



# FCC Test Report

**Equipment** : Wireless-AX6000 Dual Band Gigabit Router  
**Brand Name** : ASUS  
**Model No.** : RT-AX88U, RT-AX6000, RT-AX88P, RT-AX88R, RT-AX88A  
**FCC ID** : MSQ-RTAXHP00  
**Standard** : 47 CFR FCC Part 15.407  
**Operating Band** : 5150 MHz – 5250 MHz  
5250 MHz – 5350 MHz  
5470 MHz – 5725 MHz  
5725 MHz – 5850 MHz  
**Applicant** : ASUSTeK COMPUTER INC.  
4F, No. 150, Li-Te Rd., Peitou, Taipei 112, Taiwan  
**Manufacturer (1)** : Compal Networking (KunShan) Co., LTD.  
No. 520, Nanbang Rd., Economic & Technical  
Development Zone Kunshan, Jiangsu Province China  
**Manufacturer (2)** : ASKEY TECHNOLOGY (JIANG SU) LTD  
NO1388, Jiao Tong Road, Wujiang Economic  
Technological Development Area Jiangsu Province  
215200 China  
**Function** :  Outdoor;  Indoor;  Fixed P2P  
 Client  
**TPC Function** :  With TPC  Without TPC

The product sample received on Dec. 18, 2017 and completely tested on Mar. 08, 2018. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

  
Sam Chen  
SPORTON INTERNATIONAL INC.





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### Summary of Test Result

Conformance Test Specifications			
Report Clause	Ref. Std. Clause	Description	Result
1.1.2	15.203	Antenna Requirement	Complied
3.1	15.407(a)	Emission Bandwidth	Complied
3.2	15.407(a)	Maximum Conducted Output Power	Complied
3.3	15.407(a)	Peak Power Spectral Density	Complied
3.4	15.407(b)	Unwanted Emissions	Complied
3.5	15.407(g)	Frequency Stability	Complied





# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HE20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40), ax (HE40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80), ax (HE80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]
5150-5350	ac (VHT160)	5250	50 [1]
5470-5725		5570	114 [1]

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11a	20	4TX
5.47-5.725GHz	802.11a	20	4TX
5.725-5.85GHz	802.11a	20	4TX
5.25-5.35GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.725-5.85GHz	802.11n HT20	20	4TX
5.25-5.35GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.725-5.85GHz	802.11n HT40	40	4TX
5.25-5.35GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.725-5.85GHz	802.11ac VHT20	20	4TX
5.25-5.35GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.725-5.85GHz	802.11ac VHT40	40	4TX
5.25-5.35GHz	802.11ac VHT80	80	4TX



Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.725-5.85GHz	802.11ac VHT80	80	4TX
5.15-5.25GHz	802.11ac VHT160	160	4TX
5.25-5.35GHz	802.11ac VHT160	160	4TX
5.47-5.725GHz	802.11ac VHT160	160	4TX
5.25-5.35GHz	HE20	20	4TX
5.47-5.725GHz	HE20	20	4TX
5.725-5.85GHz	HE20	20	4TX
5.25-5.35GHz	HE40	40	4TX
5.47-5.725GHz	HE40	40	4TX
5.725-5.85GHz	HE40	40	4TX
5.25-5.35GHz	HE80	80	4TX
5.47-5.725GHz	HE80	80	4TX
5.725-5.85GHz	HE80	80	4TX
5.25-5.35GHz	802.11n HT20-BF	20	4TX
5.47-5.725GHz	802.11n HT20-BF	20	4TX
5.725-5.85GHz	802.11n HT20-BF	20	4TX
5.25-5.35GHz	802.11n HT40-BF	40	4TX
5.47-5.725GHz	802.11n HT40-BF	40	4TX
5.725-5.85GHz	802.11n HT40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.725-5.85GHz	802.11ac VHT20-BF	20	4TX
5.25-5.35GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.725-5.85GHz	802.11ac VHT40-BF	40	4TX
5.25-5.35GHz	802.11ac VHT80-BF	80	4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	4TX
5.725-5.85GHz	802.11ac VHT80-BF	80	4TX
5.15-5.25GHz	802.11ac VHT160-BF	160	4TX
5.25-5.35GHz	802.11ac VHT160-BF	160	4TX
5.47-5.725GHz	802.11ac VHT160-BF	160	4TX
5.25-5.35GHz	HE20,BF	20	4TX
5.47-5.725GHz	HE20,BF	20	4TX
5.725-5.85GHz	HE20,BF	20	4TX
5.25-5.35GHz	HE40,BF	40	4TX
5.47-5.725GHz	HE40,BF	40	4TX
5.725-5.85GHz	HE40,BF	40	4TX
5.25-5.35GHz	HE80,BF	80	4TX
5.47-5.725GHz	HE80,BF	80	4TX
5.725-5.85GHz	HE80,BF	80	4TX



Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 and VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ HE20, HE40 and HE80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ Nss-Min is the minimum number of spatial streams.
- ♦ Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.
- ♦ The device supports 160MHz in ac mode only.

1.1.2 Antenna Information

Set	2.4G Port	5G Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	1	2	M.gear	C660-510411-A	Dipole Antenna	Reverse SMA Plug	Note 1
	2	1					
	3	4					
	4	3					
2	-	-	PSA	RFDPA171300SBLB820	Dipole Antenna	Reverse SMA Plug	

Note1:

Set	2.4G Port	5G Port	Gain (dBi)			
			2.4GHz	5GHz Band 1 / Band 2	5GHz Band 3	5GHz Band 4
1	1	2	1.94	2.33	2.35	1.94
	2	1				
	3	4				
	4	3				
2	-	-	1.85	2.24	2.32	1.86

Note2: The EUT has two sets of antennas because set 1 & set 2 are the same type antennas, only the higher gain antenna "set 1" was tested..

<For 2.4GHz Band>

For IEEE 802.11b/g/n/ac/ax mode <4TX/4RX>:

Port 1, Port 2, Port 3 and Port 4 will transmit/receive the same signal simultaneously.

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

<For 5GHz Band>

For IEEE 802.11a/n/ac/ax mode <4TX/4RX>:

Port 1, Port 2, Port 3 and Port 4 will transmit/receive the same signal simultaneously.

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



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.983	0.074	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT20	0.983	0.074	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT20-BF	0.832	0.799	1.948m	1k
802.11ac VHT40	0.986	0.061	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40-BF	0.903	0.443	2.793m	1k
802.11ac VHT80	0.986	0.061	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT80-BF	0.919	0.367	3.423m	300
802.11ac VHT160	0.969	0.137	2.24m	1k
802.11ac VHT160-BF	0.67	1.74	13.395m	1k
802.11ax HE20	0.982	0.079	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HE20,BF	0.858	0.665	2.218m	1k
802.11ax HE40	0.982	0.079	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HE40,BF	0.843	0.742	2.218m	1k
802.11ax HE80	0.982	0.079	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HE80,BF	0.986	0.061	n/a (DC>=0.98)	n/a (DC>=0.98)

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter		
Beamforming Function	<input checked="" type="checkbox"/> With beamforming for 802.11n/ac/ax in 2.4GHz and 5GHz.	<input type="checkbox"/>	Without beamforming
Weather Band	<input checked="" type="checkbox"/> With 5600~5650MHz	<input type="checkbox"/>	Without 5600~5650MHz
Test Software Version	accessMTool_3_0_0_5		

1.1.5 Table for Multiple Listing

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

Model Name	Description
RT-AX88U	All the models are identical, the different model names served as marketing strategy.
RT-AX6000	
RT-AX88P	
RT-AX88R	
RT-AX88A	

From the above models, model: RT-AX88U was selected as representative model for the test and its data was recorded in this report.



1.1.6 Table for SKU information

EUT No.	SUK No. / Brand Name	P/N
1	SUK 1 / SWAPnet	NS604804
2	SUK 2 / Mingtek	HN4821CG

Note: The SKU does not affect the test result of RF tests, so only SUK 1 was tested and recorded in this report.

1.1.7 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR780707AB

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

Modifications	Description
1. Add 5 GHz Band 2 and Band 3 (5250~5350 MHz, 5470~5725 MHz) for this device.	1. Emission Bandwidth
2. Adding 160MHz (only supports 802.11ac mode)	2. Maximum Conducted Output Power
	3. Peak Power Spectral Density
	4. Unwanted Emissions
	5. Frequency Stability
3. Add Client without radar detection mode.	Do not affect the test results in this test report.



## 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
- ◆ FCC KDB 789033 D02 v02r01
- ◆ FCC KDB 662911 D01 v02r01

## 1.3 Testing Location Information

Testing Location		
<input type="checkbox"/>	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Serway Li	20°C / 50%	Feb. 21, 2018 ~ Mar. 07, 2018
Radiated	03CH01-CB	Cola Fan	22°C / 54%	Dec. 18, 2017 ~ Mar. 08, 2018

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

## 1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	$9.74 \times 10^{-8}$	Confidence levels of 95%
Frequency Stability	$6.06 \times 10^{-8}$	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5260MHz	61
5300MHz	61
5320MHz	62
5500MHz	61
5580MHz	61
5700MHz	61
5720MHz Straddle 5.47-5.725GHz	61
5720MHz Straddle 5.725-5.85GHz	61
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5260MHz	62
5300MHz	62
5320MHz	62
5500MHz	62
5580MHz	63
5700MHz	62
5720MHz Straddle 5.47-5.725GHz	62
5720MHz Straddle 5.725-5.85GHz	62
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5270MHz	70
5310MHz	70
5510MHz	70
5550MHz	70
5670MHz	70
5710MHz Straddle 5.47-5.725GHz	71
5710MHz Straddle 5.725-5.85GHz	71
802.11ac VHT80_Nss1,(MCS0)_4TX	-
5290MHz	70
5530MHz	70
5610MHz	69
5690MHz Straddle 5.47-5.725GHz	70
5690MHz Straddle 5.725-5.85GHz	70
802.11ac VHT160_Nss1,(MCS0)_4TX	-



Mode	Power Setting
5250MHz Straddle 5.15-5.25GHz	64
5250MHz Straddle 5.25-5.35GHz	64
5570MHz	66
HE20_Nss1,(MCS0)_4TX	-
5260MHz	61
5300MHz	62
5320MHz	62
5500MHz	62
5580MHz	63
5700MHz	62
5720MHz Straddle 5.47-5.725GHz	62
5720MHz Straddle 5.725-5.85GHz	62
HE40_Nss1,(MCS0)_4TX	-
5270MHz	68
5310MHz	68
5510MHz	68
5550MHz	68
5670MHz	68
5710MHz Straddle 5.47-5.725GHz	69
5710MHz Straddle 5.725-5.85GHz	69
HE80_Nss1,(MCS0)_4TX	-
5290MHz	68
5530MHz	68
5610MHz	68
5690MHz Straddle 5.47-5.725GHz	69
5690MHz Straddle 5.725-5.85GHz	69
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
5260MHz	59
5300MHz	60
5320MHz	60
5500MHz	59
5580MHz	60
5700MHz	59
5720MHz Straddle 5.47-5.725GHz	58
5720MHz Straddle 5.725-5.85GHz	58
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
5270MHz	59



Mode	Power Setting
5310MHz	59
5510MHz	59
5550MHz	59
5670MHz	60
5710MHz Straddle 5.47-5.725GHz	61
5710MHz Straddle 5.725-5.85GHz	61
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-
5290MHz	59
5530MHz	59
5610MHz	59
5690MHz Straddle 5.47-5.725GHz	60
5690MHz Straddle 5.725-5.85GHz	60
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	69
5250MHz Straddle 5.25-5.35GHz	69
5570MHz	59
HE20,BF_Nss1,(MCS0)_4TX	-
5260MHz	58
5300MHz	59
5320MHz	58
5500MHz	58
5580MHz	59
5700MHz	58
5720MHz Straddle 5.47-5.725GHz	59
5720MHz Straddle 5.725-5.85GHz	59
HE40,BF_Nss1,(MCS0)_4TX	-
5270MHz	59
5310MHz	60
5510MHz	59
5550MHz	59
5670MHz	60
5710MHz Straddle 5.47-5.725GHz	60
5710MHz Straddle 5.725-5.85GHz	60
HE80,BF_Nss1,(MCS0)_4TX	-
5290MHz	59
5530MHz	59
5610MHz	59



Mode	Power Setting
5690MHz Straddle 5.47-5.725GHz	60
5690MHz Straddle 5.725-5.85GHz	60
5775MHz	
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-
5260MHz	70
5300MHz	70
5320MHz	70
5500MHz	69
5580MHz	70
5700MHz	69
5720MHz Straddle 5.47-5.725GHz	69
5720MHz Straddle 5.725-5.85GHz	69
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-
5270MHz	69
5310MHz	69
5510MHz	68
5550MHz	68
5670MHz	69
5710MHz Straddle 5.47-5.725GHz	70
5710MHz Straddle 5.725-5.85GHz	70
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-
5290MHz	69
5530MHz	69
5610MHz	68
5690MHz Straddle 5.47-5.725GHz	69
5690MHz Straddle 5.725-5.85GHz	69
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	70
5250MHz Straddle 5.25-5.35GHz	70
5570MHz	68
HE20,BF_Nss2,(MCS0)_4TX	-
5260MHz	68
5300MHz	68
5320MHz	68
5500MHz	67
5580MHz	68
5700MHz	68



Mode	Power Setting
5720MHz Straddle 5.47-5.725GHz	68
5720MHz Straddle 5.725-5.85GHz	68
HE40,BF_Nss2,(MCS0)_4TX	-
5270MHz	67
5310MHz	67
5510MHz	67
5550MHz	67
5670MHz	67
5710MHz Straddle 5.47-5.725GHz	69
5710MHz Straddle 5.725-5.85GHz	69
HE80,BF_Nss2,(MCS0)_4TX	-
5290MHz	67
5530MHz	67
5610MHz	67
5690MHz Straddle 5.47-5.725GHz	68
5690MHz Straddle 5.725-5.85GHz	68

Note: 1.VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.  
2. There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802.11n/ac/ax. All test results were recorded in the report.

## 2.2 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 Frequency Stability
<b>Test Condition</b>	Conducted measurement at transmit chains
<b>Test Mode</b>	EUT 1 + Master (AP) Mode

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 &gt; 1GHz</b>	CTX
1	EUT 1 + Master (AP) Mode

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
<b>Operating Mode</b>	
1	EUT 1 + Master (AP) Mode (WLAN 2.4GHz + WLAN 5GHz)
Refer to Sporton Test Report No.: FA780707-01 for Co-location RF Exposure Evaluation.	

Note: The EUT supports master mode (AP mode, client without radar detection mode) and only be used at Z axis.



## 2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

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

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under Telnet.
3. Executed "Telnet" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

## 2.4 Accessories

Accessories				
Equipment Name	Brand Name	Model Name	type	Rating
Adapter 1	DELTA	ADP-45BW B	-	INPUT: 100-240V ~ 1.2A, 50-60Hz OUTPUT: 19V, 2.37A
Adapter 2	PI	AD883J20	010K-7LF	INPUT: 100-240V ~ 50/60Hz, 1.0A OUTPUT: 19V, 2.37A
Adapter 3	PI	AD2066320	010-1LF	INPUT: 100-240V ~ 50/60Hz, 1.0A OUTPUT: 19V, 2.37A
Adapter 4	DELTA	ADP-45BW Y	-	INPUT: 100-240V ~ 50-60Hz, 1.2A OUTPUT: 19V, 2.37A
Other				
RJ-45 cable*1, Non-shielded, 1.5m				

Note: The power adapter does not affect the test result of RF tests, so only adapter 1 was tested and recorded in this report.

## 2.5 Support Equipment

For Test Site No: 03CH01-CB (above 1GHz)

<For Non-Beamforming Mode>

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC

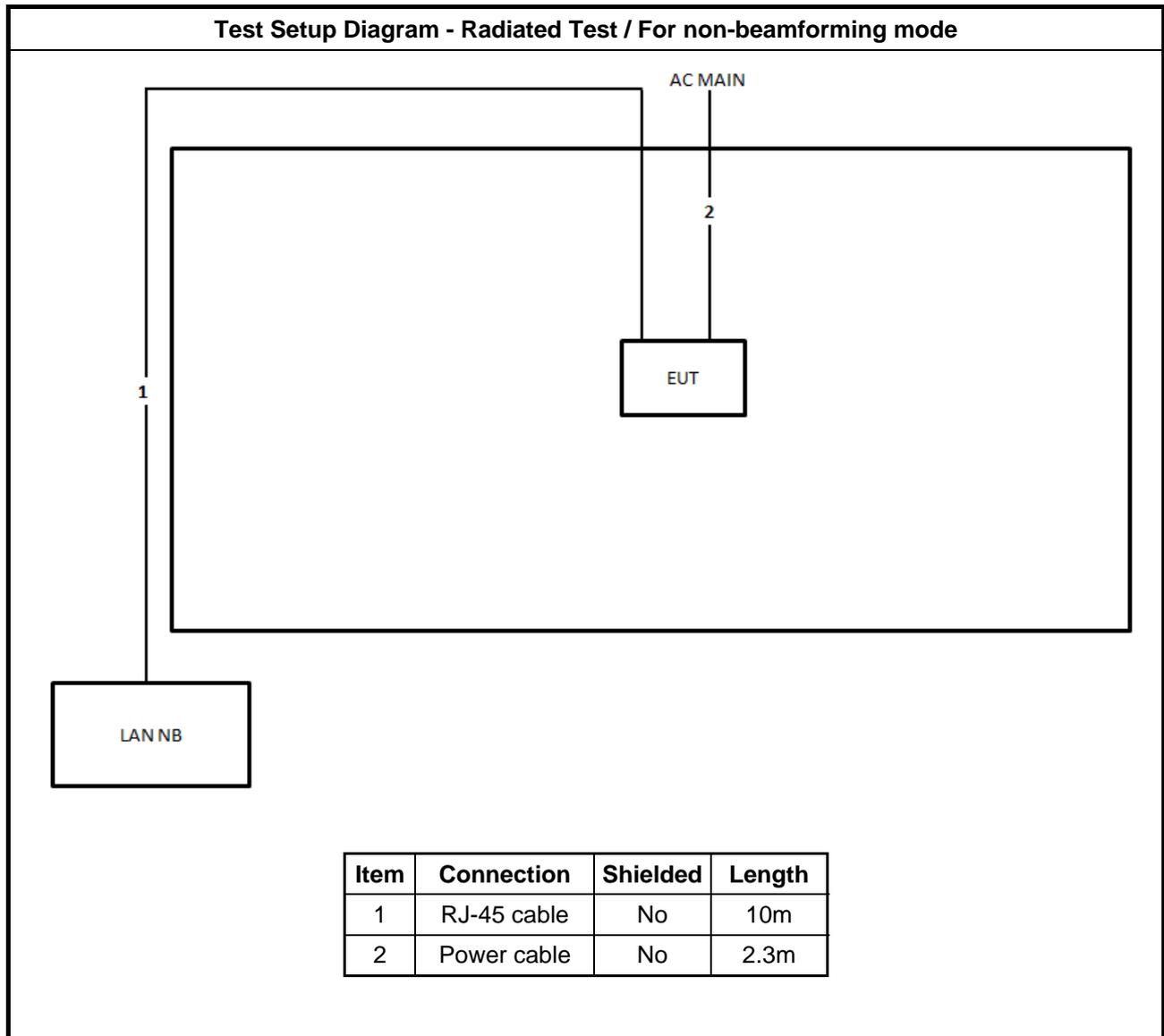
<For Beamforming Mode>

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook*2	DELL	E4300	DoC
2	RX Device	AVAGO	43684MCH5	N/A

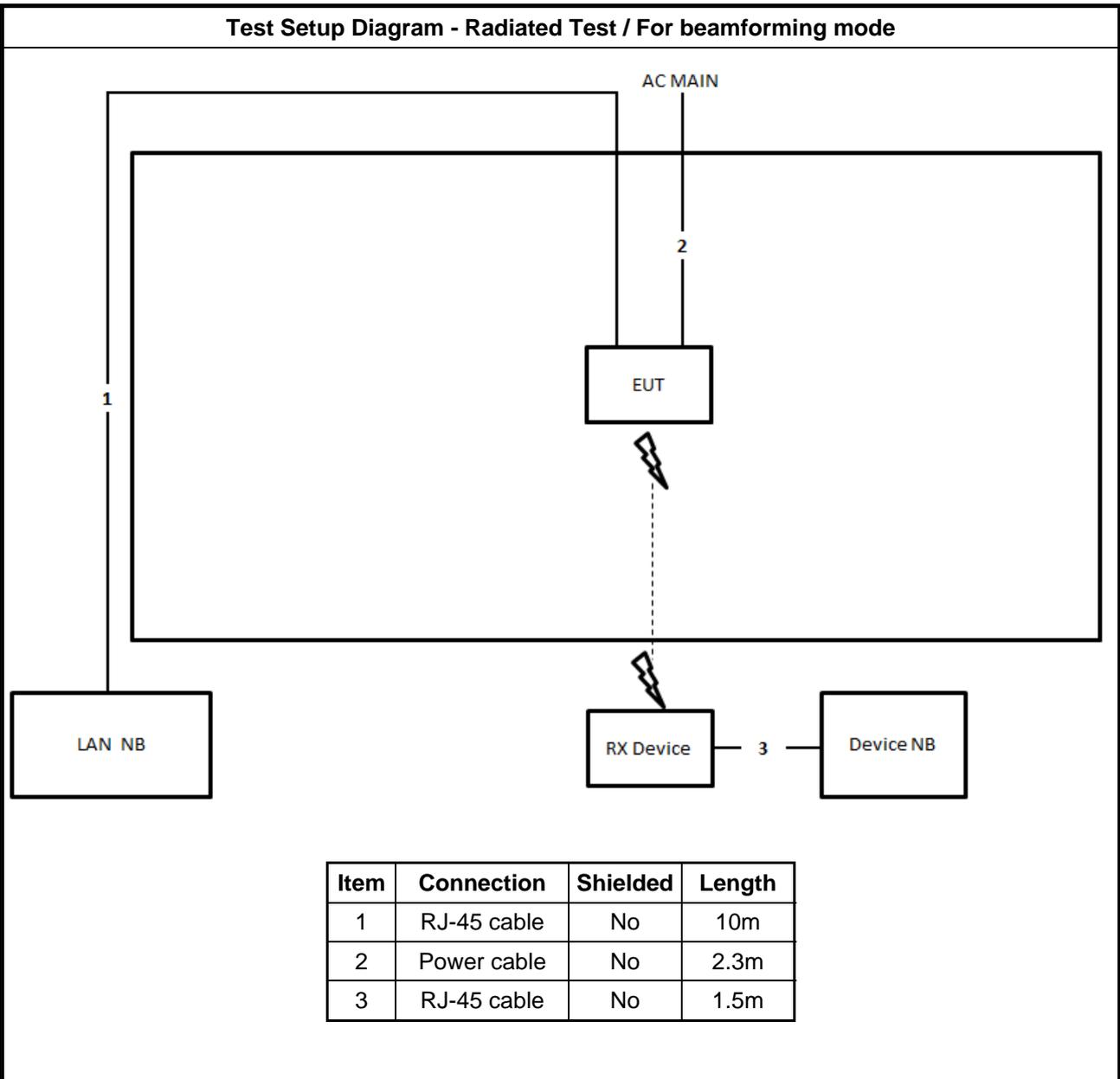
For Test Site No: TH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC

## 2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test / For beamforming mode



### 3 Transmitter Test Result

#### 3.1 Emission Bandwidth

##### 3.1.1 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 checked="" 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 checked="" 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 ≥ 500kHz.
<b>LE-LAN Devices</b>	
<input type="checkbox"/>	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

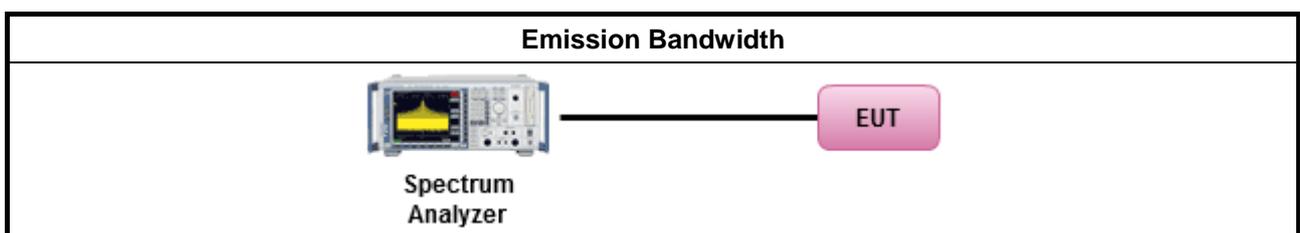
##### 3.1.2 Measuring Instruments

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 FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

##### 3.1.4 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 checked="" 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 checked="" 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>
<b>LE-LAN Devices</b>	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$ , dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<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

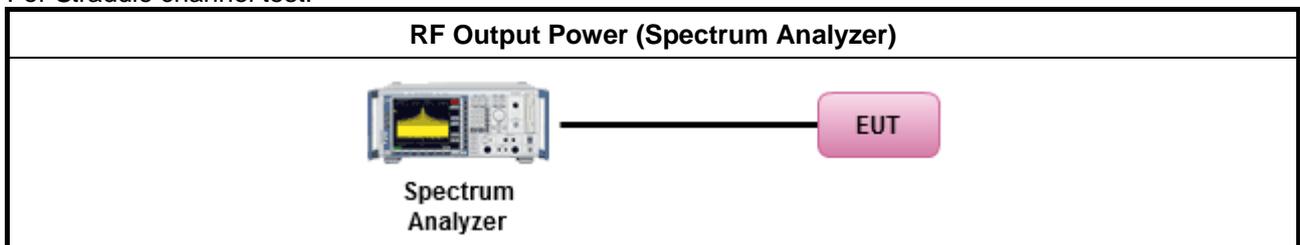
Refer a test equipment and calibration data table in this test report.

### 3.2.3 Test Procedures

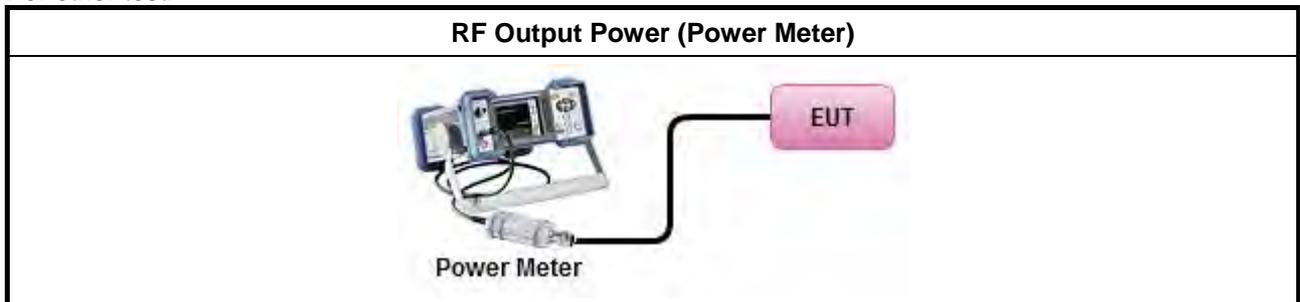
Test Method	
<ul style="list-style-type: none"> <li>Maximum Conducted Output Power</li> </ul>	
Average over on/off periods with duty factor	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
Wideband RF power meter and average over on/off periods with duty factor	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
<ul style="list-style-type: none"> <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 FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.</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

For Straddle channel test:



For other test:



### 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 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> <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 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> <li>▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li> </ul>
<b>LE-LAN Devices</b>	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) $\leq 4$ dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) $\leq 10$ dBm/MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) $\leq 17$ dBm/MHz.	
	<ul style="list-style-type: none"> <li>▪ e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where <math>\theta</math> is the angle above the local horizontal plane (of the Earth) as shown below:            -13 dBW/MHz for <math>0^\circ \leq \theta &lt; 8^\circ</math> ; -13 - 0.716 (<math>\theta-8</math>) dBW/MHz for <math>8^\circ \leq \theta &lt; 40^\circ</math>            -35.9 - 1.22 (<math>\theta-40</math>) dBW/MHz for <math>40^\circ \leq \theta \leq 45^\circ</math> ; -42 dBW/MHz for <math>\theta &gt; 45^\circ</math></li> </ul>
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) $\leq 17$ dBm/MHz.	
<input 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> <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>	

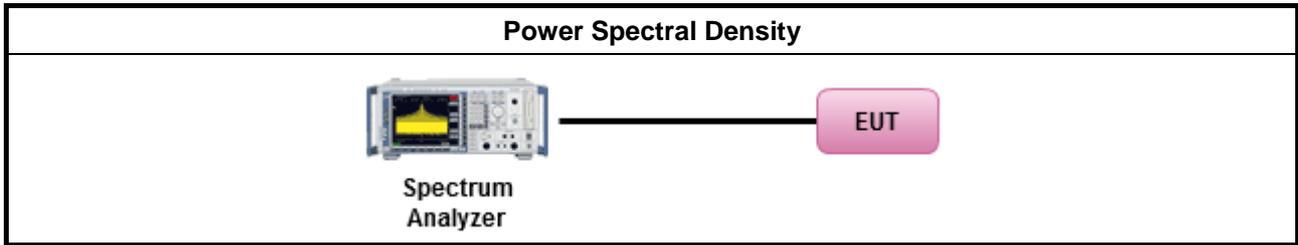
#### 3.3.2 Measuring Instruments

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 FCC KDB 789033, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
[duty cycle ≥ 98% or external video / power trigger]	
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
	<input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	<input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<ul style="list-style-type: none"> <li>▪ For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ If the EUT supports multiple transmit chains using options given below:</li> </ul>	
	<input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
	<input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
	<input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
<ul style="list-style-type: none"> <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
<input checked="" type="checkbox"/> 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.725 - 5.85 GHz	Follow 15.407(b)(4)(ii), the emission limits in § 15.247(d), 30dBc in any 100 kHz bandwidth outside the operating frequency band.

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

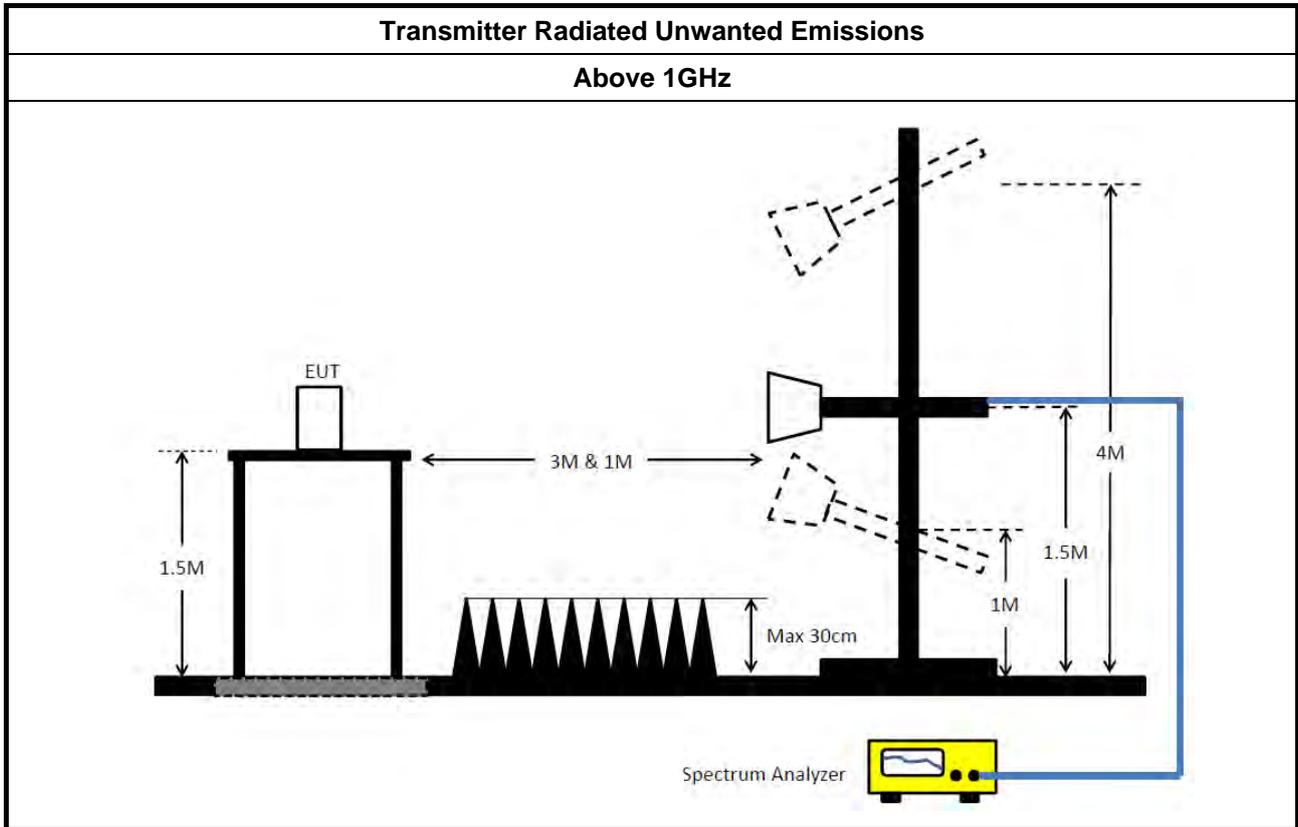
Refer a test equipment and calibration data table in this test report.



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 FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as Clause 11.11 of ANSI C63.10-2013 and/or in Section 11.0 of KDB Publication 558074 for unwanted emissions into non-restricted bands.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.</li> </ul>
	<input type="checkbox"/> Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.2 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 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D

### 3.5 Frequency Stability

#### 3.5.1 Frequency Stability Limit

Frequency Stability Limit
<b>UNII Devices</b>
<ul style="list-style-type: none"> <li>In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.</li> </ul>
<b>LE-LAN Devices</b>
<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>IEEE Std. 802.11</b>
<ul style="list-style-type: none"> <li>The transmitter center frequency tolerance shall be <math>\pm 20</math> ppm maximum for the 5 GHz band and <math>\pm 25</math> ppm maximum for the 2.4 GHz band.</li> </ul>

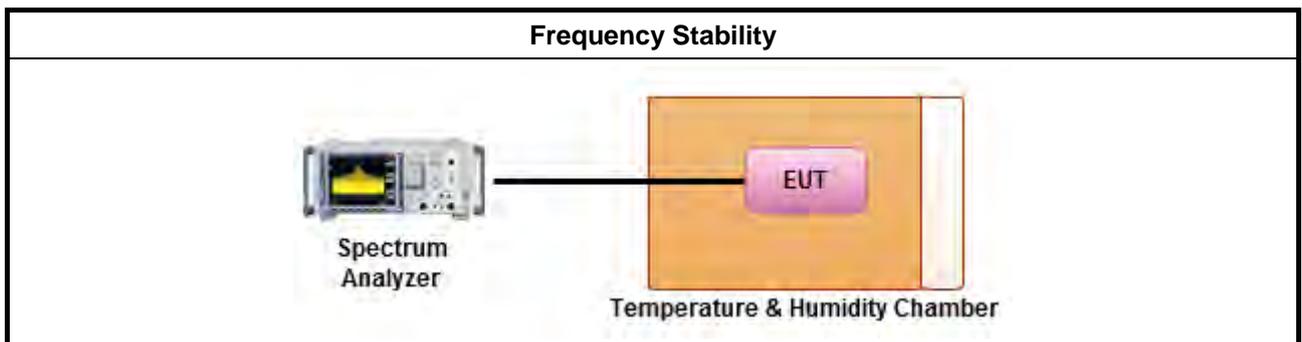
#### 3.5.2 Measuring Instruments

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>Refer as ANSI C63.10, clause 6.8 for frequency stability tests</li> </ul>
<ul style="list-style-type: none"> <li>Frequency stability with respect to ambient temperature</li> <li>Frequency stability when varying supply voltage</li> <li>Extreme temperature is 0°C~40°C.</li> </ul>

#### 3.5.4 Test Setup



#### 3.5.5 Test Result of Frequency Stability

Refer as Appendix E



## 4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 20, 2017	Nov. 19, 2018	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Jan. 15, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 09, 2018	Jan. 08, 2019	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Jun. 01, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~ 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 20, 2017	Nov. 19, 2018	Conducted (TH01-CB)

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



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT160_Nss1,(MCS0)_4TX	81.04M	75.722M	75M7D1D	80.56M	75.482M
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	81.2M	75.562M	75M6D1D	80.72M	75.322M
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	81.28M	75.642M	75M6D1D	80.56M	75.322M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.65M	16.617M	16M6D1D	21.275M	16.517M
802.11ac VHT20_Nss1,(MCS0)_4TX	21.75M	17.816M	17M8D1D	21.5M	17.716M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.2M	36.282M	36M3D1D	39.7M	36.132M
802.11ac VHT80_Nss1,(MCS0)_4TX	81.8M	75.662M	75M7D1D	81M	75.262M
802.11ac VHT160_Nss1,(MCS0)_4TX	81.44M	75.722M	75M7D1D	80.48M	75.482M
HE20_Nss1,(MCS0)_4TX	21.725M	18.991M	19M0D1D	21.35M	18.941M
HE40_Nss1,(MCS0)_4TX	40.25M	37.631M	37M6D1D	39.85M	37.481M
HE80_Nss1,(MCS0)_4TX	81.5M	77.061M	77M1D1D	81.3M	76.862M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21.975M	17.975M	18M0D1D	21.425M	17.85M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	41.45M	36.65M	36M6D1D	40.9M	36.25M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	82.2M	75.8M	75M8D1D	81.4M	75.7M
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	81.28M	75.722M	75M7D1D	80.4M	75.482M
HE20_BF_Nss1,(MCS0)_4TX	21.825M	19.1M	19M1D1D	21.375M	19.025M
HE40_BF_Nss1,(MCS0)_4TX	40.2M	37.631M	37M6D1D	39.9M	37.431M
HE80_BF_Nss1,(MCS0)_4TX	81.7M	77.261M	77M3D1D	81.4M	77.061M
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	21.95M	17.816M	17M8D1D	21.575M	17.741M
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	40.25M	36.282M	36M3D1D	39.7M	36.132M
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	82.2M	75.762M	75M8D1D	81.3M	75.462M
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	81.36M	75.722M	75M7D1D	80.48M	75.402M
HE20_BF_Nss2,(MCS0)_4TX	21.725M	19.015M	19M0D1D	21.525M	18.941M
HE40_BF_Nss2,(MCS0)_4TX	40.2M	37.631M	37M6D1D	39.9M	37.431M
HE80_BF_Nss2,(MCS0)_4TX	81.9M	77.161M	77M2D1D	81.4M	76.962M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.575M	16.592M	16M6D1D	15.54M	13.253M
802.11ac VHT20_Nss1,(MCS0)_4TX	21.875M	17.791M	17M8D1D	15.735M	13.883M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.2M	36.332M	36M3D1D	34.86M	32.989M
802.11ac VHT80_Nss1,(MCS0)_4TX	82.2M	75.962M	76M0D1D	75.6M	72.414M
802.11ac VHT160_Nss1,(MCS0)_4TX	163.8M	153.723M	154MD1D	162.8M	153.523M
HE20_Nss1,(MCS0)_4TX	21.8M	19.015M	19M0D1D	15.6M	14.468M
HE40_Nss1,(MCS0)_4TX	40.25M	37.681M	37M7D1D	35M	33.653M
HE80_Nss1,(MCS0)_4TX	81.7M	77.161M	77M2D1D	75.75M	73.163M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21.95M	17.95M	17M9D1D	15.765M	13.898M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	41.5M	36.75M	36M7D1D	34.93M	33.023M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	82.7M	75.9M	75M9D1D	75.525M	72.264M
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	163.6M	153.723M	154MD1D	162.6M	153.323M
HE20_BF_Nss1,(MCS0)_4TX	21.875M	19.05M	19M0D1D	15.735M	14.468M
HE40_BF_Nss1,(MCS0)_4TX	40.25M	37.681M	37M7D1D	35.035M	33.723M
HE80_BF_Nss1,(MCS0)_4TX	81.7M	77.161M	77M2D1D	75.75M	73.088M
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	21.925M	17.841M	17M8D1D	15.81M	13.898M



Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	40.3M	36.332M	36M3D1D	34.93M	33.023M
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	82.6M	75.762M	75M8D1D	75.75M	72.414M
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	163.6M	153.723M	154MD1D	162.6M	153.523M
HE20,BF_Nss2,(MCS0)_4TX	21.8M	19.015M	19M0D1D	15.585M	14.453M
HE40,BF_Nss2,(MCS0)_4TX	40.3M	37.631M	37M6D1D	35M	33.583M
HE80,BF_Nss2,(MCS0)_4TX	82M	77.061M	77M1D1D	75.75M	73.088M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	3.24M	3.978M	3M98D1D	3.14M	3.878M
802.11ac VHT20_Nss1,(MCS0)_4TX	3.86M	4.278M	4M28D1D	3.76M	4.178M
802.11ac VHT40_Nss1,(MCS0)_4TX	3.18M	3.478M	3M48D1D	3.12M	3.418M
802.11ac VHT80_Nss1,(MCS0)_4TX	3.14M	3.698M	3M70D1D	3.12M	3.498M
HE20_Nss1,(MCS0)_4TX	4.54M	4.538M	4M54D1D	4.4M	4.518M
HE40_Nss1,(MCS0)_4TX	3.86M	4.038M	4M04D1D	3.78M	3.998M
HE80_Nss1,(MCS0)_4TX	4M	4.038M	4M04D1D	3.78M	4.018M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	3.84M	4.278M	4M28D1D	3.74M	4.098M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	3.2M	3.498M	3M50D1D	3.1M	3.418M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	3.12M	3.698M	3M70D1D	3.12M	3.518M
HE20,BF_Nss1,(MCS0)_4TX	4.54M	4.538M	4M54D1D	4.42M	4.498M
HE40,BF_Nss1,(MCS0)_4TX	4M	4.018M	4M02D1D	3.82M	3.998M
HE80,BF_Nss1,(MCS0)_4TX	4M	4.018M	4M02D1D	3.84M	4.018M
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	3.8M	4.298M	4M30D1D	3.76M	4.118M
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	3.22M	3.498M	3M50D1D	3.1M	3.438M
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	3.2M	3.658M	3M66D1D	3.1M	3.478M
HE20,BF_Nss2,(MCS0)_4TX	4.5M	4.538M	4M54D1D	4.4M	4.498M
HE40,BF_Nss2,(MCS0)_4TX	3.84M	4.018M	4M02D1D	3.78M	3.998M
HE80,BF_Nss2,(MCS0)_4TX	3.96M	4.018M	4M02D1D	3.84M	3.998M

**Max-N dB** = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;  
**Max-OBW** = Maximum 99% occupied bandwidth;  
**Min-N dB** = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;  
**Min-OBW** = Minimum 99% occupied bandwidth;



**Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.4M	16.617M	21.55M	16.517M	21.575M	16.542M	21.65M	16.567M
5300MHz	Pass	Inf	21.425M	16.617M	21.325M	16.542M	21.375M	16.592M	21.5M	16.617M
5320MHz	Pass	Inf	21.4M	16.617M	21.475M	16.517M	21.275M	16.592M	21.4M	16.542M
5500MHz	Pass	Inf	21.225M	16.517M	21.325M	16.542M	21.45M	16.592M	21.475M	16.542M
5580MHz	Pass	Inf	21.3M	16.542M	21.425M	16.567M	21.425M	16.542M	21.575M	16.567M
5700MHz	Pass	Inf	21.425M	16.567M	21.5M	16.592M	21.425M	16.542M	21.425M	16.592M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.66M	13.358M	15.54M	13.253M	15.81M	13.328M	15.705M	13.313M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.24M	3.898M	3.14M	3.898M	3.16M	3.878M	3.16M	3.978M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.7M	17.791M	21.5M	17.766M	21.675M	17.766M	21.7M	17.791M
5300MHz	Pass	Inf	21.5M	17.766M	21.7M	17.791M	21.625M	17.716M	21.75M	17.791M
5320MHz	Pass	Inf	21.5M	17.816M	21.65M	17.716M	21.525M	17.741M	21.725M	17.716M
5500MHz	Pass	Inf	21.575M	17.741M	21.7M	17.741M	21.65M	17.766M	21.825M	17.741M
5580MHz	Pass	Inf	21.55M	17.741M	21.55M	17.716M	21.5M	17.716M	21.875M	17.791M
5700MHz	Pass	Inf	21.675M	17.741M	21.575M	17.741M	21.65M	17.766M	21.875M	17.791M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.735M	13.883M	15.9M	13.883M	15.765M	13.928M	15.855M	13.913M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.86M	4.178M	3.76M	4.278M	3.76M	4.198M	3.86M	4.258M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	39.85M	36.182M	39.8M	36.232M	39.7M	36.282M	40.1M	36.182M
5310MHz	Pass	Inf	39.8M	36.132M	39.7M	36.282M	39.85M	36.282M	40.2M	36.182M
5510MHz	Pass	Inf	39.85M	36.232M	39.65M	36.232M	39.85M	36.232M	40.15M	36.232M
5550MHz	Pass	Inf	39.75M	36.132M	39.85M	36.332M	39.8M	36.232M	40.05M	36.182M
5670MHz	Pass	Inf	39.95M	36.182M	39.8M	36.232M	39.85M	36.332M	40.2M	36.282M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.93M	33.093M	34.86M	32.989M	34.93M	32.989M	35.28M	33.023M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	3.458M	3.12M	3.478M	3.14M	3.418M	3.18M	3.418M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	81M	75.262M	81.6M	75.662M	81.1M	75.662M	81.8M	75.662M
5530MHz	Pass	Inf	81.4M	75.862M	81.4M	75.862M	81.3M	75.662M	82.1M	75.662M
5610MHz	Pass	Inf	81.4M	75.662M	81.6M	75.962M	81M	75.662M	82.2M	75.662M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.6M	72.414M	75.825M	72.489M	75.6M	72.489M	76.35M	72.564M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	3.498M	3.12M	3.698M	3.14M	3.538M	3.14M	3.638M
802.11ac VHT160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	80.8M	75.722M	80.56M	75.482M	80.96M	75.562M	81.04M	75.642M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	80.48M	75.482M	80.88M	75.722M	80.64M	75.482M	81.44M	75.642M
5570MHz	Pass	Inf	163M	153.523M	163M	153.723M	162.8M	153.523M	163.8M	153.523M
HE20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.6M	18.966M	21.35M	18.991M	21.7M	18.941M	21.675M	18.966M
5300MHz	Pass	Inf	21.625M	18.966M	21.6M	18.991M	21.65M	18.991M	21.725M	18.966M
5320MHz	Pass	Inf	21.575M	18.941M	21.6M	18.941M	21.65M	18.991M	21.65M	18.991M
5500MHz	Pass	Inf	21.625M	19.015M	21.6M	18.941M	21.8M	18.991M	21.65M	18.941M
5580MHz	Pass	Inf	21.65M	18.991M	21.475M	18.941M	21.6M	18.941M	21.7M	18.966M



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
5700MHz	Pass	Inf	21.625M	18.941M	21.7M	18.991M	21.775M	18.991M	21.7M	18.991M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.6M	14.468M	15.66M	14.483M	15.84M	14.468M	15.72M	14.483M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.4M	4.538M	4.44M	4.518M	4.54M	4.518M	4.46M	4.518M
HE40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	40.05M	37.631M	39.85M	37.581M	40.25M	37.481M	40.2M	37.531M
5310MHz	Pass	Inf	40M	37.581M	39.85M	37.581M	39.95M	37.581M	40M	37.531M
5510MHz	Pass	Inf	39.95M	37.481M	40.05M	37.531M	40M	37.481M	40.25M	37.431M
5550MHz	Pass	Inf	39.95M	37.381M	40.05M	37.531M	40.05M	37.481M	40.25M	37.331M
5670MHz	Pass	Inf	40.05M	37.531M	40M	37.631M	40.1M	37.431M	40.2M	37.681M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.035M	33.688M	35M	33.688M	35.105M	33.688M	35.21M	33.653M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.84M	4.018M	3.86M	4.038M	3.78M	4.018M	3.86M	3.998M
HE80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	81.5M	77.061M	81.3M	77.061M	81.4M	77.061M	81.4M	76.862M
5530MHz	Pass	Inf	81.4M	76.562M	81.3M	76.962M	81.5M	77.161M	81.4M	77.061M
5610MHz	Pass	Inf	81.4M	76.862M	81.2M	76.862M	81.6M	76.862M	81.7M	77.061M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.75M	73.238M	75.75M	73.163M	75.9M	73.163M	75.9M	73.163M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4M	4.018M	3.86M	4.038M	3.78M	4.018M	3.92M	4.018M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.425M	17.875M	21.525M	17.875M	21.65M	17.95M	21.85M	17.925M
5300MHz	Pass	Inf	21.55M	17.9M	21.45M	17.975M	21.75M	17.925M	21.975M	17.925M
5320MHz	Pass	Inf	21.725M	17.925M	21.625M	17.85M	21.725M	17.9M	21.95M	17.9M
5500MHz	Pass	Inf	21.675M	17.85M	21.75M	17.9M	21.675M	17.875M	21.925M	17.9M
5580MHz	Pass	Inf	21.45M	17.9M	21.675M	17.9M	21.7M	17.925M	21.95M	17.95M
5700MHz	Pass	Inf	21.775M	17.9M	21.625M	17.9M	21.675M	17.925M	21.95M	17.95M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.855M	13.958M	15.765M	13.898M	15.84M	13.913M	15.93M	13.928M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.74M	4.238M	3.84M	4.278M	3.84M	4.098M	3.74M	4.258M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	41.15M	36.6M	41.1M	36.5M	40.95M	36.55M	41.45M	36.55M
5310MHz	Pass	Inf	40.95M	36.25M	40.9M	36.5M	41.05M	36.55M	41.35M	36.65M
5510MHz	Pass	Inf	41.1M	36.55M	41.15M	36.5M	40.95M	36.65M	41.5M	36.55M
5550MHz	Pass	Inf	41.05M	36.45M	41.05M	36.55M	40.95M	36.6M	41.3M	36.55M
5670MHz	Pass	Inf	41.25M	36.55M	41.2M	36.75M	40.9M	36.65M	41.35M	36.65M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.035M	33.058M	34.93M	33.023M	35.07M	33.058M	35.21M	33.093M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.2M	3.418M	3.12M	3.498M	3.12M	3.458M	3.1M	3.458M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	81.6M	75.7M	81.9M	75.8M	81.4M	75.7M	82.2M	75.8M
5530MHz	Pass	Inf	81.5M	75.8M	81.4M	75.8M	81.3M	75.8M	82.2M	75.7M
5610MHz	Pass	Inf	81.1M	75.9M	81.6M	75.9M	81.6M	75.7M	82.7M	75.7M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.525M	72.414M	75.9M	72.489M	75.825M	72.639M	75.9M	72.264M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	3.518M	3.12M	3.698M	3.12M	3.578M	3.12M	3.618M
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	80.8M	75.482M	80.72M	75.322M	81.12M	75.562M	81.2M	75.562M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	80.4M	75.482M	80.8M	75.642M	80.64M	75.722M	81.28M	75.562M
5570MHz	Pass	Inf	163.4M	153.723M	162.6M	153.723M	163M	153.323M	163.6M	153.723M



