

# FCC Test Report

**FCC ID** : Z8H89FT0041  
**Equipment** : cnPilot e425H Indoor  
**Brand Name** :  Cambium Networks  
**Model Name** : REG-PL-E425H  
**Applicant** : Cambium Networks Inc.  
3800 Golf Road, Suite 360 Rolling Meadows, IL 60008,  
USA  
**Manufacturer** : Cambium Networks Ltd.  
Unit B2 Linhay Business Park Eastern Rd Ashburton,  
Devon TQ13 7UP United Kingdom  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Jan. 07, 2019, and testing was started from Feb. 01, 2019 and completed on Mar. 28, 2019. 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: Allen Lin

**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 DESCRIPTION .....5**

1.1 Information.....5

1.2 Testing Applied Standards .....8

1.3 Testing Location Information .....8

1.4 Measurement Uncertainty .....8

**2 TEST CONFIGURATION OF EUT.....9**

2.1 Test Condition .....9

2.2 Test Channel Mode .....9

2.3 The Worst Case Measurement Configuration.....12

2.4 Support Equipment.....13

2.5 Test Setup Diagram .....14

**3 TRANSMITTER TEST RESULT .....15**

3.1 Emission Bandwidth.....15

3.2 Maximum Conducted Output Power .....16

3.3 Peak Power Spectral Density.....18

3.4 Unwanted Emissions.....20

**4 TEST EQUIPMENT AND CALIBRATION DATA.....24**

**APPENDIX A. TEST RESULTS OF EMISSION BANDWIDTH**

**APPENDIX B. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER**

**APPENDIX C. TEST RESULTS OF PEAK POWER SPECTRAL DENSITY**

**APPENDIX D. TEST RESULTS OF UNWANTED EMISSIONS**

**APPENDIX E. 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	15.407(a)	Emission Bandwidth	PASS	-
3.2	15.407(a)	Maximum Conducted Output Power	PASS	-
3.3	15.407(a)	Peak Power Spectral Density	PASS	-
3.4	15.407(b)	Unwanted Emissions	PASS	-

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and explanations:</b>
None

Reviewed by: Jackson Tsai

Report Producer: Debby Hung



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5250-5350	a, n (HT20), ac (VHT20)	5260-5320	52-64 [4]
5470-5725		5500-5700	100-140 [11]
5250-5350	n (HT40), ac (VHT40)	5270-5310	54-62 [2]
5470-5725		5510-5670	102-134 [5]
5250-5350	ac (VHT80)	5290	58 [1]
5470-5725		5530-5610	106-122 [2]

#### <Non-Beamforming>

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11a	20	1TX(Port1)
5.25-5.35GHz	802.11a	20	1TX(Port2)
5.25-5.35GHz	802.11a	20	2TX
5.47-5.725GHz	802.11a	20	1TX(Port1)
5.47-5.725GHz	802.11a	20	1TX(Port2)
5.47-5.725GHz	802.11a	20	2TX
5.25-5.35GHz	802.11ac VHT20	20	2TX
5.47-5.725GHz	802.11ac VHT20	20	2TX
5.25-5.35GHz	802.11ac VHT40	40	2TX
5.47-5.725GHz	802.11ac VHT40	40	2TX
5.25-5.35GHz	802.11ac VHT80	80	2TX
5.47-5.725GHz	802.11ac VHT80	80	2TX

#### <Beamforming>

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11ac VHT20-BF	20	2TX
5.47-5.725GHz	802.11ac VHT20-BF	20	2TX
5.25-5.35GHz	802.11ac VHT40-BF	40	2TX
5.47-5.725GHz	802.11ac VHT40-BF	40	2TX
5.25-5.35GHz	802.11ac VHT80-BF	80	2TX
5.47-5.725GHz	802.11ac VHT80-BF	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 modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Group	Ant.	Port	Brand	Model Name	Antenna Type	Connector
1	1	1	-	E425W	PCB Antenna	I-PEX
	2	2	-	E425W	PCB Antenna	I-PEX
2	3	1	-	WPB545	PCB Antenna	I-PEX
	4	2	-	WPB546	PCB Antenna	I-PEX

Group	Ant.	Gain (dBi)		
		2.4G	5G	
			Non-Beamforming	Beamforming
1	1	4.04	4.20	3.01
	2	2.43	4.29	3.01
2	3	3.84	4.00	3.01
	4	2.23	4.08	3.01

**Note** .The EUT can match with above group 1 or group 2 for using. Higher gain was used to perform the worst configuration and result of that was recorded as the final test result.

**For 2.4GHz function:**

For IEEE 802.11 b/g mode (1TX/1RX)

Support diversity function and pretested on each single chain, port 1(Ant. 1 or Ant. 3) and port 2(Ant. 2 or Ant. 4) could transmit/receive.

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

Group 1 or Group 2 could transmit/receive simultaneously.

**For 5GHz function:**

For IEEE 802.11 a mode (1TX/1RX)

Support diversity function and pre-tested on each single chain, the worst case was Ant. 2(port 2) and it was record in this test report.

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

Ant. 1(port 1) and Ant. 2 (port 2) or Ant. 3 (port 1) and Ant. 4 (port 2) can be used for both transmission and reception.

### 1.1.3 EUT Information

Operational Condition			
<b>EUT Power Type</b>	From PoE		
<b>EUT Function</b>	<input type="checkbox"/> Outdoor	<input checked="" type="checkbox"/> Indoor	
	<input type="checkbox"/> Fixed P2P	<input type="checkbox"/> Client	
<b>Beamforming Function</b>	<input checked="" type="checkbox"/> With beamforming	<input type="checkbox"/> Without beamforming	
<b>Weather Band</b>	<input checked="" type="checkbox"/> With 5600~5650MHz	<input type="checkbox"/> Without 5600~5650MHz	
Type of EUT			
<input checked="" type="checkbox"/>	Stand-alone		
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.:		...
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:		...
<input type="checkbox"/>	Other:		

### 1.1.4 Mode Test Duty Cycle

#### <Non-Beamforming>

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.972	0.12	2.067m	1k
802.11ac VHT20	0.987	0.06	n/a (DC≥0.98)	n/a (DC≥0.98)
802.11ac VHT40	0.972	0.12	2.439m	1k
802.11ac VHT80	0.948	0.23	1.152m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

#### < Beamforming >

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ac VHT20-BF	0.823	0.85	1.9m	1k
802.11ac VHT40-BF	0.873	0.59	2.022m	1k
802.11ac VHT80-BF	0.846	0.73	1.931m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

### 1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR8D2017AN  
Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
UNII-2A and UNII-2C was added	All RF Test item were evaluated

## 1.2 Testing Applied 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
- ◆ KDB 789033 D02 v02r01
- ◆ KDB 662911 D01 v02r01

## 1.3 Testing Location Information

Testing Location		
<input checked="" 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
Test site Designation No. TW1190 with FCC.		
<input type="checkbox"/>	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.) TEL : 886-3-656-9065      FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.		

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH07-HY	Gary	23.3~23.9°C / 63~65%	12/Feb/2019~28/Mar/2019
Radiated	03CH02-HY	Tim	23.9~24.5°C / 49.8~50.6%	01/Feb/2019~22/Mar/2019

## 1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%





## 2 Test Configuration of EUT

### 2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	56V

### 2.2 Test Channel Mode

<Non-Beamforming>

Test Software	Dos
---------------	-----

Mode	PowerSetting
802.11a_Nss1,(6Mbps)_1TX(Port1)	-
5260MHz	23.5
5300MHz	24
5320MHz	23.5
5500MHz	22.5
5580MHz	23
5700MHz	19.5
802.11a_Nss1,(6Mbps)_1TX(Port2)	-
5260MHz	24
5300MHz	24
5320MHz	22
5500MHz	22.5
5580MHz	23
5700MHz	21
802.11a_Nss1,(6Mbps)_2TX	-
5260MHz	19
5300MHz	19.5
5320MHz	19.5
5500MHz	20
5580MHz	19.5
5700MHz	17
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5260MHz	20.5



Mode	PowerSetting
5300MHz	21
5320MHz	21.5
5500MHz	21.5
5580MHz	21.5
5700MHz	19.5
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5270MHz	21.5
5310MHz	19.5
5510MHz	18.5
5550MHz	22
5670MHz	22
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5290MHz	17.5
5530MHz	17.5
5610MHz	20




<Beamforming>

Test Software	Dos
<b>Mode</b>	<b>PowerSetting</b>
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5260MHz	22
5300MHz	22
5320MHz	22
5500MHz	19
5580MHz	22
5700MHz	22
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5270MHz	22
5310MHz	21
5510MHz	16
5550MHz	22
5670MHz	22
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5290MHz	14.5
5530MHz	15
5610MHz	20

### 2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density
<b>Test Condition</b>	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Unwanted Emissions
<b>Test Condition</b>	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.
<b>Operating Mode &lt; 1GHz</b>	CTX
1	PoE mode
<b>Operating Mode &gt; 1GHz</b>	CTX
<b>Orthogonal Planes of EUT</b>	<b>Y Plane</b>
	
<b>Worst Planes of EUT</b>	V



## 2.4 Support Equipment

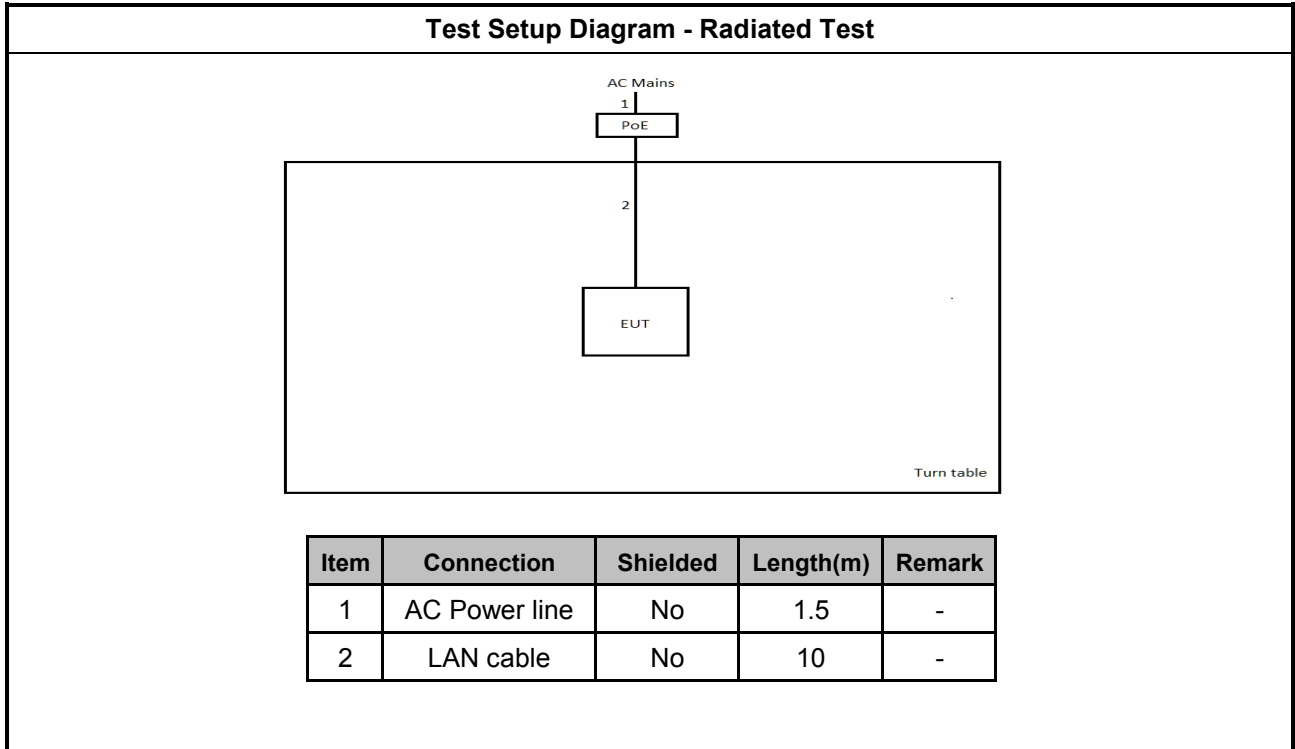
Support Equipment - RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	-
2	Adapter for NB	DELL	HA65NM130	-
3	Notebook	ACER	-	-
4	AC Power Source	GW	APS-9102	-
5	PoE	Cambium Networks	NET-P30-56IN	-

Note.Support equipment No. 3,5 was provided by customer.

Support Equipment - Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	PP13S	-
2	Client	-	-	-
3	Notebook	ACER	JAL90	-
4	PoE	Cambium Networks	NET-P30-56IN	-

Note.Support equipment No.2,3,4 was provided by customer.

## 2.5 Test Setup Diagram



### 3 Transmitter Test Result

#### 3.1 Emission Bandwidth

##### 3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
<b>UNII Devices</b>	
<input type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.25-5.35 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.47-5.725 GHz band, N/A
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

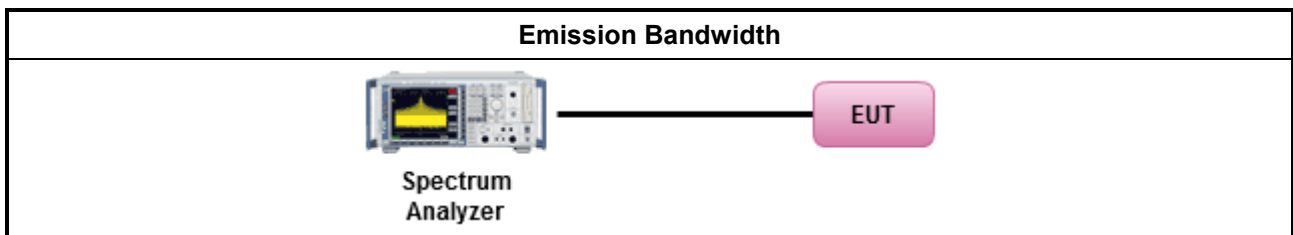
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>▪ For the emission bandwidth shall be measured using one of the options below:</li> </ul>	
<input checked="" type="checkbox"/>	Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 6.7 for bandwidth testing.

##### 3.1.4 Test Setup



##### 3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

### 3.2 Maximum Conducted Output Power

#### 3.2.1 Maximum Conducted Output Power Limit

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



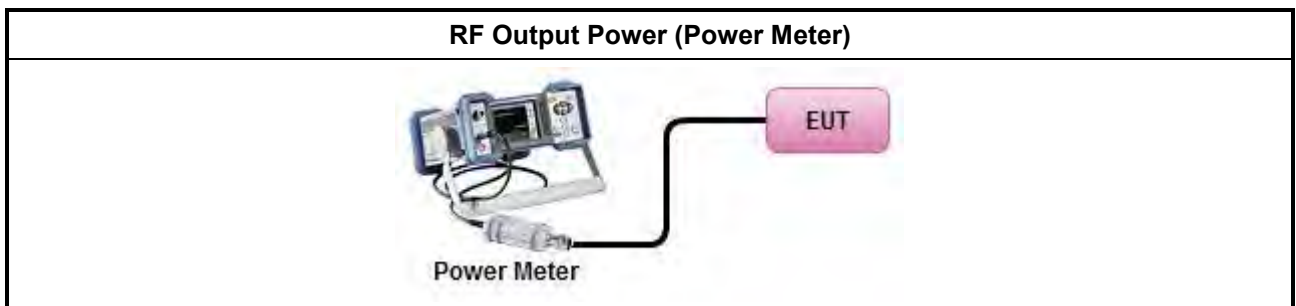
### 3.2.2 Measuring Instruments

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"> <li>▪ Maximum Conducted Output Power</li> </ul>	
	Duty cycle ≥ 98%
<input type="checkbox"/>	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle < 98%
<input type="checkbox"/>	Refer as 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 KDB 789033, clause E Method PM (using an RF average power meter).
<ul style="list-style-type: none"> <li>▪ For conducted measurement.</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ If the EUT supports multiple transmit chains using options given below: Refer as 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.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ If multiple transmit chains, EIRP calculation could be following as methods:  <math>P_{total} = P_1 + P_2 + \dots + P_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = P_{total} + DG</math> </li> </ul>

### 3.2.4 Test Setup



### 3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

### 3.3 Peak Power Spectral Density

#### 3.3.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
<b>UNII Devices</b>	
<input type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li> <li>▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li> <li>▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 23)</math>.</li> <li>▪ Mobile or Portable Client: the peak power spectral density (PPSD) <math>\leq 11</math> dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 11 - (G_{TX} - 6)</math>.</li> </ul>
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$ .	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 30 - (G_{TX} - 6)</math>.</li> <li>▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li> </ul>
<p><b>PPSD</b> = 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</p> <p><b>G<sub>TX</sub></b> = the maximum transmitting antenna directional gain in dBi.</p>	

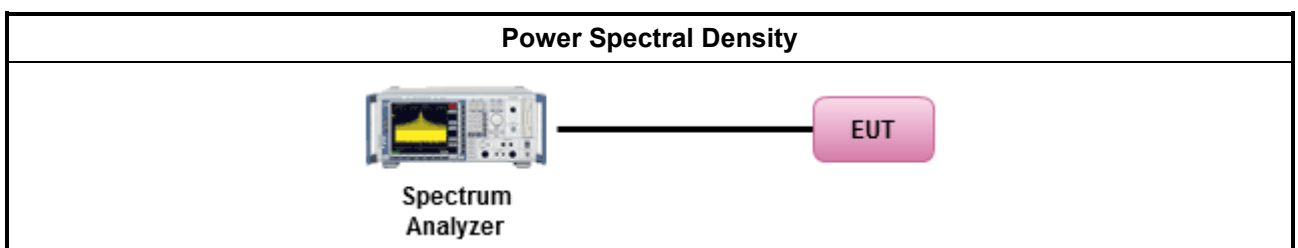
#### 3.3.2 Measuring Instruments

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"> <li>▪ 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:</li> </ul>	
<input type="checkbox"/>	Refer as KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth Duty cycle ≥ 98%
<input type="checkbox"/>	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging). Duty cycle < 98%
<input checked="" type="checkbox"/>	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<ul style="list-style-type: none"> <li>▪ For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ If the EUT supports multiple transmit chains using options given below:               <ul style="list-style-type: none"> <li>▪ Measure and sum the spectra across the outputs. Refer as 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.</li> </ul> </li> <li>▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods:  <math>PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n</math>            (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = PPSD_{total} + DG</math> </li> </ul>	

### 3.3.4 Test Setup



### 3.3.5 Test Result of Peak Power Spectral Density

Refer as Appendix C

### 3.4 Unwanted Emissions

#### 3.4.1 Transmitter Radiated 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
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

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).

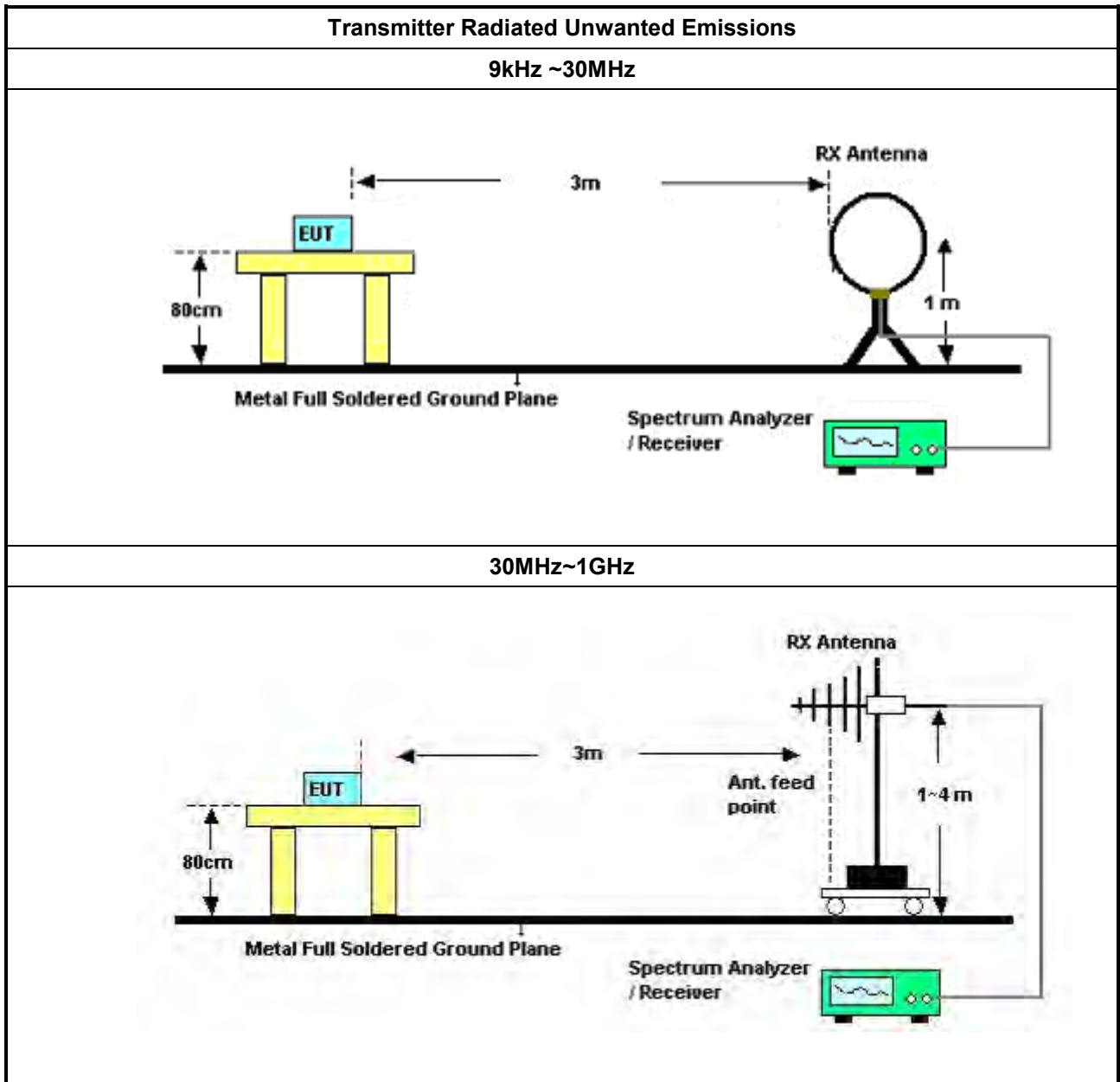
### 3.4.2 Measuring Instruments

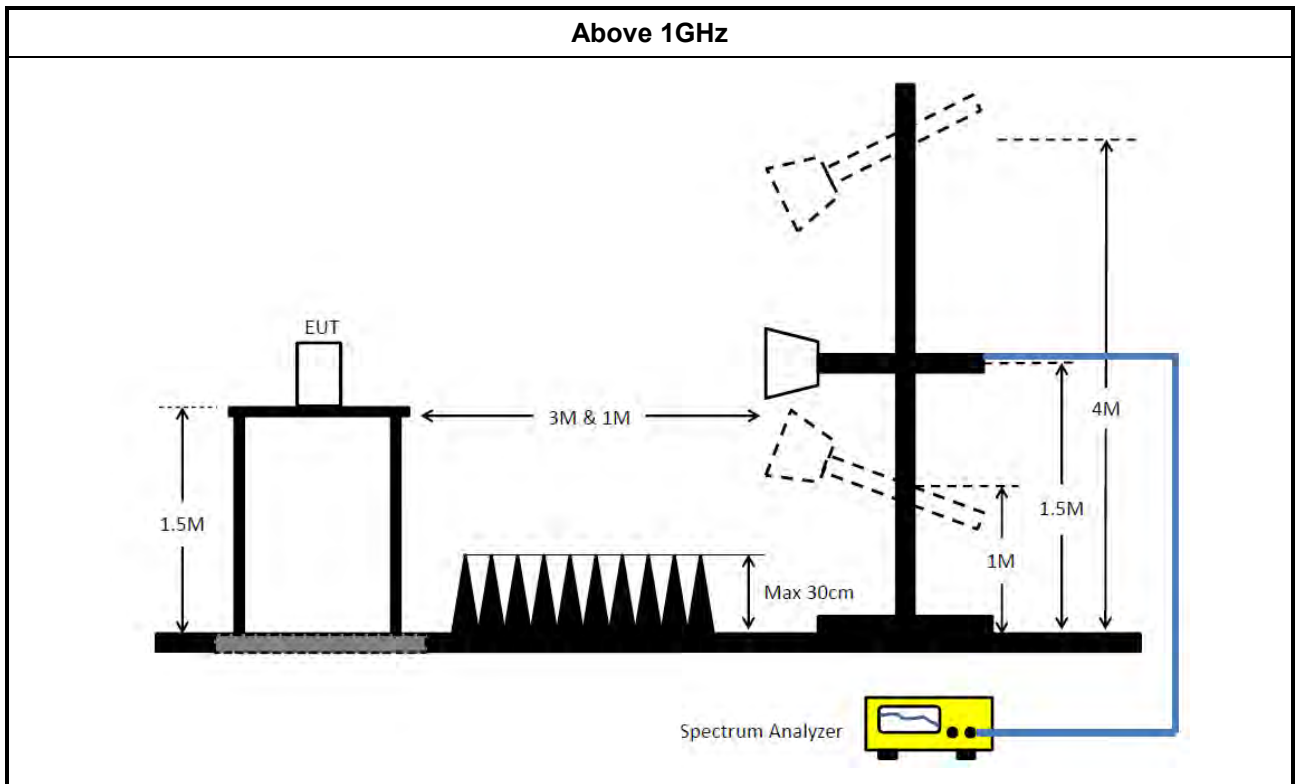
Refer a test equipment and calibration data table in this test report.

