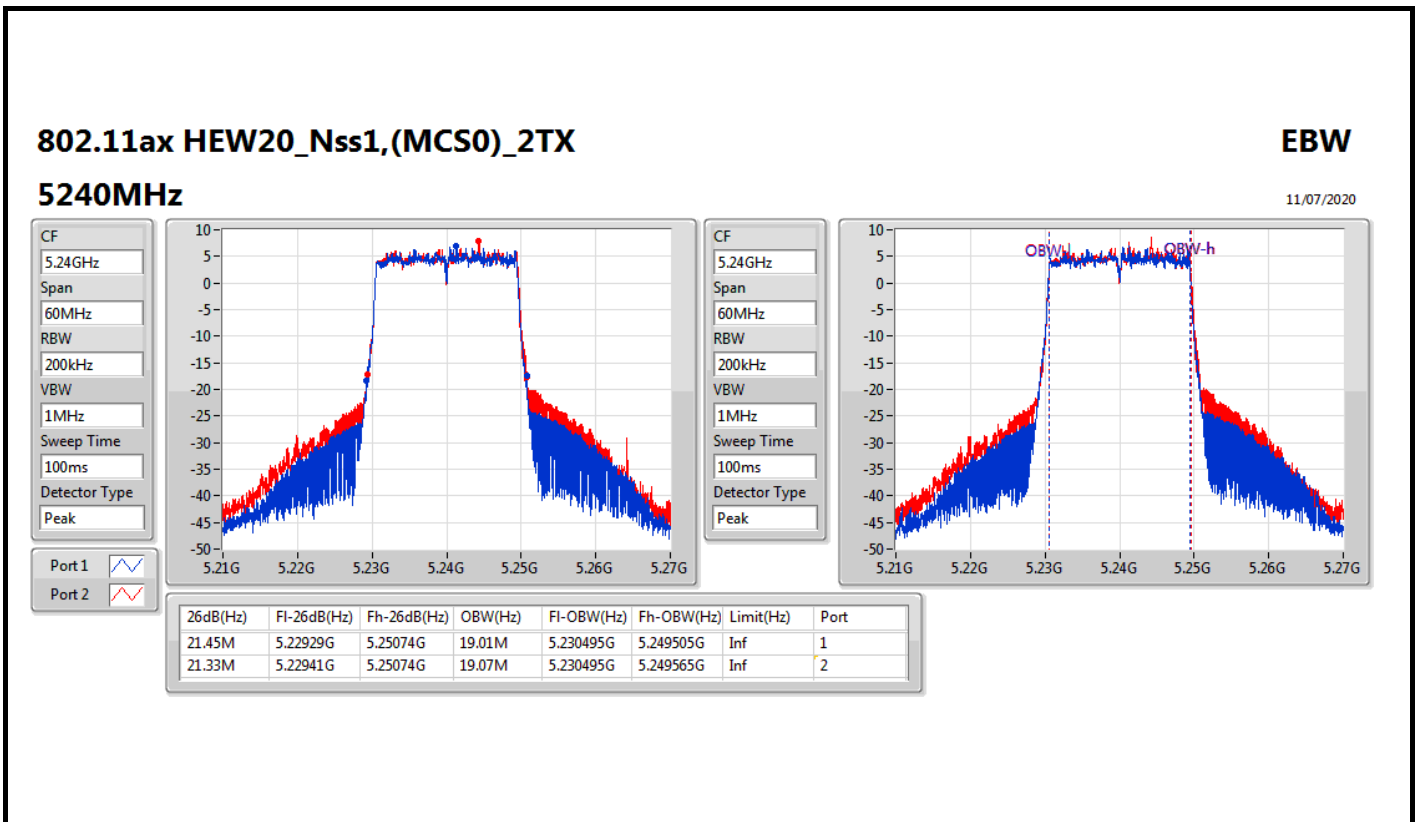
For EUT 1 / Radio 3_Non-Beamforming Mode



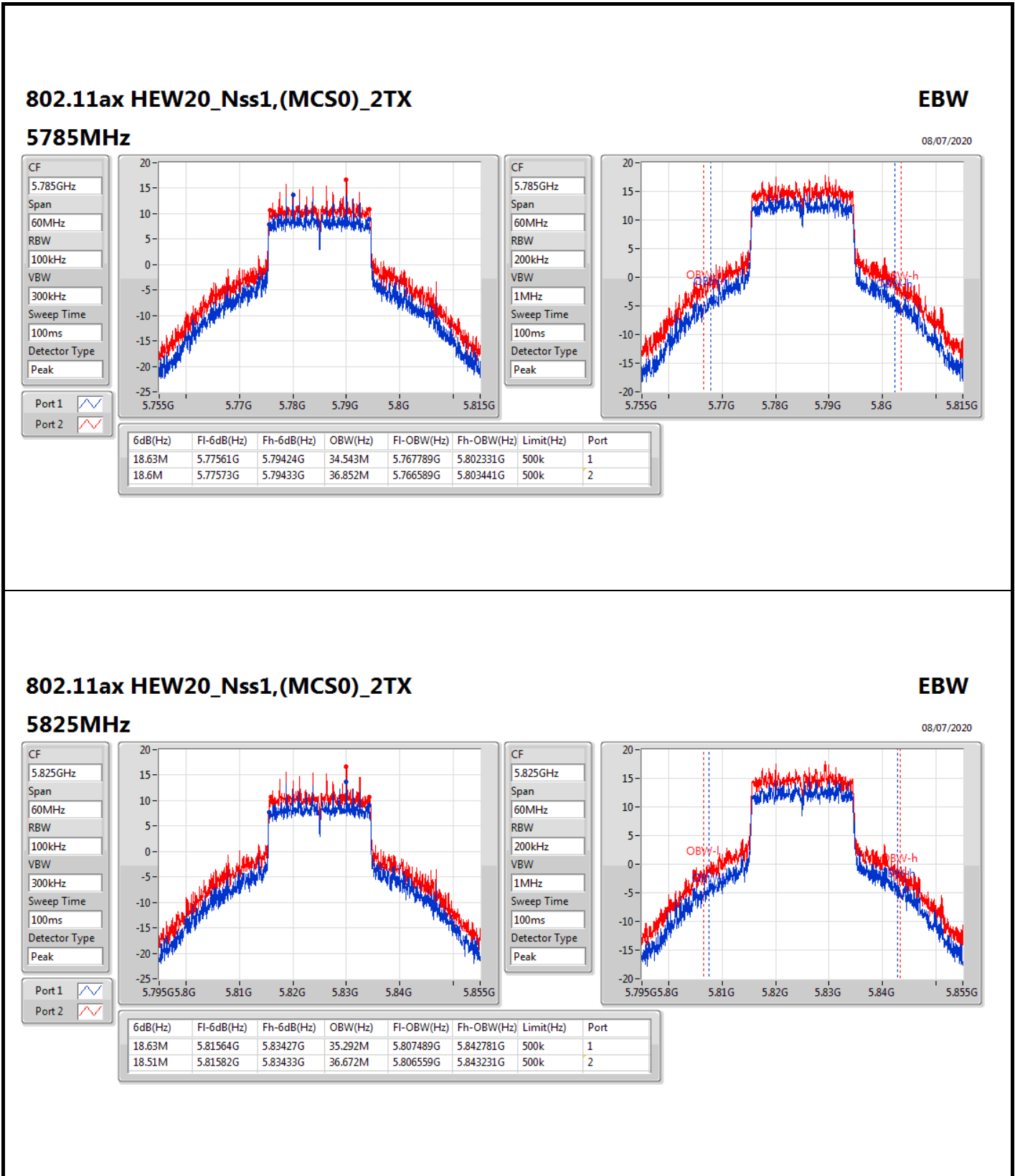
For EUT 1 / Radio 3_Non-Beamforming Mode



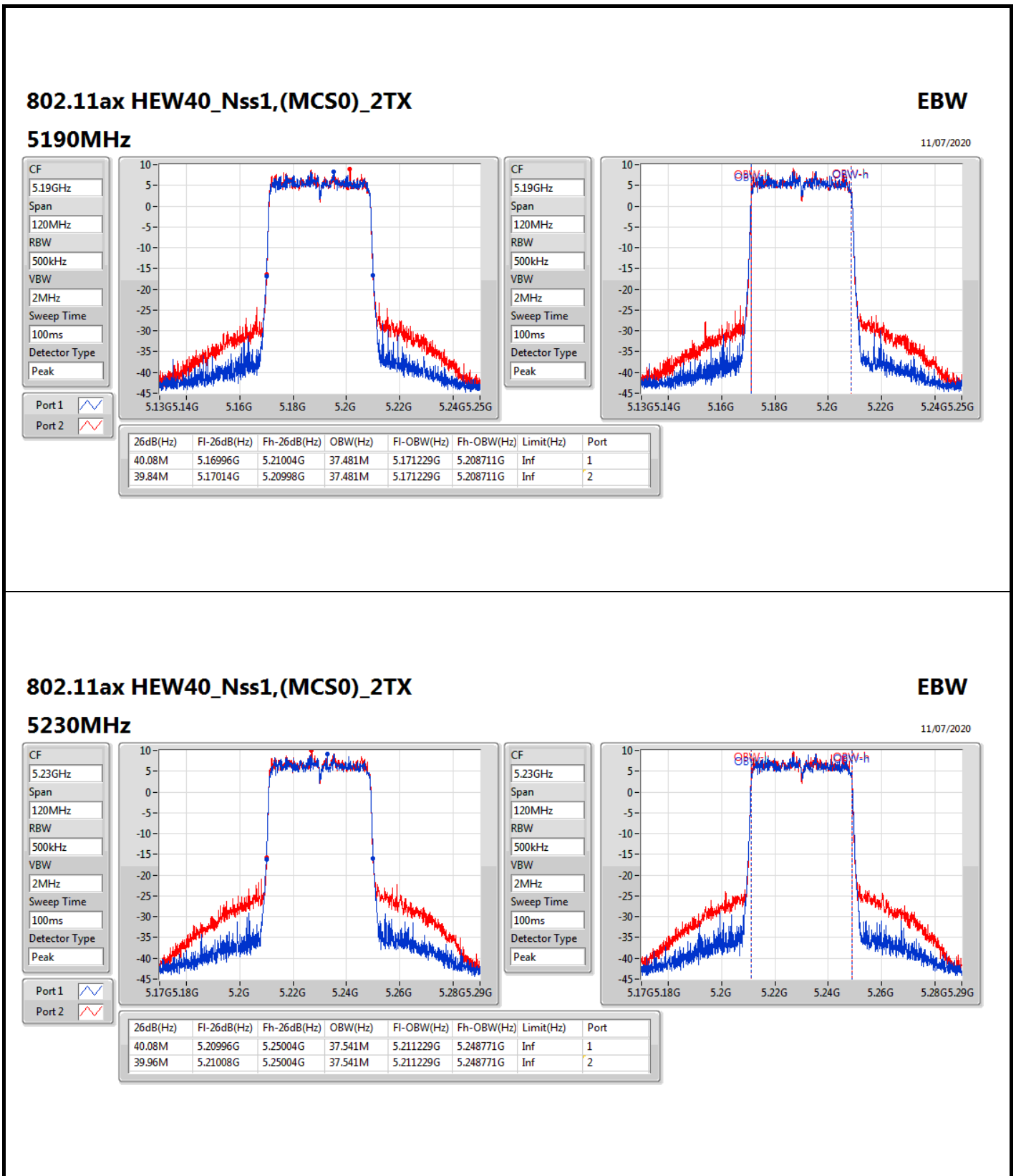
For EUT 1 / Radio 3_Non-Beamforming Mode



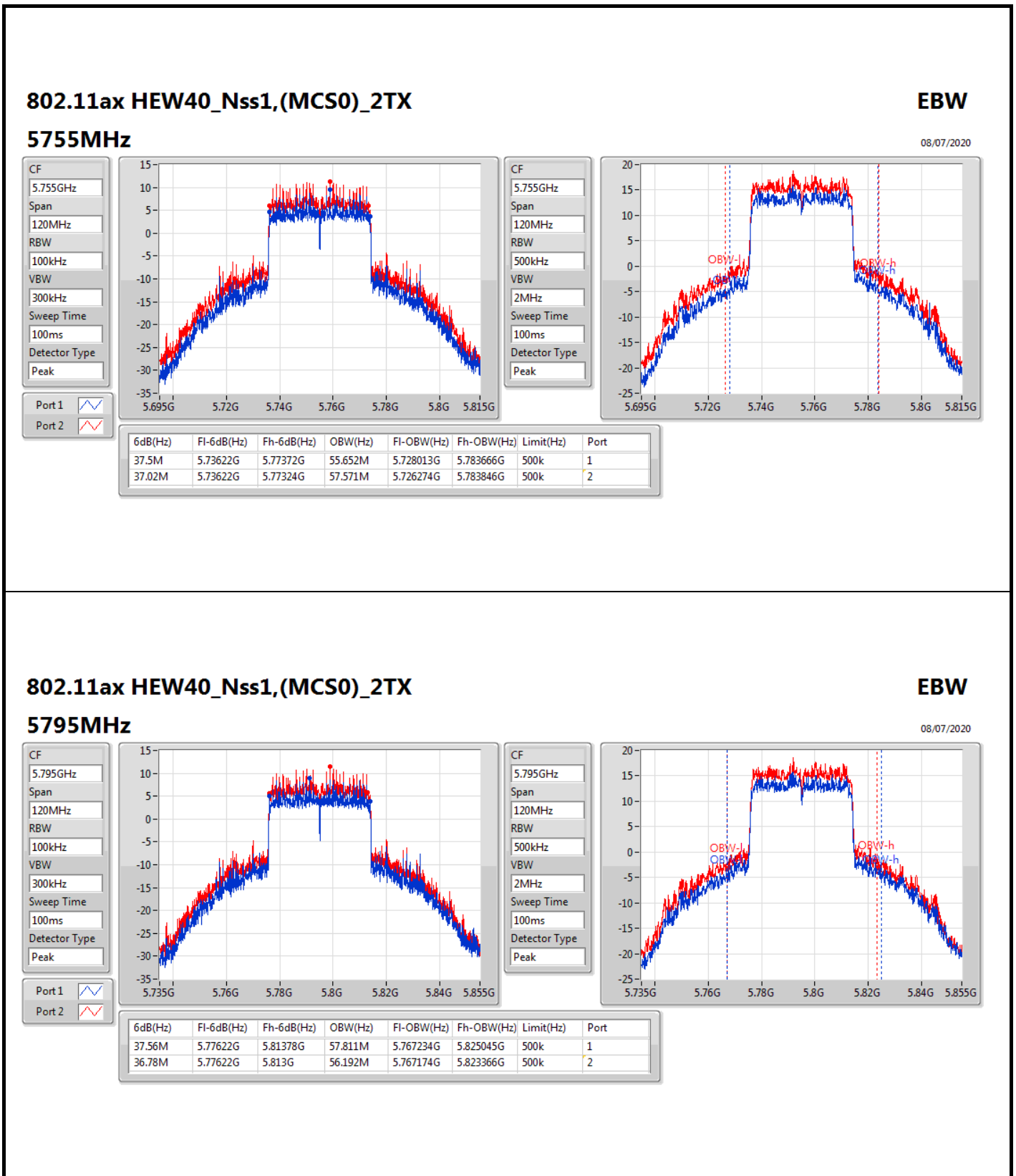
For EUT 1 / Radio 3_Non-Beamforming Mode



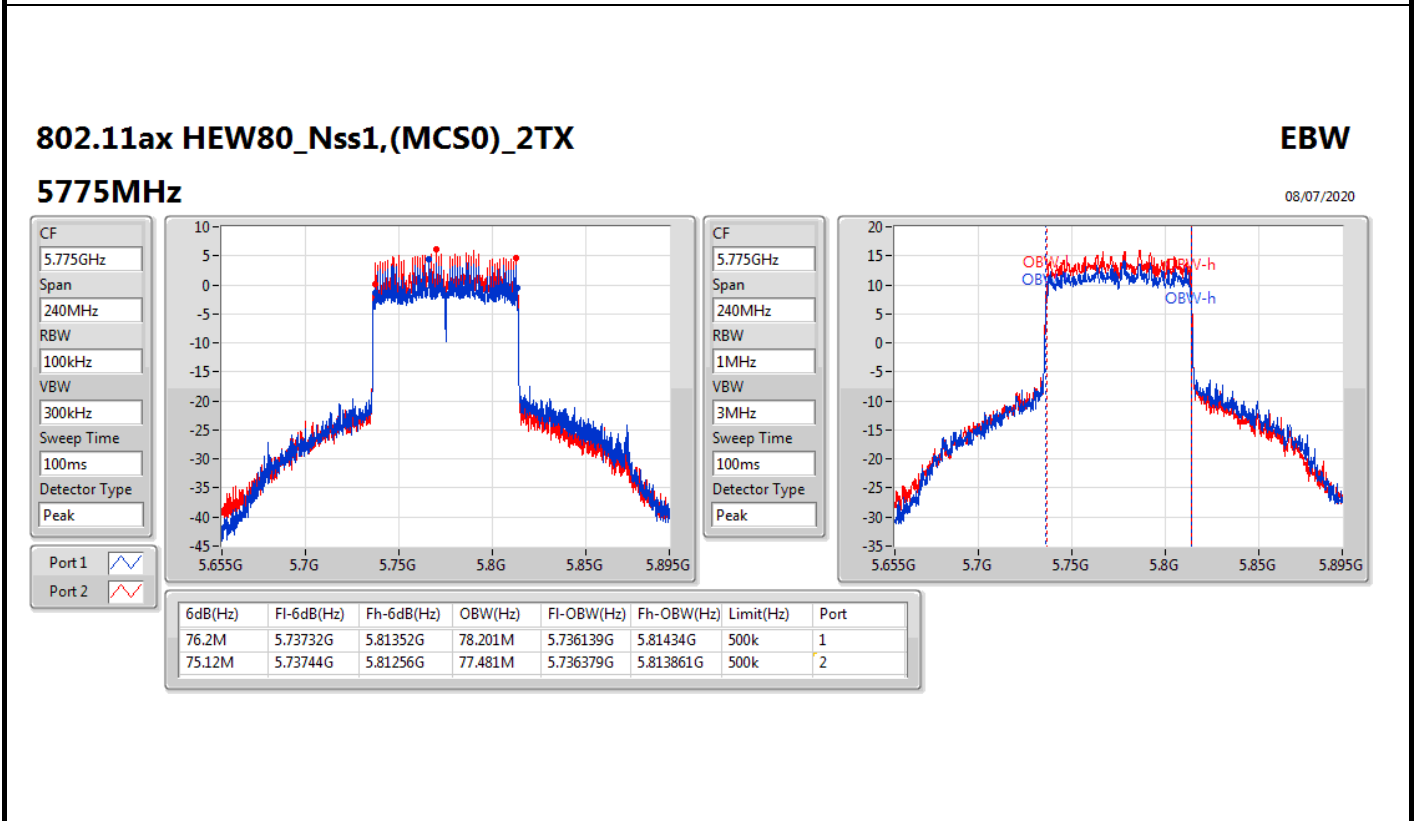
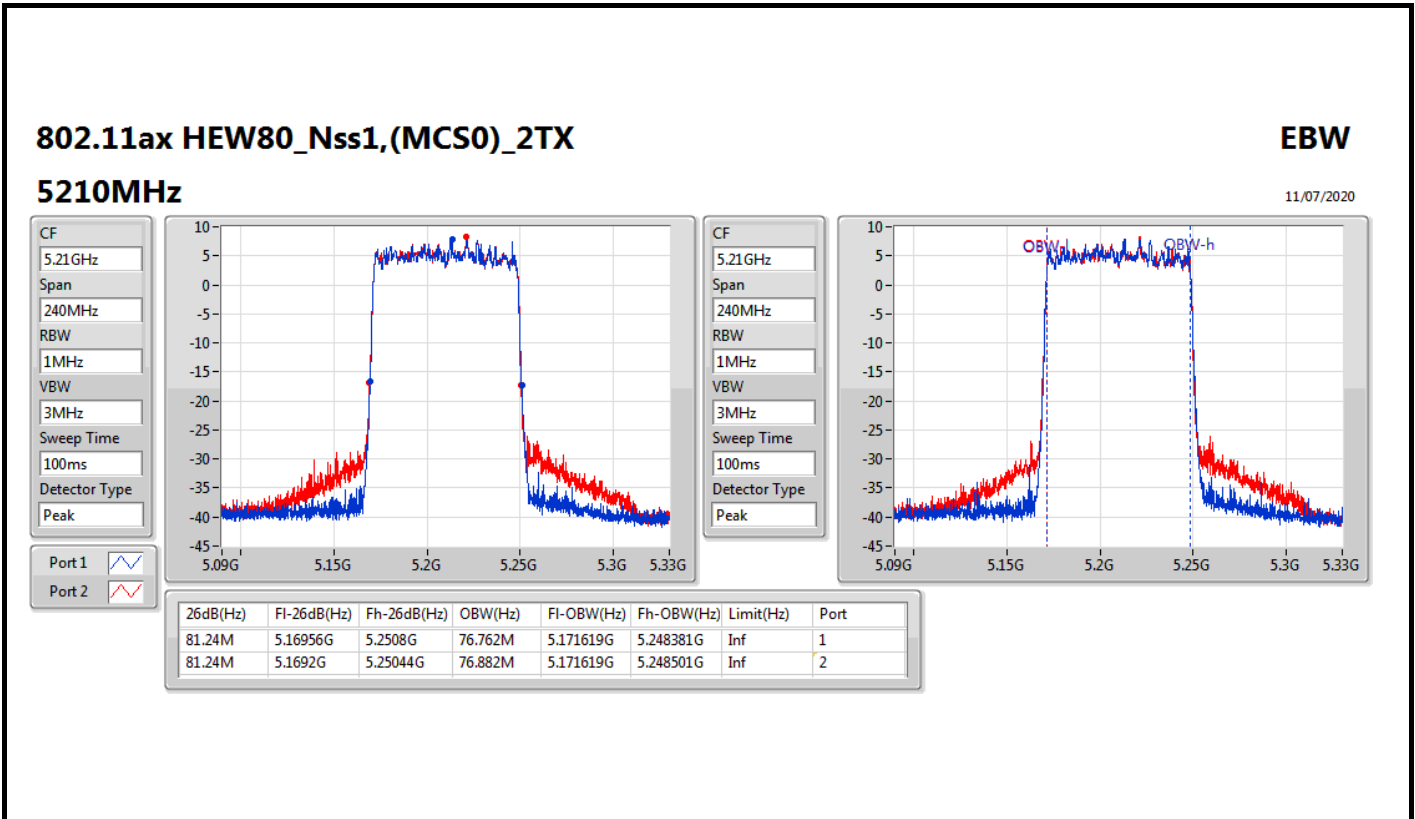
For EUT 1 / Radio 3_Non-Beamforming Mode



For EUT 1 / Radio 3_Non-Beamforming Mode



For EUT 1 / Radio 3_Non-Beamforming Mode



**For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.39M	16.822M	16M8D1D	21.15M	16.702M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.57M	19.13M	19M1D1D	21.27M	19.01M
802.11ax HEW40_Nss1,(MCS0)_4TX	40.14M	37.601M	37M6D1D	39.9M	37.541M
802.11ax HEW80_Nss1,(MCS0)_4TX	81.96M	76.882M	76M9D1D	81.12M	76.762M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.35M	40.03M	40M0D1D	16.32M	18.591M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.84M	45.067M	45M1D1D	18M	21.229M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.62M	73.763M	73M8D1D	35.52M	45.697M
802.11ax HEW80_Nss1,(MCS0)_4TX	76.2M	97.271M	97M3D1D	75M	77.961M

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;

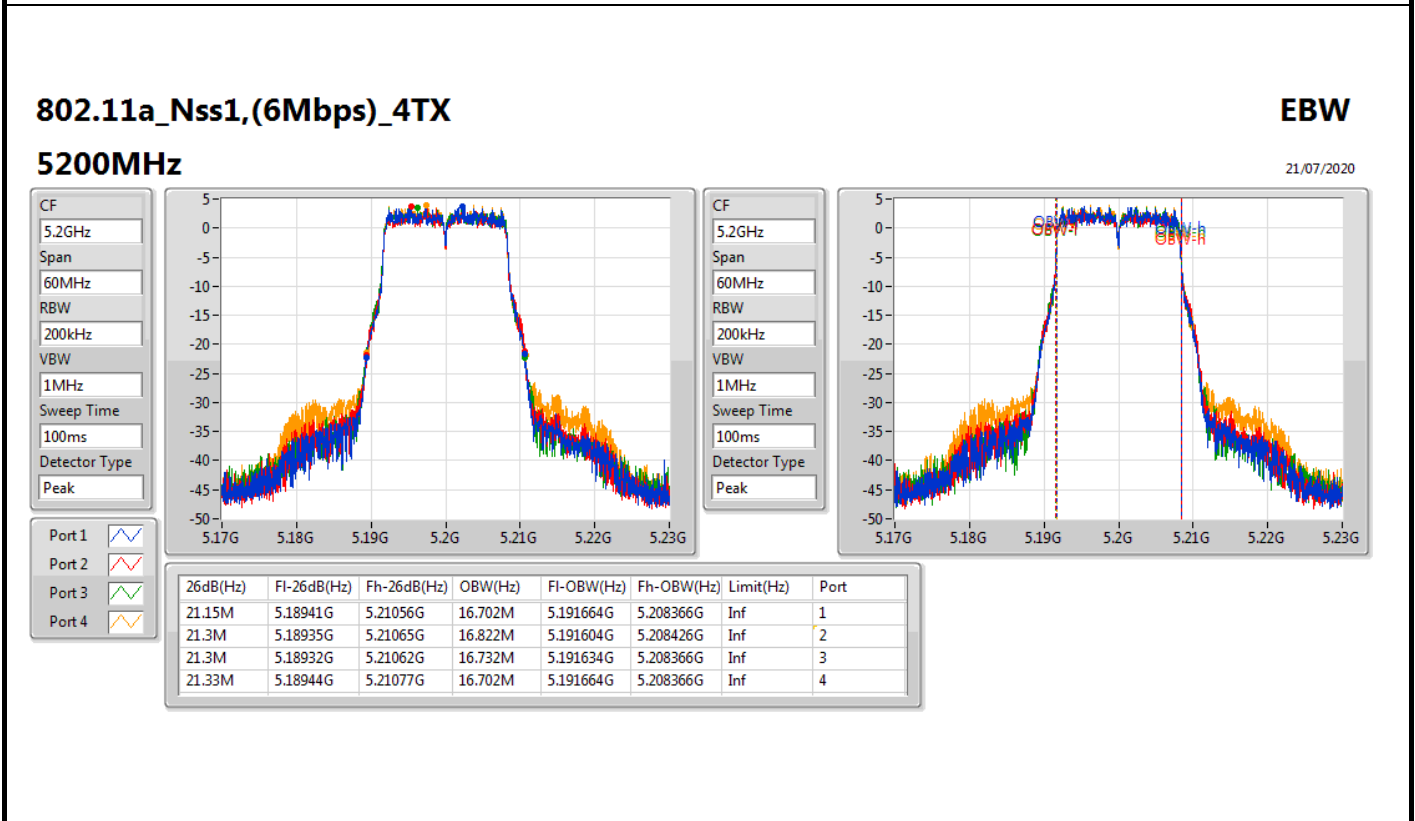
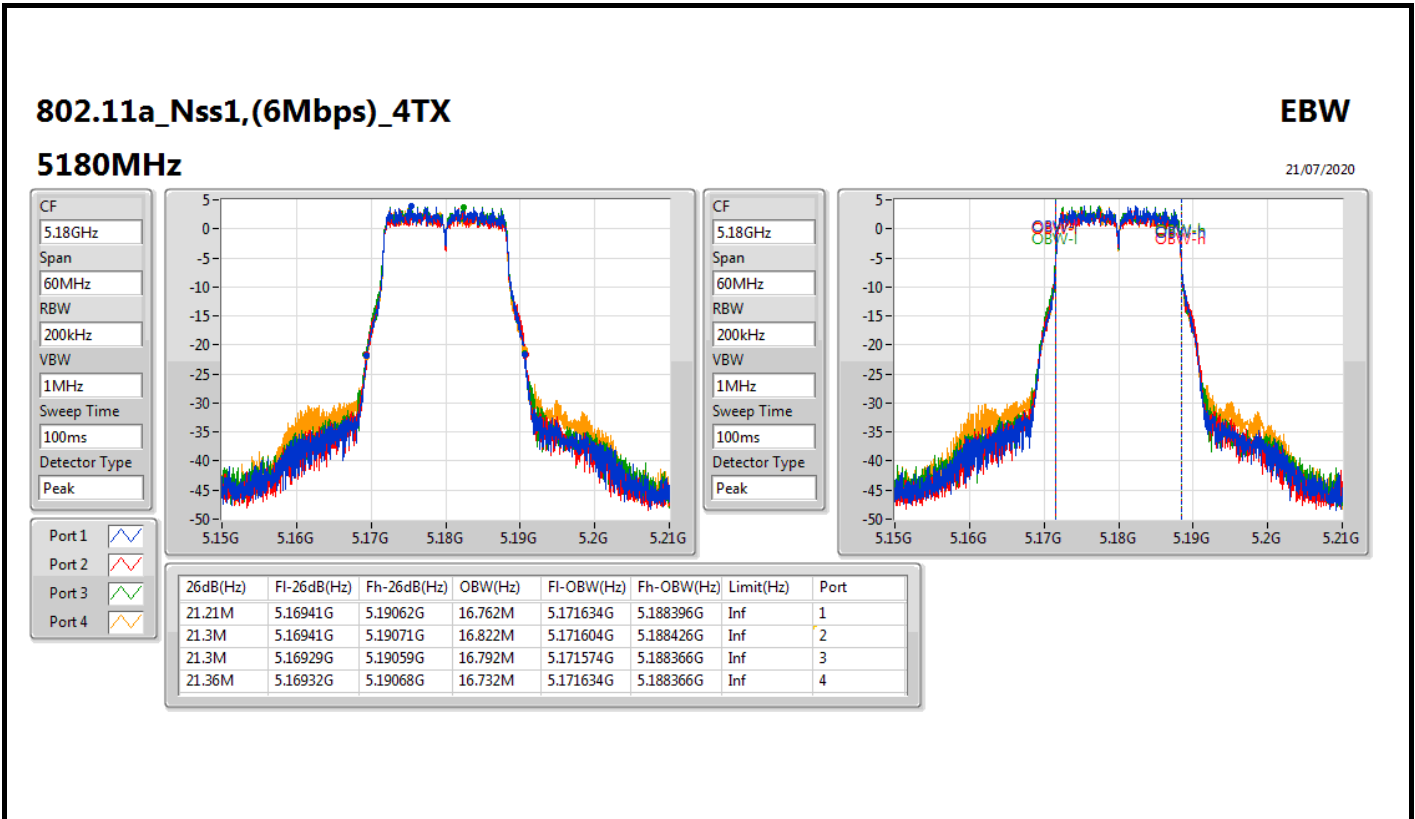
Min-OBW = Minimum 99% occupied bandwidth;

**For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode
Result**

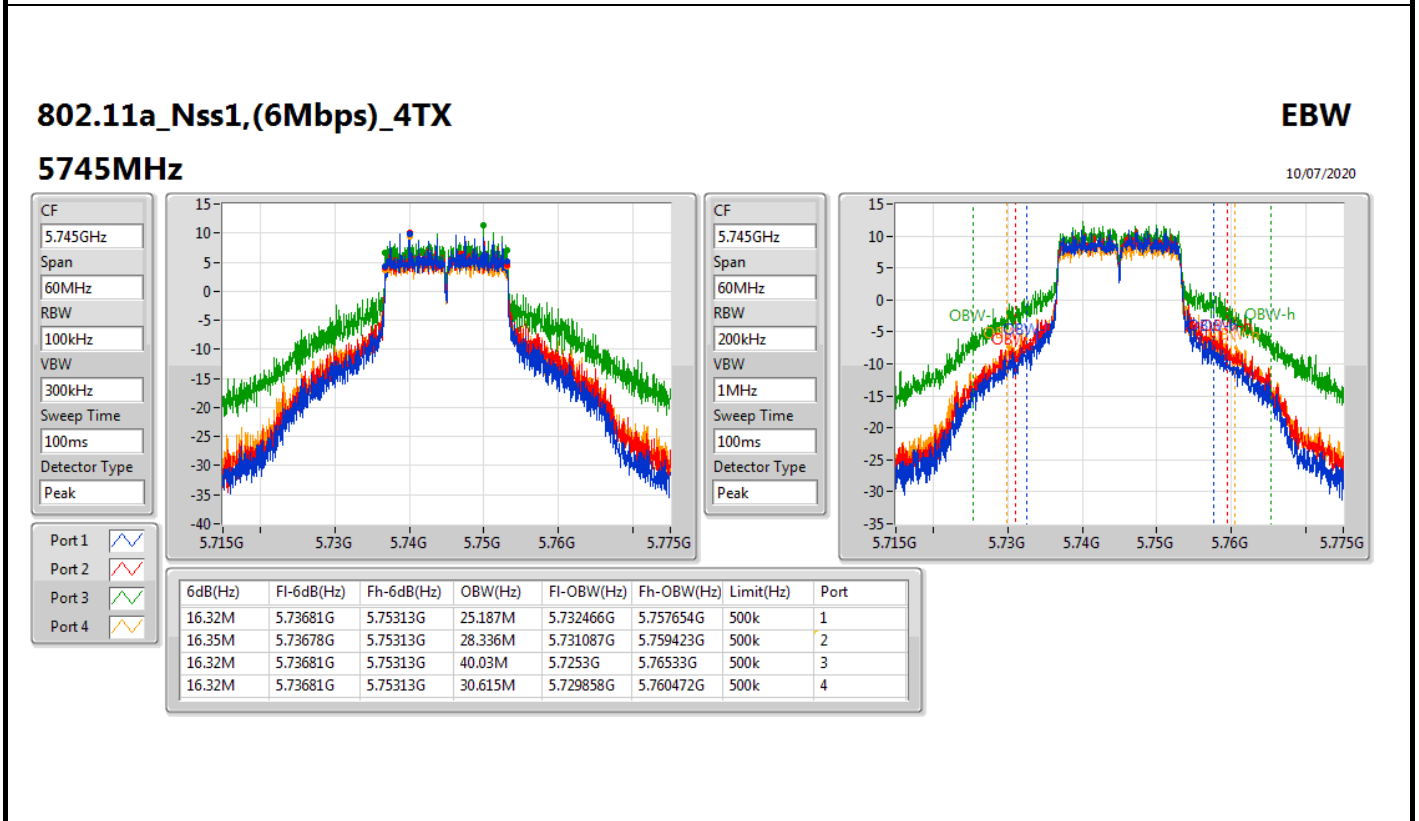
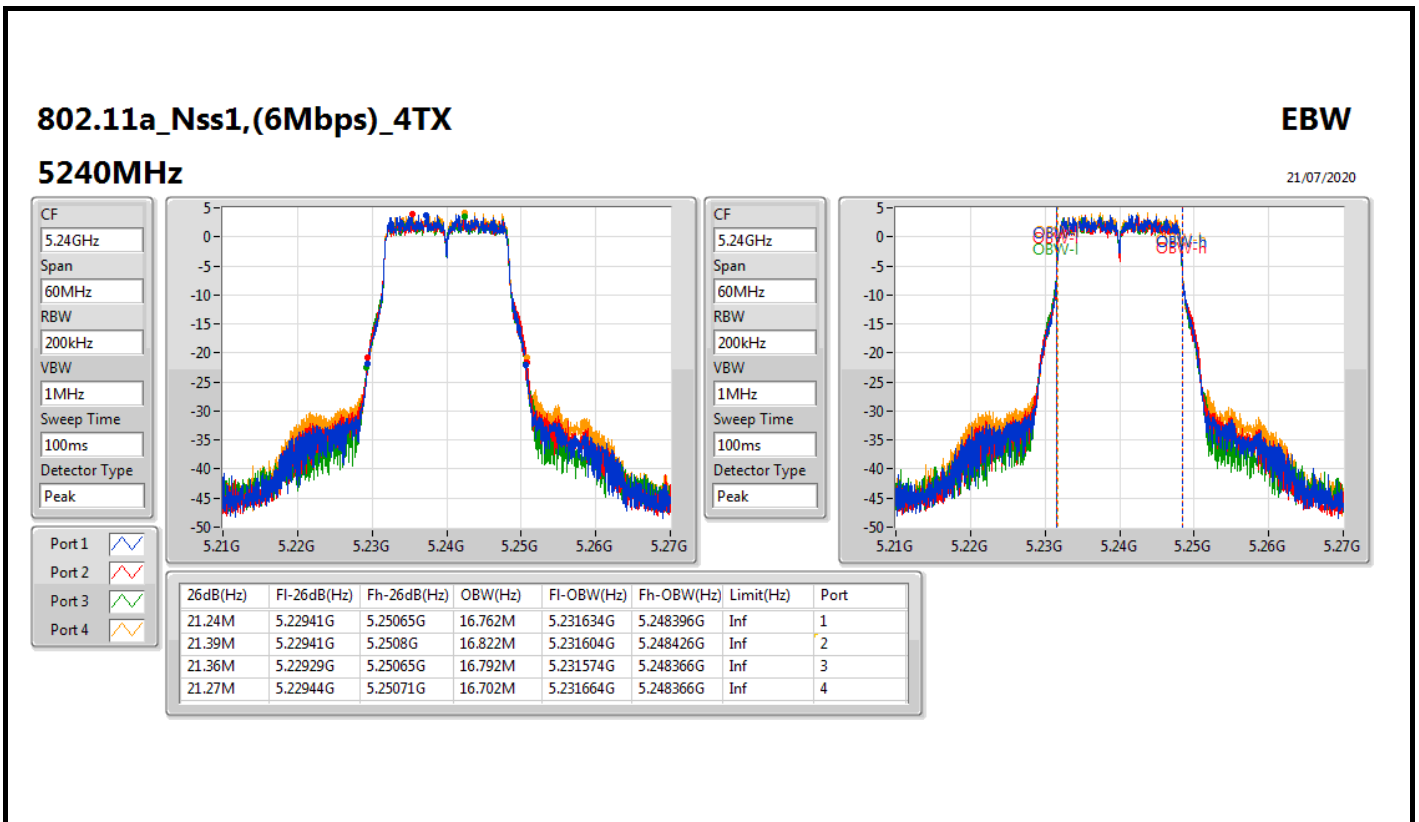
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.21M	16.762M	21.3M	16.822M	21.3M	16.792M	21.36M	16.732M
5200MHz	Pass	Inf	21.15M	16.702M	21.3M	16.822M	21.3M	16.732M	21.33M	16.702M
5240MHz	Pass	Inf	21.24M	16.762M	21.39M	16.822M	21.36M	16.792M	21.27M	16.702M
5745MHz	Pass	500k	16.32M	25.187M	16.35M	28.336M	16.32M	40.03M	16.32M	30.615M
5785MHz	Pass	500k	16.35M	18.591M	16.35M	22.249M	16.35M	26.567M	16.35M	24.468M
5825MHz	Pass	500k	16.32M	18.681M	16.32M	22.729M	16.35M	26.357M	16.35M	24.768M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.48M	19.01M	21.27M	19.07M	21.48M	19.07M	21.48M	19.13M
5200MHz	Pass	Inf	21.39M	19.04M	21.39M	19.07M	21.54M	19.04M	21.48M	19.07M
5240MHz	Pass	Inf	21.51M	19.04M	21.39M	19.04M	21.57M	19.07M	21.57M	19.13M
5745MHz	Pass	500k	18.81M	25.787M	18.72M	30.045M	18.6M	39.16M	18.69M	31.604M
5785MHz	Pass	500k	18.45M	30.525M	18.72M	33.583M	18.63M	45.067M	18.75M	37.031M
5825MHz	Pass	500k	18.84M	21.229M	18.42M	27.226M	18M	31.574M	18.72M	28.546M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.02M	37.541M	39.96M	37.541M	39.96M	37.541M	40.14M	37.601M
5230MHz	Pass	Inf	40.02M	37.541M	39.9M	37.541M	39.96M	37.541M	40.08M	37.541M
5755MHz	Pass	500k	37.08M	45.697M	36.06M	50.315M	37.56M	61.289M	37.08M	60.75M
5795MHz	Pass	500k	37.62M	59.97M	35.52M	63.808M	37.56M	73.763M	36.78M	73.583M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.24M	76.762M	81.12M	76.882M	81.6M	76.762M	81.96M	76.762M
5775MHz	Pass	500k	76.2M	77.961M	75.72M	79.52M	75M	96.552M	76.08M	97.271M

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;

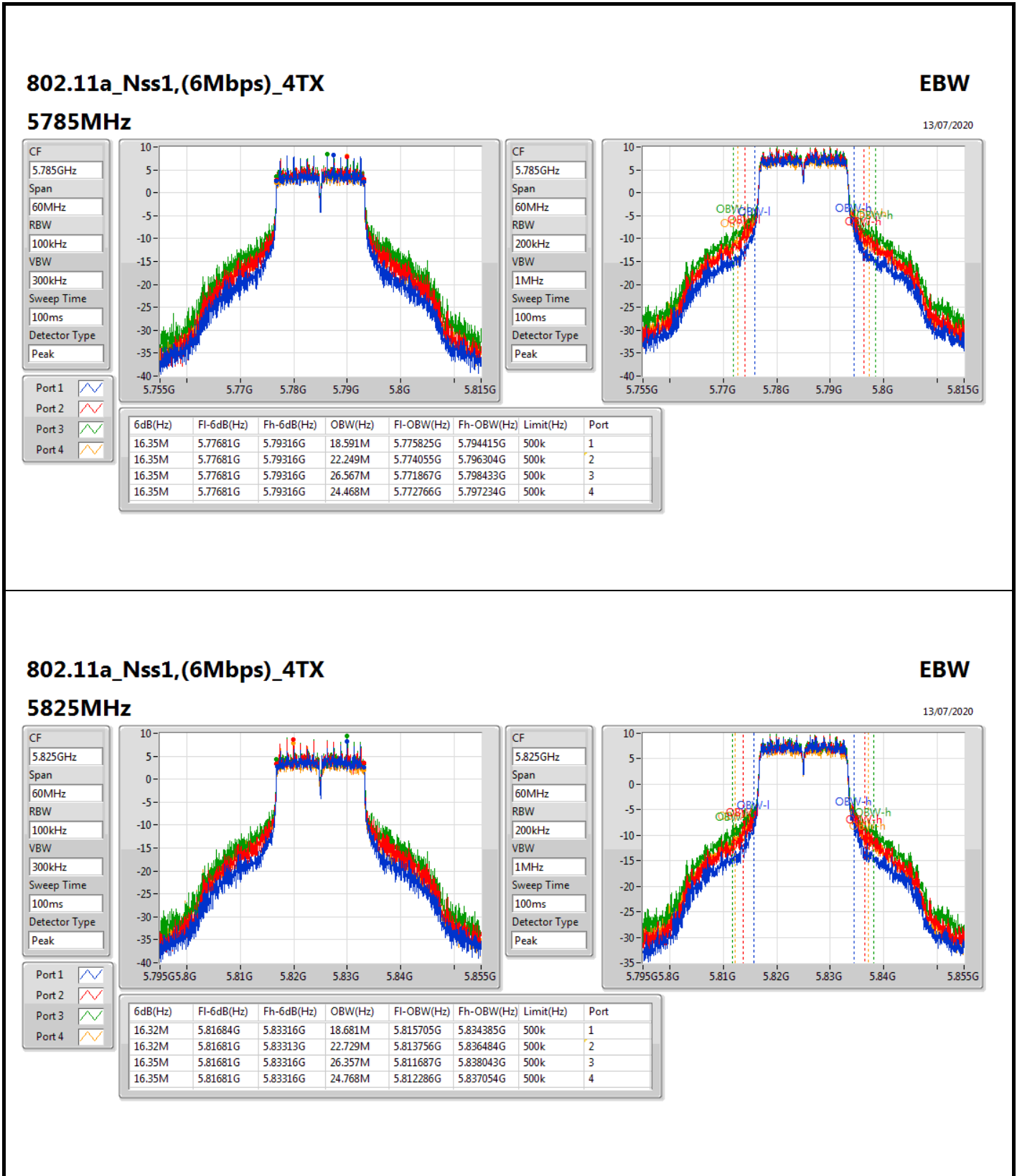
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



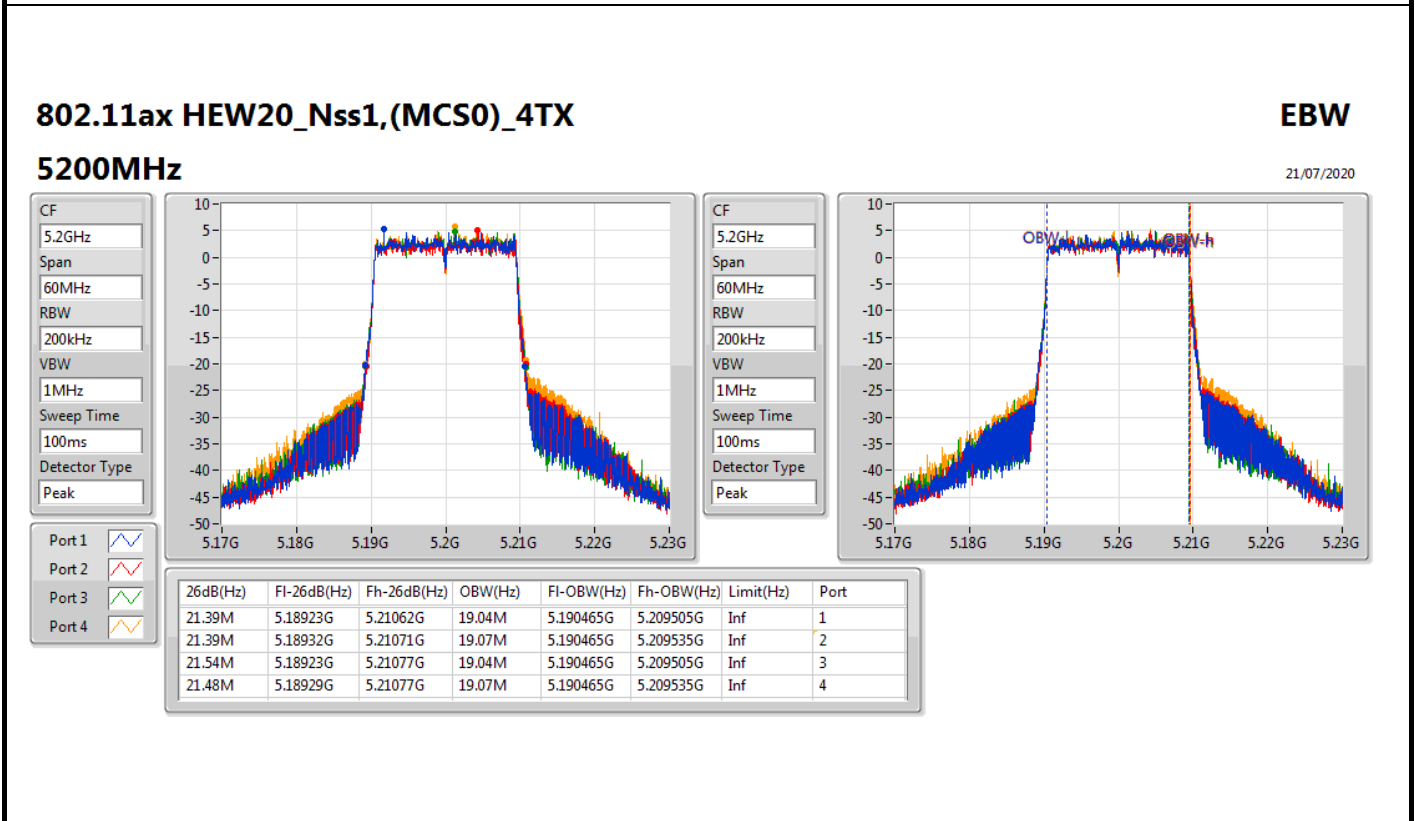
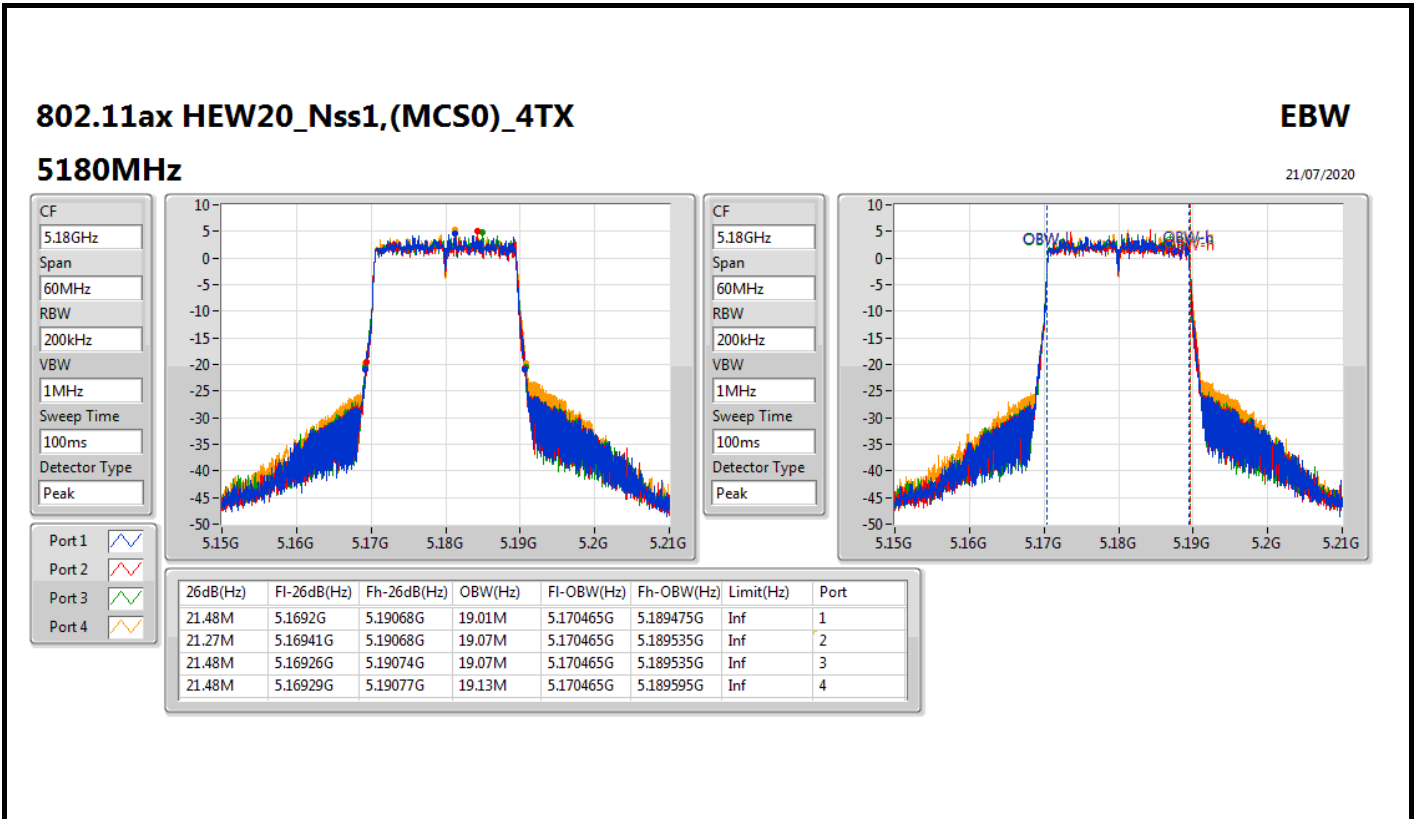
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



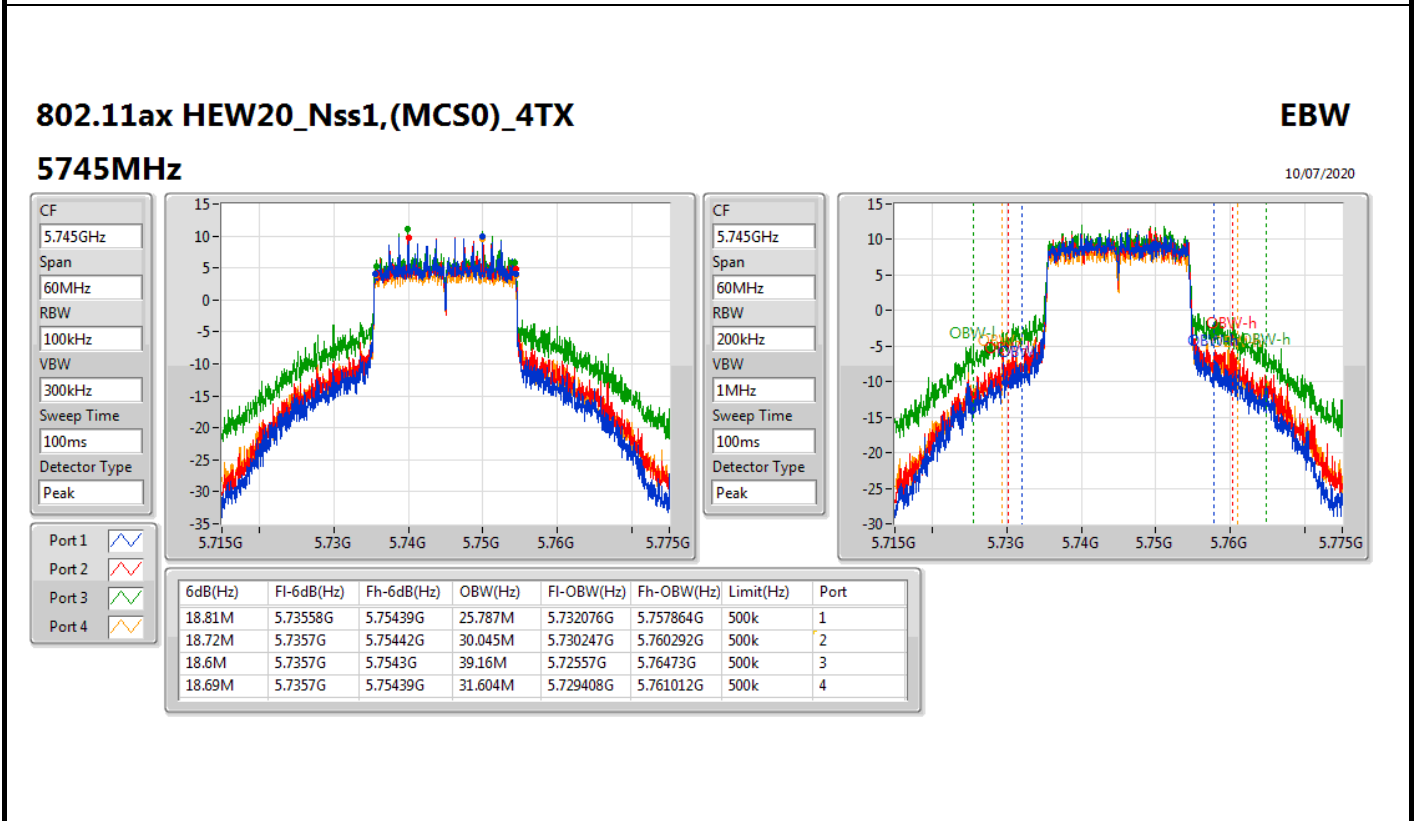
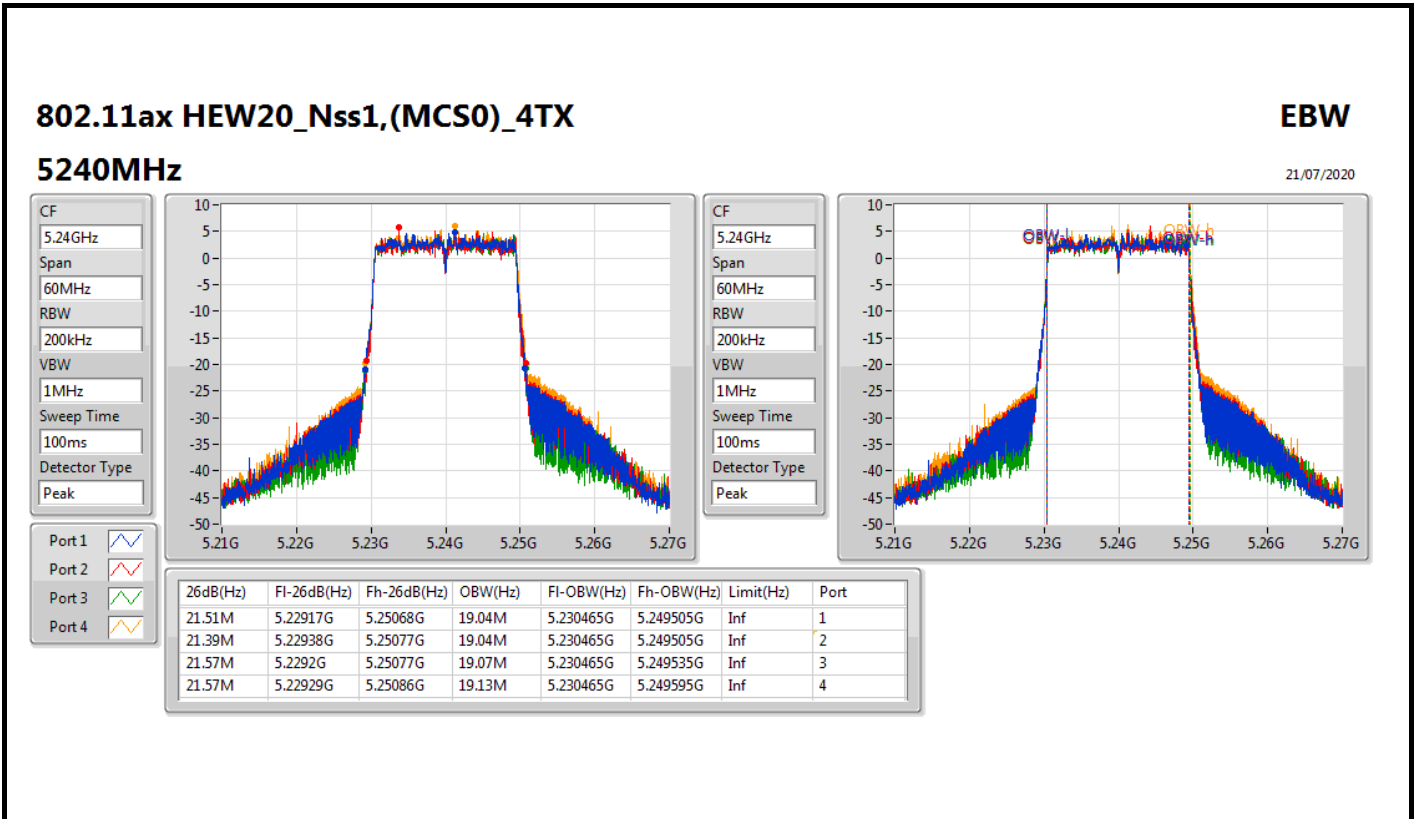
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



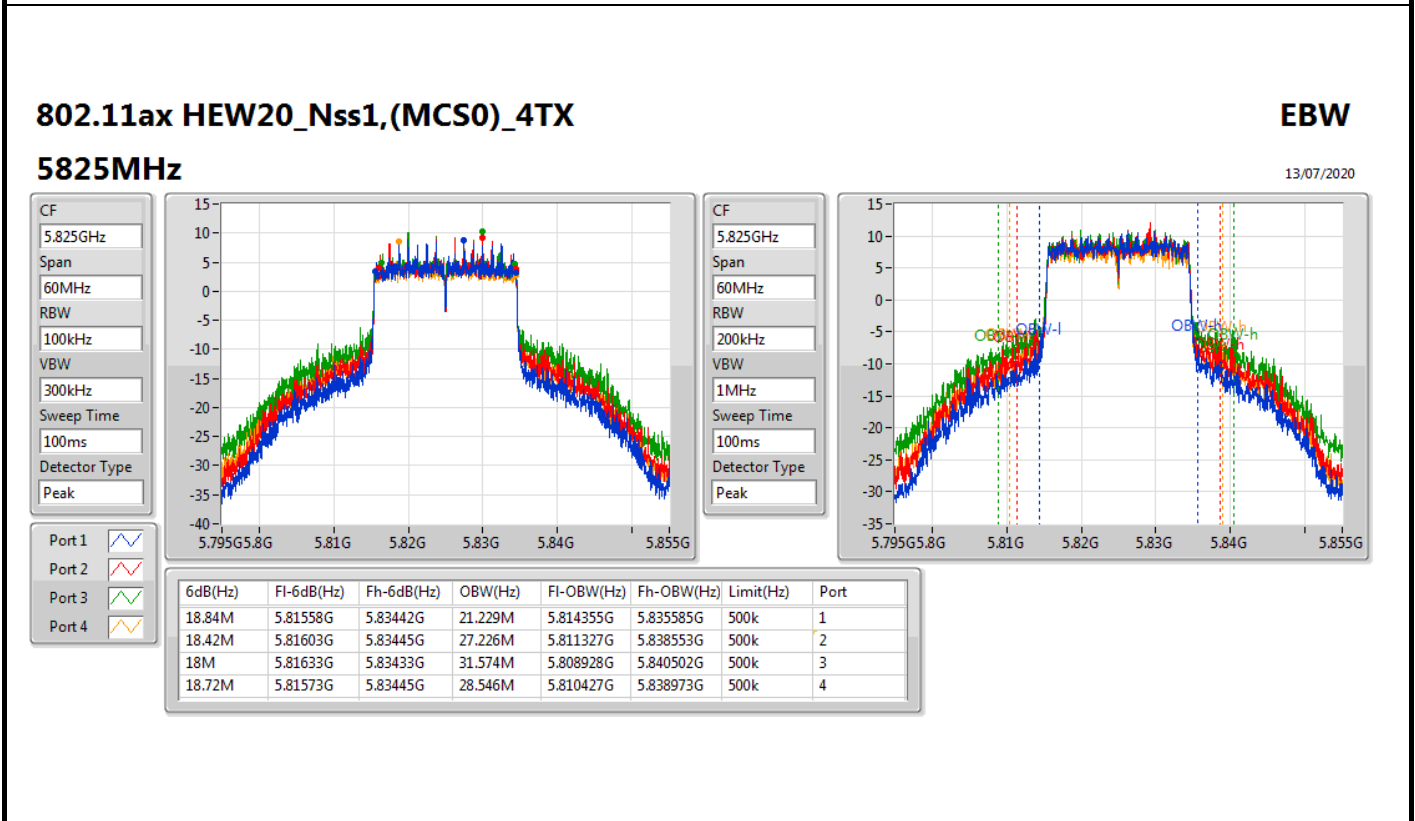
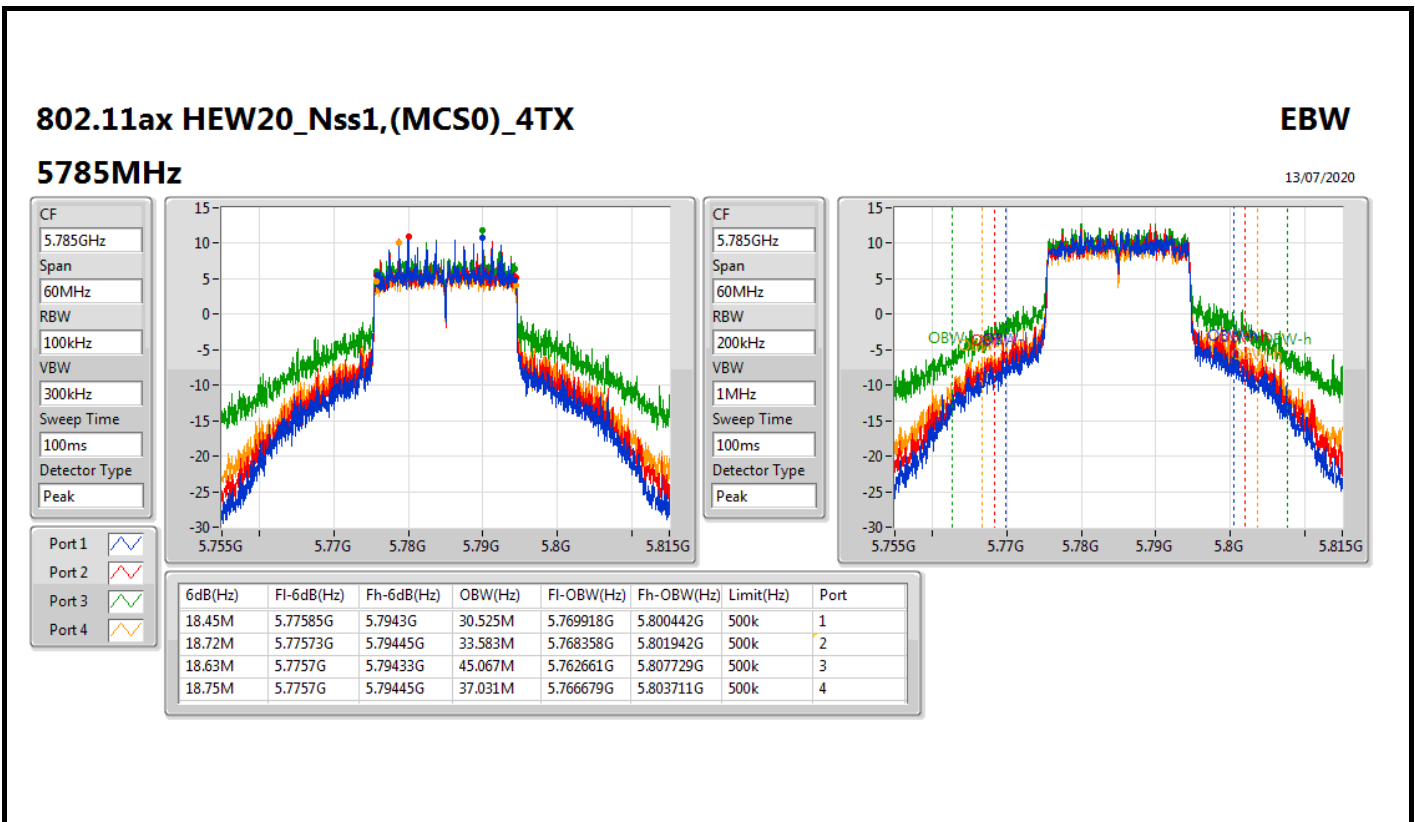
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



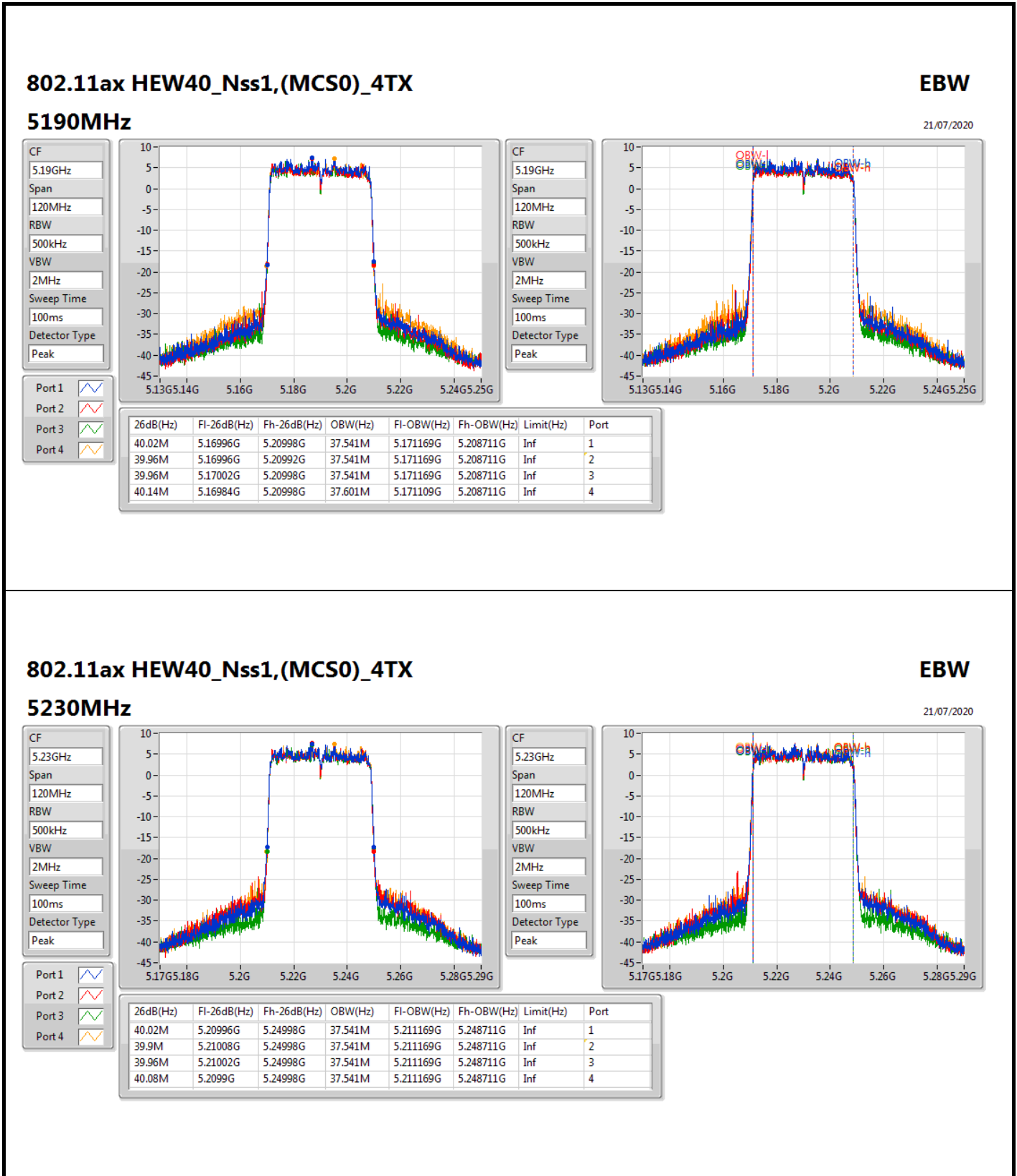
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



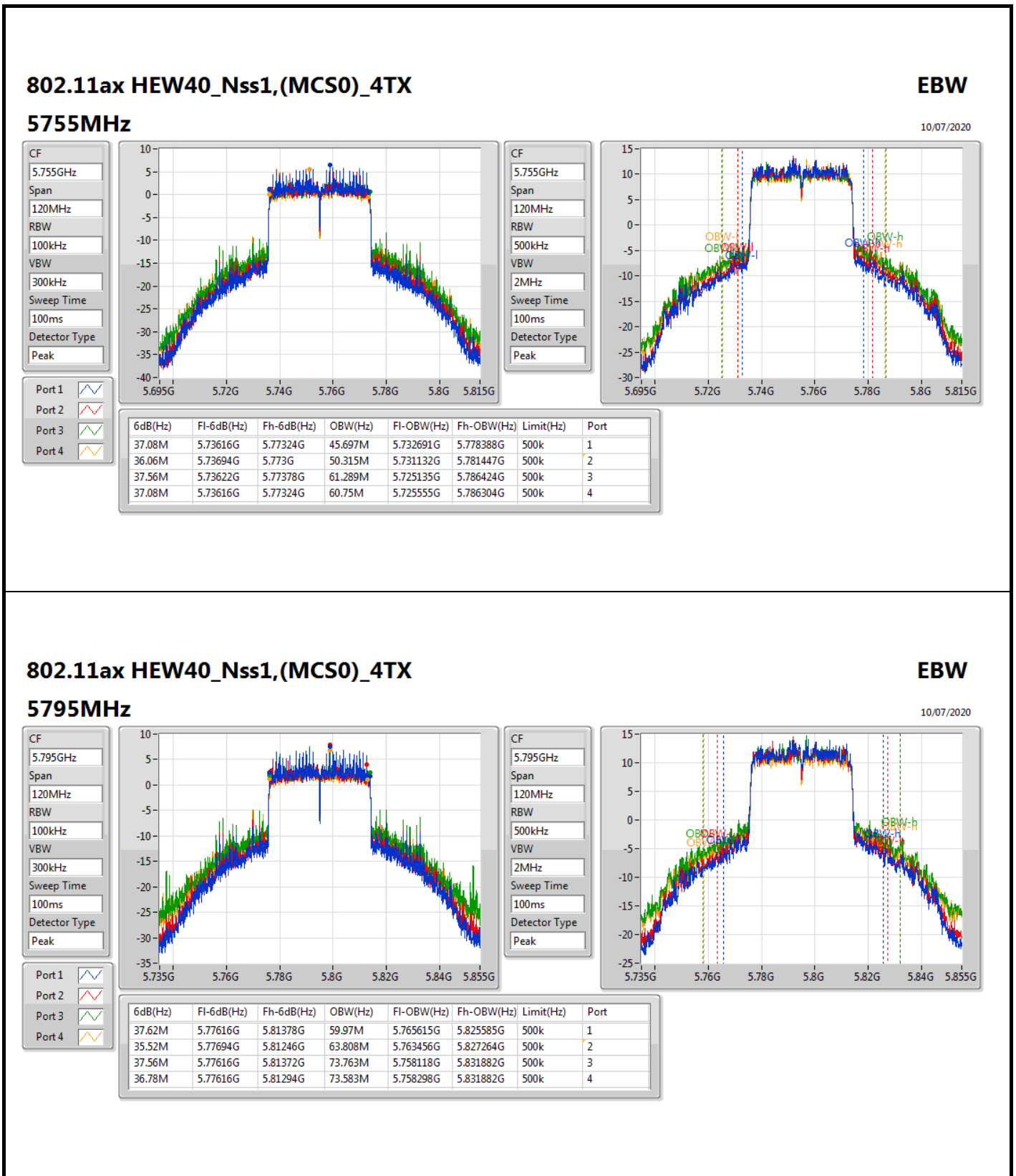
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



802.11ax HEW40_Nss1,(MCS0)_4TX

5795MHz

10/07/2020

CF: 5.795GHz

Span: 120MHz

RBW: 100kHz

VBW: 300kHz

Sweep Time: 100ms

Detector Type: Peak

Port 1:

Port 2:

Port 3:

Port 4:

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.62M	5.77616G	5.81378G	59.97M	5.765615G	5.825985G	500k	1
35.52M	5.77694G	5.81246G	63.808M	5.763456G	5.827264G	500k	2
37.56M	5.77616G	5.81372G	73.763M	5.758118G	5.831882G	500k	3
36.78M	5.77616G	5.81294G	73.583M	5.758298G	5.831882G	500k	4

CF: 5.795GHz

Span: 120MHz

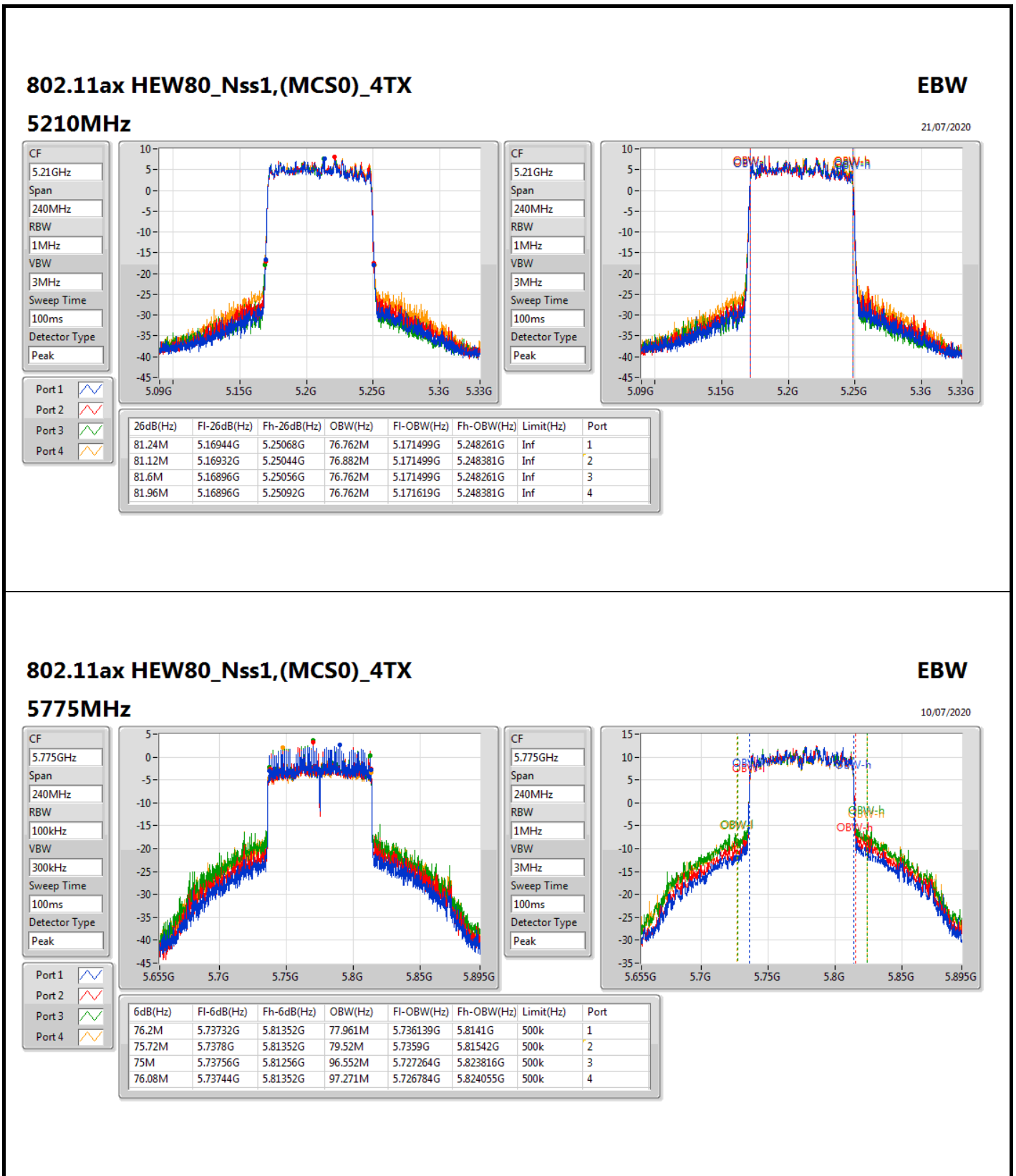
RBW: 500kHz

VBW: 2MHz

Sweep Time: 100ms

Detector Type: Peak

For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



**For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	24.27M	16.912M	16M9D1D	21.18M	16.792M
802.11ax HEW20_Nss1,(MCS0)_2TX	26.31M	19.16M	19M2D1D	21.39M	19.04M
802.11ax HEW40_Nss1,(MCS0)_2TX	59.94M	37.781M	37M8D1D	39.84M	37.541M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.36M	76.882M	76M9D1D	81.24M	76.762M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.41M	35.892M	35M9D1D	16.29M	34.063M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.84M	38.531M	38M5D1D	18.51M	36.282M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.56M	70.885M	70M9D1D	36.78M	52.654M
802.11ax HEW80_Nss1,(MCS0)_2TX	76.08M	86.357M	86M4D1D	75.12M	77.481M