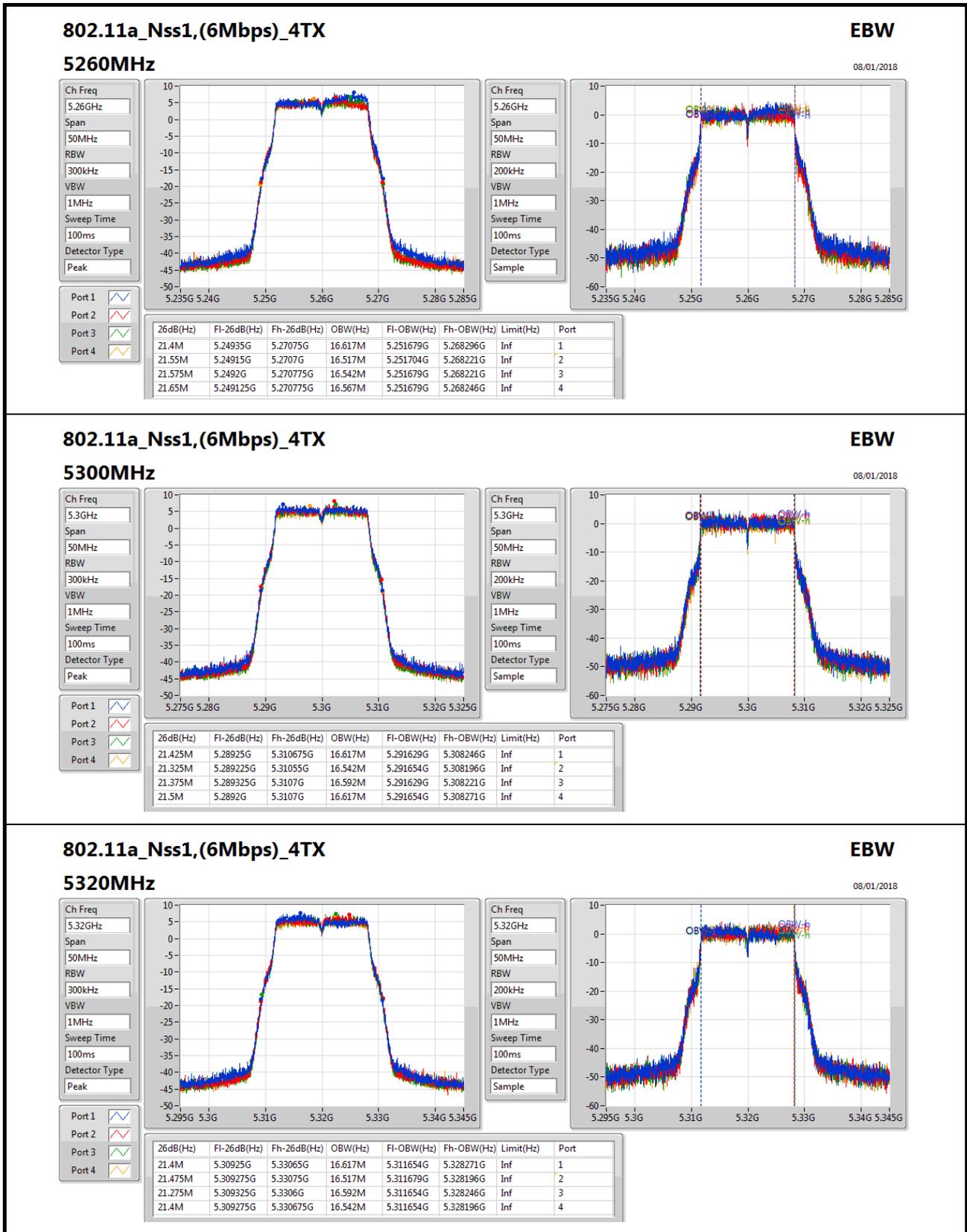
HE20,BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.725M	19.05M	21.375M	19.075M	21.75M	19.025M	21.75M	19.1M
5300MHz	Pass	Inf	21.7M	19.05M	21.55M	19.075M	21.525M	19.05M	21.725M	19.05M
5320MHz	Pass	Inf	21.5M	19.1M	21.4M	19.05M	21.625M	19.05M	21.825M	19.05M
5500MHz	Pass	Inf	21.6M	19.025M	21.725M	19.05M	21.8M	19.025M	21.775M	19.025M
5580MHz	Pass	Inf	21.725M	19.05M	21.475M	19.025M	21.825M	19.05M	21.875M	18.975M
5700MHz	Pass	Inf	21.75M	19.025M	21.65M	19.05M	21.85M	19.025M	21.725M	19.025M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.78M	14.498M	15.735M	14.468M	15.75M	14.528M	15.75M	14.498M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.42M	4.498M	4.44M	4.538M	4.54M	4.518M	4.46M	4.498M
HE40,BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	39.9M	37.631M	40.15M	37.631M	40M	37.431M	40.2M	37.531M
5310MHz	Pass	Inf	40M	37.581M	39.95M	37.531M	40M	37.531M	40.15M	37.531M
5510MHz	Pass	Inf	39.9M	37.381M	39.95M	37.581M	40.15M	37.581M	40.15M	37.581M
5550MHz	Pass	Inf	39.9M	37.431M	39.95M	37.481M	40M	37.581M	40.25M	37.631M
5670MHz	Pass	Inf	40.1M	37.481M	40M	37.681M	40.2M	37.531M	40.2M	37.481M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.14M	33.723M	35.035M	33.723M	35.21M	33.793M	35.245M	33.723M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4M	3.998M	3.82M	4.018M	3.86M	3.998M	3.86M	4.018M
HE80,BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	81.6M	77.261M	81.4M	77.161M	81.7M	77.261M	81.5M	77.061M
5530MHz	Pass	Inf	81.2M	76.962M	81.7M	77.061M	81.4M	77.161M	81.6M	76.962M
5610MHz	Pass	Inf	81.5M	76.862M	81.5M	77.161M	81.4M	76.962M	81.5M	76.762M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.9M	73.088M	75.75M	73.088M	75.9M	73.238M	76.05M	73.163M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.94M	4.018M	3.88M	4.018M	3.84M	4.018M	4M	4.018M
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.875M	17.766M	21.6M	17.791M	21.85M	17.791M	21.95M	17.741M
5300MHz	Pass	Inf	21.65M	17.791M	21.775M	17.766M	21.65M	17.766M	21.875M	17.791M
5320MHz	Pass	Inf	21.575M	17.791M	21.575M	17.741M	21.65M	17.791M	21.8M	17.816M
5500MHz	Pass	Inf	21.65M	17.741M	21.675M	17.766M	21.725M	17.791M	21.875M	17.766M
5580MHz	Pass	Inf	21.55M	17.716M	21.65M	17.791M	21.75M	17.791M	21.925M	17.841M
5700MHz	Pass	Inf	21.625M	17.791M	21.7M	17.766M	21.6M	17.766M	21.85M	17.791M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.84M	13.913M	15.81M	13.898M	15.84M	13.928M	15.885M	13.943M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.8M	4.218M	3.76M	4.298M	3.76M	4.118M	3.8M	4.258M
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	39.7M	36.132M	39.75M	36.132M	39.8M	36.232M	40.25M	36.132M
5310MHz	Pass	Inf	40.05M	36.132M	39.8M	36.282M	39.75M	36.232M	40.15M	36.232M
5510MHz	Pass	Inf	39.85M	36.282M	39.65M	36.282M	39.85M	36.232M	40.25M	36.232M
5550MHz	Pass	Inf	39.7M	36.182M	39.75M	36.282M	39.9M	36.332M	40.15M	36.232M
5670MHz	Pass	Inf	39.7M	36.182M	39.6M	36.282M	39.85M	36.232M	40.3M	36.182M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.105M	33.058M	34.93M	33.058M	35.175M	33.128M	35.245M	33.023M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	3.438M	3.1M	3.498M	3.22M	3.458M	3.14M	3.438M
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	81.4M	75.462M	81.7M	75.662M	81.3M	75.762M	82.2M	75.662M
5530MHz	Pass	Inf	81.1M	75.662M	81.8M	75.762M	81.3M	75.662M	82.6M	75.662M
5610MHz	Pass	Inf	81.3M	75.662M	81.6M	75.662M	81.3M	75.662M	82M	75.662M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.75M	72.414M	75.975M	72.639M	75.75M	72.489M	76.125M	72.564M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.2M	3.478M	3.2M	3.658M	3.12M	3.558M	3.1M	3.618M



802.11ac VHT160-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	80.8M	75.562M	80.56M	75.322M	81.28M	75.482M	81.12M	75.642M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	80.48M	75.402M	80.72M	75.642M	80.64M	75.642M	81.36M	75.722M
5570MHz	Pass	Inf	163.2M	153.723M	162.6M	153.523M	163.6M	153.523M	163.6M	153.723M
HE20,BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	21.55M	18.966M	21.525M	18.966M	21.6M	18.991M	21.725M	18.941M
5300MHz	Pass	Inf	21.65M	19.015M	21.6M	18.966M	21.625M	18.966M	21.65M	18.966M
5320MHz	Pass	Inf	21.6M	18.966M	21.575M	18.966M	21.65M	18.941M	21.625M	18.966M
5500MHz	Pass	Inf	21.625M	18.991M	21.6M	18.966M	21.725M	19.015M	21.8M	18.991M
5580MHz	Pass	Inf	21.7M	18.991M	21.35M	18.941M	21.775M	18.966M	21.6M	18.966M
5700MHz	Pass	Inf	21.675M	18.991M	21.55M	18.966M	21.7M	18.966M	21.675M	18.991M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.765M	14.453M	15.69M	14.483M	15.675M	14.513M	15.585M	14.513M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.4M	4.498M	4.5M	4.538M	4.46M	4.498M	4.46M	4.518M
HE40,BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	40M	37.531M	39.9M	37.431M	40.2M	37.581M	40.2M	37.531M
5310MHz	Pass	Inf	40M	37.631M	40M	37.481M	39.95M	37.481M	40.2M	37.481M
5510MHz	Pass	Inf	40M	37.531M	39.95M	37.581M	40M	37.581M	40.25M	37.481M
5550MHz	Pass	Inf	40M	37.431M	40.1M	37.481M	40.05M	37.531M	40.3M	37.581M
5670MHz	Pass	Inf	40.15M	37.531M	40M	37.631M	40M	37.581M	40.2M	37.581M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.07M	33.723M	35M	33.583M	35.105M	33.758M	35.105M	33.688M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.84M	3.998M	3.82M	3.998M	3.78M	3.998M	3.82M	4.018M
HE80,BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	81.4M	77.061M	81.6M	77.161M	81.9M	77.161M	81.7M	76.962M
5530MHz	Pass	Inf	81.3M	76.862M	81.5M	76.962M	81.4M	76.862M	82M	77.061M
5610MHz	Pass	Inf	81.7M	76.962M	81.4M	76.962M	81.7M	76.962M	81.7M	77.061M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.975M	73.238M	75.75M	73.088M	75.825M	73.238M	75.9M	73.163M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.96M	4.018M	3.84M	4.018M	3.84M	4.018M	3.96M	3.998M

**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)\_4TX**
**EBW**

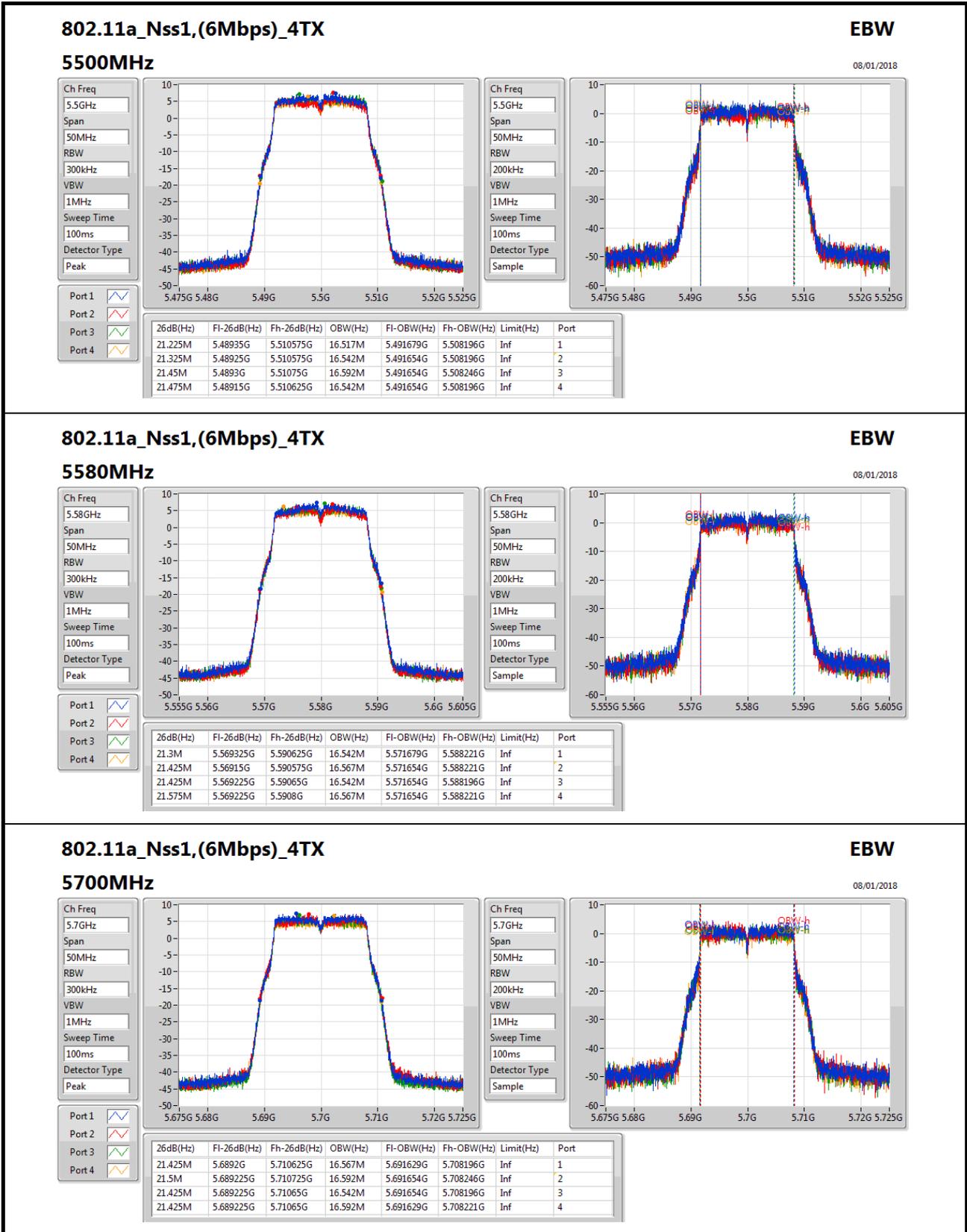
08/01/2018

**5320MHz**

Ch Freq: 5.32GHz  
Span: 50MHz  
RBW: 300kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Peak

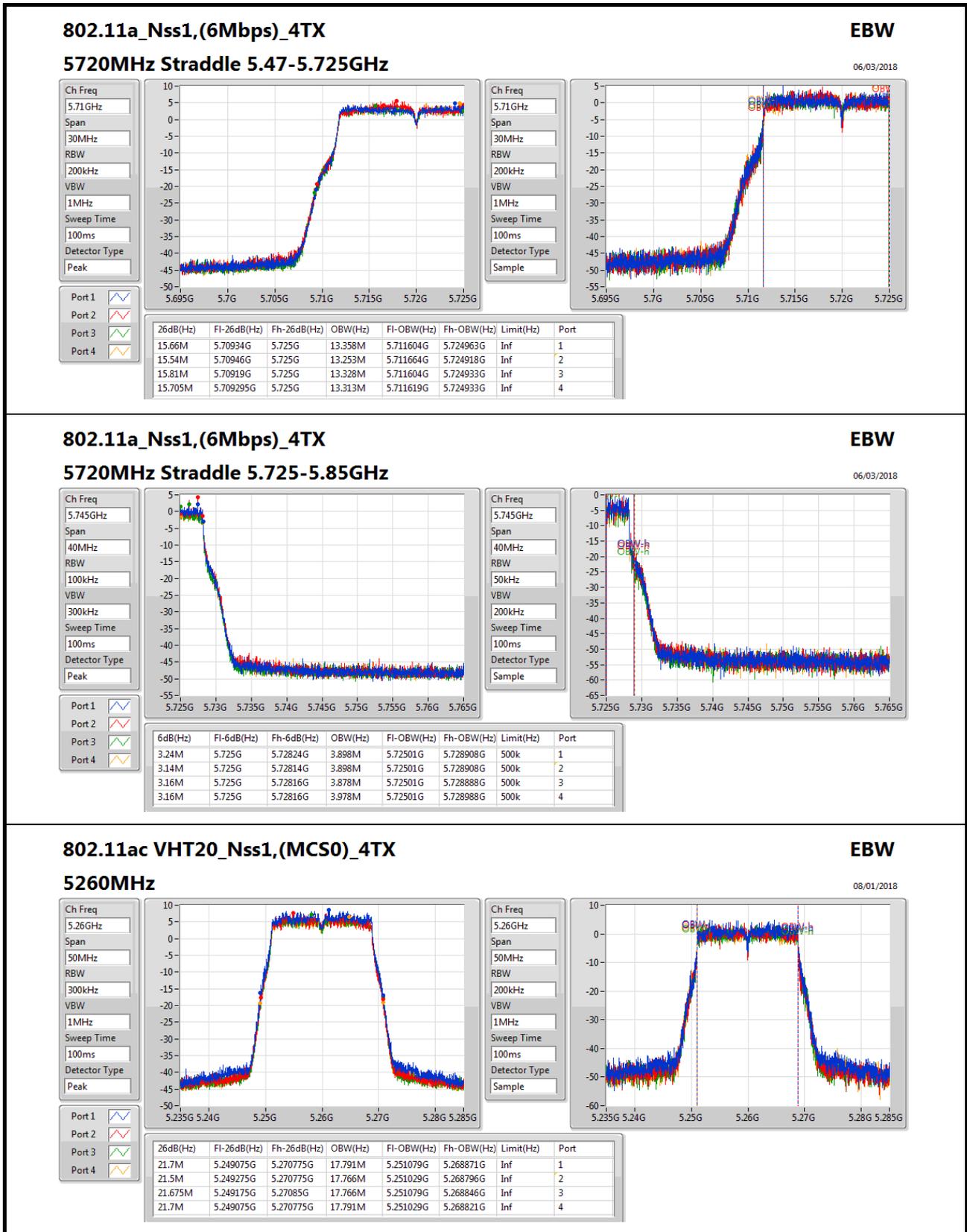
Ch Freq: 5.32GHz  
Span: 50MHz  
RBW: 200kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Sample

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.4M	5.30925G	5.33065G	16.617M	5.311654G	5.328271G	Inf	1
21.475M	5.309275G	5.33075G	16.517M	5.311679G	5.328196G	Inf	2
21.275M	5.309325G	5.3306G	16.592M	5.311654G	5.328246G	Inf	3
21.4M	5.309275G	5.330675G	16.542M	5.311654G	5.328196G	Inf	4


**802.11a\_Nss1,(6Mbps)\_4TX**
**EBW**
**5700MHz**
08/01/2018

Ch Freq: 5.7GHz  
Span: 50MHz  
RBW: 300kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Peak

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



### 802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

#### 5260MHz

EBW

08/01/2018

Ch Freq: 5.26GHz

Span: 50MHz

RBW: 300kHz

VBW: 1MHz

Sweep Time: 100ms

Detector Type: Peak

Ch Freq: 5.26GHz

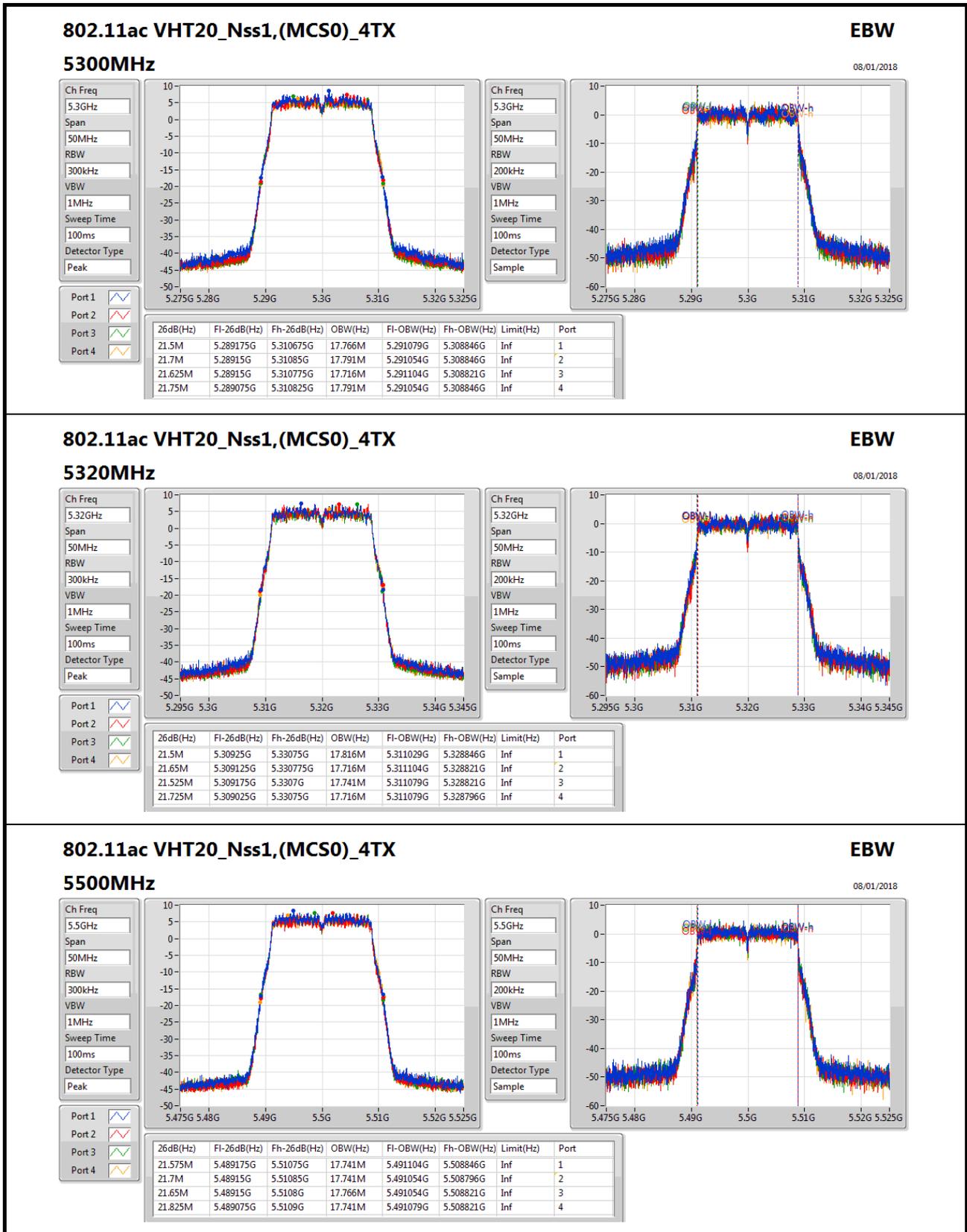
Span: 50MHz

RBW: 200kHz

VBW: 1MHz

Sweep Time: 100ms

Detector Type: Sample


**802.11ac VHT20\_Nss1,(MCS0)\_4TX**
**EBW**

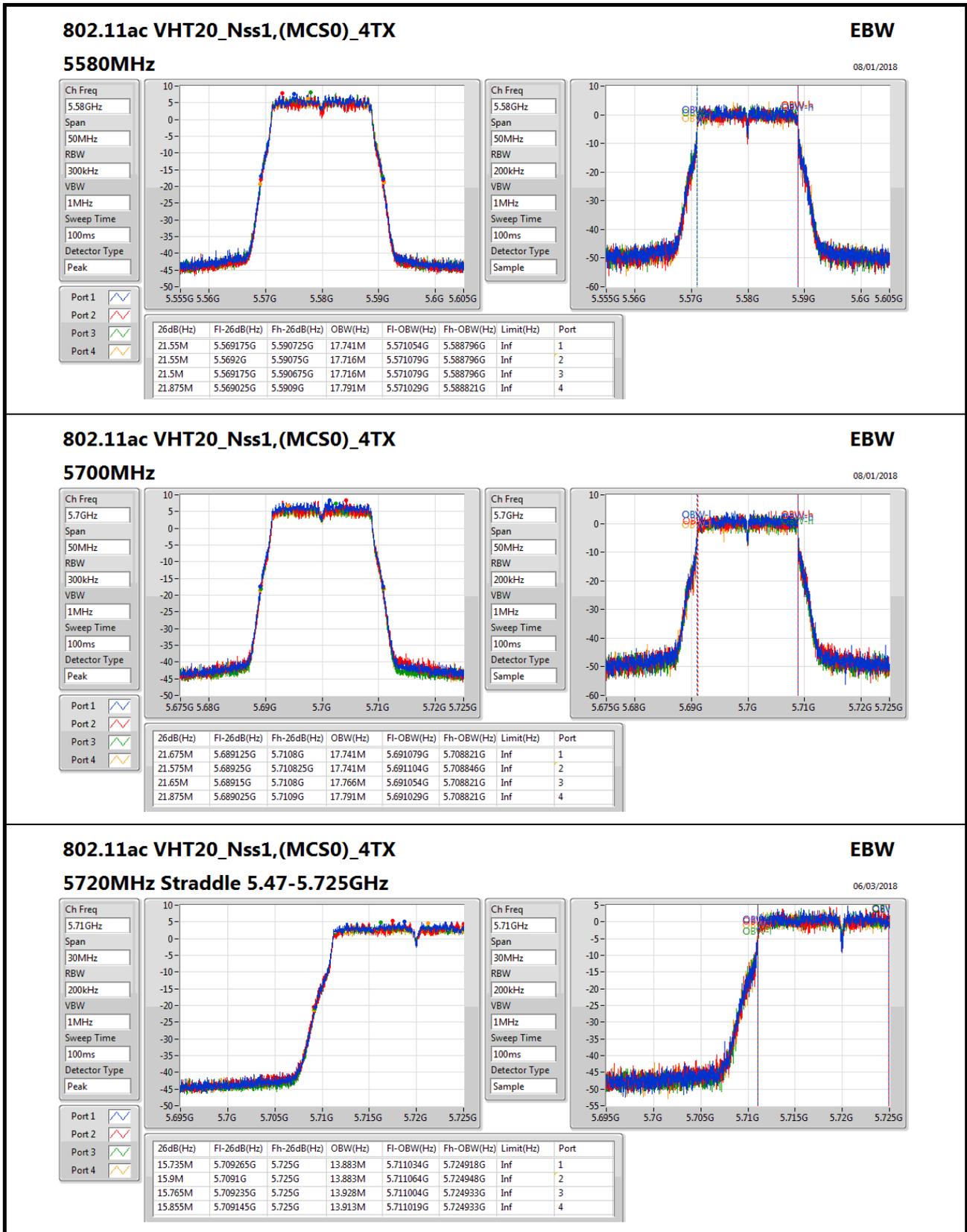
08/01/2018

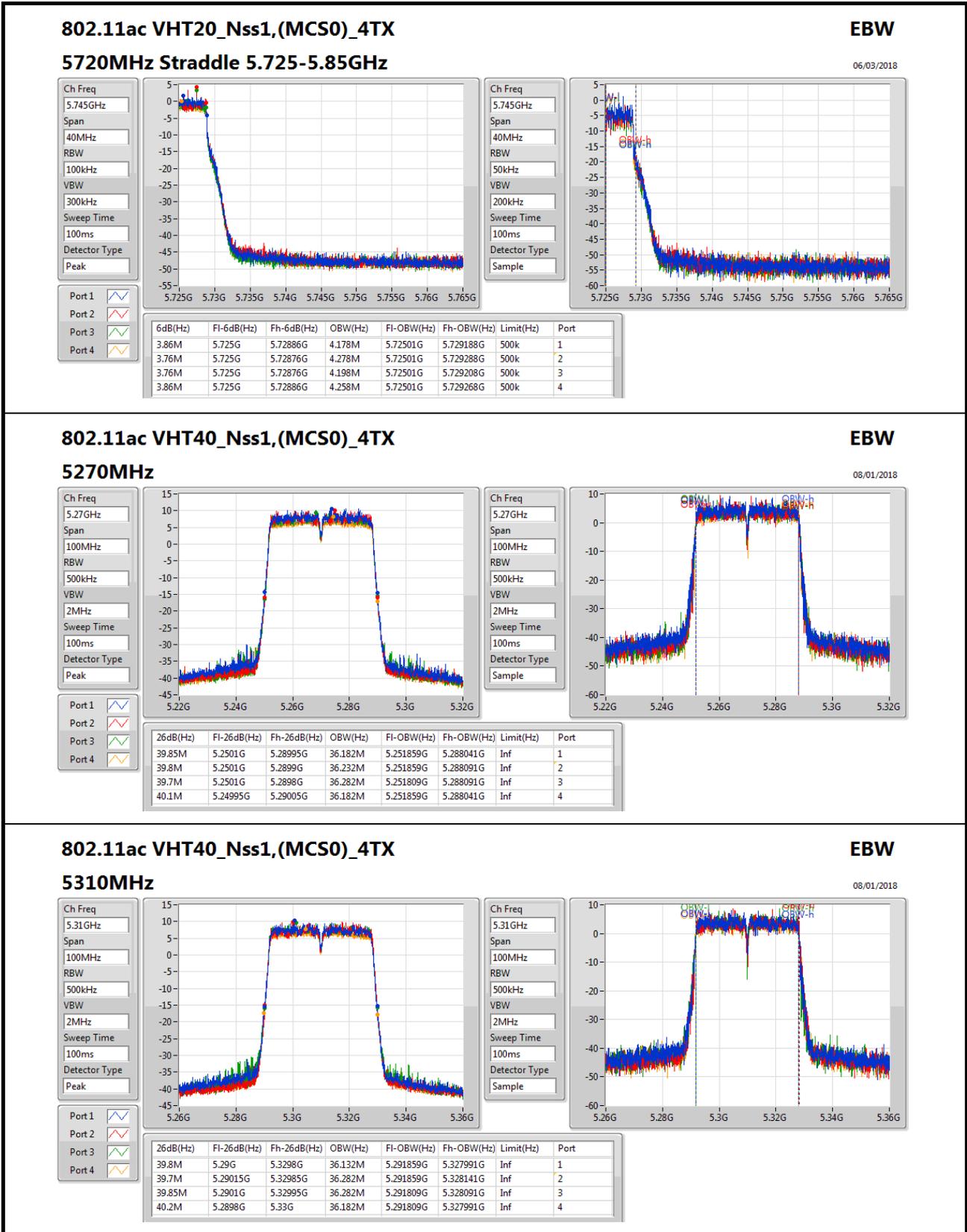
**5500MHz**

Ch Freq: 5.5GHz  
Span: 50MHz  
RBW: 300kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Peak

Ch Freq: 5.5GHz  
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
21.575M	5.489175G	5.51075G	17.741M	5.491104G	5.508846G	Inf	1
21.7M	5.48915G	5.51085G	17.741M	5.491054G	5.508796G	Inf	2
21.65M	5.48915G	5.5108G	17.766M	5.491054G	5.508821G	Inf	3
21.825M	5.489075G	5.5109G	17.741M	5.491079G	5.508821G	Inf	4





### 802.11ac VHT40\_Nss1,(MCS0)\_4TX

#### 5310MHz

**EBW**

08/01/2018

Ch Freq: 5.31GHz  
Span: 100MHz  
RBW: 500kHz  
VBW: 2MHz  
Sweep Time: 100ms  
Detector Type: Peak

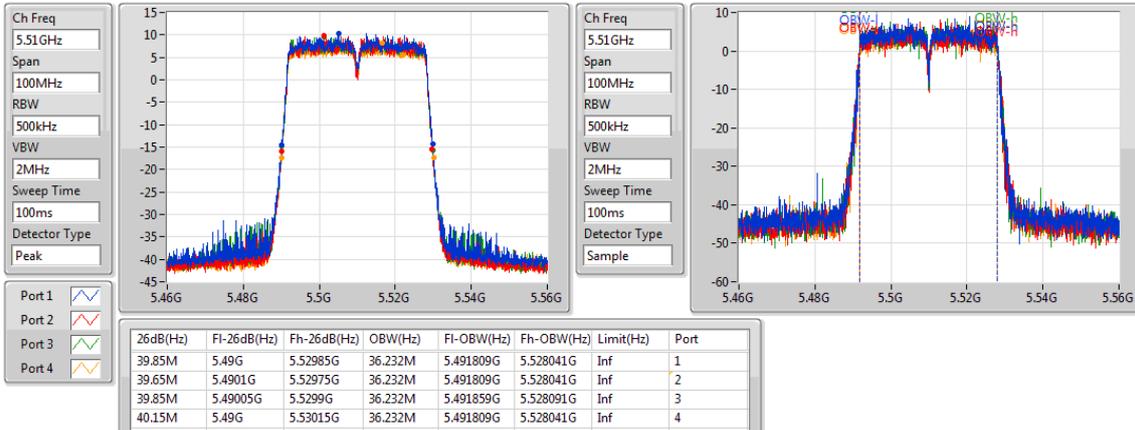
Ch Freq: 5.31GHz  
Span: 100MHz  
RBW: 500kHz  
VBW: 2MHz  
Sweep Time: 100ms  
Detector Type: Sample

**802.11ac VHT40\_Nss1,(MCS0)\_4TX**

**EBW**

**5510MHz**

08/01/2018

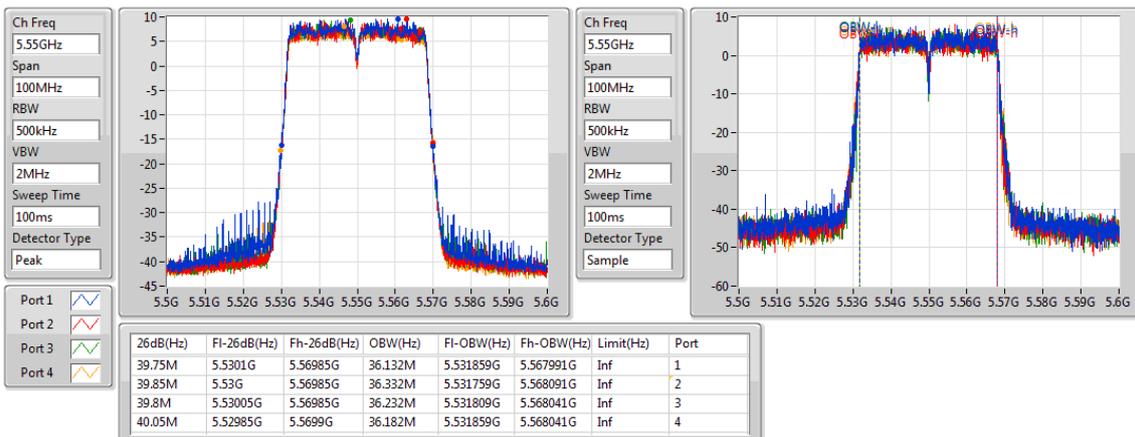


**802.11ac VHT40\_Nss1,(MCS0)\_4TX**

**EBW**

**5550MHz**

08/01/2018

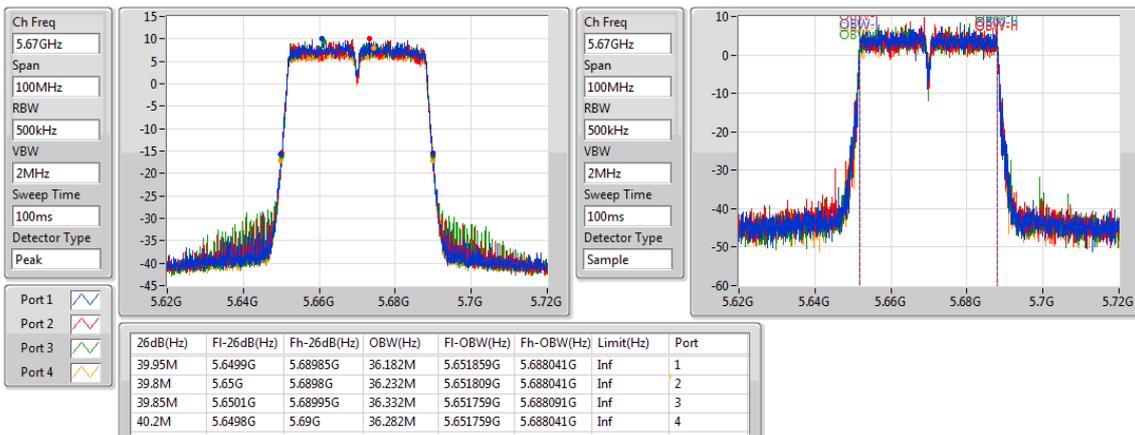


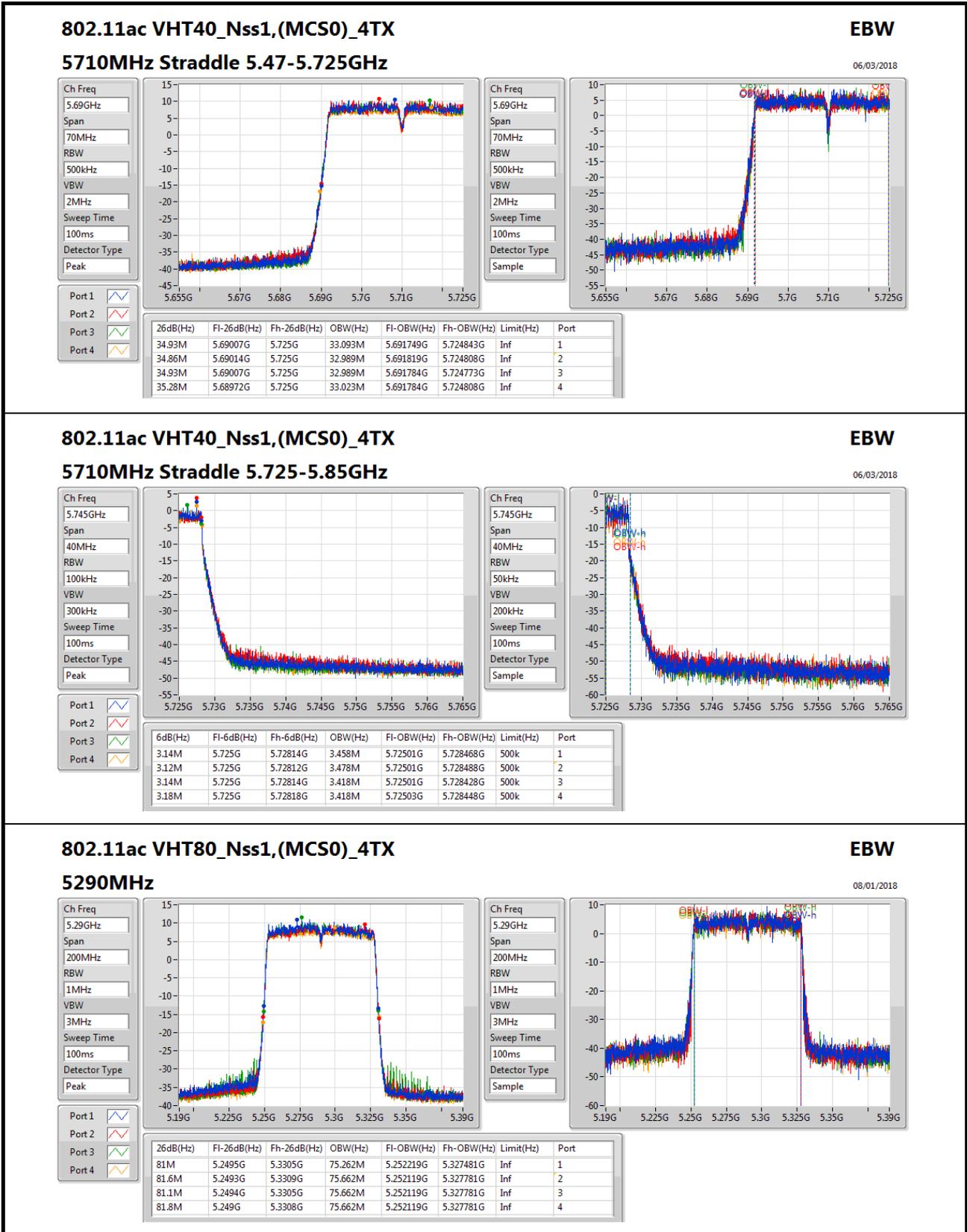
**802.11ac VHT40\_Nss1,(MCS0)\_4TX**

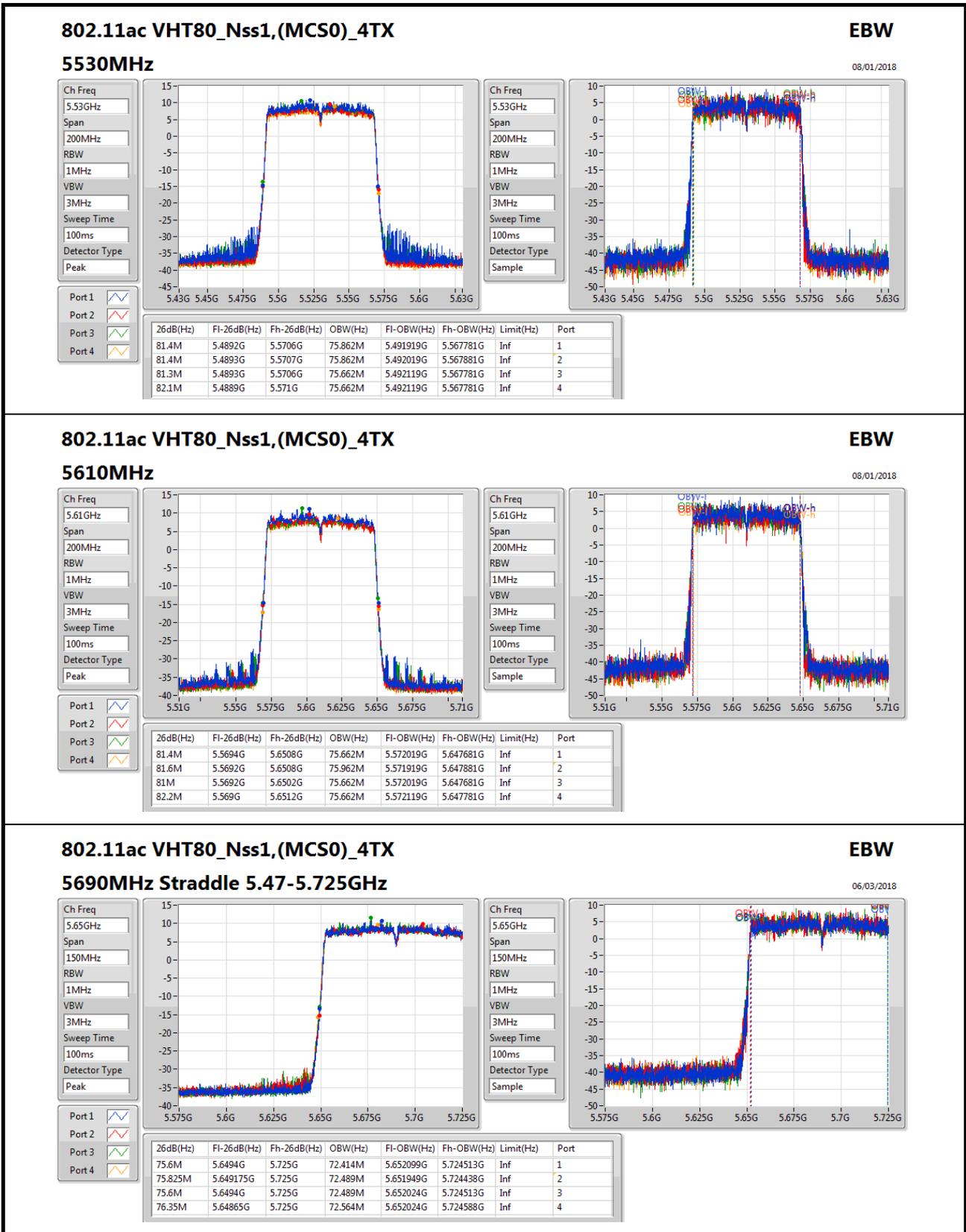
**EBW**

**5670MHz**

08/01/2018

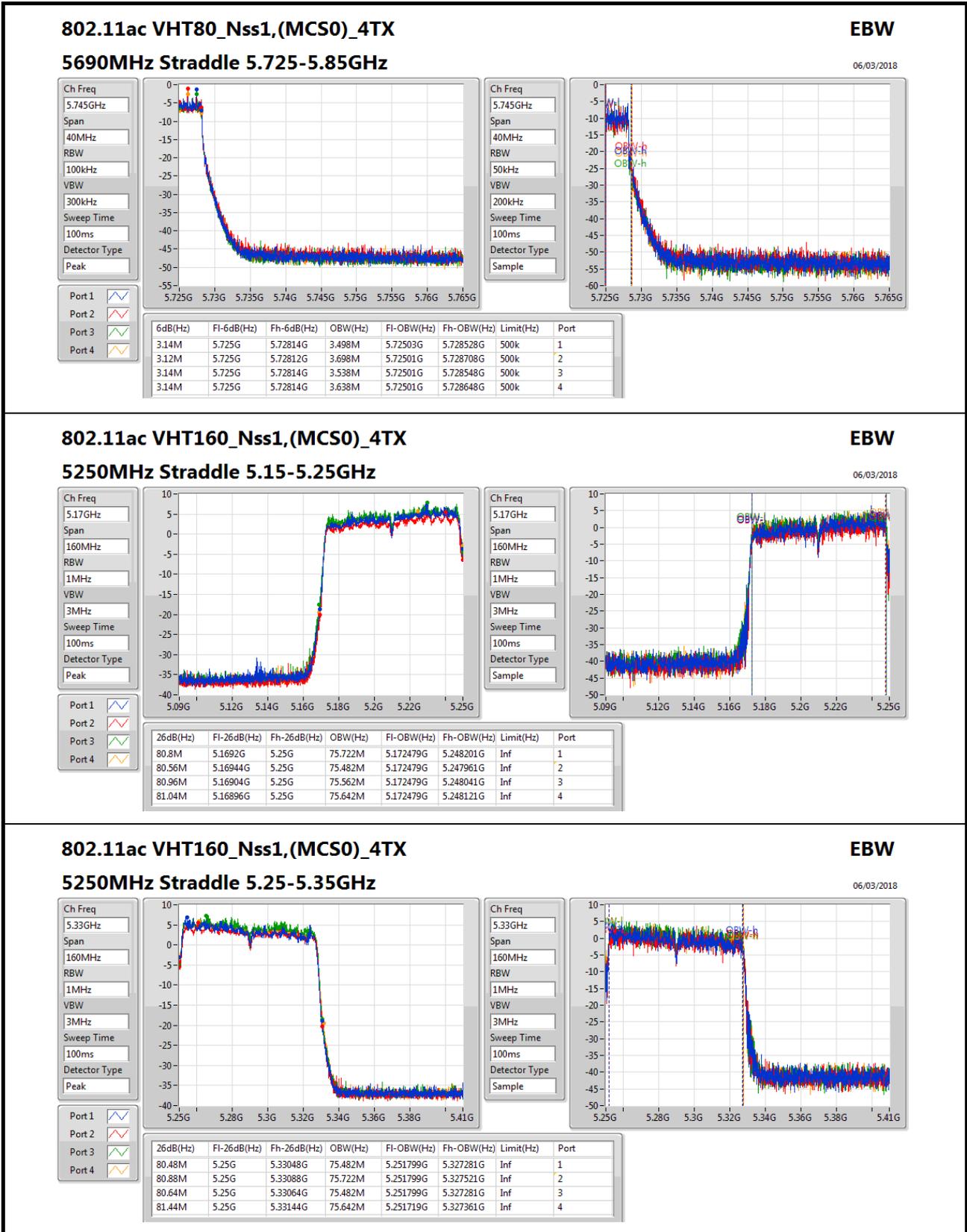





**802.11ac VHT80\_Nss1,(MCS0)\_4TX**
**EBW**
**5690MHz Straddle 5.47-5.725GHz**
06/03/2018

Ch Freq: 5.65GHz  
Span: 150MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Peak

Ch Freq: 5.65GHz  
Span: 150MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Sample



### 802.11ac VHT160\_Nss1,(MCS0)\_4TX

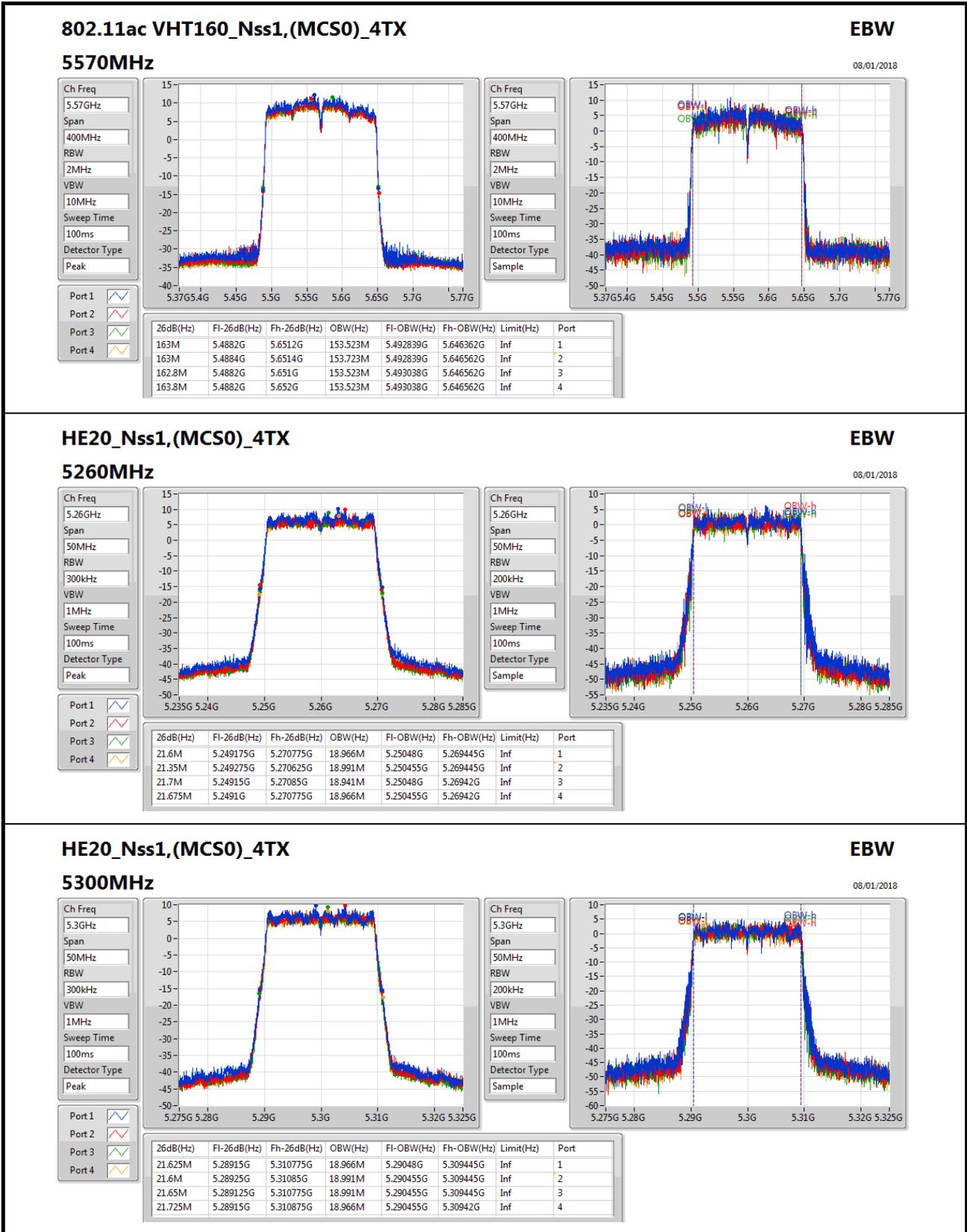
#### 5250MHz Straddle 5.25-5.35GHz

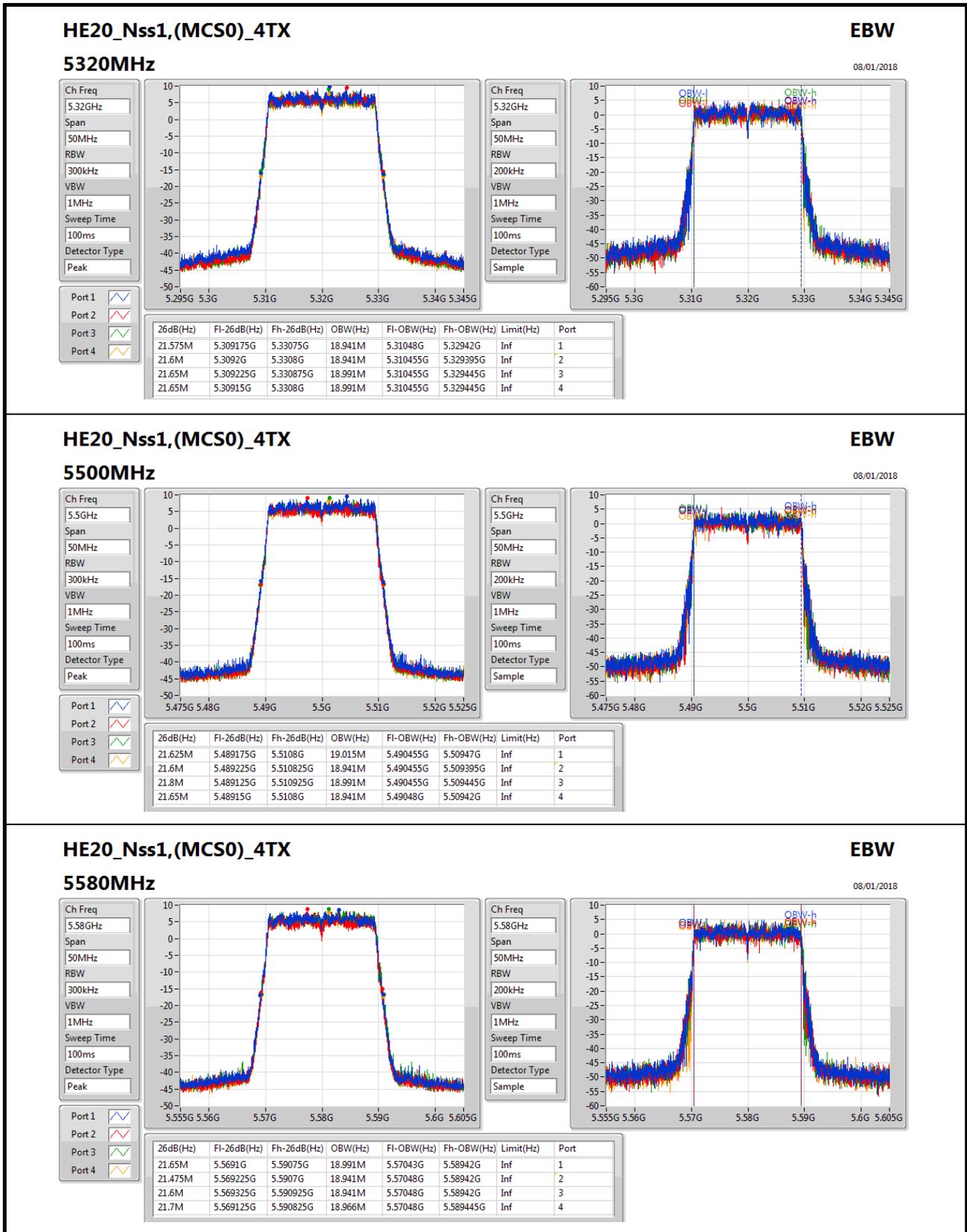
**EBW**

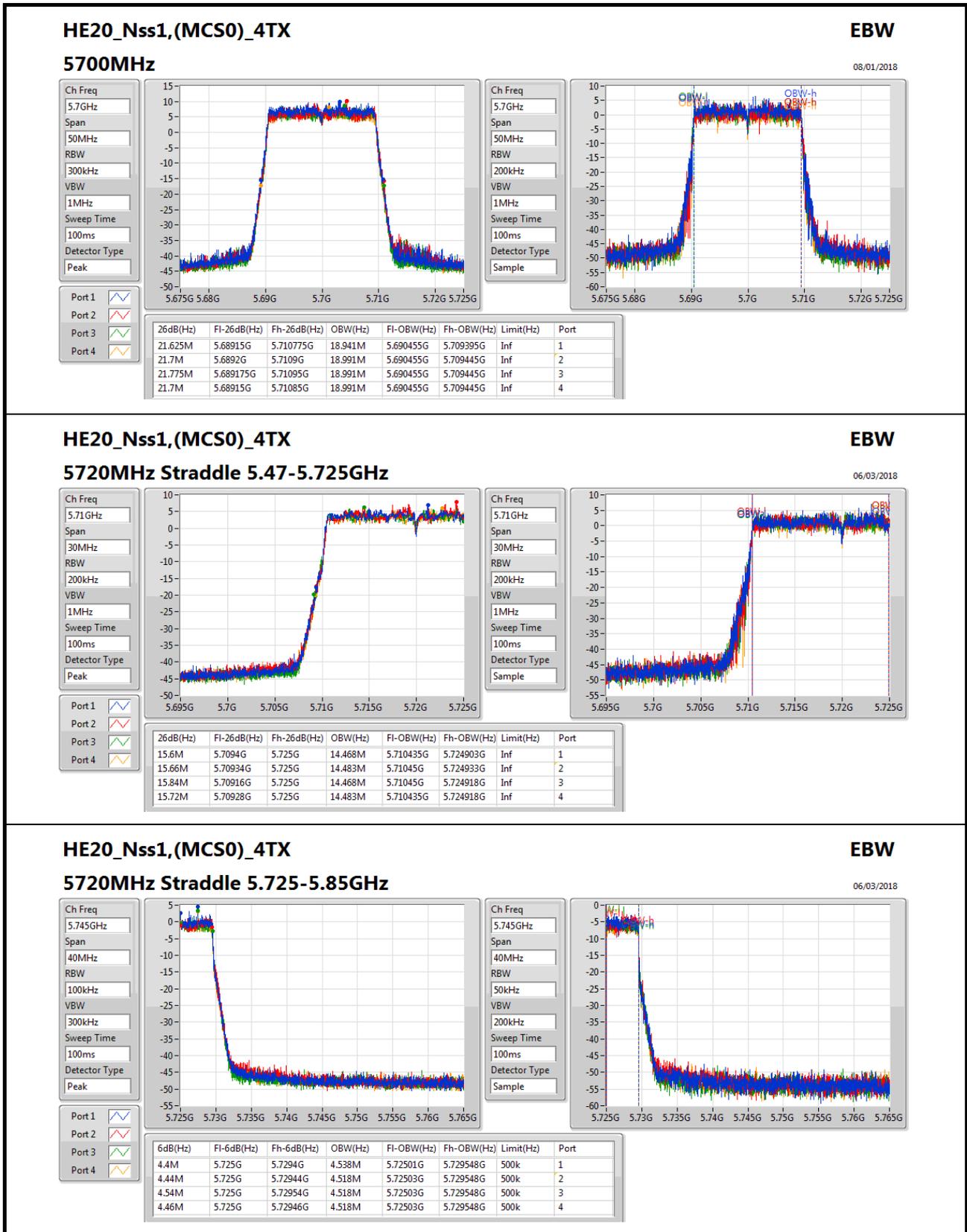
06/03/2018

Ch Freq: 5.33GHz  
Span: 160MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Peak

