



# FCC Test Report

**FCC ID** : Z8H89FT0050  
**Equipment** : cnPilot e505 Outdoor  
**Brand Name** :  Cambium Networks  
**Model Name** : REG-PL-E505  
**Applicant** : Cambium Networks Inc.  
3800 Golf Road, Suite 360 Rolling Meadows, IL 60008,  
USA  
**Manufacturer** : Cambium Networks Ltd.  
Unit B2 Linhay Business Park Eastern Rd Ashburton,  
Devon TQ13 7UP United Kingdom  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Sep. 11, 2019, and testing was started from Sep. 19, 2019 and completed on Nov. 06, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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



Approved by: Allen Lin

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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## History of this test report

Report No.	Version	Description	Issued Date
FR991013AN	01	Initial issue of report	Nov. 12, 2019



## Summary of Test Result

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

**Declaration of Conformity:**

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

**Comments and explanations:**

None

Reviewed by: Jackson Tsai

Report Producer: Kate Lo



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40)	5190-5230	38-46 [2]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5725-5850		5775	155 [1]

### Non-Beamforming

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	1TX(Port1)
5.15-5.25GHz	802.11a	20	1TX(Port2)
5.15-5.25GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	1TX(Port1)
5.725-5.85GHz	802.11a	20	1TX(Port2)
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX

### Beamforming

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ac VHT20-BF	20	2TX
5.725-5.85GHz	802.11ac VHT20-BF	20	2TX
5.15-5.25GHz	802.11ac VHT40-BF	40	2TX
5.725-5.85GHz	802.11ac VHT40-BF	40	2TX
5.15-5.25GHz	802.11ac VHT80-BF	80	2TX
5.725-5.85GHz	802.11ac VHT80-BF	80	2TX



## Note:

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

### 1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	-	-	PIFA	I-PEX
2	-	-	PIFA	I-PEX

Ant.	Port	Gain (dBi)	
		2.4G	5G
1	1	4.7	4.74
2	2	4.91	5.31

Note 1: The EUT has two antennas.

#### For 2.4GHz function:

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

Support diversity function and pre-tested on each single chain, Ant. 1 (port 1) or Ant. 2 (port 2) can be used as transmitting/receiving.

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

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

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

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

#### For 5GHz function:

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

Support diversity function and pre-tested on each single chain, Ant. 1 (port 1) or Ant. 2 (port 2) can be used as transmitting/receiving.

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

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

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

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



### 1.1.3 EUT Information

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

### 1.1.4 Mode Test Duty Cycle

#### Non-Beamforming

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.968	0.14	2.064m	1k
802.11ac VHT20	0.988	0.05	n/a (DC $\geq 0.98$ )	n/a (DC $\geq 0.98$ )
802.11ac VHT40	0.975	0.11	2.441m	1k
802.11ac VHT80	0.951	0.22	1.153m	1k

#### Beamforming

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT20-BF	0.906	0.43	1.927m	1k
802.11ac VHT40-BF	0.842	0.75	1.986m	1k
802.11ac VHT80-BF	0.853	0.69	1.957m	1k

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



## 1.2 Testing Applied Standards

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

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013
- ◆ KDB 789033 D02 v02r01
- ◆ KDB 662911 D01 v02r01
- ◆ KDB 414788 D01 v01r01

## 1.3 Testing Location Information

Testing Location				
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456      FAX : 886-3-327-0973		
Test site Designation No. TW1190 with FCC.				
<input type="checkbox"/>	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.) TEL : 886-3-656-9065      FAX : 886-3-656-9085		
Test site Designation No. TW0006 with FCC.				

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Barry	22.2~24.4°C / 50~56%	08/Oct/2019~16/Oct/2019
Radiated	03CH09-HY	Ryan	21.5~24.6°C / 52~61%	19/Sep/2019~06/Nov/2019
AC Conduction	CO04-HY	Jeff	22.4~23.8°C / 54.4~58.6%	15/Oct/2019

## 1.4 Measurement Uncertainty

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

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



## 2 Test Configuration of EUT

### 2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

### 2.2 Test Channel Mode

#### Non-Beamforming

Test Software Version	QCARCT 3.0.265.0
Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX(Port1)	-
5180MHz	21.5
5200MHz	25
5240MHz	25
5745MHz	24.5
5785MHz	23
5825MHz	23
802.11a_Nss1,(6Mbps)_1TX(Port2)	-
5180MHz	22.5
5200MHz	23
5240MHz	23
5745MHz	22.5
5785MHz	21
5825MHz	21
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	20
5200MHz	20
5240MHz	20
5745MHz	19
5785MHz	21
5825MHz	19
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	19.5
5200MHz	19.5



Mode	Power Setting
5240MHz	19
5745MHz	20.5
5785MHz	21
5825MHz	19
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	19
5230MHz	19.5
5755MHz	21.5
5795MHz	21.5
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	18.5
5775MHz	21

**Beamforming**

Test Software	DoS
Mode	Power Setting
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	17
5200MHz	17
5240MHz	17
5745MHz	22
5785MHz	22
5825MHz	22
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	18
5230MHz	18
5755MHz	22
5795MHz	22
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	18
5775MHz	22



## 2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	PoE mode

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

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

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

Refer to Sporton Test Report No.: FA991013 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.



## 2.4 Support Equipment

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PoE	Cambium Networks	NET-P30-56IN	-
2	Notebook(Remote)	acar	JAL90	-
3	Client(Remote)	-	-	-

Note: Support equipment No.2 and No.3 were provided by customer.

Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	PoE	Cambium Networks	NET-P30-56IN	-

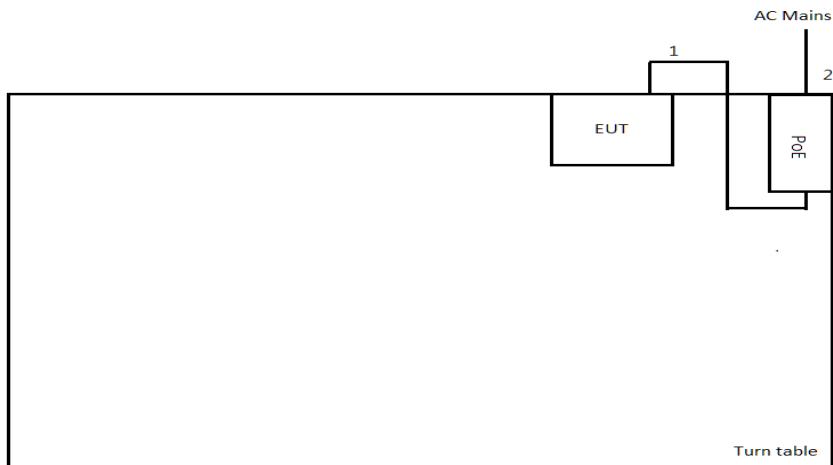
Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook(Remote)	acar	JAL90	-
2	Client(Remote)	-	-	-
3	PoE (Remote)	Cambium Networks	NET-P30-56IN	-

Note: Support equipment No.1 and No.2 were provided by customer.



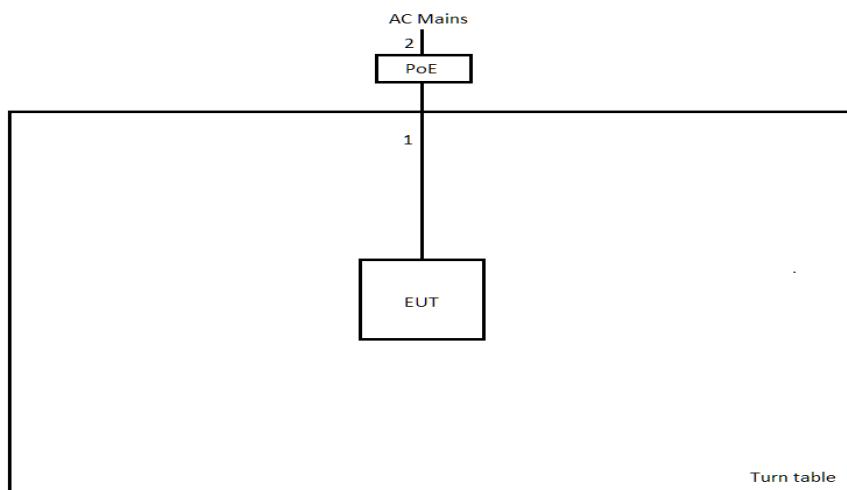
## 2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	LAN cable	No	2	-
2	Power Cable	No	1.8	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	LAN cable	No	10	-
2	Power Cable	No	1.8	-



### 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

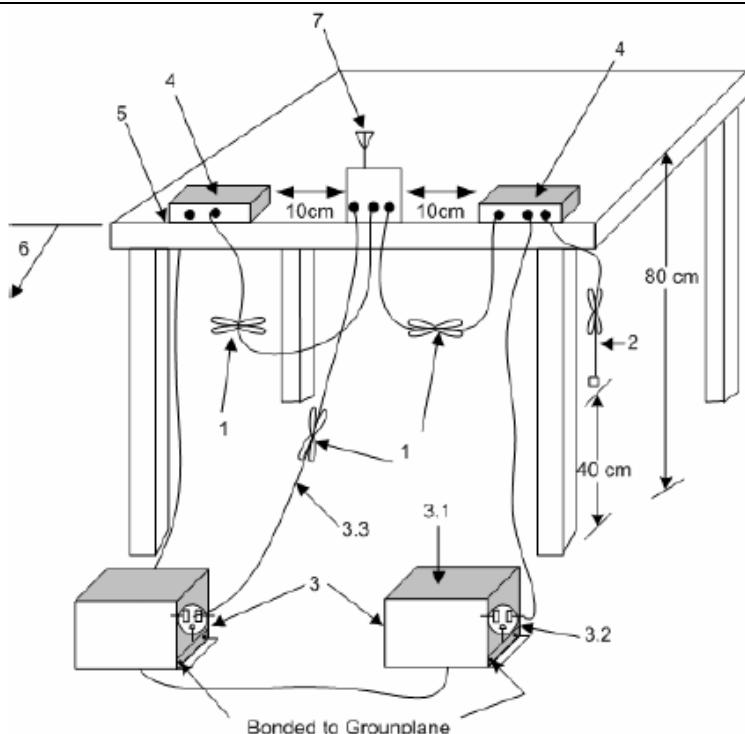
Refer a test equipment and calibration data table in this test report.

##### 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

#### AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.

2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in  $50\Omega$  loads. LISN may be placed on top of, or immediately beneath, reference ground plane.

3.1—All other equipment powered from additional LISN(s).

3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.

3.3—LISN at least 80 cm from nearest part of EUT chassis.

4—Non-EUT components of EUT system being tested.

5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.

6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

### 3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A



## 3.2 Emission Bandwidth

### 3.2.1 Emission Bandwidth Limit

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

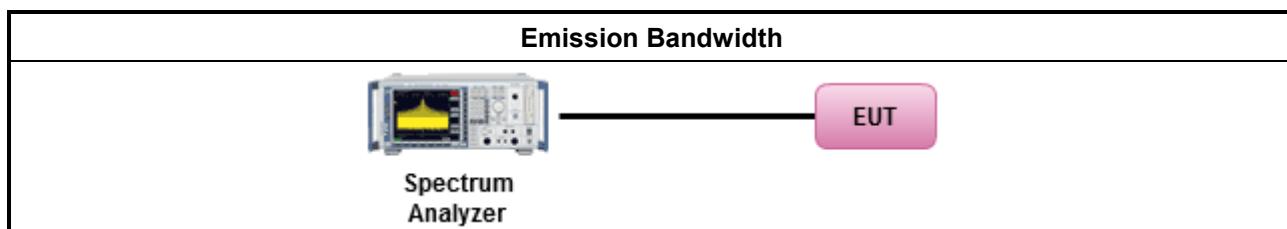
### 3.2.2 Measuring Instruments

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

### 3.2.3 Test Procedures

Test Method
▪ For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
<input type="checkbox"/> Refer as IC RSS-Gen, clause 6.7 for bandwidth testing.

### 3.2.4 Test Setup



### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

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

$P_{Out}$  = maximum conducted output power in dBm,

$G_{TX}$  = the maximum transmitting antenna directional gain in dBi.

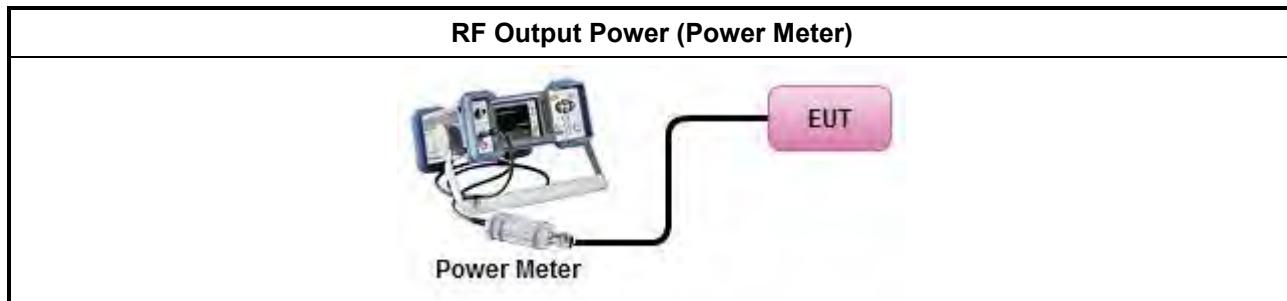
### 3.3.2 Measuring Instruments

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

### 3.3.3 Test Procedures

Test Method	
▪ Maximum Conducted Output Power	
Duty cycle ≥ 98%	<input type="checkbox"/> Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
Duty cycle < 98%	<input type="checkbox"/> Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
Wideband RF power meter and average over on/off periods with duty factor	<input checked="" type="checkbox"/> Refer as KDB 789033, clause E Method PM (using an RF average power meter).
▪ For conducted measurement.	
	<ul style="list-style-type: none"><li>▪ If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.</li><li>▪ If multiple transmit chains, EIRP calculation could be following as methods: <math>P_{total} = P_1 + P_2 + \dots + P_n</math> (calculated in linear unit [mW] and transfer to log unit [dBm]) <math>EIRP_{total} = P_{total} + DG</math></li></ul>

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



## 3.4 Peak Power Spectral Density

### 3.4.1 Peak Power Spectral Density Limit

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

### 3.4.2 Measuring Instruments

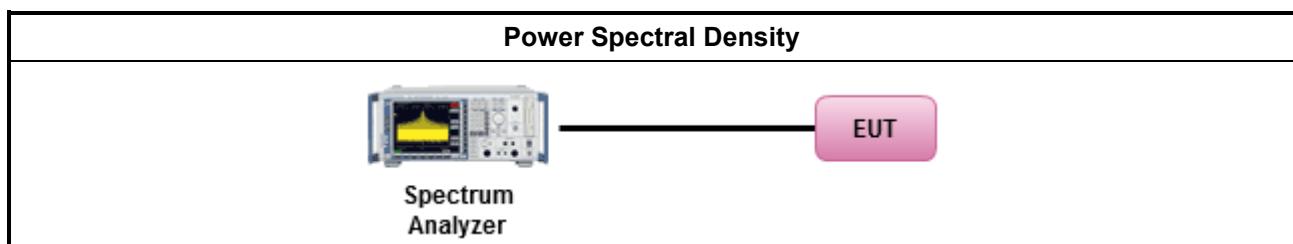
Refer a test equipment and calibration data table in this test report.



### 3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"><li>▪ Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:</li></ul>	
	<ul style="list-style-type: none"><li><input type="checkbox"/> Refer as KDB 789033, F5) power spectral density can be measured using resolution bandwidths &lt; 1 MHz provided that the results are integrated over 1 MHz bandwidth</li></ul>
	Duty cycle $\geq$ 98%
	<ul style="list-style-type: none"><li><input type="checkbox"/> Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).</li></ul>
	Duty cycle < 98%
	<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)</li></ul>
<ul style="list-style-type: none"><li>▪ For conducted measurement.</li></ul>	
	<ul style="list-style-type: none"><li>▪ If the EUT supports multiple transmit chains using options given below:</li></ul>
	<ul style="list-style-type: none"><li><ul style="list-style-type: none"><li>▪ Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PPSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.</li></ul></li></ul>
	<ul style="list-style-type: none"><li><ul style="list-style-type: none"><li>▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: <math display="block">\text{PPSD}_{\text{total}} = \text{PPSD}_1 + \text{PPSD}_2 + \dots + \text{PPSD}_n</math>(calculated in linear unit [mW] and transfer to log unit [dBm]) <math display="block">\text{EIRP}_{\text{total}} = \text{PPSD}_{\text{total}} + \text{DG}</math></li></ul></li></ul>

### 3.4.4 Test Setup



### 3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



## 3.5 Unwanted Emissions

### 3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2 dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall



be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

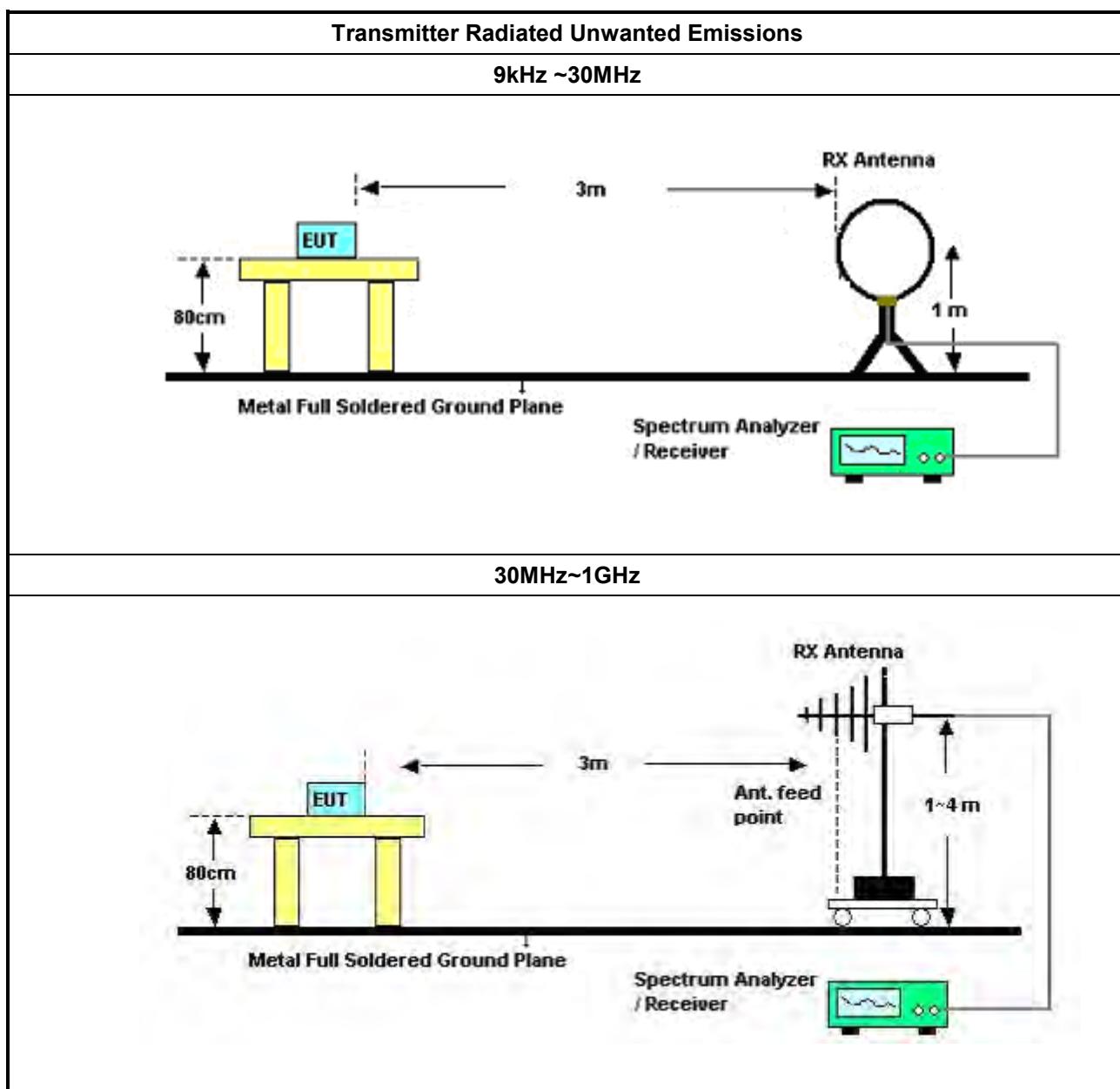
### 3.5.2 Measuring Instruments

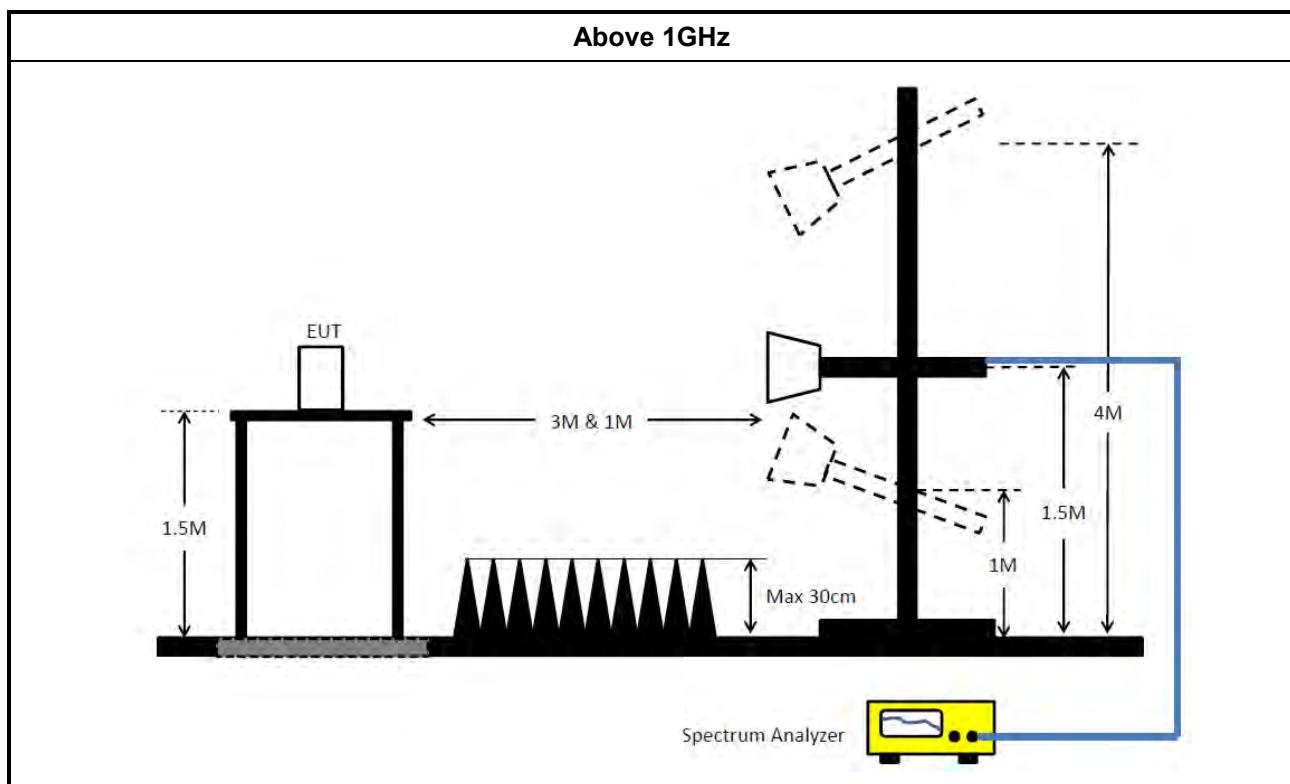
Refer a test equipment and calibration data table in this test report.

### 3.5.3 Test Procedures

Test Method	
▪ 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).	
▪ The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	▪ Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.
	<input checked="" type="checkbox"/> Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.
	<input checked="" type="checkbox"/> Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.
▪ For radiated measurement.	
	▪ 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.
▪ The any unwanted emissions level shall not exceed the fundamental emission level.	
▪ 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)

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

### 3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



## 4 Test Equipment and Calibration Data

### Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV216	101295	9kHz~30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz~200MHz	12/Sep/2019	11/Sep/2020
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz~30MHz	24/Sep/2019	23/Sep/2020

NCR : Non-Calibration Require

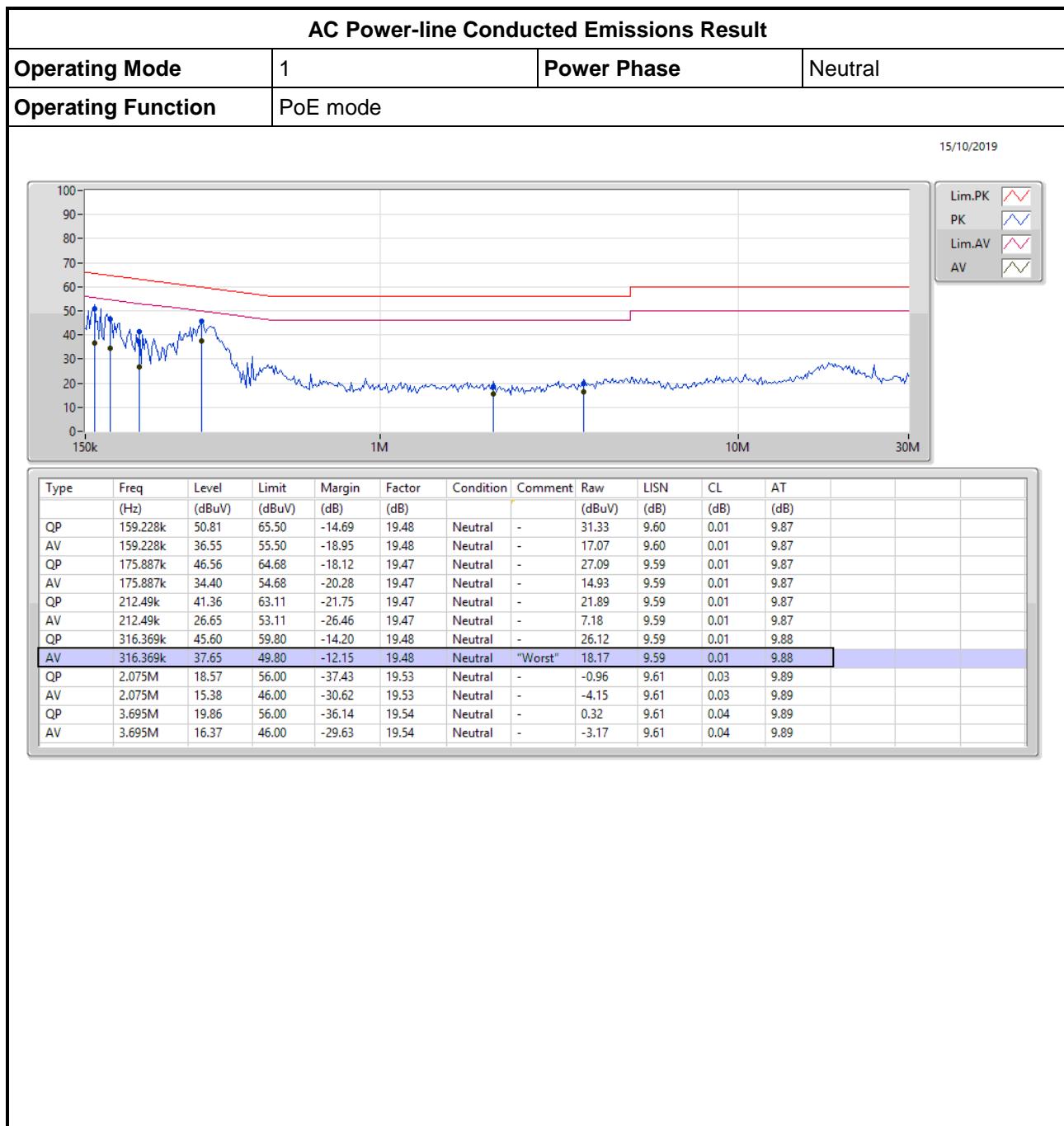
### Instrument for Radiated Test

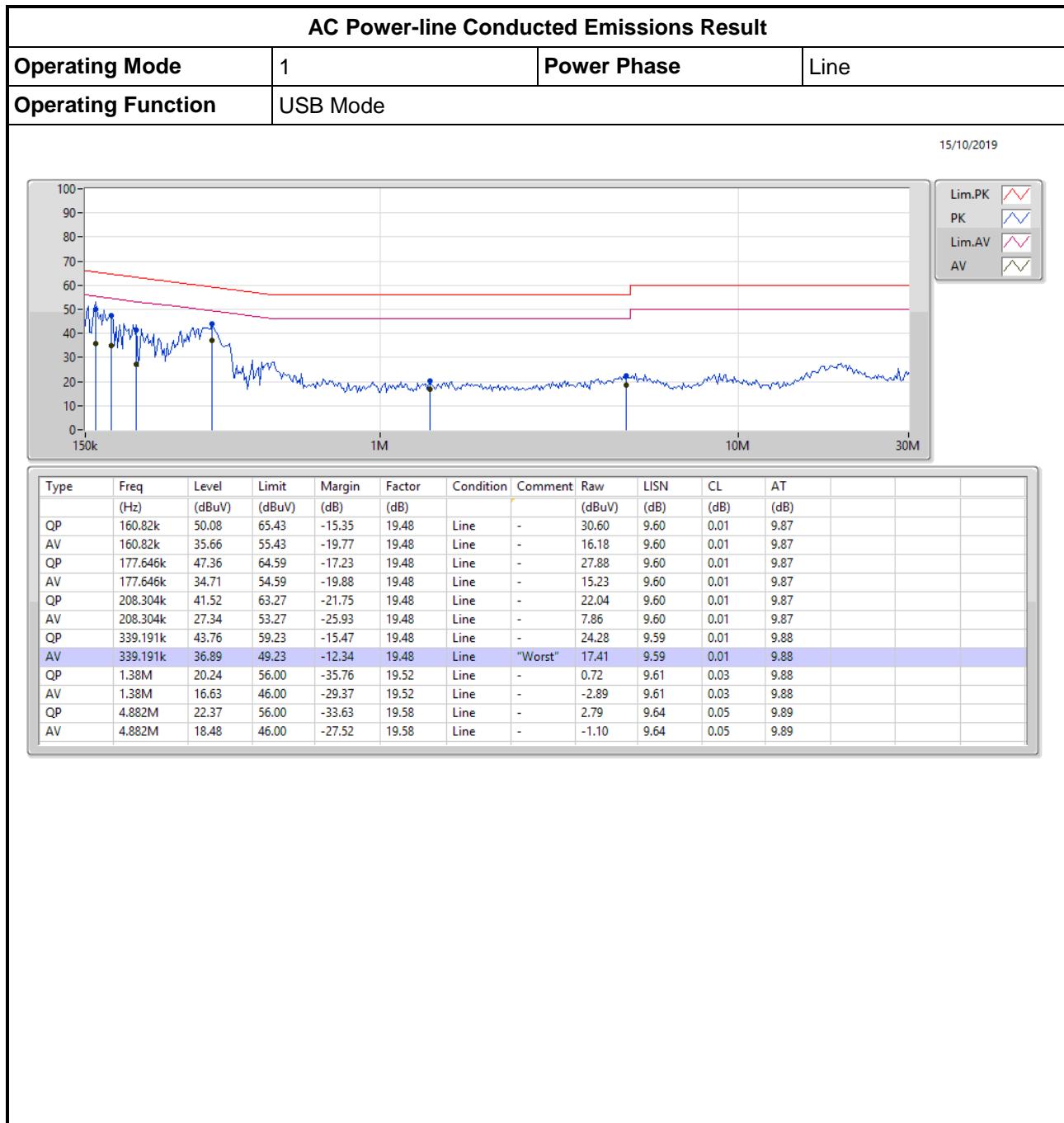
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz~1GHz	22/Apr/2019	21/Apr/2020
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz	13/Jun/2019	12/Jun/2020
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	04/Sep/2019	03/Sep/2020
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	22/Apr/2019	21/Apr/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	09/Apr/2019	08/Apr/2020
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	07/Aug/2019	06/Aug/2020
Bilog Antenna & 6dB Attenuator	SCHAFFNER/Yi Chang	CBL6111C / MTJ61202	2724 / MTJ61202-06	30MHz~1GHz	06/Jul/2019	05/Jul/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	22/May/2019	21/May/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	22/Mar/2019	21/Mar/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	05/Aug/2019	04/Aug/2020
Loop Antenna	TESEQ	HLA 6120	31244	9k~30MHz	15/Mar/2019	14/Mar/2020
LF-CABLE-2019 0218	Jye Bao	RG142	CB028	9kHz~1GHz	18/Feb/2019	17/Feb/2020
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz~40GHz	13/Mar/2019	12/Mar/2020

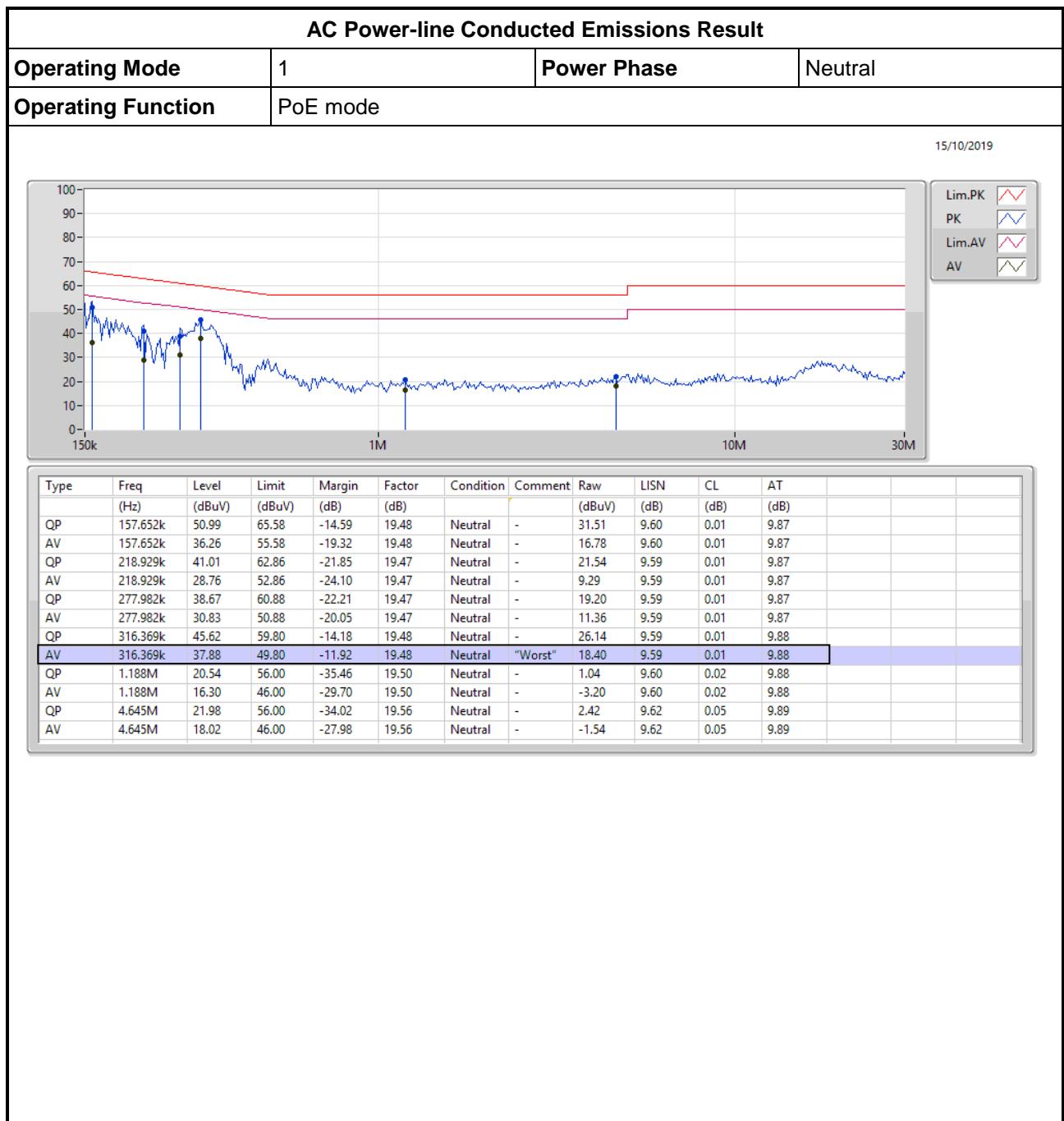


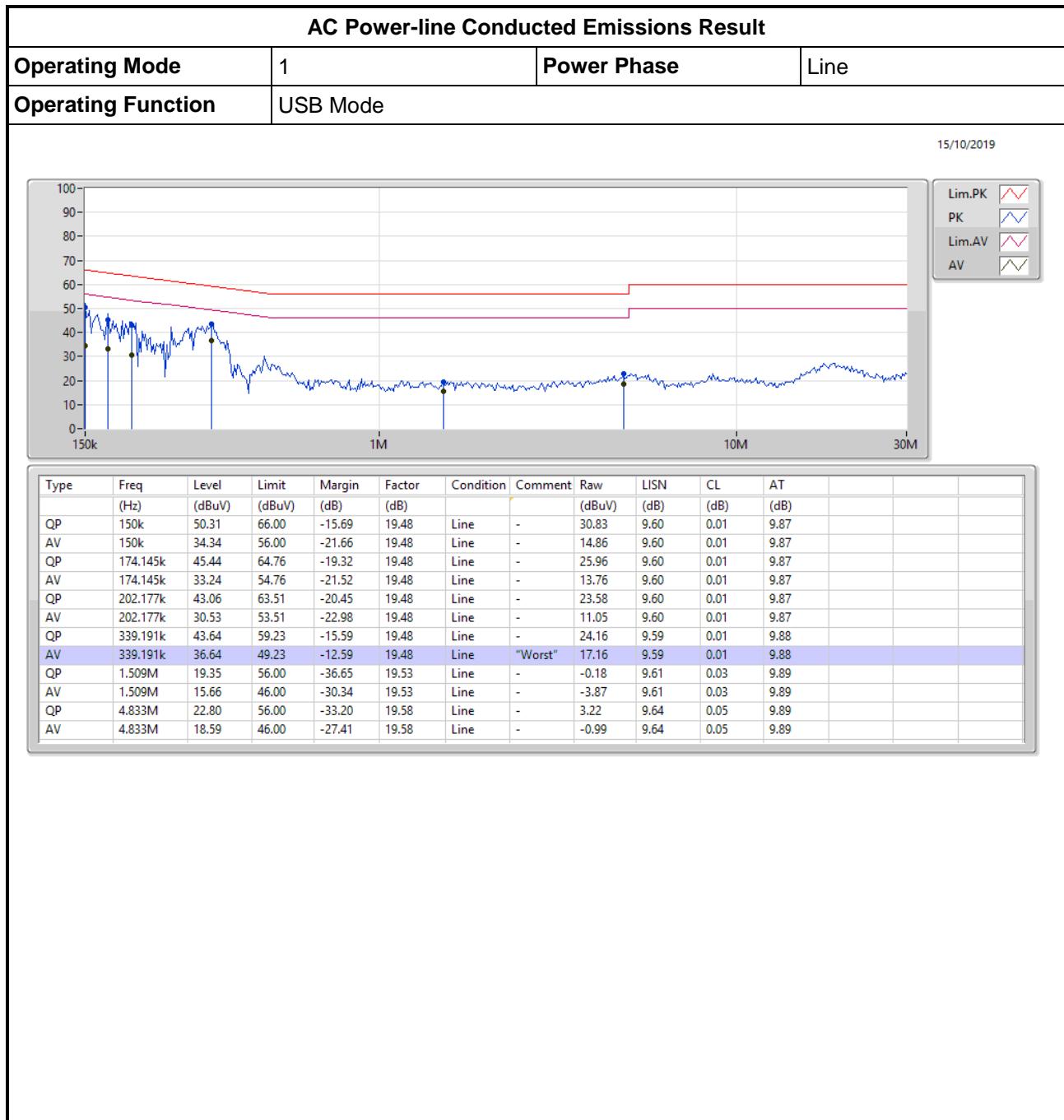
## Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020
Power Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	19/Feb/2019	18/Feb/2020
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	19/Feb/2019	18/Feb/2020
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~18G	11/Jan/2019	10/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz~18G	11/Jan/2019	10/Jan/2020
Cable 0.5m	HUBER	MY10714/4	RF Cable – 05	30MHz~18G	11/Jan/2019	10/Jan/2020









**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	41.16M	24.288M	24M3D1D	21.27M	16.432M
802.11a_Nss1,(6Mbps)_1TX(Port2)	33.75M	17.001M	17M0D1D	21.66M	16.462M
802.11a_Nss1,(6Mbps)_2TX	19.68M	16.432M	16M4D1D	18.93M	16.372M
802.11ac VHT20_Nss1,(MCS0)_2TX	20.73M	17.661M	17M7D1D	19.77M	17.541M
802.11ac VHT40_Nss1,(MCS0)_2TX	40.02M	36.042M	36M0D1D	39.48M	35.802M
802.11ac VHT80_Nss1,(MCS0)_2TX	83.28M	75.922M	75M9D1D	83.16M	75.682M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	16.29M	16.612M	16M6D1D	16.29M	16.432M
802.11a_Nss1,(6Mbps)_1TX(Port2)	16.26M	16.462M	16M5D1D	16.02M	16.402M
802.11a_Nss1,(6Mbps)_2TX	16.32M	16.432M	16M4D1D	16.02M	16.402M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.61M	17.631M	17M6D1D	15.99M	17.601M
802.11ac VHT40_Nss1,(MCS0)_2TX	35.28M	36.102M	36M1D1D	31.32M	35.922M
802.11ac VHT80_Nss1,(MCS0)_2TX	75.72M	75.922M	75M9D1D	75.72M	75.802M

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

**Max-OBW** = Maximum99% occupied bandwidth;

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

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



## Result

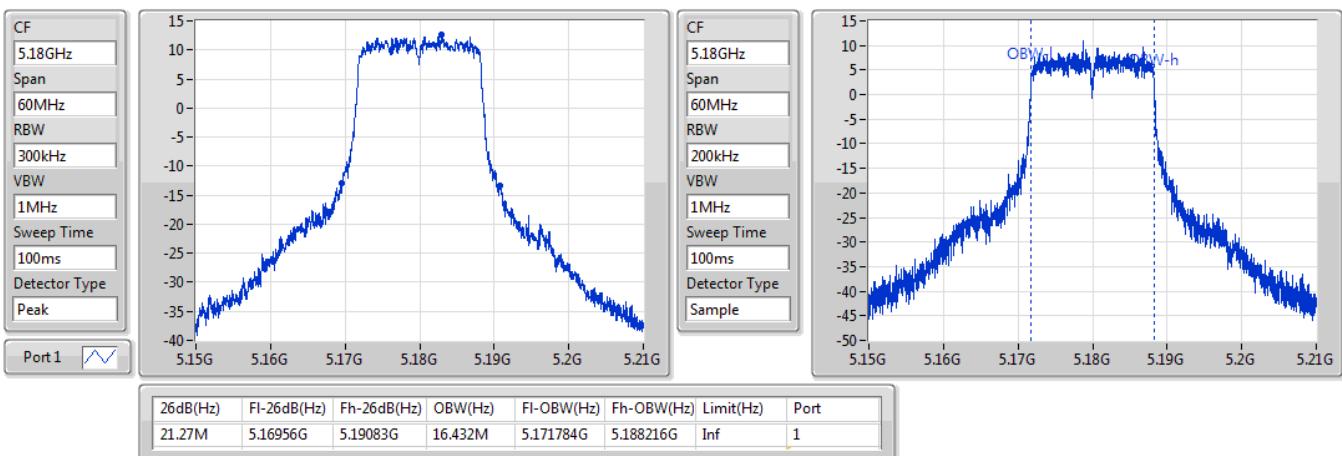
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-
5180MHz	Pass	Inf	21.27M	16.432M		
5200MHz	Pass	Inf	41.16M	24.288M		
5240MHz	Pass	Inf	35.97M	17.541M		
5745MHz	Pass	500k	16.29M	16.612M		
5785MHz	Pass	500k	16.29M	16.462M		
5825MHz	Pass	500k	16.29M	16.432M		
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-
5180MHz	Pass	Inf			33.75M	17.001M
5200MHz	Pass	Inf			22.44M	16.522M
5240MHz	Pass	Inf			21.66M	16.462M
5745MHz	Pass	500k			16.26M	16.462M
5785MHz	Pass	500k			16.05M	16.402M
5825MHz	Pass	500k			16.02M	16.402M
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.17M	16.432M	19.68M	16.402M
5200MHz	Pass	Inf	19.23M	16.432M	19.5M	16.402M
5240MHz	Pass	Inf	19.2M	16.372M	18.93M	16.432M
5745MHz	Pass	500k	16.32M	16.432M	16.32M	16.402M
5785MHz	Pass	500k	16.02M	16.402M	16.26M	16.402M
5825MHz	Pass	500k	16.29M	16.402M	16.32M	16.432M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	20.22M	17.571M	20.73M	17.631M
5200MHz	Pass	Inf	19.98M	17.571M	20.7M	17.661M
5240MHz	Pass	Inf	19.77M	17.541M	20.37M	17.661M
5745MHz	Pass	500k	15.99M	17.601M	17.61M	17.601M
5785MHz	Pass	500k	17.16M	17.631M	17.61M	17.631M
5825MHz	Pass	500k	17.13M	17.601M	17.52M	17.631M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.02M	36.042M	39.9M	35.922M
5230MHz	Pass	Inf	39.48M	35.802M	39.84M	35.982M
5755MHz	Pass	500k	33.84M	35.982M	31.32M	36.102M
5795MHz	Pass	500k	32.46M	35.922M	35.28M	36.042M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	83.16M	75.922M	83.28M	75.682M
5775MHz	Pass	500k	75.72M	75.802M	75.72M	75.922M

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

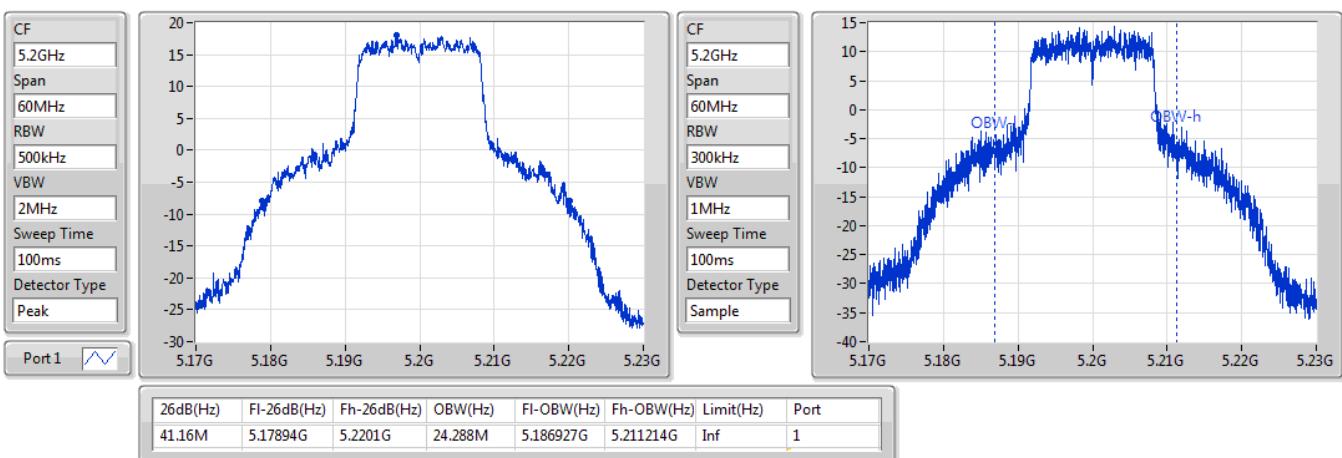
Port X-OBW = Port X 99% occupied bandwidth;

**802.11a\_Nss1,(6Mbps)\_1TX(Port1)****EBW****5180MHz**

07/10/2019

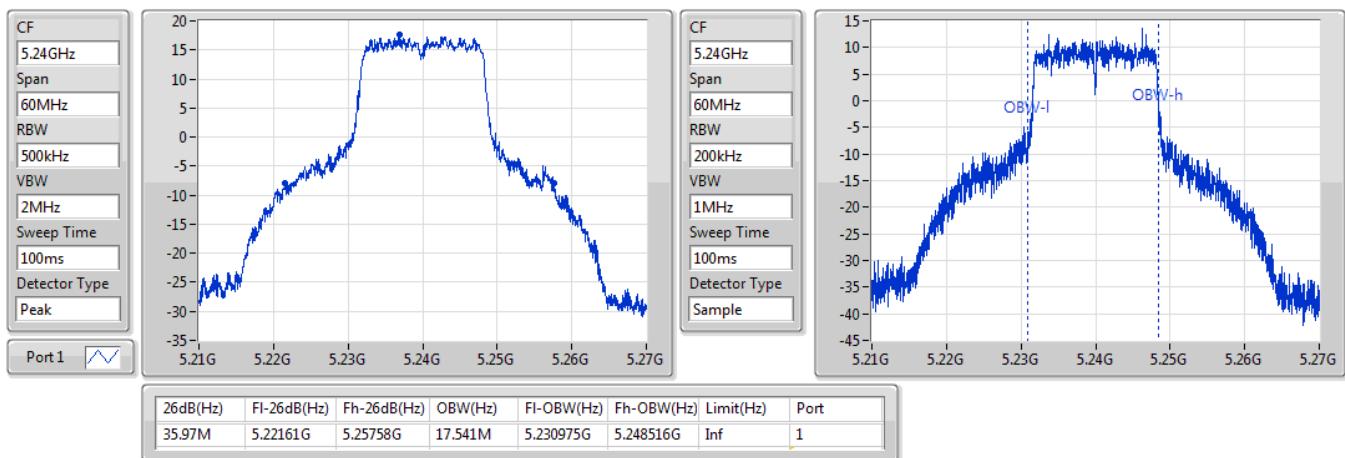
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)****EBW****5200MHz**