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;

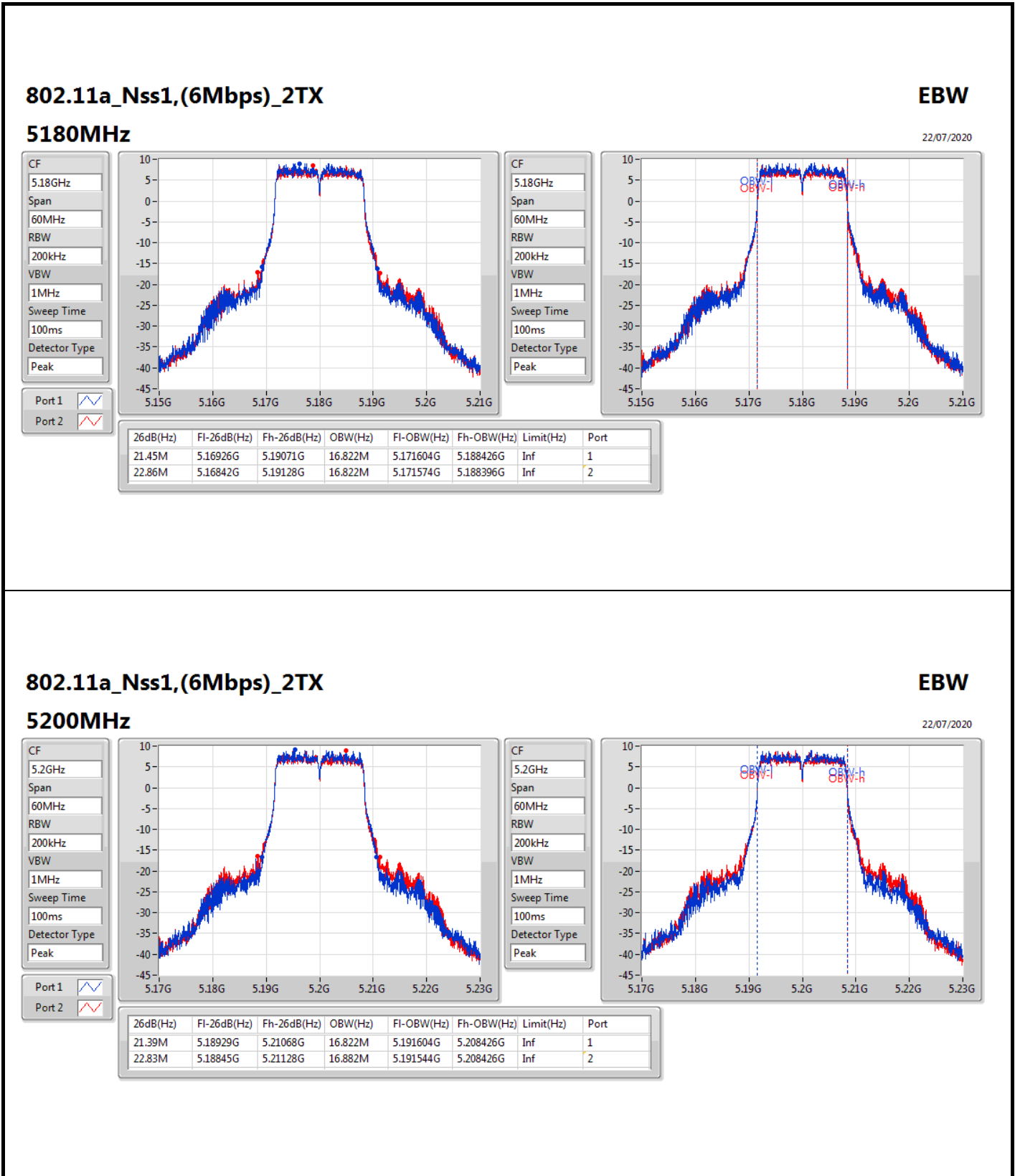
Min-OBW = Minimum 99% occupied bandwidth;

**For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode
Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.45M	16.822M	22.86M	16.822M
5200MHz	Pass	Inf	21.39M	16.822M	22.83M	16.882M
5240MHz	Pass	Inf	21.18M	16.792M	24.27M	16.912M
5745MHz	Pass	500k	16.35M	35.412M	16.35M	34.273M
5785MHz	Pass	500k	16.32M	35.742M	16.41M	34.123M
5825MHz	Pass	500k	16.35M	35.892M	16.29M	34.063M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.54M	19.04M	22.86M	19.1M
5200MHz	Pass	Inf	22.53M	19.04M	23.19M	19.13M
5240MHz	Pass	Inf	21.39M	19.04M	26.31M	19.16M
5745MHz	Pass	500k	18.63M	37.961M	18.54M	36.732M
5785MHz	Pass	500k	18.51M	38.411M	18.66M	37.361M
5825MHz	Pass	500k	18.54M	38.531M	18.84M	36.282M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.14M	37.541M	39.84M	37.601M
5230MHz	Pass	Inf	40.14M	37.601M	59.94M	37.781M
5755MHz	Pass	500k	37.56M	60.69M	36.78M	52.654M
5795MHz	Pass	500k	37.56M	70.885M	37.5M	64.348M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.36M	76.762M	81.24M	76.882M
5775MHz	Pass	500k	76.08M	86.357M	75.12M	77.481M

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

For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



802.11a_Nss1,(6Mbps)_2TX

5200MHz

22/07/2020

EBW

CF: 5.2GHz

Span: 60MHz

RBW: 200kHz

VBW: 1MHz

Sweep Time: 100ms

Detector Type: Peak

Port 1:

Port 2:

CF: 5.2GHz

Span: 60MHz

RBW: 200kHz

VBW: 1MHz

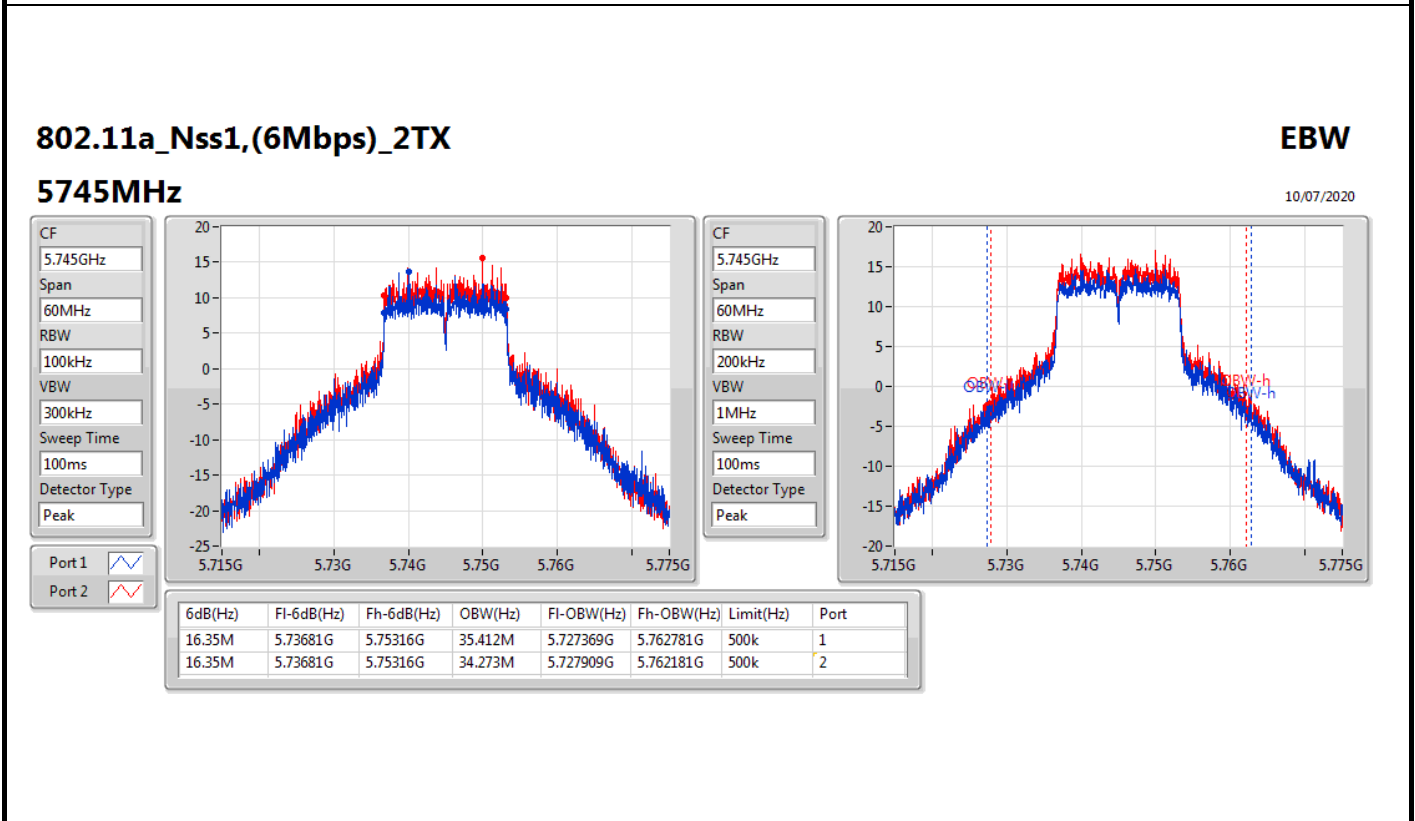
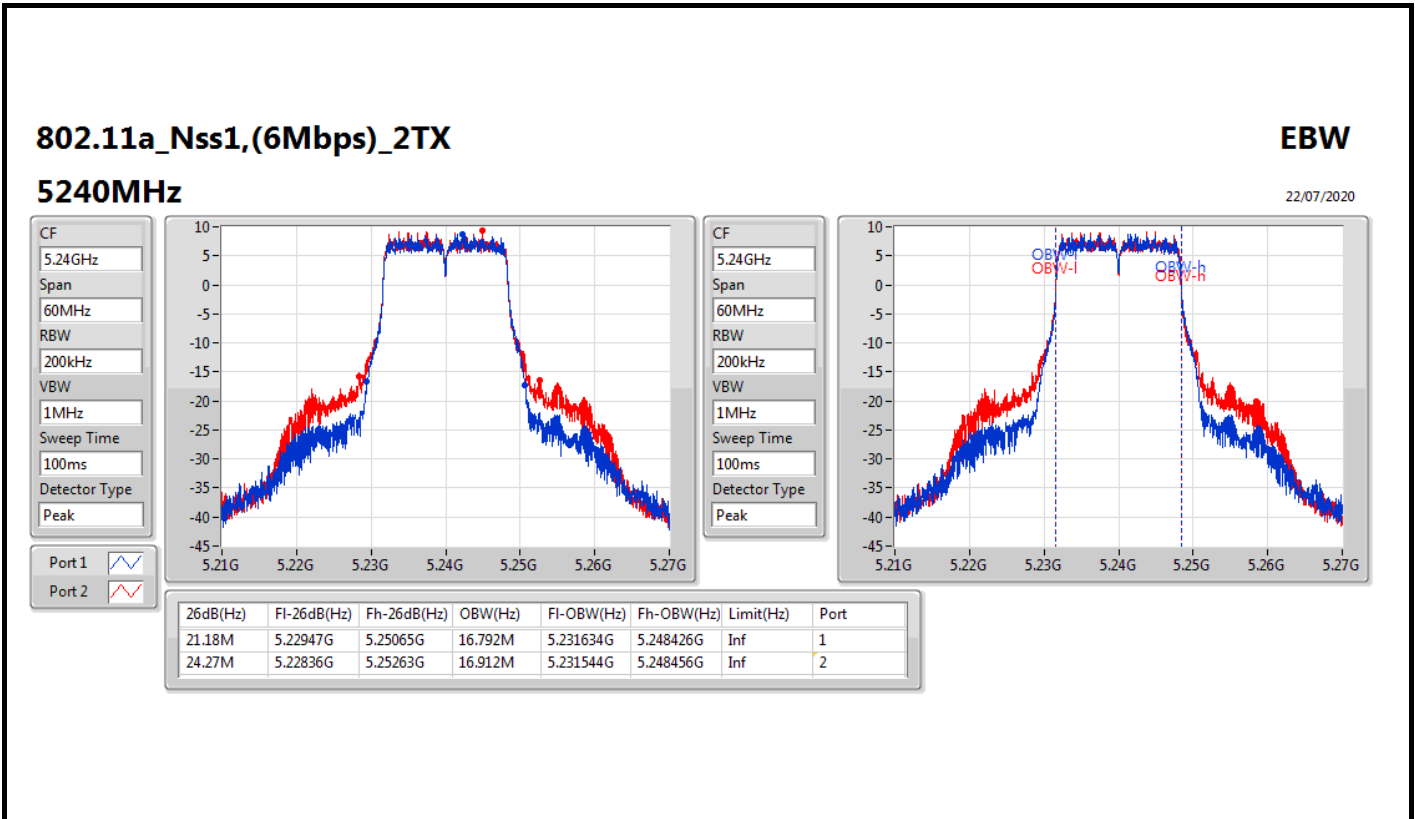
Sweep Time: 100ms

Detector Type: Peak

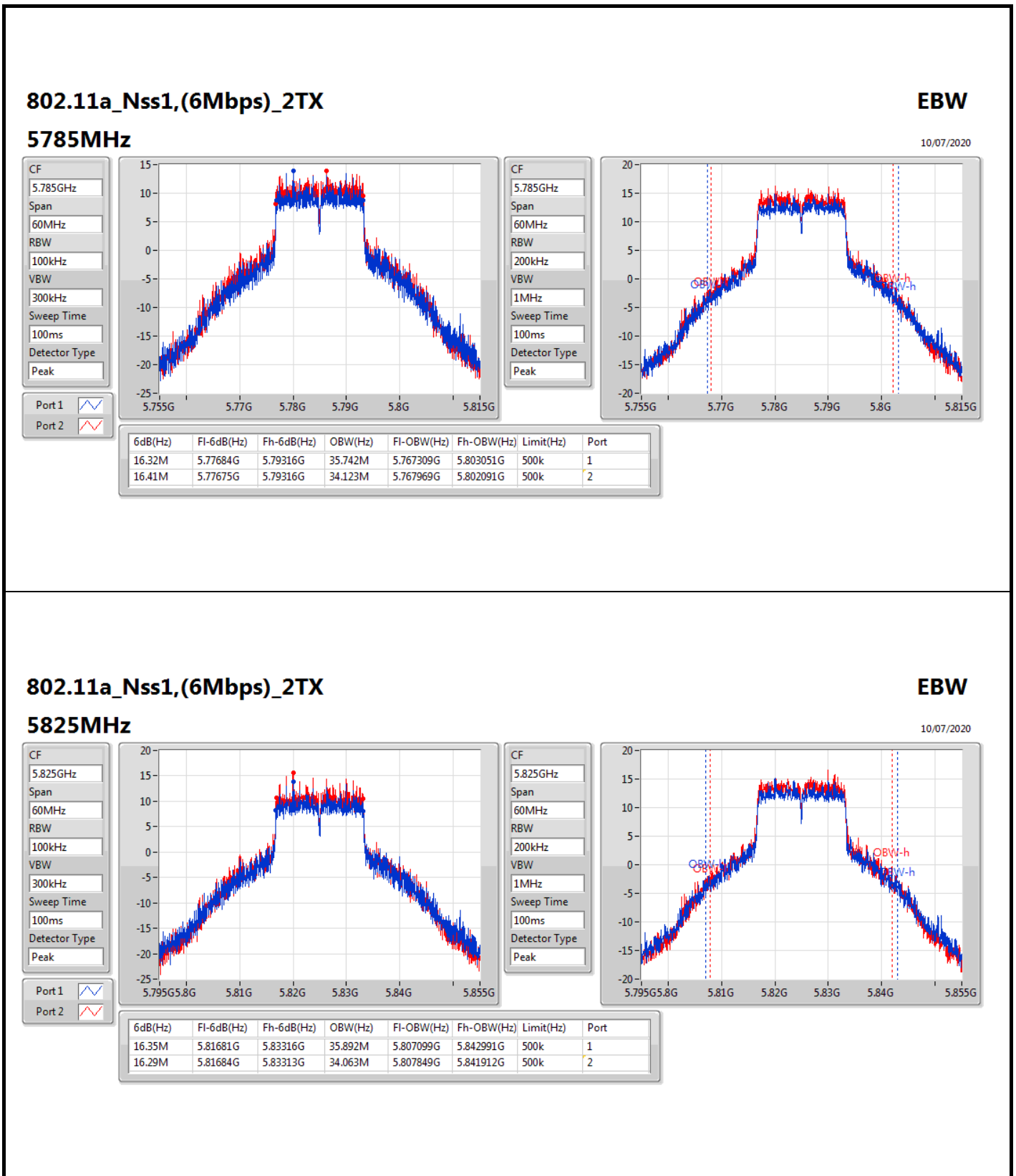
Port 1:

Port 2:

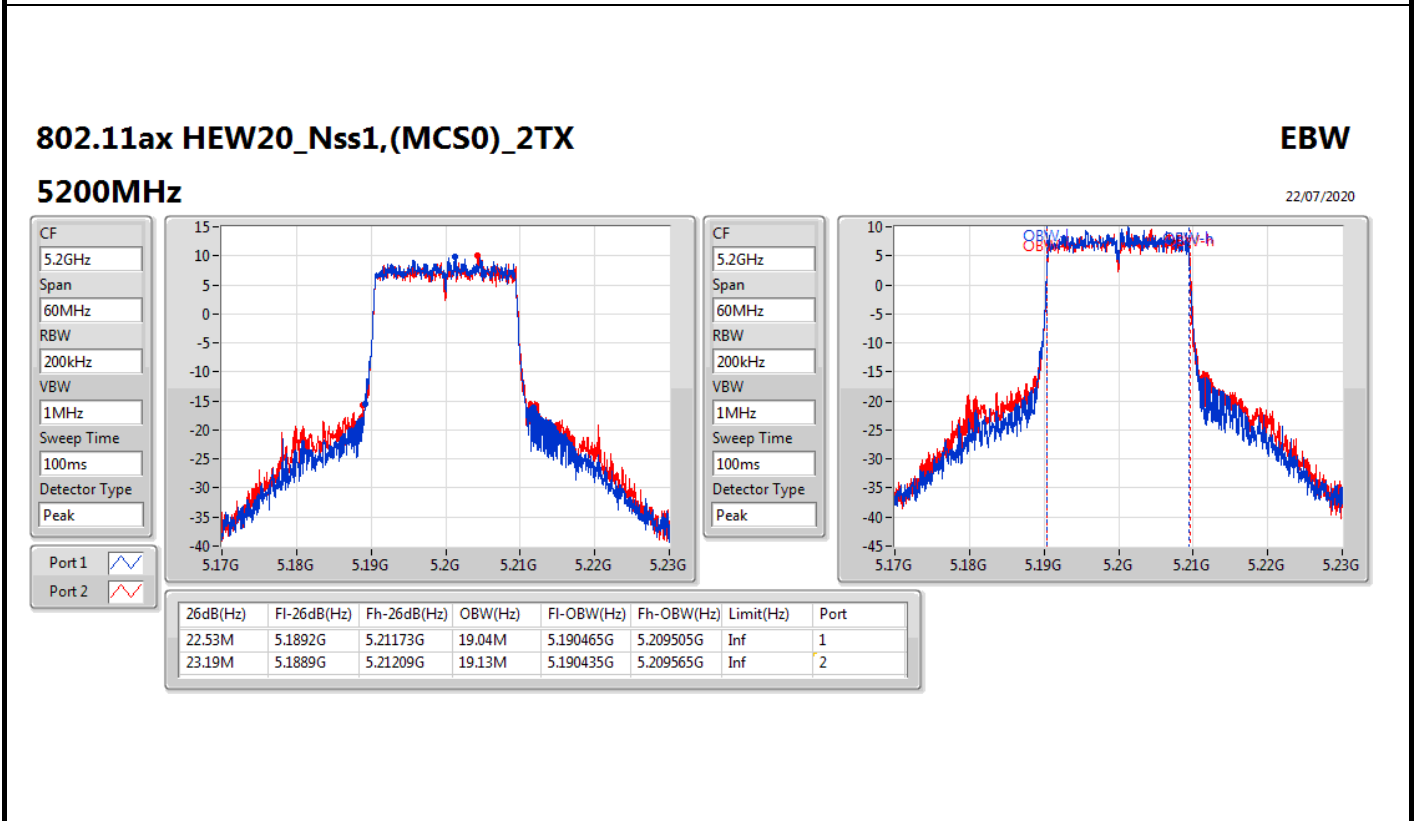
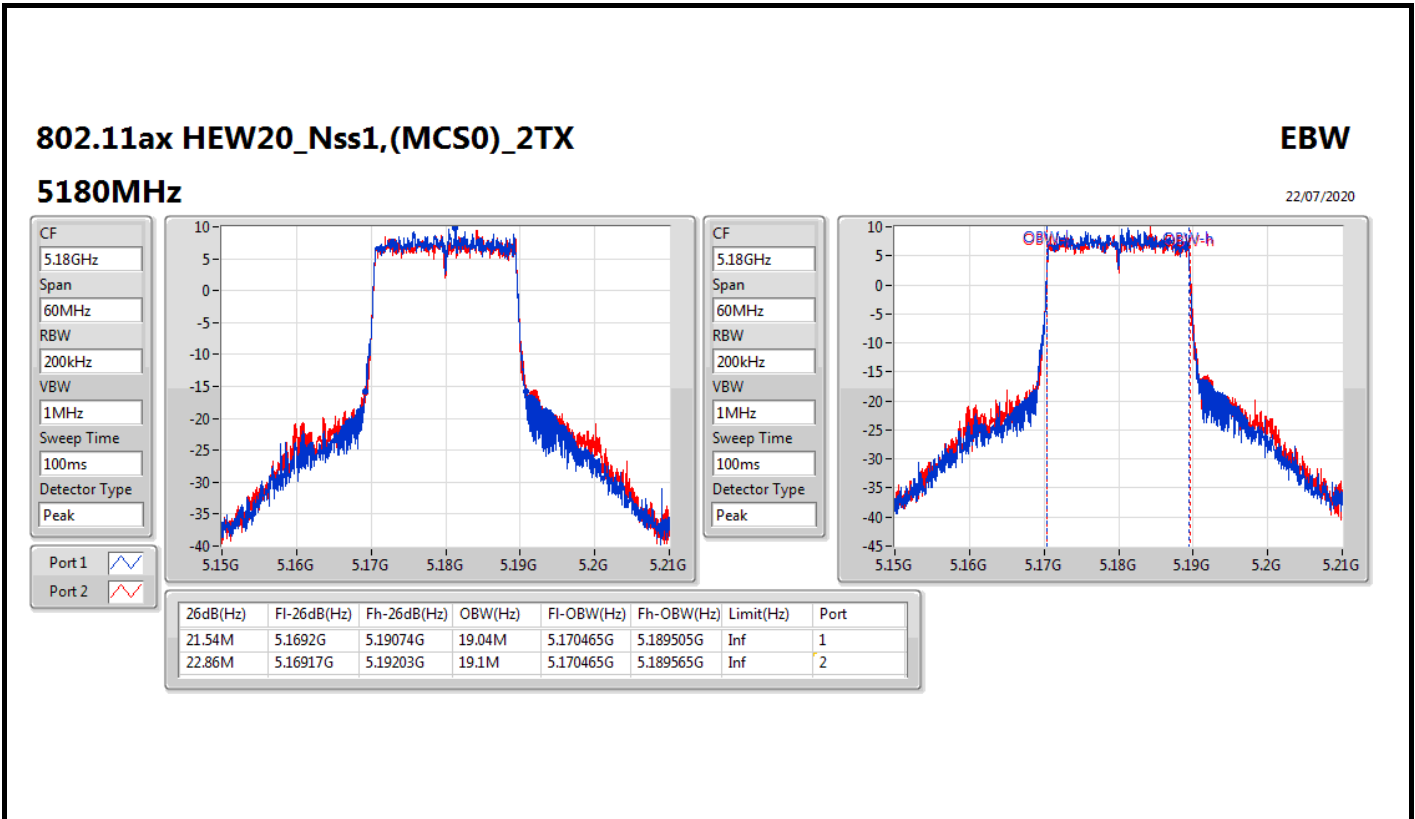
For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



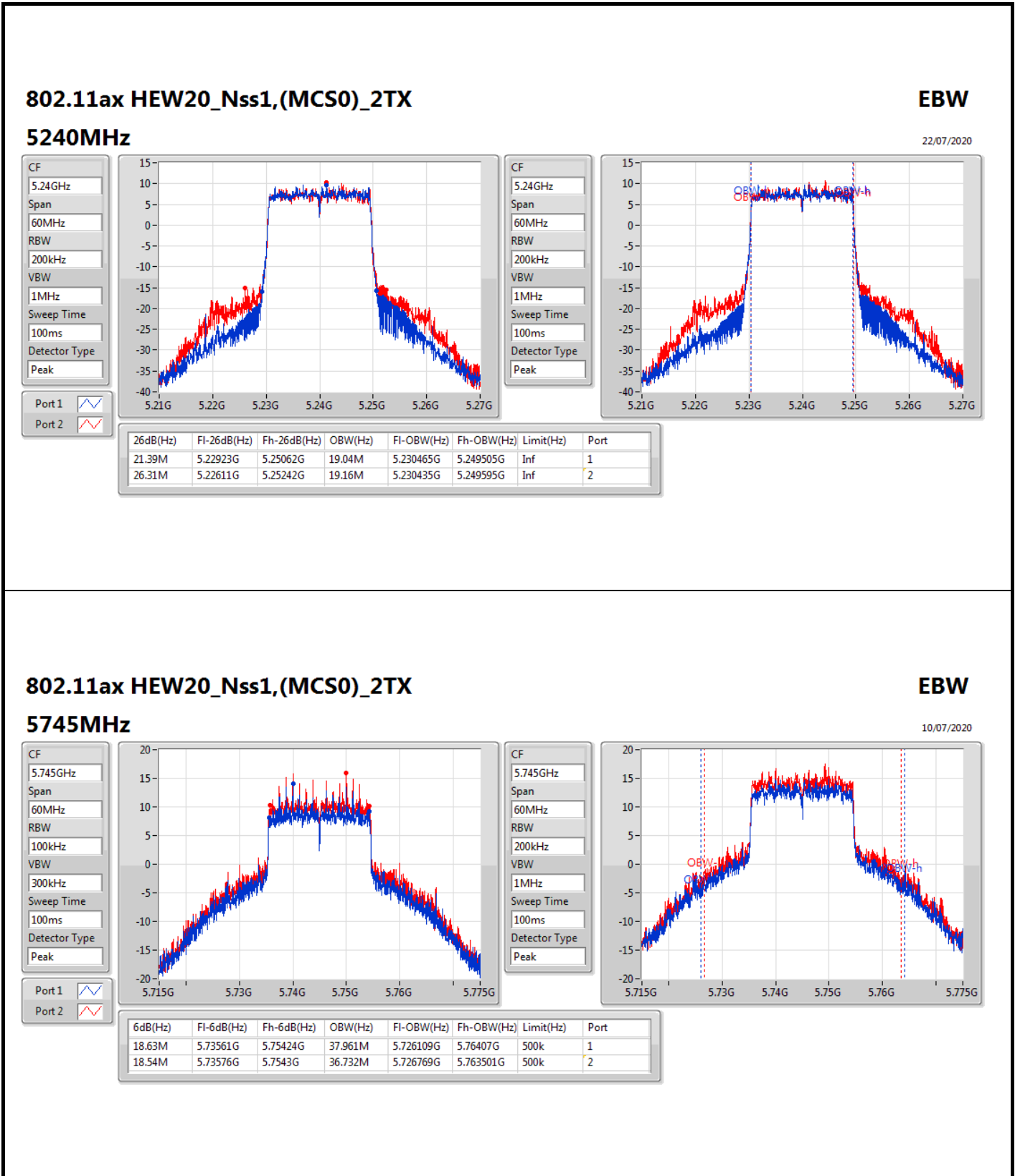
For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



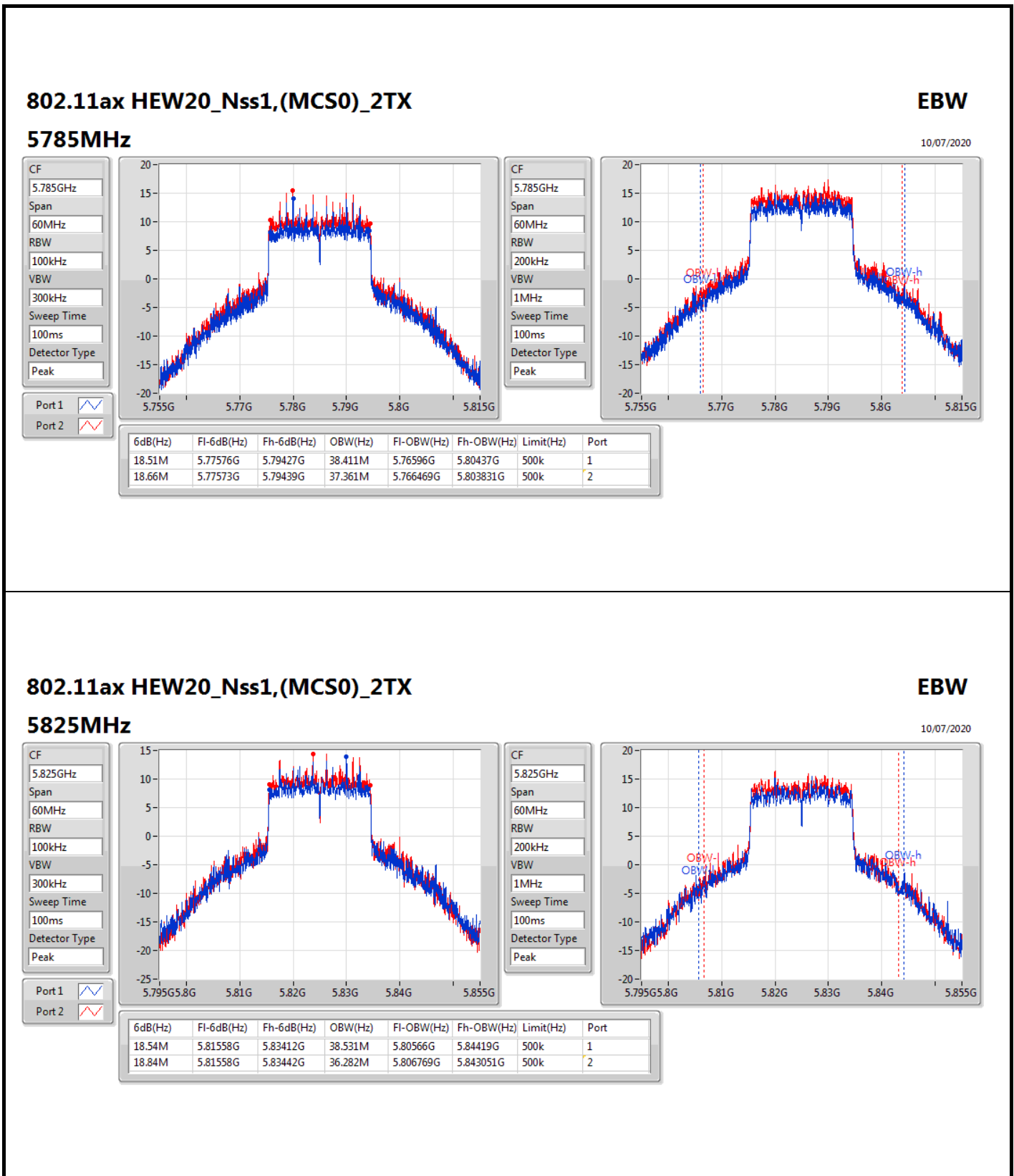
For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



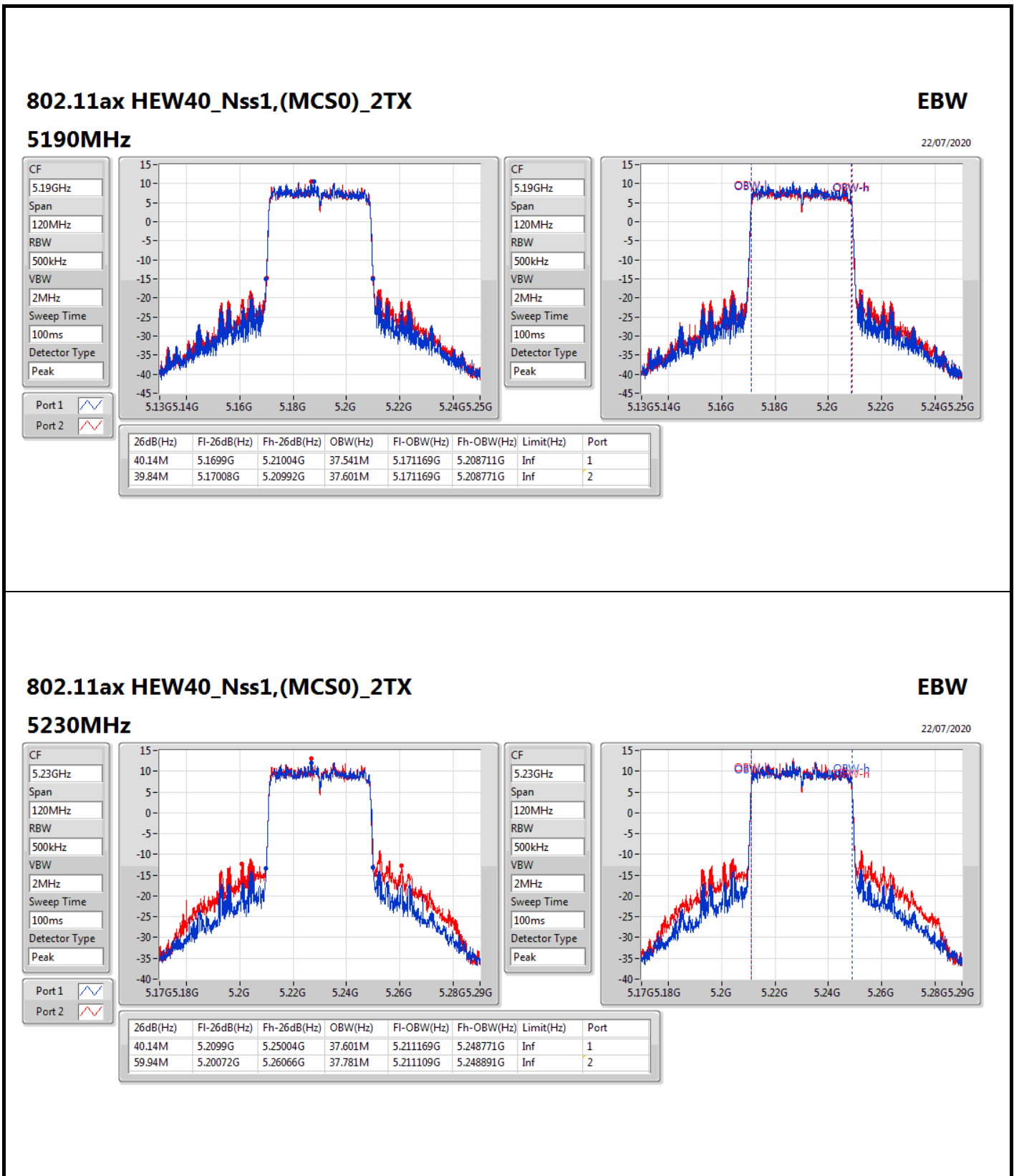
For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



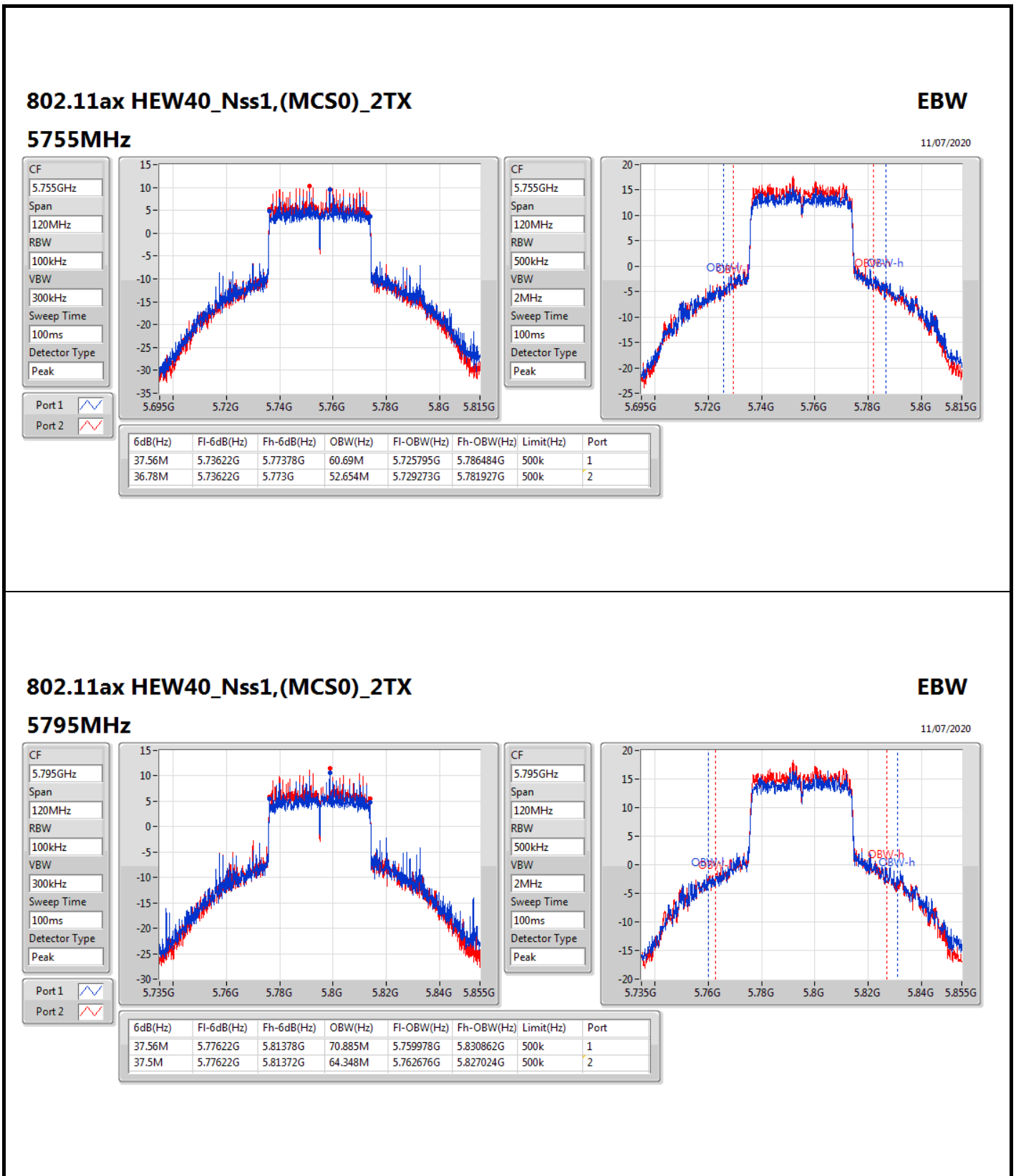
For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



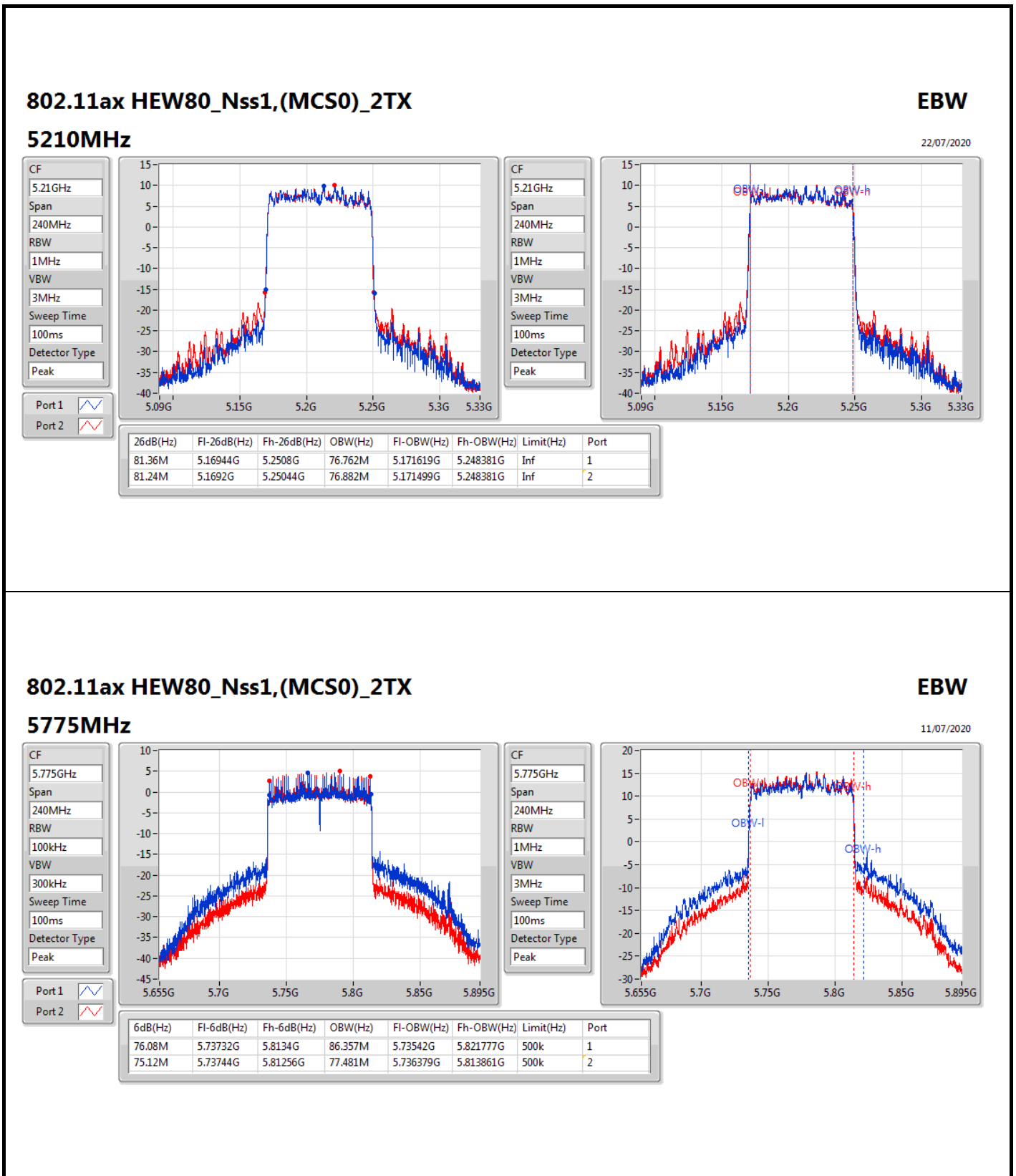
For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



**For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.45M	16.822M	16M8D1D	21.06M	16.672M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.6M	19.13M	19M1D1D	21.3M	19.01M
802.11ax HEW40_Nss1,(MCS0)_4TX	40.14M	37.541M	37M5D1D	39.78M	37.481M
802.11ax HEW80_Nss1,(MCS0)_4TX	81.72M	76.882M	76M9D1D	81.36M	76.642M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.5M	29.145M	29M1D1D	16.29M	18.291M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.9M	30.195M	30M2D1D	18.48M	19.82M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.62M	56.552M	56M6D1D	36.24M	38.861M
802.11ax HEW80_Nss1,(MCS0)_4TX	76.08M	77.601M	77M6D1D	75.12M	77.001M

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;

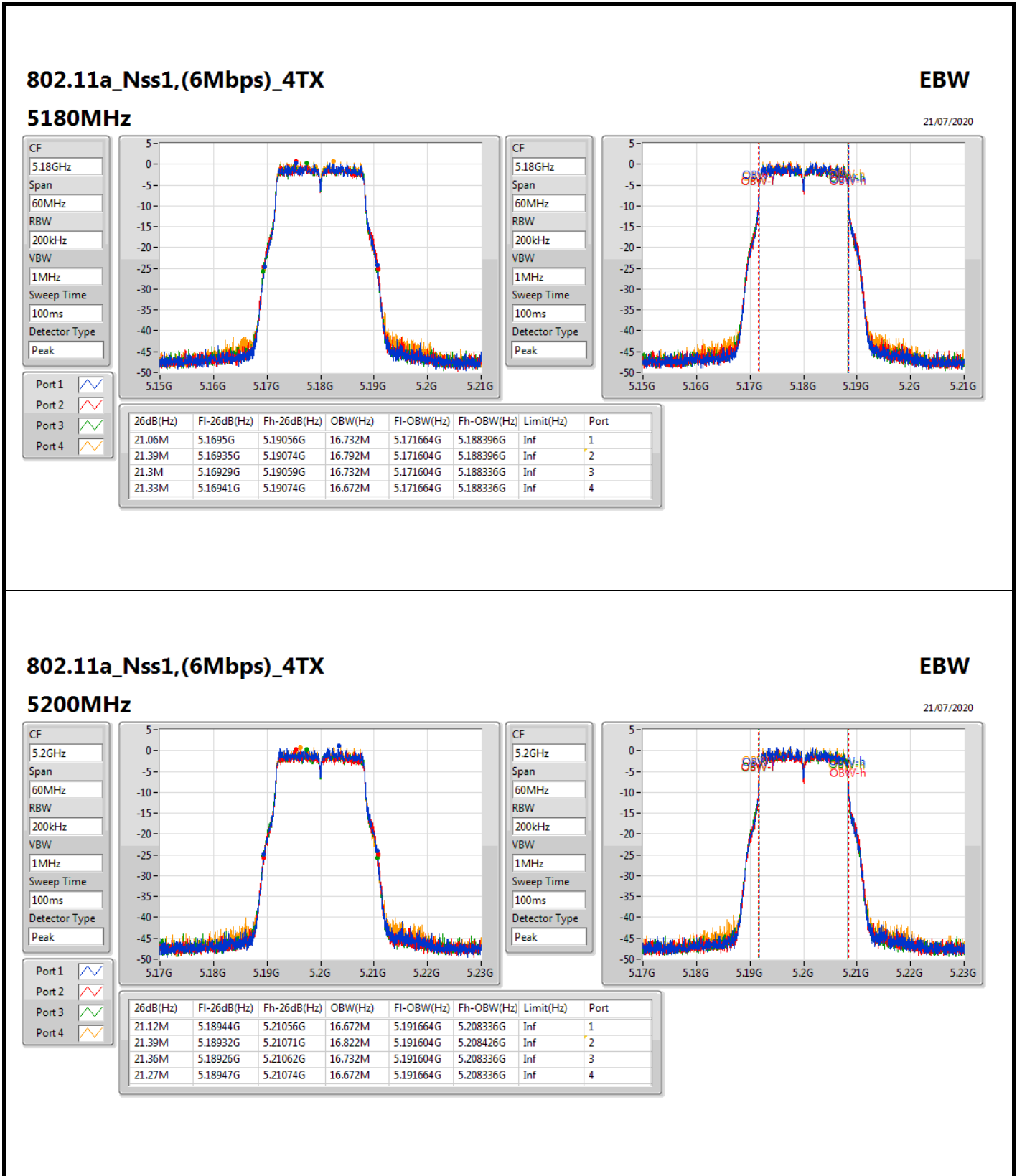
Min-OBW = Minimum 99% occupied bandwidth;

**For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode
Result**

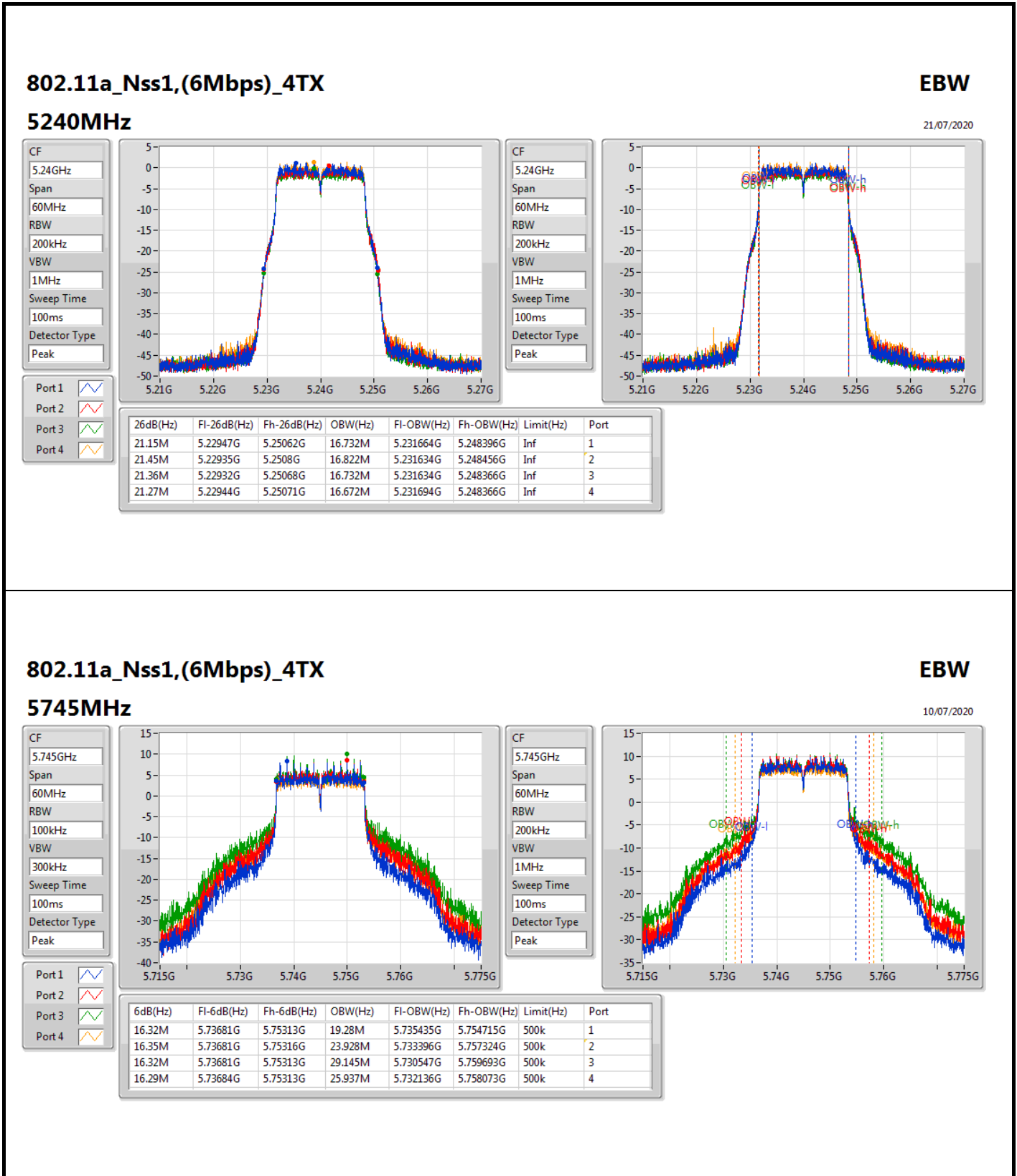
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.06M	16.732M	21.39M	16.792M	21.3M	16.732M	21.33M	16.672M
5200MHz	Pass	Inf	21.12M	16.672M	21.39M	16.822M	21.36M	16.732M	21.27M	16.672M
5240MHz	Pass	Inf	21.15M	16.732M	21.45M	16.822M	21.36M	16.732M	21.27M	16.672M
5745MHz	Pass	500k	16.32M	19.28M	16.35M	23.928M	16.32M	29.145M	16.29M	25.937M
5785MHz	Pass	500k	16.32M	18.291M	16.38M	21.469M	16.32M	25.997M	16.5M	24.228M
5825MHz	Pass	500k	16.38M	18.621M	16.29M	22.909M	16.29M	26.357M	16.32M	24.708M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.48M	19.04M	21.45M	19.04M	21.54M	19.07M	21.6M	19.13M
5200MHz	Pass	Inf	21.57M	19.04M	21.45M	19.01M	21.57M	19.07M	21.48M	19.07M
5240MHz	Pass	Inf	21.48M	19.01M	21.3M	19.07M	21.57M	19.07M	21.48M	19.1M
5745MHz	Pass	500k	18.75M	20.03M	18.72M	23.988M	18.48M	30.195M	18.72M	26.327M
5785MHz	Pass	500k	18.84M	19.82M	18.66M	23.628M	18.57M	29.415M	18.72M	26.537M
5825MHz	Pass	500k	18.9M	19.82M	18.72M	24.168M	18.57M	28.186M	18.72M	25.937M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.08M	37.541M	39.78M	37.541M	39.9M	37.481M	40.14M	37.541M
5230MHz	Pass	Inf	40.14M	37.541M	39.9M	37.541M	40.02M	37.541M	40.08M	37.541M
5755MHz	Pass	500k	37.56M	40.72M	36.24M	46.777M	37.56M	56.552M	36.84M	55.772M
5795MHz	Pass	500k	37.56M	38.861M	37.62M	42.459M	36.3M	50.495M	36.78M	52.954M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.36M	76.642M	81.36M	76.762M	81.48M	76.882M	81.72M	76.762M
5775MHz	Pass	500k	76.08M	77.001M	75.12M	77.241M	75.36M	77.601M	75.12M	77.601M

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;

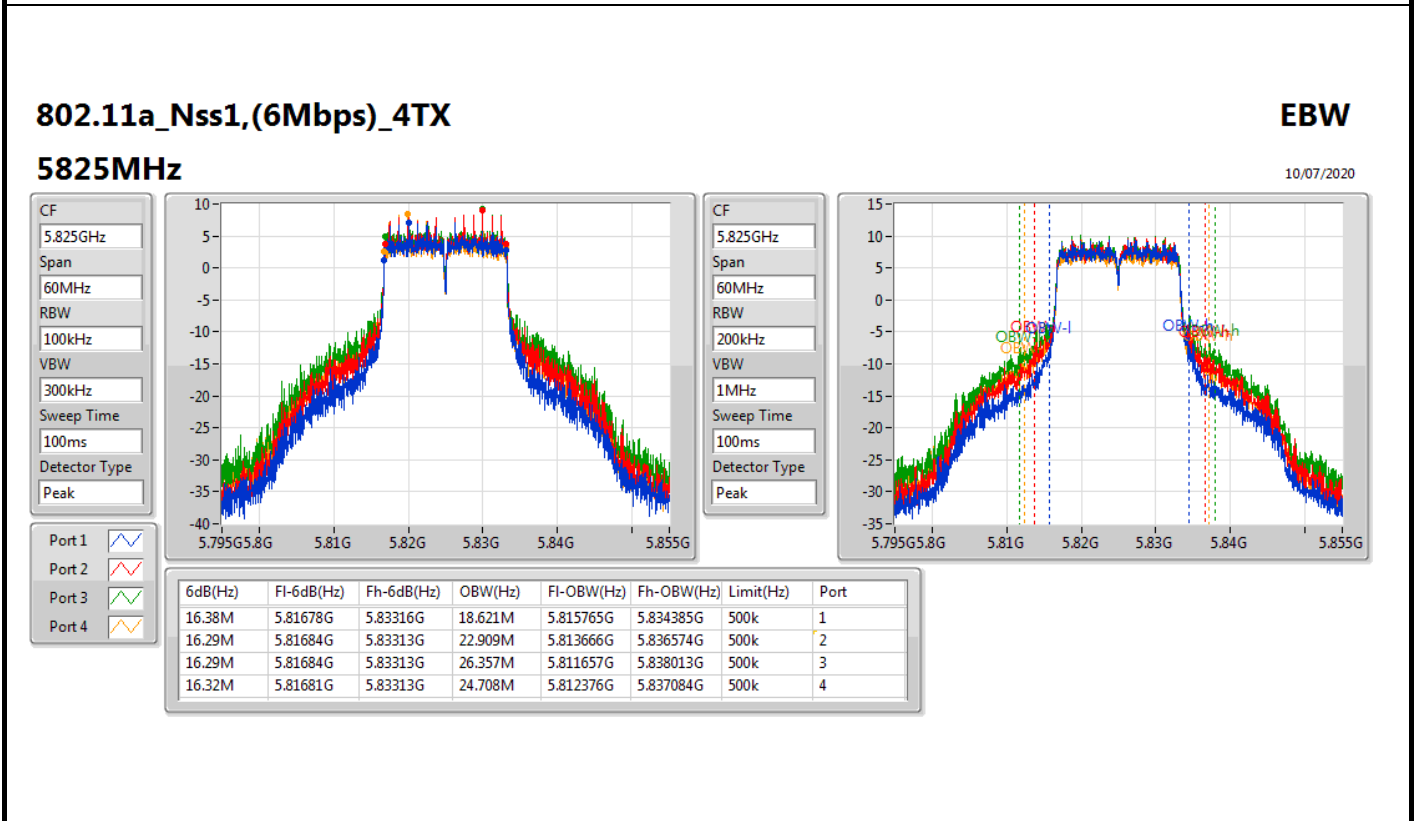
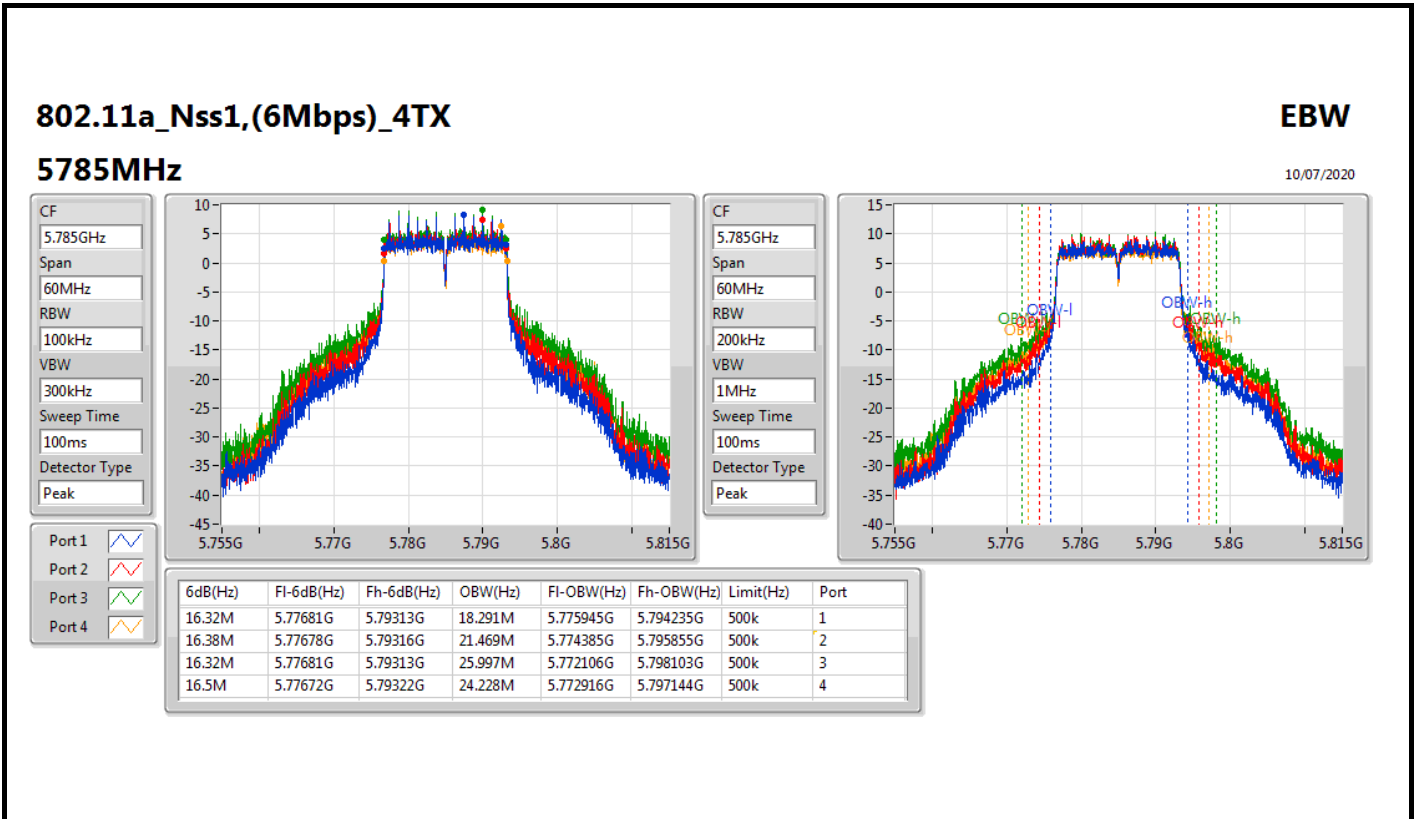
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



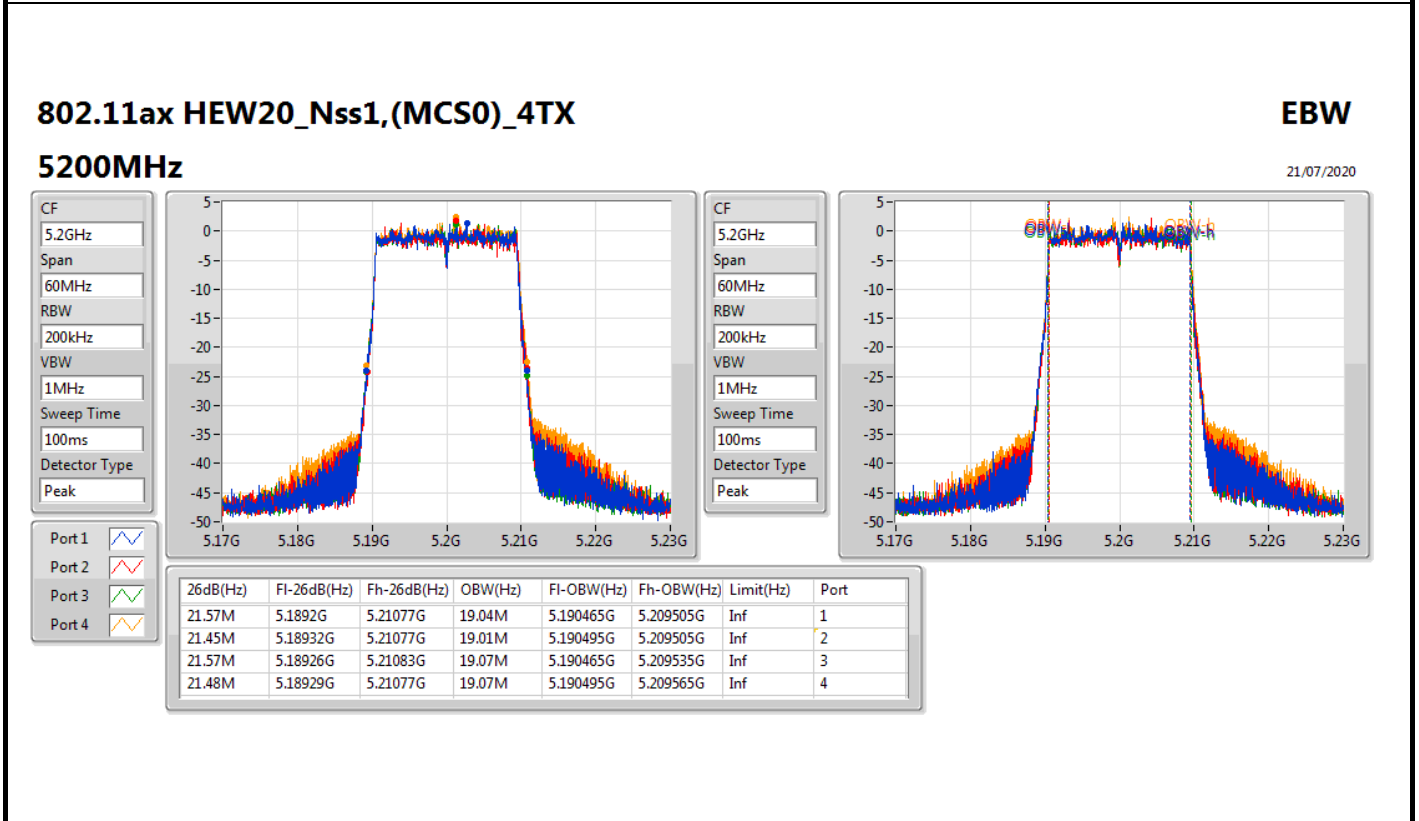
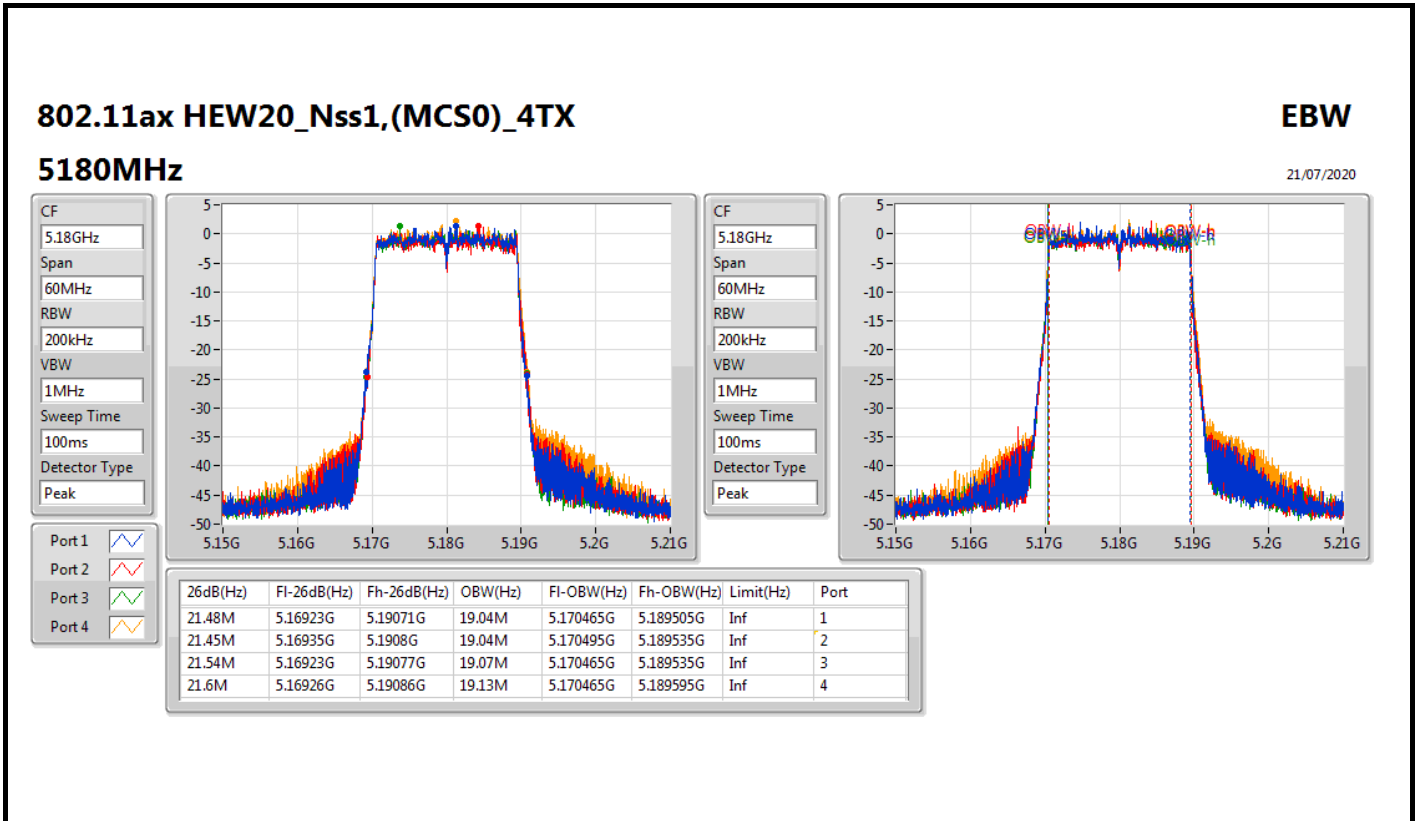
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



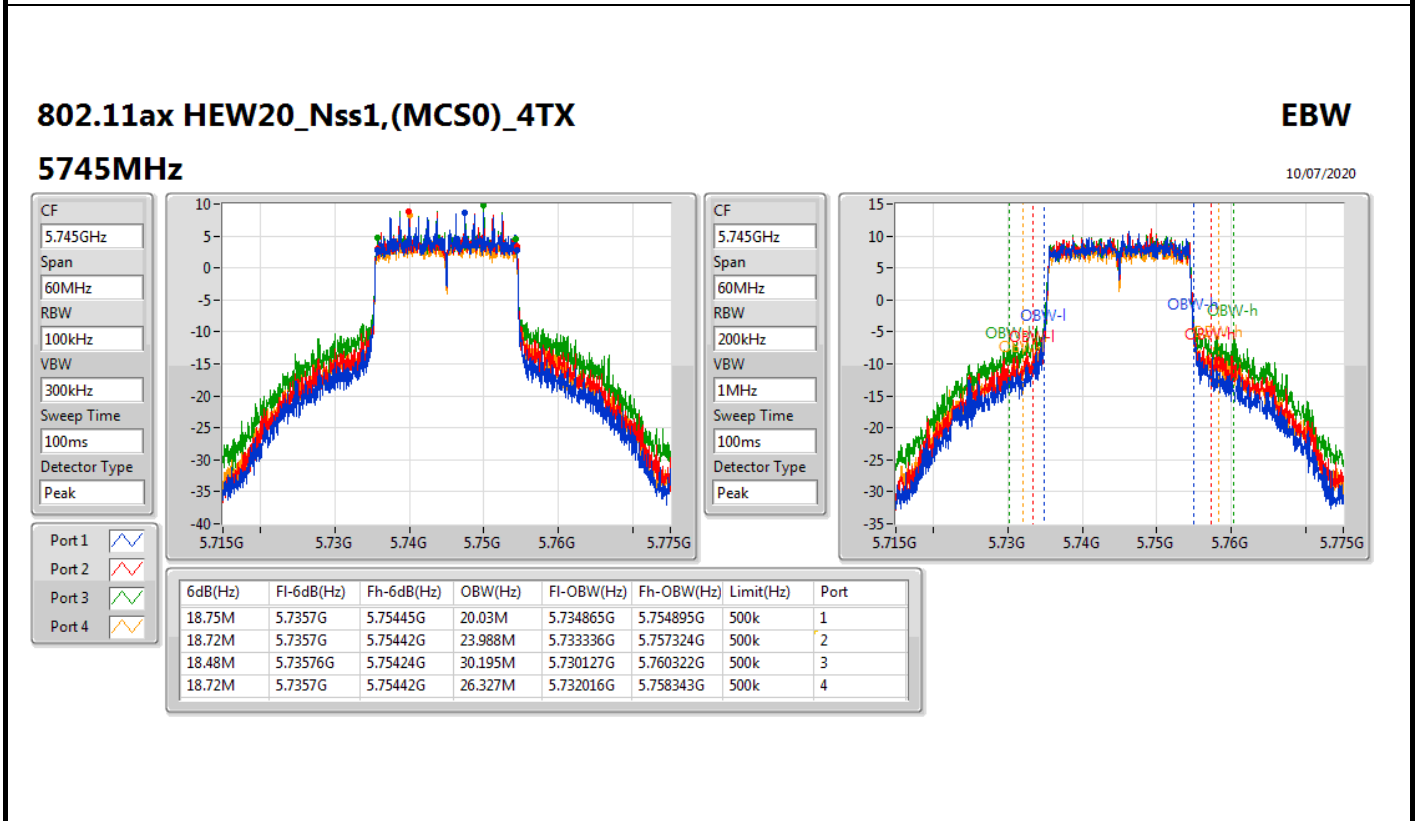
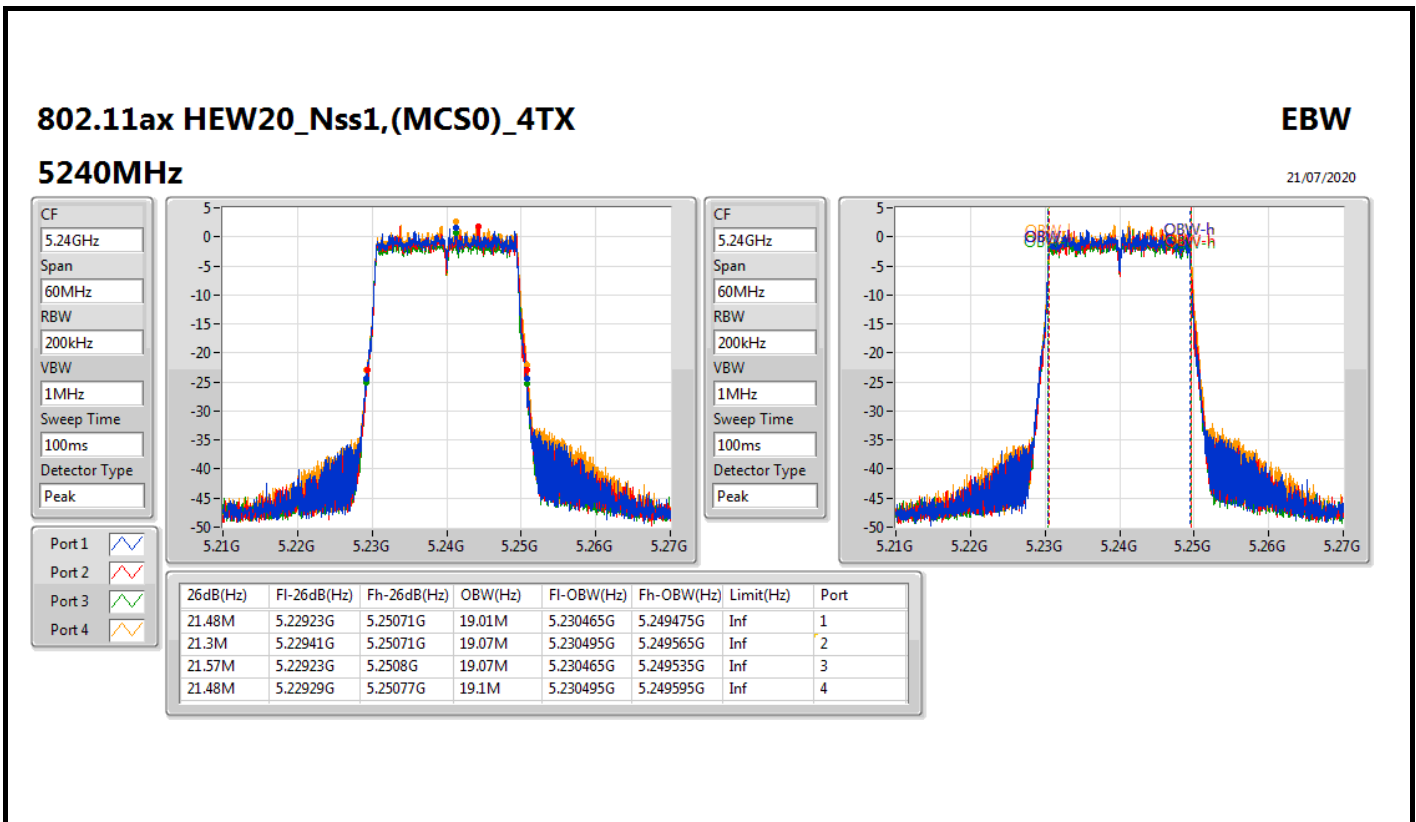
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



