

# FCC RADIO TEST REPORT

**FCC ID** : Q87-03433

**Equipment** : LINKSYS MR9000 TRI-BAND WIFI 5 ROUTER,  
LINKSYS MR9000X TRI-BAND WIFI 5 ROUTER,  
LINKSYS MR8900 TRI-BAND WIFI 5 ROUTER,  
LINKSYS MR8950 TRI-BAND WIFI 5 ROUTER

**Brand Name** : LINKSYS

**Model Name** : MR9000, MR9000X, MR8900, MR8950

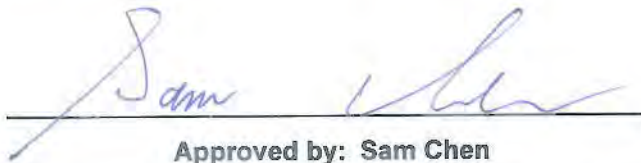
**Applicant** : Linksys LLC  
121 Theory Drive, Irvine CA 92617, United States

**Standard** : 47 CFR FCC Part 15.407

The product was received on Apr. 02, 2019, and testing was started from Apr. 02, 2019 and completed on May 15, 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 variant 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: Sam Chen

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

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



## Table of Contents

<b>History of this test report.....</b>	<b>3</b>
<b>Summary of Test Result.....</b>	<b>4</b>
<b>1 General Description .....</b>	<b>5</b>
1.1 Information.....	5
1.2 Applicable Standards .....	10
1.3 Testing Location Information .....	10
1.4 Measurement Uncertainty .....	10
<b>2 Test Configuration of EUT .....</b>	<b>11</b>
2.1 Test Channel Mode .....	11
2.2 The Worst Case Measurement Configuration.....	13
2.3 EUT Operation during Test .....	14
2.4 Accessories .....	15
2.5 Support Equipment.....	15
2.6 Test Setup Diagram .....	16
<b>3 Transmitter Test Result .....</b>	<b>18</b>
3.1 Emission Bandwidth .....	18
3.2 Maximum Conducted Output Power .....	20
3.3 Peak Power Spectral Density.....	22
3.4 Unwanted Emissions.....	25
<b>4 Test Equipment and Calibration Data .....</b>	<b>28</b>
<b>Appendix A. Test Results of Emission Bandwidth</b>	
<b>Appendix B. Test Results of Maximum Conducted Output Power</b>	
<b>Appendix C. Test Results of Peak Power Spectral Density</b>	
<b>Appendix D. Test Results of Unwanted Emissions</b>	
<b>Appendix E. Test Photos</b>	
<b>Photographs of EUT v01</b>	



TEL : 886-3-656-9065  
FAX : 886-3-656-9085  
Report Template No.: CB Ver1.0



## Summary of Test Result

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

**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:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Sam Chen**

**Report Producer: Viola Huang**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11a	20	2TX
5.25-5.35GHz	802.11a-BF	20	2TX
5.25-5.35GHz	802.11n HT20	20	2TX
5.25-5.35GHz	802.11n HT20-BF	20	2TX
5.25-5.35GHz	802.11ac VHT20	20	2TX
5.25-5.35GHz	802.11ac VHT20-BF	20	2TX
5.25-5.35GHz	802.11n HT40	40	2TX
5.25-5.35GHz	802.11n HT40-BF	40	2TX
5.25-5.35GHz	802.11ac VHT40	40	2TX
5.25-5.35GHz	802.11ac VHT40-BF	40	2TX
5.25-5.35GHz	802.11ac VHT80	80	2TX
5.25-5.35GHz	802.11ac VHT80-BF	80	2TX
5.47-5.725GHz	802.11a	20	4TX
5.47-5.725GHz	802.11a-BF	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT20 BF	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20-BF	20	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40-BF	40	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT80-BF	80	4TX



**Note:**

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ Nss-Min is the minimum number of spatial streams.
- ♦ Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

### 1.1.2 Antenna Information

Ant.	Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	1	FIT	ANEP5M3-CCG01-EH	Dipole Antenna	I-PEX	Note
2	2	FIT	ANEP5M3-CCG00-EH	Dipole Antenna	I-PEX	
3	3	FIT	ANEP5M1-CCG00-EH	Dipole Antenna	I-PEX	
4	4	FIT	ANEP5M1-CCG01-EH	Dipole Antenna	I-PEX	
5	1	FIT	ANTS1M1-CCG00-EH	PIFA Antenna	I-PEX	

Note 1:

Ant.	Port	Gain (dBi)					
		WLAN 2.4G	WLAN 5G Band 1	WLAN 5G Band 2	WLAN 5G Band 3	WLAN 5G Band 4	BT
1	1	2.84	2.6	2.94	2.64	2.44	-
2	2	2.36	2.87	2.95	2.54	2.28	-
3	3	-	-	-	3.16	2.93	-
4	4	-	-	-	3.39	3.01	-
5	1	-	-	-	-	-	2.90

Note 2: The above information was declared by manufacturer.

Note 3: The EUT has five antennas.

#### <For 2.4GHz Band>

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

#### <For 5GHz Band 1~Band 2>

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

#### <For 5GHz Band 3~Band 4>

##### For IEEE 802.11a/n/ac mode (4TX/4RX)

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

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

#### <For Bluetooth>

##### For BT function (1TX/1RX)

Only Port 1 can be used as transmitting/receiving antenna.

### 1.1.3 Mode Test Duty Cycle

#### For Band 2 / 2T1S and Band 3 / 4T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a-BF	0.89	0.506	1.717m	1k
802.11ac VHT20-BF	0.881	0.55	1.717m	1k
802.11ac VHT40-BF	0.818	0.872	1.758m	1k
802.11ac VHT80-BF	0.875	0.58	1.954m	1k

#### For Band 3 / 4T2S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ac VHT20-BF	0.807	0.931	1.987m	1k
802.11ac VHT40-BF	0.893	0.491	1.958m	1k
802.11ac VHT80-BF	0.864	0.635	1.995m	1k

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

### 1.1.4 EUT Operational Condition

<b>EUT Power Type</b>	From Power Adapter			
<b>Beamforming Function</b>	<input checked="" type="checkbox"/>	With beamforming for 802.11g/n/VHT in 2.4GHz and 11a/n/ac in 5GHz	<input type="checkbox"/>	Without beamforming
<b>Weather Band</b>	<input checked="" type="checkbox"/>	With 5600~5650MHz	<input type="checkbox"/>	Without 5600~5650MHz
<b>Function</b>	<input type="checkbox"/>	Outdoor P2M	<input checked="" type="checkbox"/>	Indoor P2M
	<input type="checkbox"/>	Fixed P2P	<input type="checkbox"/>	Client
<b>TPC Function</b>	<input checked="" type="checkbox"/>	With TPC	<input type="checkbox"/>	Without TPC
<b>Test Software Version</b>	QRCT Version3.0.187.0			

Note: The above information was declared by manufacturer.

### 1.1.5 Table for EUT supports function

Function	Supports type
AP Router	Master





### 1.1.6 Table for Multiple Listing

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

Equipment Name	Model Name	Description
LINKSYS MR9000 TRI-BAND WIFI 5 ROUTER	MR9000	Marketing purpose to sell in different retailers.
LINKSYS MR9000X TRI-BAND WIFI 5 ROUTER	MR9000X	
LINKSYS MR8900 TRI-BAND WIFI 5 ROUTER	MR8900	
LINKSYS MR8950 TRI-BAND WIFI 5 ROUTER	MR8950	

From the above models, model: MR9000 was selected as representative model for the test and its data was recorded in this report.

### 1.1.7 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR941701AB

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

Modifications	Performance Checking
Adding Band 2 and Band 3 (5250~5350 MHz, 5470~5725 MHz) for this device.	<ol style="list-style-type: none"><li>1. Emission Bandwidth</li><li>2. Maximum Conducted Output Power</li><li>3. Peak Power Spectral Density</li><li>4. Unwanted Emissions above 1GHz</li></ol>



## 1.2 Applicable Standards

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

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ FCC KDB 789033 D02 v02r01
- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01

## 1.3 Testing Location Information

Testing Location		
<input 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
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Brian Sun	22~24°C / 50~60%	Apr. 18, 2019~May 15, 2019
Radiated	03CH03-CB	Brian Sun	22~24°C / 50~60%	Apr. 02, 2019~May 09, 2019

Test site Designation No. TW0006 with FCC

Test site registered number IC 4086B with Industry Canada.

## 1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	$9.74 \times 10^{-8}$	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

For Band 2 / 2T1S and Band 3 / 4T1S

Mode	PowerSetting
802.11a-BF_Nss1,(6Mbps)_2TX	-
5260MHz	20
5300MHz	20
5320MHz	20
802.11a-BF_Nss1,(6Mbps)_4TX	-
5500MHz	15
5580MHz	15
5700MHz	14.5
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5260MHz	20
5300MHz	20
5320MHz	20.5
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
5500MHz	15
5580MHz	15
5700MHz	15.5
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5270MHz	20
5310MHz	19.5
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
5510MHz	15.5
5550MHz	15.5
5670MHz	15
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5290MHz	17
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-
5530MHz	15
5610MHz	14.5

**For Band 3 / 4T2S**

Mode	PowerSetting
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-
5500MHz	18.5
5580MHz	18.5
5700MHz	18.5
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-
5510MHz	18
5550MHz	18
5670MHz	18
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-
5530MHz	18
5610MHz	17.5

**Note:**

- ♦ VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.
- ♦ There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 11g/11n/VHT in 2.4GHz and 11a/11n/11ac in 5GHz, after evaluating, beamforming mode has been evaluated to be the worst case, so it was selected to test and record in this test report.

## 2.2 The Worst Case Measurement Configuration

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

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Unwanted Emissions
<b>Test Condition</b>	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
<b>Operating Mode &gt; 1GHz</b>	CTX
	The EUT (Band 2) was performed at Y axis and Z axis position for Unwanted Emissions test, and the worst case was found at Y axis. So the measurement will follow this same test configuration. The EUT (Band 3) was performed at Y axis and Z axis position for Unwanted Emissions test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Y axis (Band 2) / EUT in Z axis (Band 3)

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
<b>Operating Mode</b>	
1	WLAN 2.4GHz + WLAN 5GHz B1~B2 + WLAN 5GHz B3~B4 + Bluetooth
Refer to Sporton Test Report No.: FA941701-01 for Co-location RF Exposure Evaluation.	



## **2.3 EUT Operation during Test**

### non-beamforming mode:

The EUT was programmed to be in continuously transmitting/receiving mode.

### beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

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

The program was executed as follows:

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



## 2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1 (Fixed plug)	KTEC	KSA-24W-120200HU	INPUT: 100-240V, 50/60Hz 0.6A OUTPUT: 12V, 2.0A
Adapter 2 (Interchangeable plug)	KTEC	KSA-24W-120200D5	INPUT: 100-240V, 50/60Hz 0.6A OUTPUT: 12V, 2.0A
Adapter 3 (Fixed plug)	APD	WB-24J12FU-ABBC	INPUT: 100-240V, 50-60Hz 0.7A Max. OUTPUT: 12V, 2A
Other			
US plug*1 (only for adapter 2 use)			

Note: The power adapter does not affect the test result of RF tests, so only adapter 3 was tested and recorded in this report.

## 2.5 Support Equipment

For Radiated (above 1GHz / for Non-beamforming mode):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

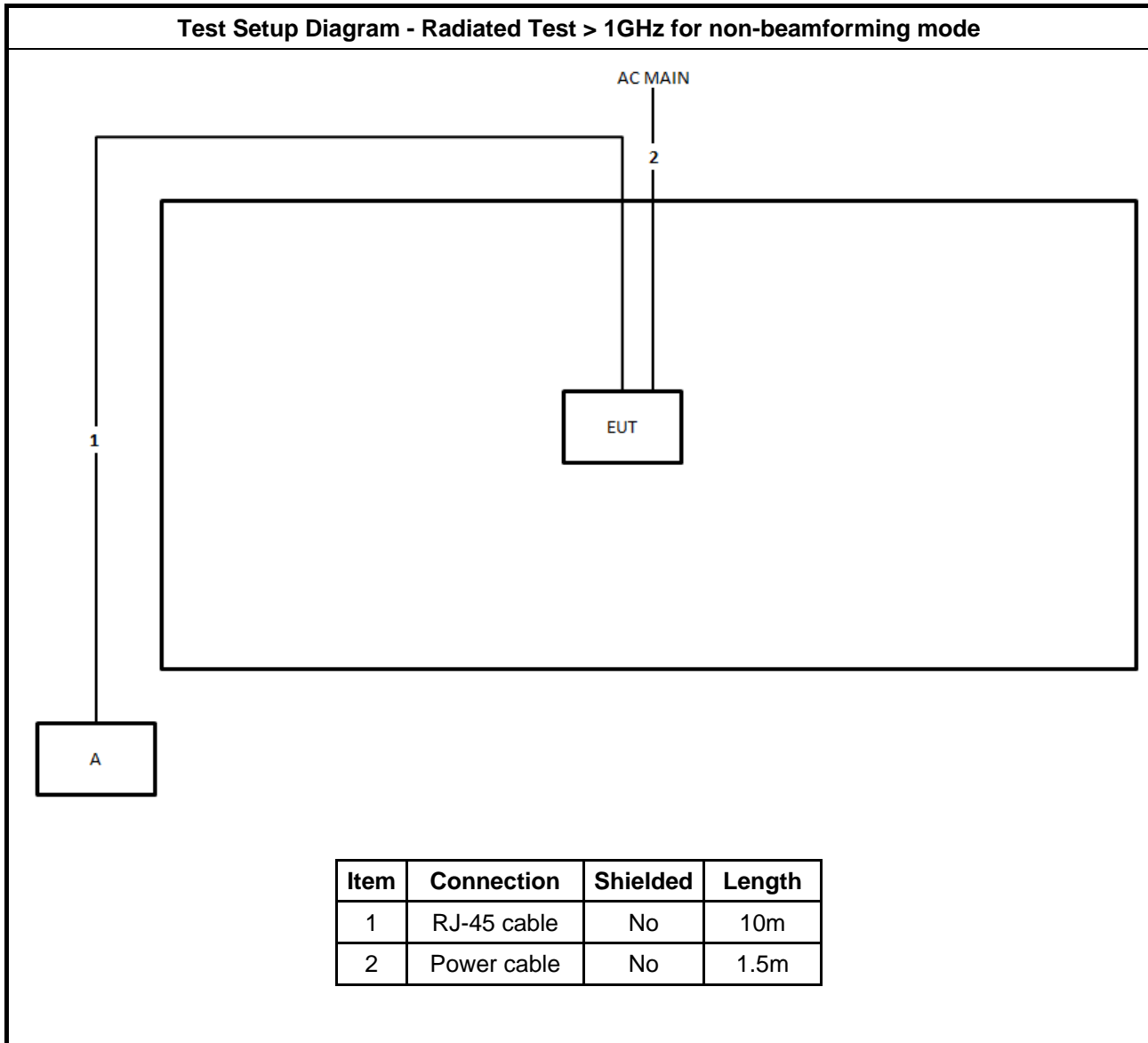
For Radiated (above 1GHz / for beamforming mode):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	NB	DELL	E4300	N/A
C	RX Device	LINKSYS	MR9000	Q87-03433

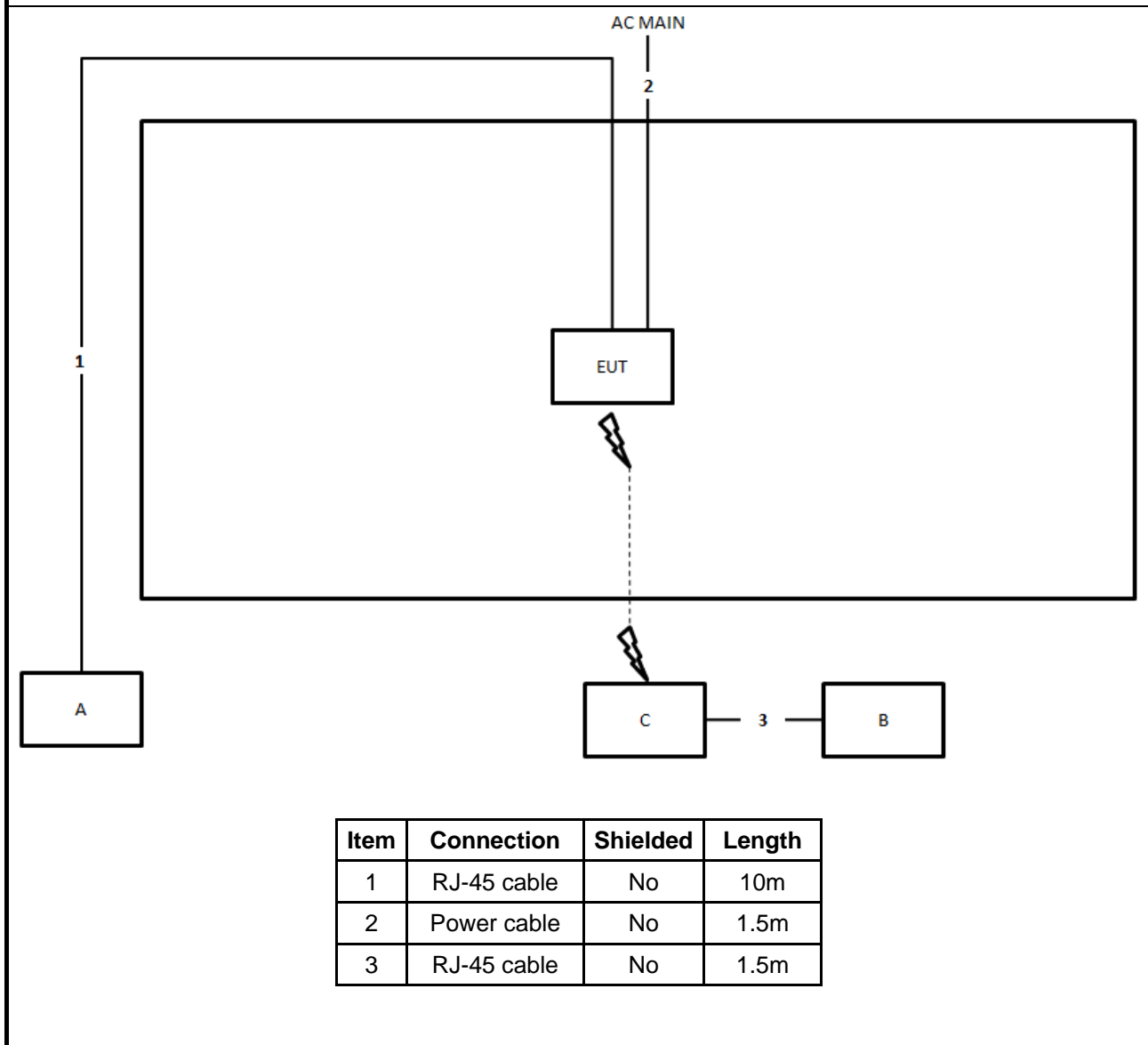
For RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	NA

## 2.6 Test Setup Diagram





**Test Setup Diagram - Radiated Test > 1GHz for beamforming mode**




### 3 Transmitter Test Result

#### 3.1 Emission Bandwidth

##### 3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
<b>UNII Devices</b>	
<input type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.
<b>LE-LAN Devices</b>	
<input type="checkbox"/>	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

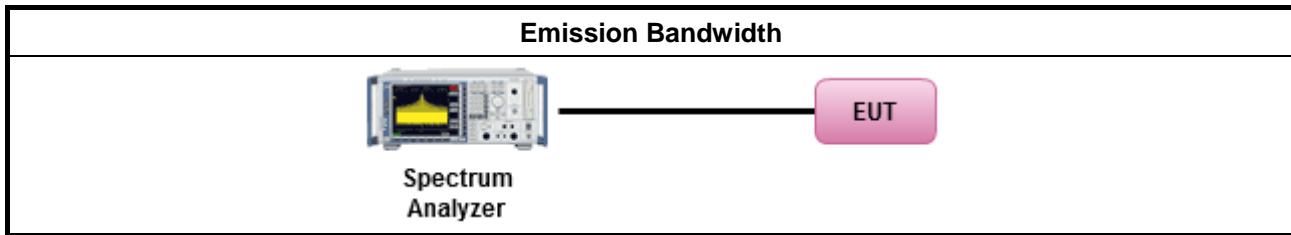
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

### 3.1.4 Test Setup



### 3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A



## 3.2 Maximum Conducted Output Power

### 3.2.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
<b>UNII Devices</b>	
<input type="checkbox"/> For the 5.15-5.25 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"><li>Outdoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>. e.i.r.p. at any elevation angle above 30 degrees <math>\leq 125</math>mW [21dBm]</li><li>Indoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math></li><li>Point-to-point AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 23)</math>.</li><li>Mobile or Portable Client: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 250 mW. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 24 - (G_{TX} - 6)</math>.</li></ul>
<input checked="" type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .
<input checked="" type="checkbox"/>	For the 5.47-5.725 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"><li>Point-to-multipoint systems (P2M): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>.</li><li>Point-to-point systems (P2P): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W.</li></ul>
<b>LE-LAN Devices</b>	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	
<input type="checkbox"/>	<ul style="list-style-type: none"><li>Point-to-multipoint systems (P2M): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>.</li><li>Point-to-point systems (P2P): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W.</li></ul>
$P_{Out}$ = maximum conducted output power in dBm, $G_{TX}$ = the maximum transmitting antenna directional gain in dBi.	

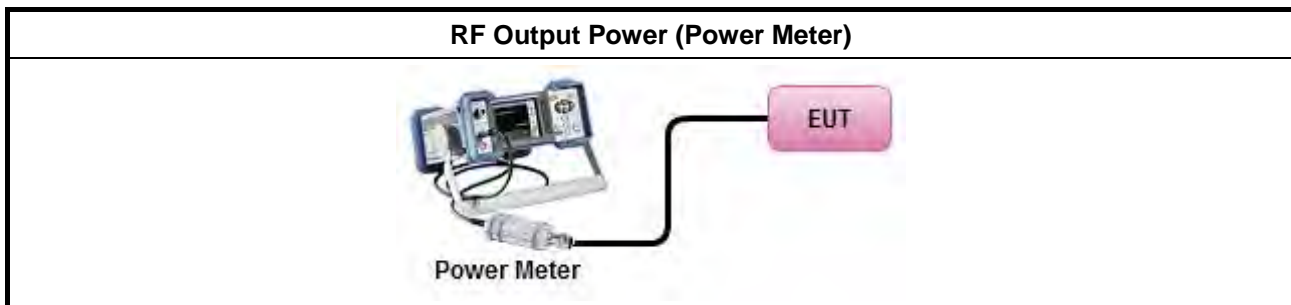
### 3.2.2 Measuring Instruments

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

### 3.2.3 Test Procedures

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

### 3.2.4 Test Setup



### 3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B



### 3.3 Peak Power Spectral Density

#### 3.3.1 Peak Power Spectral Density Limit

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

#### 3.3.2 Measuring Instruments

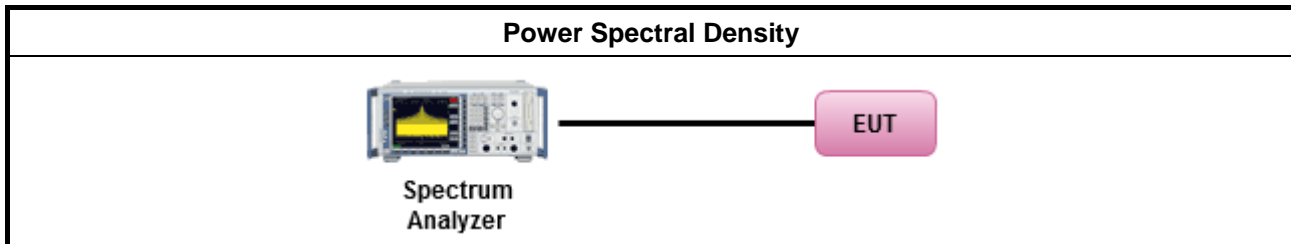
Refer a test equipment and calibration data table in this test report.



### 3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:</li> </ul>	
<input type="checkbox"/>	Refer as FCC KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth [duty cycle ≥ 98% or external video / power trigger]
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed) duty cycle < 98% and average over on/off periods with duty factor
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below:</li> </ul>	
<input checked="" type="checkbox"/>	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
<input type="checkbox"/>	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
<input type="checkbox"/>	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
<ul style="list-style-type: none"> <li> <input type="checkbox"/> </li> </ul>	If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

### 3.3.4 Test Setup



### 3.3.5 Test Result of Peak Power Spectral Density

Refer as Appendix C





### 3.4 Unwanted Emissions

#### 3.4.1 Transmitter Unwanted Emissions Limit

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

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

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

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

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

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



linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

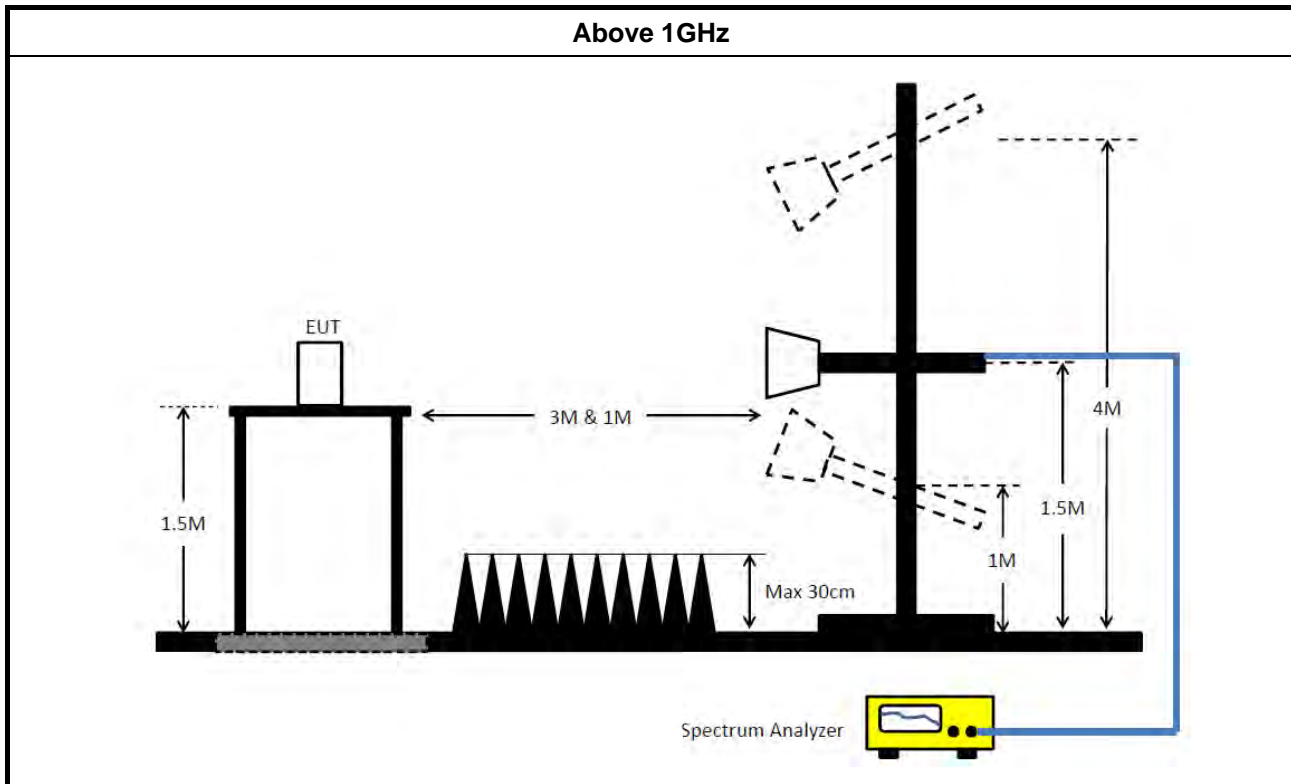
### 3.4.2 Measuring Instruments

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

### 3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"><li>Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).</li></ul>	
<ul style="list-style-type: none"><li>The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 or duty factor].</li></ul>	
<ul style="list-style-type: none"><li>For the transmitter unwanted emissions shall be measured using following options below:</li></ul>	
	<ul style="list-style-type: none"><li>Refer as FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li></ul>
	<ul style="list-style-type: none"><li>Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li></ul>
	<input type="checkbox"/> Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
	<ul style="list-style-type: none"><li>For radiated measurement.</li></ul>
	<ul style="list-style-type: none"><li>Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li></ul>
	<ul style="list-style-type: none"><li>Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li></ul>
	<ul style="list-style-type: none"><li>Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li></ul>
	<ul style="list-style-type: none"><li>The any unwanted emissions level shall not exceed the fundamental emission level.</li></ul>
<ul style="list-style-type: none"><li>All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.</li></ul>	

### 3.4.4 Test Setup



### 3.4.5 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D



## 4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Horn Antenna	ETS•Lindgren	3115	6821	750MHz~18GHz	Jan. 24, 2019	Jan. 23, 2020	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Dec. 20, 2018	Dec. 19, 2019	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 26, 2018	Dec. 25, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+27	1GHz ~ 18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-27	1GHz ~ 18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Feb. 25, 2019	Feb. 24, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~ 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~ 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~ 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~ 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~ 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz ~ 26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 05, 2018	Nov. 04, 2019	Conducted (TH01-CB)

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

**For Band 2 / 2T1S and Band 3 / 4T1S  
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	19.1M	16.442M	16M4D1D	18.925M	16.392M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.475M	17.641M	17M6D1D	19.75M	17.616M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	40M	35.982M	36M0D1D	39.75M	35.882M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	83M	75.662M	75M7D1D	82.9M	75.562M
5.47-5.725GHz	-	-	-	-	-
802.11a-BF_Nss1,(6Mbps)_4TX	19.625M	16.442M	16M4D1D	19.125M	16.392M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.55M	17.641M	17M6D1D	19.775M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	40M	35.982M	36M0D1D	38.9M	35.882M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	84.1M	75.762M	75M8D1D	81.9M	75.362M

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

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

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

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

**Result**

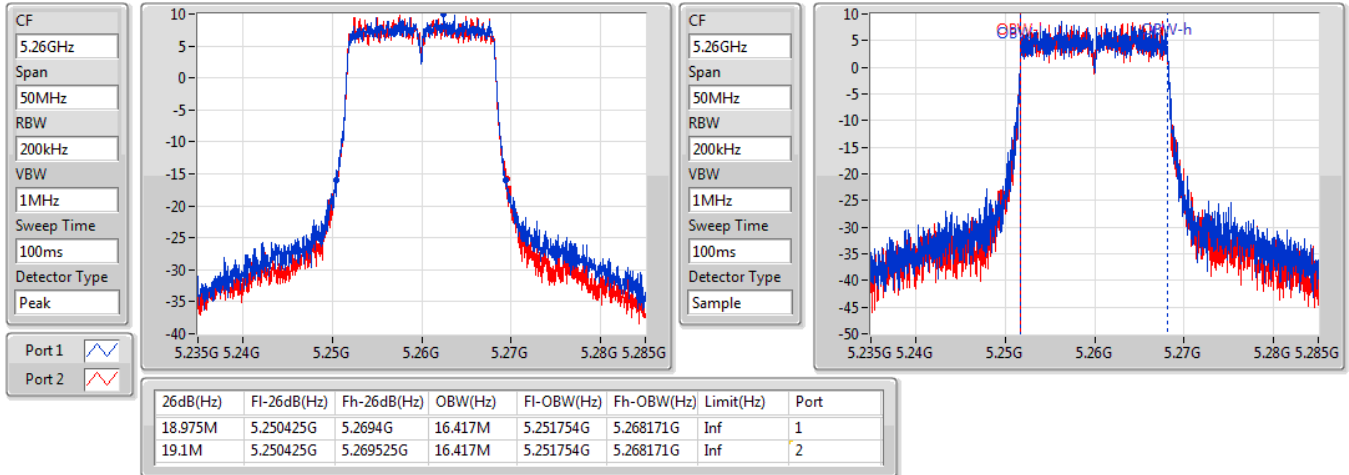
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	18.975M	16.417M	19.1M	16.417M				
5300MHz	Pass	Inf	19M	16.392M	18.95M	16.417M				
5320MHz	Pass	Inf	18.925M	16.442M	19.05M	16.392M				
802.11a-BF_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	19.175M	16.392M	19.25M	16.417M	19.3M	16.417M	19.25M	16.417M
5580MHz	Pass	Inf	19.625M	16.417M	19.15M	16.392M	19.4M	16.392M	19.625M	16.392M
5700MHz	Pass	Inf	19.625M	16.442M	19.575M	16.392M	19.125M	16.417M	19.425M	16.417M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	19.825M	17.641M	19.75M	17.641M				
5300MHz	Pass	Inf	19.875M	17.616M	19.9M	17.641M				
5320MHz	Pass	Inf	20.475M	17.641M	19.85M	17.616M				
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	20.375M	17.616M	19.95M	17.641M	20.425M	17.591M	19.775M	17.616M
5580MHz	Pass	Inf	20.525M	17.591M	20.375M	17.616M	20.4M	17.641M	20.45M	17.616M
5700MHz	Pass	Inf	20.55M	17.616M	20.425M	17.616M	20.5M	17.616M	20.375M	17.616M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	40M	35.932M	40M	35.882M				
5310MHz	Pass	Inf	39.75M	35.982M	39.75M	35.882M				
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	39.55M	35.932M	39.45M	35.882M	39.55M	35.882M	38.9M	35.932M
5550MHz	Pass	Inf	39.75M	35.932M	39.95M	35.932M	39.7M	35.982M	39M	35.882M
5670MHz	Pass	Inf	39.95M	35.982M	40M	35.982M	39.65M	35.982M	39.25M	35.982M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	83M	75.562M	82.9M	75.662M				
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	83.3M	75.562M	82.7M	75.362M	83.3M	75.562M	81.9M	75.362M
5610MHz	Pass	Inf	83.4M	75.762M	83.9M	75.762M	84.1M	75.762M	83.3M	75.762M

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

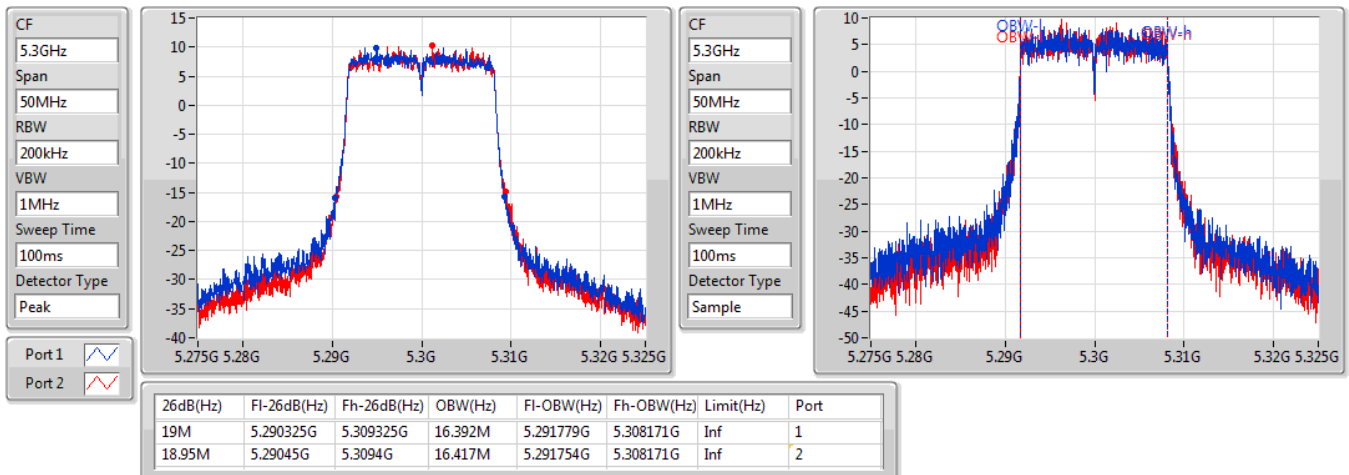
**Port X-OBW** = Port X 99% occupied bandwidth;

