



FCC Test Report

Equipment : 802.11a/b/g/n/ac Wireless Access Point
Brand Name : CISCO
Model No. : MR20-HW
FCC ID : UDX-60066010
Standard : 47 CFR FCC Part 15.407
Operating Band : 5250 MHz – 5350 MHz
5470 MHz – 5725 MHz
Applicant : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Function : Outdoor; Indoor; Fixed P2P
 Client
TPC Function : With TPC Without TPC

The product sample received on May 23, 2017 and completely tested on Jul. 04, 2017. 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.

Cliff Chang
SPORTON INTERNATIONAL INC.





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APPENDIX A. TEST RESULTS OF RADIATED EMISSION CO-LOCATION

APPENDIX B. TEST PHOTOS

PHOTOGRAPHS OF EUT V02



Summary of Test Result

Conformance Test Specifications			
Report Clause	Ref. Std. Clause	Description	Result
1.1.2	15.203	Antenna Requirement	Complied
3.1	15.207	AC Power-line Conducted Emissions	Complied
3.2	15.407(a)	Emission Bandwidth	Complied
3.3	15.407(a)	Maximum Conducted Output Power	Complied
3.4	15.407(a)	Peak Power Spectral Density	Complied
3.5	15.407(b)	Unwanted Emissions	Complied
3.6	15.407(g)	Frequency Stability	Complied



Revision History



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5250-5350	n (HT20), ac (VHT20)	5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5250-5350	n (HT40), ac (VHT40)	5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5250-5350	ac (VHT80)	5290	58 [1]
5470-5725		5530-5690	106-138 [3]

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	11a	20	2TX
5.25-5.35GHz	HT20	20	2TX
5.25-5.35GHz	VHT20	20	2TX
5.25-5.35GHz	HT40	40	2TX
5.25-5.35GHz	VHT40	40	2TX
5.25-5.35GHz	VHT80	80	2TX
5.47-5.725GHz	11a	20	2TX
5.47-5.725GHz	HT20	20	2TX
5.47-5.725GHz	VHT20	20	2TX
5.47-5.725GHz	HT40	40	2TX
5.47-5.725GHz	VHT40	40	2TX
5.47-5.725GHz	VHT80	80	2TX
5.25-5.35GHz	HT20-BF	20	2TX
5.25-5.35GHz	VHT20-BF	20	2TX
5.25-5.35GHz	HT40-BF	40	2TX
5.25-5.35GHz	VHT40-BF	40	2TX
5.25-5.35GHz	VHT80-BF	80	2TX
5.47-5.725GHz	HT20-BF	20	2TX
5.47-5.725GHz	VHT20-BF	20	2TX
5.47-5.725GHz	HT40-BF	40	2TX
5.47-5.725GHz	VHT40-BF	40	2TX
5.47-5.725GHz	VHT80-BF	80	2TX

Note:

- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 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.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
						2.4GHz	5GHz
1	1	WNC	95XKAA15.GDX	PIFA Antenna	I-PEX	5.63	5.31
2	2	WNC	95XKAA15.GDX	PIFA Antenna	I-PEX	3.29	5.08
Composite Gain Un-Correlated (dBi)						3.43	4.26
Composite Gain Correlated (dBi)						5.70	7.27

Note: The EUT has two antennas.

For 2.4GHz function:

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz function:

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

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

Port 1 and Port 2 could transmit/receive simultaneously.



1.1.3 Mode Test Duty Cycle

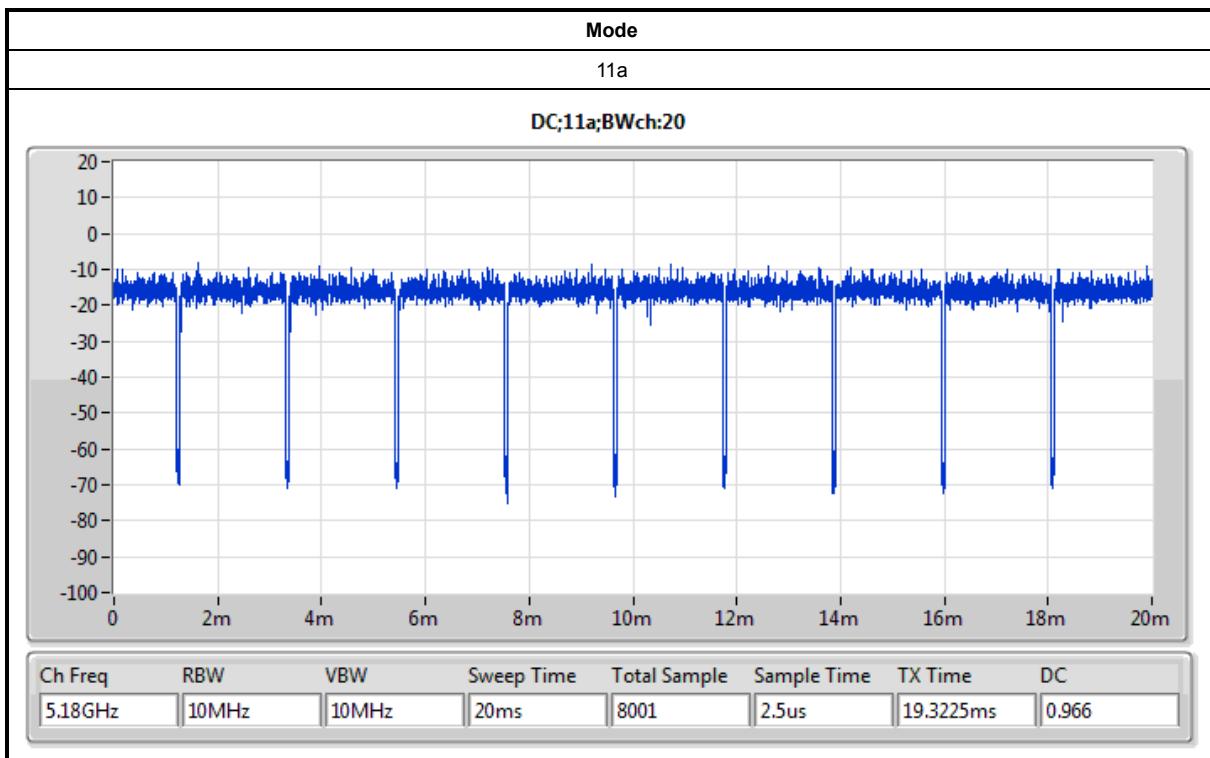
Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
11a	0.966	0.15	2.033m	1k
VHT20	0.983	0.074	n/a (DC>=0.98)	n/a (DC>=0.98)
VHT40	0.967	0.146	2.418m	1k
VHT80	0.914	0.391	1.108m	1k
VHT20-BF	0.604	2.19	687.5u	3k
VHT40-BF	0.465	3.325	862.5u	3k
VHT80-BF	0.271	5.67	200u	10k

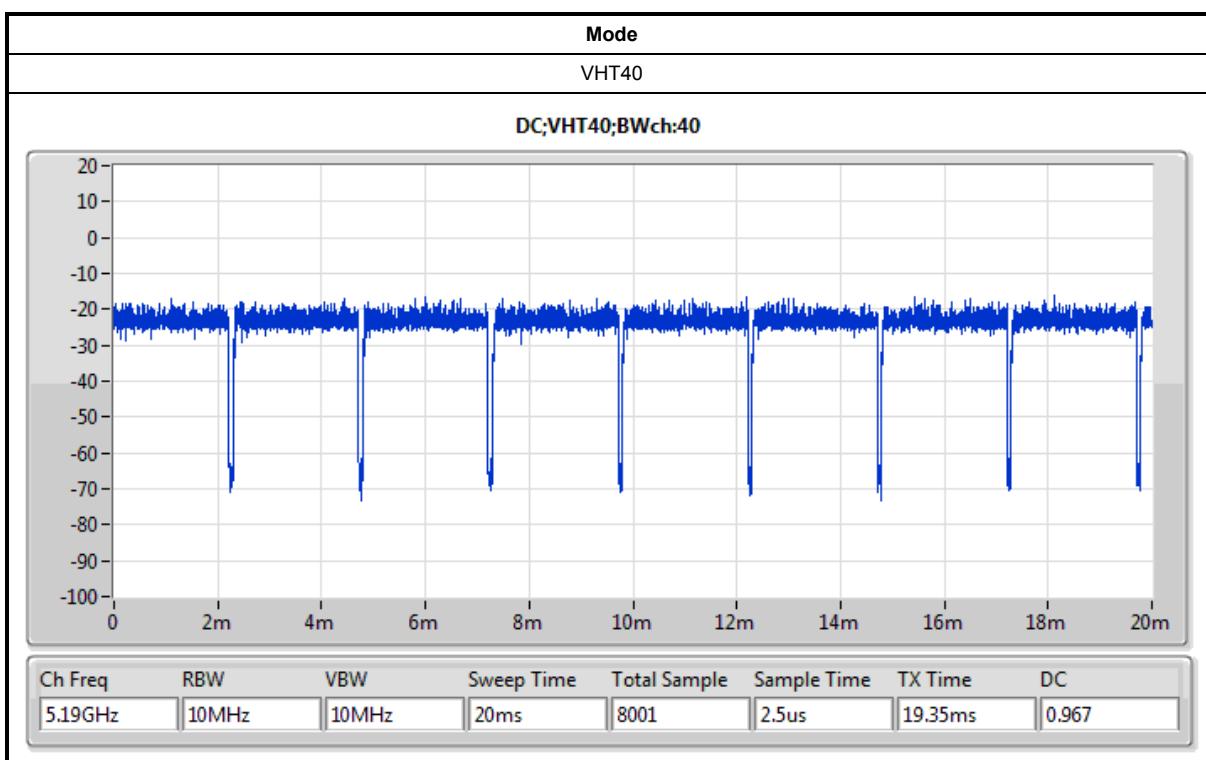
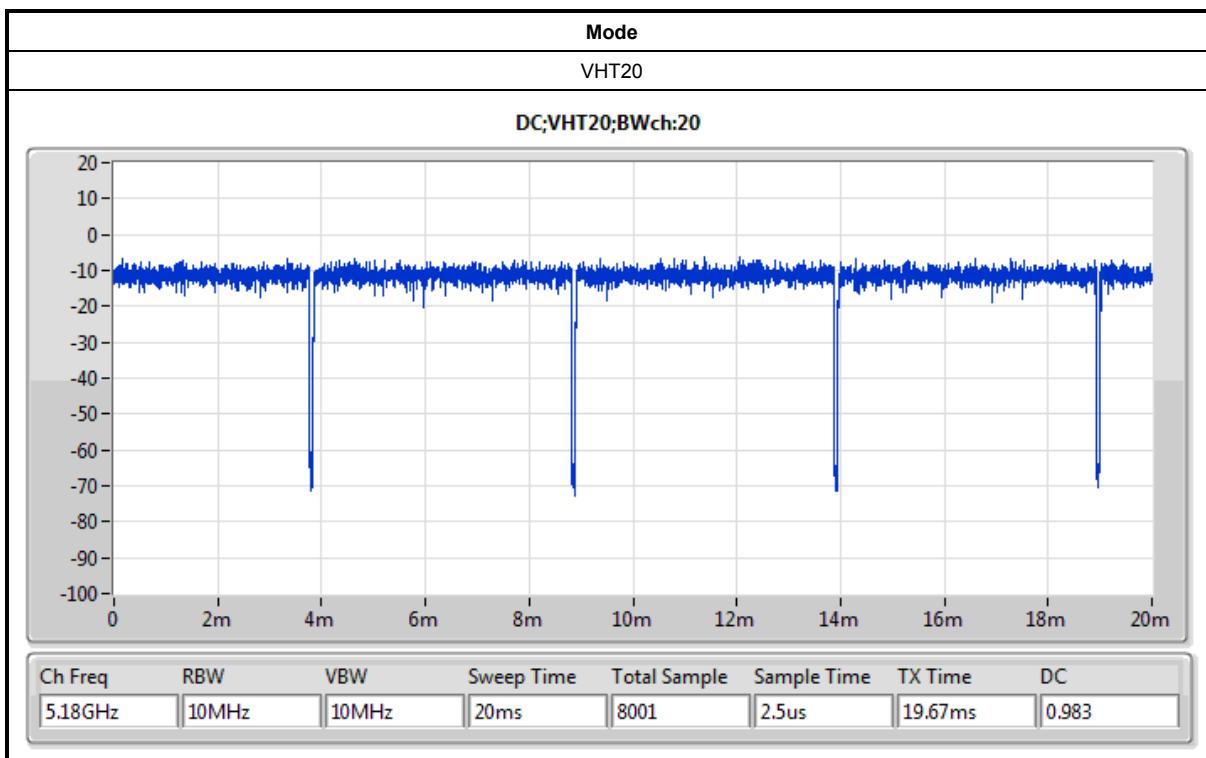
Note:

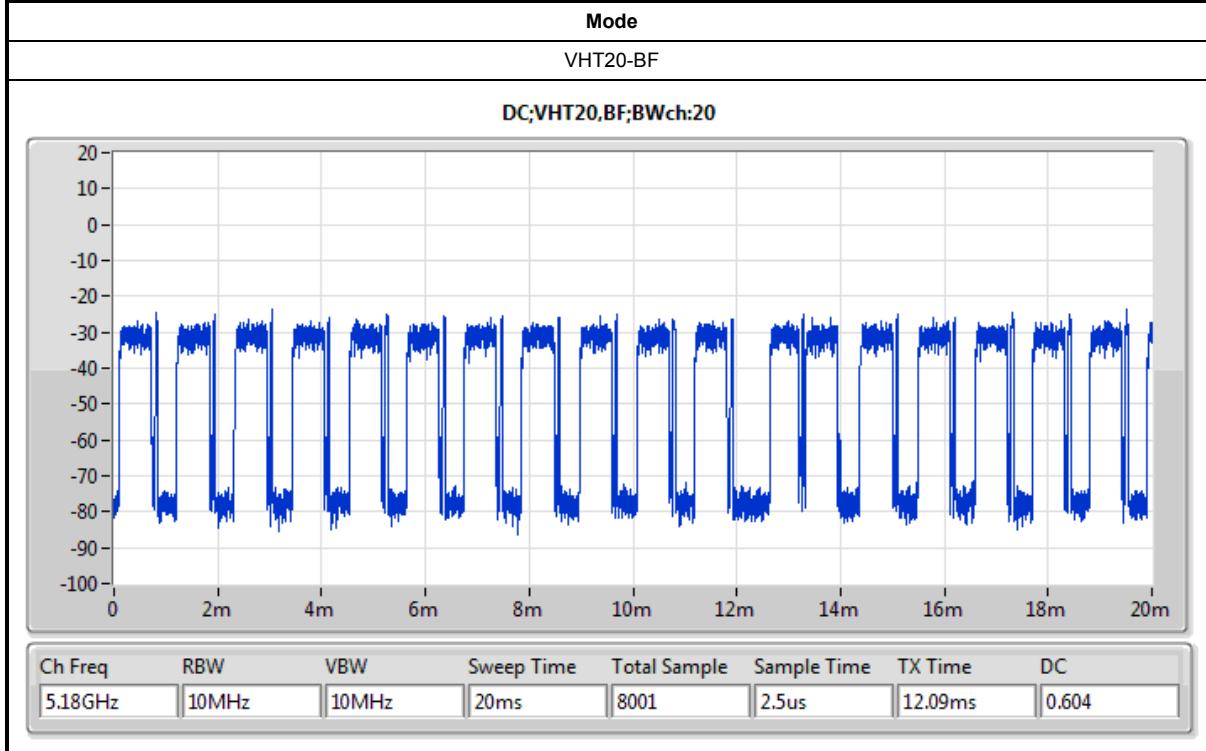
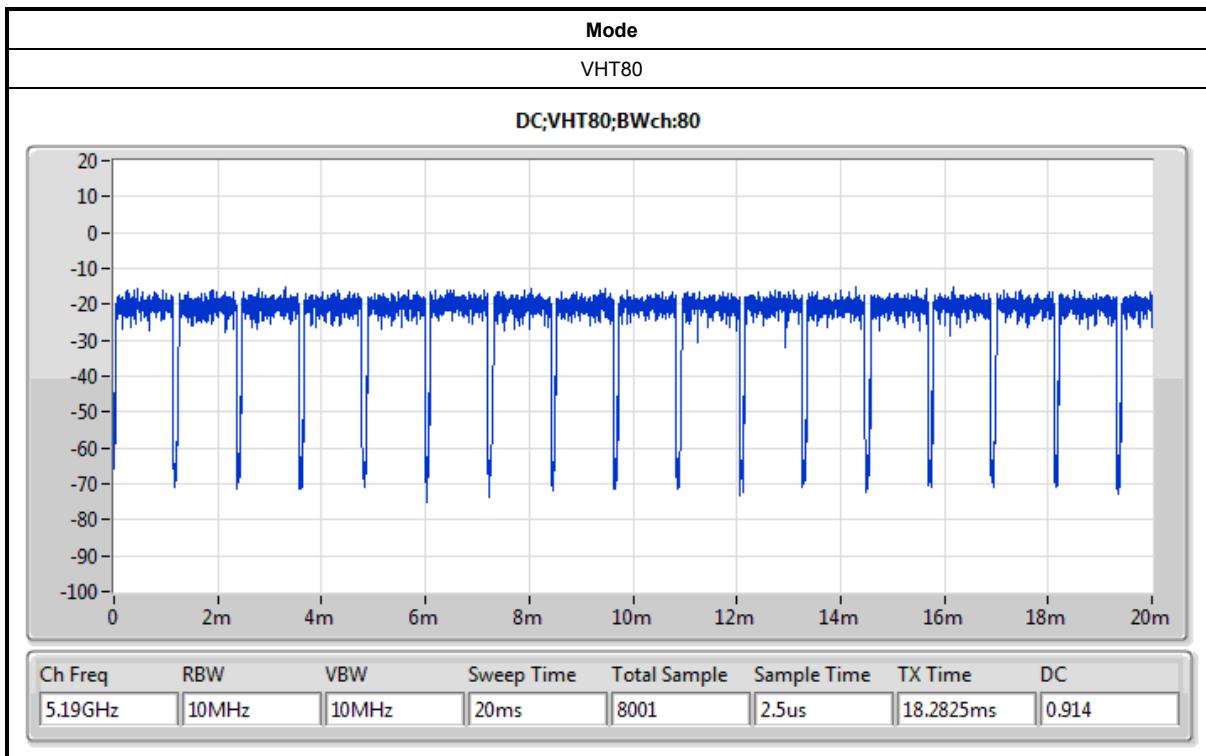
The test procedure refers to ANSI C63.10:2013 clause 11.6 b). The ON and OFF times of the transmitted signal is measured by spectrum analyzer and the setting as follows:

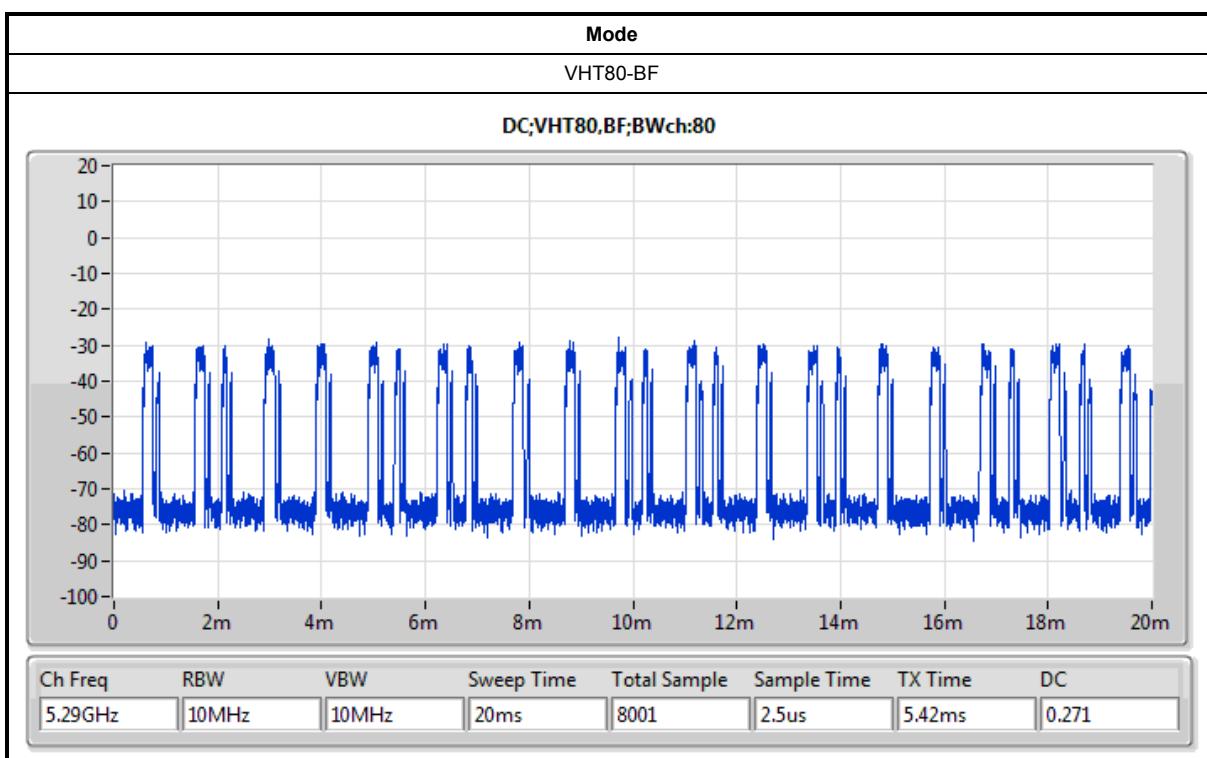
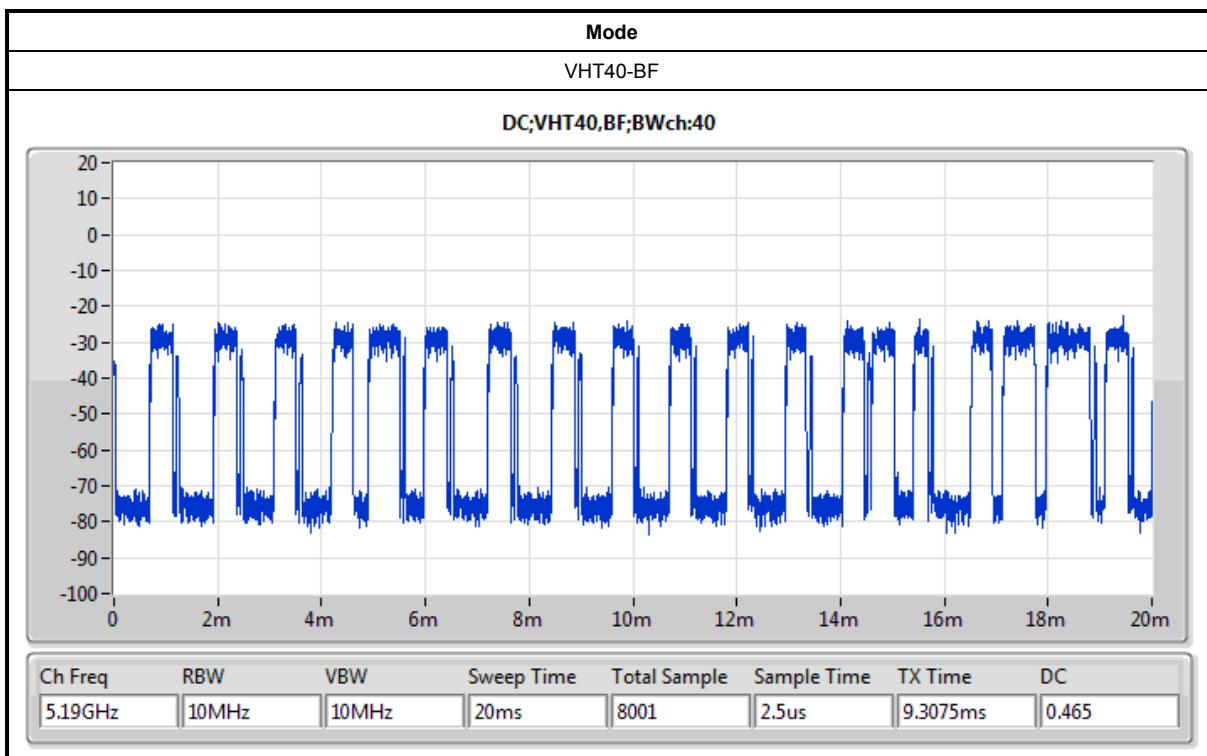
- 1) Set the center frequency of the instrument to the center frequency of the transmission.
- 2) Set RBW \geq OBW if possible; otherwise, set RBW to the largest available value.
- 3) Set VBW \geq RBW. Set detector = peak or average.

The measured result and plots are recorded in 1.1.3.











1.1.4 EUT Operational Condition

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



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	Gino Huang, Gary Chu	23°C / 55%	Jun. 27, 2017 ~ Jun. 30, 2017
Radiated	03CH01-CB	Justin Lin	22°C / 54%	Jun. 20, 2017 ~ Jul. 04, 2017
AC Conduction	CO01-CB	Ryo Fan	23°C / 55%	Jun. 23, 2017

Test site Designation No. TW0006 with FCC

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
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	9.74×10^{-8}	Confidence levels of 95%
Frequency Stability	6.06×10^{-8}	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
11a_Nss1_2TX	-
5260MHz	18
5300MHz	18
5320MHz	18
5500MHz	16.5
5580MHz	18
5700MHz	16.5
5720MHz Straddle 5.47-5.725GHz	18.5
5720MHz Straddle 5.725-5.85GHz	18.5
VHT20_Nss1_2TX	-
5260MHz	18.5
5300MHz	19
5320MHz	19
5500MHz	18.5
5580MHz	18.5
5700MHz	17
5720MHz Straddle 5.47-5.725GHz	18.5
5720MHz Straddle 5.725-5.85GHz	18.5
VHT40_Nss1_2TX	-
5270MHz	20
5310MHz	16.5
5510MHz	17
5550MHz	20
5670MHz	19
5710MHz Straddle 5.47-5.725GHz	20
5710MHz Straddle 5.725-5.85GHz	20
VHT80_Nss1_2TX	-
5290MHz	16
5530MHz	17
5610MHz	20
5690MHz Straddle 5.47-5.725GHz	20
5690MHz Straddle 5.725-5.85GHz	20



Mode	Power Setting
VHT20-BF_Nss1_2TX	-
5260MHz	24
5300MHz	24
5320MHz	19
5500MHz	19
5580MHz	20
5700MHz	20
5720MHz Straddle 5.47-5.725GHz	24
5720MHz Straddle 5.725-5.85GHz	24
VHT40-BF_Nss1_2TX	-
5270MHz	24
5310MHz	17
5510MHz	20
5550MHz	20
5670MHz	20
5710MHz Straddle 5.47-5.725GHz	24
5710MHz Straddle 5.725-5.85GHz	24
VHT80-BF_Nss1_2TX	-
5290MHz	17
5530MHz	20
5610MHz	20
5690MHz Straddle 5.47-5.725GHz	24
5690MHz Straddle 5.725-5.85GHz	24

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. All test results were recorded in the report.



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	EUT 1 - Normal Link with Adapter
2	EUT 1 - Normal Link with PoE

For operating mode 1 is the worst case and it was record in this test report.

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT 1 in Z axis - Normal Link with Adapter
2	EUT 1 in Y axis - Normal Link with Adapter
3	EUT 1 in Y axis - Normal Link with PoE
Mode 2 has been evaluated to be the worst case between Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
For operating mode 3 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at Y axis and Z axis position for Radiated emission test, and the worst case was found at Y axis. So the measurement will follow this same test configuration.	
1	EUT 1 in Y axis



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WLAN 2.4GHz +WLAN 5GHz

Refer to Appendix A for Radiated Emission Co-location.

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz +WLAN 5GHz

Refer to Sporton Test Report No.: FA760620-01 for Co-location RF Exposure Evaluation.

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

PoE information as below:

Power	Brand	Model
PoE	Meraki	POE20U-560(G)



2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

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

The program was executed as follows:

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

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories					
No.	Equipment Name	Brand Name	PSU Vendor P/N	Meraki Model	Rating
1	Adapter	CISCO	KSAS0361200250HU	MA-PWR-30W-US	Input: 100-240V ~ 50/60Hz, 1.0A Output: 12V, 2.5A
Other					
Wall-mounted rack*1					



2.5 Support Equipment

For Test Site No: CO01-CB

For Adapter Mode:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*3	DELL	E6430	DoC

For PoE Mode:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*3	DELL	E6430	DoC
2	PoE	Meraki	POE20U-560 (G)	DoC

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

For Adapter Mode:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	NB	Apple	Mac Book	DoC
3	NB	Apple	Mac Book	DoC

For PoE Mode:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	NB	Apple	Mac Book	DoC
3	NB	Apple	Mac Book	DoC
4	PoE	Meraki	POE20U-560 (G)	DoC

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

<For Non-Beamforming Mode>

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

<For Beamforming Mode>

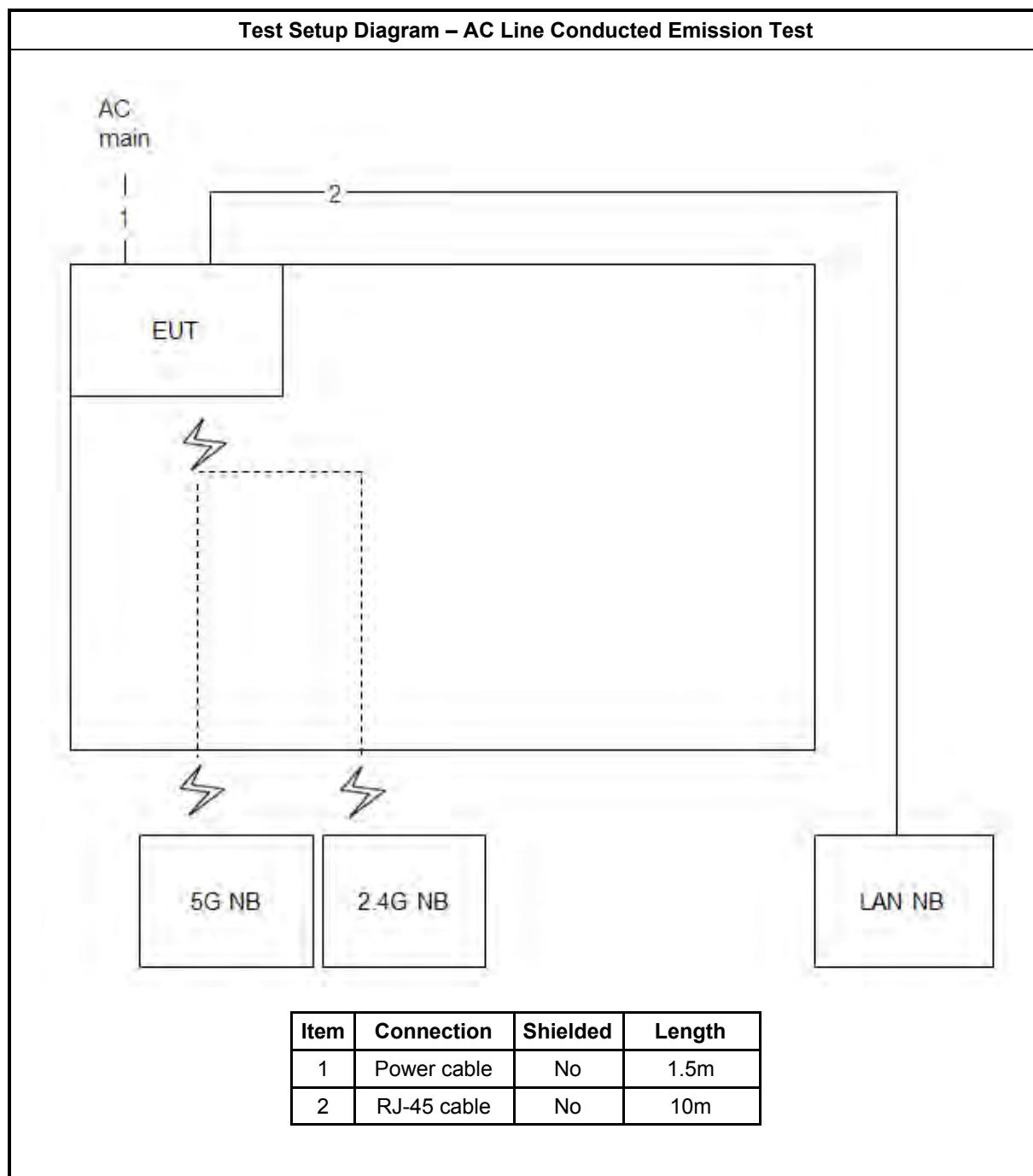
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	NB	DELL	E4300	DoC
3	RX Device	CISCO	Maggot	DoC

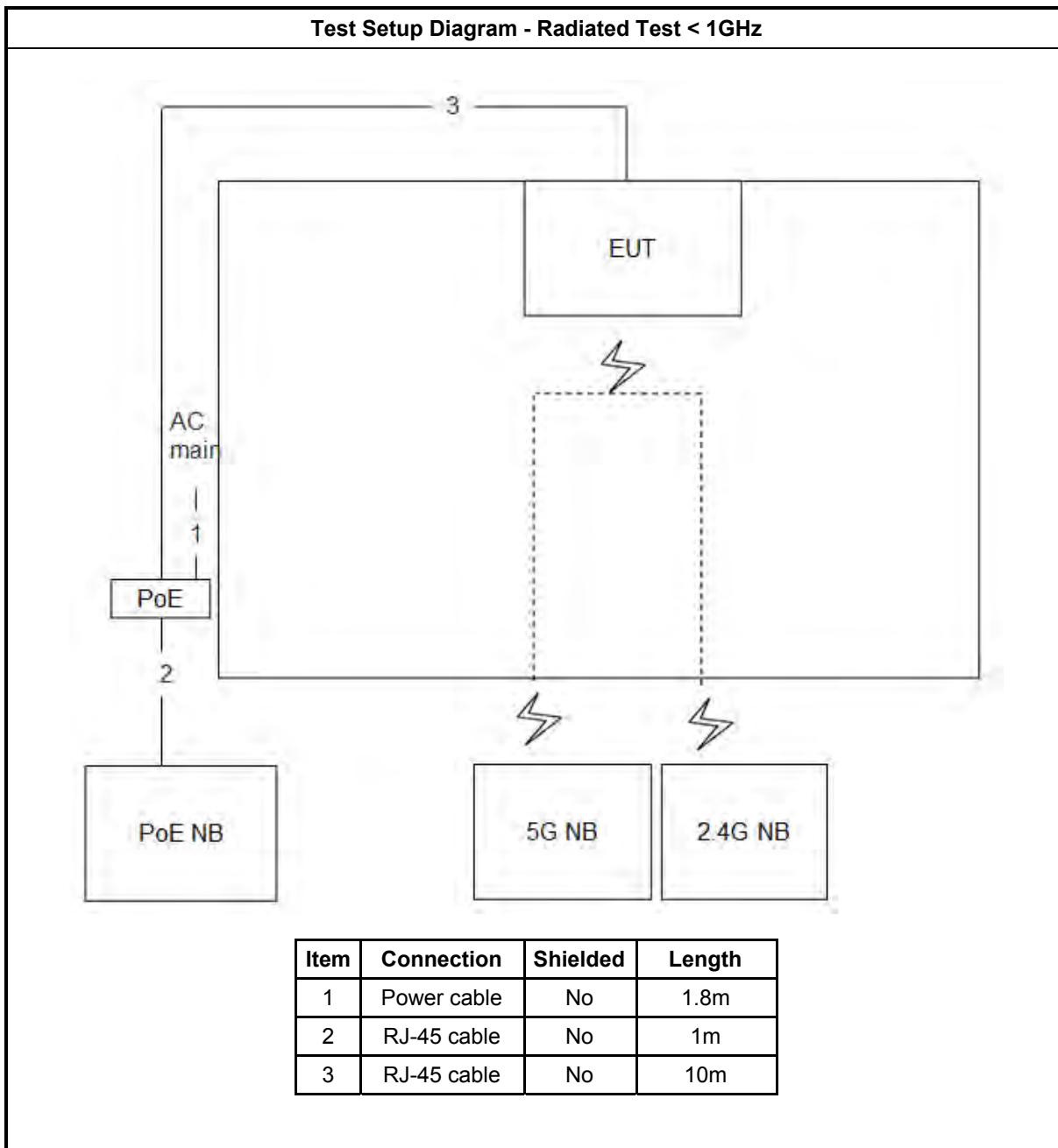


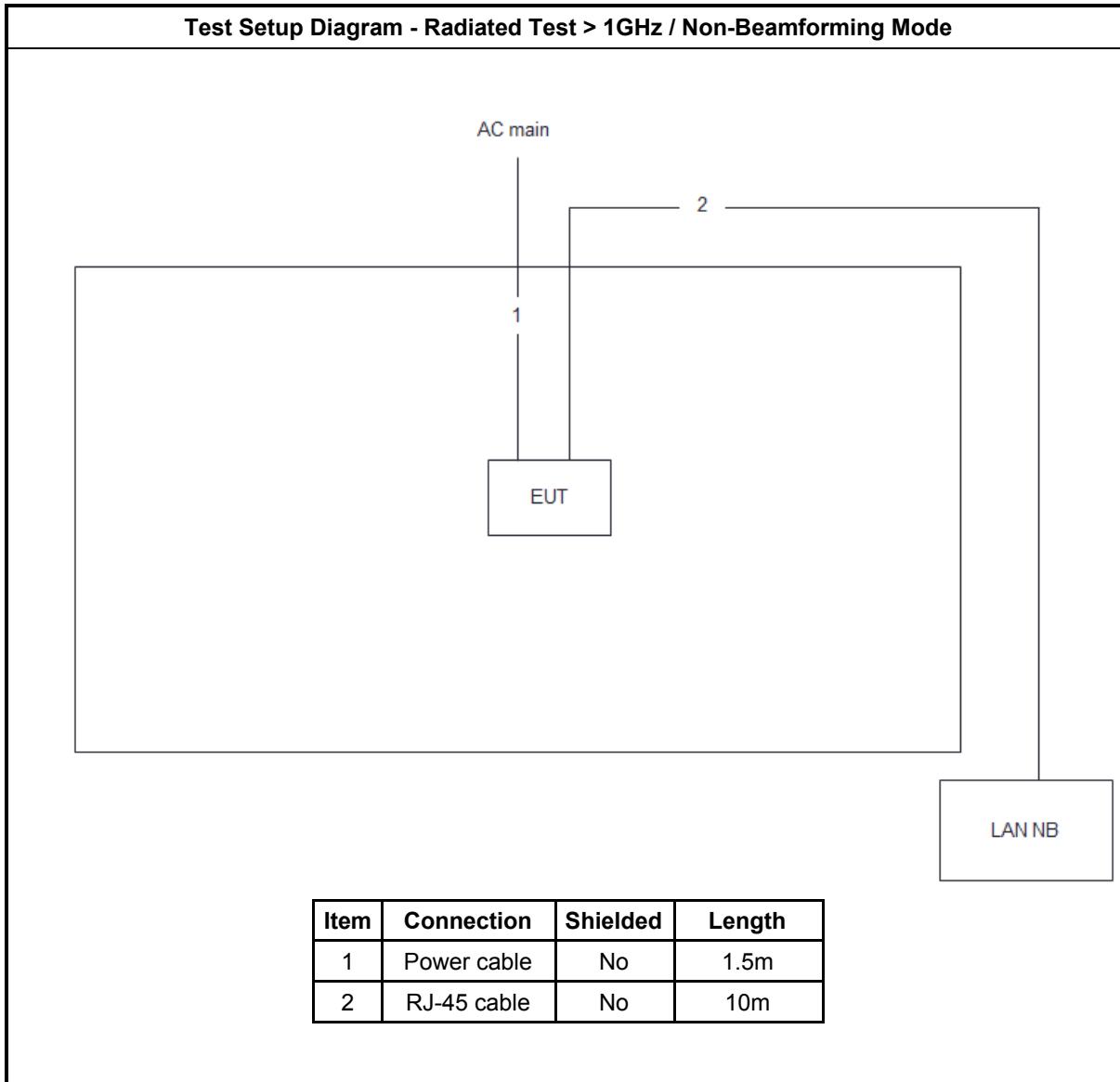
For Test Site No: TH01-CB

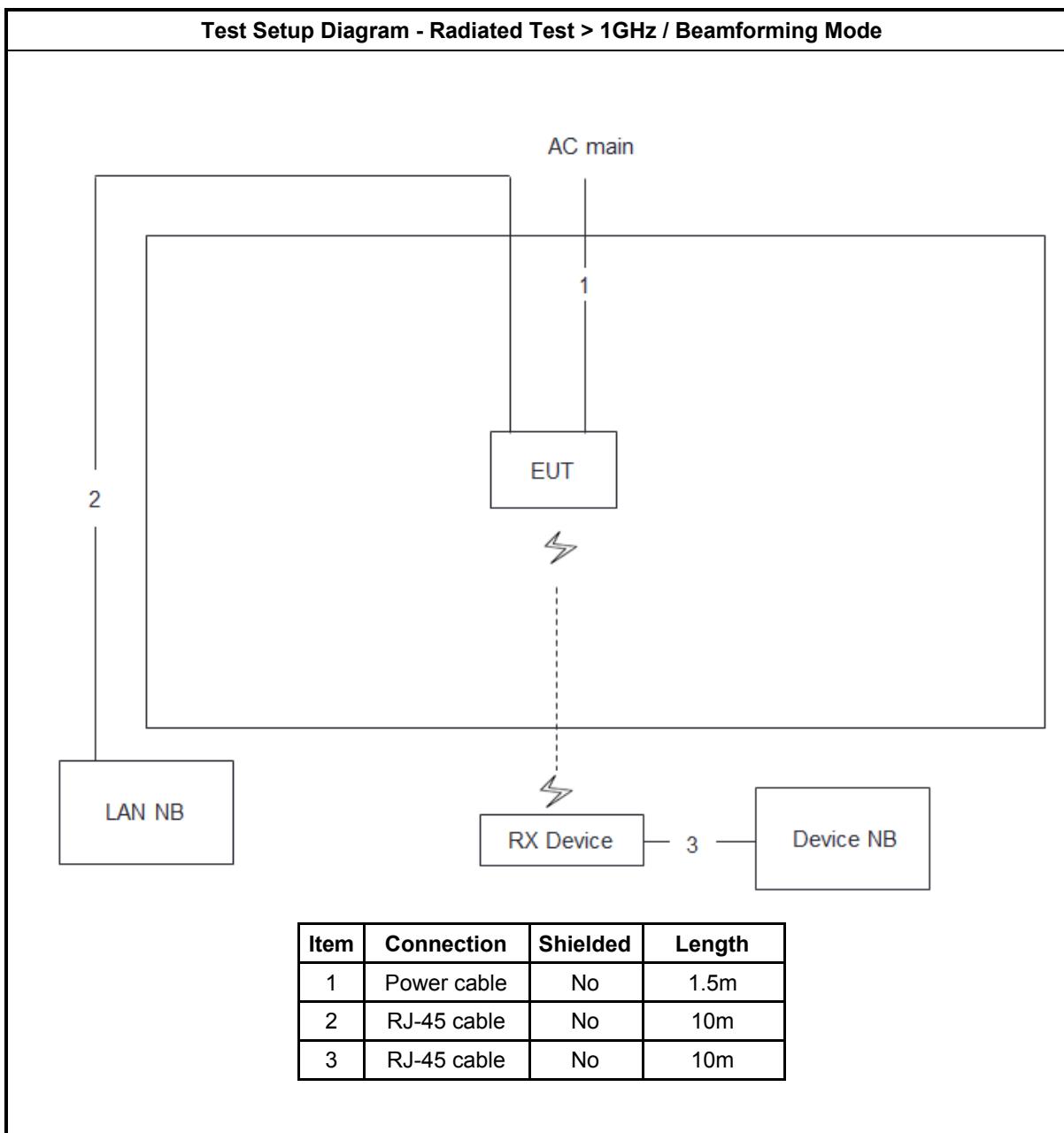
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

2.6 Test Setup Diagram









3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

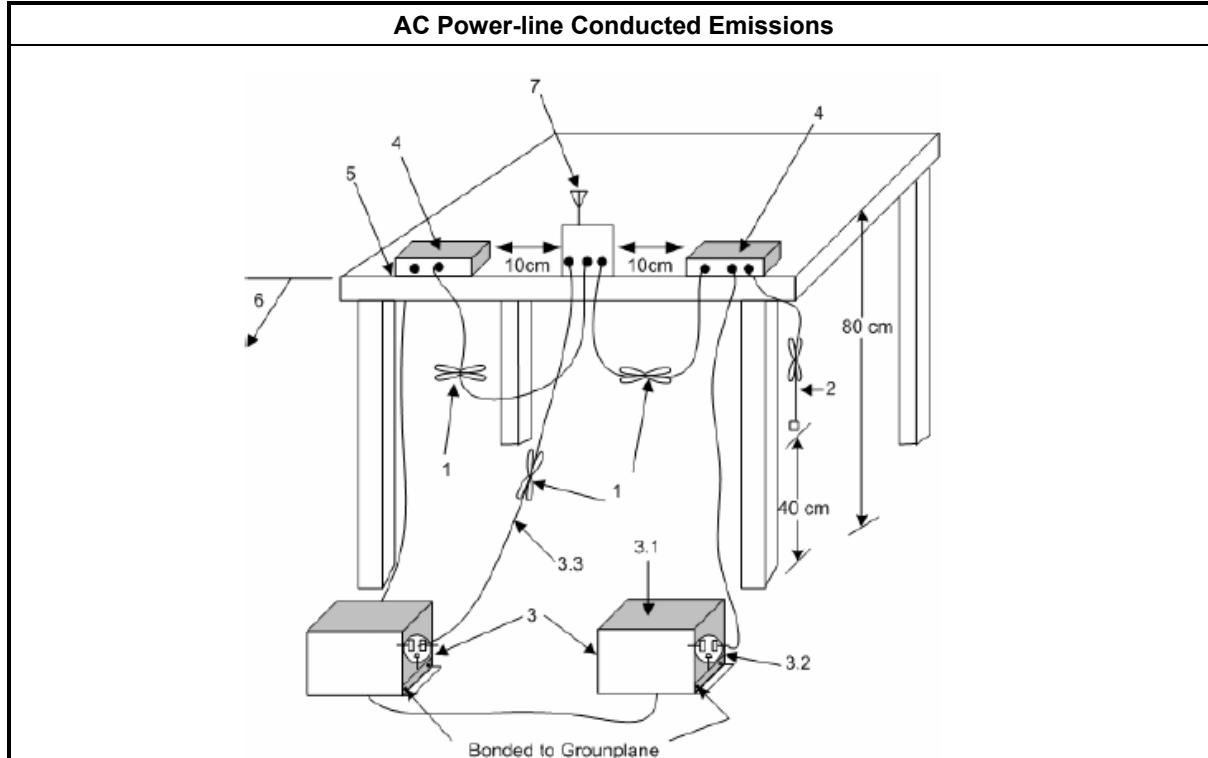
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

