



# FCC Test Report



**FCC ID** : SWX-LBE5ACLR  
**Equipment** : LiteBeam AC LR  
**Brand Name** : UBIQUITI  
**Model Name** : LBE-5AC-LR  
**Applicant / Manufacturer** : Ubiquiti Networks, Inc.  
685 Third Avenue, 27th Floor New York,  
New York 10017 USA  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Jul. 19, 2018, and testing was started from Aug. 28, 2018 and completed on Aug. 30, 2018. 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.)



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### History of this test report

Report No.	Version	Description	Issued Date
FR871939AN	01	Initial issue of report	Sep. 05, 2018



### 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	-

Reviewed by: Jackson Tsai

Report Producer: Ann Hou



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)
5150-5250	ac (VHT10)	5160-5245
5725-5850		5735-5840
5150-5250	a, n (HT20), ac (VHT20)	5165-5240
5725-5850		5740-5835
5150-5250	ac (VHT30)	5170-5235
5725-5850		5745-5830
5150-5250	n (HT40), ac (VHT40)	5175-5230
5725-5850		5750-5825
5150-5250	ac (VHT50)	5180-5225
5725-5850		5755-5820
5150-5250	ac (VHT60)	5185-5220
5725-5850		5760-5815
5150-5250	ac (VHT80)	5190-5210
5725-5850		5770-5805

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ac VHT10	10	2TX
5.725-5.85GHz	802.11ac VHT10	10	2TX
5.15-5.25GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11ac VHT30	30	2TX
5.725-5.85GHz	802.11ac VHT30	30	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT50	50	2TX
5.725-5.85GHz	802.11ac VHT50	50	2TX
5.15-5.25GHz	802.11ac VHT60	60	2TX
5.725-5.85GHz	802.11ac VHT60	60	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX



Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11ac VHT80	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.
- ◆ Point-to-multipoint didn't support 50/60/80MHz nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	-	-	Internal antenna	Murata
2	-	-	Dish antenna	Murata
3	-	-	Dish antenna	Murata

Ant.	Port	Gain (dBi)	
		2.4G	5G
1	1	2	-
2	2	-	26
3	3	-	26

Note 1: The EUT has two antennas.

For 2.4GHz function:

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

Only Ant. 1 (port 1) could transmit/receive simultaneously.

For 5GHz function:

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

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.



1.1.3 EUT Information

Operational Condition				
<b>EUT Power Type</b>	From PoE			
<b>EUT Function</b>	<input checked="" type="checkbox"/>	Outdoor	<input type="checkbox"/>	Indoor
	<input checked="" type="checkbox"/>	Fixed P2P	<input type="checkbox"/>	Client
	<input checked="" type="checkbox"/>	Point-to-multipoint	<input checked="" type="checkbox"/>	Point-to-point
<b>Beamforming Function</b>	<input type="checkbox"/>	With beamforming	<input checked="" type="checkbox"/>	Without beamforming
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

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.961	0.173	1.347m	1k
802.11ac VHT10	0.976	0.106	2.541m	1k
802.11ac VHT20	0.959	0.182	1.272m	1k
802.11ac VHT30	0.939	0.273	875u	3k
802.11ac VHT40	0.909	0.414	628.125u	3k
802.11ac VHT50	0.908	0.419	518.75u	3k
802.11ac VHT60	0.894	0.487	440.625u	3k
802.11ac VHT80	0.856	0.675	321.875u	10k



### 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
AC Conduction	CO04-HY	Daniel	23°C / 52%	28/Aug/2018
RF Conducted	TH06-HY	Tim	25.5°C / 60%	29/Aug/2018
Radiated	03CH03-HY	Andy	24.6°C / 62%	30/Aug/2018

### 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)	3.6 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.0 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	120V


### 2.2 Test Channel Mode

Test Software	DoS
---------------	-----

### 2.3 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	CTX
1	PoE mode

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	PoE mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	<p style="text-align: center;">Y Plane</p> 
Worst Planes of EUT	V



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4GHz +WLAN 5GHz

Refer to Sporton Test Report No.: FA871939 for Co-location RF Exposure Evaluation.

## 2.4 Accessories

Accessories				
PoE Adapter	Brand Name	UBIQUITI	Model Name	GP-J240-030G
	Power Rating	I/P: 100 - 240Vac, 0.3A, O/P: 24Vdc, 0.3A		
Power Cord	Power Cord	2.6 meter, non-shielded cable		

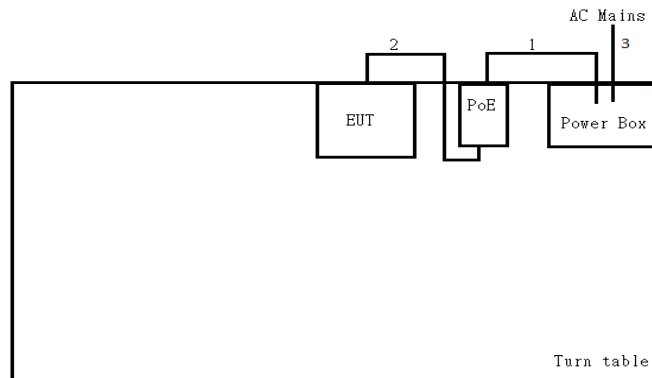
Reminder: Regarding to more detail and other information, please refer to user manual.

## 2.5 Support Equipment

Support Equipment - RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for Notebook	DELL	HA65NM130	DoC

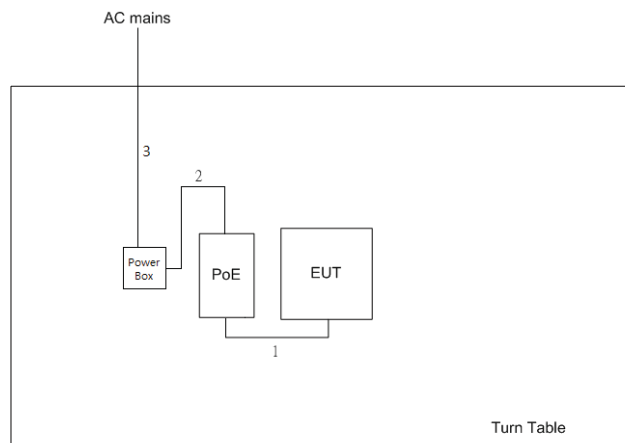
## 2.6 Test Setup Diagram

**Test Setup Diagram – AC Line Conducted Emission Test**



Item	Connection	Shielded	Length
1	AC Power line	No	0.6m
2	RJ45 cable	No	0.5m
3	AC Power line	No	1.5m

**Test Setup Diagram - Radiated Test**



Item	Connection	Shielded	Length
1	RJ45 cable	No	0.5m
2	AC Power line	No	0.6m
3	AC Power line	No	1.8m

### 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.

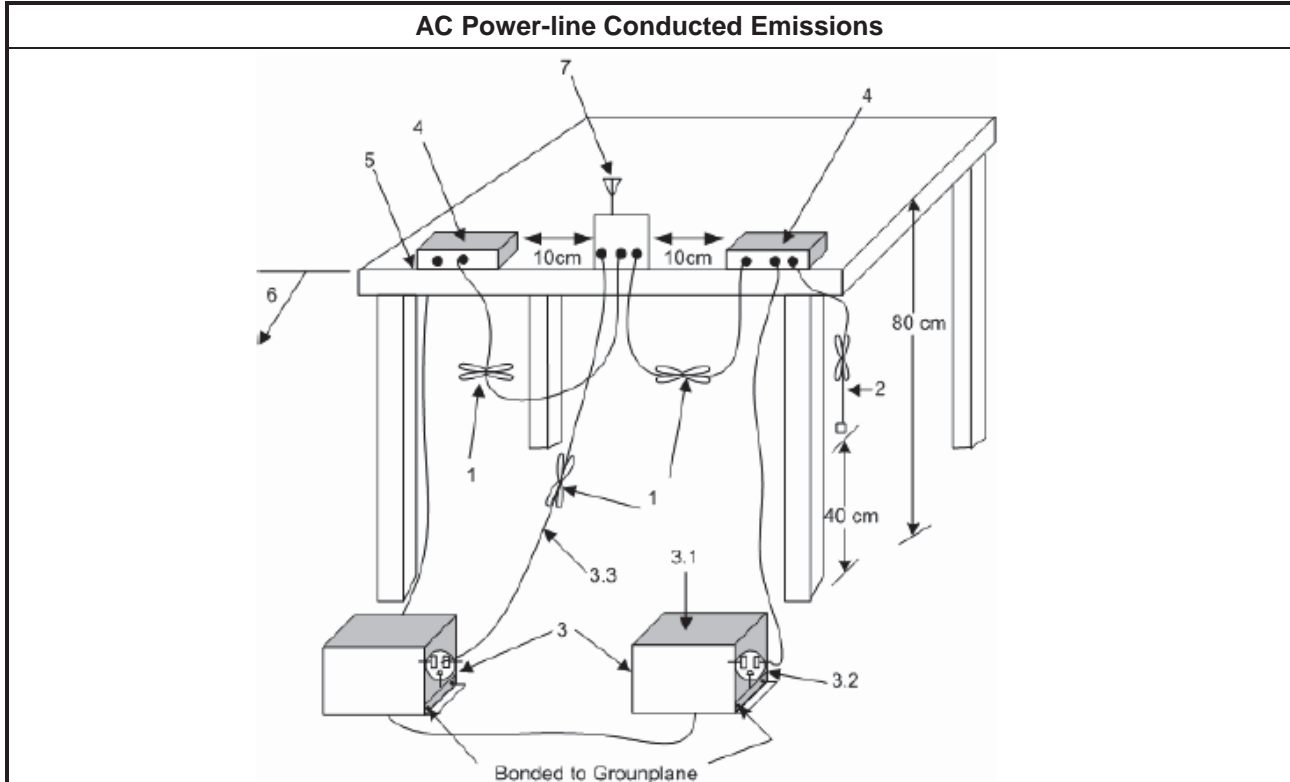
##### 3.1.2 Measuring Instruments

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 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	
<b>UNII Devices</b>	
<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.

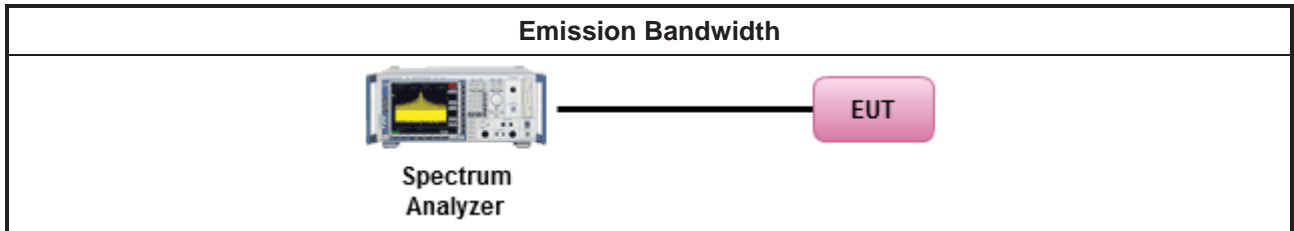
#### 3.2.2 Measuring Instruments

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>▪ 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.

#### 3.2.4 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	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<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 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"> <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.	

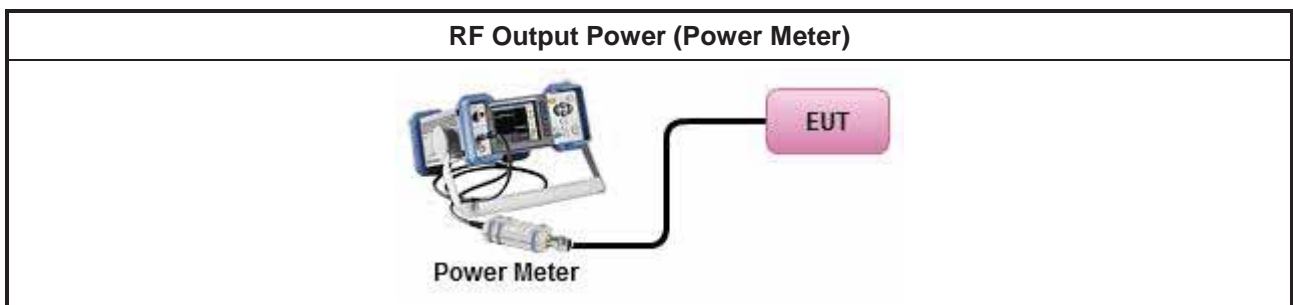
#### 3.3.2 Measuring Instruments

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>Maximum Conducted Output Power</li> </ul>	
	Duty cycle $\geq 98\%$ <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>

### 3.3.4 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	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
	<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> </ul>
	<ul style="list-style-type: none"> <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> </ul>
	<ul style="list-style-type: none"> <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> </ul>
	<ul style="list-style-type: none"> <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 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 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 checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
	<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> </ul>
	<ul style="list-style-type: none"> <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  <b>G<sub>TX</sub></b> = the maximum transmitting antenna directional gain in dBi.</p>	

#### 3.4.2 Measuring Instruments

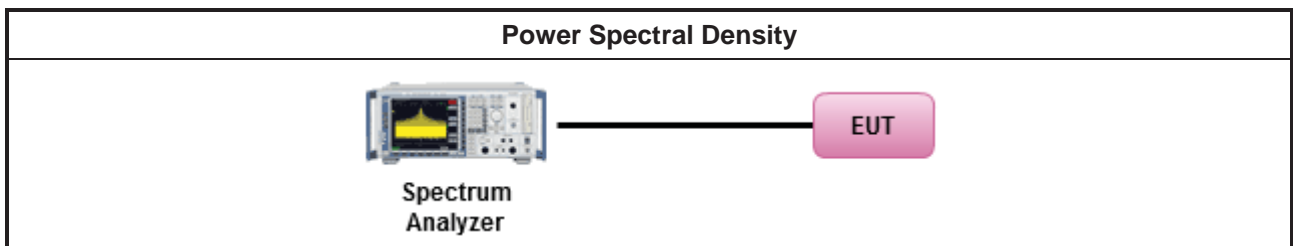
Refer a test equipment and calibration data table in this test report.



### 3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <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, 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%	
<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>	

### 3.4.4 Test Setup



### 3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



### 3.5 Unwanted Emissions

#### 3.5.1 Transmitter 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).



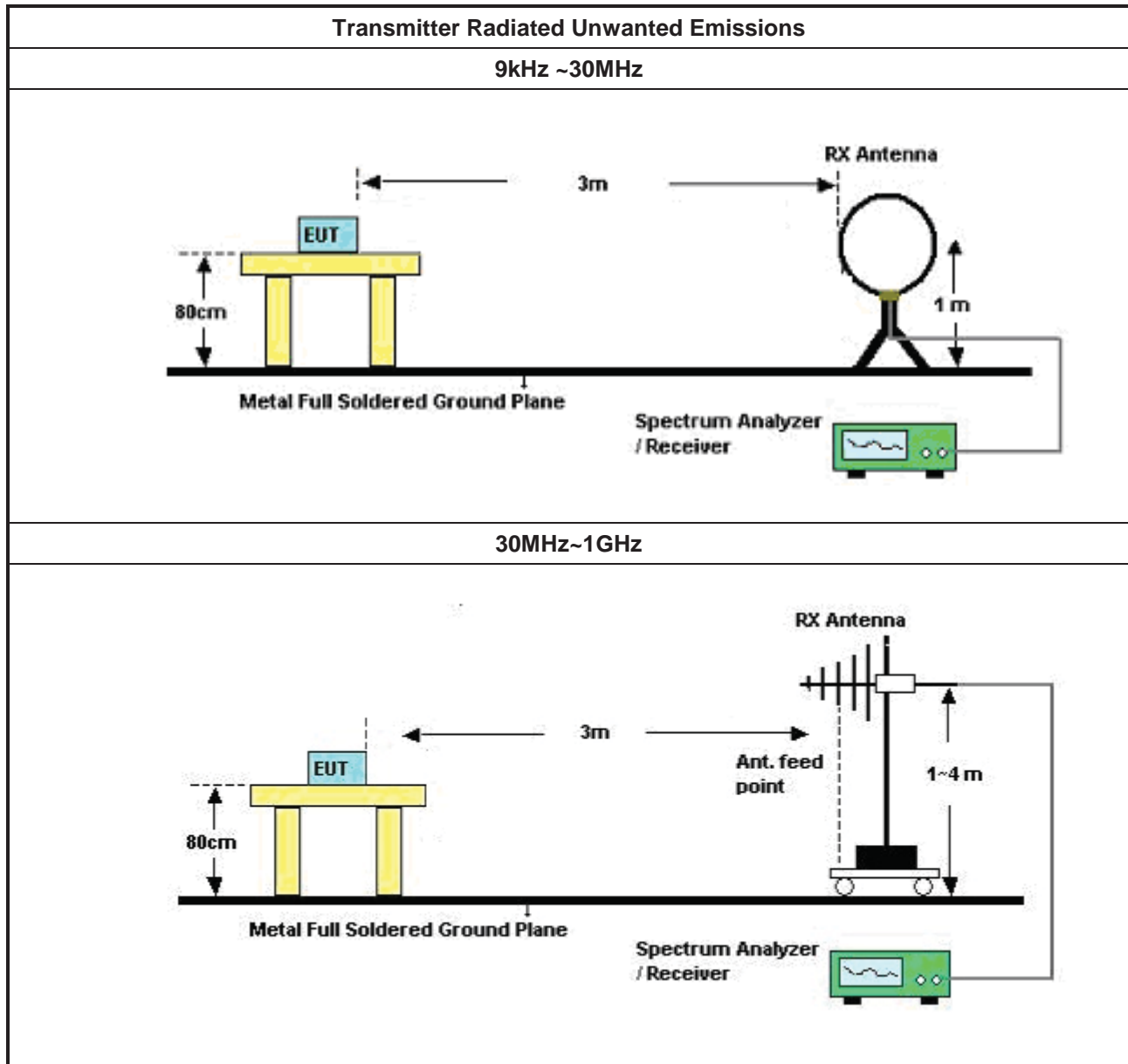
### 3.5.2 Measuring Instruments

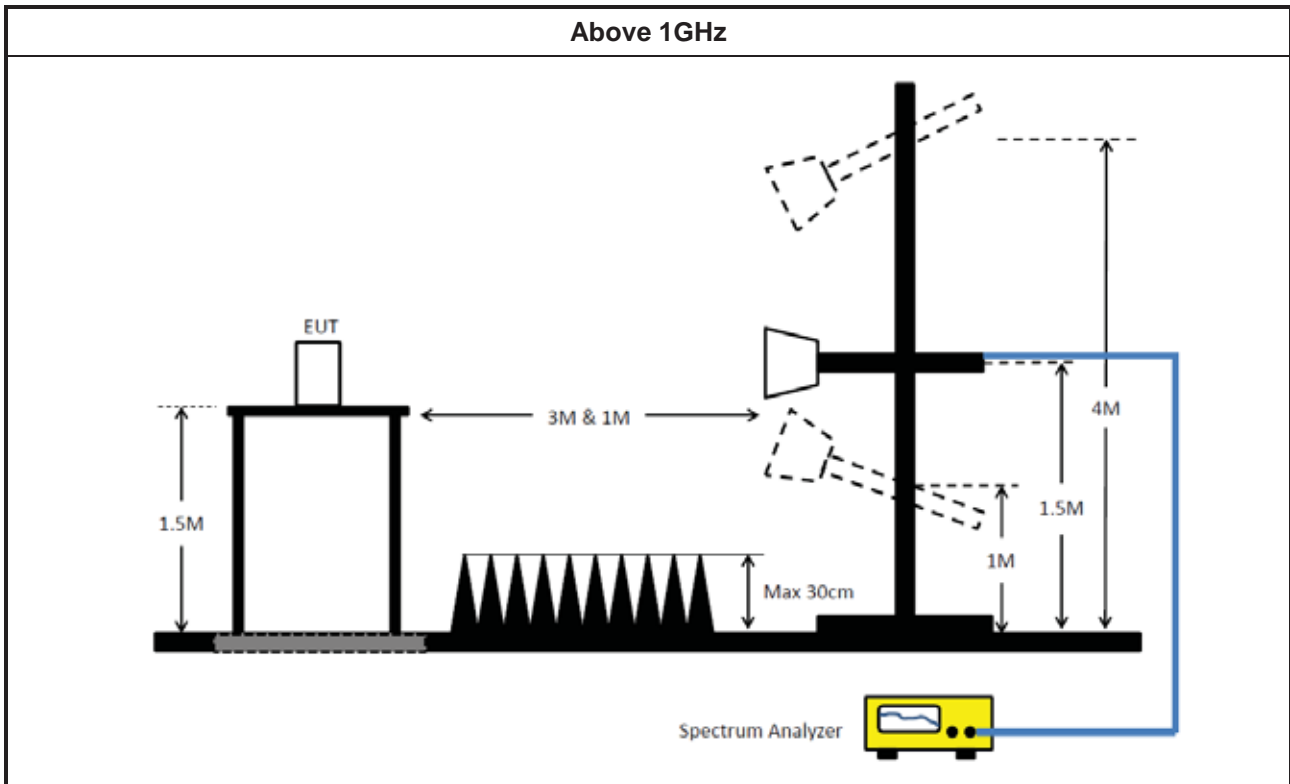
Refer a test equipment and calibration data table in this test report.

### 3.5.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <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:             <ul style="list-style-type: none"> <li>Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li> <li>Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.                 <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.</li> <li><input checked="" type="checkbox"/> Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.</li> </ul> </li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>For radiated measurement.             <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> <li>Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> <li>Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul> </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>	

### 3.5.4 Test Setup





### 3.5.5 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.

### 3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



### 3.6 Test Equipment and Calibration Data

#### Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	17/Nov/2017	16/Nov/2018
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	06/Oct/2017	05/Oct/2018
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2017	11/Oct/2018

NCR : Non-Calibration Require

#### Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	29/Dec/2017	28/Dec/2018
Signal Generator	R&S	SMB100A	175727	100kHz~40GHz	26/Oct/2017	25/Oct/2018
Pulse Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
CABLE 0.2m	HUBER	MY37960/4	RF Cable - 17	1 to 18GHz	17/Jan/2018	16/Jan/2019
CABLE 0.2m	HUBER	MY37960/4	RF Cable - 17	30 to 1000MHz	17/Jan/2018	16/Jan/2019
CABLE 0.5m	HUBER	MY37963/4	RF Cable - 22	1 to 18GHz	17/Jan/2018	16/Jan/2019

**Instrument for Radiated Test**

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	31/Oct/2017	30/Oct/2018
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	01/Nov/2017	31/Oct/2018
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	23/Apr/2018	19/Apr/2019
Microwave System Preamplifier	Agilent	8449B	3008A02326	1GHz ~ 26.5GHz	03/Jul/2018	02/Jul/2019
Signal Analyzer	R&S	FSP40	100305	10Hz ~ 40GHz	04/Jan/2018	03/Jan/2019
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	29/Jan/2018	28/Jan/2019
RF Cable-high	SUHNER	SUCOFLEX 106	CB222	1GHz ~ 40GHz	29/Jan/2018	28/Jan/2019
Bilog Antenna	SCHAFFNER	CBL 6112B	2723	30MHz ~ 1GHz	09/Sep/2017	08/Sep/2018
Receiver	R&S	ESCS 30	100354	9kHz ~ 2.75GHz	08/Dec/2017	07/Dec/2018
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz ~ 40GHz	06/Feb/ 2018	05/Feb/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	18/Apr/ 2018	17/Apr/2019
Amplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	28/Mar/2018	27/Mar/2019



AC Power-line Conducted Emissions Result								
Operating Mode	1	Power Phase	Neutral					
Operating Function	PoE mode							
<div style="text-align: right;">Date: 2018-08-28</div> <p>The graph displays the AC power-line conducted emissions. The y-axis represents the emission level in dBuV, ranging from 0 to 80. The x-axis represents the frequency in MHz, ranging from 0.150.2 to 30. Two red lines indicate the regulatory limits: NCC/IC/FCC-B (upper limit) and NCC/IC/FCC-B-AV (lower limit). The blue line represents the measured emission level. Several peaks are identified and numbered 1 through 12. Peak 11 is the maximum emission level at 4.16 MHz.</p>								
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	37.44	-18.08	55.52	27.78	9.63	0.03	Average
2	0.16	53.70	-11.82	65.52	44.04	9.63	0.03	QP
3	0.18	36.03	-18.56	54.59	26.39	9.62	0.02	Average
4	0.18	51.29	-13.30	64.59	41.65	9.62	0.02	QP
5	0.20	37.19	-16.48	53.67	27.57	9.62	0.00	Average
6	0.20	49.85	-13.82	63.67	40.23	9.62	0.00	QP
7	0.48	35.57	-10.84	46.41	25.88	9.61	0.08	Average
8	0.48	38.51	-17.90	56.41	28.82	9.61	0.08	QP
9	2.24	31.53	-14.47	46.00	21.89	9.63	0.01	Average
10	2.24	36.34	-19.66	56.00	26.70	9.63	0.01	QP
11 MAX	4.16	40.19	-5.81	46.00	30.46	9.64	0.09	Average
12	4.16	44.06	-11.94	56.00	34.33	9.64	0.09	QP
Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit. Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)								





AC Power-line Conducted Emissions Result																																																																																																																																	
Operating Mode	1	Power Phase	Line																																																																																																																														
Operating Function	Adapter Mode																																																																																																																																
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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Freq</th> <th>Level</th> <th>Over Limit</th> <th>Limit Line</th> <th>Read Level</th> <th>LISN Factor</th> <th>Cable Loss</th> <th>Remark</th> </tr> <tr> <th></th> <th>MHz</th> <th>dBuV</th> <th>dB</th> <th>dBuV</th> <th>dBuV</th> <th>dB</th> <th>dB</th> <th></th> </tr> </thead> <tbody> <tr><td>1</td><td>0.16</td><td>32.83</td><td>-22.82</td><td>55.65</td><td>23.17</td><td>9.62</td><td>0.04</td><td>Average</td></tr> <tr><td>2</td><td>0.16</td><td>50.05</td><td>-15.60</td><td>65.65</td><td>40.39</td><td>9.62</td><td>0.04</td><td>QP</td></tr> <tr><td>3</td><td>0.18</td><td>36.02</td><td>-18.57</td><td>54.59</td><td>26.38</td><td>9.62</td><td>0.02</td><td>Average</td></tr> <tr><td>4</td><td>0.18</td><td>50.93</td><td>-13.66</td><td>64.59</td><td>41.29</td><td>9.62</td><td>0.02</td><td>QP</td></tr> <tr><td>5</td><td>0.20</td><td>37.31</td><td>-16.36</td><td>53.67</td><td>27.69</td><td>9.62</td><td>0.00</td><td>Average</td></tr> <tr><td>6</td><td>0.20</td><td>49.89</td><td>-13.78</td><td>63.67</td><td>40.27</td><td>9.62</td><td>0.00</td><td>QP</td></tr> <tr><td>7</td><td>0.47</td><td>34.05</td><td>-12.53</td><td>46.58</td><td>24.36</td><td>9.61</td><td>0.08</td><td>Average</td></tr> <tr><td>8</td><td>0.47</td><td>38.14</td><td>-18.44</td><td>56.58</td><td>28.45</td><td>9.61</td><td>0.08</td><td>QP</td></tr> <tr><td>9</td><td>2.24</td><td>30.87</td><td>-15.13</td><td>46.00</td><td>21.24</td><td>9.62</td><td>0.01</td><td>Average</td></tr> <tr><td>10</td><td>2.24</td><td>35.21</td><td>-20.79</td><td>56.00</td><td>25.58</td><td>9.62</td><td>0.01</td><td>QP</td></tr> <tr style="border: 2px solid black;"><td>11 MAX</td><td>4.16</td><td>40.91</td><td>-5.09</td><td>46.00</td><td>31.19</td><td>9.63</td><td>0.09</td><td>Average</td></tr> <tr><td>12</td><td>4.16</td><td>44.61</td><td>-11.39</td><td>56.00</td><td>34.89</td><td>9.63</td><td>0.09</td><td>QP</td></tr> </tbody> </table>					Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark		MHz	dBuV	dB	dBuV	dBuV	dB	dB		1	0.16	32.83	-22.82	55.65	23.17	9.62	0.04	Average	2	0.16	50.05	-15.60	65.65	40.39	9.62	0.04	QP	3	0.18	36.02	-18.57	54.59	26.38	9.62	0.02	Average	4	0.18	50.93	-13.66	64.59	41.29	9.62	0.02	QP	5	0.20	37.31	-16.36	53.67	27.69	9.62	0.00	Average	6	0.20	49.89	-13.78	63.67	40.27	9.62	0.00	QP	7	0.47	34.05	-12.53	46.58	24.36	9.61	0.08	Average	8	0.47	38.14	-18.44	56.58	28.45	9.61	0.08	QP	9	2.24	30.87	-15.13	46.00	21.24	9.62	0.01	Average	10	2.24	35.21	-20.79	56.00	25.58	9.62	0.01	QP	11 MAX	4.16	40.91	-5.09	46.00	31.19	9.63	0.09	Average	12	4.16	44.61	-11.39	56.00	34.89	9.63	0.09	QP
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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	25.6M	16.667M	16M7D1D	24.475M	16.592M
802.11ac VHT10_Nss1,(MCS0)_2TX	14.488M	8.983M	8M98D1D	13.963M	8.933M
802.11ac VHT20_Nss1,(MCS0)_2TX	25.625M	17.841M	17M8D1D	24.775M	17.741M
802.11ac VHT30_Nss1,(MCS0)_2TX	37.275M	25.937M	25M9D1D	36.188M	25.825M
802.11ac VHT40_Nss1,(MCS0)_2TX	50.9M	36.432M	36M4D1D	47.45M	36.282M
802.11ac VHT50_Nss1,(MCS0)_2TX	60.75M	44.54M	44M5D1D	57.938M	44.478M
802.11ac VHT60_Nss1,(MCS0)_2TX	72.525M	53.073M	53M1D1D	68.775M	52.924M
802.11ac VHT80_Nss1,(MCS0)_2TX	99.3M	75.962M	76M0D1D	94.4M	75.762M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.325M	16.642M	16M6D1D	16M	16.617M
802.11ac VHT10_Nss1,(MCS0)_2TX	8.8M	9.008M	9M01D1D	8.775M	8.946M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.275M	17.791M	17M8D1D	16.675M	17.741M
802.11ac VHT30_Nss1,(MCS0)_2TX	25.538M	25.9M	25M9D1D	24M	25.787M
802.11ac VHT40_Nss1,(MCS0)_2TX	36M	36.332M	36M3D1D	35M	36.232M
802.11ac VHT50_Nss1,(MCS0)_2TX	44.5M	44.603M	44M6D1D	43.063M	44.415M
802.11ac VHT60_Nss1,(MCS0)_2TX	52.8M	52.999M	53M0D1D	51.3M	52.849M
802.11ac VHT80_Nss1,(MCS0)_2TX	75M	75.962M	76M0D1D	70.7M	75.762M

**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

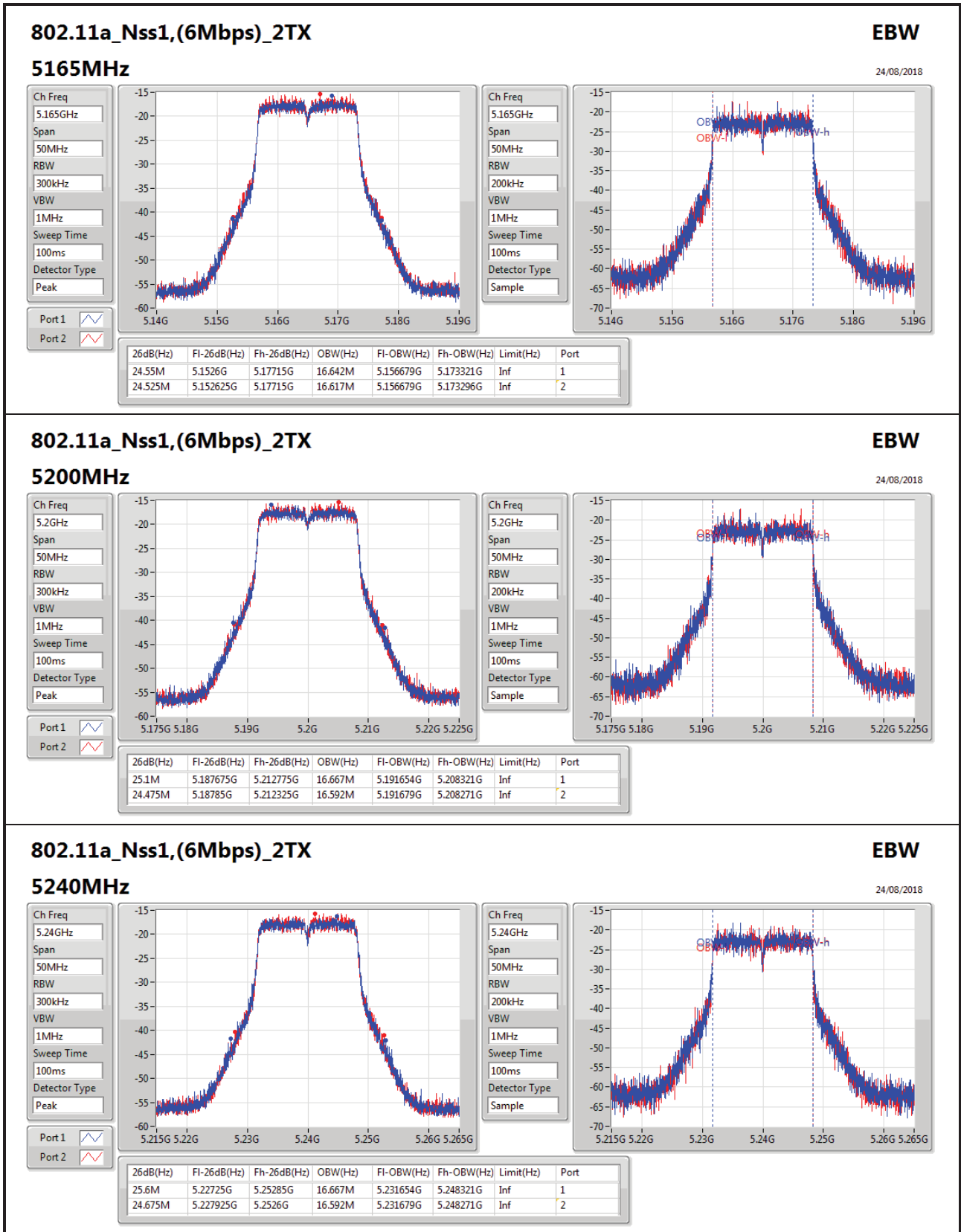
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	Inf	24.55M	16.642M	24.525M	16.617M
5200MHz_TnomVnom	Pass	Inf	25.1M	16.667M	24.475M	16.592M
5240MHz_TnomVnom	Pass	Inf	25.6M	16.667M	24.675M	16.592M
5740MHz_TnomVnom	Pass	500k	16M	16.642M	16.3M	16.642M
5790MHz_TnomVnom	Pass	500k	16.05M	16.642M	16.325M	16.642M
5835MHz_TnomVnom	Pass	500k	16.275M	16.617M	16.275M	16.642M
802.11ac_VHT10_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5160MHz_TnomVnom	Pass	Inf	14.225M	8.983M	14.213M	8.933M
5200MHz_TnomVnom	Pass	Inf	14.238M	8.946M	14.45M	8.958M
5245MHz_TnomVnom	Pass	Inf	14.488M	8.933M	13.963M	8.946M
5735MHz_TnomVnom	Pass	500k	8.8M	9.008M	8.8M	8.983M
5790MHz_TnomVnom	Pass	500k	8.8M	8.971M	8.788M	8.946M
5840MHz_TnomVnom	Pass	500k	8.8M	8.958M	8.775M	8.971M
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	Inf	25.175M	17.766M	25.425M	17.741M
5200MHz_TnomVnom	Pass	Inf	25.6M	17.841M	25.625M	17.741M
5240MHz_TnomVnom	Pass	Inf	25.5M	17.816M	24.775M	17.791M
5740MHz_TnomVnom	Pass	500k	16.9M	17.766M	16.875M	17.766M
5790MHz_TnomVnom	Pass	500k	17.025M	17.791M	16.675M	17.766M
5835MHz_TnomVnom	Pass	500k	16.95M	17.741M	17.275M	17.791M
802.11ac_VHT30_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5170MHz_TnomVnom	Pass	Inf	37.275M	25.825M	36.188M	25.937M
5200MHz_TnomVnom	Pass	Inf	36.338M	25.862M	36.788M	25.862M
5235MHz_TnomVnom	Pass	Inf	36.713M	25.862M	37.125M	25.825M
5745MHz_TnomVnom	Pass	500k	25.538M	25.9M	25.125M	25.787M
5790MHz_TnomVnom	Pass	500k	25.463M	25.9M	25.538M	25.9M
5830MHz_TnomVnom	Pass	500k	25.538M	25.862M	24M	25.825M
802.11ac_VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5175MHz_TnomVnom	Pass	Inf	48.2M	36.332M	48.6M	36.282M
5200MHz_TnomVnom	Pass	Inf	48.55M	36.382M	47.45M	36.332M
5230MHz_TnomVnom	Pass	Inf	50.9M	36.432M	48M	36.332M
5750MHz_TnomVnom	Pass	500k	35.9M	36.332M	35.15M	36.232M
5790MHz_TnomVnom	Pass	500k	35.7M	36.282M	35M	36.232M
5825MHz_TnomVnom	Pass	500k	36M	36.282M	35M	36.332M
802.11ac_VHT50_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	59.813M	44.478M	60.75M	44.54M
5200MHz_TnomVnom	Pass	Inf	59.438M	44.54M	57.938M	44.478M
5225MHz_TnomVnom	Pass	Inf	60.25M	44.54M	58.563M	44.54M
5755MHz_TnomVnom	Pass	500k	43.75M	44.478M	43.063M	44.478M
5790MHz_TnomVnom	Pass	500k	44M	44.603M	44.5M	44.415M
5820MHz_TnomVnom	Pass	500k	43.813M	44.415M	43.063M	44.478M
802.11ac_VHT60_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5185MHz_TnomVnom	Pass	Inf	69.675M	52.924M	72.075M	52.999M



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5200MHz_TnomVnom	Pass	Inf	70.425M	53.073M	68.775M	53.073M
5220MHz_TnomVnom	Pass	Inf	72.525M	52.999M	70.2M	53.073M
5760MHz_TnomVnom	Pass	500k	52.8M	52.999M	52.8M	52.924M
5790MHz_TnomVnom	Pass	500k	52.725M	52.924M	51.9M	52.849M
5815MHz_TnomVnom	Pass	500k	52.8M	52.999M	51.3M	52.999M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	Inf	98.1M	75.962M	99.3M	75.962M
5200MHz_TnomVnom	Pass	Inf	97.8M	75.762M	94.4M	75.962M
5210MHz_TnomVnom	Pass	Inf	96.7M	75.962M	97.9M	75.962M
5770MHz_TnomVnom	Pass	500k	75M	75.862M	70.7M	75.962M
5790MHz_TnomVnom	Pass	500k	71.3M	75.762M	72.6M	75.862M
5805MHz_TnomVnom	Pass	500k	75M	75.762M	75M	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;