07/10/2019

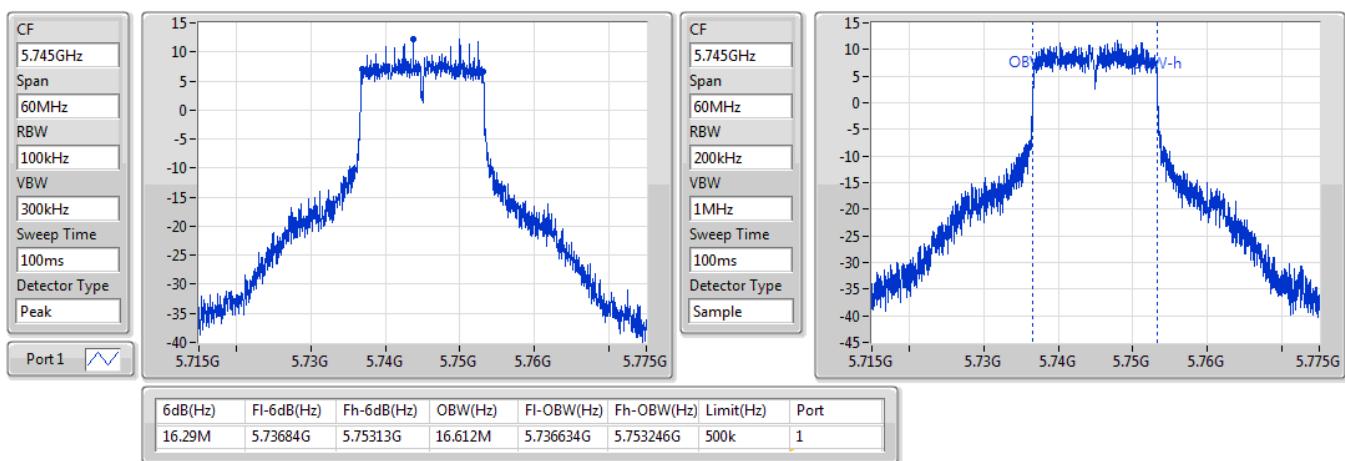


**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**EBW**
**5240MHz**

16/10/2019

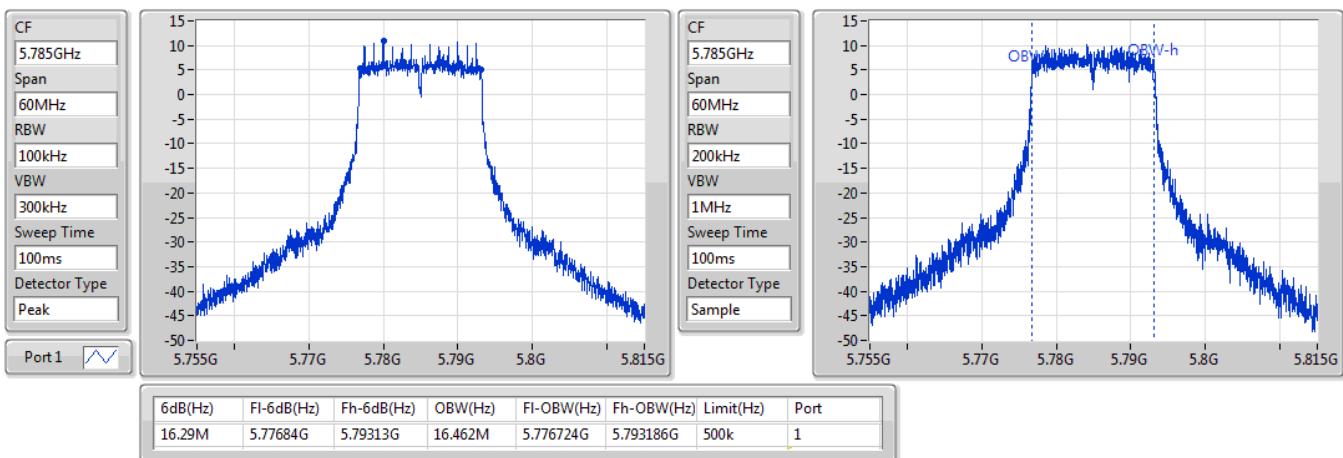

**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**EBW**
**5745MHz**

07/10/2019

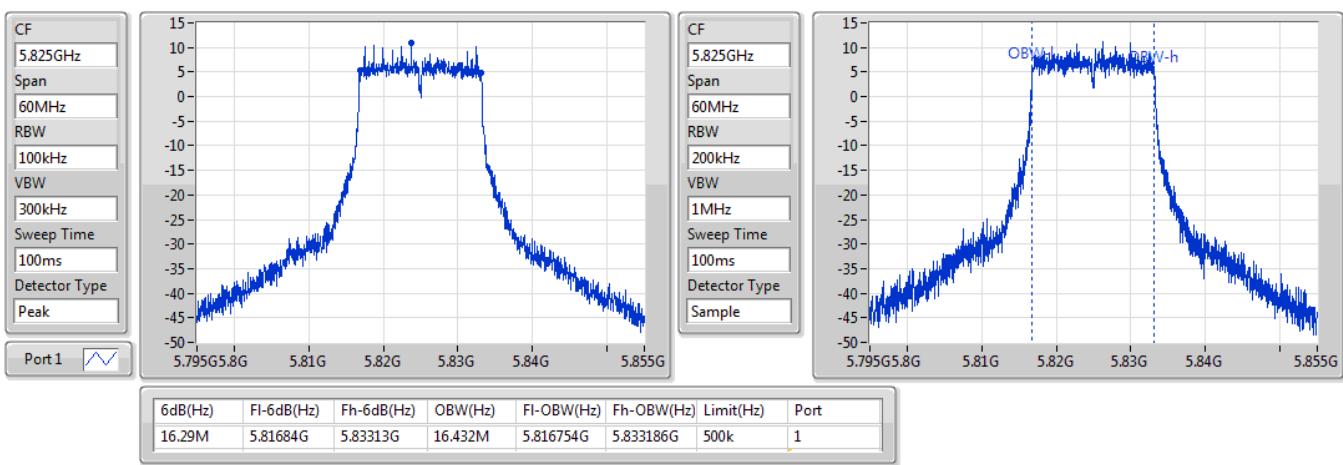


**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**EBW**
**5785MHz**

07/10/2019

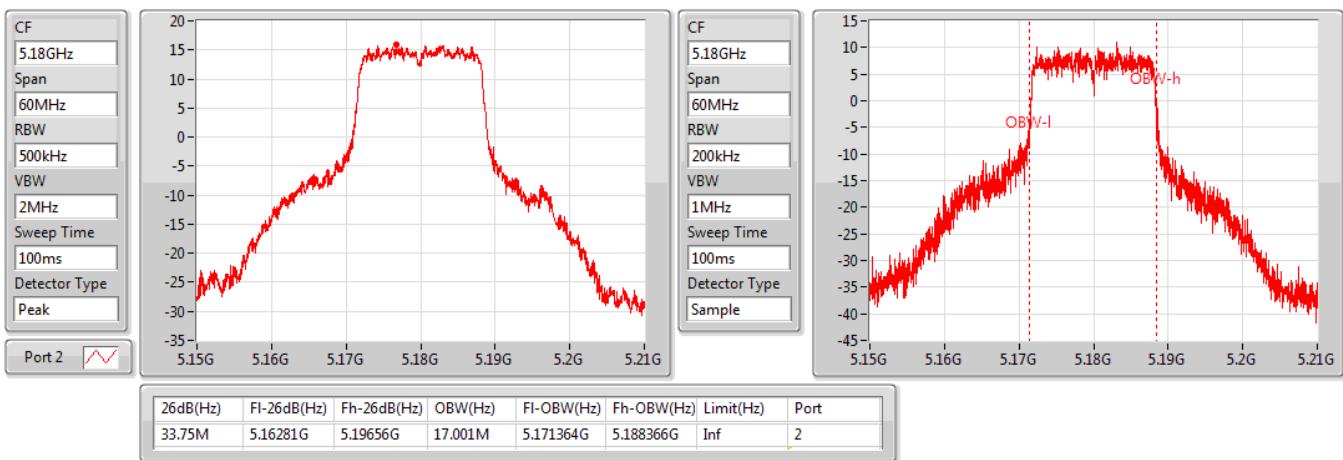

**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**EBW**
**5825MHz**

07/10/2019

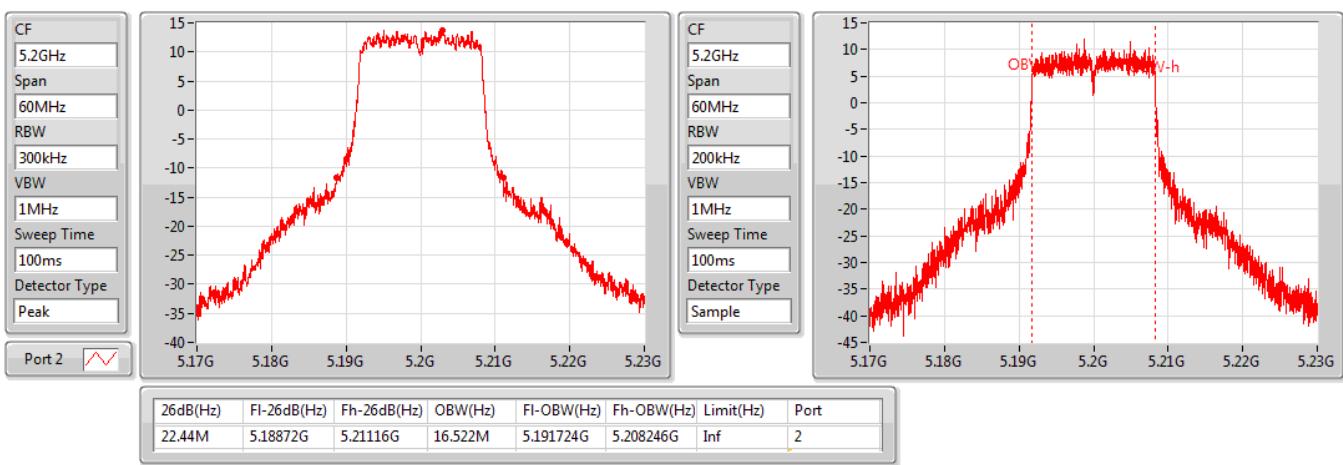


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**EBW**
**5180MHz**

07/10/2019

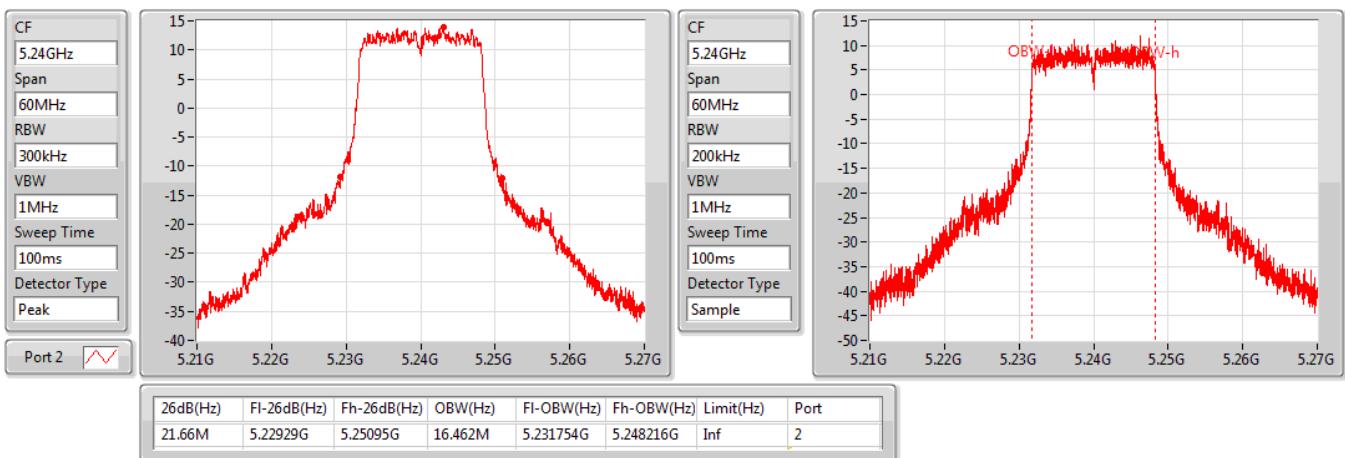

**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**EBW**
**5200MHz**

16/10/2019

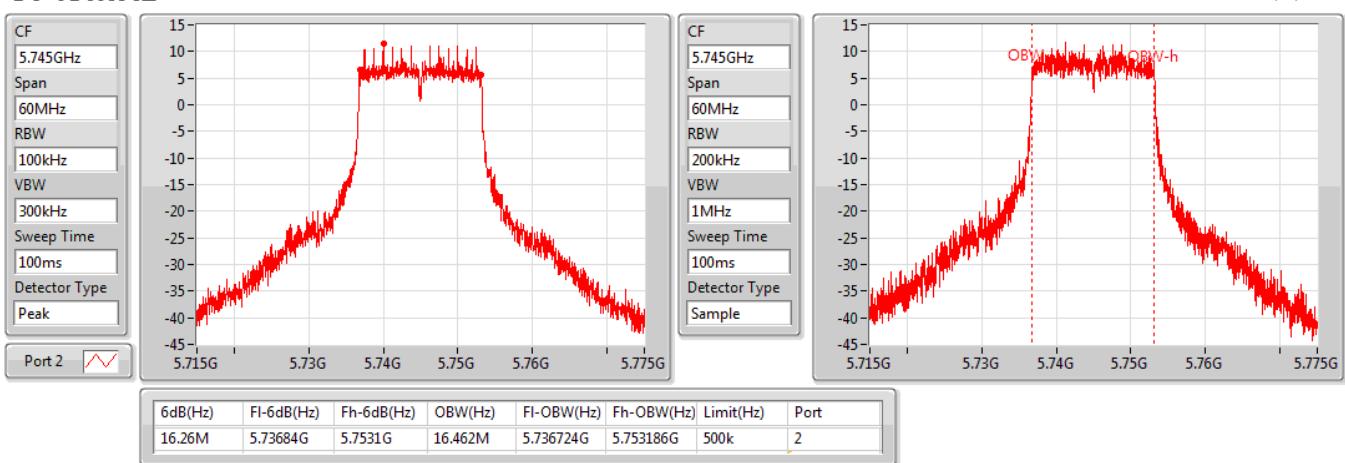


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**EBW**
**5240MHz**

16/10/2019

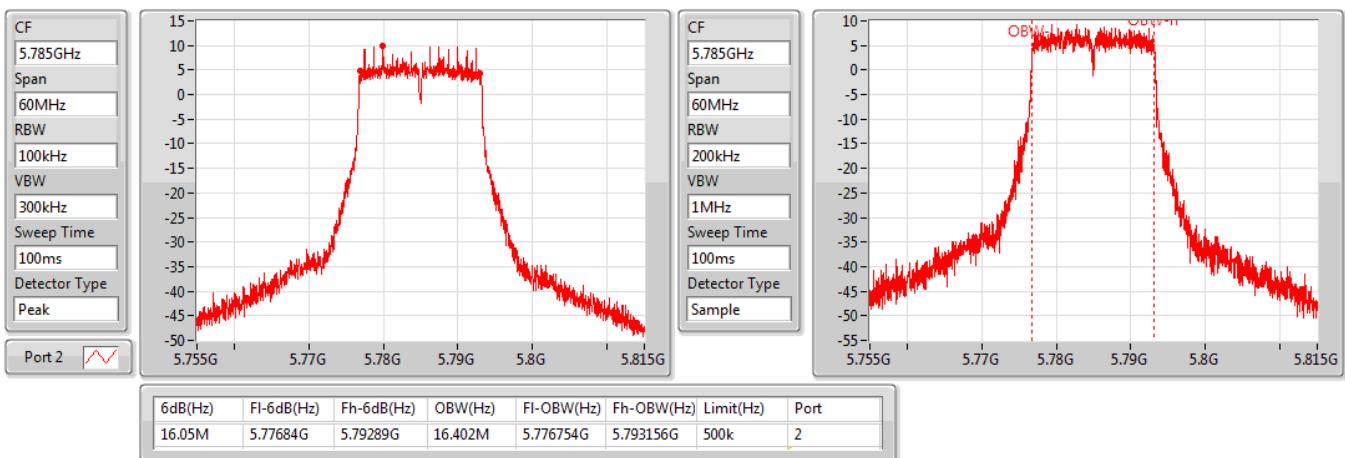

**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**EBW**
**5745MHz**

07/10/2019

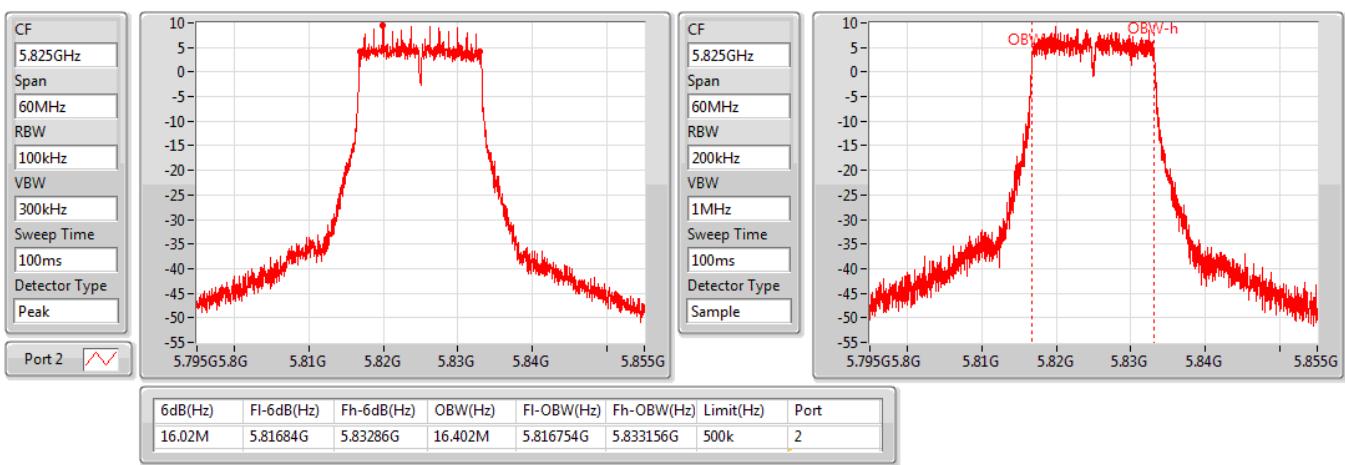


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**EBW**
**5785MHz**

07/10/2019

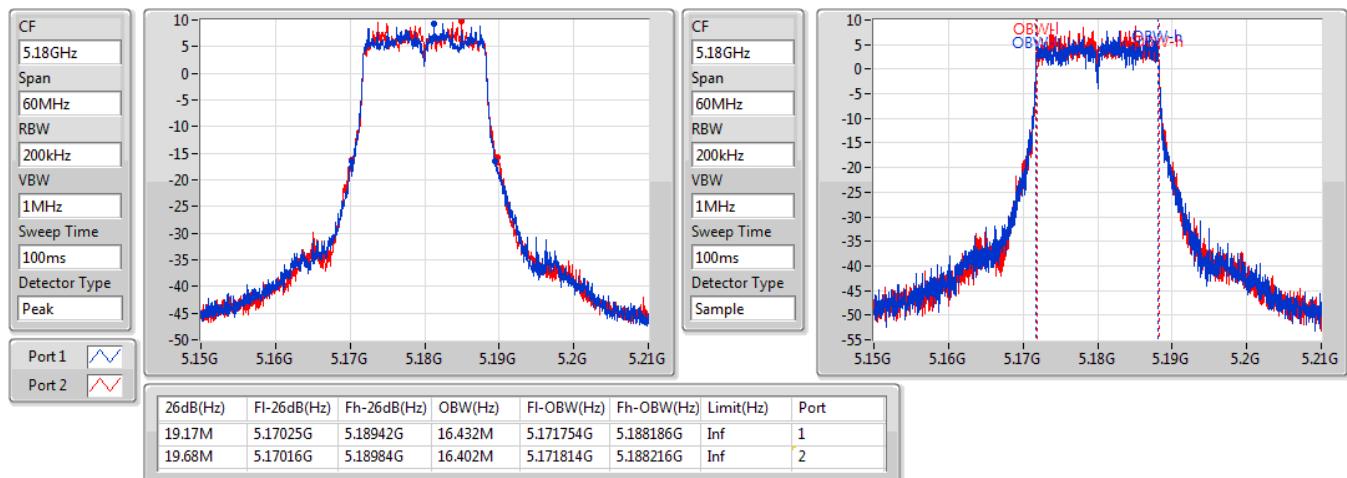

**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**EBW**
**5825MHz**

07/10/2019

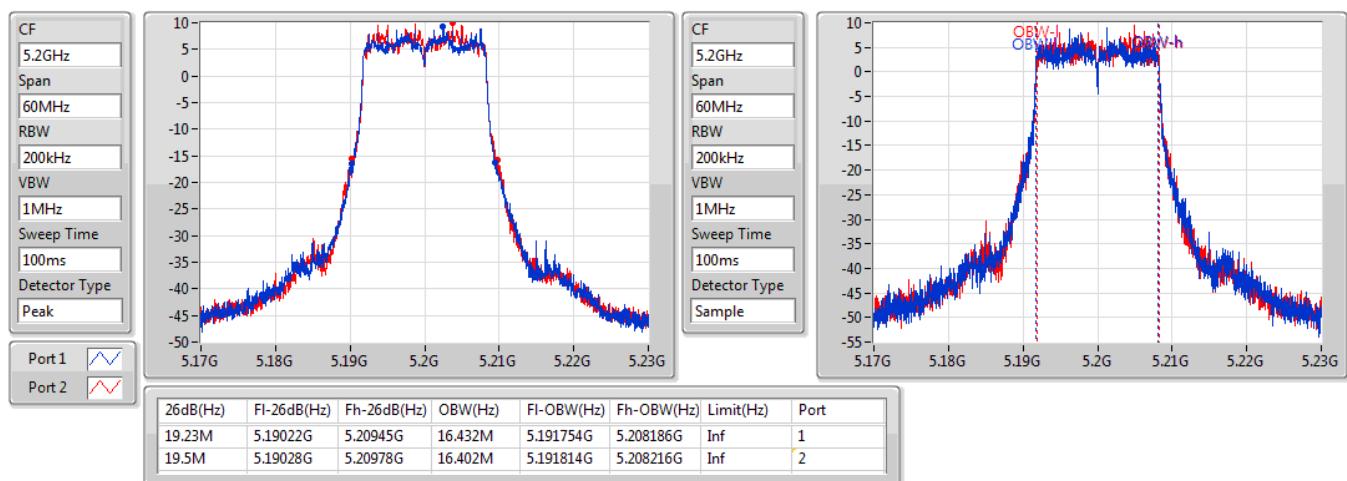


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5180MHz**

16/10/2019

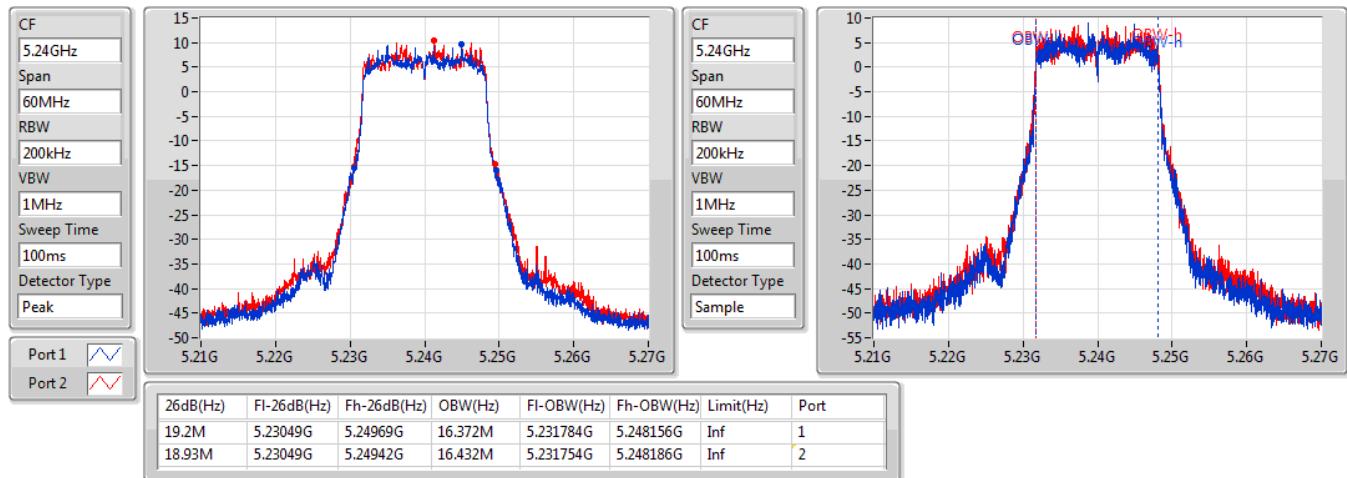

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5200MHz**

16/10/2019

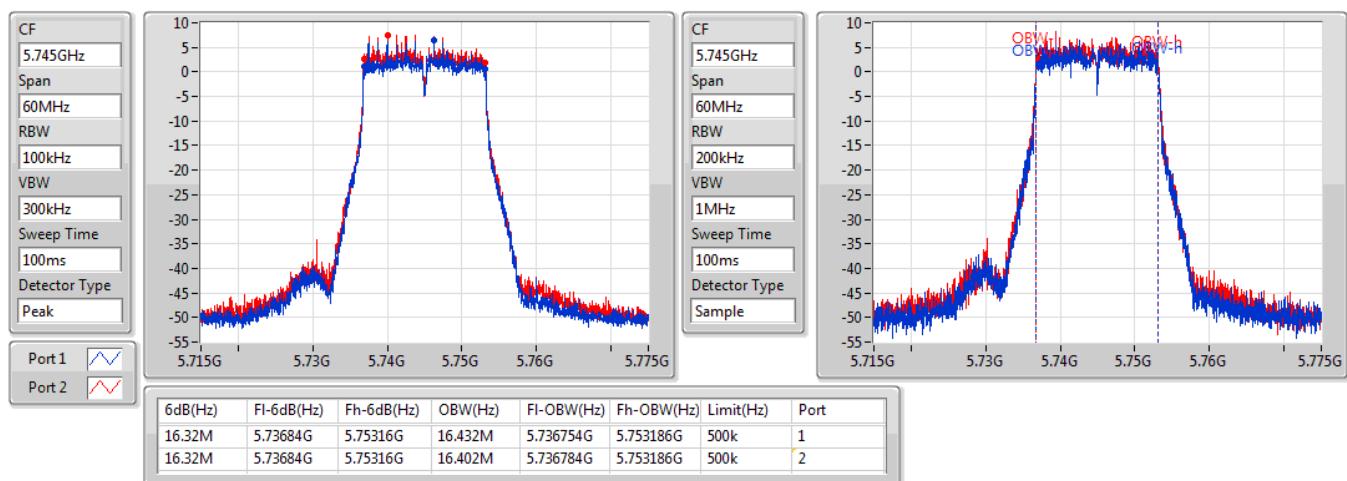


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5240MHz**

16/10/2019

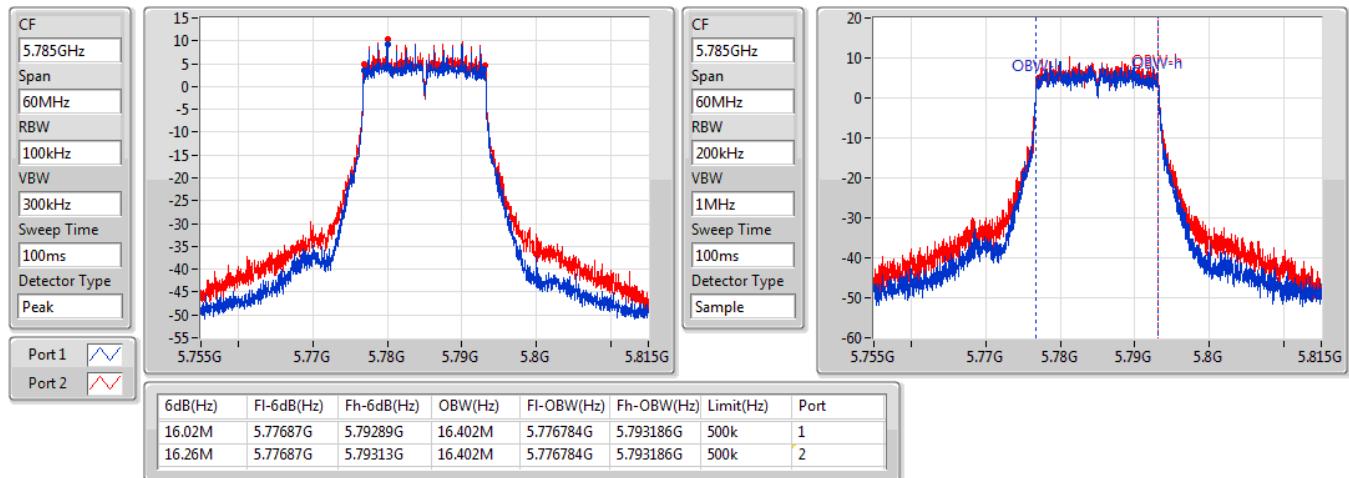

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5745MHz**

07/10/2019

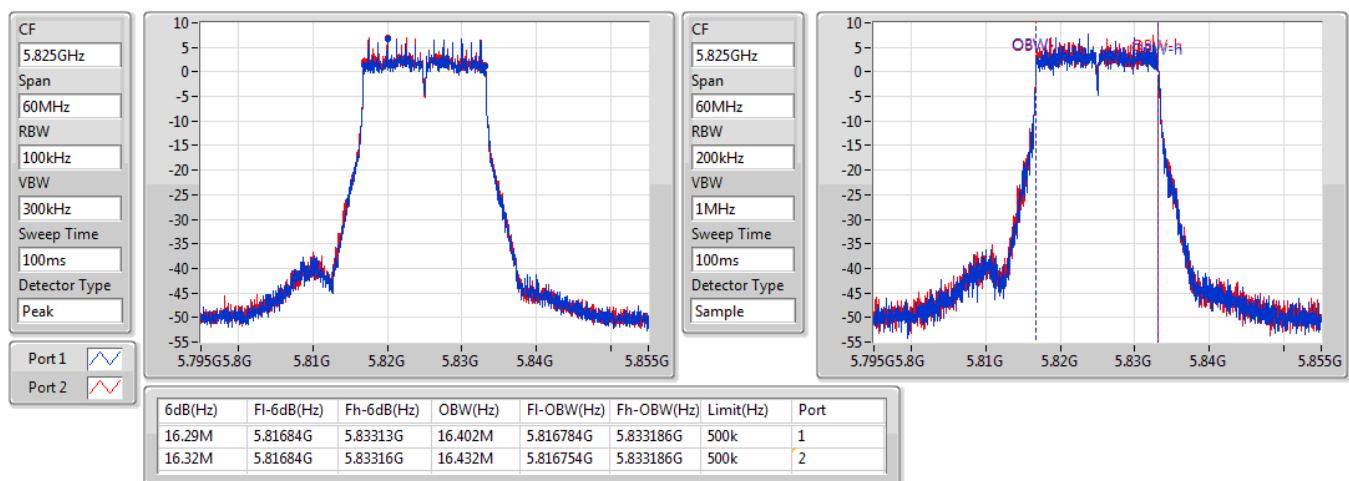


**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5785MHz**

07/10/2019

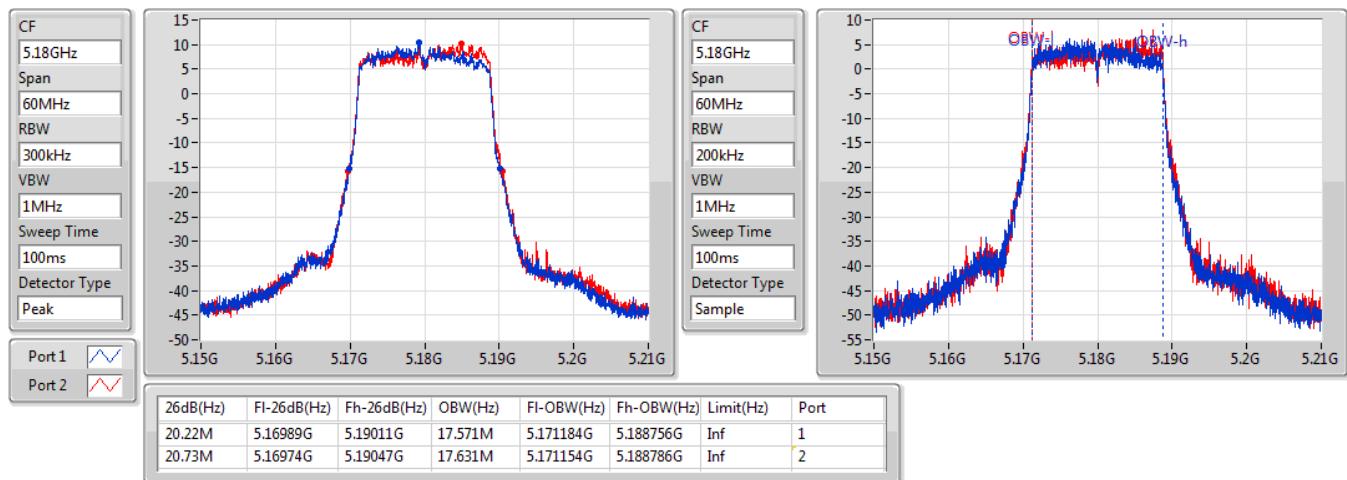

**802.11a\_Nss1,(6Mbps)\_2TX**
**EBW**
**5825MHz**

07/10/2019

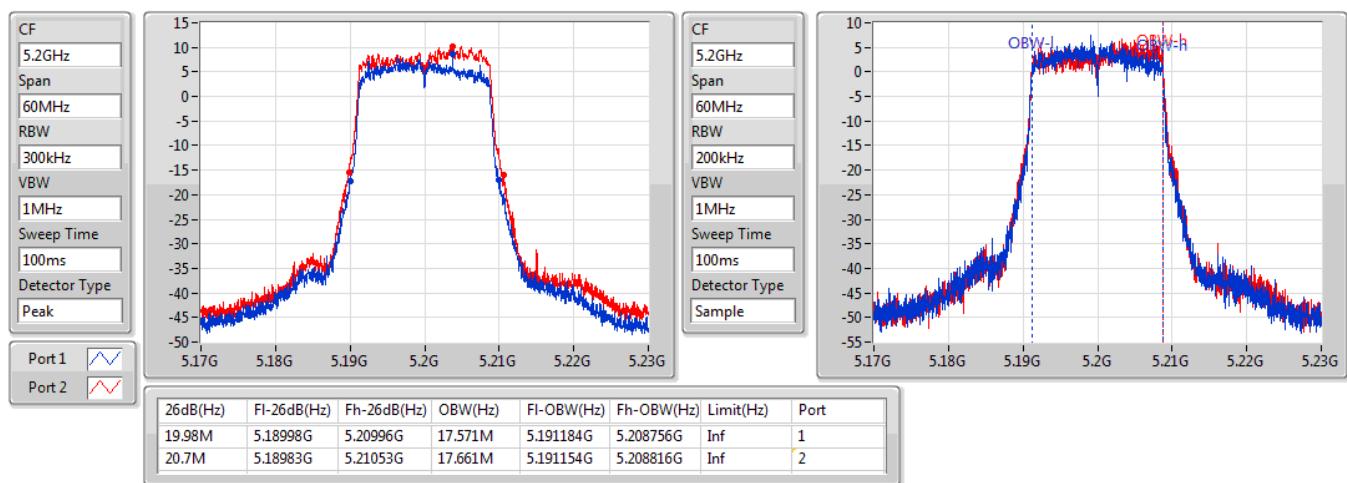


**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**EBW**
**5180MHz**

16/10/2019

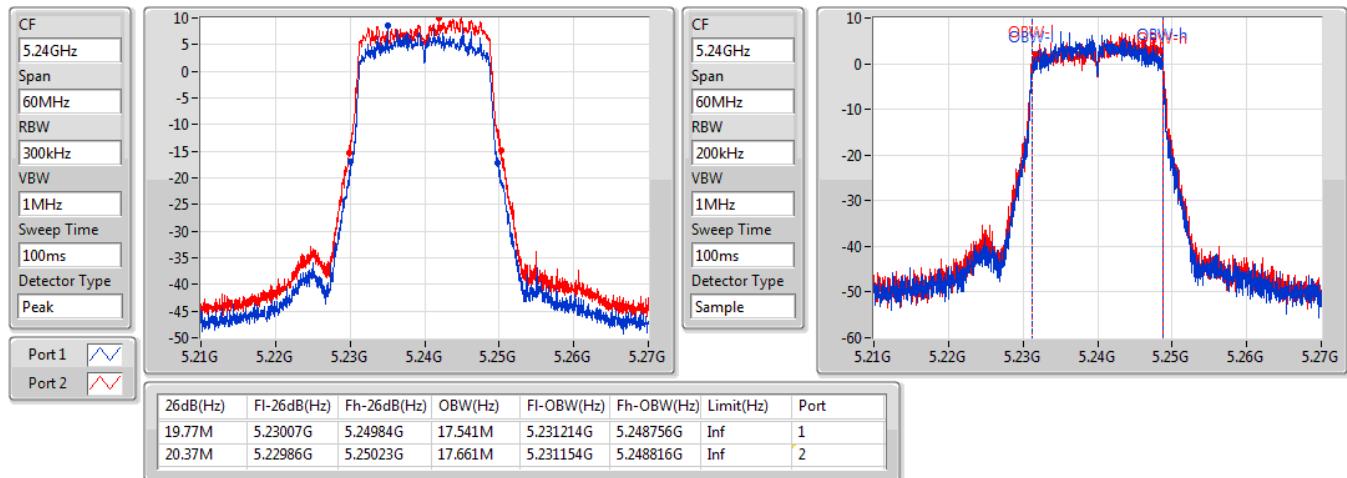

**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**EBW**
**5200MHz**

16/10/2019

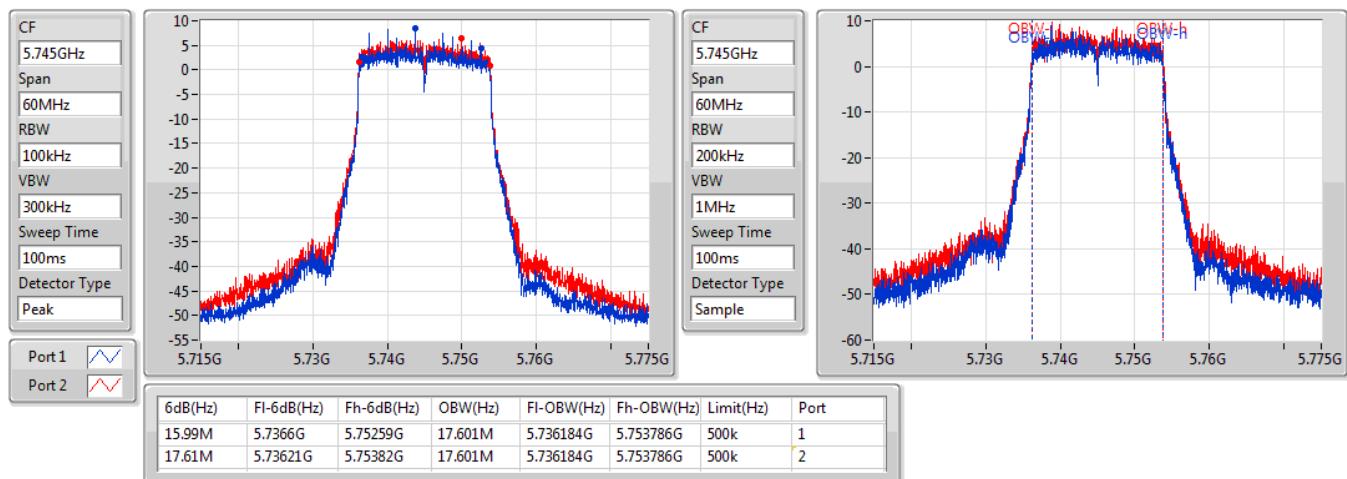


**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**EBW**
**5240MHz**

16/10/2019

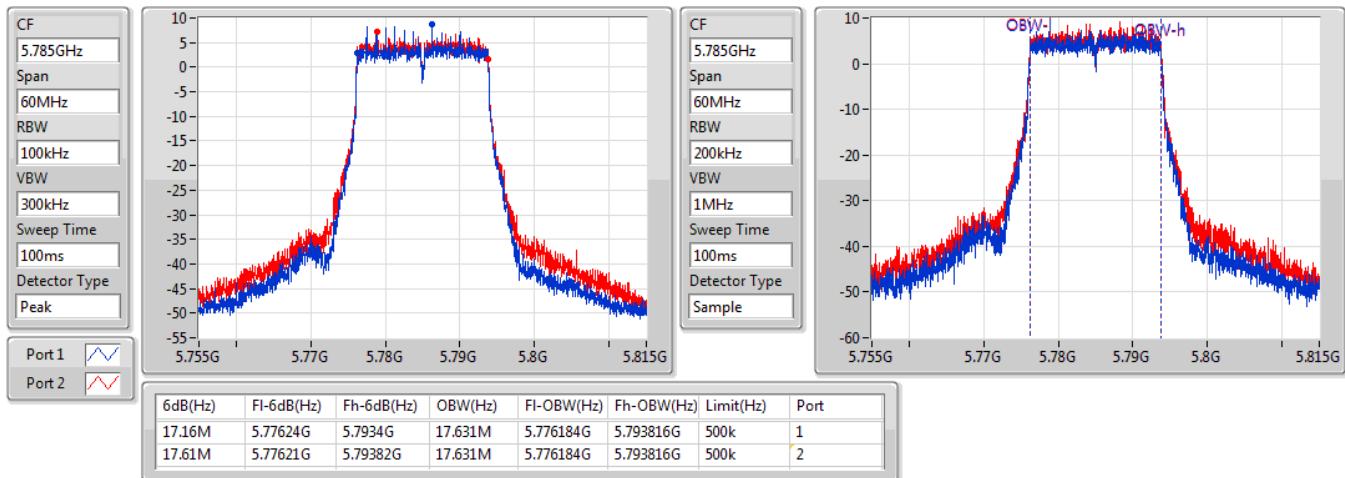

**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**EBW**
**5745MHz**

07/10/2019

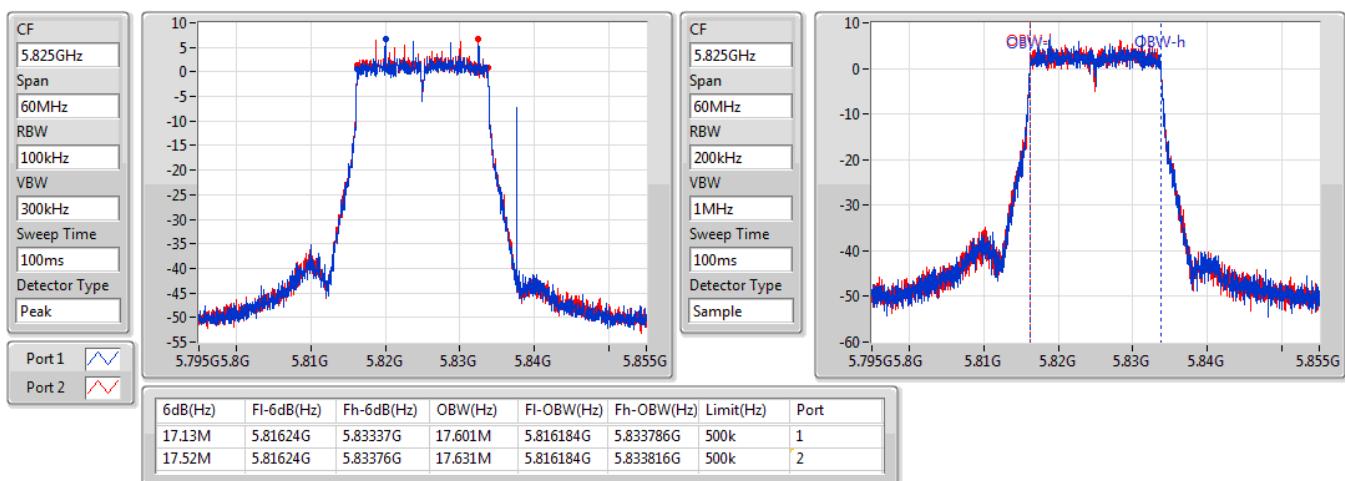


**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**EBW**
**5785MHz**

07/10/2019

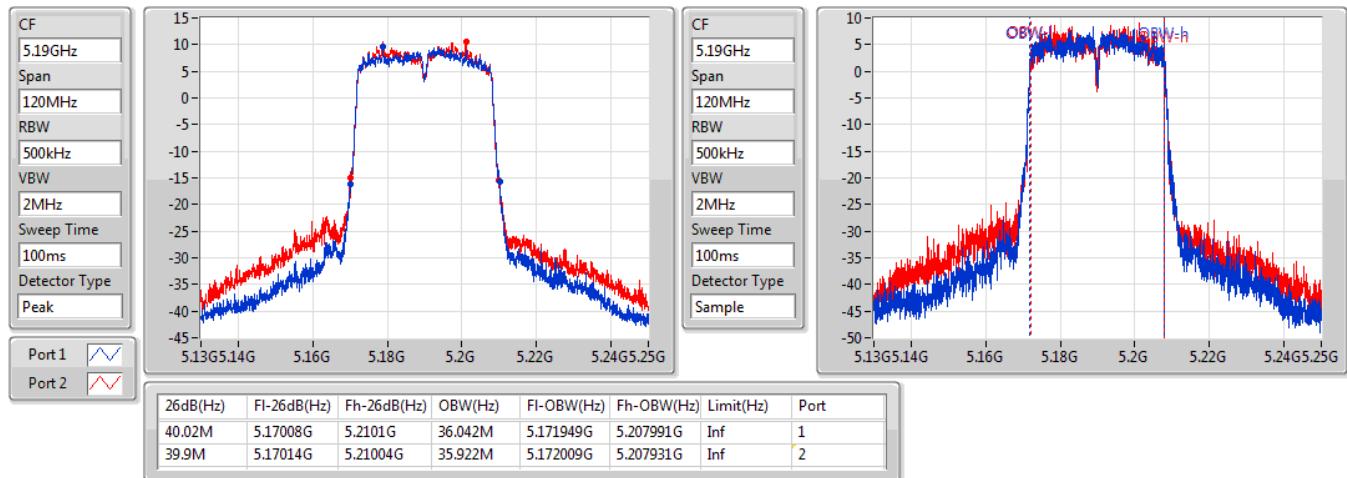

**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**EBW**
**5825MHz**

07/10/2019

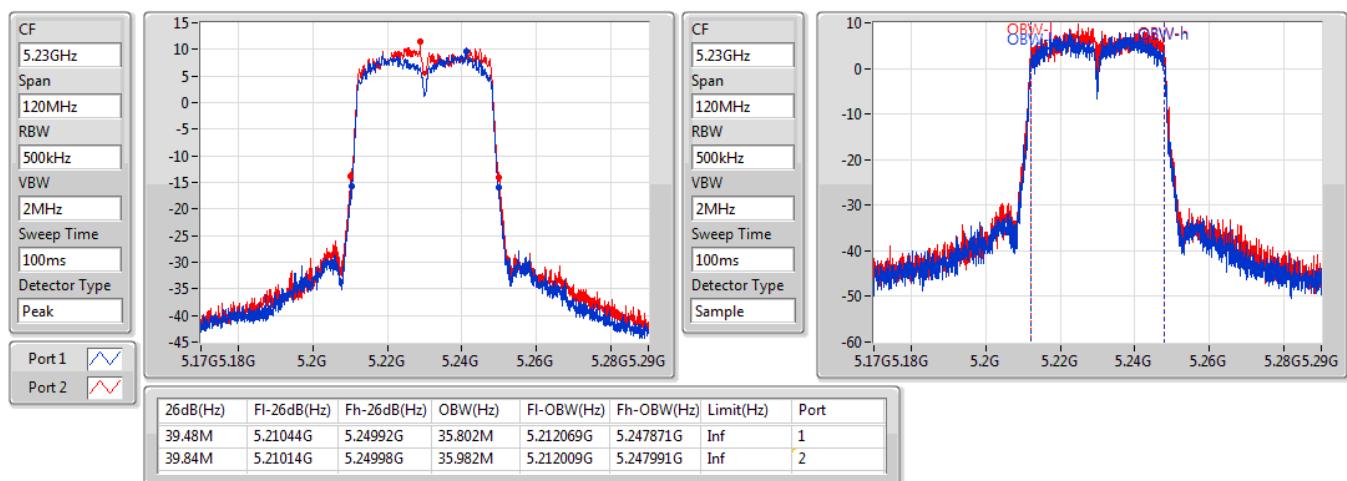


**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**EBW**
**5190MHz**

07/10/2019

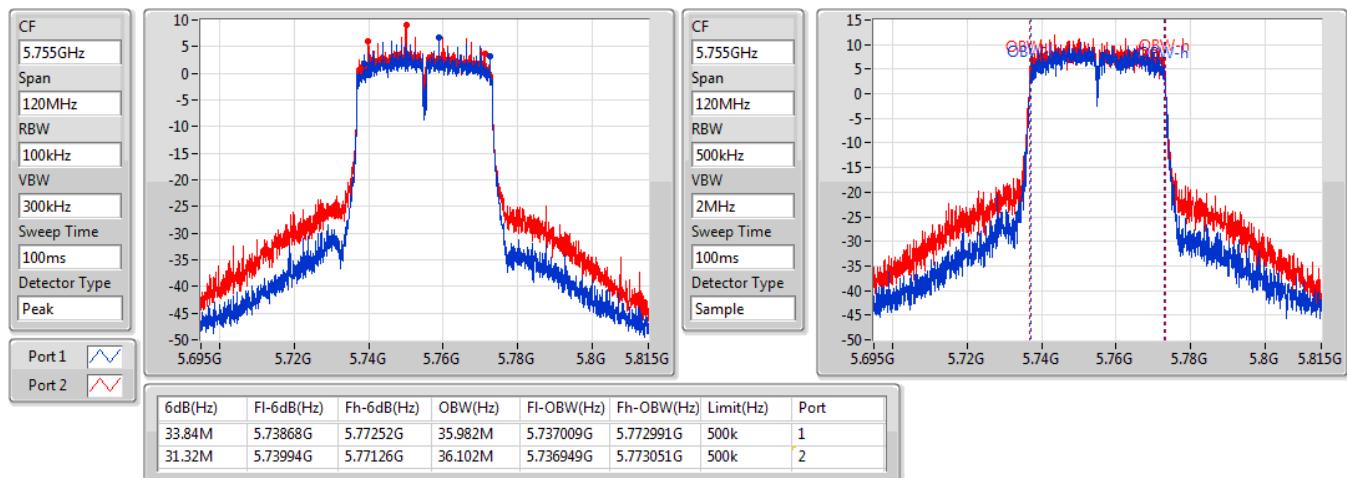

**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**EBW**
**5230MHz**

16/10/2019

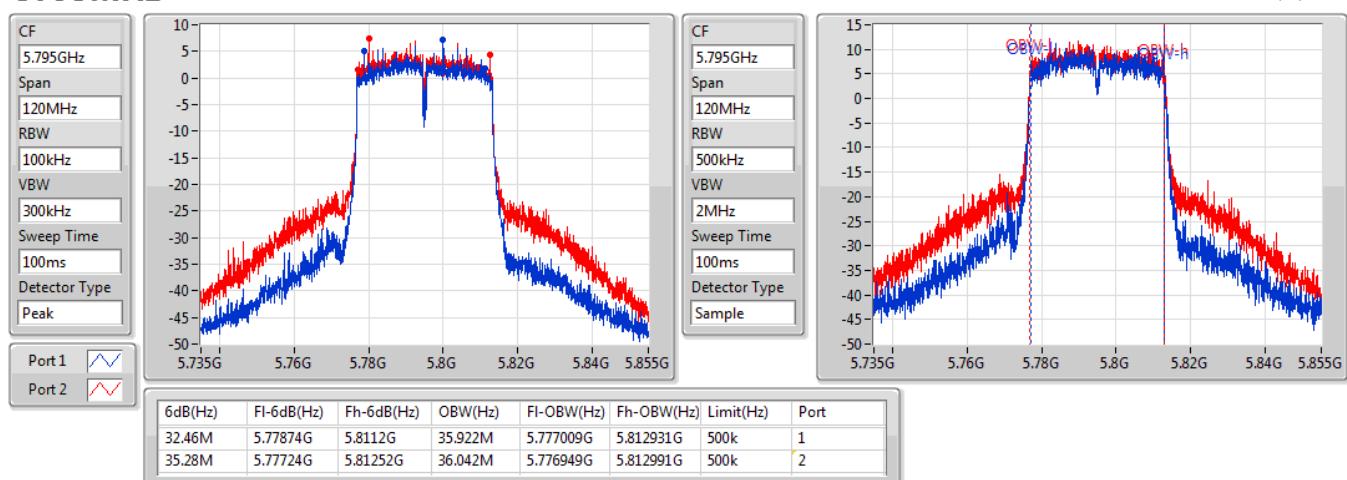


**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**EBW**
**5755MHz**

07/10/2019

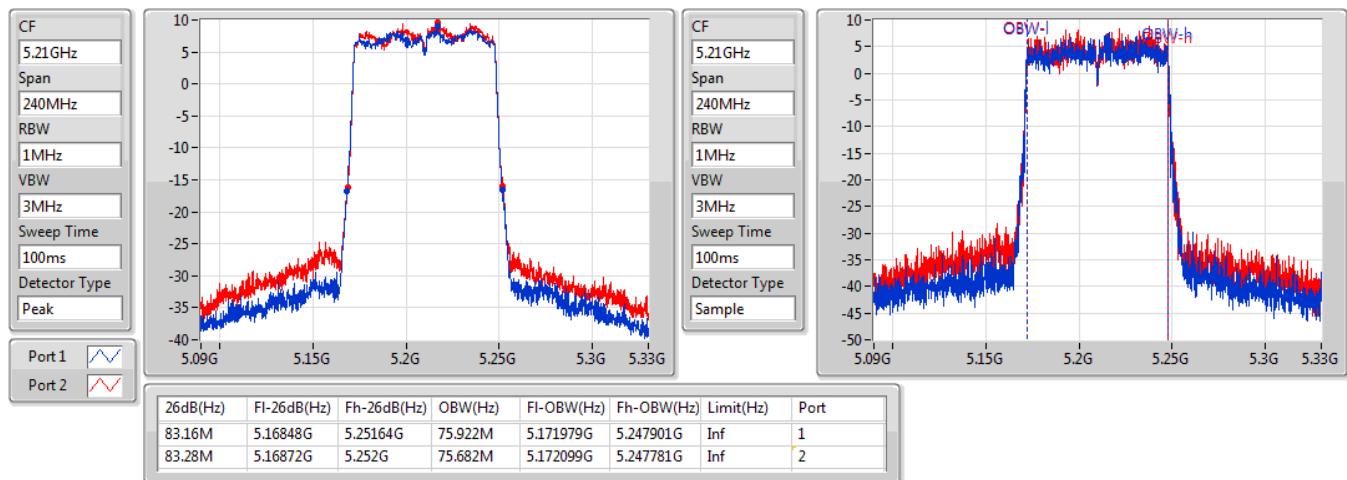

**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**EBW**
**5795MHz**

07/10/2019

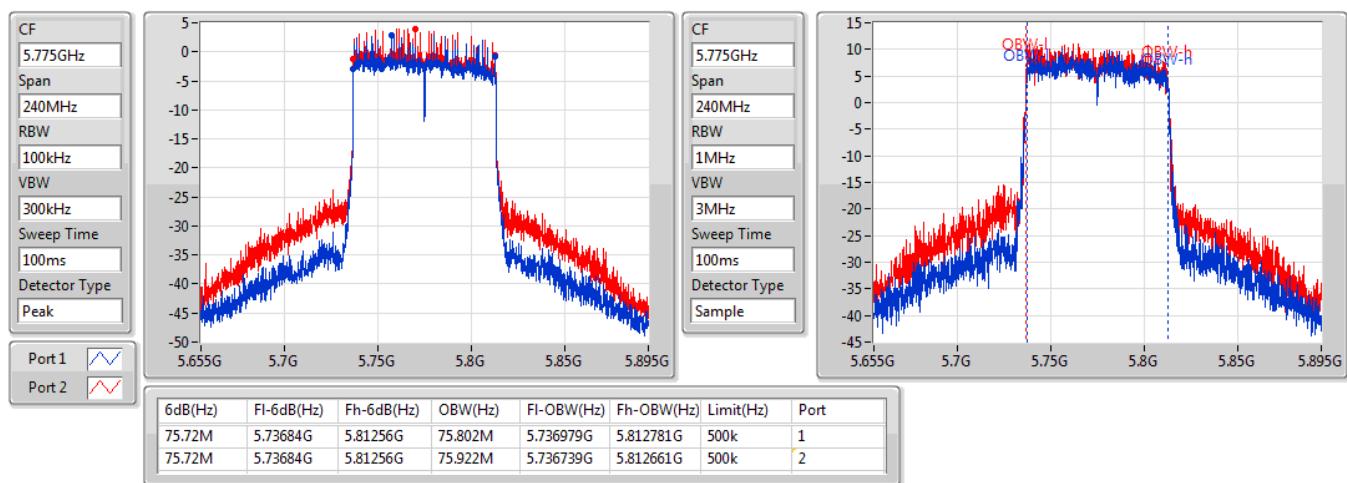


**802.11ac VHT80\_Nss1,(MCS0)\_2TX**
**EBW**
**5210MHz**

07/10/2019


**802.11ac VHT80\_Nss1,(MCS0)\_2TX**
**EBW**
**5775MHz**

07/10/2019



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	23.49M	17.751M	17M8D1D	22.44M	17.691M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	42.96M	36.642M	36M6D1D	41.22M	36.342M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	87M	76.162M	76M2D1D	84.72M	75.922M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	17.67M	17.751M	17M8D1D	17.01M	17.691M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	36.36M	36.642M	36M6D1D	34.98M	36.222M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	74.52M	76.042M	76M0D1D	66.36M	75.922M

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

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

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

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

**Result**

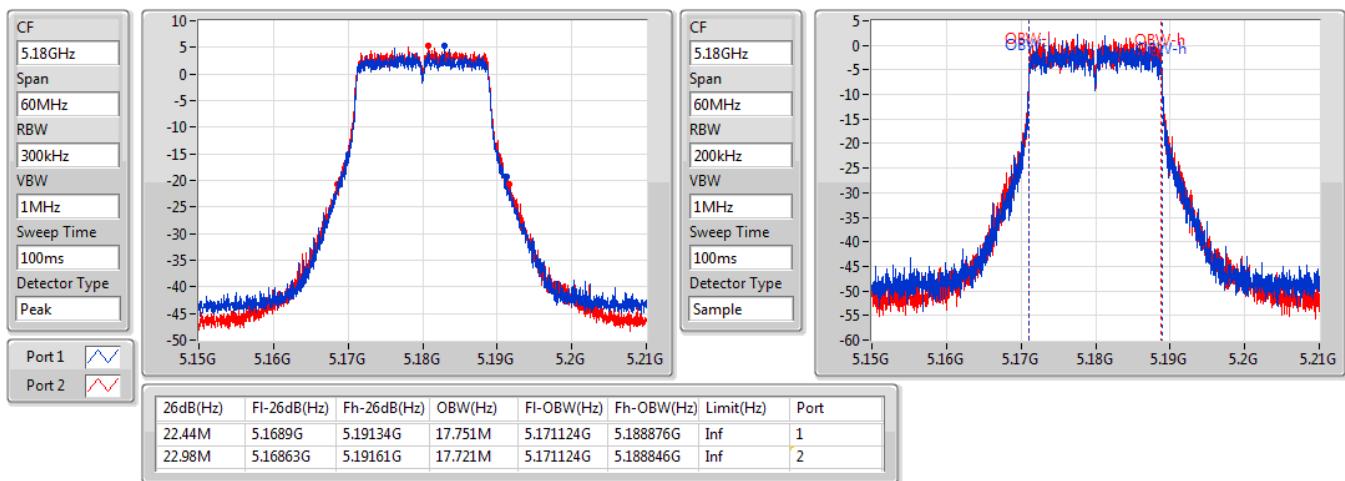
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	22.44M	17.751M	22.98M	17.721M
5200MHz	Pass	Inf	22.86M	17.721M	23.49M	17.691M
5240MHz	Pass	Inf	22.74M	17.721M	23.01M	17.751M
5745MHz	Pass	500k	17.61M	17.751M	17.67M	17.721M
5785MHz	Pass	500k	17.01M	17.691M	17.28M	17.751M
5825MHz	Pass	500k	17.37M	17.691M	17.37M	17.721M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	42.78M	36.402M	42.96M	36.342M
5230MHz	Pass	Inf	41.7M	36.642M	41.22M	36.522M
5755MHz	Pass	500k	35.94M	36.282M	35.76M	36.642M
5795MHz	Pass	500k	34.98M	36.222M	36.36M	36.342M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	87M	76.162M	84.72M	75.922M
5775MHz	Pass	500k	66.36M	76.042M	74.52M	75.922M

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

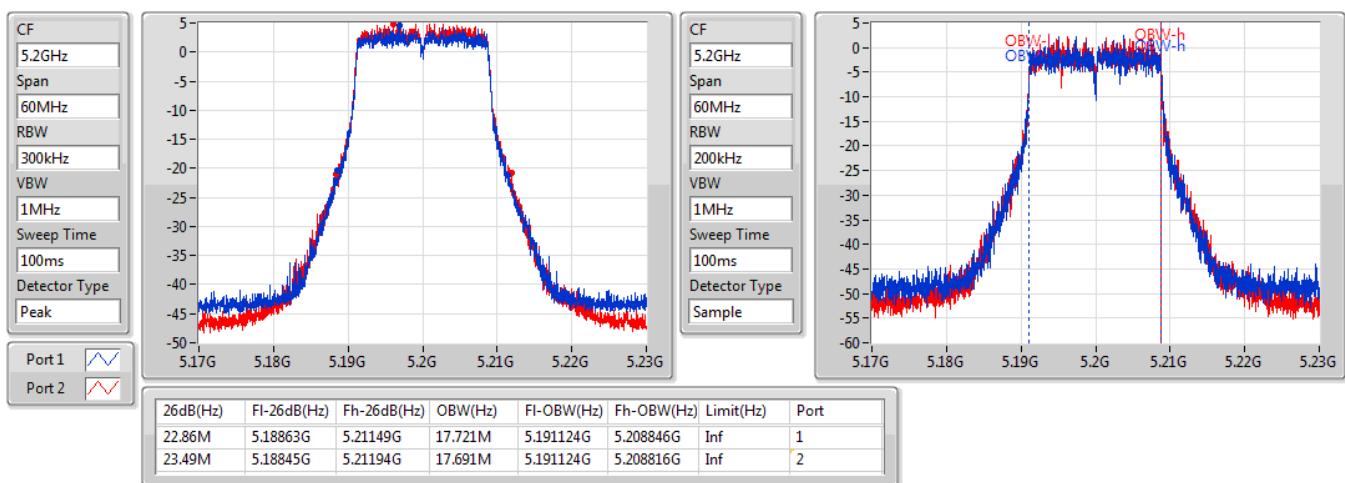
Port X-OBW = Port X 99% occupied bandwidth;