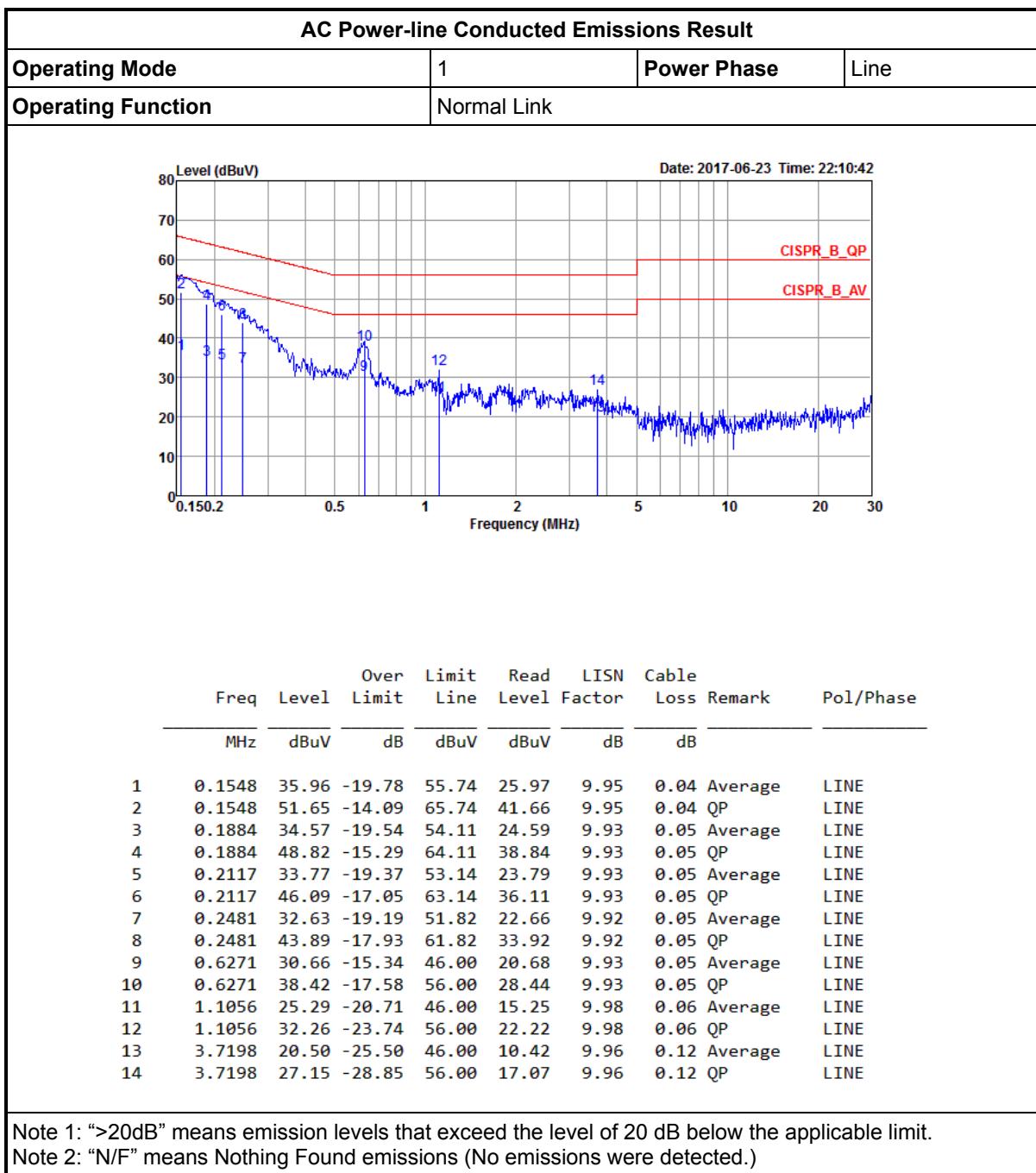
3.1.4 Test Setup





3.1.5 Test Result of AC Power-line Conducted Emissions

AC Power-line Conducted Emissions Result																																																																																																																																																																									
Operating Mode		1		Power Phase		Neutral																																																																																																																																																																			
Operating Function		Normal Link																																																																																																																																																																							
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<table><thead><tr><th>Freq</th><th>Level</th><th>Over Limit</th><th>Limit Line</th><th>Read Level</th><th>LISN Factor</th><th>Cable Loss</th><th>Remark</th><th colspan="2">Pol/Phase</th></tr><tr><th>MHz</th><th>dBuV</th><th>dB</th><th>dBuV</th><th>dBuV</th><th>dB</th><th>dB</th><th></th><th colspan="2"></th></tr></thead><tbody><tr><td>1</td><td>0.1565</td><td>36.28</td><td>-19.37</td><td>55.65</td><td>26.29</td><td>9.95</td><td>0.04 Average</td><td colspan="2">NEUTRAL</td></tr><tr><td>2</td><td>0.1565</td><td>52.64</td><td>-13.01</td><td>65.65</td><td>42.65</td><td>9.95</td><td>0.04 QP</td><td colspan="2">NEUTRAL</td></tr><tr><td>3</td><td>0.1712</td><td>36.35</td><td>-18.55</td><td>54.90</td><td>26.35</td><td>9.96</td><td>0.04 Average</td><td colspan="2">NEUTRAL</td></tr><tr><td>4</td><td>0.1712</td><td>51.07</td><td>-13.83</td><td>64.90</td><td>41.07</td><td>9.96</td><td>0.04 QP</td><td colspan="2">NEUTRAL</td></tr><tr><td>5</td><td>0.1924</td><td>34.49</td><td>-19.44</td><td>53.93</td><td>24.46</td><td>9.98</td><td>0.05 Average</td><td colspan="2">NEUTRAL</td></tr><tr><td>6</td><td>0.1924</td><td>48.41</td><td>-15.52</td><td>63.93</td><td>38.38</td><td>9.98</td><td>0.05 QP</td><td colspan="2">NEUTRAL</td></tr><tr><td>7</td><td>0.2232</td><td>33.06</td><td>-19.64</td><td>52.70</td><td>23.03</td><td>9.98</td><td>0.05 Average</td><td colspan="2">NEUTRAL</td></tr><tr><td>8</td><td>0.2232</td><td>45.83</td><td>-16.87</td><td>62.70</td><td>35.80</td><td>9.98</td><td>0.05 QP</td><td colspan="2">NEUTRAL</td></tr><tr><td>9</td><td>0.2701</td><td>33.97</td><td>-17.15</td><td>51.12</td><td>23.95</td><td>9.97</td><td>0.05 Average</td><td colspan="2">NEUTRAL</td></tr><tr><td>10</td><td>0.2701</td><td>42.34</td><td>-18.78</td><td>61.12</td><td>32.32</td><td>9.97</td><td>0.05 QP</td><td colspan="2">NEUTRAL</td></tr><tr><td>11</td><td>0.6338</td><td>29.61</td><td>-16.39</td><td>46.00</td><td>19.59</td><td>9.97</td><td>0.05 Average</td><td colspan="2">NEUTRAL</td></tr><tr><td>12</td><td>0.6338</td><td>37.17</td><td>-18.83</td><td>56.00</td><td>27.15</td><td>9.97</td><td>0.05 QP</td><td colspan="2">NEUTRAL</td></tr><tr><td>13</td><td>1.0211</td><td>26.02</td><td>-19.98</td><td>46.00</td><td>15.97</td><td>9.99</td><td>0.06 Average</td><td colspan="2">NEUTRAL</td></tr><tr><td>14</td><td>1.0211</td><td>32.85</td><td>-23.15</td><td>56.00</td><td>22.80</td><td>9.99</td><td>0.06 QP</td><td colspan="2" rowspan="3">NEUTRAL</td></tr></tbody></table>										Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase		MHz	dBuV	dB	dBuV	dBuV	dB	dB				1	0.1565	36.28	-19.37	55.65	26.29	9.95	0.04 Average	NEUTRAL		2	0.1565	52.64	-13.01	65.65	42.65	9.95	0.04 QP	NEUTRAL		3	0.1712	36.35	-18.55	54.90	26.35	9.96	0.04 Average	NEUTRAL		4	0.1712	51.07	-13.83	64.90	41.07	9.96	0.04 QP	NEUTRAL		5	0.1924	34.49	-19.44	53.93	24.46	9.98	0.05 Average	NEUTRAL		6	0.1924	48.41	-15.52	63.93	38.38	9.98	0.05 QP	NEUTRAL		7	0.2232	33.06	-19.64	52.70	23.03	9.98	0.05 Average	NEUTRAL		8	0.2232	45.83	-16.87	62.70	35.80	9.98	0.05 QP	NEUTRAL		9	0.2701	33.97	-17.15	51.12	23.95	9.97	0.05 Average	NEUTRAL		10	0.2701	42.34	-18.78	61.12	32.32	9.97	0.05 QP	NEUTRAL		11	0.6338	29.61	-16.39	46.00	19.59	9.97	0.05 Average	NEUTRAL		12	0.6338	37.17	-18.83	56.00	27.15	9.97	0.05 QP	NEUTRAL		13	1.0211	26.02	-19.98	46.00	15.97	9.99	0.06 Average	NEUTRAL		14	1.0211	32.85	-23.15	56.00	22.80	9.99	0.06 QP	NEUTRAL	
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Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.																																																																																																																																																																									
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)																																																																																																																																																																									





3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

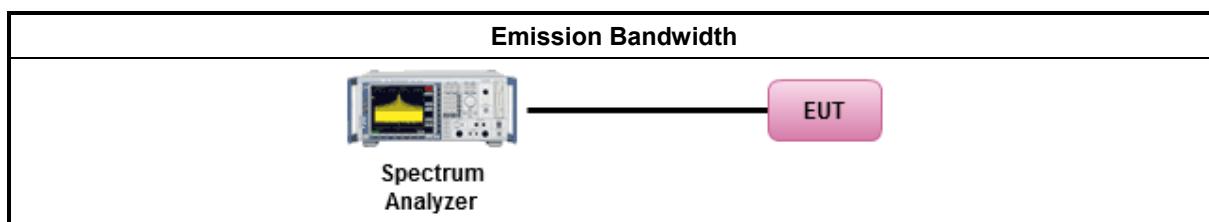
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
<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 checked="" type="checkbox"/> Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.	

3.2.4 Test Setup





3.2.5 Test Result of Emission Bandwidth

<For Non-Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
11a_Nss1_2TX	-	-	-	-	-
5.25-5.35GHz	30.725M	16.542M	16M5D1D	20.4M	16.442M
5.47-5.725GHz	20.175M	16.442M	16M4D1D	14.835M	13.238M
5.725-5.85GHz	3.14M	3.918M	3M92D1D	3.12M	3.578M
VHT20_Nss1_2TX	-	-	-	-	-
5.25-5.35GHz	38.15M	17.941M	17M9D1D	21.85M	17.666M
5.47-5.725GHz	24.325M	17.666M	17M7D1D	15.3M	13.808M
5.725-5.85GHz	3.78M	4.098M	4M10D1D	3.76M	4.078M
VHT40_Nss1_2TX	-	-	-	-	-
5.25-5.35GHz	94.15M	45.977M	46M0D1D	39.6M	35.982M
5.47-5.725GHz	80.25M	36.432M	36M4D1D	39.5M	33.023M
5.725-5.85GHz	3.14M	23.108M	23M1D1D	3.14M	21.189M
VHT80_Nss1_2TX	-	-	-	-	-
5.25-5.35GHz	83.9M	75.662M	75M7D1D	83.2M	75.662M
5.47-5.725GHz	157.5M	76.162M	76M2D1D	83.2M	72.714M
5.725-5.85GHz	3.14M	34.603M	34M6D1D	3.12M	31.424M

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;

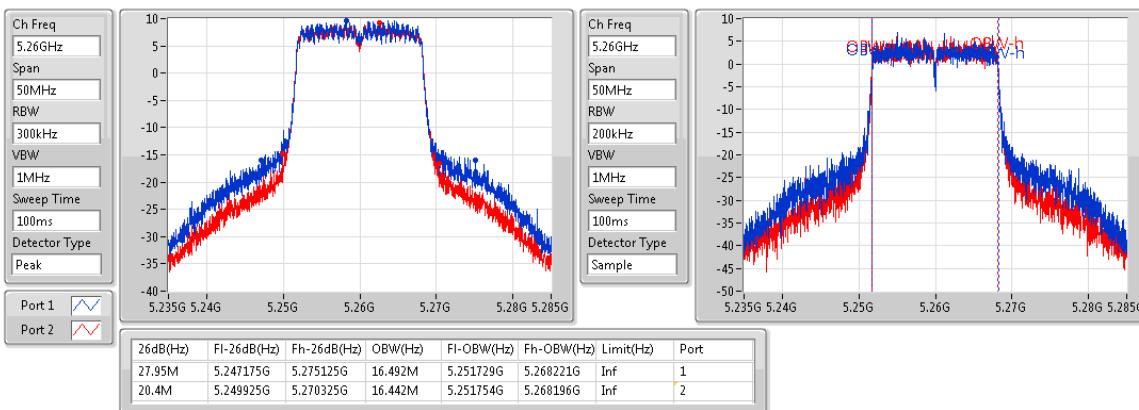
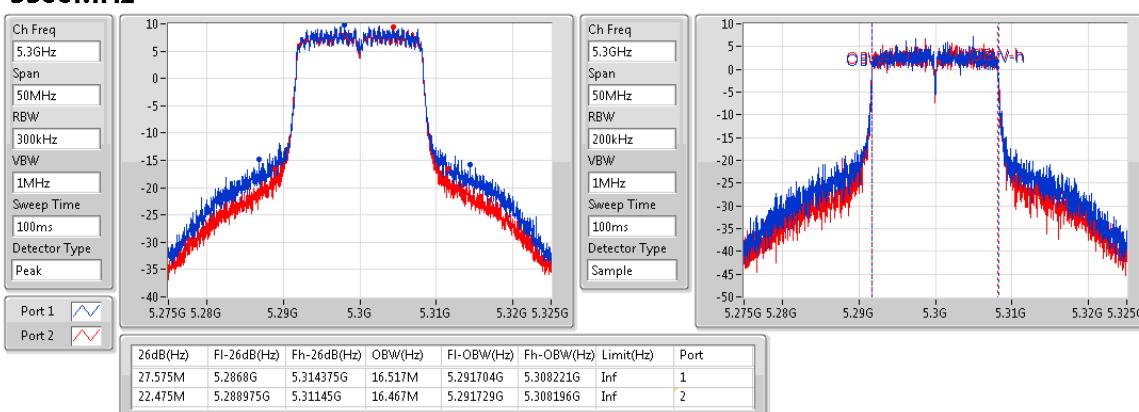
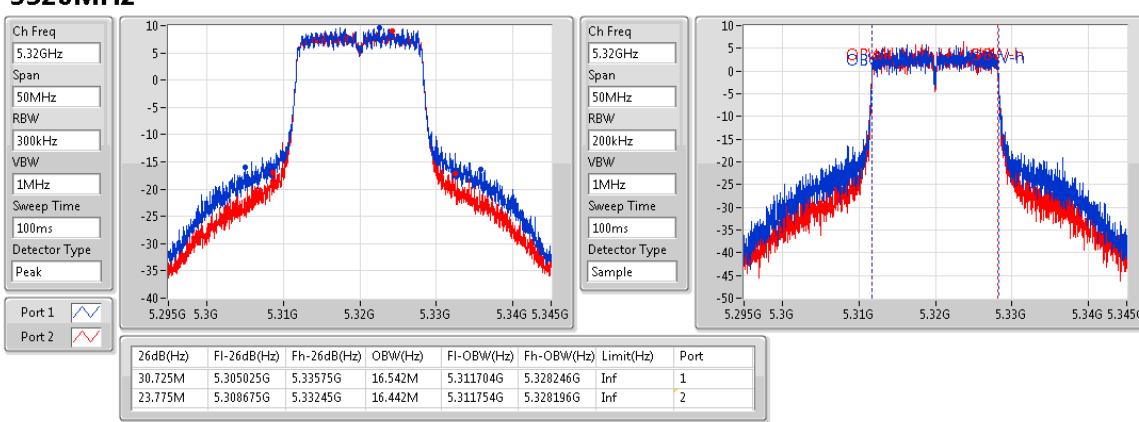


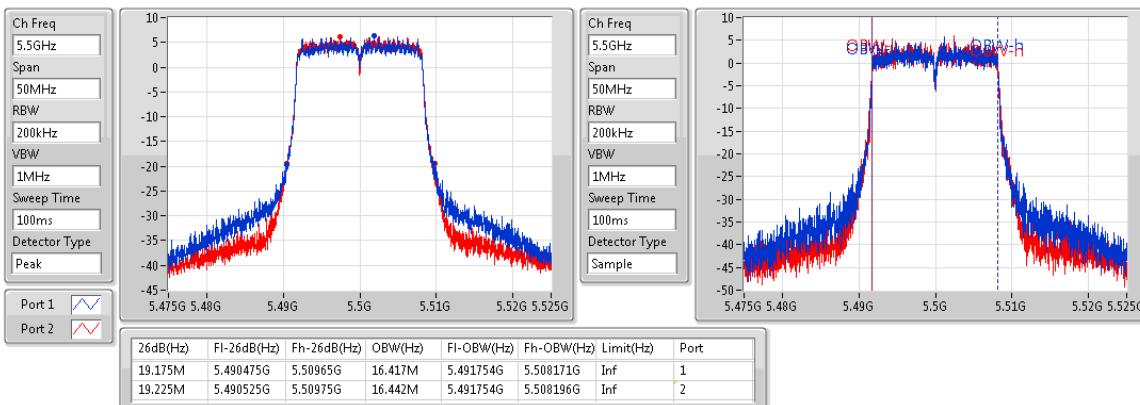
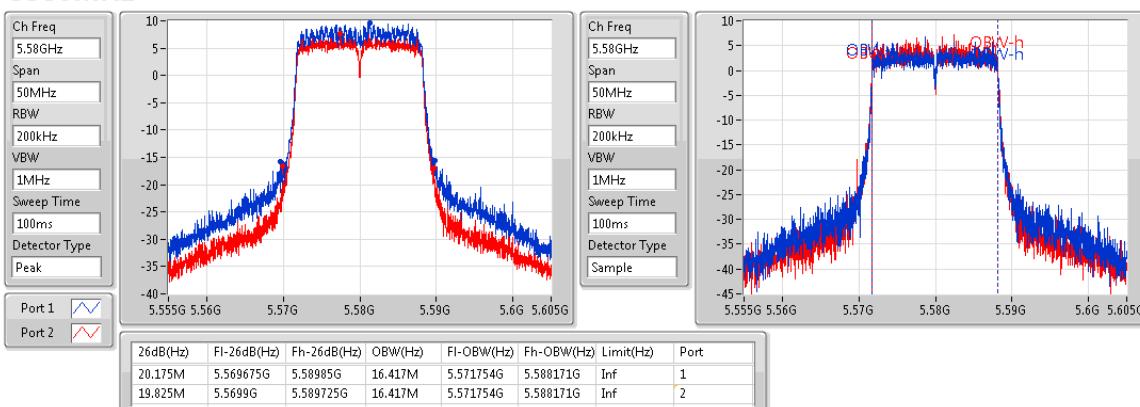
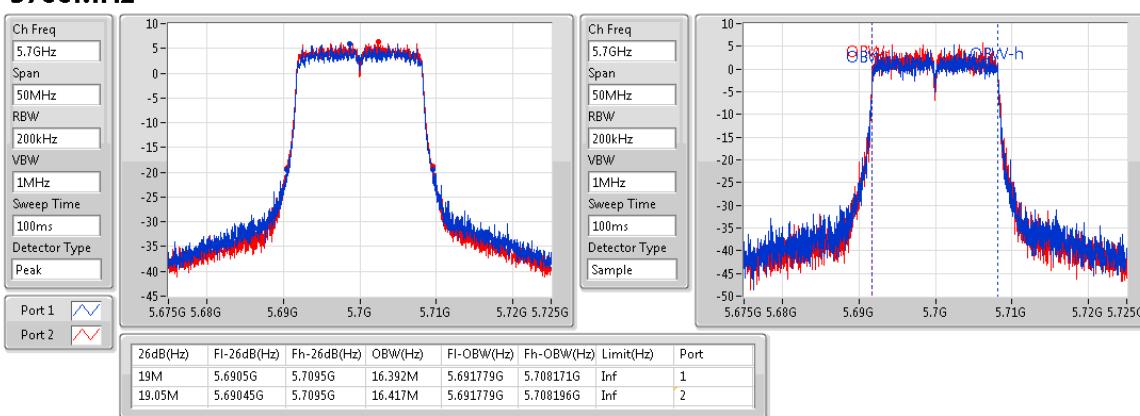
Result

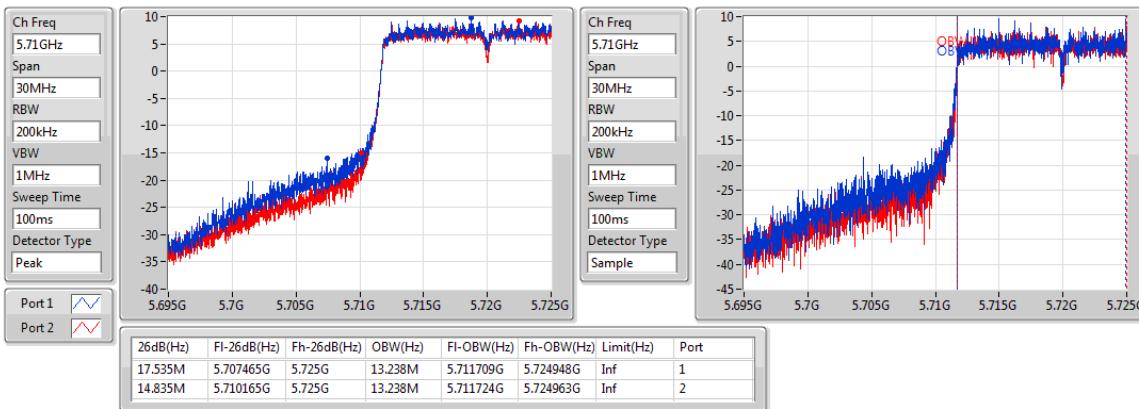
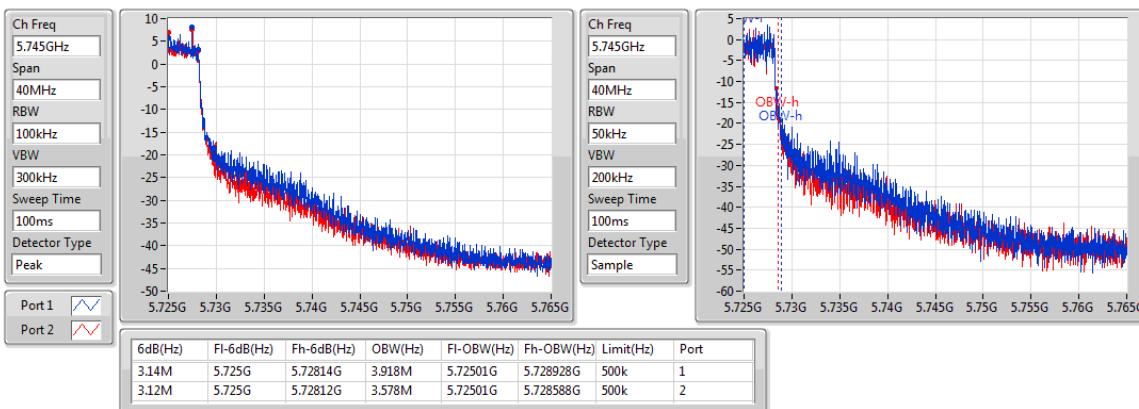
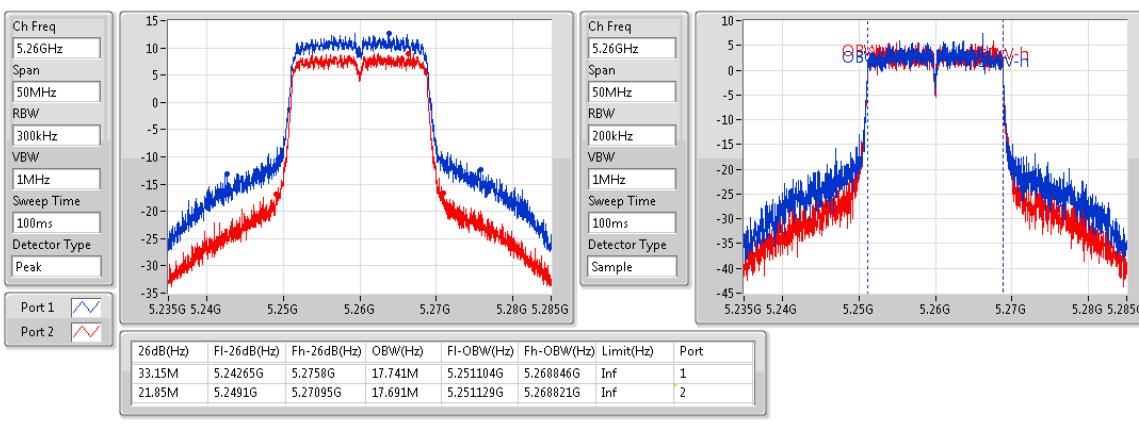
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
11a_Nss1_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	27.95M	16.492M	20.4M	16.442M
5300MHz	Pass	Inf	27.575M	16.517M	22.475M	16.467M
5320MHz	Pass	Inf	30.725M	16.542M	23.775M	16.442M
5500MHz	Pass	Inf	19.175M	16.417M	19.225M	16.442M
5580MHz	Pass	Inf	20.175M	16.417M	19.825M	16.417M
5700MHz	Pass	Inf	19M	16.392M	19.05M	16.417M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17.535M	13.238M	14.835M	13.238M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	3.918M	3.12M	3.578M
VHT20_Nss1_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	33.15M	17.741M	21.85M	17.691M
5300MHz	Pass	Inf	37.8M	17.866M	29.225M	17.691M
5320MHz	Pass	Inf	38.15M	17.941M	27.5M	17.666M
5500MHz	Pass	Inf	24.325M	17.666M	20.75M	17.616M
5580MHz	Pass	Inf	21.1M	17.641M	20.775M	17.616M
5700MHz	Pass	Inf	20.325M	17.616M	20.575M	17.616M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.29M	13.823M	15.3M	13.808M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.76M	4.098M	3.78M	4.078M
VHT40_Nss1_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	94.15M	45.977M	83.1M	36.532M
5310MHz	Pass	Inf	41.2M	36.132M	39.6M	35.982M
5510MHz	Pass	Inf	39.8M	36.032M	39.5M	35.882M
5550MHz	Pass	Inf	80.25M	36.432M	69.4M	36.132M
5670MHz	Pass	Inf	61.35M	36.232M	55M	36.032M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	55.405M	33.198M	54.88M	33.023M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	23.108M	3.14M	21.189M
VHT80_Nss1_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	83.2M	75.662M	83.9M	75.662M
5530MHz	Pass	Inf	83.2M	75.762M	84M	75.562M
5610MHz	Pass	Inf	157.5M	76.162M	125.5M	75.962M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	103.2M	72.714M	88.95M	72.714M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	34.603M	3.14M	31.424M

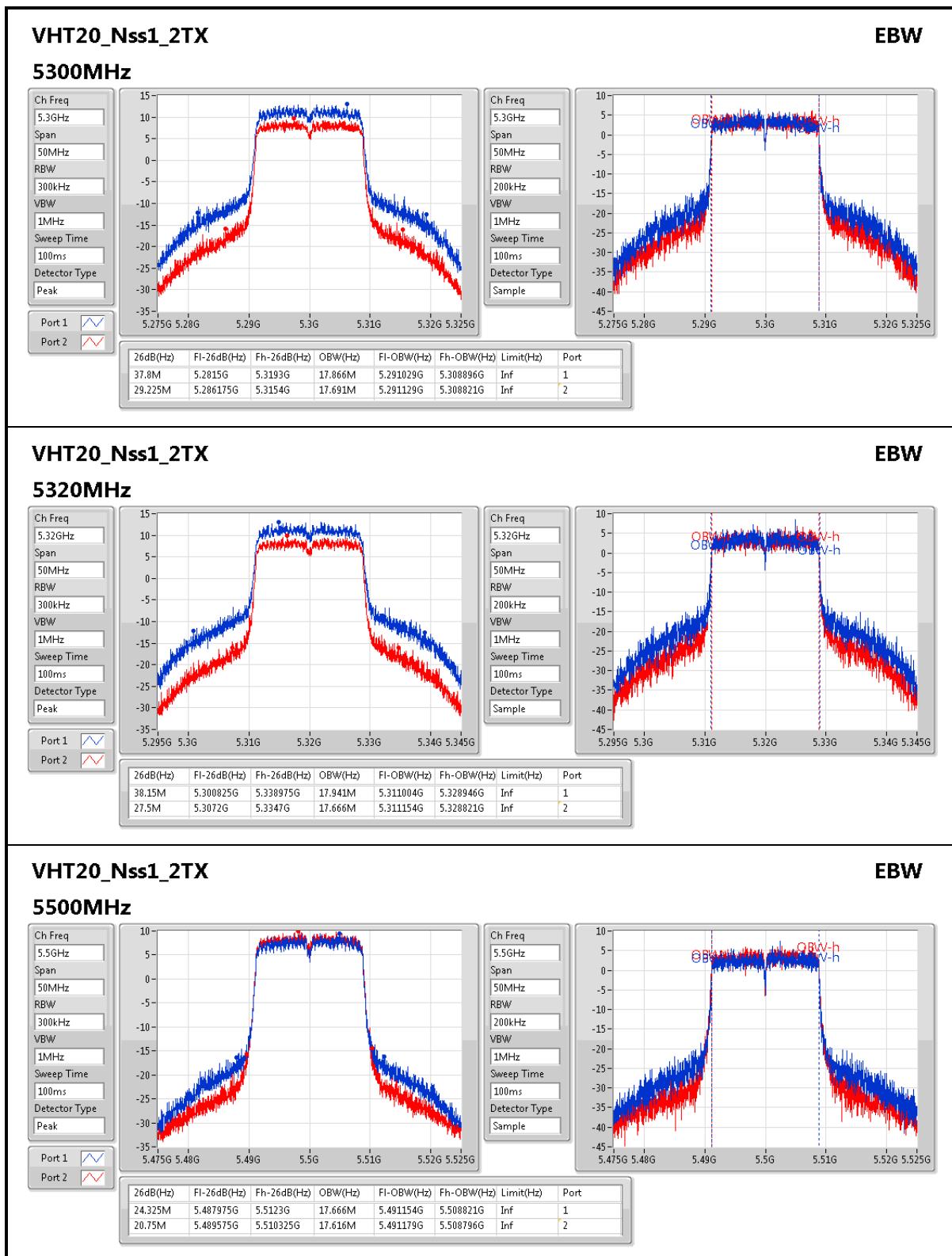
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

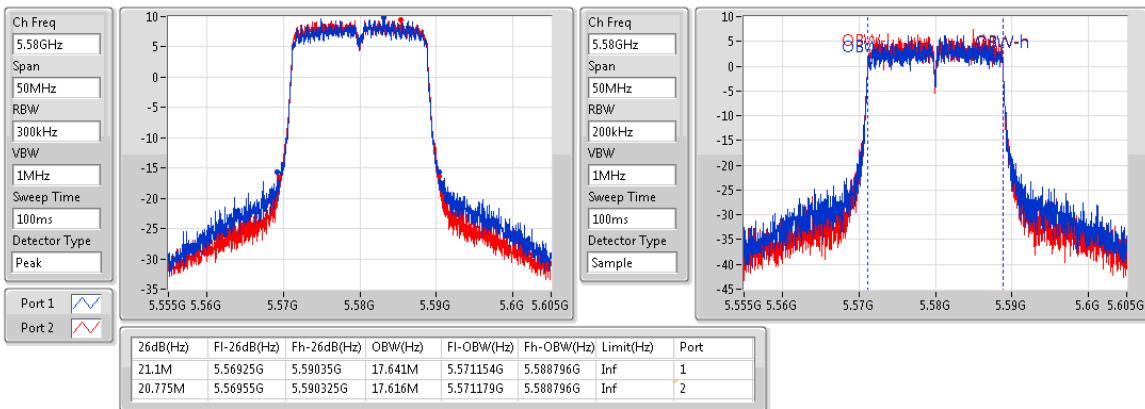
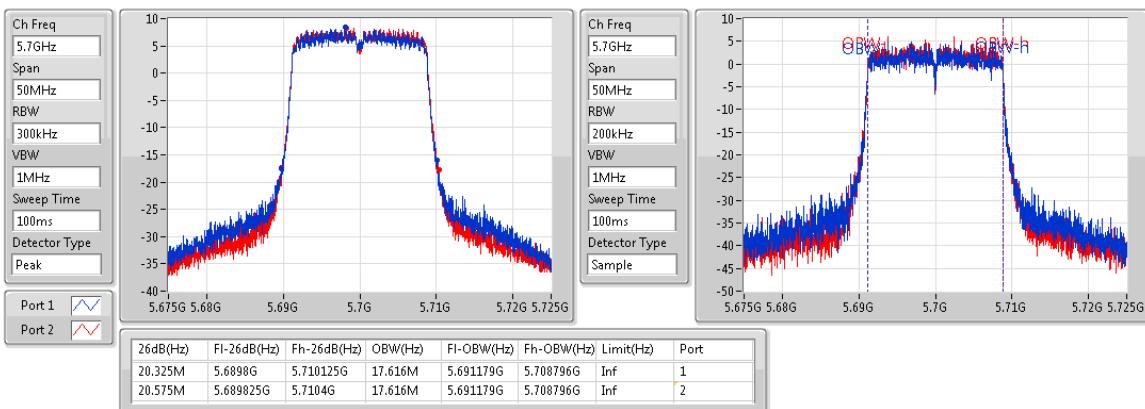
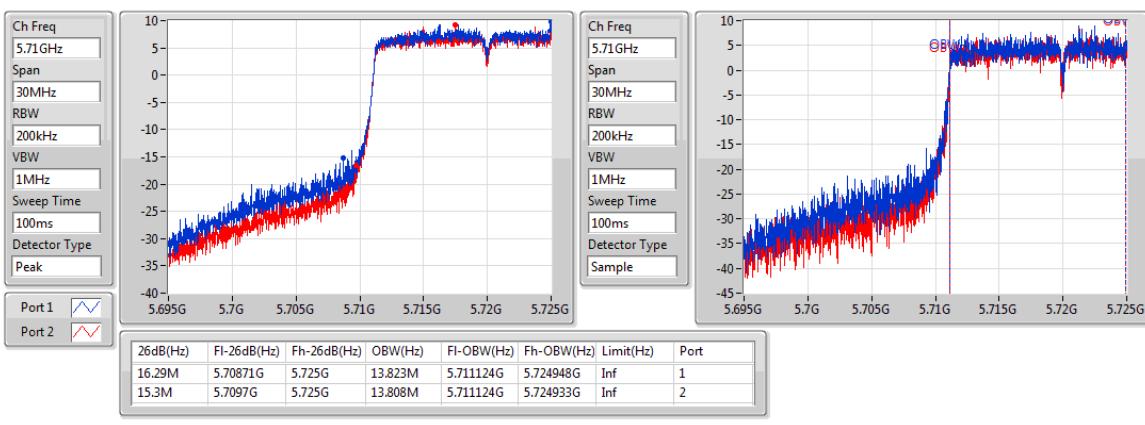
Port X-OBW = Port X 99% occupied bandwidth;

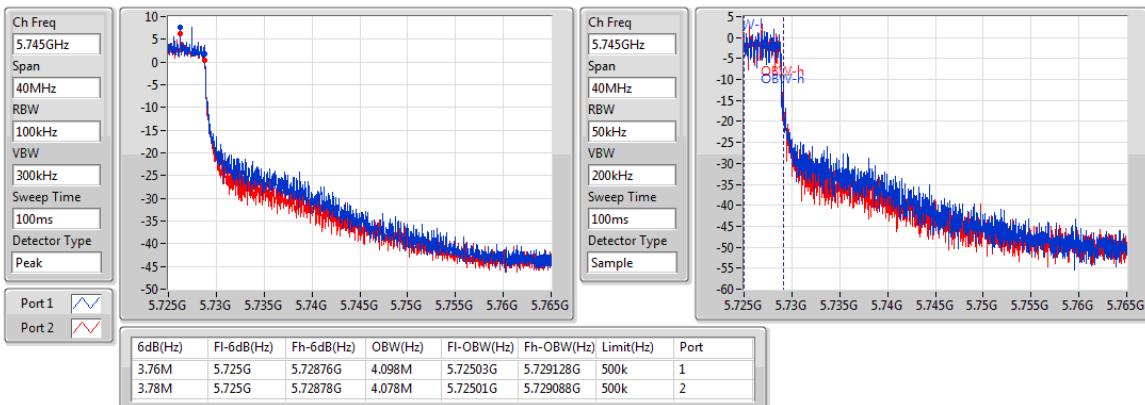
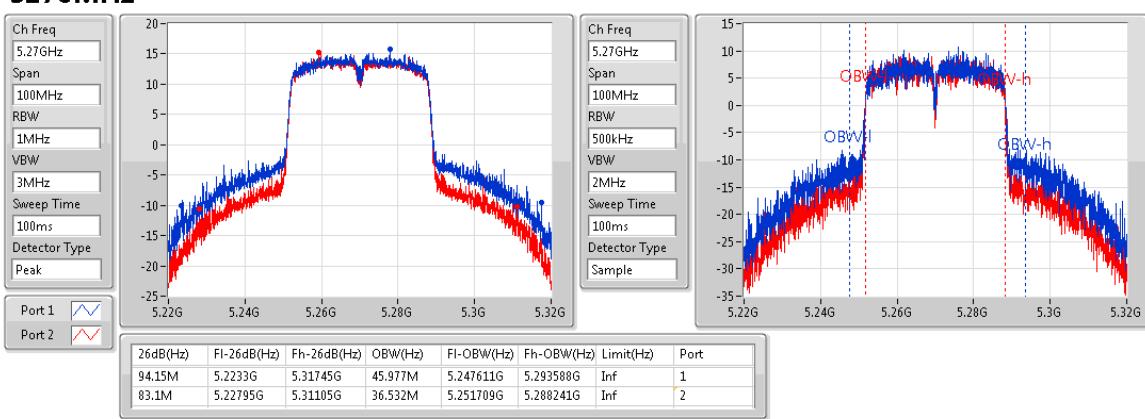
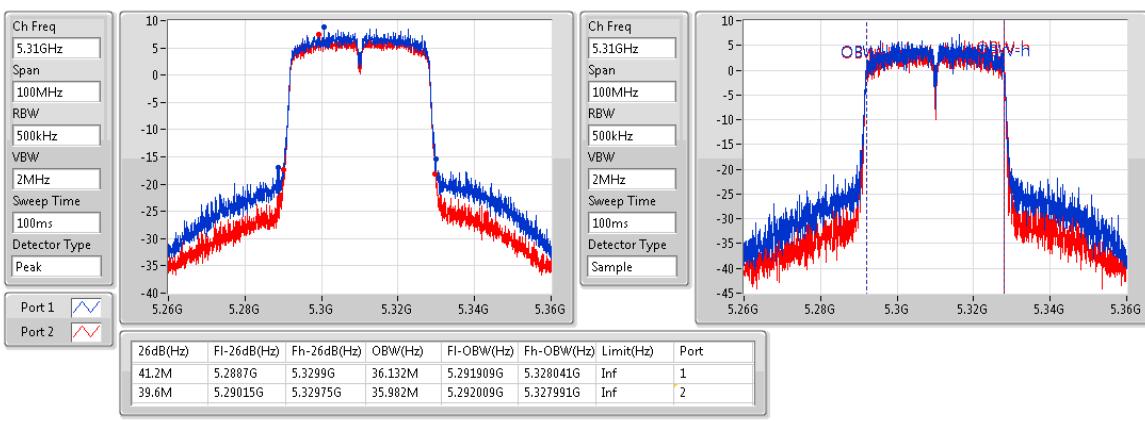
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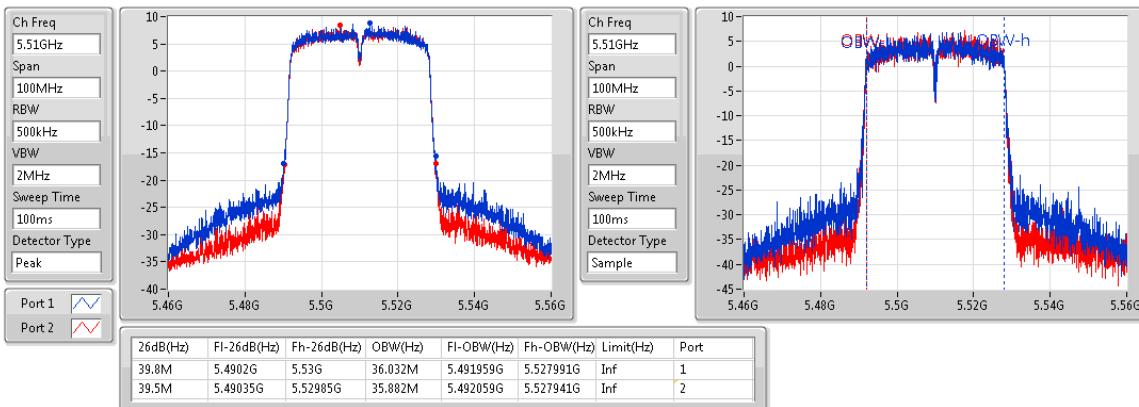
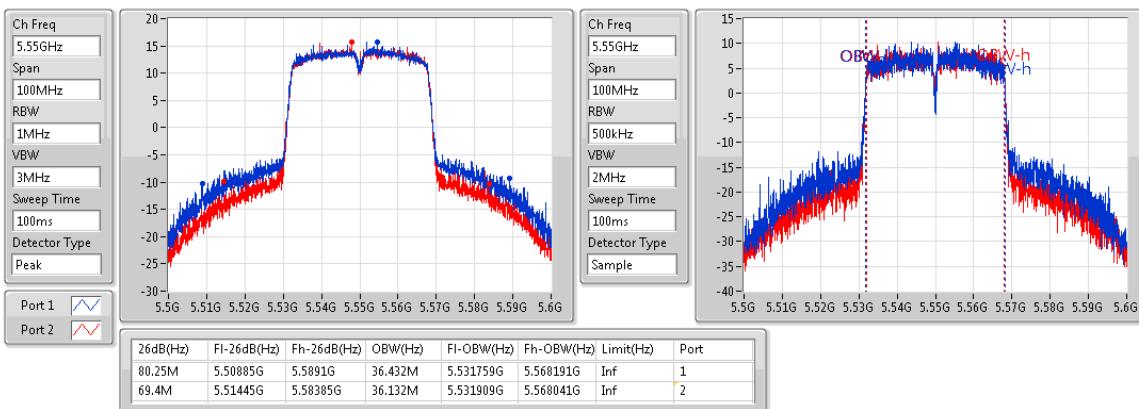
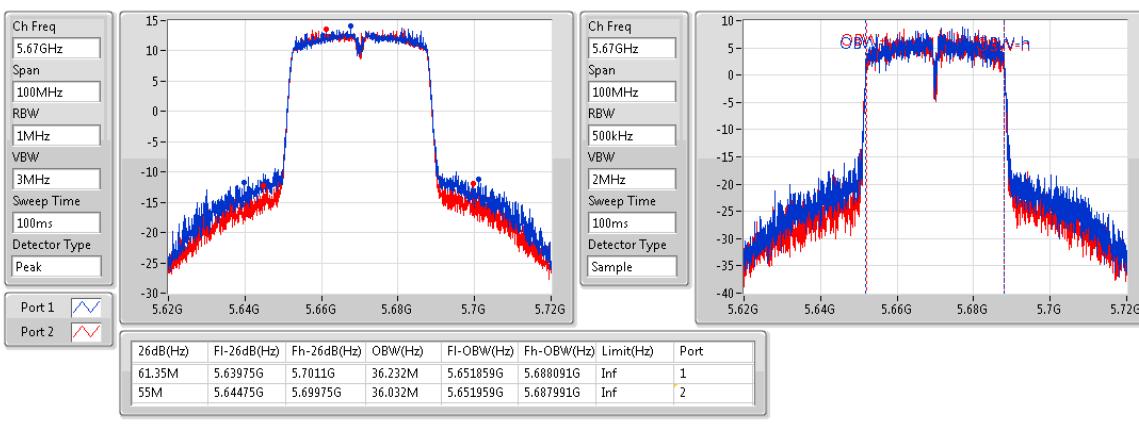
**11a_Nss1_2TX****EBW****5500MHz****11a_Nss1_2TX****EBW****5580MHz****11a_Nss1_2TX****EBW****5700MHz**

**802.11a_(6Mbps)_2TX****EBW****5720MHz Straddle 5.47-5.725GHz****802.11a_(6Mbps)_2TX****EBW****5720MHz Straddle 5.725-5.85GHz****VHT20_Nss1_2TX****EBW****5260MHz**



**VHT20_Nss1_2TX****5580MHz****EBW****VHT20_Nss1_2TX****5700MHz****EBW****802.11ac VHT20_Nss1,(MCS0)_2TX****5720MHz Straddle 5.47-5.725GHz****EBW**

**802.11ac VHT20_Nss1,(MCS0)_2TX****EBW****5720MHz Straddle 5.725-5.85GHz****VHT40_Nss1_2TX****EBW****5270MHz****VHT40_Nss1_2TX****EBW****5310MHz**

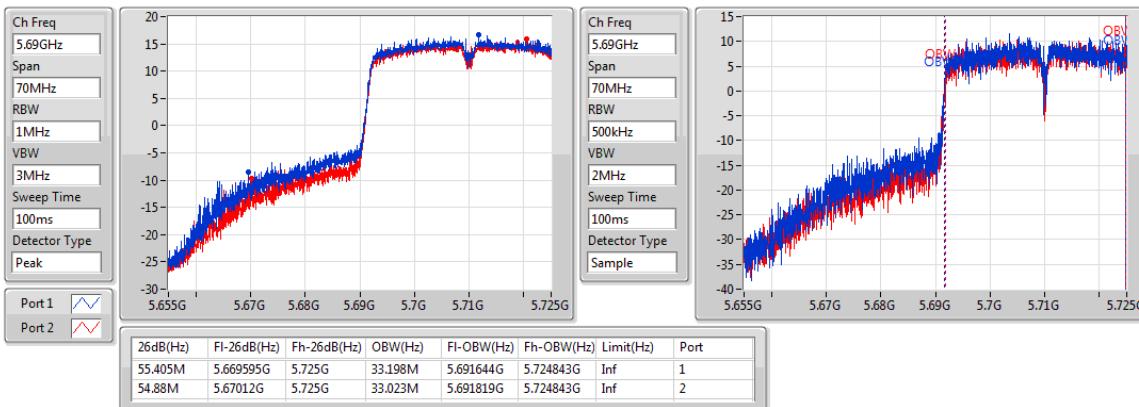
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802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