**802.11a-BF\_Nss1,(6Mbps)\_2TX**
**EBW**
**5260MHz**

18/04/2019


**802.11a-BF\_Nss1,(6Mbps)\_2TX**
**EBW**
**5300MHz**

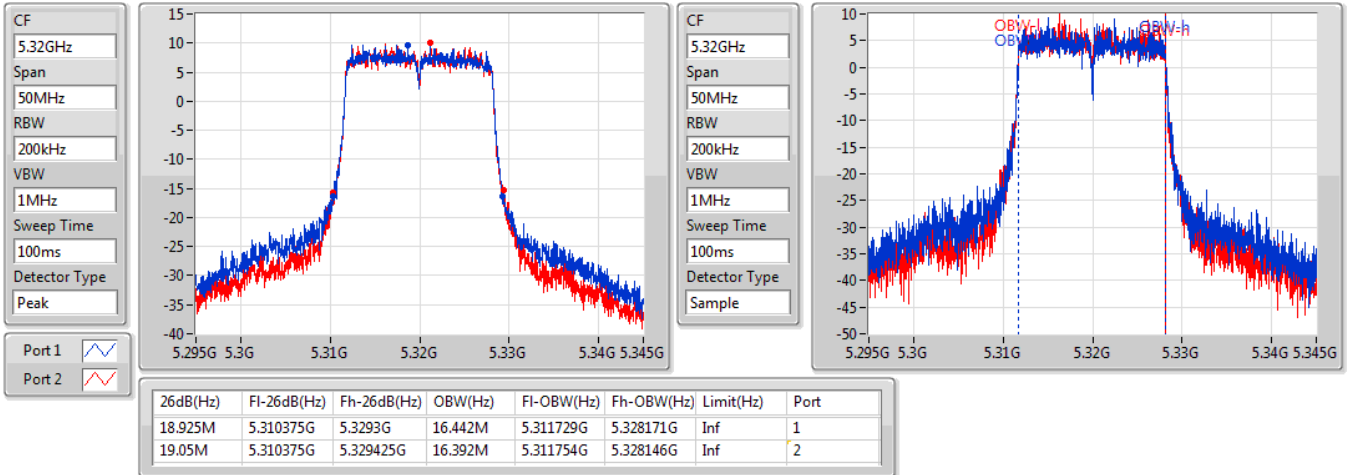
18/04/2019



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

5320MHz

18/04/2019

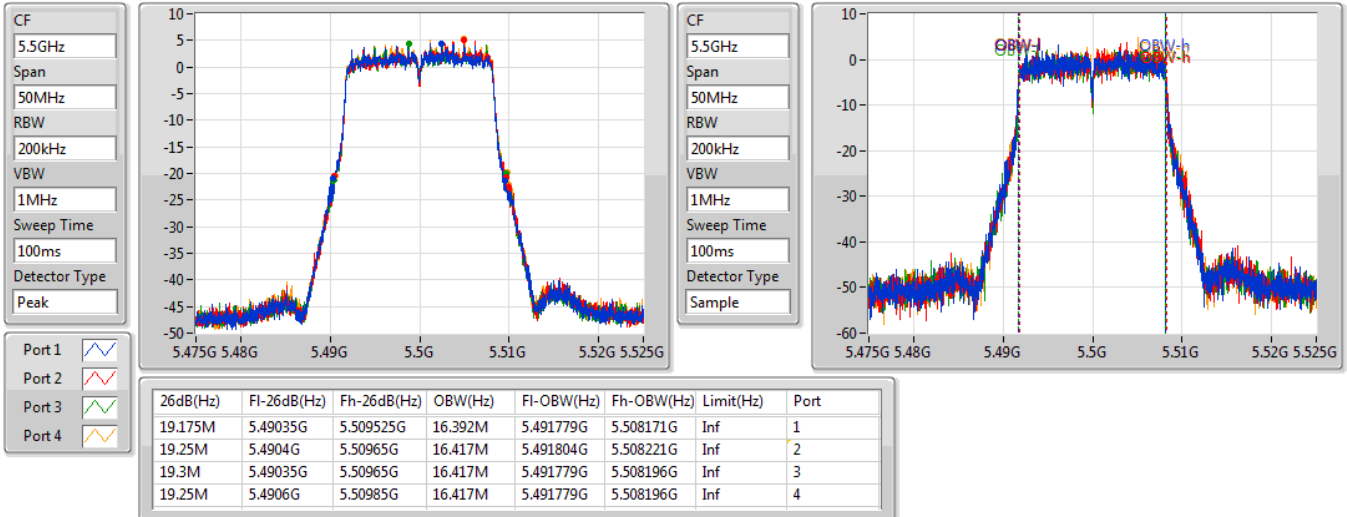




## 802.11a-BF\_Nss1,(6Mbps)\_4TX

**EBW**
**5500MHz**

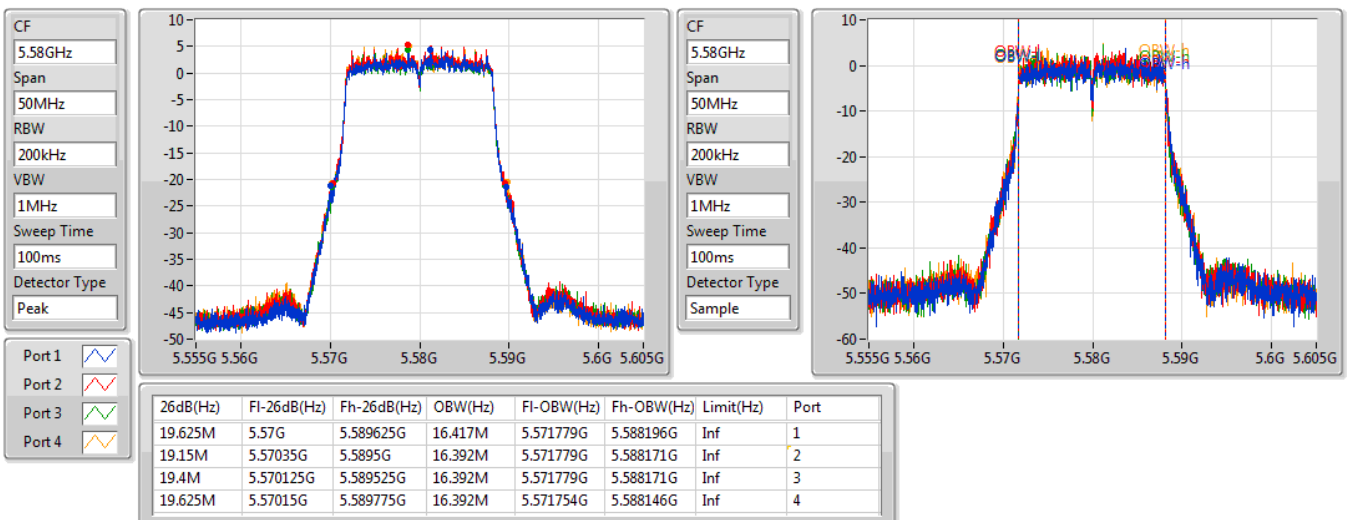
18/04/2019



## 802.11a-BF\_Nss1,(6Mbps)\_4TX

**EBW**
**5580MHz**

18/04/2019

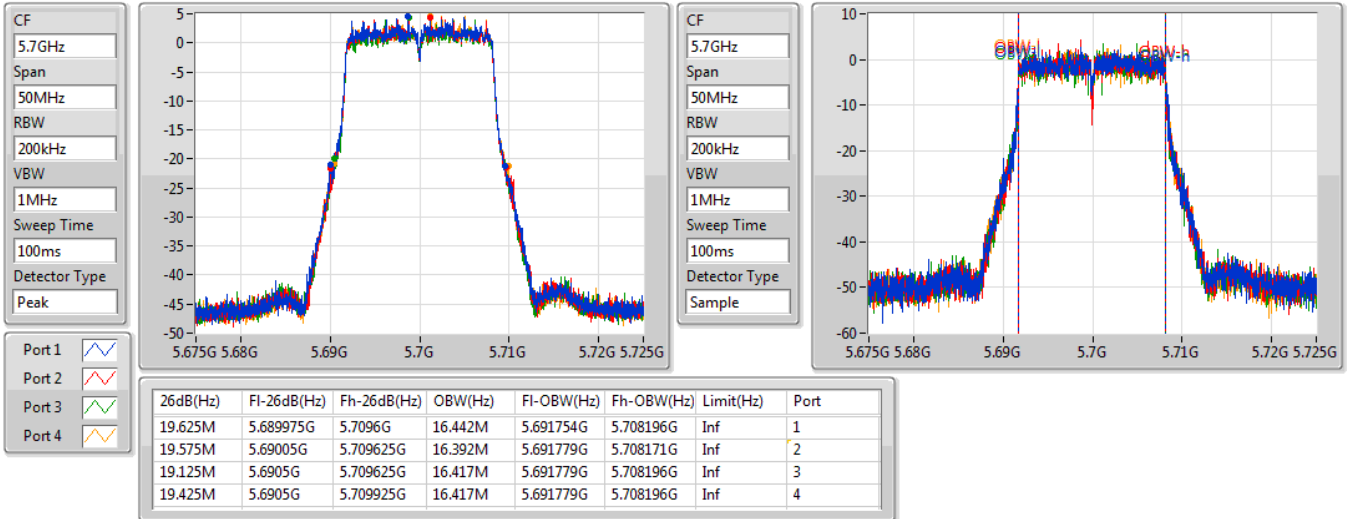


## 802.11a-BF\_Nss1,(6Mbps)\_4TX

EBW

5700MHz

18/04/2019

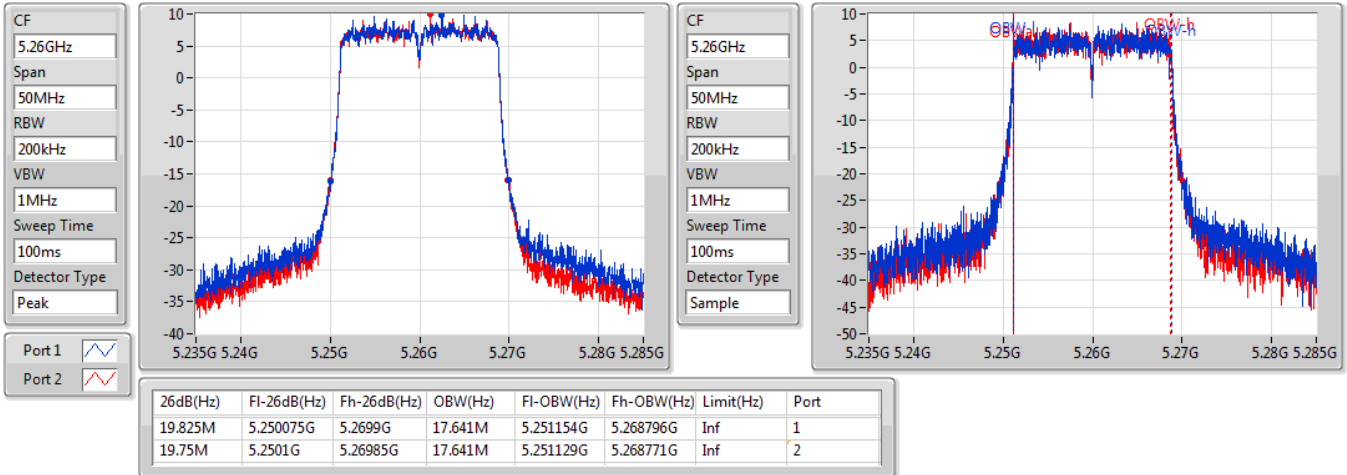


## 802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

5260MHz

18/04/2019

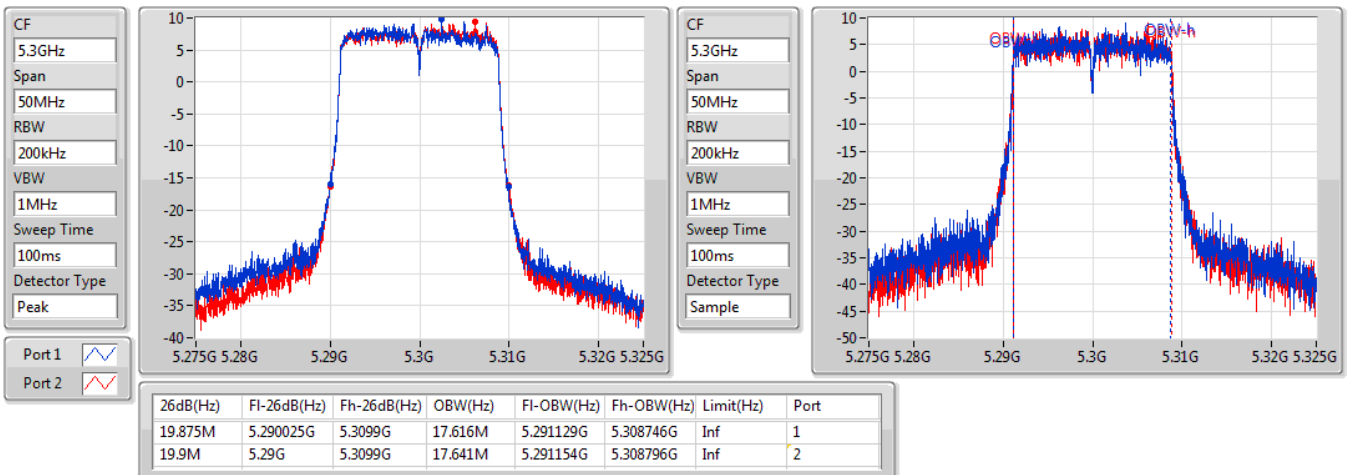


## 802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

5300MHz

18/04/2019

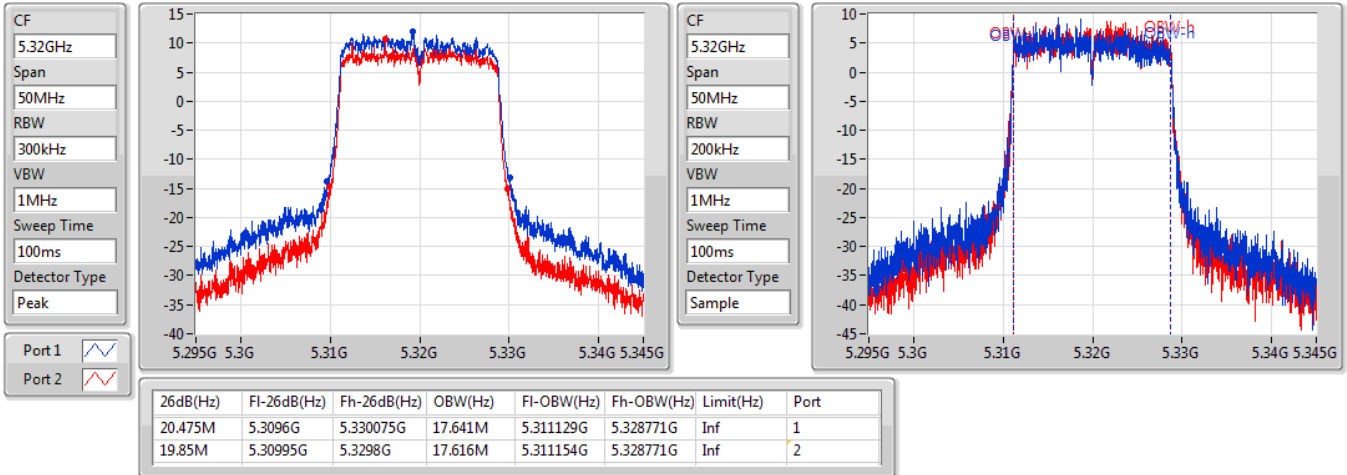


## 802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

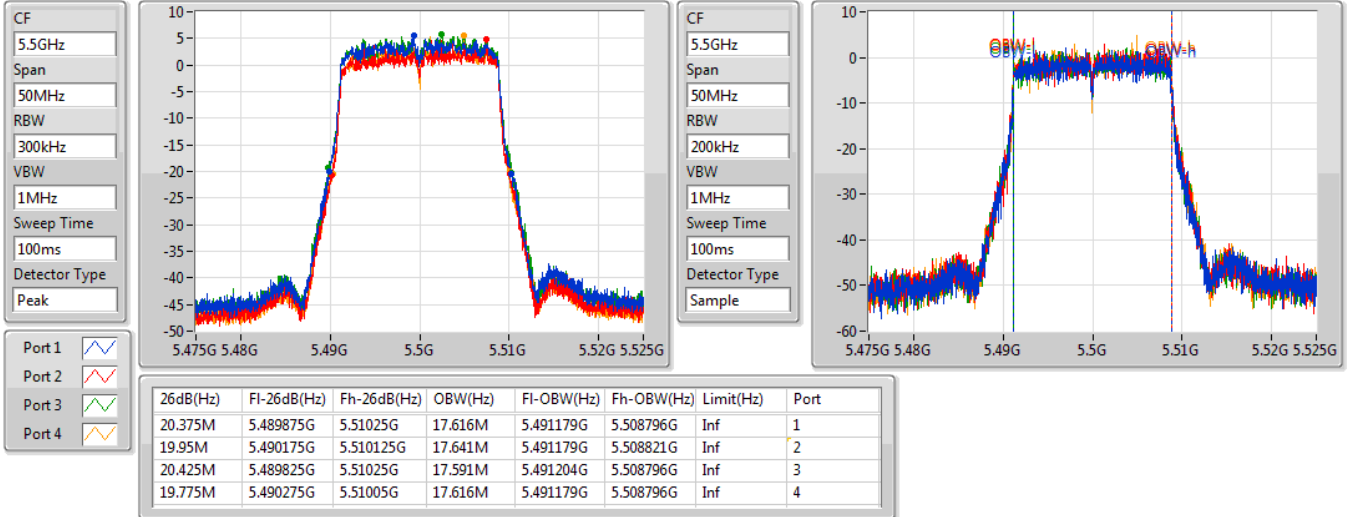
5320MHz

18/04/2019

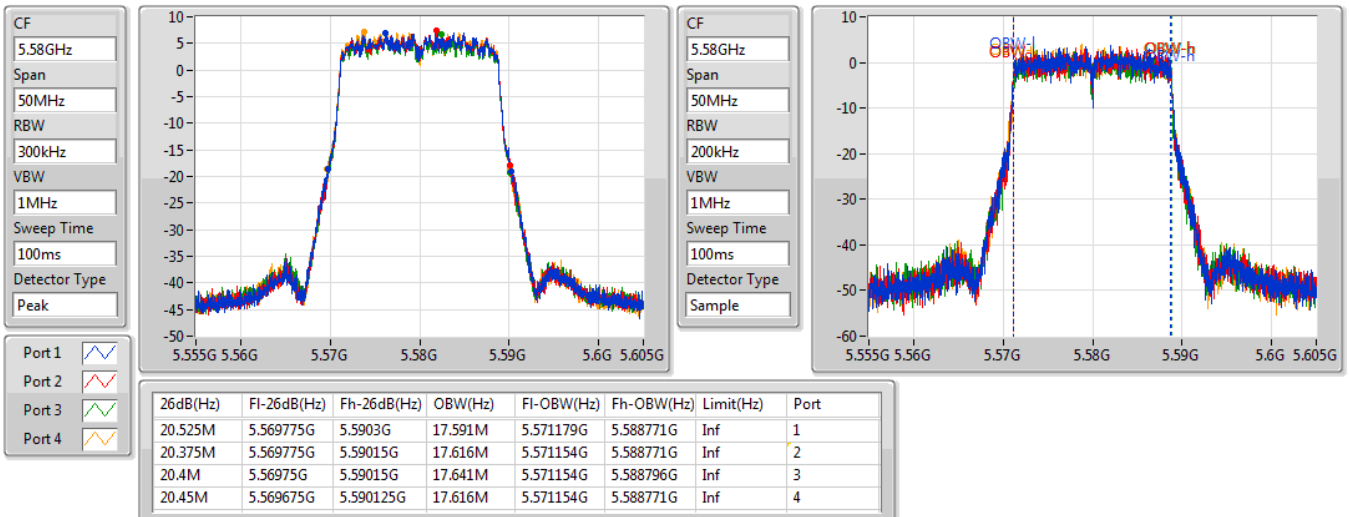


**802.11ac VHT20-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**5500MHz**

18/04/2019


**802.11ac VHT20-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**5580MHz**

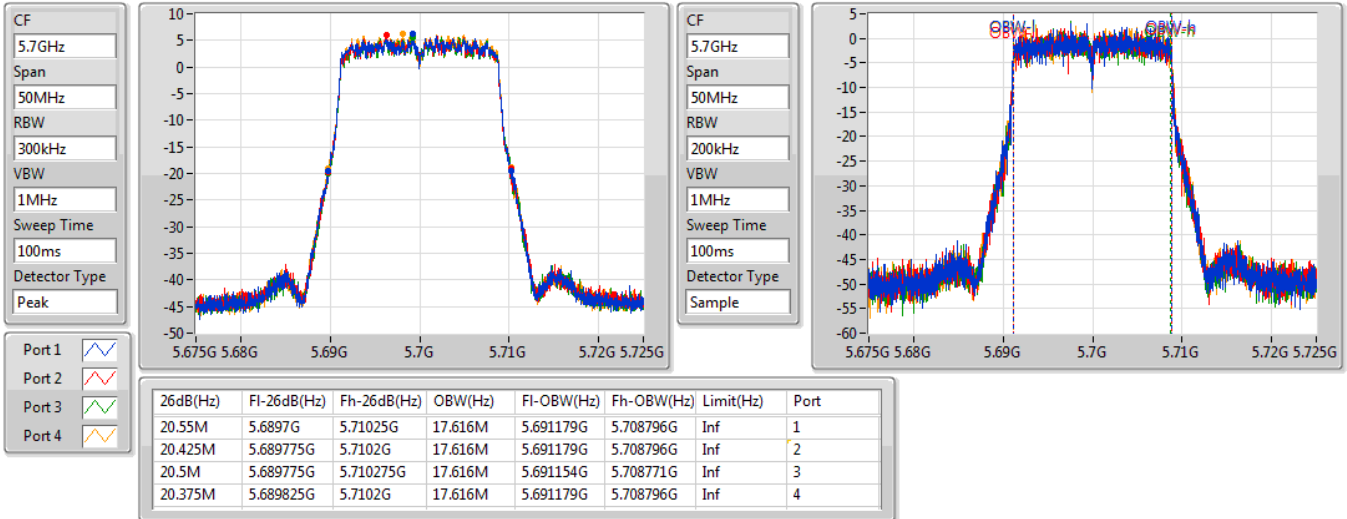
18/04/2019



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

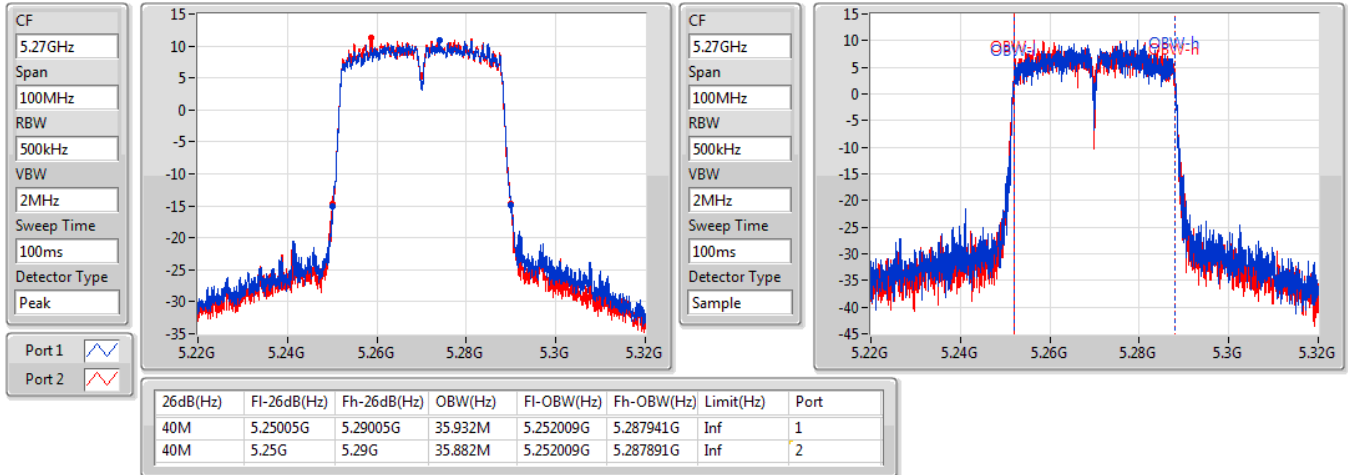
**EBW**
**5700MHz**

18/04/2019

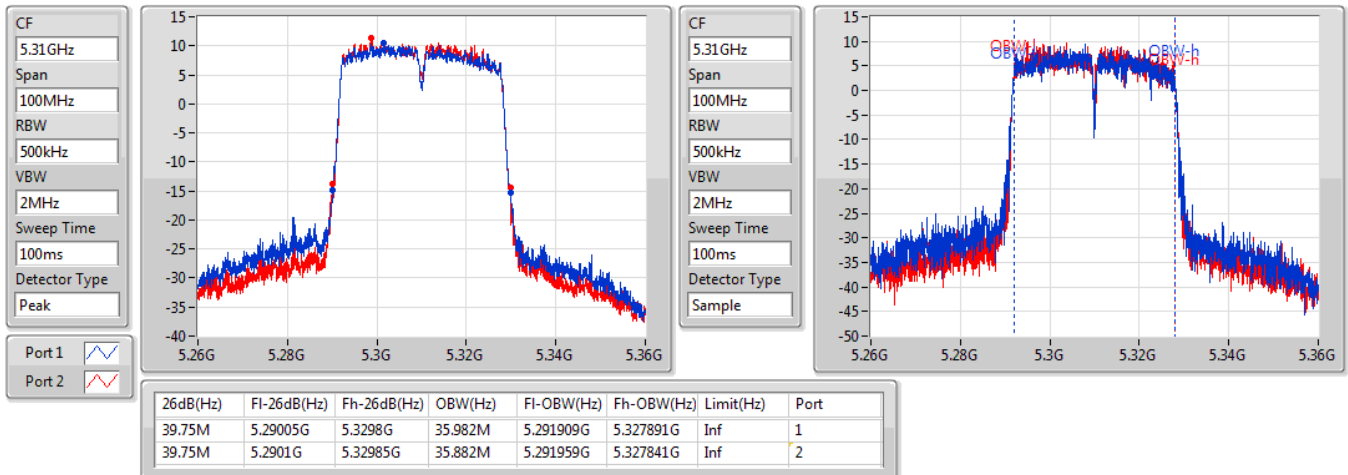


**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5270MHz**

18/04/2019

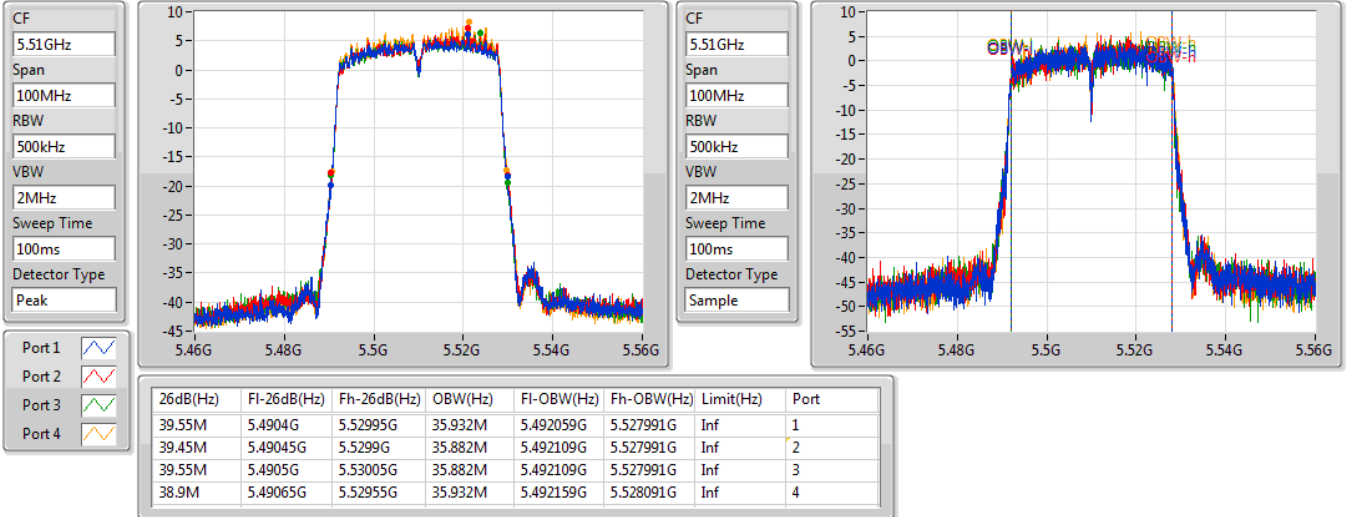

**802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5310MHz**

18/04/2019

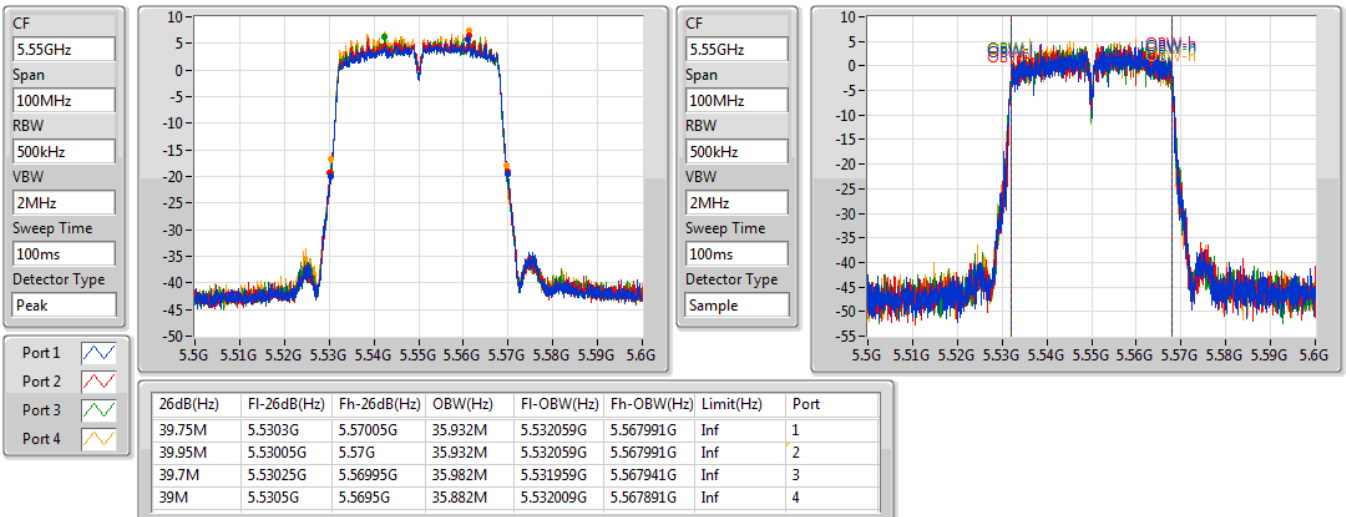


**802.11ac VHT40-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**5510MHz**

18/04/2019


**802.11ac VHT40-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**5550MHz**

18/04/2019



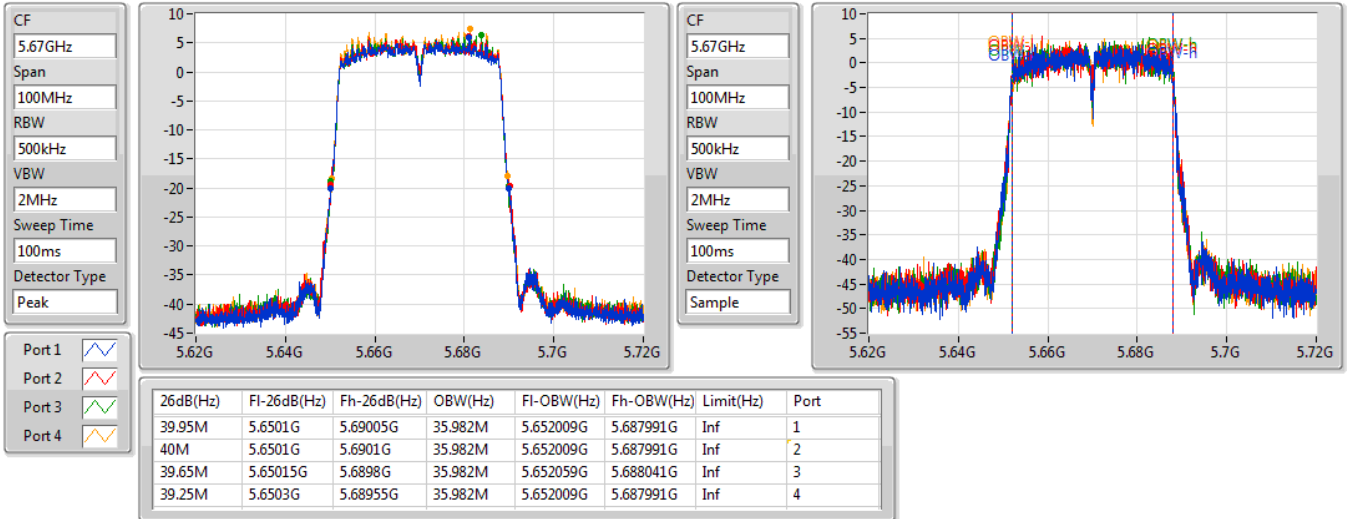


## 802.11ac VHT40-BF\_Nss1,(MCS0)\_4TX

EBW

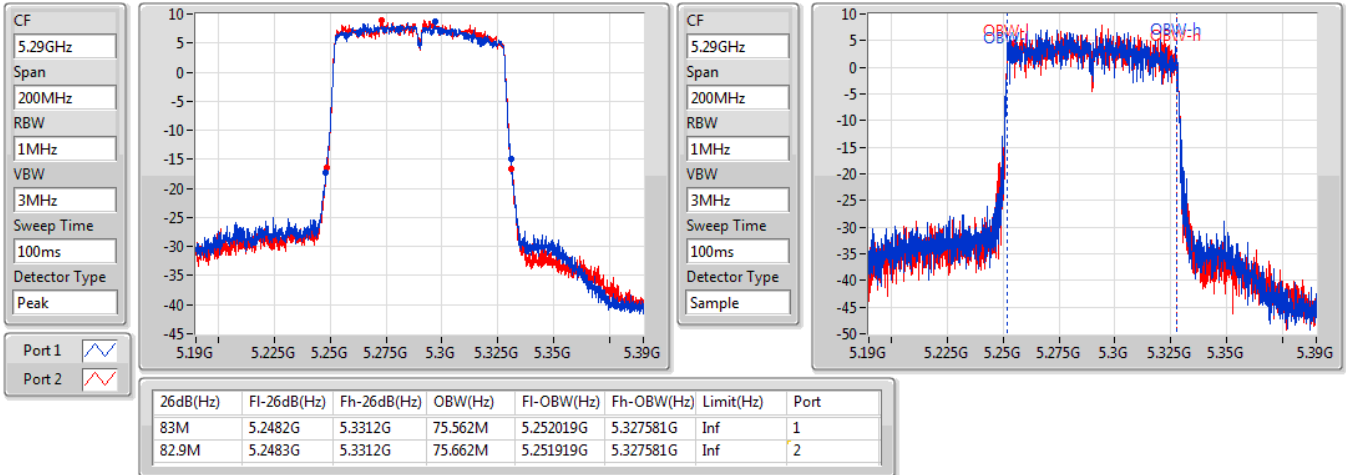
5670MHz

18/04/2019

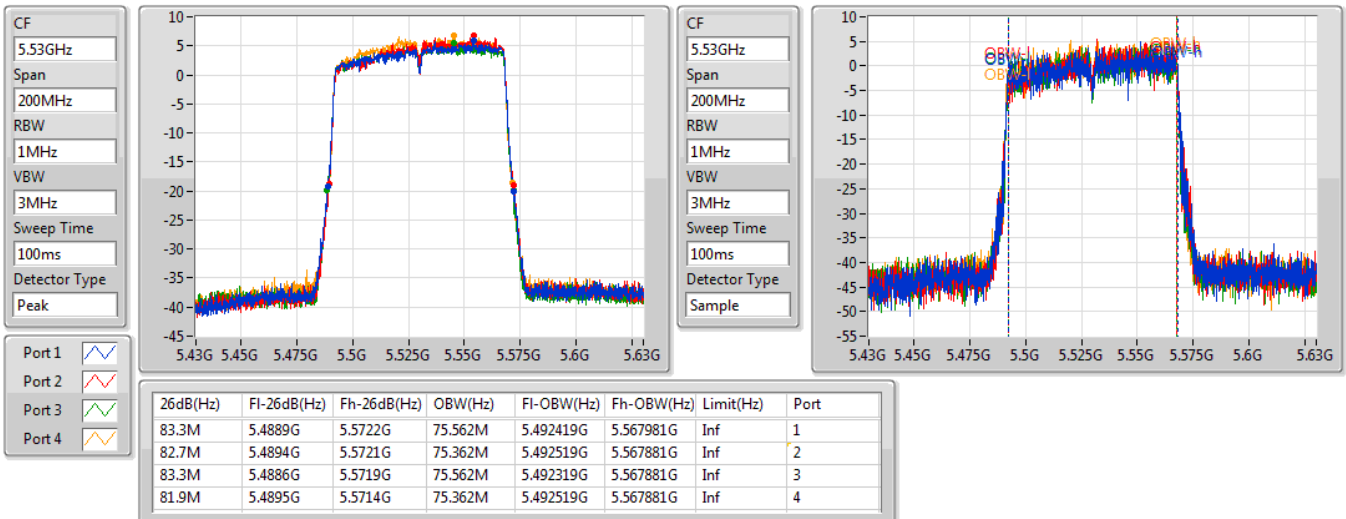


**802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX**
**EBW**
**5290MHz**

18/04/2019


**802.11ac VHT80-BF\_Nss1,(MCS0)\_4TX**
**EBW**
**5530MHz**

18/04/2019

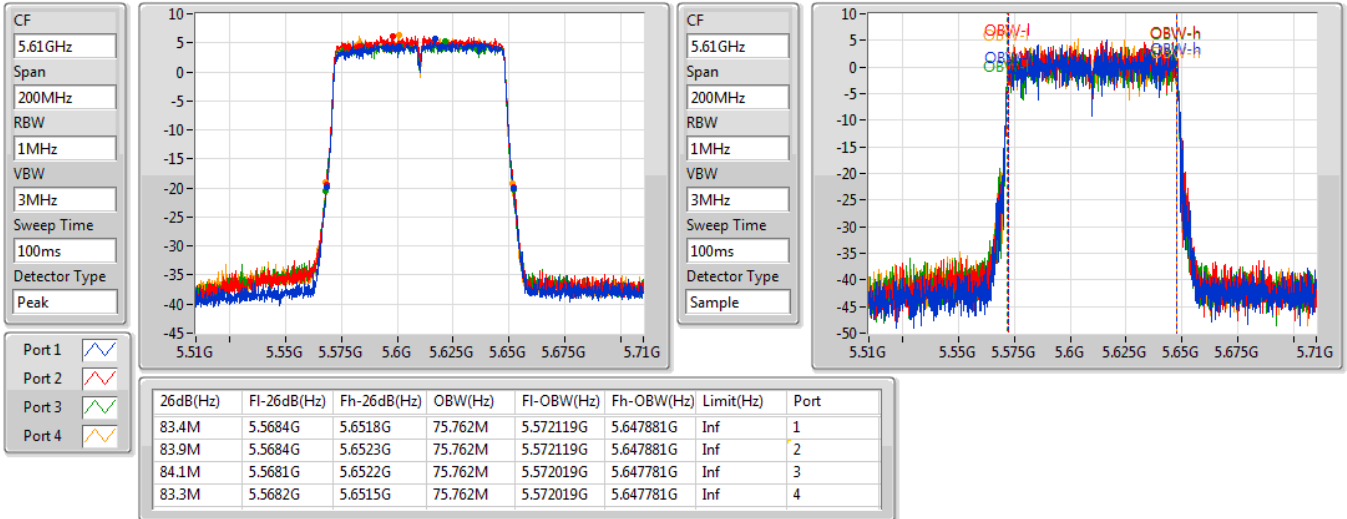


## 802.11ac VHT80-BF\_Nss1,(MCS0)\_4TX

EBW

5610MHz

18/04/2019



### For Band 3 / 4T2S Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	20.575M	17.641M	17M6D1D	20.3M	17.591M
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	39.9M	35.982M	36M0D1D	39.05M	35.782M
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	84.1M	75.962M	76M0D1D	81.9M	75.362M

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

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

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

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

**Result**

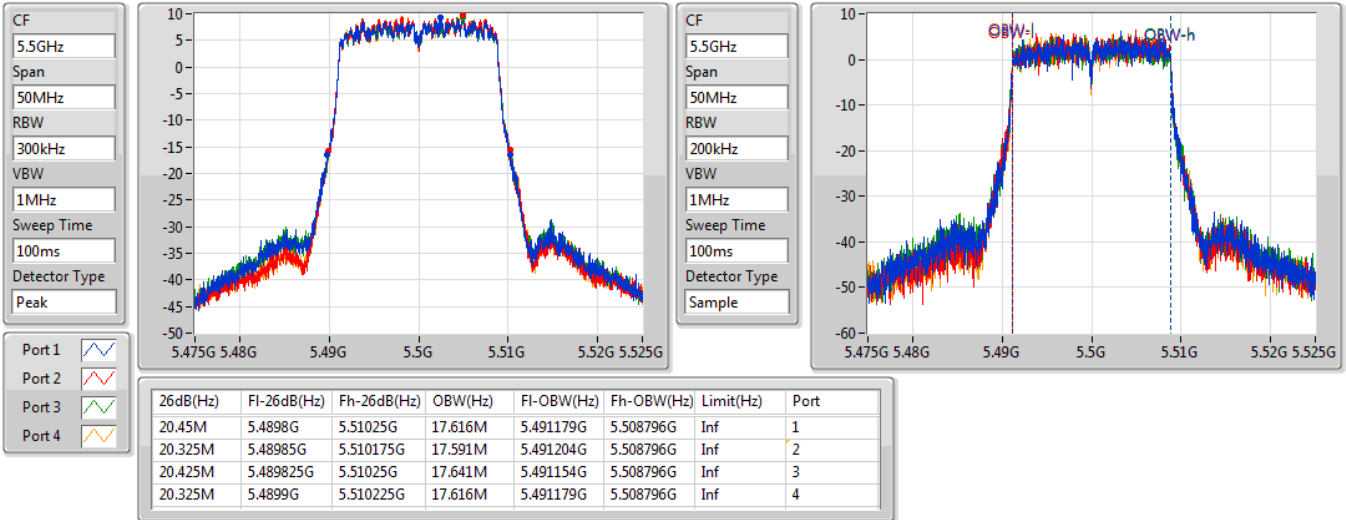
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	20.45M	17.616M	20.325M	17.591M	20.425M	17.641M	20.325M	17.616M
5580MHz	Pass	Inf	20.35M	17.591M	20.375M	17.591M	20.4M	17.591M	20.325M	17.616M
5700MHz	Pass	Inf	20.425M	17.616M	20.45M	17.591M	20.575M	17.591M	20.3M	17.641M
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	39.8M	35.932M	39.45M	35.882M	39.55M	35.982M	39.05M	35.782M
5550MHz	Pass	Inf	39.65M	35.932M	39.8M	35.982M	39.5M	35.932M	39.25M	35.932M
5670MHz	Pass	Inf	39.85M	35.882M	39.9M	35.932M	39.35M	35.982M	39.2M	35.982M
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	83.6M	75.762M	82.8M	75.562M	83.3M	75.662M	81.9M	75.362M
5610MHz	Pass	Inf	83.4M	75.962M	83.9M	75.762M	84.1M	75.762M	83.2M	75.862M