**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5180MHz**

16/10/2019

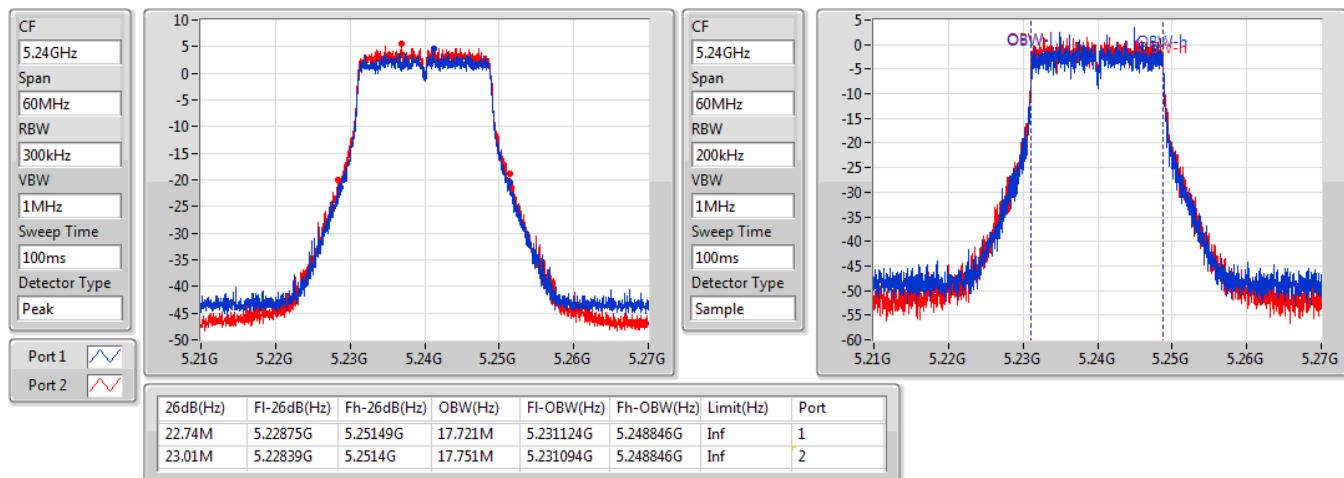

**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5200MHz**

16/10/2019

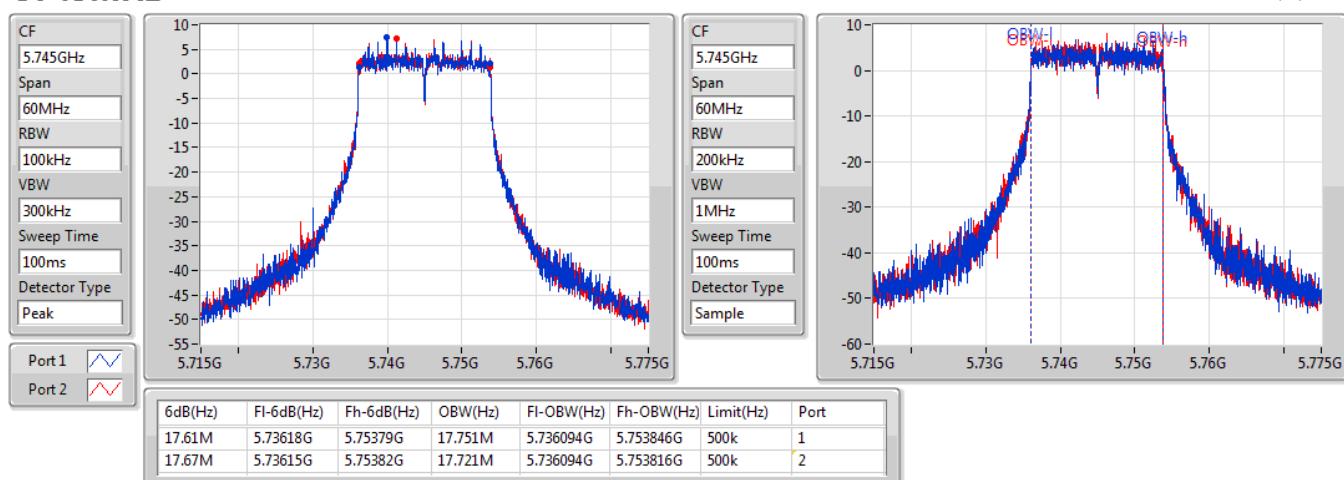


**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5240MHz**

16/10/2019

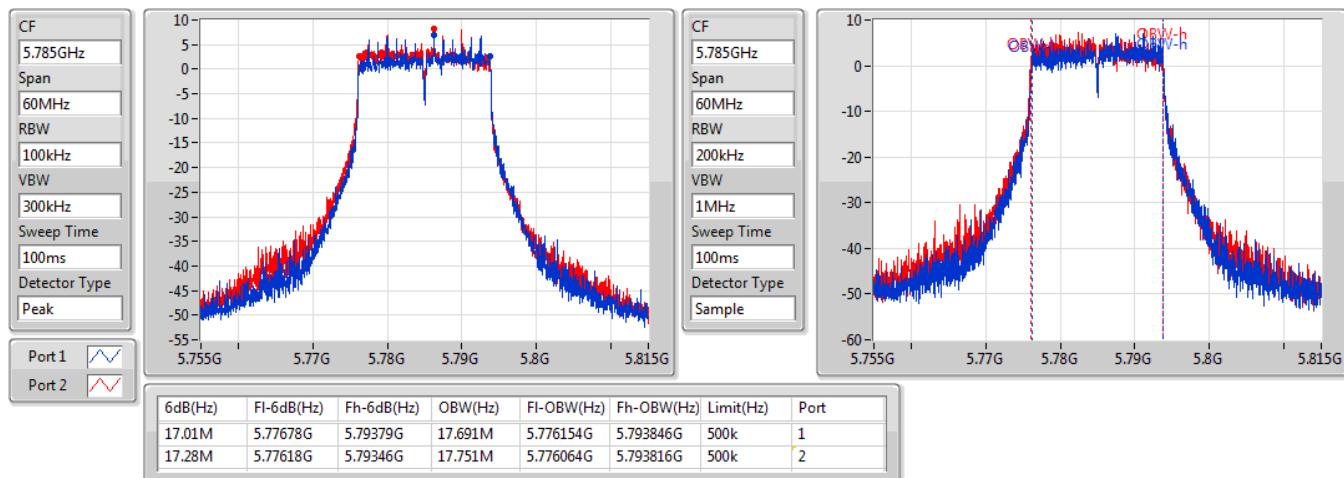

**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5745MHz**

09/10/2019

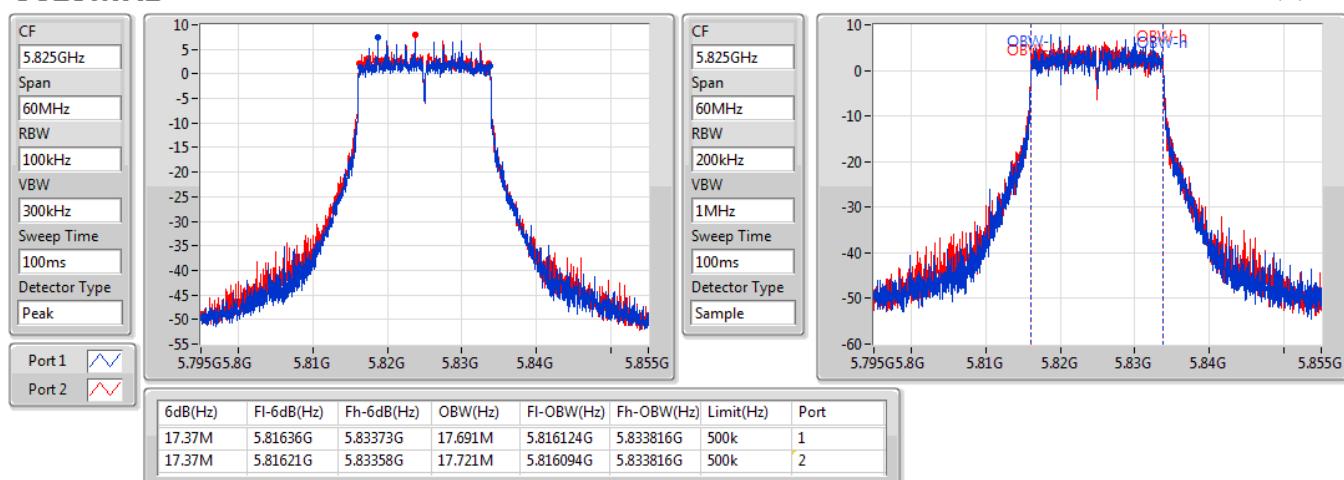


**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5785MHz**

09/10/2019

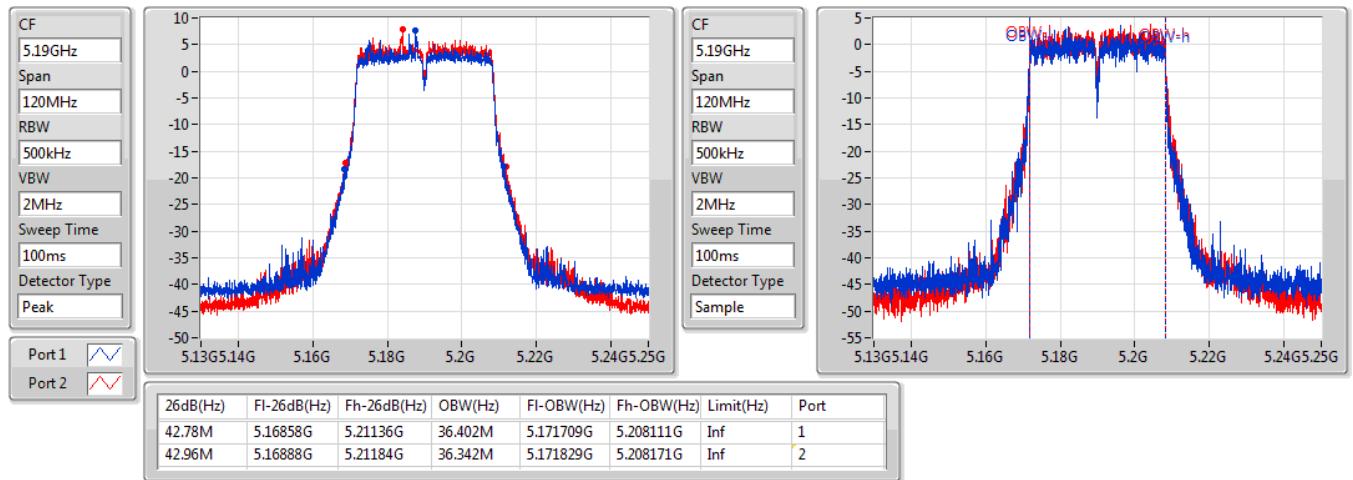

**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5825MHz**

09/10/2019

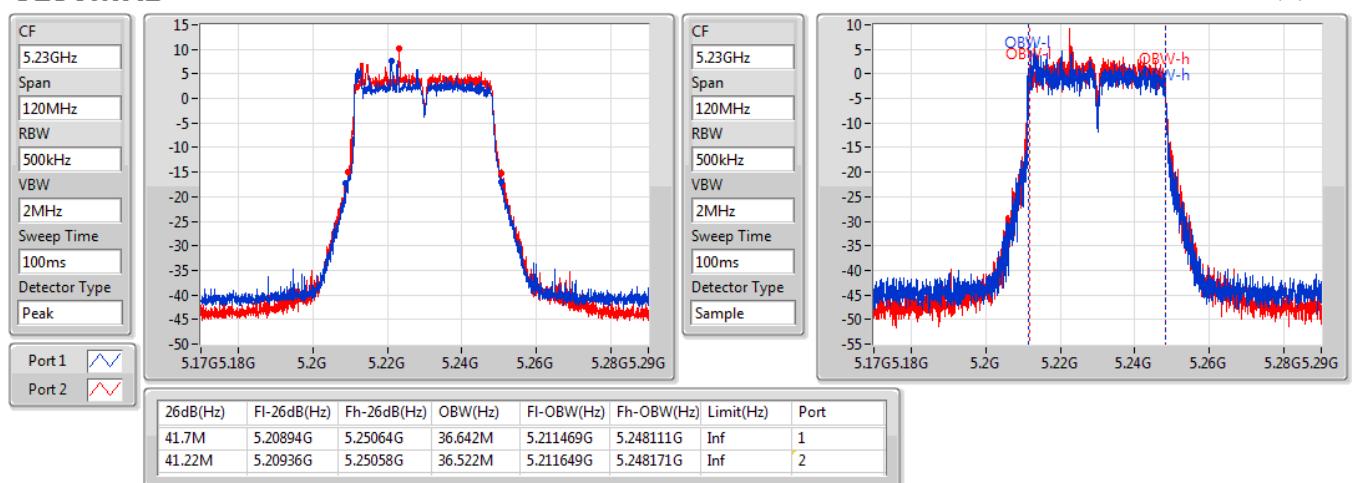


**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5190MHz**

16/10/2019

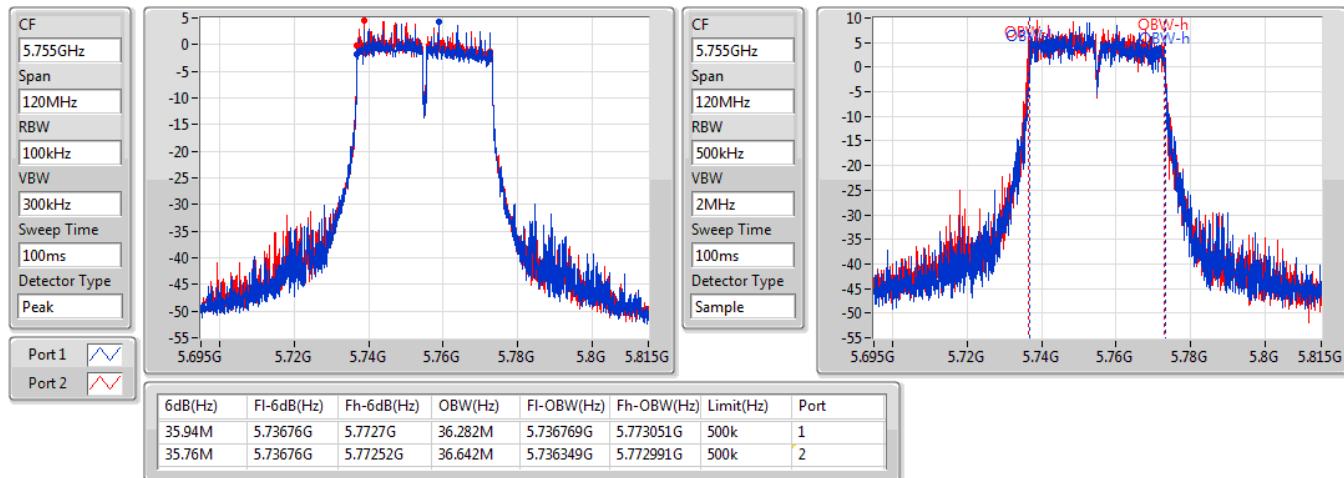

**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5230MHz**

16/10/2019

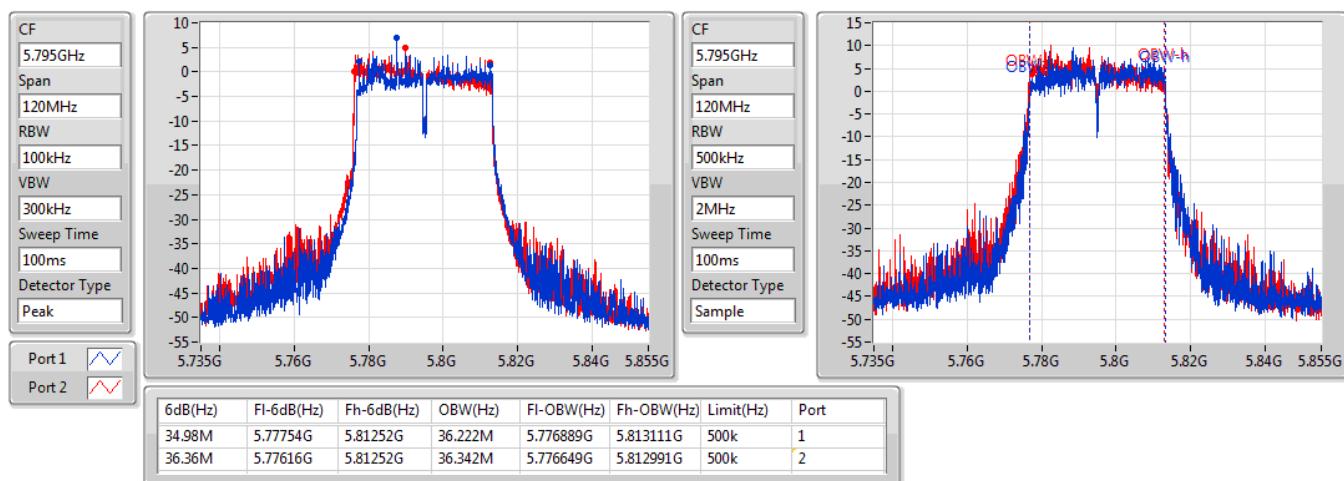


**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5755MHz**

09/10/2019

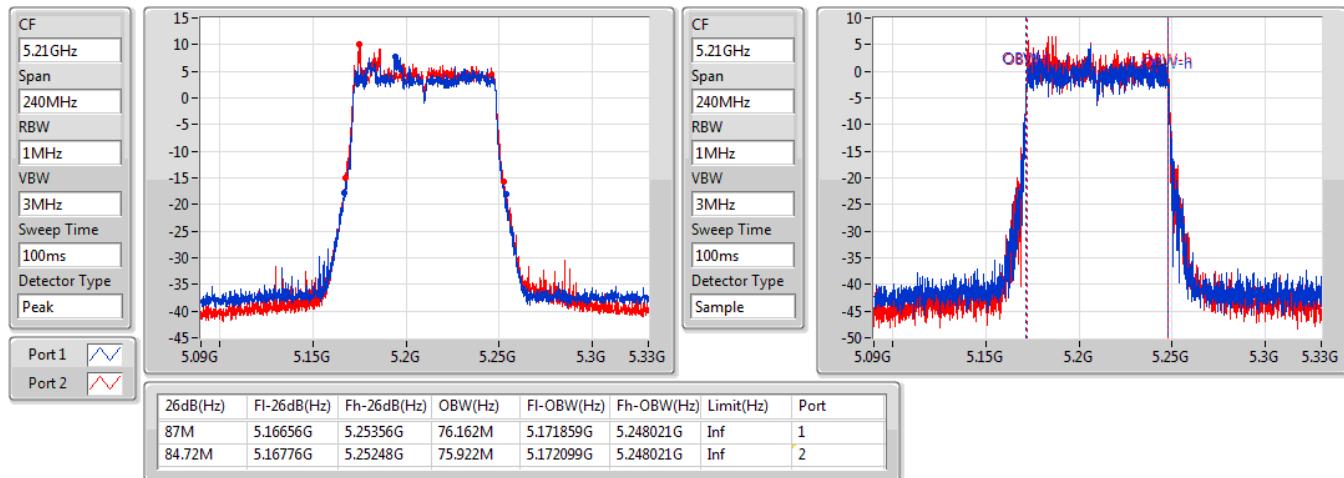

**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5795MHz**

09/10/2019

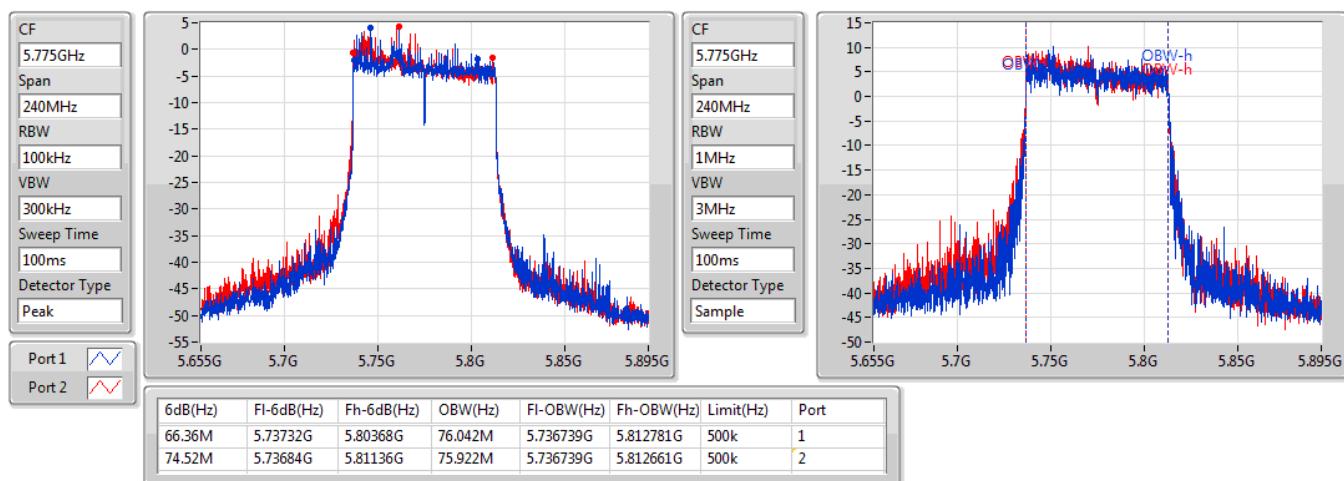


**802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5210MHz**

16/10/2019


**802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5775MHz**

09/10/2019



**Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	23.52	0.22491	28.26	0.66988
802.11a_Nss1,(6Mbps)_1TX(Port2)	22.19	0.16558	27.50	0.56234
802.11a_Nss1,(6Mbps)_2TX	21.79	0.15101	27.10	0.51286
802.11ac VHT20_Nss1,(MCS0)_2TX	21.04	0.12706	26.35	0.43152
802.11ac VHT40_Nss1,(MCS0)_2TX	21.65	0.14622	26.96	0.49659
802.11ac VHT80_Nss1,(MCS0)_2TX	20.27	0.10641	25.58	0.36141
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	22.80	0.19055	27.54	0.56754
802.11a_Nss1,(6Mbps)_1TX(Port2)	21.99	0.15812	27.30	0.53703
802.11a_Nss1,(6Mbps)_2TX	22.91	0.19543	28.22	0.66374
802.11ac VHT20_Nss1,(MCS0)_2TX	22.55	0.17989	27.86	0.61094
802.11ac VHT40_Nss1,(MCS0)_2TX	23.89	0.24491	29.20	0.83176
802.11ac VHT80_Nss1,(MCS0)_2TX	23.17	0.20749	28.48	0.70469



## Result

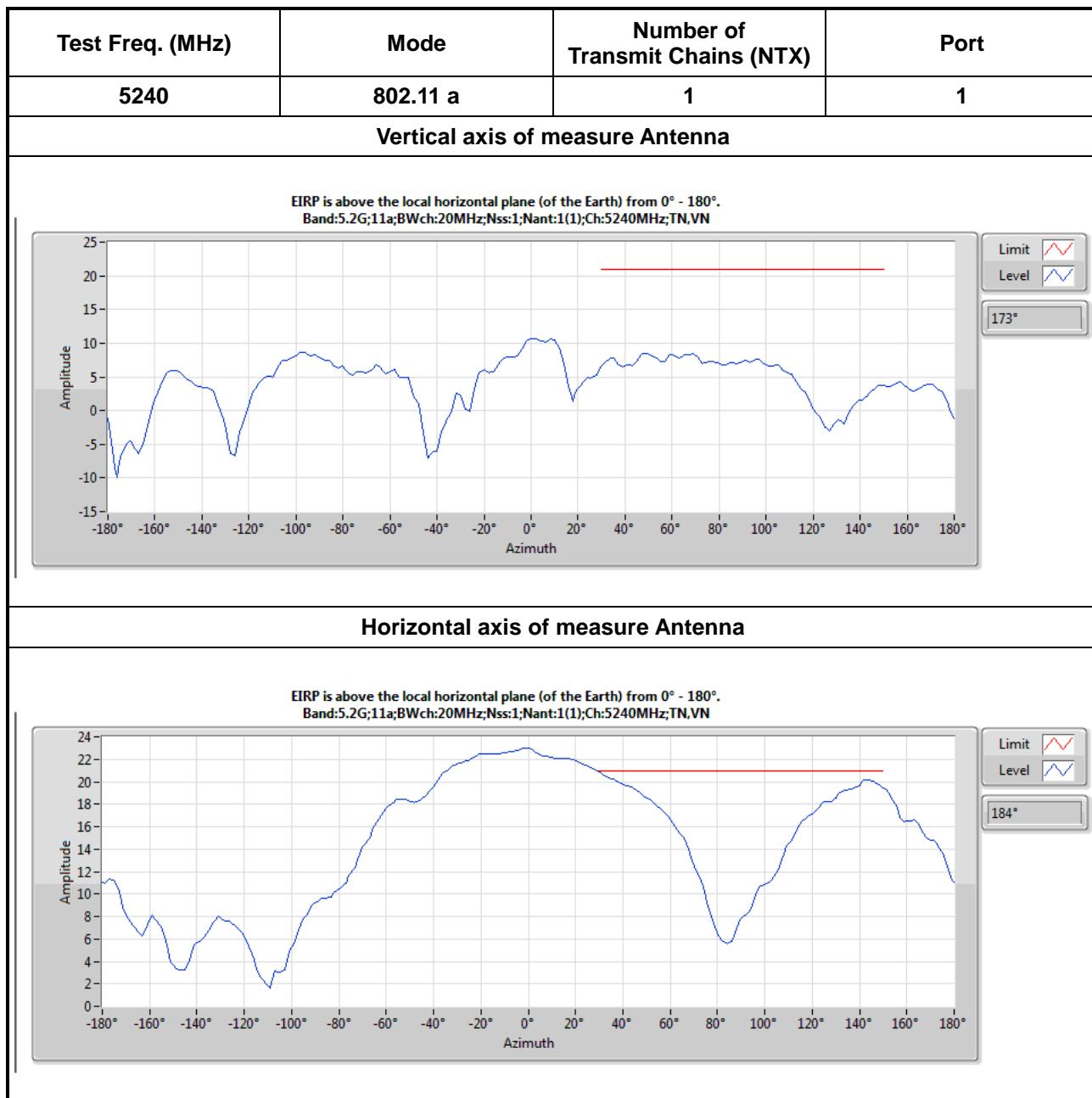
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-
5180MHz	Pass	4.74	20.69		20.69	30.00	25.43	36.00
5200MHz	Pass	4.74	23.52		23.52	30.00	28.26	36.00
5240MHz	Pass	4.74	23.37		23.37	30.00	28.11	36.00
5745MHz	Pass	4.74	22.80		22.80	30.00	27.54	36.00
5785MHz	Pass	4.74	21.29		21.29	30.00	26.03	36.00
5825MHz	Pass	4.74	21.54		21.54	30.00	26.28	36.00
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	5.31		21.57	21.57	30.00	26.88	36.00
5200MHz	Pass	5.31		22.00	22.00	30.00	27.31	36.00
5240MHz	Pass	5.31		22.19	22.19	30.00	27.50	36.00
5745MHz	Pass	5.31		21.99	21.99	30.00	27.30	36.00
5785MHz	Pass	5.31		20.40	20.40	30.00	25.71	36.00
5825MHz	Pass	5.31		20.10	20.10	30.00	25.41	36.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.31	18.29	18.94	21.64	30.00	26.95	36.00
5200MHz	Pass	5.31	18.35	19.07	21.74	30.00	27.05	36.00
5240MHz	Pass	5.31	18.38	19.15	21.79	30.00	27.10	36.00
5745MHz	Pass	5.31	17.29	18.35	20.86	30.00	26.17	36.00
5785MHz	Pass	5.31	19.40	20.34	22.91	30.00	28.22	36.00
5825MHz	Pass	5.31	17.40	17.79	20.61	30.00	25.92	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.31	17.83	18.03	20.94	30.00	26.25	36.00
5200MHz	Pass	5.31	17.90	18.16	21.04	30.00	26.35	36.00
5240MHz	Pass	5.31	17.41	17.83	20.64	30.00	25.95	36.00
5745MHz	Pass	5.31	18.55	19.67	22.16	30.00	27.47	36.00
5785MHz	Pass	5.31	19.03	20.00	22.55	30.00	27.86	36.00
5825MHz	Pass	5.31	17.08	17.52	20.32	30.00	25.63	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.31	18.31	18.66	21.50	30.00	26.81	36.00
5230MHz	Pass	5.31	18.10	19.12	21.65	30.00	26.96	36.00
5755MHz	Pass	5.31	20.34	21.19	23.80	30.00	29.11	36.00
5795MHz	Pass	5.31	20.36	21.35	23.89	30.00	29.20	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.31	17.06	17.45	20.27	30.00	25.58	36.00
5775MHz	Pass	5.31	19.69	20.58	23.17	30.00	28.48	36.00

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



**MAX. E.I.R.P. At Any Elevation Angle Above 30 Degrees Result  
Non-Beamforming**

Appendix C.2

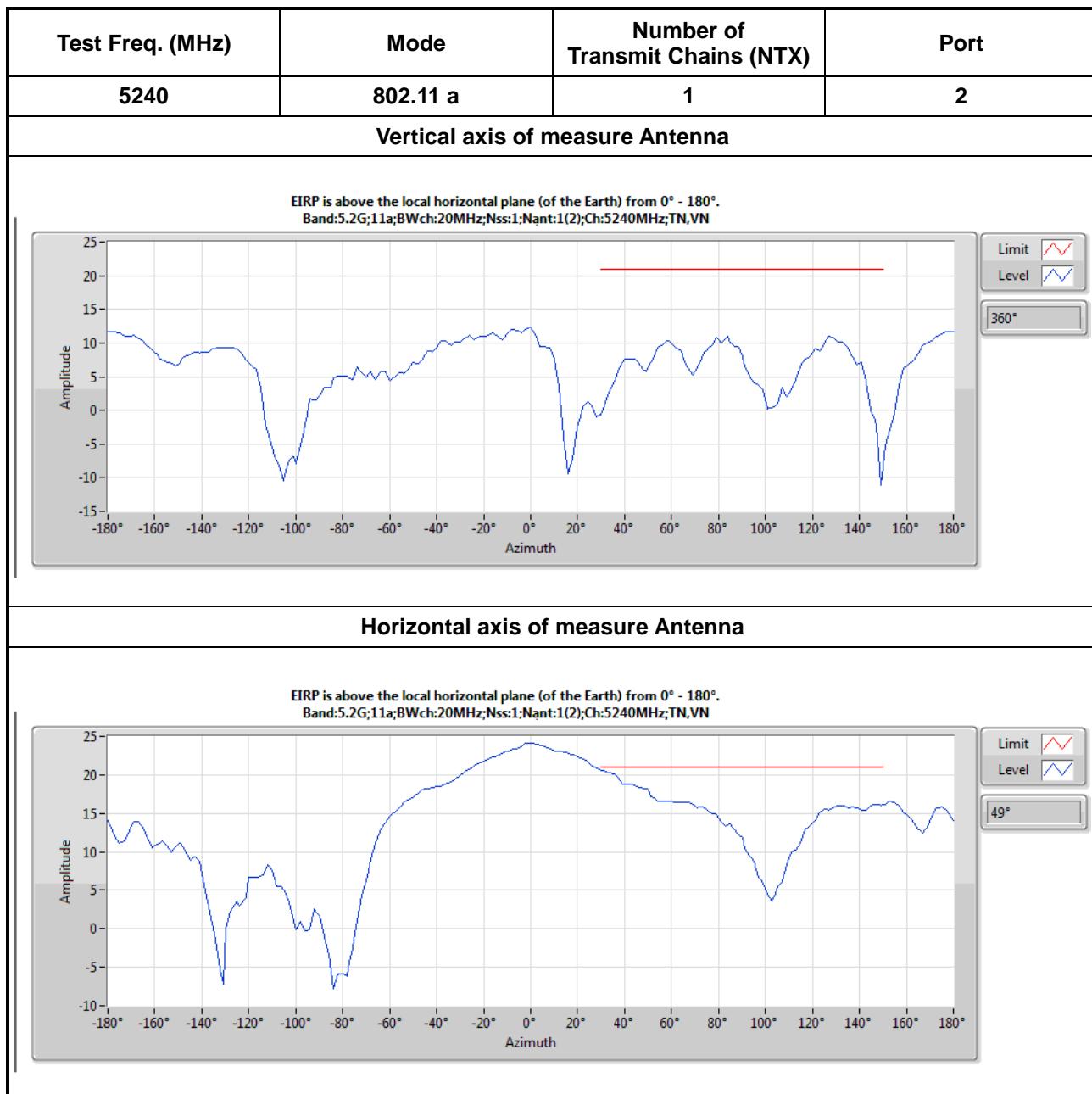


Note: The red line is EIRP limit (21dBm) for 30 ~ 150 degree.



**MAX. E.I.R.P. At Any Elevation Angle Above 30 Degrees Result  
Non-Beamforming**

Appendix C.2





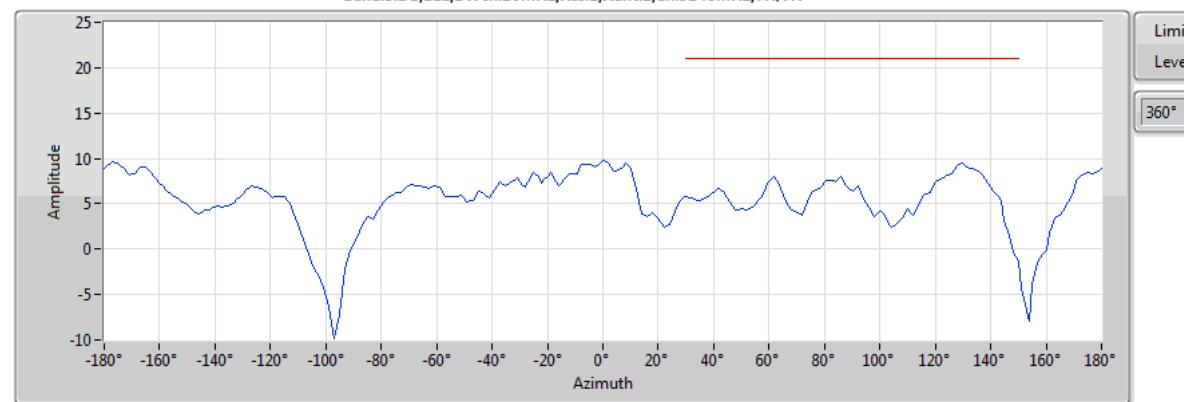
**MAX. E.I.R.P. At Any Elevation Angle Above 30 Degrees Result  
Non-Beamforming**

Appendix C.2

Test Freq. (MHz)	Mode	Number of Transmit Chains (NTX)	Port
5240	802.11 a	2	1/2

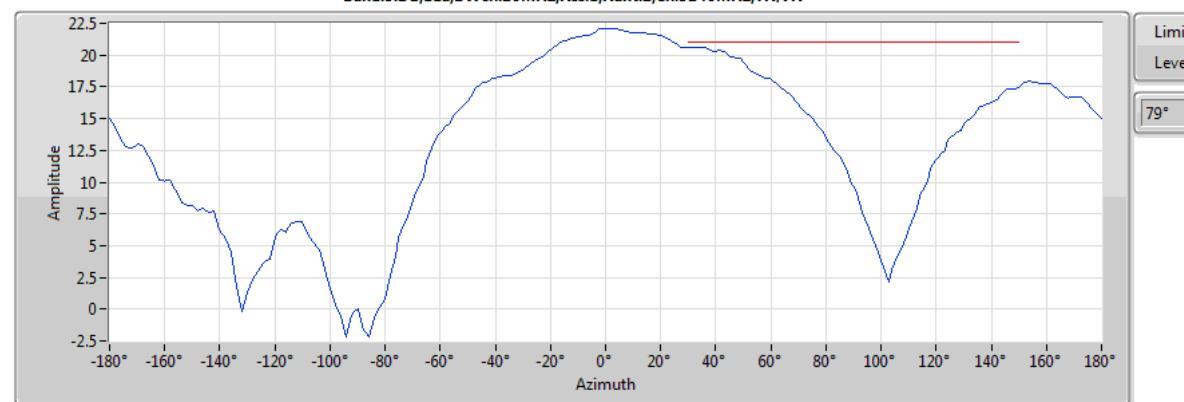
**Vertical axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5240MHz;TN,VN



**Horizontal axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G;11a;BWch:20MHz;Nss:1;Nant:2;Ch:5240MHz;TN,VN



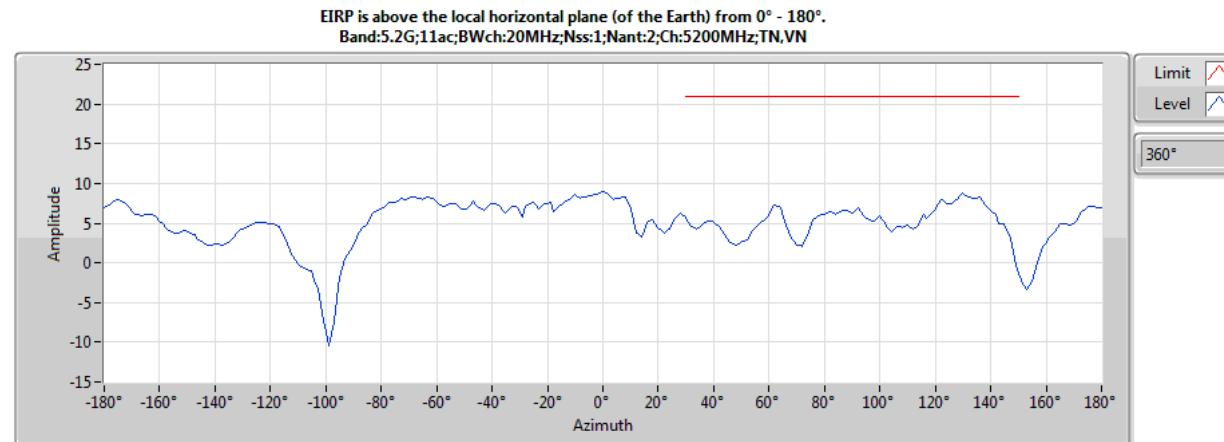


**MAX. E.I.R.P. At Any Elevation Angle Above 30 Degrees Result  
Non-Beamforming**

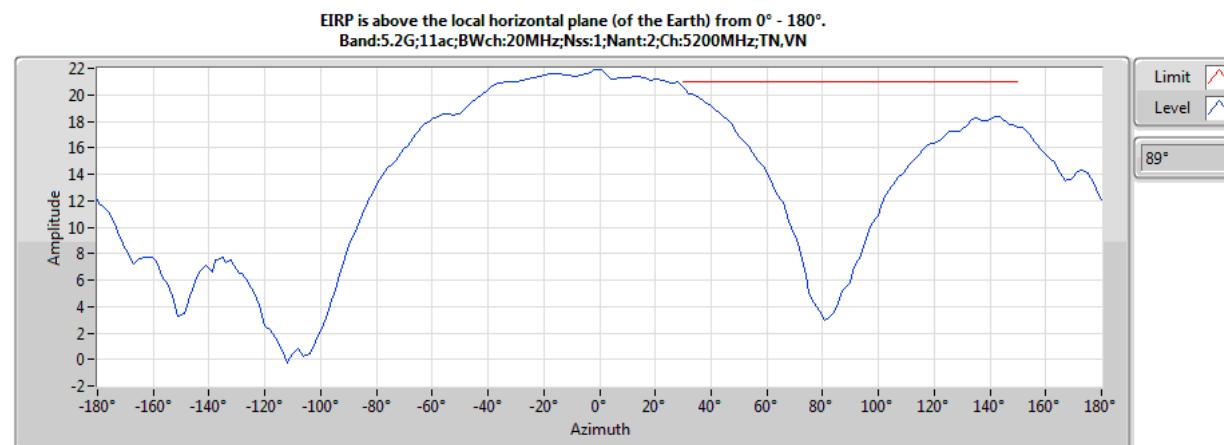
Appendix C.2

Test Freq. (MHz)	Mode	Number of Transmit Chains (NTX)	Port
5200	802.11 VHT20	2	1/2

**Vertical axis of measure Antenna**



**Horizontal axis of measure Antenna**





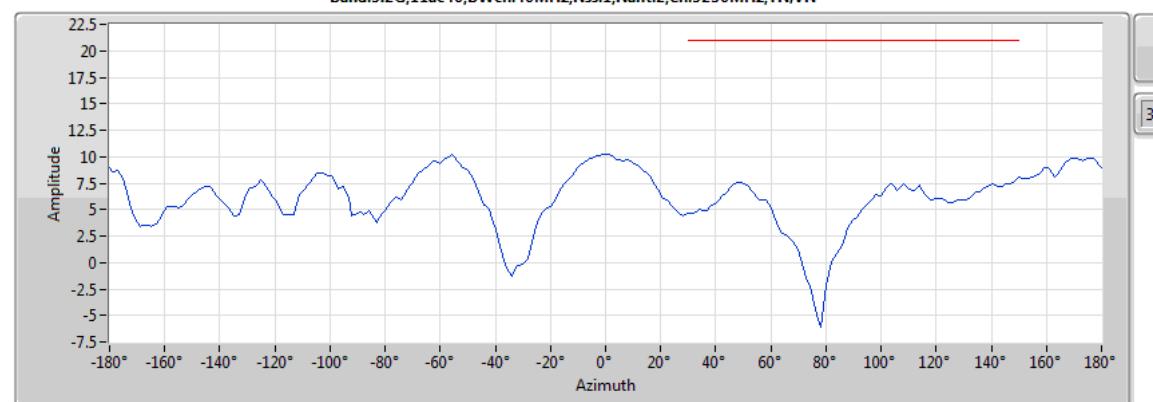
**MAX. E.I.R.P. At Any Elevation Angle Above 30 Degrees Result  
Non-Beamforming**

Appendix C.2

Test Freq. (MHz)	Mode	Number of Transmit Chains (NTX)	Port
5230	802.11 VHT40	2	1/2

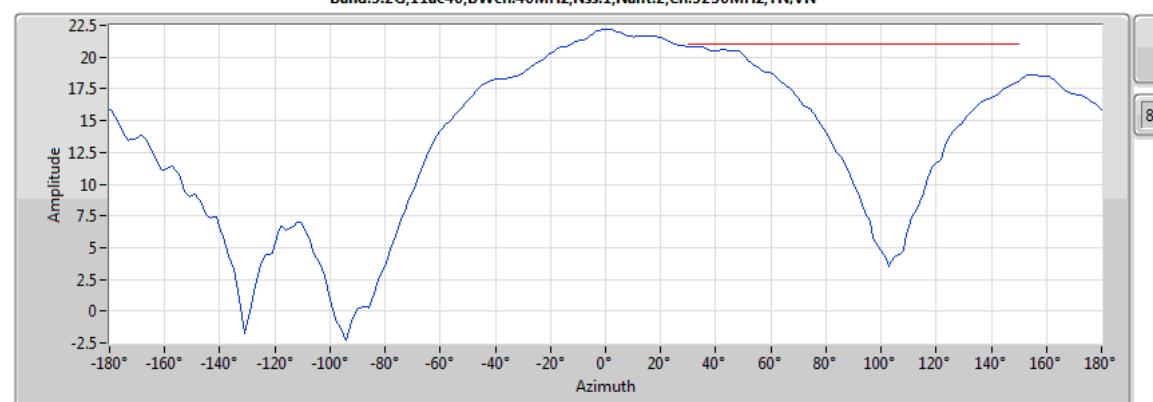
**Vertical axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G;11ac40;BWch:40MHz;Nss:1;Nant:2;Ch:5230MHz;TN,VN



**Horizontal axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G;11ac40;BWch:40MHz;Nss:1;Nant:2;Ch:5230MHz;TN,VN





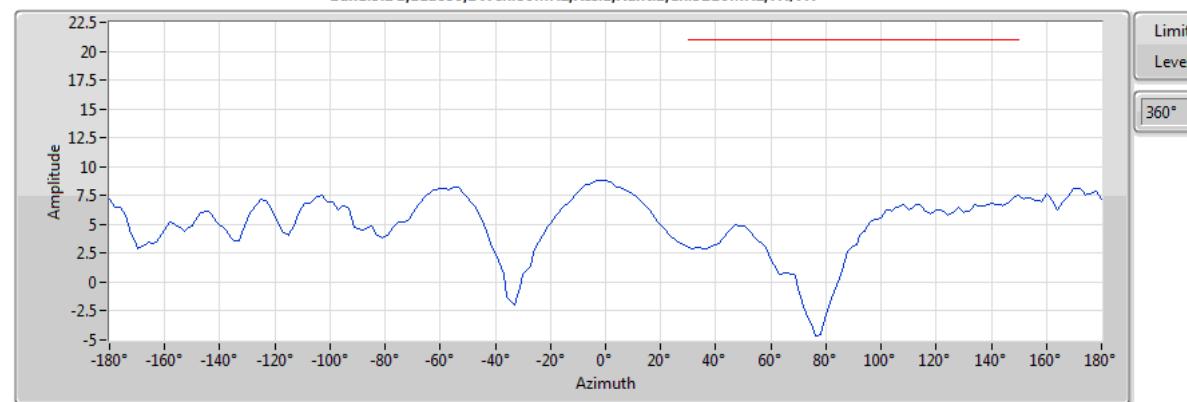
**MAX. E.I.R.P. At Any Elevation Angle Above 30 Degrees Result  
Non-Beamforming**

Appendix C.2

Test Freq. (MHz)	Mode	Number of Transmit Chains (NTX)	Port
5210	802.11 VHT80	2	1/2

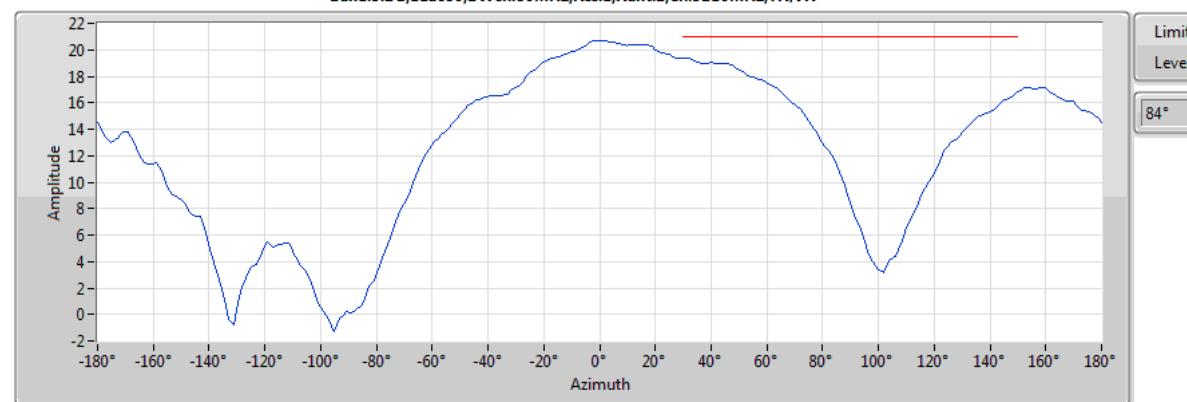
**Vertical axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G;11ac80;BWch:80MHz;Nss:1;Nant:2;Ch:5210MHz;TN,VN



**Horizontal axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G;11ac80;BWch:80MHz;Nss:1;Nant:2;Ch:5210MHz;TN,VN



**Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	15.04	0.03192	23.36	0.21677
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	15.97	0.03954	24.29	0.26853
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	15.85	0.03846	24.17	0.26122
5.725-5.85GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.49	0.11194	28.81	0.76033
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	20.90	0.12303	29.22	0.83560
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	20.00	0.10000	28.32	0.67920

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.32	11.85	12.20	15.04	27.68	23.36	36.00
5200MHz	Pass	8.32	12.08	11.60	14.86	27.68	23.18	36.00
5240MHz	Pass	8.32	11.59	12.13	14.88	27.68	23.20	36.00
5745MHz	Pass	8.32	17.60	17.15	20.39	27.68	28.71	36.00
5785MHz	Pass	8.32	17.03	17.89	20.49	27.68	28.81	36.00
5825MHz	Pass	8.32	17.14	17.39	20.28	27.68	28.60	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	8.32	12.87	13.04	15.97	27.68	24.29	36.00
5230MHz	Pass	8.32	12.27	13.36	15.86	27.68	24.18	36.00
5755MHz	Pass	8.32	16.61	17.57	20.13	27.68	28.45	36.00
5795MHz	Pass	8.32	17.14	18.53	20.90	27.68	29.22	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	8.32	12.58	13.08	15.85	27.68	24.17	36.00
5775MHz	Pass	8.32	16.99	16.98	20.00	27.68	28.32	36.00

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



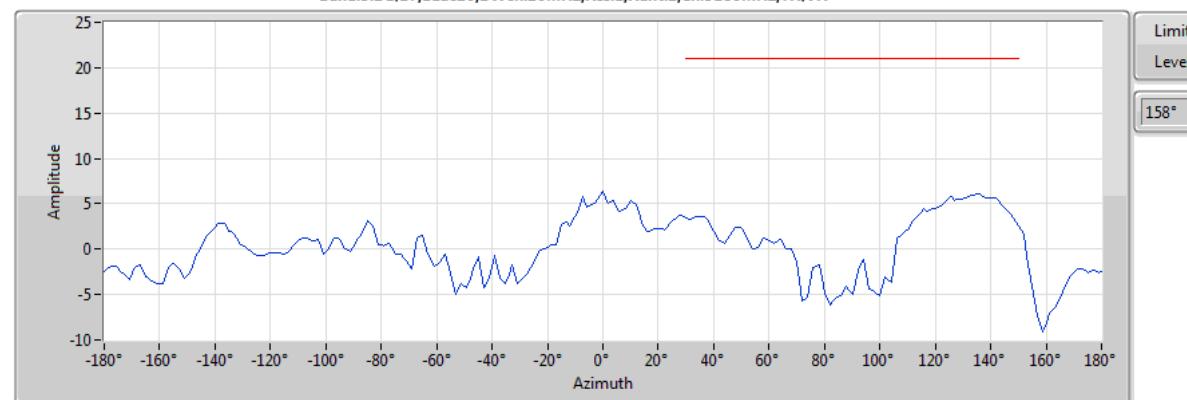
**MAX. E.I.R.P. At Any Elevation Angle Above 30 Degrees Result**  
**Beamforming**

Appendix C.4

Test Freq. (MHz)	Mode	Number of Transmit Chains (NTX)	Port
5180	802.11 VHT20	2	1/2

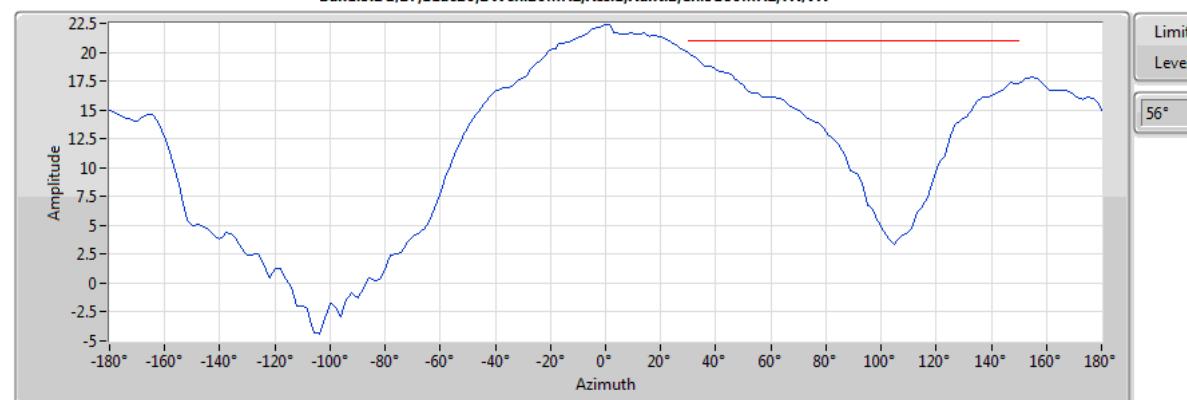
**Vertical axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G,BF:11ac20;BWch:20MHz;Nss:1;Nant:2;Ch:5180MHz;TN,VN



**Horizontal axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G,BF:11ac20;BWch:20MHz;Nss:1;Nant:2;Ch:5180MHz;TN,VN



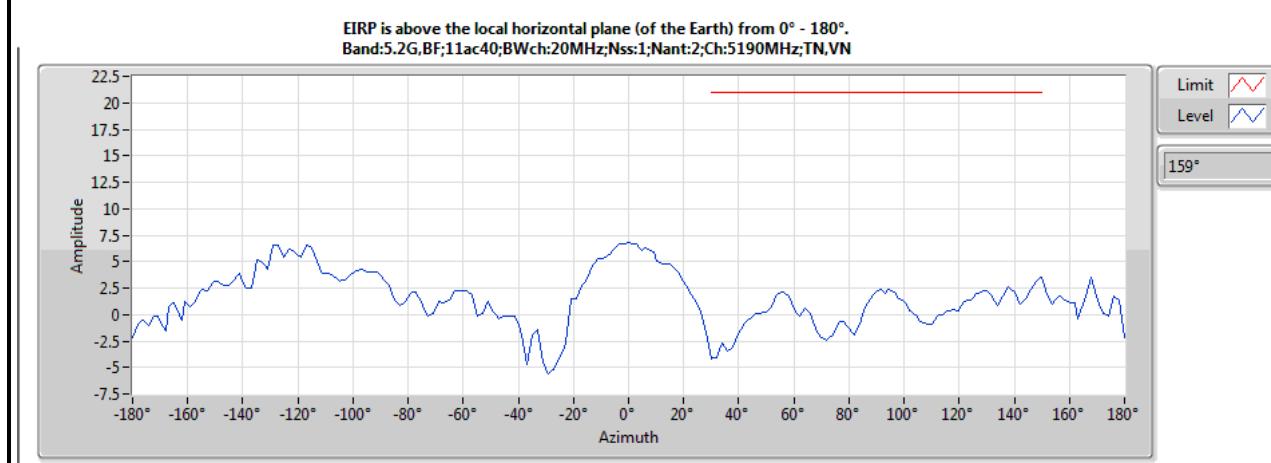


**MAX. E.I.R.P. At Any Elevation Angle Above 30 Degrees Result**  
**Beamforming**

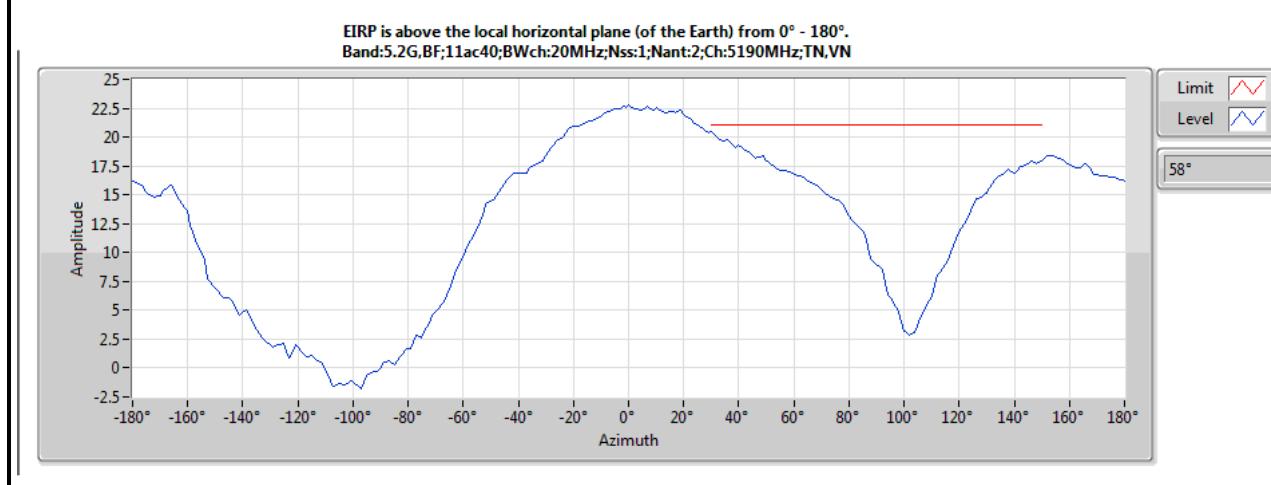
Appendix C.4

Test Freq. (MHz)	Mode	Number of Transmit Chains (NTX)	Port
5190	802.11 VHT40	2	1/2

**Vertical axis of measure Antenna**



**Horizontal axis of measure Antenna**





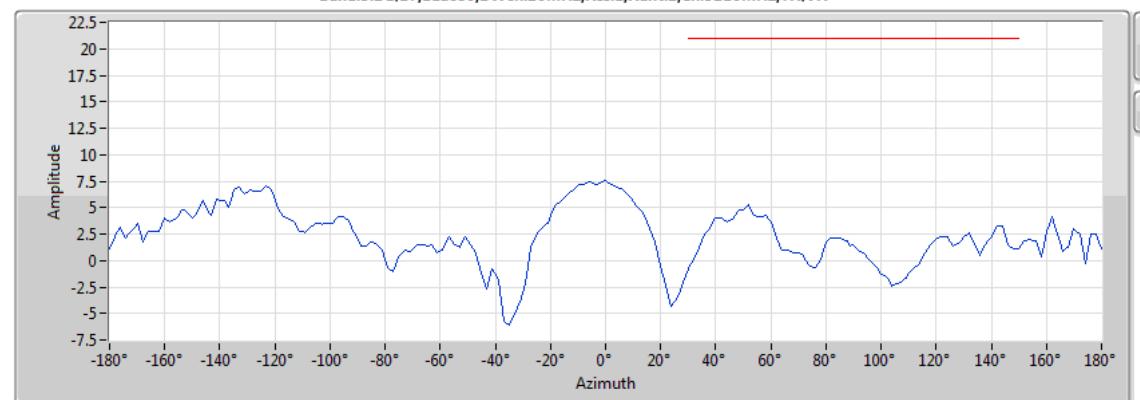
**MAX. E.I.R.P. At Any Elevation Angle Above 30 Degrees Result**  
**Beamforming**

Appendix C.4

Test Freq. (MHz)	Mode	Number of Transmit Chains (NTX)	Port
5210	802.11 VHT80	2	1/2

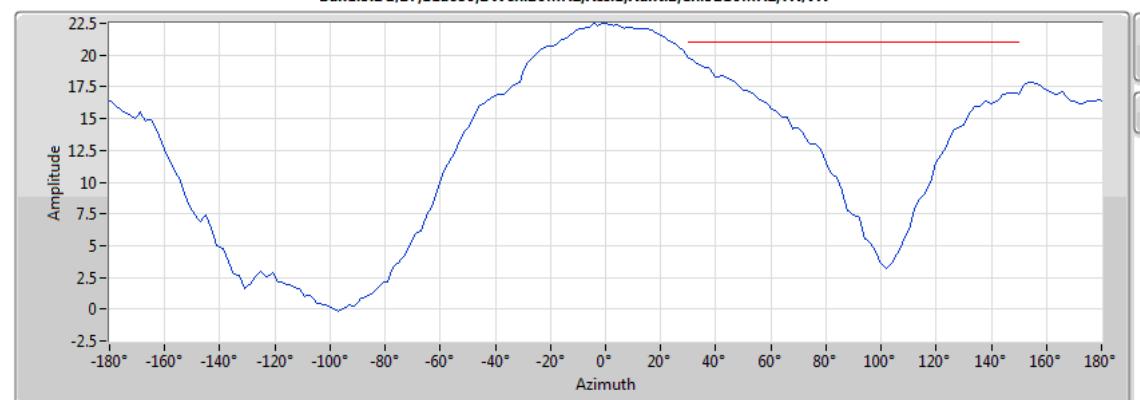
**Vertical axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G,BF:11ac80;BWch:20MHz;Nss:1;Nant:2;Ch:5210MHz;TN,VN



**Horizontal axis of measure Antenna**

EIRP is above the local horizontal plane (of the Earth) from 0° - 180°.  
Band:5.2G,BF:11ac80;BWch:20MHz;Nss:1;Nant:2;Ch:5210MHz;TN,VN



**Summary**

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	10.69	15.43
802.11a_Nss1,(6Mbps)_1TX(Port2)	9.26	14.57
802.11a_Nss1,(6Mbps)_2TX	9.31	17.63
802.11ac VHT20_Nss1,(MCS0)_2TX	8.17	16.49
802.11ac VHT40_Nss1,(MCS0)_2TX	6.04	14.36
802.11ac VHT80_Nss1,(MCS0)_2TX	1.77	10.09
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	8.39	13.13
802.11a_Nss1,(6Mbps)_1TX(Port2)	7.57	12.88
802.11a_Nss1,(6Mbps)_2TX	8.98	17.30
802.11ac VHT20_Nss1,(MCS0)_2TX	8.08	16.40
802.11ac VHT40_Nss1,(MCS0)_2TX	6.81	15.13
802.11ac VHT80_Nss1,(MCS0)_2TX	2.98	11.30

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



## Result

Mode	Result	DG (dBf)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-
5180MHz	Pass	4.74	7.96		7.96	17.00	12.70	23.00
5200MHz	Pass	4.74	10.69		10.69	17.00	15.43	23.00
5240MHz	Pass	4.74	10.36		10.36	17.00	15.10	23.00
5745MHz	Pass	4.74	8.39		8.39	30.00	13.13	36.00
5785MHz	Pass	4.74	7.07		7.07	30.00	11.81	36.00
5825MHz	Pass	4.74	7.07		7.07	30.00	11.81	36.00
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	5.31		8.85	8.85	17.00	14.16	23.00
5200MHz	Pass	5.31		9.14	9.14	17.00	14.45	23.00
5240MHz	Pass	5.31		9.26	9.26	17.00	14.57	23.00
5745MHz	Pass	5.31		7.57	7.57	30.00	12.88	36.00
5785MHz	Pass	5.31		6.22	6.22	30.00	11.53	36.00
5825MHz	Pass	5.31		5.63	5.63	30.00	10.94	36.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.32	5.89	6.62	8.96	14.68	17.28	23.00
5200MHz	Pass	8.32	6.07	6.70	9.11	14.68	17.43	23.00
5240MHz	Pass	8.32	6.04	6.73	9.31	14.68	17.63	23.00
5745MHz	Pass	8.32	3.13	4.35	6.78	27.68	15.10	36.00
5785MHz	Pass	8.32	5.47	6.42	8.98	27.68	17.30	36.00
5825MHz	Pass	8.32	3.32	3.76	6.55	27.68	14.87	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.32	5.23	5.56	7.92	14.68	16.24	23.00
5200MHz	Pass	8.32	5.32	5.75	8.17	14.68	16.49	23.00
5240MHz	Pass	8.32	4.99	5.41	7.97	14.68	16.29	23.00
5745MHz	Pass	8.32	4.22	5.48	7.88	27.68	16.20	36.00
5785MHz	Pass	8.32	4.56	5.57	8.08	27.68	16.40	36.00
5825MHz	Pass	8.32	2.51	2.95	5.65	27.68	13.97	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	8.32	3.06	3.40	6.04	14.68	14.36	23.00
5230MHz	Pass	8.32	2.78	3.90	5.98	14.68	14.30	23.00
5755MHz	Pass	8.32	3.27	4.16	6.73	27.68	15.05	36.00
5795MHz	Pass	8.32	3.30	4.29	6.81	27.68	15.13	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	8.32	-1.49	-0.91	1.77	14.68	10.09	23.00
5775MHz	Pass	8.32	-0.44	0.34	2.98	27.68	11.30	36.00

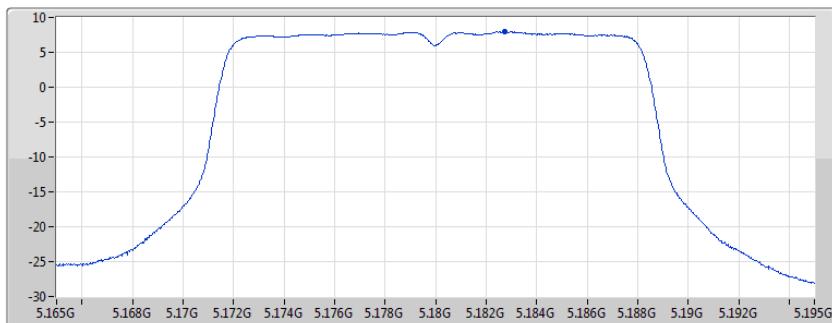
**DG** = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

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

**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**PSD**
**5180MHz**

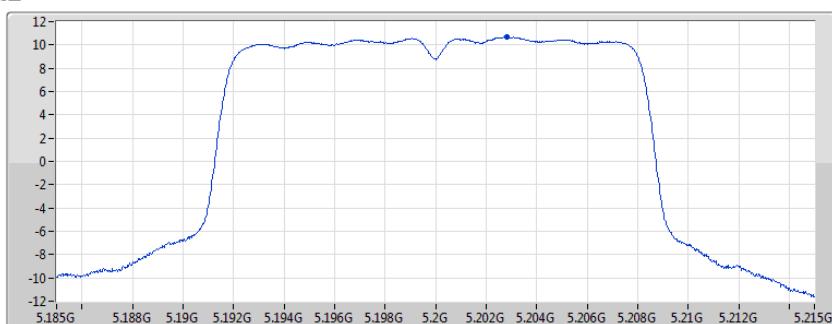
07/10/2019

CF
5.18GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
21.3s
Detector Type
RMS


**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**PSD**
**5200MHz**

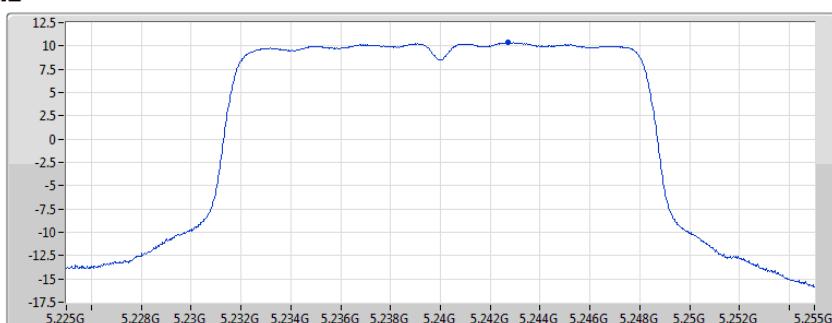
07/10/2019

CF
5.2GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
21.3s
Detector Type
RMS


**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**PSD**
**5240MHz**

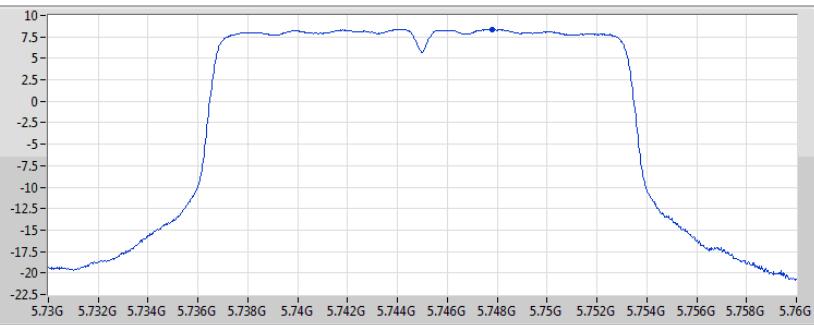
16/10/2019

CF
5.24GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
21.3s
Detector Type
RMS



**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**5745MHz**

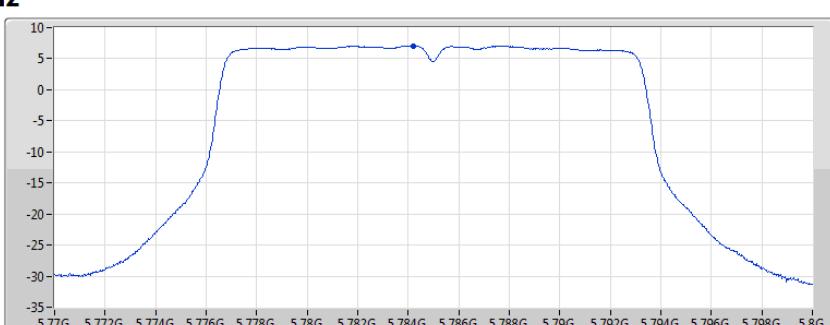
CF
5.745GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
21.3s
Detector Type
RMS