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**

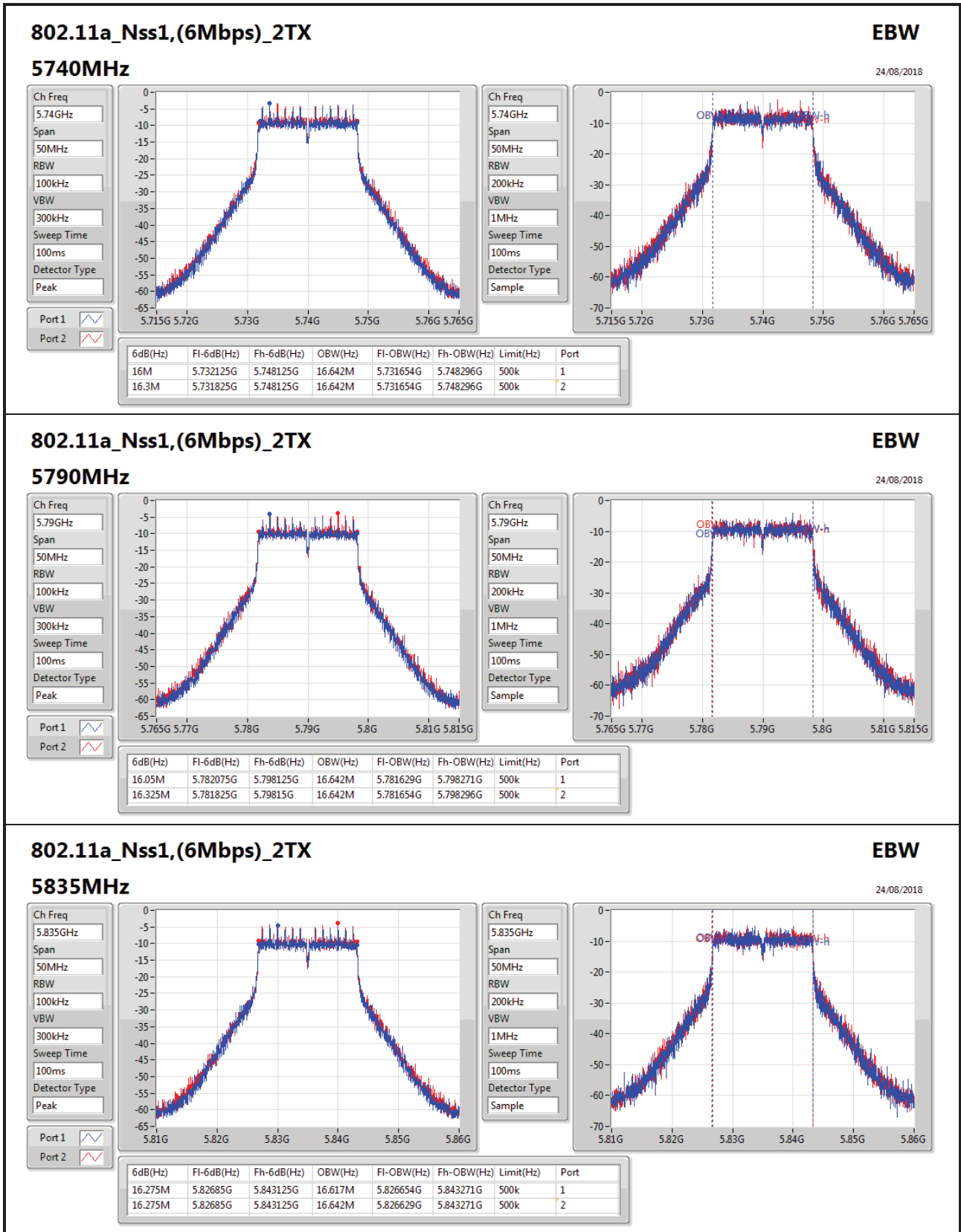
24/08/2018

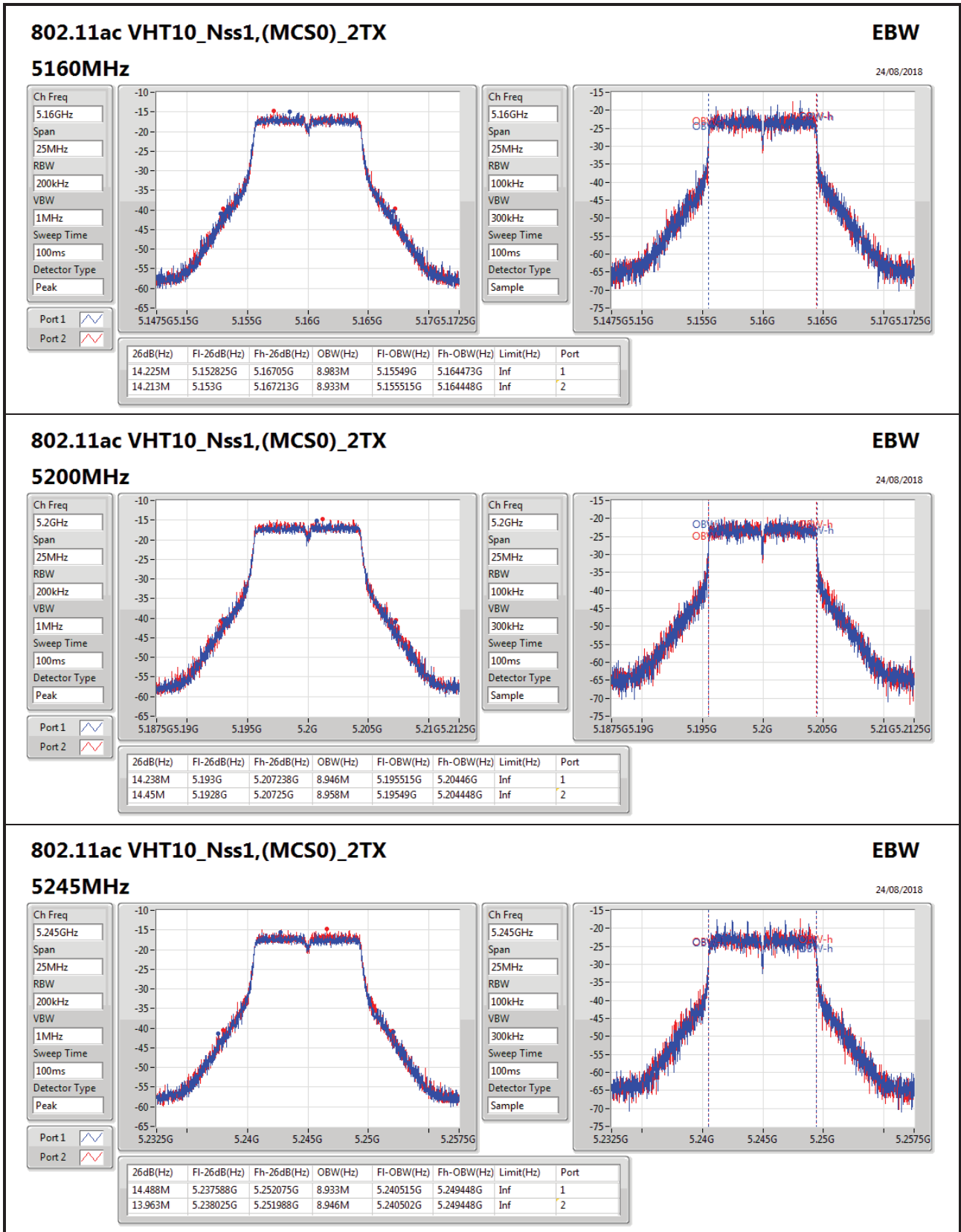
**5240MHz**

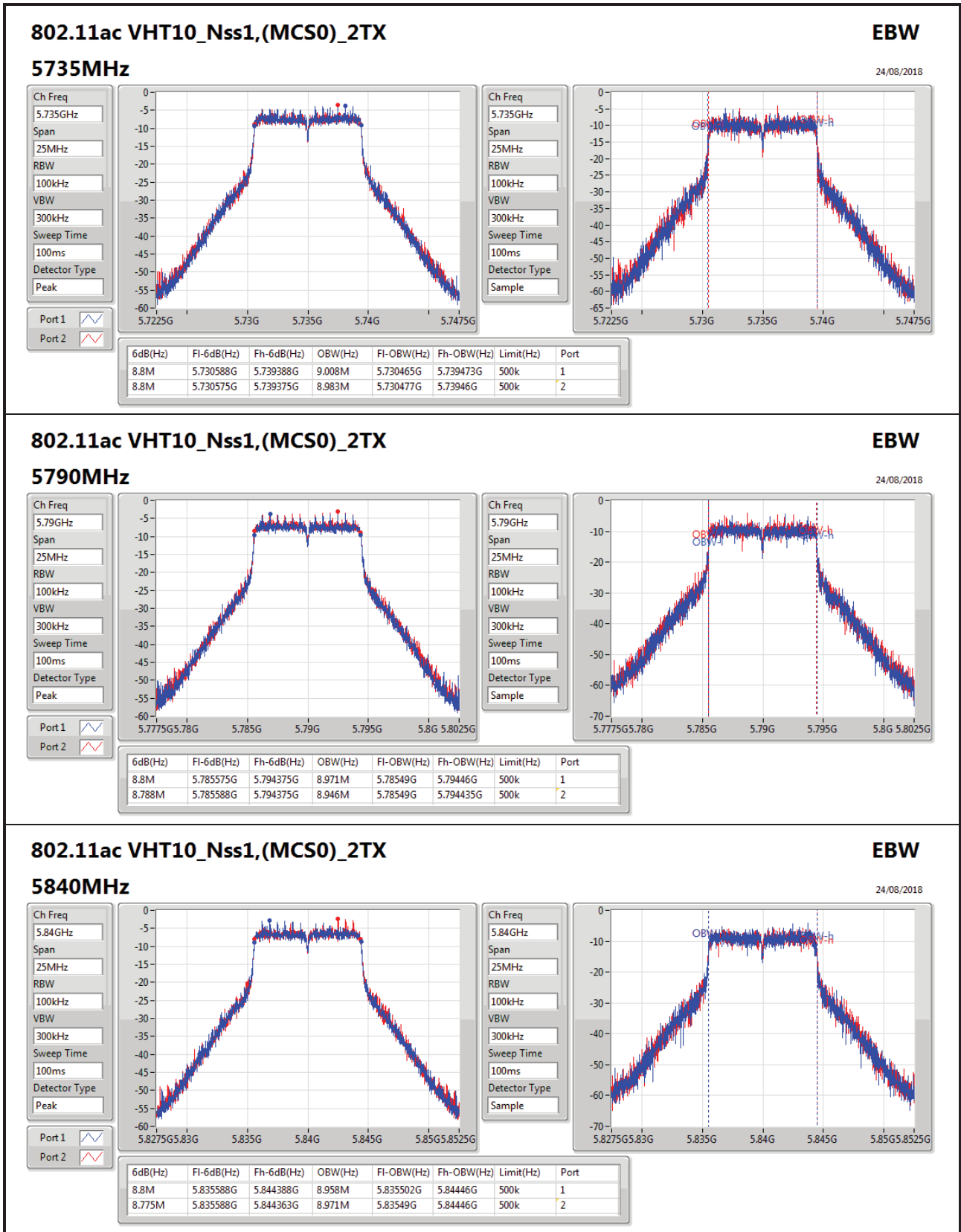
Ch Freq: 5.24GHz  
Span: 50MHz  
RBW: 300kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Peak

Port 1:   
Port 2:

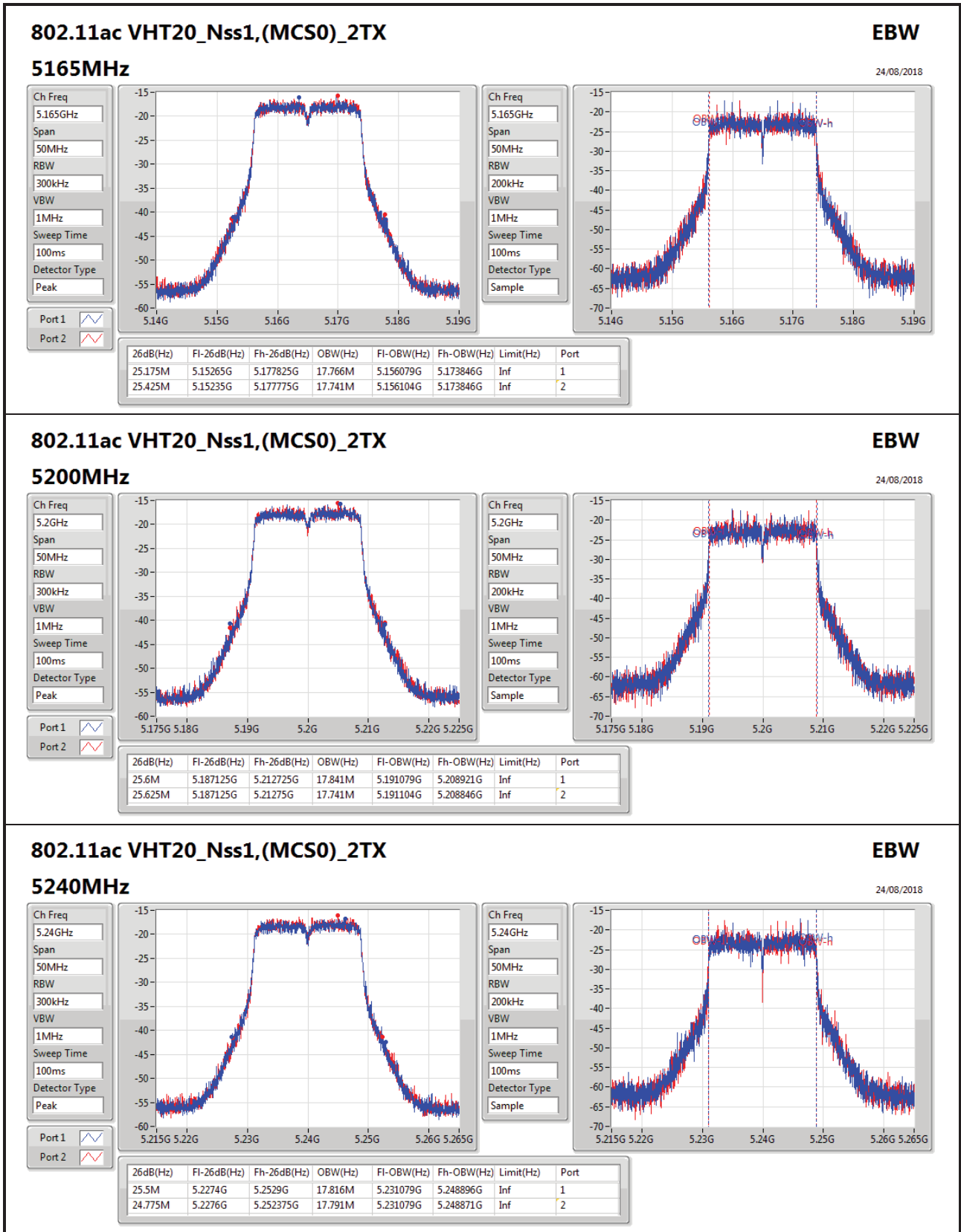
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25.6M	5.22725G	5.25285G	16.667M	5.231654G	5.248321G	Inf	1
24.675M	5.227925G	5.2526G	16.592M	5.231679G	5.248271G	Inf	2











### 802.11ac VHT20\_Nss1,(MCS0)\_2TX

#### 5240MHz

**EBW**  
24/08/2018

Ch Freq: 5.24GHz

Span: 50MHz

RBW: 300kHz

VBW: 1MHz

Sweep Time: 100ms

Detector Type: Peak

Port 1:

Port 2:

Ch Freq: 5.24GHz

Span: 50MHz

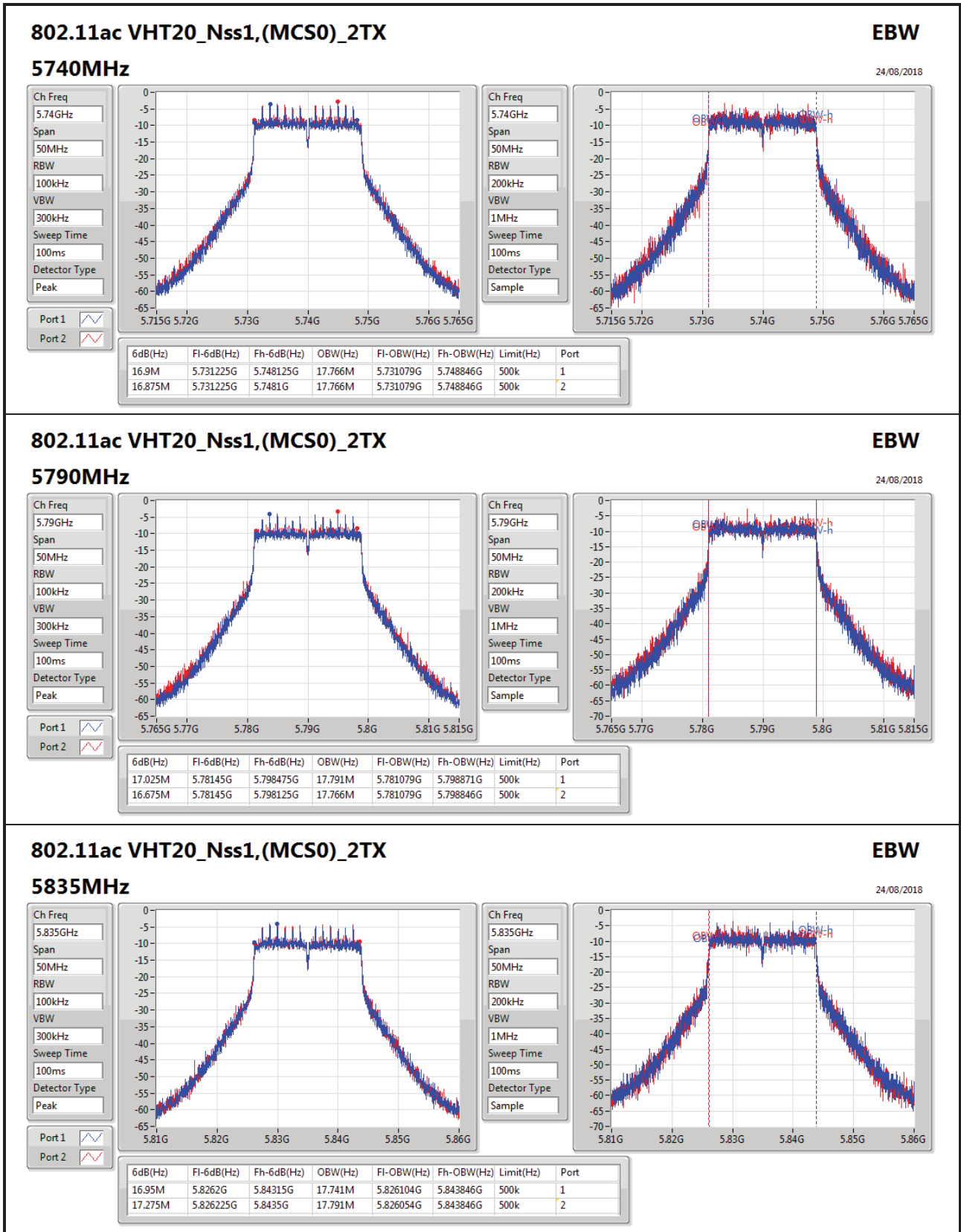
RBW: 200kHz

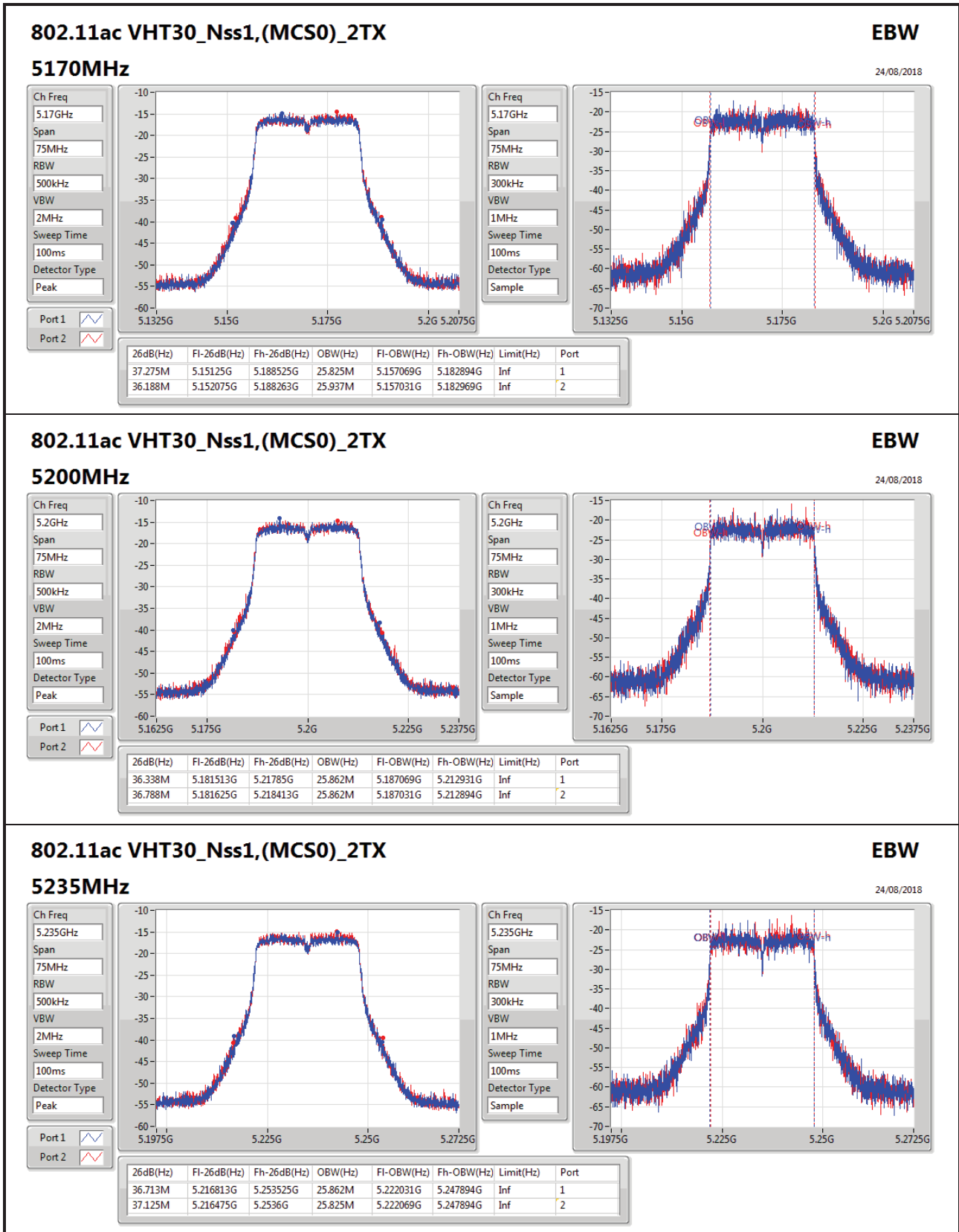
VBW: 1MHz

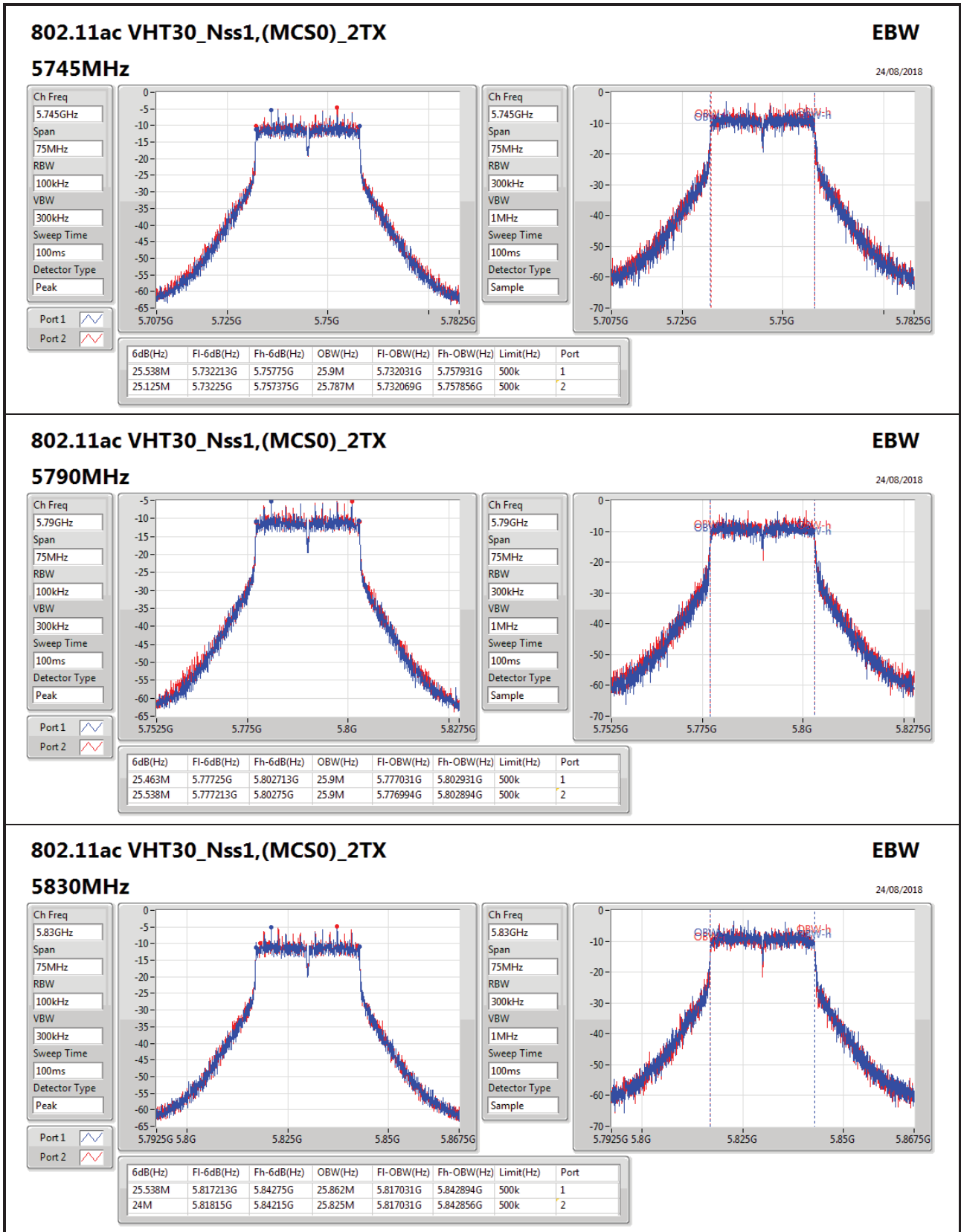
Sweep Time: 100ms

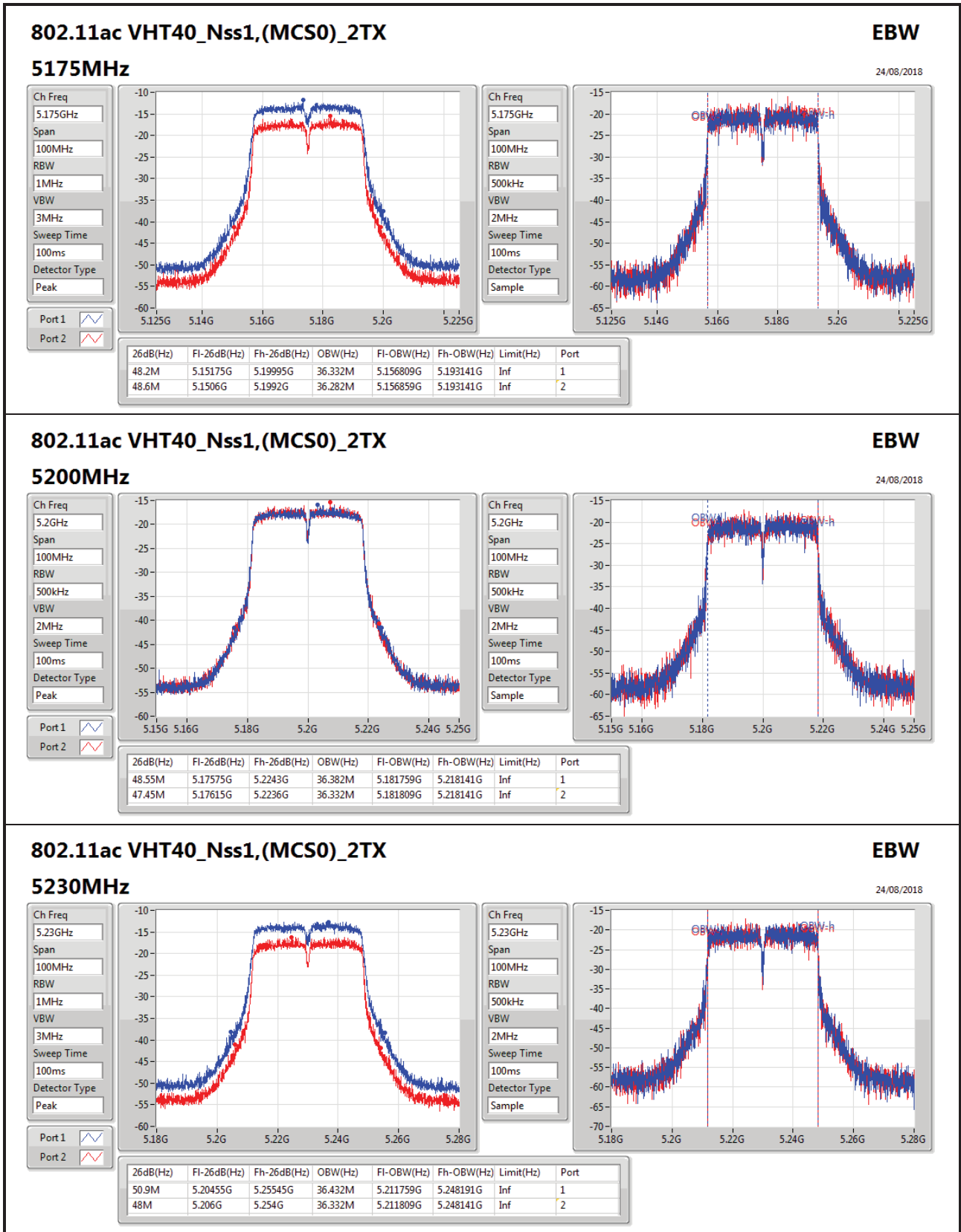
Detector Type: Sample

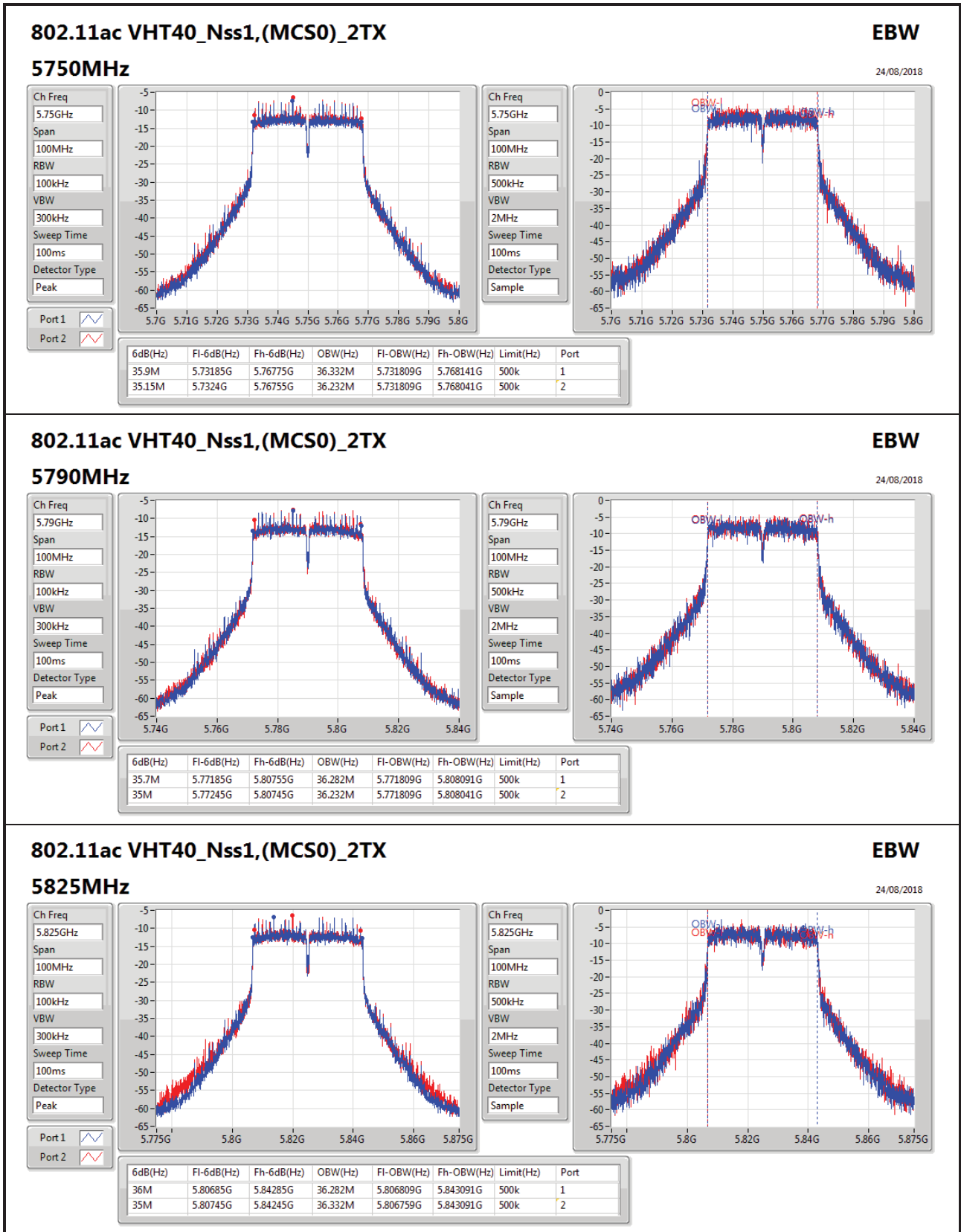
Sample

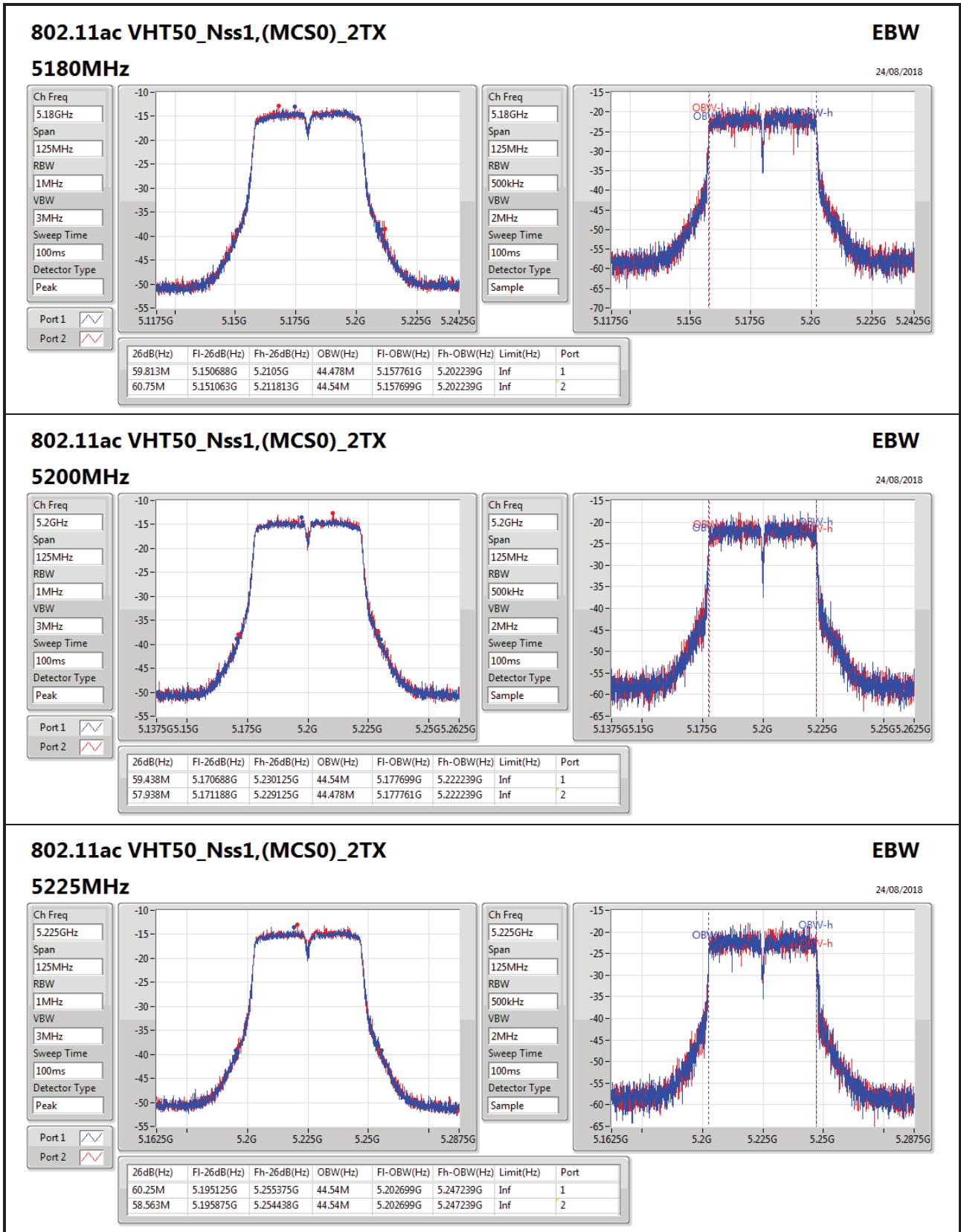


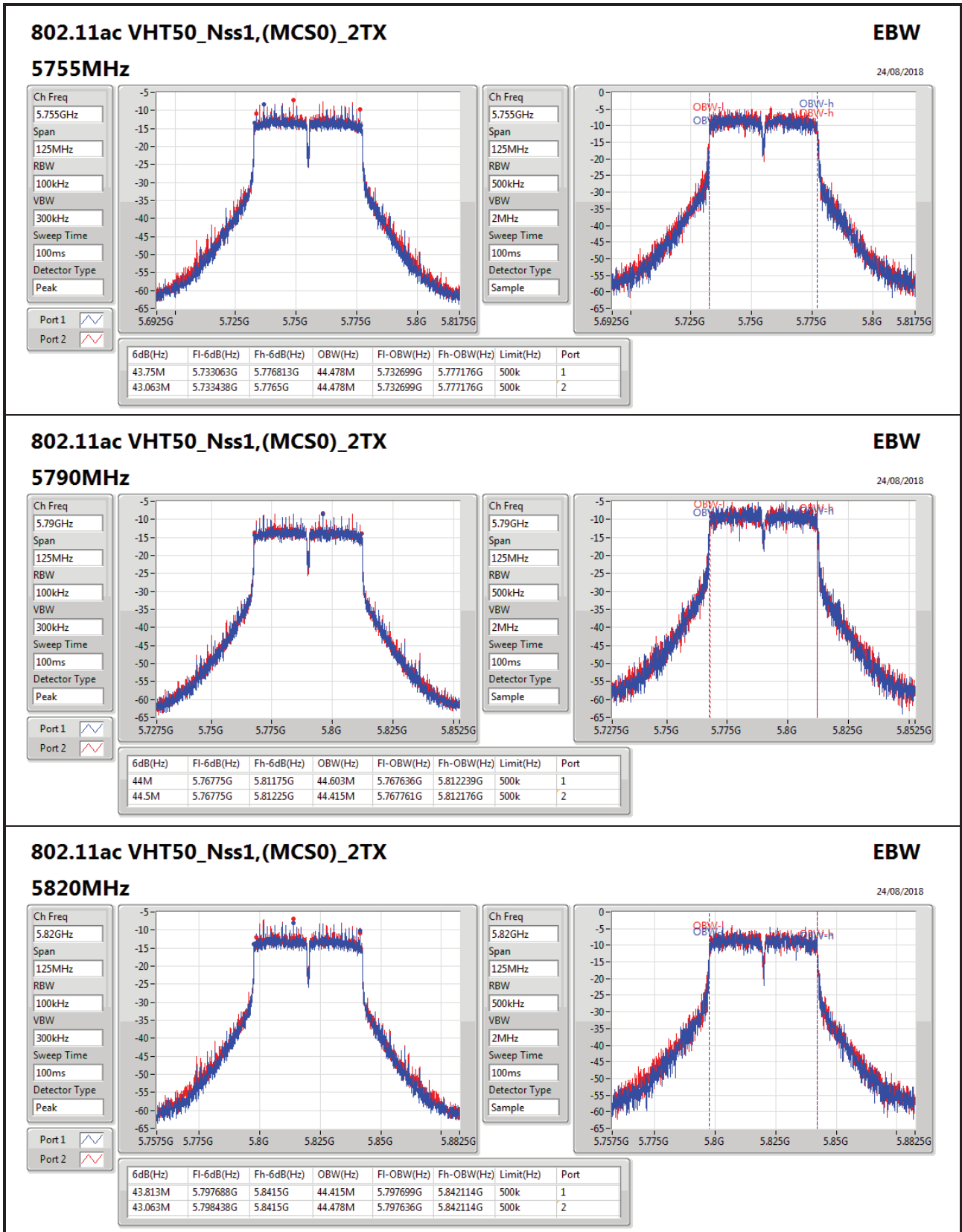




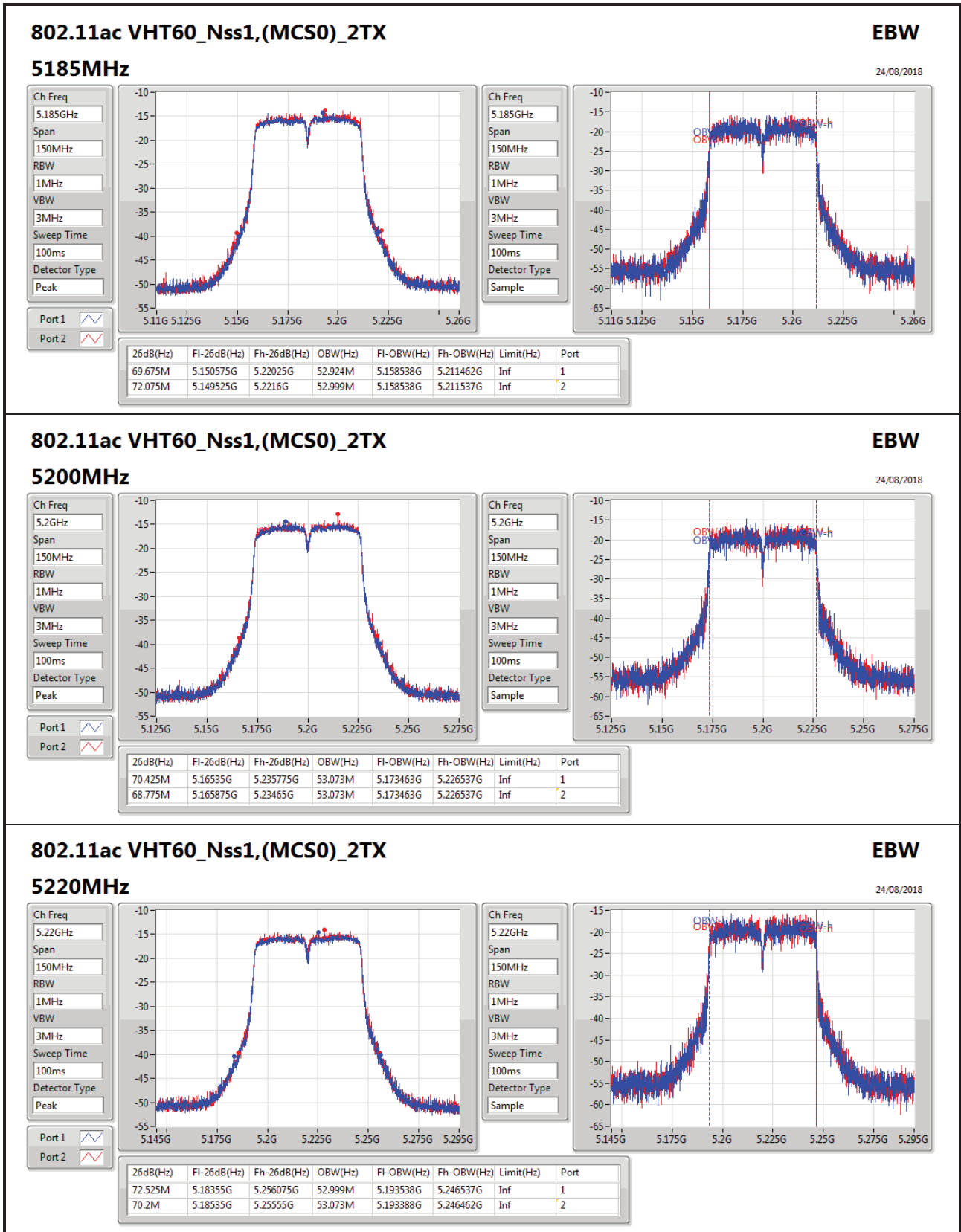


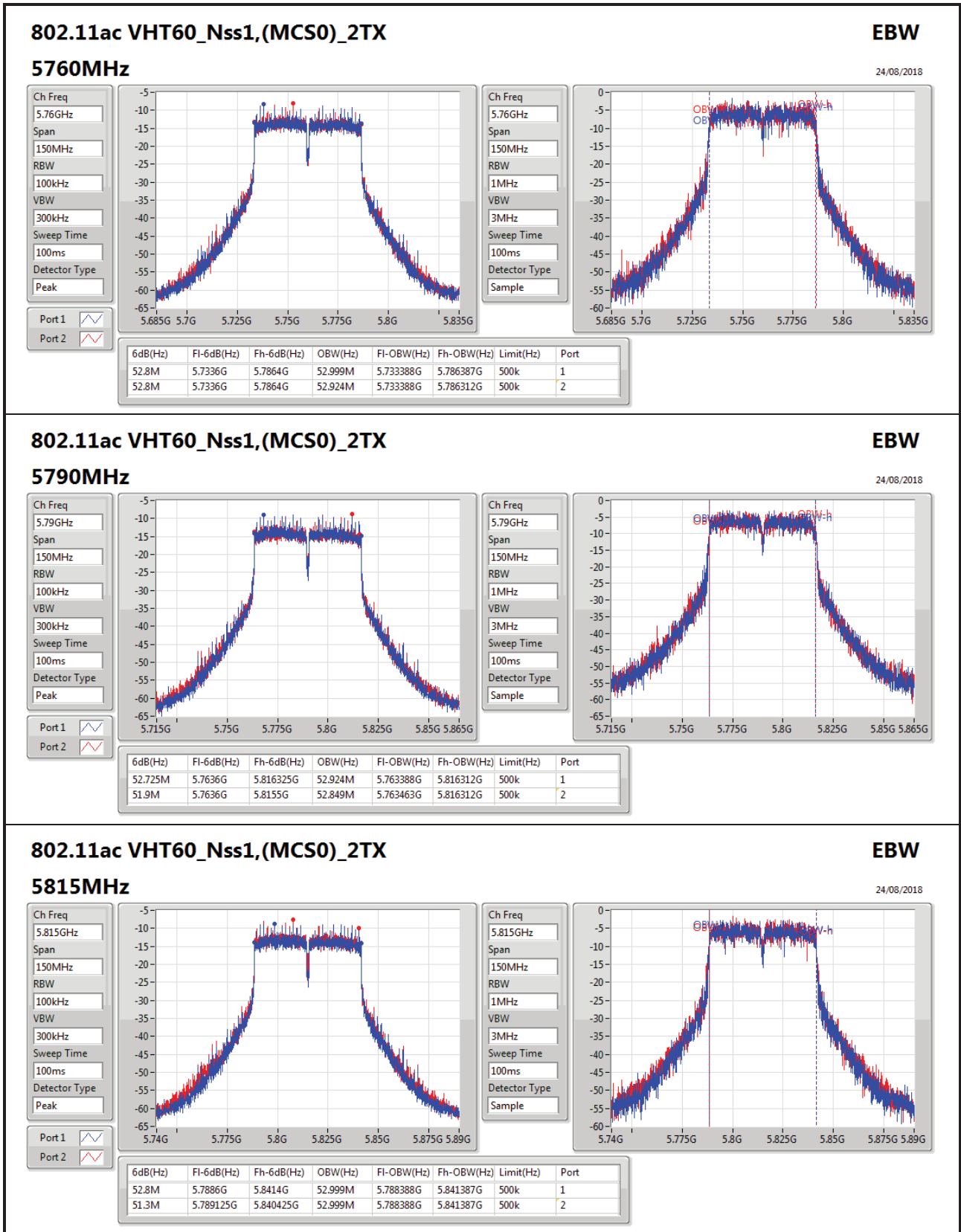


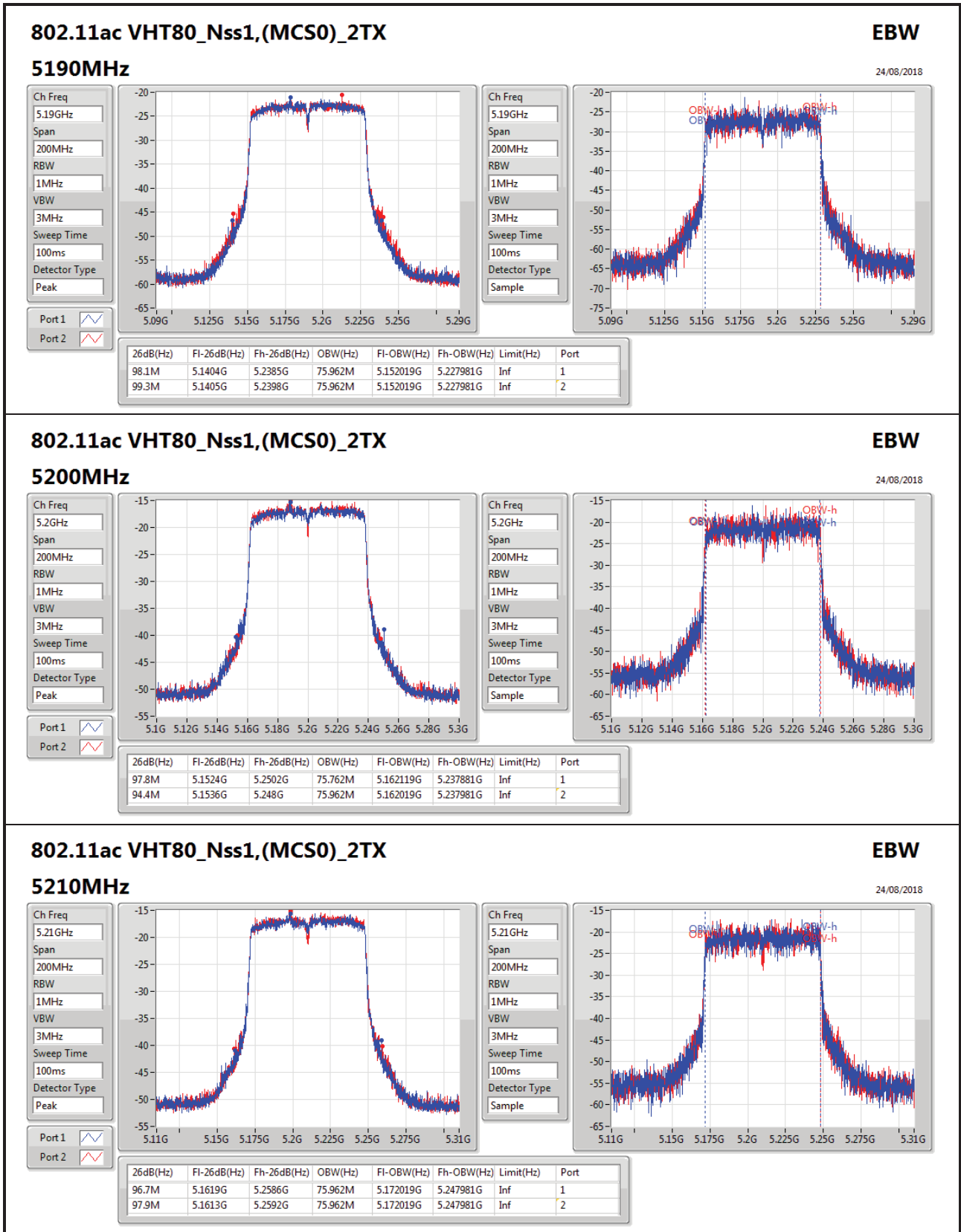


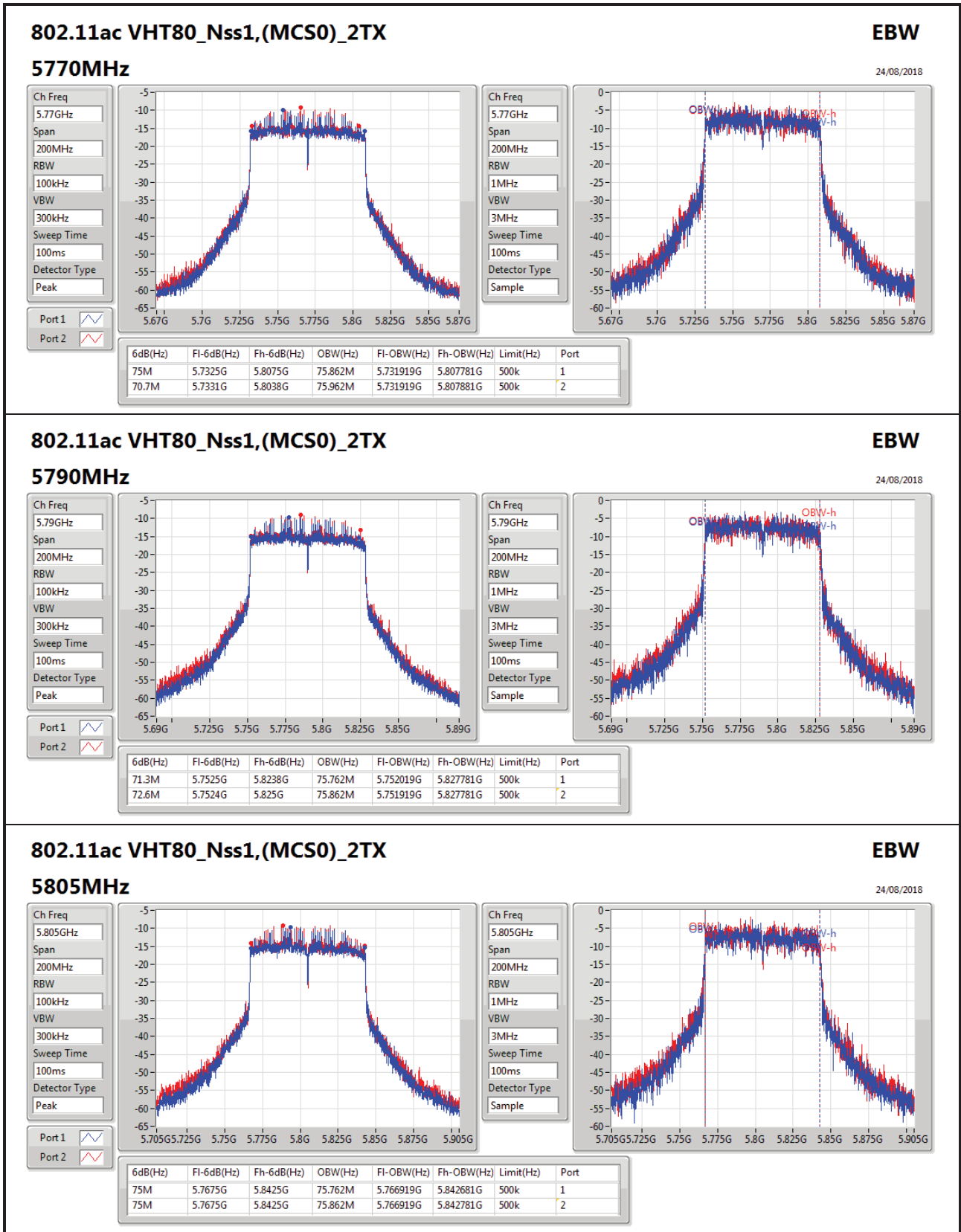














Summary

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	25.5M	16.667M	16M7D1D	23.45M	16.567M
802.11ac VHT10_Nss1,(MCS0)_2TX	14.35M	8.971M	8M97D1D	13.75M	8.946M
802.11ac VHT20_Nss1,(MCS0)_2TX	26.225M	17.866M	17M9D1D	24.875M	17.741M
802.11ac VHT30_Nss1,(MCS0)_2TX	38.288M	26.012M	26M0D1D	36.863M	25.825M
802.11ac VHT40_Nss1,(MCS0)_2TX	89.75M	36.732M	36M7D1D	46.8M	36.332M
802.11ac VHT50_Nss1,(MCS0)_2TX	112.125M	44.978M	45M0D1D	59.313M	44.54M
802.11ac VHT60_Nss1,(MCS0)_2TX	75M	53.148M	53M1D1D	69.3M	52.999M
802.11ac VHT80_Nss1,(MCS0)_2TX	100M	76.262M	76M3D1D	97M	75.862M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.325M	16.692M	16M7D1D	16.275M	16.592M
802.11ac VHT10_Nss1,(MCS0)_2TX	8.825M	8.996M	9M00D1D	8.788M	8.946M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.525M	17.816M	17M8D1D	16.65M	17.741M
802.11ac VHT30_Nss1,(MCS0)_2TX	25.538M	25.862M	25M9D1D	24.563M	25.787M
802.11ac VHT40_Nss1,(MCS0)_2TX	36.25M	36.382M	36M4D1D	35.25M	36.232M
802.11ac VHT50_Nss1,(MCS0)_2TX	44.563M	44.603M	44M6D1D	43.063M	44.478M
802.11ac VHT60_Nss1,(MCS0)_2TX	52.8M	52.999M	53M0D1D	49.65M	52.699M
802.11ac VHT80_Nss1,(MCS0)_2TX	75M	75.862M	75M9D1D	70M	75.762M

**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

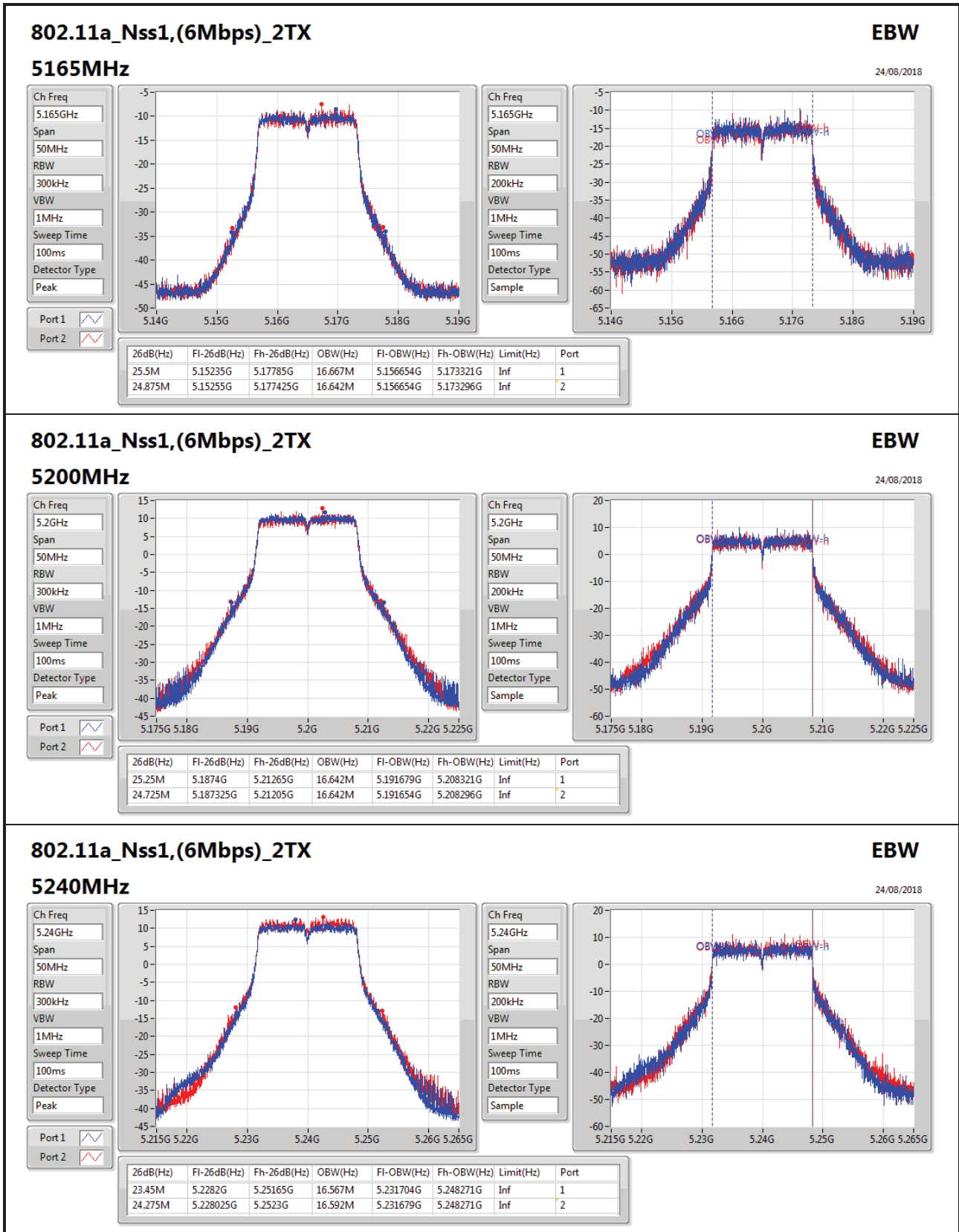
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	Inf	25.5M	16.667M	24.875M	16.642M
5200MHz_TnomVnom	Pass	Inf	25.25M	16.642M	24.725M	16.642M
5240MHz_TnomVnom	Pass	Inf	23.45M	16.567M	24.275M	16.592M
5740MHz_TnomVnom	Pass	500k	16.325M	16.592M	16.3M	16.692M
5790MHz_TnomVnom	Pass	500k	16.325M	16.667M	16.275M	16.592M
5835MHz_TnomVnom	Pass	500k	16.275M	16.617M	16.3M	16.667M
802.11ac_VHT10_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5160MHz_TnomVnom	Pass	Inf	13.913M	8.958M	14.25M	8.958M
5200MHz_TnomVnom	Pass	Inf	14.138M	8.946M	13.938M	8.946M
5245MHz_TnomVnom	Pass	Inf	14.35M	8.971M	13.75M	8.946M
5735MHz_TnomVnom	Pass	500k	8.8M	8.983M	8.8M	8.958M
5790MHz_TnomVnom	Pass	500k	8.813M	8.996M	8.813M	8.983M
5840MHz_TnomVnom	Pass	500k	8.825M	8.946M	8.788M	8.958M
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	Inf	24.875M	17.866M	26.15M	17.791M