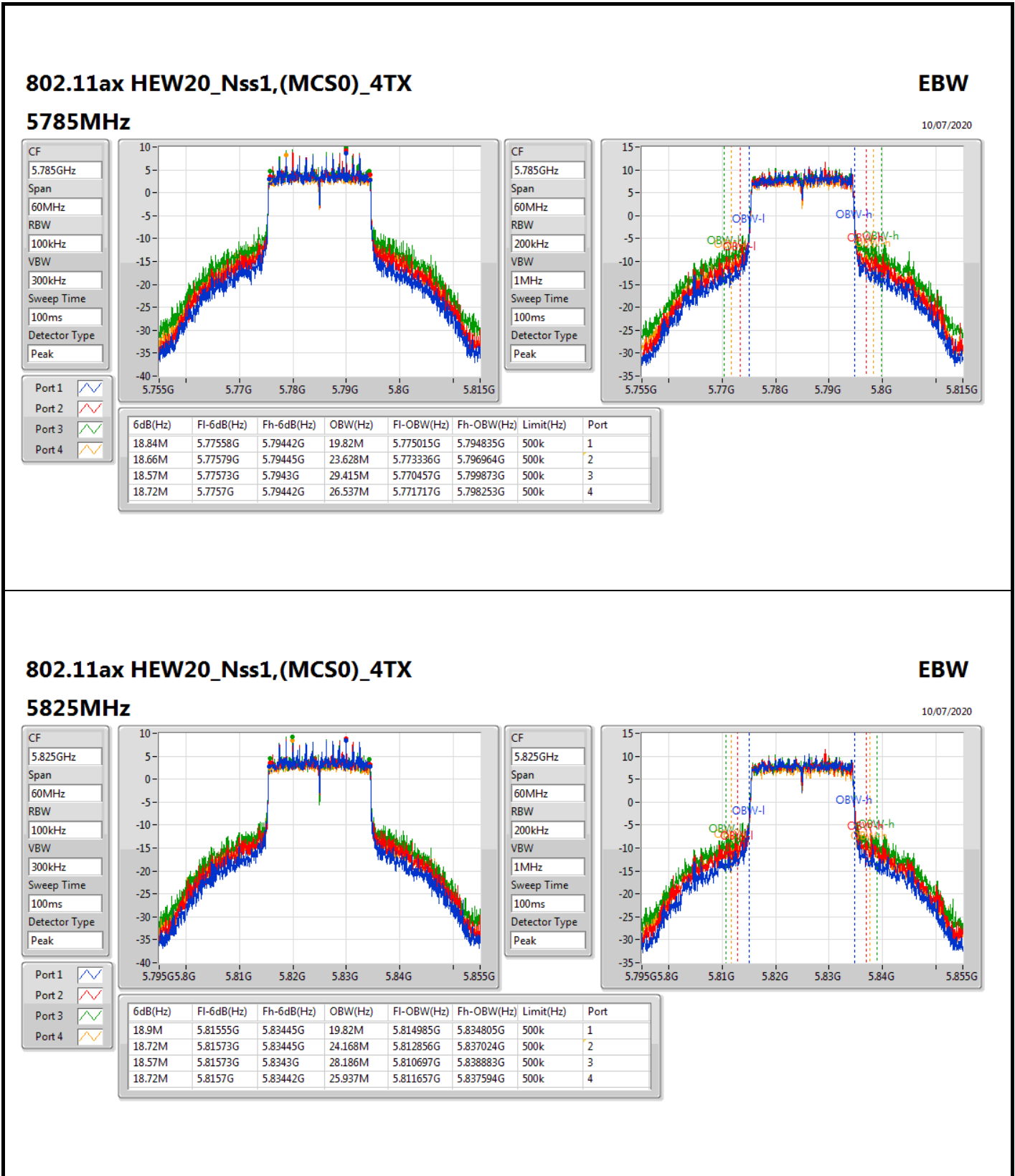
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



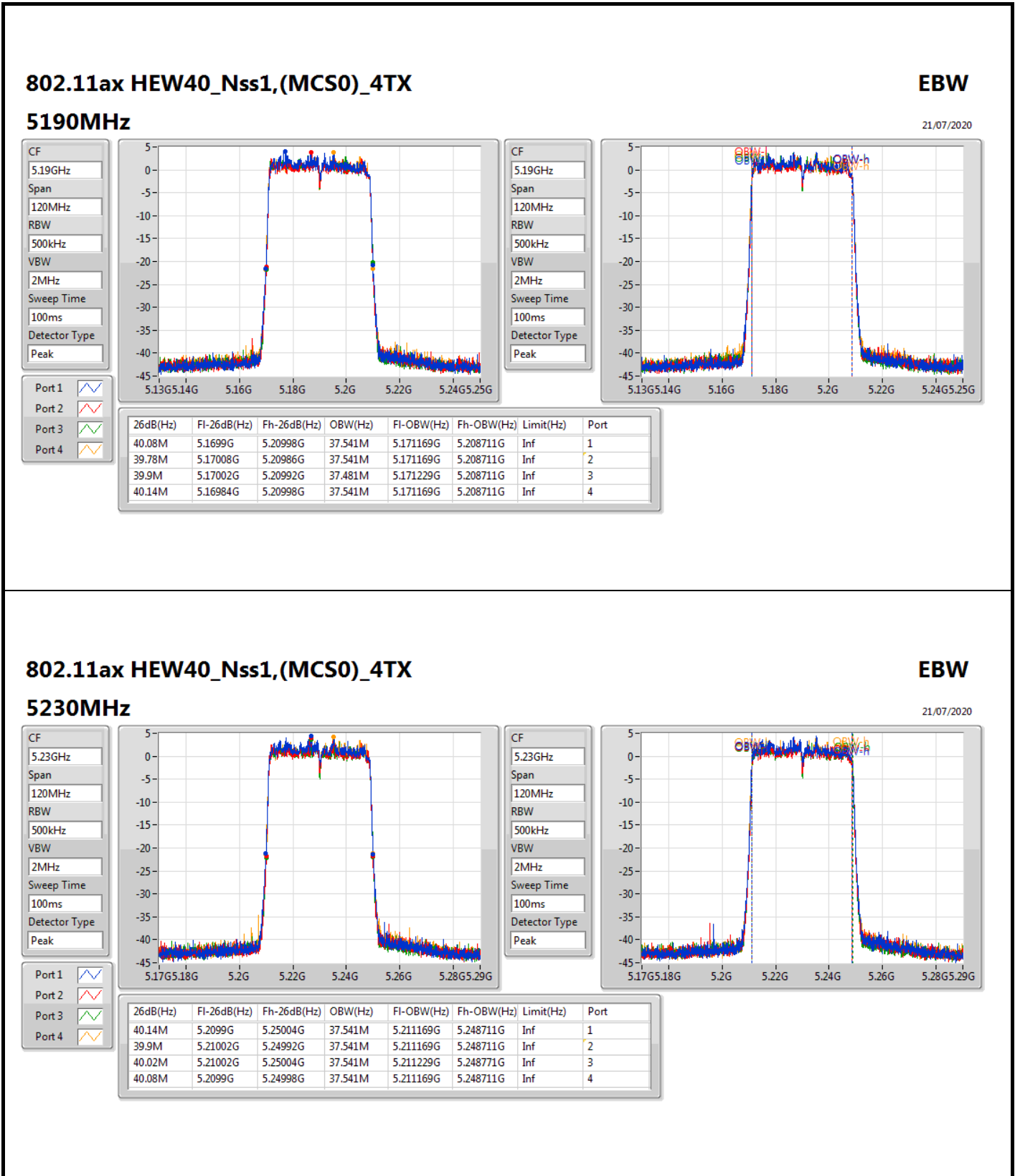
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



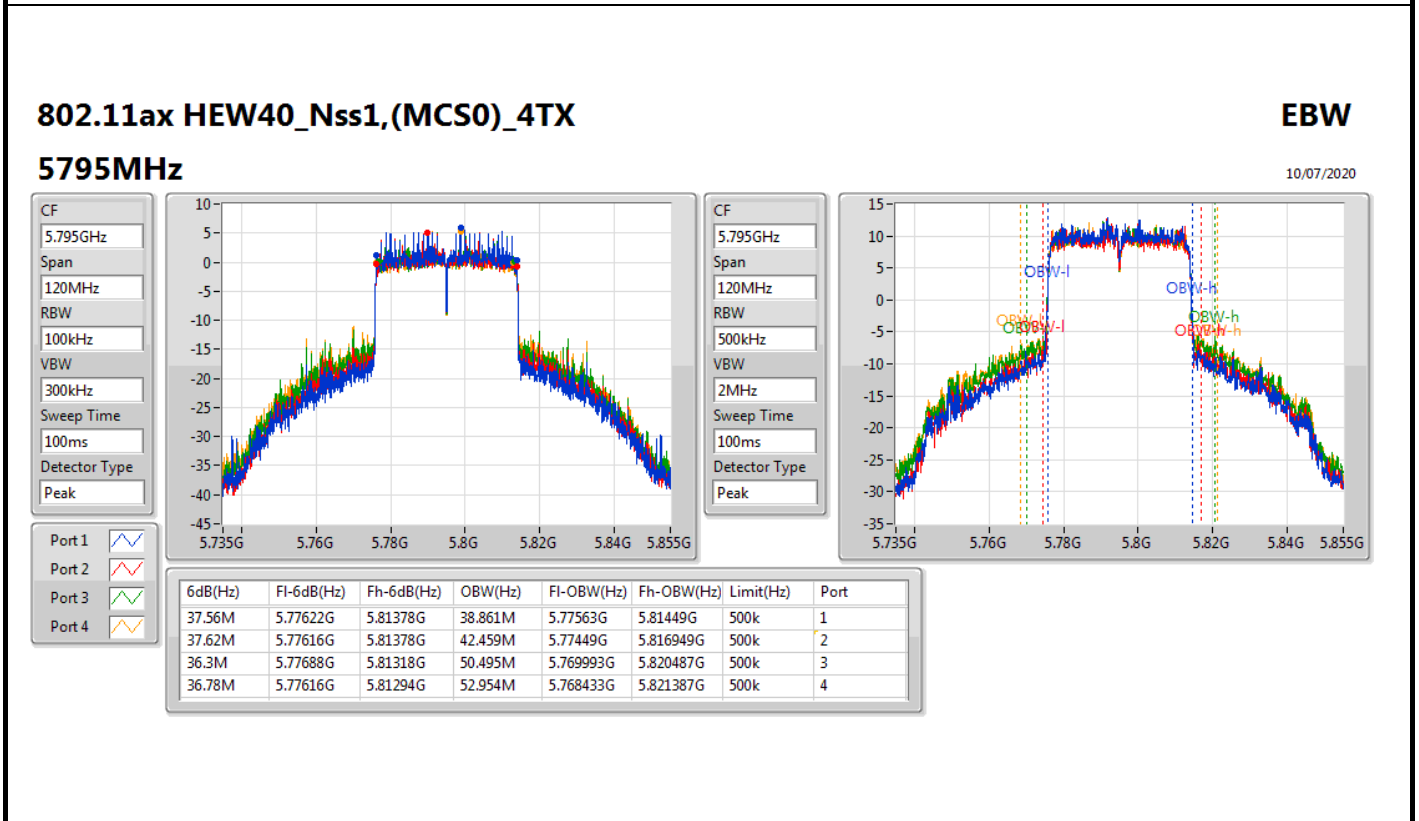
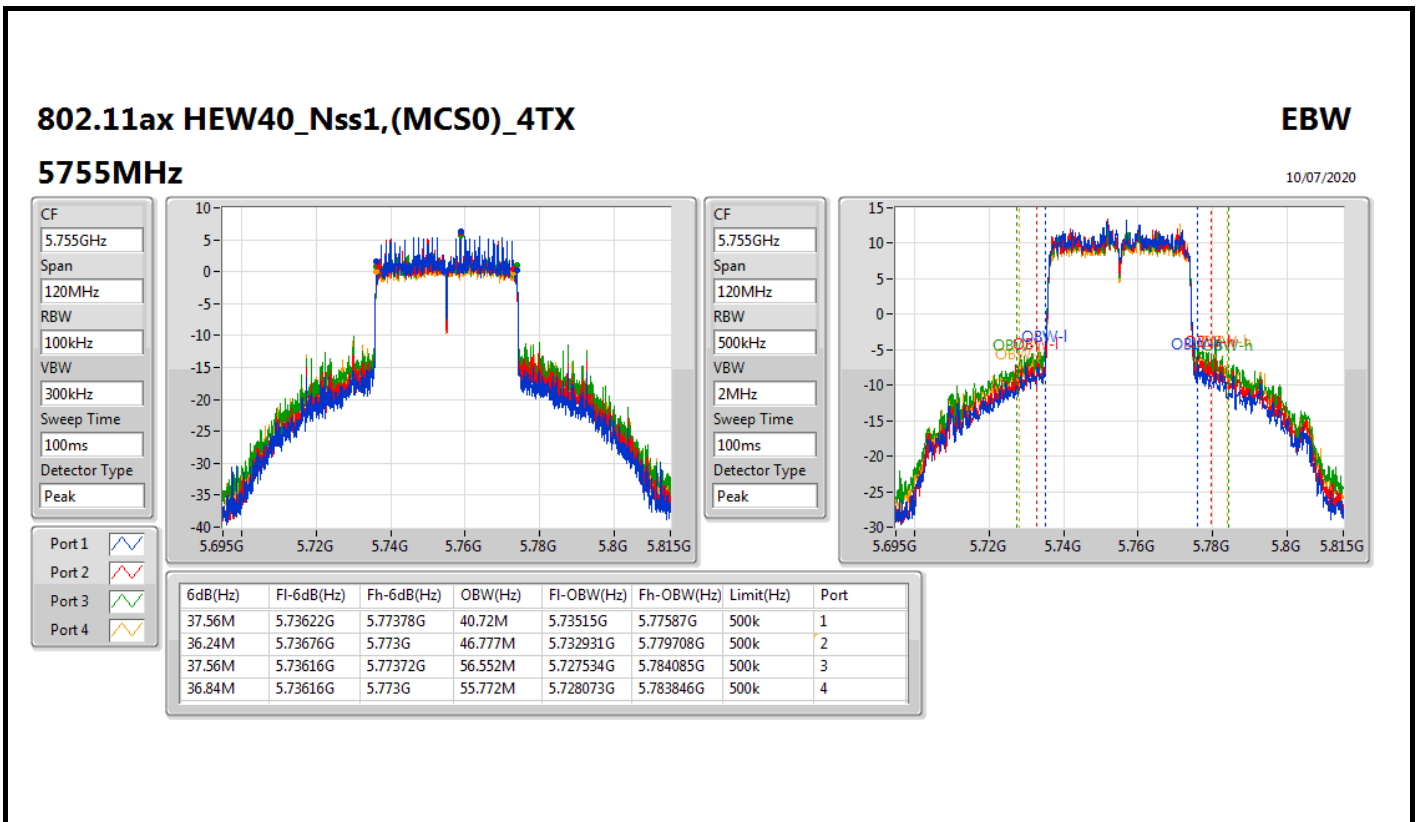
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



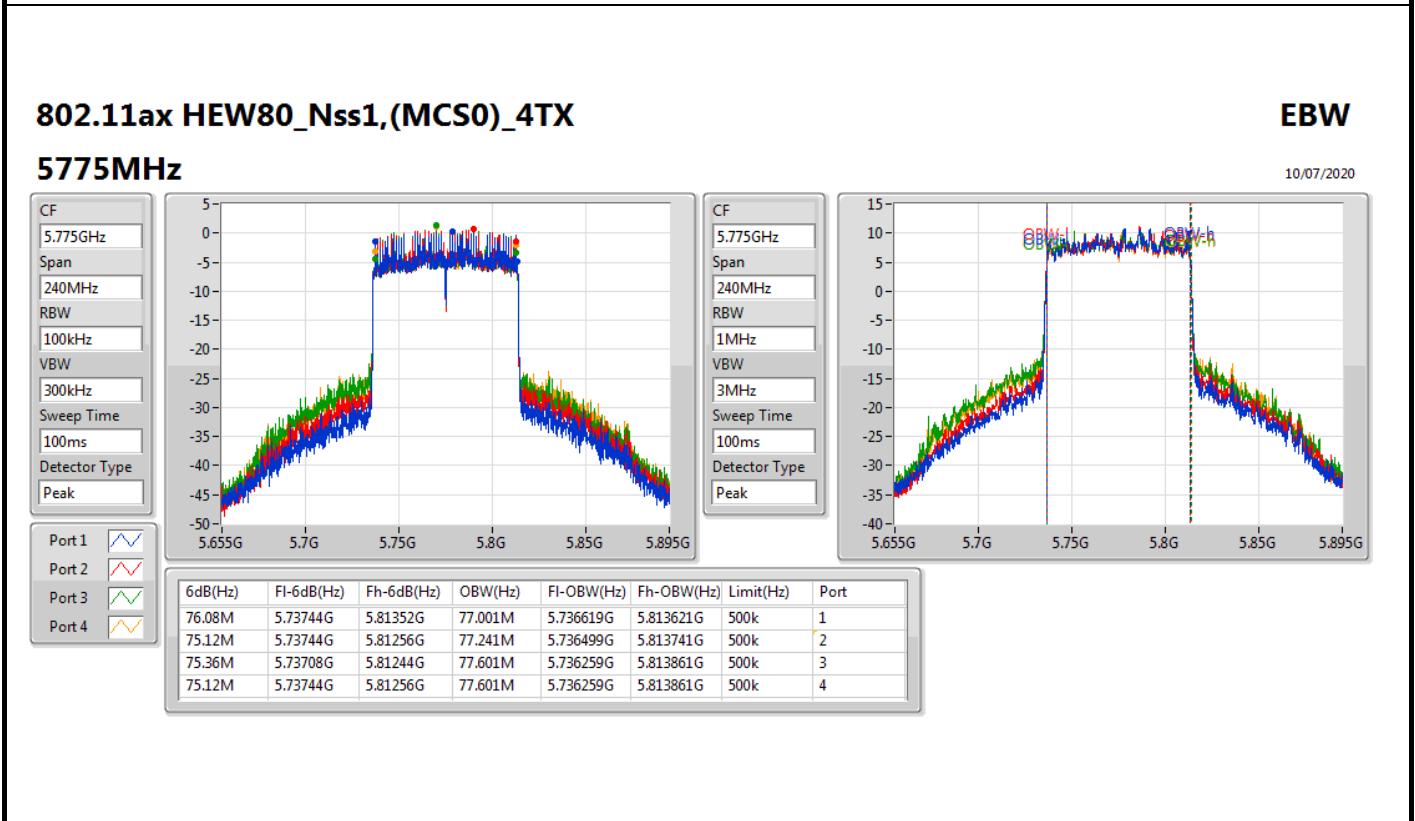
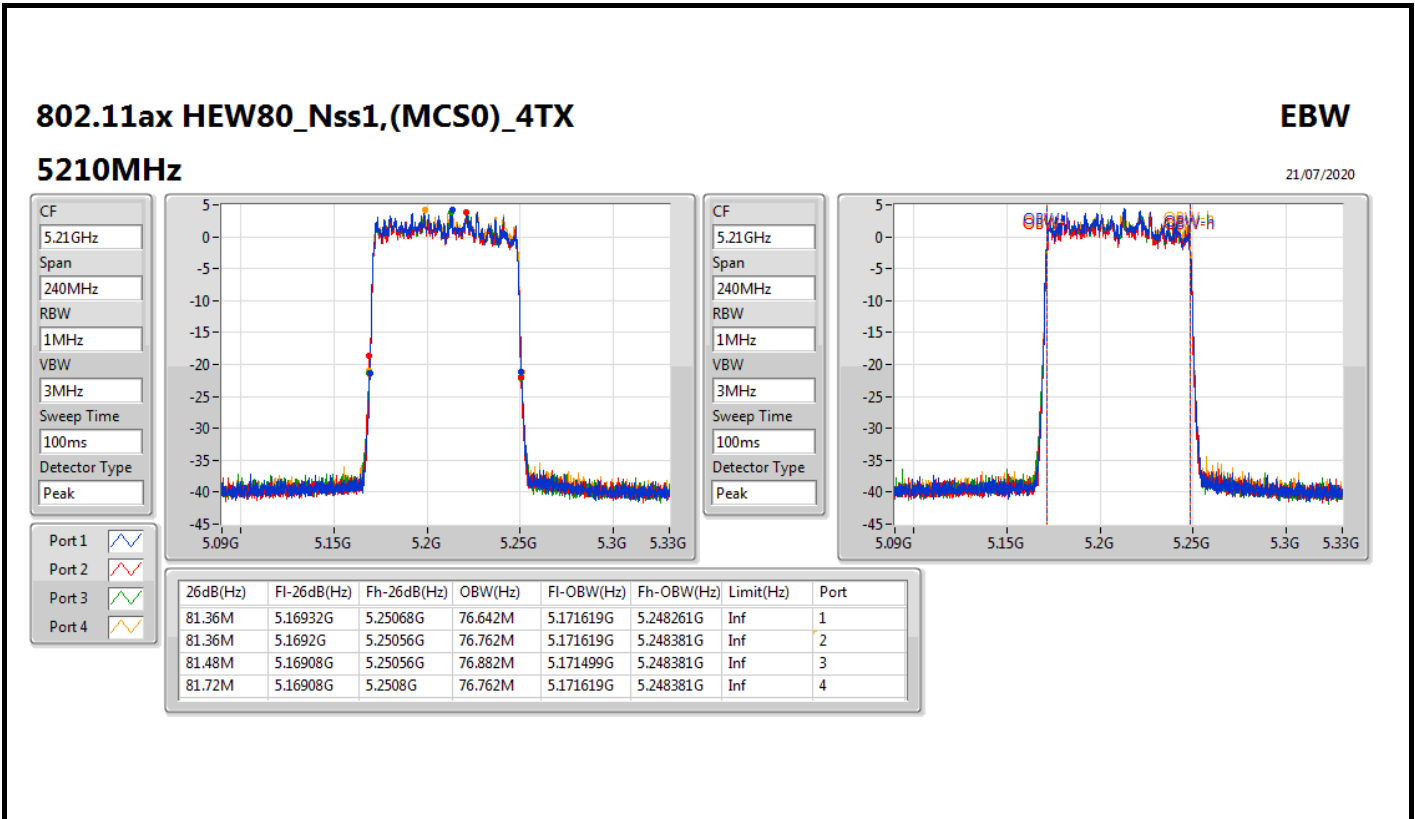
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



**For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	21.48M	16.762M	16M8D1D	21.09M	16.642M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.45M	19.07M	19M1D1D	21.33M	19.01M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.14M	37.601M	37M6D1D	39.84M	37.541M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.36M	76.882M	76M9D1D	81.24M	76.882M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.35M	25.607M	25M6D1D	16.29M	20.21M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.87M	26.027M	26M0D1D	18.66M	19.97M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.56M	53.673M	53M7D1D	37.14M	39.58M
802.11ax HEW80_Nss1,(MCS0)_2TX	76.08M	77.841M	77M8D1D	75.24M	77.121M

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;

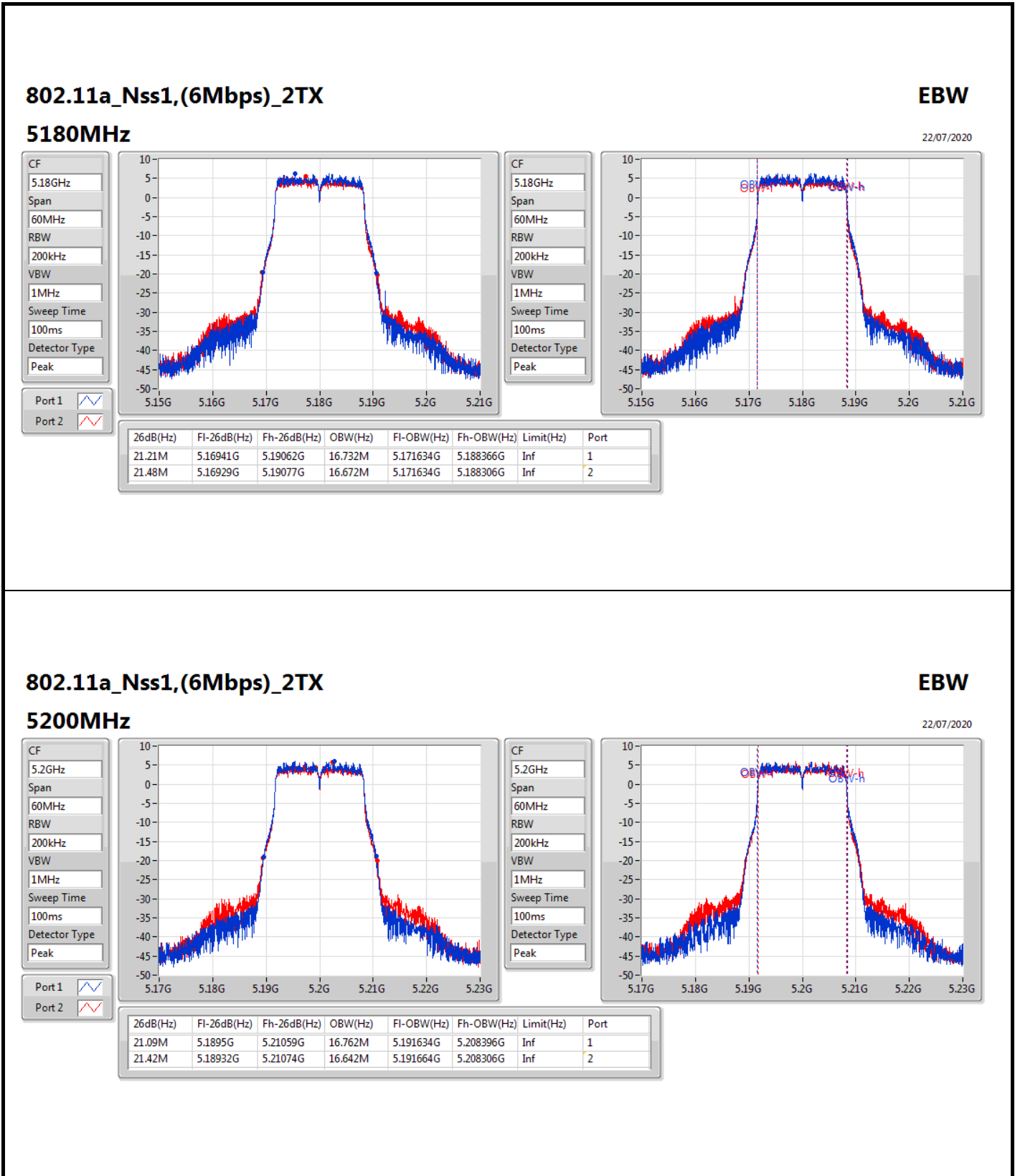
**For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode
Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.21M	16.732M	21.48M	16.672M
5200MHz	Pass	Inf	21.09M	16.762M	21.42M	16.642M
5240MHz	Pass	Inf	21.12M	16.762M	21.48M	16.702M
5745MHz	Pass	500k	16.35M	23.778M	16.32M	20.21M
5785MHz	Pass	500k	16.32M	24.498M	16.29M	20.57M
5825MHz	Pass	500k	16.29M	25.607M	16.32M	20.78M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.42M	19.01M	21.42M	19.07M
5200MHz	Pass	Inf	21.45M	19.01M	21.45M	19.07M
5240MHz	Pass	Inf	21.33M	19.01M	21.39M	19.04M
5745MHz	Pass	500k	18.84M	23.748M	18.87M	19.97M
5785MHz	Pass	500k	18.66M	25.817M	18.75M	20.48M
5825MHz	Pass	500k	18.72M	26.027M	18.84M	20.33M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.14M	37.541M	39.9M	37.601M
5230MHz	Pass	Inf	40.08M	37.541M	39.84M	37.601M
5755MHz	Pass	500k	37.56M	53.013M	37.5M	39.58M
5795MHz	Pass	500k	37.14M	53.673M	37.44M	39.82M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.36M	76.882M	81.24M	76.882M
5775MHz	Pass	500k	76.08M	77.841M	75.24M	77.121M

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;

For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



802.11a_Nss1,(6Mbps)_2TX

5200MHz

22/07/2020

EBW

CF: 5.2GHz
Span: 60MHz
RBW: 200kHz
VBW: 1MHz
Sweep Time: 100ms
Detector Type: Peak

Port 1:

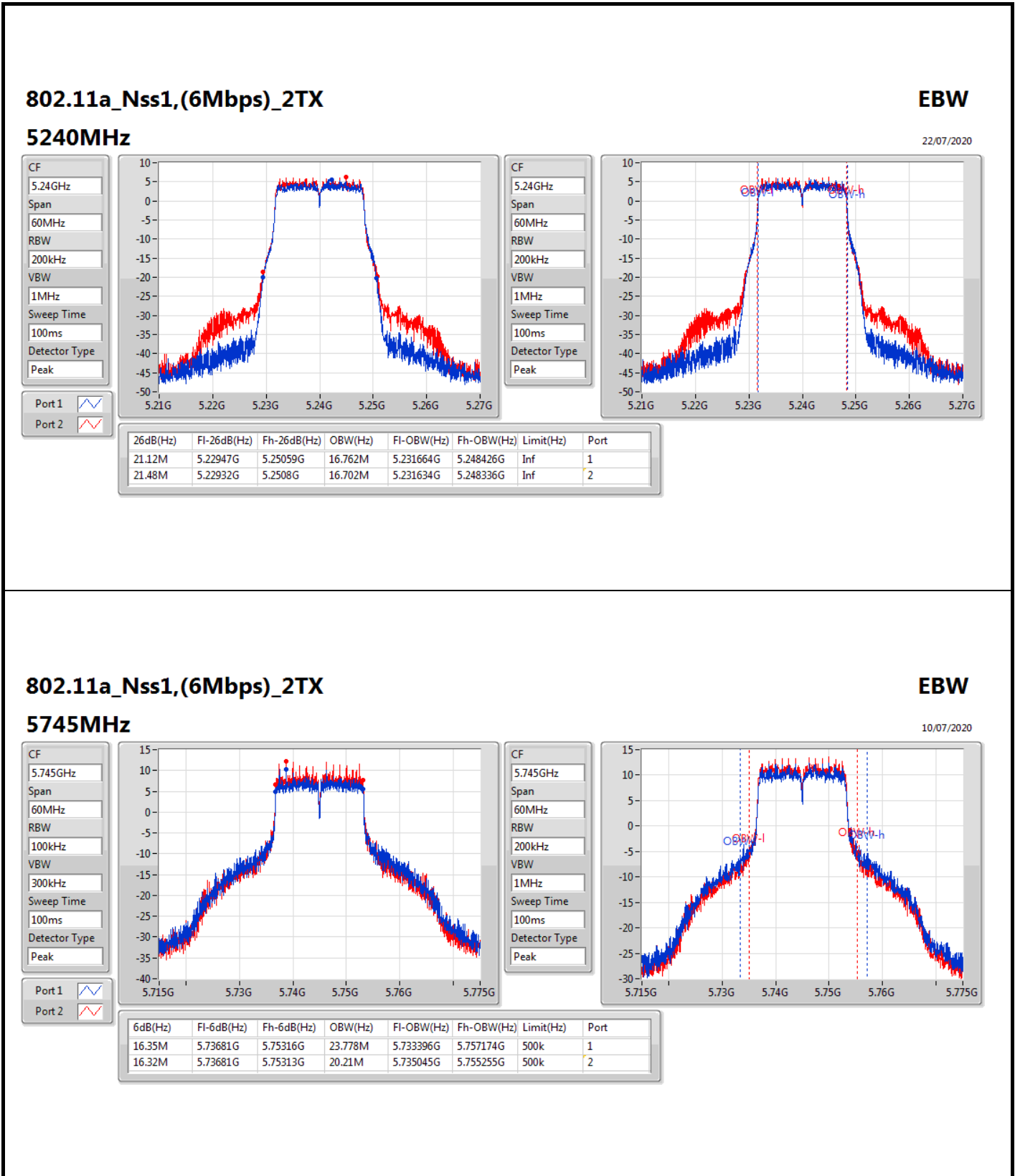
Port 2:

CF: 5.2GHz
Span: 60MHz
RBW: 200kHz
VBW: 1MHz
Sweep Time: 100ms
Detector Type: Peak

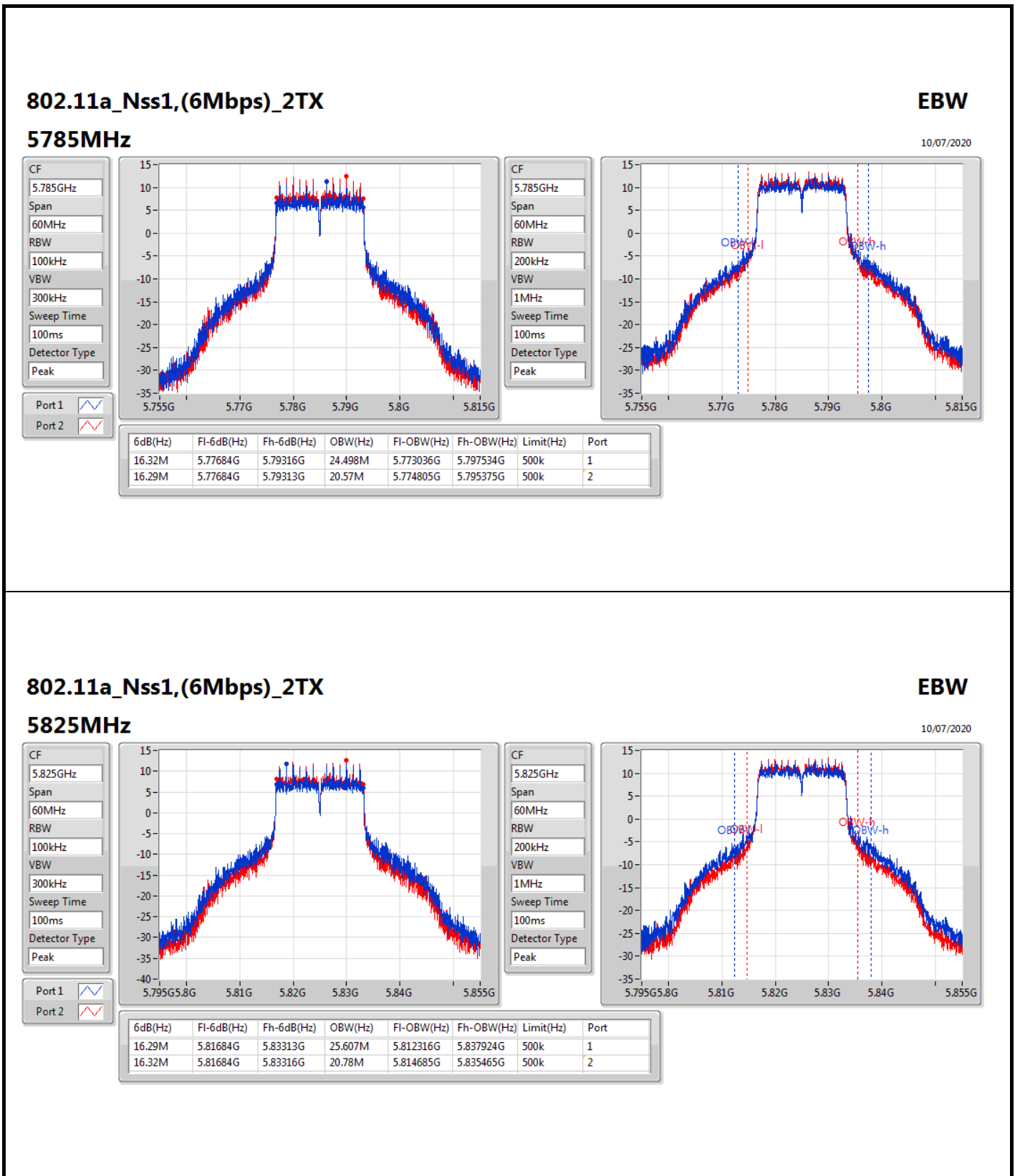
Port 1:

Port 2:

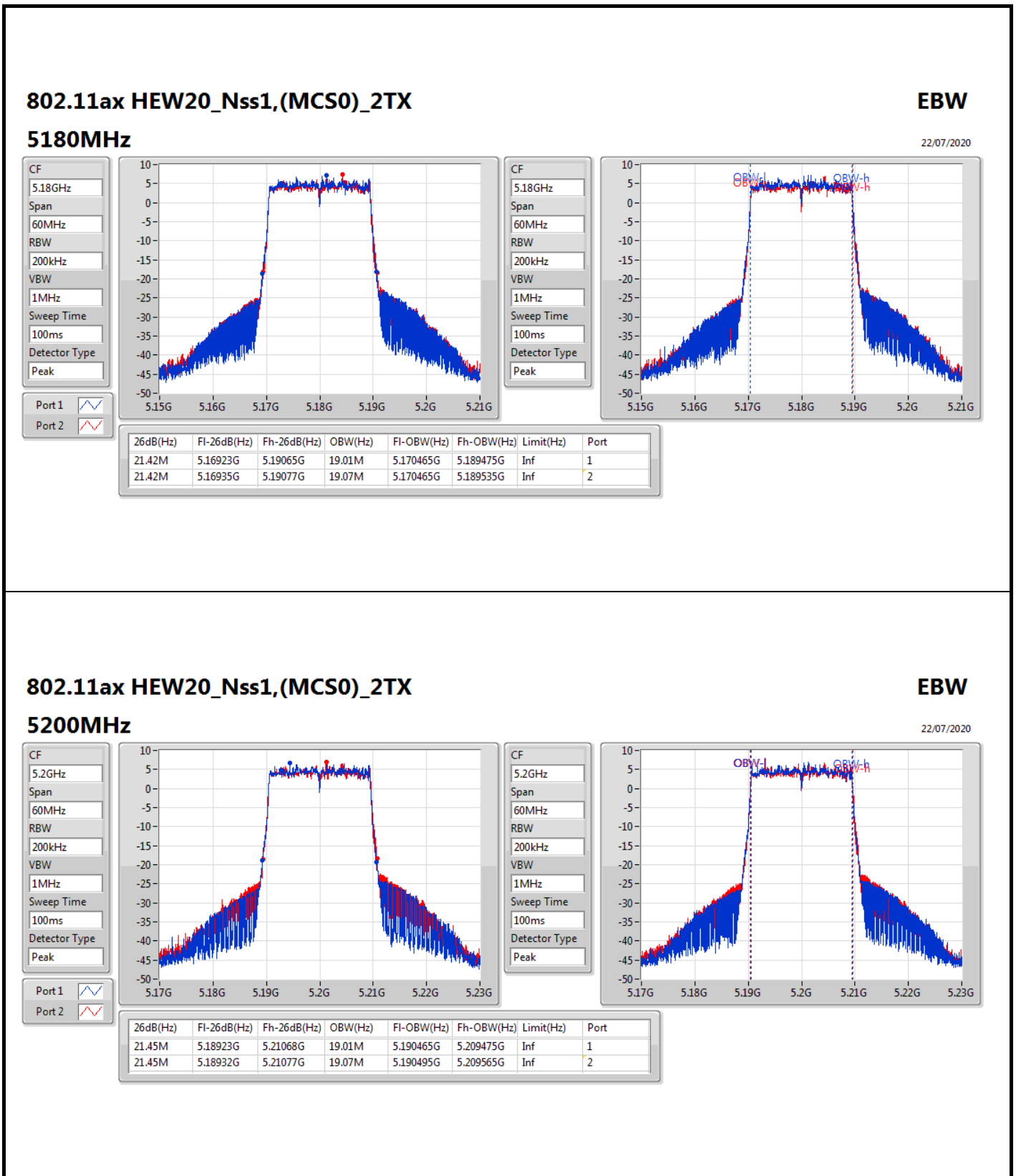
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



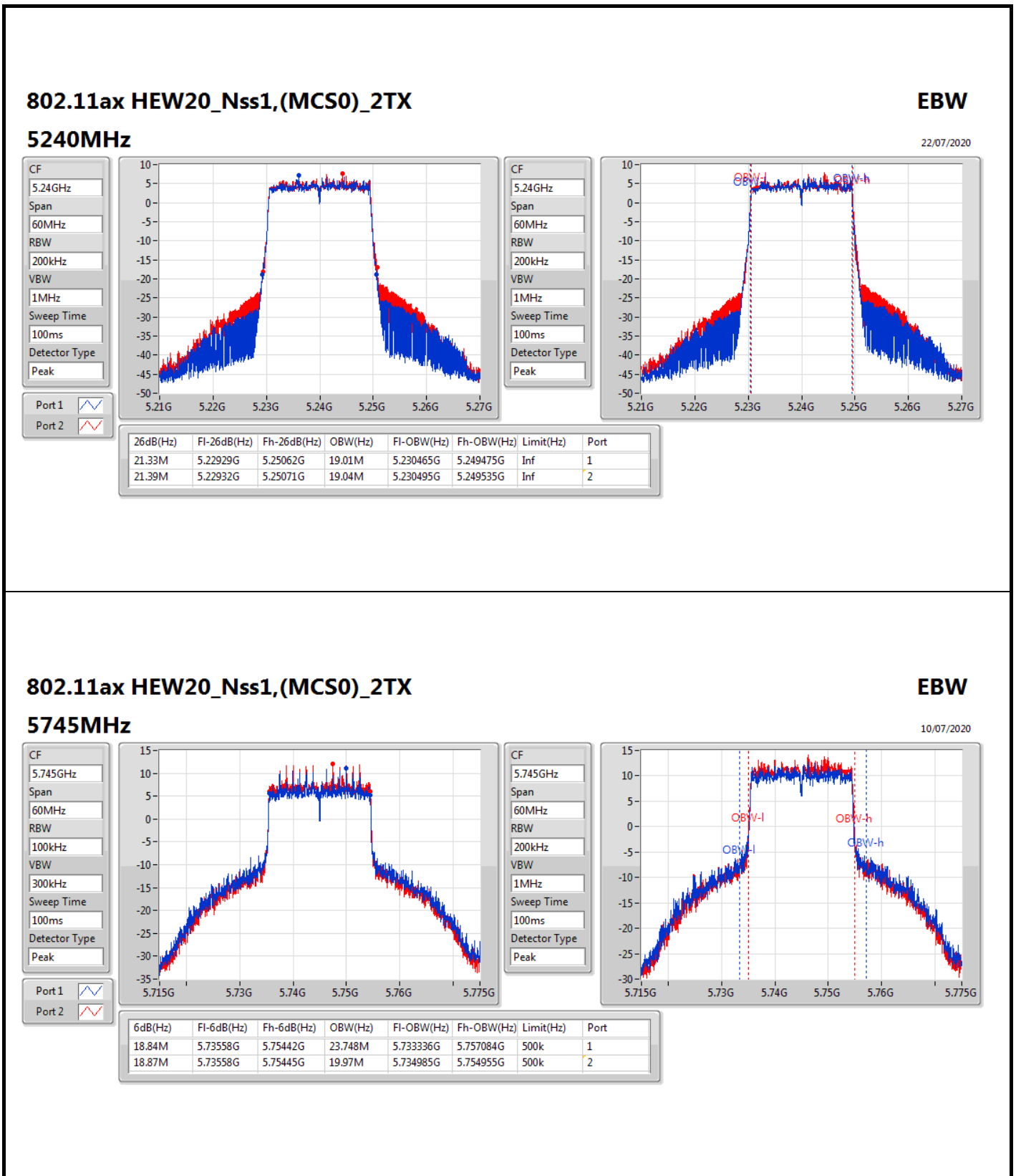
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



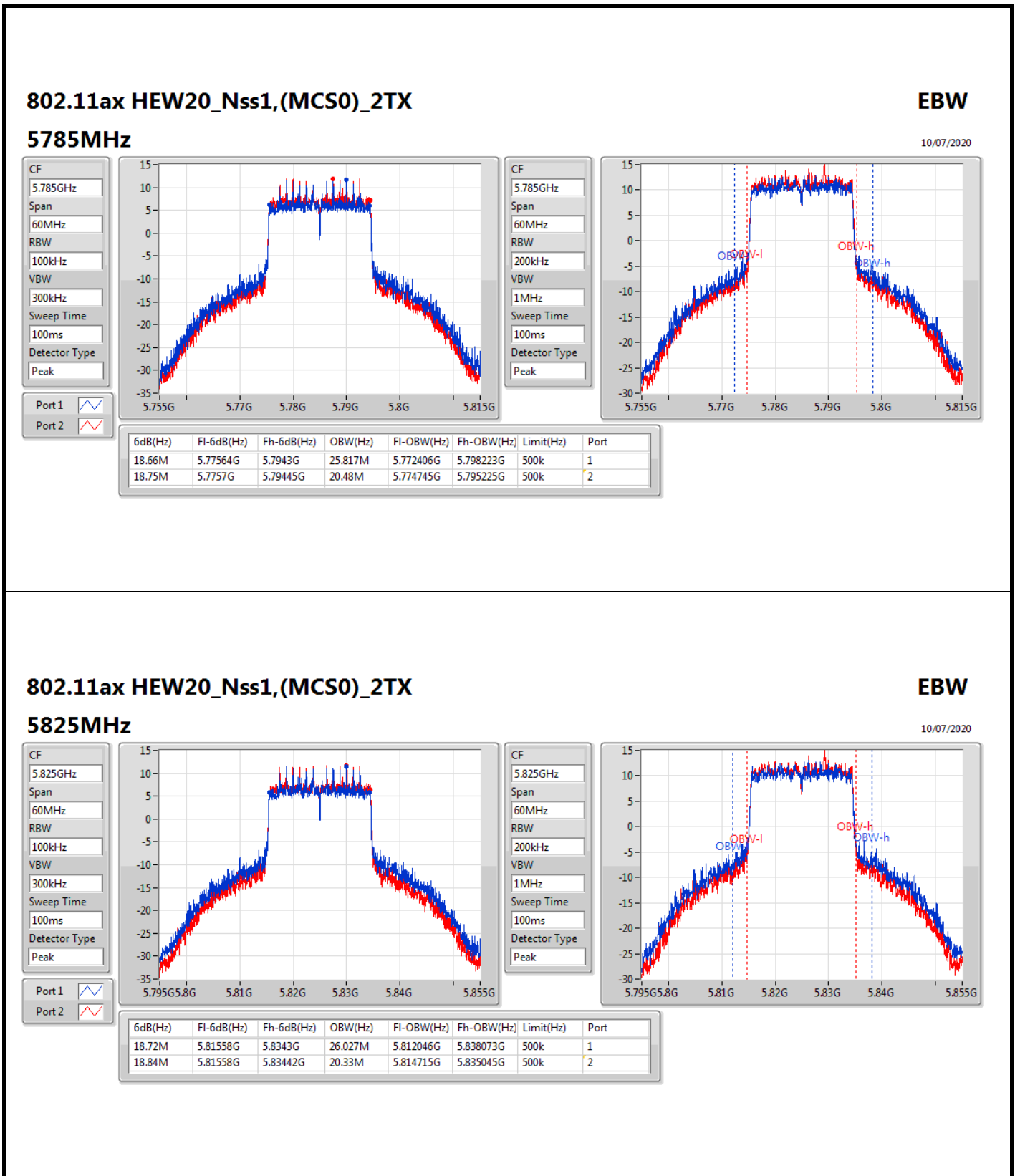
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



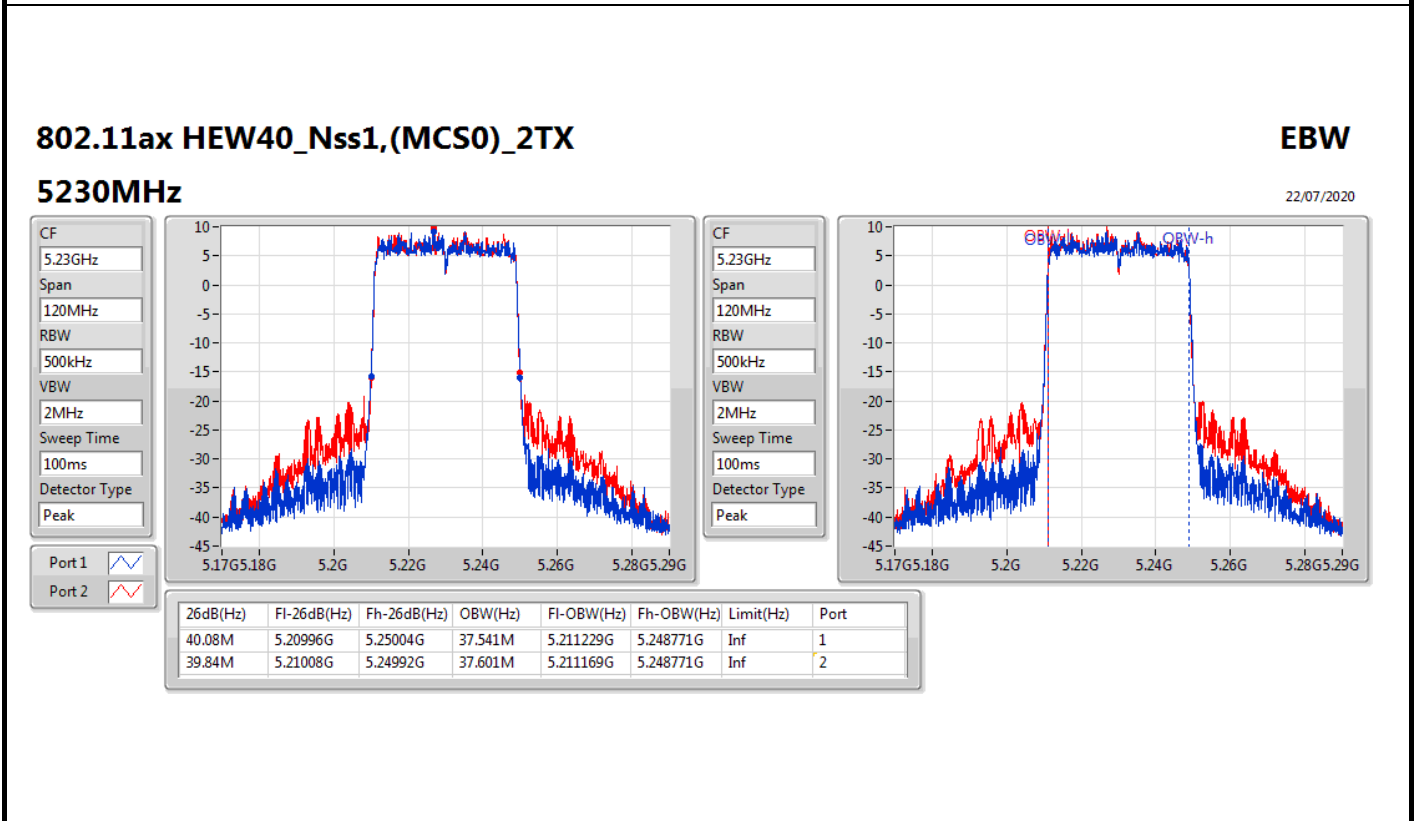
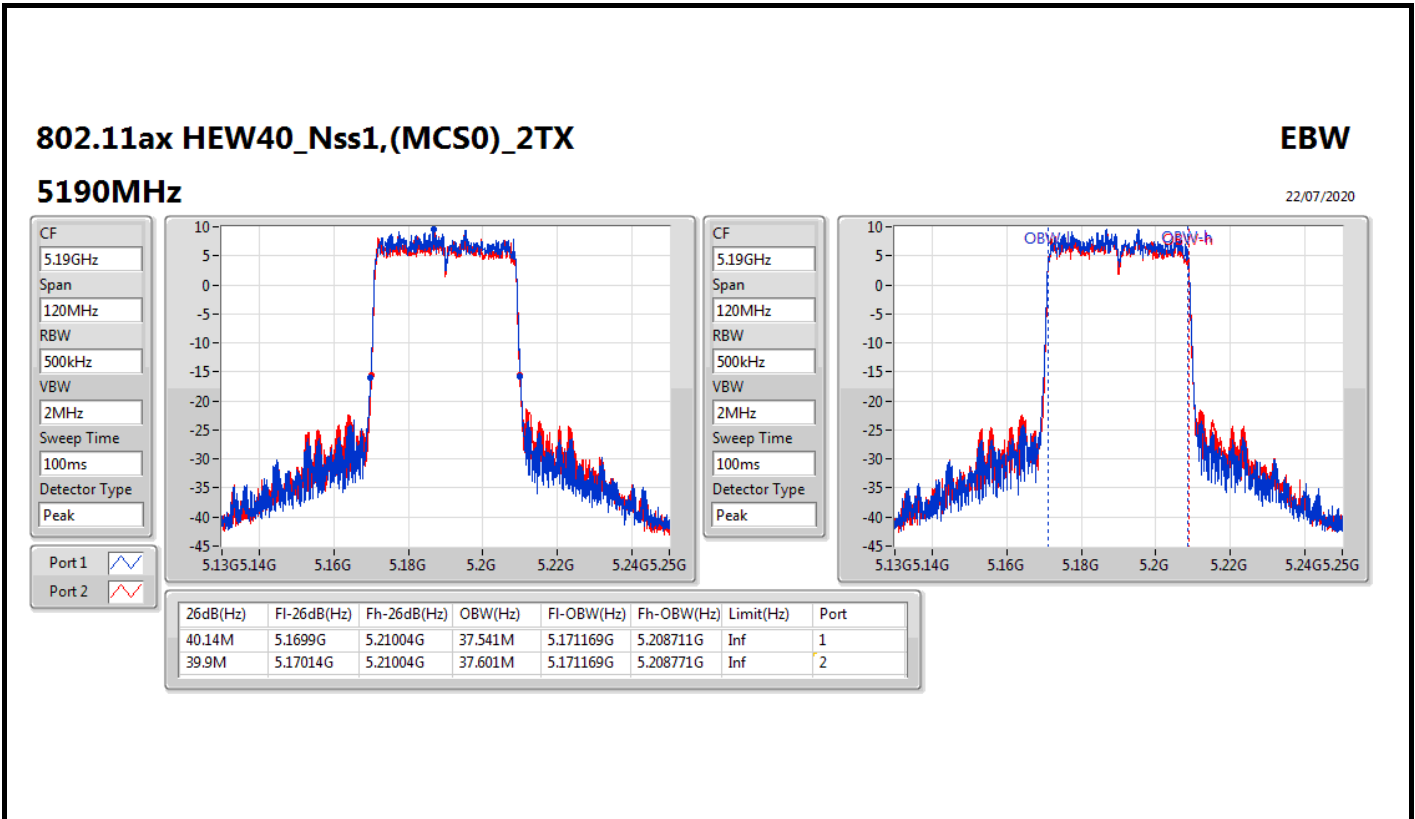
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



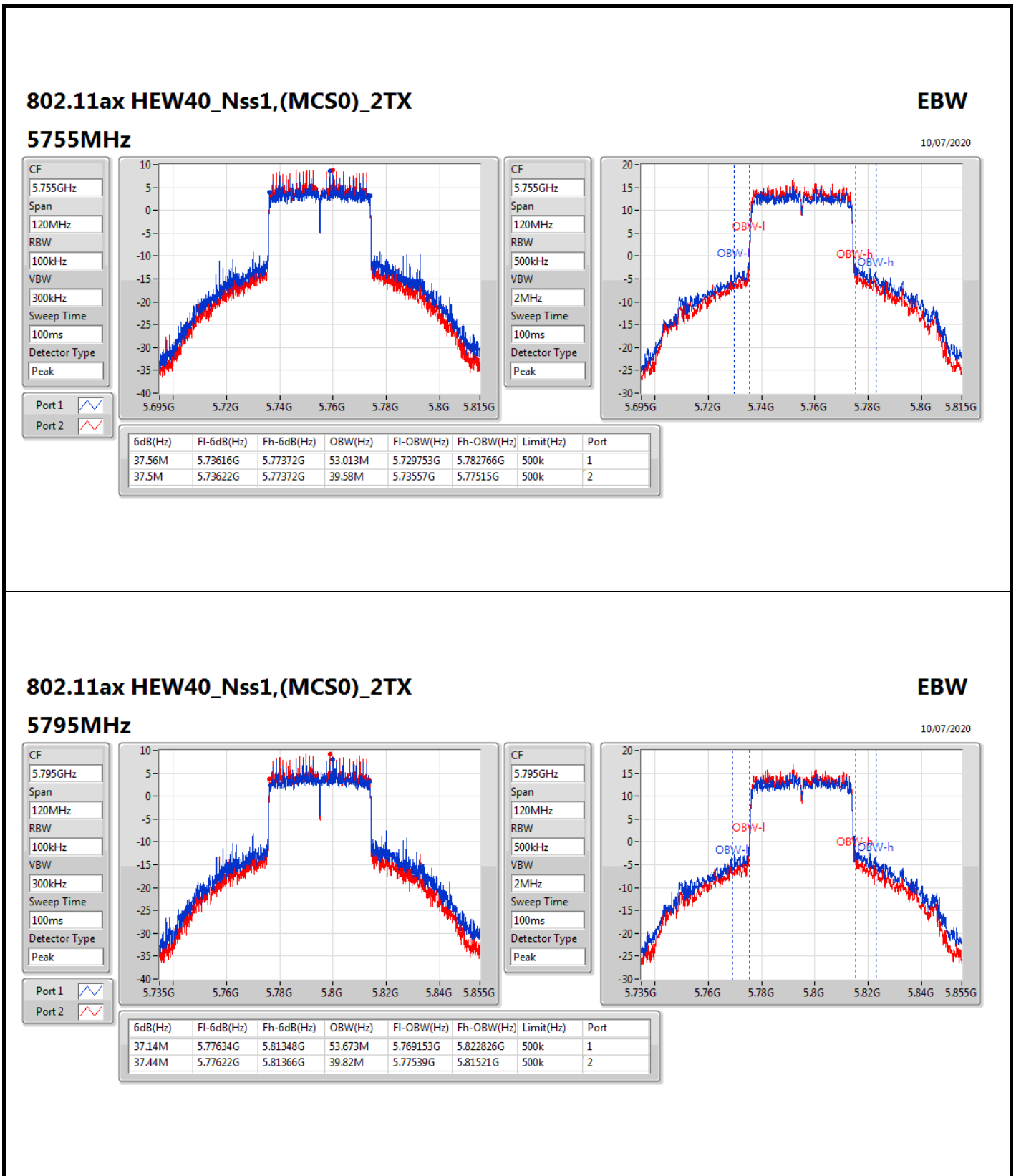
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



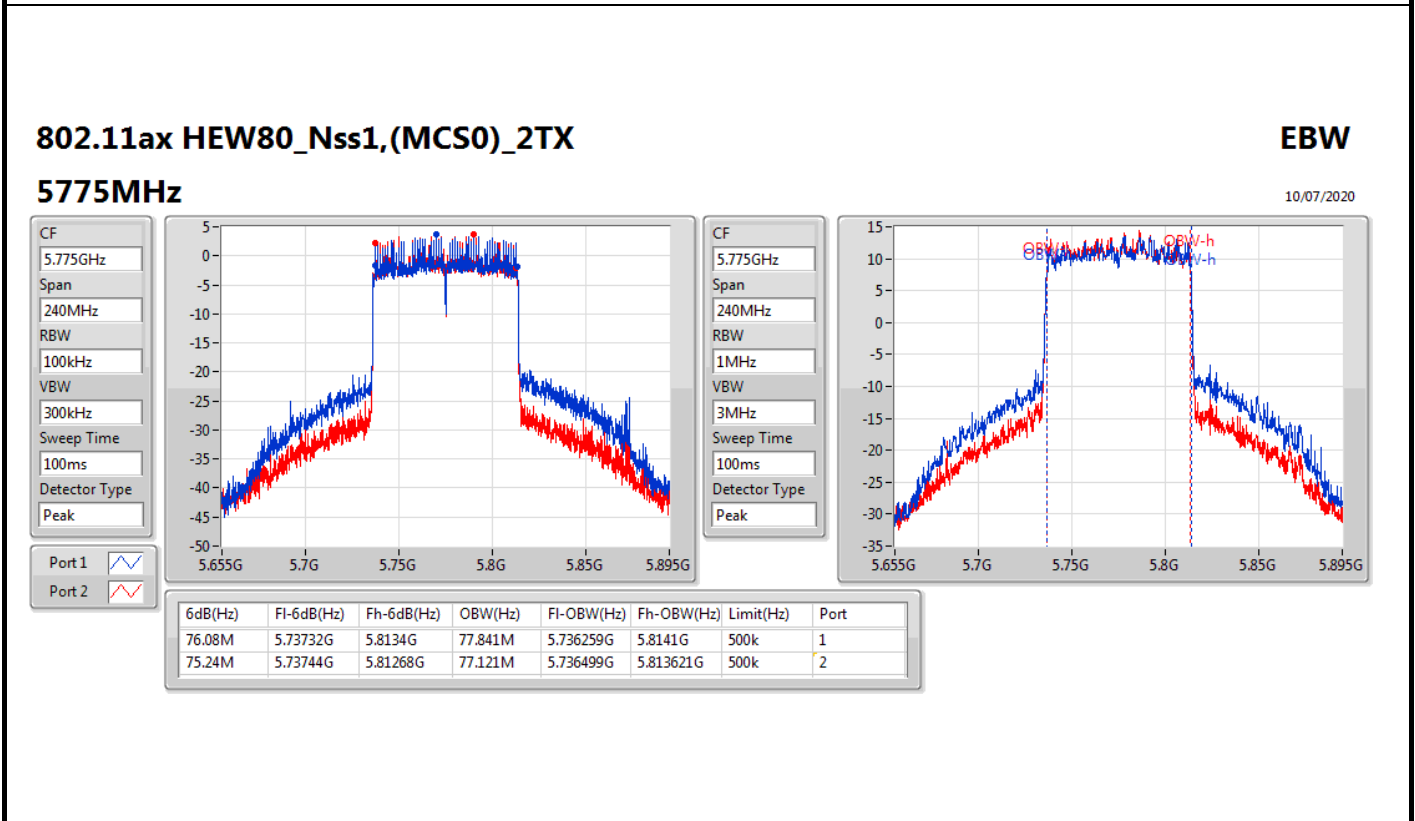
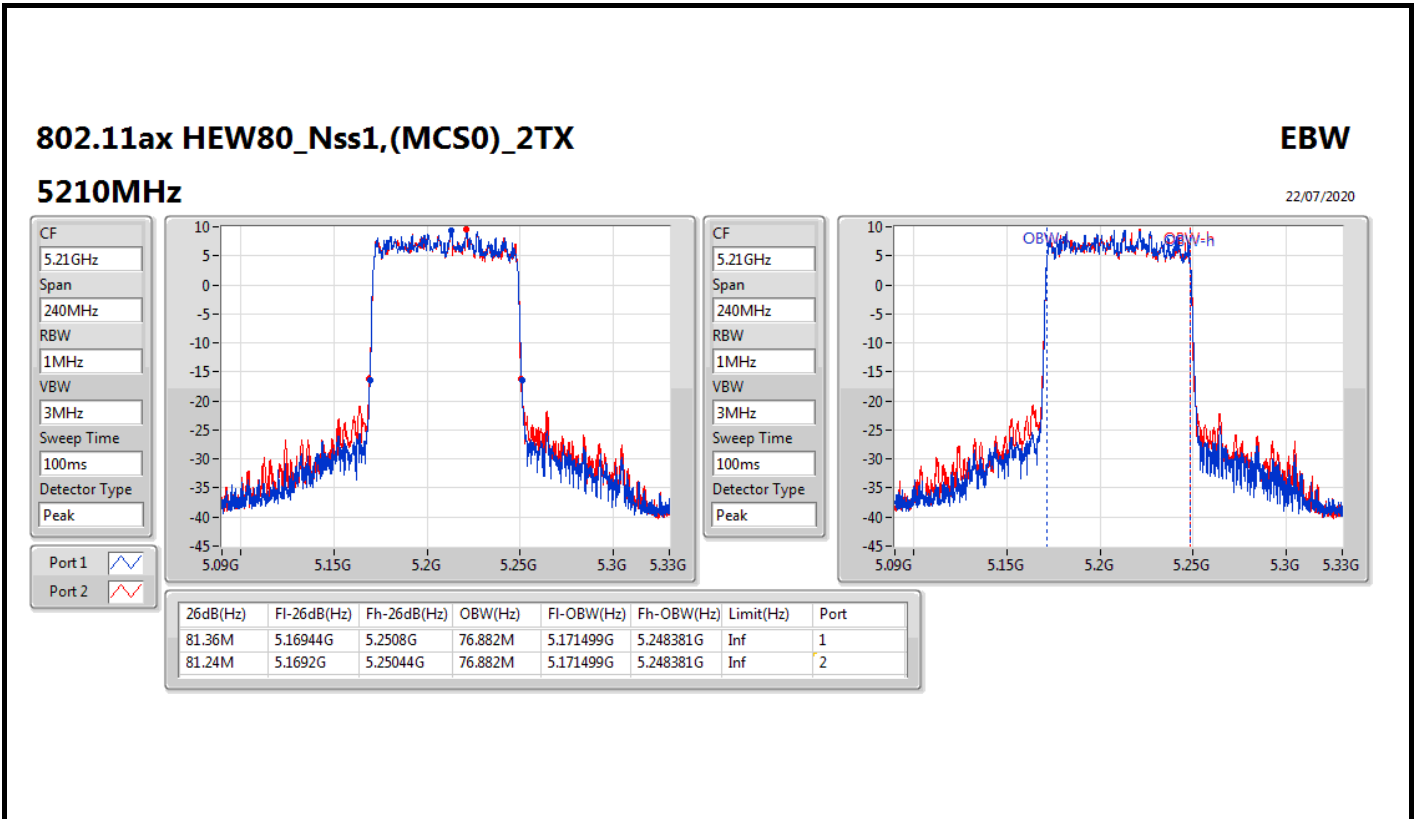
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode





For EUT 1 / Radio 1_Non-Beamforming Mode
Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP / EIRP 30° (dBm)	EIRP / EIRP 30° (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	18.75	0.07499	24.75/20.96	0.29854/0.12474
802.11ax HEW20_Nss1,(MCS0)_4TX	18.77	0.07534	24.77/20.98	0.29992/0.12531
802.11ax HEW40_Nss1,(MCS0)_4TX	18.67	0.07362	24.67/20.88	0.29309/0.12246
802.11ax HEW80_Nss1,(MCS0)_4TX	18.64	0.07311	24.64/20.85	0.29107/0.12162
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	28.07	0.64121	34.07	2.55270
802.11ax HEW20_Nss1,(MCS0)_4TX	28.53	0.71285	34.53	2.83792
802.11ax HEW40_Nss1,(MCS0)_4TX	27.50	0.56234	33.50	2.23872
802.11ax HEW80_Nss1,(MCS0)_4TX	24.66	0.29242	30.66	1.16413



For EUT 1 / Radio 1_Non-Beamforming Mode
Result

Mode	Result	DG / Gain [Phi 30°] (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP / EIRP [Phi 30°] (dBm)	EIRP Limit / EIRP Limit [Phi 30°] (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	6.00/2.21	12.77	12.80	12.34	12.79	18.70	30.00	24.70/20.91	Inf/21.00
5200MHz	Pass	6.00/2.21	12.86	12.39	12.45	12.69	18.62	30.00	24.62/20.83	Inf/21.00
5240MHz	Pass	6.00/2.21	12.89	12.87	12.27	12.86	18.75	30.00	24.75/20.96	Inf/21.00
5745MHz	Pass	6.00	21.49	21.53	22.26	21.00	27.61	30.00	33.61	Inf
5785MHz	Pass	6.00	21.91	21.82	22.88	21.46	28.07	30.00	34.07	Inf
5825MHz	Pass	6.00	21.68	21.54	22.36	20.97	27.69	30.00	33.69	Inf
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	6.00/2.21	12.95	12.70	12.46	12.87	18.77	30.00	24.77/20.98	Inf/21.00
5200MHz	Pass	6.00/2.21	12.80	12.74	12.48	12.98	18.77	30.00	24.77/20.98	Inf/21.00
5240MHz	Pass	6.00/2.21	12.83	12.82	12.36	12.83	18.74	30.00	24.74/20.95	Inf/21.00
5745MHz	Pass	6.00	21.56	21.47	22.34	20.95	27.63	30.00	33.63	Inf
5785MHz	Pass	6.00	22.60	22.48	22.81	22.14	28.53	30.00	34.53	Inf
5825MHz	Pass	6.00	22.02	21.86	22.85	21.12	28.03	30.00	34.03	Inf
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	6.00/2.21	12.97	12.62	12.34	12.60	18.66	30.00	24.66/20.87	Inf/21.00
5230MHz	Pass	6.00/2.21	12.93	12.81	12.24	12.60	18.67	30.00	24.67/20.88	Inf/21.00
5755MHz	Pass	6.00	21.20	20.83	20.81	20.46	26.85	30.00	32.85	Inf
5795MHz	Pass	6.00	21.84	21.57	21.46	20.99	27.50	30.00	33.50	Inf
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	6.00/2.21	12.70	12.65	12.55	12.56	18.64	30.00	24.64/20.85	Inf/21.00
5775MHz	Pass	6.00	18.96	18.69	18.59	18.28	24.66	30.00	30.66	Inf

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



For EUT 1 / Radio 1_Beamforming Mode
Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP / EIRP 30° (dBm)	EIRP / EIRP 30° (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	12.70	0.01862	24.72/20.93	0.29648/0.12388
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	12.66	0.01845	24.68/20.89	0.29376/0.12274
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	12.70	0.01862	24.72/20.93	0.29648/0.12388
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	23.95	0.24831	35.97	3.95367
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	23.79	0.23933	35.81	3.81066
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	23.85	0.24266	35.87	3.86367



For EUT 1 / Radio 1_Beamforming Mode
Result

Mode	Result	DG / Gain [Phi 30°] (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP / EIRP [Phi 30°] (dBm)	EIRP Limit / EIRP Limit [Phi 30°] (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	12.02/8.23	6.75	6.23	6.69	6.61	12.60	23.98	24.62/20.83	Inf/21.00
5200MHz	Pass	12.02/8.23	6.70	6.36	6.62	6.87	12.66	23.98	24.68/20.89	Inf/21.00
5240MHz	Pass	12.02/8.23	6.78	6.50	6.34	7.06	12.70	23.98	24.72/20.93	Inf/21.00
5745MHz	Pass	12.02	17.73	17.55	17.95	17.85	23.79	23.98	35.81	Inf
5785MHz	Pass	12.02	17.84	17.96	17.99	17.92	23.95	23.98	35.97	Inf
5825MHz	Pass	12.02	17.79	17.91	17.81	17.49	23.77	23.98	35.79	Inf
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	12.02/8.23	7.27	5.91	6.80	6.45	12.66	23.98	24.68/20.89	Inf/21.00
5230MHz	Pass	12.02/8.23	7.38	5.91	6.63	6.47	12.65	23.98	24.67/20.88	Inf/21.00
5755MHz	Pass	12.02	17.85	17.65	17.73	17.69	23.75	23.98	35.77	Inf
5795MHz	Pass	12.02	17.88	17.76	17.73	17.7	23.79	23.98	35.81	Inf
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	12.02/8.23	6.66	6.42	7.10	6.49	12.70	23.98	24.72/20.93	Inf/21.00
5775MHz	Pass	12.02	17.92	17.83	17.85	17.72	23.85	23.98	35.87	Inf

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



**For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	29.91	0.97949
802.11ax HEW20_Nss1,(MCS0)_4TX	29.97	0.99312
802.11ax HEW40_Nss1,(MCS0)_4TX	28.79	0.75683
802.11ax HEW80_Nss1,(MCS0)_4TX	25.84	0.38371



For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	6.00	23.36	24.64	23.83	23.64	29.91	30.00
5785MHz	Pass	6.00	22.52	23.71	22.92	22.61	28.99	30.00
5825MHz	Pass	6.00	21.70	21.81	22.04	21.44	27.77	30.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	6.00	23.39	24.64	23.96	23.71	29.97	30.00
5785MHz	Pass	6.00	22.56	23.57	23.07	22.68	29.01	30.00
5825MHz	Pass	6.00	21.78	21.79	21.81	21.47	27.74	30.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	6.00	22.43	23.36	22.70	22.52	28.79	30.00
5795MHz	Pass	6.00	22.05	22.48	22.18	21.81	28.16	30.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	6.00	19.54	20.25	19.86	19.58	25.84	30.00

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



**For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	23.96	0.24889
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	23.96	0.24889
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	23.96	0.24889



For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	12.02	17.00	18.51	17.76	17.51	23.75	23.98
5785MHz	Pass	12.02	17.60	18.23	18.08	17.68	23.93	23.98
5825MHz	Pass	12.02	18.23	17.90	18.02	17.58	23.96	23.98
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	12.02	17.70	18.38	17.86	17.79	23.96	23.98
5795MHz	Pass	12.02	17.98	17.93	17.81	17.78	23.90	23.98
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	12.02	17.96	18.39	17.64	17.74	23.96	23.98

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



For EUT 1 / Radio 3_Non-Beamforming Mode
Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP / EIRP 30° (dBm)	EIRP / EIRP 30° (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.69	0.09311	24.39/20.96	0.27479/0.12474
802.11ax HEW20_Nss1,(MCS0)_2TX	19.64	0.09204	24.34/20.91	0.27164/0.12331
802.11ax HEW40_Nss1,(MCS0)_2TX	19.54	0.08995	24.24/20.81	0.26546/0.12050
802.11ax HEW80_Nss1,(MCS0)_2TX	17.88	0.06138	22.58/19.15	0.18113/0.08222
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	27.99	0.62951	32.69	1.85780
802.11ax HEW20_Nss1,(MCS0)_2TX	28.18	0.65766	32.88	1.94089
802.11ax HEW40_Nss1,(MCS0)_2TX	26.81	0.47973	31.51	1.41579
802.11ax HEW80_Nss1,(MCS0)_2TX	24.19	0.26242	28.89	0.77446



For EUT 1 / Radio 3_Non-Beamforming Mode
Result

Mode	Result	DG/ Gain [Phi 30°] (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP / EIRP [Phi 30°] (dBm)	EIRP Limit / EIRP Limit [Phi 30°] (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.70/1.27	16.78	16.35	19.58	30.00	24.28/20.85	Inf/21.00
5200MHz	Pass	4.70/1.27	16.70	16.45	19.59	30.00	24.29/20.86	Inf/21.00
5240MHz	Pass	4.70/1.27	16.60	16.76	19.69	30.00	24.39/20.96	Inf/21.00
5745MHz	Pass	4.70	23.51	26.02	27.95	30.00	32.65	Inf
5785MHz	Pass	4.70	23.47	25.95	27.89	30.00	32.59	Inf
5825MHz	Pass	4.70	23.74	25.95	27.99	30.00	32.69	Inf
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.70/1.27	16.91	16.30	19.63	30.00	24.33/20.90	Inf/21.00
5200MHz	Pass	4.70/1.27	16.80	16.26	19.55	30.00	24.25/20.82	Inf/21.00
5240MHz	Pass	4.70/1.27	16.52	16.74	19.64	30.00	24.34/20.91	Inf/21.00
5745MHz	Pass	4.70	23.74	26.25	28.18	30.00	32.88	Inf
5785MHz	Pass	4.70	23.53	26.02	27.96	30.00	32.66	Inf
5825MHz	Pass	4.70	23.72	26.10	28.08	30.00	32.78	Inf
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	4.70/1.27	15.70	15.63	18.68	30.00	23.38/19.95	Inf/21.00
5230MHz	Pass	4.70/1.27	16.29	16.75	19.54	30.00	24.24/20.81	Inf/21.00
5755MHz	Pass	4.70	22.54	24.78	26.81	30.00	31.51	Inf
5795MHz	Pass	4.70	22.40	24.65	26.68	30.00	31.38	Inf
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	4.70/1.27	14.86	14.88	17.88	30.00	22.58/19.15	Inf/21.00
5775MHz	Pass	4.70	20.26	21.93	24.19	30.00	28.89	Inf

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



For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode
Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	20.47	0.11143	26.47/20.91	0.44361
802.11ax HEW20_Nss1,(MCS0)_4TX	20.47	0.11143	26.47/20.91	0.44361
802.11ax HEW40_Nss1,(MCS0)_4TX	20.47	0.11143	26.47/20.91	0.44361
802.11ax HEW80_Nss1,(MCS0)_4TX	20.48	0.11169	26.48/20.92	0.44463
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	27.06	0.50816	33.06	2.02302
802.11ax HEW20_Nss1,(MCS0)_4TX	27.67	0.58479	33.67	2.32809
802.11ax HEW40_Nss1,(MCS0)_4TX	27.36	0.54450	33.36	2.16770
802.11ax HEW80_Nss1,(MCS0)_4TX	25.33	0.34119	31.33	1.35831