### 3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>▪ 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).</li> </ul>	
<ul style="list-style-type: none"> <li>▪ The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 or duty factor].</li> </ul>	
<ul style="list-style-type: none"> <li>▪ For the transmitter unwanted emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li> </ul>
	<input checked="" type="checkbox"/> Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.
	<input checked="" type="checkbox"/> Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.
<ul style="list-style-type: none"> <li>▪ For radiated measurement.</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul>
<ul style="list-style-type: none"> <li>▪ The any unwanted emissions level shall not exceed the fundamental emission level.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.</li> </ul>	

### 3.4.4 Test Setup





### 3.4.5 Transmitter Unwanted Emissions (Below 30MHz)

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

### 3.4.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D



## 4 Test Equipment and Calibration Data

### Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	19/Oct/2018	18/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	17/Oct/2018	16/Oct/2019
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	27Jul/2018	02/Jul/2019
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	23/Oct/2018	22/Oct/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	18/Jan/2019	17/Jan/2020
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	18/Jan/2019	17/Jan/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz ~ 1GHz	08/Sep/2018	07/Sep/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	10/Apr/2018	09/Apr/2019
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	29/Mar/2018	28/Mar/2019
Broadband Horn Antenna	SCHWARZBEC K	BBHA9170	BBHA9170339	18GHz ~ 40GHz	11/Apr/2018	10/Apr/2019
Double Ridged Guide Horn Antenna	SCHWARZBEC K	BBHA 9120 D	BBHA 9120 D 01543	1GHz ~ 18GHz	11/May/2018	10/May/2019





Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101500	10Hz~40GHz	18/Jul/2018	17/Jul/2019
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~1G	10/Jan/2019	09/Jan/2020
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	1G~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY10714/4	RF Cable - 05	1G~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY10715/4	RF Cable - 06	1G~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY10715/4	RF Cable - 06	1G~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY10721/4	RF Cable - 07	1G~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY10721/4	RF Cable - 07	1G~18G	10/Jan/2019	09/Jan/2020
Cable 1.5m	HUBER	MY37973/4	RF Cable - 16	1G~18G	10/Jan/2019	09/Jan/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	37.7M	17.591M	17M6D1D	34.325M	16.692M
802.11a_Nss1,(6Mbps)_1TX(Port2)	39.5M	19.115M	19M1D1D	21.55M	16.492M
802.11a_Nss1,(6Mbps)_2TX	19.7M	16.442M	16M4D1D	19.55M	16.392M
802.11ac VHT20_Nss1,(MCS0)_2TX	21.6M	17.641M	17M6D1D	20.625M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	69.85M	36.332M	36M3D1D	39.85M	35.982M
802.11ac VHT80_Nss1,(MCS0)_2TX	84.4M	75.862M	75M9D1D	83.9M	75.862M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	33.1M	16.667M	16M7D1D	19.75M	16.442M
802.11a_Nss1,(6Mbps)_1TX(Port2)	39.3M	18.441M	18M4D1D	33.125M	16.592M
802.11a_Nss1,(6Mbps)_2TX	19.925M	16.467M	16M5D1D	19.5M	16.392M
802.11ac VHT20_Nss1,(MCS0)_2TX	25.575M	17.716M	17M7D1D	20.5M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	78.65M	37.931M	37M9D1D	39.9M	35.982M
802.11ac VHT80_Nss1,(MCS0)_2TX	93.4M	76.062M	76M1D1D	84.3M	75.862M

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

**Max-OBW** = Maximum 99% occupied bandwidth;

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

**Min-OBW** = Minimum 99% occupied bandwidth;

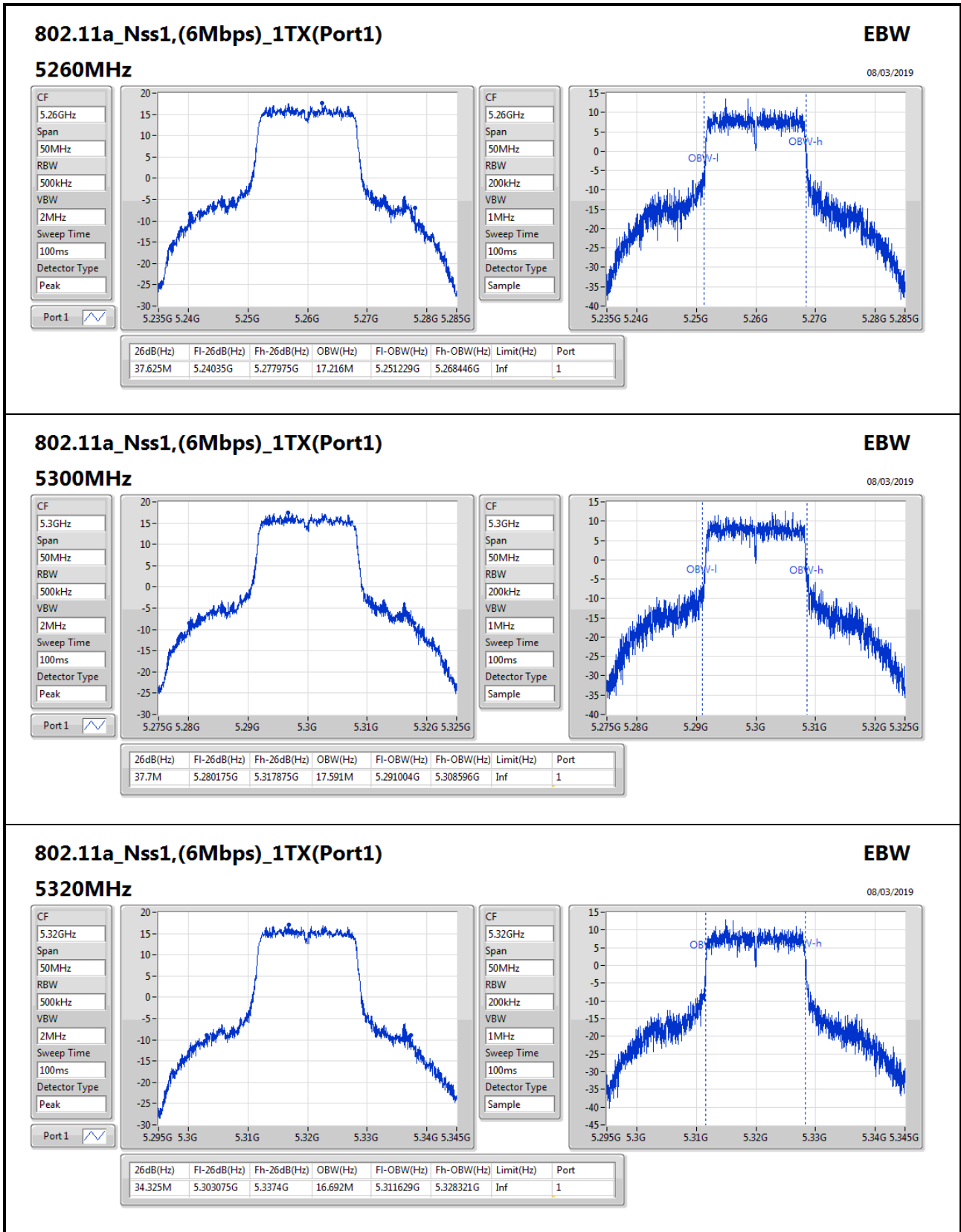


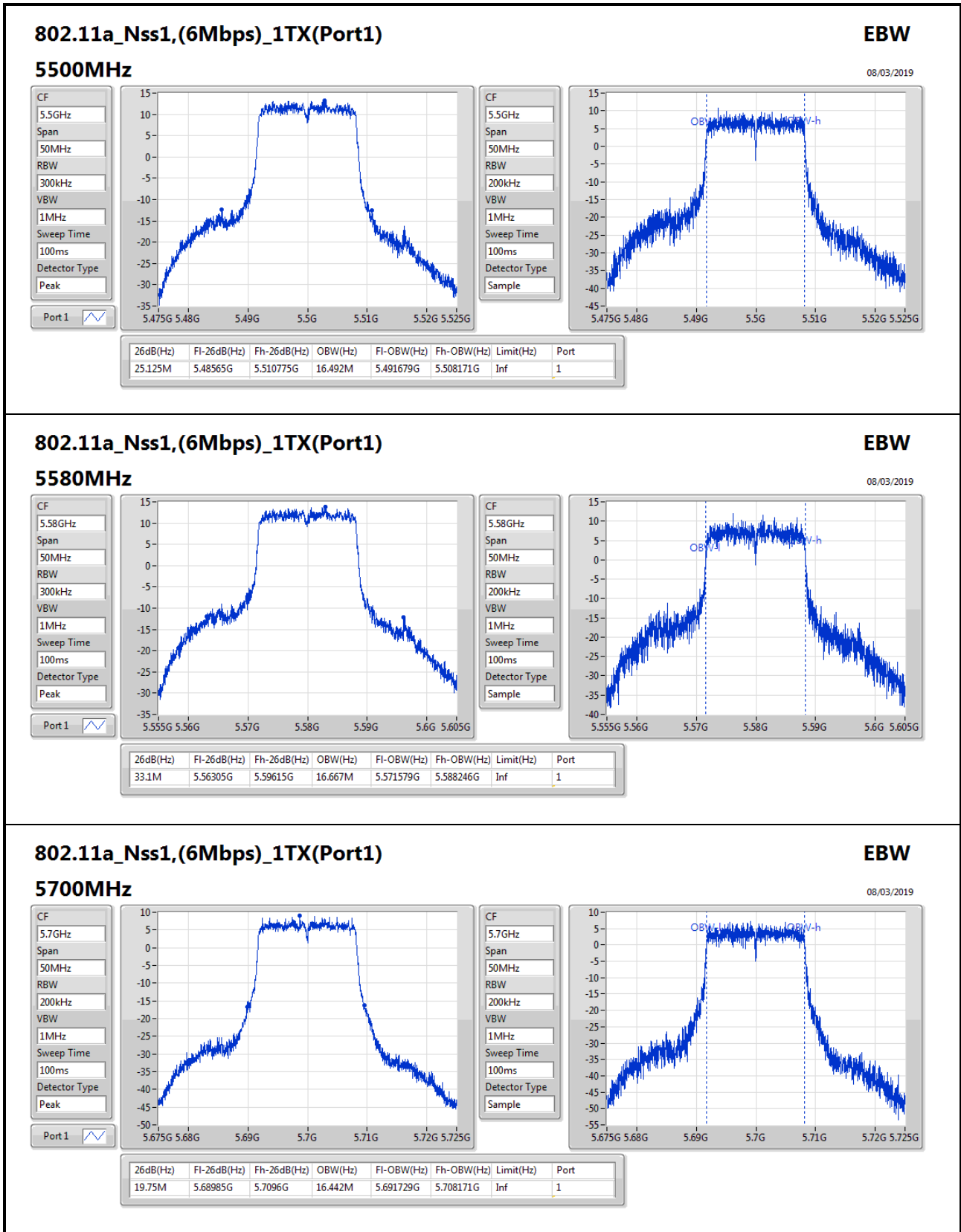
Result

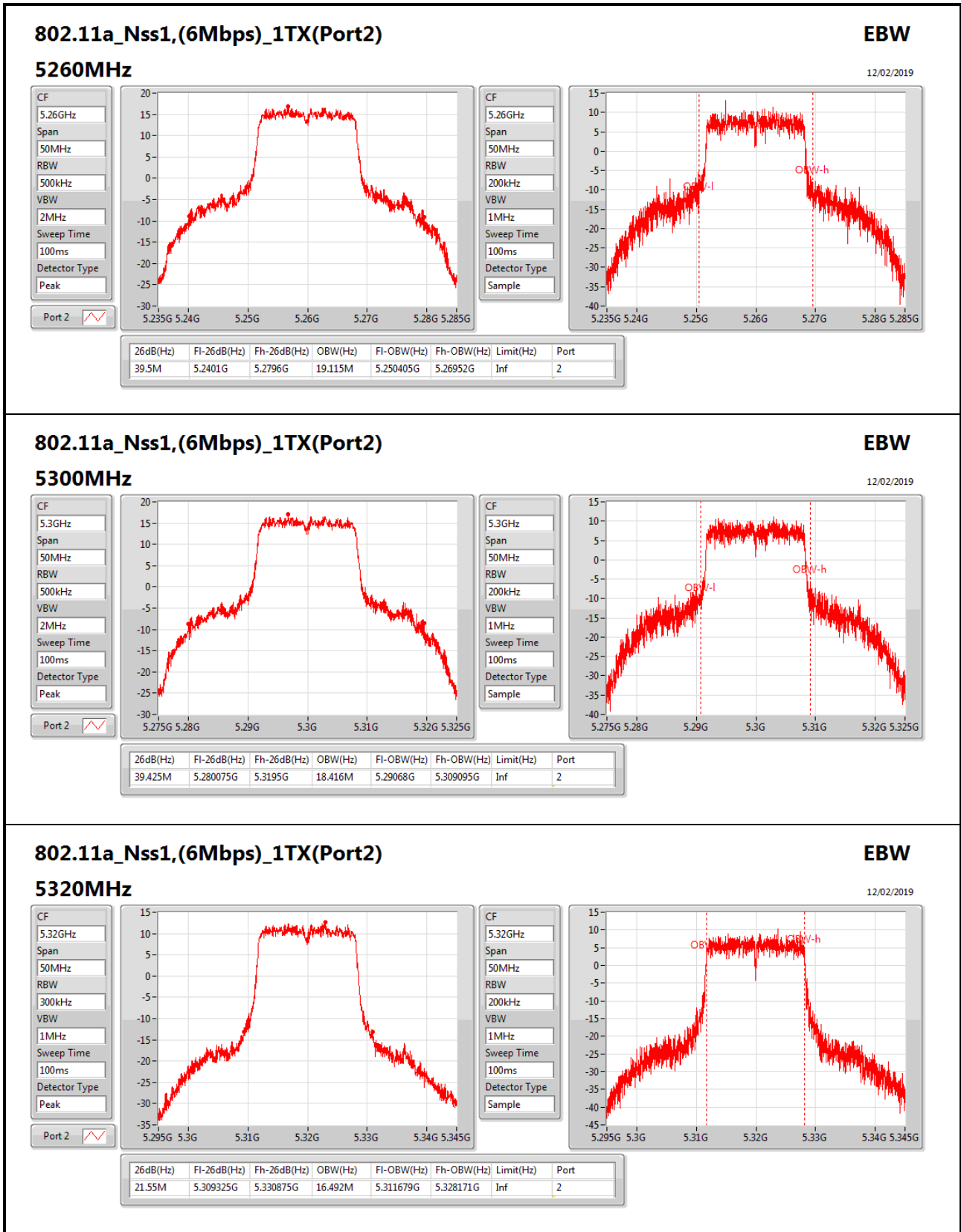
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-
5260MHz	Pass	Inf	37.625M	17.216M		
5300MHz	Pass	Inf	37.7M	17.591M		
5320MHz	Pass	Inf	34.325M	16.692M		
5500MHz	Pass	Inf	25.125M	16.492M		
5580MHz	Pass	Inf	33.1M	16.667M		
5700MHz	Pass	Inf	19.75M	16.442M		
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-
5260MHz	Pass	Inf			39.5M	19.115M
5300MHz	Pass	Inf			39.425M	18.416M
5320MHz	Pass	Inf			21.55M	16.492M
5500MHz	Pass	Inf			33.425M	16.617M
5580MHz	Pass	Inf			39.3M	18.441M
5700MHz	Pass	Inf			33.125M	16.592M
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	19.7M	16.392M	19.675M	16.442M
5300MHz	Pass	Inf	19.7M	16.417M	19.675M	16.417M
5320MHz	Pass	Inf	19.55M	16.442M	19.675M	16.442M
5500MHz	Pass	Inf	19.5M	16.467M	19.925M	16.442M
5580MHz	Pass	Inf	19.625M	16.417M	19.875M	16.417M
5700MHz	Pass	Inf	19.6M	16.417M	19.875M	16.392M
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	21.25M	17.641M	20.65M	17.616M
5300MHz	Pass	Inf	21.475M	17.641M	20.625M	17.641M
5320MHz	Pass	Inf	21.6M	17.641M	20.675M	17.616M
5500MHz	Pass	Inf	21.4M	17.691M	21.9M	17.641M
5580MHz	Pass	Inf	22.025M	17.691M	25.575M	17.716M
5700MHz	Pass	Inf	20.5M	17.616M	21.475M	17.641M
802.11ac_VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	69.85M	36.332M	53.1M	36.082M
5310MHz	Pass	Inf	39.9M	35.982M	39.85M	36.032M
5510MHz	Pass	Inf	39.9M	36.032M	39.9M	35.982M
5550MHz	Pass	Inf	70.15M	36.382M	76.1M	36.532M
5670MHz	Pass	Inf	78M	37.831M	78.65M	37.931M
802.11ac_VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	83.9M	75.862M	84.4M	75.862M
5530MHz	Pass	Inf	84.5M	75.862M	84.3M	75.862M
5610MHz	Pass	Inf	85.7M	76.062M	93.4M	75.962M

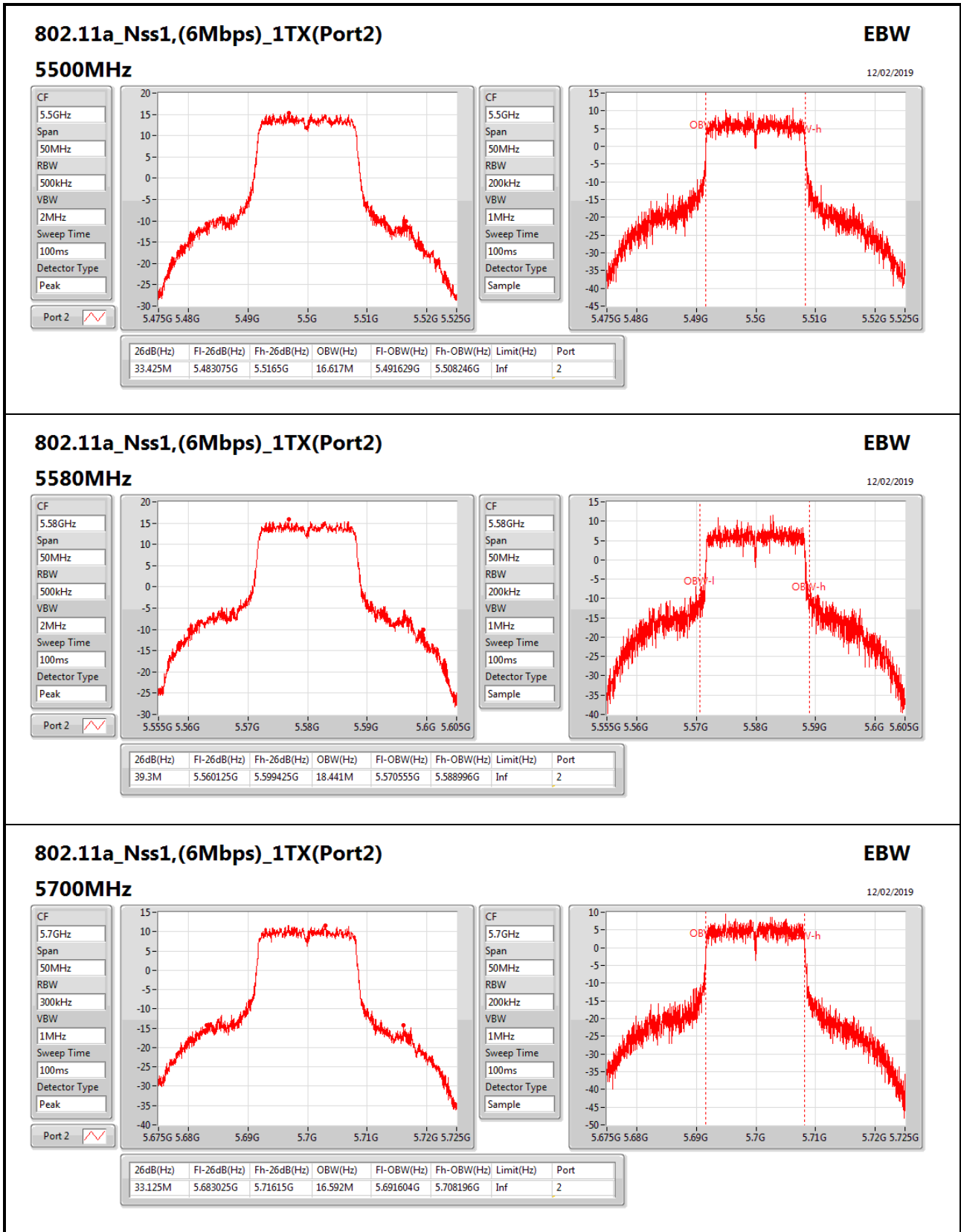
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

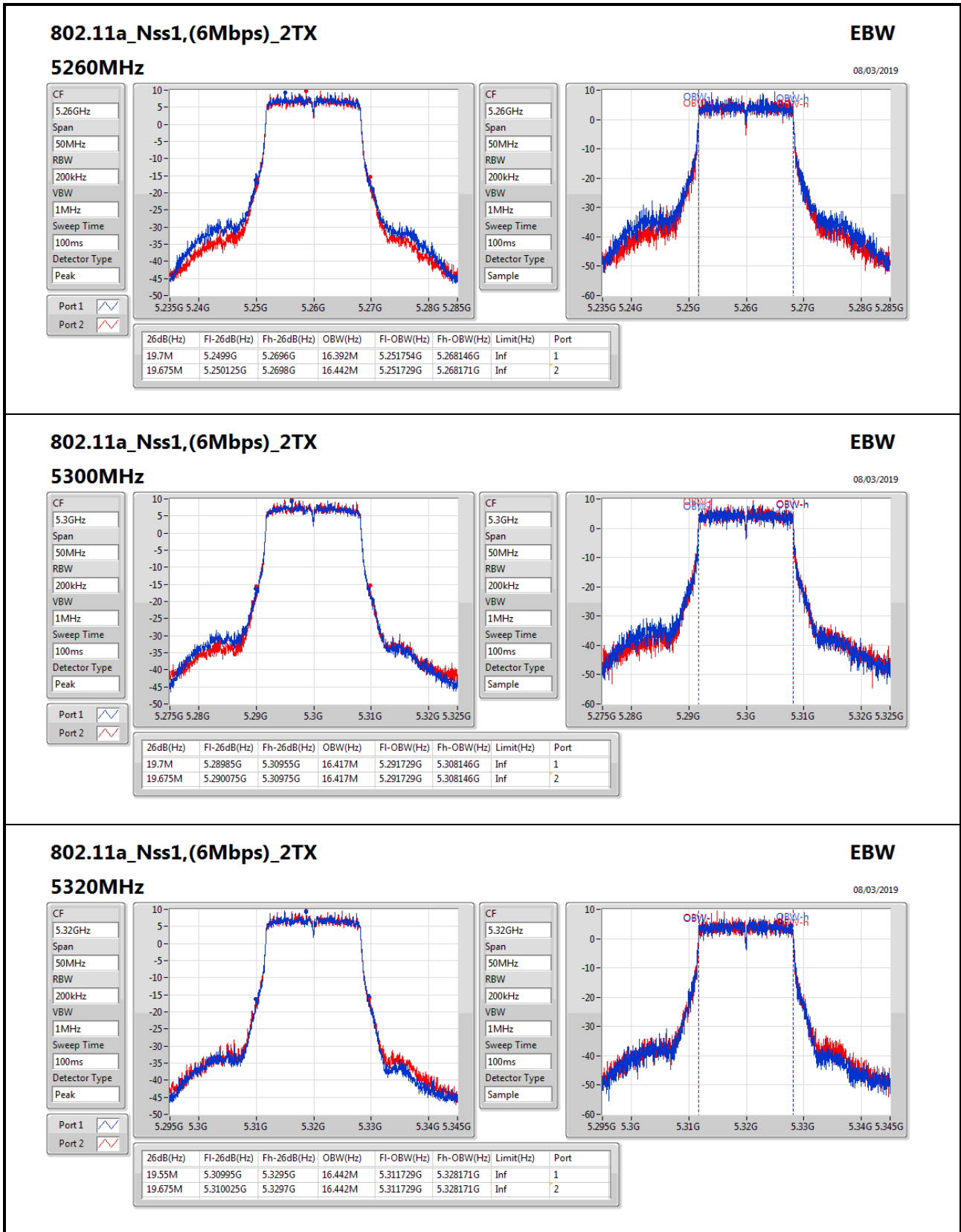
Port X-OBW = Port X 99% occupied bandwidth;



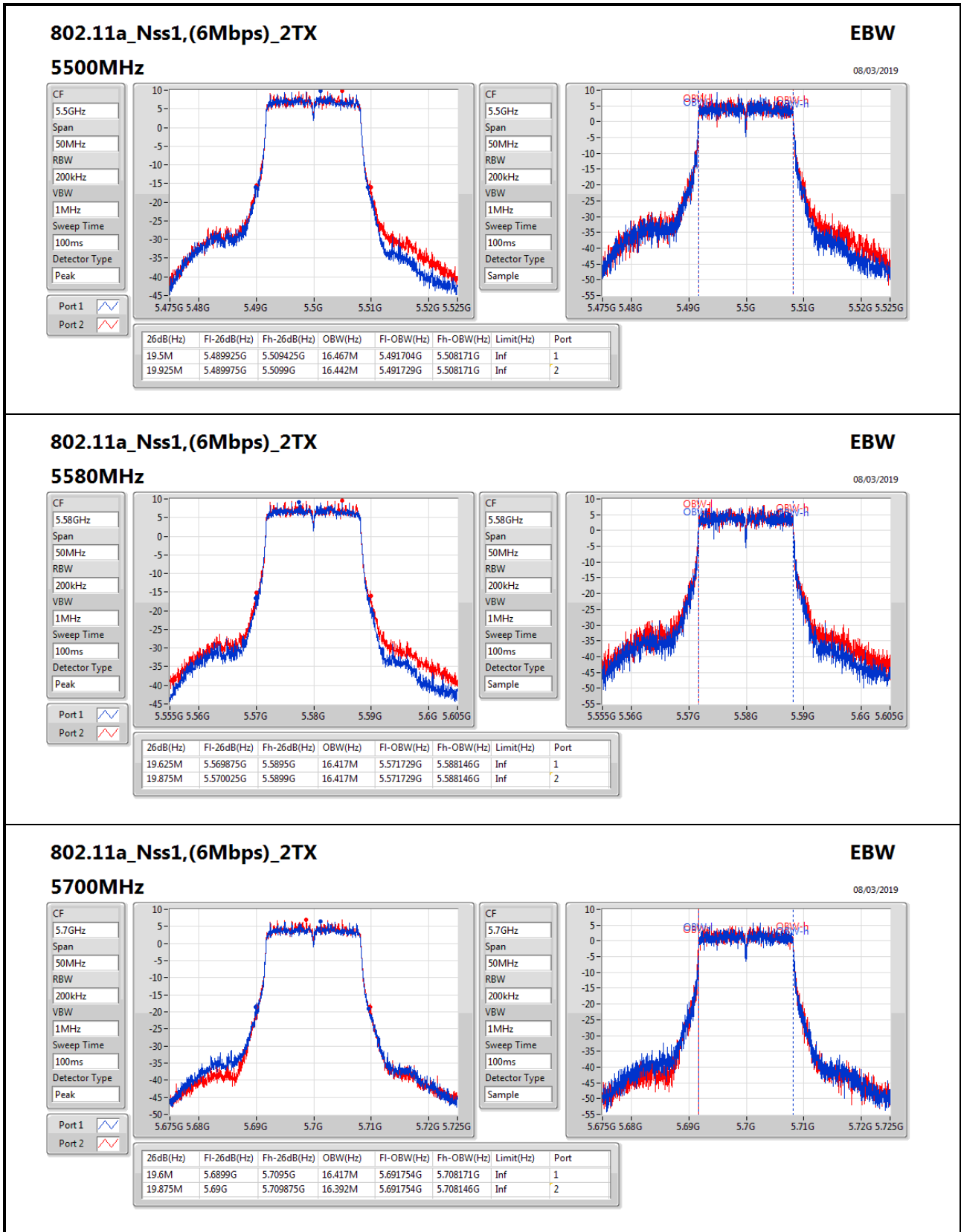












### 802.11a\_Nss1,(6Mbps)\_2TX

#### 5700MHz

**EBW**  
08/03/2019

CF: 5.7GHz  
Span: 50MHz  
RBW: 200kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Peak

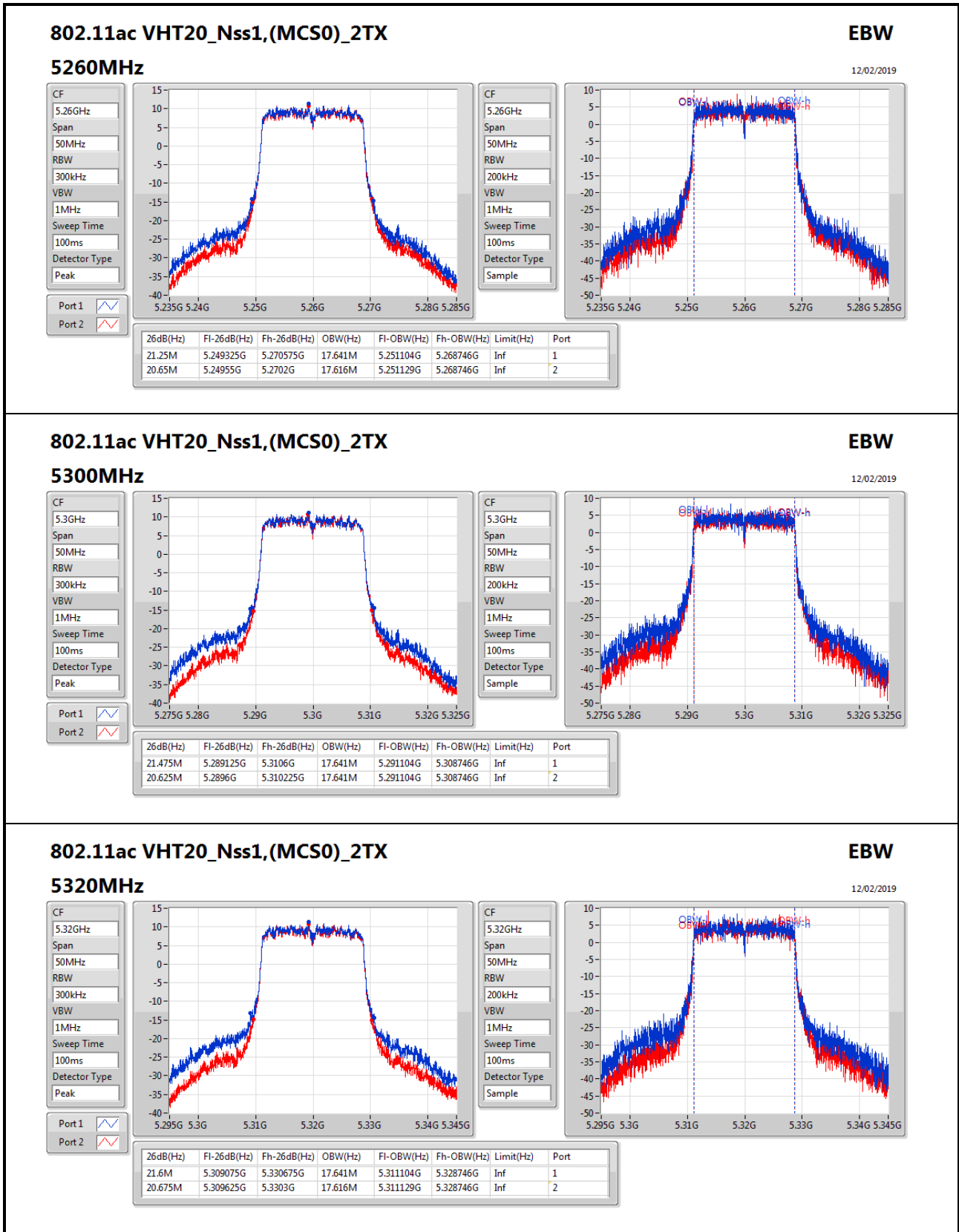
Port 1:

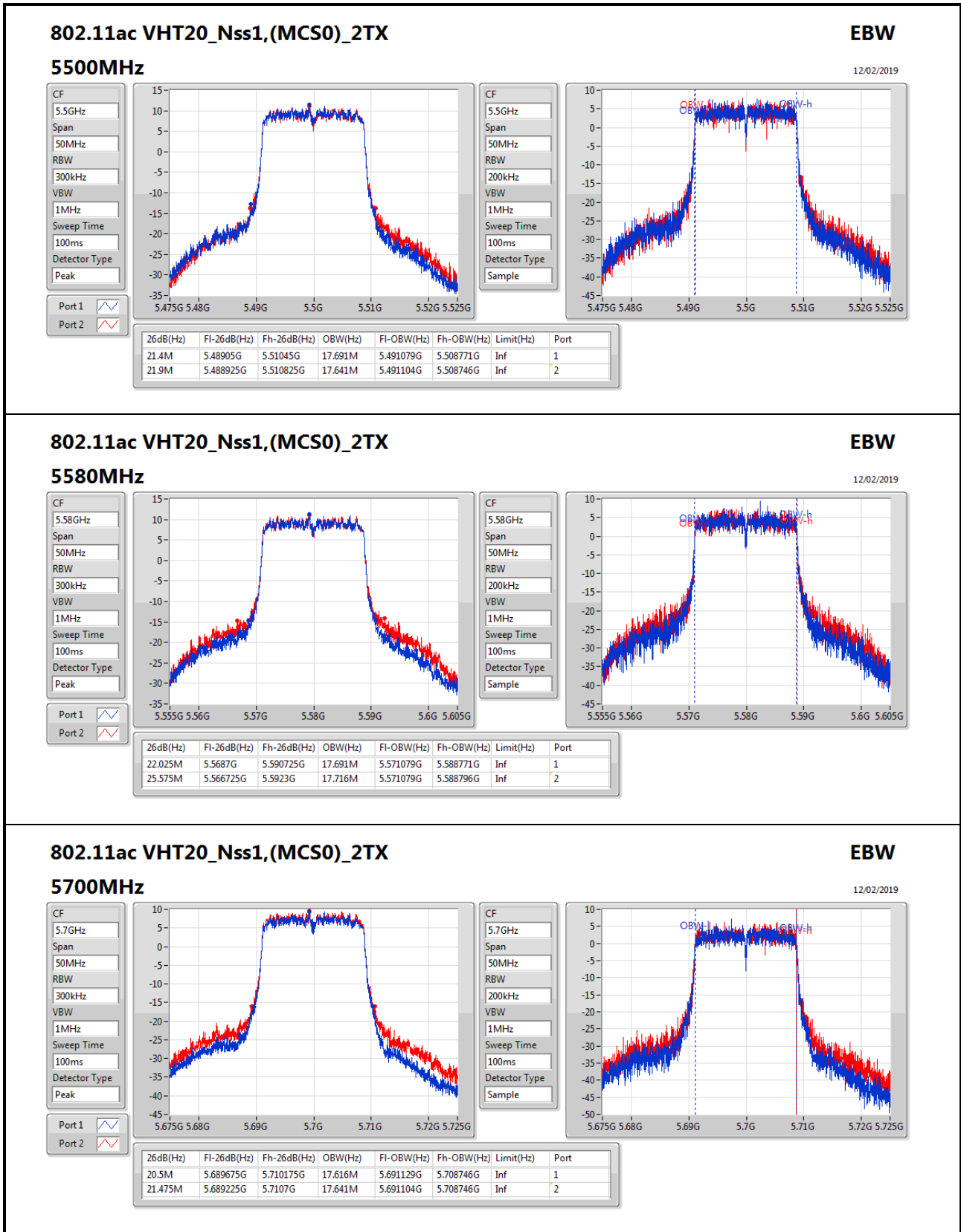
Port 2:

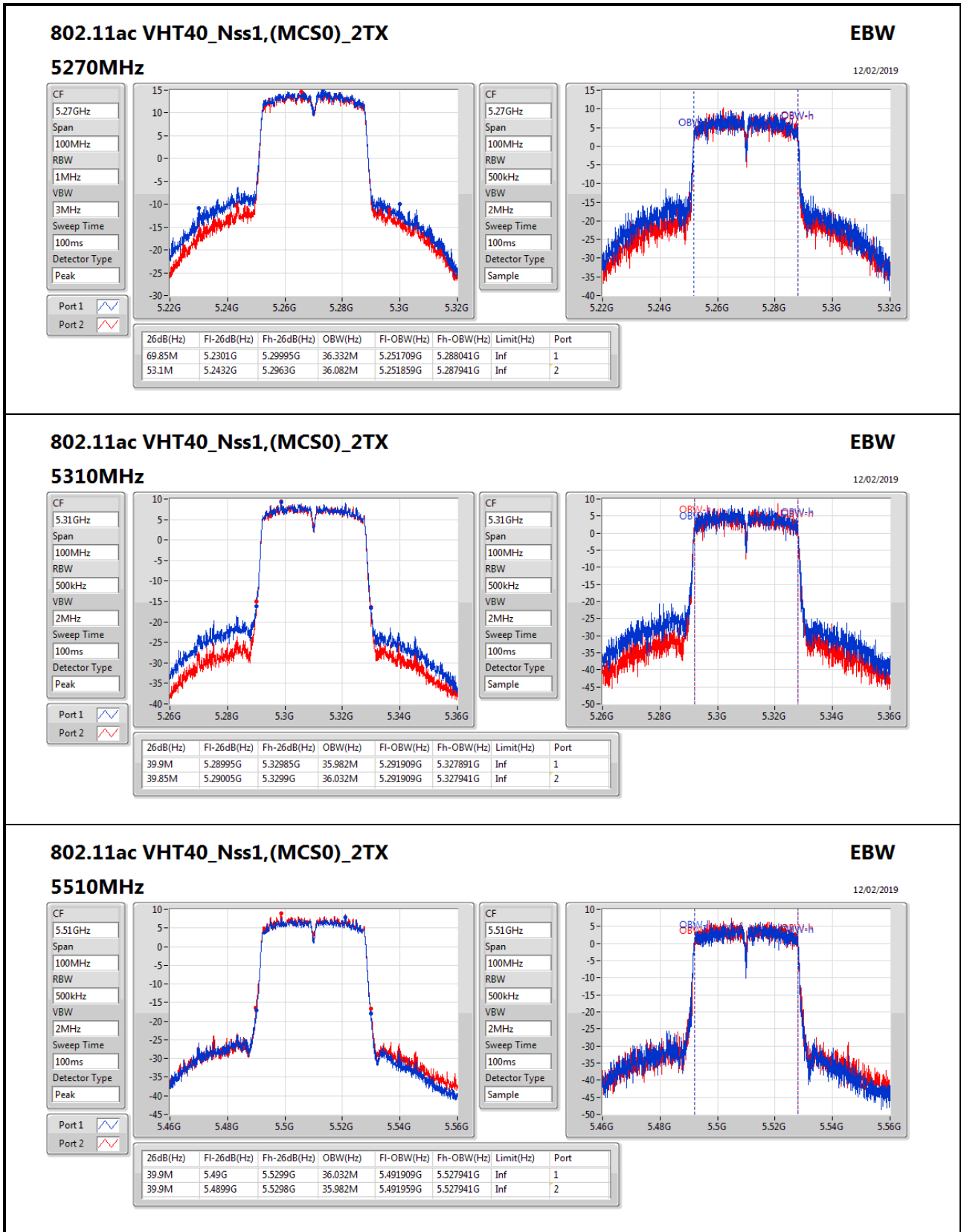
CF: 5.7GHz  
Span: 50MHz  
RBW: 200kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Sample

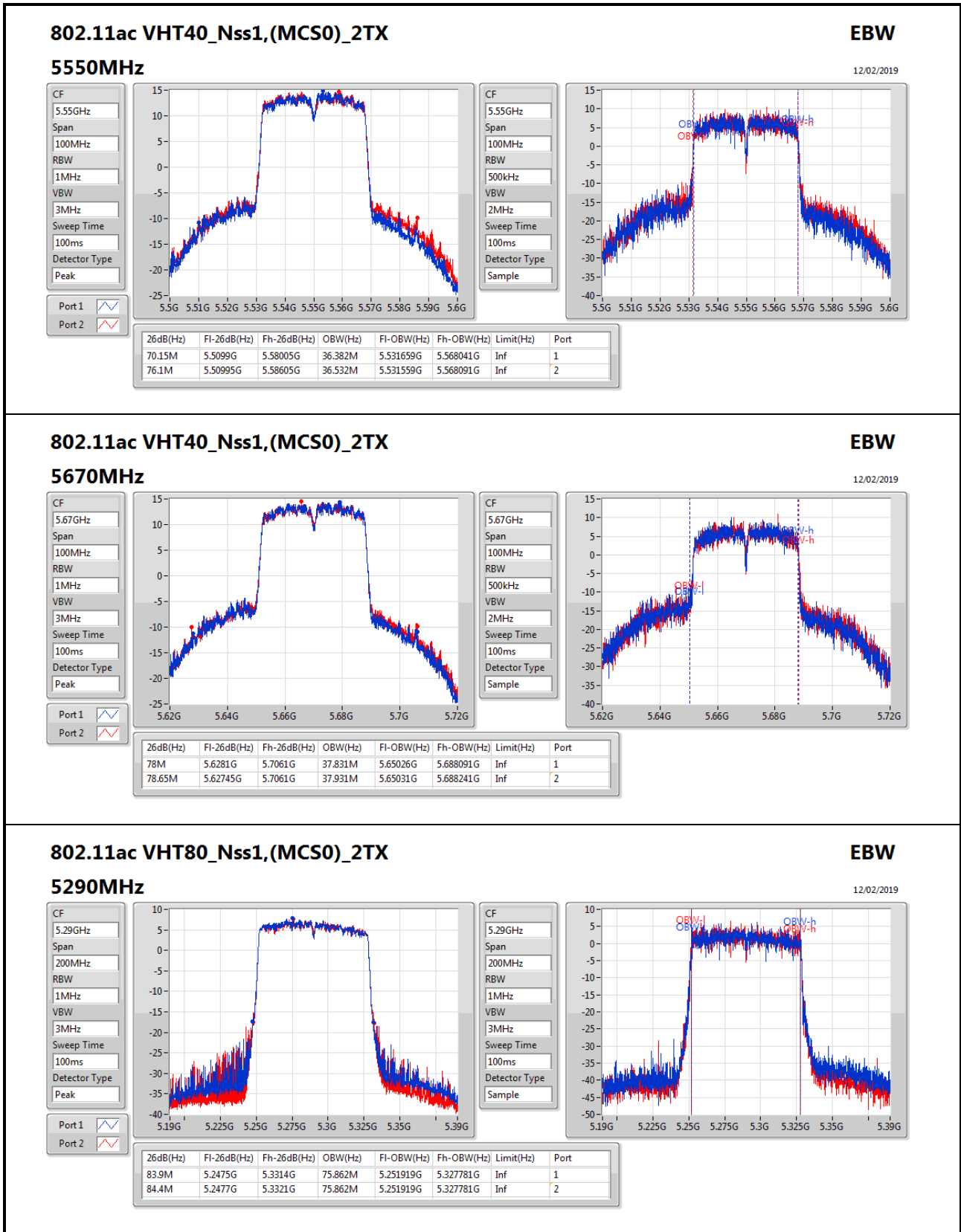
Port 1:

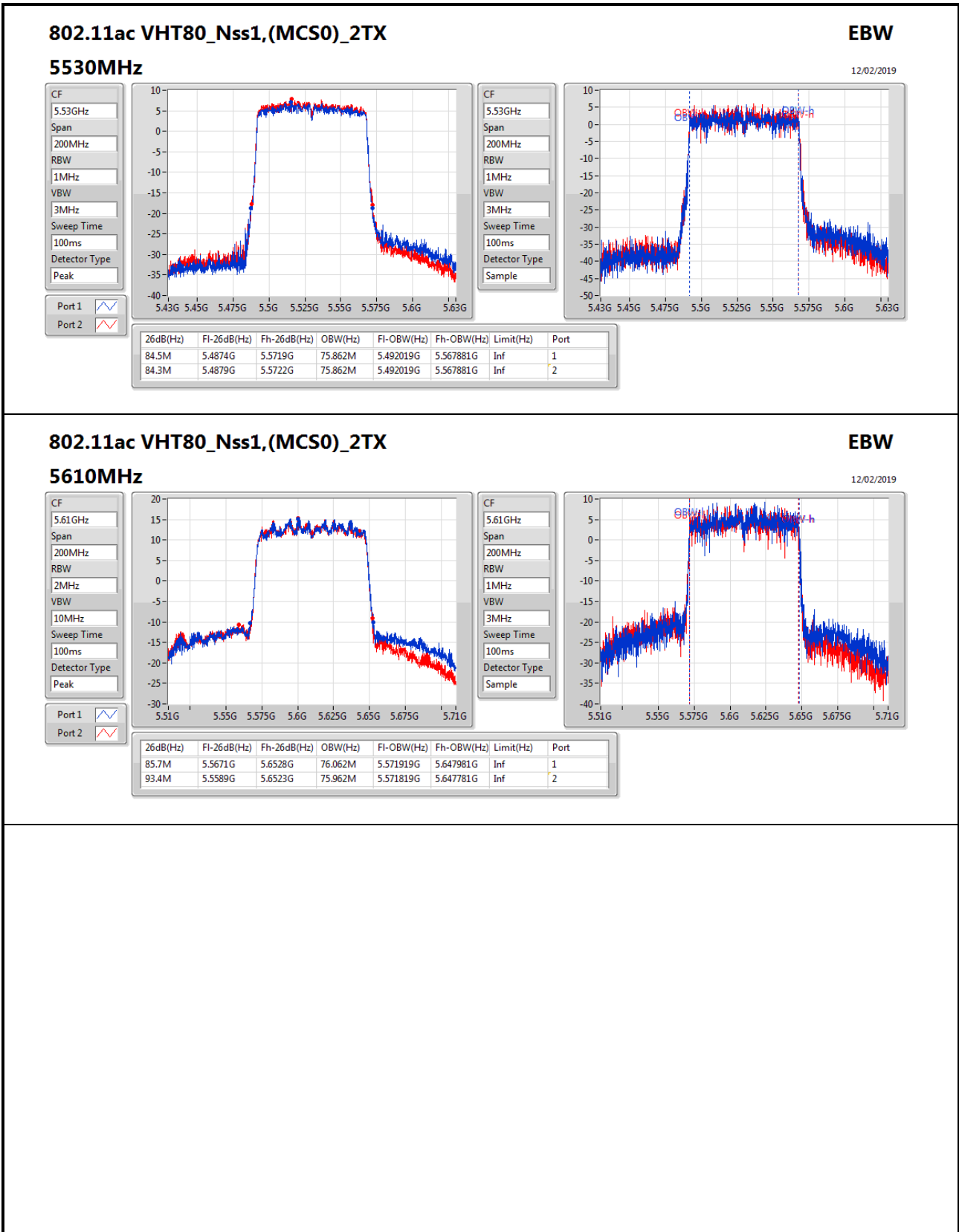
Port 2:











**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	32.25M	17.716M	17M7D1D	21.775M	17.641M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	74.2M	36.632M	36M6D1D	56.35M	36.332M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	87.1M	75.862M	75M9D1D	84.2M	75.762M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	38.175M	17.816M	17M8D1D	21.725M	17.691M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	76M	36.882M	36M9D1D	42.45M	36.182M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	150.4M	76.062M	76M1D1D	82.3M	75.862M

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

**Max-OBW** = Maximum 99% occupied bandwidth;

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

**Min-OBW** = Minimum 99% occupied bandwidth;

**Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	32.075M	17.691M	21.775M	17.716M
5300MHz	Pass	Inf	27.05M	17.716M	22.275M	17.691M
5320MHz	Pass	Inf	32.25M	17.641M	21.85M	17.666M
5500MHz	Pass	Inf	36M	17.816M	26.425M	17.716M
5580MHz	Pass	Inf	38.175M	17.766M	21.725M	17.691M
5700MHz	Pass	Inf	29.25M	17.716M	31.425M	17.741M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	71.15M	36.482M	56.35M	36.482M
5310MHz	Pass	Inf	74.2M	36.632M	67.95M	36.332M
5510MHz	Pass	Inf	46.4M	36.332M	42.45M	36.332M
5550MHz	Pass	Inf	76M	36.882M	59.4M	36.382M
5670MHz	Pass	Inf	75.1M	36.432M	72.25M	36.182M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	84.2M	75.762M	87.1M	75.862M
5530MHz	Pass	Inf	85M	76.062M	83.8M	75.962M
5610MHz	Pass	Inf	150.4M	76.062M	82.3M	75.862M

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



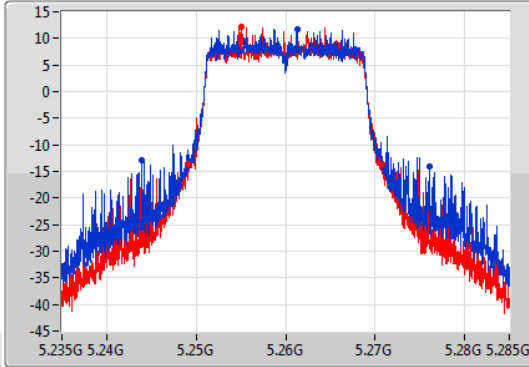
802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

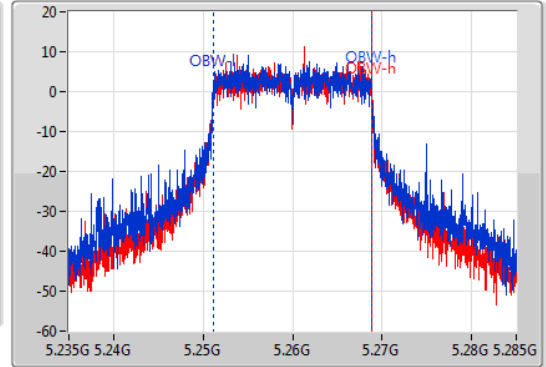
5260MHz

18/03/2019

CF: 5.26GHz  
 Span: 50MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.26GHz  
 Span: 50MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
32.075M	5.243975G	5.27605G	17.691M	5.251129G	5.268821G	Inf	1
21.775M	5.249G	5.270775G	17.716M	5.251129G	5.268846G	Inf	2

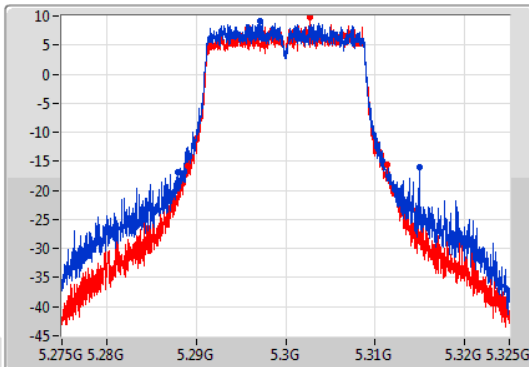
802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

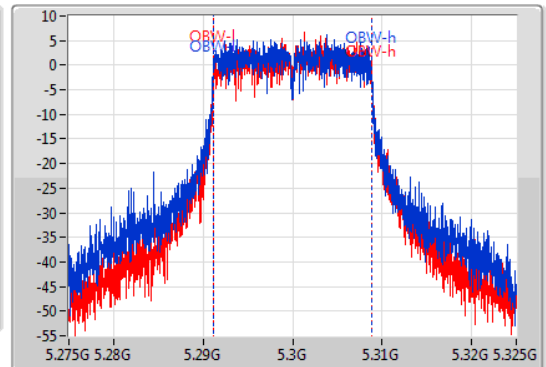
5300MHz

22/03/2019

CF: 5.3GHz  
 Span: 50MHz  
 RBW: 300kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.3GHz  
 Span: 50MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Sample



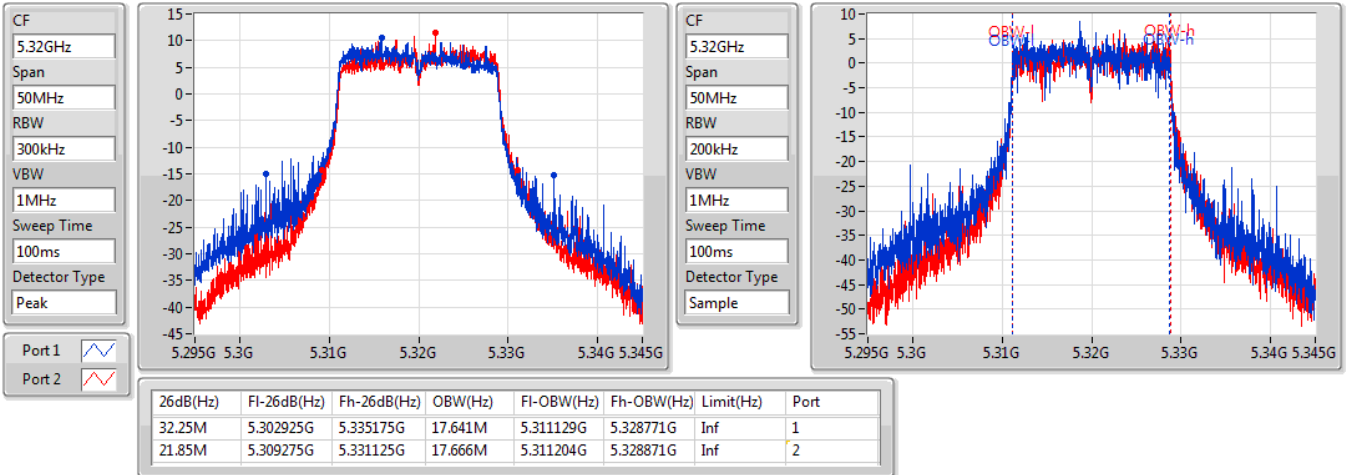
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
27.05M	5.2879G	5.31495G	17.716M	5.291129G	5.308846G	Inf	1
22.275M	5.289075G	5.31135G	17.691M	5.291154G	5.308846G	Inf	2