5200MHz_TnomVnom	Pass	Inf	25.35M	17.816M	26.225M	17.741M
5240MHz_TnomVnom	Pass	Inf	24.925M	17.766M	25.125M	17.791M
5740MHz_TnomVnom	Pass	500k	17.25M	17.816M	16.875M	17.816M
5790MHz_TnomVnom	Pass	500k	16.65M	17.741M	16.9M	17.766M
5835MHz_TnomVnom	Pass	500k	17.525M	17.791M	16.9M	17.816M
802.11ac_VHT30_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5170MHz_TnomVnom	Pass	Inf	37.8M	25.937M	37.125M	25.975M
5200MHz_TnomVnom	Pass	Inf	37.463M	25.825M	38.1M	26.012M
5235MHz_TnomVnom	Pass	Inf	36.863M	25.825M	38.288M	25.862M
5745MHz_TnomVnom	Pass	500k	25.538M	25.787M	25.463M	25.825M
5790MHz_TnomVnom	Pass	500k	25.463M	25.825M	25.5M	25.825M
5830MHz_TnomVnom	Pass	500k	24.563M	25.825M	25.538M	25.862M
802.11ac_VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5175MHz_TnomVnom	Pass	Inf	89.75M	36.732M	88.4M	36.732M
5200MHz_TnomVnom	Pass	Inf	46.8M	36.332M	49.8M	36.382M
5230MHz_TnomVnom	Pass	Inf	48.85M	36.332M	50.55M	36.382M
5750MHz_TnomVnom	Pass	500k	36.25M	36.382M	35.65M	36.282M
5790MHz_TnomVnom	Pass	500k	35.65M	36.382M	35.25M	36.232M
5825MHz_TnomVnom	Pass	500k	35.75M	36.332M	35.3M	36.282M
802.11ac_VHT50_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	68.688M	44.853M	112.125M	44.978M
5200MHz_TnomVnom	Pass	Inf	59.313M	44.54M	60.313M	44.54M
5225MHz_TnomVnom	Pass	Inf	62.625M	44.603M	63.938M	44.54M
5755MHz_TnomVnom	Pass	500k	44.063M	44.603M	43.813M	44.478M
5790MHz_TnomVnom	Pass	500k	43.063M	44.54M	43.75M	44.603M
5820MHz_TnomVnom	Pass	500k	44.563M	44.603M	44.5M	44.54M
802.11ac_VHT60_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5185MHz_TnomVnom	Pass	Inf	74.175M	53.148M	71.55M	52.999M



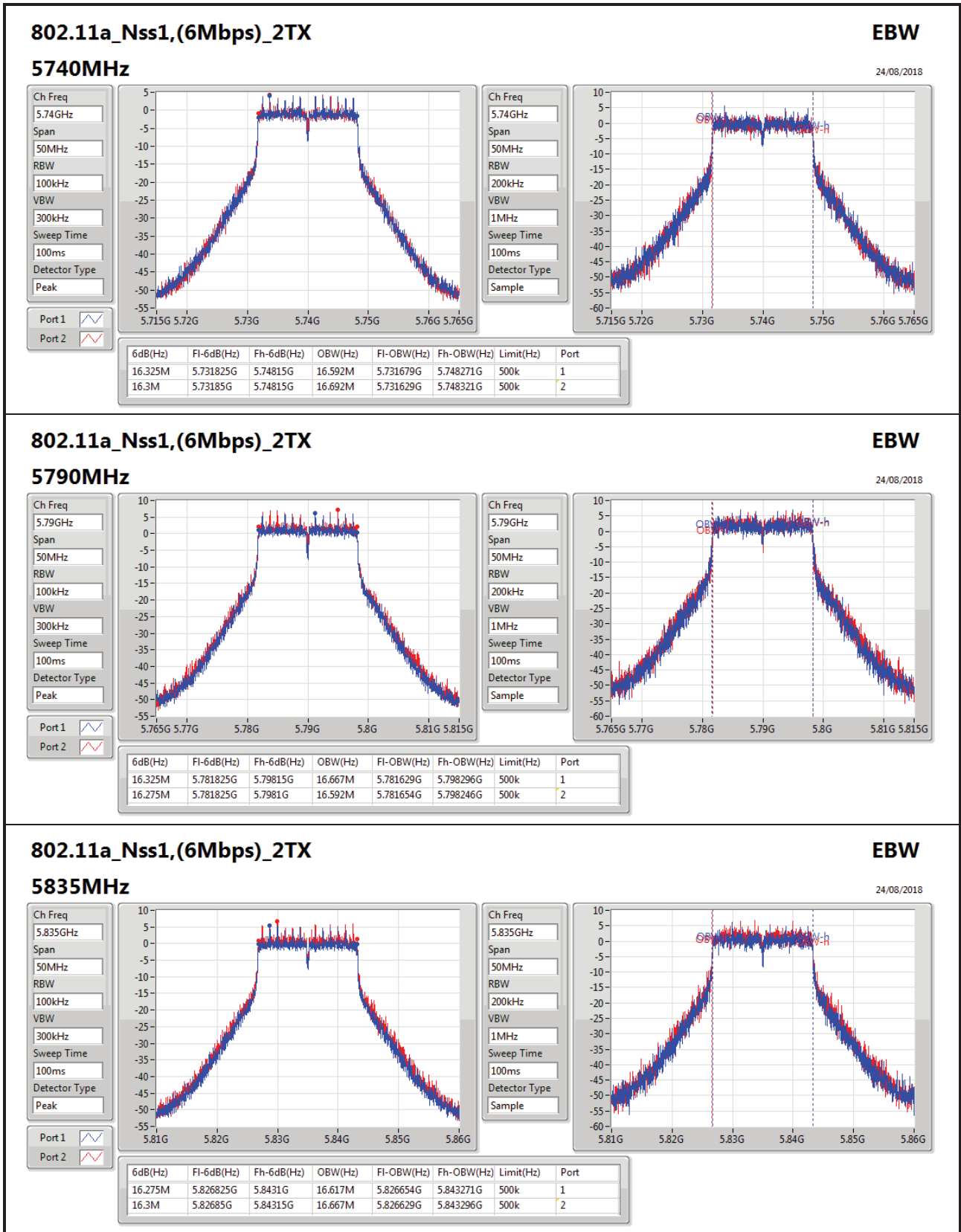
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5200MHz_TnomVnom	Pass	Inf	73.2M	53.148M	69.3M	52.999M
5220MHz_TnomVnom	Pass	Inf	75M	53.073M	75M	52.999M
5760MHz_TnomVnom	Pass	500k	52.8M	52.924M	49.65M	52.924M
5790MHz_TnomVnom	Pass	500k	52.425M	52.699M	52.725M	52.999M
5815MHz_TnomVnom	Pass	500k	52.35M	52.849M	52.725M	52.924M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	Inf	98.1M	75.962M	99.3M	75.962M
5200MHz_TnomVnom	Pass	Inf	99.5M	76.262M	100M	76.162M
5210MHz_TnomVnom	Pass	Inf	98.3M	75.962M	97M	75.862M
5770MHz_TnomVnom	Pass	500k	70.9M	75.862M	75M	75.862M
5790MHz_TnomVnom	Pass	500k	71.3M	75.762M	75M	75.762M
5805MHz_TnomVnom	Pass	500k	71.9M	75.862M	70M	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;






**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**

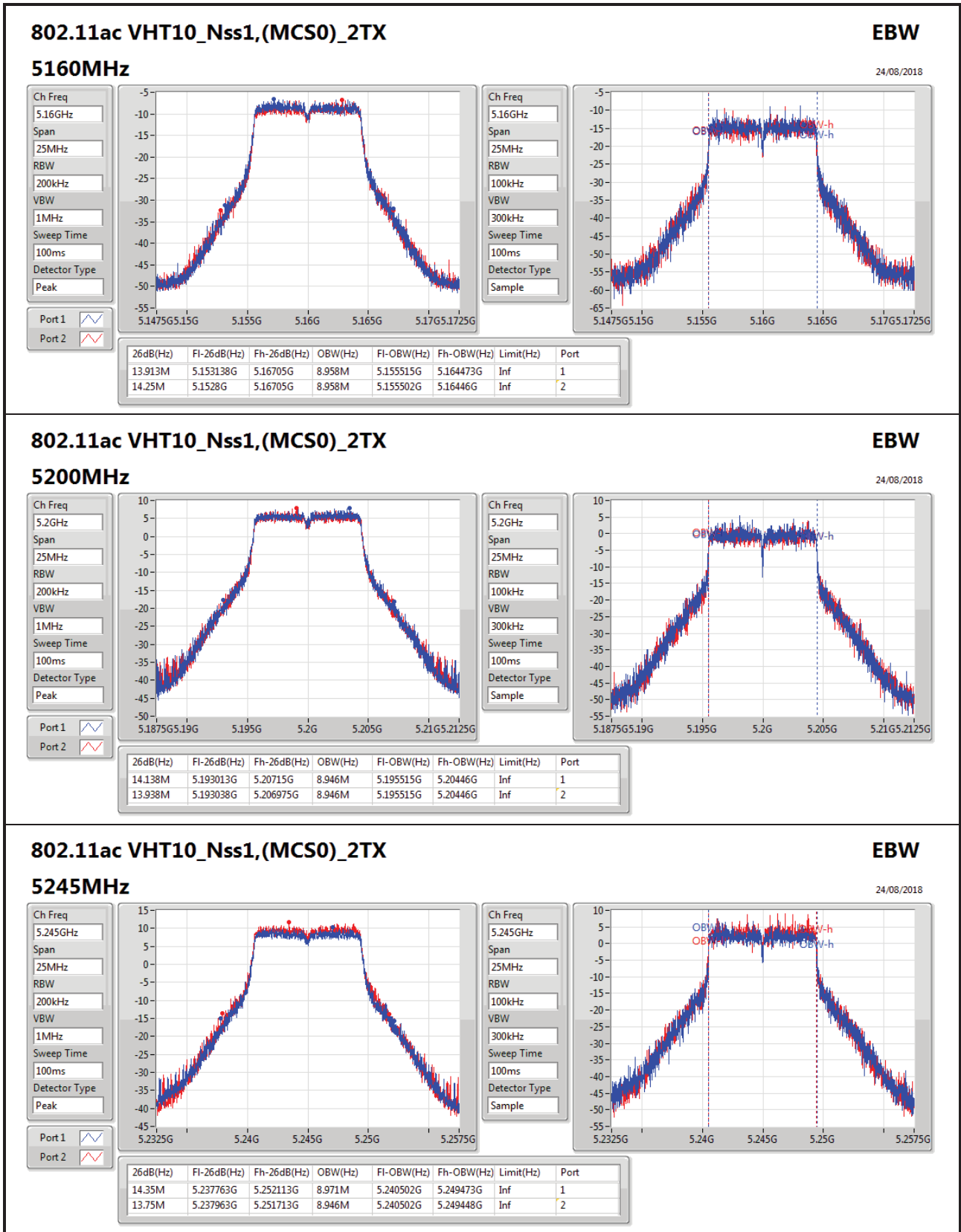
24/08/2018

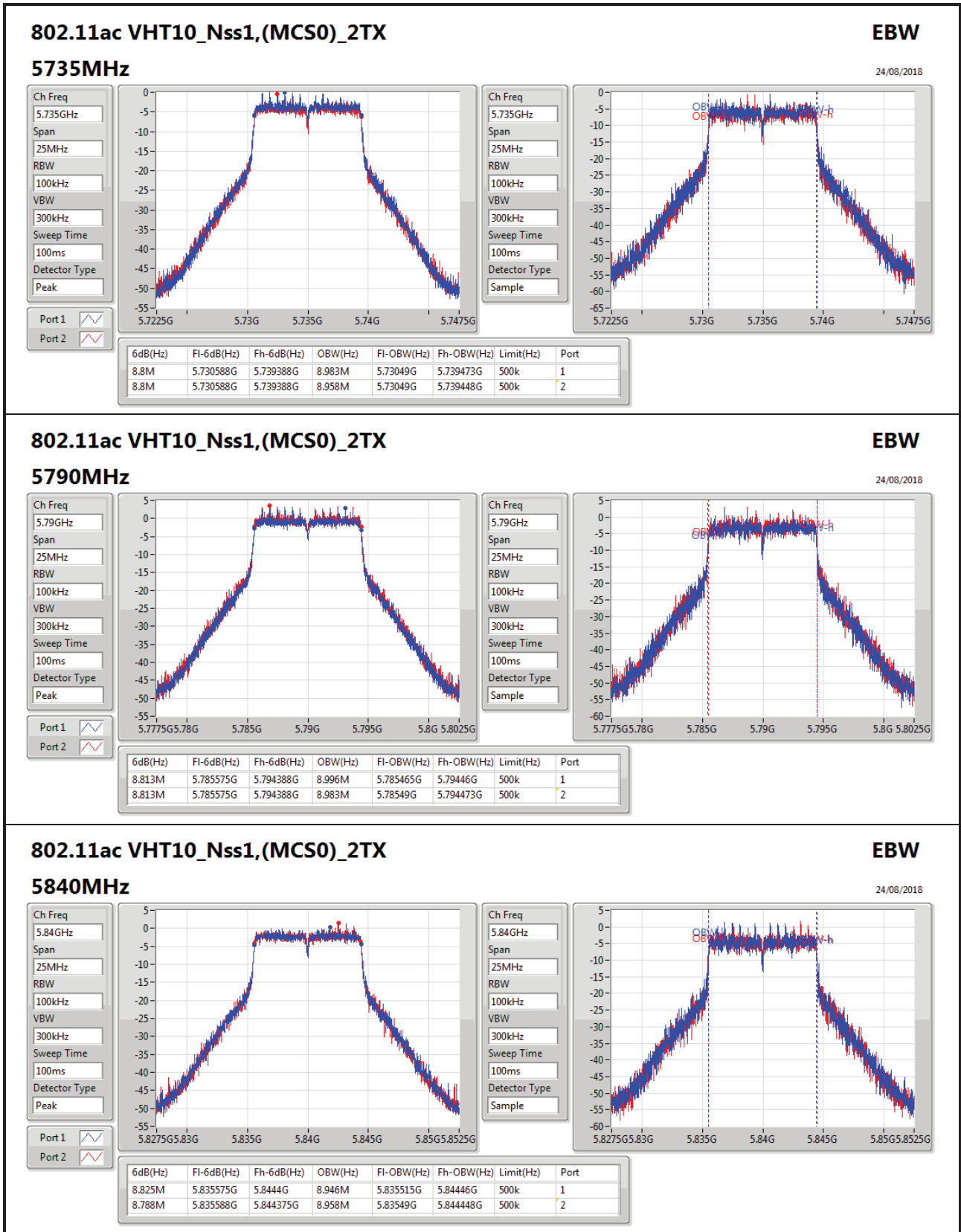
**5835MHz**

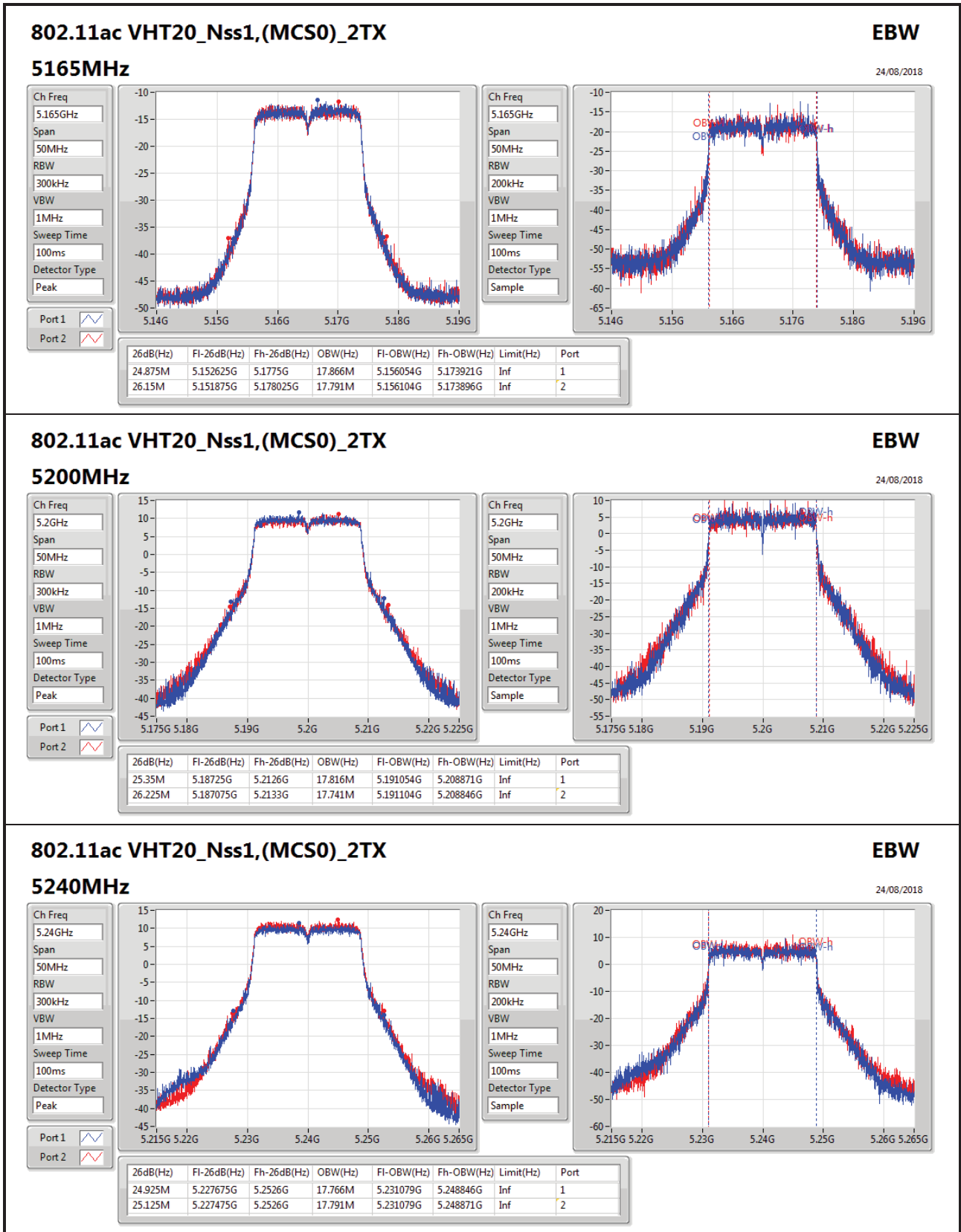
Ch Freq: 5.835GHz  
Span: 50MHz  
RBW: 100kHz  
VBW: 300kHz  
Sweep Time: 100ms  
Detector Type: Peak