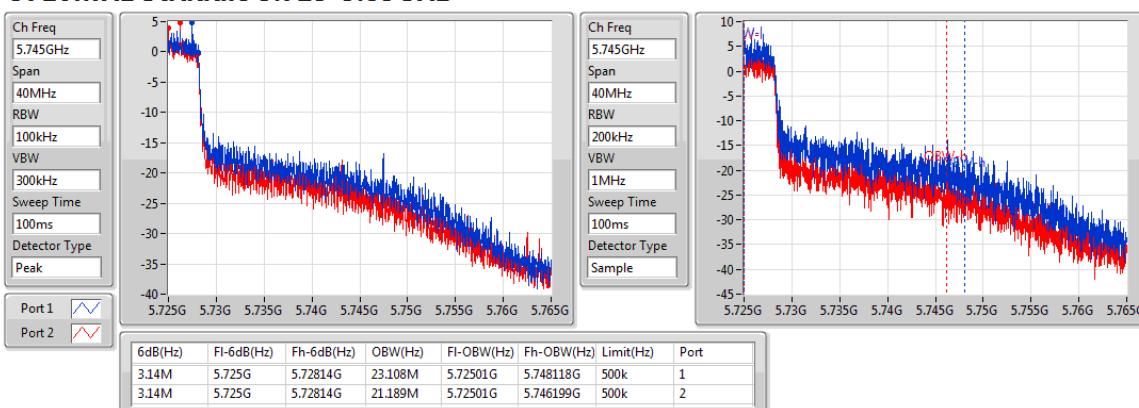
5710MHz Straddle 5.47-5.725GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

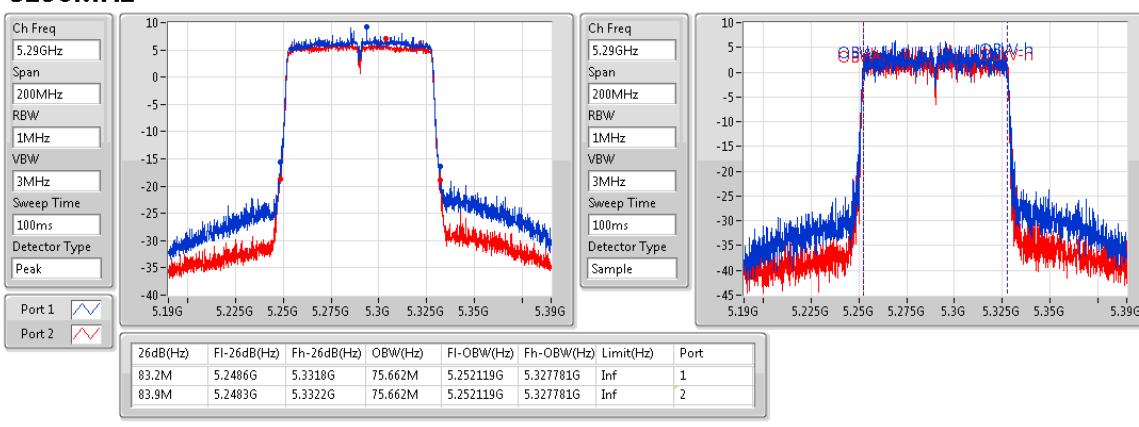
5710MHz Straddle 5.725-5.85GHz

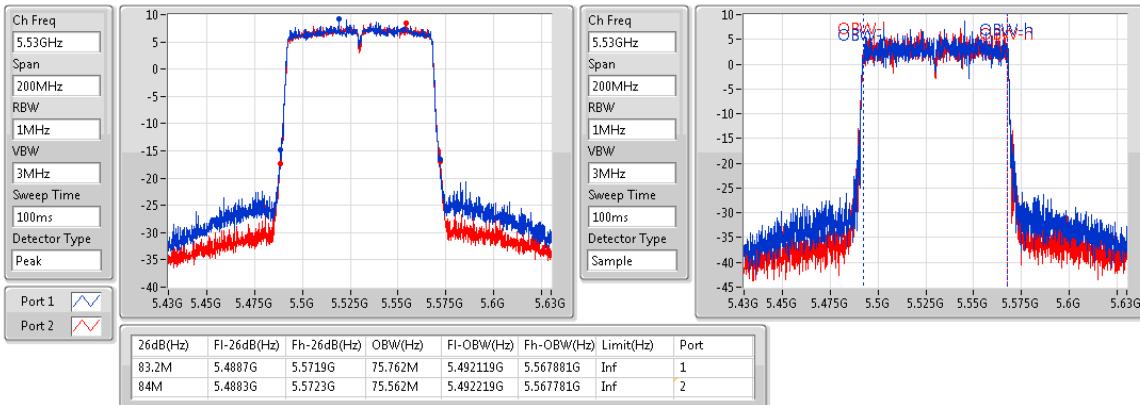
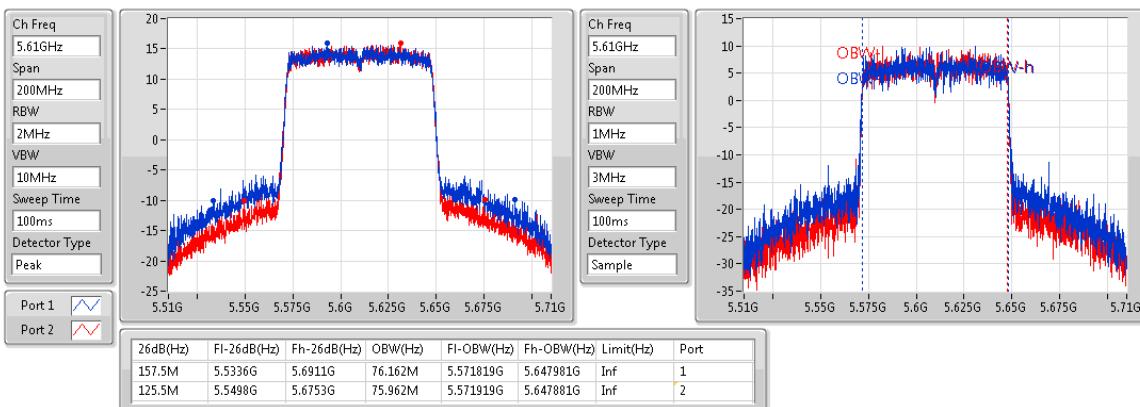
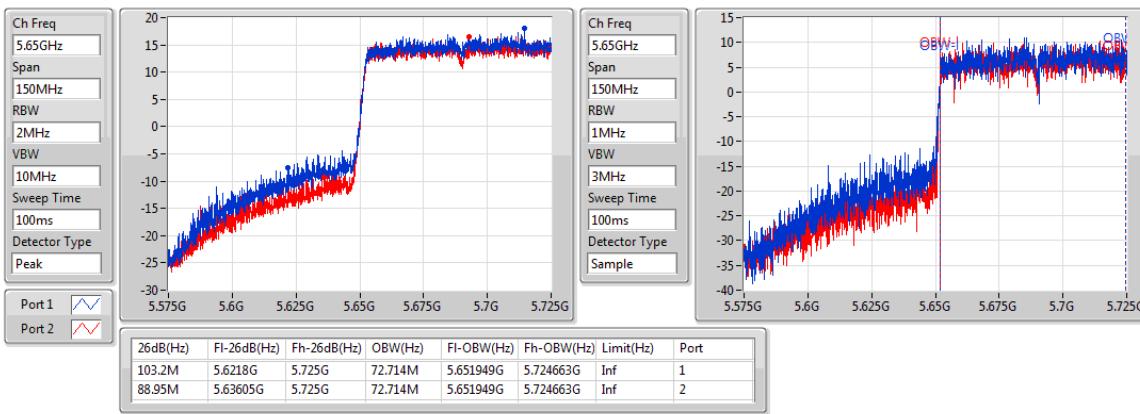


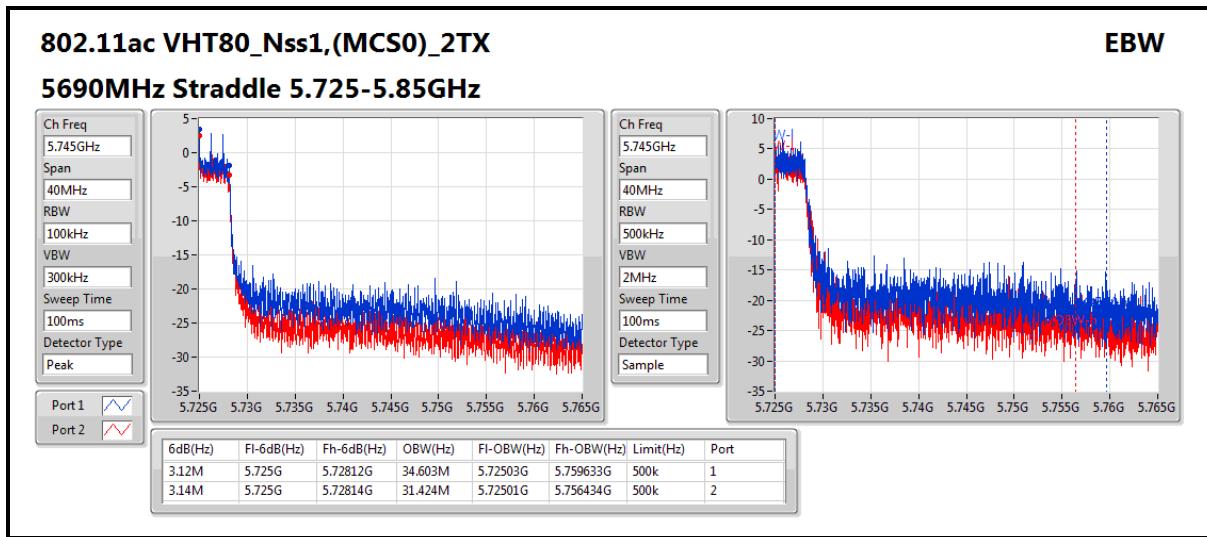
VHT80_Nss1_2TX

EBW

5290MHz



**VHT80_Nss1_2TX****5530MHz****VHT80_Nss1_2TX****5610MHz****802.11ac VHT80_Nss1,(MCS0)_2TX****5690MHz Straddle 5.47-5.725GHz**





<For Beamforming Mode>

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
VHT20-BF_Nss1_2TX	-	-	-	-	-
5.25-5.35GHz	39.975M	18.016M	18M0D1D	22.125M	17.691M
5.47-5.725GHz	25.725M	17.741M	17M7D1D	16.485M	13.838M
5.725-5.85GHz	3.84M	4.458M	4M46D1D	3.78M	4.378M
VHT40-BF_Nss1_2TX	-	-	-	-	-
5.25-5.35GHz	74.1M	36.632M	36M6D1D	42.4M	36.232M
5.47-5.725GHz	45.15M	36.382M	36M4D1D	36.61M	33.058M
5.725-5.85GHz	3.18M	7.436M	7M44D1D	3.14M	4.518M
VHT80-BF_Nss1_2TX	-	-	-	-	-
5.25-5.35GHz	82.9M	75.762M	75M8D1D	80.5M	75.662M
5.47-5.725GHz	90.675M	75.862M	75M9D1D	78.525M	72.714M
5.725-5.85GHz	3.14M	11.134M	11M1D1D	2.76M	5.277M

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;

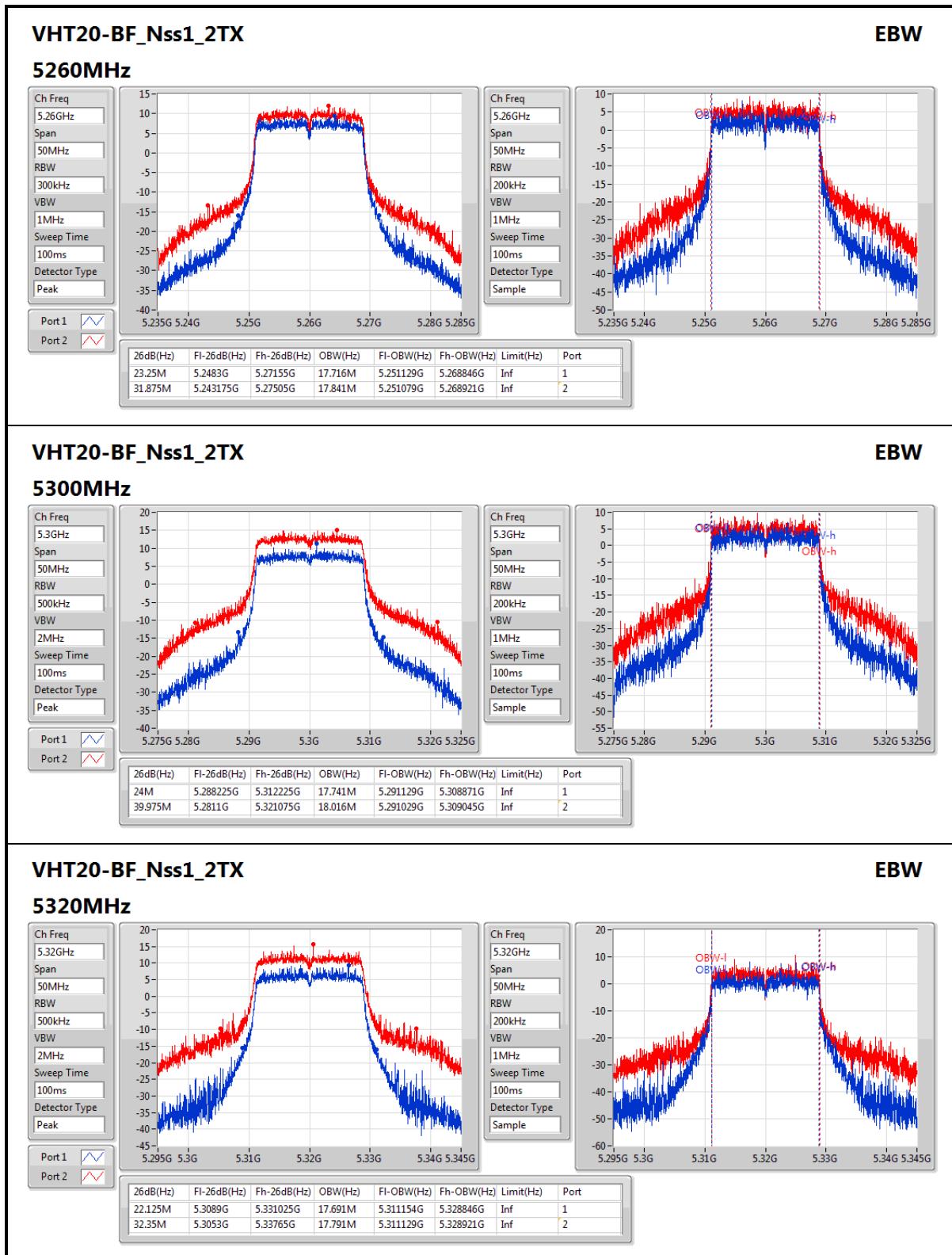


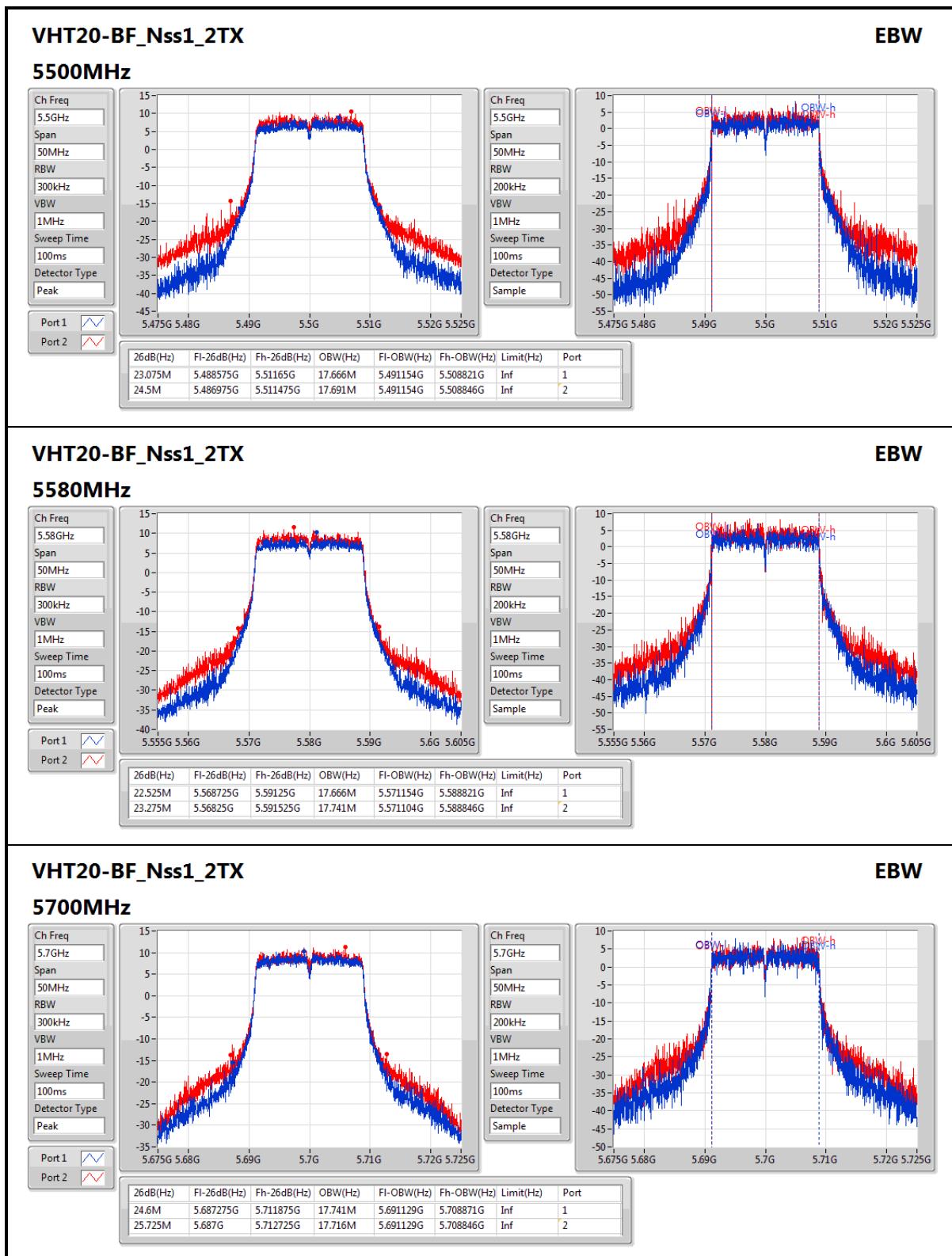
Result

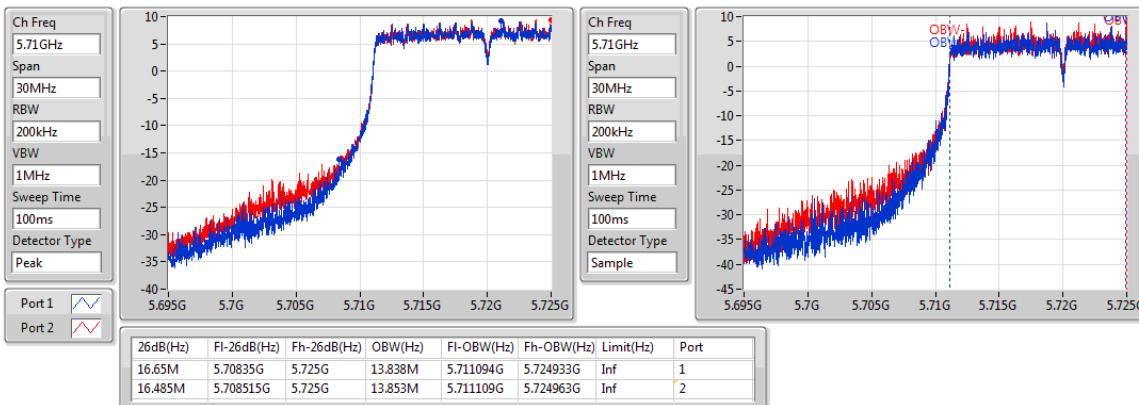
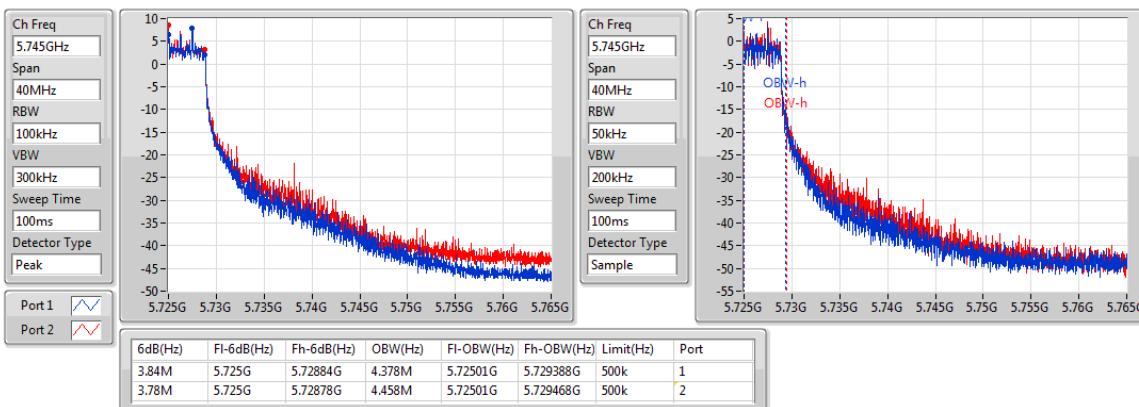
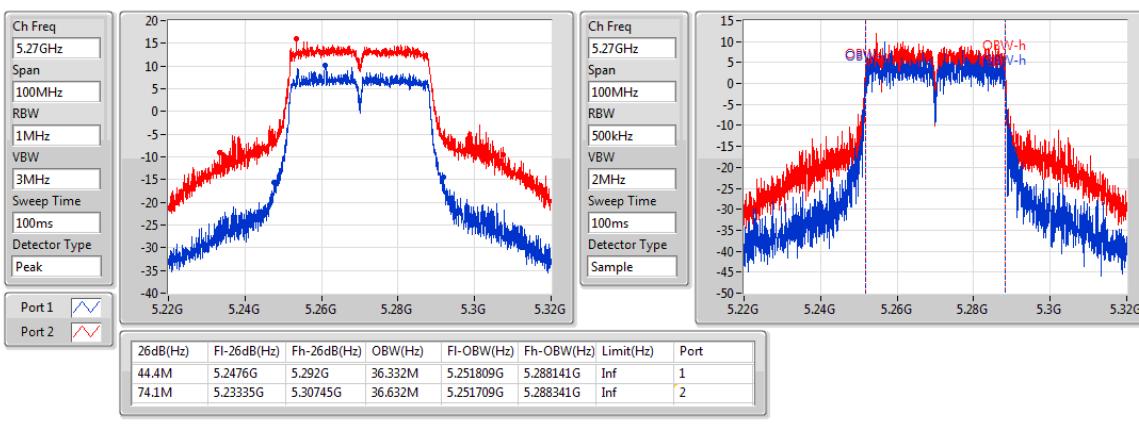
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
VHT20-BF_Nss1_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	23.25M	17.716M	31.875M	17.841M
5300MHz	Pass	Inf	24M	17.741M	39.975M	18.016M
5320MHz	Pass	Inf	22.125M	17.691M	32.35M	17.791M
5500MHz	Pass	Inf	23.075M	17.666M	24.5M	17.691M
5580MHz	Pass	Inf	22.525M	17.666M	23.275M	17.741M
5700MHz	Pass	Inf	24.6M	17.741M	25.725M	17.716M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.65M	13.838M	16.485M	13.853M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.84M	4.378M	3.78M	4.458M
VHT40-BF_Nss1_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	44.4M	36.332M	74.1M	36.632M
5310MHz	Pass	Inf	44.1M	36.232M	42.4M	36.332M
5510MHz	Pass	Inf	44.45M	36.232M	42.2M	36.382M
5550MHz	Pass	Inf	45.15M	36.332M	42.55M	36.332M
5670MHz	Pass	Inf	44.9M	36.282M	43.55M	36.332M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	36.61M	33.093M	36.61M	33.058M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.18M	4.518M	3.14M	7.436M
VHT80-BF_Nss1_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	80.5M	75.762M	82.9M	75.662M
5530MHz	Pass	Inf	82.8M	75.362M	87M	75.862M
5610MHz	Pass	Inf	83.2M	75.762M	89.6M	75.762M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	78.525M	72.714M	90.675M	72.714M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	2.76M	5.277M	3.14M	11.134M

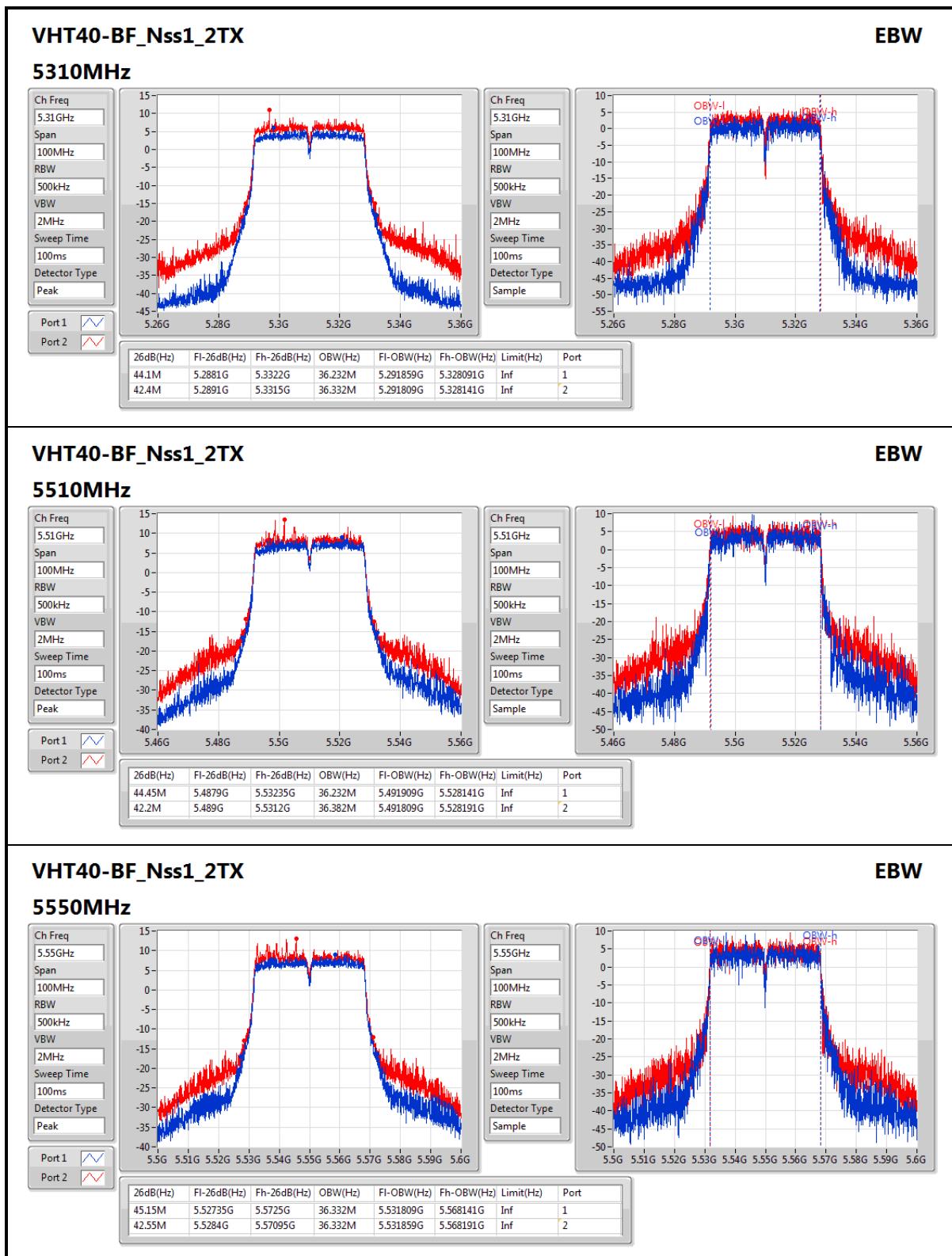
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

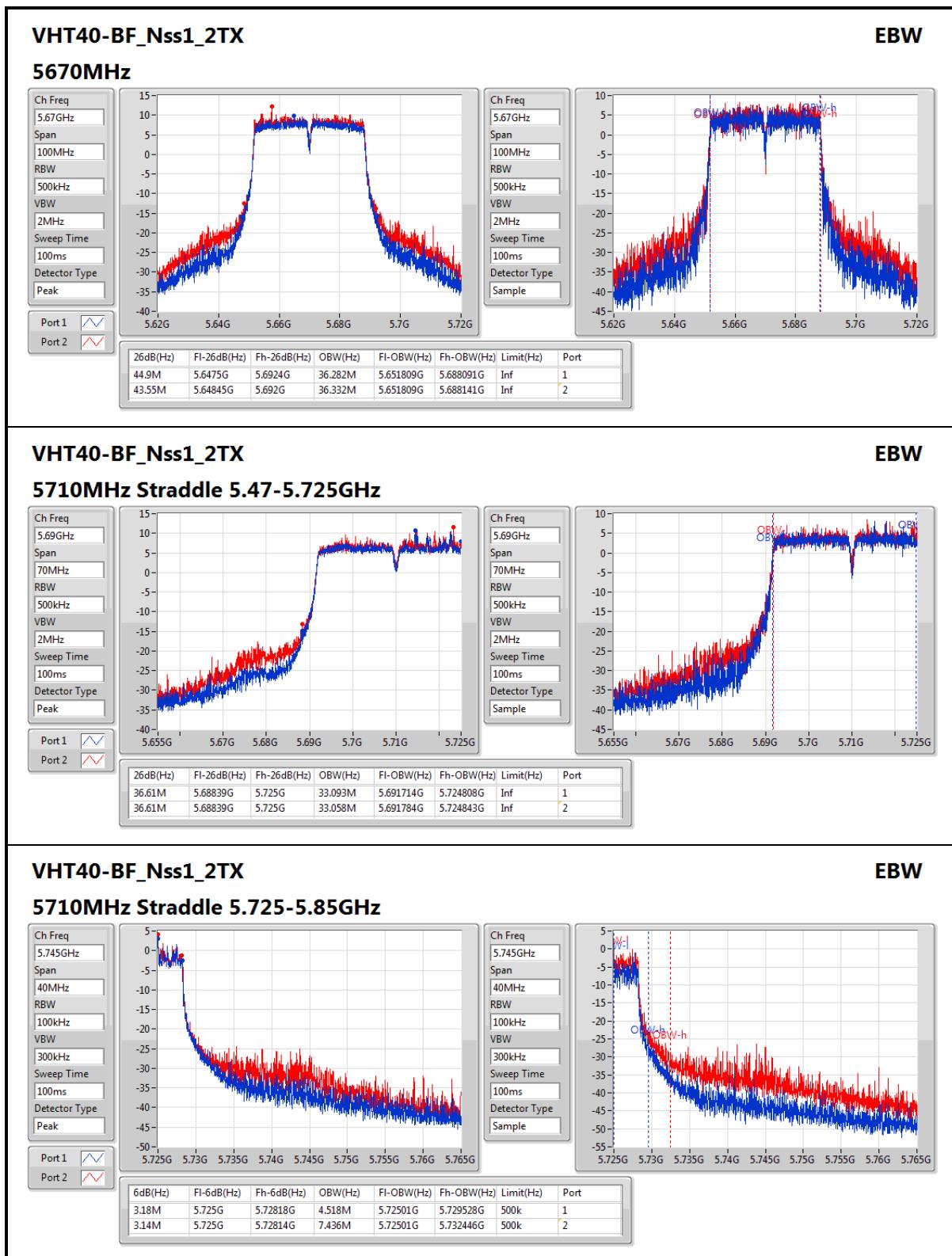
Port X-OBW = Port X 99% occupied bandwidth;

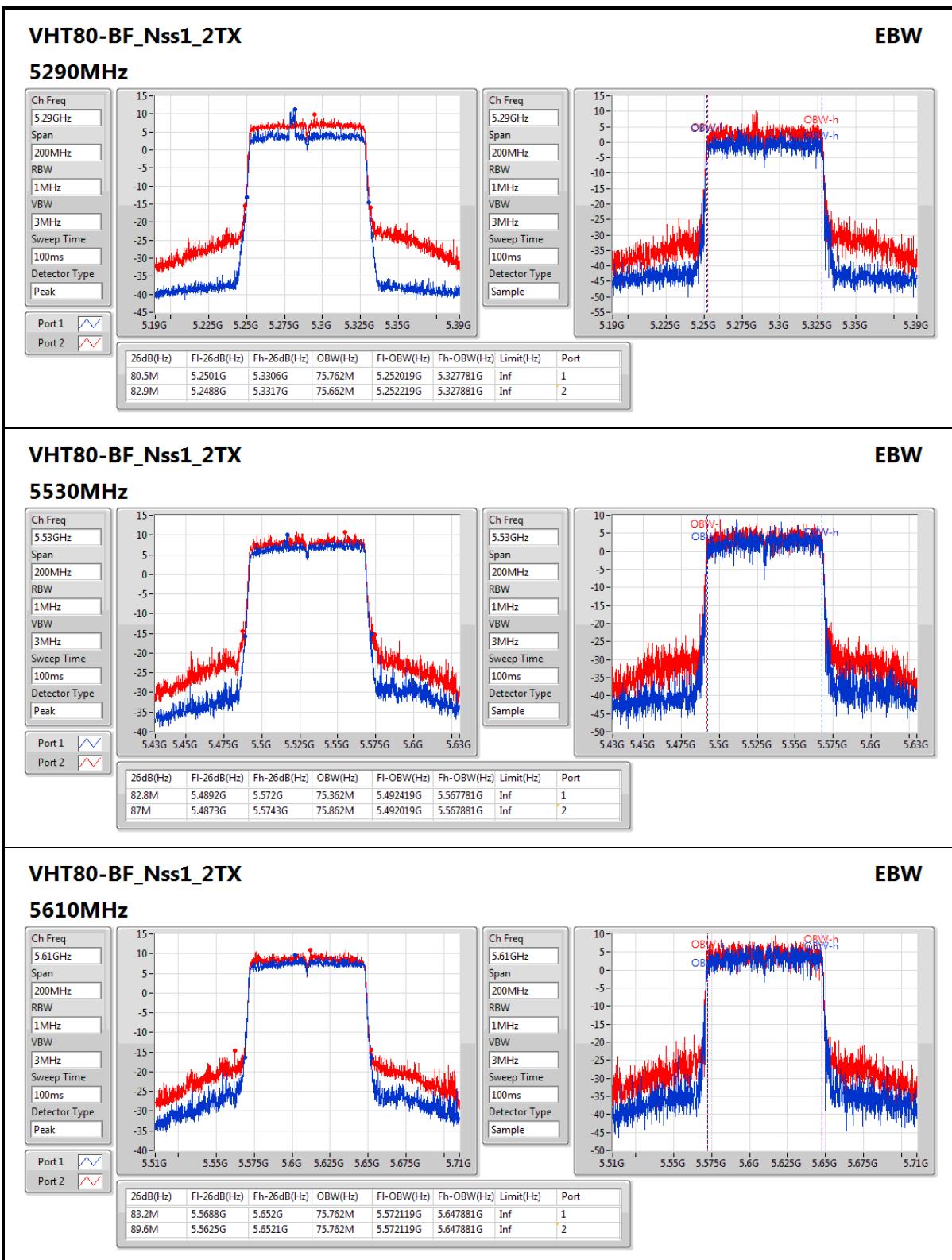


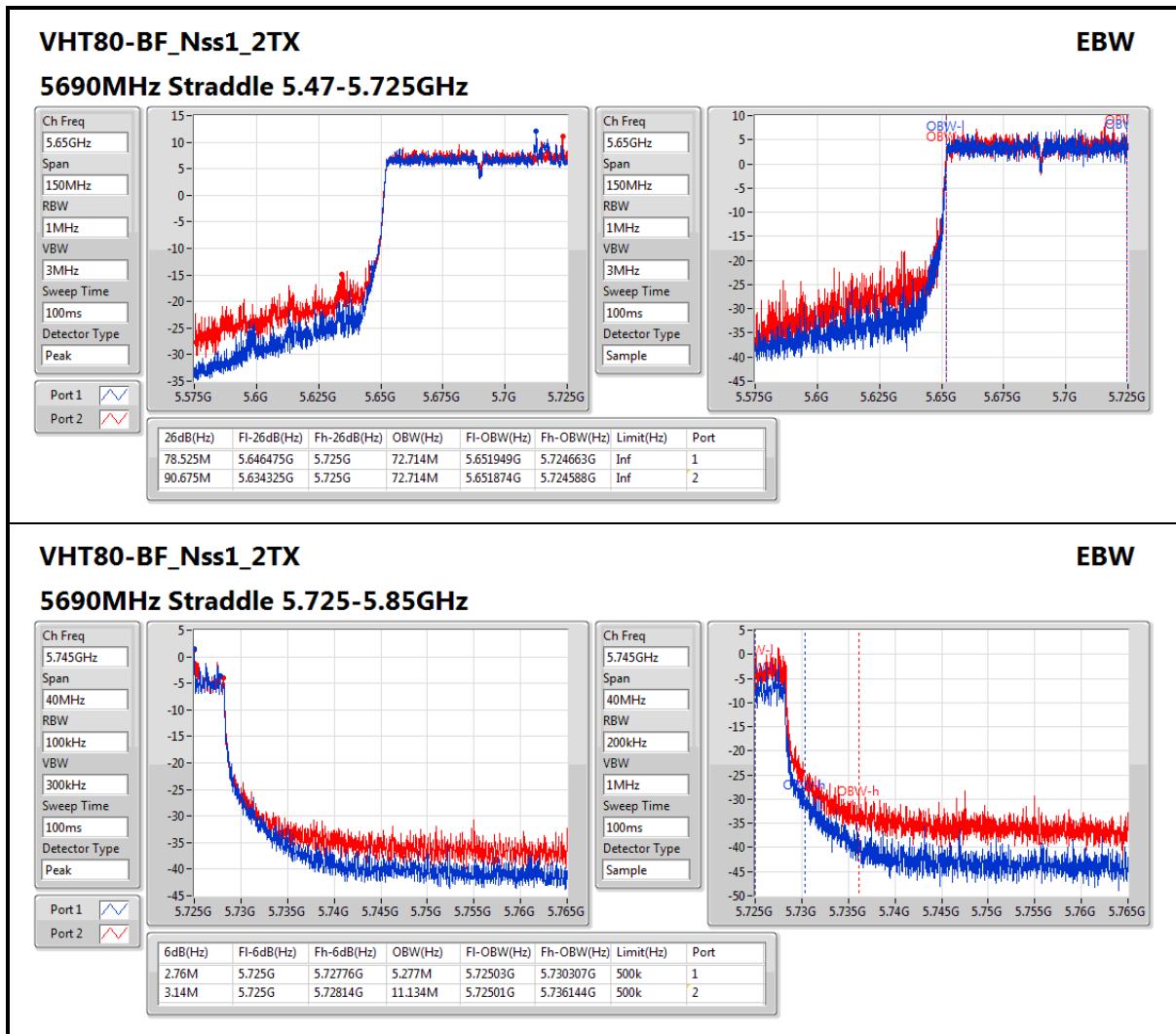


**VHT20-BF_Nss1_2TX****EBW****5720MHz Straddle 5.47-5.725GHz****VHT20-BF_Nss1_2TX****EBW****5720MHz Straddle 5.725-5.85GHz****VHT40-BF_Nss1_2TX****EBW****5270MHz**











3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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



3.3.2 Measuring Instruments

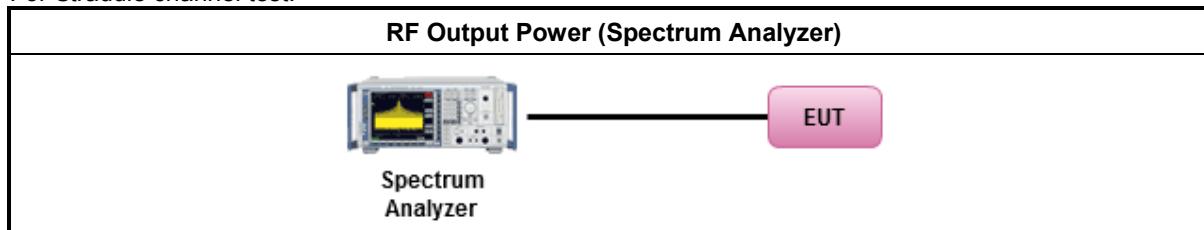
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

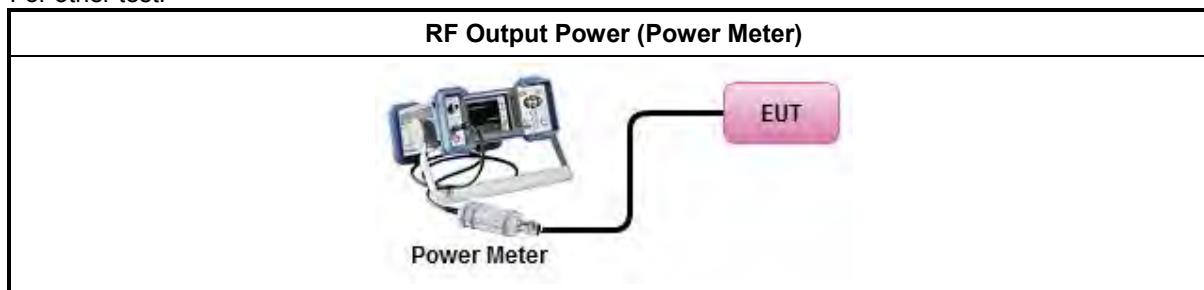
Test Method	
▪ Maximum Conducted Output Power	
Average over on/off periods with duty factor	
<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).	
<input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow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

3.3.4 Test Setup

For Straddle channel test:



For other test:





3.3.5 Test Result of Maximum Conducted Output Power

<For Non-Beamforming Mode>

Summary

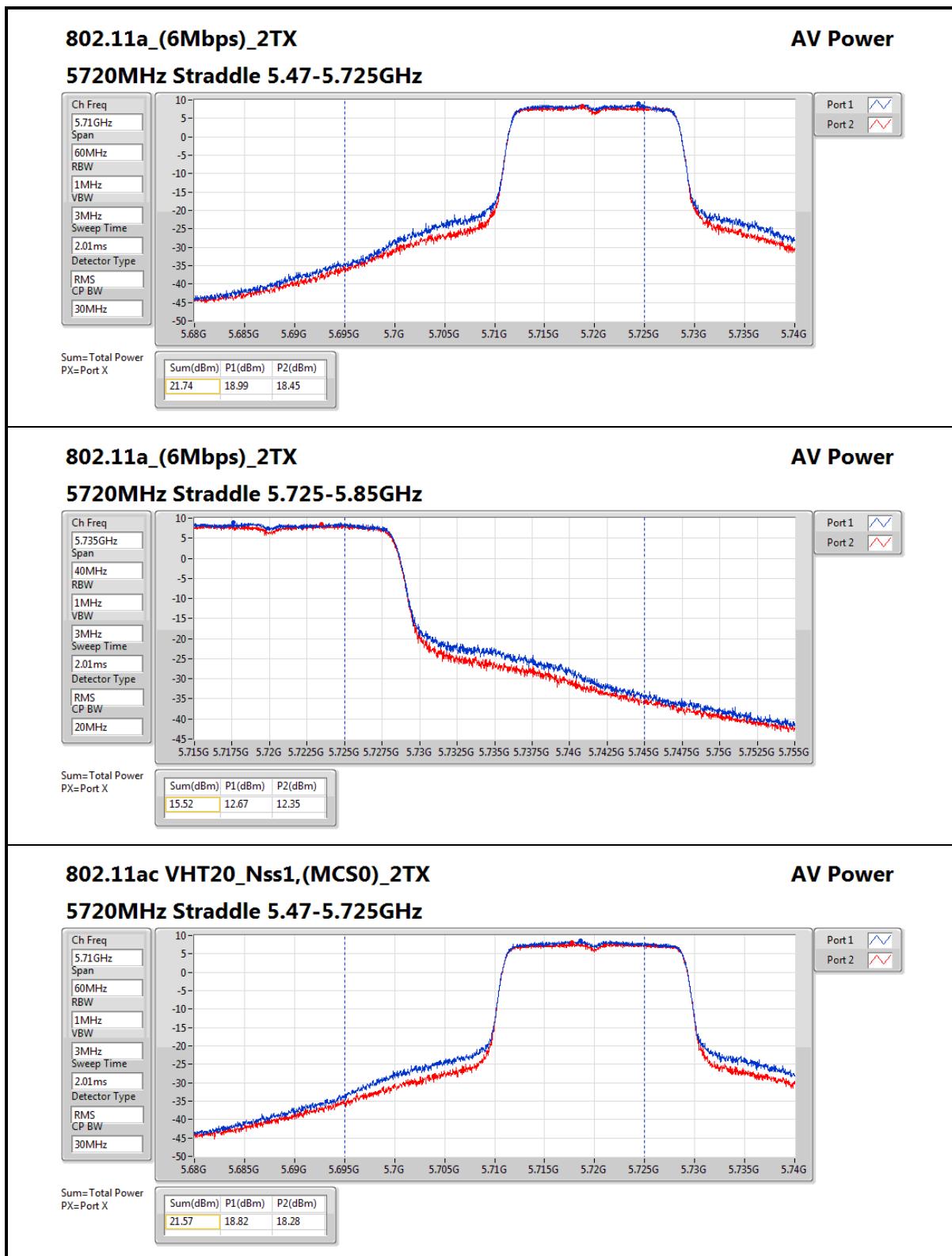
Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
11a_Nss1_2TX	-	-	-	-
5.25-5.35GHz	21.10	0.12882	26.41	0.43752
5.47-5.725GHz	21.74	0.14928	27.05	0.50699
5.725-5.85GHz	15.52	0.03565	20.83	0.12106
VHT20_Nss1_2TX	-	-	-	-
5.25-5.35GHz	21.92	0.15560	27.23	0.52845
5.47-5.725GHz	21.63	0.14555	26.94	0.49431
5.725-5.85GHz	15.75	0.03758	21.06	0.12764
VHT40_Nss1_2TX	-	-	-	-
5.25-5.35GHz	23.63	0.23067	28.94	0.78343
5.47-5.725GHz	23.97	0.24946	29.28	0.84723
5.725-5.85GHz	12.95	0.01972	18.26	0.06699
VHT80_Nss1_2TX	-	-	-	-
5.25-5.35GHz	19.35	0.08610	24.66	0.29242
5.47-5.725GHz	23.59	0.22856	28.90	0.77625
5.725-5.85GHz	9.93	0.00984	15.24	0.03342