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

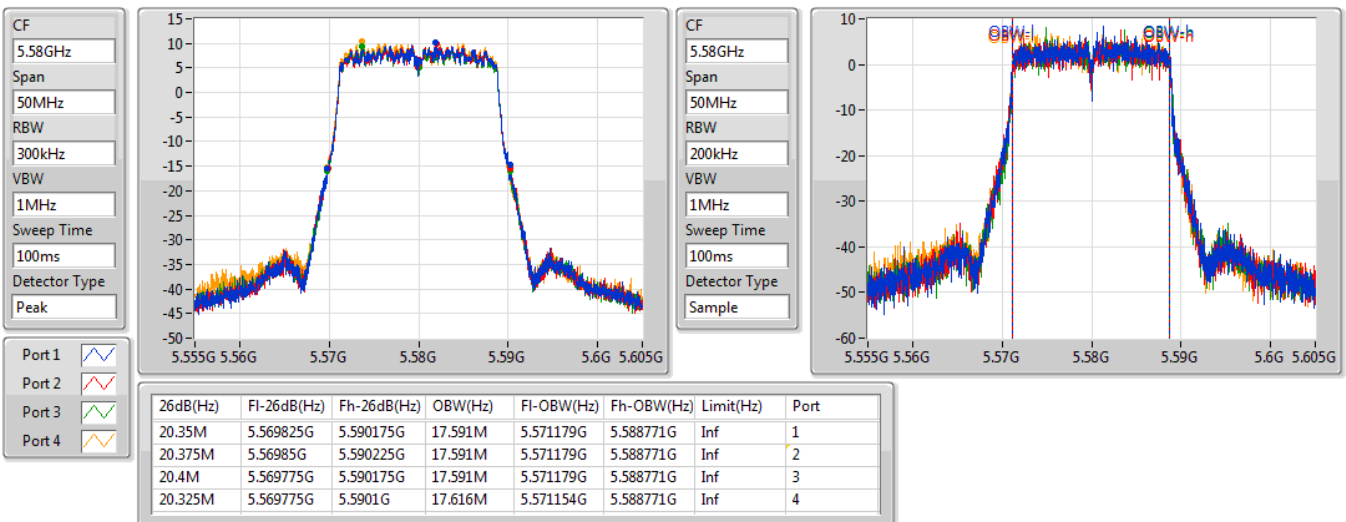
**Port X-OBW** = Port X 99% occupied bandwidth;

**802.11ac VHT20-BF\_Nss2,(MCS0)\_4TX**
**EBW**
**5500MHz**

18/04/2019


**802.11ac VHT20-BF\_Nss2,(MCS0)\_4TX**
**EBW**
**5580MHz**

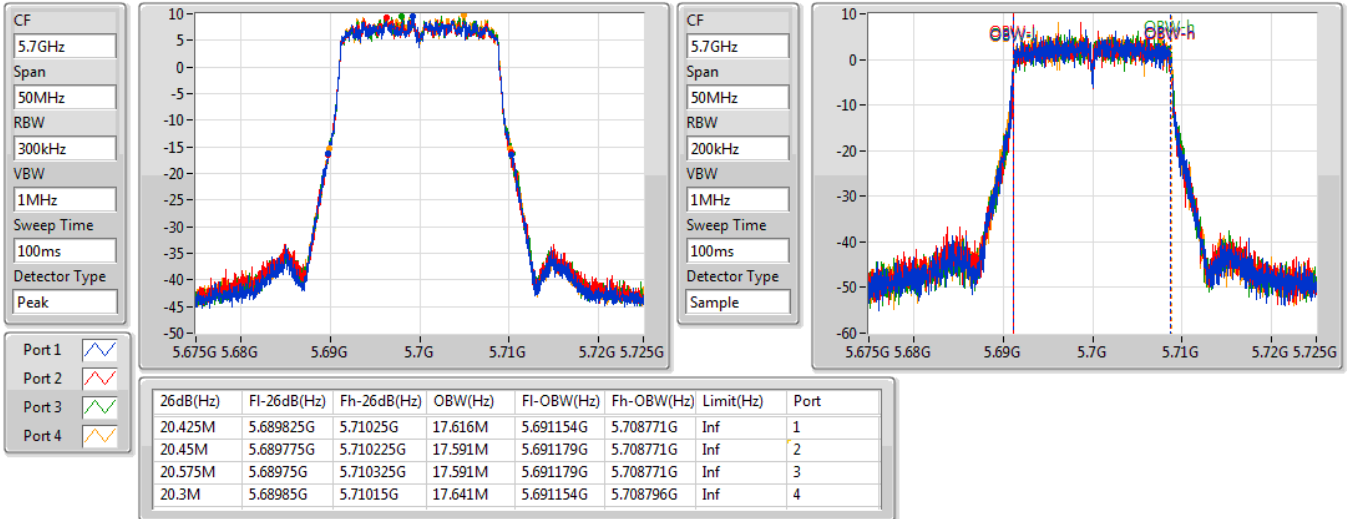
18/04/2019



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

**EBW**
**5700MHz**

18/04/2019

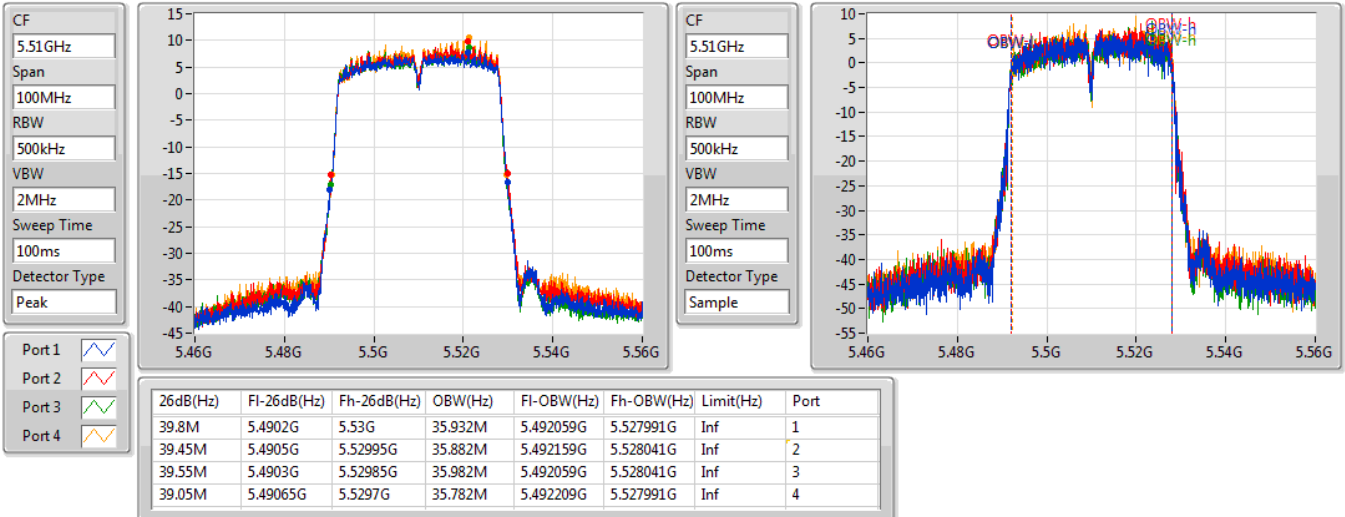


## 802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX

EBW

5510MHz

18/04/2019

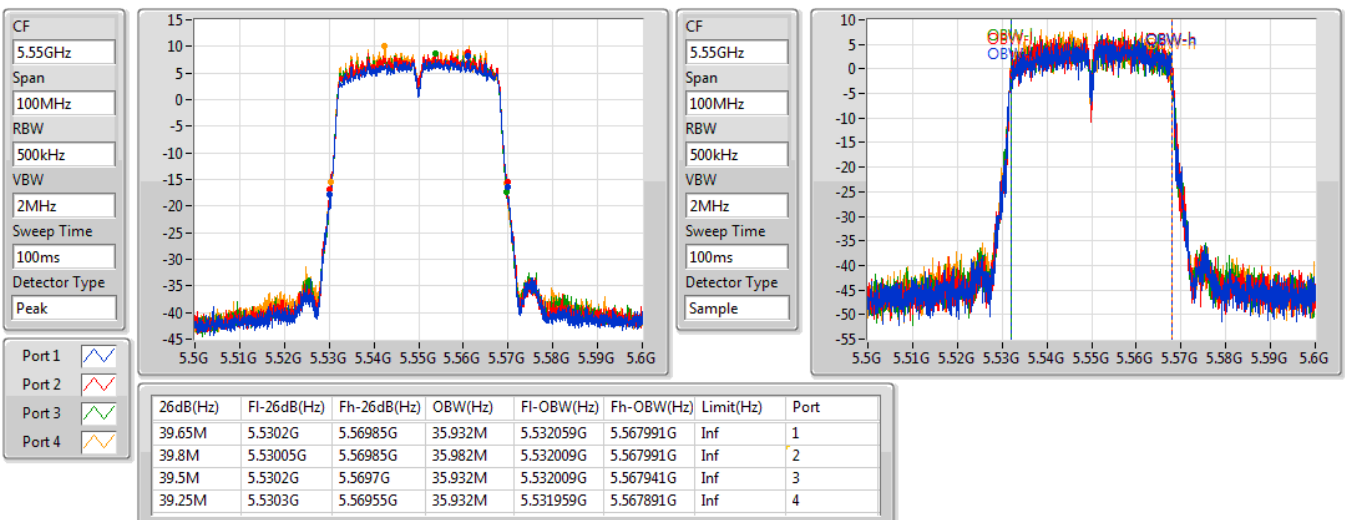


## 802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX

EBW

5550MHz

18/04/2019



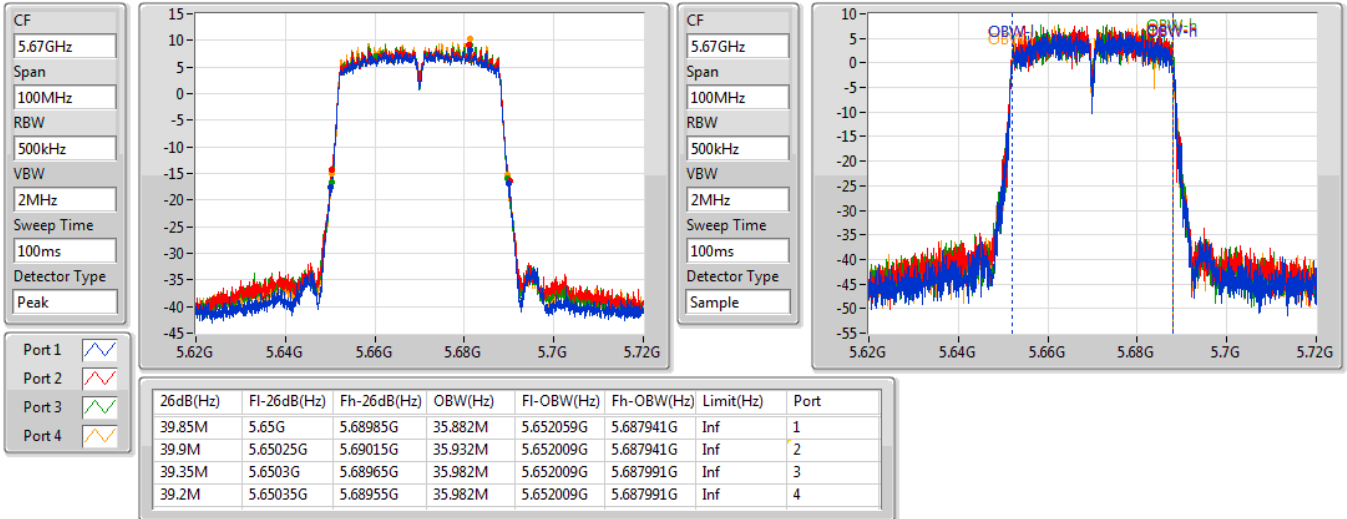


## 802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX

EBW

5670MHz

18/04/2019

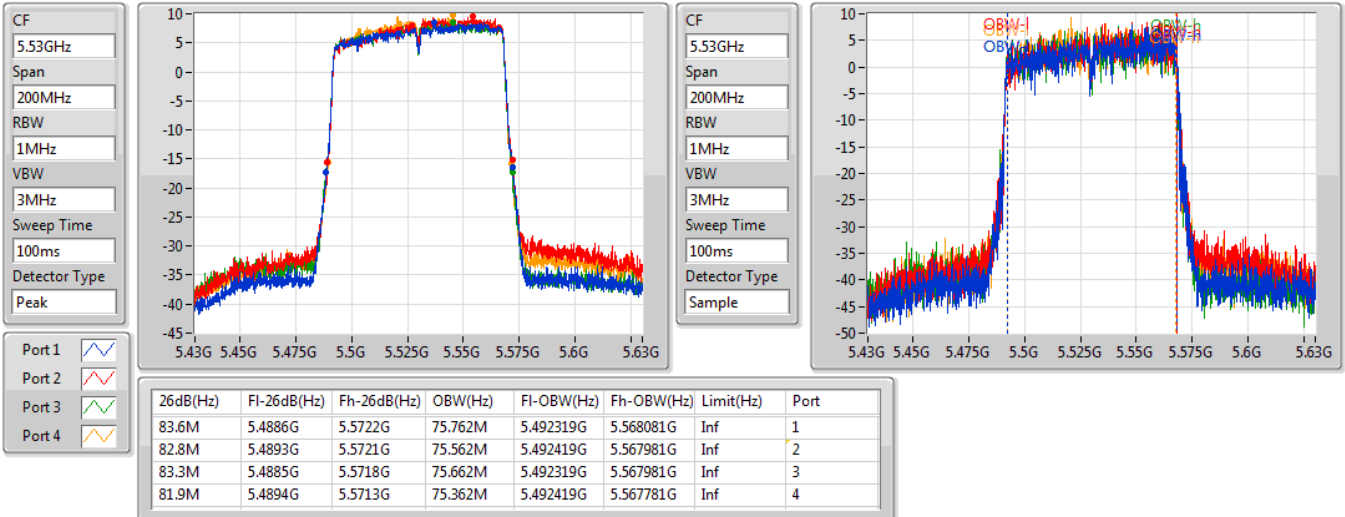


## 802.11ac VHT80-BF\_Nss2,(MCS0)\_4TX

EBW

5530MHz

18/04/2019

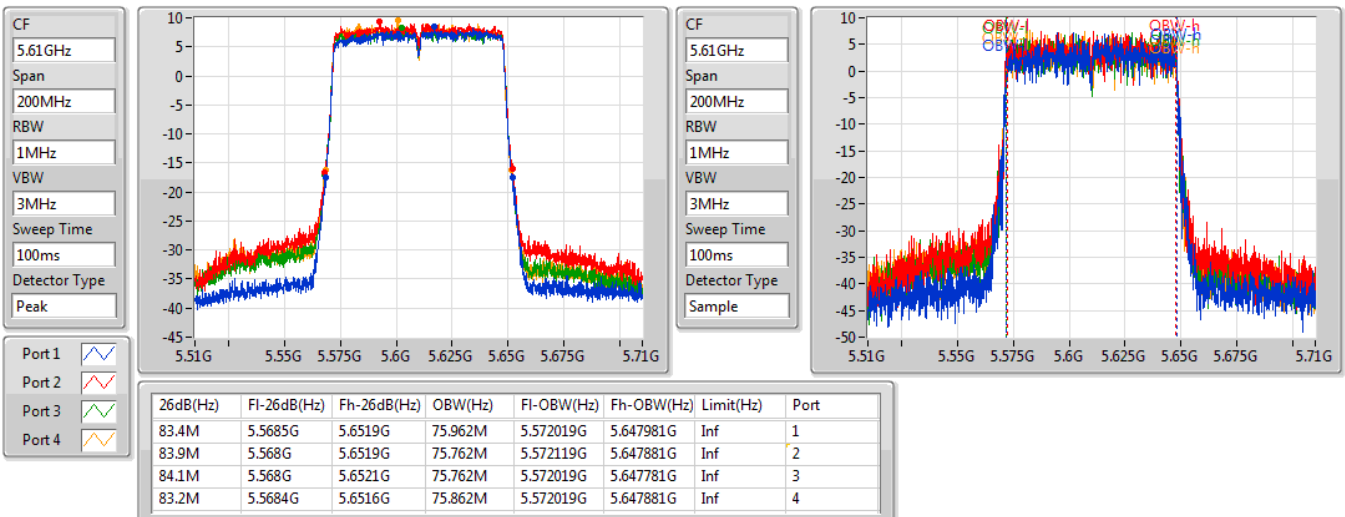


## 802.11ac VHT80-BF\_Nss2,(MCS0)\_4TX

EBW

5610MHz

18/04/2019





## Power Result

## Appendix B.1

### For Band 2 / 2T1S and Band 3 / 4T1S Summary

Mode	Total Power (dBm)	Total Power (W)
5.25-5.35GHz	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	23.36	0.21677
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	23.66	0.23227
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	23.53	0.22542
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	20.51	0.11246
5.47-5.725GHz	-	-
802.11a-BF_Nss1,(6Mbps)_4TX	20.30	0.10715
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.48	0.11169
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	20.94	0.12417
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	20.64	0.11588



## Power Result

## Appendix B.1

### Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.96	20.14	20.19			23.18	23.78
5300MHz	Pass	5.96	20.29	20.40			23.36	23.78
5320MHz	Pass	5.96	19.74	20.16			22.97	23.77
802.11a-BF_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.96	14.03	14.26	14.10	14.50	20.25	20.87
5580MHz	Pass	8.96	13.99	14.63	13.96	14.48	20.30	20.86
5700MHz	Pass	8.96	14.25	14.07	13.77	14.20	20.10	20.86
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.96	20.16	20.20			23.19	23.96
5300MHz	Pass	5.96	20.10	20.38			23.25	23.98
5320MHz	Pass	5.96	20.39	20.89			23.66	23.98
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.96	13.99	14.10	13.83	14.35	20.09	21.00
5580MHz	Pass	8.96	14.28	14.31	14.47	14.73	20.47	21.02
5700MHz	Pass	8.96	14.74	14.75	14.39	13.92	20.48	21.02
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	5.96	20.34	20.69			23.53	23.98
5310MHz	Pass	5.96	19.91	20.11			23.02	23.98
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5510MHz	Pass	8.96	14.79	15.10	14.63	15.15	20.94	21.02
5550MHz	Pass	8.96	14.73	14.92	14.67	15.11	20.88	21.02
5670MHz	Pass	8.96	14.65	14.92	14.73	14.88	20.82	21.02
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	5.96	17.41	17.58			20.51	23.98
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5530MHz	Pass	8.96	14.29	14.87	14.32	14.82	20.60	21.02
5610MHz	Pass	8.96	14.51	15.10	14.30	14.54	20.64	21.02

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



## Power Result

## Appendix B.2

### For Band 3 / 4T2S Summary

Mode	Total Power (dBm)	Total Power (W)
5.47-5.725GHz	-	-
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	23.78	0.23878
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	23.84	0.24210
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	23.68	0.23335



## Power Result

## Appendix B.2

### Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5500MHz	Pass	5.96	17.61	17.63	17.34	17.56	23.56	23.98
5580MHz	Pass	5.96	17.37	18.15	16.90	17.39	23.50	23.98
5700MHz	Pass	5.96	17.92	17.64	17.72	17.74	23.78	23.98
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5510MHz	Pass	5.96	17.56	17.88	17.17	17.53	23.56	23.98
5550MHz	Pass	5.96	17.32	17.96	17.54	17.50	23.61	23.98
5670MHz	Pass	5.96	17.89	18.12	17.65	17.59	23.84	23.98
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5530MHz	Pass	5.96	17.65	17.92	17.40	17.67	23.68	23.98
5610MHz	Pass	5.96	17.51	18.07	17.17	17.52	23.60	23.98

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

**For Band 2 / 2T1S and Band 3 / 4T1S  
Summary**

Mode	PD (dBm/RBW)
5.25-5.35GHz	-
802.11a-BF_Nss1,(6Mbps)_2TX	10.91
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	10.82
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	8.25
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	1.63
5.47-5.725GHz	-
802.11a-BF_Nss1,(6Mbps)_4TX	7.91
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	7.84
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	6.16
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	1.91

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

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.96	7.64	7.80			10.66	11.00
5300MHz	Pass	5.96	7.90	8.07			10.91	11.00
5320MHz	Pass	5.96	7.35	8.10			10.70	11.00
802.11a-BF_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.96	1.67	2.10	1.86	2.22	7.91	8.04
5580MHz	Pass	8.96	1.73	2.43	1.69	2.12	7.89	8.04
5700MHz	Pass	8.96	1.76	1.67	1.42	1.82	7.61	8.04
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.96	7.46	7.56			10.52	11.00
5300MHz	Pass	5.96	7.68	7.83			10.55	11.00
5320MHz	Pass	5.96	7.78	8.16			10.82	11.00
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5500MHz	Pass	8.96	1.21	1.74	1.61	1.89	7.56	8.04
5580MHz	Pass	8.96	1.50	2.33	1.68	2.27	7.84	8.04
5700MHz	Pass	8.96	1.79	1.68	1.54	1.89	7.63	8.04
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	5.96	5.20	5.38			8.25	11.00
5310MHz	Pass	5.96	4.98	5.00			7.91	11.00
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5510MHz	Pass	8.96	-0.11	0.67	-0.23	0.53	6.16	8.04
5550MHz	Pass	8.96	-0.43	0.02	-0.19	0.07	5.70	8.04
5670MHz	Pass	8.96	-0.31	-0.19	-0.09	-0.04	5.73	8.04
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	5.96	-1.18	-1.31			1.63	11.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5530MHz	Pass	8.96	-4.06	-3.43	-4.47	-3.30	1.91	8.04
5610MHz	Pass	8.96	-4.38	-3.82	-4.75	-4.04	1.58	8.04