**PSD**

07/10/2019

 Port 1 
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**5785MHz**

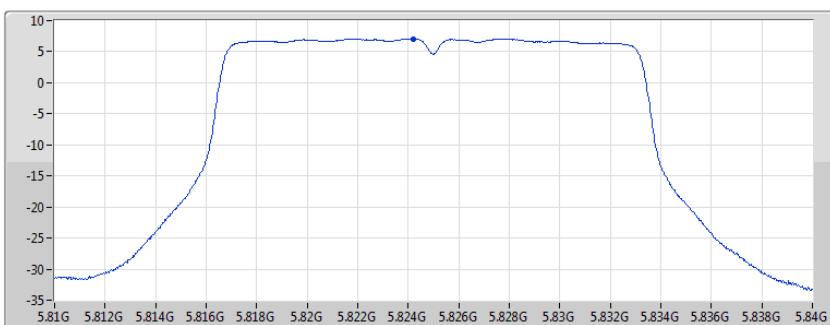
CF
5.785GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
21.3s
Detector Type
RMS


**PSD**

07/10/2019

 Port 1 
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**
**5825MHz**

CF
5.825GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
21.3s
Detector Type
RMS

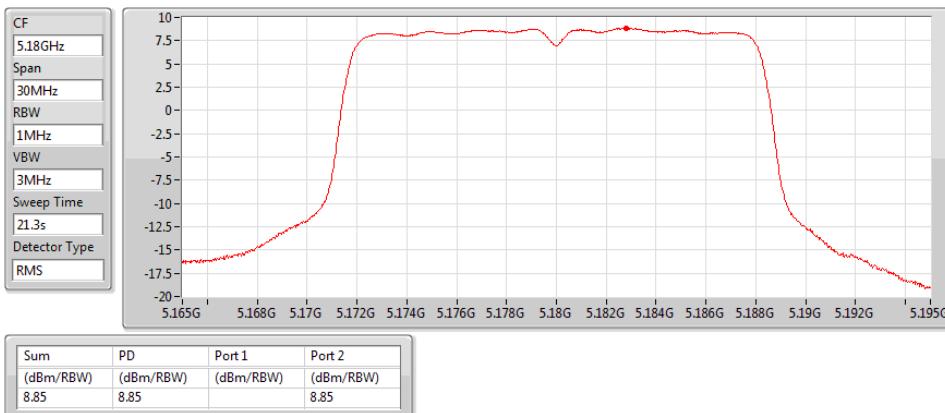

**PSD**

07/10/2019

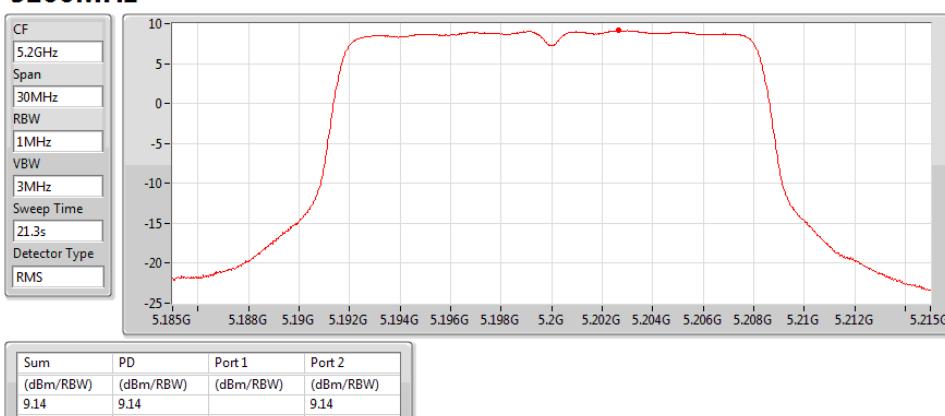
 Port 1 

**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**PSD**
**5180MHz**

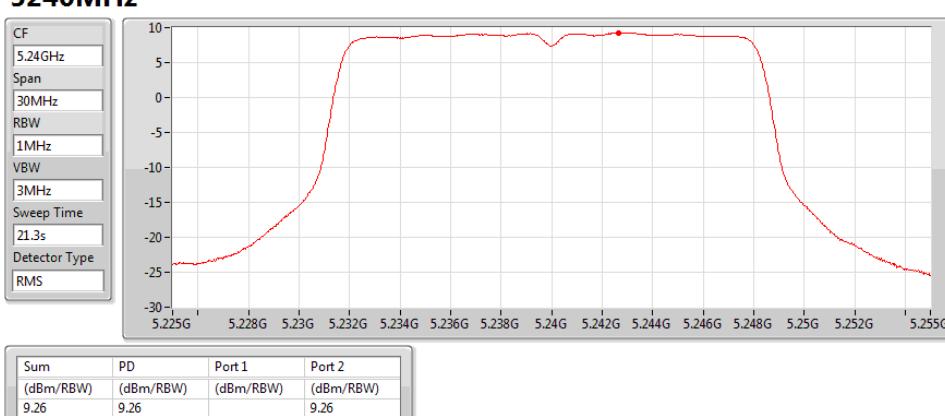
07/10/2019


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**PSD**
**5200MHz**

16/10/2019

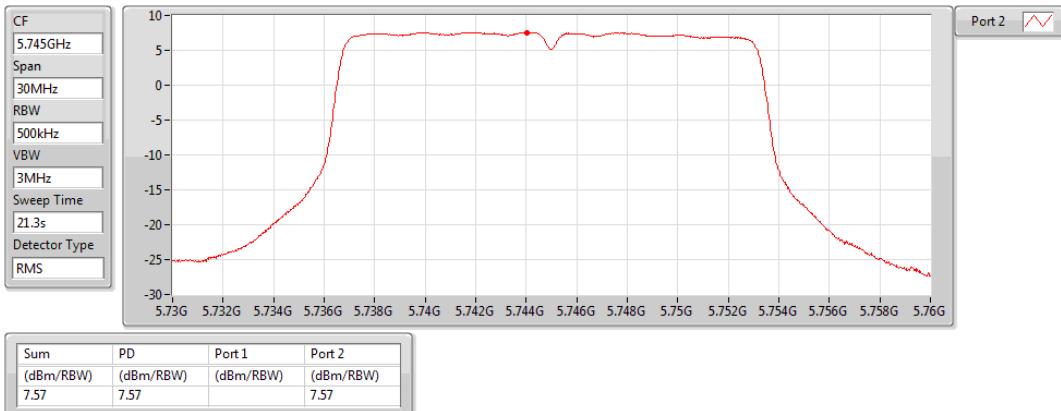

**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**PSD**
**5240MHz**

16/10/2019

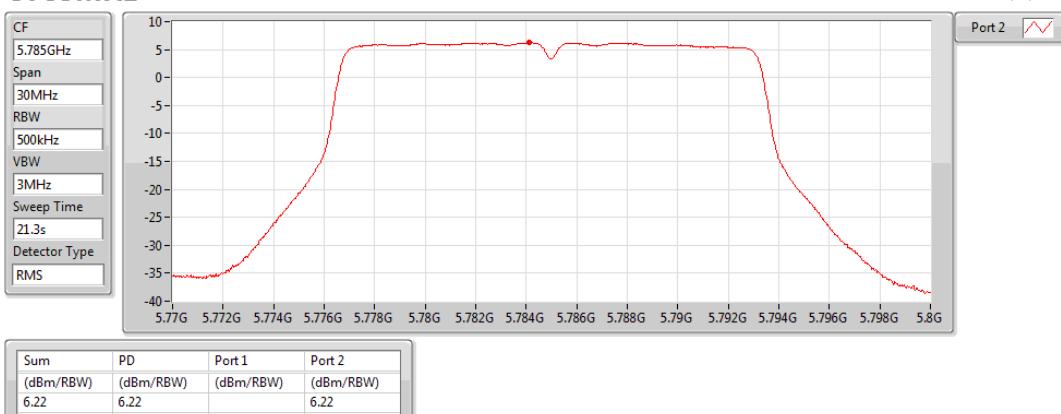


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**PSD**
**5745MHz**

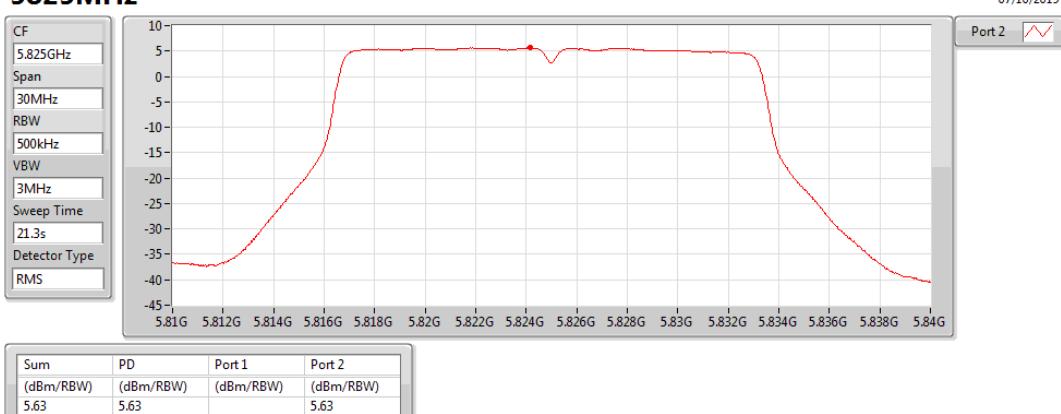
07/10/2019

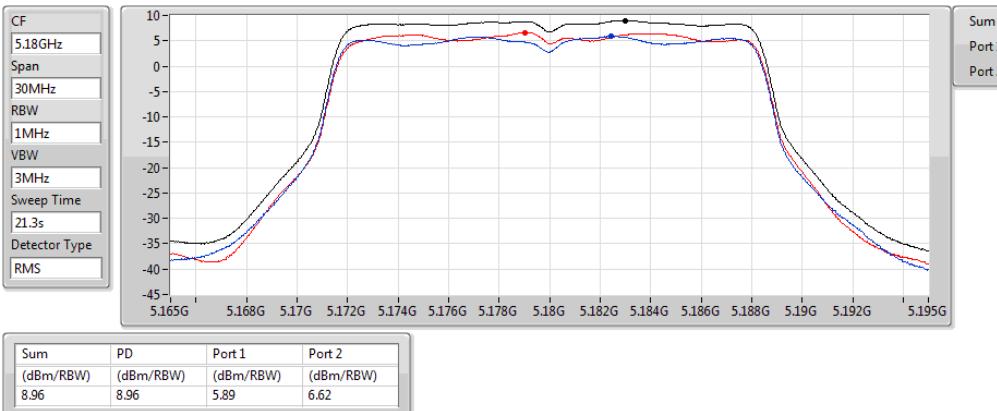
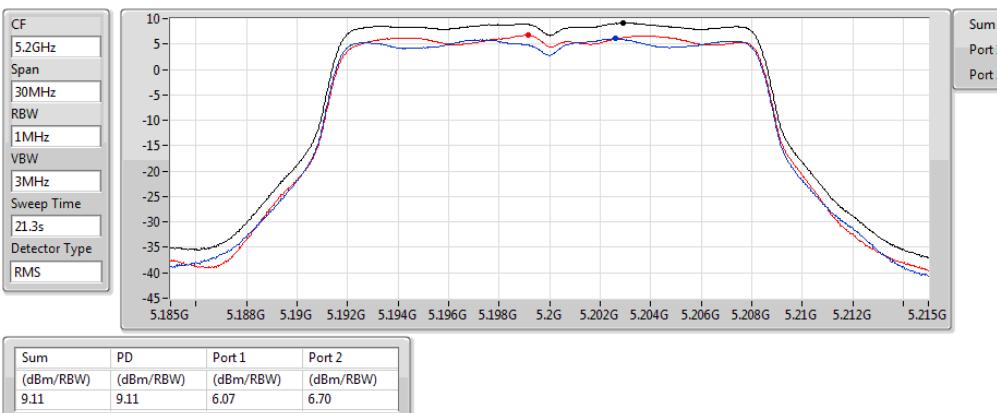
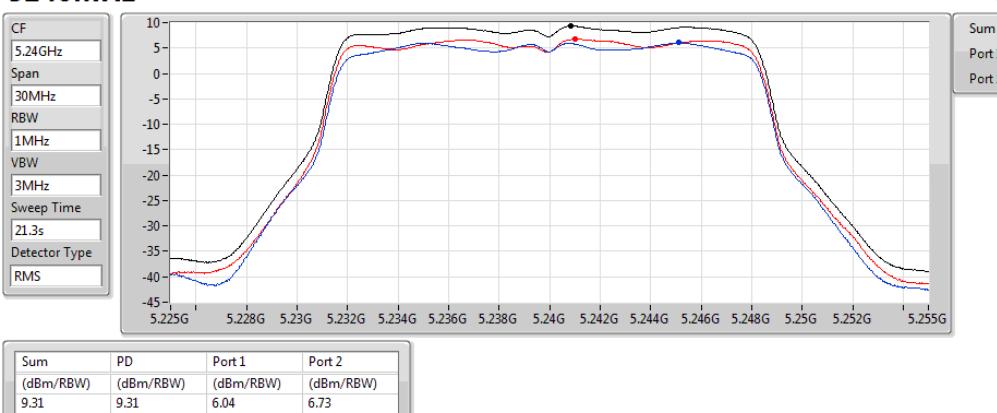

**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**PSD**
**5785MHz**

07/10/2019


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**
**PSD**
**5825MHz**

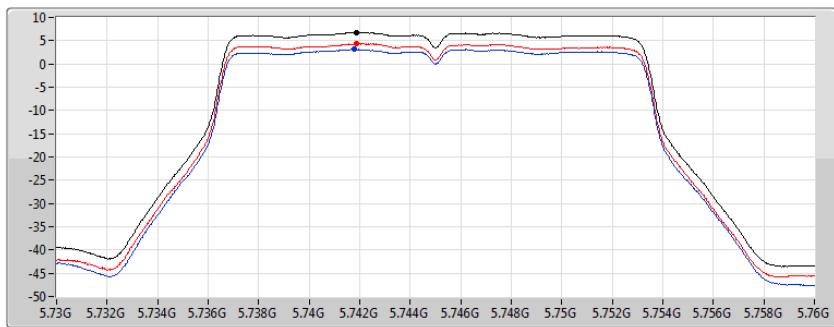
07/10/2019



**802.11a\_Nss1,(6Mbps)\_2TX**
**5180MHz**

**802.11a\_Nss1,(6Mbps)\_2TX**
**5200MHz**

**802.11a\_Nss1,(6Mbps)\_2TX**
**5240MHz**


**802.11a\_Nss1,(6Mbps)\_2TX**
**5745MHz**

CF
5.745GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
21.3s
Detector Type
RMS

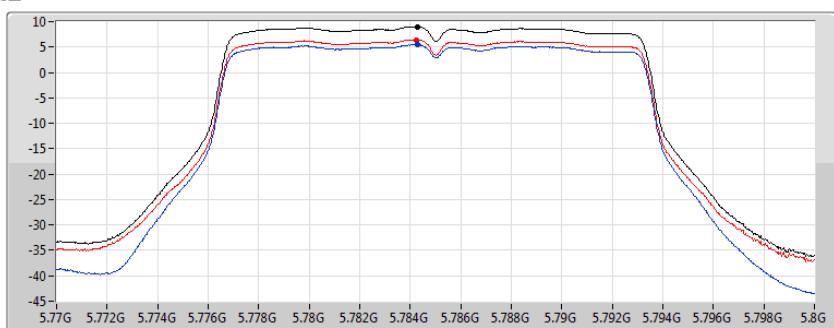

**PSD**

07/10/2019

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

**802.11a\_Nss1,(6Mbps)\_2TX**
**5785MHz**

CF
5.785GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
21.3s
Detector Type
RMS

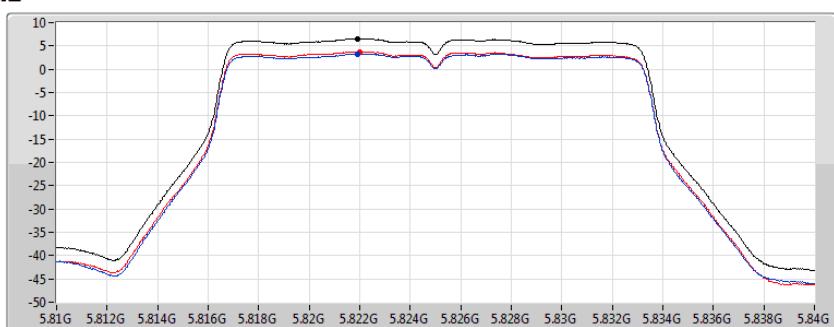

**PSD**

07/10/2019

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

**802.11a\_Nss1,(6Mbps)\_2TX**
**5825MHz**

CF
5.825GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
21.3s
Detector Type
RMS

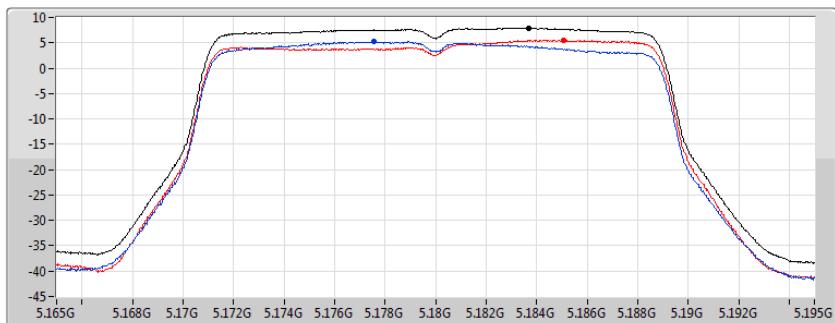

**PSD**

07/10/2019

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

**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**PSD**
**5180MHz**

CF
5.18GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

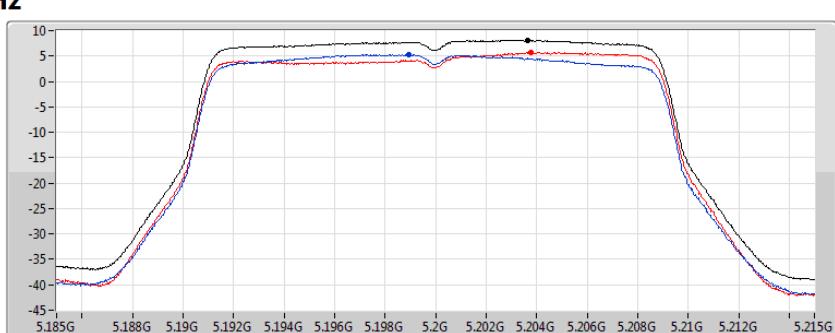


16/10/2019

Sum	/\
Port 1	/\
Port 2	/\

**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**PSD**
**5200MHz**

CF
5.2GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

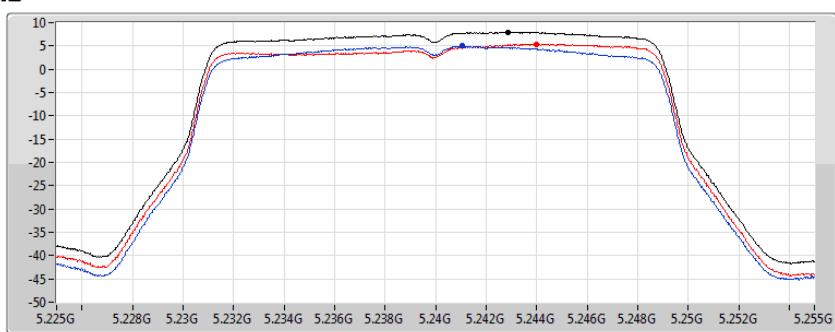


16/10/2019

Sum	/\
Port 1	/\
Port 2	/\

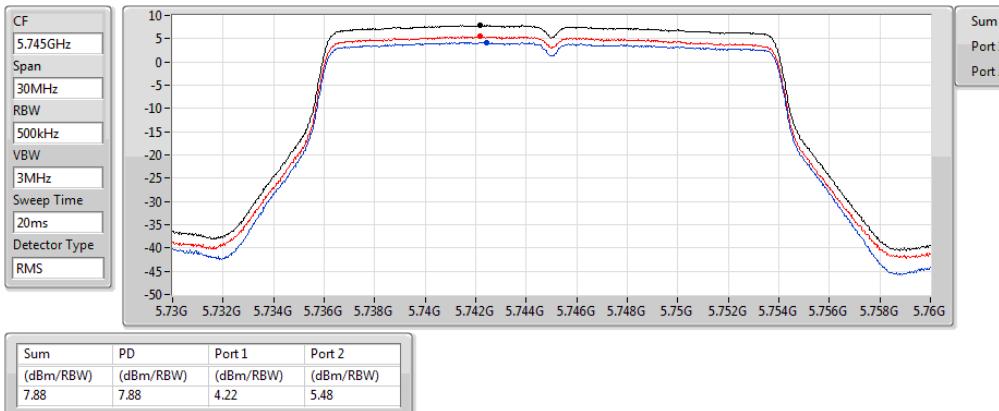
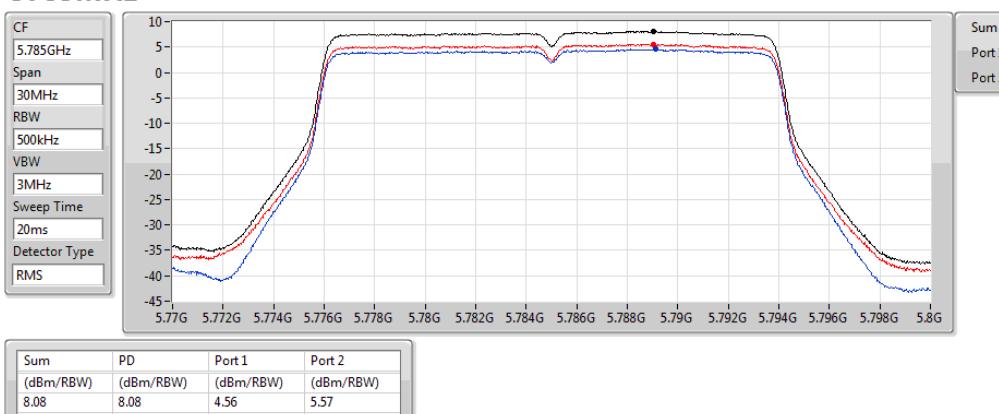
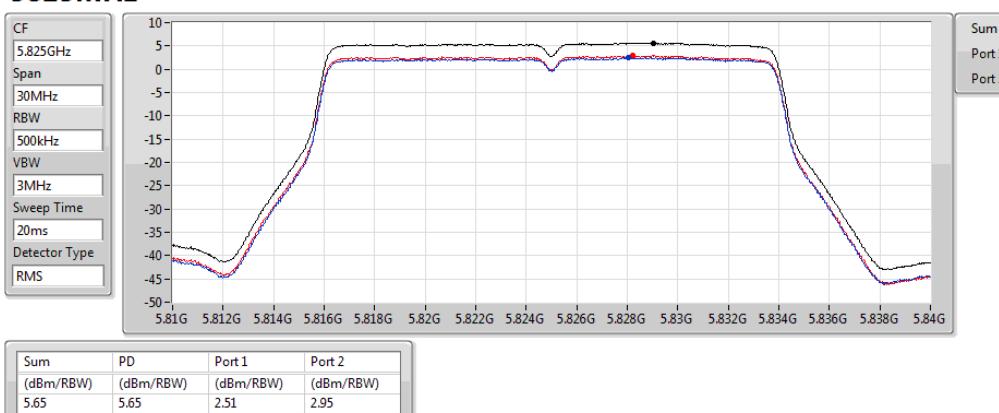
**802.11ac VHT20\_Nss1,(MCS0)\_2TX**
**PSD**
**5240MHz**

CF
5.24GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



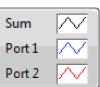
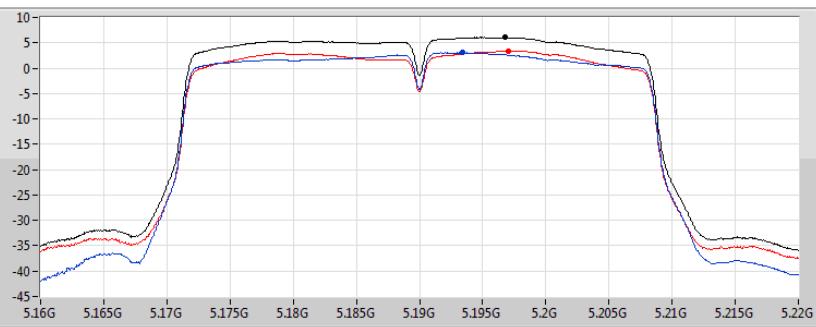
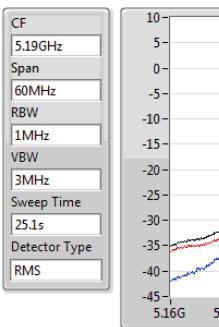
16/10/2019

Sum	/\
Port 1	/\
Port 2	/\

**802.11ac VHT20\_Nss1,(MCS0)\_2TX****5745MHz****802.11ac VHT20\_Nss1,(MCS0)\_2TX****5785MHz****802.11ac VHT20\_Nss1,(MCS0)\_2TX****5825MHz**

**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**PSD**
**5190MHz**

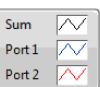
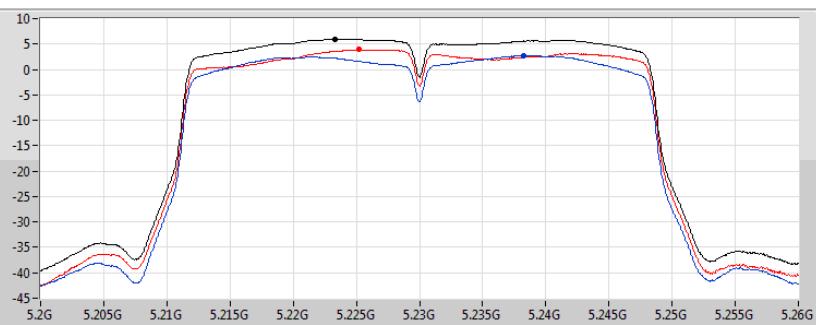
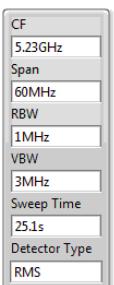
07/10/2019



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.04	6.04	3.06	3.40

**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**PSD**
**5230MHz**

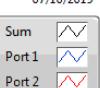
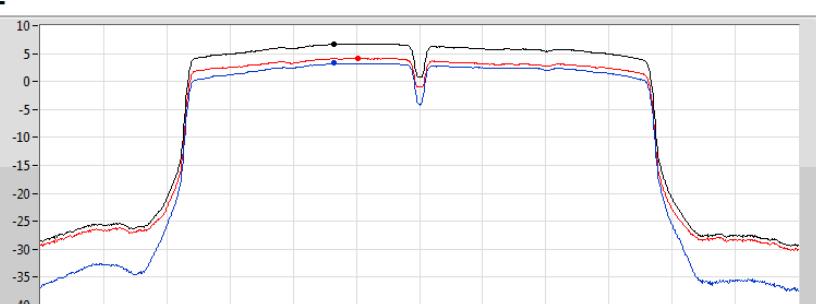
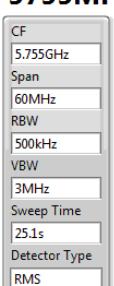
16/10/2019



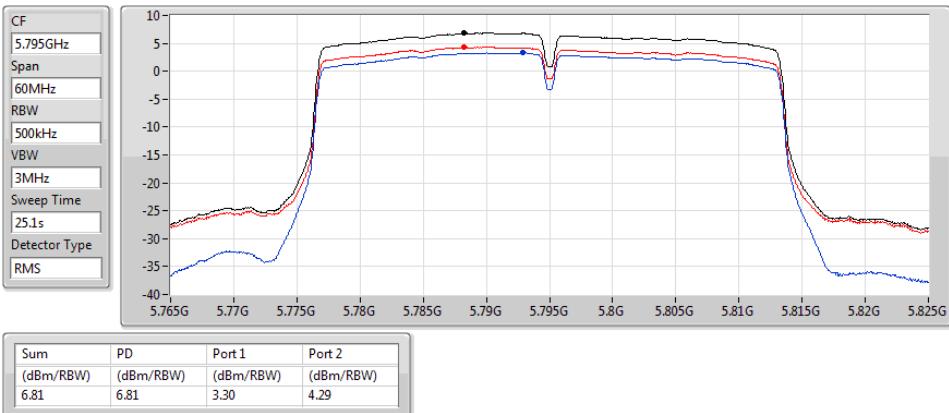
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.98	5.98	2.78	3.90

**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**PSD**
**5755MHz**

07/10/2019

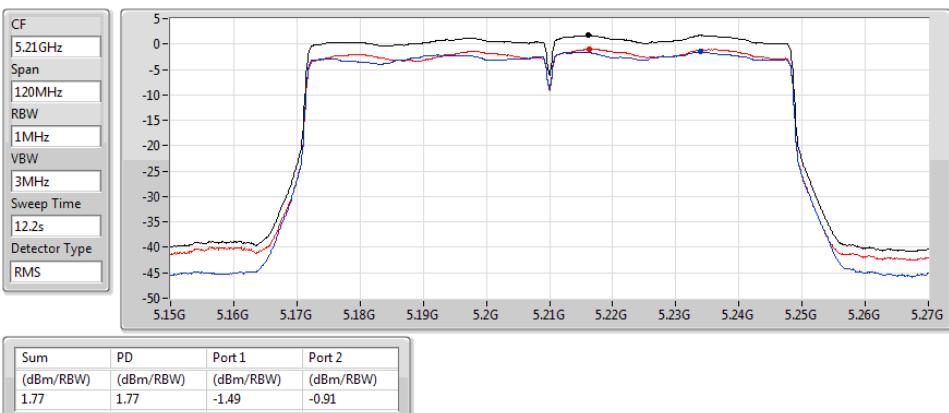


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.73	6.73	3.27	4.16

**802.11ac VHT40\_Nss1,(MCS0)\_2TX**
**5795MHz**

**PSD**

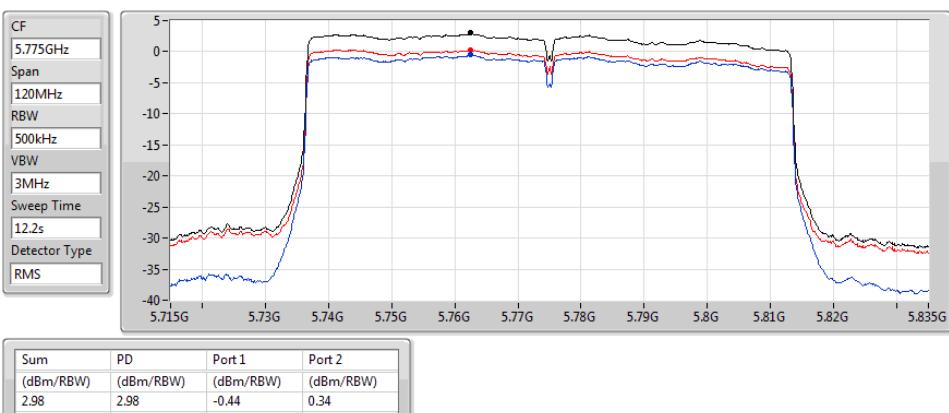
07/10/2019

 Sum  
 Port 1  
 Port 2

**802.11ac VHT80\_Nss1,(MCS0)\_2TX**
**5210MHz**

**PSD**

07/10/2019

 Sum  
 Port 1  
 Port 2

**802.11ac VHT80\_Nss1,(MCS0)\_2TX**
**5775MHz**

**PSD**

07/10/2019

 Sum  
 Port 1  
 Port 2

**Summary**

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	2.34	10.66
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	1.46	9.78
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-3.09	5.23
5.725-5.85GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	5.77	14.09
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	3.48	11.80
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	1.01	9.33

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

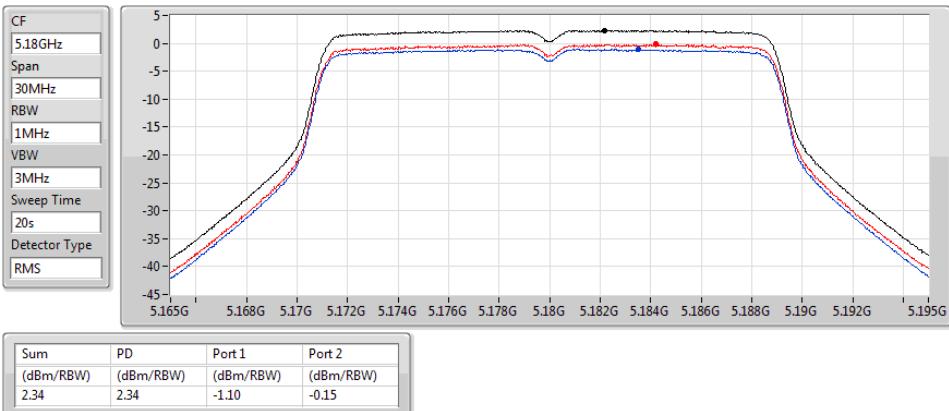


## Result

Mode	Result	DG (dBf)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.32	-1.10	-0.15	2.34	14.68	10.66	23.00
5200MHz	Pass	8.32	-1.28	-0.24	2.15	14.68	10.47	23.00
5240MHz	Pass	8.32	-1.39	-0.21	2.14	14.68	10.46	23.00
5745MHz	Pass	8.32	2.78	2.82	5.77	27.68	14.09	36.00
5785MHz	Pass	8.32	2.25	3.01	5.33	27.68	13.65	36.00
5825MHz	Pass	8.32	1.95	2.67	5.24	27.68	13.56	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	8.32	-1.28	-0.88	1.46	14.68	9.78	23.00
5230MHz	Pass	8.32	-2.27	-2.00	0.58	14.68	8.90	23.00
5755MHz	Pass	8.32	0.97	0.87	3.48	27.68	11.80	36.00
5795MHz	Pass	8.32	0.28	1.69	3.39	27.68	11.71	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	8.32	-5.95	-5.42	-3.09	14.68	5.23	23.00
5775MHz	Pass	8.32	-3.06	-0.81	1.01	27.68	9.33	36.00

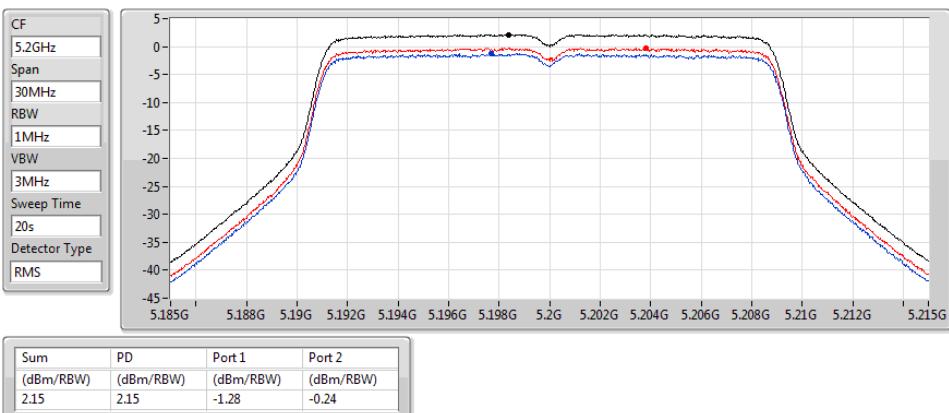
**DG** = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

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

**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**5180MHz**

**PSD**

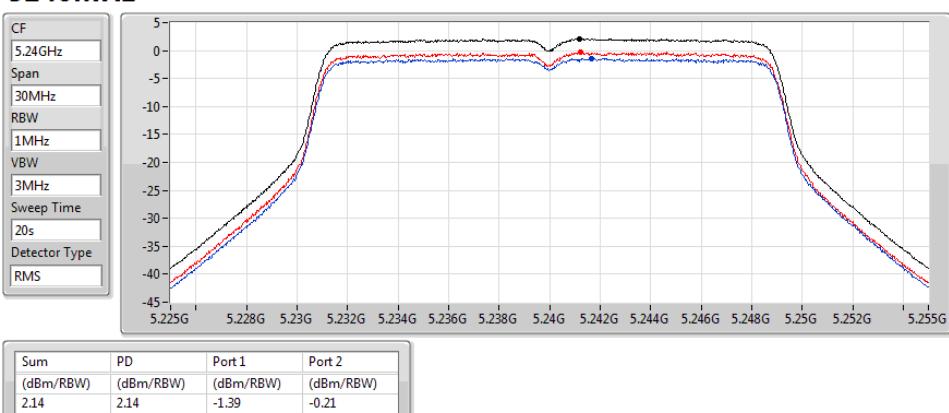
16/10/2019

 Sum  
 Port 1  
 Port 2

**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**5200MHz**

**PSD**

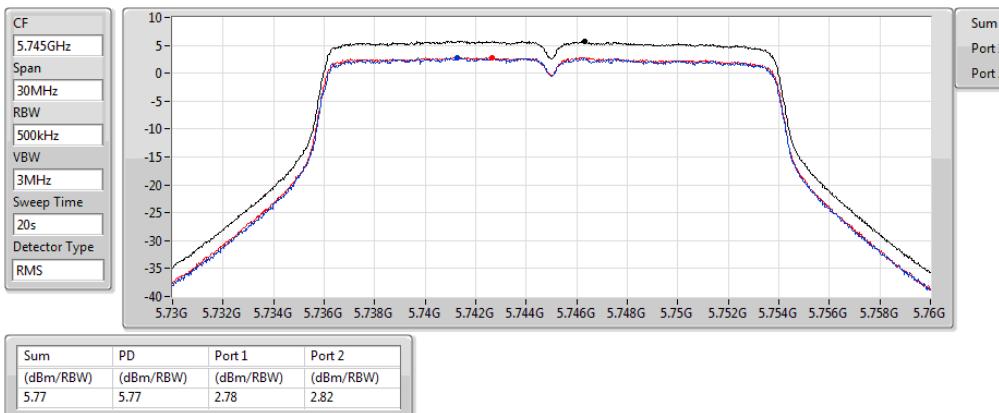
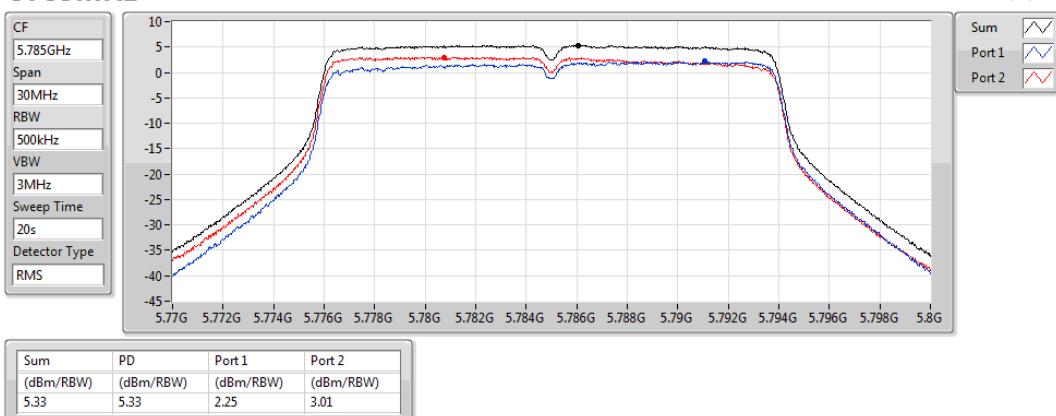
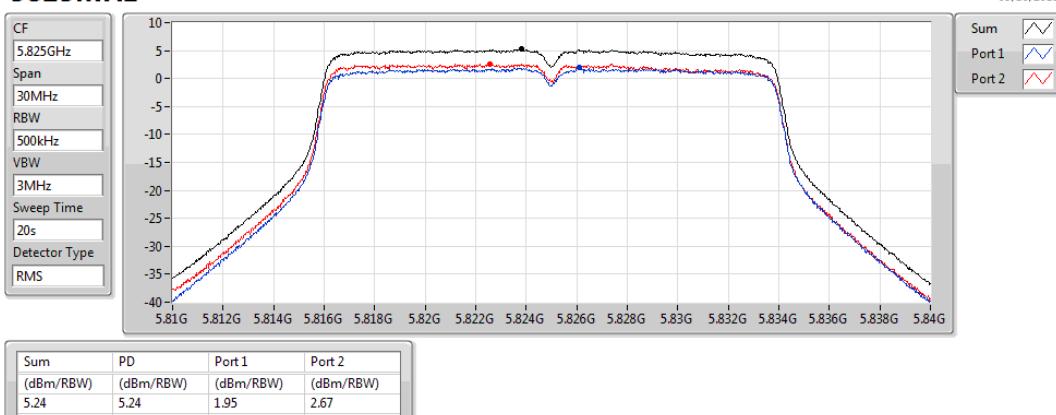
16/10/2019

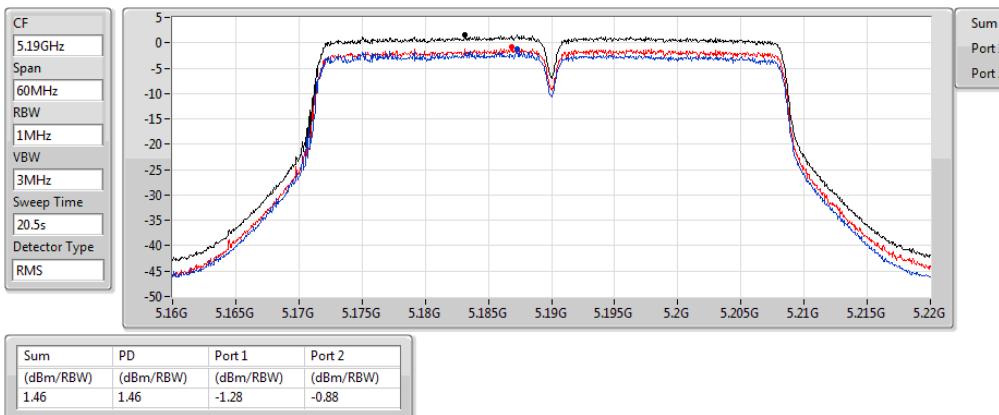
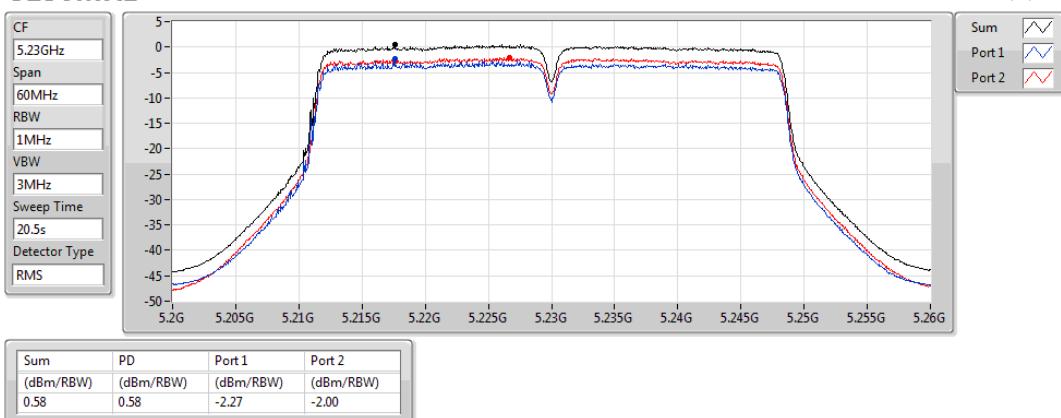
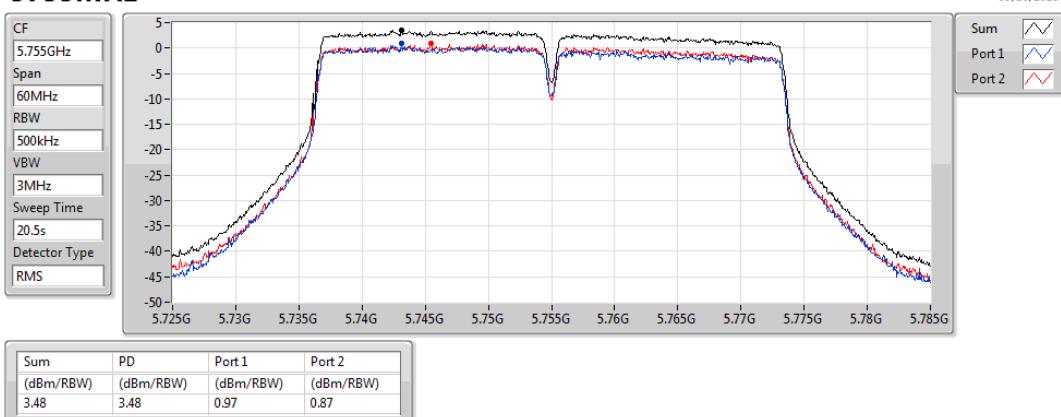
 Sum  
 Port 1  
 Port 2

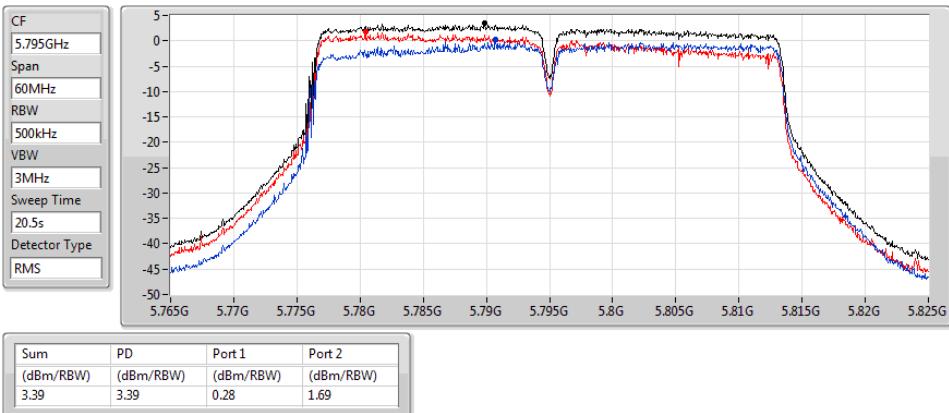
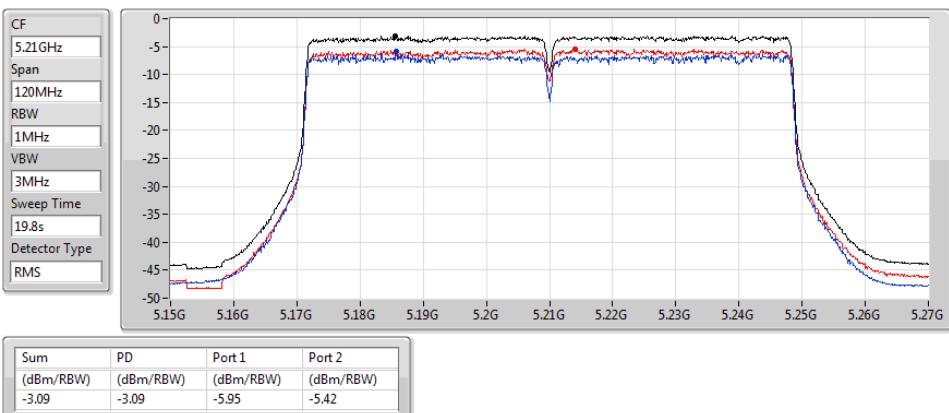
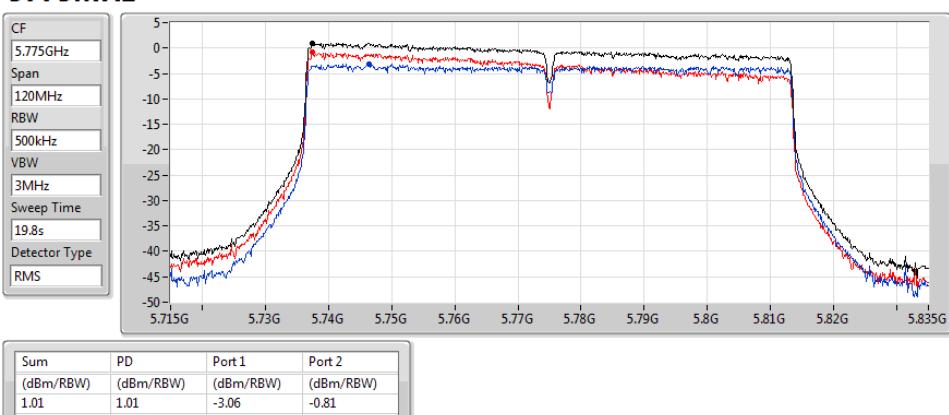
**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**5240MHz**

**PSD**

16/10/2019

 Sum  
 Port 1  
 Port 2

**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**5745MHz**

**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**5785MHz**

**802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX**
**5825MHz**


**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**5190MHz**

**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**5230MHz**

**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**5755MHz**


**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**5795MHz**

**802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX**
**5210MHz**

**802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX**
**5775MHz**




**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	PK	57.16M	31.83	40.00	-8.17	3	Horizontal	360	1.00	-

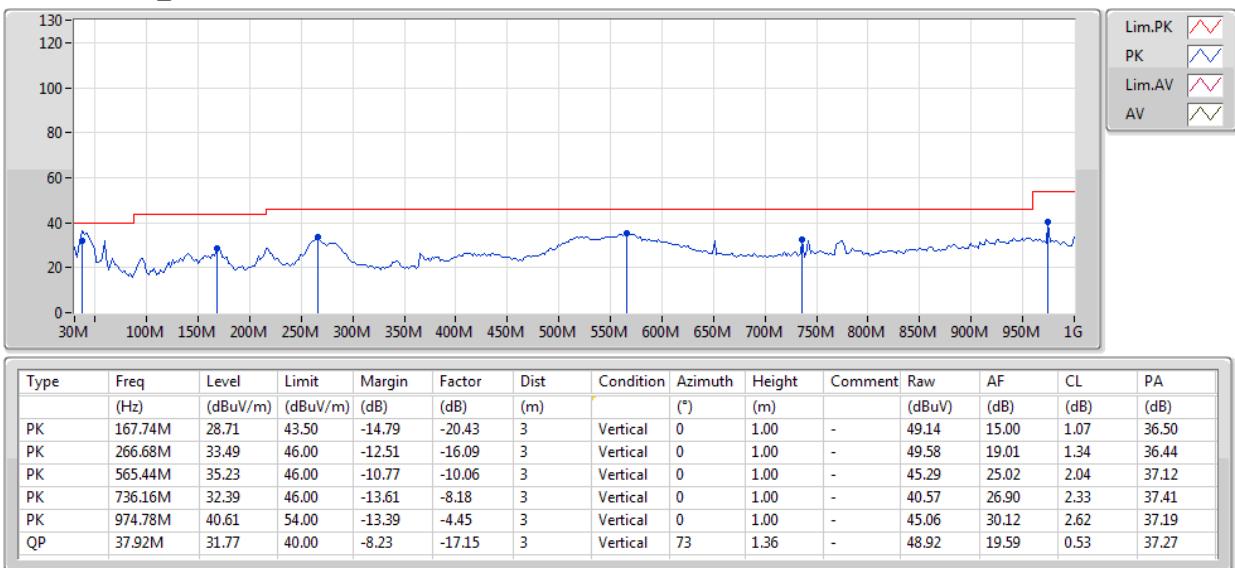


## Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	PK	167.74M	28.71	43.50	-14.79	3	Vertical	0	1.00	-
5775MHz	Pass	PK	266.68M	33.49	46.00	-12.51	3	Vertical	0	1.00	-
5775MHz	Pass	PK	565.44M	35.23	46.00	-10.77	3	Vertical	0	1.00	-
5775MHz	Pass	PK	736.16M	32.39	46.00	-13.61	3	Vertical	0	1.00	-
5775MHz	Pass	PK	974.78M	40.61	54.00	-13.39	3	Vertical	0	1.00	-
5775MHz	Pass	QP	37.92M	31.77	40.00	-8.23	3	Vertical	73	1.36	-
5775MHz	Pass	PK	57.16M	31.83	40.00	-8.17	3	Horizontal	360	1.00	-
5775MHz	Pass	PK	142.52M	34.37	43.50	-9.13	3	Horizontal	360	1.00	-
5775MHz	Pass	PK	270.56M	35.30	46.00	-10.70	3	Horizontal	360	1.00	-
5775MHz	Pass	PK	499.48M	30.20	46.00	-15.80	3	Horizontal	360	1.00	-
5775MHz	Pass	PK	650.8M	34.97	46.00	-11.03	3	Horizontal	360	1.00	-
5775MHz	Pass	PK	875.84M	33.57	46.00	-12.43	3	Horizontal	360	1.00	-

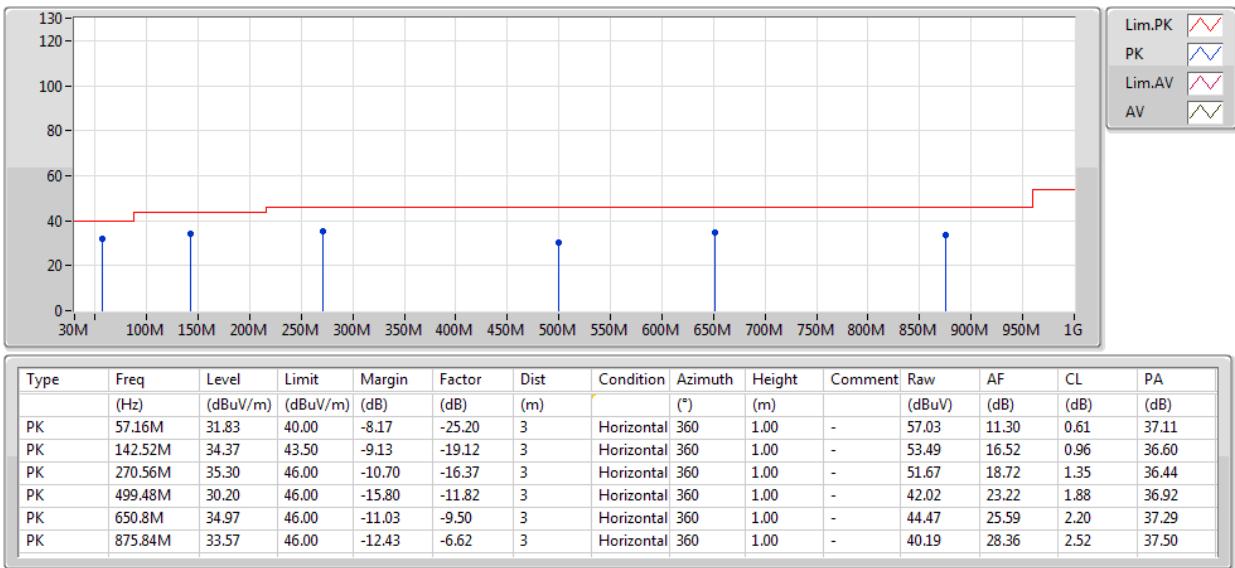
**802.11ac VHT80\_Nss1,(MCS0)\_2TX**

08/10/2019

**5775MHz\_PoE**


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

08/10/2019

**5775MHz\_PoE**




**Summary**

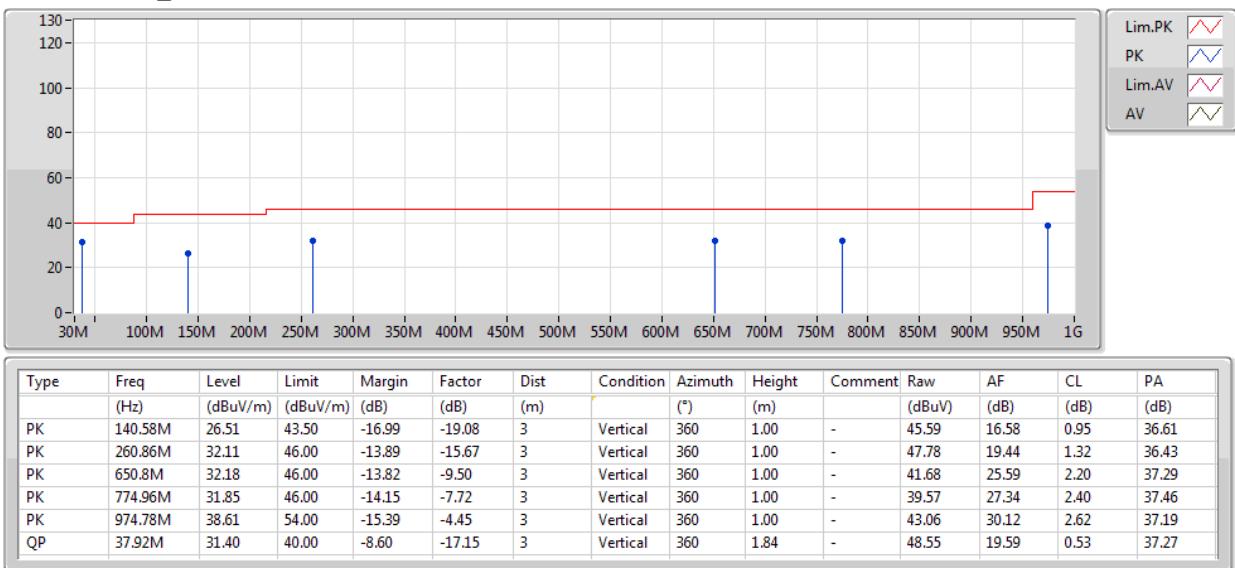
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80-BF_Nss1_(MCS0)_2TX	Pass	QP	37.92M	31.40	40.00	-8.60	3	Vertical	360	1.84	-

**Result**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	PK	140.58M	26.51	43.50	-16.99	3	Vertical	360	1.00	-
5775MHz	Pass	PK	260.86M	32.11	46.00	-13.89	3	Vertical	360	1.00	-
5775MHz	Pass	PK	650.8M	32.18	46.00	-13.82	3	Vertical	360	1.00	-
5775MHz	Pass	PK	774.96M	31.85	46.00	-14.15	3	Vertical	360	1.00	-
5775MHz	Pass	PK	974.78M	38.61	54.00	-15.39	3	Vertical	360	1.00	-
5775MHz	Pass	QP	37.92M	31.40	40.00	-8.60	3	Vertical	360	1.84	-
5775MHz	Pass	PK	57.16M	29.83	40.00	-10.17	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	140.58M	33.84	43.50	-9.66	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	270.56M	34.80	46.00	-11.20	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	499.48M	29.70	46.00	-16.30	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	625.58M	34.13	46.00	-11.87	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	974.78M	32.32	54.00	-21.68	3	Horizontal	0	1.00	-

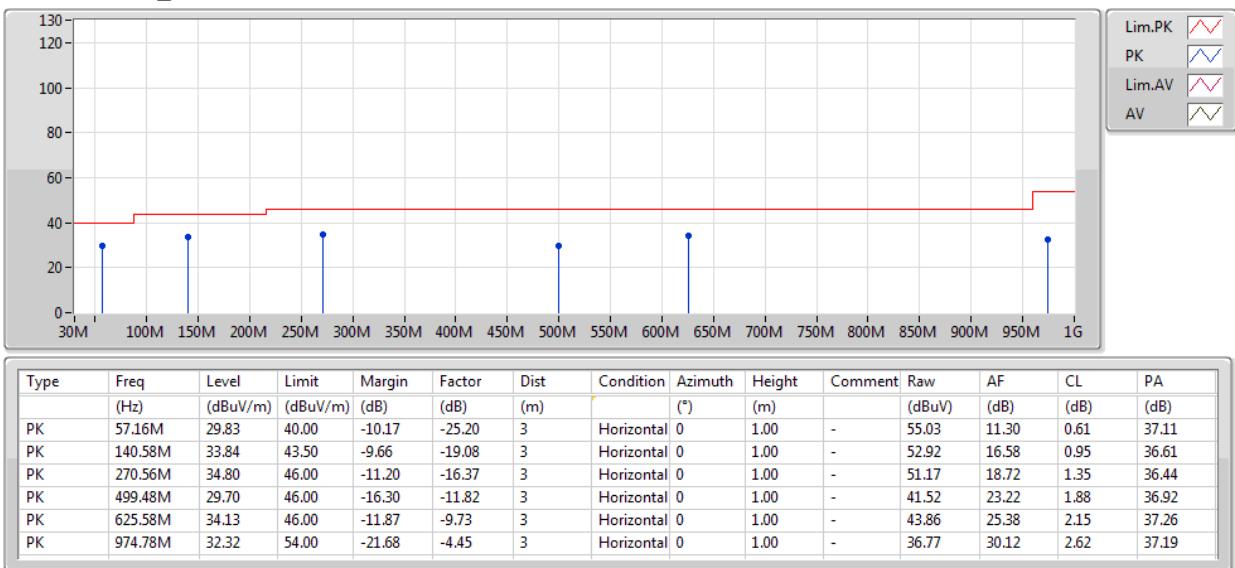
**802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX**