Ch Freq: 5.33GHz  
Span: 160MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Sample

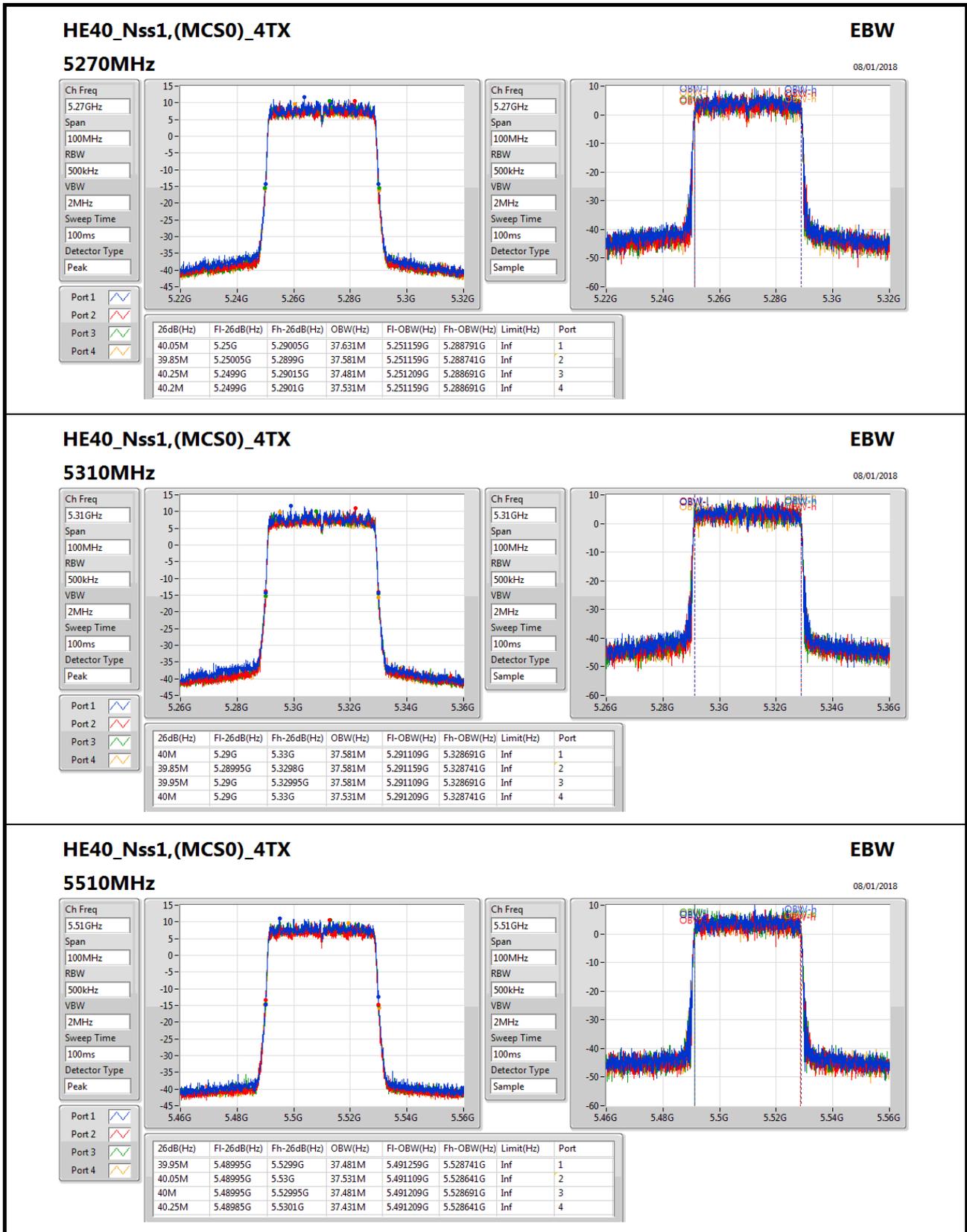





**HE20\_Nss1,(MCS0)\_4TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**
06/03/2018

Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 100kHz  
VBW: 300kHz  
Sweep Time: 100ms  
Detector Type: Peak

Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 50kHz  
VBW: 200kHz  
Sweep Time: 100ms  
Detector Type: Sample


**HE40\_Nss1,(MCS0)\_4TX**
**EBW**

08/01/2018

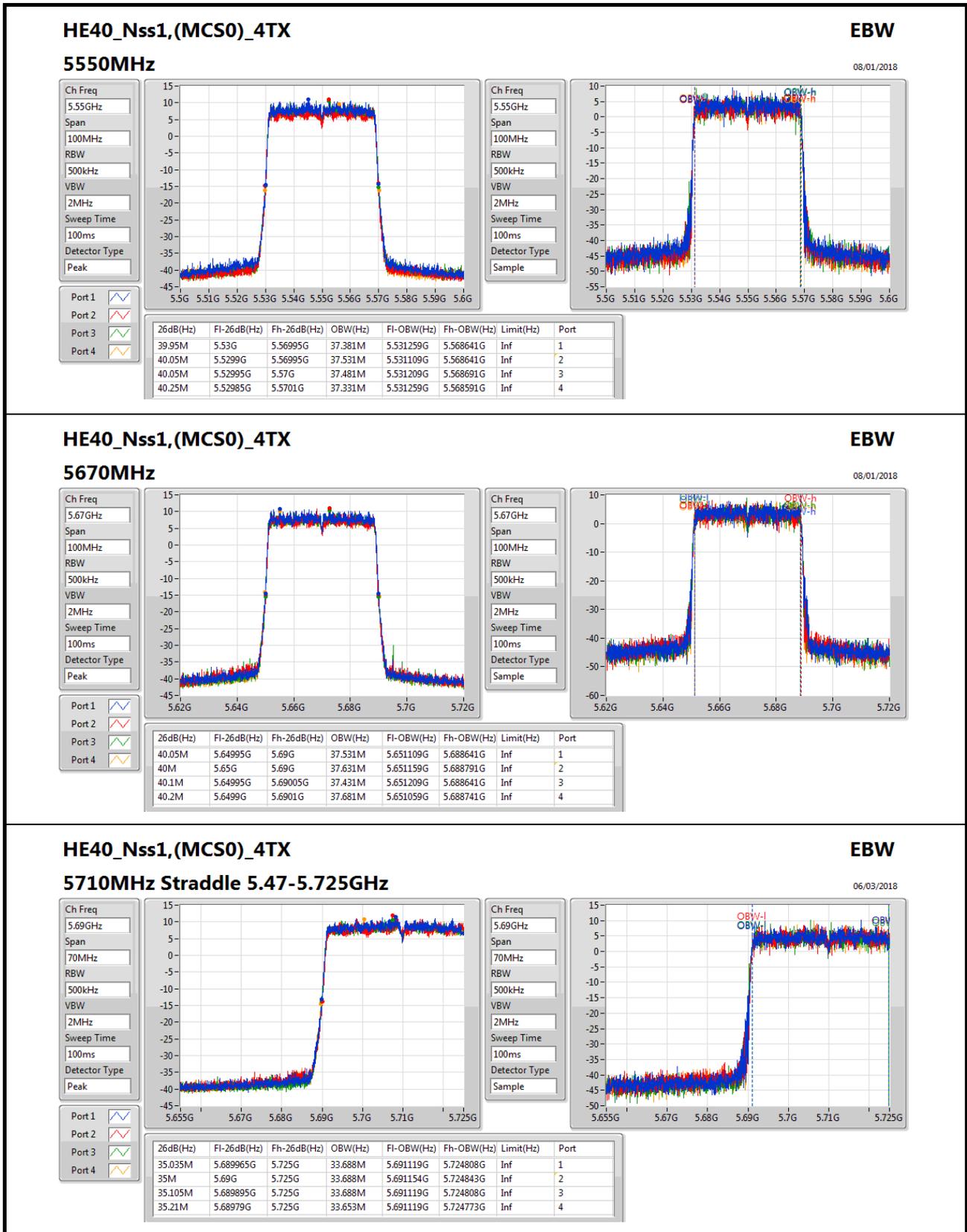
**5510MHz**

Ch Freq: 5.51GHz  
 Span: 100MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Peak

Port 1:   
 Port 2:   
 Port 3:   
 Port 4:

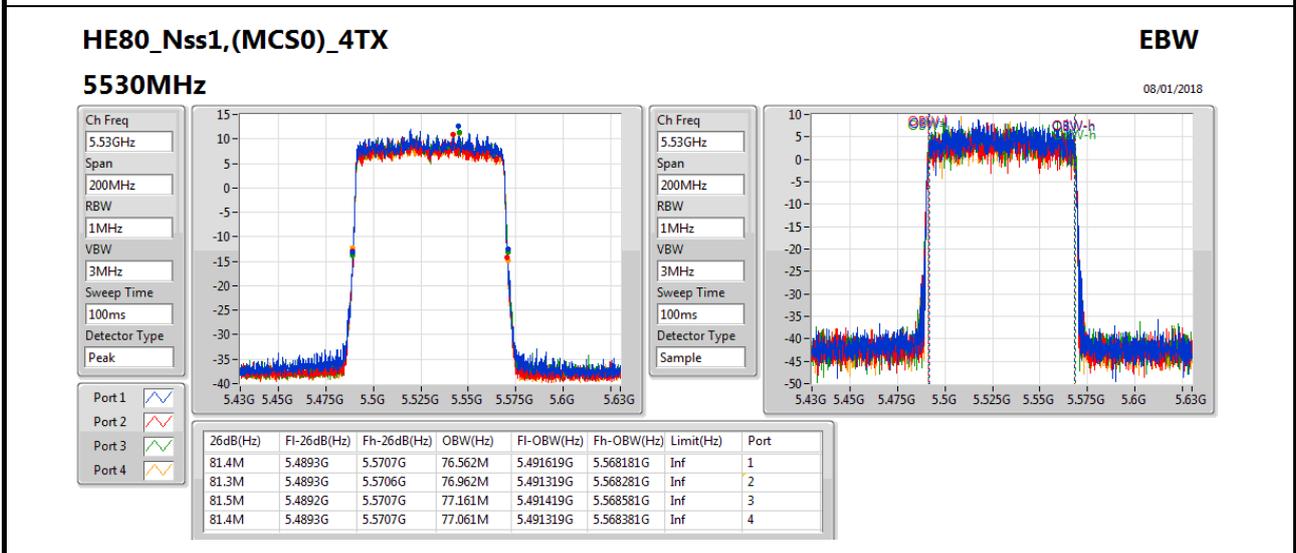
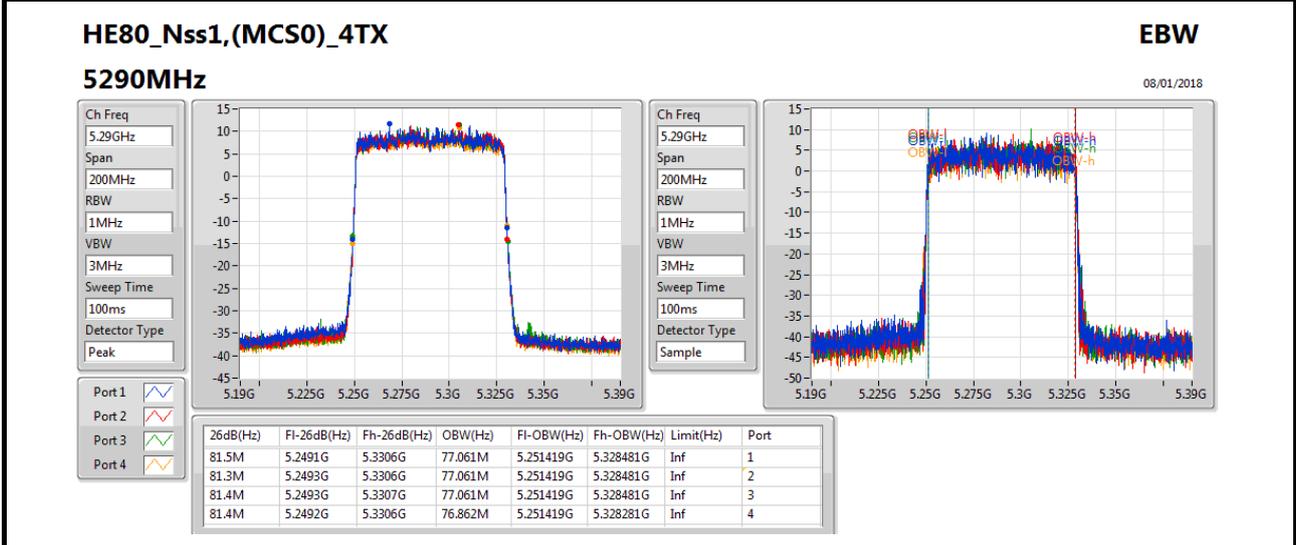
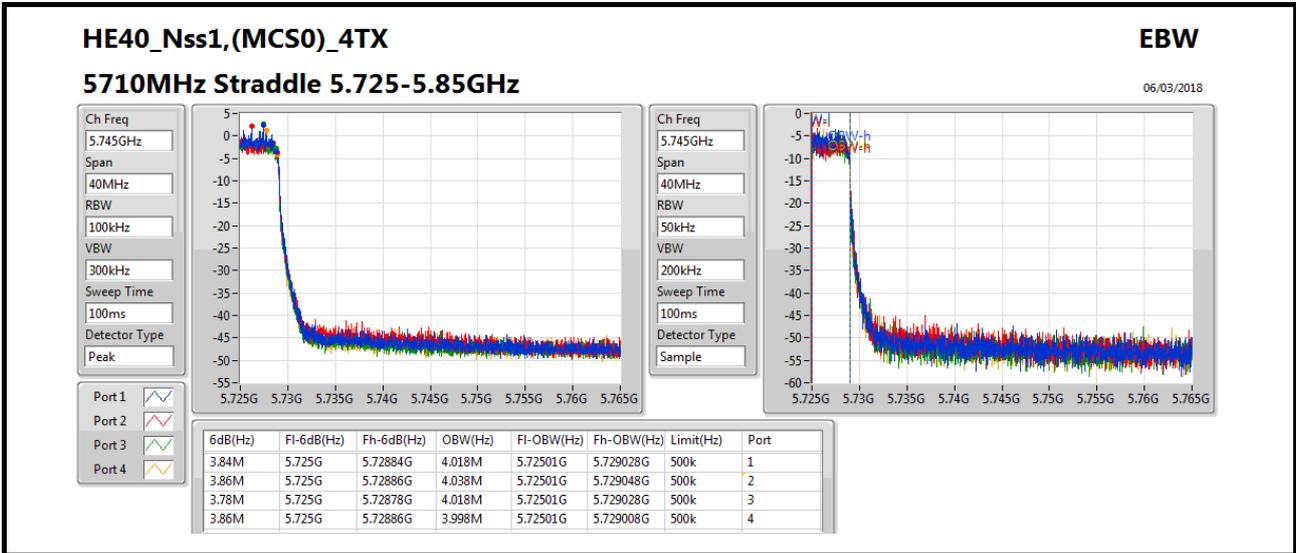
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
39.95M	5.48995G	5.5299G	37.481M	5.491259G	5.528741G	Inf	1
40.05M	5.48995G	5.53G	37.531M	5.491109G	5.528641G	Inf	2
40M	5.48995G	5.52995G	37.481M	5.491209G	5.528691G	Inf	3
40.25M	5.48985G	5.5301G	37.431M	5.491209G	5.528641G	Inf	4

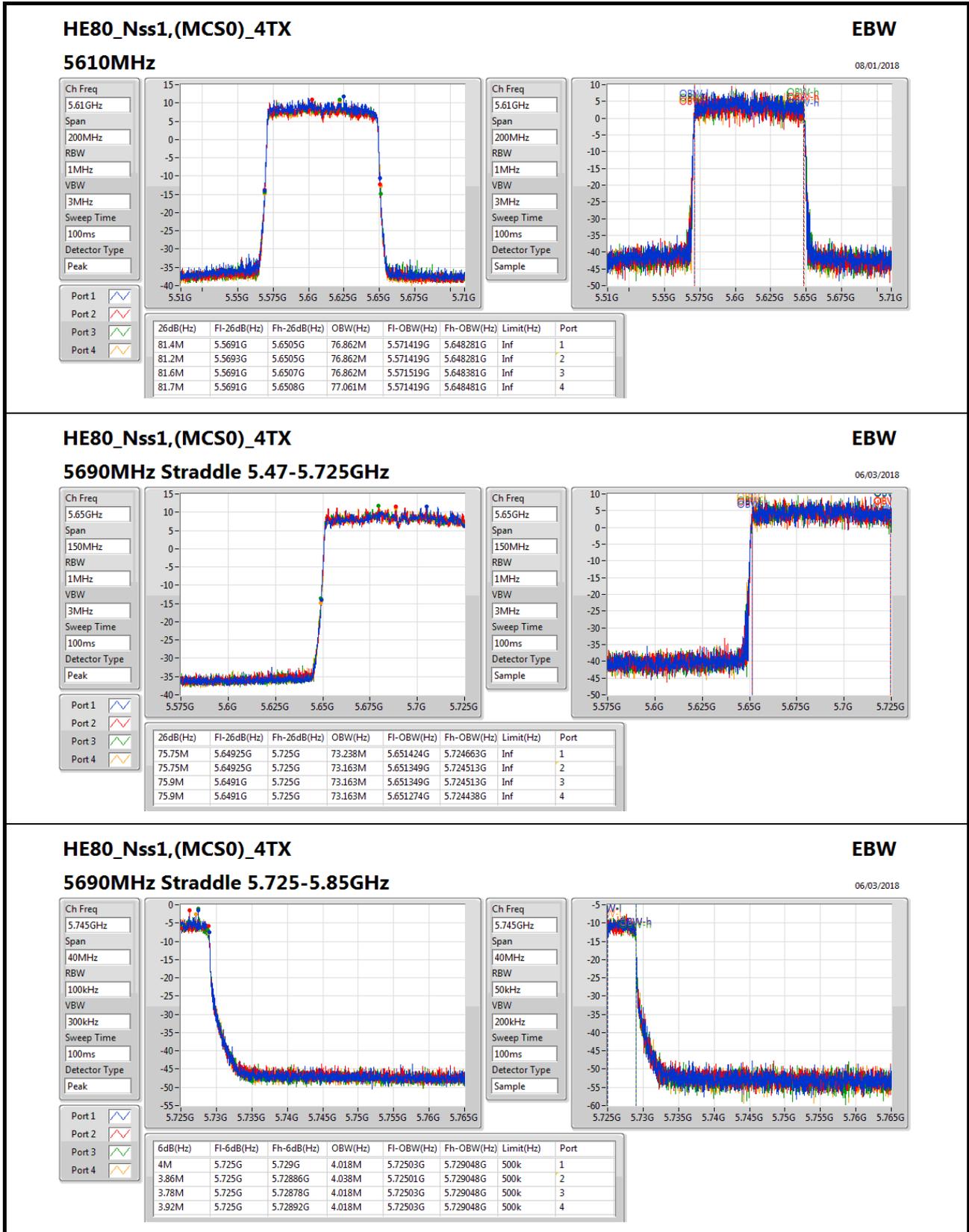
Ch Freq: 5.51GHz  
 Span: 100MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Sample

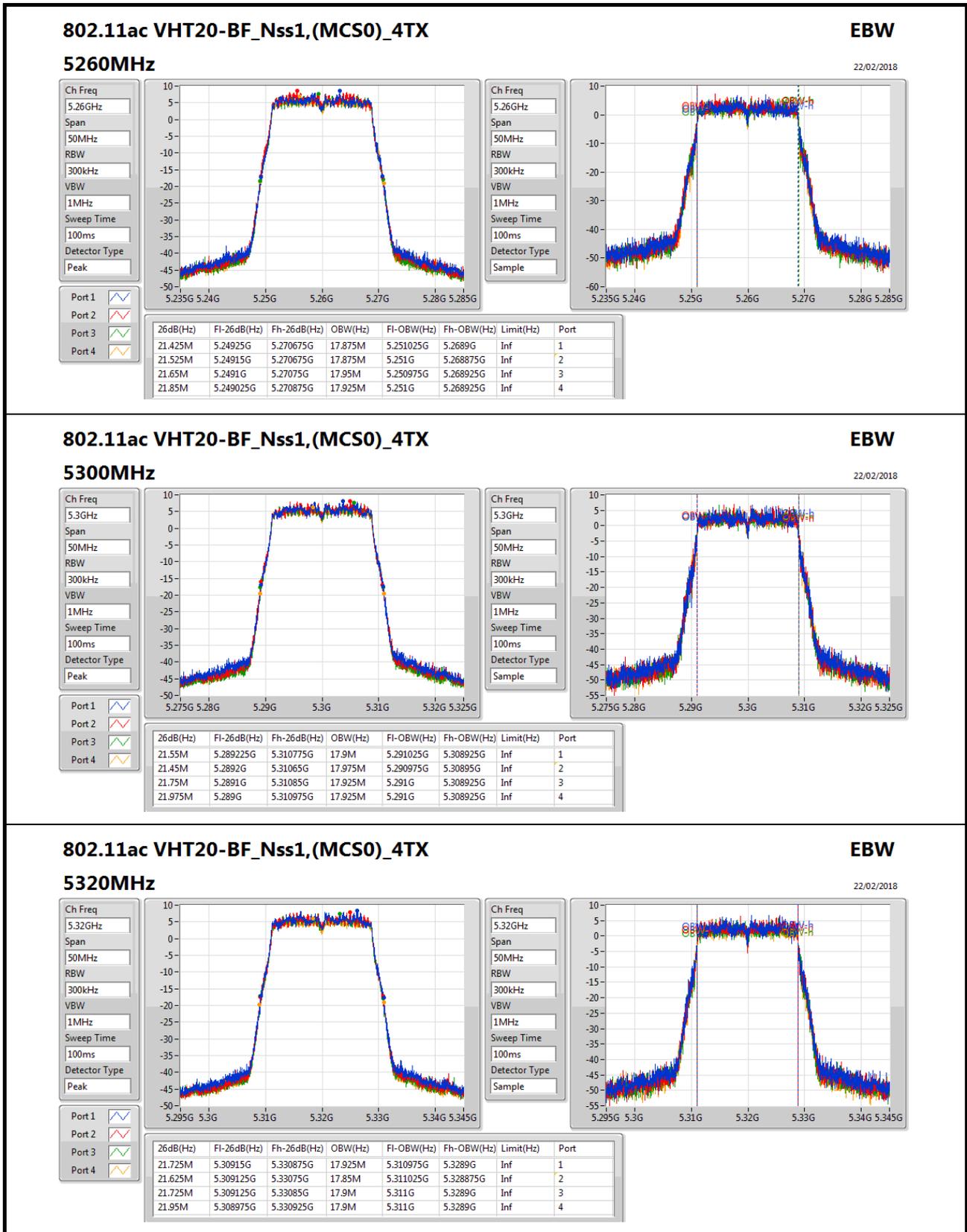

**HE40\_Nss1,(MCS0)\_4TX**
**EBW**
**5710MHz Straddle 5.47-5.725GHz**
06/03/2018

Ch Freq: 5.69GHz  
Span: 70MHz  
RBW: 500kHz  
VBW: 2MHz  
Sweep Time: 100ms  
Detector Type: Peak

Ch Freq: 5.69GHz  
Span: 70MHz  
RBW: 500kHz  
VBW: 2MHz  
Sweep Time: 100ms  
Detector Type: Sample

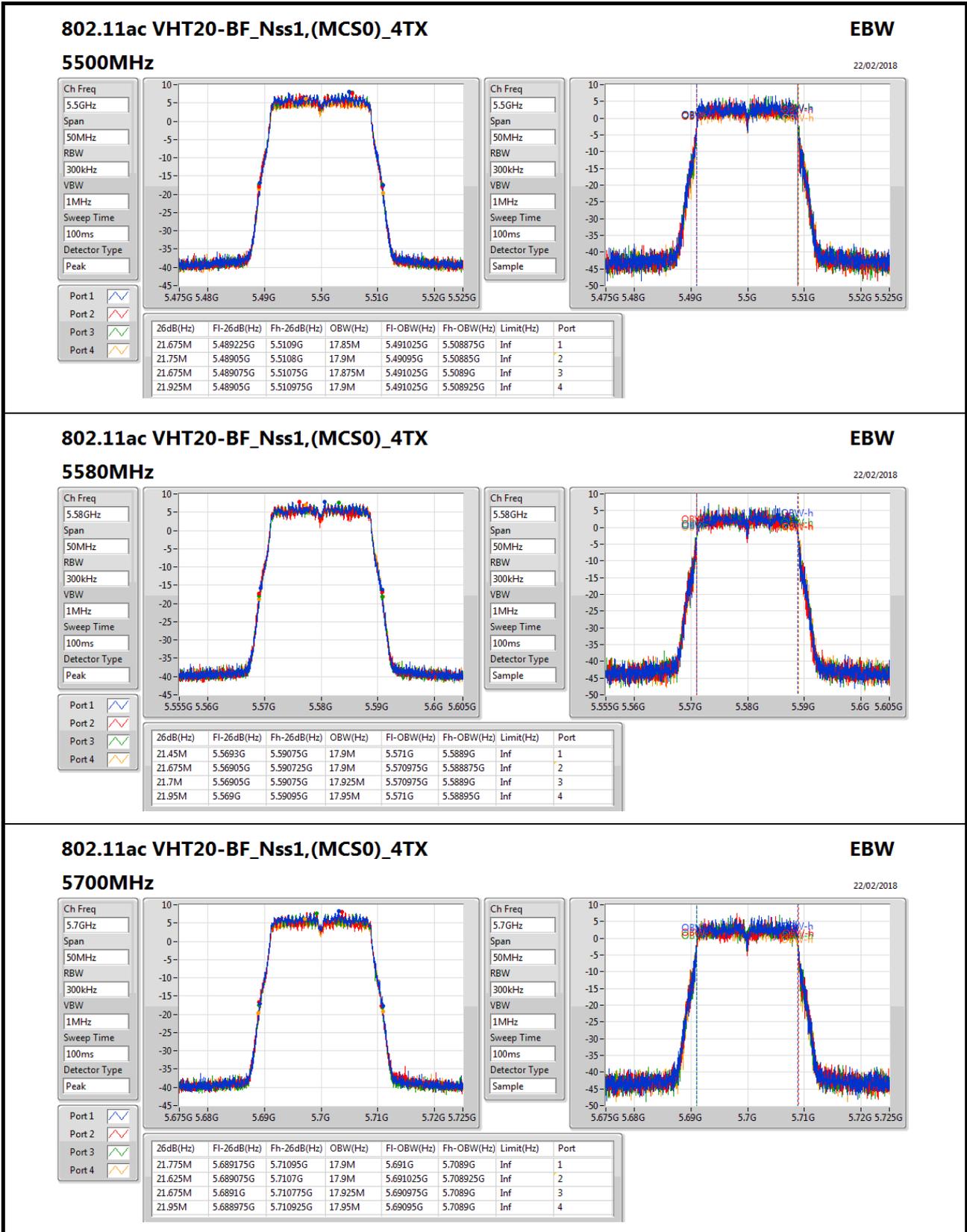


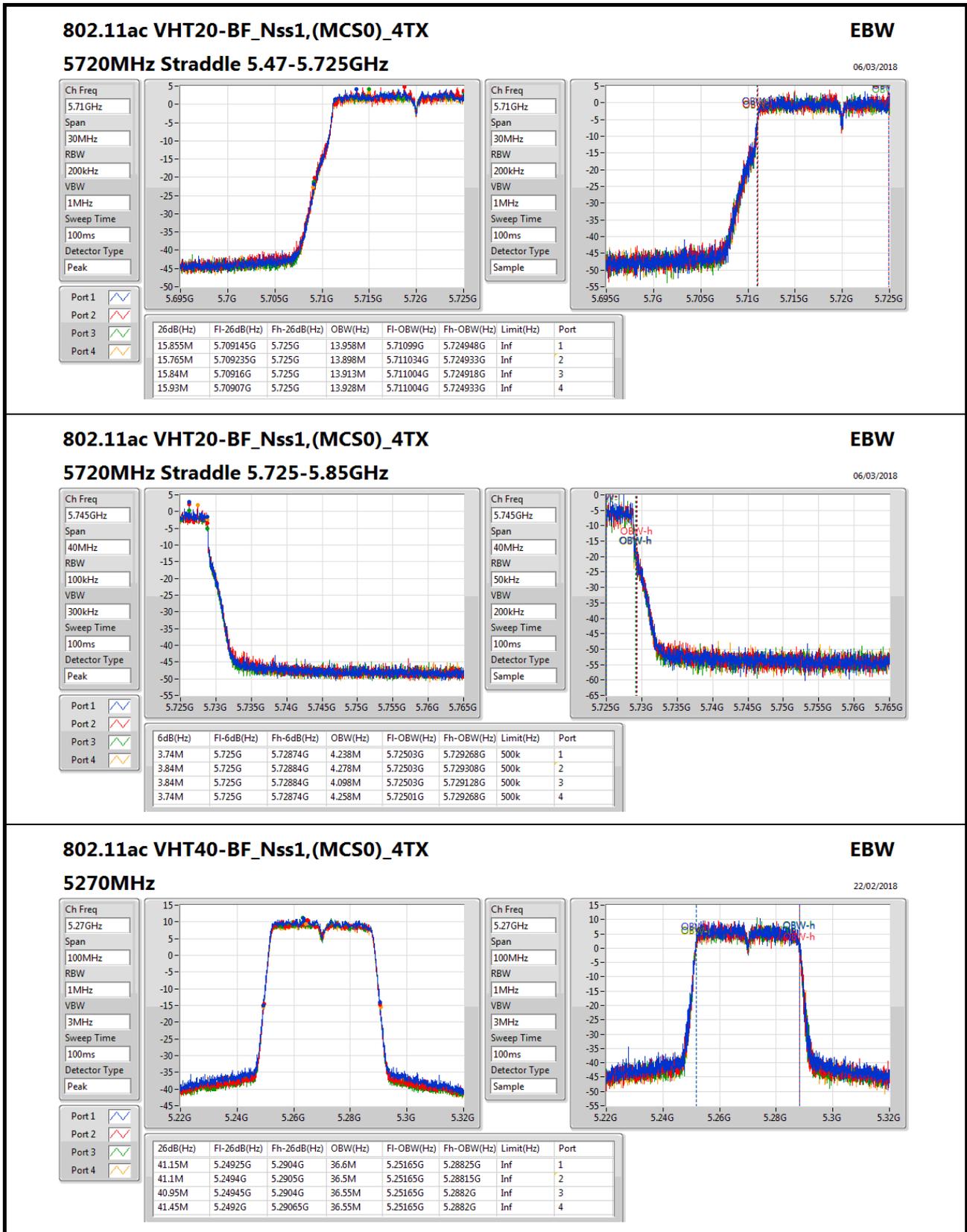


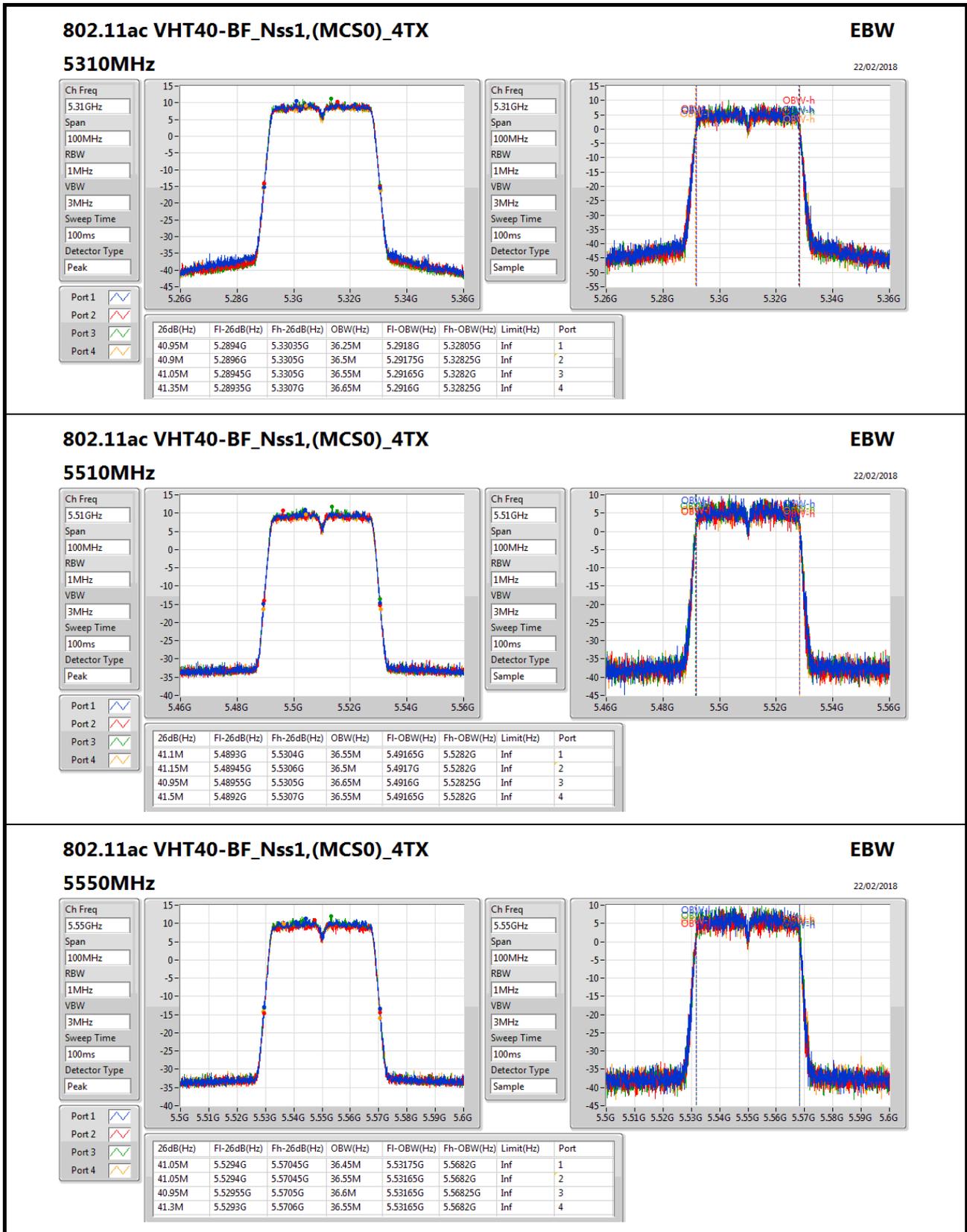

**802.11ac VHT20-BF\_Nss1,(MCS0)\_4TX**
**EBW**

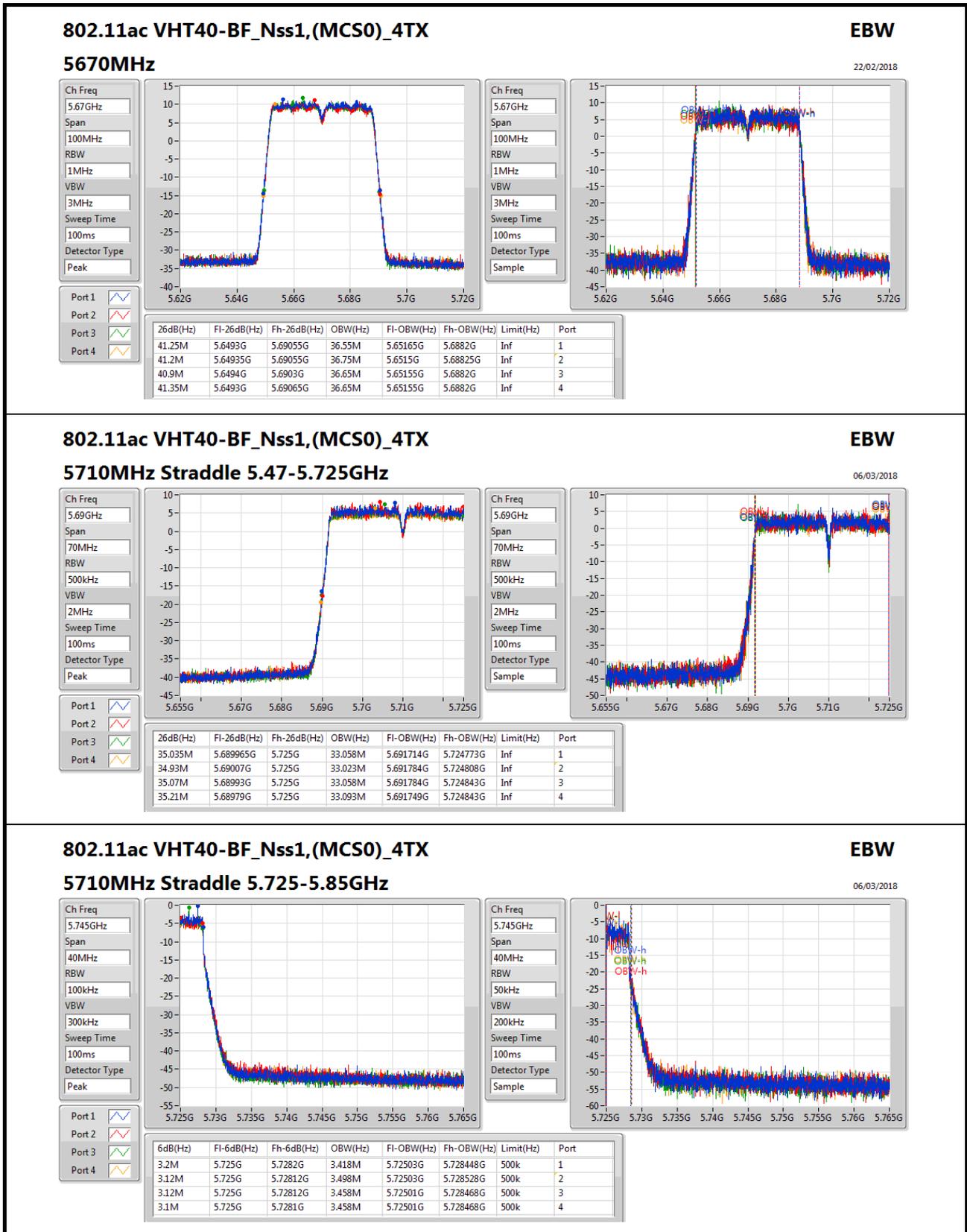
22/02/2018

**5320MHz**



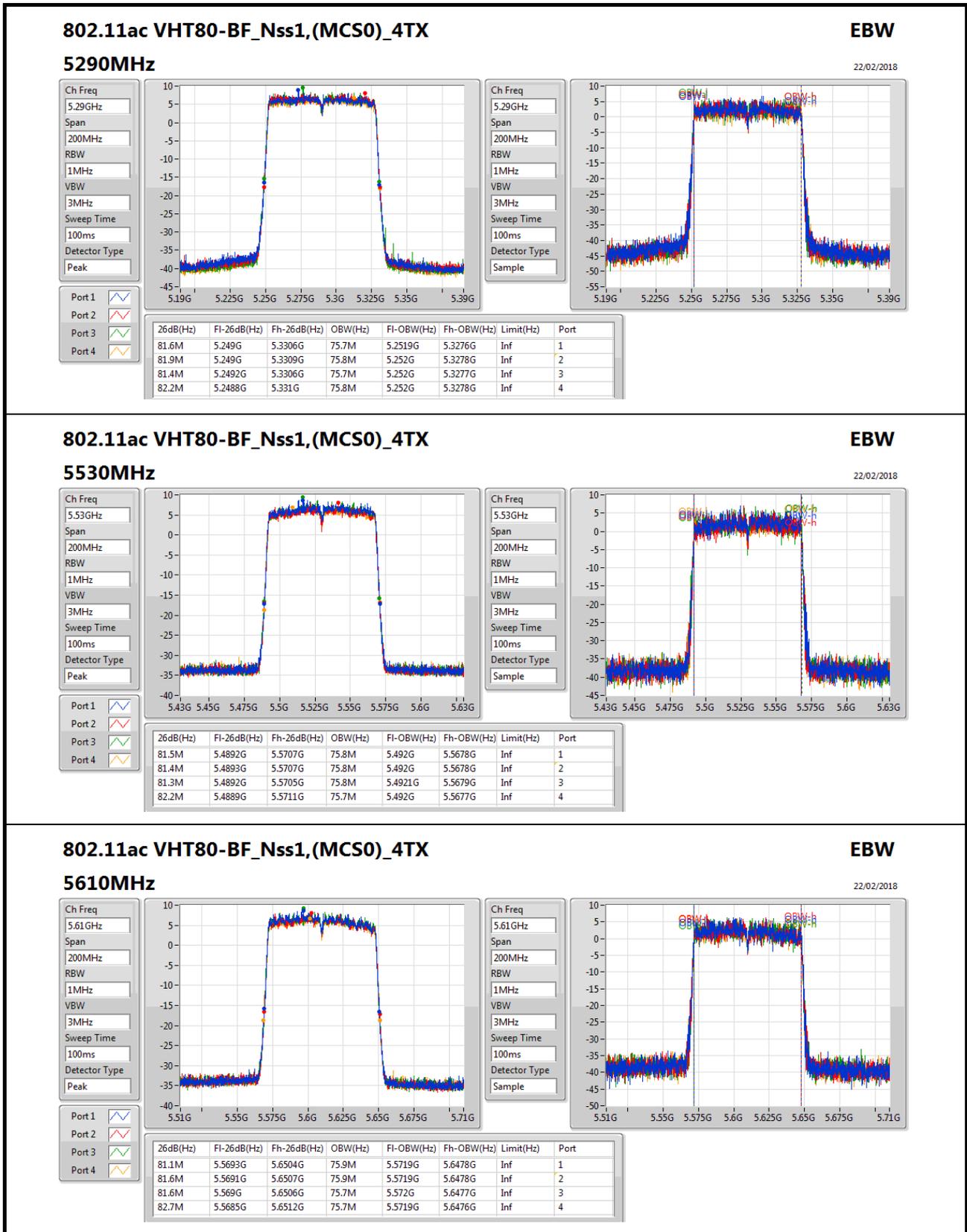





**802.11ac VHT40-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**
06/03/2018

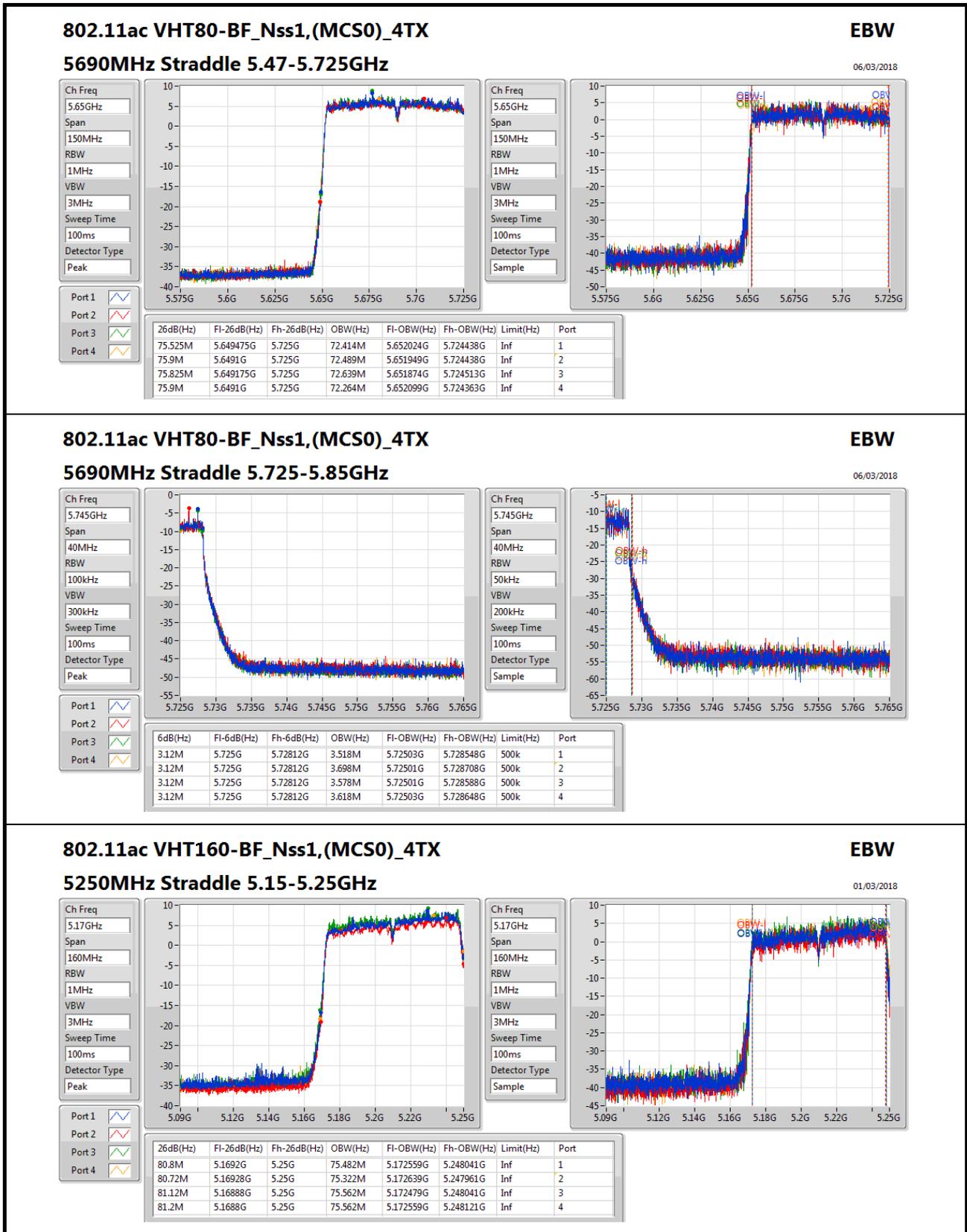
Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 100kHz  
VBW: 300kHz  
Sweep Time: 100ms  
Detector Type: Peak

Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 50kHz  
VBW: 200kHz  
Sweep Time: 100ms  
Detector Type: Sample


**802.11ac VHT80-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**5610MHz**
22/02/2018

Ch Freq: 5.61GHz  
Span: 200MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Peak

Ch Freq: 5.61GHz  
Span: 200MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Sample



