



FCC Test Report

Equipment : Liberty Wireless Module
Brand Name : Bowers & Wilkins
Model No. : CC72036
FCC ID : 2ACIX-LWM
Standard : 47 CFR FCC Part 15.407
Operating Band : 5150 MHz – 5250 MHz
5250 MHz – 5350 MHz
5470 MHz – 5725 MHz
5725 MHz – 5850 MHz
Applicant : B&W Group Ltd.
Dale Road Worthing, West Sussex BN11 2BH, United Kingdom
Manufacturer : B&W Group Ltd.
Dale Road Worthing, West Sussex BN11 2BH, United Kingdom
Function : Outdoor; Indoor; Fixed P2P
 Client
TPC Function : With TPC Without TPC

The product sample received on Sep. 15, 2017 and completely tested on Nov. 17, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Cliff Chang
SPORTON INTERNATIONAL INC.



Testing Laboratory
1190



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APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS**APPENDIX B. TEST RESULTS OF EMISSION BANDWIDTH****APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER****APPENDIX D. TEST RESULTS OF PEAK POWER SPECTRAL DENSITY****APPENDIX E. TEST RESULTS OF UNWANTED EMISSIONS****APPENDIX F. TEST RESULTS OF FREQUENCY STABILITY****APPENDIX G. TEST RESULTS OF RADIATED EMISSION CO-LOCATION****APPENDIX H. TEST PHOTOS****APPENDIX I. PHOTOGRAPHS OF EUT**



Summary of Test Result

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



Revision History



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5670	102-142 [6]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	2TX
5.15-5.25GHz	802.11n HT20	20	2TX
5.15-5.25GHz	802.11n HT40	40	2TX
5.25-5.35GHz	802.11a	20	2TX
5.25-5.35GHz	802.11n HT20	20	2TX
5.25-5.35GHz	802.11n HT40	40	2TX
5.47-5.725GHz	802.11a	20	2TX
5.47-5.725GHz	802.11n HT20	20	2TX
5.47-5.725GHz	802.11ac VHT20	20	2TX
5.47-5.725GHz	802.11n HT40	40	2TX
5.47-5.725GHz	802.11ac VHT40	40	2TX
5.47-5.725GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11a	20	2TX
5.725-5.85GHz	802.11n HT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11n HT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX



Note:

- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, modulation.
- BWch is the nominal channel bandwidth.
- 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	Radio	Brand	P/N	Antenna Type	Connector	Gain (dBi)		
							WLAN 2.4GHz	WLAN 5GHz	BT
1	1	R1	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	2.02	3.06	-
2	2	R1	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	2.02	-	-
3	1	R2	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	-	3.06	-
4	2	R2	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	-	3.06	-
5	1	R3/R4	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	-	3.06	2.02
6	2	R3	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	-	3.06	-
7	-	R2/R3	ACON	ZZ35343	Dipole Antenna	I-PEX 20670-001R -37	-	1.28	-
8	-	R1/R2/R3	ACON	ZZ35351	Dipole Antenna	I-PEX 20670-001R -37	1.92	2	-
9	-	R2/R3	ACON	ZZ35378	Dipole Antenna	I-PEX 20670-001R -37	-	1.77	-
10	-	R2/R3	ACON	ZZ35386	Dipole Antenna	I-PEX 20670-001R -37	-	2.93	-
11	-	R1	ACON	ZZ35394	Dipole Antenna	I-PEX 20670-001R -37	1.53	NA	-
12	-	R1/R2/R3/ R4	ACON	ZZ35408	Dipole Antenna	I-PEX 20670-001R -37	1.92	1.52	1.92
13	-	R2/R3	ACON	ZZ35491	Dipole Antenna	I-PEX 20670-001R -37	-	2.12	-
14	-	R1/R2/R3	ACON	ZZ35505	Dipole Antenna	I-PEX 20670-001R -37	1.94	2.88	-
15	-	R2/R3	ACON	ZZ35513	Dipole Antenna	I-PEX 20670-001R -37	-	1.73	-
16	-	R2/R3	ACON	ZZ35521	Dipole Antenna	I-PEX 20670-001R -37	-	1.41	-
17	-	R1	ACON	ZZ35548	Dipole Antenna	I-PEX 20670-001R -37	1.91	-	-
18	-	R1/R2/R3/ R4	ACON	ZZ35556	Dipole Antenna	I-PEX 20670-001R -37	1.62	0.46	1.62



Note: There are 18 antennas in the antenna table list, antenna 1~6 are the highest gain antennas.

They were selected to perform the test and recorded in this report.

For 2.4GHz function:**Radio 1**

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

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

For 5GHz function:**Radio 1 (For B1~B4)**

For IEEE 802.11a/n/ac mode (1RX)

Only Ant.1 (Port 1) can be used as receiving antenna.

Radio 2 (For B3~B4)

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

Ant.3 (Port 1) and Ant.4 (Port 2) could transmit/receive simultaneously.

Radio 3 (For B1~B2)

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

Ant.5 (Port 1) and Ant.6 (Port 2) could transmit/receive simultaneously.

For bluetooth function:**Radio 4**

For bluetooth mode (1TX/1RX)

Only Ant.5 (Port 1) can be used as transmitting/receiving antenna.



1.1.3 Mode Test Duty Cycle

For Radio 3 (For B1~B2)

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.978	0.097	2.028m	1k
802.11n HT20	0.973	0.119	1.885m	1k
802.11n HT40	0.954	0.205	925u	3k

For Radio 2 (For B3~B4)

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.964	0.159	2.095m	1k
802.11ac VHT20	0.992	0.035	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40	0.97	0.132	2.44m	1k
802.11ac VHT80	0.94	0.269	1.18m	1k

1.1.4 EUT Operational Condition

EUT Power Type	From host system			
Beamforming Function	<input type="checkbox"/>	With beamforming	<input checked="" type="checkbox"/>	Without beamforming
Weather Band	<input checked="" type="checkbox"/>	With 5600~5650MHz	<input type="checkbox"/>	Without 5600~5650MHz
Test Software Version	Radio 2:QRCT Version 3.0.244.0, Radio 3:artagui.exe			



1.1.5 Table for EUT functions

Radio	2.4GHz & 5GHz (B1~B4) (5GHz Scanning only)	5GHz (B1&B2)	5GHz (B3&B4)	Bluetooth
1	V	-	-	-
2	-	-	V	-
3	-	V	-	-
4	-	-	-	V

Type of function	2.4GHz (Radio 1)	5GHz (B1&B2) (Radio 3)	5GHz (B3&B4) (Radio 2)	5GHz (Radio 1) (B1~B4) (Scanning only)	Bluetooth (Radio 4)
AP Mode (Master)	N/A	V	V	V	V
Station Mode (Slave without radar detection)	V	V	V	N/A	V
Station Mode (Slave without radar detection)	N/A	V	V	V	V
Test Mode	2.4GHz (Radio 1)	5GHz (B1&B2) (Radio 3)	5GHz (B3&B4) (Radio 2)	5GHz (Radio 1) (B1~B4) (Scanning only)	Bluetooth (Radio 4)
AP Mode (For lisn and Emissions in Non-restricted Frequency Bands below 1GHz)	Station Mode	AP Mode	AP Mode	Not work (Note)	Not work (Note)
Station Mode	Station Mode	Station Mode	Station Mode	Not work (Note)	Not work (Note)
For Radiated Emission Co-location					
AP Mode	Station Mode	AP Mode	AP Mode	Not work (Note)	AP Mode

Note: Normal link does not support BT link and RX Scanning function.



1.2 Testing Applied Standards

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

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013
- ◆ FCC KDB 789033 D02 v02
- ◆ FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Brian Sun & Eddie Weng	22°C / 54%	Sep. 26, 2017 ~ Nov. 16, 2017
Radiated	03CH01-CB	Paul Chen & DK Chang & Justin Lin & Joy Tseng & Zero Chen & Mason Chen	22°C / 54%	Sep. 28, 2017 ~ Oct. 06, 2017
AC Conduction	CO01-CB	Max Lin	25°C / 59%	Nov. 17, 2017

Test site Designation No. TW0006 with FCC

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74 x10 ⁻⁸	Confidence levels of 95%
Frequency Stability	6.06 x10 ⁻⁸	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For R3 B1 / Master

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	16.5
5200MHz	23
5240MHz	21
802.11n HT20_Nss1,(MCS0)_2TX	-
5180MHz	17
5200MHz	24
5240MHz	20.5
802.11n HT40_Nss1,(MCS0)_2TX	-
5190MHz	14
5230MHz	20

For R3 B1 / Slave without radar detection

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	16.5
5200MHz	19.5
5240MHz	20.5
802.11n HT20_Nss1,(MCS0)_2TX	-
5180MHz	17
5200MHz	20.5
5240MHz	20.5
802.11n HT40_Nss1,(MCS0)_2TX	-
5190MHz	14
5230MHz	20



For R3 B2 / Master and Slave without radar detection

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5260MHz	21
5300MHz	21
5320MHz	20.5
802.11n HT20_Nss1,(MCS0)_2TX	-
5260MHz	20.5
5300MHz	20.5
5320MHz	21.5
802.11n HT40_Nss1,(MCS0)_2TX	-
5270MHz	21.5
5310MHz	15



For R2 B3 / Master and Slave without radar detection

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5500MHz	18.5
5580MHz	17.5
5700MHz	18
5720MHz Straddle 5.47-5.725GHz	19
5720MHz Straddle 5.725-5.85GHz	19
5745MHz	23
5785MHz	22
5825MHz	23
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5500MHz	19
5580MHz	18
5700MHz	18.5
5720MHz Straddle 5.47-5.725GHz	19
5720MHz Straddle 5.725-5.85GHz	19
5745MHz	23
5785MHz	21
5825MHz	22.5
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5510MHz	17
5550MHz	19.5
5670MHz	19.5
5710MHz Straddle 5.47-5.725GHz	19.5
5710MHz Straddle 5.725-5.85GHz	19.5
5755MHz	26.5
5795MHz	26.5
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5530MHz	16
5610MHz	19.5
5690MHz Straddle 5.47-5.725GHz	19.5
5690MHz Straddle 5.725-5.85GHz	19.5
5775MHz	21



For R2 B4 / Master and Slave without radar detection

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5745MHz	23
5785MHz	22
5825MHz	23
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5745MHz	23
5785MHz	21
5825MHz	22.5
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5755MHz	26.5
5795MHz	26.5
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5775MHz	21

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. (For Radio 2)



2.2 The Worst Case Measurement Configuration

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

Mode 2 generated the worst test result, so it was recorded in this report.

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	AP Mode-EUT in Y axis
2	AP Mode-EUT in Z axis

Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.

3 Station Mode-EUT in Y axis

Mode 1 generated the worst test result, so it was recorded in this report.

Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position for Unwanted Emissions above 1GHz test, and the worst case were found at X axis for Radio 2 and at Z axis for Radio 3. So the measurement will follow this same test configuration.
1	EUT in Z axis-Radio 3 (B1~B2)
2	EUT in X axis-Radio 2 (B3~B4)



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	EUT in X axis - R1 (2.4G / Station mode) + R3 (5G B1~B2 / AP mode) + R2 (5G B3~B4 / AP mode) + R4 (BT / AP mode)
2	EUT in Y axis - R1 (2.4G / Station mode) + R3 (5G B1~B2 / AP mode) + R2 (5G B3~B4 / AP mode) + R4 (BT / AP mode)
3	EUT in Z axis - R1 (2.4G / Station mode) + R3 (5G B1~B2 / AP mode) + R2 (5G B3~B4 / AP mode) + R4 (BT / AP mode)

Mode 3 generated the worst test result, so it was recorded in this report.

Refer to Appendix G for Radiated Emission Co-location.

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	R1 (2.4G) + R3 (5G B1~B2) + R2 (5G B3~B4) + R4 (BT)

Refer to Sporton Test Report No.: FA790630 for Co-location RF Exposure Evaluation.

Note: All the specification of test configurations and test modes were based on customer's request.

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.



2.4 Accessories

N/A

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*4	DELL	E6430	DoC
2	AP Router*3	Planex	GW-AP54SGX	KA220030603014-1
3	Mouse	Logitech	M-U0026	DoC
4	Earphone	e-Power	S90W	DoC
5	Test fixture	Arcadyan	WN9722BTBAC22-WB JIG TEST	N/A

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

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*4	DELL	E4300	DoC
2	WLAN AP	D-LINK	DIR860L	KA2IR860LA1
3	Mouse	Logitech	M-U0026	DoC
4	Earphone	SHYARO CHI	MIC-04	N/A
5	Test fixture	Arcadyan	WN9722BTBAC22-WB JIG TEST	N/A

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

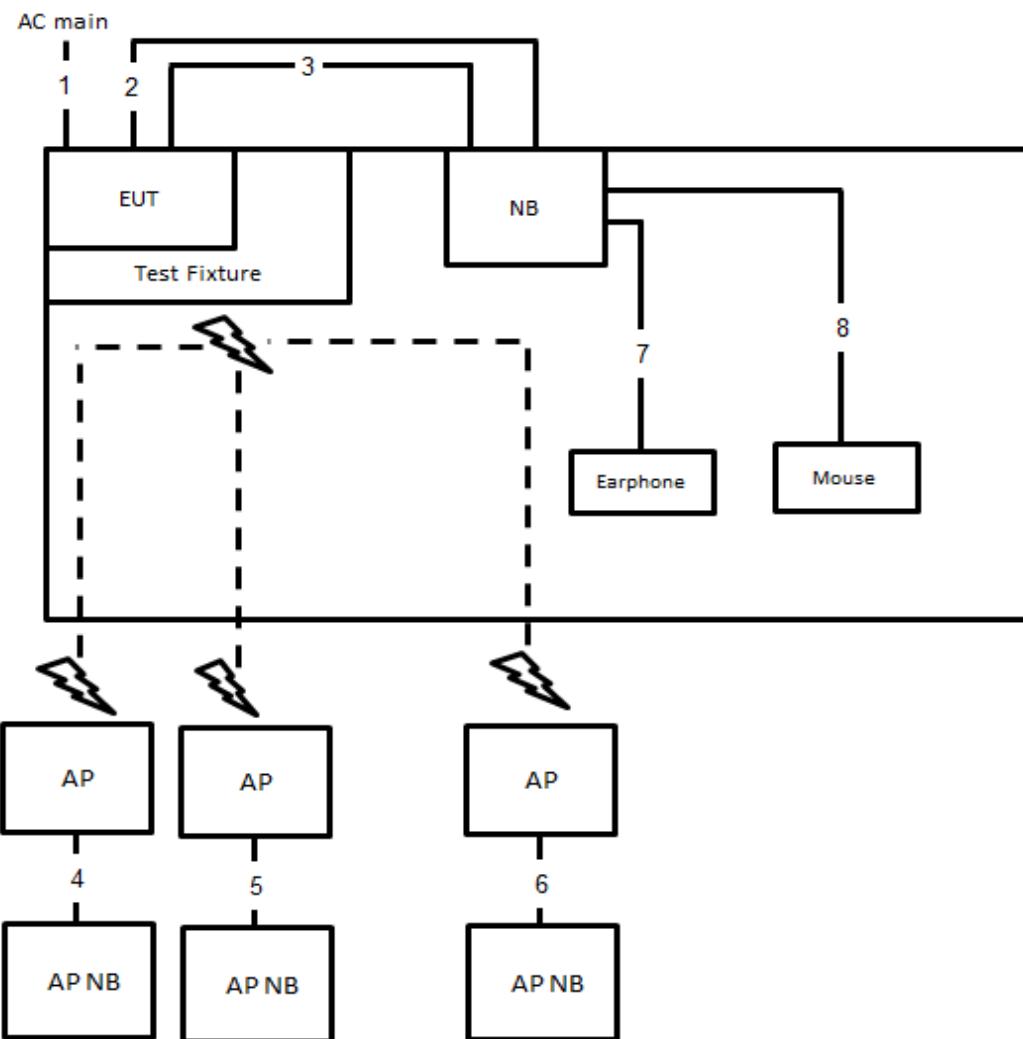
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	Test fixture	Arcadyan	WN9722BTBAC22-WB JIG TEST	N/A

For Test Site No: TH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	Test fixture	Arcadyan	WN9722BTBAC22-WB JIG TEST	N/A

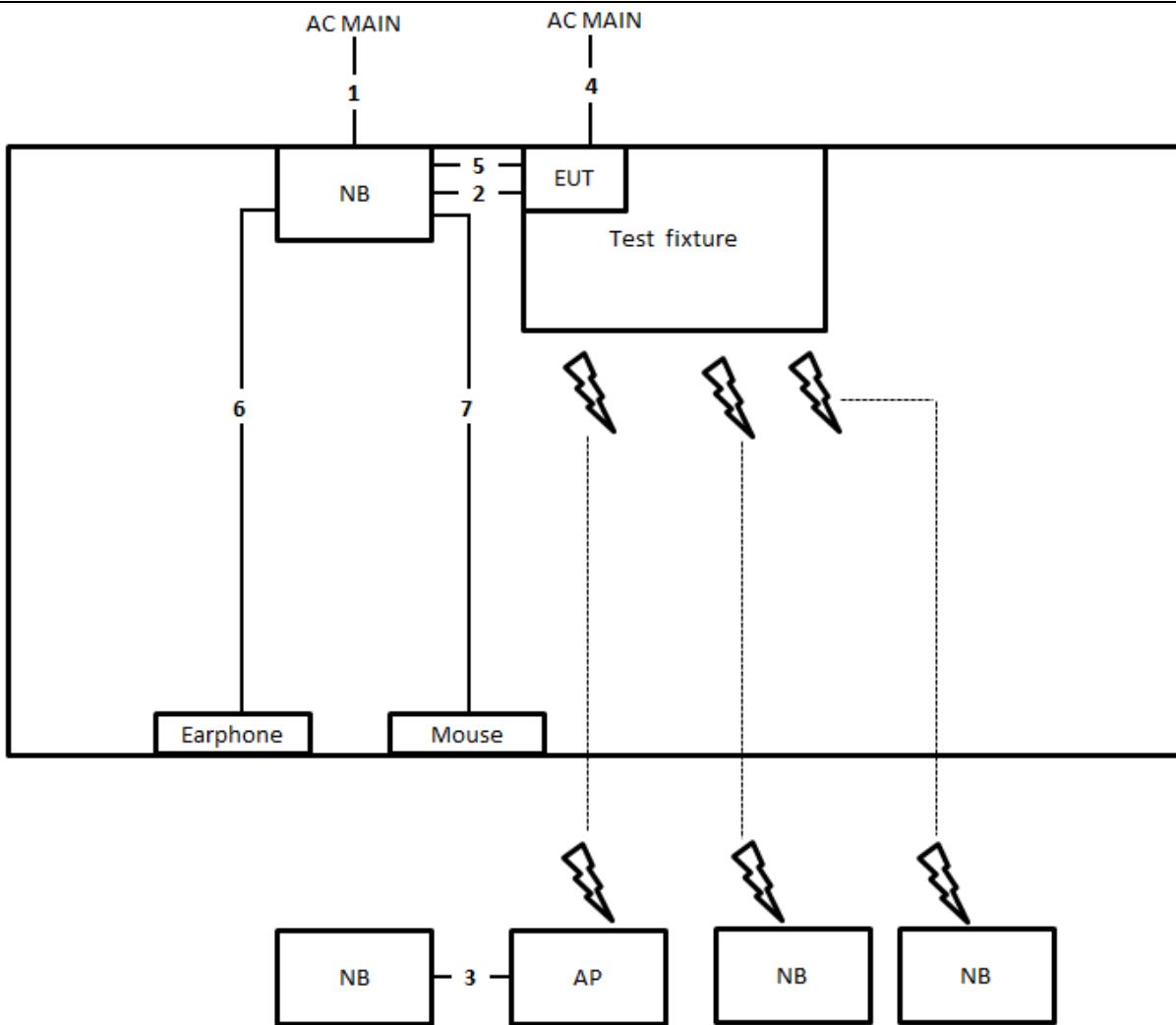
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	Power cable	No	3m
2	RJ-45 cable	No	1m
3	USB cable	Yes	1m
4	RJ-45 cable	No	1.5m
5	RJ-45 cable	No	1.5m
6	RJ-45 cable	No	1.5m
7	Audio cable	No	1.4m
8	USB cable	Yes	1.8m

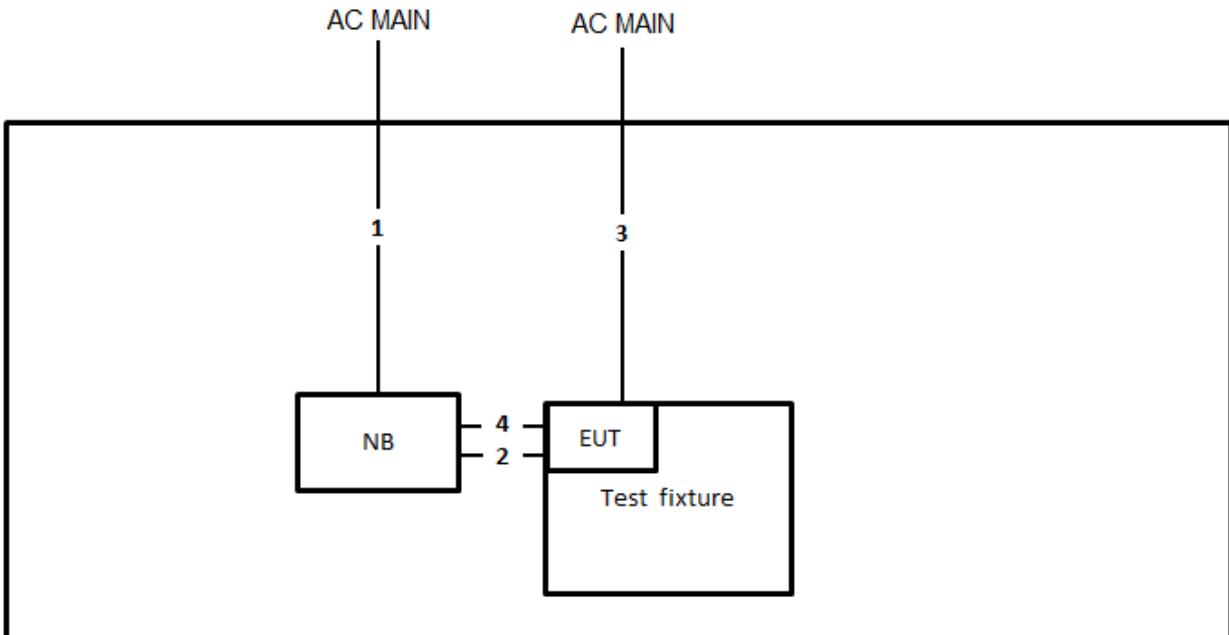
Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	3m
2	USB cable	Yes	1m
3	RJ-45 cable	No	1.5m
4	Power cable	No	1.3m
5	USB cable	Yes	1m
6	Audio cable	No	1.1m
7	USB cable	Yes	1.8m



Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	3m
2	USB cable	Yes	1m
3	Power cable	No	1.3m
4	USB cable	Yes	1m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

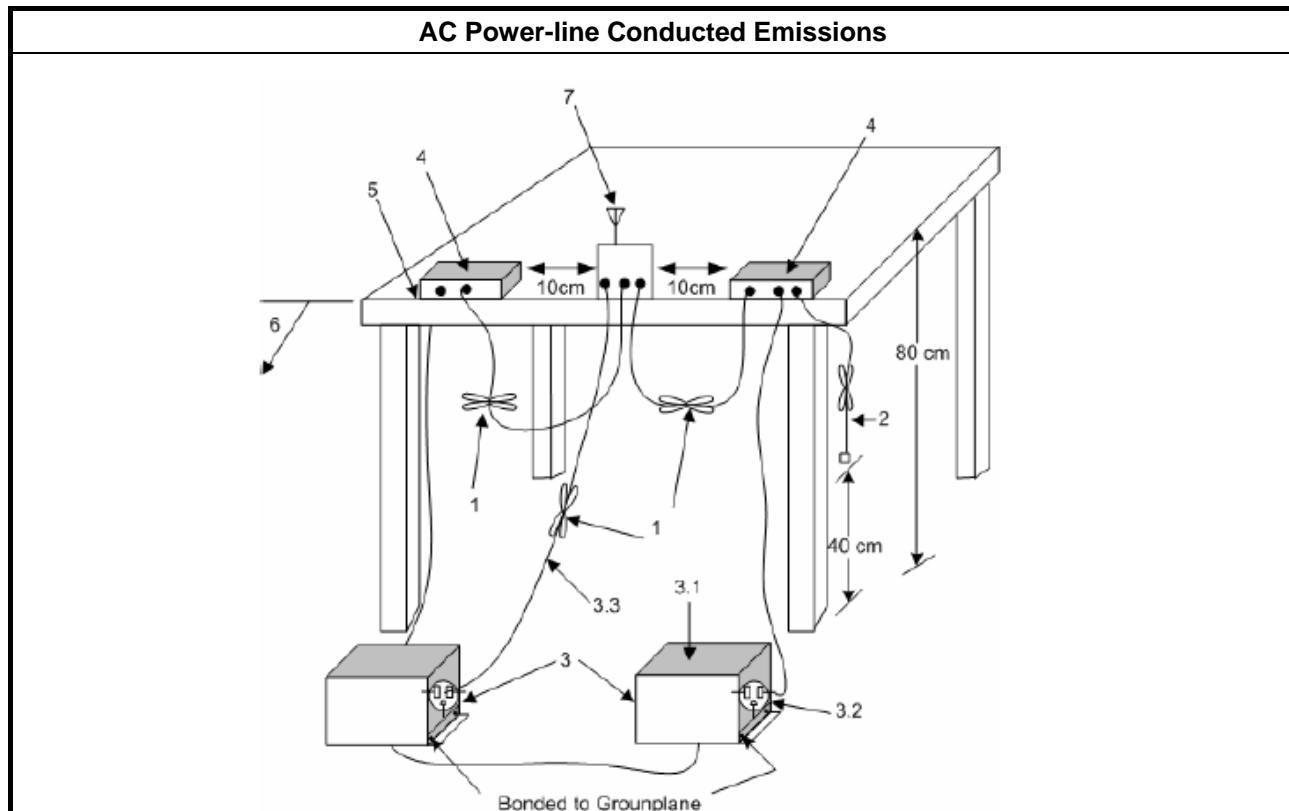
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup





3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A



3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

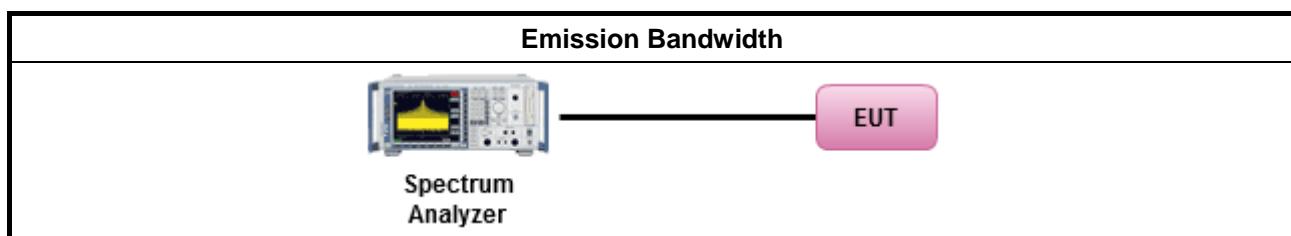
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

3.3.2 Measuring Instruments

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

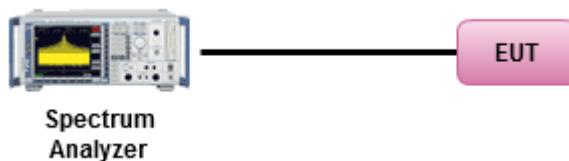
3.3.3 Test Procedures

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

3.3.4 Test Setup

For Straddle channel

RF Output Power (Spectrum Analyzer)



For Other channel

RF Output Power (Power Meter)



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

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



3.4.2 Measuring Instruments

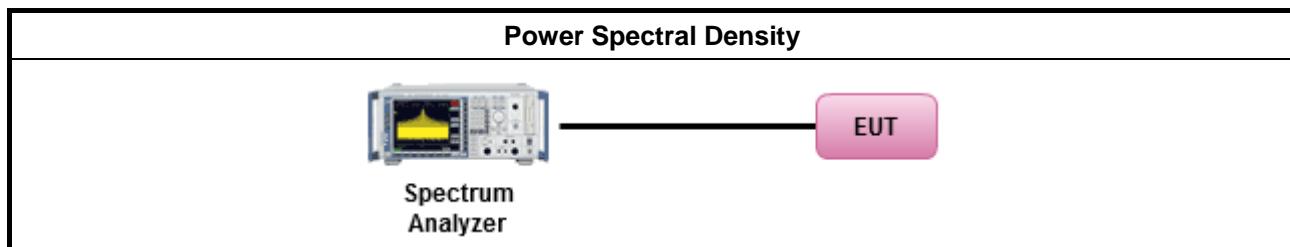
Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none">▪ Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
<input type="checkbox"/> Refer as FCC KDB 789033, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth	[duty cycle \geq 98% or external video / power trigger]
<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).	
<input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)	duty cycle < 98% and average over on/off periods with duty factor
<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).	
<input type="checkbox"/> Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
<ul style="list-style-type: none">▪ For conducted measurement.	
<ul style="list-style-type: none">▪ If the EUT supports multiple transmit chains using options given below:	<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">▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $\text{PPSD}_{\text{total}} = \text{PPSD}_1 + \text{PPSD}_2 + \dots + \text{PPSD}_n$(calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = \text{PPSD}_{\text{total}} + \text{DG}$



3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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

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

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



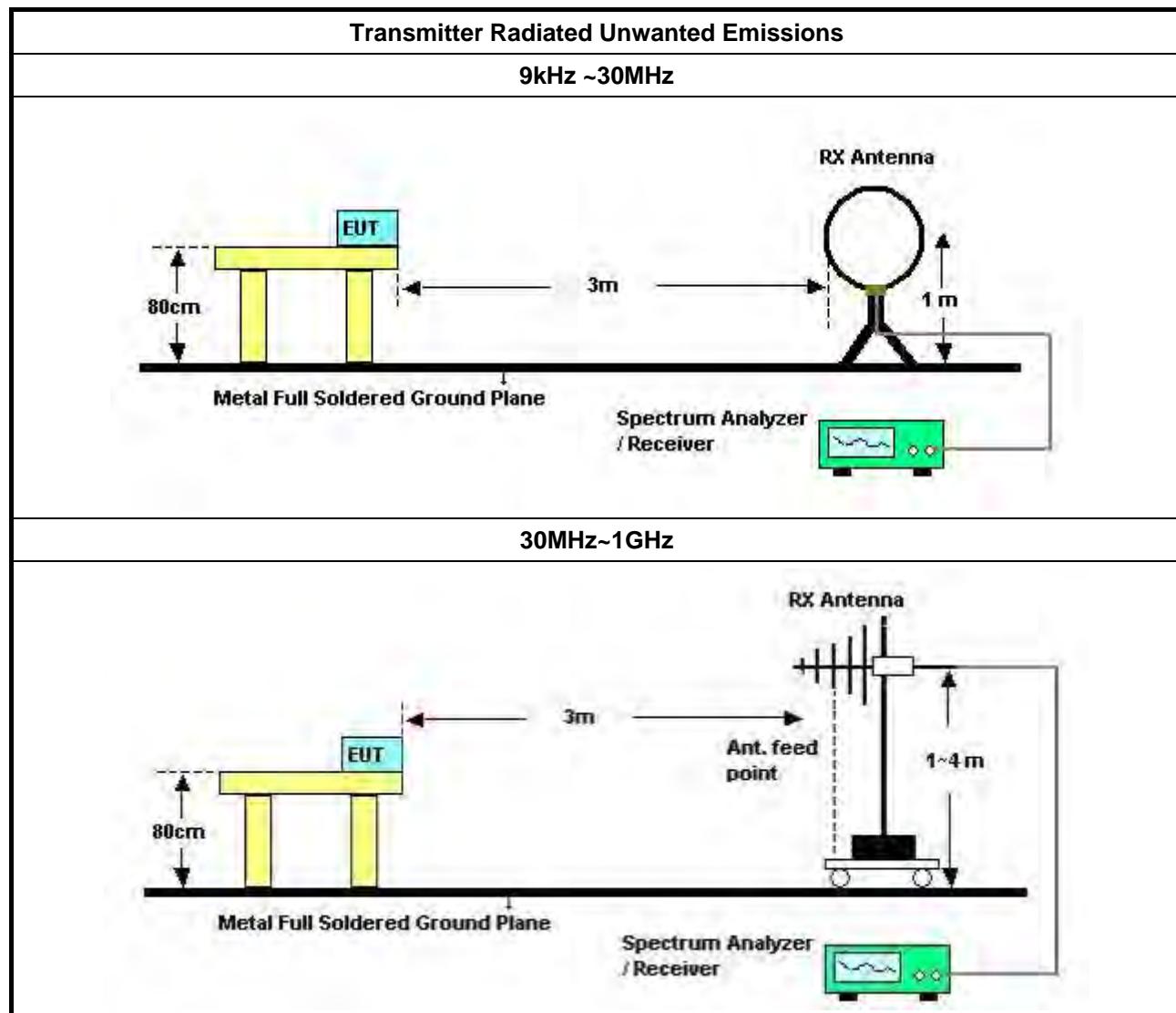
3.5.2 Measuring Instruments

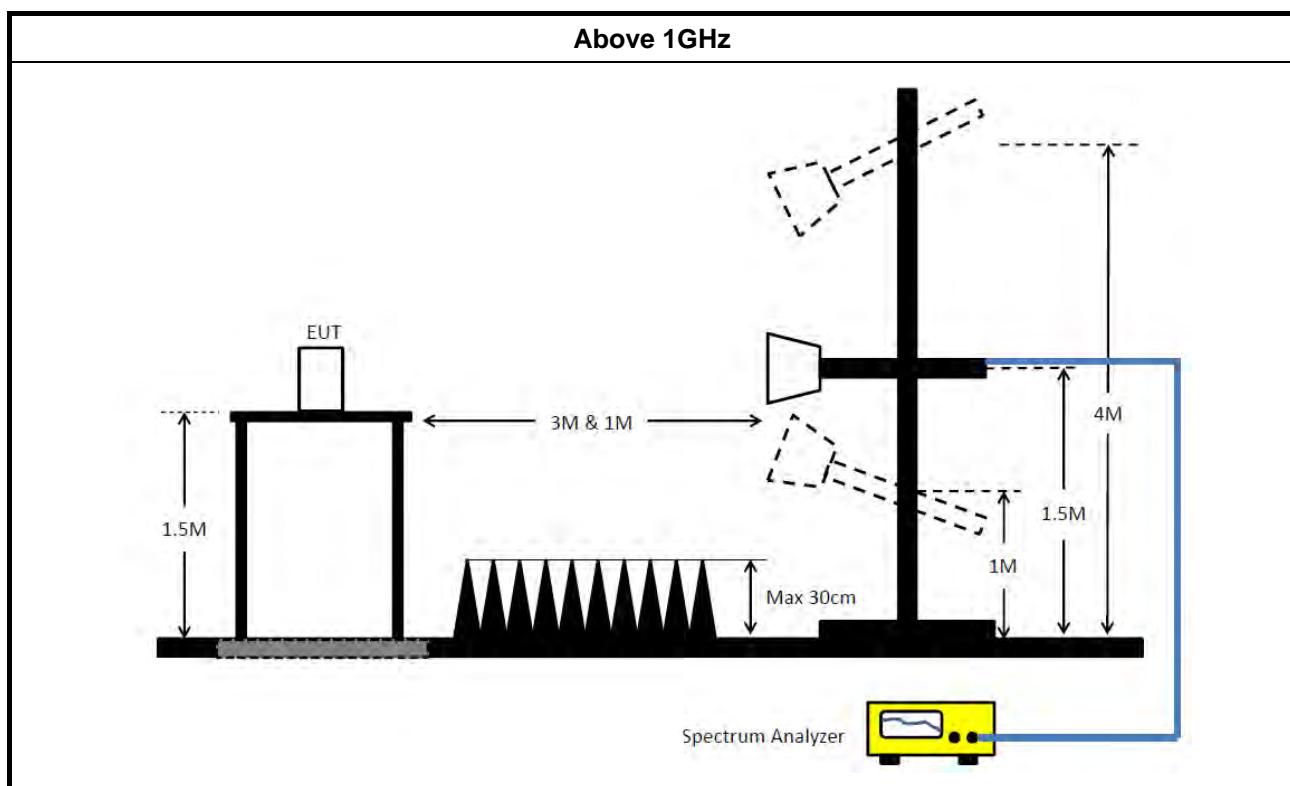
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	
▪ The average emission levels shall be measured in [duty cycle \geq 98 or duty factor].	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands.
	▪ Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). $VBW \geq 1/T$, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
▪ For radiated measurement.	
	▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
▪ The any unwanted emissions level shall not exceed the fundamental emission level.	
▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	

3.5.4 Test Setup





3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



3.6 Frequency Stability

3.6.1 Frequency Stability Limit

Frequency Stability Limit	
UNII Devices	
▪ In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.	
LE-LAN Devices	
▪ N/A	
IEEE Std. 802.11	
▪ The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25 ppm maximum for the 2.4 GHz band.	

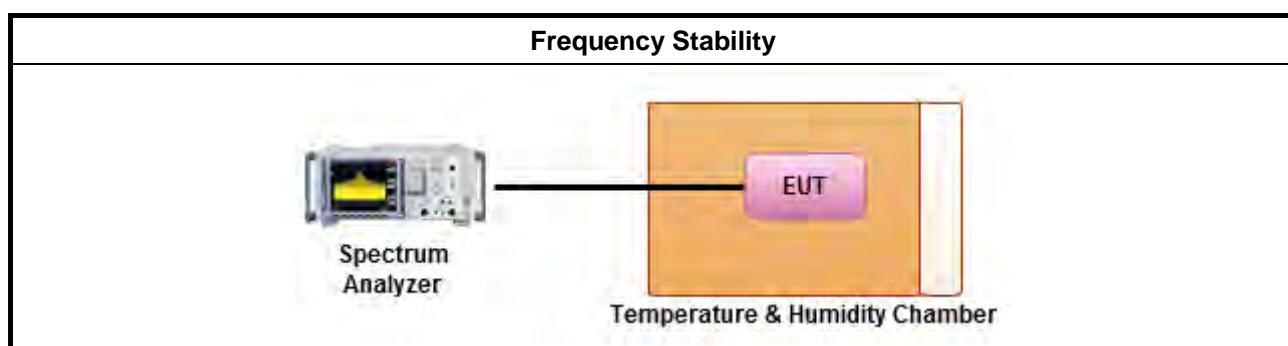
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method	
▪ Refer as ANSI C63.10, clause 6.8 for frequency stability tests	
	▪ Frequency stability with respect to ambient temperature
	▪ Frequency stability when varying supply voltage
	▪ Extreme temperature is -10°C~40°C.

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Jan. 22, 2018	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-1 6-2	04083	150kHz~100MHz	Dec. 14, 2016	Dec. 13, 2017	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Dec. 20, 2017	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	May 22, 2018	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~ 8GHz	Nov. 10, 2016	Nov. 09, 2017	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	May 01, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Jan. 15, 2018	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Nov. 21, 2017	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-I0-7	N/A	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Dec. 25, 2017	Conducted (TH01-CB)

**FCC Test Report****Report No. : FR790630AB**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Jun. 01, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz ~26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz ~26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz ~26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz ~26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Nov. 21, 2017	Conducted (TH01-CB)

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

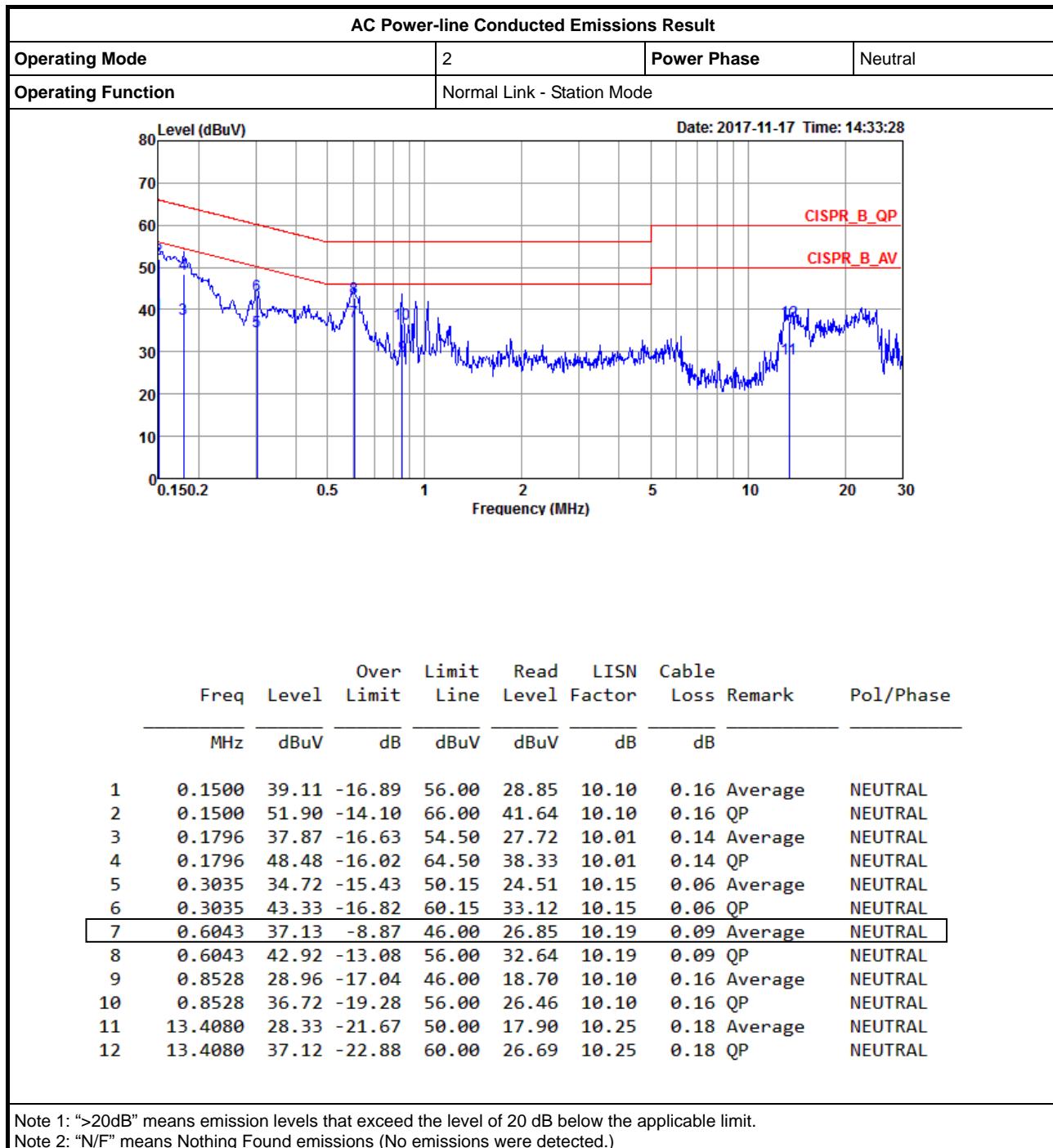
** Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.



AC Power-line Conducted Emissions Result

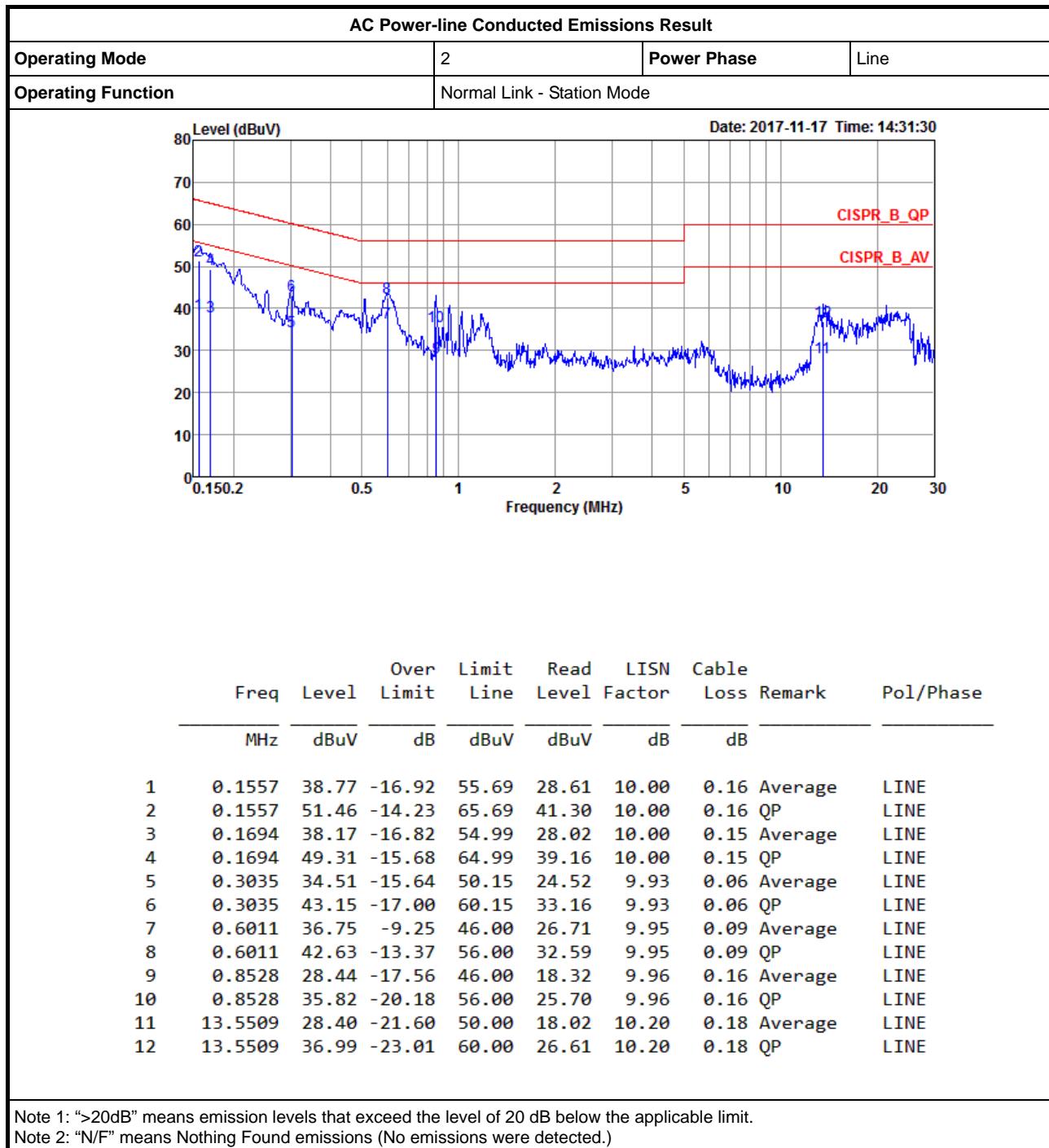
Appendix A





AC Power-line Conducted Emissions Result

Appendix A



**For R3 B1 / Master
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	44.75M	24.813M	24M8D1D	25.4M	16.517M
802.11n HT20_Nss1,(MCS0)_2TX	49.025M	29.185M	29M2D1D	26.375M	17.691M
802.11n HT40_Nss1,(MCS0)_2TX	94.1M	39.28M	39M3D1D	45.75M	36.082M

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;

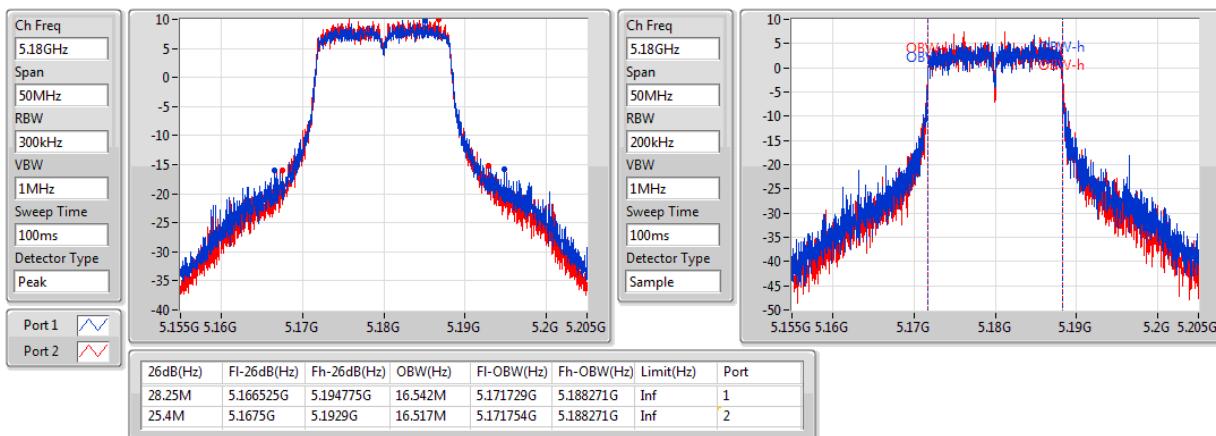
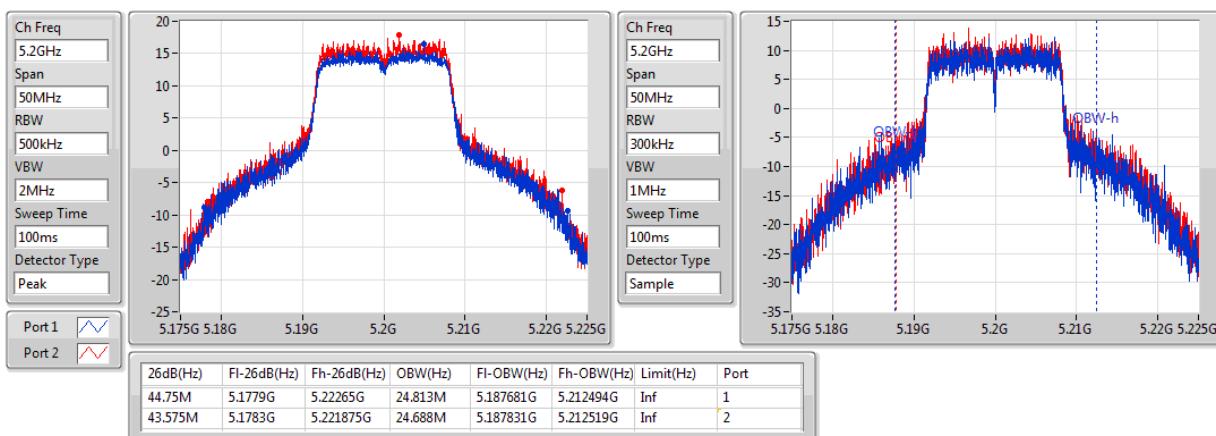
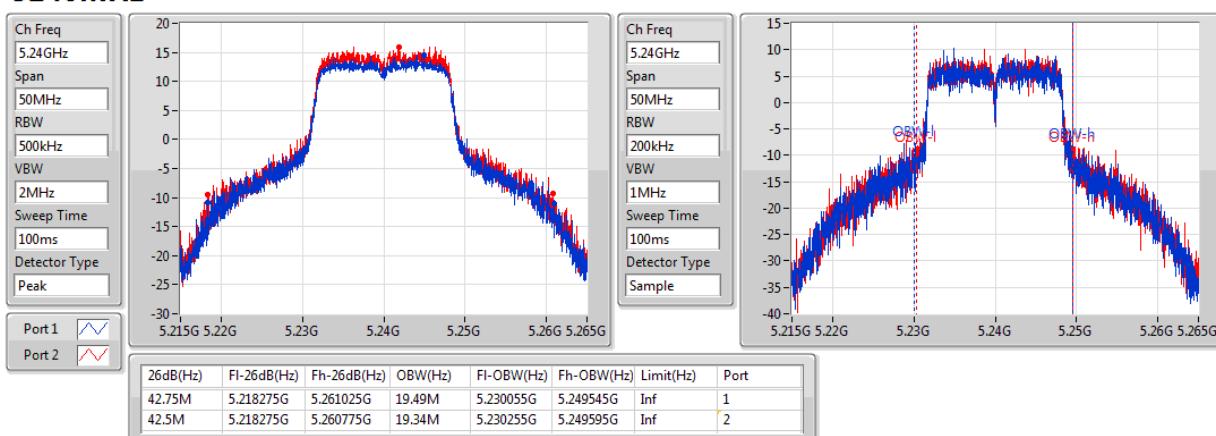


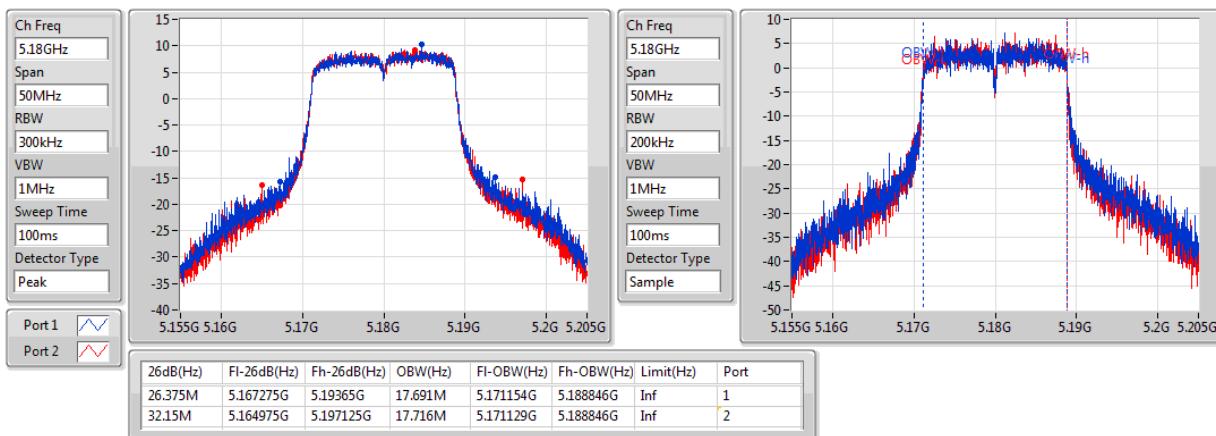
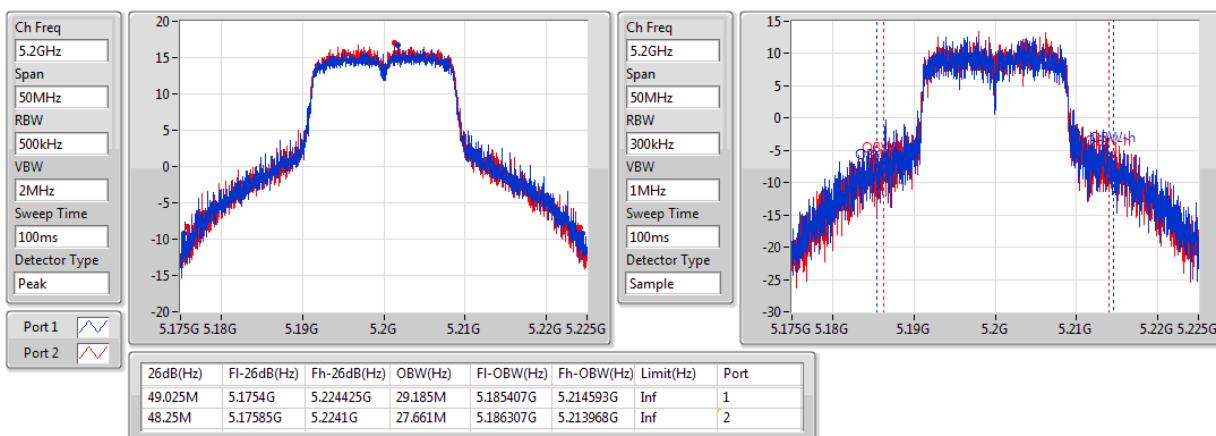
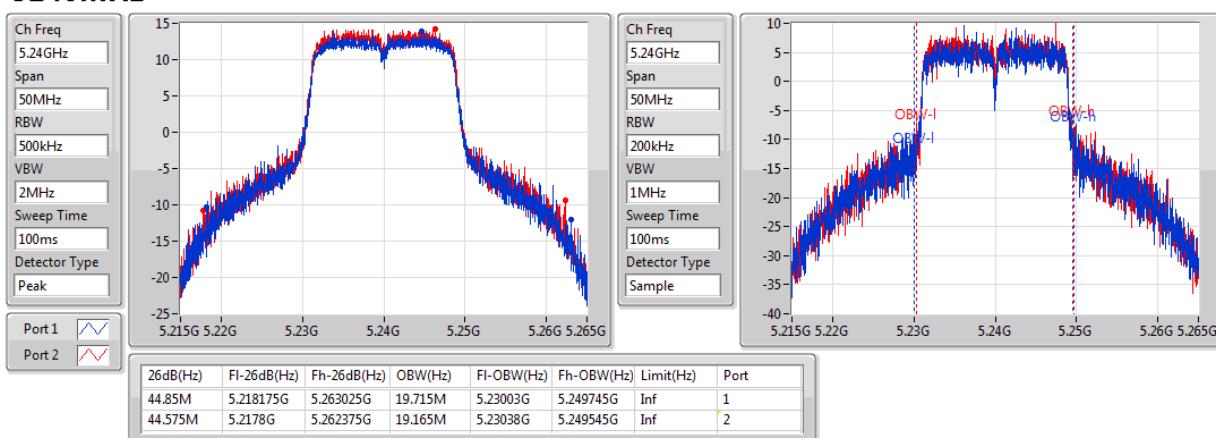
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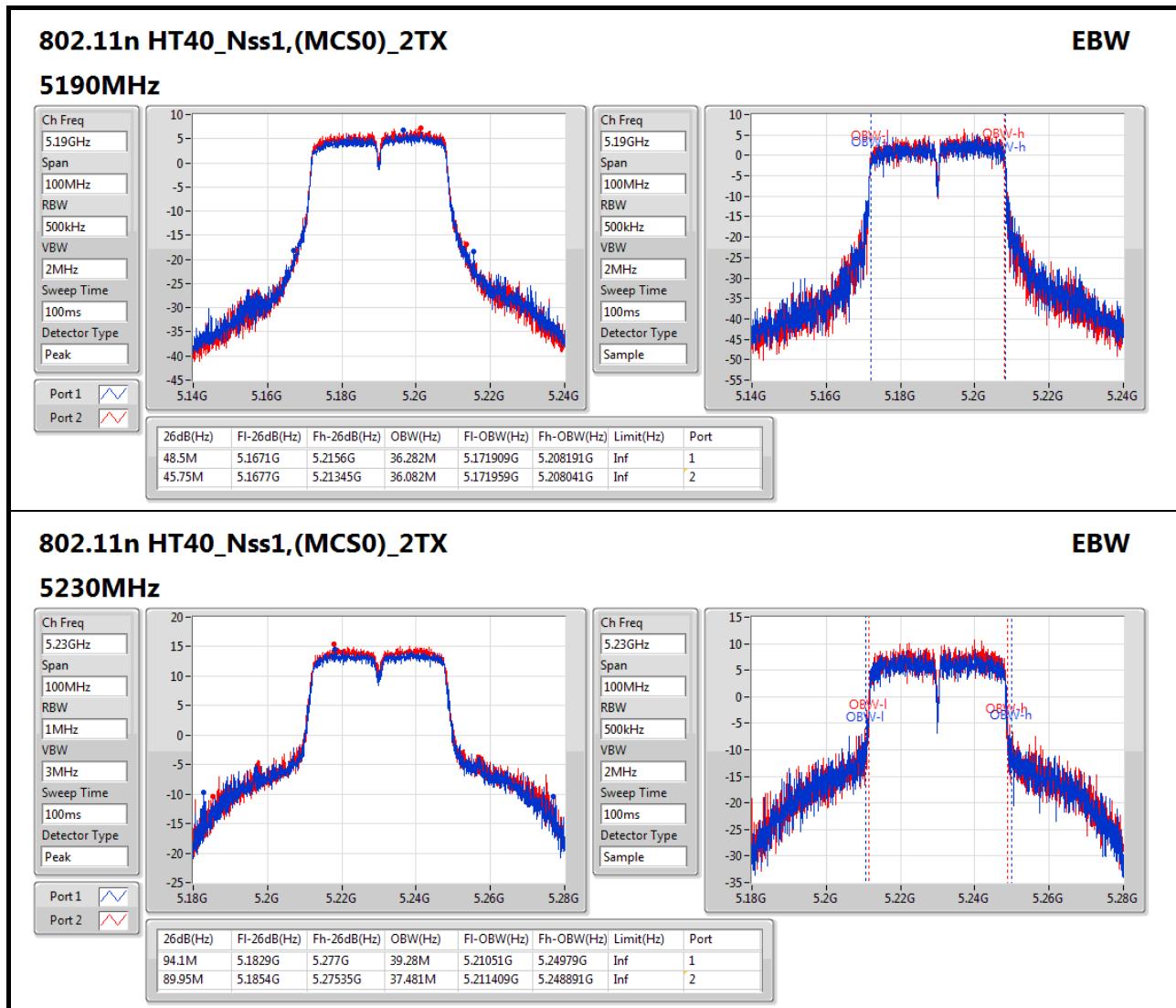
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	28.25M	16.542M	25.4M	16.517M
5200MHz	Pass	Inf	44.75M	24.813M	43.575M	24.688M
5240MHz	Pass	Inf	42.75M	19.49M	42.5M	19.34M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	26.375M	17.691M	32.15M	17.716M
5200MHz	Pass	Inf	49.025M	29.185M	48.25M	27.661M
5240MHz	Pass	Inf	44.85M	19.715M	44.575M	19.165M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	48.5M	36.282M	45.75M	36.082M
5230MHz	Pass	Inf	94.1M	39.28M	89.95M	37.481M

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

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

**802.11a_Nss1,(6Mbps)_2TX****EBW****5180MHz****802.11a_Nss1,(6Mbps)_2TX****EBW****5200MHz****802.11a_Nss1,(6Mbps)_2TX****EBW****5240MHz**

802.11n HT20_Nss1,(MCS0)_2TX
EBW
5180MHz

802.11n HT20_Nss1,(MCS0)_2TX
EBW
5200MHz

802.11n HT20_Nss1,(MCS0)_2TX
EBW
5240MHz




**For R3 B1 / Slave without radar detection
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	43.15M	18.941M	18M9D1D	25.4M	16.517M
802.11n HT20_Nss1,(MCS0)_2TX	45.625M	19.915M	19M9D1D	26.375M	17.691M
802.11n HT40_Nss1,(MCS0)_2TX	94.1M	39.28M	39M3D1D	45.75M	36.082M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

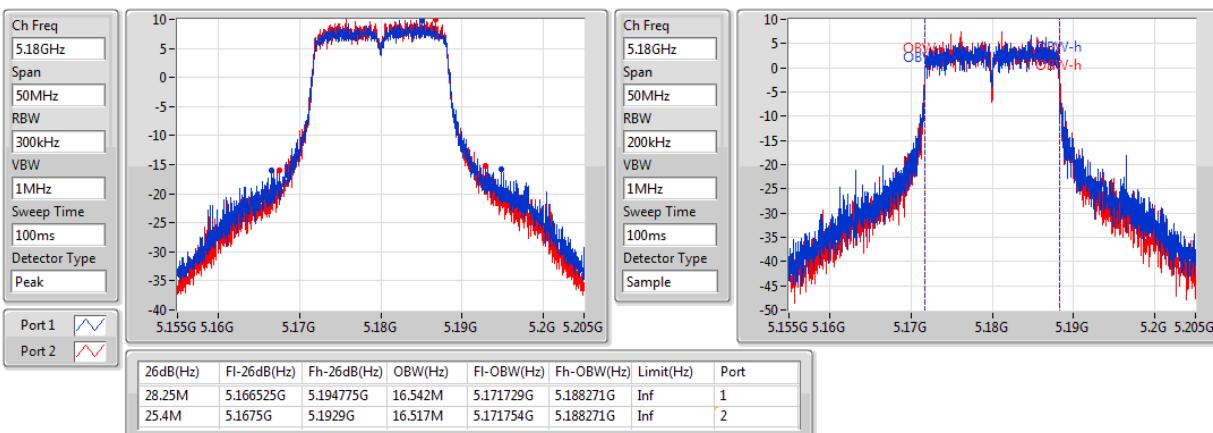
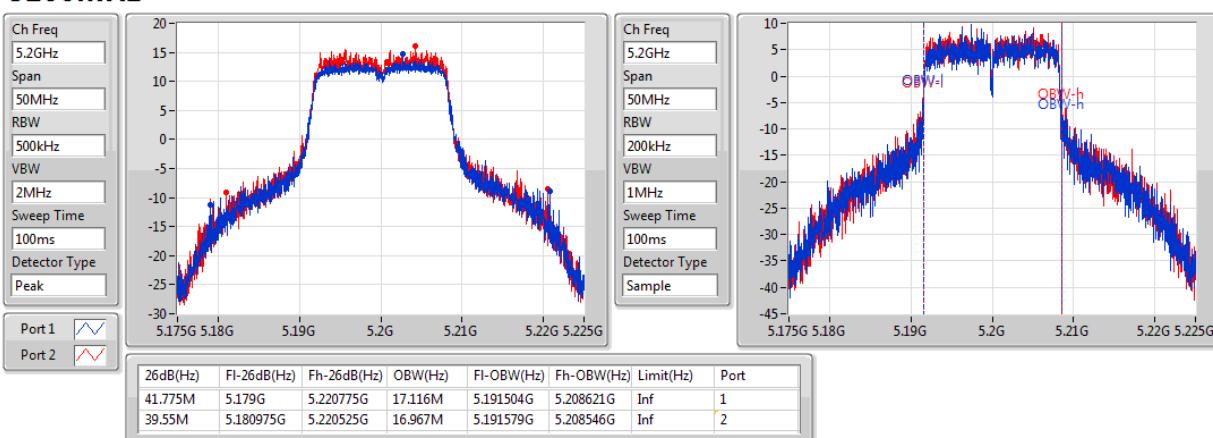
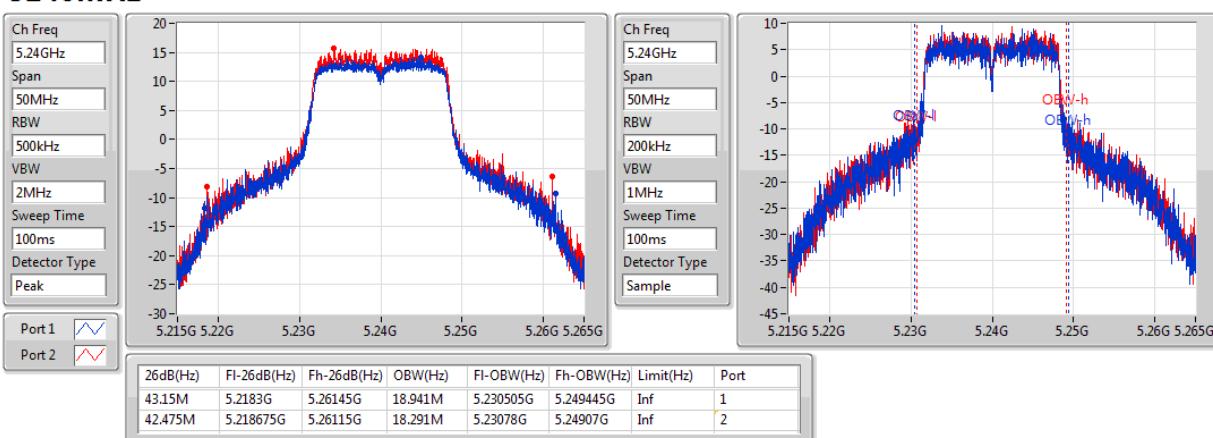
Min-OBW = Minimum 99% occupied bandwidth;

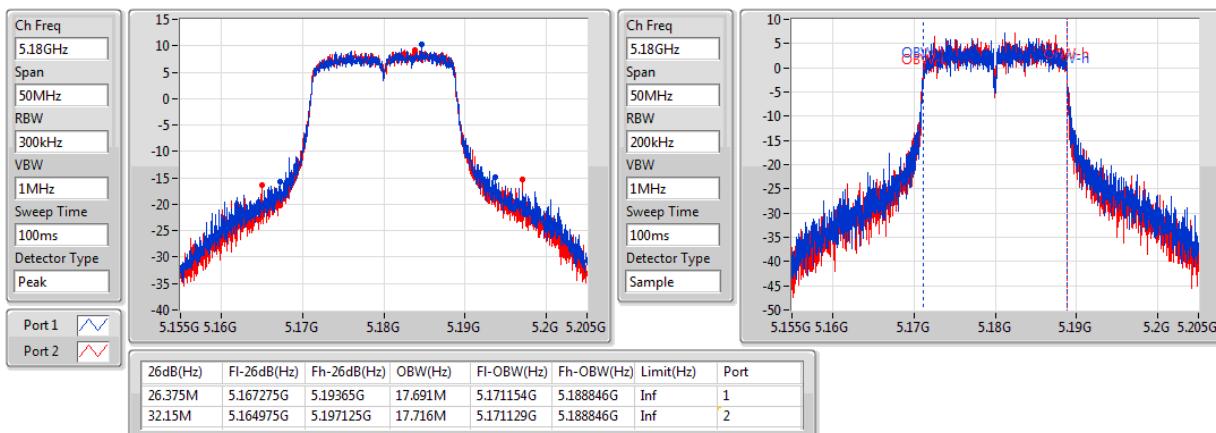
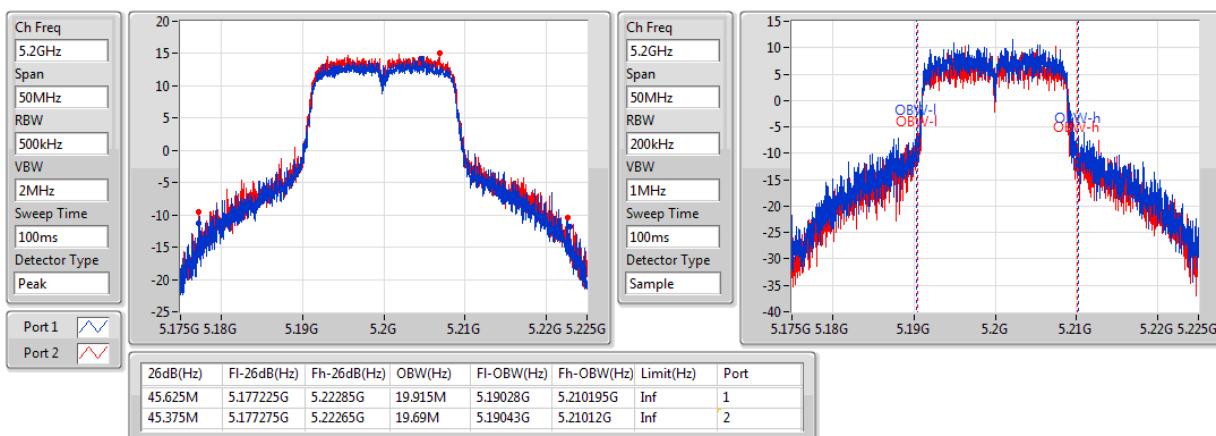
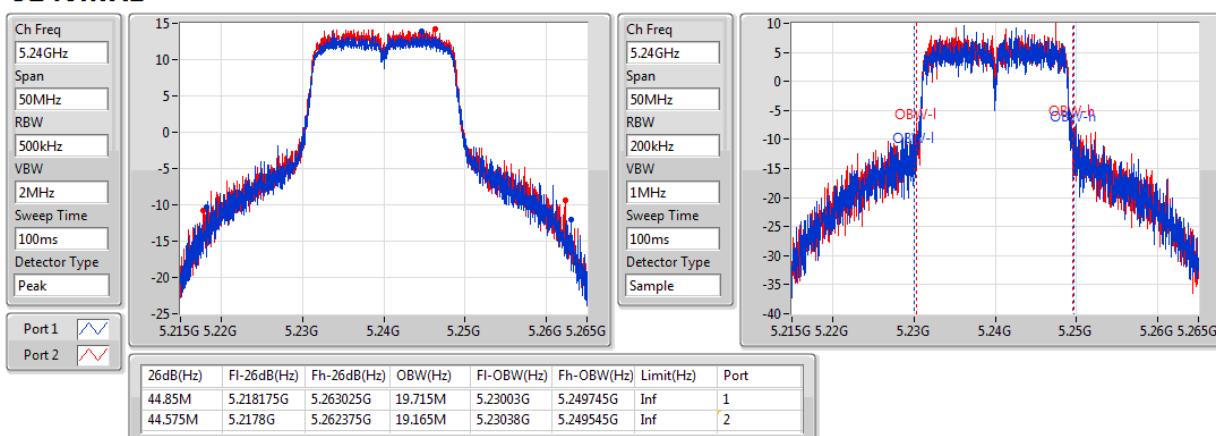
**Result**

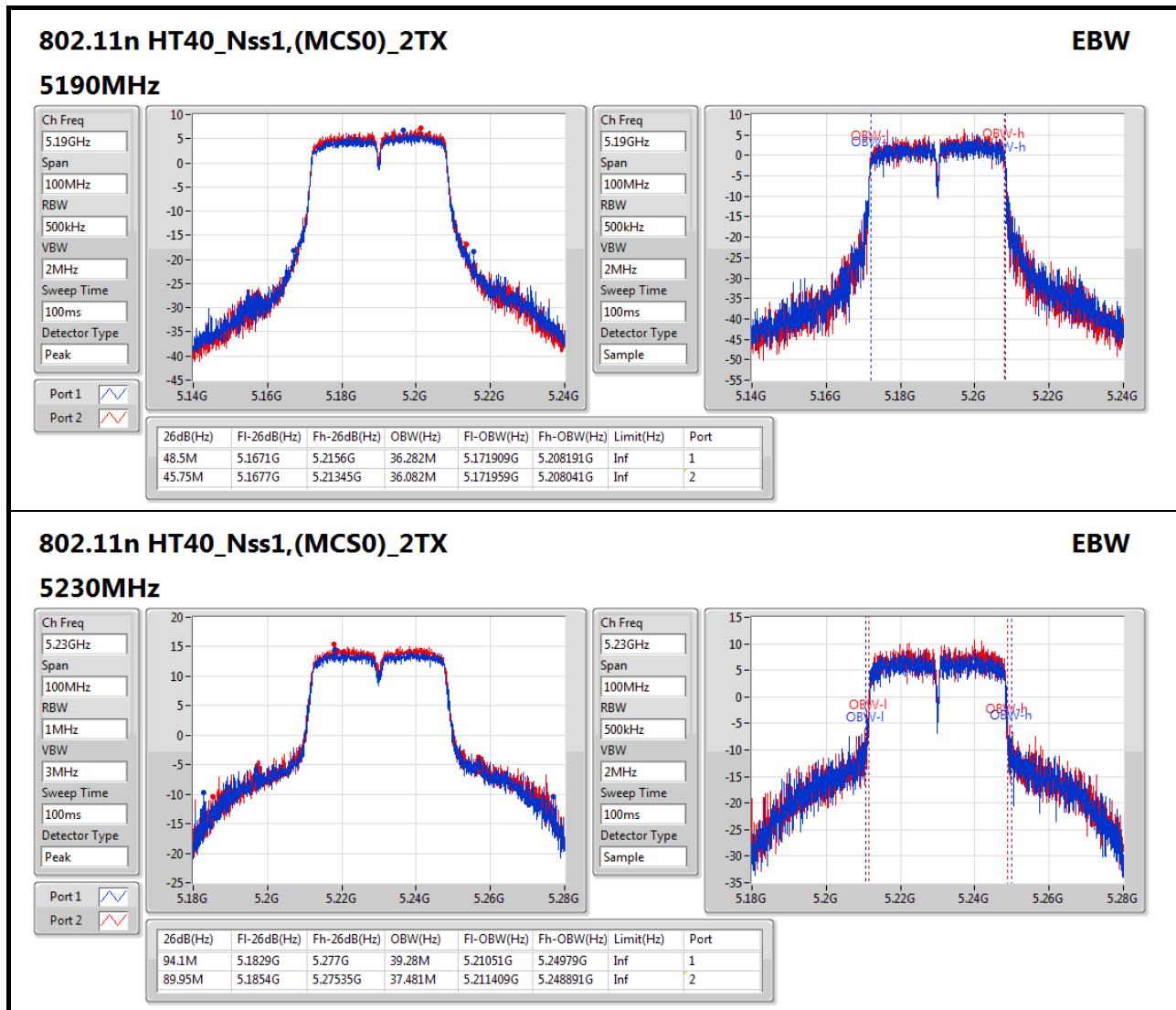
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	28.25M	16.542M	25.4M	16.517M
5200MHz	Pass	Inf	41.775M	17.116M	39.55M	16.967M
5240MHz	Pass	Inf	43.15M	18.941M	42.475M	18.291M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	26.375M	17.691M	32.15M	17.716M
5200MHz	Pass	Inf	45.625M	19.915M	45.375M	19.69M
5240MHz	Pass	Inf	44.85M	19.715M	44.575M	19.165M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	48.5M	36.282M	45.75M	36.082M
5230MHz	Pass	Inf	94.1M	39.28M	89.95M	37.481M

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

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

802.11a_Nss1,(6Mbps)_2TX
EBW
5180MHz

802.11a_Nss1,(6Mbps)_2TX
EBW
5200MHz

802.11a_Nss1,(6Mbps)_2TX
EBW
5240MHz


802.11n HT20_Nss1,(MCS0)_2TX
EBW
5180MHz

802.11n HT20_Nss1,(MCS0)_2TX
EBW
5200MHz

802.11n HT20_Nss1,(MCS0)_2TX
EBW
5240MHz




**For R3 B2 / Master and Slave without radar detection****Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	43.275M	20.99M	21M0D1D	41.25M	17.166M
802.11n HT20_Nss1,(MCS0)_2TX	47.6M	24.388M	24M4D1D	41.5M	18.116M
802.11n HT40_Nss1,(MCS0)_2TX	97.25M	44.428M	44M4D1D	48.3M	36.232M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