08/10/2019

**5775MHz\_PoE**

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

08/10/2019

**5775MHz\_PoE**

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	Pass	AV	5.15G	53.23	54.00	-0.77	3	Vertical	321	1.50	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	Pass	AV	15.7212G	53.39	54.00	-0.61	3	Vertical	24	1.48	-
802.11a_Nss1,(6Mbps)_2TX	Pass	AV	15.59976G	52.65	54.00	-1.35	3	Vertical	160	1.65	-
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	AV	15.59244G	53.90	54.00	-0.10	3	Vertical	163	1.62	-
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	AV	5.144G	53.14	54.00	-0.86	3	Vertical	6	2.67	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	AV	5.145G	53.70	54.00	-0.30	3	Vertical	7	1.50	-
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	Pass	PK	17.48088G	67.90	68.20	-0.30	3	Vertical	148	1.50	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	Pass	PK	17.47568G	67.99	68.20	-0.21	3	Vertical	32	2.29	-
802.11a_Nss1,(6Mbps)_2TX	Pass	PK	17.48586G	67.70	68.20	-0.50	3	Vertical	29	1.67	-
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	PK	17.47824G	67.97	68.20	-0.23	3	Vertical	29	1.63	-
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	PK	17.2676G	67.67	68.20	-0.53	3	Vertical	29	2.59	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	AV	5.455G	53.84	54.00	-0.16	3	Vertical	1	2.26	-



## Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.15G	53.23	54.00	-0.77	3	Vertical	321	1.50	-
5180MHz	Pass	AV	5.1768G	104.87	Inf	-Inf	3	Vertical	321	1.50	-
5180MHz	Pass	PK	5.15G	66.30	74.00	-7.70	3	Vertical	321	1.50	-
5180MHz	Pass	PK	5.1766G	114.71	Inf	-Inf	3	Vertical	321	1.50	-
5180MHz	Pass	AV	5.1484G	48.62	54.00	-5.38	3	Horizontal	173	1.97	-
5180MHz	Pass	AV	5.1834G	91.67	Inf	-Inf	3	Horizontal	173	1.97	-
5180MHz	Pass	PK	5.1408G	61.51	74.00	-12.49	3	Horizontal	173	1.97	-
5180MHz	Pass	PK	5.183G	101.36	Inf	-Inf	3	Horizontal	173	1.97	-
5180MHz	Pass	AV	15.53826G	48.09	54.00	-5.91	3	Vertical	136	3.00	-
5180MHz	Pass	PK	10.35628G	60.51	68.20	-7.69	3	Vertical	149	1.48	-
5180MHz	Pass	PK	15.55086G	60.65	74.00	-13.35	3	Vertical	136	3.00	-
5180MHz	Pass	AV	15.5277G	48.06	54.00	-5.94	3	Horizontal	0	2.07	-
5180MHz	Pass	PK	10.34692G	60.04	68.20	-8.16	3	Horizontal	170	2.17	-
5180MHz	Pass	PK	15.55452G	60.43	74.00	-13.57	3	Horizontal	0	2.07	-
5200MHz	Pass	AV	5.1496G	51.56	54.00	-2.44	3	Vertical	324	1.50	-
5200MHz	Pass	AV	5.2032G	108.14	Inf	-Inf	3	Vertical	324	1.50	-
5200MHz	Pass	PK	5.1472G	65.59	74.00	-8.41	3	Vertical	324	1.50	-
5200MHz	Pass	PK	5.2028G	117.69	Inf	-Inf	3	Vertical	324	1.50	-
5200MHz	Pass	AV	5.1212G	48.62	54.00	-5.38	3	Horizontal	173	2.01	-
5200MHz	Pass	AV	5.1968G	94.12	Inf	-Inf	3	Horizontal	173	2.01	-
5200MHz	Pass	PK	5.1164G	61.63	74.00	-12.37	3	Horizontal	173	2.01	-
5200MHz	Pass	PK	5.1972G	103.74	Inf	-Inf	3	Horizontal	173	2.01	-
5200MHz	Pass	AV	15.60048G	51.07	54.00	-2.93	3	Vertical	164	1.92	-
5200MHz	Pass	PK	10.38836G	61.11	68.20	-7.09	3	Vertical	142	1.44	-
5200MHz	Pass	PK	15.59826G	64.31	74.00	-9.69	3	Vertical	164	1.92	-
5200MHz	Pass	AV	15.60168G	51.84	54.00	-2.16	3	Horizontal	8	1.63	-
5200MHz	Pass	PK	10.409G	62.25	68.20	-5.95	3	Horizontal	12	1.98	-
5200MHz	Pass	PK	15.59478G	65.47	74.00	-8.53	3	Horizontal	8	1.63	-
5240MHz	Pass	AV	5.1218G	49.11	54.00	-4.89	3	Vertical	326	1.50	-
5240MHz	Pass	AV	5.243G	107.91	Inf	-Inf	3	Vertical	326	1.50	-
5240MHz	Pass	AV	5.375G	47.92	54.00	-6.08	3	Vertical	326	1.50	-
5240MHz	Pass	PK	5.1008G	61.91	74.00	-12.09	3	Vertical	326	1.50	-
5240MHz	Pass	PK	5.243G	117.49	Inf	-Inf	3	Vertical	326	1.50	-
5240MHz	Pass	PK	5.3756G	59.58	74.00	-14.42	3	Vertical	326	1.50	-
5240MHz	Pass	AV	5.1032G	48.73	54.00	-5.27	3	Horizontal	171	1.96	-
5240MHz	Pass	AV	5.2436G	94.13	Inf	-Inf	3	Horizontal	171	1.96	-
5240MHz	Pass	AV	5.363G	47.13	54.00	-6.87	3	Horizontal	171	1.96	-
5240MHz	Pass	PK	5.135G	61.49	74.00	-12.51	3	Horizontal	171	1.96	-
5240MHz	Pass	PK	5.243G	103.58	Inf	-Inf	3	Horizontal	171	1.96	-
5240MHz	Pass	PK	5.3612G	59.69	74.00	-14.31	3	Horizontal	171	1.96	-
5240MHz	Pass	AV	15.72414G	52.57	54.00	-1.43	3	Vertical	162	1.86	-
5240MHz	Pass	PK	10.49488G	60.95	68.20	-7.25	3	Vertical	19	2.30	-
5240MHz	Pass	PK	15.72168G	65.66	74.00	-8.34	3	Vertical	162	1.86	-
5240MHz	Pass	AV	15.71934G	51.14	54.00	-2.86	3	Horizontal	4	1.54	-
5240MHz	Pass	PK	10.47208G	61.82	68.20	-6.38	3	Horizontal	14	1.33	-
5240MHz	Pass	PK	15.71916G	64.75	74.00	-9.25	3	Horizontal	4	1.54	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5180MHz	Pass	AV	5.15G	53.38	54.00	-0.62	3	Vertical	39	1.50	-
5180MHz	Pass	AV	5.1832G	104.68	Inf	-Inf	3	Vertical	39	1.50	-
5180MHz	Pass	PK	5.1496G	66.65	74.00	-7.35	3	Vertical	39	1.50	-
5180MHz	Pass	PK	5.183G	114.39	Inf	-Inf	3	Vertical	39	1.50	-
5180MHz	Pass	AV	5.1496G	48.66	54.00	-5.34	3	Horizontal	152	1.50	-
5180MHz	Pass	AV	5.1834G	93.05	Inf	-Inf	3	Horizontal	152	1.50	-
5180MHz	Pass	PK	5.1496G	61.12	74.00	-12.88	3	Horizontal	152	1.50	-
5180MHz	Pass	PK	5.183G	102.52	Inf	-Inf	3	Horizontal	152	1.50	-
5180MHz	Pass	AV	15.5406G	49.09	54.00	-4.91	3	Vertical	161	1.64	-
5180MHz	Pass	PK	10.35896G	60.12	68.20	-8.08	3	Vertical	143	1.50	-
5180MHz	Pass	PK	15.54234G	62.53	74.00	-11.47	3	Vertical	161	1.64	-
5180MHz	Pass	AV	15.5386G	47.83	54.00	-6.17	3	Horizontal	68	1.50	-
5180MHz	Pass	PK	10.36212G	60.88	68.20	-7.32	3	Horizontal	60	1.56	-
5180MHz	Pass	PK	15.53928G	61.24	74.00	-12.76	3	Horizontal	68	1.50	-
5200MHz	Pass	AV	5.1368G	49.05	54.00	-4.95	3	Vertical	33	1.50	-
5200MHz	Pass	AV	5.2032G	105.17	Inf	-Inf	3	Vertical	33	1.50	-
5200MHz	Pass	PK	5.122G	61.60	74.00	-12.40	3	Vertical	33	1.50	-
5200MHz	Pass	PK	5.2012G	114.72	Inf	-Inf	3	Vertical	33	1.50	-
5200MHz	Pass	AV	5.108G	48.70	54.00	-5.30	3	Horizontal	157	2.46	-
5200MHz	Pass	AV	5.2032G	94.37	Inf	-Inf	3	Horizontal	157	2.46	-
5200MHz	Pass	PK	5.136G	61.12	74.00	-12.88	3	Horizontal	157	2.46	-
5200MHz	Pass	PK	5.2028G	103.64	Inf	-Inf	3	Horizontal	157	2.46	-
5200MHz	Pass	AV	15.59964G	53.32	54.00	-0.68	3	Vertical	163	1.60	-
5200MHz	Pass	PK	10.40143G	60.32	68.20	-7.88	3	Vertical	136	1.50	-
5200MHz	Pass	PK	15.60668G	67.95	74.00	-6.05	3	Vertical	163	1.60	-
5200MHz	Pass	AV	15.6031G	49.92	54.00	-4.08	3	Horizontal	215	1.47	-
5200MHz	Pass	PK	10.40182G	61.16	68.20	-7.04	3	Horizontal	58	1.50	-
5200MHz	Pass	PK	15.5991G	63.10	74.00	-10.90	3	Horizontal	215	1.47	-
5240MHz	Pass	AV	5.1158G	48.76	54.00	-5.24	3	Vertical	34	1.52	-
5240MHz	Pass	AV	5.243G	107.17	Inf	-Inf	3	Vertical	34	1.52	-
5240MHz	Pass	AV	5.3864G	48.27	54.00	-5.73	3	Vertical	34	1.52	-
5240MHz	Pass	PK	5.1278G	61.25	74.00	-12.75	3	Vertical	34	1.52	-
5240MHz	Pass	PK	5.243G	116.48	Inf	-Inf	3	Vertical	34	1.52	-
5240MHz	Pass	PK	5.366G	60.59	74.00	-13.41	3	Vertical	34	1.52	-
5240MHz	Pass	AV	5.1002G	48.47	54.00	-5.53	3	Horizontal	93	2.04	-
5240MHz	Pass	AV	5.2436G	96.90	Inf	-Inf	3	Horizontal	93	2.04	-
5240MHz	Pass	AV	5.3708G	46.86	54.00	-7.14	3	Horizontal	93	2.04	-
5240MHz	Pass	PK	5.1134G	61.15	74.00	-12.85	3	Horizontal	93	2.04	-
5240MHz	Pass	PK	5.2448G	106.87	Inf	-Inf	3	Horizontal	93	2.04	-
5240MHz	Pass	PK	5.375G	59.07	74.00	-14.93	3	Horizontal	93	2.04	-
5240MHz	Pass	AV	15.7212G	53.39	54.00	-0.61	3	Vertical	24	1.48	-
5240MHz	Pass	PK	10.48152G	60.14	68.20	-8.06	3	Vertical	136	1.50	-
5240MHz	Pass	PK	15.7265G	67.75	74.00	-6.25	3	Vertical	24	1.48	-
5240MHz	Pass	AV	15.7212G	49.99	54.00	-4.01	3	Horizontal	298	1.63	-
5240MHz	Pass	PK	10.48106G	60.72	68.20	-7.48	3	Horizontal	267	1.50	-
5240MHz	Pass	PK	15.71922G	62.95	74.00	-11.05	3	Horizontal	298	1.63	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	AV	5.425G	52.64	54.00	-1.36	3	Vertical	305	2.55	-
5745MHz	Pass	AV	5.749G	106.49	Inf	-Inf	3	Vertical	305	2.55	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5745MHz	Pass	PK	5.625G	60.99	68.20	-7.21	3	Vertical	305	2.55	-
5745MHz	Pass	PK	5.739G	116.20	Inf	-Inf	3	Vertical	305	2.55	-
5745MHz	Pass	PK	5.963G	60.37	68.20	-7.83	3	Vertical	305	2.55	-
5745MHz	Pass	AV	5.443G	47.42	54.00	-6.58	3	Horizontal	119	1.67	-
5745MHz	Pass	AV	5.749G	91.86	Inf	-Inf	3	Horizontal	119	1.67	-
5745MHz	Pass	PK	5.587G	60.01	68.20	-8.19	3	Horizontal	119	1.67	-
5745MHz	Pass	PK	5.741G	101.30	Inf	-Inf	3	Horizontal	119	1.67	-
5745MHz	Pass	PK	5.929G	60.92	68.20	-7.28	3	Horizontal	119	1.67	-
5745MHz	Pass	AV	11.49015G	48.30	54.00	-5.70	3	Vertical	8	1.50	-
5745MHz	Pass	PK	11.48839G	61.01	74.00	-12.99	3	Vertical	8	1.50	-
5745MHz	Pass	PK	17.23666G	67.50	68.20	-0.70	3	Vertical	275	1.50	-
5745MHz	Pass	AV	11.49171G	49.74	54.00	-4.26	3	Horizontal	61	1.49	-
5745MHz	Pass	PK	11.49032G	62.52	74.00	-11.48	3	Horizontal	61	1.49	-
5745MHz	Pass	PK	17.23198G	67.82	68.20	-0.38	3	Horizontal	311	2.97	-
5785MHz	Pass	AV	5.457G	49.44	54.00	-4.56	3	Vertical	303	2.50	-
5785MHz	Pass	AV	5.789G	105.23	Inf	-Inf	3	Vertical	303	2.50	-
5785MHz	Pass	PK	5.46G	61.15	68.20	-7.05	3	Vertical	303	2.50	-
5785MHz	Pass	PK	5.789G	114.68	Inf	-Inf	3	Vertical	303	2.50	-
5785MHz	Pass	PK	5.935G	61.05	68.20	-7.15	3	Vertical	303	2.50	-
5785MHz	Pass	AV	5.447G	47.43	54.00	-6.57	3	Horizontal	113	1.50	-
5785MHz	Pass	AV	5.789G	89.53	Inf	-Inf	3	Horizontal	113	1.50	-
5785MHz	Pass	PK	5.607G	60.86	68.20	-7.34	3	Horizontal	113	1.50	-
5785MHz	Pass	PK	5.789G	99.07	Inf	-Inf	3	Horizontal	113	1.50	-
5785MHz	Pass	PK	5.943G	61.25	68.20	-6.95	3	Horizontal	113	1.50	-
5785MHz	Pass	AV	11.57504G	47.72	54.00	-6.28	3	Vertical	204	1.50	-
5785MHz	Pass	PK	11.57678G	61.29	74.00	-12.71	3	Vertical	204	1.50	-
5785MHz	Pass	PK	17.36352G	66.80	68.20	-1.40	3	Vertical	270	1.50	-
5785MHz	Pass	AV	11.57012G	49.85	54.00	-4.15	3	Horizontal	56	1.50	-
5785MHz	Pass	PK	11.5694G	63.46	74.00	-10.54	3	Horizontal	56	1.50	-
5785MHz	Pass	PK	17.35782G	67.61	68.20	-0.59	3	Horizontal	309	1.48	-
5825MHz	Pass	AV	5.455G	47.90	54.00	-6.10	3	Vertical	302	2.61	-
5825MHz	Pass	AV	5.829G	105.29	Inf	-Inf	3	Vertical	302	2.61	-
5825MHz	Pass	PK	5.547G	61.27	68.20	-6.93	3	Vertical	302	2.61	-
5825MHz	Pass	PK	5.819G	115.12	Inf	-Inf	3	Vertical	302	2.61	-
5825MHz	Pass	PK	5.941G	61.61	68.20	-6.59	3	Vertical	302	2.61	-
5825MHz	Pass	AV	5.459G	47.29	54.00	-6.71	3	Horizontal	118	1.60	-
5825MHz	Pass	AV	5.829G	91.20	Inf	-Inf	3	Horizontal	118	1.60	-
5825MHz	Pass	PK	5.595G	60.12	68.20	-8.08	3	Horizontal	118	1.60	-
5825MHz	Pass	PK	5.827G	100.32	Inf	-Inf	3	Horizontal	118	1.60	-
5825MHz	Pass	PK	5.939G	60.67	68.20	-7.53	3	Horizontal	118	1.60	-
5825MHz	Pass	AV	11.64712G	48.17	54.00	-5.83	3	Vertical	21	1.50	-
5825MHz	Pass	PK	11.6362G	60.87	74.00	-13.13	3	Vertical	21	1.50	-
5825MHz	Pass	PK	17.48088G	67.90	68.20	-0.30	3	Vertical	148	1.50	-
5825MHz	Pass	AV	11.65048G	51.84	54.00	-2.16	3	Horizontal	28	2.22	-
5825MHz	Pass	PK	11.6506G	66.08	74.00	-7.92	3	Horizontal	28	2.22	-
5825MHz	Pass	PK	17.4735G	67.82	68.20	-0.38	3	Horizontal	307	1.50	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	AV	5.425G	53.01	54.00	-0.99	3	Vertical	63	2.44	-
5745MHz	Pass	AV	5.749G	103.53	Inf	-Inf	3	Vertical	63	2.44	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5745MHz	Pass	PK	5.497G	62.05	68.20	-6.15	3	Vertical	63	2.44	-
5745MHz	Pass	PK	5.741G	113.24	Inf	-Inf	3	Vertical	63	2.44	-
5745MHz	Pass	PK	5.989G	60.73	68.20	-7.47	3	Vertical	63	2.44	-
5745MHz	Pass	AV	5.439G	47.25	54.00	-6.75	3	Horizontal	264	1.08	-
5745MHz	Pass	AV	5.749G	87.85	Inf	-Inf	3	Horizontal	264	1.08	-
5745MHz	Pass	PK	5.579G	61.10	68.20	-7.10	3	Horizontal	264	1.08	-
5745MHz	Pass	PK	5.747G	97.10	Inf	-Inf	3	Horizontal	264	1.08	-
5745MHz	Pass	PK	5.933G	60.60	68.20	-7.60	3	Horizontal	264	1.08	-
5745MHz	Pass	AV	11.4911G	48.31	54.00	-5.69	3	Vertical	311	1.50	-
5745MHz	Pass	PK	11.49184G	61.41	74.00	-12.59	3	Vertical	311	1.50	-
5745MHz	Pass	PK	17.23908G	67.87	68.20	-0.33	3	Vertical	27	2.55	-
5745MHz	Pass	AV	11.48987G	49.06	54.00	-4.94	3	Horizontal	64	1.38	-
5745MHz	Pass	PK	11.49052G	61.30	74.00	-12.70	3	Horizontal	64	1.38	-
5745MHz	Pass	PK	17.24164G	65.74	68.20	-2.46	3	Horizontal	325	2.68	-
5785MHz	Pass	AV	5.457G	49.05	54.00	-4.95	3	Vertical	60	2.11	-
5785MHz	Pass	AV	5.789G	103.12	Inf	-Inf	3	Vertical	60	2.11	-
5785MHz	Pass	PK	5.543G	62.20	68.20	-6.00	3	Vertical	60	2.11	-
5785MHz	Pass	PK	5.779G	112.90	Inf	-Inf	3	Vertical	60	2.11	-
5785MHz	Pass	PK	5.935G	60.74	68.20	-7.46	3	Vertical	60	2.11	-
5785MHz	Pass	AV	5.457G	47.33	54.00	-6.67	3	Horizontal	103	1.49	-
5785MHz	Pass	AV	5.789G	84.15	Inf	-Inf	3	Horizontal	103	1.49	-
5785MHz	Pass	PK	5.579G	60.44	68.20	-7.76	3	Horizontal	103	1.49	-
5785MHz	Pass	PK	5.791G	93.27	Inf	-Inf	3	Horizontal	103	1.49	-
5785MHz	Pass	PK	5.941G	60.51	68.20	-7.69	3	Horizontal	103	1.49	-
5785MHz	Pass	AV	11.57007G	47.90	54.00	-6.10	3	Vertical	25	1.50	-
5785MHz	Pass	PK	11.57135G	60.64	74.00	-13.36	3	Vertical	25	1.50	-
5785MHz	Pass	PK	17.35272G	67.74	68.20	-0.46	3	Vertical	33	2.33	-
5785MHz	Pass	AV	11.57002G	48.47	54.00	-5.53	3	Horizontal	64	1.46	-
5785MHz	Pass	PK	11.56942G	61.20	74.00	-12.80	3	Horizontal	64	1.46	-
5785MHz	Pass	PK	17.367G	67.18	68.20	-1.02	3	Horizontal	331	1.00	-
5825MHz	Pass	AV	5.455G	48.50	54.00	-5.50	3	Vertical	59	2.58	-
5825MHz	Pass	AV	5.829G	102.66	Inf	-Inf	3	Vertical	59	2.58	-
5825MHz	Pass	PK	5.635G	61.03	68.20	-7.17	3	Vertical	59	2.58	-
5825MHz	Pass	PK	5.829G	112.10	Inf	-Inf	3	Vertical	59	2.58	-
5825MHz	Pass	PK	5.943G	60.28	68.20	-7.92	3	Vertical	59	2.58	-
5825MHz	Pass	AV	5.459G	47.60	54.00	-6.40	3	Horizontal	271	1.00	-
5825MHz	Pass	AV	5.827G	88.58	Inf	-Inf	3	Horizontal	271	1.00	-
5825MHz	Pass	PK	5.547G	60.00	68.20	-8.20	3	Horizontal	271	1.00	-
5825MHz	Pass	PK	5.821G	97.81	Inf	-Inf	3	Horizontal	271	1.00	-
5825MHz	Pass	PK	5.941G	60.44	68.20	-7.76	3	Horizontal	271	1.00	-
5825MHz	Pass	AV	11.64985G	48.16	54.00	-5.84	3	Vertical	28	1.81	-
5825MHz	Pass	PK	11.64982G	60.83	74.00	-13.17	3	Vertical	28	1.81	-
5825MHz	Pass	PK	17.47568G	67.99	68.20	-0.21	3	Vertical	32	2.29	-
5825MHz	Pass	AV	11.64989G	48.65	54.00	-5.35	3	Horizontal	73	1.83	-
5825MHz	Pass	PK	11.64816G	61.15	74.00	-12.85	3	Horizontal	73	1.83	-
5825MHz	Pass	PK	17.47592G	67.77	68.20	-0.43	3	Horizontal	40	2.20	-
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.15G	52.34	54.00	-1.66	3	Vertical	2	1.87	-
5180MHz	Pass	AV	5.181G	109.13	Inf	-Inf	3	Vertical	2	1.87	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5180MHz	Pass	PK	5.15G	66.98	74.00	-7.02	3	Vertical	2	1.87	-
5180MHz	Pass	PK	5.1856G	118.74	Inf	-Inf	3	Vertical	2	1.87	-
5180MHz	Pass	AV	5.1352G	48.60	54.00	-5.40	3	Horizontal	95	1.88	-
5180MHz	Pass	AV	5.1808G	96.55	Inf	-Inf	3	Horizontal	95	1.88	-
5180MHz	Pass	PK	5.1322G	61.47	74.00	-12.53	3	Horizontal	95	1.88	-
5180MHz	Pass	PK	5.1856G	106.85	Inf	-Inf	3	Horizontal	95	1.88	-
5180MHz	Pass	AV	15.54792G	48.45	54.00	-5.55	3	Vertical	162	1.59	-
5180MHz	Pass	PK	10.35982G	60.81	68.20	-7.39	3	Vertical	142	2.54	-
5180MHz	Pass	PK	15.5523G	61.11	74.00	-12.89	3	Vertical	162	1.59	-
5180MHz	Pass	AV	15.54156G	48.17	54.00	-5.83	3	Horizontal	26	2.98	-
5180MHz	Pass	PK	10.366G	60.88	68.20	-7.32	3	Horizontal	308	2.02	-
5180MHz	Pass	PK	15.5415G	60.76	74.00	-13.24	3	Horizontal	26	2.98	-
5200MHz	Pass	AV	5.1184G	49.70	54.00	-4.30	3	Vertical	1	1.87	-
5200MHz	Pass	AV	5.2012G	110.88	Inf	-Inf	3	Vertical	1	1.87	-
5200MHz	Pass	PK	5.114G	63.60	74.00	-10.40	3	Vertical	1	1.87	-
5200MHz	Pass	PK	5.1964G	120.47	Inf	-Inf	3	Vertical	1	1.87	-
5200MHz	Pass	AV	5.1G	48.78	54.00	-5.22	3	Horizontal	179	1.35	-
5200MHz	Pass	AV	5.1948G	96.90	Inf	-Inf	3	Horizontal	179	1.35	-
5200MHz	Pass	PK	5.1064G	61.16	74.00	-12.84	3	Horizontal	179	1.35	-
5200MHz	Pass	PK	5.1948G	106.26	Inf	-Inf	3	Horizontal	179	1.35	-
5200MHz	Pass	AV	15.59976G	52.65	54.00	-1.35	3	Vertical	160	1.65	-
5200MHz	Pass	PK	10.41368G	60.61	68.20	-7.59	3	Vertical	298	2.08	-
5200MHz	Pass	PK	15.60426G	65.71	74.00	-8.29	3	Vertical	160	1.65	-
5200MHz	Pass	AV	15.60162G	49.85	54.00	-4.15	3	Horizontal	207	1.53	-
5200MHz	Pass	PK	10.4102G	61.64	68.20	-6.56	3	Horizontal	256	1.31	-
5200MHz	Pass	PK	15.59646G	62.66	74.00	-11.34	3	Horizontal	207	1.53	-
5240MHz	Pass	AV	5.12G	49.41	54.00	-4.59	3	Vertical	4	2.04	-
5240MHz	Pass	AV	5.2412G	111.49	Inf	-Inf	3	Vertical	4	2.04	-
5240MHz	Pass	AV	5.3786G	48.32	54.00	-5.68	3	Vertical	4	2.04	-
5240MHz	Pass	PK	5.1008G	62.26	74.00	-11.74	3	Vertical	4	2.04	-
5240MHz	Pass	PK	5.237G	120.99	Inf	-Inf	3	Vertical	4	2.04	-
5240MHz	Pass	PK	5.3864G	60.86	74.00	-13.14	3	Vertical	4	2.04	-
5240MHz	Pass	AV	5.114G	49.38	54.00	-4.62	3	Vertical	0	2.03	-
5240MHz	Pass	AV	5.2364G	110.99	Inf	-Inf	3	Vertical	0	2.03	-
5240MHz	Pass	AV	5.3594G	48.65	54.00	-5.35	3	Vertical	0	2.03	-
5240MHz	Pass	PK	5.1476G	61.76	74.00	-12.24	3	Vertical	0	2.03	-
5240MHz	Pass	PK	5.237G	121.17	Inf	-Inf	3	Vertical	0	2.03	-
5240MHz	Pass	PK	5.3624G	60.41	74.00	-13.59	3	Vertical	0	2.03	-
5240MHz	Pass	AV	15.71844G	52.56	54.00	-1.44	3	Vertical	19	1.91	-
5240MHz	Pass	PK	10.4815G	61.12	68.20	-7.08	3	Vertical	140	1.01	-
5240MHz	Pass	PK	15.71844G	66.43	74.00	-7.57	3	Vertical	19	1.91	-
5240MHz	Pass	AV	15.71754G	50.49	54.00	-3.51	3	Horizontal	291	1.65	-
5240MHz	Pass	PK	10.4815G	63.44	68.20	-4.76	3	Horizontal	12	2.02	-
5240MHz	Pass	PK	15.7266G	64.55	74.00	-9.45	3	Horizontal	291	1.65	-
5745MHz	Pass	AV	5.425G	53.33	54.00	-0.67	3	Vertical	0	1.84	-
5745MHz	Pass	AV	5.739G	105.03	Inf	-Inf	3	Vertical	0	1.84	-
5745MHz	Pass	PK	5.501G	61.34	68.20	-6.86	3	Vertical	0	1.84	-
5745MHz	Pass	PK	5.739G	114.31	Inf	-Inf	3	Vertical	0	1.84	-
5745MHz	Pass	PK	5.983G	60.99	68.20	-7.21	3	Vertical	0	1.84	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5745MHz	Pass	AV	5.443G	47.57	54.00	-6.43	3	Horizontal	110	1.49	-
5745MHz	Pass	AV	5.749G	90.74	Inf	-Inf	3	Horizontal	110	1.49	-
5745MHz	Pass	PK	5.571G	60.51	68.20	-7.69	3	Horizontal	110	1.49	-
5745MHz	Pass	PK	5.749G	99.97	Inf	-Inf	3	Horizontal	110	1.49	-
5745MHz	Pass	PK	5.939G	61.14	68.20	-7.06	3	Horizontal	110	1.49	-
5745MHz	Pass	AV	11.49342G	47.85	54.00	-6.15	3	Vertical	222	1.50	-
5745MHz	Pass	PK	11.50212G	61.14	74.00	-12.86	3	Vertical	222	1.50	-
5745MHz	Pass	PK	17.24274G	66.16	68.20	-2.04	3	Vertical	33	1.65	-
5745MHz	Pass	AV	11.49024G	48.76	54.00	-5.24	3	Horizontal	62	1.21	-
5745MHz	Pass	PK	11.5002G	61.17	74.00	-12.83	3	Horizontal	62	1.21	-
5745MHz	Pass	PK	17.22168G	64.87	68.20	-3.33	3	Horizontal	263	1.50	-
5785MHz	Pass	AV	5.459G	50.26	54.00	-3.74	3	Vertical	0	1.83	-
5785MHz	Pass	AV	5.779G	107.27	Inf	-Inf	3	Vertical	0	1.83	-
5785MHz	Pass	PK	5.533G	62.01	68.20	-6.19	3	Vertical	0	1.83	-
5785MHz	Pass	PK	5.779G	116.25	Inf	-Inf	3	Vertical	0	1.83	-
5785MHz	Pass	PK	5.939G	61.34	68.20	-6.86	3	Vertical	0	1.83	-
5785MHz	Pass	AV	5.459G	50.50	54.00	-3.50	3	Vertical	22	1.82	-
5785MHz	Pass	AV	5.781G	107.60	Inf	-Inf	3	Vertical	22	1.82	-
5785MHz	Pass	PK	5.46G	61.84	68.20	-6.36	3	Vertical	22	1.82	-
5785MHz	Pass	PK	5.781G	117.46	Inf	-Inf	3	Vertical	22	1.82	-
5785MHz	Pass	PK	5.945G	61.23	68.20	-6.97	3	Vertical	22	1.82	-
5785MHz	Pass	AV	11.5772G	47.90	54.00	-6.10	3	Vertical	20	1.50	-
5785MHz	Pass	PK	11.56364G	60.50	74.00	-13.50	3	Vertical	20	1.50	-
5785MHz	Pass	PK	17.3451G	67.55	68.20	-0.65	3	Vertical	28	1.56	-
5785MHz	Pass	AV	11.57G	50.66	54.00	-3.34	3	Horizontal	58	1.50	-
5785MHz	Pass	PK	11.57618G	63.34	74.00	-10.66	3	Horizontal	58	1.50	-
5785MHz	Pass	PK	17.36376G	67.15	68.20	-1.05	3	Horizontal	60	1.38	-
5825MHz	Pass	AV	5.449G	49.01	54.00	-4.99	3	Vertical	345	1.82	-
5825MHz	Pass	AV	5.823G	105.31	Inf	-Inf	3	Vertical	345	1.82	-
5825MHz	Pass	PK	5.511G	62.09	68.20	-6.11	3	Vertical	345	1.82	-
5825MHz	Pass	PK	5.823G	114.60	Inf	-Inf	3	Vertical	345	1.82	-
5825MHz	Pass	PK	5.927G	60.82	68.20	-7.38	3	Vertical	345	1.82	-
5825MHz	Pass	AV	5.447G	48.70	54.00	-5.30	3	Vertical	344	1.50	-
5825MHz	Pass	AV	5.823G	104.87	Inf	-Inf	3	Vertical	344	1.50	-
5825MHz	Pass	PK	5.525G	61.17	68.20	-7.03	3	Vertical	344	1.50	-
5825MHz	Pass	PK	5.823G	114.00	Inf	-Inf	3	Vertical	344	1.50	-
5825MHz	Pass	PK	5.963G	61.36	68.20	-6.84	3	Vertical	344	1.50	-
5825MHz	Pass	AV	11.64976G	48.06	54.00	-5.94	3	Vertical	30	2.00	-
5825MHz	Pass	PK	11.64574G	61.08	74.00	-12.92	3	Vertical	30	2.00	-
5825MHz	Pass	PK	17.48586G	67.70	68.20	-0.50	3	Vertical	29	1.67	-
5825MHz	Pass	AV	11.65048G	50.12	54.00	-3.88	3	Horizontal	61	1.50	-
5825MHz	Pass	PK	11.64544G	61.98	74.00	-12.02	3	Horizontal	61	1.50	-
5825MHz	Pass	PK	17.48256G	67.39	68.20	-0.81	3	Horizontal	311	1.39	-
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.15G	52.90	54.00	-1.10	3	Vertical	4	1.50	-
5180MHz	Pass	AV	5.1748G	108.60	Inf	-Inf	3	Vertical	4	1.50	-
5180MHz	Pass	PK	5.15G	65.02	74.00	-8.98	3	Vertical	4	1.50	-
5180MHz	Pass	PK	5.1758G	118.26	Inf	-Inf	3	Vertical	4	1.50	-
5180MHz	Pass	AV	5.15G	47.89	54.00	-6.11	3	Horizontal	92	1.78	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5180MHz	Pass	AV	5.1732G	94.90	Inf	-Inf	3	Horizontal	92	1.78	-
5180MHz	Pass	PK	5.1344G	60.57	74.00	-13.43	3	Horizontal	92	1.78	-
5180MHz	Pass	PK	5.1738G	105.67	Inf	-Inf	3	Horizontal	92	1.78	-
5180MHz	Pass	AV	15.53512G	48.20	54.00	-5.80	3	Vertical	162	1.71	-
5180MHz	Pass	PK	10.36492G	60.14	68.20	-8.06	3	Vertical	12	1.50	-
5180MHz	Pass	PK	15.54056G	61.97	74.00	-12.03	3	Vertical	162	1.71	-
5180MHz	Pass	AV	15.54852G	47.62	54.00	-6.38	3	Horizontal	242	1.31	-
5180MHz	Pass	PK	10.36312G	61.03	68.20	-7.17	3	Horizontal	311	1.94	-
5180MHz	Pass	PK	15.53694G	60.82	74.00	-13.18	3	Horizontal	242	1.31	-
5200MHz	Pass	AV	5.12G	48.89	54.00	-5.11	3	Vertical	1	1.49	-
5200MHz	Pass	AV	5.1944G	110.16	Inf	-Inf	3	Vertical	1	1.49	-
5200MHz	Pass	PK	5.1088G	62.38	74.00	-11.62	3	Vertical	1	1.49	-
5200MHz	Pass	PK	5.1968G	120.43	Inf	-Inf	3	Vertical	1	1.49	-
5200MHz	Pass	AV	5.1024G	48.04	54.00	-5.96	3	Horizontal	176	1.50	-
5200MHz	Pass	AV	5.208G	96.35	Inf	-Inf	3	Horizontal	176	1.50	-
5200MHz	Pass	PK	5.1184G	61.36	74.00	-12.64	3	Horizontal	176	1.50	-
5200MHz	Pass	PK	5.2072G	106.84	Inf	-Inf	3	Horizontal	176	1.50	-
5200MHz	Pass	AV	15.59244G	53.90	54.00	-0.10	3	Vertical	163	1.62	-
5200MHz	Pass	PK	10.4027G	60.68	68.20	-7.52	3	Vertical	13	1.47	-
5200MHz	Pass	PK	15.58662G	71.55	74.00	-2.45	3	Vertical	163	1.62	-
5200MHz	Pass	AV	15.59604G	50.25	54.00	-3.75	3	Horizontal	207	1.50	-
5200MHz	Pass	PK	10.40012G	61.47	68.20	-6.73	3	Horizontal	262	1.50	-
5200MHz	Pass	PK	15.59598G	64.86	74.00	-9.14	3	Horizontal	207	1.50	-
5240MHz	Pass	AV	5.123G	48.43	54.00	-5.57	3	Vertical	1	1.77	-
5240MHz	Pass	AV	5.2346G	111.15	Inf	-Inf	3	Vertical	1	1.77	-
5240MHz	Pass	AV	5.3606G	47.77	54.00	-6.23	3	Vertical	1	1.77	-
5240MHz	Pass	PK	5.1224G	61.80	74.00	-12.20	3	Vertical	1	1.77	-
5240MHz	Pass	PK	5.234G	121.56	Inf	-Inf	3	Vertical	1	1.77	-
5240MHz	Pass	PK	5.3774G	60.17	74.00	-13.83	3	Vertical	1	1.77	-
5240MHz	Pass	AV	5.0906G	47.88	54.00	-6.12	3	Horizontal	174	1.50	-
5240MHz	Pass	AV	5.2478G	95.58	Inf	-Inf	3	Horizontal	174	1.50	-
5240MHz	Pass	AV	5.3828G	46.36	54.00	-7.64	3	Horizontal	174	1.50	-
5240MHz	Pass	PK	5.09G	60.97	74.00	-13.03	3	Horizontal	174	1.50	-
5240MHz	Pass	PK	5.2478G	105.98	Inf	-Inf	3	Horizontal	174	1.50	-
5240MHz	Pass	PK	5.3648G	59.54	74.00	-14.46	3	Horizontal	174	1.50	-
5240MHz	Pass	AV	15.71592G	53.52	54.00	-0.48	3	Vertical	17	1.88	-
5240MHz	Pass	PK	10.48612G	60.46	68.20	-7.74	3	Vertical	145	1.40	-
5240MHz	Pass	PK	15.71556G	70.56	74.00	-3.44	3	Vertical	17	1.88	-
5240MHz	Pass	AV	15.71256G	50.90	54.00	-3.10	3	Horizontal	292	1.65	-
5240MHz	Pass	PK	10.46824G	62.10	68.20	-6.10	3	Horizontal	12	2.03	-
5240MHz	Pass	PK	15.70662G	67.01	74.00	-6.99	3	Horizontal	292	1.65	-
5745MHz	Pass	AV	5.425G	52.90	54.00	-1.10	3	Vertical	19	1.91	-
5745MHz	Pass	AV	5.743G	106.10	Inf	-Inf	3	Vertical	19	1.91	-
5745MHz	Pass	PK	5.317G	60.20	68.20	-8.00	3	Vertical	19	1.91	-
5745MHz	Pass	PK	5.741G	115.46	Inf	-Inf	3	Vertical	19	1.91	-
5745MHz	Pass	PK	5.951G	59.61	68.20	-8.59	3	Vertical	19	1.91	-
5745MHz	Pass	AV	5.445G	46.82	54.00	-7.18	3	Horizontal	118	1.82	-
5745MHz	Pass	AV	5.739G	91.76	Inf	-Inf	3	Horizontal	118	1.82	-
5745MHz	Pass	PK	5.621G	59.86	68.20	-8.34	3	Horizontal	118	1.82	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5745MHz	Pass	PK	5.739G	101.66	Inf	-Inf	3	Horizontal	118	1.82	-
5745MHz	Pass	PK	5.981G	61.02	68.20	-7.18	3	Horizontal	118	1.82	-
5745MHz	Pass	AV	11.49018G	46.91	54.00	-7.09	3	Vertical	31	1.50	-
5745MHz	Pass	PK	11.4969G	59.97	74.00	-14.03	3	Vertical	31	1.50	-
5745MHz	Pass	PK	17.2359G	65.94	68.20	-2.26	3	Vertical	22	1.56	-
5745MHz	Pass	AV	11.4897G	48.65	54.00	-5.35	3	Horizontal	57	1.50	-
5745MHz	Pass	PK	11.49198G	61.41	74.00	-12.59	3	Horizontal	57	1.50	-
5745MHz	Pass	PK	17.22462G	65.37	68.20	-2.83	3	Horizontal	307	1.31	-
5785MHz	Pass	AV	5.457G	49.41	54.00	-4.59	3	Vertical	351	1.89	-
5785MHz	Pass	AV	5.779G	106.28	Inf	-Inf	3	Vertical	351	1.89	-
5785MHz	Pass	PK	5.465G	61.75	68.20	-6.45	3	Vertical	351	1.89	-
5785MHz	Pass	PK	5.779G	116.57	Inf	-Inf	3	Vertical	351	1.89	-
5785MHz	Pass	PK	5.973G	60.28	68.20	-7.92	3	Vertical	351	1.89	-
5785MHz	Pass	AV	5.459G	46.67	54.00	-7.33	3	Horizontal	118	1.74	-
5785MHz	Pass	AV	5.779G	92.96	Inf	-Inf	3	Horizontal	118	1.74	-
5785MHz	Pass	PK	5.309G	60.14	68.20	-8.06	3	Horizontal	118	1.74	-
5785MHz	Pass	PK	5.781G	102.72	Inf	-Inf	3	Horizontal	118	1.74	-
5785MHz	Pass	PK	5.955G	60.28	68.20	-7.92	3	Horizontal	118	1.74	-
5785MHz	Pass	AV	11.55788G	46.92	54.00	-7.08	3	Vertical	29	1.11	-
5785MHz	Pass	PK	11.55626G	60.61	74.00	-13.39	3	Vertical	29	1.11	-
5785MHz	Pass	PK	17.35326G	67.63	68.20	-0.57	3	Vertical	30	1.64	-
5785MHz	Pass	AV	11.57024G	49.01	54.00	-4.99	3	Horizontal	56	1.50	-
5785MHz	Pass	PK	11.5724G	62.45	74.00	-11.55	3	Horizontal	56	1.50	-
5785MHz	Pass	PK	17.35836G	67.38	68.20	-0.82	3	Horizontal	308	1.45	-
5825MHz	Pass	AV	5.457G	48.23	54.00	-5.77	3	Vertical	17	1.90	-
5825MHz	Pass	AV	5.823G	104.42	Inf	-Inf	3	Vertical	17	1.90	-
5825MHz	Pass	PK	5.513G	62.26	68.20	-5.94	3	Vertical	17	1.90	-
5825MHz	Pass	PK	5.825G	114.75	Inf	-Inf	3	Vertical	17	1.90	-
5825MHz	Pass	PK	5.935G	60.68	68.20	-7.52	3	Vertical	17	1.90	-
5825MHz	Pass	AV	5.447G	46.66	54.00	-7.34	3	Horizontal	112	1.62	-
5825MHz	Pass	AV	5.819G	90.75	Inf	-Inf	3	Horizontal	112	1.62	-
5825MHz	Pass	PK	5.501G	60.00	68.20	-8.20	3	Horizontal	112	1.62	-
5825MHz	Pass	PK	5.819G	100.42	Inf	-Inf	3	Horizontal	112	1.62	-
5825MHz	Pass	PK	5.981G	60.23	68.20	-7.97	3	Horizontal	112	1.62	-
5825MHz	Pass	AV	11.65408G	46.49	54.00	-7.51	3	Vertical	263	1.50	-
5825MHz	Pass	PK	11.6371G	60.50	74.00	-13.50	3	Vertical	263	1.50	-
5825MHz	Pass	PK	17.47824G	67.97	68.20	-0.23	3	Vertical	29	1.63	-
5825MHz	Pass	AV	11.65G	48.92	54.00	-5.08	3	Horizontal	57	1.49	-
5825MHz	Pass	PK	11.6482G	62.30	74.00	-11.70	3	Horizontal	57	1.49	-
5825MHz	Pass	PK	17.4867G	67.68	68.20	-0.52	3	Horizontal	308	1.50	-
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	AV	5.144G	53.14	54.00	-0.86	3	Vertical	6	2.67	-
5190MHz	Pass	AV	5.184G	104.10	Inf	-Inf	3	Vertical	6	2.67	-
5190MHz	Pass	PK	5.144G	66.32	74.00	-7.68	3	Vertical	6	2.67	-
5190MHz	Pass	PK	5.1848G	113.33	Inf	-Inf	3	Vertical	6	2.67	-
5190MHz	Pass	AV	5.1012G	48.58	54.00	-5.42	3	Horizontal	180	1.01	-
5190MHz	Pass	AV	5.1984G	91.67	Inf	-Inf	3	Horizontal	180	1.01	-
5190MHz	Pass	PK	5.1336G	61.35	74.00	-12.65	3	Horizontal	180	1.01	-
5190MHz	Pass	PK	5.2008G	101.33	Inf	-Inf	3	Horizontal	180	1.01	-



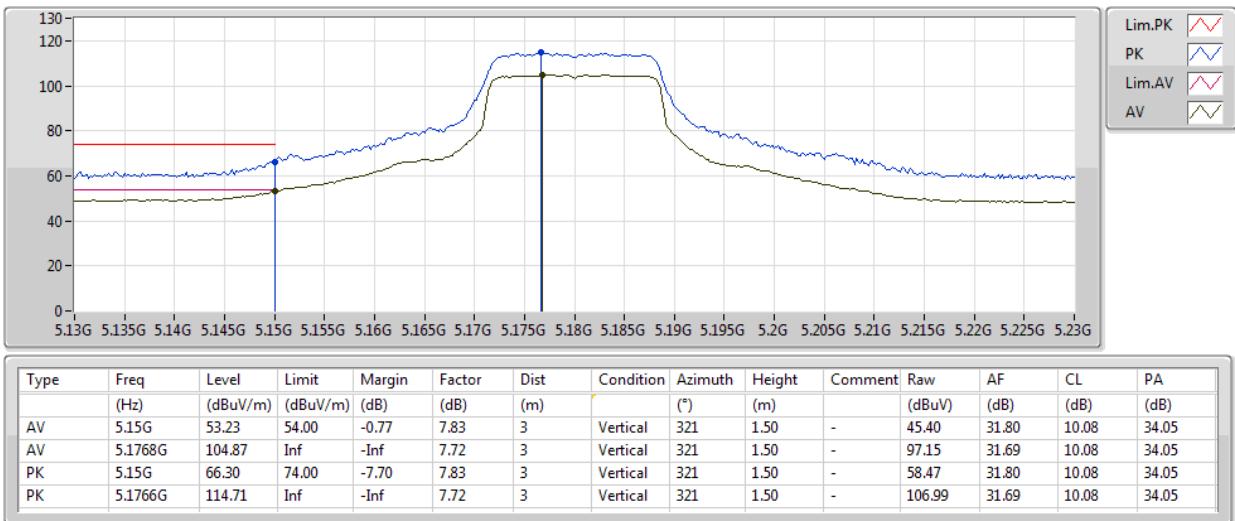
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5190MHz	Pass	AV	15.5878G	47.25	54.00	-6.75	3	Vertical	163	1.56	-
5190MHz	Pass	PK	10.37966G	59.37	68.20	-8.83	3	Vertical	298	2.31	-
5190MHz	Pass	PK	15.5686G	60.42	74.00	-13.58	3	Vertical	163	1.56	-
5190MHz	Pass	AV	15.5702G	47.01	54.00	-6.99	3	Horizontal	54	1.67	-
5190MHz	Pass	PK	10.382G	59.65	68.20	-8.55	3	Horizontal	176	2.21	-
5190MHz	Pass	PK	15.57142G	59.52	74.00	-14.48	3	Horizontal	54	1.67	-
5230MHz	Pass	AV	5.146G	52.25	54.00	-1.75	3	Vertical	4	1.50	-
5230MHz	Pass	AV	5.224G	107.46	Inf	-Inf	3	Vertical	4	1.50	-
5230MHz	Pass	AV	5.3776G	48.03	54.00	-5.97	3	Vertical	4	1.50	-
5230MHz	Pass	PK	5.1436G	65.07	74.00	-8.93	3	Vertical	4	1.50	-
5230MHz	Pass	PK	5.2258G	117.16	Inf	-Inf	3	Vertical	4	1.50	-
5230MHz	Pass	PK	5.3698G	60.54	74.00	-13.46	3	Vertical	4	1.50	-
5230MHz	Pass	AV	5.104G	48.33	54.00	-5.67	3	Horizontal	176	1.03	-
5230MHz	Pass	AV	5.2384G	94.72	Inf	-Inf	3	Horizontal	176	1.03	-
5230MHz	Pass	AV	5.3656G	46.81	54.00	-7.19	3	Horizontal	176	1.03	-
5230MHz	Pass	PK	5.1064G	61.07	74.00	-12.93	3	Horizontal	176	1.03	-
5230MHz	Pass	PK	5.2414G	104.27	Inf	-Inf	3	Horizontal	176	1.03	-
5230MHz	Pass	PK	5.3524G	59.52	74.00	-14.48	3	Horizontal	176	1.03	-
5230MHz	Pass	AV	15.6848G	53.07	54.00	-0.93	3	Vertical	16	1.36	-
5230MHz	Pass	PK	10.4604G	59.48	68.20	-8.72	3	Vertical	1	1.50	-
5230MHz	Pass	PK	15.6978G	64.74	74.00	-9.26	3	Vertical	16	1.36	-
5230MHz	Pass	AV	15.6882G	49.18	54.00	-4.82	3	Horizontal	211	1.46	-
5230MHz	Pass	PK	10.46124G	59.61	68.20	-8.59	3	Horizontal	208	1.48	-
5230MHz	Pass	PK	15.6884G	61.71	74.00	-12.29	3	Horizontal	211	1.46	-
5755MHz	Pass	AV	5.435G	50.69	54.00	-3.31	3	Vertical	24	2.96	-
5755MHz	Pass	AV	5.759G	105.24	Inf	-Inf	3	Vertical	24	2.96	-
5755MHz	Pass	PK	5.525G	61.22	68.20	-6.98	3	Vertical	24	2.96	-
5755MHz	Pass	PK	5.759G	114.20	Inf	-Inf	3	Vertical	24	2.96	-
5755MHz	Pass	PK	5.951G	60.78	68.20	-7.42	3	Vertical	24	2.96	-
5755MHz	Pass	AV	5.407G	47.15	54.00	-6.85	3	Horizontal	109	1.49	-
5755MHz	Pass	AV	5.757G	89.15	Inf	-Inf	3	Horizontal	109	1.49	-
5755MHz	Pass	PK	5.529G	59.55	68.20	-8.65	3	Horizontal	109	1.49	-
5755MHz	Pass	PK	5.757G	97.84	Inf	-Inf	3	Horizontal	109	1.49	-
5755MHz	Pass	PK	5.955G	60.60	68.20	-7.60	3	Horizontal	109	1.49	-
5755MHz	Pass	AV	11.51G	47.40	54.00	-6.60	3	Vertical	17	2.94	-
5755MHz	Pass	PK	11.5051G	61.08	74.00	-12.92	3	Vertical	17	2.94	-
5755MHz	Pass	PK	17.2676G	67.67	68.20	-0.53	3	Vertical	29	2.59	-
5755MHz	Pass	AV	11.511G	47.19	54.00	-6.81	3	Horizontal	266	2.49	-
5755MHz	Pass	PK	11.5012G	60.00	74.00	-14.00	3	Horizontal	266	2.49	-
5755MHz	Pass	PK	17.2574G	66.24	68.20	-1.96	3	Horizontal	28	2.47	-
5795MHz	Pass	AV	5.459G	50.15	54.00	-3.85	3	Vertical	349	3.00	-
5795MHz	Pass	AV	5.801G	105.63	Inf	-Inf	3	Vertical	349	3.00	-
5795MHz	Pass	PK	5.483G	63.13	68.20	-5.07	3	Vertical	349	3.00	-
5795MHz	Pass	PK	5.801G	115.54	Inf	-Inf	3	Vertical	349	3.00	-
5795MHz	Pass	PK	5.939G	60.63	68.20	-7.57	3	Vertical	349	3.00	-
5795MHz	Pass	AV	5.443G	47.00	54.00	-7.00	3	Horizontal	191	1.50	-
5795MHz	Pass	AV	5.797G	88.69	Inf	-Inf	3	Horizontal	191	1.50	-
5795MHz	Pass	PK	5.619G	61.30	68.20	-6.90	3	Horizontal	191	1.50	-
5795MHz	Pass	PK	5.797G	97.43	Inf	-Inf	3	Horizontal	191	1.50	-



Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5795MHz	Pass	PK	5.945G	61.64	68.20	-6.56	3	Horizontal	191	1.50	-
5795MHz	Pass	AV	11.6088G	47.07	54.00	-6.93	3	Vertical	98	2.07	-
5795MHz	Pass	PK	11.6118G	60.42	74.00	-13.58	3	Vertical	98	2.07	-
5795MHz	Pass	PK	17.3874G	67.45	68.20	-0.75	3	Vertical	31	2.60	-
5795MHz	Pass	AV	11.59436G	47.07	54.00	-6.93	3	Horizontal	164	1.49	-
5795MHz	Pass	PK	11.5996G	60.02	74.00	-13.98	3	Horizontal	164	1.49	-
5795MHz	Pass	PK	17.38726G	66.96	68.20	-1.24	3	Horizontal	360	1.54	-
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	AV	5.145G	53.70	54.00	-0.30	3	Vertical	7	1.50	-
5210MHz	Pass	AV	5.222G	100.40	Inf	-Inf	3	Vertical	7	1.50	-
5210MHz	Pass	AV	5.357G	48.67	54.00	-5.33	3	Vertical	7	1.50	-
5210MHz	Pass	PK	5.148G	67.01	74.00	-6.99	3	Vertical	7	1.50	-
5210MHz	Pass	PK	5.223G	109.79	Inf	-Inf	3	Vertical	7	1.50	-
5210MHz	Pass	PK	5.365G	60.38	74.00	-13.62	3	Vertical	7	1.50	-
5210MHz	Pass	AV	5.135G	48.54	54.00	-5.46	3	Horizontal	178	1.02	-
5210MHz	Pass	AV	5.24G	86.29	Inf	-Inf	3	Horizontal	178	1.02	-
5210MHz	Pass	AV	5.455G	47.17	54.00	-6.83	3	Horizontal	178	1.02	-
5210MHz	Pass	PK	5.069G	60.87	74.00	-13.13	3	Horizontal	178	1.02	-
5210MHz	Pass	PK	5.198G	95.88	Inf	-Inf	3	Horizontal	178	1.02	-
5210MHz	Pass	PK	5.459G	59.98	74.00	-14.02	3	Horizontal	178	1.02	-
5210MHz	Pass	AV	15.6321G	47.40	54.00	-6.60	3	Vertical	38	1.43	-
5210MHz	Pass	PK	10.42342G	59.55	68.20	-8.65	3	Vertical	348	2.14	-
5210MHz	Pass	PK	15.62586G	59.84	74.00	-14.16	3	Vertical	38	1.43	-
5210MHz	Pass	AV	15.63098G	47.21	54.00	-6.79	3	Horizontal	110	2.17	-
5210MHz	Pass	PK	10.42426G	59.70	68.20	-8.50	3	Horizontal	139	1.75	-
5210MHz	Pass	PK	15.63402G	60.04	74.00	-13.96	3	Horizontal	110	2.17	-
5775MHz	Pass	AV	5.455G	53.84	54.00	-0.16	3	Vertical	1	2.26	-
5775MHz	Pass	AV	5.753G	101.65	Inf	-Inf	3	Vertical	1	2.26	-
5775MHz	Pass	PK	5.637G	65.19	68.20	-3.01	3	Vertical	1	2.26	-
5775MHz	Pass	PK	5.753G	111.65	Inf	-Inf	3	Vertical	1	2.26	-
5775MHz	Pass	PK	5.929G	62.23	68.20	-5.97	3	Vertical	1	2.26	-
5775MHz	Pass	AV	5.443G	47.31	54.00	-6.69	3	Horizontal	115	1.97	-
5775MHz	Pass	AV	5.779G	85.97	Inf	-Inf	3	Horizontal	115	1.97	-
5775MHz	Pass	PK	5.553G	60.13	68.20	-8.07	3	Horizontal	115	1.97	-
5775MHz	Pass	PK	5.799G	95.83	Inf	-Inf	3	Horizontal	115	1.97	-
5775MHz	Pass	PK	5.951G	60.89	68.20	-7.31	3	Horizontal	115	1.97	-
5775MHz	Pass	AV	11.5682G	47.00	54.00	-7.00	3	Vertical	350	2.45	-
5775MHz	Pass	PK	11.5496G	59.77	74.00	-14.23	3	Vertical	350	2.45	-
5775MHz	Pass	PK	17.3074G	66.61	68.20	-1.59	3	Vertical	33	2.36	-
5775MHz	Pass	AV	11.5499G	47.28	54.00	-6.72	3	Horizontal	122	1.23	-
5775MHz	Pass	PK	11.5423G	59.74	74.00	-14.26	3	Horizontal	122	1.23	-
5775MHz	Pass	PK	17.3466G	66.43	68.20	-1.77	3	Horizontal	130	2.34	-

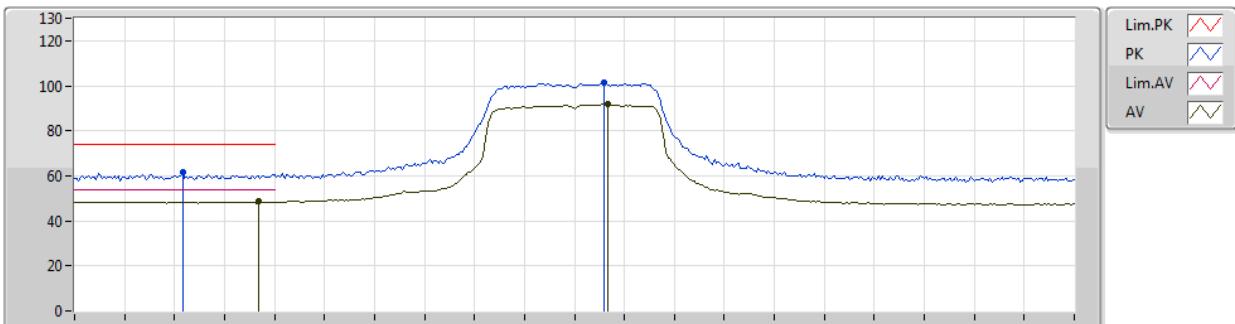
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5180MHz\_TX**


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

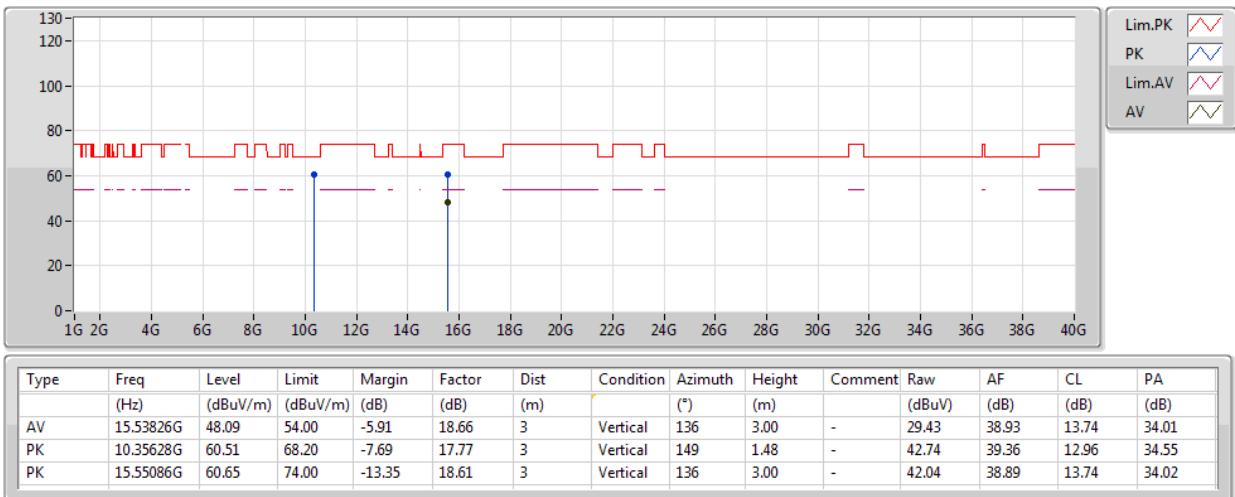
02/10/2019

**5180MHz\_TX**


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	5.1484G	48.62	54.00	-5.38	7.84	3	Horizontal	173	1.97	-	40.78	31.81	10.08	34.05
AV	5.1834G	91.67	Inf	-Inf	7.70	3	Horizontal	173	1.97	-	83.97	31.67	10.08	34.05
PK	5.1408G	61.51	74.00	-12.49	7.87	3	Horizontal	173	1.97	-	53.64	31.84	10.08	34.05
PK	5.183G	101.36	Inf	-Inf	7.70	3	Horizontal	173	1.97	-	93.66	31.67	10.08	34.05