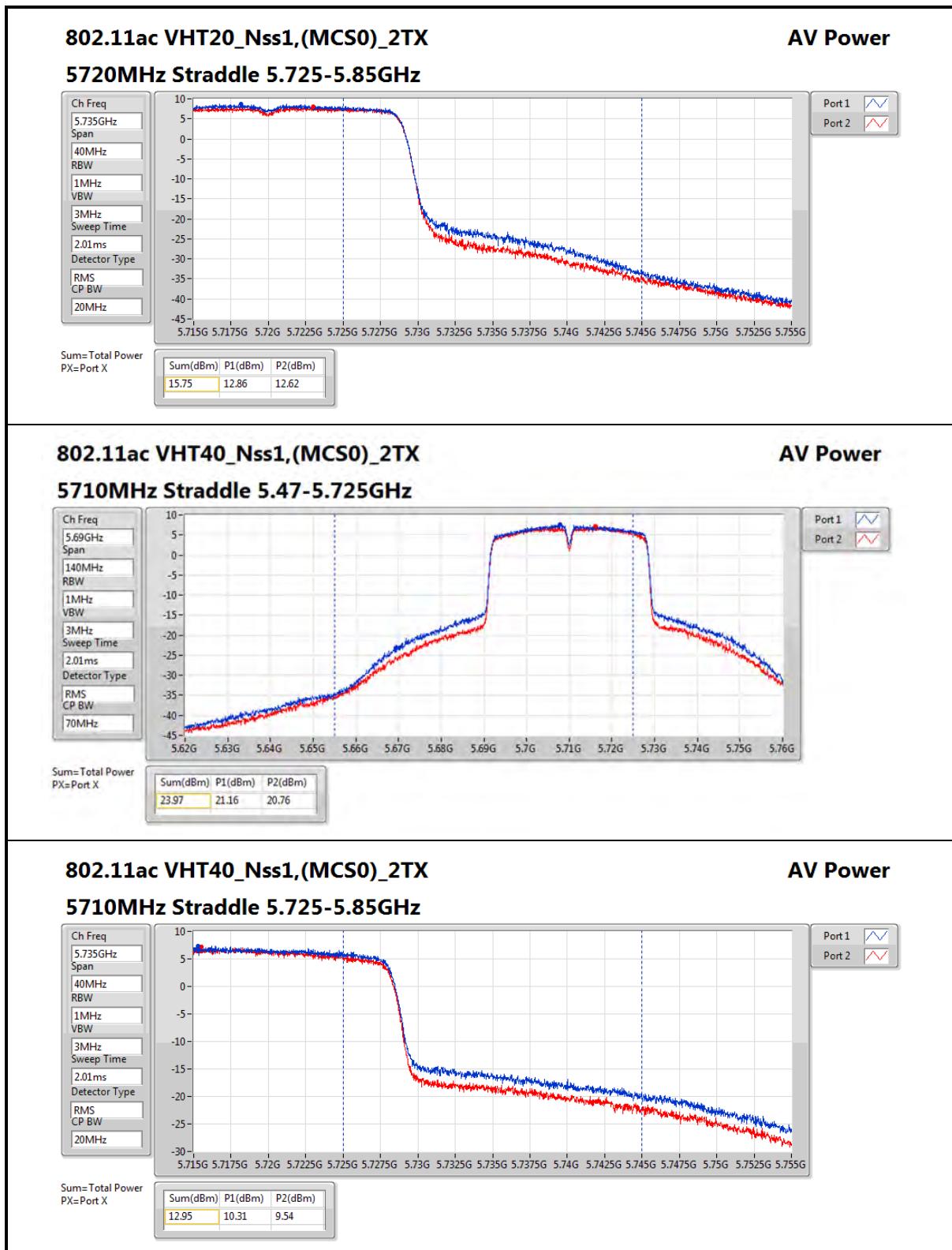


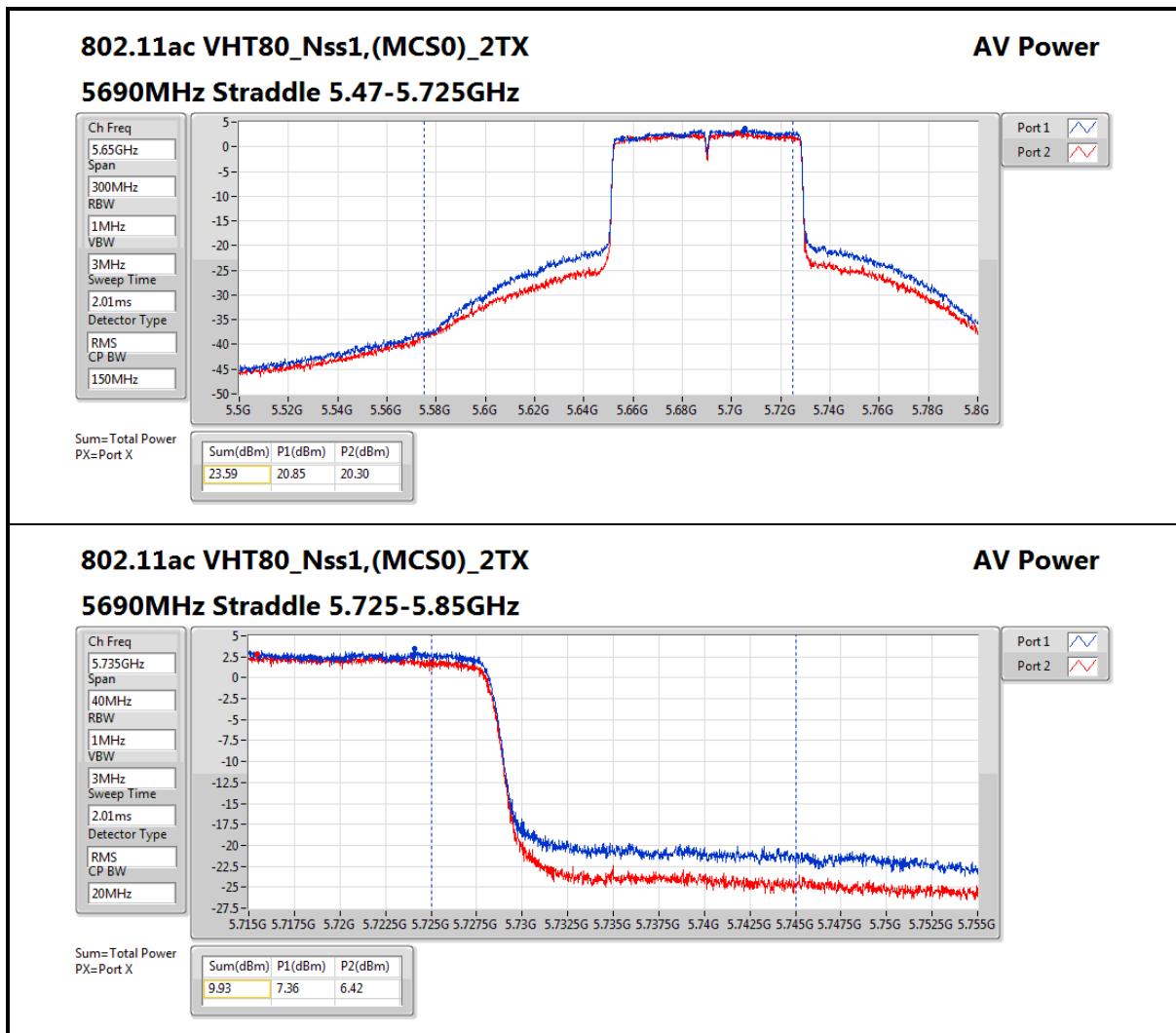
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
11a_Nss1_2TX	-	-	-	-	-	-
5260MHz	Pass	5.31	18.14	18.03	21.10	23.98
5300MHz	Pass	5.31	18.00	18.06	21.04	23.98
5320MHz	Pass	5.31	18.03	18.03	21.04	23.98
5500MHz	Pass	5.31	16.93	16.79	19.87	23.83
5580MHz	Pass	5.31	17.82	18.36	21.11	23.97
5700MHz	Pass	5.31	16.55	17.17	19.88	23.79
5720MHz Straddle 5.47-5.725GHz	Pass	5.31	18.99	18.45	21.74	22.71
5720MHz Straddle 5.725-5.85GHz	Pass	5.31	12.67	12.35	15.52	30.00
VHT20_Nss1_2TX	-	-	-	-	-	-
5260MHz	Pass	5.31	18.55	18.26	21.42	23.98
5300MHz	Pass	5.31	19.03	18.79	21.92	23.98
5320MHz	Pass	5.31	19.03	18.79	21.92	23.98
5500MHz	Pass	5.31	18.32	18.9	21.63	23.98
5580MHz	Pass	5.31	18.19	18.81	21.52	23.98
5700MHz	Pass	5.31	17.16	17.43	20.31	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.31	18.82	18.28	21.57	22.85
5720MHz Straddle 5.725-5.85GHz	Pass	5.31	12.86	12.62	15.75	30.00
VHT40_Nss1_2TX	-	-	-	-	-	-
5270MHz	Pass	5.31	20.84	20.39	23.63	23.98
5310MHz	Pass	5.31	17.35	16.71	20.05	23.98
5510MHz	Pass	5.31	17.41	17.58	20.51	23.98
5550MHz	Pass	5.31	20.56	20.54	23.56	23.98
5670MHz	Pass	5.31	19.28	19.32	22.31	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.31	21.16	20.76	23.97	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	5.31	10.31	9.54	12.95	30.00
VHT80_Nss1_2TX	-	-	-	-	-	-
5290MHz	Pass	5.31	16.65	16.01	19.35	23.98
5530MHz	Pass	5.31	17.24	17.28	20.27	23.98
5610MHz	Pass	5.31	20.1	20.11	23.12	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.31	20.85	20.3	23.59	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	5.31	7.36	6.42	9.93	30.00

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









<For Beamforming Mode>
Summary

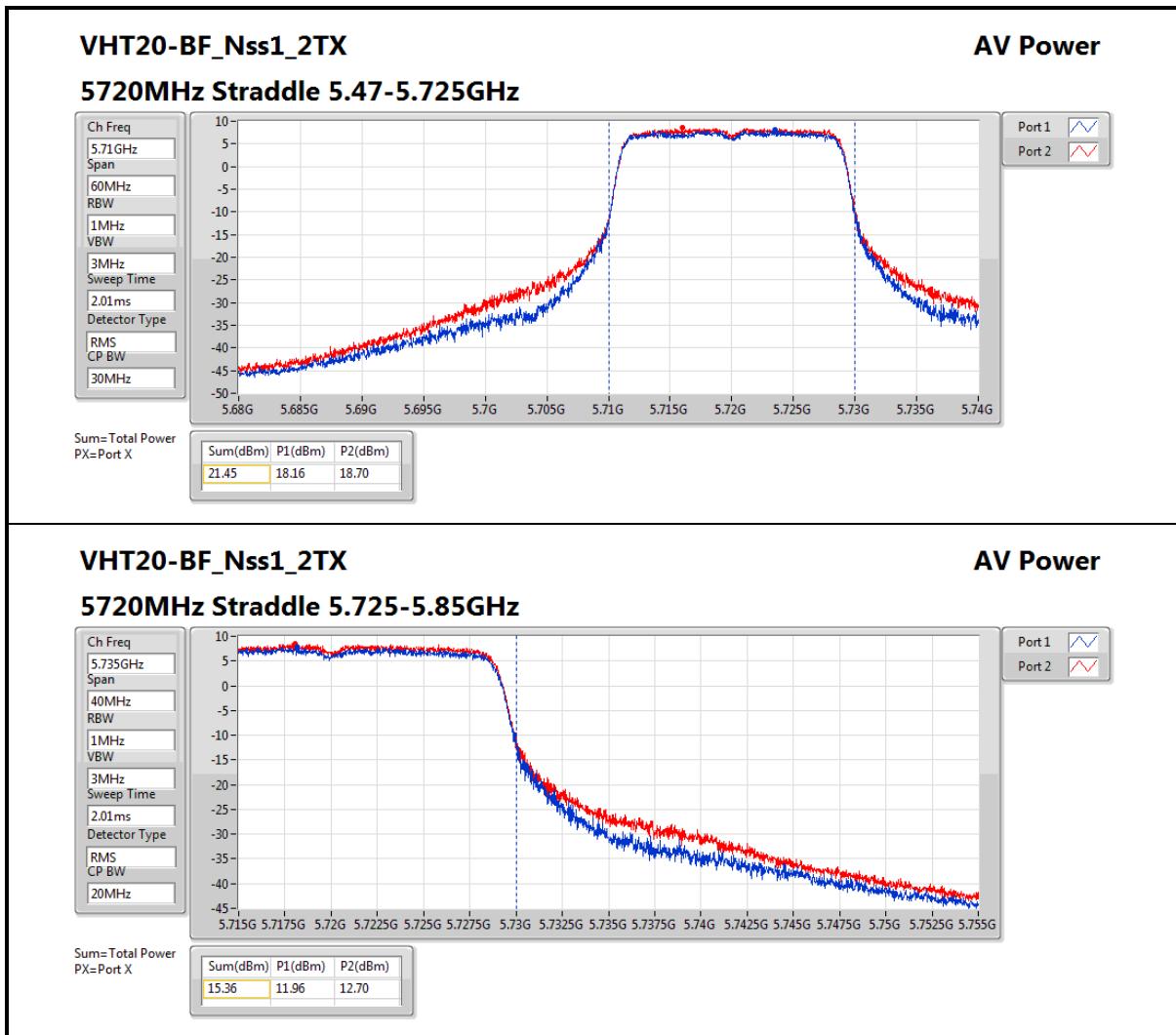
Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
VHT20-BF_Nss1_2TX	-	-	-	-
5.25-5.35GHz	21.83	0.15241	29.10	0.81283
5.47-5.725GHz	21.45	0.13964	28.72	0.74473
5.725-5.85GHz	15.36	0.03436	22.63	0.18323
VHT40-BF_Nss1_2TX	-	-	-	-
5.25-5.35GHz	21.33	0.13583	28.60	0.72444
5.47-5.725GHz	21.45	0.13964	28.72	0.74473
5.725-5.85GHz	11.27	0.01340	18.54	0.07145
VHT80-BF_Nss1_2TX	-	-	-	-
5.25-5.35GHz	17.74	0.05943	25.01	0.31696
5.47-5.725GHz	22.33	0.17100	29.60	0.91201
5.725-5.85GHz	10.21	0.01050	17.48	0.05598

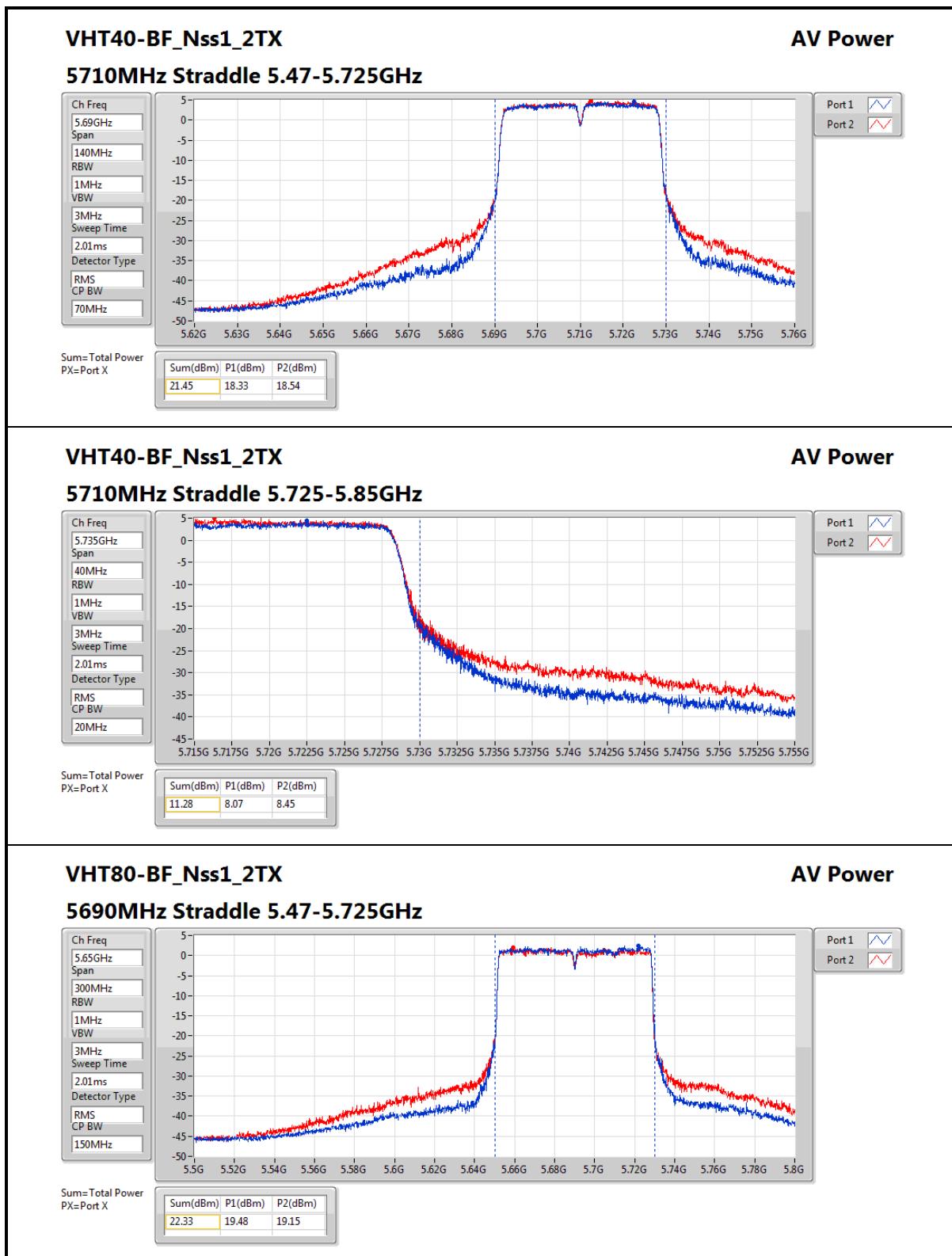


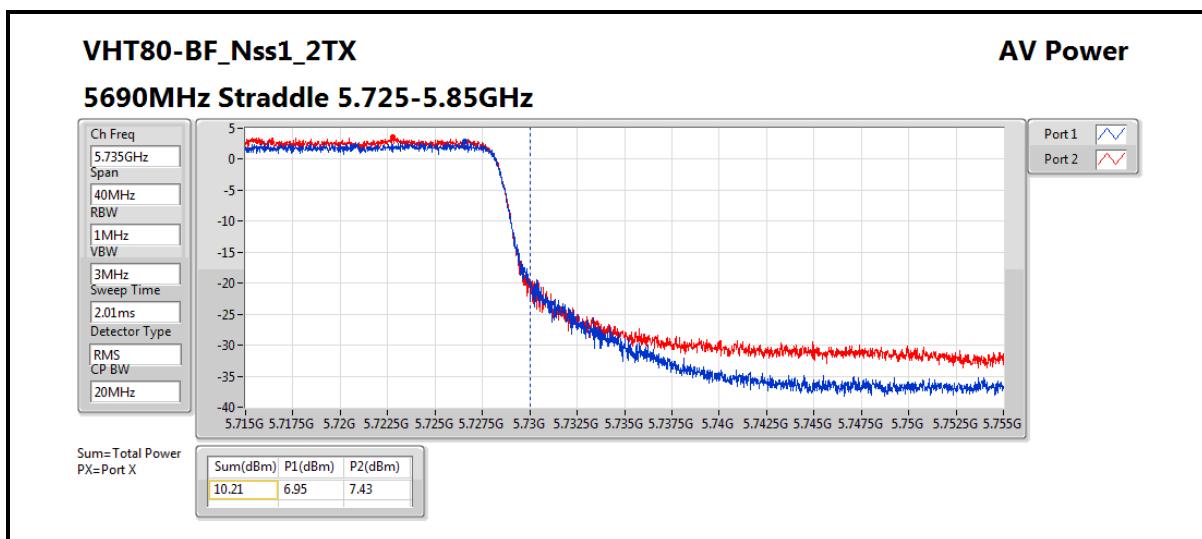
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
VHT20-BF_Nss1_2TX	-	-	-	-	-	-
5260MHz	Pass	7.27	18.89	18.75	21.83	22.71
5300MHz	Pass	7.27	18.61	18.73	21.68	22.71
5320MHz	Pass	7.27	17.03	17.18	20.12	22.71
5500MHz	Pass	7.27	16.66	16.74	19.71	22.71
5580MHz	Pass	7.27	17.45	17.32	20.40	22.71
5700MHz	Pass	7.27	17.98	18.07	21.04	22.71
5720MHz Straddle 5.47-5.725GHz	Pass	7.27	18.16	18.70	21.45	21.90
5720MHz Straddle 5.725-5.85GHz	Pass	7.27	11.96	12.70	15.36	28.73
VHT40-BF_Nss1_2TX	-	-	-	-	-	-
5270MHz	Pass	7.27	18.17	18.47	21.33	22.71
5310MHz	Pass	7.27	14.80	14.91	17.87	22.71
5510MHz	Pass	7.27	17.41	17.64	20.54	22.71
5550MHz	Pass	7.27	17.21	17.42	20.33	22.71
5670MHz	Pass	7.27	17.28	17.45	20.38	22.71
5710MHz Straddle 5.47-5.725GHz	Pass	7.27	18.33	18.54	21.45	22.71
5710MHz Straddle 5.725-5.85GHz	Pass	7.27	8.07	8.45	11.27	28.73
VHT80-BF_Nss1_2TX	-	-	-	-	-	-
5290MHz	Pass	7.27	14.69	14.76	17.74	22.71
5530MHz	Pass	7.27	17.22	17.48	20.36	22.71
5610MHz	Pass	7.27	17.20	17.38	20.30	22.71
5690MHz Straddle 5.47-5.725GHz	Pass	7.27	19.48	19.15	22.33	22.71
5690MHz Straddle 5.725-5.85GHz	Pass	7.27	6.95	7.43	10.21	28.73

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









3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
<input type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none">▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$.▪ Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none">▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$.▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
LE-LAN Devices	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) ≤ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
	<ul style="list-style-type: none">▪ e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; -13 – 0.716 (θ-8) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 – 1.22 (θ-40) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none">▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$.▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.4.2 Measuring Instruments

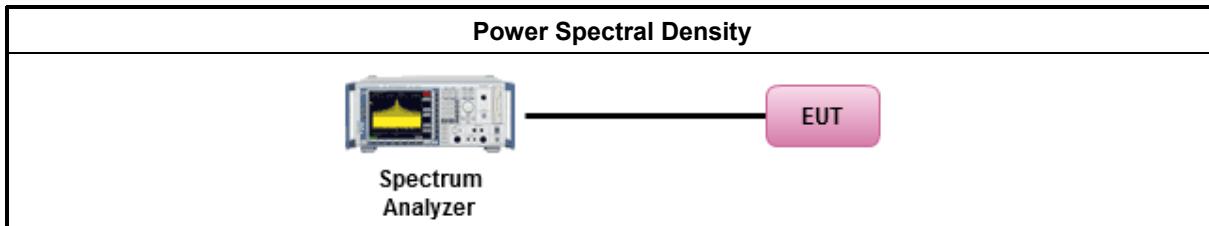
Refer a test equipment and calibration data table in this test report.



3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none">▪ Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
<input type="checkbox"/> Refer as FCC KDB 789033, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth	[duty cycle \geq 98% or external video / power trigger]
<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).	
<input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)	duty cycle < 98% and average over on/off periods with duty factor
<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).	
<input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
<ul style="list-style-type: none">▪ For conducted measurement.	
<ul style="list-style-type: none">▪ If the EUT supports multiple transmit chains using options given below:	
<ul style="list-style-type: none"><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.	
<ul style="list-style-type: none"><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,	
<ul style="list-style-type: none"><input type="checkbox"/> Option 3: Measure and add $10 \log(N)$ dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with $10 \log(N)$. Or each transmit chains shall be add $10 \log(N)$ to compared with the limit.	
<ul style="list-style-type: none">▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$	

3.4.4 Test Setup





3.4.5 Test Result of Peak Power Spectral Density

<For Non-Beamforming Mode>

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
11a_Nss1_2TX	-	-
5.25-5.35GHz	9.33	16.60
5.47-5.725GHz	9.66	16.93
5.725-5.85GHz	8.01	15.28
VHT20_Nss1_2TX	-	-
5.25-5.35GHz	9.71	16.98
5.47-5.725GHz	9.53	16.80
5.725-5.85GHz	7.42	14.69
VHT40_Nss1_2TX	-	-
5.25-5.35GHz	8.52	15.79
5.47-5.725GHz	8.72	15.99
5.725-5.85GHz	5.51	12.78
VHT80_Nss1_2TX	-	-
5.25-5.35GHz	1.1	8.37
5.47-5.725GHz	5.08	12.35
5.725-5.85GHz	2.43	9.70

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

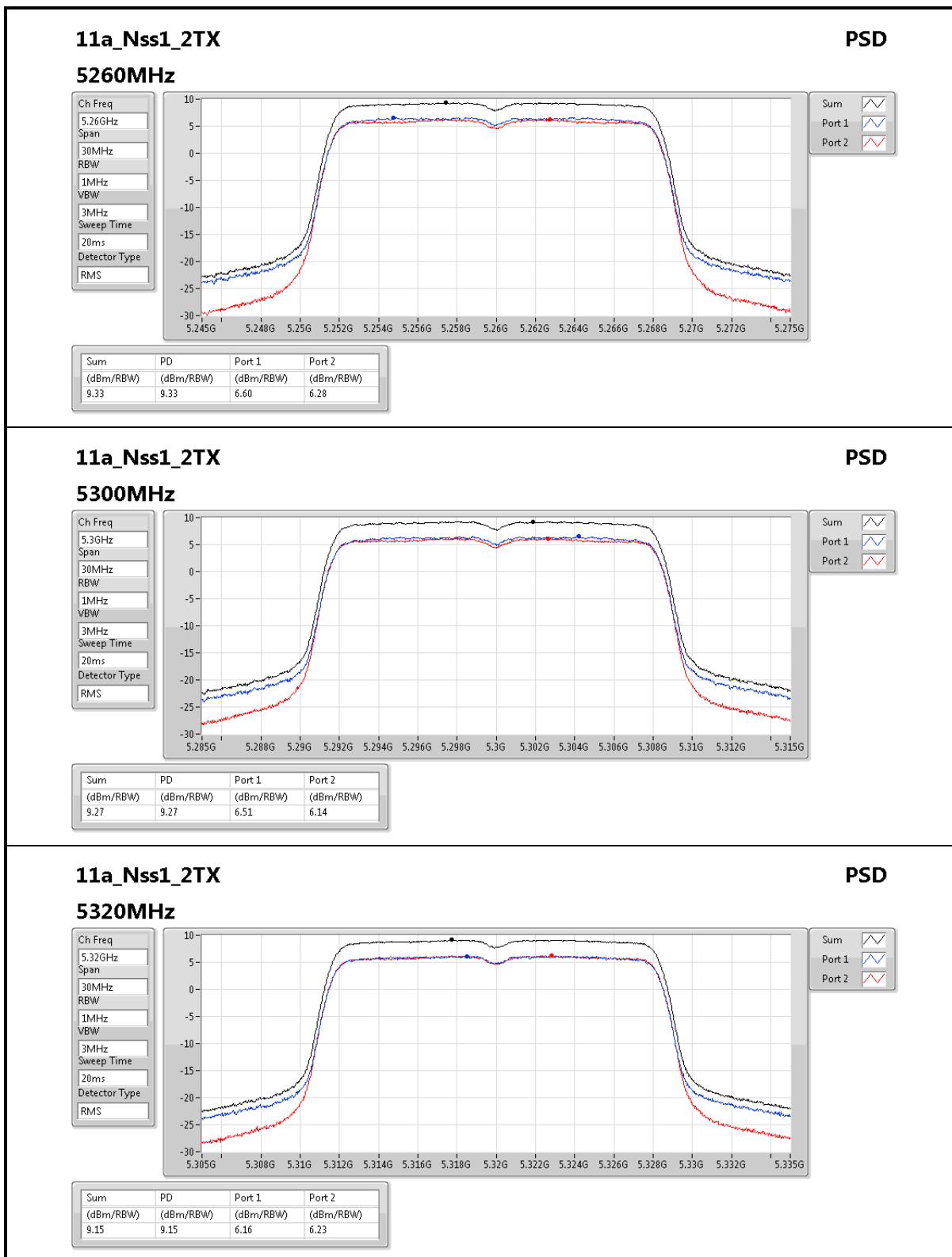


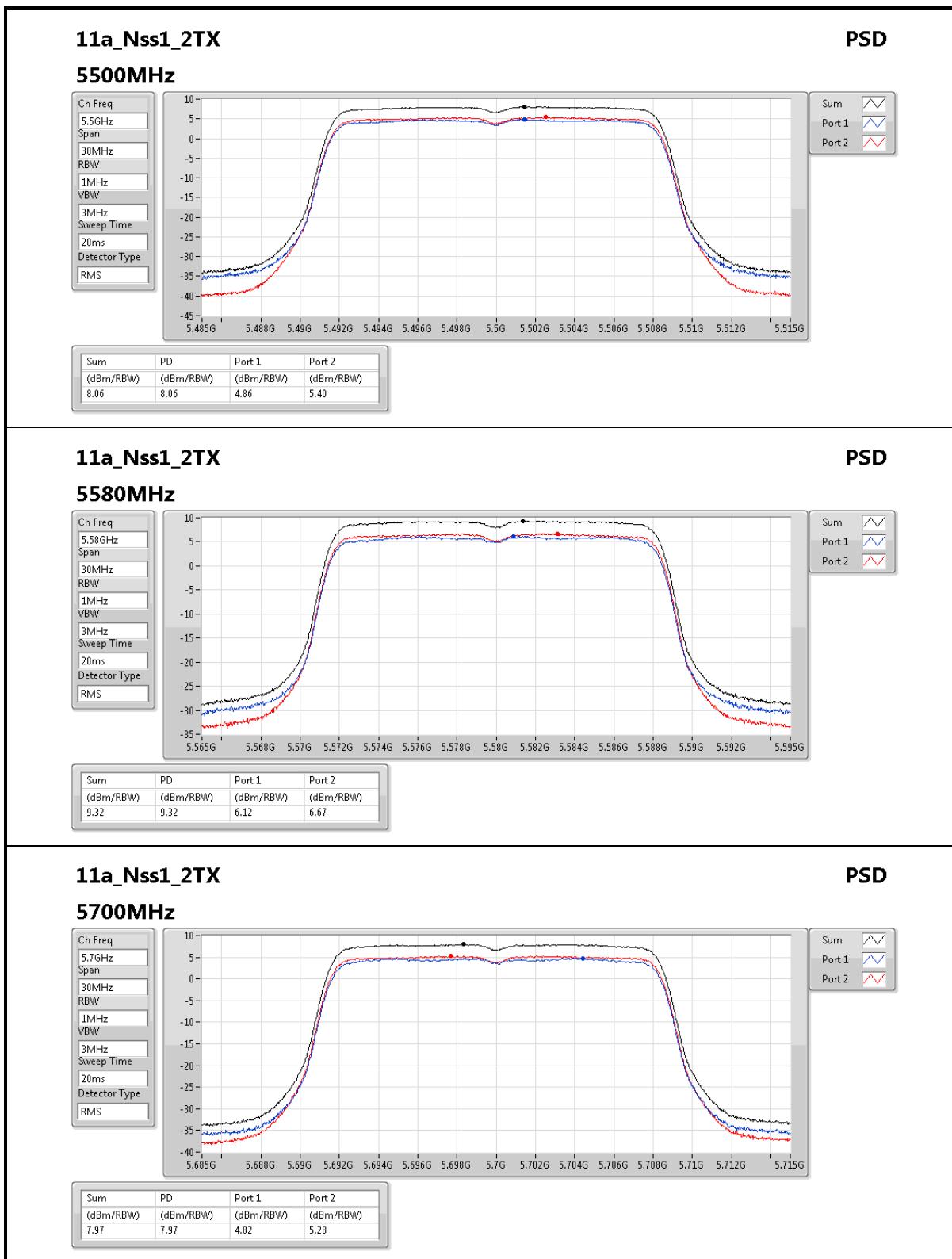
Result

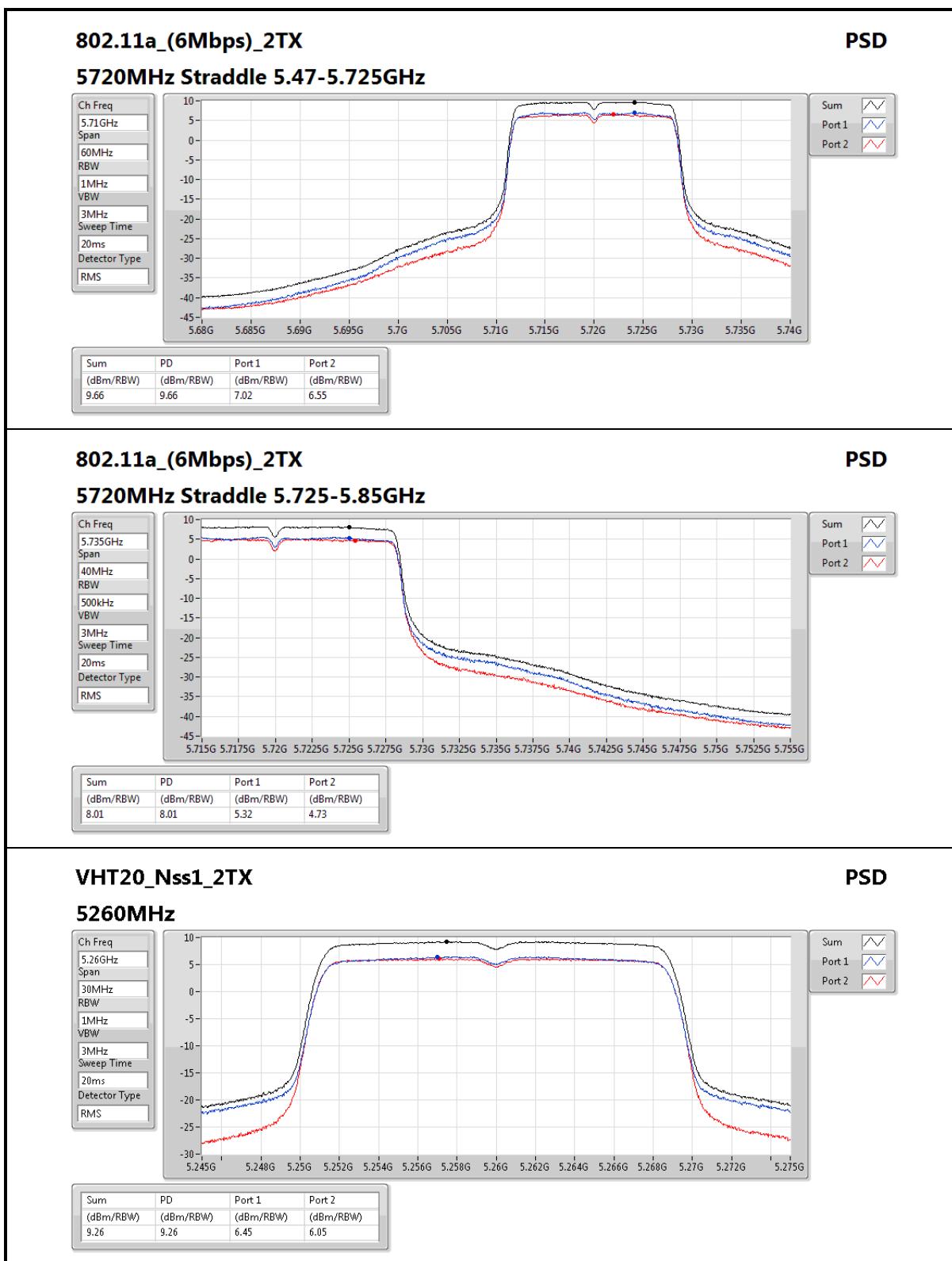
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
11a_Nss1_2TX	-	-	-	-	-	-
5260MHz	Pass	7.27	6.6	6.28	9.33	9.73
5300MHz	Pass	7.27	6.51	6.14	9.27	9.73
5320MHz	Pass	7.27	6.16	6.23	9.15	9.73
5500MHz	Pass	7.27	4.86	5.4	8.06	9.73
5580MHz	Pass	7.27	6.12	6.67	9.32	9.73
5700MHz	Pass	7.27	4.82	5.28	7.97	9.73
5720MHz Straddle 5.47-5.725GHz	Pass	7.27	7.02	6.55	9.66	9.73
5720MHz Straddle 5.725-5.85GHz	Pass	7.27	5.32	4.73	8.01	28.73
VHT20_Nss1_2TX	-	-	-	-	-	-
5260MHz	Pass	7.27	6.45	6.05	9.26	9.73
5300MHz	Pass	7.27	6.84	6.51	9.67	9.73
5320MHz	Pass	7.27	6.88	6.58	9.71	9.73
5500MHz	Pass	7.27	6.37	6.73	9.53	9.73
5580MHz	Pass	7.27	6.42	6.7	9.50	9.73
5700MHz	Pass	7.27	5.11	5.26	8.17	9.73
5720MHz Straddle 5.47-5.725GHz	Pass	7.27	6.72	6.14	9.40	9.73
5720MHz Straddle 5.725-5.85GHz	Pass	7.27	4.62	4.37	7.42	28.73
VHT40_Nss1_2TX	-	-	-	-	-	-
5270MHz	Pass	7.27	5.7	5.47	8.52	9.73
5310MHz	Pass	7.27	2.53	1.83	5.13	9.73
5510MHz	Pass	7.27	2.91	2.83	5.80	9.73
5550MHz	Pass	7.27	5.88	5.74	8.72	9.73
5670MHz	Pass	7.27	4.67	4.43	7.54	9.73
5710MHz Straddle 5.47-5.725GHz	Pass	7.27	5.76	5.15	8.40	9.73
5710MHz Straddle 5.725-5.85GHz	Pass	7.27	2.86	2.31	5.51	28.73
VHT80_Nss1_2TX	-	-	-	-	-	-
5290MHz	Pass	7.27	-1.47	-2.16	1.10	9.73
5530MHz	Pass	7.27	-0.51	-0.5	2.36	9.73
5610MHz	Pass	7.27	2.15	2.16	5.08	9.73
5690MHz Straddle 5.47-5.725GHz	Pass	7.27	1.86	1.09	4.38	9.73
5690MHz Straddle 5.725-5.85GHz	Pass	7.27	-0.08	-0.93	2.43	28.73

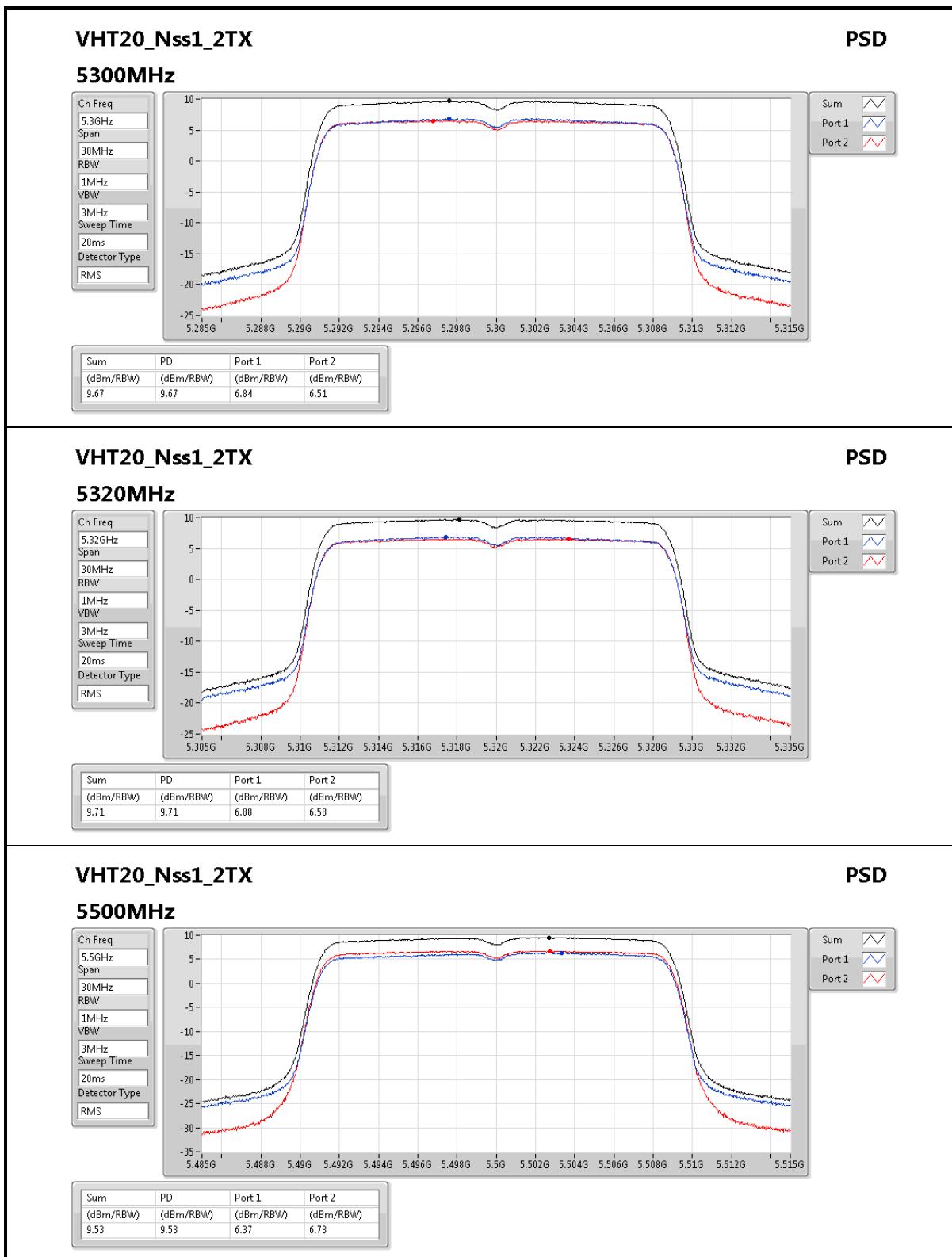
DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

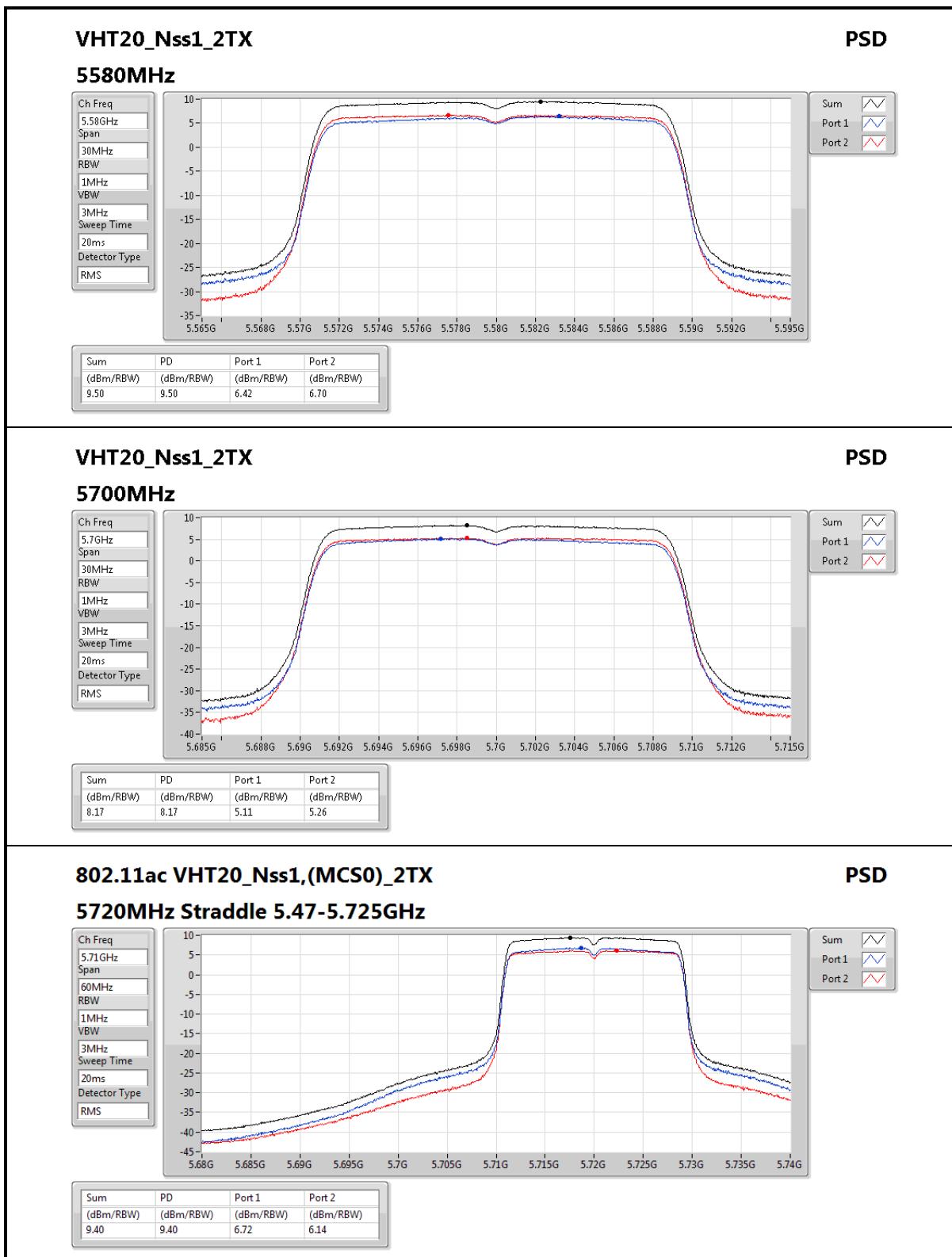
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;





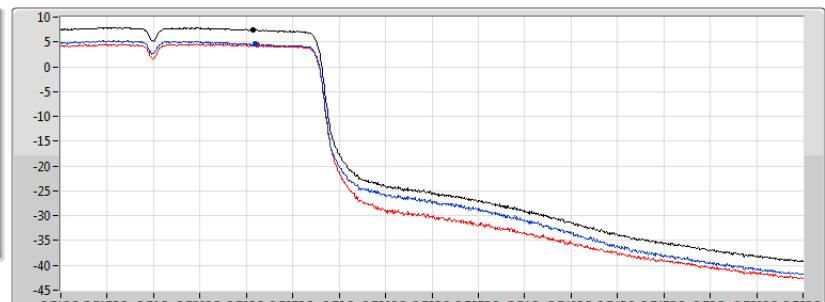






**802.11ac VHT20_Nss1,(MCS0)_2TX
5720MHz Straddle 5.725-5.85GHz****PSD**

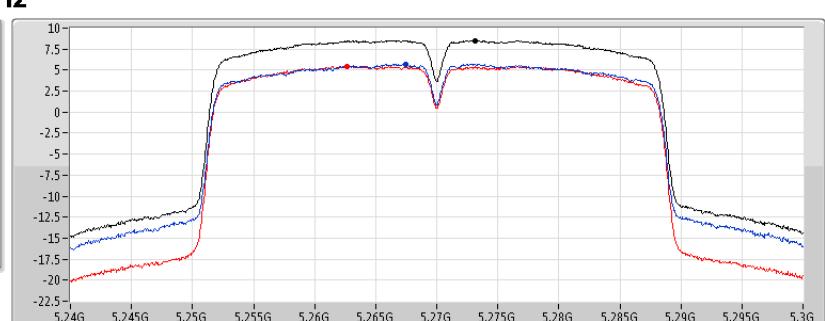
Ch Freq
5.735GHz
Span
40MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum	<input checked="" type="checkbox"/>
Port 1	<input type="checkbox"/>
Port 2	<input type="checkbox"/>

**VHT40_Nss1_2TX
5270MHz****PSD**

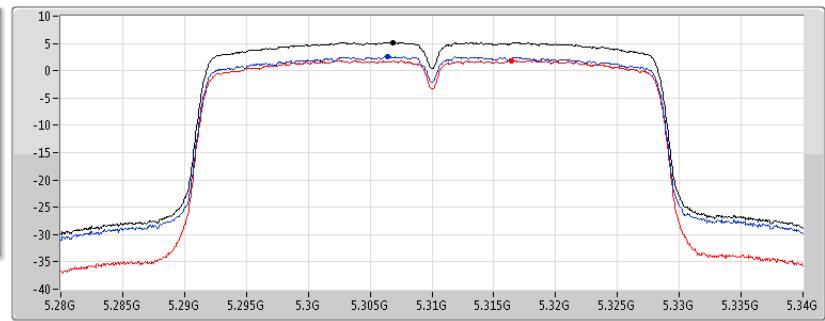
Ch Freq
5.27GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