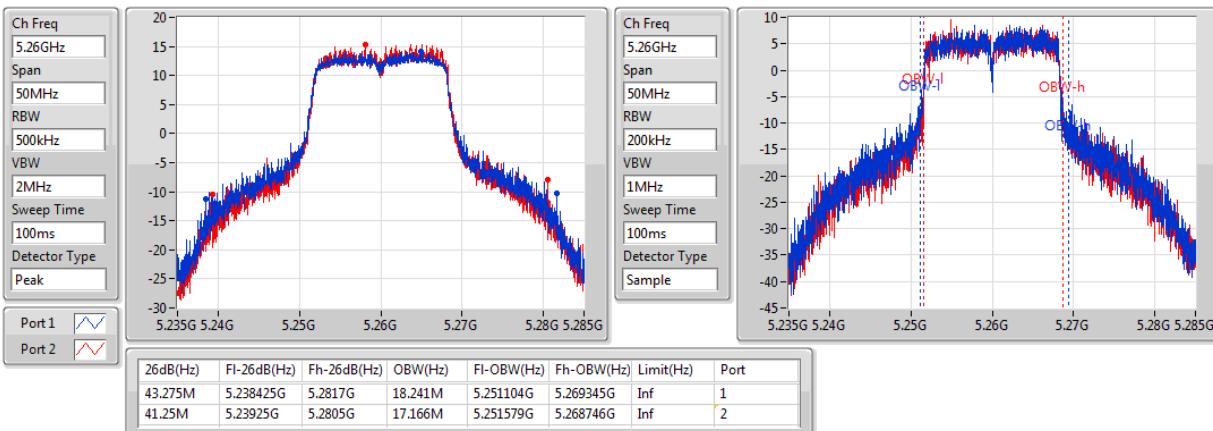
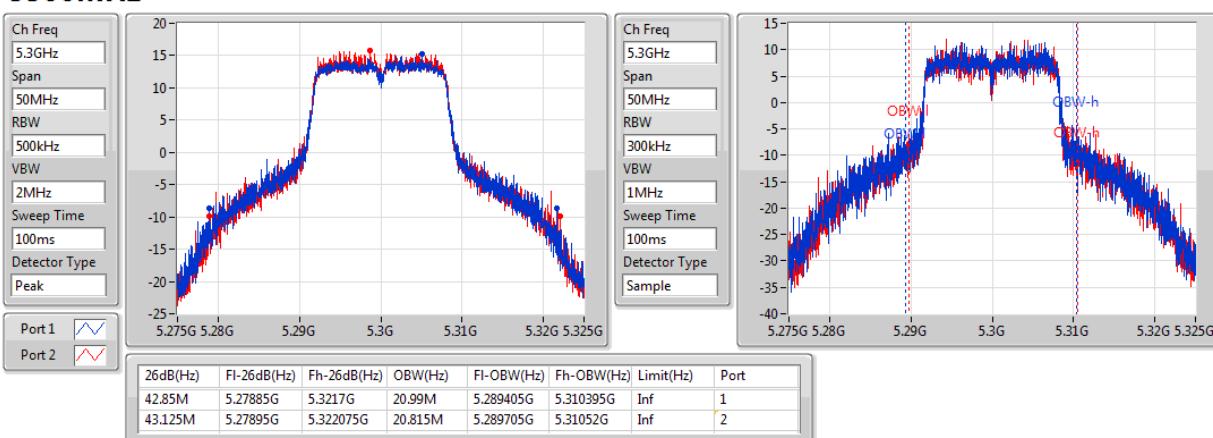
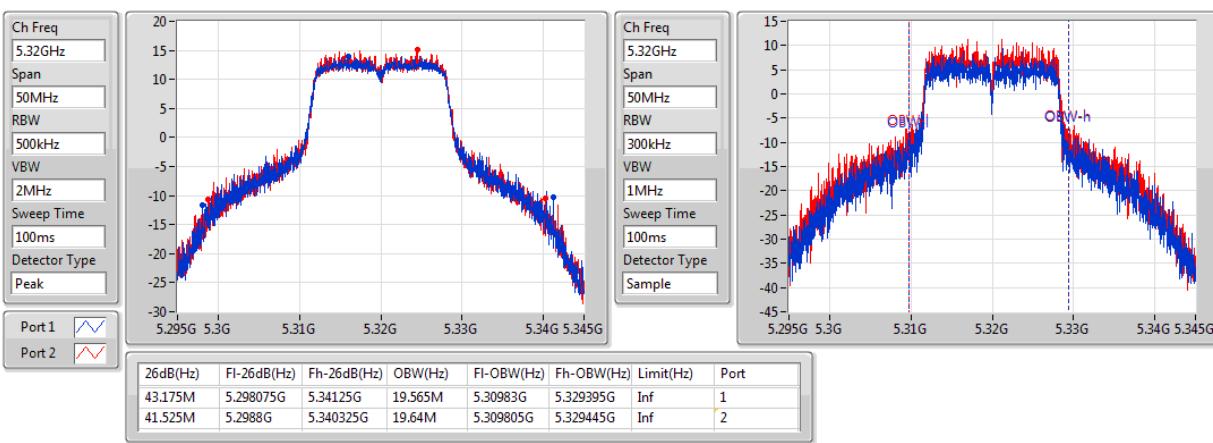
Min-OBW = Minimum 99% occupied bandwidth;

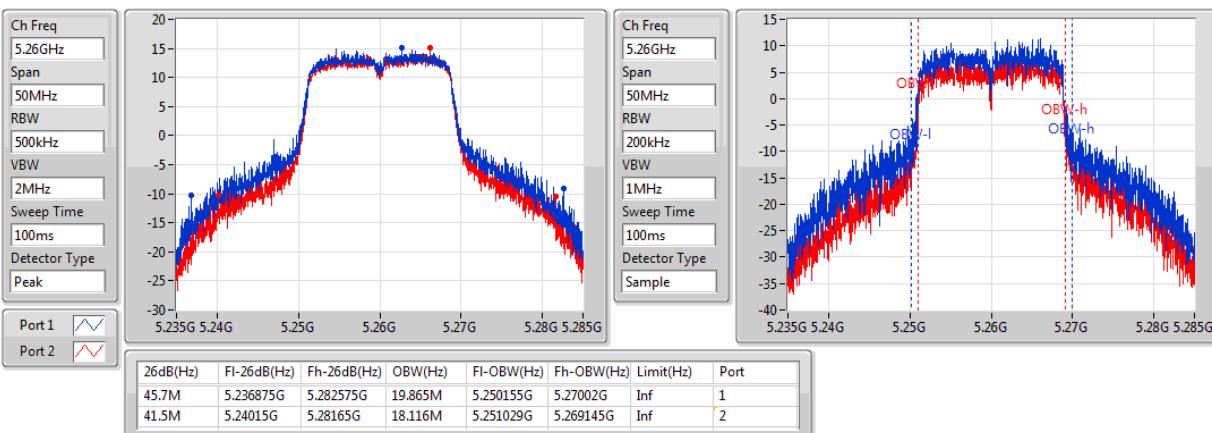
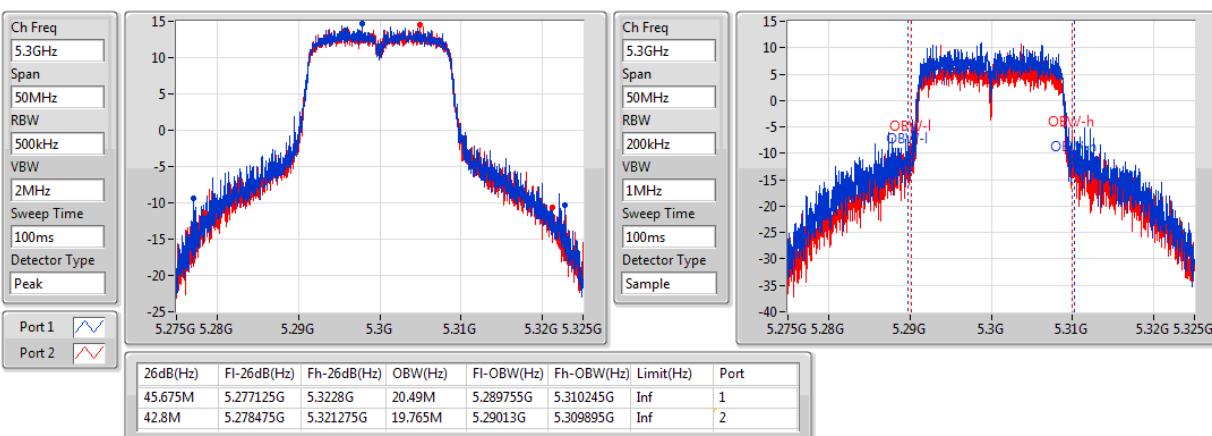
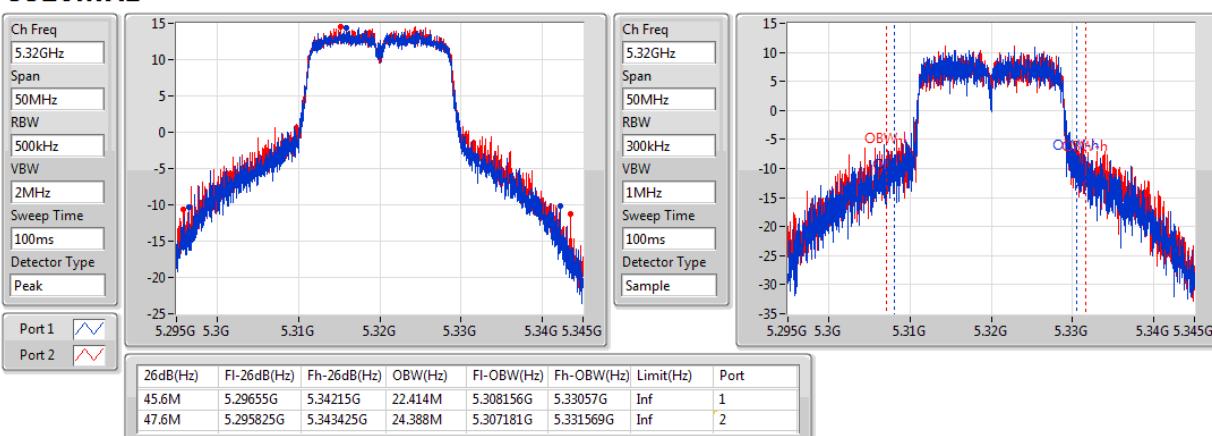
**Result**

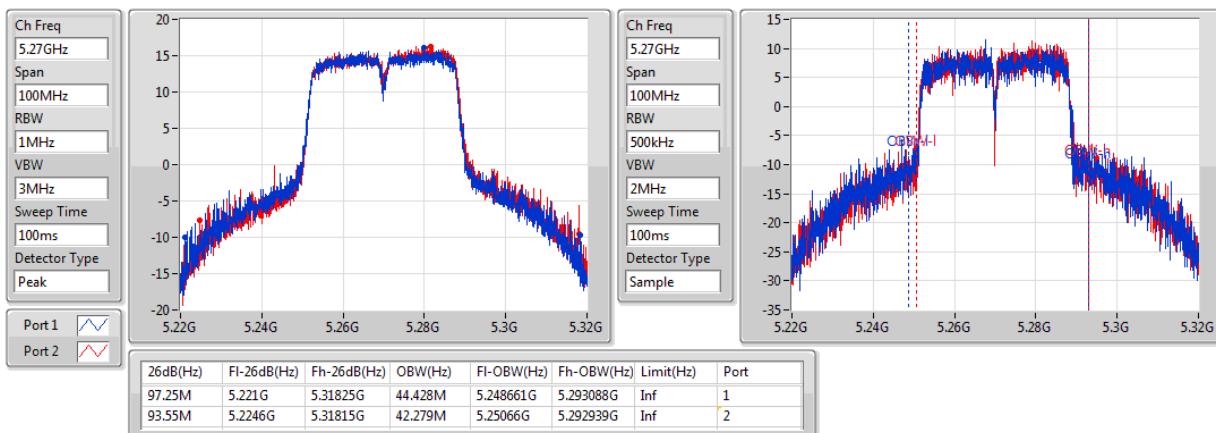
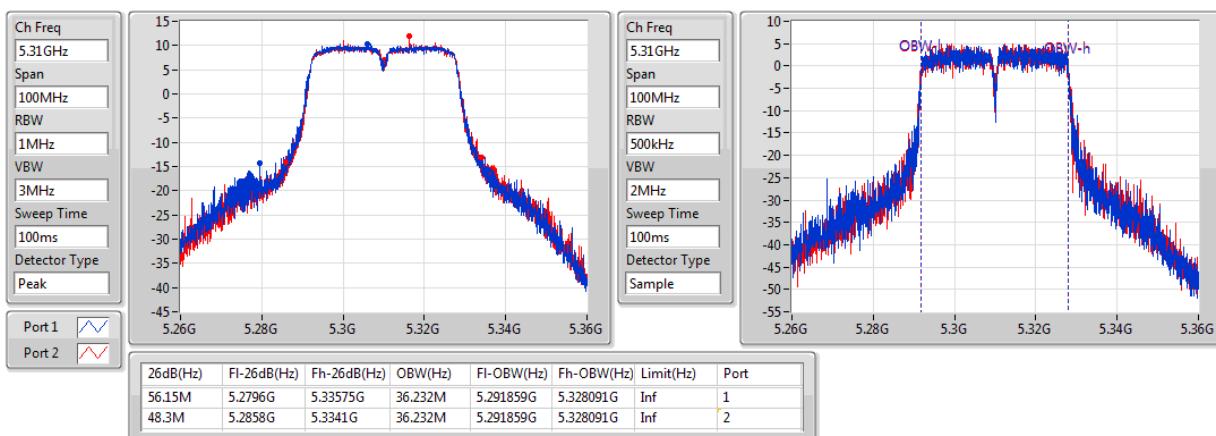
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	43.275M	18.241M	41.25M	17.166M
5300MHz	Pass	Inf	42.85M	20.99M	43.125M	20.815M
5320MHz	Pass	Inf	43.175M	19.565M	41.525M	19.64M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	45.7M	19.865M	41.5M	18.116M
5300MHz	Pass	Inf	45.675M	20.49M	42.8M	19.765M
5320MHz	Pass	Inf	45.6M	22.414M	47.6M	24.388M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	97.25M	44.428M	93.55M	42.279M
5310MHz	Pass	Inf	56.15M	36.232M	48.3M	36.232M

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

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

802.11a_Nss1,(6Mbps)_2TX
EBW
5260MHz

802.11a_Nss1,(6Mbps)_2TX
EBW
5300MHz

802.11a_Nss1,(6Mbps)_2TX
EBW
5320MHz


802.11n HT20_Nss1,(MCS0)_2TX
EBW
5260MHz

802.11n HT20_Nss1,(MCS0)_2TX
EBW
5300MHz

802.11n HT20_Nss1,(MCS0)_2TX
EBW
5320MHz


802.11n HT40_Nss1,(MCS0)_2TX
EBW
5270MHz

802.11n HT40_Nss1,(MCS0)_2TX
EBW
5310MHz


**For R2 B3 / Master and Slave without radar detection
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.05M	16.442M	16M4D1D	14.4M	13.193M
802.11ac VHT20_Nss1,(MCS0)_2TX	19.975M	17.666M	17M7D1D	14.955M	13.808M
802.11ac VHT40_Nss1,(MCS0)_2TX	63.15M	36.232M	36M2D1D	34.51M	32.779M
802.11ac VHT80_Nss1,(MCS0)_2TX	83.4M	75.762M	75M8D1D	76.2M	72.564M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	3.12M	3.338M	3M34D1D	3.1M	3.298M
802.11ac VHT20_Nss1,(MCS0)_2TX	3.8M	3.858M	3M86D1D	3.7M	3.818M
802.11ac VHT40_Nss1,(MCS0)_2TX	3.12M	3.318M	3M32D1D	3.1M	3.278M
802.11ac VHT80_Nss1,(MCS0)_2TX	3.18M	3.698M	3M70D1D	3.1M	3.658M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;

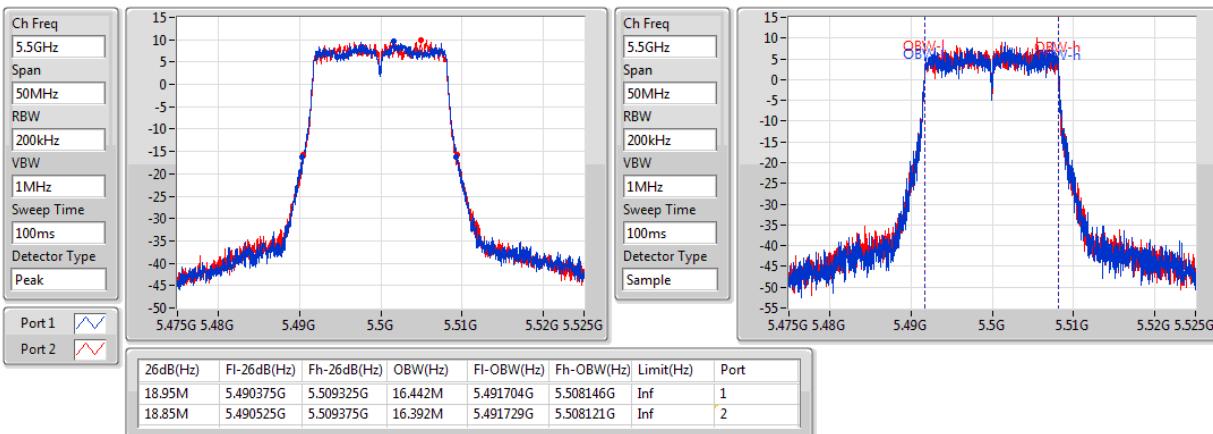
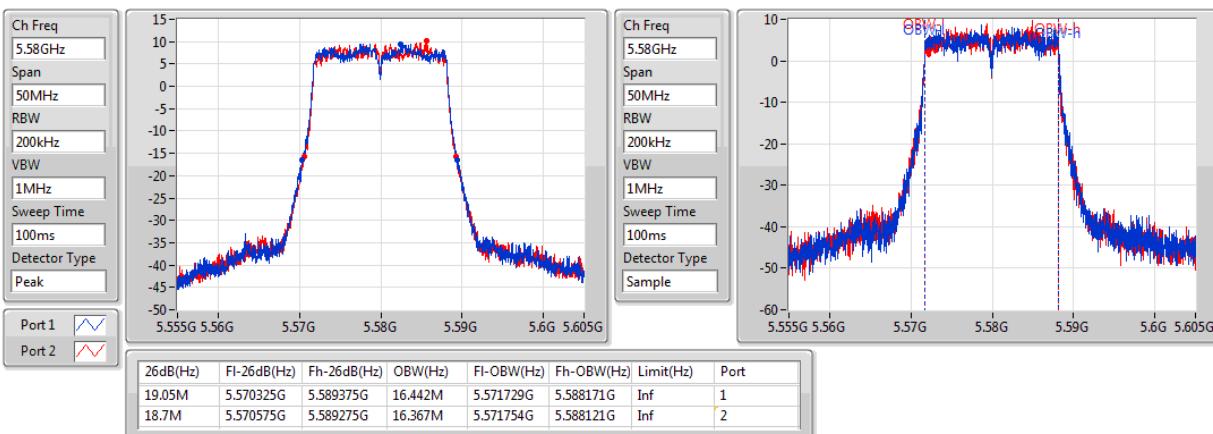
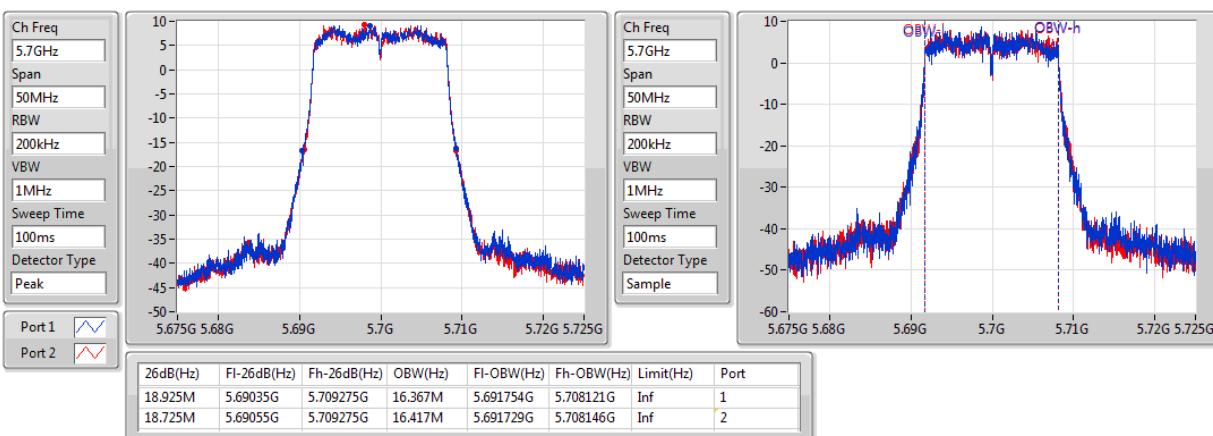


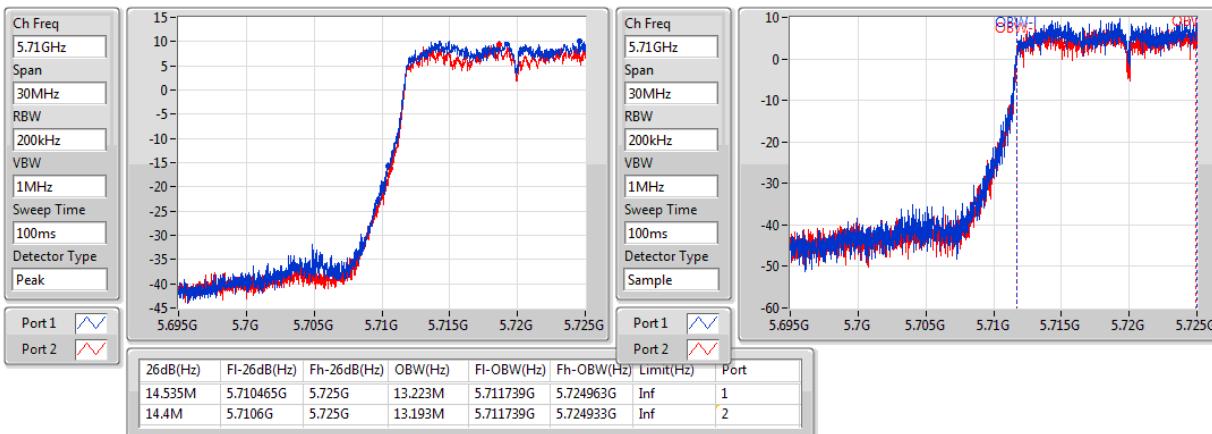
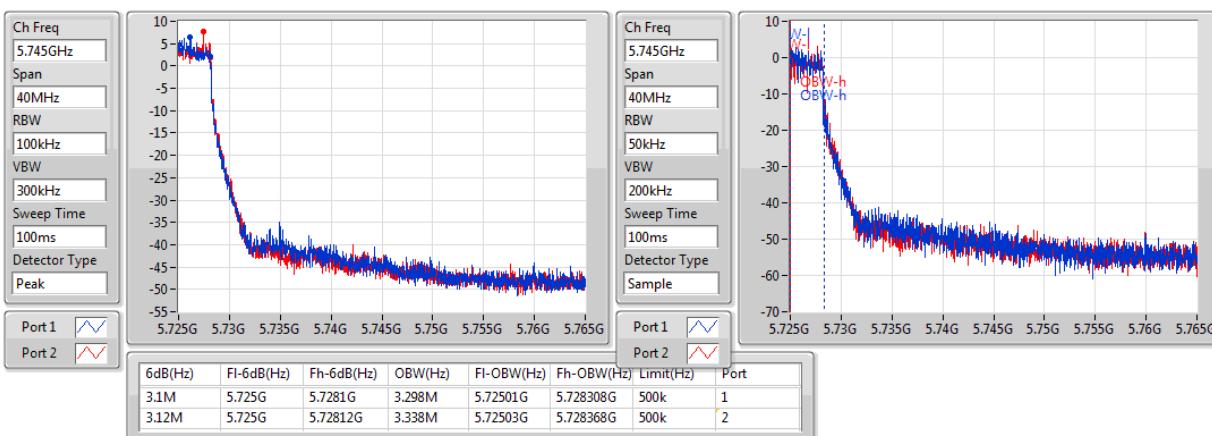
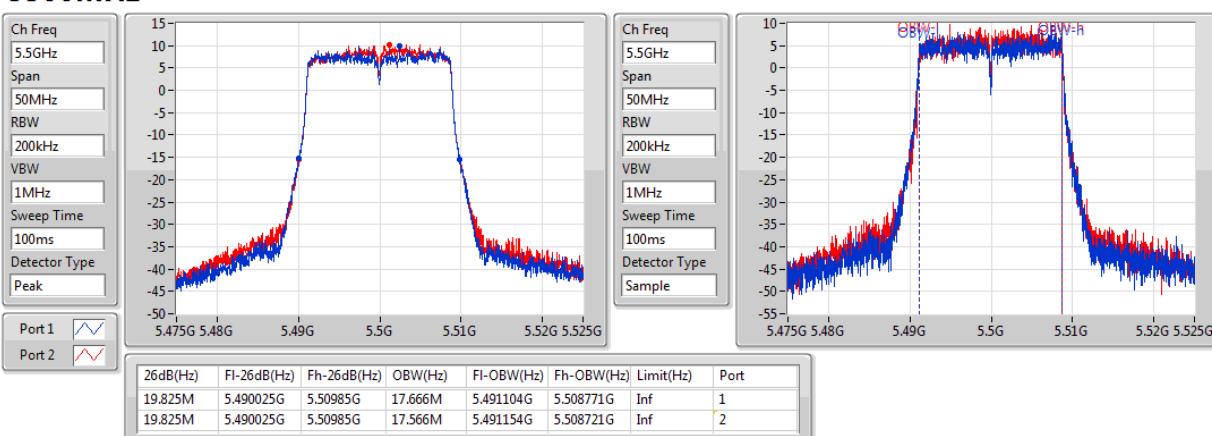
Result

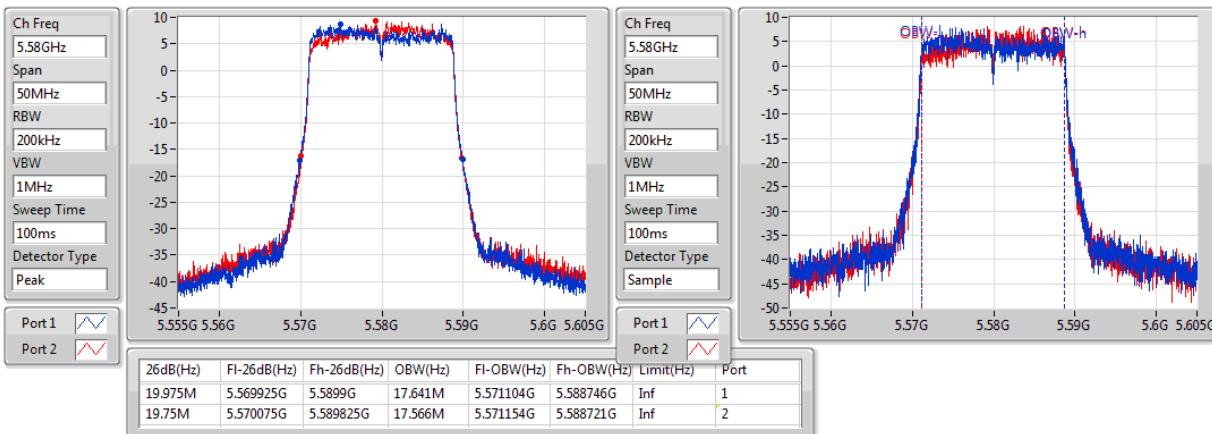
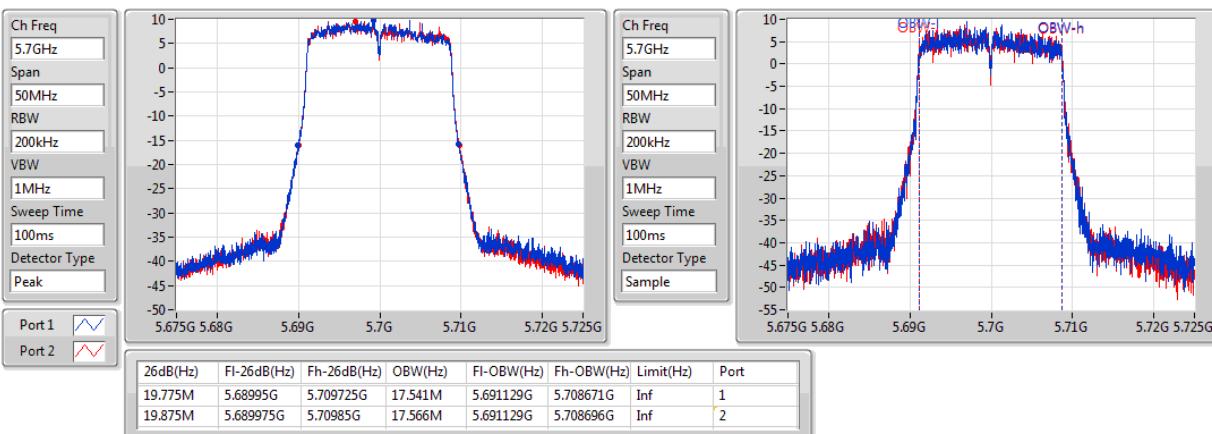
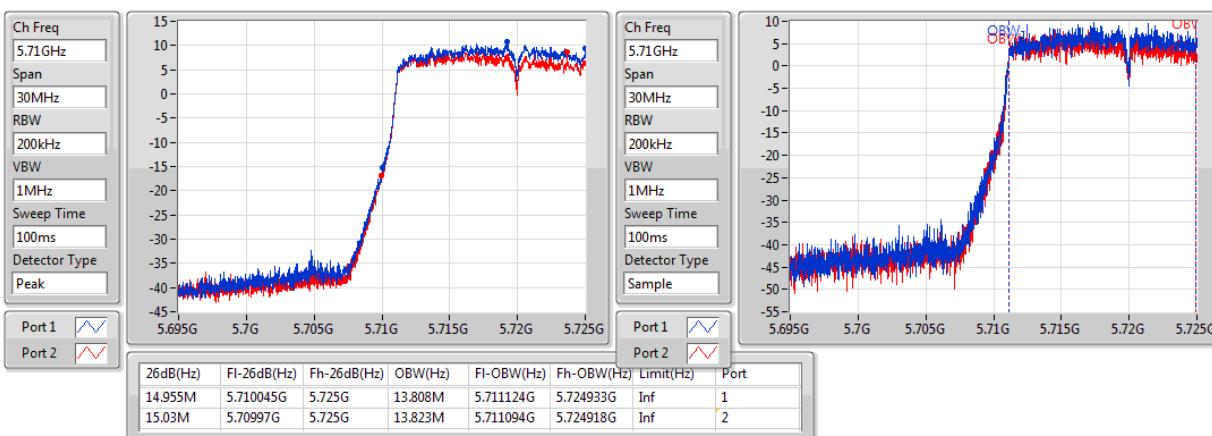
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5500MHz	Pass	Inf	18.95M	16.442M	18.85M	16.392M
5580MHz	Pass	Inf	19.05M	16.442M	18.7M	16.367M
5700MHz	Pass	Inf	18.925M	16.367M	18.725M	16.417M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	14.535M	13.223M	14.4M	13.193M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	3.298M	3.12M	3.338M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5500MHz	Pass	Inf	19.825M	17.666M	19.825M	17.566M
5580MHz	Pass	Inf	19.975M	17.641M	19.75M	17.566M
5700MHz	Pass	Inf	19.775M	17.541M	19.875M	17.566M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	14.955M	13.808M	15.03M	13.823M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.7M	3.818M	3.8M	3.858M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5510MHz	Pass	Inf	39.1M	35.782M	39.45M	35.982M
5550MHz	Pass	Inf	58M	35.932M	63.15M	36.232M
5670MHz	Pass	Inf	39.25M	35.982M	39.45M	36.032M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.58M	32.849M	34.51M	32.779M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	3.318M	3.1M	3.278M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5530MHz	Pass	Inf	83.1M	75.562M	83.2M	75.662M
5610MHz	Pass	Inf	83.4M	75.762M	83M	75.762M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.575M	72.639M	76.2M	72.564M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.18M	3.698M	3.1M	3.658M

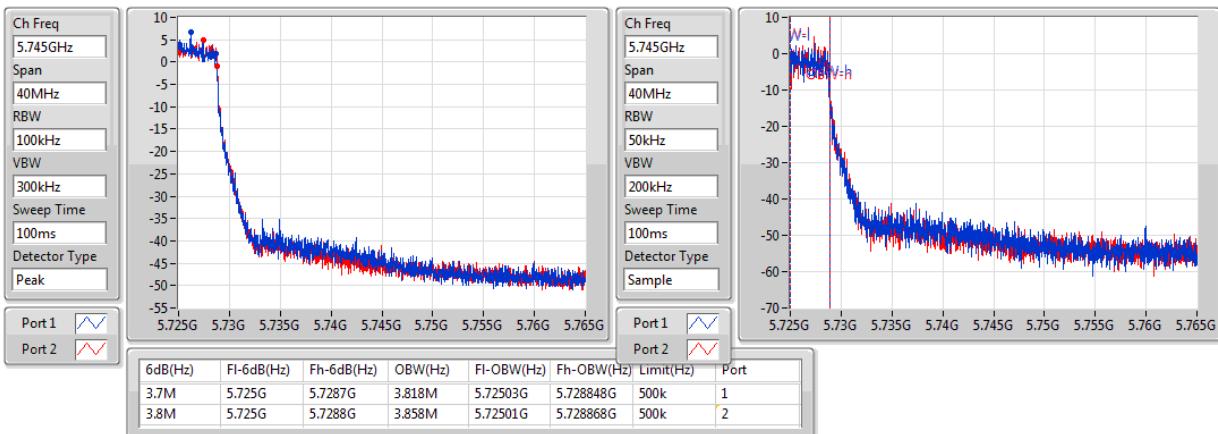
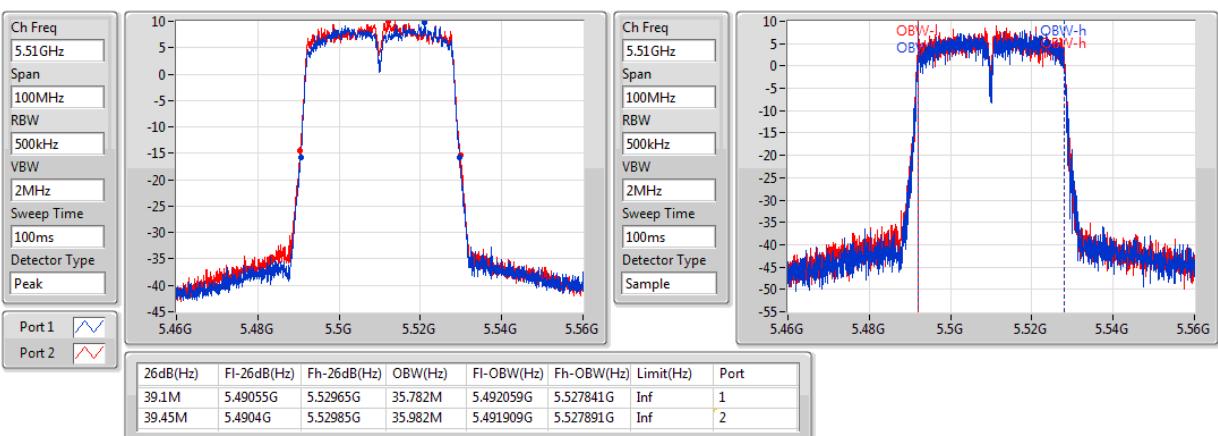
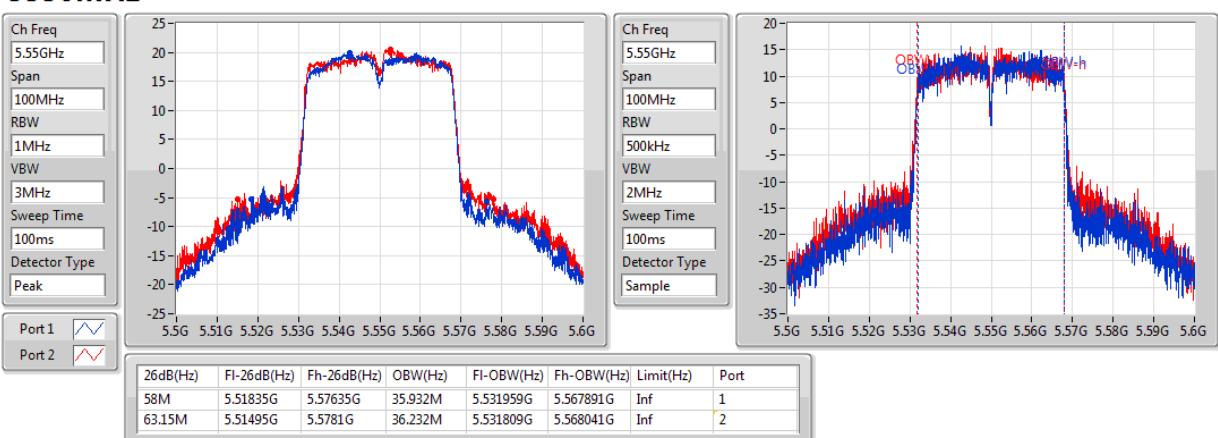
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

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

802.11a_Nss1,(6Mbps)_2TX
EBW
5500MHz

802.11a_Nss1,(6Mbps)_2TX
EBW
5580MHz

802.11a_Nss1,(6Mbps)_2TX
EBW
5700MHz


**802.11a_Nss1,(6Mbps)_2TX****EBW****5720MHz Straddle 5.47-5.725GHz****802.11a_Nss1,(6Mbps)_2TX****EBW****5720MHz Straddle 5.725-5.85GHz****802.11ac VHT20_Nss1,(MCS0)_2TX****EBW****5500MHz**

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

**802.11ac VHT20_Nss1,(MCS0)_2TX****EBW****5720MHz Straddle 5.725-5.85GHz****802.11ac VHT40_Nss1,(MCS0)_2TX****EBW****5510MHz****802.11ac VHT40_Nss1,(MCS0)_2TX****EBW****5550MHz**



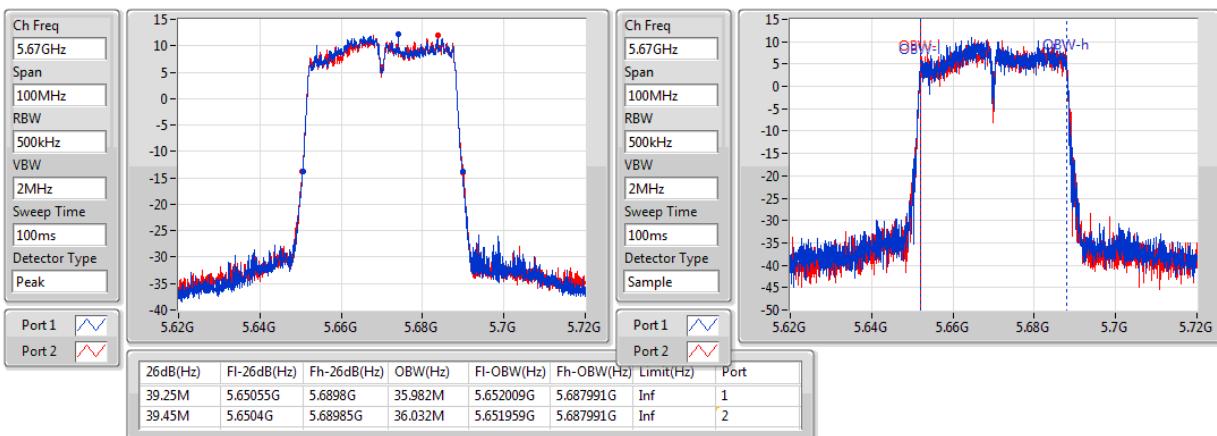
EBW Result

Appendix B

802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

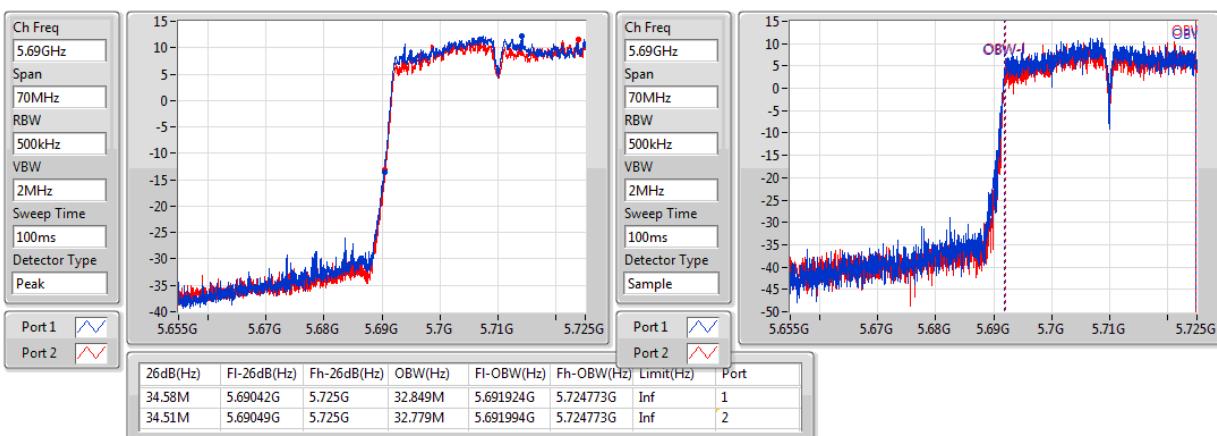
5670MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

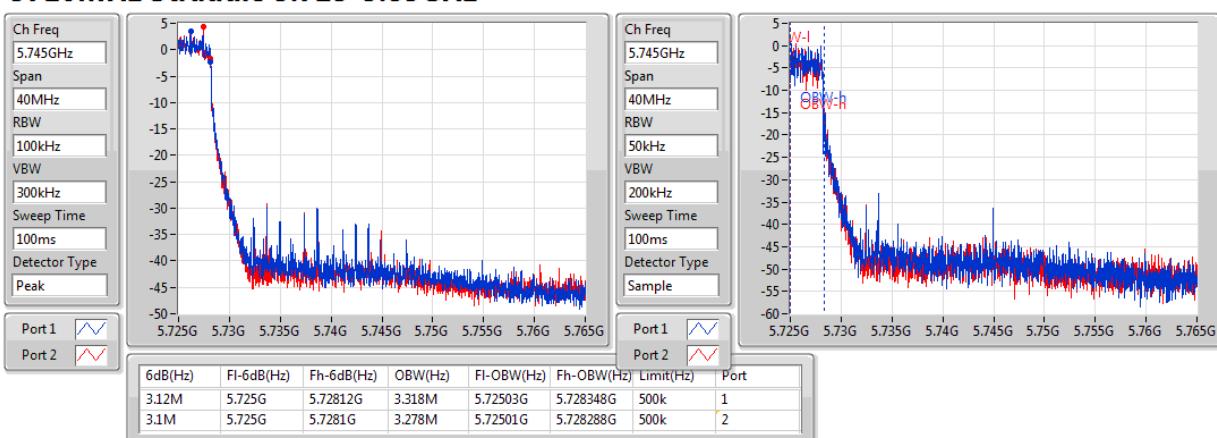
5710MHz Straddle 5.47-5.725GHz

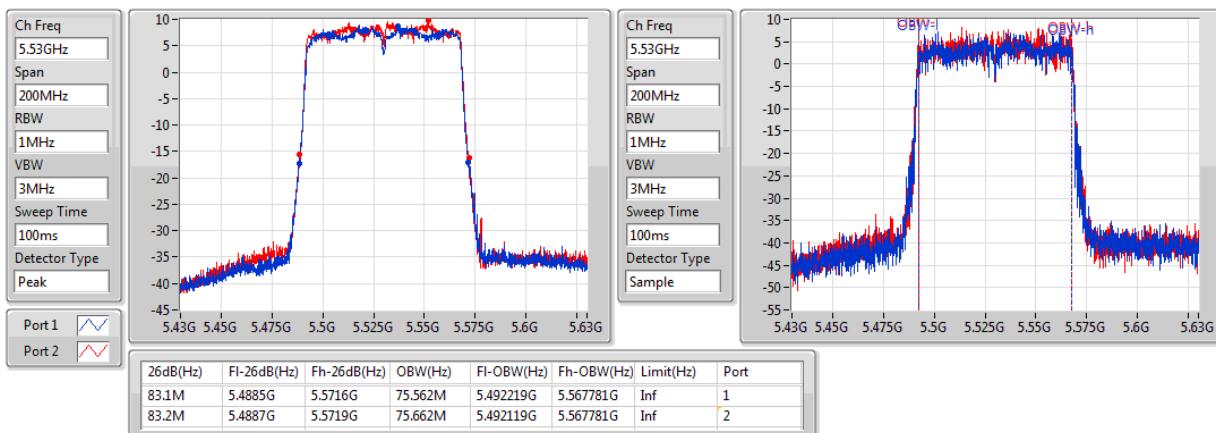
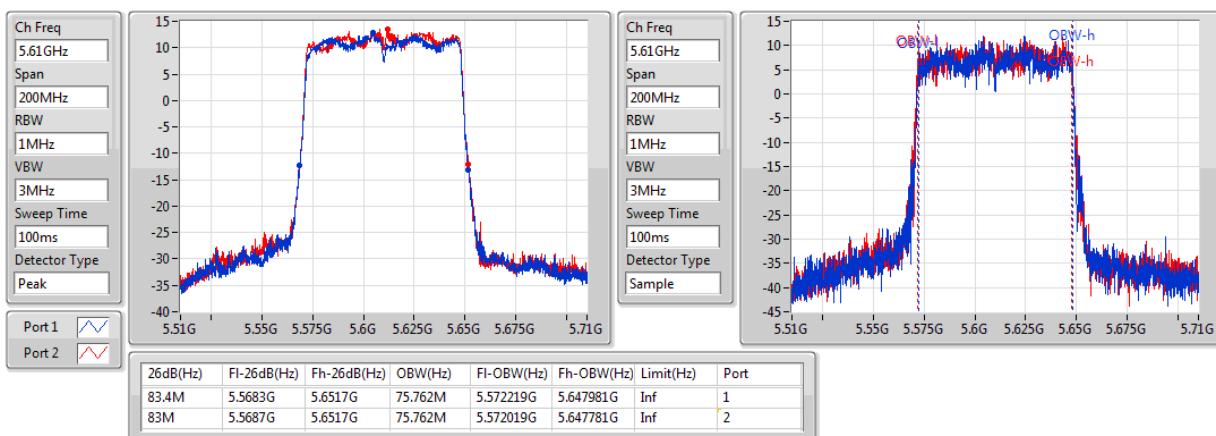
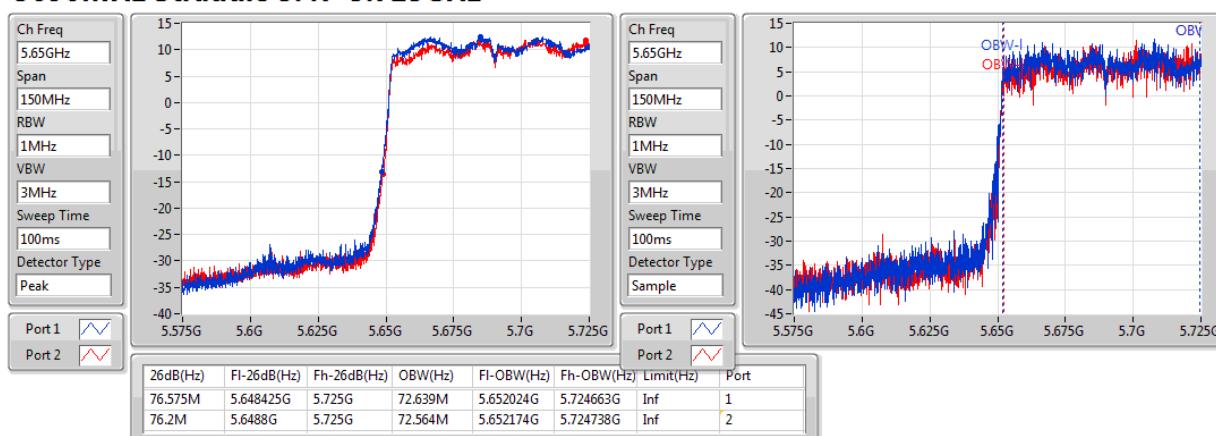


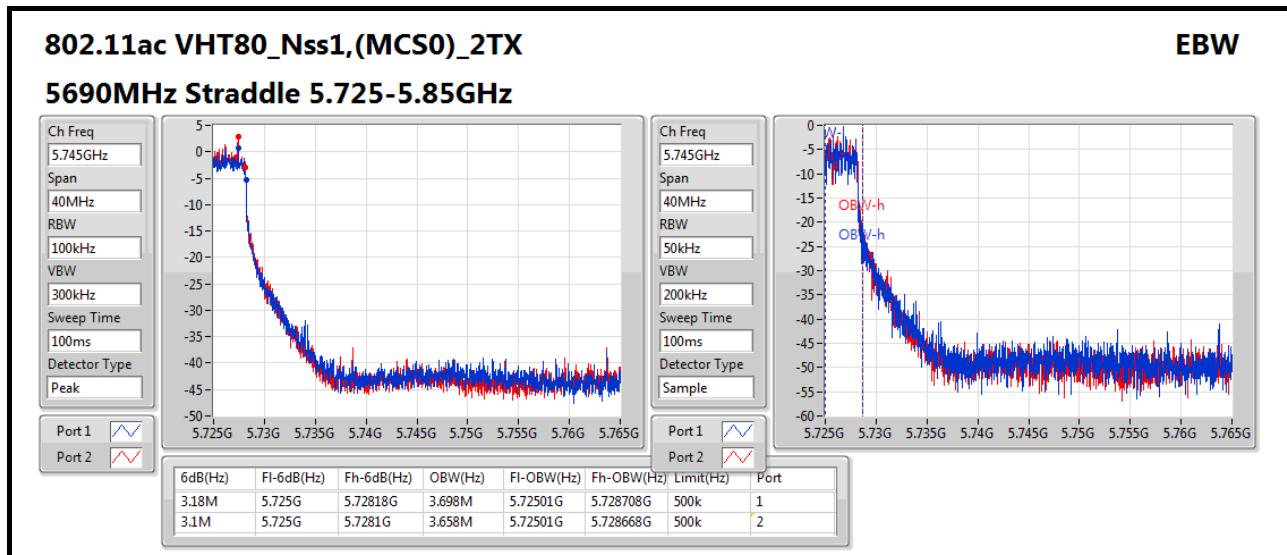
802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

5710MHz Straddle 5.725-5.85GHz



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



**For R2 B4 / Master and Slave without radar detection****Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.375M	16.467M	16M5D1D	15.9M	16.342M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.6M	17.691M	17M7D1D	16.95M	17.516M
802.11ac VHT40_Nss1,(MCS0)_2TX	35.95M	36.282M	36M3D1D	35M	36.132M
802.11ac VHT80_Nss1,(MCS0)_2TX	75.8M	75.762M	75M8D1D	74.5M	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)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	500k	16.05M	16.367M	16.325M	16.442M
5785MHz	Pass	500k	15.9M	16.342M	16.375M	16.467M
5825MHz	Pass	500k	16.3M	16.342M	16.35M	16.467M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	500k	17.175M	17.591M	17.575M	17.691M
5785MHz	Pass	500k	17.15M	17.516M	17.575M	17.666M
5825MHz	Pass	500k	16.95M	17.566M	17.6M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	500k	35.05M	36.182M	35.1M	36.132M
5795MHz	Pass	500k	35.95M	36.282M	35M	36.132M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	500k	75.8M	75.762M	74.5M	75.362M

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;



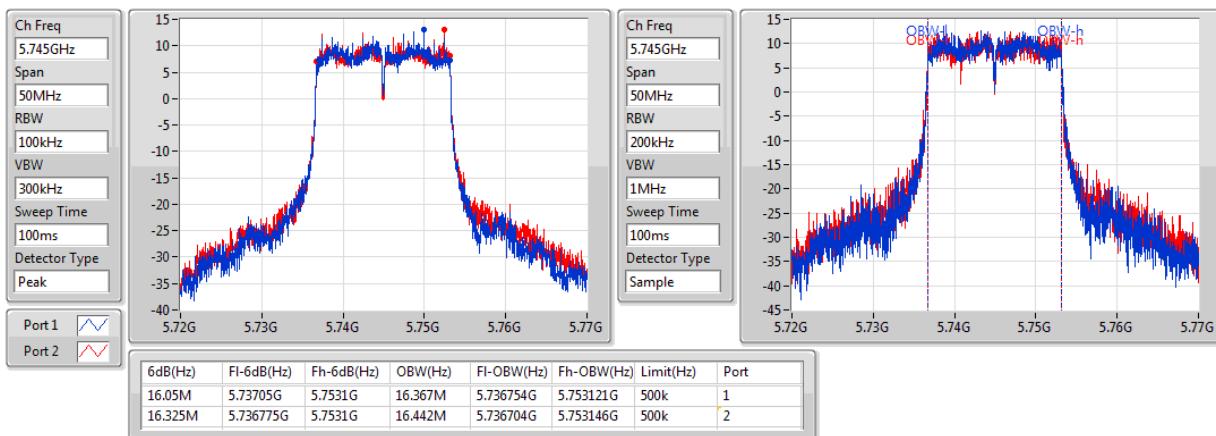
EBW Result

Appendix B

802.11a_Nss1,(6Mbps)_2TX

EBW

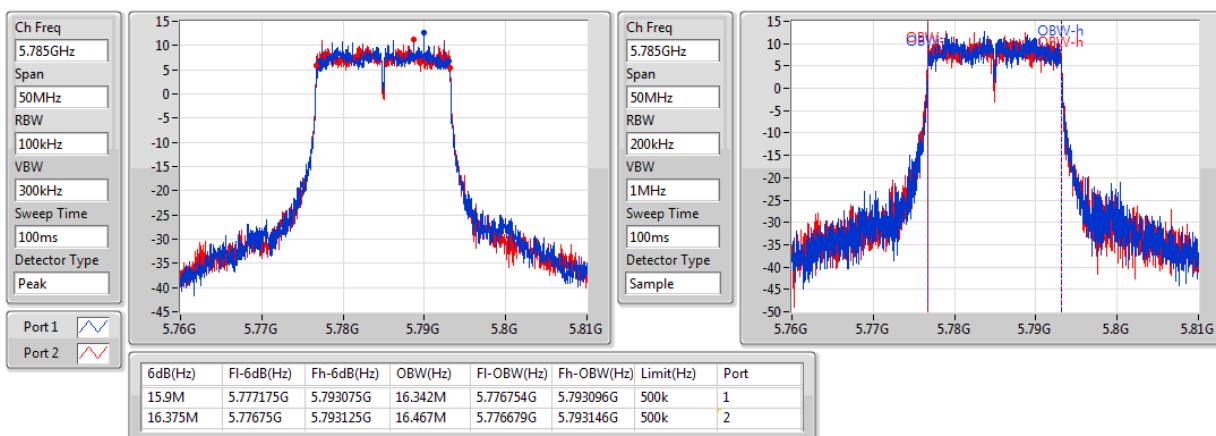
5745MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

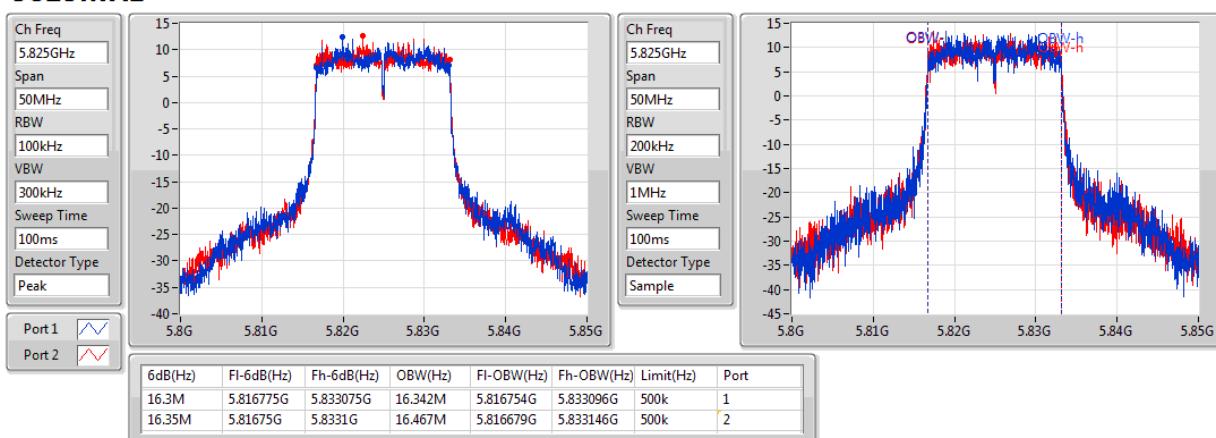
5785MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

5825MHz

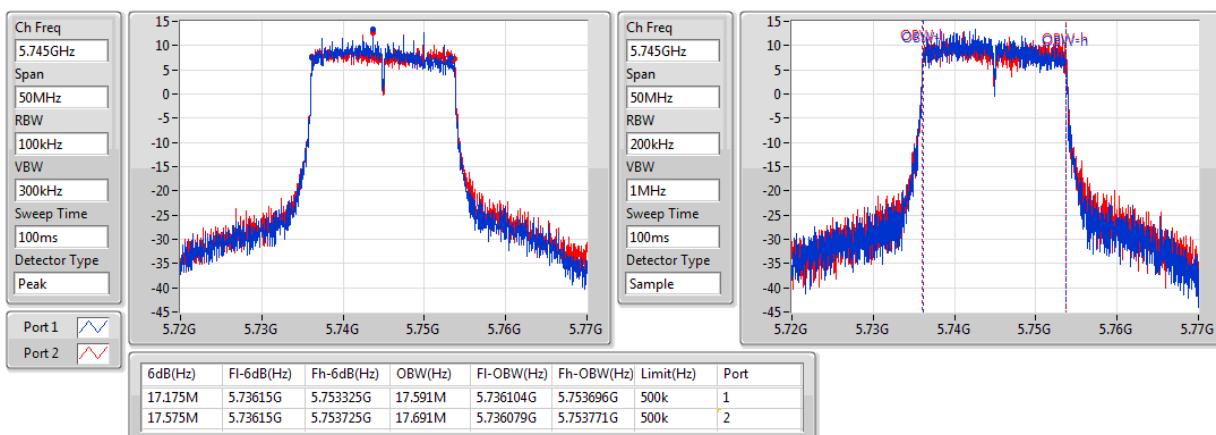




802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

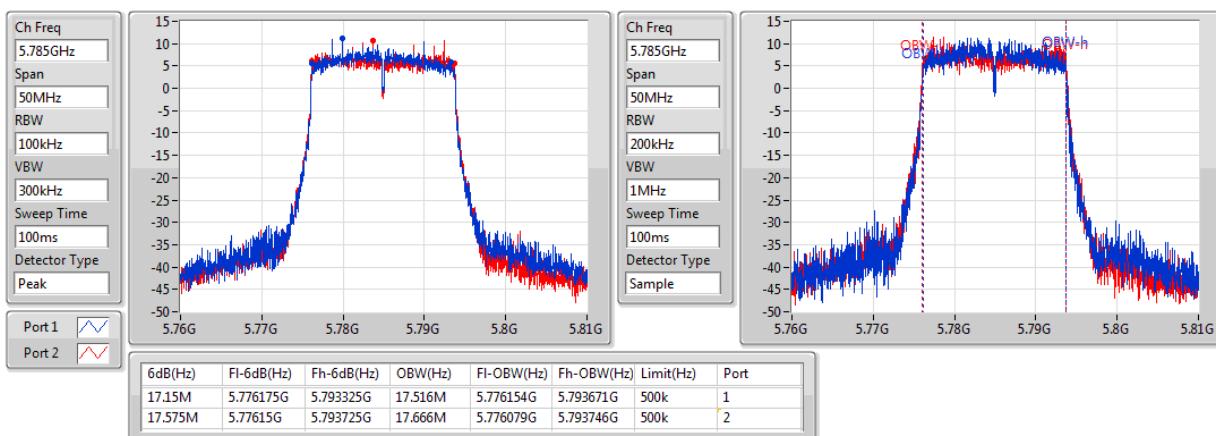
5745MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

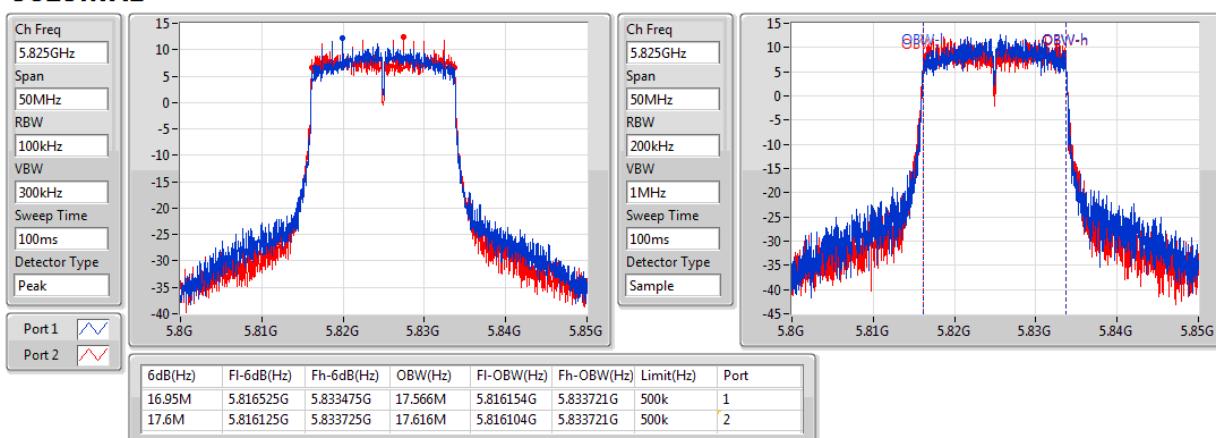
5785MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5825MHz





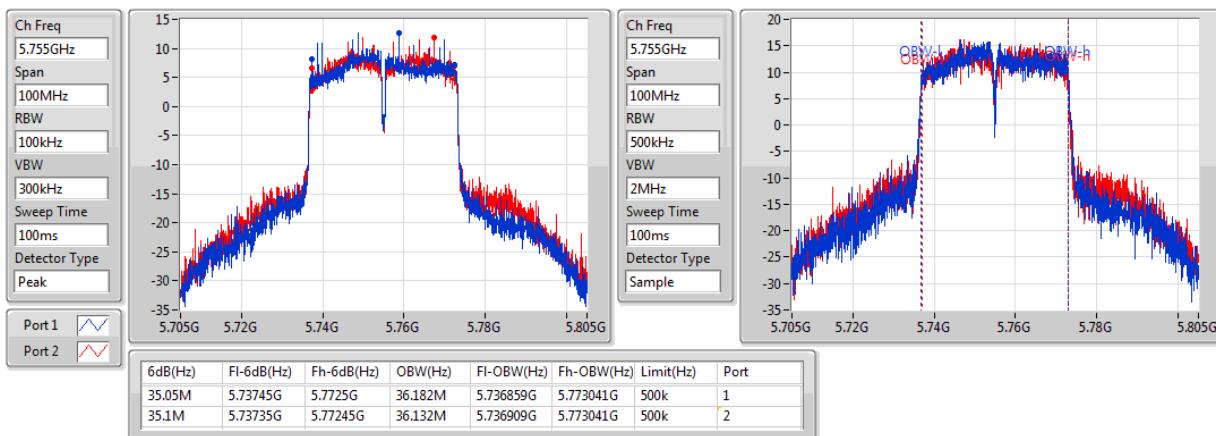
EBW Result

Appendix B

802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

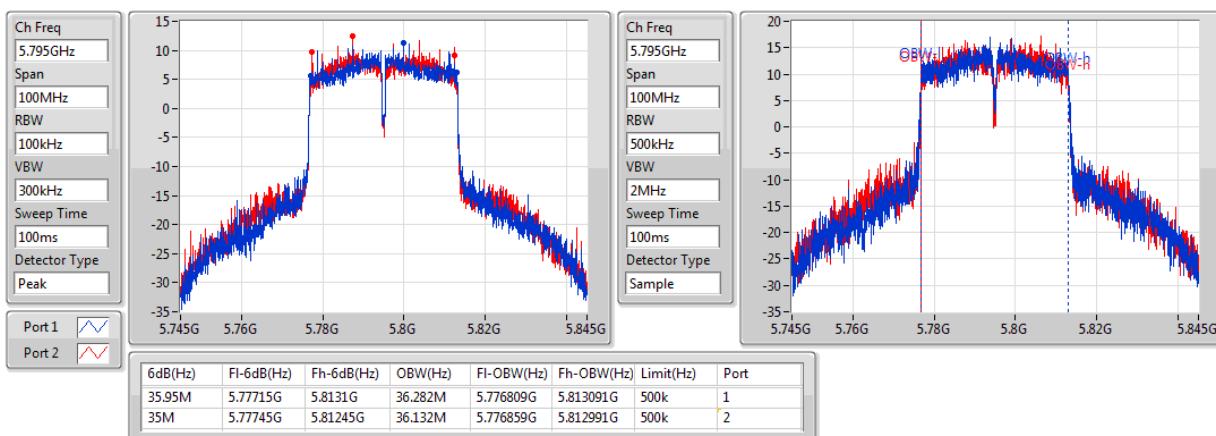
5755MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

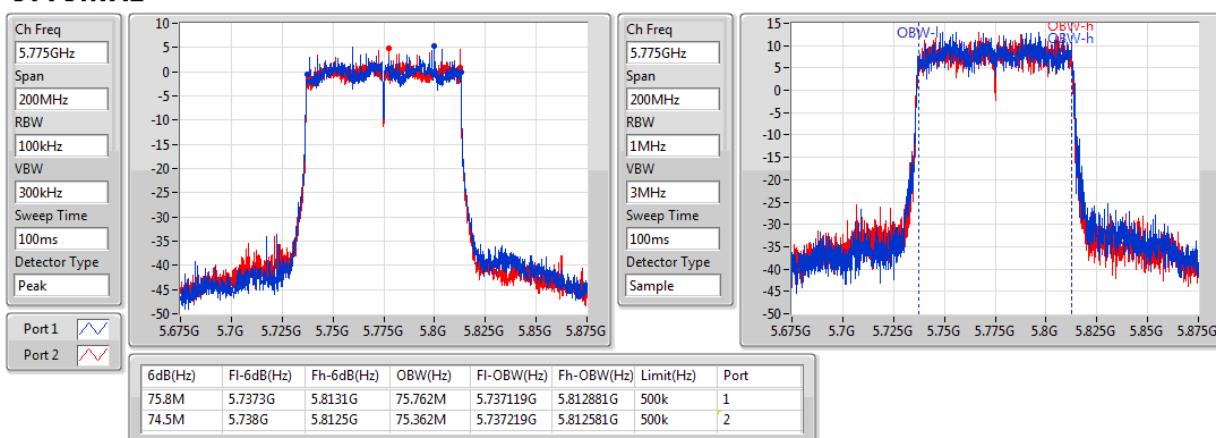
5795MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5775MHz





**For R3 B1 / Master
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	24.74	0.29785
802.11n HT20_Nss1,(MCS0)_2TX	24.98	0.31477
802.11n HT40_Nss1,(MCS0)_2TX	22.66	0.18450

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	3.06	17.07	17.23	20.16	30.00
5200MHz	Pass	3.06	21.44	22.00	24.74	30.00
5240MHz	Pass	3.06	19.49	20.22	22.88	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	3.06	17.28	17.42	20.36	30.00
5200MHz	Pass	3.06	21.78	22.16	24.98	30.00
5240MHz	Pass	3.06	19.42	19.88	22.67	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	3.06	14.94	15.45	18.21	30.00
5230MHz	Pass	3.06	19.34	19.93	22.66	30.00

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



**For R3 B1 / Slave without radar detection
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	22.88	0.19409
802.11n HT20_Nss1,(MCS0)_2TX	23.41	0.21928
802.11n HT40_Nss1,(MCS0)_2TX	22.66	0.18450

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	3.06	17.07	17.23	20.16	23.98
5200MHz	Pass	3.06	19.33	19.99	22.68	23.98
5240MHz	Pass	3.06	19.52	20.19	22.88	23.98
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	3.06	17.28	17.42	20.36	23.98
5200MHz	Pass	3.06	20.05	20.72	23.41	23.98
5240MHz	Pass	3.06	19.42	19.88	22.67	23.98
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	3.06	14.94	15.45	18.21	23.98
5230MHz	Pass	3.06	19.34	19.93	22.66	23.98

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



**For R3 B2 / Master and Slave without radar detection
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	23.16	0.20701
802.11n HT20_Nss1,(MCS0)_2TX	23.26	0.21184
802.11n HT40_Nss1,(MCS0)_2TX	23.83	0.24155

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	3.06	19.70	19.66	22.69	23.98
5300MHz	Pass	3.06	20.17	20.13	23.16	23.98
5320MHz	Pass	3.06	19.40	19.30	22.36	23.98
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	3.06	20.44	20.05	23.26	23.98
5300MHz	Pass	3.06	20.11	20.14	23.14	23.98
5320MHz	Pass	3.06	19.96	20.08	23.03	23.98
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	3.06	20.80	20.84	23.83	23.98
5310MHz	Pass	3.06	15.56	15.55	18.57	23.98

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

**For R2 B3 / Master and Slave without radar detection
Summary**

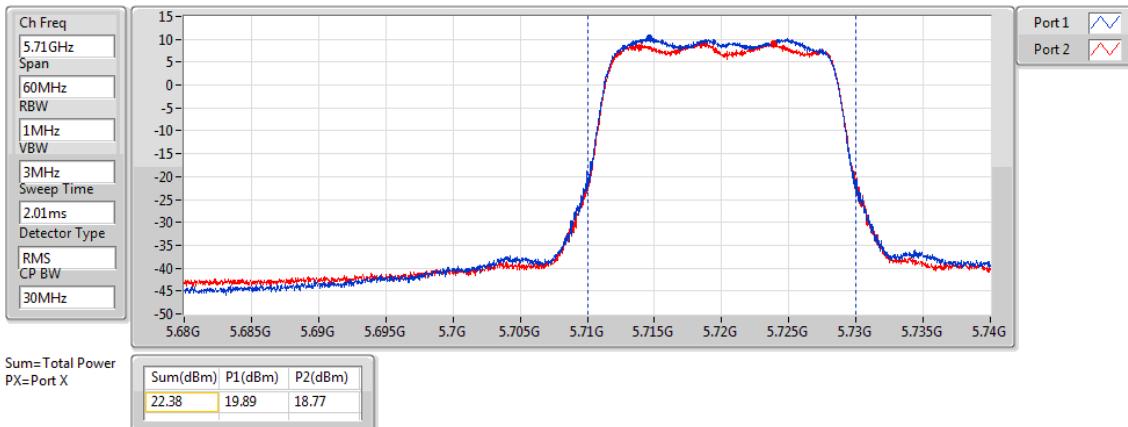
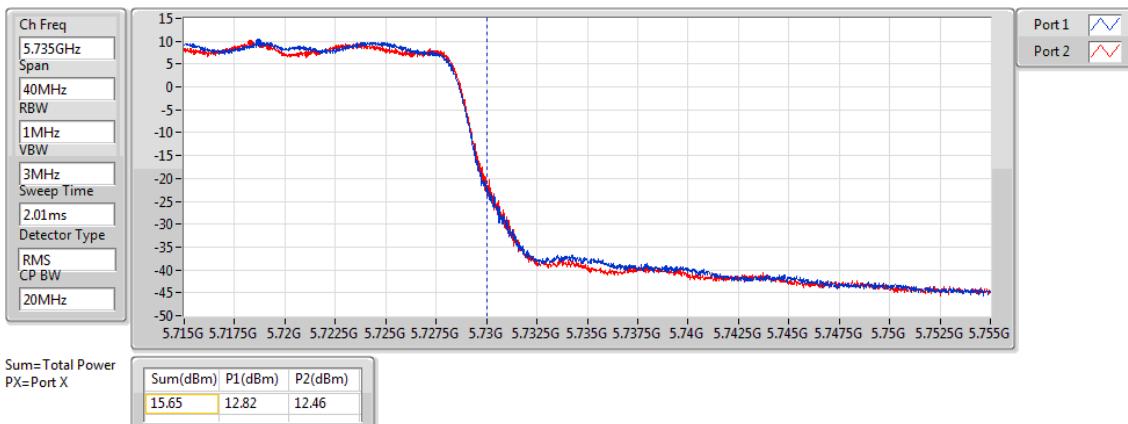
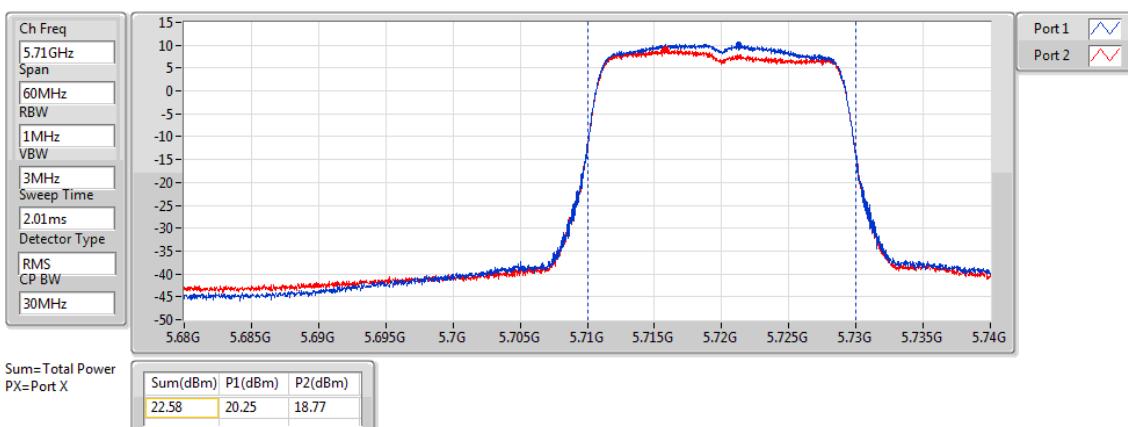
Mode	Total Power (dBm)	Total Power (W)
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	22.38	0.17298
802.11ac VHT20_Nss1,(MCS0)_2TX	22.83	0.19187
802.11ac VHT40_Nss1,(MCS0)_2TX	23.91	0.24604
802.11ac VHT80_Nss1,(MCS0)_2TX	23.81	0.24044
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	15.65	0.03673
802.11ac VHT20_Nss1,(MCS0)_2TX	15.73	0.03741
802.11ac VHT40_Nss1,(MCS0)_2TX	13.16	0.02070
802.11ac VHT80_Nss1,(MCS0)_2TX	10.74	0.01186

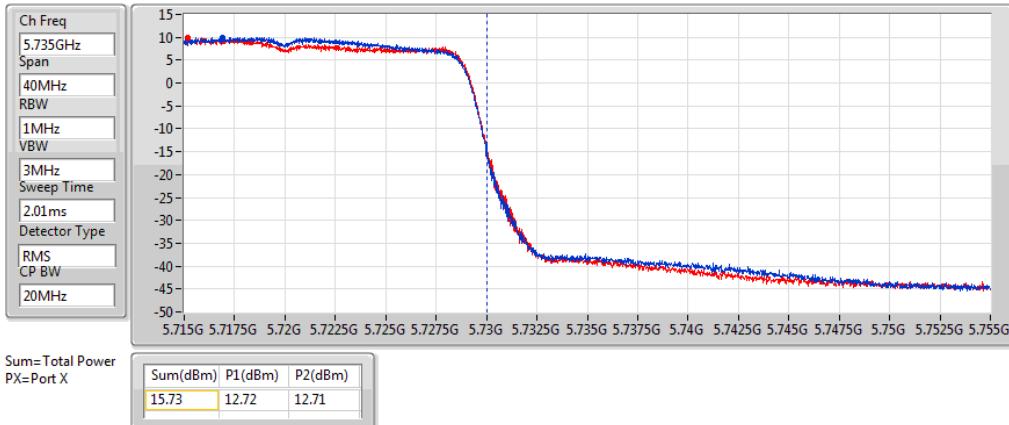
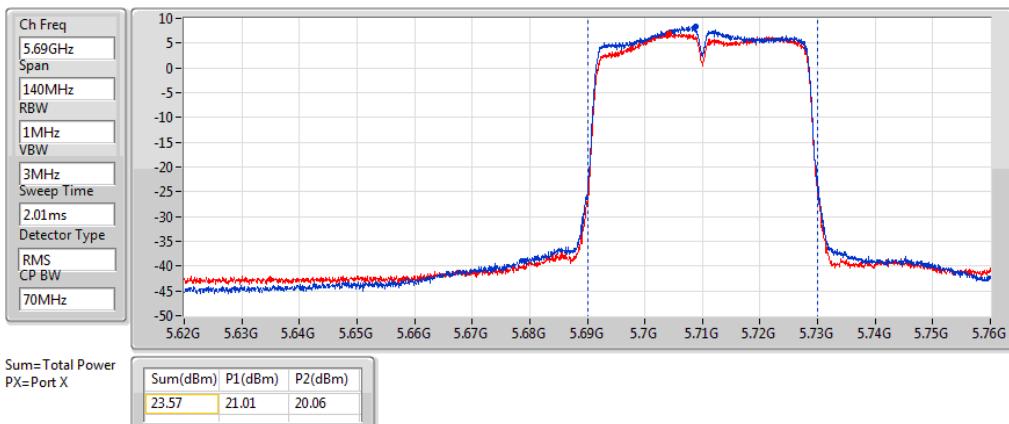
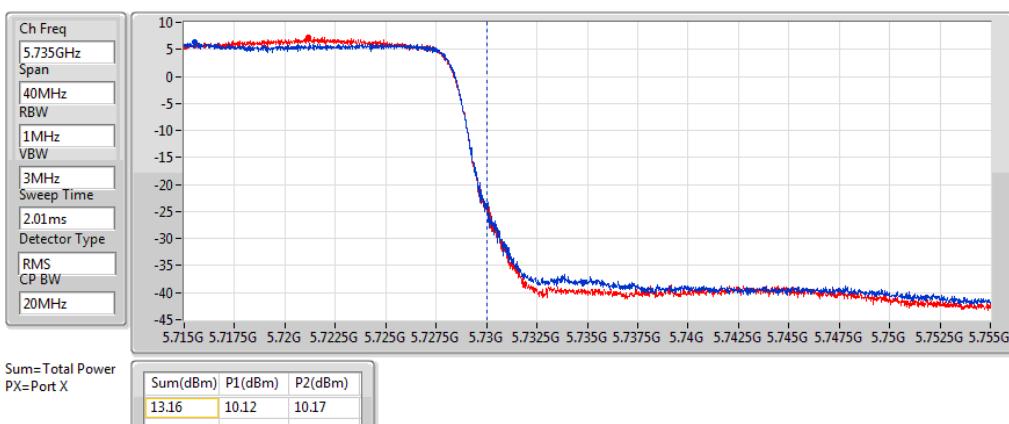


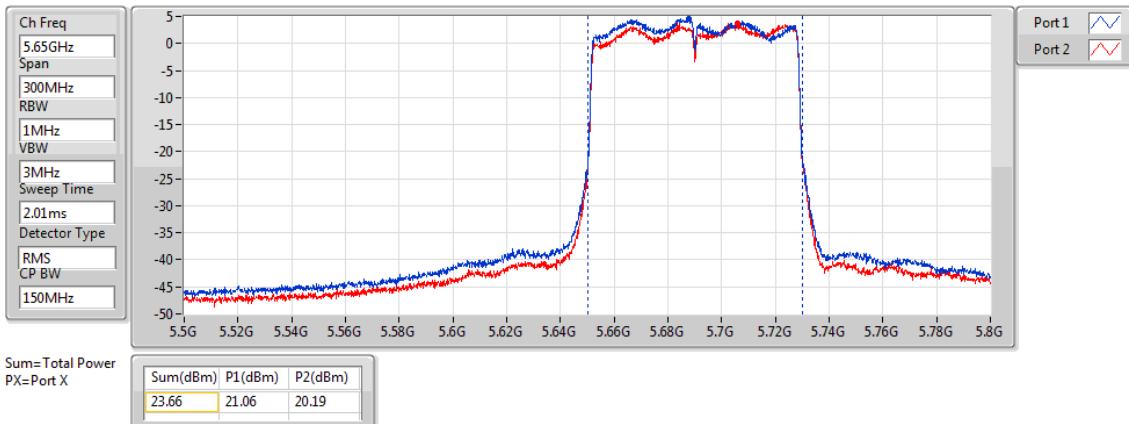
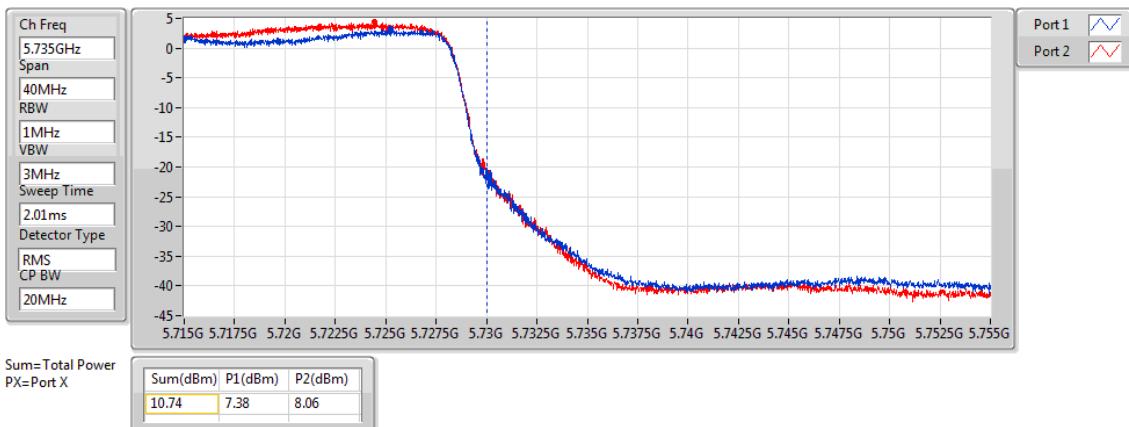
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5500MHz	Pass	3.06	19.30	19.33	22.33	23.75
5580MHz	Pass	3.06	18.75	18.96	21.87	23.72
5700MHz	Pass	3.06	18.85	18.63	21.75	23.72
5720MHz Straddle 5.47-5.725GHz	Pass	3.06	19.89	18.77	22.38	22.58
5720MHz Straddle 5.725-5.85GHz	Pass	3.06	12.82	12.46	15.65	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5500MHz	Pass	3.06	19.65	19.50	22.59	23.97
5580MHz	Pass	3.06	19.33	19.98	22.68	23.96
5700MHz	Pass	3.06	19.89	19.74	22.83	23.96
5720MHz Straddle 5.47-5.725GHz	Pass	3.06	20.25	18.77	22.58	22.75
5720MHz Straddle 5.725-5.85GHz	Pass	3.06	12.72	12.71	15.73	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5510MHz	Pass	3.06	18.01	18.13	21.08	23.98
5550MHz	Pass	3.06	20.63	20.48	23.57	23.98
5670MHz	Pass	3.06	21.06	20.73	23.91	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	3.06	21.01	20.06	23.57	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	3.06	10.12	10.17	13.16	30.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5530MHz	Pass	3.06	17.41	17.48	20.46	23.98
5610MHz	Pass	3.06	20.85	20.74	23.81	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	3.06	21.06	20.19	23.66	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	3.06	7.38	8.06	10.74	30.00