### 802.11ac VHT160-BF\_Nss1,(MCS0)\_4TX

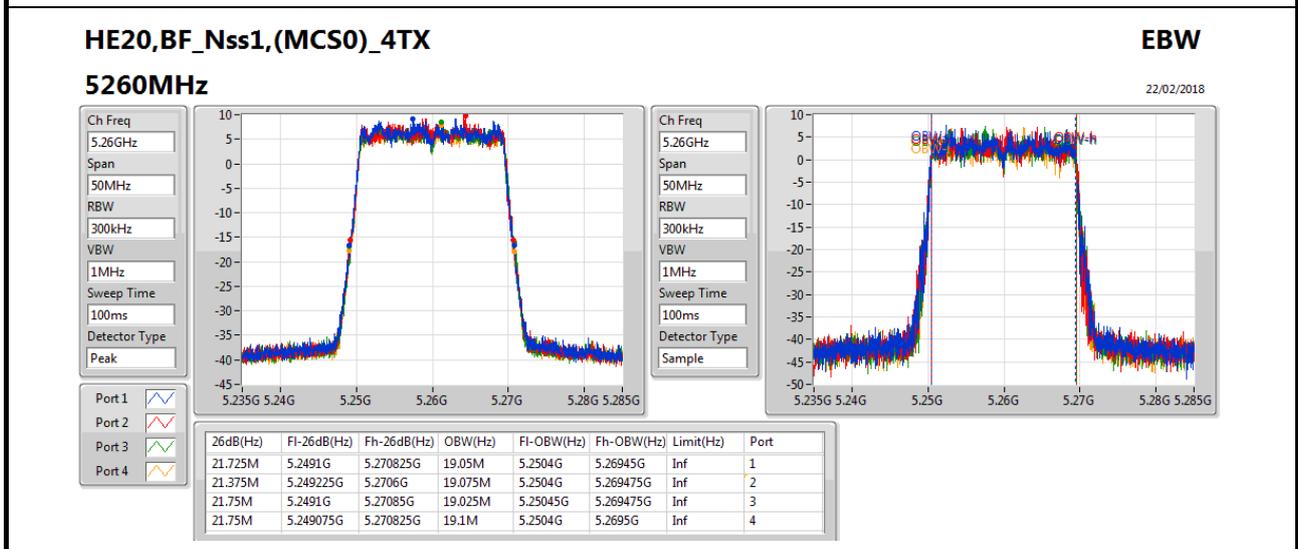
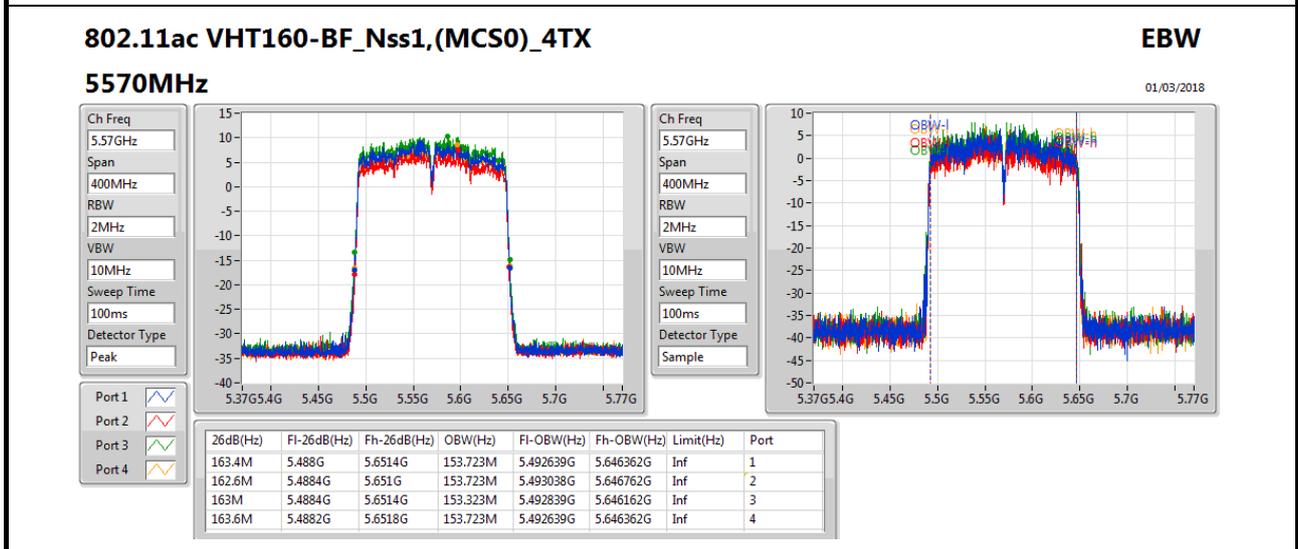
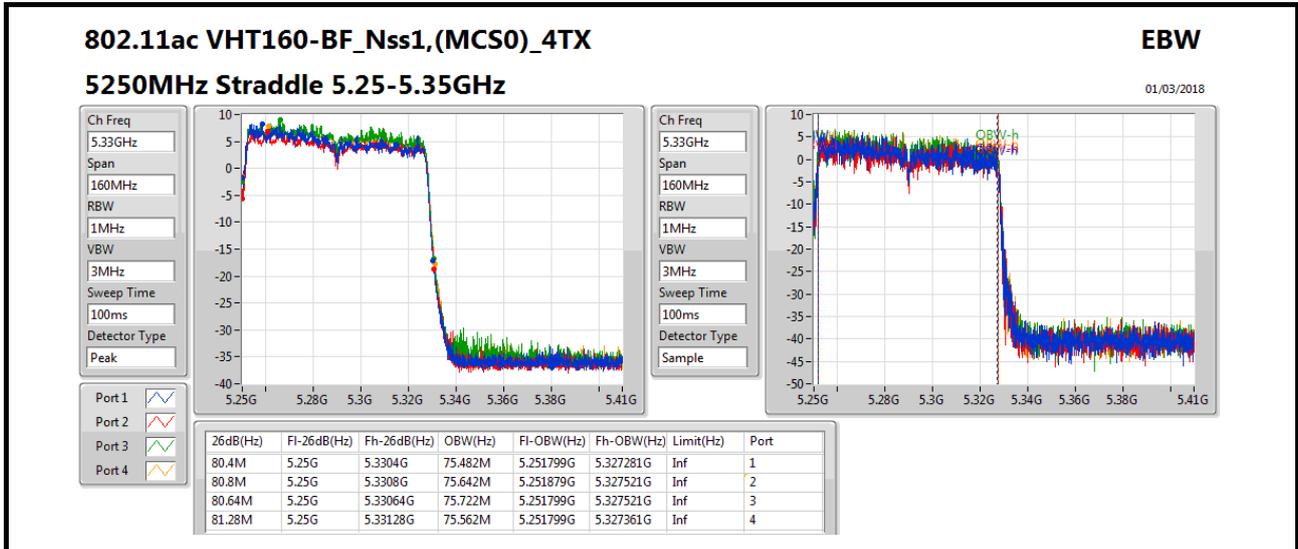
#### 5250MHz Straddle 5.15-5.25GHz

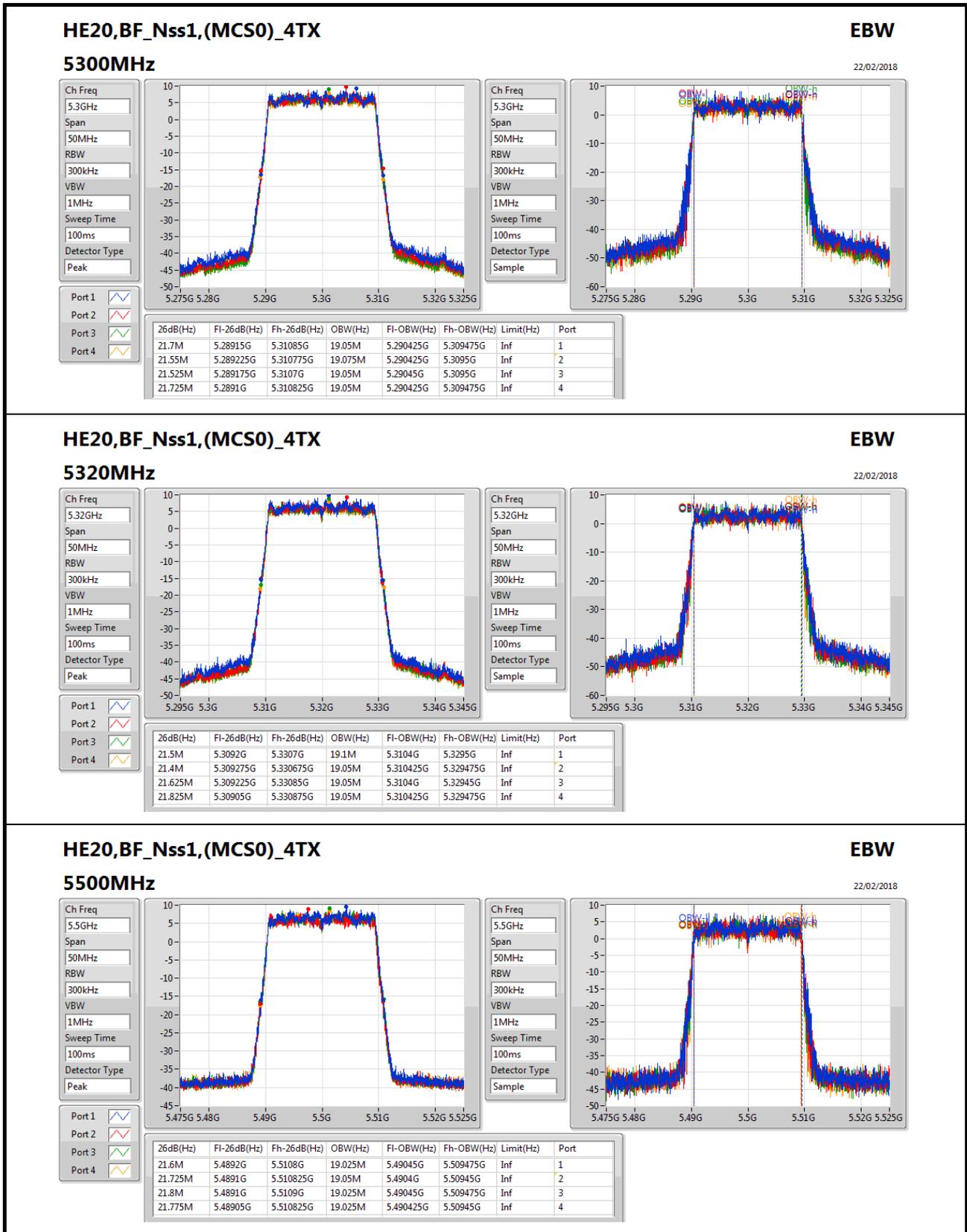
**EBW**

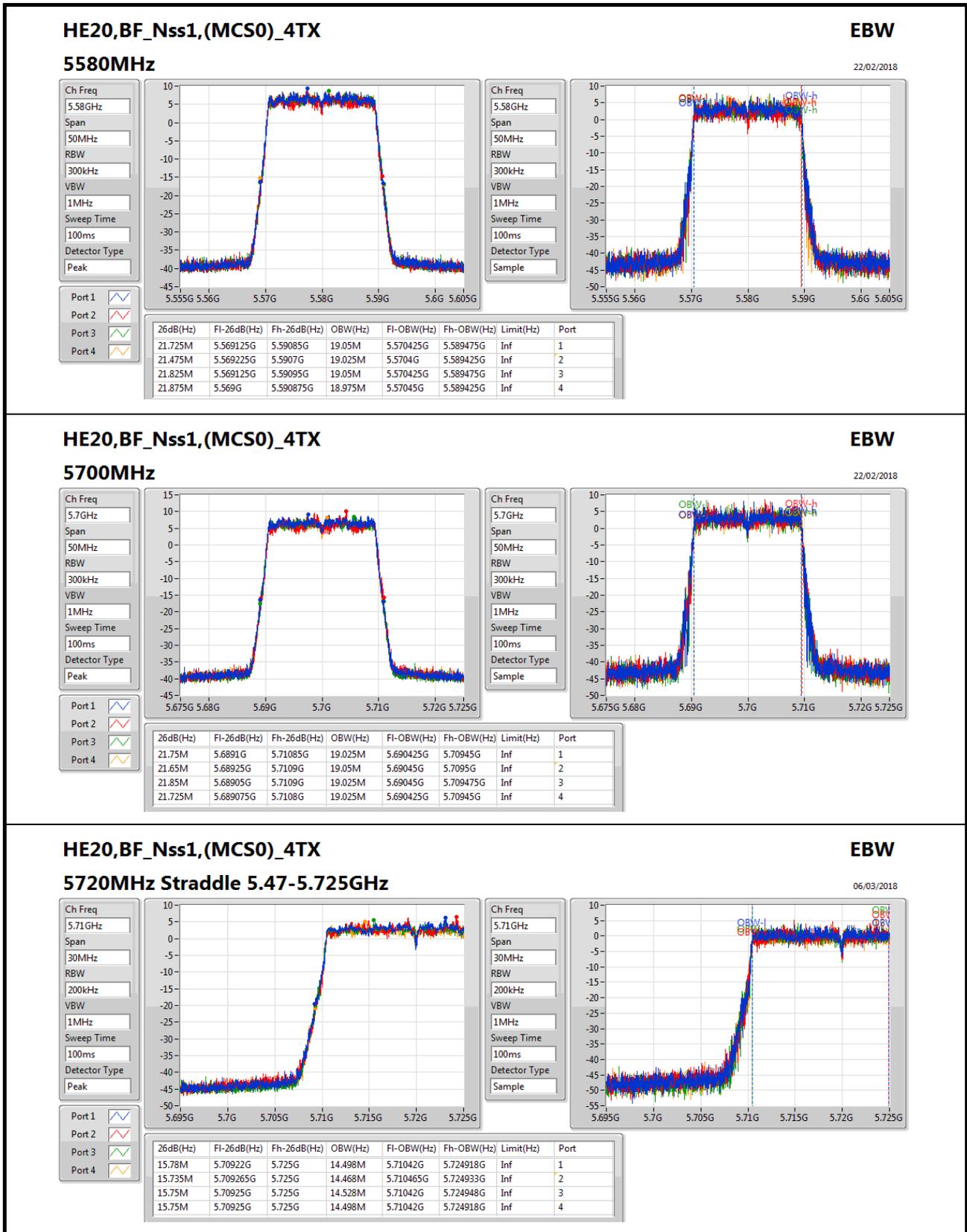
01/03/2018

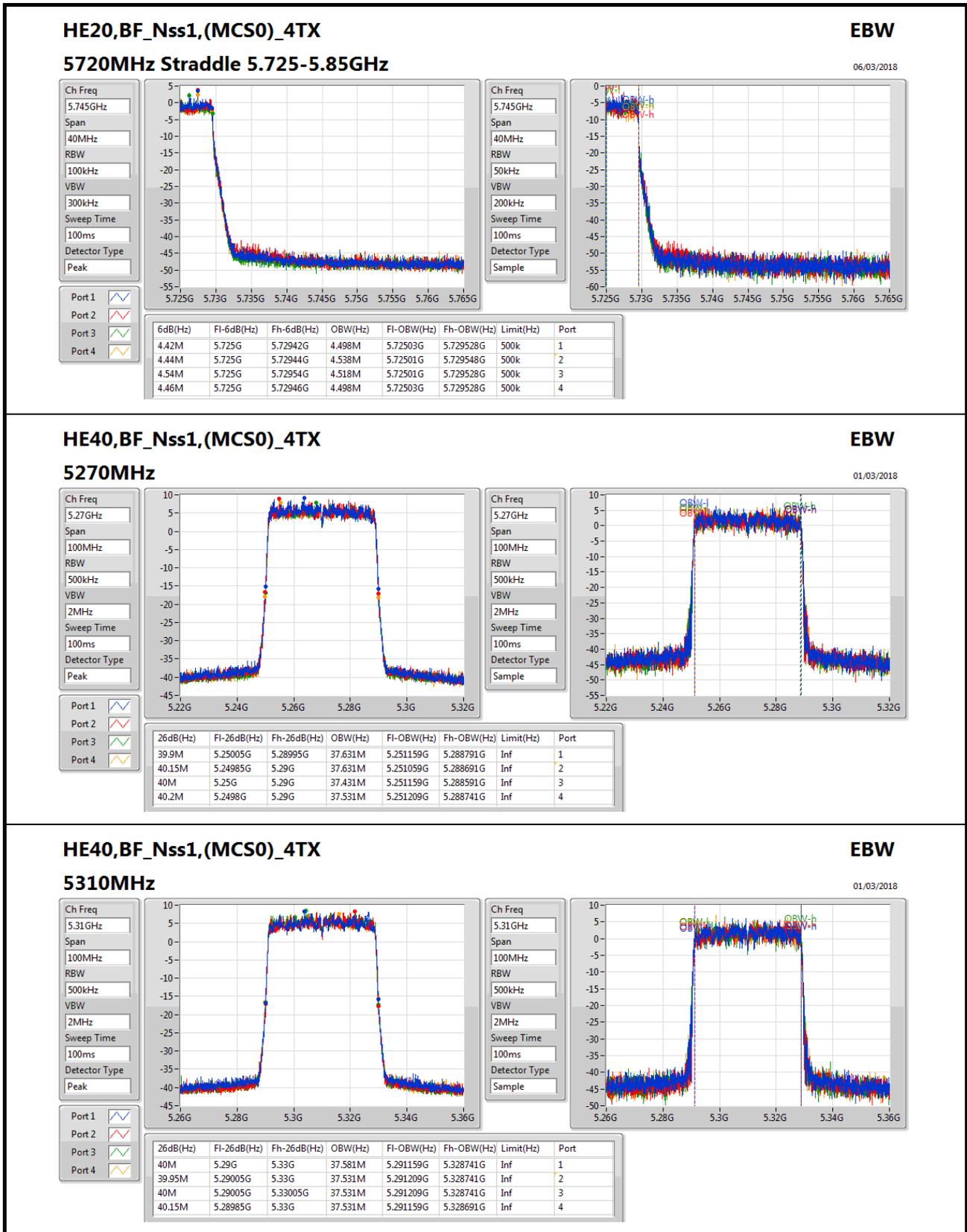
Ch Freq: 5.17GHz  
Span: 160MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Peak

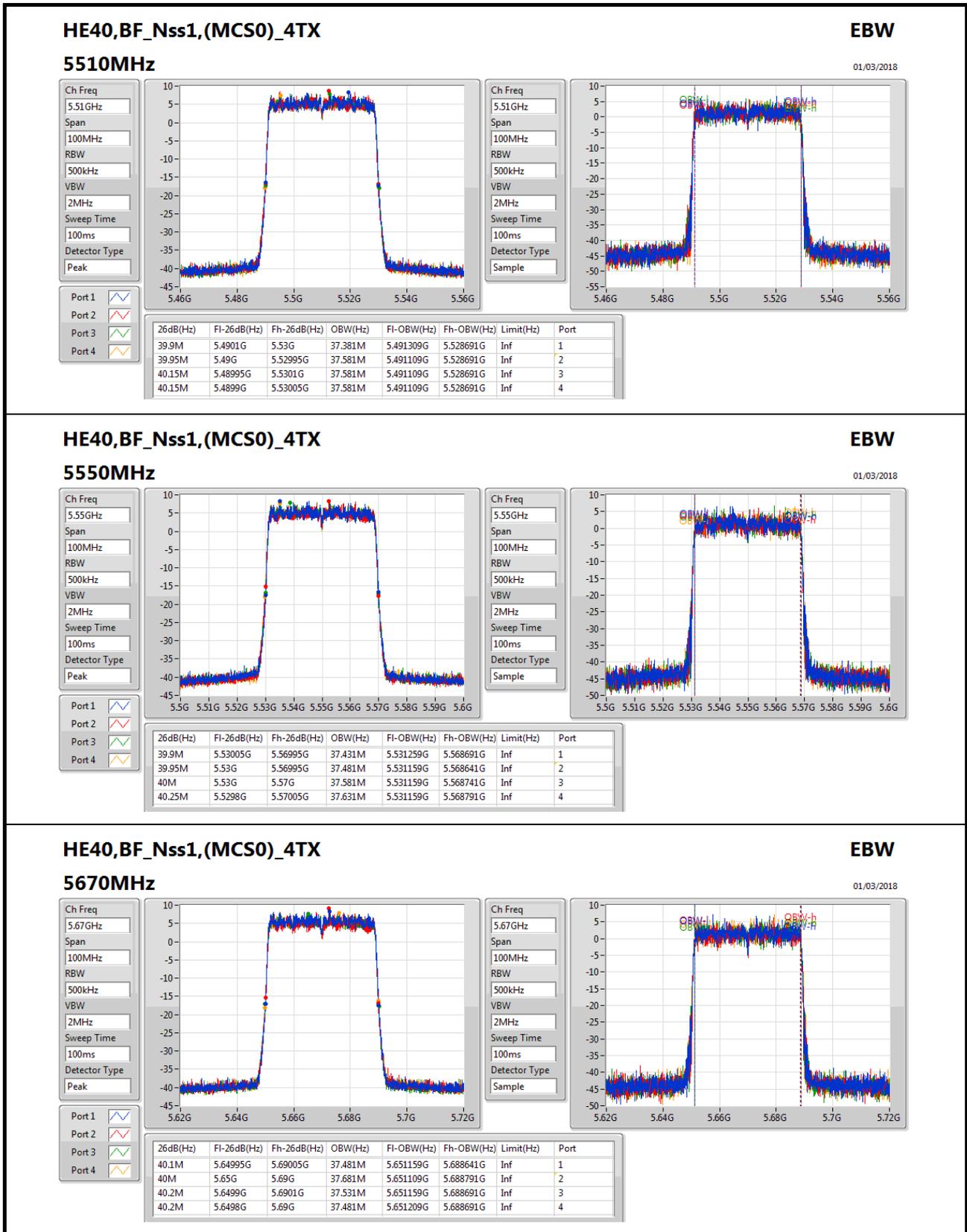
Ch Freq: 5.17GHz  
Span: 160MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Sample










**HE40,BF\_Nss1,(MCS0)\_4TX**
**EBW**

01/03/2018

**5670MHz**

Ch Freq: 5.67GHz

Span: 100MHz

RBW: 500kHz

VBW: 2MHz

Sweep Time: 100ms

Detector Type: Peak

Ch Freq: 5.67GHz

Span: 100MHz

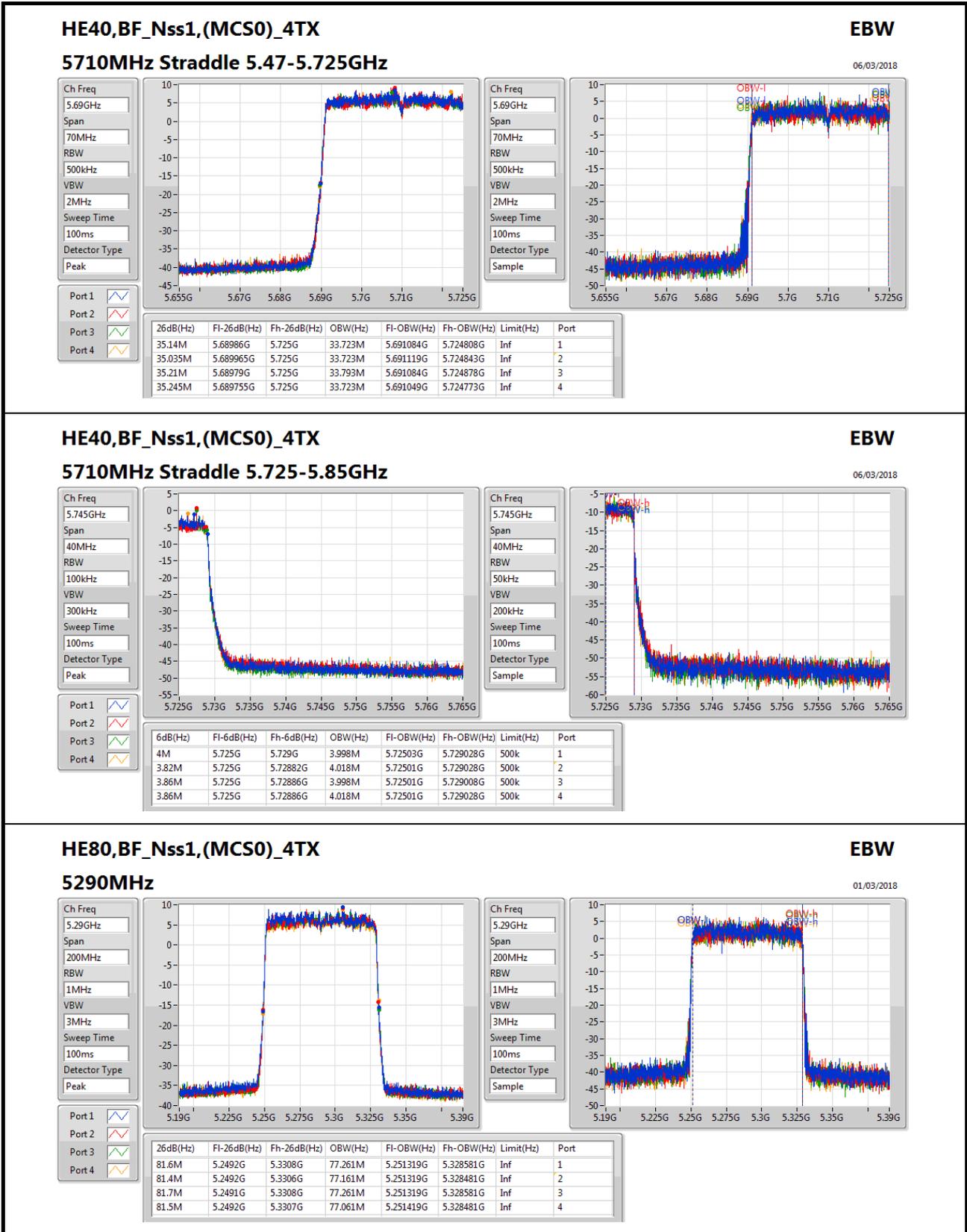
RBW: 500kHz

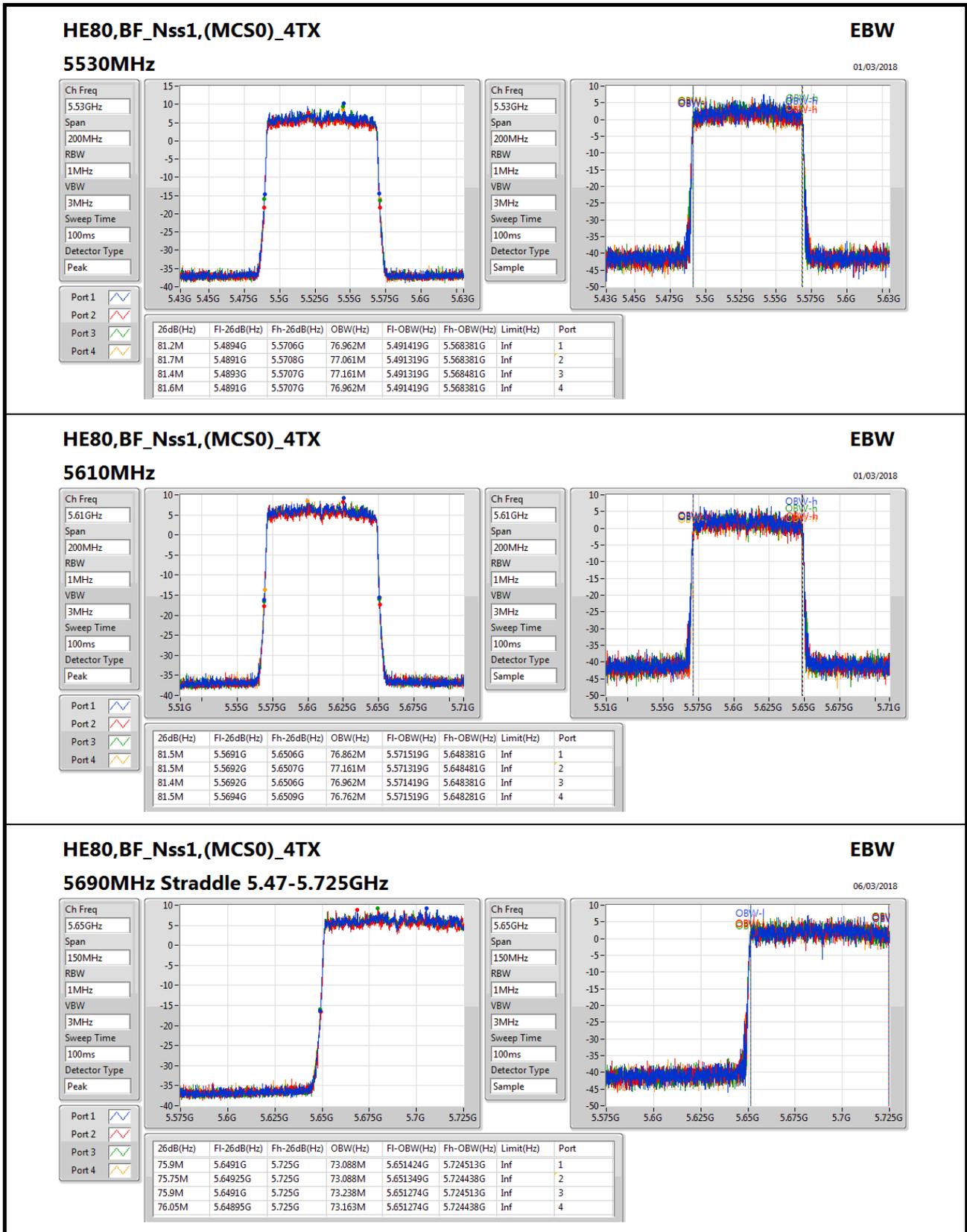
VBW: 2MHz

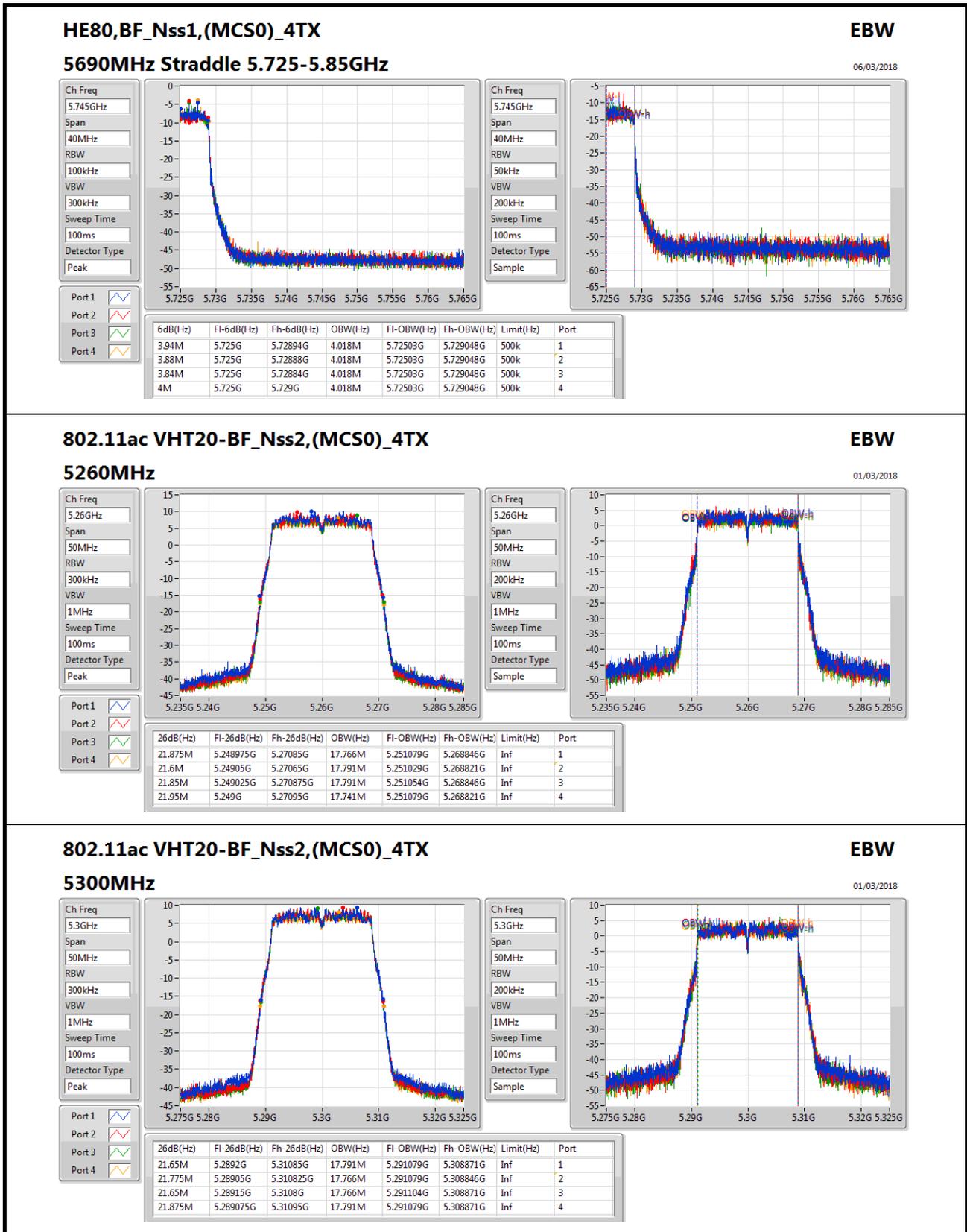
Sweep Time: 100ms

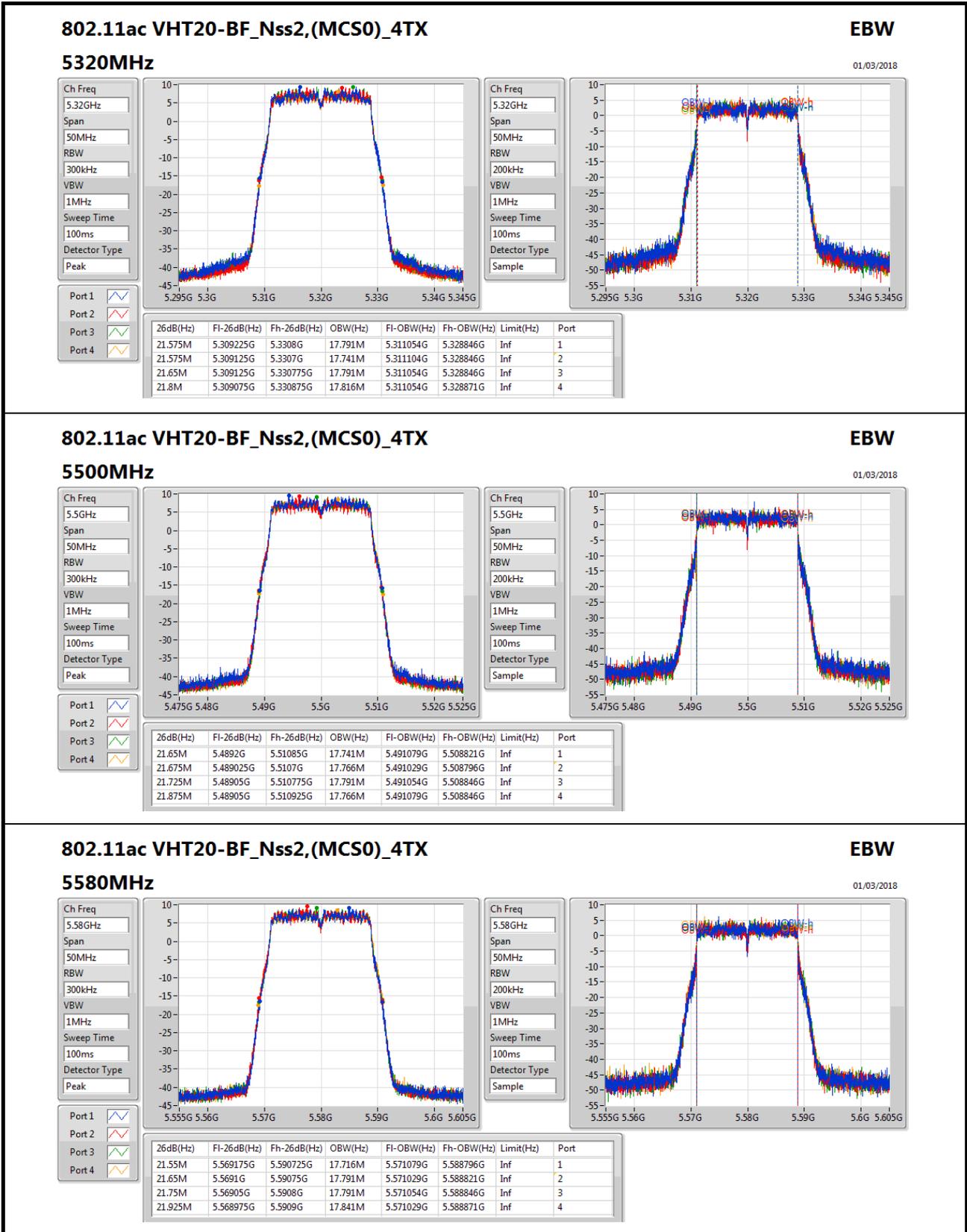
Detector Type: Sample

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.1M	5.64995G	5.69005G	37.481M	5.651159G	5.688641G	Inf	1
40M	5.65G	5.69G	37.681M	5.651109G	5.688791G	Inf	2
40.2M	5.6499G	5.6901G	37.531M	5.651159G	5.688691G	Inf	3
40.2M	5.6498G	5.69G	37.481M	5.651209G	5.688691G	Inf	4








**802.11ac VHT20-BF\_Nss2,(MCS0)\_4TX**
**EBW**

01/03/2018

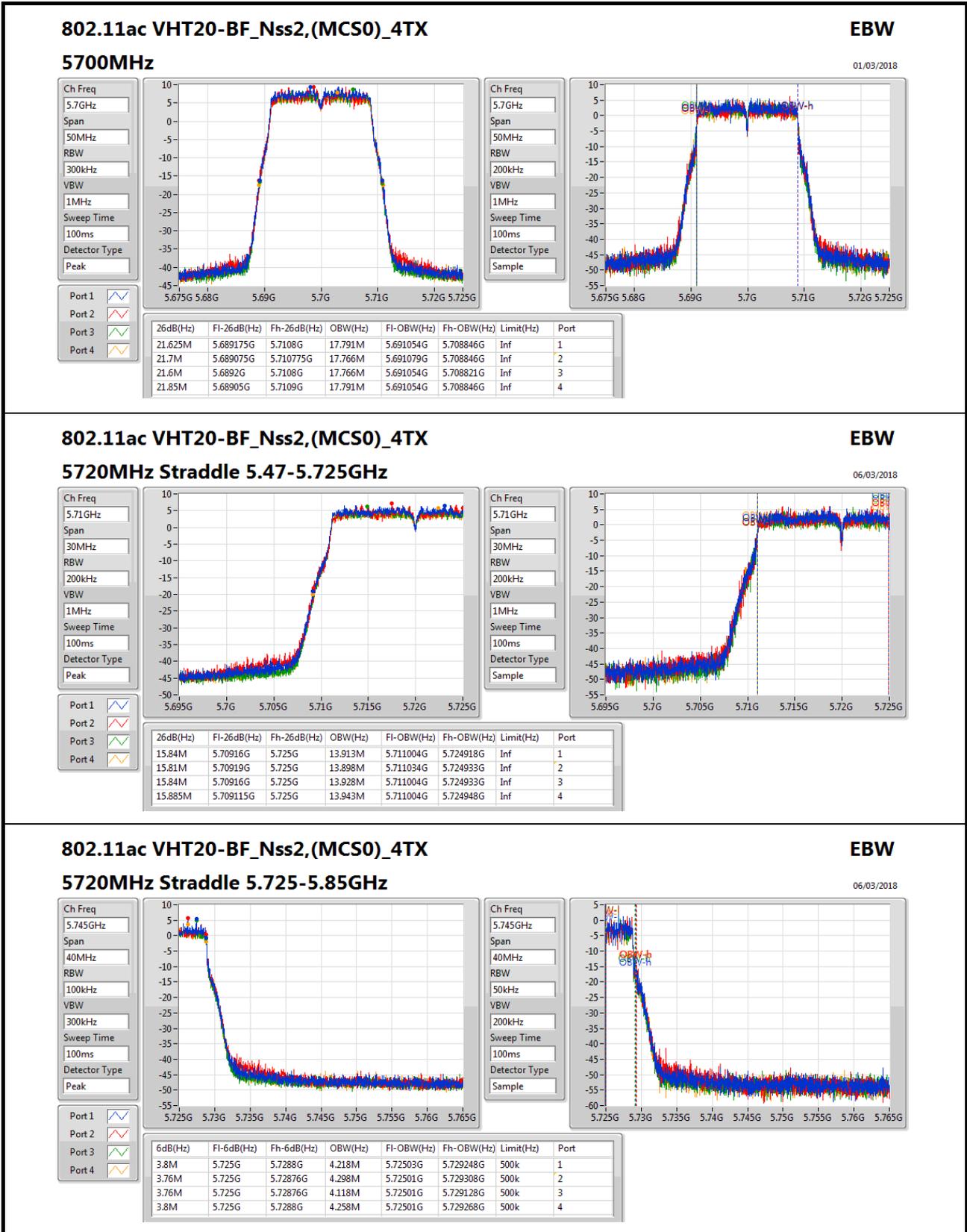
**5580MHz**

Ch Freq: 5.58GHz  
Span: 50MHz  
RBW: 300kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Peak

Port 1: [Waveform]  
Port 2: [Waveform]  
Port 3: [Waveform]  
Port 4: [Waveform]

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.55M	5.569175G	5.590725G	17.716M	5.571079G	5.588796G	Inf	1
21.65M	5.5691G	5.59075G	17.791M	5.571029G	5.588821G	Inf	2
21.75M	5.56905G	5.5908G	17.791M	5.571054G	5.588846G	Inf	3
21.925M	5.568975G	5.5909G	17.841M	5.571029G	5.588871G	Inf	4

Ch Freq: 5.58GHz  
Span: 50MHz  
RBW: 200kHz  
VBW: 1MHz  
Sweep Time: 100ms  
Detector Type: Sample


**802.11ac VHT20-BF\_Nss2,(MCS0)\_4TX**
**EBW**
**5720MHz Straddle 5.725-5.85GHz**
06/03/2018

Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 100kHz  
VBW: 300kHz  
Sweep Time: 100ms  
Detector Type: Peak

Port 1: [Waveform]  
Port 2: [Waveform]  
Port 3: [Waveform]  
Port 4: [Waveform]

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.8M	5.725G	5.7288G	4.218M	5.72503G	5.729248G	500k	1
3.76M	5.725G	5.72876G	4.298M	5.72501G	5.729308G	500k	2
3.76M	5.725G	5.72876G	4.118M	5.72501G	5.729128G	500k	3
3.8M	5.725G	5.7288G	4.258M	5.72501G	5.729268G	500k	4

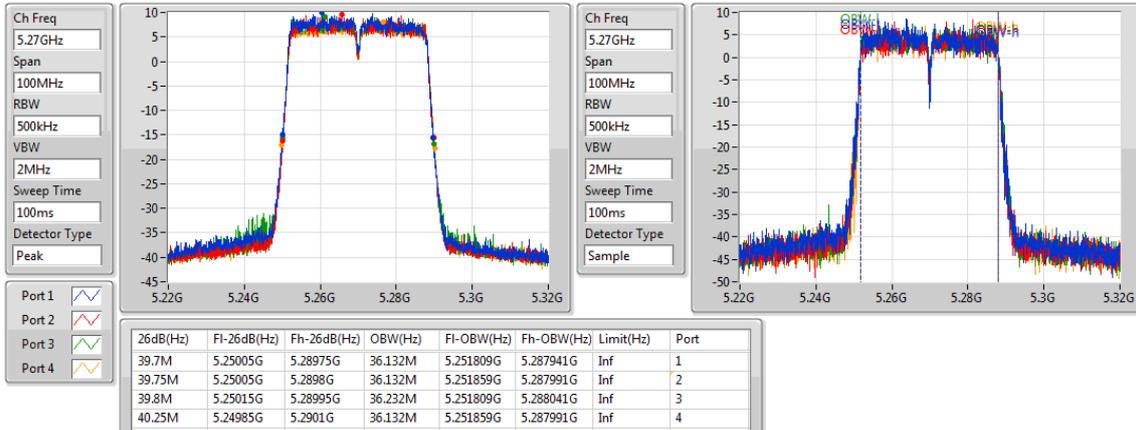
Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 50kHz  
VBW: 200kHz  
Sweep Time: 100ms  
Detector Type: Sample

**802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX**

**EBW**

**5270MHz**

01/03/2018

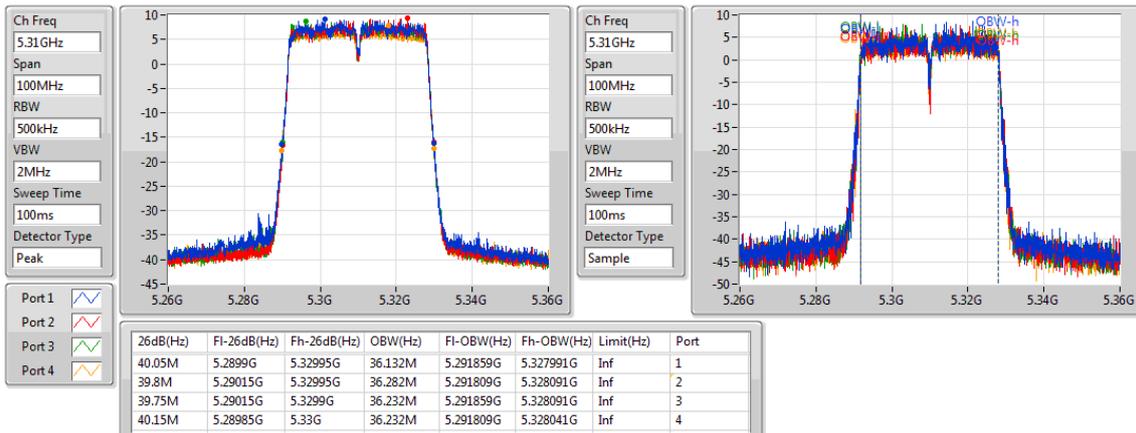


**802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX**

**EBW**

**5310MHz**

01/03/2018



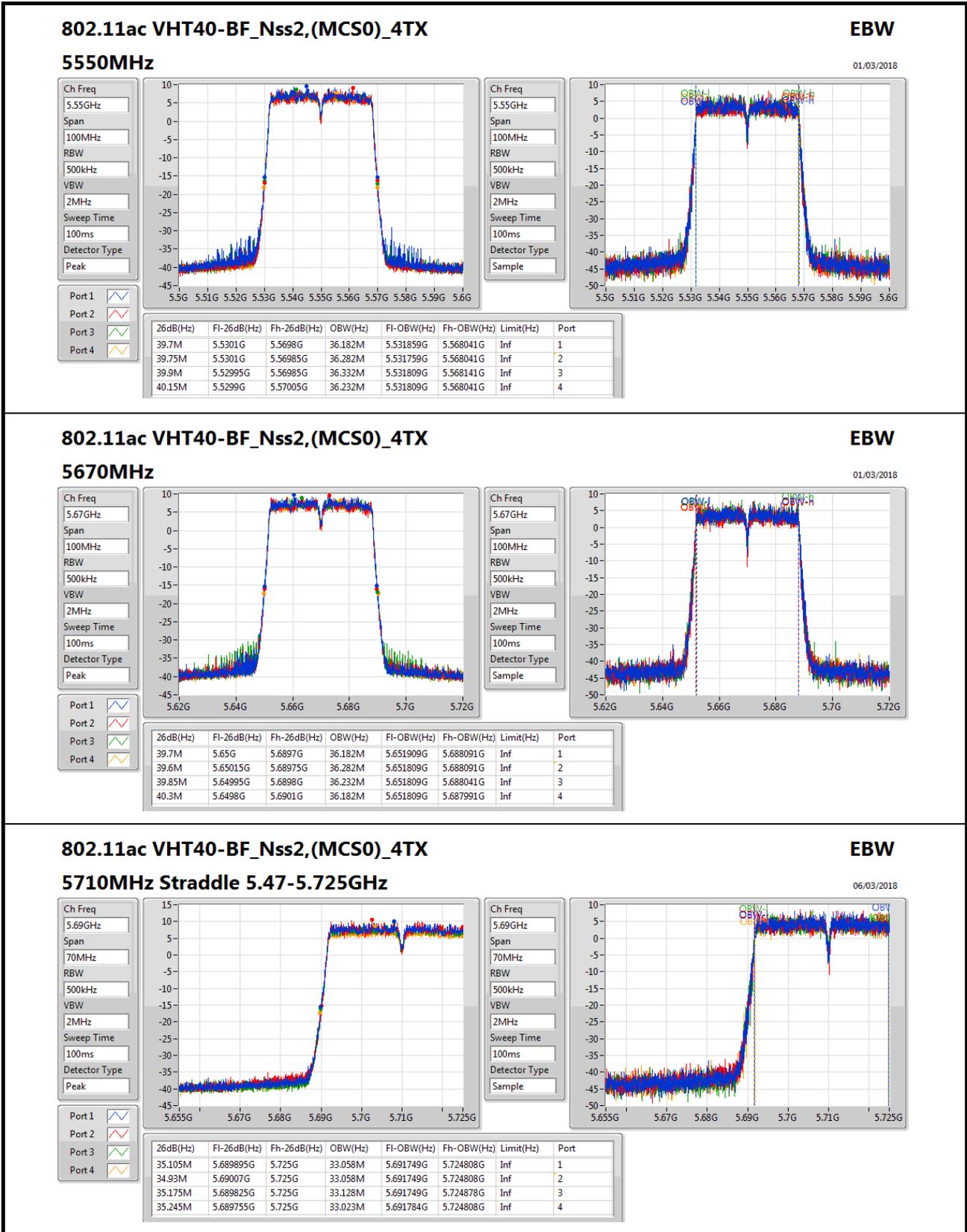
**802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX**

**EBW**

**5510MHz**

01/03/2018




**802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX**
**EBW**

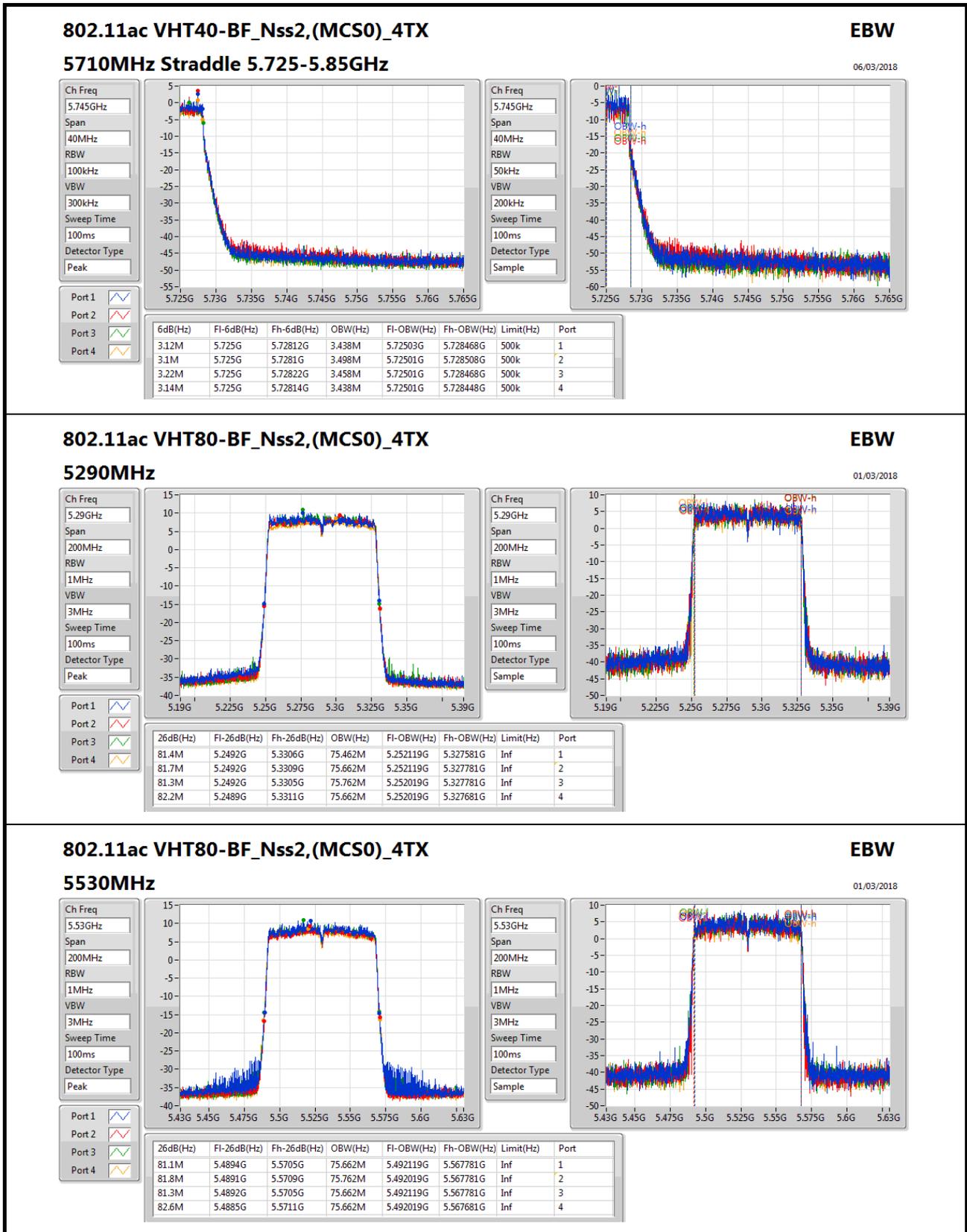
06/03/2018

**5710MHz Straddle 5.47-5.725GHz**

Ch Freq: 5.69GHz  
Span: 70MHz  
RBW: 500kHz  
VBW: 2MHz  
Sweep Time: 100ms  
Detector Type: Peak

Ch Freq: 5.69GHz  
Span: 70MHz  
RBW: 500kHz  
VBW: 2MHz  
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
35.105M	5.689895G	5.725G	33.058M	5.691749G	5.724808G	Inf	1
34.93M	5.69007G	5.725G	33.058M	5.691749G	5.724808G	Inf	2
35.175M	5.689825G	5.725G	33.128M	5.691749G	5.724878G	Inf	3
35.245M	5.689755G	5.725G	33.023M	5.691784G	5.724808G	Inf	4