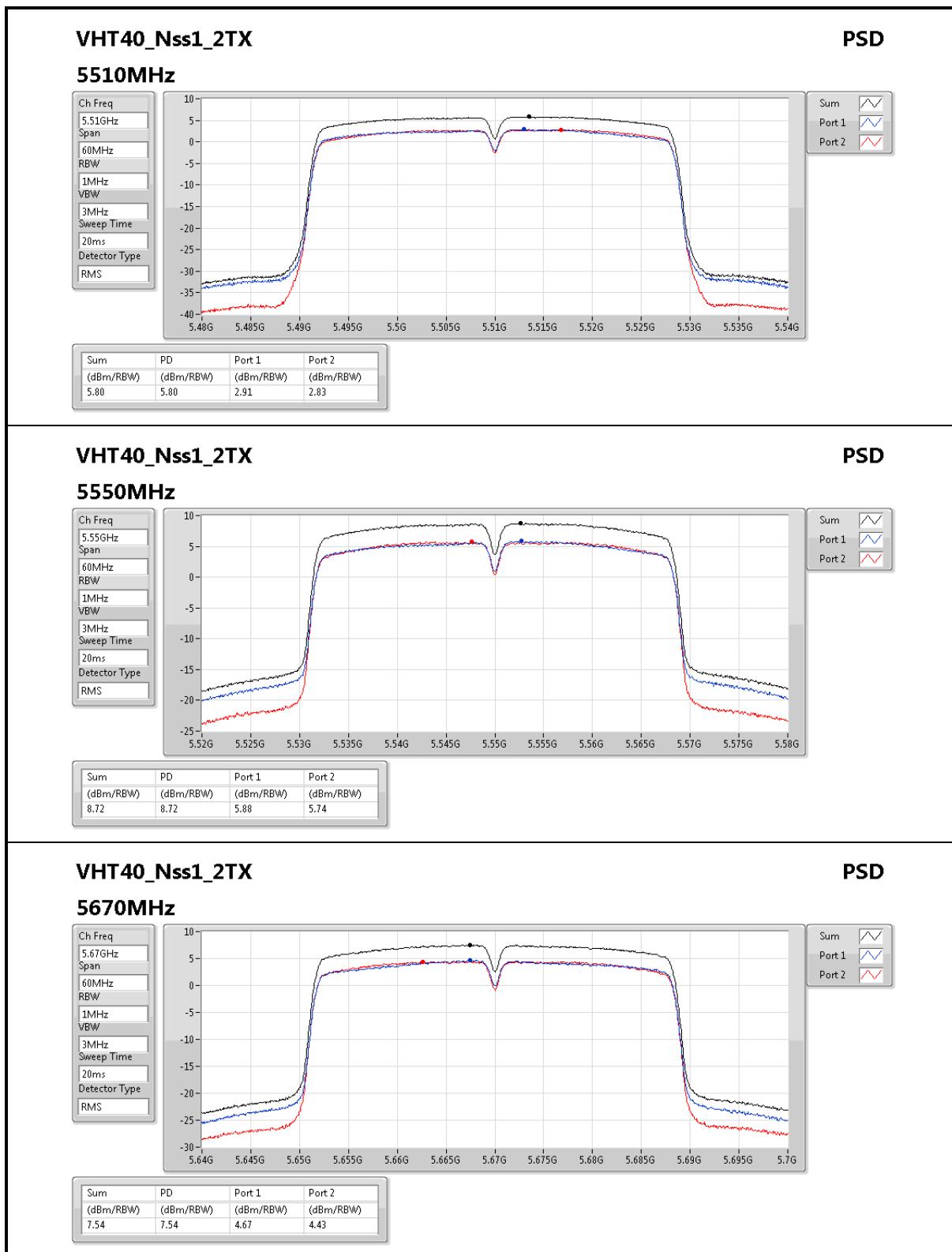
Sum	<input checked="" type="checkbox"/>
Port 1	<input type="checkbox"/>
Port 2	<input type="checkbox"/>

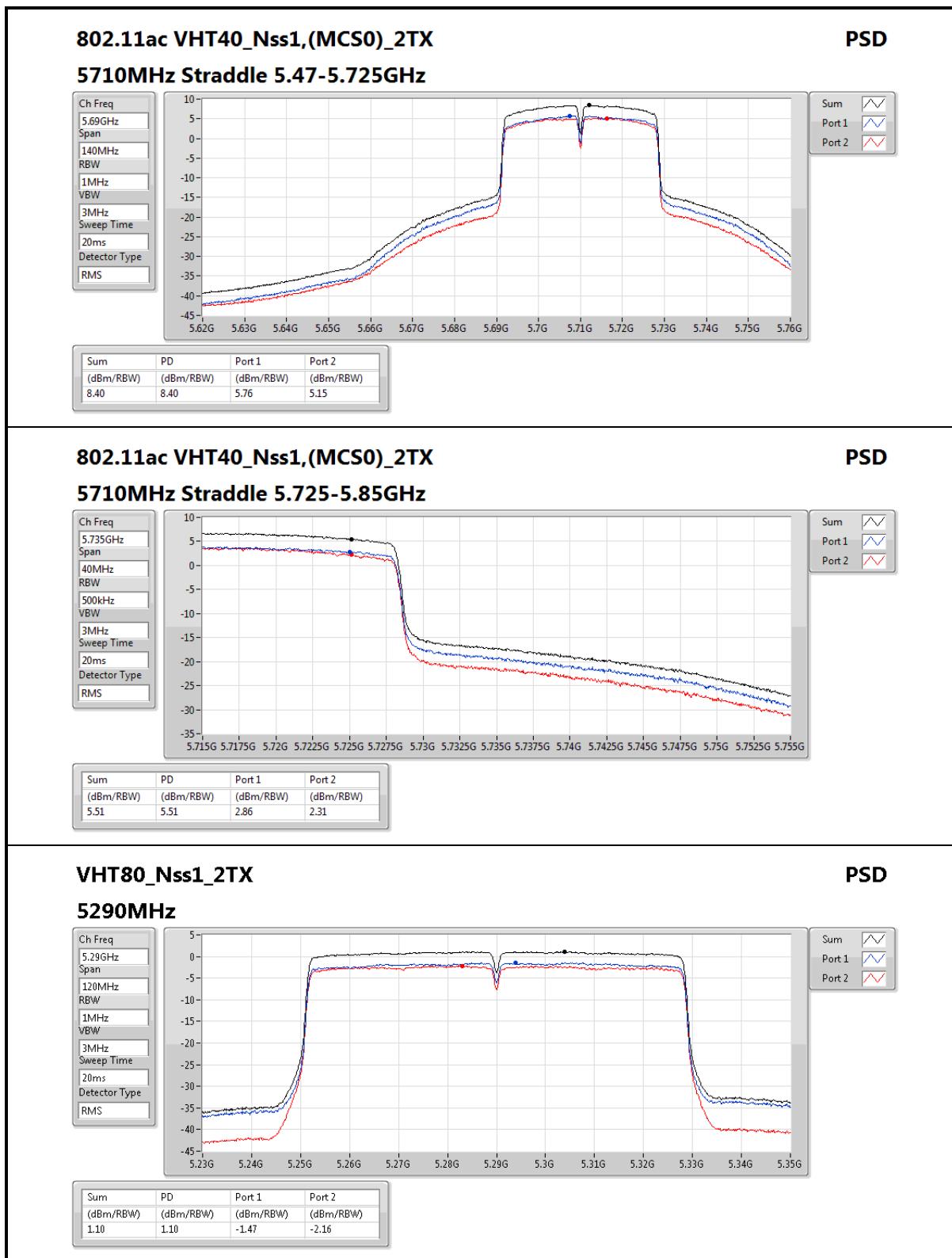
**VHT40_Nss1_2TX
5310MHz****PSD**

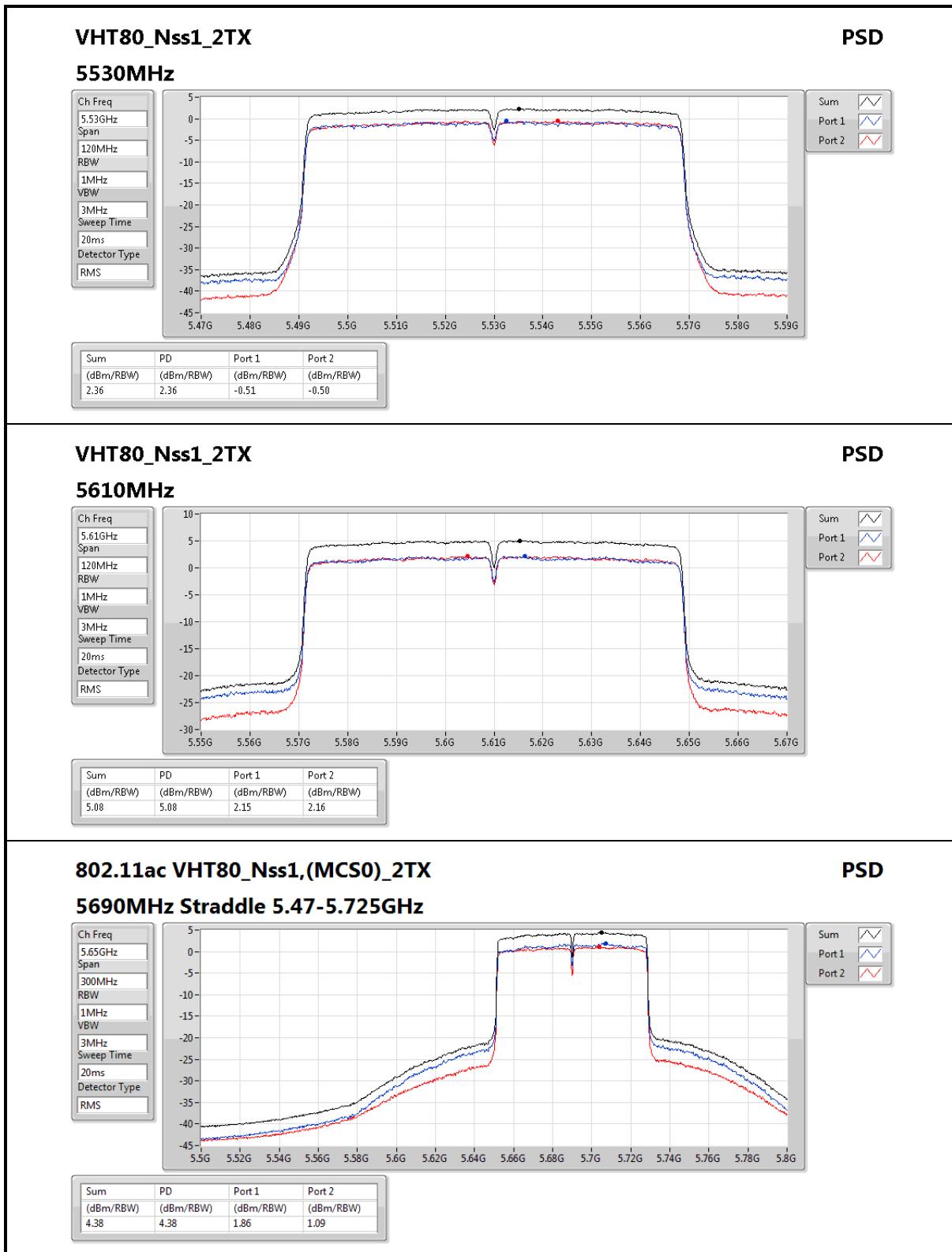
Ch Freq
5.31GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

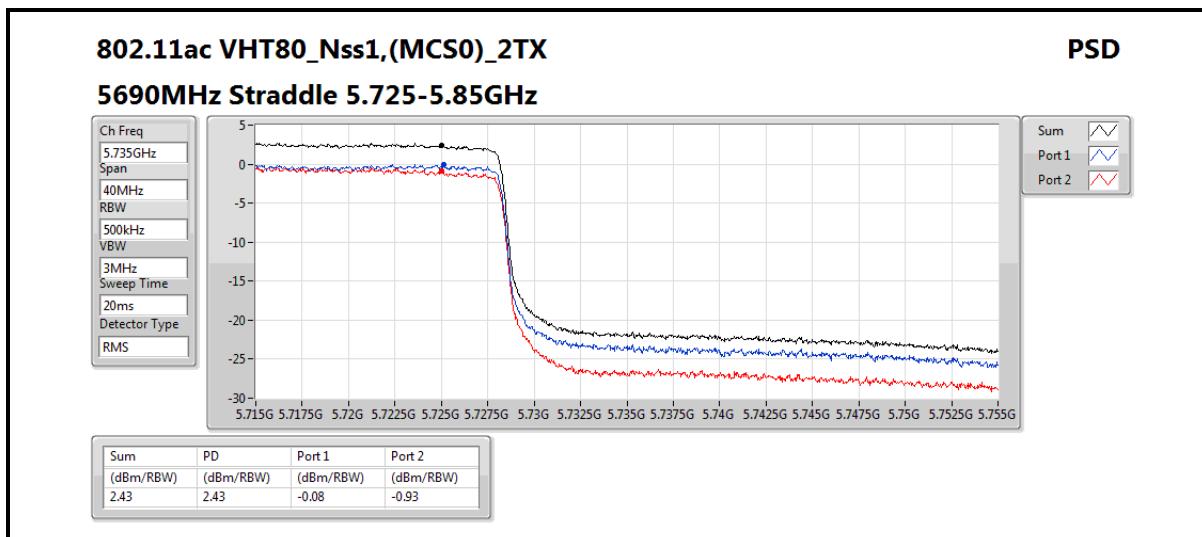


Sum	<input checked="" type="checkbox"/>
Port 1	<input type="checkbox"/>
Port 2	<input type="checkbox"/>











<For Beamforming Mode>
Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
VHT20-BF_Nss1_2TX	-	-
5.25-5.35GHz	8.46	15.73
5.47-5.725GHz	8.09	15.36
5.725-5.85GHz	7.26	14.53
VHT40-BF_Nss1_2TX	-	-
5.25-5.35GHz	5.67	12.94
5.47-5.725GHz	6.87	14.14
5.725-5.85GHz	3.76	11.03
VHT80-BF_Nss1_2TX	-	-
5.25-5.35GHz	-1.46	5.81
5.47-5.725GHz	5.15	12.42
5.725-5.85GHz	2.44	9.71

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

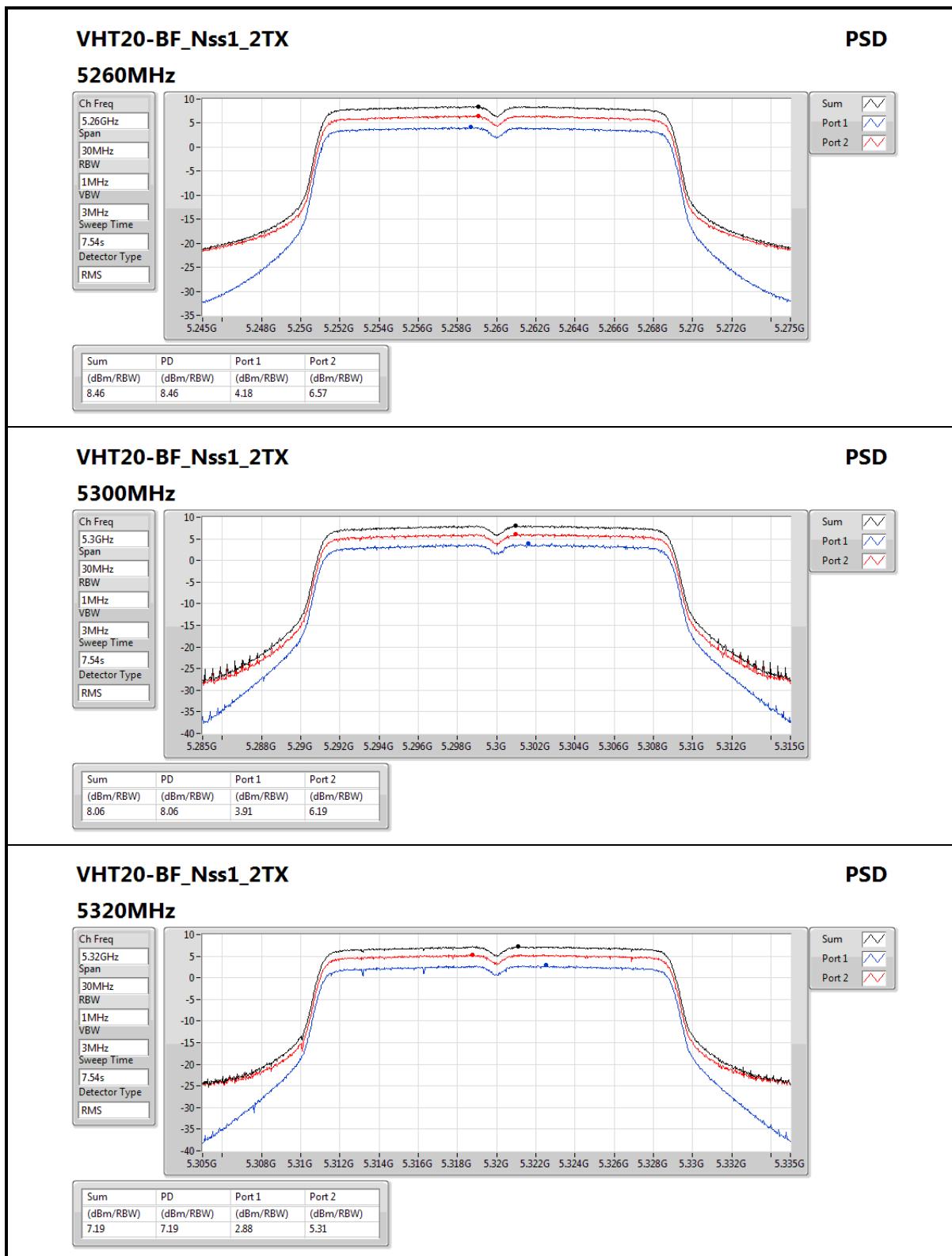


Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
VHT20-BF_Nss1_2TX	-	-	-	-	-	-
5260MHz	Pass	7.27	4.18	6.57	8.46	9.73
5300MHz	Pass	7.27	3.91	6.19	8.06	9.73
5320MHz	Pass	7.27	2.88	5.31	7.19	9.73
5500MHz	Pass	7.27	2.37	3.50	5.93	9.73
5580MHz	Pass	7.27	3.82	4.40	7.05	9.73
5700MHz	Pass	7.27	4.10	4.60	7.16	9.73
5720MHz Straddle 5.47-5.725GHz	Pass	7.27	4.70	5.64	8.09	9.73
5720MHz Straddle 5.725-5.85GHz	Pass	7.27	4.11	4.52	7.26	28.73
VHT40-BF_Nss1_2TX	-	-	-	-	-	-
5270MHz	Pass	7.27	1.28	3.97	5.67	9.73
5310MHz	Pass	7.27	-3.63	0.47	1.68	9.73
5510MHz	Pass	7.27	0.26	2.46	4.29	9.73
5550MHz	Pass	7.27	1.15	1.40	4.22	9.73
5670MHz	Pass	7.27	1.12	1.58	4.29	9.73
5710MHz Straddle 5.47-5.725GHz	Pass	7.27	3.28	4.40	6.87	9.73
5710MHz Straddle 5.725-5.85GHz	Pass	7.27	0.73	0.76	3.76	28.73
VHT80-BF_Nss1_2TX	-	-	-	-	-	-
5290MHz	Pass	7.27	-5.64	-3.08	-1.46	9.73
5530MHz	Pass	7.27	-4.87	0.74	1.57	9.73
5610MHz	Pass	7.27	-1.59	-0.77	1.40	9.73
5690MHz Straddle 5.47-5.725GHz	Pass	7.27	2.14	2.31	5.15	9.73
5690MHz Straddle 5.725-5.85GHz	Pass	7.27	-0.82	-0.12	2.44	28.73

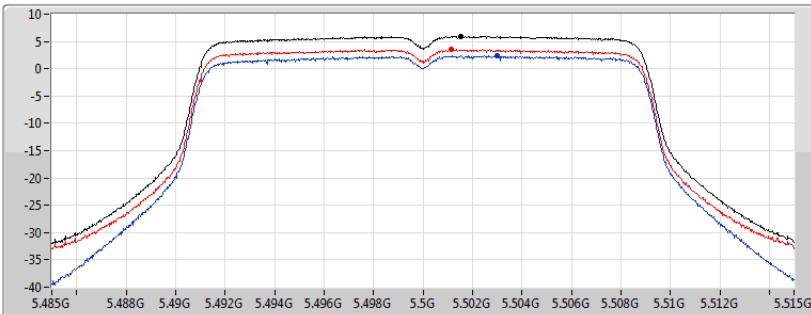
DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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



**VHT20-BF_Nss1_2TX****PSD****5500MHz**

Ch Freq
5.5GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
7.54s
Detector Type
RMS

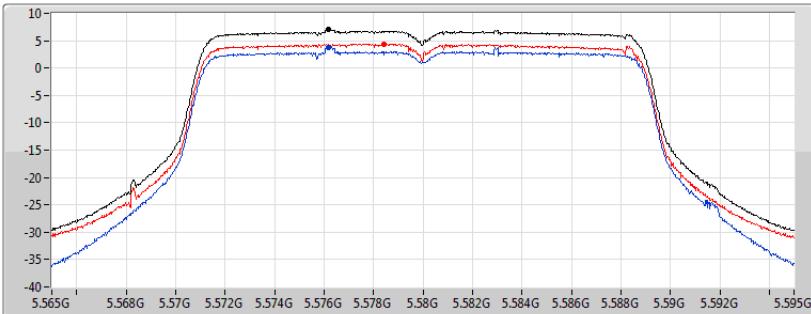


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.93	5.93	2.37	3.50

VHT20-BF_Nss1_2TX**PSD****5580MHz**

Ch Freq
5.58GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
7.54s
Detector Type
RMS

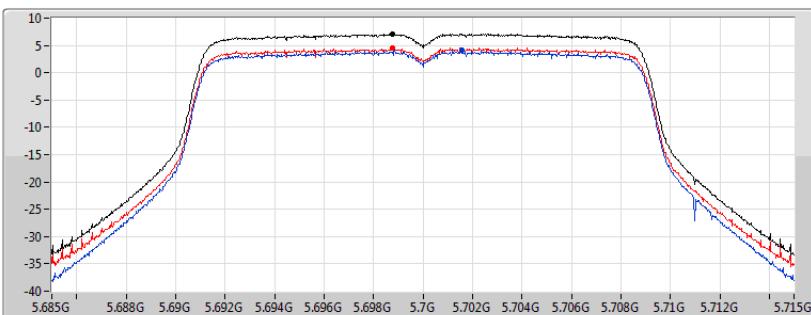


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.05	7.05	3.82	4.40

VHT20-BF_Nss1_2TX**PSD****5700MHz**

Ch Freq
5.7GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
7.54s
Detector Type
RMS

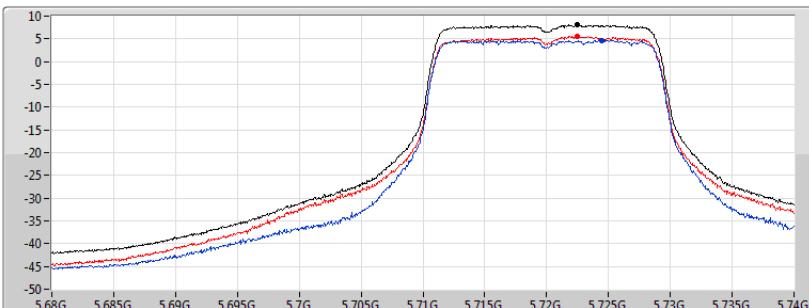


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.16	7.16	4.10	4.60

**VHT20-BF_Nss1_2TX****PSD****5720MHz Straddle 5.47-5.725GHz**

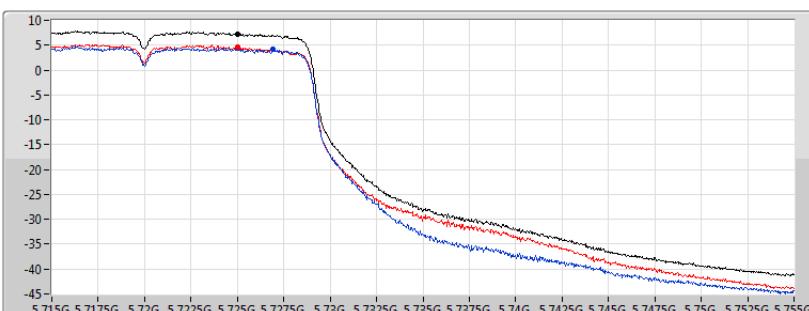
Ch Freq
5.71GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum Port 1 Port 2

VHT20-BF_Nss1_2TX**PSD****5720MHz Straddle 5.725-5.85GHz**

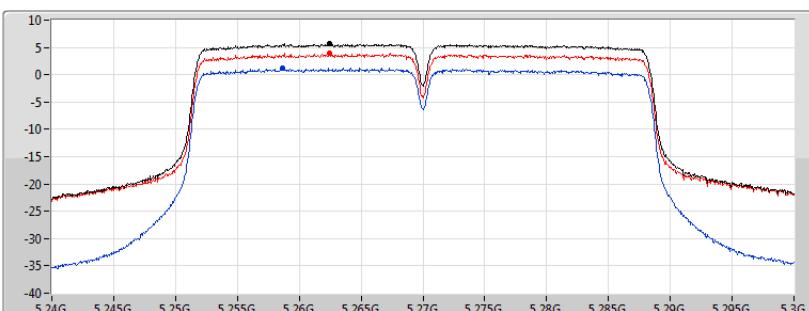
Ch Freq
5.735GHz
Span
40MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum Port 1 Port 2

VHT40-BF_Nss1_2TX**PSD****5270MHz**

Ch Freq
5.27GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
9.29s
Detector Type
RMS



Sum Port 1 Port 2

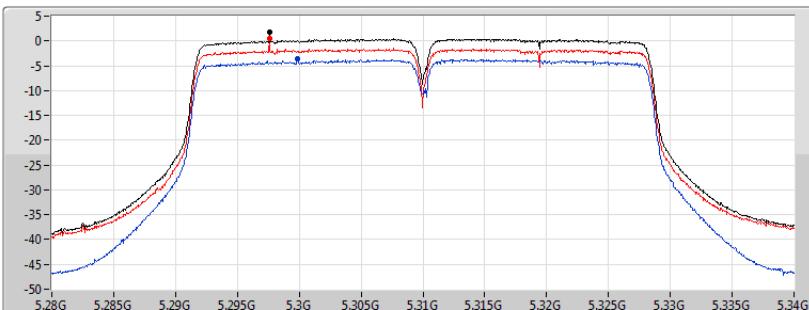
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.09	8.09	4.70	5.64

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.26	7.26	4.11	4.52

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.67	5.67	1.28	3.97

**VHT40-BF_Nss1_2TX****PSD****5310MHz**

Ch Freq
5.31GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
9.29s
Detector Type
RMS

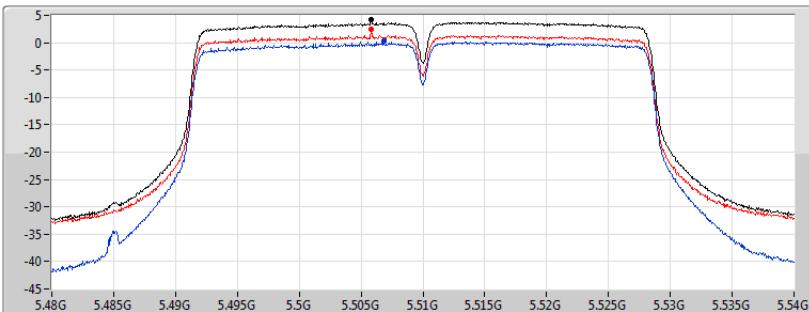


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.68	1.68	-3.63	0.47

VHT40-BF_Nss1_2TX**PSD****5510MHz**

Ch Freq
5.51GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
9.29s
Detector Type
RMS

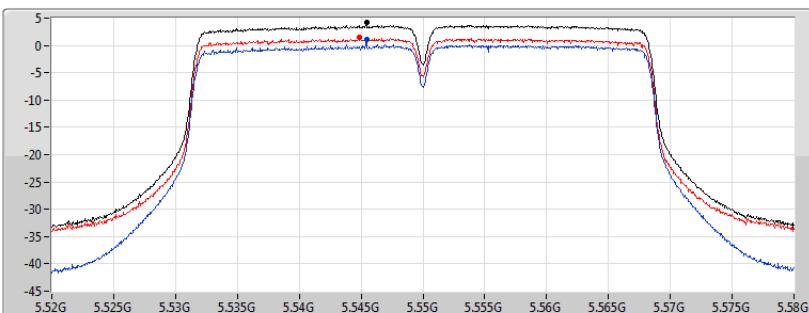


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.29	4.29	0.26	2.46

VHT40-BF_Nss1_2TX**PSD****5550MHz**

Ch Freq
5.55GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
9.29s
Detector Type
RMS

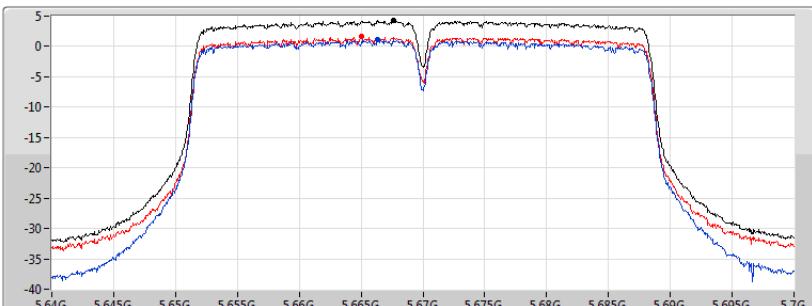


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.22	4.22	1.15	1.40

**VHT40-BF_Nss1_2TX****PSD****5670MHz**

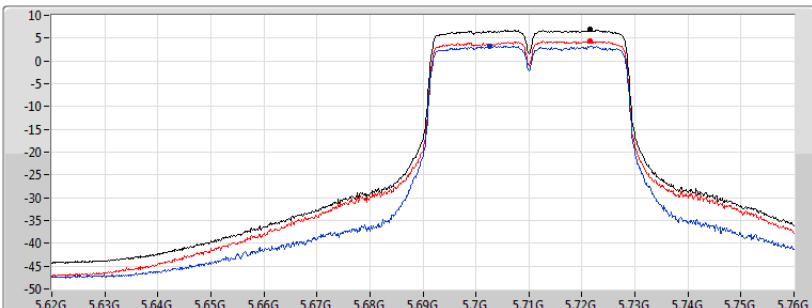
Ch Freq
5.67GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
9.29s
Detector Type
RMS



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.29	4.29	1.12	1.58

VHT40-BF_Nss1_2TX**PSD****5710MHz Straddle 5.47-5.725GHz**

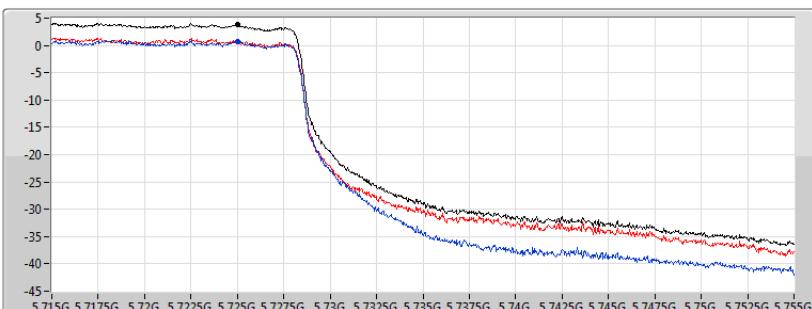
Ch Freq
5.69GHz
Span
140MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.87	6.87	3.28	4.40

VHT40-BF_Nss1_2TX**PSD****5710MHz Straddle 5.725-5.85GHz**

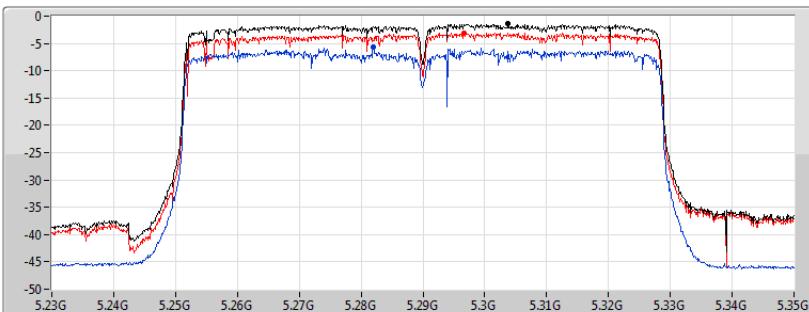
Ch Freq
5.735GHz
Span
40MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.76	3.76	0.73	0.76

**VHT80-BF_Nss1_2TX****PSD****5290MHz**

Ch Freq
5.29GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.66s
Detector Type
RMS

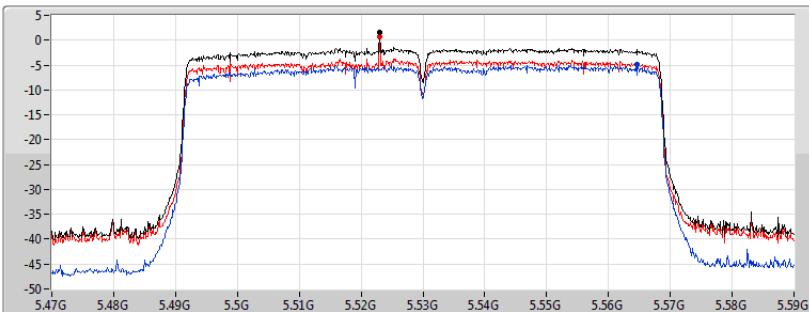


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.46	-1.46	-5.64	-3.08

VHT80-BF_Nss1_2TX**PSD****5530MHz**

Ch Freq
5.53GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.66s
Detector Type
RMS

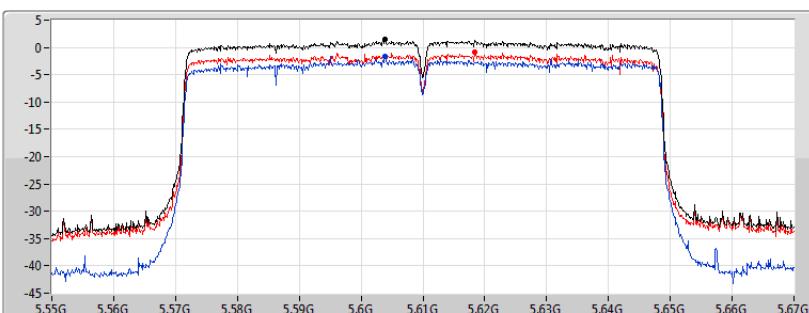


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.57	1.57	-4.87	0.74

VHT80-BF_Nss1_2TX**PSD****5610MHz**

Ch Freq
5.61GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
2.66s
Detector Type
RMS

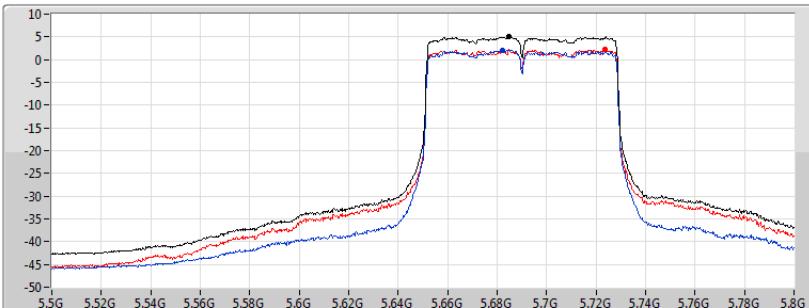


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.40	1.40	-1.59	-0.77

**VHT80-BF_Nss1_2TX****PSD****5690MHz Straddle 5.47-5.725GHz**

Ch Freq
5.65GHz
Span
300MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

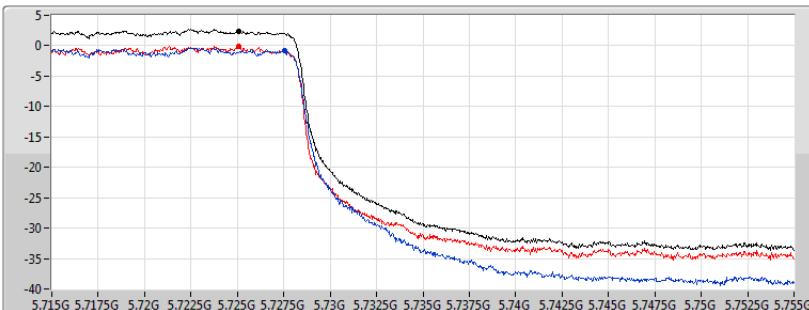


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.15	5.15	2.14	2.31

VHT80-BF_Nss1_2TX**PSD****5690MHz Straddle 5.725-5.85GHz**

Ch Freq
5.735GHz
Span
40MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.44	2.44	-0.82	-0.12



3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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

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



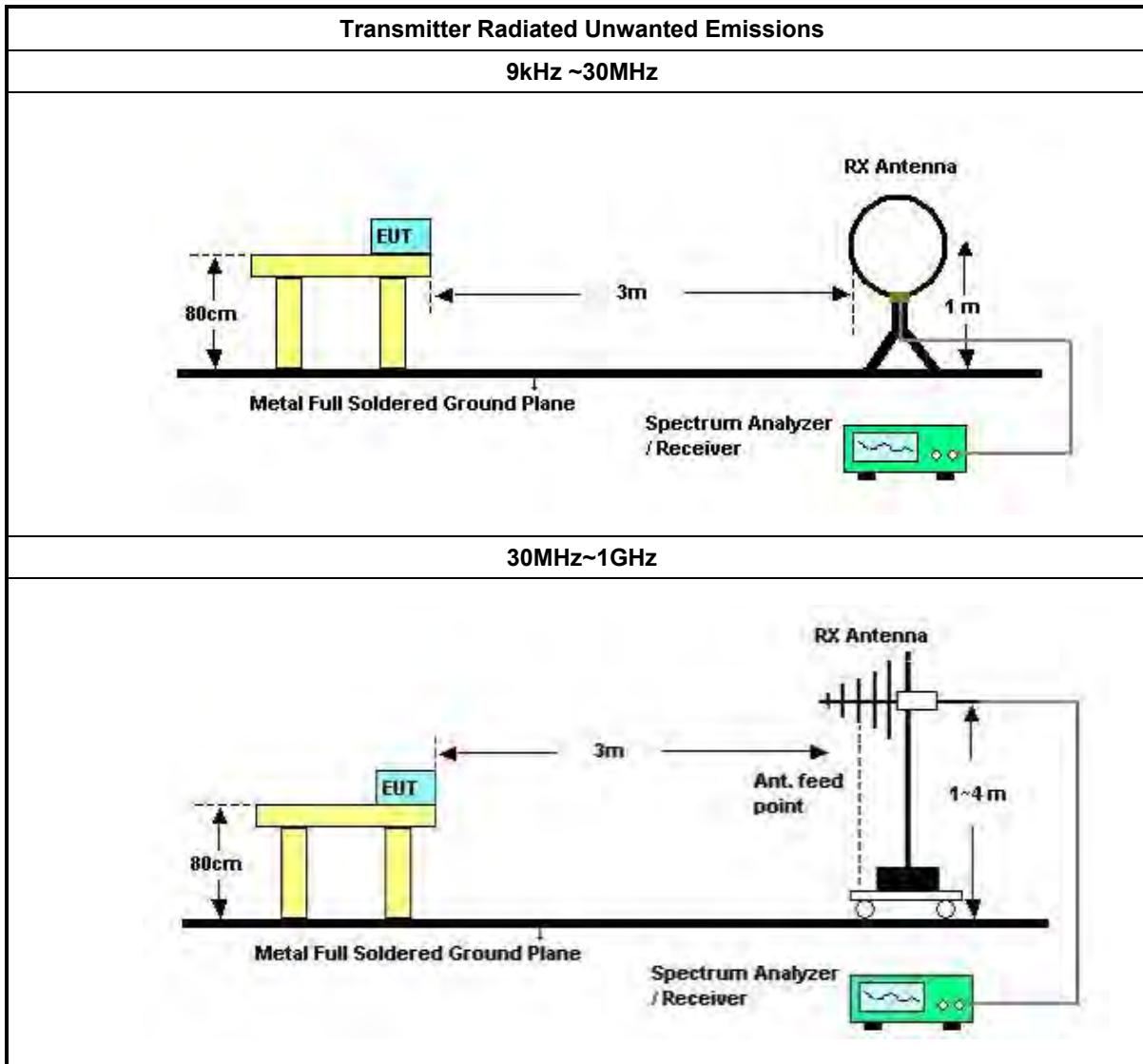
3.5.2 Measuring Instruments

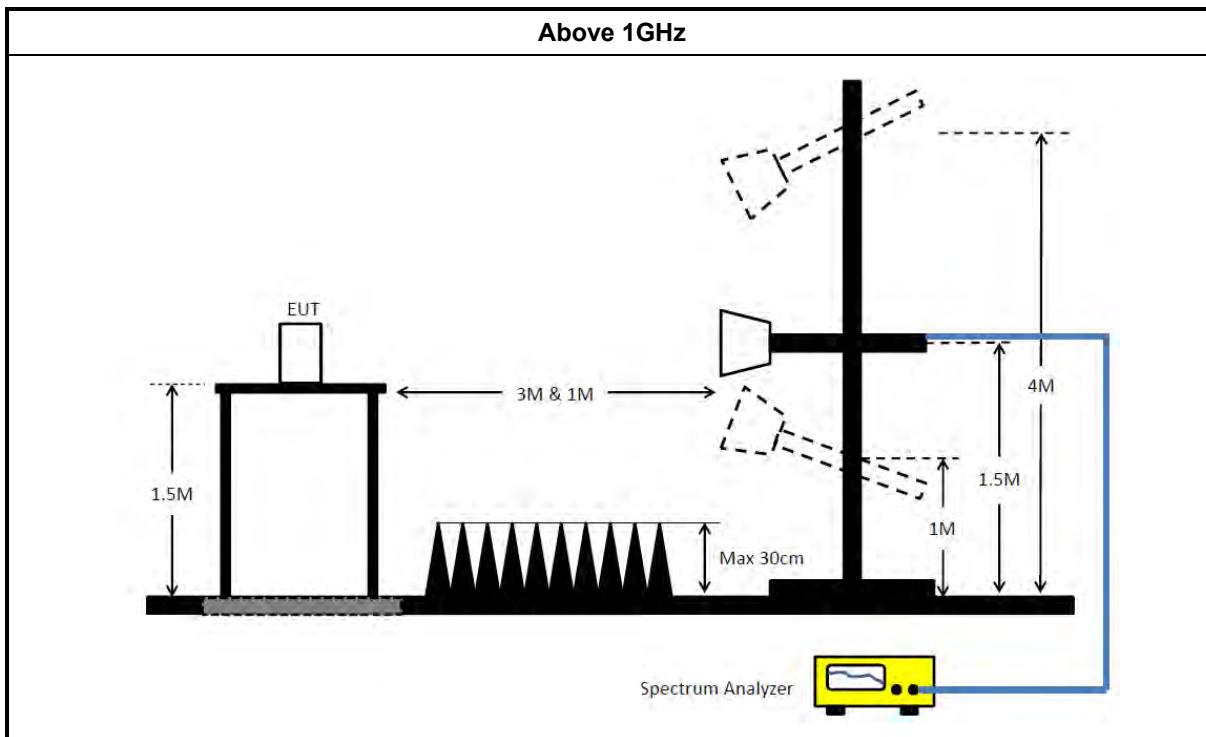
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

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

3.5.4 Test Setup





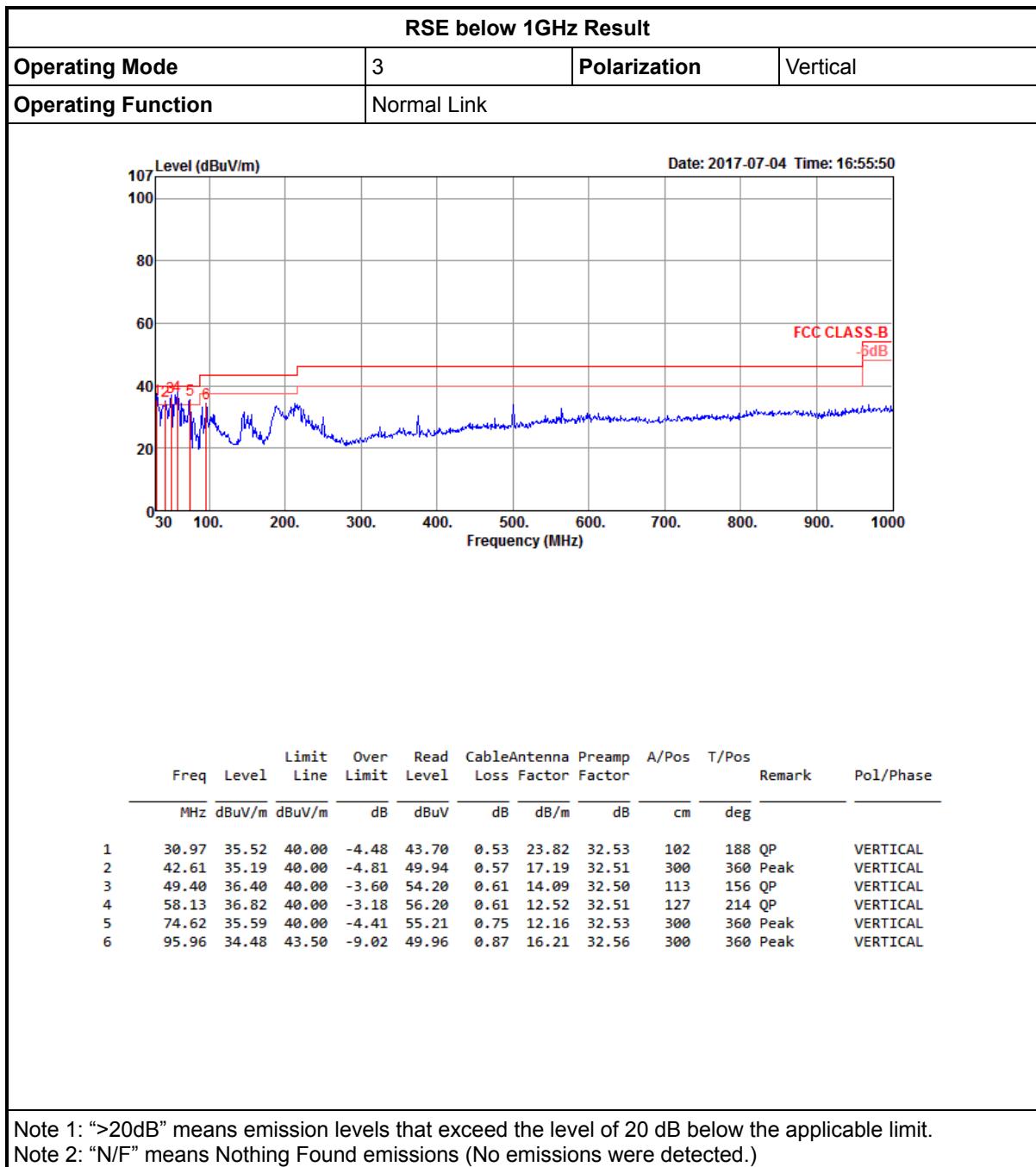
3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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