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

**802.11a_Nss1,(6Mbps)_2TX****AV Power****5720MHz Straddle 5.47-5.725GHz****802.11a_Nss1,(6Mbps)_2TX****AV Power****5720MHz Straddle 5.725-5.85GHz****802.11ac VHT20_Nss1,(MCS0)_2TX****AV Power****5720MHz Straddle 5.47-5.725GHz**

**802.11ac VHT20_Nss1,(MCS0)_2TX****AV Power****5720MHz Straddle 5.725-5.85GHz****802.11ac VHT40_Nss1,(MCS0)_2TX****AV Power****5710MHz Straddle 5.47-5.725GHz****802.11ac VHT40_Nss1,(MCS0)_2TX****AV Power****5710MHz Straddle 5.725-5.85GHz**

**802.11ac VHT80_Nss1,(MCS0)_2TX****AV Power****5690MHz Straddle 5.47-5.725GHz****802.11ac VHT80_Nss1,(MCS0)_2TX****AV Power****5690MHz Straddle 5.725-5.85GHz**



**For R2 B4 / Master and Slave without radar detection
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	26.84	0.48306
802.11ac VHT20_Nss1,(MCS0)_2TX	27.05	0.50699
802.11ac VHT40_Nss1,(MCS0)_2TX	28.98	0.79068
802.11ac VHT80_Nss1,(MCS0)_2TX	24.69	0.29444

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	3.06	23.72	23.62	26.68	30.00
5785MHz	Pass	3.06	22.83	22.87	25.86	30.00
5825MHz	Pass	3.06	23.84	23.81	26.84	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	3.06	24.03	24.05	27.05	30.00
5785MHz	Pass	3.06	22.36	22.40	25.39	30.00
5825MHz	Pass	3.06	23.54	23.86	26.71	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	3.06	25.98	25.95	28.98	30.00
5795MHz	Pass	3.06	25.63	25.60	28.63	30.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	3.06	21.68	21.67	24.69	30.00

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

**For R3 B1 / Master
Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_2TX	12.49
802.11n HT20_Nss1,(MCS0)_2TX	12.60
802.11n HT40_Nss1,(MCS0)_2TX	7.38

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



Result

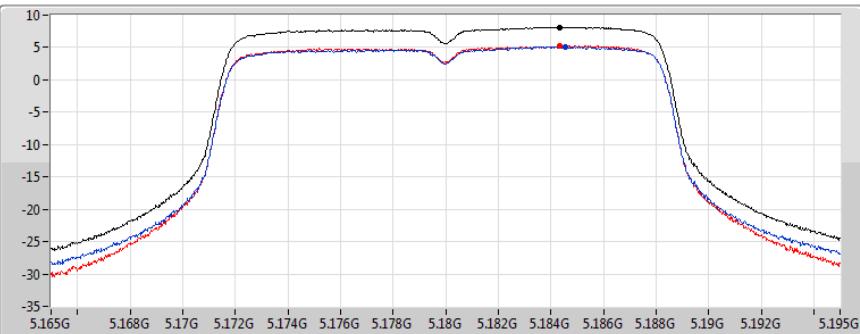
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	6.07	5.12	5.26	8.15	16.93
5200MHz	Pass	6.07	9.25	9.82	12.49	16.93
5240MHz	Pass	6.07	7.81	8.41	11.09	16.93
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	6.07	5.34	5.51	8.41	16.93
5200MHz	Pass	6.07	9.48	9.82	12.60	16.93
5240MHz	Pass	6.07	7.14	7.74	10.44	16.93
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	6.07	0.02	0.47	3.22	16.93
5230MHz	Pass	6.07	4.12	4.76	7.38	16.93

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

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

**802.11a_Nss1,(6Mbps)_2TX****PSD****5180MHz**

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

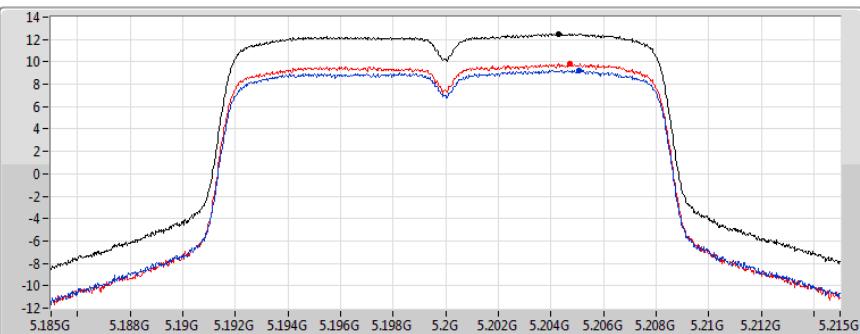


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.15	8.15	5.12	5.26

802.11a_Nss1,(6Mbps)_2TX**PSD****5200MHz**

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

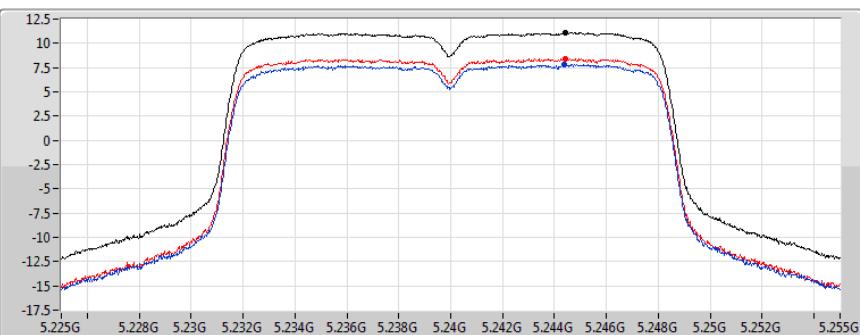


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.49	12.49	9.25	9.82

802.11a_Nss1,(6Mbps)_2TX**PSD****5240MHz**

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

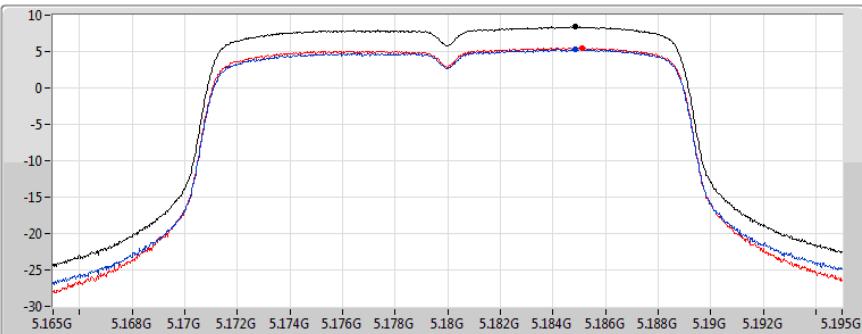


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.09	11.09	7.81	8.41

**802.11n HT20_Nss1,(MCS0)_2TX****PSD****5180MHz**

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

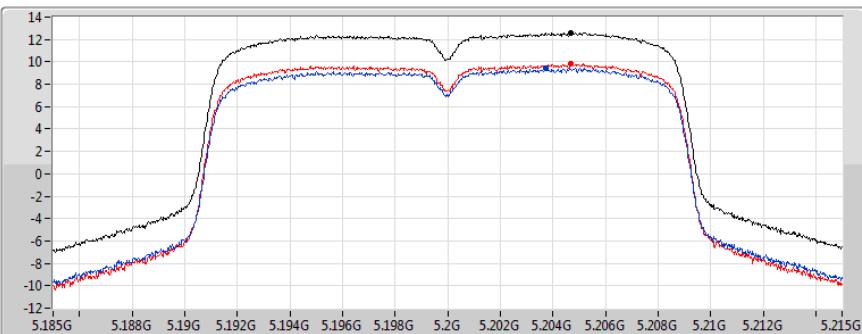


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.41	8.41	5.34	5.51

802.11n HT20_Nss1,(MCS0)_2TX**PSD****5200MHz**

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

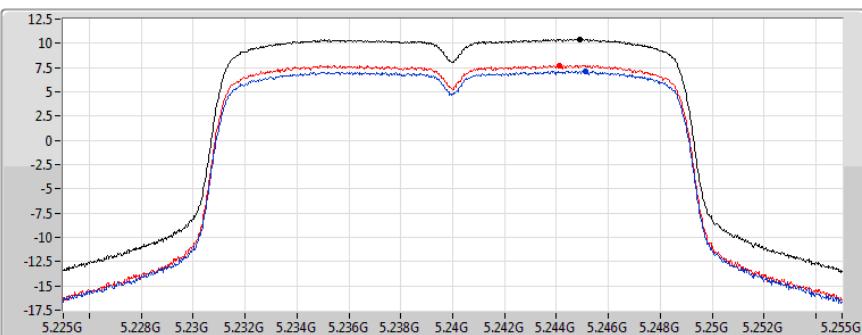


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.60	12.60	9.48	9.82

802.11n HT20_Nss1,(MCS0)_2TX**PSD****5240MHz**

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

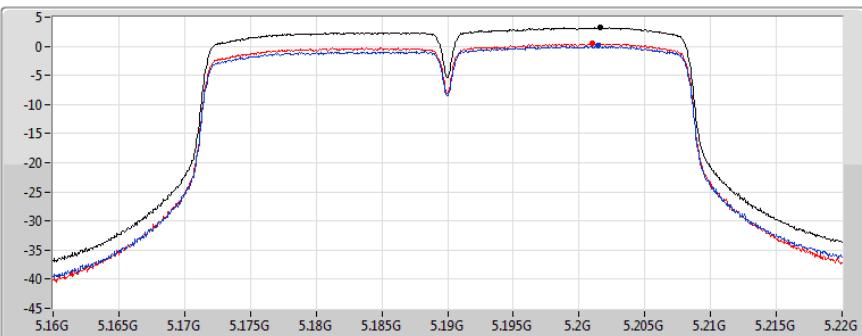


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.44	10.44	7.14	7.74

**802.11n HT40_Nss1,(MCS0)_2TX****PSD****5190MHz**

Ch Freq
5.19GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

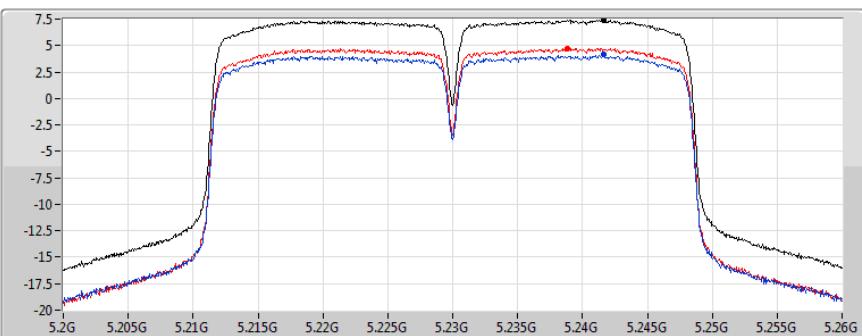


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.22	3.22	0.02	0.47

802.11n HT40_Nss1,(MCS0)_2TX**PSD****5230MHz**

Ch Freq
5.23GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.38	7.38	4.12	4.76

**For R3 B1 / Slave without radar detection****Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_2TX	10.86
802.11n HT20_Nss1,(MCS0)_2TX	10.73
802.11n HT40_Nss1,(MCS0)_2TX	7.38

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



Result

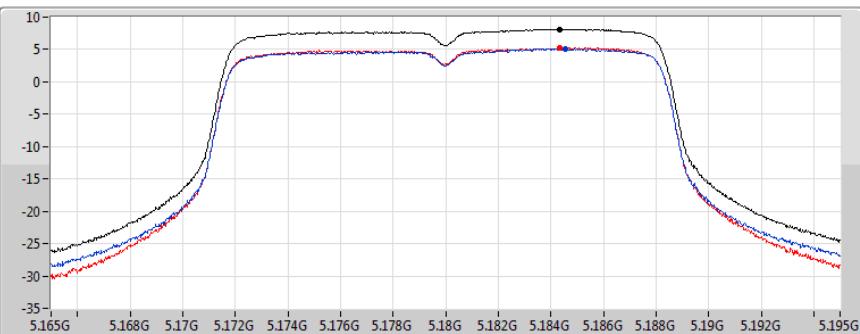
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	6.07	5.12	5.26	8.15	10.93
5200MHz	Pass	6.07	7.36	7.96	10.64	10.93
5240MHz	Pass	6.07	7.55	8.19	10.86	10.93
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	6.07	5.34	5.51	8.41	10.93
5200MHz	Pass	6.07	7.39	8.03	10.73	10.93
5240MHz	Pass	6.07	7.14	7.74	10.44	10.93
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	6.07	0.02	0.47	3.22	10.93
5230MHz	Pass	6.07	4.12	4.76	7.38	10.93

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

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

**802.11a_Nss1,(6Mbps)_2TX****PSD****5180MHz**

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

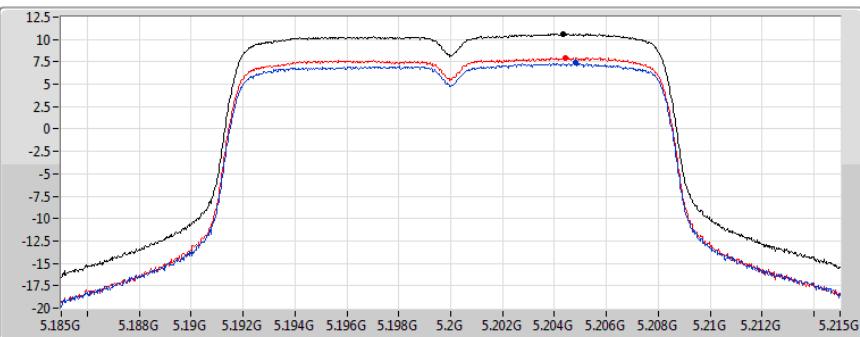


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.15	8.15	5.12	5.26

802.11a_Nss1,(6Mbps)_2TX**PSD****5200MHz**

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

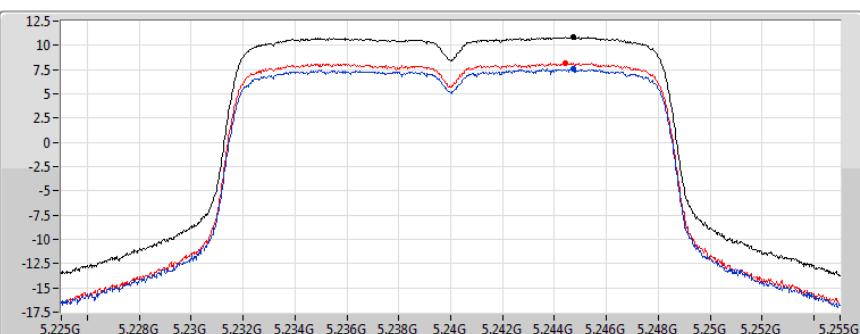


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.64	10.64	7.36	7.96

802.11a_Nss1,(6Mbps)_2TX**PSD****5240MHz**

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

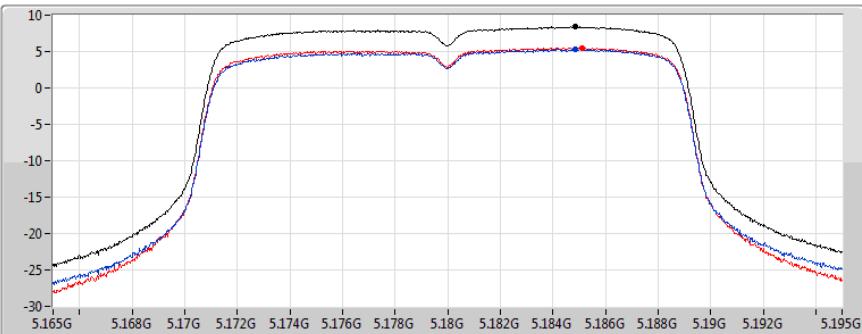


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.86	10.86	7.55	8.19

**802.11n HT20_Nss1,(MCS0)_2TX****PSD****5180MHz**

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

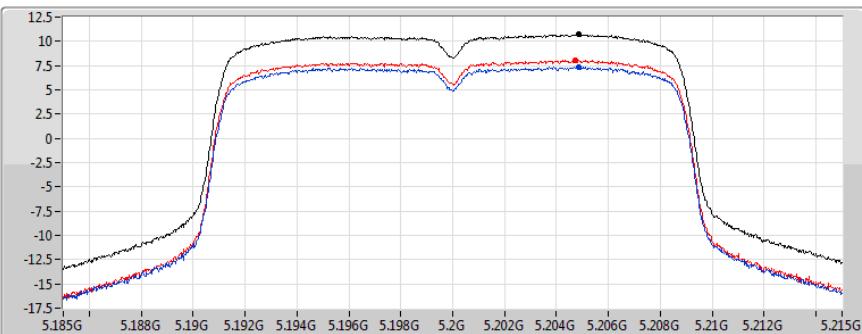


Sum	/\
Port 1	/\
Port 2	/\

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.41	8.41	5.34	5.51

802.11n HT20_Nss1,(MCS0)_2TX**PSD****5200MHz**

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

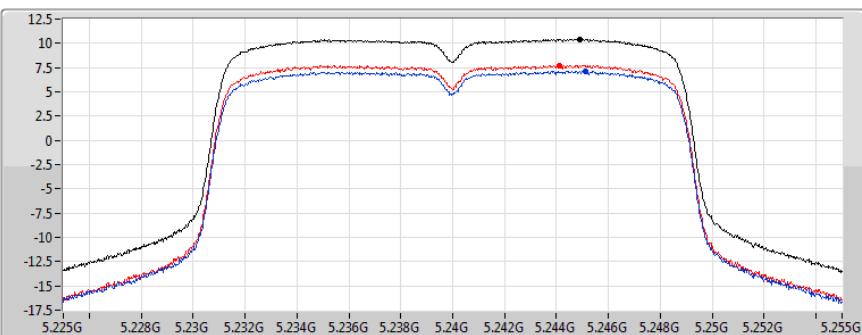


Sum	/\
Port 1	/\
Port 2	/\

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.73	10.73	7.39	8.03

802.11n HT20_Nss1,(MCS0)_2TX**PSD****5240MHz**

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

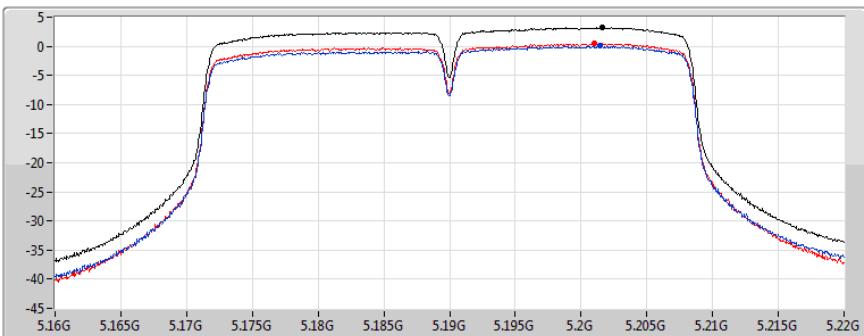


Sum	/\
Port 1	/\
Port 2	/\

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.44	10.44	7.14	7.74

**802.11n HT40_Nss1,(MCS0)_2TX****PSD****5190MHz**

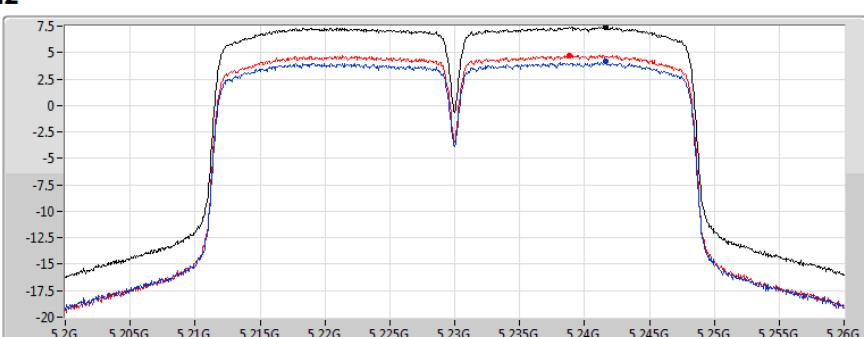
Ch Freq
5.19GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

802.11n HT40_Nss1,(MCS0)_2TX**PSD****5230MHz**

Ch Freq
5.23GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.22	3.22	0.02	0.47

**For R3 B2 / Master and Slave without radar detection
Summary**

Mode	PD (dBm/RBW)
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_2TX	10.88
802.11n HT20_Nss1,(MCS0)_2TX	10.92
802.11n HT40_Nss1,(MCS0)_2TX	8.86

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



Result

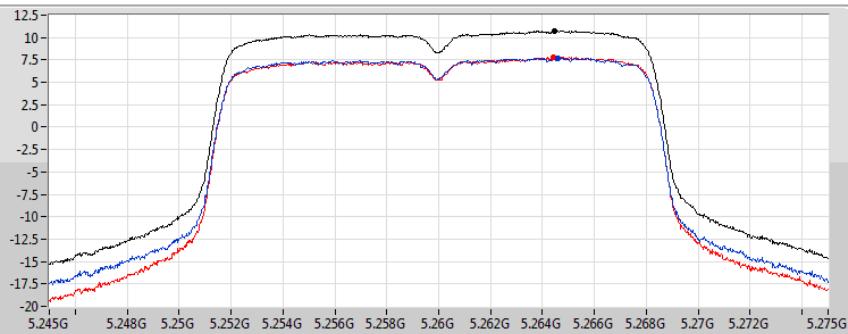
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	6.07	7.71	7.78	10.73	10.93
5300MHz	Pass	6.07	7.92	7.93	10.88	10.93
5320MHz	Pass	6.07	7.32	7.15	10.21	10.93
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	6.07	8.10	7.79	10.92	10.93
5300MHz	Pass	6.07	7.77	7.66	10.68	10.93
5320MHz	Pass	6.07	7.72	7.79	10.74	10.93
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	6.07	5.71	6.06	8.86	10.93
5310MHz	Pass	6.07	0.31	0.35	3.23	10.93

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

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

**802.11a_Nss1,(6Mbps)_2TX****PSD****5260MHz**

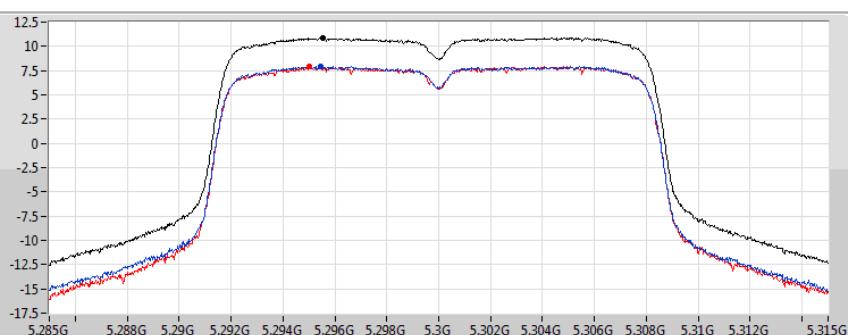
Ch Freq
5.26GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum	
Port 1	
Port 2	

802.11a_Nss1,(6Mbps)_2TX**PSD****5300MHz**

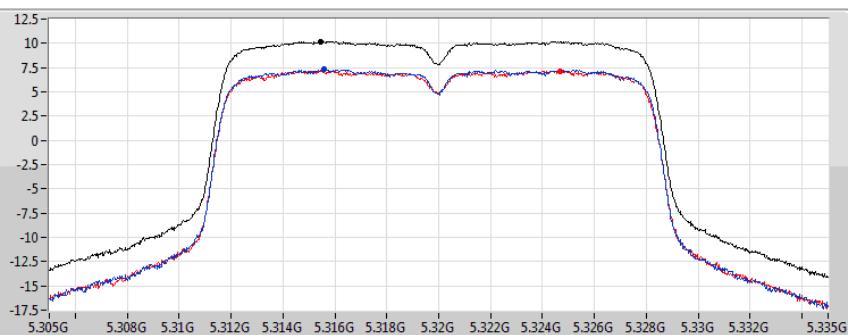
Ch Freq
5.3GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum	
Port 1	
Port 2	

802.11a_Nss1,(6Mbps)_2TX**PSD****5320MHz**

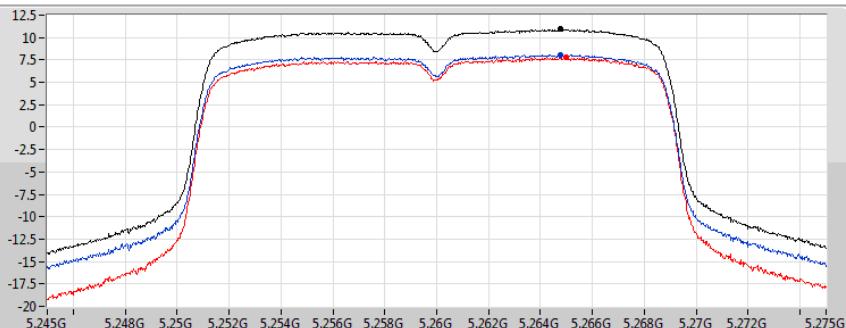
Ch Freq
5.32GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



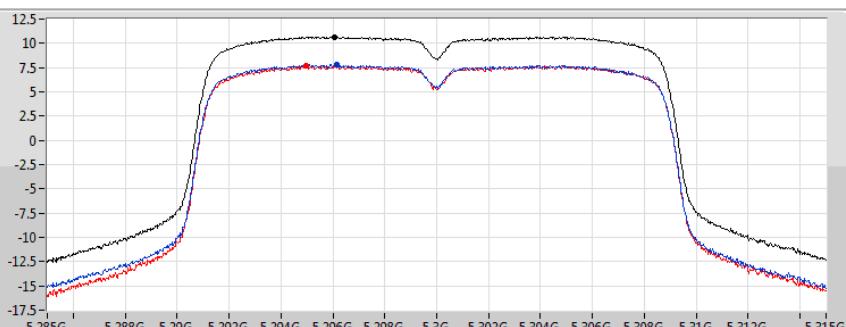
Sum	
Port 1	
Port 2	

**802.11n HT20_Nss1,(MCS0)_2TX****PSD****5260MHz**

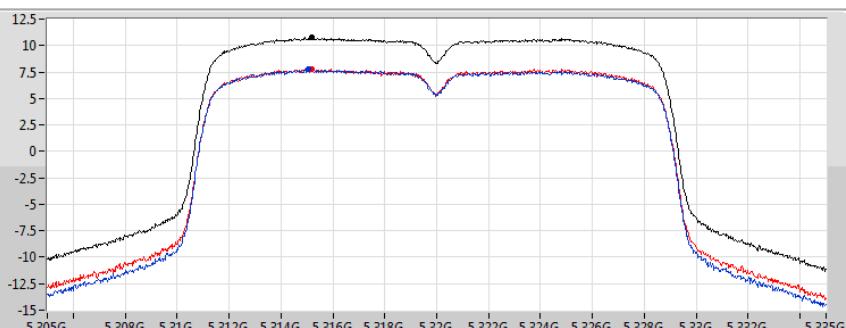
Ch Freq	5.26GHz
Span	30MHz
RBW	1MHz
VBW	3MHz
Sweep Time	20ms
Detector Type	RMS

| Sum | /\ |
| Port 1 | /\ |
| Port 2 | /\ |
802.11n HT20_Nss1,(MCS0)_2TX**PSD****5300MHz**

Ch Freq	5.3GHz
Span	30MHz
RBW	1MHz
VBW	3MHz
Sweep Time	20ms
Detector Type	RMS

| Sum | /\ |
| Port 1 | /\ |
| Port 2 | /\ |
802.11n HT20_Nss1,(MCS0)_2TX**PSD****5320MHz**

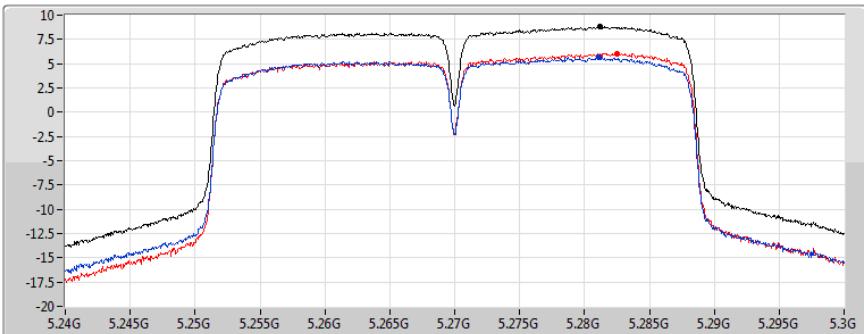
Ch Freq	5.32GHz
Span	30MHz
RBW	1MHz
VBW	3MHz
Sweep Time	20ms
Detector Type	RMS

| Sum | /\ |
| Port 1 | /\ |
| Port 2 | /\ |

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.92	10.92	8.10	7.79

**802.11n HT40_Nss1,(MCS0)_2TX****PSD****5270MHz**

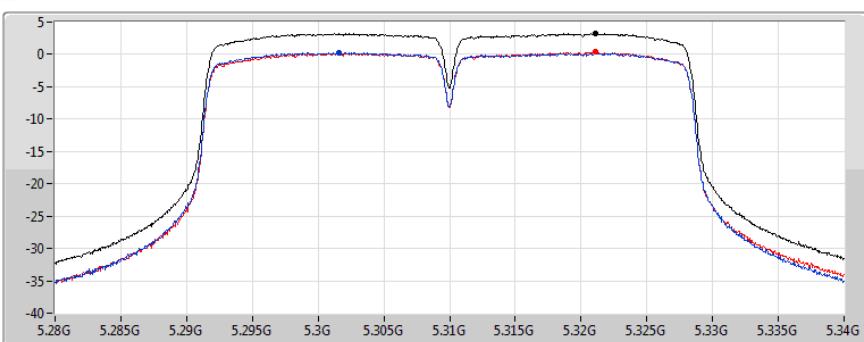
Ch Freq
5.27GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

802.11n HT40_Nss1,(MCS0)_2TX**PSD****5310MHz**

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



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.86	8.86	5.71	6.06

**For R2 B3 / Master and Slave without radar detection****Summary**

Mode	PD (dBm/RBW)
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_2TX	10.88
802.11ac VHT20_Nss1,(MCS0)_2TX	10.92
802.11ac VHT40_Nss1,(MCS0)_2TX	10.26
802.11ac VHT80_Nss1,(MCS0)_2TX	6.49
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	9.11
802.11ac VHT20_Nss1,(MCS0)_2TX	7.70
802.11ac VHT40_Nss1,(MCS0)_2TX	5.89
802.11ac VHT80_Nss1,(MCS0)_2TX	3.28

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



Result

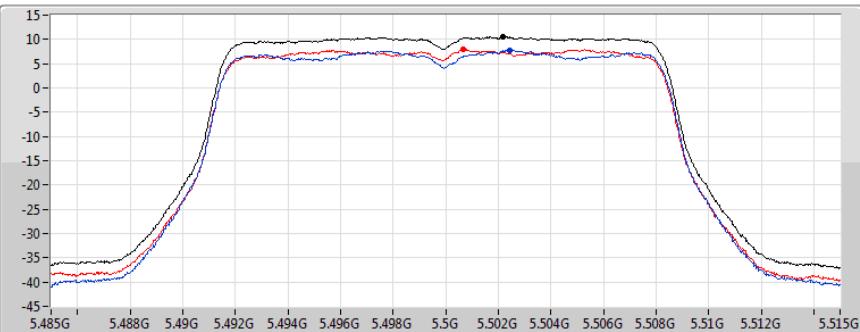
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5500MHz	Pass	6.07	7.78	7.89	10.51	10.93
5580MHz	Pass	6.07	7.95	8.11	10.72	10.93
5700MHz	Pass	6.07	7.63	7.72	10.63	10.93
5720MHz Straddle 5.47-5.725GHz	Pass	6.07	8.52	7.40	10.88	10.93
5720MHz Straddle 5.725-5.85GHz	Pass	6.07	6.63	5.63	9.11	29.93
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5500MHz	Pass	6.07	7.24	8.47	10.73	10.93
5580MHz	Pass	6.07	7.56	8.53	10.80	10.93
5700MHz	Pass	6.07	7.96	7.91	10.92	10.93
5720MHz Straddle 5.47-5.725GHz	Pass	6.07	8.48	6.98	10.69	10.93
5720MHz Straddle 5.725-5.85GHz	Pass	6.07	5.01	4.43	7.70	29.93
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5510MHz	Pass	6.07	3.21	3.86	6.13	10.93
5550MHz	Pass	6.07	6.44	6.39	8.86	10.93
5670MHz	Pass	6.07	7.46	7.13	10.26	10.93
5710MHz Straddle 5.47-5.725GHz	Pass	6.07	6.42	5.17	8.77	10.93
5710MHz Straddle 5.725-5.85GHz	Pass	6.07	2.66	3.25	5.89	29.93
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5530MHz	Pass	6.07	-1.14	-0.72	1.72	10.93
5610MHz	Pass	6.07	3.90	3.41	6.49	10.93
5690MHz Straddle 5.47-5.725GHz	Pass	6.07	2.62	1.91	5.13	10.93
5690MHz Straddle 5.725-5.85GHz	Pass	6.07	-0.09	0.81	3.28	29.93

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

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

**802.11a_Nss1,(6Mbps)_2TX****PSD****5500MHz**

Ch Freq
5.5GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

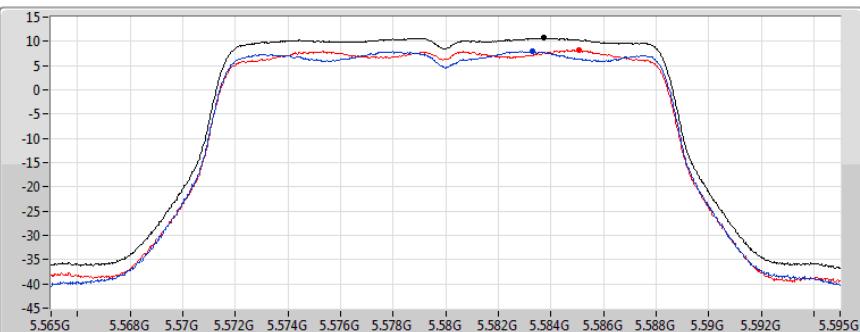


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.51	10.51	7.78	7.89

802.11a_Nss1,(6Mbps)_2TX**PSD****5580MHz**

Ch Freq
5.58GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

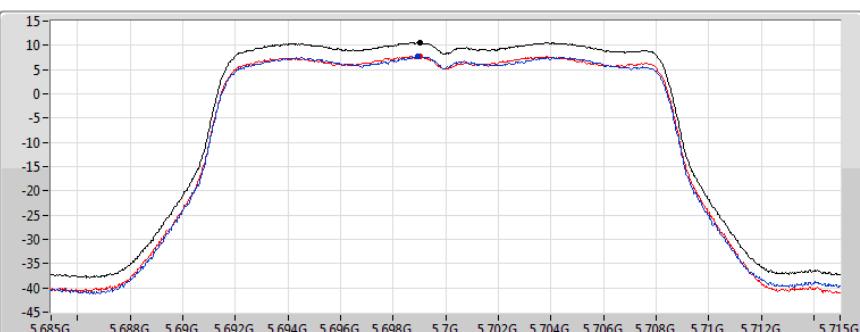


Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.72	10.72	7.95	8.11

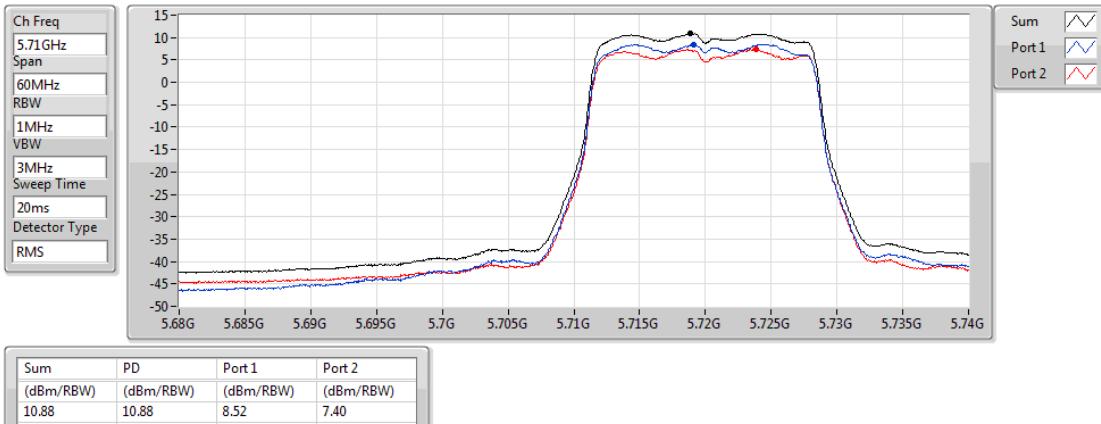
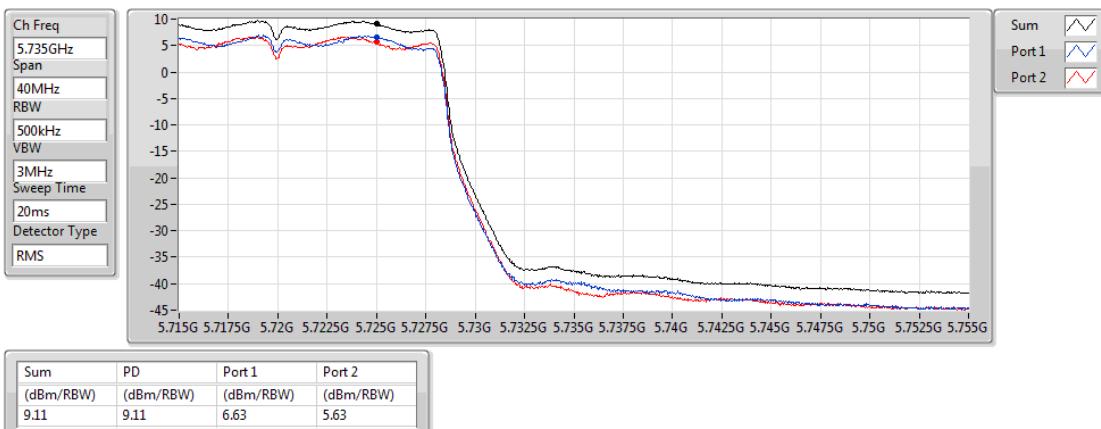
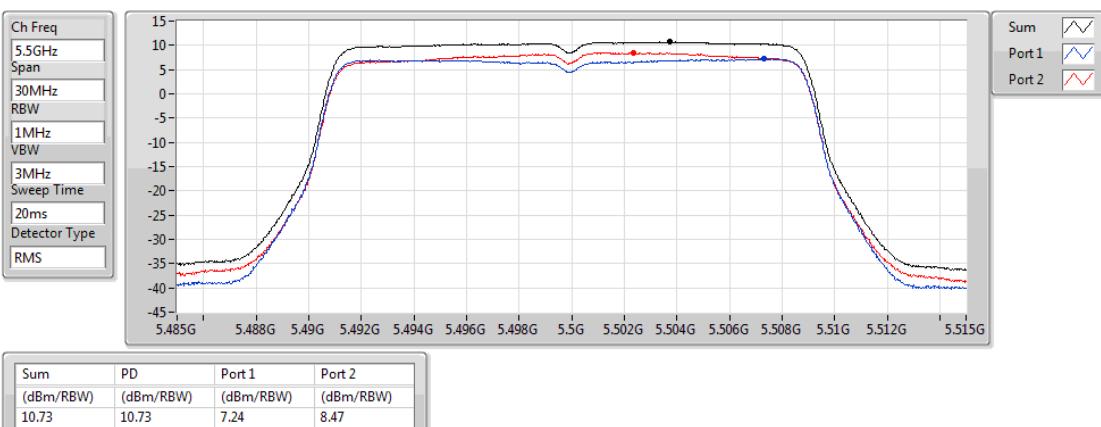
802.11a_Nss1,(6Mbps)_2TX**PSD****5700MHz**

Ch Freq
5.7GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



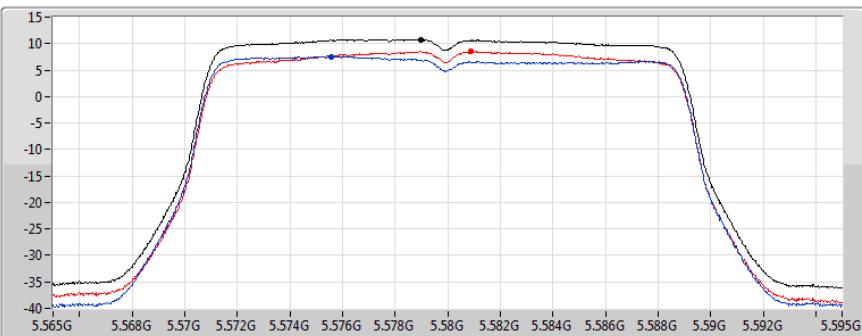
Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.63	10.63	7.63	7.72

**802.11a_Nss1,(6Mbps)_2TX****PSD****5720MHz Straddle 5.47-5.725GHz****802.11a_Nss1,(6Mbps)_2TX****PSD****5720MHz Straddle 5.725-5.85GHz****802.11ac VHT20_Nss1,(MCS0)_2TX****PSD****5500MHz**

**802.11ac VHT20_Nss1,(MCS0)_2TX****PSD****5580MHz**

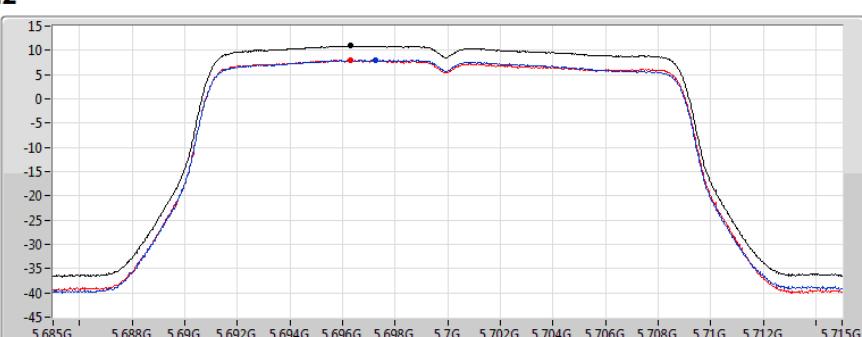
Ch Freq
5.58GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

802.11ac VHT20_Nss1,(MCS0)_2TX**PSD****5700MHz**

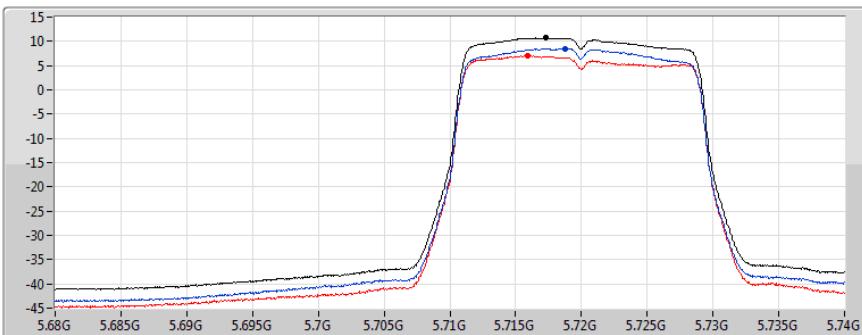
Ch Freq
5.7GHz
Span
30MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

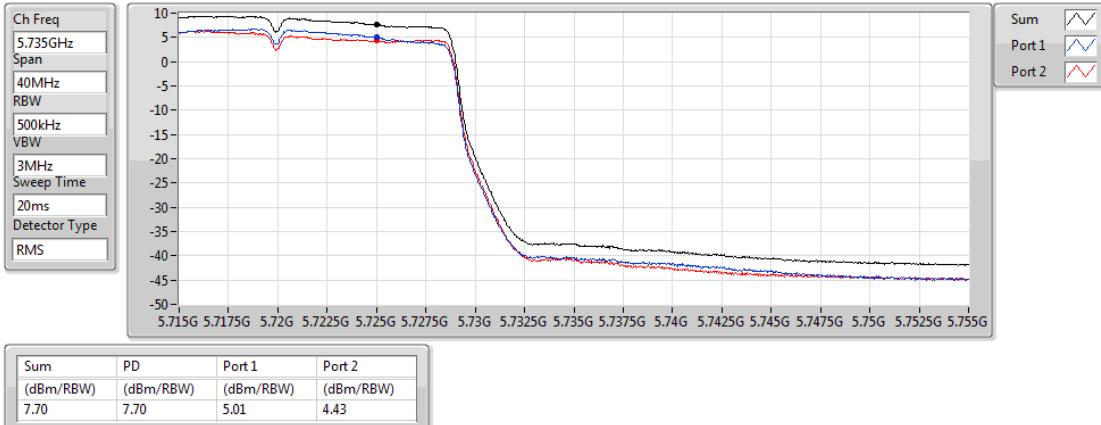
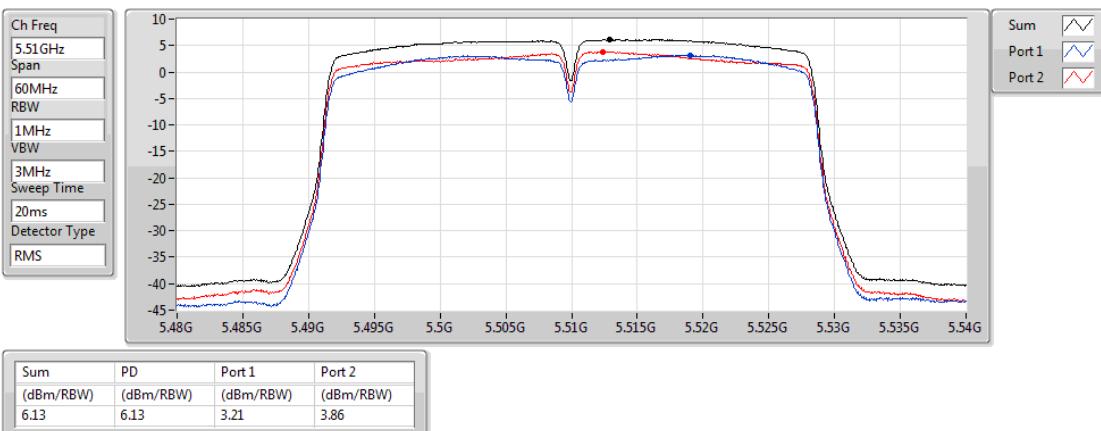
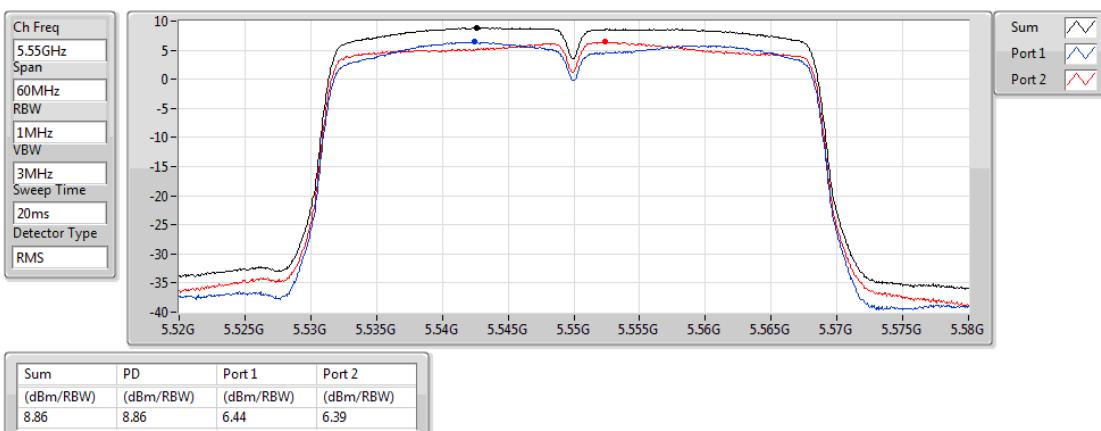
802.11ac VHT20_Nss1,(MCS0)_2TX**PSD****5720MHz Straddle 5.47-5.725GHz**

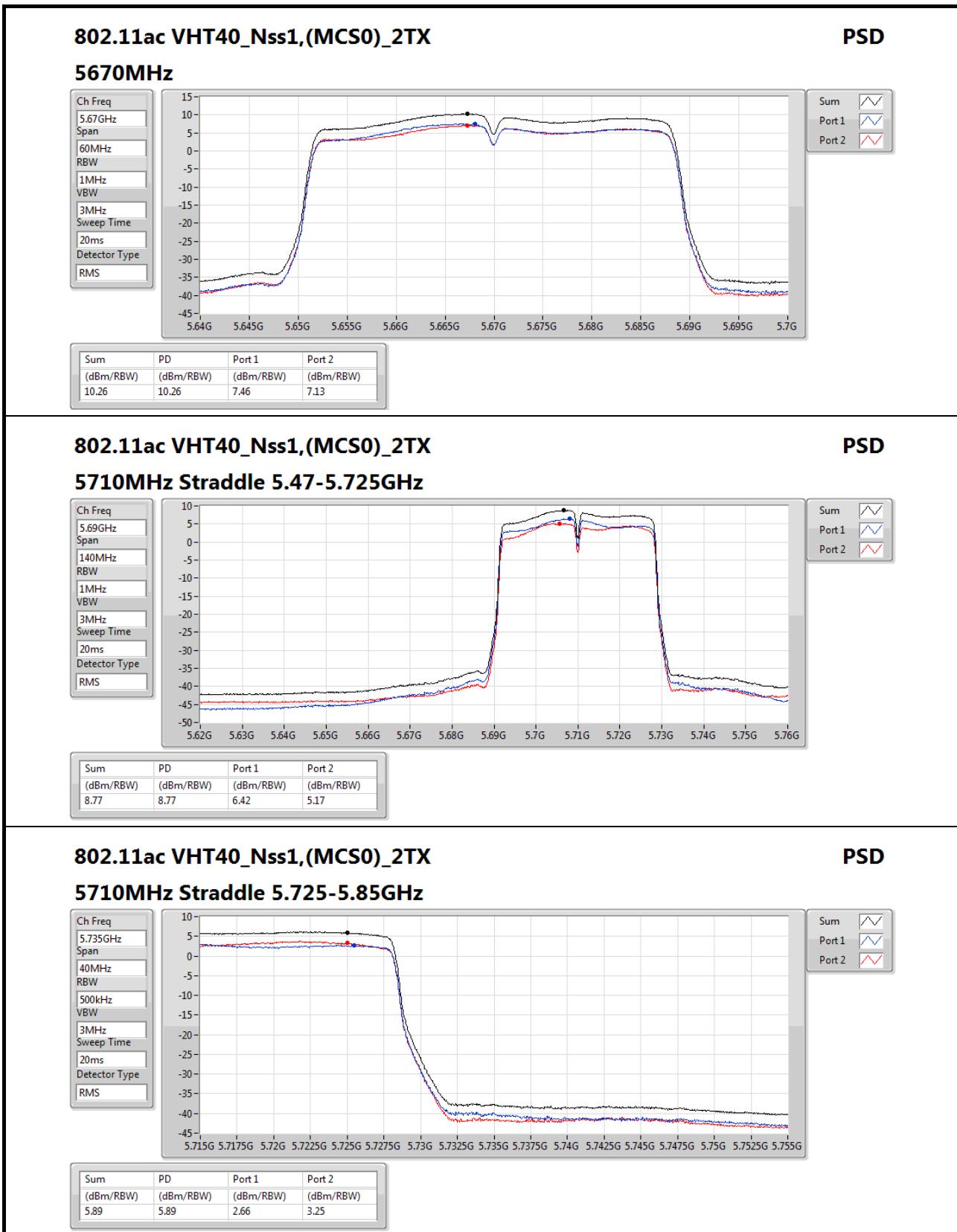
Ch Freq
5.71GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum
Port 1
Port 2

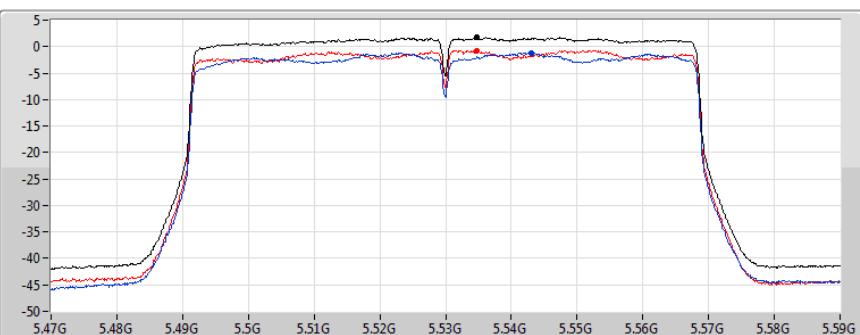
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.69	10.69	8.48	6.98

**802.11ac VHT20_Nss1,(MCS0)_2TX****PSD****5720MHz Straddle 5.725-5.85GHz****802.11ac VHT40_Nss1,(MCS0)_2TX****PSD****5510MHz****802.11ac VHT40_Nss1,(MCS0)_2TX****PSD****5550MHz**



**802.11ac VHT80_Nss1,(MCS0)_2TX****PSD****5530MHz**

Ch Freq
5.53GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

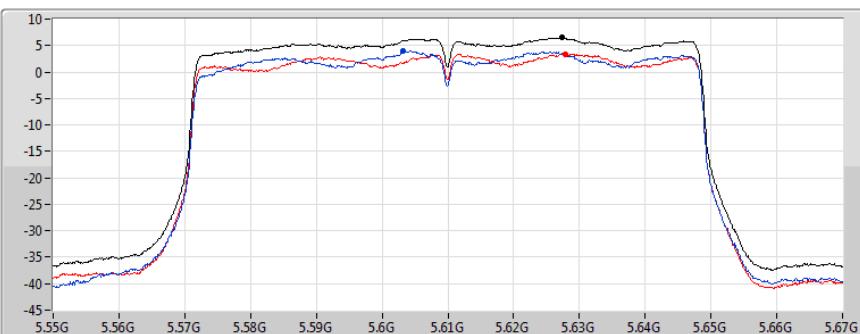


Sum	<input checked="" type="checkbox"/>
Port 1	<input type="checkbox"/>
Port 2	<input type="checkbox"/>

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.72	1.72	-1.14	-0.72

802.11ac VHT80_Nss1,(MCS0)_2TX**PSD****5610MHz**

Ch Freq
5.61GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

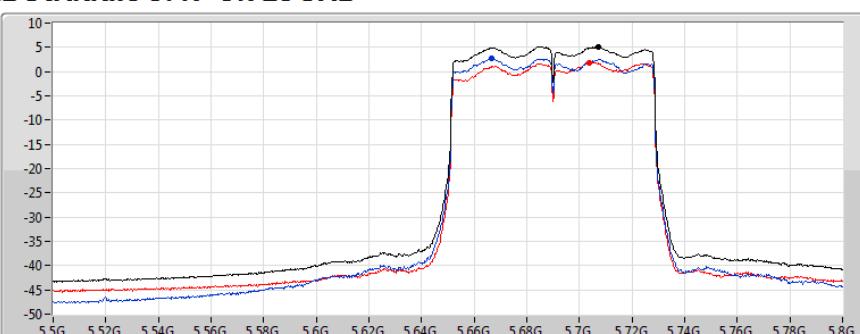


Sum	<input checked="" type="checkbox"/>
Port 1	<input type="checkbox"/>
Port 2	<input type="checkbox"/>

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.49	6.49	3.90	3.41

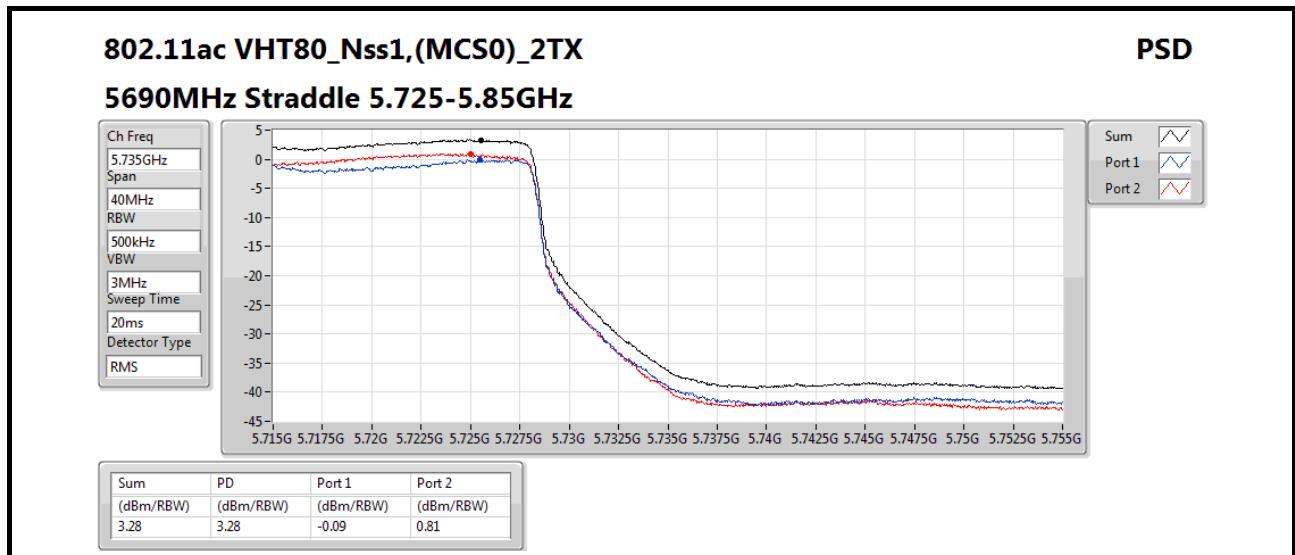
802.11ac VHT80_Nss1,(MCS0)_2TX**PSD****5690MHz Straddle 5.47-5.725GHz**

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



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

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.13	5.13	2.62	1.91



**For R2 B4 / Master and Slave without radar detection****Summary**

Mode	PD (dBm/RBW)
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	13.69
802.11ac VHT20_Nss1,(MCS0)_2TX	13.40
802.11ac VHT40_Nss1,(MCS0)_2TX	12.76
802.11ac VHT80_Nss1,(MCS0)_2TX	5.21

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



Result

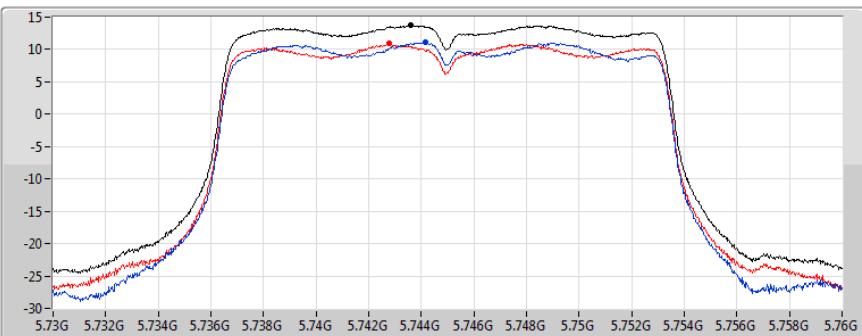
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	6.07	11.09	10.87	13.69	29.93
5785MHz	Pass	6.07	10.15	9.91	12.54	29.93
5825MHz	Pass	6.07	10.95	10.82	13.27	29.93
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	6.07	10.87	10.03	13.40	29.93
5785MHz	Pass	6.07	9.02	8.10	11.40	29.93
5825MHz	Pass	6.07	10.55	9.47	12.71	29.93
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	6.07	10.21	9.76	12.76	29.93
5795MHz	Pass	6.07	9.84	9.46	12.31	29.93
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	6.07	2.54	2.28	5.21	29.93

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

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

802.11a_Nss1,(6Mbps)_2TX
PSD
5745MHz

Ch Freq
5.745GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

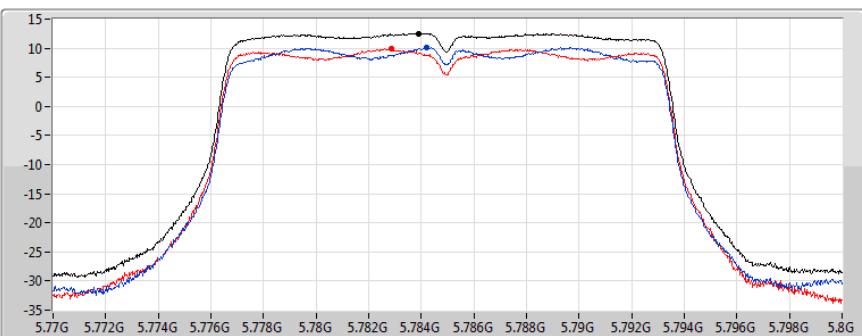


Sum	
Port 1	
Port 2	

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.69	13.69	11.09	10.87

802.11a_Nss1,(6Mbps)_2TX
PSD
5785MHz

Ch Freq
5.785GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

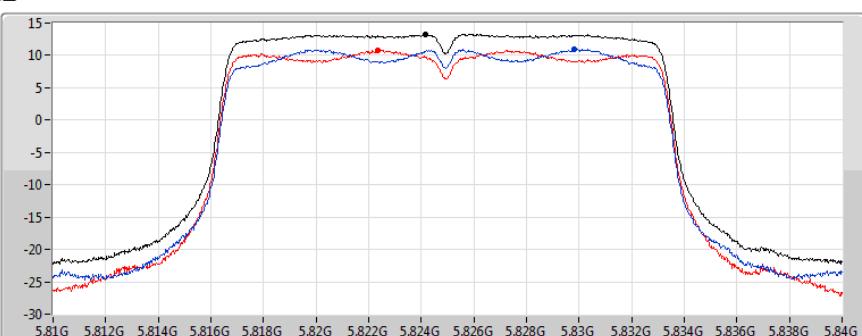


Sum	
Port 1	
Port 2	

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.54	12.54	10.15	9.91

802.11a_Nss1,(6Mbps)_2TX
PSD
5825MHz

Ch Freq
5.825GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

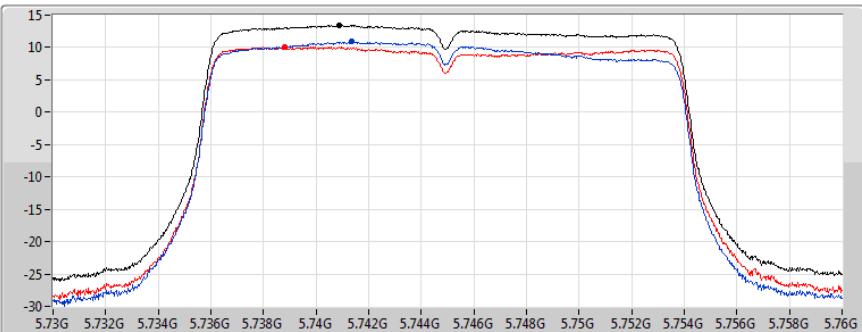


Sum	
Port 1	
Port 2	

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.27	13.27	10.95	10.82

**802.11ac VHT20_Nss1,(MCS0)_2TX****PSD****5745MHz**

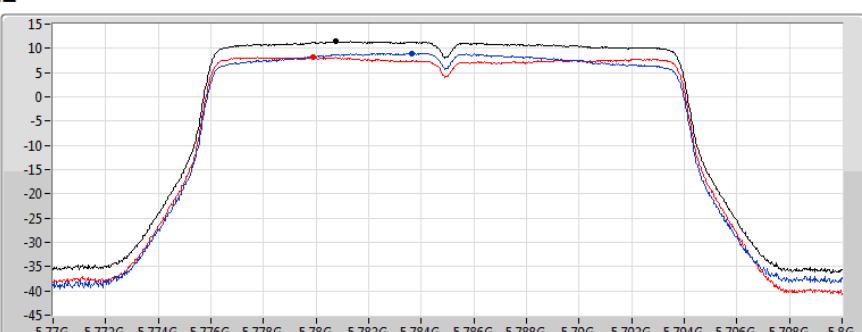
Ch Freq
5.745GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum	/\
Port 1	/\
Port 2	/\

802.11ac VHT20_Nss1,(MCS0)_2TX**PSD****5785MHz**

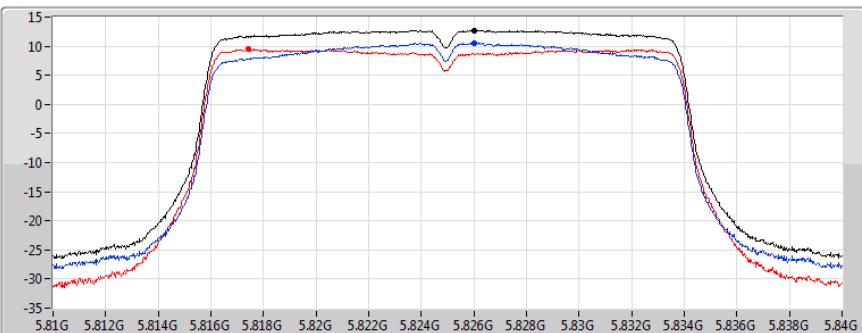
Ch Freq
5.785GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum	/\
Port 1	/\
Port 2	/\

802.11ac VHT20_Nss1,(MCS0)_2TX**PSD****5825MHz**

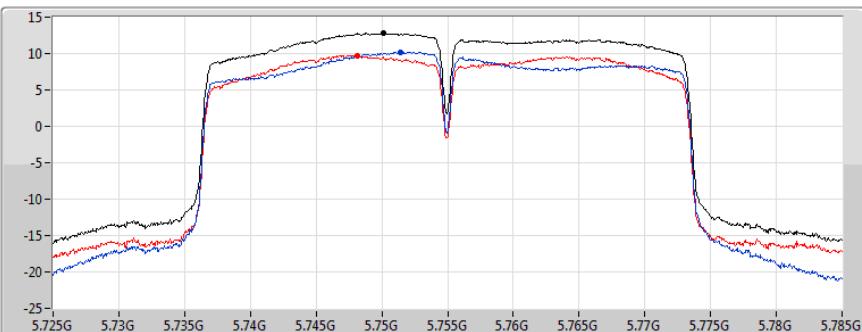
Ch Freq
5.825GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



Sum	/\
Port 1	/\
Port 2	/\

**802.11ac VHT40_Nss1,(MCS0)_2TX****PSD****5755MHz**

Ch Freq
5.755GHz
Span
60MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

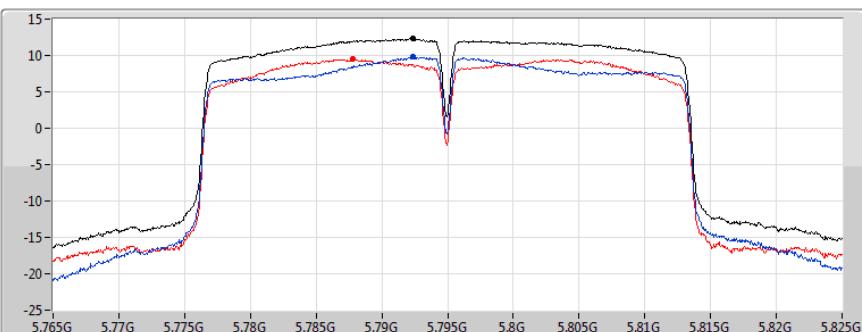


Sum	
Port 1	
Port 2	

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.76	12.76	10.21	9.76

802.11ac VHT40_Nss1,(MCS0)_2TX**PSD****5795MHz**

Ch Freq
5.795GHz
Span
60MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

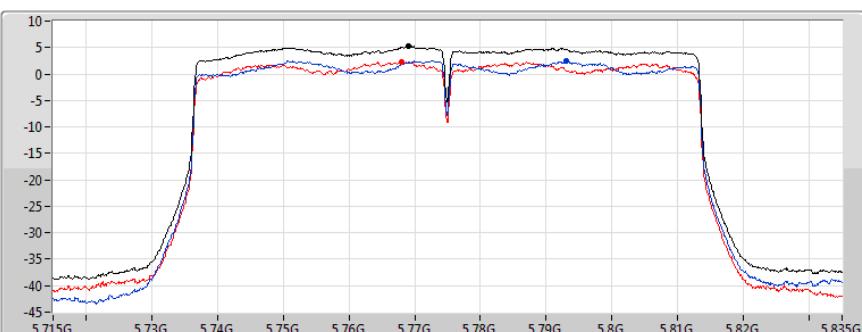


Sum	
Port 1	
Port 2	

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.31	12.31	9.84	9.46

802.11ac VHT80_Nss1,(MCS0)_2TX**PSD****5775MHz**

Ch Freq
5.775GHz
Span
120MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



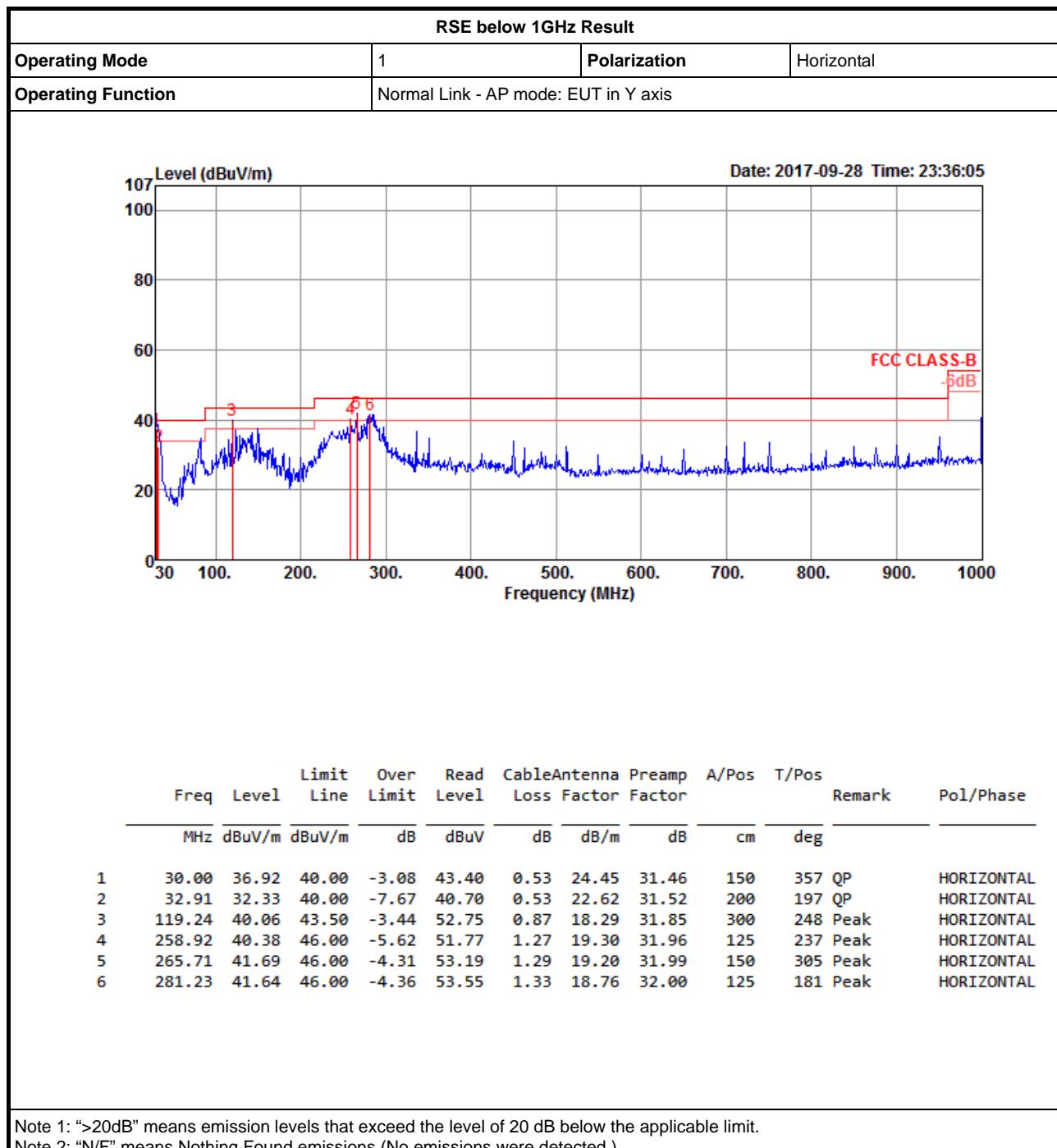
Sum	
Port 1	
Port 2	

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.21	5.21	2.54	2.28



RSE below 1GHz Result

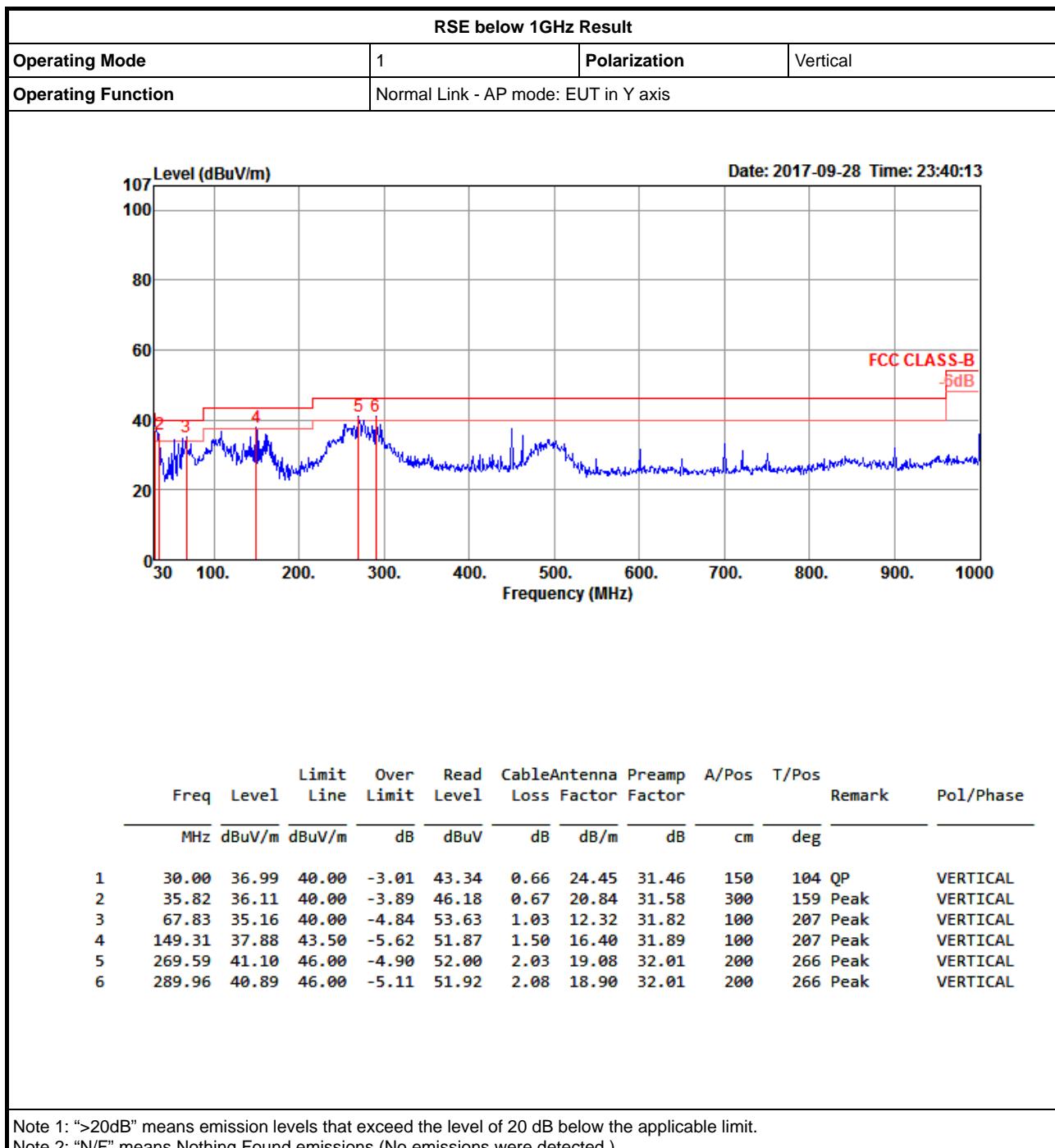
Appendix E.1





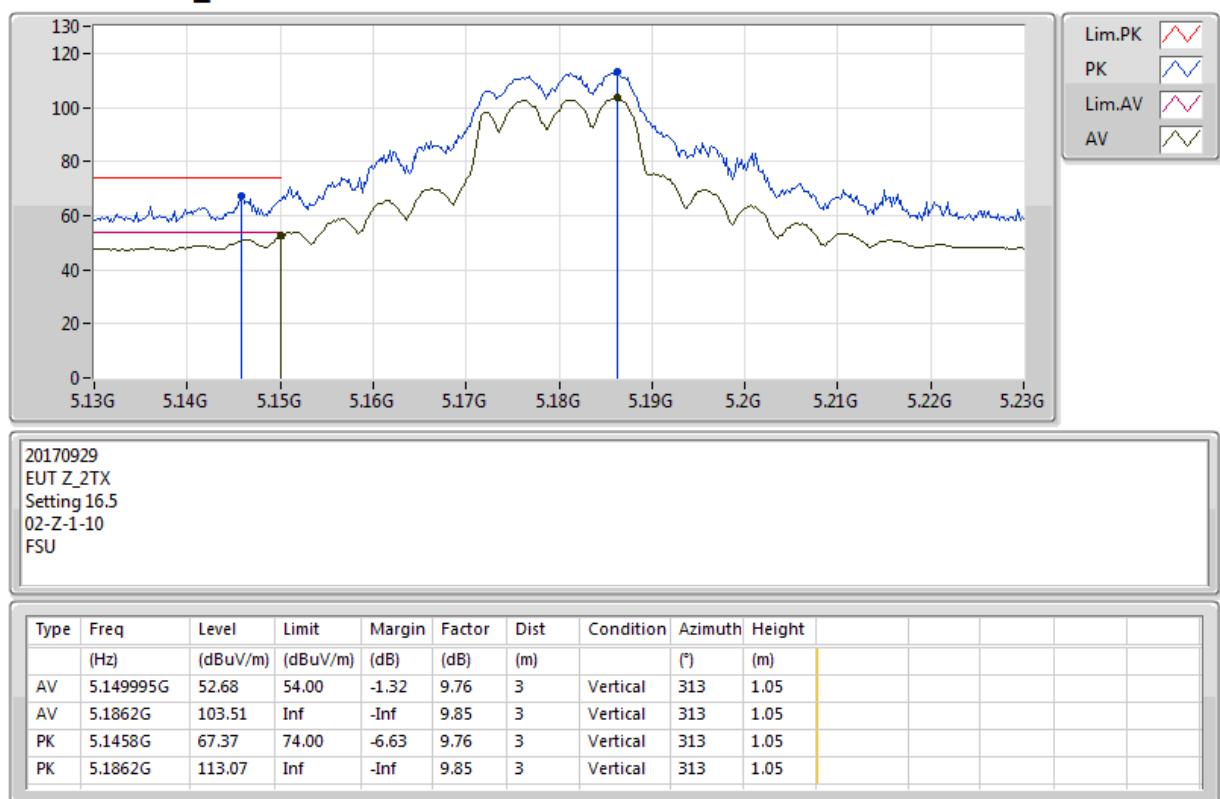
RSE below 1GHz Result

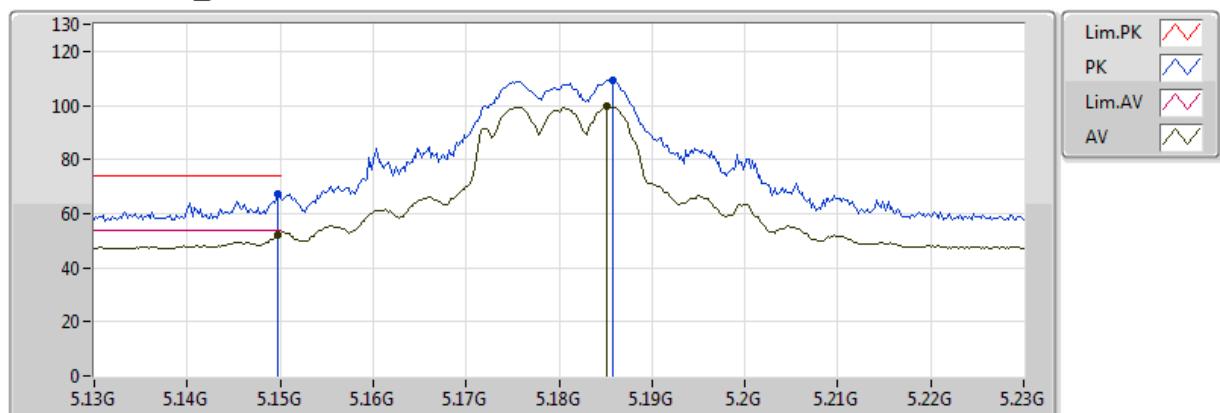
Appendix E.1



**Test Mode: Mode 1-Radio 3 (B1)****Summary**

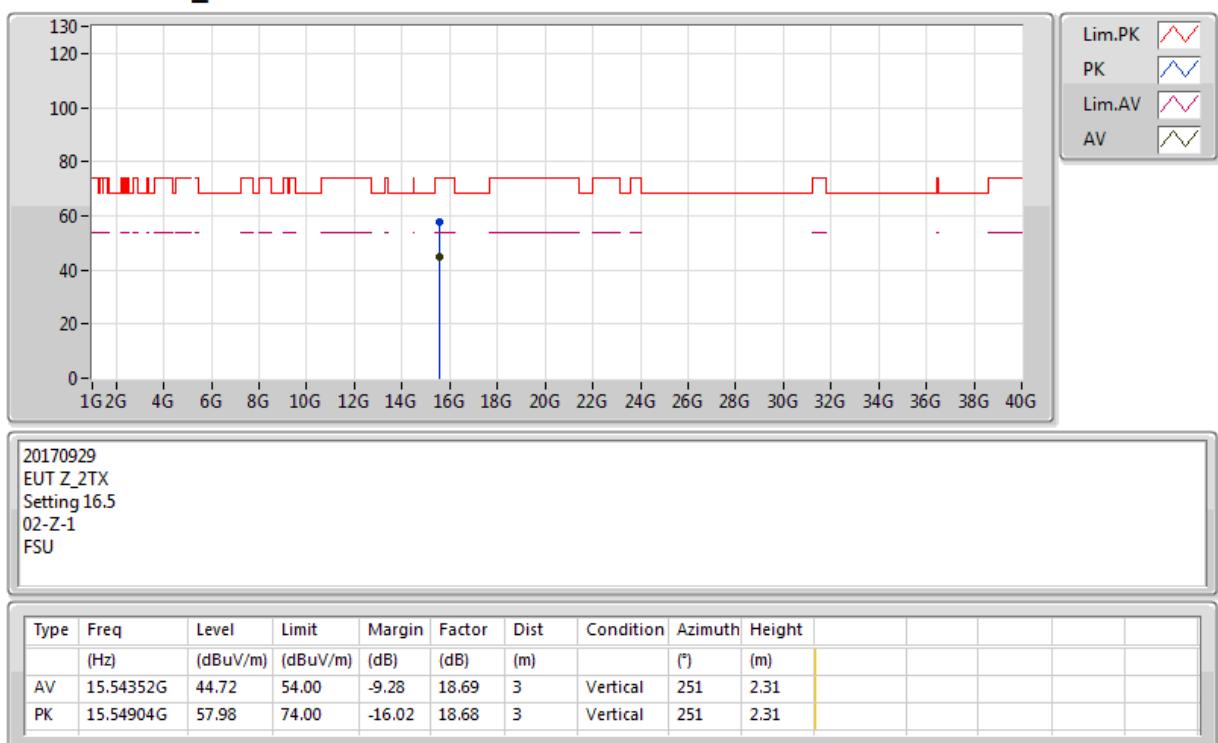
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1_(6Mbps)_2TX	Pass	AV	5.149995G	52.97	54.00	-1.03	9.76	3	Vertical	306	1.09	-