### 802.11ac VHT80-BF\_Nss2,(MCS0)\_4TX

#### 5530MHz

01/03/2018

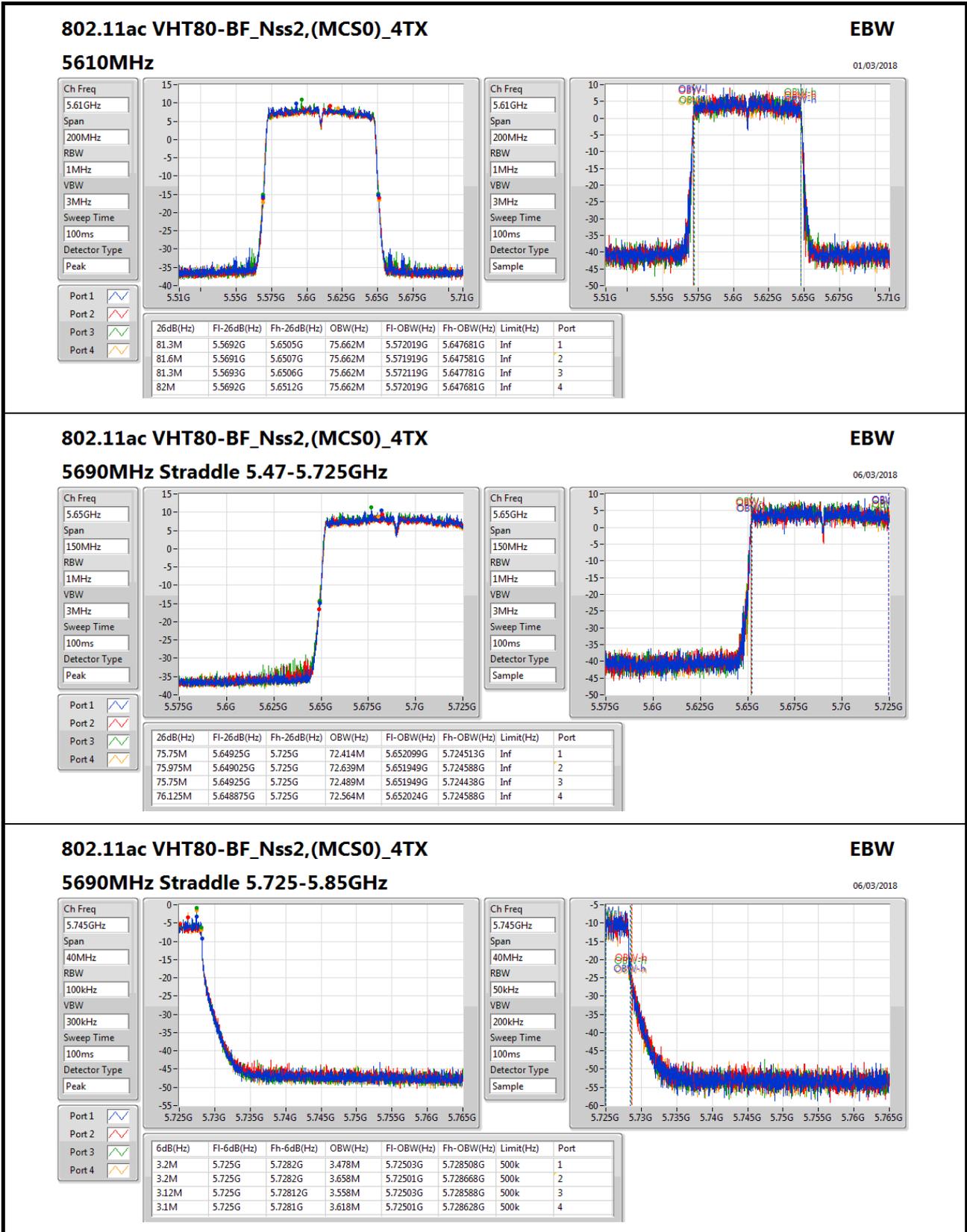
**EBW**

Ch Freq: 5.53GHz  
Span: 200MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Peak

Port 1: [Blue]  
Port 2: [Red]  
Port 3: [Green]  
Port 4: [Orange]

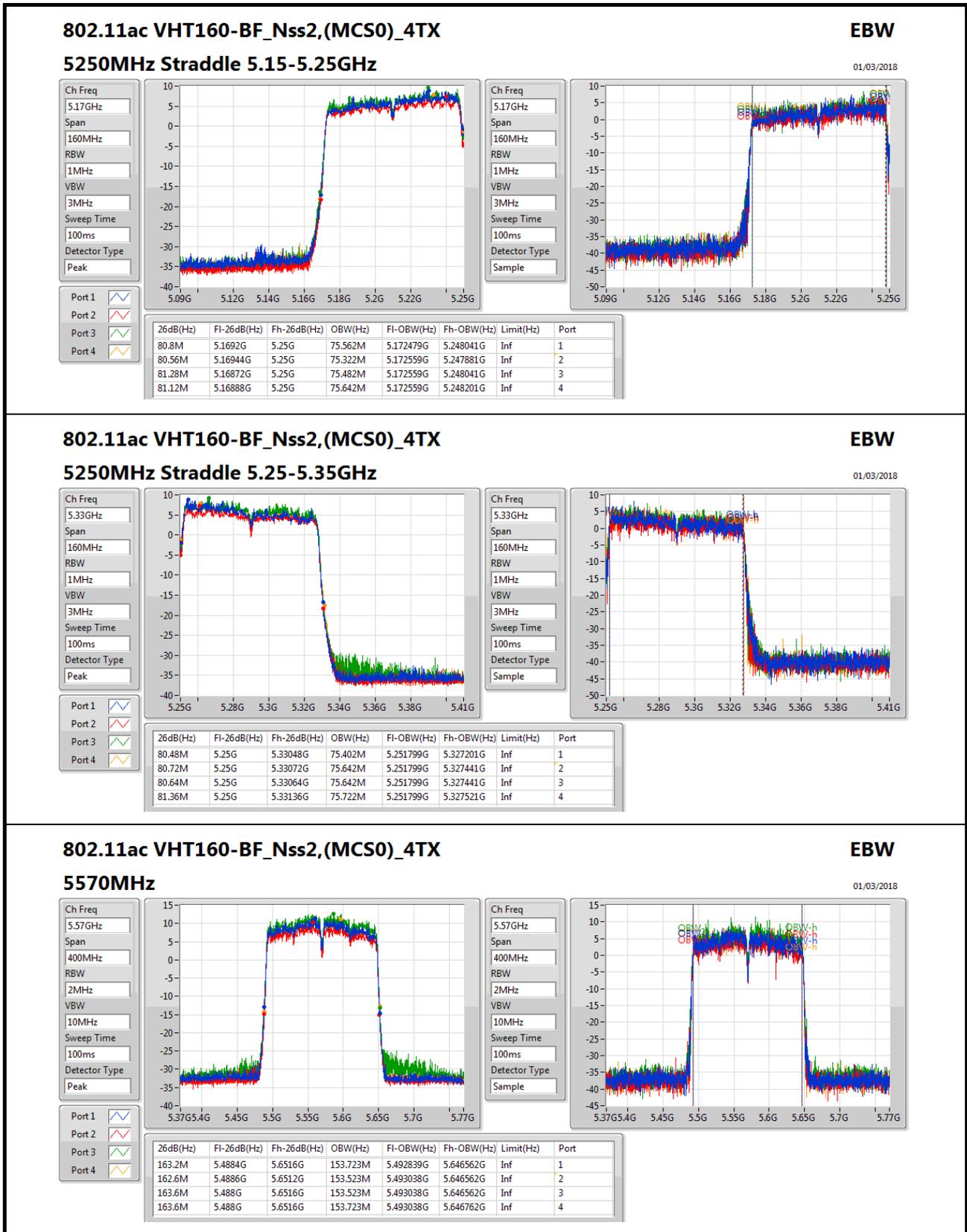
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.1M	5.4894G	5.5705G	75.662M	5.492119G	5.567781G	Inf	1
81.8M	5.4891G	5.5709G	75.762M	5.492019G	5.567781G	Inf	2
81.3M	5.4892G	5.5705G	75.662M	5.492119G	5.567781G	Inf	3
82.6M	5.4885G	5.5711G	75.662M	5.492019G	5.567681G	Inf	4

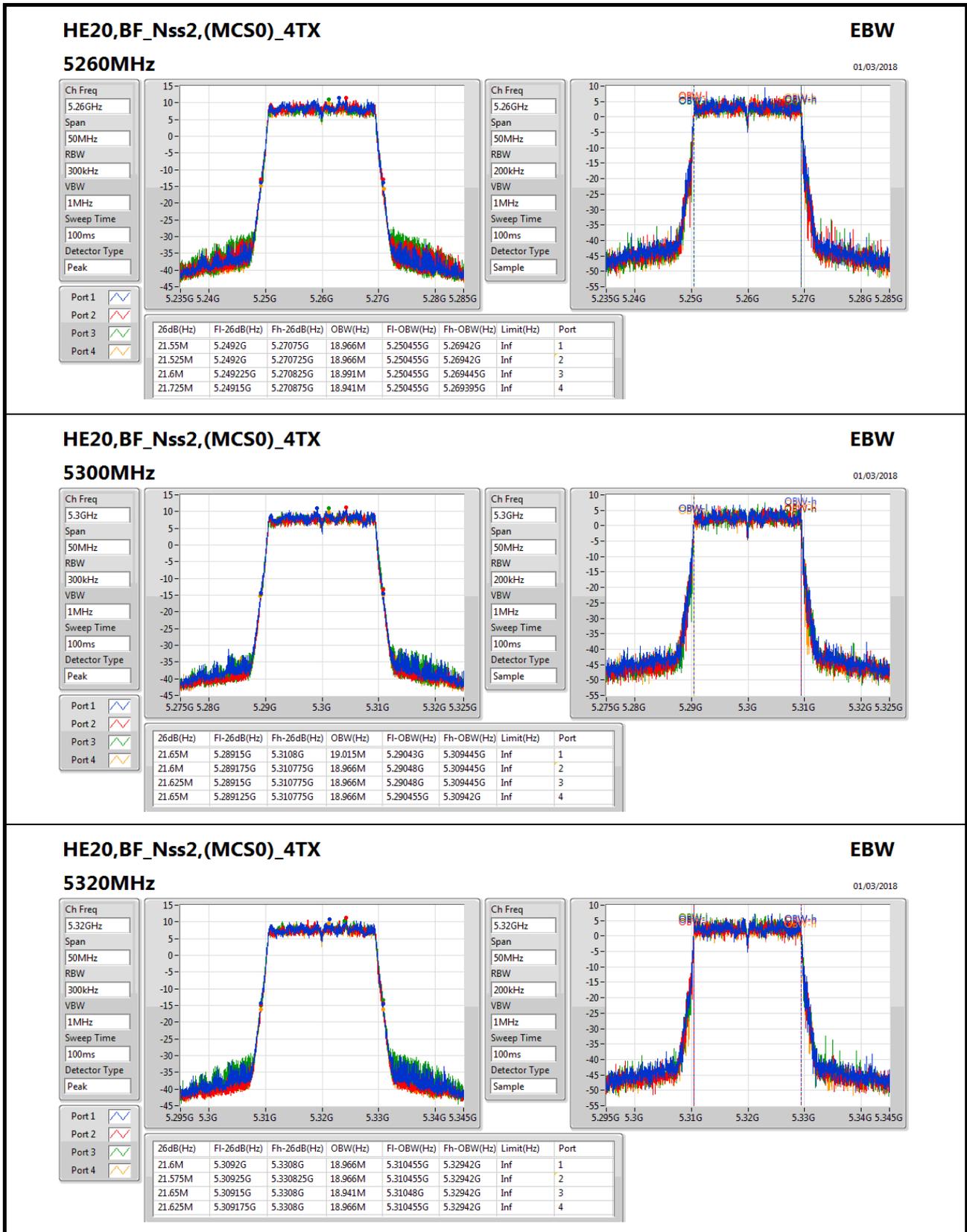
Ch Freq: 5.53GHz  
Span: 200MHz  
RBW: 1MHz  
VBW: 3MHz  
Sweep Time: 100ms  
Detector Type: Sample

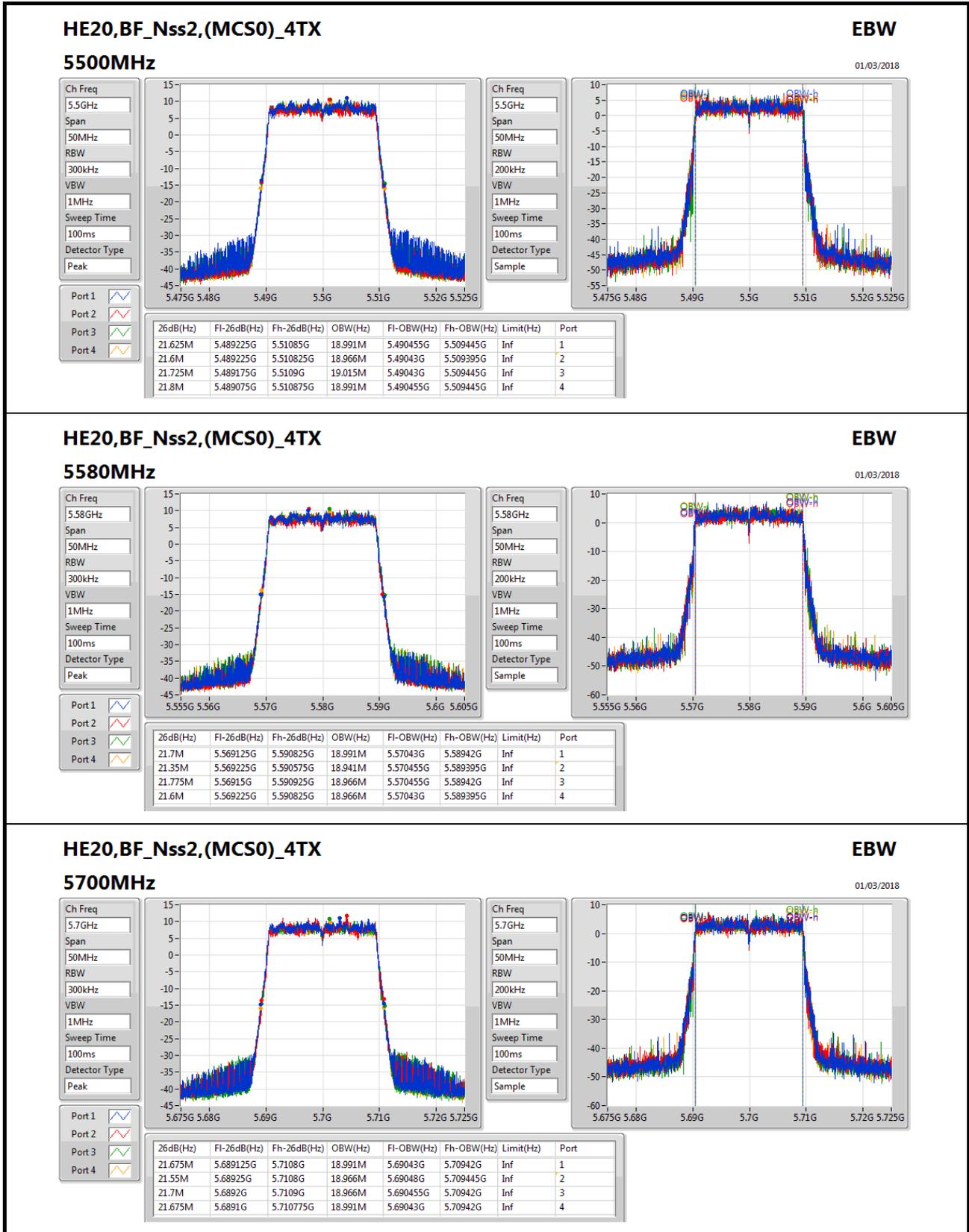

**802.11ac VHT80-BF\_Nss2,(MCS0)\_4TX**
**EBW**
**5690MHz Straddle 5.725-5.85GHz**
06/03/2018

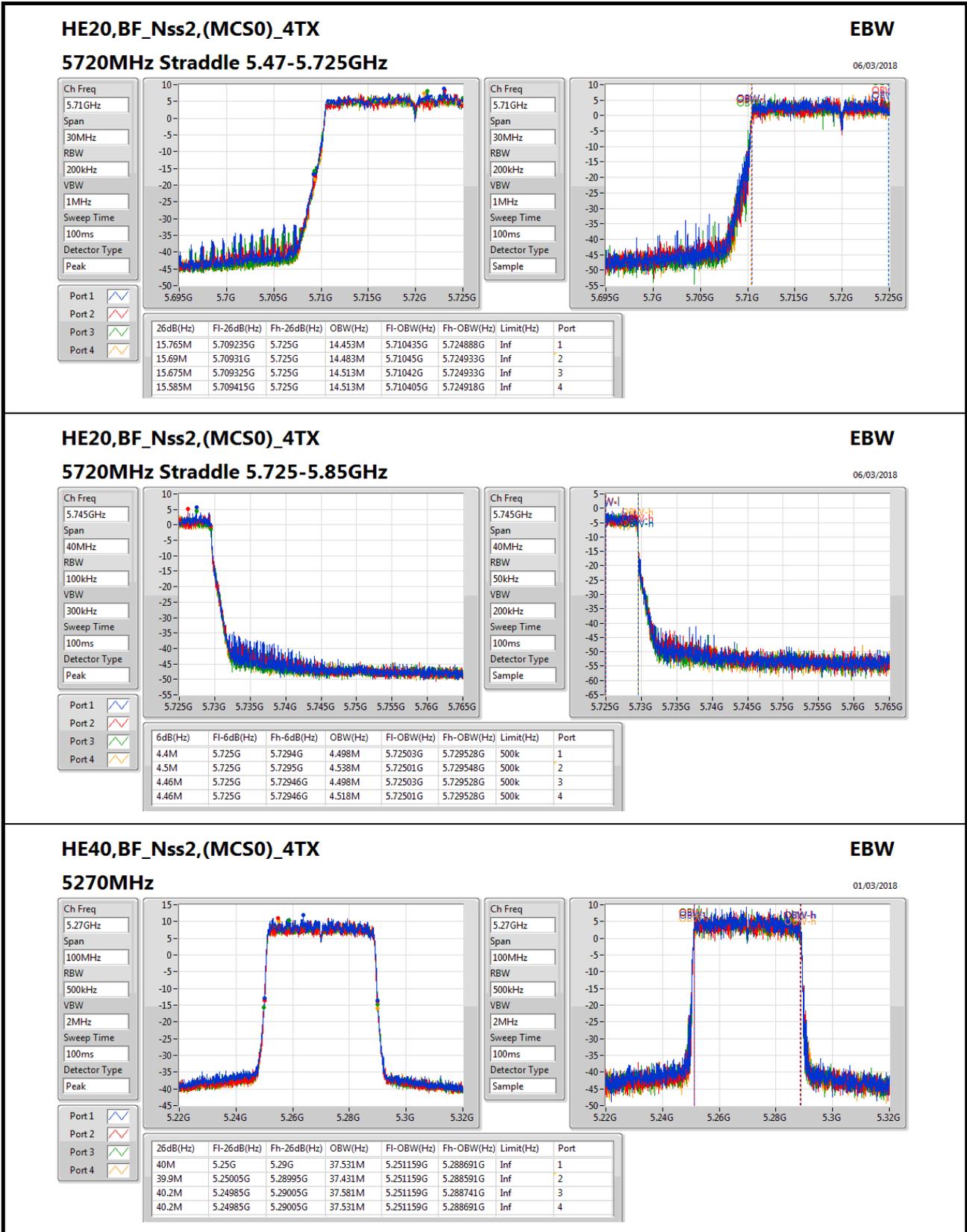
Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 100kHz  
VBW: 300kHz  
Sweep Time: 100ms  
Detector Type: Peak

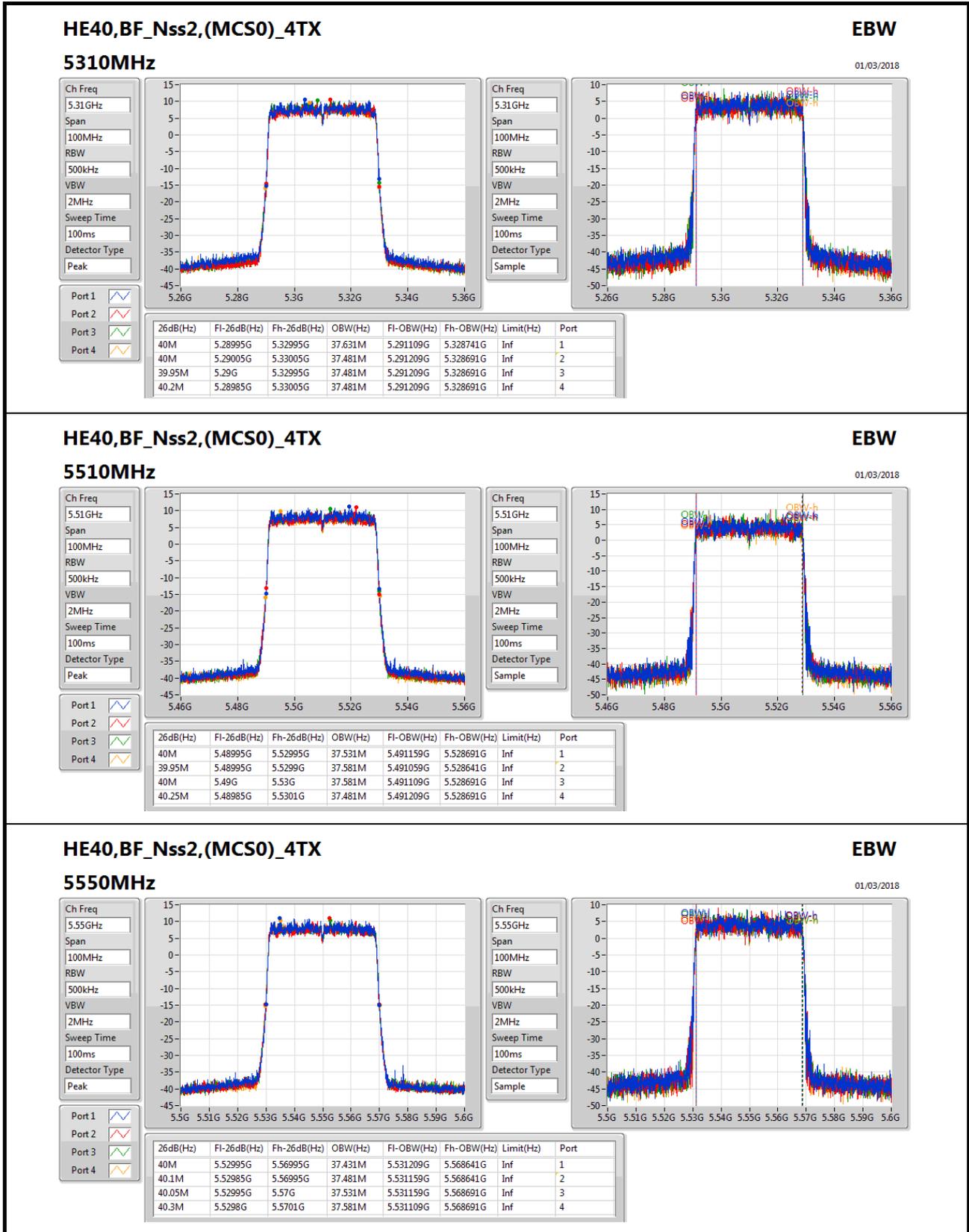
Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 50kHz  
VBW: 200kHz  
Sweep Time: 100ms  
Detector Type: Sample










**HE40,BF\_Nss2,(MCS0)\_4TX**
**EBW**

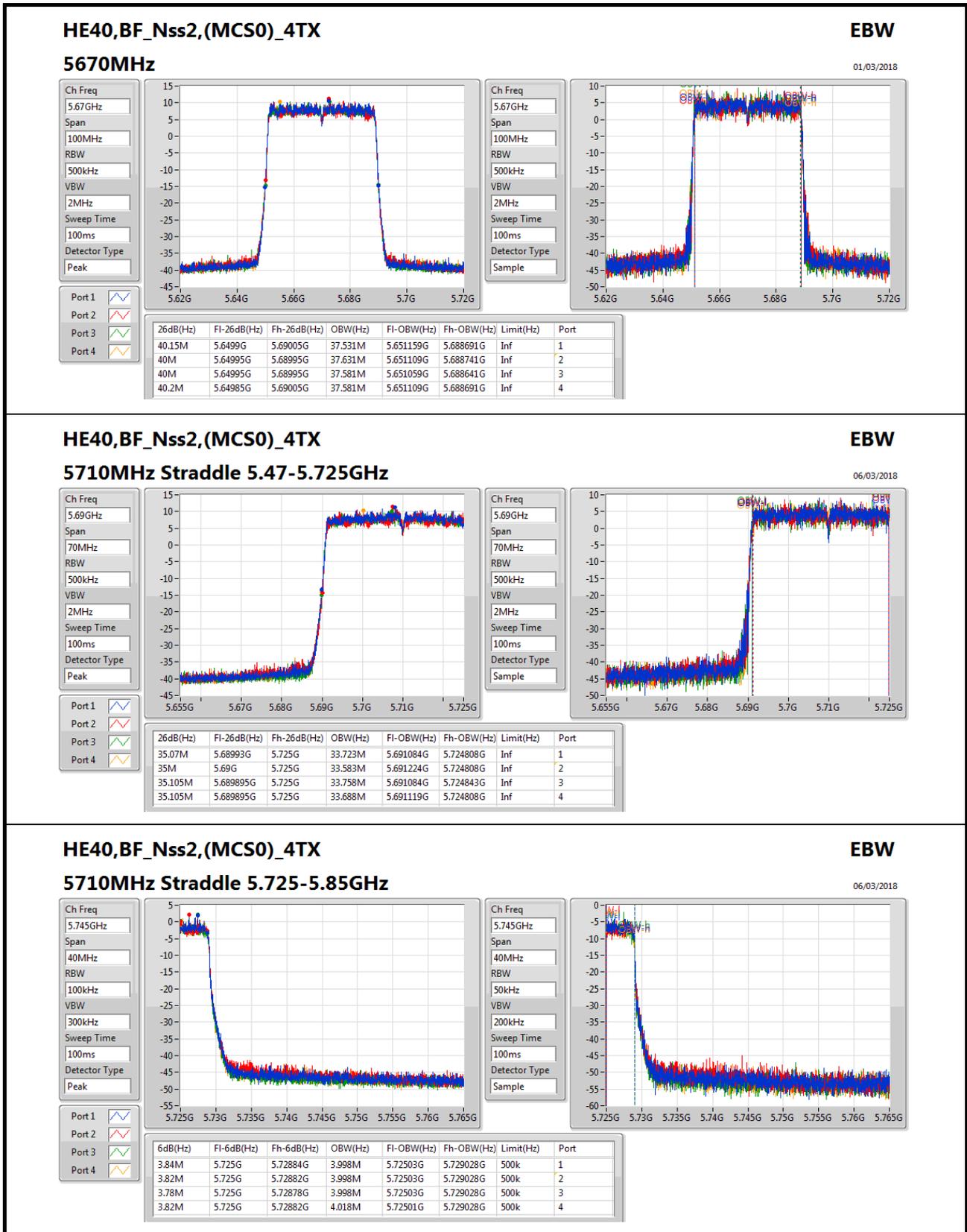
01/03/2018

**5550MHz**

Ch Freq: 5.55GHz  
Span: 100MHz  
RBW: 500kHz  
VBW: 2MHz  
Sweep Time: 100ms  
Detector Type: Peak

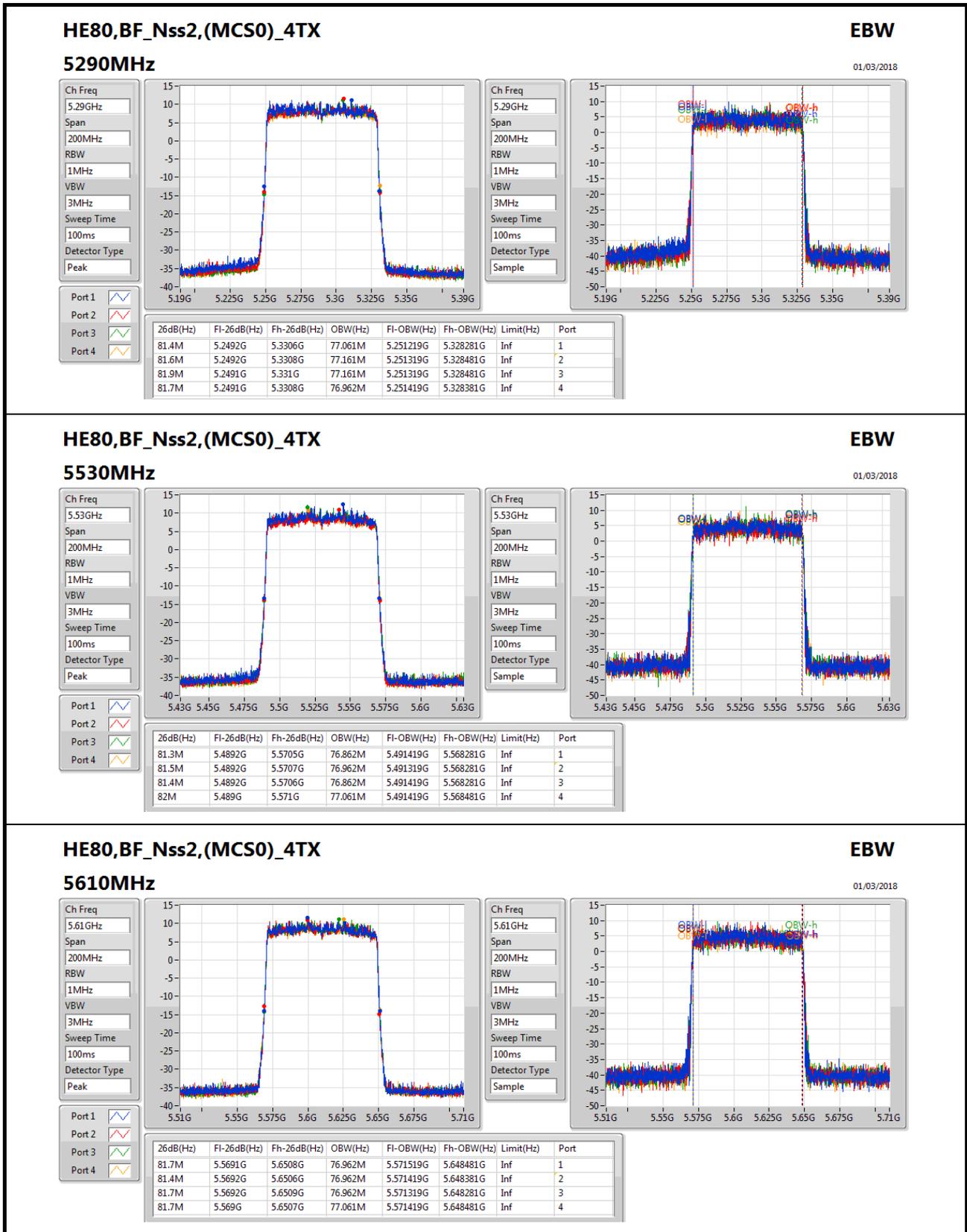
Ch Freq: 5.55GHz  
Span: 100MHz  
RBW: 500kHz  
VBW: 2MHz  
Sweep Time: 100ms  
Detector Type: Sample

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40M	5.52995G	5.56995G	37.431M	5.531209G	5.568641G	Inf	1
40.1M	5.52985G	5.56995G	37.481M	5.531159G	5.568641G	Inf	2
40.05M	5.52995G	5.57G	37.531M	5.531159G	5.568691G	Inf	3
40.3M	5.5298G	5.5701G	37.581M	5.531109G	5.568691G	Inf	4


**HE40,BF\_Nss2,(MCS0)\_4TX**
**EBW**
**5710MHz Straddle 5.725-5.85GHz**
06/03/2018

Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 100kHz  
VBW: 300kHz  
Sweep Time: 100ms  
Detector Type: Peak

Ch Freq: 5.745GHz  
Span: 40MHz  
RBW: 50kHz  
VBW: 200kHz  
Sweep Time: 100ms  
Detector Type: Sample


**HE80,BF\_Nss2,(MCS0)\_4TX**
**EBW**

01/03/2018

**5610MHz**

Ch Freq: 5.61GHz

Span: 200MHz

RBW: 1MHz

VBW: 3MHz

Sweep Time: 100ms

Detector Type: Peak

Port 1: [Waveform]

Port 2: [Waveform]

Port 3: [Waveform]

Port 4: [Waveform]

Ch Freq: 5.61GHz

Span: 200MHz

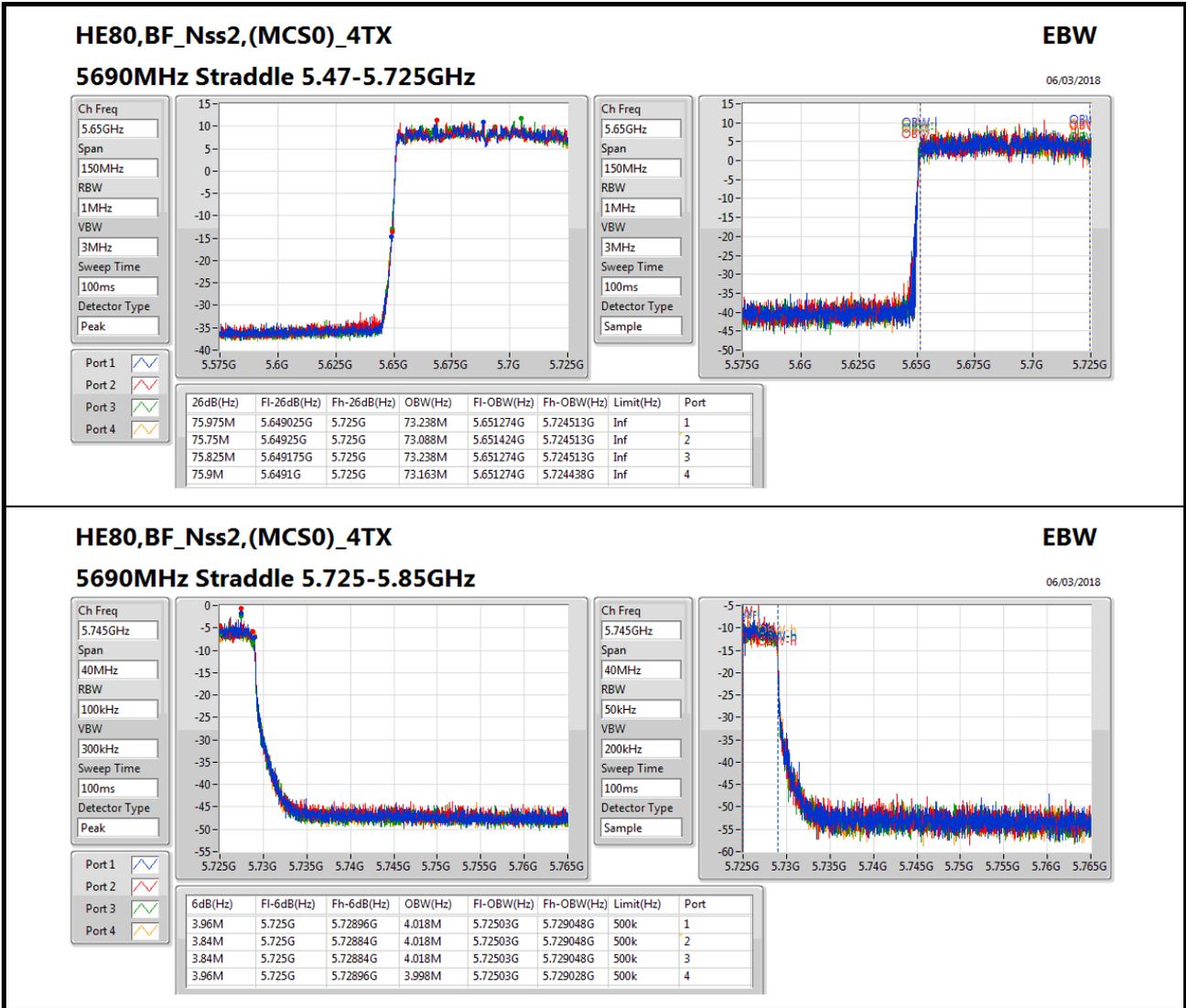
RBW: 1MHz

VBW: 3MHz

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
81.7M	5.5691G	5.6508G	76.962M	5.571519G	5.648481G	Inf	1
81.4M	5.5692G	5.6506G	76.962M	5.571419G	5.648381G	Inf	2
81.7M	5.5692G	5.6509G	76.962M	5.571319G	5.648281G	Inf	3
81.7M	5.569G	5.6507G	77.061M	5.571419G	5.648481G	Inf	4





**Summary**

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11ac VHT160_Nss1,(MCS0)_4TX	19.96	0.09908
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	21.57	0.14355
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	21.77	0.15031
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	21.95	0.15668
802.11ac VHT20_Nss1,(MCS0)_4TX	21.86	0.15346
802.11ac VHT40_Nss1,(MCS0)_4TX	23.97	0.24946
802.11ac VHT80_Nss1,(MCS0)_4TX	23.95	0.24831
802.11ac VHT160_Nss1,(MCS0)_4TX	19.94	0.09863
HE20_Nss1,(MCS0)_4TX	22.08	0.16144
HE40_Nss1,(MCS0)_4TX	23.91	0.24604
HE80_Nss1,(MCS0)_4TX	23.86	0.24322
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21.61	0.14488
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	21.50	0.14125
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	21.51	0.14158
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	21.41	0.13836
HE20,BF_Nss1,(MCS0)_4TX	21.60	0.14454
HE40,BF_Nss1,(MCS0)_4TX	21.57	0.14355
HE80,BF_Nss1,(MCS0)_4TX	21.47	0.14028
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	23.96	0.24889
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	23.96	0.24889
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	23.87	0.24378
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	21.63	0.14555
HE20,BF_Nss2,(MCS0)_4TX	23.96	0.24889
HE40,BF_Nss2,(MCS0)_4TX	23.94	0.24774
HE80,BF_Nss2,(MCS0)_4TX	23.82	0.24099
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	21.80	0.15136
802.11ac VHT20_Nss1,(MCS0)_4TX	21.90	0.15488
802.11ac VHT40_Nss1,(MCS0)_4TX	23.94	0.24774
802.11ac VHT80_Nss1,(MCS0)_4TX	23.94	0.24774
802.11ac VHT160_Nss1,(MCS0)_4TX	23.80	0.23988
HE20_Nss1,(MCS0)_4TX	22.51	0.17824
HE40_Nss1,(MCS0)_4TX	23.93	0.24717
HE80_Nss1,(MCS0)_4TX	23.92	0.24660
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	21.53	0.14223
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	21.56	0.14322
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	21.59	0.14421
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	21.56	0.14322
HE20,BF_Nss1,(MCS0)_4TX	21.49	0.14093
HE40,BF_Nss1,(MCS0)_4TX	21.59	0.14421
HE80,BF_Nss1,(MCS0)_4TX	21.59	0.14421
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	23.93	0.24717



Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	23.86	0.24322
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	23.89	0.24491
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	23.85	0.24266
HE20,BF_Nss2,(MCS0)_4TX	23.96	0.24889
HE40,BF_Nss2,(MCS0)_4TX	23.96	0.24889
HE80,BF_Nss2,(MCS0)_4TX	23.95	0.24831
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	14.42	0.02767
802.11ac VHT20_Nss1,(MCS0)_4TX	14.84	0.03048
802.11ac VHT40_Nss1,(MCS0)_4TX	13.33	0.02153
802.11ac VHT80_Nss1,(MCS0)_4TX	9.09	0.00811
HE20_Nss1,(MCS0)_4TX	15.55	0.03589
HE40_Nss1,(MCS0)_4TX	13.69	0.02339
HE80_Nss1,(MCS0)_4TX	9.97	0.00993
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	14.03	0.02529
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	10.55	0.01135
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	6.47	0.00444
HE20,BF_Nss1,(MCS0)_4TX	14.91	0.03097
HE40,BF_Nss1,(MCS0)_4TX	11.37	0.01371
HE80,BF_Nss1,(MCS0)_4TX	7.47	0.00558
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	16.91	0.04909
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	13.19	0.02084
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	8.98	0.00791
HE20,BF_Nss2,(MCS0)_4TX	17.20	0.05248
HE40,BF_Nss2,(MCS0)_4TX	13.58	0.02280
HE80,BF_Nss2,(MCS0)_4TX	9.60	0.00912



**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	2.33	15.57	16.06	15.47	15.44	21.66	23.98
5300MHz	Pass	2.33	15.53	15.98	16.07	15.58	21.82	23.98
5320MHz	Pass	2.33	16.06	15.7	16.19	15.76	21.95	23.98
5500MHz	Pass	2.35	15.5	15.42	15.55	15.92	21.62	23.98
5580MHz	Pass	2.35	15.59	15.52	15.59	15.4	21.55	23.98
5700MHz	Pass	2.35	15.41	15.94	16.05	15.67	21.80	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	2.35	14.64	14.60	14.29	14.42	20.51	22.91
5720MHz Straddle 5.725-5.85GHz	Pass	1.94	8.97	8.86	7.77	7.85	14.42	30.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	2.33	15.59	16.4	15.69	15.64	21.86	23.98
5300MHz	Pass	2.33	15.49	15.99	16.04	15.75	21.84	23.98
5320MHz	Pass	2.33	16.04	15.42	15.82	15.76	21.79	23.98
5500MHz	Pass	2.35	15.71	15.6	15.73	16.04	21.79	23.98
5580MHz	Pass	2.35	15.89	15.65	15.6	15.69	21.73	23.98
5700MHz	Pass	2.35	15.53	16.31	16.01	15.63	21.90	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	2.35	14.99	14.84	14.58	14.28	20.70	22.97
5720MHz Straddle 5.725-5.85GHz	Pass	1.94	9.47	8.79	8.60	8.33	14.84	30.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	2.33	17.79	18.14	18.27	17.56	23.97	23.98
5310MHz	Pass	2.33	17.73	17.96	18.09	17.96	23.96	23.98
5510MHz	Pass	2.35	17.82	17.78	17.87	17.6	23.79	23.98
5550MHz	Pass	2.35	18.3	18.28	17.58	17.39	23.93	23.98
5670MHz	Pass	2.35	17.88	17.95	17.77	17.68	23.84	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	2.35	17.99	18.03	17.84	17.80	23.94	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	1.94	7.69	7.13	7.38	7.02	13.33	30.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	2.33	18.03	17.72	17.82	18.14	23.95	23.98
5530MHz	Pass	2.35	17.88	17.74	17.83	18.16	23.93	23.98
5610MHz	Pass	2.35	17.8	18.04	17.95	17.89	23.94	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	2.35	17.75	17.93	17.92	17.61	23.83	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	1.94	3.38	2.97	2.99	2.94	9.09	30.00
802.11ac VHT160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	2.33	13.89	12.86	14.58	14.23	19.96	30.00
5250MHz Straddle 5.25-5.35GHz	Pass	2.33	13.66	13.15	14.49	14.26	19.94	23.98
5570MHz	Pass	2.35	17.74	17.81	17.9	17.68	23.80	23.98
HE20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	2.33	15.65	16.15	15.88	15.74	21.88	23.98
5300MHz	Pass	2.33	15.87	16.28	16.4	15.63	22.08	23.98
5320MHz	Pass	2.33	15.67	16.21	16.26	16.03	22.07	23.98
5500MHz	Pass	2.35	16.89	16.55	16.22	16.26	22.51	23.98
5580MHz	Pass	2.35	15.99	16.16	15.94	16.29	22.12	23.98
5700MHz	Pass	2.35	15.8	16.14	16.15	16.02	22.05	23.98



Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
5720MHz Straddle 5.47-5.725GHz	Pass	2.35	15.45	14.96	14.78	14.43	20.94	22.93
5720MHz Straddle 5.725-5.85GHz	Pass	1.94	9.96	9.67	9.38	9.07	15.55	30.00
HE40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	2.33	18.11	17.86	17.79	17.8	23.91	23.98
5310MHz	Pass	2.33	18.25	17.87	17.74	17.63	23.90	23.98
5510MHz	Pass	2.35	18.28	17.97	17.4	17.93	23.93	23.98
5550MHz	Pass	2.35	17.55	17.93	17.84	17.84	23.81	23.98
5670MHz	Pass	2.35	18.1	17.73	17.6	17.73	23.81	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	2.35	17.92	17.63	17.49	17.51	23.66	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	1.94	8.12	7.44	7.54	7.54	13.69	30.00
HE80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	2.33	18.06	17.66	17.77	17.85	23.86	23.98
5530MHz	Pass	2.35	17.63	18.13	17.32	17.89	23.77	23.98
5610MHz	Pass	2.35	17.78	17.92	17.54	17.98	23.83	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	2.35	17.99	17.91	17.91	17.79	23.92	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	1.94	4.13	3.86	3.91	3.90	9.97	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	8.35	15.63	15.72	15.58	15.04	21.52	21.63
5300MHz	Pass	8.35	15.81	15.62	15.45	15.01	21.50	21.63
5320MHz	Pass	8.35	15.96	15.58	15.66	15.12	21.61	21.63
5500MHz	Pass	8.37	15.73	15.36	15.59	15.15	21.48	21.61
5580MHz	Pass	8.37	15.68	15.33	15.68	15.34	21.53	21.61
5700MHz	Pass	8.37	15.82	15.27	15.43	15.17	21.45	21.61
5720MHz Straddle 5.47-5.725GHz	Pass	8.37	14.77	14.54	14.29	14.00	20.43	20.61
5720MHz Straddle 5.725-5.85GHz	Pass	7.96	8.44	7.99	7.80	7.78	14.03	28.04
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	8.35	15.88	15.49	15.34	15.13	21.49	21.63
5310MHz	Pass	8.35	15.67	15.51	15.45	15.26	21.50	21.63
5510MHz	Pass	8.37	15.82	15.38	15.54	15.29	21.53	21.61
5550MHz	Pass	8.37	15.64	15.25	15.79	15.45	21.56	21.61
5670MHz	Pass	8.37	15.67	15.31	15.57	15.55	21.55	21.61
5710MHz Straddle 5.47-5.725GHz	Pass	8.37	15.83	15.54	15.43	15.29	21.55	21.61
5710MHz Straddle 5.725-5.85GHz	Pass	7.96	4.96	4.34	4.40	4.39	10.55	28.04
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	8.35	15.58	15.67	15.56	15.14	21.51	21.63
5530MHz	Pass	8.37	15.84	15.37	15.54	15.28	21.53	21.61
5610MHz	Pass	8.37	15.83	15.51	15.57	15.34	21.59	21.61
5690MHz Straddle 5.47-5.725GHz	Pass	8.37	15.53	15.37	15.47	15.50	21.49	21.61
5690MHz Straddle 5.725-5.85GHz	Pass	7.96	0.63	0.45	0.43	0.26	6.47	28.04
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	8.35	15.55	14.59	16.08	15.85	21.57	27.65
5250MHz Straddle 5.25-5.35GHz	Pass	8.35	15.05	14.53	15.98	15.84	21.41	21.63
5570MHz	Pass	8.37	15.47	14.29	16.72	15.35	21.56	21.61

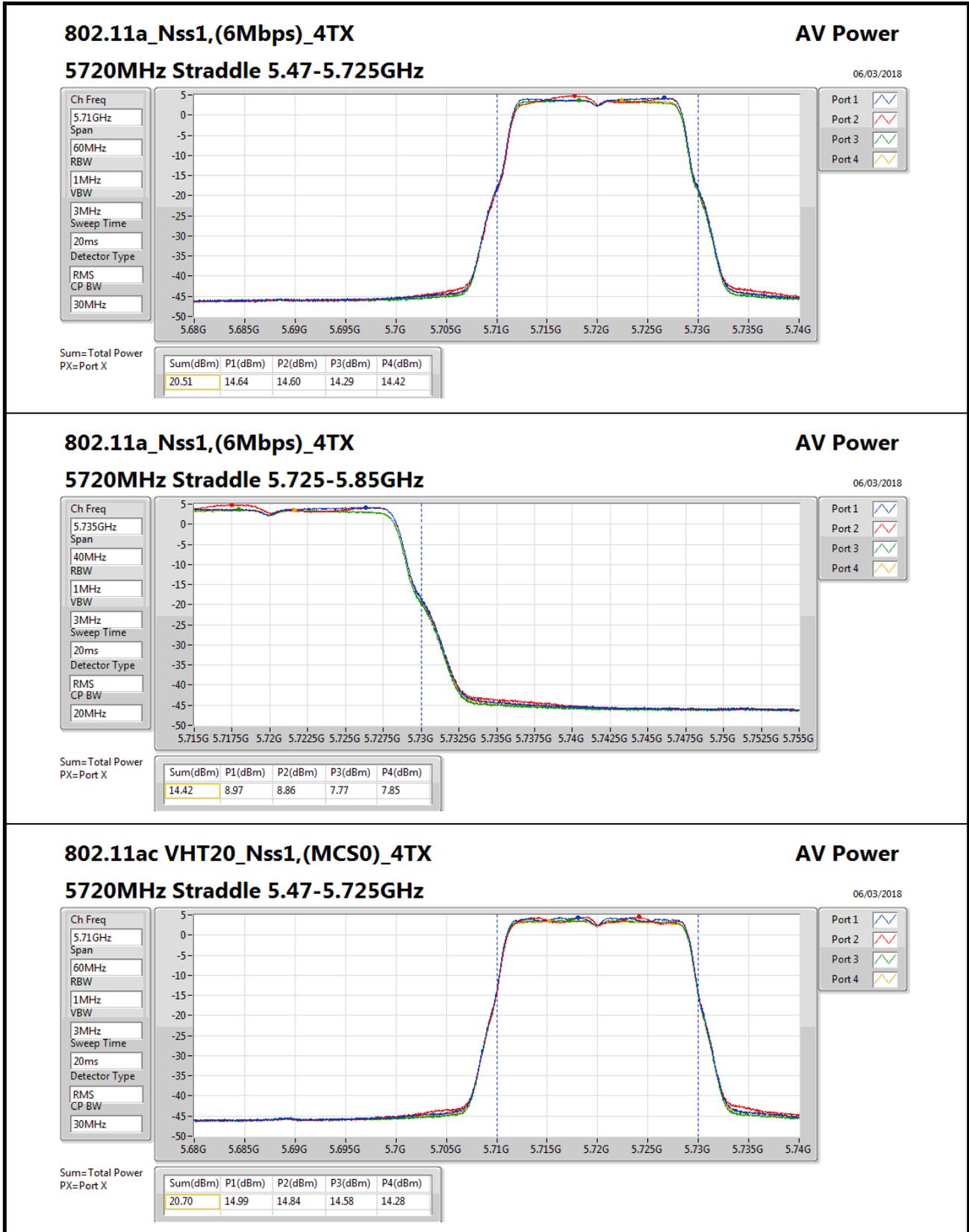


HE20,BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	8.35	15.61	15.78	15.52	15.32	21.58	21.63
5300MHz	Pass	8.35	15.76	15.74	15.59	15.21	21.60	21.63
5320MHz	Pass	8.35	15.64	15.56	15.62	15.09	21.50	21.63
5500MHz	Pass	8.37	15.61	15.22	15.58	15.34	21.46	21.61
5580MHz	Pass	8.37	15.79	15.18	15.45	15.42	21.49	21.61
5700MHz	Pass	8.37	15.75	15.37	15.41	15.15	21.45	21.61
5720MHz Straddle 5.47-5.725GHz	Pass	8.37	14.84	14.62	14.42	14.04	20.51	20.60
5720MHz Straddle 5.725-5.85GHz	Pass	7.96	9.32	9.02	8.77	8.40	14.91	28.04
HE40,BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	8.35	15.85	15.52	15.49	15.26	21.56	21.63
5310MHz	Pass	8.35	15.67	15.55	15.63	15.32	21.57	21.63
5510MHz	Pass	8.37	15.62	15.38	15.69	15.39	21.54	21.61
5550MHz	Pass	8.37	15.56	15.37	15.52	15.41	21.49	21.61
5670MHz	Pass	8.37	15.73	15.33	15.56	15.64	21.59	21.61
5710MHz Straddle 5.47-5.725GHz	Pass	8.37	15.77	15.53	15.42	15.44	21.56	21.61
5710MHz Straddle 5.725-5.85GHz	Pass	7.96	5.70	5.35	5.15	5.17	11.37	28.04
HE80,BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	8.35	15.57	15.54	15.46	15.23	21.47	21.63
5530MHz	Pass	8.37	15.92	15.31	15.76	15.25	21.59	21.61
5610MHz	Pass	8.37	15.68	15.38	15.63	15.42	21.55	21.61
5690MHz Straddle 5.47-5.725GHz	Pass	8.37	15.56	15.47	15.48	15.25	21.46	21.61
5690MHz Straddle 5.725-5.85GHz	Pass	7.96	1.67	1.35	1.42	1.34	7.47	28.04
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.34	18.21	18.13	17.87	17.45	23.95	23.98
5300MHz	Pass	5.34	18.04	18.08	18.10	17.53	23.96	23.98
5320MHz	Pass	5.34	18.12	17.74	18.16	17.67	23.95	23.98
5500MHz	Pass	5.36	18.03	17.72	18.05	17.83	23.93	23.98
5580MHz	Pass	5.36	17.94	17.63	18.09	17.86	23.90	23.98
5700MHz	Pass	5.36	18.29	17.85	17.58	17.35	23.80	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.36	17.16	16.97	16.46	16.29	22.76	22.99
5720MHz Straddle 5.725-5.85GHz	Pass	4.95	11.44	11.06	10.55	10.43	16.91	30.00
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	5.34	18.21	17.89	17.89	17.74	23.96	23.98
5310MHz	Pass	5.34	18.15	17.64	17.95	17.66	23.88	23.98
5510MHz	Pass	5.36	18.04	17.59	17.97	17.57	23.82	23.98
5550MHz	Pass	5.36	17.96	17.53	17.82	17.79	23.80	23.98
5670MHz	Pass	5.36	18.05	17.68	17.84	17.69	23.84	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.36	18.12	17.89	17.80	17.52	23.86	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	4.95	7.69	6.85	7.17	6.91	13.19	30.00
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	5.34	17.84	18.02	18.05	17.47	23.87	23.98
5530MHz	Pass	5.36	18.12	17.59	18.09	17.67	23.89	23.98
5610MHz	Pass	5.36	17.95	17.75	17.66	17.78	23.81	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.36	17.75	17.64	17.99	17.60	23.77	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	4.95	3.13	2.68	3.07	2.93	8.98	30.00