3.5.6 Test Result of Transmitter Unwanted Emissions

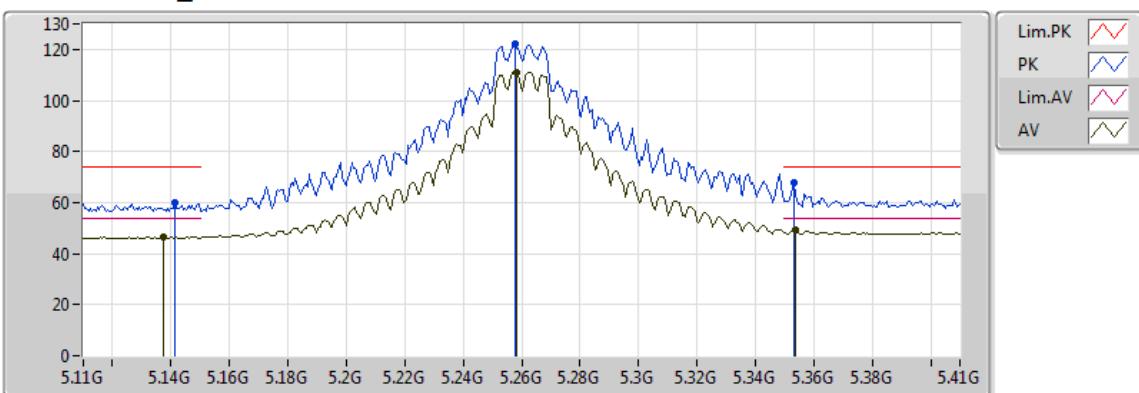
RSE below 1GHz Result																																																																																																												
Operating Mode		3		Polarization			Horizontal																																																																																																					
Operating Function		Normal Link																																																																																																										
<table><thead><tr><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>Cable</th><th>Antenna</th><th>Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th><th>Pol/Phase</th></tr><tr><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>Line</th><th>Limit</th><th>dB</th><th>dB</th><th>dB/m</th><th>Factor</th><th>cm</th><th>deg</th><th></th></tr></thead><tbody><tr><td>1</td><td>190.05</td><td>32.09</td><td>43.50</td><td>-11.41</td><td>48.33</td><td>1.10</td><td>15.15</td><td>32.49</td><td>100</td><td>0 Peak</td><td>HORIZONTAL</td></tr><tr><td>2</td><td>375.32</td><td>29.40</td><td>46.00</td><td>-16.60</td><td>39.59</td><td>1.50</td><td>20.76</td><td>32.45</td><td>100</td><td>0 Peak</td><td>HORIZONTAL</td></tr><tr><td>3</td><td>470.38</td><td>31.72</td><td>46.00</td><td>-14.28</td><td>39.49</td><td>1.70</td><td>23.01</td><td>32.48</td><td>100</td><td>0 Peak</td><td>HORIZONTAL</td></tr><tr><td>4</td><td>607.15</td><td>31.49</td><td>46.00</td><td>-14.51</td><td>37.27</td><td>1.94</td><td>24.84</td><td>32.56</td><td>100</td><td>0 Peak</td><td>HORIZONTAL</td></tr><tr><td>5</td><td>722.58</td><td>37.02</td><td>46.00</td><td>-8.98</td><td>41.97</td><td>2.13</td><td>25.38</td><td>32.46</td><td>100</td><td>0 Peak</td><td>HORIZONTAL</td></tr><tr><td>6</td><td>932.10</td><td>32.59</td><td>46.00</td><td>-13.41</td><td>35.02</td><td>2.42</td><td>26.68</td><td>31.53</td><td>100</td><td>0 Peak</td><td>HORIZONTAL</td></tr></tbody></table>													Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	MHz	dBuV/m	dBuV/m	Line	Limit	dB	dB	dB/m	Factor	cm	deg		1	190.05	32.09	43.50	-11.41	48.33	1.10	15.15	32.49	100	0 Peak	HORIZONTAL	2	375.32	29.40	46.00	-16.60	39.59	1.50	20.76	32.45	100	0 Peak	HORIZONTAL	3	470.38	31.72	46.00	-14.28	39.49	1.70	23.01	32.48	100	0 Peak	HORIZONTAL	4	607.15	31.49	46.00	-14.51	37.27	1.94	24.84	32.56	100	0 Peak	HORIZONTAL	5	722.58	37.02	46.00	-8.98	41.97	2.13	25.38	32.46	100	0 Peak	HORIZONTAL	6	932.10	32.59	46.00	-13.41	35.02	2.42	26.68	31.53	100	0 Peak	HORIZONTAL
Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase																																																																																																	
MHz	dBuV/m	dBuV/m	Line	Limit	dB	dB	dB/m	Factor	cm	deg																																																																																																		
1	190.05	32.09	43.50	-11.41	48.33	1.10	15.15	32.49	100	0 Peak	HORIZONTAL																																																																																																	
2	375.32	29.40	46.00	-16.60	39.59	1.50	20.76	32.45	100	0 Peak	HORIZONTAL																																																																																																	
3	470.38	31.72	46.00	-14.28	39.49	1.70	23.01	32.48	100	0 Peak	HORIZONTAL																																																																																																	
4	607.15	31.49	46.00	-14.51	37.27	1.94	24.84	32.56	100	0 Peak	HORIZONTAL																																																																																																	
5	722.58	37.02	46.00	-8.98	41.97	2.13	25.38	32.46	100	0 Peak	HORIZONTAL																																																																																																	
6	932.10	32.59	46.00	-13.41	35.02	2.42	26.68	31.53	100	0 Peak	HORIZONTAL																																																																																																	
Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit. Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)																																																																																																												





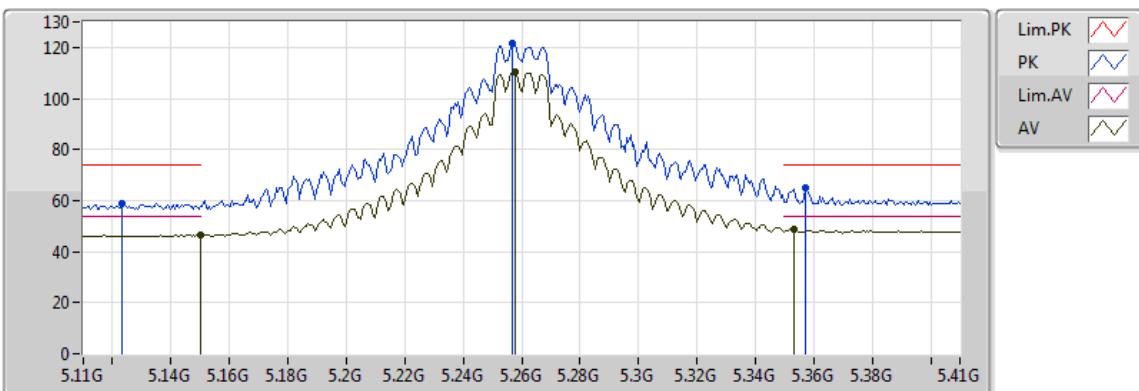
RSE Above 1GHz Result
<For Non-Beamforming Mode>
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
VHT40_Nss1_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.25-5.35GHz	Pass	AV	5.3502G	53.99	54.00	-0.01	5.65	3	Vertical	43	1.11	-

**11a_Nss1_2TX****5260MHz_TX**

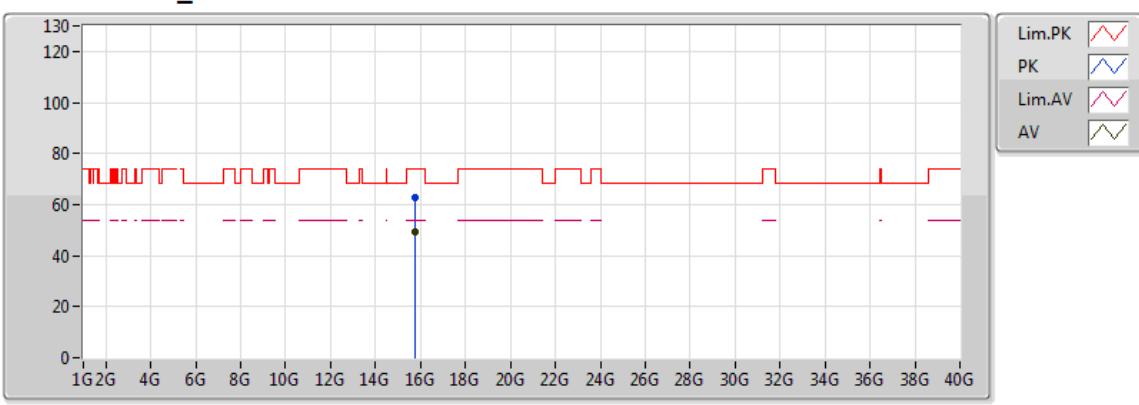
20170621
EUT Y_TX
Setting 24
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.1376G	46.45	54.00	-7.55	4.24	3	Vertical	230	1.50
AV	5.2582G	111.12	Inf	-Inf	4.50	3	Vertical	230	1.50
AV	5.3536G	49.09	54.00	-4.91	4.69	3	Vertical	230	1.50
PK	5.1412G	59.71	74.00	-14.29	4.25	3	Vertical	230	1.50
PK	5.2576G	122.08	Inf	-Inf	4.50	3	Vertical	230	1.50
PK	5.353G	67.64	74.00	-6.36	4.69	3	Vertical	230	1.50

**11a_Nss1_2TX****5260MHz_TX**

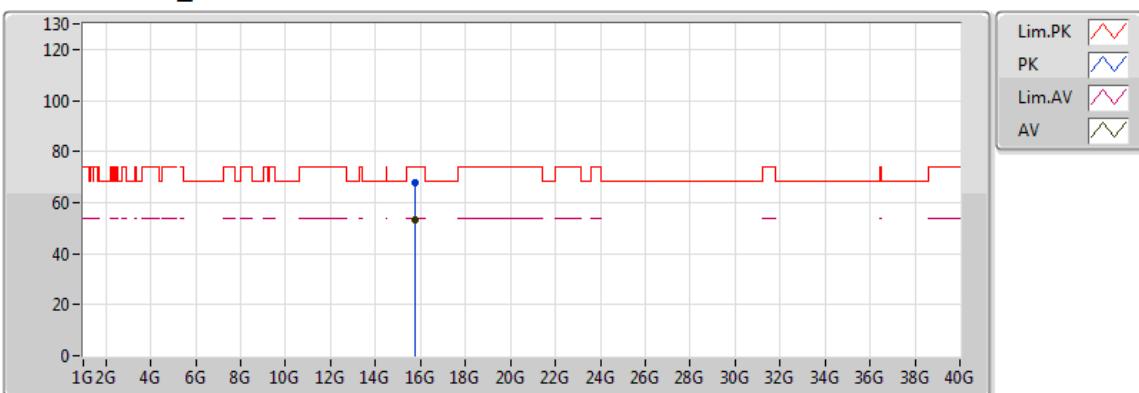
20170621
EUT Y_2TX
Setting 24
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.149995G	46.45	54.00	-7.55	4.27	3	Horizontal	208	1.92
AV	5.2576G	110.27	Inf	-Inf	4.50	3	Horizontal	208	1.92
AV	5.353G	48.64	54.00	-5.36	4.69	3	Horizontal	208	1.92
PK	5.1232G	58.72	74.00	-15.28	4.21	3	Horizontal	208	1.92
PK	5.257G	121.34	Inf	-Inf	4.50	3	Horizontal	208	1.92
PK	5.3572G	64.99	74.00	-9.01	4.69	3	Horizontal	208	1.92

**11a_Nss1_2TX****5260MHz_TX**

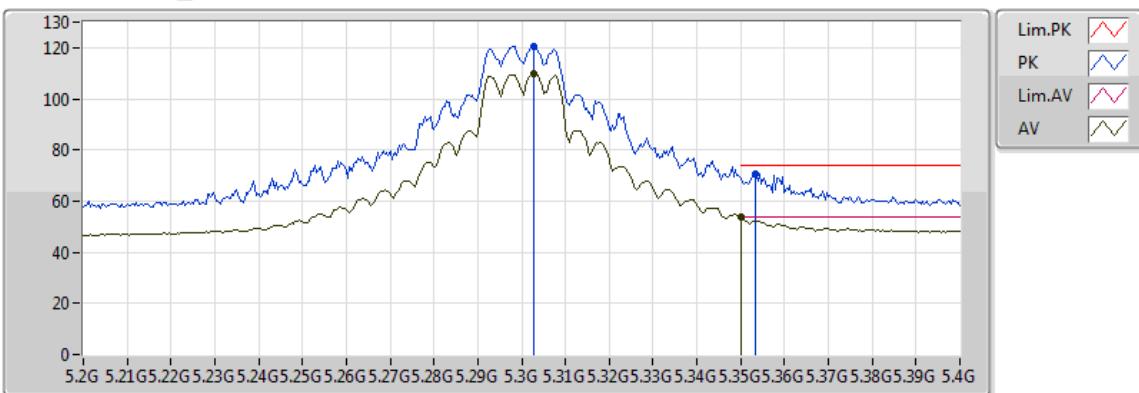
20170622
EUT Y_2TX
Setting 24
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.77983G	49.25	54.00	-4.75	17.99	3	Vertical	196	1.50
PK	15.78028G	63.00	74.00	-11.00	17.99	3	Vertical	196	1.50

**11a_Nss1_2TX****5260MHz_TX**

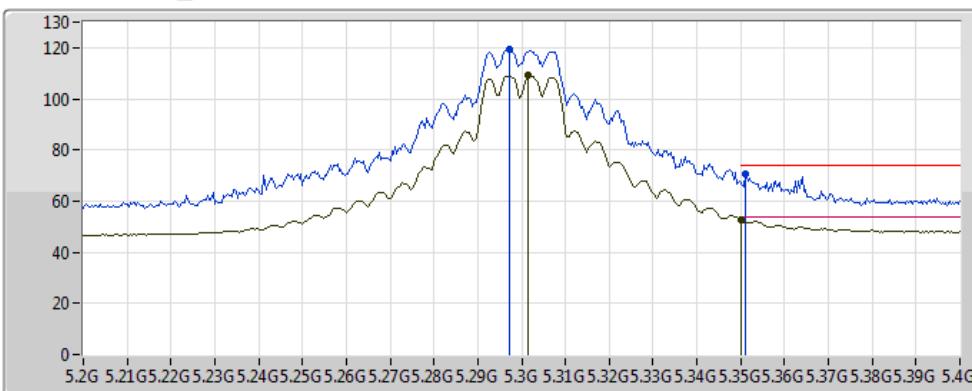
20170622
EUT Y_2TX
Setting 24
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.7792G	53.34	54.00	-0.66	17.99	3	Horizontal	192	1.29
PK	15.7737G	67.69	74.00	-6.31	17.99	3	Horizontal	192	1.29

**11a_Nss1_2TX****5300MHz_TX**

20170621
EUT Y_2TX
Setting
01-M-0
FSP(100056)

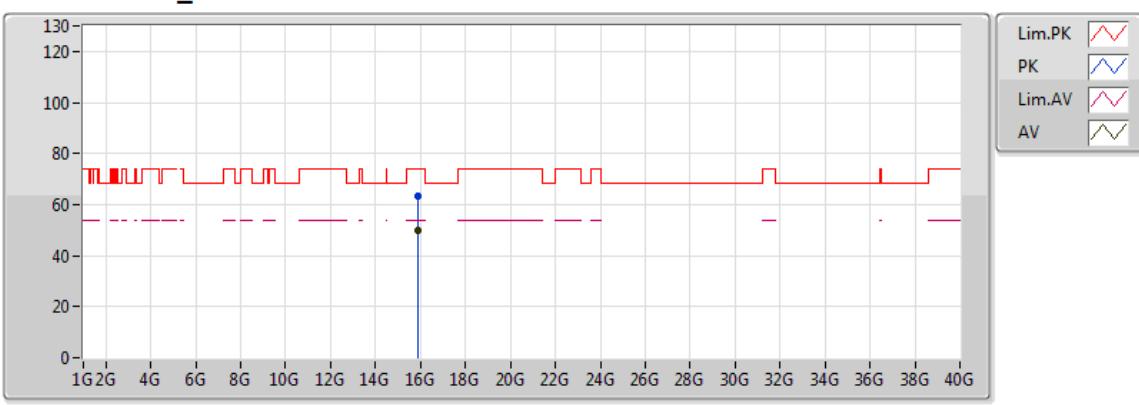
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.3028G	109.98	Inf	-Inf	4.60	3	Vertical	230	1.44
AV	5.350005G	53.97	54.00	-0.03	4.68	3	Vertical	230	1.44
PK	5.3028G	120.43	Inf	-Inf	4.60	3	Vertical	230	1.44
PK	5.3532G	70.80	74.00	-3.20	4.69	3	Vertical	230	1.44

**11a_Nss1_2TX****5300MHz_TX**

Lim.PK	
PK	
Lim.AV	
AV	

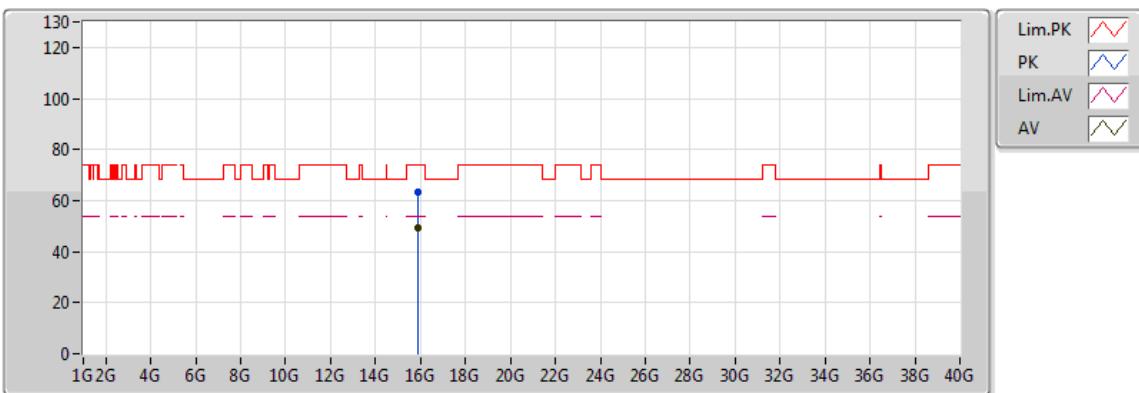
20170621
EUT Y_2TX
Setting 21
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.3016G	109.10	Inf	-Inf	4.59	3	Horizontal	205	1.87
AV	5.350005G	52.48	54.00	-1.52	4.68	3	Horizontal	205	1.87
PK	5.2972G	119.44	Inf	-Inf	4.58	3	Horizontal	205	1.87
PK	5.3512G	70.41	74.00	-3.59	4.68	3	Horizontal	205	1.87

**11a_Nss1_2TX****5300MHz_TX**

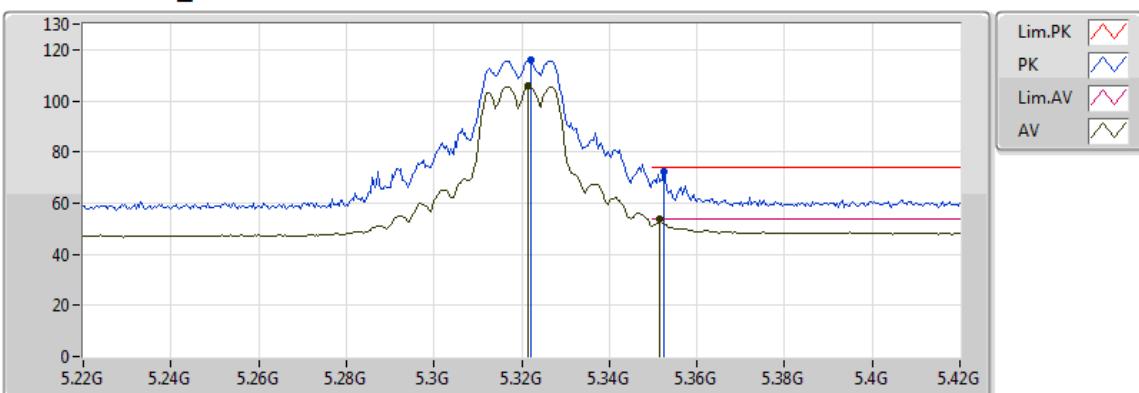
20170621
EUT Y_2TX
Setting 21
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.902G	49.60	54.00	-4.40	18.09	3	Vertical	166	1.50
PK	15.89994G	63.33	74.00	-10.67	18.09	3	Vertical	166	1.50

**11a_Nss1_2TX****5300MHz_TX**

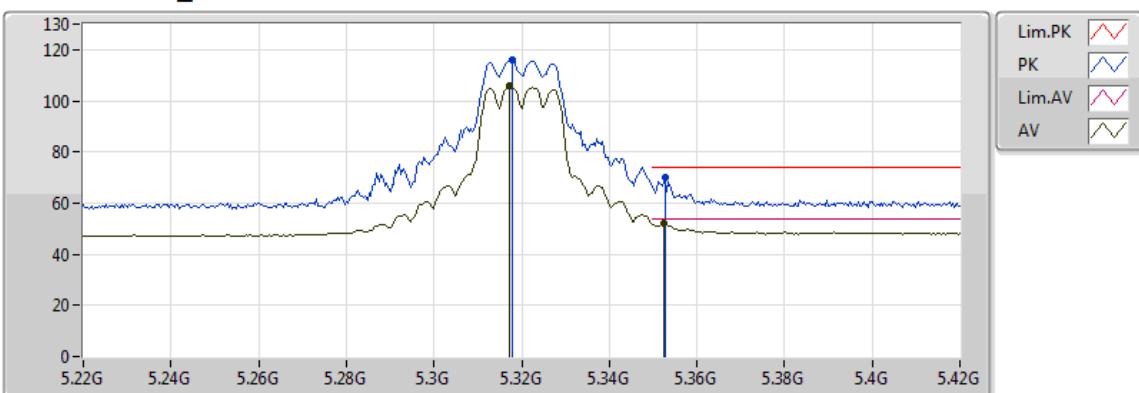
20170621
EUT Y_2TX
Setting 21
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.8982G	49.53	54.00	-4.47	18.09	3	Horizontal	196	1.50
PK	15.89895G	63.13	74.00	-10.87	18.09	3	Horizontal	196	1.50

**11a_Nss1_2TX****5320MHz_TX**

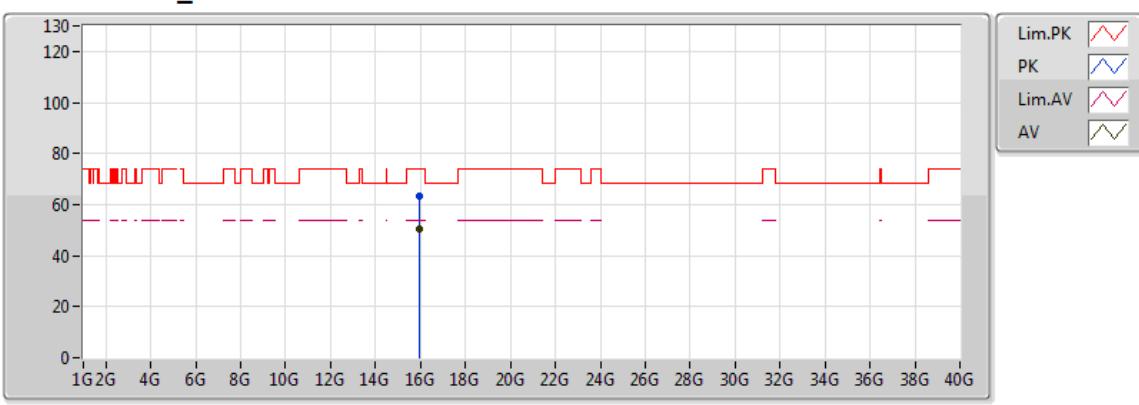
20170621
EUT Y_2TX
Setting 18
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.3216G	105.65	Inf	-Inf	4.63	3	Vertical	207	1.50
AV	5.3516G	53.90	54.00	-0.10	4.68	3	Vertical	207	1.50
PK	5.322G	115.86	Inf	-Inf	4.63	3	Vertical	207	1.50
PK	5.3524G	72.12	74.00	-1.88	4.68	3	Vertical	207	1.50

**11a_Nss1_2TX****5320MHz_TX**

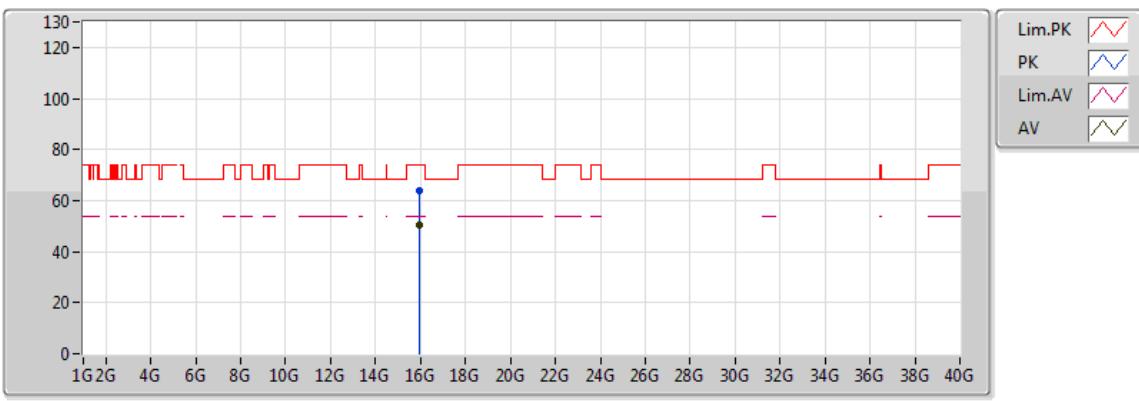
20170621
EUT Y_2TX
Setting 18
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.3172G	105.78	Inf	-Inf	4.62	3	Horizontal	207	1.90
AV	5.3524G	52.01	54.00	-1.99	4.68	3	Horizontal	207	1.90
PK	5.318G	116.21	Inf	-Inf	4.62	3	Horizontal	207	1.90
PK	5.3528G	70.30	74.00	-3.70	4.69	3	Horizontal	207	1.90

**11a_Nss1_2TX****5320MHz_TX**

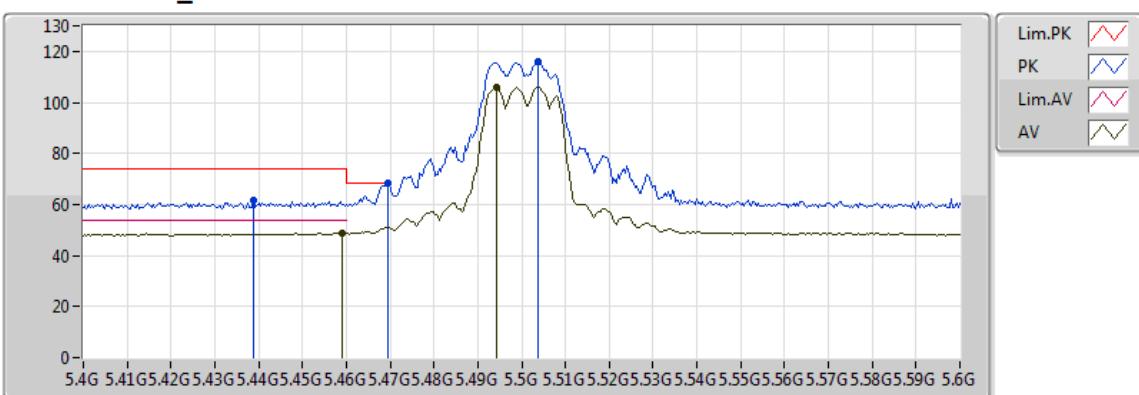
20170621
EUT Y_2TX
Setting 18
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.95827G	50.26	54.00	-3.74	18.14	3	Vertical	190	1.50
PK	15.96042G	63.44	74.00	-10.56	18.14	3	Vertical	190	1.50

**11a_Nss1_2TX****5320MHz_TX**

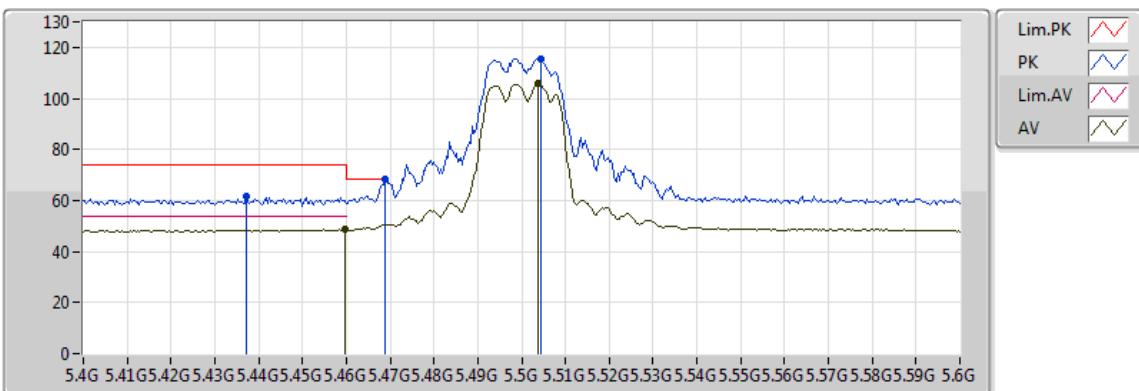
20170621
EUT Y_2TX
Setting 18
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.95869G	50.27	54.00	-3.73	18.14	3	Horizontal	166	1.50
PK	15.96198G	63.66	74.00	-10.34	18.14	3	Horizontal	166	1.50

**11a_Nss1_2TX****5500MHz_TX**

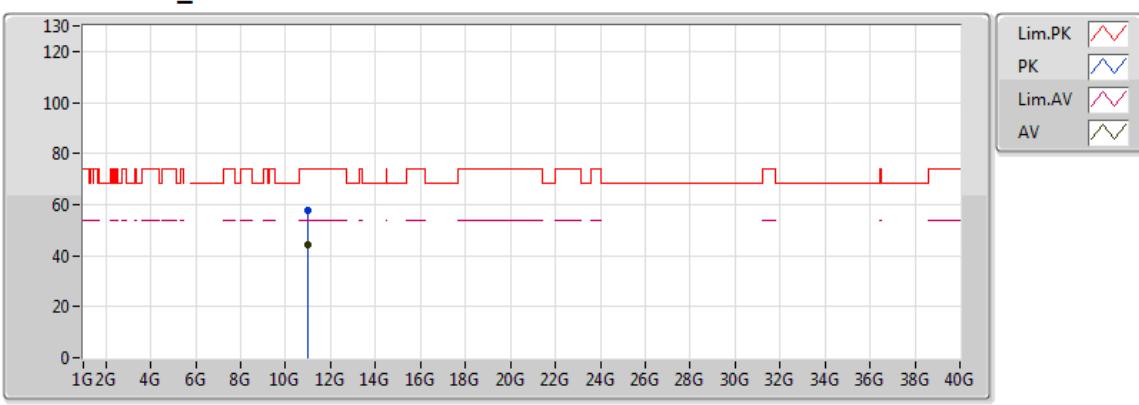
20170621
EUT Y_2TX
Setting 16.5
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.4592G	48.82	54.00	-5.18	4.92	3	Vertical	240	1.00
AV	5.4944G	105.78	Inf	-Inf	5.02	3	Vertical	240	1.00
PK	5.4388G	61.37	74.00	-12.63	4.87	3	Vertical	240	1.00
PK	5.4696G	68.19	68.20	-0.01	4.95	3	Vertical	240	1.00
PK	5.5036G	115.86	Inf	-Inf	5.04	3	Vertical	240	1.00

**11a_Nss1_2TX****5500MHz_TX**

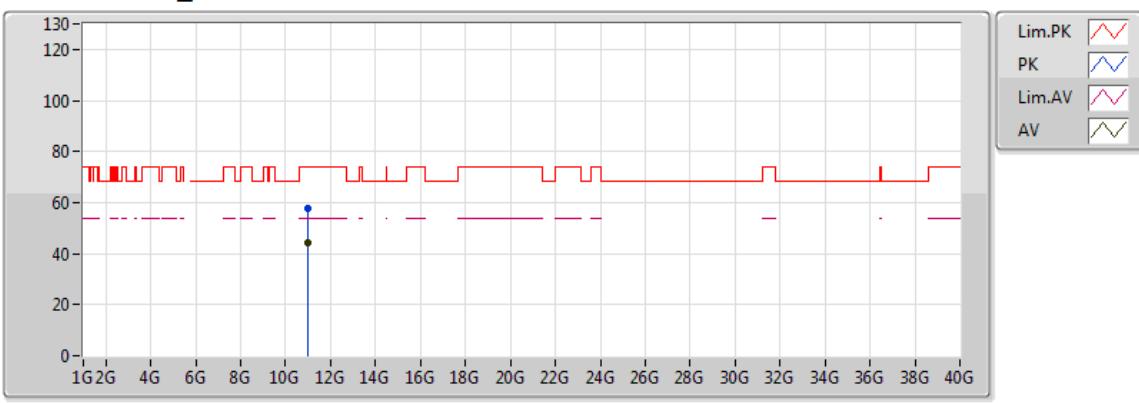
20170621
EUT Y_2TX
Setting 16.5
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.4596G	48.69	54.00	-5.31	4.92	3	Horizontal	220	1.00
AV	5.5036G	105.73	Inf	-Inf	5.04	3	Horizontal	220	1.00
PK	5.4372G	61.40	74.00	-12.60	4.87	3	Horizontal	220	1.00
PK	5.4688G	68.12	68.20	-0.08	4.95	3	Horizontal	220	1.00
PK	5.5044G	115.67	Inf	-Inf	5.05	3	Horizontal	220	1.00

**11a_Nss1_2TX****5500MHz_TX**

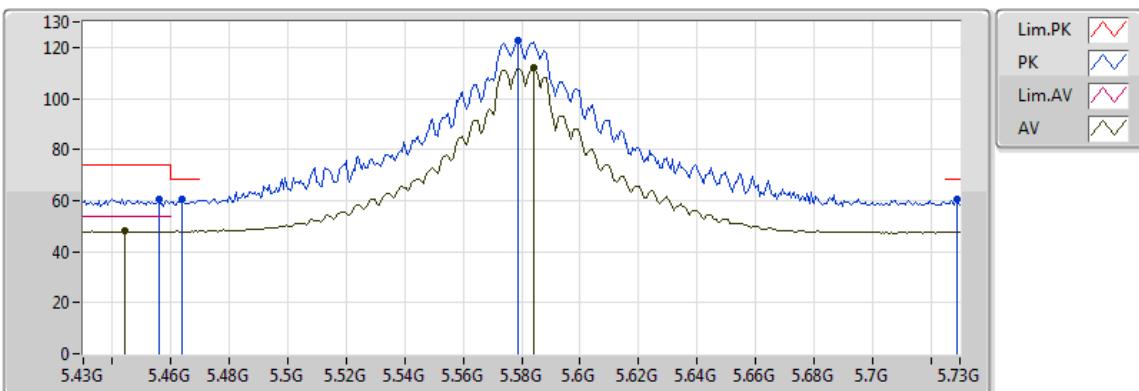
20170621
EUT Y_2TX
Setting 16.5
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.002G	44.24	54.00	-9.76	15.80	3	Vertical	216	1.50
PK	11.00069G	57.96	74.00	-16.04	15.80	3	Vertical	216	1.50

**11a_Nss1_2TX****5500MHz_TX**

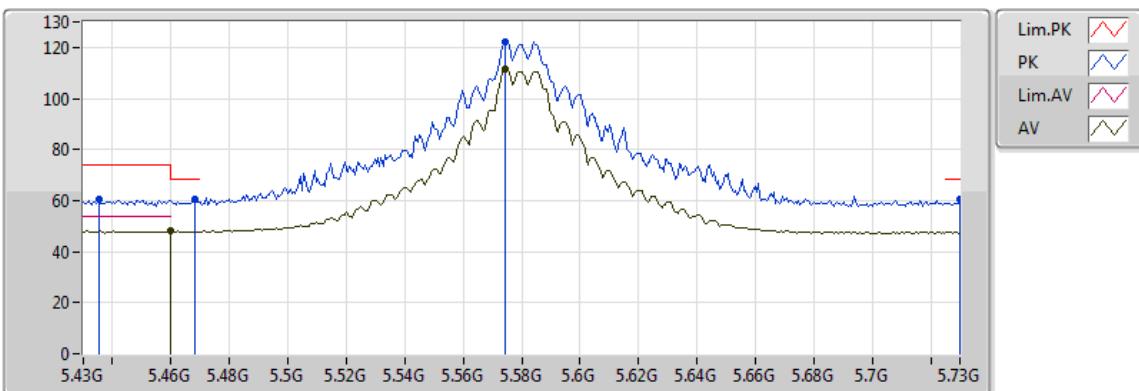
20170621
EUT Y_2TX
Setting 16.5
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	10.99934G	44.41	54.00	-9.59	15.80	3	Horizontal	190	1.50
PK	10.99914G	57.55	74.00	-16.45	15.80	3	Horizontal	190	1.50

**11a_Nss1_2TX****5580MHz_TX**

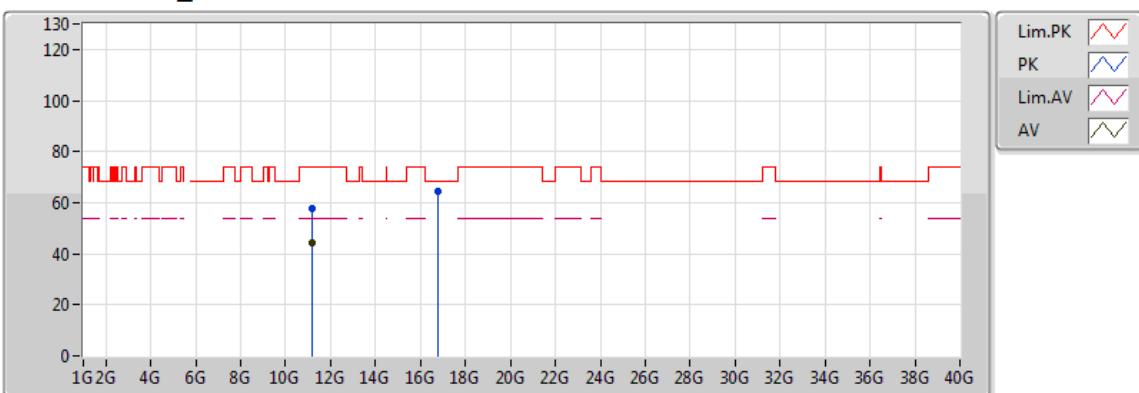
20170621
EUT Y_2TX
Setting 24
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.4444G	48.00	54.00	-6.00	4.89	3	Vertical	239	1.11
AV	5.5842G	111.91	Inf	-Inf	5.32	3	Vertical	239	1.11
PK	5.4558G	60.48	74.00	-13.52	4.92	3	Vertical	239	1.11
PK	5.4636G	60.51	68.20	-7.69	4.94	3	Vertical	239	1.11
PK	5.5788G	122.47	Inf	-Inf	5.31	3	Vertical	239	1.11
PK	5.7288G	60.38	68.20	-7.82	5.76	3	Vertical	239	1.11

**11a_Nss1_2TX****5580MHz_TX**

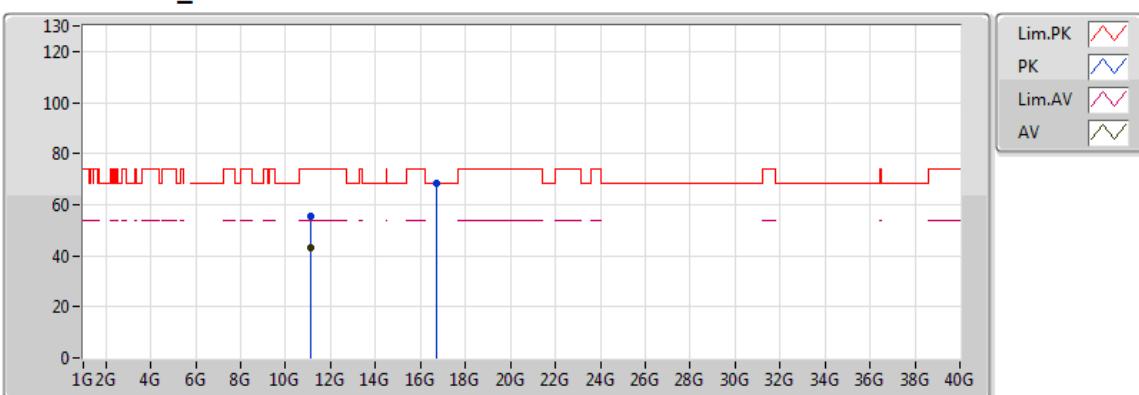
20170621
EUT Y_2TX
Setting 24
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.46G	48.22	54.00	-5.78	4.93	3	Horizontal	169	1.99
AV	5.5746G	111.61	Inf	-Inf	5.29	3	Horizontal	169	1.99
PK	5.4354G	60.38	74.00	-13.62	4.86	3	Horizontal	169	1.99
PK	5.4684G	60.48	68.20	-7.72	4.95	3	Horizontal	169	1.99
PK	5.5746G	122.08	Inf	-Inf	5.29	3	Horizontal	169	1.99
PK	5.73G	60.25	68.20	-7.95	5.76	3	Horizontal	169	1.99

**11a_Nss1_2TX****5580MHz_TX**

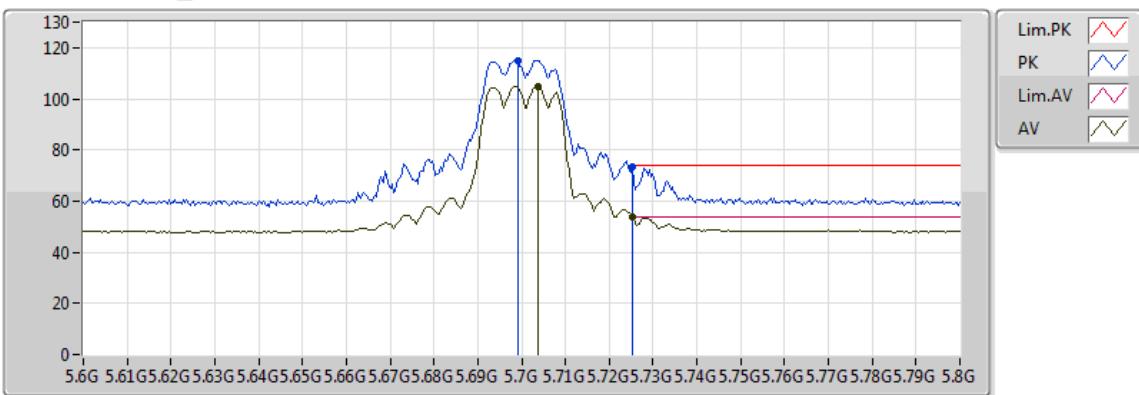
20170622
EUT Y_2TX
Setting 24
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.15935G	44.33	54.00	-9.67	15.91	3	Vertical	156	1.50
PK	11.15834G	57.65	74.00	-16.35	15.90	3	Vertical	156	1.50
PK	16.7521G	64.16	68.20	-4.04	19.76	3	Vertical	287	1.66

**11a_Nss1_2TX****5580MHz_TX**

20170622
EUT Y_2TX
Setting 24
04-R-2
FSP(100056)

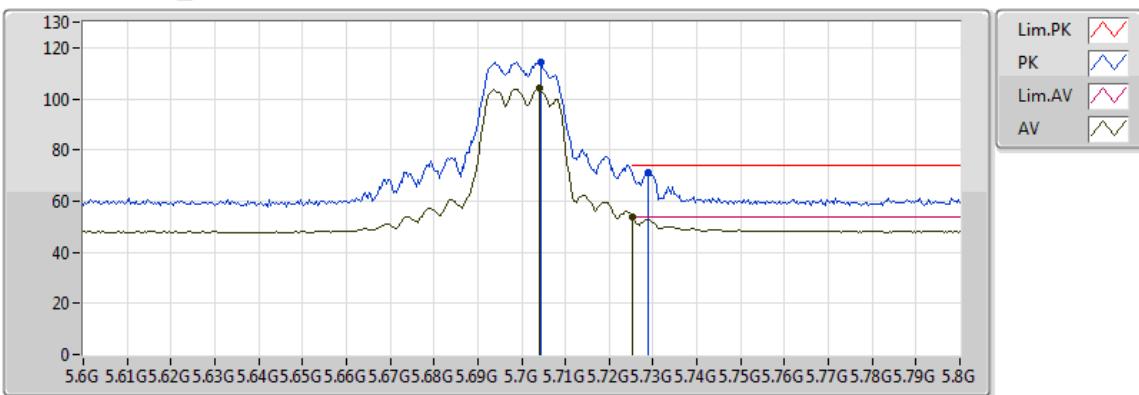
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.1424G	43.17	54.00	-10.83	15.89	3	Horizontal	4	2.13
PK	11.142G	55.74	74.00	-18.26	15.89	3	Horizontal	4	2.13
PK	16.7389G	68.18	68.20	-0.02	19.73	3	Horizontal	340	1.58

**11a_Nss1_2TX****5700MHz_TX**

Lim.PK	
PK	
Lim.AV	
AV	

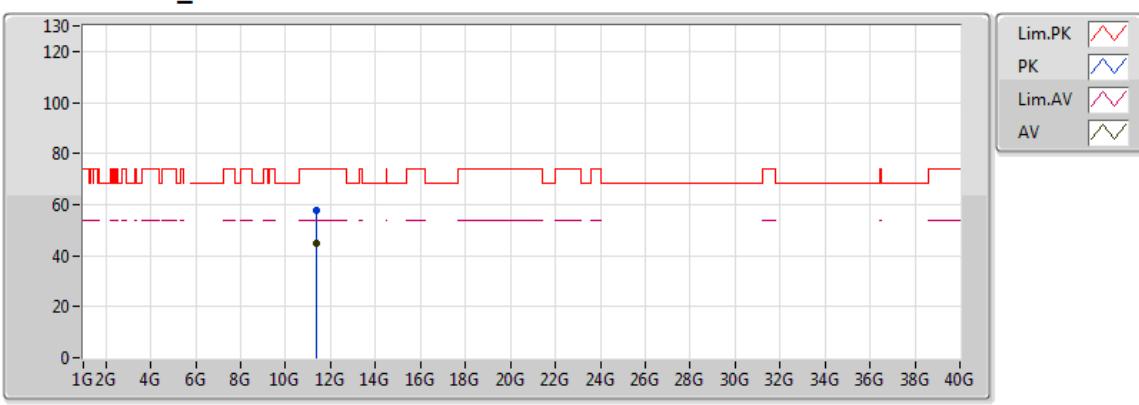
20170621
EUT Y_2TX
Setting 16.5
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.7036G	105.04	Inf	-Inf	5.69	3	Vertical	239	1.06
AV	5.7252G	53.95	54.00	-0.05	5.75	3	Vertical	239	1.06
PK	5.6992G	115.03	Inf	-Inf	5.68	3	Vertical	239	1.06
PK	5.7252G	73.25	74.00	-0.75	5.75	3	Vertical	239	1.06