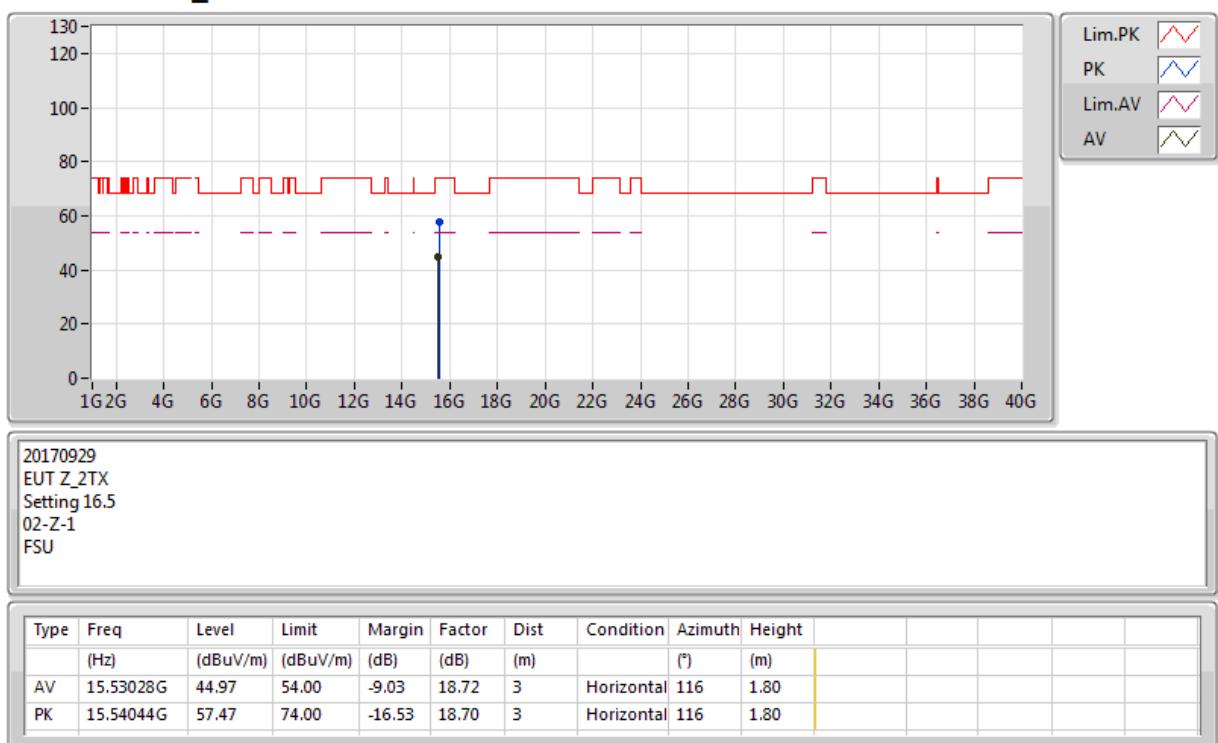
**802.11a_Nss1,(6Mbps)_2TX****5180MHz_TX**

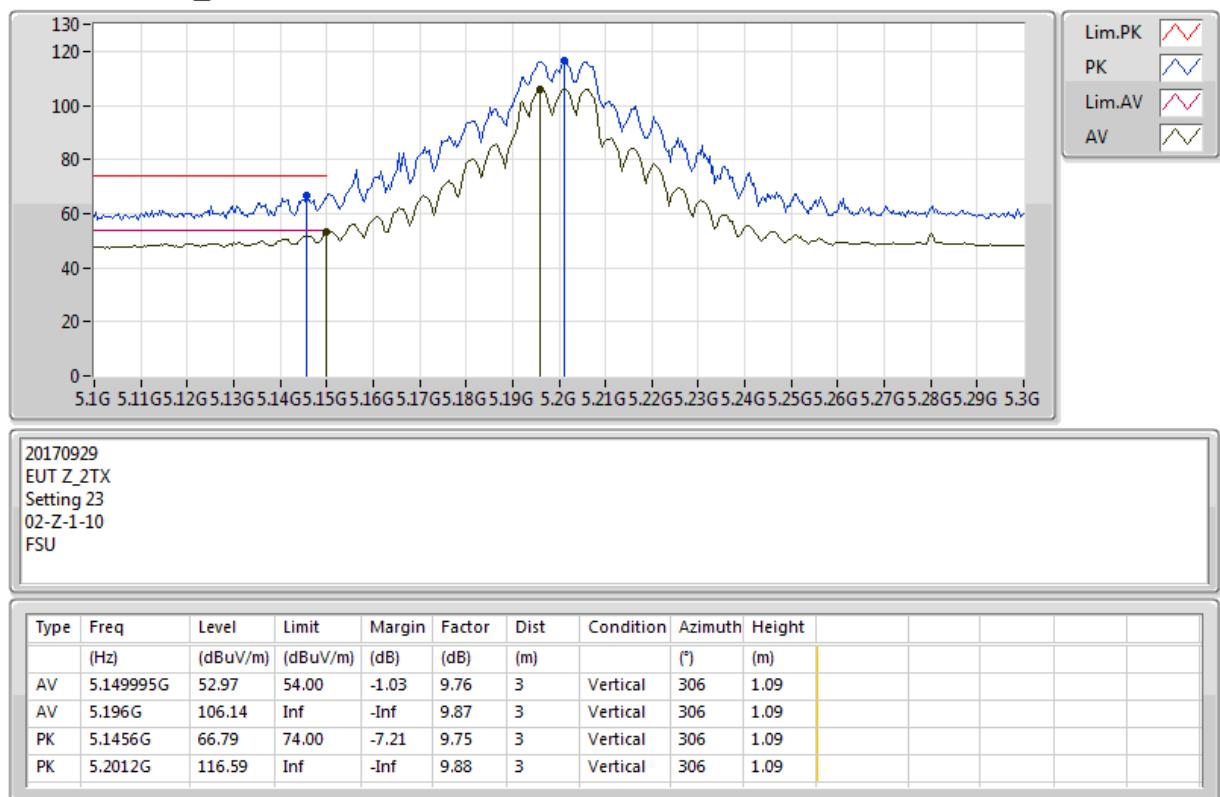
**802.11a_Nss1,(6Mbps)_2TX****5180MHz_TX**

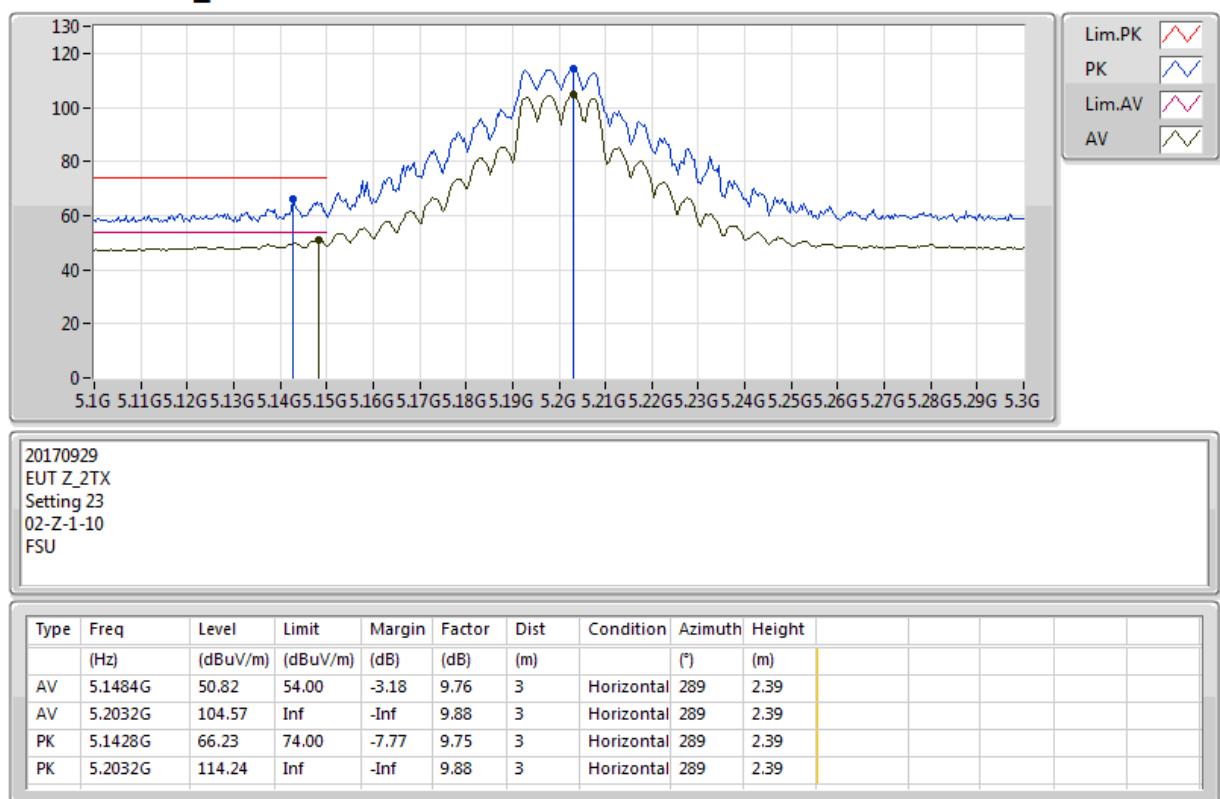
20170929
EUT Z_2TX
Setting 16.5
02-Z-1-10
FSU

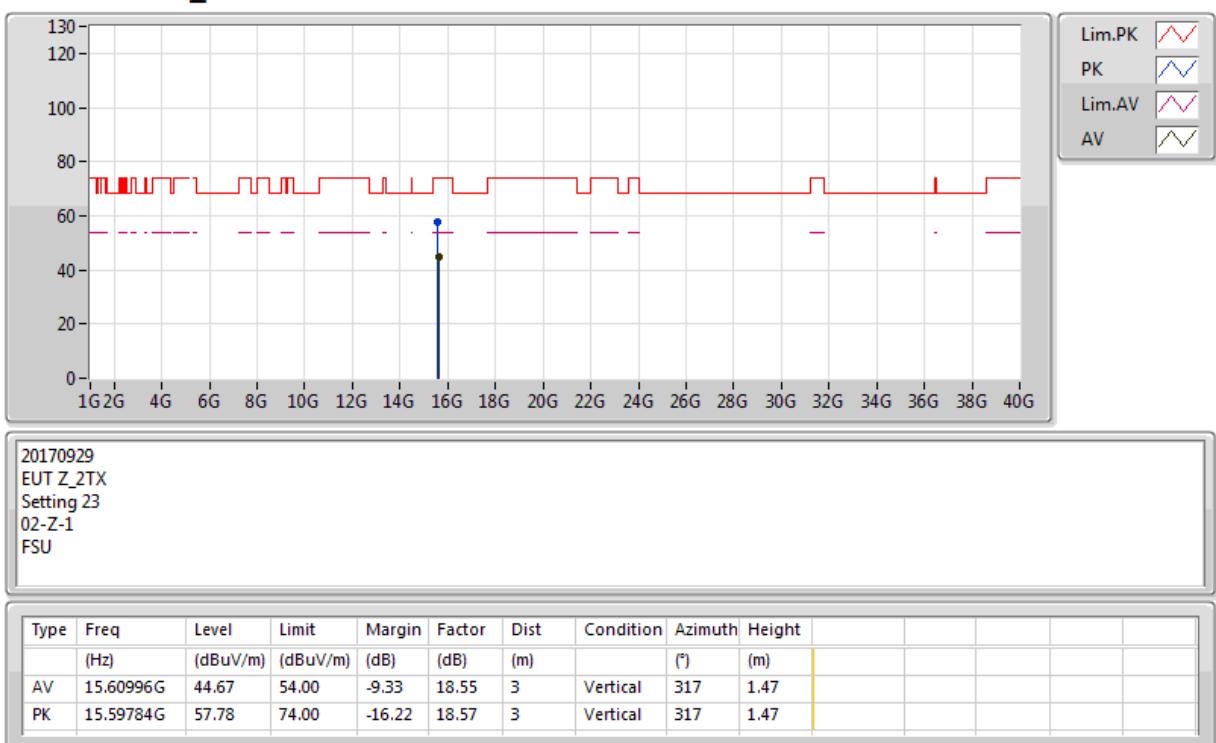
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.1498G	52.25	54.00	-1.75	9.76	3	Horizontal	288	2.52				
AV	5.1852G	99.71	Inf	-Inf	9.85	3	Horizontal	288	2.52				
PK	5.1498G	67.30	74.00	-6.70	9.76	3	Horizontal	288	2.52				
PK	5.1858G	109.07	Inf	-Inf	9.85	3	Horizontal	288	2.52				

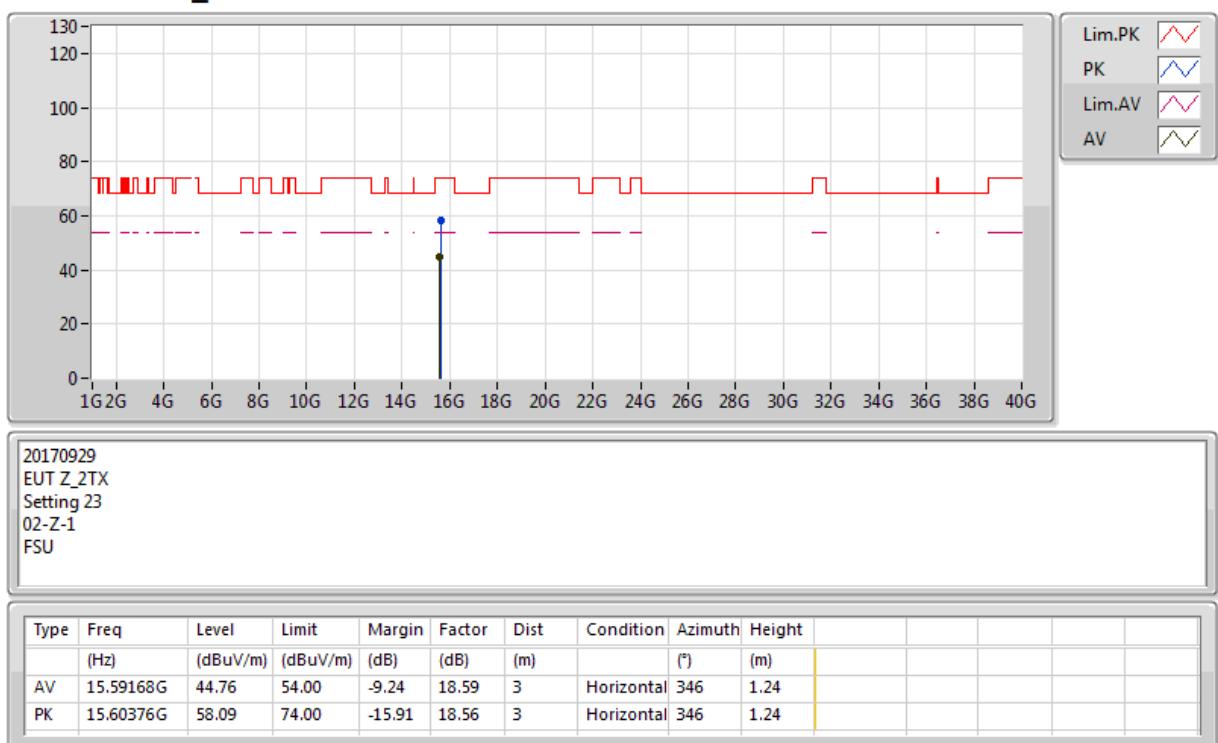
**802.11a_Nss1,(6Mbps)_2TX****5180MHz_TX**

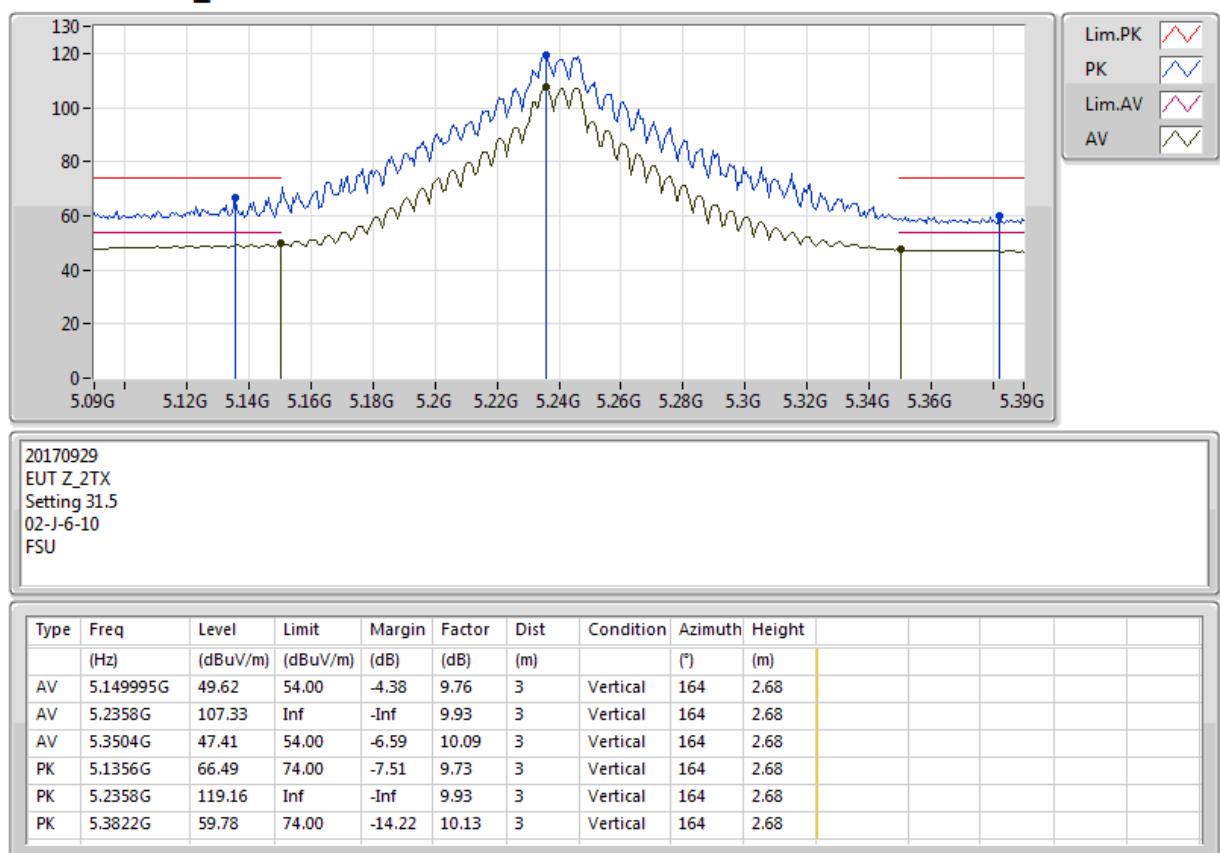
**802.11a_Nss1,(6Mbps)_2TX****5180MHz_TX**

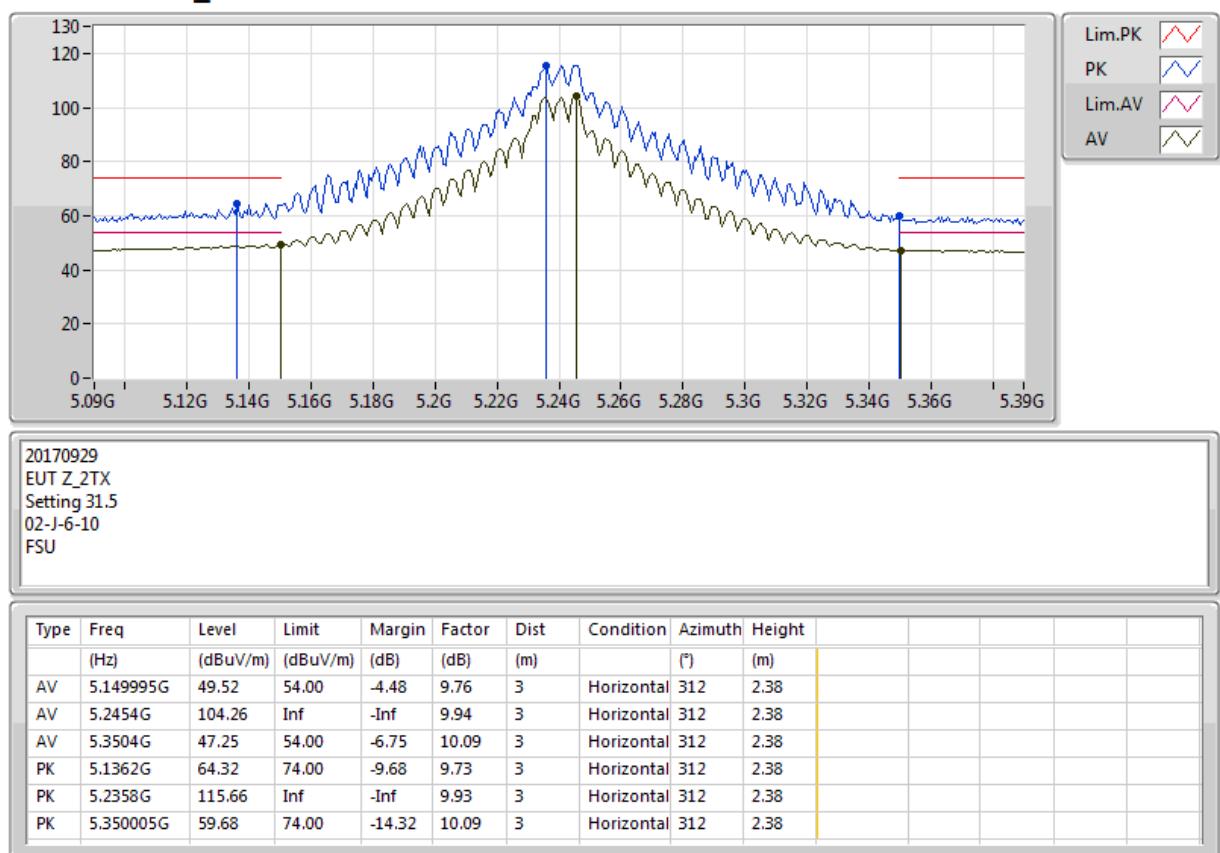
802.11a_Nss1,(6Mbps)_2TX
5200MHz_TX


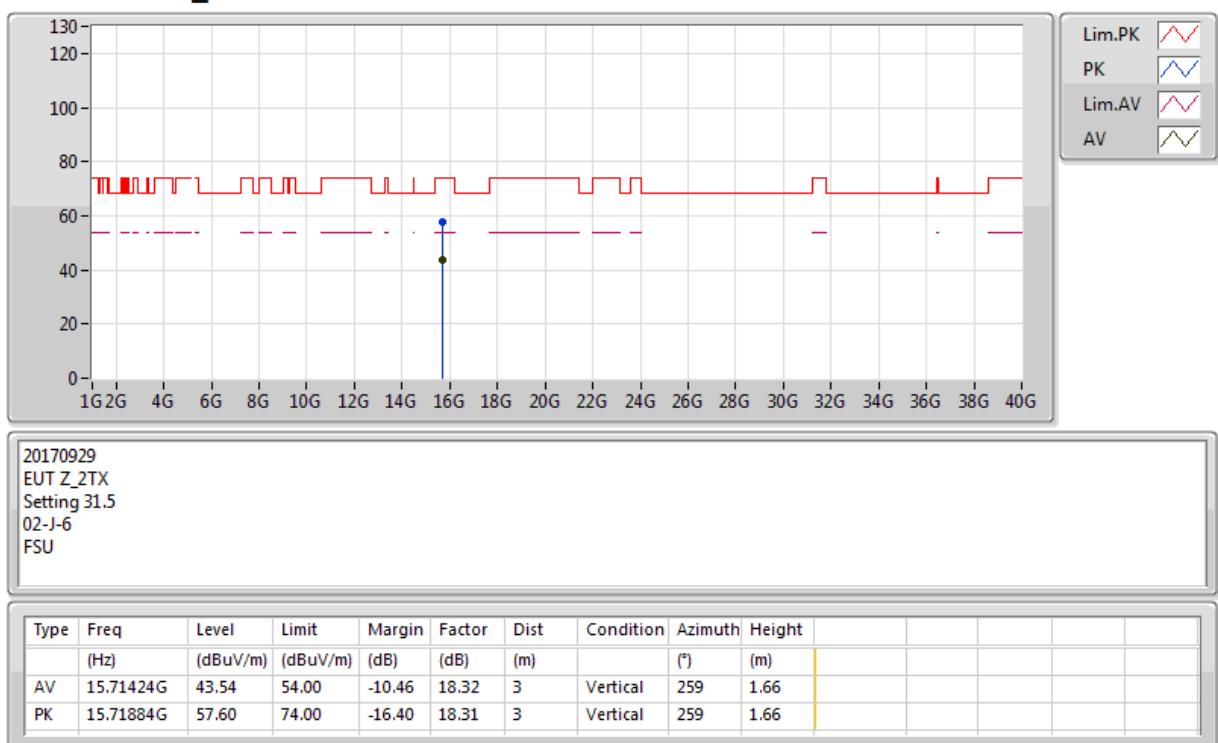
802.11a_Nss1,(6Mbps)_2TX
5200MHz_TX


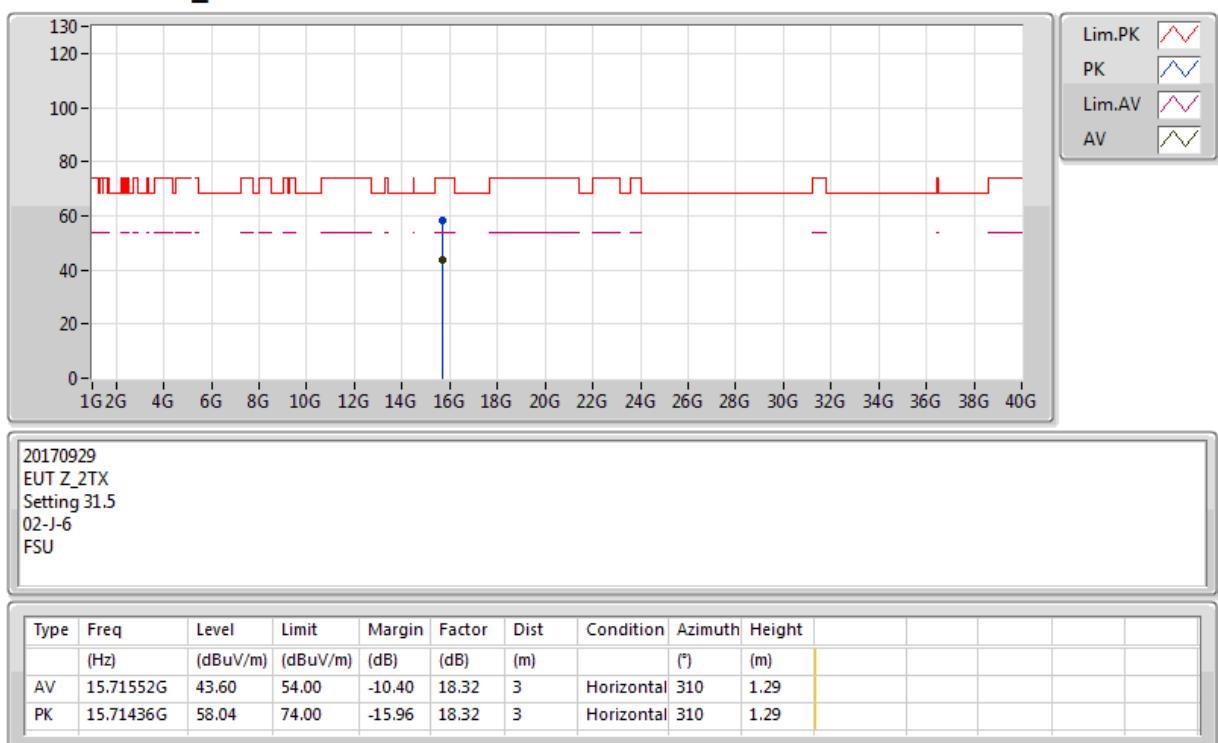
802.11a_Nss1,(6Mbps)_2TX**5200MHz_TX**

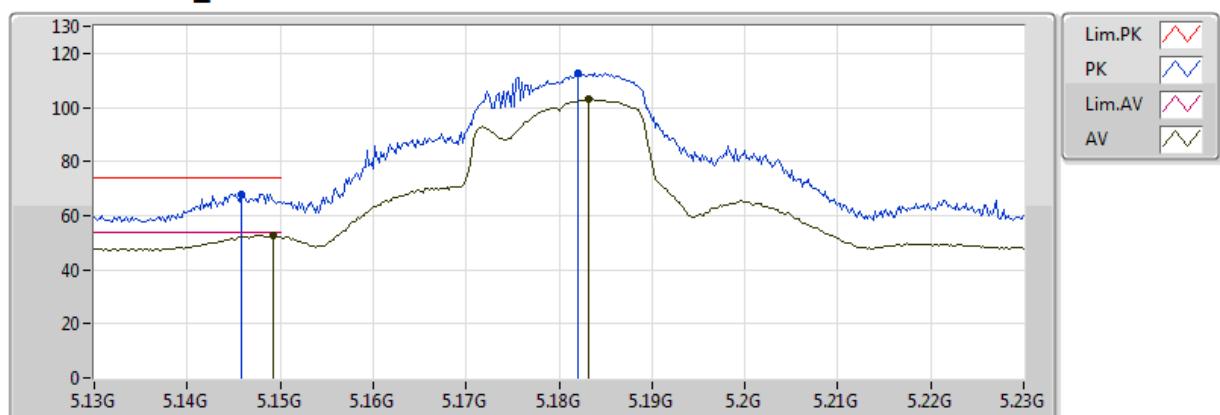
**802.11a_Nss1,(6Mbps)_2TX****5200MHz_TX**

**802.11a_Nss1,(6Mbps)_2TX****5240MHz_TX**

**802.11a_Nss1,(6Mbps)_2TX****5240MHz_TX**

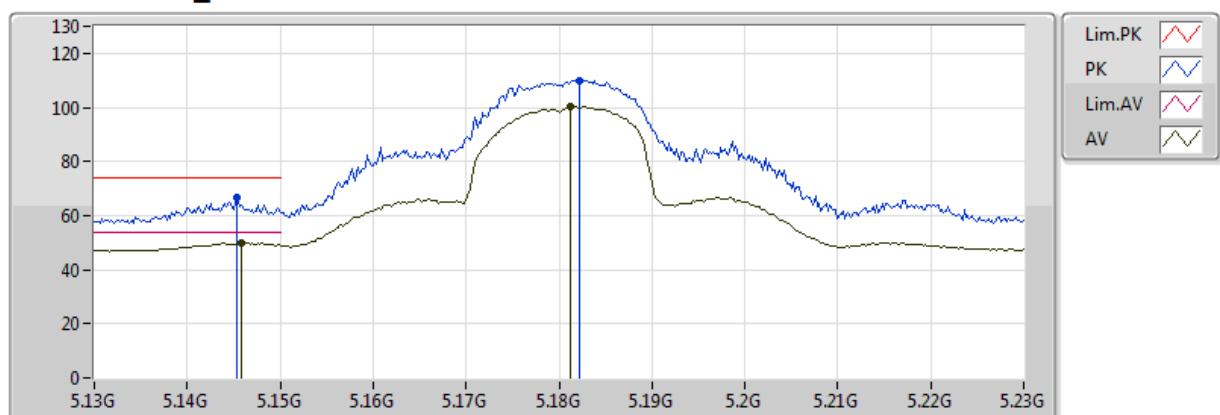
**802.11a_Nss1,(6Mbps)_2TX****5240MHz_TX**

**802.11a_Nss1,(6Mbps)_2TX****5240MHz_TX**

802.11n HT20_Nss1,(MCS0)_2TX
5180MHz_TX


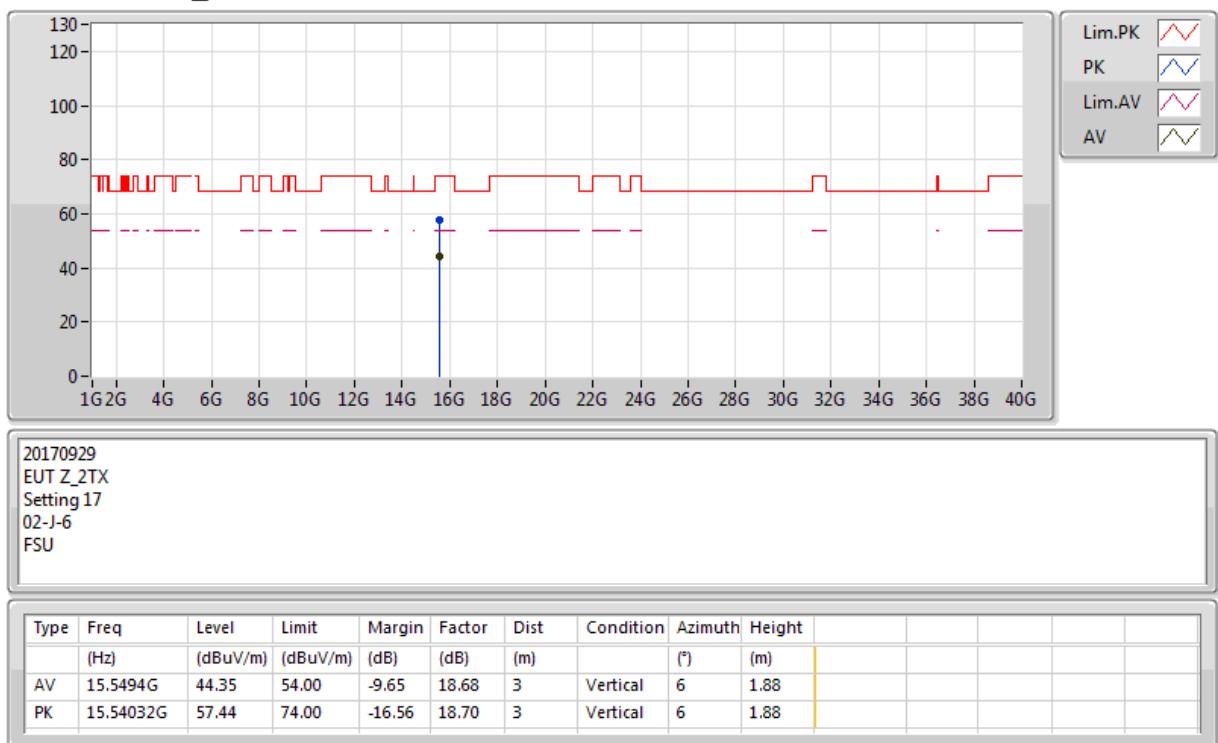
20170929
EUT Z_2TX
Setting 17
02-J-6-10
FSU

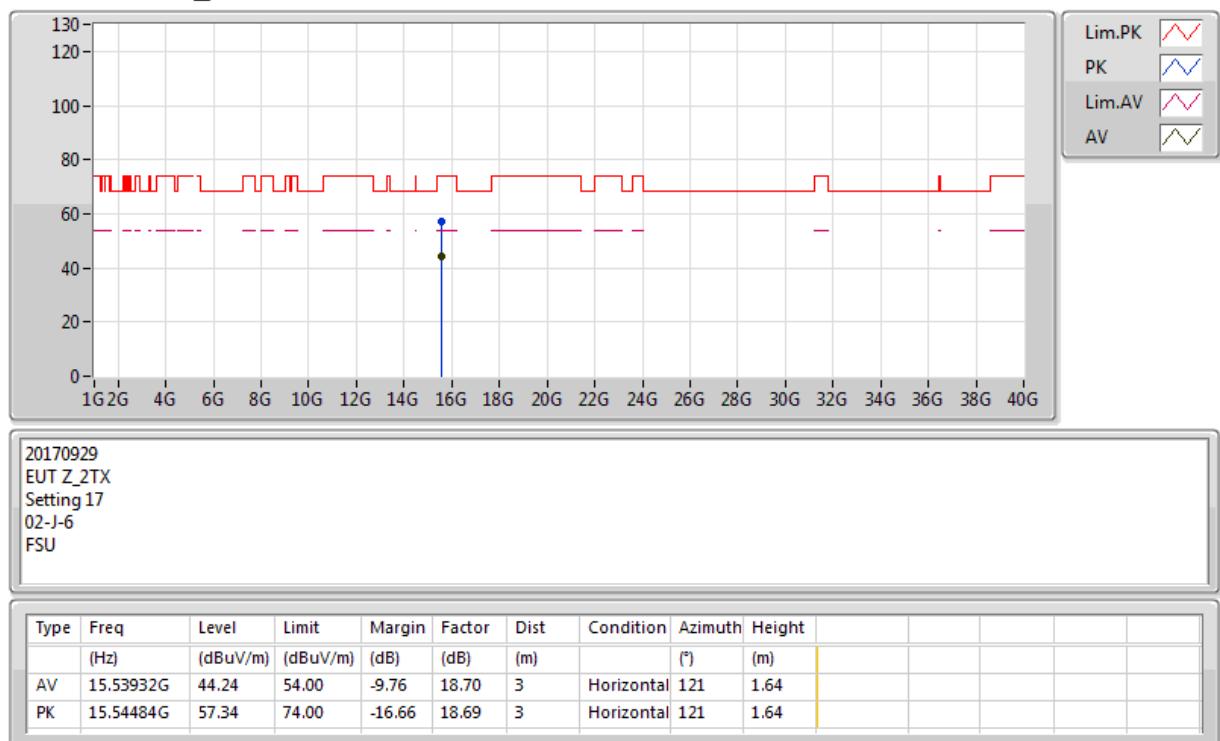
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.1492G	52.84	54.00	-1.16	9.76	3	Vertical	305	1.01			
AV	5.1832G	103.00	Inf	-Inf	9.84	3	Vertical	305	1.01			
PK	5.1458G	68.07	74.00	-5.93	9.76	3	Vertical	305	1.01			
PK	5.182G	112.84	Inf	-Inf	9.84	3	Vertical	305	1.01			

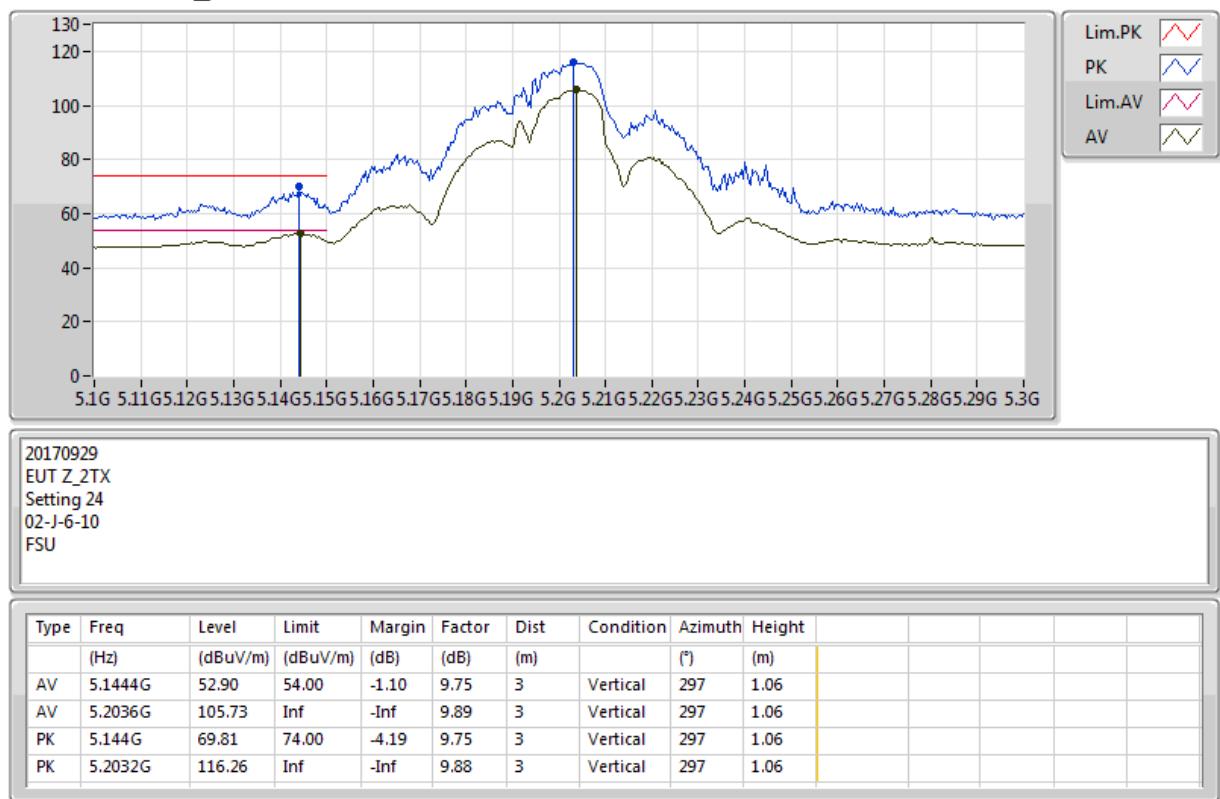
802.11n HT20_Nss1,(MCS0)_2TX
5180MHz_TX


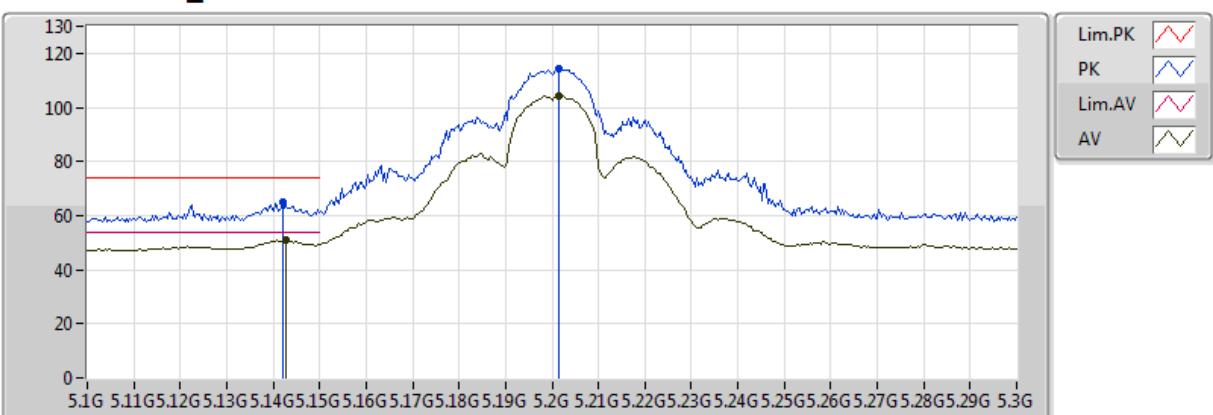
20170929
EUT Z_2TX
Setting 17
02-J-6-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.1458G	49.82	54.00	-4.18	9.76	3	Horizontal	284	2.48			
AV	5.1812G	100.35	Inf	-Inf	9.84	3	Horizontal	284	2.48			
PK	5.1454G	66.50	74.00	-7.50	9.75	3	Horizontal	284	2.48			
PK	5.1822G	109.81	Inf	-Inf	9.84	3	Horizontal	284	2.48			

802.11n HT20_Nss1,(MCS0)_2TX**5180MHz_TX**

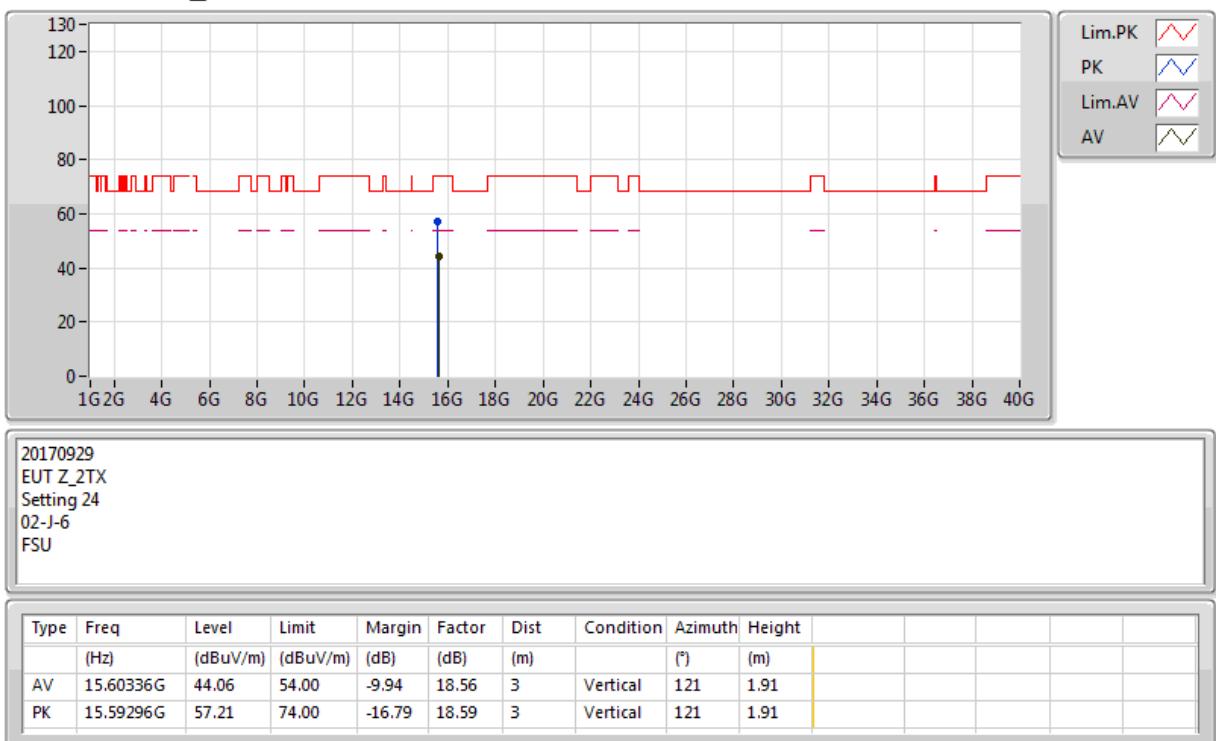
802.11n HT20_Nss1,(MCS0)_2TX**5180MHz_TX**

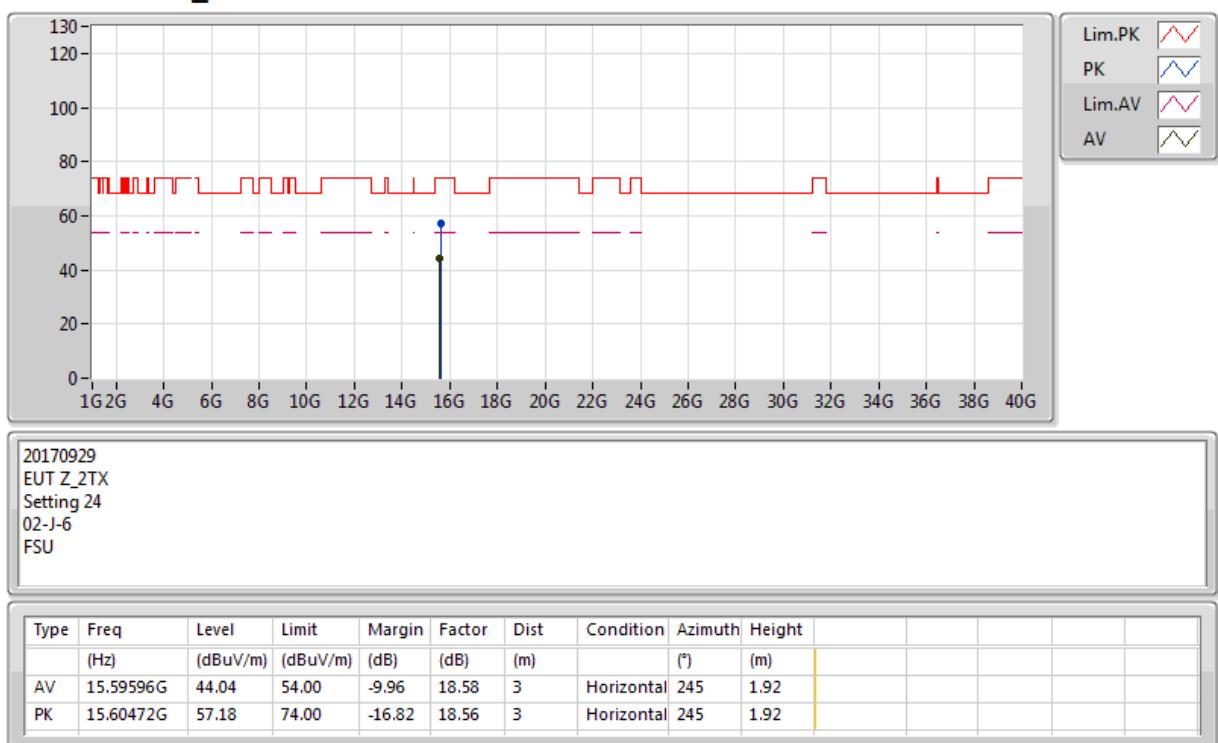
**802.11n HT20_Nss1,(MCS0)_2TX****5200MHz_TX**

802.11n HT20_Nss1,(MCS0)_2TX
5200MHz_TX


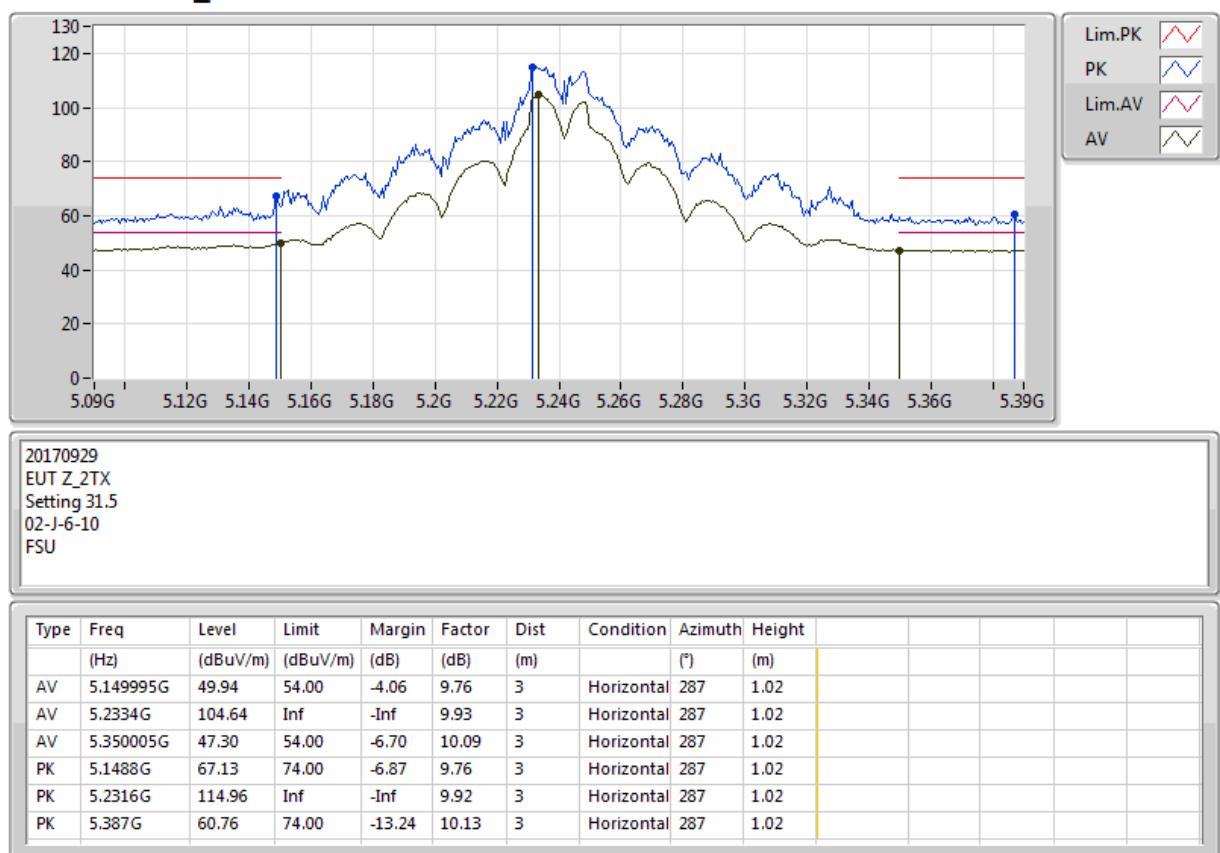
20170929
EUT Z_2TX
Setting 24
02-J-6-10
FSU

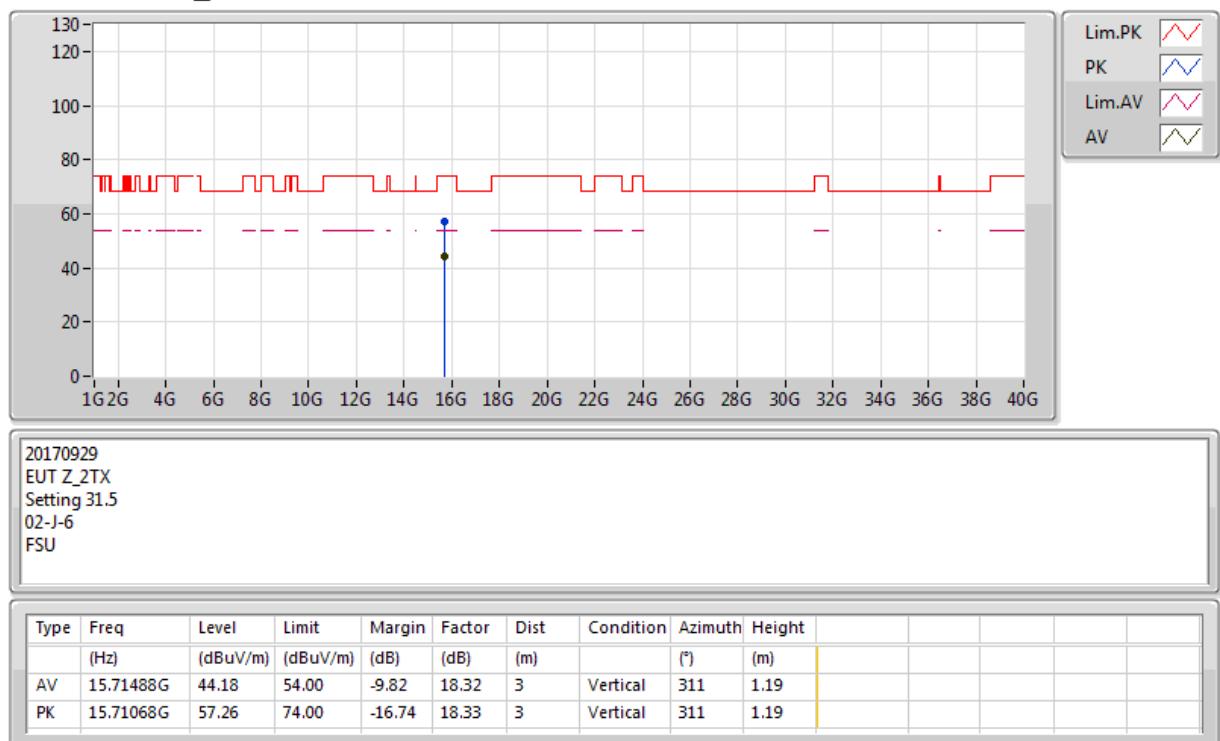
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.1428G	50.82	54.00	-3.18	9.75	3	Horizontal	282	2.60				
AV	5.2016G	104.27	Inf	-Inf	9.88	3	Horizontal	282	2.60				
PK	5.142G	64.97	74.00	-9.03	9.75	3	Horizontal	282	2.60				
PK	5.2016G	114.18	Inf	-Inf	9.88	3	Horizontal	282	2.60				

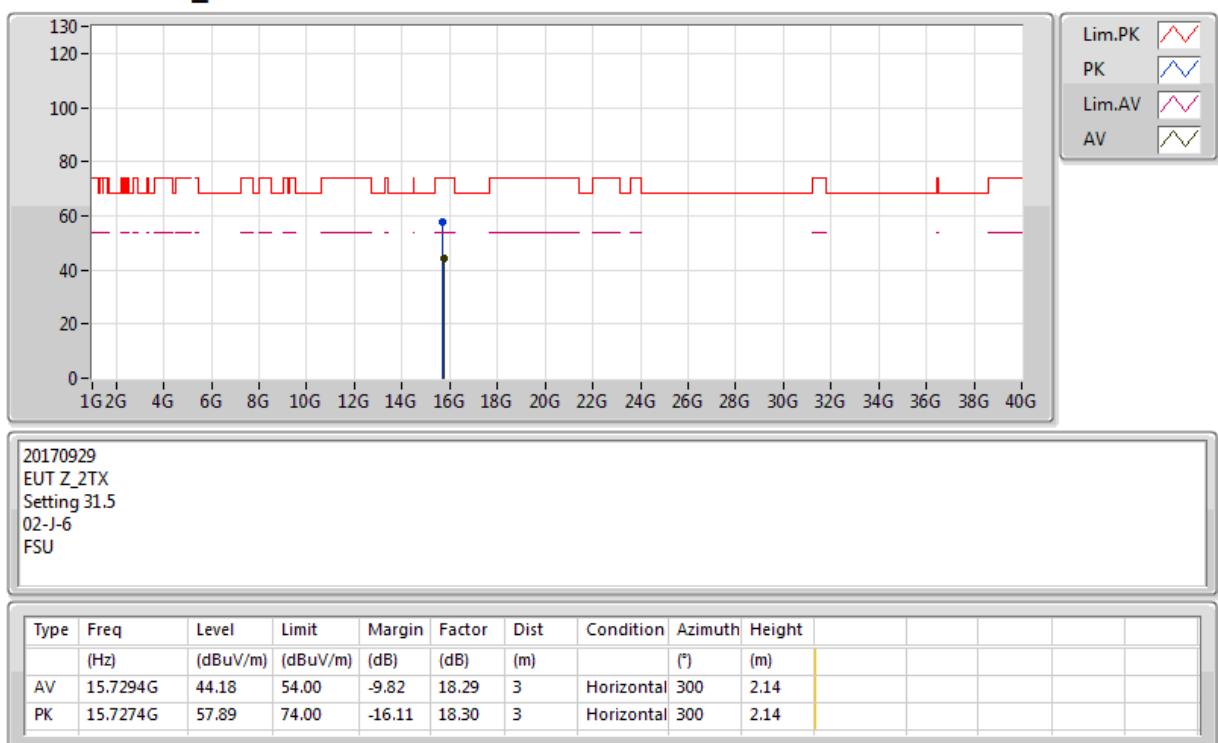
802.11n HT20_Nss1,(MCS0)_2TX**5200MHz_TX**

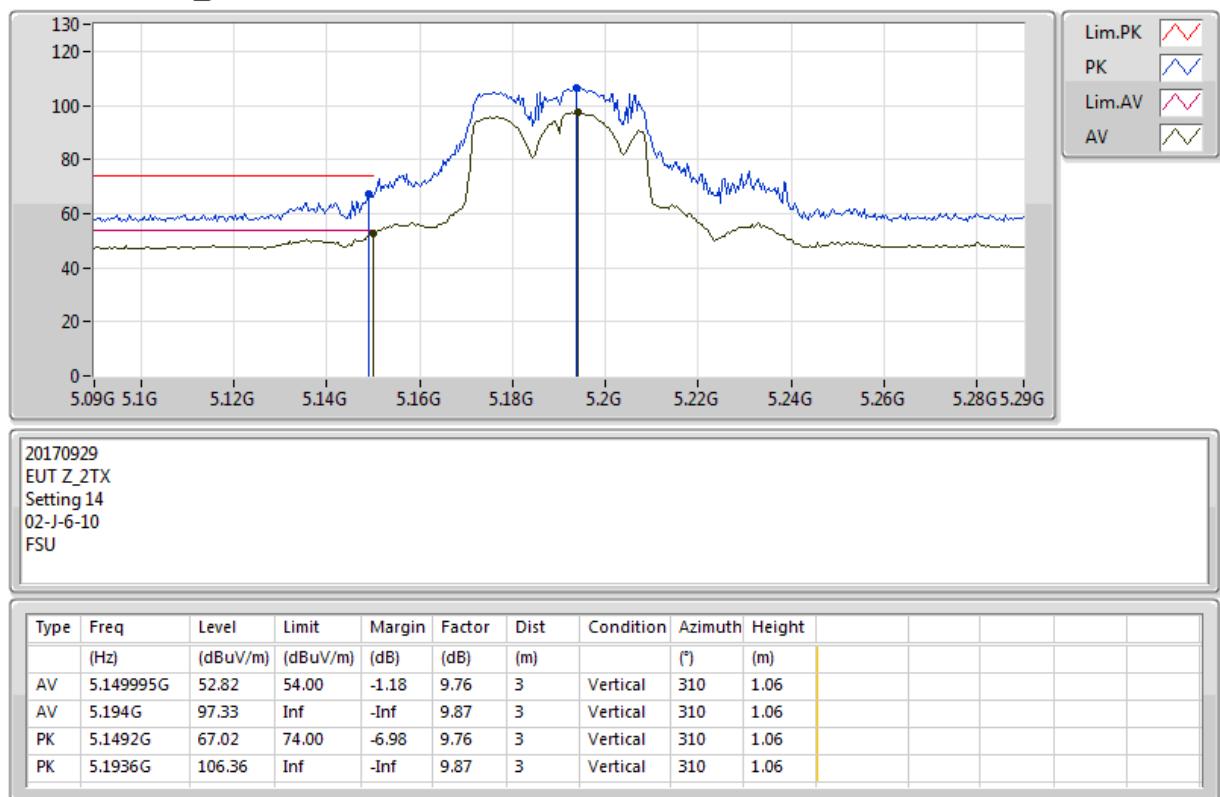
802.11n HT20_Nss1,(MCS0)_2TX**5200MHz_TX**

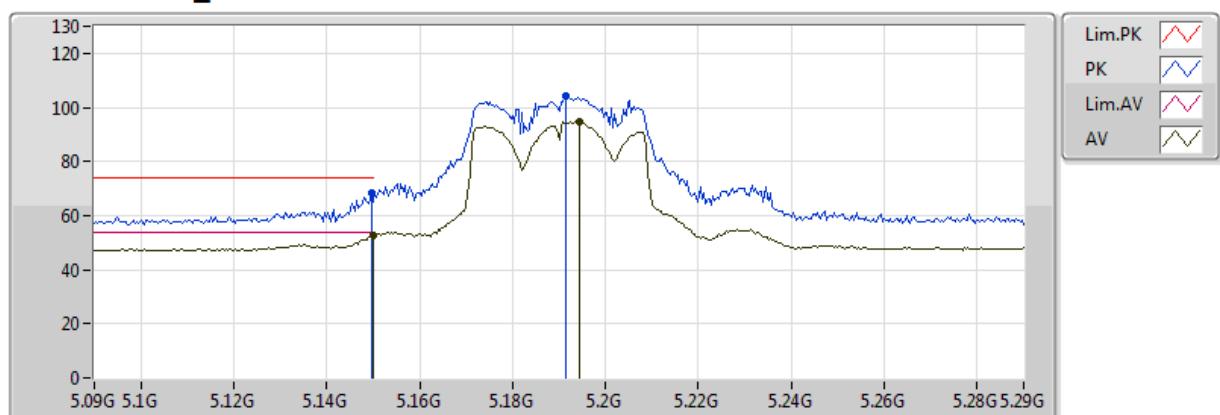
**802.11n HT20_Nss1,(MCS0)_2TX****5240MHz_TX**

802.11n HT20_Nss1,(MCS0)_2TX
5240MHz_TX


802.11n HT20_Nss1,(MCS0)_2TX**5240MHz_TX**

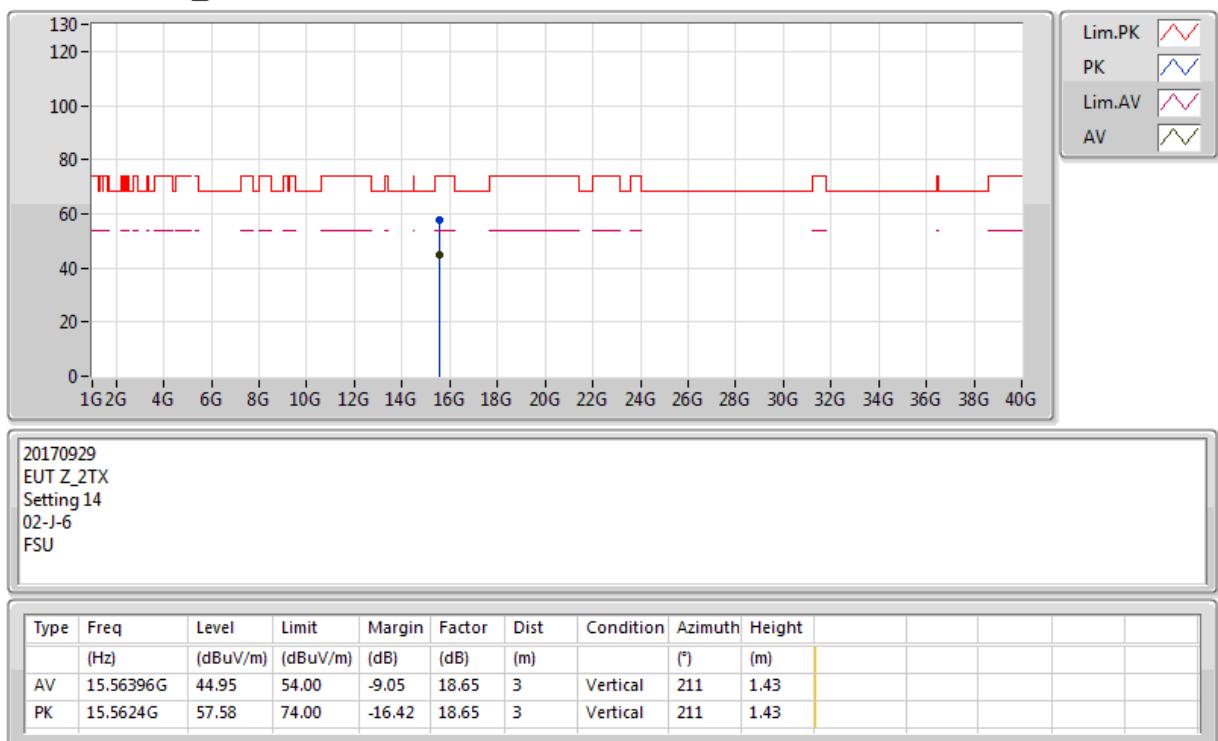
802.11n HT20_Nss1,(MCS0)_2TX**5240MHz_TX**

802.11n HT40_Nss1,(MCS0)_2TX
5190MHz_TX


802.11n HT40_Nss1,(MCS0)_2TX
5190MHz_TX


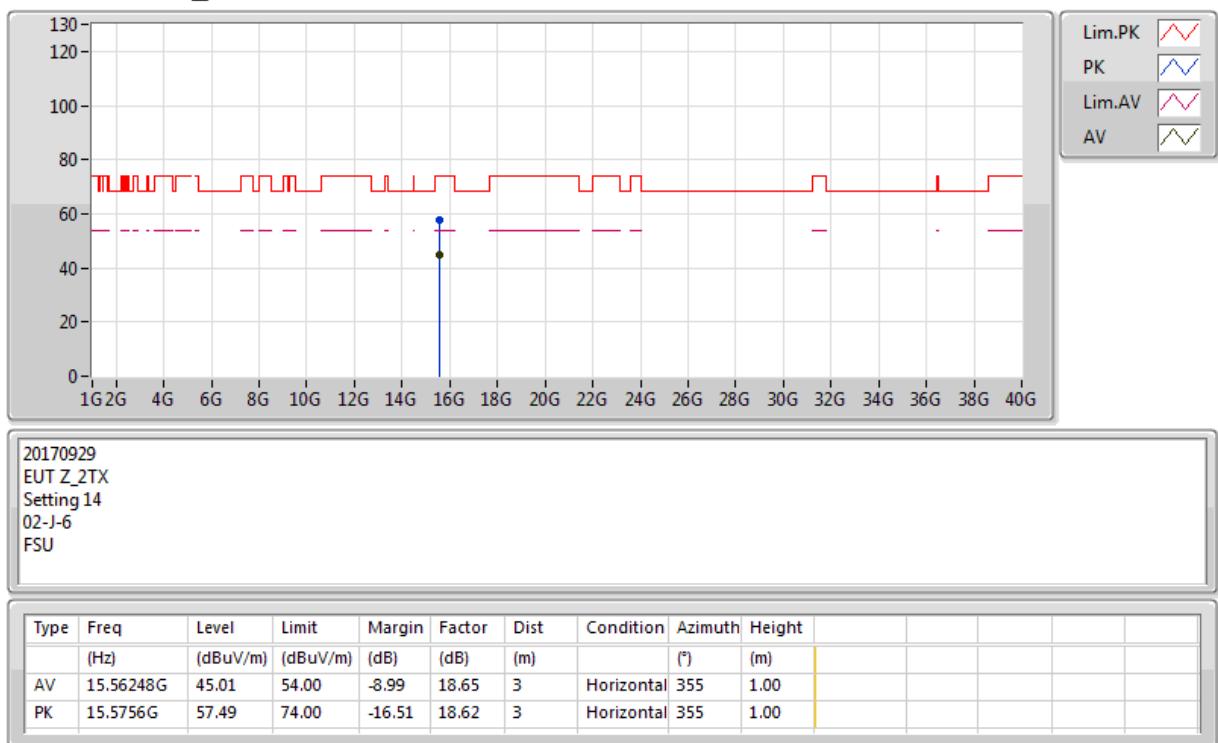
20170929
EUT Z_2TX
Setting 14
02-J-6-10
FSU

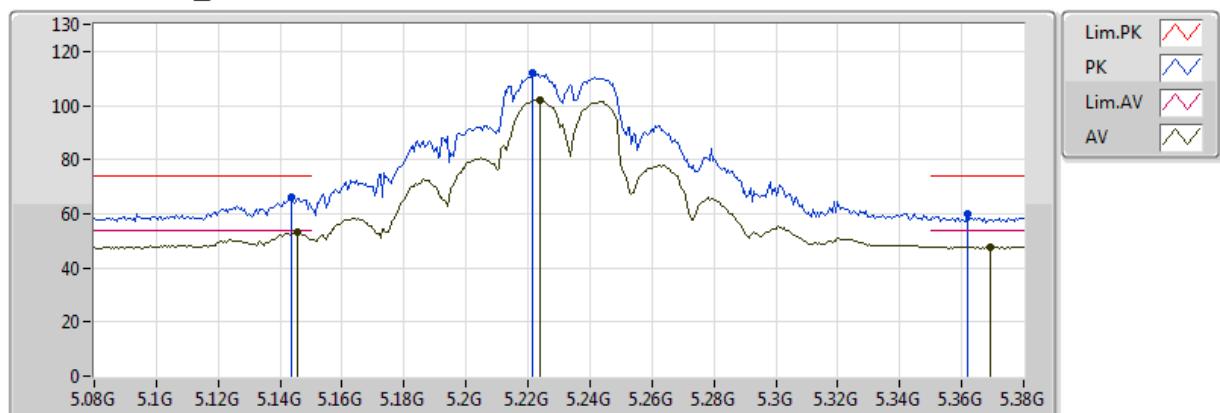
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.149995G	52.56	54.00	-1.44	9.76	3	Horizontal	293	2.51			
AV	5.1944 G	94.60	Inf	-Inf	9.87	3	Horizontal	293	2.51			
PK	5.1496G	68.26	74.00	-5.74	9.76	3	Horizontal	293	2.51			
PK	5.1916G	104.18	Inf	-Inf	9.86	3	Horizontal	293	2.51			

802.11n HT40_Nss1,(MCS0)_2TX**5190MHz_TX**

802.11n HT40_Nss1,(MCS0)_2TX

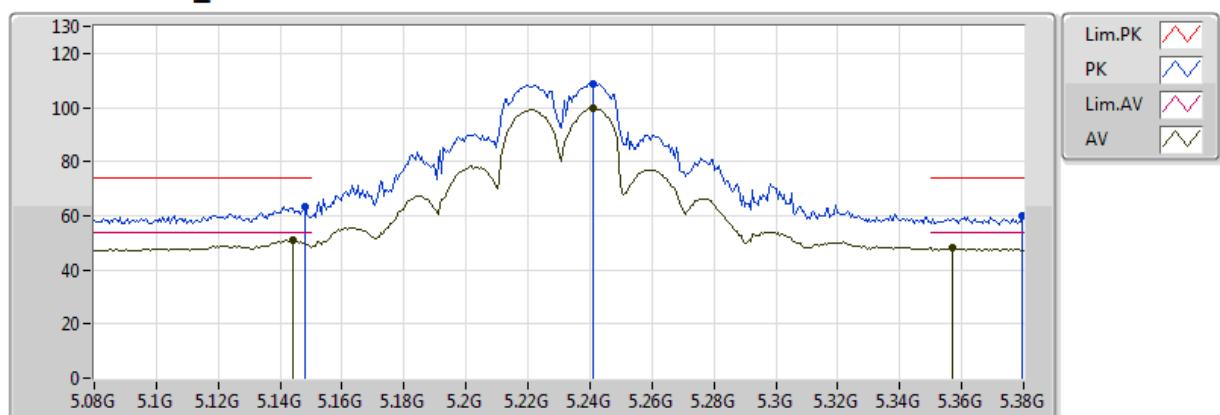
5190MHz_TX



802.11n HT40_Nss1,(MCS0)_2TX
5230MHz_TX


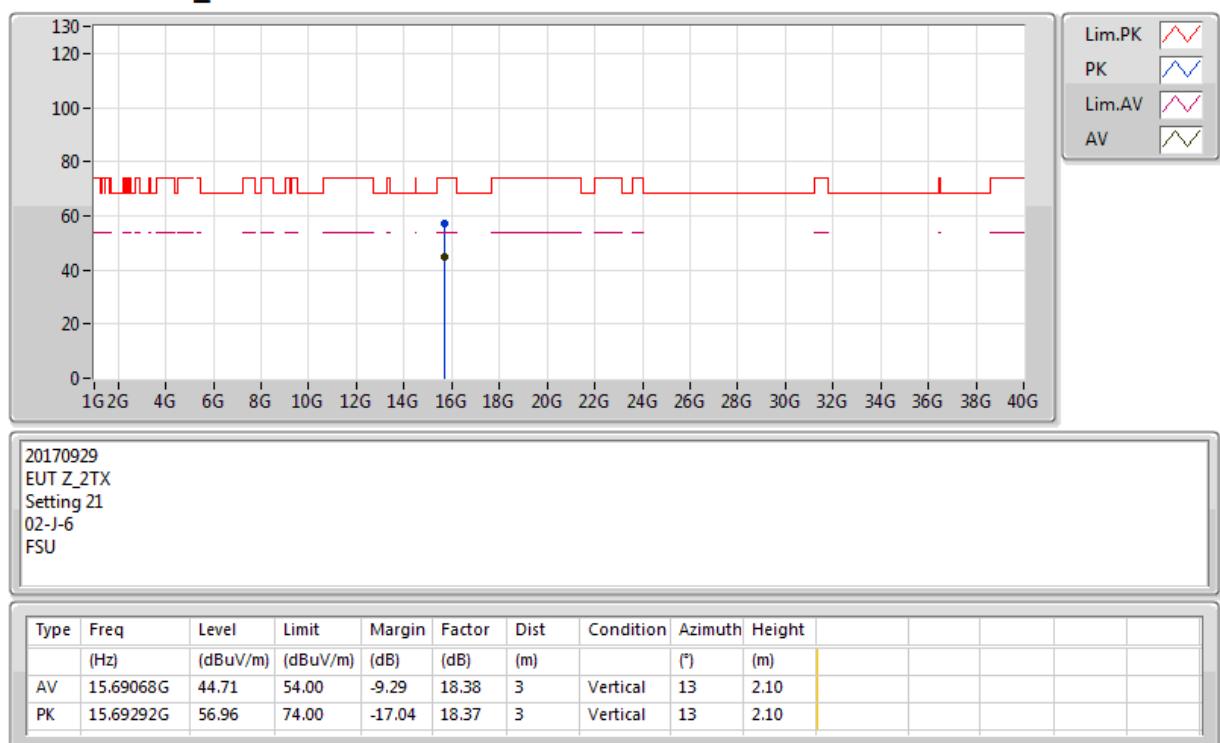
20170929
EUT Z_2TX
Setting 21
02-J-6-10
FSU