802.11ac VHT160-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	5.34	15.70	14.74	16.42	15.95	21.77	30.00
5250MHz Straddle 5.25-5.35GHz	Pass	5.34	15.51	14.66	16.11	16.00	21.63	23.98
5570MHz	Pass	5.36	17.65	16.48	19.17	17.58	23.85	23.98
HE20,BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.34	18.04	18.16	17.82	17.72	23.96	23.98
5300MHz	Pass	5.34	18.07	17.97	17.91	17.76	23.95	23.98
5320MHz	Pass	5.34	17.86	18.04	17.87	17.75	23.90	23.98
5500MHz	Pass	5.36	17.93	17.59	18.02	17.68	23.83	23.98
5580MHz	Pass	5.36	18.08	17.67	17.95	17.82	23.90	23.98
5700MHz	Pass	5.36	18.29	18.03	17.79	17.61	23.96	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.36	17.31	16.86	16.65	16.30	22.82	22.93
5720MHz Straddle 5.725-5.85GHz	Pass	4.95	11.75	11.28	10.97	10.65	17.20	30.00
HE40,BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	5.34	18.43	17.87	17.62	17.71	23.94	23.98
5310MHz	Pass	5.34	17.96	17.71	17.92	17.74	23.85	23.98
5510MHz	Pass	5.36	18.38	17.52	18.05	17.77	23.96	23.98
5550MHz	Pass	5.36	18.12	17.63	17.89	17.72	23.86	23.98
5670MHz	Pass	5.36	17.94	17.55	17.75	17.93	23.82	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.36	17.84	17.86	17.50	17.50	23.70	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	4.95	7.95	7.56	7.35	7.37	13.58	30.00
HE80,BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	5.34	17.81	17.85	17.88	17.64	23.82	23.98
5530MHz	Pass	5.36	18.17	17.72	18.21	17.55	23.94	23.98
5610MHz	Pass	5.36	18.09	18.13	17.95	17.53	23.95	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.36	17.72	17.62	17.67	17.54	23.66	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	4.95	3.87	3.59	3.46	3.39	9.60	30.00

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



**802.11ac VHT20\_Nss1,(MCS0)\_4TX**

**5720MHz Straddle 5.47-5.725GHz**

**AV Power**

06/03/2018

Ch Freq  
5.71GHz

Span  
60MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
30MHz

Port 1

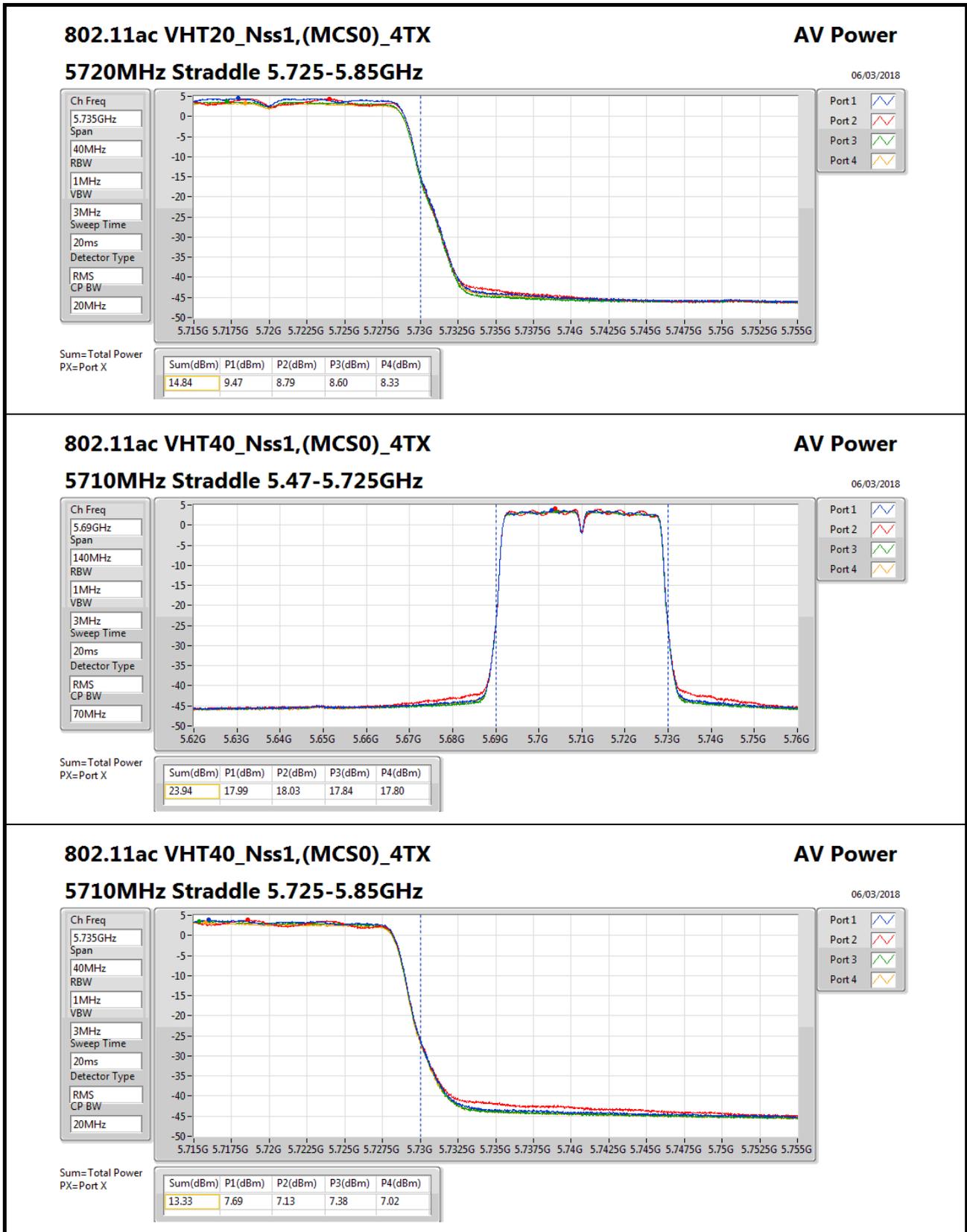
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
20.70	14.99	14.84	14.58	14.28



**802.11ac VHT40\_Nss1,(MCS0)\_4TX**

**5710MHz Straddle 5.725-5.85GHz**

**AV Power**

06/03/2018

Ch Freq  
5.735GHz

Span  
40MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
20MHz

Port 1

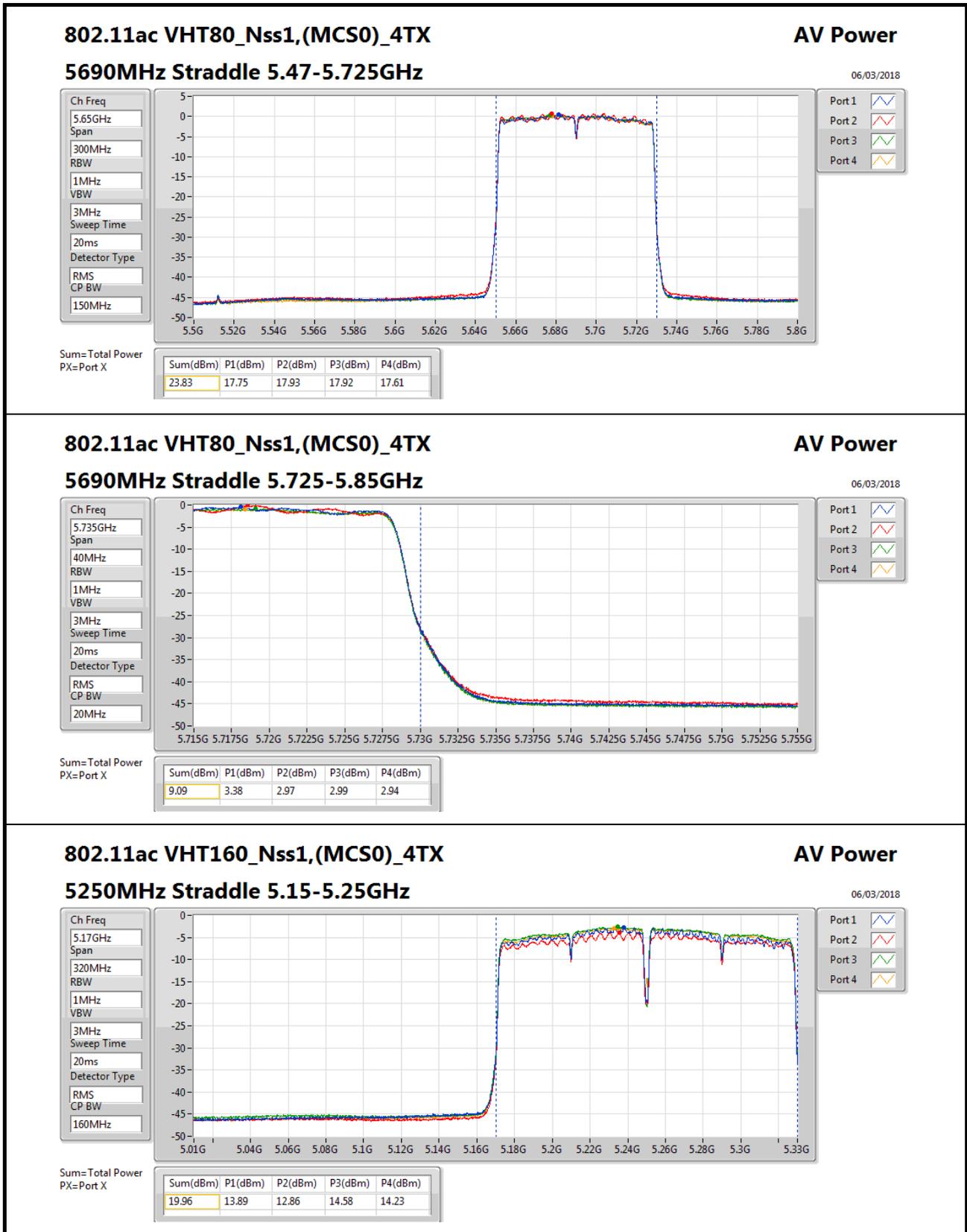
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
13.33	7.69	7.13	7.38	7.02



**802.11ac VHT160\_Nss1,(MCS0)\_4TX**

**5250MHz Straddle 5.15-5.25GHz**

**AV Power**

06/03/2018

Ch Freq  
5.17GHz

Span  
320MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
160MHz

Port 1

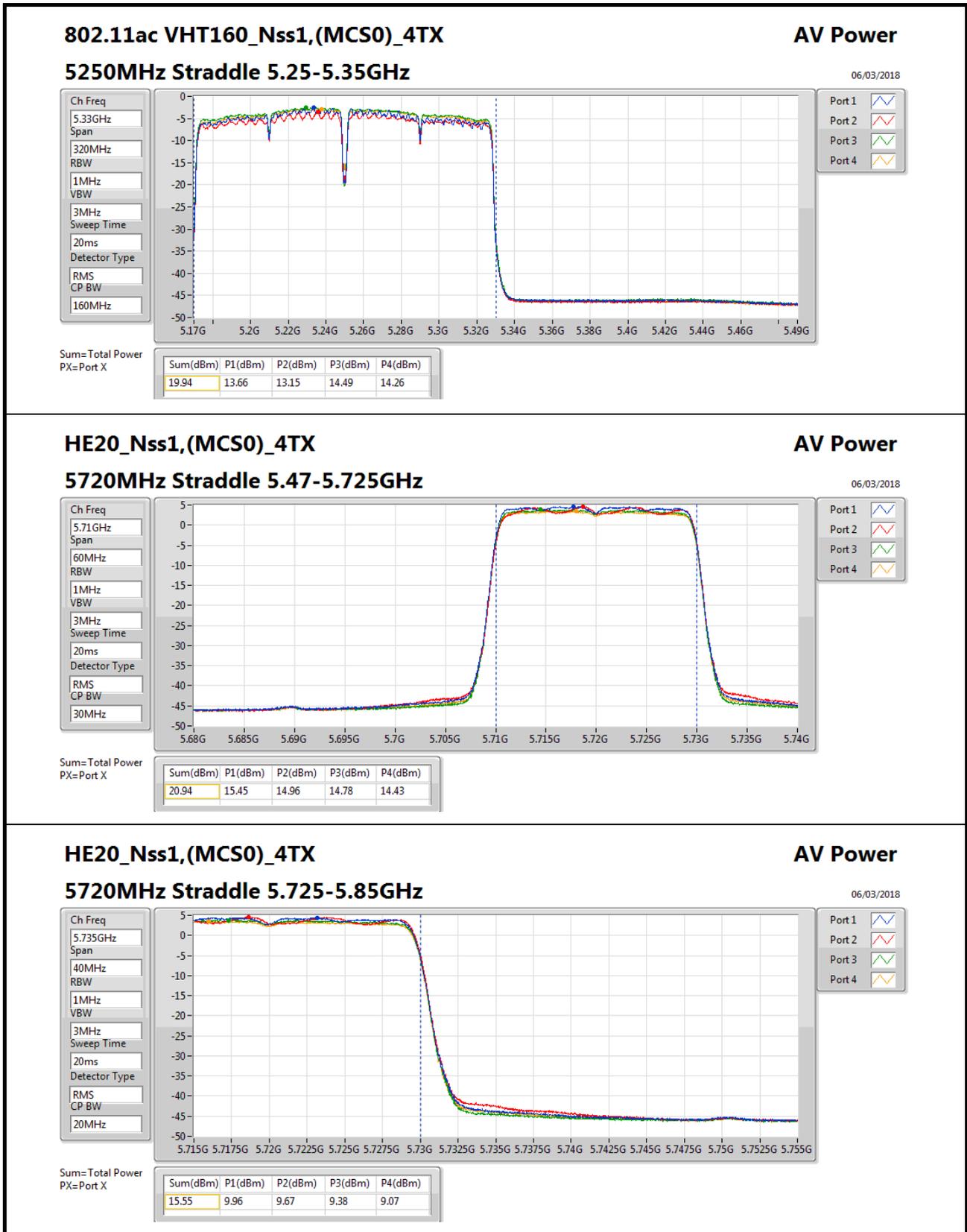
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
19.96	13.89	12.86	14.58	14.23



### HE20\_Nss1,(MCS0)\_4TX

#### 5720MHz Straddle 5.725-5.85GHz

### AV Power

06/03/2018

Ch Freq  
5.735GHz

Span  
40MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
20MHz

Port 1

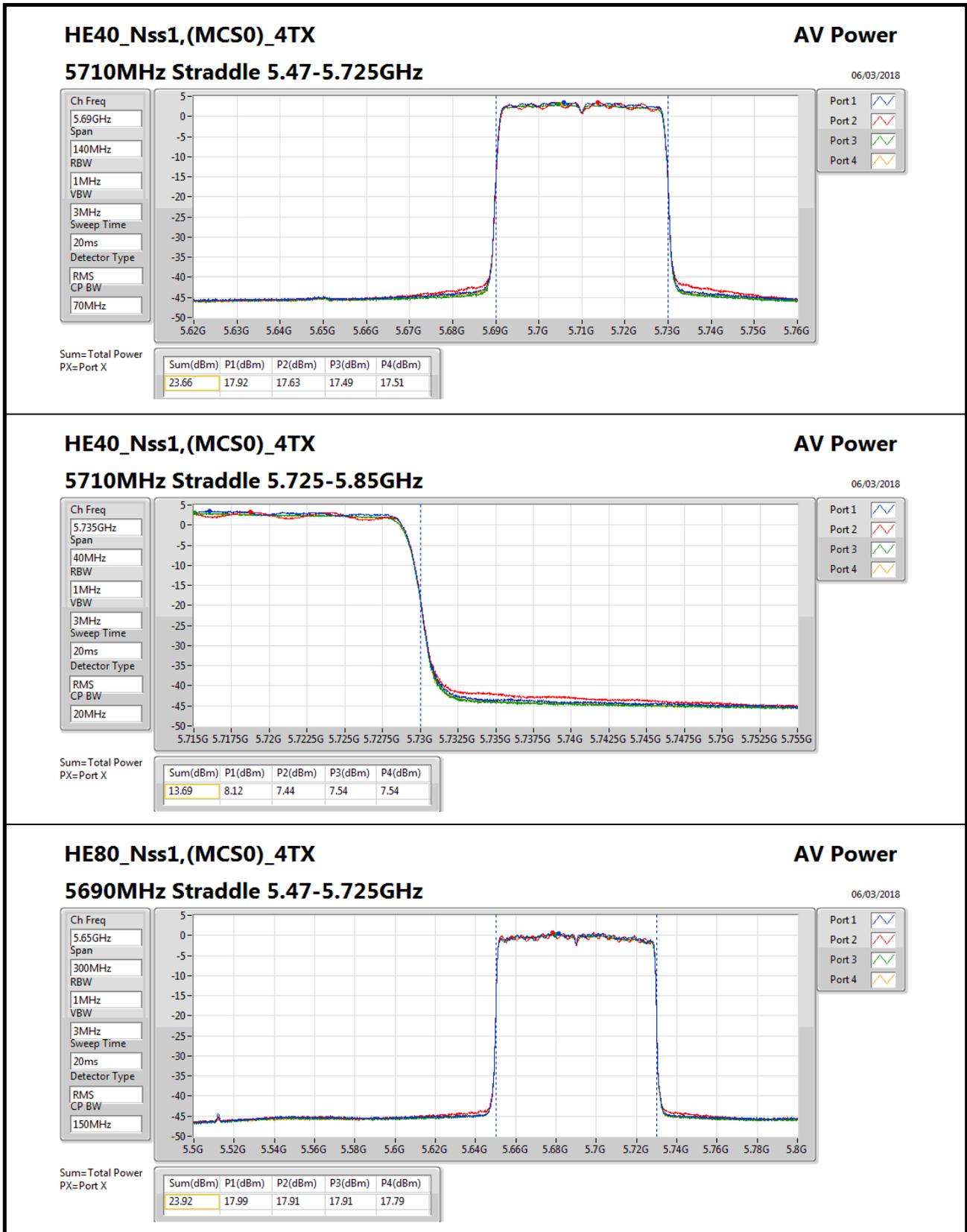
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
15.55	9.96	9.67	9.38	9.07



### HE80\_Nss1,(MCS0)\_4TX

#### 5690MHz Straddle 5.47-5.725GHz

### AV Power

06/03/2018

Ch Freq  
5.65GHz

Span  
300MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
150MHz

Port 1

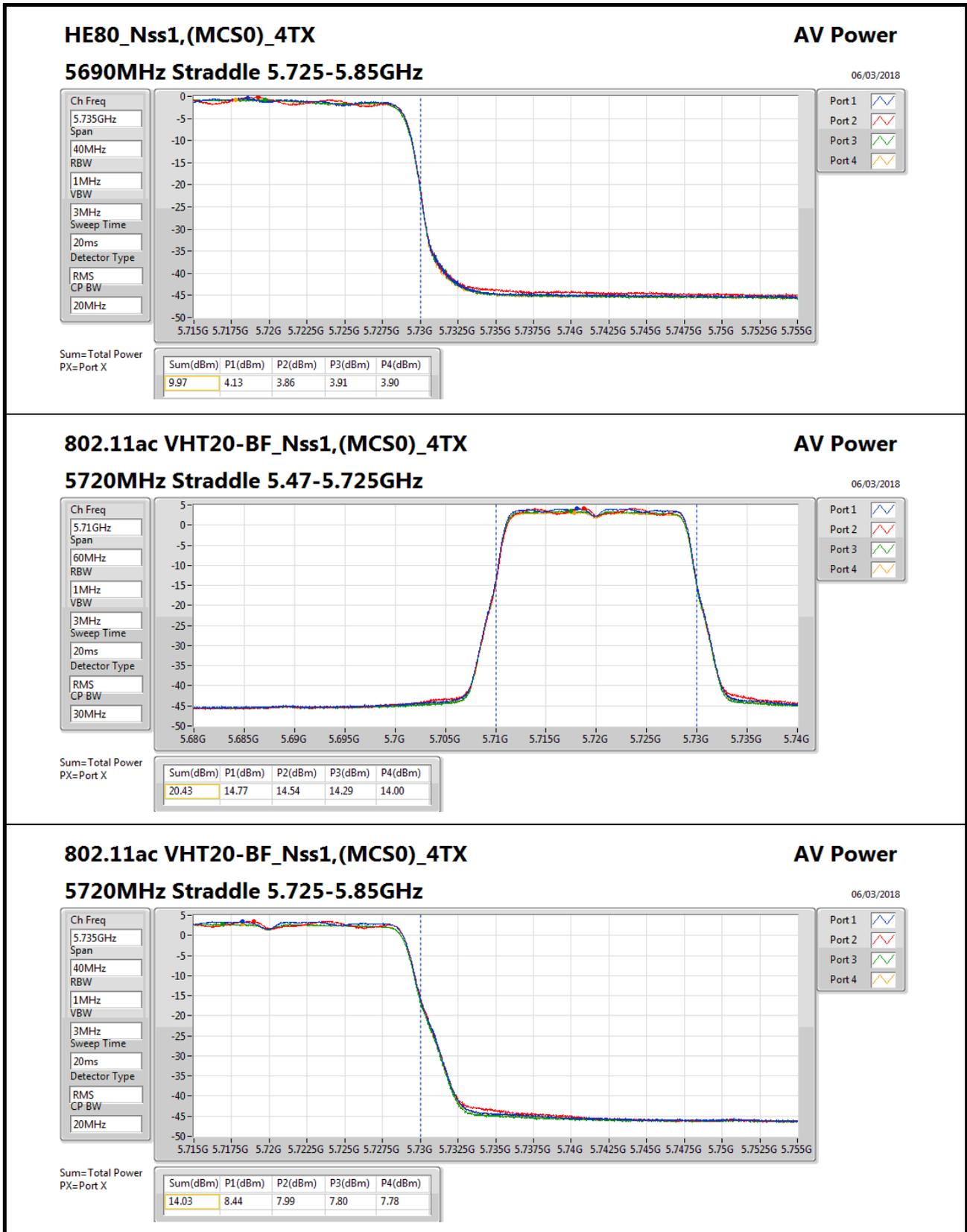
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
23.92	17.99	17.91	17.91	17.79



### 802.11ac VHT20-BF\_Nss1,(MCS0)\_4TX

#### 5720MHz Straddle 5.725-5.85GHz

### AV Power

06/03/2018

Ch Freq  
5.735GHz

Span  
40MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
20MHz

Port 1

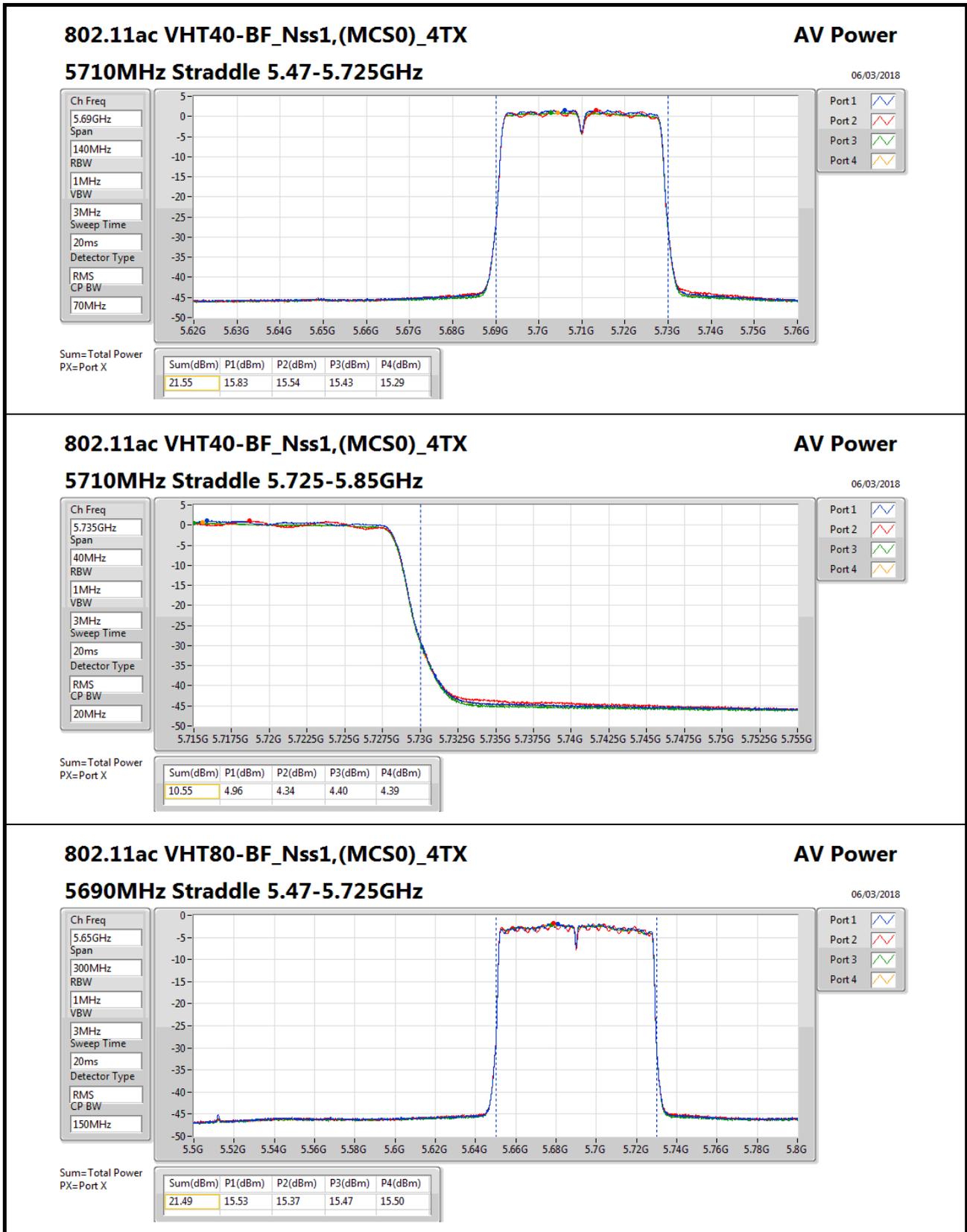
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
14.03	8.44	7.99	7.80	7.78



**802.11ac VHT80-BF\_Nss1,(MCS0)\_4TX**

**5690MHz Straddle 5.47-5.725GHz**

**AV Power**

06/03/2018

Ch Freq  
5.65GHz

Span  
300MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
150MHz

Port 1

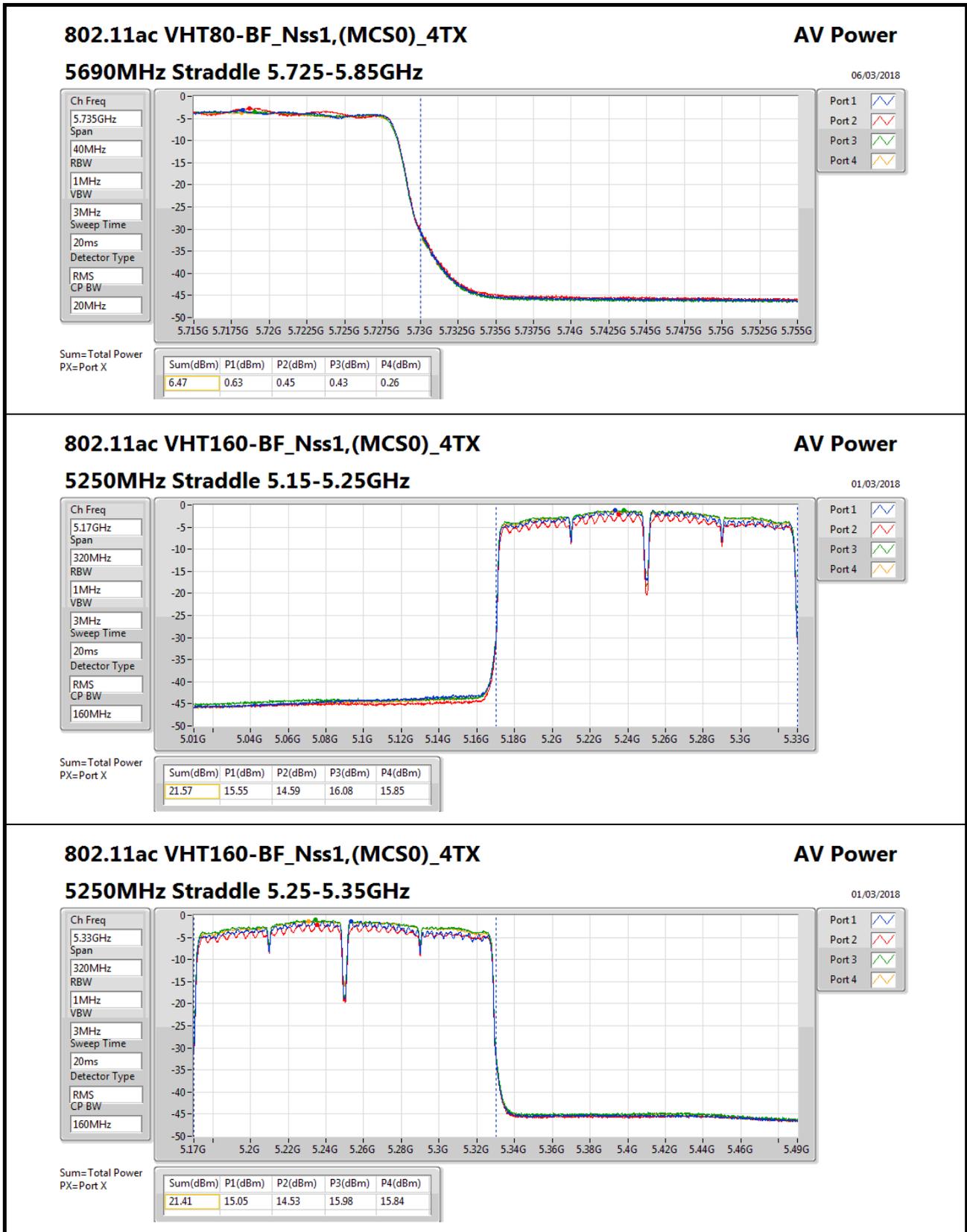
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
21.49	15.53	15.37	15.47	15.50



**802.11ac VHT160-BF\_Nss1,(MCS0)\_4TX**

**5250MHz Straddle 5.25-5.35GHz**

**AV Power**

01/03/2018

Ch Freq

Span

RBW

VBW

Sweep Time

Detector Type

CP BW

Port 1

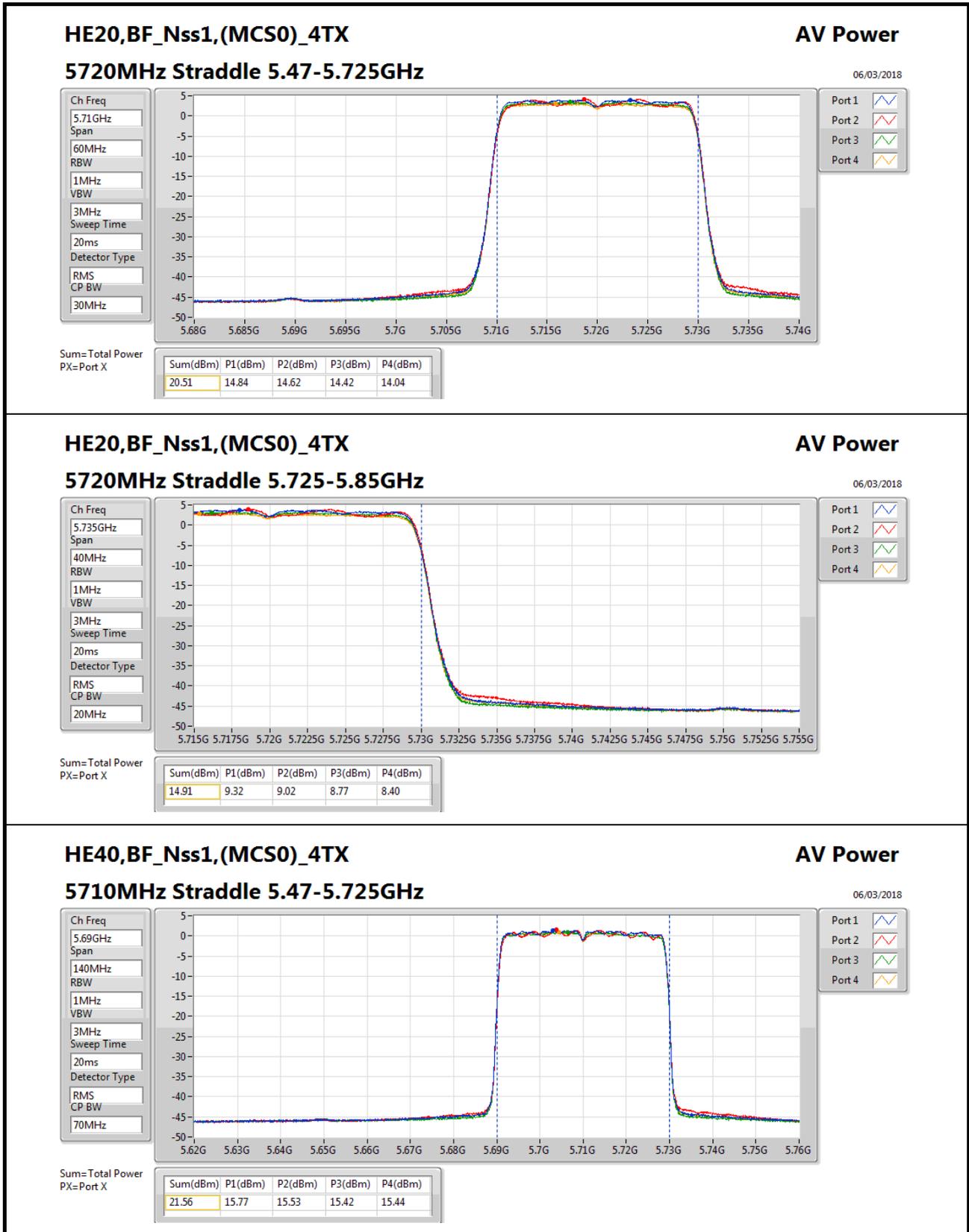
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
21.41	15.05	14.53	15.98	15.84



### HE40,BF\_Nss1,(MCS0)\_4TX

#### 5710MHz Straddle 5.47-5.725GHz

### AV Power

06/03/2018

Ch Freq: 5.69GHz

Span: 140MHz

RBW: 1MHz

VBW: 3MHz

Sweep Time: 20ms

Detector Type: RMS

CP BW: 70MHz

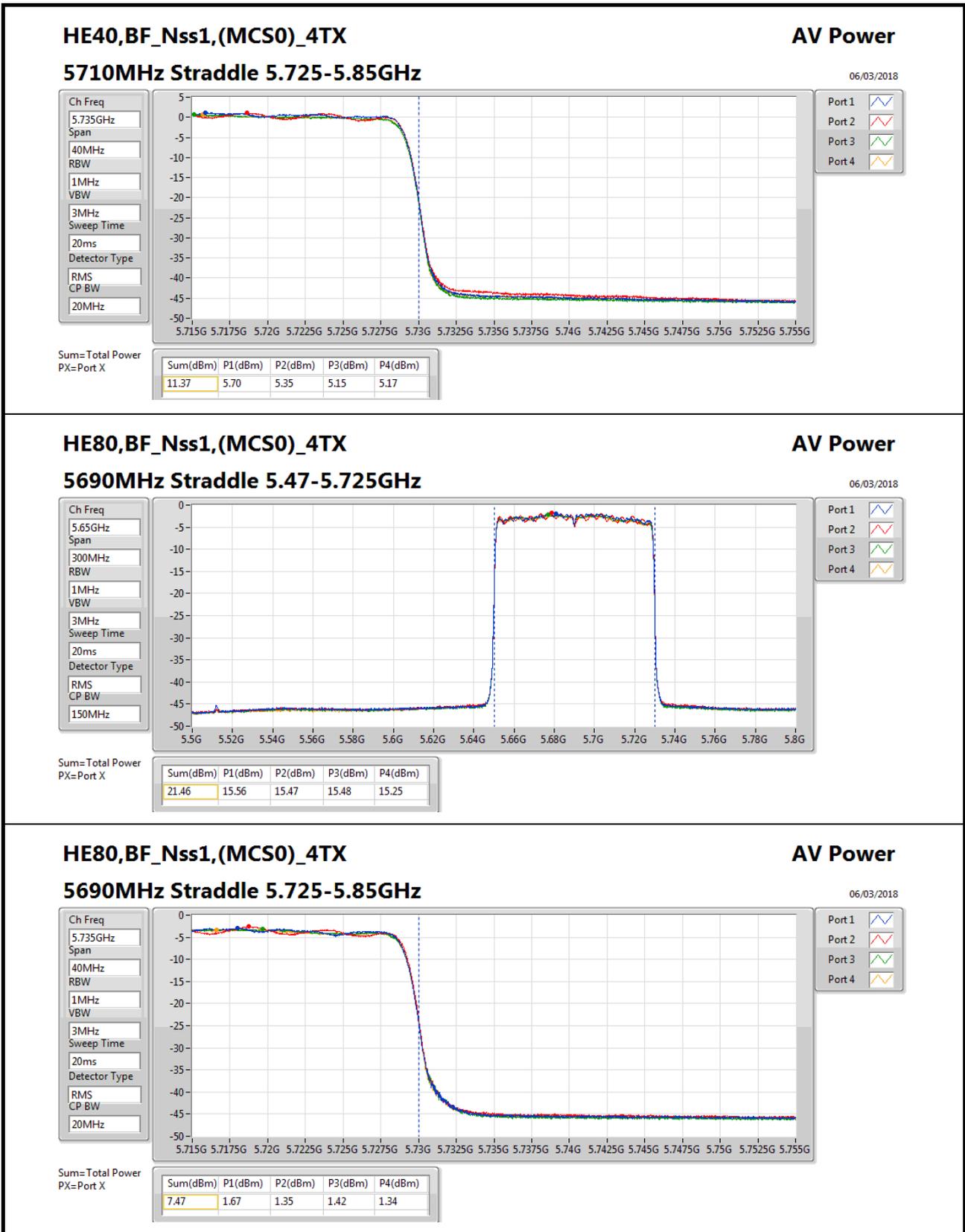
Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
21.56	15.77	15.53	15.42	15.44

Port 1

Port 2

Port 3

Port 4



### HE80,BF\_Nss1,(MCS0)\_4TX

#### 5690MHz Straddle 5.725-5.85GHz

### AV Power

06/03/2018

Ch Freq  
5.735GHz

Span  
40MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
20MHz

Port 1

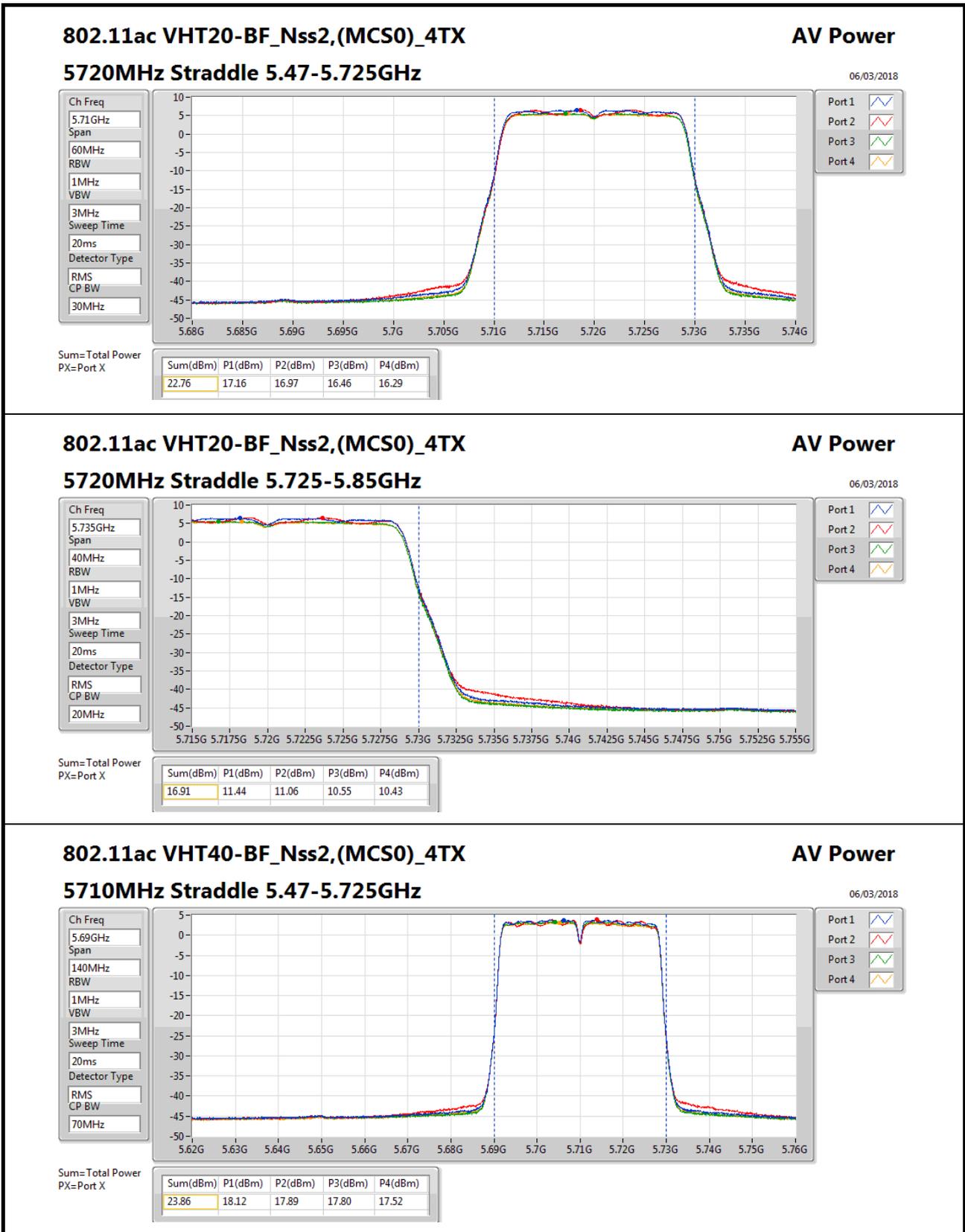
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
7.47	1.67	1.35	1.42	1.34



**802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX**

**5710MHz Straddle 5.47-5.725GHz**

**AV Power**

06/03/2018

Ch Freq  
5.69GHz

Span  
140MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
70MHz

Port 1

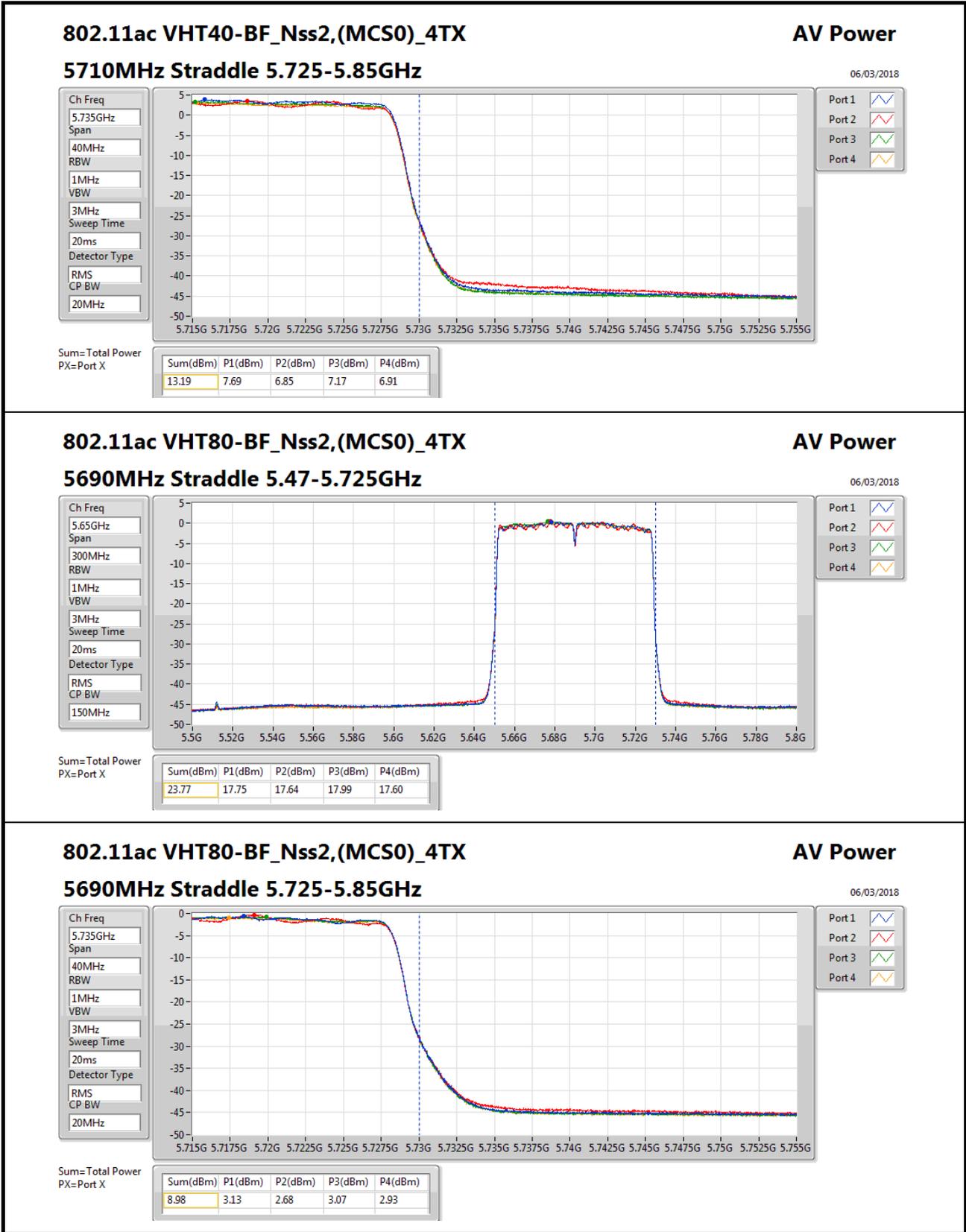
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
23.86	18.12	17.89	17.80	17.52



### 802.11ac VHT80-BF\_Nss2,(MCS0)\_4TX

#### 5690MHz Straddle 5.725-5.85GHz

### AV Power

06/03/2018

Ch Freq  
5.735GHz

Span  
40MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
20MHz

Port 1

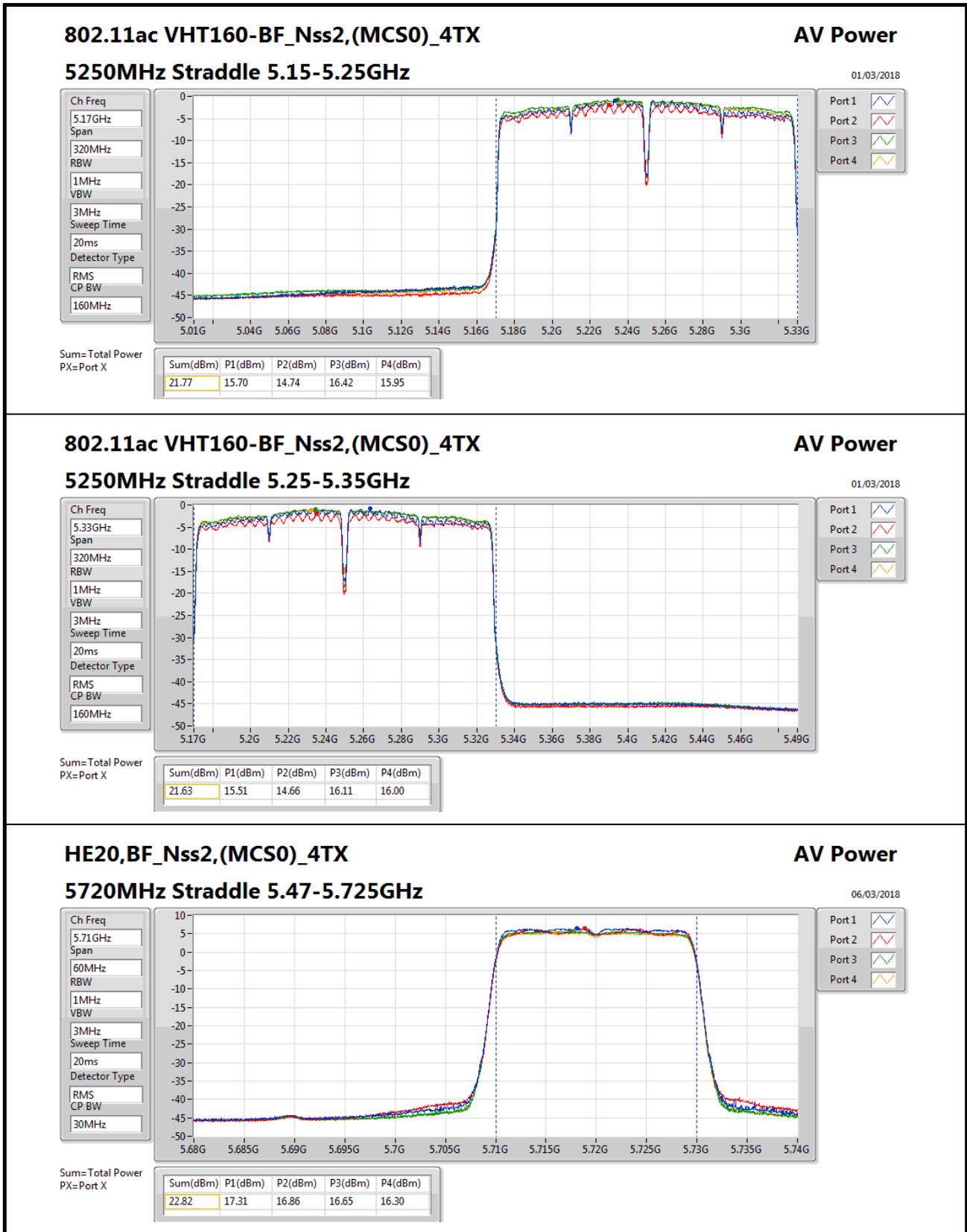
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
8.98	3.13	2.68	3.07	2.93



**HE20,BF\_Nss2,(MCS0)\_4TX**

**5720MHz Straddle 5.47-5.725GHz**

**AV Power**

06/03/2018

Ch Freq

Span

RBW

VBW

Sweep Time

Detector Type

CP BW

Port 1

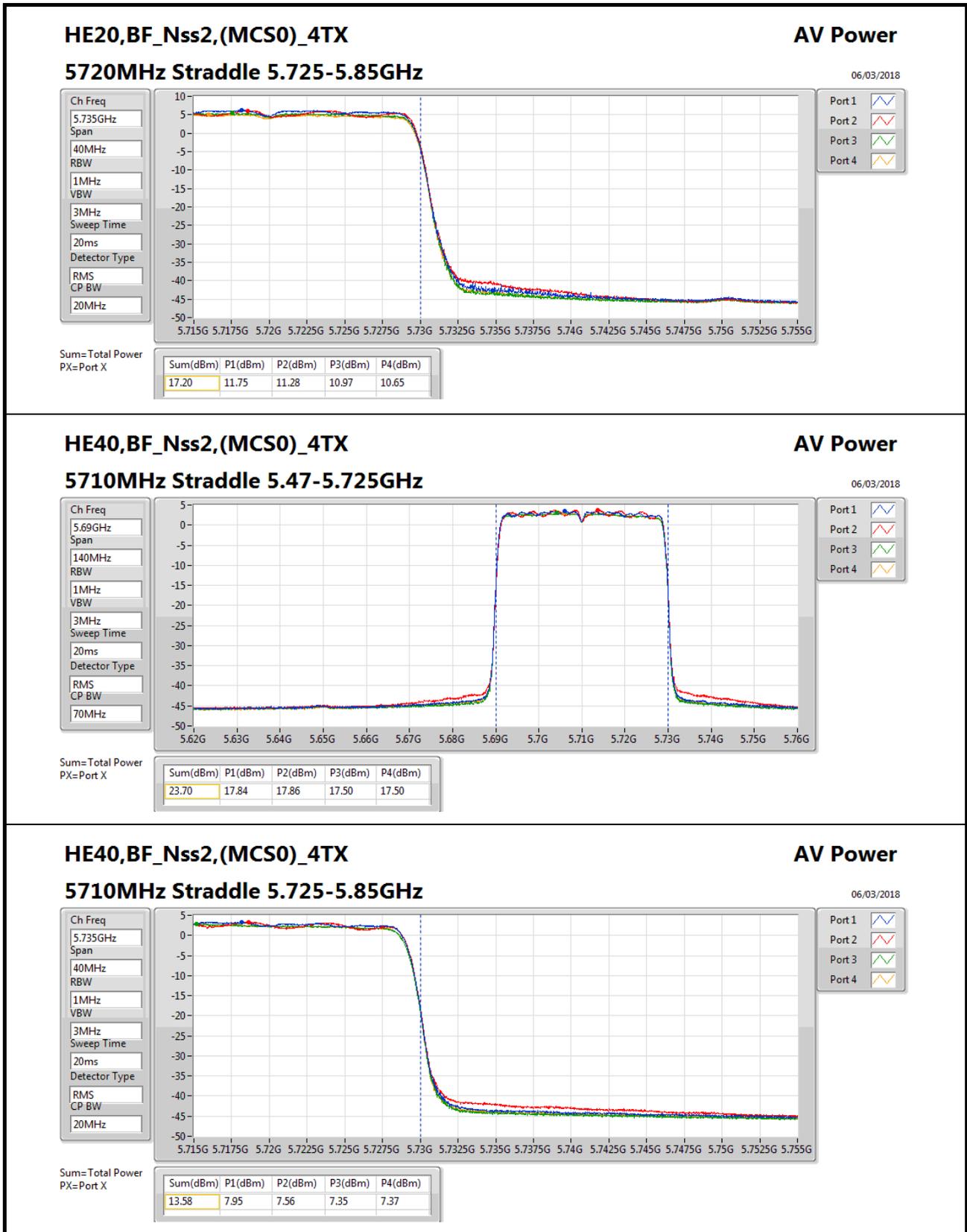
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
22.82	17.31	16.86	16.65	16.30