802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

5320MHz

22/03/2019

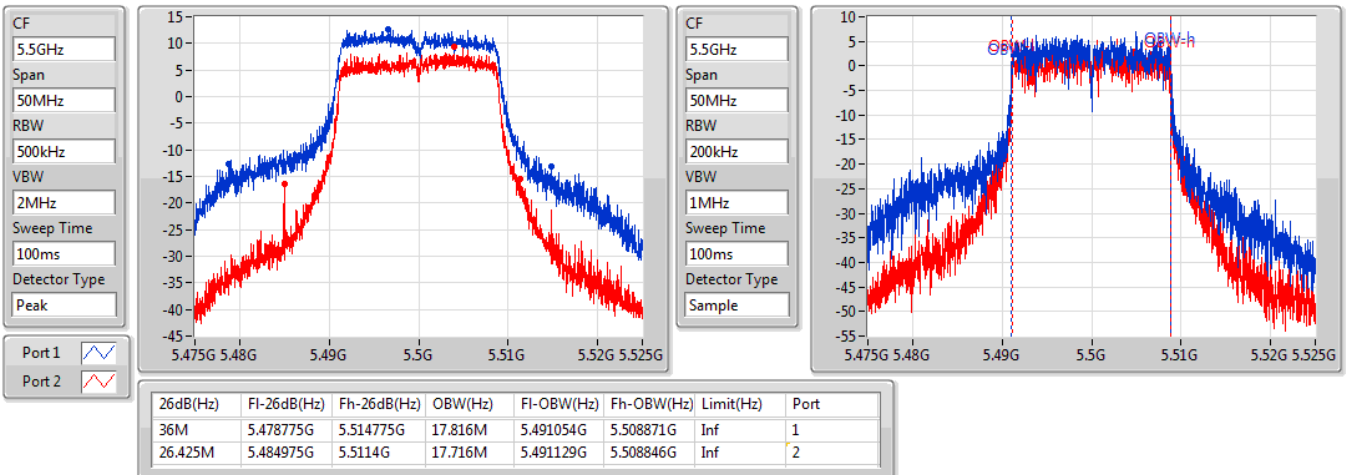


802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

5500MHz

22/03/2019

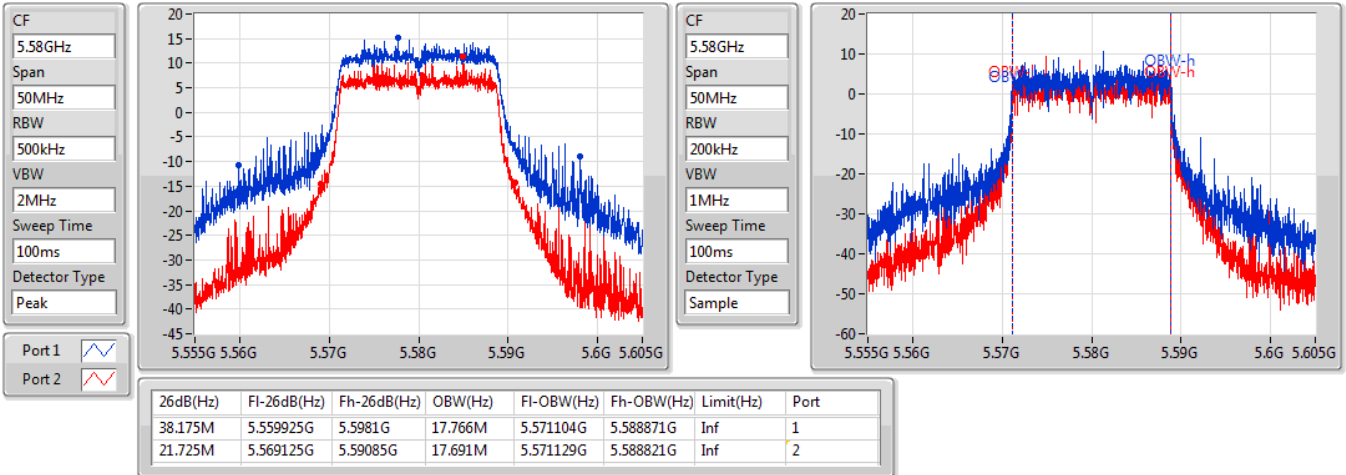


802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

5580MHz

18/03/2019

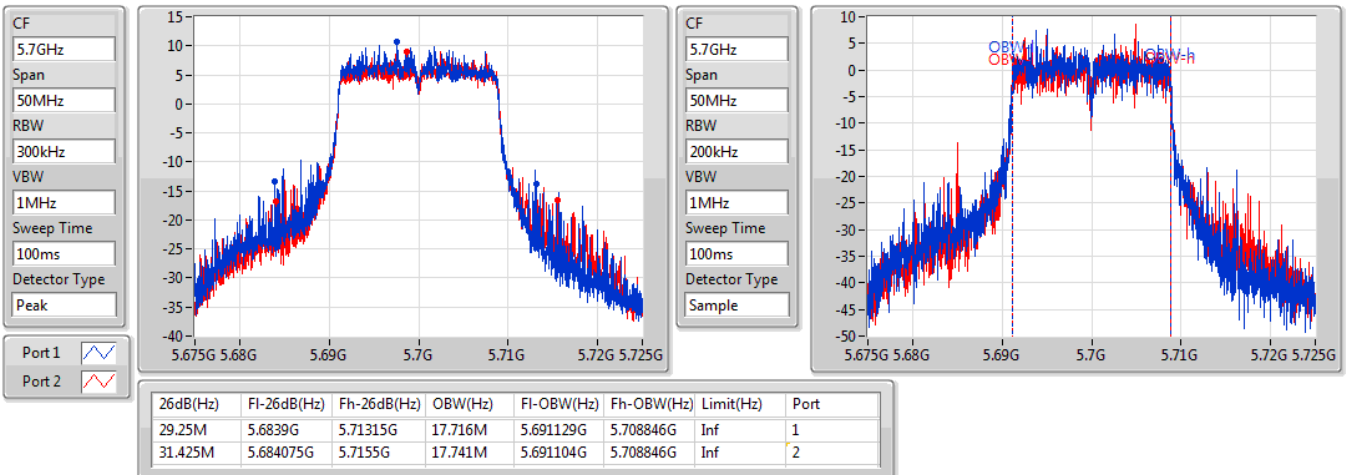


802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

5700MHz

19/03/2019

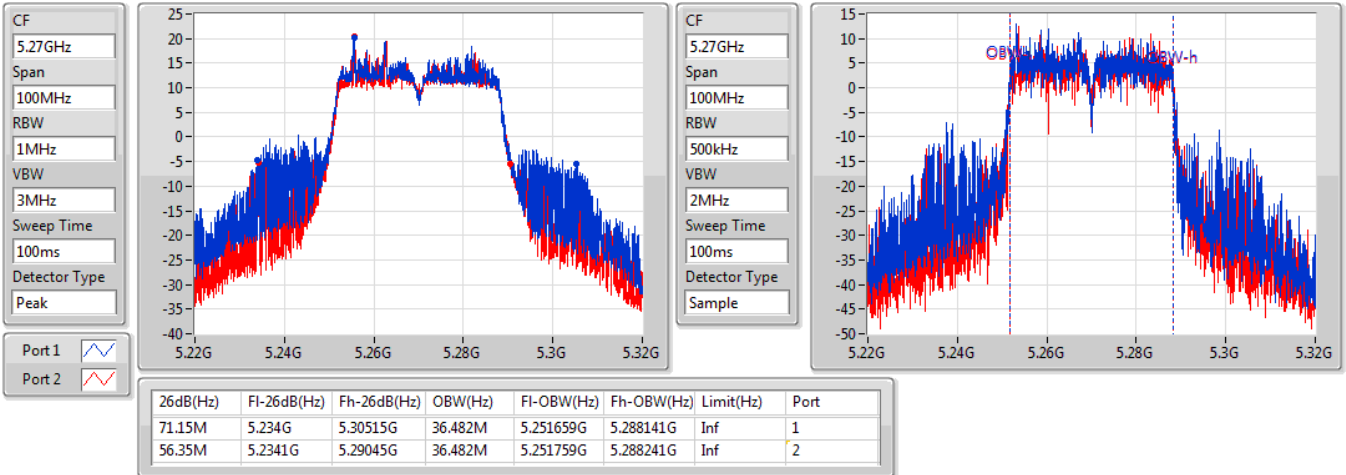


802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

5270MHz

18/03/2019

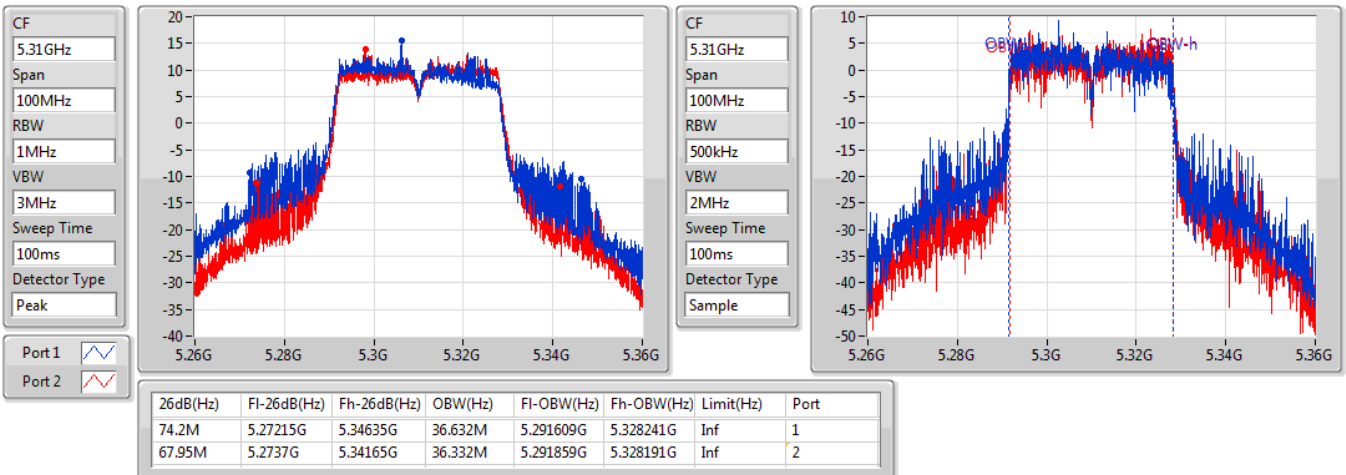


802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

5310MHz

22/03/2019

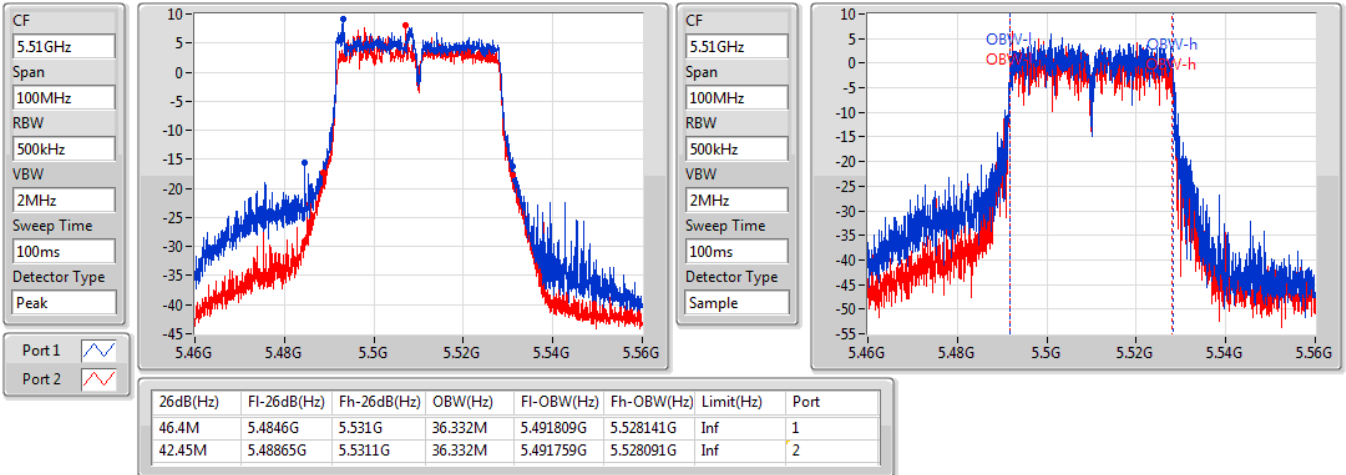


802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

5510MHz

22/03/2019

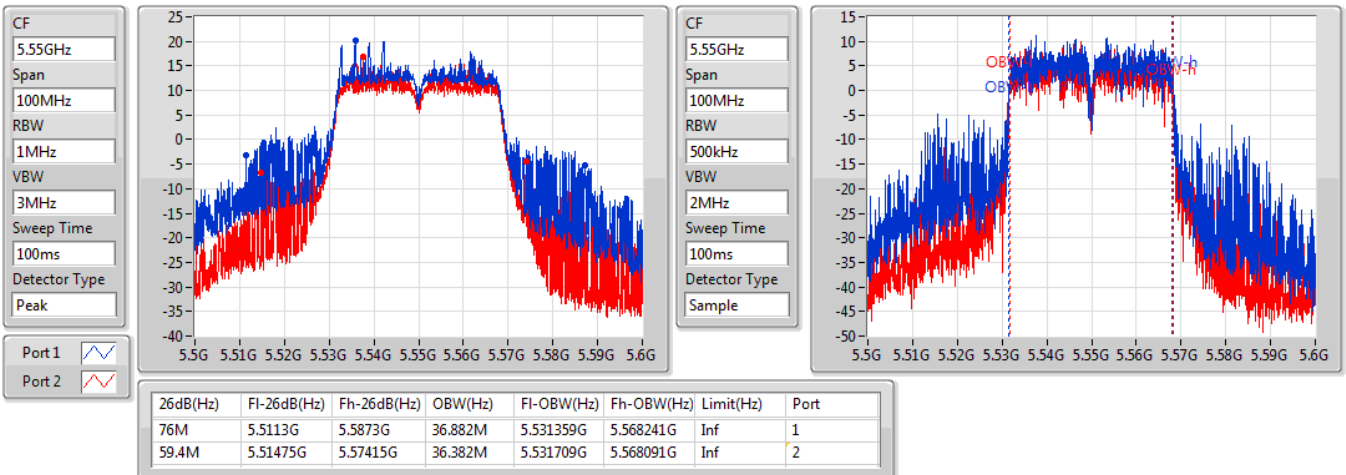


802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

5550MHz

18/03/2019

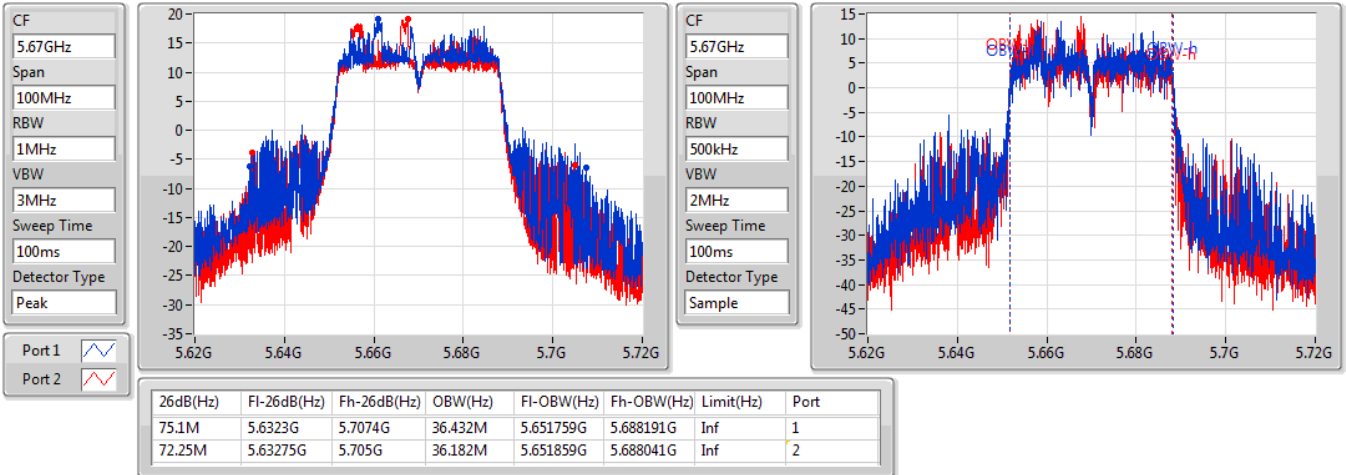


802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

5670MHz

18/03/2019

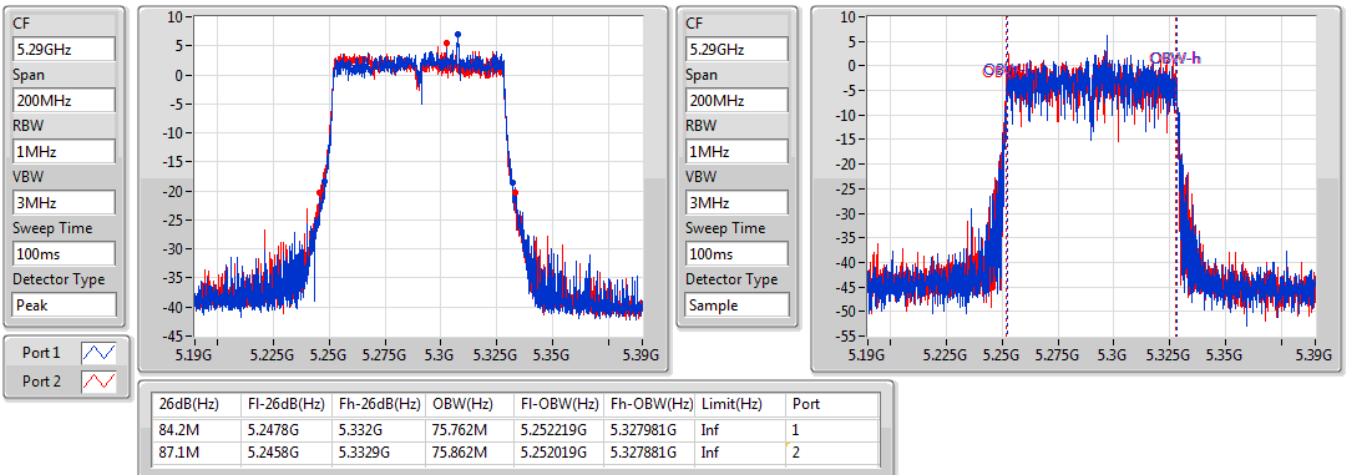


802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX

EBW

5290MHz

22/03/2019

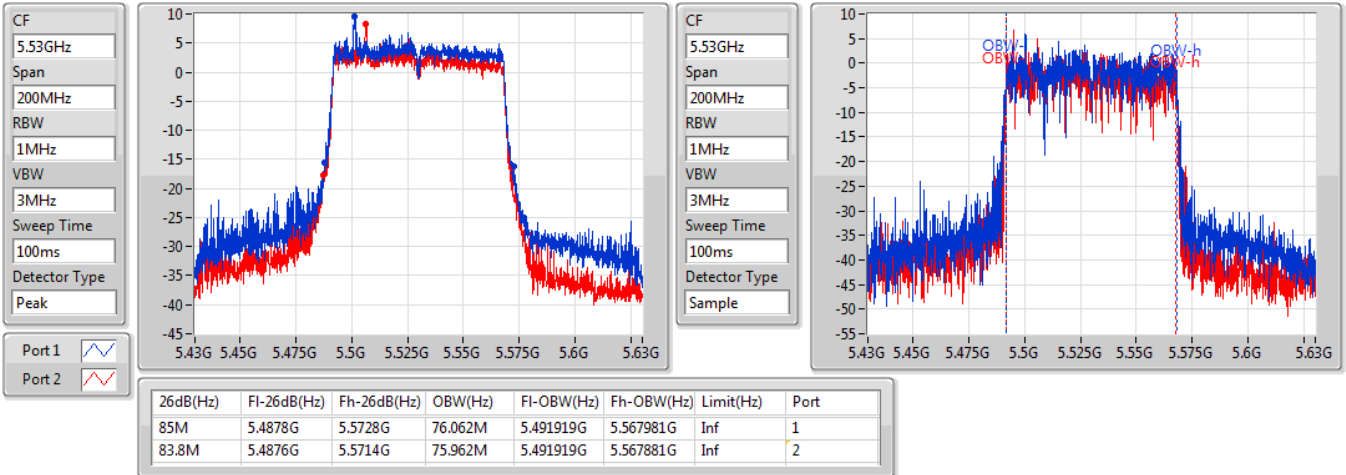


802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX

EBW

5530MHz

22/03/2019

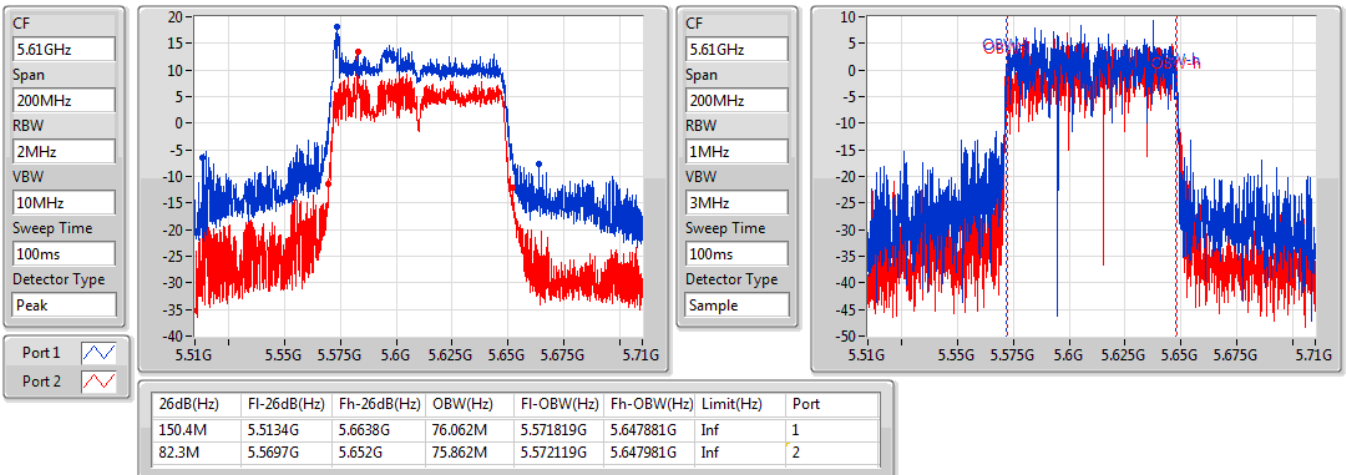


802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX

EBW

5610MHz

22/03/2019





Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	23.13	0.20559	27.33	0.54075
802.11a_Nss1,(6Mbps)_1TX(Port2)	23.24	0.21086	27.53	0.56624
802.11a_Nss1,(6Mbps)_2TX	22.60	0.18197	26.89	0.48865
802.11ac VHT20_Nss1,(MCS0)_2TX	23.20	0.20893	27.49	0.56105
802.11ac VHT40_Nss1,(MCS0)_2TX	23.94	0.24774	28.23	0.66527
802.11ac VHT80_Nss1,(MCS0)_2TX	19.68	0.09290	23.97	0.24946
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	22.28	0.16904	26.48	0.44463
802.11a_Nss1,(6Mbps)_1TX(Port2)	22.12	0.16293	26.41	0.43752
802.11a_Nss1,(6Mbps)_2TX	22.61	0.18239	26.90	0.48978
802.11ac VHT20_Nss1,(MCS0)_2TX	23.35	0.21627	27.64	0.58076
802.11ac VHT40_Nss1,(MCS0)_2TX	23.99	0.25061	28.28	0.67298
802.11ac VHT80_Nss1,(MCS0)_2TX	22.40	0.17378	26.69	0.46666





Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-
5260MHz	Pass	4.20	23.10		23.10	24.00	27.30	30.00
5300MHz	Pass	4.20	23.13		23.13	24.00	27.33	30.00
5320MHz	Pass	4.20	22.73		22.73	24.00	26.93	30.00
5500MHz	Pass	4.20	21.78		21.78	24.00	25.98	30.00
5580MHz	Pass	4.20	22.28		22.28	24.00	26.48	30.00
5700MHz	Pass	4.20	18.70		18.70	23.96	22.90	29.96
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-
5260MHz	Pass	4.29		22.94	22.94	24.00	27.23	30.00
5300MHz	Pass	4.29		23.24	23.24	24.00	27.53	30.00
5320MHz	Pass	4.29		21.63	21.63	24.00	25.92	30.00
5500MHz	Pass	4.29		21.84	21.84	24.00	26.13	30.00
5580MHz	Pass	4.29		22.12	22.12	24.00	26.41	30.00
5700MHz	Pass	4.29		20.66	20.66	24.00	24.95	30.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	4.29	19.35	19.29	22.33	23.94	26.62	29.94
5300MHz	Pass	4.29	19.42	19.76	22.60	23.94	26.89	29.94
5320MHz	Pass	4.29	19.14	19.25	22.21	23.91	26.50	29.91
5500MHz	Pass	4.29	19.51	19.69	22.61	23.90	26.90	29.90
5580MHz	Pass	4.29	19.22	19.54	22.39	23.93	26.68	29.93
5700MHz	Pass	4.29	16.48	16.90	19.71	23.92	24.00	29.92
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	4.29	20.32	19.92	23.13	24.00	27.42	30.00
5300MHz	Pass	4.29	20.24	19.97	23.12	24.00	27.41	30.00
5320MHz	Pass	4.29	20.31	20.07	23.20	24.00	27.49	30.00
5500MHz	Pass	4.29	20.36	20.31	23.35	24.00	27.64	30.00
5580MHz	Pass	4.29	20.27	20.28	23.29	24.00	27.58	30.00
5700MHz	Pass	4.29	18.28	18.84	21.58	24.00	25.87	30.00
802.11ac_VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	4.29	21.04	20.82	23.94	24.00	28.23	30.00
5310MHz	Pass	4.29	18.97	18.94	21.97	24.00	26.26	30.00
5510MHz	Pass	4.29	17.98	18.37	21.19	24.00	25.48	30.00
5550MHz	Pass	4.29	20.80	20.87	23.85	24.00	28.14	30.00
5670MHz	Pass	4.29	20.97	20.98	23.99	24.00	28.28	30.00
802.11ac_VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	4.29	16.64	16.70	19.68	24.00	23.97	30.00
5530MHz	Pass	4.29	16.37	16.79	19.60	24.00	23.89	30.00
5610MHz	Pass	4.29	19.36	19.41	22.40	24.00	26.69	30.00

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



**Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.25-5.35GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	21.05	0.12735	28.31	0.67764
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	21.40	0.13804	28.66	0.73451
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	15.08	0.03221	22.34	0.17140
5.47-5.725GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	21.70	0.14791	28.96	0.78705
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	21.49	0.14093	28.75	0.74989
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	18.65	0.07328	25.91	0.38994



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	7.26	17.94	17.64	20.80	22.74	28.06	30.00
5300MHz	Pass	7.26	18.25	17.82	21.05	22.74	28.31	30.00
5320MHz	Pass	7.26	17.72	17.50	20.62	22.74	27.88	30.00
5500MHz	Pass	7.26	17.74	16.54	20.19	22.74	27.45	30.00
5580MHz	Pass	7.26	18.54	18.84	21.70	22.74	28.96	30.00
5700MHz	Pass	7.26	19.10	18.22	21.69	22.74	28.95	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	7.26	18.15	18.61	21.40	22.74	28.66	30.00
5310MHz	Pass	7.26	17.77	17.51	20.65	22.74	27.91	30.00
5510MHz	Pass	7.26	14.60	13.66	17.17	22.74	24.43	30.00
5550MHz	Pass	7.26	19.04	17.81	21.48	22.74	28.74	30.00
5670MHz	Pass	7.26	18.29	18.67	21.49	22.74	28.75	30.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	7.26	11.95	12.18	15.08	22.74	22.34	30.00
5530MHz	Pass	7.26	12.85	12.67	15.77	22.74	23.03	30.00
5610MHz	Pass	7.26	16.15	15.06	18.65	22.74	25.91	30.00

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



Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	10.23	14.43
802.11a_Nss1,(6Mbps)_1TX(Port2)	9.53	13.82
802.11a_Nss1,(6Mbps)_2TX	9.62	16.88
802.11ac VHT20_Nss1,(MCS0)_2TX	9.62	16.88
802.11ac VHT40_Nss1,(MCS0)_2TX	7.13	14.39
802.11ac VHT80_Nss1,(MCS0)_2TX	0.02	7.28
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	9.33	13.53
802.11a_Nss1,(6Mbps)_1TX(Port2)	8.46	12.75
802.11a_Nss1,(6Mbps)_2TX	9.55	16.81
802.11ac VHT20_Nss1,(MCS0)_2TX	9.67	16.93
802.11ac VHT40_Nss1,(MCS0)_2TX	7.12	14.38
802.11ac VHT80_Nss1,(MCS0)_2TX	2.66	9.92

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

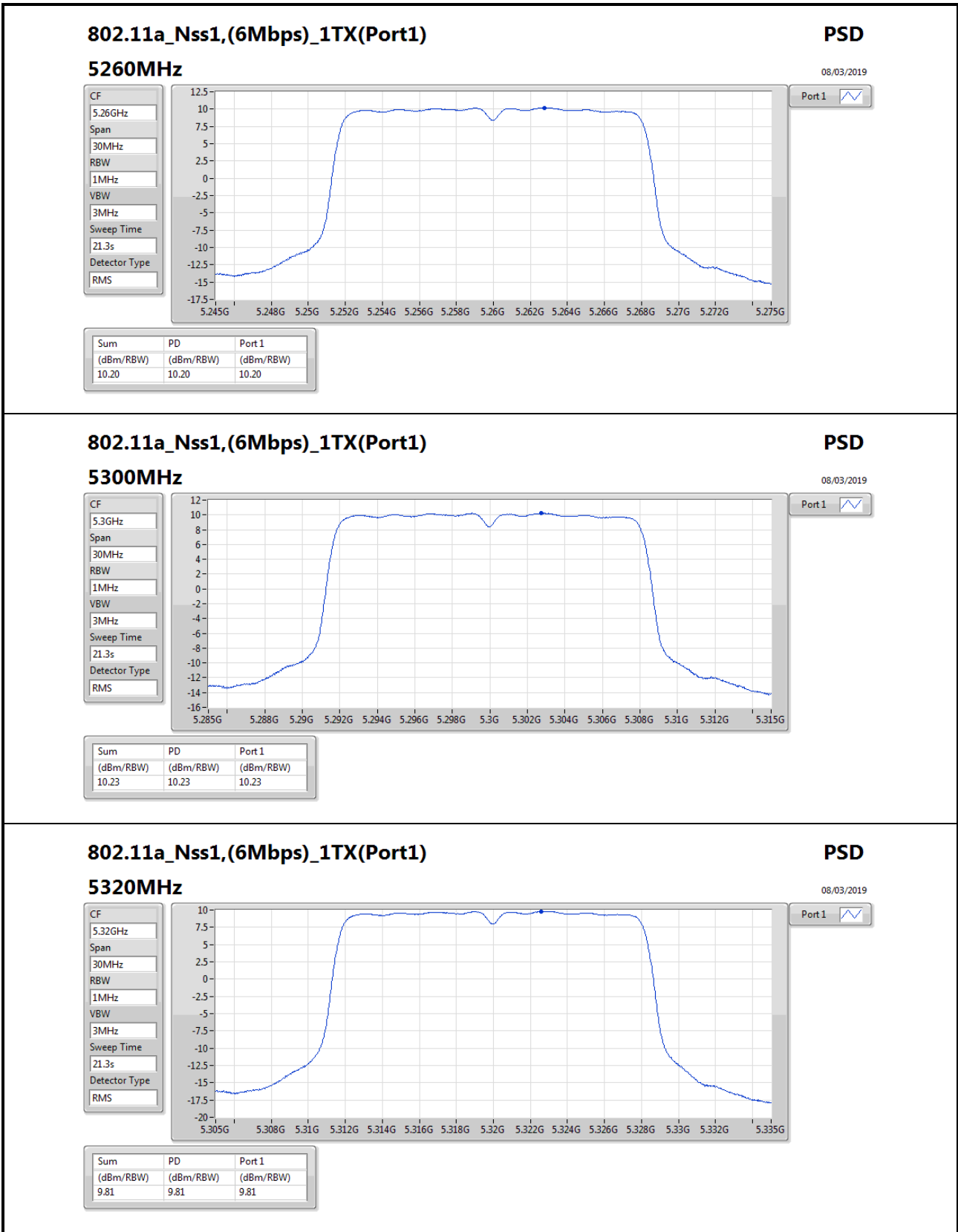


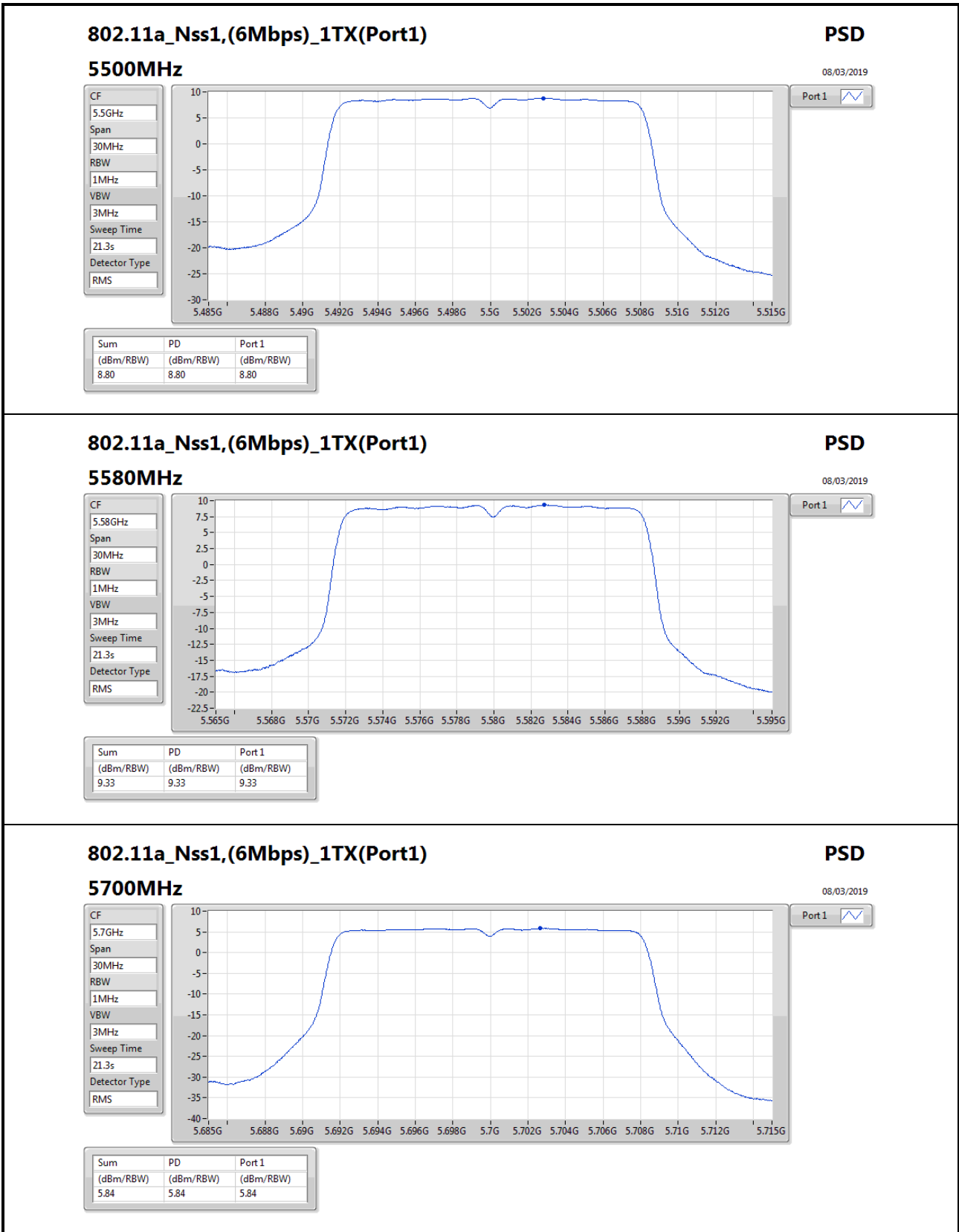
**Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-
5260MHz	Pass	4.20	10.20		10.20	11.00	14.40	17.00
5300MHz	Pass	4.20	10.23		10.23	11.00	14.43	17.00
5320MHz	Pass	4.20	9.81		9.81	11.00	14.01	17.00
5500MHz	Pass	4.20	8.80		8.80	11.00	13.00	17.00
5580MHz	Pass	4.20	9.33		9.33	11.00	13.53	17.00
5700MHz	Pass	4.20	5.84		5.84	11.00	10.04	17.00
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-
5260MHz	Pass	4.29		9.32	9.32	11.00	13.61	17.00
5300MHz	Pass	4.29		9.53	9.53	11.00	13.82	17.00
5320MHz	Pass	4.29		7.92	7.92	11.00	12.21	17.00
5500MHz	Pass	4.29		8.18	8.18	11.00	12.47	17.00
5580MHz	Pass	4.29		8.46	8.46	11.00	12.75	17.00
5700MHz	Pass	4.29		7.06	7.06	11.00	11.35	17.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	7.26	6.57	6.35	9.47	9.74	16.73	17.00
5300MHz	Pass	7.26	6.47	6.76	9.62	9.74	16.88	17.00
5320MHz	Pass	7.26	6.24	6.39	9.32	9.74	16.58	17.00
5500MHz	Pass	7.26	6.56	6.52	9.55	9.74	16.81	17.00
5580MHz	Pass	7.26	6.28	6.56	9.42	9.74	16.68	17.00
5700MHz	Pass	7.26	3.65	3.95	6.78	9.74	14.04	17.00
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	7.26	6.81	6.44	9.44	9.74	16.70	17.00
5300MHz	Pass	7.26	6.92	6.70	9.62	9.74	16.88	17.00
5320MHz	Pass	7.26	7.04	6.70	9.61	9.74	16.87	17.00
5500MHz	Pass	7.26	7.12	6.79	9.67	9.74	16.93	17.00
5580MHz	Pass	7.26	6.77	6.80	9.53	9.74	16.79	17.00
5700MHz	Pass	7.26	5.17	5.42	8.02	9.74	15.28	17.00
802.11ac_VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	7.26	4.26	3.97	7.13	9.74	14.39	17.00
5310MHz	Pass	7.26	2.19	2.07	5.14	9.74	12.40	17.00
5510MHz	Pass	7.26	1.02	1.32	4.17	9.74	11.43	17.00
5550MHz	Pass	7.26	4.02	4.00	7.02	9.74	14.28	17.00
5670MHz	Pass	7.26	4.06	4.20	7.12	9.74	14.38	17.00
802.11ac_VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	7.26	-2.98	-2.96	0.02	9.74	7.28	17.00
5530MHz	Pass	7.26	-3.58	-3.04	-0.30	9.74	6.96	17.00
5610MHz	Pass	7.26	-0.29	-0.39	2.66	9.74	9.92	17.00