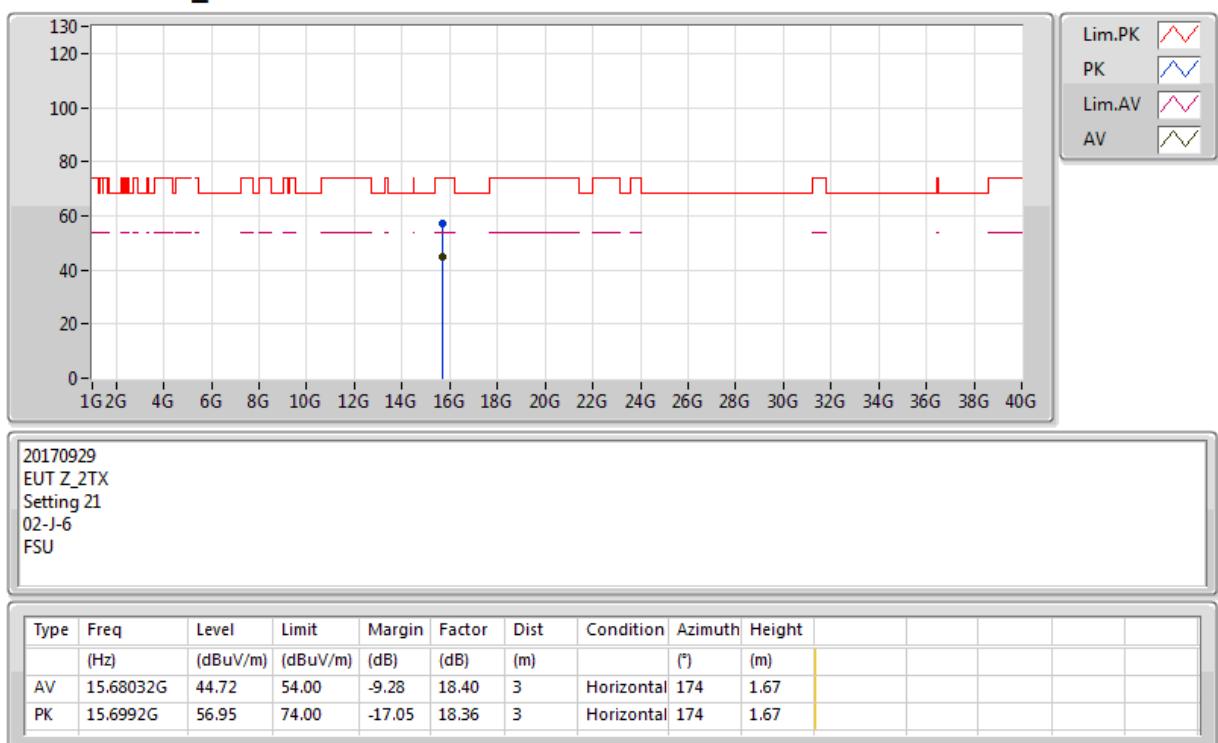
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.1454G	52.97	54.00	-1.03	9.75	3	Vertical	303	1.05				
AV	5.224G	101.86	Inf	-Inf	9.91	3	Vertical	303	1.05				
AV	5.3692G	47.85	54.00	-6.15	10.11	3	Vertical	303	1.05				
PK	5.1436G	66.30	74.00	-7.70	9.75	3	Vertical	303	1.05				
PK	5.2216G	111.99	Inf	-Inf	9.91	3	Vertical	303	1.05				
PK	5.362G	59.68	74.00	-14.32	10.10	3	Vertical	303	1.05				

802.11n HT40_Nss1,(MCS0)_2TX
5230MHz_TX


20170929
EUT Z_2TX
Setting 21
02-J-6-10
FSU

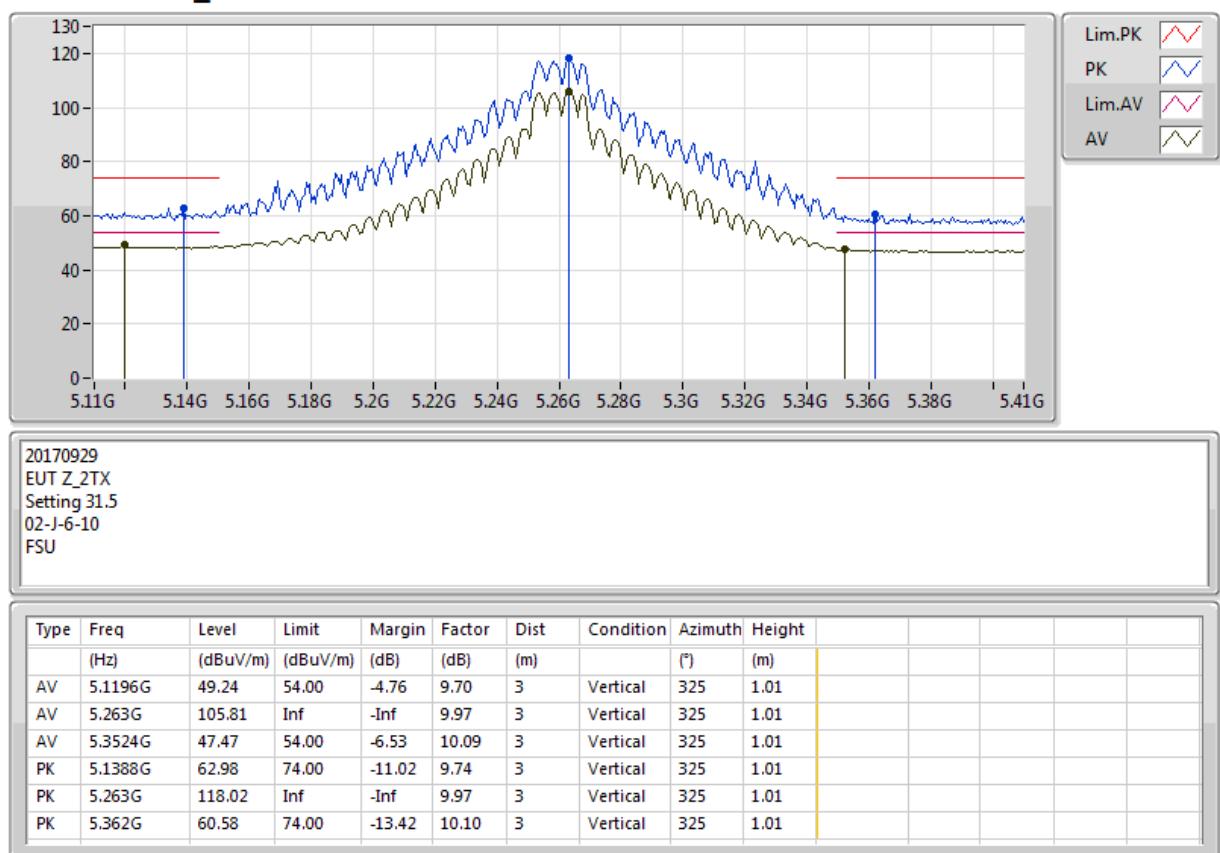
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.1442G	50.96	54.00	-3.04	9.75	3	Horizontal	289	2.36			
AV	5.2408G	99.90	Inf	-Inf	9.94	3	Horizontal	289	2.36			
AV	5.3572G	47.92	54.00	-6.08	10.09	3	Horizontal	289	2.36			
PK	5.1478G	63.44	74.00	-10.56	9.76	3	Horizontal	289	2.36			
PK	5.2408G	108.86	Inf	-Inf	9.94	3	Horizontal	289	2.36			
PK	5.3794G	59.70	74.00	-14.30	10.12	3	Horizontal	289	2.36			

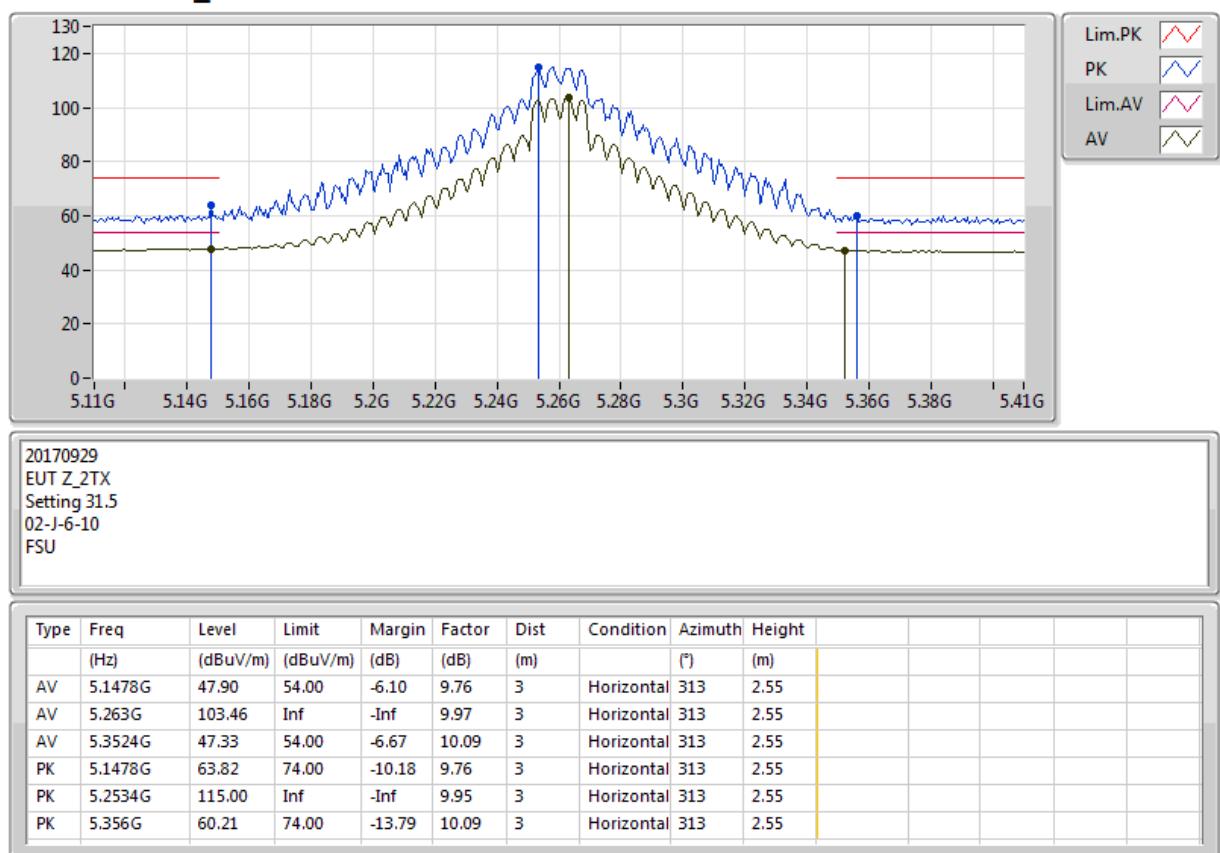
**802.11n HT40_Nss1,(MCS0)_2TX****5230MHz_TX**

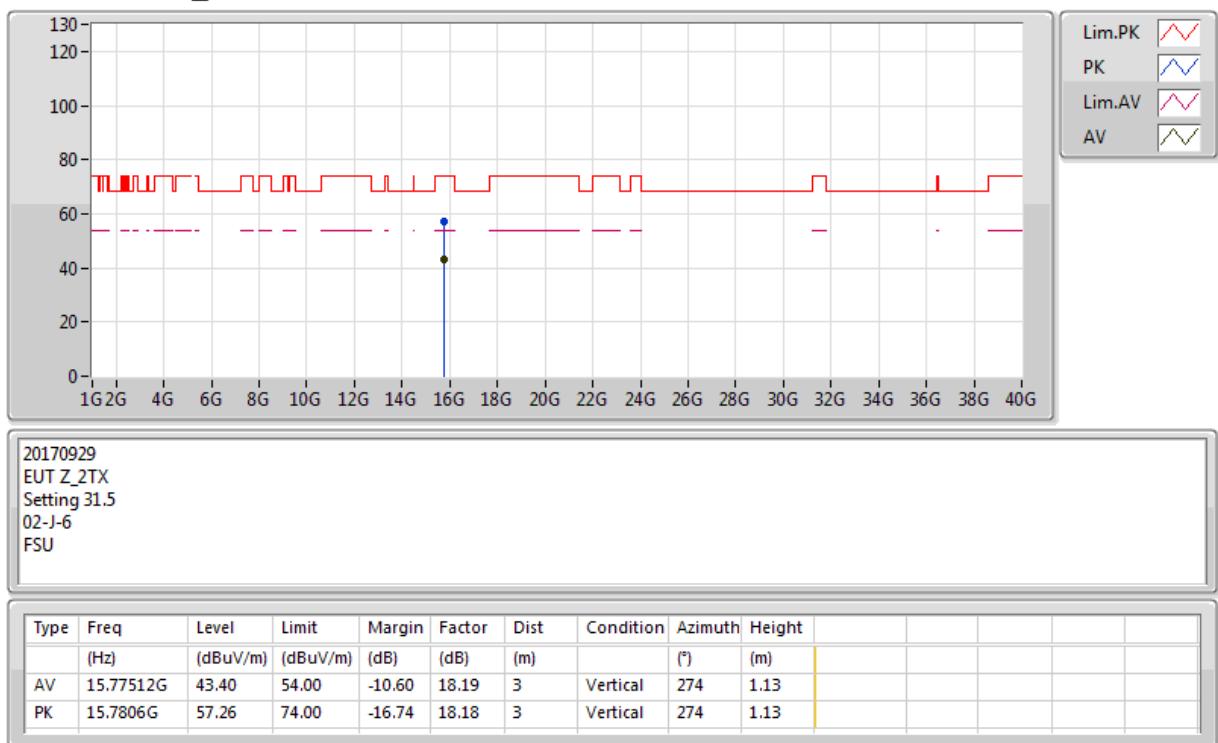
802.11n HT40_Nss1,(MCS0)_2TX**5230MHz_TX**

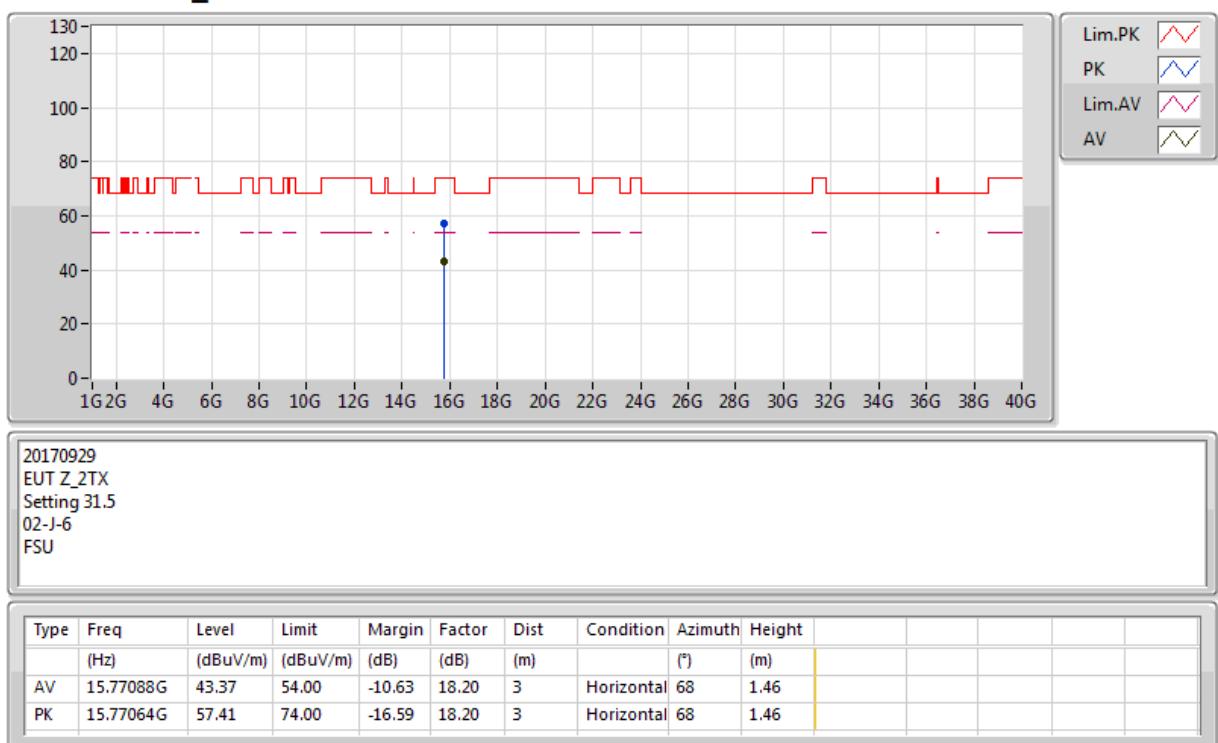
**Test Mode: Mode 1-Radio 3 (B2)****Summary**

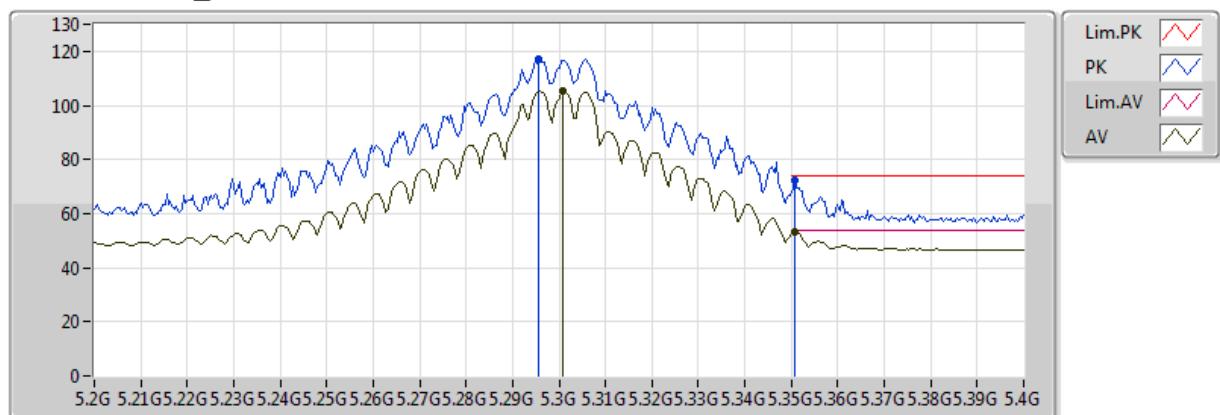
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.25-5.35GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1_(6Mbps)_2TX	Pass	AV	5.3508G	52.96	54.00	-1.04	10.09	3	Vertical	320	1.02	-

**802.11a_Nss1,(6Mbps)_2TX****5260MHz_TX**

**802.11a_Nss1,(6Mbps)_2TX****5260MHz_TX**

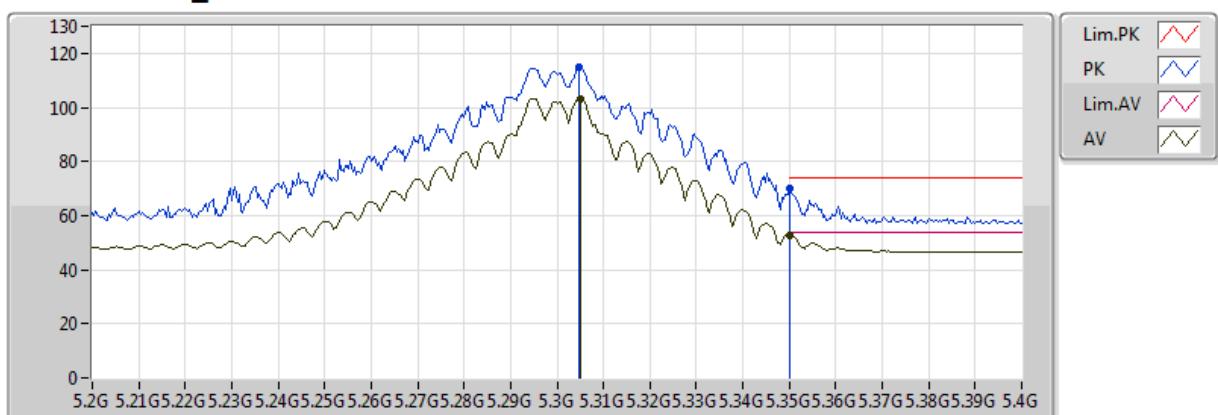
802.11a_Nss1,(6Mbps)_2TX
5260MHz_TX


**802.11a_Nss1,(6Mbps)_2TX****5260MHz_TX**

**802.11a_Nss1,(6Mbps)_2TX****5300MHz_TX**

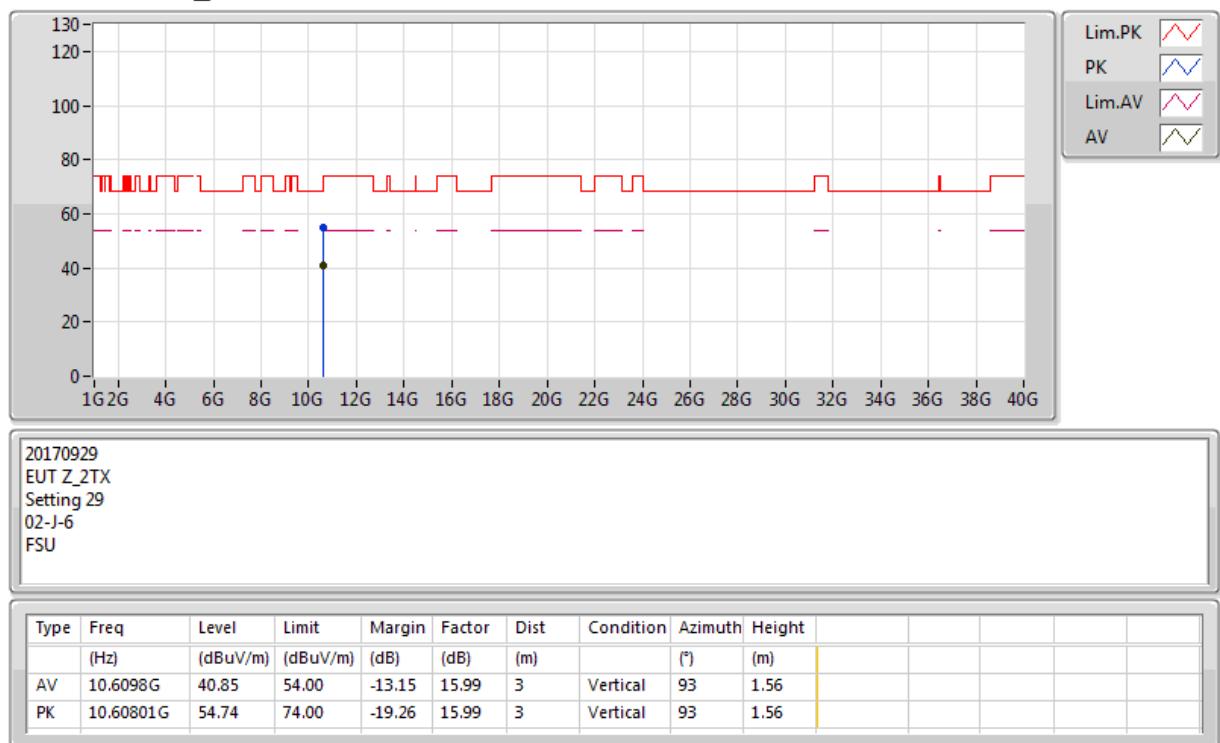
20170929
EUT Z_2TX
Setting 29
02-J-6-10
FSU

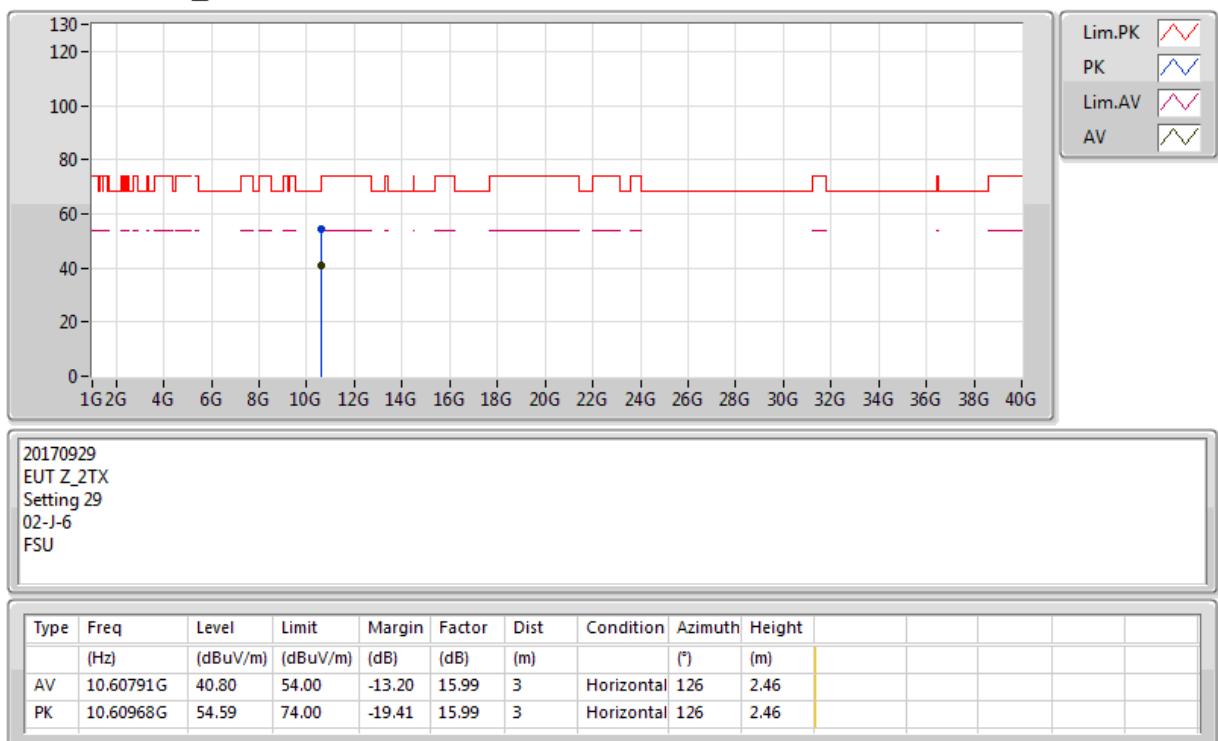
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.3008G	105.17	Inf	-Inf	10.02	3	Vertical	320	1.02				
AV	5.3508G	52.96	54.00	-1.04	10.09	3	Vertical	320	1.02				
PK	5.2956G	117.07	Inf	-Inf	10.01	3	Vertical	320	1.02				
PK	5.3508G	72.14	74.00	-1.86	10.09	3	Vertical	320	1.02				

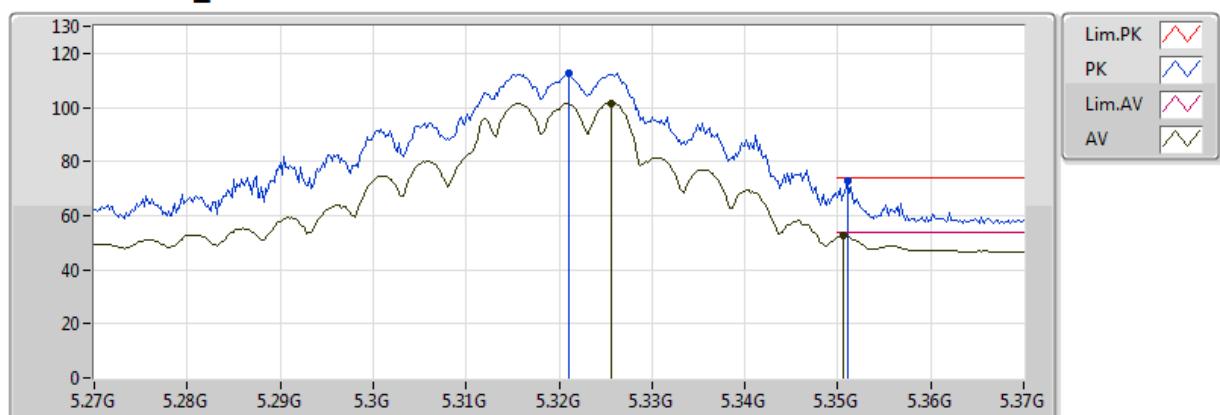
**802.11a_Nss1,(6Mbps)_2TX****5300MHz_TX**

20170929
EUT_Z_2TX
Setting 29
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Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height				
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)				
AV	5.3052G	103.30	Inf	-Inf	10.03	3	Horizontal	298	2.64				
AV	5.350005G	52.83	54.00	-1.17	10.09	3	Horizontal	298	2.64				
PK	5.3048G	114.72	Inf	-Inf	10.03	3	Horizontal	298	2.64				
PK	5.350005G	70.00	74.00	-4.00	10.09	3	Horizontal	298	2.64				

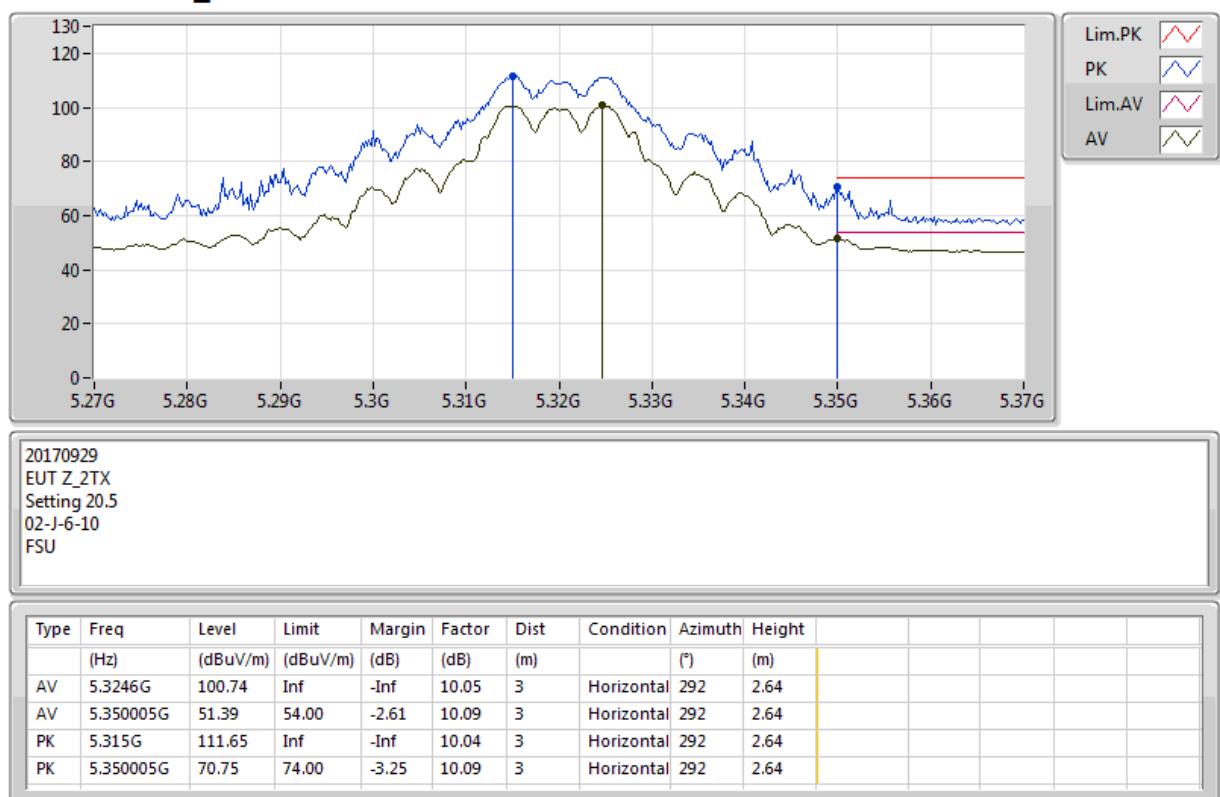
802.11a_Nss1,(6Mbps)_2TX
5300MHz_TX


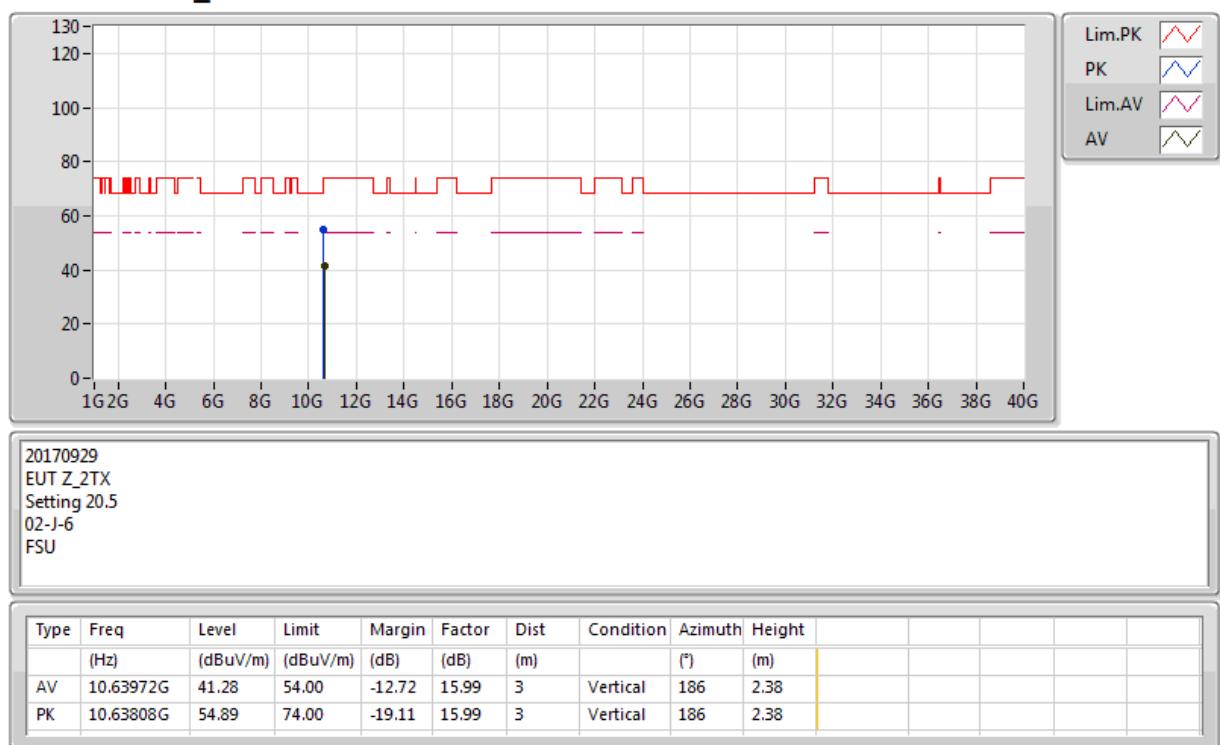
802.11a_Nss1,(6Mbps)_2TX**5300MHz_TX**

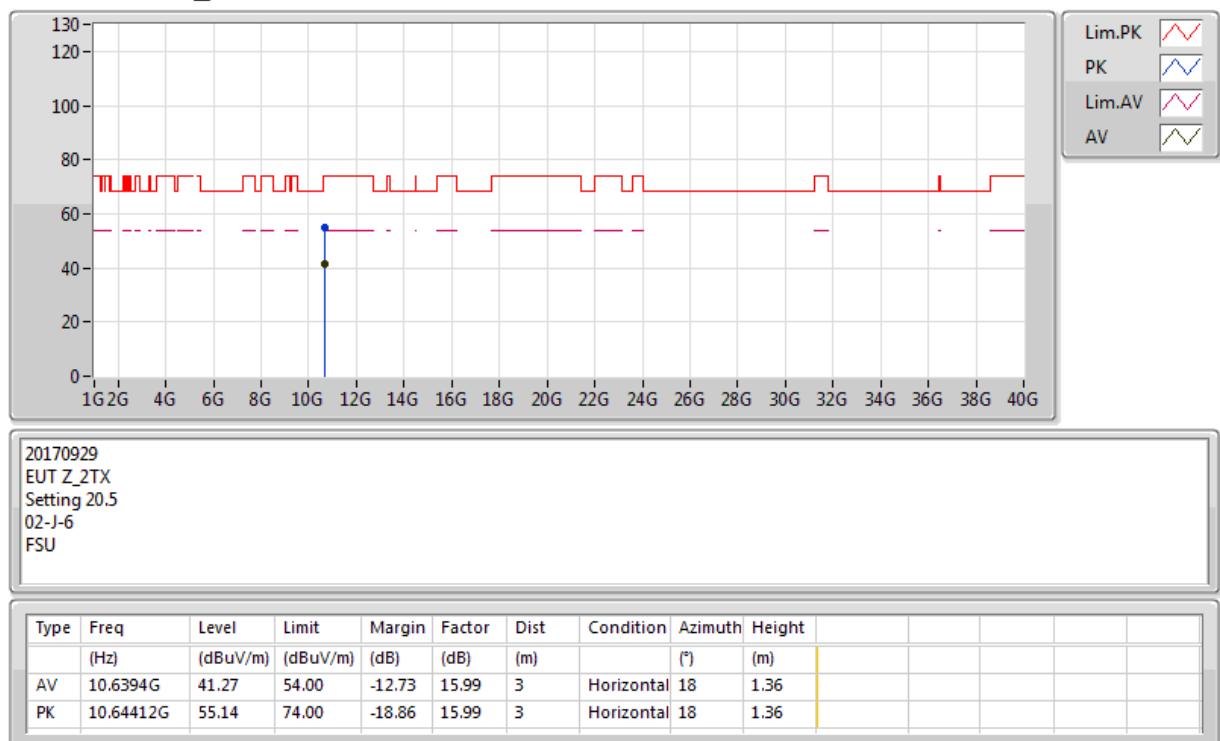
**802.11a_Nss1,(6Mbps)_2TX****5320MHz_TX**

20170929
EUT Z_2TX
Setting 20.5
02-J-6-10
FSU

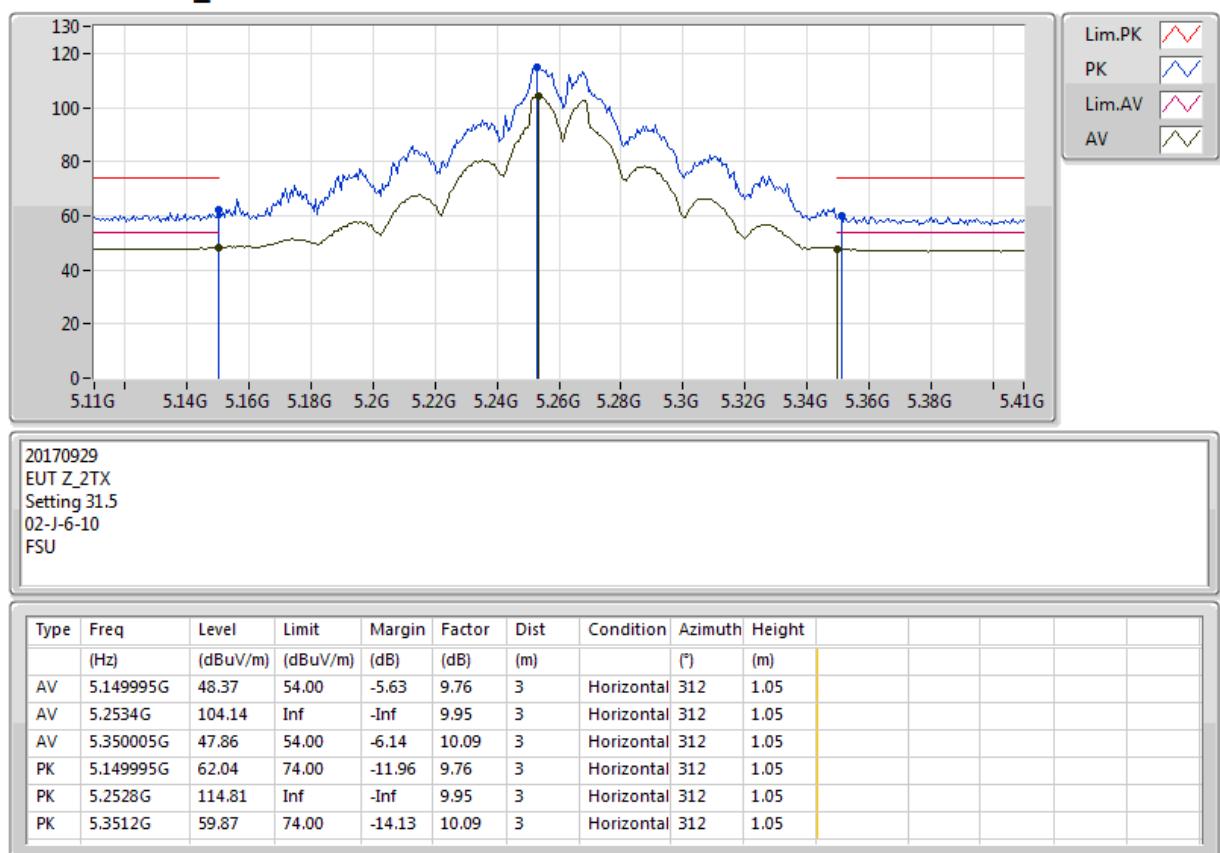
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.3256G	101.55	Inf	-Inf	10.05	3	Vertical	308	1.01				
AV	5.3506G	52.67	54.00	-1.33	10.09	3	Vertical	308	1.01				
PK	5.321G	112.55	Inf	-Inf	10.05	3	Vertical	308	1.01				
PK	5.351G	72.64	74.00	-1.36	10.09	3	Vertical	308	1.01				

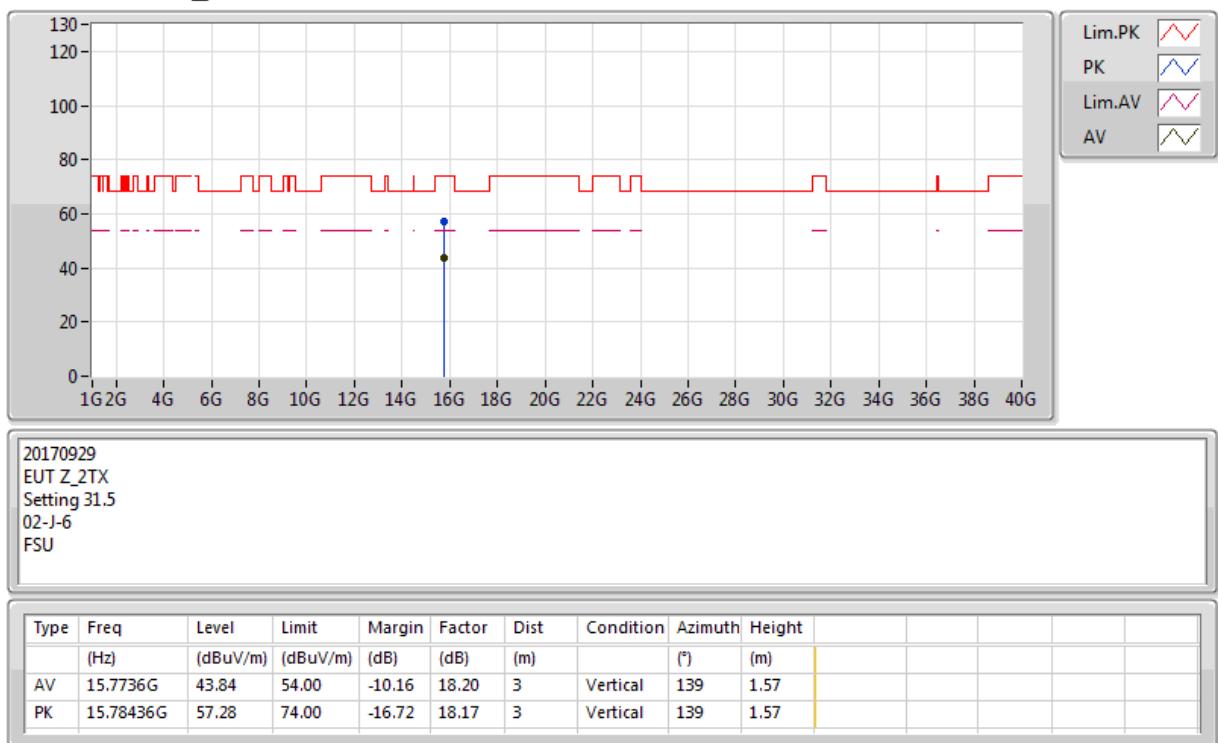
**802.11a_Nss1,(6Mbps)_2TX****5320MHz_TX**

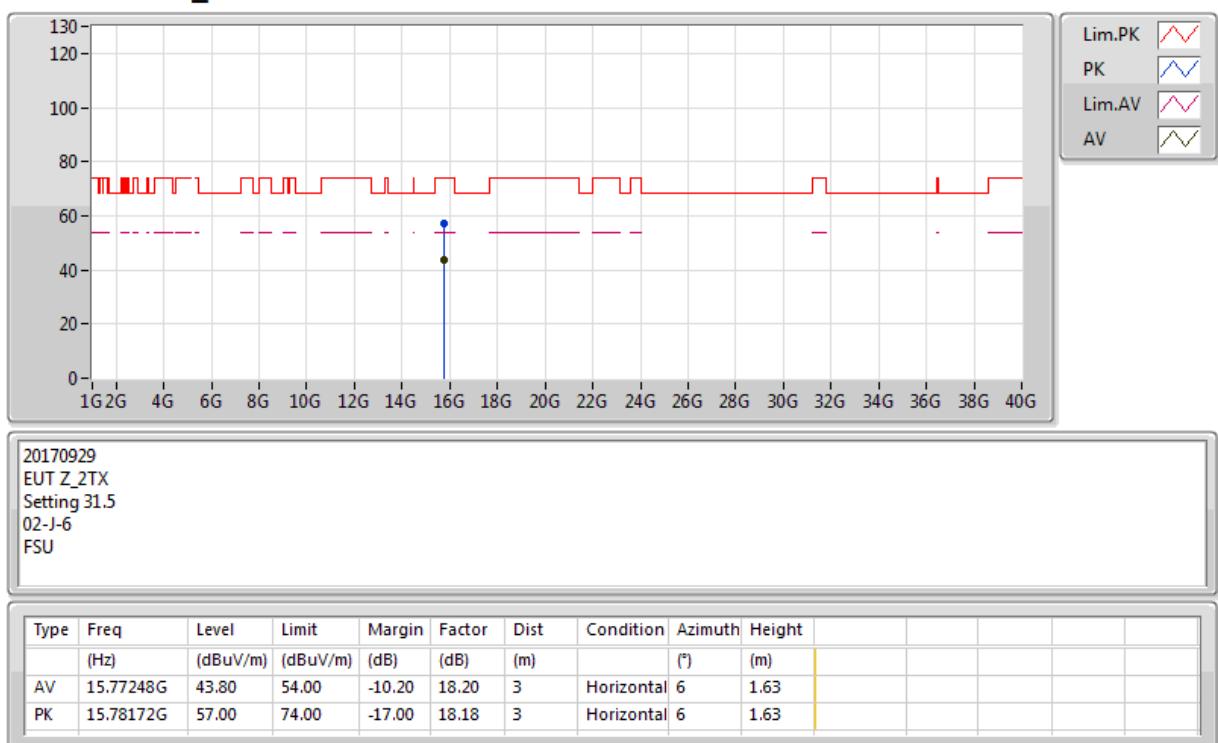
**802.11a_Nss1,(6Mbps)_2TX****5320MHz_TX**

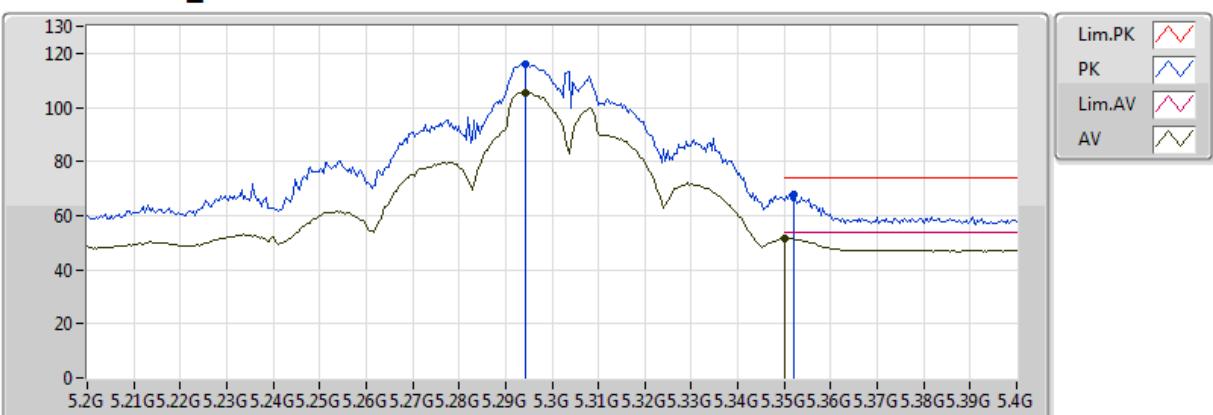
**802.11a_Nss1,(6Mbps)_2TX****5320MHz_TX**

**802.11n HT20_Nss1,(MCS0)_2TX****5260MHz_TX**

802.11n HT20_Nss1,(MCS0)_2TX
5260MHz_TX


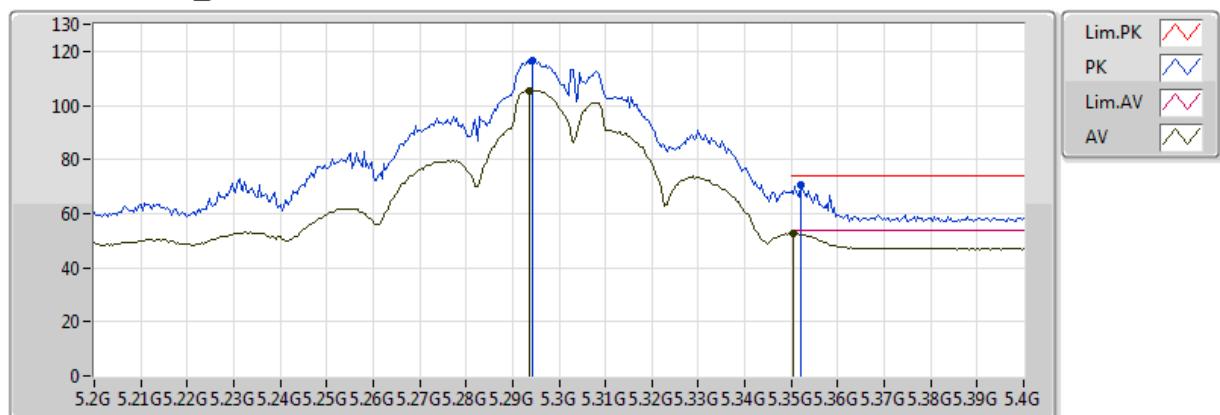
802.11n HT20_Nss1,(MCS0)_2TX**5260MHz_TX**

802.11n HT20_Nss1,(MCS0)_2TX**5260MHz_TX**

802.11n HT20_Nss1,(MCS0)_2TX
5300MHz_TX


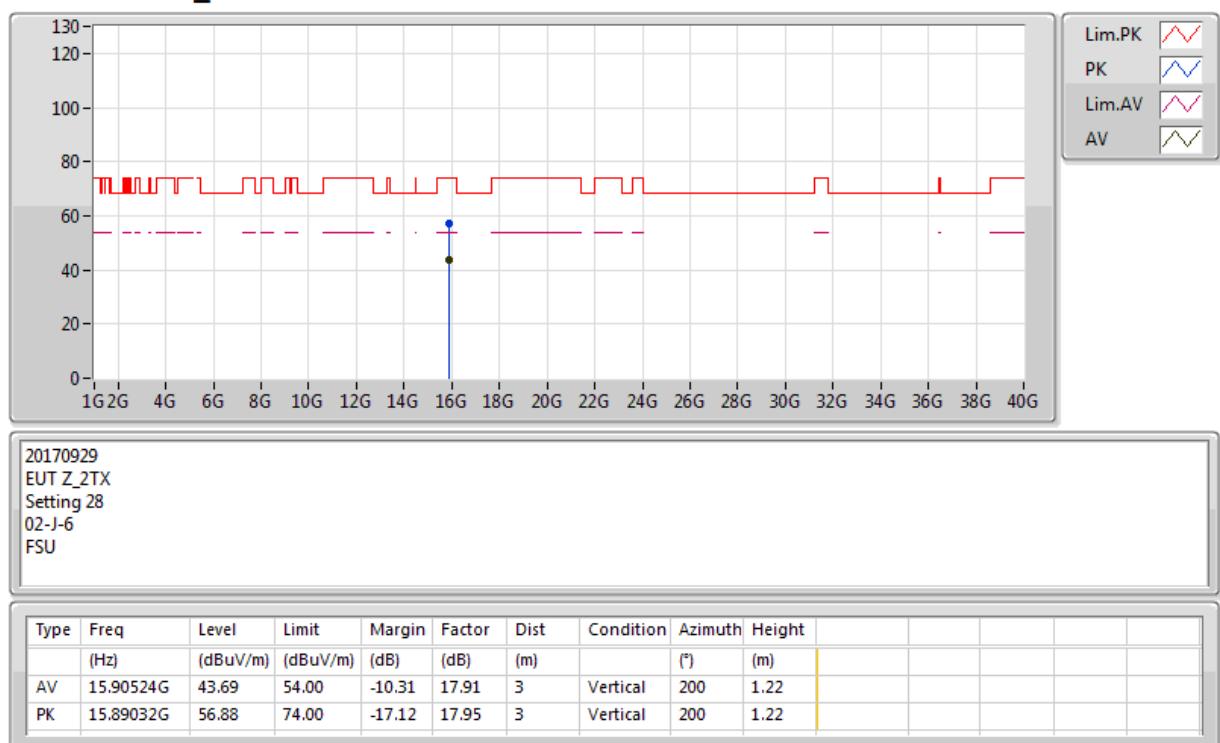
20170929
EUT Z_2TX
Setting 28
02-J-6-10
FSU

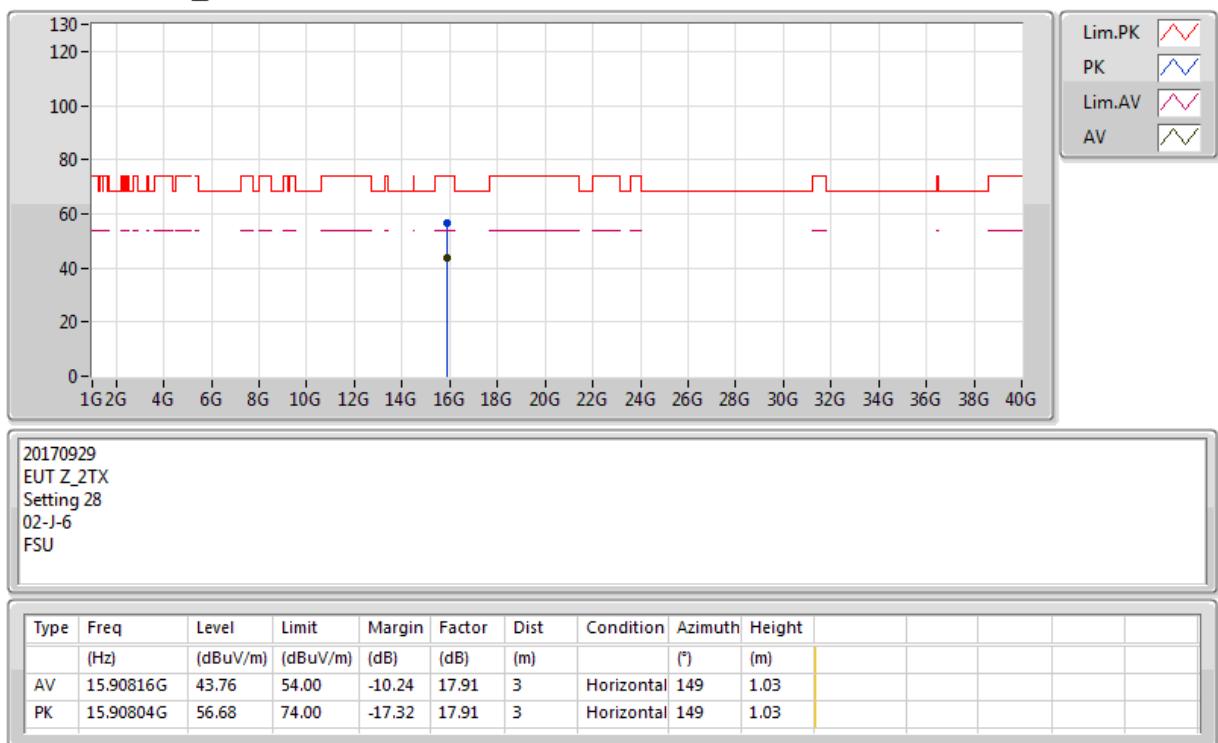
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.2944G	105.41	Inf	-Inf	10.01	3	Vertical	317	1.05				
AV	5.350005G	51.71	54.00	-2.29	10.09	3	Vertical	317	1.05				
PK	5.2944G	116.11	Inf	-Inf	10.01	3	Vertical	317	1.05				
PK	5.352G	67.98	74.00	-6.02	10.09	3	Vertical	317	1.05				

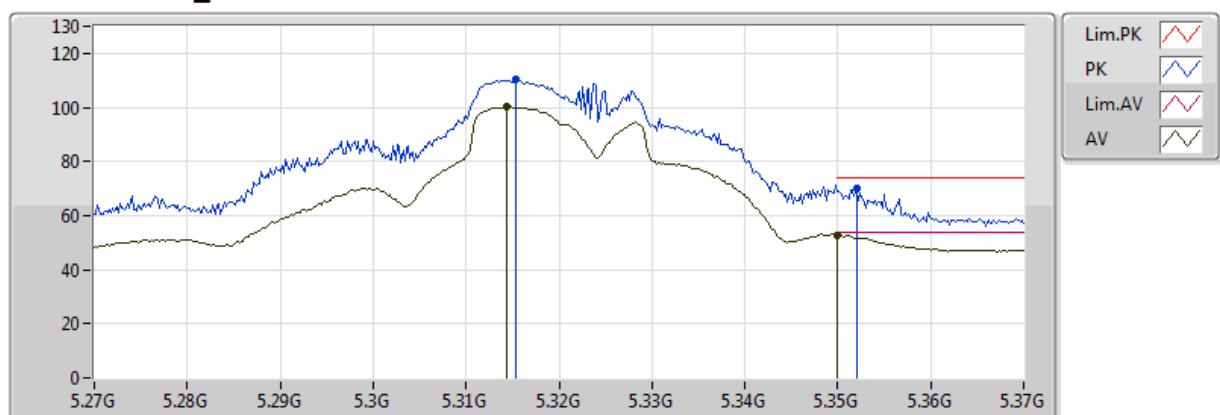
802.11n HT20_Nss1,(MCS0)_2TX
5300MHz_TX


20170929
EUT Z_2TX
Setting 28
02-J-6-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.2936G	105.55	Inf	-Inf	10.01	3	Horizontal	315	1.01				
AV	5.3504G	52.63	54.00	-1.37	10.09	3	Horizontal	315	1.01				
PK	5.2944G	116.48	Inf	-Inf	10.01	3	Horizontal	315	1.01				
PK	5.352G	70.81	74.00	-3.19	10.09	3	Horizontal	315	1.01				

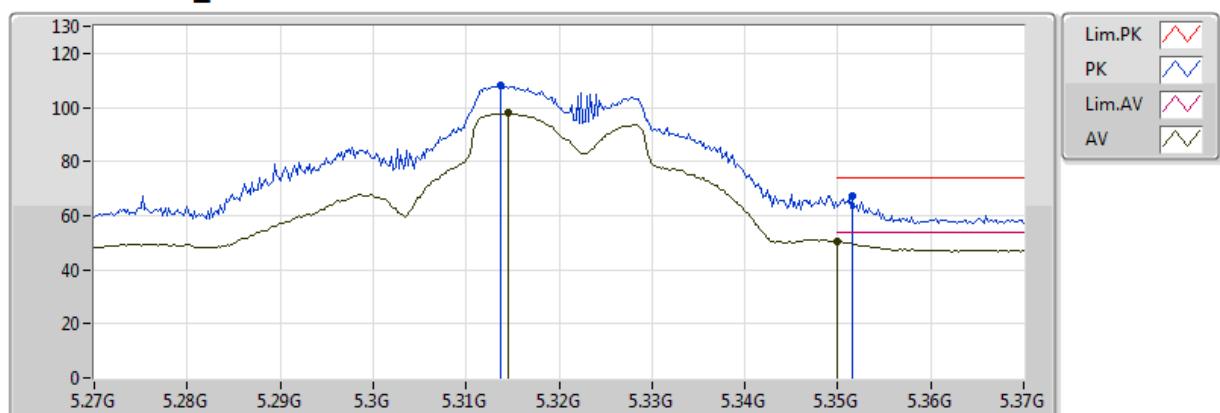
802.11n HT20_Nss1,(MCS0)_2TX**5300MHz_TX**

802.11n HT20_Nss1,(MCS0)_2TX**5300MHz_TX**

802.11n HT20_Nss1,(MCS0)_2TX
5320MHz_TX


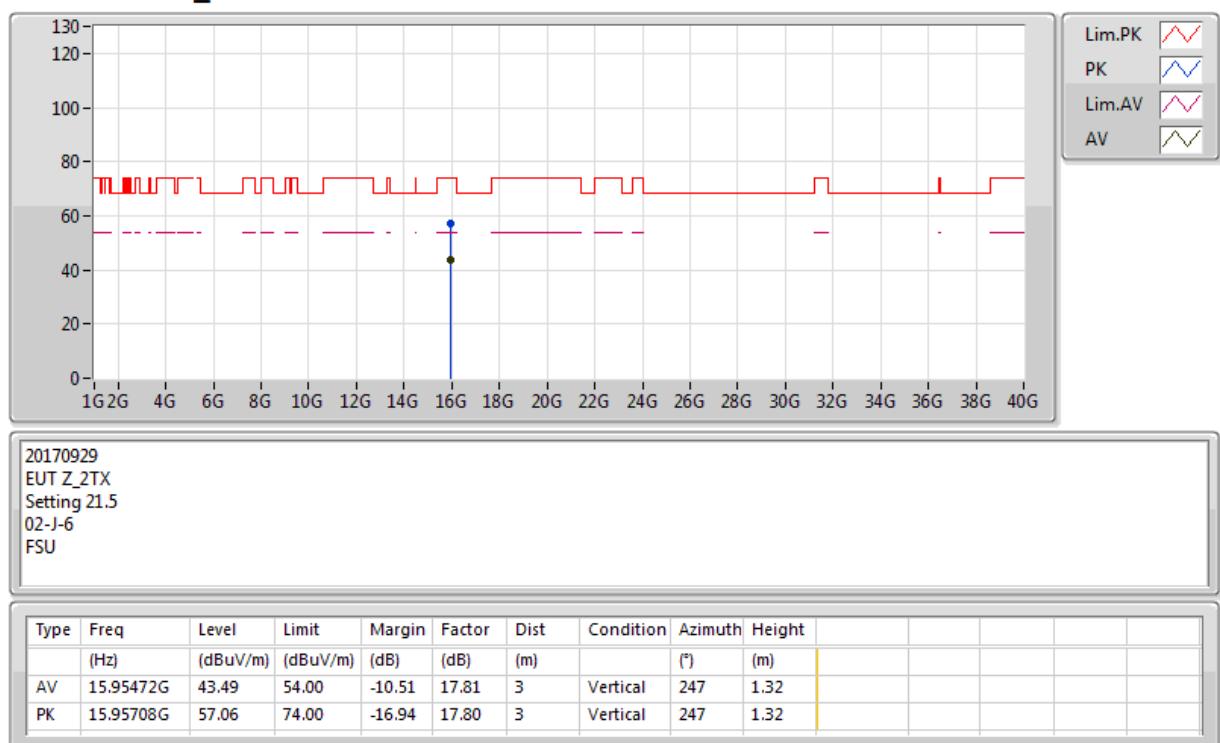
20170929
EUT Z_2TX
Setting 21.5
02-J-6-10
FSU

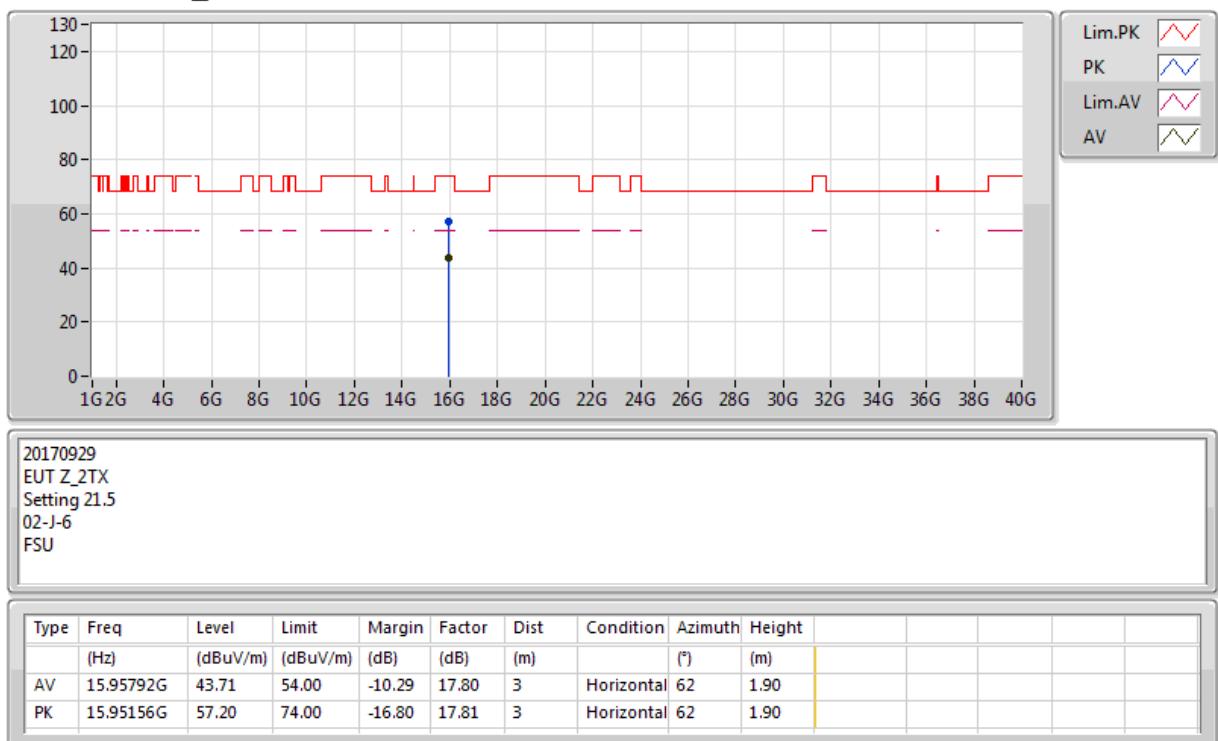
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.3144G	100.33	Inf	-Inf	10.04	3	Vertical	329	1.05				
AV	5.350005G	52.67	54.00	-1.33	10.09	3	Vertical	329	1.05				
PK	5.3154G	110.47	Inf	-Inf	10.04	3	Vertical	329	1.05				
PK	5.352G	70.08	74.00	-3.92	10.09	3	Vertical	329	1.05				

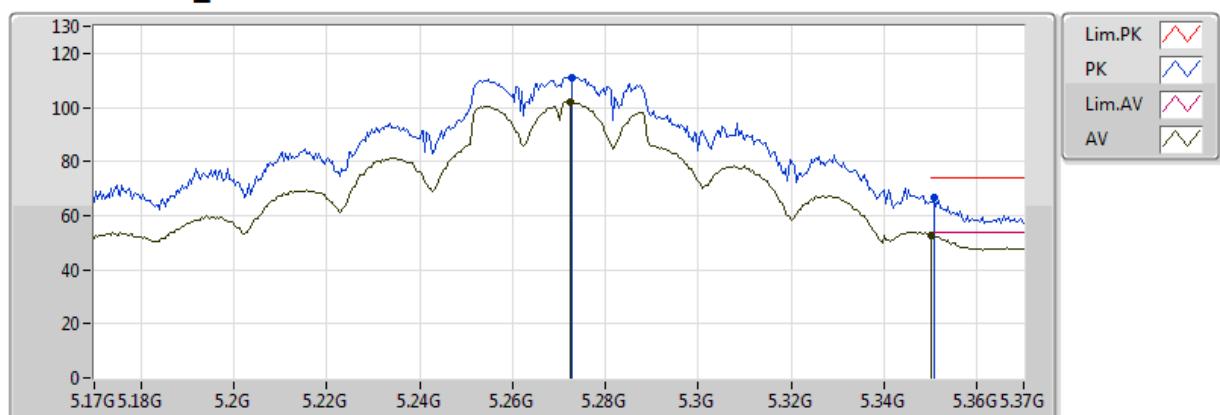
802.11n HT20_Nss1,(MCS0)_2TX
5320MHz_TX


20170929
EUT Z_2TX
Setting 21.5
02-J-6-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.3146G	97.79	Inf	-Inf	10.04	3	Horizontal	274	2.63			
AV	5.350005G	50.54	54.00	-3.46	10.09	3	Horizontal	274	2.63			
PK	5.3138G	107.92	Inf	-Inf	10.04	3	Horizontal	274	2.63			
PK	5.3516G	67.51	74.00	-6.49	10.09	3	Horizontal	274	2.63			

802.11n HT20_Nss1,(MCS0)_2TX**5320MHz_TX**

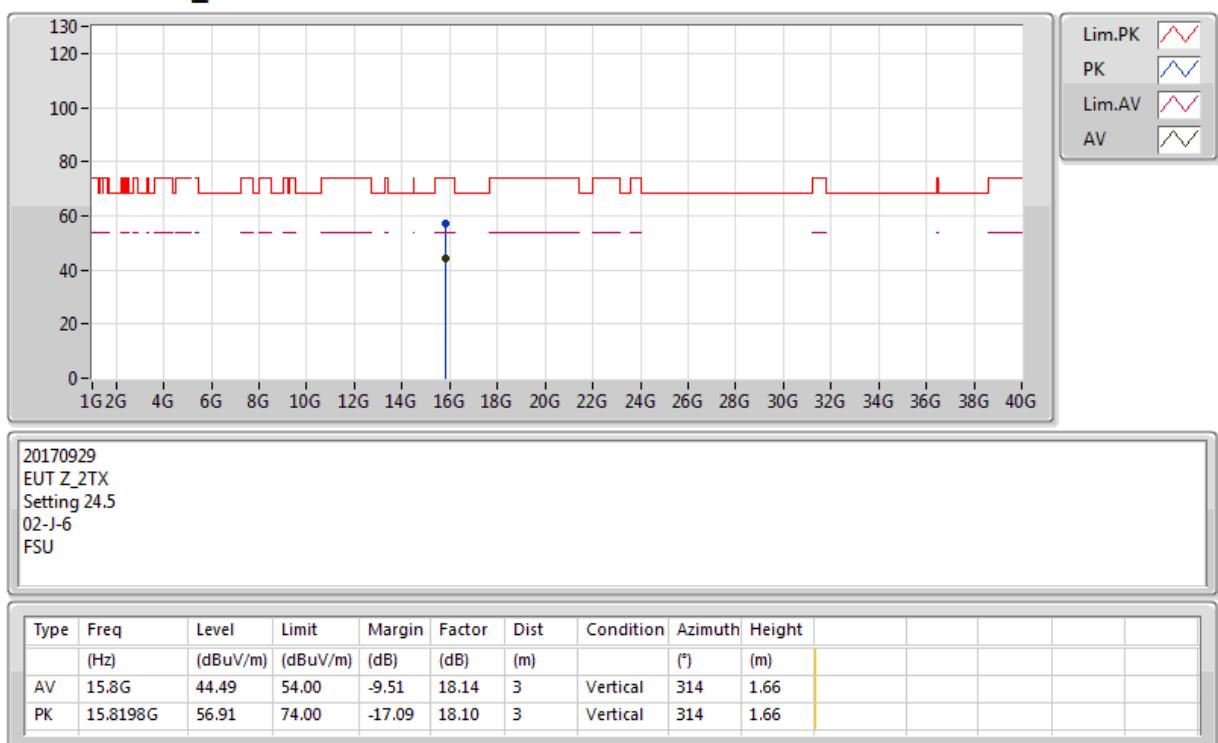
802.11n HT20_Nss1,(MCS0)_2TX**5320MHz_TX**

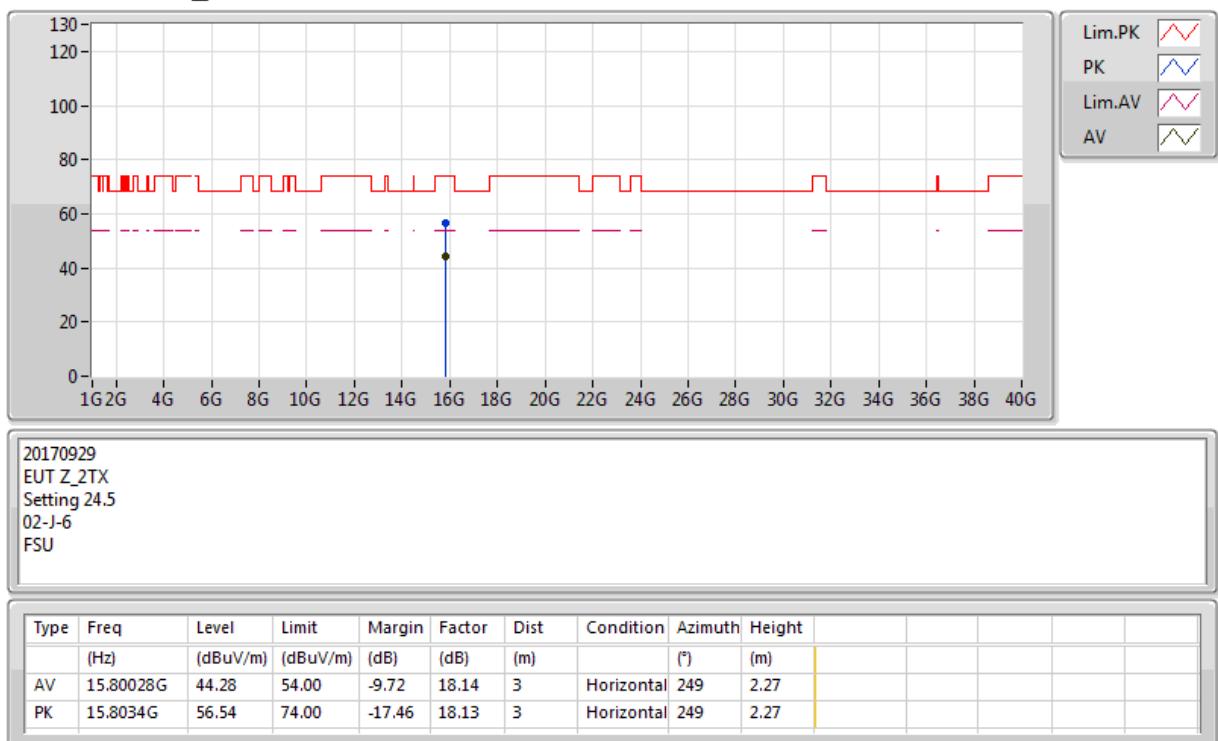
802.11n HT40_Nss1,(MCS0)_2TX
5270MHz_TX


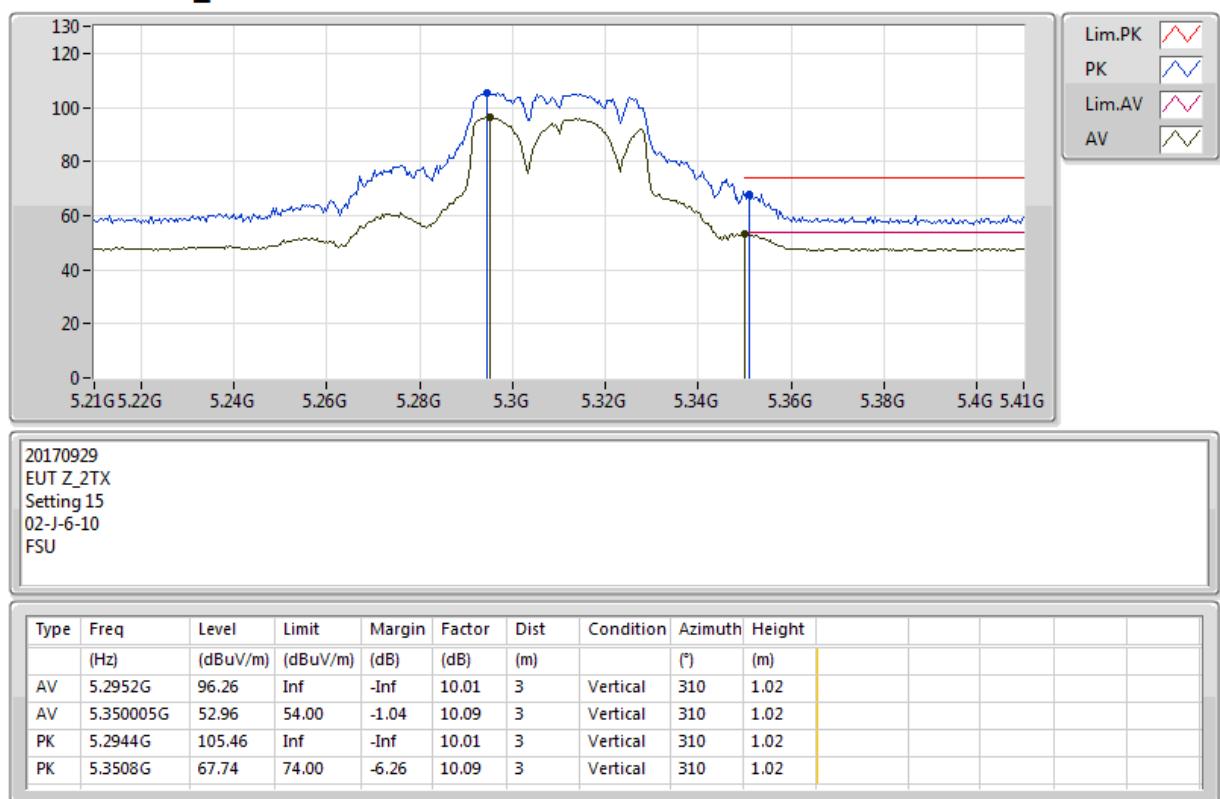
20170929
EUT Z_2TX
Setting 24.5
02-J-6-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.2724G	102.05	Inf	-Inf	9.98	3	Vertical	299	1.02			
AV	5.350005G	52.64	54.00	-1.36	10.09	3	Vertical	299	1.02			
PK	5.2728G	111.13	Inf	-Inf	9.98	3	Vertical	299	1.02			
PK	5.3508G	66.61	74.00	-7.39	10.09	3	Vertical	299	1.02			