**11a_Nss1_2TX****5700MHz_TX**

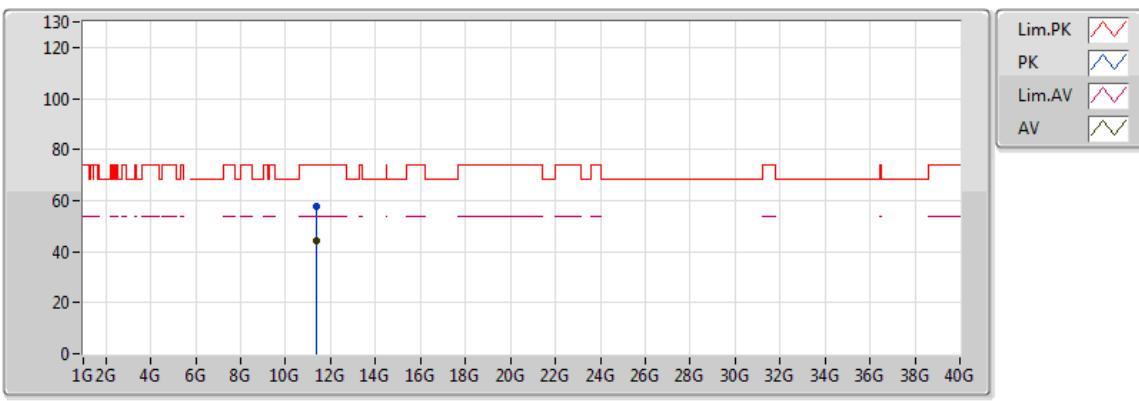
20170621
EUT Y_2TX
Setting 16.5
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.704G	103.95	Inf	-Inf	5.69	3	Horizontal	245	1.08
AV	5.7252G	53.96	54.00	-0.04	5.75	3	Horizontal	245	1.08
PK	5.7044G	114.55	Inf	-Inf	5.69	3	Horizontal	245	1.08
PK	5.7288G	71.11	74.00	-2.89	5.76	3	Horizontal	245	1.08

**11a_Nss1_2TX****5700MHz_TX**

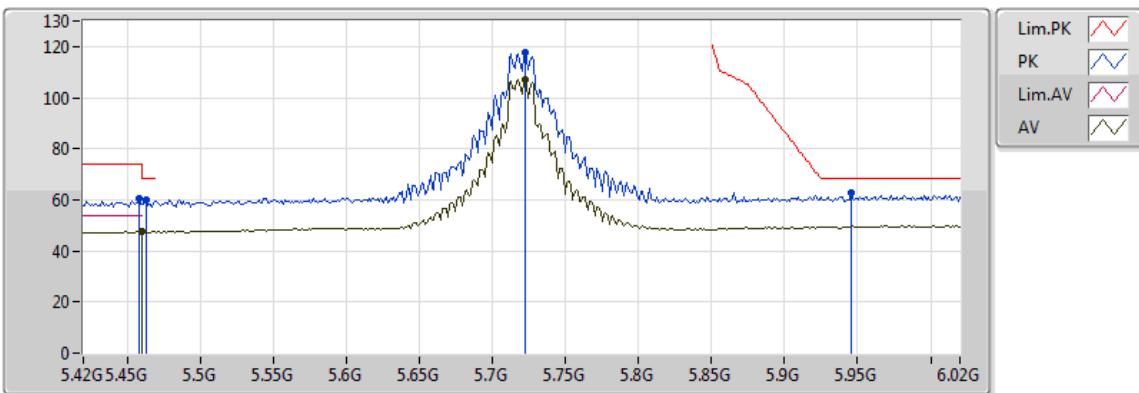
20170621
EUT Y_2TX
Setting 16.5
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.39902G	44.56	54.00	-9.44	16.06	3	Vertical	114	1.50
PK	11.40081G	57.93	74.00	-16.07	16.06	3	Vertical	114	1.50

**11a_Nss1_2TX****5700MHz_TX**

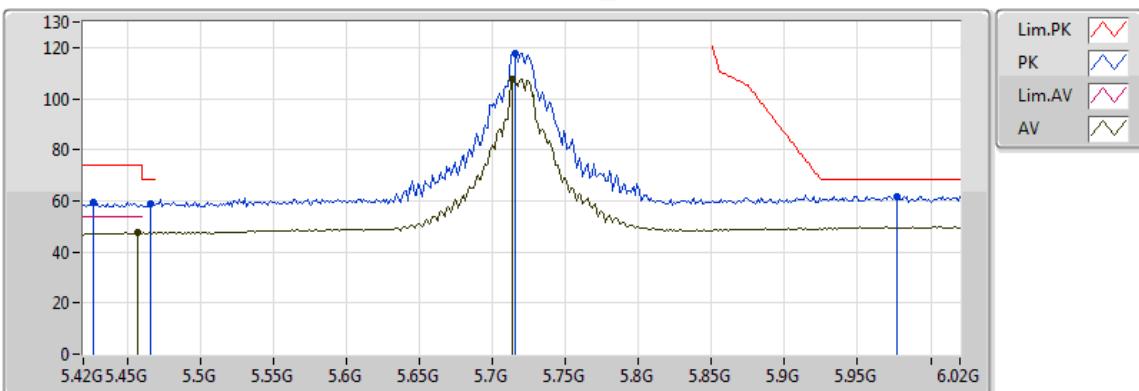
20170621
EUT Y_2TX
Setting 16.5
01-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.39769G	44.52	54.00	-9.48	16.06	3	Horizontal	146	1.50
PK	11.3981G	57.87	74.00	-16.13	16.06	3	Horizontal	146	1.50

**802.11a_(6Mbps)_2TX****5720MHz Straddle 5.47-5.725GHz_TX**

20170629
EUT Y_2TX
Setting 24
04-J-4-10
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	5.459995G	47.52	54.00	-6.48	5.98	3	V	237	1.80	-
AV	5.7224G	106.87	Inf	-Inf	7.02	3	V	237	1.80	-
PK	5.4584G	60.30	74.00	-13.70	5.97	3	V	237	1.80	-
PK	5.4632G	59.68	68.20	-8.52	5.99	3	V	237	1.80	-
PK	5.7224G	117.73	Inf	-Inf	7.02	3	V	237	1.80	-
PK	5.9456G	63.00	68.20	-5.20	8.13	3	V	237	1.80	-

**802.11a_(6Mbps)_2TX****5720MHz Straddle 5.47-5.725GHz_TX**

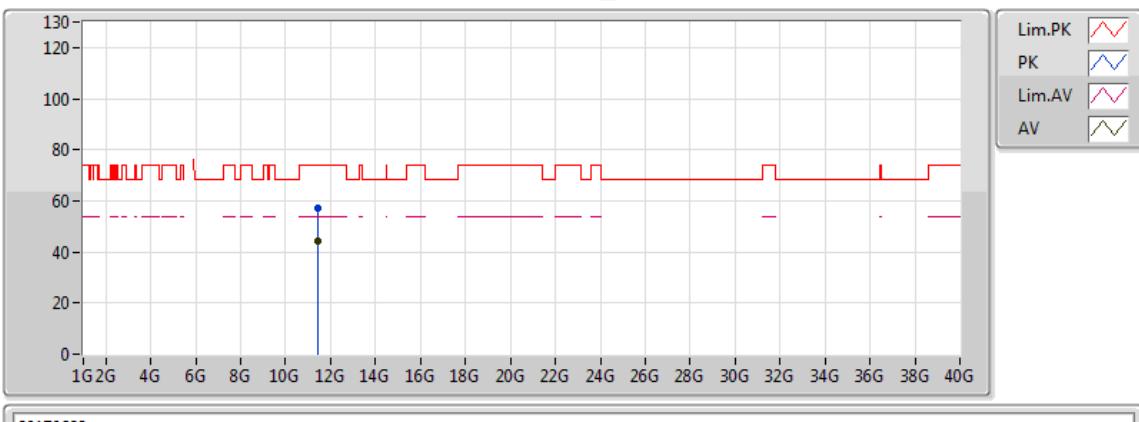
20170629
EUT Y_2TX
Setting 24
04-J-4-10
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(*)	Height(m)	Comments
AV	5.4572G	47.43	54.00	-6.57	5.96	3	H	187	2.42	-
AV	5.714G	107.72	Inf	-Inf	7.00	3	H	187	2.42	-
PK	5.4272G	59.21	74.00	-14.79	5.83	3	H	187	2.42	-
PK	5.4656G	58.99	68.20	-9.21	6.00	3	H	187	2.42	-
PK	5.7152G	117.84	Inf	-Inf	7.00	3	H	187	2.42	-
PK	5.9768G	61.82	68.20	-6.38	8.33	3	H	187	2.42	-



802.11a_(6Mbps)_2TX

5720MHz Straddle 5.47-5.725GHz_TX



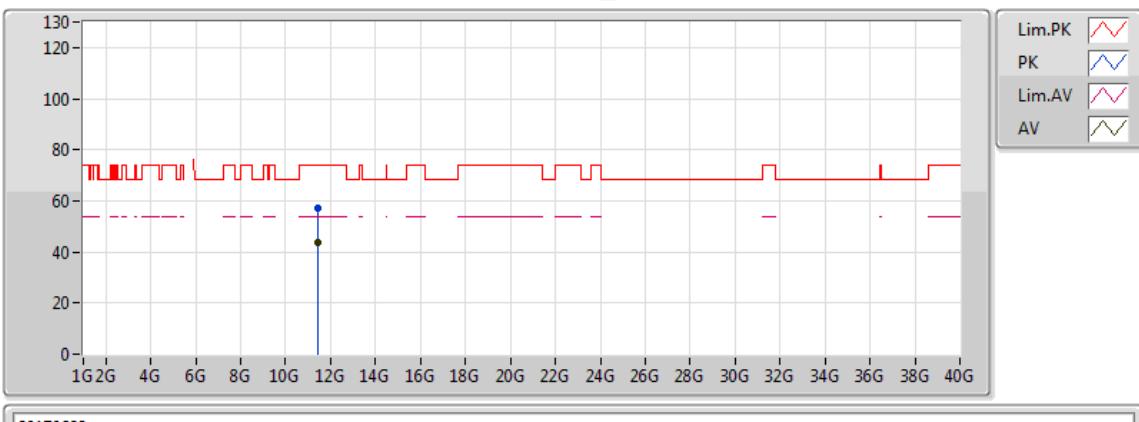
20170629
EUT Y_2TX
Setting 24
04-J-4
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.43874G	44.09	54.00	-9.91	16.09	3	V	155	1.81	-
PK	11.44204G	57.06	74.00	-16.94	16.09	3	V	155	1.81	-



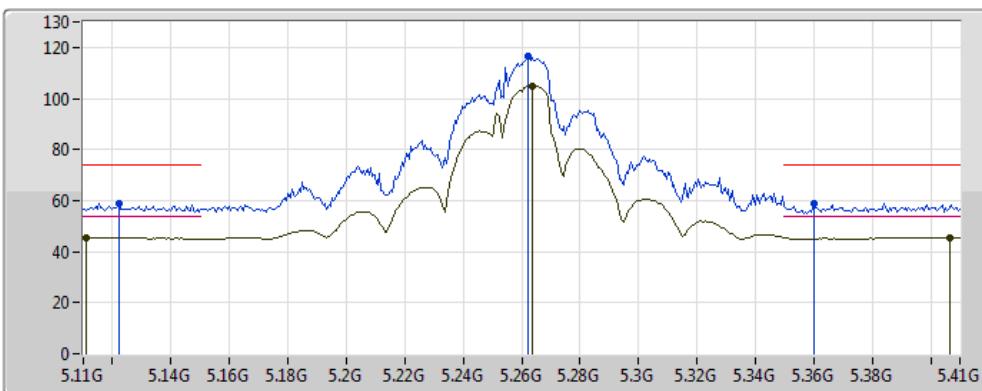
802.11a_(6Mbps)_2TX

5720MHz Straddle 5.47-5.725GHz_TX



20170629
EUT Y_2TX
Setting 24
04-J-4
FSP

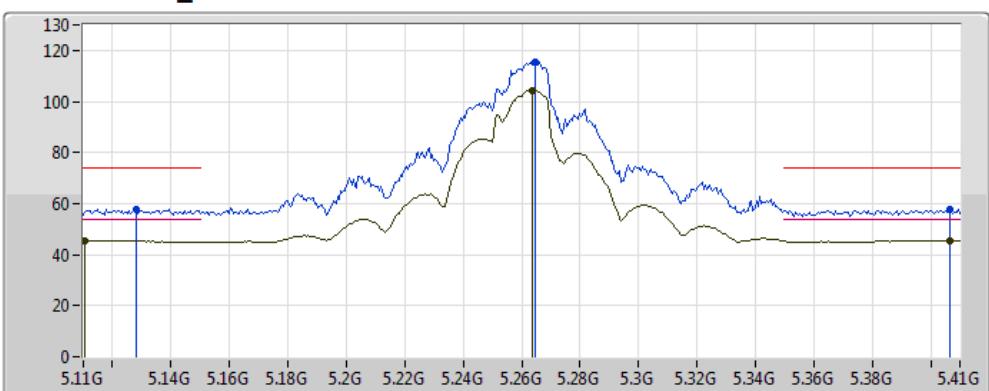
Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.43316G	43.55	54.00	-10.45	16.09	3	H	177	2.37	-
PK	11.42854G	56.92	74.00	-17.08	16.08	3	H	177	2.37	-

**VHT20_Nss1_2TX****5260MHz_TX**

Lim.PK	
PK	
Lim.AV	
AV	

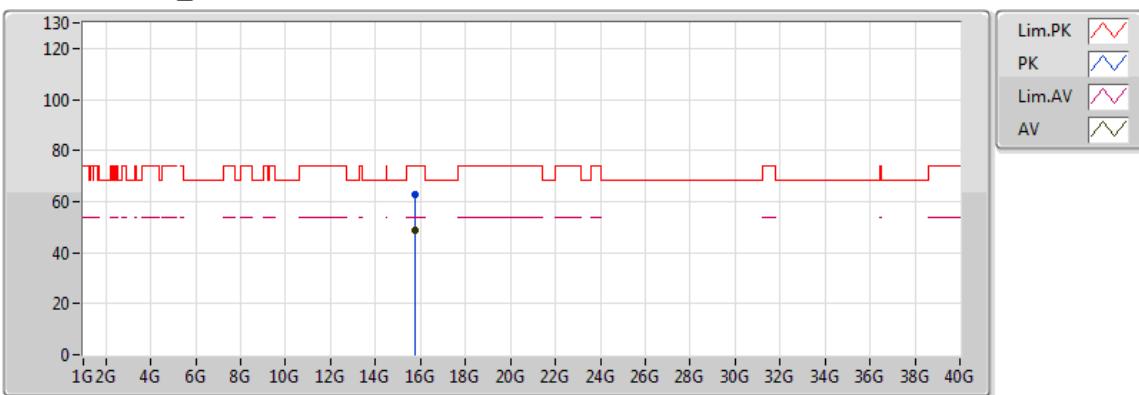
20170621
EUT Y_2TX
Setting 24
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.1112G	45.44	54.00	-8.56	5.18	3	Vertical	32	1.99
AV	5.2636G	105.03	Inf	-Inf	5.56	3	Vertical	32	1.99
AV	5.4064G	45.55	54.00	-8.45	5.73	3	Vertical	32	1.99
PK	5.122G	58.98	74.00	-15.02	5.22	3	Vertical	32	1.99
PK	5.2624G	116.39	Inf	-Inf	5.56	3	Vertical	32	1.99
PK	5.3602G	59.02	74.00	-14.98	5.66	3	Vertical	32	1.99

**VHT20_Nss1_2TX****5260MHz_TX**

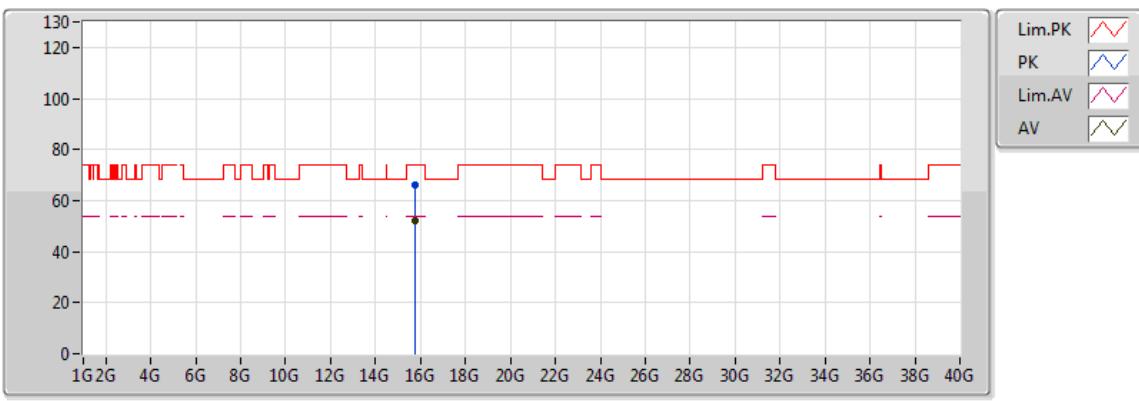
20170621
EUT Y_2TX
Setting 24
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.1106G	45.44	54.00	-8.56	5.18	3	Horizontal	14	1.96
AV	5.2636G	104.39	Inf	-Inf	5.56	3	Horizontal	14	1.96
AV	5.4064G	45.63	54.00	-8.37	5.73	3	Horizontal	14	1.96
PK	5.128G	57.66	74.00	-16.34	5.24	3	Horizontal	14	1.96
PK	5.2648G	115.36	Inf	-Inf	5.56	3	Horizontal	14	1.96
PK	5.4064G	57.56	74.00	-16.44	5.73	3	Horizontal	14	1.96

**VHT20_Nss1_2TX****5260MHz_Tx**

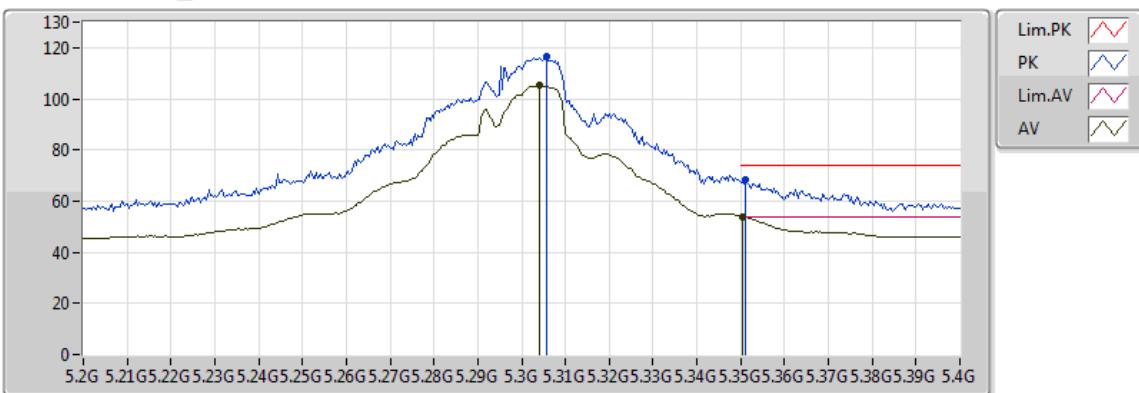
20170622
EUT Y_2TX
Setting 24
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.7848G	48.60	54.00	-5.40	18.00	3	Vertical	287	1.86
PK	15.788G	62.58	74.00	-11.42	18.00	3	Vertical	287	1.86

**VHT20_Nss1_2TX****5260MHz_TX**

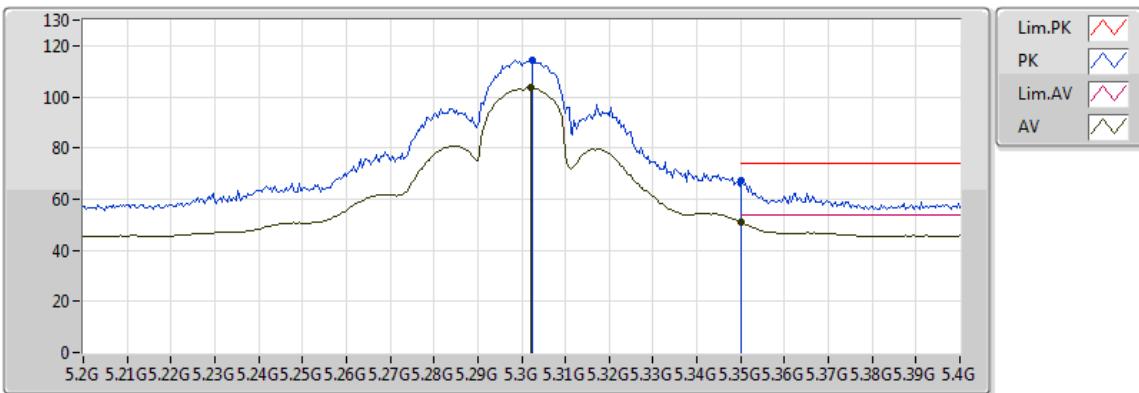
20170622
EUT Y_2TX
Setting 24
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.7744G	51.92	54.00	-2.08	17.99	3	Horizontal	220	1.28
PK	15.7768G	65.97	74.00	-8.03	17.99	3	Horizontal	220	1.28

**VHT20_Nss1_2TX****5300MHz_TX**

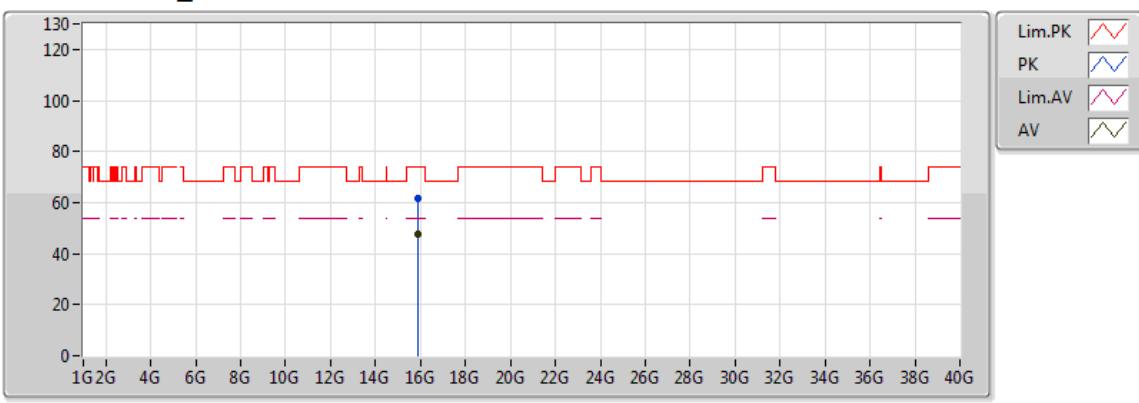
20170621
EUT Y_2TX
Setting 22
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.304G	105.10	Inf	-Inf	5.60	3	Vertical	31	1.99
AV	5.3504G	53.98	54.00	-0.02	5.65	3	Vertical	31	1.99
PK	5.3056G	116.29	Inf	-Inf	5.61	3	Vertical	31	1.99
PK	5.3512G	68.25	74.00	-5.75	5.65	3	Vertical	31	1.99

**VHT20_Nss1_2TX****5300MHz_TX**

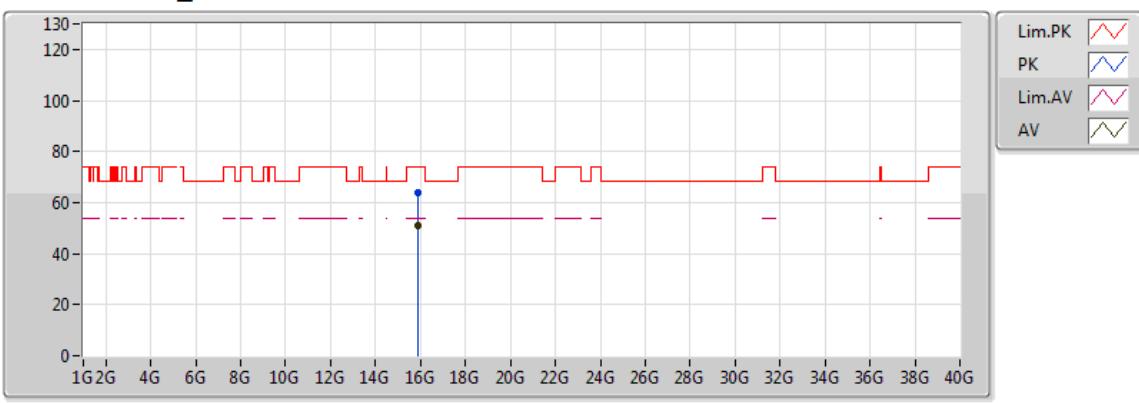
20170621
EUT Y_2TX
Setting 22
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.302G	103.58	Inf	-Inf	5.60	3	Horizontal	328	1.00
AV	5.350005G	51.00	54.00	-3.00	5.65	3	Horizontal	328	1.00
PK	5.3024G	114.46	Inf	-Inf	5.60	3	Horizontal	328	1.00
PK	5.350005G	67.36	74.00	-6.64	5.65	3	Horizontal	328	1.00

**VHT20_Nss1_2TX****5300MHz_TX**

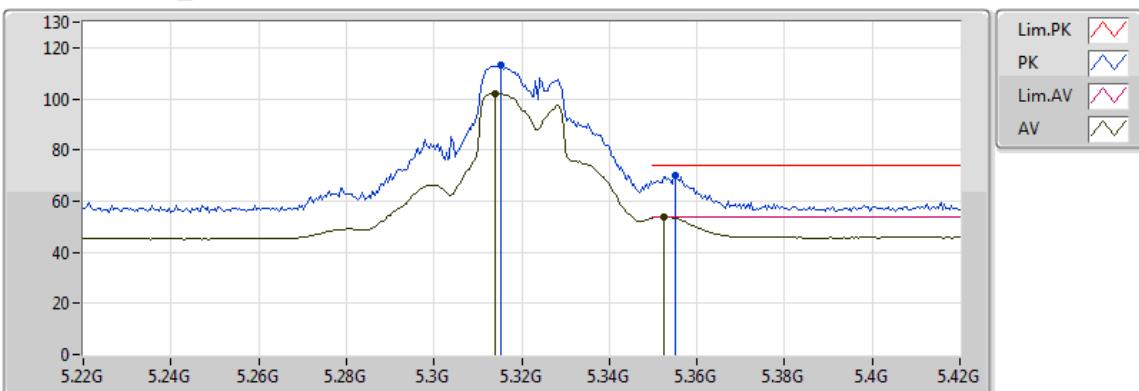
20170622
EUT Y_2TX
Setting 22
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.8906G	47.53	54.00	-6.47	18.08	3	Vertical	153	2.37
PK	15.9072G	61.84	74.00	-12.16	18.09	3	Vertical	153	2.37

**VHT20_Nss1_2TX****5300MHz_TX**

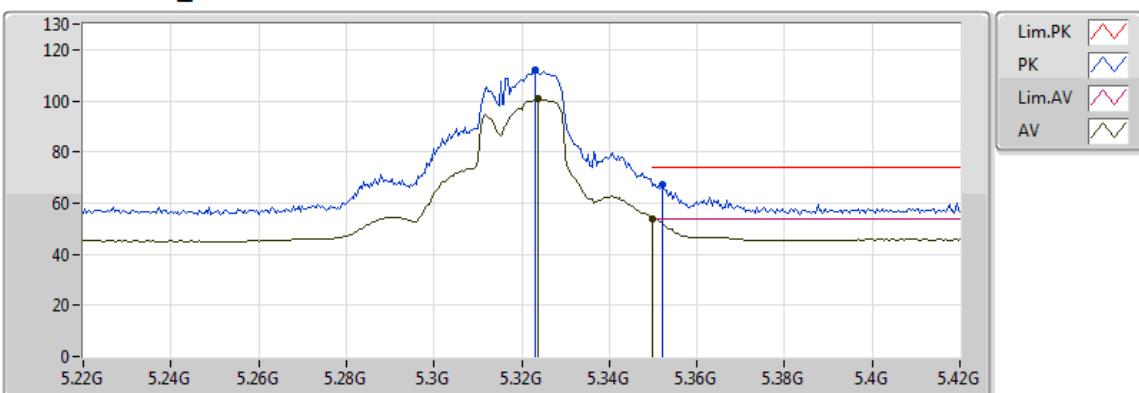
20170622
EUT Y_2TX
Setting 22
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.8955G	50.90	54.00	-3.10	18.09	3	Horizontal	65	1.74
PK	15.8956G	63.73	74.00	-10.27	18.09	3	Horizontal	65	1.74

**VHT20_Nss1_2TX****5320MHz_TX**

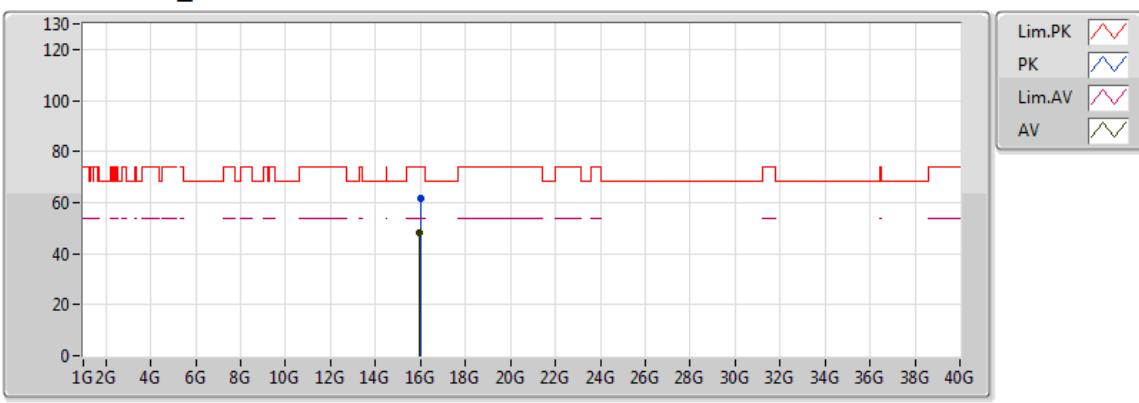
20170621
EUT Y_2TX
Setting 19
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.314G	102.22	Inf	-Inf	5.61	3	Vertical	55	1.11
AV	5.3524G	53.96	54.00	-0.04	5.65	3	Vertical	55	1.11
PK	5.3152G	113.16	Inf	-Inf	5.62	3	Vertical	55	1.11
PK	5.3552G	69.90	74.00	-4.10	5.66	3	Vertical	55	1.11

**VHT20_Nss1_2TX****5320MHz_TX**

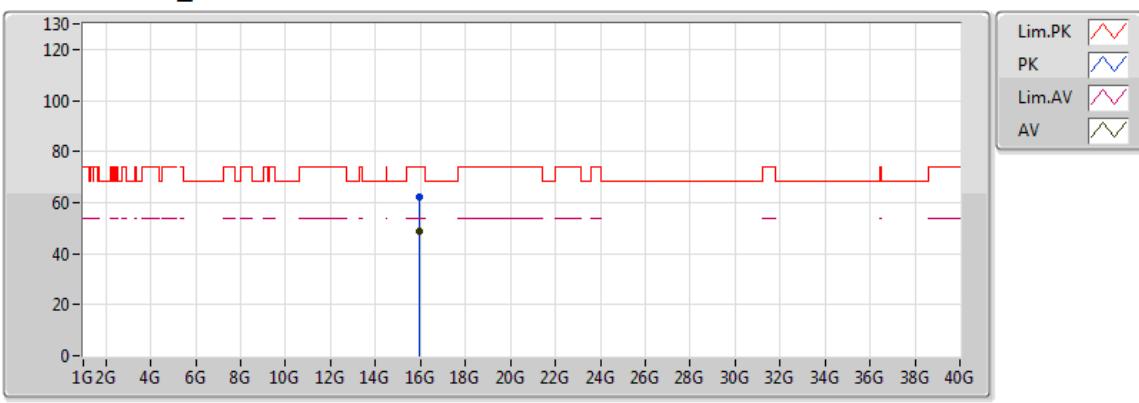
20170621
EUT Y_2TX
Setting 19
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.3236G	100.60	Inf	-Inf	5.62	3	Horizontal	17	1.98
AV	5.350005G	53.93	54.00	-0.07	5.65	3	Horizontal	17	1.98
PK	5.3232G	111.81	Inf	-Inf	5.62	3	Horizontal	17	1.98
PK	5.352G	67.51	74.00	-6.49	5.65	3	Horizontal	17	1.98

**VHT20_Nss1_2TX****5320MHz_TX**

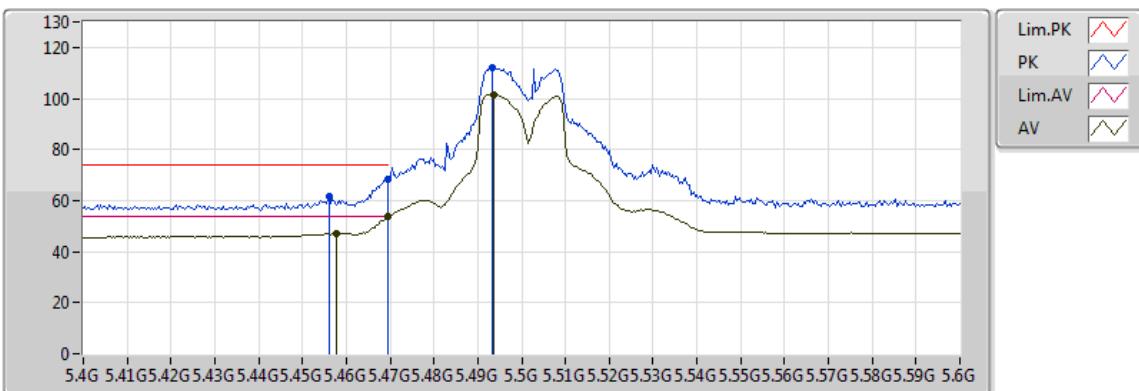
20170621
EUT Y_2TX
Setting 19
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.9419G	48.06	54.00	-5.94	18.12	3	Vertical	213	2.18
PK	15.9843G	61.50	74.00	-12.50	18.16	3	Vertical	213	2.18

**VHT20_Nss1_2TX****5320MHz_TX**

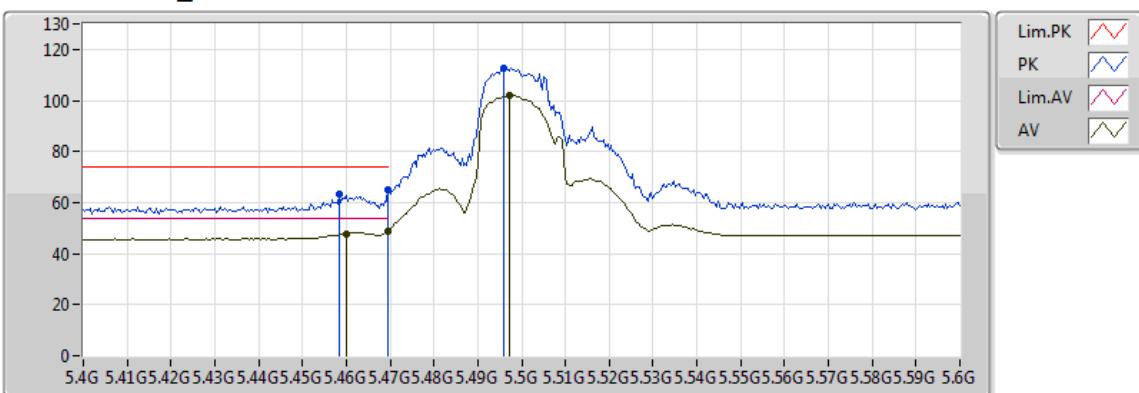
20170621
EUT Y_2TX
Setting 19
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.9585G	48.94	54.00	-5.06	18.14	3	Horizontal	57	1.72
PK	15.9585G	62.39	74.00	-11.61	18.14	3	Horizontal	57	1.72

**VHT20_Nss1_2TX****5500MHz_TX**

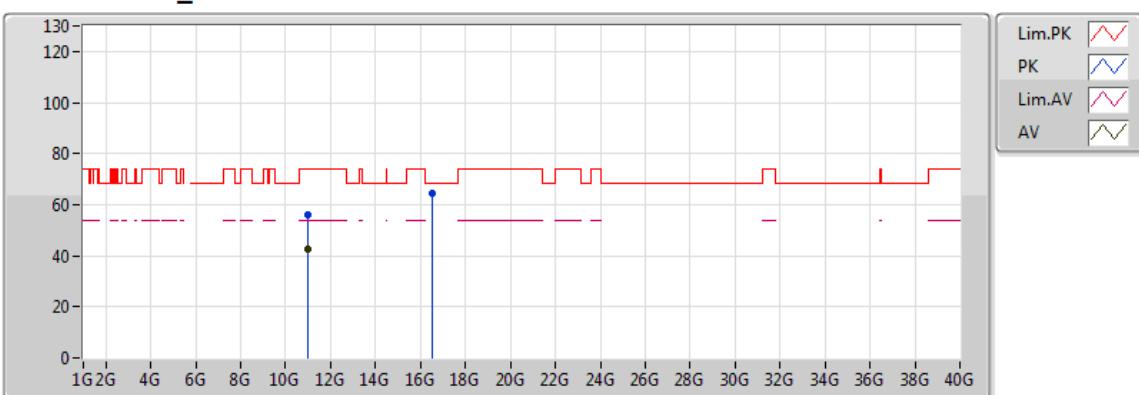
20170621
EUT Y_2TX
Setting 19
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.4576G	47.06	54.00	-6.94	5.96	3	Vertical	344	1.98
AV	5.4696G	53.67	54.00	-0.33	6.02	3	Vertical	344	1.98
AV	5.4936G	101.50	Inf	-Inf	6.13	3	Vertical	344	1.98
PK	5.456G	61.43	74.00	-12.57	5.96	3	Vertical	344	1.98
PK	5.4696G	68.60	74.00	-5.40	6.02	3	Vertical	344	1.98
PK	5.4932G	112.30	Inf	-Inf	6.13	3	Vertical	344	1.98

**VHT20_Nss1_2TX****5500MHz_TX**

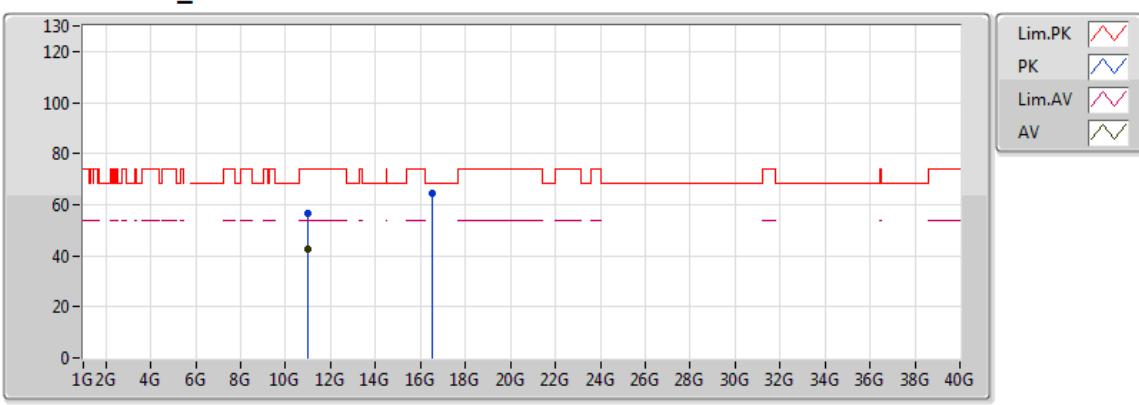
20170621
EUT Y_2TX
Setting 19
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.46G	47.73	54.00	-6.27	5.98	3	Horizontal	348	1.99
AV	5.4696G	49.02	54.00	-4.98	6.02	3	Horizontal	348	1.99
AV	5.4972G	102.01	Inf	-Inf	6.15	3	Horizontal	348	1.99
PK	5.4584G	63.31	74.00	-10.69	5.97	3	Horizontal	348	1.99
PK	5.4696G	64.89	74.00	-9.11	6.02	3	Horizontal	348	1.99
PK	5.496G	112.70	Inf	-Inf	6.14	3	Horizontal	348	1.99

**VHT20_Nss1_2TX****5500MHz_TX**

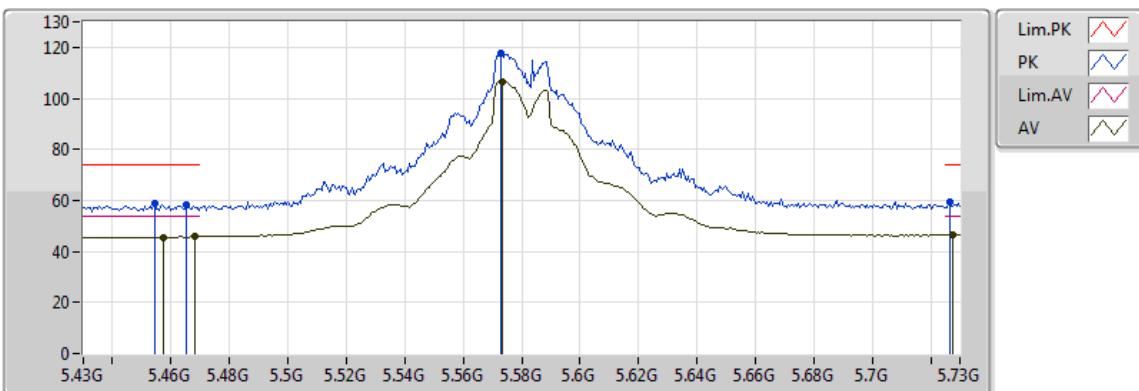
20170622
EUT Y_2TX
Setting 19
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.0126G	42.50	54.00	-11.50	15.81	3	Vertical	102	1.36
PK	11.009G	56.29	74.00	-17.71	15.81	3	Vertical	102	1.36
PK	16.4958G	64.69	68.20	-3.51	19.22	3	Vertical	22	1.54

**VHT20_Nss1_2TX****5500MHz_TX**

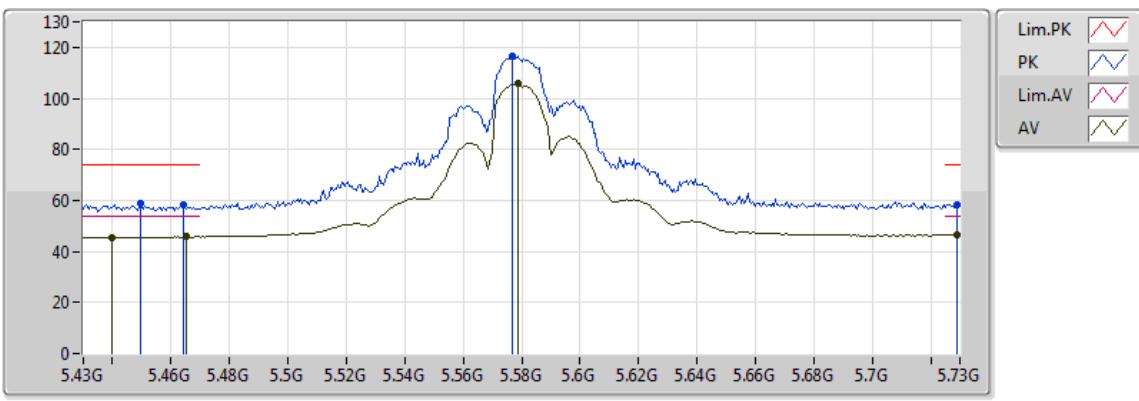
20170621
EUT Y_2TX
Setting 19
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.0177G	42.43	54.00	-11.57	15.81	3	Horizontal	286	2.46
PK	11.0145G	56.34	74.00	-17.66	15.81	3	Horizontal	286	2.46
PK	16.4935G	64.35	68.20	-3.85	19.21	3	Horizontal	56	1.74

**VHT20_Nss1_2TX****5580MHz_TX**

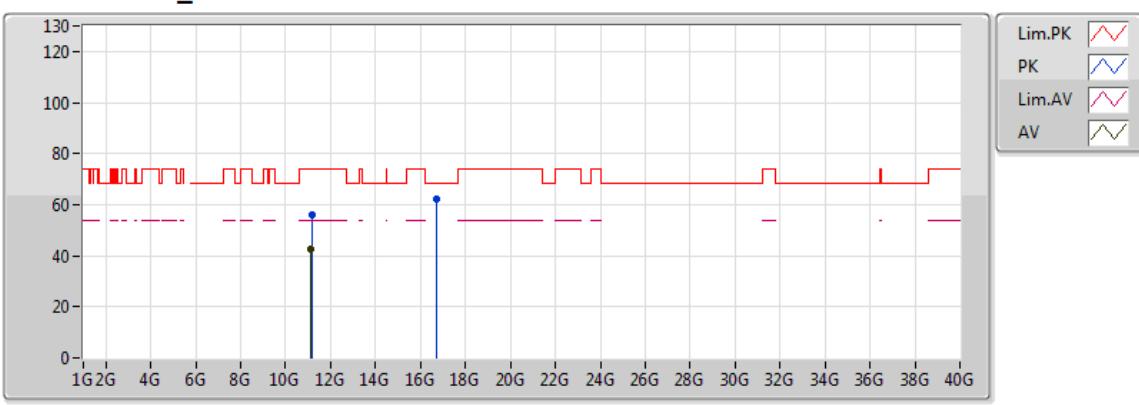
20170621
EUT Y_2TX
Setting 24
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.4576G	45.63	54.00	-8.37	5.96	3	Vertical	344	1.87
AV	5.4684G	45.76	54.00	-8.24	6.01	3	Vertical	344	1.87
AV	5.5734G	106.62	Inf	-Inf	6.62	3	Vertical	344	1.87
AV	5.7276G	46.53	54.00	-7.47	7.03	3	Vertical	344	1.87
PK	5.4546G	58.86	74.00	-15.14	5.95	3	Vertical	344	1.87
PK	5.4654G	58.07	74.00	-15.93	6.00	3	Vertical	344	1.87
PK	5.5728G	117.52	Inf	-Inf	6.61	3	Vertical	344	1.87
PK	5.7264G	59.16	74.00	-14.84	7.03	3	Vertical	344	1.87