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

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





### 802.11a\_Nss1,(6Mbps)\_1TX(Port1)

#### 5700MHz

PSD

08/03/2019

CF

5.7GHz

Span

30MHz

RBW

1MHz

VBW

3MHz

Sweep Time

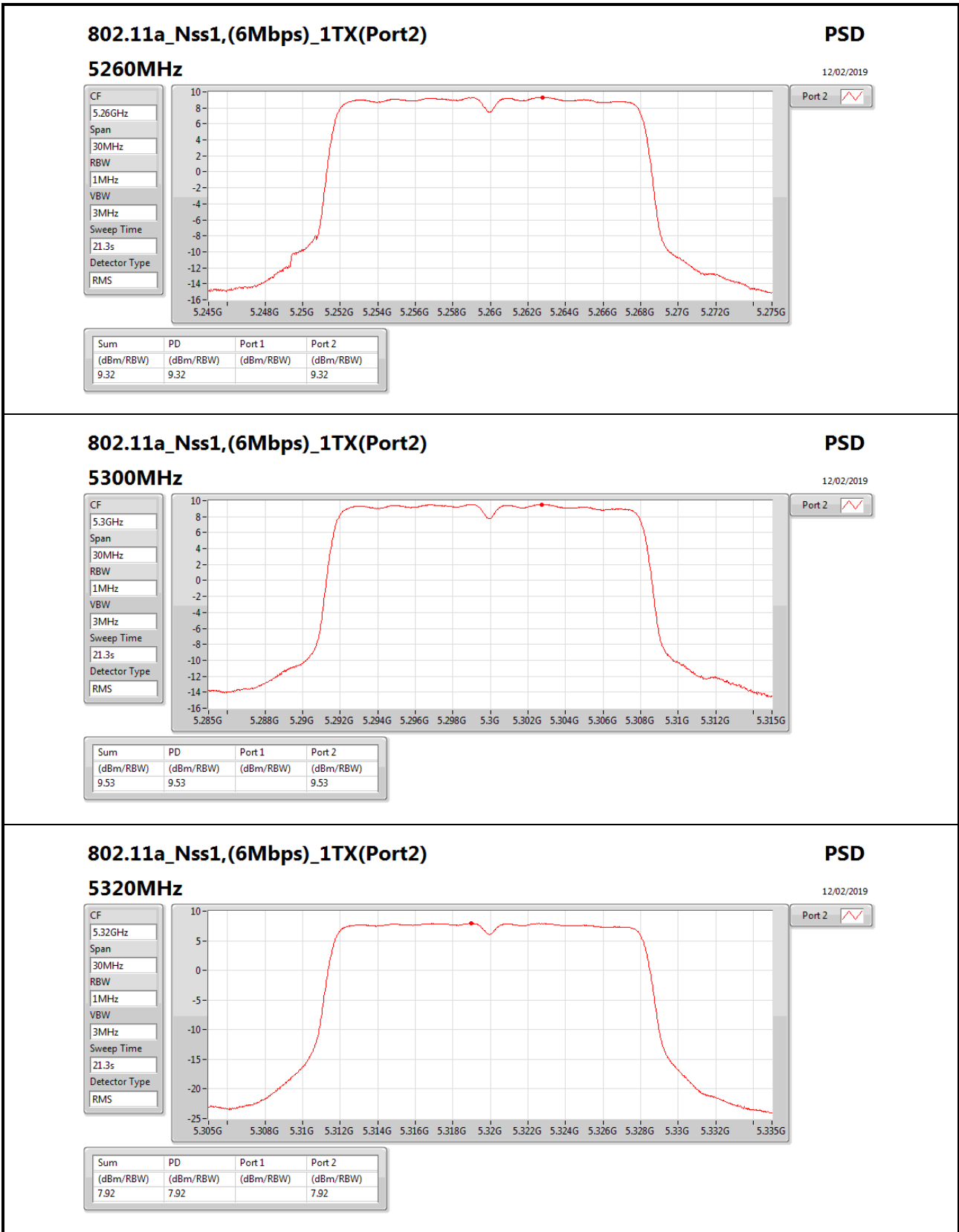
21.3s

Detector Type

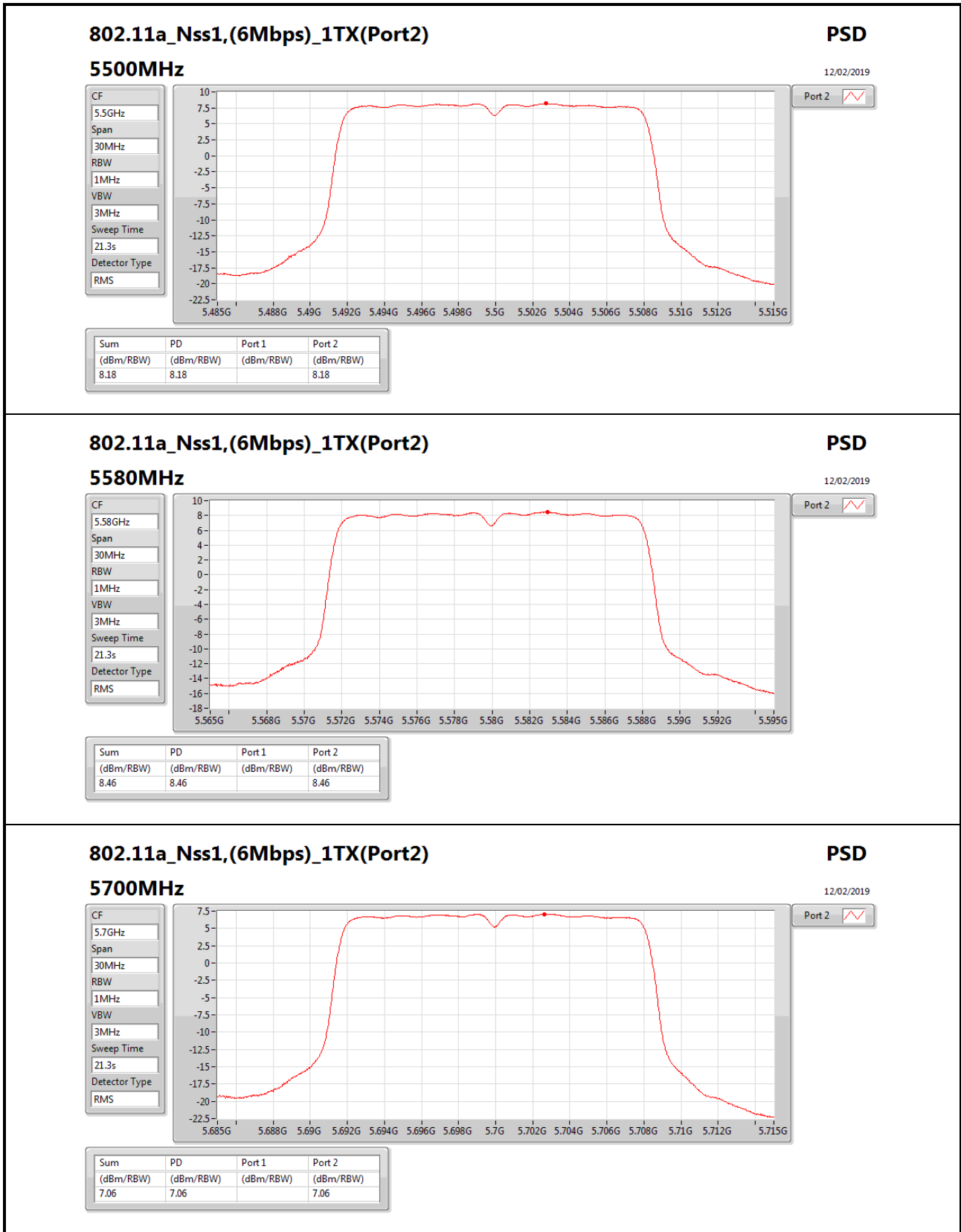
RMS

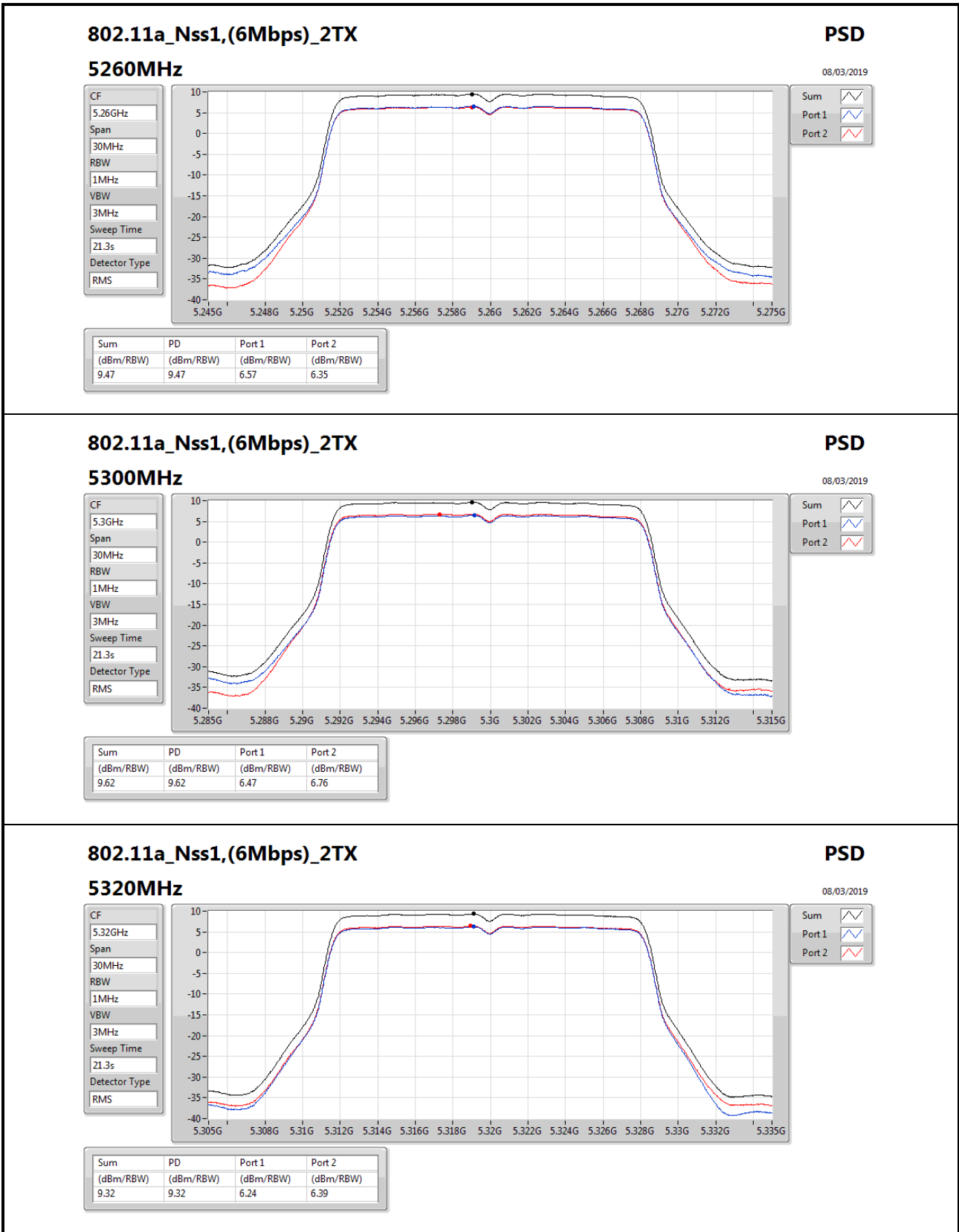


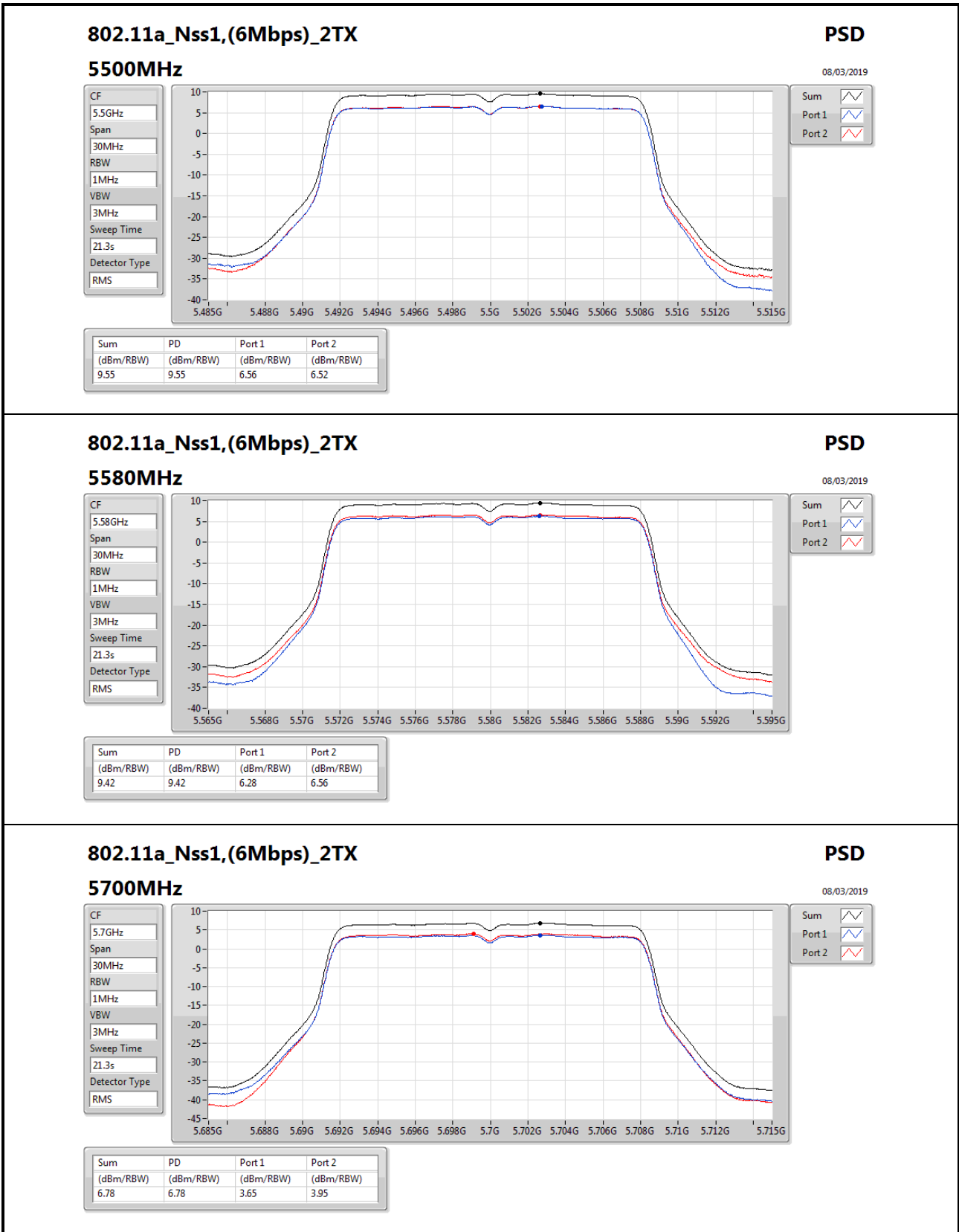
Port 1

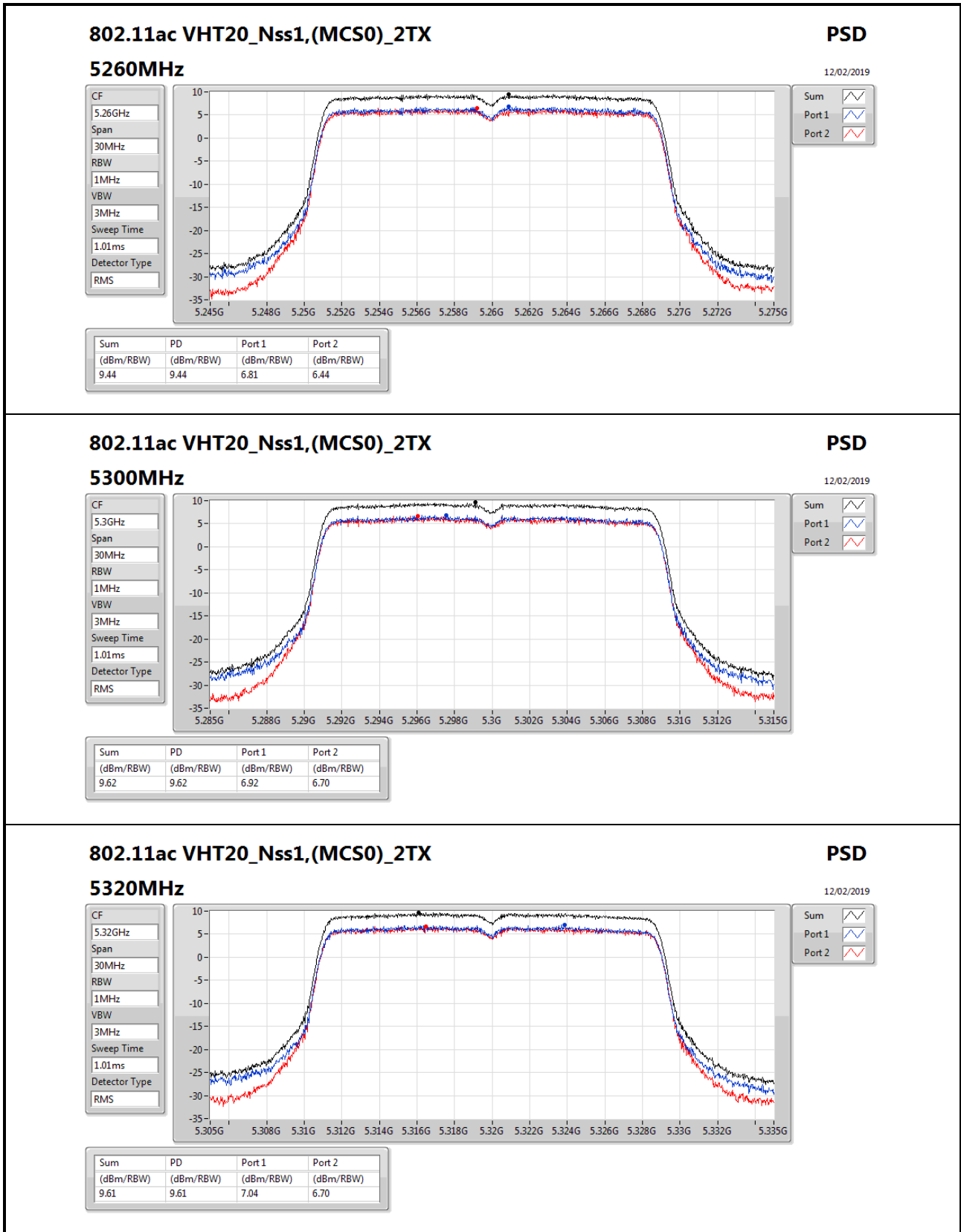


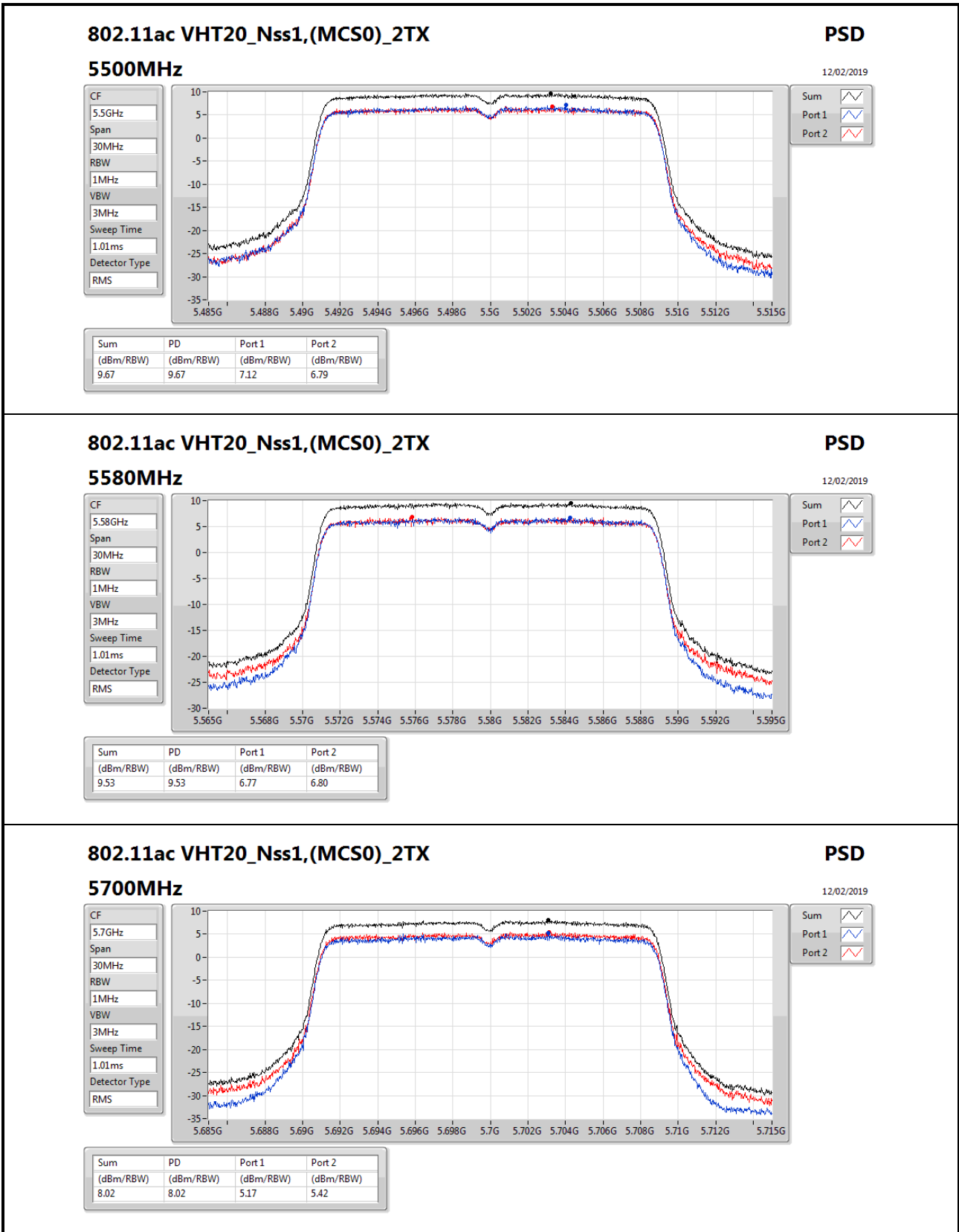


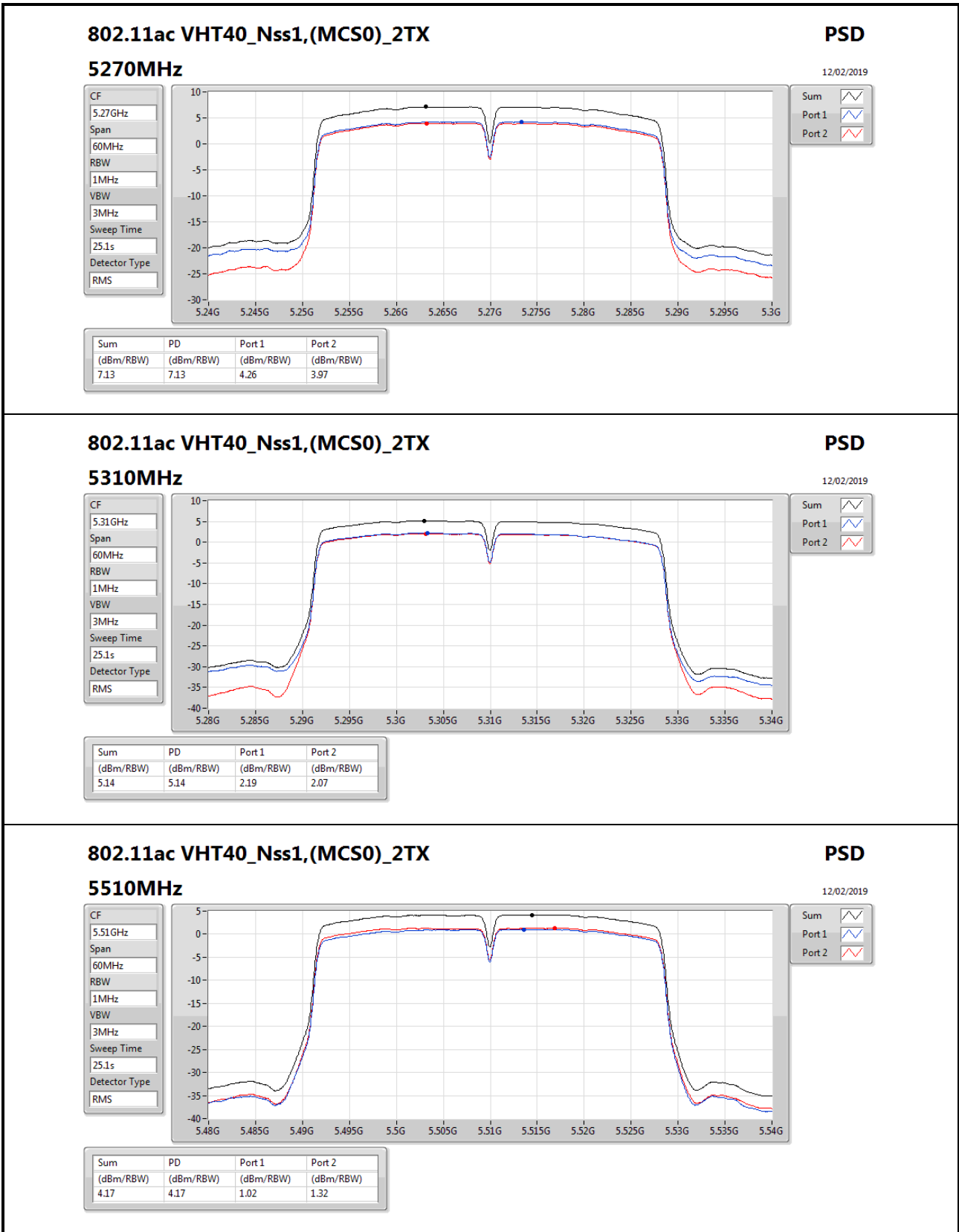












### 802.11ac VHT40\_Nss1,(MCS0)\_2TX

#### 5510MHz

**PSD**  
12/02/2019

CF  
5.51GHz

Span  
60MHz

RBW  
1MHz

VBW  
3MHz

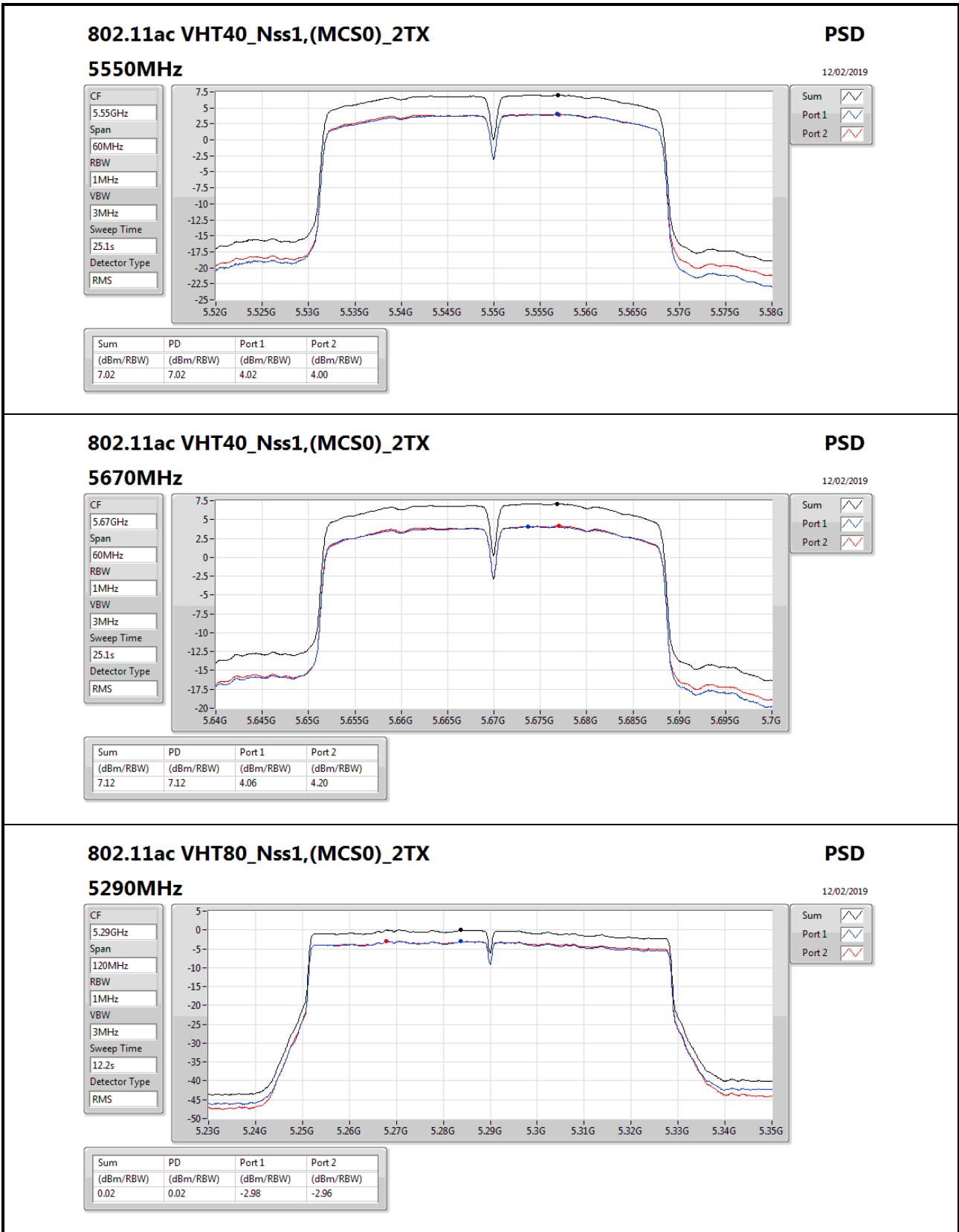
Sweep Time  
25.1s

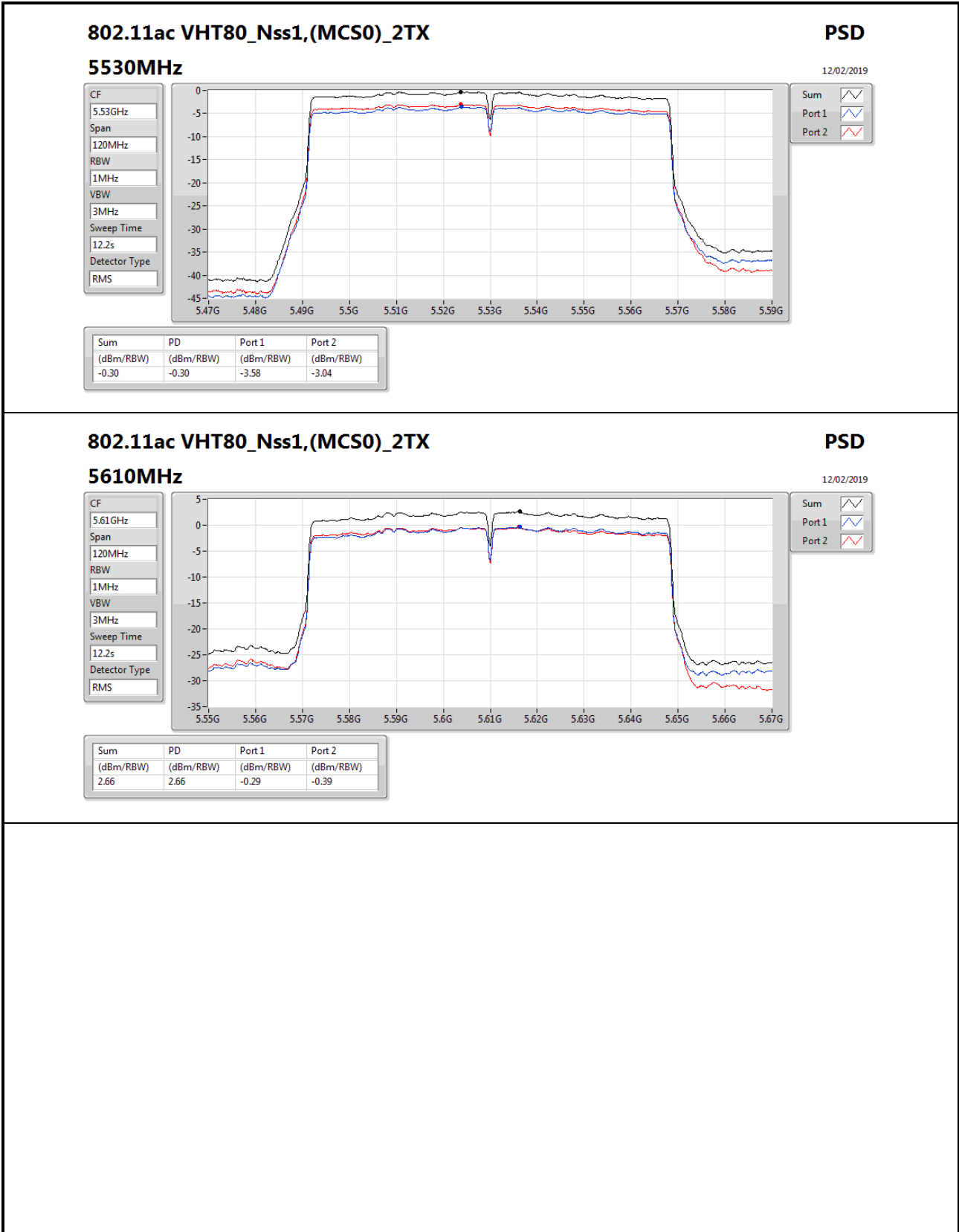
Detector Type  
RMS

Sum

Port 1

Port 2









Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.25-5.35GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	7.73	14.99
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	5.82	13.08
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-5.24	2.02
5.47-5.725GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	8.03	15.29
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	7.43	14.69
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-1.75	5.51