**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;

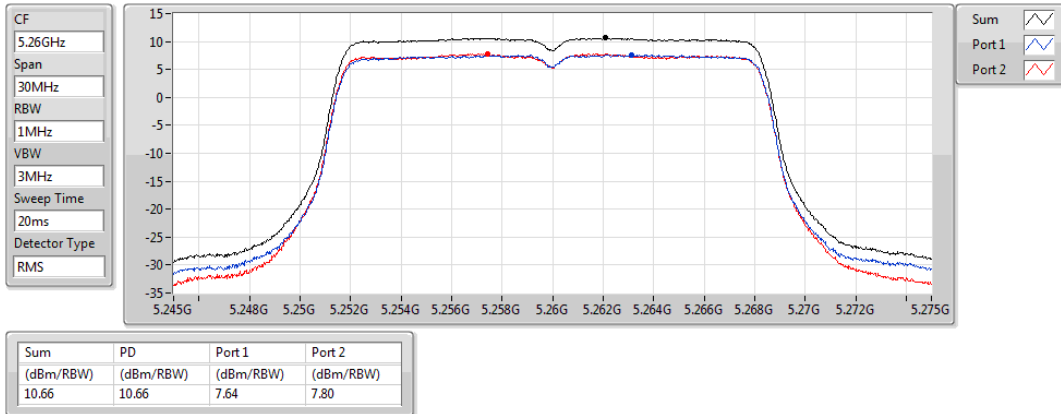


## 802.11a-BF\_Nss1,(6Mbps)\_2TX

PSD

5260MHz

18/04/2019

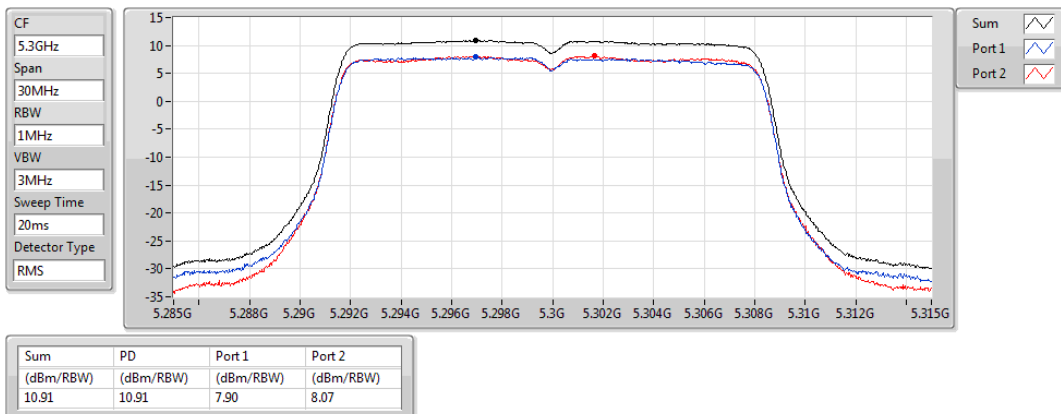


## 802.11a-BF\_Nss1,(6Mbps)\_2TX

PSD

5300MHz

18/04/2019

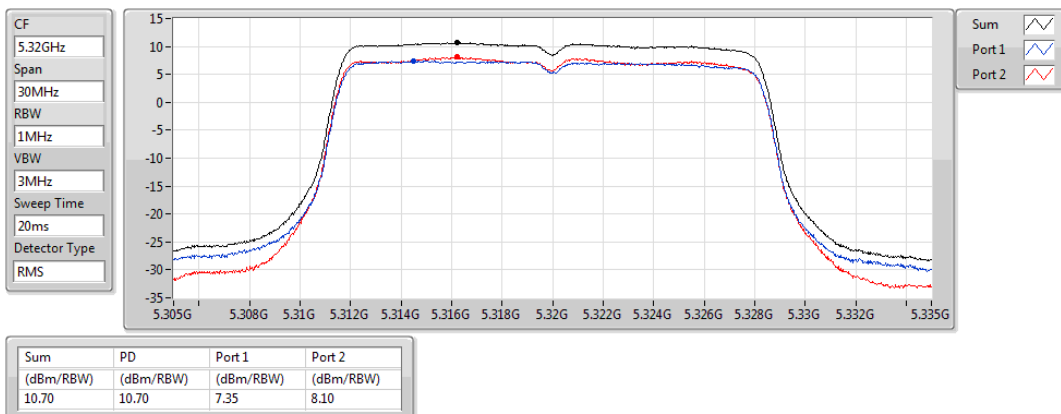


## 802.11a-BF\_Nss1,(6Mbps)\_2TX

PSD

5320MHz

18/04/2019

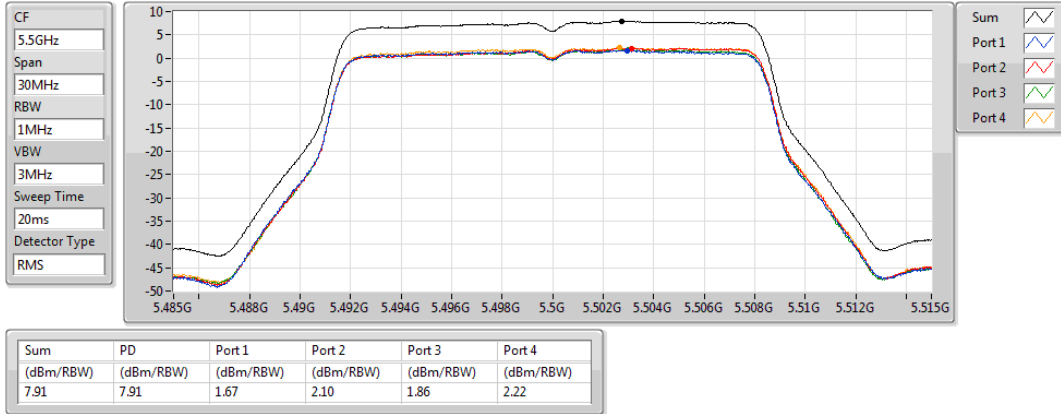


## 802.11a-BF\_Nss1,(6Mbps)\_4TX

## PSD

5500MHz

18/04/2019

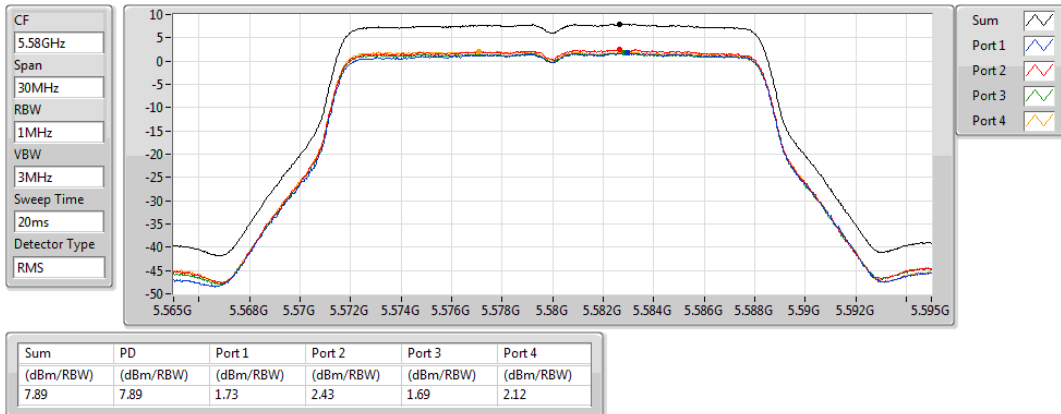


## 802.11a-BF\_Nss1,(6Mbps)\_4TX

## PSD

5580MHz

18/04/2019

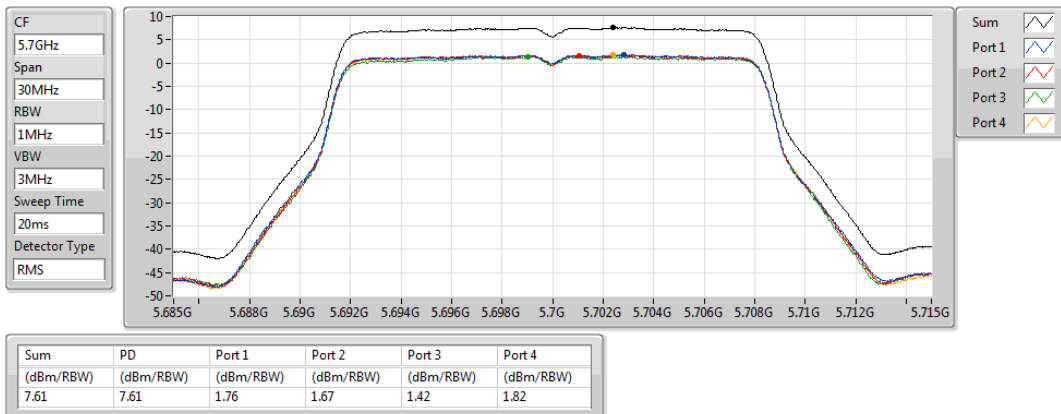


## 802.11a-BF\_Nss1,(6Mbps)\_4TX

## PSD

5700MHz

18/04/2019

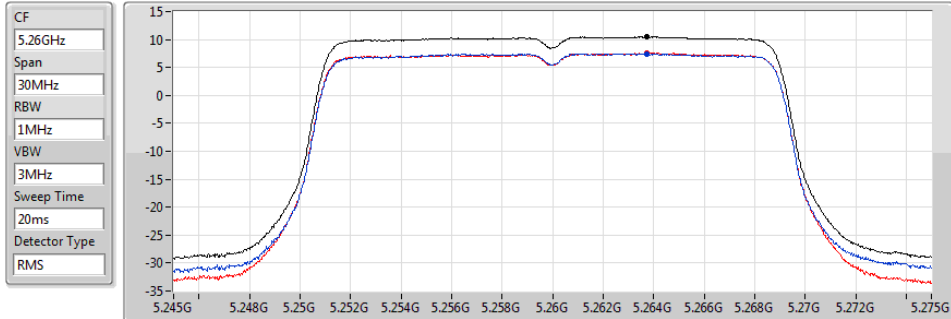


### 802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

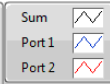
PSD

5260MHz

18/04/2019



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
10.52	10.52	7.46	7.56

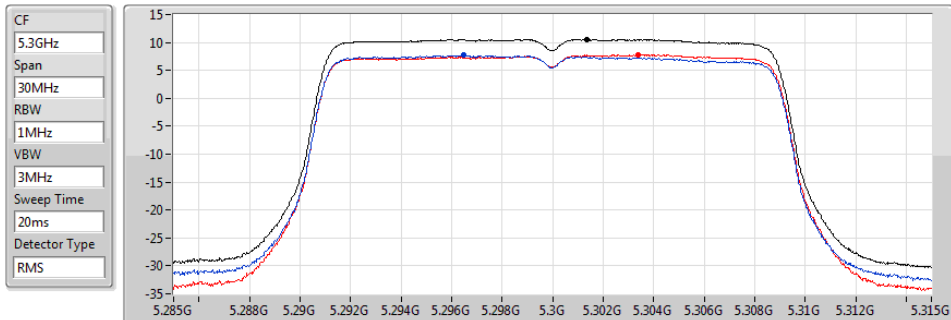


### 802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

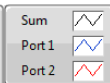
PSD

5300MHz

18/04/2019



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
10.55	10.55	7.68	7.83

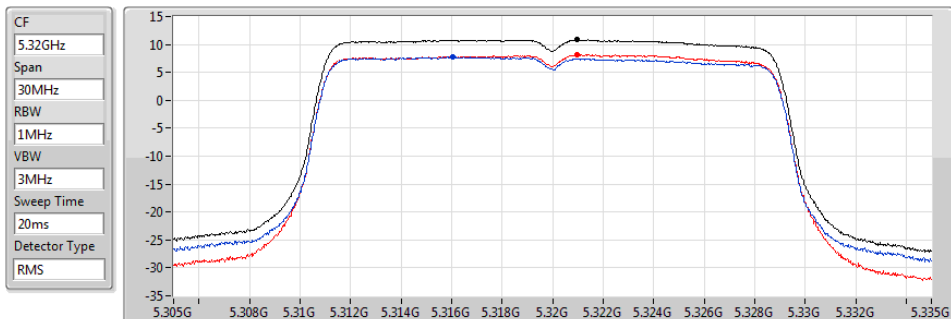


### 802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

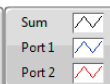
PSD

5320MHz

18/04/2019



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
10.82	10.82	7.78	8.16

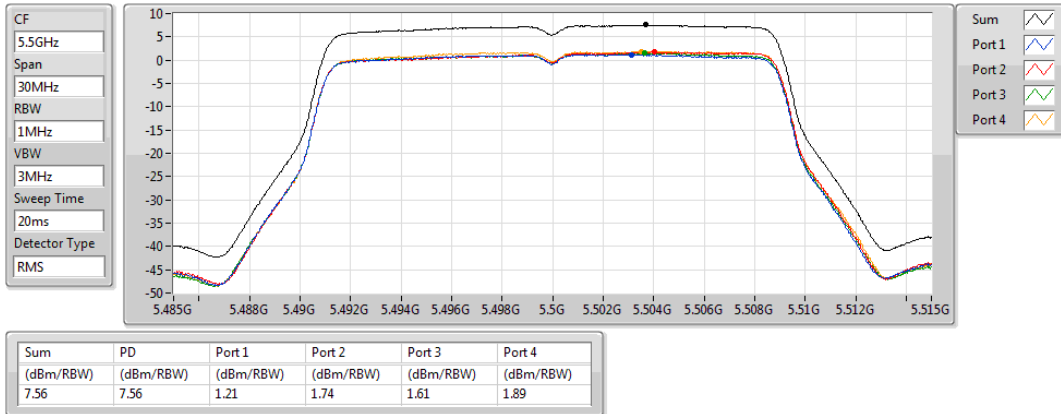


## 802.11ac VHT20-BF\_Nss1,(MCS0)\_4TX

PSD

5500MHz

18/04/2019

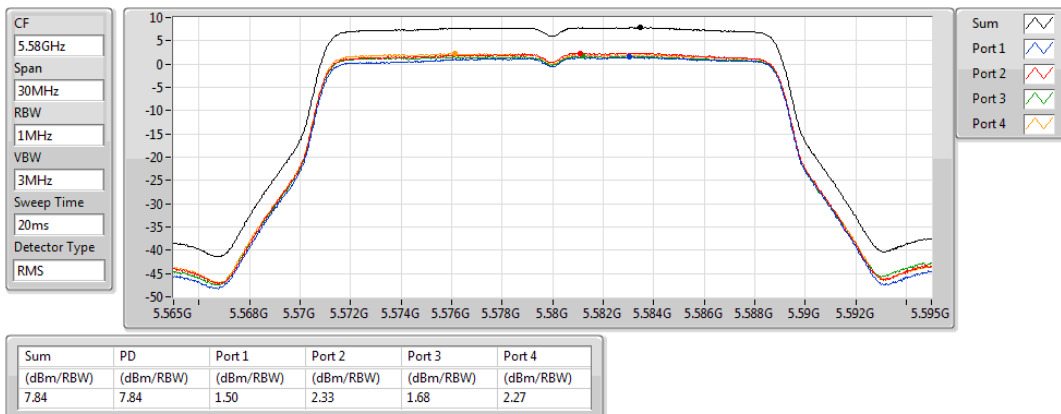


## 802.11ac VHT20-BF\_Nss1,(MCS0)\_4TX

PSD

5580MHz

18/04/2019

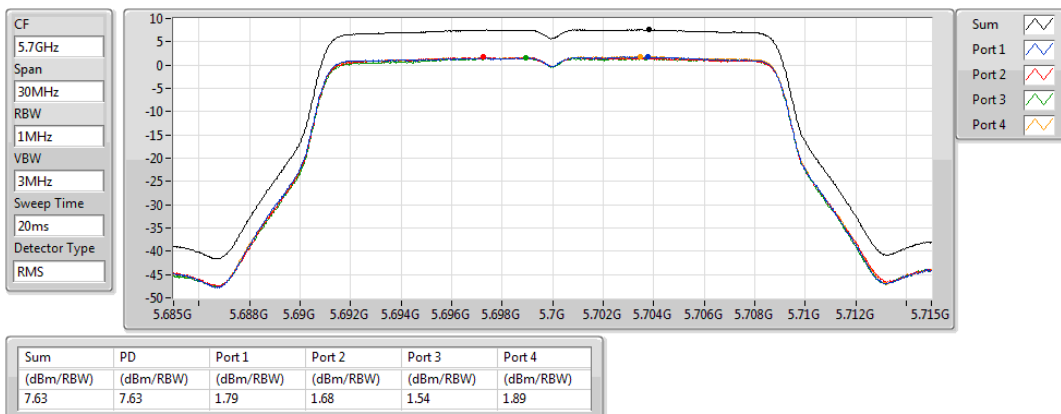


## 802.11ac VHT20-BF\_Nss1,(MCS0)\_4TX

PSD

5700MHz

18/04/2019

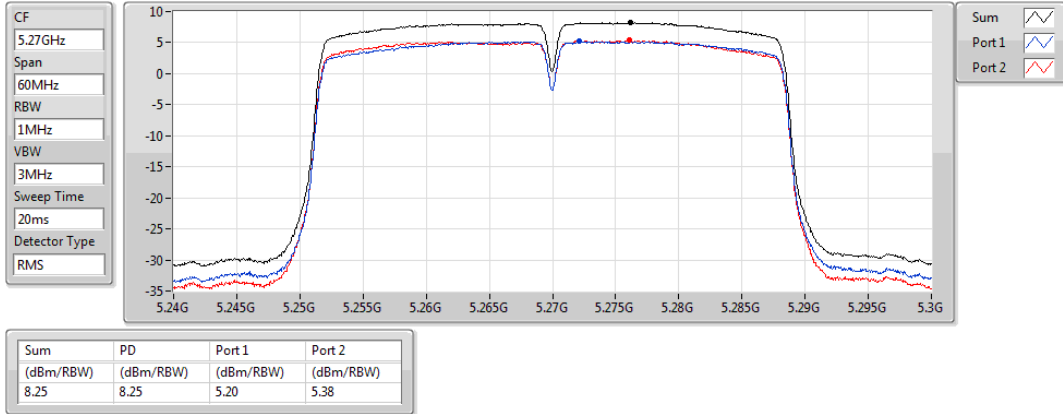


### 802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

PSD

5270MHz

18/04/2019

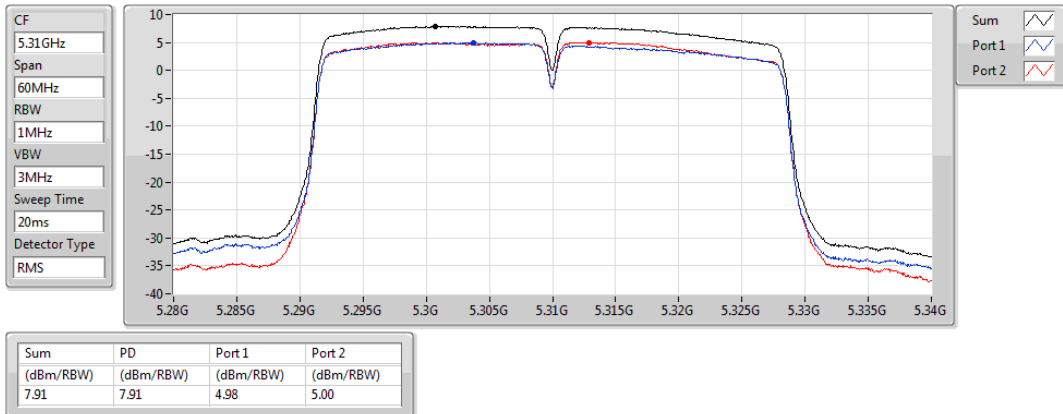


### 802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

PSD

5310MHz

18/04/2019

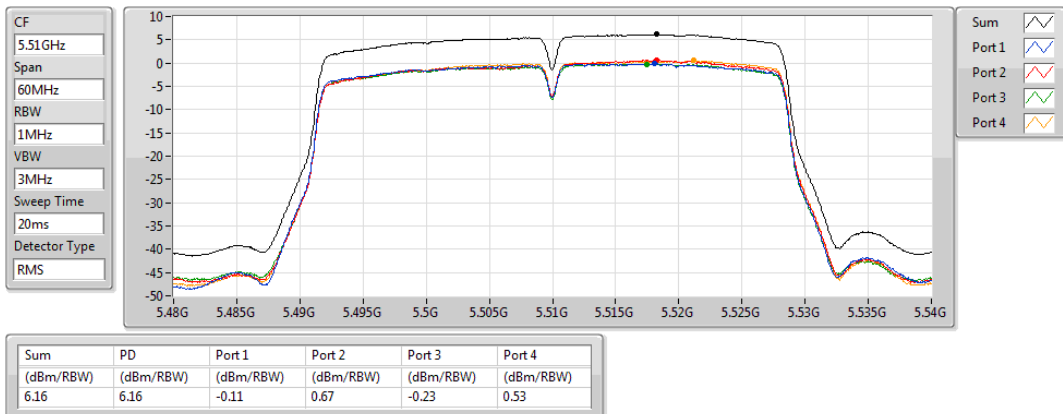


### 802.11ac VHT40-BF\_Nss1,(MCS0)\_4TX

PSD

5510MHz

18/04/2019

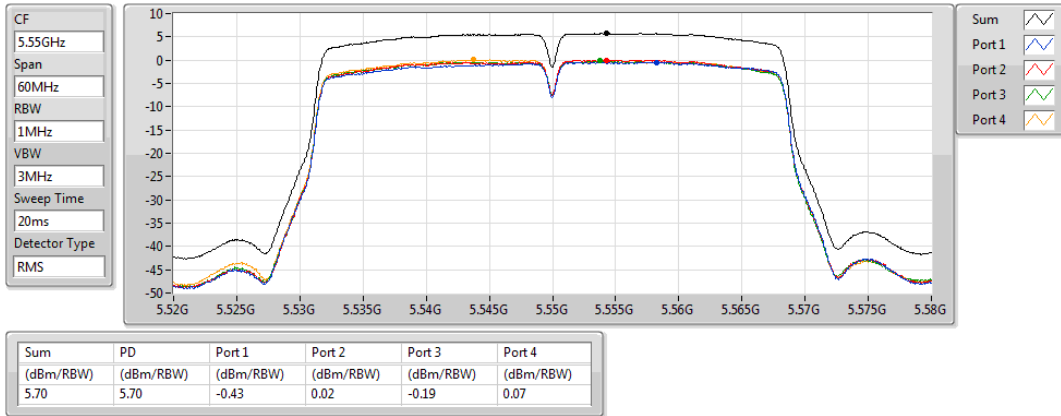


## 802.11ac VHT40-BF\_Nss1,(MCS0)\_4TX

PSD

5550MHz

18/04/2019

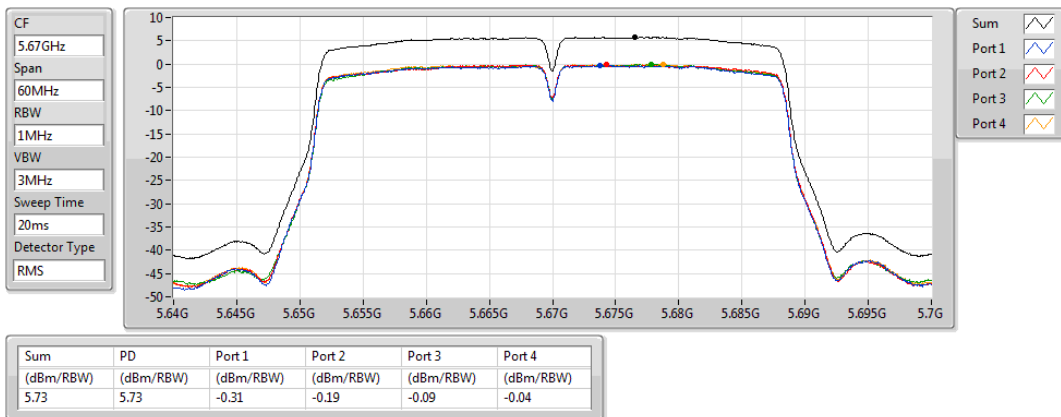


## 802.11ac VHT40-BF\_Nss1,(MCS0)\_4TX

PSD

5670MHz

18/04/2019

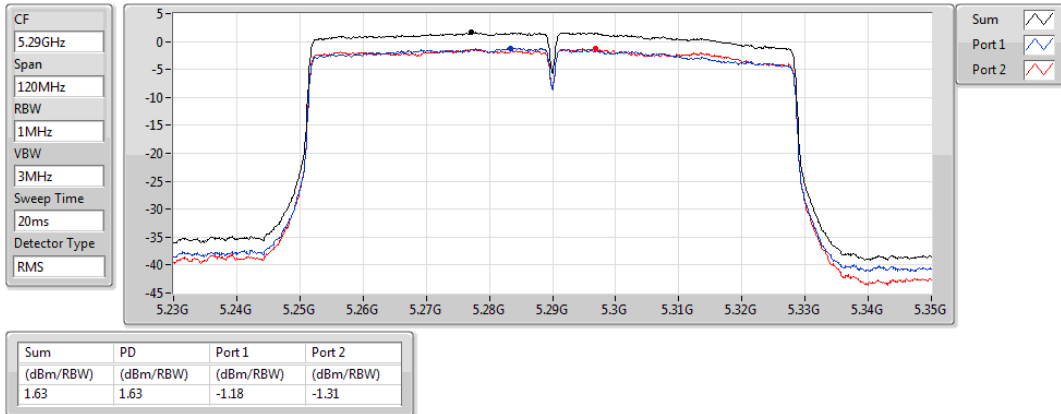


## 802.11ac VHT80-BF\_Nss1,(MCS0)\_2TX

PSD

5290MHz

18/04/2019

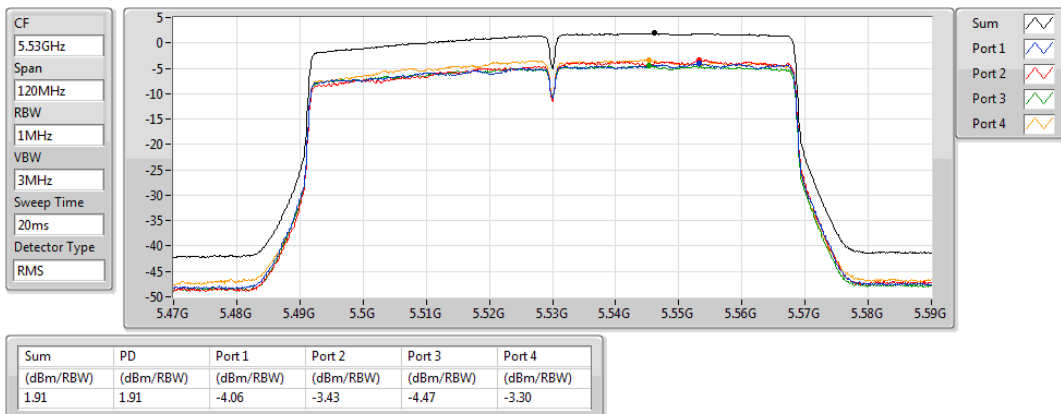


## 802.11ac VHT80-BF\_Nss1,(MCS0)\_4TX

PSD

5530MHz

18/04/2019

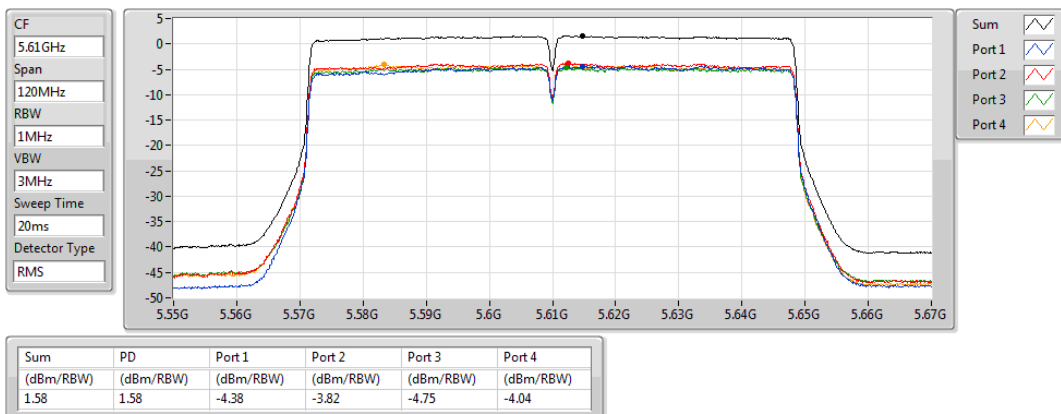


## 802.11ac VHT80-BF\_Nss1,(MCS0)\_4TX

PSD

5610MHz

18/04/2019



**For Band 3 / 4T2S  
Summary**

Mode	PD (dBm/RBW)
5.47-5.725GHz	-
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	10.44
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	7.66
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	5.00

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

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ac VHT20-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5500MHz	Pass	5.96	3.84	4.78	4.38	4.29	10.24	11.00
5580MHz	Pass	5.96	4.35	4.88	4.38	4.97	10.44	11.00
5700MHz	Pass	5.96	4.18	4.30	4.43	4.52	10.31	11.00
802.11ac VHT40-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5510MHz	Pass	5.96	1.01	2.41	1.26	1.98	7.53	11.00
5550MHz	Pass	5.96	1.07	1.84	1.35	1.81	7.36	11.00
5670MHz	Pass	5.96	1.48	1.93	1.86	1.84	7.66	11.00
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	-	-	-	-	-	-	-	-
5530MHz	Pass	5.96	-1.24	-0.49	-1.28	-0.23	5.00	11.00
5610MHz	Pass	5.96	-1.88	-0.90	-1.57	-1.07	4.25	11.00

**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;

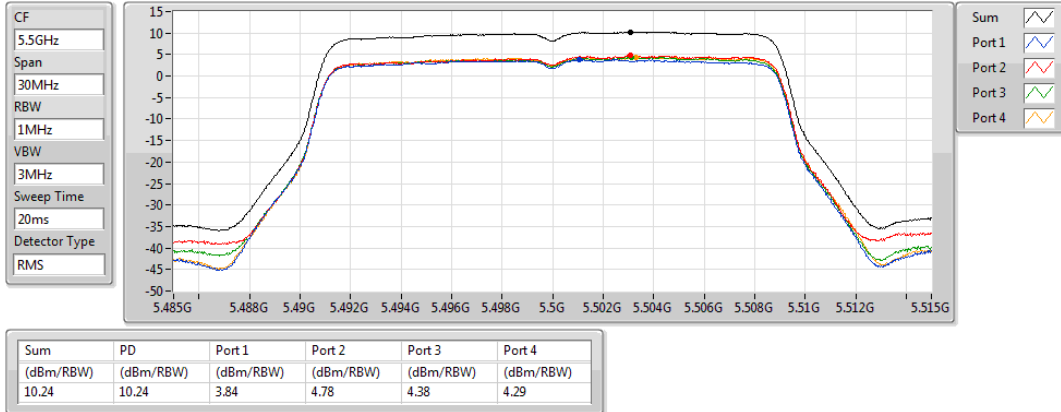


## 802.11ac VHT20-BF\_Nss2,(MCS0)\_4TX

PSD

5500MHz

18/04/2019

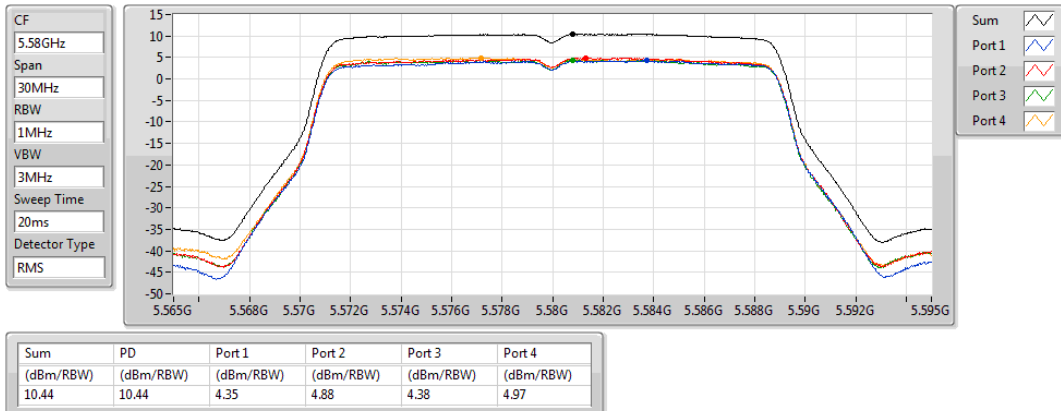


## 802.11ac VHT20-BF\_Nss2,(MCS0)\_4TX

PSD

5580MHz

18/04/2019

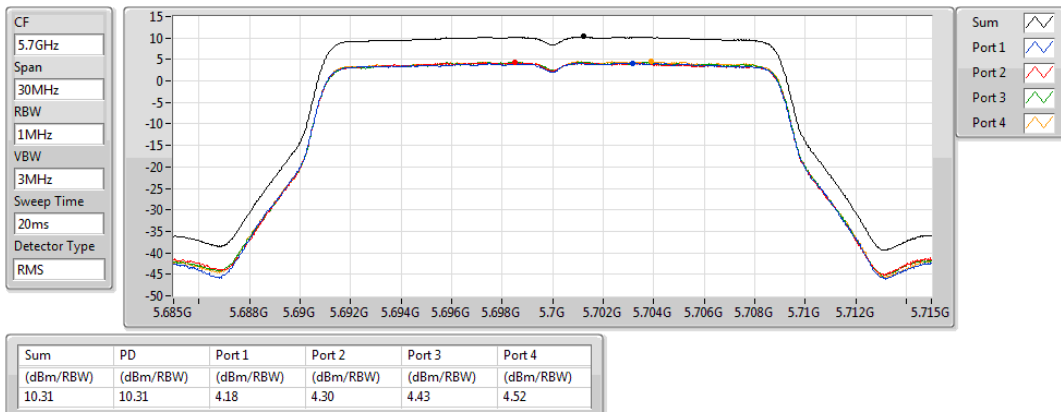


## 802.11ac VHT20-BF\_Nss2,(MCS0)\_4TX

PSD

5700MHz

18/04/2019

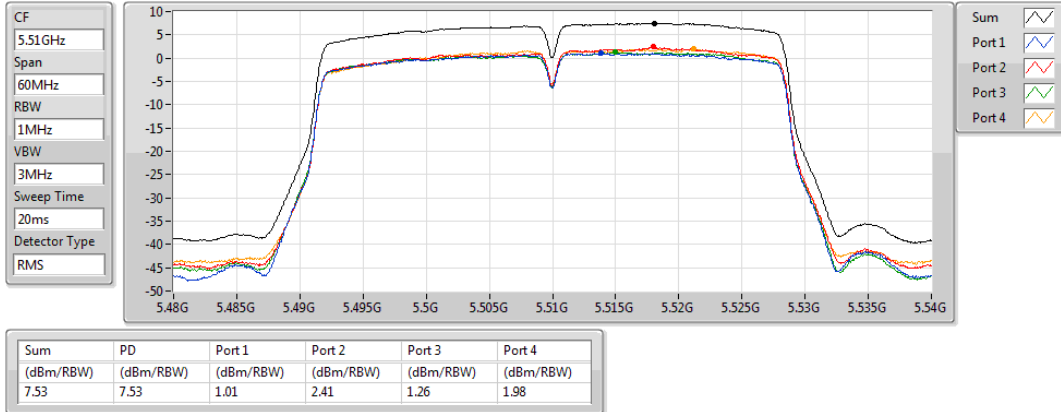


## 802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX

PSD

5510MHz

18/04/2019

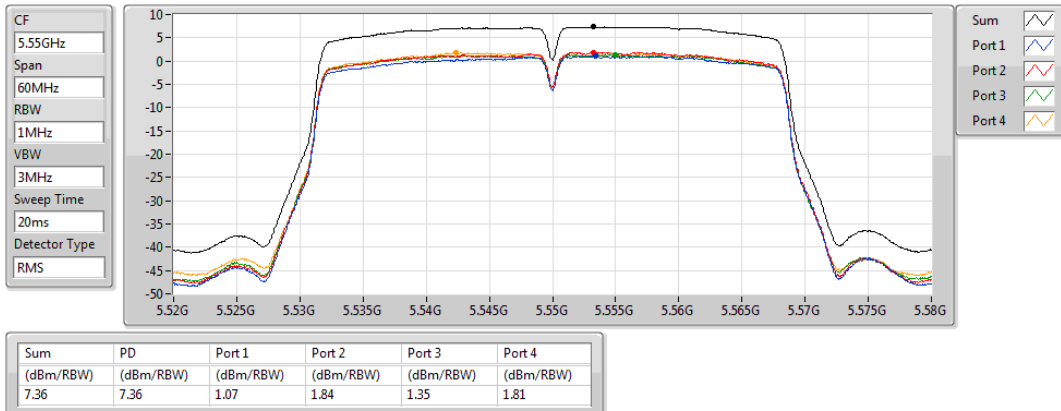


## 802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX

PSD

5550MHz

18/04/2019

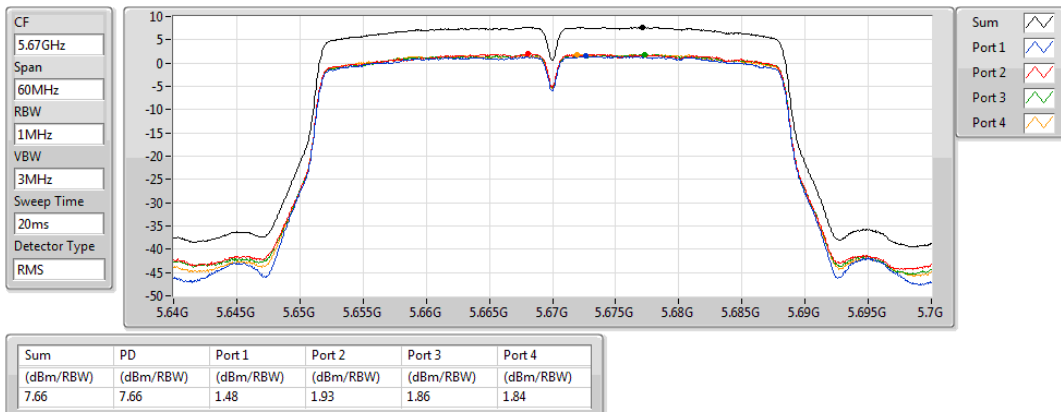


## 802.11ac VHT40-BF\_Nss2,(MCS0)\_4TX

PSD

5670MHz

18/04/2019

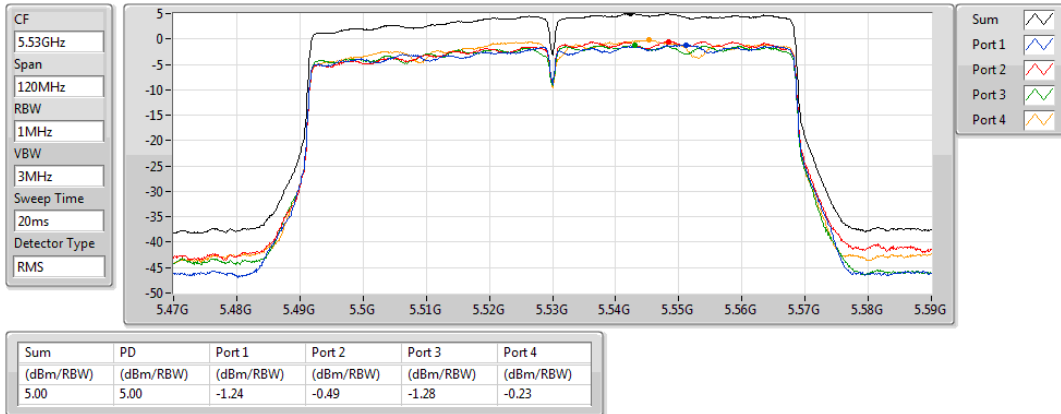


## 802.11ac VHT80-BF\_Nss2,(MCS0)\_4TX

PSD

5530MHz

18/04/2019

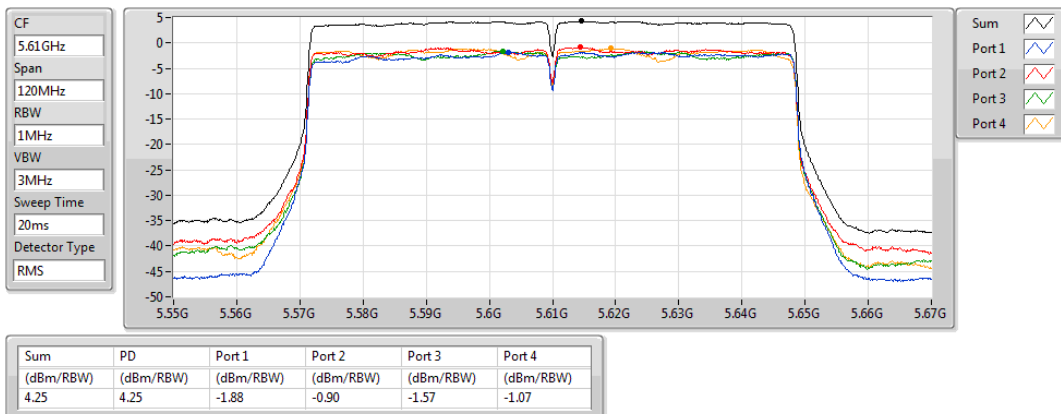


## 802.11ac VHT80-BF\_Nss2,(MCS0)\_4TX

PSD

5610MHz

18/04/2019





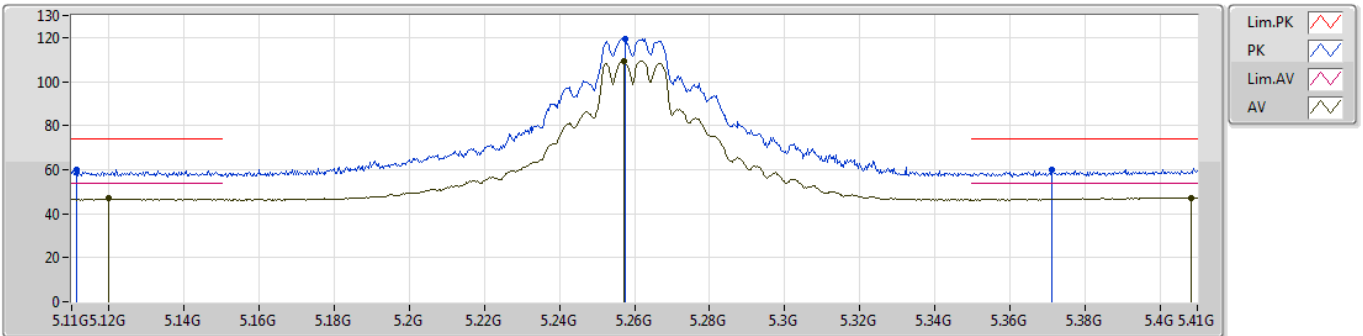
**For Band 2 / 2T1S and Band 3 / 4T1S  
Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
5.25-5.35GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	Pass	AV	5.3504G	53.39	54.00	-0.61	4.81	3	Vertical	19	1.50

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

09/04/2019

### 5260MHz\_TX



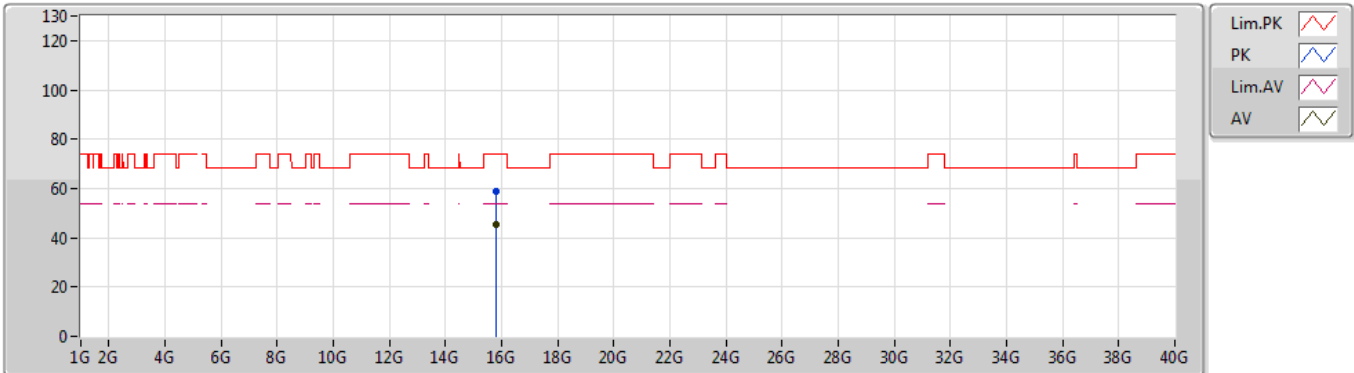
EUT Y\_2TX\_Dipole  
Setting 25  
03-B-4-10  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.1112G	60.01	74.00	-13.99	5.76	3	Vertical	16	1.67	-
AV	5.1199G	46.79	54.00	-7.21	5.78	3	Vertical	16	1.67	-
PK	5.2576G	119.56	Inf	-Inf	6.09	3	Vertical	16	1.67	-
AV	5.2573G	109.29	Inf	-Inf	6.08	3	Vertical	16	1.67	-
AV	5.4082G	47.24	54.00	-6.76	6.41	3	Vertical	16	1.67	-
PK	5.3713G	60.06	74.00	-13.94	6.34	3	Vertical	16	1.67	-

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

30/04/2019

## 5260MHz\_TX



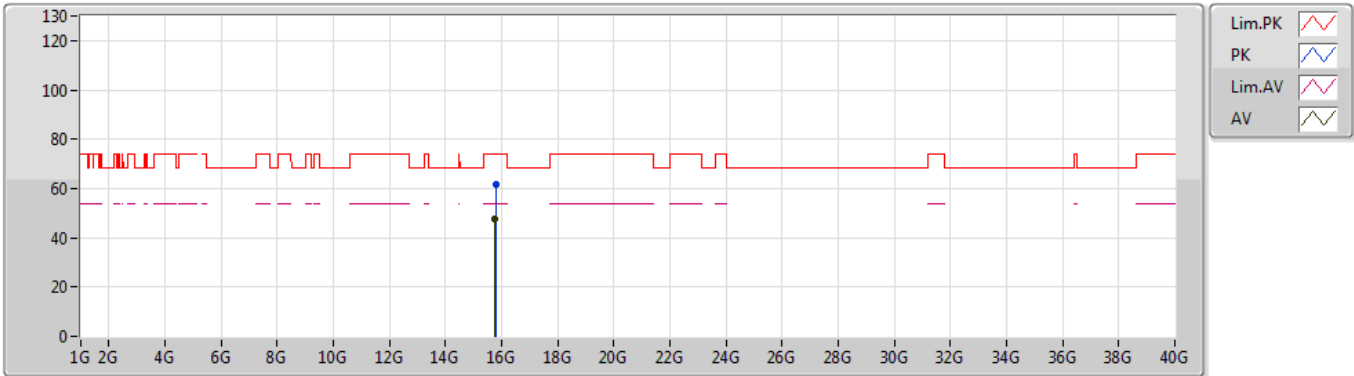
EUT Y\_2TX\_Dipole  
Setting 25  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.80405G	59.03	74.00	-14.97	14.27	3	Vertical	77	2.96	-				
AV	15.8048G	45.54	54.00	-8.46	14.27	3	Vertical	77	2.96	-				

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

30/04/2019

### 5260MHz\_TX



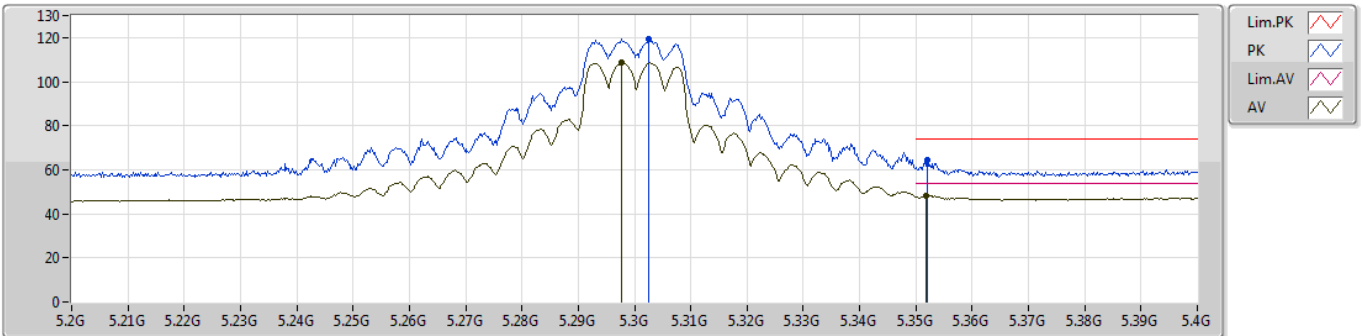
EUT Y\_2TX\_Dipole  
Setting 25  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.78715G	61.48	74.00	-12.52	14.32	3	Horizontal	322	1.84	-				
AV	15.7777G	47.37	54.00	-6.63	14.36	3	Horizontal	322	1.84	-				

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

09/04/2019

### 5300MHz\_TX



EUT Y\_2TX\_Dipole  
Setting 25  
03-B-4-10  
FSP

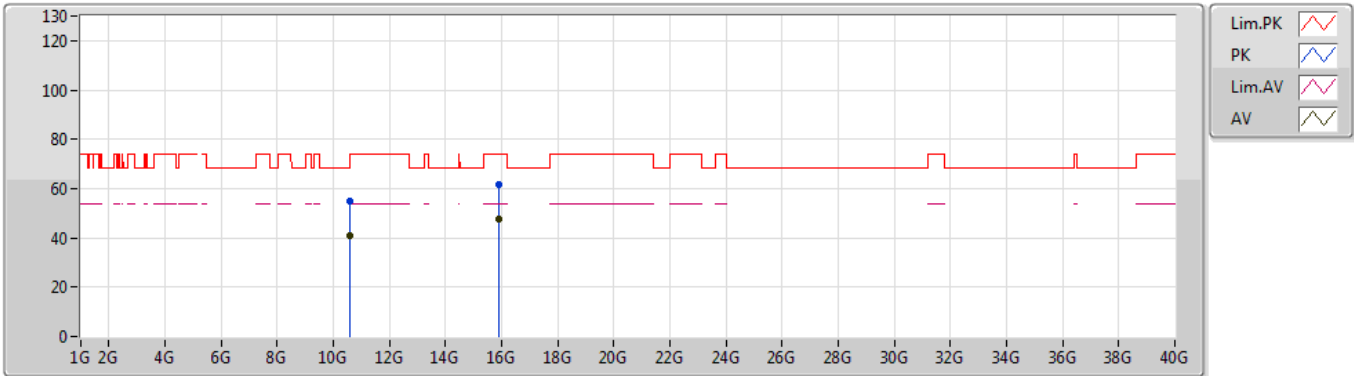
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.3026G	119.58	Inf	-Inf	6.22	3	Vertical	347	1.39	-
AV	5.2978G	108.88	Inf	-Inf	6.22	3	Vertical	347	1.39	-
PK	5.352G	64.46	74.00	-9.54	6.31	3	Vertical	347	1.39	-
AV	5.3518G	48.05	54.00	-5.95	6.31	3	Vertical	347	1.39	-



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

30/04/2019

### 5300MHz\_TX



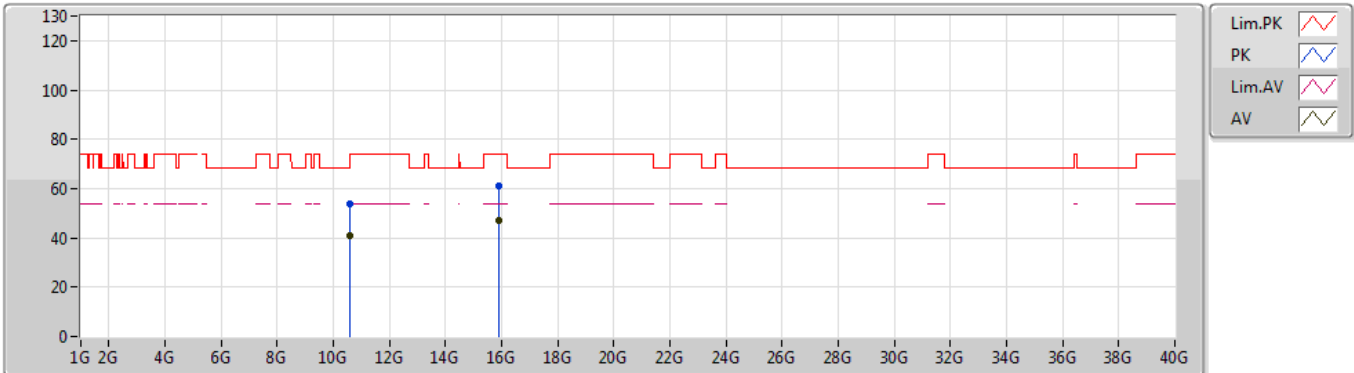
EUT Y\_2TX\_Dipole  
Setting 25  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.6039G	54.76	74.00	-19.24	13.40	3	Vertical	193	2.96	-				
AV	10.6085G	40.92	54.00	-13.08	13.41	3	Vertical	193	2.96	-				
PK	15.8909G	61.90	74.00	-12.10	13.94	3	Vertical	351	2.99	-				
AV	15.87975G	47.36	54.00	-6.64	13.97	3	Vertical	351	2.99	-				

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

30/04/2019

### 5300MHz\_TX



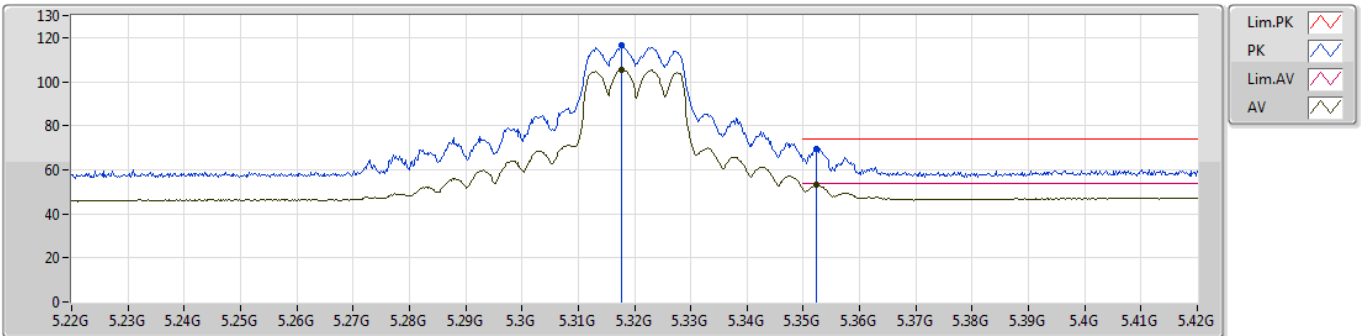
EUT Y\_2TX\_Dipole  
Setting 25  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.60865G	54.04	74.00	-19.96	13.41	3	Horizontal	234	1.50	-				
AV	10.6078G	40.68	54.00	-13.32	13.41	3	Horizontal	234	1.50	-				
PK	15.895G	61.12	74.00	-12.88	13.93	3	Horizontal	21	1.68	-				
AV	15.9002G	47.14	54.00	-6.86	13.90	3	Horizontal	21	1.68	-				