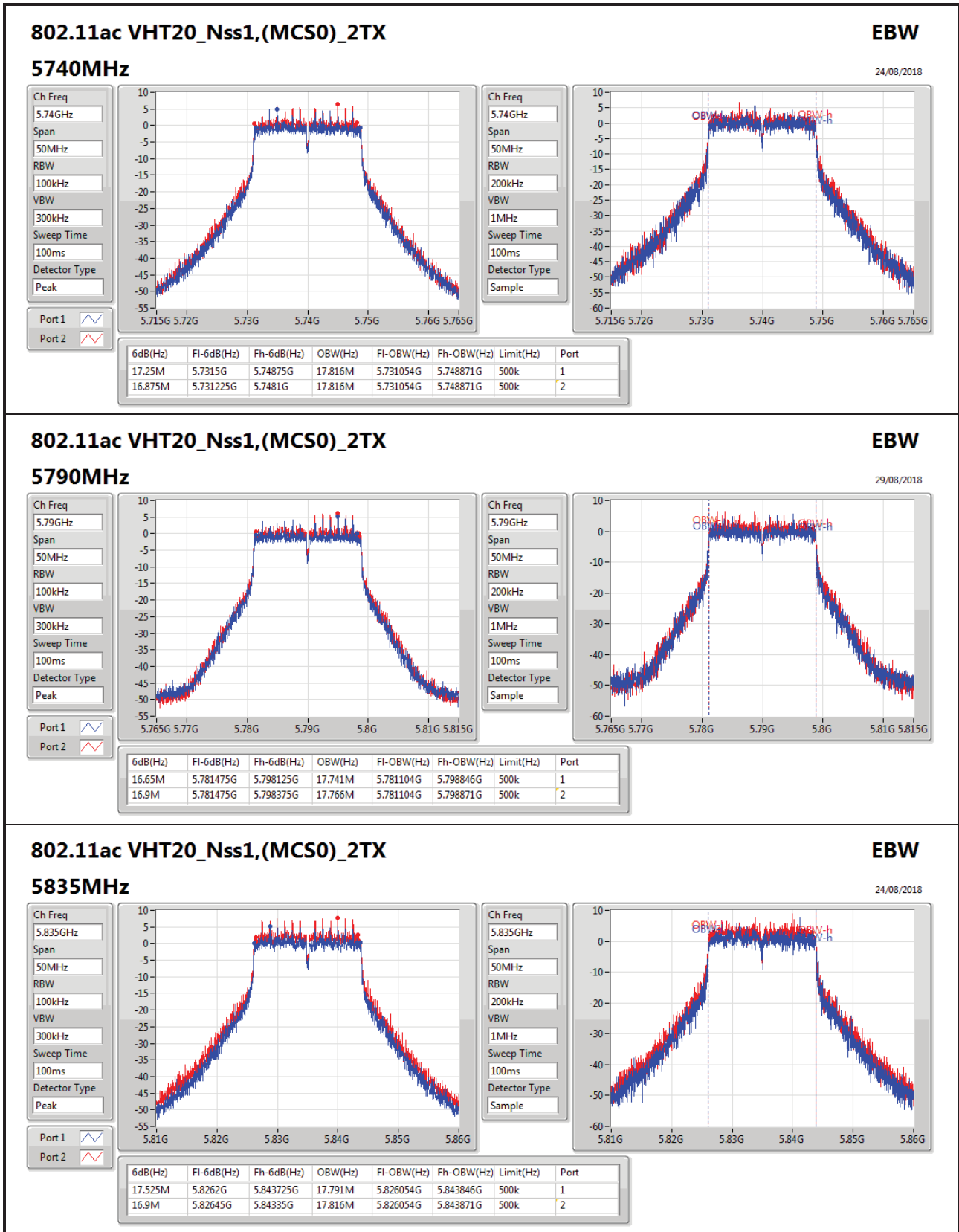
Port 1:   
Port 2:

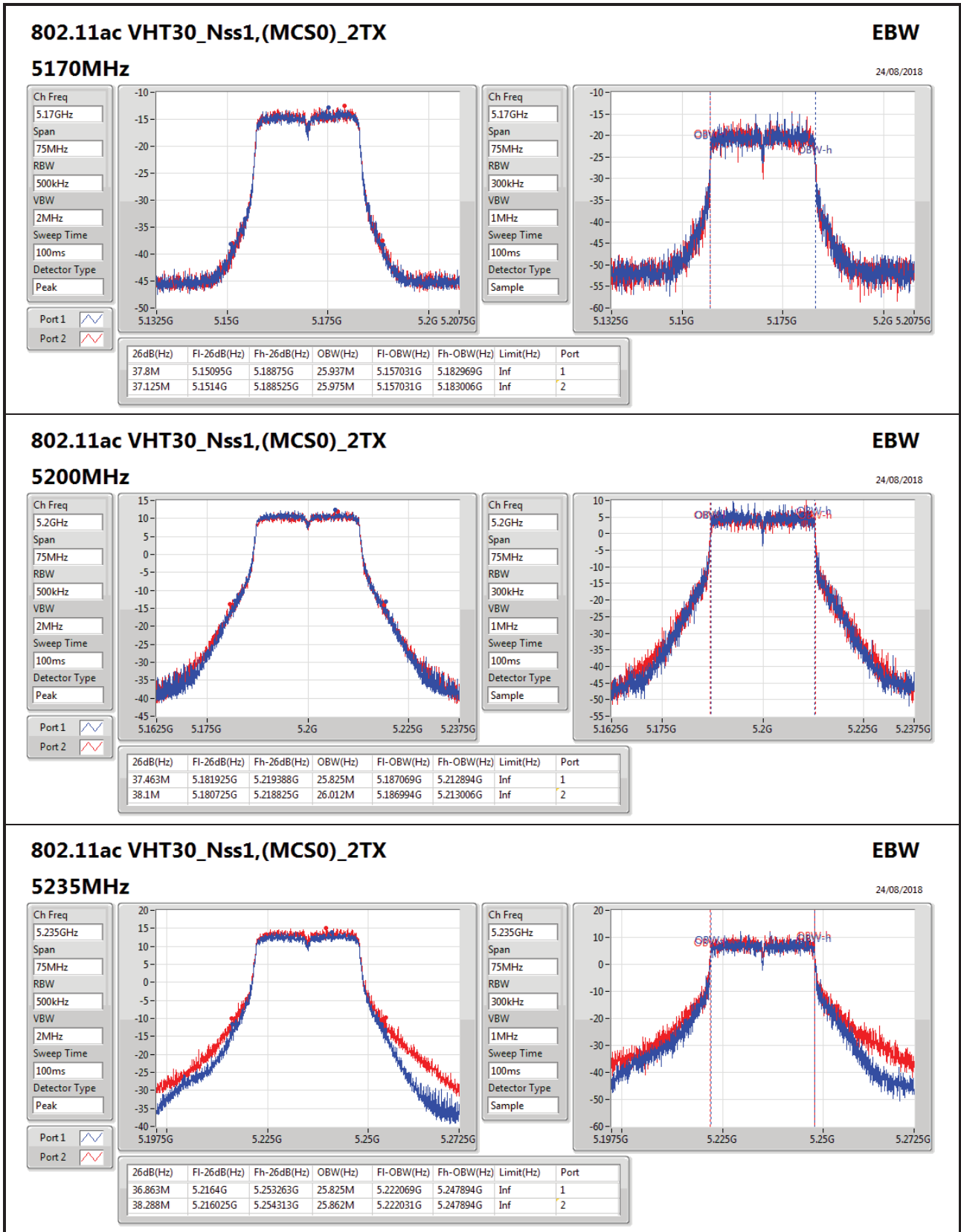
Ch Freq: 5.835GHz  
Span: 50MHz  
RBW: 200kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Sample

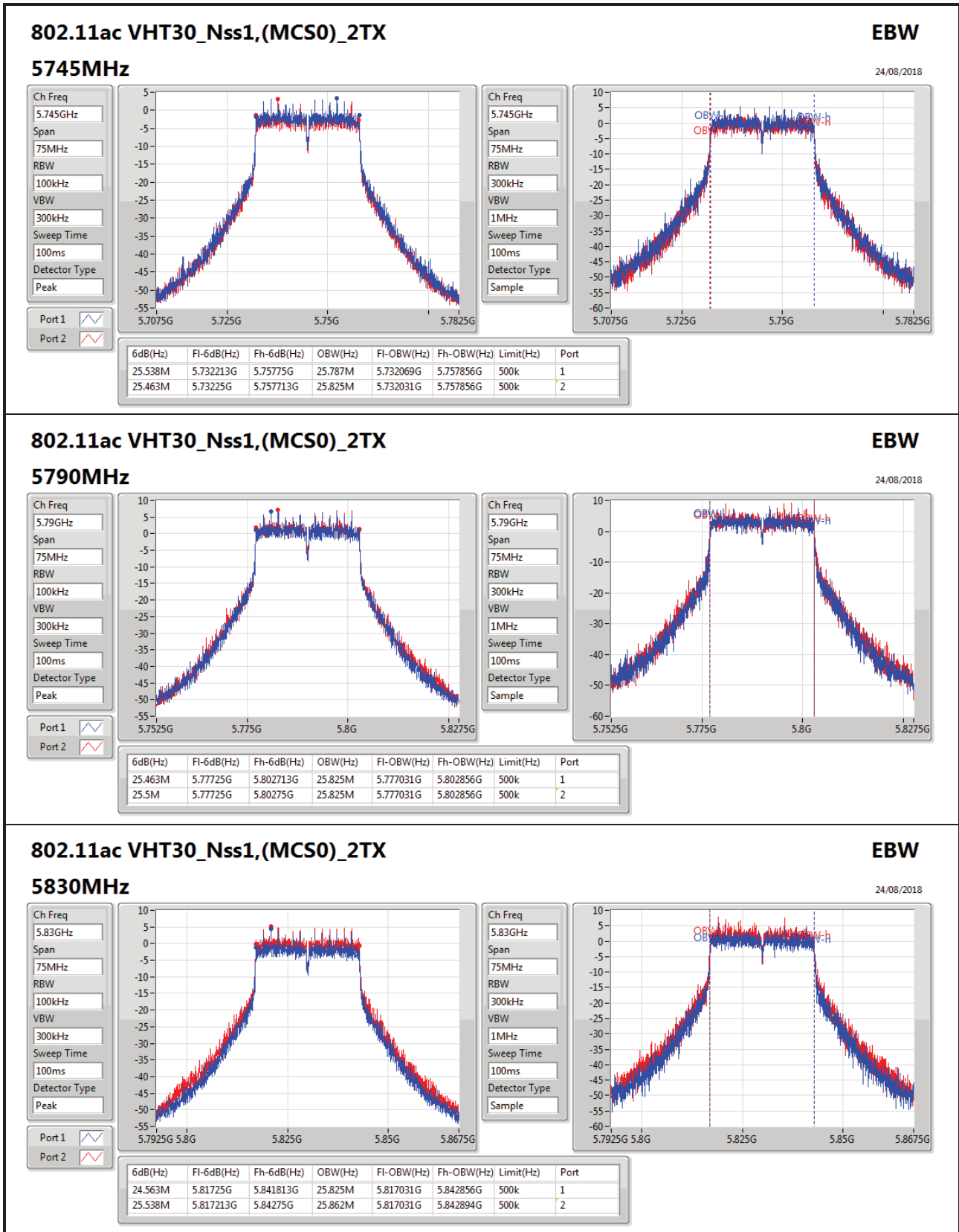


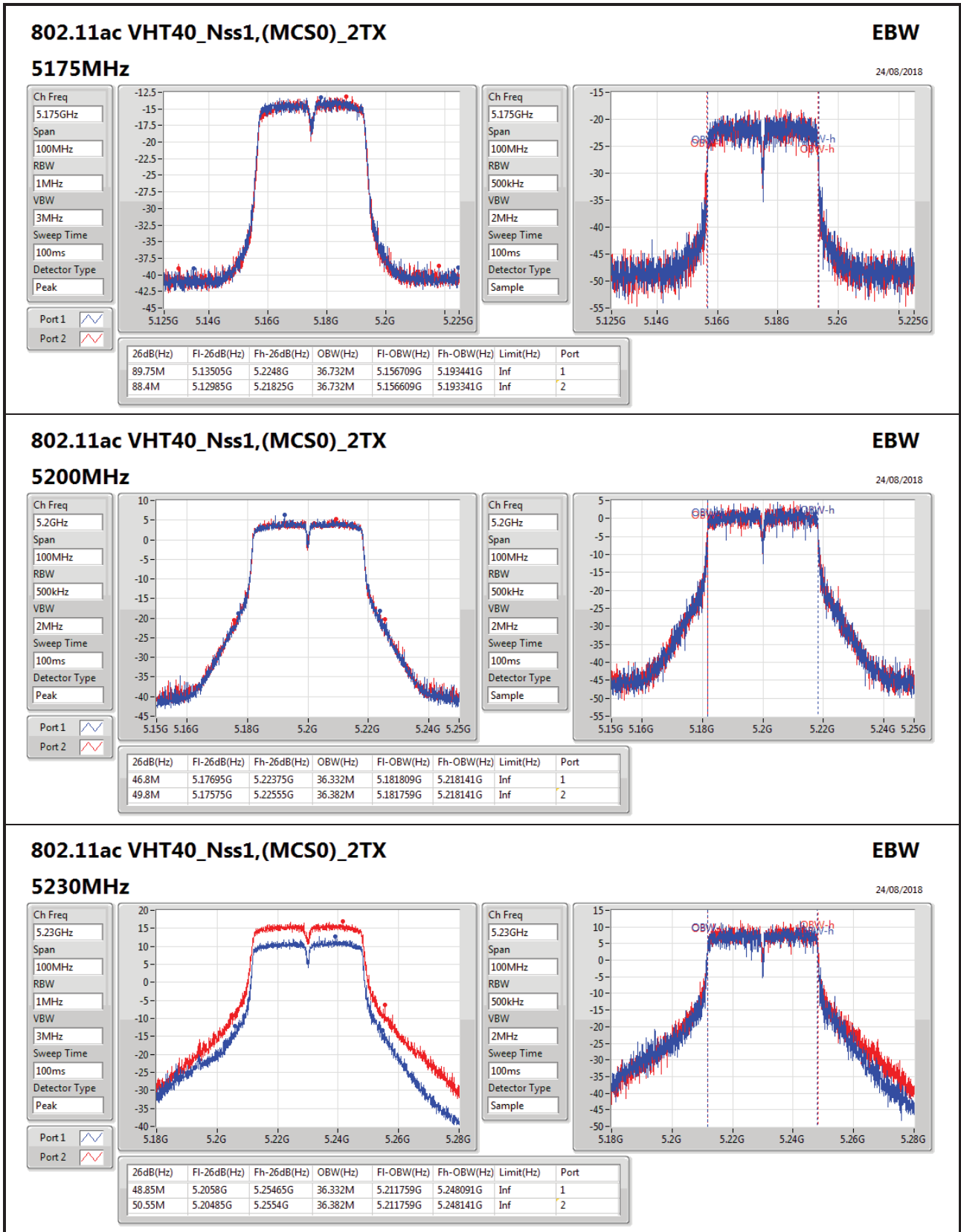




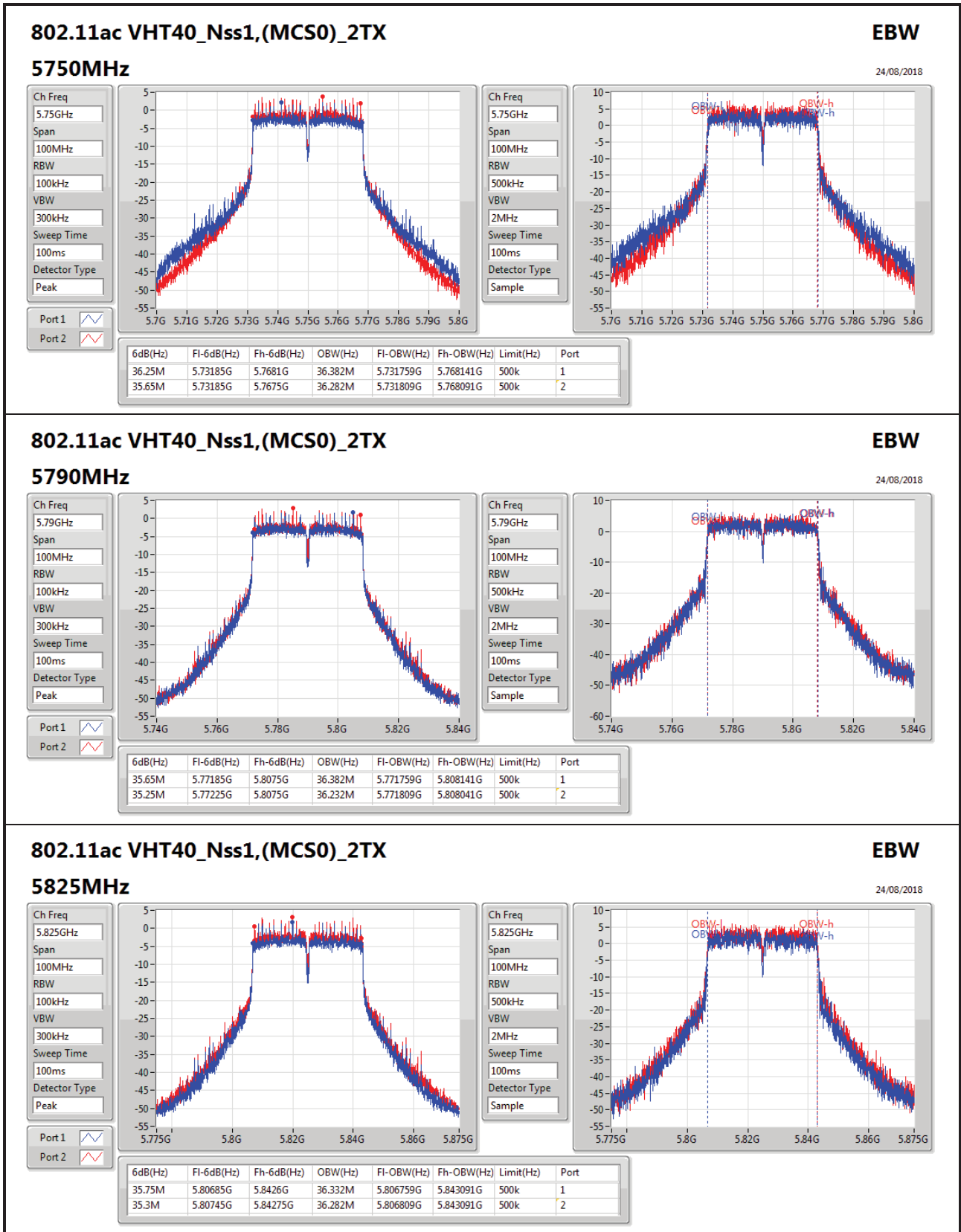


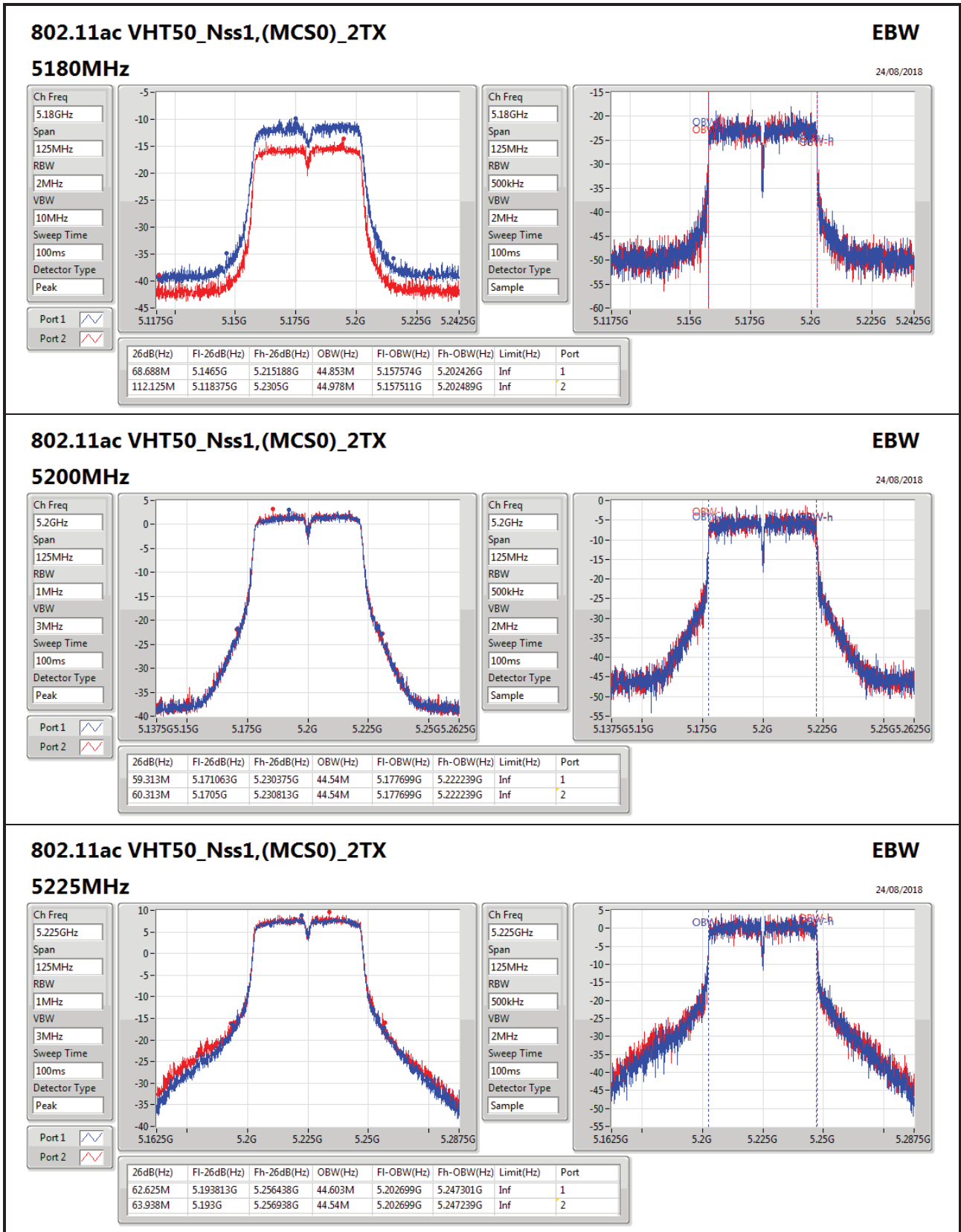


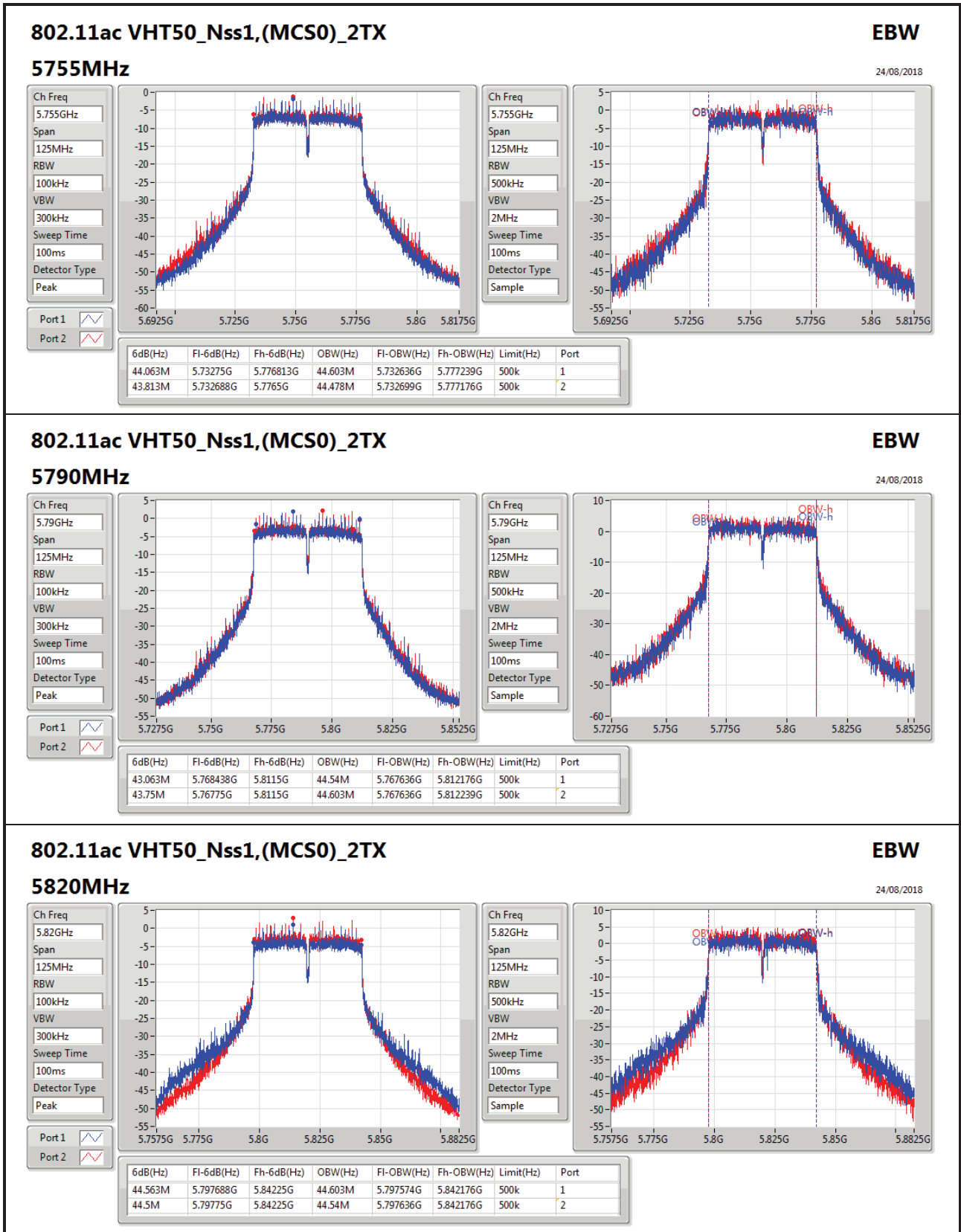


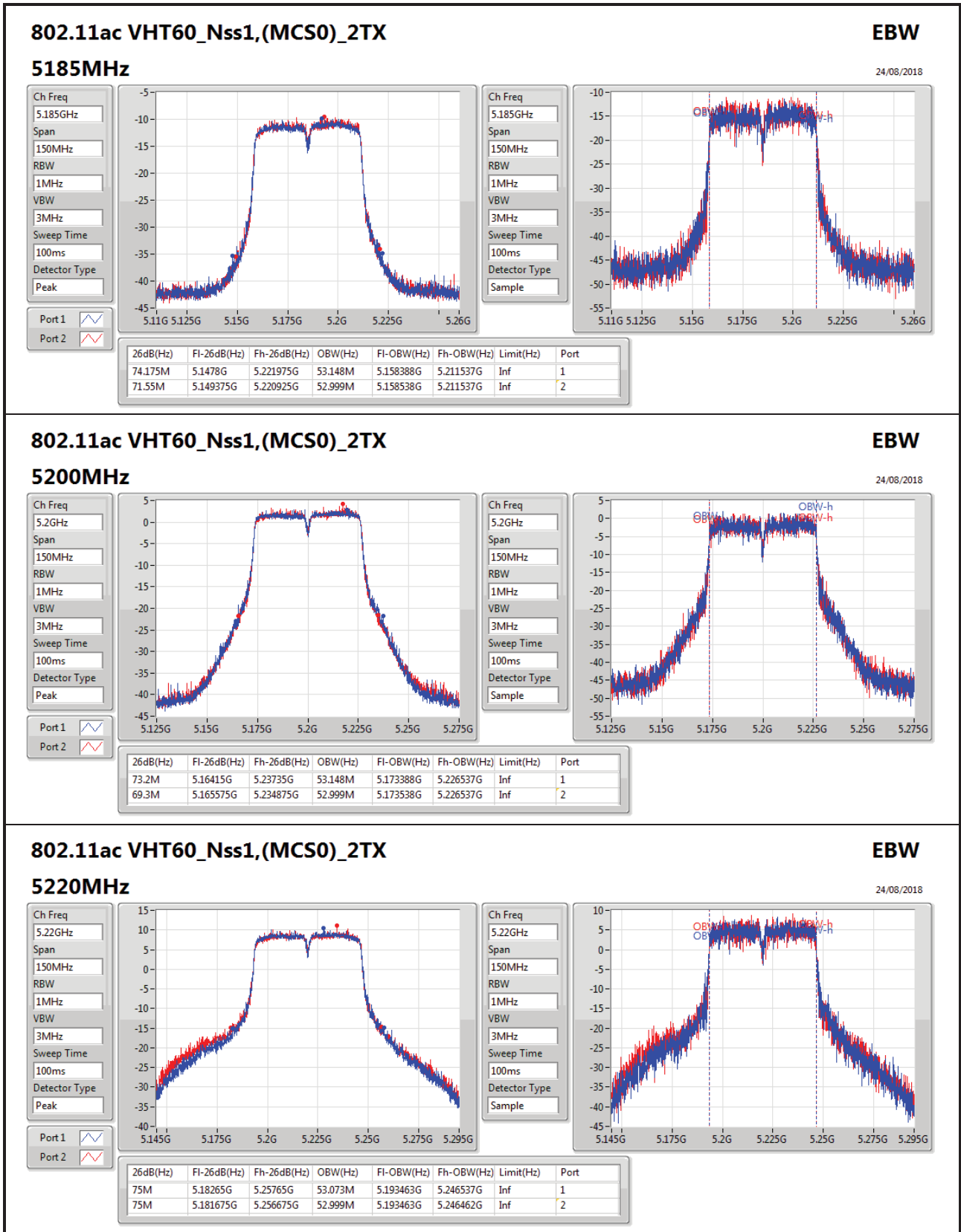


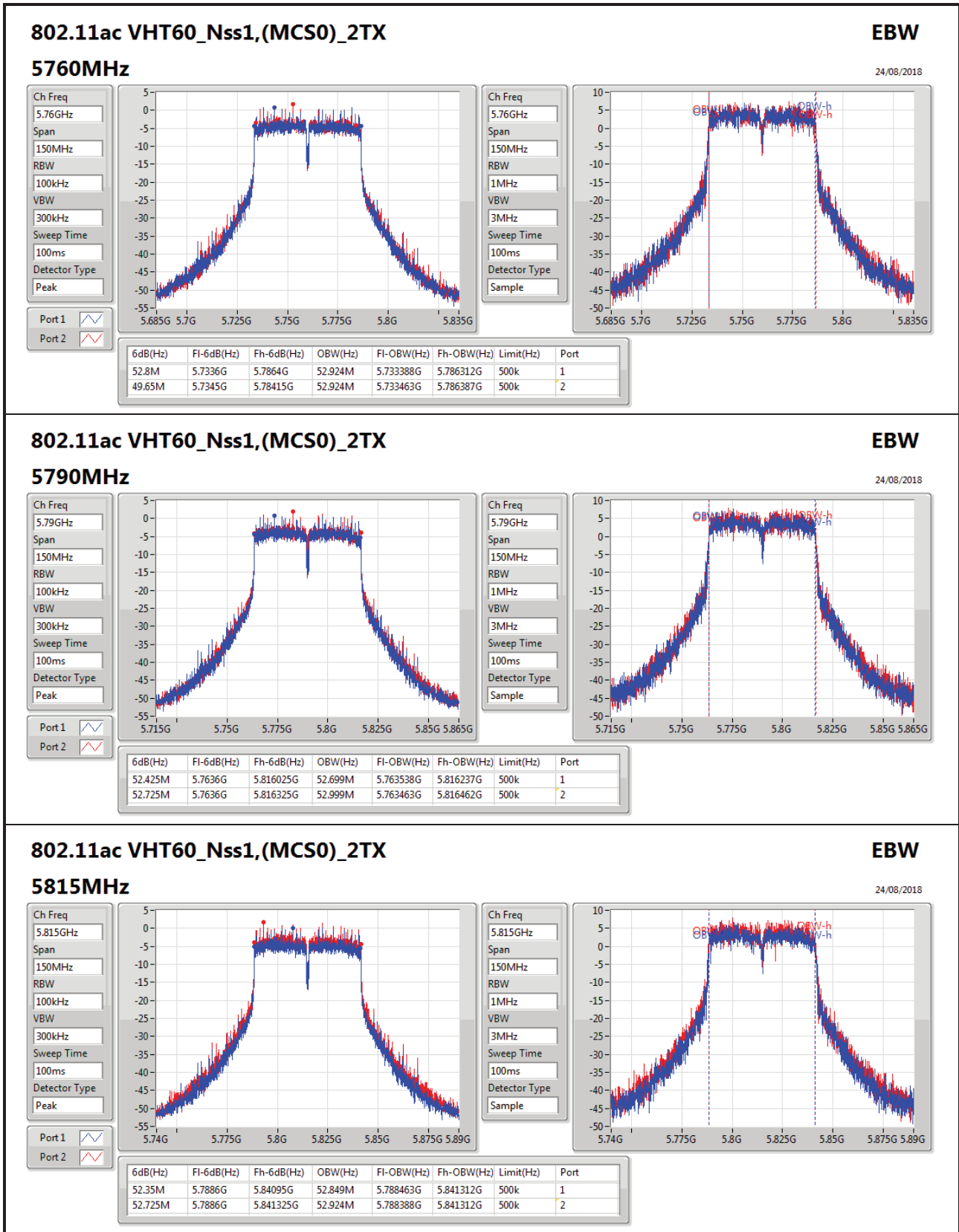











**802.11ac VHT60\_Nss1,(MCS0)\_2TX**
**EBW**

24/08/2018

**5815MHz**

Ch Freq: 5.815GHz

Span: 150MHz

RBW: 100kHz

VBW: 300kHz

Sweep Time: 100ms

Detector Type: Peak

Port 1:

Port 2:

Ch Freq: 5.815GHz

Span: 150MHz

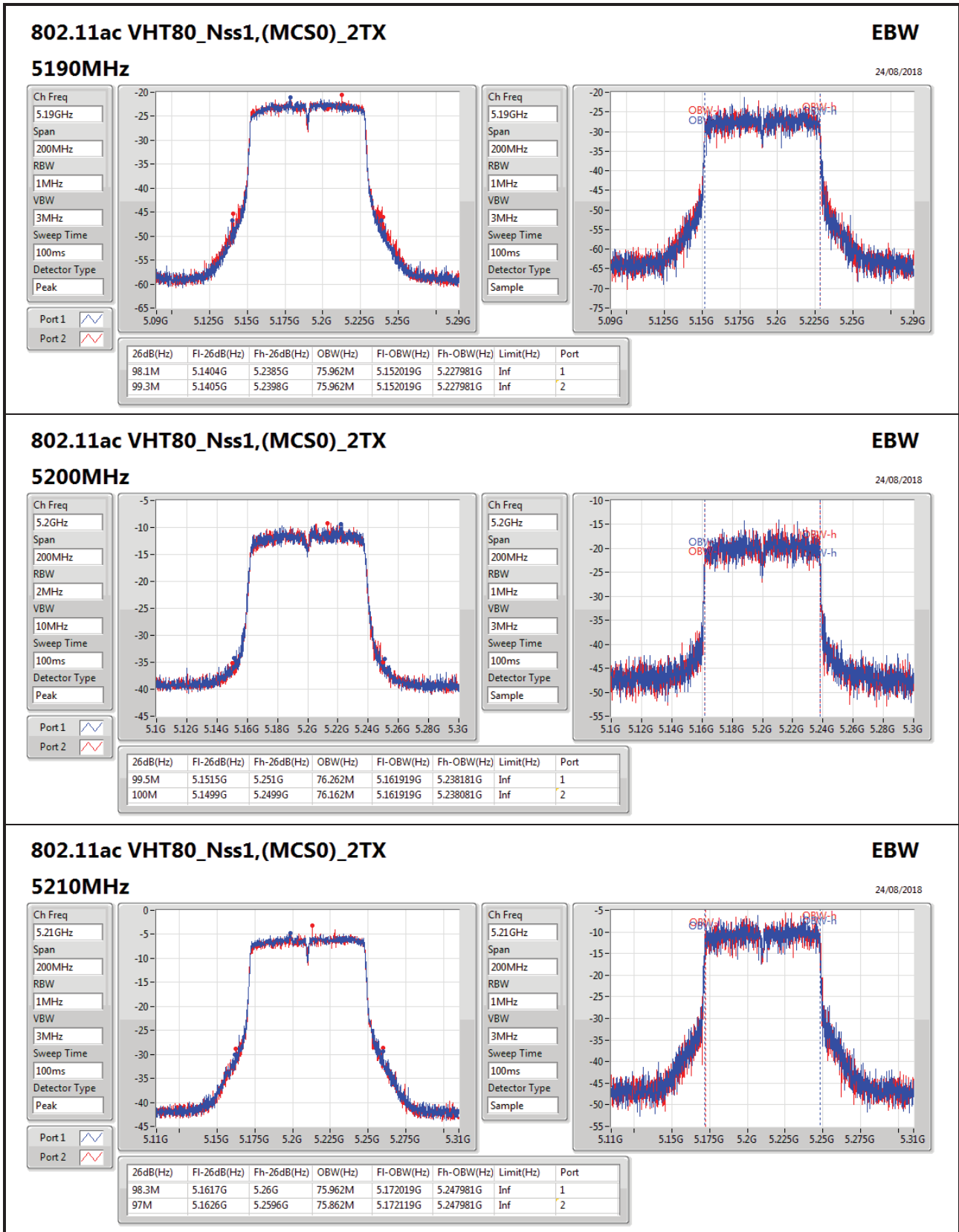
RBW: 1MHz

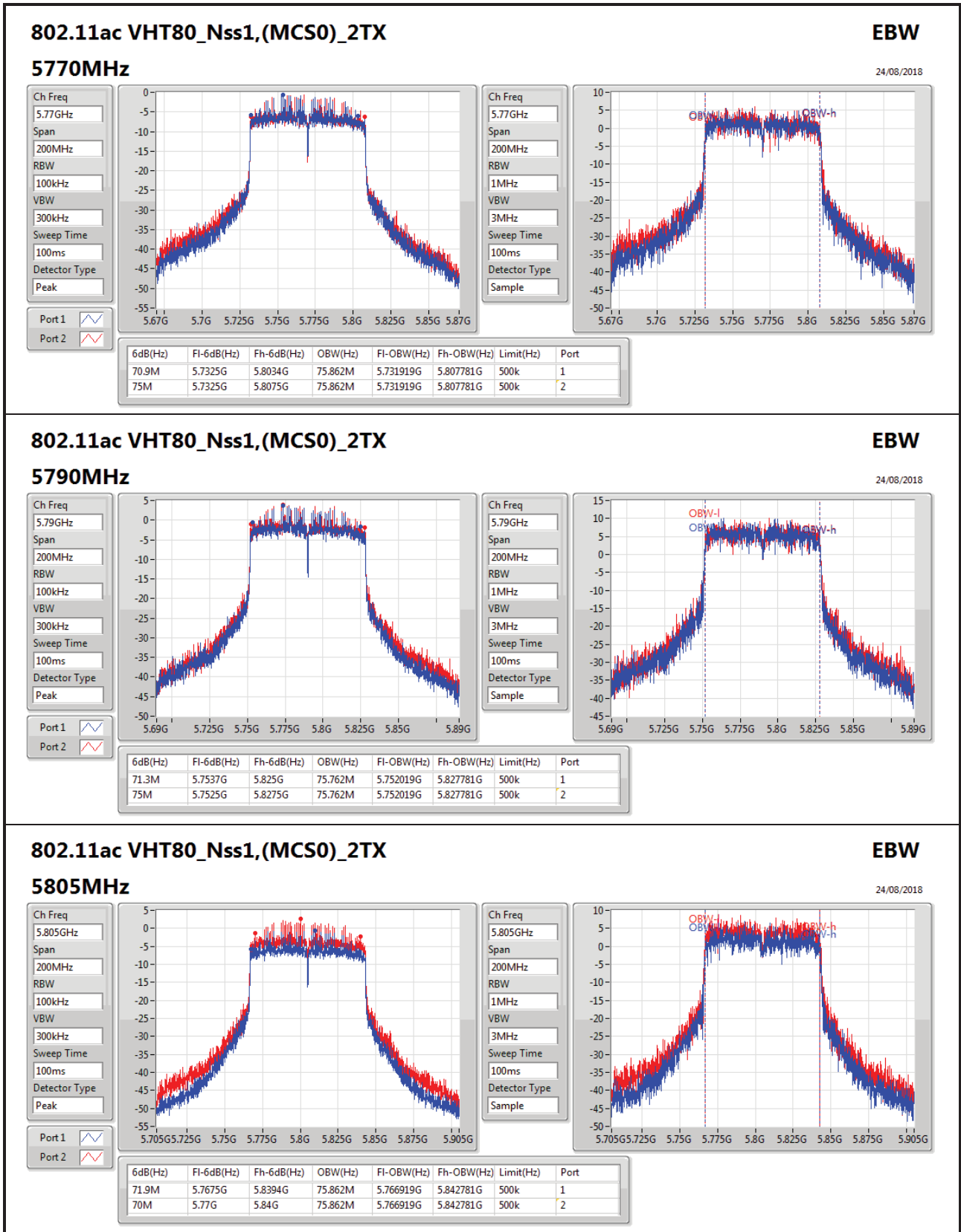
VBW: 3MHz

Sweep Time: 100ms

Detector Type: Sample

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
52.35M	5.7886G	5.84095G	52.849M	5.788463G	5.841312G	500k	1
52.725M	5.7886G	5.841325G	52.924M	5.788388G	5.841312G	500k	2







Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	-5.77	0.00026	20.23	0.10544
802.11ac VHT10_Nss1,(MCS0)_2TX	-5.56	0.00028	20.44	0.11066
802.11ac VHT20_Nss1,(MCS0)_2TX	-5.58	0.00028	20.42	0.11015
802.11ac VHT30_Nss1,(MCS0)_2TX	-5.04	0.00031	20.96	0.12474
802.11ac VHT40_Nss1,(MCS0)_2TX	-5.01	0.00032	20.99	0.12560
802.11ac VHT50_Nss1,(MCS0)_2TX	-5.02	0.00031	20.98	0.12531
802.11ac VHT60_Nss1,(MCS0)_2TX	-5.01	0.00032	20.99	0.12560
802.11ac VHT80_Nss1,(MCS0)_2TX	-5.54	0.00028	20.46	0.11117
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	9.96	0.00991	35.96	3.94457
802.11ac VHT10_Nss1,(MCS0)_2TX	9.78	0.00951	35.78	3.78443
802.11ac VHT20_Nss1,(MCS0)_2TX	9.93	0.00984	35.93	3.91742
802.11ac VHT30_Nss1,(MCS0)_2TX	9.56	0.00904	35.56	3.59749
802.11ac VHT40_Nss1,(MCS0)_2TX	9.97	0.00993	35.97	3.95367
802.11ac VHT50_Nss1,(MCS0)_2TX	9.87	0.00971	35.87	3.86367
802.11ac VHT60_Nss1,(MCS0)_2TX	9.97	0.00993	35.97	3.95367
802.11ac VHT80_Nss1,(MCS0)_2TX	9.92	0.00982	35.92	3.90841





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)_2TX	-	-	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	26.00	-8.90	-8.92	-5.90	10.00	20.10	36.00
5200MHz_TnomVnom	Pass	26.00	-8.76	-8.81	-5.77	10.00	20.23	36.00
5240MHz_TnomVnom	Pass	26.00	-8.89	-8.91	-5.89	10.00	20.11	36.00
5740MHz_TnomVnom	Pass	26.00	6.78	7.11	9.96	10.00	35.96	36.00
5790MHz_TnomVnom	Pass	26.00	6.08	6.41	9.26	10.00	35.26	36.00
5835MHz_TnomVnom	Pass	26.00	5.95	6.24	9.11	10.00	35.11	36.00
802.11ac VHT10_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5160MHz_TnomVnom	Pass	26.00	-8.96	-8.79	-5.86	10.00	20.14	36.00
5200MHz_TnomVnom	Pass	26.00	-8.70	-8.45	-5.56	10.00	20.44	36.00
5245MHz_TnomVnom	Pass	26.00	-8.99	-8.69	-5.83	10.00	20.17	36.00
5735MHz_TnomVnom	Pass	26.00	6.31	5.93	9.13	10.00	35.13	36.00
5790MHz_TnomVnom	Pass	26.00	6.14	6.37	9.27	10.00	35.27	36.00
5840MHz_TnomVnom	Pass	26.00	6.67	6.87	9.78	10.00	35.78	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	26.00	-8.97	-8.74	-5.84	10.00	20.16	36.00
5200MHz_TnomVnom	Pass	26.00	-8.60	-8.58	-5.58	10.00	20.42	36.00
5240MHz_TnomVnom	Pass	26.00	-8.98	-8.78	-5.87	10.00	20.13	36.00
5740MHz_TnomVnom	Pass	26.00	6.79	7.04	9.93	10.00	35.93	36.00
5790MHz_TnomVnom	Pass	26.00	6.21	6.42	9.33	10.00	35.33	36.00
5835MHz_TnomVnom	Pass	26.00	6.09	6.26	9.19	10.00	35.19	36.00
802.11ac VHT30_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5170MHz_TnomVnom	Pass	26.00	-8.17	-7.96	-5.05	10.00	20.95	36.00
5200MHz_TnomVnom	Pass	26.00	-8.12	-7.99	-5.04	10.00	20.96	36.00
5235MHz_TnomVnom	Pass	26.00	-8.37	-8.17	-5.26	10.00	20.74	36.00
5745MHz_TnomVnom	Pass	26.00	6.37	6.73	9.56	10.00	35.56	36.00
5790MHz_TnomVnom	Pass	26.00	6.24	6.51	9.39	10.00	35.39	36.00
5830MHz_TnomVnom	Pass	26.00	6.19	6.41	9.31	10.00	35.31	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5175MHz_TnomVnom	Pass	26.00	-8.01	-8.03	-5.01	10.00	20.99	36.00
5200MHz_TnomVnom	Pass	26.00	-8.11	-8.03	-5.06	10.00	20.94	36.00
5230MHz_TnomVnom	Pass	26.00	-8.34	-8.18	-5.25	10.00	20.75	36.00
5750MHz_TnomVnom	Pass	26.00	6.39	6.77	9.59	10.00	35.59	36.00
5790MHz_TnomVnom	Pass	26.00	5.96	6.24	9.11	10.00	35.11	36.00
5825MHz_TnomVnom	Pass	26.00	6.99	6.93	9.97	10.00	35.97	36.00
802.11ac VHT50_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	26.00	-8.12	-7.95	-5.02	10.00	20.98	36.00
5200MHz_TnomVnom	Pass	26.00	-8.14	-7.95	-5.03	10.00	20.97	36.00
5225MHz_TnomVnom	Pass	26.00	-8.37	-8.26	-5.30	10.00	20.70	36.00
5755MHz_TnomVnom	Pass	26.00	6.54	7.06	9.82	10.00	35.82	36.00
5790MHz_TnomVnom	Pass	26.00	6.05	6.19	9.13	10.00	35.13	36.00
5820MHz_TnomVnom	Pass	26.00	6.61	7.10	9.87	10.00	35.87	36.00
802.11ac VHT60_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5185MHz_TnomVnom	Pass	26.00	-8.08	-7.98	-5.02	10.00	20.98	36.00



**Power Result (P to M)**

**Appendix C**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
5200MHz_TnomVnom	Pass	26.00	-8.09	-7.96	-5.01	10.00	20.99	36.00
5220MHz_TnomVnom	Pass	26.00	-8.15	-7.96	-5.04	10.00	20.96	36.00
5760MHz_TnomVnom	Pass	26.00	6.66	6.91	9.80	10.00	35.80	36.00
5790MHz_TnomVnom	Pass	26.00	6.22	6.42	9.33	10.00	35.33	36.00
5815MHz_TnomVnom	Pass	26.00	6.75	7.16	9.97	10.00	35.97	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	26.00	-12.26	-12.36	-9.30	10.00	16.70	36.00
5200MHz_TnomVnom	Pass	26.00	-8.72	-8.38	-5.54	10.00	20.46	36.00
5210MHz_TnomVnom	Pass	26.00	-8.69	-8.59	-5.63	10.00	20.37	36.00
5770MHz_TnomVnom	Pass	26.00	6.53	6.76	9.66	10.00	35.66	36.00
5790MHz_TnomVnom	Pass	26.00	6.67	7.06	9.88	10.00	35.88	36.00
5805MHz_TnomVnom	Pass	26.00	6.64	7.16	9.92	10.00	35.92	36.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.39	0.21827	49.39	86.89604
802.11ac VHT10_Nss1,(MCS0)_2TX	21.20	0.13183	47.20	52.48075
802.11ac VHT20_Nss1,(MCS0)_2TX	23.37	0.21727	49.37	86.49679
802.11ac VHT30_Nss1,(MCS0)_2TX	25.23	0.33343	51.23	132.73945
802.11ac VHT40_Nss1,(MCS0)_2TX	24.42	0.27669	50.42	110.15393
802.11ac VHT50_Nss1,(MCS0)_2TX	18.28	0.06730	44.28	26.79168
802.11ac VHT60_Nss1,(MCS0)_2TX	20.15	0.10351	46.15	41.20975
802.11ac VHT80_Nss1,(MCS0)_2TX	5.78	0.00378	31.78	1.50661
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	18.40	0.06918	44.40	27.54229
802.11ac VHT10_Nss1,(MCS0)_2TX	15.55	0.03589	41.55	14.28894
802.11ac VHT20_Nss1,(MCS0)_2TX	18.41	0.06934	44.41	27.60578
802.11ac VHT30_Nss1,(MCS0)_2TX	18.20	0.06607	44.20	26.30268
802.11ac VHT40_Nss1,(MCS0)_2TX	18.33	0.06808	44.33	27.10192
802.11ac VHT50_Nss1,(MCS0)_2TX	17.96	0.06252	43.96	24.88857
802.11ac VHT60_Nss1,(MCS0)_2TX	18.35	0.06839	44.35	27.22701
802.11ac VHT80_Nss1,(MCS0)_2TX	18.35	0.06839	44.35	27.22701



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)_2TX	-	-	-	-	-	-	-	-
5165MHz	Pass	26.00	-0.51	-0.64	2.44	27.00	28.44	53.00
5200MHz	Pass	26.00	19.98	20.48	23.25	27.00	49.25	53.00
5240MHz	Pass	26.00	20.14	20.61	23.39	27.00	49.39	53.00
5740MHz	Pass	26.00	15.22	15.25	18.25	30.00	44.25	Inf
5790MHz	Pass	26.00	14.91	15.83	18.40	30.00	44.40	Inf
5835MHz	Pass	26.00	14.92	15.82	18.40	30.00	44.40	Inf
802.11ac VHT10_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5160MHz	Pass	26.00	0.64	0.25	3.46	27.00	29.46	53.00
5200MHz	Pass	26.00	14.64	15.58	18.15	27.00	44.15	53.00
5245MHz	Pass	26.00	17.85	18.50	21.20	27.00	47.20	53.00
5735MHz	Pass	26.00	9.33	9.00	12.18	30.00	38.18	Inf
5790MHz	Pass	26.00	12.29	12.78	15.55	30.00	41.55	Inf
5840MHz	Pass	26.00	10.73	10.88	13.82	30.00	39.82	Inf
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5165MHz	Pass	26.00	-3.49	-3.62	-0.54	27.00	25.46	53.00
5200MHz	Pass	26.00	19.86	20.27	23.08	27.00	49.08	53.00
5240MHz	Pass	26.00	19.88	20.79	23.37	27.00	49.37	53.00
5740MHz	Pass	26.00	14.71	15.99	18.41	30.00	44.41	Inf
5790MHz	Pass	26.00	15.12	15.64	18.40	30.00	44.40	Inf
5835MHz	Pass	26.00	14.43	15.77	18.16	30.00	44.16	Inf
802.11ac VHT30_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5170MHz	Pass	26.00	-5.45	-5.33	-2.38	27.00	23.62	53.00
5200MHz	Pass	26.00	19.66	20.37	23.04	27.00	49.04	53.00
5235MHz	Pass	26.00	21.83	22.57	25.23	27.00	51.23	53.00
5745MHz	Pass	26.00	15.19	14.39	17.82	30.00	43.82	Inf
5790MHz	Pass	26.00	14.76	15.38	18.09	30.00	44.09	Inf
5830MHz	Pass	26.00	14.26	15.96	18.20	30.00	44.20	Inf
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5175MHz	Pass	26.00	-7.85	-7.95	-4.89	27.00	21.11	53.00
5200MHz	Pass	26.00	14.01	14.39	17.21	27.00	43.21	53.00
5230MHz	Pass	26.00	21.13	21.68	24.42	27.00	50.42	53.00
5750MHz	Pass	26.00	14.26	15.42	17.89	30.00	43.89	Inf
5790MHz	Pass	26.00	14.64	15.00	17.83	30.00	43.83	Inf
5825MHz	Pass	26.00	14.56	15.96	18.33	30.00	44.33	Inf
802.11ac VHT50_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	26.00	-7.59	-7.59	-4.58	27.00	21.42	53.00
5200MHz	Pass	26.00	10.46	10.61	13.55	27.00	39.55	53.00
5225MHz	Pass	26.00	15.23	15.31	18.28	27.00	44.28	53.00
5755MHz	Pass	26.00	14.59	15.06	17.84	30.00	43.84	Inf
5790MHz	Pass	26.00	14.64	15.07	17.87	30.00	43.87	Inf
5820MHz	Pass	26.00	14.46	15.39	17.96	30.00	43.96	Inf
802.11ac VHT60_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5185MHz	Pass	26.00	-2.87	-2.88	0.14	27.00	26.14	53.00



**Power Result (P to P)**

**Appendix C**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
5200MHz	Pass	26.00	10.63	10.62	13.64	27.00	39.64	53.00
5220MHz	Pass	26.00	17.20	17.07	20.15	27.00	46.15	53.00
5760MHz	Pass	26.00	15.20	15.48	18.35	30.00	44.35	Inf
5790MHz	Pass	26.00	14.70	15.14	17.94	30.00	43.94	Inf
5815MHz	Pass	26.00	14.63	15.89	18.32	30.00	44.32	Inf
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	26.00	-8.33	-8.46	-5.38	27.00	20.62	53.00
5200MHz	Pass	26.00	-2.86	-2.78	0.19	27.00	26.19	53.00
5210MHz	Pass	26.00	2.88	2.66	5.78	27.00	31.78	53.00
5770MHz	Pass	26.00	15.06	15.35	18.22	30.00	44.22	Inf
5790MHz	Pass	26.00	15.16	15.51	18.35	30.00	44.35	Inf
5805MHz	Pass	26.00	14.59	15.96	18.34	30.00	44.34	Inf

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



Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	-17.50	11.51
802.11ac VHT10_Nss1,(MCS0)_2TX	-14.91	14.10
802.11ac VHT20_Nss1,(MCS0)_2TX	-17.72	11.29
802.11ac VHT30_Nss1,(MCS0)_2TX	-18.68	10.33
802.11ac VHT40_Nss1,(MCS0)_2TX	-19.97	9.04
802.11ac VHT50_Nss1,(MCS0)_2TX	-20.65	8.36
802.11ac VHT60_Nss1,(MCS0)_2TX	-21.27	7.74
802.11ac VHT80_Nss1,(MCS0)_2TX	-23.17	5.84
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	-4.64	24.37
802.11ac VHT10_Nss1,(MCS0)_2TX	-2.39	26.62
802.11ac VHT20_Nss1,(MCS0)_2TX	-4.92	24.09
802.11ac VHT30_Nss1,(MCS0)_2TX	-6.91	22.10
802.11ac VHT40_Nss1,(MCS0)_2TX	-7.72	21.29
802.11ac VHT50_Nss1,(MCS0)_2TX	-8.69	20.32
802.11ac VHT60_Nss1,(MCS0)_2TX	-9.15	19.86
802.11ac VHT80_Nss1,(MCS0)_2TX	-10.44	18.57

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)_2TX	-	-	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	29.01	-20.57	-20.70	-17.70	-6.01	11.31	23.00
5200MHz_TnomVnom	Pass	29.01	-20.52	-20.31	-17.50	-6.01	11.51	23.00
5240MHz_TnomVnom	Pass	29.01	-20.72	-20.62	-17.77	-6.01	11.24	23.00
5740MHz_TnomVnom	Pass	29.01	-7.80	-7.48	-4.64	6.99	24.37	36.00
5790MHz_TnomVnom	Pass	29.01	-8.65	-8.27	-5.46	6.99	23.55	36.00
5835MHz_TnomVnom	Pass	29.01	-8.78	-8.41	-5.59	6.99	23.42	36.00
802.11ac VHT10_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5160MHz_TnomVnom	Pass	29.01	-18.16	-18.11	-15.23	-6.01	13.78	23.00
5200MHz_TnomVnom	Pass	29.01	-17.90	-17.88	-14.91	-6.01	14.10	23.00
5245MHz_TnomVnom	Pass	29.01	-18.24	-18.11	-15.28	-6.01	13.73	23.00
5735MHz_TnomVnom	Pass	29.01	-6.28	-6.23	-3.24	6.99	25.77	36.00
5790MHz_TnomVnom	Pass	29.01	-6.24	-5.81	-3.02	6.99	25.99	36.00
5840MHz_TnomVnom	Pass	29.01	-5.47	-5.32	-2.39	6.99	26.62	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	29.01	-21.09	-20.79	-18.00	-6.01	11.01	23.00
5200MHz_TnomVnom	Pass	29.01	-20.75	-20.70	-17.72	-6.01	11.29	23.00
5240MHz_TnomVnom	Pass	29.01	-21.08	-20.99	-18.09	-6.01	10.92	23.00
5740MHz_TnomVnom	Pass	29.01	-8.11	-7.73	-4.92	6.99	24.09	36.00
5790MHz_TnomVnom	Pass	29.01	-8.70	-8.31	-5.50	6.99	23.51	36.00
5835MHz_TnomVnom	Pass	29.01	-8.72	-8.47	-5.61	6.99	23.40	36.00
802.11ac VHT30_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5170MHz_TnomVnom	Pass	29.01	-21.97	-21.63	-18.82	-6.01	10.19	23.00
5200MHz_TnomVnom	Pass	29.01	-21.61	-21.77	-18.68	-6.01	10.33	23.00
5235MHz_TnomVnom	Pass	29.01	-22.14	-21.90	-19.10	-6.01	9.91	23.00
5745MHz_TnomVnom	Pass	29.01	-10.15	-9.86	-7.02	6.99	21.99	36.00
5790MHz_TnomVnom	Pass	29.01	-10.10	-9.72	-6.91	6.99	22.10	36.00
5830MHz_TnomVnom	Pass	29.01	-10.21	-9.99	-7.09	6.99	21.92	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5175MHz_TnomVnom	Pass	29.01	-22.88	-22.89	-19.97	-6.01	9.04	23.00
5200MHz_TnomVnom	Pass	29.01	-22.91	-22.93	-19.98	-6.01	9.03	23.00
5230MHz_TnomVnom	Pass	29.01	-23.18	-23.15	-20.20	-6.01	8.81	23.00
5750MHz_TnomVnom	Pass	29.01	-11.35	-10.87	-8.11	6.99	20.90	36.00
5790MHz_TnomVnom	Pass	29.01	-11.65	-11.47	-8.59	6.99	20.42	36.00
5825MHz_TnomVnom	Pass	29.01	-10.74	-10.72	-7.72	6.99	21.29	36.00
802.11ac VHT50_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	29.01	-23.59	-23.64	-20.65	-6.01	8.36	23.00
5200MHz_TnomVnom	Pass	29.01	-23.75	-23.67	-20.77	-6.01	8.24	23.00
5225MHz_TnomVnom	Pass	29.01	-23.96	-23.97	-21.01	-6.01	8.00	23.00
5755MHz_TnomVnom	Pass	29.01	-12.10	-11.62	-8.86	6.99	20.15	36.00
5790MHz_TnomVnom	Pass	29.01	-12.51	-12.26	-9.39	6.99	19.62	36.00
5820MHz_TnomVnom	Pass	29.01	-11.93	-11.42	-8.69	6.99	20.32	36.00
802.11ac VHT60_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5185MHz_TnomVnom	Pass	29.01	-24.37	-24.08	-21.27	-6.01	7.74	23.00



**PSD Result (P to M)**

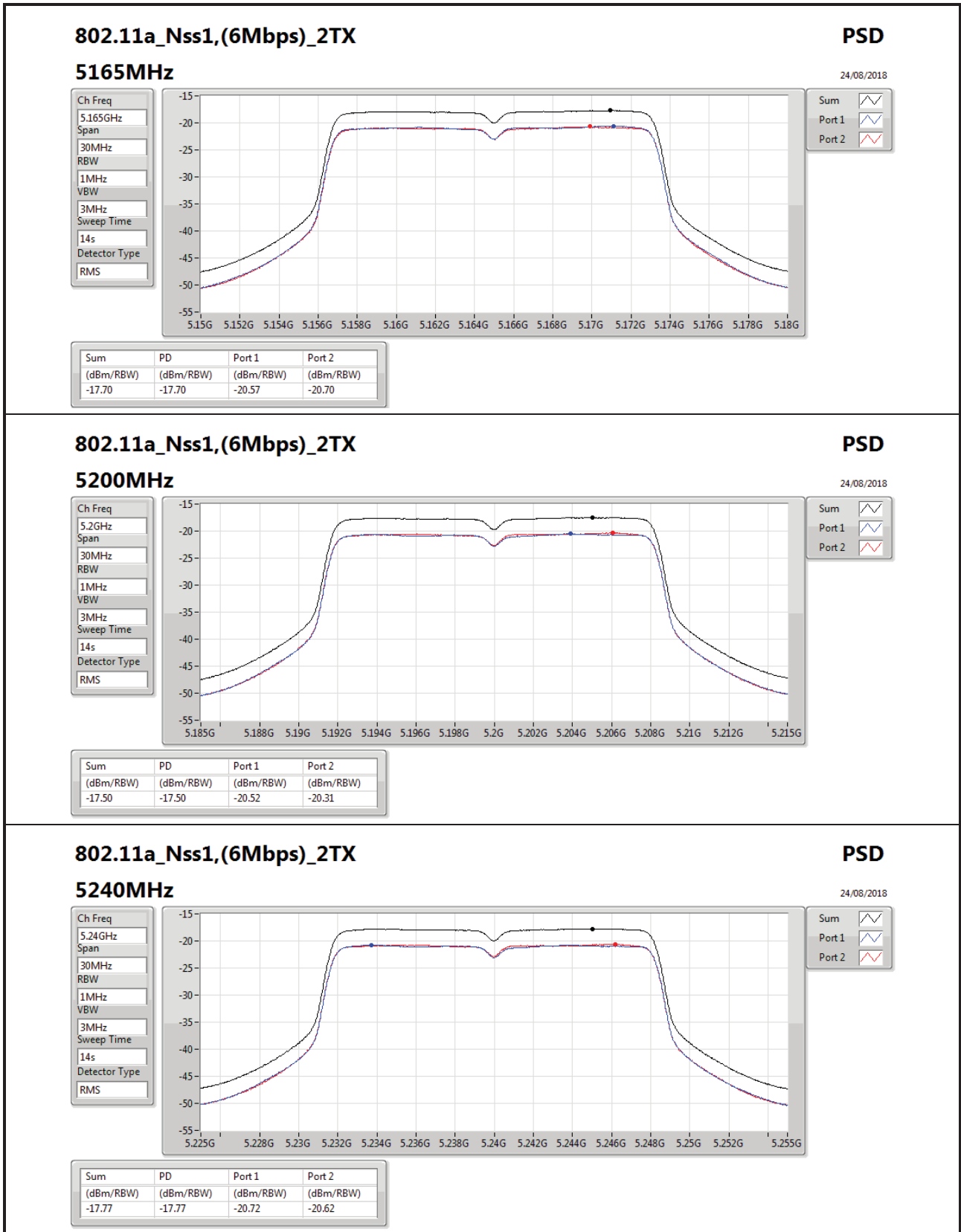
**Appendix D**

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)
5200MHz_TnomVnom	Pass	29.01	-24.25	-24.27	-21.30	-6.01	7.71	23.00
5220MHz_TnomVnom	Pass	29.01	-24.42	-24.39	-21.42	-6.01	7.59	23.00
5760MHz_TnomVnom	Pass	29.01	-12.60	-12.28	-9.46	6.99	19.55	36.00
5790MHz_TnomVnom	Pass	29.01	-12.89	-12.79	-9.85	6.99	19.16	36.00
5815MHz_TnomVnom	Pass	29.01	-12.33	-11.98	-9.15	6.99	19.86	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	29.01	-31.93	-32.05	-29.07	-6.01	-0.06	23.00
5200MHz_TnomVnom	Pass	29.01	-26.17	-25.98	-23.17	-6.01	5.84	23.00
5210MHz_TnomVnom	Pass	29.01	-26.18	-26.19	-23.20	-6.01	5.81	23.00
5770MHz_TnomVnom	Pass	29.01	-14.14	-13.91	-11.08	6.99	17.93	36.00
5790MHz_TnomVnom	Pass	29.01	-13.79	-13.42	-10.62	6.99	18.39	36.00
5805MHz_TnomVnom	Pass	29.01	-13.58	-13.29	-10.44	6.99	18.57	36.00

**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)\_2TX

#### 5240MHz

### PSD

24/08/2018

Ch Freq  
5.24GHz

Span  
30MHz

RBW  
1MHz

VBW  
3MHz

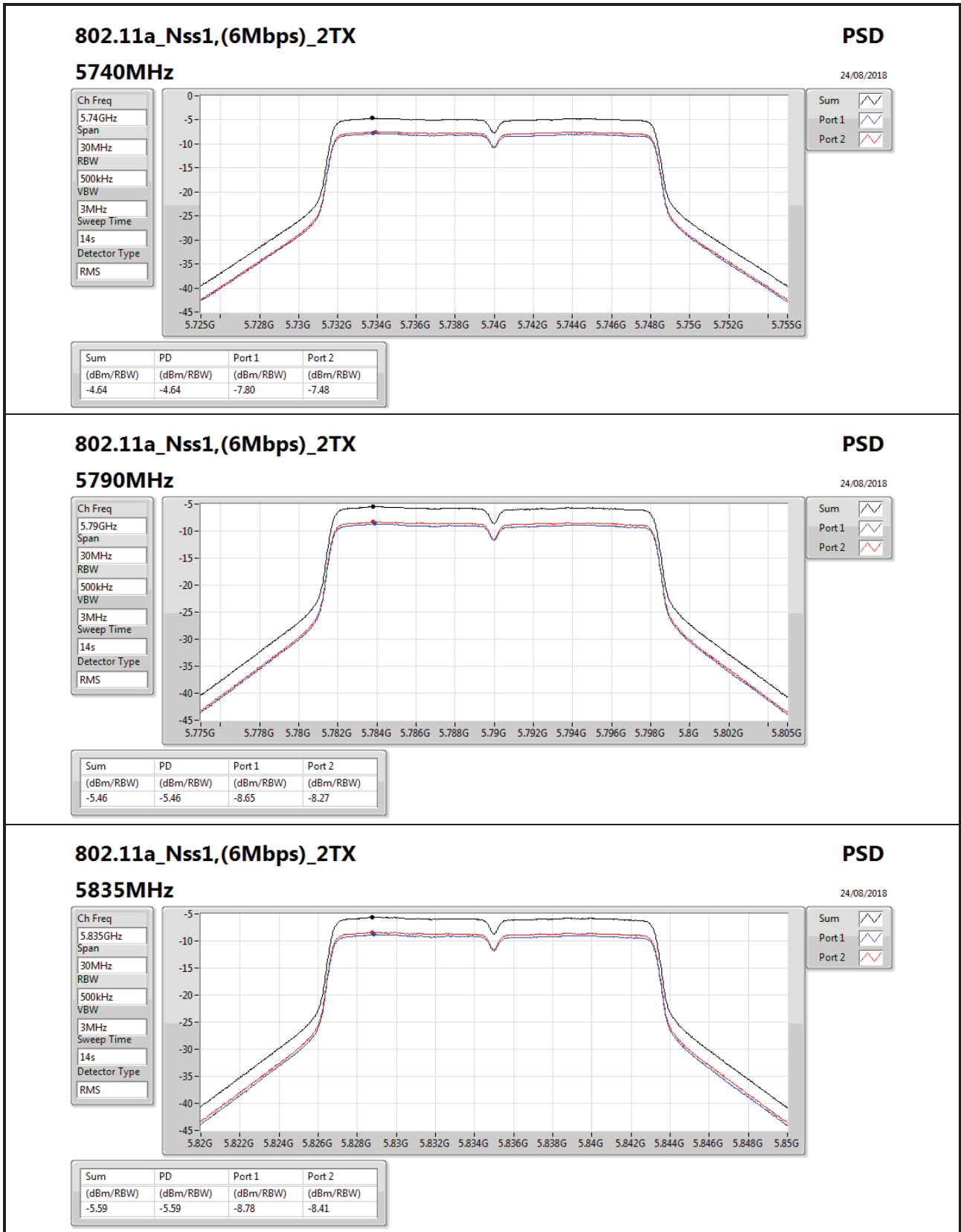
Sweep Time  
14s

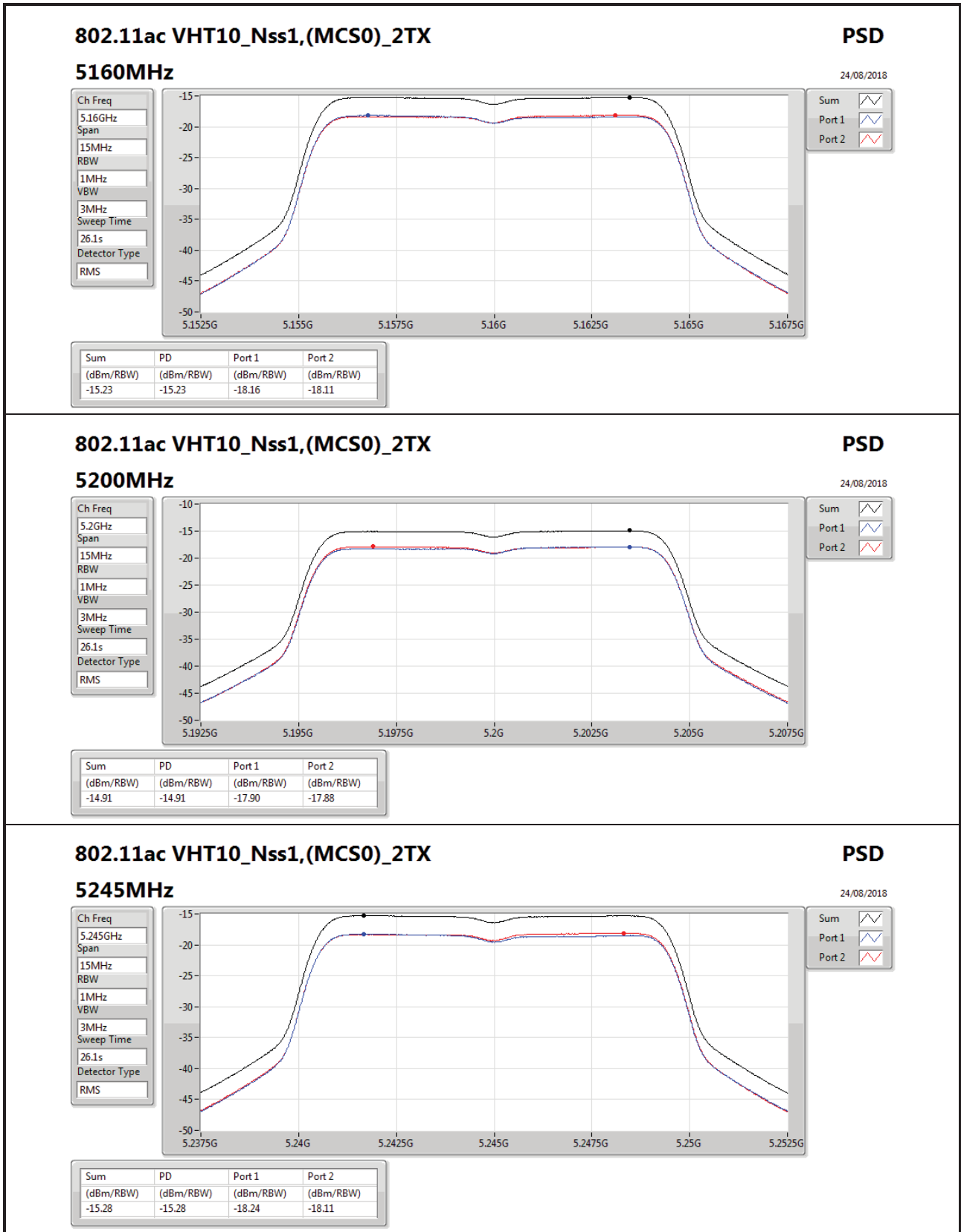
Detector Type  
RMS

Sum

Port 1

Port 2





### 802.11ac VHT10\_Nss1,(MCS0)\_2TX

#### 5245MHz

### PSD

24/08/2018

Ch Freq  
5.245GHz

Span  
15MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
26.1s

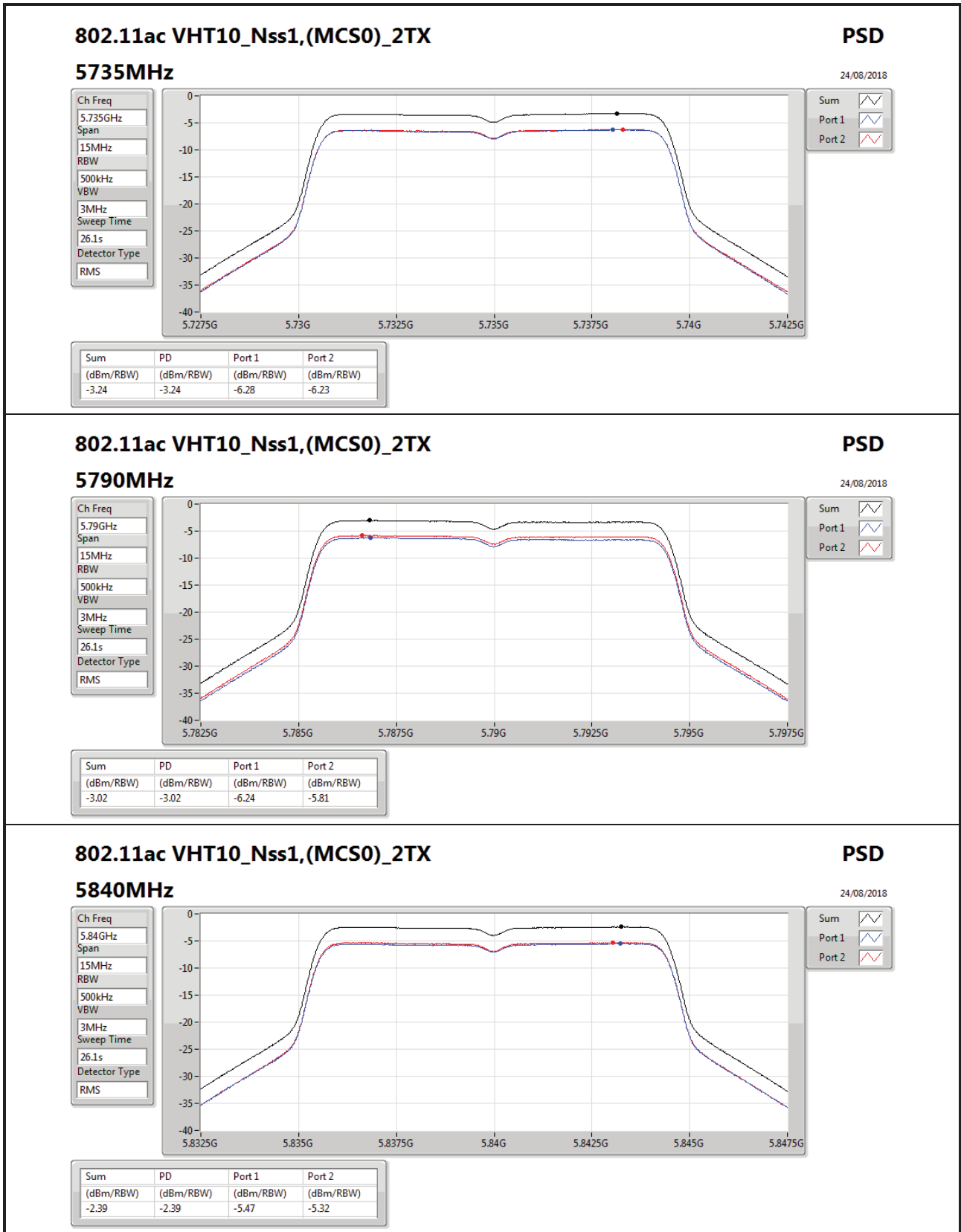
Detector Type  
RMS

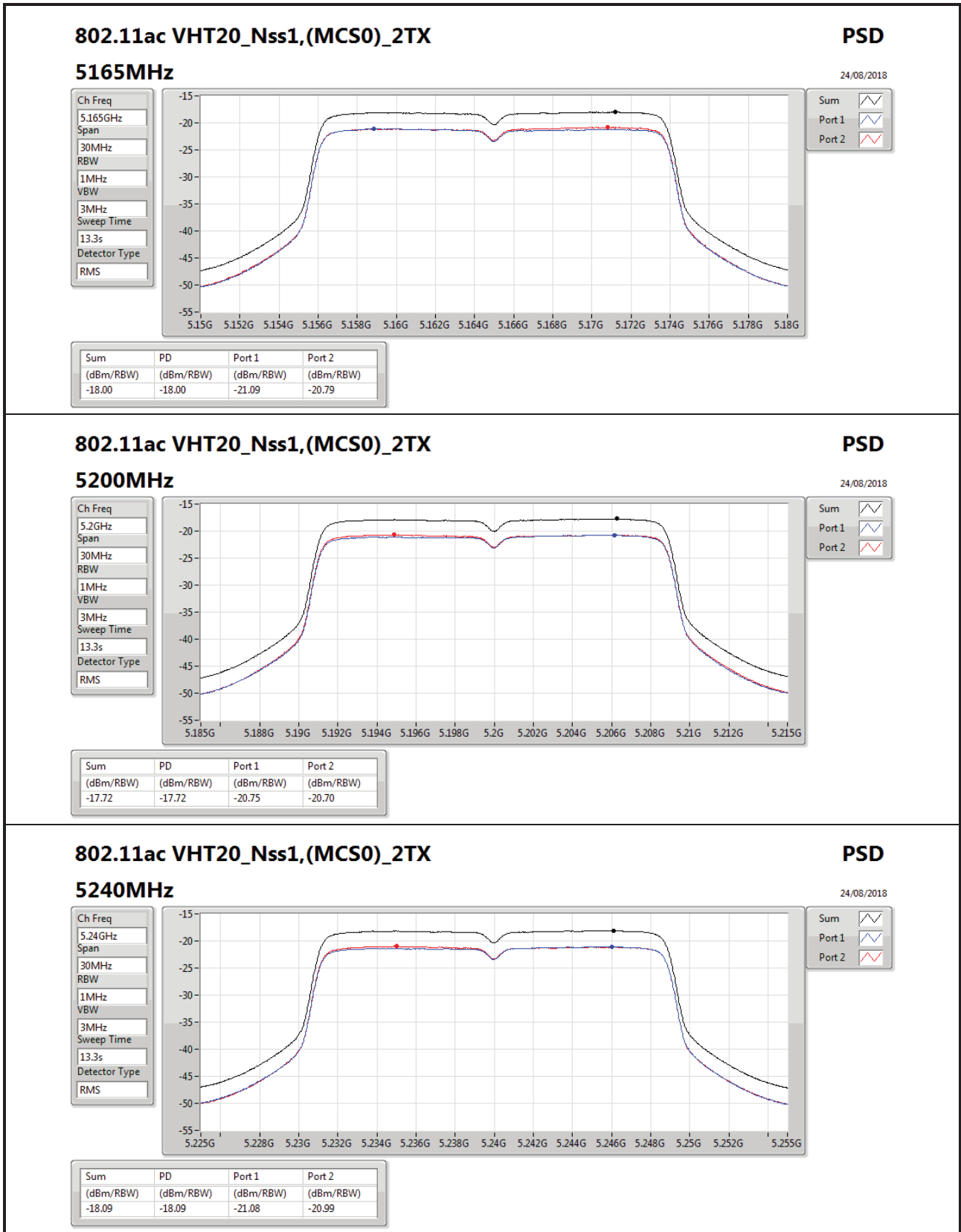
Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-15.28	-15.28	-18.24	-18.11