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

02/10/2019

**5180MHz\_TX**


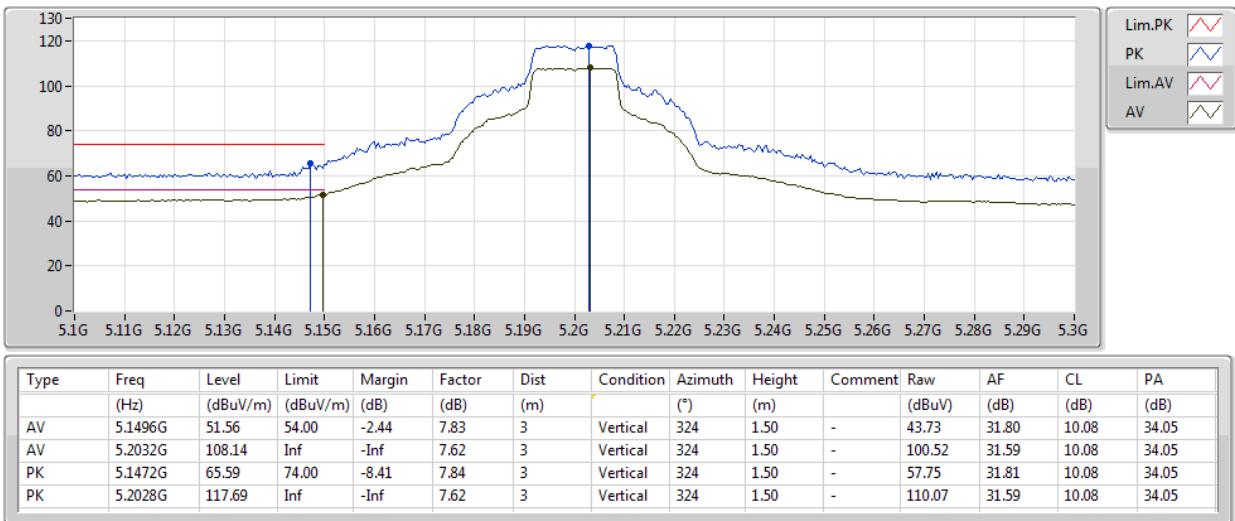
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5180MHz\_TX**

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

02/10/2019

**5200MHz\_TX**


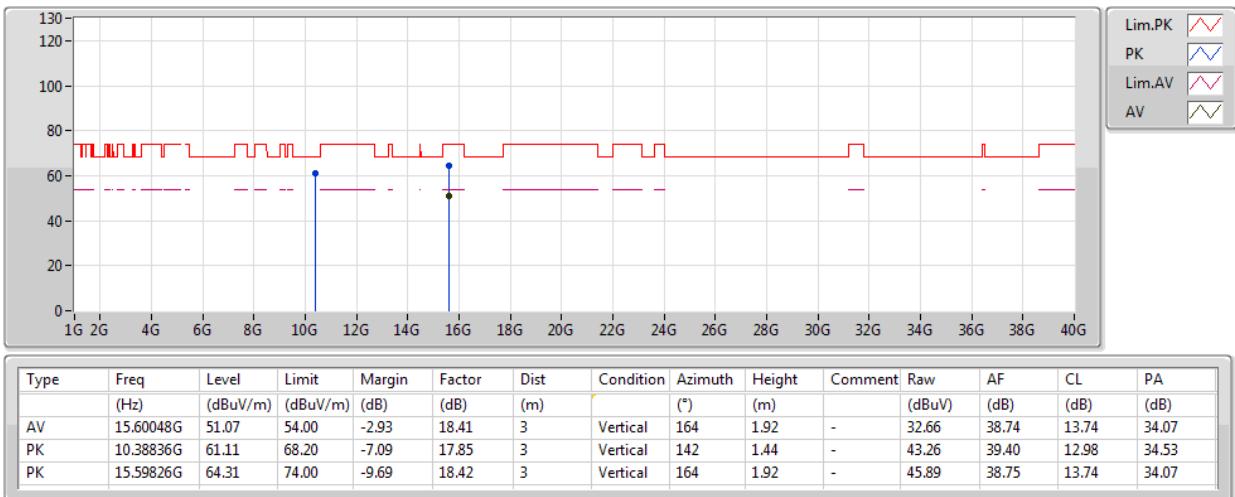
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5200MHz\_TX**


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

02/10/2019

**5200MHz\_TX**

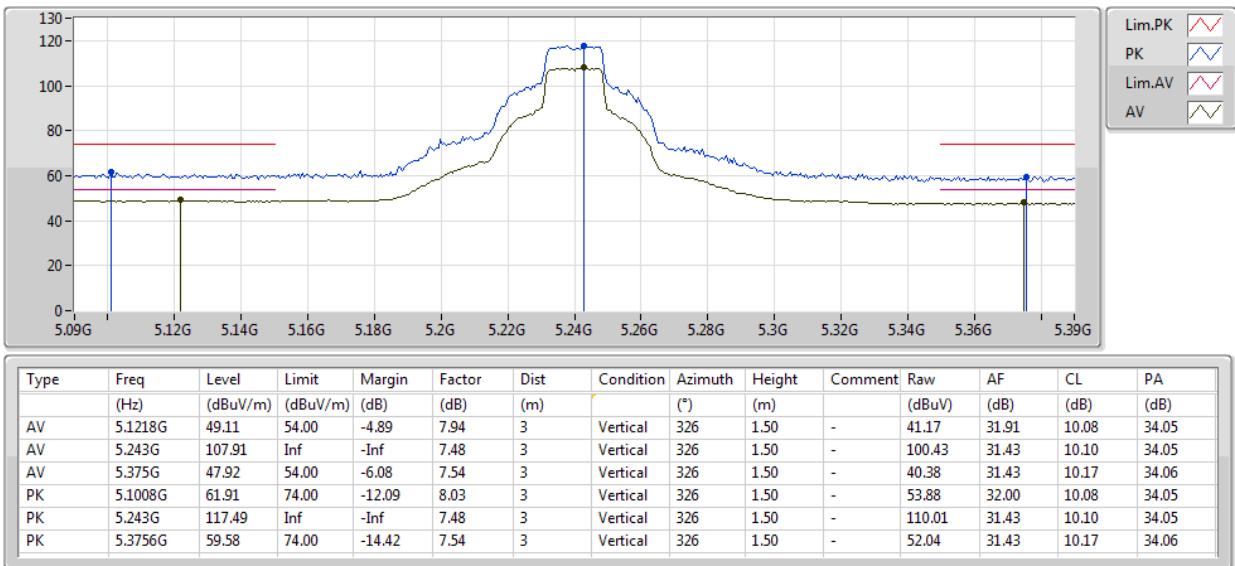
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5200MHz\_TX**

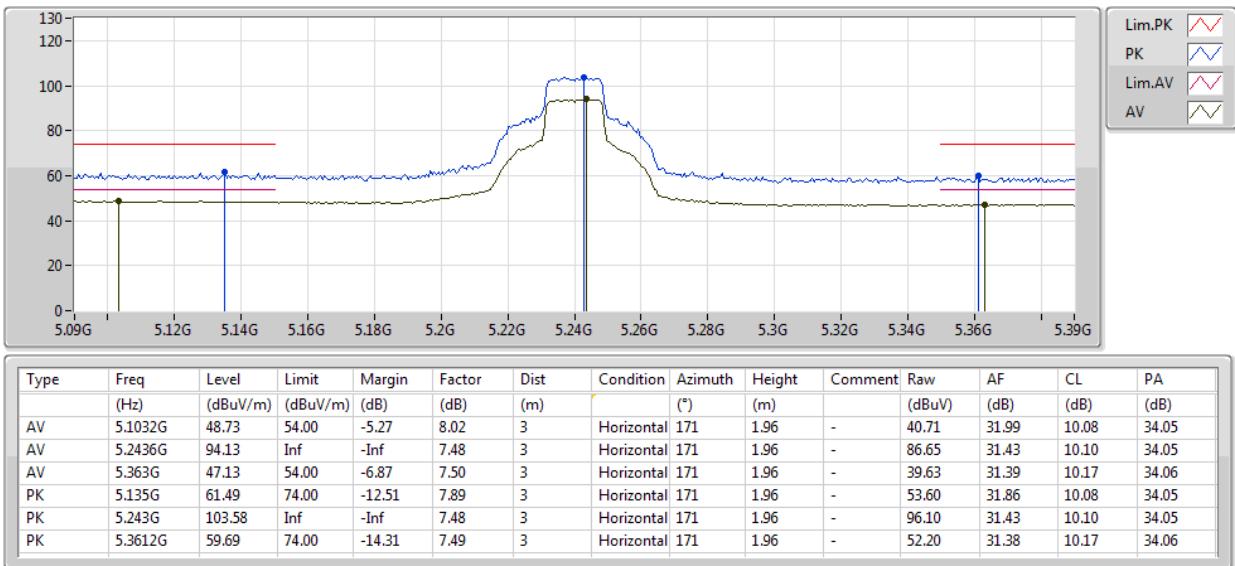
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5240MHz\_TX**


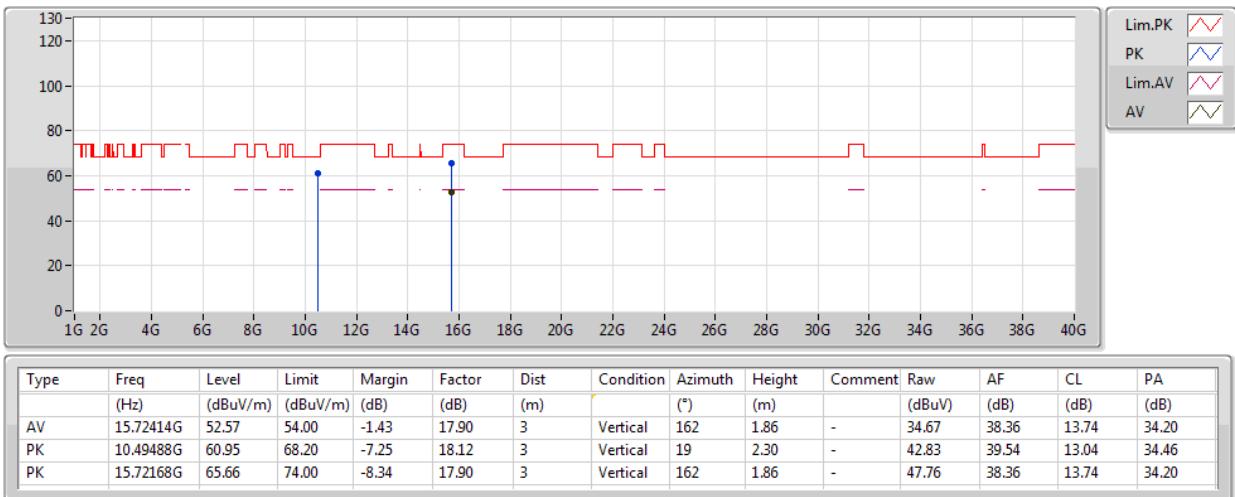
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5240MHz\_TX**


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

02/10/2019

**5240MHz\_TX**

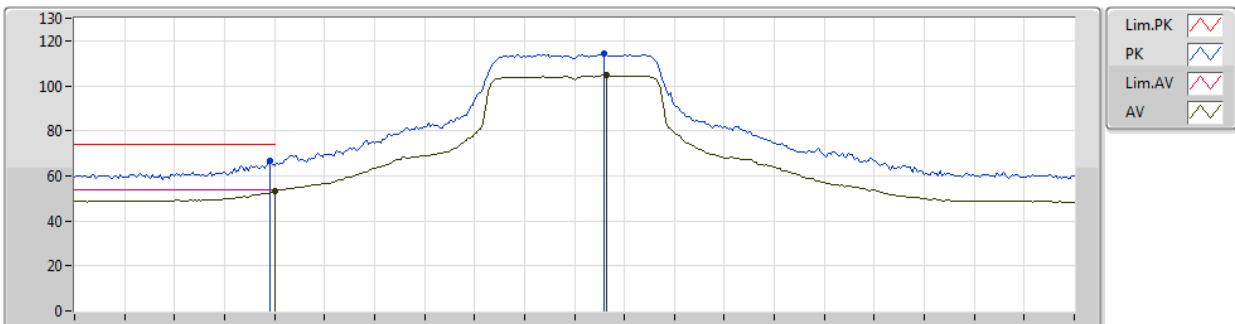
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5240MHz\_TX**

**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

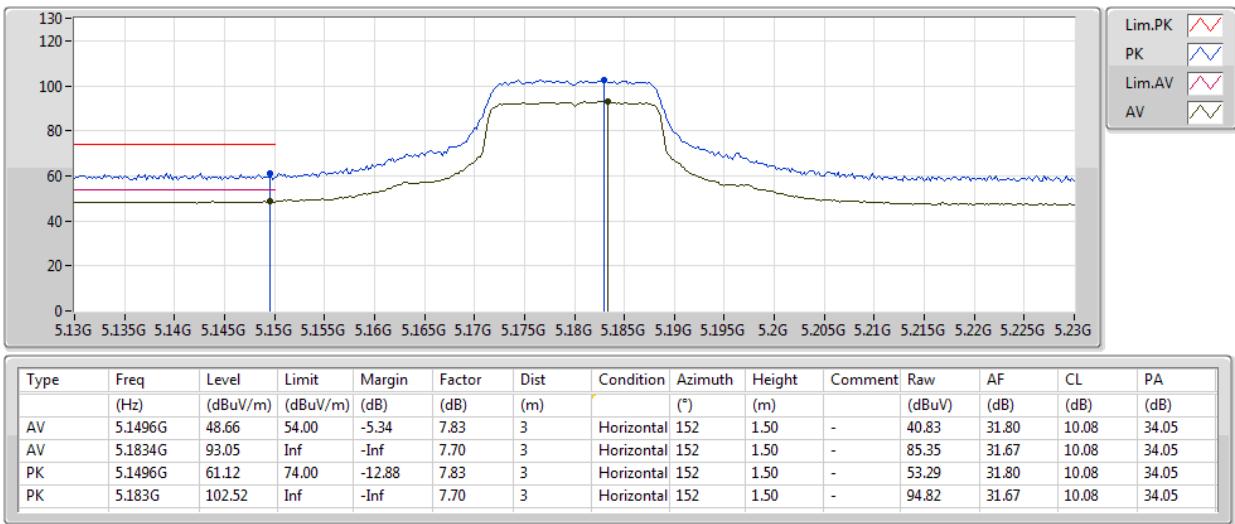
02/10/2019

**5180MHz\_TX**


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	5.15G	53.38	54.00	-0.62	7.83	3	Vertical	39	1.50	-	45.55	31.80	10.08	34.05
AV	5.1832G	104.68	Inf	-Inf	7.70	3	Vertical	39	1.50	-	96.98	31.67	10.08	34.05
PK	5.1496G	66.65	74.00	-7.35	7.83	3	Vertical	39	1.50	-	58.82	31.80	10.08	34.05
PK	5.183G	114.39	Inf	-Inf	7.70	3	Vertical	39	1.50	-	106.69	31.67	10.08	34.05

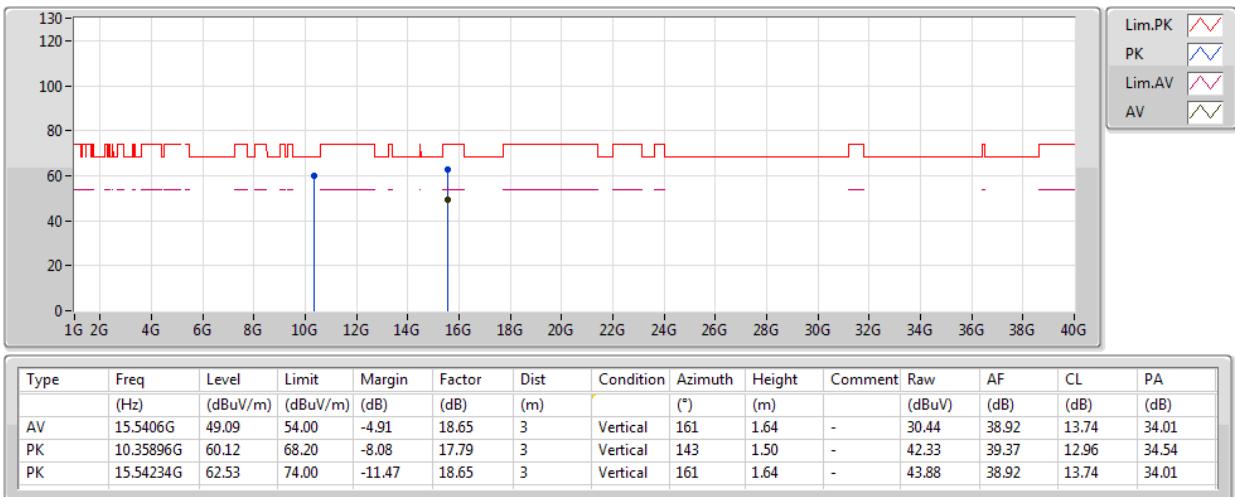
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5180MHz\_TX**


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5180MHz\_TX**

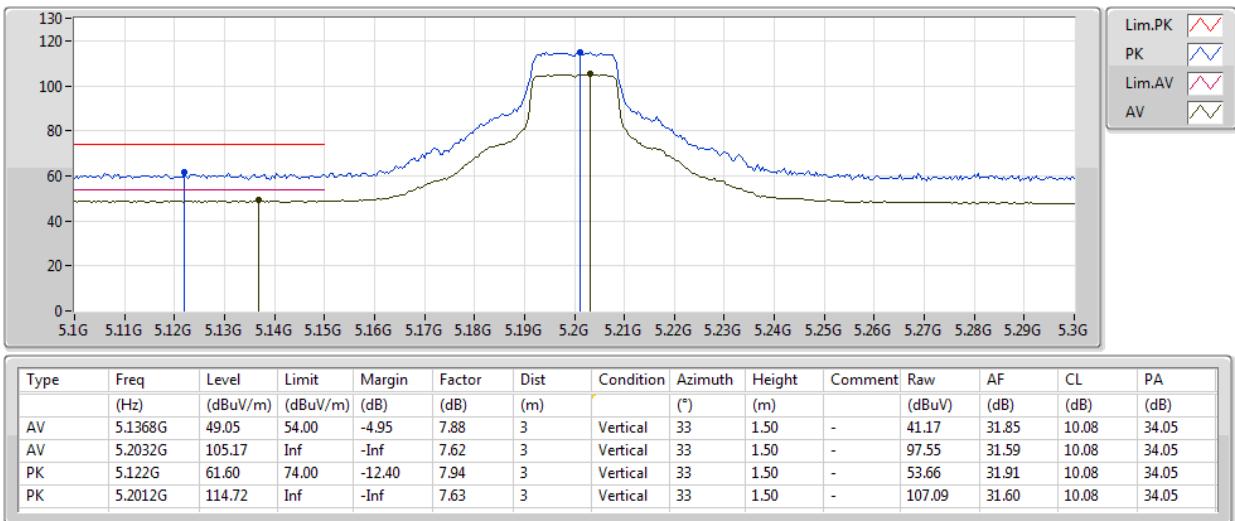
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5180MHz\_TX**

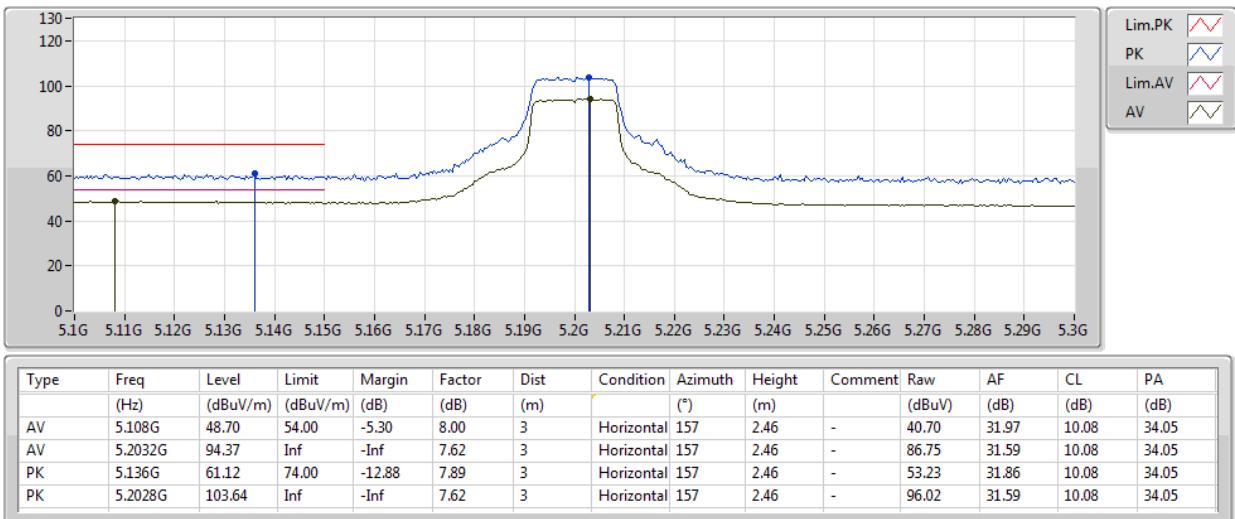
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5200MHz\_TX**


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5200MHz\_TX**


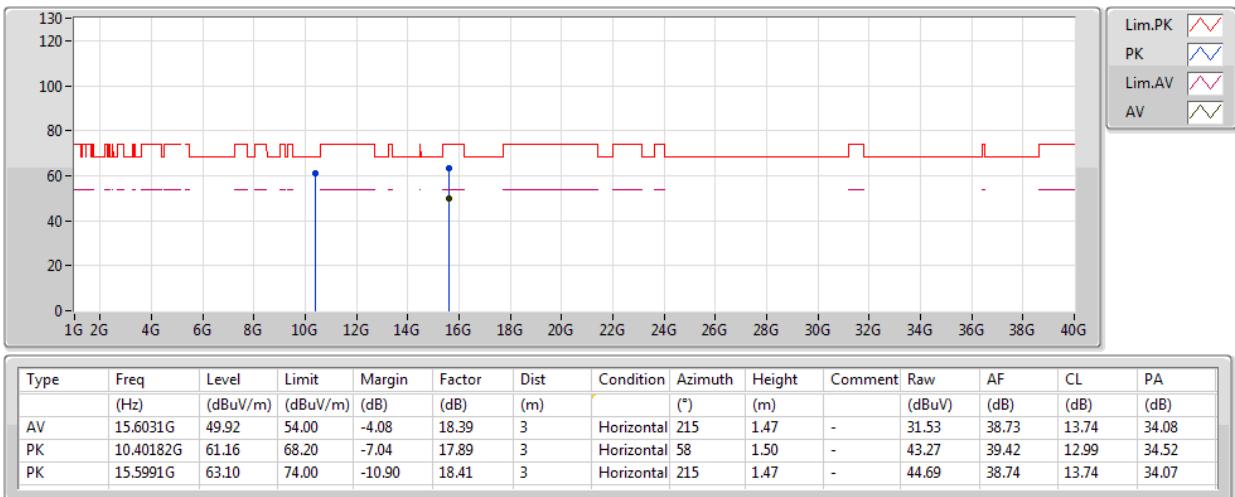
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5200MHz\_TX**

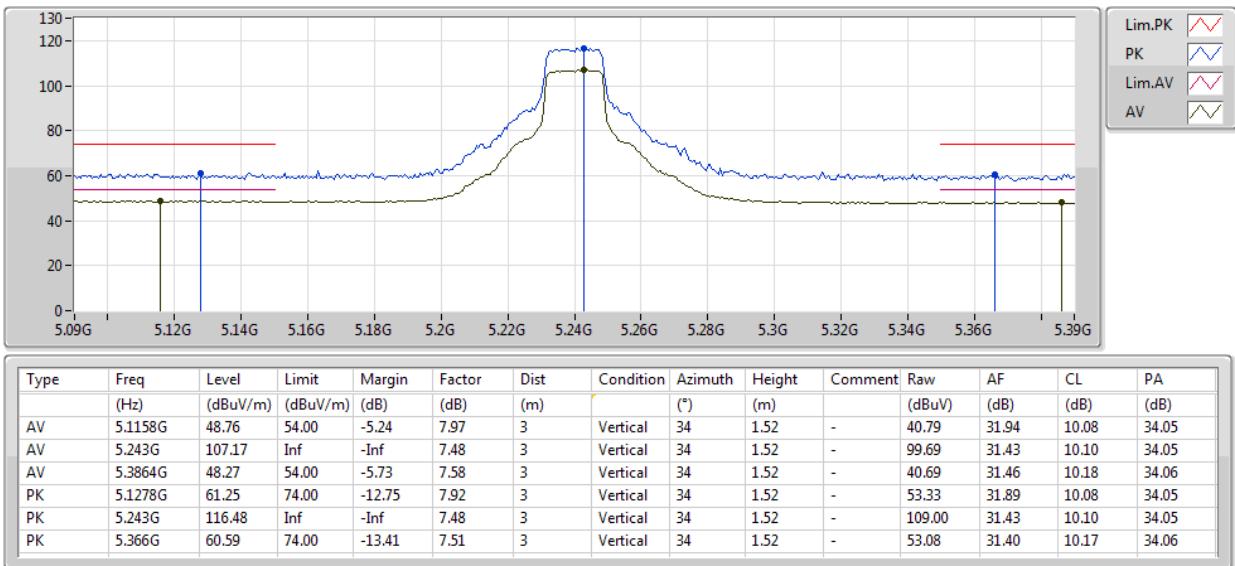
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5200MHz\_TX**

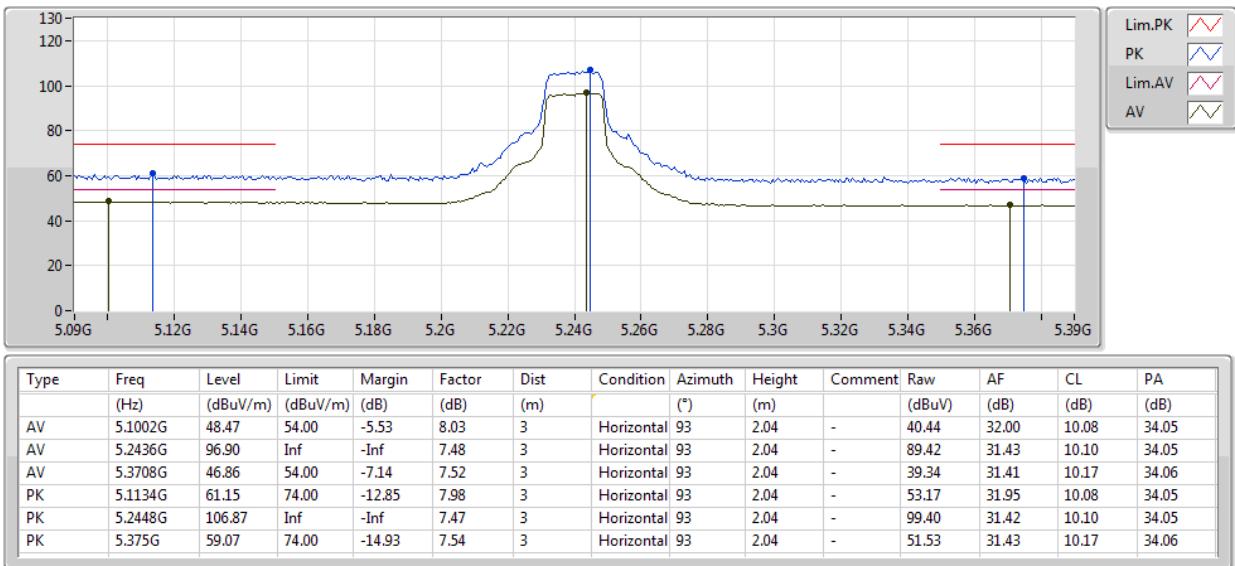
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5240MHz\_TX**


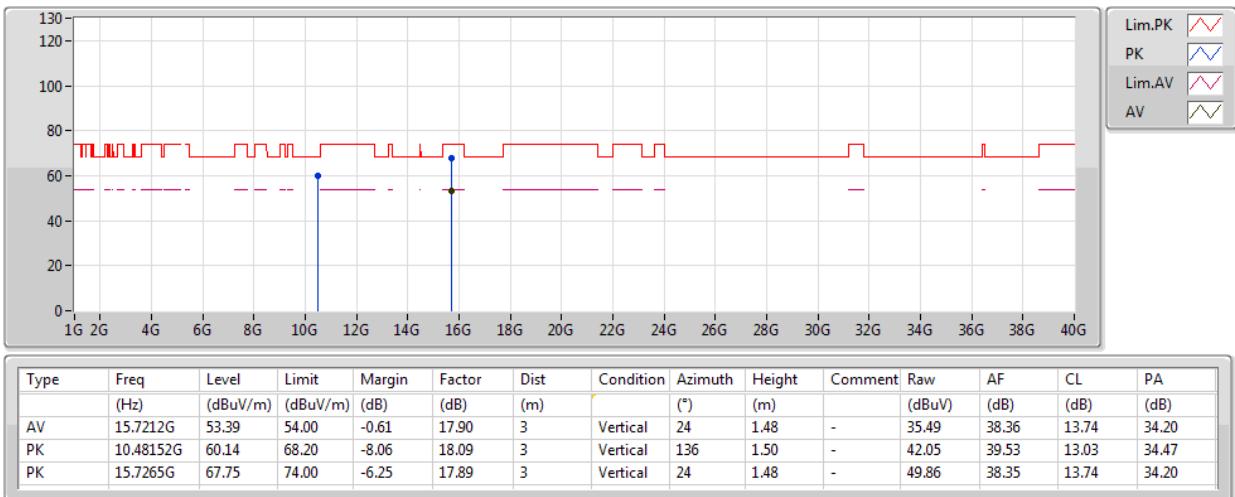
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5240MHz\_TX**


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5240MHz\_TX**




## 802.11a\_Nss1,(6Mbps)\_1TX(Port2)

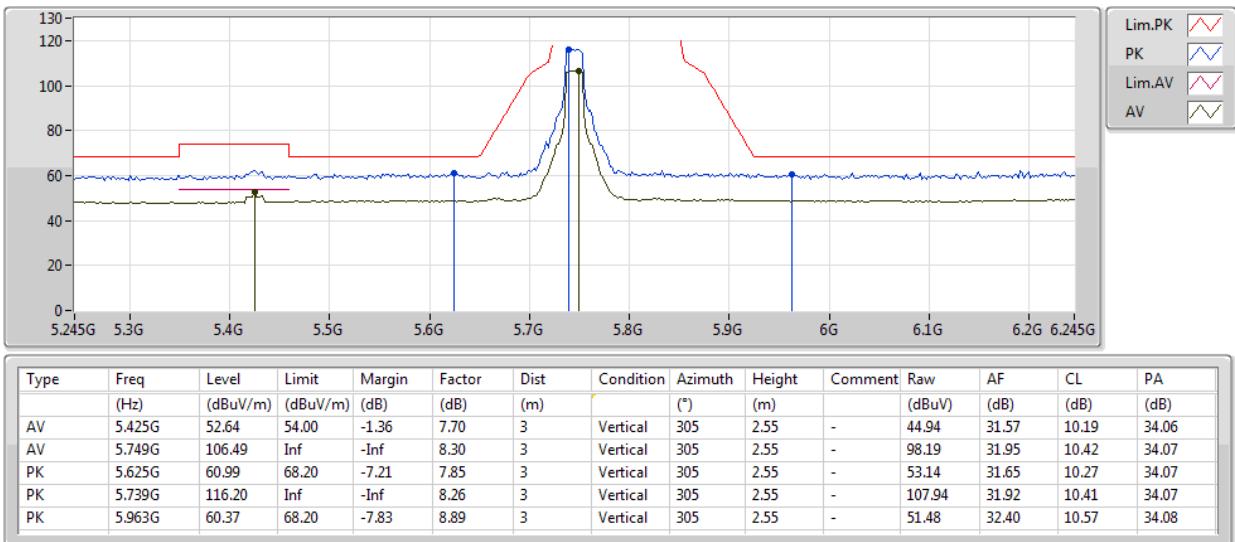
02/10/2019

## 5240MHz\_TX



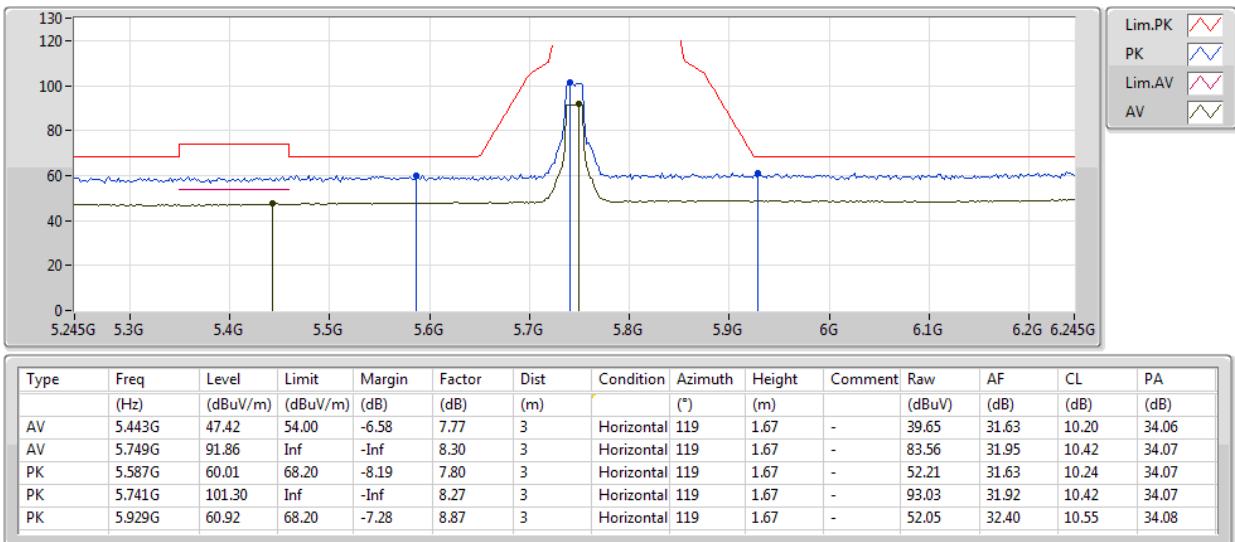
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5745MHz\_TX**


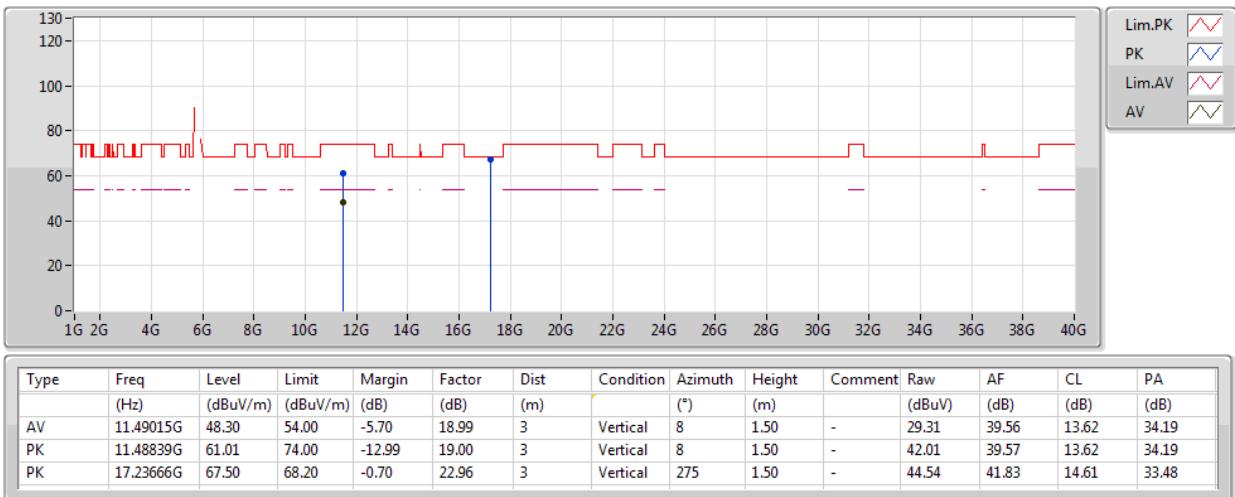
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5745MHz\_TX**


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

02/10/2019

**5745MHz\_TX**

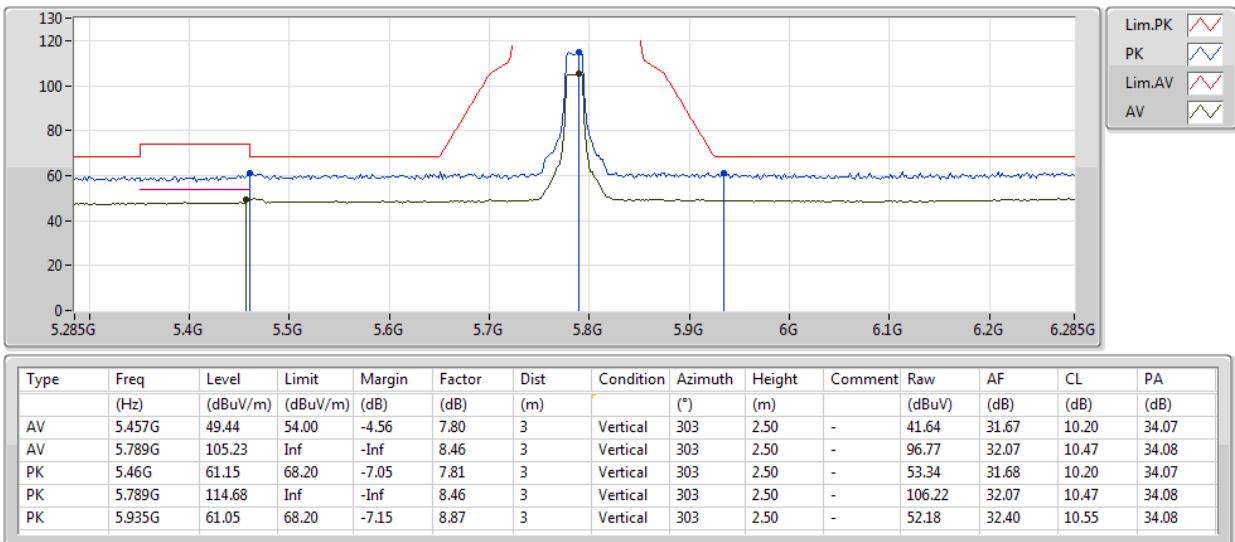
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5745MHz\_TX**

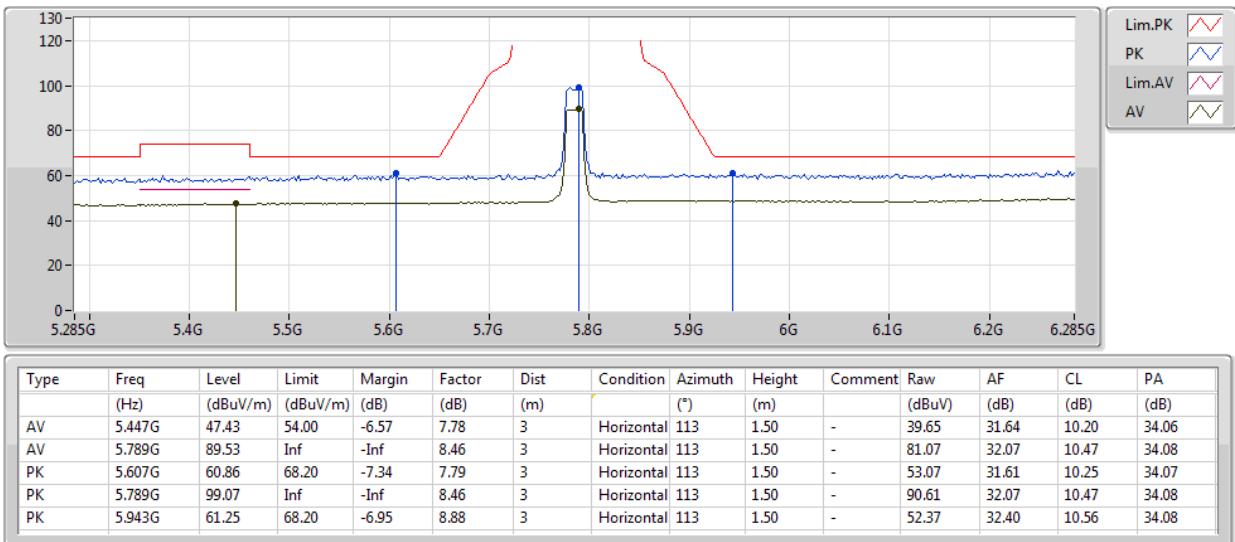
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5785MHz\_TX**


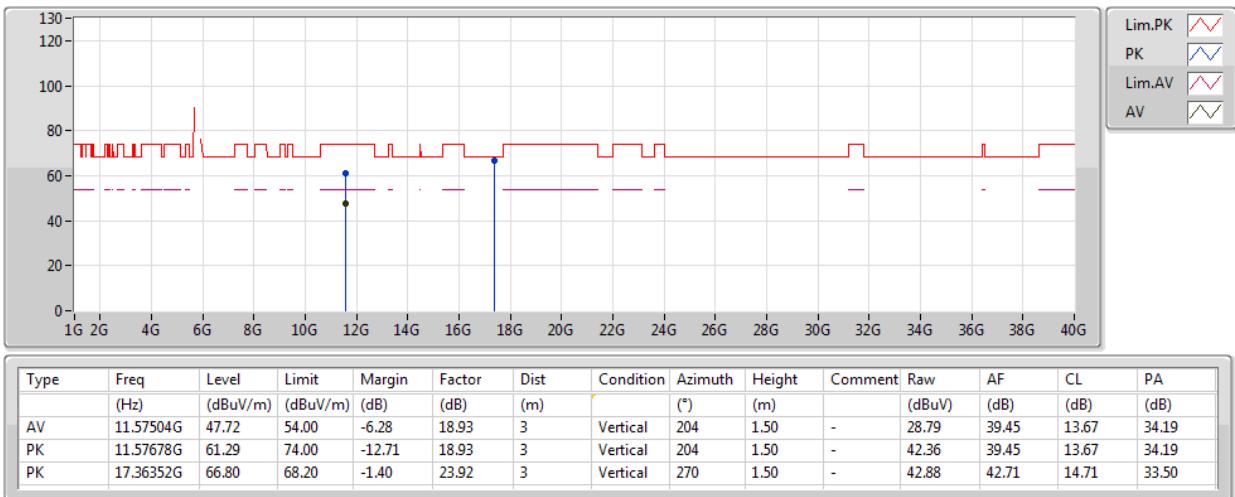
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5785MHz\_TX**


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

02/10/2019

**5785MHz\_TX**

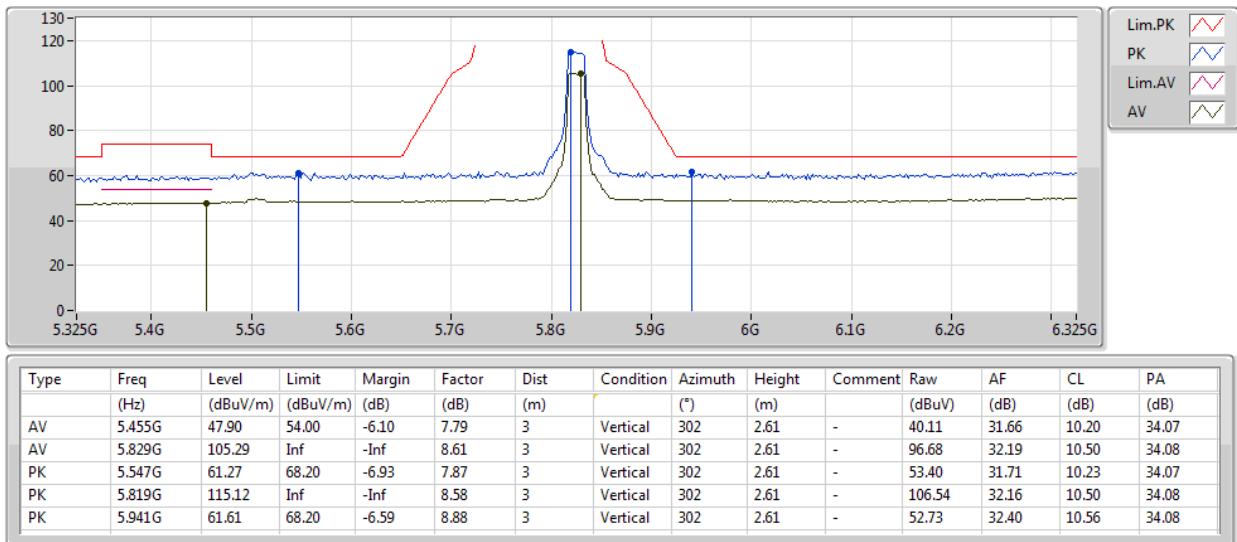
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5785MHz\_TX**

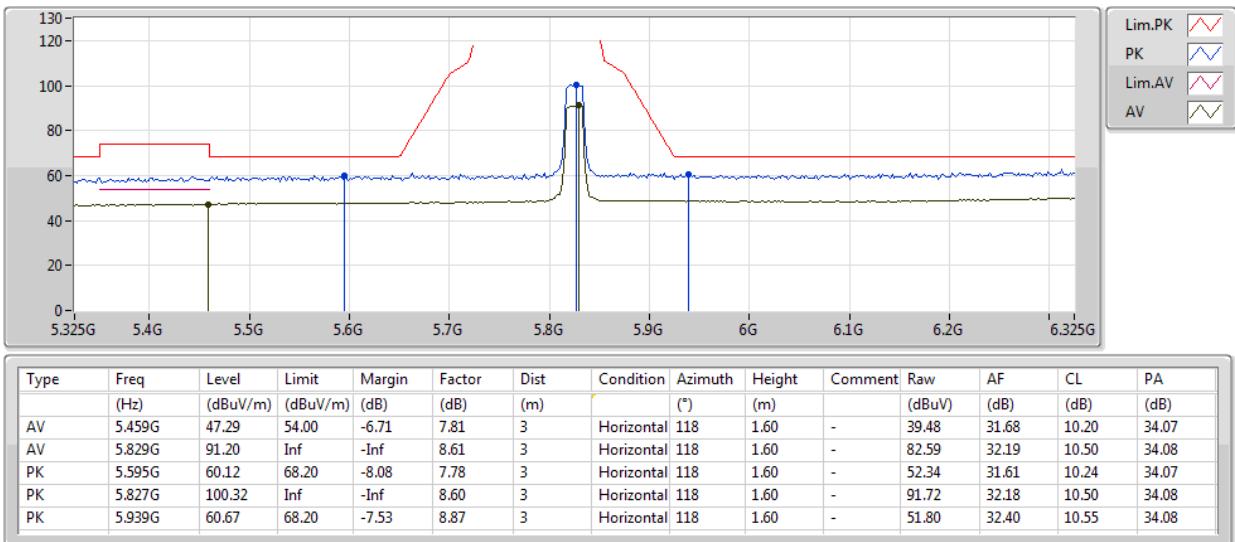
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5825MHz\_TX**


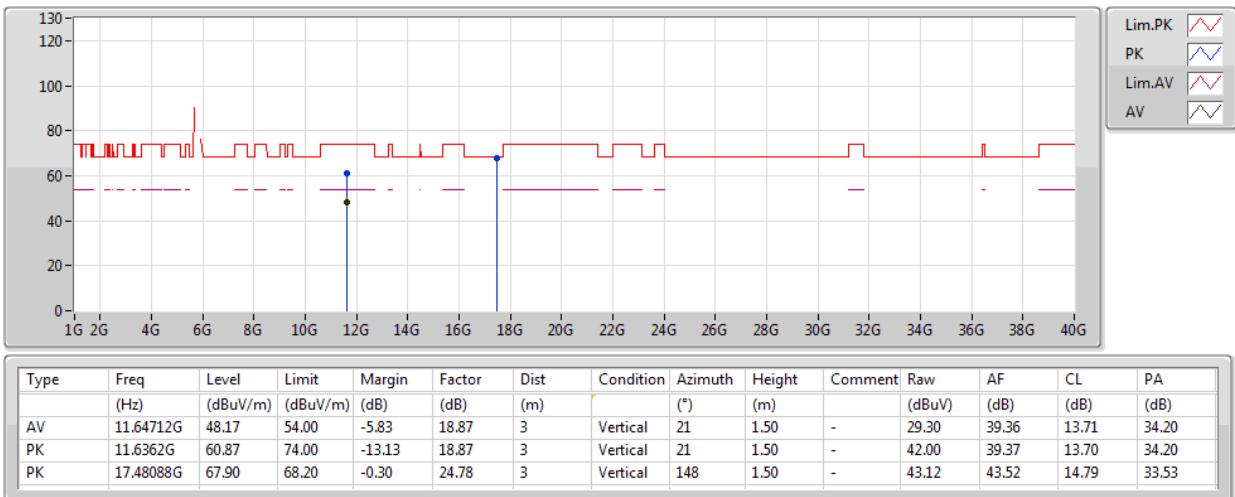
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5825MHz\_TX**


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

02/10/2019

**5825MHz\_TX**

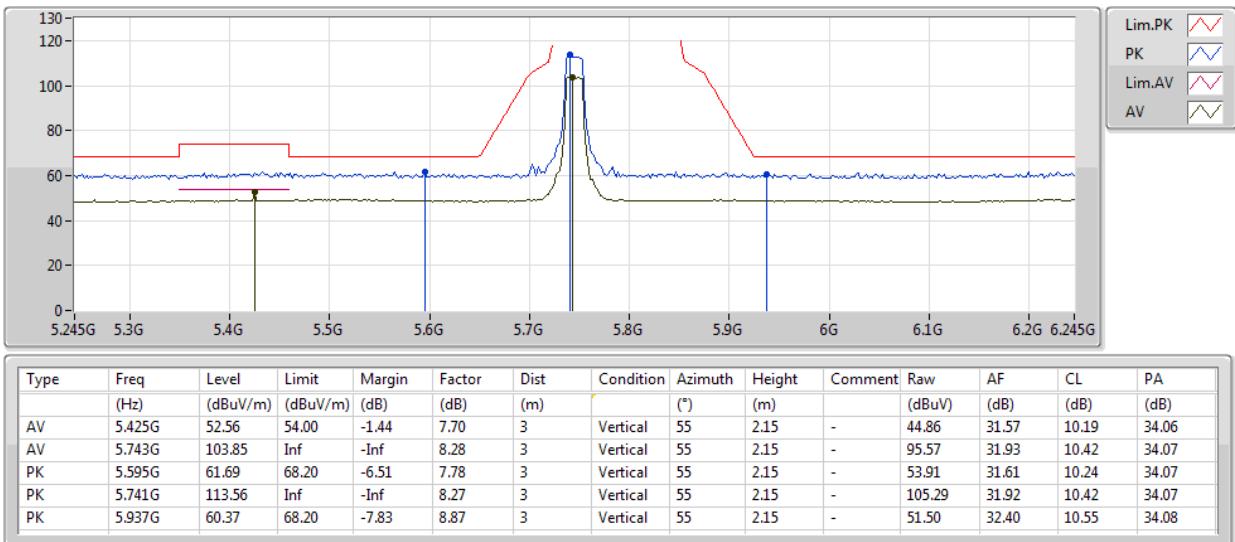
**802.11a\_Nss1,(6Mbps)\_1TX(Port1)**

02/10/2019

**5825MHz\_TX**

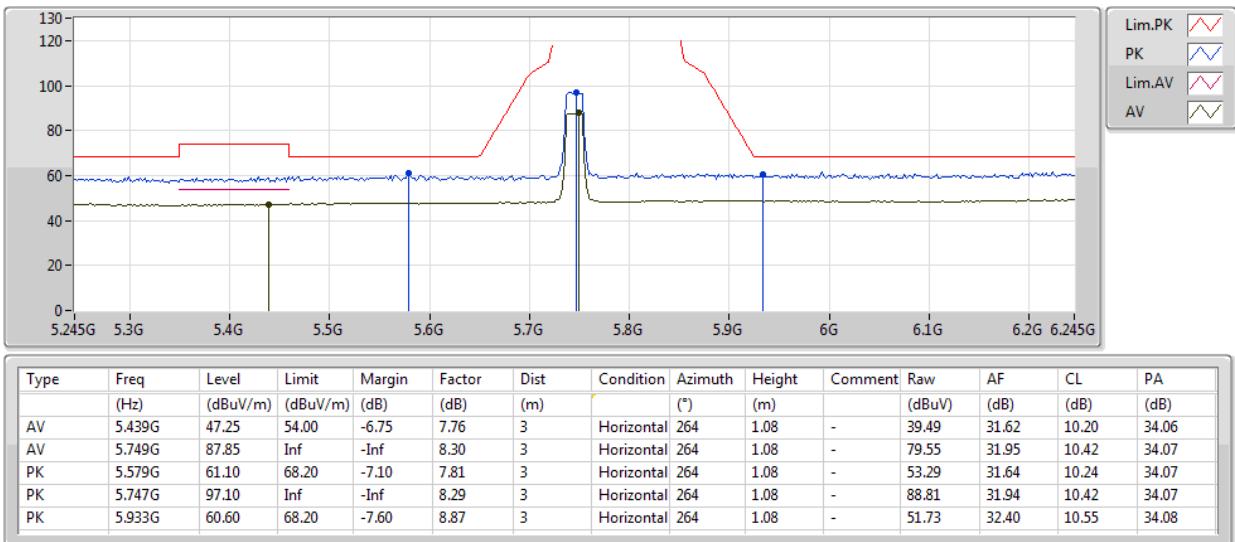

**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5745MHz\_TX**


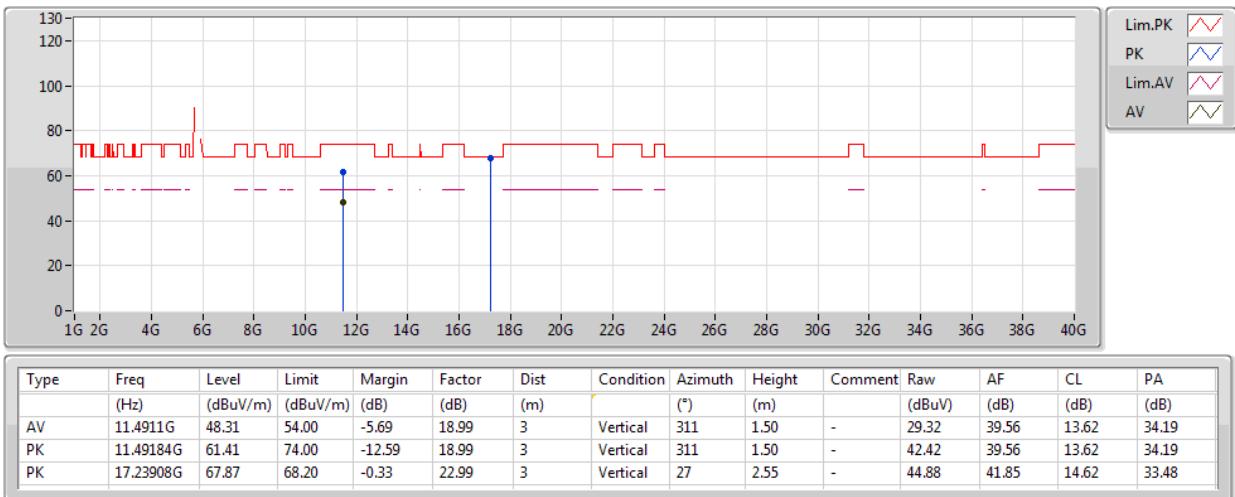
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5745MHz\_TX**


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5745MHz\_TX**

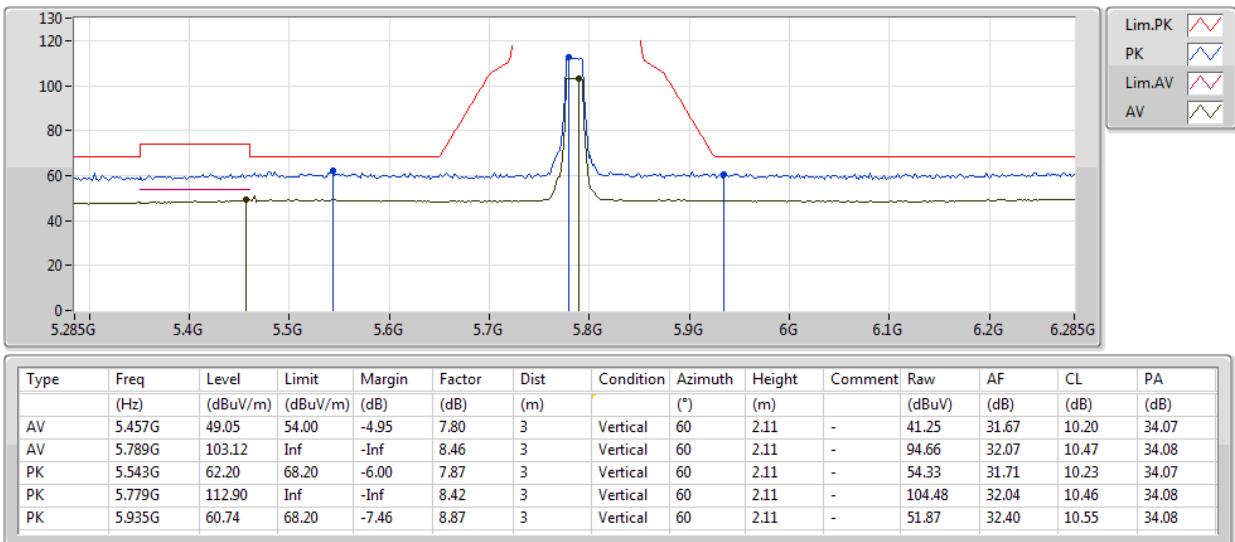
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5745MHz\_TX**

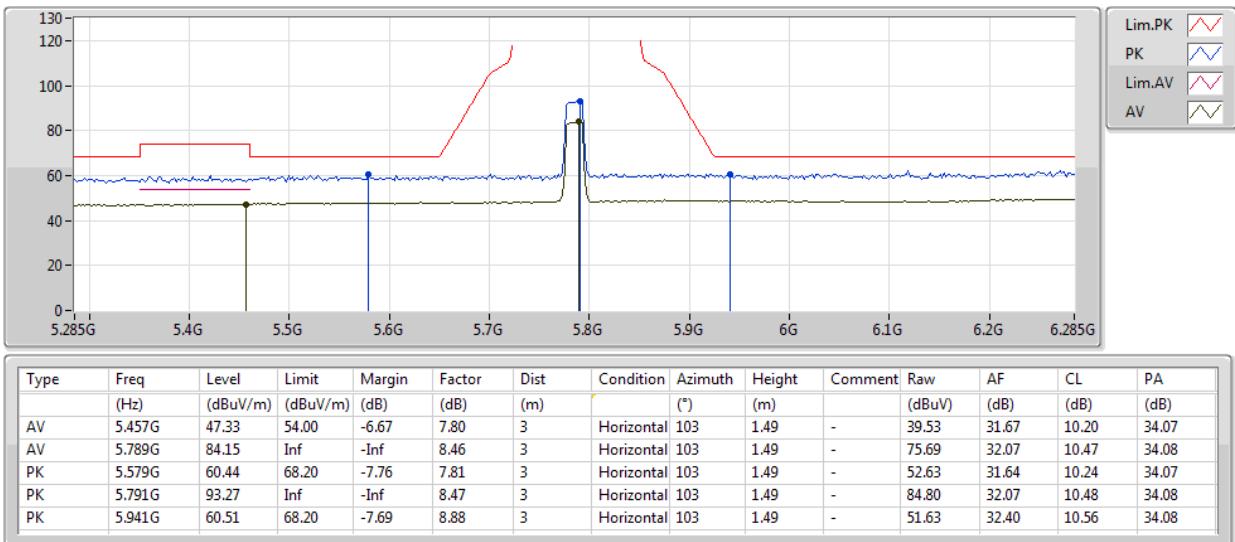
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5785MHz\_TX**