### HE40,BF\_Nss2,(MCS0)\_4TX

#### 5710MHz Straddle 5.725-5.85GHz

### AV Power

06/03/2018

Ch Freq  
5.735GHz

Span  
40MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

CP BW  
20MHz

Port 1

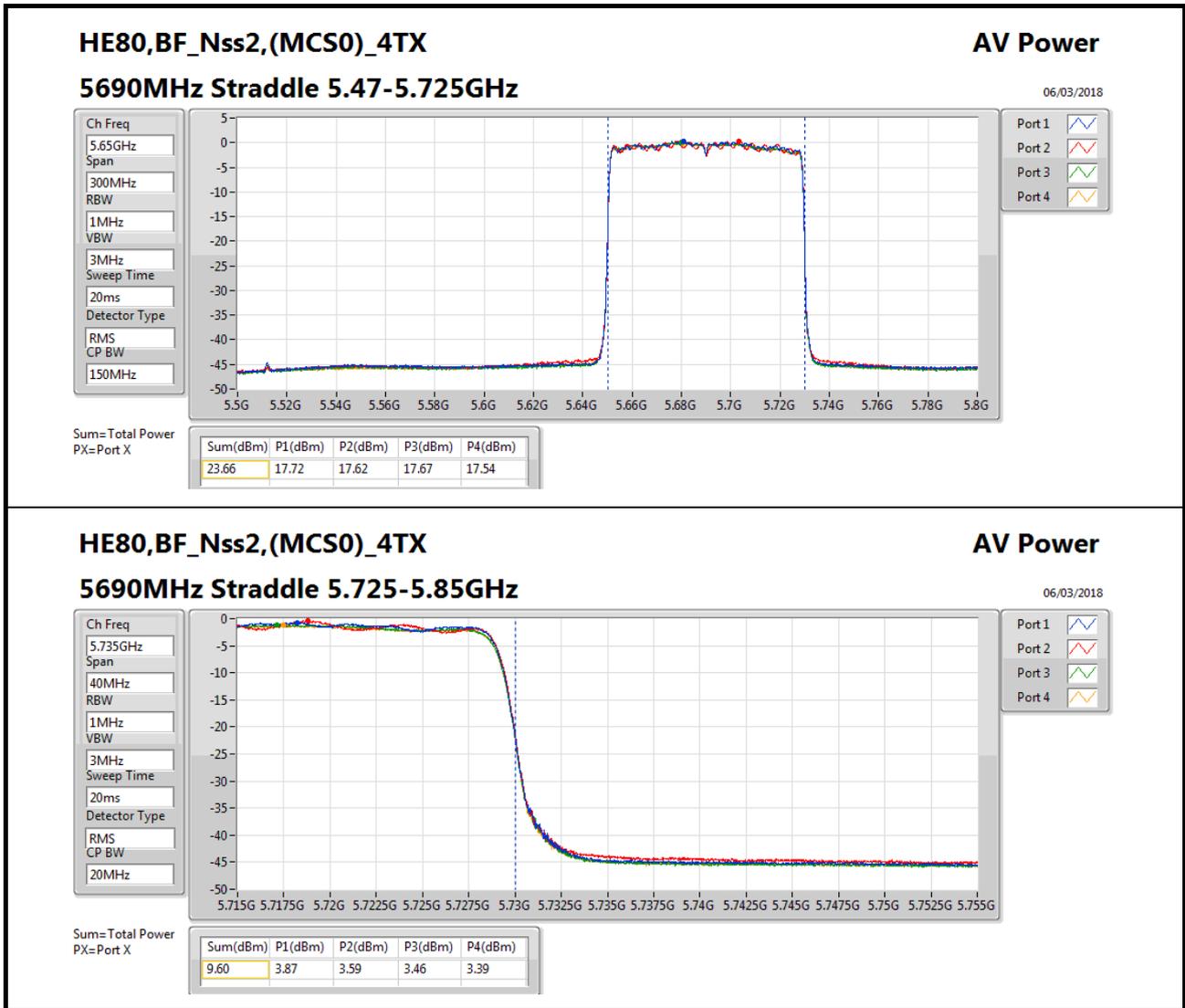
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
13.58	7.95	7.56	7.35	7.37





Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11ac VHT160_Nss1,(MCS0)_4TX	1.14
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	2.70
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	2.98
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_4TX	8.56
802.11ac VHT20_Nss1,(MCS0)_4TX	8.59
802.11ac VHT40_Nss1,(MCS0)_4TX	7.98
802.11ac VHT80_Nss1,(MCS0)_4TX	4.84
802.11ac VHT160_Nss1,(MCS0)_4TX	1.10
HE20_Nss1,(MCS0)_4TX	8.59
HE40_Nss1,(MCS0)_4TX	7.38
HE80_Nss1,(MCS0)_4TX	4.54
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	8.54
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	5.20
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	2.51
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	2.66
HE20,BF_Nss1,(MCS0)_4TX	8.28
HE40,BF_Nss1,(MCS0)_4TX	5.58
HE80,BF_Nss1,(MCS0)_4TX	2.21
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	10.96
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	7.72
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	4.72
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	2.76
HE20,BF_Nss2,(MCS0)_4TX	10.92
HE40,BF_Nss2,(MCS0)_4TX	7.91
HE80,BF_Nss2,(MCS0)_4TX	4.49
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_4TX	8.58
802.11ac VHT20_Nss1,(MCS0)_4TX	8.56
802.11ac VHT40_Nss1,(MCS0)_4TX	8.20
802.11ac VHT80_Nss1,(MCS0)_4TX	4.81
802.11ac VHT160_Nss1,(MCS0)_4TX	2.2
HE20_Nss1,(MCS0)_4TX	8.57
HE40_Nss1,(MCS0)_4TX	7.68
HE80_Nss1,(MCS0)_4TX	4.89
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	8.41
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	5.85
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	2.42
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	-0.24
HE20,BF_Nss1,(MCS0)_4TX	8.29
HE40,BF_Nss1,(MCS0)_4TX	5.56
HE80,BF_Nss1,(MCS0)_4TX	2.38
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	10.85



Mode	PD (dBm/RBW)
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	8.02
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	4.75
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	2.18
HE20,BF_Nss2,(MCS0)_4TX	10.86
HE40,BF_Nss2,(MCS0)_4TX	7.94
HE80,BF_Nss2,(MCS0)_4TX	4.70
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_4TX	6.69
802.11ac VHT20_Nss1,(MCS0)_4TX	6.43
802.11ac VHT40_Nss1,(MCS0)_4TX	5.89
802.11ac VHT80_Nss1,(MCS0)_4TX	1.43
HE20_Nss1,(MCS0)_4TX	6.54
HE40_Nss1,(MCS0)_4TX	5.43
HE80_Nss1,(MCS0)_4TX	1.56
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	5.63
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	3.04
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-1.14
HE20,BF_Nss1,(MCS0)_4TX	5.87
HE40,BF_Nss1,(MCS0)_4TX	3.02
HE80,BF_Nss1,(MCS0)_4TX	-0.88
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	8.49
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	5.76
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	1.33
HE20,BF_Nss2,(MCS0)_4TX	8.27
HE40,BF_Nss2,(MCS0)_4TX	5.25
HE80,BF_Nss2,(MCS0)_4TX	1.33

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



Result

Mode	Result	DG (dB)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	8.35	4.07	2.88	2.17	2.12	8.56	8.65
5300MHz	Pass	8.35	2.88	3.19	2.34	2	8.52	8.65
5320MHz	Pass	8.35	3.34	3.29	2.6	2.05	8.52	8.65
5500MHz	Pass	8.37	3.39	2.71	2.53	1.98	8.58	8.63
5580MHz	Pass	8.37	3.51	2.9	2.41	1.92	8.57	8.63
5700MHz	Pass	8.37	2.95	3.26	2.26	1.88	8.42	8.63
5720MHz Straddle 5.47-5.725GHz	Pass	8.37	2.72	3.37	2.43	2.04	8.50	8.63
5720MHz Straddle 5.725-5.85GHz	Pass	7.96	1.30	1.27	0.18	0.35	6.69	28.04
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	8.35	3.84	2.7	2.13	2.05	8.52	8.65
5300MHz	Pass	8.35	3.62	2.72	2.37	1.86	8.59	8.65
5320MHz	Pass	8.35	3.25	2.46	2.38	1.72	8.44	8.65
5500MHz	Pass	8.37	3.32	2.56	2.57	2	8.39	8.63
5580MHz	Pass	8.37	3.33	2.65	2.65	2.16	8.56	8.63
5700MHz	Pass	8.37	3.23	2.93	2.22	1.84	8.46	8.63
5720MHz Straddle 5.47-5.725GHz	Pass	8.37	3.18	3.08	2.21	2.12	8.56	8.63
5720MHz Straddle 5.725-5.85GHz	Pass	7.96	1.26	0.74	0.30	0.06	6.43	28.04
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	8.35	3.29	2.24	1.75	1.34	7.98	8.65
5310MHz	Pass	8.35	2.59	1.6	1.65	1.18	7.72	8.65
5510MHz	Pass	8.37	2.66	1.82	1.72	1.26	7.72	8.63
5550MHz	Pass	8.37	2.66	1.54	1.46	1.33	7.54	8.63
5670MHz	Pass	8.37	2.22	2	1.63	1.2	7.60	8.63
5710MHz Straddle 5.47-5.725GHz	Pass	8.37	2.48	2.55	2.28	1.90	8.20	8.63
5710MHz Straddle 5.725-5.85GHz	Pass	7.96	0.17	0.01	0.02	-0.43	5.89	28.04
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	8.35	0.04	-1.11	-1.13	-1.87	4.84	8.65
5530MHz	Pass	8.37	-0.19	-1.11	-1.08	-1.71	4.80	8.63
5610MHz	Pass	8.37	-0.47	-1.05	-1.42	-1.78	4.73	8.63
5690MHz Straddle 5.47-5.725GHz	Pass	8.37	-1.16	-0.96	-1.29	-1.19	4.81	8.63
5690MHz Straddle 5.725-5.85GHz	Pass	7.96	-4.22	-4.36	-4.54	-4.67	1.43	28.04
802.11ac VHT160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	8.35	-4.30	-5.48	-4.23	-4.60	1.14	14.65
5250MHz Straddle 5.25-5.35GHz	Pass	8.35	-4.14	-5.12	-4.45	-4.76	1.10	8.65
5570MHz	Pass	8.37	-2.47	-3.62	-4.07	-4.26	2.20	8.63
HE20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	8.35	3.83	2.65	2.1	1.88	8.48	8.65
5300MHz	Pass	8.35	3.65	2.78	2.27	1.9	8.59	8.65
5320MHz	Pass	8.35	3.54	2.53	2.29	1.7	8.53	8.65
5500MHz	Pass	8.37	3.37	2.68	2.48	1.91	8.39	8.63
5580MHz	Pass	8.37	3.25	2.58	2.52	2	8.45	8.63
5700MHz	Pass	8.37	3.23	2.92	2.12	1.86	8.45	8.63



Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
5720MHz Straddle 5.47-5.725GHz	Pass	8.37	3.11	3.15	2.25	2.14	8.57	8.63
5720MHz Straddle 5.725-5.85GHz	Pass	7.96	1.08	1.09	0.50	0.24	6.54	28.04
HE40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	8.35	2.67	1.62	1.24	0.82	7.38	8.65
5310MHz	Pass	8.35	2.04	1.24	0.97	0.62	7.18	8.65
5510MHz	Pass	8.37	2.28	1.17	1.23	0.87	7.16	8.63
5550MHz	Pass	8.37	2.27	0.93	1.17	0.81	7.13	8.63
5670MHz	Pass	8.37	1.85	1.38	1.1	0.91	7.21	8.63
5710MHz Straddle 5.47-5.725GHz	Pass	8.37	1.99	2.12	1.47	1.51	7.68	8.63
5710MHz Straddle 5.725-5.85GHz	Pass	7.96	-0.10	-0.58	-0.56	-0.65	5.43	28.04
HE80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	8.35	-0.18	-1.32	-1.46	-2.28	4.54	8.65
5530MHz	Pass	8.37	-0.54	-1.66	-1.48	-2.06	4.39	8.63
5610MHz	Pass	8.37	-0.52	-1.13	-1.5	-1.89	4.60	8.63
5690MHz Straddle 5.47-5.725GHz	Pass	8.37	-0.89	-0.74	-1.24	-1.22	4.89	8.63
5690MHz Straddle 5.725-5.85GHz	Pass	7.96	-4.12	-4.23	-4.33	-4.37	1.56	28.04
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	8.35	3.25	3.26	2.42	2.40	8.50	8.65
5300MHz	Pass	8.35	3.07	2.82	2.34	1.94	8.45	8.65
5320MHz	Pass	8.35	3.51	2.62	2.30	1.76	8.54	8.65
5500MHz	Pass	8.37	3.22	2.94	2.53	1.81	8.33	8.63
5580MHz	Pass	8.37	3.10	2.54	2.38	2.42	8.41	8.63
5700MHz	Pass	8.37	2.77	2.81	2.14	1.72	8.29	8.63
5720MHz Straddle 5.47-5.725GHz	Pass	8.37	2.88	3.03	2.22	1.66	8.39	8.63
5720MHz Straddle 5.725-5.85GHz	Pass	7.96	0.18	-0.10	-0.47	-0.46	5.63	28.04
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	8.35	0.22	-0.35	-1.15	-1.23	5.14	8.65
5310MHz	Pass	8.35	-0.16	-0.68	-0.87	-1.27	5.20	8.65
5510MHz	Pass	8.37	0.17	-0.37	-0.47	-0.92	5.35	8.63
5550MHz	Pass	8.37	0.40	-0.37	-0.46	-0.80	5.42	8.63
5670MHz	Pass	8.37	-0.11	-0.39	-0.51	-0.67	5.44	8.63
5710MHz Straddle 5.47-5.725GHz	Pass	8.37	0.11	0.20	-0.38	-0.38	5.85	8.63
5710MHz Straddle 5.725-5.85GHz	Pass	7.96	-2.53	-2.70	-3.07	-3.11	3.04	28.04
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	8.35	-2.98	-3.18	-3.65	-3.99	2.51	8.65
5530MHz	Pass	8.37	-2.77	-3.55	-3.48	-4.03	2.37	8.63
5610MHz	Pass	8.37	-2.78	-3.32	-3.65	-3.84	2.40	8.63
5690MHz Straddle 5.47-5.725GHz	Pass	8.37	-3.47	-3.31	-3.70	-3.59	2.42	8.63
5690MHz Straddle 5.725-5.85GHz	Pass	7.96	-6.95	-6.80	-7.06	-7.32	-1.14	28.04
802.11ac VHT160-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	8.35	-2.60	-3.76	-2.76	-2.98	2.70	14.65
5250MHz Straddle 5.25-5.35GHz	Pass	8.35	-2.64	-3.83	-2.93	-3.10	2.66	8.65
5570MHz	Pass	8.37	-5.49	-7.42	-5.08	-6.75	-0.24	8.63
HE20,BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	8.35	3.00	2.74	1.92	1.52	8.06	8.65



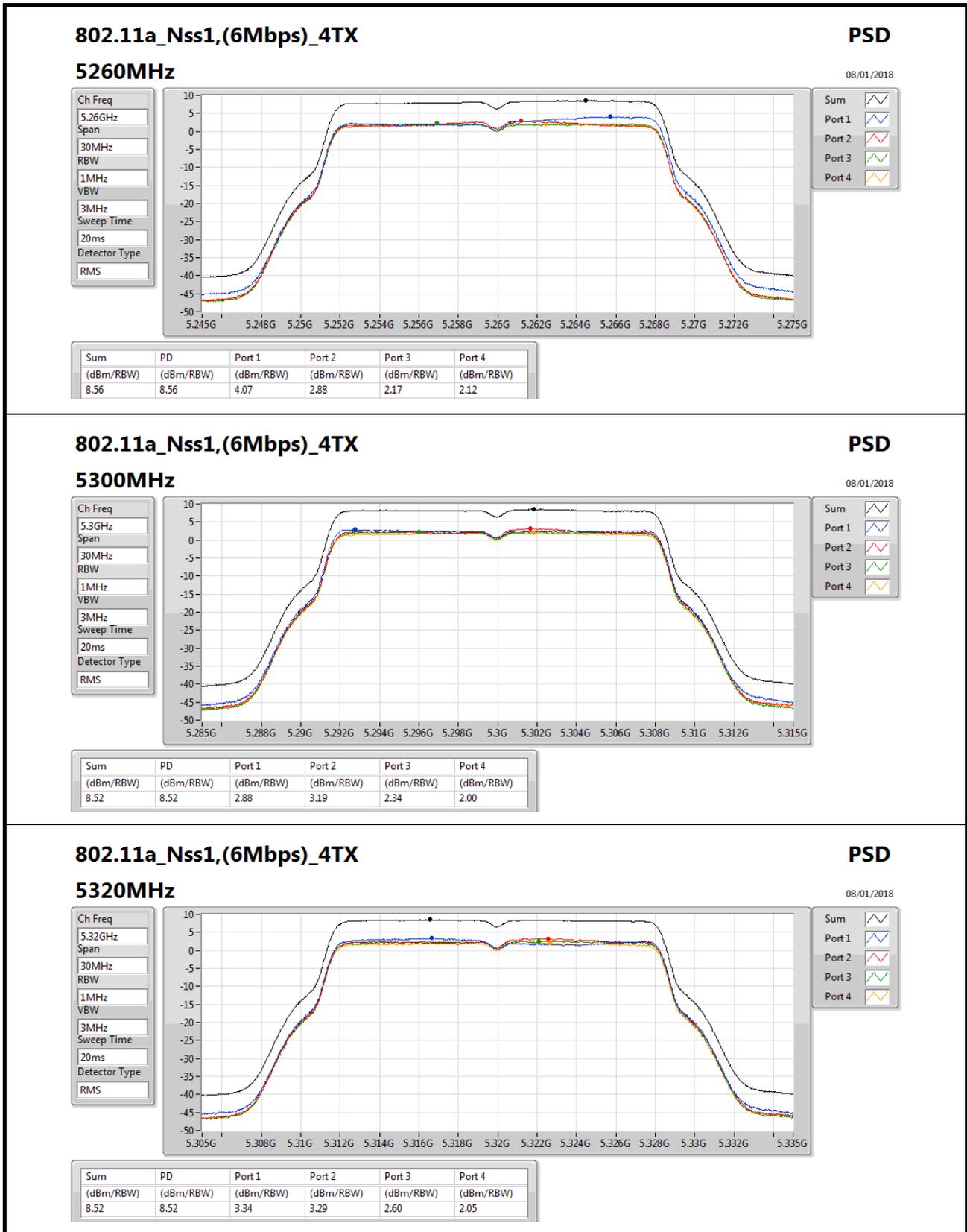
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
5300MHz	Pass	8.35	3.09	2.66	2.08	1.47	8.28	8.65
5320MHz	Pass	8.35	2.97	2.15	1.85	1.30	8.09	8.65
5500MHz	Pass	8.37	3.07	2.53	2.23	2.12	8.17	8.63
5580MHz	Pass	8.37	3.07	2.33	2.11	2.17	8.29	8.63
5700MHz	Pass	8.37	2.60	2.70	2.18	1.92	8.22	8.63
5720MHz Straddle 5.47-5.725GHz	Pass	8.37	2.60	2.78	1.98	1.57	8.17	8.63
5720MHz Straddle 5.725-5.85GHz	Pass	7.96	0.45	0.54	-0.13	-0.49	5.87	28.04
HE40,BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	8.35	0.55	-0.36	-0.99	-0.81	5.32	8.65
5310MHz	Pass	8.35	0.13	-0.50	-0.33	-0.64	5.58	8.65
5510MHz	Pass	8.37	0.09	-0.69	-0.71	-0.80	5.29	8.63
5550MHz	Pass	8.37	0.18	-0.78	-0.77	-0.78	5.33	8.63
5670MHz	Pass	8.37	-0.22	-0.51	-0.65	-0.51	5.44	8.63
5710MHz Straddle 5.47-5.725GHz	Pass	8.37	-0.12	0.06	-0.61	-0.55	5.56	8.63
5710MHz Straddle 5.725-5.85GHz	Pass	7.96	-2.57	-2.75	-3.03	-2.98	3.02	28.04
HE80,BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	8.35	-2.98	-3.65	-3.56	-4.15	2.21	8.65
5530MHz	Pass	8.37	-2.71	-3.92	-3.53	-4.12	2.33	8.63
5610MHz	Pass	8.37	-3.01	-3.65	-3.80	-3.99	2.24	8.63
5690MHz Straddle 5.47-5.725GHz	Pass	8.37	-3.46	-3.43	-3.61	-3.65	2.38	8.63
5690MHz Straddle 5.725-5.85GHz	Pass	7.96	-6.53	-6.86	-6.76	-6.89	-0.88	28.04
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.34	5.91	5.57	4.63	4.49	10.90	11.00
5300MHz	Pass	5.34	5.56	5.10	5.02	4.49	10.96	11.00
5320MHz	Pass	5.34	5.46	4.95	5.17	4.47	10.91	11.00
5500MHz	Pass	5.36	5.56	5.10	4.88	4.82	10.83	11.00
5580MHz	Pass	5.36	5.47	4.89	5.03	5.00	10.85	11.00
5700MHz	Pass	5.36	5.29	5.12	4.49	4.29	10.74	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.36	5.11	5.21	4.20	4.04	10.56	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	4.95	3.13	2.95	2.29	2.22	8.49	30.00
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	5.34	2.90	1.97	1.57	1.33	7.72	11.00
5310MHz	Pass	5.34	2.40	1.51	1.63	1.27	7.58	11.00
5510MHz	Pass	5.36	2.28	1.72	1.61	1.40	7.59	11.00
5550MHz	Pass	5.36	2.42	1.39	1.47	1.52	7.54	11.00
5670MHz	Pass	5.36	1.90	1.70	1.63	1.72	7.61	11.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.36	2.39	2.44	1.92	1.63	8.02	11.00
5710MHz Straddle 5.725-5.85GHz	Pass	4.95	0.22	-0.06	-0.17	-0.46	5.76	30.00
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	5.34	-0.64	-1.15	-1.04	-1.65	4.72	11.00
5530MHz	Pass	5.36	-0.25	-1.11	-1.22	-1.51	4.75	11.00
5610MHz	Pass	5.36	-0.68	-1.14	-1.39	-1.53	4.68	11.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.36	-1.12	-1.07	-1.15	-1.51	4.74	11.00
5690MHz Straddle 5.725-5.85GHz	Pass	4.95	-4.32	-4.54	-4.40	-4.60	1.33	30.00
802.11ac VHT160-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-

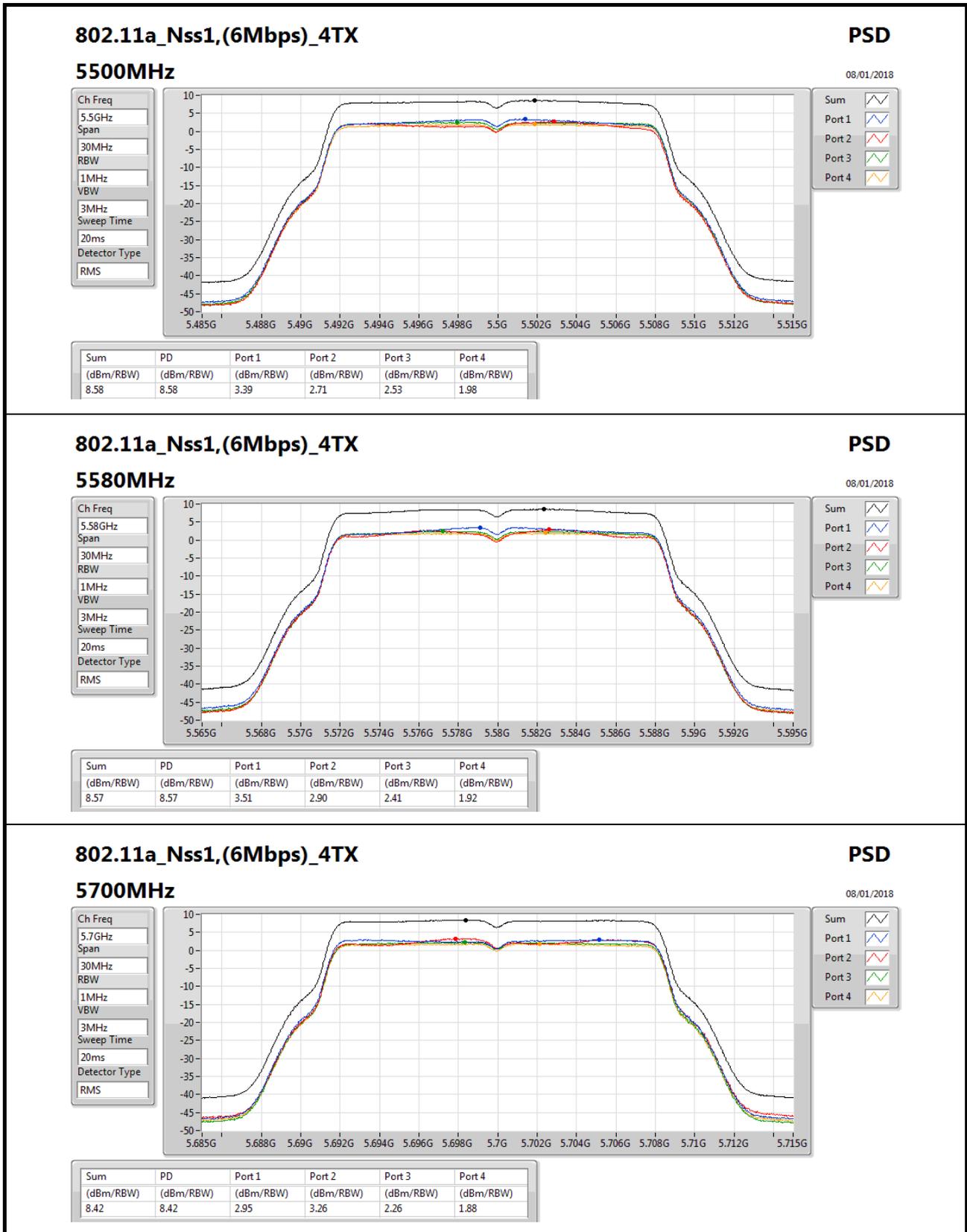


Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
5250MHz Straddle 5.15-5.25GHz	Pass	5.34	-2.49	-3.49	-2.53	-2.78	2.98	17.00
5250MHz Straddle 5.25-5.35GHz	Pass	5.34	-2.42	-3.70	-2.84	-2.89	2.76	11.00
5570MHz	Pass	5.36	-3.25	-4.80	-2.71	-4.29	2.18	11.00
HE20,BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.34	6.00	5.46	4.71	4.47	10.92	11.00
5300MHz	Pass	5.34	5.45	4.75	4.75	4.34	10.76	11.00
5320MHz	Pass	5.34	5.37	4.68	4.64	4.53	10.69	11.00
5500MHz	Pass	5.36	5.61	4.69	4.67	4.63	10.67	11.00
5580MHz	Pass	5.36	5.26	4.62	4.66	4.67	10.61	11.00
5700MHz	Pass	5.36	5.24	5.31	4.53	4.56	10.86	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.36	5.02	4.98	4.18	3.82	10.45	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	4.95	2.91	2.92	2.11	1.78	8.27	30.00
HE40,BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5270MHz	Pass	5.34	3.10	2.15	1.64	1.43	7.91	11.00
5310MHz	Pass	5.34	2.44	1.64	1.87	1.49	7.78	11.00
5510MHz	Pass	5.36	2.86	1.91	1.92	1.53	7.94	11.00
5550MHz	Pass	5.36	2.78	1.91	1.83	1.82	7.91	11.00
5670MHz	Pass	5.36	2.05	1.98	1.73	1.83	7.81	11.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.36	2.22	2.24	1.65	1.69	7.84	11.00
5710MHz Straddle 5.725-5.85GHz	Pass	4.95	-0.37	-0.54	-0.76	-0.77	5.25	30.00
HE80,BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5290MHz	Pass	5.34	-0.87	-1.49	-1.35	-1.71	4.49	11.00
5530MHz	Pass	5.36	-0.38	-1.40	-1.12	-1.53	4.69	11.00
5610MHz	Pass	5.36	-0.58	-0.99	-1.32	-1.60	4.70	11.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.36	-1.43	-1.07	-1.44	-1.52	4.58	11.00
5690MHz Straddle 5.725-5.85GHz	Pass	4.95	-4.37	-4.61	-4.51	-4.88	1.33	30.00

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)\_4TX

#### 5700MHz

**PSD**  
08/01/2018

Ch Freq  
5.7GHz

Span  
30MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

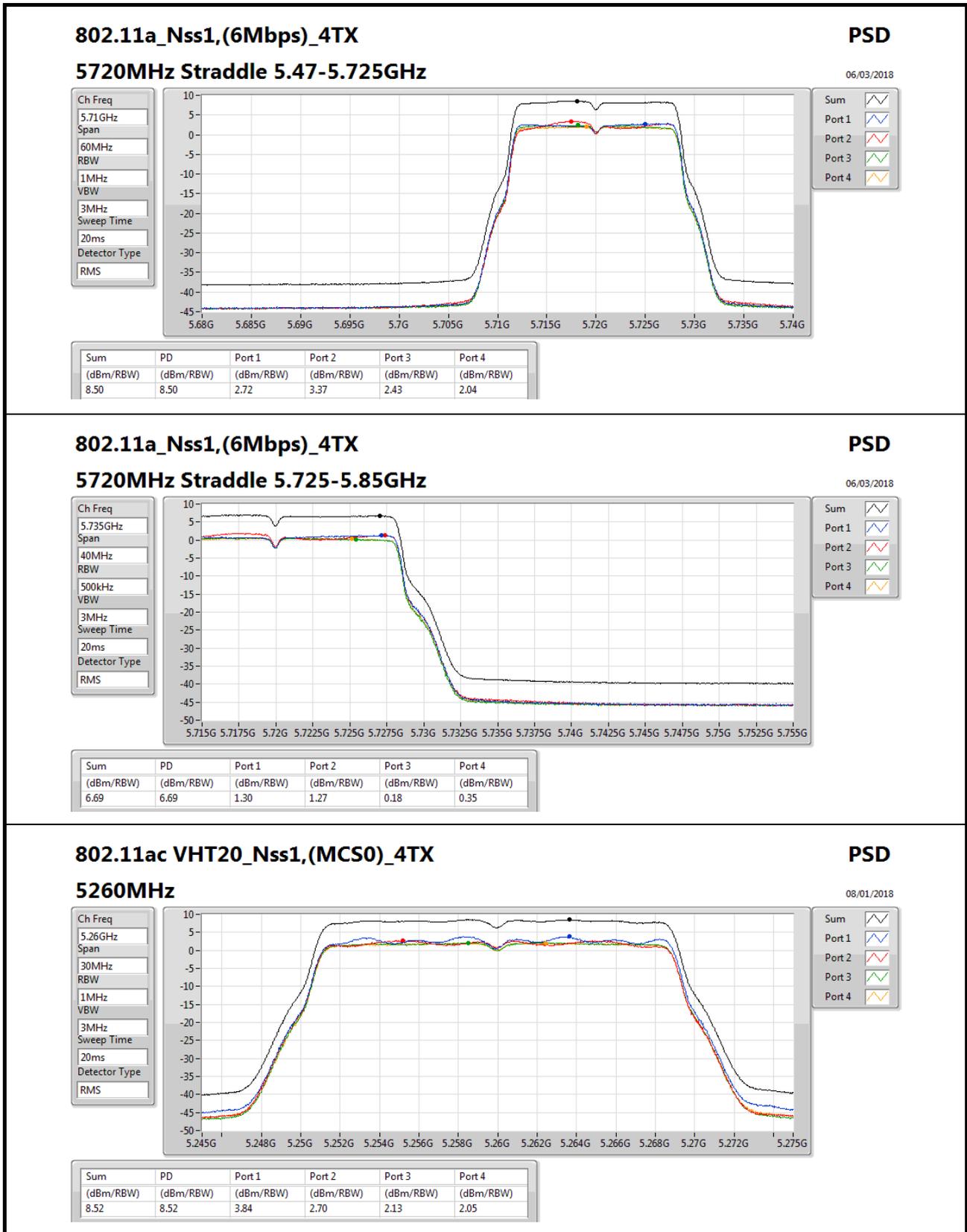
Sum

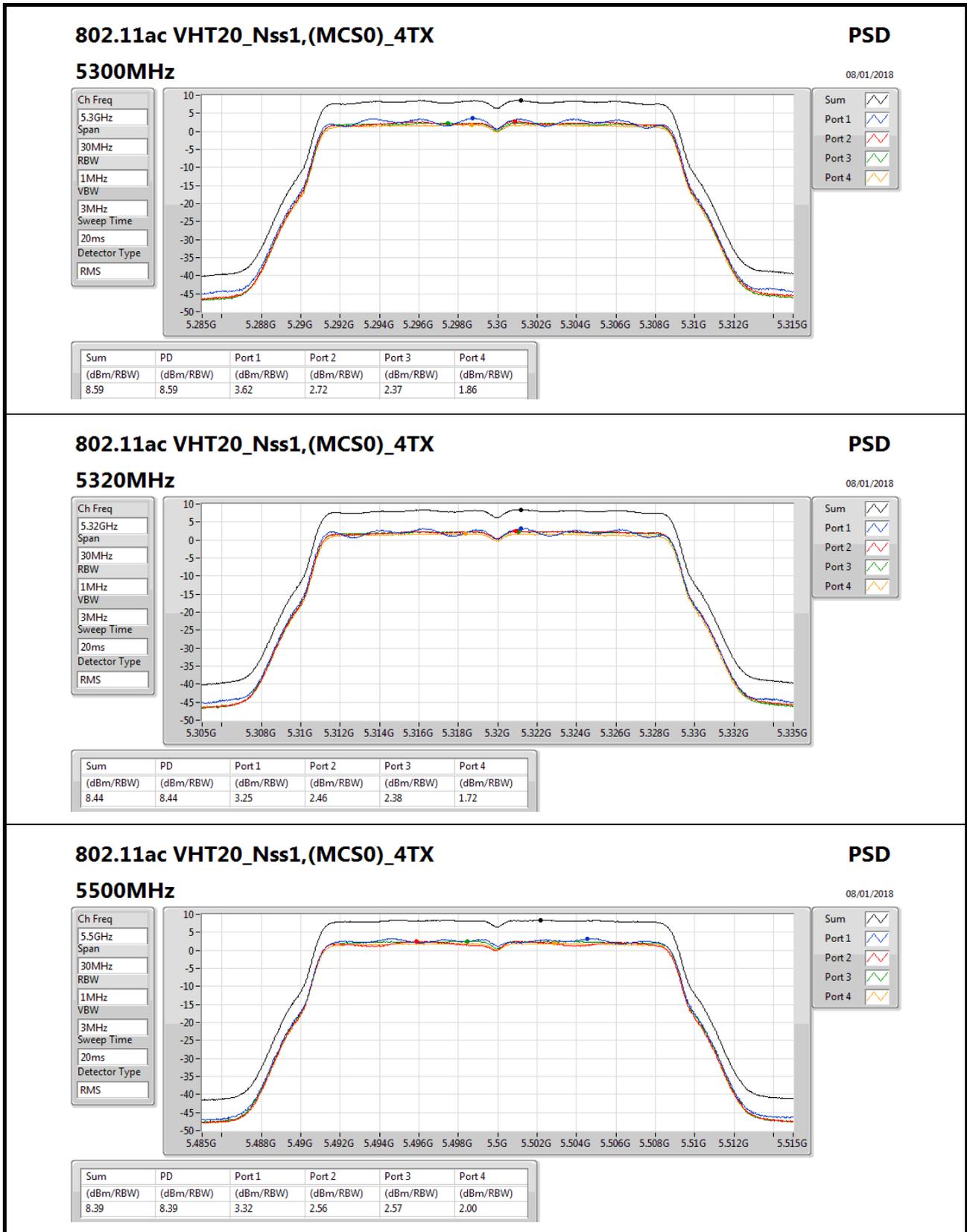
Port 1

Port 2

Port 3

Port 4





### 802.11ac VHT20\_Nss1,(MCS0)\_4TX

#### 5500MHz

### PSD

08/01/2018

Ch Freq  
5.5GHz

Span  
30MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

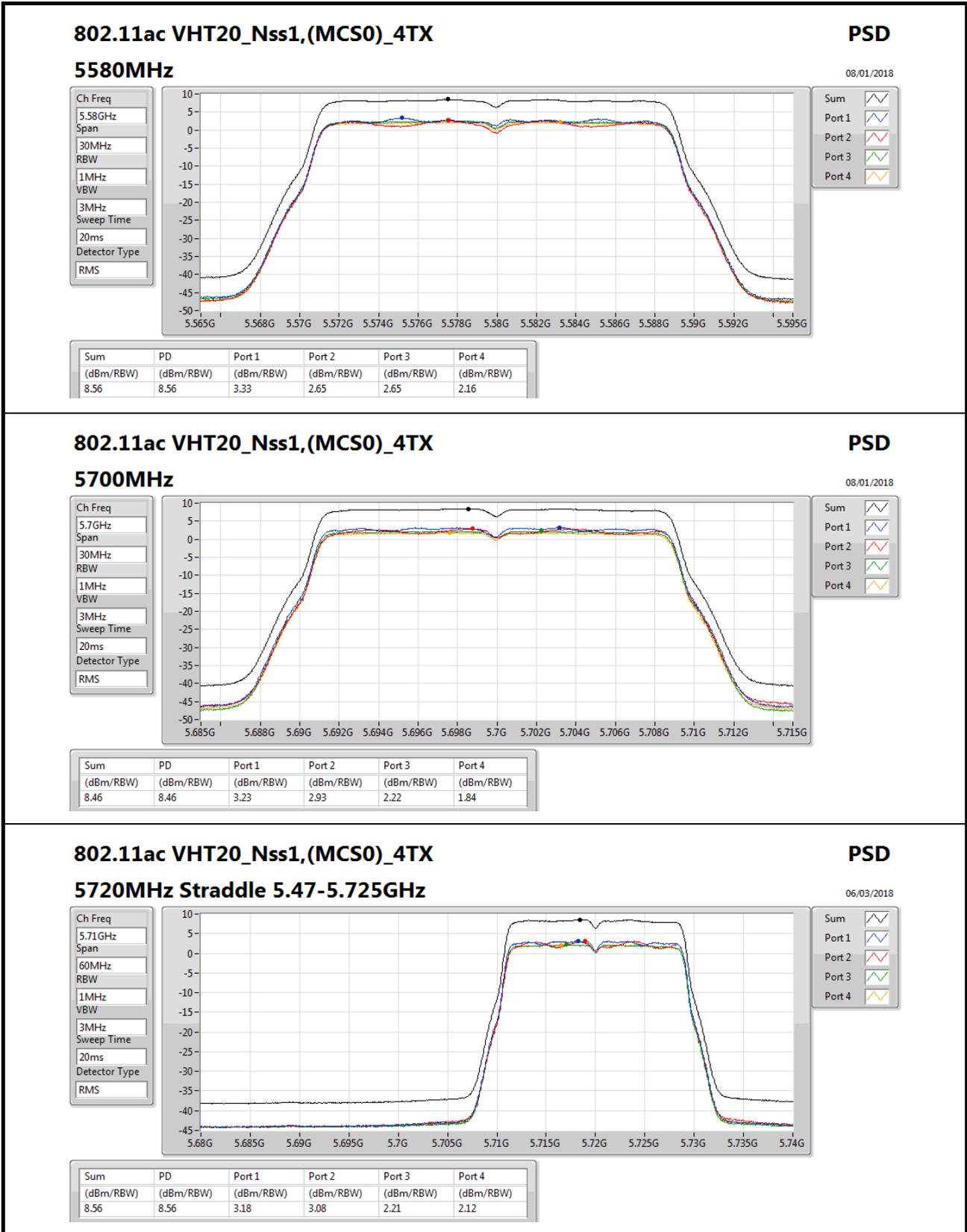
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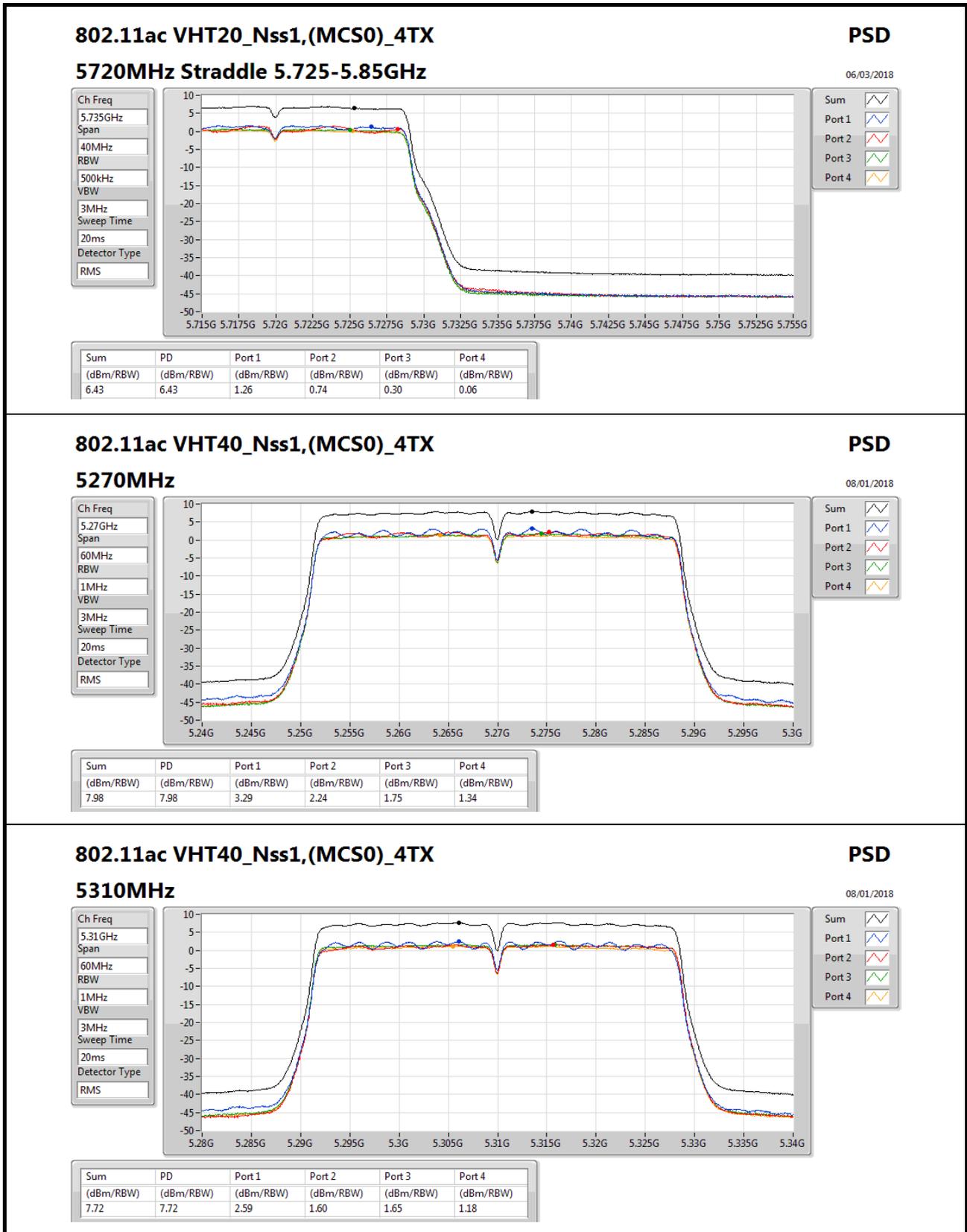
Port 1

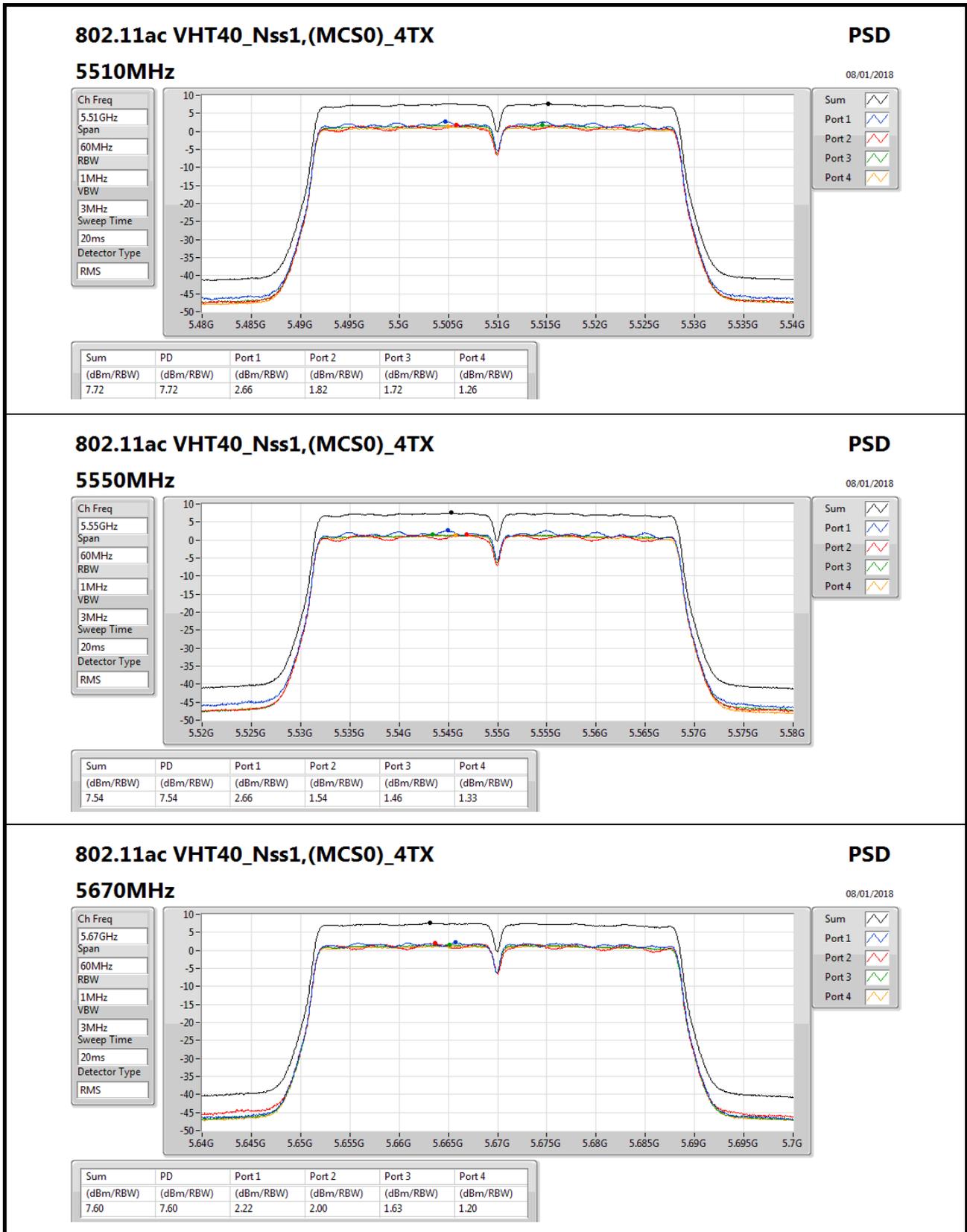
Port 2

Port 3

Port 4







### 802.11ac VHT40\_Nss1,(MCS0)\_4TX

#### 5670MHz

### PSD

08/01/2018

Ch Freq  
5.67GHz

Span  
60MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

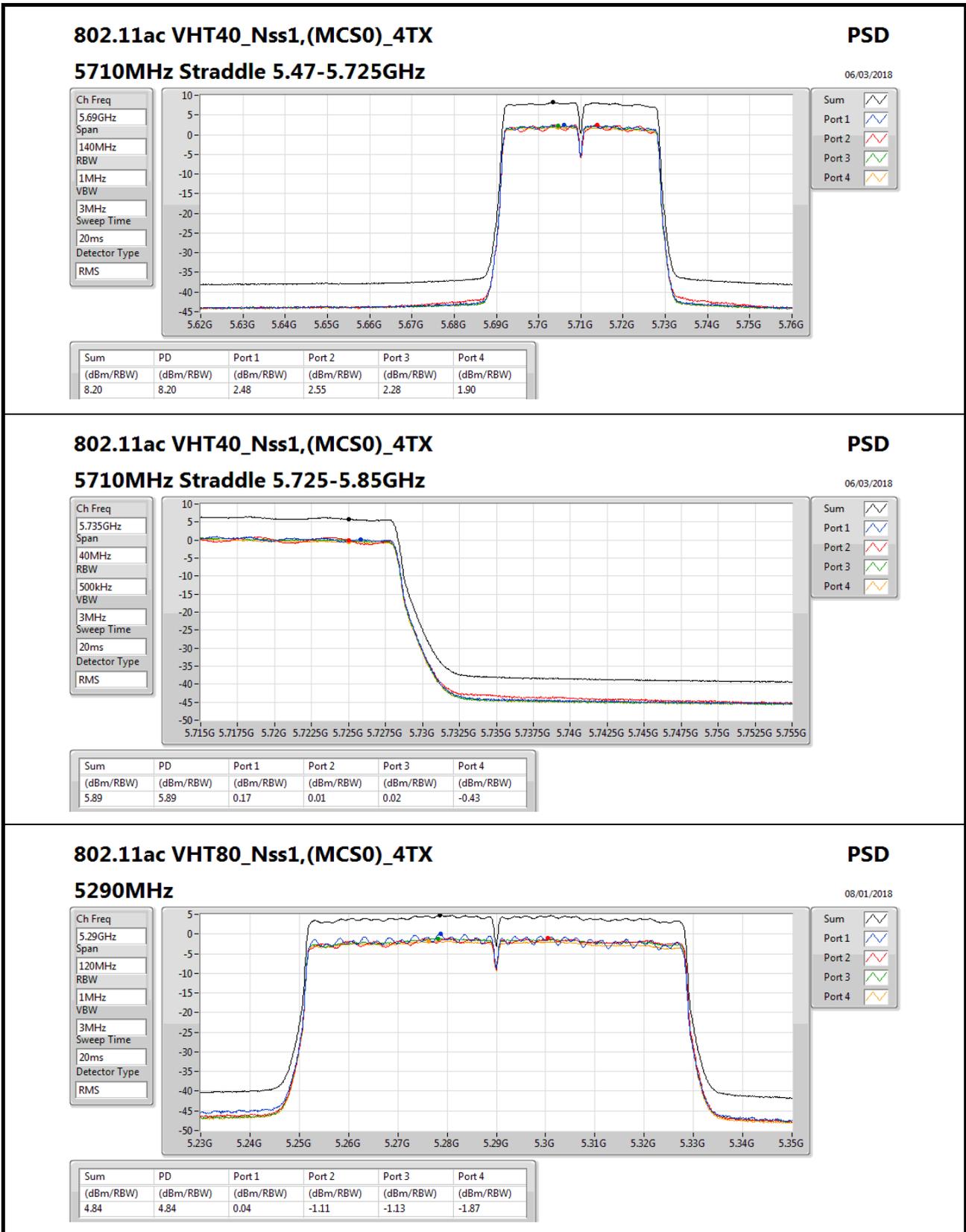
Sum

Port 1

Port 2

Port 3

Port 4



### 802.11ac VHT80\_Nss1,(MCS0)\_4TX

#### 5290MHz

**PSD**

08/01/2018

Ch Freq

5.29GHz

Span

120MHz

RBW

1MHz

VBW

3MHz

Sweep Time

20ms

Detector Type

RMS

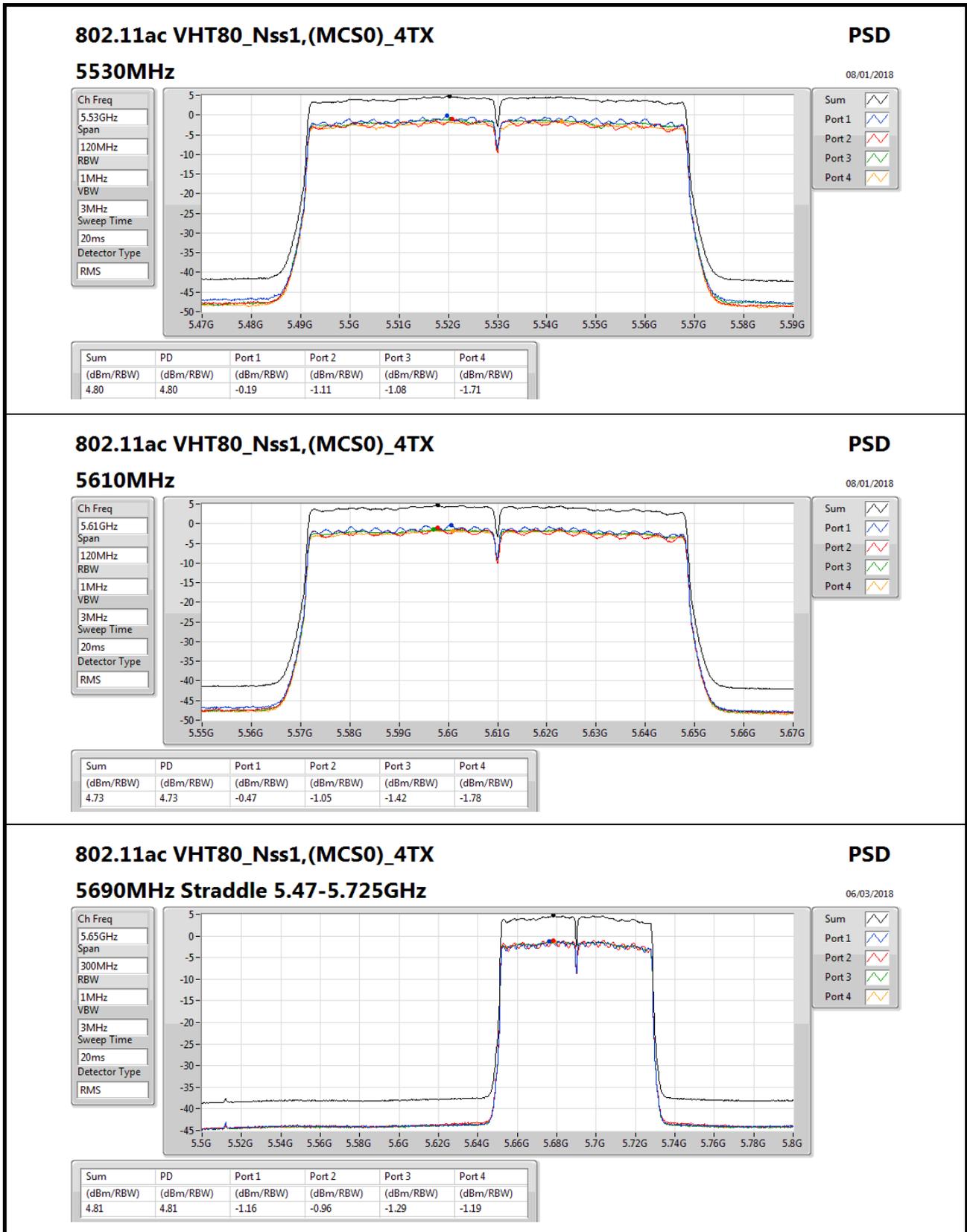
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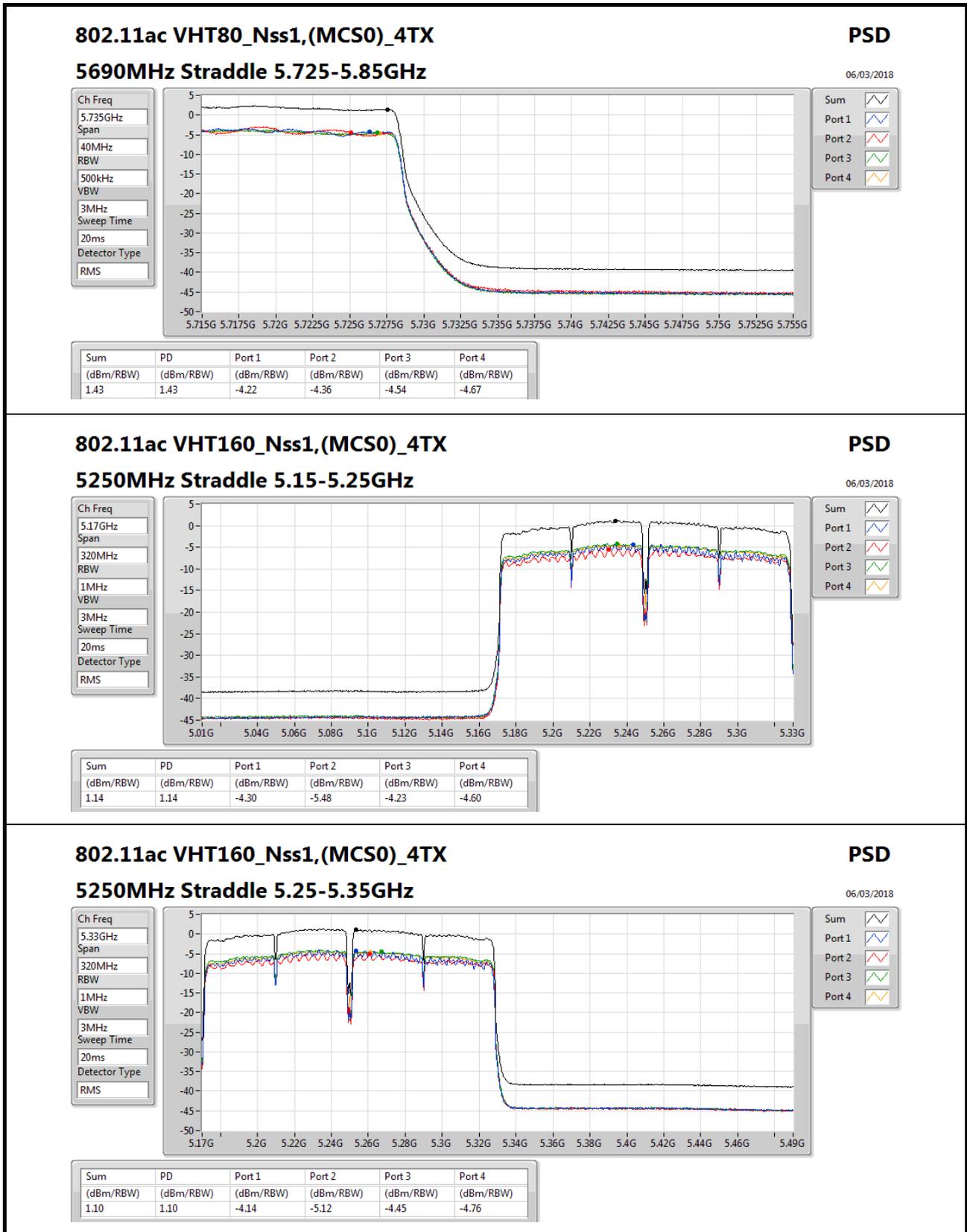
Port 1