For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	6.00/0.44	14.32	14.15	14.49	14.46	20.38	30.00	26.38/20.82	21.00
5200MHz	Pass	6.00/0.44	14.33	14.16	14.51	14.58	20.42	30.00	26.42/20.86	21.00
5240MHz	Pass	6.00/0.44	14.36	14.26	14.18	14.95	20.47	30.00	26.47/20.91	21.00
5745MHz	Pass	6.00	20.95	21.02	21.82	20.23	27.06	30.00	33.06	Inf
5785MHz	Pass	6.00	19.37	19.74	19.93	19.16	25.58	30.00	31.58	Inf
5825MHz	Pass	6.00	19.81	19.86	19.96	19.26	25.75	30.00	31.75	Inf
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	6.00/0.44	14.39	14.13	14.42	14.54	20.39	30.00	26.39/20.83	21.00
5200MHz	Pass	6.00/0.44	14.45	14.21	14.39	14.56	20.42	30.00	26.42/20.86	21.00
5240MHz	Pass	6.00/0.44	14.45	14.19	14.14	14.98	20.47	30.00	26.47/20.91	21.00
5745MHz	Pass	6.00	20.87	21.01	21.57	20.06	26.93	30.00	32.93	Inf
5785MHz	Pass	6.00	21.48	21.66	22.30	21.08	27.67	30.00	33.67	Inf
5825MHz	Pass	6.00	20.12	20.42	20.60	19.67	26.24	30.00	32.24	Inf
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	6.00/0.44	14.49	14.23	14.28	14.21	20.32	30.00	26.32/20.76	21.00
5230MHz	Pass	6.00/0.44	14.55	14.45	14.17	14.61	20.47	30.00	26.47/20.91	21.00
5755MHz	Pass	6.00	20.39	20.24	20.20	19.79	26.18	30.00	32.18	Inf
5795MHz	Pass	6.00	21.54	21.34	21.45	21.01	27.36	30.00	33.36	Inf
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	6.00/0.44	14.52	14.31	14.39	14.63	20.48	30.00	26.48/20.92	21.00
5775MHz	Pass	6.00	19.28	19.43	19.42	19.09	25.33	30.00	31.33	Inf

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



For EUT 2 / Radio 1 / External Ant.1_Beamforming Mode
Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	14.51	0.02825	26.53/20.97	0.44978
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	14.45	0.02786	26.47/20.91	0.44361
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	14.46	0.02793	26.48/20.92	0.44463
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	23.96	0.24889	35.98	3.96278
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	23.94	0.24774	35.96	3.94457
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	23.82	0.24099	35.84	3.83707



For EUT 2 / Radio 1 / External Ant.1_Beamforming Mode
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	12.02/6.46	8.55	8.27	8.29	8.66	14.47	23.98	26.49/20.93	Inf/21.00
5200MHz	Pass	12.02/6.46	8.39	8.17	8.14	8.82	14.41	23.98	26.43/20.87	Inf/21.00
5240MHz	Pass	12.02/6.46	8.45	8.33	7.86	9.21	14.51	23.98	26.53/20.97	Inf/21.00
5745MHz	Pass	12.02	17.95	18.11	18.07	17.60	23.96	23.98	35.98	Inf
5785MHz	Pass	12.02	17.74	18.10	18.14	17.67	23.94	23.98	35.96	Inf
5825MHz	Pass	12.02	17.87	17.96	18.01	17.51	23.86	23.98	35.88	Inf
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	12.02/6.46	8.77	8.03	8.41	8.23	14.39	23.98	26.41/20.85	Inf/21.00
5230MHz	Pass	12.02/6.46	8.69	8.05	8.13	8.78	14.45	23.98	26.47/20.91	Inf/21.00
5755MHz	Pass	12.02	17.91	18.02	18.12	17.59	23.94	23.98	35.96	Inf
5795MHz	Pass	12.02	17.85	17.92	17.97	17.56	23.85	23.98	35.87	Inf
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	12.02/6.46	8.35	8.23	8.46	8.70	14.46	23.98	26.48/20.92	Inf/21.00
5775MHz	Pass	12.02	17.81	17.76	17.96	17.68	23.82	23.98	35.84	Inf

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



**For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode
Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP / EIRP 30° (dBm)	EIRP / EIRP 30° (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	22.34	0.17140	28.34/20.98	0.68234
802.11ax HEW20_Nss1,(MCS0)_2TX	22.31	0.17022	28.31/20.95	0.67764
802.11ax HEW40_Nss1,(MCS0)_2TX	22.29	0.16943	28.29/20.93	0.67453
802.11ax HEW80_Nss1,(MCS0)_2TX	19.75	0.09441	25.75/18.39	0.37584
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	28.29	0.67453	34.29	2.68534
802.11ax HEW20_Nss1,(MCS0)_2TX	28.28	0.67298	34.28	2.67917
802.11ax HEW40_Nss1,(MCS0)_2TX	27.61	0.57677	33.61	2.29615
802.11ax HEW80_Nss1,(MCS0)_2TX	24.69	0.29444	30.69	1.17220



For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode
Result

Mode	Result	DG/ Gain [Phi 30°] (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP / EIRP [Phi 30°] (dBm)	EIRP Limit / EIRP Limit [Phi 30°] (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.00/-1.36	19.43	19.15	22.30	30.00	28.3/20.94	Inf/21.00
5200MHz	Pass	6.00/-1.36	19.45	19.21	22.34	30.00	28.34/20.98	Inf/21.00
5240MHz	Pass	6.00/-1.36	19.16	19.40	22.29	30.00	28.29/20.93	Inf/21.00
5745MHz	Pass	6.00	24.36	26.03	28.29	30.00	34.29	36.00
5785MHz	Pass	6.00	24.35	25.79	28.14	30.00	34.14	36.00
5825MHz	Pass	6.00	24.42	25.74	28.14	30.00	34.14	36.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.00/-1.36	19.29	18.96	22.14	30.00	28.14/20.78	Inf/21.00
5200MHz	Pass	6.00/-1.36	19.41	19.15	22.29	30.00	28.29/20.93	Inf/21.00
5240MHz	Pass	6.00/-1.36	19.22	19.37	22.31	30.00	28.31/20.95	Inf/21.00
5745MHz	Pass	6.00	24.32	26.01	28.26	30.00	34.26	36.00
5785MHz	Pass	6.00	24.45	25.93	28.26	30.00	34.26	36.00
5825MHz	Pass	6.00	24.55	25.89	28.28	30.00	34.28	36.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.00/-1.36	17.42	17.30	20.37	30.00	26.37/19.01	Inf/21.00
5230MHz	Pass	6.00/-1.36	19.22	19.33	22.29	30.00	28.29/20.93	Inf/21.00
5755MHz	Pass	6.00	23.21	24.24	26.77	30.00	32.77	36.00
5795MHz	Pass	6.00	23.96	25.16	27.61	30.00	33.61	36.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.00/-1.36	16.77	16.70	19.75	30.00	25.75/18.39	Inf/21.00
5775MHz	Pass	6.00	21.49	21.87	24.69	30.00	30.69	36.00

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



**For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode
Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP / EIRP 30° (dBm)	EIRP / EIRP 30° (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.86	0.04853	26.86/20.95	0.48529
802.11ax HEW20_Nss1,(MCS0)_4TX	16.88	0.04875	26.88/20.97	0.48753
802.11ax HEW40_Nss1,(MCS0)_4TX	16.88	0.04875	26.88/20.97	0.48753
802.11ax HEW80_Nss1,(MCS0)_4TX	16.79	0.04775	26.79/20.88	0.47753
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	25.98	0.39628	35.98	3.96278
802.11ax HEW20_Nss1,(MCS0)_4TX	25.97	0.39537	35.97	3.95367
802.11ax HEW40_Nss1,(MCS0)_4TX	25.93	0.39174	35.93	3.91742
802.11ax HEW80_Nss1,(MCS0)_4TX	23.67	0.23281	33.67	2.32809



For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode
Result

Mode	Result	DG / Gain [Phi 30°] (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP / EIRP [Phi 30°] (dBm)	EIRP Limit / EIRP Limit [Phi 30°] (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	10.00/4.09	10.88	10.22	10.88	11.16	16.82	26.00	26.82/20.91	Inf/21.00
5200MHz	Pass	10.00/4.09	10.89	10.58	10.48	11.34	16.86	26.00	26.86/20.95	Inf/21.00
5240MHz	Pass	10.00/4.09	10.79	10.58	10.20	11.53	16.82	26.00	26.82/20.91	Inf/21.00
5745MHz	Pass	10.00	19.91	20.18	20.26	19.42	25.98	26.00	35.98	Inf
5785MHz	Pass	10.00	19.37	19.74	19.93	19.16	25.58	26.00	35.58	Inf
5825MHz	Pass	10.00	19.81	19.86	19.96	19.26	25.75	26.00	35.75	Inf
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	10.00/4.09	10.91	10.73	10.57	11.22	16.88	26.00	26.88/20.97	Inf/21.00
5200MHz	Pass	10.00/4.09	10.86	10.58	10.62	11.30	16.87	26.00	26.87/20.96	Inf/21.00
5240MHz	Pass	10.00/4.09	10.87	10.59	10.29	11.36	16.82	26.00	26.82/20.91	Inf/21.00
5745MHz	Pass	10.00	19.86	20.08	20.25	19.18	25.88	26.00	35.88	Inf
5785MHz	Pass	10.00	19.88	20.04	20.35	19.49	25.97	26.00	35.97	Inf
5825MHz	Pass	10.00	20.07	20.13	20.10	19.43	25.96	26.00	35.96	Inf
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	10.00/4.09	11.02	10.65	10.80	10.97	16.88	26.00	26.88/20.97	Inf/21.00
5230MHz	Pass	10.00/4.09	10.87	10.68	10.52	11.22	16.85	26.00	26.85/20.94	Inf/21.00
5755MHz	Pass	10.00	20.15	19.96	19.90	19.59	25.93	26.00	35.93	Inf
5795MHz	Pass	10.00	20.04	19.83	19.85	19.58	25.85	26.00	35.85	Inf
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	10.00/4.09	10.69	10.56	10.67	11.13	16.79	26.00	26.79/20.88	Inf/21.00
5775MHz	Pass	10.00	17.65	17.66	17.82	17.47	23.67	26.00	33.67	Inf

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



For EUT 2 / Radio 1 / External Ant.2_Beamforming Mode
Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP / EIRP 30° (dBm)	EIRP / EIRP 30° (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	10.77	0.01194	26.79/20.88	0.47753
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	10.83	0.01211	26.85/20.94	0.48417
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	10.84	0.01213	26.86/20.95	0.48529
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	19.90	0.09772	35.92	3.90841
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	19.92	0.09817	35.94	3.92645
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	19.94	0.09863	35.96	3.94457



For EUT 2 / Radio 1 / External Ant.2_Beamforming Mode
Result

Mode	Result	DG / Gain [Phi 30°] (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP / EIRP [Phi 30°] (dBm)	EIRP Limit / EIRP Limit [Phi 30°] (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	16.02/10.11	5.57	4.98	4.00	4.25	10.77	19.98	26.79/20.88	Inf/21.00
5200MHz	Pass	16.02/10.11	5.55	4.85	3.94	4.12	10.68	19.98	26.70/20.79	Inf/21.00
5240MHz	Pass	16.02/10.11	5.58	4.81	3.89	4.31	10.71	19.98	26.73/20.82	Inf/21.00
5745MHz	Pass	16.02	13.87	13.97	13.70	13.73	19.84	19.98	35.86	Inf
5785MHz	Pass	16.02	13.95	13.97	13.67	13.91	19.90	19.98	35.92	Inf
5825MHz	Pass	16.02	14.20	14.05	13.33	13.73	19.86	19.98	35.88	Inf
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	16.02/10.11	5.67	4.97	4.04	4.27	10.81	19.98	26.83/20.92	Inf/21.00
5230MHz	Pass	16.02/10.11	5.67	4.93	3.97	4.47	10.83	19.98	26.85/20.94	Inf/21.00
5755MHz	Pass	16.02	13.82	13.85	13.77	13.87	19.85	19.98	35.87	Inf
5795MHz	Pass	16.02	14.06	13.97	13.76	13.79	19.92	19.98	35.94	Inf
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	16.02/10.11	5.63	5.01	4.11	4.38	10.84	19.98	26.86/20.95	Inf/21.00
5775MHz	Pass	16.02	13.94	14.06	13.83	13.83	19.94	19.98	35.96	Inf

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



For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode
Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP / EIRP 30° (dBm)	EIRP / EIRP 30° (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.35	0.08610	29.35/20.91	0.86099
802.11ax HEW20_Nss1,(MCS0)_2TX	19.33	0.08570	29.33/20.89	0.85704
802.11ax HEW40_Nss1,(MCS0)_2TX	19.42	0.08750	29.42/20.98	0.87498
802.11ax HEW80_Nss1,(MCS0)_2TX	19.21	0.08337	29.21/20.77	0.83368
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	25.89	0.38815	35.89	3.88150
802.11ax HEW20_Nss1,(MCS0)_2TX	25.86	0.38548	35.86	3.85478
802.11ax HEW40_Nss1,(MCS0)_2TX	25.99	0.39719	35.99	3.97192
802.11ax HEW80_Nss1,(MCS0)_2TX	23.54	0.22594	33.54	2.25944



For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode
Result

Mode	Result	DG/ Gain [Phi 30°] (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP / EIRP [Phi 30°] (dBm)	EIRP Limit / EIRP Limit [Phi 30°] (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	10.00/1.56	16.54	16.14	19.35	26.00	29.35/20.91	Inf/21.00
5200MHz	Pass	10.00/1.56	16.39	16.11	19.26	26.00	29.26/20.82	Inf/21.00
5240MHz	Pass	10.00/1.56	16.07	16.49	19.30	26.00	29.30/20.86	Inf/21.00
5745MHz	Pass	10.00	22.12	23.33	25.78	26.00	35.78	Inf
5785MHz	Pass	10.00	22.27	23.17	25.75	26.00	35.75	Inf
5825MHz	Pass	10.00	22.52	23.22	25.89	26.00	35.89	Inf
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	10.00/1.56	16.42	16.17	19.31	26.00	29.31/20.87	Inf/21.00
5200MHz	Pass	10.00/1.56	16.31	16.19	19.26	26.00	29.26/20.82	Inf/21.00
5240MHz	Pass	10.00/1.56	16.16	16.47	19.33	26.00	29.33/20.89	Inf/21.00
5745MHz	Pass	10.00	22.13	23.36	25.80	26.00	35.80	Inf
5785MHz	Pass	10.00	22.32	23.24	25.81	26.00	35.81	Inf
5825MHz	Pass	10.00	22.49	23.19	25.86	26.00	35.86	Inf
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	10.00/1.56	16.65	16.16	19.42	26.00	29.42/20.98	Inf/21.00
5230MHz	Pass	10.00/1.56	16.28	16.50	19.40	26.00	29.40/20.96	Inf/21.00
5755MHz	Pass	10.00	22.43	23.46	25.99	26.00	35.99	Inf
5795MHz	Pass	10.00	22.61	23.30	25.98	26.00	35.98	Inf
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	10.00/1.56	16.26	16.13	19.21	26.00	29.21/20.77	Inf/21.00
5775MHz	Pass	10.00	20.43	20.62	23.54	26.00	33.54	Inf

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



**For EUT 1 / Radio 1_Non-Beamforming Mode
Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_4TX	5.74
802.11ax HEW20_Nss1,(MCS0)_4TX	5.12
802.11ax HEW40_Nss1,(MCS0)_4TX	2.24
802.11ax HEW80_Nss1,(MCS0)_4TX	-0.46
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	14.08
802.11ax HEW20_Nss1,(MCS0)_4TX	13.90
802.11ax HEW40_Nss1,(MCS0)_4TX	10.23
802.11ax HEW80_Nss1,(MCS0)_4TX	4.91

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

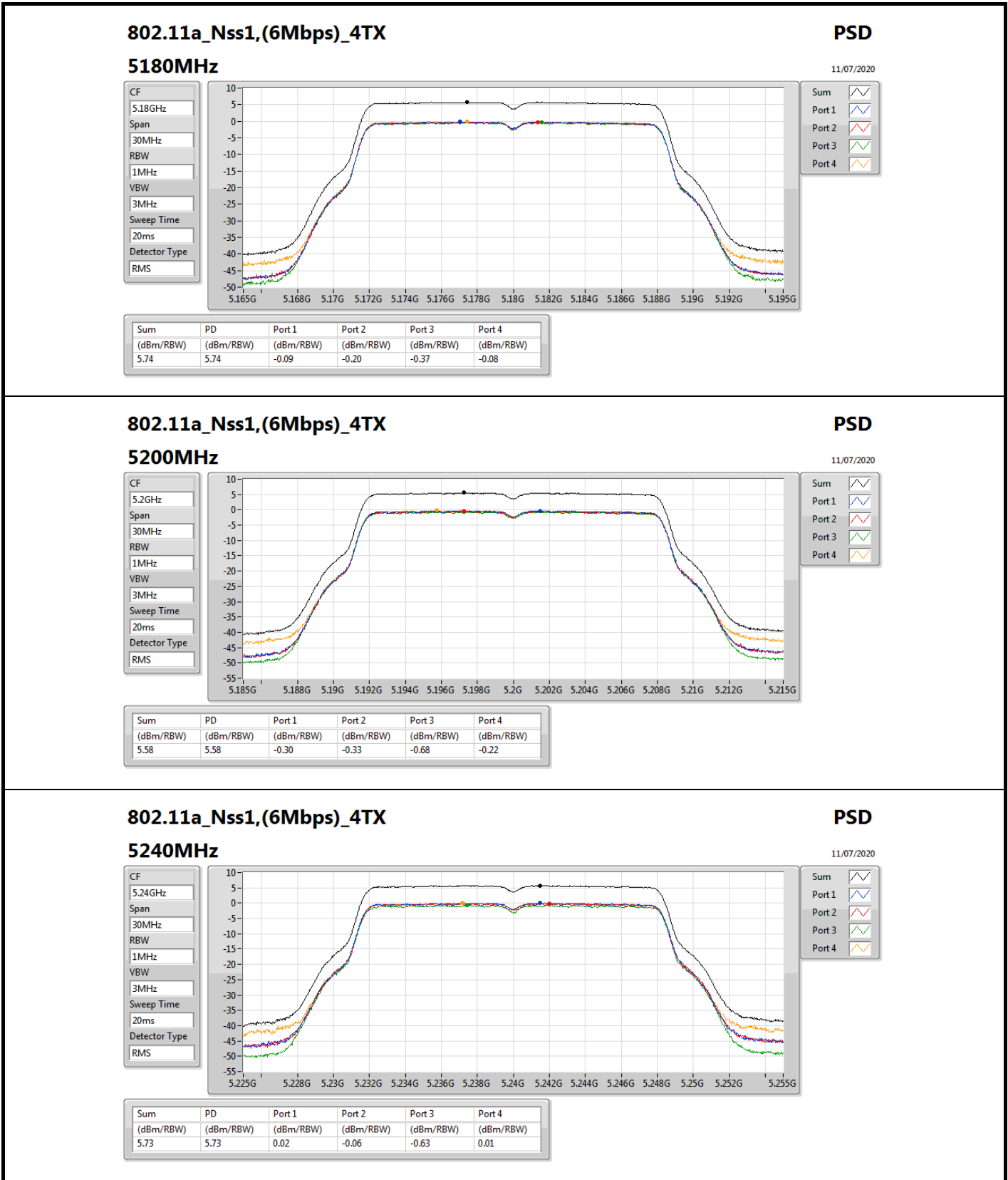
**For EUT 1 / Radio 1_Non-Beamforming Mode
Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	12.02	-0.09	-0.20	-0.37	-0.08	5.74	10.98
5200MHz	Pass	12.02	-0.30	-0.33	-0.68	-0.22	5.58	10.98
5240MHz	Pass	12.02	0.02	-0.06	-0.63	0.01	5.73	10.98
5745MHz	Pass	12.02	7.73	7.76	8.30	7.03	13.57	23.98
5785MHz	Pass	12.02	8.24	8.17	8.83	7.59	14.08	23.98
5825MHz	Pass	12.02	7.70	7.46	8.33	6.97	13.53	23.98
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	12.02	-0.75	-0.95	-1.04	-0.86	5.06	10.98
5200MHz	Pass	12.02	-0.73	-0.93	-1.02	-0.69	5.12	10.98
5240MHz	Pass	12.02	-0.82	-0.84	-1.25	-0.81	4.98	10.98
5745MHz	Pass	12.02	6.47	6.24	7.10	5.72	12.34	23.98
5785MHz	Pass	12.02	8.24	7.91	8.13	7.60	13.90	23.98
5825MHz	Pass	12.02	7.54	7.31	8.12	6.49	13.34	23.98
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	12.02	-3.47	-4.02	-4.20	-3.96	2.07	10.98
5230MHz	Pass	12.02	-3.36	-3.71	-4.24	-3.61	2.24	10.98
5755MHz	Pass	12.02	4.16	3.76	3.63	3.30	9.60	23.98
5795MHz	Pass	12.02	4.72	4.54	4.33	3.77	10.23	23.98
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	12.02	-6.17	-6.39	-6.48	-6.46	-0.46	10.98
5775MHz	Pass	12.02	-0.70	-1.10	-1.21	-1.26	4.91	23.98

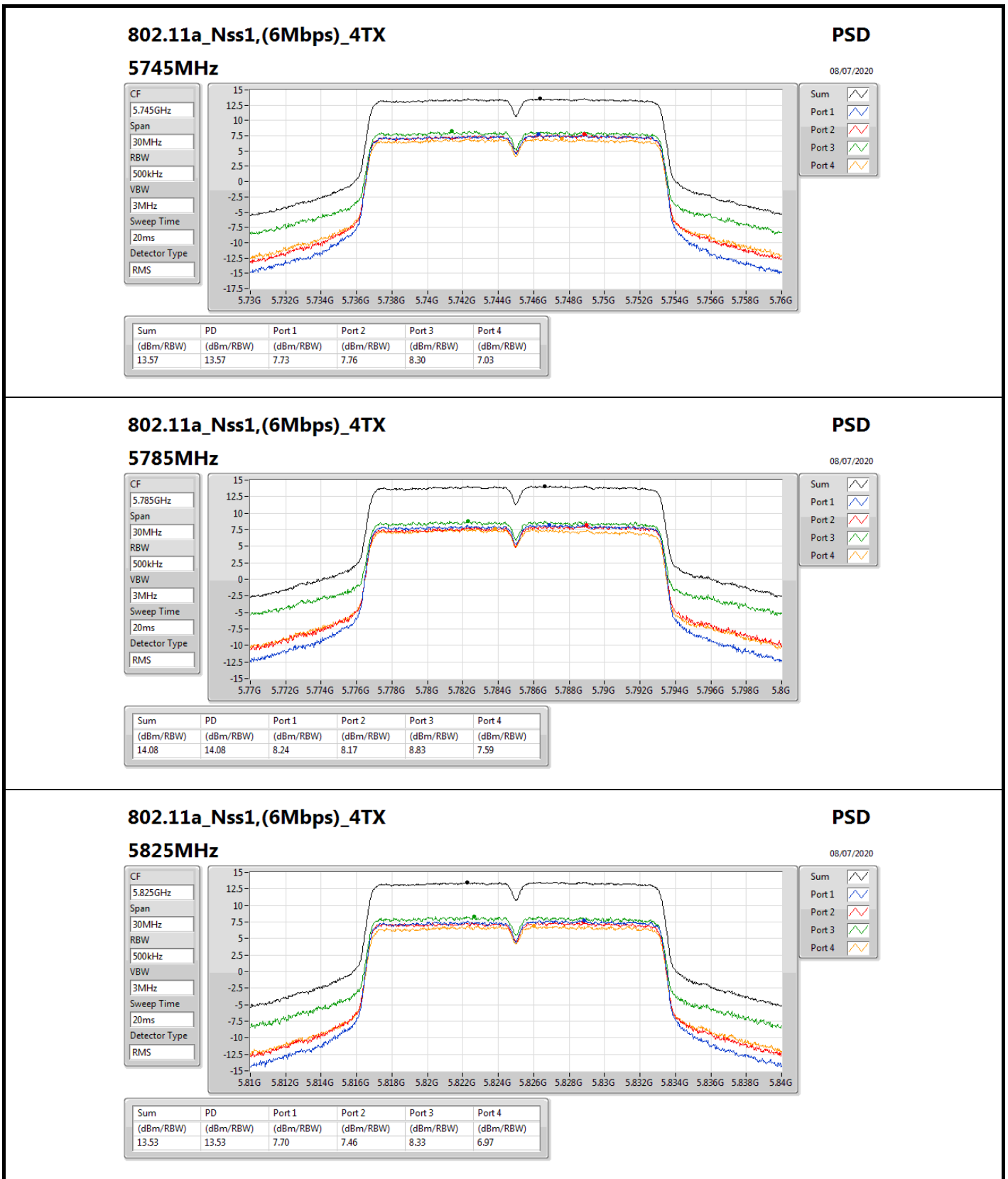
DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

For EUT 1 / Radio 1_Non-Beamforming Mode



For EUT 1 / Radio 1_Non-Beamforming Mode



802.11a_Nss1,(6Mbps)_4TX

5825MHz

PSD

08/07/2020

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.53	13.53	7.70	7.46	8.33	6.97

Sum

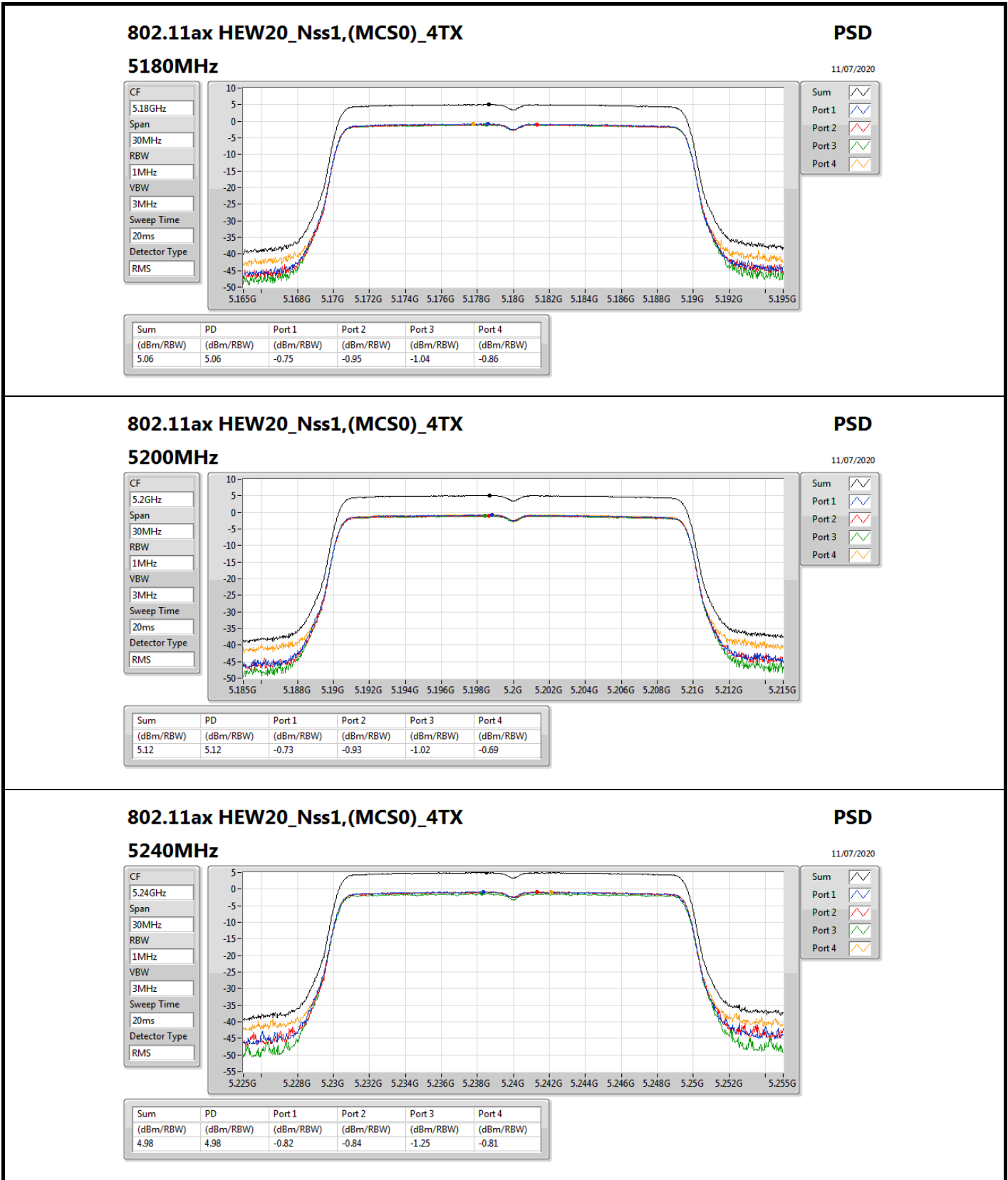
Port 1

Port 2

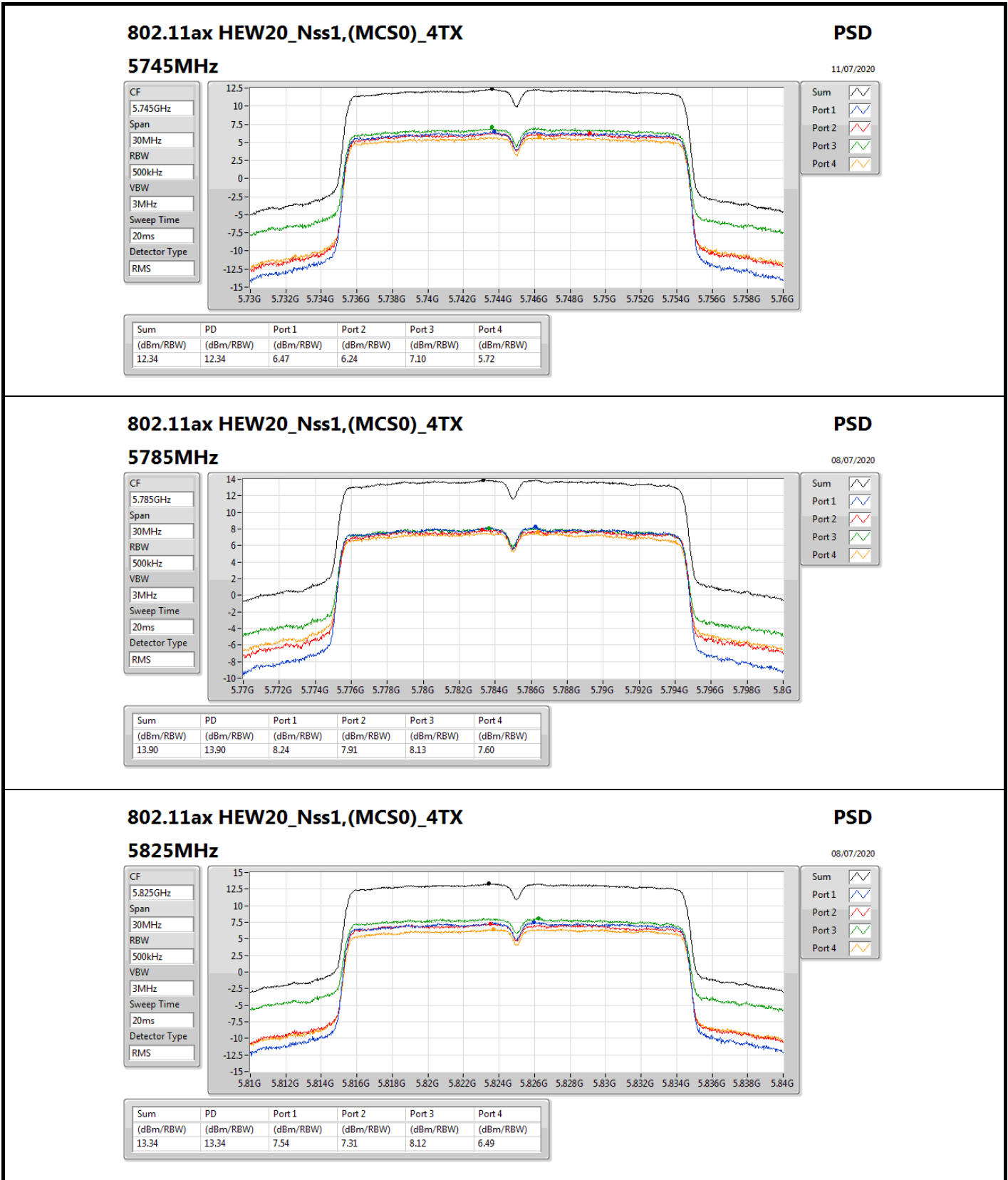
Port 3

Port 4

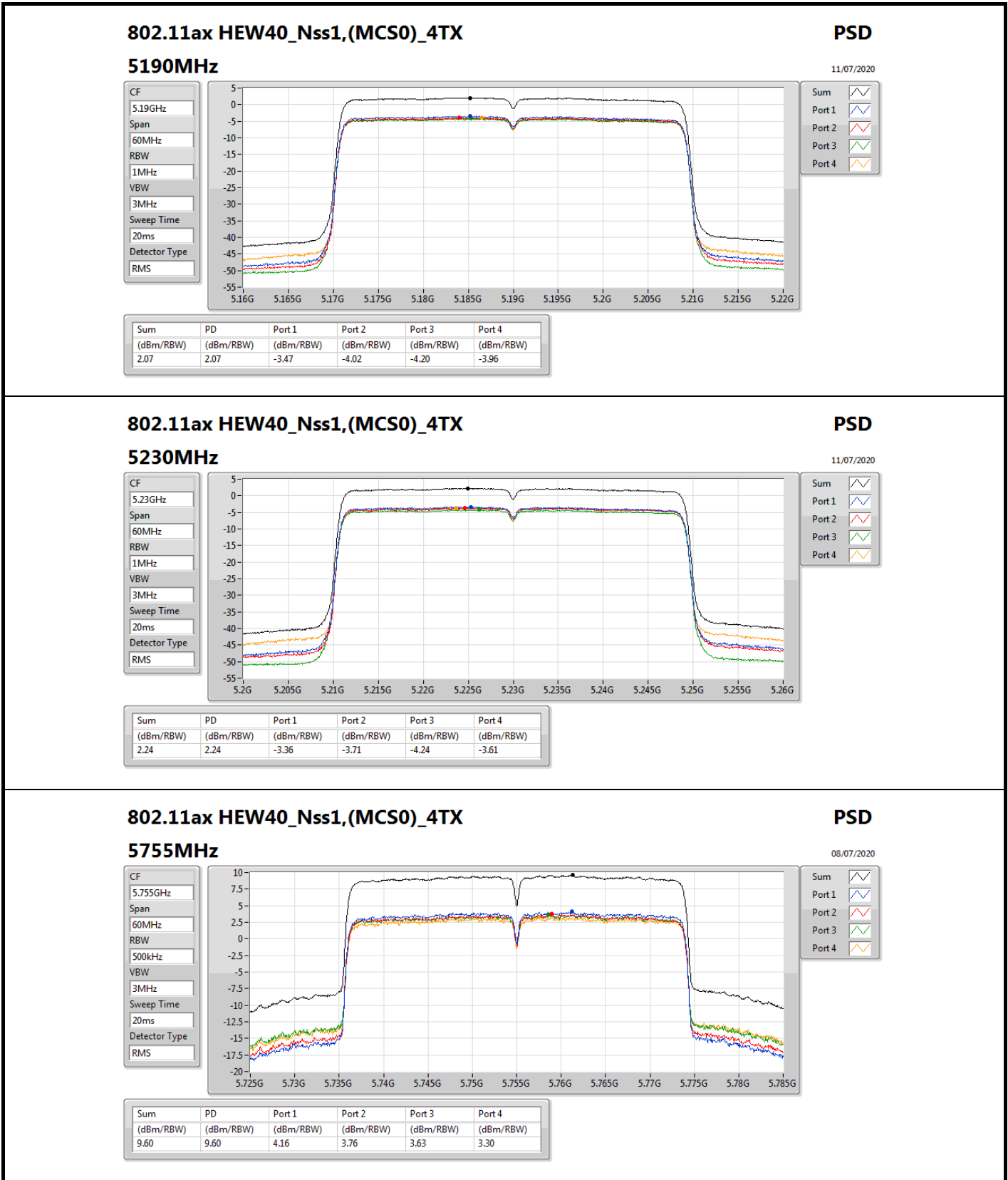
For EUT 1 / Radio 1_Non-Beamforming Mode



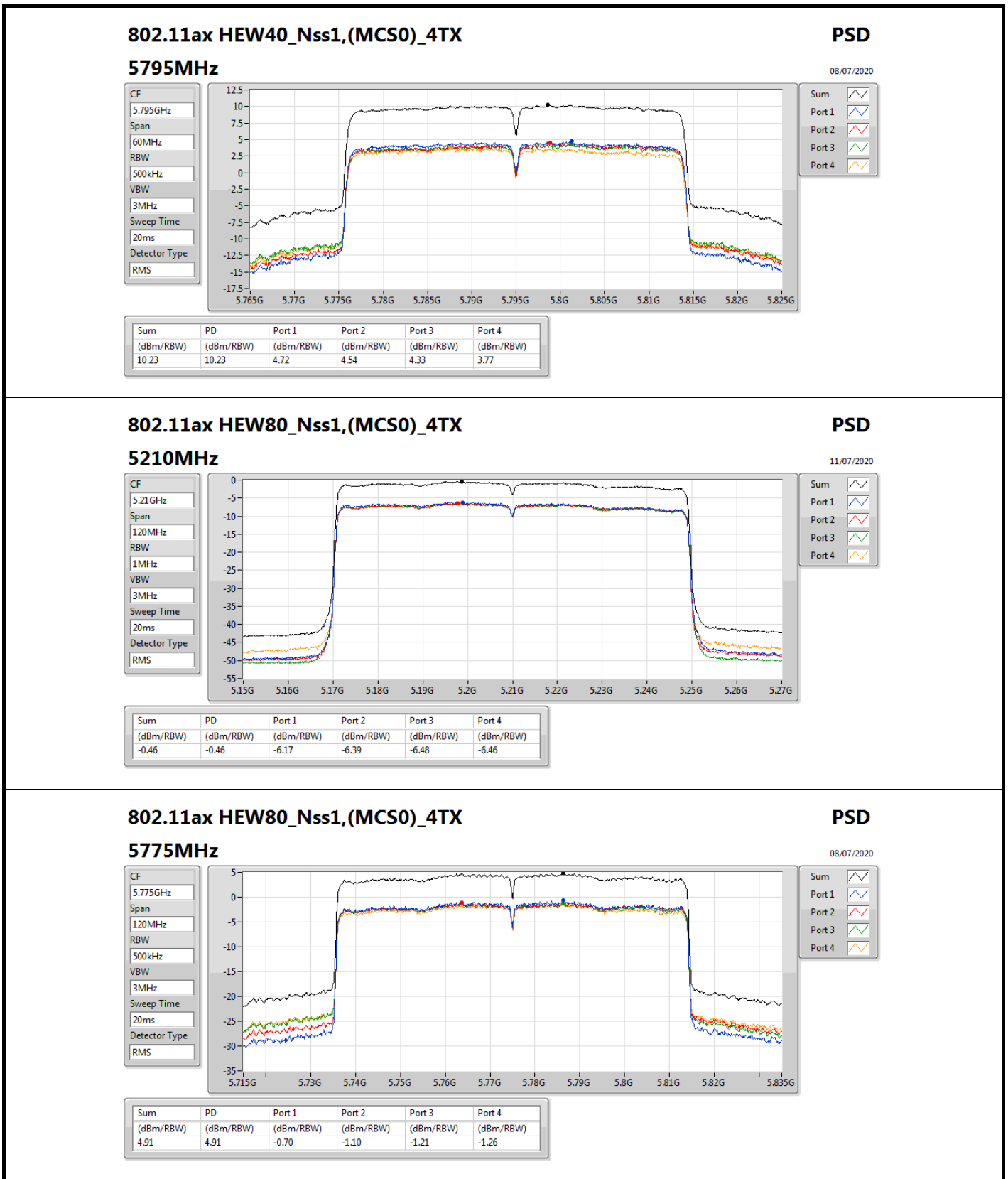
For EUT 1 / Radio 1_Non-Beamforming Mode



For EUT 1 / Radio 1_Non-Beamforming Mode



For EUT 1 / Radio 1_Non-Beamforming Mode





**For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode
Summary**

Mode	PD (dBm/RBW)
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	15.59
802.11ax HEW20_Nss1,(MCS0)_4TX	15.03
802.11ax HEW40_Nss1,(MCS0)_4TX	11.07
802.11ax HEW80_Nss1,(MCS0)_4TX	5.49

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

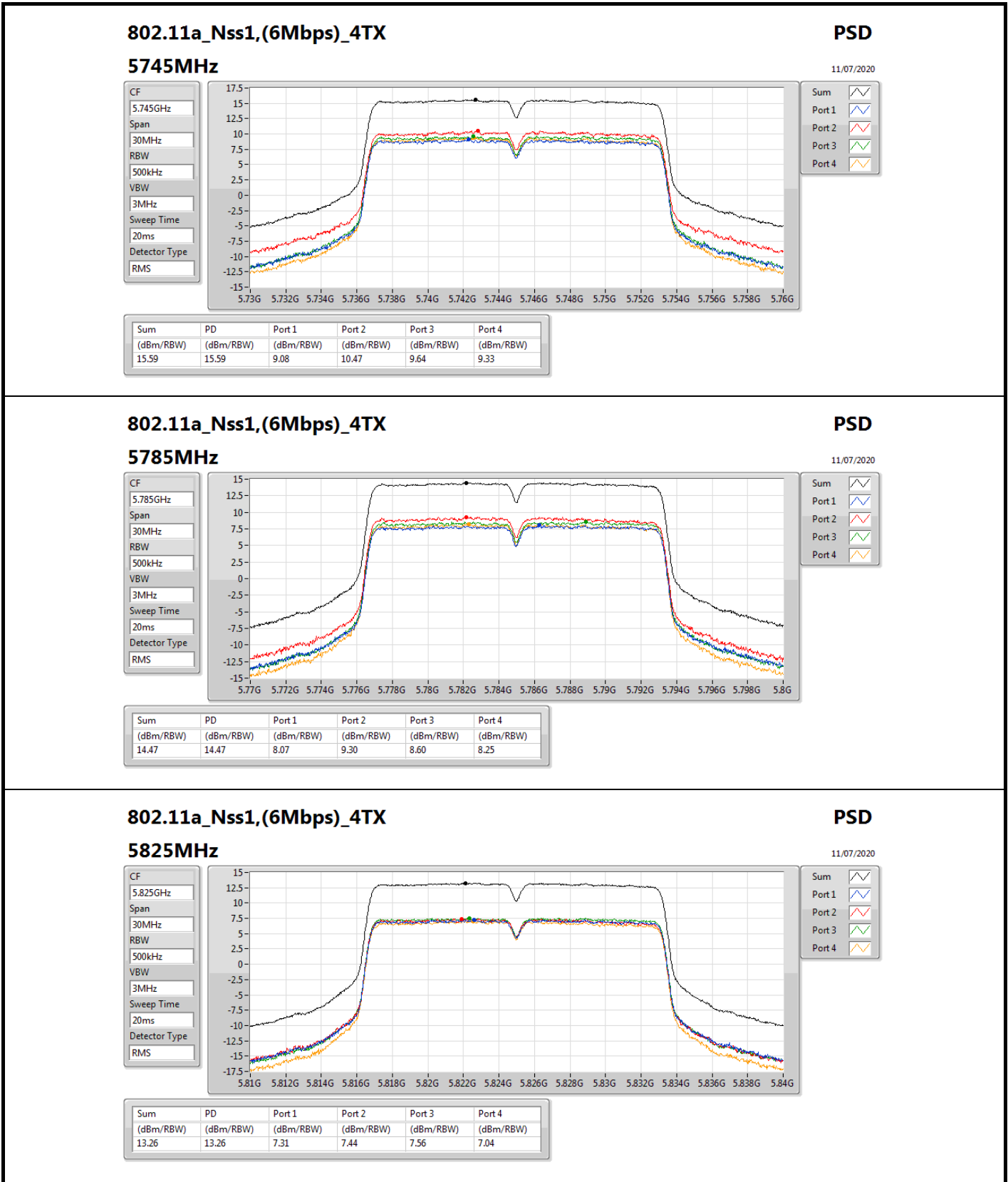
**For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode
Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	12.02	9.08	10.47	9.64	9.33	15.59	23.98
5785MHz	Pass	12.02	8.07	9.30	8.60	8.25	14.47	23.98
5825MHz	Pass	12.02	7.31	7.44	7.56	7.04	13.26	23.98
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5745MHz	Pass	12.02	8.59	9.82	9.12	8.78	15.03	23.98
5785MHz	Pass	12.02	7.56	8.75	8.12	7.65	13.96	23.98
5825MHz	Pass	12.02	6.75	6.73	6.89	6.44	12.64	23.98
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5755MHz	Pass	12.02	4.70	5.78	5.06	4.93	11.07	23.98
5795MHz	Pass	12.02	4.34	4.94	4.57	4.16	10.35	23.98
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5775MHz	Pass	12.02	-0.68	0.16	-0.45	-0.74	5.49	23.98

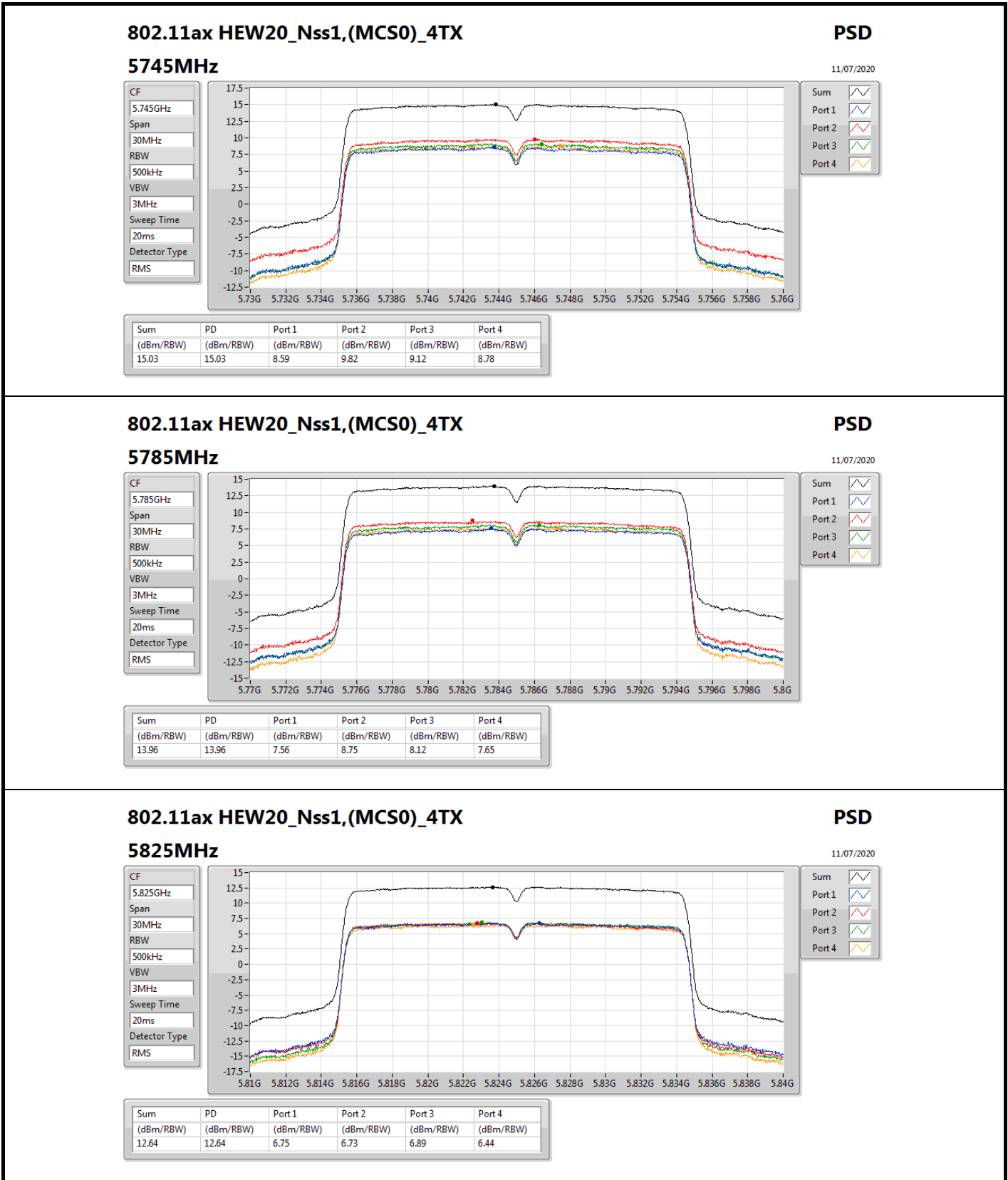
DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode



For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode



802.11ax HEW20_Nss1,(MCS0)_4TX

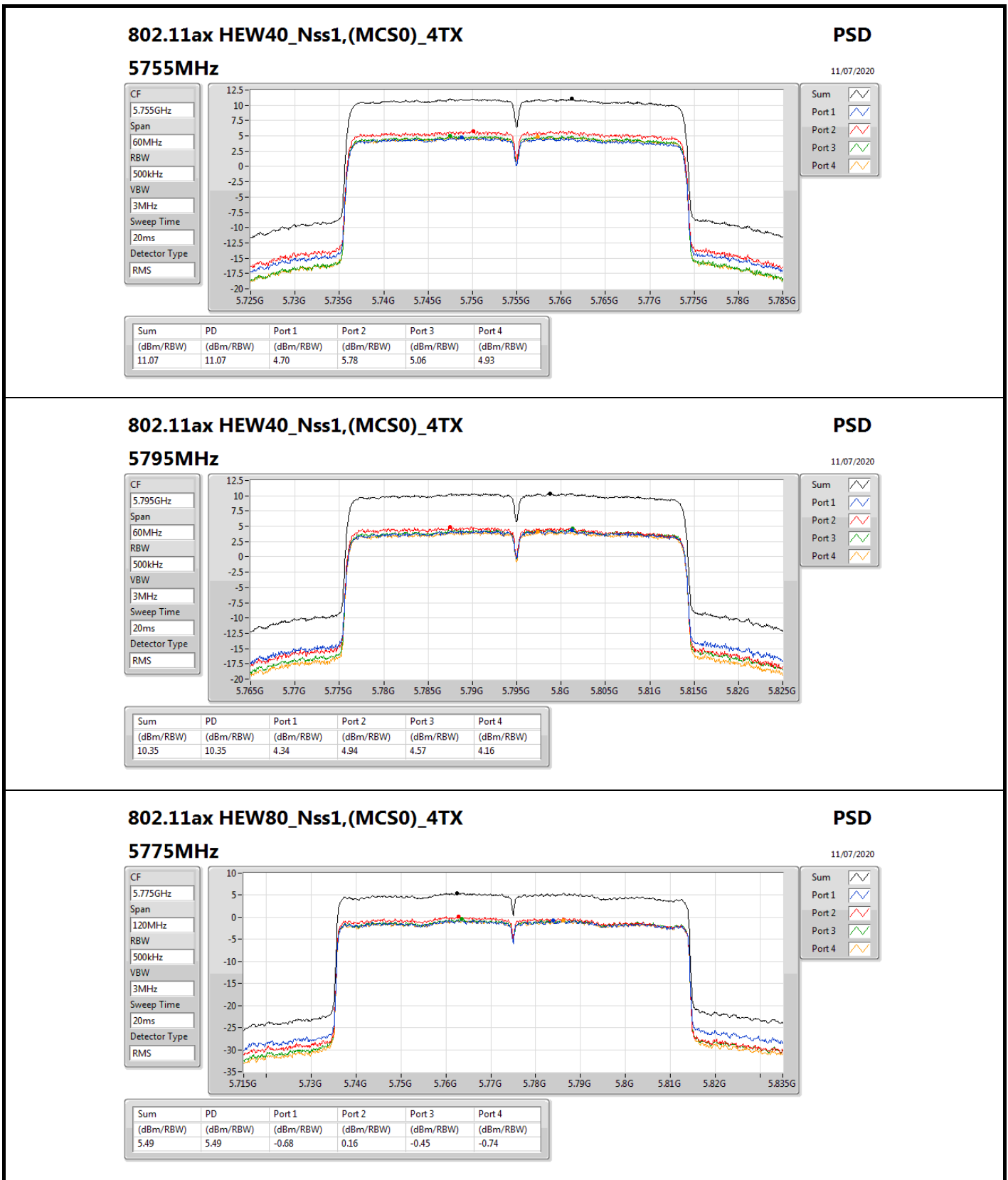
5825MHz

PSD

11/07/2020

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.64	12.64	6.75	6.73	6.89	6.44

For EUT 1 / Radio 2 Band 4 only_Non-Beamforming Mode



802.11ax HEW80_Nss1,(MCS0)_4TX

5775MHz

PSD

11/07/2020

CF

5.775GHz

Span

120MHz

RBW

500kHz

VBW

3MHz

Sweep Time

20ms

Detector Type

RMS



Sum

Port 1

Port 2

Port 3

Port 4



**For EUT 1 / Radio 3_Non-Beamforming Mode
Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_2TX	6.55
802.11ax HEW20_Nss1,(MCS0)_2TX	6.01
802.11ax HEW40_Nss1,(MCS0)_2TX	3.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-1.31
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	14.24
802.11ax HEW20_Nss1,(MCS0)_2TX	13.73
802.11ax HEW40_Nss1,(MCS0)_2TX	9.78
802.11ax HEW80_Nss1,(MCS0)_2TX	4.50

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

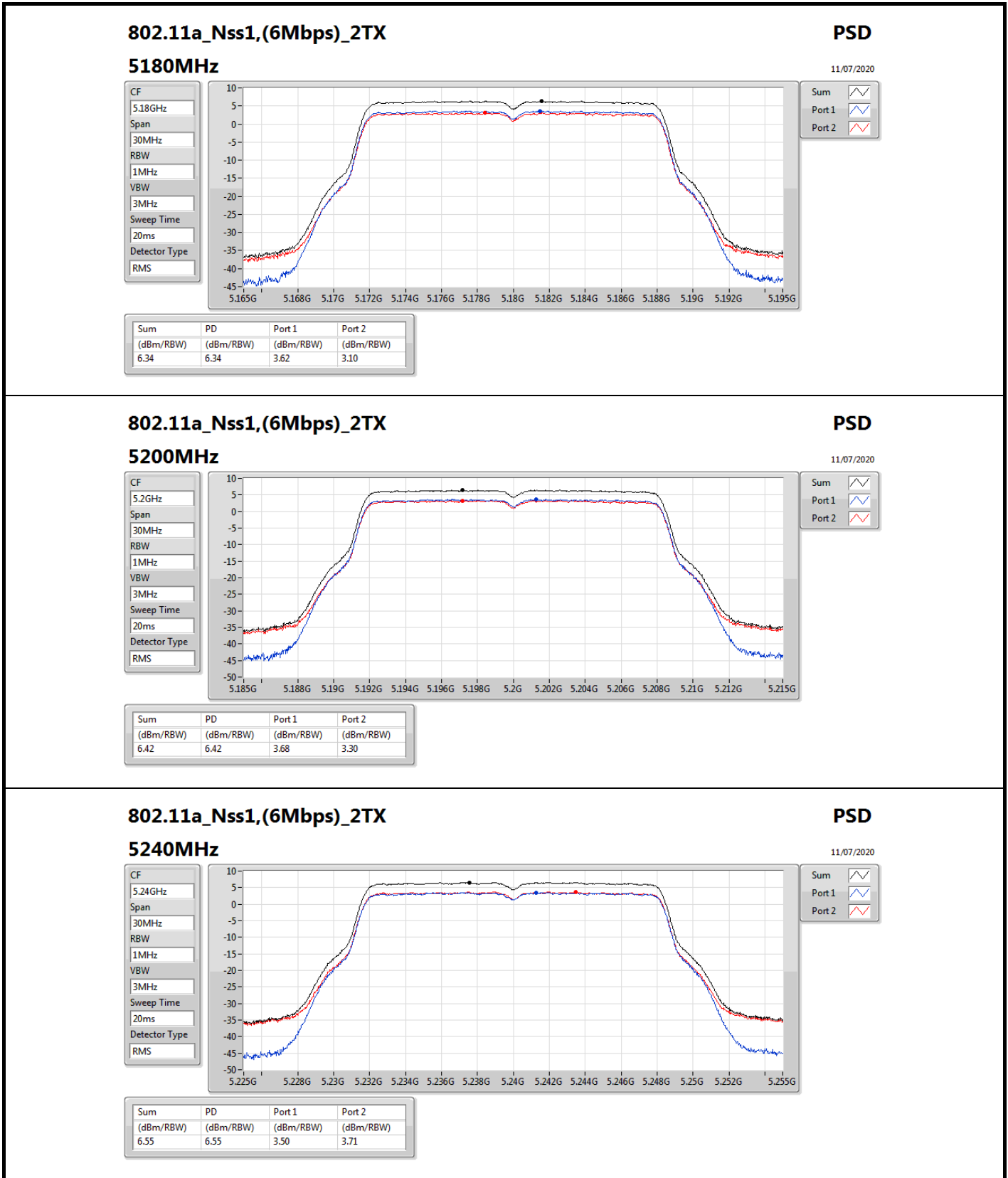
**For EUT 1 / Radio 3_Non-Beamforming Mode
Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.71	3.62	3.10	6.34	15.29
5200MHz	Pass	7.71	3.68	3.30	6.42	15.29
5240MHz	Pass	7.71	3.50	3.71	6.55	15.29
5745MHz	Pass	7.71	9.89	12.35	14.24	28.29
5785MHz	Pass	7.71	9.94	12.17	14.07	28.29
5825MHz	Pass	7.71	9.74	11.99	13.95	28.29
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.71	3.12	2.59	5.83	15.29
5200MHz	Pass	7.71	3.10	2.71	5.85	15.29
5240MHz	Pass	7.71	2.81	3.23	6.01	15.29
5745MHz	Pass	7.71	9.36	11.81	13.73	28.29
5785MHz	Pass	7.71	9.29	11.64	13.60	28.29
5825MHz	Pass	7.71	9.25	11.50	13.49	28.29
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	7.71	-0.84	-0.77	2.09	15.29
5230MHz	Pass	7.71	-0.20	0.25	3.00	15.29
5755MHz	Pass	7.71	5.50	7.80	9.78	28.29
5795MHz	Pass	7.71	5.34	7.65	9.64	28.29
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	7.71	-4.29	-4.25	-1.31	15.29
5775MHz	Pass	7.71	0.57	2.24	4.50	28.29

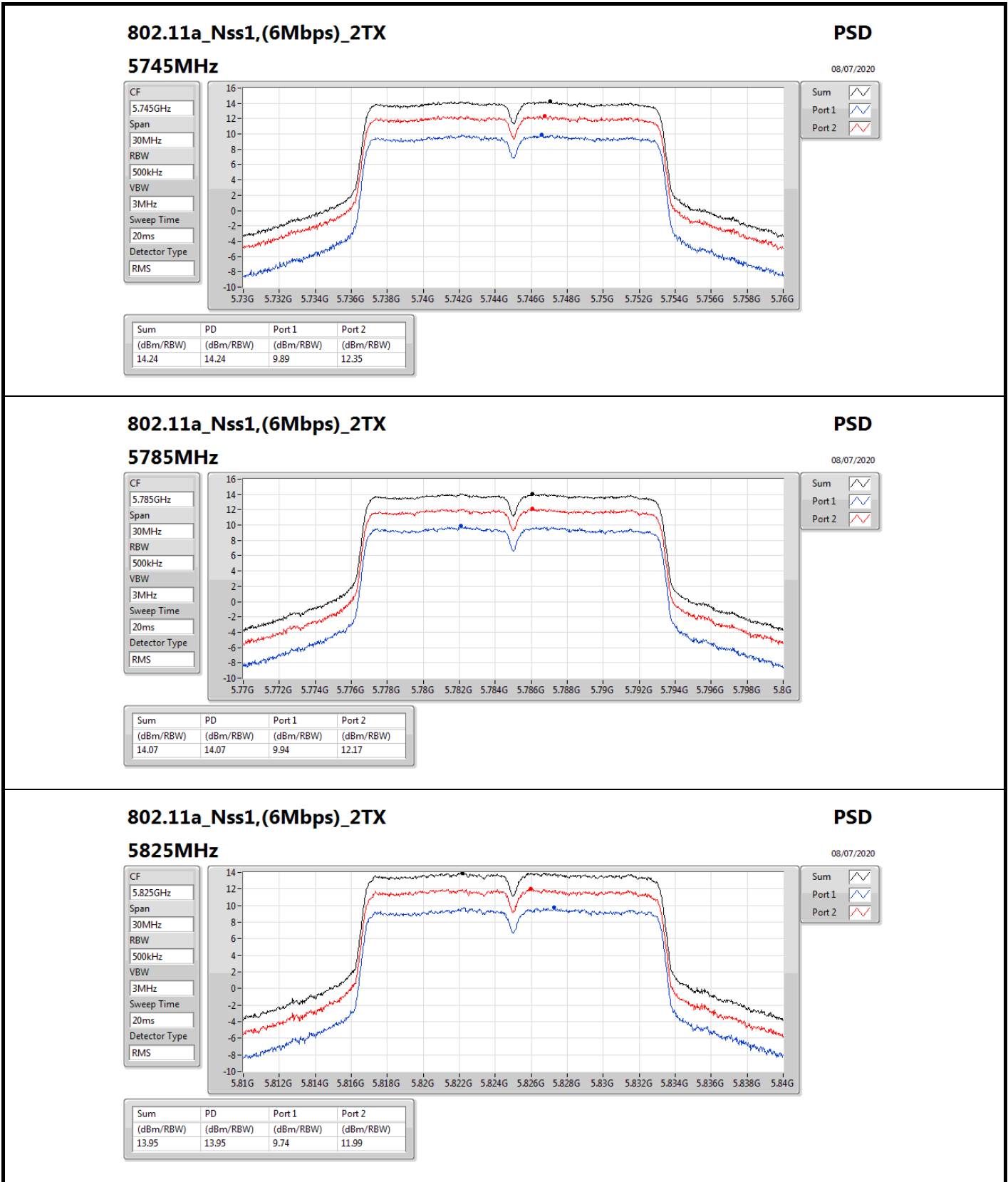
DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

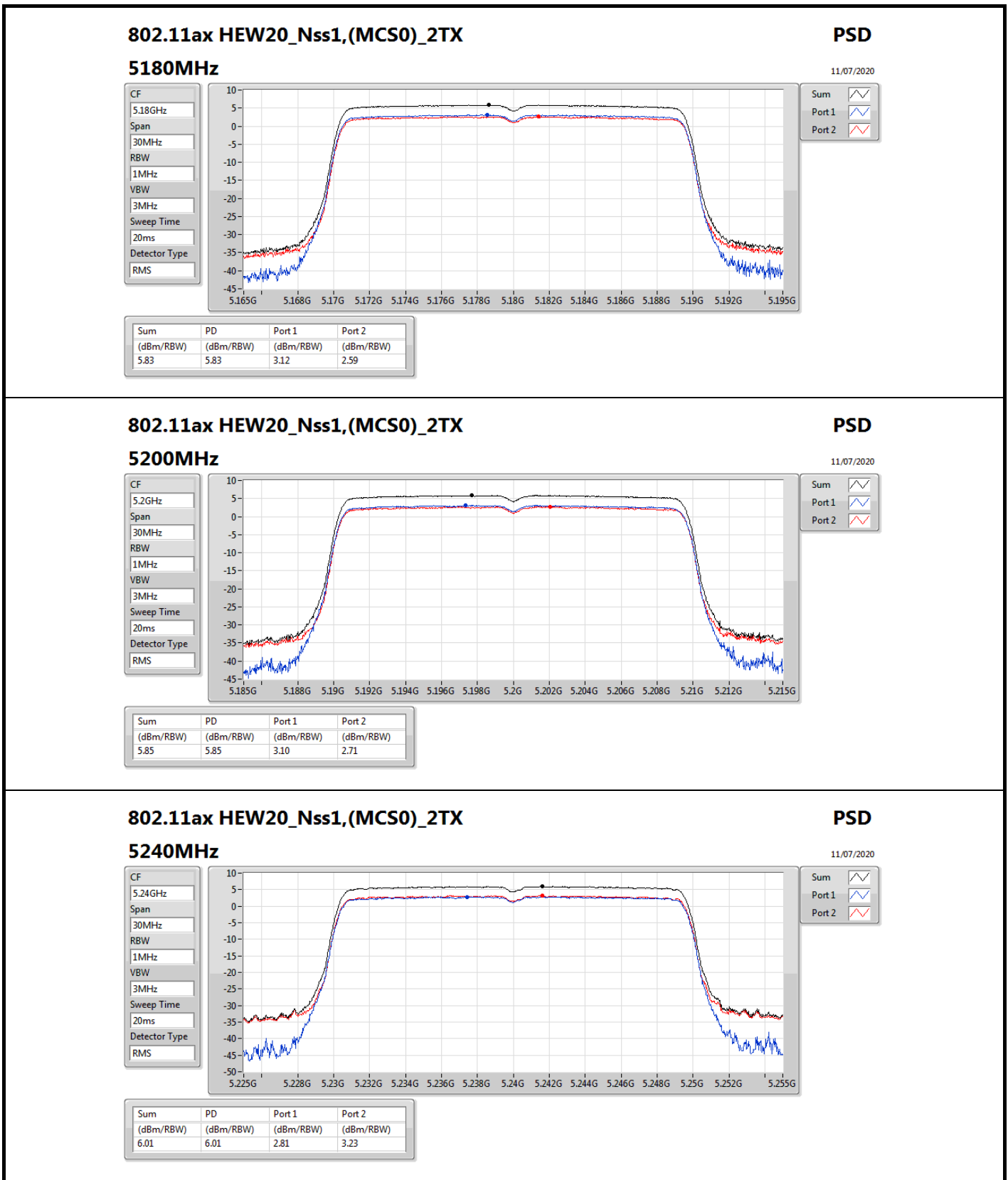
For EUT 1 / Radio 3_Non-Beamforming Mode



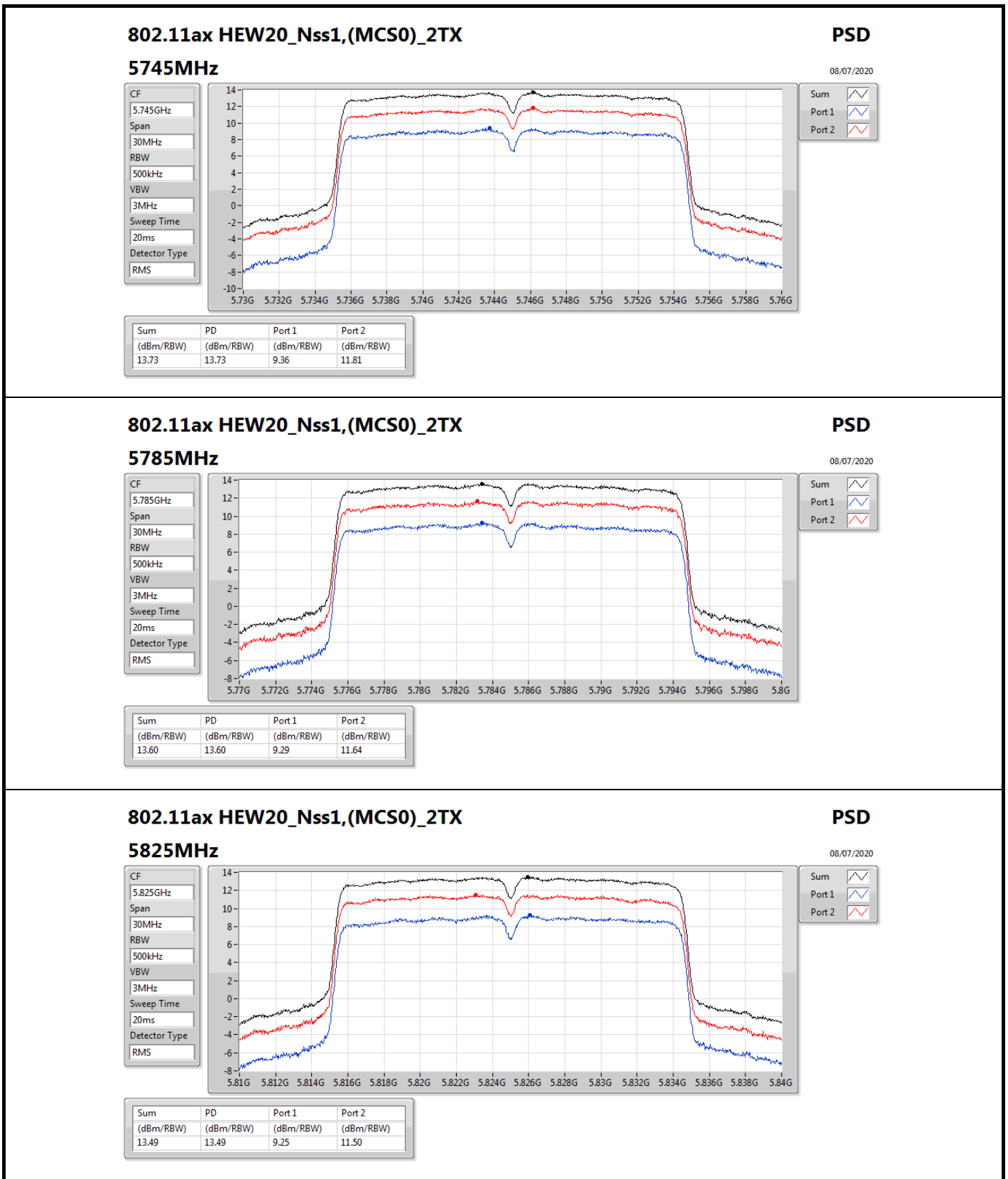
For EUT 1 / Radio 3_Non-Beamforming Mode



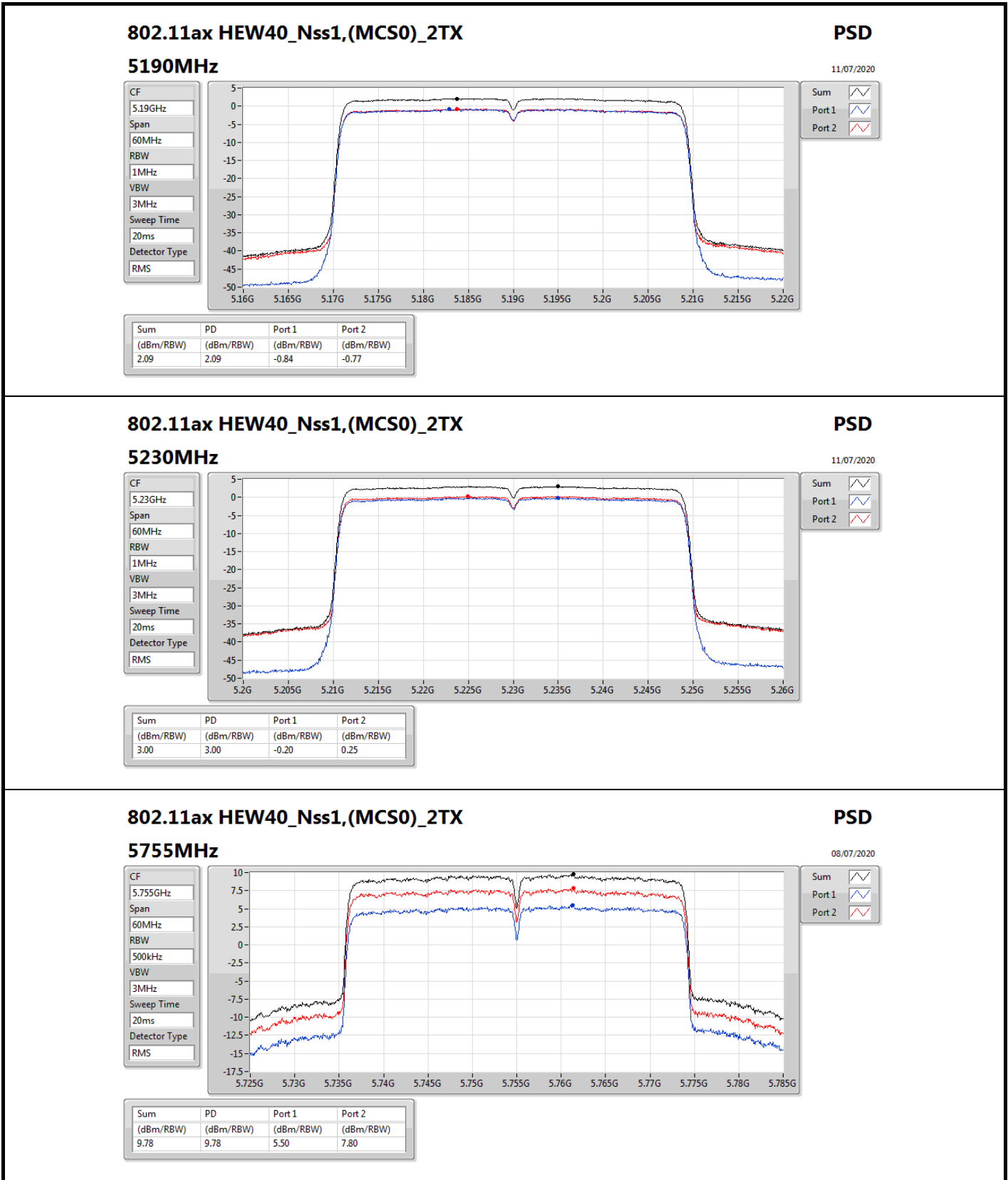
For EUT 1 / Radio 3_Non-Beamforming Mode



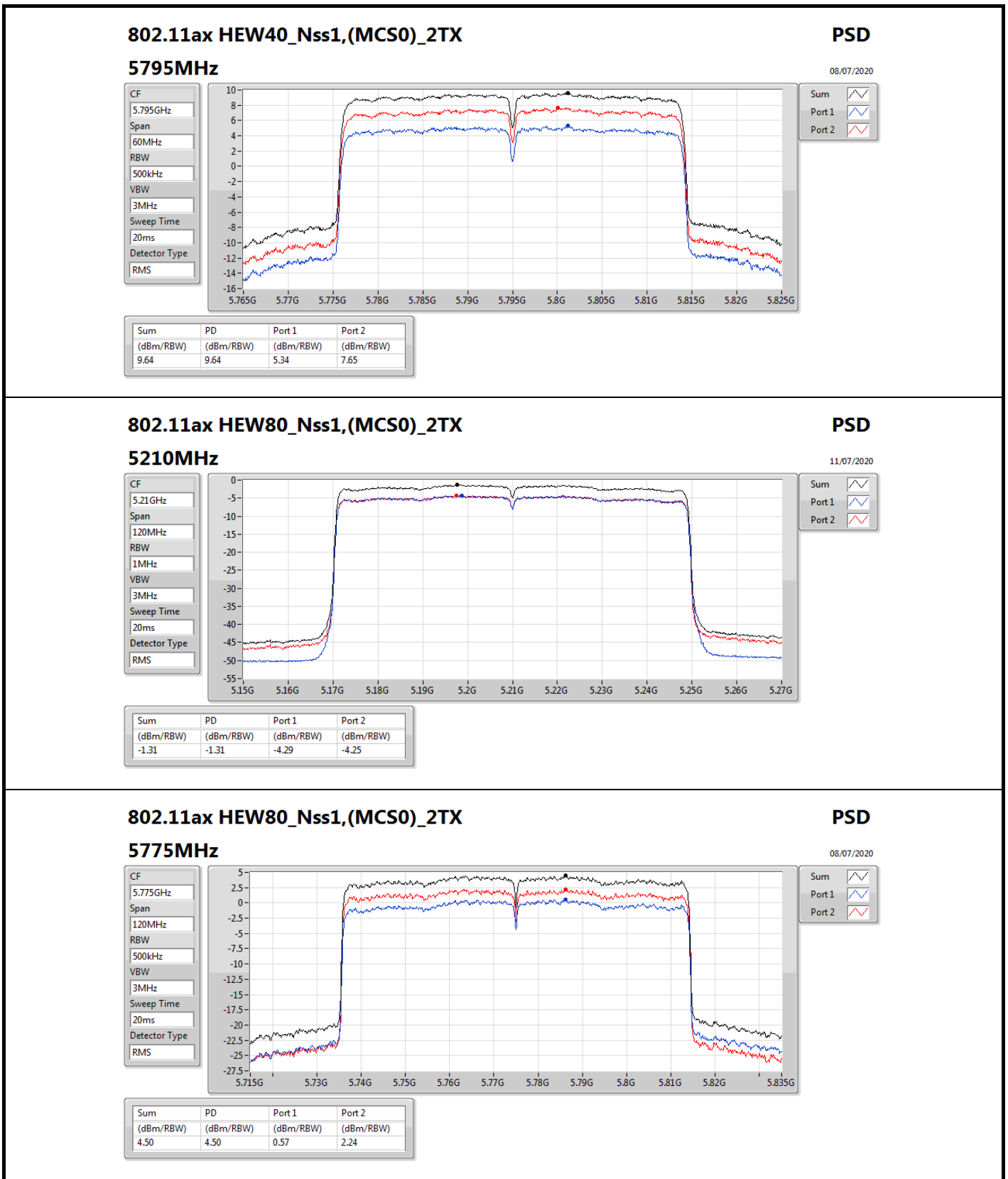
For EUT 1 / Radio 3_Non-Beamforming Mode