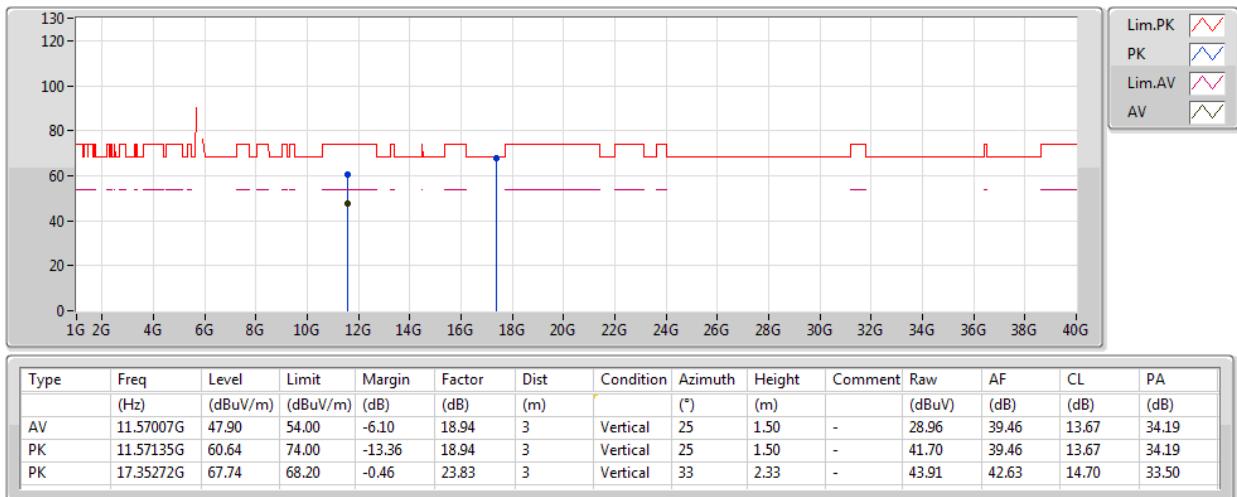
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5785MHz\_TX**


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5785MHz\_TX**

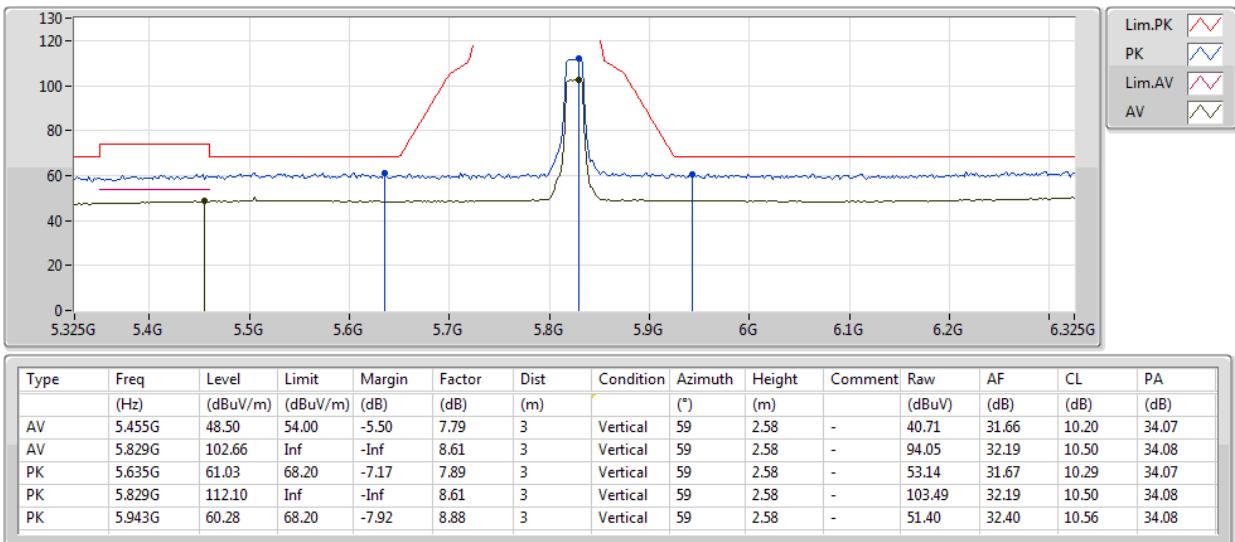
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5785MHz\_TX**

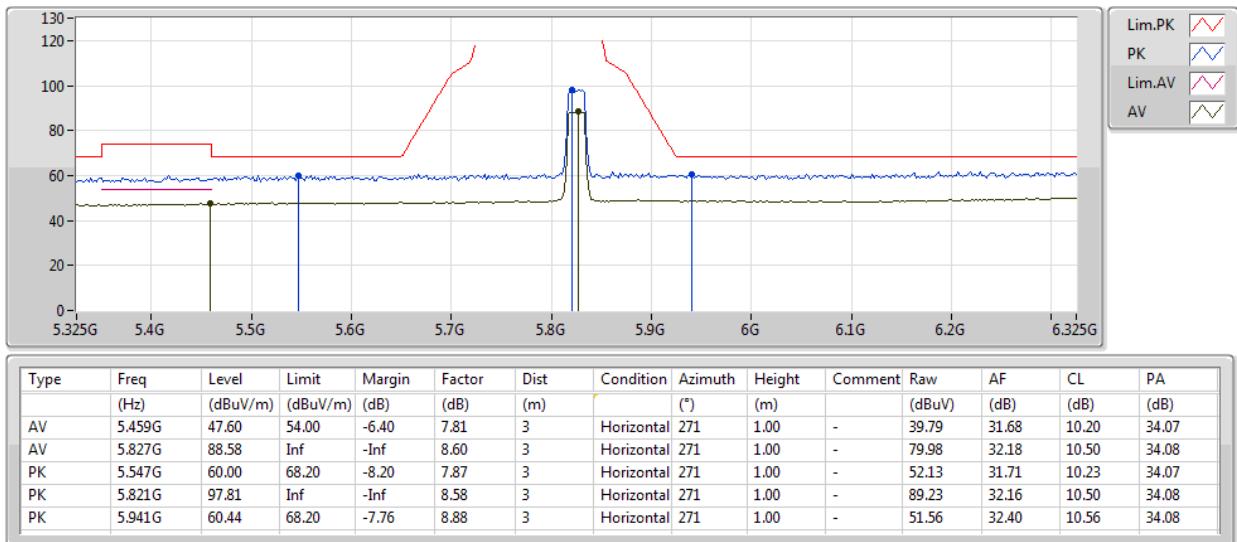
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5825MHz\_TX**


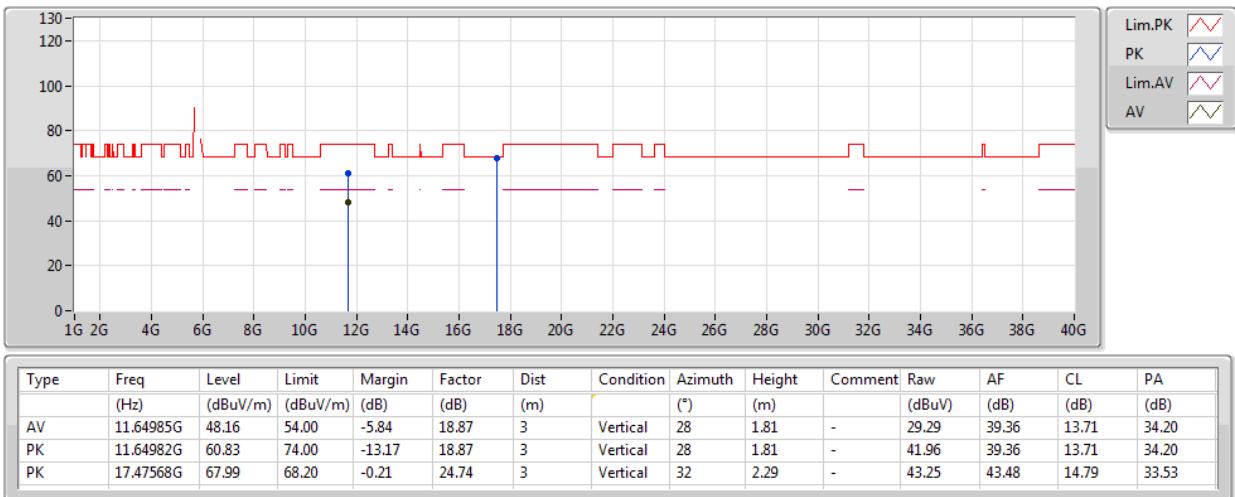
**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5825MHz\_TX**


**802.11a\_Nss1,(6Mbps)\_1TX(Port2)**

02/10/2019

**5825MHz\_TX**




## 802.11a\_Nss1,(6Mbps)\_1TX(Port2)

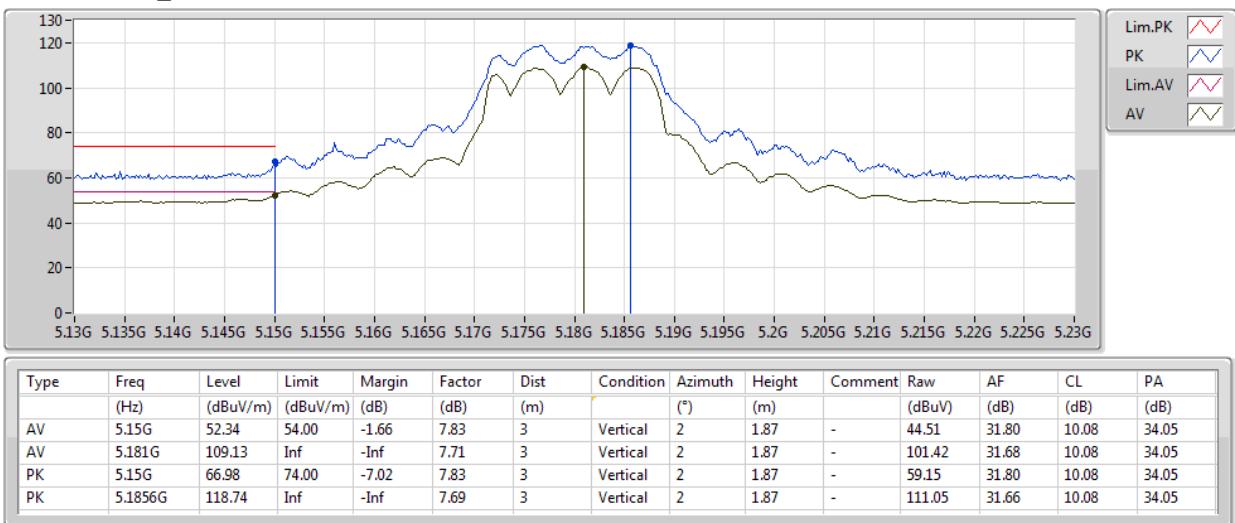
02/10/2019

## 5825MHz\_TX



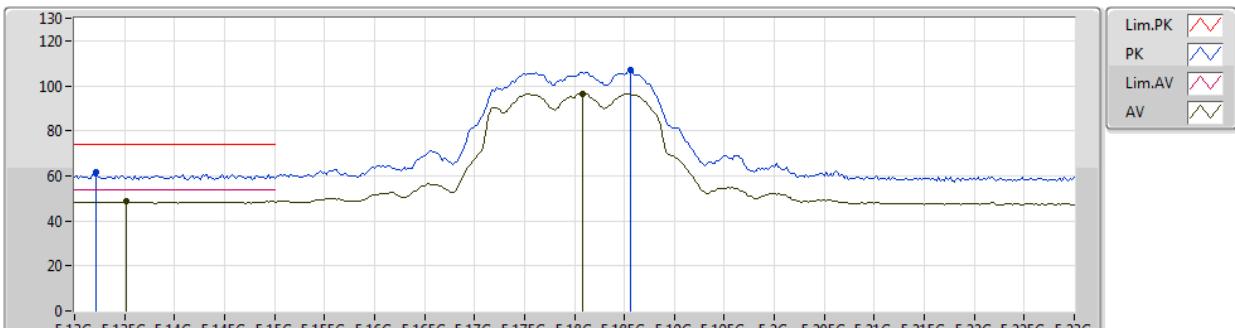
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5180MHz\_TX**


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

02/10/2019

**5180MHz\_TX**


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition (*)	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	5.1352G	48.60	54.00	-5.40	7.89	3	Horizontal	95	1.88	-	40.71	31.86	10.08	34.05
AV	5.1808G	96.55	Inf	-Inf	7.71	3	Horizontal	95	1.88	-	88.84	31.68	10.08	34.05
PK	5.1322G	61.47	74.00	-12.53	7.90	3	Horizontal	95	1.88	-	53.57	31.87	10.08	34.05
PK	5.1856G	106.85	Inf	-Inf	7.69	3	Horizontal	95	1.88	-	99.16	31.66	10.08	34.05

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

02/10/2019

**5180MHz\_TX**

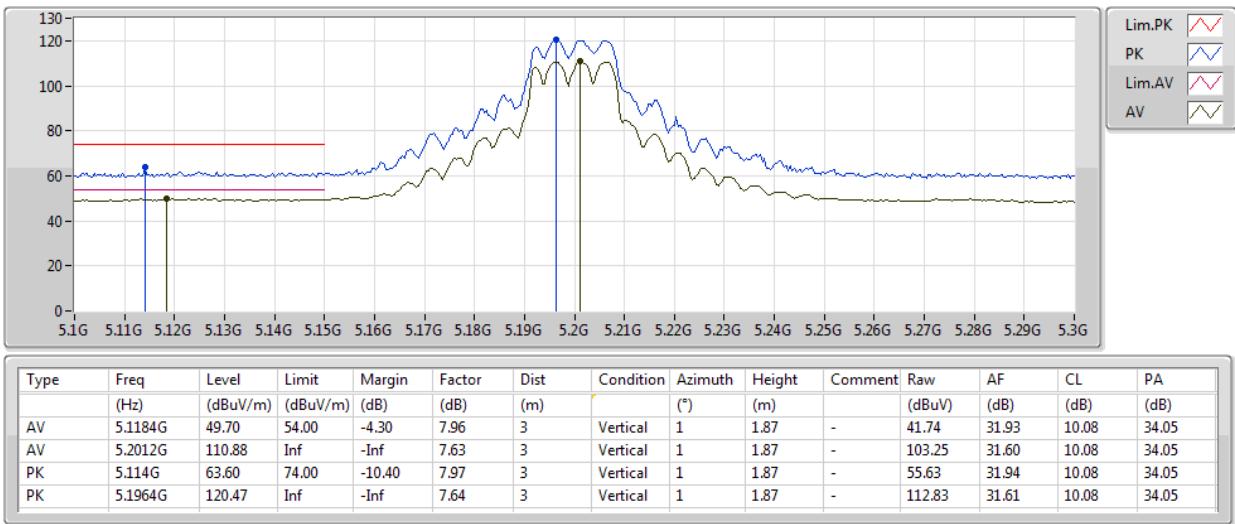

**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5180MHz\_TX**

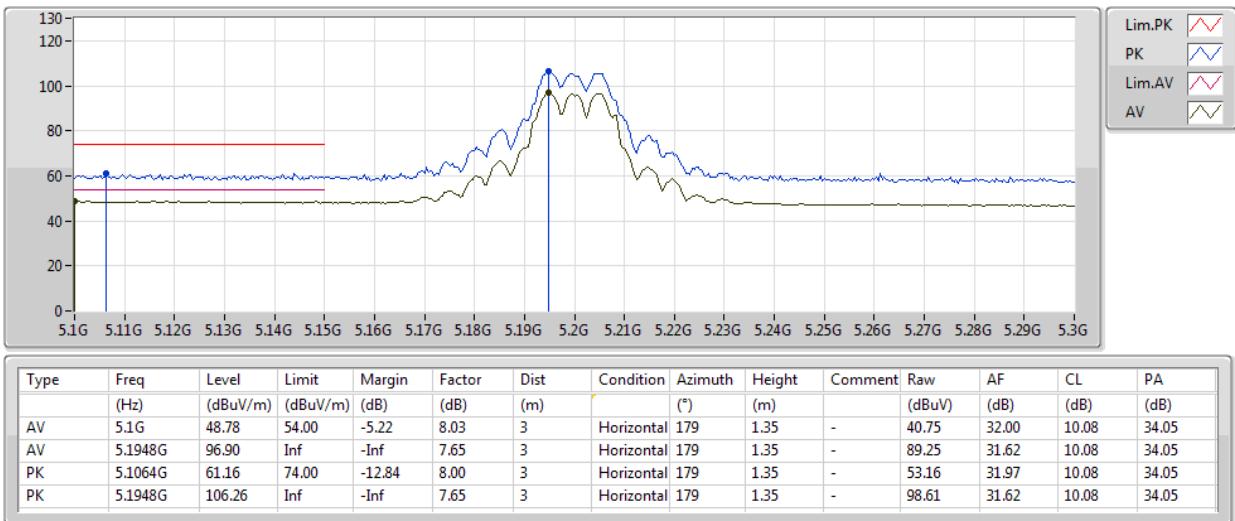
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5200MHz\_TX**


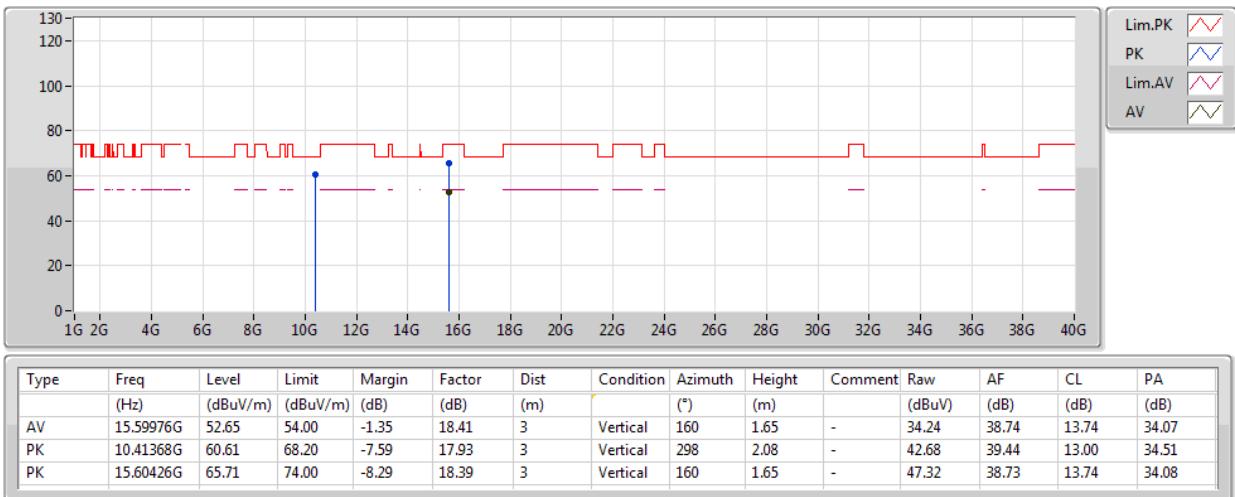
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5200MHz\_TX**


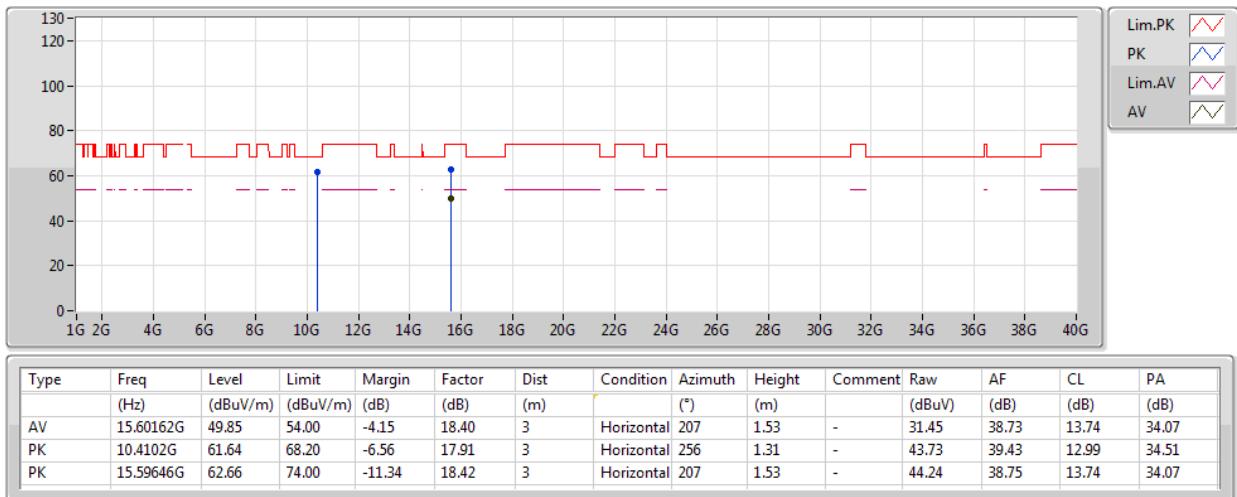
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5200MHz\_TX**

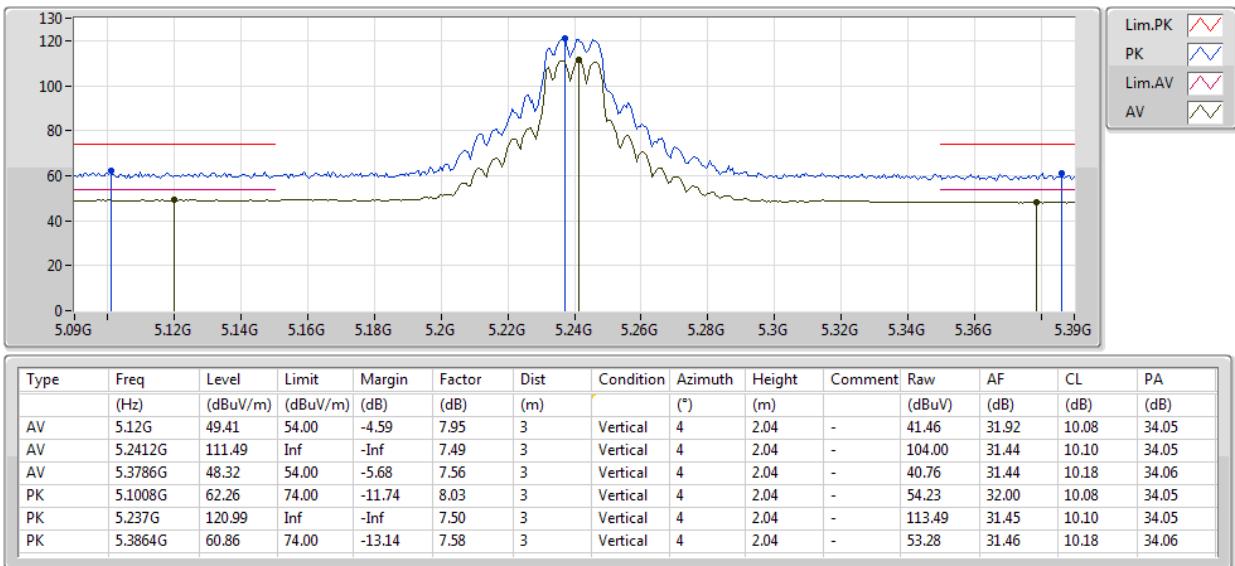
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5200MHz\_TX**

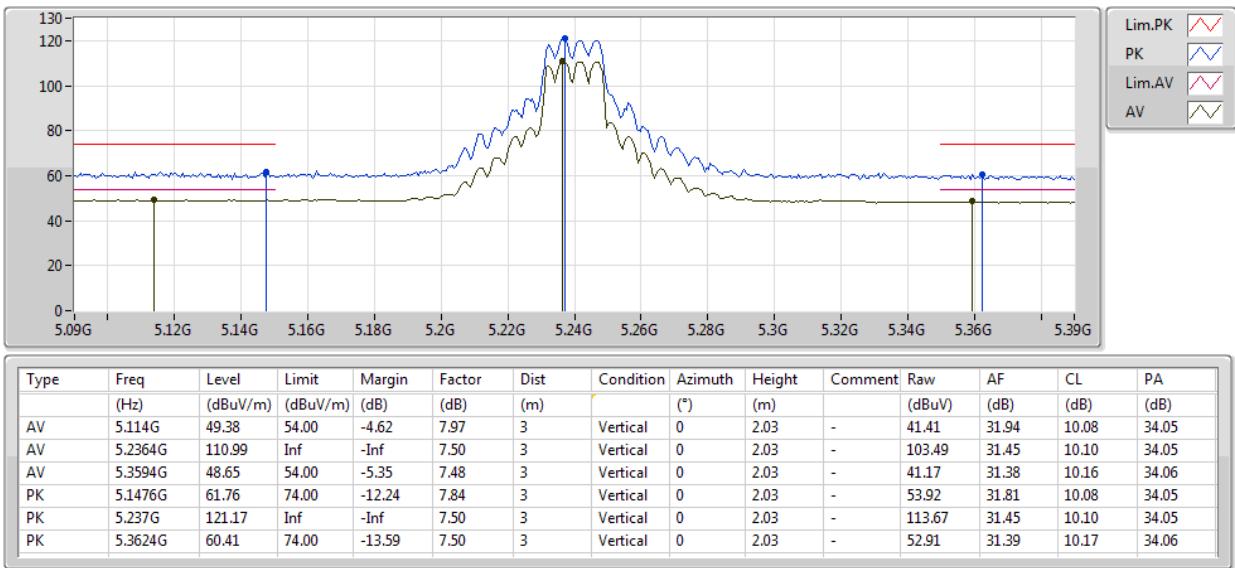
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5240MHz\_TX**


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

02/10/2019

**5240MHz\_TX**


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

02/10/2019

**5240MHz\_TX**

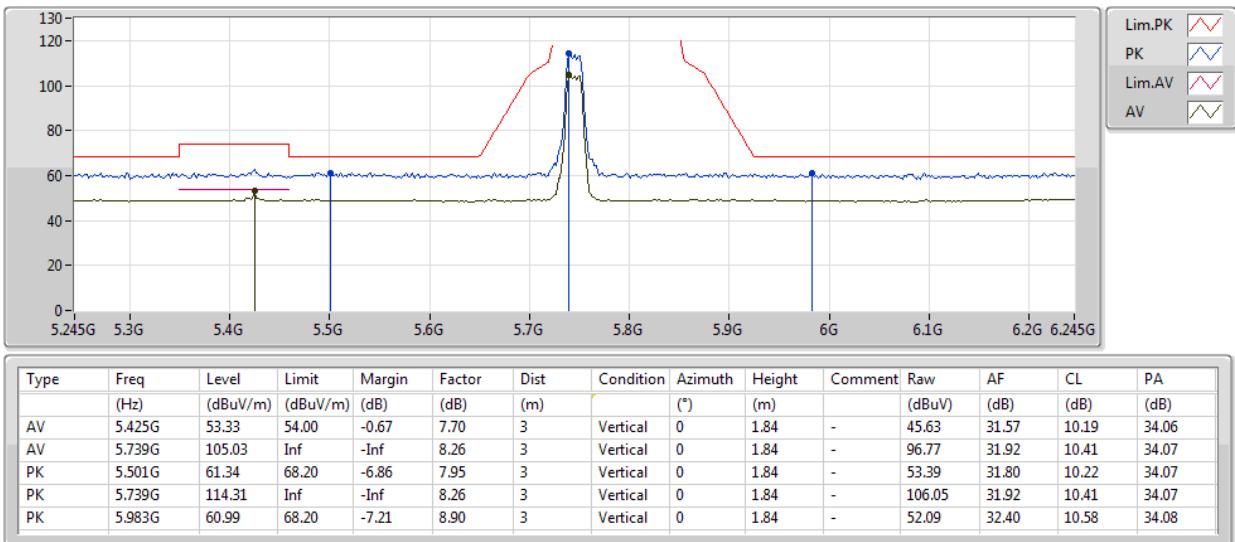
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5240MHz\_TX**

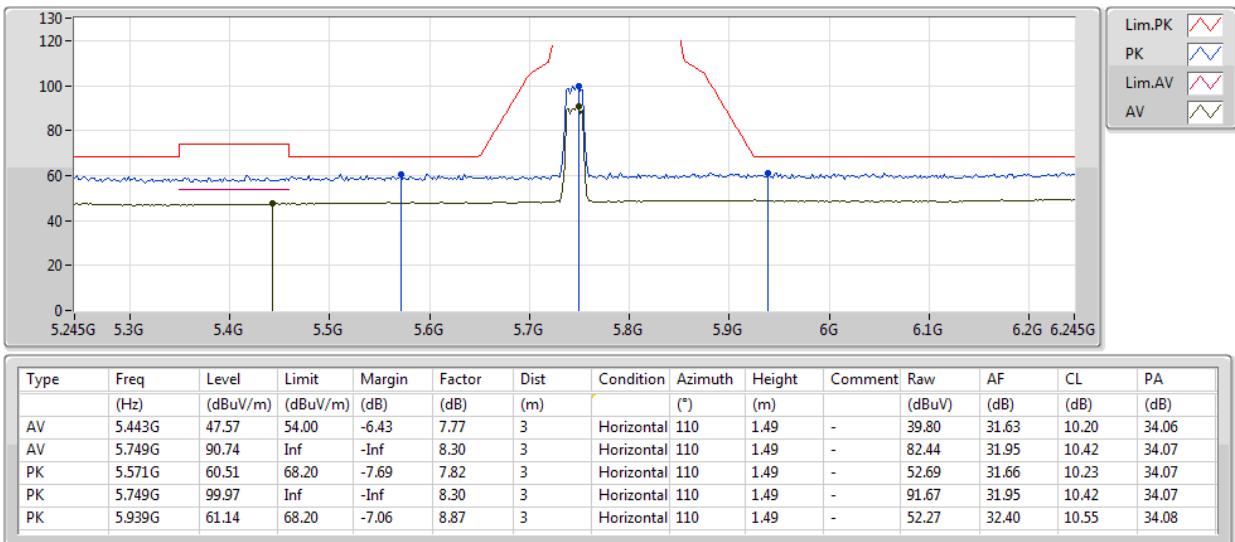
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5745MHz\_TX**


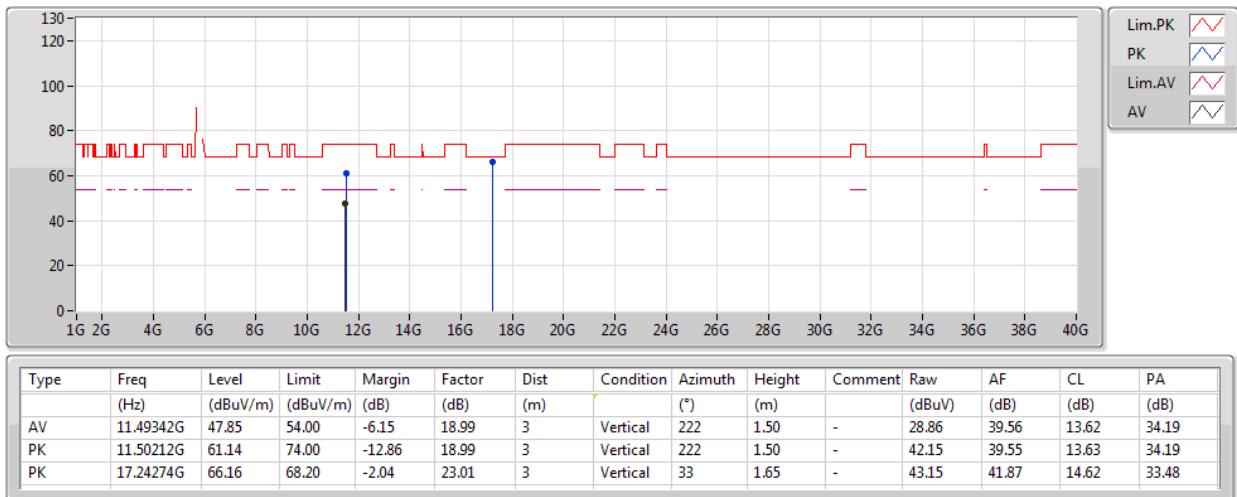
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5745MHz\_TX**


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

02/10/2019

**5745MHz\_TX**

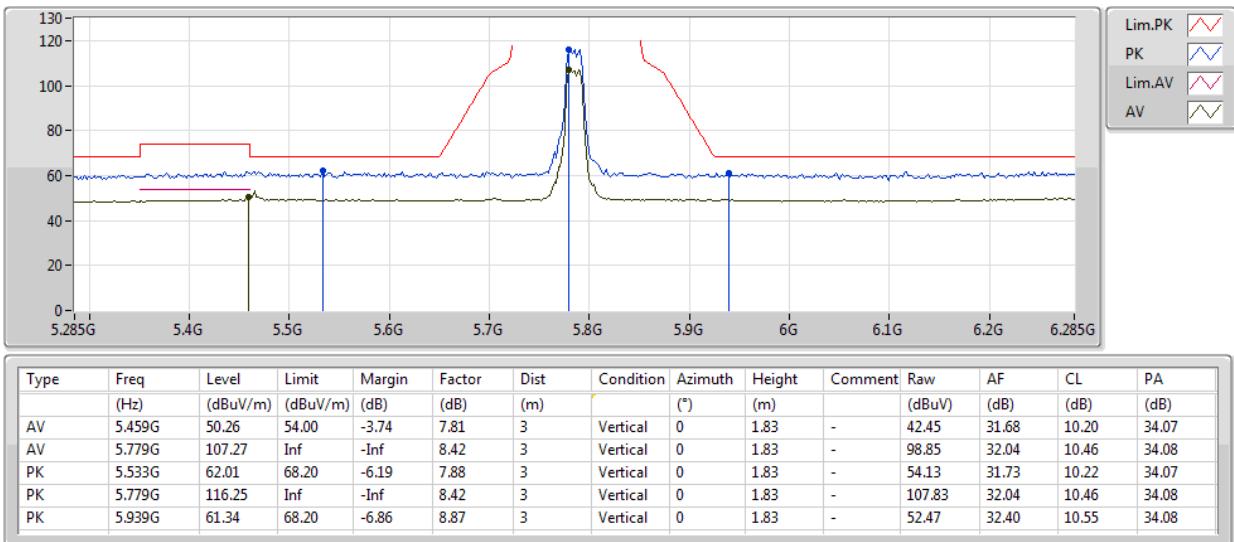
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5745MHz\_TX**

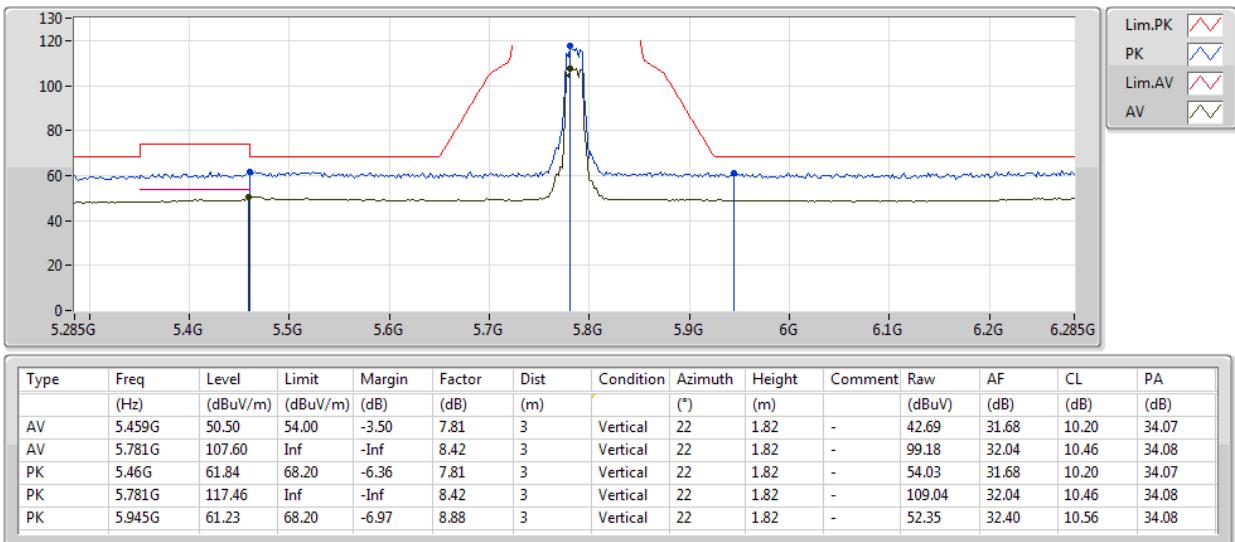
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5785MHz\_TX**


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

02/10/2019

**5785MHz\_TX**


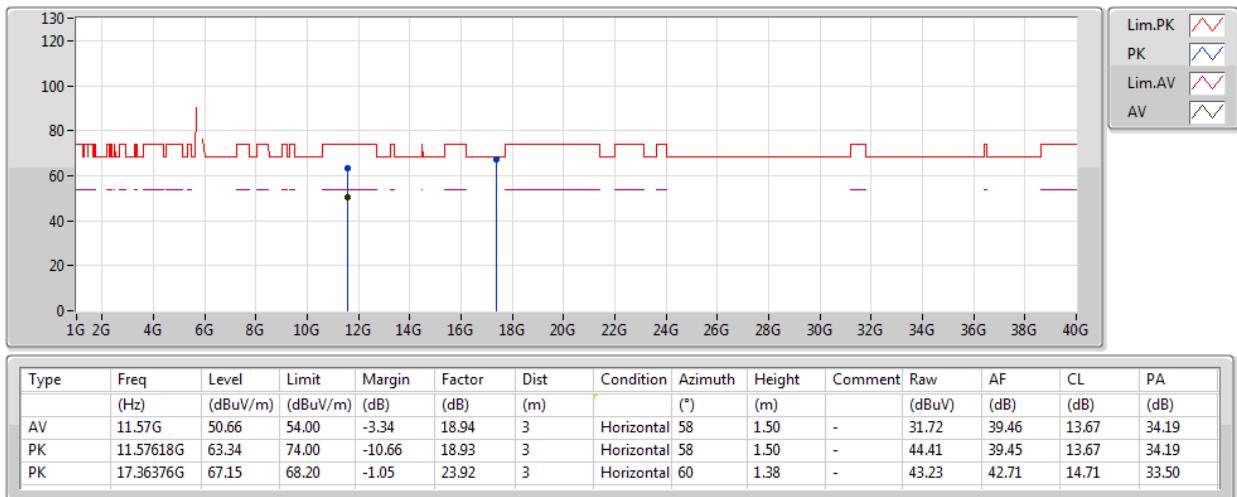
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5785MHz\_TX**

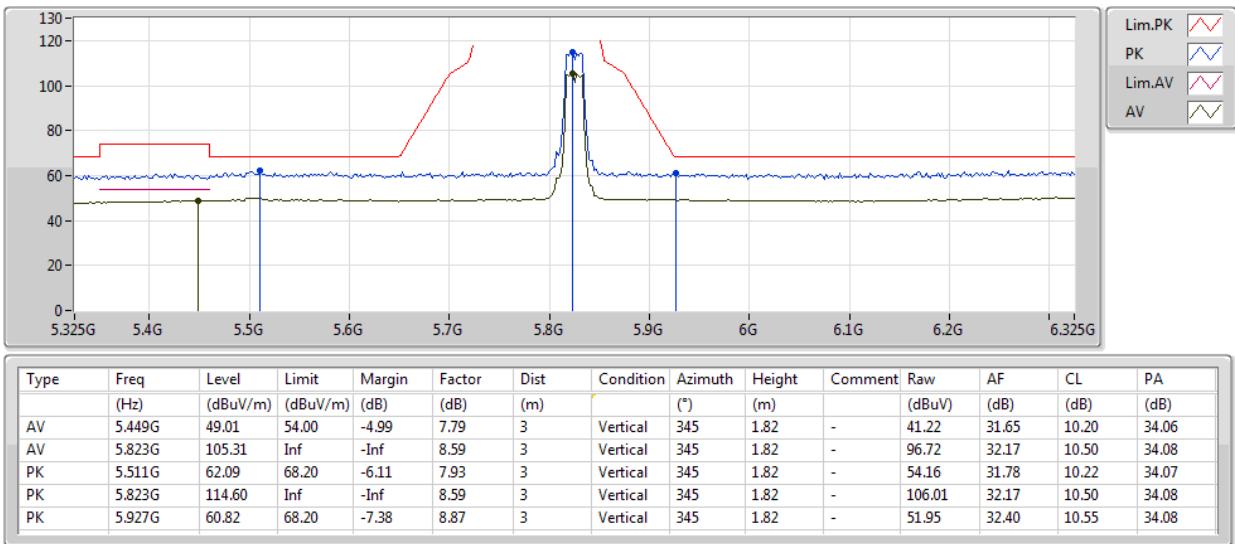
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5785MHz\_TX**

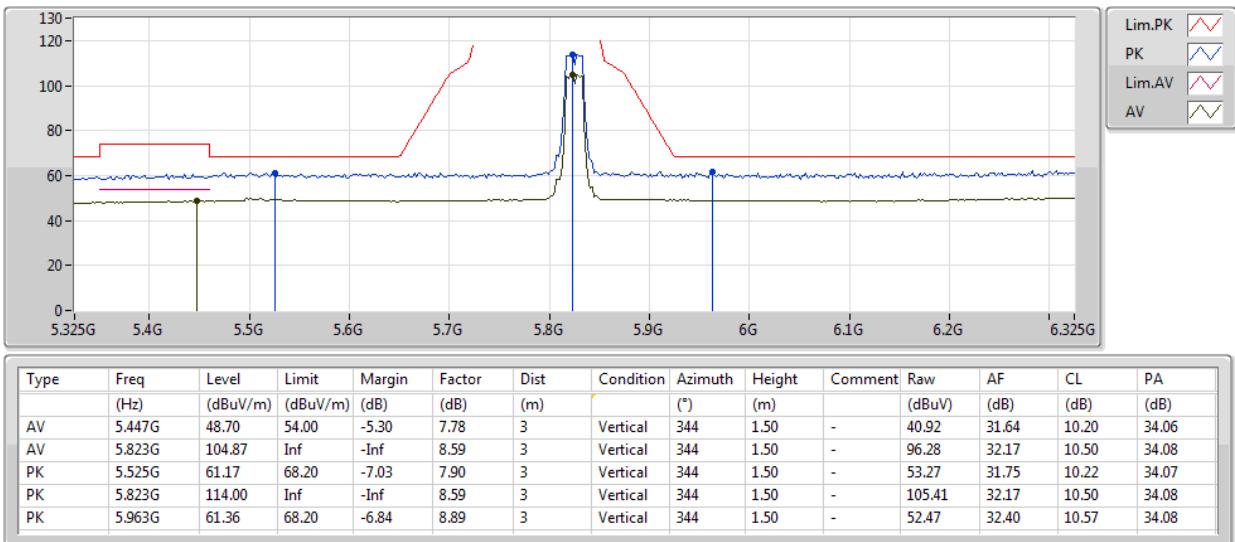
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5825MHz\_TX**


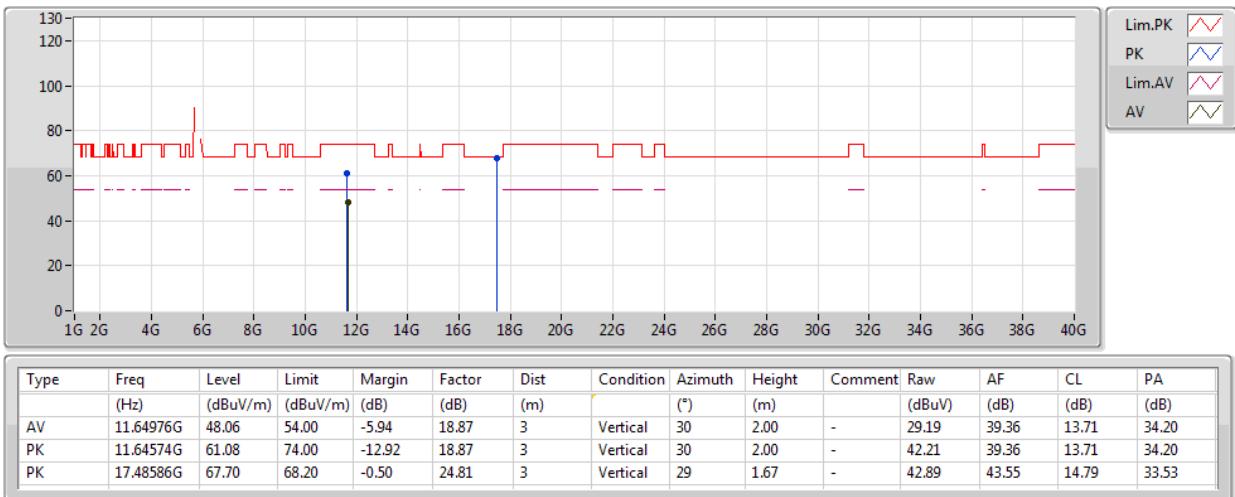
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5825MHz\_TX**


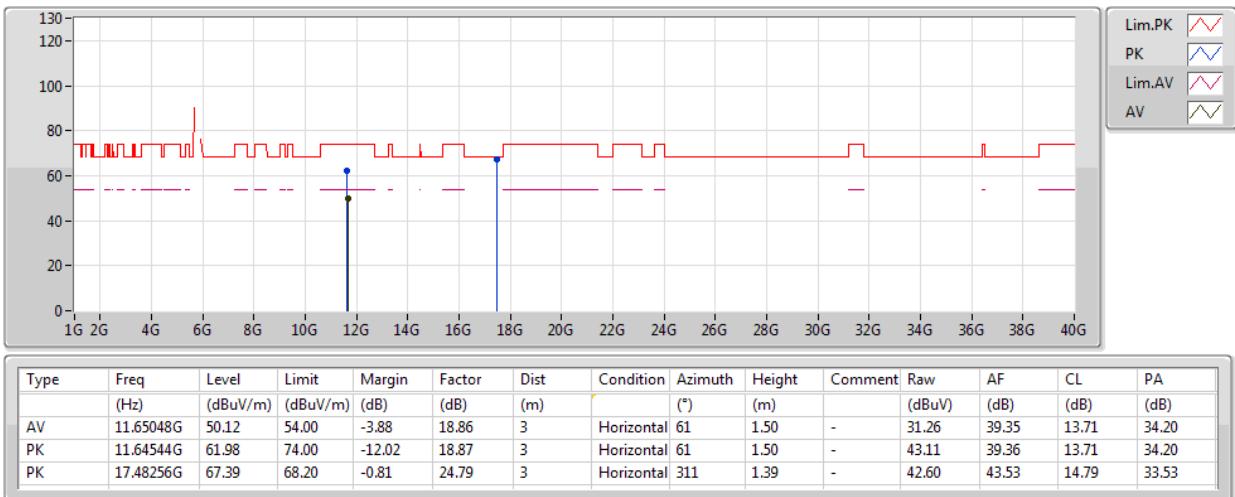
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5825MHz\_TX**

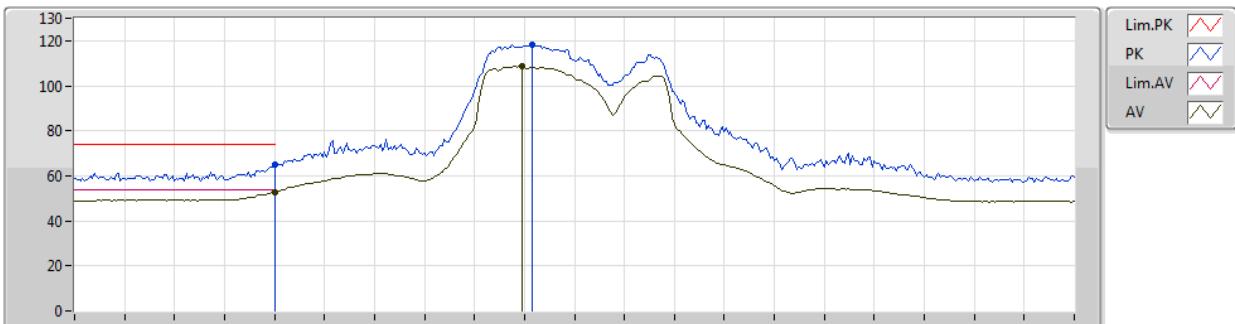
**802.11a\_Nss1,(6Mbps)\_2TX**

02/10/2019

**5825MHz\_TX**

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

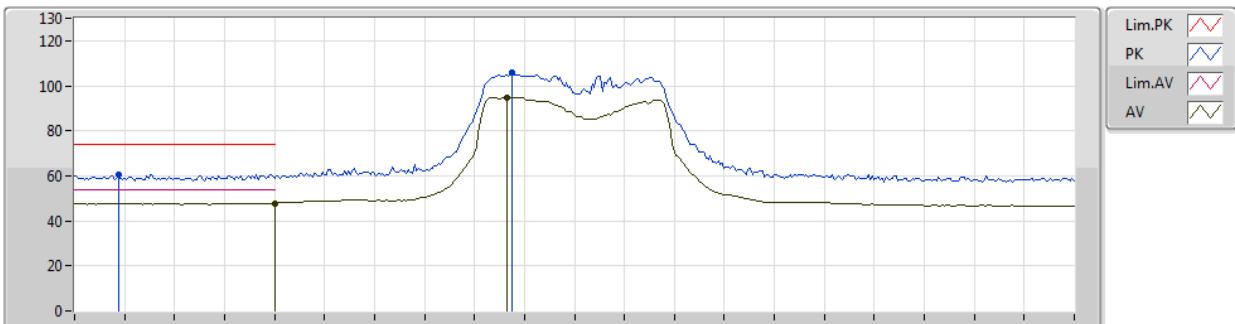
01/10/2019

**5180MHz\_TX**


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	5.15G	52.90	54.00	-1.10	7.83	3	Vertical	4	1.50	-	45.07	31.80	10.08	34.05
AV	5.1748G	108.60	Inf	-Inf	7.73	3	Vertical	4	1.50	-	100.87	31.70	10.08	34.05
PK	5.15G	65.02	74.00	-8.98	7.83	3	Vertical	4	1.50	-	57.19	31.80	10.08	34.05
PK	5.1758G	118.26	Inf	-Inf	7.73	3	Vertical	4	1.50	-	110.53	31.70	10.08	34.05

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

01/10/2019

**5180MHz\_TX**


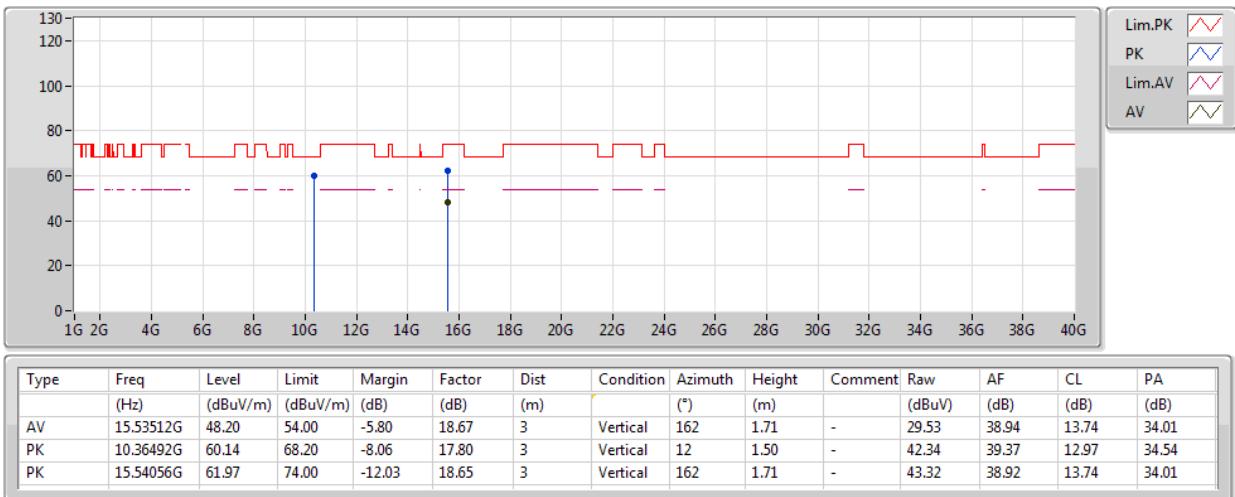
Type	Freq (Hz)	Level (dBm/Hz)	Limit (dBm/Hz)	Margin (dB)	Factor (dB)	Dist (m)	Condition (*)	Azimuth (°)	Height (m)	Comment	Raw (dBm)	AF (dB)	CL (dB)	PA (dB)
AV	5.15G	47.89	54.00	-6.11	7.83	3	Horizontal	92	1.78	-	40.06	31.80	10.08	34.05
AV	5.1732G	94.90	Inf	-Inf	7.74	3	Horizontal	92	1.78	-	87.16	31.71	10.08	34.05
PK	5.1344G	60.57	74.00	-13.43	7.89	3	Horizontal	92	1.78	-	52.68	31.86	10.08	34.05
PK	5.1738G	105.67	Inf	-Inf	7.73	3	Horizontal	92	1.78	-	97.94	31.70	10.08	34.05



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

01/10/2019

## 5180MHz\_TX





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

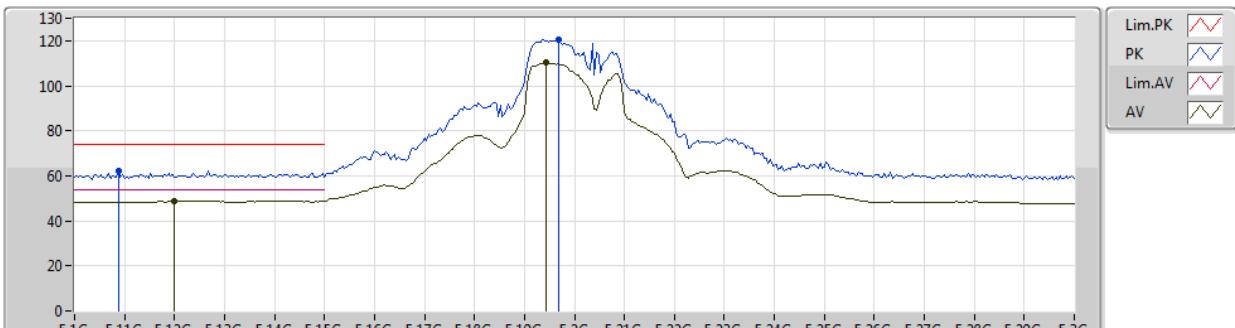
01/10/2019

## 5180MHz\_TX



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

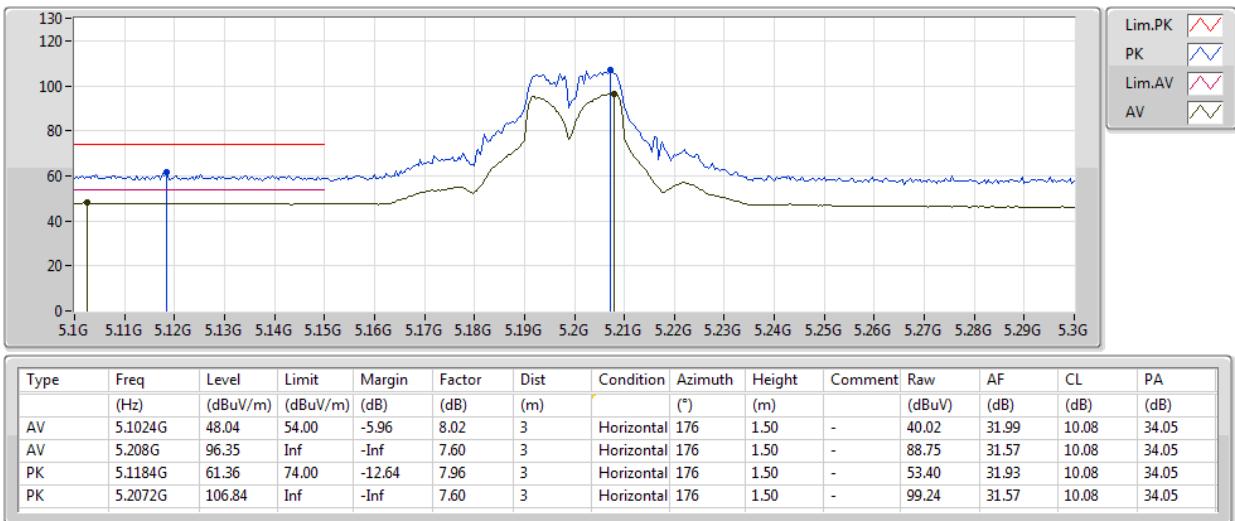
01/10/2019

**5200MHz\_TX**


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	5.12G	48.89	54.00	-5.11	7.95	3	Vertical	1	1.49	-	40.94	31.92	10.08	34.05
AV	5.1944G	110.16	Inf	-Inf	7.65	3	Vertical	1	1.49	-	102.51	31.62	10.08	34.05
PK	5.1088G	62.38	74.00	-11.62	7.99	3	Vertical	1	1.49	-	54.39	31.96	10.08	34.05
PK	5.1968G	120.43	Inf	-Inf	7.64	3	Vertical	1	1.49	-	112.79	31.61	10.08	34.05