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

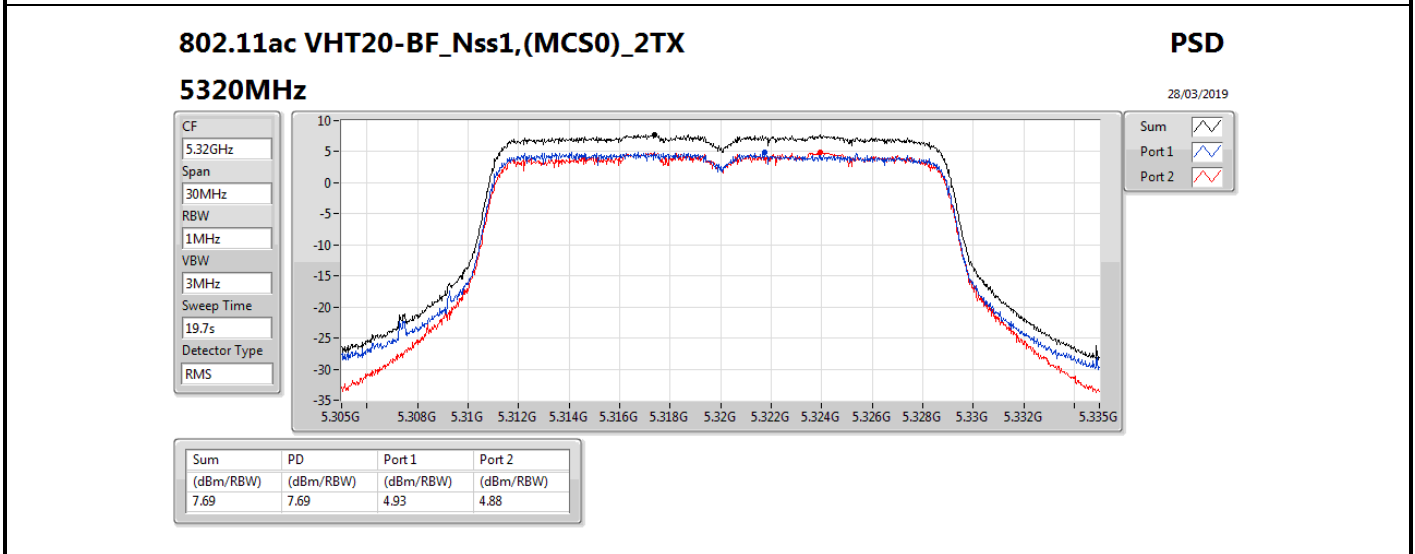
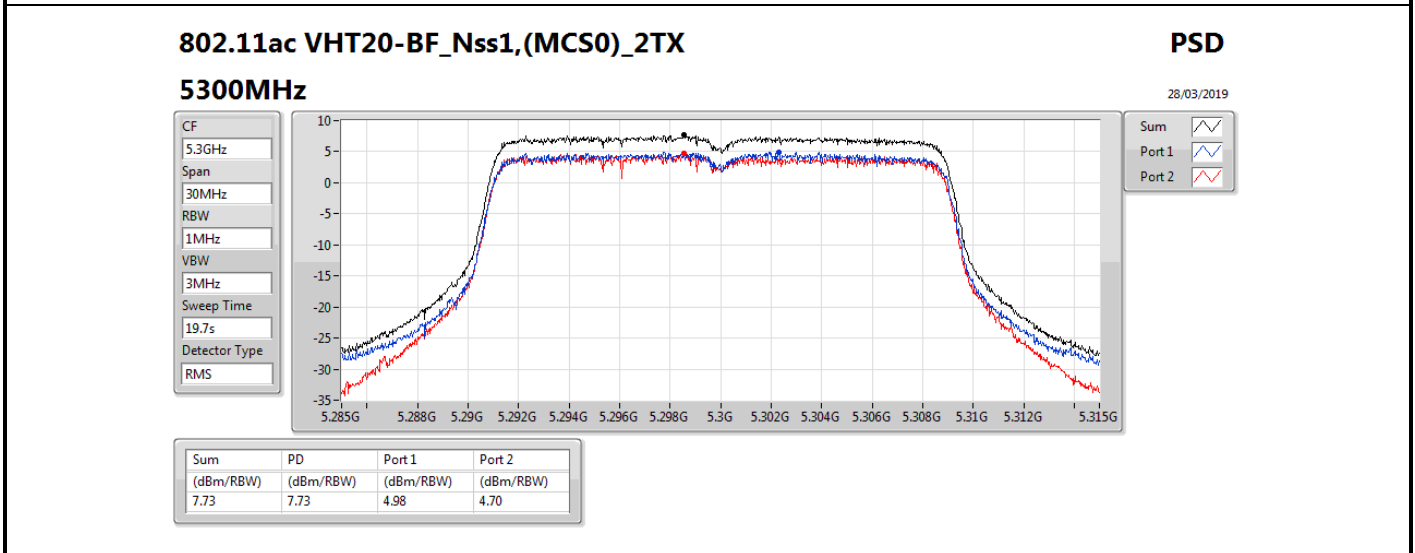
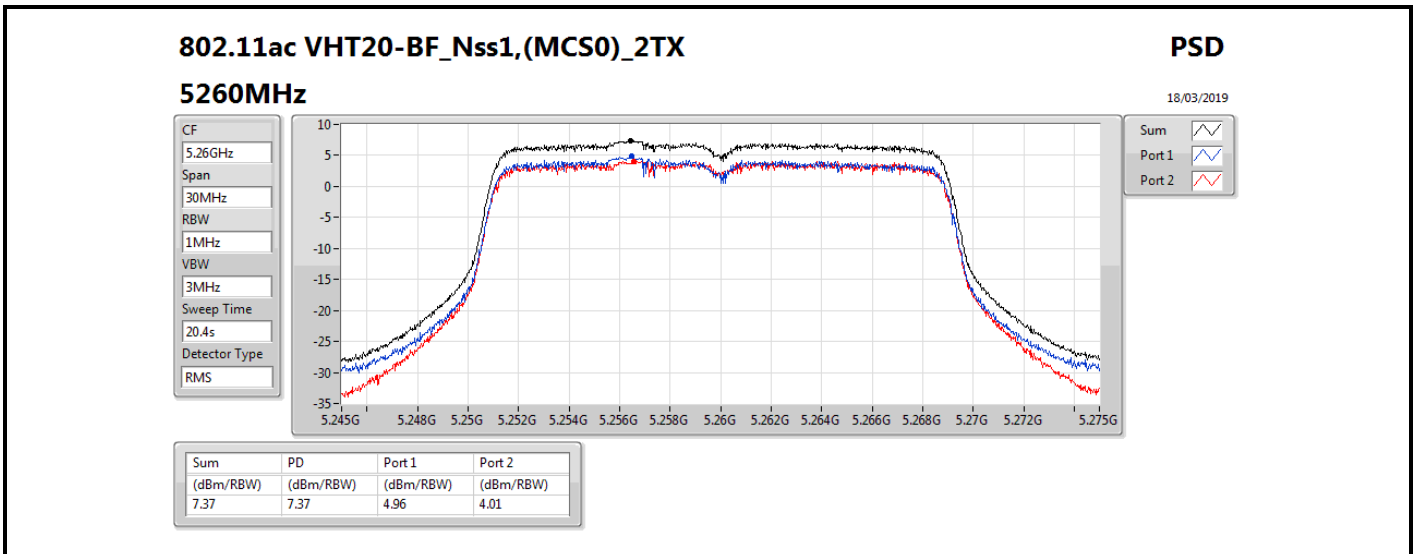


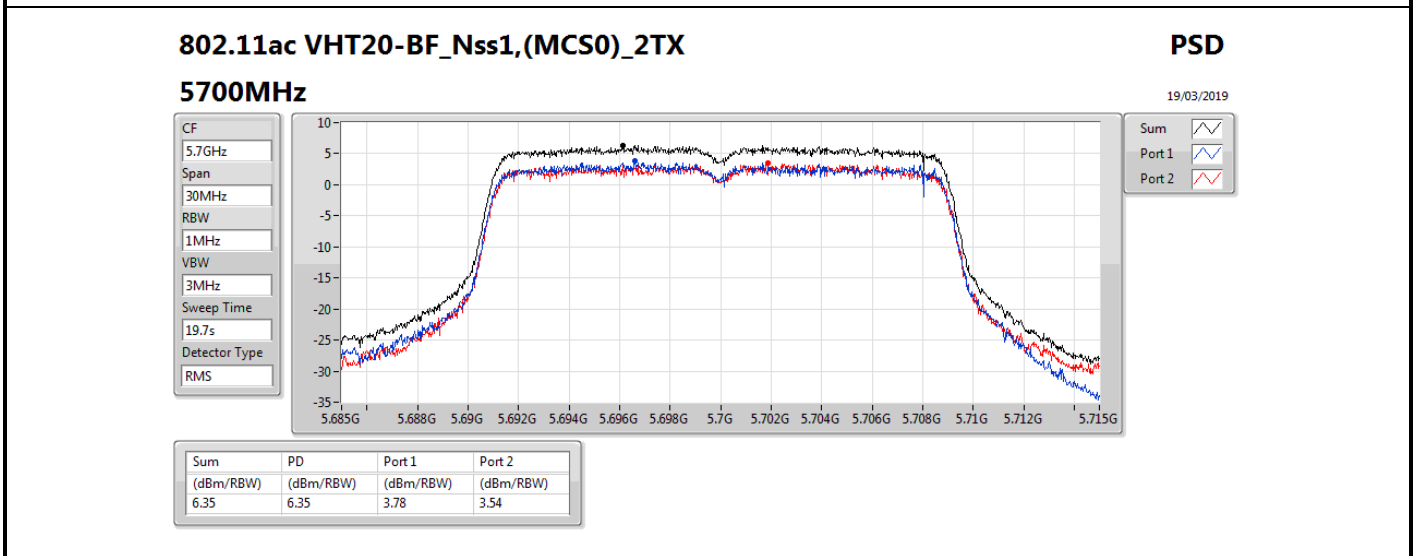
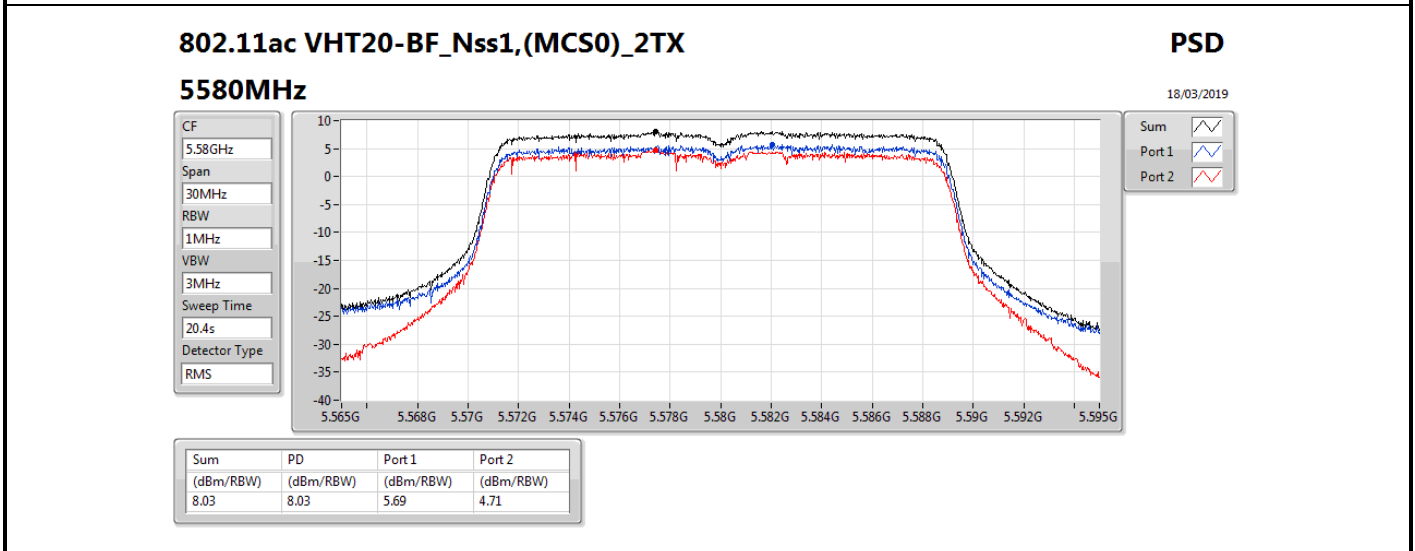
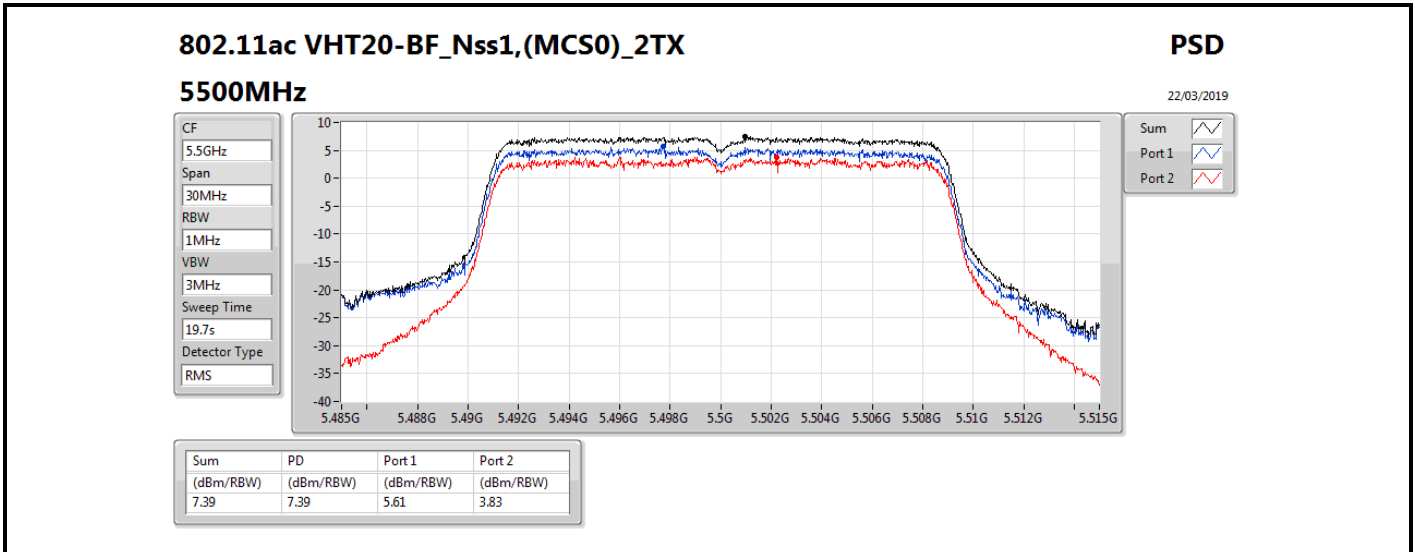
Result

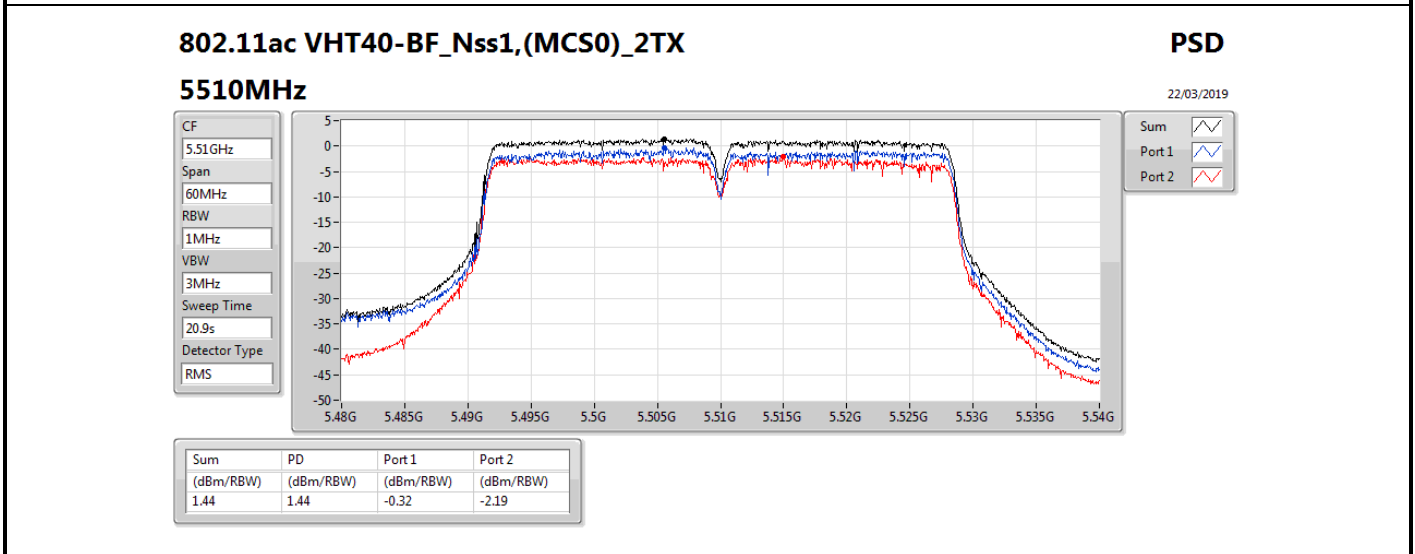
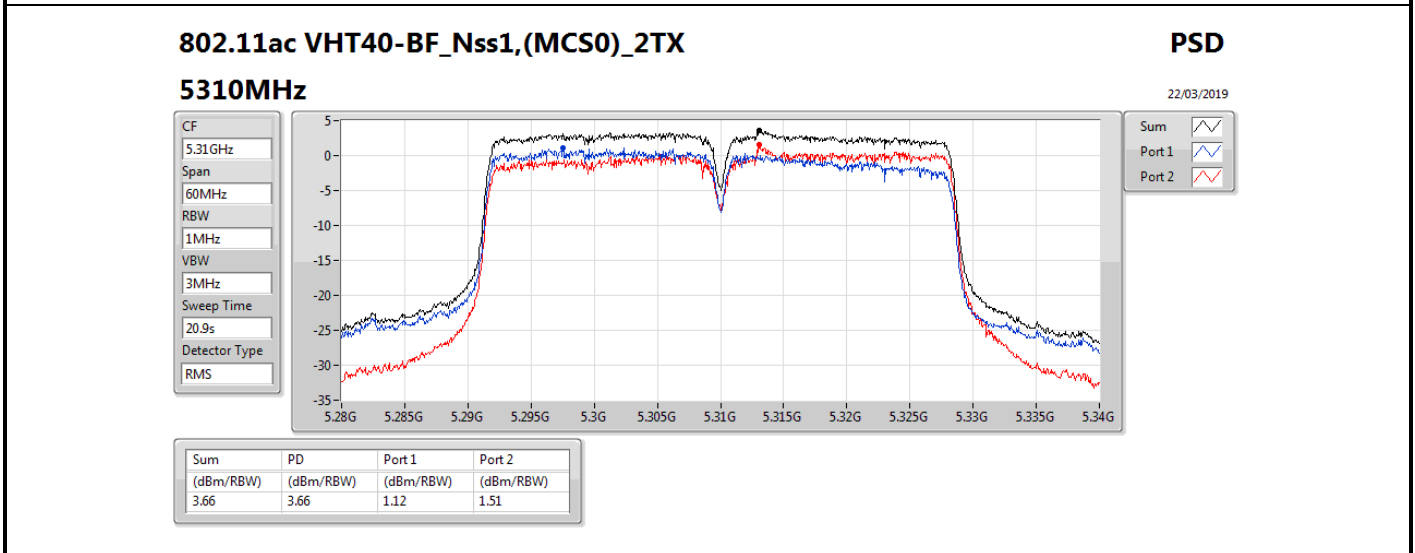
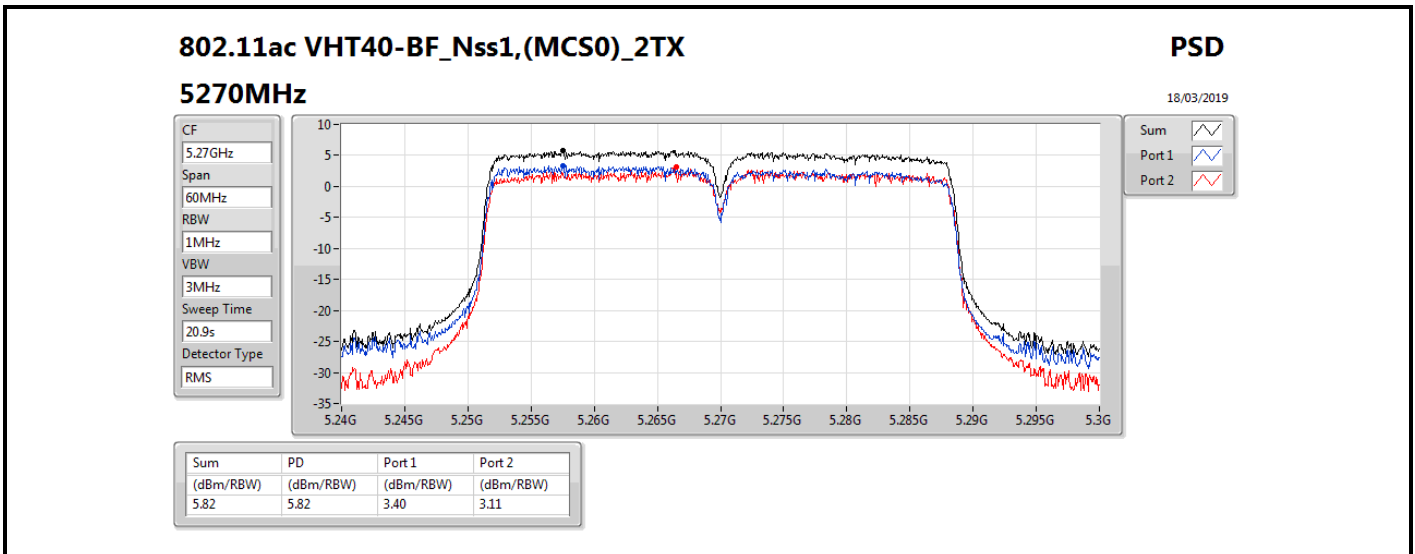
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	7.26	4.96	4.01	7.37	9.74	14.63	17.00
5300MHz	Pass	7.26	4.98	4.70	7.73	9.74	14.99	17.00
5320MHz	Pass	7.26	4.93	4.88	7.69	9.74	14.95	17.00
5500MHz	Pass	7.26	5.61	3.83	7.39	9.74	14.65	17.00
5580MHz	Pass	7.26	5.69	4.71	8.03	9.74	15.29	17.00
5700MHz	Pass	7.26	3.78	3.54	6.35	9.74	13.61	17.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	7.26	3.40	3.11	5.82	9.74	13.08	17.00
5310MHz	Pass	7.26	1.12	1.51	3.66	9.74	10.92	17.00
5510MHz	Pass	7.26	-0.32	-2.19	1.44	9.74	8.70	17.00
5550MHz	Pass	7.26	3.89	2.00	5.63	9.74	12.89	17.00
5670MHz	Pass	7.26	5.32	5.14	7.43	9.74	14.69	17.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	7.26	-7.77	-7.92	-5.24	9.74	2.02	17.00
5530MHz	Pass	7.26	-6.54	-7.58	-4.22	9.74	3.04	17.00
5610MHz	Pass	7.26	-3.55	-5.56	-1.75	9.74	5.51	17.00