### 802.11ac VHT20\_Nss1,(MCS0)\_2TX

#### 5240MHz

### PSD

24/08/2018

Ch Freq  
5.24GHz

Span  
30MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
13.3s

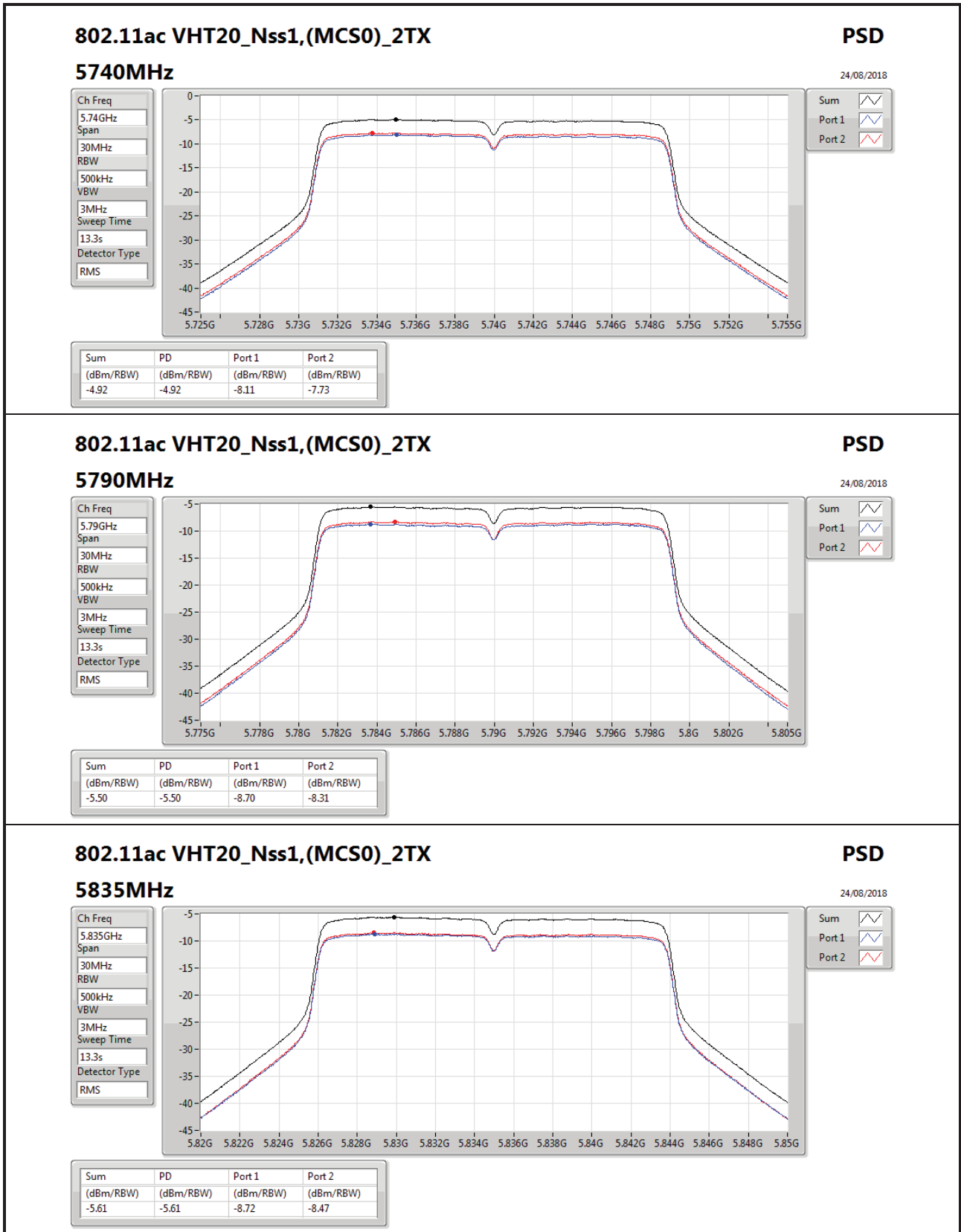
Detector Type  
RMS

Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-18.09	-18.09	-21.08	-20.99



### 802.11ac VHT20\_Nss1,(MCS0)\_2TX

#### 5835MHz

### PSD

24/08/2018

Ch Freq  
5.835GHz

Span  
30MHz

RBW  
500kHz

VBW  
3MHz

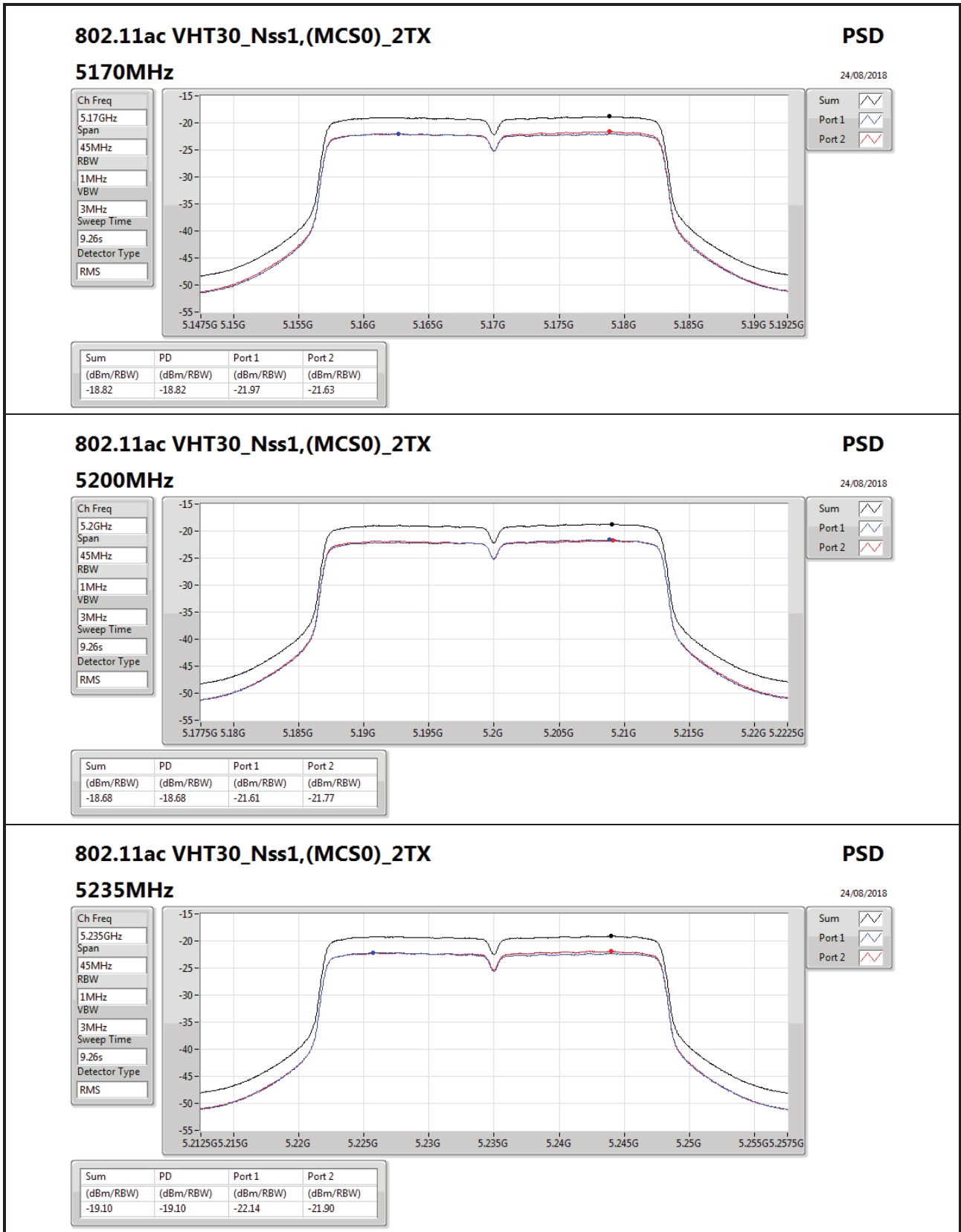
Sweep Time  
13.3s

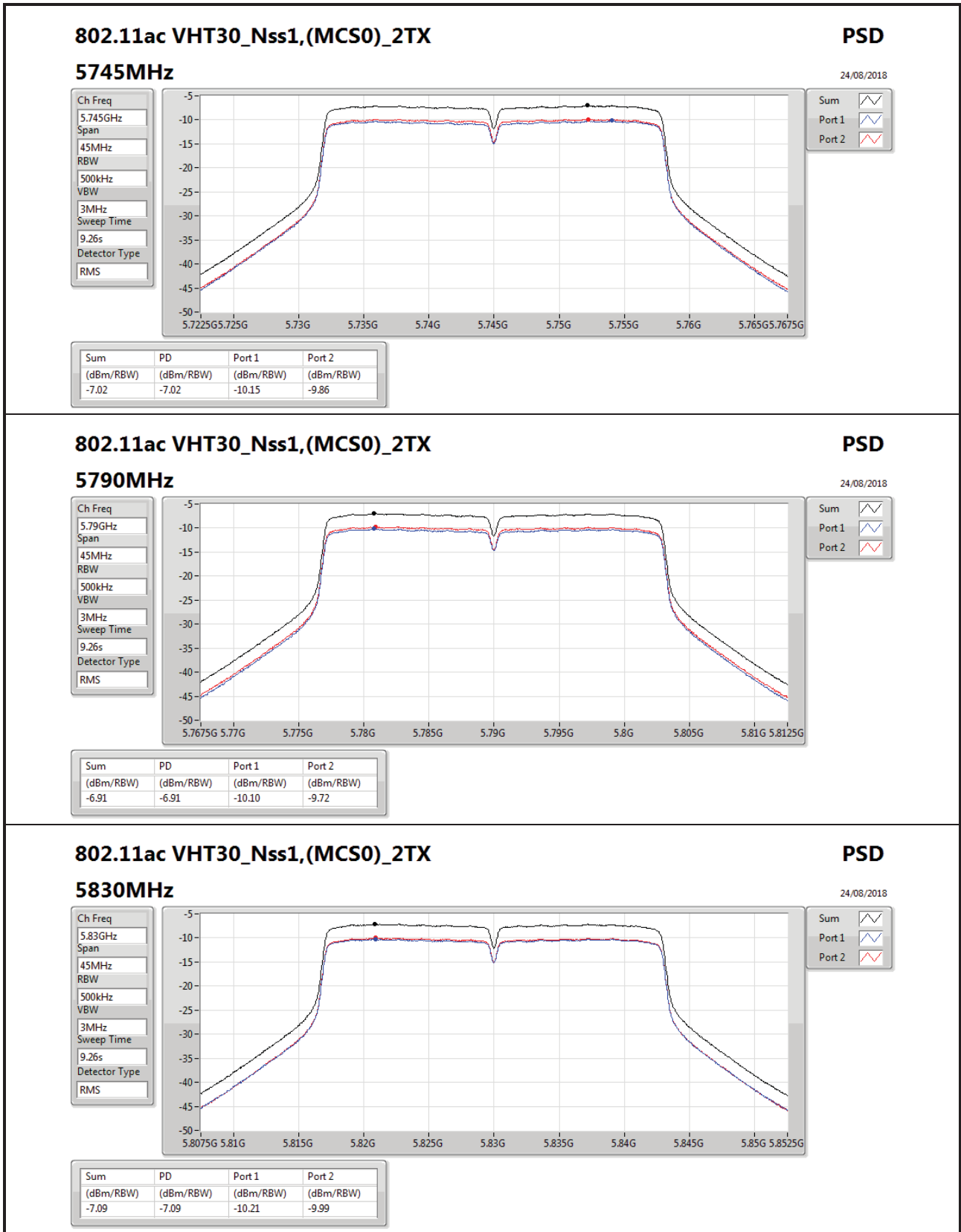
Detector Type  
RMS

Sum

Port 1

Port 2





### 802.11ac VHT30\_Nss1,(MCS0)\_2TX

#### 5830MHz

### PSD

24/08/2018

Ch Freq  
5.83GHz

Span  
45MHz

RBW  
500kHz

VBW  
3MHz

Sweep Time  
9.26s

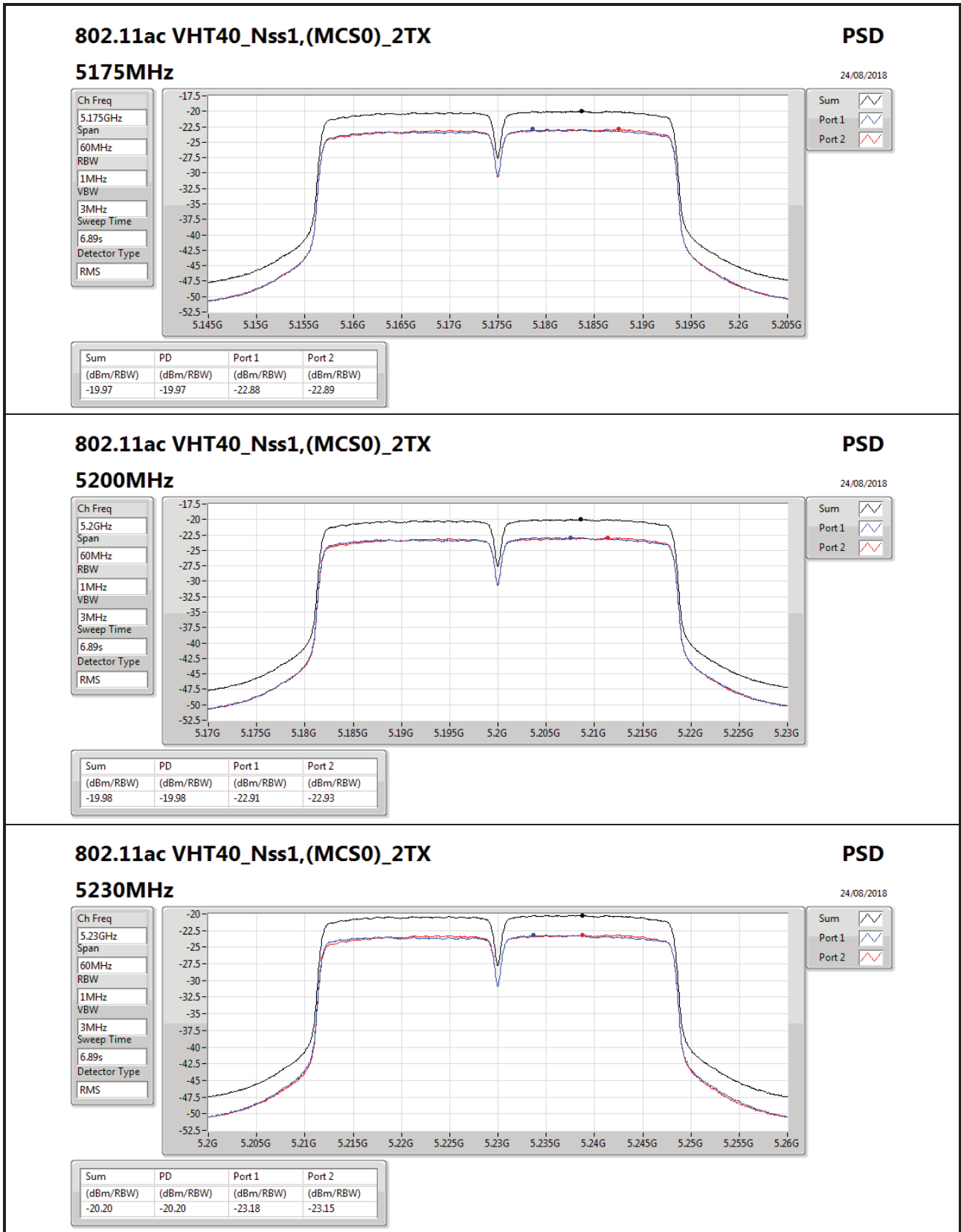
Detector Type  
RMS

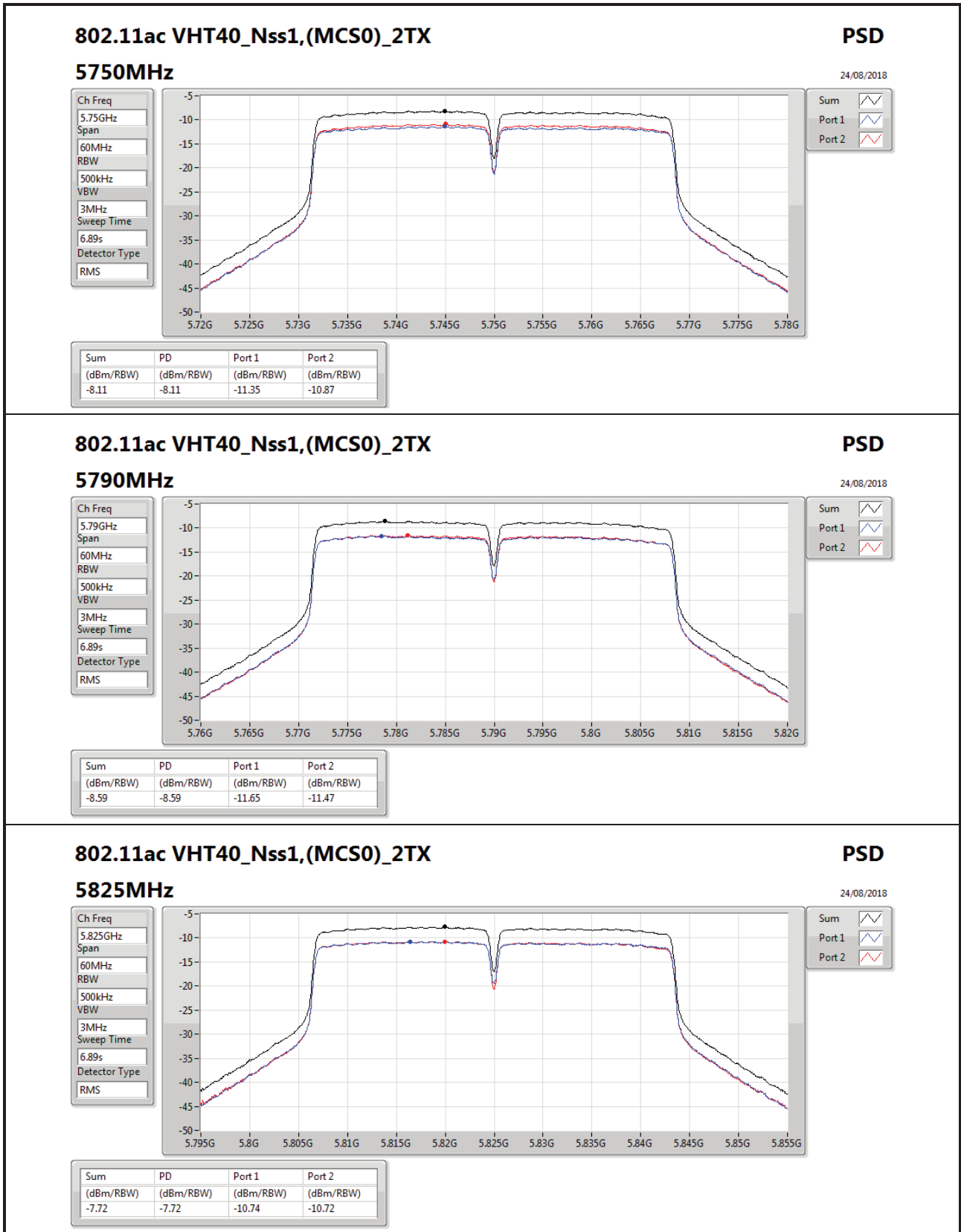
Sum

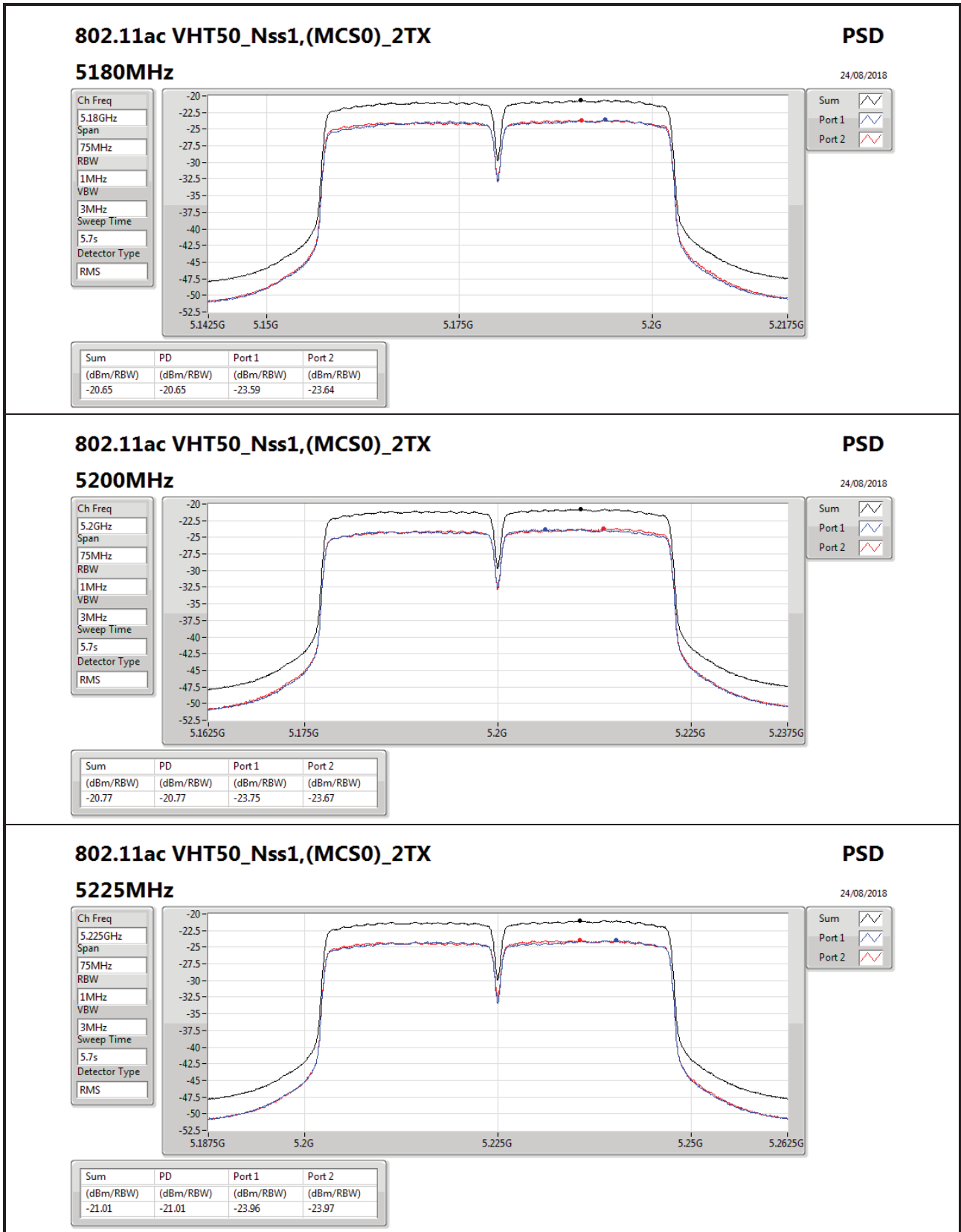
Port 1

Port 2









### 802.11ac VHT50\_Nss1,(MCS0)\_2TX

#### 5225MHz

### PSD

24/08/2018

Ch Freq  
5.225GHz

Span  
75MHz

RBW  
1MHz

VBW  
3MHz

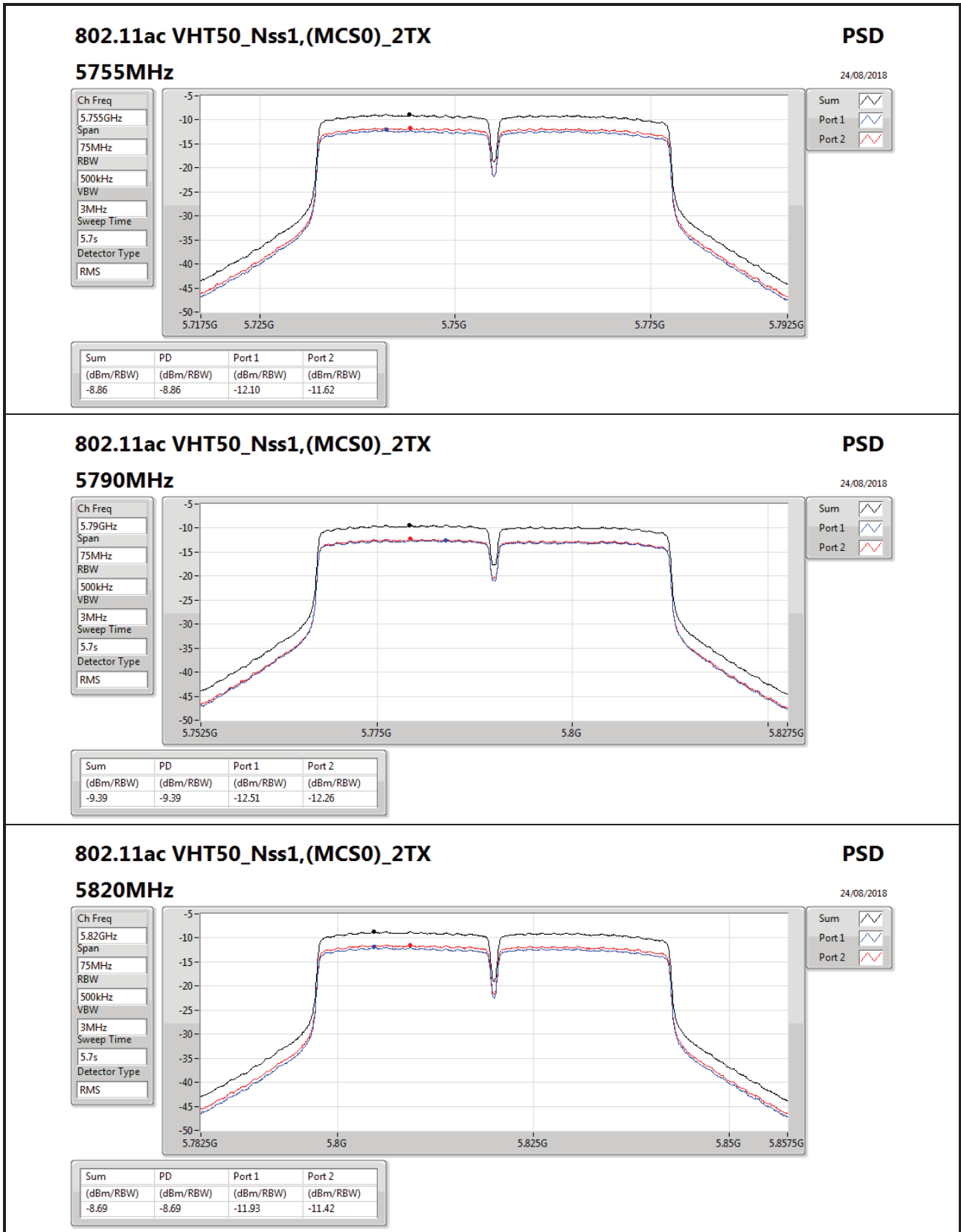
Sweep Time  
5.7s

Detector Type  
RMS

Sum

Port 1

Port 2



### 802.11ac VHT50\_Nss1,(MCS0)\_2TX

#### 5820MHz

**PSD**  
24/08/2018

Ch Freq  
5.82GHz

Span  
75MHz

RBW  
500kHz

VBW  
3MHz

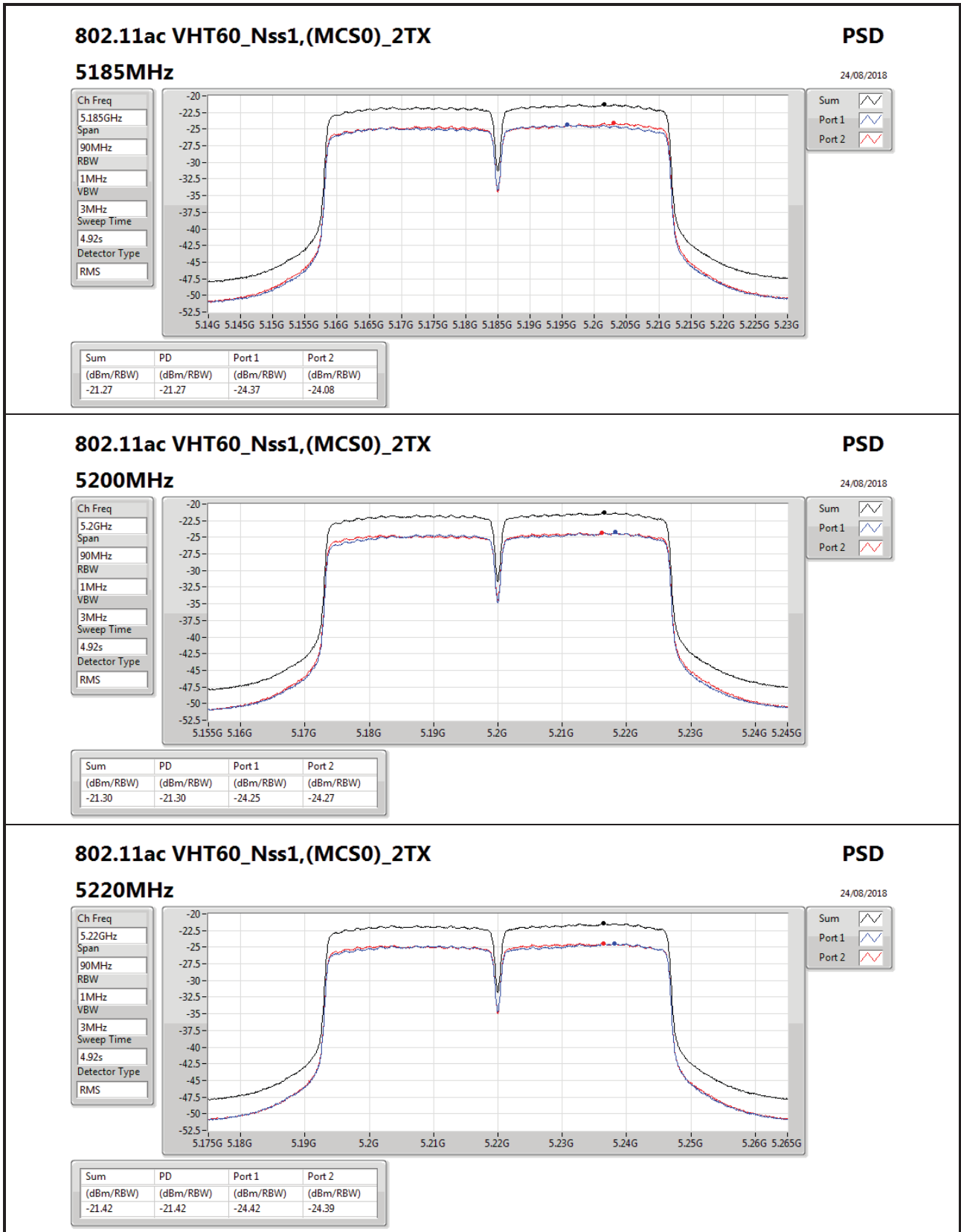
Sweep Time  
5.7s

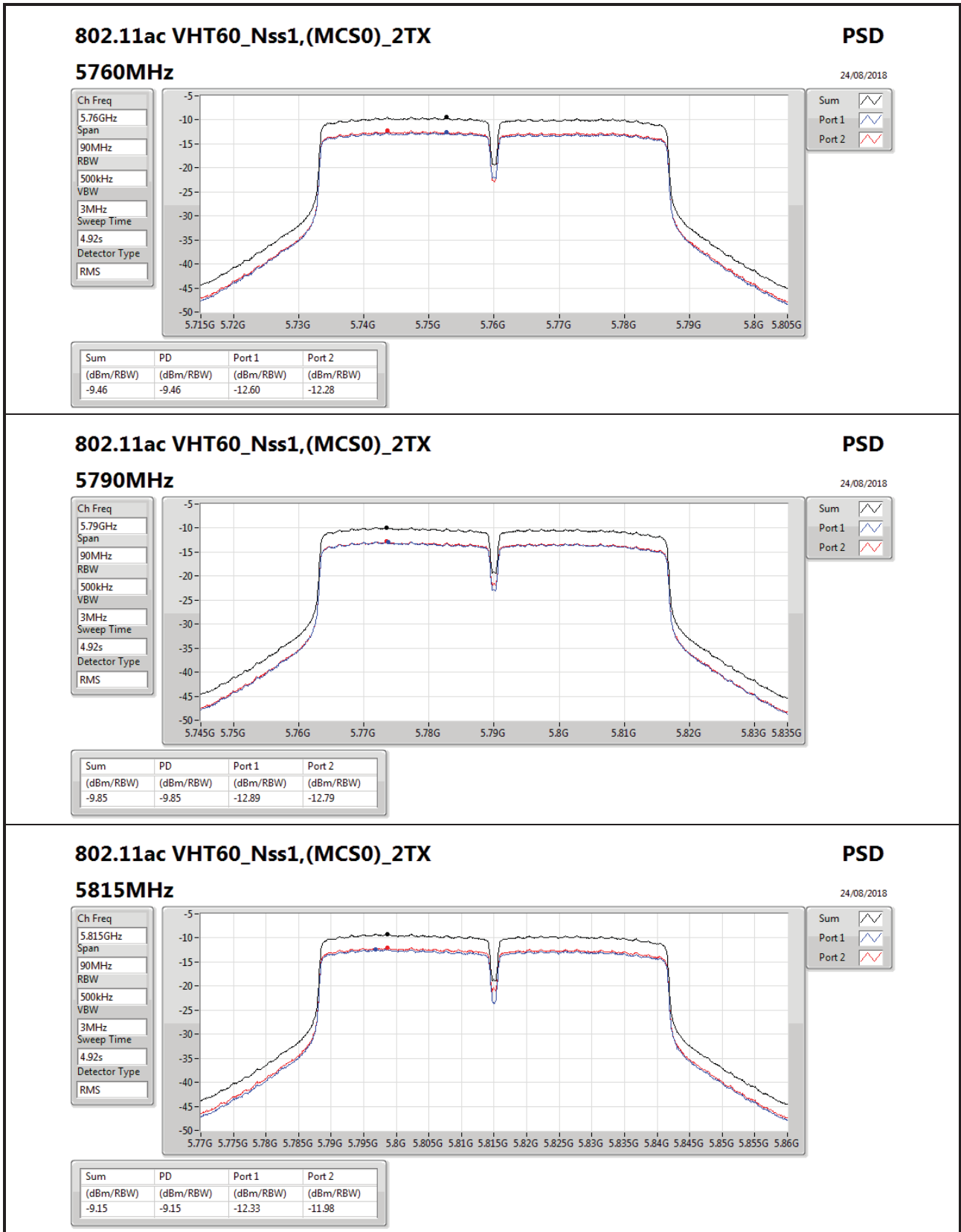
Detector Type  
RMS

Sum

Port 1

Port 2





### 802.11ac VHT60\_Nss1,(MCS0)\_2TX

#### 5815MHz

**PSD**  
24/08/2018

Ch Freq  
5.815GHz

Span  
90MHz

RBW  
500kHz

VBW  
3MHz

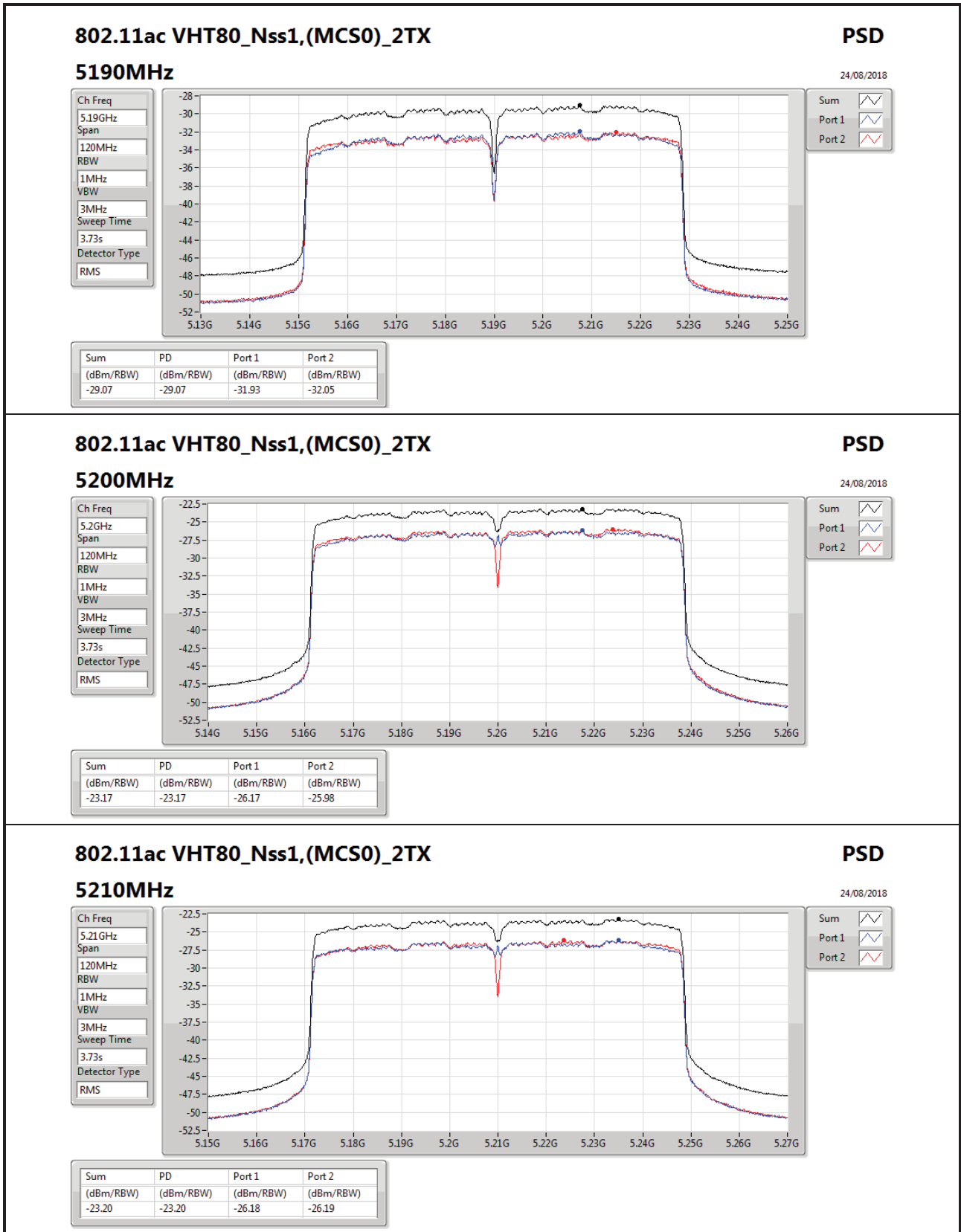
Sweep Time  
4.92s

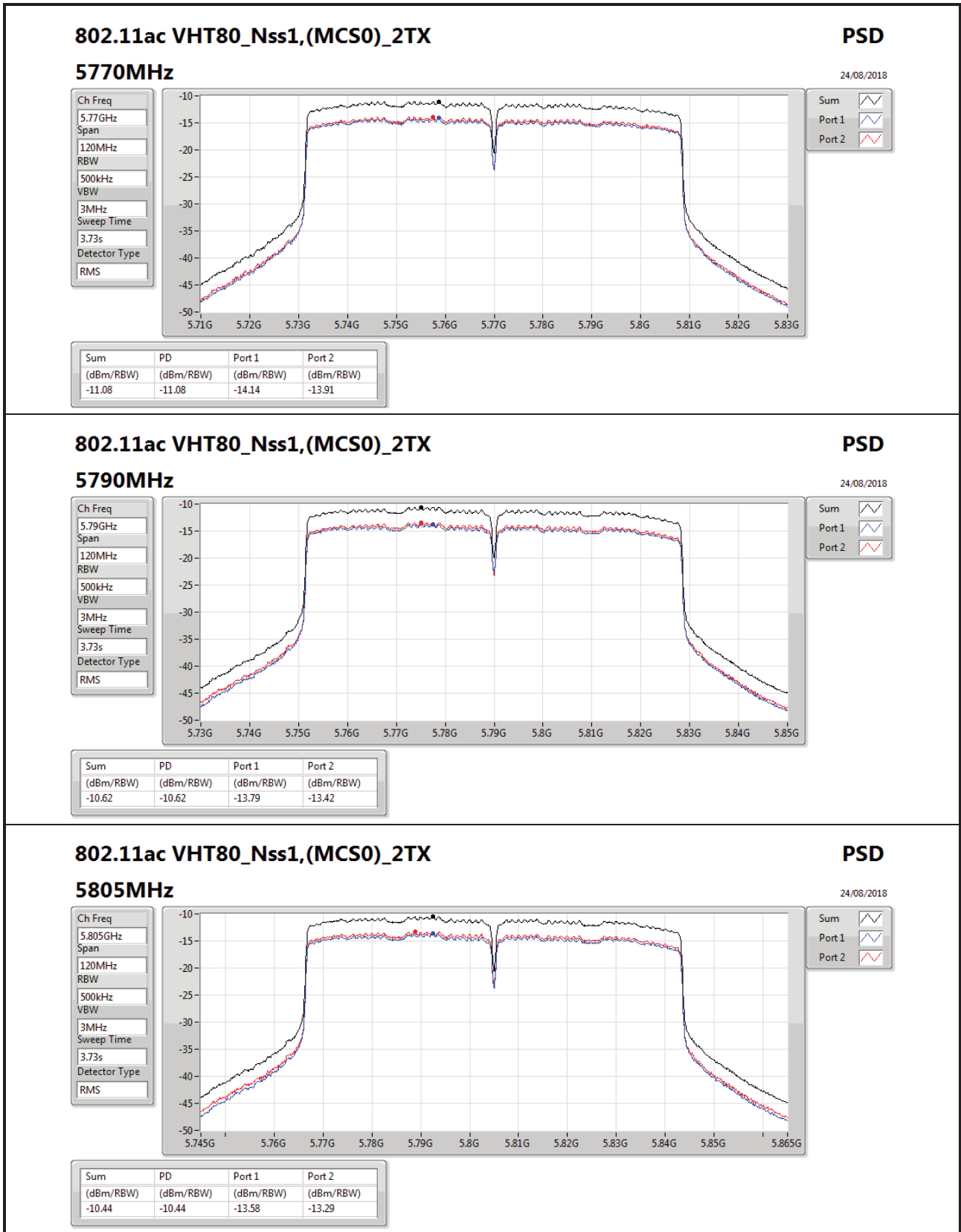
Detector Type  
RMS

Sum

Port 1

Port 2





### 802.11ac VHT80\_Nss1,(MCS0)\_2TX

#### 5805MHz

**PSD**

24/08/2018

Ch Freq  
5.805GHz

Span  
120MHz

RBW  
500kHz

VBW  
3MHz

Sweep Time  
3.73s

Detector Type  
RMS

Sum

Port 1

Port 2





Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	10.55	39.56
802.11ac VHT10_Nss1,(MCS0)_2TX	10.87	39.88
802.11ac VHT20_Nss1,(MCS0)_2TX	10.24	39.25
802.11ac VHT30_Nss1,(MCS0)_2TX	10.59	39.60
802.11ac VHT40_Nss1,(MCS0)_2TX	8.65	37.66
802.11ac VHT50_Nss1,(MCS0)_2TX	1.40	30.41
802.11ac VHT60_Nss1,(MCS0)_2TX	2.74	31.75
802.11ac VHT80_Nss1,(MCS0)_2TX	-13.30	15.71
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	5.69	34.70
802.11ac VHT10_Nss1,(MCS0)_2TX	3.61	32.62
802.11ac VHT20_Nss1,(MCS0)_2TX	6.69	35.70
802.11ac VHT30_Nss1,(MCS0)_2TX	5.27	34.28
802.11ac VHT40_Nss1,(MCS0)_2TX	2.31	31.32
802.11ac VHT50_Nss1,(MCS0)_2TX	1.01	30.02
802.11ac VHT60_Nss1,(MCS0)_2TX	0.39	29.40
802.11ac VHT80_Nss1,(MCS0)_2TX	2.67	31.68

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)_2TX	-	-	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	29.01	-13.22	-13.21	-10.28	10.99	18.73	40.00
5200MHz_TnomVnom	Pass	29.01	6.67	7.10	9.86	10.99	38.87	40.00
5240MHz_TnomVnom	Pass	29.01	7.27	7.83	10.55	10.99	39.56	40.00
5740MHz_TnomVnom	Pass	29.01	0.48	0.46	3.45	30.00	32.46	Inf
5790MHz_TnomVnom	Pass	29.01	2.38	3.04	5.69	30.00	34.70	Inf
5835MHz_TnomVnom	Pass	29.01	1.22	2.37	4.79	30.00	33.80	Inf
802.11ac VHT10_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5160MHz_TnomVnom	Pass	29.01	-9.48	-9.82	-6.74	10.99	22.27	40.00
5200MHz_TnomVnom	Pass	29.01	4.05	4.82	7.44	10.99	36.45	40.00
5245MHz_TnomVnom	Pass	29.01	7.52	8.21	10.87	10.99	39.88	40.00
5735MHz_TnomVnom	Pass	29.01	-2.45	-2.90	0.33	30.00	29.34	Inf
5790MHz_TnomVnom	Pass	29.01	0.41	0.79	3.61	30.00	32.62	Inf
5840MHz_TnomVnom	Pass	29.01	-1.04	-1.01	1.97	30.00	30.98	Inf
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5165MHz_TnomVnom	Pass	29.01	-16.29	-16.53	-13.42	10.99	15.59	40.00
5200MHz_TnomVnom	Pass	29.01	6.35	6.71	9.48	10.99	38.49	40.00
5240MHz_TnomVnom	Pass	29.01	6.84	7.58	10.24	10.99	39.25	40.00
5740MHz_TnomVnom	Pass	29.01	0.50	1.65	4.10	30.00	33.11	Inf
5790MHz_TnomVnom	Pass	29.01	3.36	4.02	6.69	30.00	35.70	Inf
5835MHz_TnomVnom	Pass	29.01	2.00	3.21	5.58	30.00	34.59	Inf
802.11ac VHT30_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5170MHz_TnomVnom	Pass	29.01	-19.67	-19.81	-16.73	10.99	12.28	40.00
5200MHz_TnomVnom	Pass	29.01	4.83	5.25	7.97	10.99	36.98	40.00
5235MHz_TnomVnom	Pass	29.01	7.26	7.93	10.59	10.99	39.60	40.00
5745MHz_TnomVnom	Pass	29.01	-0.89	-1.77	1.69	30.00	30.70	Inf
5790MHz_TnomVnom	Pass	29.01	1.93	2.63	5.27	30.00	34.28	Inf
5830MHz_TnomVnom	Pass	29.01	-0.71	0.92	3.16	30.00	32.17	Inf
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5175MHz_TnomVnom	Pass	29.01	-23.71	-23.77	-20.77	10.99	8.24	40.00
5200MHz_TnomVnom	Pass	29.01	-1.34	-1.35	1.61	10.99	30.62	40.00
5230MHz_TnomVnom	Pass	29.01	5.42	5.88	8.65	10.99	37.66	40.00
5750MHz_TnomVnom	Pass	29.01	-1.27	-0.12	2.31	30.00	31.32	Inf
5790MHz_TnomVnom	Pass	29.01	-1.47	-1.01	1.74	30.00	30.75	Inf
5825MHz_TnomVnom	Pass	29.01	-2.17	-0.96	1.47	30.00	30.48	Inf
802.11ac VHT50_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	29.01	-24.42	-24.60	-21.53	10.99	7.48	40.00
5200MHz_TnomVnom	Pass	29.01	-6.90	-6.65	-3.83	10.99	25.18	40.00
5225MHz_TnomVnom	Pass	29.01	-1.61	-1.54	1.40	10.99	30.41	40.00
5755MHz_TnomVnom	Pass	29.01	-5.69	-5.34	-2.54	30.00	26.47	Inf
5790MHz_TnomVnom	Pass	29.01	-2.27	-1.69	1.01	30.00	30.02	Inf
5820MHz_TnomVnom	Pass	29.01	-2.85	-1.80	0.69	30.00	29.70	Inf
802.11ac VHT60_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5185MHz_TnomVnom	Pass	29.01	-19.80	-19.75	-16.85	10.99	12.16	40.00



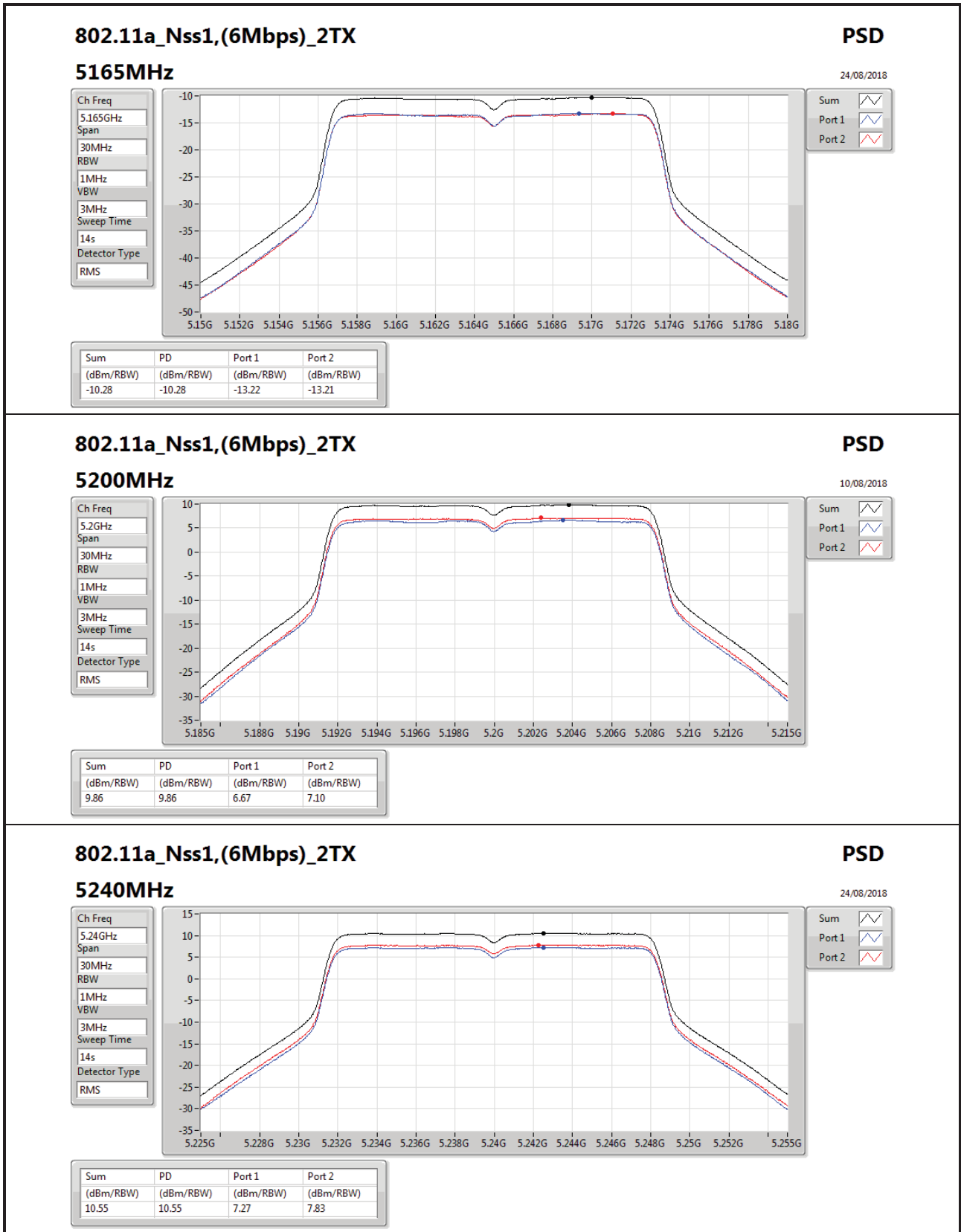
**PSD Result (P to P)**

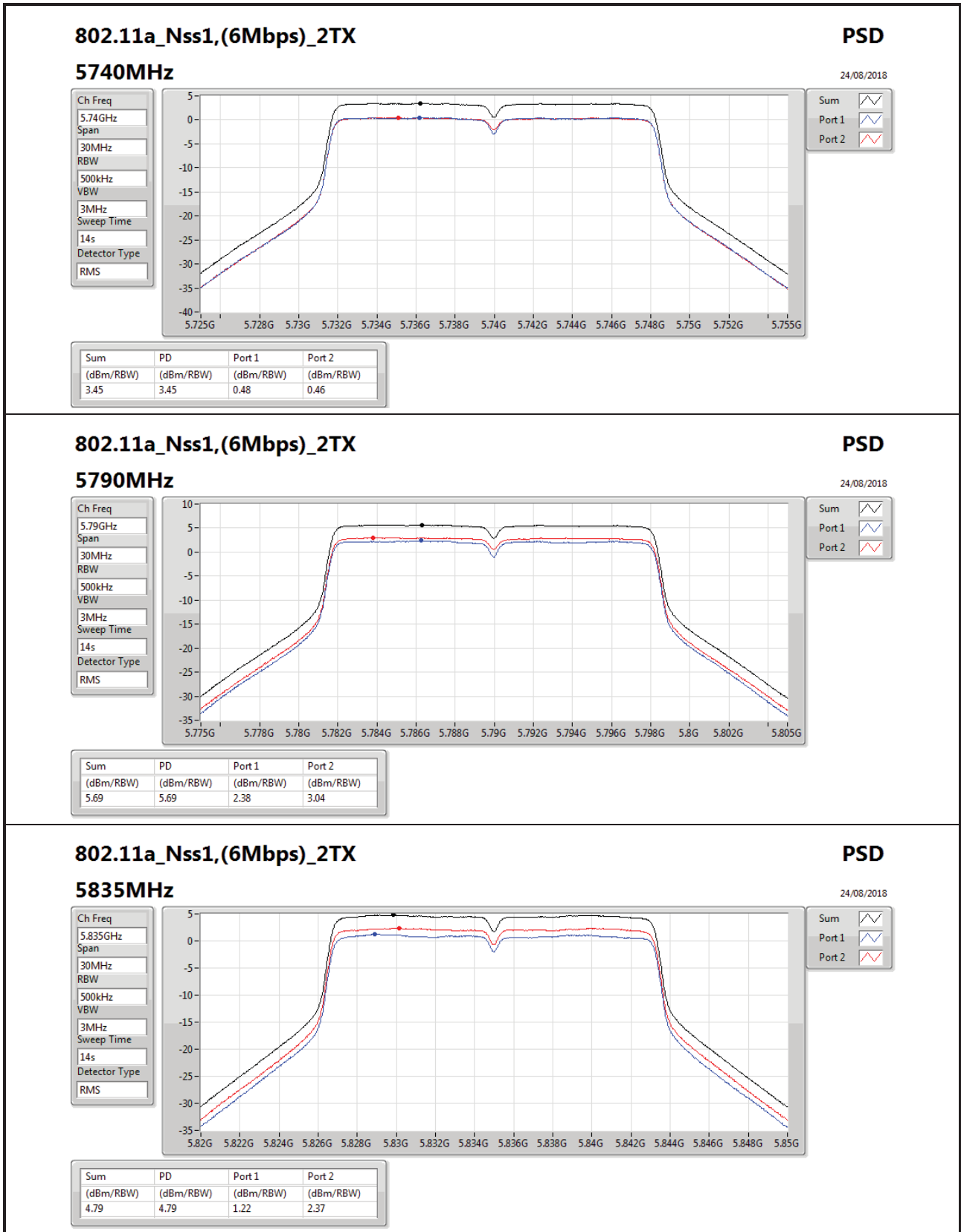
**Appendix D**

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)
5200MHz_TnomVnom	Pass	29.01	-6.85	-6.76	-3.82	10.99	25.19	40.00
5220MHz_TnomVnom	Pass	29.01	-0.21	-0.24	2.74	10.99	31.75	40.00
5760MHz_TnomVnom	Pass	29.01	-3.06	-2.68	0.14	30.00	29.15	Inf
5790MHz_TnomVnom	Pass	29.01	-2.86	-2.30	0.39	30.00	29.40	Inf
5815MHz_TnomVnom	Pass	29.01	-3.49	-2.35	0.12	30.00	29.13	Inf
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	29.01	-31.93	-32.05	-29.07	10.99	-0.06	40.00
5200MHz_TnomVnom	Pass	29.01	-21.17	-20.95	-18.14	10.99	10.87	40.00
5210MHz_TnomVnom	Pass	29.01	-16.16	-16.33	-13.30	10.99	15.71	40.00
5770MHz_TnomVnom	Pass	29.01	-4.83	-4.72	-1.81	30.00	27.20	Inf
5790MHz_TnomVnom	Pass	29.01	-0.52	-0.17	2.67	30.00	31.68	Inf
5805MHz_TnomVnom	Pass	29.01	-4.34	-2.26	-0.17	30.00	28.84	Inf