**VHT20_Nss1_2TX****5580MHz_TX**

20170621
EUT Y_2TX
Setting 24
04-M-0
FSP(100056)

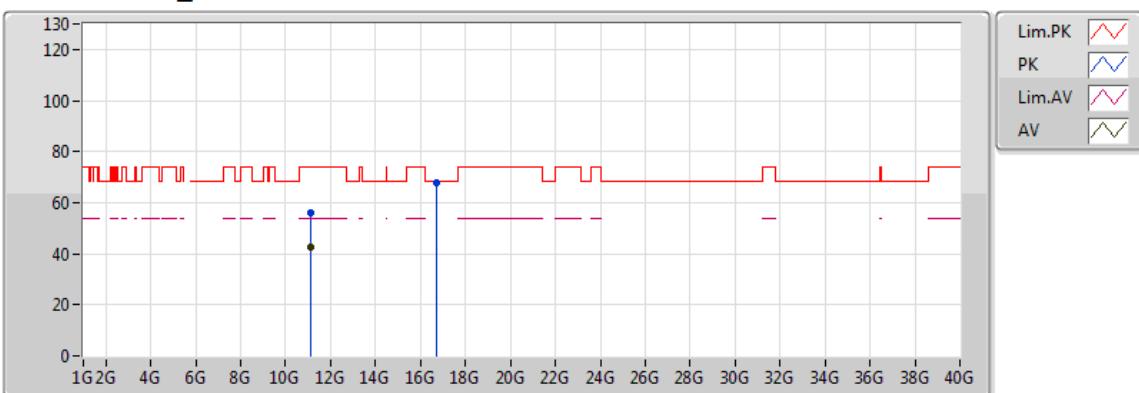
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.4396G	45.66	54.00	-8.34	5.88	3	Horizontal	348	1.99
AV	5.4654G	45.73	54.00	-8.27	6.00	3	Horizontal	348	1.99
AV	5.5788G	105.65	Inf	-Inf	6.65	3	Horizontal	348	1.99
AV	5.7288G	46.44	54.00	-7.56	7.03	3	Horizontal	348	1.99
PK	5.4498G	58.73	74.00	-15.27	5.93	3	Horizontal	348	1.99
PK	5.4642G	58.55	74.00	-15.45	6.00	3	Horizontal	348	1.99
PK	5.577G	116.81	Inf	-Inf	6.64	3	Horizontal	348	1.99
PK	5.7288G	58.48	74.00	-15.52	7.03	3	Horizontal	348	1.99

**VHT20_Nss1_2TX****5580MHz_TX**

Lim.PK	
PK	
Lim.AV	
AV	

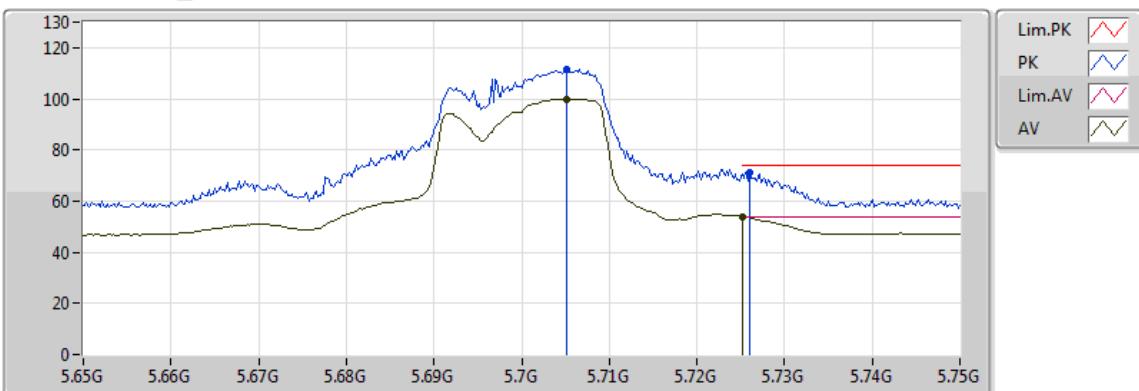
20170622
EUT Y_2TX
Setting 24
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.1434G	42.46	54.00	-11.54	15.89	3	Vertical	31	2.34
PK	11.1519G	55.97	74.00	-18.03	15.90	3	Vertical	31	2.34
PK	16.728G	62.36	68.20	-5.84	19.71	3	Vertical	150	1.94

**VHT20_Nss1_2TX****5580MHz_TX**

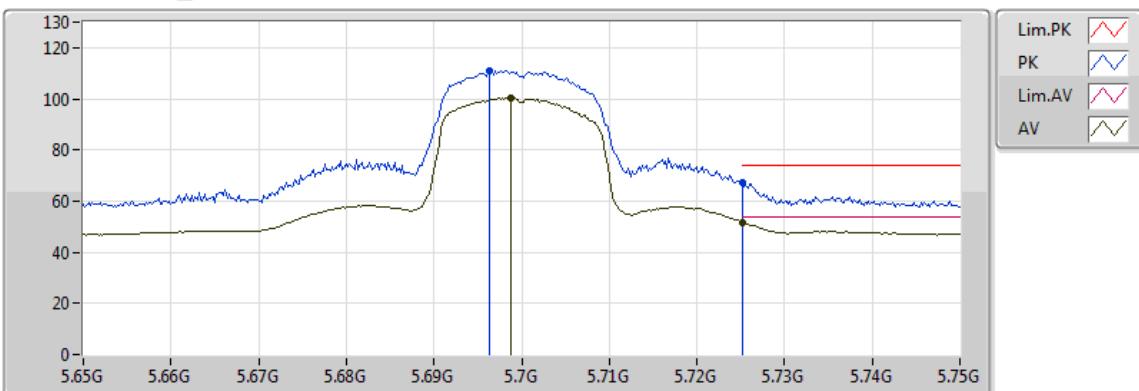
20170622
EUT Y_2TX
Setting 24
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.1444G	42.42	54.00	-11.58	15.90	3	Horizontal	259	1.12
PK	11.1357G	55.80	74.00	-18.20	15.89	3	Horizontal	259	1.12
PK	16.7361G	67.73	68.20	-0.47	19.72	3	Horizontal	57	1.79

**VHT20_Nss1_2TX****5700MHz_TX**

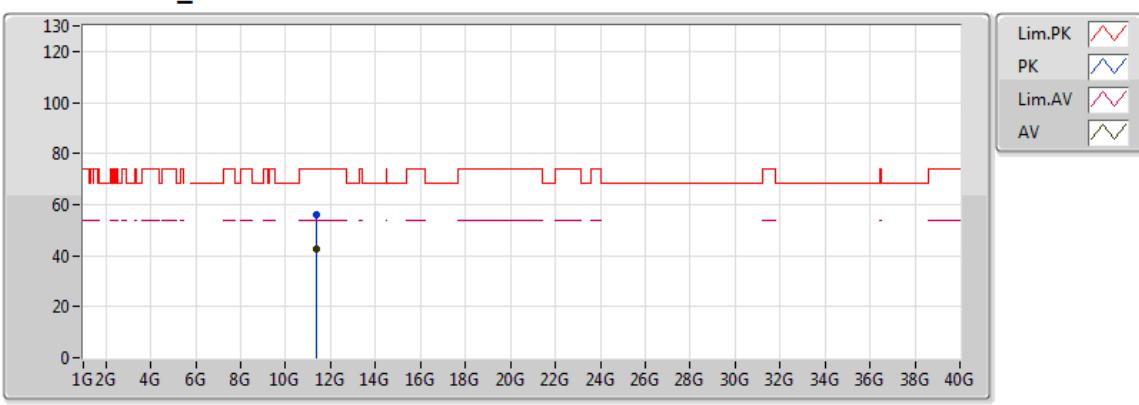
20170621
EUT Y_2TX
Setting 17
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.7052G	100.01	Inf	-Inf	6.98	3	Vertical	47	1.99
AV	5.7252G	53.81	54.00	-0.19	7.02	3	Vertical	47	1.99
PK	5.7052G	111.42	Inf	-Inf	6.98	3	Vertical	47	1.99
PK	5.726G	71.30	74.00	-2.70	7.02	3	Vertical	47	1.99

**VHT20_Nss1_2TX****5700MHz_TX**

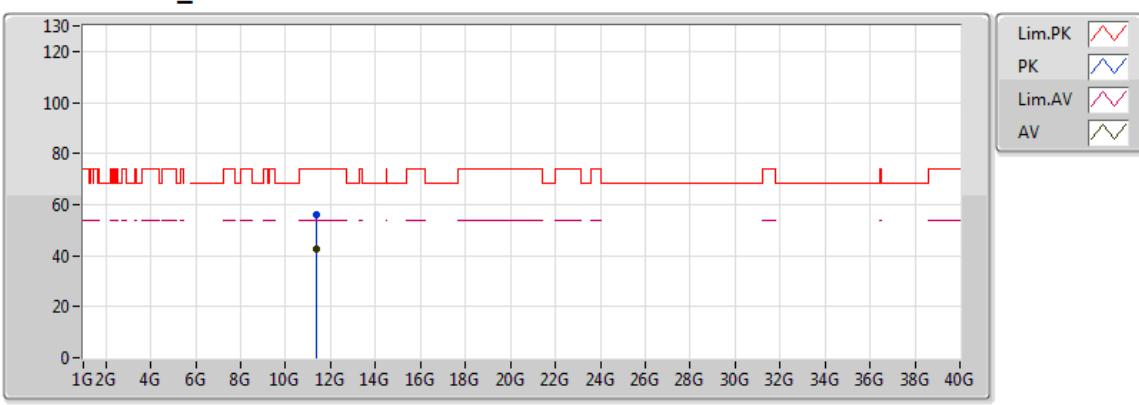
20170621
EUT Y_2TX
Setting 17
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.6988G	100.24	Inf	-Inf	6.97	3	Horizontal	5	1.98
AV	5.7252G	51.76	54.00	-2.24	7.02	3	Horizontal	5	1.98
PK	5.6964G	110.95	Inf	-Inf	6.96	3	Horizontal	5	1.98
PK	5.7252G	67.50	74.00	-6.50	7.02	3	Horizontal	5	1.98

**VHT20_Nss1_2TX****5700MHz_Tx**

20170622
EUT Y_2TX
Setting 17
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.3882G	42.56	54.00	-11.44	16.06	3	Vertical	5	2.04
PK	11.3972G	56.04	74.00	-17.96	16.06	3	Vertical	5	2.04

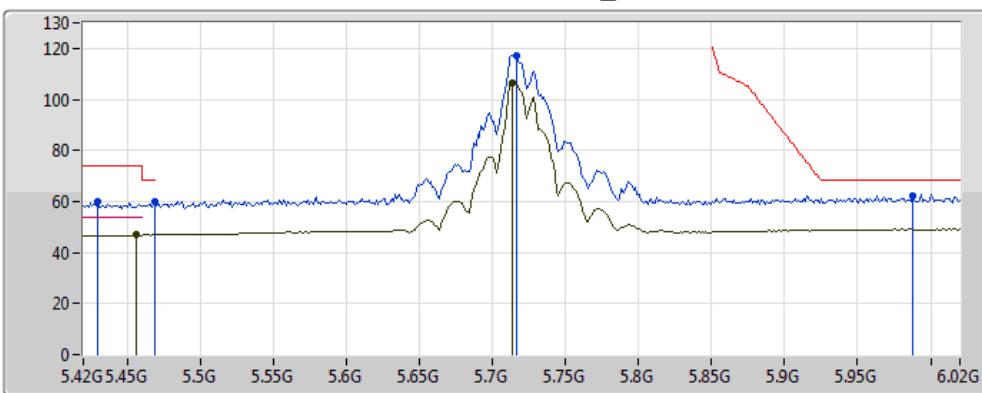
**VHT20_Nss1_2TX****5700MHz_TX**

20170622
EUT Y_2TX
Setting 17
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.388G	42.53	54.00	-11.47	16.06	3	Horizontal	194	1.04
PK	11.397G	56.24	74.00	-17.76	16.06	3	Horizontal	194	1.04



802.11ac VHT20_Nss1,(MCS0)_2TX 5720MHz Straddle 5.47-5.725GHz_TX



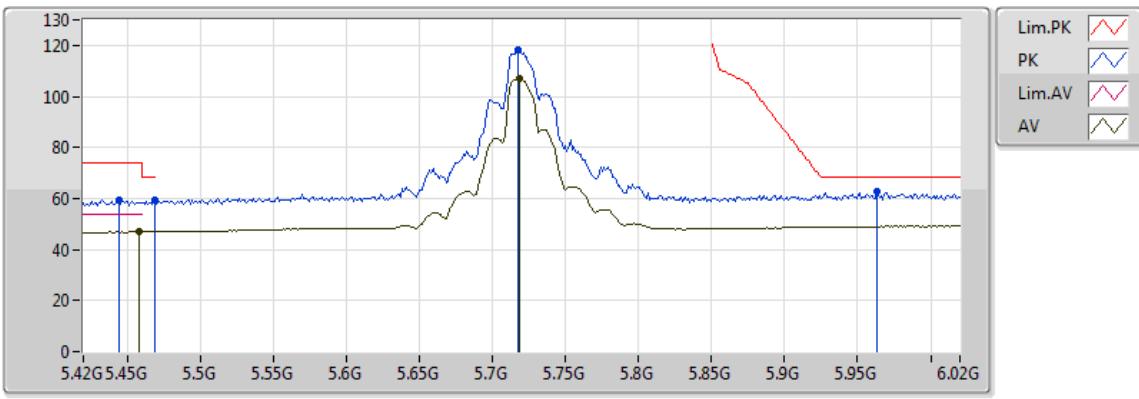
Lim.PK	
PK	
Lim.AV	
AV	

20170629
EUT Y_2TX
Setting 24
04-J-4-10
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.456G	46.91	54.00	-7.09	5.96	3	V	235	1.02	-
AV	5.714G	106.51	Inf	-Inf	7.00	3	V	235	1.02	-
PK	5.4296G	60.10	74.00	-13.90	5.84	3	V	235	1.02	-
PK	5.4692G	59.75	68.20	-8.45	6.02	3	V	235	1.02	-
PK	5.7164G	117.39	Inf	-Inf	7.00	3	V	235	1.02	-
PK	5.9876G	62.13	68.20	-6.07	8.40	3	V	235	1.02	-

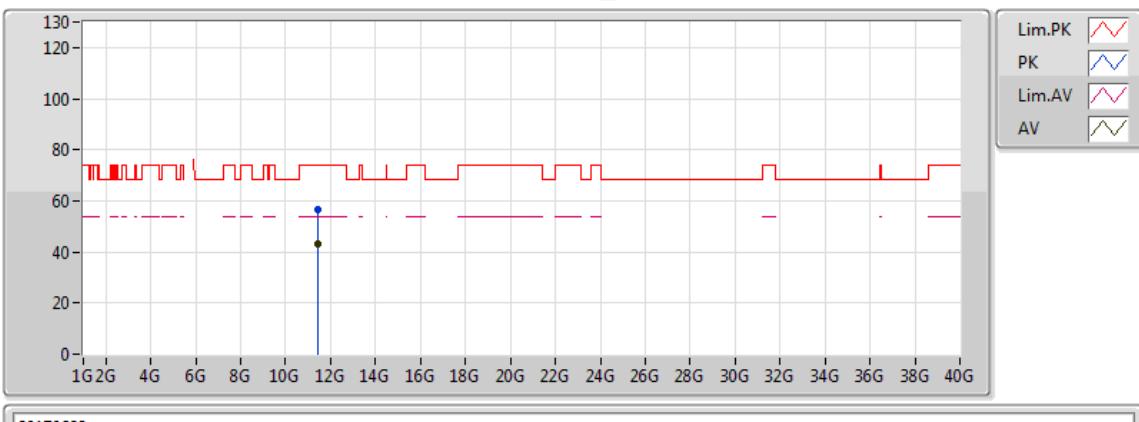


802.11ac VHT20_Nss1,(MCS0)_2TX 5720MHz Straddle 5.47-5.725GHz_TX



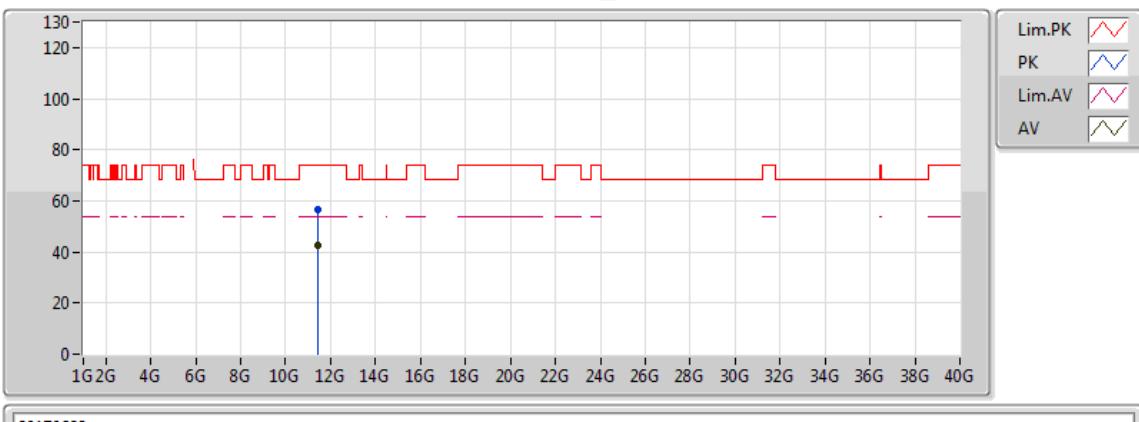
20170629
EUT Y_2TX
Setting 24
04-J-4-10
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.4584G	46.87	54.00	-7.13	5.97	3	H	185	2.39	-
AV	5.7188G	107.28	Inf	-Inf	7.01	3	H	185	2.39	-
PK	5.444G	59.48	74.00	-14.52	5.90	3	H	185	2.39	-
PK	5.4692G	59.28	68.20	-8.92	6.02	3	H	185	2.39	-
PK	5.7176G	118.46	Inf	-Inf	7.01	3	H	185	2.39	-
PK	5.9636G	62.54	68.20	-5.66	8.24	3	H	185	2.39	-

**802.11ac VHT20_Nss1,(MCS0)_2TX
5720MHz Straddle 5.47-5.725GHz_TX**

20170629
EUT Y_2TX
Setting 24
04-J-4
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.42686G	42.87	54.00	-11.13	16.08	3	V	29	1.41	-
PK	11.44222G	56.55	74.00	-17.45	16.09	3	V	29	1.41	-

**802.11ac VHT20_Nss1,(MCS0)_2TX
5720MHz Straddle 5.47-5.725GHz_TX**

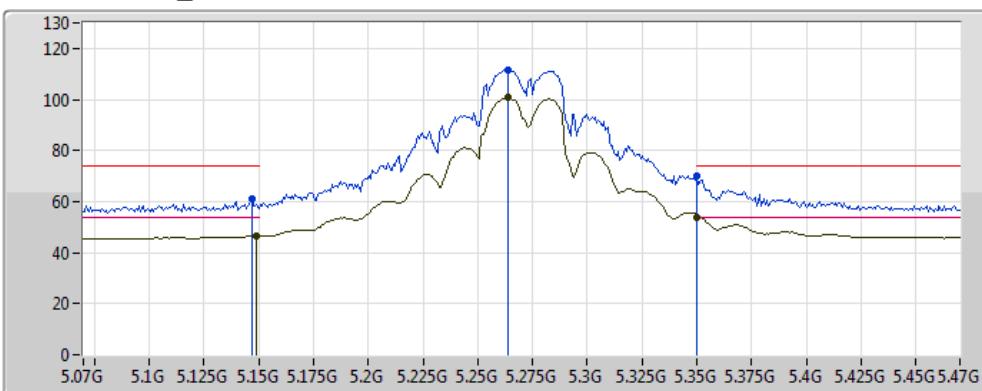
20170629
EUT Y_2TX
Setting 24
04-J-4
FSP

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.43466G	42.82	54.00	-11.18	16.09	3	H	40	1.23	-
PK	11.45074G	56.83	74.00	-17.17	16.10	3	H	40	1.23	-



VHT40_Nss1_2TX

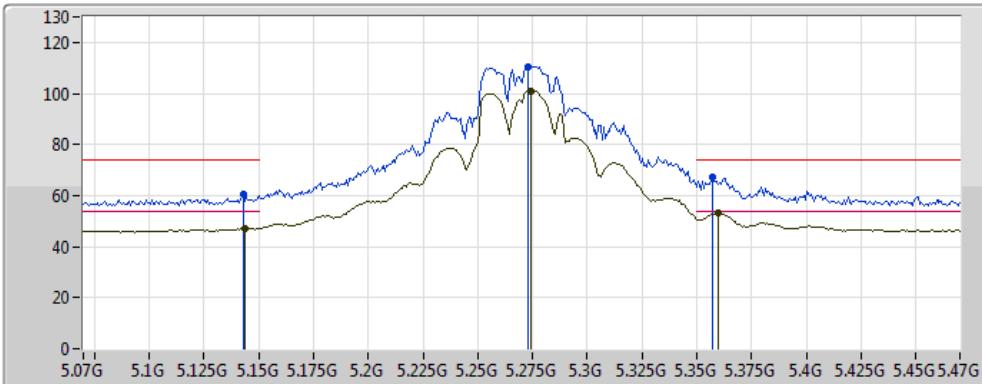
5270MHz_TX



Lim.PK	
PK	
Lim.AV	
AV	

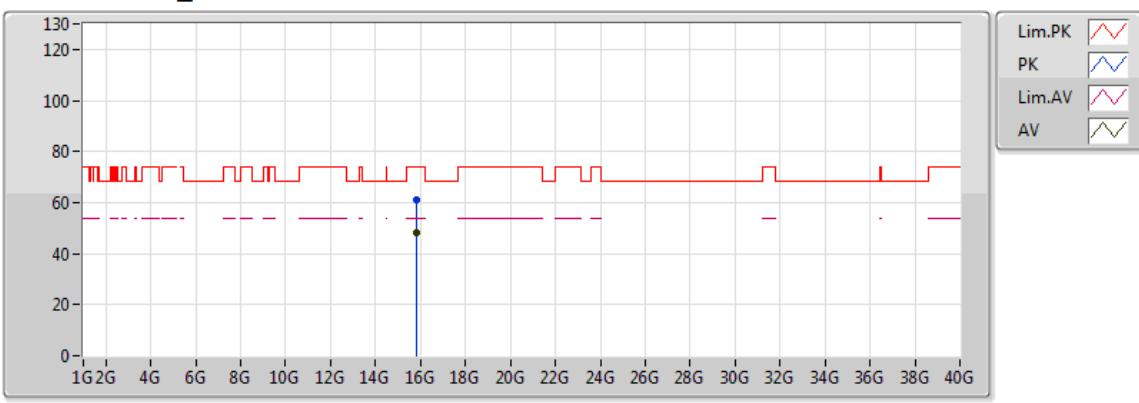
20170621
EUT Y_2TX
Setting 21
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.1492G	46.65	54.00	-7.35	5.31	3	Vertical	67	1.30
AV	5.2636G	100.59	Inf	-Inf	5.56	3	Vertical	67	1.30
AV	5.350005G	53.98	54.00	-0.02	5.65	3	Vertical	67	1.30
PK	5.1468G	60.83	74.00	-13.17	5.30	3	Vertical	67	1.30
PK	5.2636G	111.54	Inf	-Inf	5.56	3	Vertical	67	1.30
PK	5.350005G	69.97	74.00	-4.03	5.65	3	Vertical	67	1.30

**VHT40_Nss1_2TX****5270MHz_TX**

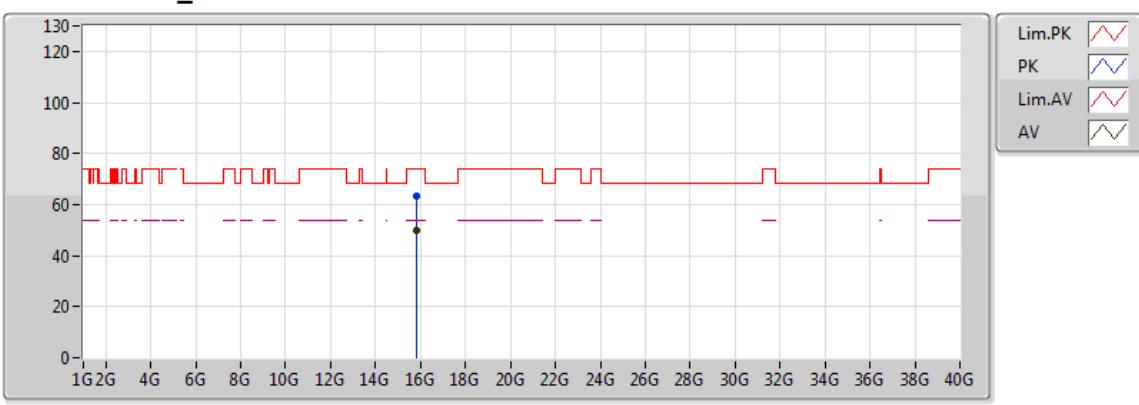
20170621
EUT Y_2TX
Setting 21
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.1436G	47.04	54.00	-6.96	5.29	3	Horizontal	17	1.98
AV	5.274G	101.05	Inf	-Inf	5.57	3	Horizontal	17	1.98
AV	5.3596G	53.08	54.00	-0.92	5.66	3	Horizontal	17	1.98
PK	5.1428G	60.53	74.00	-13.47	5.29	3	Horizontal	17	1.98
PK	5.2732G	110.60	Inf	-Inf	5.57	3	Horizontal	17	1.98
PK	5.3572G	67.02	74.00	-6.98	5.66	3	Horizontal	17	1.98

**VHT40_Nss1_2TX****5270MHz_TX**

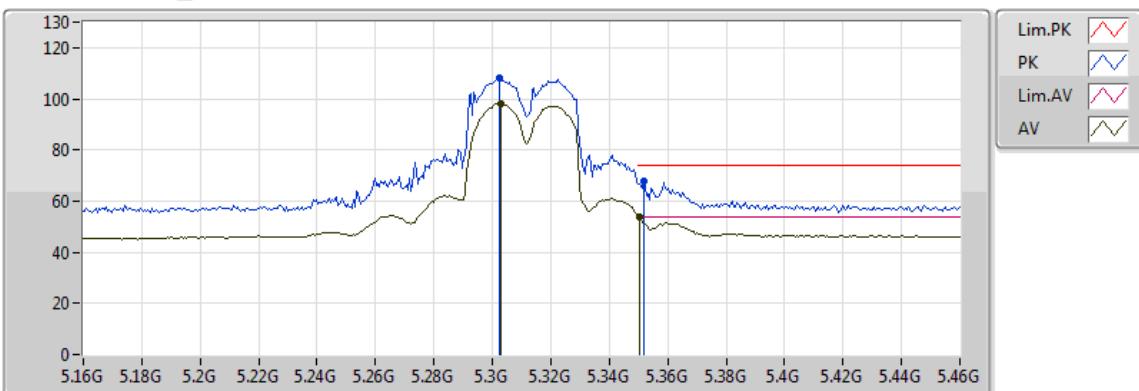
20170622
EUT Y_2TX
Setting 21
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.8037G	48.32	54.00	-5.68	18.01	3	Vertical	84	2.31
PK	15.8049G	61.03	74.00	-12.97	18.01	3	Vertical	84	2.31

**VHT40_Nss1_2TX****5270MHz_TX**

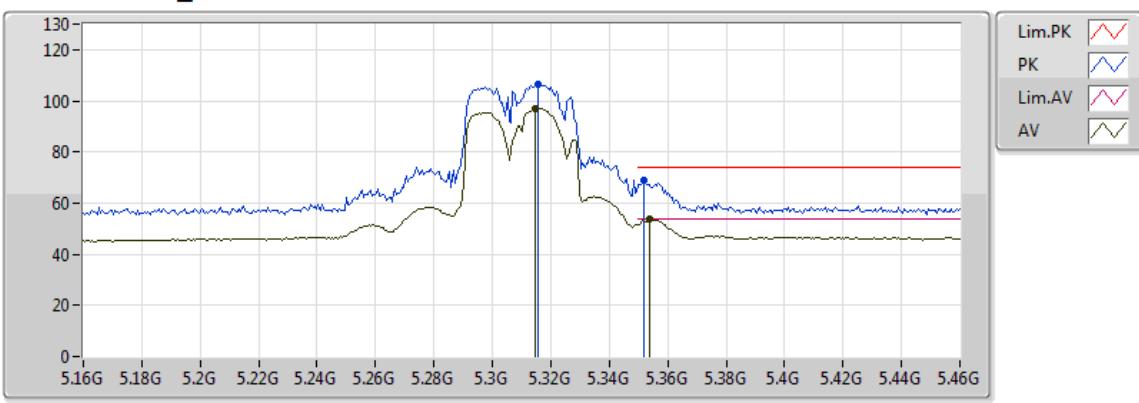
20170622
EUT Y_2TX
Setting 21
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.8044G	49.69	54.00	-4.31	18.01	3	Horizontal	54	1.72
PK	15.8239G	63.25	74.00	-10.75	18.03	3	Horizontal	54	1.72

**VHT40_Nss1_2TX****5310MHz_TX**

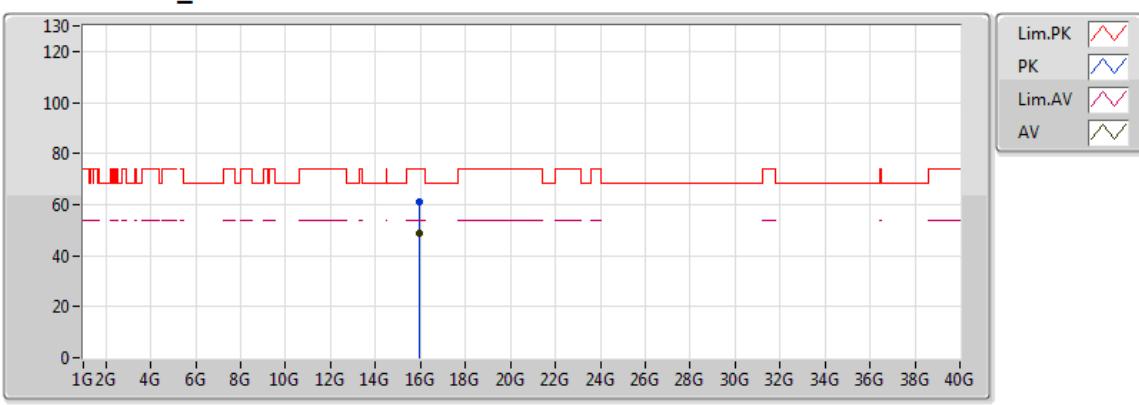
20170621
EUT Y_2TX
Setting 16.5
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.3028G	98.04	Inf	-Inf	5.60	3	Vertical	43	1.11
AV	5.3502G	53.99	54.00	-0.01	5.65	3	Vertical	43	1.11
PK	5.3022G	108.34	Inf	-Inf	5.60	3	Vertical	43	1.11
PK	5.352G	68.00	74.00	-6.00	5.65	3	Vertical	43	1.11

**VHT40_Nss1_2TX****5310MHz_TX**

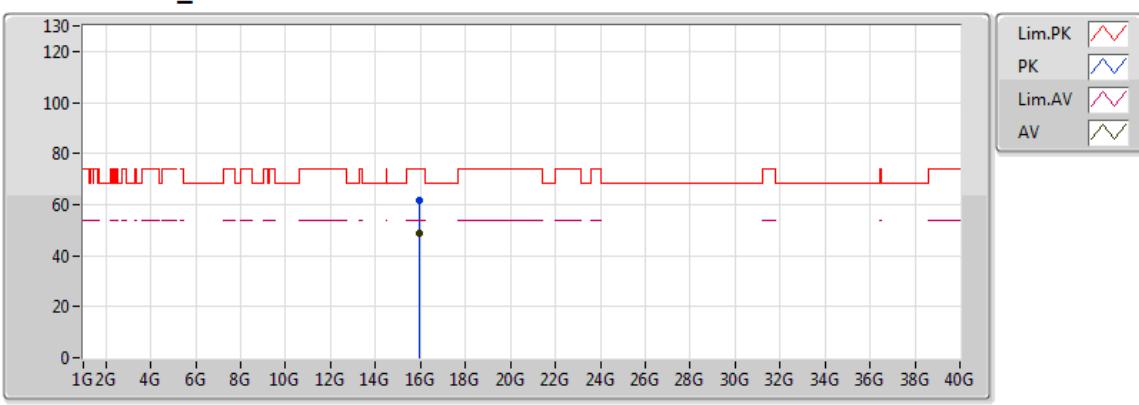
20170621
EUT Y_2TX
Setting 16.5
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.3148G	96.91	Inf	-Inf	5.61	3	Horizontal	18	1.95
AV	5.3538G	53.69	54.00	-0.31	5.65	3	Horizontal	18	1.95
PK	5.3154G	106.32	Inf	-Inf	5.62	3	Horizontal	18	1.95
PK	5.352G	68.72	74.00	-5.28	5.65	3	Horizontal	18	1.95

**VHT40_Nss1_2TX****5310MHz_TX**

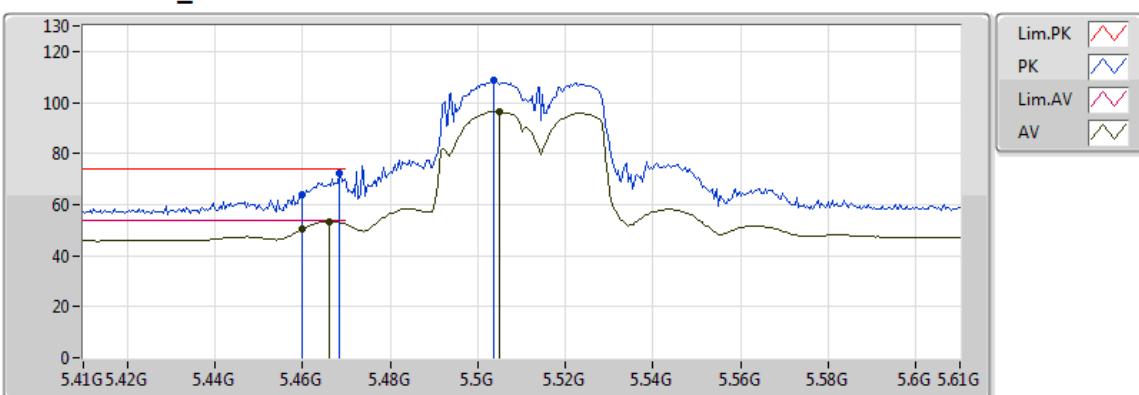
20170622
EUT Y_2TX
Setting 16.5
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.9431G	48.65	54.00	-5.35	18.12	3	Vertical	4	1.99
PK	15.9484G	61.16	74.00	-12.84	18.13	3	Vertical	4	1.99

**VHT40_Nss1_2TX****5310MHz_TX**

20170622
EUT Y_2TX
Setting 16.5
04-R-2
FSP(100056)

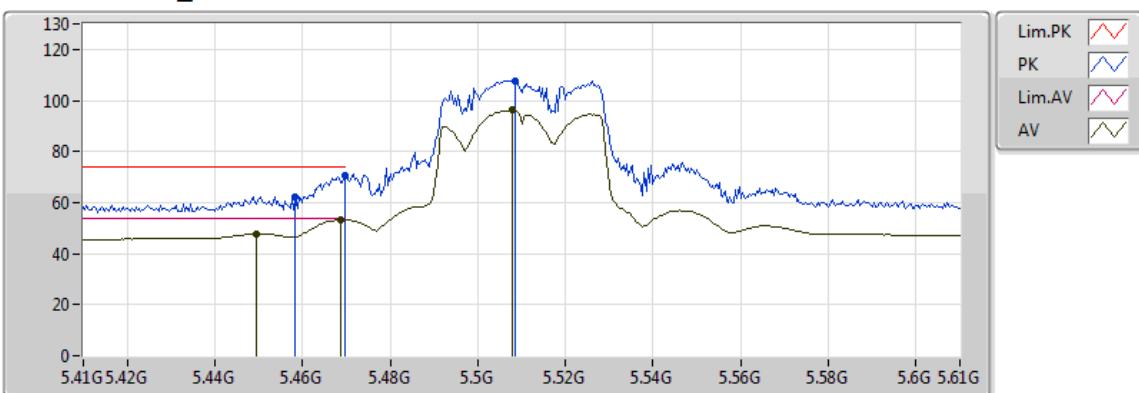
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	15.9399G	48.54	54.00	-5.46	18.12	3	Horizontal	47	2.33
PK	15.9393G	61.69	74.00	-12.31	18.12	3	Horizontal	47	2.33

**VHT40_Nss1_2TX****5510MHz_TX**

Lim.PK	
PK	
Lim.AV	
AV	

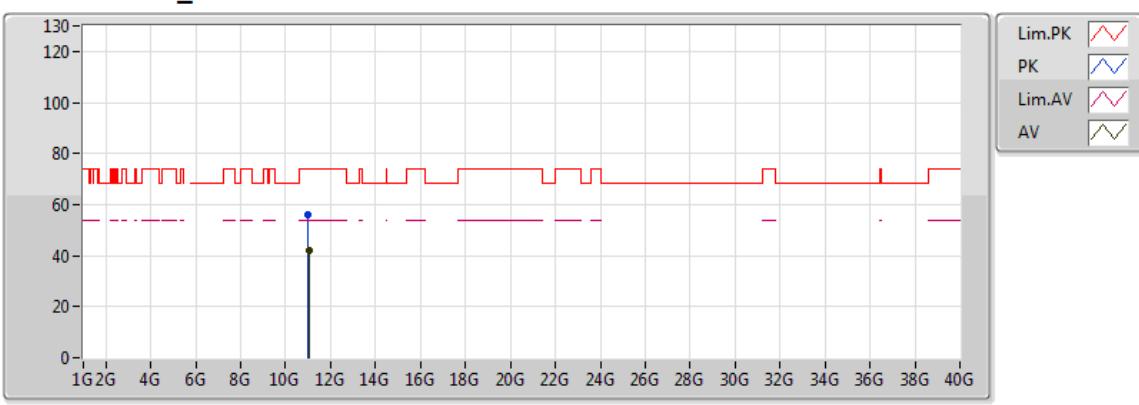
20170621
EUT Y_2TX
Setting 17
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.46G	50.33	54.00	-3.67	5.98	3	Vertical	61	1.17
AV	5.466G	53.46	54.00	-0.54	6.00	3	Vertical	61	1.17
AV	5.5048G	96.46	Inf	-Inf	6.19	3	Vertical	61	1.17
PK	5.46G	63.81	74.00	-10.19	5.98	3	Vertical	61	1.17
PK	5.4684G	72.04	74.00	-1.96	6.01	3	Vertical	61	1.17
PK	5.5036G	108.76	Inf	-Inf	6.18	3	Vertical	61	1.17

**VHT40_Nss1_2TX****5510MHz_TX**

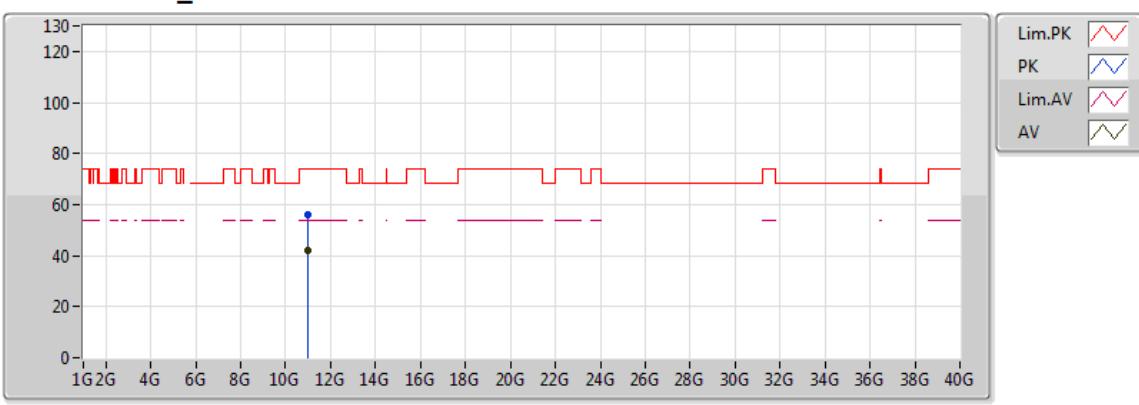
20170621
EUT Y_2TX
Setting 17
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.4496G	47.76	54.00	-6.24	5.93	3	Horizontal	345	1.94
AV	5.4688G	53.35	54.00	-0.65	6.02	3	Horizontal	345	1.94
AV	5.508G	96.19	Inf	-Inf	6.21	3	Horizontal	345	1.94
PK	5.4584G	62.46	74.00	-11.54	5.97	3	Horizontal	345	1.94
PK	5.4696G	70.76	74.00	-3.24	6.02	3	Horizontal	345	1.94
PK	5.5084G	107.71	Inf	-Inf	6.21	3	Horizontal	345	1.94

**VHT40_Nss1_2TX****5510MHz_TX**

20170622
EUT Y_2TX
Setting 17
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.0228G	42.30	54.00	-11.70	15.82	3	Vertical	261	2.05
PK	11.0187G	56.04	74.00	-17.96	15.81	3	Vertical	261	2.05

**VHT40_Nss1_2TX****5510MHz_TX**

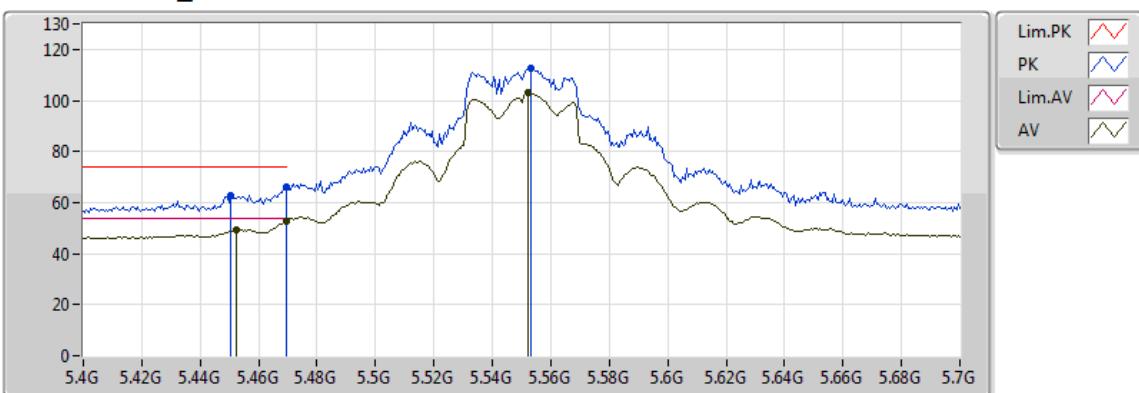
20170622
EUT Y_2TX
Setting 17
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.0202G	42.28	54.00	-11.72	15.81	3	Horizontal	351	2.13
PK	11.0132G	55.89	74.00	-18.11	15.81	3	Horizontal	351	2.13

**VHT40_Nss1_2TX****5550MHz_TX**

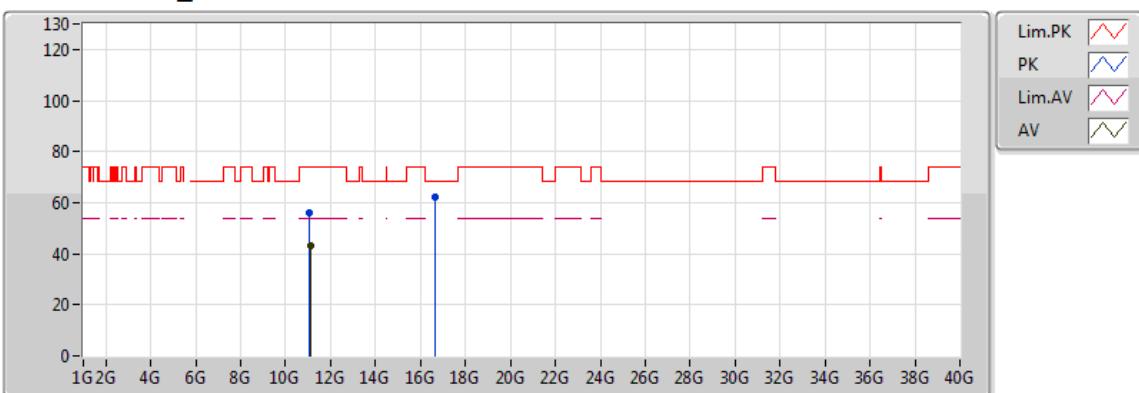
20170621
EUT Y_2TX
Setting 21
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.4576G	53.99	54.00	-0.01	5.96	3	Vertical	54	1.95
AV	5.460005G	53.91	54.00	-0.09	5.98	3	Vertical	54	1.95
AV	5.559G	103.92	Inf	-Inf	6.53	3	Vertical	54	1.95
PK	5.4576G	66.21	74.00	-7.79	5.96	3	Vertical	54	1.95
PK	5.4684G	69.10	74.00	-4.90	6.01	3	Vertical	54	1.95
PK	5.5578G	114.36	Inf	-Inf	6.52	3	Vertical	54	1.95

**VHT40_Nss1_2TX****5550MHz_TX**

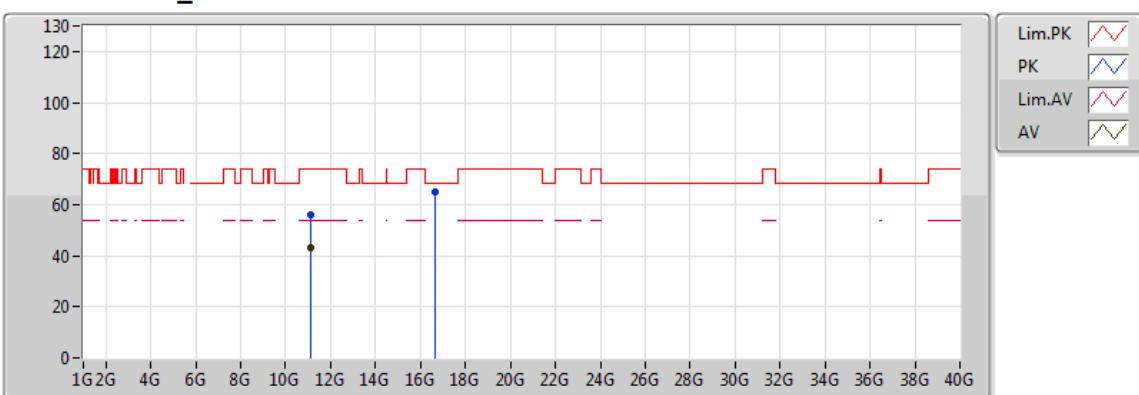
20170621
EUT Y_2TX
Setting 21
04-M-0
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	5.4522G	49.31	54.00	-4.69	5.94	3	Horizontal	9	1.99
AV	5.4696G	52.84	54.00	-1.16	6.02	3	Horizontal	9	1.99
AV	5.5524G	102.86	Inf	-Inf	6.48	3	Horizontal	9	1.99
PK	5.4504G	62.85	74.00	-11.15	5.93	3	Horizontal	9	1.99
PK	5.4696G	66.21	74.00	-7.79	6.02	3	Horizontal	9	1.99
PK	5.553G	112.38	Inf	-Inf	6.49	3	Horizontal	9	1.99

**VHT40_Nss1_2TX****5550MHz_TX**

20170622
EUT Y_2TX
Setting 21
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.0927G	42.95	54.00	-11.05	15.86	3	Vertical	47	1.94
PK	11.0927G	42.95	54.00	-11.05	15.86	3	Vertical	47	1.94
PK	16.6301G	62.17	68.20	-6.03	19.50	3	Vertical	90	2.49

**VHT40_Nss1_2TX****5550MHz_TX**

20170622
EUT Y_2TX
Setting 21
04-R-2
FSP(100056)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
AV	11.0952G	42.89	54.00	-11.11	15.86	3	Horizontal	261	1.50
PK	11.1064G	55.95	74.00	-18.05	15.87	3	Horizontal	261	1.50
PK	16.6458G	64.89	68.20	-3.31	19.53	3	Horizontal	61	1.72