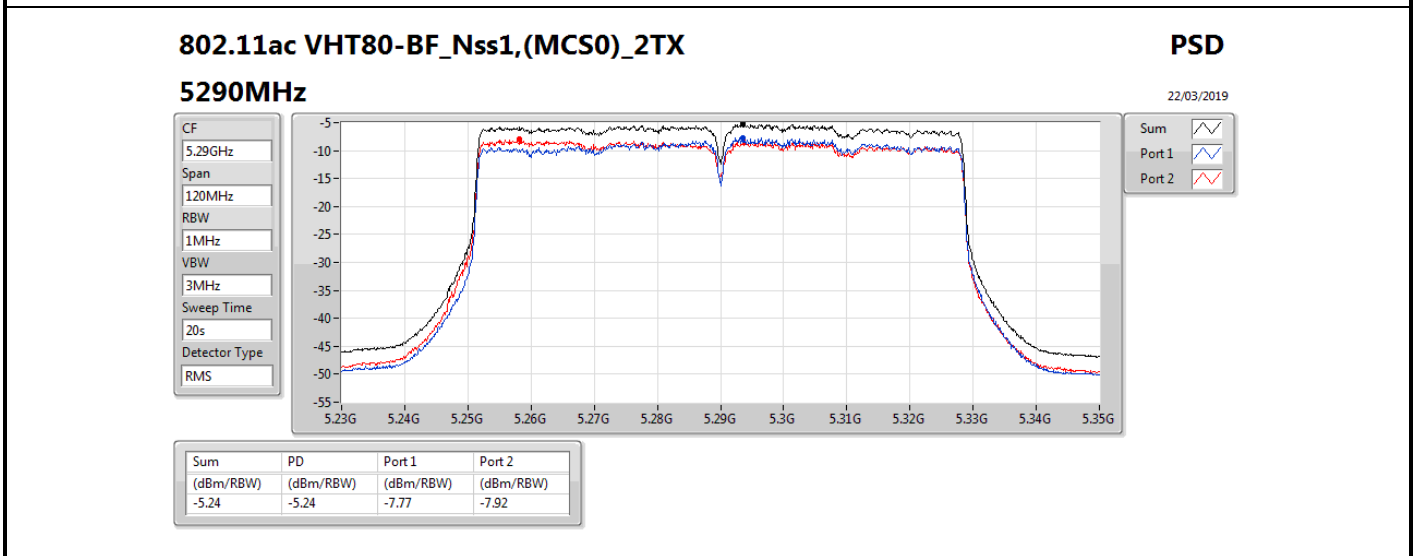
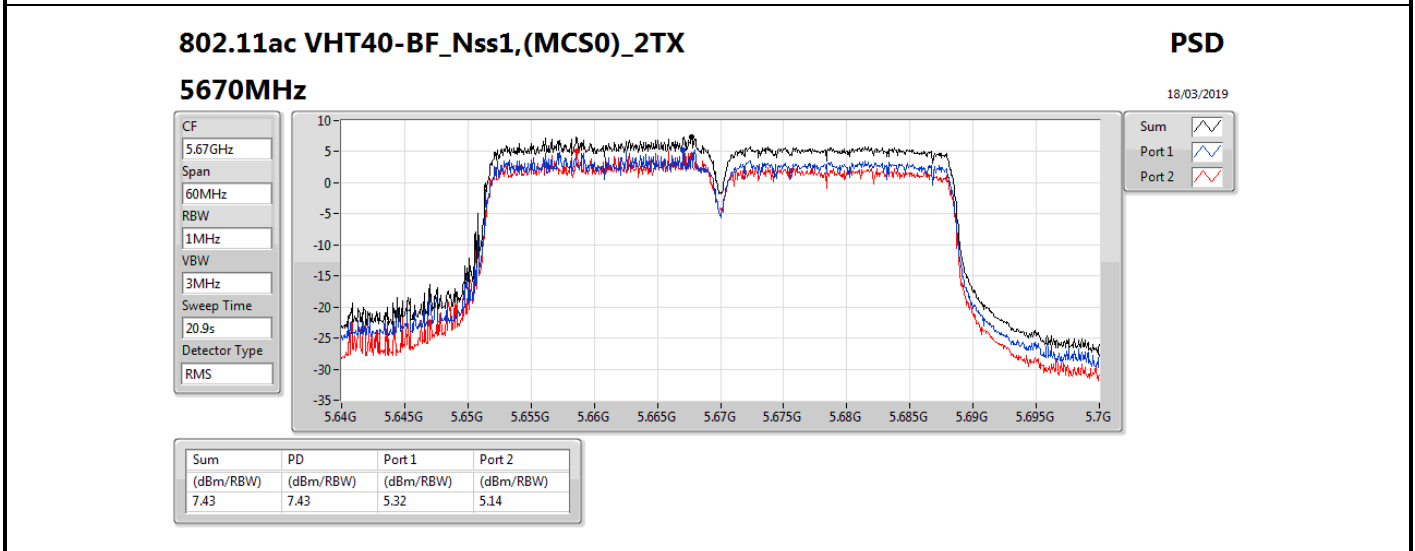
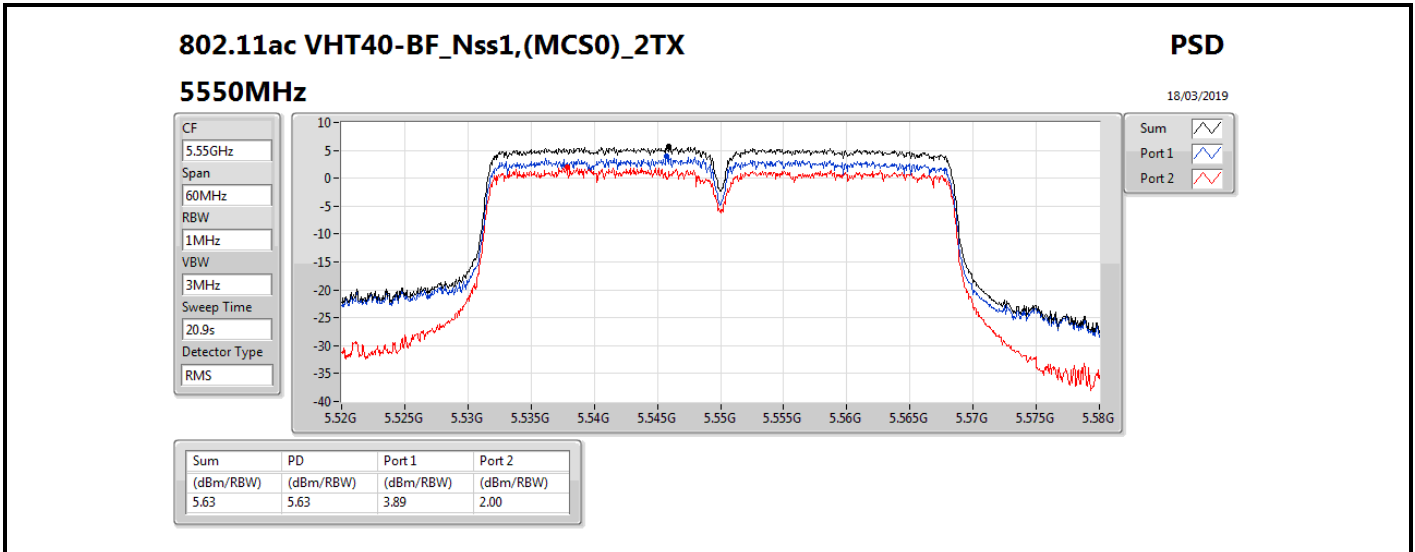
DG = Directional Gain; RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

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









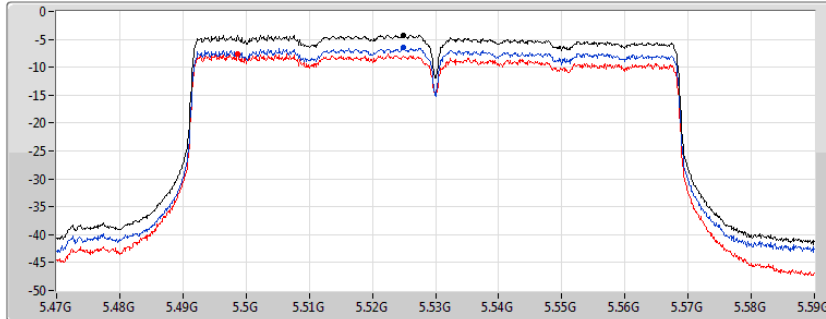
802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX

PSD

5530MHz

22/03/2019

CF  
5.53GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20s  
Detector Type  
RMS



Sum  
Port 1  
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.22	-4.22	-6.54	-7.58

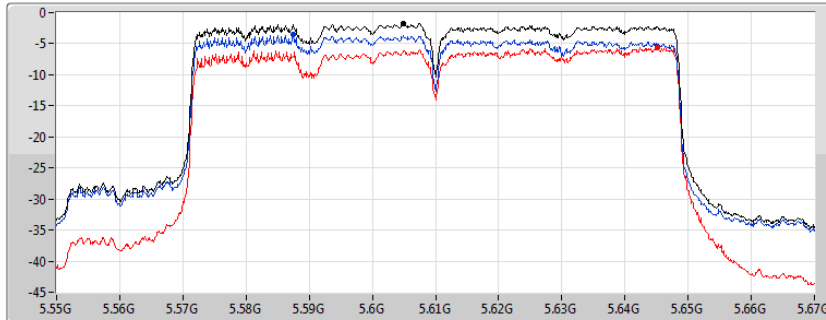
802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX

PSD

5610MHz

22/03/2019

CF  
5.61GHz  
Span  
120MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
20s  
Detector Type  
RMS



Sum  
Port 1  
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.75	-1.75	-3.55	-5.56



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.25-5.35GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	Pass	AV	5.35G	53.56	54.00	-0.44	2.97	3	Vertical	225	2.05	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	Pass	AV	5.3502G	53.05	54.00	-0.95	4.39	3	Horizontal	4	2.79	-
802.11a_Nss1,(6Mbps)_2TX	Pass	AV	5.35G	53.27	54.00	-0.73	2.97	3	Horizontal	349	1.50	-
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	AV	5.35G	51.12	54.00	-2.88	7.30	3	Vertical	257	1.82	-
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	AV	5.3508G	53.75	54.00	-0.25	7.30	3	Vertical	257	1.83	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	AV	5.356G	53.74	54.00	-0.26	7.31	3	Vertical	277	1.69	-
5.47-5.725GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	Pass	PK	17.0948G	68.12	68.20	-0.08	15.95	3	Horizontal	244	2.27	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	Pass	PK	5.4694G	67.78	68.20	-0.42	7.50	3	Horizontal	354	1.50	-
802.11a_Nss1,(6Mbps)_2TX	Pass	PK	16.74216G	67.36	68.20	-0.84	16.88	3	Horizontal	246	1.35	-
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	PK	5.4698G	67.60	68.20	-0.60	7.50	3	Horizontal	353	1.12	-
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	PK	5.7264G	68.06	68.20	-0.14	7.99	3	Horizontal	8	1.30	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	AV	5.452G	53.76	54.00	-0.24	7.48	3	Horizontal	360	1.24	-





Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-	-	-
5260MHz_TX	Pass	AV	5.15G	43.09	54.00	-10.91	2.74	3	Vertical	237	2.22	-
5260MHz_TX	Pass	AV	5.2606G	100.52	Inf	-Inf	2.87	3	Vertical	237	2.22	-
5260MHz_TX	Pass	AV	5.3518G	43.10	54.00	-10.90	2.97	3	Vertical	237	2.22	-
5260MHz_TX	Pass	PK	5.1106G	58.45	74.00	-15.55	2.70	3	Vertical	237	2.22	-
5260MHz_TX	Pass	PK	5.257G	110.60	Inf	-Inf	2.86	3	Vertical	237	2.22	-
5260MHz_TX	Pass	PK	5.3614G	55.10	74.00	-18.90	2.98	3	Vertical	237	2.22	-
5260MHz_TX	Pass	AV	5.1418G	43.34	54.00	-10.66	2.74	3	Horizontal	269	1.88	-
5260MHz_TX	Pass	AV	5.2636G	101.34	Inf	-Inf	2.87	3	Horizontal	269	1.88	-
5260MHz_TX	Pass	AV	5.374G	42.71	54.00	-11.29	2.99	3	Horizontal	269	1.88	-
5260MHz_TX	Pass	PK	5.1484G	55.29	74.00	-18.71	2.74	3	Horizontal	269	1.88	-
5260MHz_TX	Pass	PK	5.2672G	111.35	Inf	-Inf	2.88	3	Horizontal	269	1.88	-
5260MHz_TX	Pass	PK	5.3764G	55.38	74.00	-18.62	3.00	3	Horizontal	269	1.88	-
5260MHz_TX	Pass	AV	15.7772G	47.00	54.00	-7.00	12.94	3	Vertical	16	1.91	-
5260MHz_TX	Pass	PK	10.5218G	62.73	68.20	-5.47	12.98	3	Vertical	130	1.44	-
5260MHz_TX	Pass	PK	15.786G	60.07	74.00	-13.93	12.90	3	Vertical	16	1.91	-
5260MHz_TX	Pass	AV	15.7784G	51.16	54.00	-2.84	12.94	3	Horizontal	205	1.50	-
5260MHz_TX	Pass	PK	10.5201G	57.77	68.20	-10.43	12.98	3	Horizontal	289	1.53	-
5260MHz_TX	Pass	PK	15.7711G	64.38	74.00	-9.62	12.97	3	Horizontal	205	1.50	-
5300MHz_TX	Pass	AV	5.3032G	99.29	Inf	-Inf	2.91	3	Vertical	242	2.07	-
5300MHz_TX	Pass	AV	5.35G	46.96	54.00	-7.04	2.97	3	Vertical	242	2.07	-
5300MHz_TX	Pass	PK	5.3028G	110.76	Inf	-Inf	2.91	3	Vertical	242	2.07	-
5300MHz_TX	Pass	PK	5.3516G	61.15	74.00	-12.85	2.97	3	Vertical	242	2.07	-
5300MHz_TX	Pass	AV	5.3032G	99.23	Inf	-Inf	2.91	3	Horizontal	275	1.88	-
5300MHz_TX	Pass	AV	5.35G	46.63	54.00	-7.37	2.97	3	Horizontal	275	1.88	-
5300MHz_TX	Pass	PK	5.3028G	110.66	Inf	-Inf	2.91	3	Horizontal	275	1.88	-
5300MHz_TX	Pass	PK	5.3524G	60.08	74.00	-13.92	2.97	3	Horizontal	275	1.88	-
5300MHz_TX	Pass	AV	15.8998G	45.96	54.00	-8.04	12.35	3	Vertical	324	1.45	-
5300MHz_TX	Pass	PK	10.5944G	59.95	68.20	-8.25	13.14	3	Vertical	130	1.54	-
5300MHz_TX	Pass	PK	15.9006G	59.46	74.00	-14.54	12.35	3	Vertical	324	1.45	-
5300MHz_TX	Pass	AV	15.9042G	50.91	54.00	-3.09	12.33	3	Horizontal	198	1.53	-
5300MHz_TX	Pass	PK	10.6002G	56.47	74.00	-17.53	13.15	3	Horizontal	288	1.50	-
5300MHz_TX	Pass	PK	15.8949G	64.42	74.00	-9.58	12.38	3	Horizontal	198	1.53	-
5320MHz_TX	Pass	AV	5.3232G	100.11	Inf	-Inf	2.94	3	Vertical	225	2.05	-
5320MHz_TX	Pass	AV	5.35G	53.56	54.00	-0.44	2.97	3	Vertical	225	2.05	-
5320MHz_TX	Pass	PK	5.3226G	109.66	Inf	-Inf	2.94	3	Vertical	225	2.05	-
5320MHz_TX	Pass	PK	5.3504G	66.39	74.00	-7.61	2.97	3	Vertical	225	2.05	-
5320MHz_TX	Pass	AV	5.3232G	98.57	Inf	-Inf	2.94	3	Horizontal	261	1.60	-
5320MHz_TX	Pass	AV	5.35G	51.70	54.00	-2.30	2.97	3	Horizontal	261	1.60	-
5320MHz_TX	Pass	PK	5.323G	108.30	Inf	-Inf	2.94	3	Horizontal	261	1.60	-
5320MHz_TX	Pass	PK	5.3506G	65.24	74.00	-8.76	2.97	3	Horizontal	261	1.60	-
5320MHz_TX	Pass	AV	10.6401G	43.79	54.00	-10.21	13.25	3	Vertical	134	1.50	-
5320MHz_TX	Pass	AV	15.9617G	45.04	54.00	-8.96	12.06	3	Vertical	326	1.38	-
5320MHz_TX	Pass	PK	10.6395G	56.21	74.00	-17.79	13.25	3	Vertical	134	1.50	-
5320MHz_TX	Pass	PK	15.9662G	58.48	74.00	-15.52	12.04	3	Vertical	326	1.38	-
5320MHz_TX	Pass	AV	10.6401G	43.35	54.00	-10.65	13.25	3	Horizontal	48	1.50	-
5320MHz_TX	Pass	AV	15.9621G	48.58	54.00	-5.42	12.06	3	Horizontal	200	1.50	-
5320MHz_TX	Pass	PK	10.638G	55.11	74.00	-18.89	13.24	3	Horizontal	48	1.50	-



RSE TX above 1GHz Result\_Non-Beamforming

Appendix D.1

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5320MHz_TX	Pass	PK	15.9549G	61.90	74.00	-12.10	12.09	3	Horizontal	200	1.50	-
5500MHz_TX	Pass	AV	5.46G	49.36	54.00	-4.64	3.10	3	Vertical	222	1.94	-
5500MHz_TX	Pass	AV	5.5032G	101.20	Inf	-Inf	3.14	3	Vertical	222	1.94	-
5500MHz_TX	Pass	PK	5.4672G	68.08	68.20	-0.12	3.11	3	Vertical	222	1.94	-
5500MHz_TX	Pass	PK	5.5006G	110.33	Inf	-Inf	3.14	3	Vertical	222	1.94	-
5500MHz_TX	Pass	AV	5.46G	46.65	54.00	-7.35	3.10	3	Horizontal	265	1.86	-
5500MHz_TX	Pass	AV	5.5032G	96.12	Inf	-Inf	3.14	3	Horizontal	265	1.86	-
5500MHz_TX	Pass	PK	5.468G	64.89	68.20	-3.31	3.11	3	Horizontal	265	1.86	-
5500MHz_TX	Pass	PK	5.4968G	105.76	Inf	-Inf	3.14	3	Horizontal	265	1.86	-
5500MHz_TX	Pass	AV	11.0003G	43.76	54.00	-10.24	14.03	3	Vertical	105	1.59	-
5500MHz_TX	Pass	PK	11.0049G	56.54	74.00	-17.46	14.02	3	Vertical	105	1.59	-
5500MHz_TX	Pass	PK	16.5006G	58.11	68.20	-10.09	13.59	3	Vertical	20	2.25	-
5500MHz_TX	Pass	AV	10.9978G	43.18	54.00	-10.82	14.03	3	Horizontal	80	2.48	-
5500MHz_TX	Pass	PK	10.9971G	56.45	74.00	-17.55	14.03	3	Horizontal	113	2.48	-
5500MHz_TX	Pass	PK	16.5061G	60.87	68.20	-7.33	13.61	3	Horizontal	270	1.55	-
5580MHz_TX	Pass	AV	5.4546G	42.99	54.00	-11.01	3.09	3	Vertical	264	2.06	-
5580MHz_TX	Pass	AV	5.5836G	102.67	Inf	-Inf	3.31	3	Vertical	264	2.06	-
5580MHz_TX	Pass	PK	5.4636G	55.45	68.20	-12.75	3.10	3	Vertical	264	2.06	-
5580MHz_TX	Pass	PK	5.583G	112.28	Inf	-Inf	3.31	3	Vertical	264	2.06	-
5580MHz_TX	Pass	PK	5.7258G	56.17	68.20	-12.03	3.59	3	Vertical	264	2.06	-
5580MHz_TX	Pass	AV	5.4552G	42.51	54.00	-11.49	3.09	3	Horizontal	313	1.86	-
5580MHz_TX	Pass	AV	5.583G	93.69	Inf	-Inf	3.31	3	Horizontal	313	1.86	-
5580MHz_TX	Pass	PK	5.469G	54.35	68.20	-13.85	3.11	3	Horizontal	313	1.86	-
5580MHz_TX	Pass	PK	5.5764G	103.06	Inf	-Inf	3.29	3	Horizontal	313	1.86	-
5580MHz_TX	Pass	PK	5.727G	55.63	68.20	-12.57	3.59	3	Horizontal	313	1.86	-
5580MHz_TX	Pass	AV	11.1603G	43.60	54.00	-10.40	13.89	3	Vertical	129	1.29	-
5580MHz_TX	Pass	PK	11.1556G	57.08	74.00	-16.92	13.89	3	Vertical	129	1.29	-
5580MHz_TX	Pass	PK	16.7347G	60.06	68.20	-8.14	14.38	3	Vertical	45	2.12	-
5580MHz_TX	Pass	AV	11.1599G	44.04	54.00	-9.96	13.89	3	Horizontal	324	1.50	-
5580MHz_TX	Pass	PK	11.1612G	56.64	74.00	-17.36	13.88	3	Horizontal	324	1.50	-
5580MHz_TX	Pass	PK	16.735G	67.44	68.20	-0.76	14.38	3	Horizontal	241	1.51	-
5700MHz_TX	Pass	AV	5.703G	100.40	Inf	-Inf	3.54	3	Vertical	276	2.16	-
5700MHz_TX	Pass	PK	5.694G	110.20	Inf	-Inf	3.53	3	Vertical	276	2.16	-
5700MHz_TX	Pass	PK	5.727G	61.78	68.20	-6.42	3.59	3	Vertical	276	2.16	-
5700MHz_TX	Pass	AV	5.6964G	93.40	Inf	-Inf	3.53	3	Horizontal	47	2.29	-
5700MHz_TX	Pass	PK	5.694G	103.30	Inf	-Inf	3.53	3	Horizontal	47	2.29	-
5700MHz_TX	Pass	PK	5.7414G	56.90	68.20	-11.30	3.62	3	Horizontal	47	2.29	-
5700MHz_TX	Pass	AV	11.3999G	43.72	54.00	-10.28	13.66	3	Vertical	132	2.11	-
5700MHz_TX	Pass	PK	11.3963G	57.26	74.00	-16.74	13.67	3	Vertical	132	2.11	-
5700MHz_TX	Pass	PK	17.0993G	60.38	68.20	-7.82	15.97	3	Vertical	354	1.18	-
5700MHz_TX	Pass	AV	11.4002G	45.78	54.00	-8.22	13.66	3	Horizontal	281	1.59	-
5700MHz_TX	Pass	PK	11.4019G	59.21	74.00	-14.79	13.66	3	Horizontal	281	1.59	-
5700MHz_TX	Pass	PK	17.0948G	68.12	68.20	-0.08	15.95	3	Horizontal	244	2.27	-
802.11a_Nss1_(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-	-	-
5260MHz_TX	Pass	AV	5.1286G	45.68	54.00	-8.32	4.11	3	Vertical	101	2.96	-
5260MHz_TX	Pass	AV	5.263G	93.25	Inf	-Inf	4.28	3	Vertical	101	2.96	-
5260MHz_TX	Pass	AV	5.392G	45.47	54.00	-8.53	4.45	3	Vertical	101	2.96	-
5260MHz_TX	Pass	PK	5.1376G	57.66	74.00	-16.34	4.11	3	Vertical	101	2.96	-
5260MHz_TX	Pass	PK	5.263G	103.61	Inf	-Inf	4.28	3	Vertical	101	2.96	-