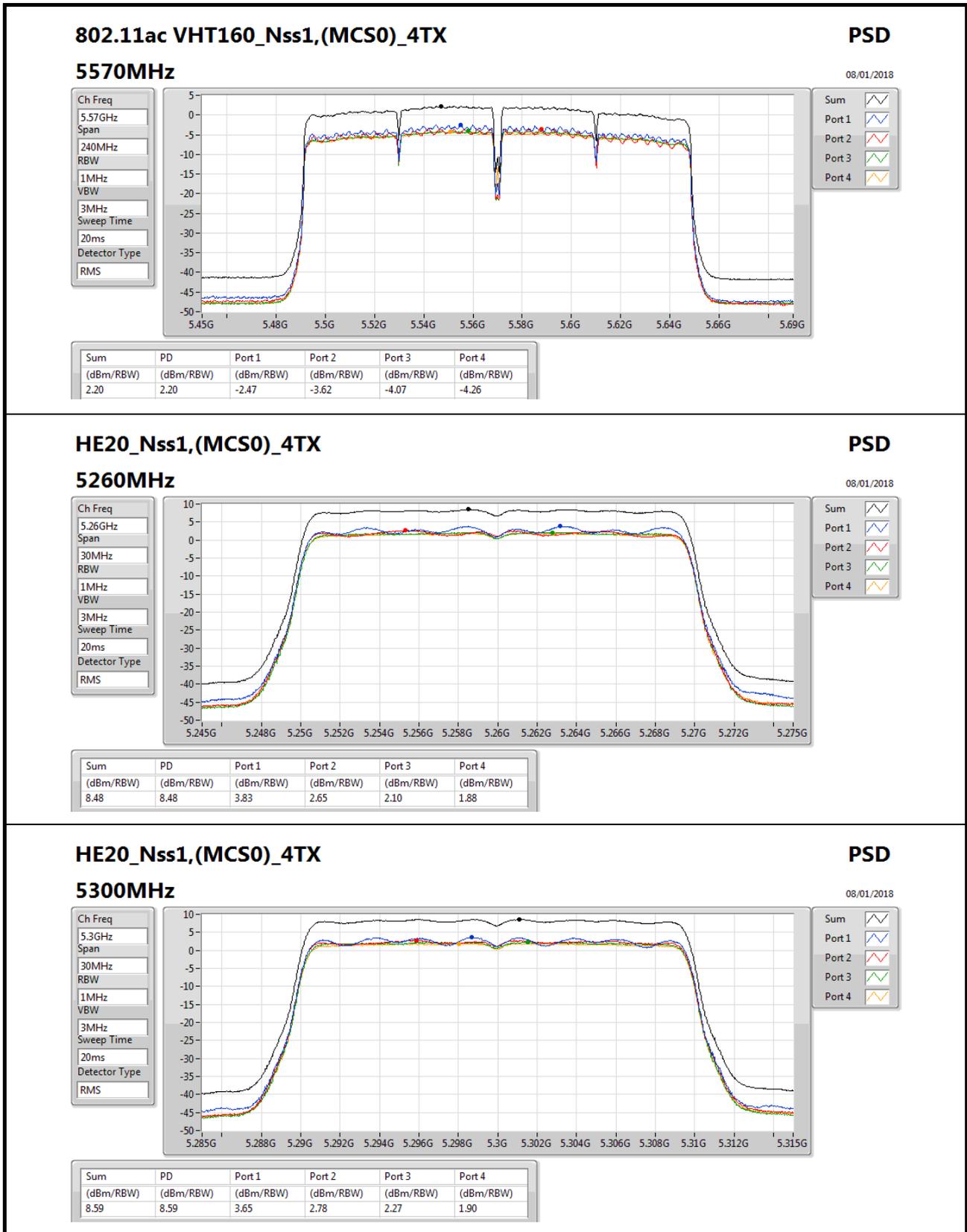
Port 2

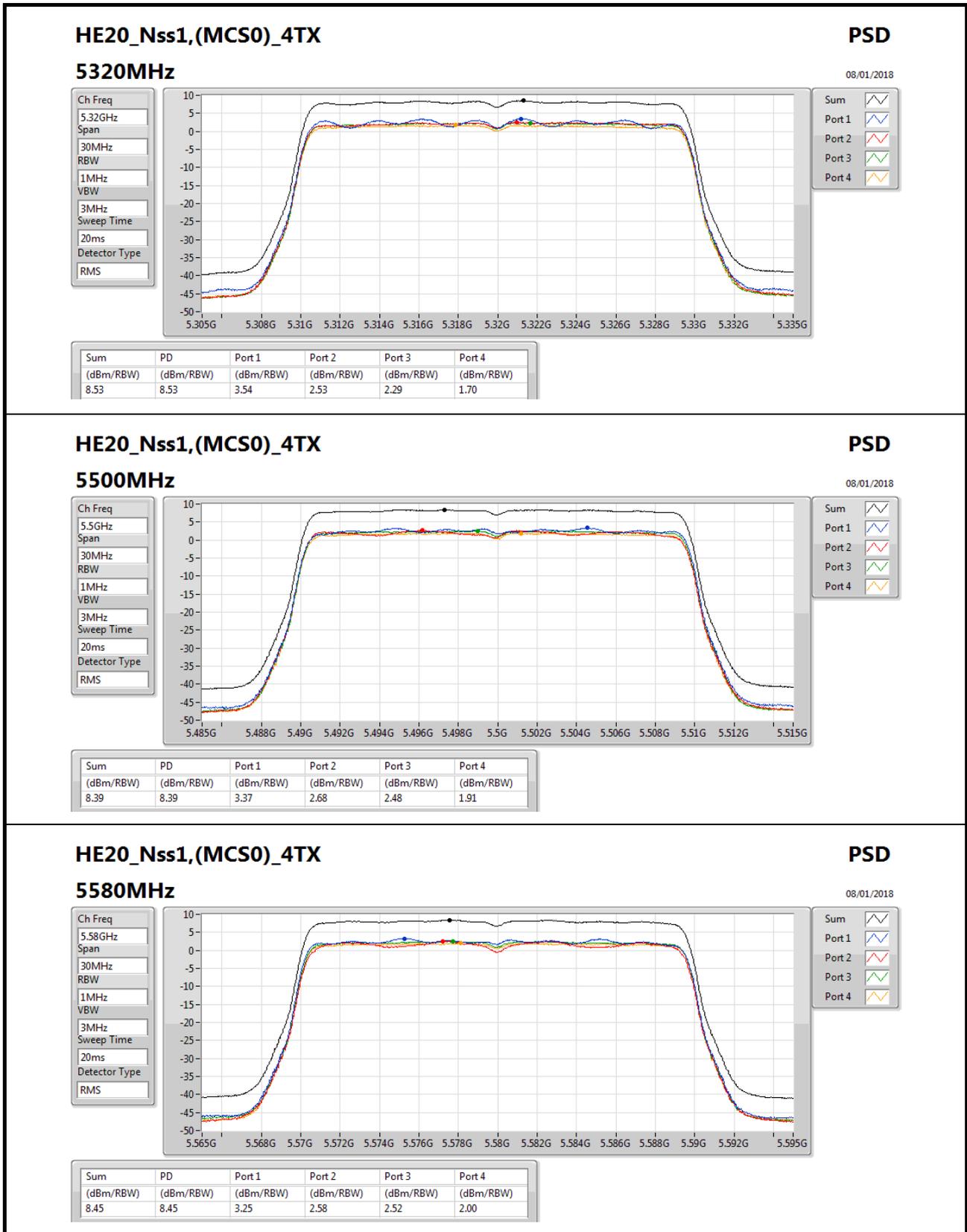
Port 3

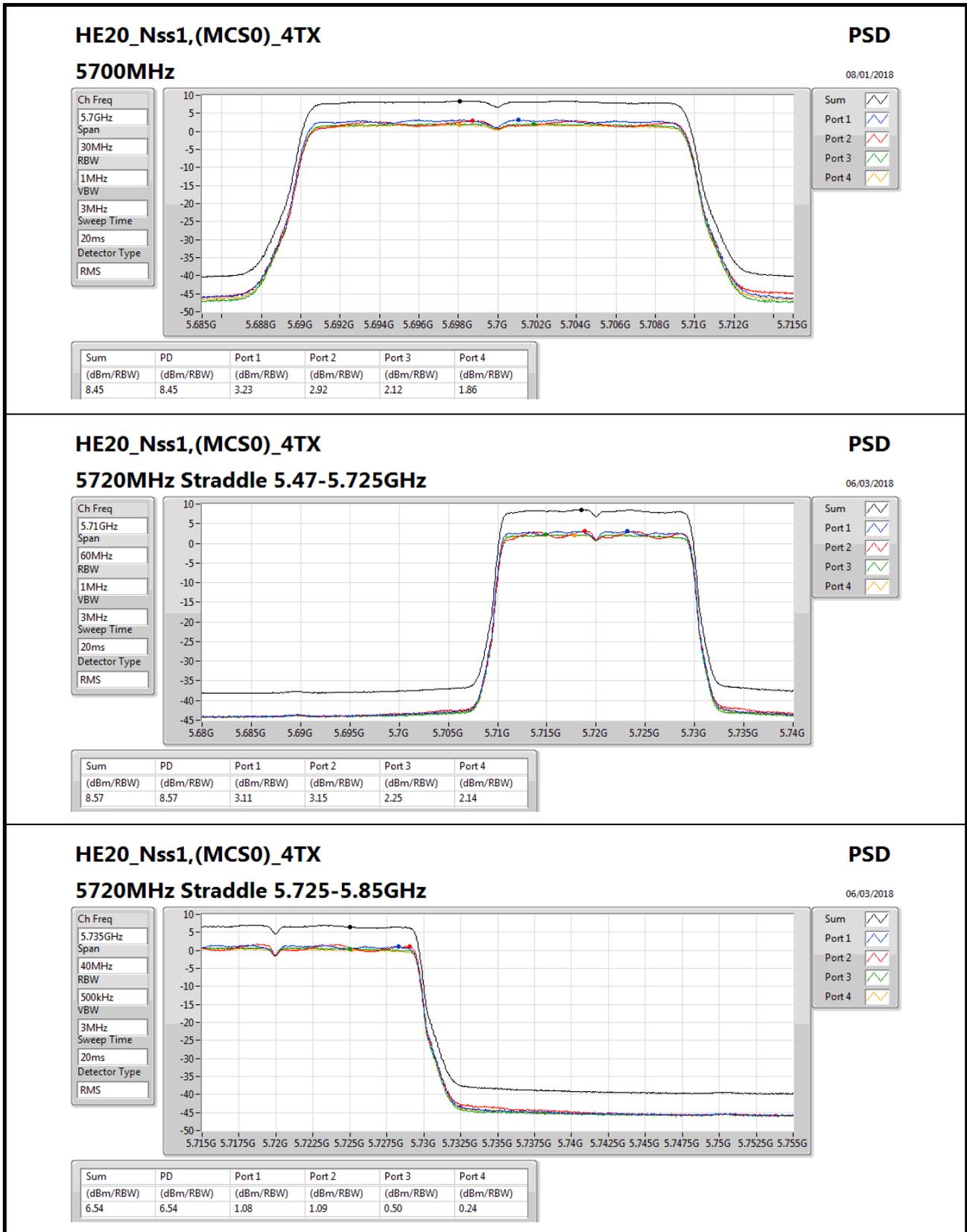
Port 4

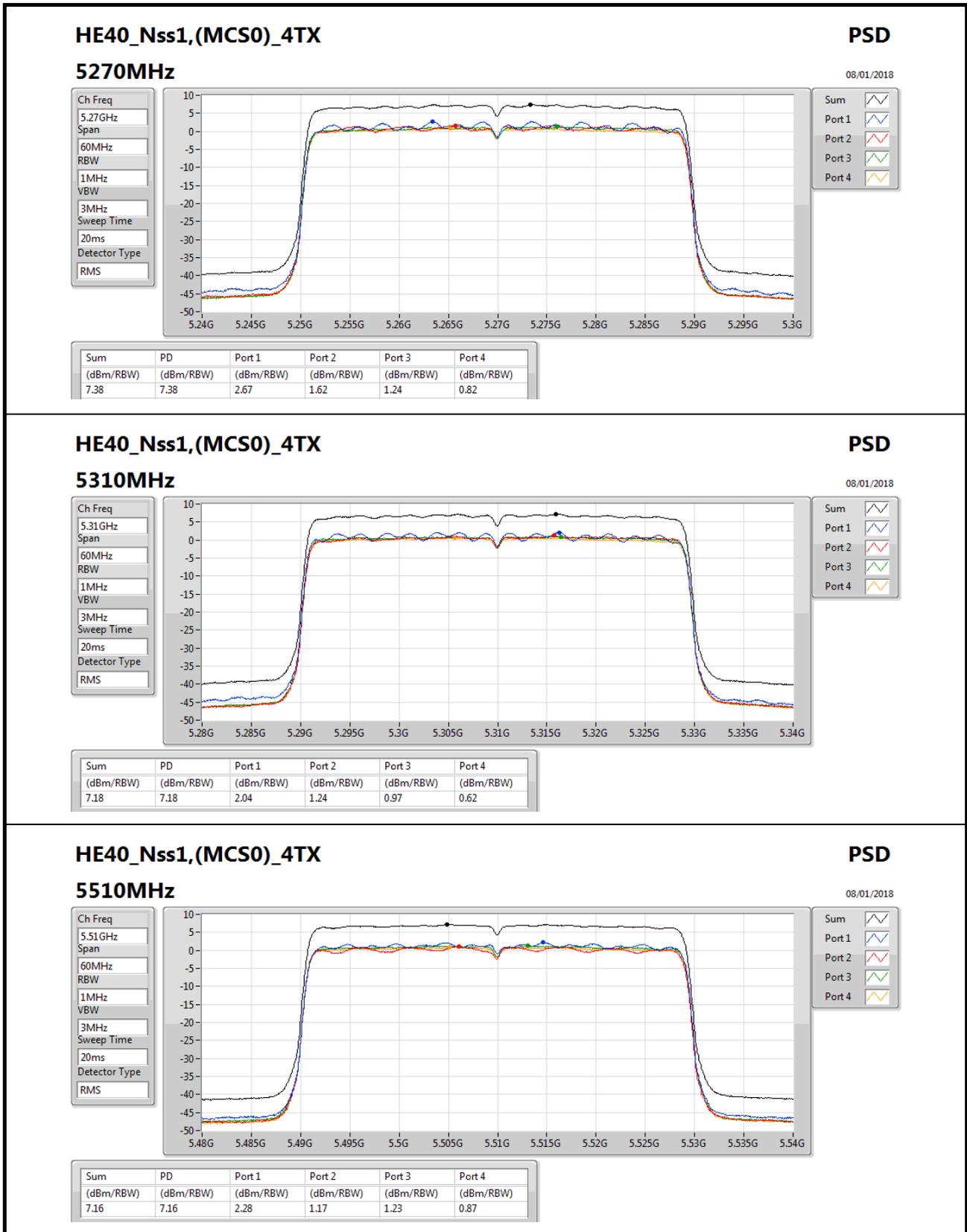


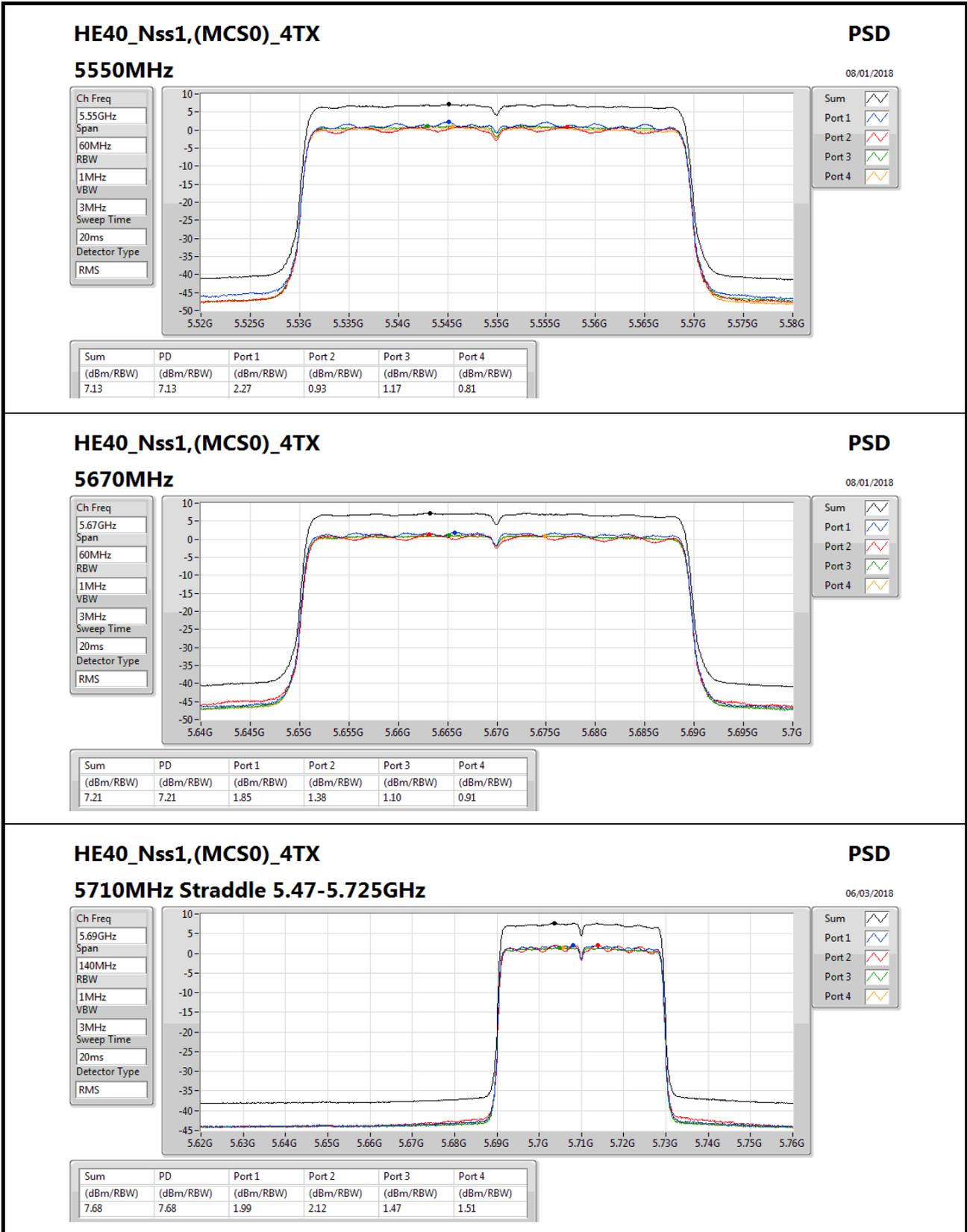












### HE40\_Nss1,(MCS0)\_4TX

#### 5710MHz Straddle 5.47-5.725GHz

### PSD

06/03/2018

Ch Freq  
5.69GHz

Span  
140MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

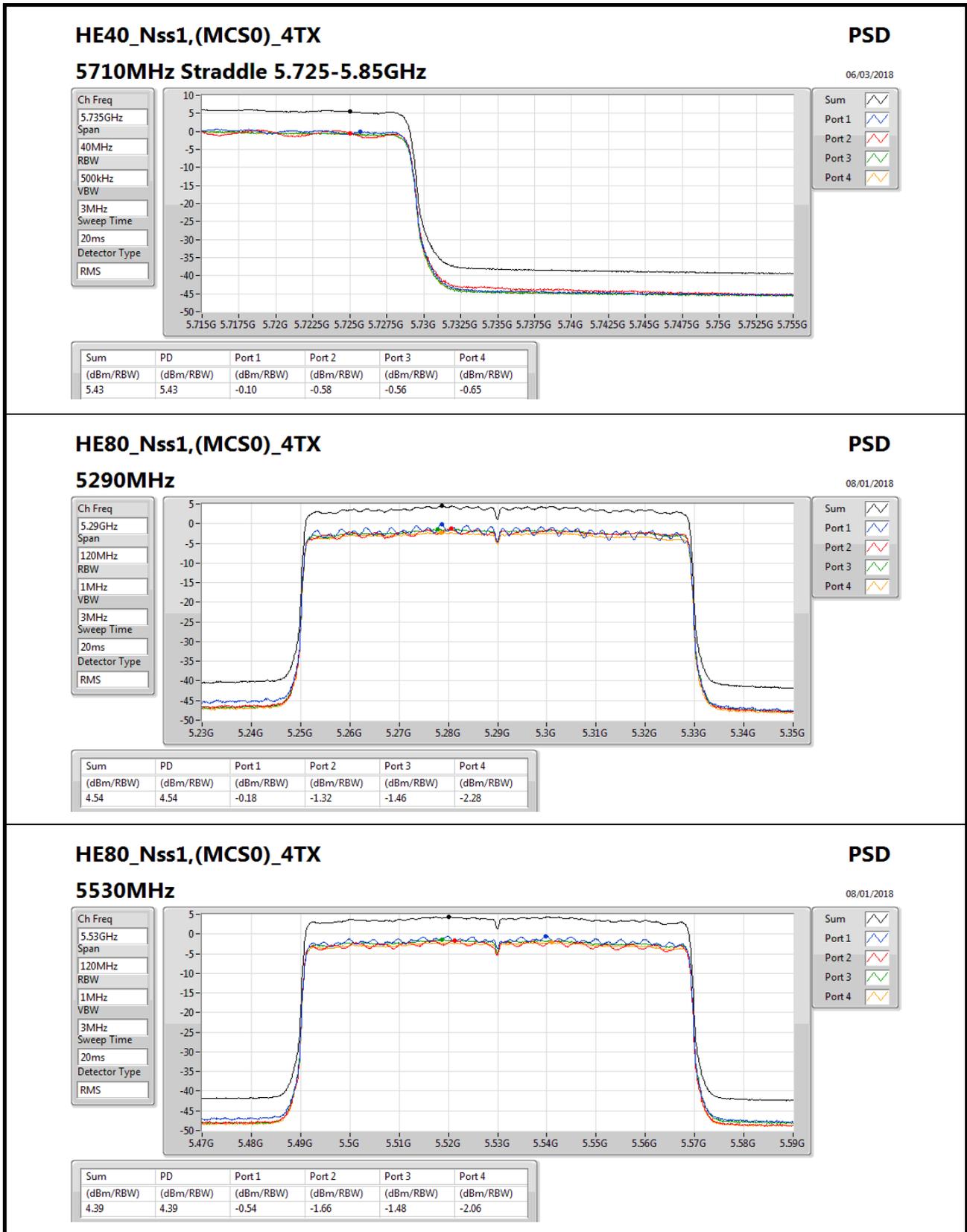
Sum

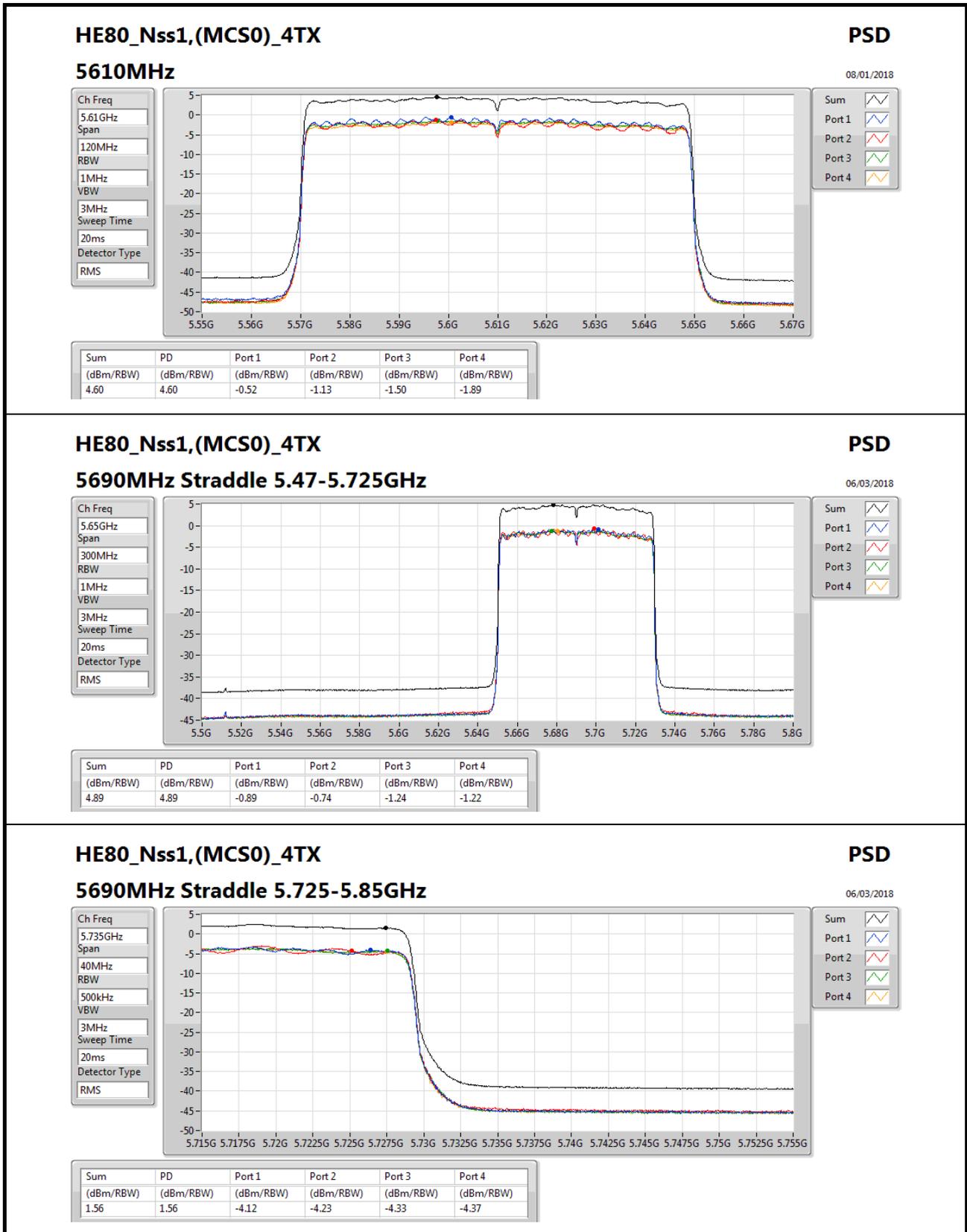
Port 1

Port 2

Port 3

Port 4





### HE80\_Nss1,(MCS0)\_4TX

#### 5690MHz Straddle 5.725-5.85GHz

### PSD

06/03/2018

Ch Freq  
5.735GHz

Span  
40MHz

RBW  
500kHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

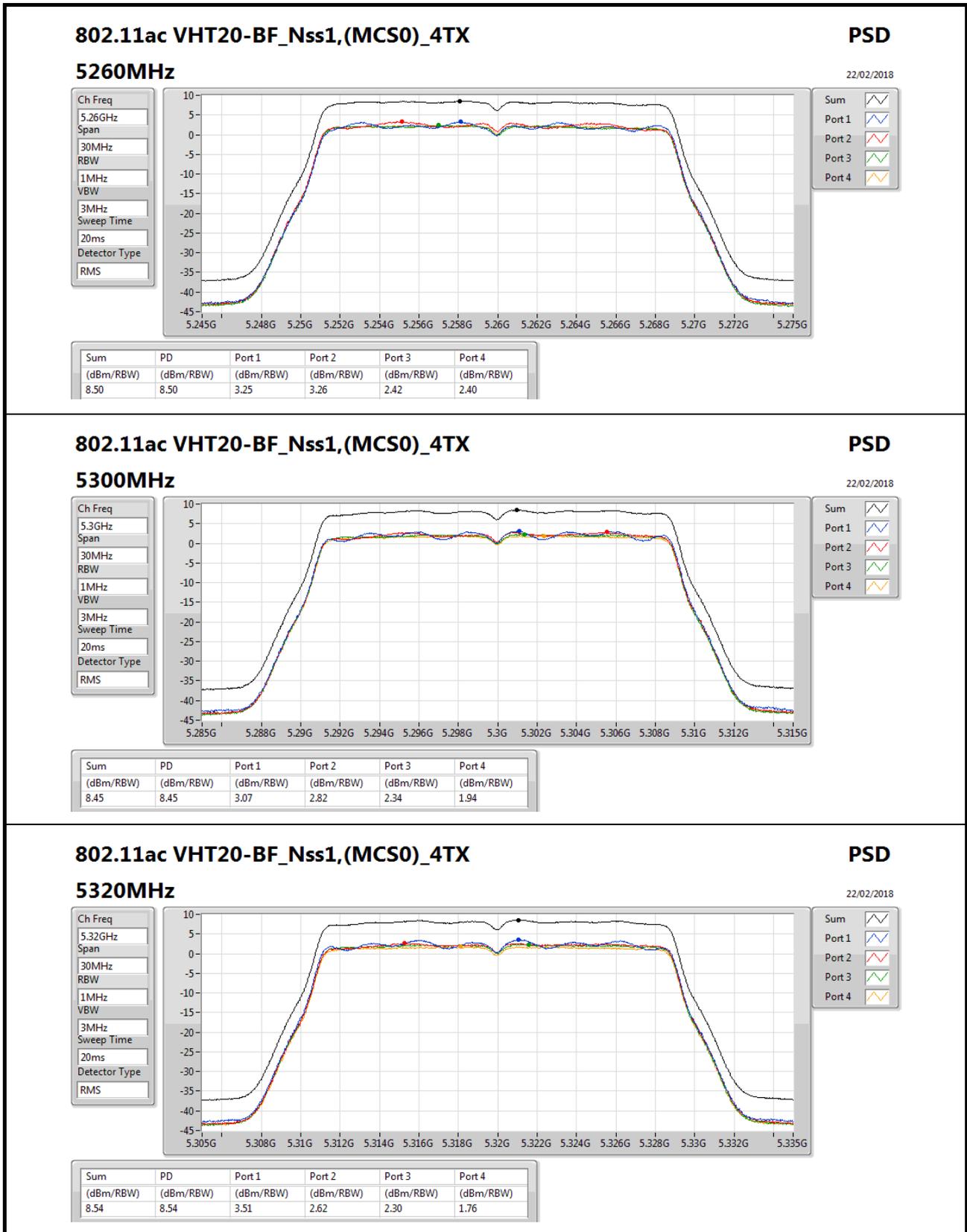
Sum

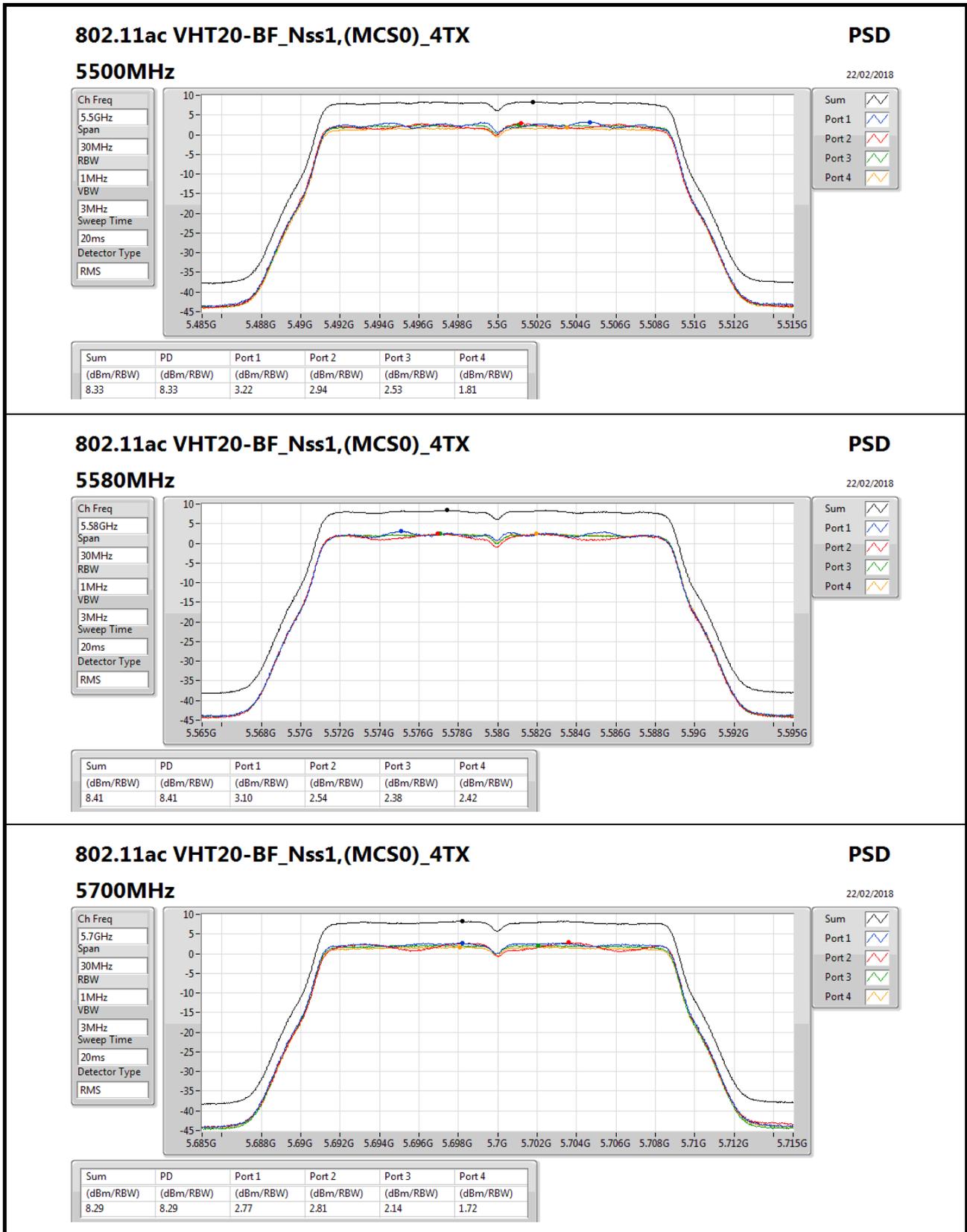
Port 1

Port 2

Port 3

Port 4





### 802.11ac VHT20-BF\_Nss1,(MCS0)\_4TX

#### 5700MHz

**PSD**

22/02/2018

Ch Freq  
5.7GHz

Span  
30MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

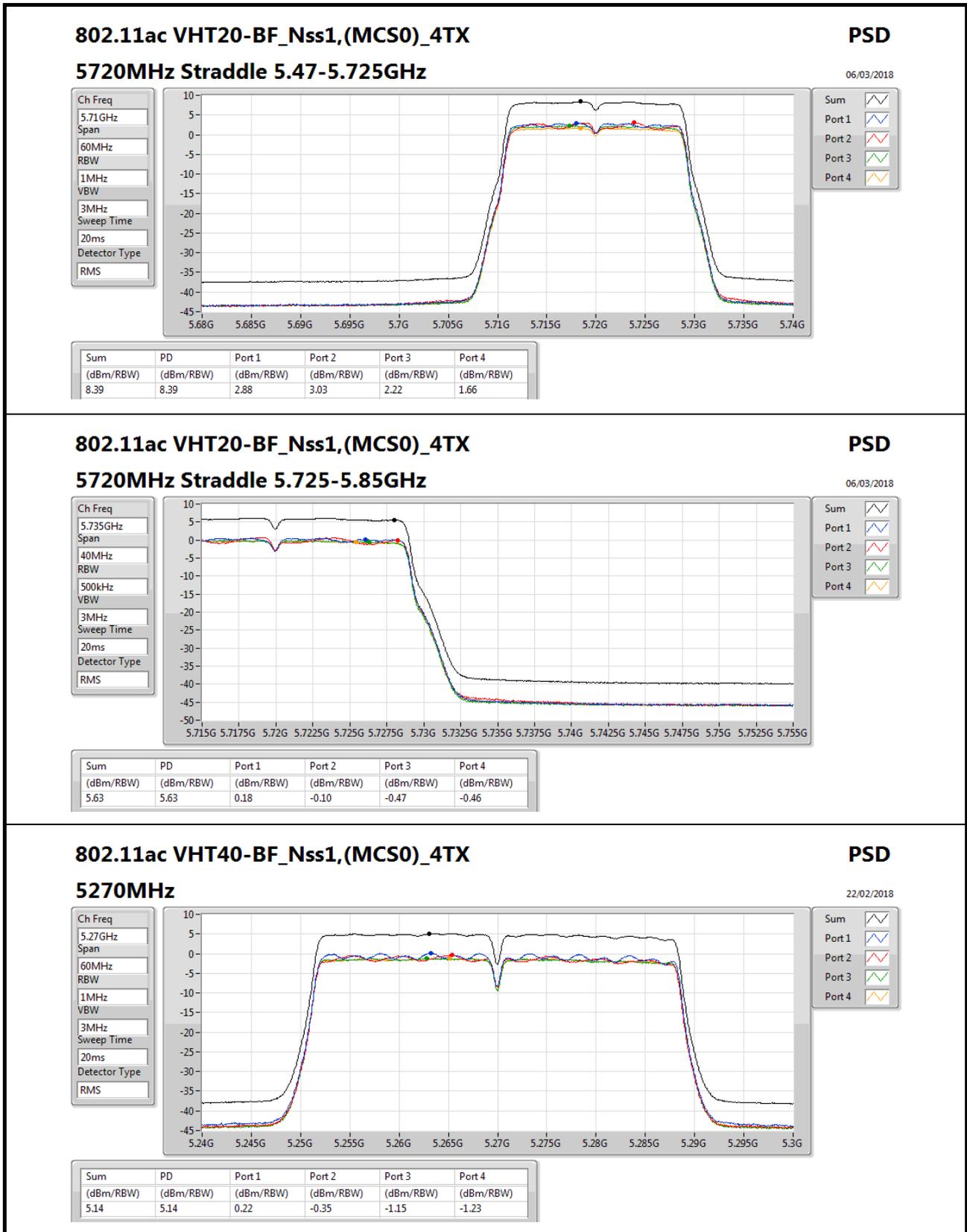
Sum

Port 1

Port 2

Port 3

Port 4



### 802.11ac VHT40-BF\_Nss1,(MCS0)\_4TX

#### 5270MHz

**PSD**

22/02/2018

Ch Freq  
5.27GHz

Span  
60MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

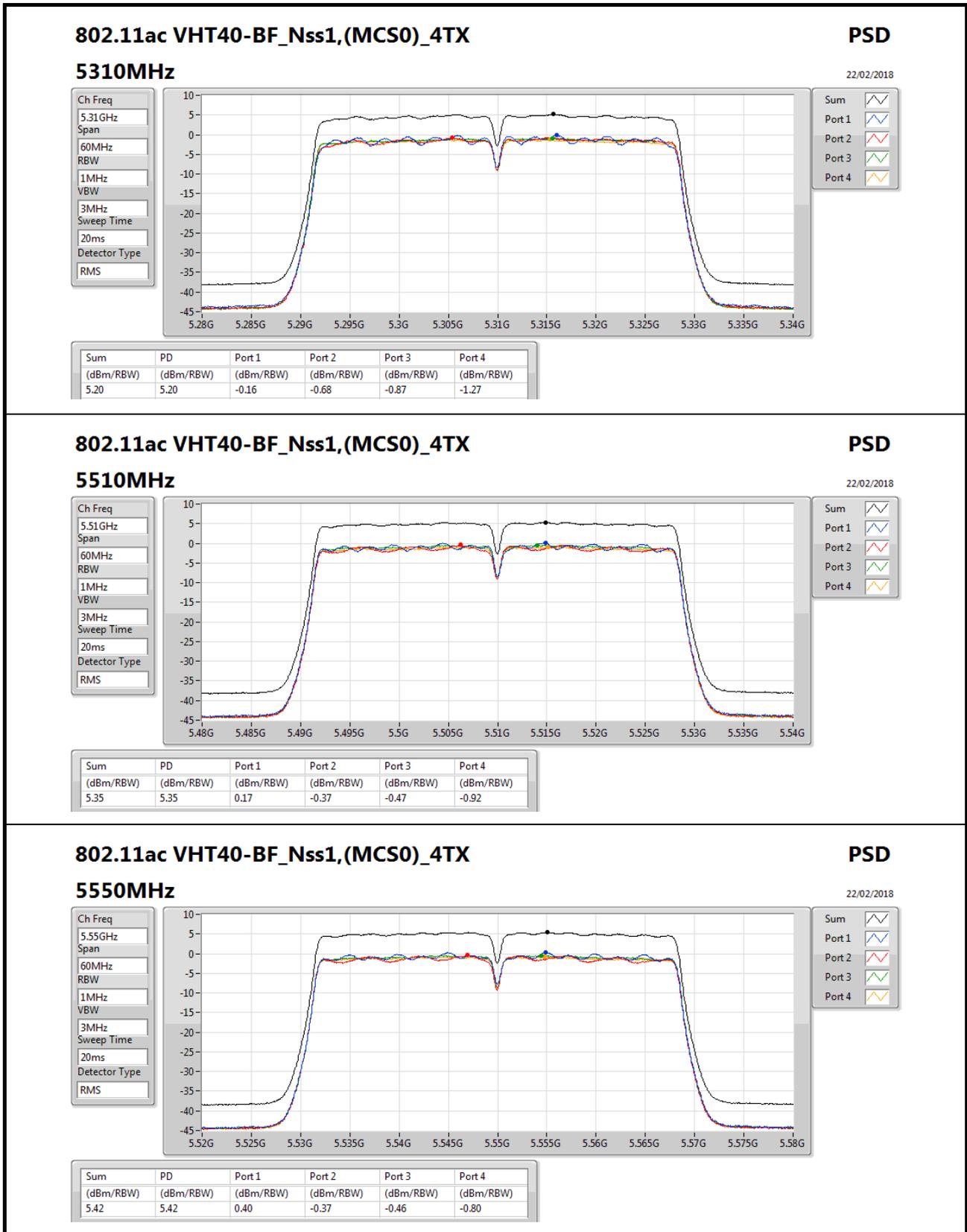
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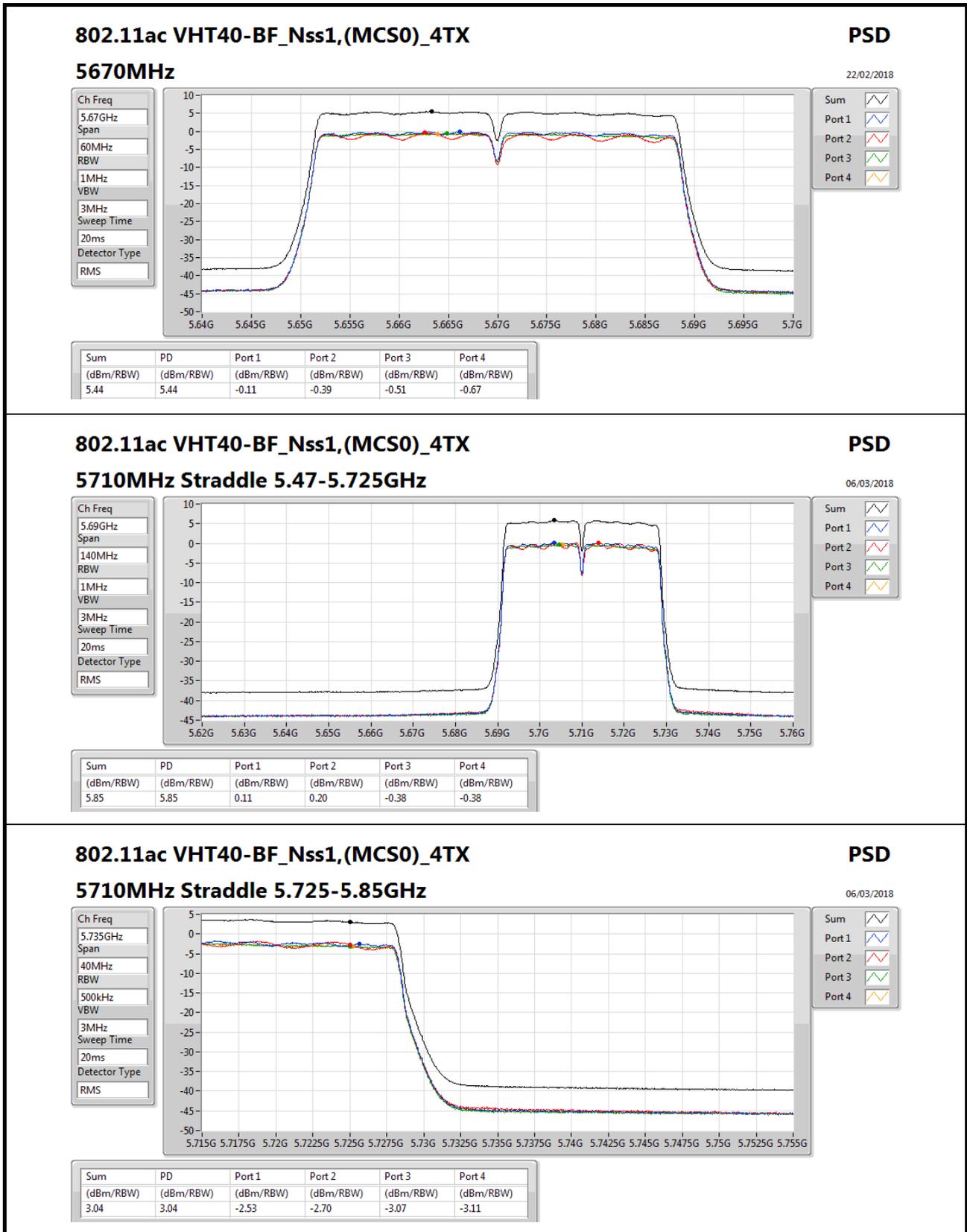
Port 1

Port 2

Port 3

Port 4





### 802.11ac VHT40-BF\_Nss1,(MCS0)\_4TX

#### 5710MHz Straddle 5.725-5.85GHz

**PSD**

06/03/2018

Ch Freq  
5.735GHz

Span  
40MHz

RBW  
500kHz

VBW  
3MHz

Sweep Time  
20ms

Detector Type  
RMS

Sum

Port 1

Port 2

Port 3

Port 4