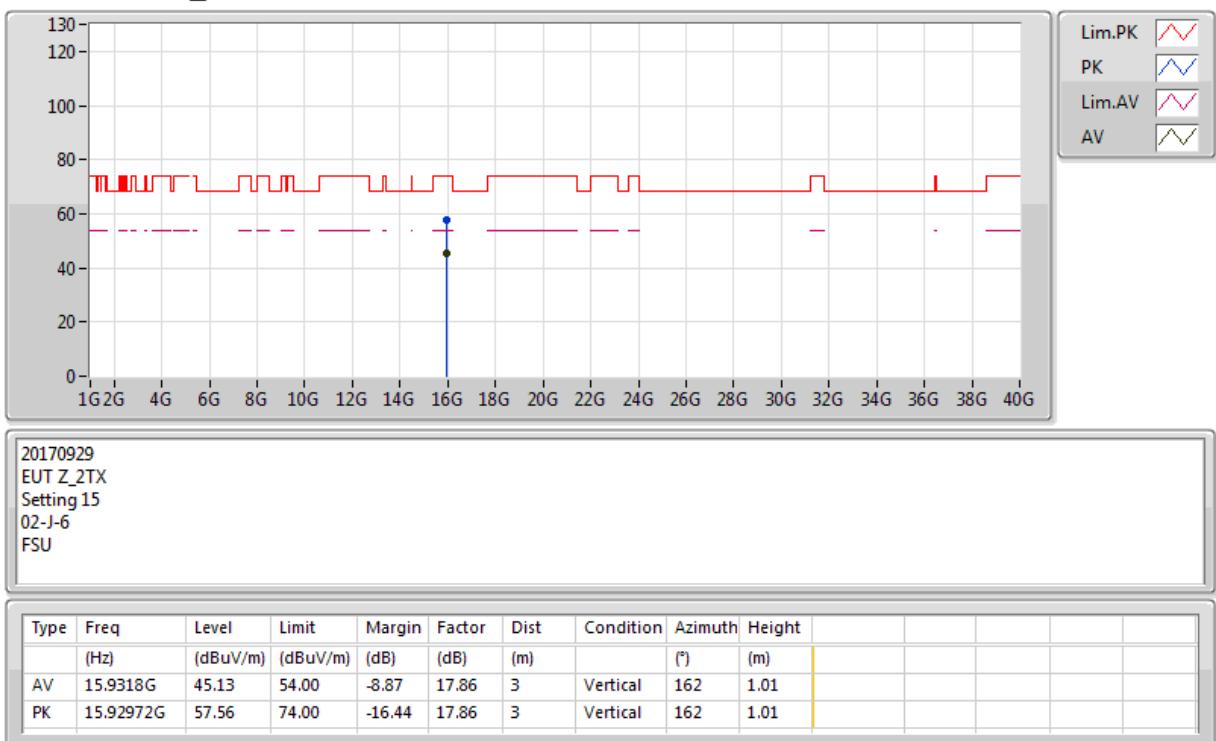
802.11n HT40_Nss1,(MCS0)_2TX
5270MHz_TX


802.11n HT40_Nss1,(MCS0)_2TX**5270MHz_TX**

802.11n HT40_Nss1,(MCS0)_2TX**5270MHz_TX**

802.11n HT40_Nss1,(MCS0)_2TX
5310MHz_TX


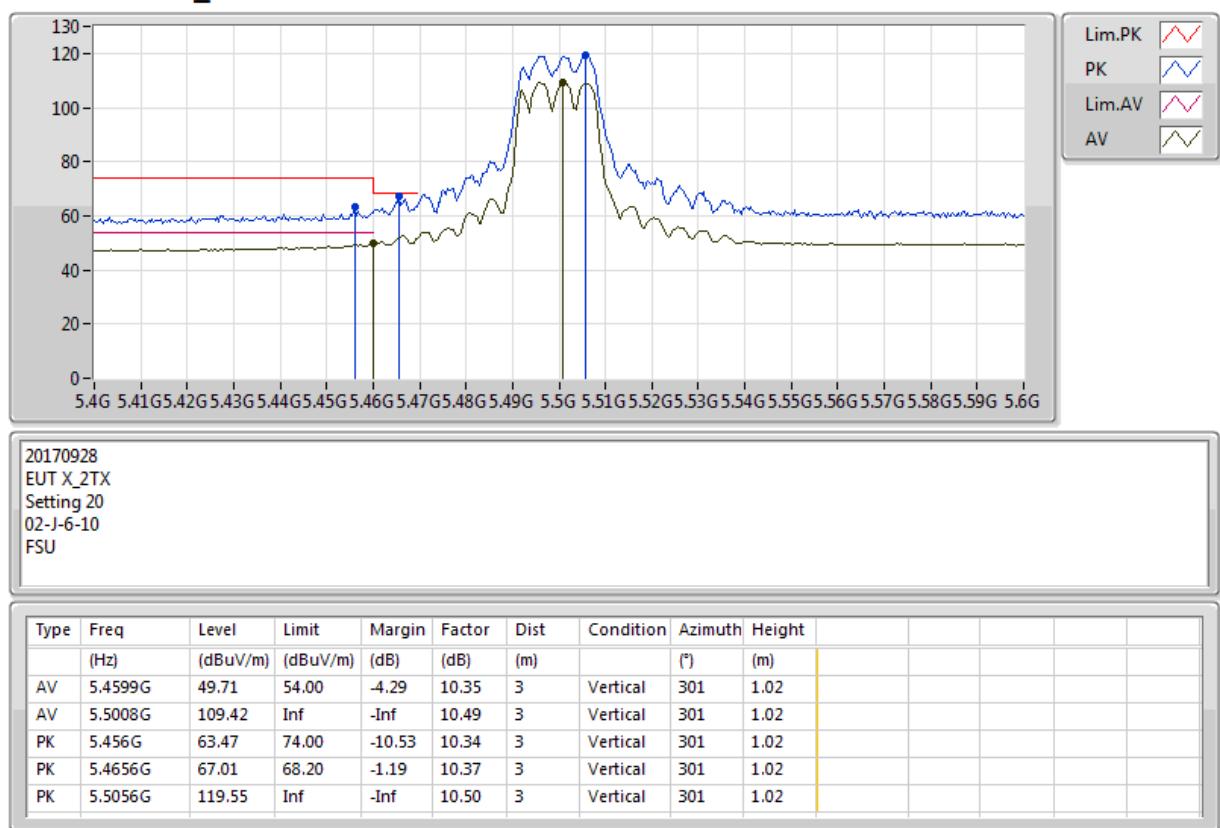
802.11n HT40_Nss1,(MCS0)_2TX
5310MHz_TX

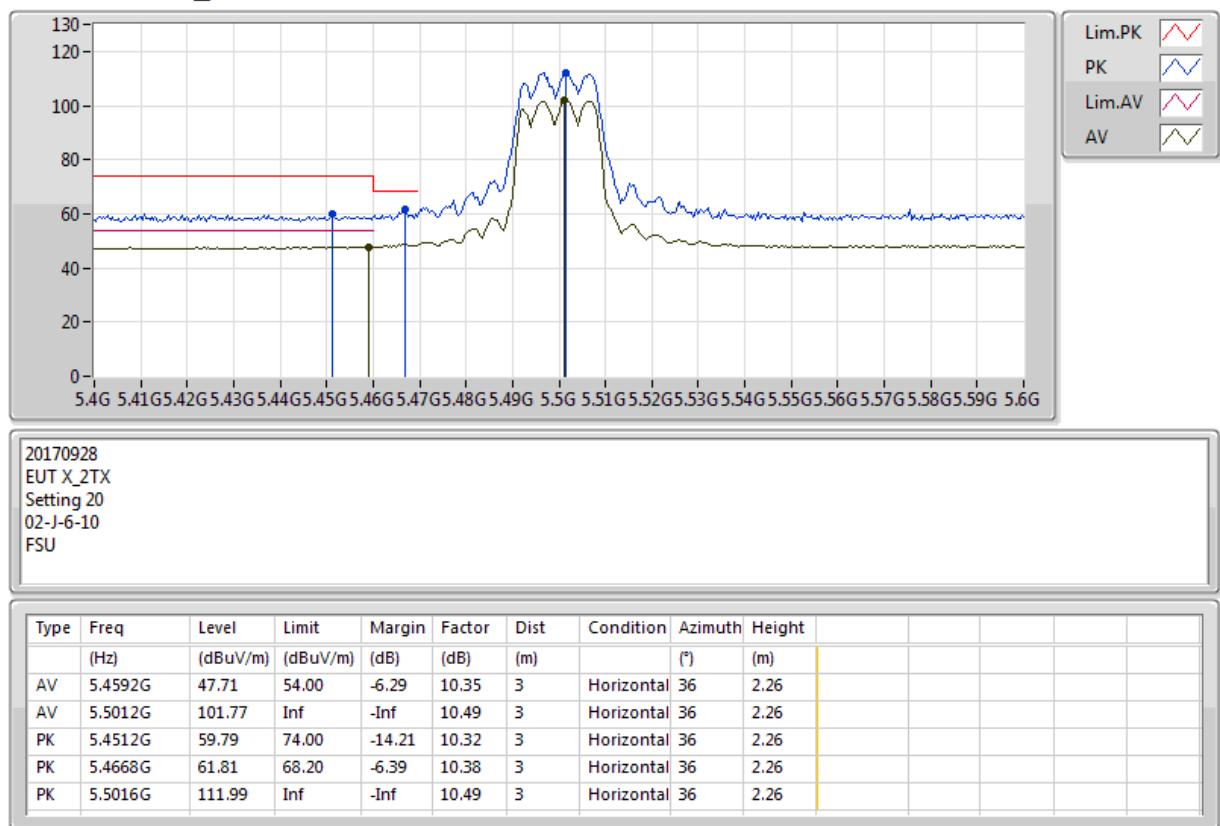

802.11n HT40_Nss1,(MCS0)_2TX**5310MHz_TX**

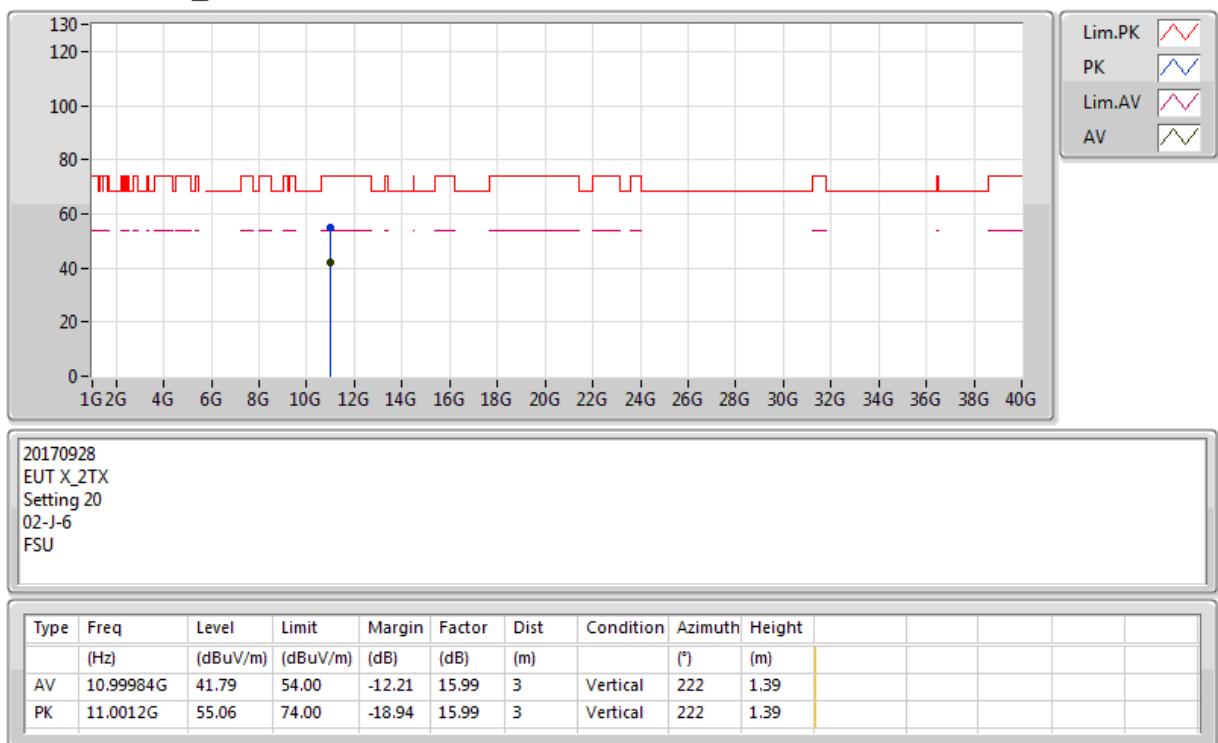
802.11n HT40_Nss1,(MCS0)_2TX**5310MHz_TX**

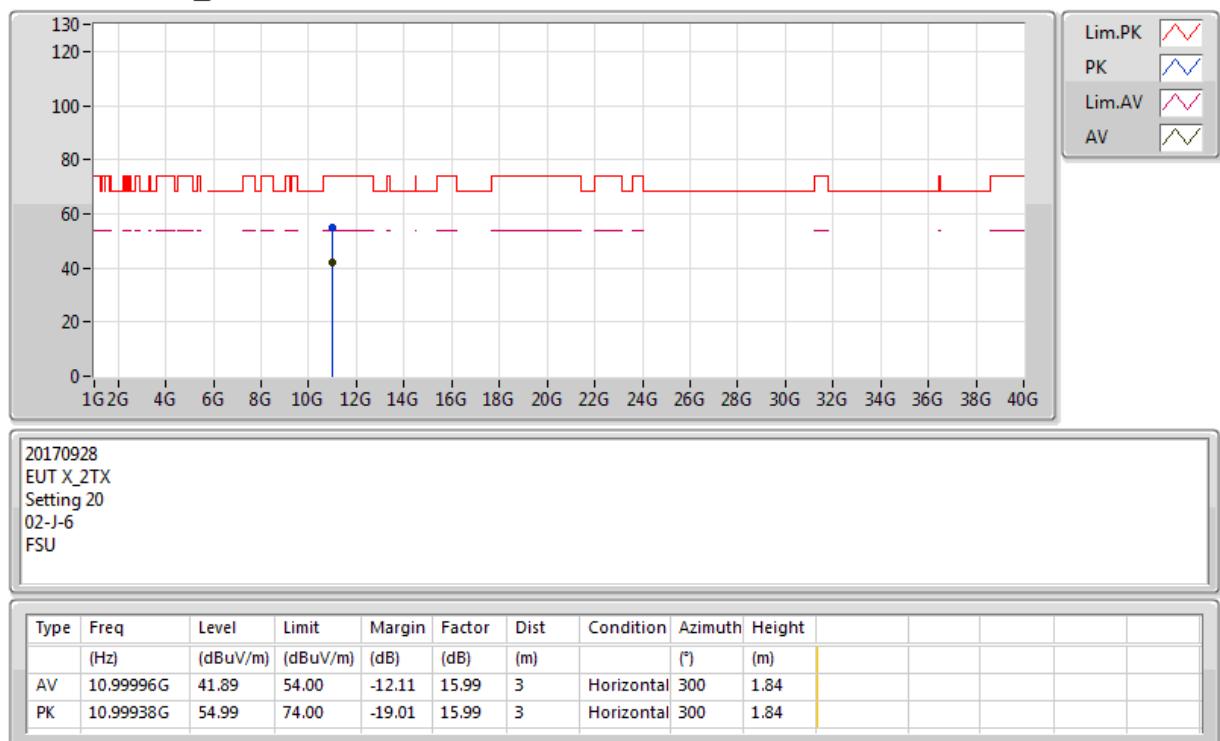
**Test Mode: Mode 2-Radio 2 (B3)****Summary**

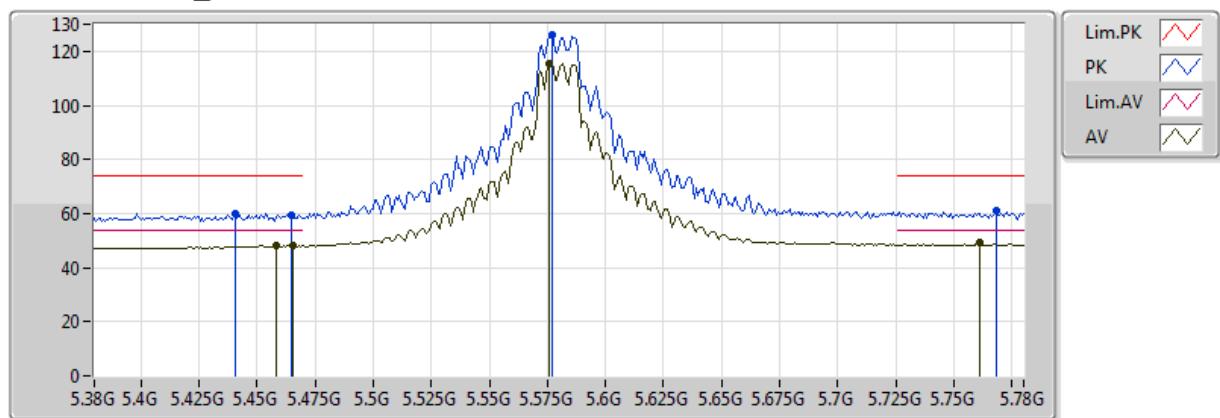
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.47-5.725GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	AV	5.7252G	52.98	54.00	-1.02	10.65	3	Vertical	221	1.04	-

**802.11a_Nss1,(6Mbps)_2TX****5500MHz_TX**

802.11a_Nss1,(6Mbps)_2TX
5500MHz_TX


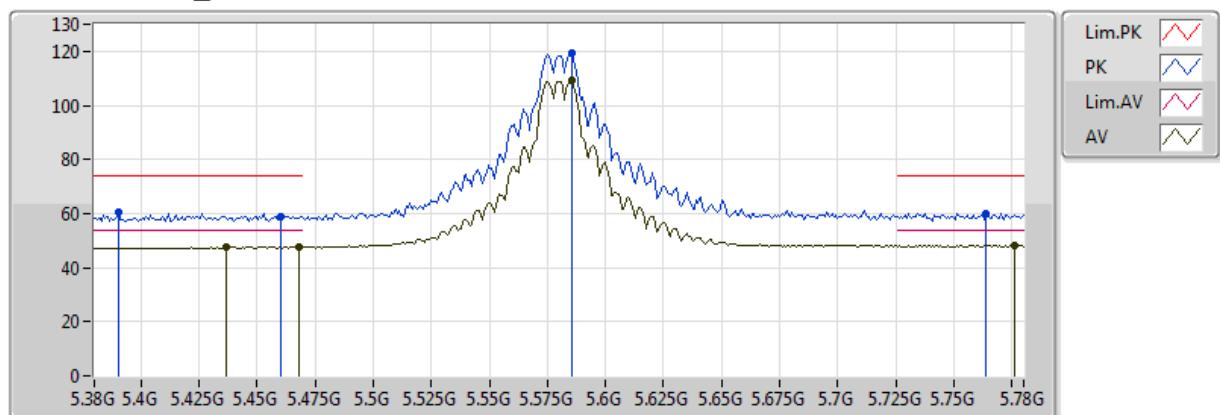
802.11a_Nss1,(6Mbps)_2TX**5500MHz_TX**

802.11a_Nss1,(6Mbps)_2TX
5500MHz_TX


**802.11a_Nss1,(6Mbps)_2TX****5580MHz_TX**

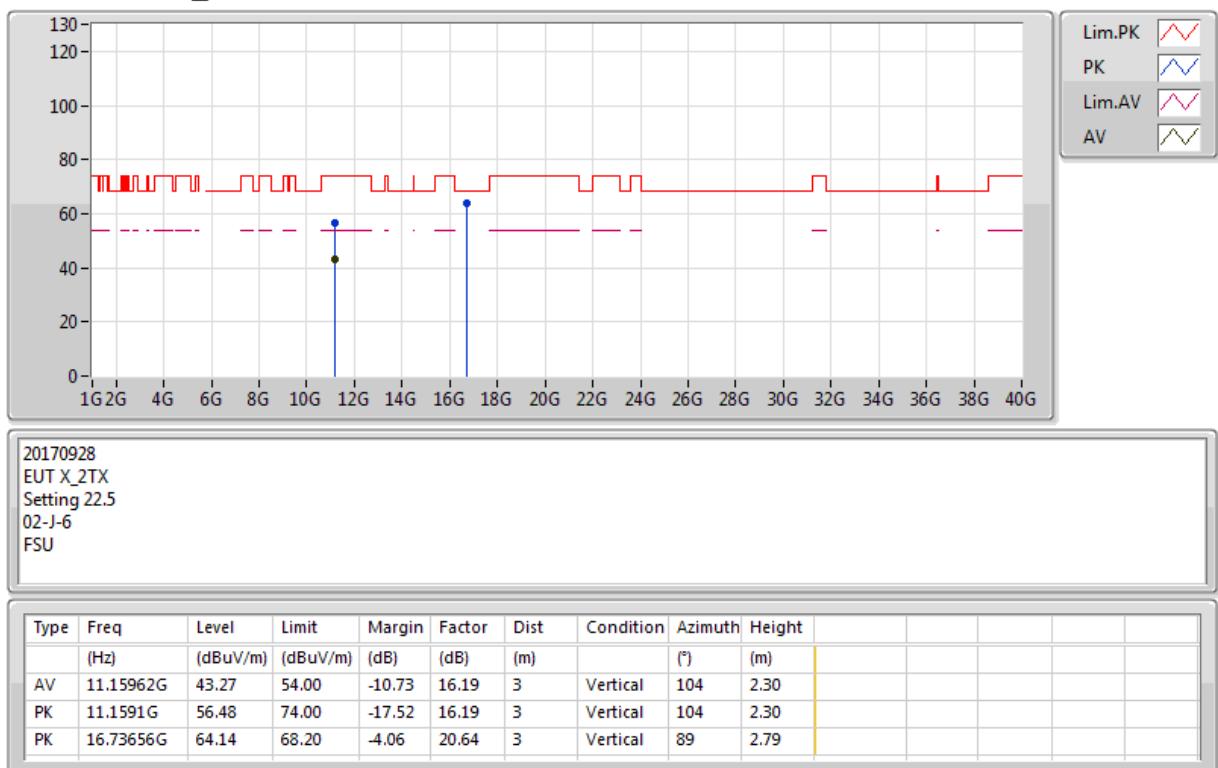
20170928
EUT X_2TX
Setting 22.5
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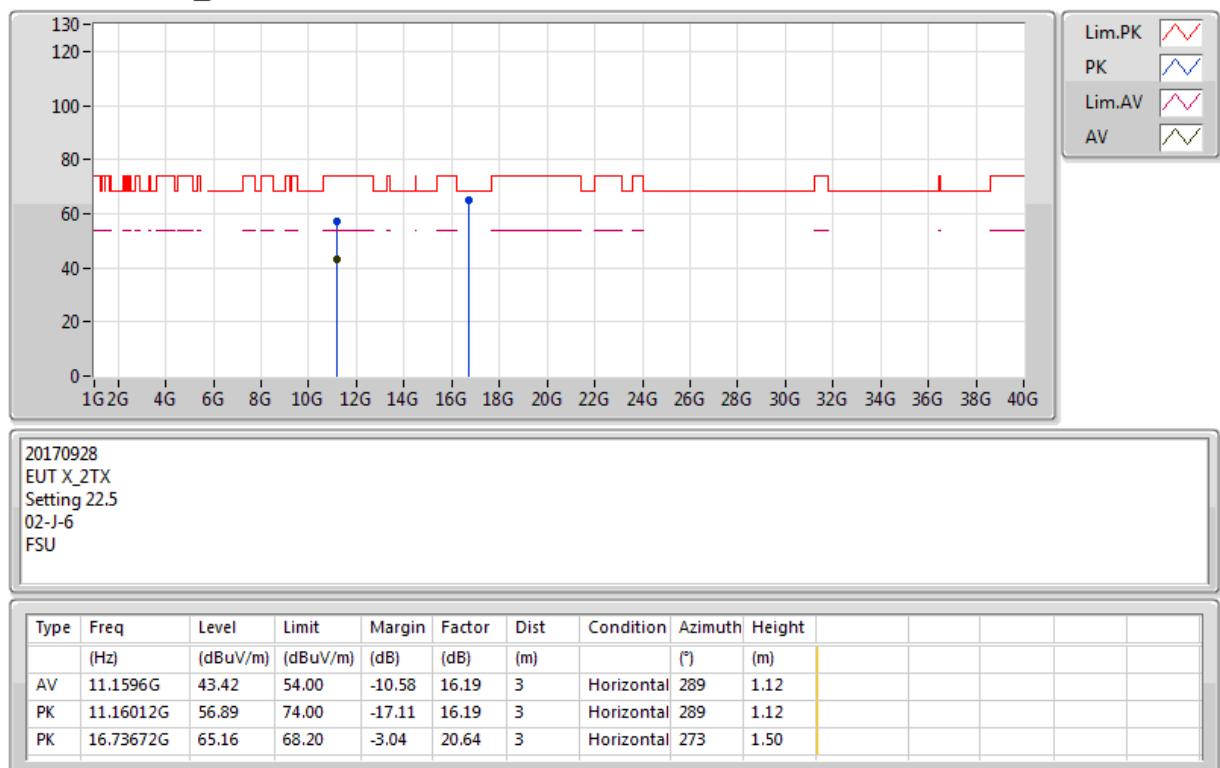
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.4584G	48.24	54.00	-5.76	10.35	3	Vertical	148	1.01				
AV	5.4656G	48.34	54.00	-5.66	10.37	3	Vertical	148	1.01				
AV	5.576G	115.66	Inf	-Inf	10.61	3	Vertical	148	1.01				
AV	5.7608G	49.41	54.00	-4.59	10.65	3	Vertical	148	1.01				
PK	5.4408G	60.16	74.00	-13.84	10.29	3	Vertical	148	1.01				
PK	5.4648G	59.64	74.00	-14.36	10.37	3	Vertical	148	1.01				
PK	5.5768G	126.22	Inf	-Inf	10.61	3	Vertical	148	1.01				
PK	5.768G	60.81	74.00	-13.19	10.65	3	Vertical	148	1.01				

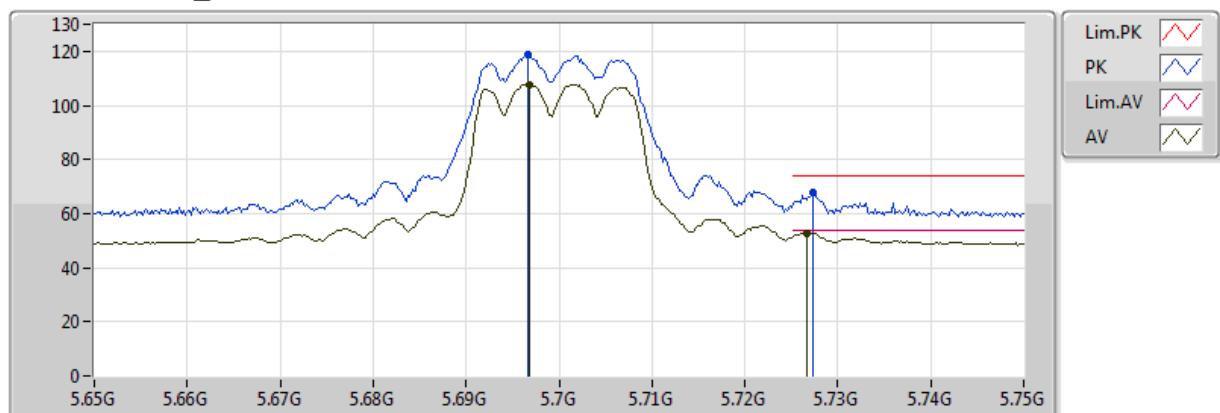
802.11a_Nss1,(6Mbps)_2TX
5580MHz_TX


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EUT X_2TX
Setting 22.5
02-J-6-10
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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.4368G	47.63	54.00	-6.37	10.28	3	Horizontal	1	2.40				
AV	5.468G	47.61	54.00	-6.39	10.38	3	Horizontal	1	2.40				
AV	5.5856G	109.51	Inf	-Inf	10.63	3	Horizontal	1	2.40				
AV	5.776G	48.20	54.00	-5.80	10.65	3	Horizontal	1	2.40				
PK	5.3904G	60.51	74.00	-13.49	10.14	3	Horizontal	1	2.40				
PK	5.460005G	59.10	74.00	-14.90	10.35	3	Horizontal	1	2.40				
PK	5.5856G	119.13	Inf	-Inf	10.63	3	Horizontal	1	2.40				
PK	5.764G	60.06	74.00	-13.94	10.65	3	Horizontal	1	2.40				

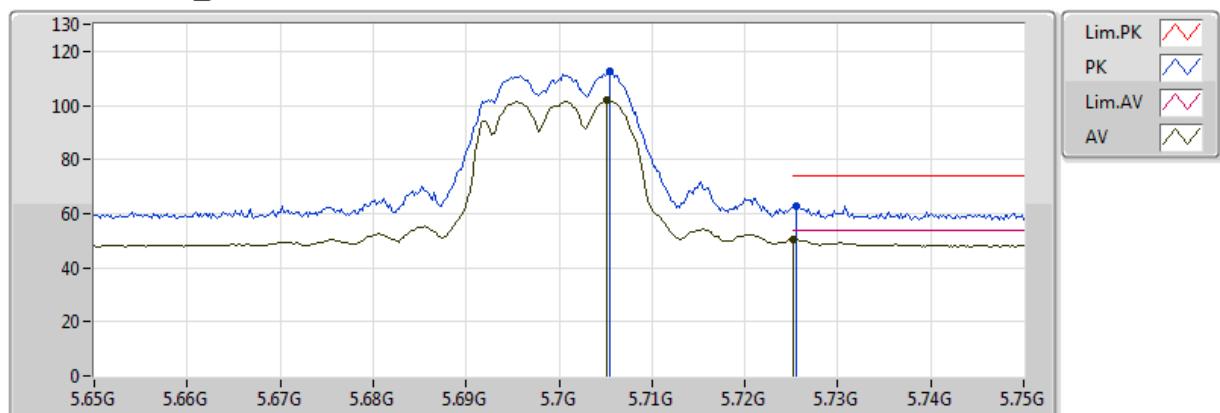
**802.11a_Nss1,(6Mbps)_2TX****5580MHz_TX**

802.11a_Nss1,(6Mbps)_2TX
5580MHz_TX


802.11a_Nss1,(6Mbps)_2TX
5700MHz_TX


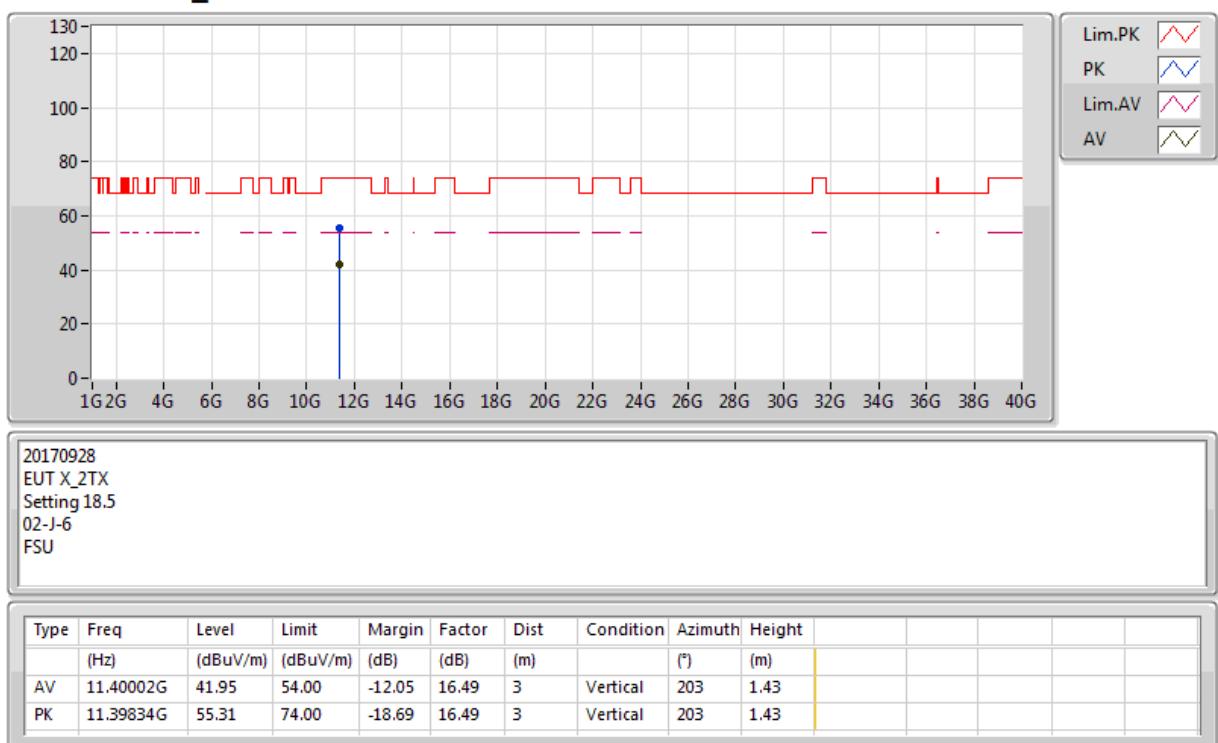
20170928
EUT X_2TX
Setting 18.5
02-J-6-10
FSU

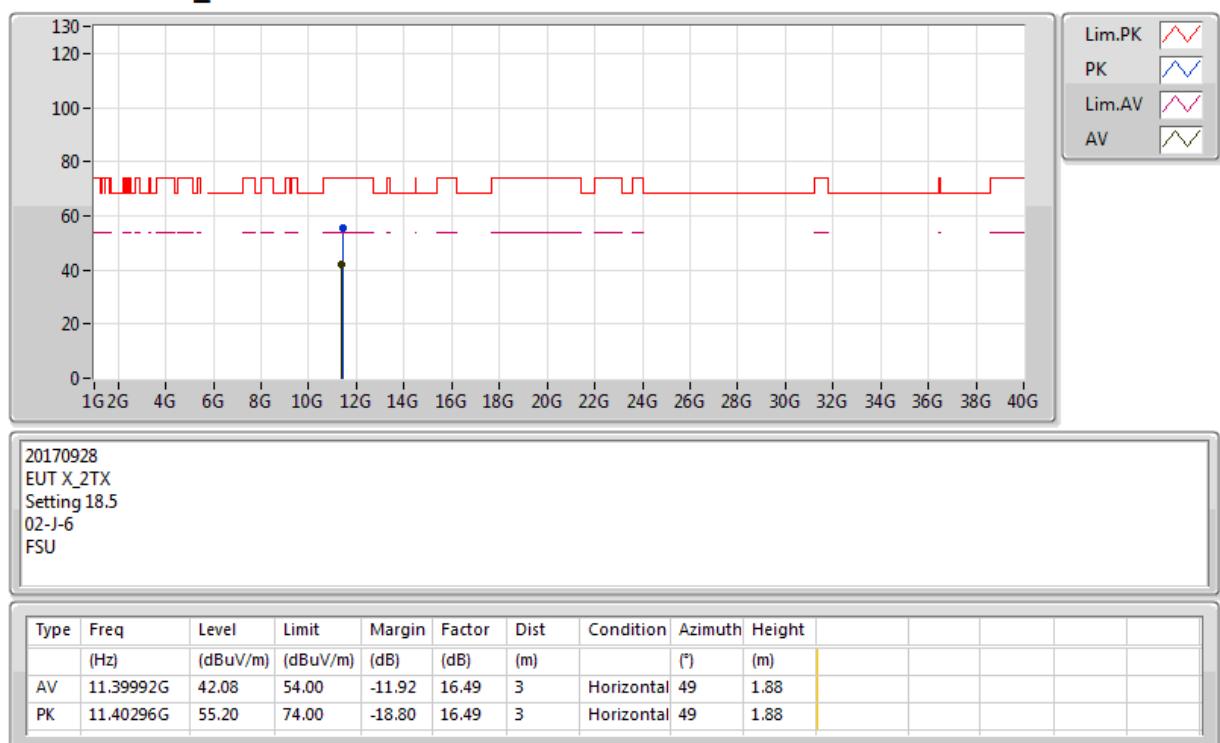
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.6968G	107.84	Inf	-Inf	10.65	3	Vertical	295	1.00			
AV	5.7266G	52.91	54.00	-1.09	10.65	3	Vertical	295	1.00			
PK	5.6966G	118.63	Inf	-Inf	10.65	3	Vertical	295	1.00			
PK	5.7274G	67.54	74.00	-6.46	10.65	3	Vertical	295	1.00			

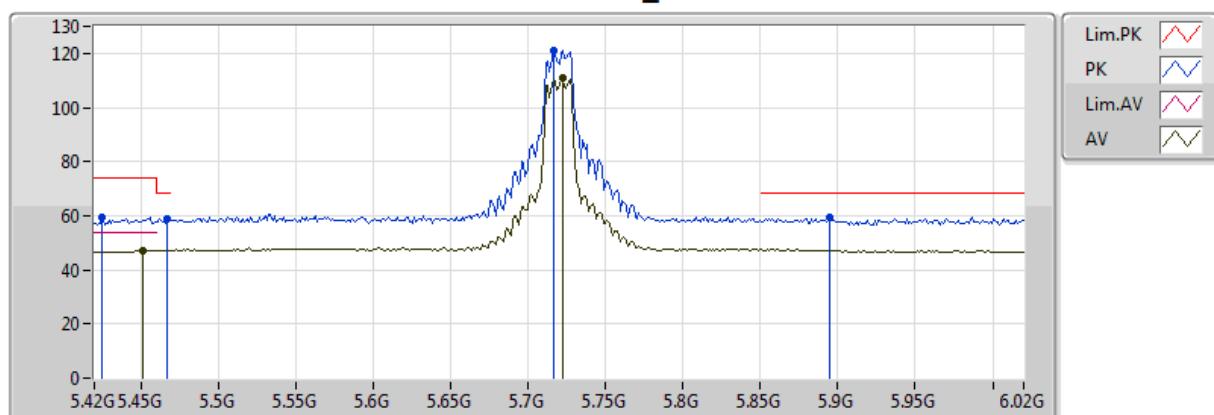
802.11a_Nss1,(6Mbps)_2TX
5700MHz_TX


20170928
EUT X_2TX
Setting 18.5
02-J-6-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.7052G	101.72	Inf	-Inf	10.65	3	Horizontal	147	2.41			
AV	5.7252G	50.20	54.00	-3.80	10.65	3	Horizontal	147	2.41			
PK	5.7054G	112.45	Inf	-Inf	10.65	3	Horizontal	147	2.41			
PK	5.7256G	62.72	74.00	-11.28	10.65	3	Horizontal	147	2.41			

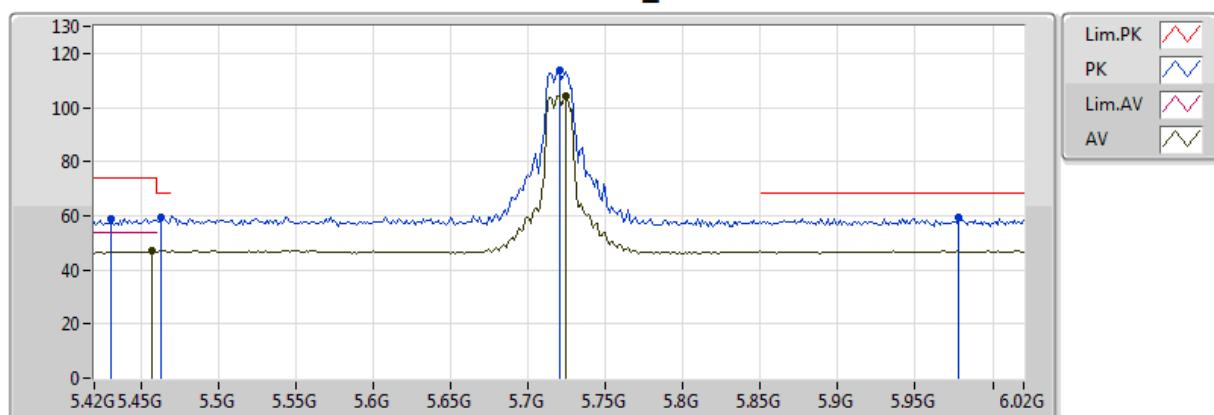
802.11a_Nss1,(6Mbps)_2TX**5700MHz_TX**

802.11a_Nss1,(6Mbps)_2TX**5700MHz_TX**

802.11a_Nss1,(6Mbps)_2TX
5720MHz Straddle 5.47-5.725GHz_TX


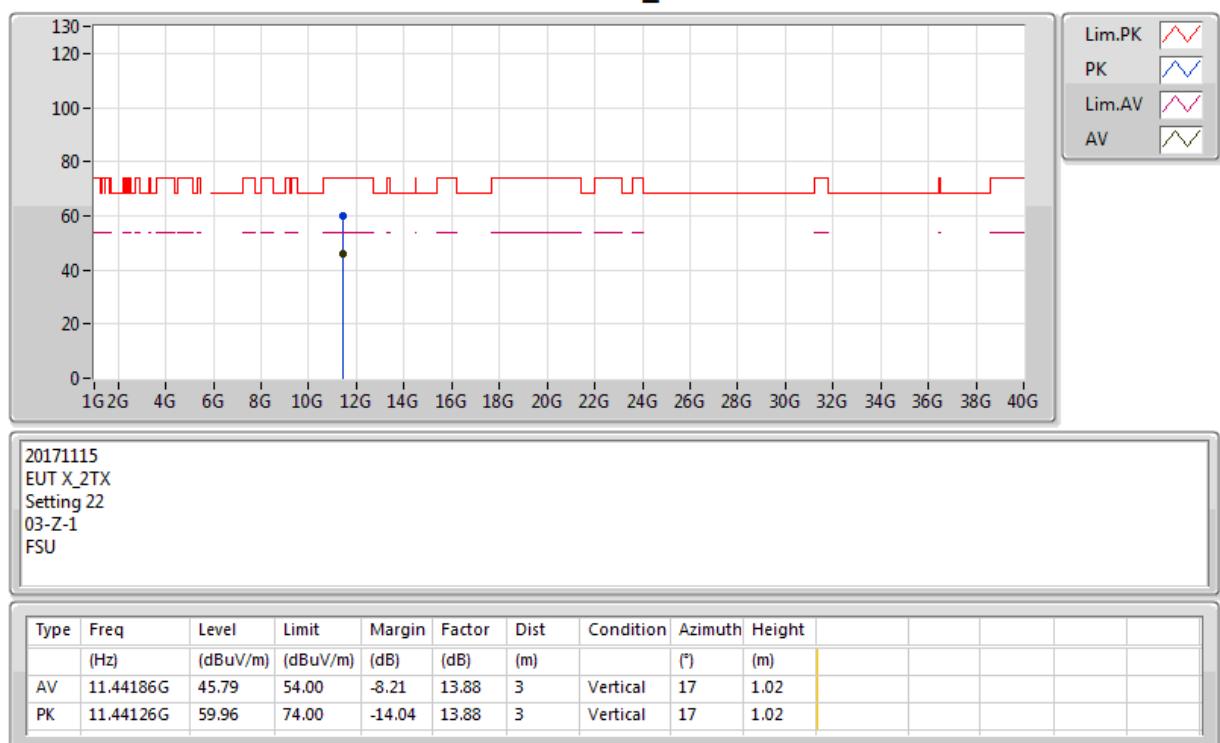
20171115
EUT X_2TX
Setting 22
03-Z-1-10
FSU

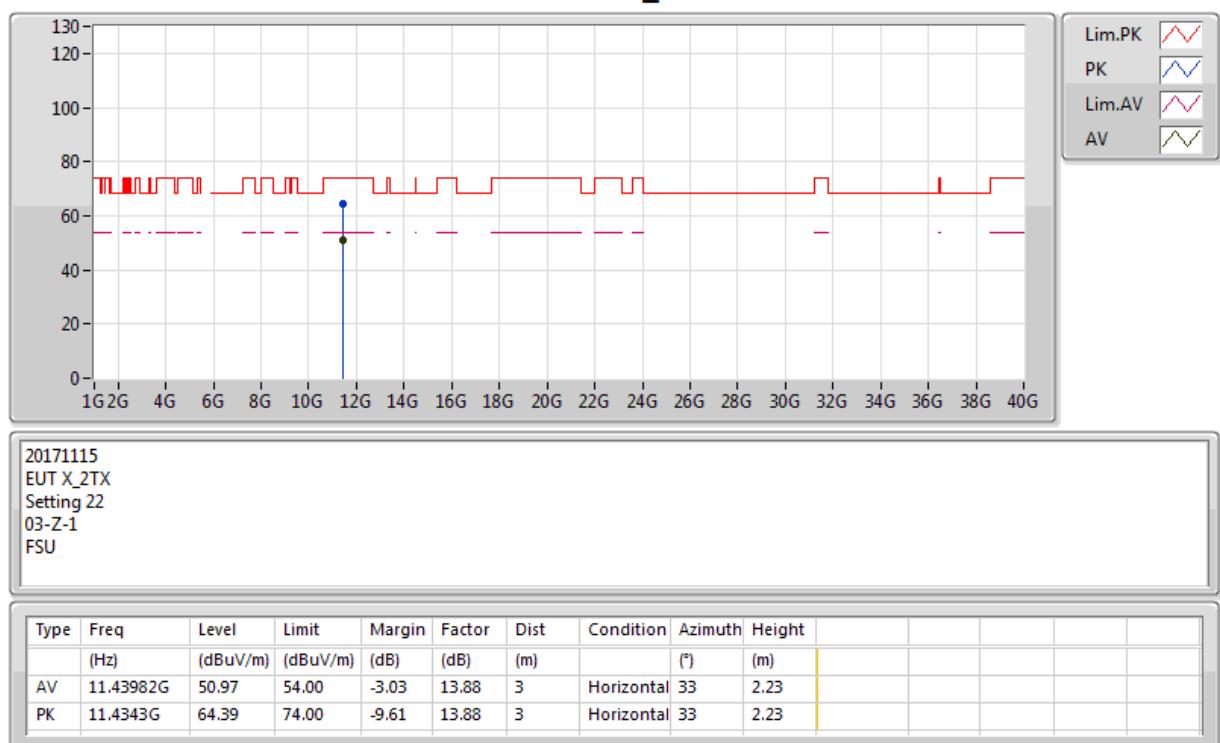
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.4512G	47.28	54.00	-6.72	6.69	3	Vertical	315	2.26				
AV	5.7224G	110.73	Inf	-Inf	6.96	3	Vertical	315	2.26				
PK	5.4248G	59.26	74.00	-14.74	6.60	3	Vertical	315	2.26				
PK	5.4668G	58.91	68.20	-9.29	6.75	3	Vertical	315	2.26				
PK	5.7164G	121.06	Inf	-Inf	6.96	3	Vertical	315	2.26				
PK	5.8952G	59.34	68.20	-8.86	7.01	3	Vertical	315	2.26				

802.11a_Nss1,(6Mbps)_2TX
5720MHz Straddle 5.47-5.725GHz_TX


20171115
EUT X_2TX
Setting 22
03-Z-1-10
FSU

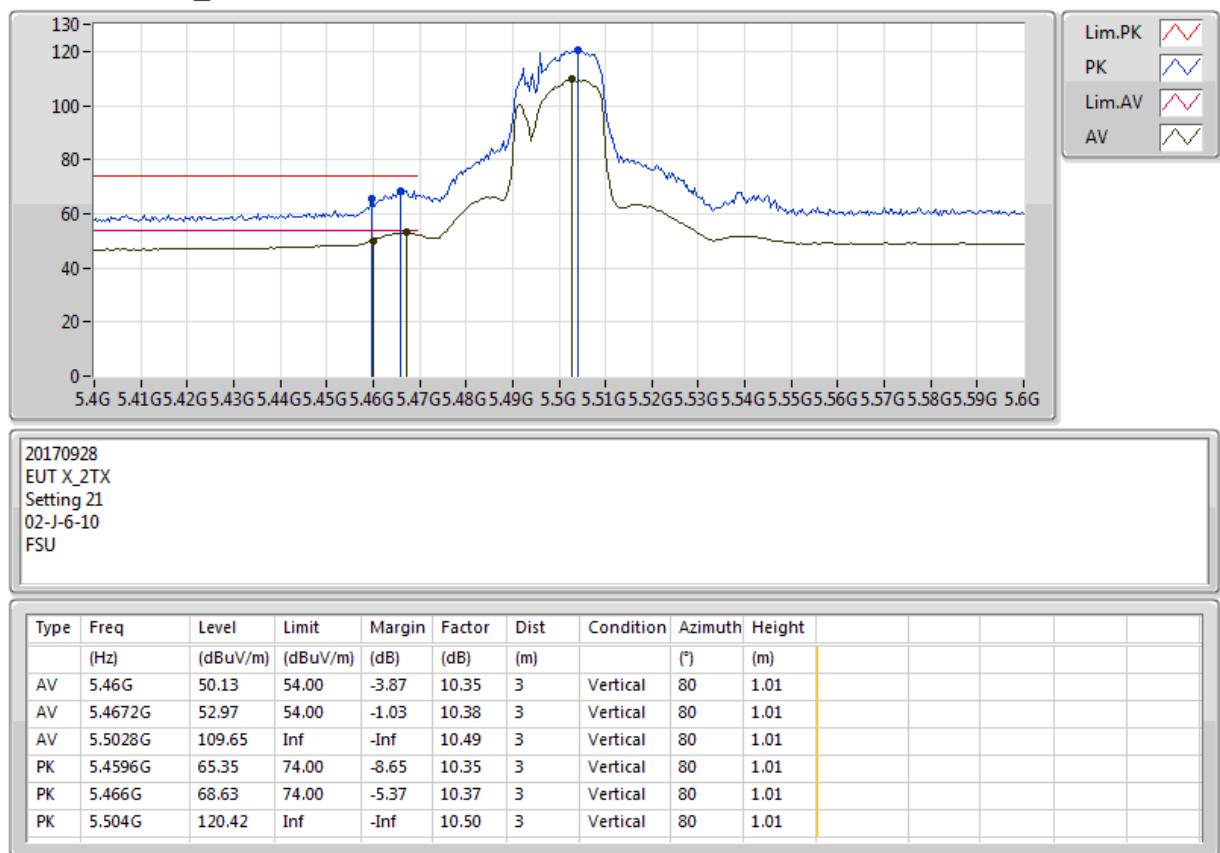
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.4572G	47.06	54.00	-6.94	6.71	3	Horizontal	294	2.06				
AV	5.7248G	104.19	Inf	-Inf	6.96	3	Horizontal	294	2.06				
PK	5.4308G	58.90	74.00	-15.10	6.62	3	Horizontal	294	2.06				
PK	5.4632G	59.28	68.20	-8.92	6.73	3	Horizontal	294	2.06				
PK	5.72G	113.93	Inf	-Inf	6.96	3	Horizontal	294	2.06				
PK	5.978G	59.29	68.20	-8.91	7.11	3	Horizontal	294	2.06				

802.11a_Nss1,(6Mbps)_2TX
5720MHz Straddle 5.47-5.725GHz_TX


**802.11a_Nss1,(6Mbps)_2TX****5720MHz Straddle 5.47-5.725GHz_TX**

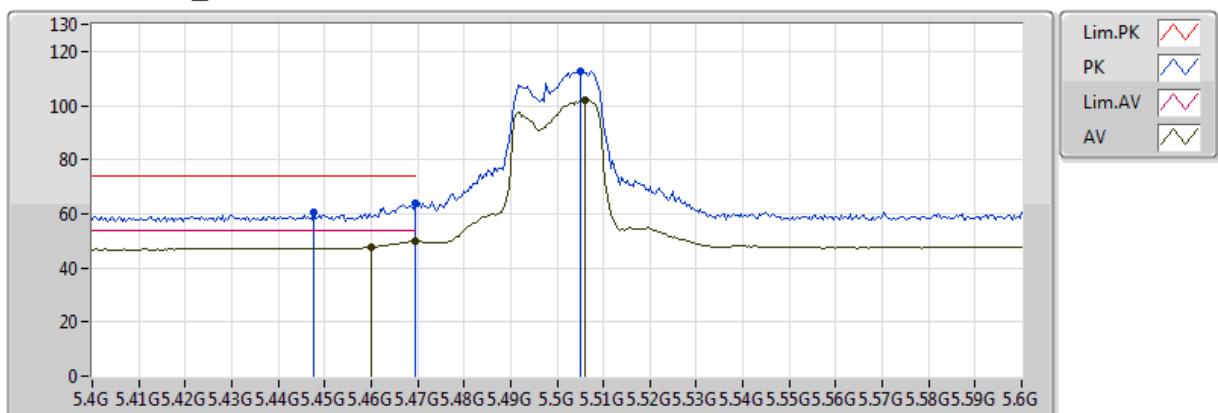
802.11ac VHT20_Nss1,(MCS0)_2TX

5500MHz_TX



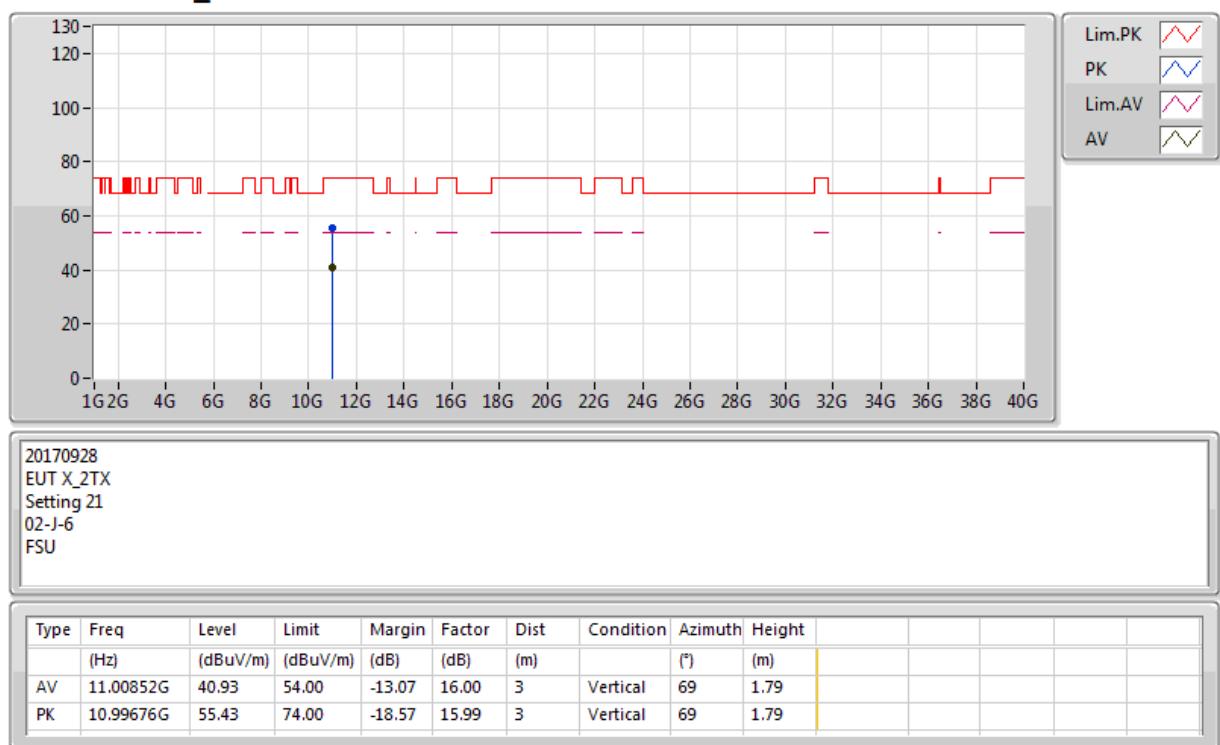
802.11ac VHT20_Nss1,(MCS0)_2TX

5500MHz_TX



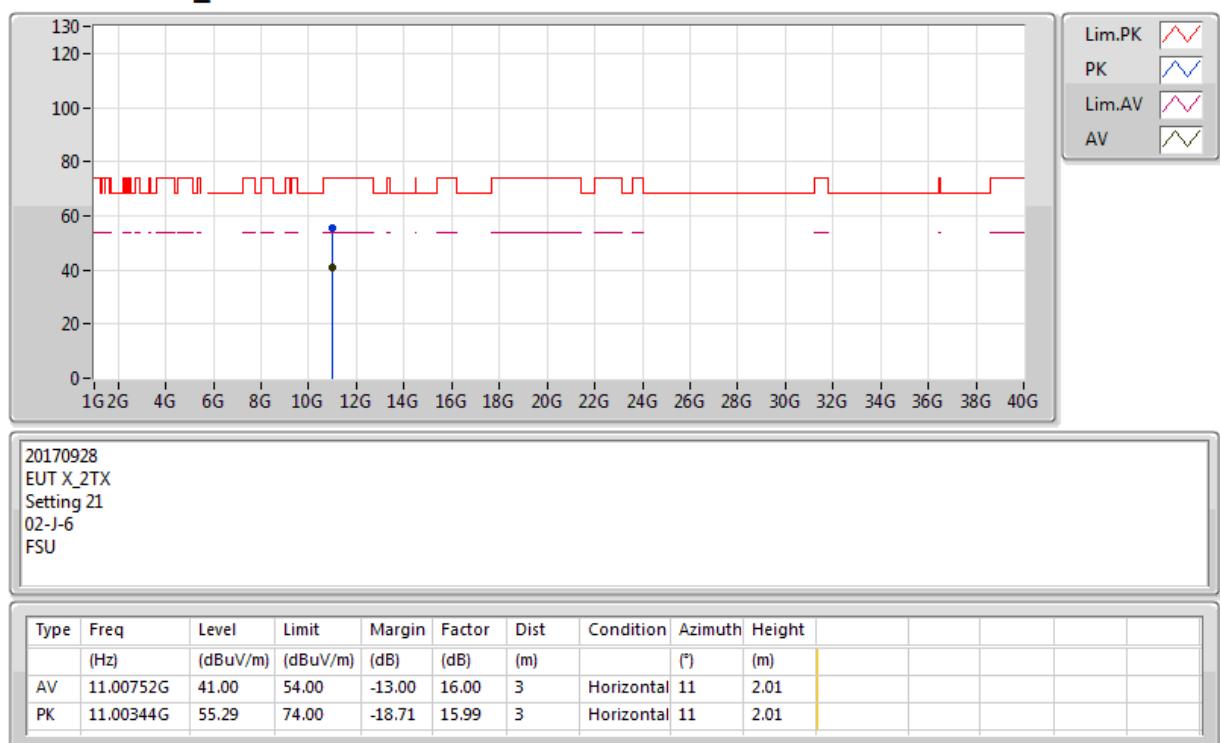
20170928
EUT X_2TX
Setting 21
02-J-6-10
FSU

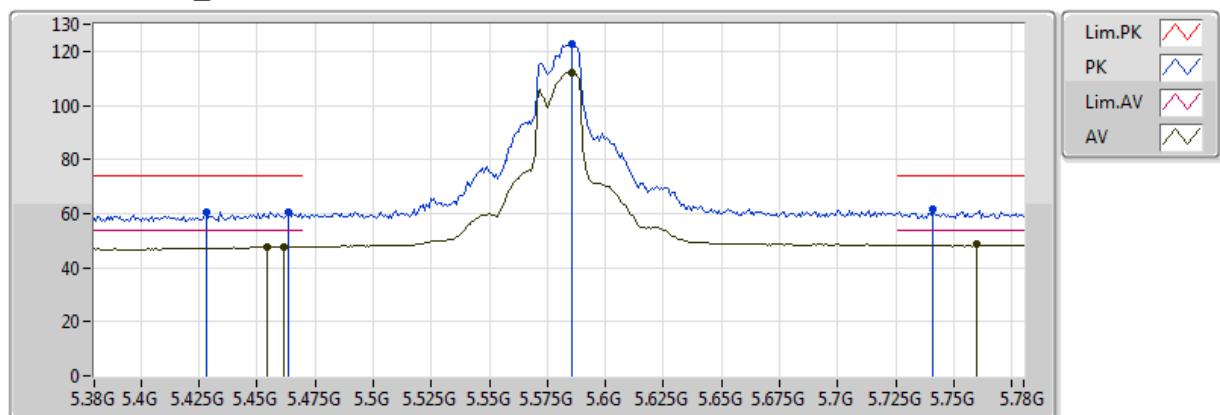
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.46G	47.51	54.00	-6.49	10.35	3	Horizontal	273	2.72				
AV	5.4696G	49.64	54.00	-4.36	10.39	3	Horizontal	273	2.72				
AV	5.506G	101.93	Inf	-Inf	10.50	3	Horizontal	273	2.72				
PK	5.4476G	60.30	74.00	-13.70	10.31	3	Horizontal	273	2.72				
PK	5.4696G	64.03	74.00	-9.97	10.39	3	Horizontal	273	2.72				
PK	5.5052G	112.75	Inf	-Inf	10.50	3	Horizontal	273	2.72				

802.11ac VHT20_Nss1,(MCS0)_2TX**5500MHz_TX**

802.11ac VHT20_Nss1,(MCS0)_2TX

5500MHz_TX



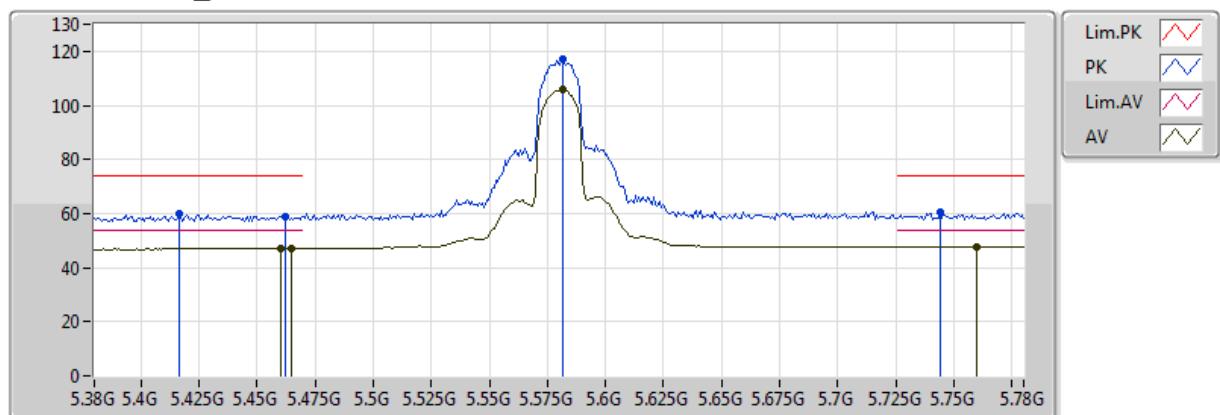
**802.11ac VHT20_Nss1,(MCS0)_2TX****5580MHz_TX**

20170928
EUT X_2TX
Setting 22
02-J-6-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.4544G	47.57	54.00	-6.43	10.33	3	Vertical	221	1.01				
AV	5.4616G	47.67	54.00	-6.33	10.36	3	Vertical	221	1.01				
AV	5.5856G	112.02	Inf	-Inf	10.63	3	Vertical	221	1.01				
AV	5.76G	48.64	54.00	-5.36	10.65	3	Vertical	221	1.01				
PK	5.428G	60.75	74.00	-13.25	10.25	3	Vertical	221	1.01				
PK	5.4632G	60.49	74.00	-13.51	10.36	3	Vertical	221	1.01				
PK	5.5856G	122.51	Inf	-Inf	10.63	3	Vertical	221	1.01				
PK	5.7408G	61.66	74.00	-12.34	10.65	3	Vertical	221	1.01				

802.11ac VHT20_Nss1,(MCS0)_2TX

5580MHz_TX

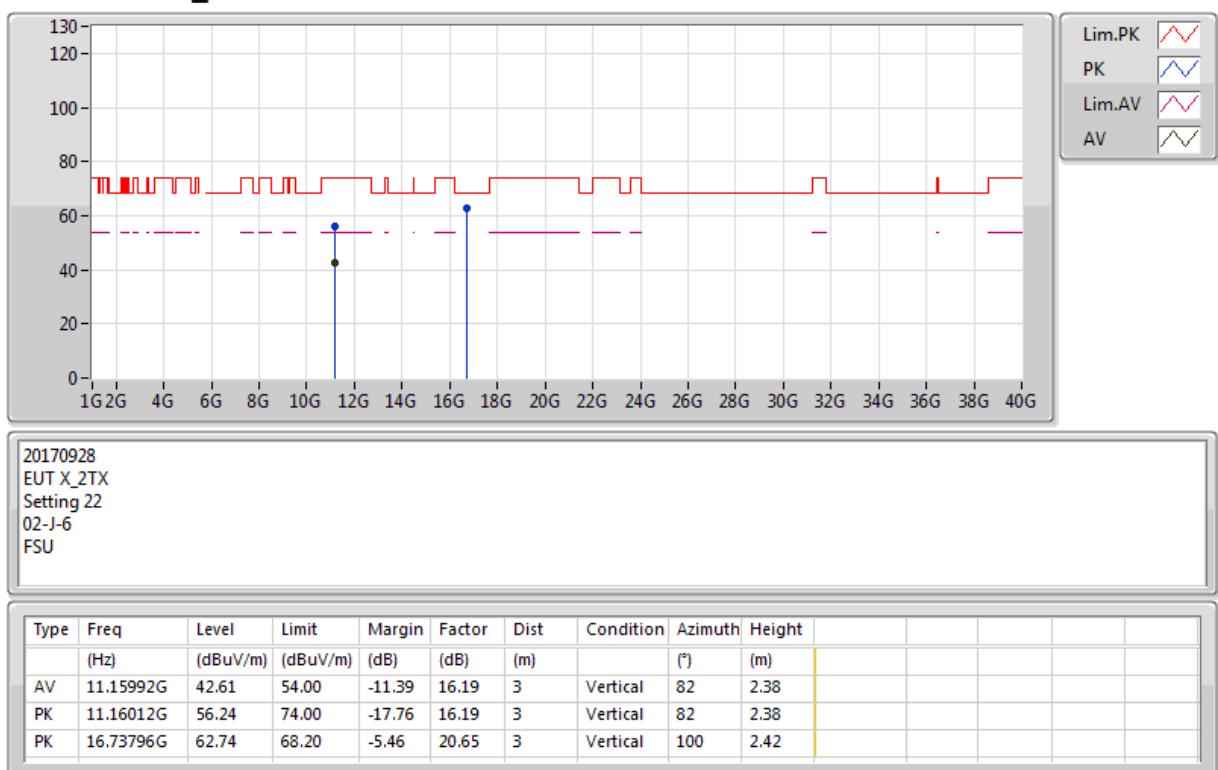


20170928
EUT X_2TX
Setting 22
02-J-6-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.46G	47.15	54.00	-6.85	10.35	3	Horizontal	75	2.54				
AV	5.4648G	47.22	54.00	-6.78	10.37	3	Horizontal	75	2.54				
AV	5.5816G	105.95	Inf	-Inf	10.62	3	Horizontal	75	2.54				
AV	5.76G	47.73	54.00	-6.27	10.65	3	Horizontal	75	2.54				
PK	5.4168G	59.74	74.00	-14.26	10.21	3	Horizontal	75	2.54				
PK	5.4624G	58.81	74.00	-15.19	10.36	3	Horizontal	75	2.54				
PK	5.5816G	116.94	Inf	-Inf	10.62	3	Horizontal	75	2.54				
PK	5.744G	60.56	74.00	-13.44	10.65	3	Horizontal	75	2.54				

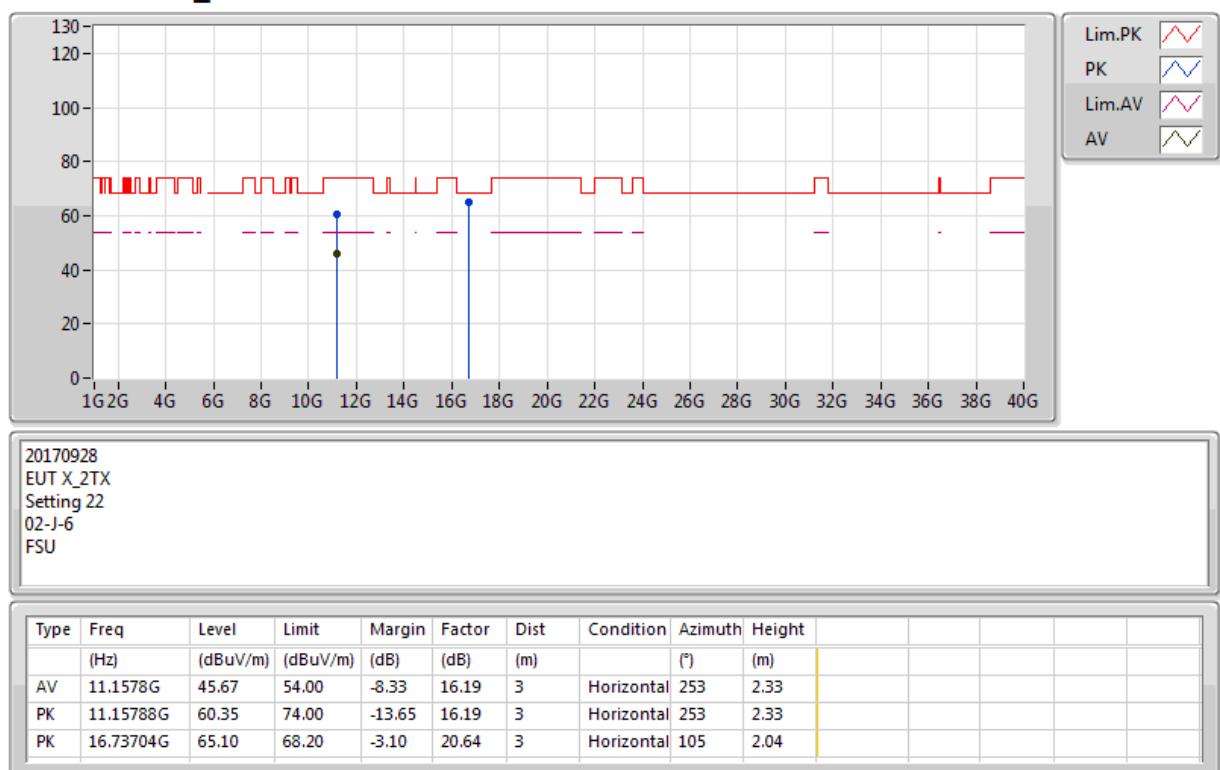
802.11ac VHT20_Nss1,(MCS0)_2TX

5580MHz_TX



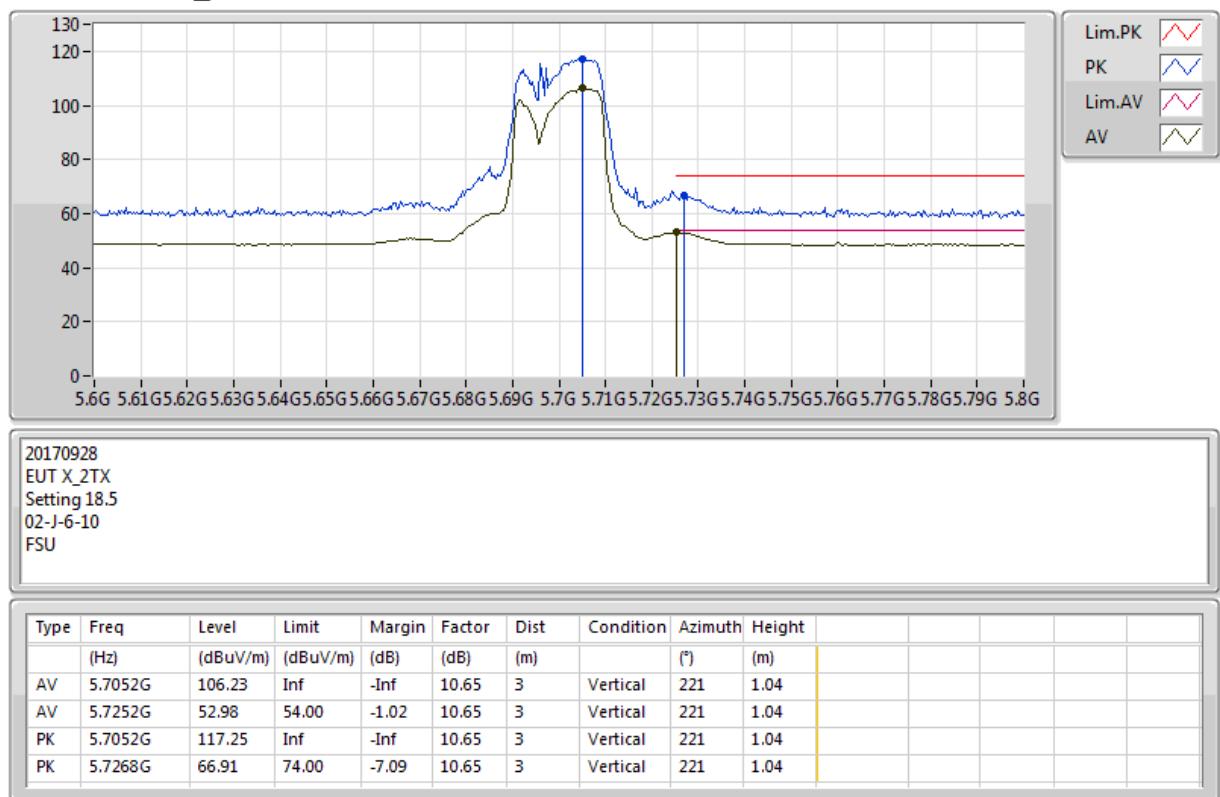
802.11ac VHT20_Nss1,(MCS0)_2TX

5580MHz_TX



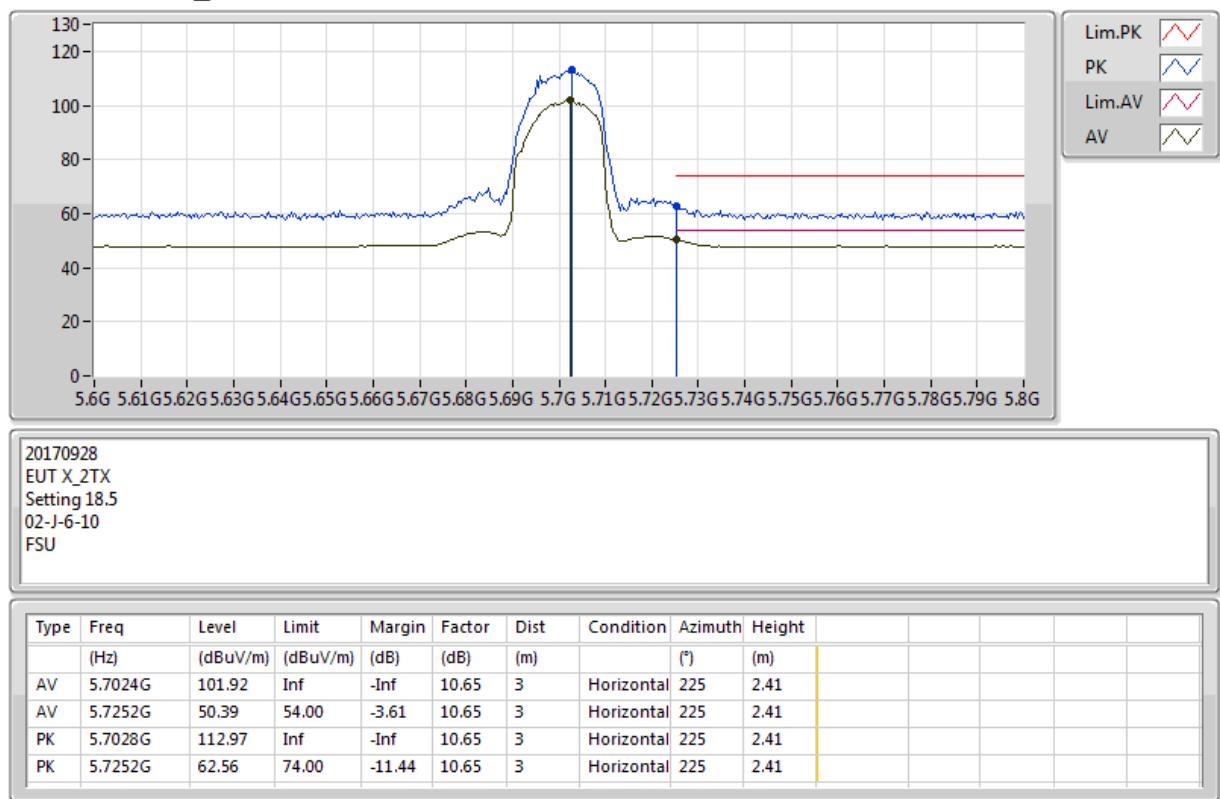
802.11ac VHT20_Nss1,(MCS0)_2TX

5700MHz_TX



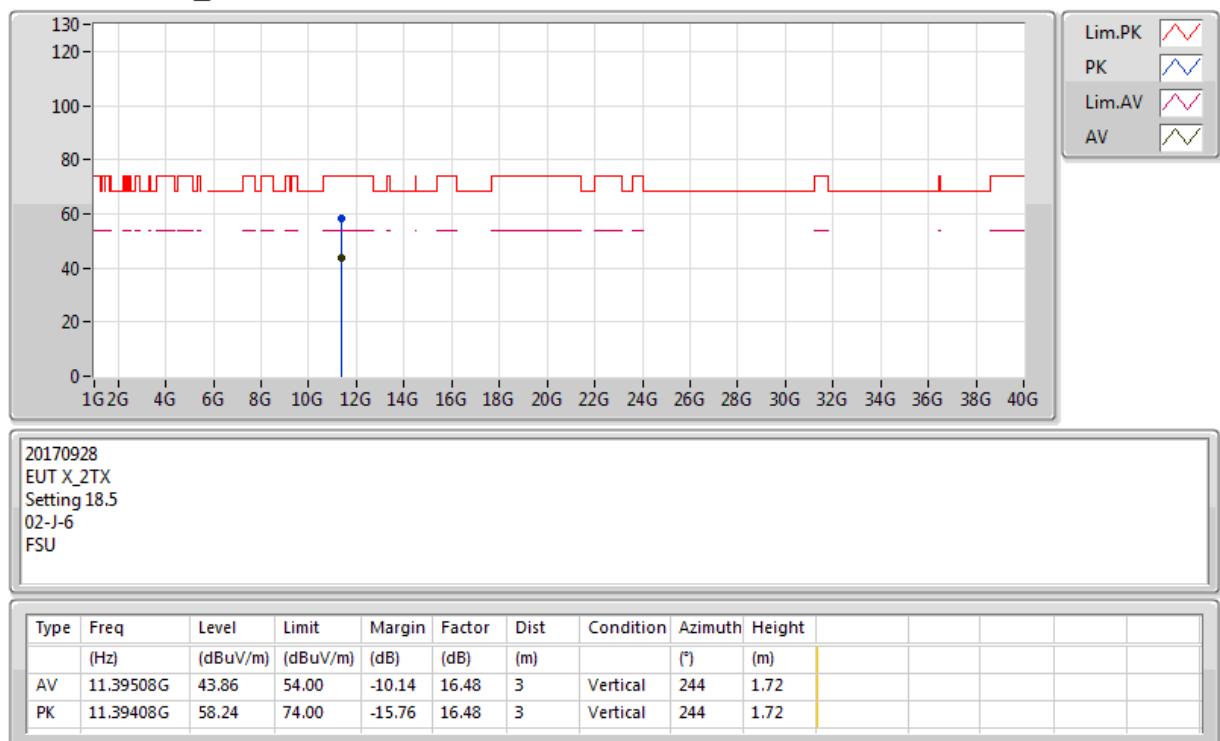
802.11ac VHT20_Nss1,(MCS0)_2TX

5700MHz_TX



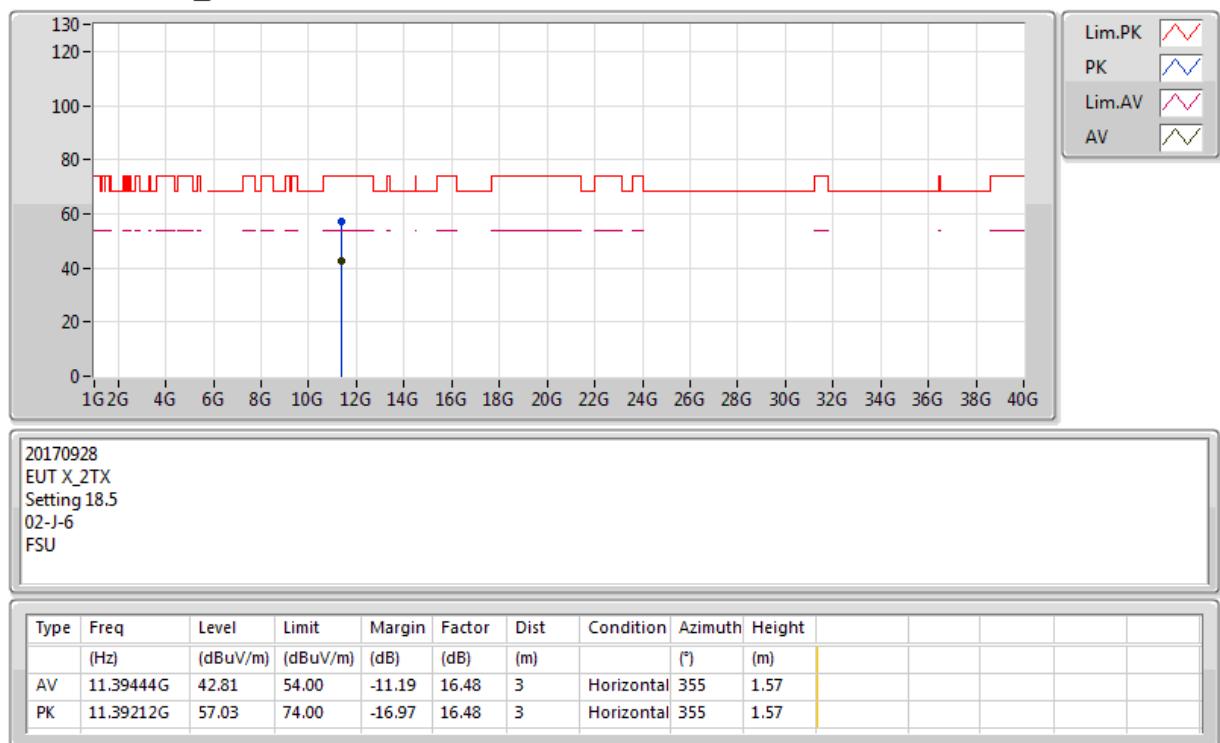
802.11ac VHT20_Nss1,(MCS0)_2TX

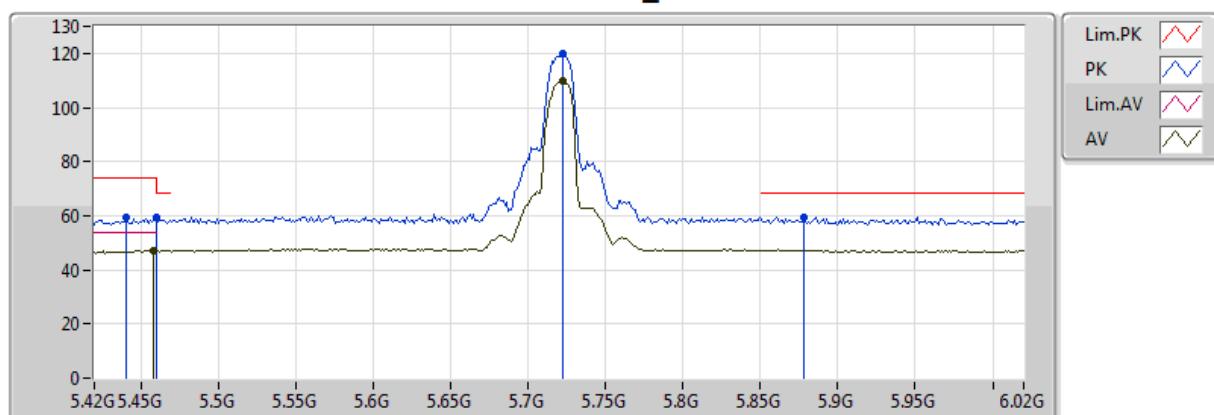
5700MHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX

5700MHz_TX



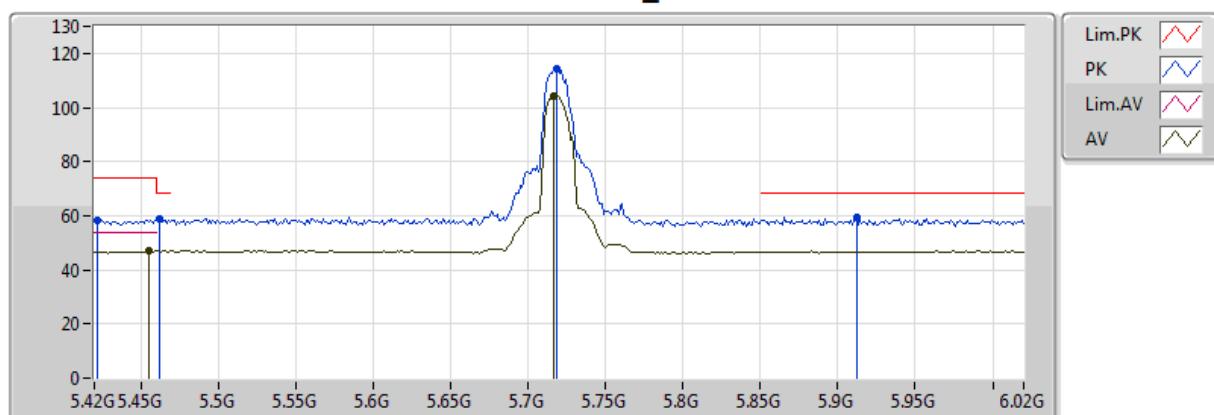
**802.11ac VHT20_Nss1,(MCS0)_2TX****5720MHz Straddle 5.47-5.725GHz_TX**

20171115
EUT X_2TX
Setting 22
03-Z-1-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)					
AV	5.4584G	47.16	54.00	-6.84	6.72	3	Vertical	307	1.15					
AV	5.7224G	110.10	Inf	-Inf	6.96	3	Vertical	307	1.15					
PK	5.4404G	59.31	74.00	-14.69	6.66	3	Vertical	307	1.15					
PK	5.460005G	59.15	68.20	-9.05	6.72	3	Vertical	307	1.15					
PK	5.7224G	120.14	Inf	-Inf	6.96	3	Vertical	307	1.15					
PK	5.8784G	59.41	68.20	-8.79	7.00	3	Vertical	307	1.15					

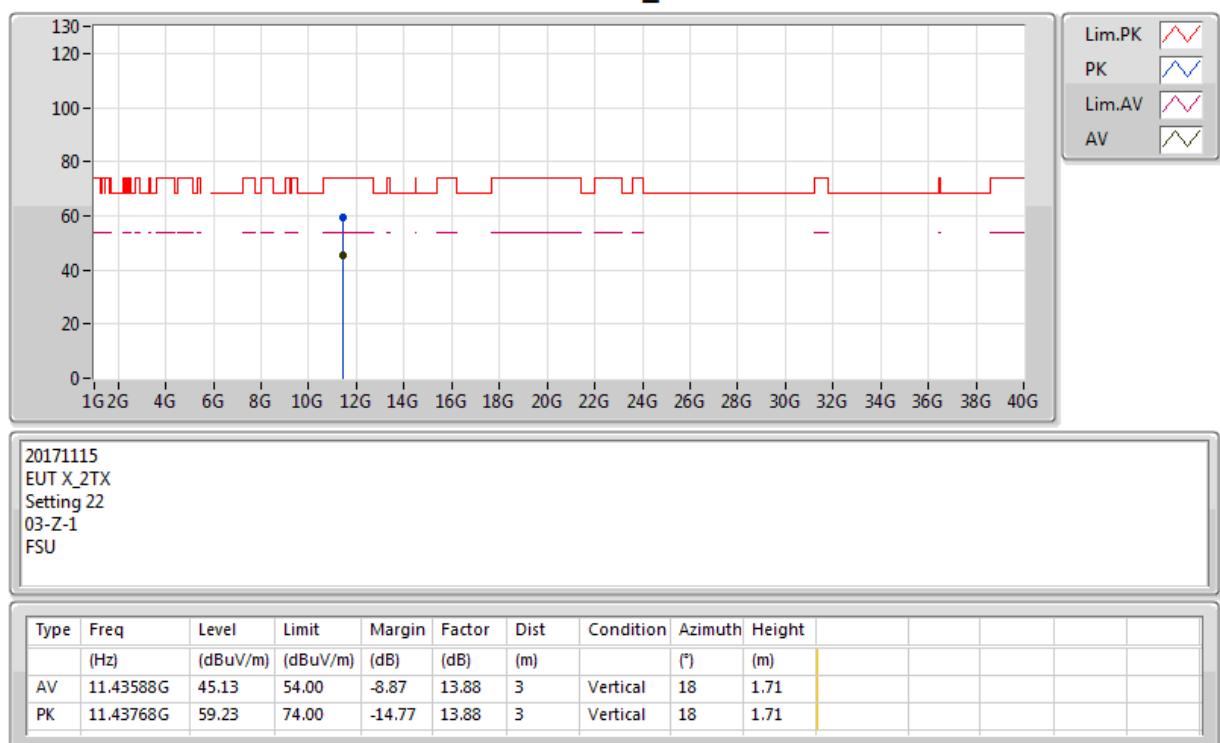
802.11ac VHT20_Nss1,(MCS0)_2TX

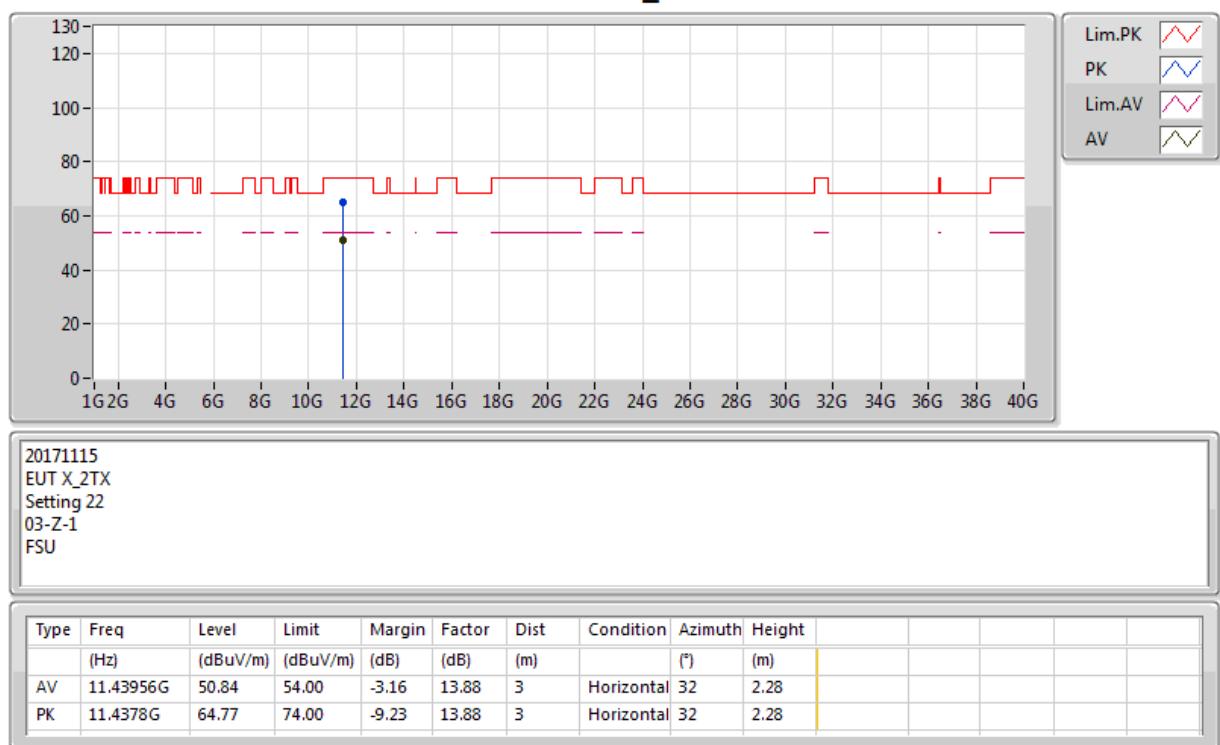
5720MHz Straddle 5.47-5.725GHz_TX



20171115
EUT X_2TX
Setting 22
03-Z-1-10
FSU

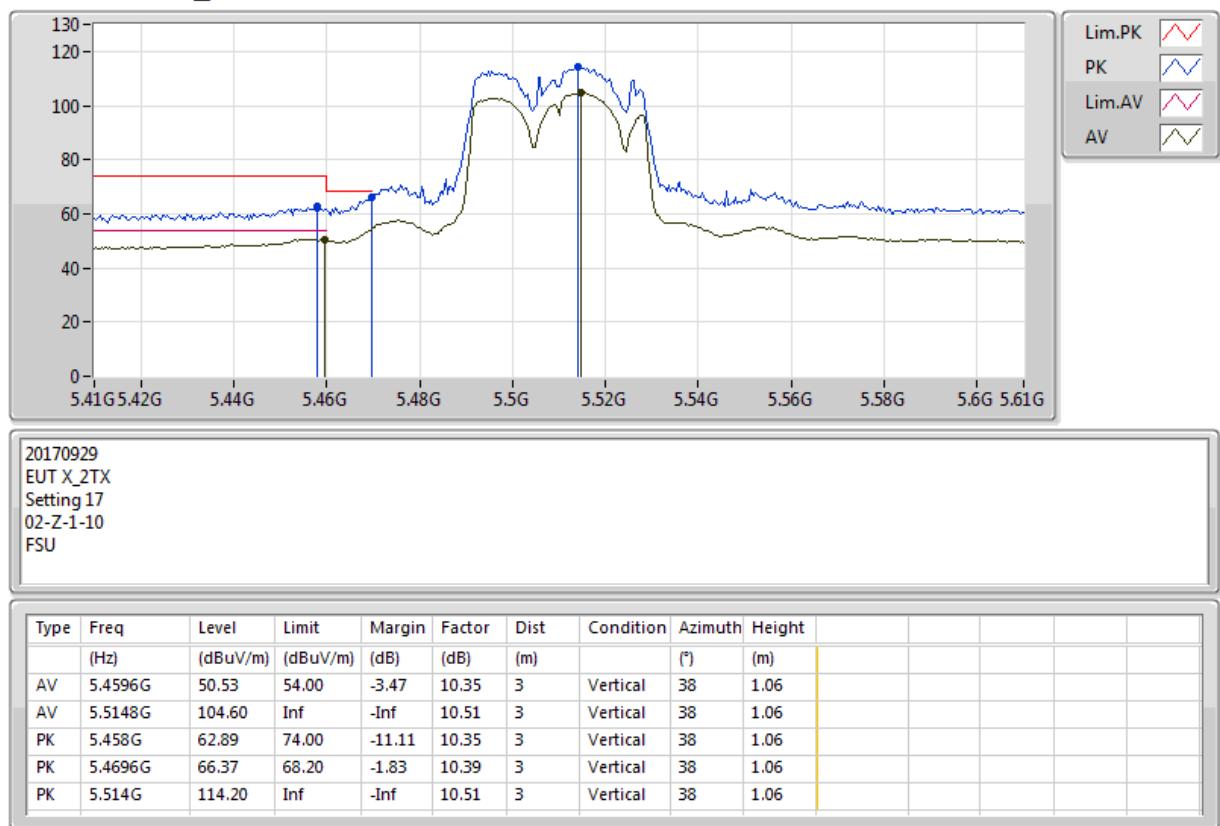
Type	Freq (Hz)	Level (dBmV/m)	Limit (dBmV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.4548G	47.06	54.00	-6.94	6.71	3	Horizontal	295	2.08				
AV	5.7164G	104.22	Inf	-Inf	6.96	3	Horizontal	295	2.08				
PK	5.4224G	58.51	74.00	-15.49	6.60	3	Horizontal	295	2.08				
PK	5.462G	58.60	68.20	-9.60	6.73	3	Horizontal	295	2.08				
PK	5.7188G	114.17	Inf	-Inf	6.96	3	Horizontal	295	2.08				
PK	5.912G	59.30	68.20	-8.90	7.03	3	Horizontal	295	2.08				

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


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


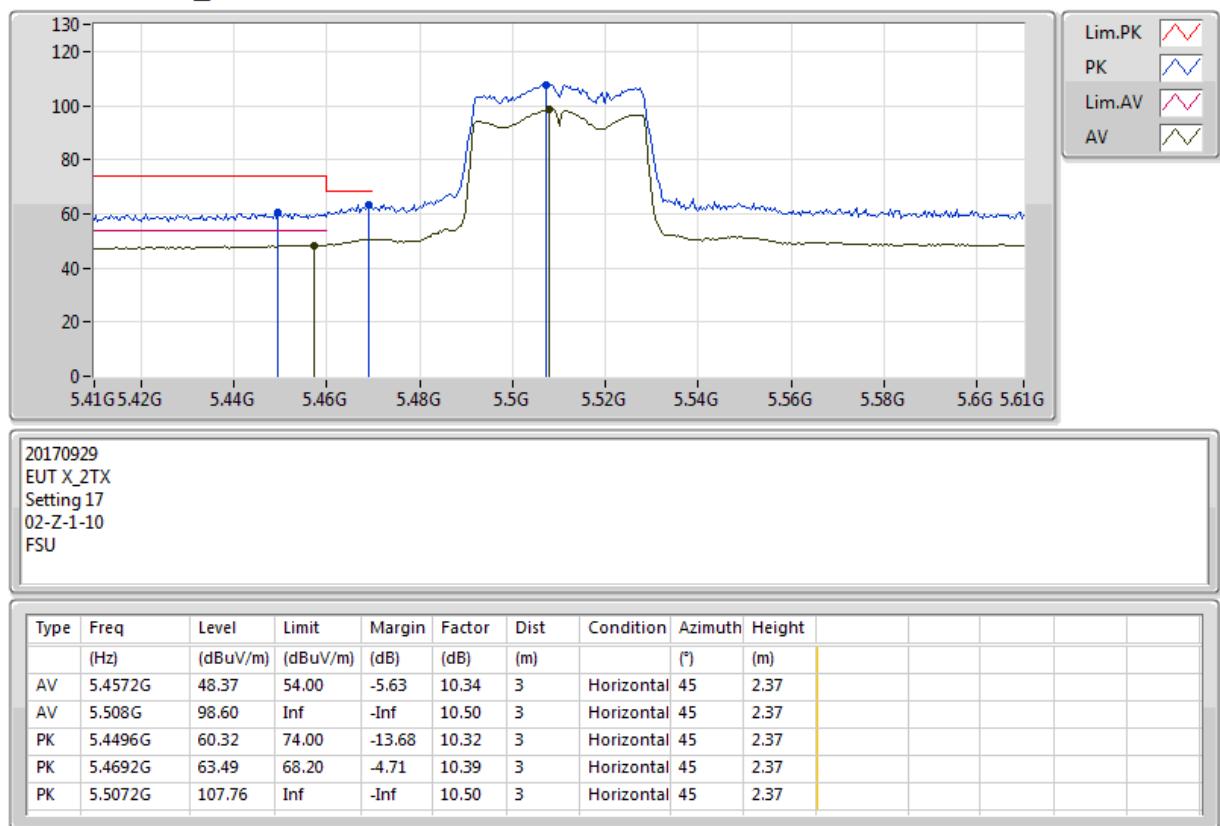
802.11ac VHT40_Nss1,(MCS0)_2TX

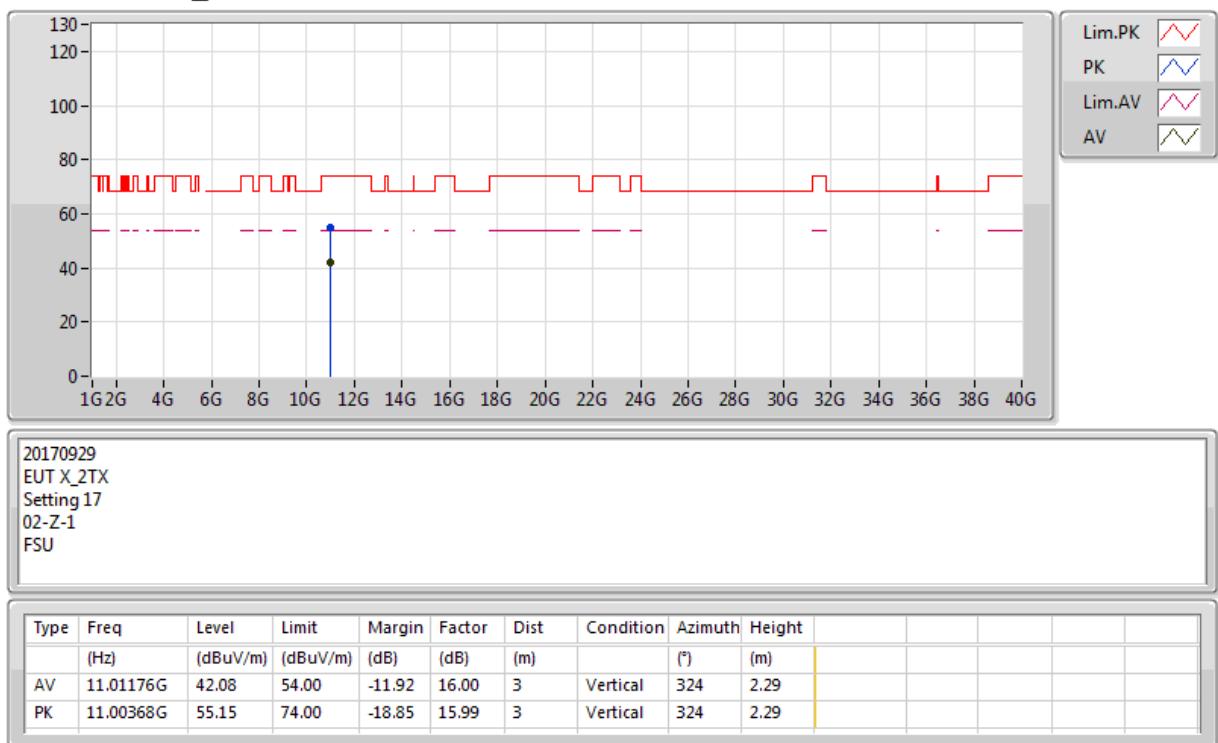
5510MHz_TX

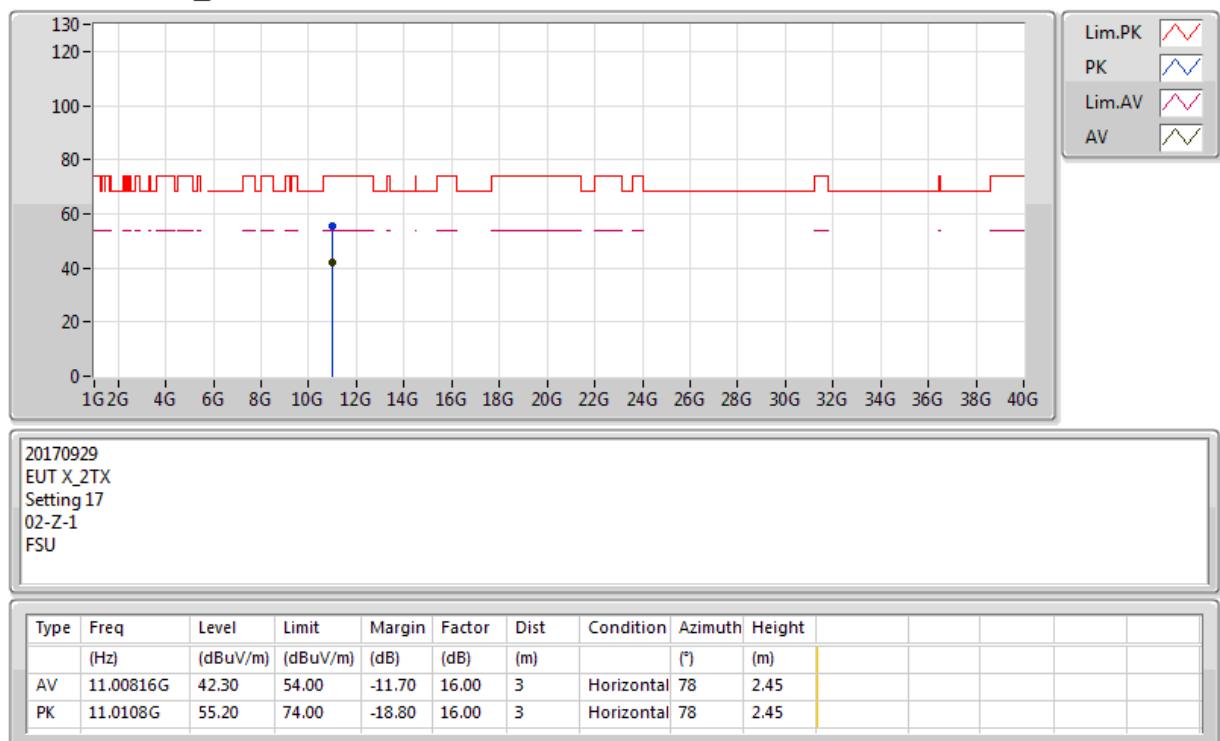


802.11ac VHT40_Nss1,(MCS0)_2TX

5510MHz_TX



802.11ac VHT40_Nss1,(MCS0)_2TX**5510MHz_TX**

802.11ac VHT40_Nss1,(MCS0)_2TX**5510MHz_TX**

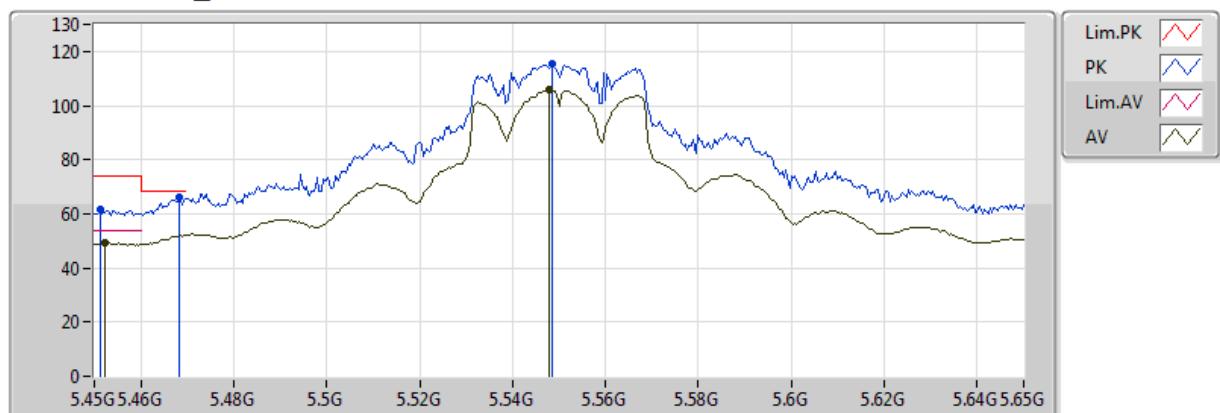
802.11ac VHT40_Nss1,(MCS0)_2TX

5550MHz_TX



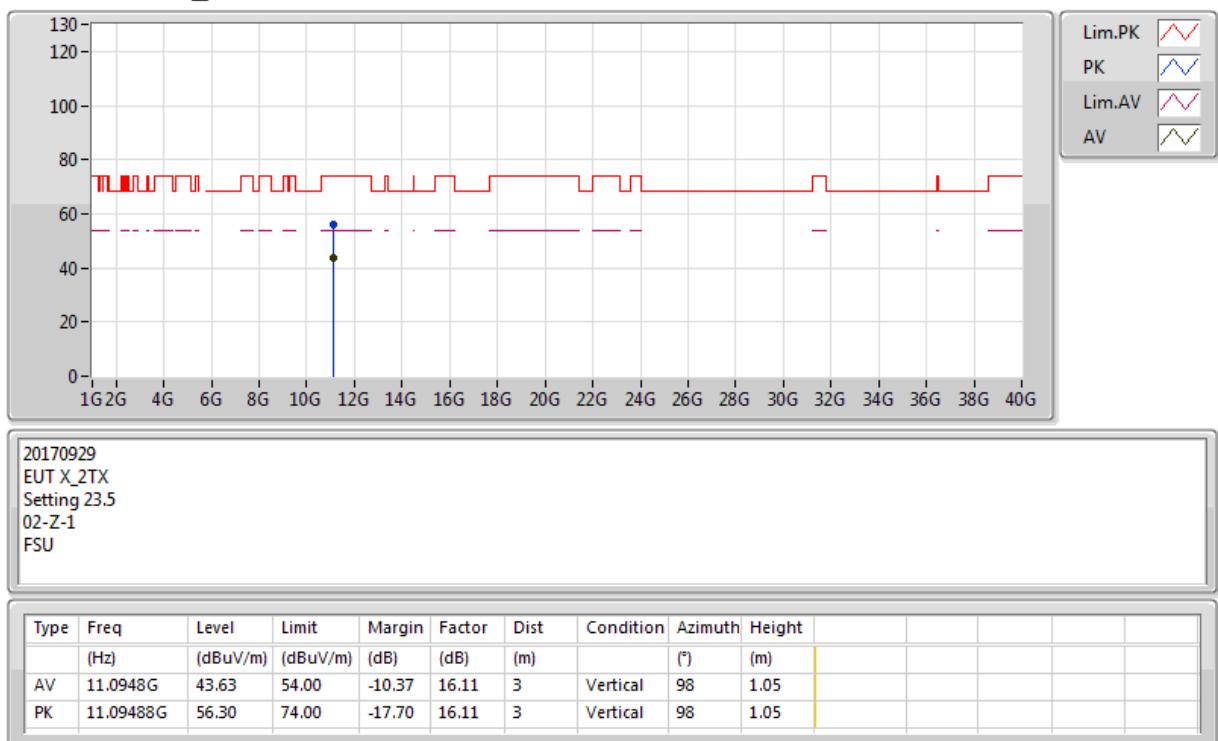
802.11ac VHT40_Nss1,(MCS0)_2TX

5550MHz_TX



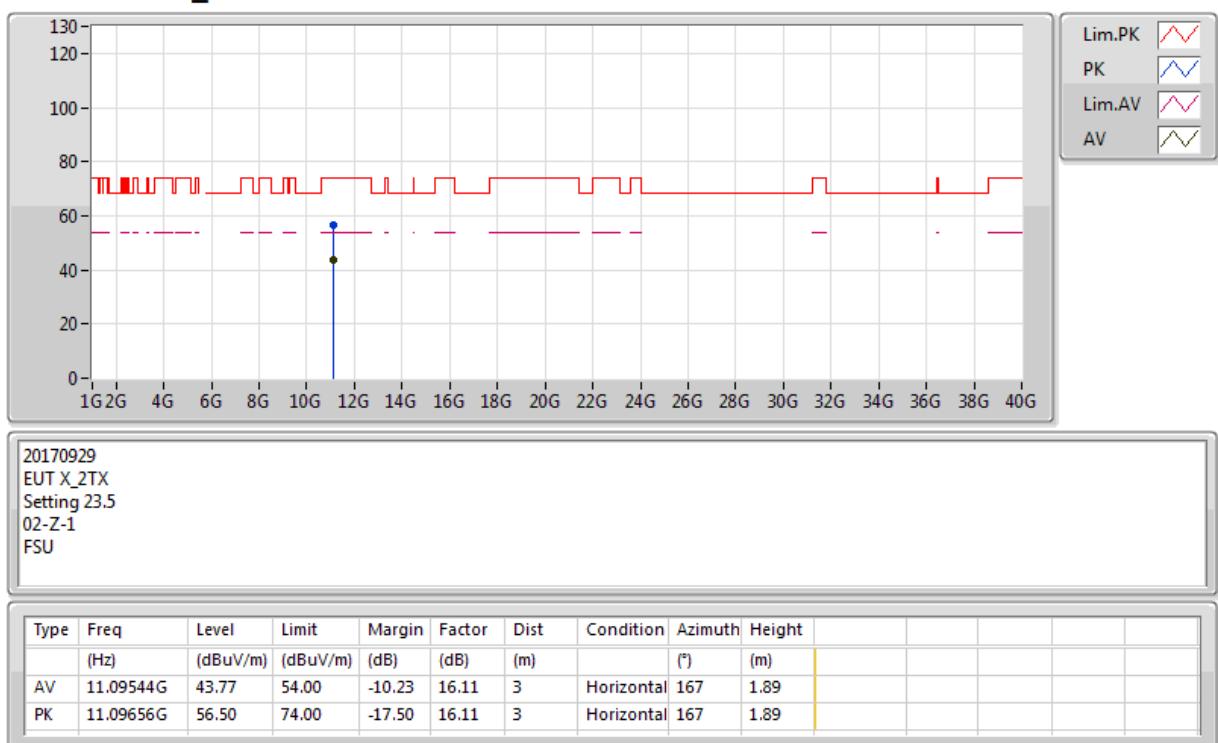
20170929
EUT X_2TX
Setting 23.5
02-Z-1-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.4524G	49.22	54.00	-4.78	10.33	3	Horizontal	76	2.42				
AV	5.548G	105.81	Inf	-Inf	10.57	3	Horizontal	76	2.42				
PK	5.4512G	61.90	74.00	-12.10	10.32	3	Horizontal	76	2.42				
PK	5.4684G	65.98	68.20	-2.22	10.38	3	Horizontal	76	2.42				
PK	5.5484G	115.39	Inf	-Inf	10.57	3	Horizontal	76	2.42				

802.11ac VHT40_Nss1,(MCS0)_2TX**5550MHz_TX**

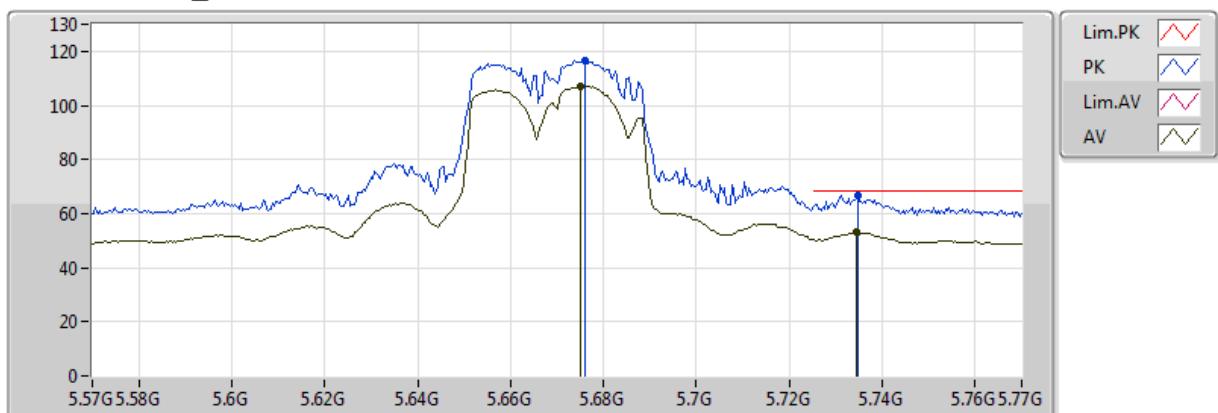
802.11ac VHT40_Nss1,(MCS0)_2TX

5550MHz_TX



802.11ac VHT40_Nss1,(MCS0)_2TX

5670MHz_TX

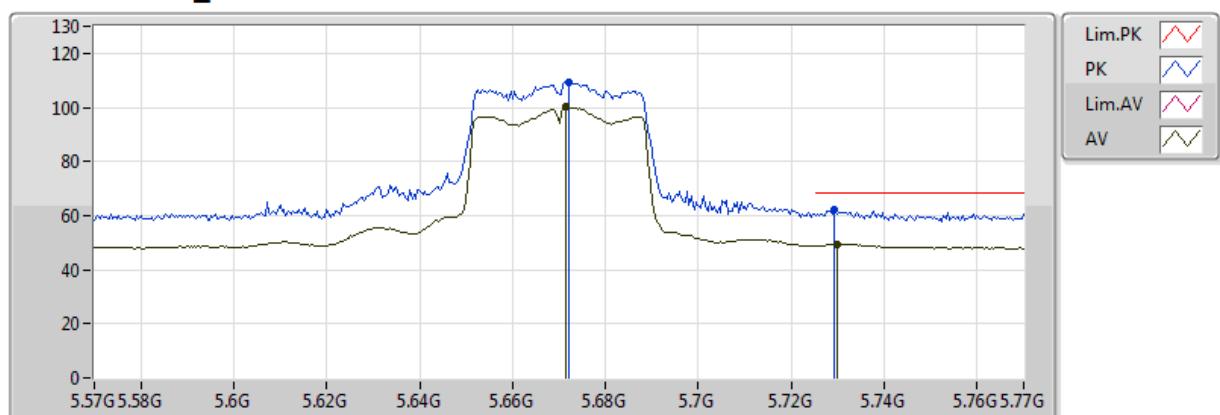


20170929
EUT X_2TX
Setting 20.5
02-Z-1-10
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.6752G	107.26	Inf	-Inf	10.65	3	Vertical	32	1.01			
AV	5.7344G	52.96	54.00	-1.04	10.65	3	Vertical	32	1.01			
PK	5.676G	116.42	Inf	-Inf	10.65	3	Vertical	32	1.01			
PK	5.7348G	66.77	74.00	-7.23	10.65	3	Vertical	32	1.01			

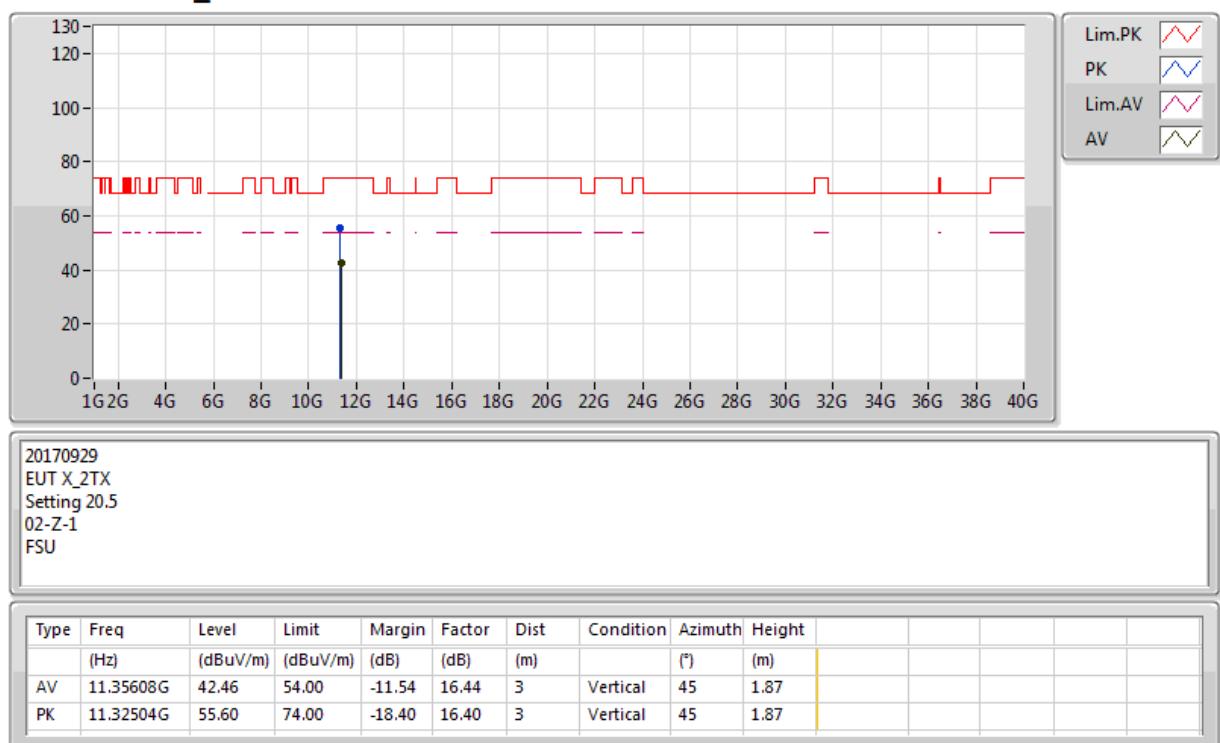
802.11ac VHT40_Nss1,(MCS0)_2TX

5670MHz_TX



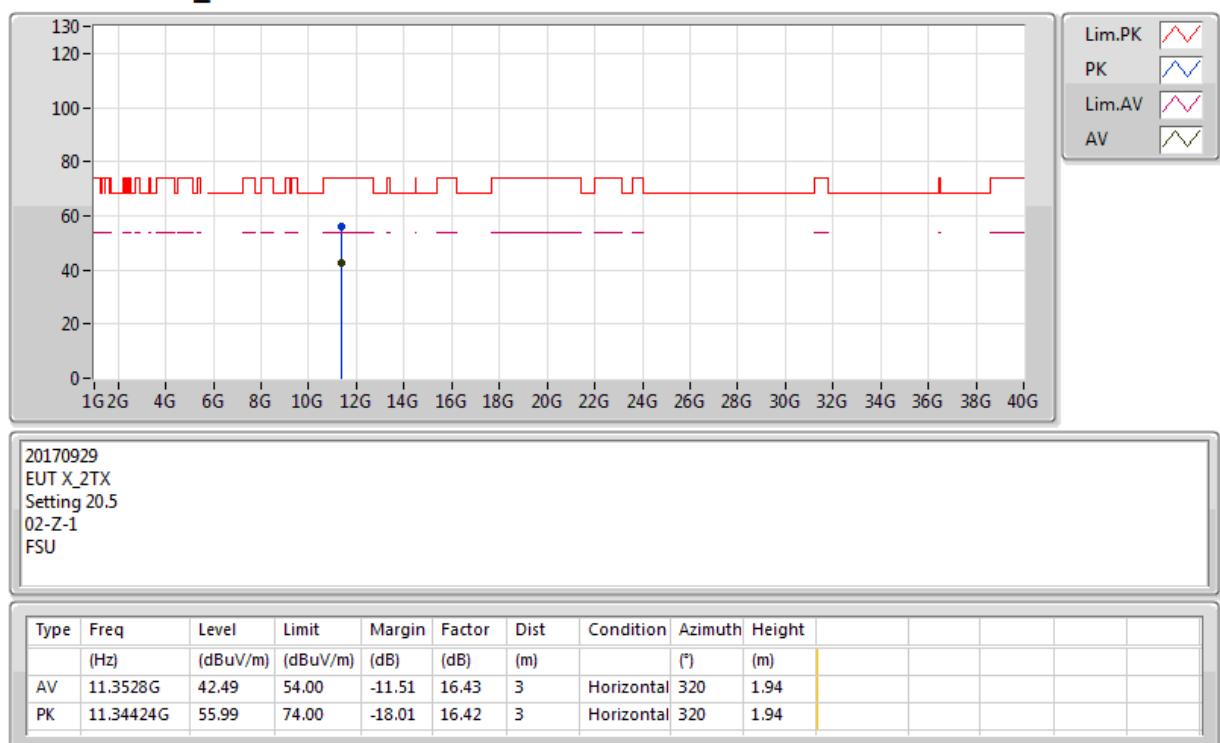
20170929
EUT X_2TX
Setting 20.5
02-Z-1-10
FSU

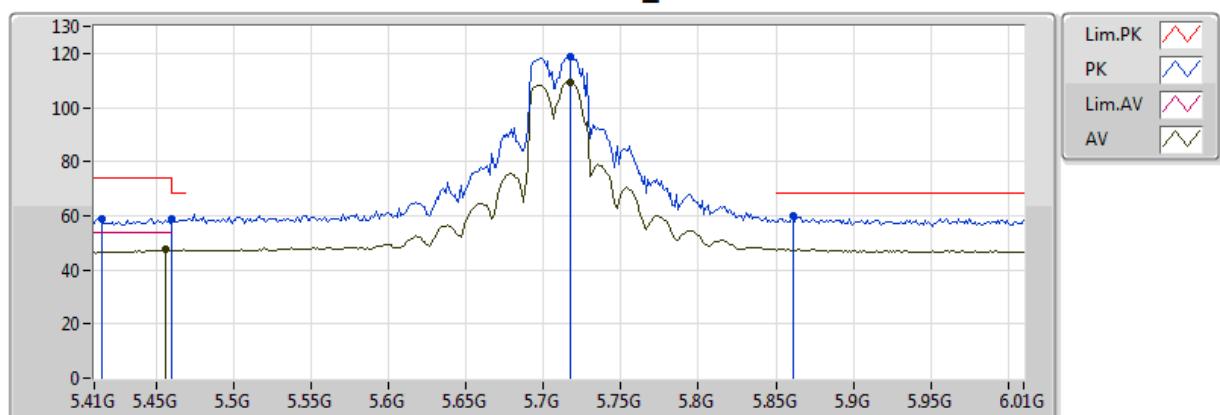
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.6716G	100.08	Inf	-Inf	10.65	3	Horizontal	71	2.48				
AV	5.73G	49.47	54.00	-4.53	10.65	3	Horizontal	71	2.48				
PK	5.672G	109.33	Inf	-Inf	10.65	3	Horizontal	71	2.48				
PK	5.7292G	62.20	74.00	-11.80	10.65	3	Horizontal	71	2.48				

802.11ac VHT40_Nss1,(MCS0)_2TX**5670MHz_TX**

802.11ac VHT40_Nss1,(MCS0)_2TX

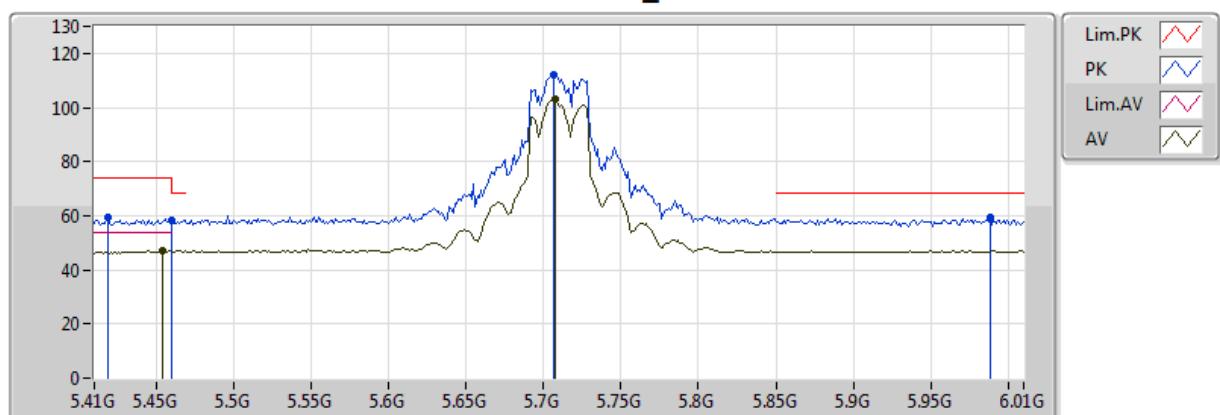
5670MHz_TX



802.11ac VHT40_Nss1,(MCS0)_2TX
5710MHz Straddle 5.47-5.725GHz_TX


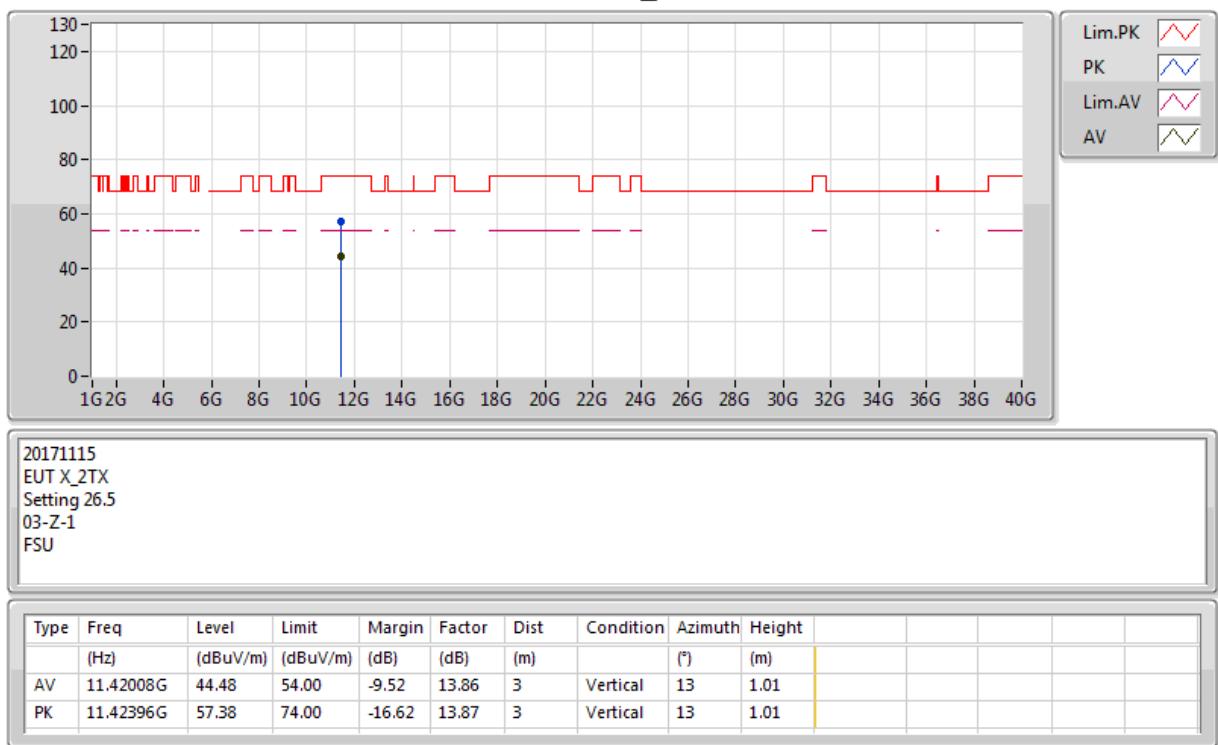
20171115
EUT X_2TX
Setting 26.5
03-Z-1-10
FSU

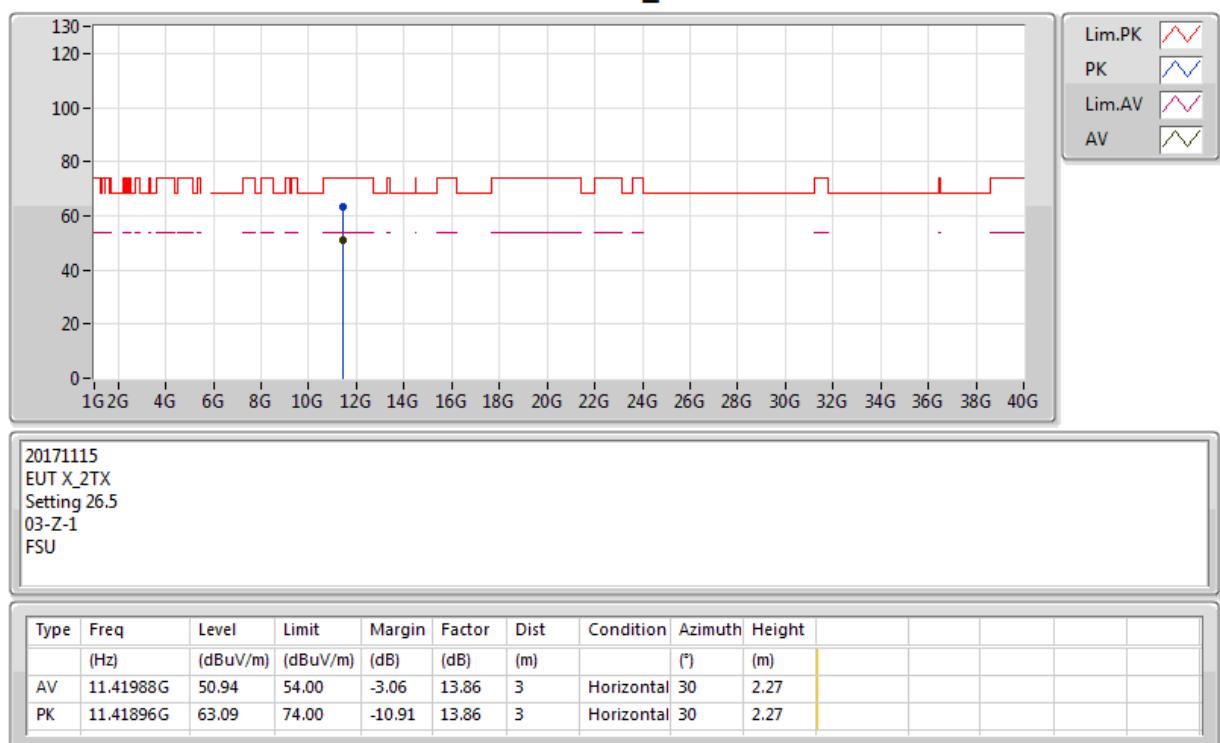
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.4556G	47.36	54.00	-6.64	6.71	3	Vertical	313	2.25				
AV	5.7172G	109.48	Inf	-Inf	6.96	3	Vertical	313	2.25				
PK	5.4148G	59.07	74.00	-14.93	6.57	3	Vertical	313	2.25				
PK	5.4604G	58.66	68.20	-9.54	6.73	3	Vertical	313	2.25				
PK	5.7172G	119.02	Inf	-Inf	6.96	3	Vertical	313	2.25				
PK	5.8612G	59.80	68.20	-8.40	6.98	3	Vertical	313	2.25				

802.11ac VHT40_Nss1,(MCS0)_2TX
5710MHz Straddle 5.47-5.725GHz_TX


20171115
EUT X_2TX
Setting 26.5
03-Z-1-10
FSU

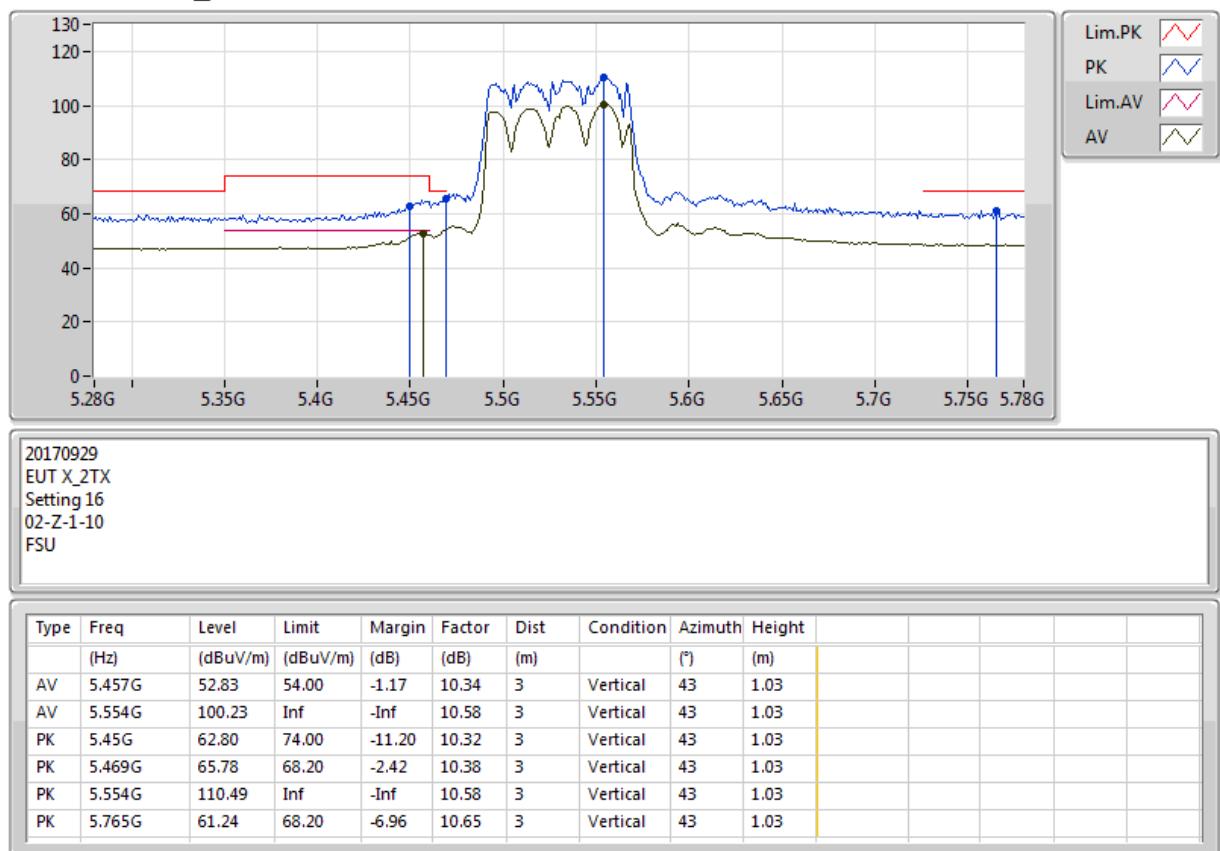
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)			
AV	5.4544G	47.04	54.00	-6.96	6.70	3	Horizontal	294	2.12			
AV	5.7076G	102.98	Inf	-Inf	6.97	3	Horizontal	294	2.12			
PK	5.4184G	59.56	74.00	-14.44	6.58	3	Horizontal	294	2.12			
PK	5.4604G	58.42	68.20	-9.78	6.73	3	Horizontal	294	2.12			
PK	5.7064G	112.31	Inf	-Inf	6.97	3	Horizontal	294	2.12			
PK	5.9884G	59.17	68.20	-9.03	7.12	3	Horizontal	294	2.12			