RSE TX above 1GHz Result\_Non-Beamforming

Appendix D.1

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5260MHz_TX	Pass	PK	5.3794G	58.63	74.00	-15.37	4.43	3	Vertical	101	2.96	-
5260MHz_TX	Pass	AV	5.1112G	45.64	54.00	-8.36	4.08	3	Horizontal	354	2.86	-
5260MHz_TX	Pass	AV	5.2636G	99.70	Inf	-Inf	4.28	3	Horizontal	354	2.86	-
5260MHz_TX	Pass	AV	5.3752G	45.77	54.00	-8.23	4.43	3	Horizontal	354	2.86	-
5260MHz_TX	Pass	PK	5.119G	57.96	74.00	-16.04	4.09	3	Horizontal	354	2.86	-
5260MHz_TX	Pass	PK	5.263G	110.16	Inf	-Inf	4.28	3	Horizontal	354	2.86	-
5260MHz_TX	Pass	PK	5.374G	57.79	74.00	-16.21	4.42	3	Horizontal	354	2.86	-
5260MHz_TX	Pass	AV	15.77472G	45.09	54.00	-8.91	14.80	3	Vertical	280	1.48	-
5260MHz_TX	Pass	PK	10.52426G	60.75	68.20	-7.45	16.27	3	Vertical	168	1.18	-
5260MHz_TX	Pass	PK	15.7725G	58.46	74.00	-15.54	14.81	3	Vertical	280	1.48	-
5260MHz_TX	Pass	AV	15.7791G	48.94	54.00	-5.06	14.79	3	Horizontal	298	1.49	-
5260MHz_TX	Pass	PK	10.51992G	59.47	68.20	-8.73	16.26	3	Horizontal	131	1.23	-
5260MHz_TX	Pass	PK	15.78432G	62.90	74.00	-11.10	14.77	3	Horizontal	298	1.49	-
5300MHz_TX	Pass	AV	5.3036G	92.93	Inf	-Inf	4.33	3	Vertical	101	2.91	-
5300MHz_TX	Pass	AV	5.35G	45.86	54.00	-8.14	4.39	3	Vertical	101	2.91	-
5300MHz_TX	Pass	PK	5.3032G	103.36	Inf	-Inf	4.33	3	Vertical	101	2.91	-
5300MHz_TX	Pass	PK	5.3768G	58.06	74.00	-15.94	4.43	3	Vertical	101	2.91	-
5300MHz_TX	Pass	AV	5.3032G	99.51	Inf	-Inf	4.33	3	Horizontal	3	2.99	-
5300MHz_TX	Pass	AV	5.35G	49.39	54.00	-4.61	4.39	3	Horizontal	3	2.99	-
5300MHz_TX	Pass	PK	5.3032G	110.02	Inf	-Inf	4.33	3	Horizontal	3	2.99	-
5300MHz_TX	Pass	PK	5.3524G	63.27	74.00	-10.73	4.39	3	Horizontal	3	2.99	-
5300MHz_TX	Pass	AV	10.60164G	44.68	54.00	-9.32	18.39	3	Vertical	213	1.50	-
5300MHz_TX	Pass	AV	15.89904G	48.67	54.00	-5.33	16.69	3	Vertical	354	1.18	-
5300MHz_TX	Pass	PK	10.60132G	58.25	74.00	-15.75	18.39	3	Vertical	213	1.50	-
5300MHz_TX	Pass	PK	15.90042G	62.14	74.00	-11.86	16.69	3	Vertical	354	1.18	-
5300MHz_TX	Pass	AV	10.60032G	45.79	54.00	-8.21	18.39	3	Horizontal	294	1.50	-
5300MHz_TX	Pass	AV	15.9024G	47.92	54.00	-6.08	16.68	3	Horizontal	248	1.50	-
5300MHz_TX	Pass	PK	10.60114G	59.27	74.00	-14.73	18.39	3	Horizontal	294	1.50	-
5300MHz_TX	Pass	PK	15.89124G	61.74	74.00	-12.26	16.74	3	Horizontal	248	1.50	-
5320MHz_TX	Pass	AV	5.3148G	90.49	Inf	-Inf	4.34	3	Vertical	104	2.91	-
5320MHz_TX	Pass	AV	5.3504G	47.07	54.00	-6.93	4.39	3	Vertical	104	2.91	-
5320MHz_TX	Pass	PK	5.3142G	100.32	Inf	-Inf	4.34	3	Vertical	104	2.91	-
5320MHz_TX	Pass	PK	5.35G	59.69	74.00	-14.31	4.39	3	Vertical	104	2.91	-
5320MHz_TX	Pass	AV	5.321G	96.82	Inf	-Inf	4.35	3	Horizontal	4	2.79	-
5320MHz_TX	Pass	AV	5.3502G	53.05	54.00	-0.95	4.39	3	Horizontal	4	2.79	-
5320MHz_TX	Pass	PK	5.323G	107.05	Inf	-Inf	4.35	3	Horizontal	4	2.79	-
5320MHz_TX	Pass	PK	5.3508G	66.16	74.00	-7.84	4.39	3	Horizontal	4	2.79	-
5320MHz_TX	Pass	AV	10.64G	45.29	54.00	-8.71	16.44	3	Vertical	174	1.14	-
5320MHz_TX	Pass	AV	15.8964G	43.90	54.00	-10.10	14.34	3	Vertical	61	1.50	-
5320MHz_TX	Pass	PK	10.63634G	58.18	74.00	-15.82	16.44	3	Vertical	174	1.14	-
5320MHz_TX	Pass	PK	15.89256G	57.59	74.00	-16.41	14.35	3	Vertical	61	1.50	-
5320MHz_TX	Pass	AV	10.6292G	44.04	54.00	-9.96	16.44	3	Horizontal	17	1.01	-
5320MHz_TX	Pass	AV	15.88842G	44.20	54.00	-9.80	14.38	3	Horizontal	117	1.02	-
5320MHz_TX	Pass	PK	10.6448G	56.90	74.00	-17.10	16.46	3	Horizontal	17	1.01	-
5320MHz_TX	Pass	PK	15.90762G	57.64	74.00	-16.36	14.30	3	Horizontal	117	1.02	-
5500MHz_TX	Pass	AV	5.4588G	47.94	54.00	-6.06	7.49	3	Vertical	157	2.74	-
5500MHz_TX	Pass	AV	5.5028G	91.19	Inf	-Inf	7.54	3	Vertical	157	2.74	-
5500MHz_TX	Pass	PK	5.4584G	59.28	74.00	-14.72	7.49	3	Vertical	157	2.74	-
5500MHz_TX	Pass	PK	5.467G	60.24	68.20	-7.96	7.50	3	Vertical	157	2.74	-



RSE TX above 1GHz Result\_Non-Beamforming

Appendix D.1

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5500MHz_TX	Pass	PK	5.5026G	100.48	Inf	-Inf	7.54	3	Vertical	157	2.74	-
5500MHz_TX	Pass	AV	5.4598G	51.23	54.00	-2.77	7.49	3	Horizontal	354	1.50	-
5500MHz_TX	Pass	AV	5.5026G	102.90	Inf	-Inf	7.54	3	Horizontal	354	1.50	-
5500MHz_TX	Pass	PK	5.4598G	63.69	74.00	-10.31	7.49	3	Horizontal	354	1.50	-
5500MHz_TX	Pass	PK	5.4694G	67.78	68.20	-0.42	7.50	3	Horizontal	354	1.50	-
5500MHz_TX	Pass	PK	5.5052G	112.06	Inf	-Inf	7.55	3	Horizontal	354	1.50	-
5500MHz_TX	Pass	AV	10.99526G	44.84	54.00	-9.16	16.90	3	Vertical	289	1.74	-
5500MHz_TX	Pass	PK	11.00408G	57.43	74.00	-16.57	16.90	3	Vertical	289	1.74	-
5500MHz_TX	Pass	PK	16.49982G	58.84	68.20	-9.36	15.90	3	Vertical	184	1.82	-
5500MHz_TX	Pass	AV	11.0015G	44.92	54.00	-9.08	16.91	3	Horizontal	321	2.21	-
5500MHz_TX	Pass	PK	10.99556G	57.12	74.00	-16.88	16.90	3	Horizontal	321	2.21	-
5500MHz_TX	Pass	PK	16.50036G	60.36	68.20	-7.84	15.91	3	Horizontal	252	1.70	-
5580MHz_TX	Pass	AV	5.4342G	47.58	54.00	-6.42	7.44	3	Vertical	143	2.87	-
5580MHz_TX	Pass	AV	5.5788G	92.23	Inf	-Inf	7.69	3	Vertical	143	2.87	-
5580MHz_TX	Pass	PK	5.4618G	59.40	68.20	-8.80	7.49	3	Vertical	143	2.87	-
5580MHz_TX	Pass	PK	5.5776G	102.91	Inf	-Inf	7.68	3	Vertical	143	2.87	-
5580MHz_TX	Pass	PK	5.7294G	60.69	68.20	-7.51	8.00	3	Vertical	143	2.87	-
5580MHz_TX	Pass	AV	5.43G	47.62	54.00	-6.38	7.44	3	Horizontal	354	1.50	-
5580MHz_TX	Pass	AV	5.5746G	102.55	Inf	-Inf	7.67	3	Horizontal	354	1.50	-
5580MHz_TX	Pass	PK	5.4612G	58.93	68.20	-9.27	7.49	3	Horizontal	354	1.50	-
5580MHz_TX	Pass	PK	5.583G	113.57	Inf	-Inf	7.70	3	Horizontal	354	1.50	-
5580MHz_TX	Pass	PK	5.7294G	59.86	68.20	-8.34	8.00	3	Horizontal	354	1.50	-
5580MHz_TX	Pass	AV	11.16624G	44.22	54.00	-9.78	16.80	3	Vertical	129	2.19	-
5580MHz_TX	Pass	PK	11.17194G	56.73	74.00	-17.27	16.79	3	Vertical	129	2.19	-
5580MHz_TX	Pass	PK	16.746G	61.06	68.20	-7.14	16.77	3	Vertical	360	2.85	-
5580MHz_TX	Pass	AV	11.1741G	44.17	54.00	-9.83	16.79	3	Horizontal	41	2.38	-
5580MHz_TX	Pass	PK	11.14764G	56.46	74.00	-17.54	16.81	3	Horizontal	41	2.38	-
5580MHz_TX	Pass	PK	16.74456G	64.94	68.20	-3.26	16.76	3	Horizontal	249	2.09	-
5700MHz_TX	Pass	AV	5.7072G	85.76	Inf	-Inf	7.95	3	Vertical	173	1.50	-
5700MHz_TX	Pass	PK	5.7028G	94.56	Inf	-Inf	7.94	3	Vertical	173	1.50	-
5700MHz_TX	Pass	PK	5.7844G	60.26	68.20	-7.94	8.11	3	Vertical	173	1.50	-
5700MHz_TX	Pass	AV	5.6992G	101.03	Inf	-Inf	7.93	3	Horizontal	359	1.50	-
5700MHz_TX	Pass	PK	5.6968G	109.89	Inf	-Inf	7.93	3	Horizontal	359	1.50	-
5700MHz_TX	Pass	PK	5.7252G	66.60	68.20	-1.60	7.99	3	Horizontal	359	1.50	-
5700MHz_TX	Pass	AV	11.3958G	43.98	54.00	-10.02	15.96	3	Vertical	345	1.64	-
5700MHz_TX	Pass	PK	11.391G	56.02	74.00	-17.98	15.96	3	Vertical	345	1.64	-
5700MHz_TX	Pass	PK	17.1132G	61.46	68.20	-6.74	18.54	3	Vertical	194	1.88	-
5700MHz_TX	Pass	AV	11.39832G	44.67	54.00	-9.33	16.64	3	Horizontal	130	2.20	-
5700MHz_TX	Pass	PK	11.39694G	56.97	74.00	-17.03	16.64	3	Horizontal	130	2.20	-
5700MHz_TX	Pass	PK	17.09112G	64.91	68.20	-3.29	18.37	3	Horizontal	237	2.17	-
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5260MHz_TX	Pass	AV	5.1466G	43.41	54.00	-10.59	2.74	3	Vertical	261	2.99	-
5260MHz_TX	Pass	AV	5.2636G	97.76	Inf	-Inf	2.87	3	Vertical	261	2.99	-
5260MHz_TX	Pass	AV	5.4034G	42.73	54.00	-11.27	3.03	3	Vertical	261	2.99	-
5260MHz_TX	Pass	PK	5.1478G	55.69	74.00	-18.31	2.74	3	Vertical	261	2.99	-
5260MHz_TX	Pass	PK	5.2582G	108.95	Inf	-Inf	2.86	3	Vertical	261	2.99	-
5260MHz_TX	Pass	PK	5.353G	55.22	74.00	-18.78	2.97	3	Vertical	261	2.99	-
5260MHz_TX	Pass	AV	5.116G	43.62	54.00	-10.38	2.70	3	Horizontal	344	1.48	-
5260MHz_TX	Pass	AV	5.2588G	102.69	Inf	-Inf	2.87	3	Horizontal	344	1.48	-



RSE TX above 1GHz Result\_Non-Beamforming

Appendix D.1

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5260MHz_TX	Pass	AV	5.3866G	42.81	54.00	-11.19	3.01	3	Horizontal	344	1.48	-
5260MHz_TX	Pass	PK	5.1286G	55.49	74.00	-18.51	2.72	3	Horizontal	344	1.48	-
5260MHz_TX	Pass	PK	5.2552G	114.07	Inf	-Inf	2.86	3	Horizontal	344	1.48	-
5260MHz_TX	Pass	PK	5.401G	55.44	74.00	-18.56	3.03	3	Horizontal	344	1.48	-
5260MHz_TX	Pass	AV	15.7761G	45.52	54.00	-8.48	12.95	3	Vertical	344	1.26	-
5260MHz_TX	Pass	PK	10.52192G	62.82	68.20	-5.38	12.98	3	Vertical	160	1.50	-
5260MHz_TX	Pass	PK	15.77142G	58.16	74.00	-15.84	12.97	3	Vertical	344	1.26	-
5260MHz_TX	Pass	AV	15.78294G	50.53	54.00	-3.47	12.91	3	Horizontal	240	1.57	-
5260MHz_TX	Pass	PK	10.52498G	58.86	68.20	-9.34	12.99	3	Horizontal	324	1.50	-
5260MHz_TX	Pass	PK	15.777G	63.89	74.00	-10.11	12.95	3	Horizontal	240	1.57	-
5300MHz_TX	Pass	AV	5.3028G	97.91	Inf	-Inf	2.91	3	Vertical	253	2.19	-
5300MHz_TX	Pass	AV	5.35G	43.73	54.00	-10.27	2.97	3	Vertical	253	2.19	-
5300MHz_TX	Pass	PK	5.3028G	108.98	Inf	-Inf	2.91	3	Vertical	253	2.19	-
5300MHz_TX	Pass	PK	5.3536G	56.10	74.00	-17.90	2.97	3	Vertical	253	2.19	-
5300MHz_TX	Pass	AV	5.2964G	102.94	Inf	-Inf	2.91	3	Horizontal	346	1.00	-
5300MHz_TX	Pass	AV	5.3504G	47.91	54.00	-6.09	2.97	3	Horizontal	346	1.00	-
5300MHz_TX	Pass	PK	5.2968G	115.05	Inf	-Inf	2.91	3	Horizontal	346	1.00	-
5300MHz_TX	Pass	PK	5.3516G	62.63	74.00	-11.37	2.97	3	Horizontal	346	1.00	-
5300MHz_TX	Pass	AV	10.60114G	46.63	54.00	-7.37	13.15	3	Vertical	156	1.45	-
5300MHz_TX	Pass	AV	15.89778G	45.60	54.00	-8.40	12.37	3	Vertical	345	1.27	-
5300MHz_TX	Pass	PK	10.59634G	60.07	68.20	-8.13	13.14	3	Vertical	156	1.45	-
5300MHz_TX	Pass	PK	15.89328G	58.57	74.00	-15.43	12.38	3	Vertical	345	1.27	-
5300MHz_TX	Pass	AV	10.60048G	44.77	54.00	-9.23	13.15	3	Horizontal	300	1.49	-
5300MHz_TX	Pass	AV	15.89496G	49.80	54.00	-4.20	12.38	3	Horizontal	240	1.54	-
5300MHz_TX	Pass	PK	10.59976G	56.88	68.20	-11.32	13.15	3	Horizontal	300	1.49	-
5300MHz_TX	Pass	PK	15.89484G	64.43	74.00	-9.57	12.38	3	Horizontal	240	1.54	-
5320MHz_TX	Pass	AV	5.3132G	97.96	Inf	-Inf	2.93	3	Vertical	255	2.99	-
5320MHz_TX	Pass	AV	5.35G	47.62	54.00	-6.38	2.97	3	Vertical	255	2.99	-
5320MHz_TX	Pass	PK	5.3132G	107.50	Inf	-Inf	2.93	3	Vertical	255	2.99	-
5320MHz_TX	Pass	PK	5.3534G	60.83	74.00	-13.17	2.97	3	Vertical	255	2.99	-
5320MHz_TX	Pass	AV	5.319G	102.75	Inf	-Inf	2.93	3	Horizontal	349	1.50	-
5320MHz_TX	Pass	AV	5.35G	53.27	54.00	-0.73	2.97	3	Horizontal	349	1.50	-
5320MHz_TX	Pass	PK	5.3238G	113.80	Inf	-Inf	2.94	3	Horizontal	349	1.50	-
5320MHz_TX	Pass	PK	5.35G	66.83	74.00	-7.17	2.97	3	Horizontal	349	1.50	-
5320MHz_TX	Pass	AV	10.64012G	45.49	54.00	-8.51	13.25	3	Vertical	169	1.45	-
5320MHz_TX	Pass	AV	15.9666G	41.47	54.00	-12.53	12.03	3	Vertical	11	1.50	-
5320MHz_TX	Pass	PK	10.64012G	58.08	74.00	-15.92	13.25	3	Vertical	169	1.45	-
5320MHz_TX	Pass	PK	15.9675G	53.68	74.00	-20.32	12.03	3	Vertical	11	1.50	-
5320MHz_TX	Pass	AV	10.64024G	45.86	54.00	-8.14	13.25	3	Horizontal	74	1.90	-
5320MHz_TX	Pass	AV	15.95754G	47.71	54.00	-6.29	12.08	3	Horizontal	236	1.56	-
5320MHz_TX	Pass	PK	10.64066G	58.78	74.00	-15.22	13.25	3	Horizontal	74	1.90	-
5320MHz_TX	Pass	PK	15.95712G	60.84	74.00	-13.16	12.08	3	Horizontal	236	1.56	-
5500MHz_TX	Pass	AV	5.4598G	48.46	54.00	-5.54	4.53	3	Vertical	237	1.50	-
5500MHz_TX	Pass	AV	5.47G	53.80	Inf	-Inf	4.54	3	Vertical	237	1.50	-
5500MHz_TX	Pass	AV	5.5052G	98.26	Inf	-Inf	4.59	3	Vertical	237	1.50	-
5500MHz_TX	Pass	PK	5.4594G	61.81	74.00	-12.19	4.53	3	Vertical	237	1.50	-
5500MHz_TX	Pass	PK	5.4698G	67.02	68.20	-1.18	4.54	3	Vertical	237	1.50	-
5500MHz_TX	Pass	PK	5.5056G	108.04	Inf	-Inf	4.59	3	Vertical	237	1.50	-
5500MHz_TX	Pass	AV	5.4594G	48.35	54.00	-5.65	4.53	3	Horizontal	359	1.50	-



RSE TX above 1GHz Result\_Non-Beamforming

Appendix D.1

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5500MHz_TX	Pass	AV	5.47G	54.36	Inf	-Inf	4.54	3	Horizontal	359	1.50	-
5500MHz_TX	Pass	AV	5.499G	101.10	Inf	-Inf	4.58	3	Horizontal	359	1.50	-
5500MHz_TX	Pass	PK	5.459G	61.68	74.00	-12.32	4.53	3	Horizontal	359	1.50	-
5500MHz_TX	Pass	PK	5.4692G	66.54	68.20	-1.66	4.54	3	Horizontal	359	1.50	-
5500MHz_TX	Pass	PK	5.4982G	111.07	Inf	-Inf	4.58	3	Horizontal	359	1.50	-
5500MHz_TX	Pass	AV	11.00012G	45.86	54.00	-8.14	15.61	3	Vertical	93	1.81	-
5500MHz_TX	Pass	PK	11.00438G	58.77	74.00	-15.23	15.60	3	Vertical	93	1.81	-
5500MHz_TX	Pass	PK	16.49508G	62.08	68.20	-6.12	15.61	3	Vertical	173	1.47	-
5500MHz_TX	Pass	AV	10.99996G	46.05	54.00	-7.95	15.61	3	Horizontal	94	1.50	-
5500MHz_TX	Pass	PK	10.99984G	60.62	74.00	-13.38	15.61	3	Horizontal	94	1.50	-
5500MHz_TX	Pass	PK	16.50224G	64.47	68.20	-3.73	15.65	3	Horizontal	252	1.47	-
5580MHz_TX	Pass	AV	5.436G	45.48	54.00	-8.52	4.50	3	Vertical	292	1.50	-
5580MHz_TX	Pass	AV	5.5812G	93.14	Inf	-Inf	4.73	3	Vertical	292	1.50	-
5580MHz_TX	Pass	PK	5.4636G	57.79	68.20	-10.41	4.53	3	Vertical	292	1.50	-
5580MHz_TX	Pass	PK	5.5824G	103.03	Inf	-Inf	4.74	3	Vertical	292	1.50	-
5580MHz_TX	Pass	PK	5.73G	57.51	68.20	-10.69	5.09	3	Vertical	292	1.50	-
5580MHz_TX	Pass	AV	5.4582G	45.55	54.00	-8.45	4.52	3	Horizontal	7	1.50	-
5580MHz_TX	Pass	AV	5.5788G	96.02	Inf	-Inf	4.73	3	Horizontal	7	1.50	-
5580MHz_TX	Pass	PK	5.469G	57.39	68.20	-10.81	4.54	3	Horizontal	7	1.50	-
5580MHz_TX	Pass	PK	5.5782G	106.19	Inf	-Inf	4.72	3	Horizontal	7	1.50	-
5580MHz_TX	Pass	PK	5.7264G	58.32	68.20	-9.88	5.08	3	Horizontal	7	1.50	-
5580MHz_TX	Pass	AV	11.16038G	44.07	54.00	-9.93	15.43	3	Vertical	30	1.42	-
5580MHz_TX	Pass	PK	11.1605G	57.53	74.00	-16.47	15.43	3	Vertical	30	1.42	-
5580MHz_TX	Pass	PK	16.74186G	64.40	68.20	-3.80	16.88	3	Vertical	342	1.59	-
5580MHz_TX	Pass	AV	11.16027G	45.36	54.00	-8.64	15.43	3	Horizontal	82	1.50	-
5580MHz_TX	Pass	PK	11.16037G	59.05	74.00	-14.95	15.43	3	Horizontal	82	1.50	-
5580MHz_TX	Pass	PK	16.74216G	67.36	68.20	-0.84	16.88	3	Horizontal	246	1.35	-
5700MHz_TX	Pass	AV	5.6968G	93.12	Inf	-Inf	5.02	3	Vertical	312	2.95	-
5700MHz_TX	Pass	PK	5.6976G	103.11	Inf	-Inf	5.02	3	Vertical	312	2.95	-
5700MHz_TX	Pass	PK	5.7644G	59.26	68.20	-8.94	5.17	3	Vertical	312	2.95	-
5700MHz_TX	Pass	AV	5.6968G	93.10	Inf	-Inf	5.02	3	Horizontal	18	2.96	-
5700MHz_TX	Pass	PK	5.6968G	103.71	Inf	-Inf	5.02	3	Horizontal	18	2.96	-
5700MHz_TX	Pass	PK	5.7252G	58.66	68.20	-9.54	5.08	3	Horizontal	18	2.96	-
5700MHz_TX	Pass	AV	11.39916G	43.60	54.00	-10.40	15.14	3	Vertical	139	2.21	-
5700MHz_TX	Pass	PK	11.4102G	57.19	74.00	-16.81	15.14	3	Vertical	139	2.21	-
5700MHz_TX	Pass	PK	17.10212G	63.87	68.20	-4.33	18.99	3	Vertical	338	1.65	-
5700MHz_TX	Pass	AV	11.39964G	44.41	54.00	-9.59	15.14	3	Horizontal	286	1.50	-
5700MHz_TX	Pass	PK	11.39594G	57.36	74.00	-16.64	15.14	3	Horizontal	286	1.50	-
5700MHz_TX	Pass	PK	17.10192G	66.56	68.20	-1.64	18.99	3	Horizontal	254	1.87	-
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5260MHz_TX	Pass	AV	5.1496G	49.39	54.00	-4.61	7.00	3	Vertical	272	1.76	-
5260MHz_TX	Pass	AV	5.257G	101.74	Inf	-Inf	7.13	3	Vertical	272	1.76	-
5260MHz_TX	Pass	AV	5.3926G	49.52	54.00	-4.48	7.39	3	Vertical	272	1.76	-
5260MHz_TX	Pass	PK	5.146G	61.14	74.00	-12.86	7.00	3	Vertical	272	1.76	-
5260MHz_TX	Pass	PK	5.2594G	111.29	Inf	-Inf	7.14	3	Vertical	272	1.76	-
5260MHz_TX	Pass	PK	5.371G	62.19	74.00	-11.81	7.34	3	Vertical	272	1.76	-
5260MHz_TX	Pass	AV	5.1466G	49.37	54.00	-4.63	7.00	3	Horizontal	53	1.72	-
5260MHz_TX	Pass	AV	5.263G	104.11	Inf	-Inf	7.14	3	Horizontal	53	1.72	-
5260MHz_TX	Pass	AV	5.3752G	49.49	54.00	-4.51	7.36	3	Horizontal	53	1.72	-



RSE TX above 1GHz Result\_Non-Beamforming

Appendix D.1

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5260MHz_TX	Pass	PK	5.1358G	61.08	74.00	-12.92	7.00	3	Horizontal	53	1.72	-
5260MHz_TX	Pass	PK	5.2618G	114.36	Inf	-Inf	7.14	3	Horizontal	53	1.72	-
5260MHz_TX	Pass	PK	5.3524G	61.51	74.00	-12.49	7.31	3	Horizontal	53	1.72	-
5260MHz_TX	Pass	AV	15.77274G	44.93	54.00	-9.07	14.87	3	Vertical	346	1.48	-
5260MHz_TX	Pass	PK	10.52438G	63.48	68.20	-4.72	16.12	3	Vertical	120	1.55	-
5260MHz_TX	Pass	PK	15.7692G	58.54	74.00	-15.46	14.88	3	Vertical	346	1.48	-
5260MHz_TX	Pass	AV	15.78036G	47.65	54.00	-6.35	14.85	3	Horizontal	224	2.85	-
5260MHz_TX	Pass	PK	10.52432G	63.78	68.20	-4.42	16.12	3	Horizontal	66	1.50	-
5260MHz_TX	Pass	PK	15.77832G	61.63	74.00	-12.37	14.86	3	Horizontal	224	2.85	-
5300MHz_TX	Pass	AV	5.2948G	99.20	Inf	-Inf	7.20	3	Vertical	272	1.69	-
5300MHz_TX	Pass	AV	5.3616G	48.38	54.00	-5.62	7.33	3	Vertical	272	1.69	-
5300MHz_TX	Pass	PK	5.2964G	108.33	Inf	-Inf	7.20	3	Vertical	272	1.69	-
5300MHz_TX	Pass	PK	5.3856G	59.87	74.00	-14.13	7.37	3	Vertical	272	1.69	-
5300MHz_TX	Pass	AV	5.3064G	101.24	Inf	-Inf	7.21	3	Horizontal	345	1.50	-
5300MHz_TX	Pass	AV	5.3992G	48.23	54.00	-5.77	7.40	3	Horizontal	345	1.50	-
5300MHz_TX	Pass	PK	5.3052G	110.27	Inf	-Inf	7.21	3	Horizontal	345	1.50	-
5300MHz_TX	Pass	PK	5.3628G	60.00	74.00	-14.00	7.33	3	Horizontal	345	1.50	-
5300MHz_TX	Pass	AV	10.6093G	43.26	54.00	-10.74	16.26	3	Vertical	227	1.32	-
5300MHz_TX	Pass	AV	15.89274G	43.91	54.00	-10.09	14.49	3	Vertical	348	1.42	-
5300MHz_TX	Pass	PK	10.59124G	56.42	68.20	-11.78	16.23	3	Vertical	227	1.32	-
5300MHz_TX	Pass	PK	15.9117G	58.07	74.00	-15.93	14.43	3	Vertical	348	1.42	-
5300MHz_TX	Pass	AV	10.60024G	43.42	54.00	-10.58	16.24	3	Horizontal	335	1.81	-
5300MHz_TX	Pass	AV	15.90054G	45.75	54.00	-8.25	14.47	3	Horizontal	223	2.85	-
5300MHz_TX	Pass	PK	10.60744G	56.08	74.00	-17.92	16.26	3	Horizontal	335	1.81	-
5300MHz_TX	Pass	PK	15.90174G	59.18	74.00	-14.82	14.46	3	Horizontal	223	2.85	-
5320MHz_TX	Pass	AV	5.3142G	99.61	Inf	-Inf	7.23	3	Vertical	257	1.82	-
5320MHz_TX	Pass	AV	5.35G	51.12	54.00	-2.88	7.30	3	Vertical	257	1.82	-
5320MHz_TX	Pass	PK	5.3138G	108.57	Inf	-Inf	7.23	3	Vertical	257	1.82	-
5320MHz_TX	Pass	PK	5.352G	62.38	74.00	-11.62	7.30	3	Vertical	257	1.82	-
5320MHz_TX	Pass	AV	5.3254G	101.32	Inf	-Inf	7.26	3	Horizontal	349	1.49	-
5320MHz_TX	Pass	AV	5.35G	51.12	54.00	-2.88	7.30	3	Horizontal	349	1.49	-
5320MHz_TX	Pass	PK	5.3254G	110.71	Inf	-Inf	7.26	3	Horizontal	349	1.49	-
5320MHz_TX	Pass	PK	5.3516G	62.59	74.00	-11.41	7.30	3	Horizontal	349	1.49	-
5320MHz_TX	Pass	AV	10.63496G	43.11	54.00	-10.89	16.30	3	Vertical	205	1.76	-
5320MHz_TX	Pass	AV	15.95154G	43.52	54.00	-10.48	14.30	3	Vertical	351	1.34	-
5320MHz_TX	Pass	PK	10.6352G	55.18	74.00	-18.82	16.30	3	Vertical	205	1.76	-
5320MHz_TX	Pass	PK	15.95682G	57.36	74.00	-16.64	14.29	3	Vertical	351	1.34	-
5320MHz_TX	Pass	AV	10.64636G	43.16	54.00	-10.84	16.32	3	Horizontal	77	1.96	-
5320MHz_TX	Pass	AV	15.96042G	44.46	54.00	-9.54	14.28	3	Horizontal	240	1.51	-
5320MHz_TX	Pass	PK	10.64162G	55.30	74.00	-18.70	16.31	3	Horizontal	77	1.96	-
5320MHz_TX	Pass	PK	15.95754G	58.73	74.00	-15.27	14.29	3	Horizontal	240	1.51	-
5500MHz_TX	Pass	AV	5.4596G	50.43	54.00	-3.57	7.49	3	Vertical	284	1.74	-
5500MHz_TX	Pass	AV	5.4968G	100.42	Inf	-Inf	7.54	3	Vertical	284	1.74	-
5500MHz_TX	Pass	PK	5.4574G	61.97	74.00	-12.03	7.48	3	Vertical	284	1.74	-
5500MHz_TX	Pass	PK	5.4696G	66.79	68.20	-1.41	7.50	3	Vertical	284	1.74	-
5500MHz_TX	Pass	PK	5.4992G	109.97	Inf	-Inf	7.54	3	Vertical	284	1.74	-
5500MHz_TX	Pass	AV	5.454G	48.76	54.00	-5.24	7.48	3	Horizontal	353	1.12	-
5500MHz_TX	Pass	AV	5.508G	102.62	Inf	-Inf	7.56	3	Horizontal	353	1.12	-
5500MHz_TX	Pass	PK	5.4576G	61.06	74.00	-12.94	7.48	3	Horizontal	353	1.12	-