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

01/10/2019

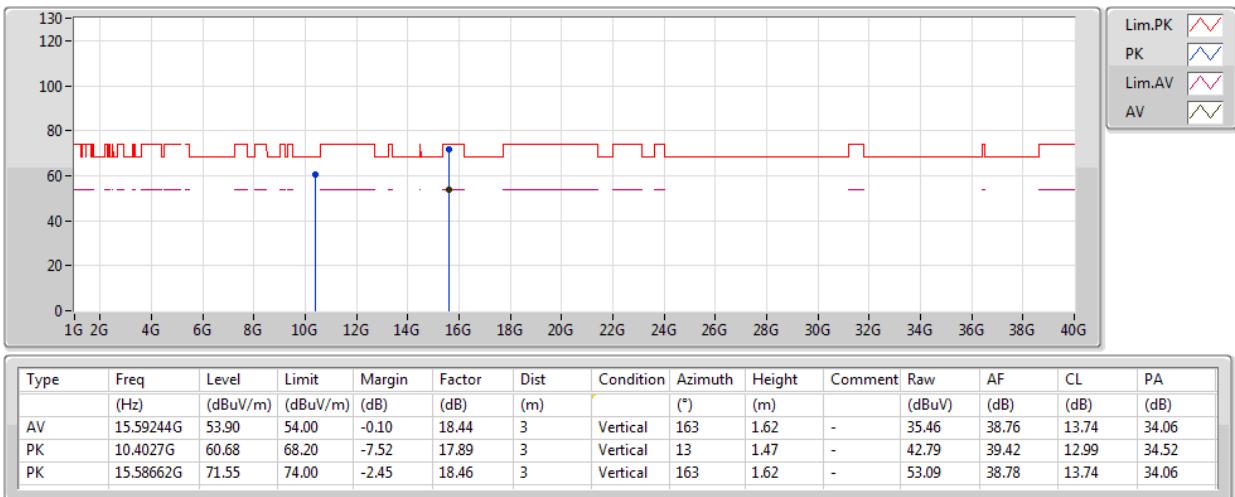
**5200MHz\_TX**




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

01/10/2019

## 5200MHz\_TX

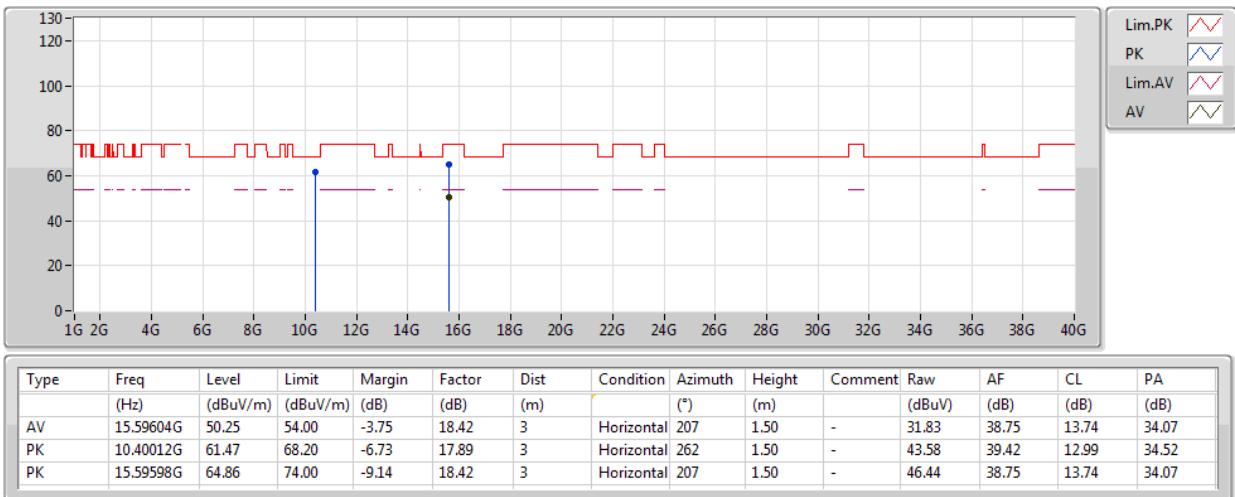




## 802.11ac VHT20\_Nss1,(MCS0)\_2TX

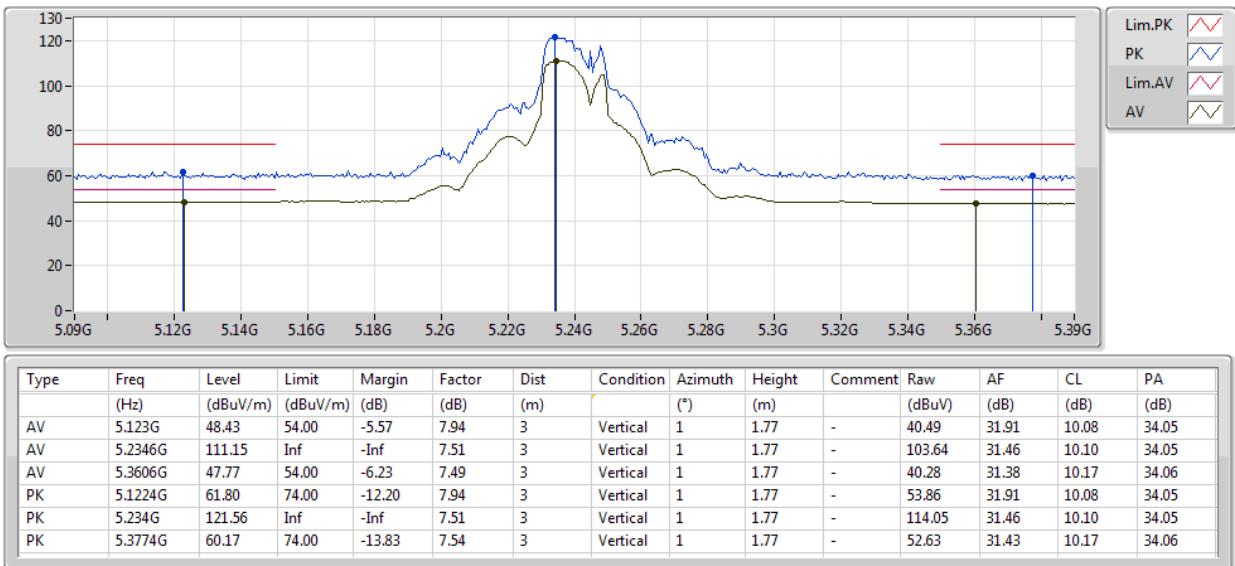
01/10/2019

## 5200MHz\_TX



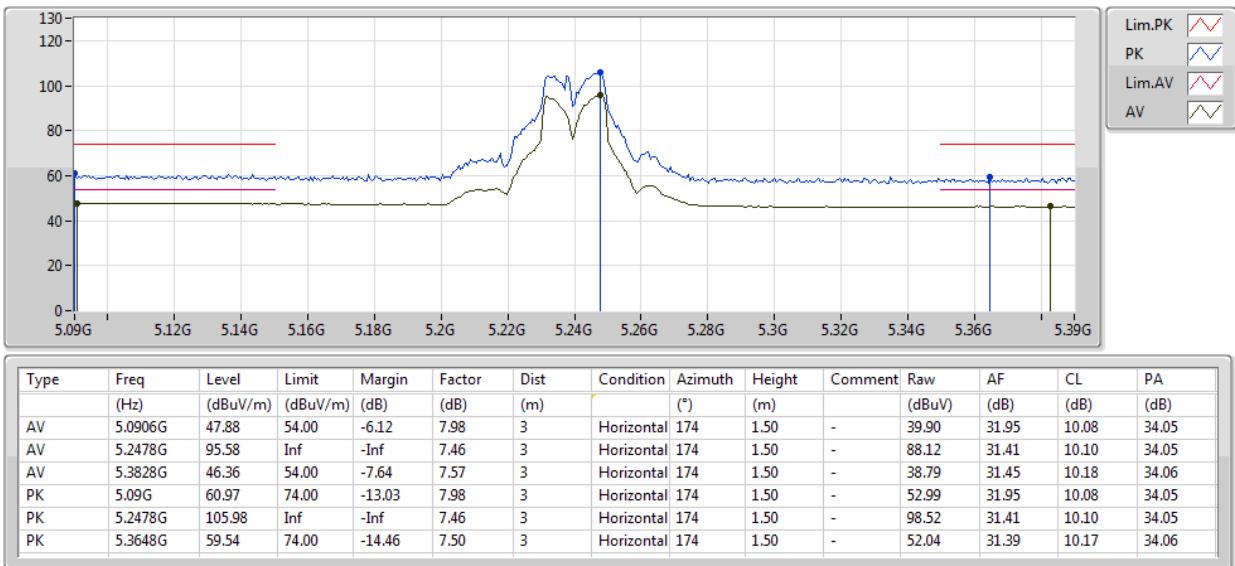
**802.11ac VHT20\_Nss1,(MCS0)\_2TX**

01/10/2019

**5240MHz\_TX**


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

01/10/2019

**5240MHz\_TX**




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

01/10/2019

## 5240MHz\_TX





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

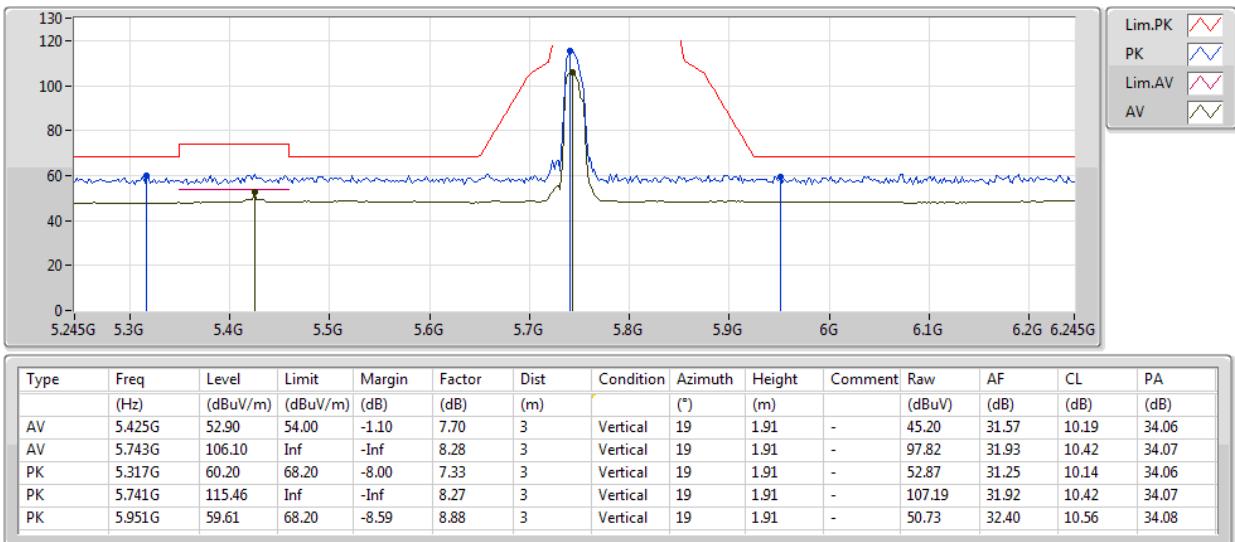
01/10/2019

## 5240MHz\_TX



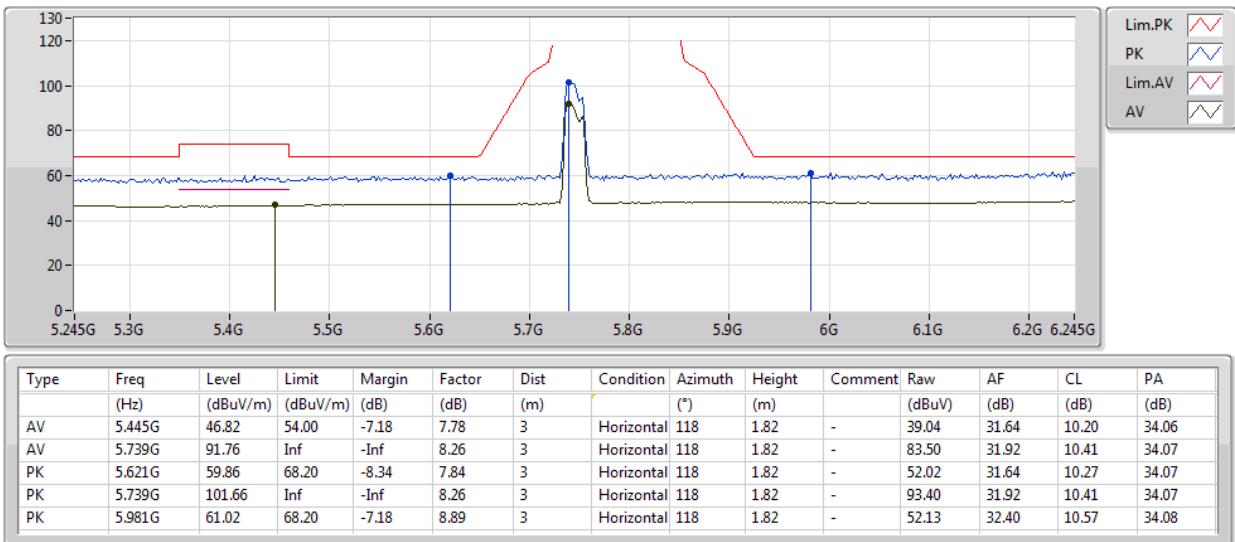
**802.11ac VHT20\_Nss1,(MCS0)\_2TX**

02/10/2019

**5745MHz\_TX**


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

02/10/2019

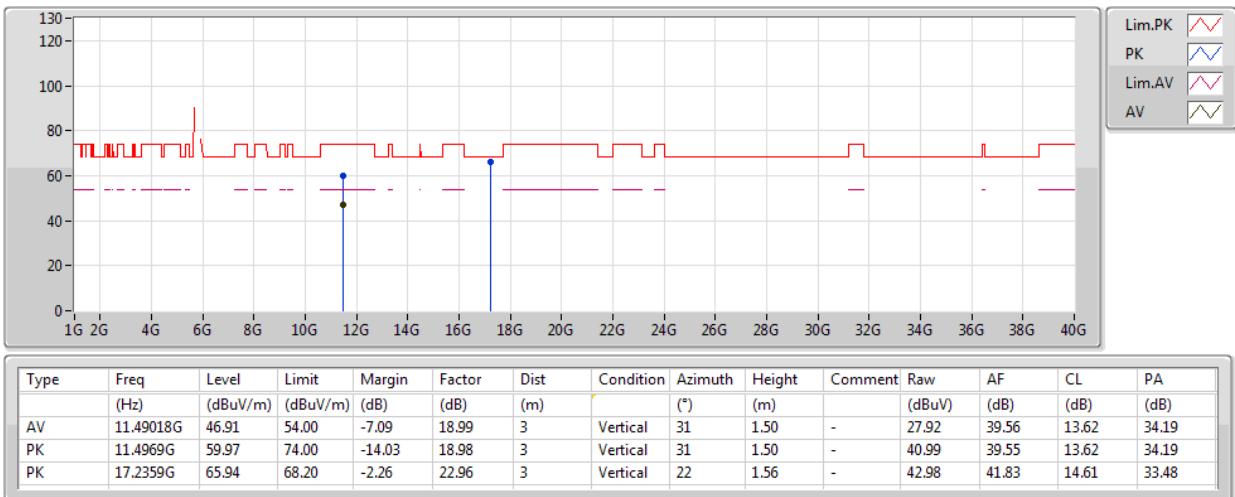
**5745MHz\_TX**




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

02/10/2019

## 5745MHz\_TX

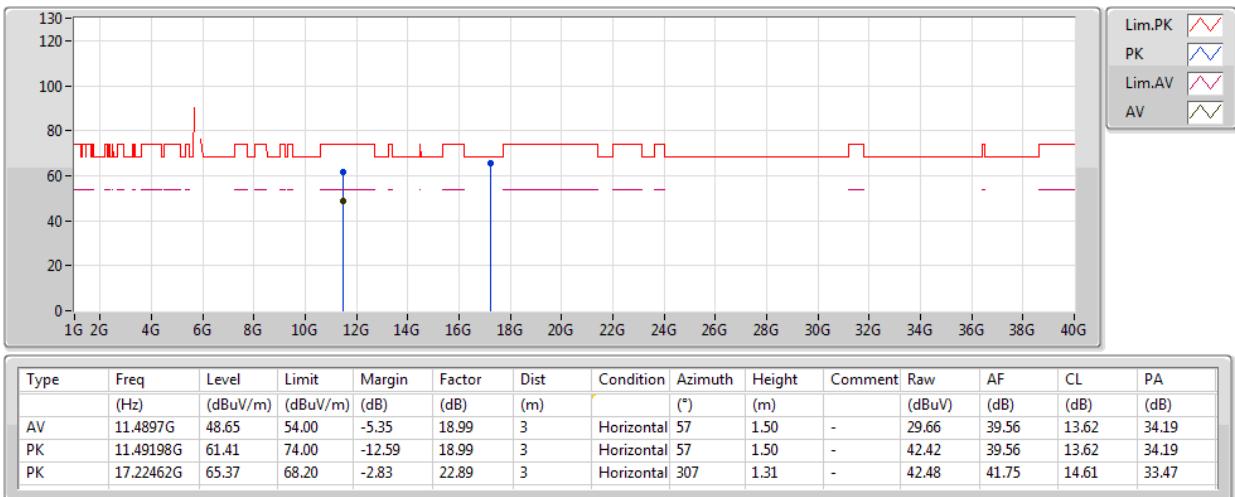




## 802.11ac VHT20\_Nss1,(MCS0)\_2TX

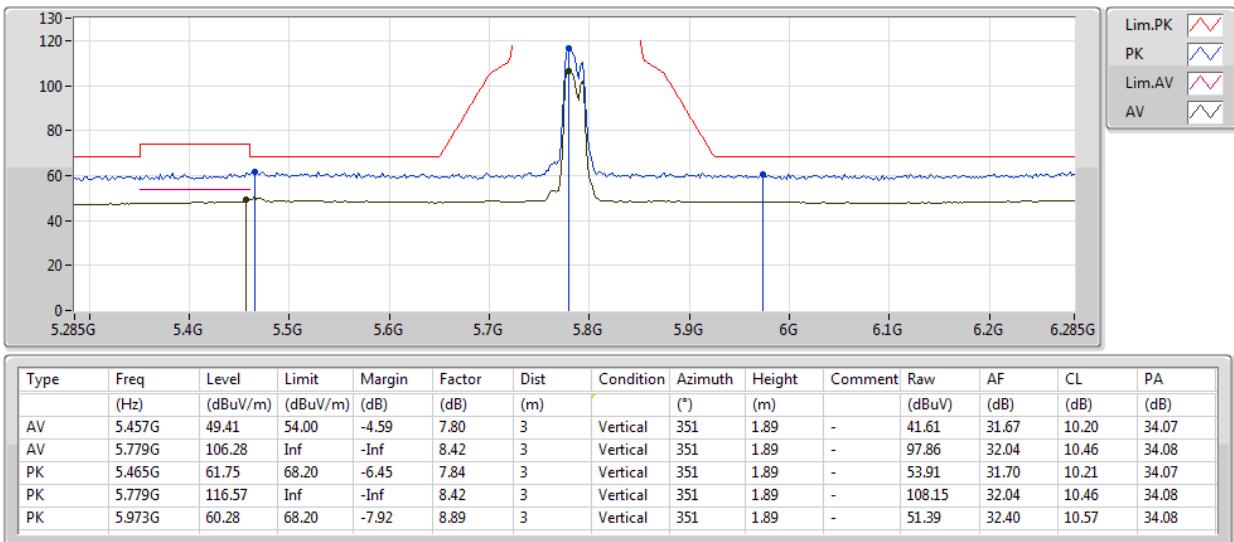
02/10/2019

## 5745MHz\_TX



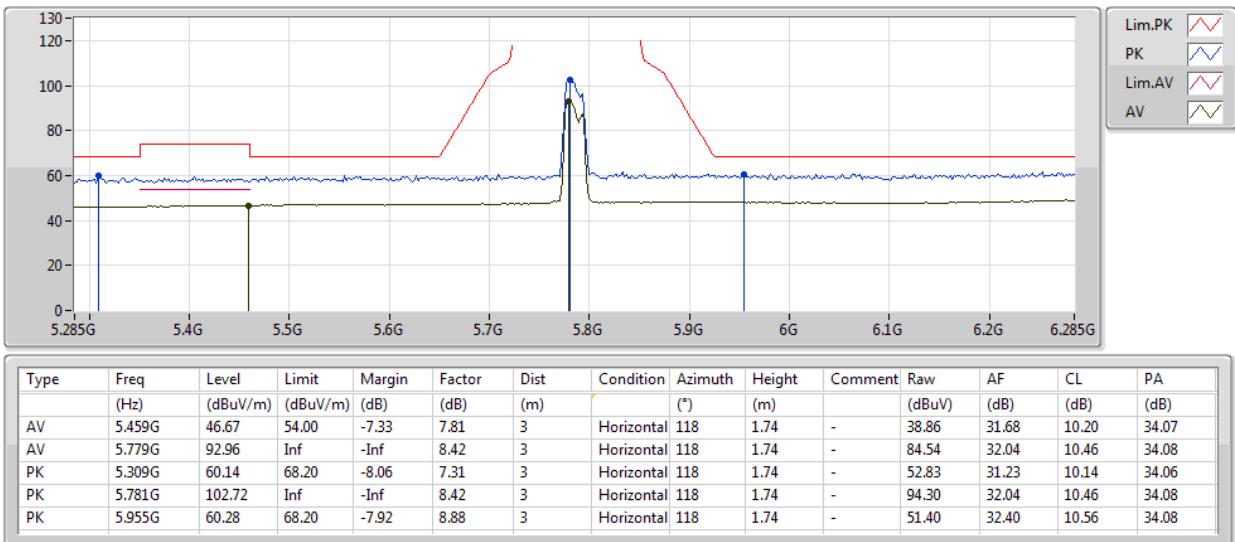
**802.11ac VHT20\_Nss1,(MCS0)\_2TX**

02/10/2019

**5785MHz\_TX**


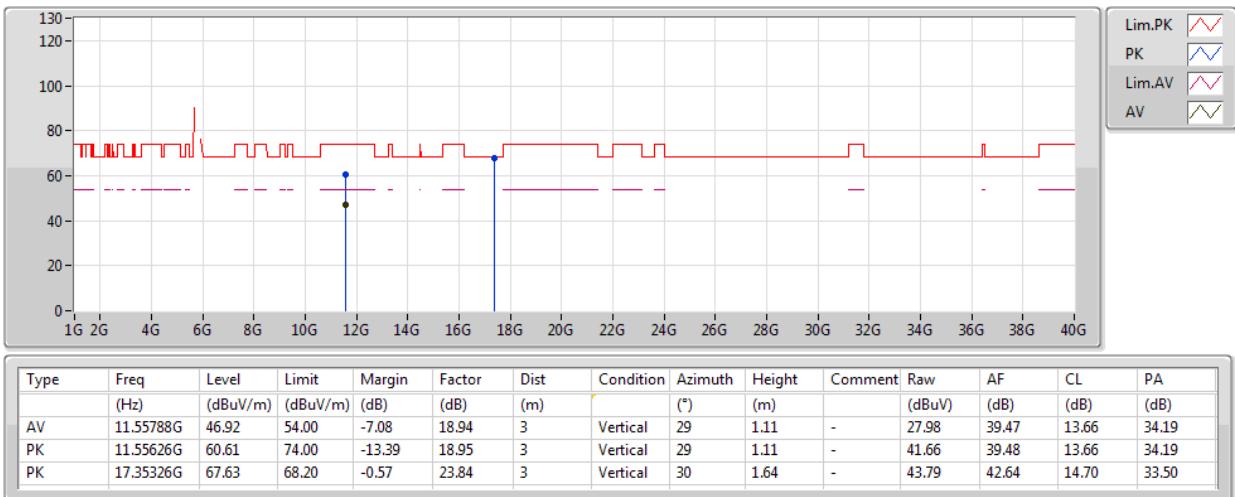
**802.11ac VHT20\_Nss1,(MCS0)\_2TX**

02/10/2019

**5785MHz\_TX**


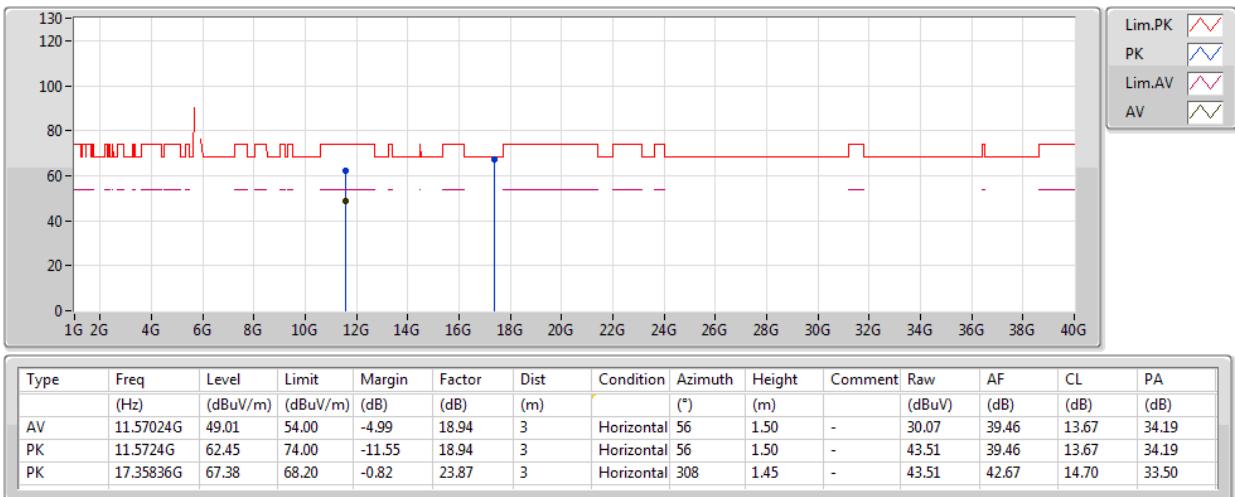
**802.11ac VHT20\_Nss1,(MCS0)\_2TX**

02/10/2019

**5785MHz\_TX**


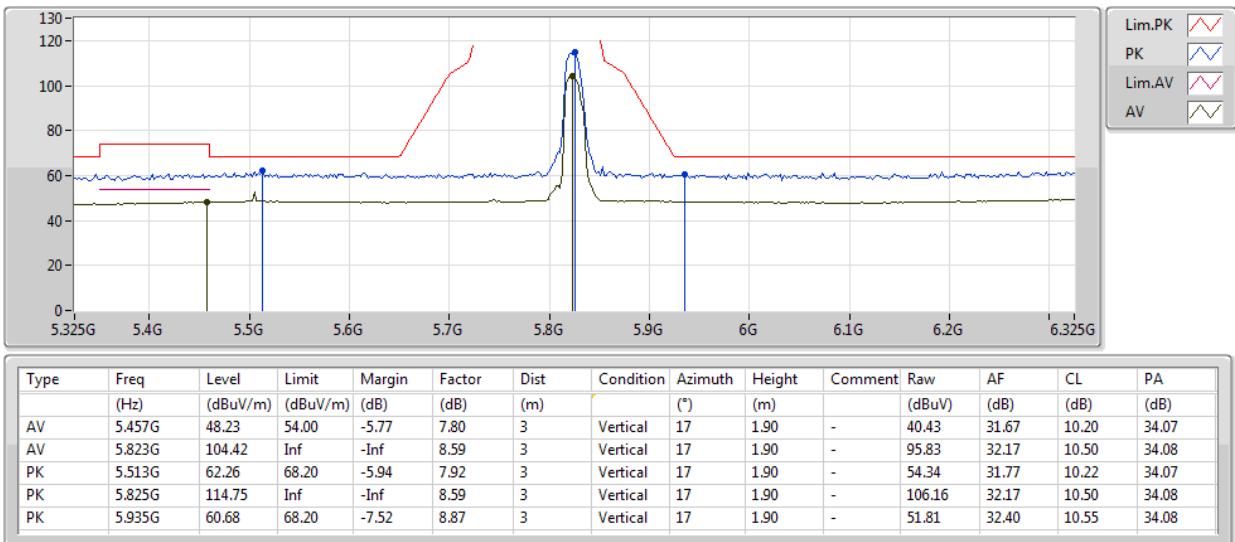
**802.11ac VHT20\_Nss1,(MCS0)\_2TX**

02/10/2019

**5785MHz\_TX**


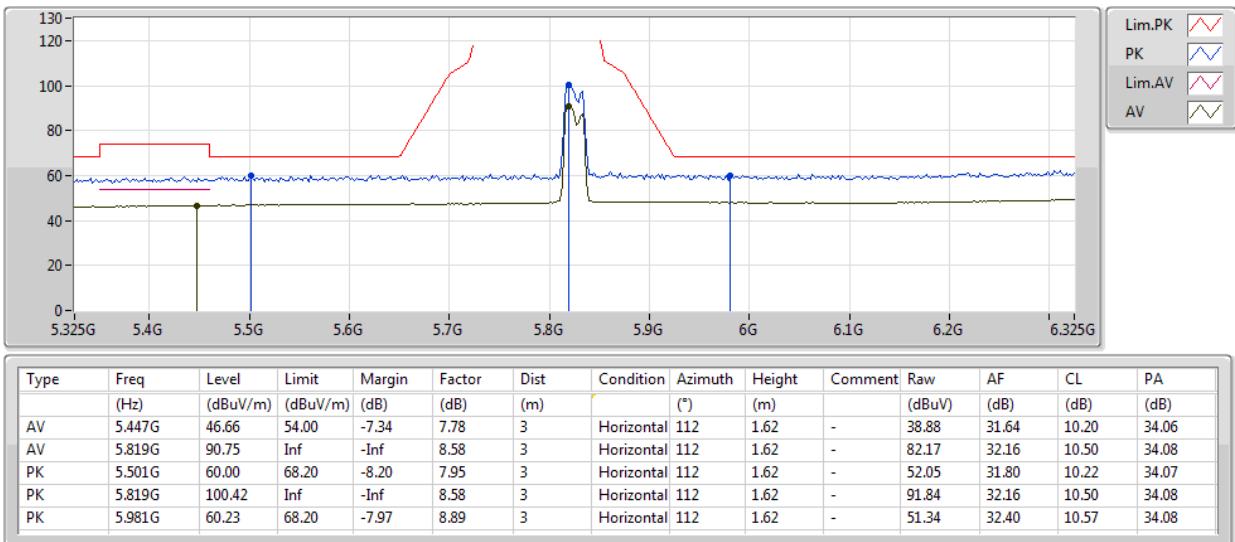
**802.11ac VHT20\_Nss1,(MCS0)\_2TX**

02/10/2019

**5825MHz\_TX**


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

02/10/2019

**5825MHz\_TX**




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

02/10/2019

## 5825MHz\_TX





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

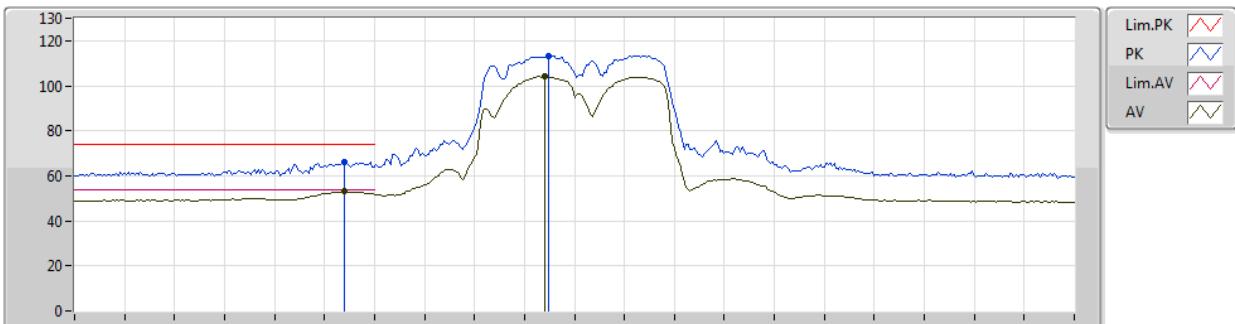
02/10/2019

## 5825MHz\_TX



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

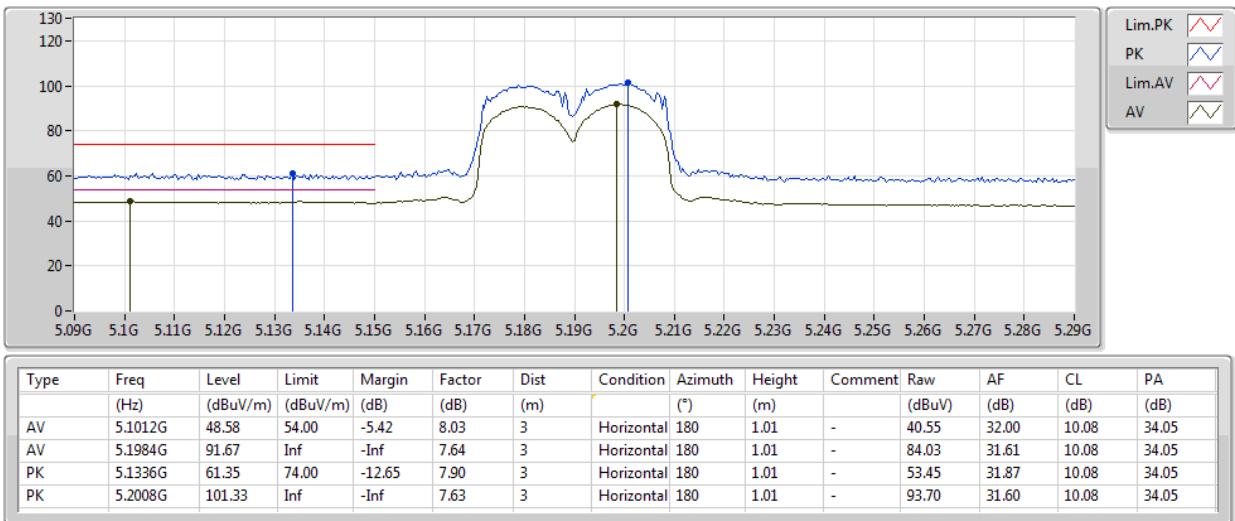
01/10/2019

**5190MHz\_TX**


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition (*)	Azimuth (m)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	5.144G	53.14	54.00	-0.86	7.85	3	Vertical	6	2.67	-	45.29	31.82	10.08	34.05
AV	5.184G	104.10	Inf	-Inf	7.69	3	Vertical	6	2.67	-	96.41	31.66	10.08	34.05
PK	5.144G	66.32	74.00	-7.68	7.85	3	Vertical	6	2.67	-	58.47	31.82	10.08	34.05
PK	5.1848G	113.33	Inf	-Inf	7.69	3	Vertical	6	2.67	-	105.64	31.66	10.08	34.05

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

01/10/2019

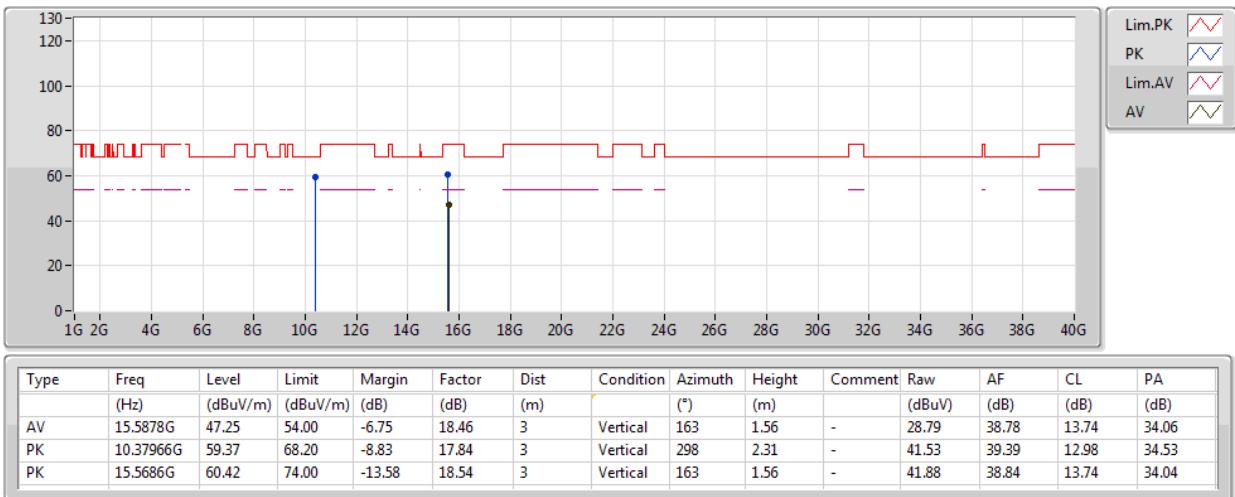
**5190MHz\_TX**




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

01/10/2019

## 5190MHz\_TX





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

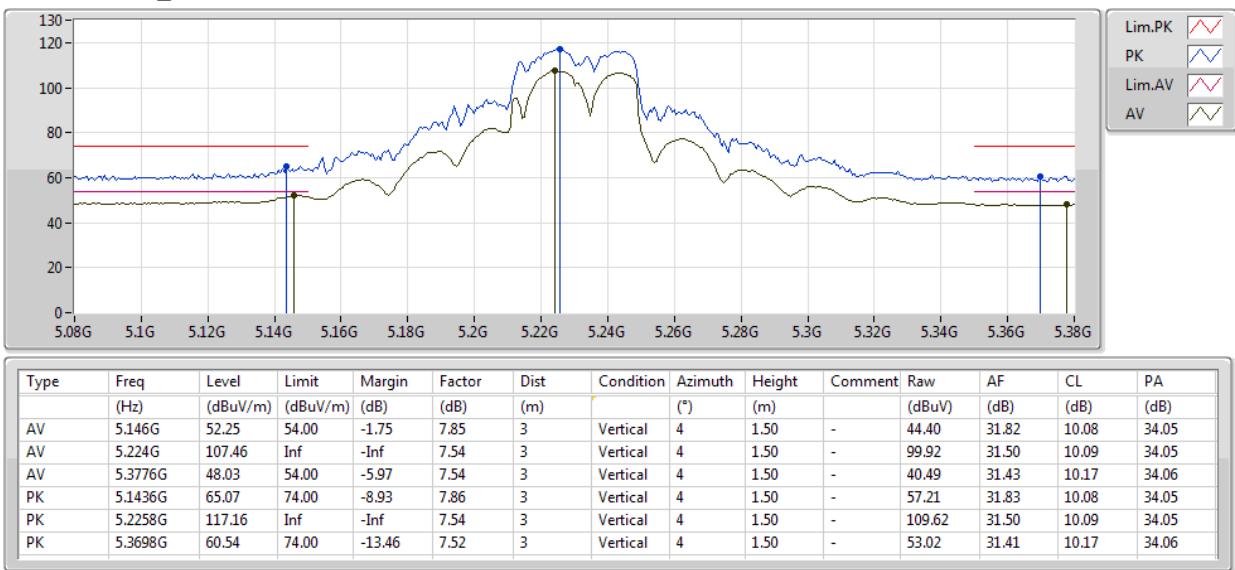
01/10/2019

## 5190MHz\_TX



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

01/10/2019

**5230MHz\_TX**


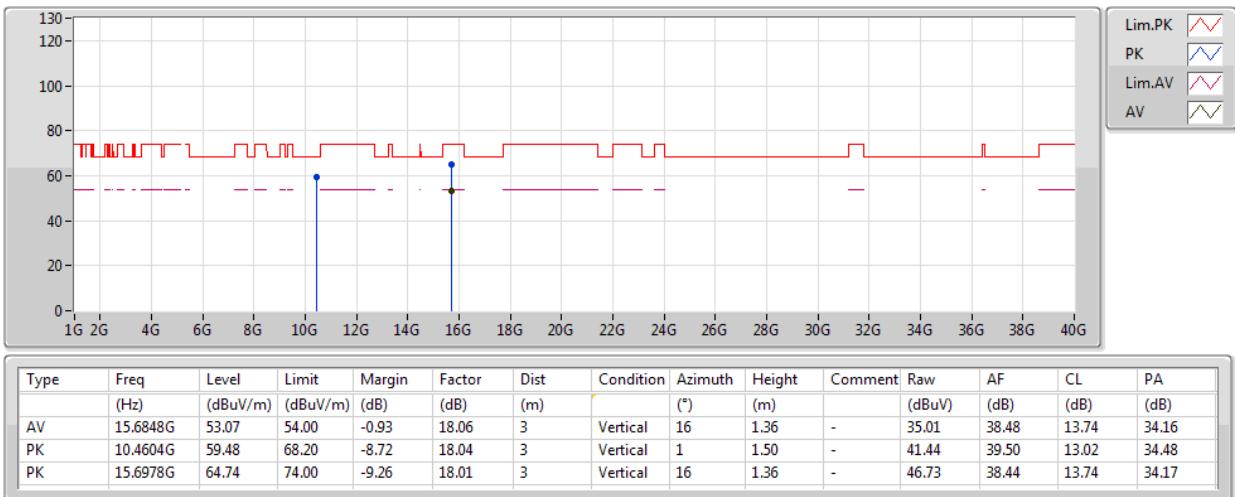
**802.11ac VHT40\_Nss1,(MCS0)\_2TX**

01/10/2019

**5230MHz\_TX**


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

01/10/2019

**5230MHz\_TX**




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

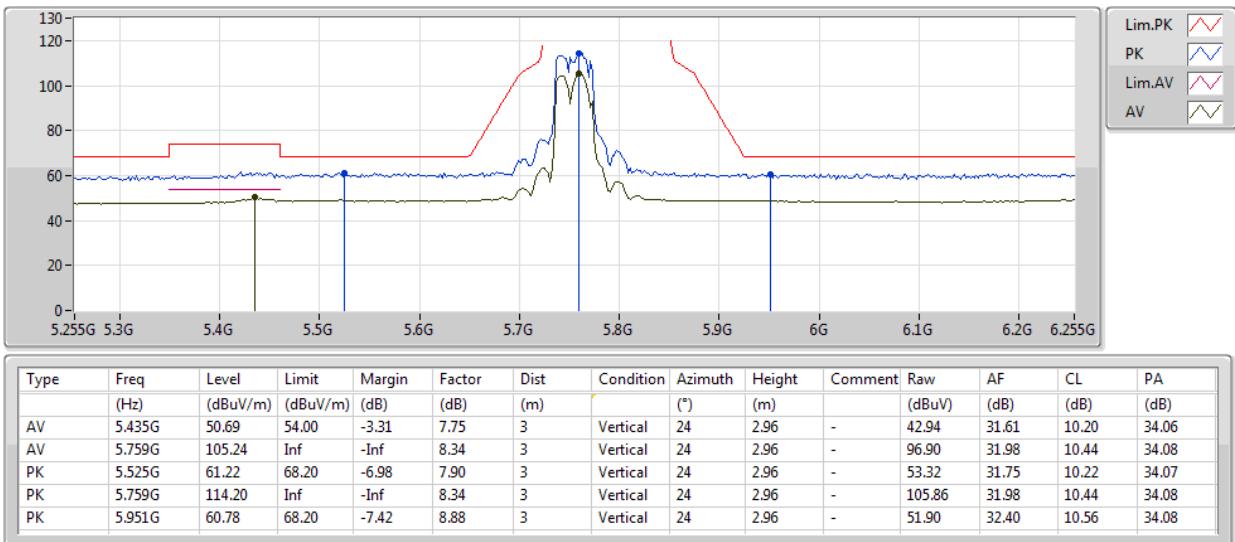
01/10/2019

## 5230MHz\_TX



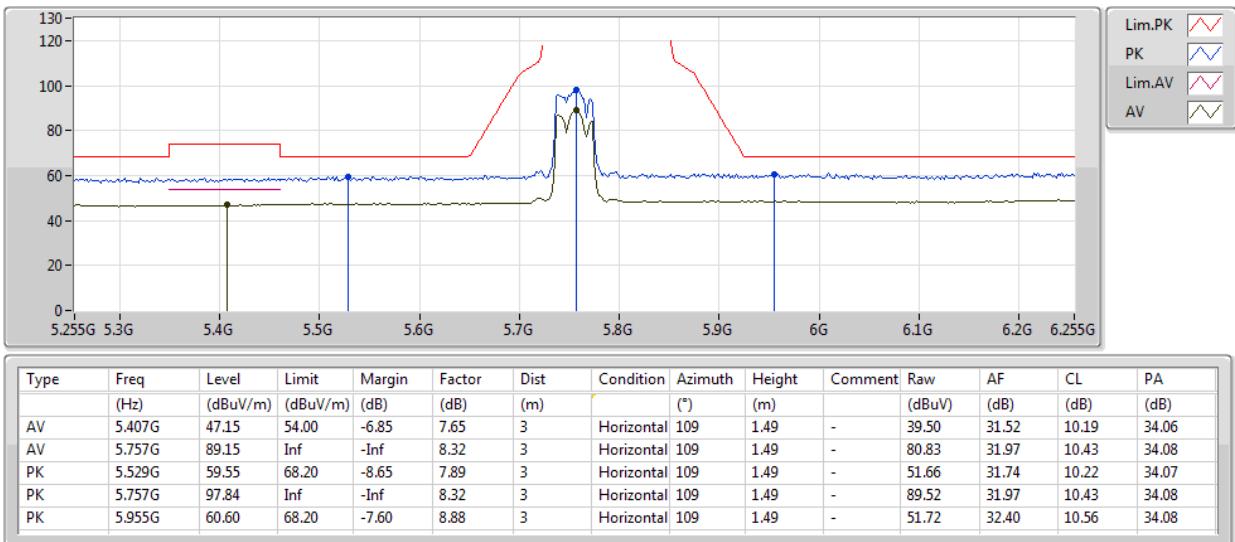
**802.11ac VHT40\_Nss1,(MCS0)\_2TX**

01/10/2019

**5755MHz\_TX**


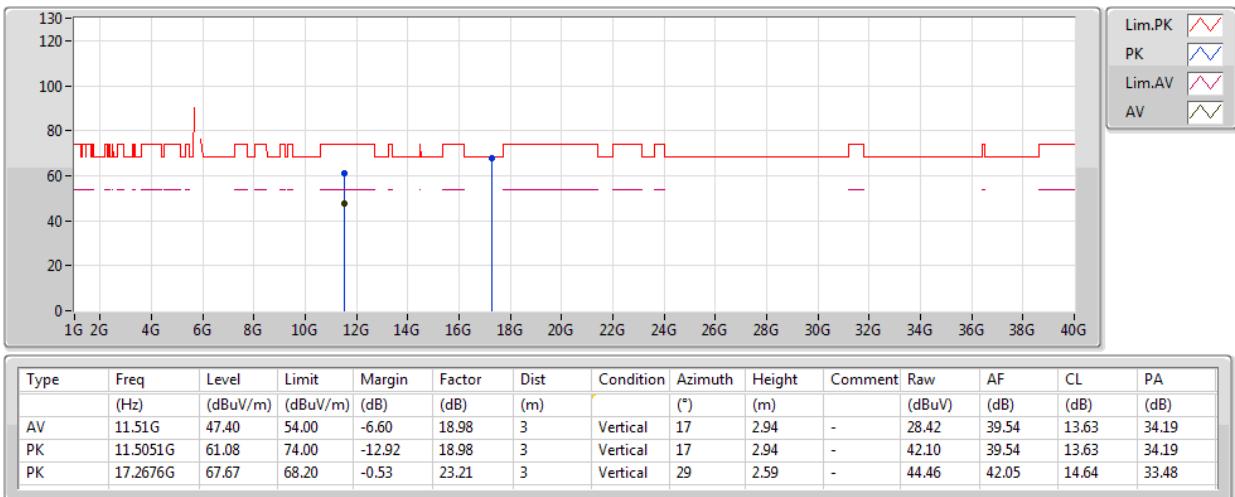
**802.11ac VHT40\_Nss1,(MCS0)\_2TX**

01/10/2019

**5755MHz\_TX**


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

01/10/2019

**5755MHz\_TX**


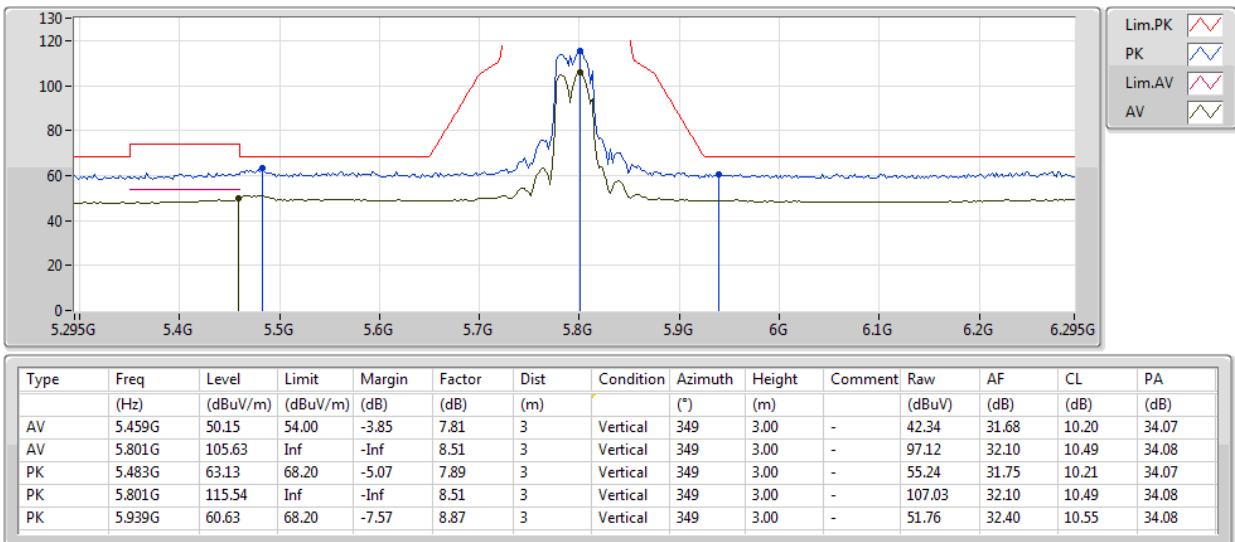
**802.11ac VHT40\_Nss1,(MCS0)\_2TX**

01/10/2019

**5755MHz\_TX**

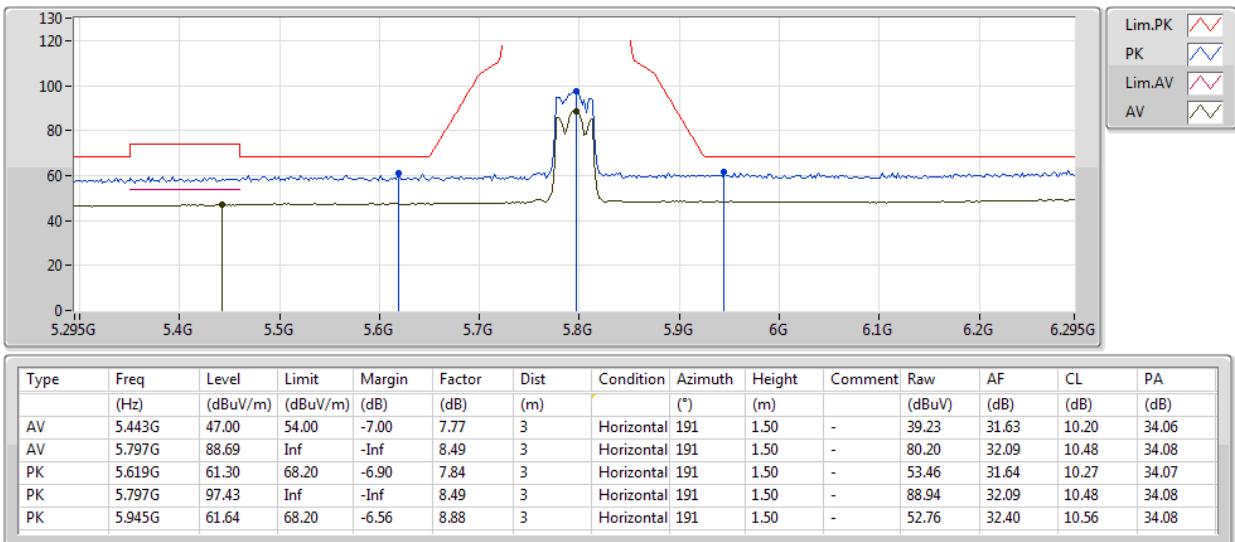

**802.11ac VHT40\_Nss1,(MCS0)\_2TX**

01/10/2019

**5795MHz\_TX**


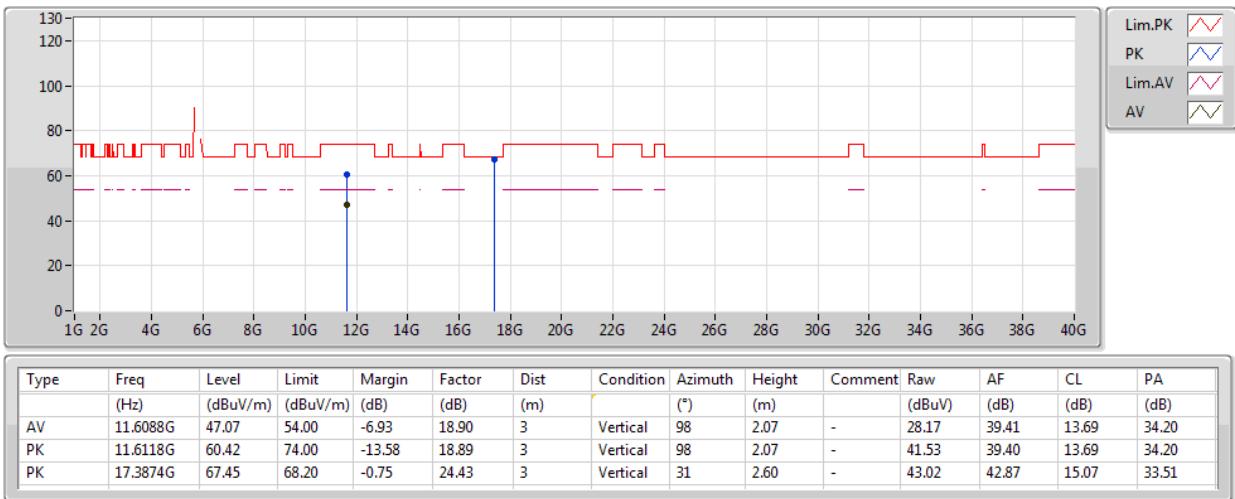
**802.11ac VHT40\_Nss1,(MCS0)\_2TX**

01/10/2019

**5795MHz\_TX**


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

01/10/2019

**5795MHz\_TX**


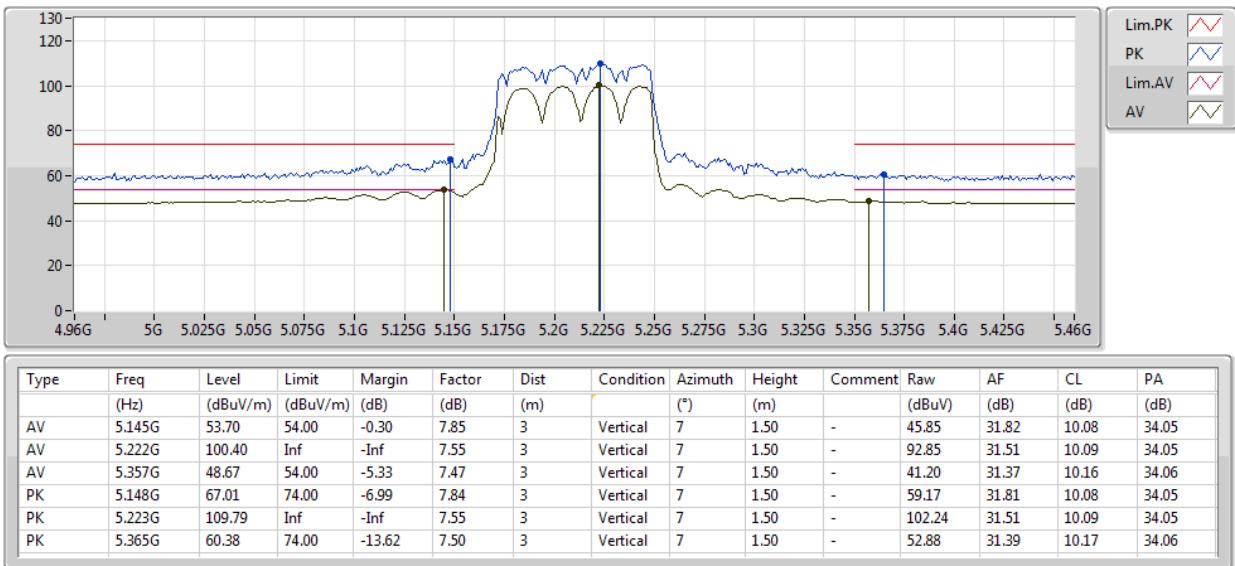
**802.11ac VHT40\_Nss1,(MCS0)\_2TX**

01/10/2019

**5795MHz\_TX**


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

01/10/2019

**5210MHz\_TX**


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

01/10/2019

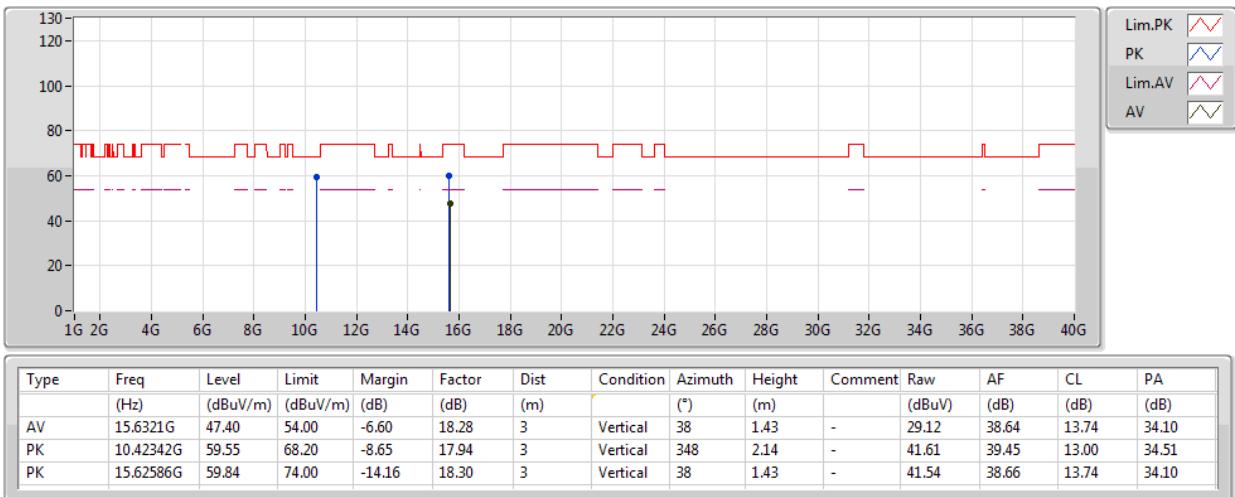
**5210MHz\_TX**




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

01/10/2019

## 5210MHz\_TX





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

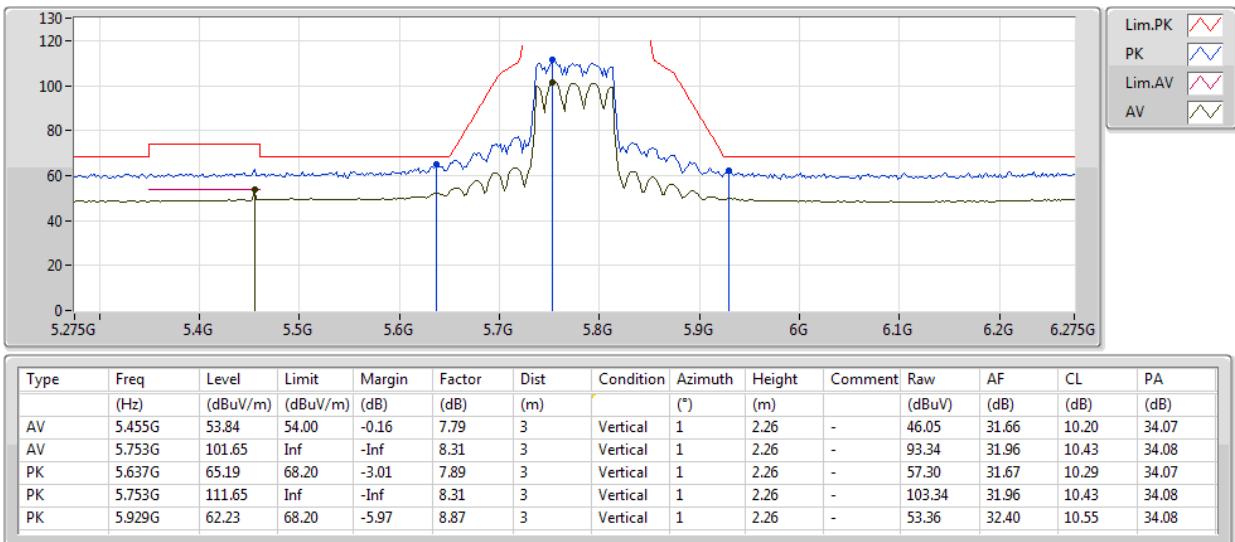
01/10/2019

## 5210MHz\_TX



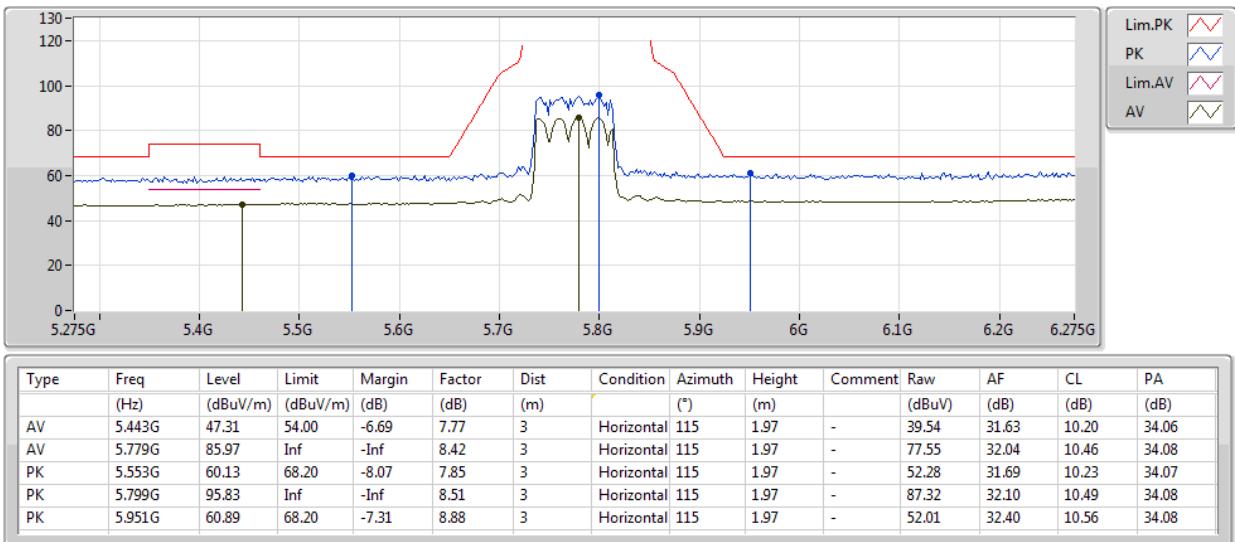
**802.11ac VHT80\_Nss1,(MCS0)\_2TX**

01/10/2019

**5775MHz\_TX**


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

01/10/2019

**5775MHz\_TX**




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

01/10/2019

## 5775MHz\_TX





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

01/10/2019

## 5775MHz\_TX