For EUT 1 / Radio 3_Non-Beamforming Mode



For EUT 1 / Radio 3_Non-Beamforming Mode





**For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode
Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_4TX	7.54
802.11ax HEW20_Nss1,(MCS0)_4TX	6.93
802.11ax HEW40_Nss1,(MCS0)_4TX	4.11
802.11ax HEW80_Nss1,(MCS0)_4TX	1.63
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	12.23
802.11ax HEW20_Nss1,(MCS0)_4TX	12.26
802.11ax HEW40_Nss1,(MCS0)_4TX	9.37
802.11ax HEW80_Nss1,(MCS0)_4TX	4.73

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

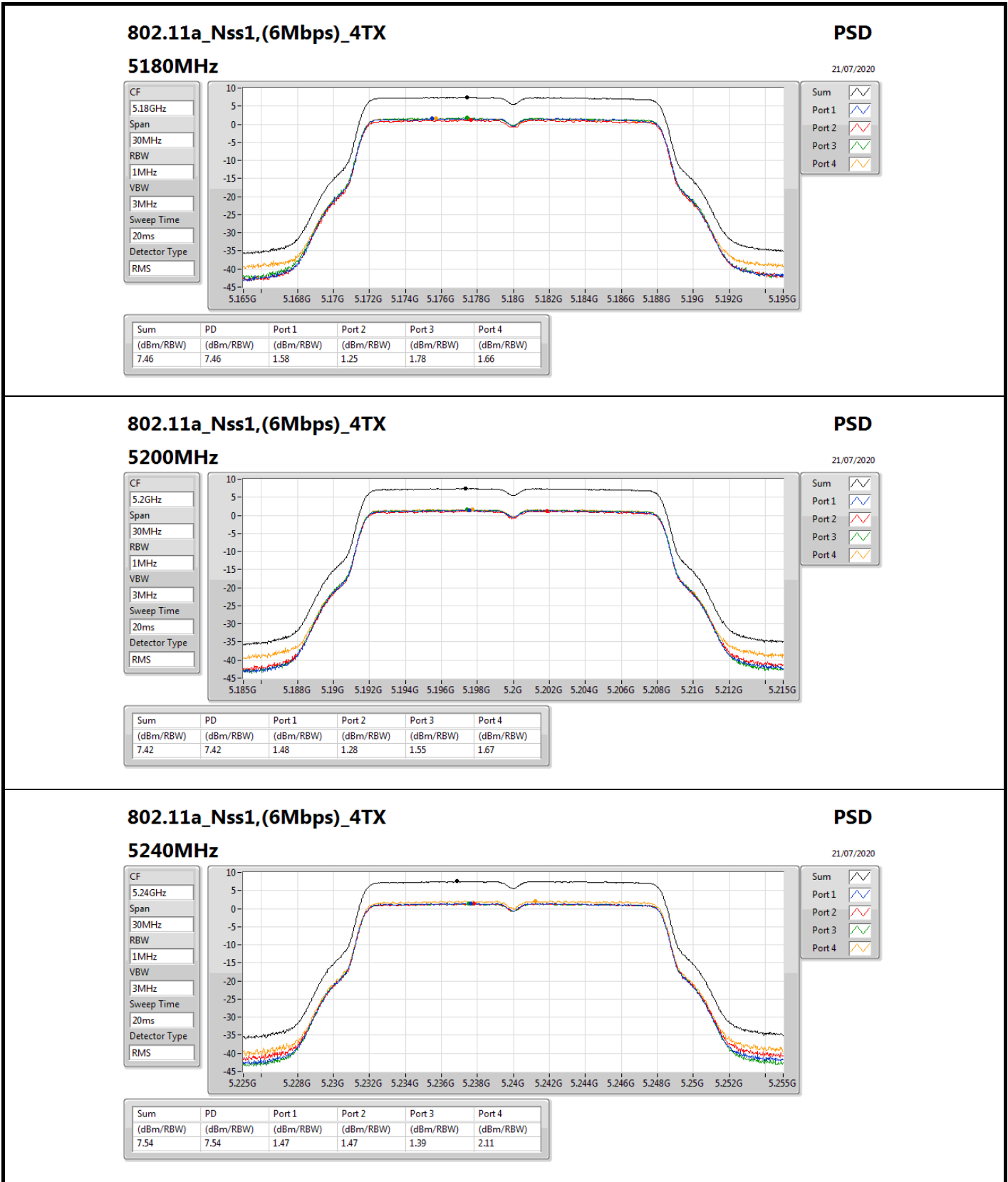
**For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode
Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	12.02	1.58	1.25	1.78	1.66	7.46	10.98
5200MHz	Pass	12.02	1.48	1.28	1.55	1.67	7.42	10.98
5240MHz	Pass	12.02	1.47	1.47	1.39	2.11	7.54	10.98
5745MHz	Pass	12.02	6.34	6.42	6.98	5.46	12.23	23.98
5785MHz	Pass	12.02	4.86	5.32	5.37	4.58	10.94	23.98
5825MHz	Pass	12.02	4.95	5.21	5.24	4.62	10.84	23.98
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	12.02	1.08	0.58	0.98	0.95	6.86	10.98
5200MHz	Pass	12.02	0.69	0.49	0.84	1.10	6.74	10.98
5240MHz	Pass	12.02	0.92	0.80	0.64	1.50	6.93	10.98
5745MHz	Pass	12.02	5.79	5.74	6.13	4.85	11.59	23.98
5785MHz	Pass	12.02	6.30	6.50	6.85	5.68	12.26	23.98
5825MHz	Pass	12.02	4.95	5.16	5.44	4.50	11.00	23.98
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	12.02	-1.80	-2.20	-2.04	-2.03	3.94	10.98
5230MHz	Pass	12.02	-1.69	-1.94	-2.02	-1.75	4.11	10.98
5755MHz	Pass	12.02	2.51	2.46	2.36	1.89	8.28	23.98
5795MHz	Pass	12.02	3.62	3.36	3.47	3.09	9.37	23.98
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	12.02	-4.42	-4.39	-4.21	-4.16	1.63	10.98
5775MHz	Pass	12.02	-1.14	-0.98	-1.12	-1.55	4.73	23.98

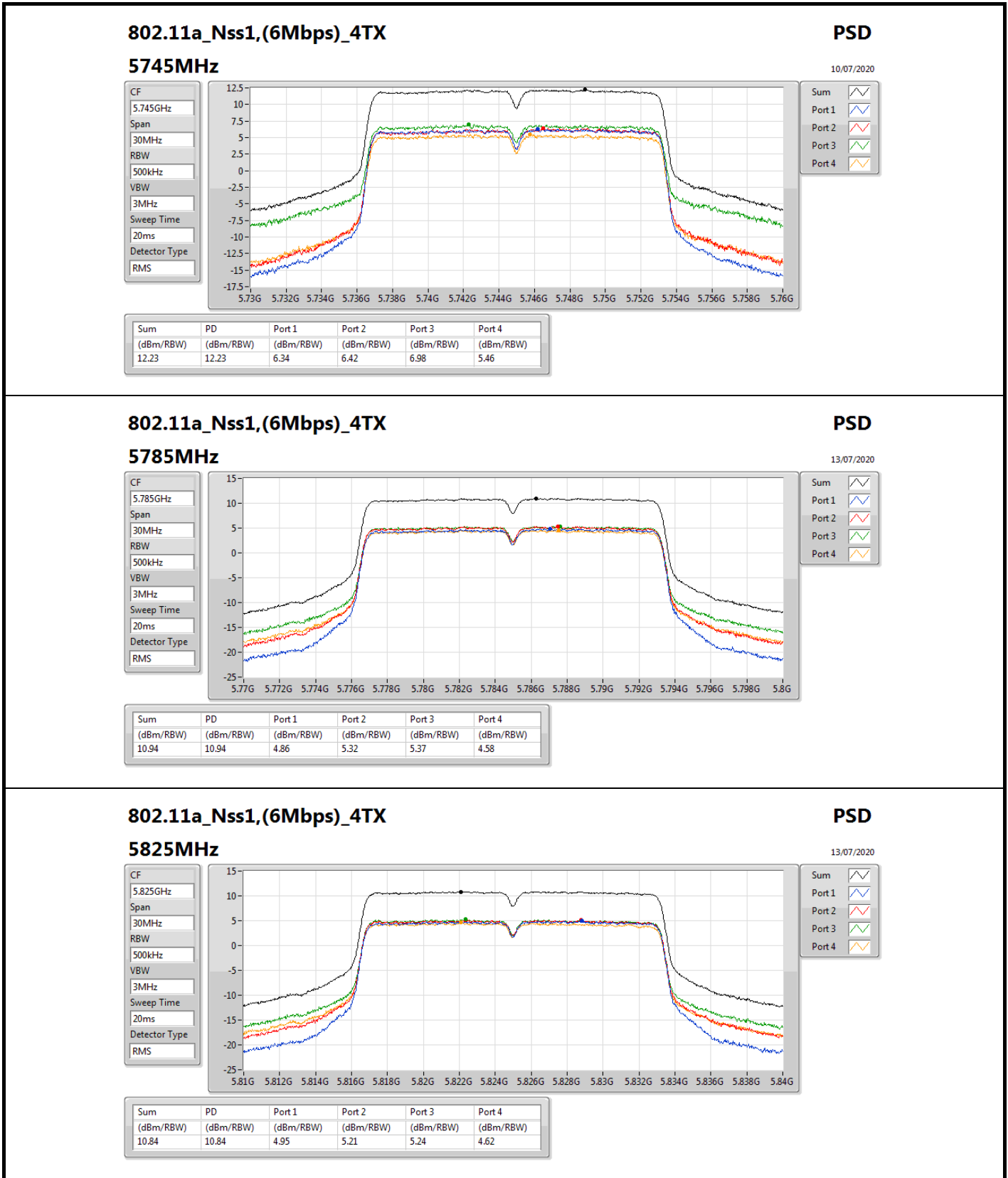
DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

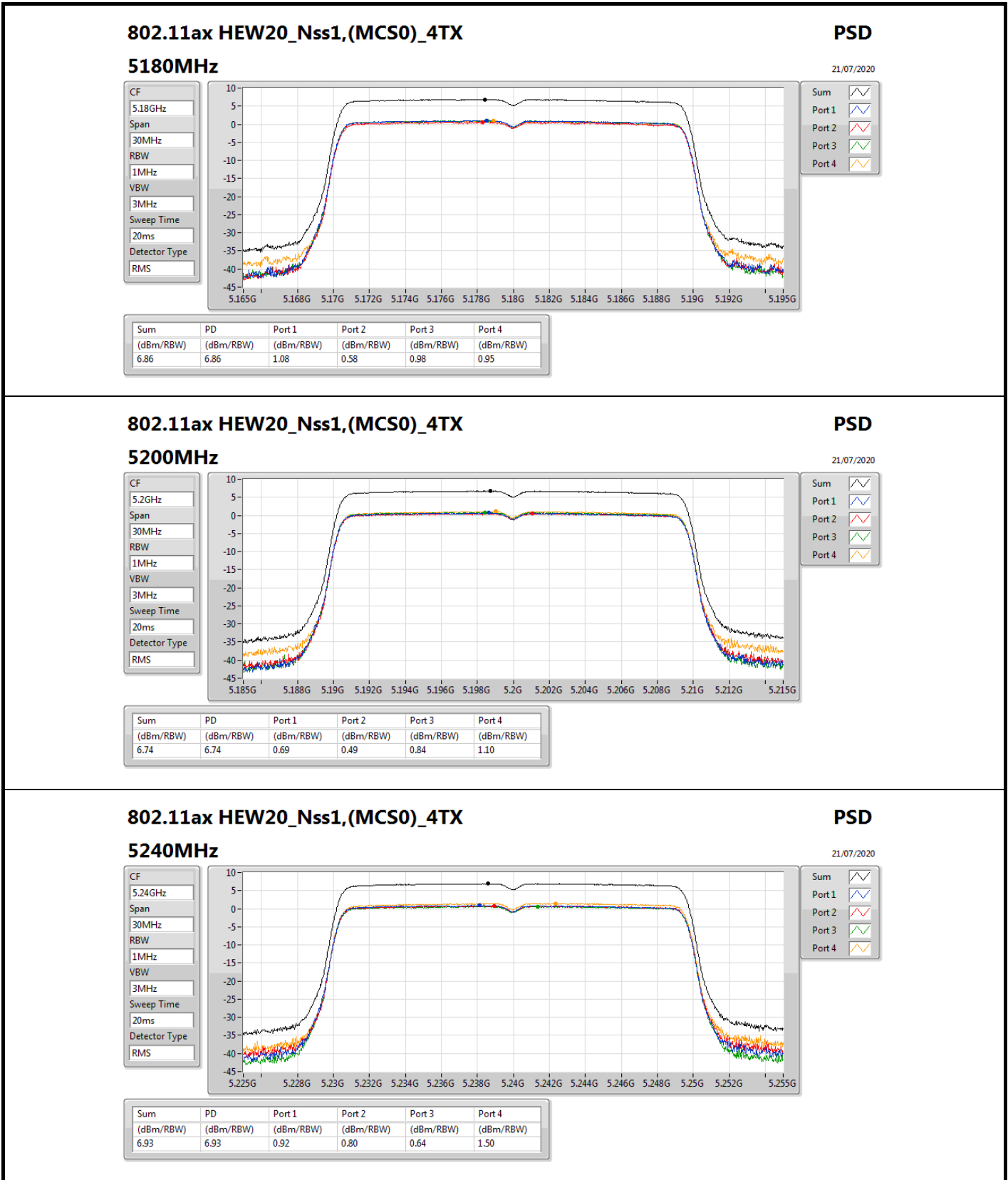
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



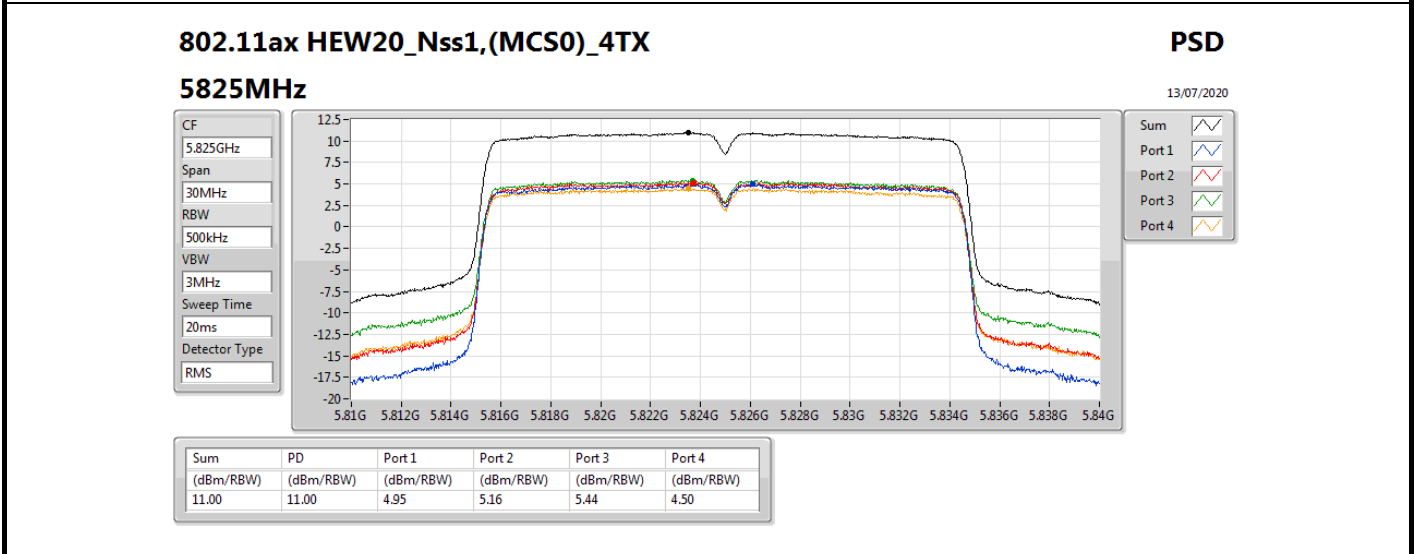
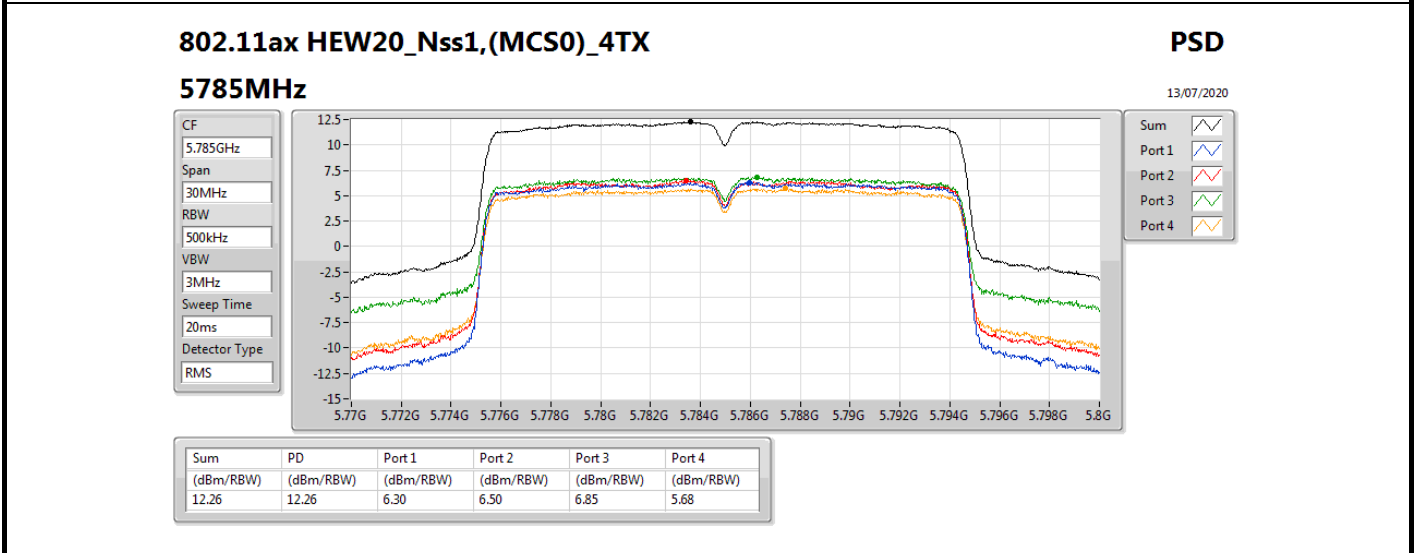
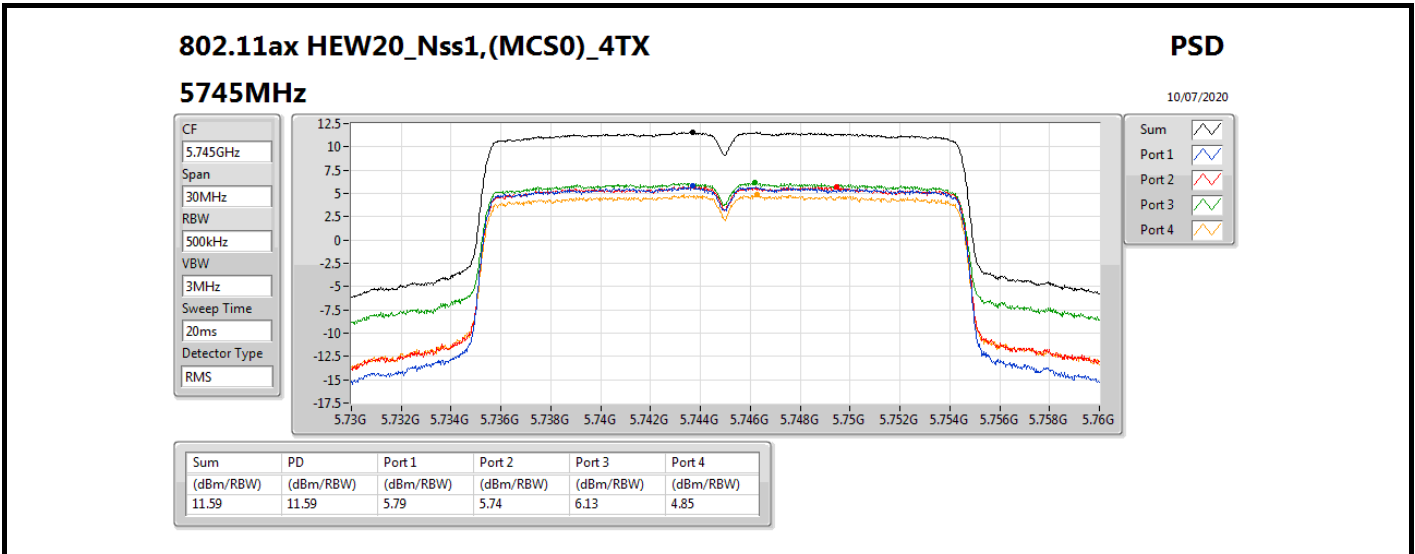
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



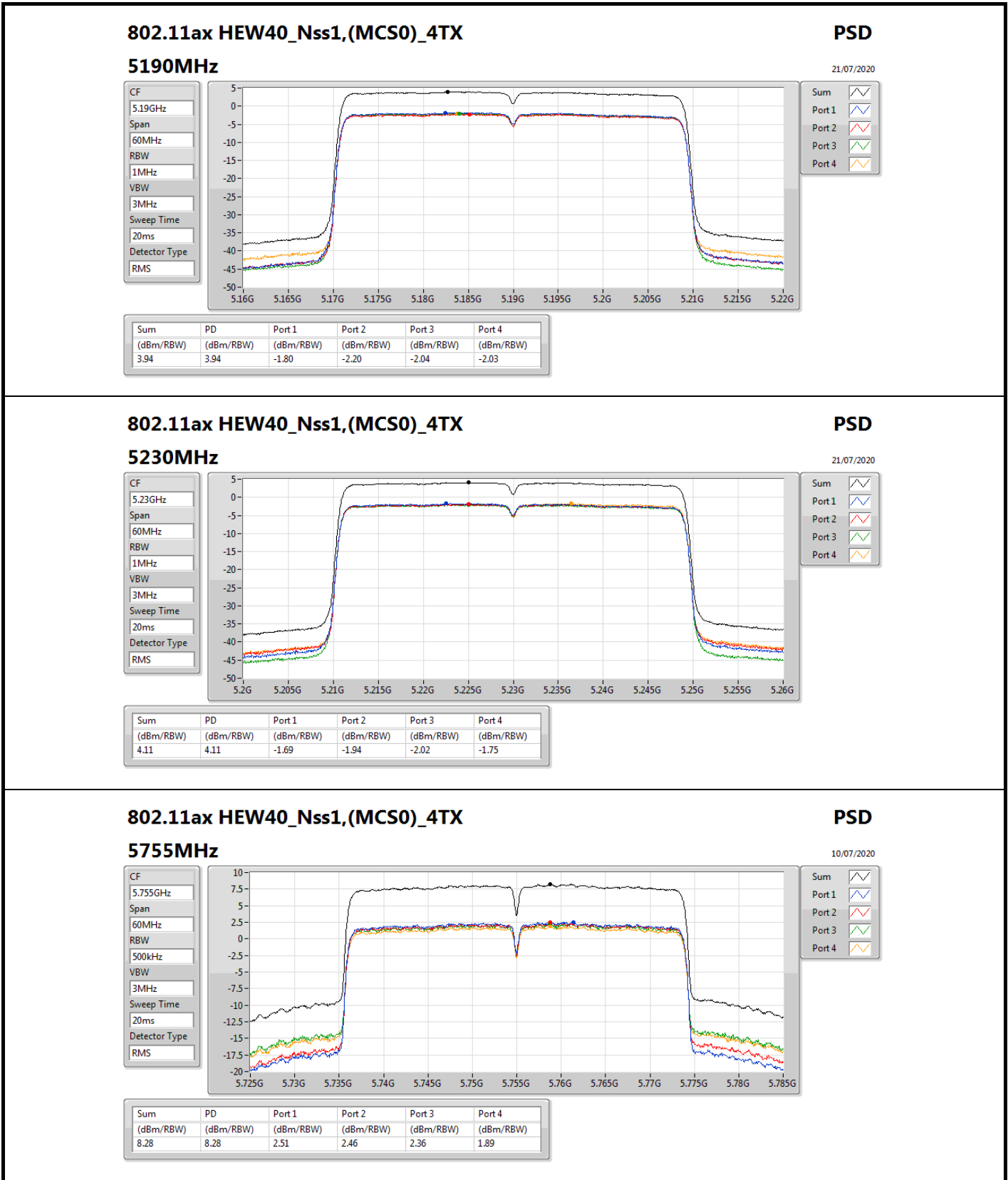
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



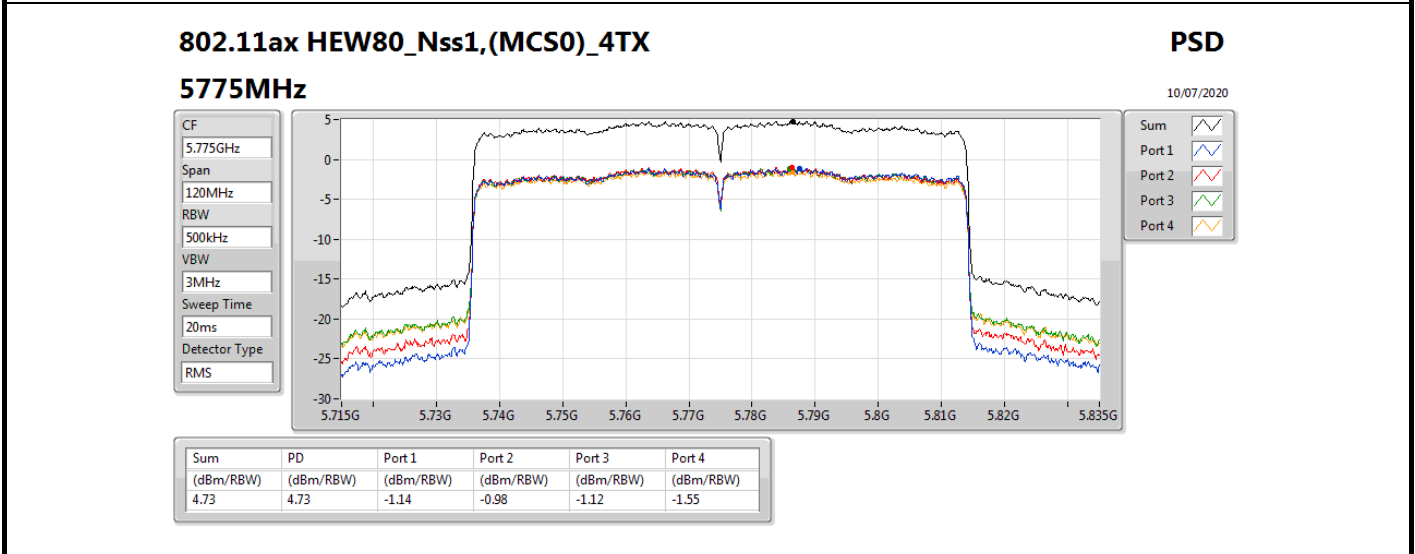
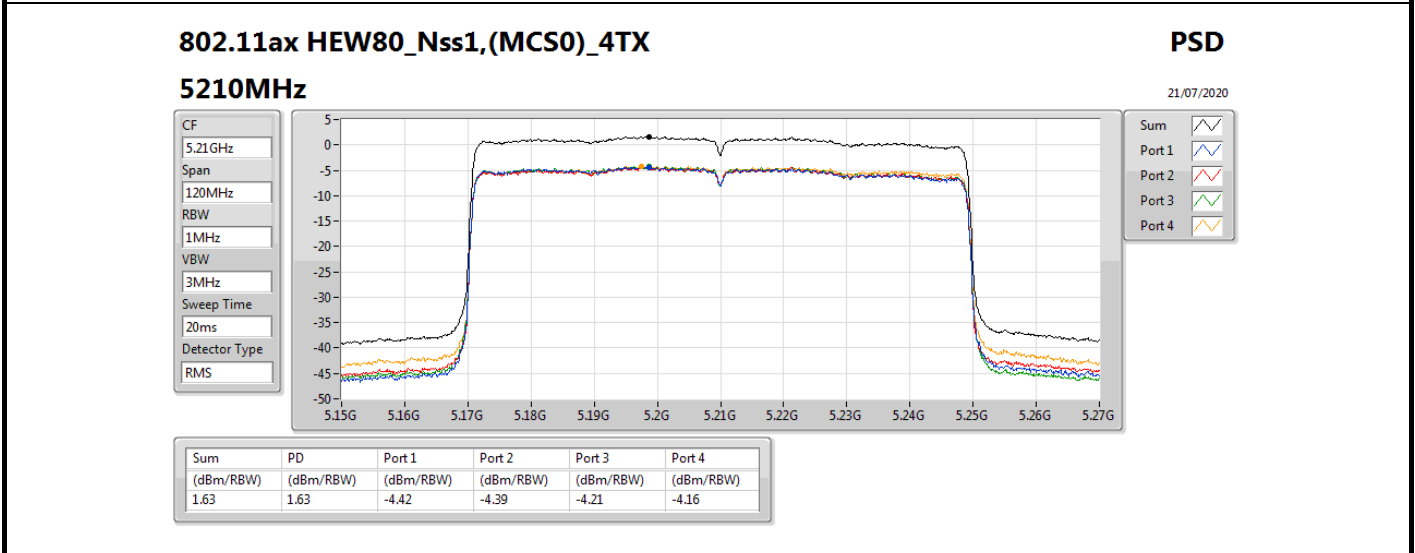
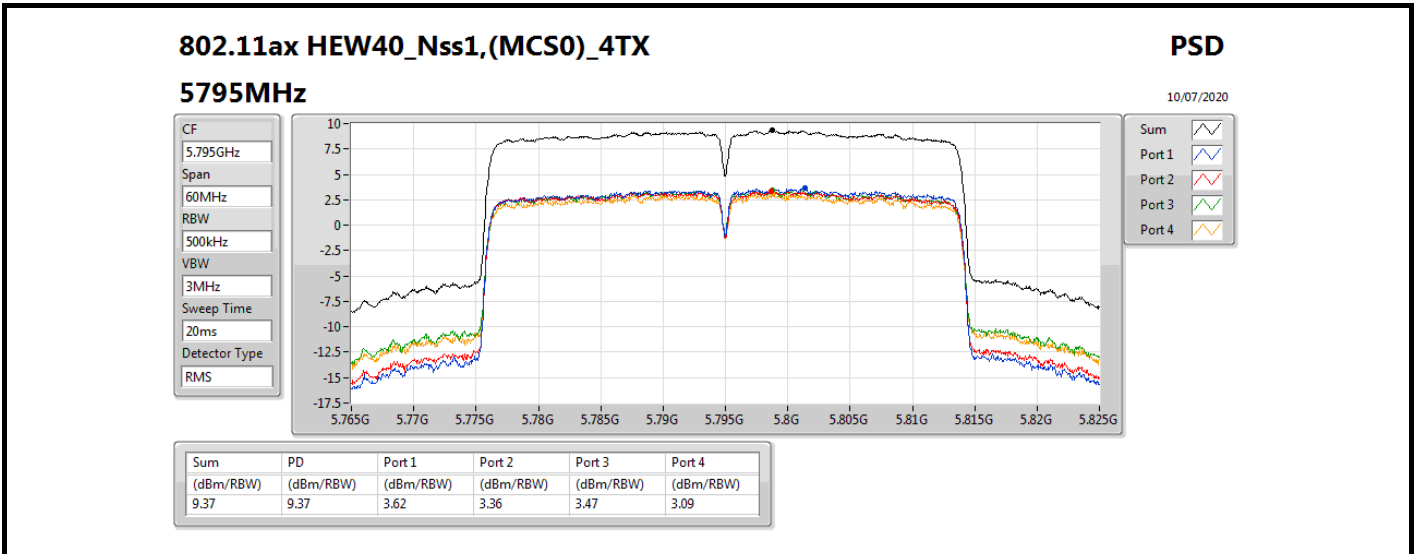
For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 1 / External Ant.1_Non-Beamforming Mode





**For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode
Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_2TX	9.35
802.11ax HEW20_Nss1,(MCS0)_2TX	8.75
802.11ax HEW40_Nss1,(MCS0)_2TX	5.97
802.11ax HEW80_Nss1,(MCS0)_2TX	0.88
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	13.73
802.11ax HEW20_Nss1,(MCS0)_2TX	13.21
802.11ax HEW40_Nss1,(MCS0)_2TX	9.83
802.11ax HEW80_Nss1,(MCS0)_2TX	4.41

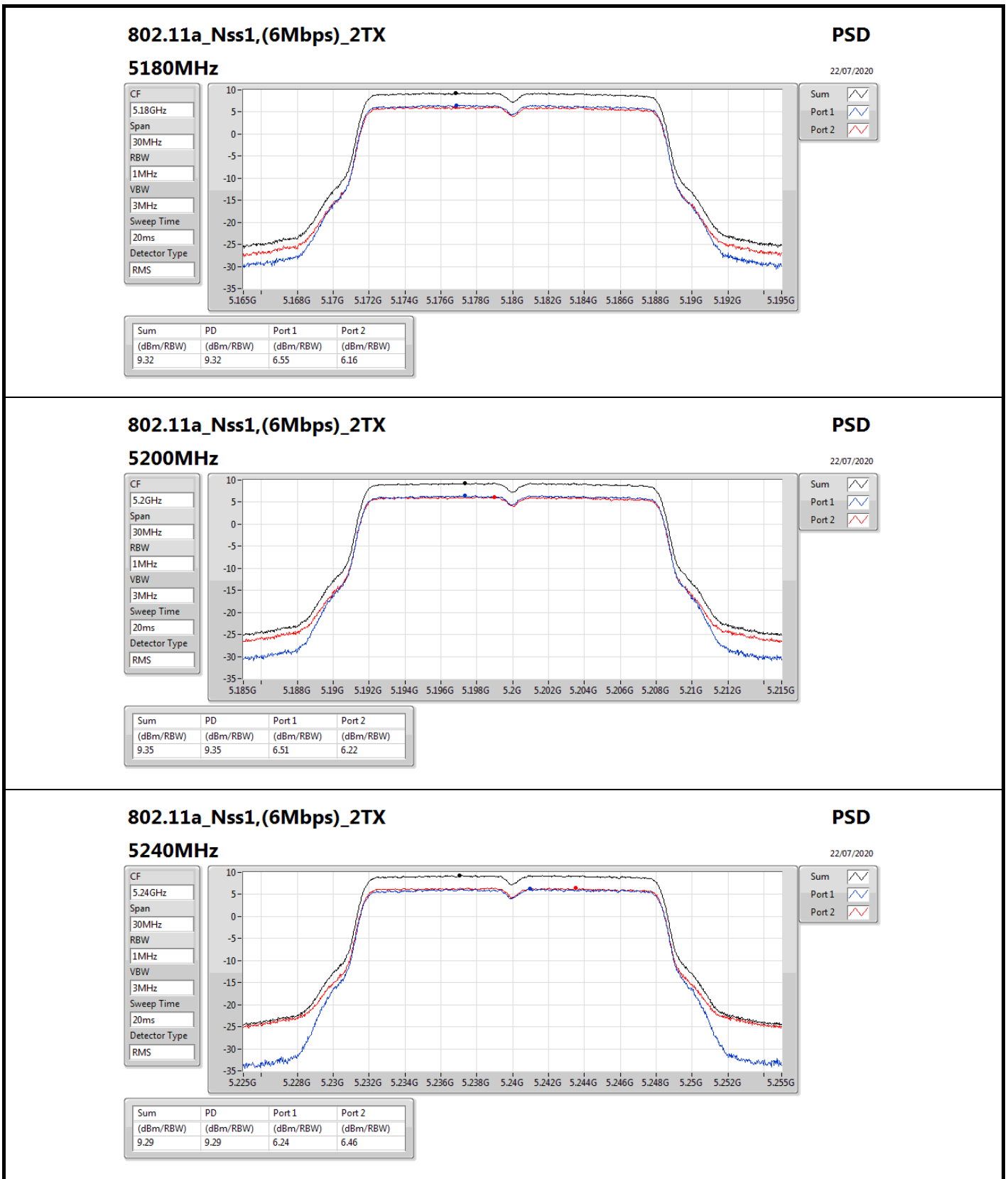
RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

**For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode
Result**

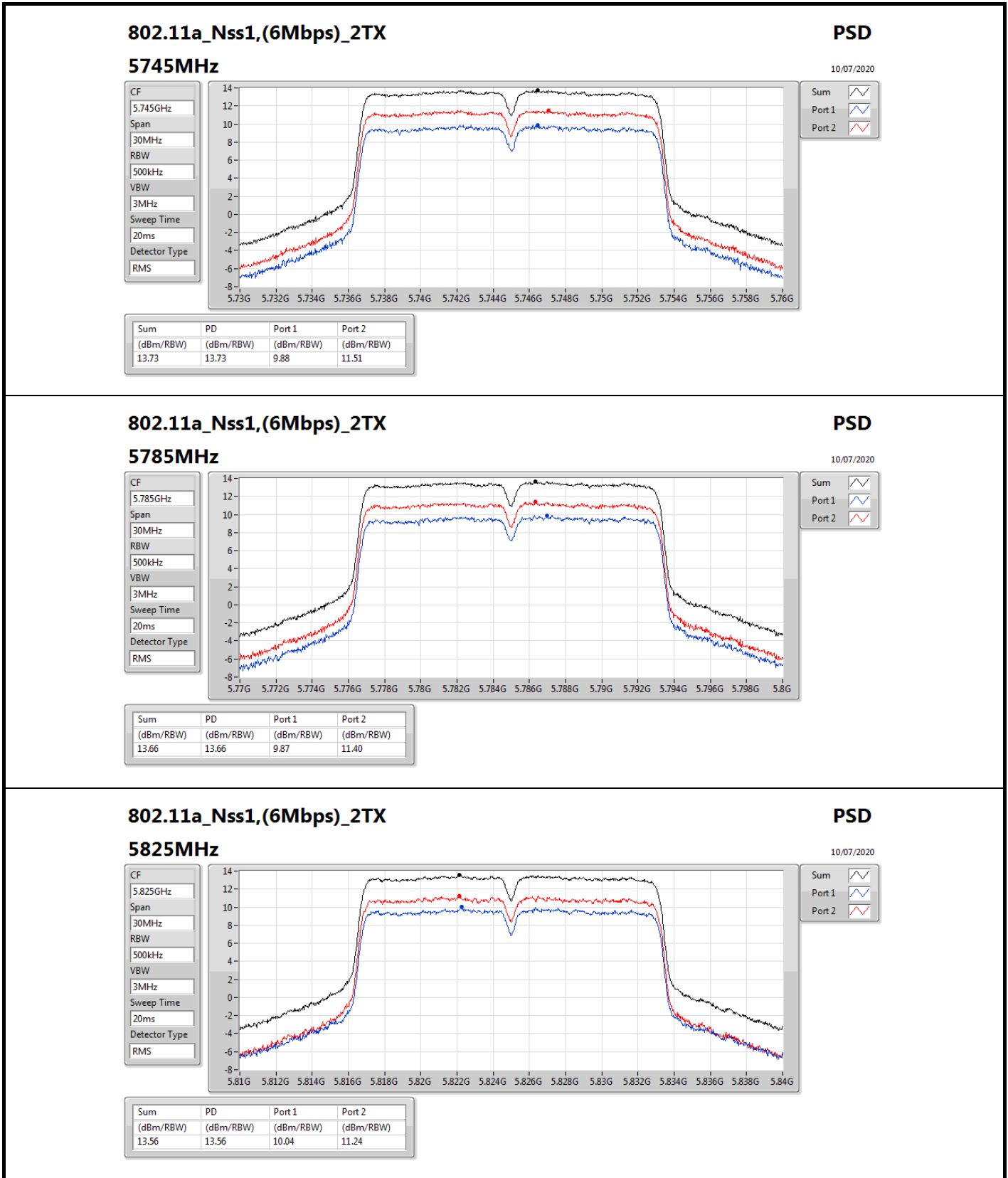
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	9.01	6.55	6.16	9.32	13.99
5200MHz	Pass	9.01	6.51	6.22	9.35	13.99
5240MHz	Pass	9.01	6.24	6.46	9.29	13.99
5745MHz	Pass	9.01	9.88	11.51	13.73	26.99
5785MHz	Pass	9.01	9.87	11.40	13.66	26.99
5825MHz	Pass	9.01	10.04	11.24	13.56	26.99
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	9.01	5.69	5.45	8.51	13.99
5200MHz	Pass	9.01	5.85	5.65	8.70	13.99
5240MHz	Pass	9.01	5.68	5.89	8.75	13.99
5745MHz	Pass	9.01	9.35	10.96	13.20	26.99
5785MHz	Pass	9.01	9.41	10.91	13.21	26.99
5825MHz	Pass	9.01	9.38	10.69	13.05	26.99
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	9.01	1.22	1.07	4.07	13.99
5230MHz	Pass	9.01	2.97	3.14	5.97	13.99
5755MHz	Pass	9.01	4.79	6.07	8.41	26.99
5795MHz	Pass	9.01	6.22	7.39	9.83	26.99
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	9.01	-2.12	-2.06	0.88	13.99
5775MHz	Pass	9.01	1.20	1.68	4.41	26.99

DG = Directional Gain; **RBW** = 500 kHz 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;

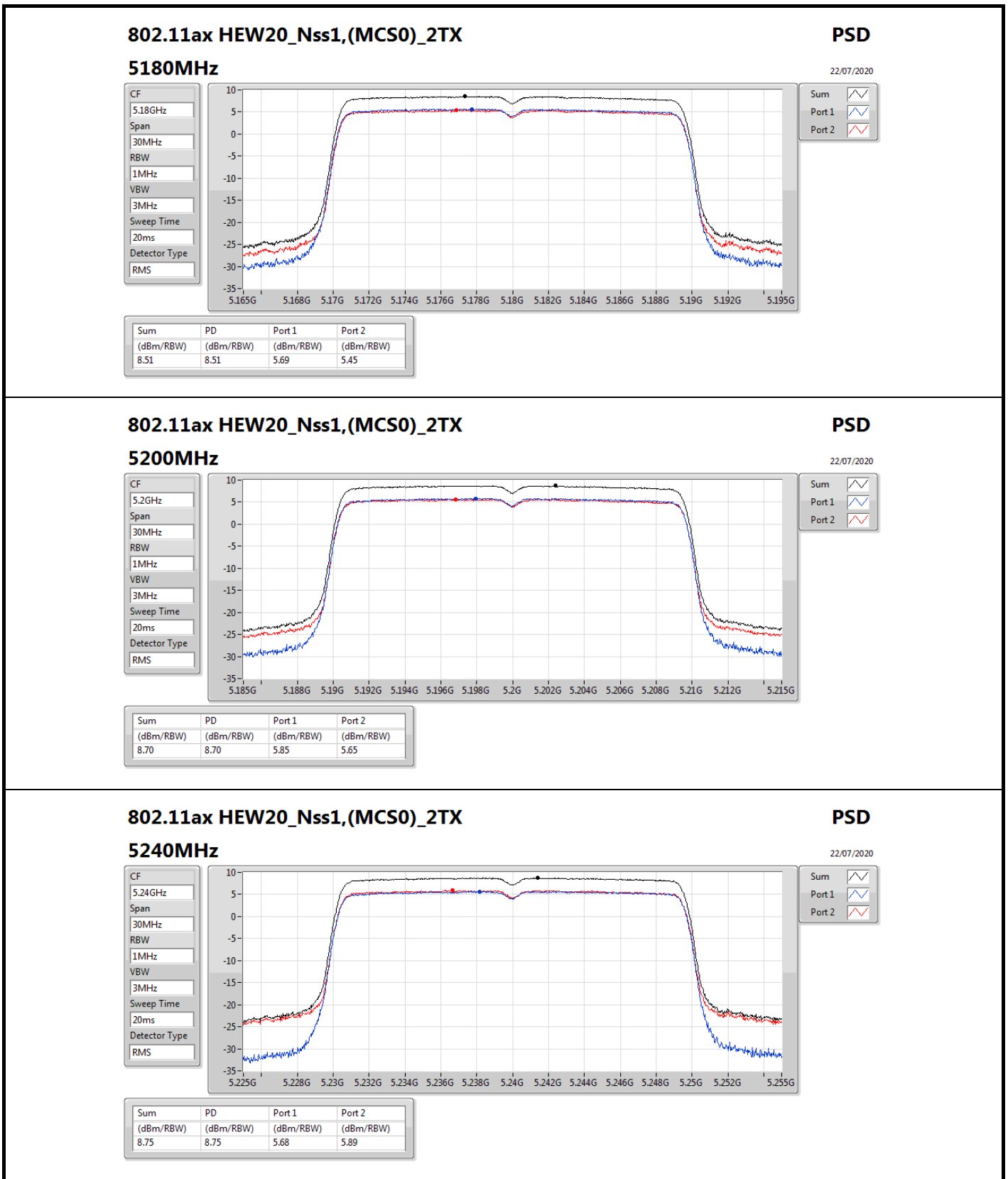
For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



802.11ax HEW20_Nss1,(MCS0)_2TX

5240MHz

PSD

22/07/2020

CF

5.24GHz

Span

30MHz

RBW

1MHz

VBW

3MHz

Sweep Time

20ms

Detector Type

RMS



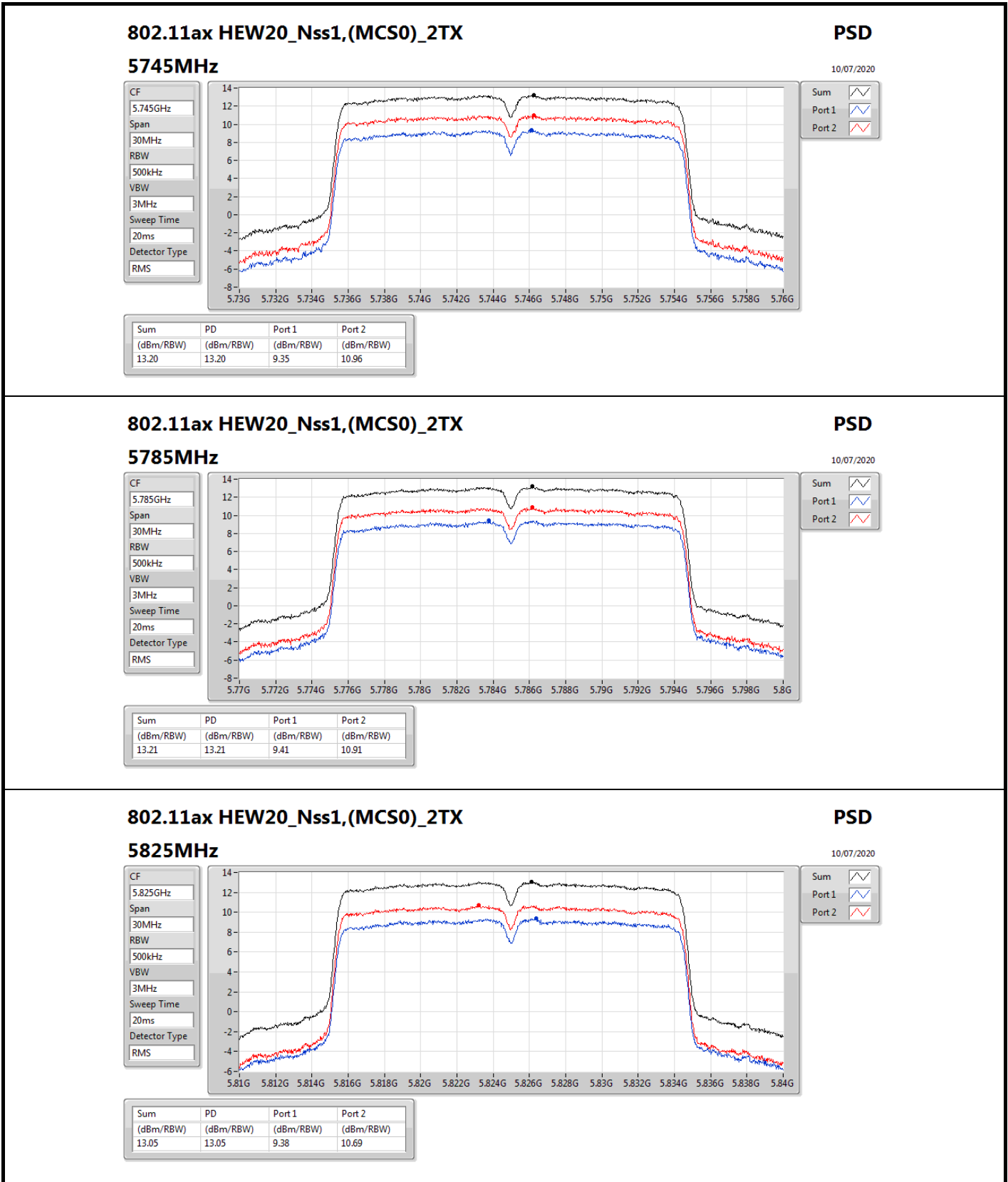
Sum

Port 1

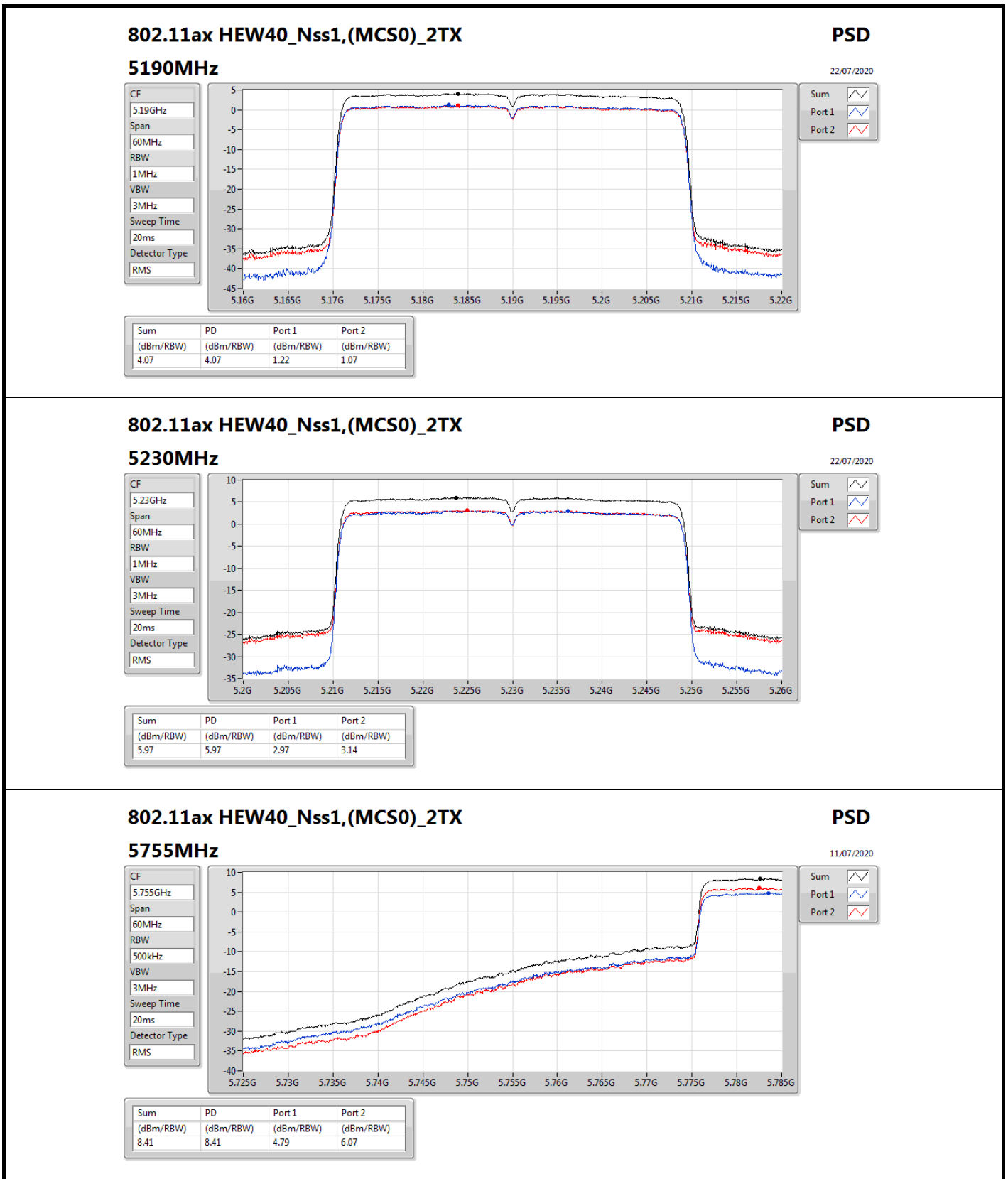
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.75	8.75	5.68	5.89

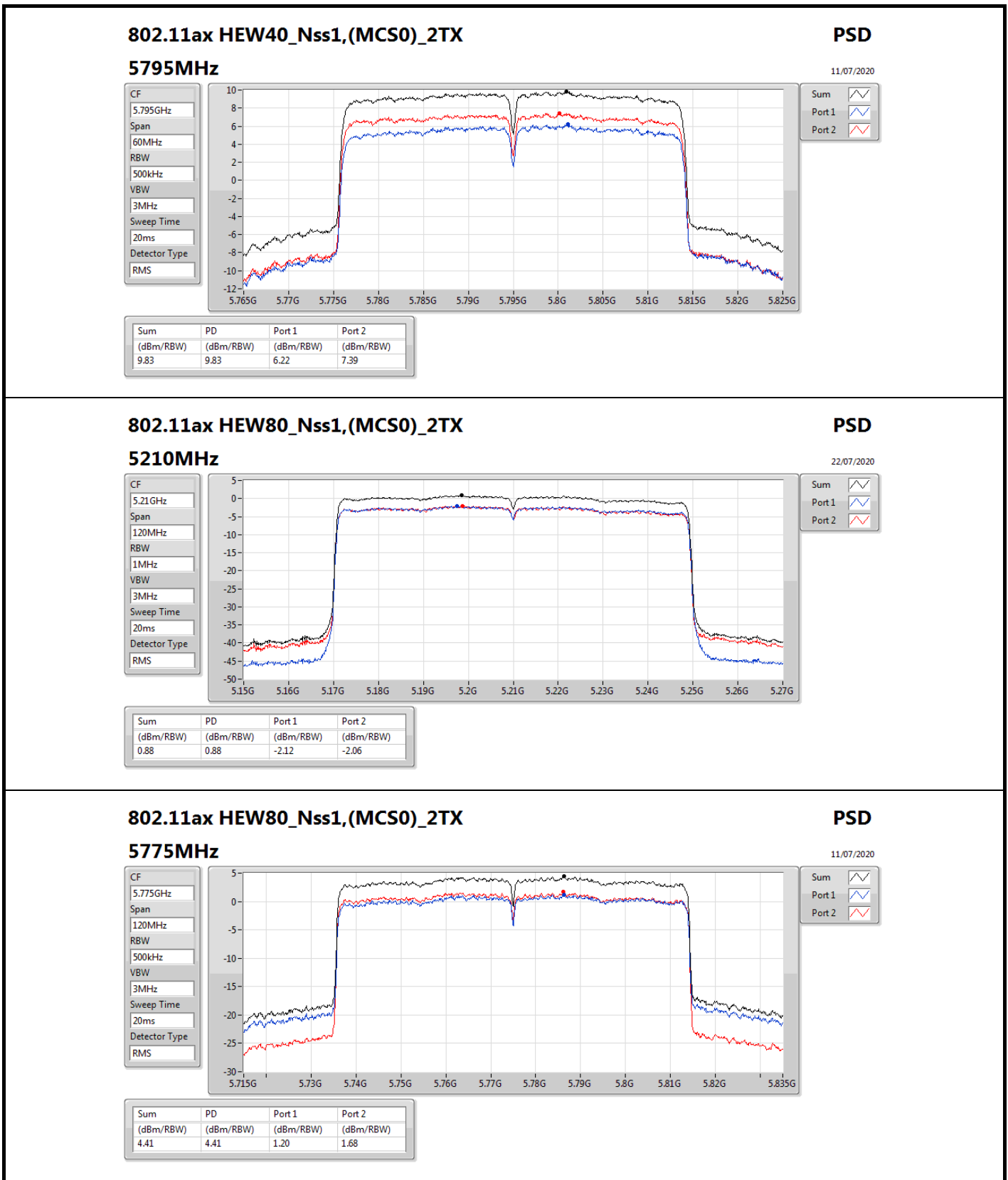
For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.1_Non-Beamforming Mode



802.11ax HEW80_Nss1,(MCS0)_2TX

5775MHz

PSD

11/07/2020

CF
5.775GHz

Span
120MHz

RBW
500kHz

VBW
3MHz

Sweep Time
20ms

Detector Type
RMS



Sum

Port 1

Port 2



**For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode
Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_4TX	3.87
802.11ax HEW20_Nss1,(MCS0)_4TX	3.34
802.11ax HEW40_Nss1,(MCS0)_4TX	0.67
802.11ax HEW80_Nss1,(MCS0)_4TX	-2.13
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	11.32
802.11ax HEW20_Nss1,(MCS0)_4TX	10.69
802.11ax HEW40_Nss1,(MCS0)_4TX	8.02
802.11ax HEW80_Nss1,(MCS0)_4TX	3.28

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

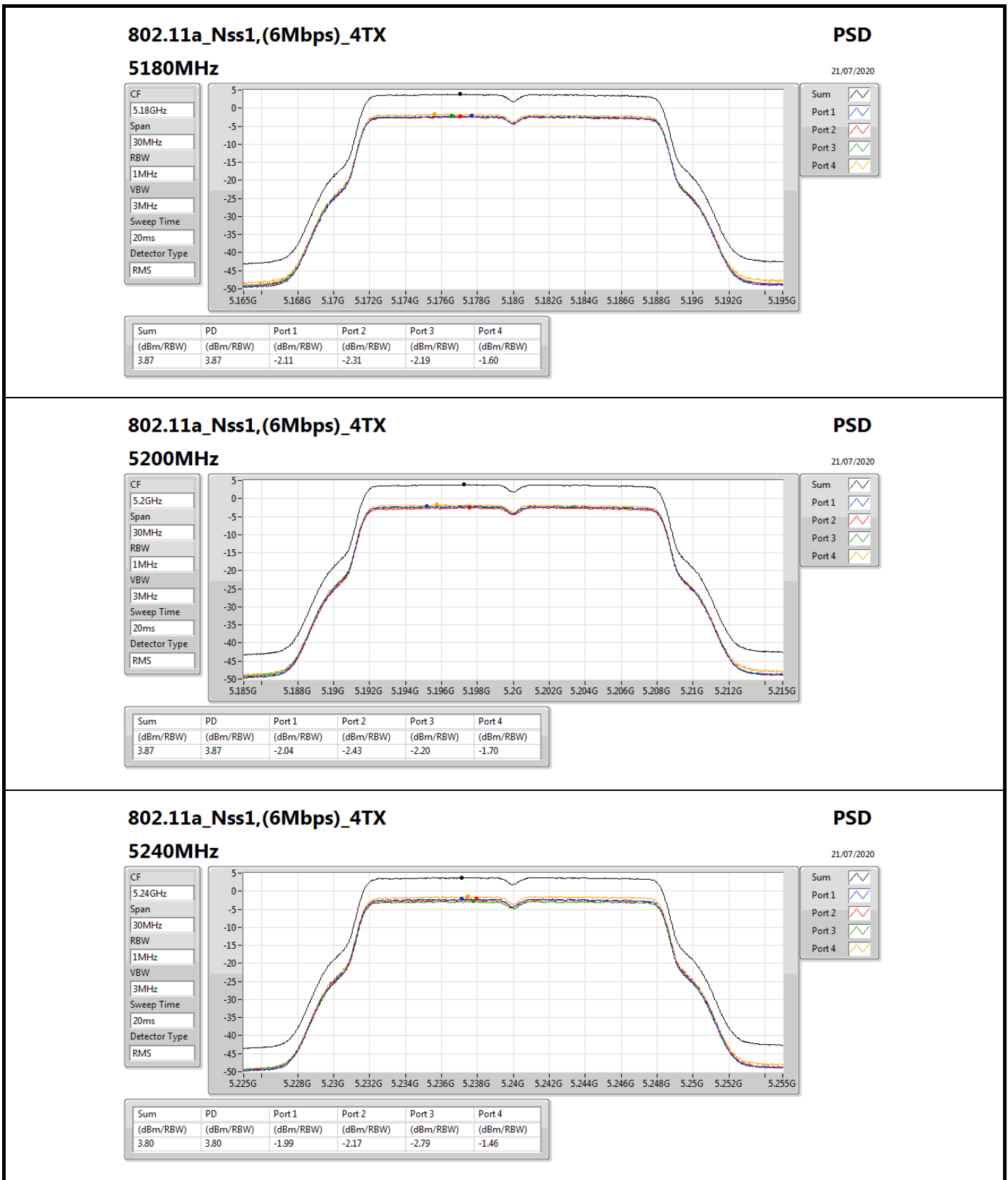
**For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode
Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	16.02	-2.11	-2.31	-2.19	-1.60	3.87	6.98
5200MHz	Pass	16.02	-2.04	-2.43	-2.20	-1.70	3.87	6.98
5240MHz	Pass	16.02	-1.99	-2.17	-2.79	-1.46	3.80	6.98
5745MHz	Pass	16.02	5.37	5.68	5.88	4.77	11.32	19.98
5785MHz	Pass	16.02	4.90	5.25	5.32	4.57	10.93	19.98
5825MHz	Pass	16.02	5.21	5.27	5.32	4.61	10.99	19.98
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	16.02	-2.55	-2.88	-2.82	-2.19	3.34	6.98
5200MHz	Pass	16.02	-2.59	-2.88	-2.86	-2.22	3.32	6.98
5240MHz	Pass	16.02	-2.66	-2.86	-3.43	-1.93	3.25	6.98
5745MHz	Pass	16.02	4.79	4.91	5.14	4.06	10.69	19.98
5785MHz	Pass	16.02	4.69	4.89	5.13	4.26	10.68	19.98
5825MHz	Pass	16.02	4.71	4.72	4.95	4.07	10.57	19.98
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	16.02	-4.72	-5.62	-5.39	-5.33	0.67	6.98
5230MHz	Pass	16.02	-5.03	-5.45	-5.53	-5.04	0.67	6.98
5755MHz	Pass	16.02	2.29	2.27	2.06	1.63	8.02	19.98
5795MHz	Pass	16.02	2.21	1.91	1.94	1.64	7.86	19.98
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	16.02	-7.86	-8.46	-8.32	-7.75	-2.13	6.98
5775MHz	Pass	16.02	-2.74	-2.65	-2.75	-2.73	3.28	19.98

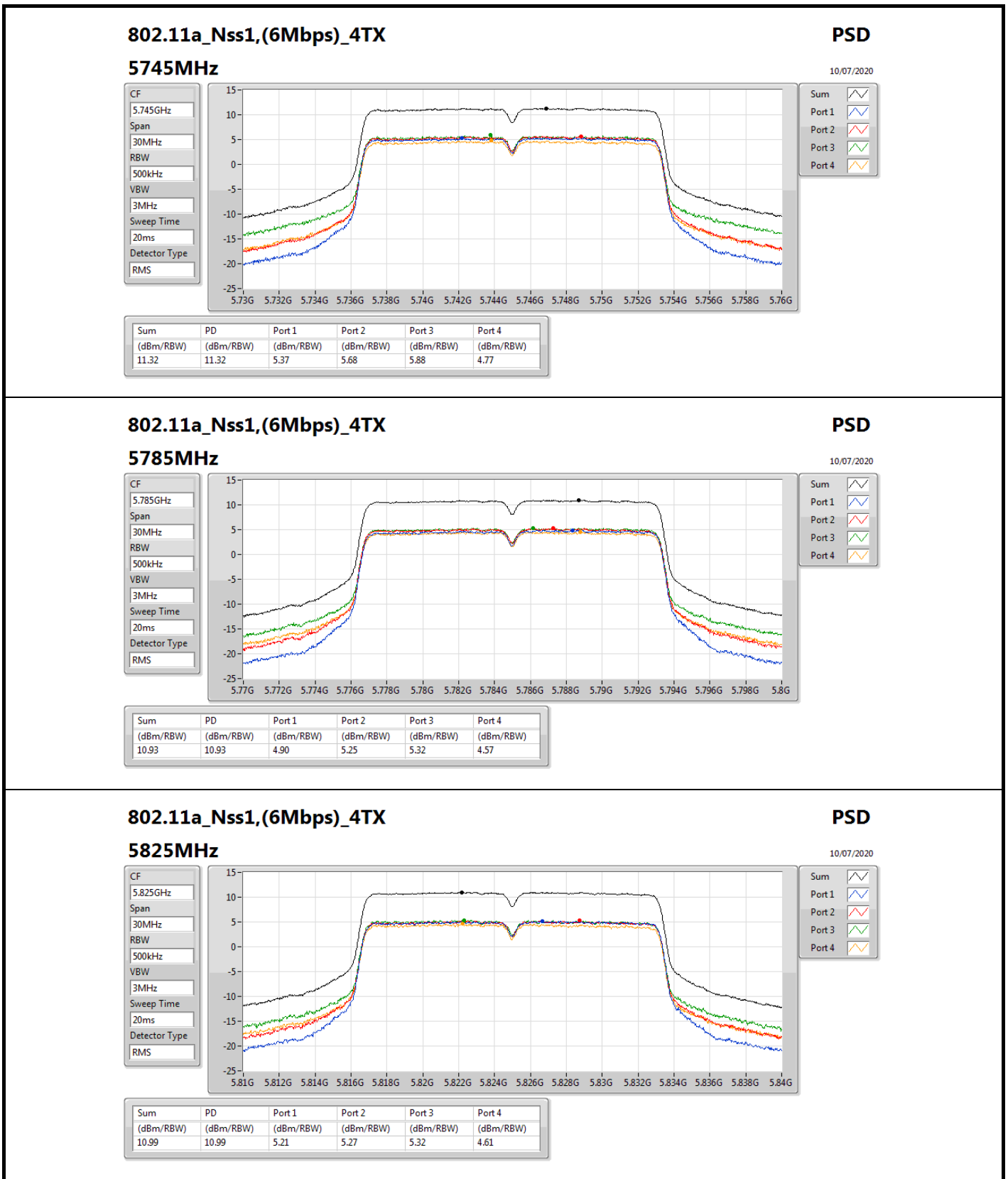
DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

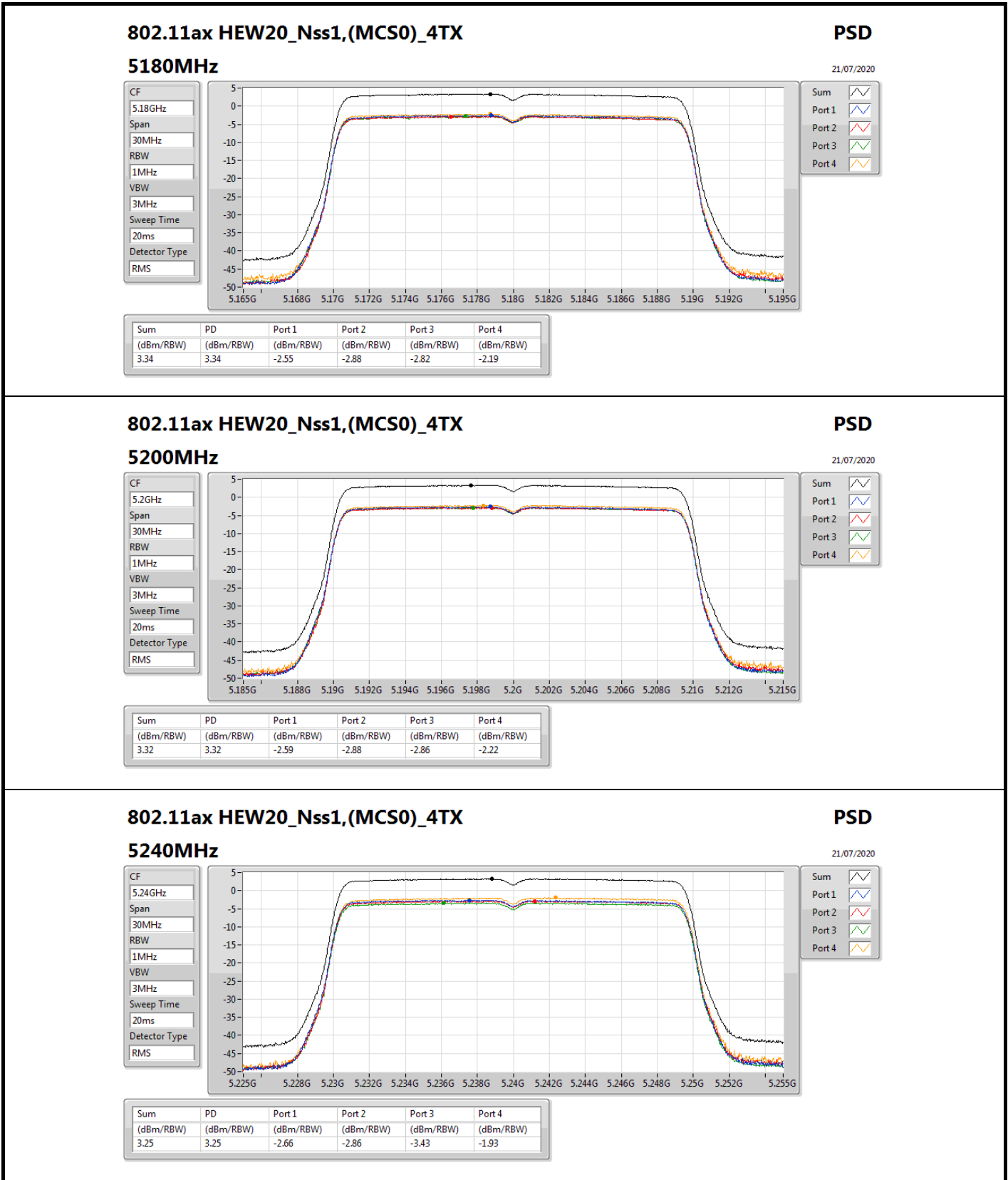
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



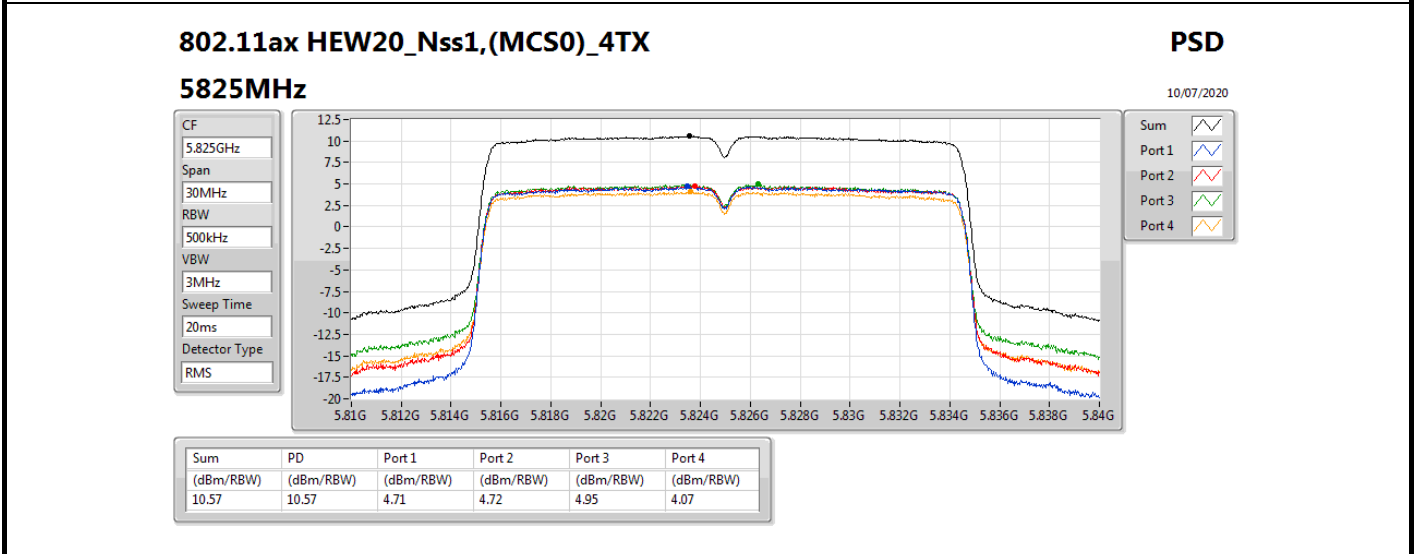
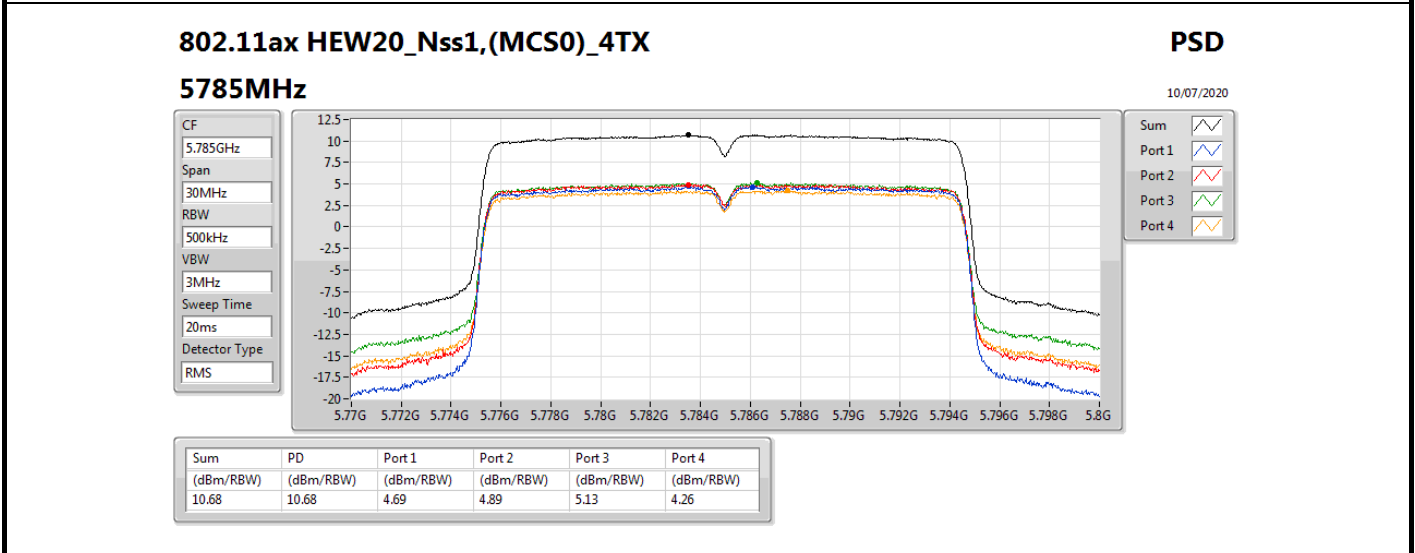
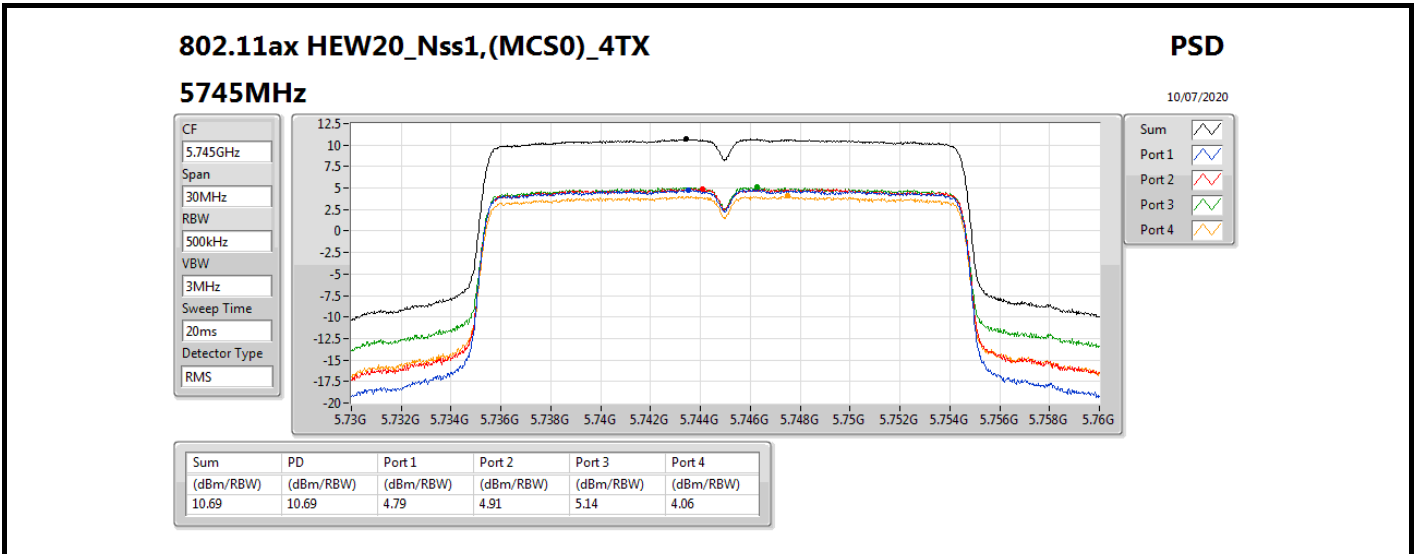
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