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

09/04/2019

### 5320MHz\_TX



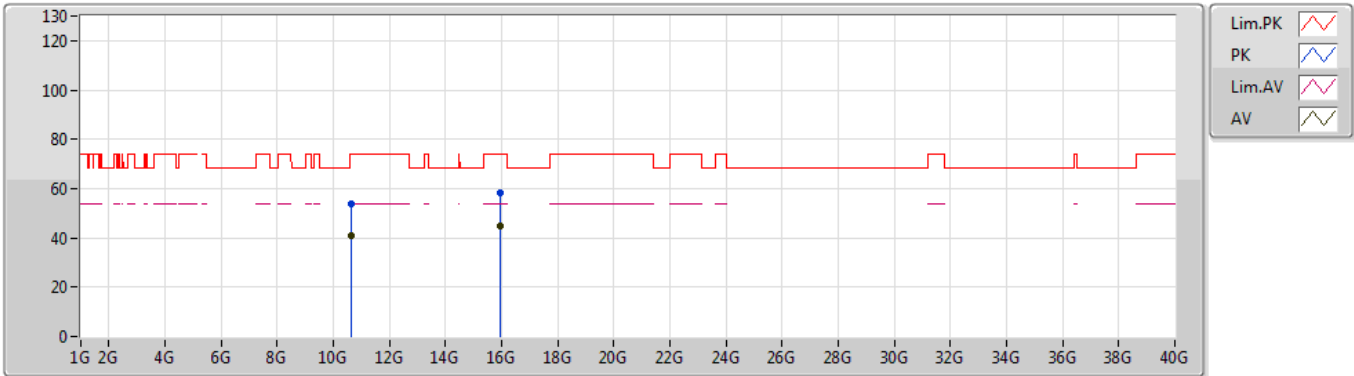
EUT Y\_2TX\_Dipole  
Setting 21.5  
03-B-4-10  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.3176G	116.60	Inf	-Inf	6.26	3	Vertical	346	1.44	-
AV	5.3178G	105.60	Inf	-Inf	6.26	3	Vertical	346	1.44	-
PK	5.3524G	69.73	74.00	-4.27	6.31	3	Vertical	346	1.44	-
AV	5.3524G	53.06	54.00	-0.94	6.31	3	Vertical	346	1.44	-

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

30/04/2019

### 5320MHz\_TX



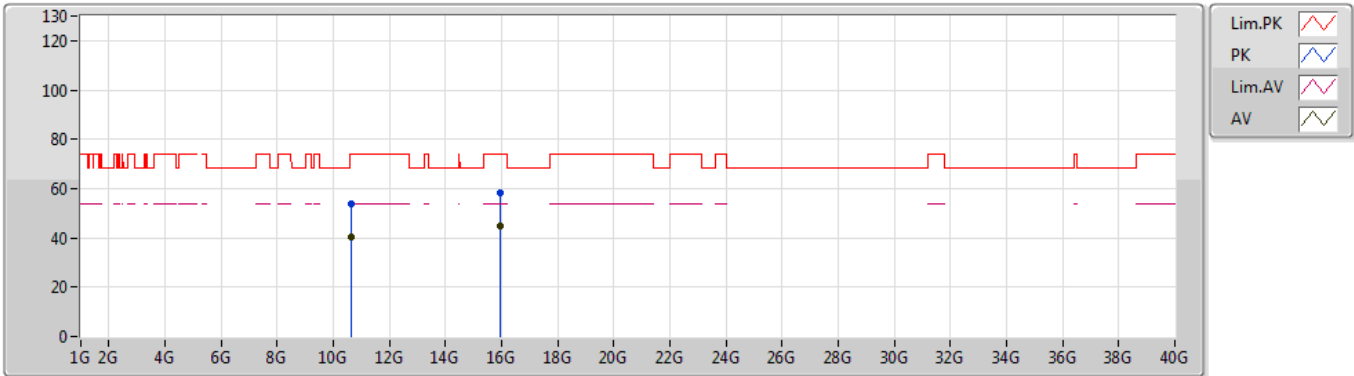
EUT Y\_2TX\_Dipole  
Setting 21.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.64395G	53.86	74.00	-20.14	13.46	3	Vertical	1	2.50	-				
AV	10.63865G	40.82	54.00	-13.18	13.45	3	Vertical	1	2.50	-				
PK	15.93925G	58.22	74.00	-15.78	13.75	3	Vertical	20	1.00	-				
AV	15.9371G	44.85	54.00	-9.15	13.76	3	Vertical	20	1.00	-				

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

30/04/2019

### 5320MHz\_TX



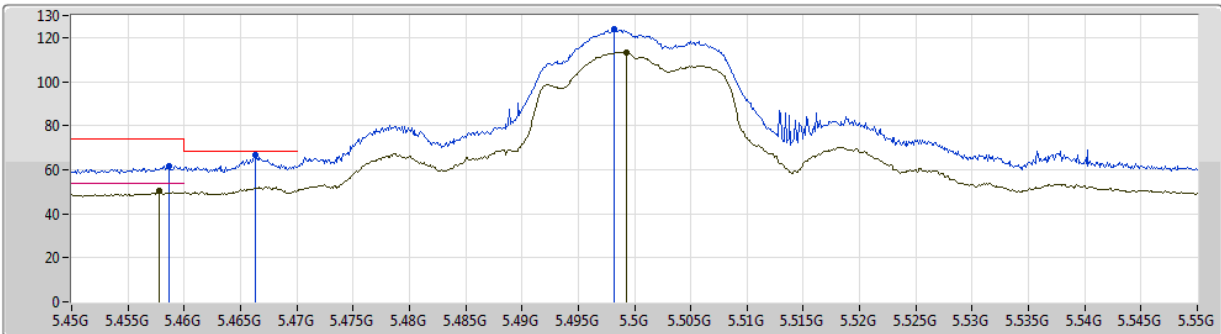
EUT Y\_2TX\_Dipole  
Setting 21.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.63995G	53.99	74.00	-20.01	13.46	3	Horizontal	106	2.38	-				
AV	10.65825G	40.55	54.00	-13.45	13.48	3	Horizontal	106	2.38	-				
PK	15.97175G	58.41	74.00	-15.59	13.62	3	Horizontal	311	1.50	-				
AV	15.93995G	44.91	54.00	-9.09	13.75	3	Horizontal	311	1.50	-				

## 802.11a-BF\_Nss1,(6Mbps)\_4TX

03/04/2019

## 5500MHz\_TX



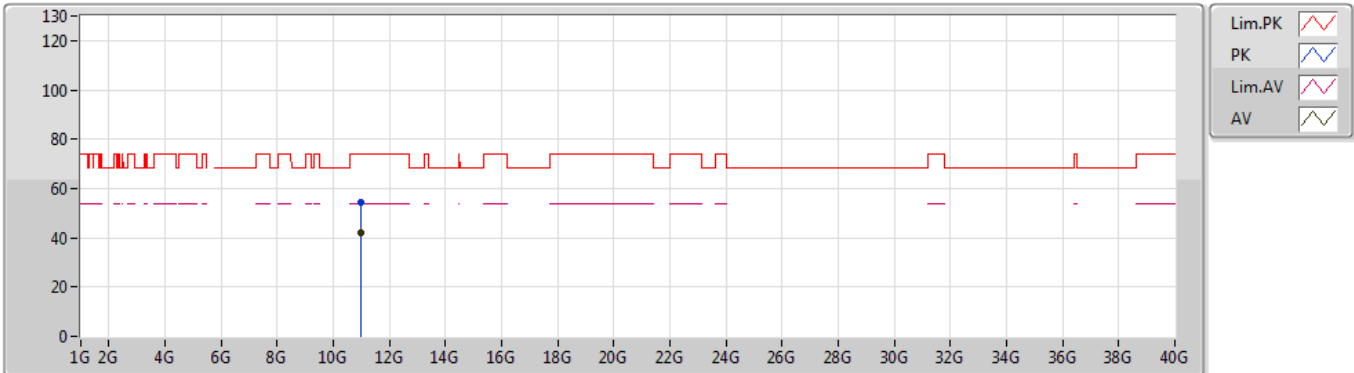
EUT\_Z\_4TX Dipole  
Setting 23  
03-B-4-10  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4587G	61.66	74.00	-12.34	6.45	3	Vertical	155	1.60	-
AV	5.4578G	50.16	54.00	-3.84	6.45	3	Vertical	155	1.60	-
PK	5.4663G	66.77	68.20	-1.43	6.46	3	Vertical	155	1.60	-
PK	5.4982G	123.70	Inf	-Inf	6.49	3	Vertical	155	1.60	-
AV	5.4993G	113.13	Inf	-Inf	6.49	3	Vertical	155	1.60	-

## 802.11a-BF\_Nss1,(6Mbps)\_4TX

30/04/2019

## 5500MHz\_TX



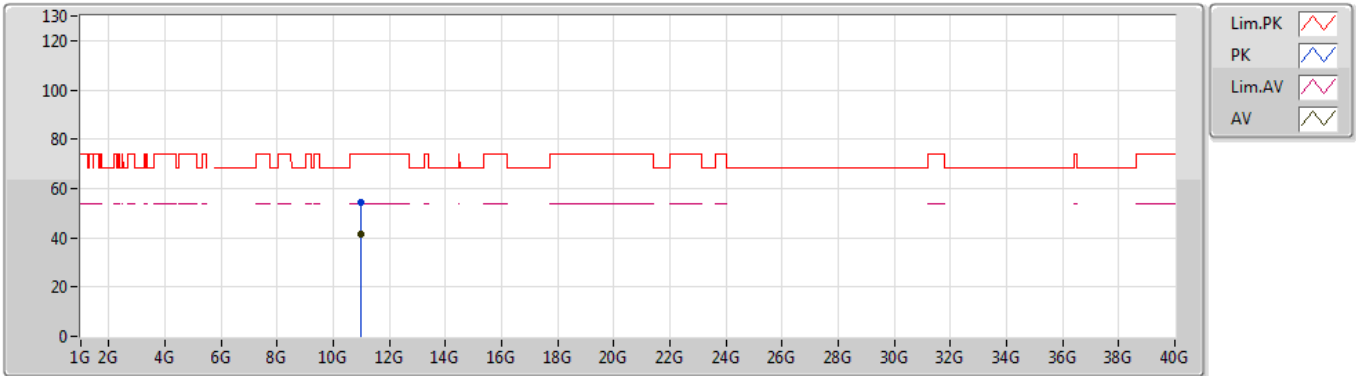
EUT\_Z\_4TX\_Dipole  
Setting 23  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.00675G	54.26	74.00	-19.74	13.94	3	Vertical	150	1.99	-				
AV	10.99106G	41.77	54.00	-12.23	13.93	3	Vertical	150	1.99	-				

## 802.11a-BF\_Nss1,(6Mbps)\_4TX

30/04/2019

### 5500MHz\_TX



EUT\_Z\_4TX\_Dipole  
Setting 23  
03-B-4  
FSP(100019)

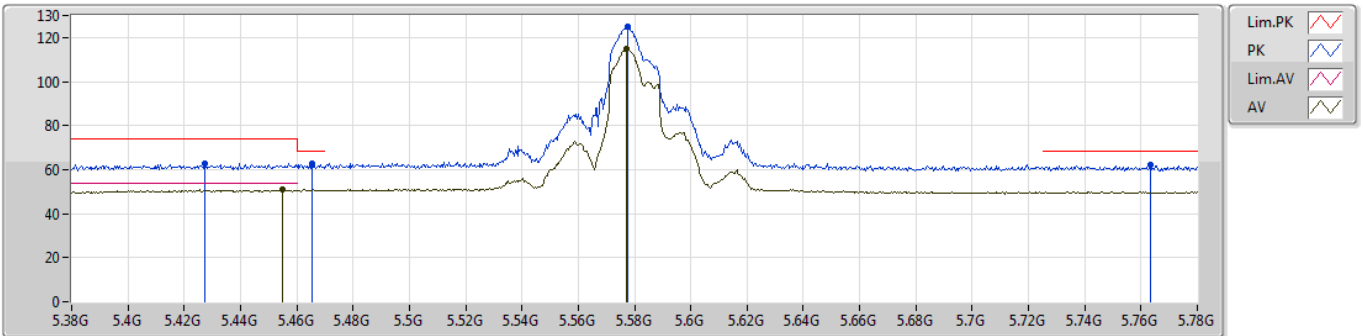
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.00024G	54.11	74.00	-19.89	13.94	3	Horizontal	7	2.98	-				
AV	10.9886G	41.64	54.00	-12.36	13.92	3	Horizontal	7	2.98	-				



## 802.11a-BF\_Nss1,(6Mbps)\_4TX

03/04/2019

## 5580MHz\_TX



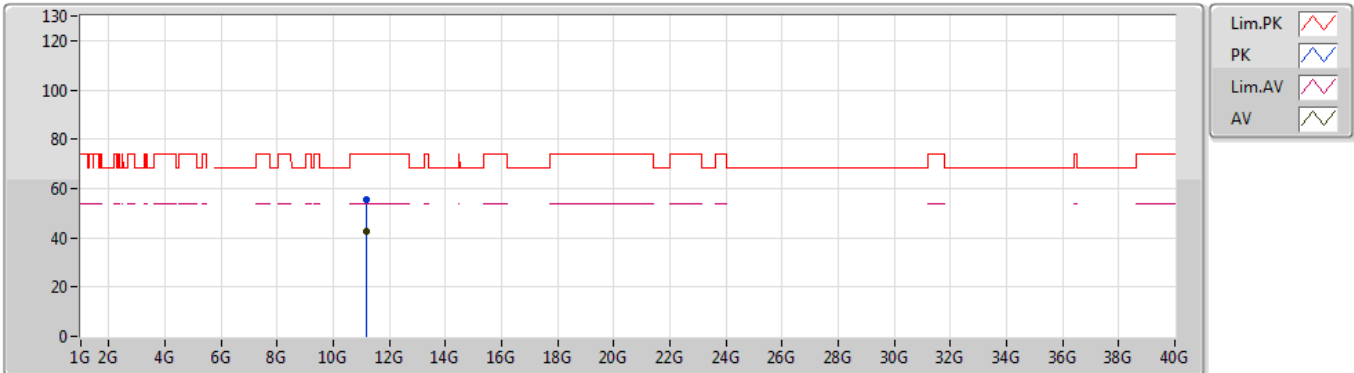
EUT Z\_4TX Dipole  
Setting 25  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4272G	63.03	74.00	-10.97	6.43	3	Vertical	67	1.59	-
AV	5.4548G	50.95	54.00	-3.05	6.44	3	Vertical	67	1.59	-
PK	5.4656G	62.56	68.20	-5.64	6.46	3	Vertical	67	1.59	-
PK	5.5776G	124.68	Inf	-Inf	6.39	3	Vertical	67	1.59	-
AV	5.5772G	114.61	Inf	-Inf	6.39	3	Vertical	67	1.59	-
PK	5.7632G	61.98	68.20	-6.22	6.43	3	Vertical	67	1.59	-

## 802.11a-BF\_Nss1,(6Mbps)\_4TX

30/04/2019

## 5580MHz\_TX



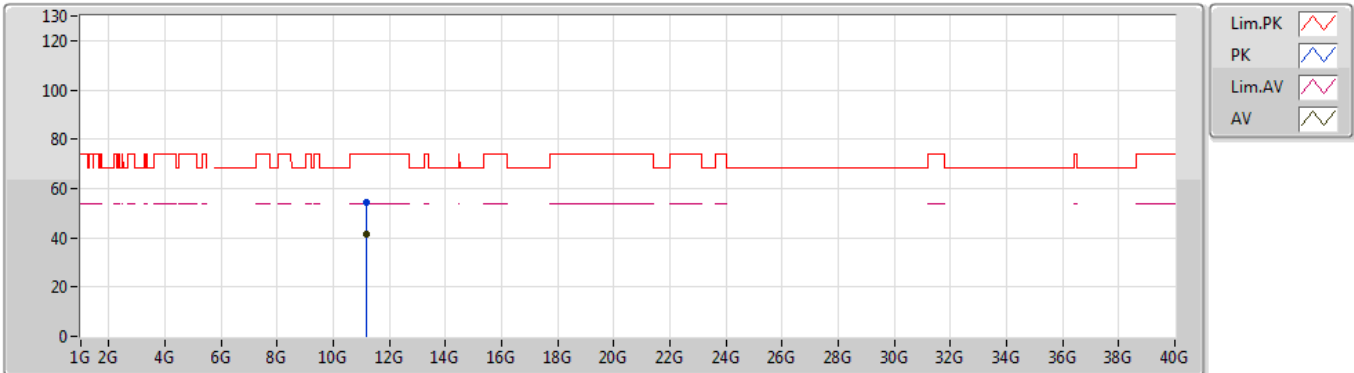
EUT\_Z\_4TX\_Dipole  
Setting 25  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.16735G	55.50	74.00	-18.50	14.10	3	Vertical	48	2.02	-				
AV	11.16678G	42.72	54.00	-11.28	14.10	3	Vertical	48	2.02	-				

## 802.11a-BF\_Nss1,(6Mbps)\_4TX

30/04/2019

## 5580MHz\_TX



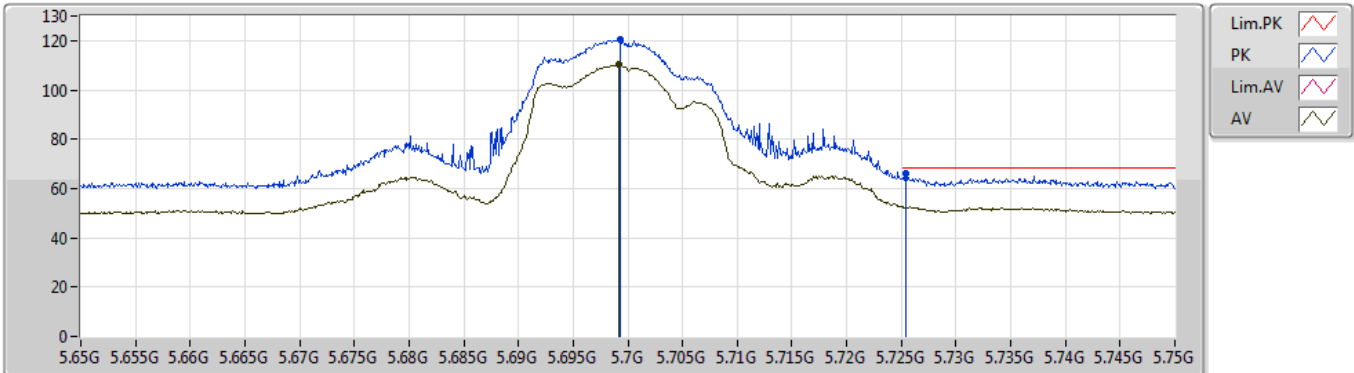
EUT\_Z\_4TX\_Dipole  
Setting 25  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.16627G	54.37	74.00	-19.63	14.10	3	Horizontal	134	1.77	-				
AV	11.17047G	41.68	54.00	-12.32	14.10	3	Horizontal	134	1.77	-				

## 802.11a-BF\_Nss1,(6Mbps)\_4TX

01/05/2019

### 5700MHz\_TX



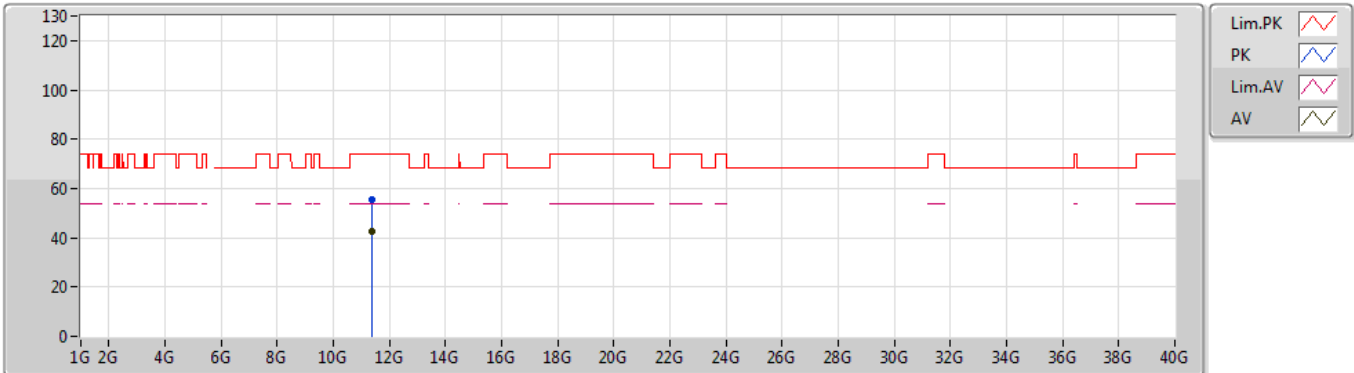
EUT\_Z\_4TX Dipole  
Setting 22.5  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	5.6993G	120.47	Inf	-Inf	6.37	3	Vertical	158	1.85	-			
AV	5.6992G	110.27	Inf	-Inf	6.37	3	Vertical	158	1.85	-			
PK	5.7254G	65.95	68.20	-2.25	6.39	3	Vertical	158	1.85	-			

## 802.11a-BF\_Nss1,(6Mbps)\_4TX

30/04/2019

## 5700MHz\_TX



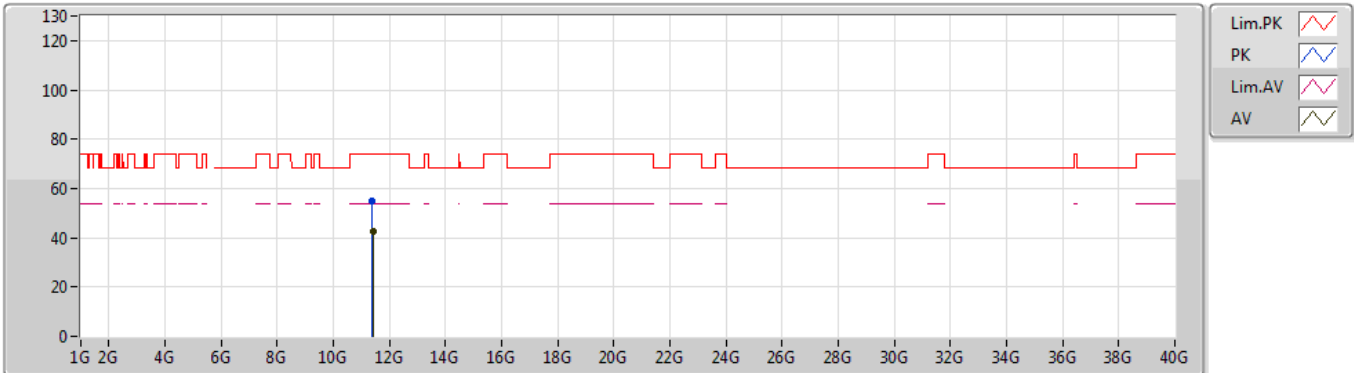
EUT\_Z\_4TX\_Dipole  
Setting 22.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.39082G	55.40	74.00	-18.60	14.32	3	Vertical	296	1.52	-				
AV	11.4006G	42.31	54.00	-11.69	14.33	3	Vertical	296	1.52	-				

## 802.11a-BF\_Nss1,(6Mbps)\_4TX

30/04/2019

## 5700MHz\_TX



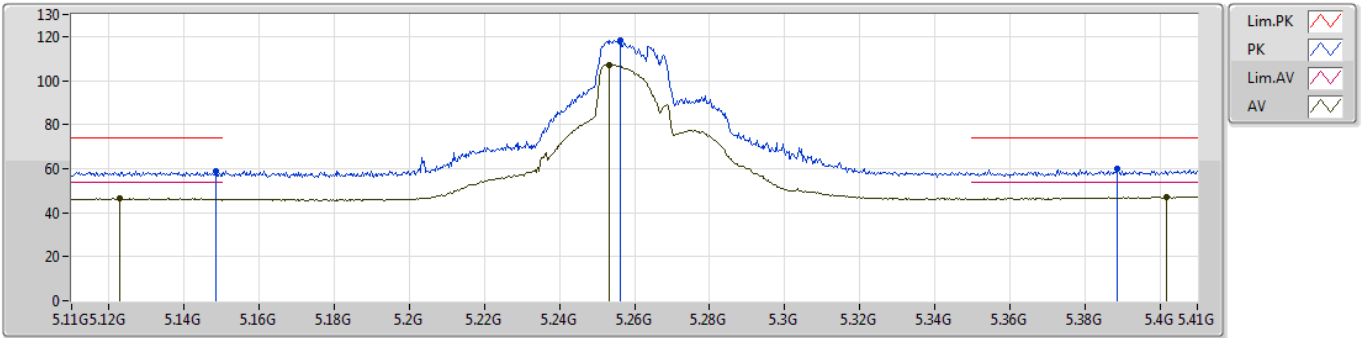
EUT\_Z\_4TX\_Dipole  
Setting 22.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.38557G	55.03	74.00	-18.97	14.32	3	Horizontal	125	2.97	-				
AV	11.4036G	42.58	54.00	-11.42	14.33	3	Horizontal	125	2.97	-				

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

09/04/2019

### 5260MHz\_TX



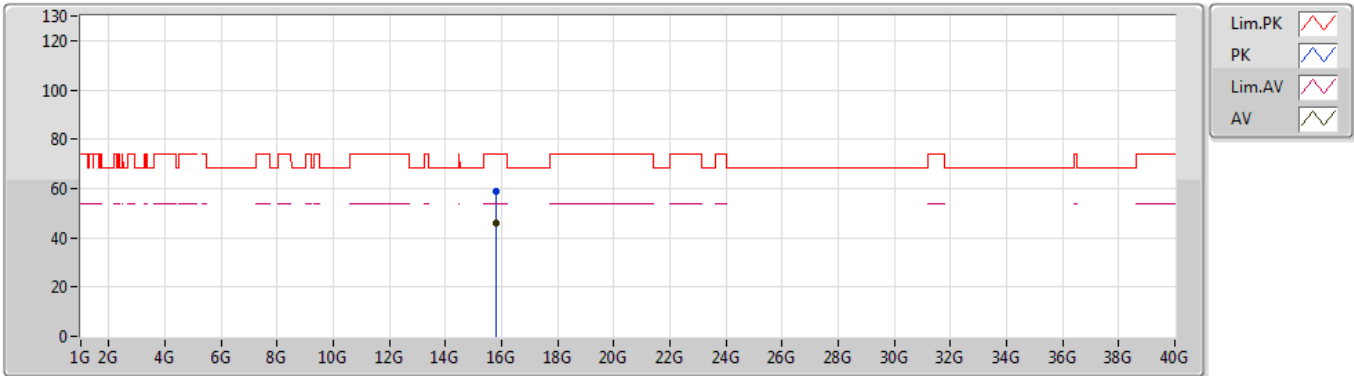
EUT Y\_2TX\_Dipole  
Setting 25  
03-B-4-10  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.1484G	58.97	74.00	-15.03	5.83	3	Vertical	42	1.50	-
AV	5.1229G	46.44	54.00	-7.56	5.78	3	Vertical	42	1.50	-
PK	5.2561G	118.12	Inf	-Inf	6.08	3	Vertical	42	1.50	-
AV	5.2534G	107.09	Inf	-Inf	6.08	3	Vertical	42	1.50	-
PK	5.3887G	59.93	74.00	-14.07	6.38	3	Vertical	42	1.50	-
AV	5.4019G	47.19	54.00	-6.81	6.40	3	Vertical	42	1.50	-

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

30/04/2019

### 5260MHz\_TX



EUT Y\_2TX\_Dipole  
Setting 25  
03-B-4  
FSP(100019)

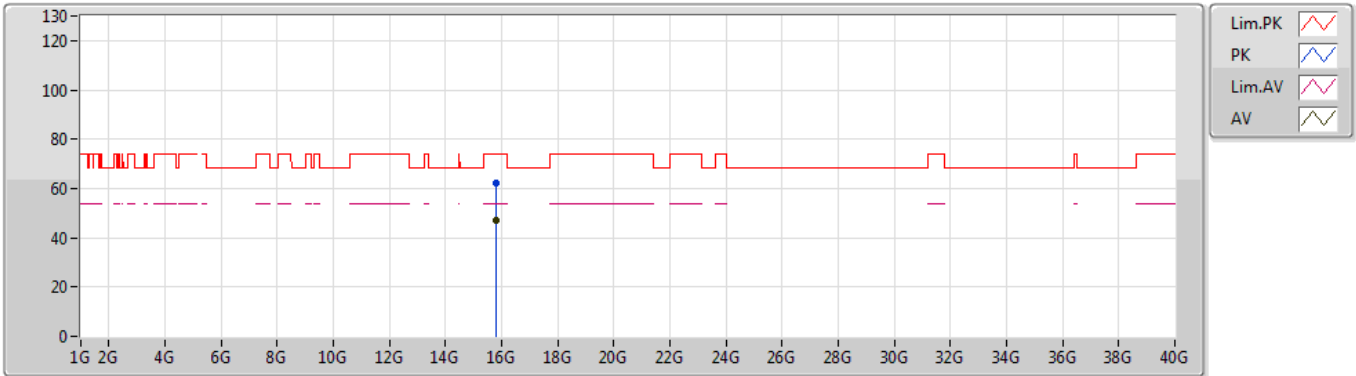
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.79665G	58.94	74.00	-15.06	14.29	3	Vertical	322	1.96	-				
AV	15.792G	45.92	54.00	-8.08	14.30	3	Vertical	322	1.96	-				



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

30/04/2019

### 5260MHz\_TX



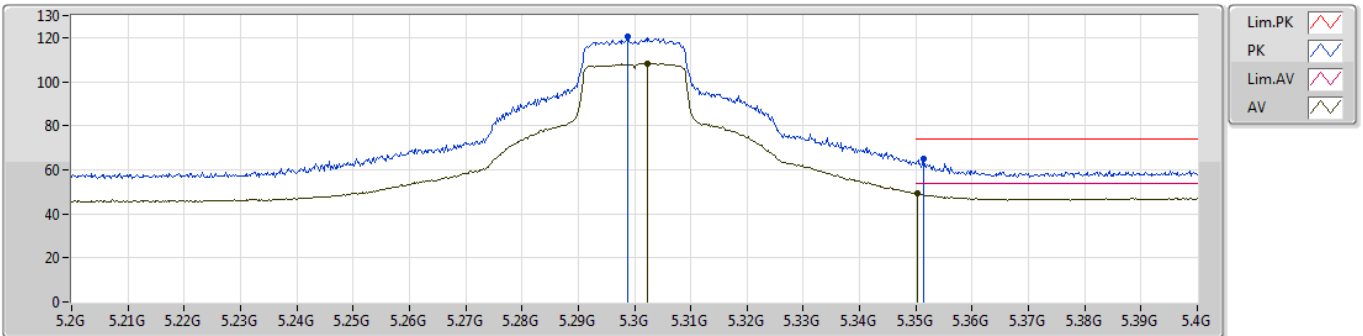
EUT Y\_2TX\_Dipole  
Setting 25  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.793G	61.99	74.00	-12.01	14.30	3	Horizontal	122	1.76	-				
AV	15.79345G	47.06	54.00	-6.94	14.30	3	Horizontal	122	1.76	-				

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

09/04/2019

## 5300MHz\_TX



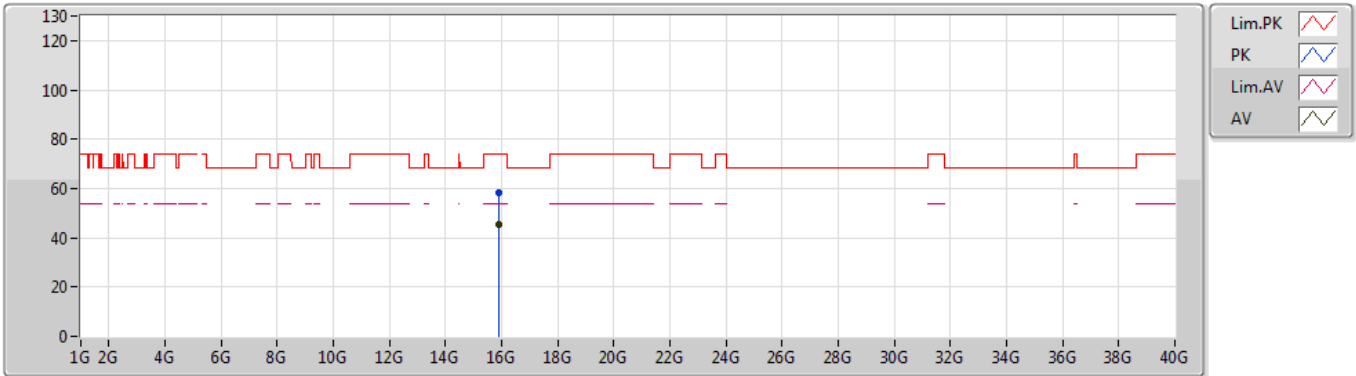
EUT Y\_2TX\_Dipole  
Setting 24.5  
03-B-4-10  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.2988G	120.25	Inf	-Inf	6.22	3	Vertical	196	1.41	-
AV	5.3022G	108.30	Inf	-Inf	6.22	3	Vertical	196	1.41	-
PK	5.3514G	64.79	74.00	-9.21	6.31	3	Vertical	196	1.41	-
AV	5.3502G	49.25	54.00	-4.75	6.31	3	Vertical	196	1.41	-

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

30/04/2019

### 5300MHz\_TX



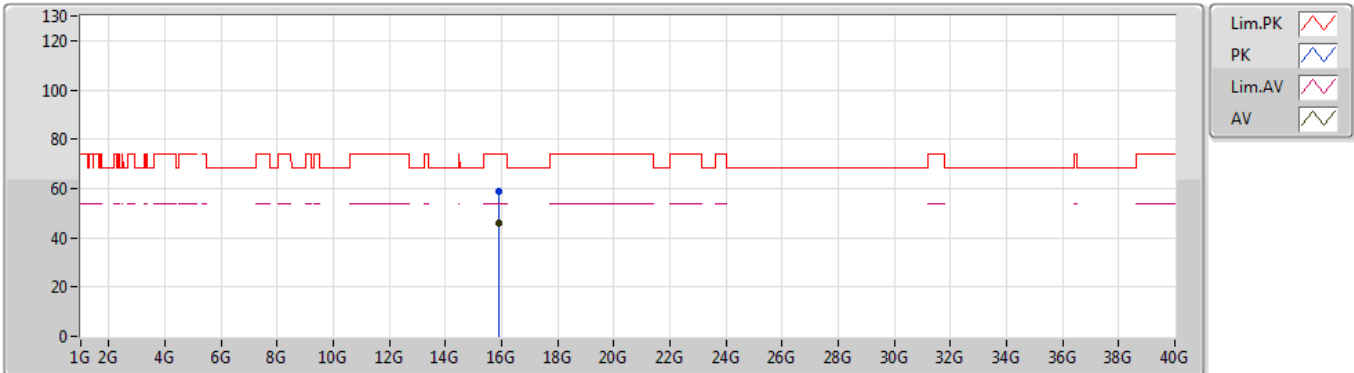
EUT Y\_2TX\_Dipole  
Setting 24.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.90549G	58.47	74.00	-15.53	13.87	3	Vertical	60	1.50	-				
AV	15.88704G	45.13	54.00	-8.87	13.95	3	Vertical	60	1.50	-				

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

30/04/2019

## 5300MHz\_TX



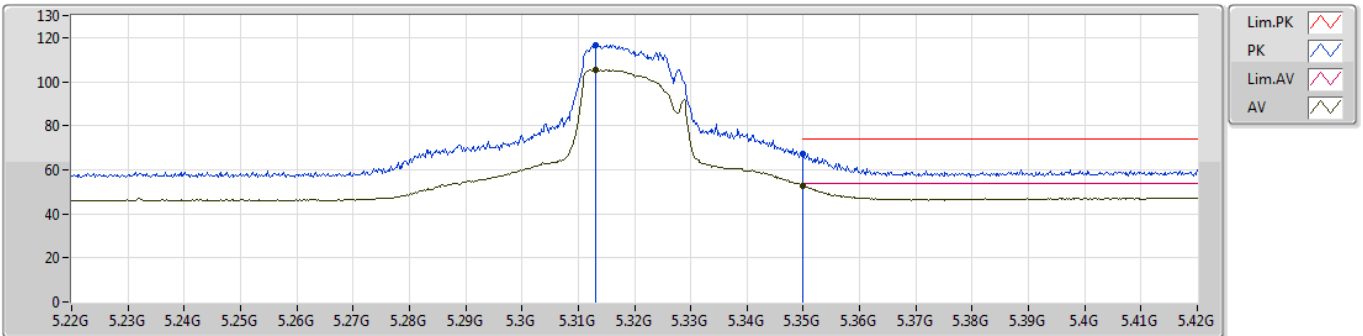
EUT Y\_2TX\_Dipole  
Setting 24.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.90519G	58.95	74.00	-15.05	13.87	3	Horizontal	332	1.79	-				
AV	15.90087G	46.09	54.00	-7.91	13.90	3	Horizontal	332	1.79	-				

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

09/04/2019

## 5320MHz\_TX



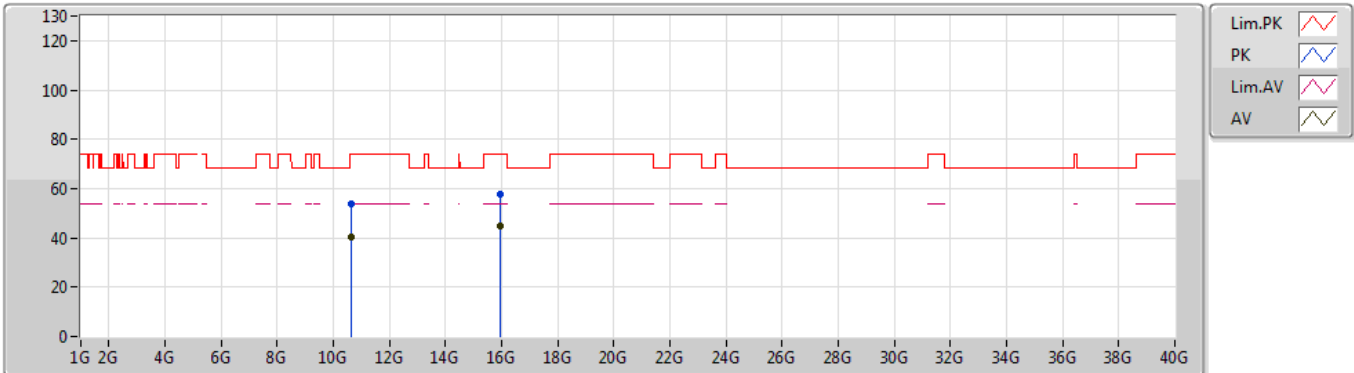
EUT Y\_2TX\_Dipole  
Setting 21.5  
03-B-4-10  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.3132G	116.71	Inf	-Inf	6.24	3	Vertical	192	1.53	-
AV	5.313G	105.23	Inf	-Inf	6.24	3	Vertical	192	1.53	-
PK	5.35G	67.30	74.00	-6.70	6.31	3	Vertical	192	1.53	-
AV	5.35G	52.95	54.00	-1.05	6.31	3	Vertical	192	1.53	-