**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)\_2TX

#### 5835MHz

**PSD**  
24/08/2018

Ch Freq  
5.835GHz

Span  
30MHz

RBW  
500kHz

VBW  
3MHz

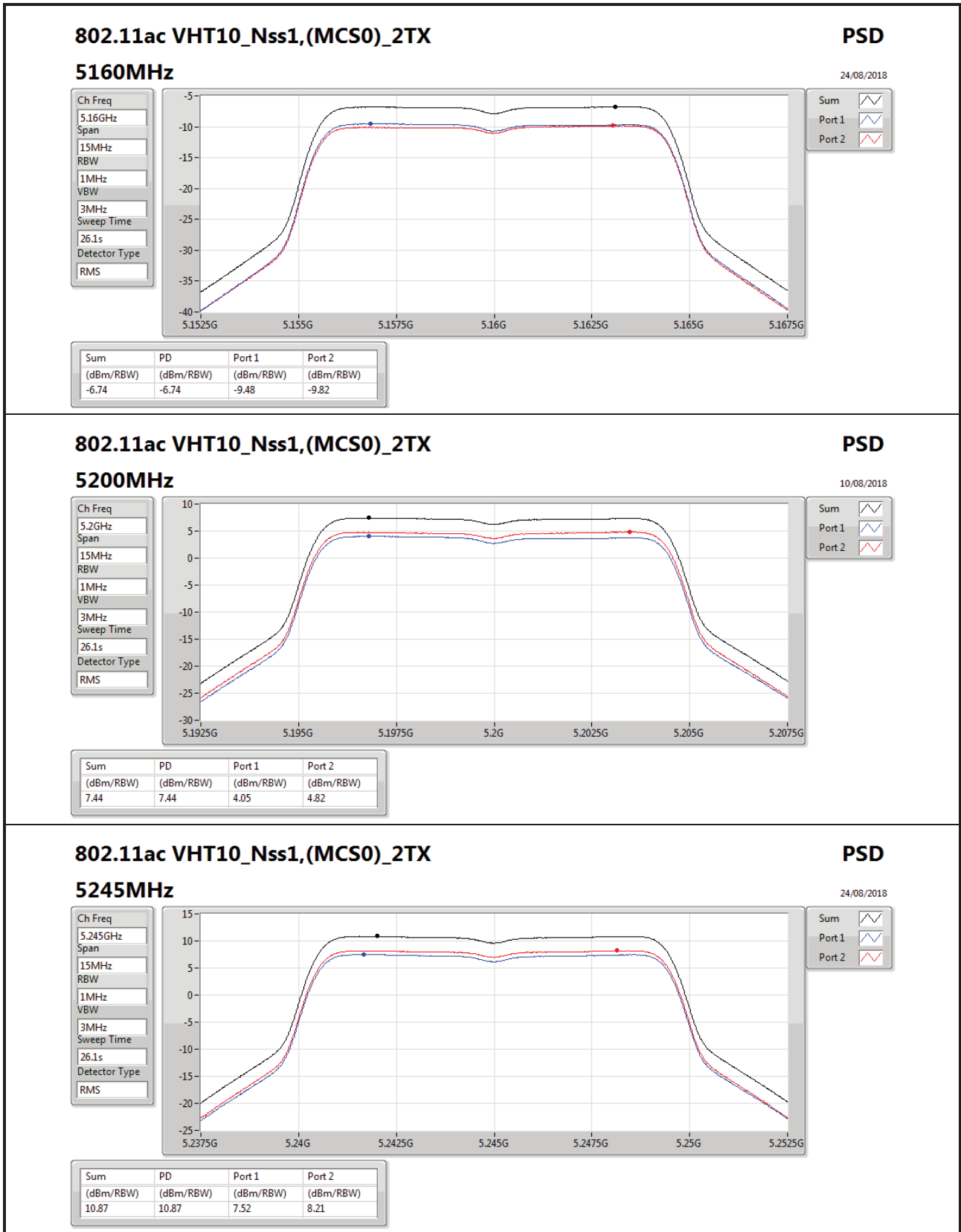
Sweep Time  
14s

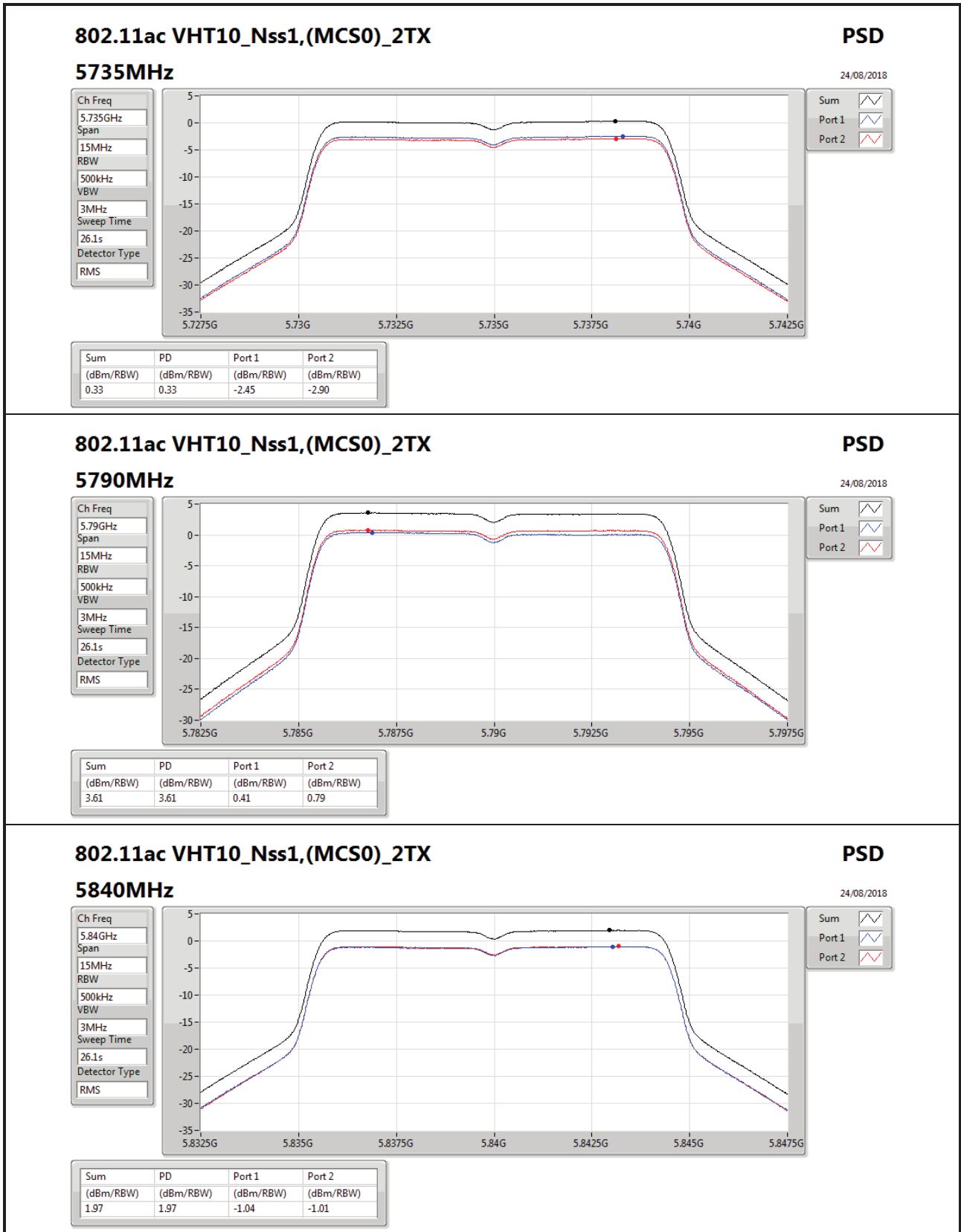
Detector Type  
RMS

Sum

Port 1

Port 2





### 802.11ac VHT10\_Nss1,(MCS0)\_2TX

#### 5840MHz

### PSD

24/08/2018

Ch Freq  
5.84GHz

Span  
15MHz

RBW  
500kHz

VBW  
3MHz

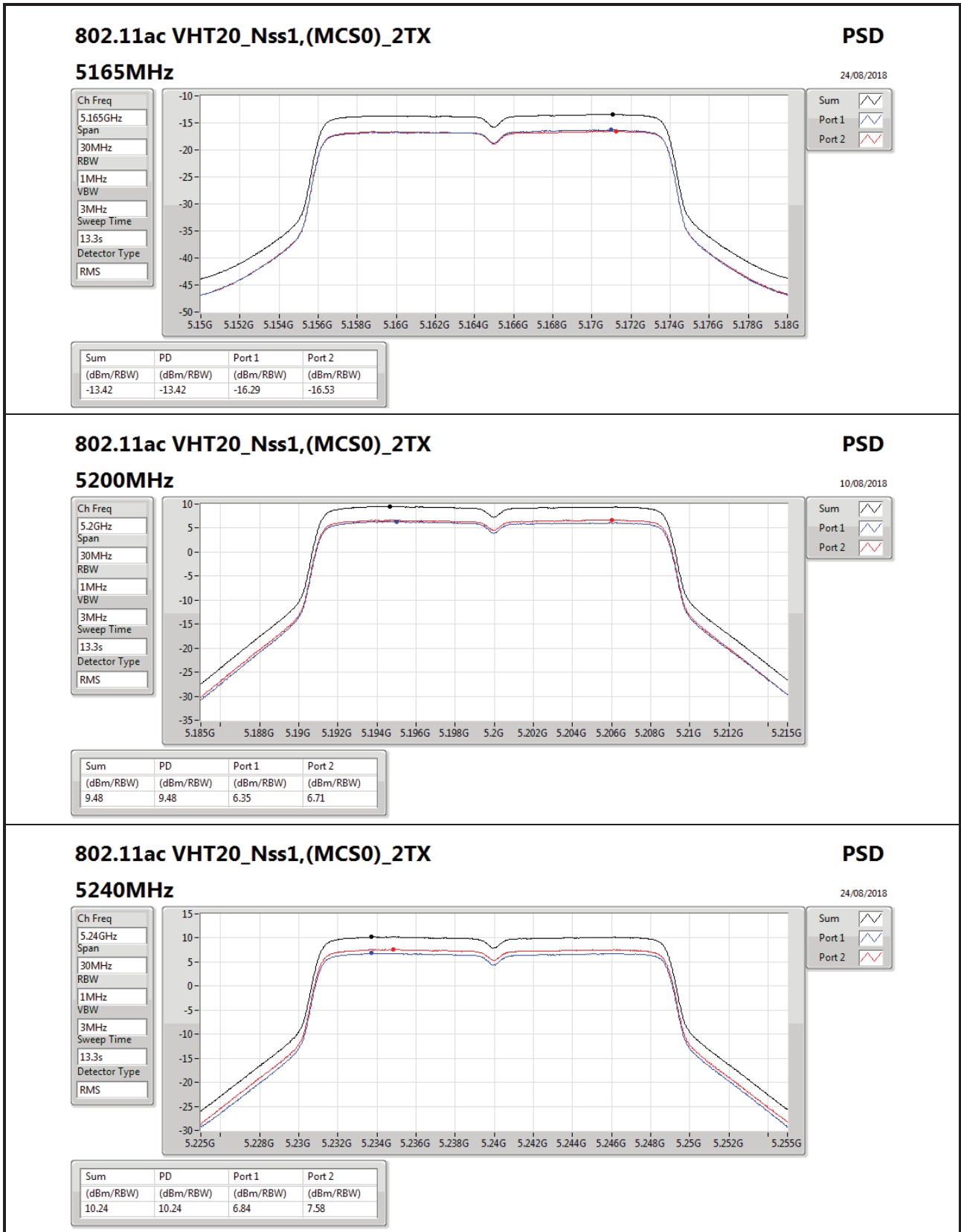
Sweep Time  
26.1s

Detector Type  
RMS

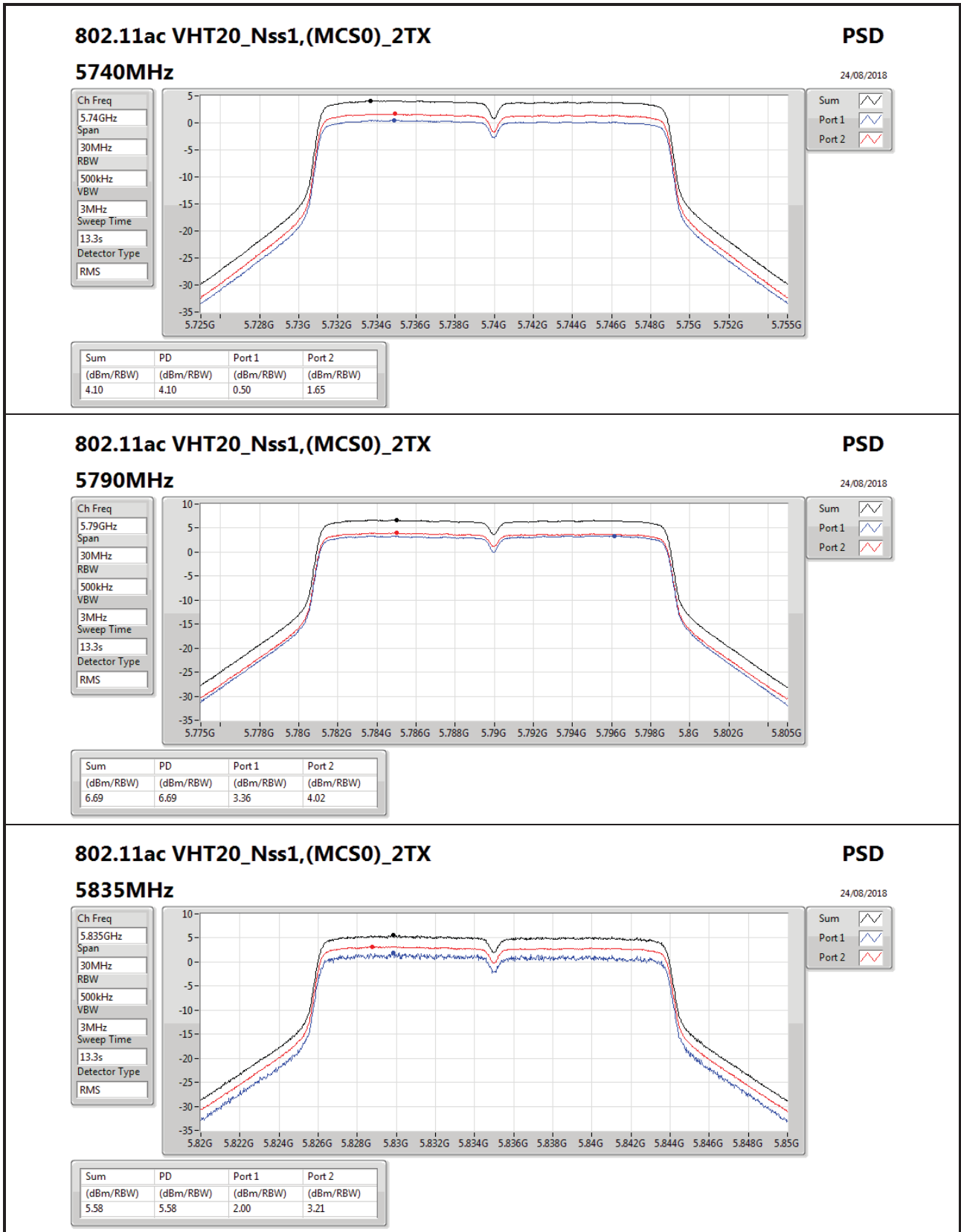
Sum

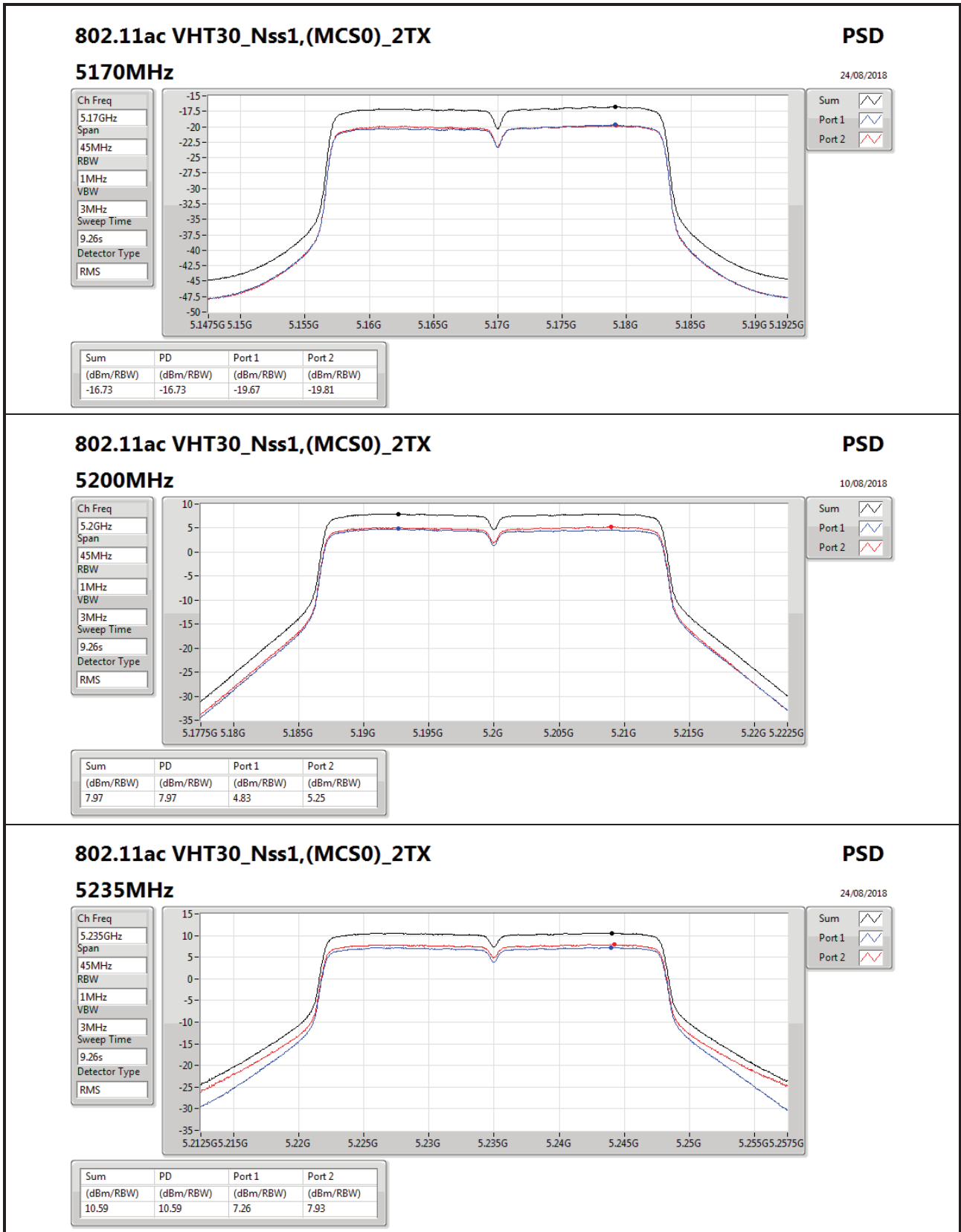
Port 1

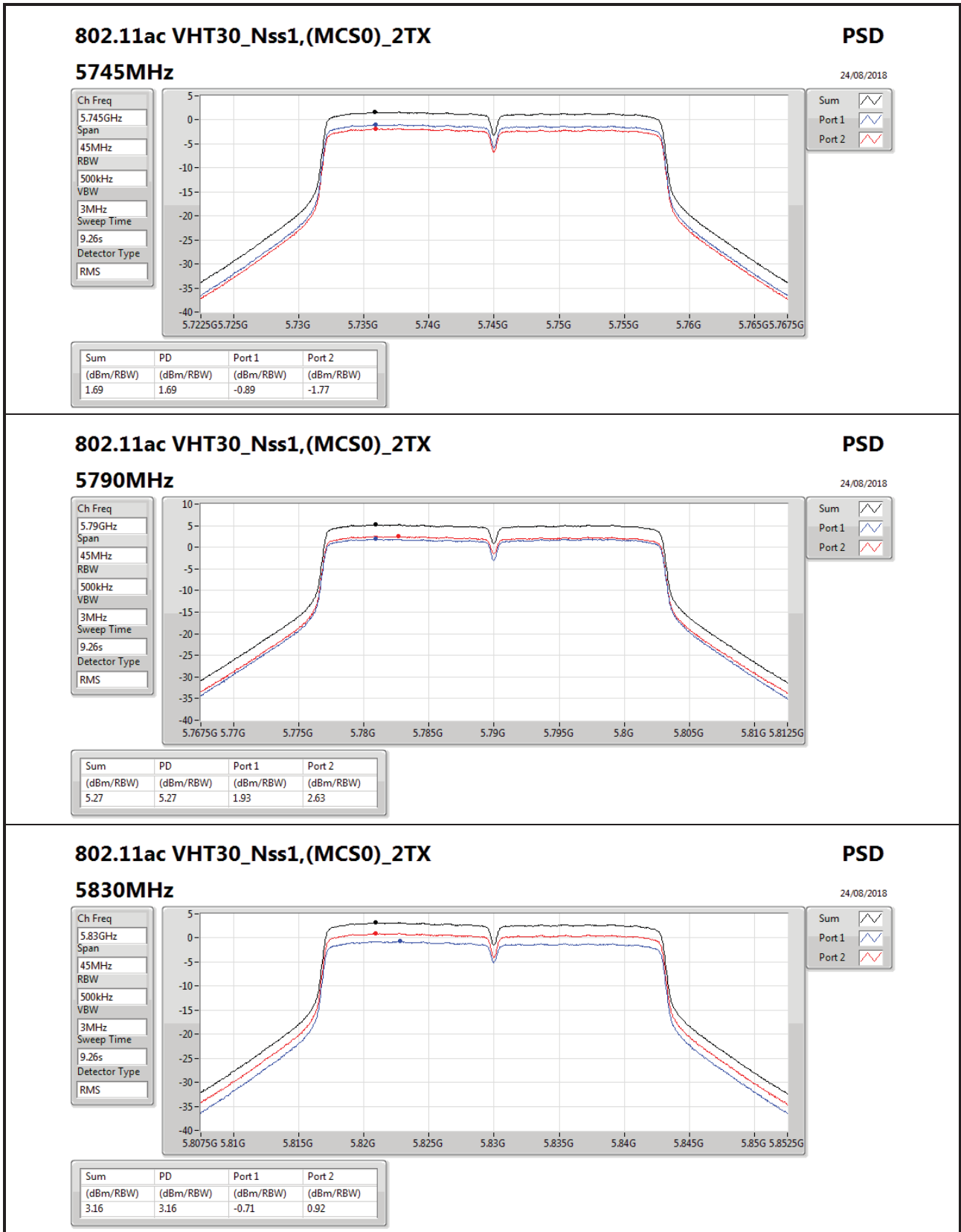
Port 2

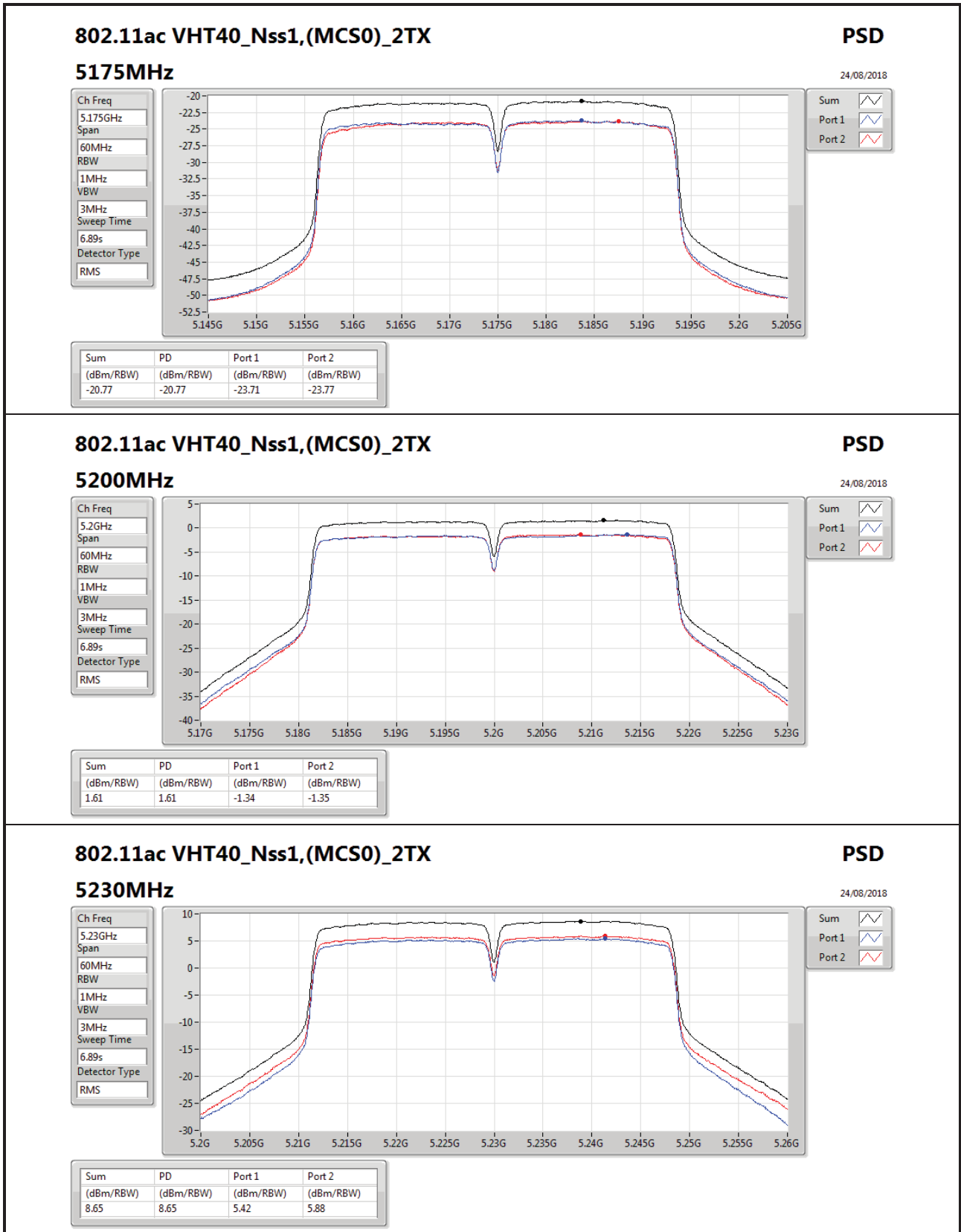


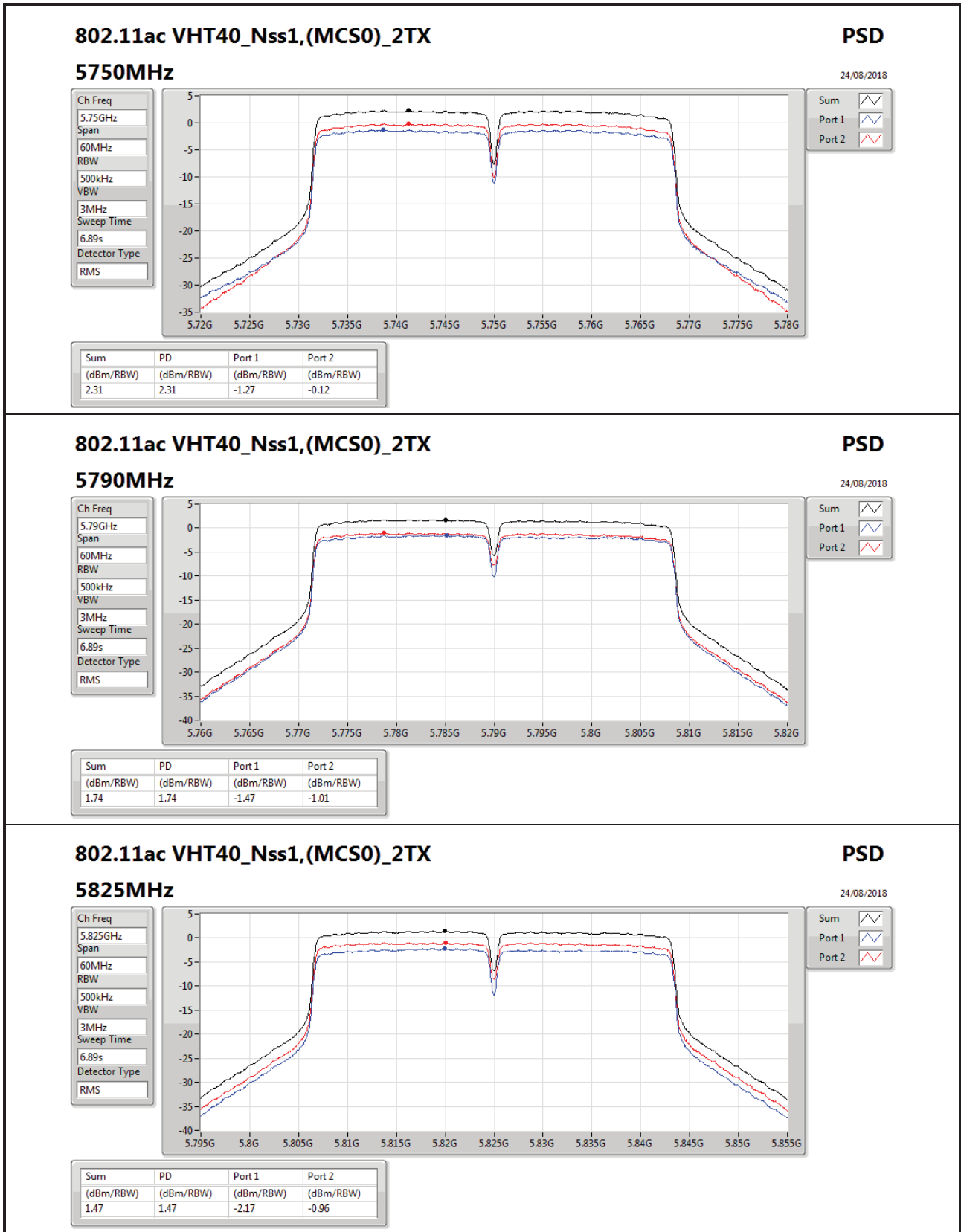


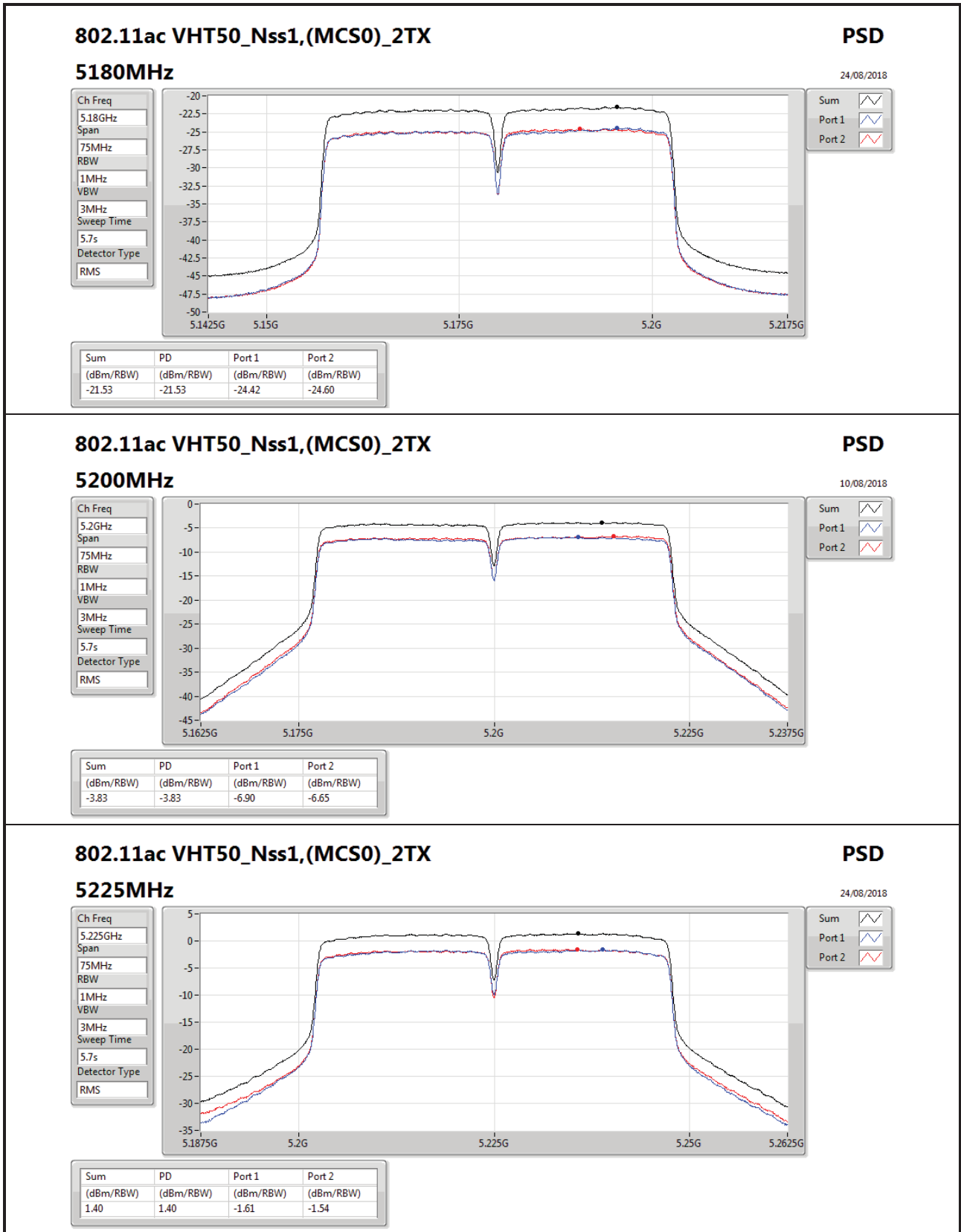


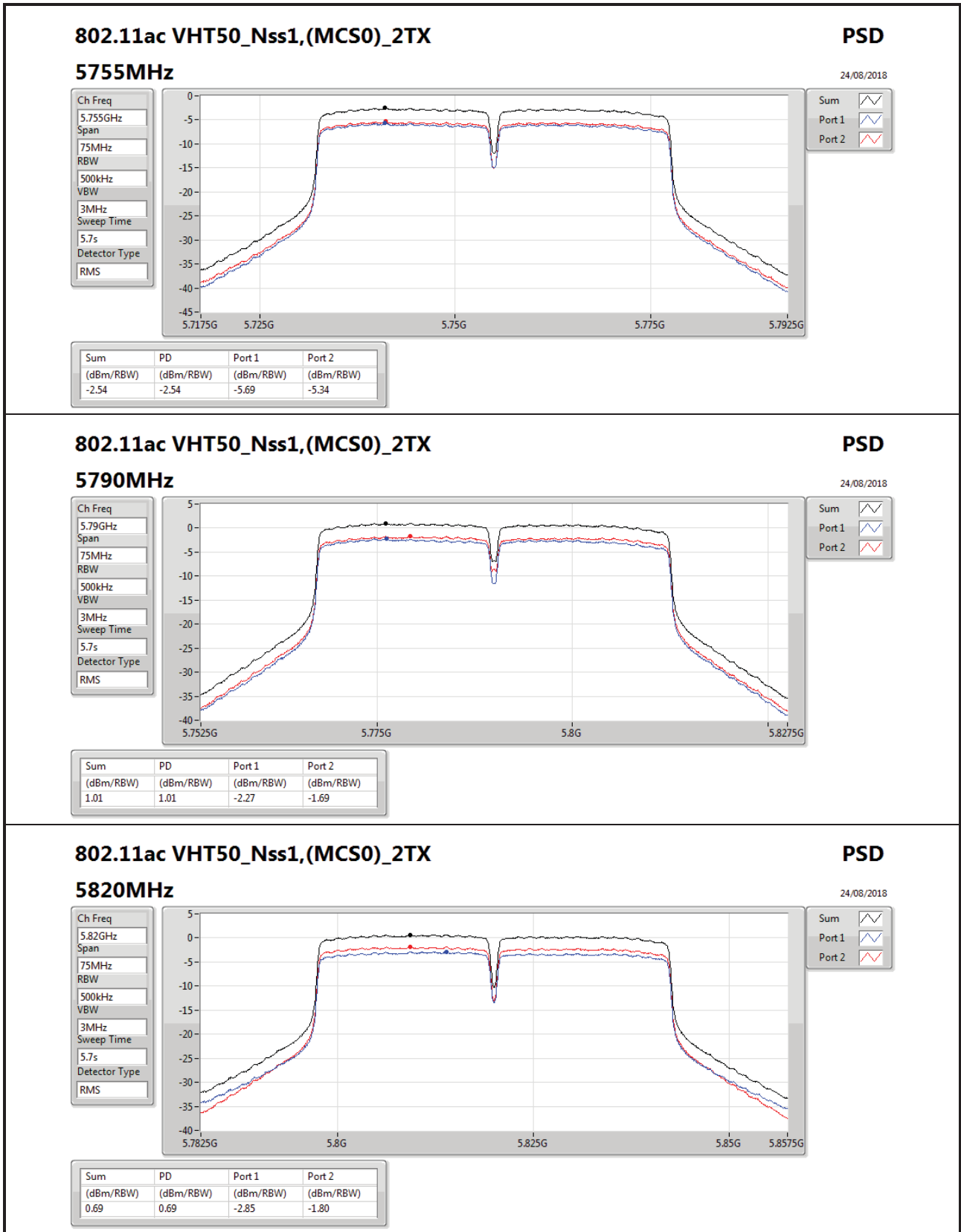












### 802.11ac VHT50\_Nss1,(MCS0)\_2TX

#### 5820MHz

### PSD

24/08/2018

Ch Freq  
5.82GHz

Span  
75MHz

RBW  
500kHz

VBW  
3MHz

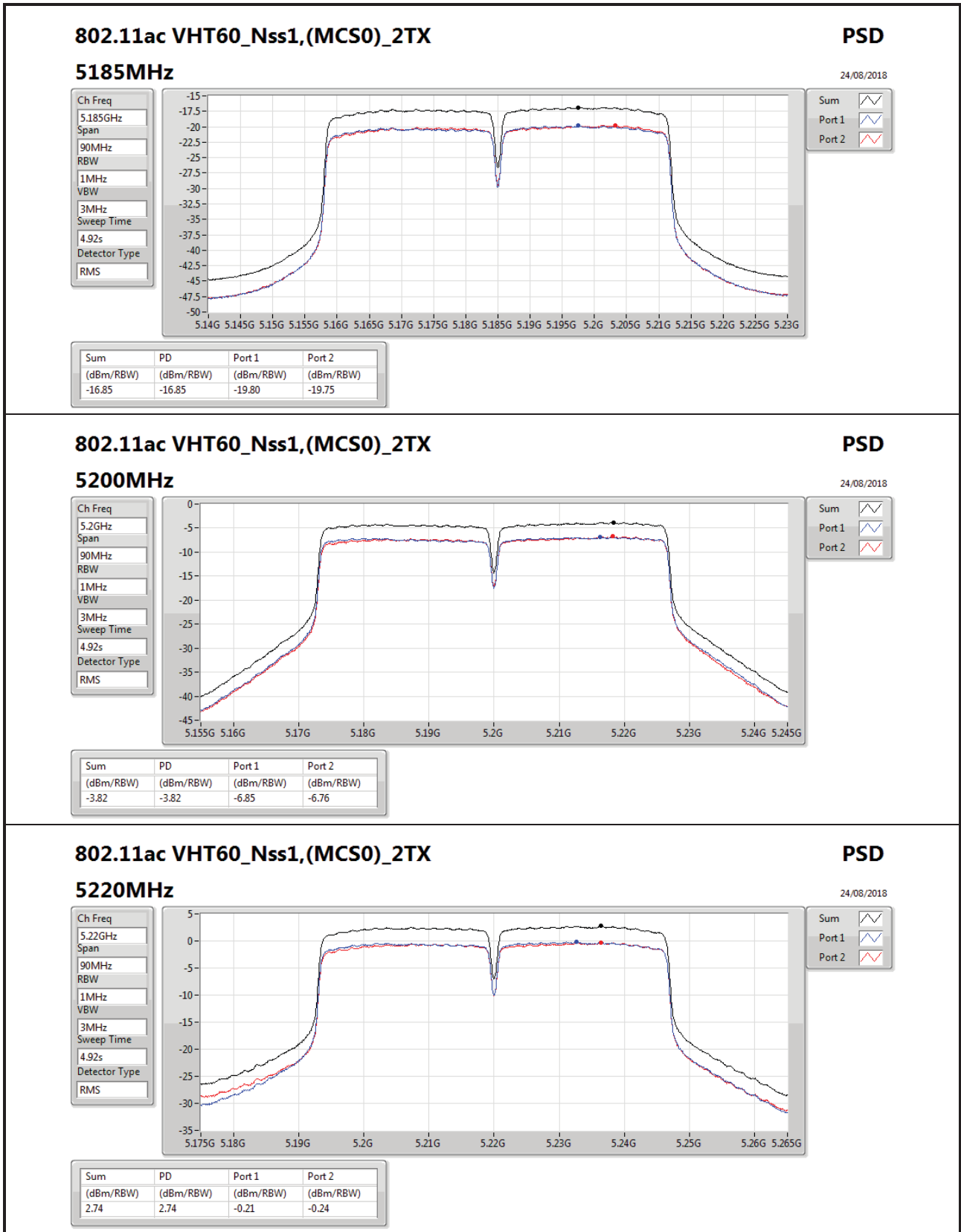
Sweep Time  
5.7s

Detector Type  
RMS

Sum

Port 1

Port 2



### 802.11ac VHT60\_Nss1,(MCS0)\_2TX

#### 5220MHz

### PSD

24/08/2018

Ch Freq  
5.22GHz

Span  
90MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
4.92s

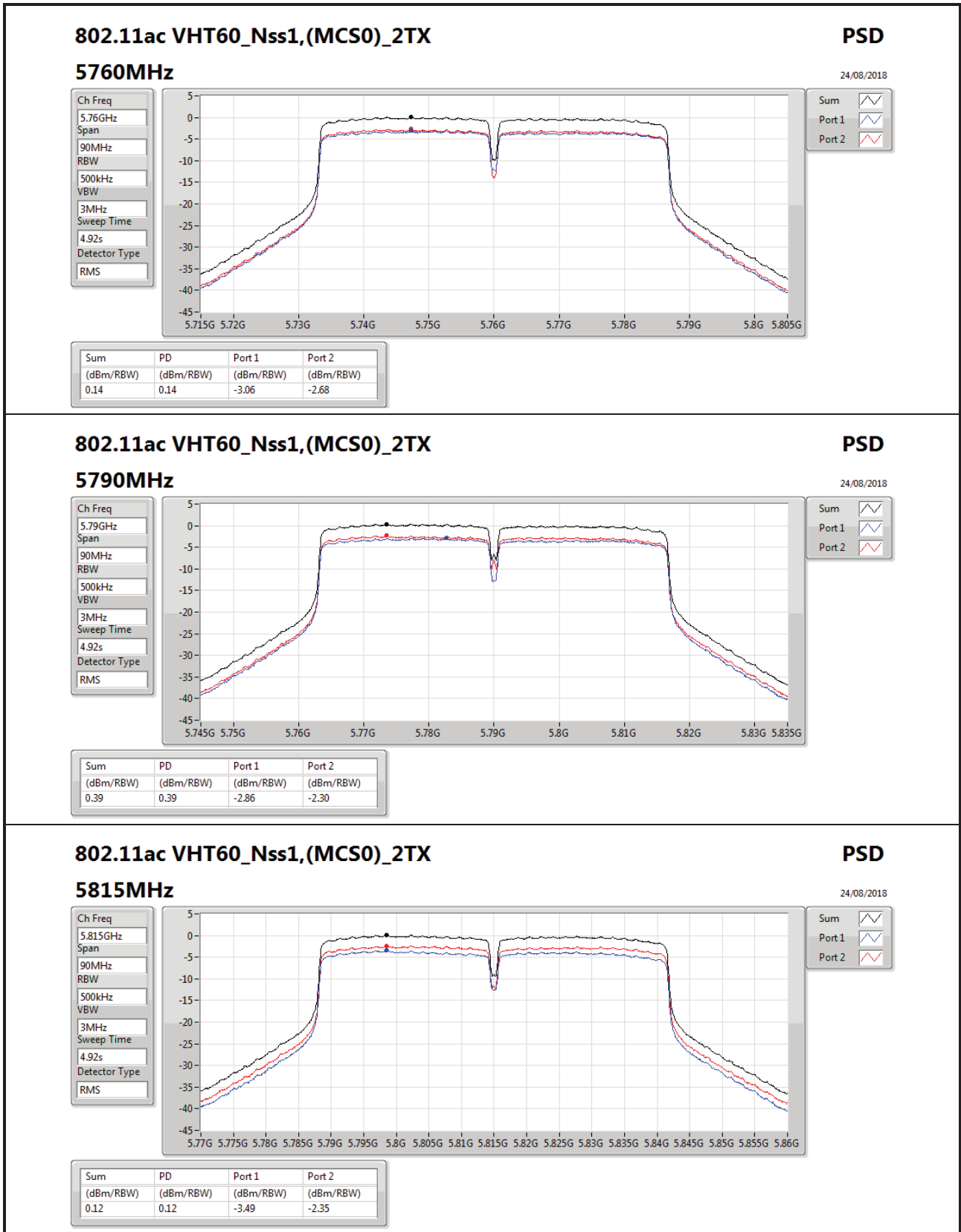
Detector Type  
RMS

Sum

Port 1

Port 2





### 802.11ac VHT60\_Nss1,(MCS0)\_2TX

#### 5815MHz

**PSD**  
24/08/2018

Ch Freq  
5.815GHz

Span  
90MHz

RBW  
500kHz

VBW  
3MHz

Sweep Time  
4.92s

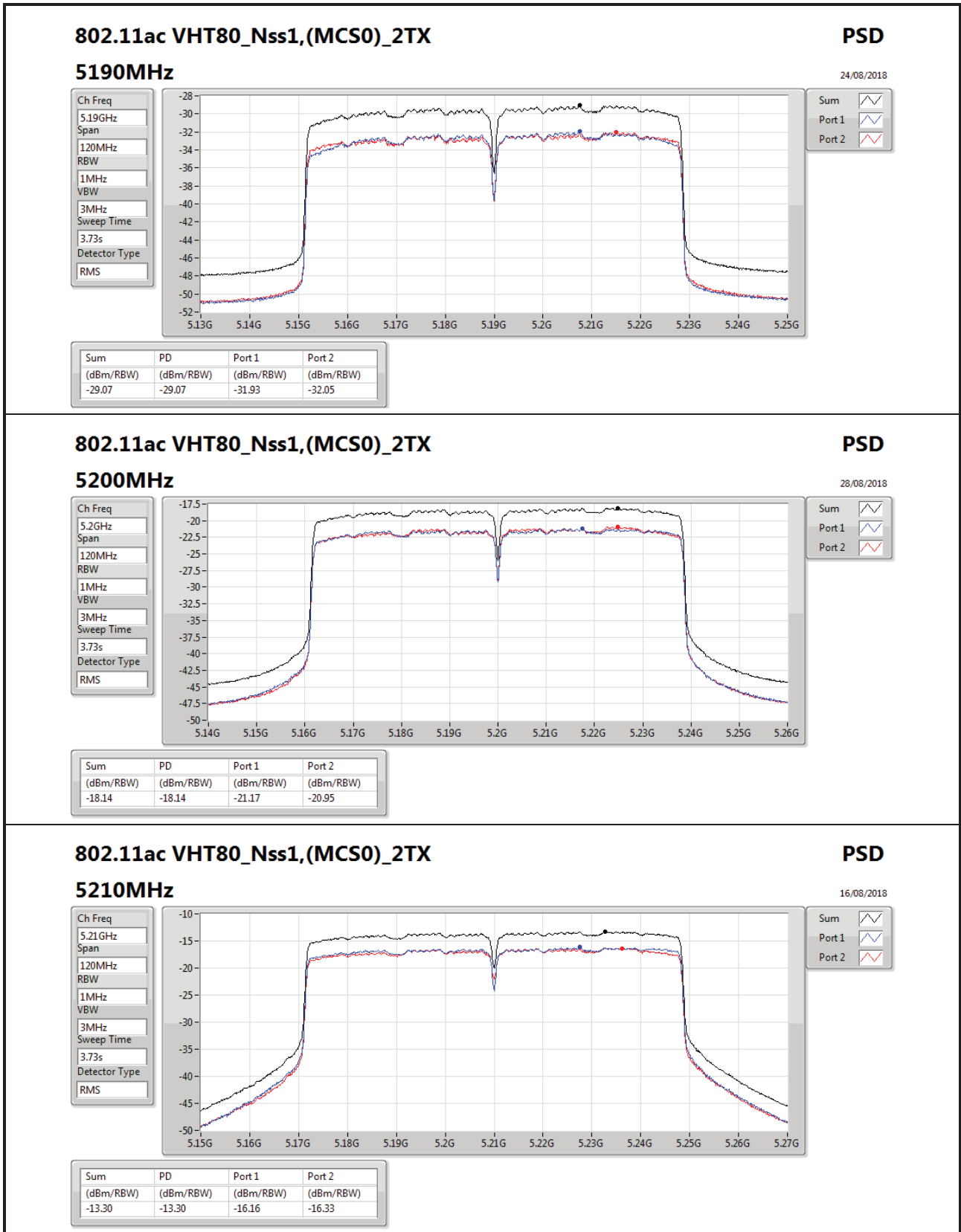
Detector Type  
RMS

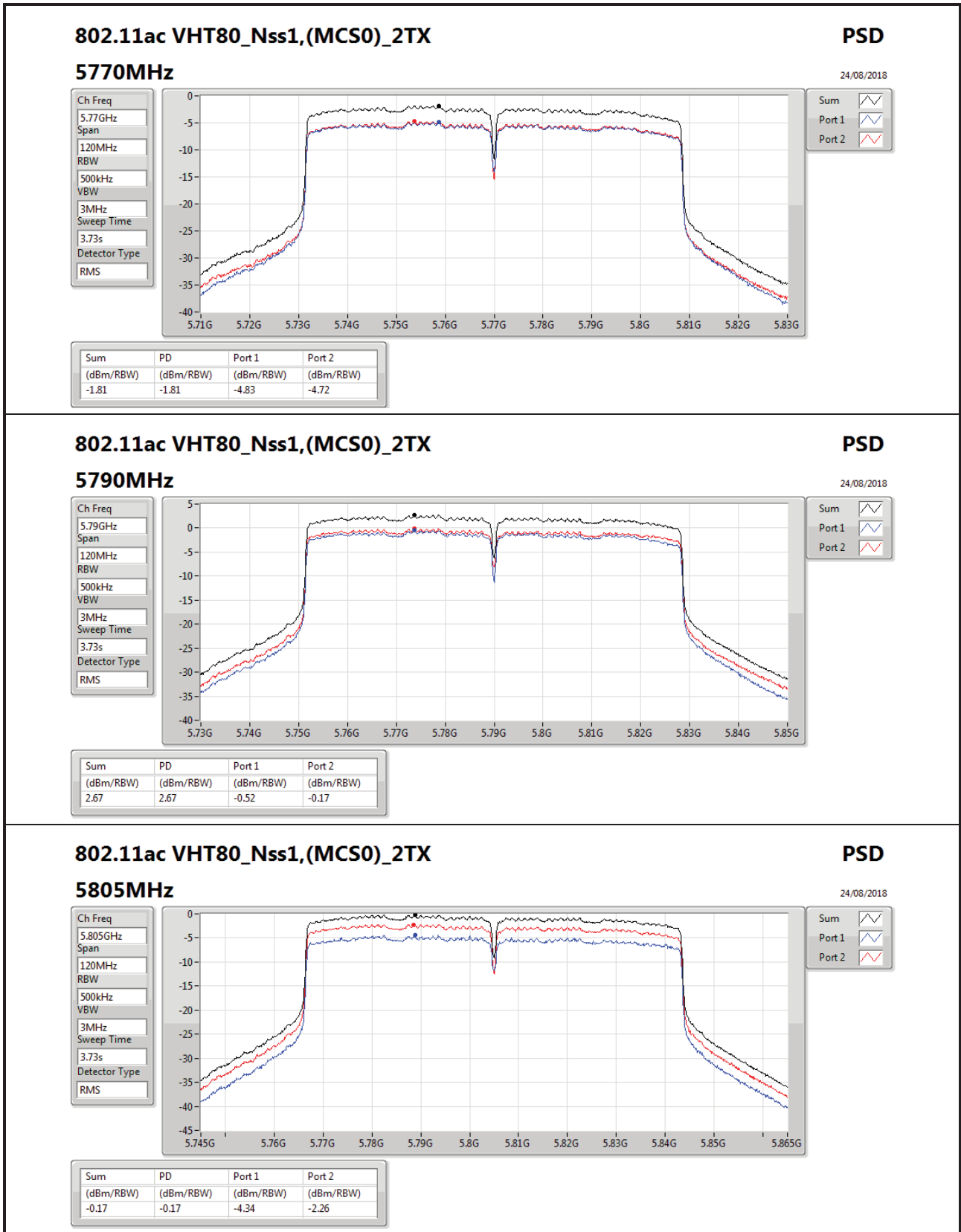
Sum

Port 1

Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.12	0.12	-3.49	-2.35







Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	PK	315.18M	39.89	46.00	-6.11	-16.46	3	Horizontal	360	3.00	-



**Result**

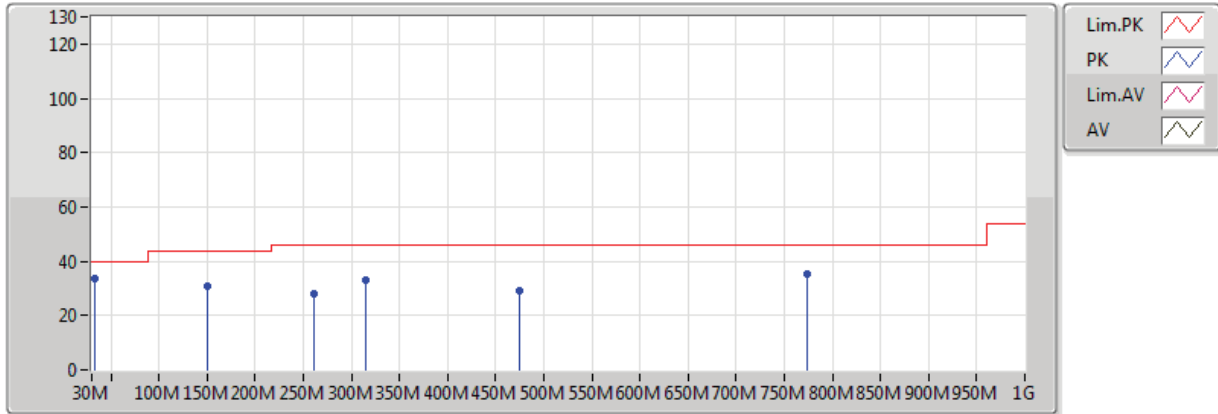
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5805MHz	Pass	PK	33.88M	33.60	40.00	-6.40	-15.32	3	Vertical	0	3.00	-
5805MHz	Pass	PK	150.28M	31.04	43.50	-12.46	-19.48	3	Vertical	0	3.00	-
5805MHz	Pass	PK	260.86M	27.75	46.00	-18.25	-15.71	3	Vertical	0	3.00	-
5805MHz	Pass	PK	315.18M	33.01	46.00	-12.99	-16.46	3	Vertical	0	3.00	-
5805MHz	Pass	PK	474.26M	28.88	46.00	-17.12	-12.47	3	Vertical	0	3.00	-
5805MHz	Pass	PK	773.02M	35.34	46.00	-10.66	-8.16	3	Vertical	0	3.00	-
5805MHz	Pass	PK	30M	21.32	40.00	-18.68	-13.40	3	Horizontal	360	3.00	-
5805MHz	Pass	PK	74.62M	25.21	40.00	-14.79	-24.78	3	Horizontal	360	3.00	-
5805MHz	Pass	PK	144.46M	35.75	43.50	-7.75	-19.35	3	Horizontal	360	3.00	-
5805MHz	Pass	PK	315.18M	39.89	46.00	-6.11	-16.46	3	Horizontal	360	3.00	-
5805MHz	Pass	PK	575.14M	32.97	46.00	-13.03	-10.84	3	Horizontal	360	3.00	-
5805MHz	Pass	PK	674.08M	35.45	46.00	-10.55	-9.99	3	Horizontal	360	3.00	-



### 802.11ac VHT80\_Nss1,(MCS0)\_2TX

### 5805MHz\_PoE

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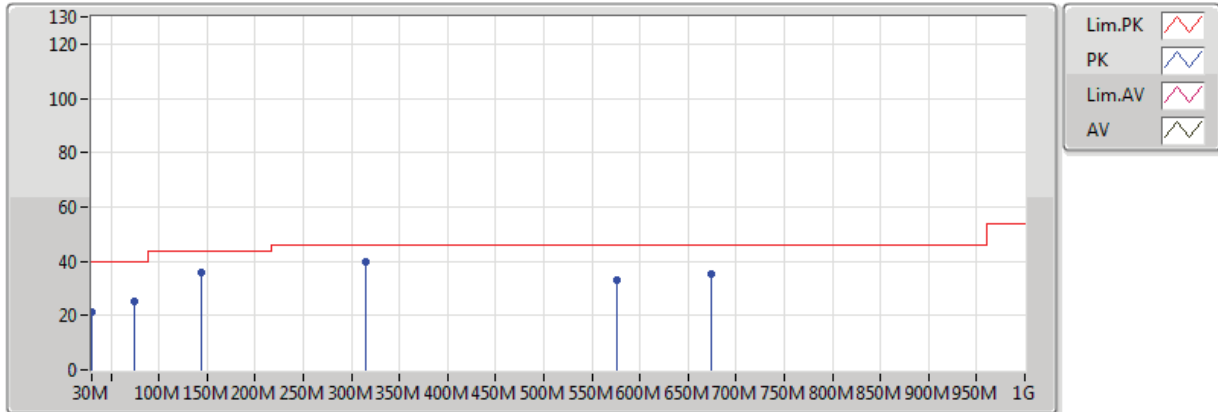


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	33.88M	33.60	40.00	-6.40	-15.32	3	Vertical	0	3.00	-
PK	150.28M	31.04	43.50	-12.46	-19.48	3	Vertical	0	3.00	-
PK	260.86M	27.75	46.00	-18.25	-15.71	3	Vertical	0	3.00	-
PK	315.18M	33.01	46.00	-12.99	-16.46	3	Vertical	0	3.00	-
PK	474.26M	28.88	46.00	-17.12	-12.47	3	Vertical	0	3.00	-
PK	773.02M	35.34	46.00	-10.66	-8.16	3	Vertical	0	3.00	-

### 802.11ac VHT80\_Nss1,(MCS0)\_2TX

### 5805MHz\_PoE

14/08/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	30M	21.32	40.00	-18.68	-13.40	3	Horizontal	360	3.00	-
PK	74.62M	25.21	40.00	-14.79	-24.78	3	Horizontal	360	3.00	-
PK	144.46M	35.75	43.50	-7.75	-19.35	3	Horizontal	360	3.00	-
PK	315.18M	39.89	46.00	-6.11	-16.46	3	Horizontal	360	3.00	-
PK	575.14M	32.97	46.00	-13.03	-10.84	3	Horizontal	360	3.00	-
PK	674.08M	35.45	46.00	-10.55	-9.99	3	Horizontal	360	3.00	-