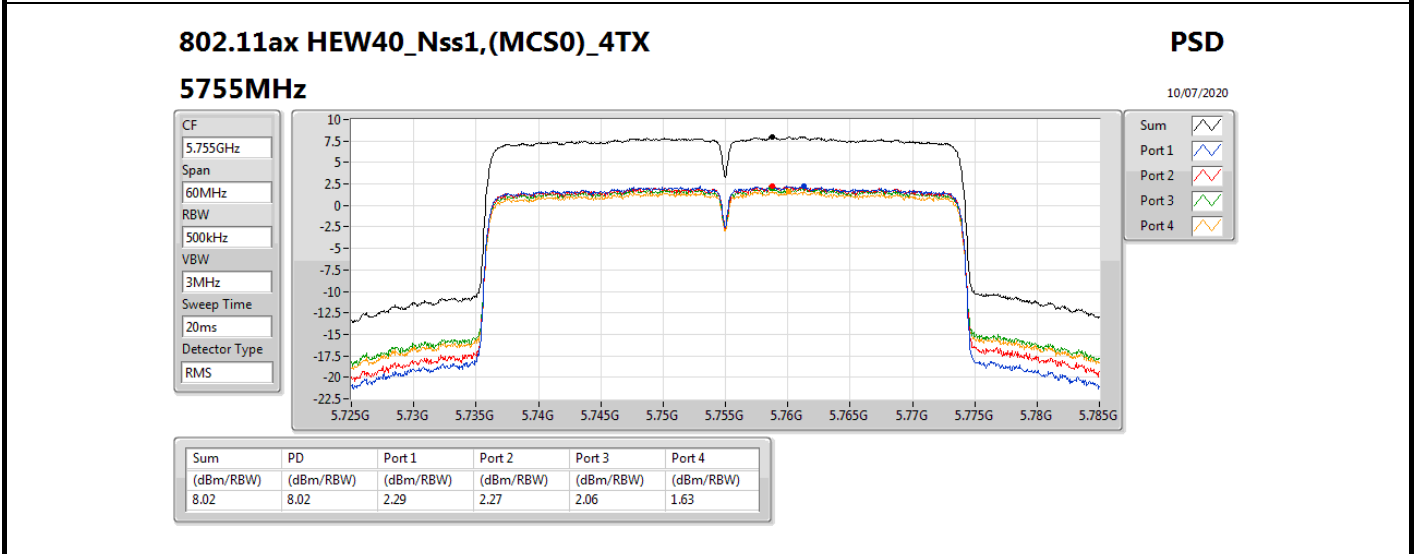
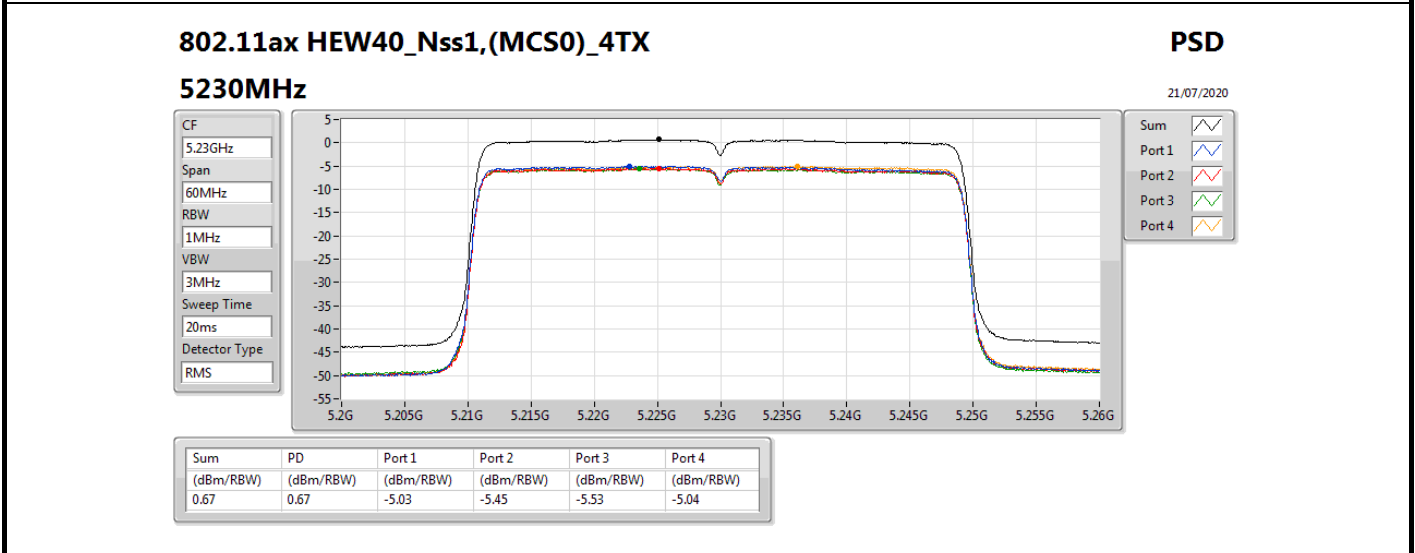
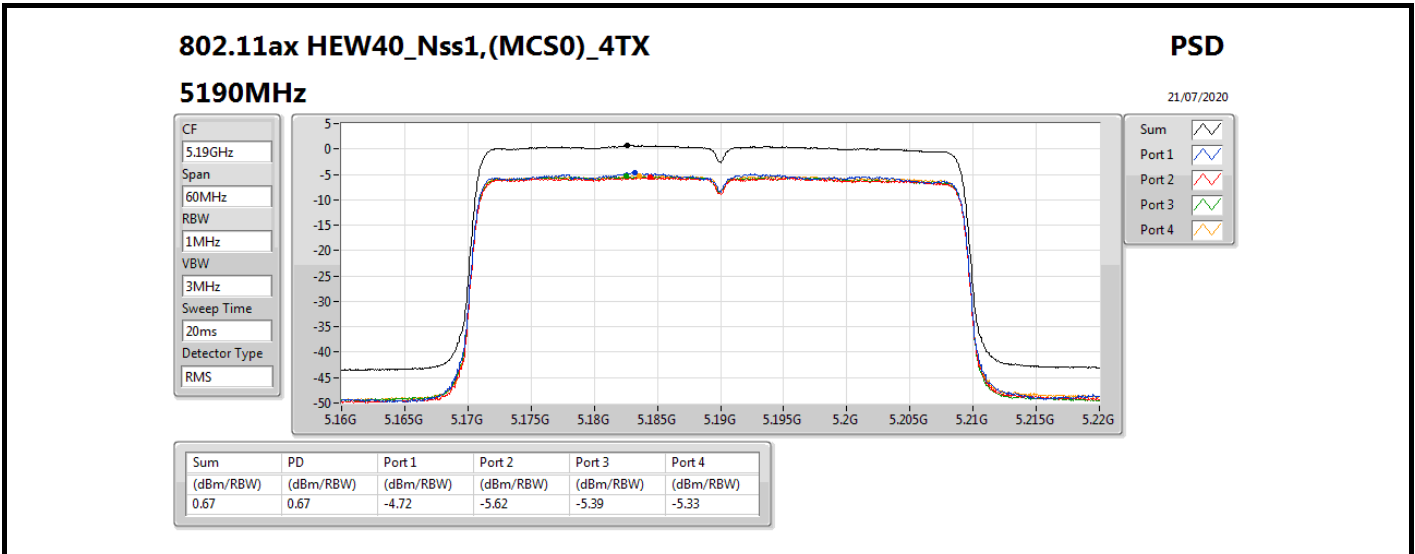
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



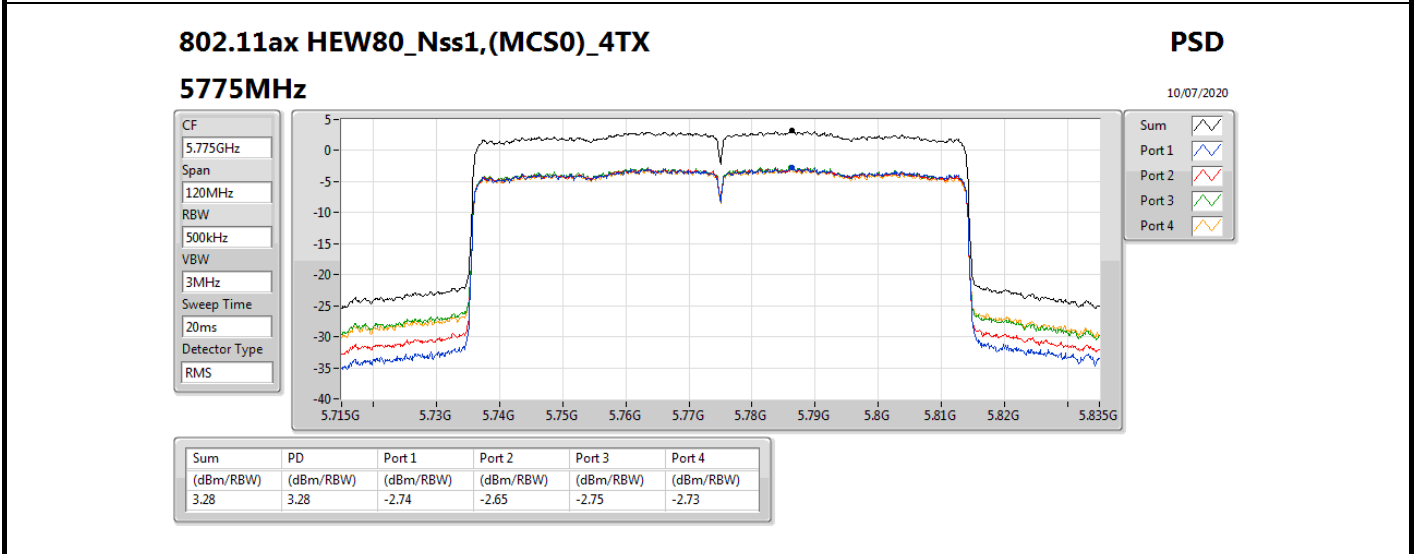
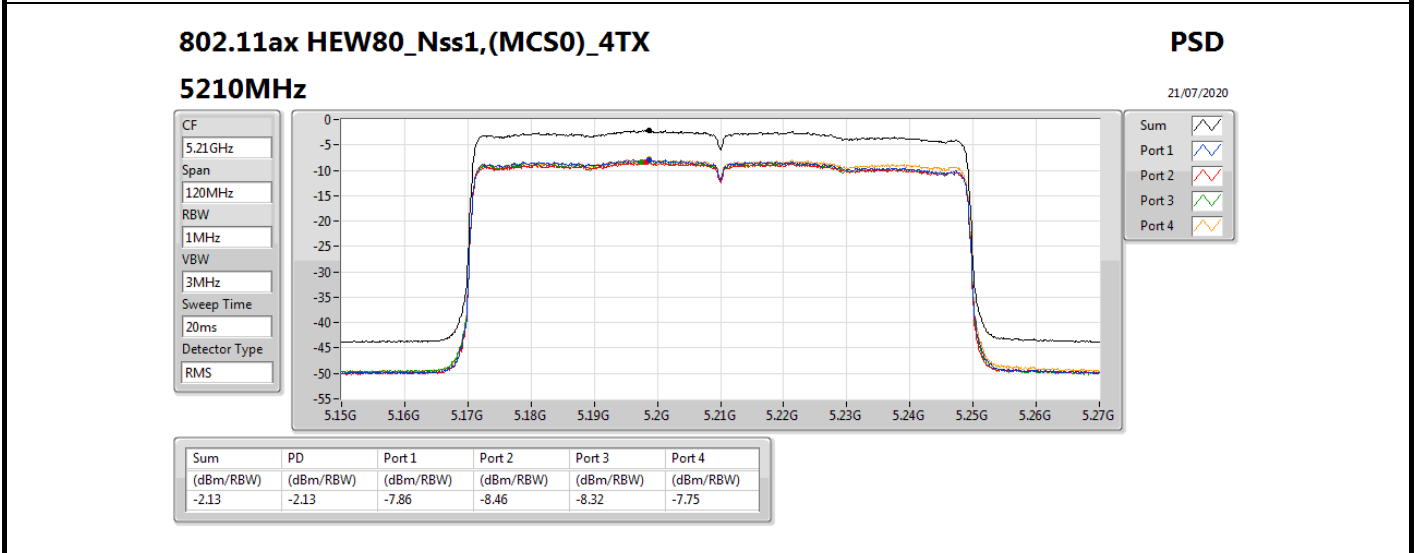
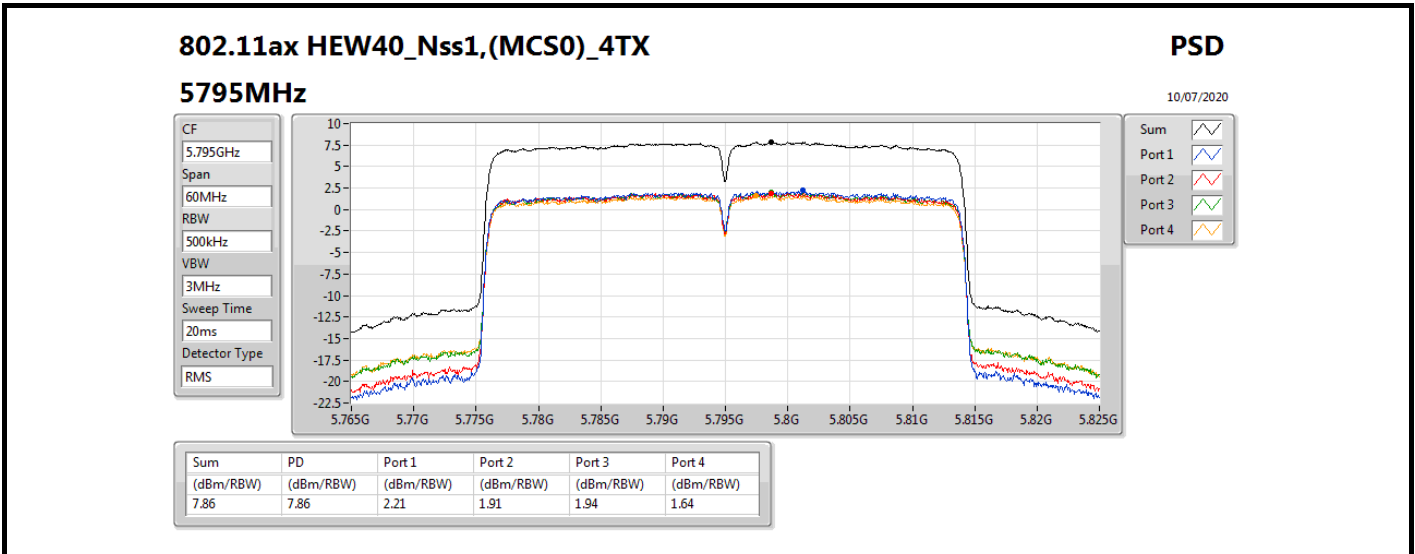
For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode



For EUT 2 / Radio 1 / External Ant.2_Non-Beamforming Mode





**For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode
Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_2TX	6.58
802.11ax HEW20_Nss1,(MCS0)_2TX	5.78
802.11ax HEW40_Nss1,(MCS0)_2TX	3.15
802.11ax HEW80_Nss1,(MCS0)_2TX	0.33
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	11.37
802.11ax HEW20_Nss1,(MCS0)_2TX	10.78
802.11ax HEW40_Nss1,(MCS0)_2TX	8.35
802.11ax HEW80_Nss1,(MCS0)_2TX	3.26

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

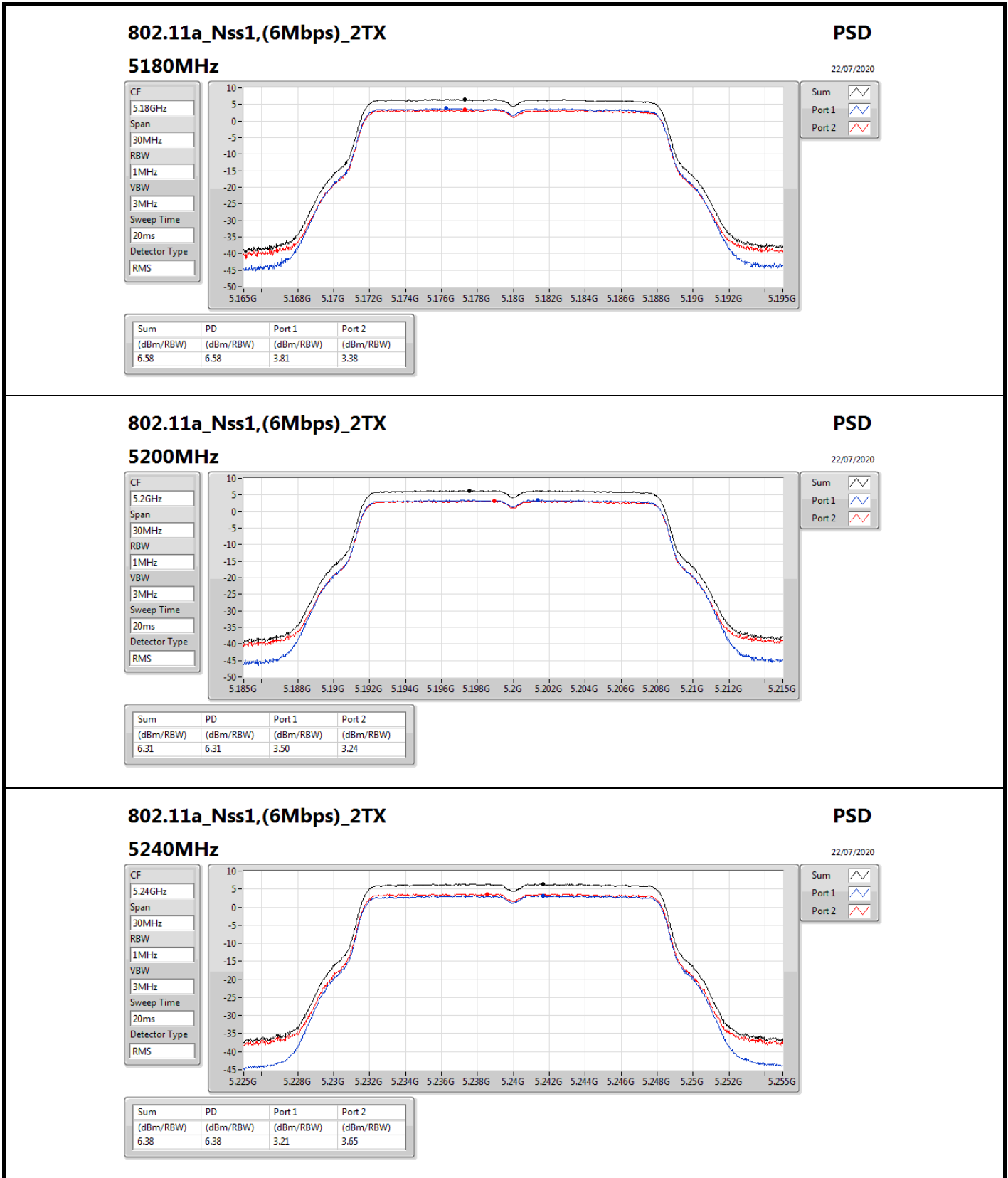


**For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode
Result**

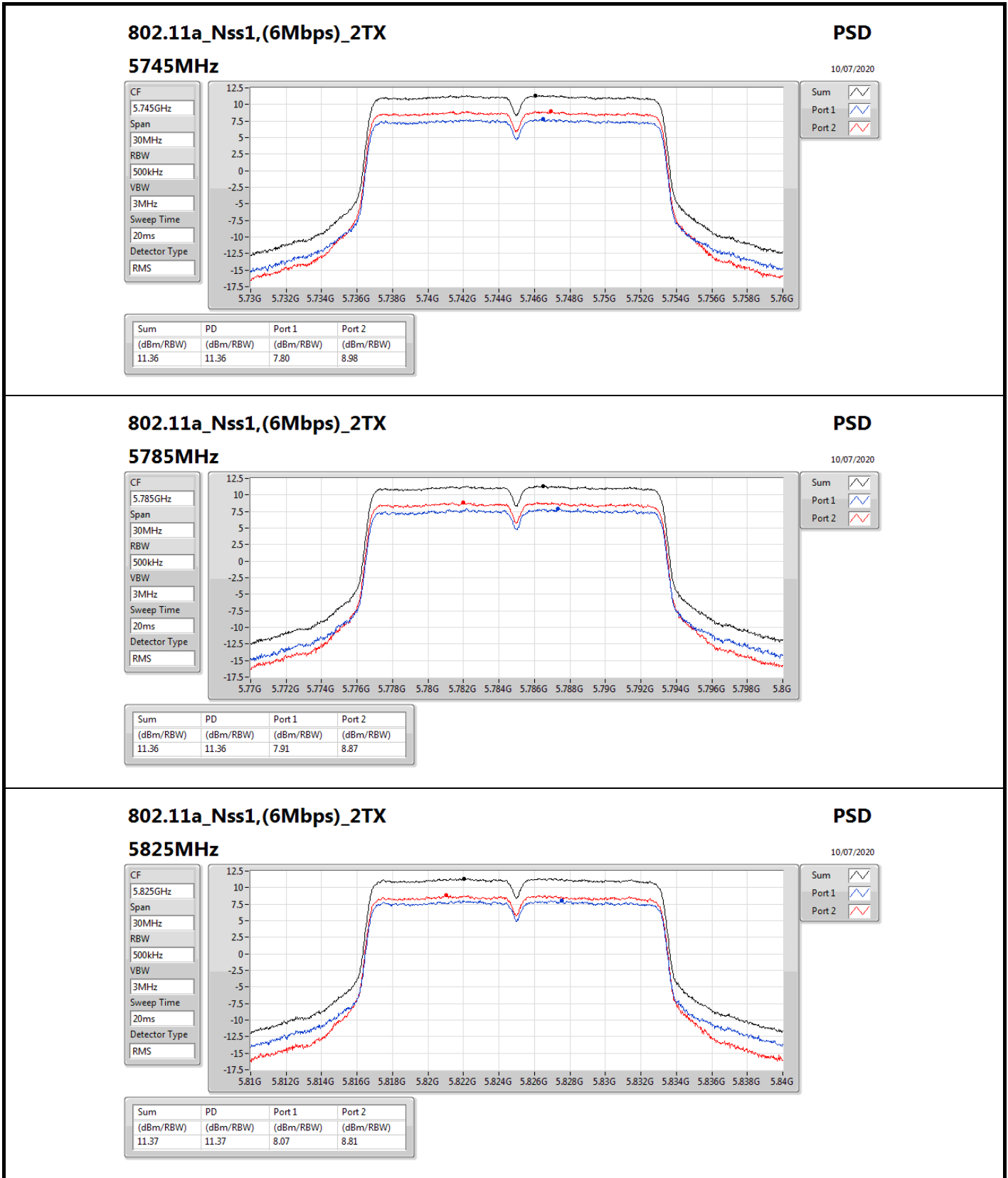
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	13.01	3.81	3.38	6.58	9.99
5200MHz	Pass	13.01	3.50	3.24	6.31	9.99
5240MHz	Pass	13.01	3.21	3.65	6.38	9.99
5745MHz	Pass	13.01	7.80	8.98	11.36	22.99
5785MHz	Pass	13.01	7.91	8.87	11.36	22.99
5825MHz	Pass	13.01	8.07	8.81	11.37	22.99
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	13.01	3.05	2.75	5.78	9.99
5200MHz	Pass	13.01	2.83	2.67	5.68	9.99
5240MHz	Pass	13.01	2.61	2.94	5.74	9.99
5745MHz	Pass	13.01	7.06	8.34	10.75	22.99
5785MHz	Pass	13.01	7.38	8.20	10.78	22.99
5825MHz	Pass	13.01	7.45	8.09	10.74	22.99
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	13.01	0.44	-0.09	3.15	9.99
5230MHz	Pass	13.01	0.05	0.26	3.09	9.99
5755MHz	Pass	13.01	4.75	5.72	8.27	22.99
5795MHz	Pass	13.01	5.06	5.63	8.35	22.99
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	13.01	-2.57	-2.63	0.33	9.99
5775MHz	Pass	13.01	0.11	0.43	3.26	22.99

DG = Directional Gain; **RBW** = 500 kHz 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;

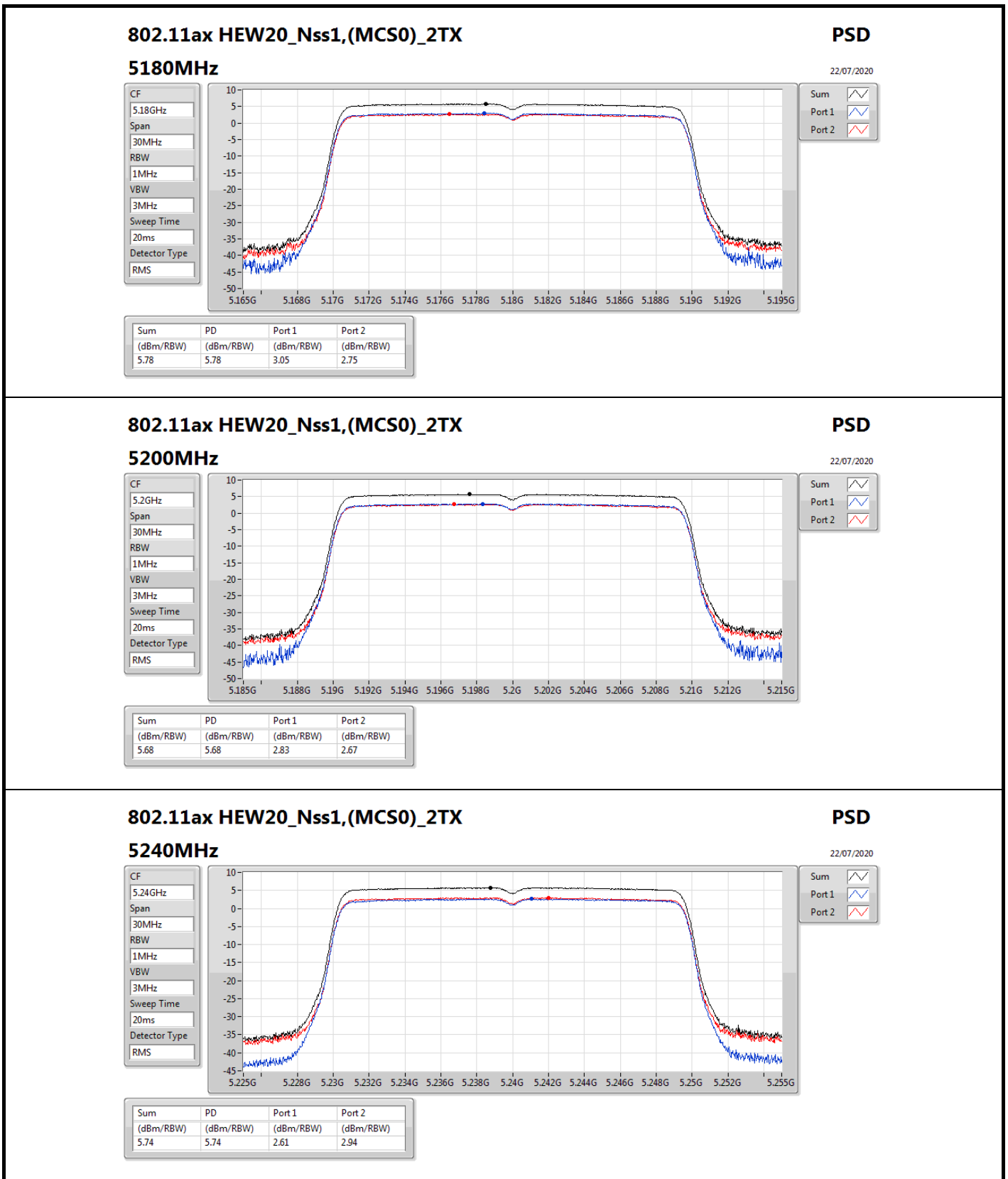
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



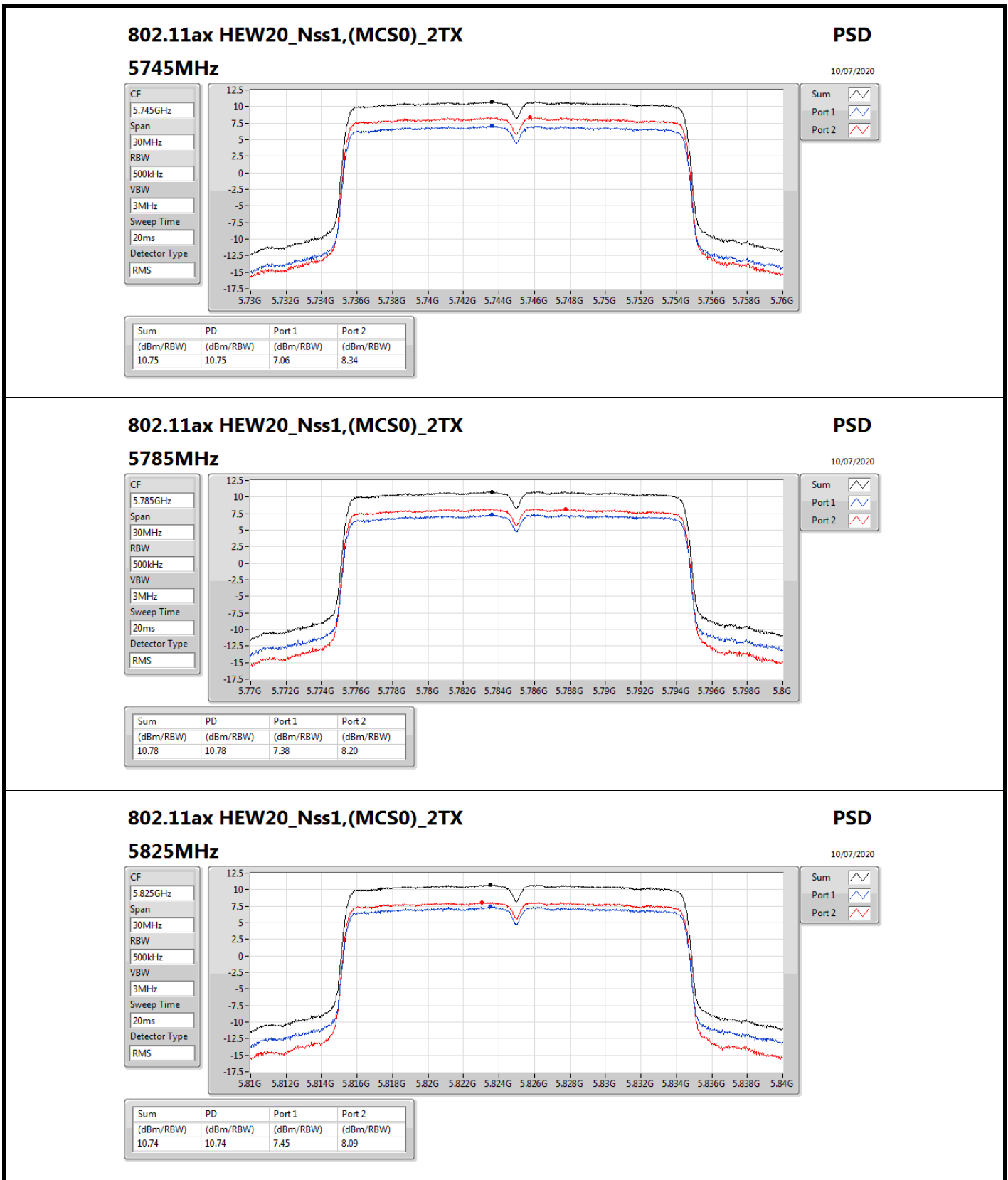
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



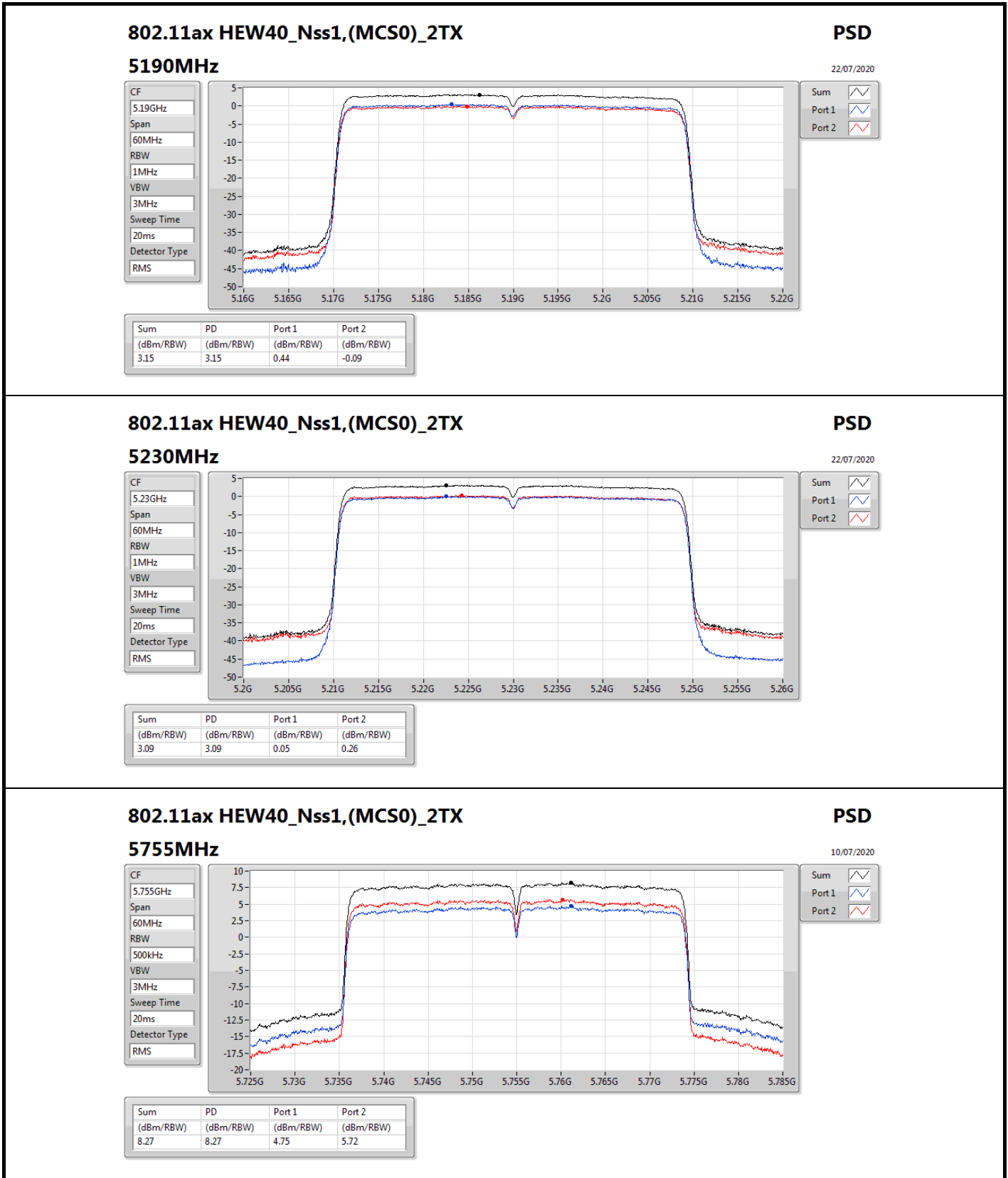
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



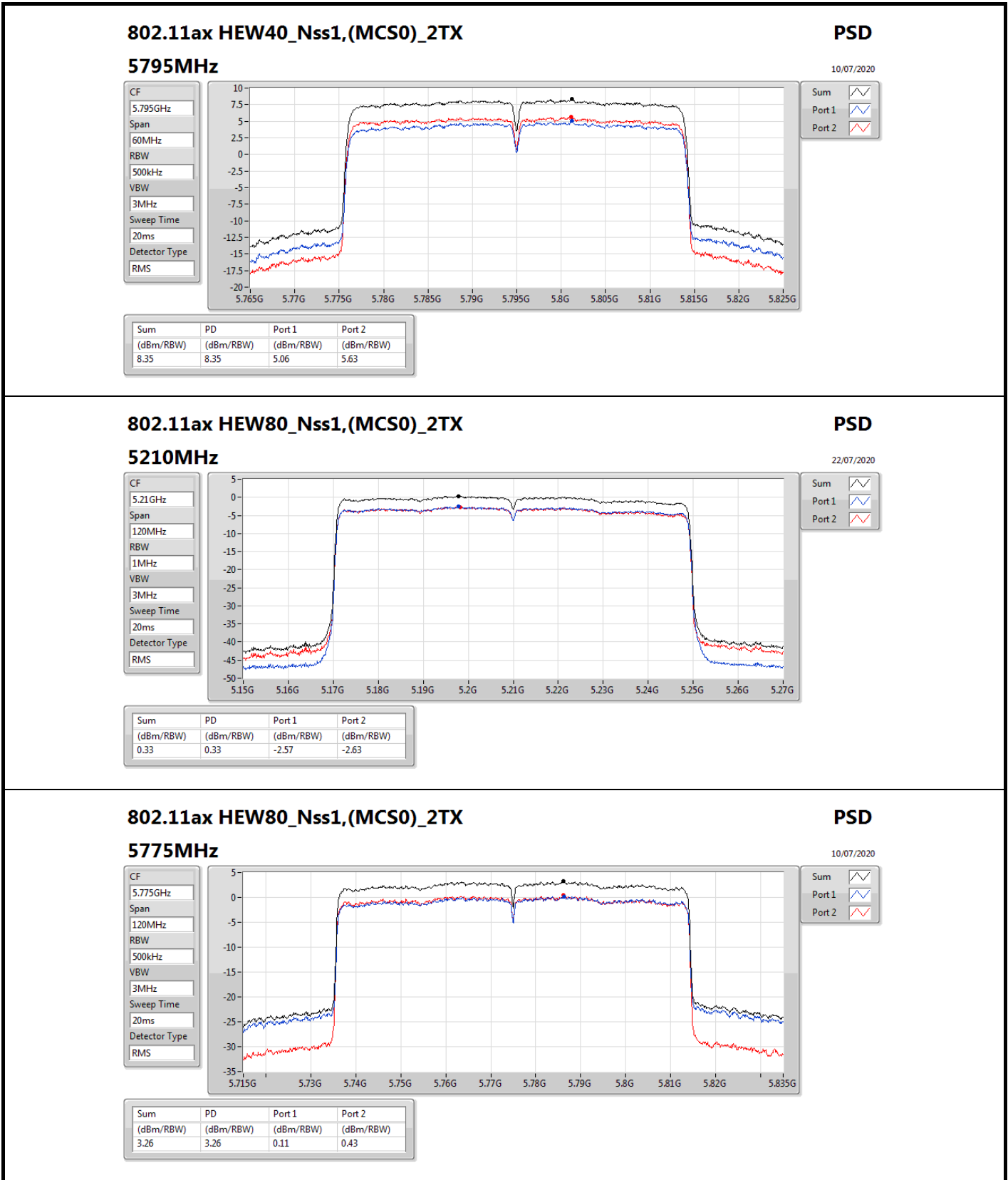
For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



For EUT 2 / Radio 3 / External Ant.2_Non-Beamforming Mode



802.11ax HEW80_Nss1,(MCS0)_2TX

5775MHz

PSD

10/07/2020

CF

5.775GHz

Span

120MHz

RBW

500kHz

VBW

3MHz

Sweep Time

20ms

Detector Type

RMS

Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.26	3.26	0.11	0.43

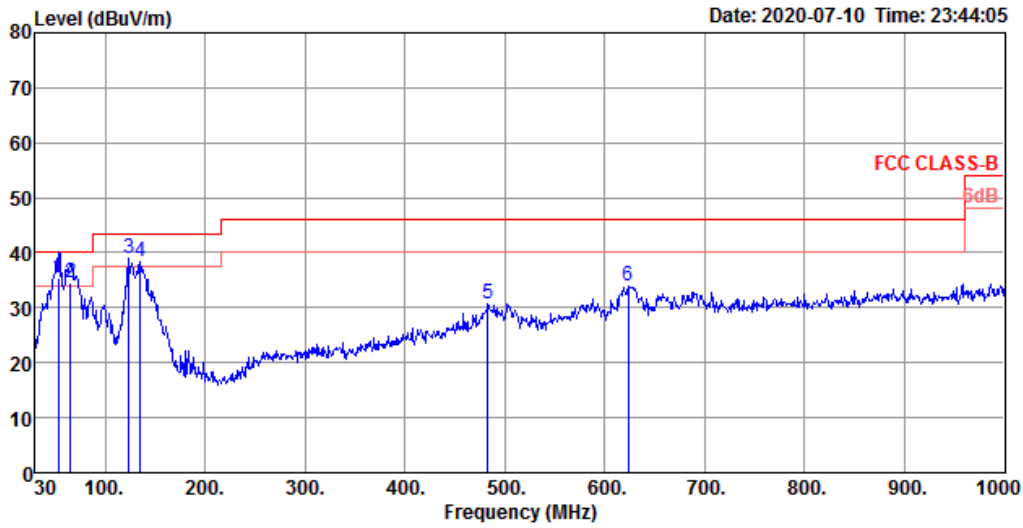


Radiated Emission below 1GHz Result

Appendix E.1

Test Mode	Mode 1	Frequency Range	30 MHz to 1,000 MHz
------------------	--------	------------------------	---------------------

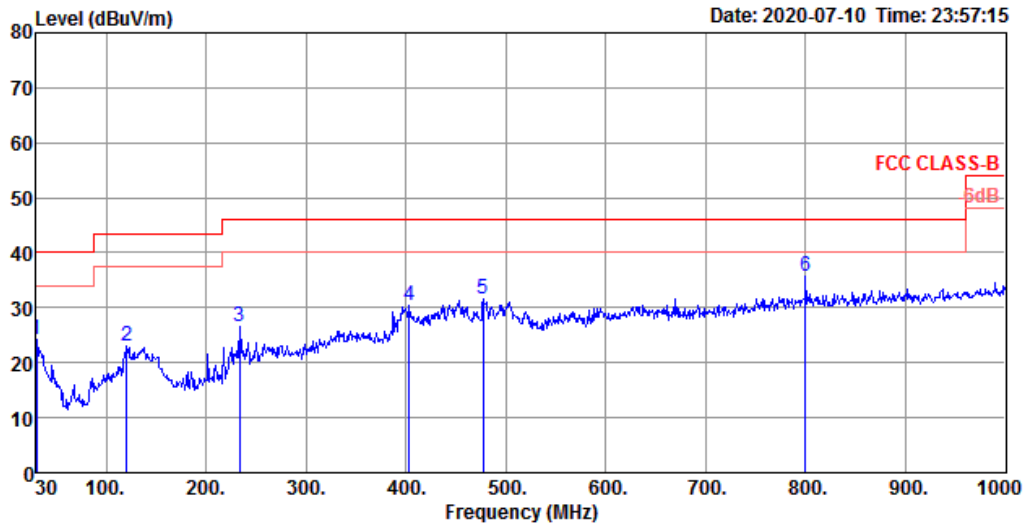
Vertical 30 MHz to 1,000 MHz



	Freq	Level	Limit	Over	Read	Preamp	Antenna	Cable		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	Level	Factor	Factor	Loss	Remark	cm	deg	Pol/Phase
1	53.28	35.36	40.00	-4.64	48.50	27.75	12.21	2.40	QP	200	344	VERTICAL
2	64.92	34.65	40.00	-5.35	48.22	27.61	11.41	2.63	QP	300	187	VERTICAL
3	124.09	38.90	43.50	-4.60	45.76	27.48	17.09	3.53	Peak	200	3	VERTICAL
4	134.76	38.45	43.50	-5.05	45.48	27.40	16.69	3.68	Peak	200	306	VERTICAL
5	482.99	30.79	46.00	-15.21	29.34	28.13	22.65	6.93	Peak	200	240	VERTICAL
6	623.64	33.92	46.00	-12.08	30.02	28.24	24.22	7.92	Peak	100	360	VERTICAL



Horizontal 30 MHz to 1,000 MHz



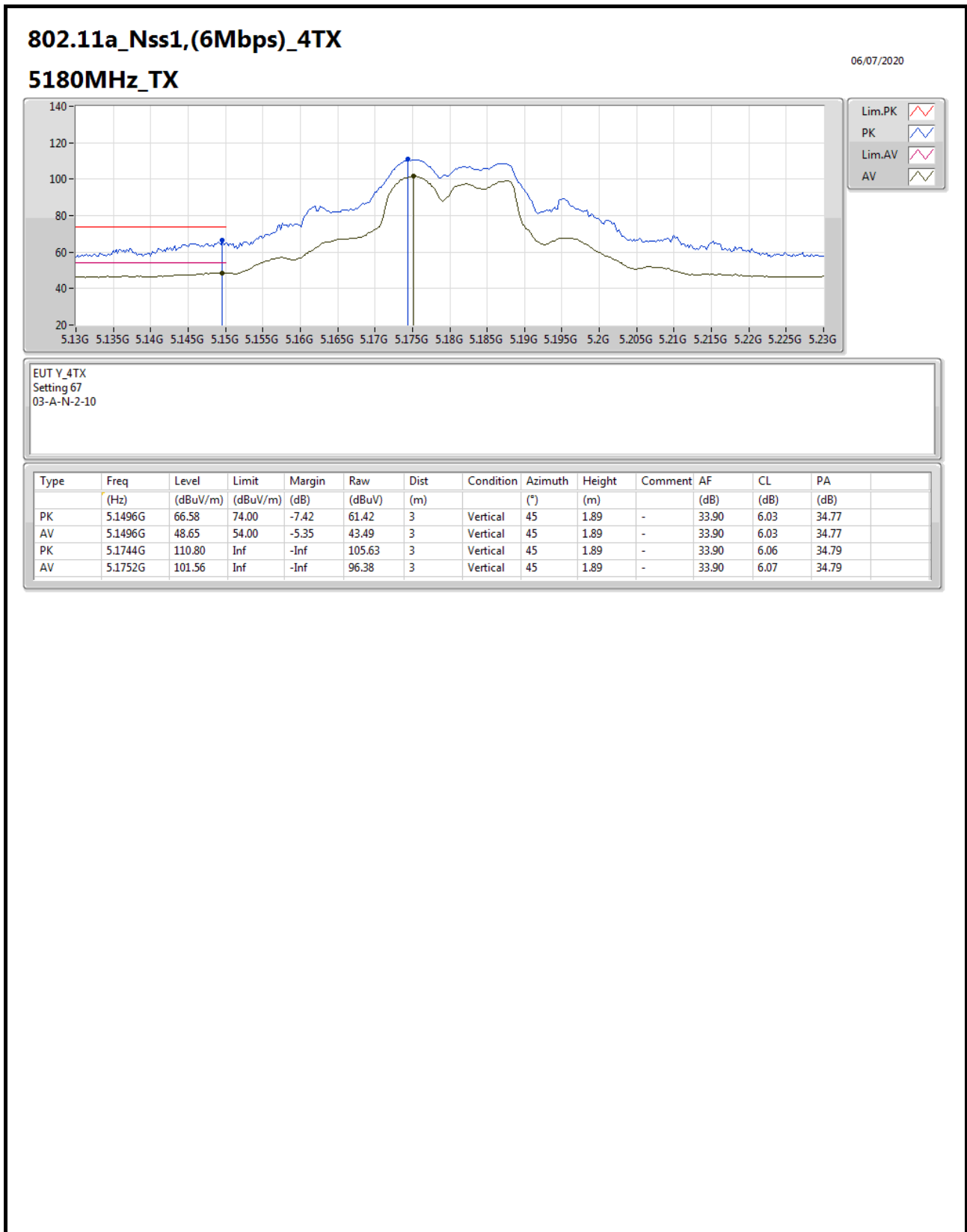
	Freq	Level	Limit	Over	Read	Preamp	Antenna	Cable		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	Level	Factor	Factor	Loss	Remark	cm	deg	Pol/Phase
1	30.00	24.24	40.00	-15.76	26.93	27.72	23.22	1.81	Peak	100	330	HORIZONTAL
2	120.21	23.05	43.50	-20.45	29.86	27.51	17.22	3.48	Peak	100	258	HORIZONTAL
3	233.70	26.51	46.00	-19.49	32.99	27.02	15.72	4.82	Peak	100	352	HORIZONTAL
4	403.45	30.50	46.00	-15.50	30.56	27.37	20.98	6.33	Peak	400	11	HORIZONTAL
5	477.17	31.65	46.00	-14.35	30.26	28.10	22.59	6.90	Peak	100	342	HORIZONTAL
6	800.18	35.58	46.00	-10.42	28.79	27.35	25.09	9.05	Peak	200	328	HORIZONTAL



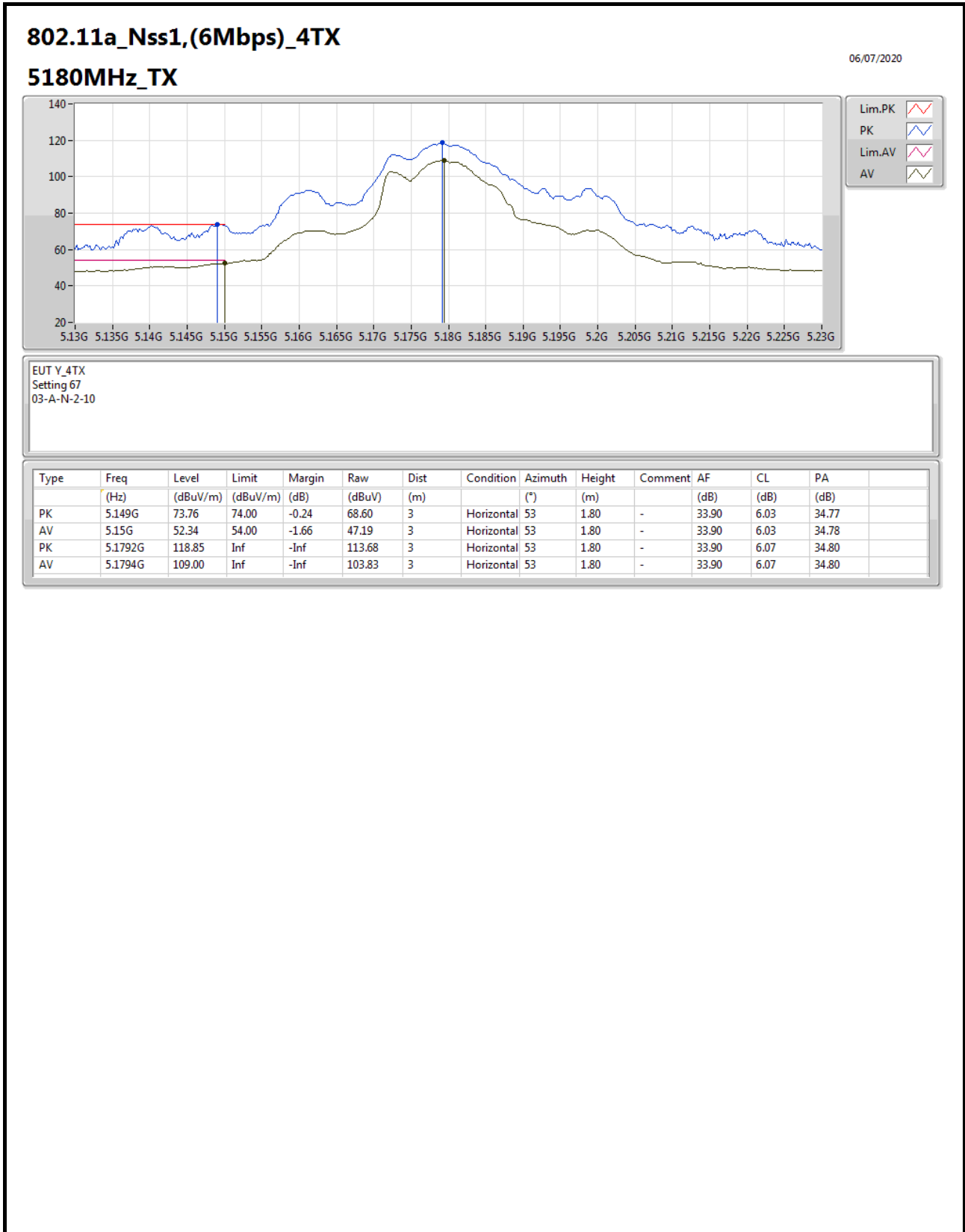
For EUT 1 / Radio 1_Non-Beamforming Mode
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	Pass	PK	17.4743G	68.18	68.20	-0.02	3	Horizontal	294	2.88	-

For EUT 1 / Radio 1_Non-Beamforming Mode

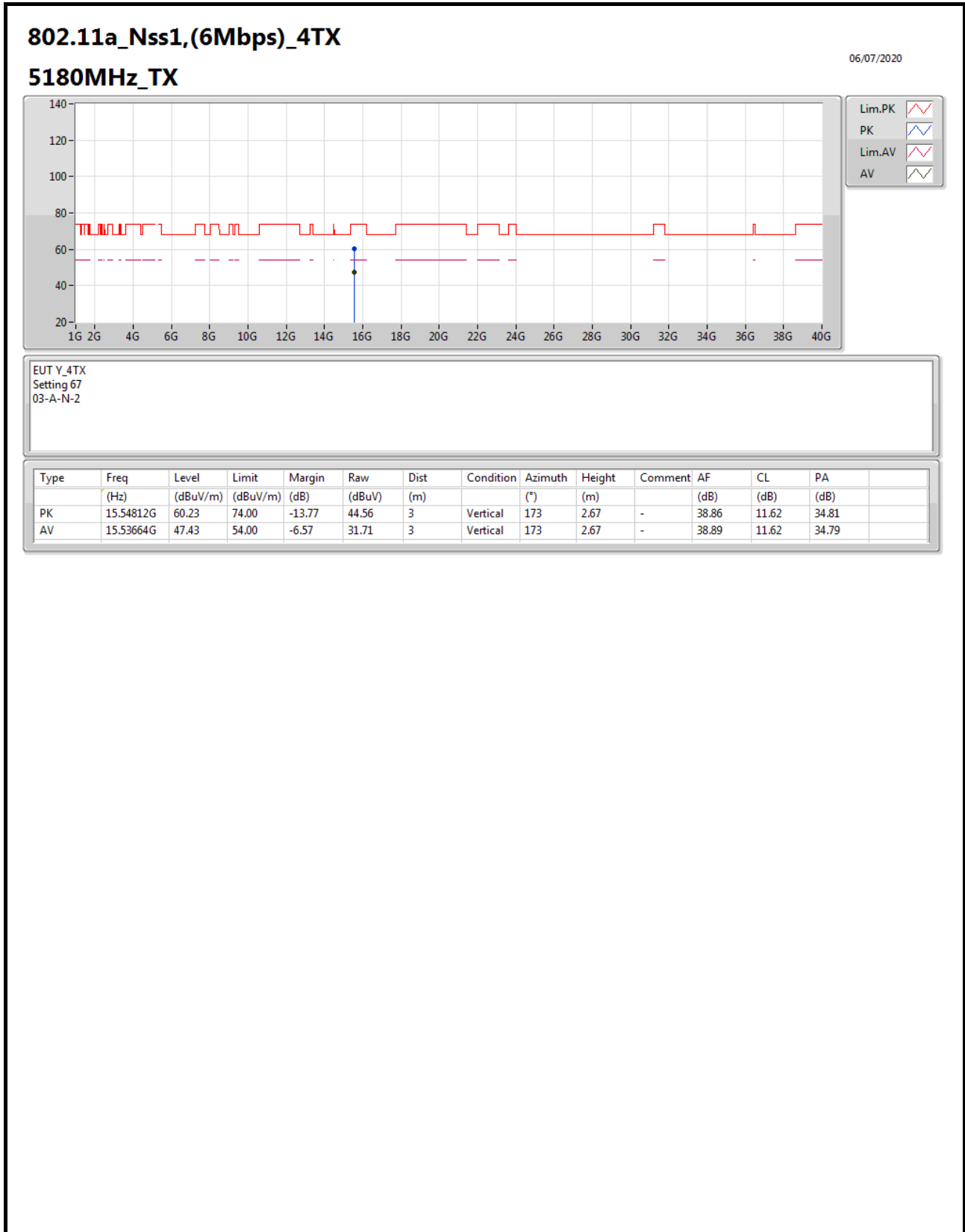


For EUT 1 / Radio 1_Non-Beamforming Mode



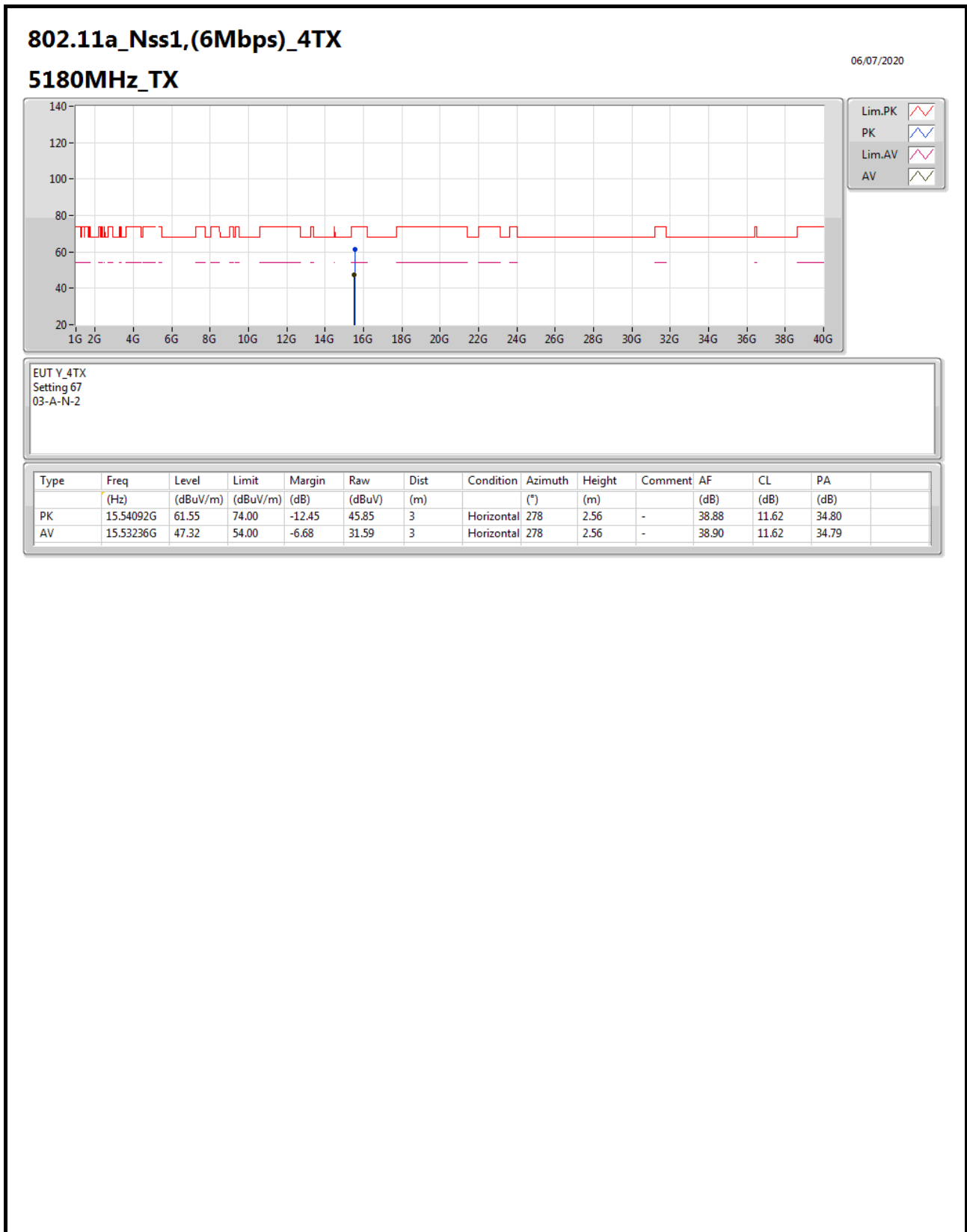


For EUT 1 / Radio 1_Non-Beamforming Mode



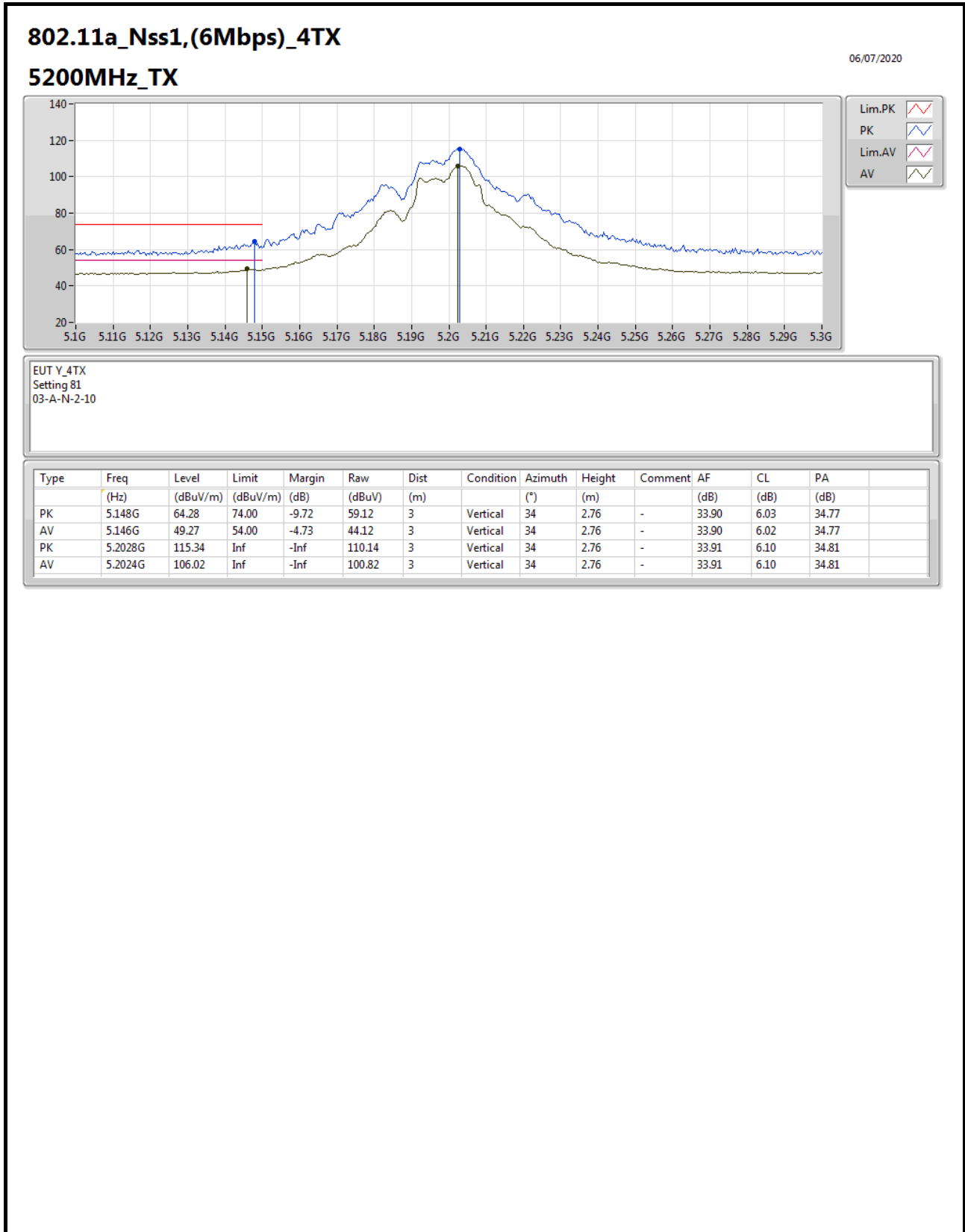


For EUT 1 / Radio 1_Non-Beamforming Mode



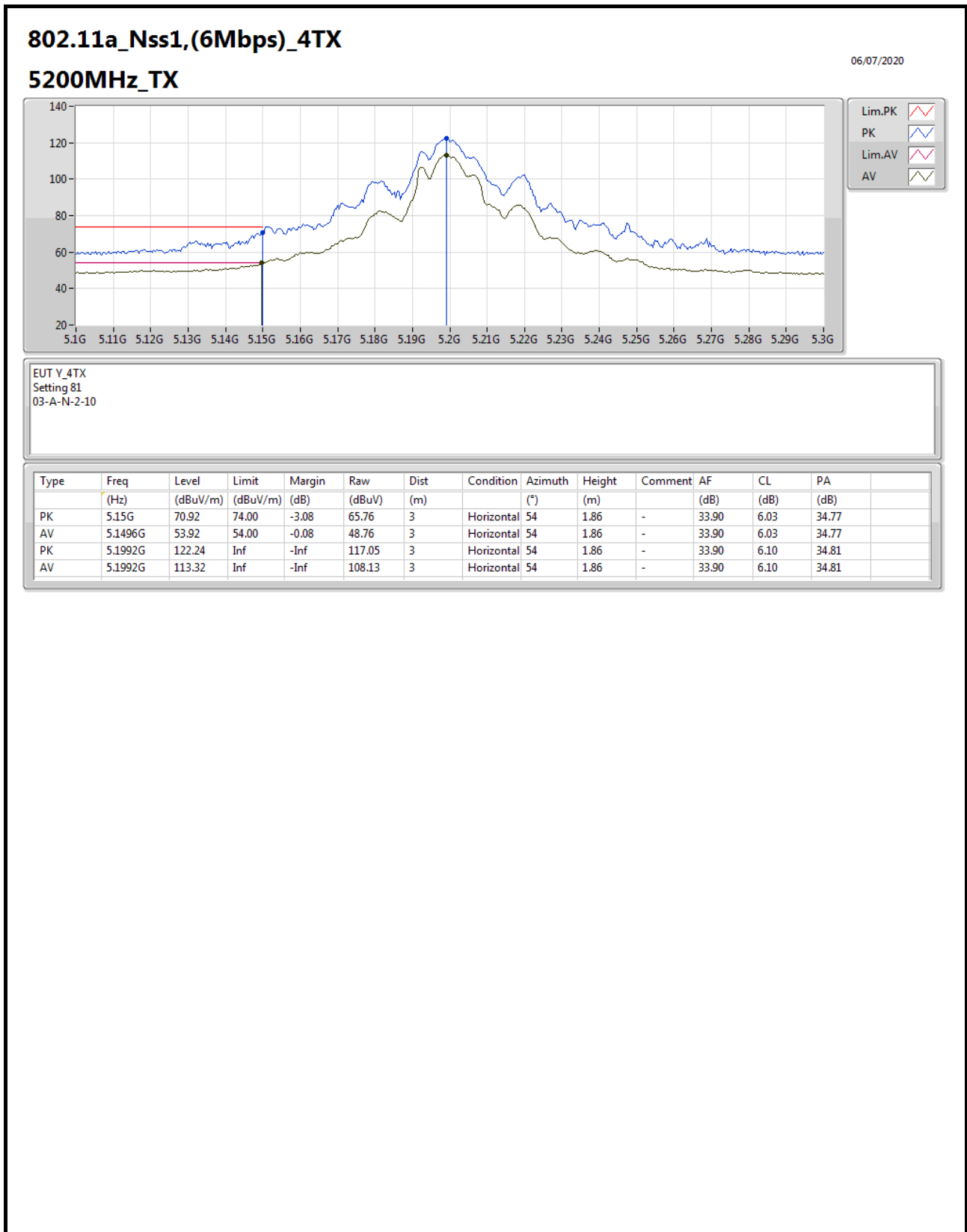


For EUT 1 / Radio 1_Non-Beamforming Mode



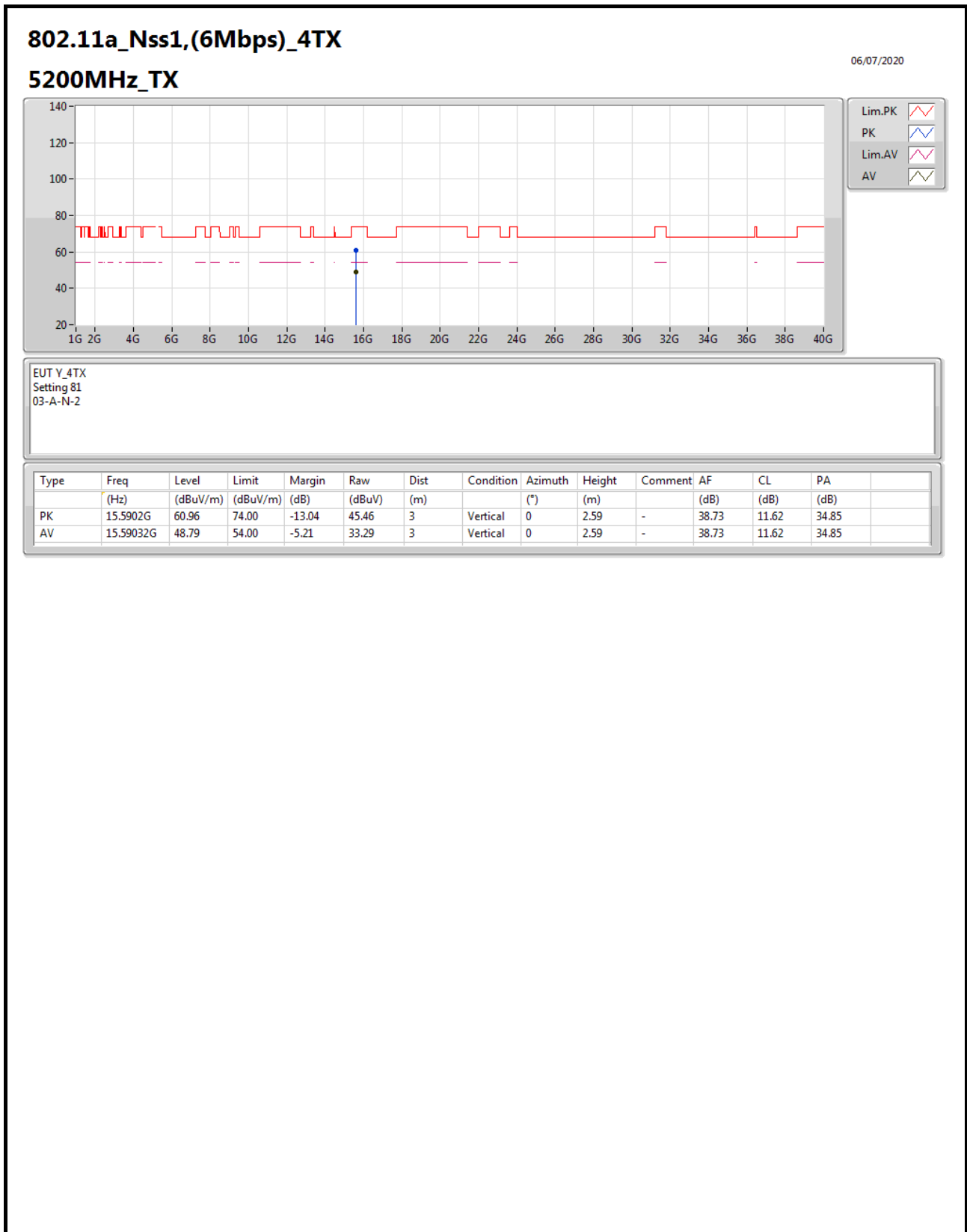


For EUT 1 / Radio 1_Non-Beamforming Mode



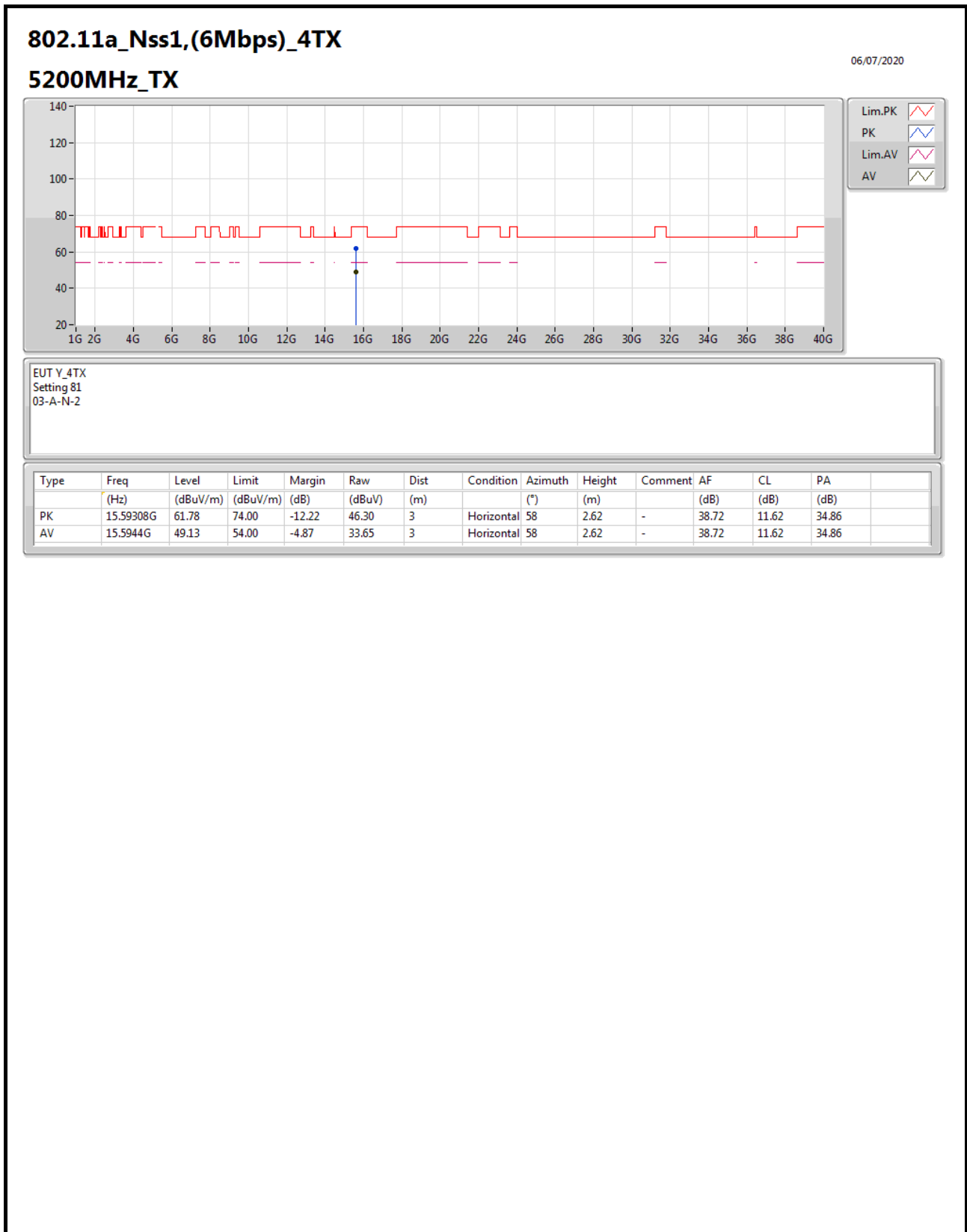


For EUT 1 / Radio 1_Non-Beamforming Mode

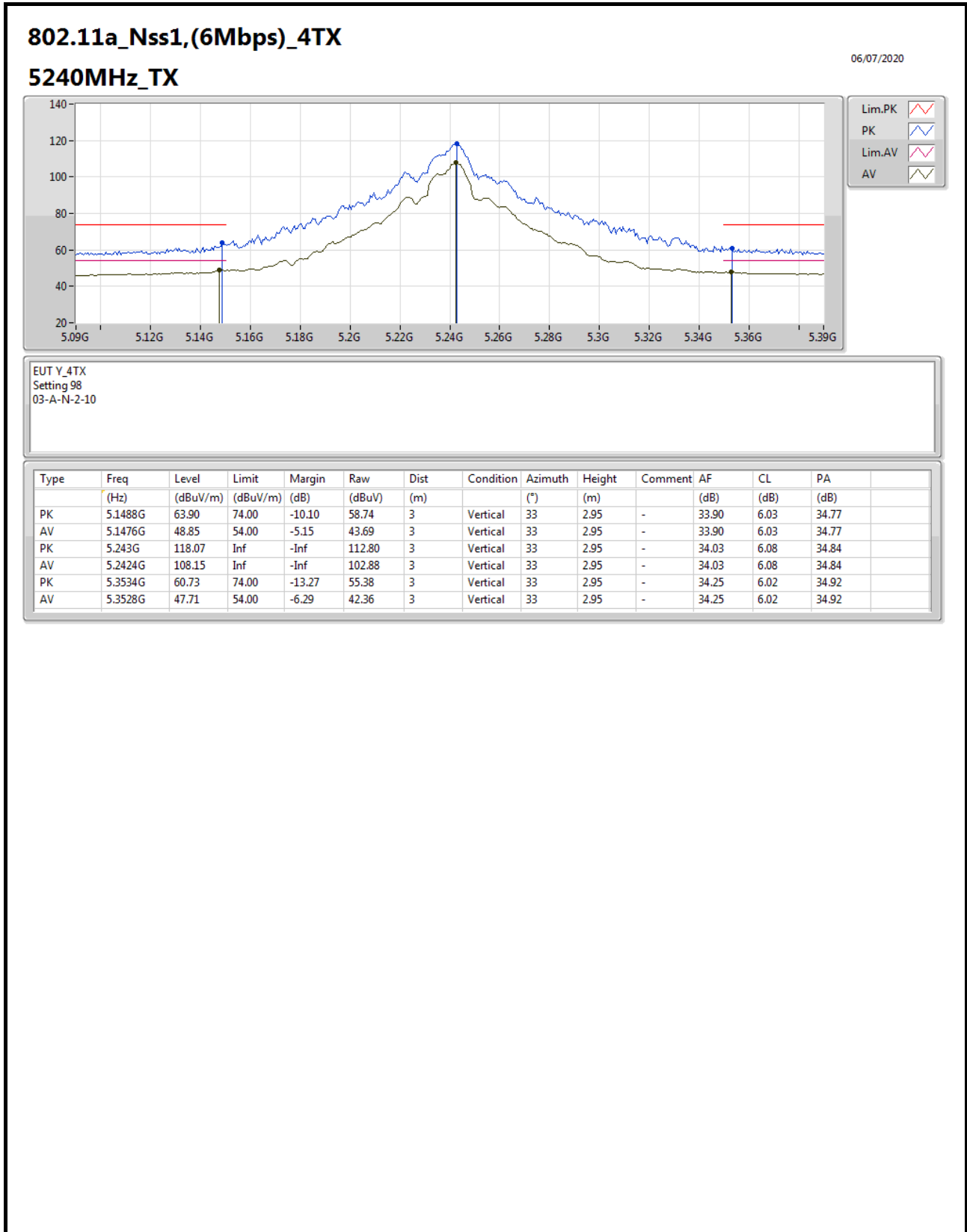




For EUT 1 / Radio 1_Non-Beamforming Mode



For EUT 1 / Radio 1_Non-Beamforming Mode



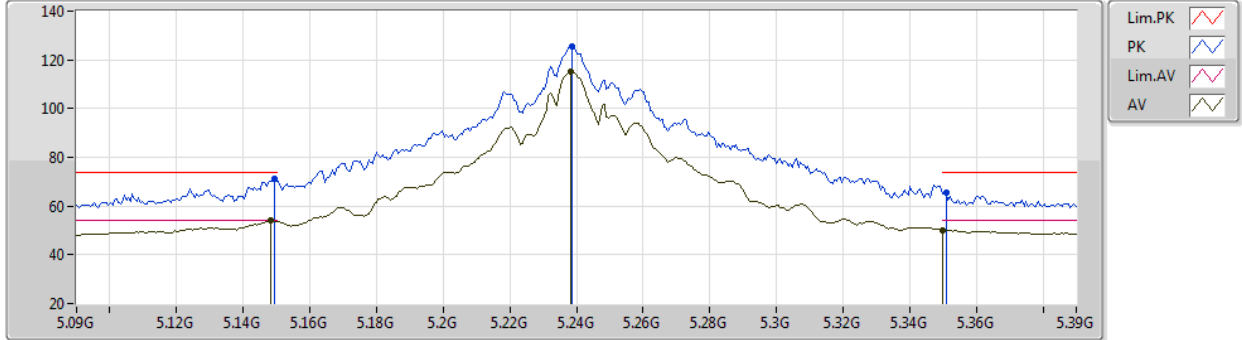


For EUT 1 / Radio 1_Non-Beamforming Mode

802.11a_Nss1,(6Mbps)_4TX

06/07/2020

5240MHz_TX

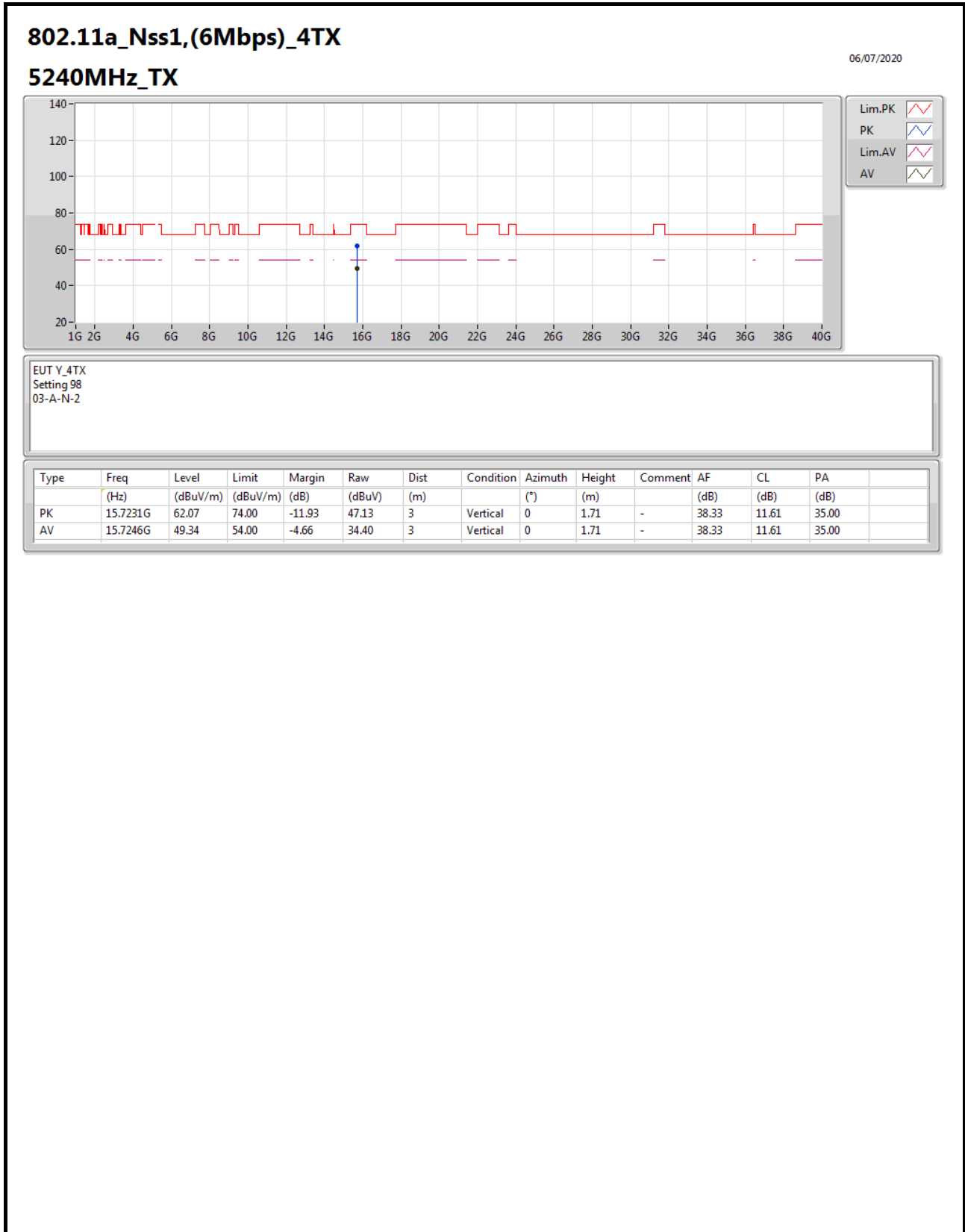


EUT_V_4TX
Setting 98
03-A-N-2-10

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	5.1494G	71.13	74.00	-2.87	65.97	3	Horizontal	52	1.88	-	33.90	6.03	34.77
AV	5.1482G	53.91	54.00	-0.09	48.75	3	Horizontal	52	1.88	-	33.90	6.03	34.77
PK	5.2388G	125.45	Inf	-Inf	120.19	3	Horizontal	52	1.88	-	34.02	6.08	34.84
AV	5.2382G	115.14	Inf	-Inf	109.89	3	Horizontal	52	1.88	-	34.01	6.08	34.84
PK	5.351G	65.57	74.00	-8.43	60.22	3	Horizontal	52	1.88	-	34.25	6.02	34.92
AV	5.35G	50.25	54.00	-3.75	44.90	3	Horizontal	52	1.88	-	34.25	6.02	34.92