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

30/04/2019

## 5320MHz\_TX



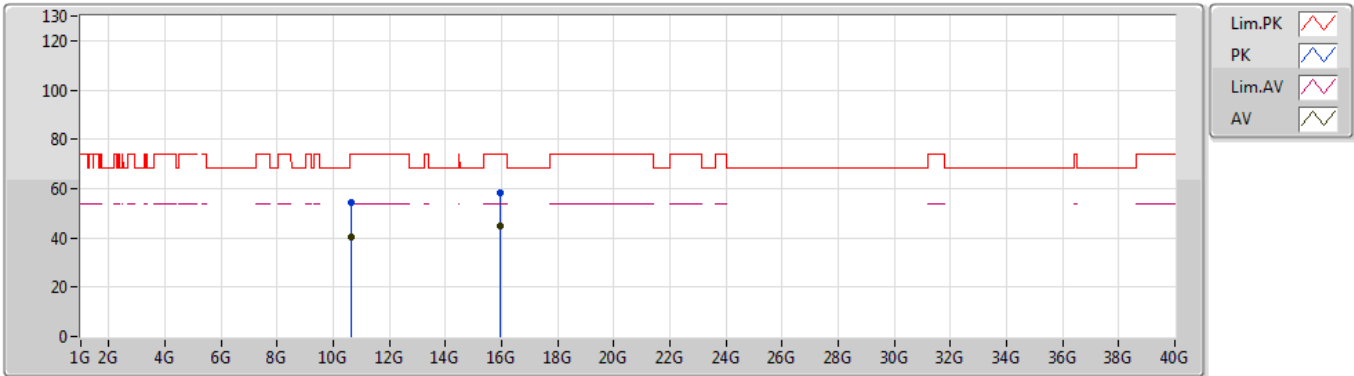
EUT Y\_2TX\_Dipole  
Setting 21.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.63061G	53.72	74.00	-20.28	13.45	3	Vertical	198	1.65	-				
AV	10.6256G	40.53	54.00	-13.47	13.44	3	Vertical	198	1.65	-				
PK	15.97038G	57.92	74.00	-16.08	13.63	3	Vertical	98	2.09	-				
AV	15.94836G	44.83	54.00	-9.17	13.71	3	Vertical	98	2.09	-				

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

30/04/2019

## 5320MHz\_TX



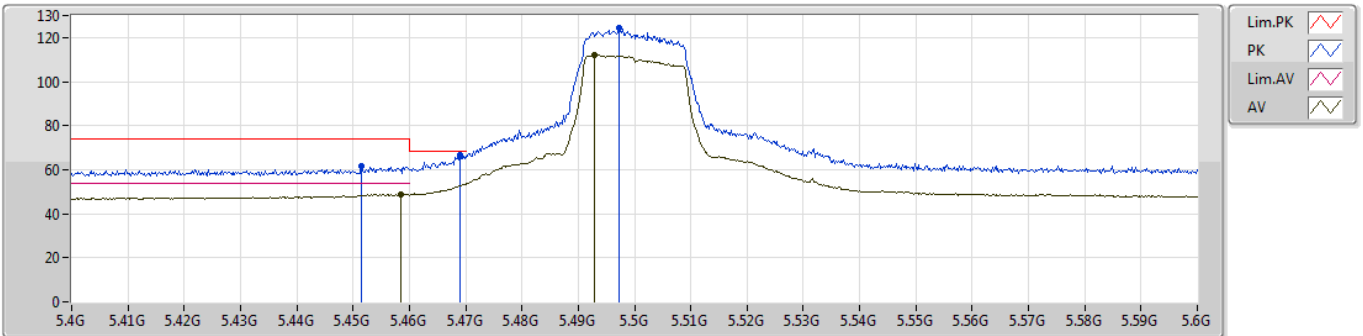
EUT Y\_2TX\_Dipole  
Setting 21.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	10.65281G	54.58	74.00	-19.42	13.47	3	Horizontal	254	2.56	-			
AV	10.65194G	40.54	54.00	-13.46	13.47	3	Horizontal	254	2.56	-			
PK	15.96216G	58.35	74.00	-15.65	13.66	3	Horizontal	294	2.28	-			
AV	15.94674G	44.84	54.00	-9.16	13.72	3	Horizontal	294	2.28	-			

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

08/04/2019

## 5500MHz\_TX



EUT\_Z\_4TX\_Dipole  
Setting 23  
03-C-4-10  
FSP(100019)

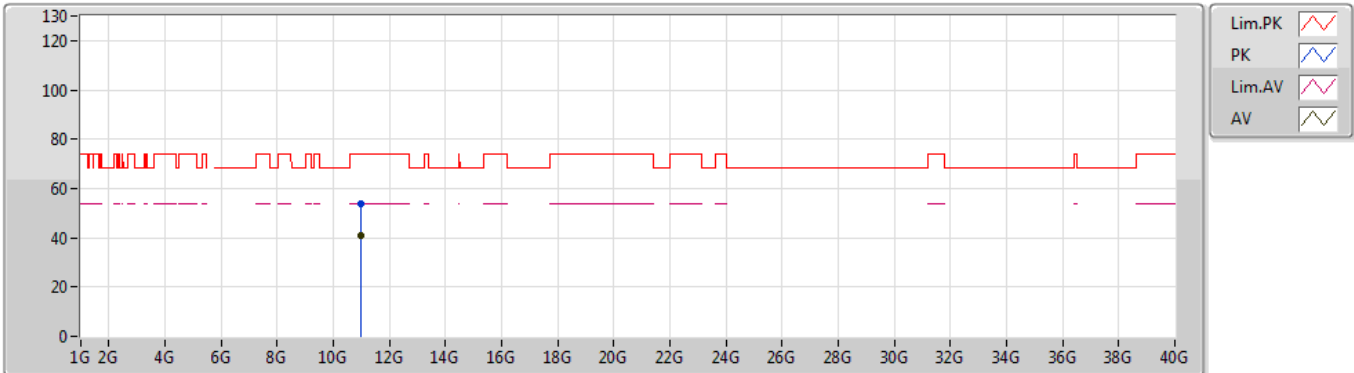
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments						
PK	5.4514G	61.47	74.00	-12.53	6.44	3	Vertical	161	1.49	-						
AV	5.4584G	48.83	54.00	-5.17	6.45	3	Vertical	161	1.49	-						
PK	5.469G	66.53	68.20	-1.67	6.46	3	Vertical	161	1.49	-						
PK	5.4972G	124.36	Inf	-Inf	6.49	3	Vertical	161	1.49	-						
AV	5.4928G	112.21	Inf	-Inf	6.48	3	Vertical	161	1.49	-						



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

30/04/2019

## 5500MHz\_TX



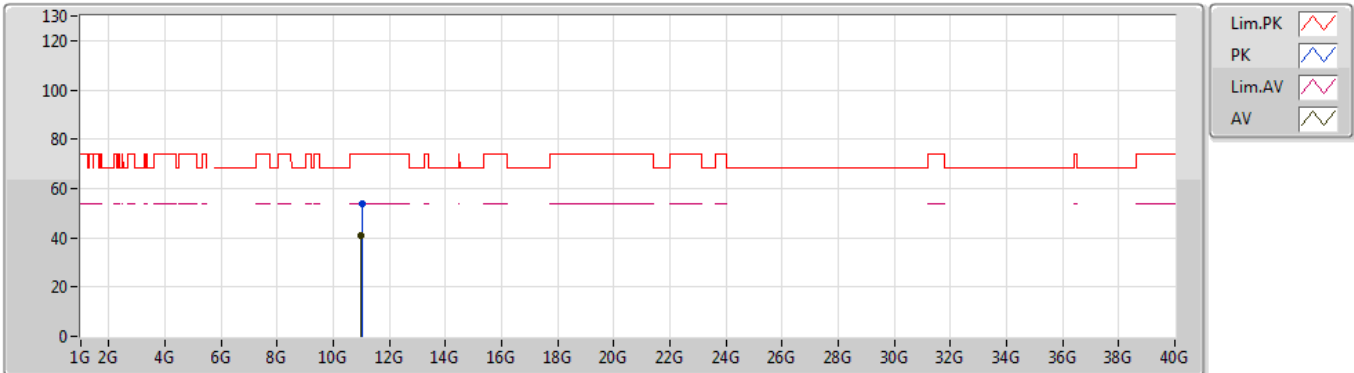
EUT\_Z\_4TX\_Dipole  
Setting 23  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.98602G	53.77	74.00	-20.23	13.92	3	Vertical	45	1.85	-				
AV	10.9991G	40.97	54.00	-13.03	13.94	3	Vertical	45	1.85	-				

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

30/04/2019

## 5500MHz\_TX



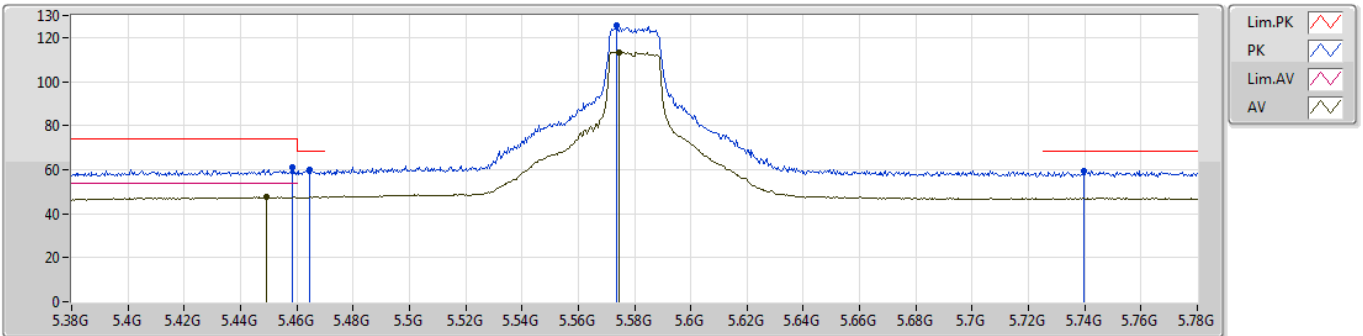
EUT\_Z\_4TX\_Dipole  
Setting 23  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.01386G	54.06	74.00	-19.94	13.96	3	Horizontal	266	1.62	-				
AV	10.98866G	40.85	54.00	-13.15	13.92	3	Horizontal	266	1.62	-				

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

08/04/2019

### 5580MHz\_TX



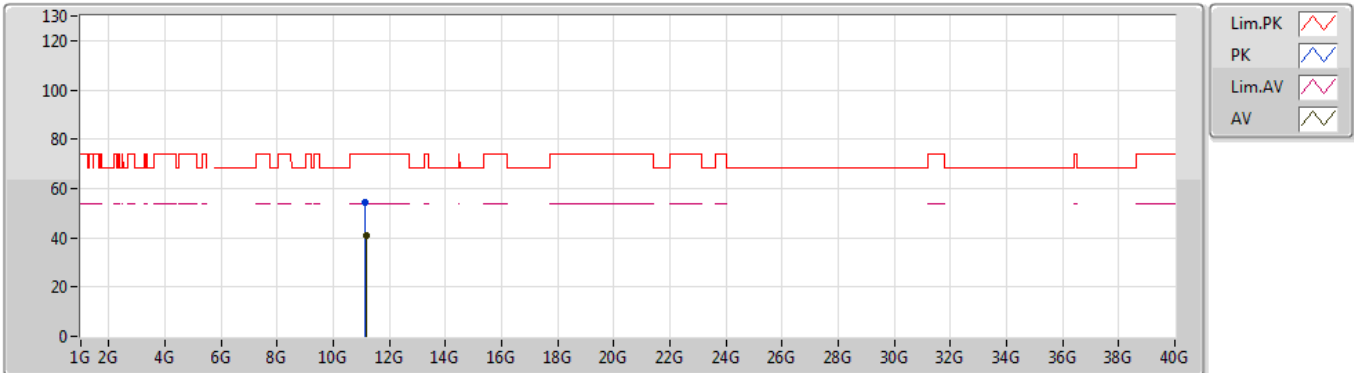
EUT Z\_4TX\_Dipole  
Setting 25  
03-C-4-10  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4584G	60.89	74.00	-13.11	6.45	3	Vertical	158	1.50	-
AV	5.4492G	47.49	54.00	-6.51	6.45	3	Vertical	158	1.50	-
PK	5.4644G	60.18	68.20	-8.02	6.45	3	Vertical	158	1.50	-
PK	5.5736G	125.41	Inf	-Inf	6.40	3	Vertical	158	1.50	-
AV	5.5744G	113.30	Inf	-Inf	6.40	3	Vertical	158	1.50	-
PK	5.7396G	59.34	68.20	-8.86	6.40	3	Vertical	158	1.50	-

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

30/04/2019

## 5580MHz\_TX



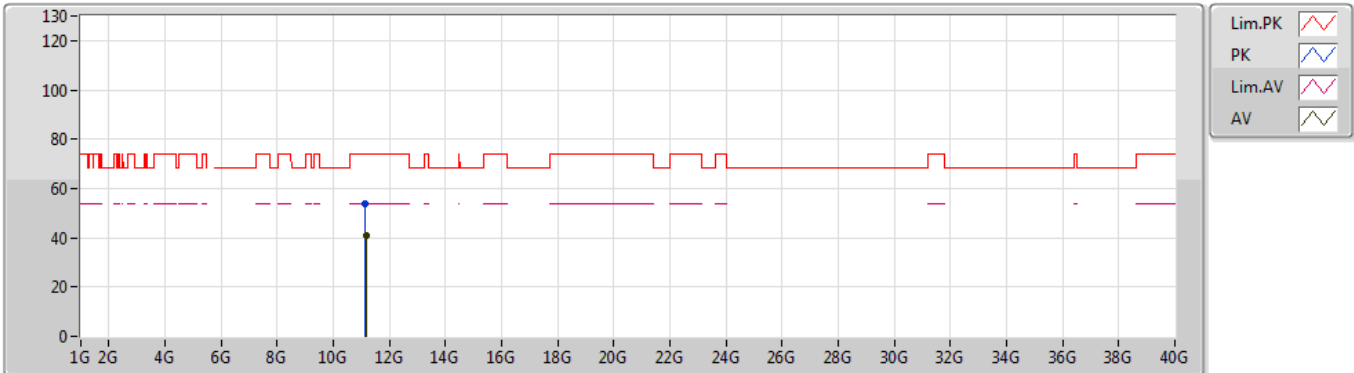
EUT\_Z\_4TX\_Dipole  
Setting 25  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.14956G	54.27	74.00	-19.73	14.08	3	Vertical	151	2.09	-				
AV	11.16804G	40.96	54.00	-13.04	14.10	3	Vertical	151	2.09	-				

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

30/04/2019

## 5580MHz\_TX



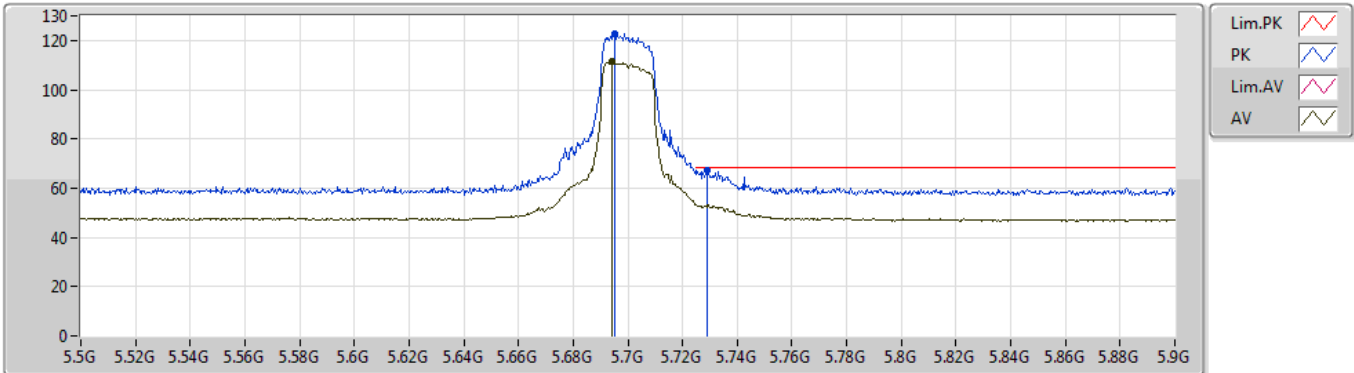
EUT\_Z\_4TX\_Dipole  
Setting 25  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.142G	53.78	74.00	-20.22	14.08	3	Horizontal	279	1.30	-				
AV	11.17878G	40.97	54.00	-13.03	14.12	3	Horizontal	279	1.30	-				

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

03/05/2019

### 5700MHz\_TX



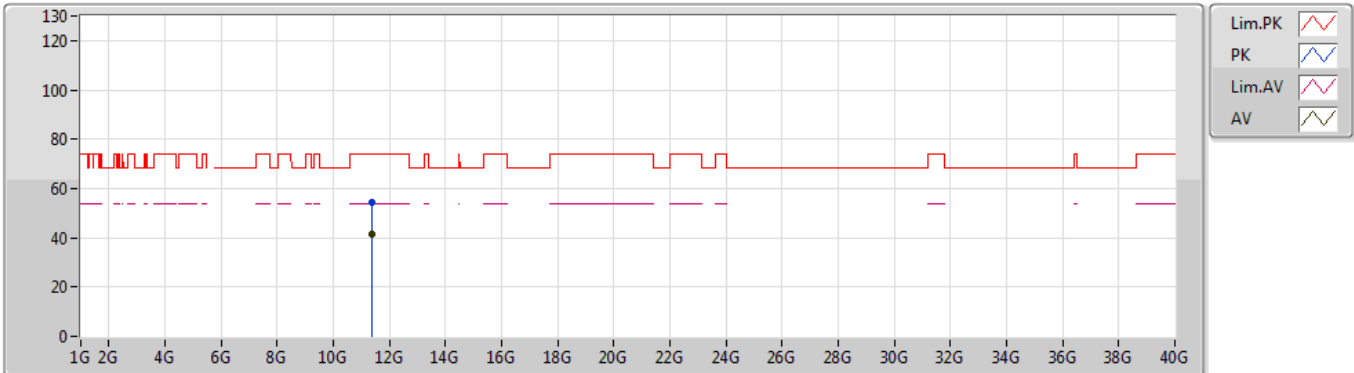
EUT\_Z\_4TX\_Dipole  
Setting 21.5  
03-C-4-10  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	5.6952G	122.91	Inf	-Inf	6.36	3	Vertical	252	1.50	-			
AV	5.6944G	111.28	Inf	-Inf	6.37	3	Vertical	252	1.50	-			
PK	5.7292G	67.17	68.20	-1.03	6.39	3	Vertical	252	1.50	-			

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

03/05/2019

## 5700MHz\_TX



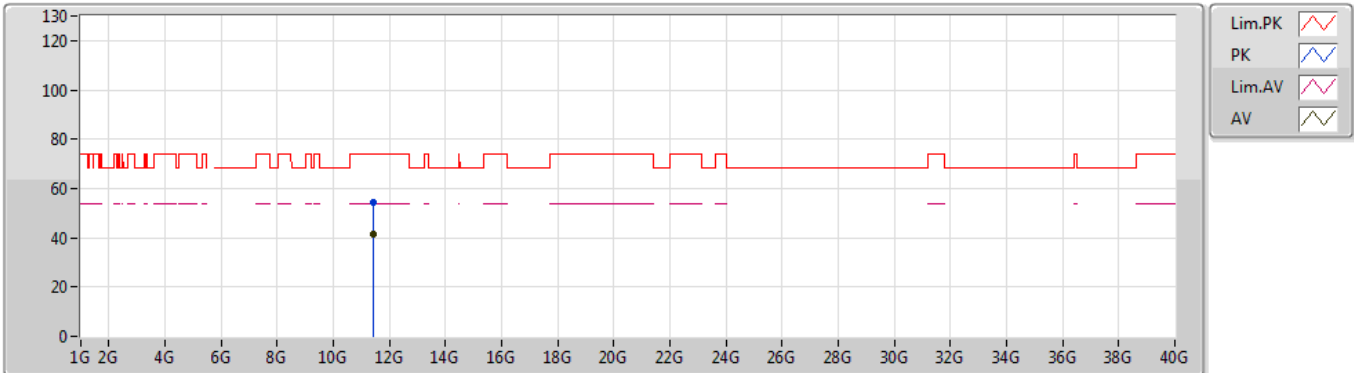
EUT Z\_4TX\_Dipole  
Setting 21.5  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.3916G	54.44	74.00	-19.56	14.32	3	Vertical	332	1.34	-				
AV	11.39322G	41.55	54.00	-12.45	14.33	3	Vertical	332	1.34	-				

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

03/05/2019

## 5700MHz\_TX



EUT\_Z\_4TX\_Dipole  
Setting 21.5  
03-C-5  
FSP

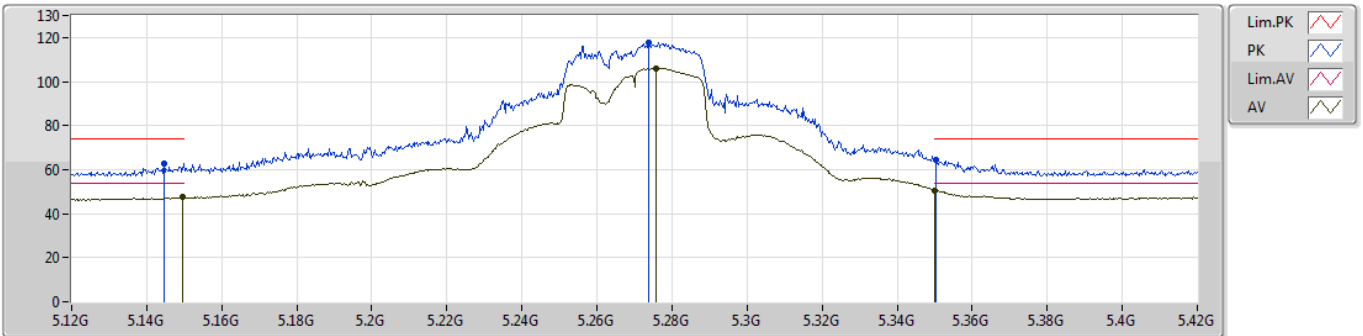
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.40354G	54.28	74.00	-19.72	14.33	3	Horizontal	280	1.74	-				
AV	11.4255G	41.36	54.00	-12.64	14.35	3	Horizontal	280	1.74	-				



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

09/04/2019

## 5270MHz\_TX



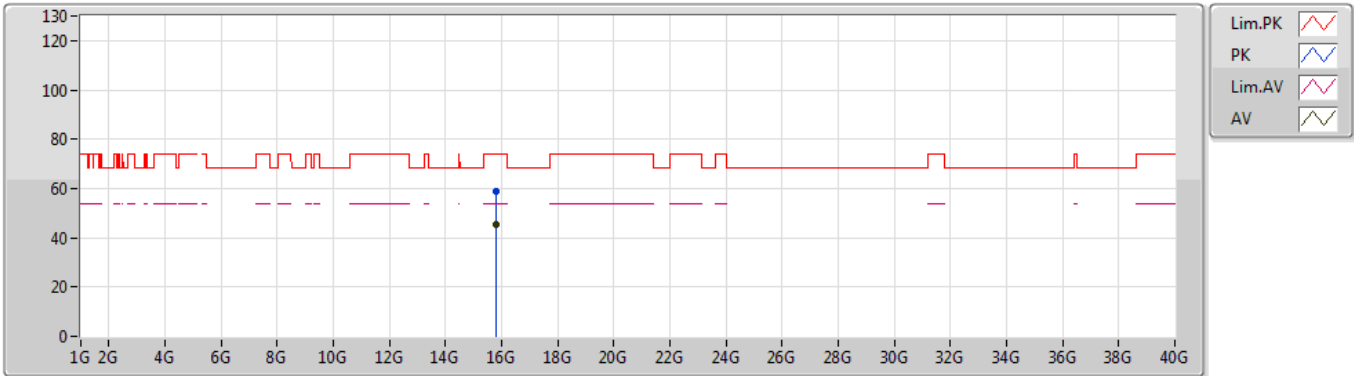
EUT Y\_2TX\_Dipole  
Setting 24.5  
03-B-4-10  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.1446G	62.87	74.00	-11.13	5.82	3	Vertical	49	2.23	-
AV	5.1497G	47.64	54.00	-6.36	5.83	3	Vertical	49	2.23	-
PK	5.2739G	117.78	Inf	-Inf	6.14	3	Vertical	49	2.23	-
AV	5.2757G	106.15	Inf	-Inf	6.14	3	Vertical	49	2.23	-
PK	5.3504G	64.42	74.00	-9.58	6.31	3	Vertical	49	2.23	-
AV	5.35G	50.63	54.00	-3.37	6.31	3	Vertical	49	2.23	-

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

30/04/2019

### 5270MHz\_TX



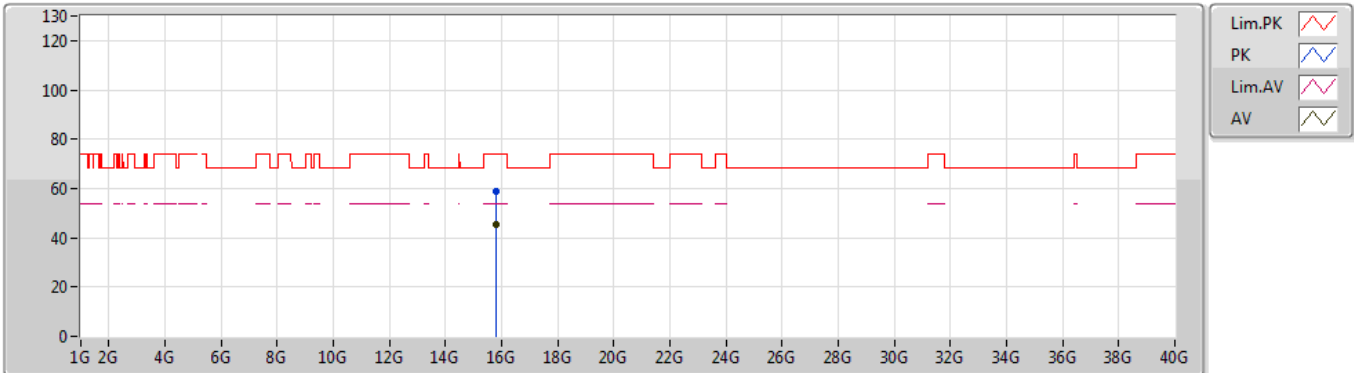
EUT Y\_2TX\_Dipole  
Setting 24.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.81483G	58.86	74.00	-15.14	14.23	3	Vertical	42	1.99	-				
AV	15.80955G	45.22	54.00	-8.78	14.24	3	Vertical	42	1.99	-				

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

30/04/2019

## 5270MHz\_TX



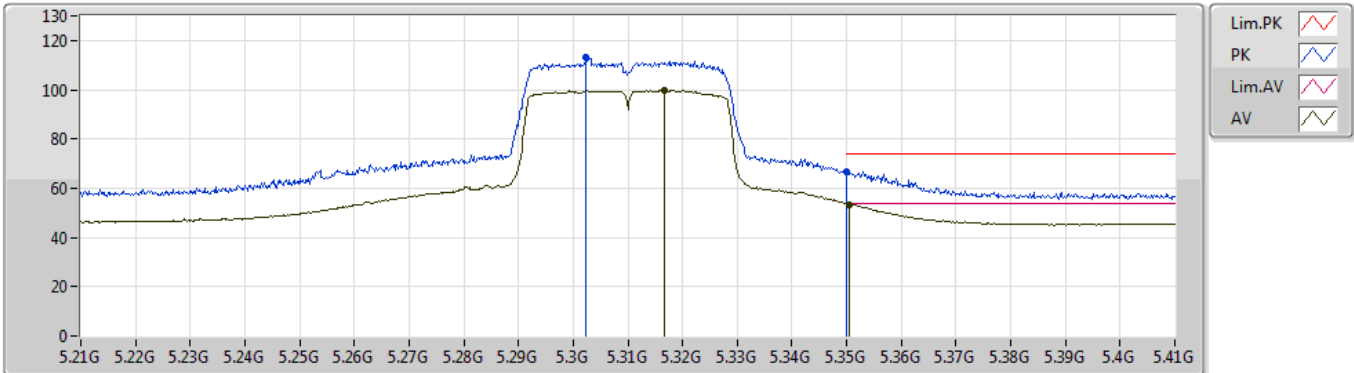
EUT Y\_2TX\_Dipole  
Setting 24.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.81204G	58.63	74.00	-15.37	14.23	3	Horizontal	302	1.30	-				
AV	15.82473G	45.51	54.00	-8.49	14.19	3	Horizontal	302	1.30	-				

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

03/05/2019

### 5310MHz\_TX



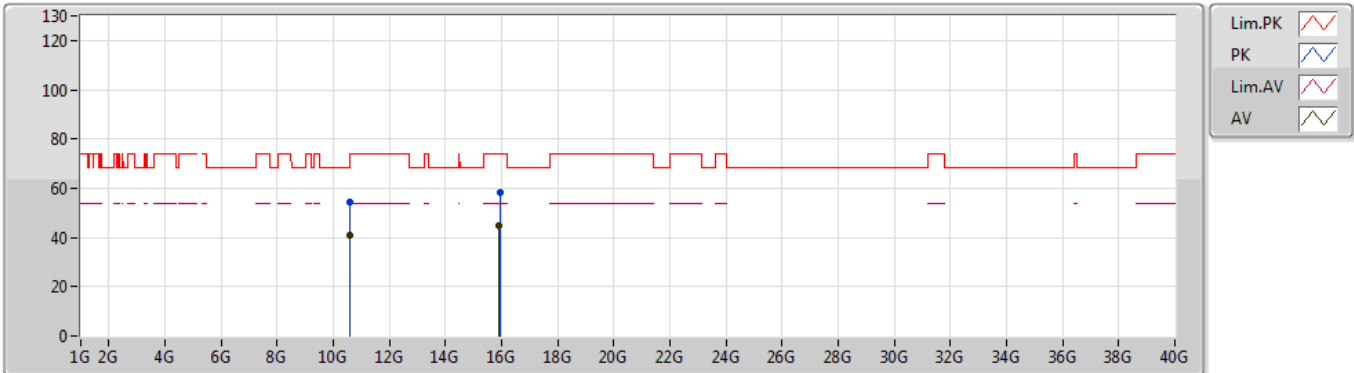
EUT Y\_2TX\_Dipole  
Setting 19.5  
01-C-5-10  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	5.3024G	113.31	Inf	-Inf	4.65	3	Vertical	19	1.50	-
AV	5.3168G	99.71	Inf	-Inf	4.70	3	Vertical	19	1.50	-
PK	5.3501G	66.81	74.00	-7.19	4.81	3	Vertical	19	1.50	-
AV	5.3504G	53.39	54.00	-0.61	4.81	3	Vertical	19	1.50	-

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

03/05/2019

### 5310MHz\_TX



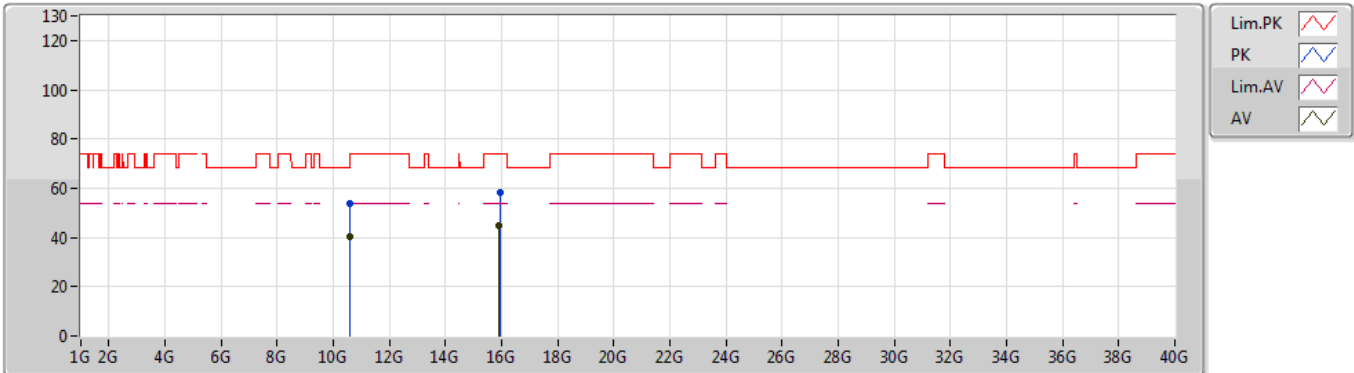
EUT Y\_2TX\_Dipole  
Setting 19.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.61133G	54.24	74.00	-19.76	13.42	3	Vertical	122	1.72	-				
AV	10.60881G	40.63	54.00	-13.37	13.41	3	Vertical	122	1.72	-				
PK	15.92907G	58.35	74.00	-15.65	13.78	3	Vertical	246	1.78	-				
AV	15.91521G	44.88	54.00	-9.12	13.83	3	Vertical	246	1.78	-				

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

03/05/2019

## 5310MHz\_TX



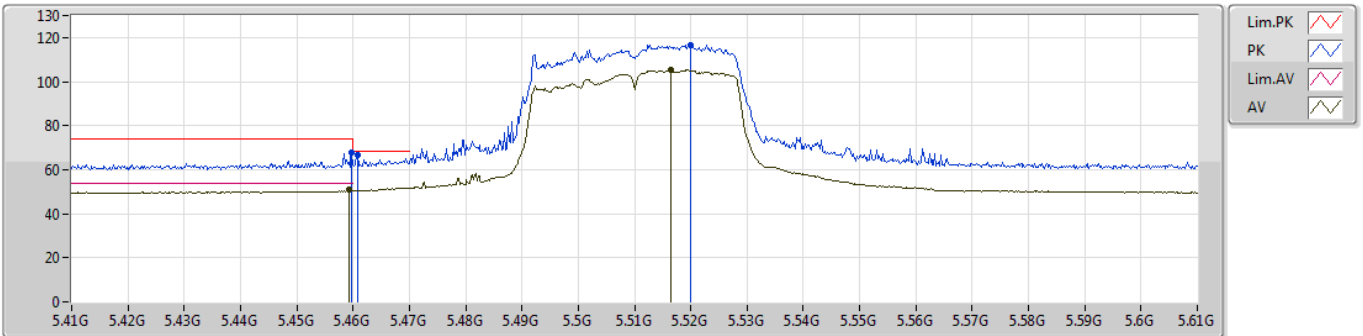
EUT Y\_2TX\_Dipole  
Setting 19.5  
03-B-4  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	10.61034G	53.88	74.00	-20.12	13.42	3	Horizontal	298	1.64	-			
AV	10.60638G	40.58	54.00	-13.42	13.40	3	Horizontal	298	1.64	-			
PK	15.92913G	58.48	74.00	-15.52	13.78	3	Horizontal	98	1.74	-			
AV	15.92508G	44.97	54.00	-9.03	13.79	3	Horizontal	98	1.74	-			

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

03/04/2019

### 5510MHz\_TX



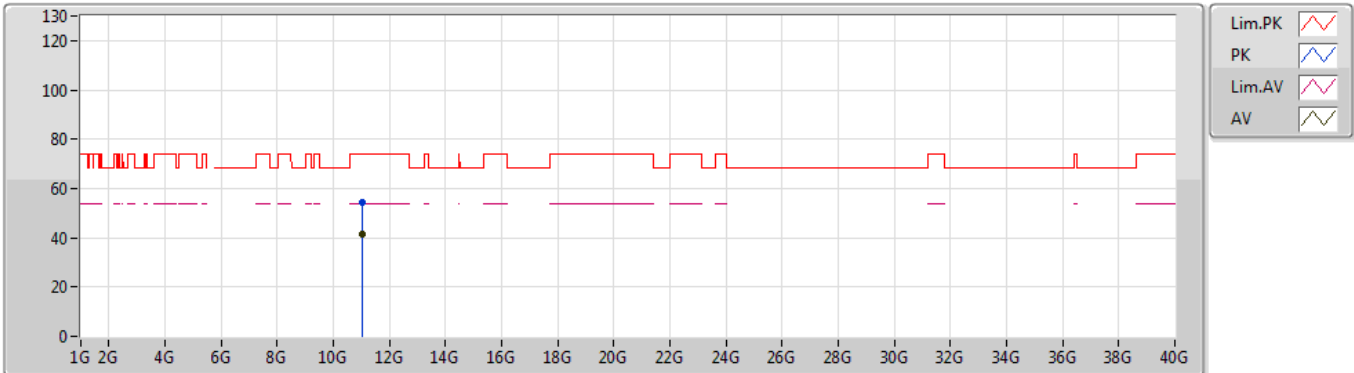
EUT\_Z\_4TX Dipole  
Setting 18  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4598G	67.61	74.00	-6.39	6.45	3	Vertical	57	1.50	-
AV	5.4592G	51.05	54.00	-2.95	6.45	3	Vertical	57	1.50	-
PK	5.4608G	66.93	68.20	-1.27	6.45	3	Vertical	57	1.50	-
PK	5.52G	116.82	Inf	-Inf	6.47	3	Vertical	57	1.50	-
AV	5.5164G	105.34	Inf	-Inf	6.47	3	Vertical	57	1.50	-

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

01/05/2019

## 5510MHz\_TX



EUT\_Z\_4TX\_Dipole  
Setting 18  
03-C-5  
FSP

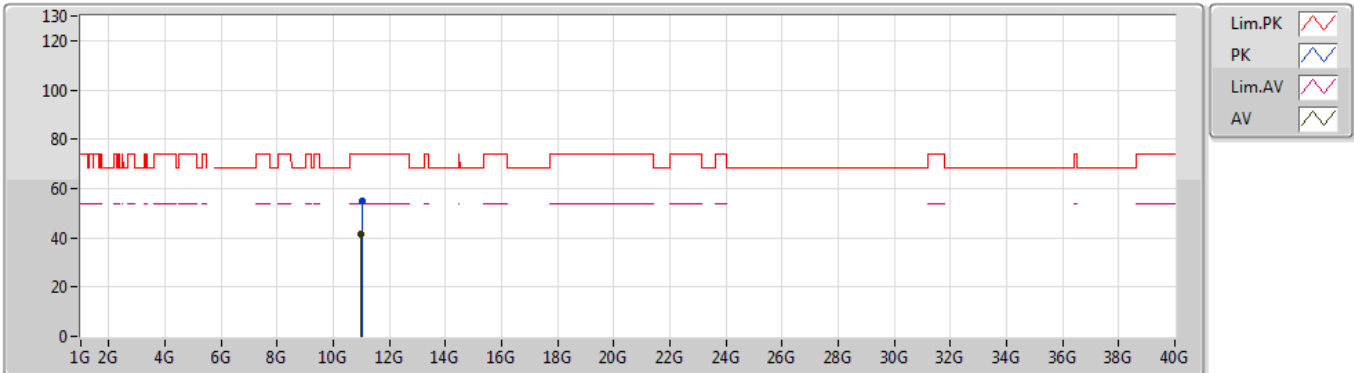
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.04982G	54.54	74.00	-19.46	13.98	3	Vertical	168	1.45	-				
AV	11.04796G	41.24	54.00	-12.76	13.98	3	Vertical	168	1.45	-				