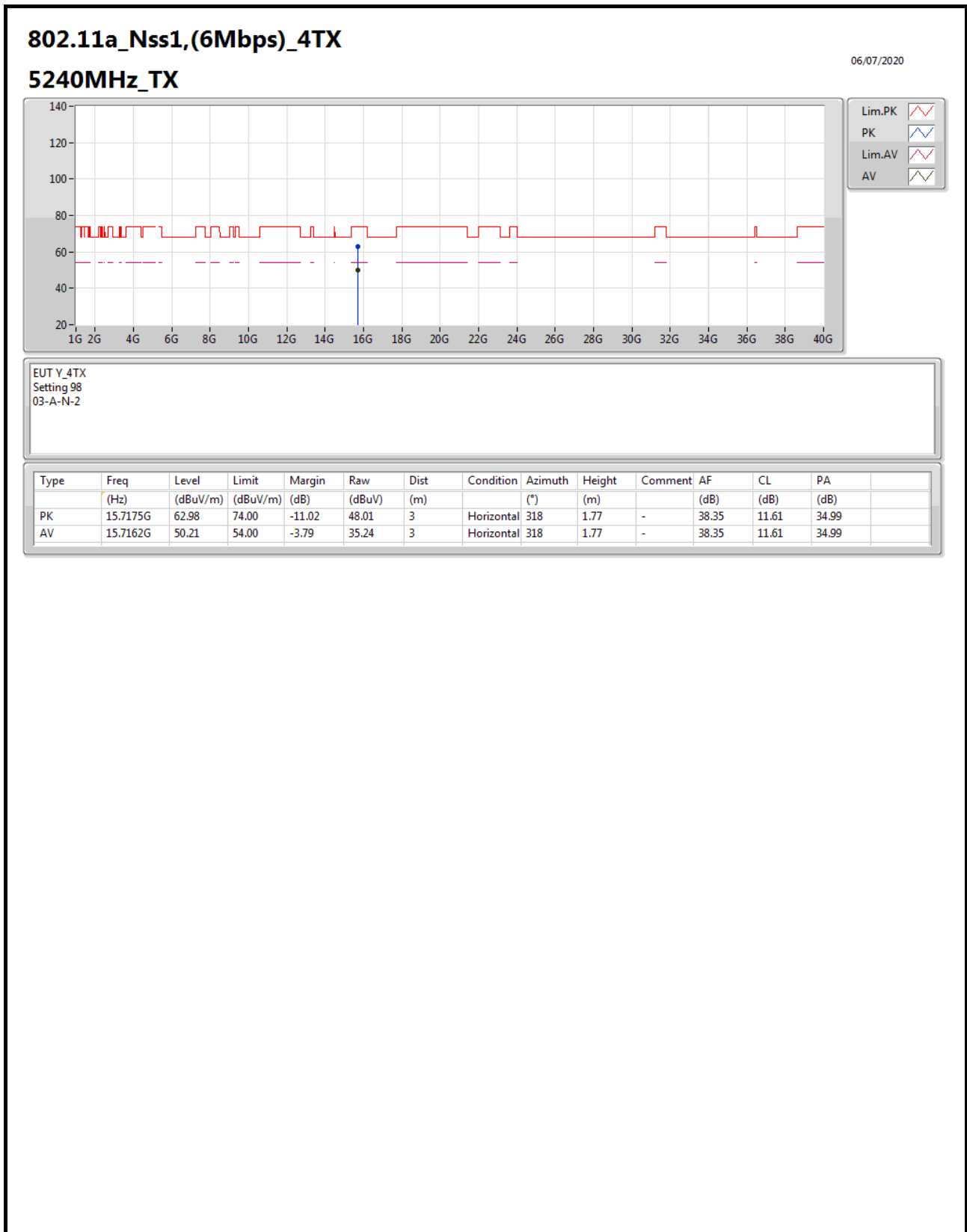


For EUT 1 / Radio 1_Non-Beamforming Mode



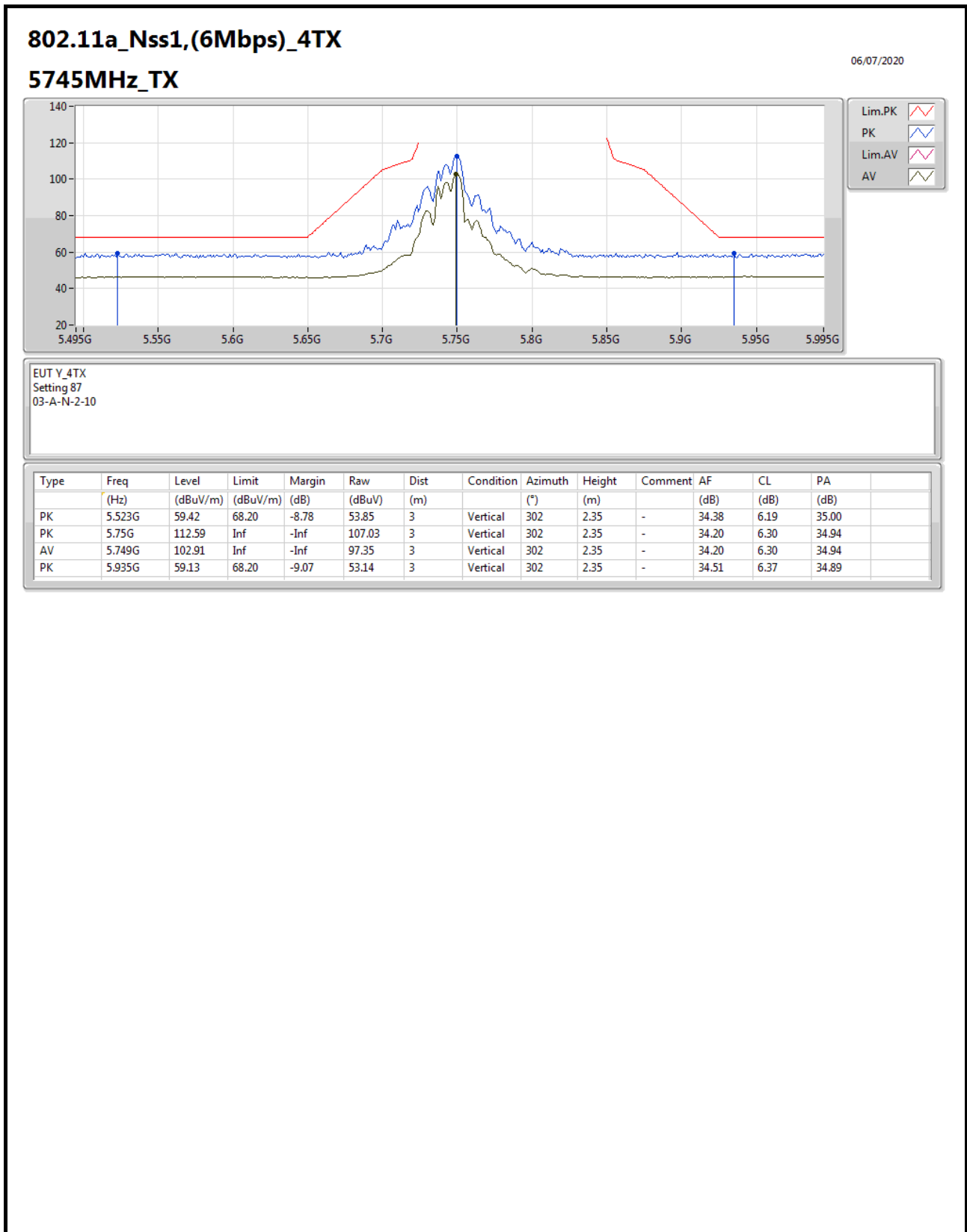


For EUT 1 / Radio 1_Non-Beamforming Mode



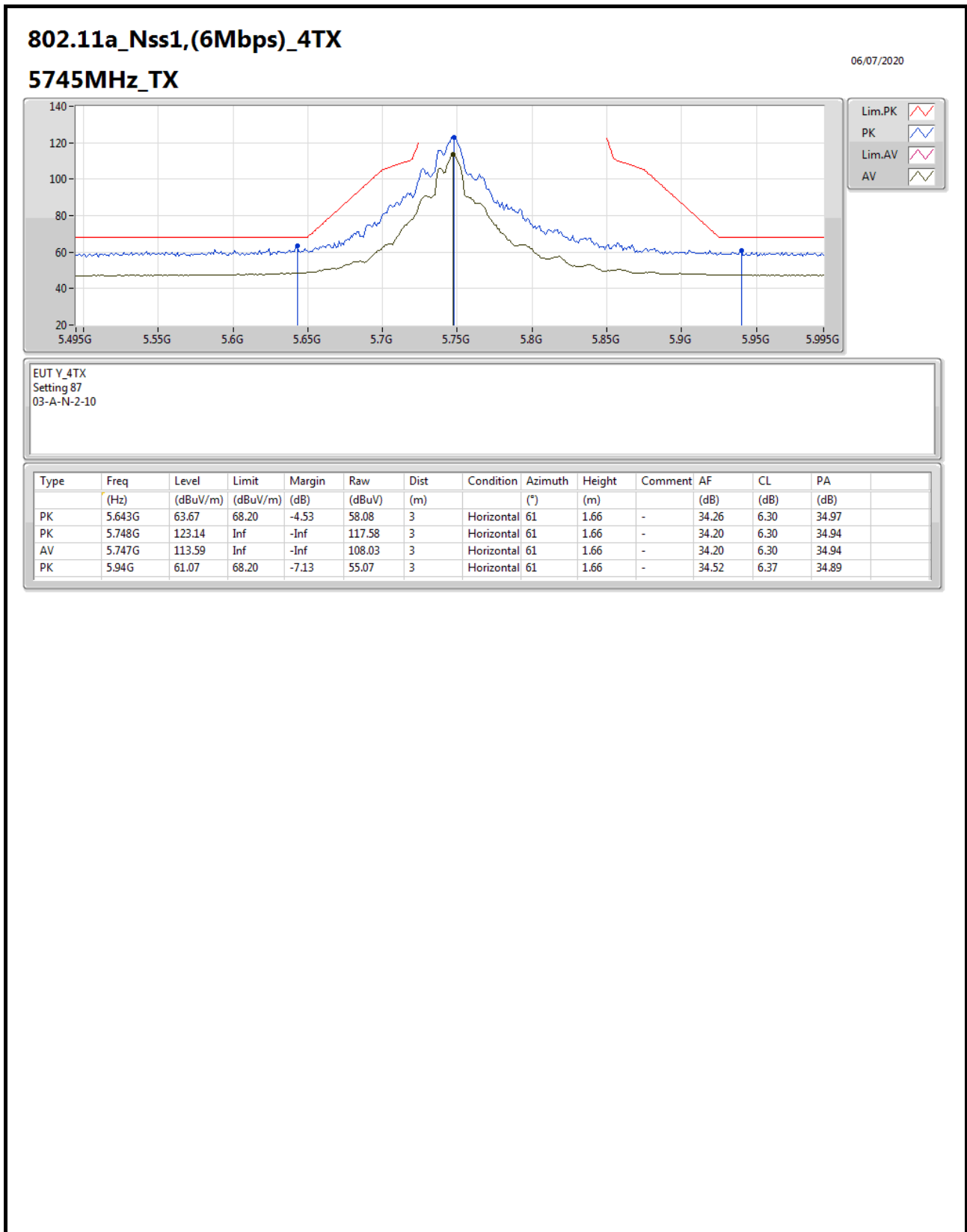


For EUT 1 / Radio 1_Non-Beamforming Mode



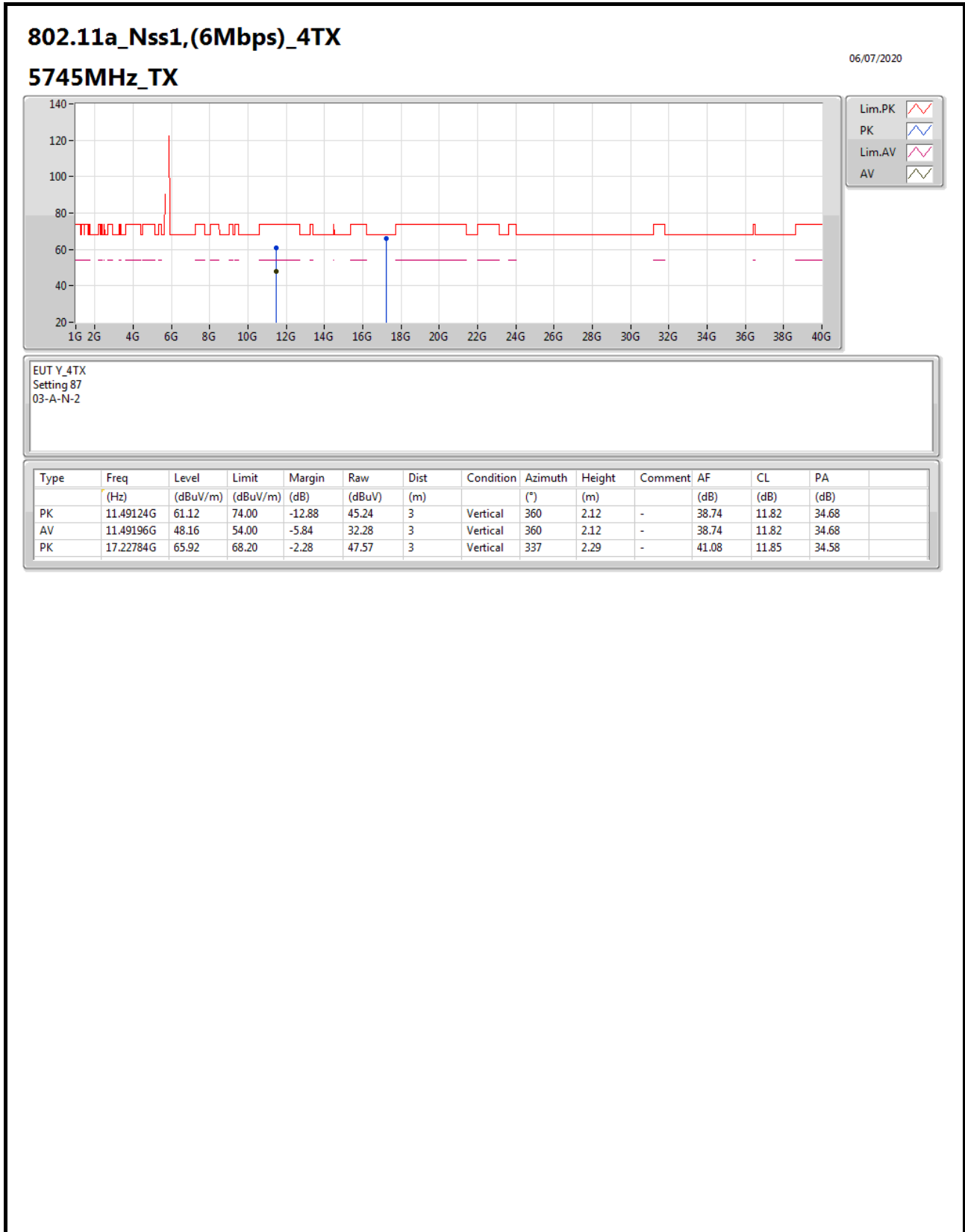


For EUT 1 / Radio 1_Non-Beamforming Mode



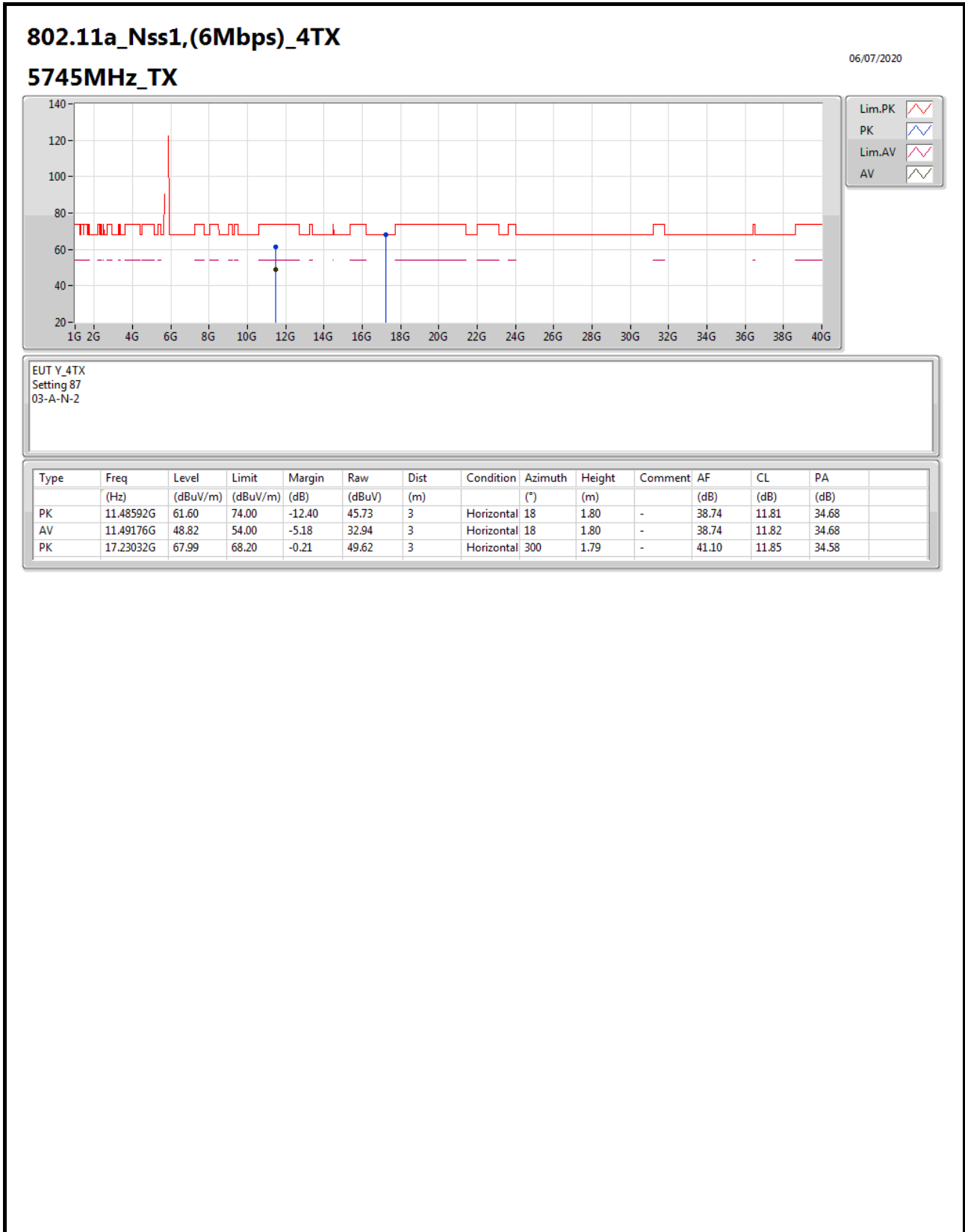


For EUT 1 / Radio 1_Non-Beamforming Mode



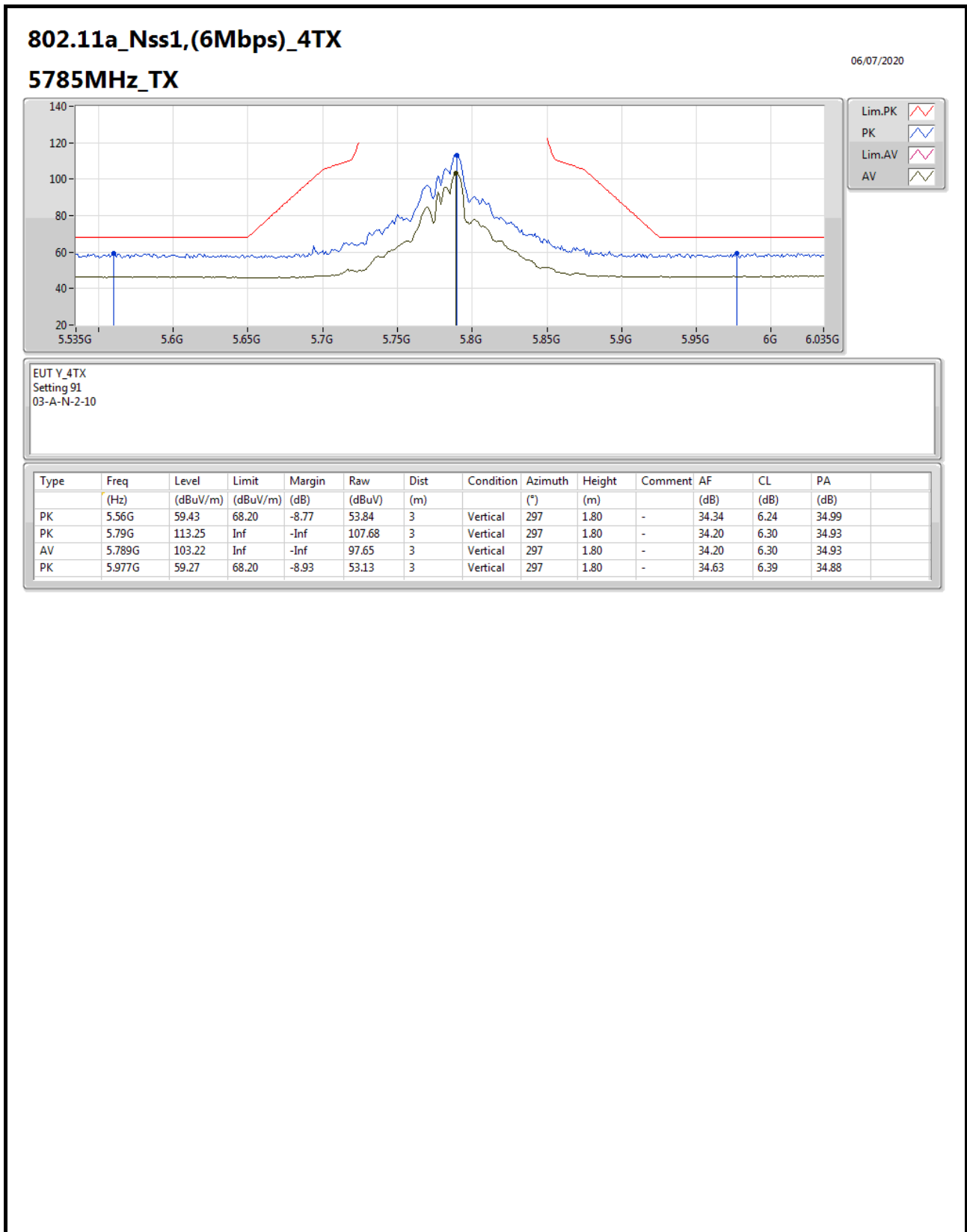


For EUT 1 / Radio 1_Non-Beamforming Mode





For EUT 1 / Radio 1_Non-Beamforming Mode



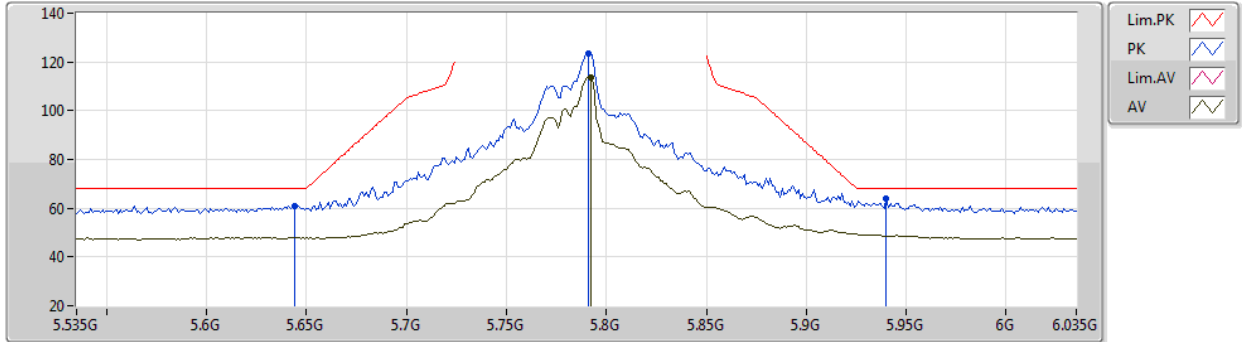


For EUT 1 / Radio 1_Non-Beamforming Mode

802.11a_Nss1,(6Mbps)_4TX

06/07/2020

5785MHz_TX

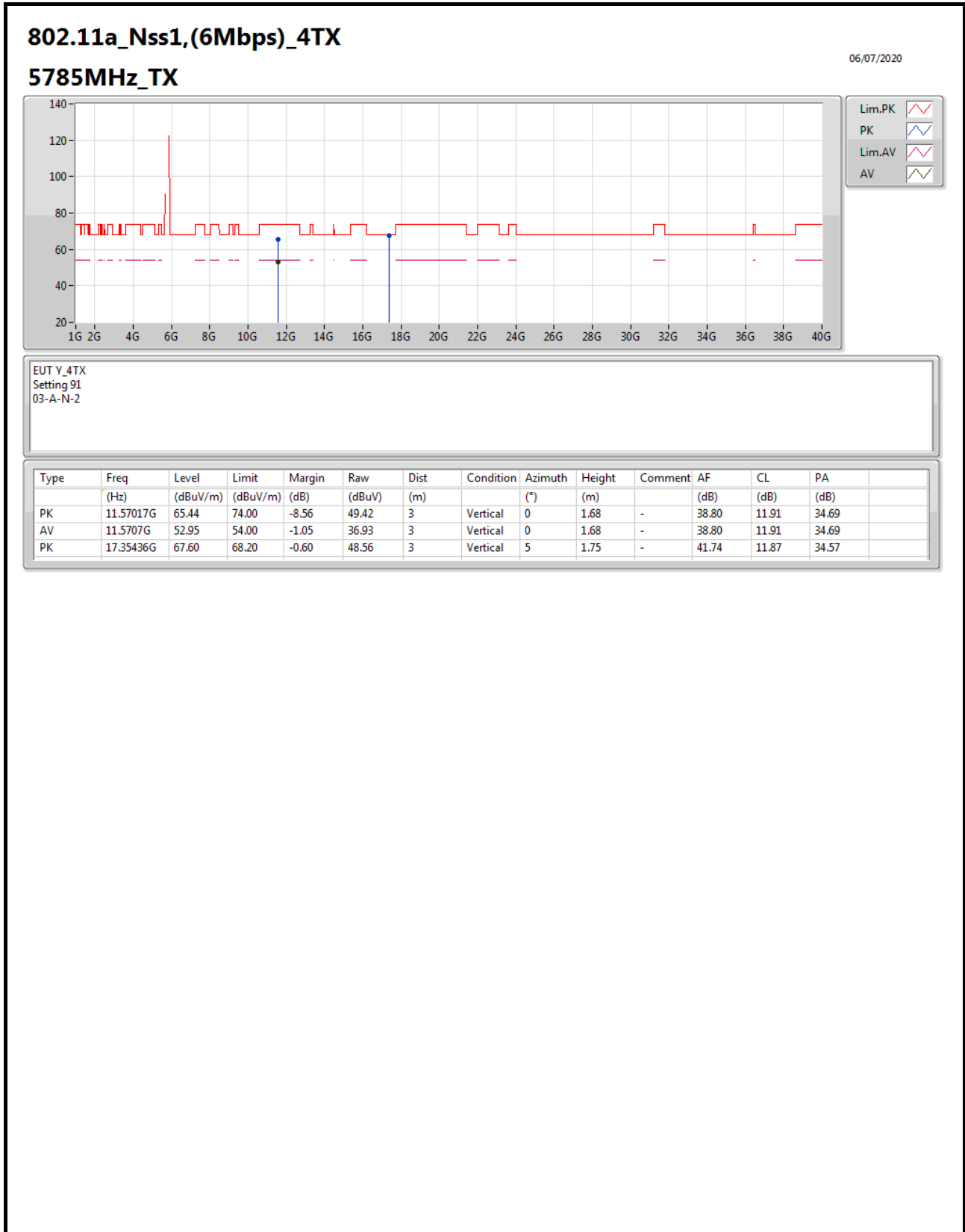


EUT_V_4TX
Setting 91
03-A-N-2-10

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	5.644G	60.88	68.20	-7.32	55.29	3	Horizontal	306	1.75	-	34.26	6.30	34.97
PK	5.791G	123.70	Inf	-Inf	118.13	3	Horizontal	306	1.75	-	34.20	6.30	34.93
AV	5.792G	113.67	Inf	-Inf	108.10	3	Horizontal	306	1.75	-	34.20	6.30	34.93
PK	5.94G	63.95	68.20	-4.25	57.95	3	Horizontal	306	1.75	-	34.52	6.37	34.89

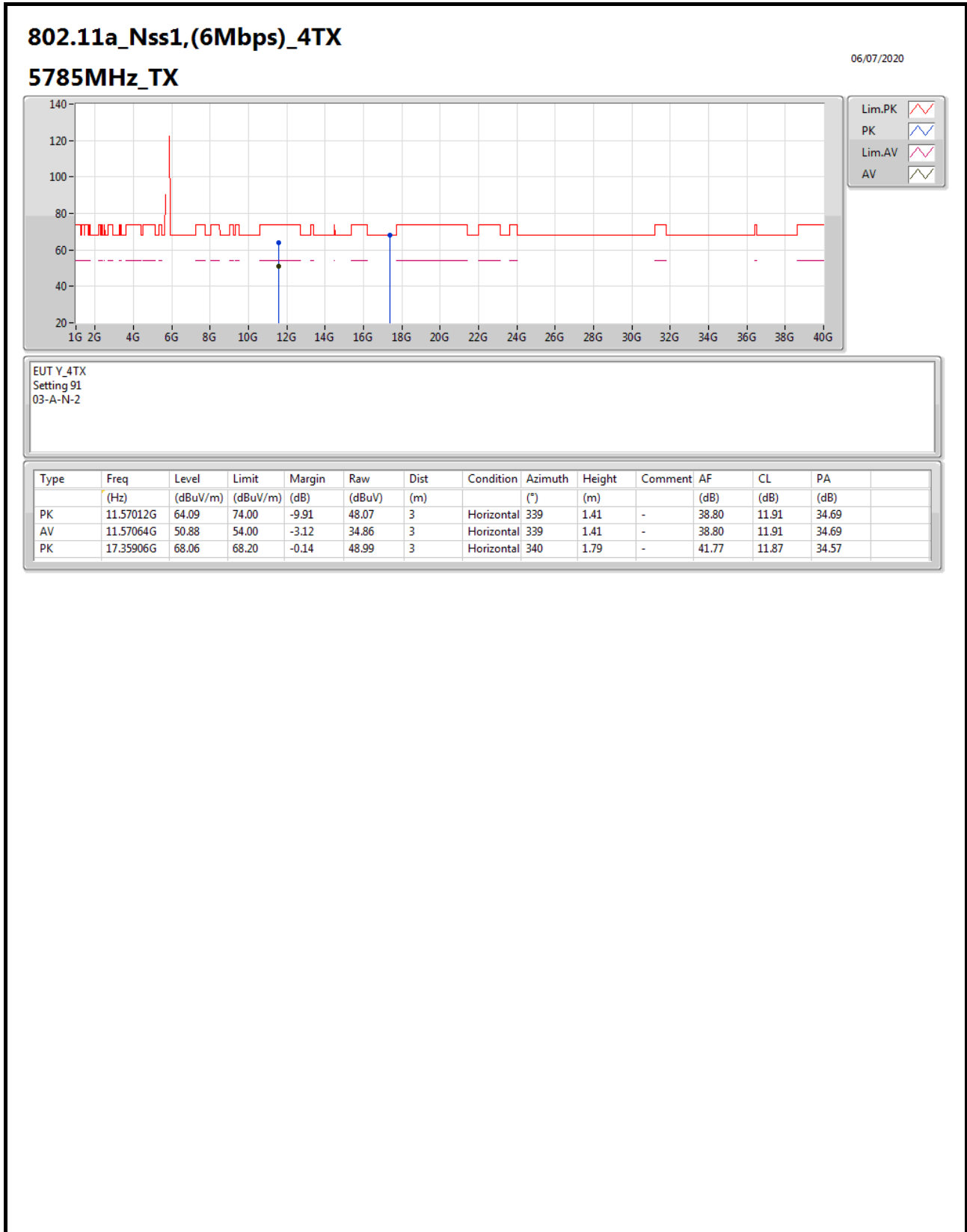


For EUT 1 / Radio 1_Non-Beamforming Mode



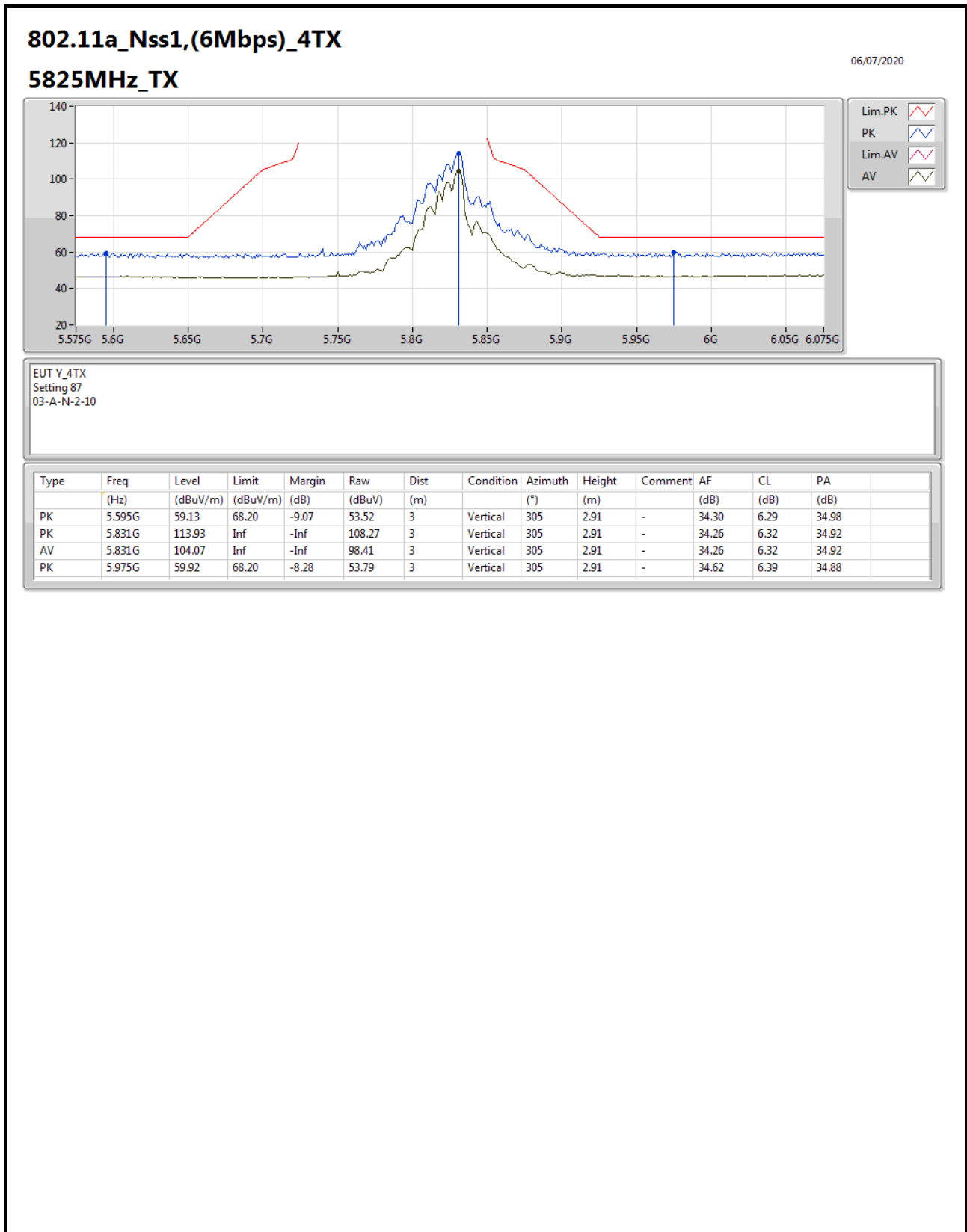


For EUT 1 / Radio 1_Non-Beamforming Mode



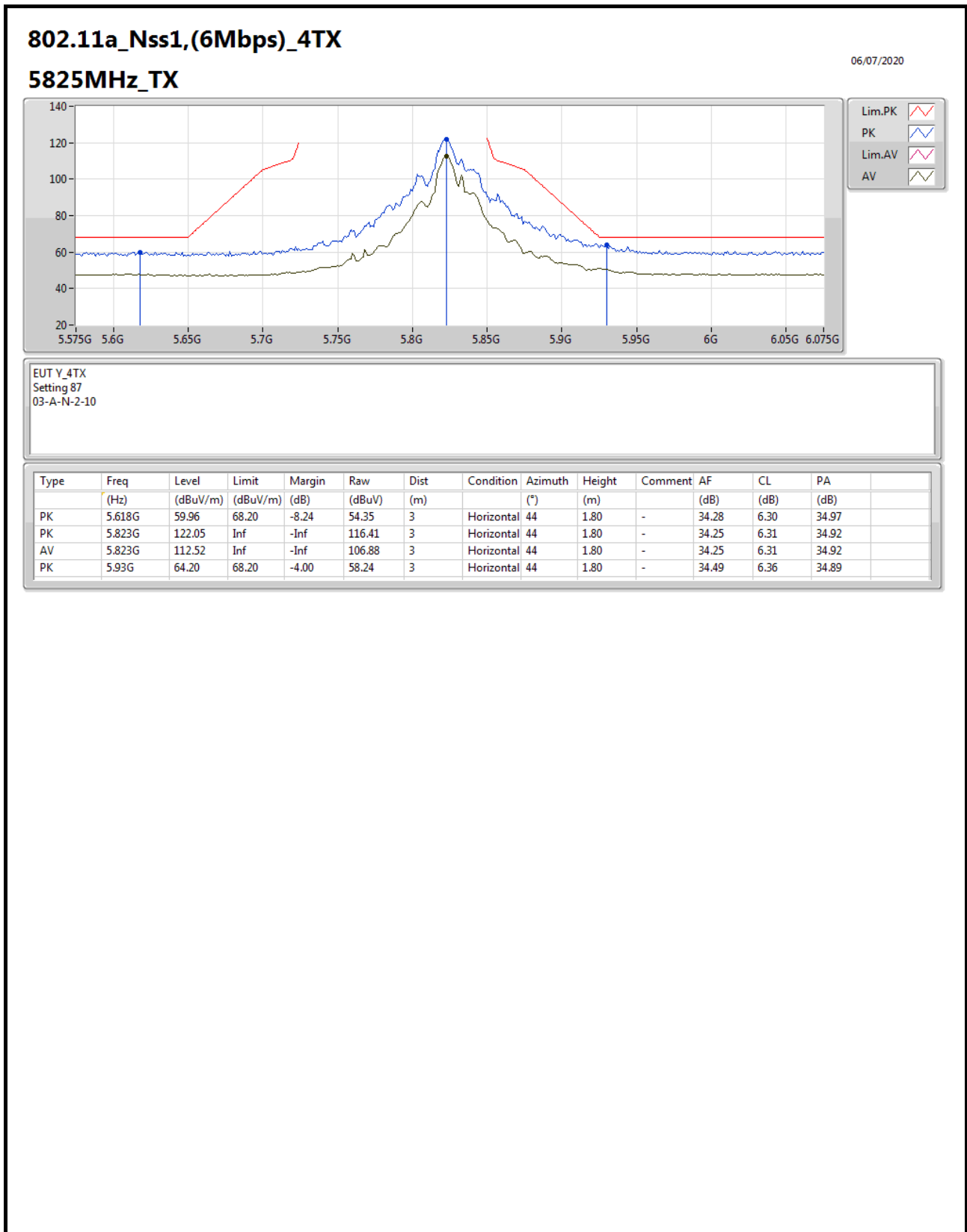


For EUT 1 / Radio 1_Non-Beamforming Mode



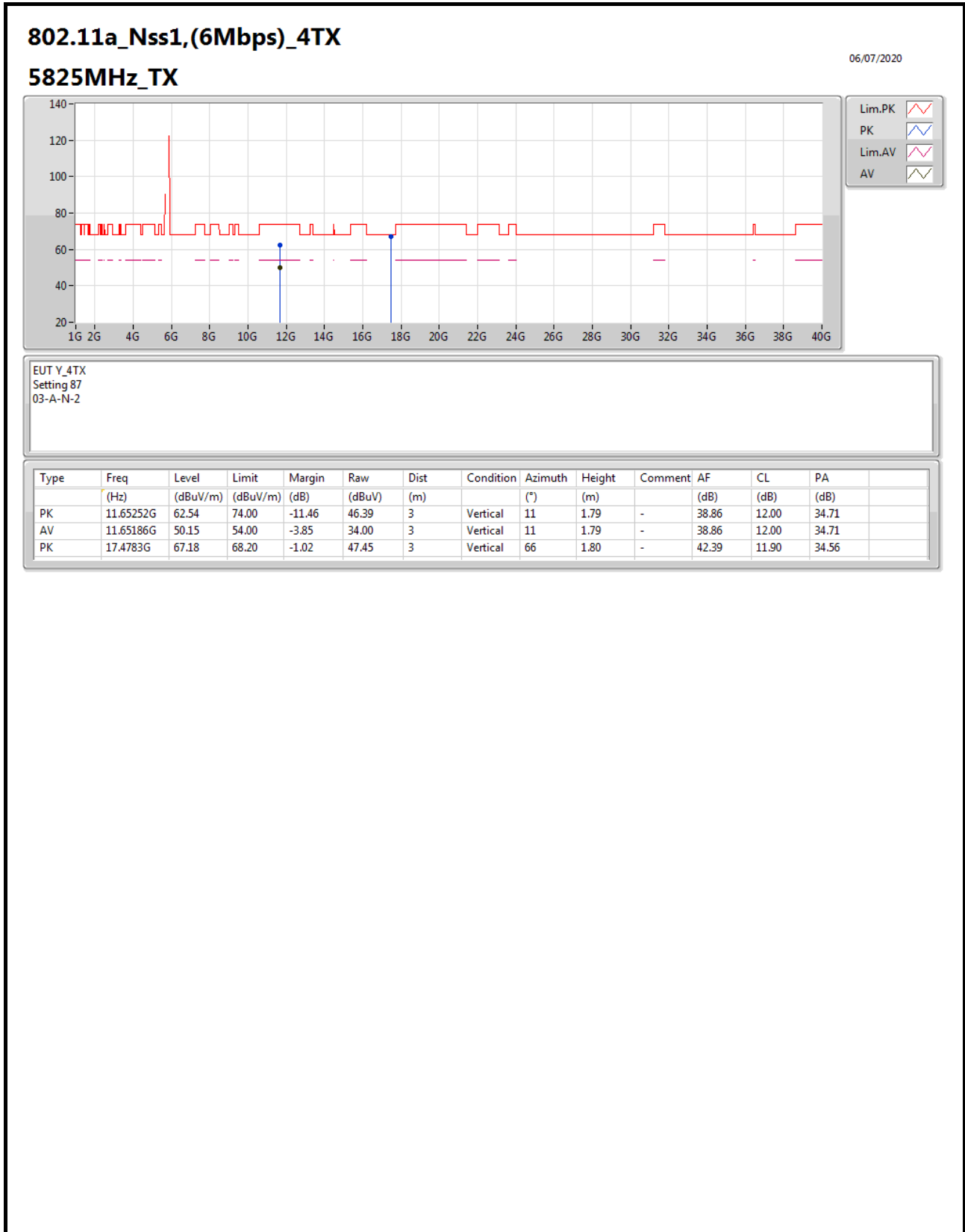


For EUT 1 / Radio 1_Non-Beamforming Mode



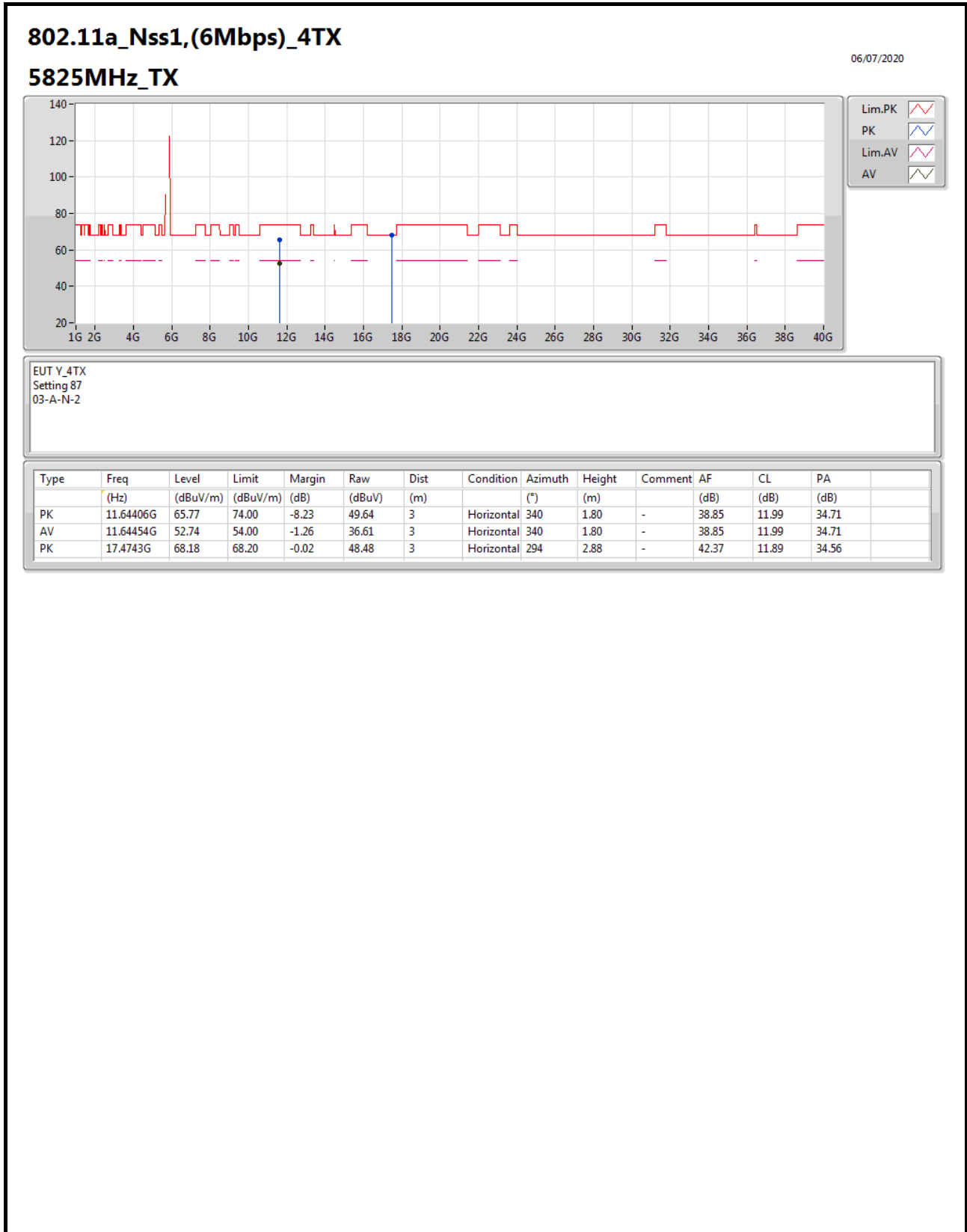


For EUT 1 / Radio 1_Non-Beamforming Mode





For EUT 1 / Radio 1_Non-Beamforming Mode



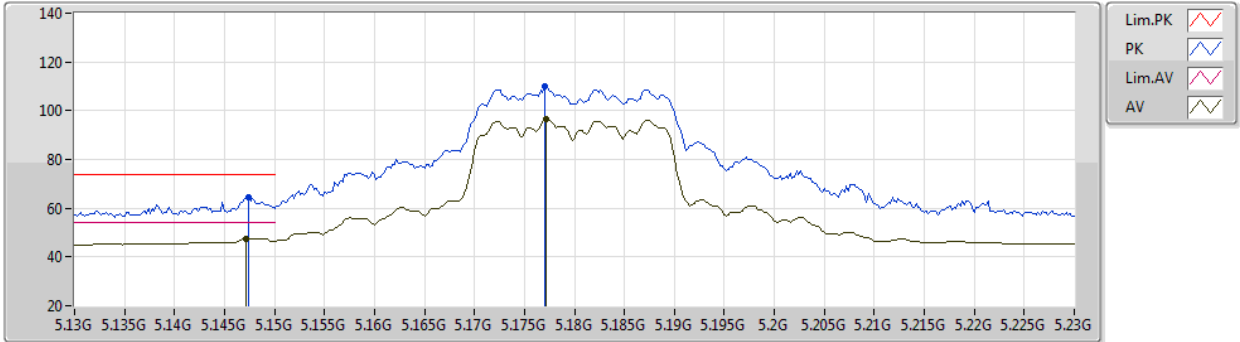


For EUT 1 / Radio 1_Non-Beamforming Mode

802.11ax HEW20_Nss1,(MCS0)_4TX

06/07/2020

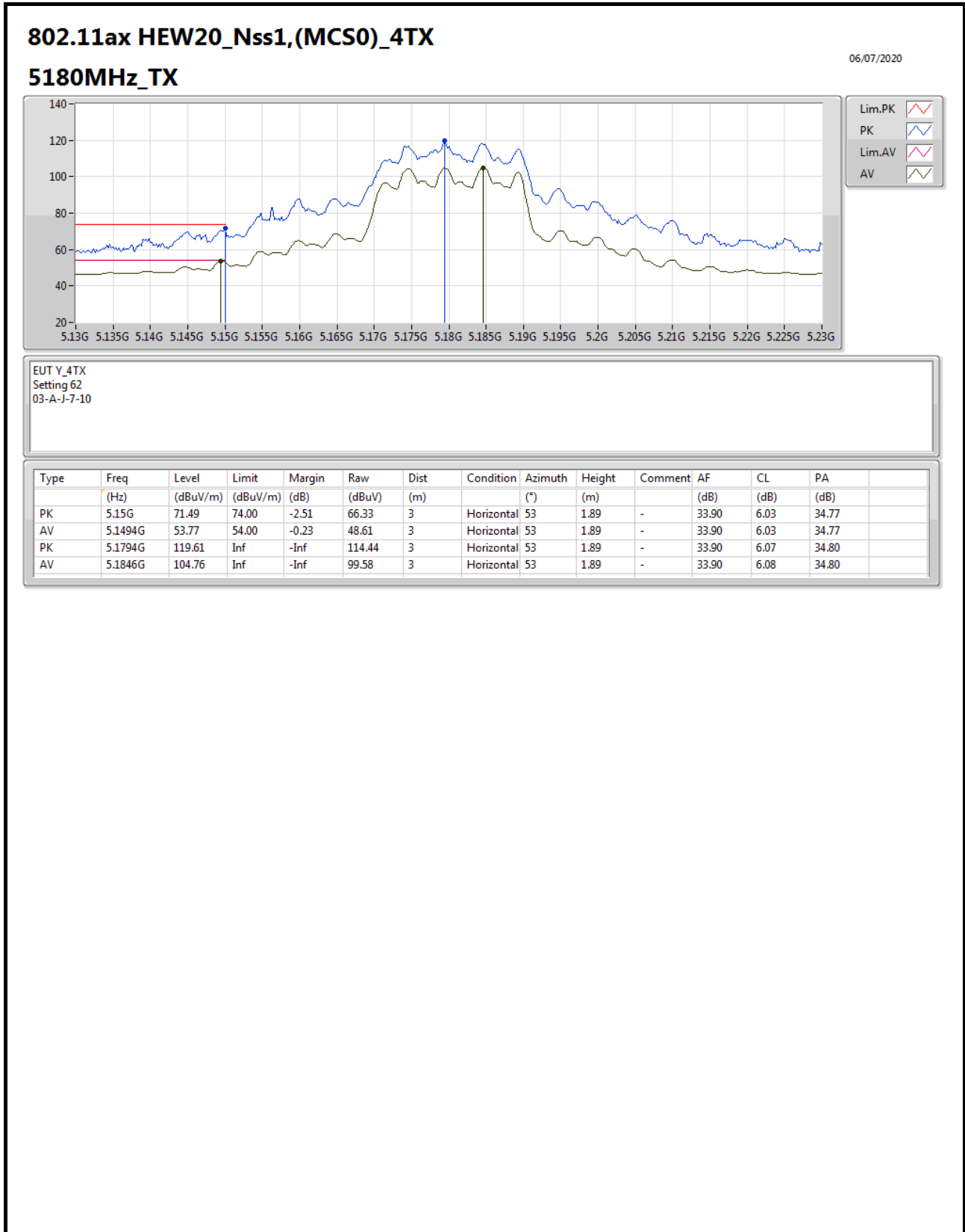
5180MHz_TX



EUT_V_4TX
Setting 62
03-A-J-7-10

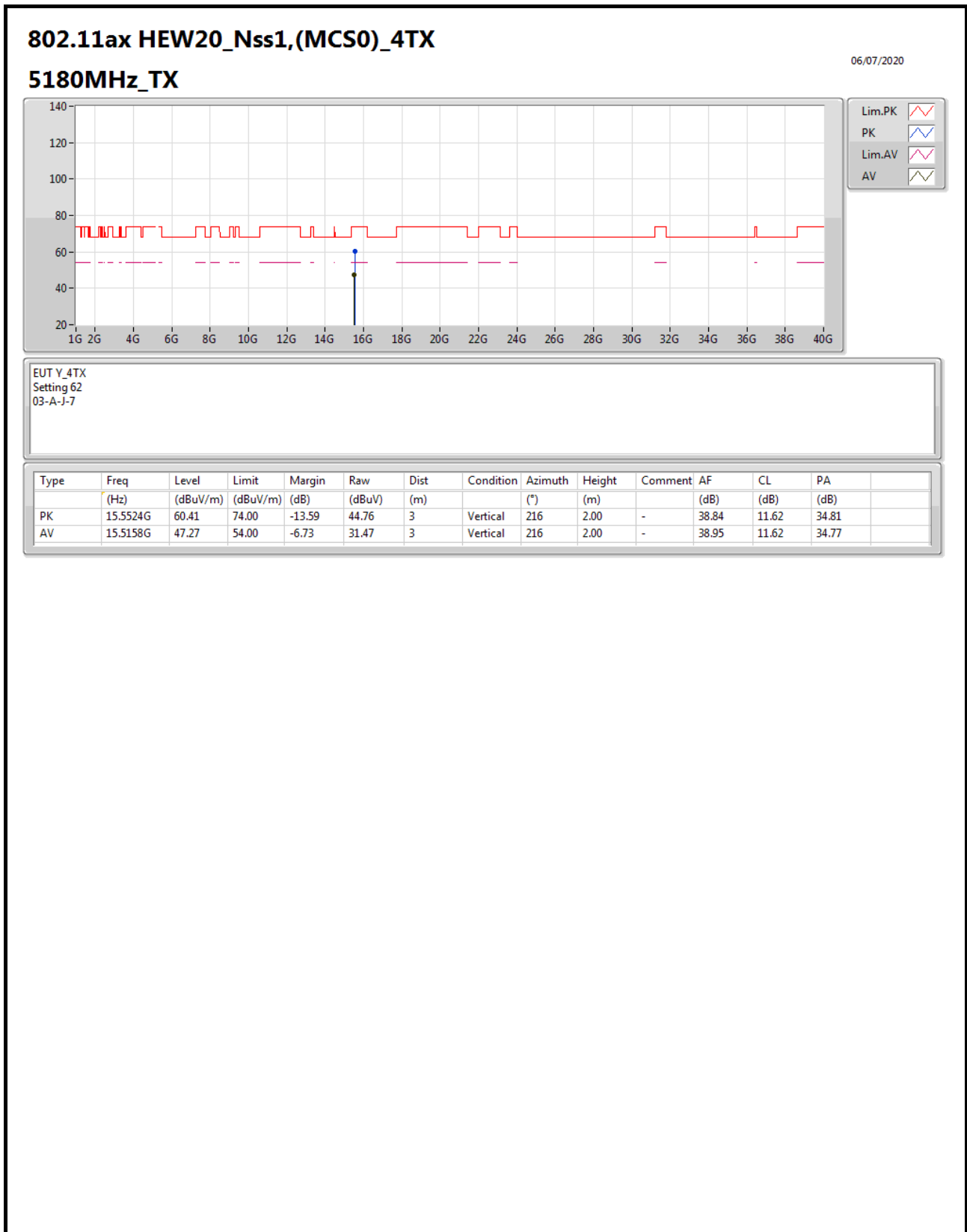
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1474G	64.69	74.00	-9.31	59.53	3	Vertical	50	1.74	-	33.90	6.03	34.77
AV	5.1472G	47.63	54.00	-6.37	42.47	3	Vertical	50	1.74	-	33.90	6.03	34.77
PK	5.177G	110.17	Inf	-Inf	104.99	3	Vertical	50	1.74	-	33.90	6.07	34.79
AV	5.1772G	96.30	Inf	-Inf	91.12	3	Vertical	50	1.74	-	33.90	6.07	34.79

For EUT 1 / Radio 1_Non-Beamforming Mode



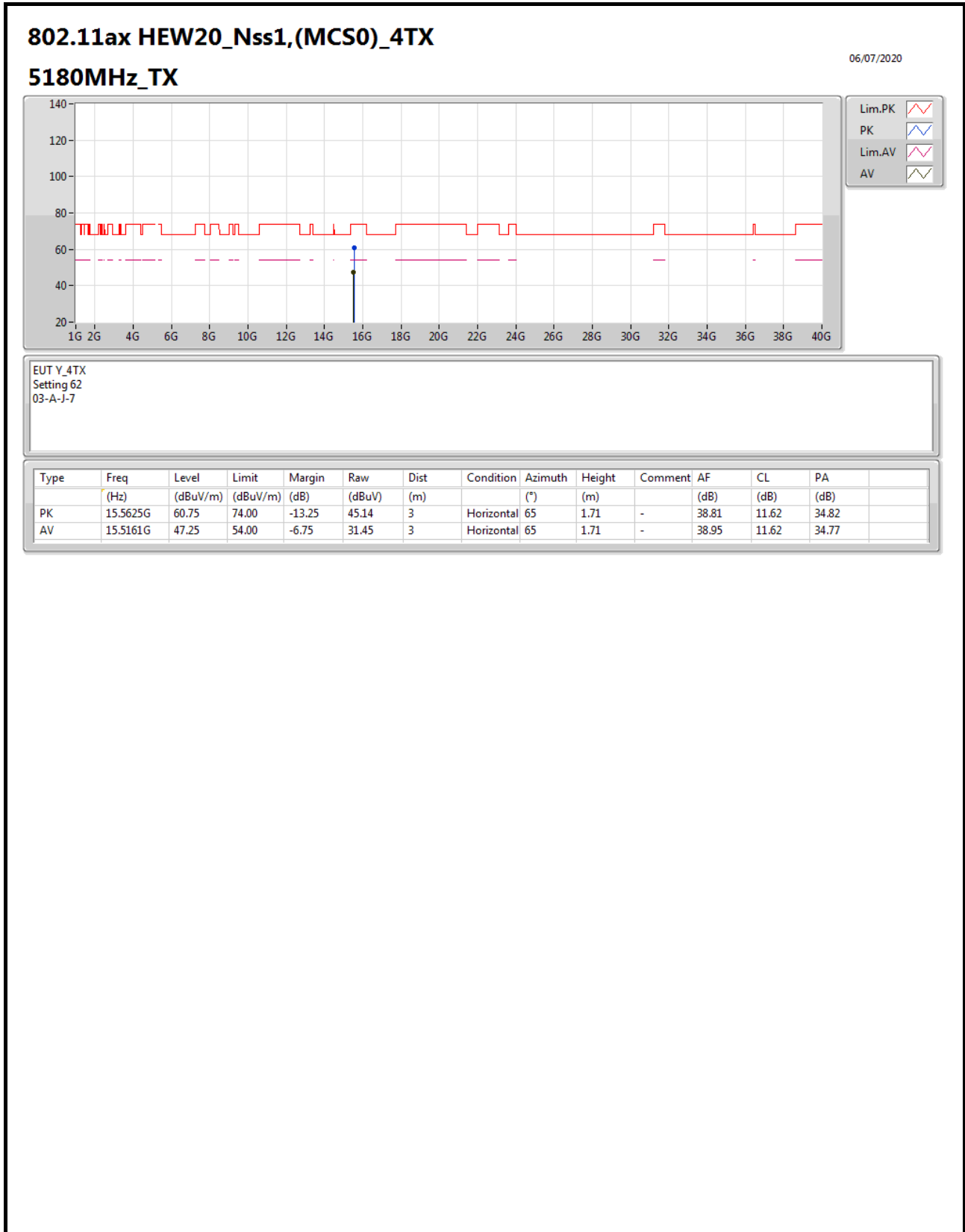


For EUT 1 / Radio 1_Non-Beamforming Mode



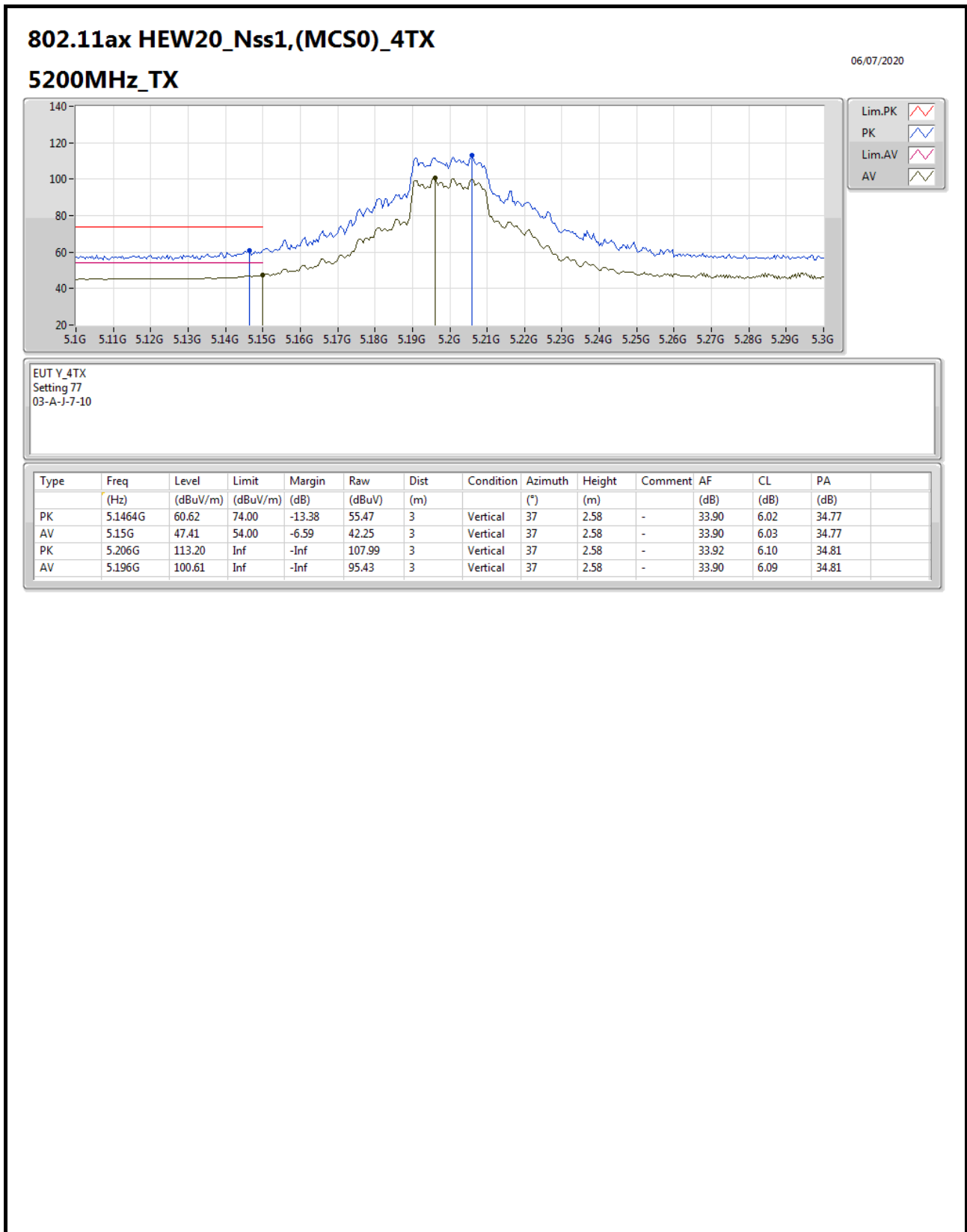


For EUT 1 / Radio 1_Non-Beamforming Mode





For EUT 1 / Radio 1_Non-Beamforming Mode



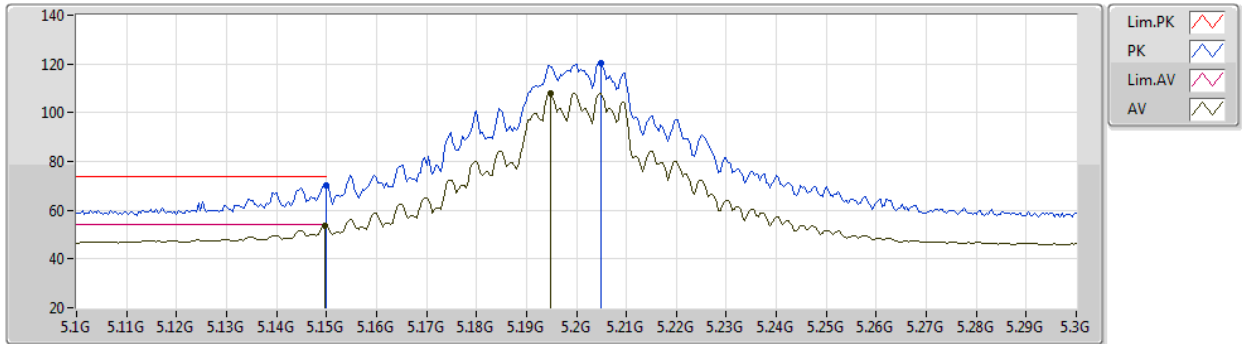


For EUT 1 / Radio 1_Non-Beamforming Mode

802.11ax HEW20_Nss1,(MCS0)_4TX

06/07/2020

5200MHz_TX

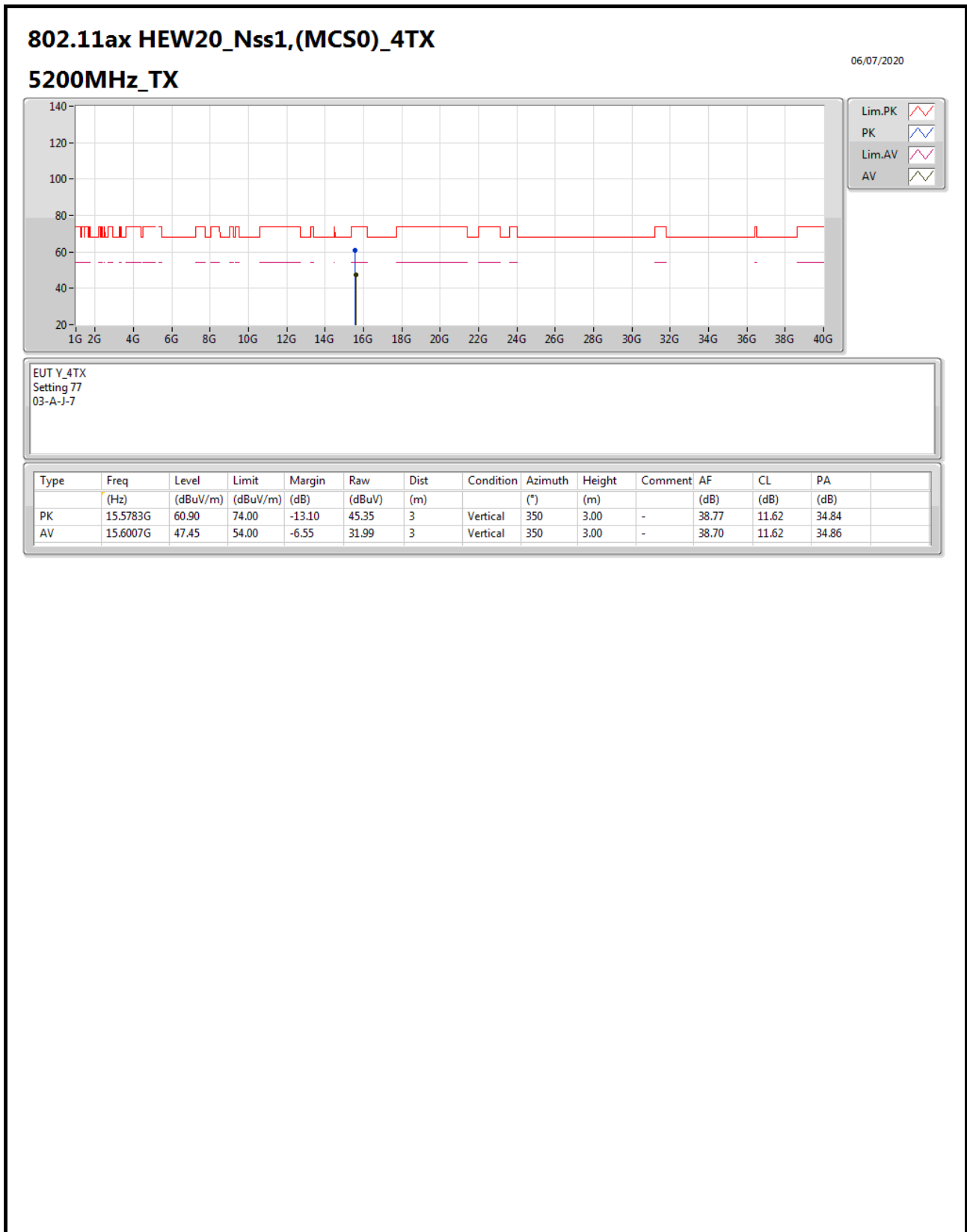


EUT_V_4TX
Setting 77
03-A-J-7-10

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	5.15G	70.36	74.00	-3.64	65.20	3	Horizontal	51	1.80	-	33.90	6.03	34.77
AV	5.1496G	53.40	54.00	-0.60	48.24	3	Horizontal	51	1.80	-	33.90	6.03	34.77
PK	5.2048G	120.52	Inf	-Inf	115.32	3	Horizontal	51	1.80	-	33.91	6.10	34.81
AV	5.1948G	108.01	Inf	-Inf	102.83	3	Horizontal	51	1.80	-	33.90	6.09	34.81