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

01/05/2019

## 5510MHz\_TX



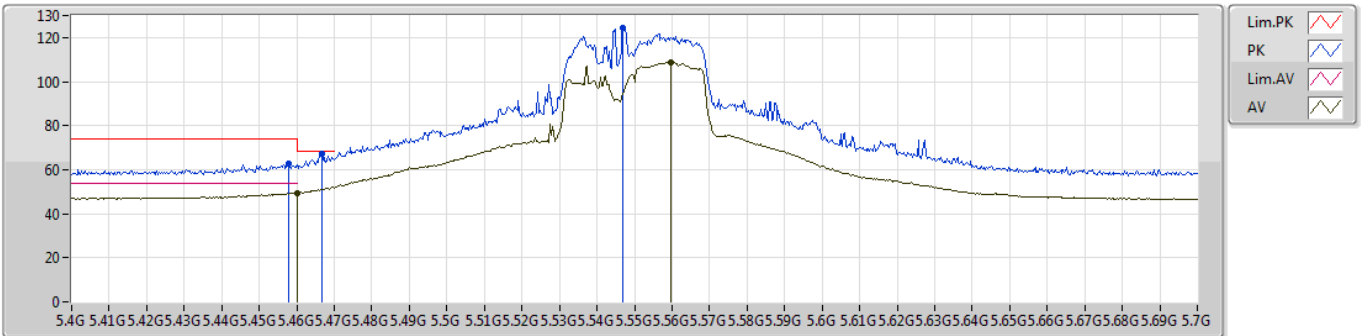
EUT\_Z\_4TX\_Dipole  
Setting 18  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.0497G	54.94	74.00	-19.06	13.98	3	Horizontal	93	1.69	-				
AV	10.99696G	41.20	54.00	-12.80	13.94	3	Horizontal	93	1.69	-				

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

03/04/2019

### 5550MHz\_TX



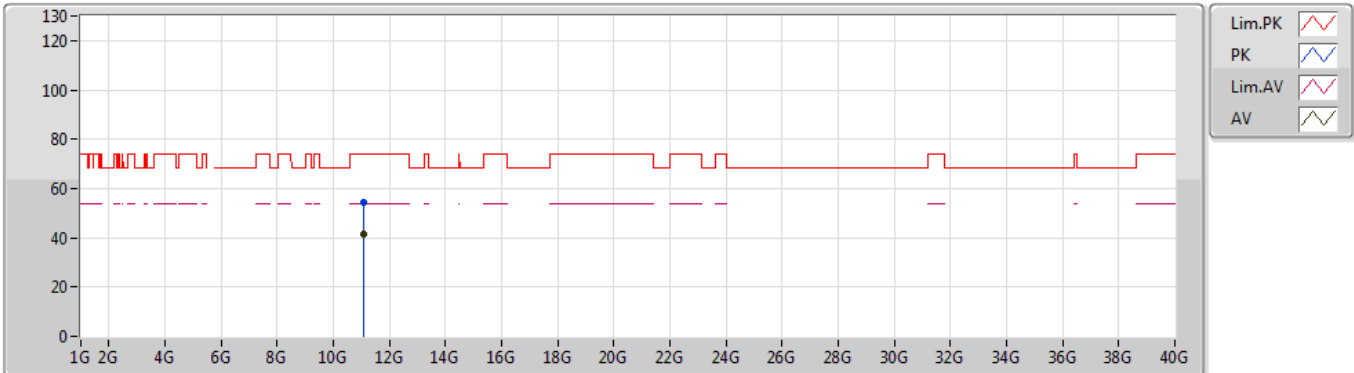
EUT\_Z\_4TX\_Dipole  
Setting 24.5  
03-C-4-10  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4579G	62.96	74.00	-11.04	6.45	3	Vertical	339	1.94	-
AV	5.46G	49.44	54.00	-4.56	6.45	3	Vertical	339	1.94	-
PK	5.4666G	67.27	68.20	-0.93	6.46	3	Vertical	339	1.94	-
PK	5.547G	124.57	Inf	-Inf	6.44	3	Vertical	339	1.94	-
AV	5.5596G	108.97	Inf	-Inf	6.41	3	Vertical	339	1.94	-

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

01/05/2019

## 5550MHz\_TX



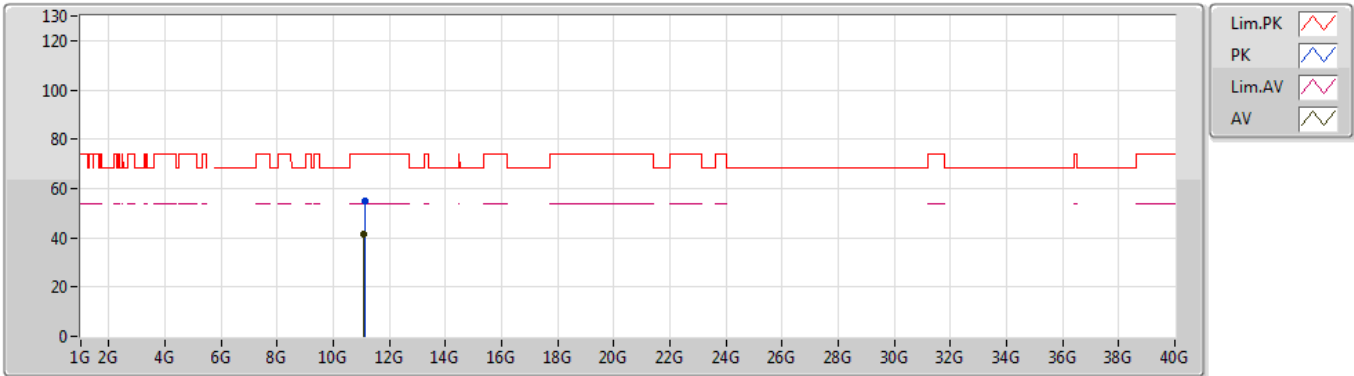
EUT Z\_4TX\_Dipole  
Setting 24.5  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.1012G	54.55	74.00	-19.45	14.03	3	Vertical	221	2.34	-				
AV	11.09808G	41.48	54.00	-12.52	14.03	3	Vertical	221	2.34	-				

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

01/05/2019

## 5550MHz\_TX



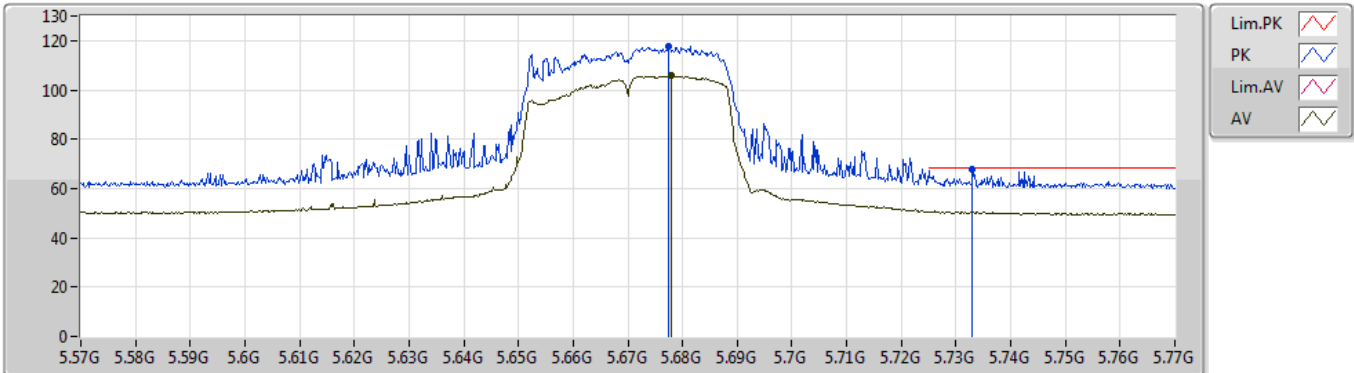
EUT\_Z\_4TX\_Dipole  
Setting 24.5  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.11278G	54.91	74.00	-19.09	14.05	3	Horizontal	346	1.70	-				
AV	11.09718G	41.57	54.00	-12.43	14.03	3	Horizontal	346	1.70	-				

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

01/05/2019

### 5670MHz\_TX



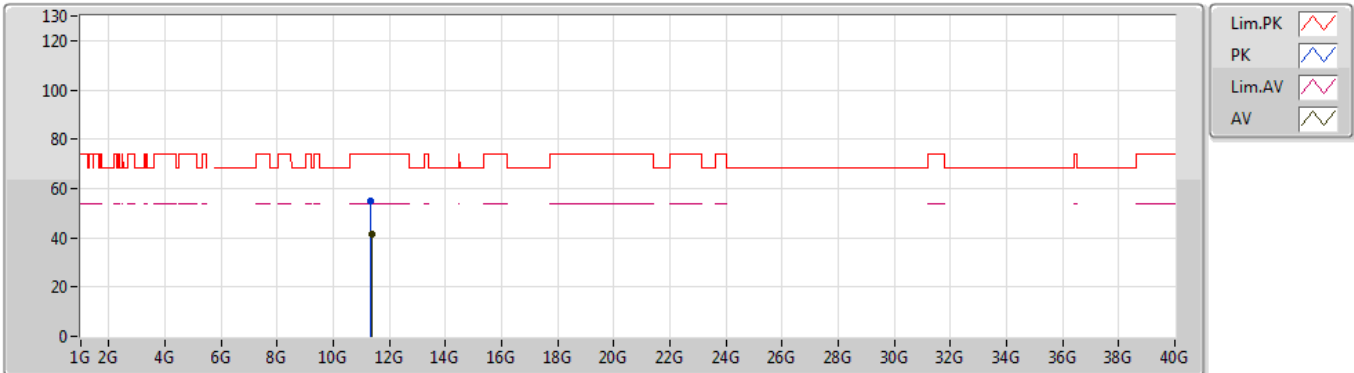
EUT\_Z\_4TX Dipole  
Setting 18.5  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	5.6774G	117.62	Inf	-Inf	6.37	3	Vertical	102	1.68	-			
AV	5.678G	105.69	Inf	-Inf	6.37	3	Vertical	102	1.68	-			
PK	5.733G	67.53	68.20	-0.67	6.40	3	Vertical	102	1.68	-			

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

01/05/2019

## 5670MHz\_TX



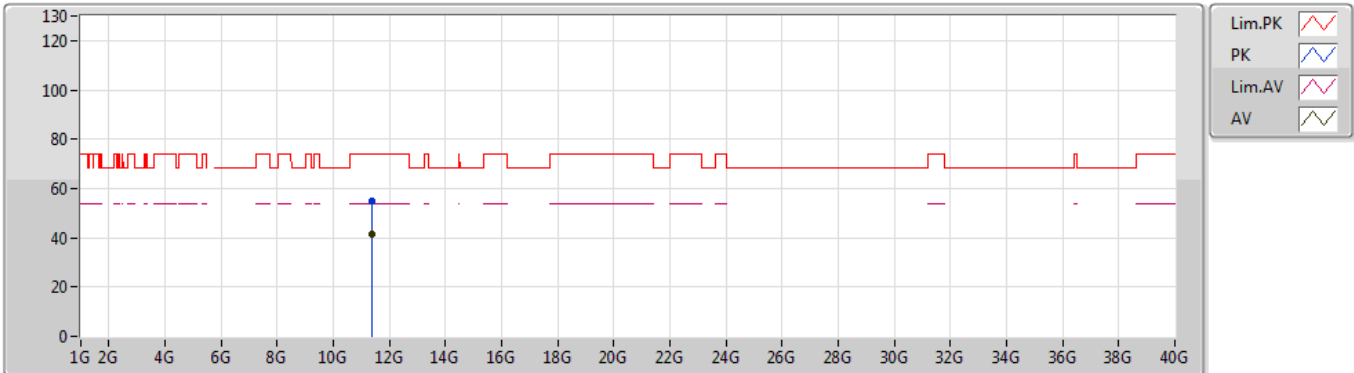
EUT\_Z\_4TX\_Dipole  
Setting 18.5  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.31402G	54.67	74.00	-19.33	14.25	3	Vertical	61	1.77	-				
AV	11.36118G	41.40	54.00	-12.60	14.29	3	Vertical	61	1.77	-				

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

01/05/2019

## 5670MHz\_TX



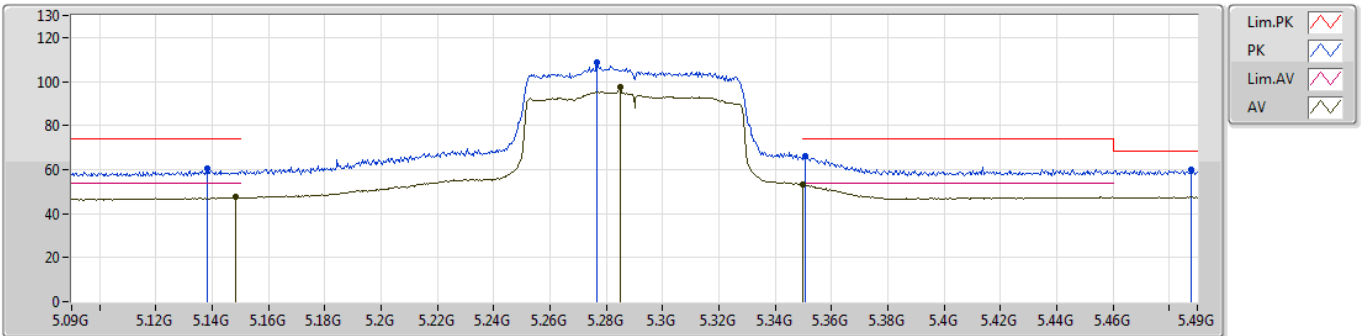
EUT\_Z\_4TX\_Dipole  
Setting 18.5  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.3547G	54.69	74.00	-19.31	14.28	3	Horizontal	116	1.30	-				
AV	11.36844G	41.48	54.00	-12.52	14.30	3	Horizontal	116	1.30	-				

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

09/04/2019

### 5290MHz\_TX



EUT Y\_2TX\_Dipole  
Setting 17  
03-B-4-10  
FSP

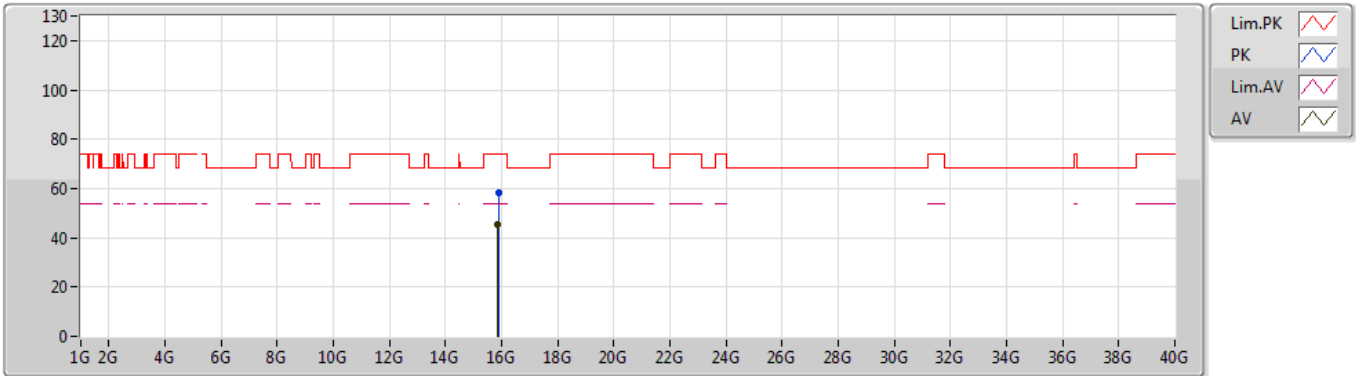
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.1384G	60.41	74.00	-13.59	5.81	3	Vertical	336	1.00	-
AV	5.1484G	47.40	54.00	-6.60	5.83	3	Vertical	336	1.00	-
PK	5.2768G	108.55	Inf	-Inf	6.14	3	Vertical	336	1.00	-
AV	5.2848G	97.42	Inf	-Inf	6.17	3	Vertical	336	1.00	-
PK	5.3508G	65.94	74.00	-8.06	6.31	3	Vertical	336	1.00	-
AV	5.35G	53.04	54.00	-0.96	6.31	3	Vertical	336	1.00	-
PK	5.4876G	59.74	68.20	-8.46	6.48	3	Vertical	336	1.00	-



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

30/04/2019

### 5290MHz\_TX



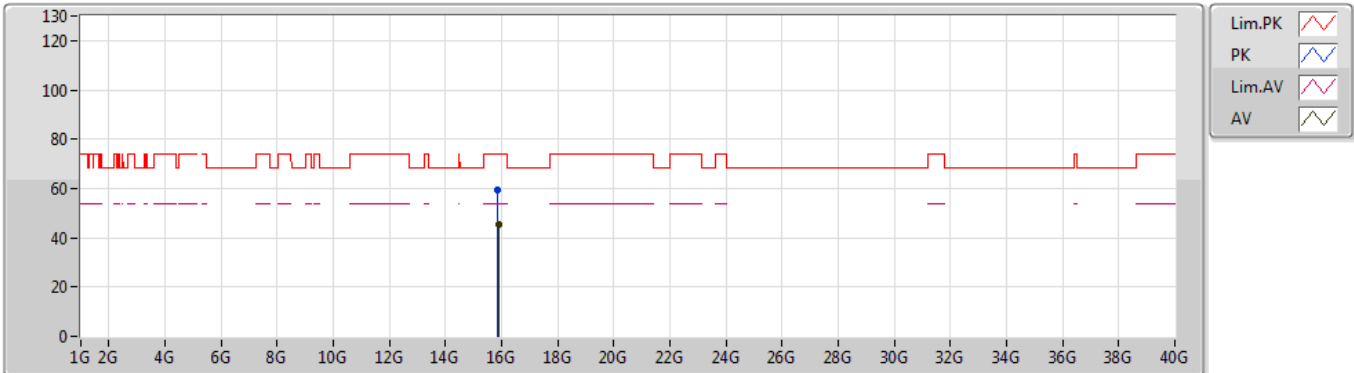
EUT Y\_2TX\_Dipole  
Setting 17  
03-B-4  
FSP9(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.88485G	58.48	74.00	-15.52	13.96	3	Vertical	117	1.67	-				
AV	15.86826G	45.33	54.00	-8.67	14.02	3	Vertical	117	1.67	-				

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

30/04/2019

## 5290MHz\_TX



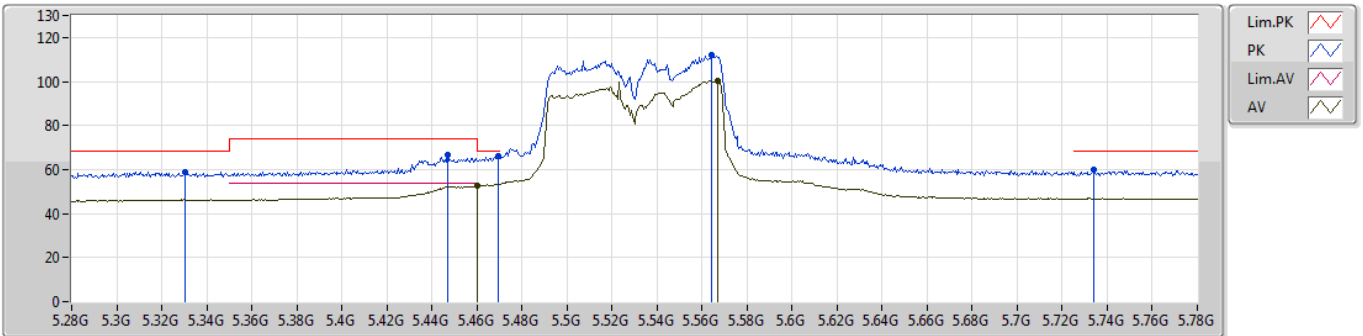
EUT Y\_2TX\_Dipole  
Setting 17  
03-B-4  
FSP9(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.86562G	59.13	74.00	-14.87	14.02	3	Horizontal	304	1.65	-				
AV	15.88437G	45.30	54.00	-8.70	13.96	3	Horizontal	304	1.65	-				

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

02/04/2019

### 5530MHz\_TX



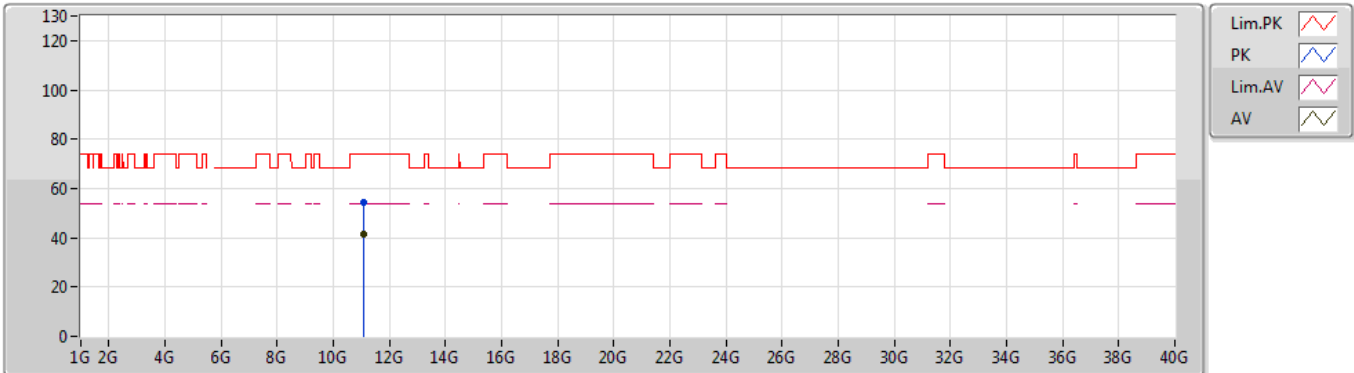
EUT Z\_4TX\_Dipole  
Setting 18.5  
03-C-4-10  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.3305G	58.91	68.20	-9.29	6.28	3	Vertical	201	1.50	-
PK	5.447G	66.59	74.00	-7.41	6.45	3	Vertical	201	1.50	-
AV	5.46G	52.60	54.00	-1.40	6.45	3	Vertical	201	1.50	-
PK	5.4695G	66.35	68.20	-1.85	6.46	3	Vertical	201	1.50	-
PK	5.564G	111.97	Inf	-Inf	6.41	3	Vertical	201	1.50	-
AV	5.567G	100.12	Inf	-Inf	6.40	3	Vertical	201	1.50	-
PK	5.734G	60.22	68.20	-7.98	6.40	3	Vertical	201	1.50	-

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

01/05/2019

## 5530MHz\_TX



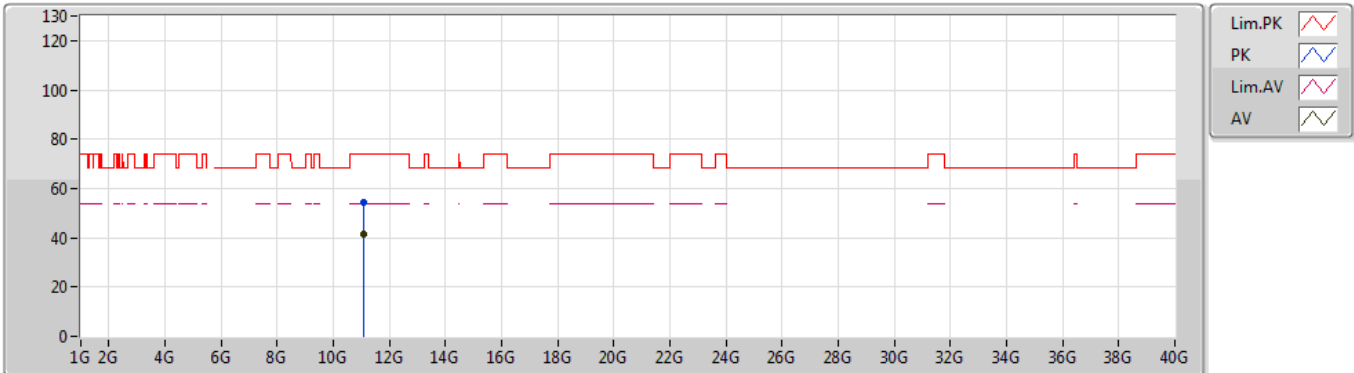
EUT\_Z\_4TX\_Dipole  
Setting 18.5  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.0729G	54.28	74.00	-19.72	14.01	3	Vertical	260	2.27	-				
AV	11.06762G	41.22	54.00	-12.78	14.01	3	Vertical	260	2.27	-				

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

01/05/2019

## 5530MHz\_TX



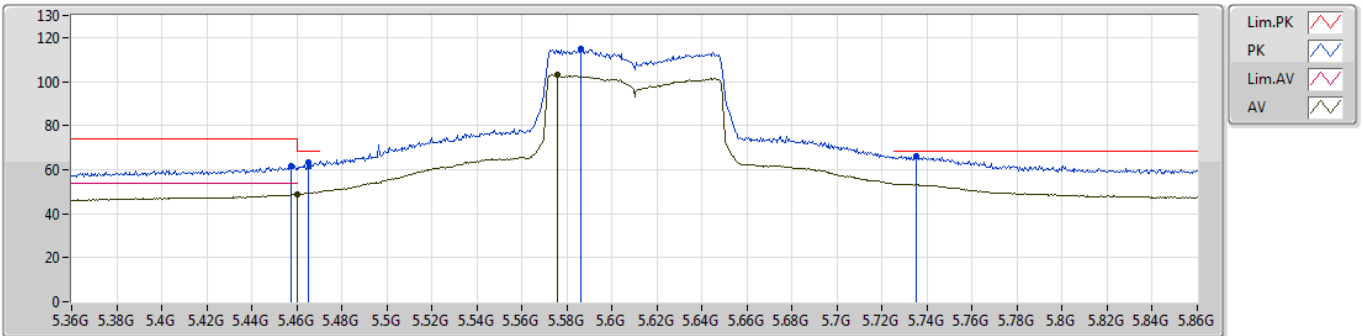
EUT\_Z\_4TX\_Dipole  
Setting 18.5  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.0729G	54.14	74.00	-19.86	14.01	3	Horizontal	255	2.46	-				
AV	11.06648G	41.28	54.00	-12.72	14.01	3	Horizontal	255	2.46	-				

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

02/04/2019

## 5610MHz\_TX



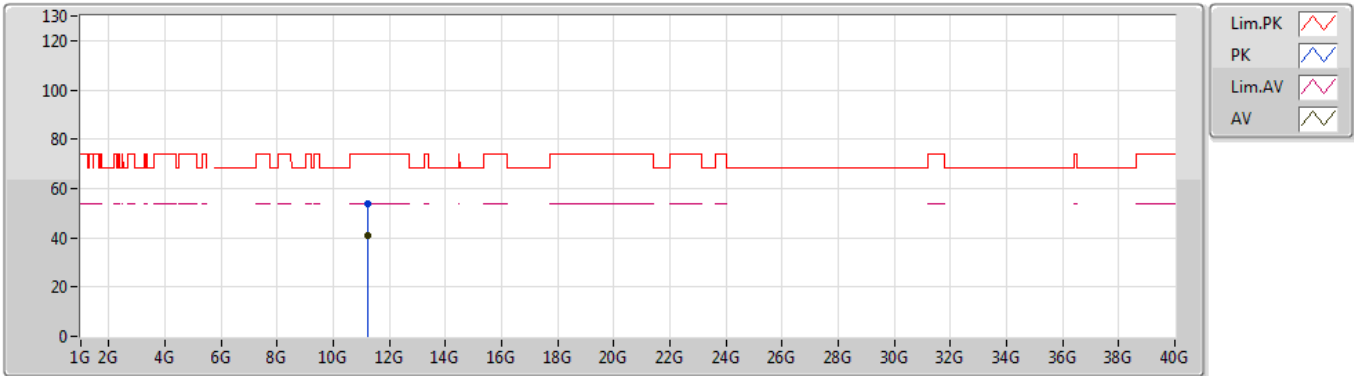
EUT Z\_4TX\_Dipole  
Setting 20  
03-C-4-10  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4575G	61.76	74.00	-12.24	6.45	3	Vertical	159	1.50	-
AV	5.46G	48.80	54.00	-5.20	6.45	3	Vertical	159	1.50	-
PK	5.465G	63.09	68.20	-5.11	6.45	3	Vertical	159	1.50	-
PK	5.586G	114.65	Inf	-Inf	6.38	3	Vertical	159	1.50	-
AV	5.5755G	102.93	Inf	-Inf	6.39	3	Vertical	159	1.50	-
PK	5.735G	66.38	68.20	-1.82	6.40	3	Vertical	159	1.50	-

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

01/05/2019

### 5610MHz\_TX



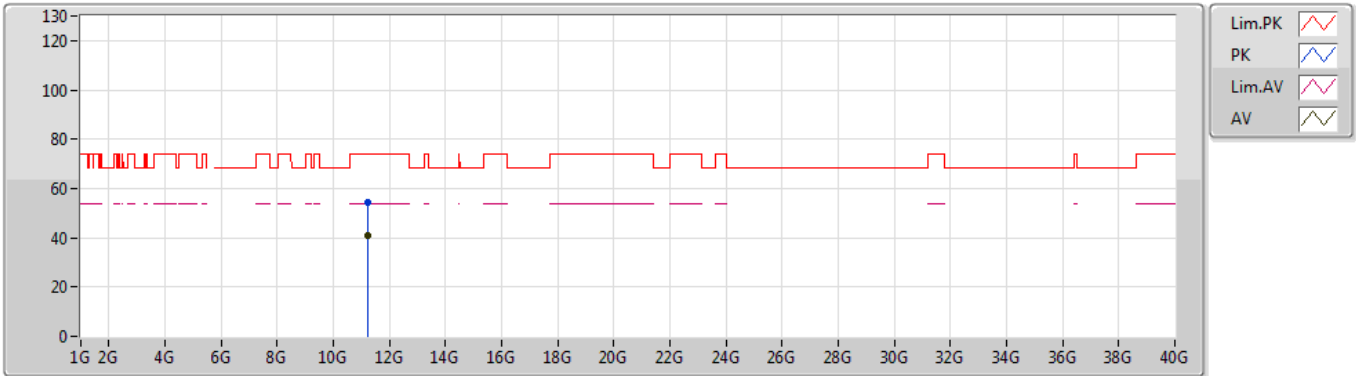
EUT\_Z\_4TX\_Dipole  
Setting 20  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.20512G	54.03	74.00	-19.97	14.14	3	Vertical	201	2.29	-				
AV	11.2482G	40.89	54.00	-13.11	14.18	3	Vertical	201	2.29	-				

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

01/05/2019

### 5610MHz\_TX



EUT\_Z\_4TX\_Dipole  
Setting 20  
03-C-5  
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.23698G	54.15	74.00	-19.85	14.17	3	Horizontal	238	2.43	-				
AV	11.24856G	40.93	54.00	-13.07	14.18	3	Horizontal	238	2.43	-				





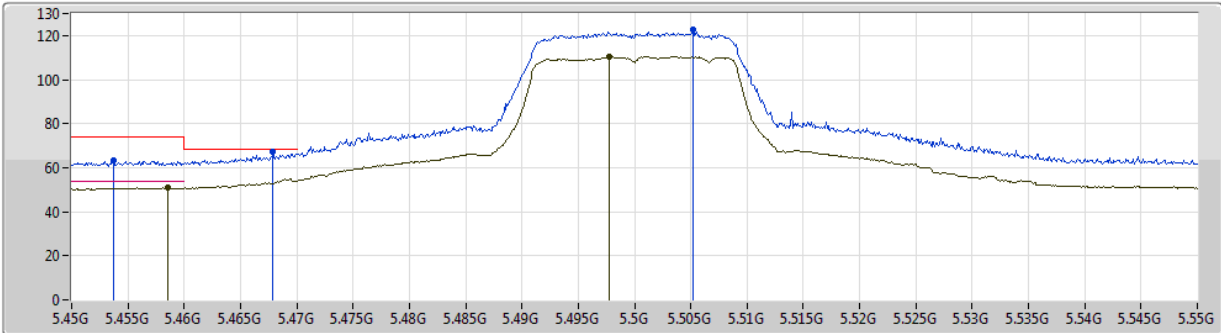
For Band 3 / 4T2S  
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
5.47-5.725GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80-BF_Nss2,(MCS0)_4TX	Pass	AV	5.459G	53.44	54.00	-0.56	6.4	3	Vertical	80	1.50

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

03/04/2019

## 5500MHz\_TX



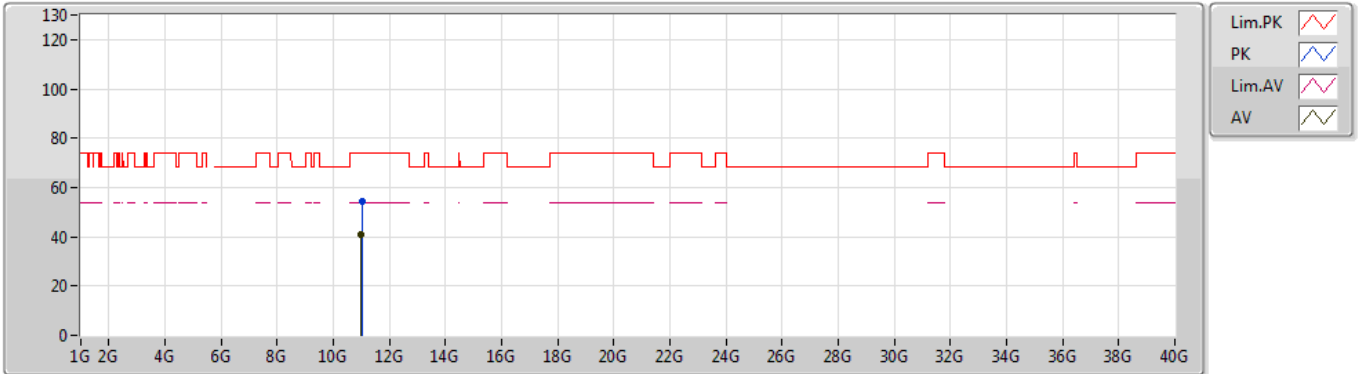
EUT\_Z\_4TX Dipole  
Setting 23  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments						
PK	5.4537G	63.43	74.00	-10.57	6.44	3	Vertical	254	1.88	-						
AV	5.4585G	50.81	54.00	-3.19	6.45	3	Vertical	254	1.88	-						
PK	5.4679G	67.14	68.20	-1.06	6.46	3	Vertical	254	1.88	-						
PK	5.5052G	122.68	Inf	-Inf	6.48	3	Vertical	254	1.88	-						
AV	5.4978G	110.65	Inf	-Inf	6.49	3	Vertical	254	1.88	-						

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

29/04/2019

### 5500MHz\_TX



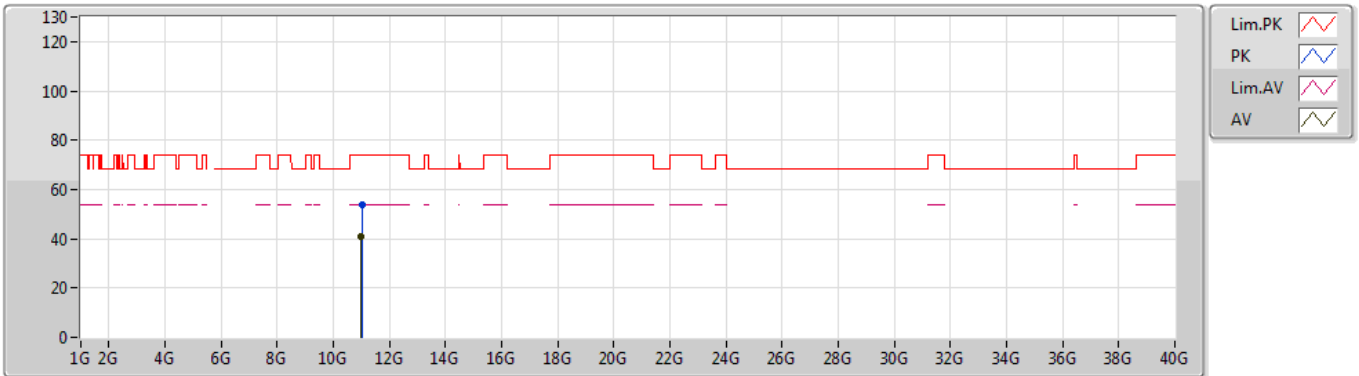
EUT Z\_4TX Dipole  
Setting 23  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.01155G	54.43	74.00	-19.57	13.95	3	Vertical	169	1.14	-				
AV	10.9856G	41.01	54.00	-12.99	13.92	3	Vertical	169	1.14	-				

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

29/04/2019

## 5500MHz\_TX



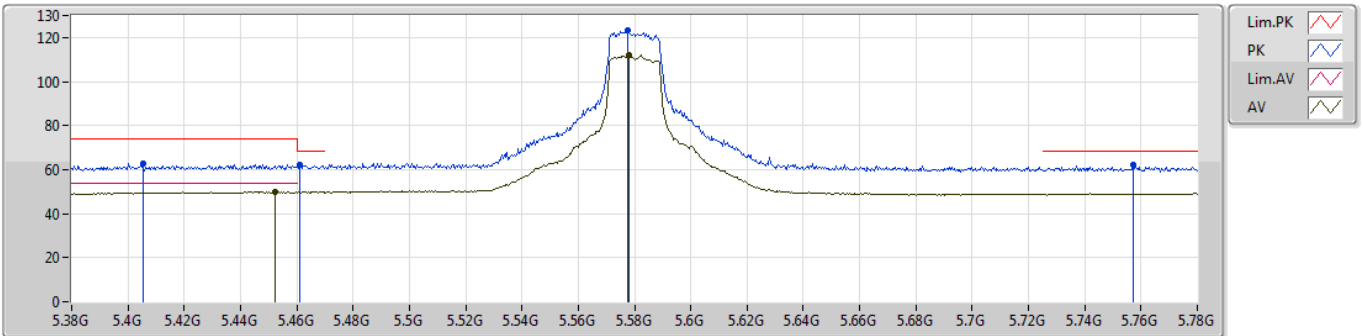
EUT Z\_4TX Dipole  
Setting 23  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.00966G	53.83	74.00	-20.17	13.95	3	Horizontal	263	1.50	-				
AV	10.98896G	40.84	54.00	-13.16	13.92	3	Horizontal	263	1.50	-				

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

03/04/2019

## 5580MHz\_TX



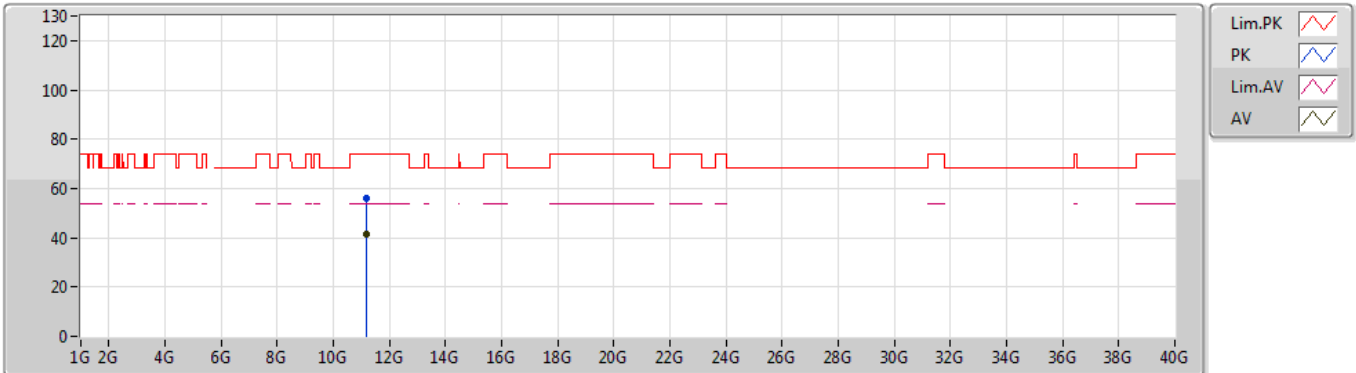
EUT Z\_4TX Dipole  
Setting 25  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4052G	62.79	74.00	-11.21	6.41	3	Vertical	250	1.68	-
AV	5.4524G	49.93	54.00	-4.07	6.44	3	Vertical	250	1.68	-
PK	5.4612G	62.22	68.20	-5.98	6.45	3	Vertical	250	1.68	-
PK	5.5776G	123.30	Inf	-Inf	6.39	3	Vertical	250	1.68	-
AV	5.578G	112.27	Inf	-Inf	6.39	3	Vertical	250	1.68	-
PK	5.7572G	61.94	68.20	-6.26	6.42	3	Vertical	250	1.68	-