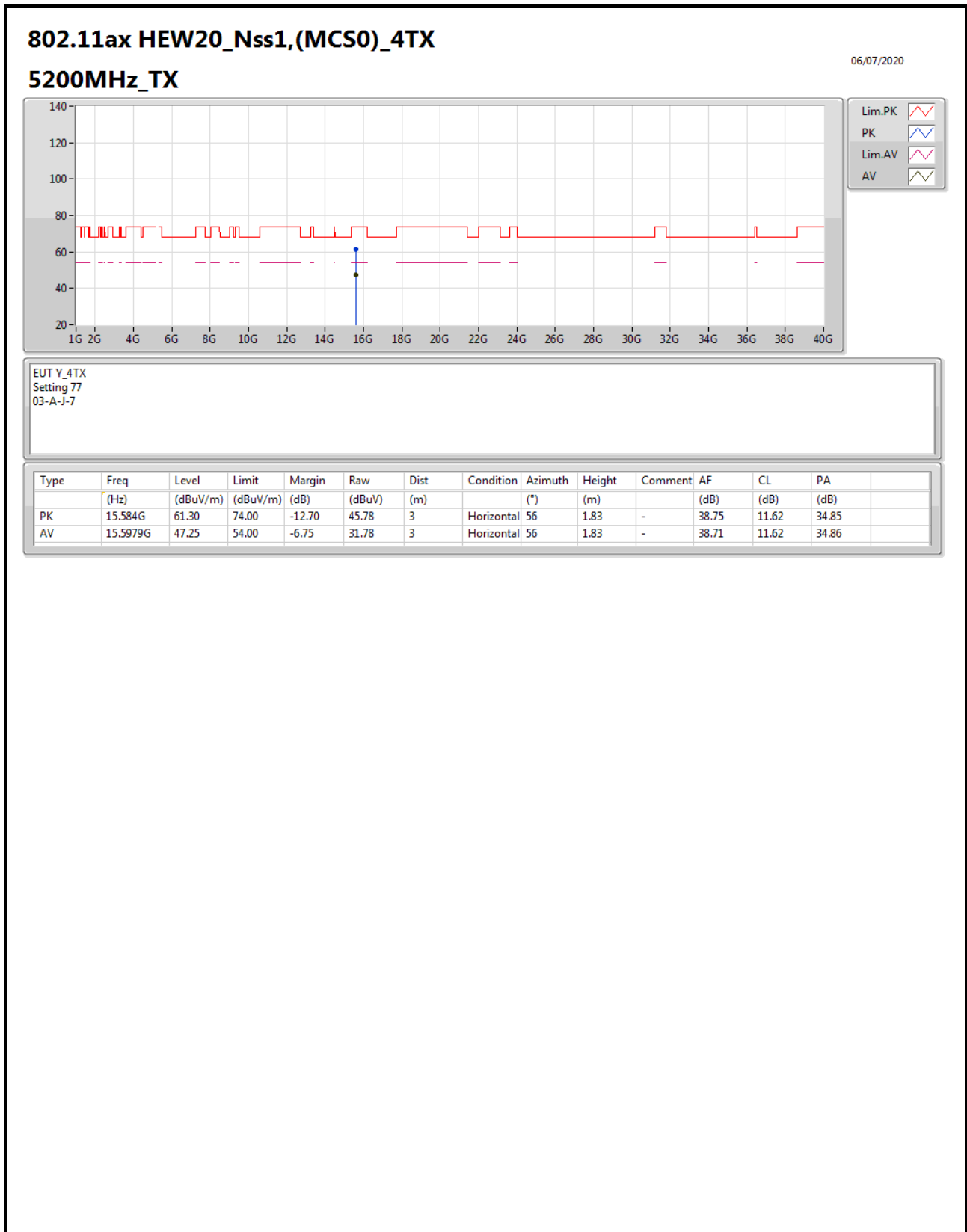


For EUT 1 / Radio 1_Non-Beamforming Mode



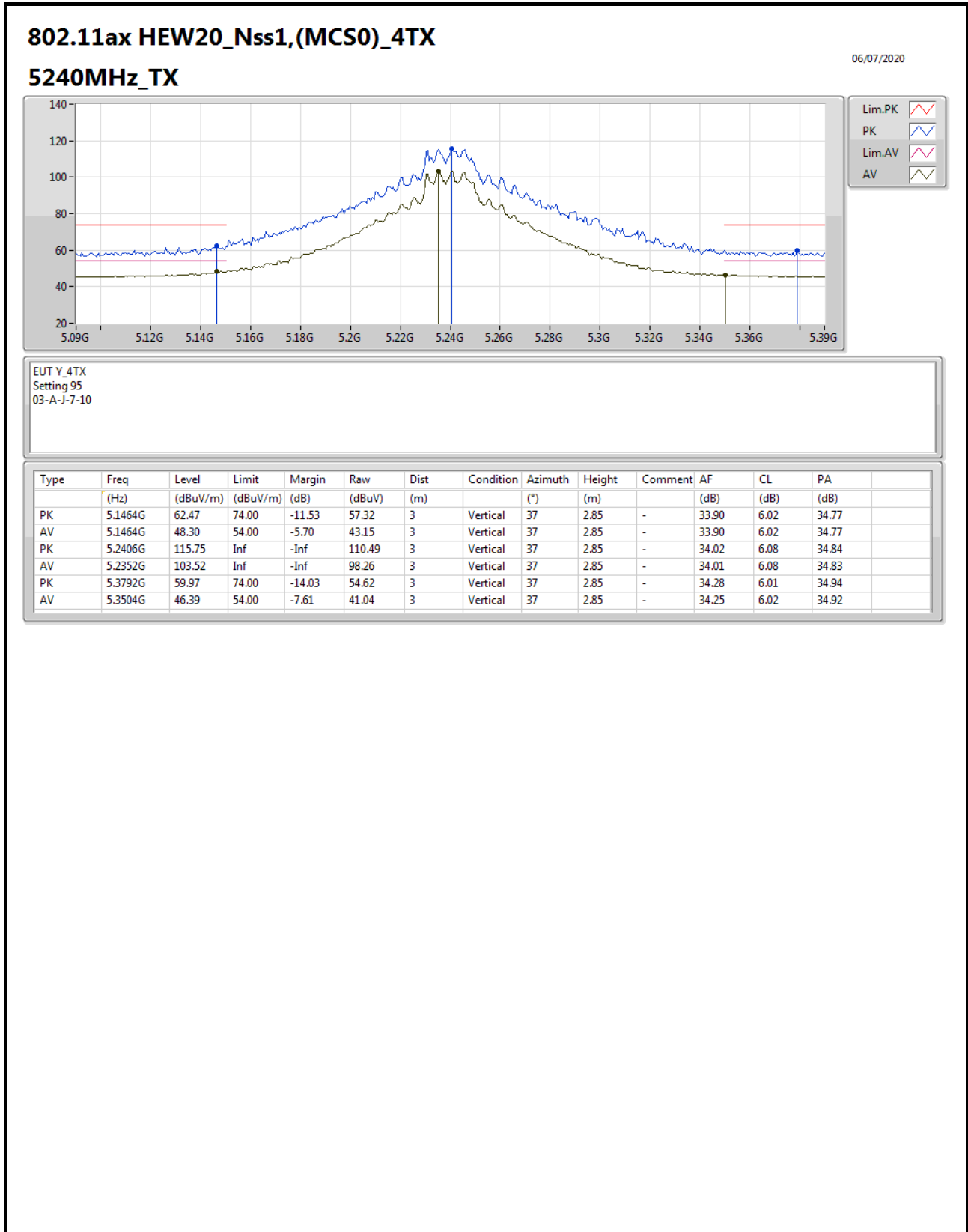


For EUT 1 / Radio 1_Non-Beamforming Mode

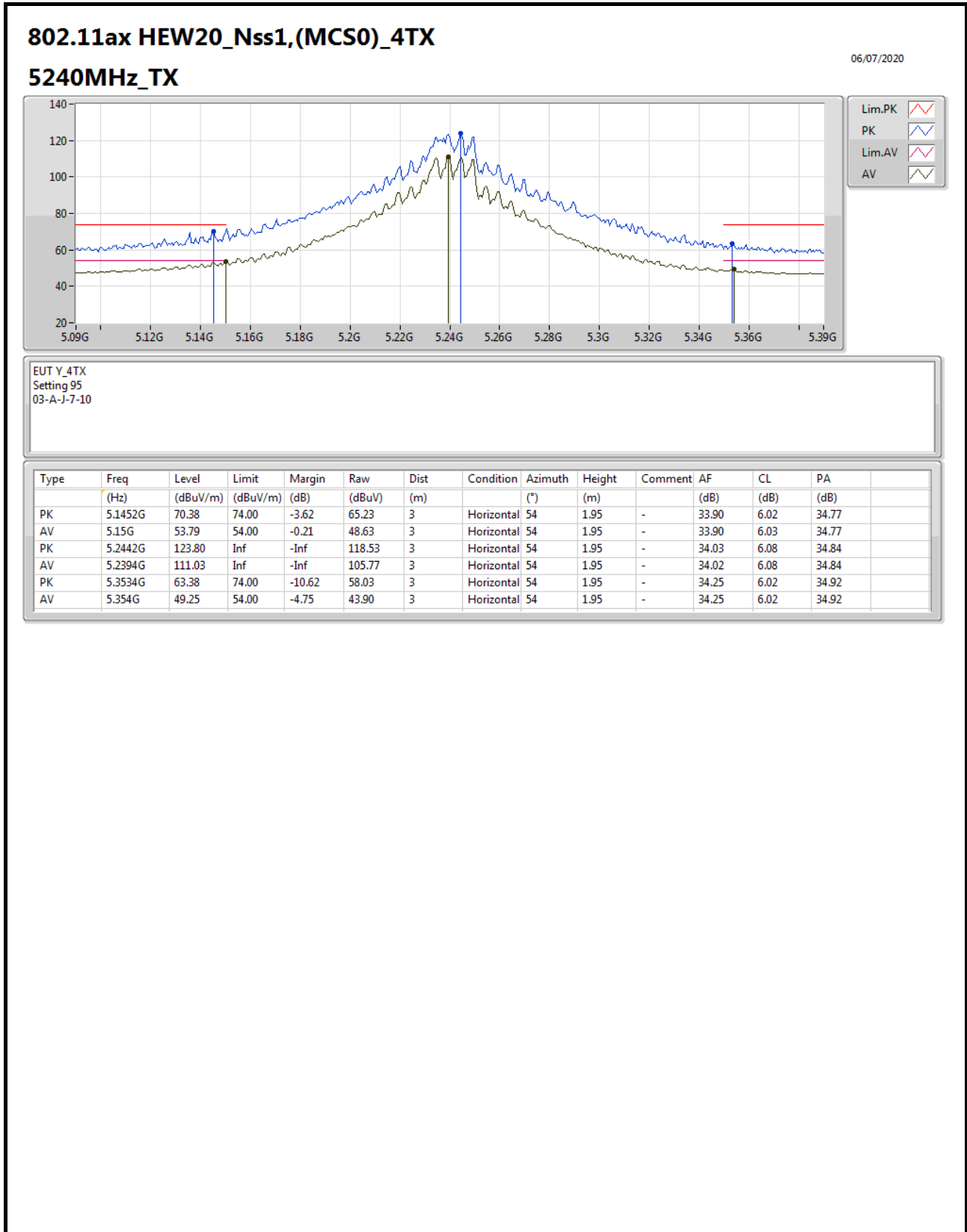




For EUT 1 / Radio 1_Non-Beamforming Mode

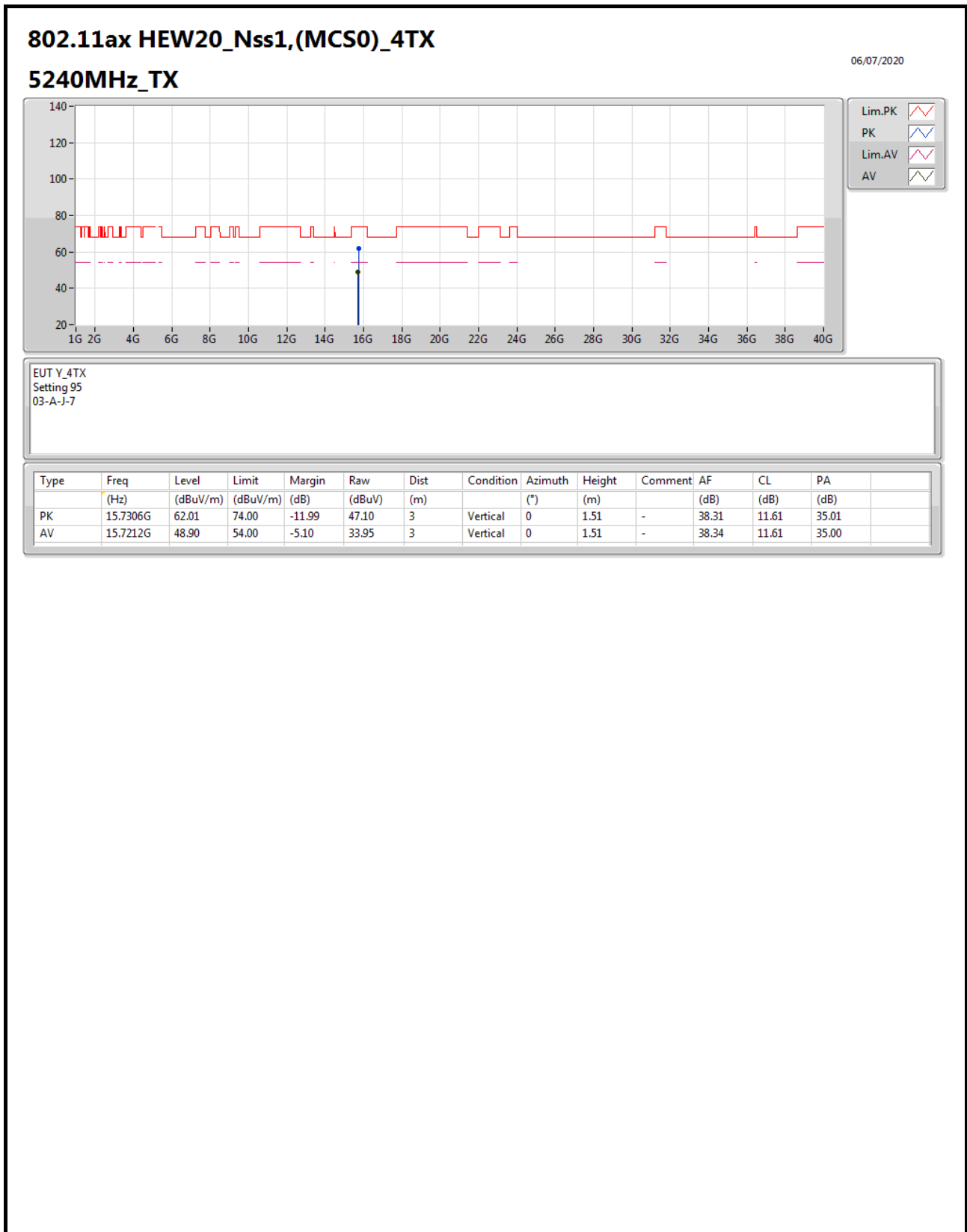


For EUT 1 / Radio 1_Non-Beamforming Mode



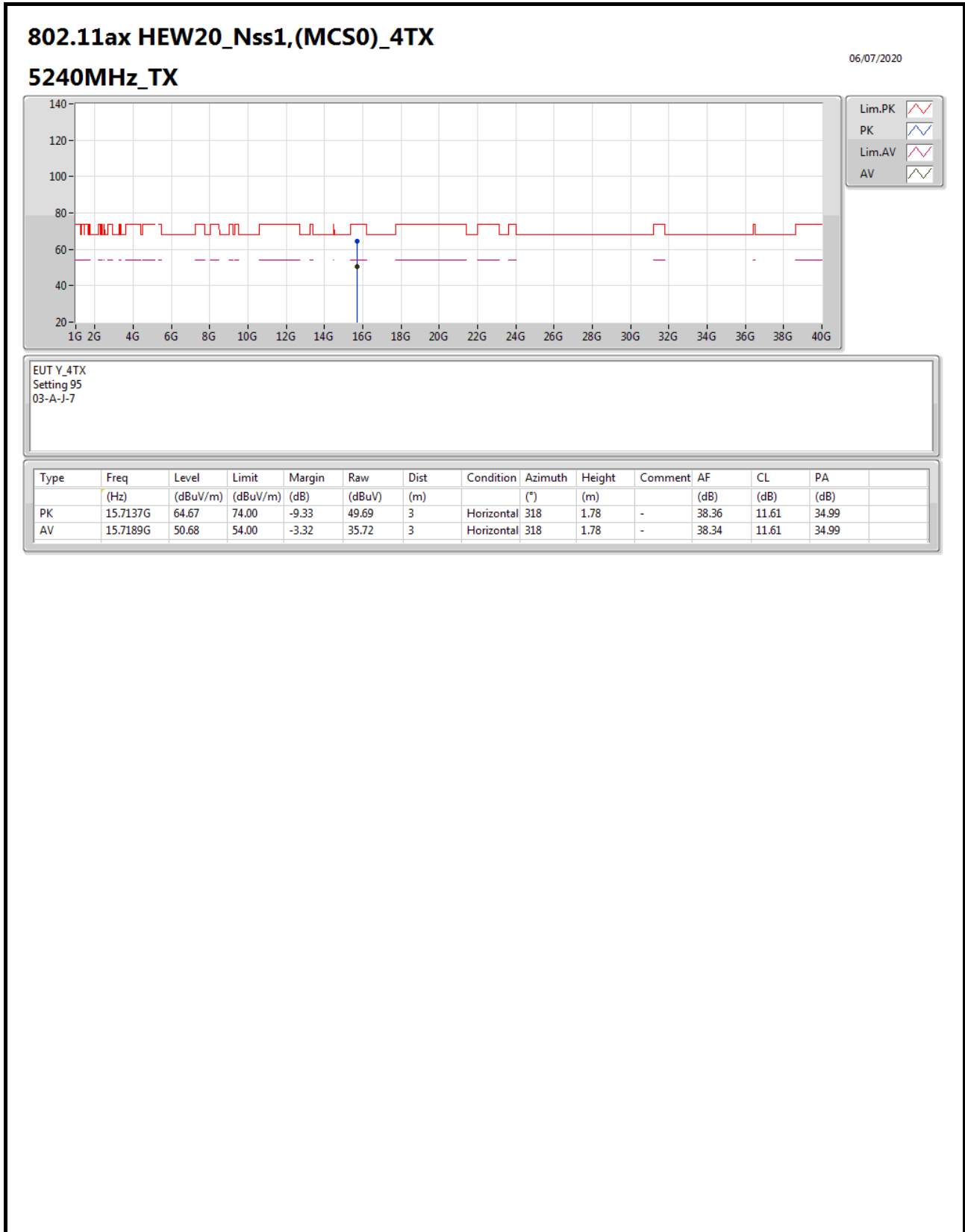


For EUT 1 / Radio 1_Non-Beamforming Mode



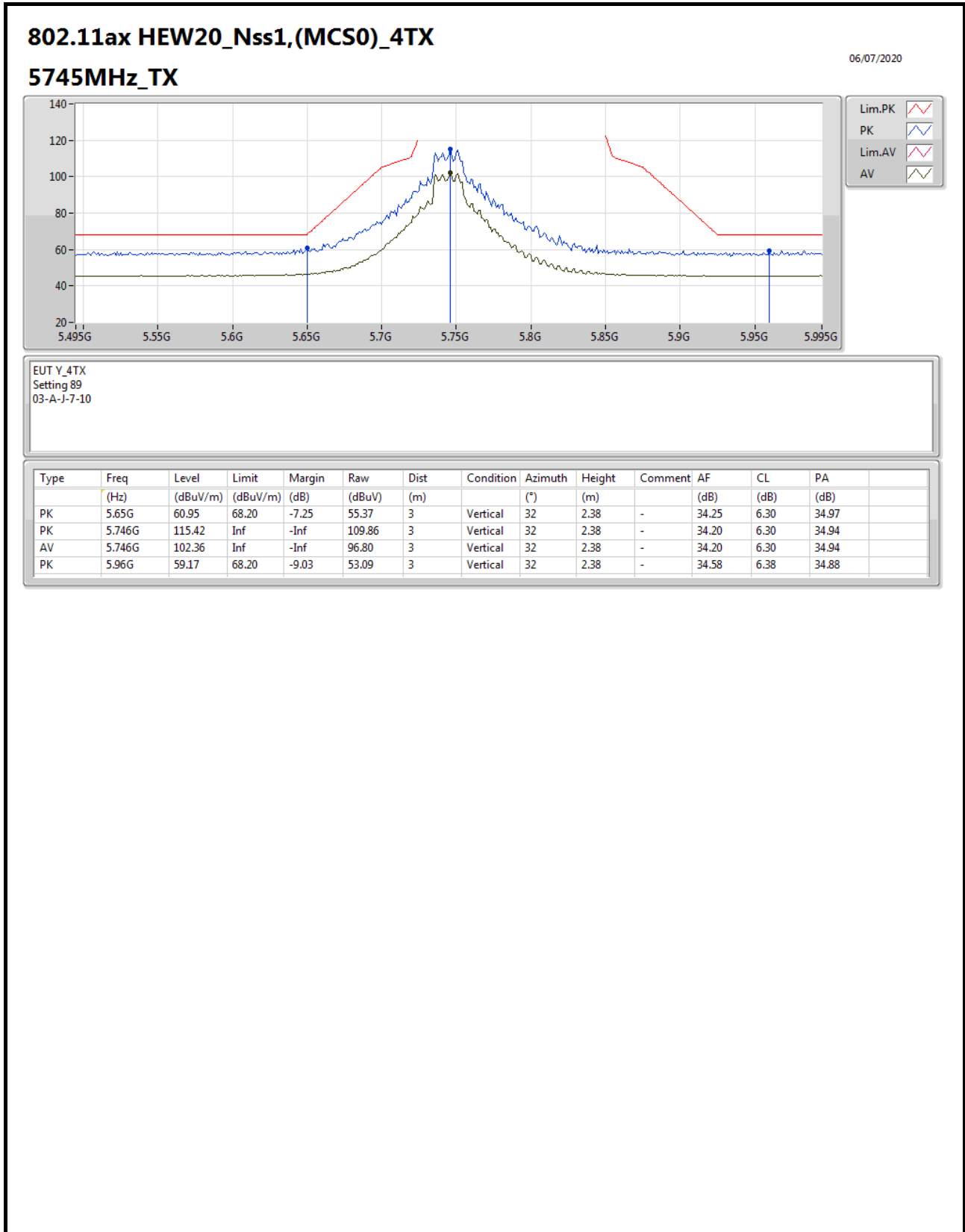


For EUT 1 / Radio 1_Non-Beamforming Mode

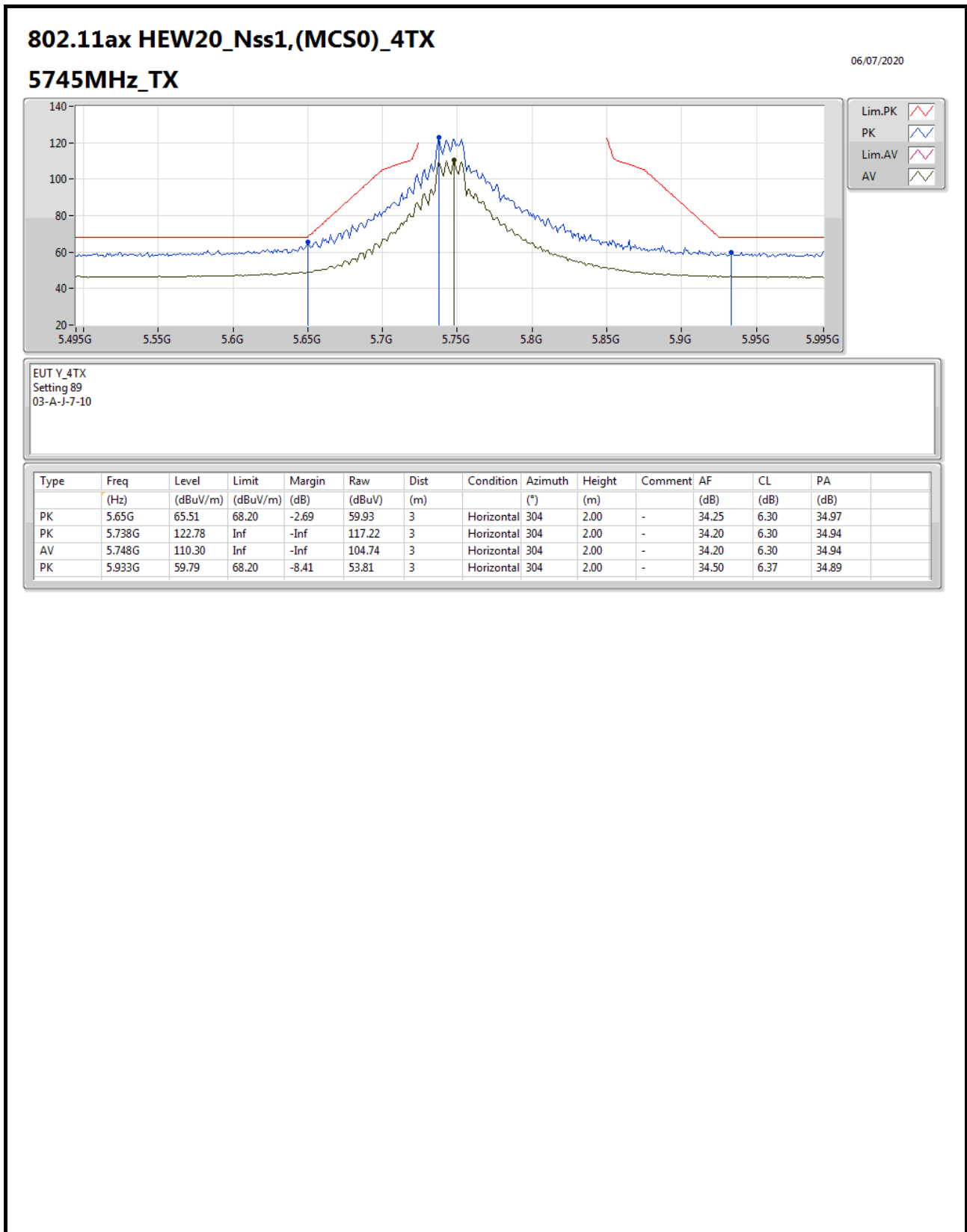




For EUT 1 / Radio 1_Non-Beamforming Mode

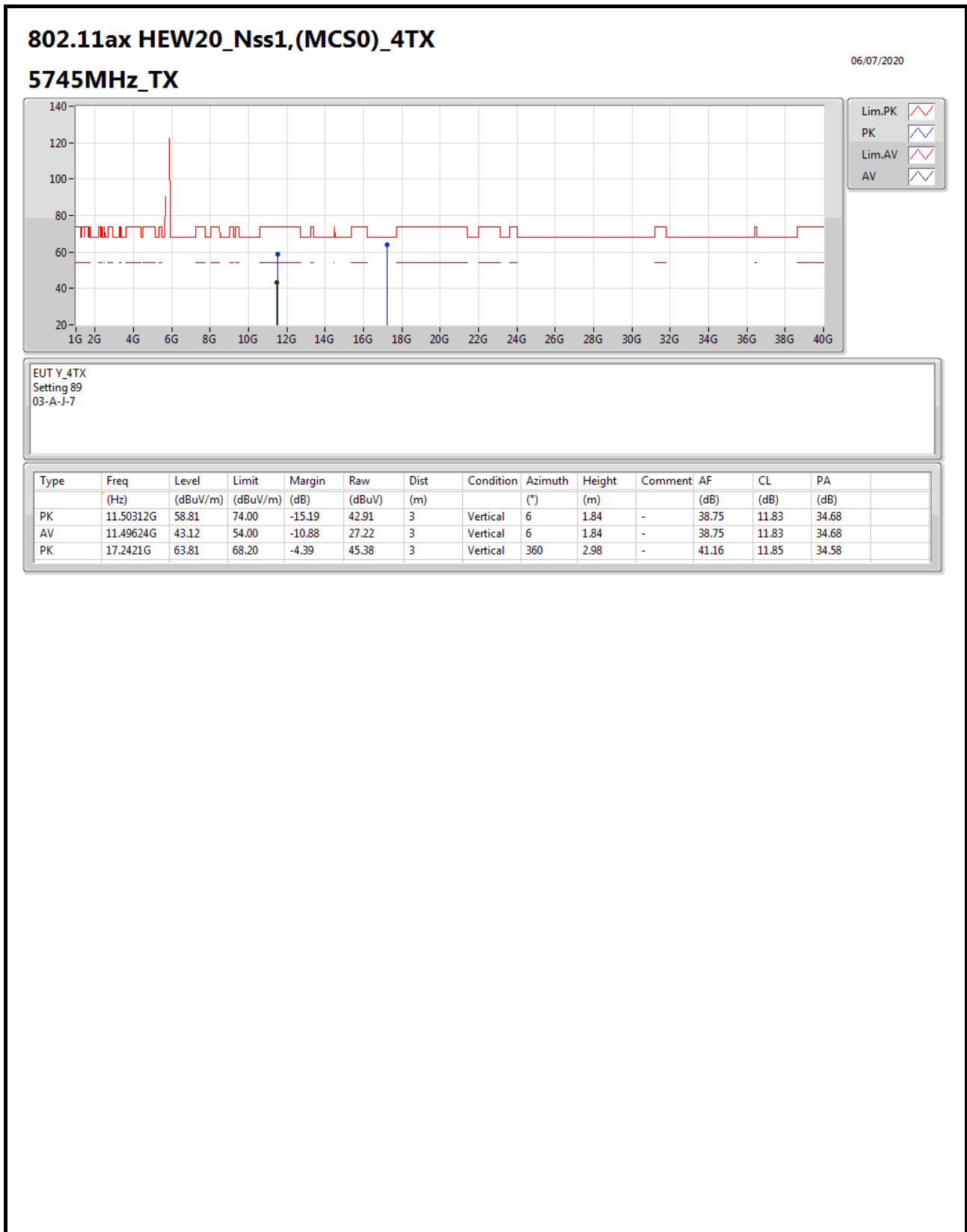


For EUT 1 / Radio 1_Non-Beamforming Mode



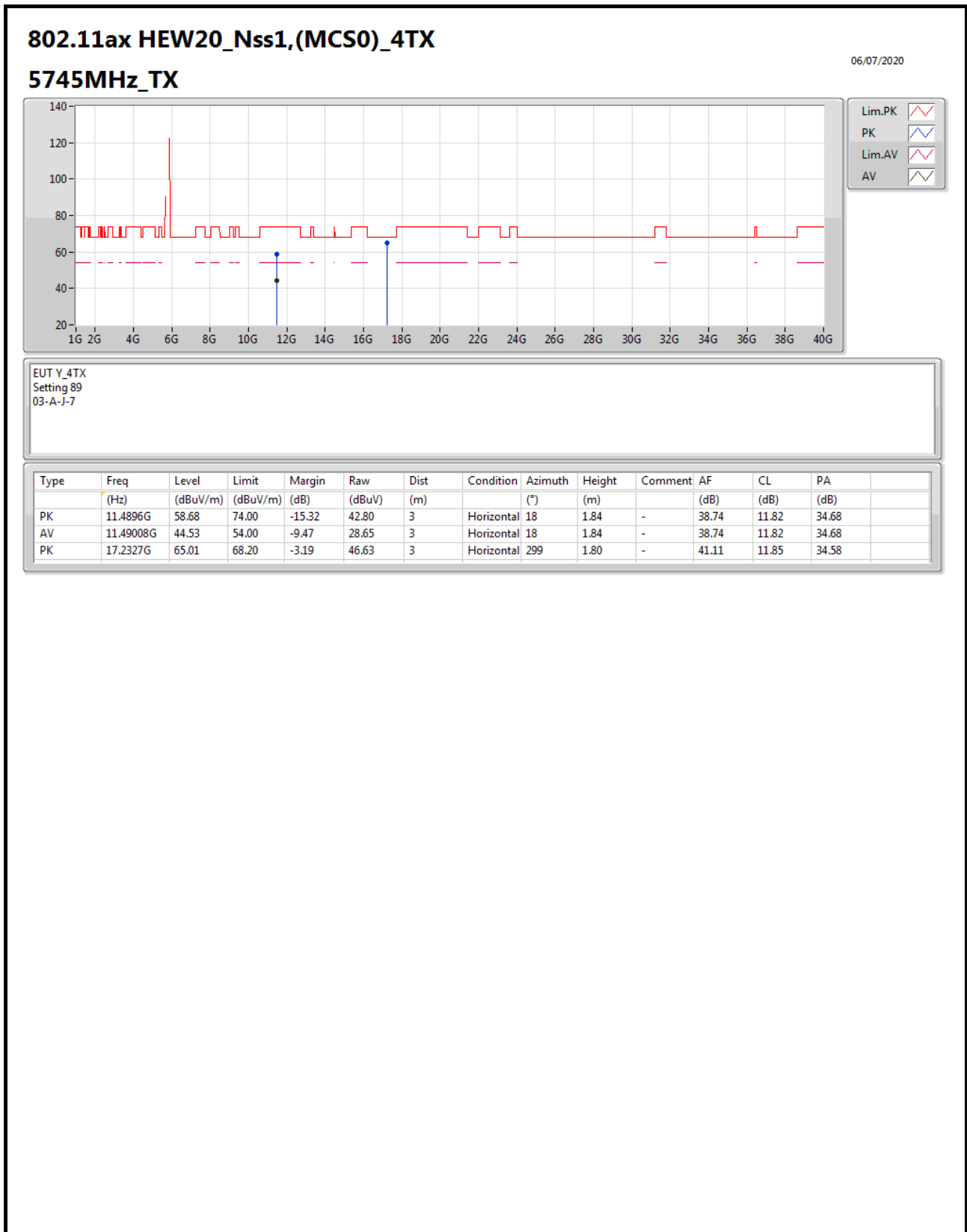


For EUT 1 / Radio 1_Non-Beamforming Mode



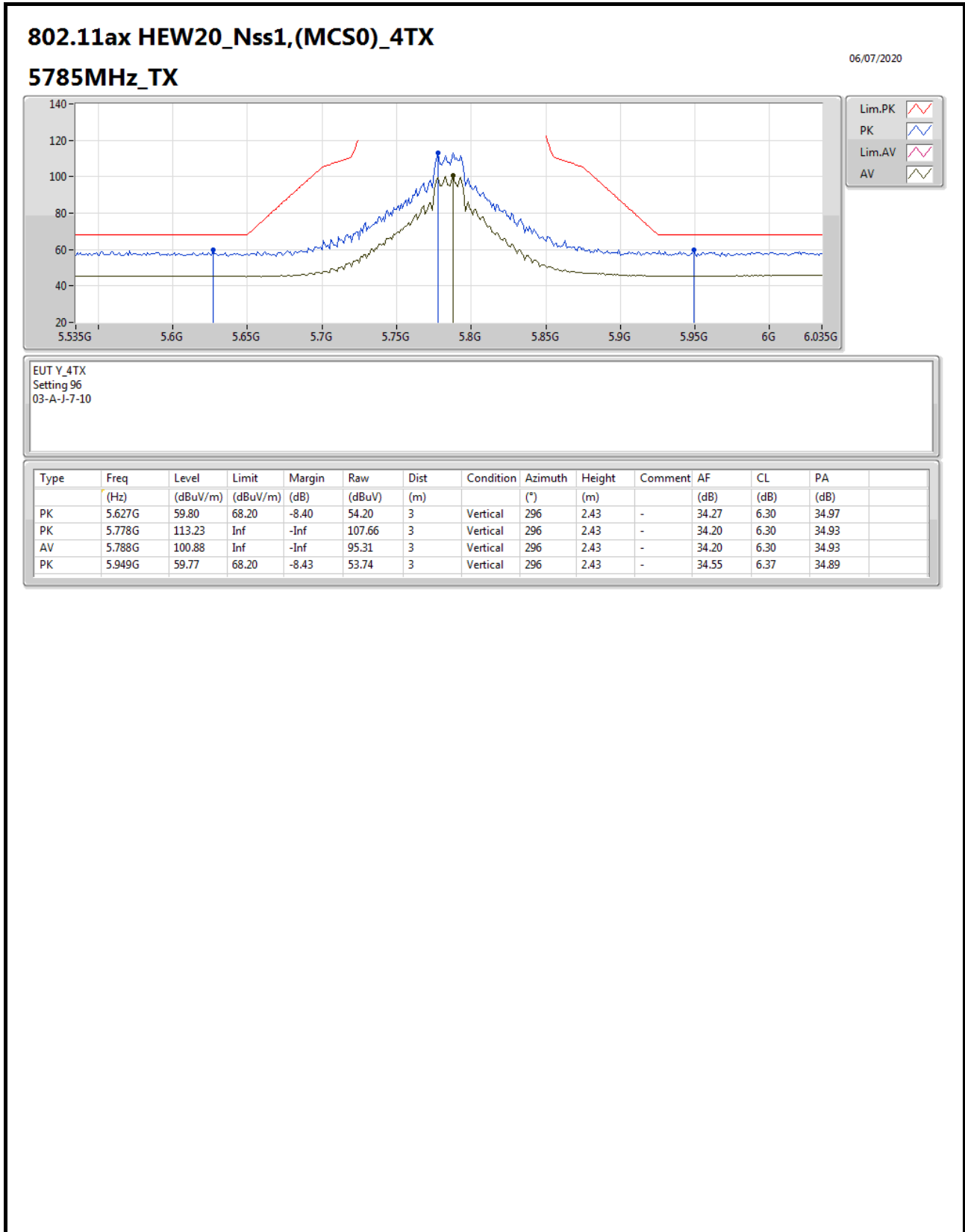


For EUT 1 / Radio 1_Non-Beamforming Mode



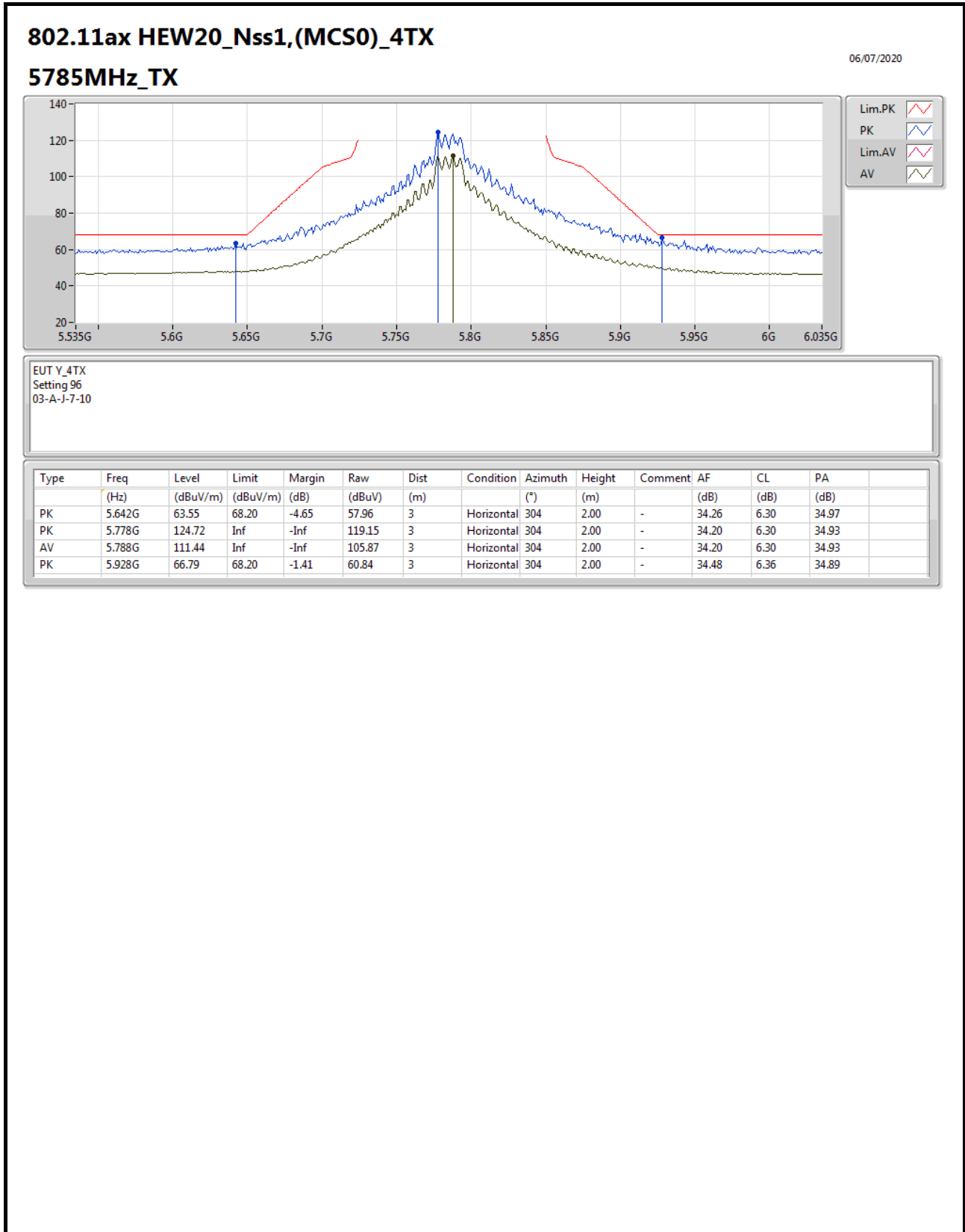


For EUT 1 / Radio 1_Non-Beamforming Mode

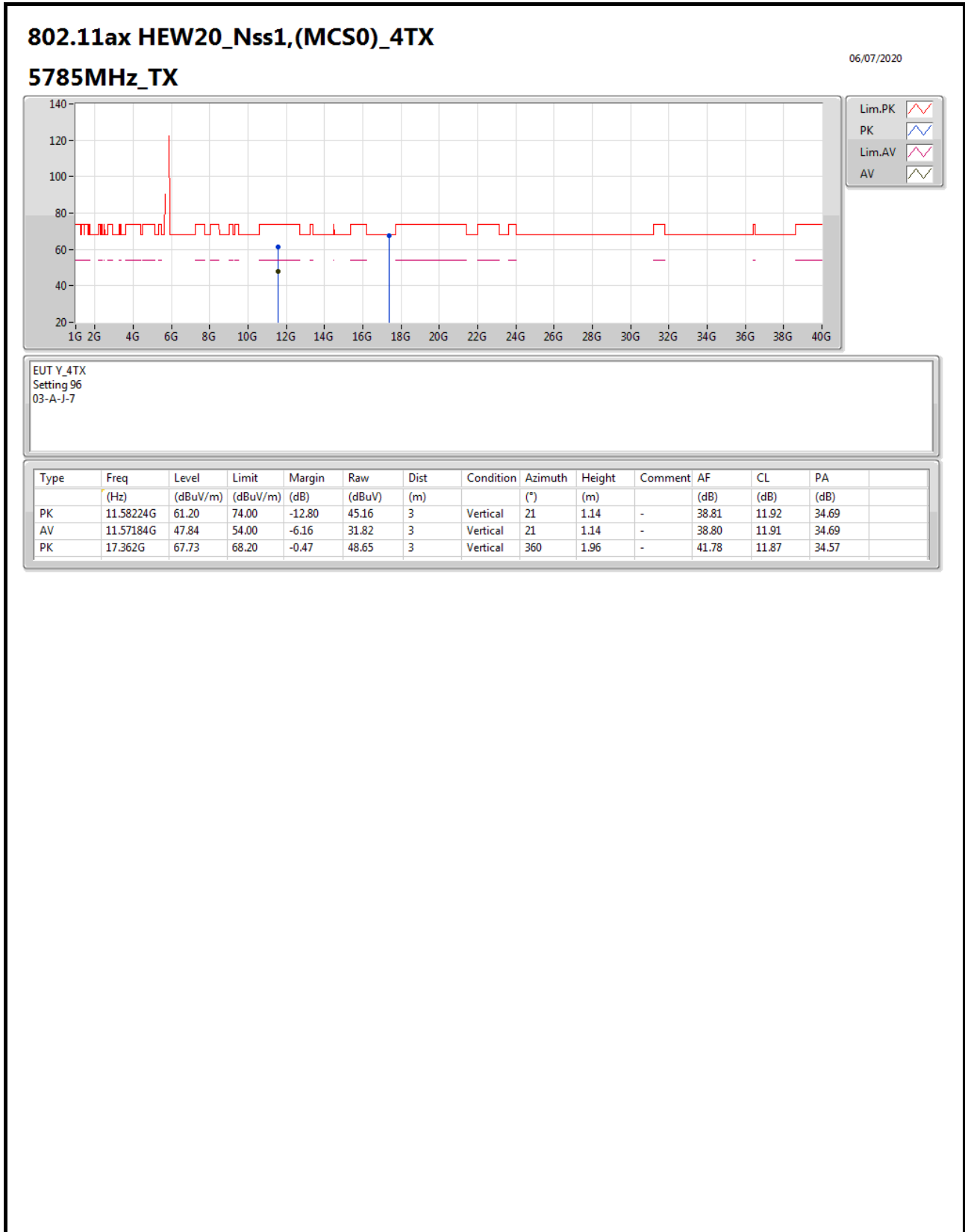




For EUT 1 / Radio 1_Non-Beamforming Mode

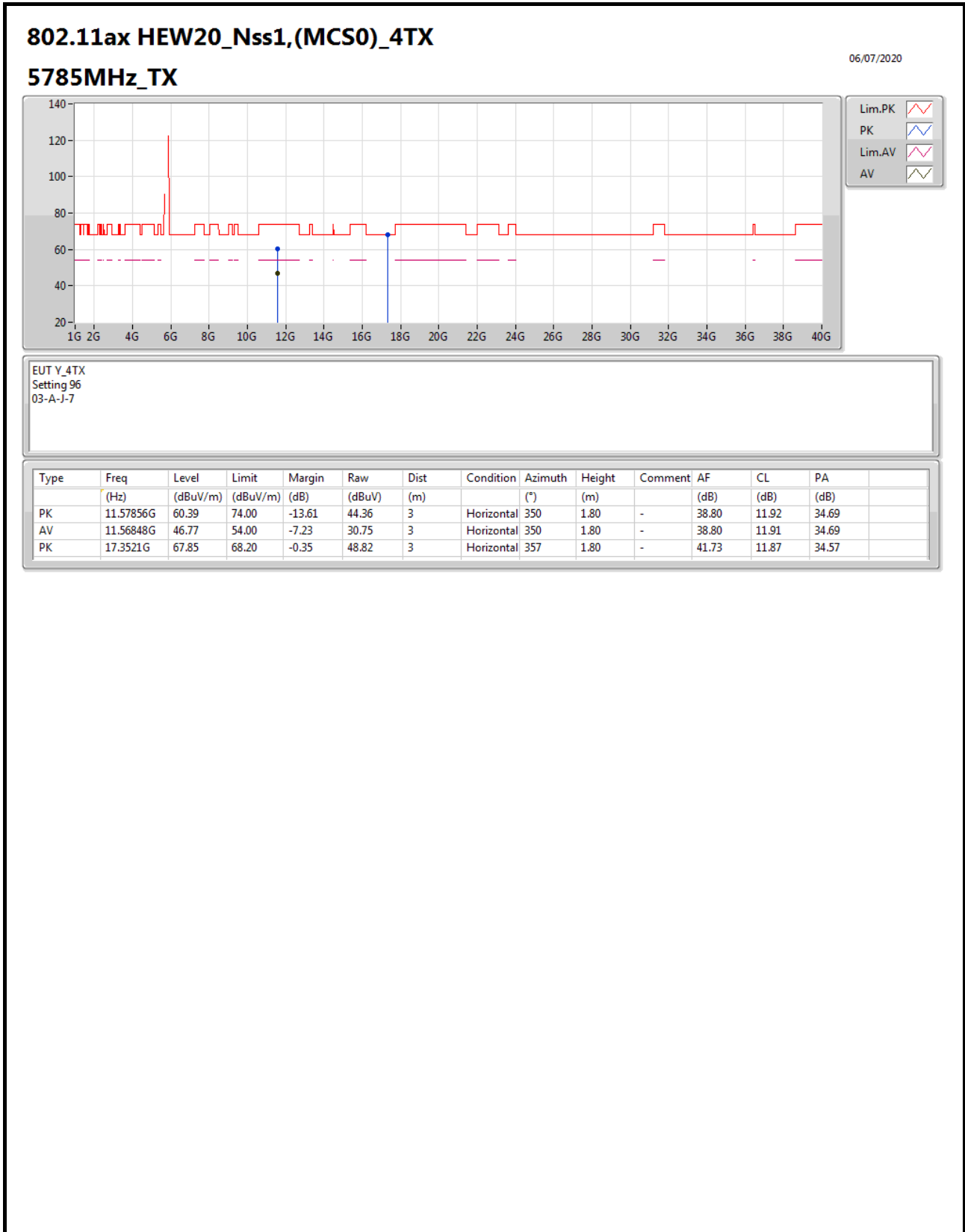


For EUT 1 / Radio 1_Non-Beamforming Mode



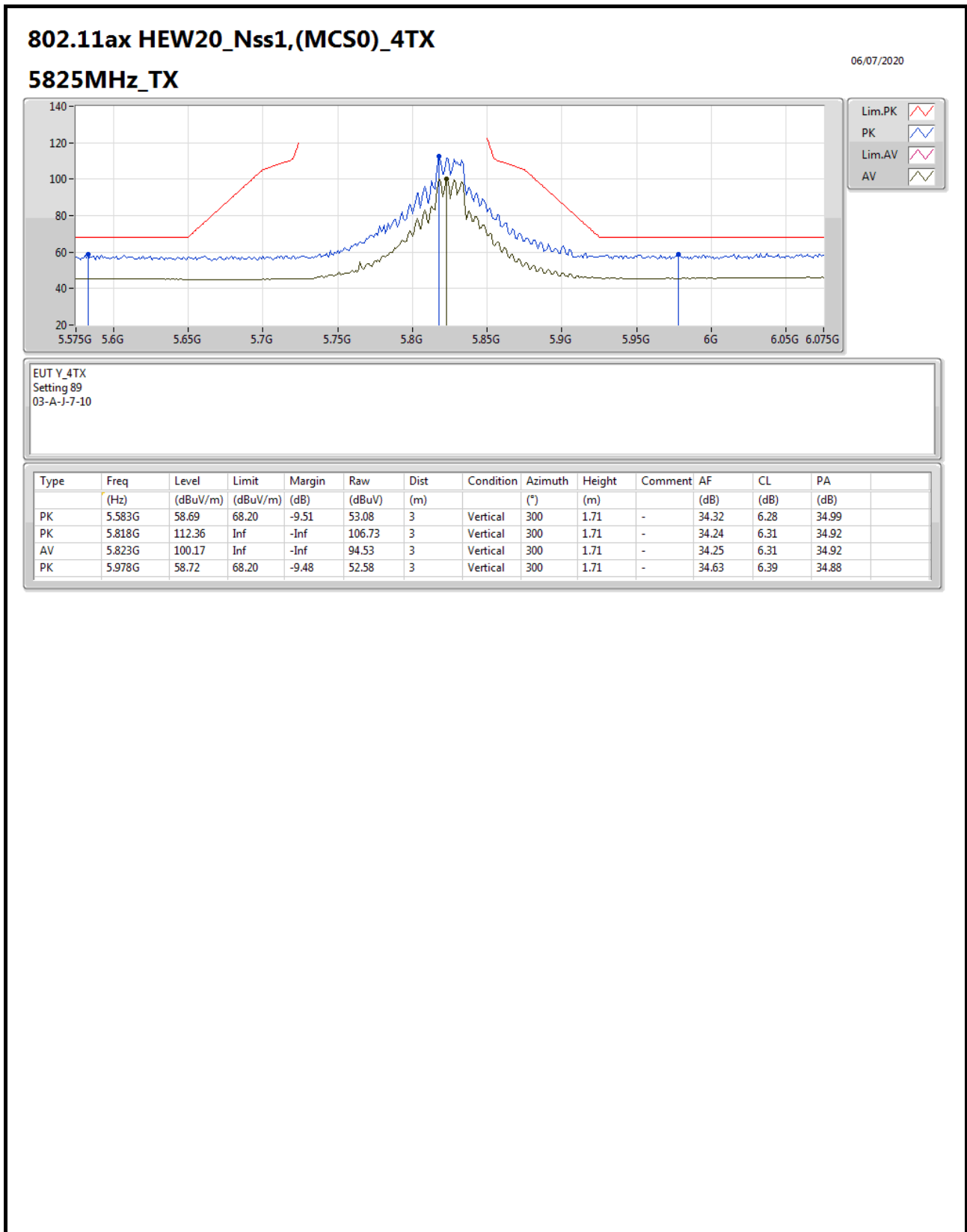


For EUT 1 / Radio 1_Non-Beamforming Mode



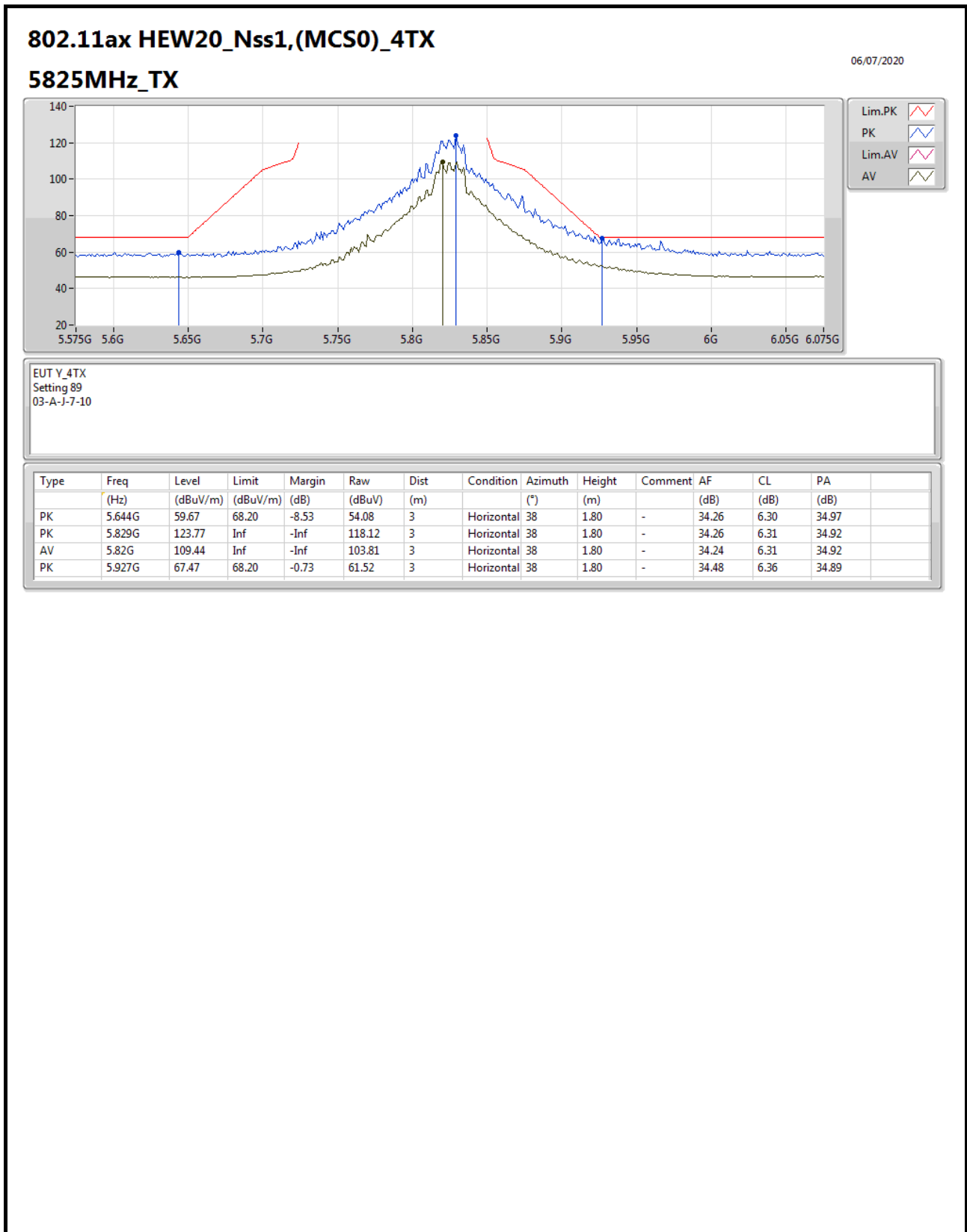


For EUT 1 / Radio 1_Non-Beamforming Mode



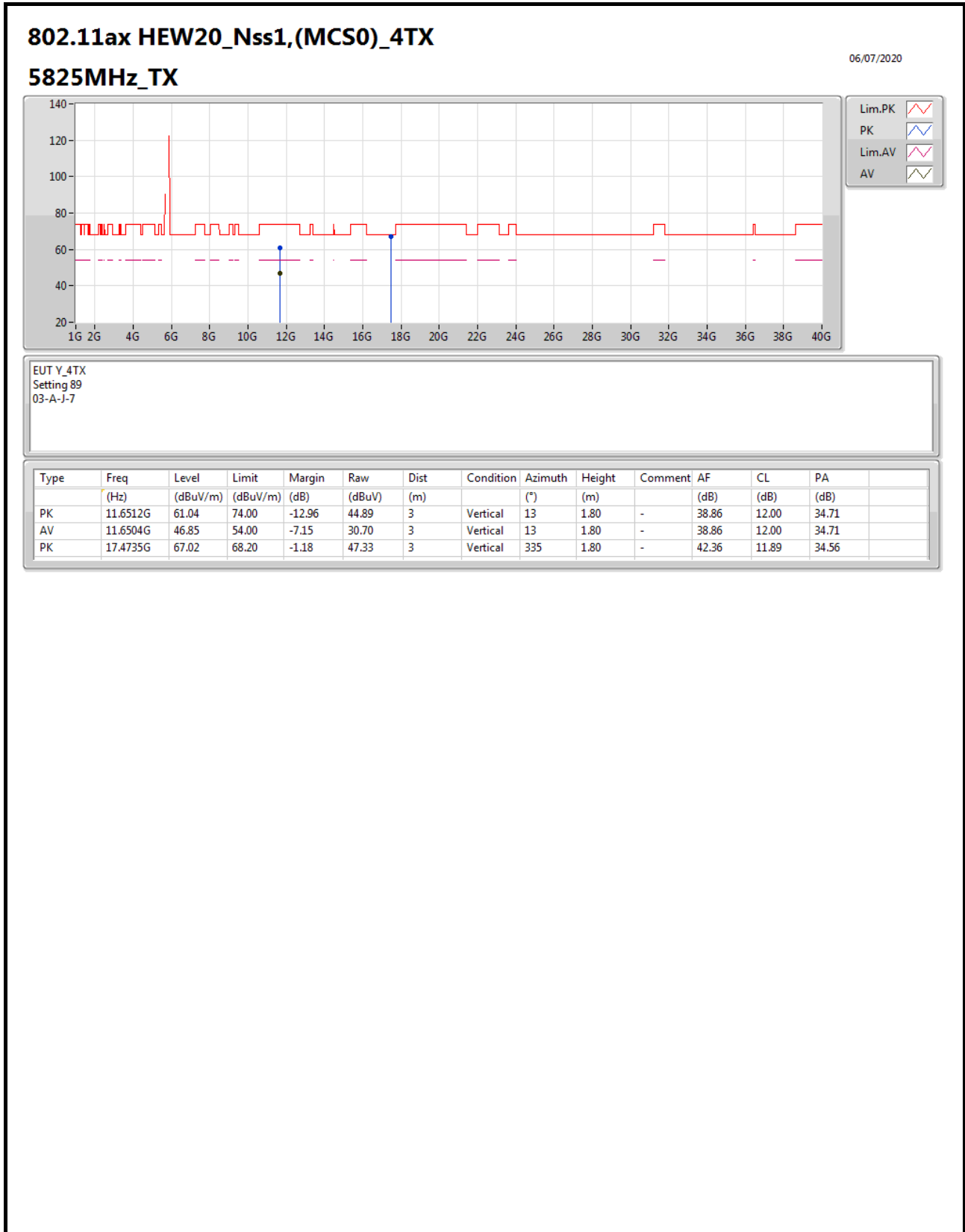


For EUT 1 / Radio 1_Non-Beamforming Mode



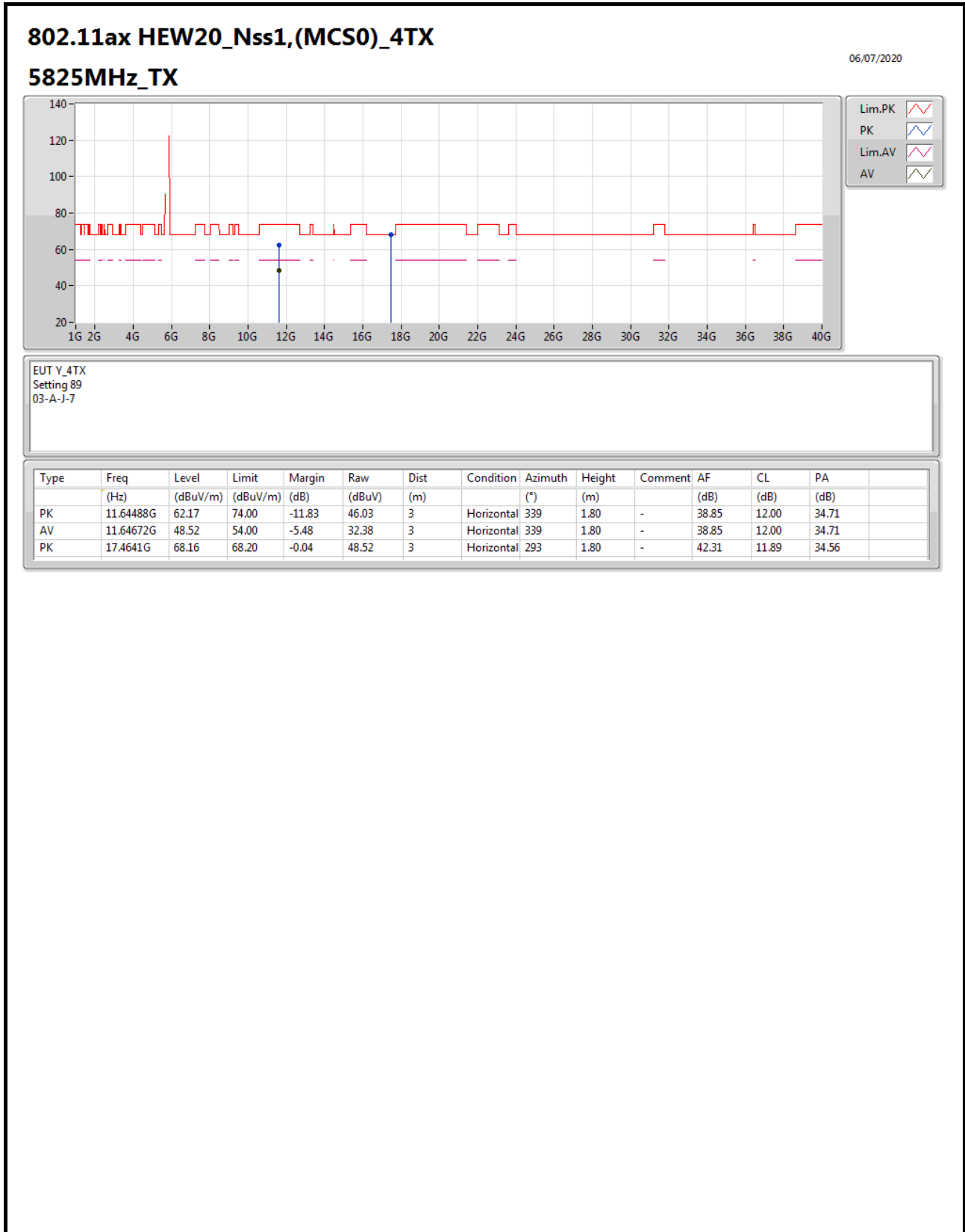


For EUT 1 / Radio 1_Non-Beamforming Mode





For EUT 1 / Radio 1_Non-Beamforming Mode



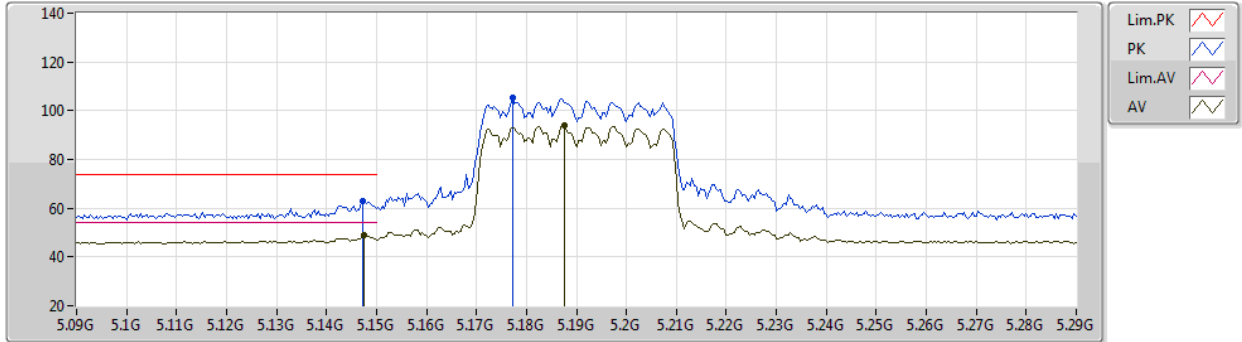


For EUT 1 / Radio 1_Non-Beamforming Mode

802.11ax HEW40_Nss1,(MCS0)_4TX

06/07/2020

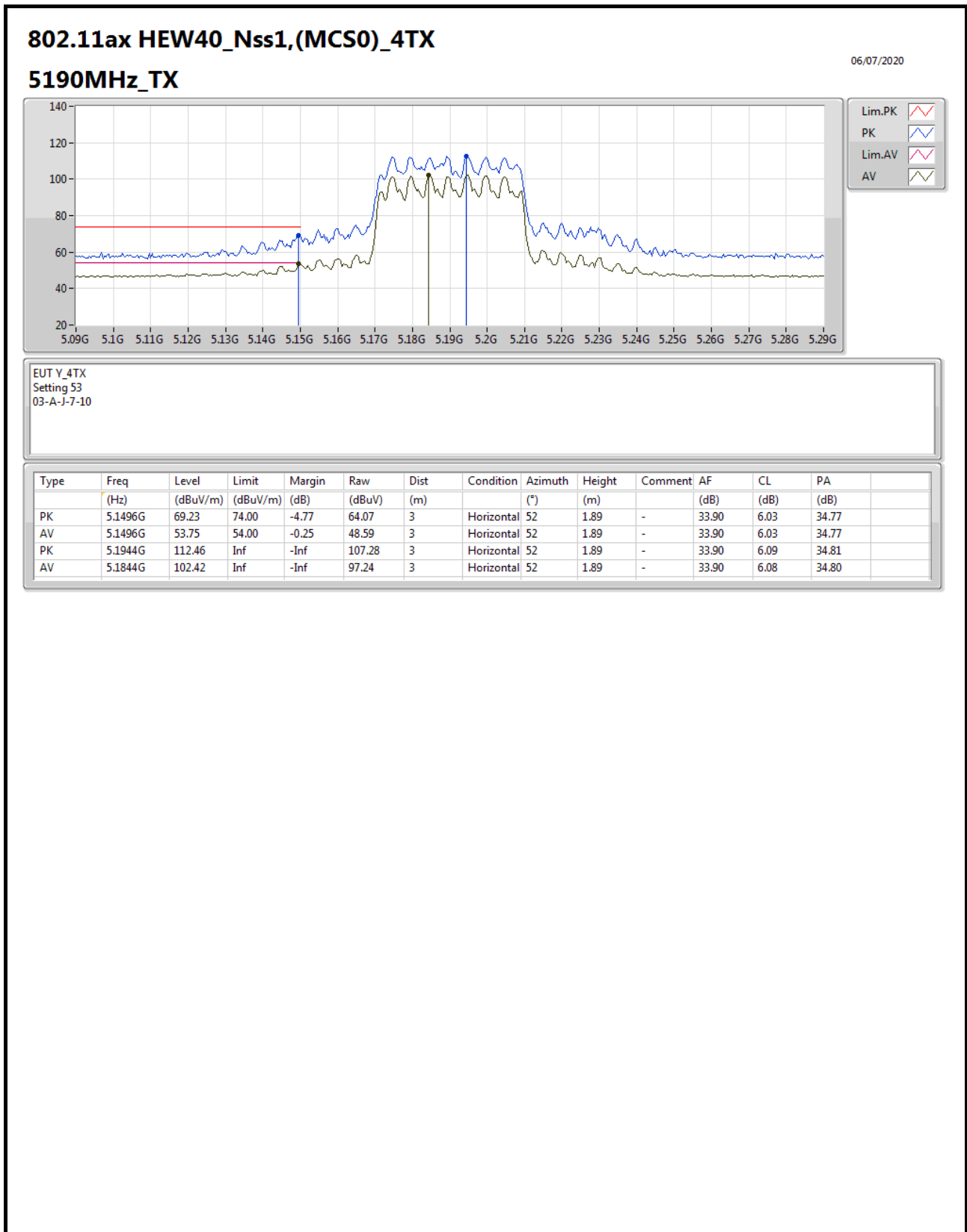
5190MHz_TX



EUT_V_4TX
Setting 53
03-A-J-7-10

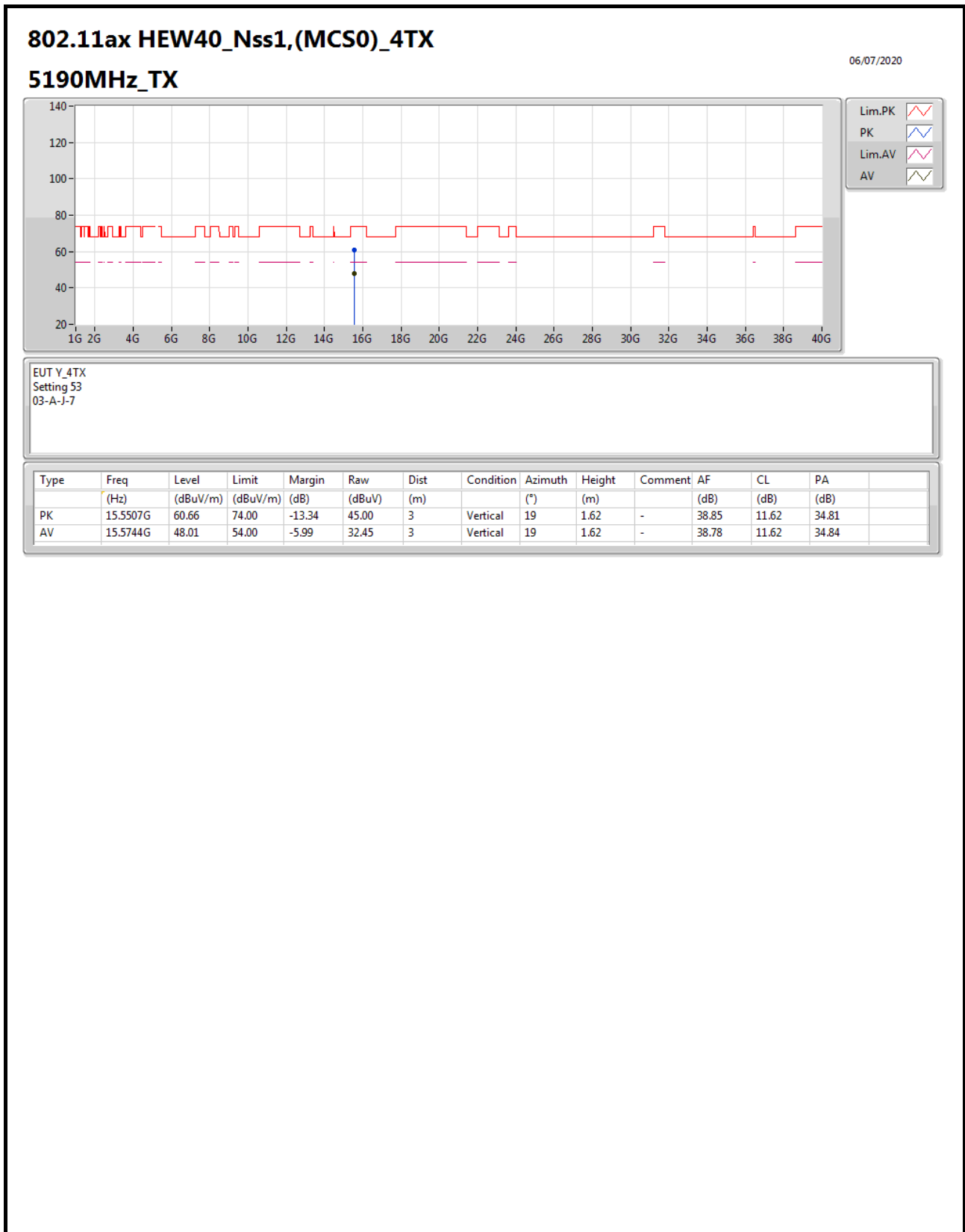
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.1472G	63.09	74.00	-10.91	57.93	3	Vertical	49	1.76	-	33.90	6.03	34.77
AV	5.1476G	48.90	54.00	-5.10	43.74	3	Vertical	49	1.76	-	33.90	6.03	34.77
PK	5.1772G	105.21	Inf	-Inf	100.03	3	Vertical	49	1.76	-	33.90	6.07	34.79
AV	5.1876G	93.88	Inf	-Inf	88.70	3	Vertical	49	1.76	-	33.90	6.08	34.80

For EUT 1 / Radio 1_Non-Beamforming Mode





For EUT 1 / Radio 1_Non-Beamforming Mode





For EUT 1 / Radio 1_Non-Beamforming Mode