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

30/04/2019

## 5580MHz\_TX



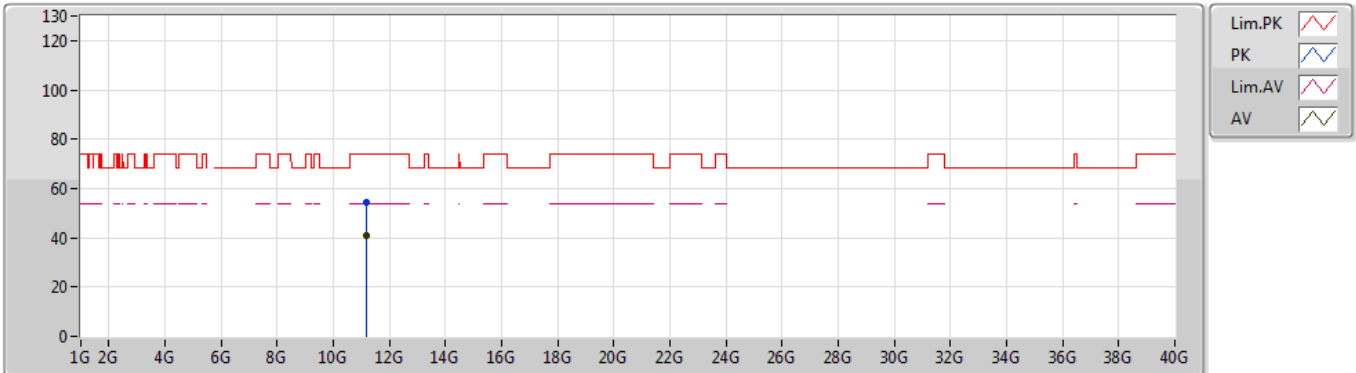
EUT\_Z\_4TX Dipole  
Setting 25  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.1601G	55.89	74.00	-18.11	14.09	3	Vertical	50	1.75	-				
AV	11.16214G	41.67	54.00	-12.33	14.09	3	Vertical	50	1.75	-				

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

30/04/2019

## 5580MHz\_TX



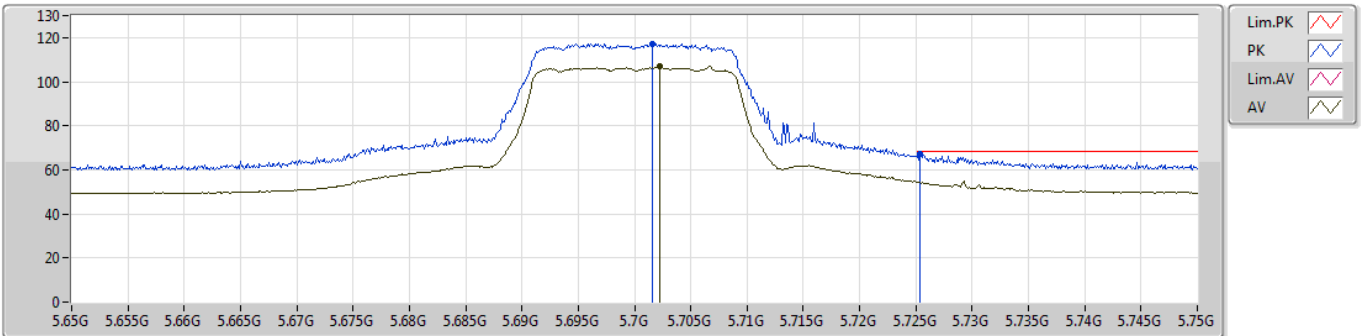
EUT\_Z\_4TX Dipole  
Setting 25  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.1579G	54.51	74.00	-19.49	14.09	3	Horizontal	189	2.23	-				
AV	11.16054G	40.90	54.00	-13.10	14.09	3	Horizontal	189	2.23	-				

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

03/04/2019

## 5700MHz\_TX



EUT Z\_4TX Dipole  
Setting 22.5  
03-B-4-13  
FSP(100019)

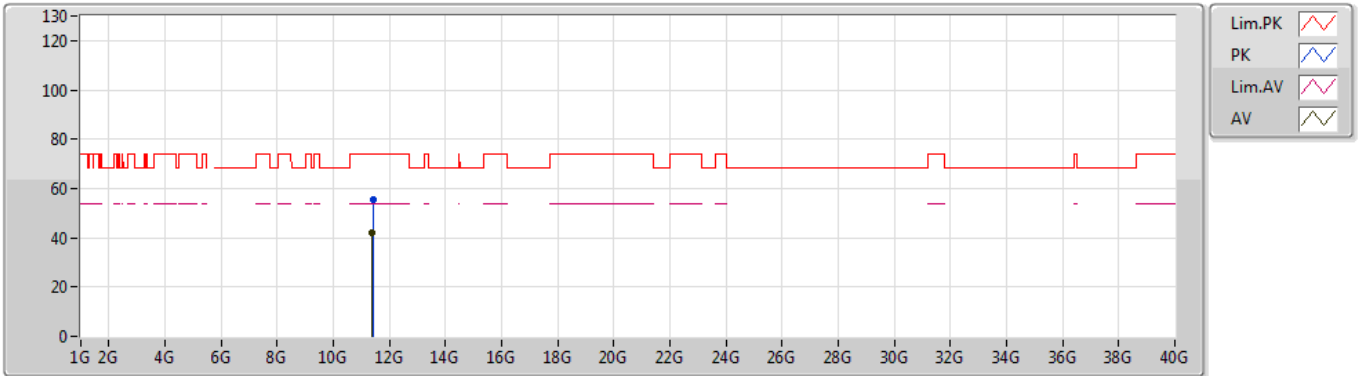
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.7016G	117.25	Inf	-Inf	6.37	3	Vertical	249	1.62	-
AV	5.7023G	106.94	Inf	-Inf	6.37	3	Vertical	249	1.62	-
PK	5.7254G	67.36	68.20	-0.84	6.39	3	Vertical	249	1.62	-



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

30/04/2019

## 5700MHz\_TX



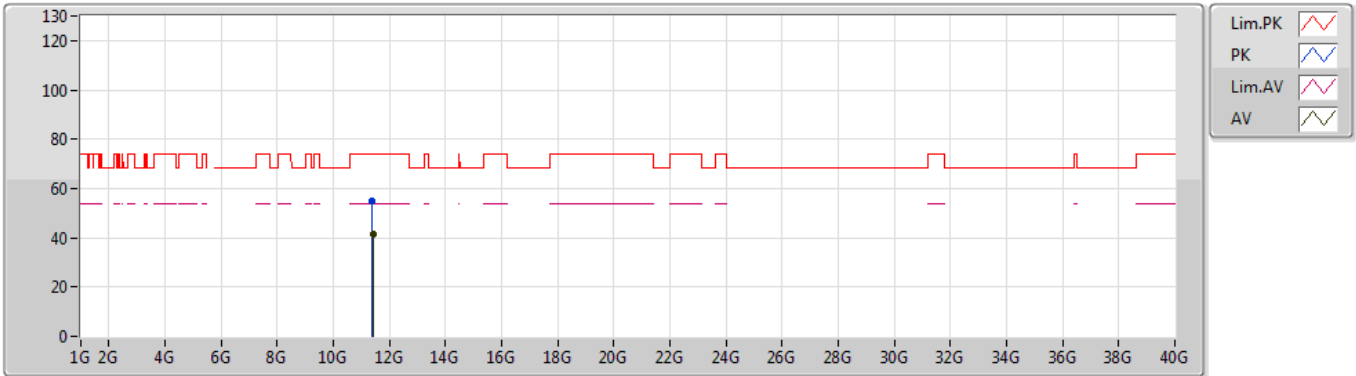
EUT\_Z\_4TX Dipole  
Setting 22.5  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.40249G	55.73	74.00	-18.27	14.33	3	Vertical	287	2.08	-				
AV	11.40144G	42.23	54.00	-11.77	14.33	3	Vertical	287	2.08	-				

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

30/04/2019

## 5700MHz\_TX



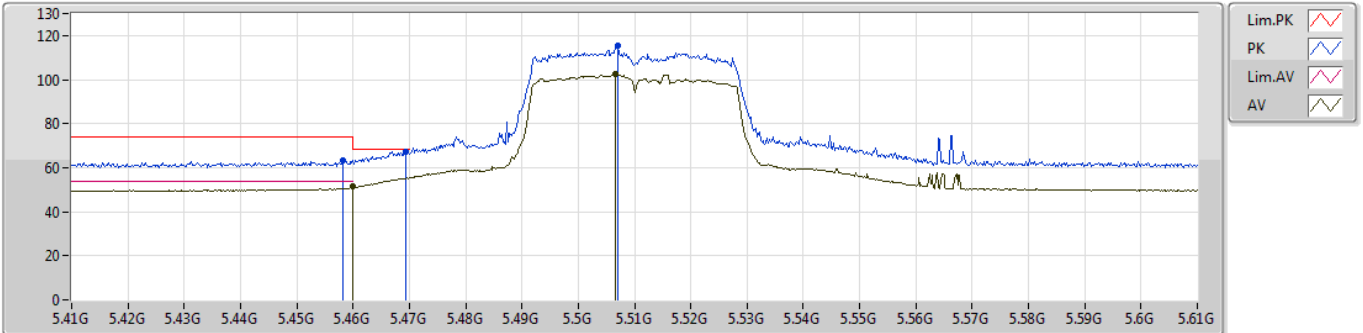
EUT\_Z\_4TX Dipole  
Setting 22.5  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.39829G	54.86	74.00	-19.14	14.33	3	Horizontal	164	2.06	-				
AV	11.41497G	41.35	54.00	-12.65	14.34	3	Horizontal	164	2.06	-				

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

03/04/2019

### 5510MHz\_TX



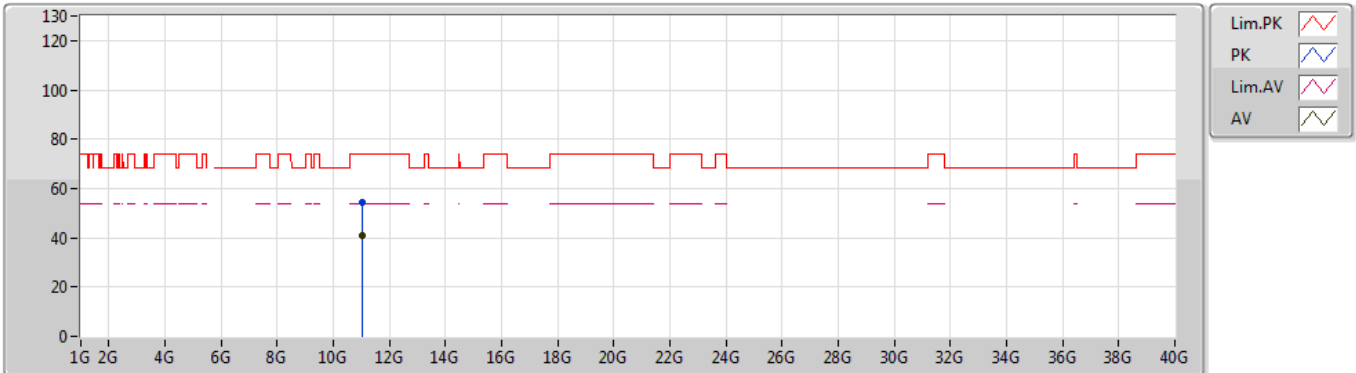
EUT\_Z\_4TX Dipole  
Setting 18.5  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4582G	63.44	74.00	-10.56	6.45	3	Vertical	352	1.50	-
AV	5.46G	51.33	54.00	-2.67	6.45	3	Vertical	352	1.50	-
PK	5.4694G	67.28	68.20	-0.92	6.46	3	Vertical	352	1.50	-
PK	5.507G	115.67	Inf	-Inf	6.48	3	Vertical	352	1.50	-
AV	5.5066G	102.79	Inf	-Inf	6.48	3	Vertical	352	1.50	-

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

30/04/2019

## 5510MHz\_TX



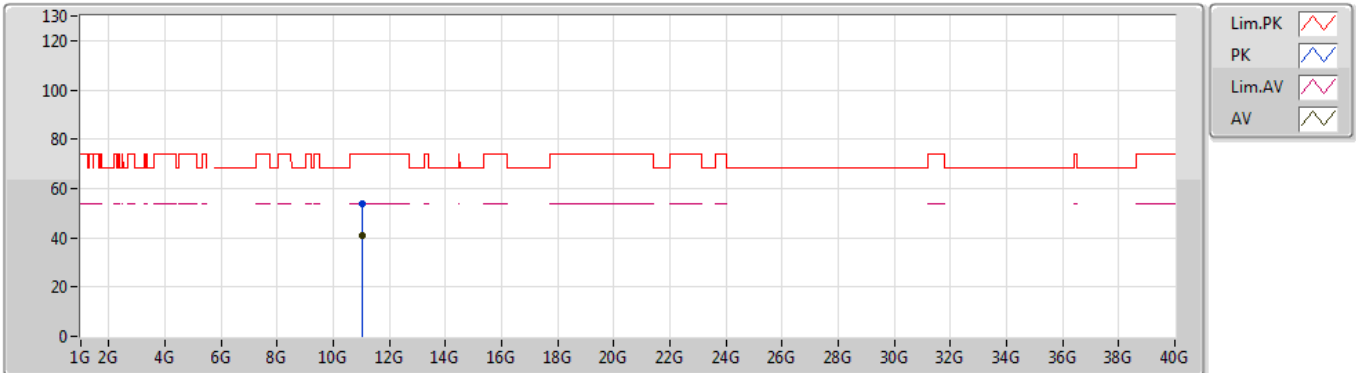
EUT\_Z\_4TX Dipole  
Setting 18.5  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.01172G	54.08	74.00	-19.92	13.96	3	Vertical	315	1.89	-				
AV	11.03497G	40.78	54.00	-13.22	13.97	3	Vertical	315	1.89	-				

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

30/04/2019

## 5510MHz\_TX



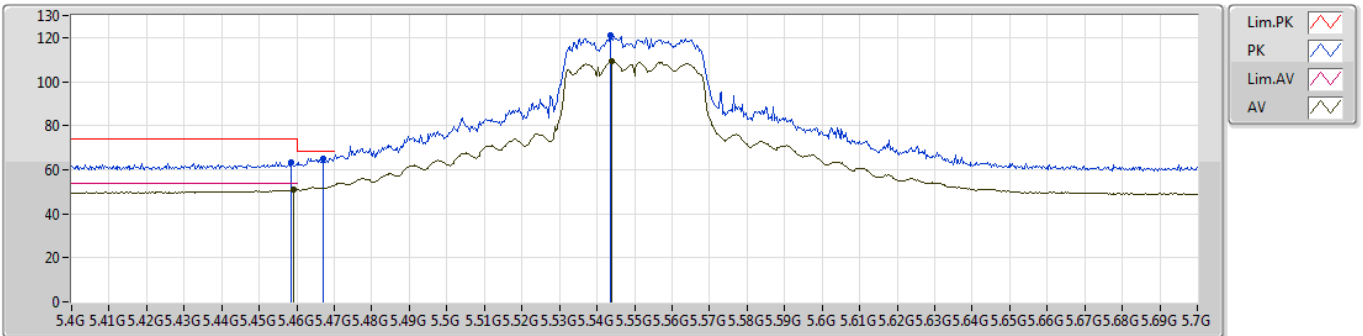
EUT\_Z\_4TX Dipole  
Setting 18.5  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.02267G	53.75	74.00	-20.25	13.97	3	Horizontal	90	1.11	-				
AV	11.00842G	40.92	54.00	-13.08	13.95	3	Horizontal	90	1.11	-				

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

03/04/2019

### 5550MHz\_TX



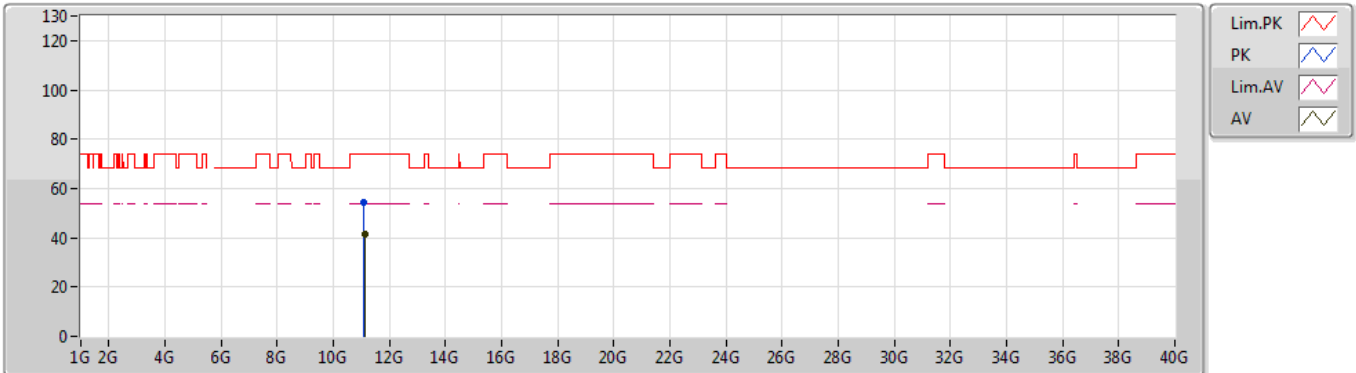
EUT\_Z\_4TX Dipole  
Setting 25  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4585G	63.32	74.00	-10.68	6.45	3	Vertical	136	1.50	-
AV	5.4591G	50.91	54.00	-3.09	6.45	3	Vertical	136	1.50	-
PK	5.4669G	64.90	68.20	-3.30	6.46	3	Vertical	136	1.50	-
PK	5.5437G	120.95	Inf	-Inf	6.45	3	Vertical	136	1.50	-
AV	5.544G	109.13	Inf	-Inf	6.45	3	Vertical	136	1.50	-

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

30/04/2019

## 5550MHz\_TX



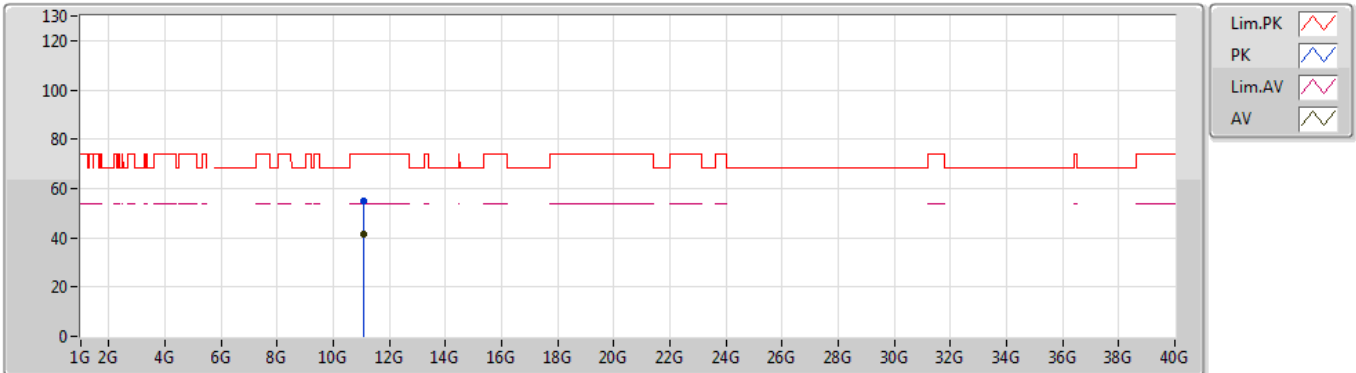
EUT\_Z\_4TX Dipole  
Setting 25  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.09733G	54.57	74.00	-19.43	14.03	3	Vertical	61	2.01	-				
AV	11.11488G	41.47	54.00	-12.53	14.05	3	Vertical	61	2.01	-				

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

30/04/2019

## 5550MHz\_TX



EUT\_Z\_4TX Dipole  
Setting 25  
03-N-2  
FSP(100019)

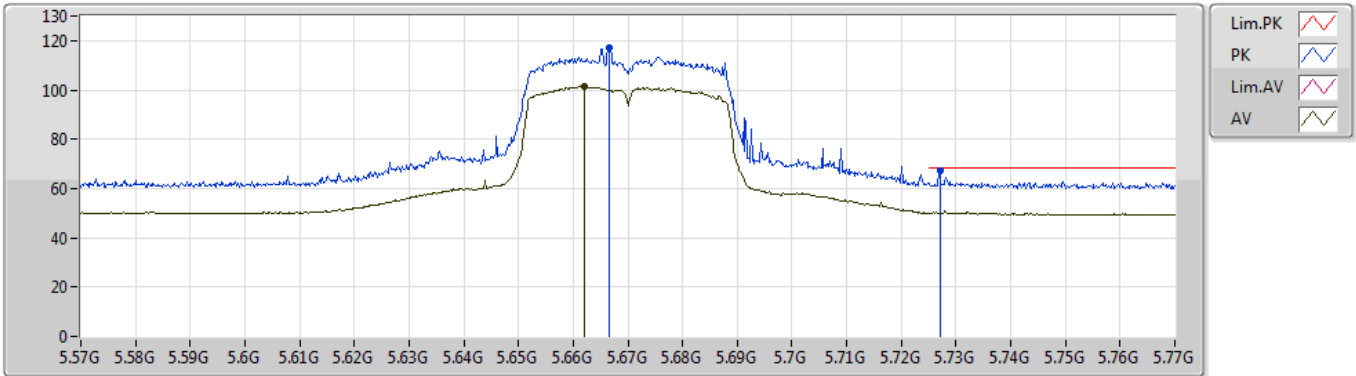
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.09238G	54.82	74.00	-19.18	14.03	3	Horizontal	142	2.46	-				
AV	11.09871G	41.38	54.00	-12.62	14.03	3	Horizontal	142	2.46	-				



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

30/04/2019

### 5670MHz\_TX



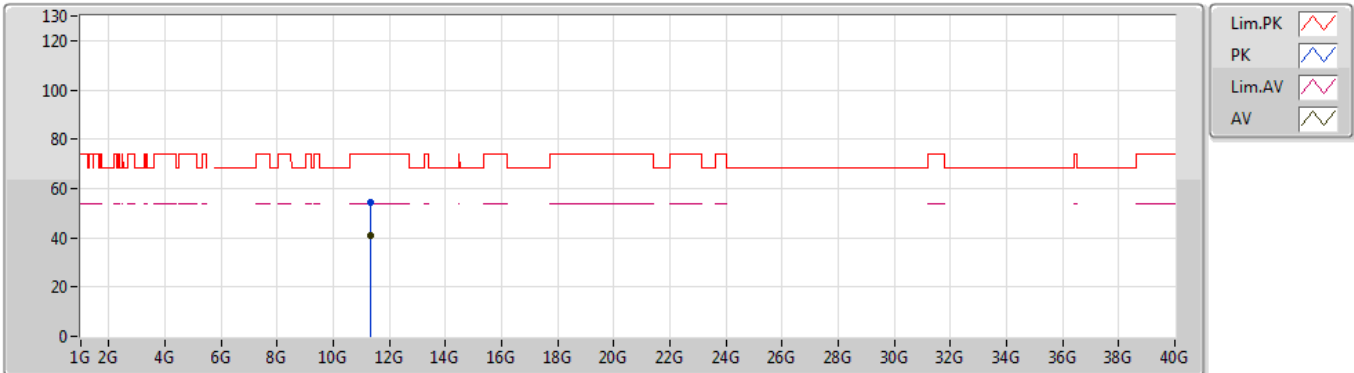
EUT\_Z\_4TX Dipole  
Setting 18.5  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	5.666G	117.28	Inf	-Inf	6.36	3	Vertical	309	1.70	-
AV	5.662G	101.69	Inf	-Inf	6.37	3	Vertical	309	1.70	-
PK	5.727G	67.19	68.20	-1.01	6.39	3	Vertical	309	1.70	-

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

30/04/2019

## 5670MHz\_TX



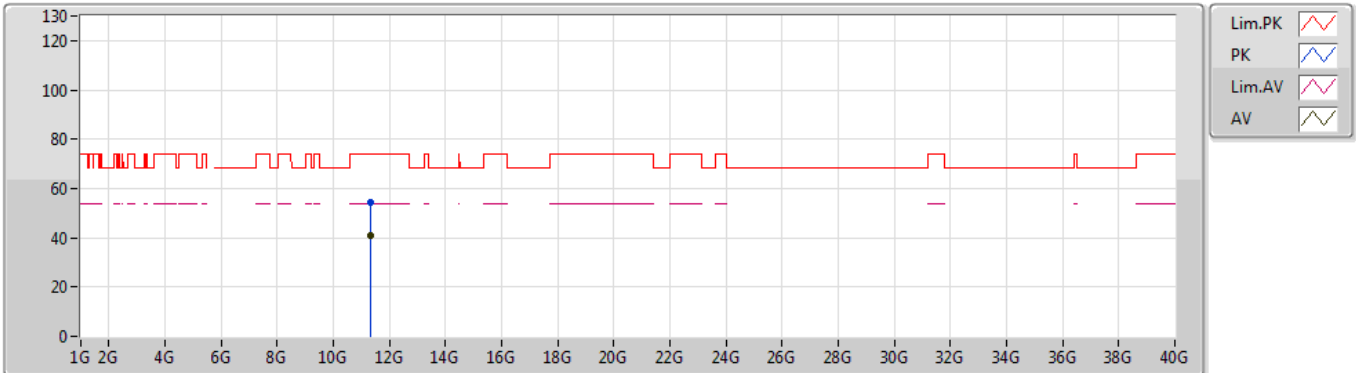
EUT\_Z\_4TX Dipole  
Setting 18.5  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.32542G	54.38	74.00	-19.62	14.26	3	Vertical	215	2.50	-				
AV	11.33403G	40.97	54.00	-13.03	14.26	3	Vertical	215	2.50	-				

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

30/04/2019

## 5670MHz\_TX



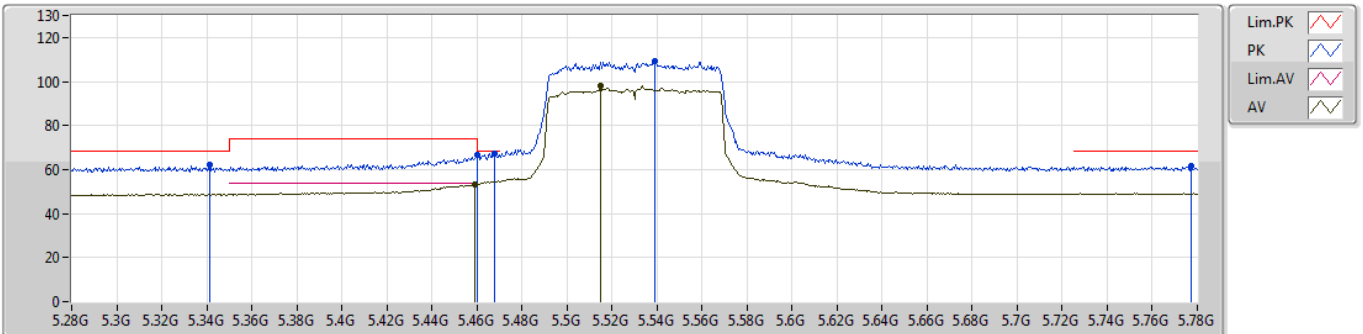
EUT\_Z\_4TX Dipole  
Setting 18.5  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.32587G	54.49	74.00	-19.51	14.26	3	Horizontal	302	1.87	-				
AV	11.34102G	41.07	54.00	-12.93	14.28	3	Horizontal	302	1.87	-				

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

03/04/2019

### 5530MHz\_TX



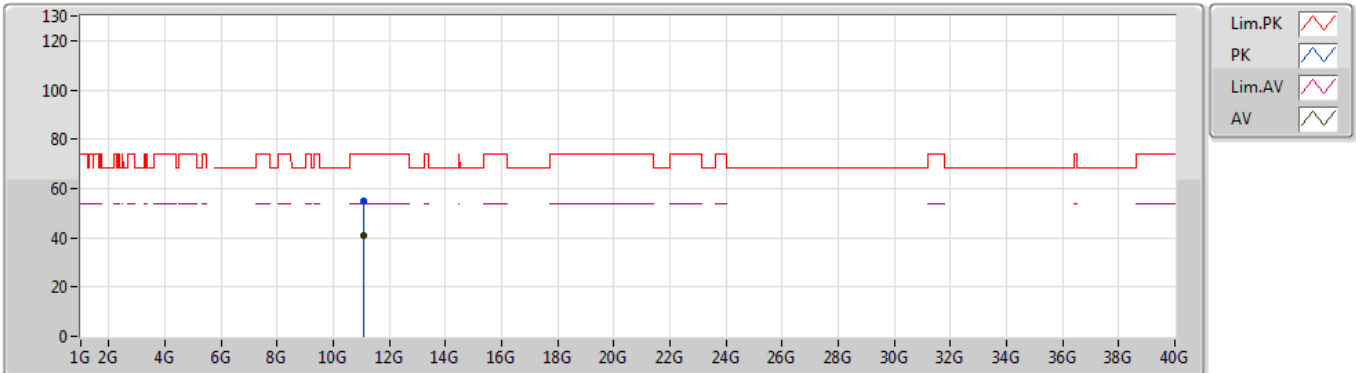
EUT Z\_4TX Dipole  
Setting 18.5  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.3415G	61.93	68.20	-6.27	6.30	3	Vertical	80	1.50	-
PK	5.46G	66.92	74.00	-7.08	6.45	3	Vertical	80	1.50	-
AV	5.459G	53.44	54.00	-0.56	6.45	3	Vertical	80	1.50	-
PK	5.468G	67.30	68.20	-0.90	6.46	3	Vertical	80	1.50	-
PK	5.539G	109.03	Inf	-Inf	6.45	3	Vertical	80	1.50	-
AV	5.515G	97.91	Inf	-Inf	6.47	3	Vertical	80	1.50	-
PK	5.777G	61.50	68.20	-6.70	6.43	3	Vertical	80	1.50	-

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

30/04/2019

## 5530MHz\_TX



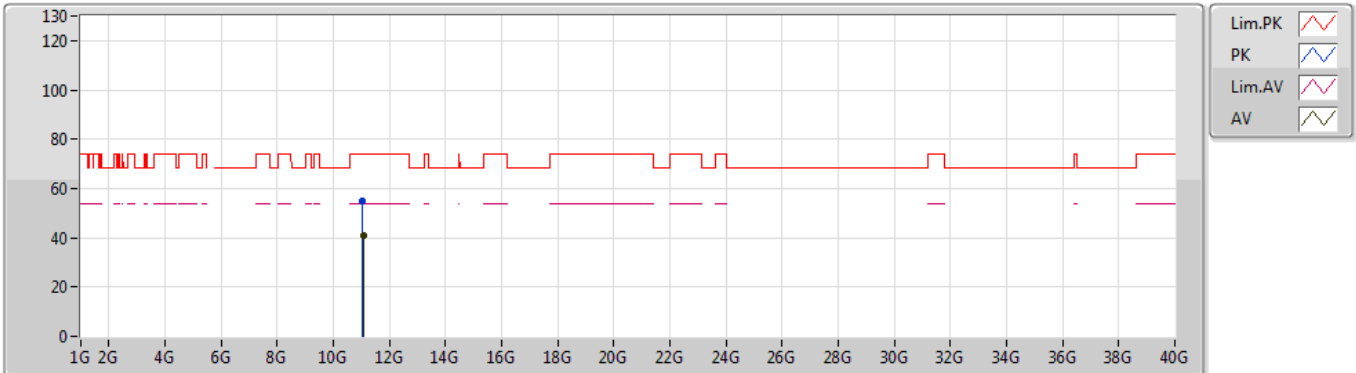
EUT\_Z\_4TX Dipole  
Setting 18.5  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.06969G	54.70	74.00	-19.30	14.01	3	Vertical	8	2.99	-				
AV	11.07077G	41.09	54.00	-12.91	14.01	3	Vertical	8	2.99	-				

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

30/04/2019

## 5530MHz\_TX



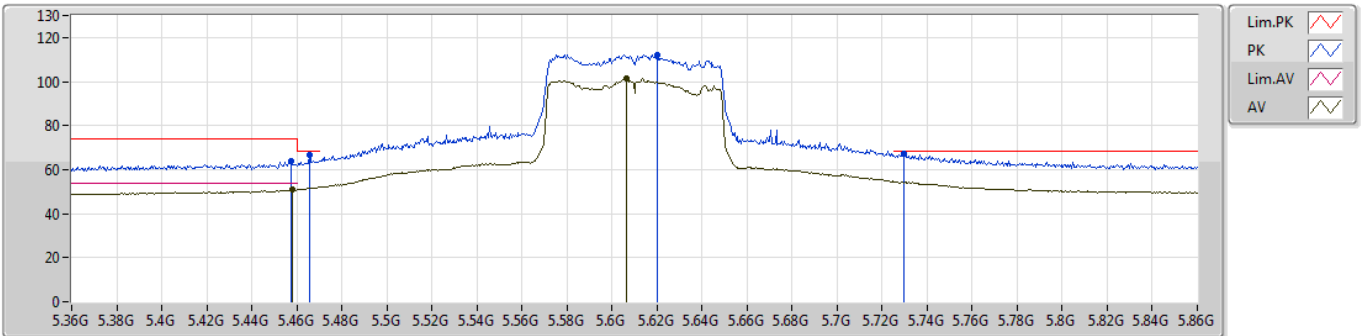
EUT\_Z\_4TX Dipole  
Setting 18.5  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.04533G	54.85	74.00	-19.15	13.98	3	Horizontal	48	2.99	-				
AV	11.07221G	41.06	54.00	-12.94	14.01	3	Horizontal	48	2.99	-				

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

03/04/2019

## 5610MHz\_TX



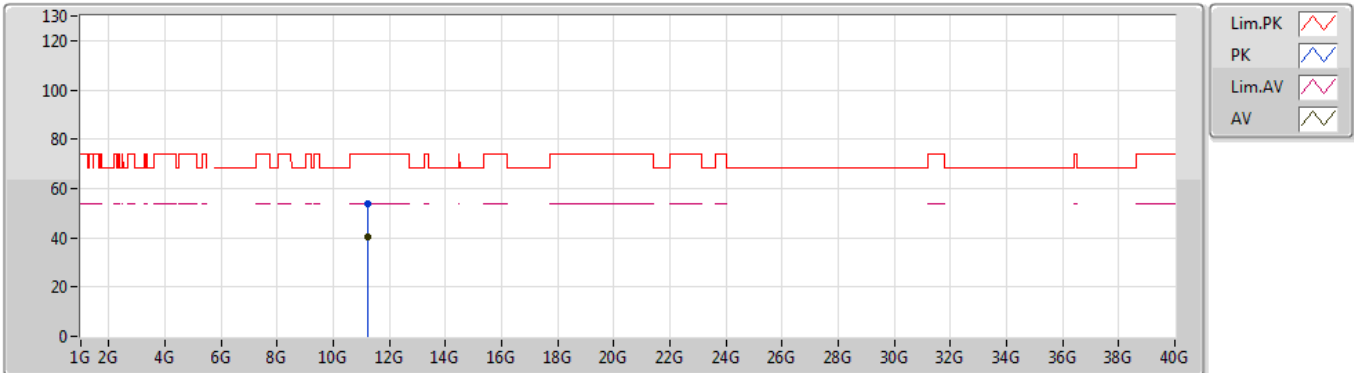
EUT Z\_4TX Dipole  
Setting 20.5  
03-B-4-13  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	5.4575G	63.65	74.00	-10.35	6.45	3	Vertical	352	1.50	-
AV	5.458G	50.79	54.00	-3.21	6.45	3	Vertical	352	1.50	-
PK	5.4655G	66.55	68.20	-1.65	6.46	3	Vertical	352	1.50	-
PK	5.62G	111.95	Inf	-Inf	6.37	3	Vertical	352	1.50	-
AV	5.6065G	101.44	Inf	-Inf	6.37	3	Vertical	352	1.50	-
PK	5.7295G	67.35	68.20	-0.85	6.39	3	Vertical	352	1.50	-

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

30/04/2019

## 5610MHz\_TX



EUT\_Z\_4TX Dipole  
Setting 20.5  
03-N-2  
FSP(100019)

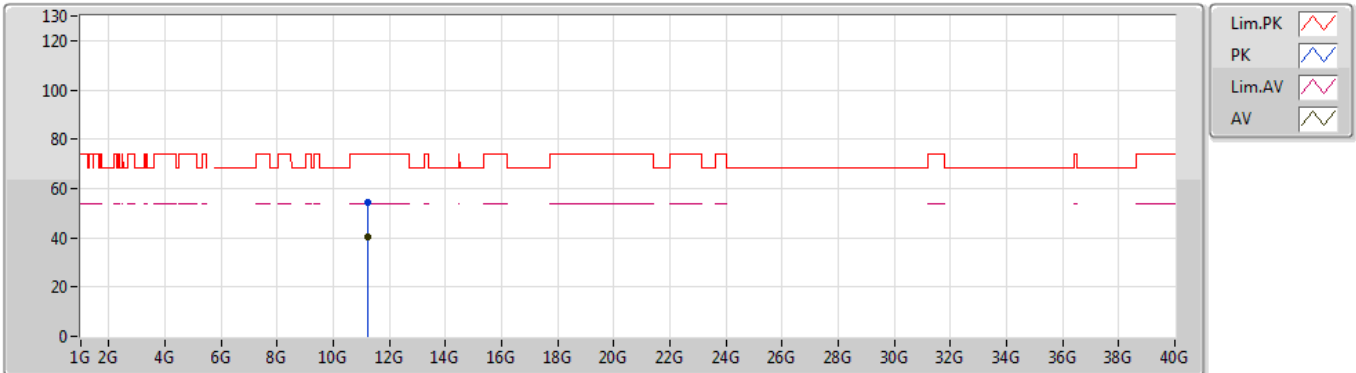
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.22084G	54.02	74.00	-19.98	14.14	3	Vertical	63	2.68	-				
AV	11.23251G	40.60	54.00	-13.40	14.16	3	Vertical	63	2.68	-				



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

30/04/2019

## 5610MHz\_TX



EUT\_Z\_4TX Dipole  
Setting 20.5  
03-N-2  
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.21319G	54.31	74.00	-19.69	14.15	3	Horizontal	249	2.97	-				
AV	11.2329G	40.51	54.00	-13.49	14.16	3	Horizontal	249	2.97	-				