802.11ac VHT40_Nss1,(MCS0)_2TX
5710MHz Straddle 5.47-5.725GHz_TX


802.11ac VHT40_Nss1,(MCS0)_2TX
5710MHz Straddle 5.47-5.725GHz_TX


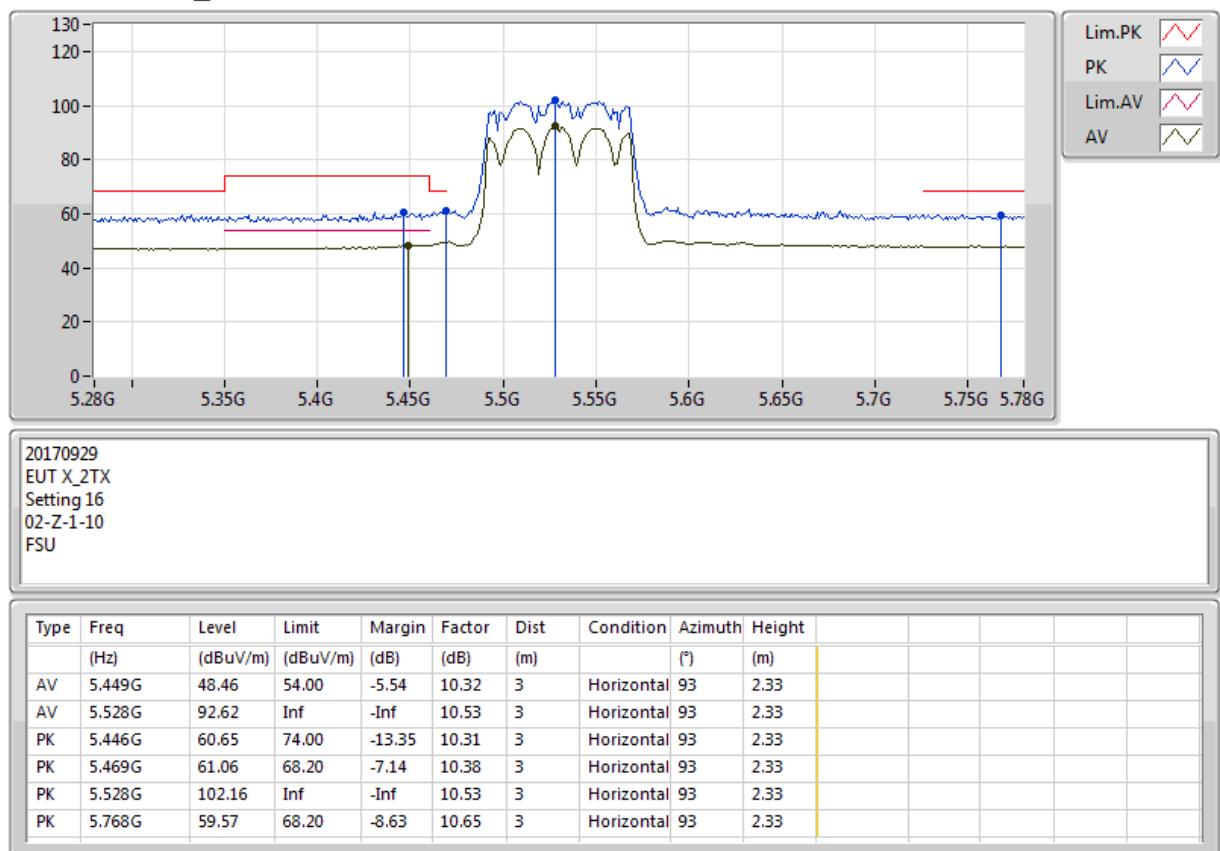
802.11ac VHT80_Nss1,(MCS0)_2TX

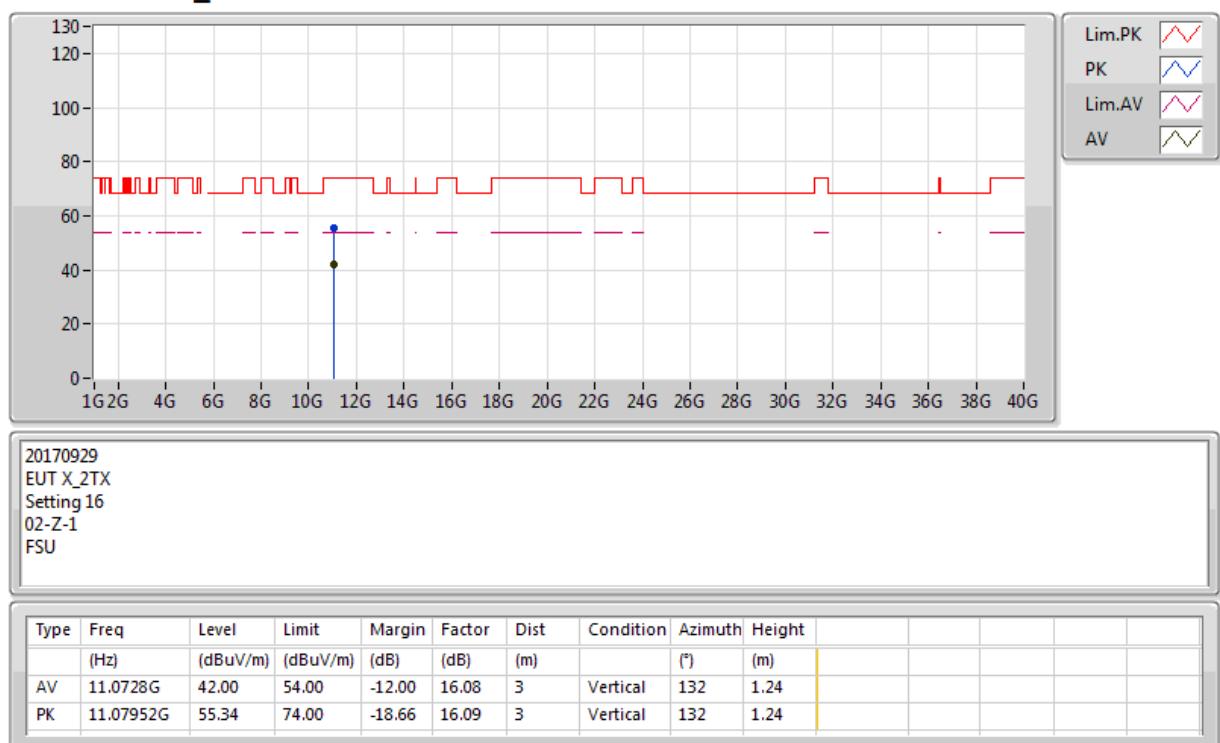
5530MHz_TX



802.11ac VHT80_Nss1,(MCS0)_2TX

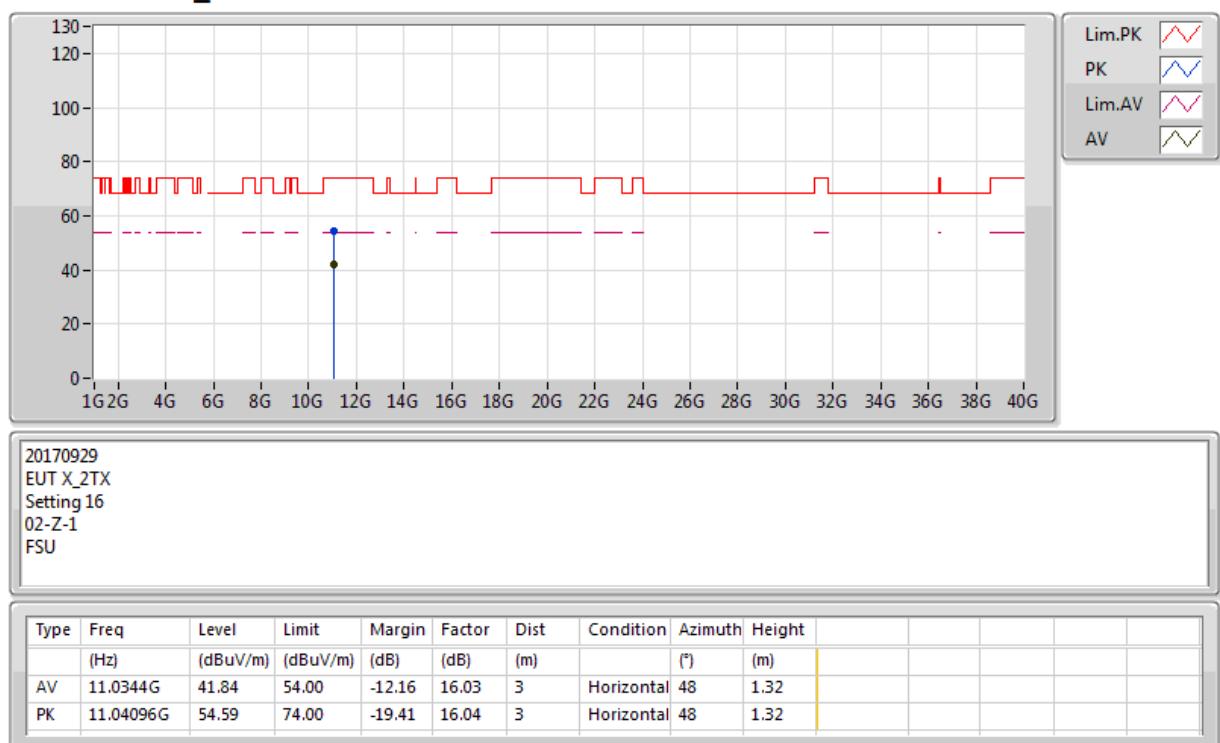
5530MHz_TX

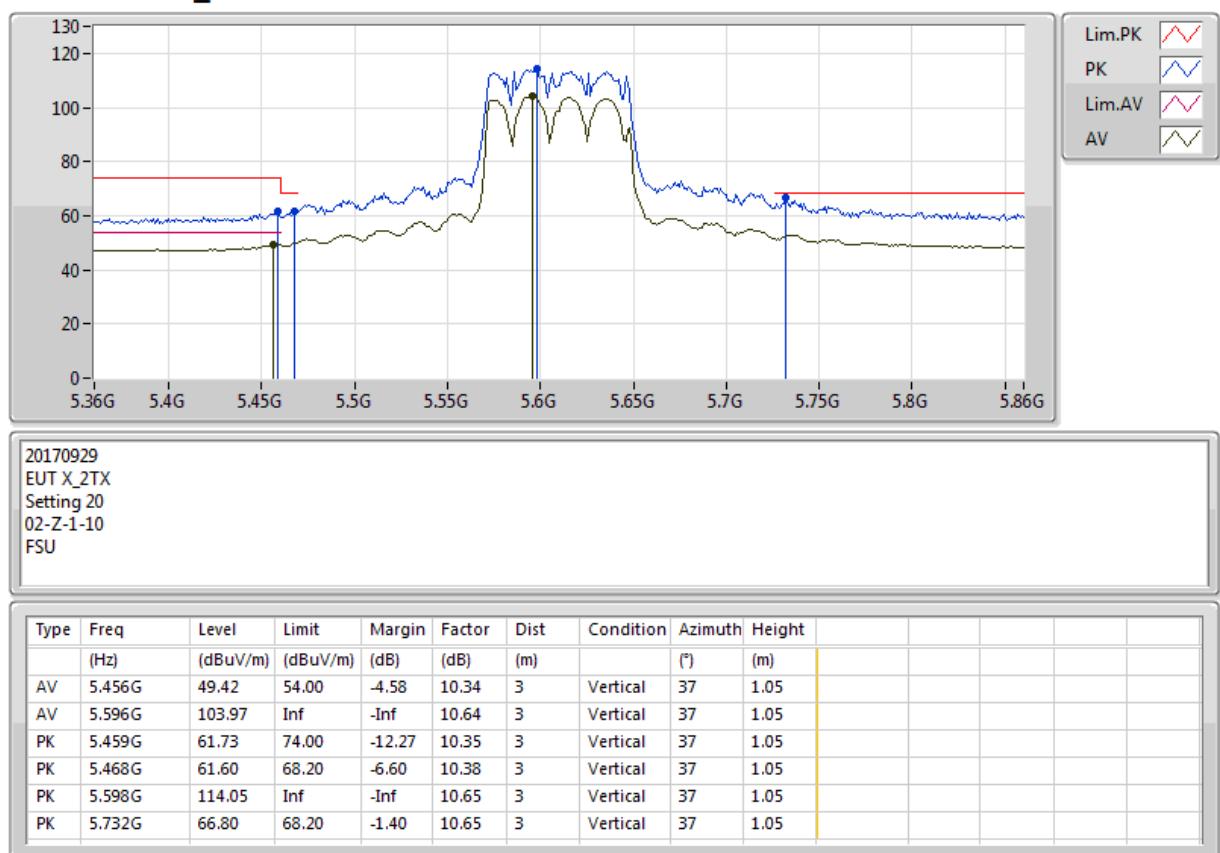


802.11ac VHT80_Nss1,(MCS0)_2TX**5530MHz_TX**

802.11ac VHT80_Nss1,(MCS0)_2TX

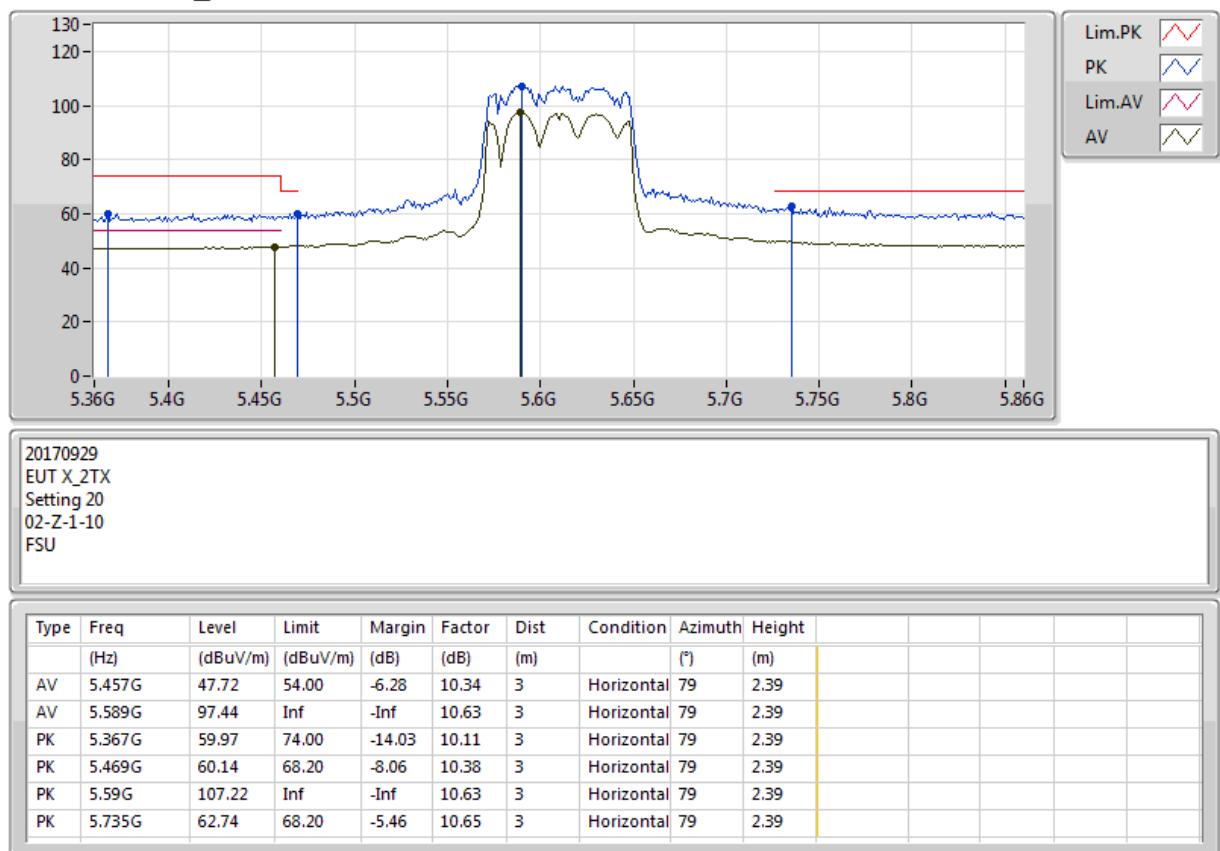
5530MHz_TX



802.11ac VHT80_Nss1,(MCS0)_2TX
5610MHz_TX


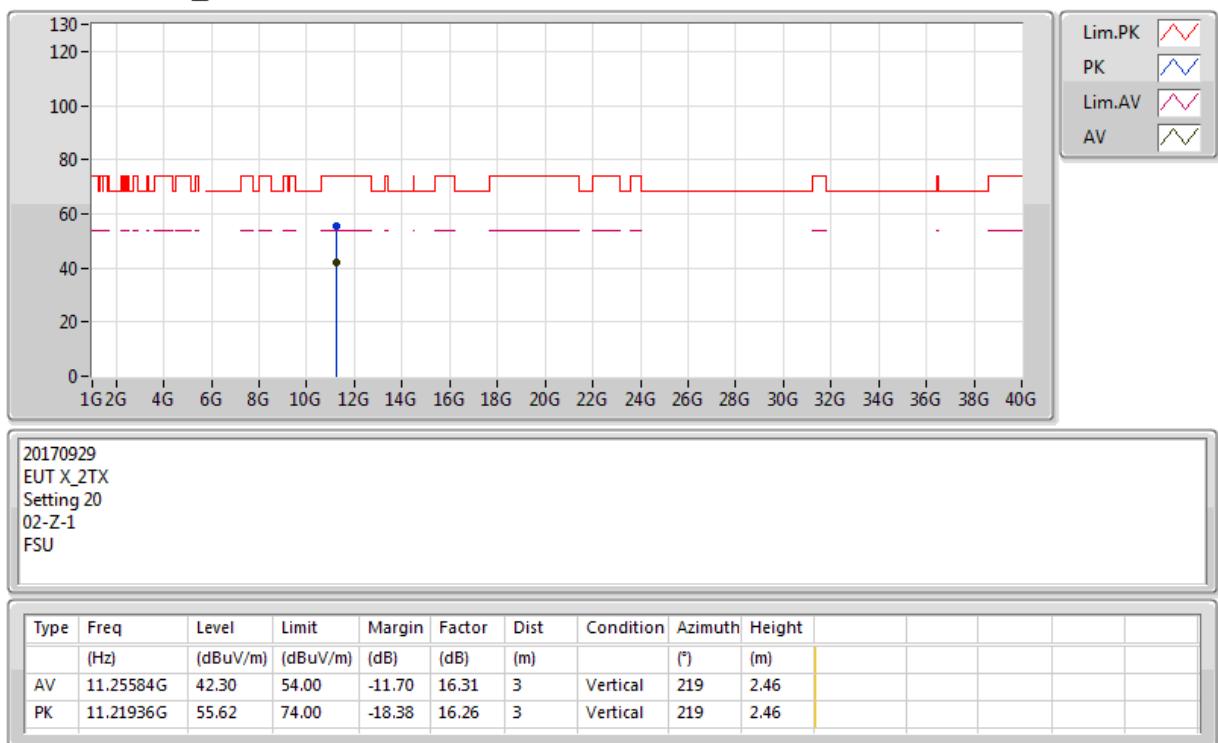
802.11ac VHT80_Nss1,(MCS0)_2TX

5610MHz_TX



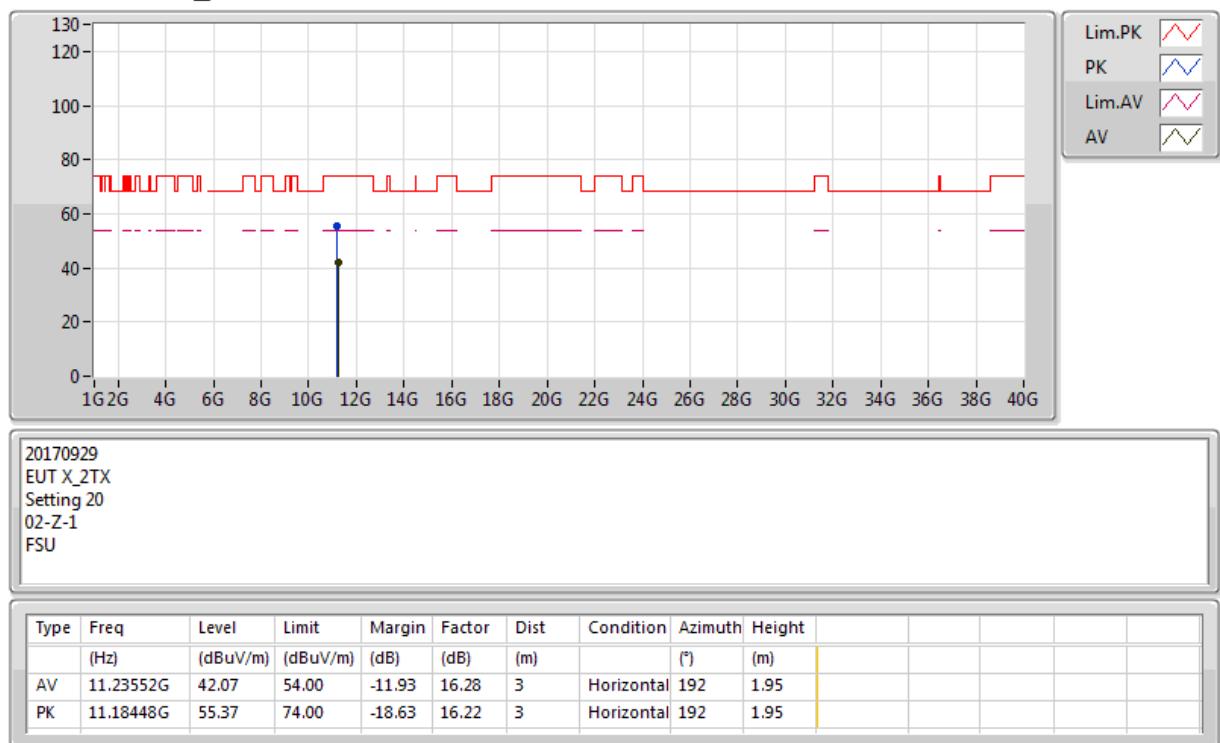
802.11ac VHT80_Nss1,(MCS0)_2TX

5610MHz_TX



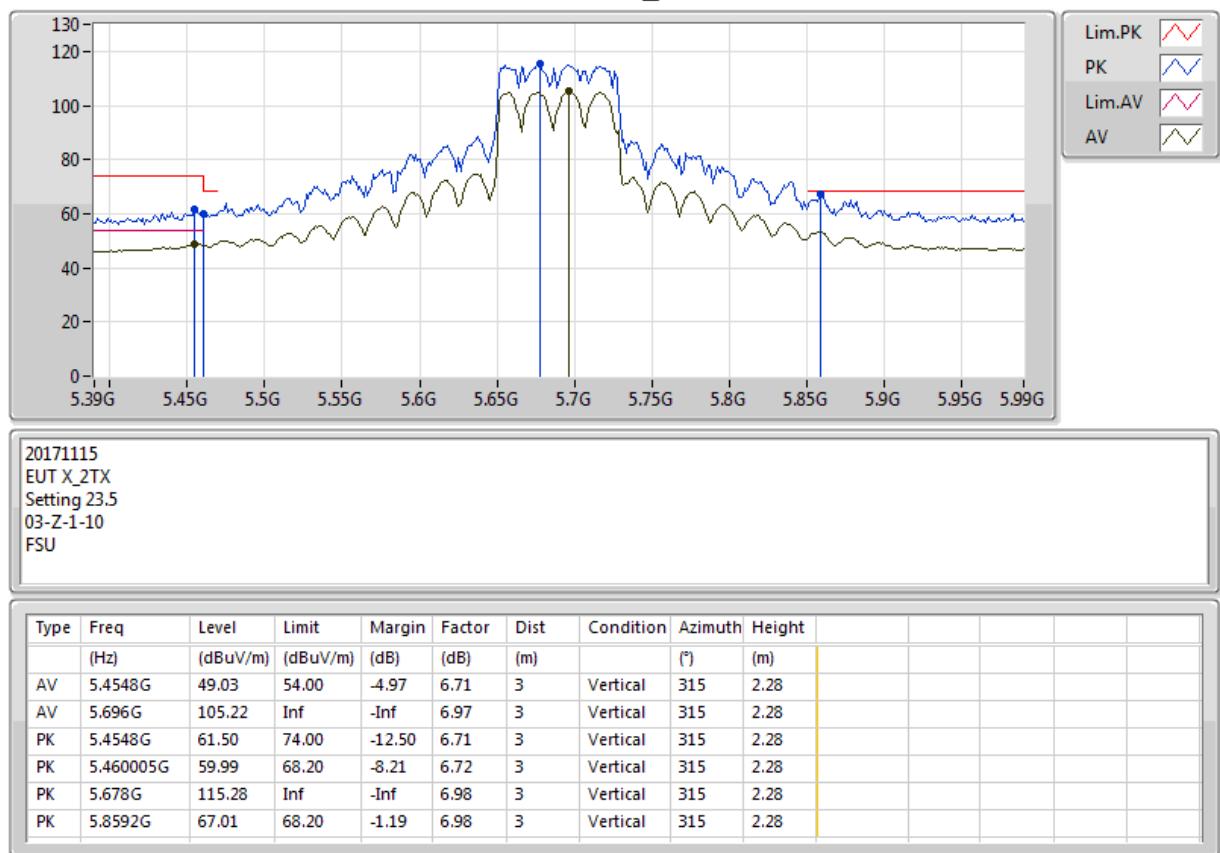
802.11ac VHT80_Nss1,(MCS0)_2TX

5610MHz_TX



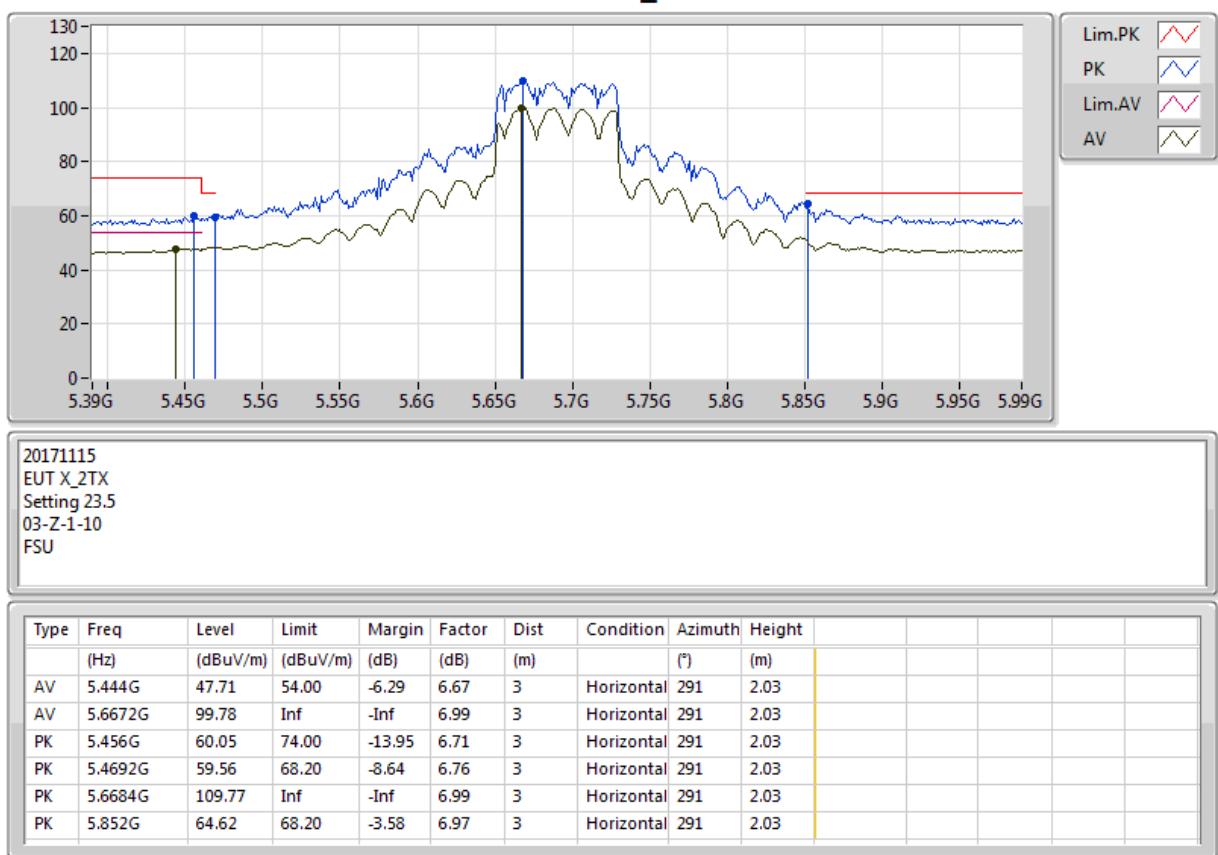
802.11ac VHT80_Nss1,(MCS0)_2TX

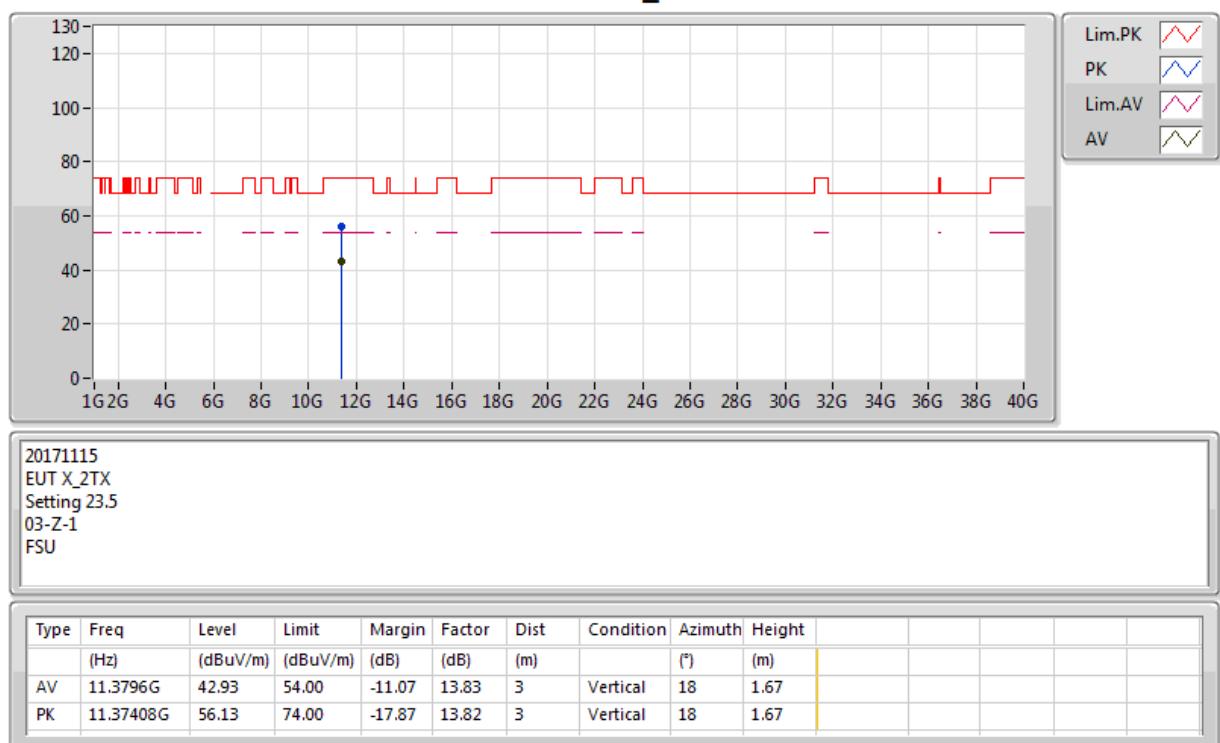
5690MHz Straddle 5.47-5.725GHz_TX

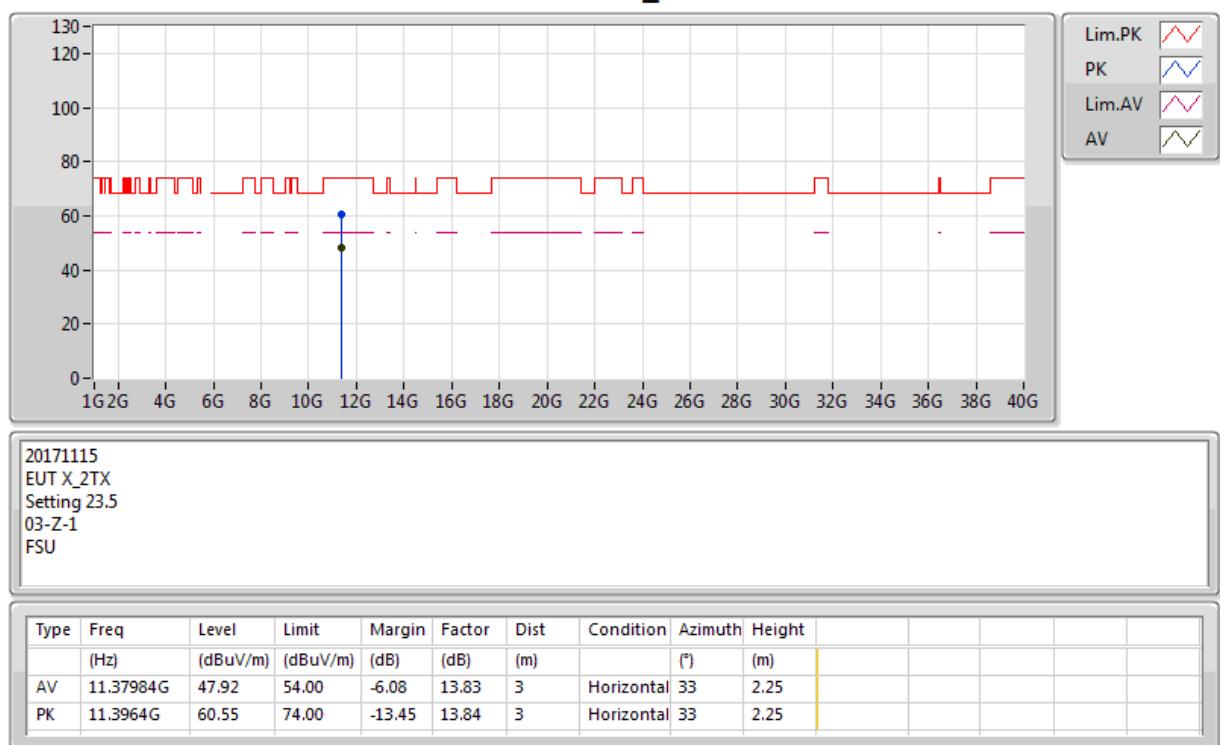


802.11ac VHT80_Nss1,(MCS0)_2TX

5690MHz Straddle 5.47-5.725GHz_TX

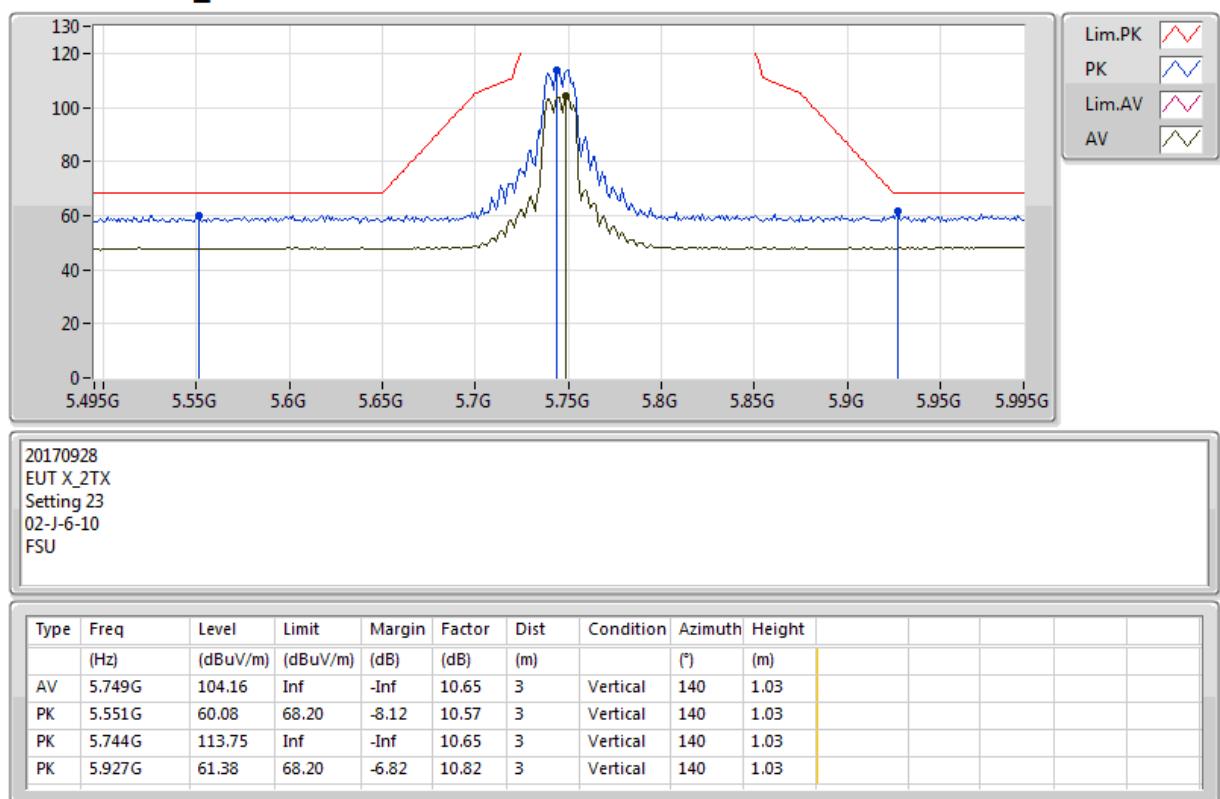


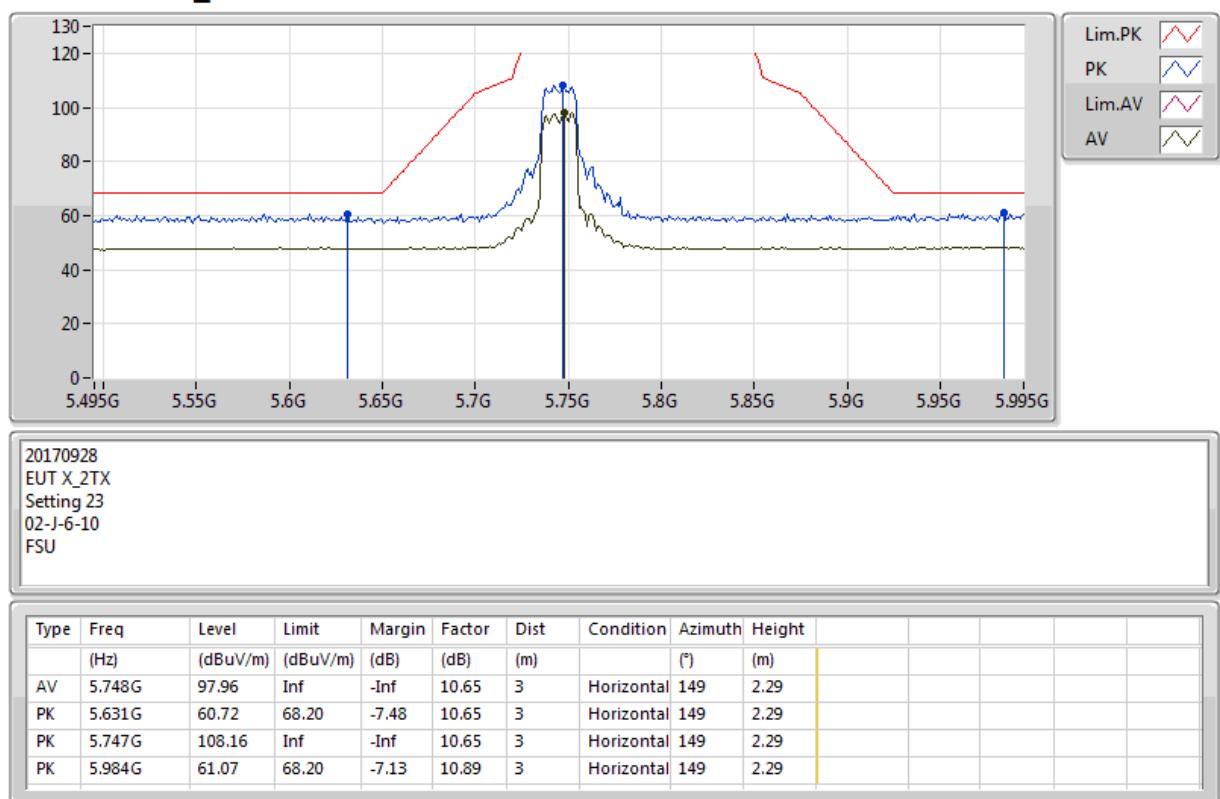
802.11ac VHT80_Nss1,(MCS0)_2TX
5690MHz Straddle 5.47-5.725GHz_TX


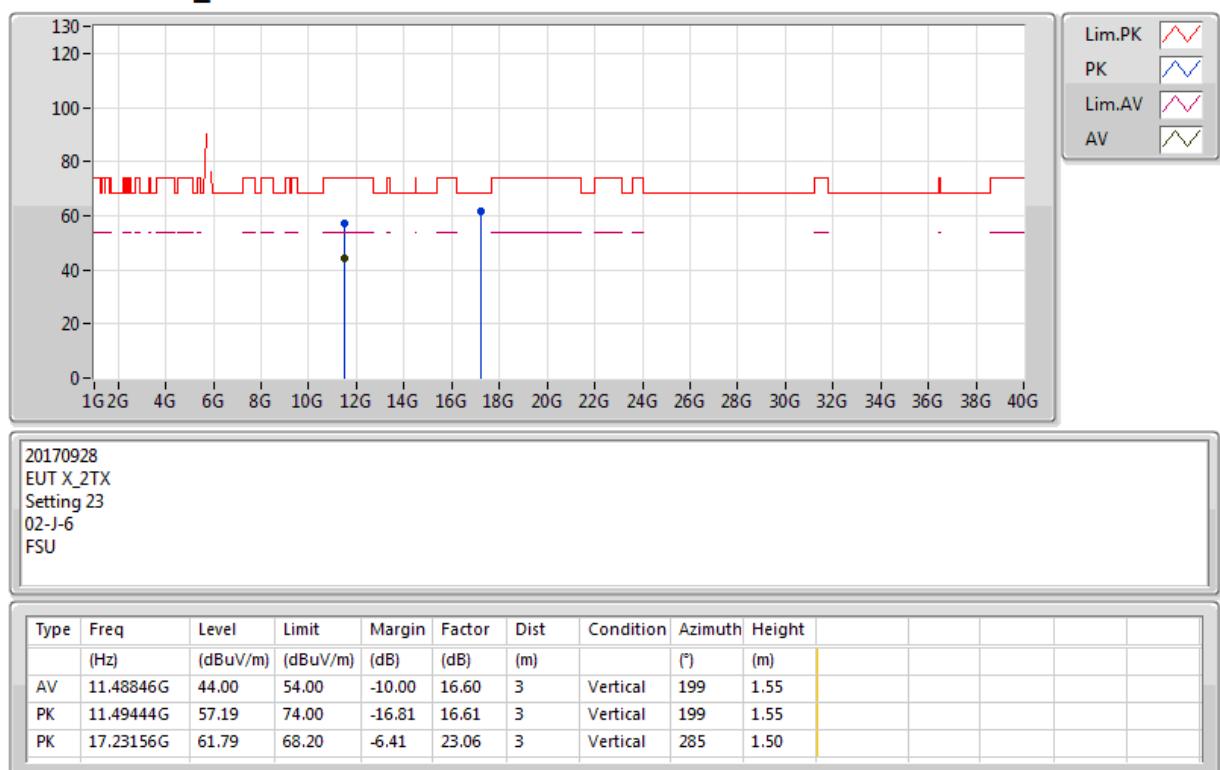
802.11ac VHT80_Nss1,(MCS0)_2TX**5690MHz Straddle 5.47-5.725GHz_TX**

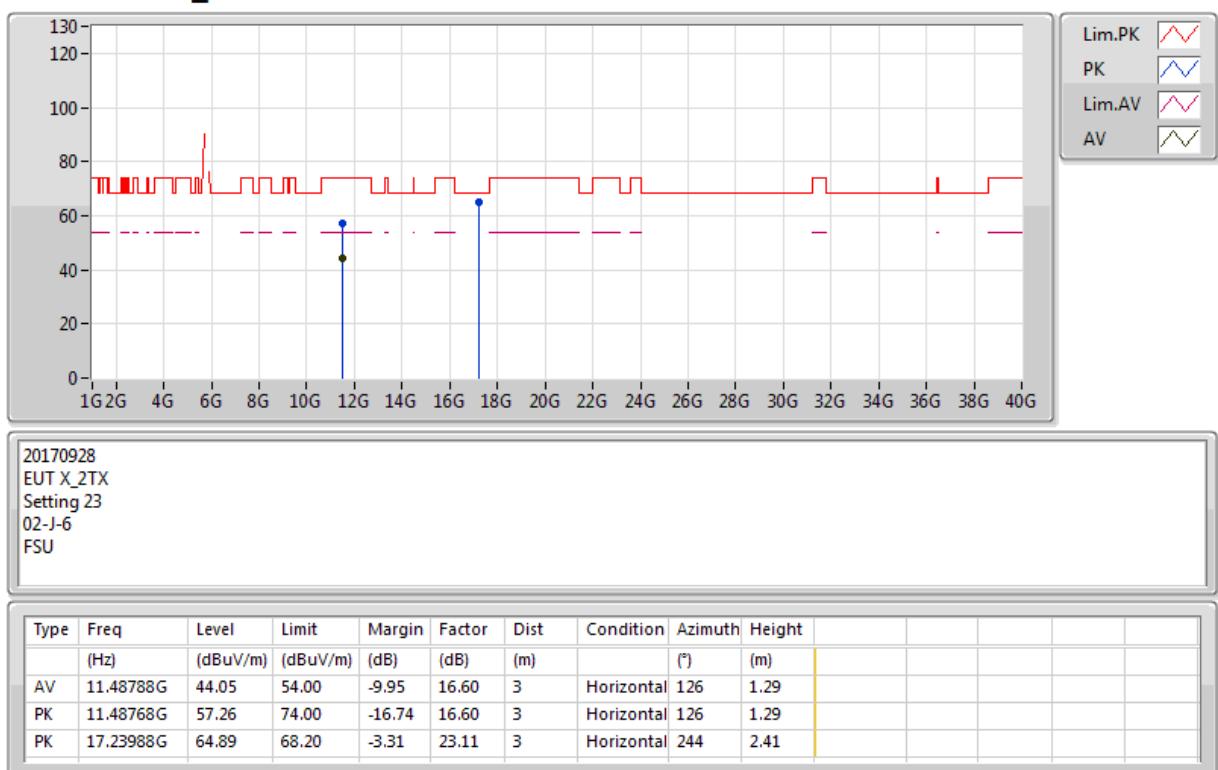
**Test Mode: Mode 2-Radio 2 (B4)****Summary**

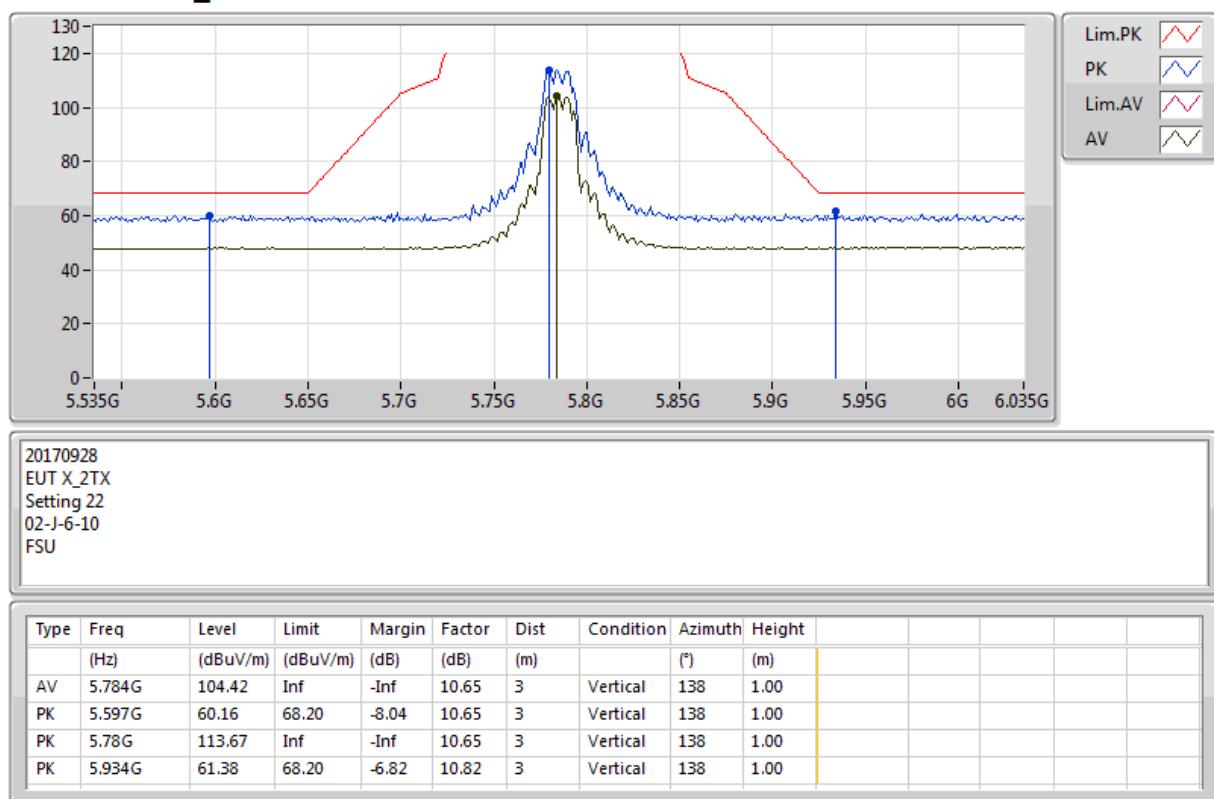
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	PK	5.643G	66.84	68.20	-1.36	10.65	3	Vertical	37	1.00	-

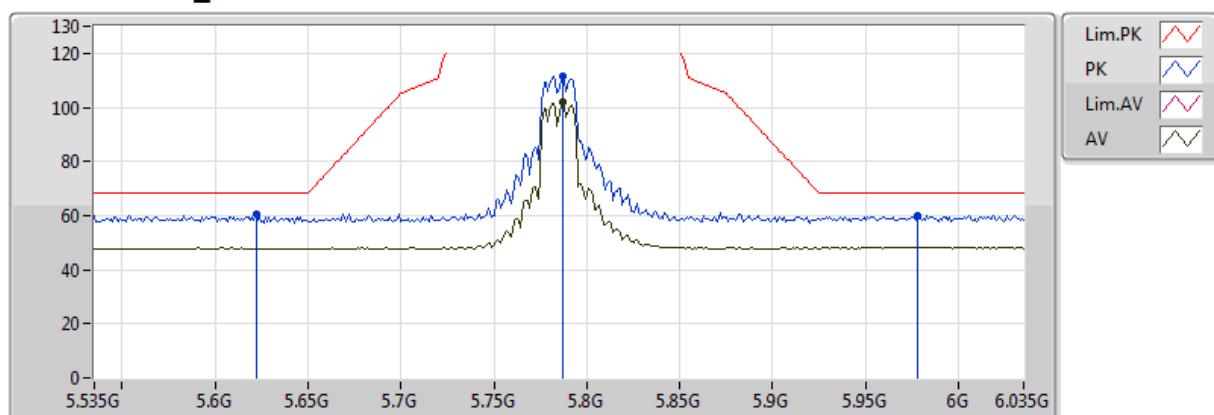
802.11a_Nss1,(6Mbps)_2TX
5745MHz_TX


802.11a_Nss1,(6Mbps)_2TX
5745MHz_TX


**802.11a_Nss1,(6Mbps)_2TX****5745MHz_TX**

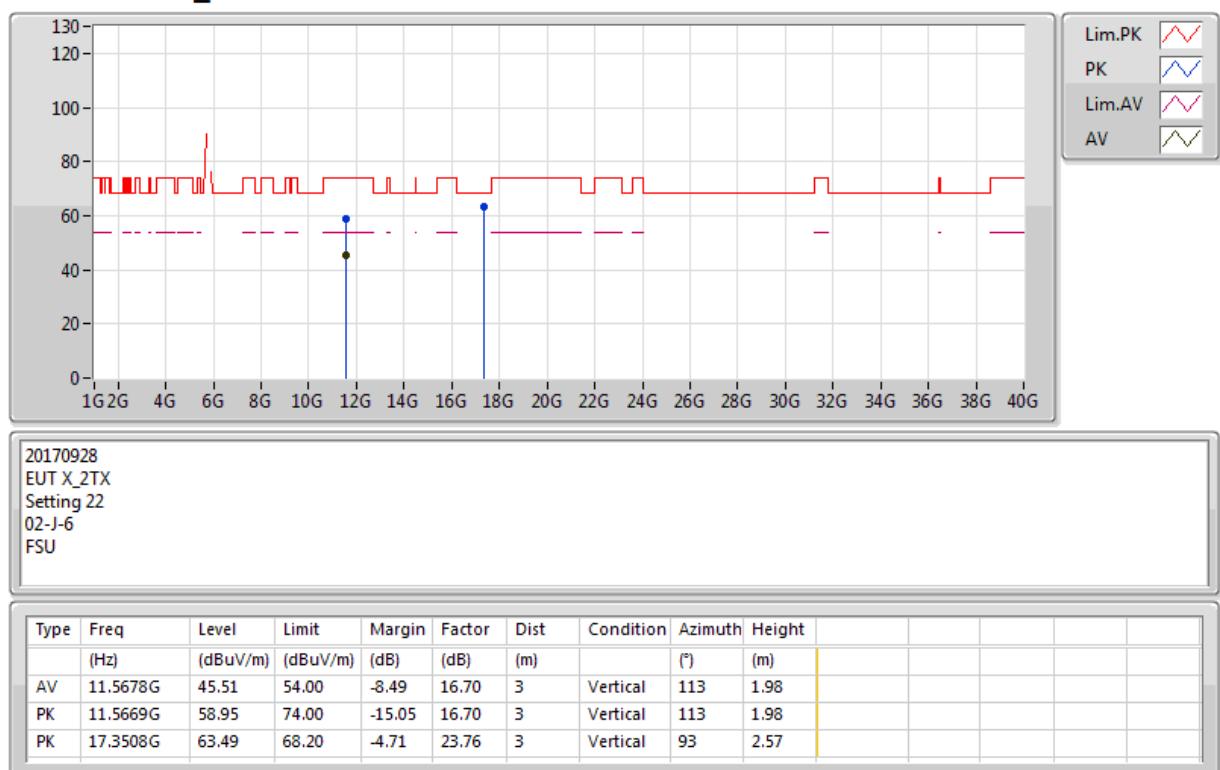
**802.11a_Nss1,(6Mbps)_2TX****5745MHz_TX**

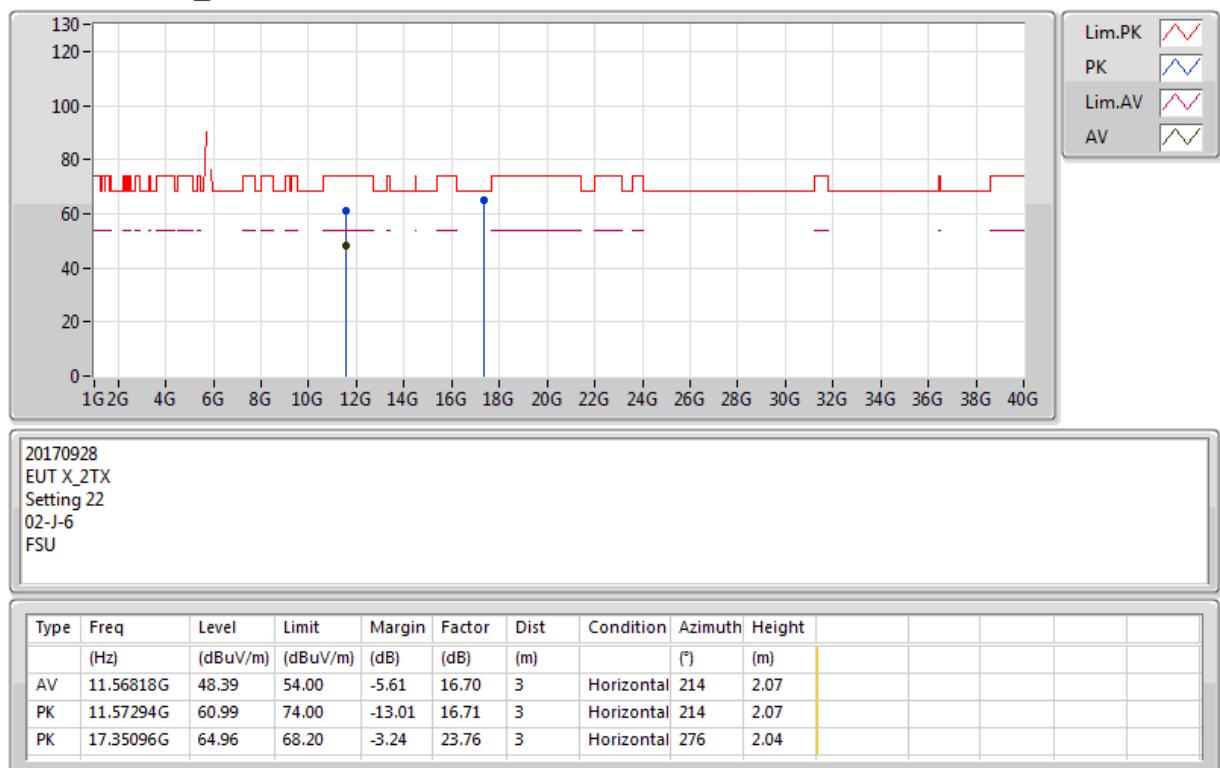
**802.11a_Nss1,(6Mbps)_2TX****5785MHz_TX**

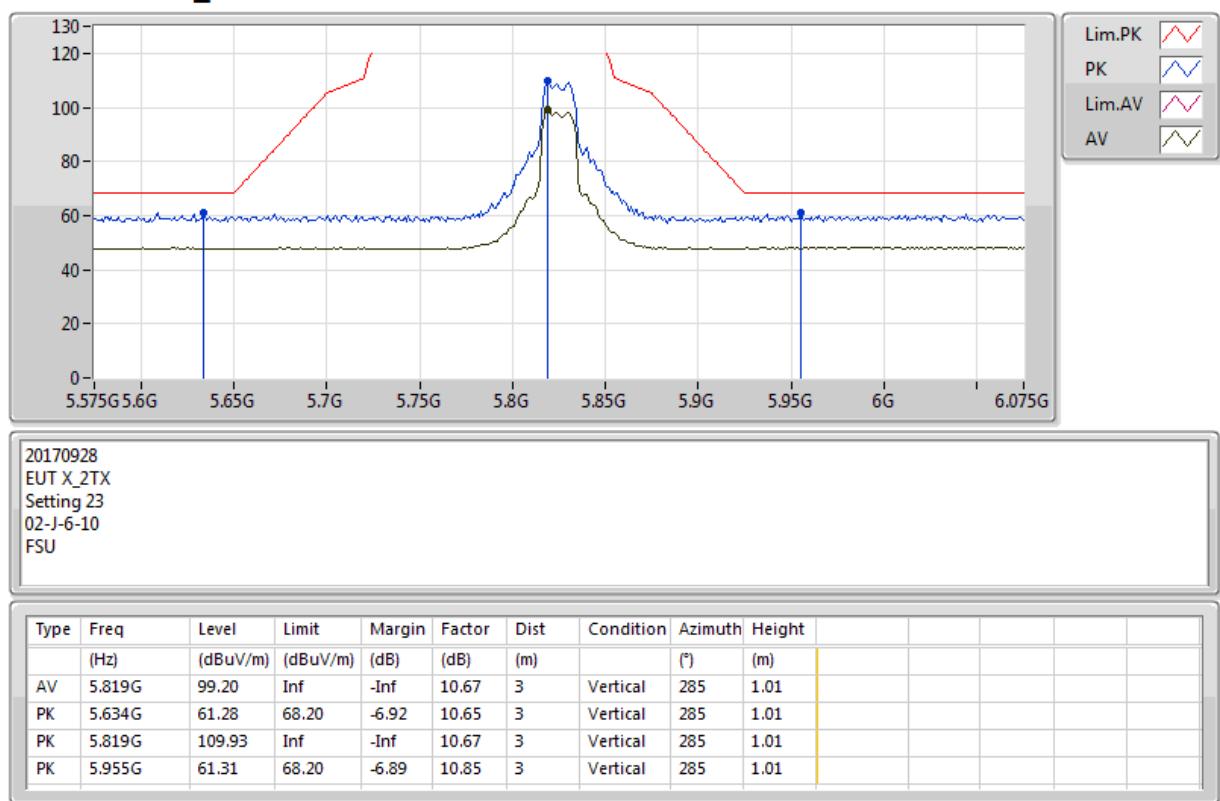
802.11a_Nss1,(6Mbps)_2TX
5785MHz_TX


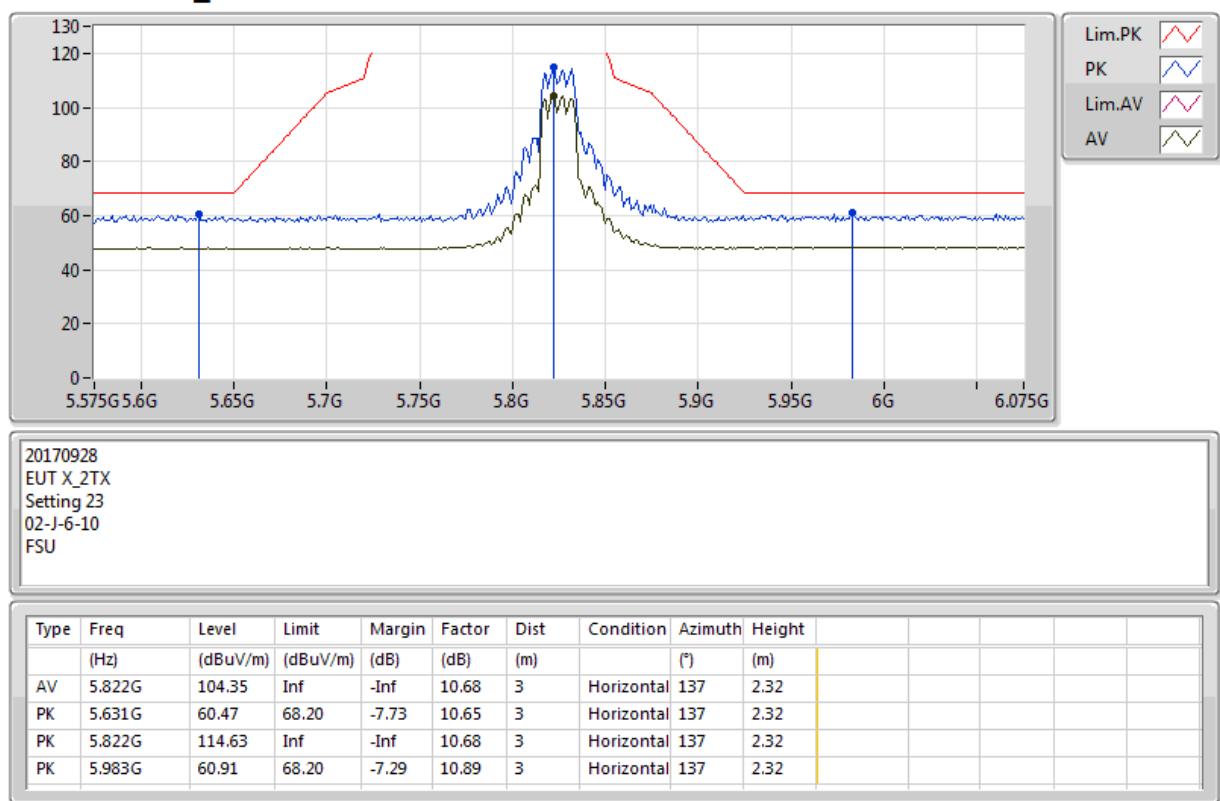
20170928
EUT X_2TX
Setting 22
02-J-6-10
FSU

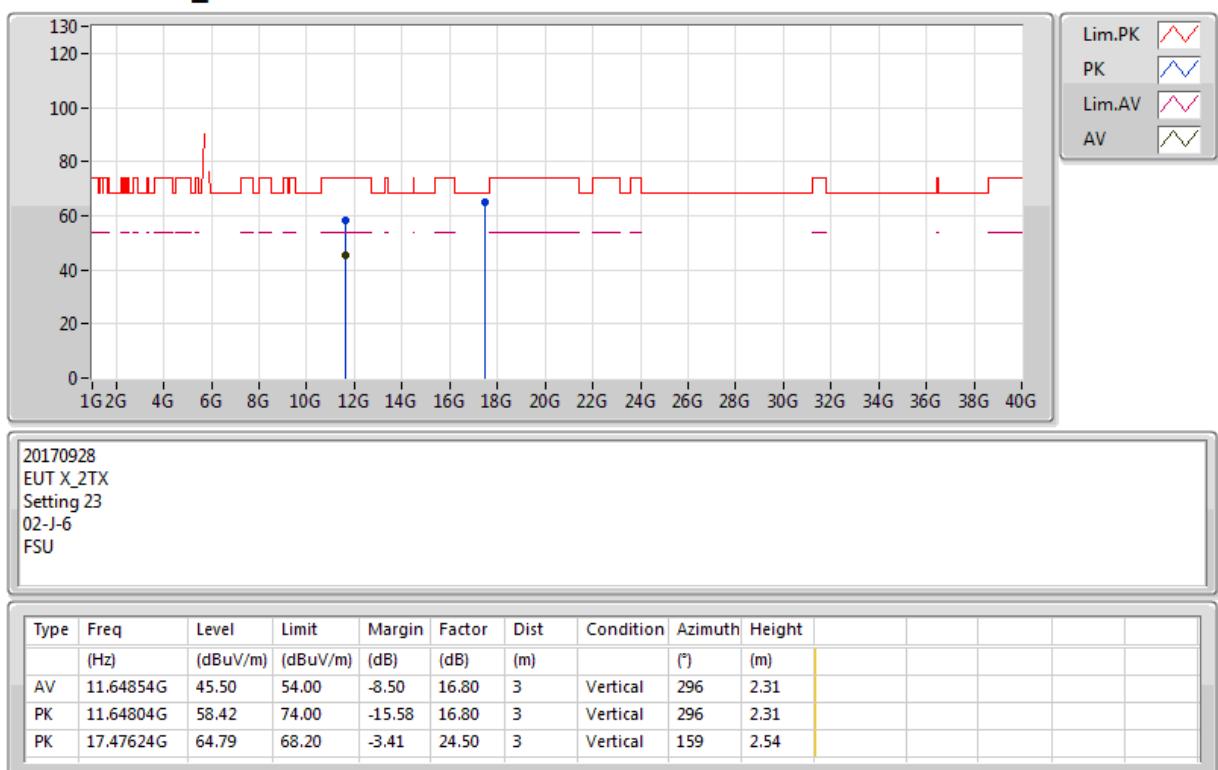
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)				
AV	5.787G	101.76	Inf	-Inf	10.65	3	Horizontal	144	2.35				
PK	5.622G	60.71	68.20	-7.49	10.65	3	Horizontal	144	2.35				
PK	5.787G	111.35	Inf	-Inf	10.65	3	Horizontal	144	2.35				
PK	5.978G	59.97	68.20	-8.23	10.88	3	Horizontal	144	2.35				

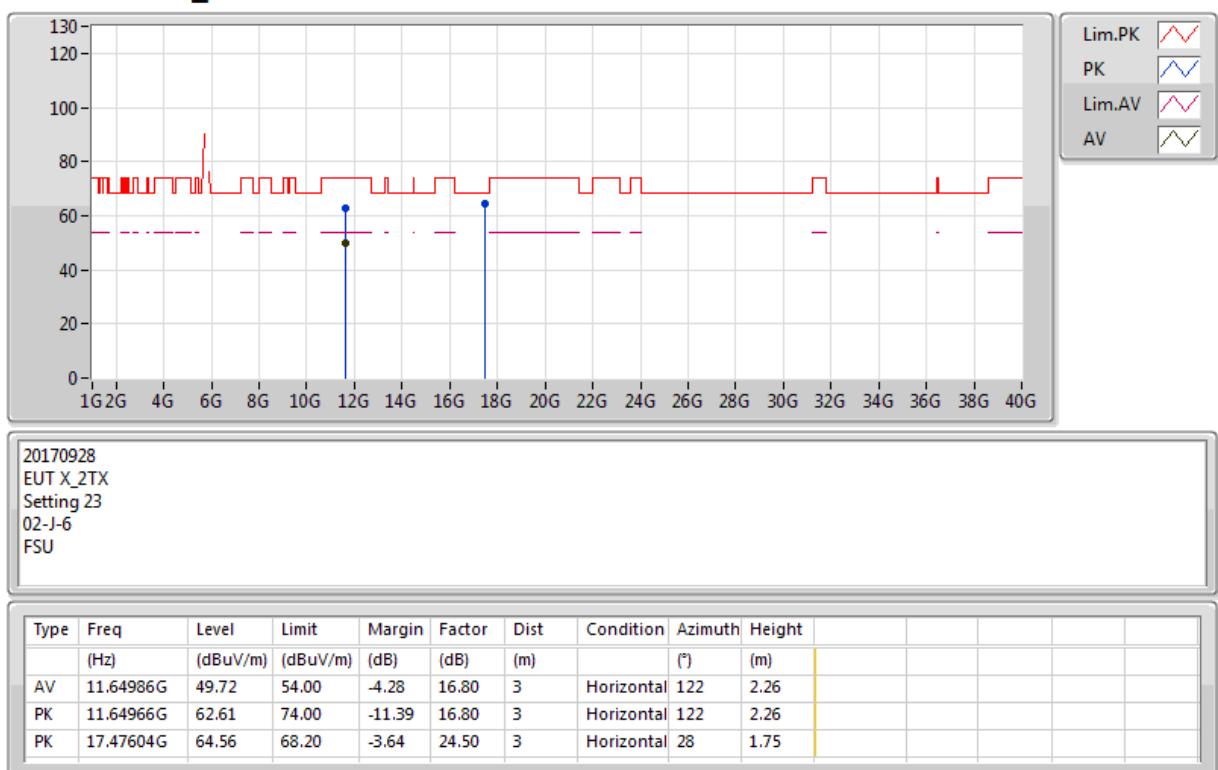
802.11a_Nss1,(6Mbps)_2TX
5785MHz_TX


**802.11a_Nss1,(6Mbps)_2TX****5785MHz_TX**

802.11a_Nss1,(6Mbps)_2TX
5825MHz_TX


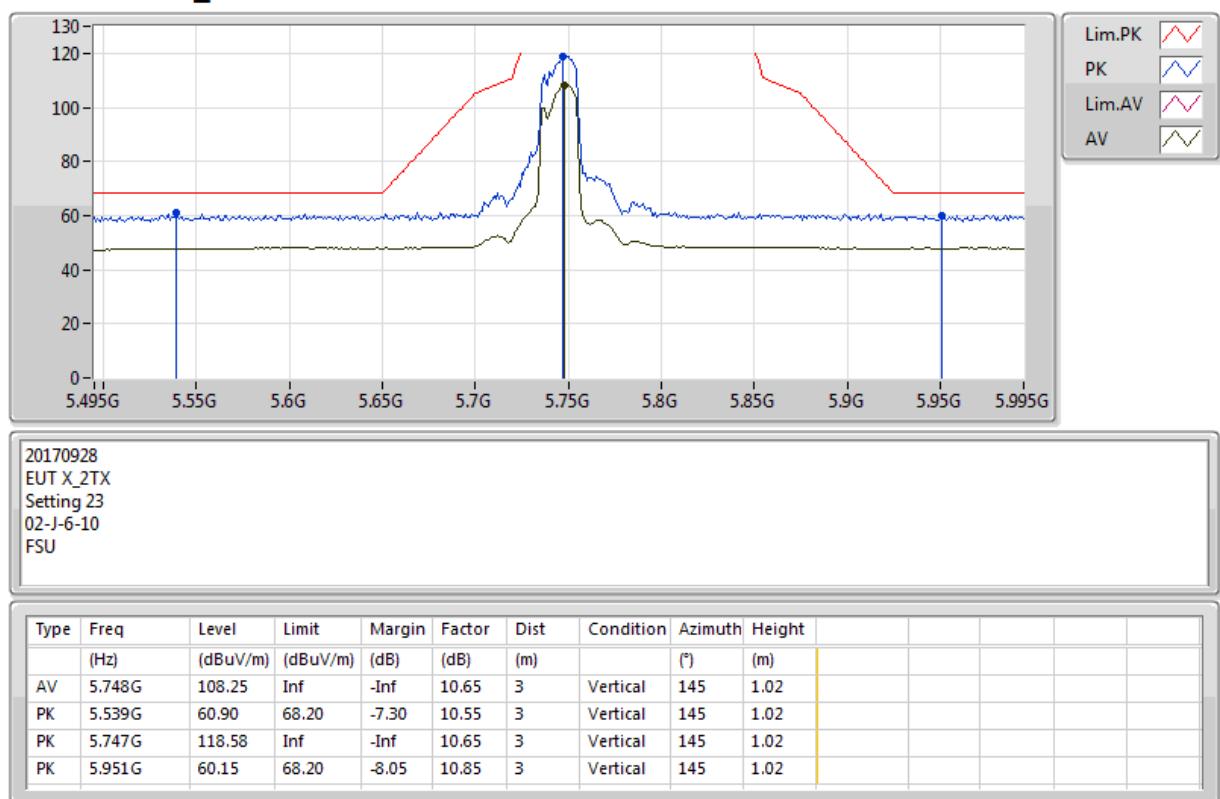
802.11a_Nss1,(6Mbps)_2TX
5825MHz_TX


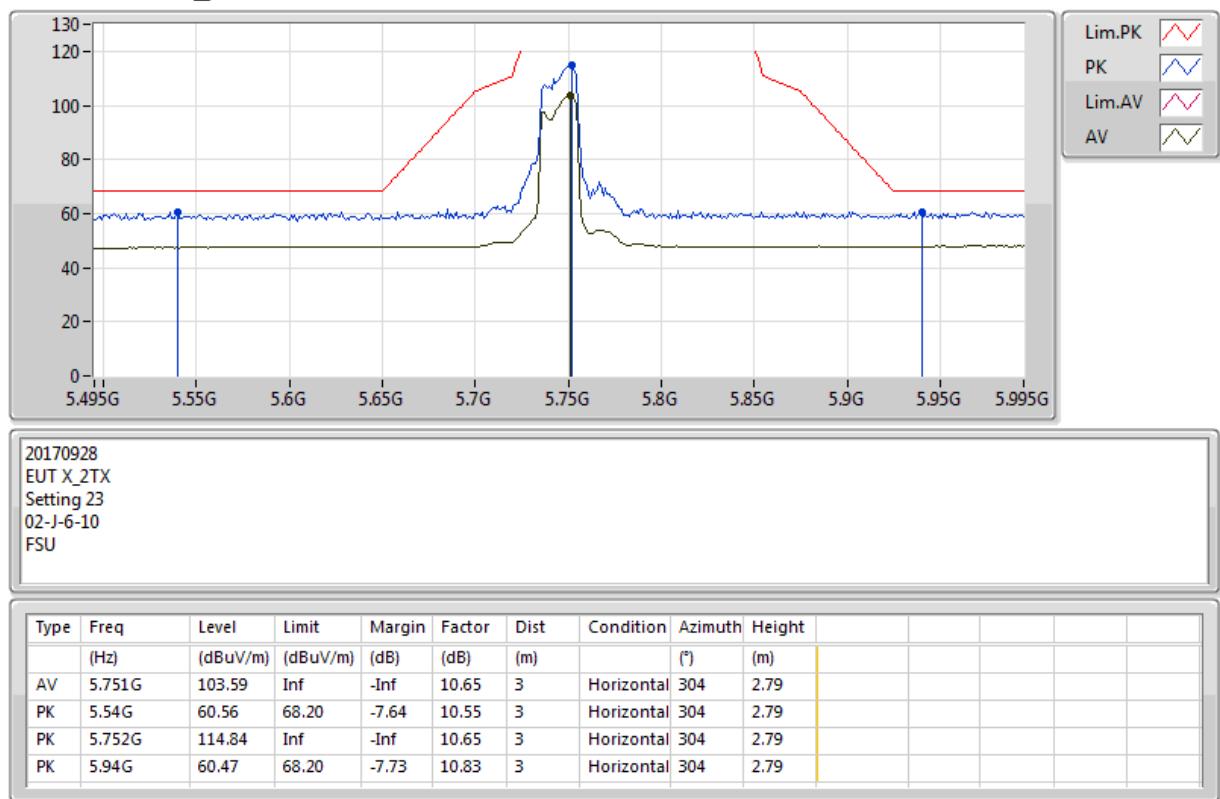
802.11a_Nss1,(6Mbps)_2TX
5825MHz_TX


**802.11a_Nss1,(6Mbps)_2TX****5825MHz_TX**

802.11ac VHT20_Nss1,(MCS0)_2TX

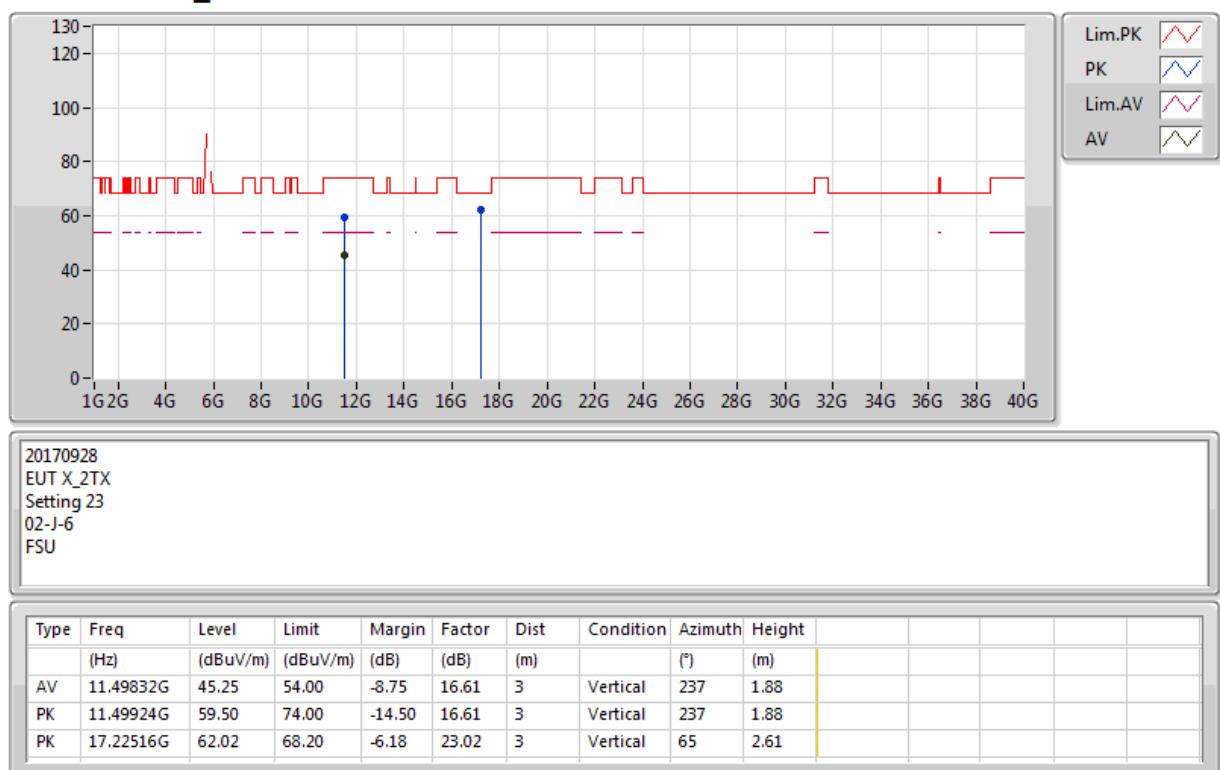
5745MHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX
5745MHz_TX


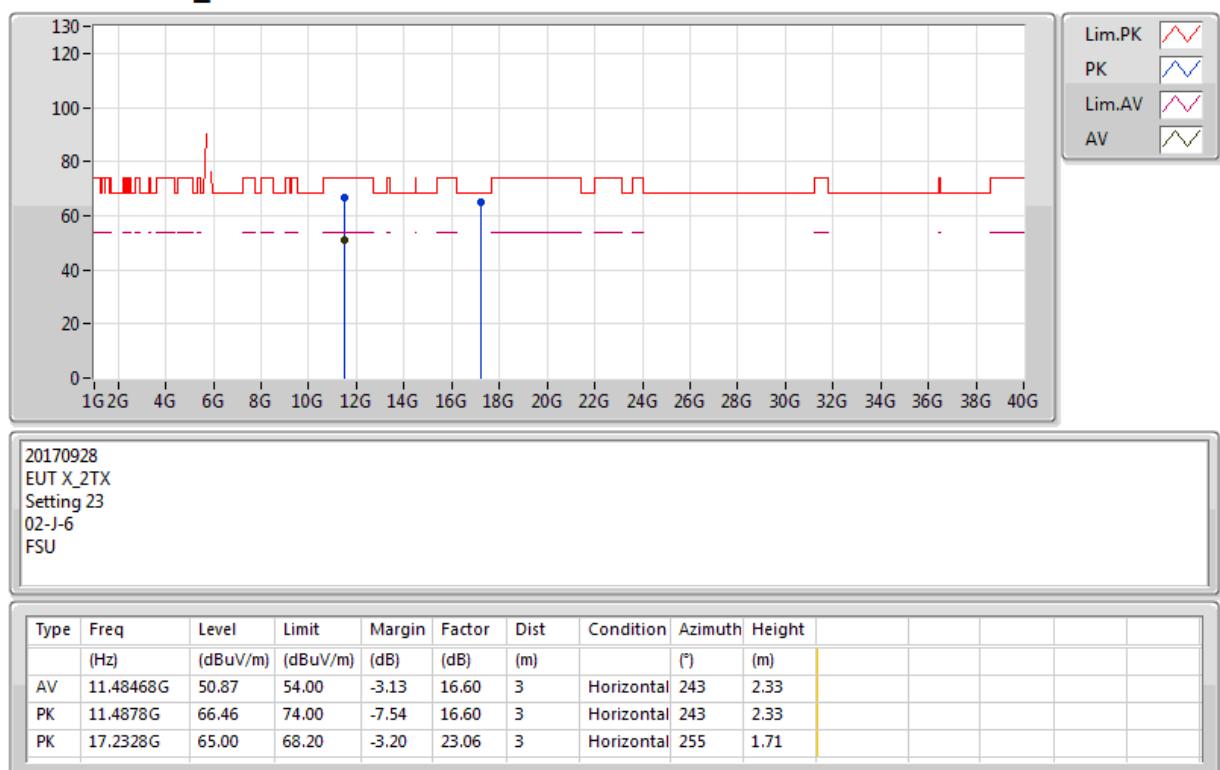
802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX



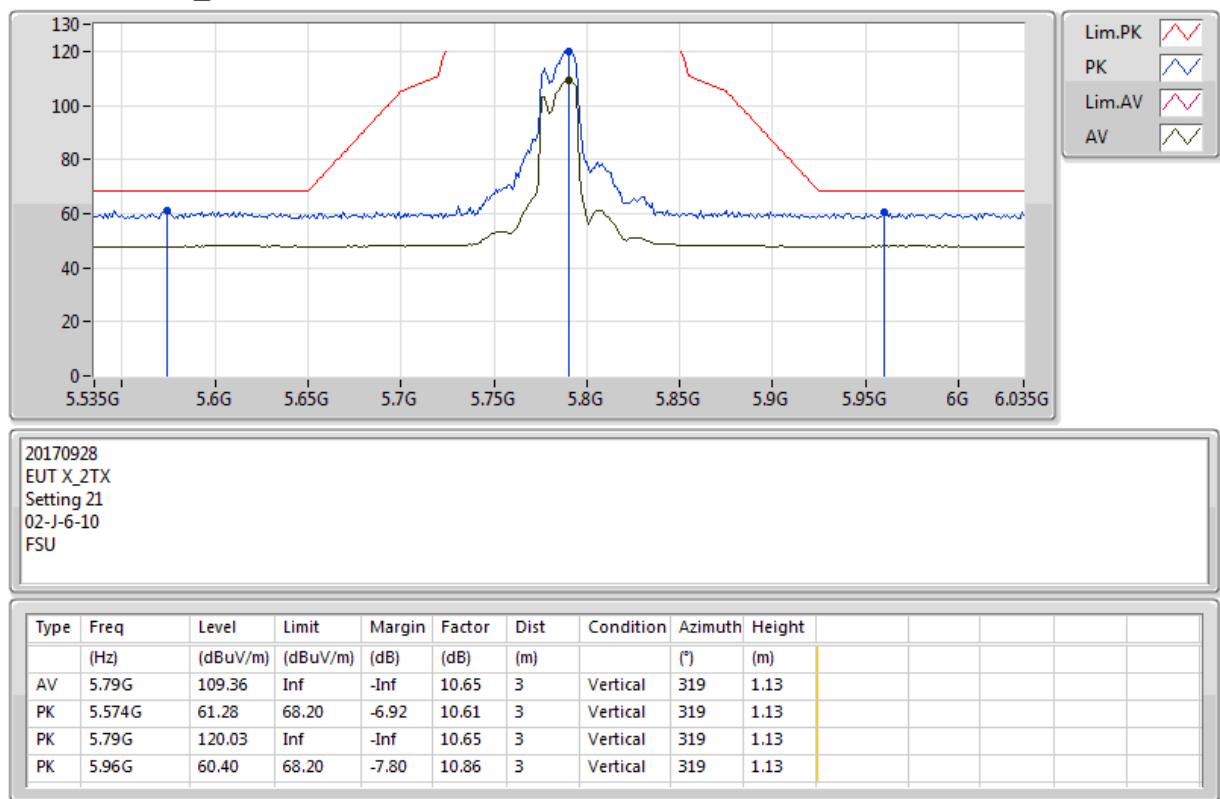
802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX



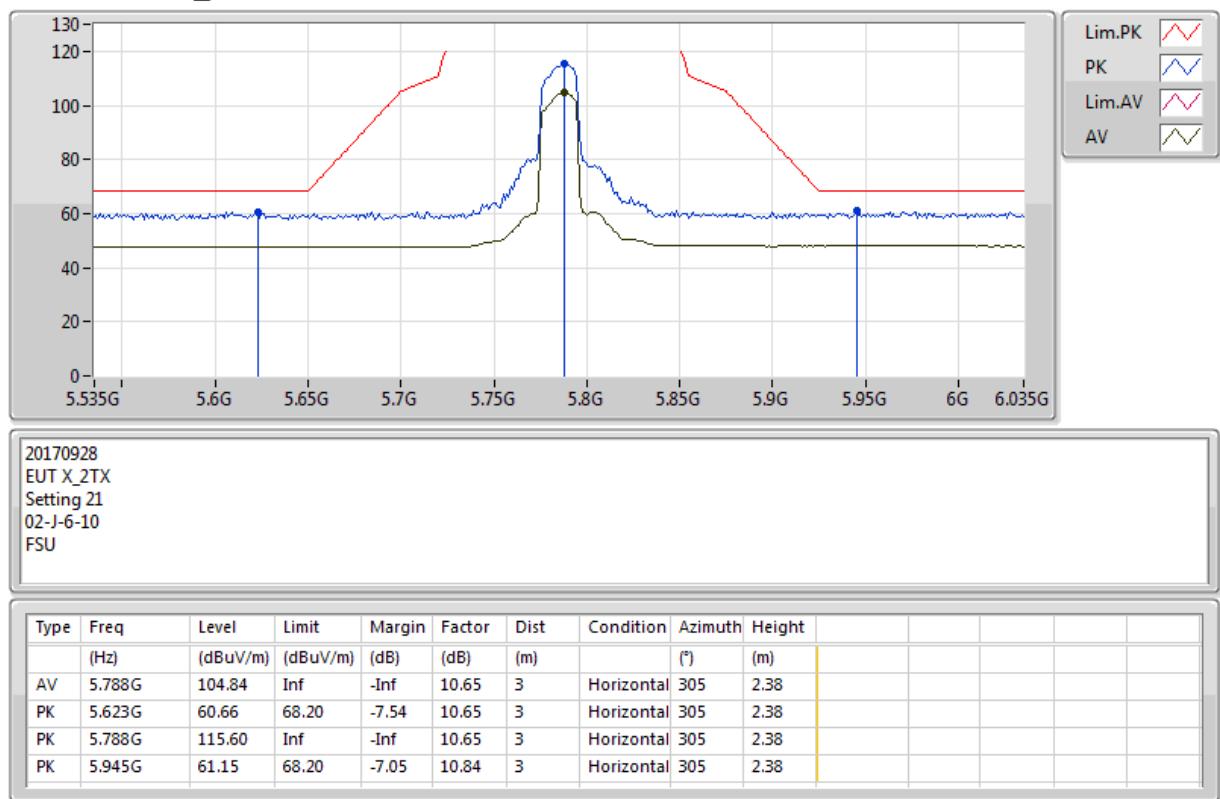
802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX



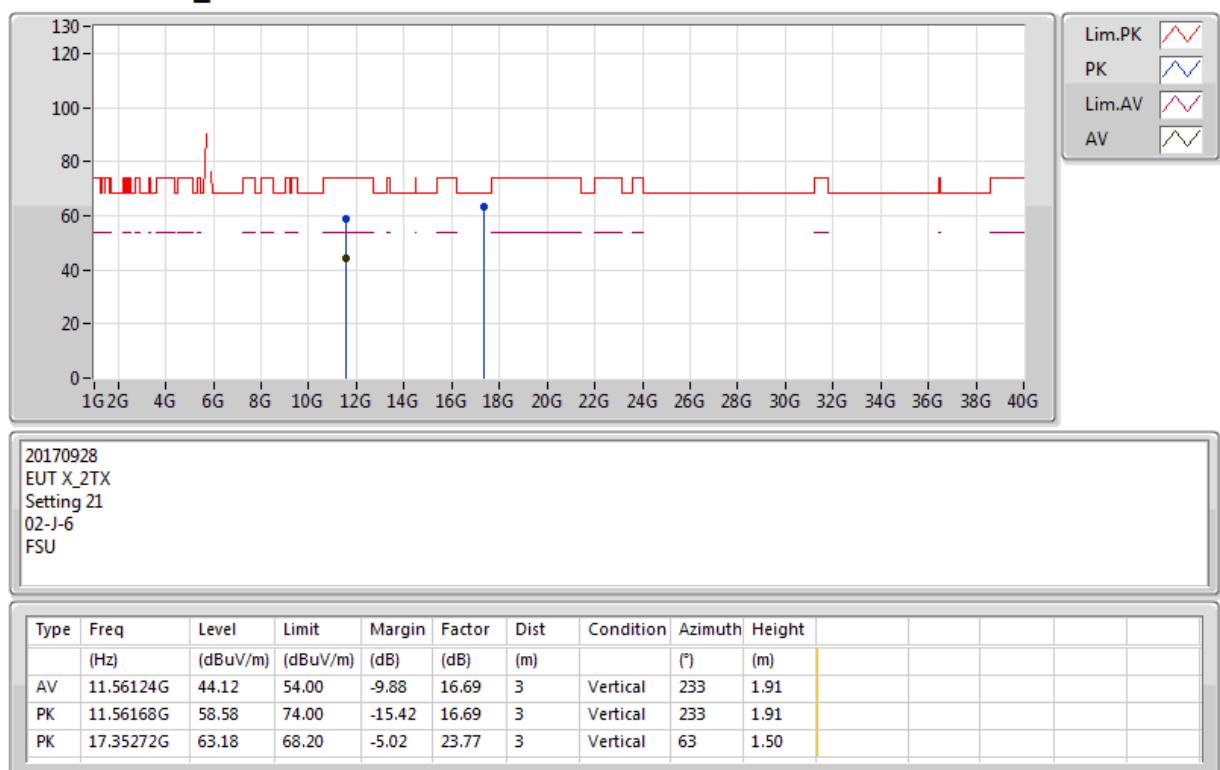
802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX



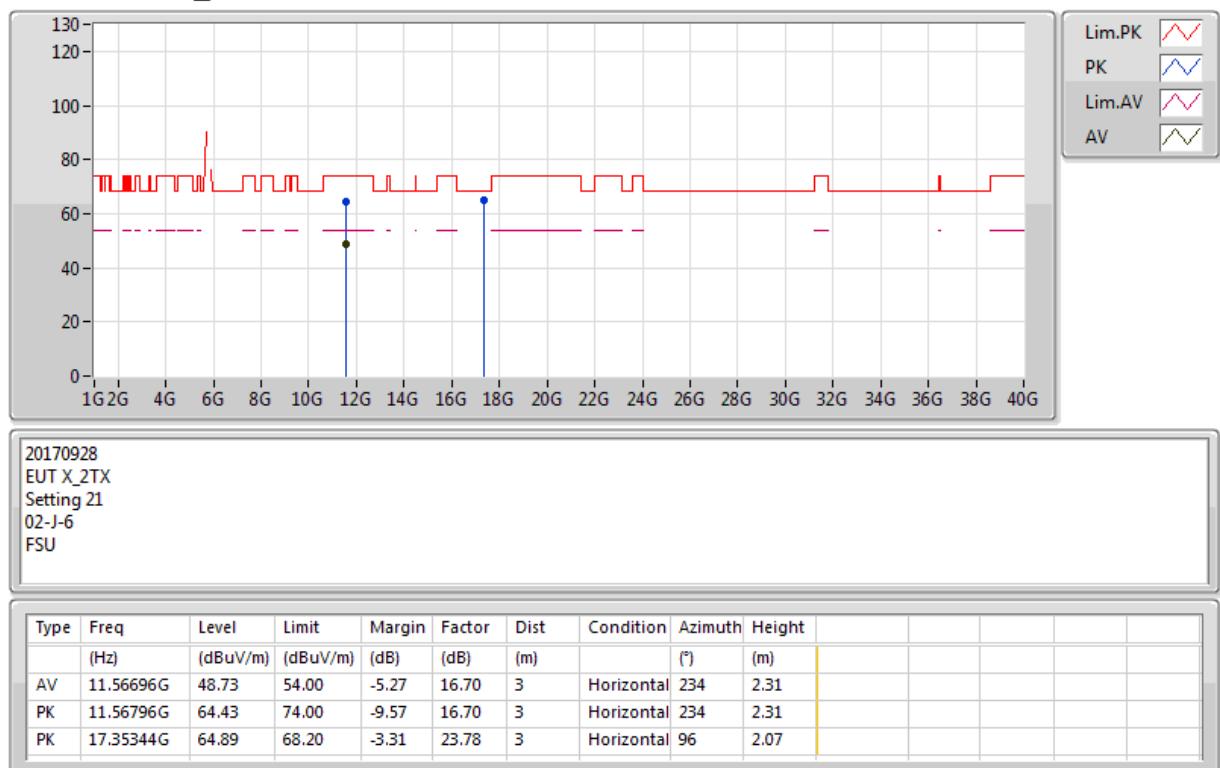
802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX



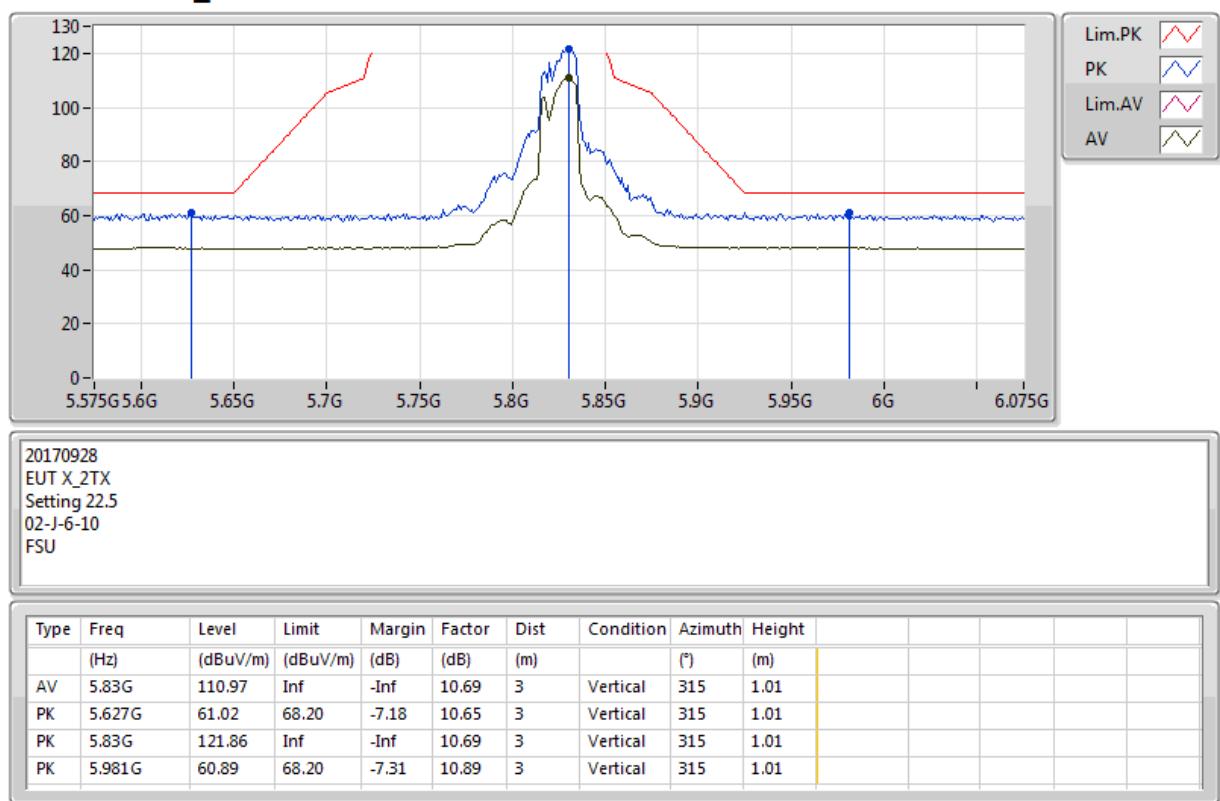
802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX



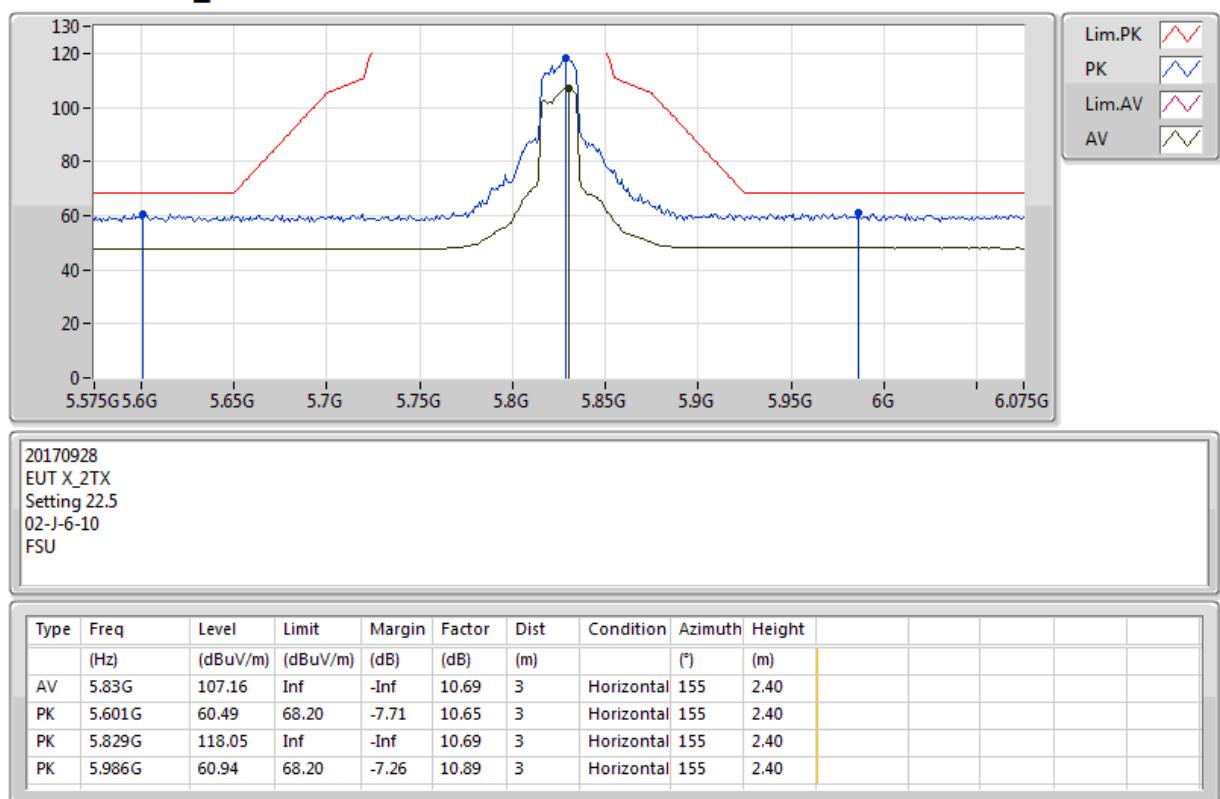
802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX



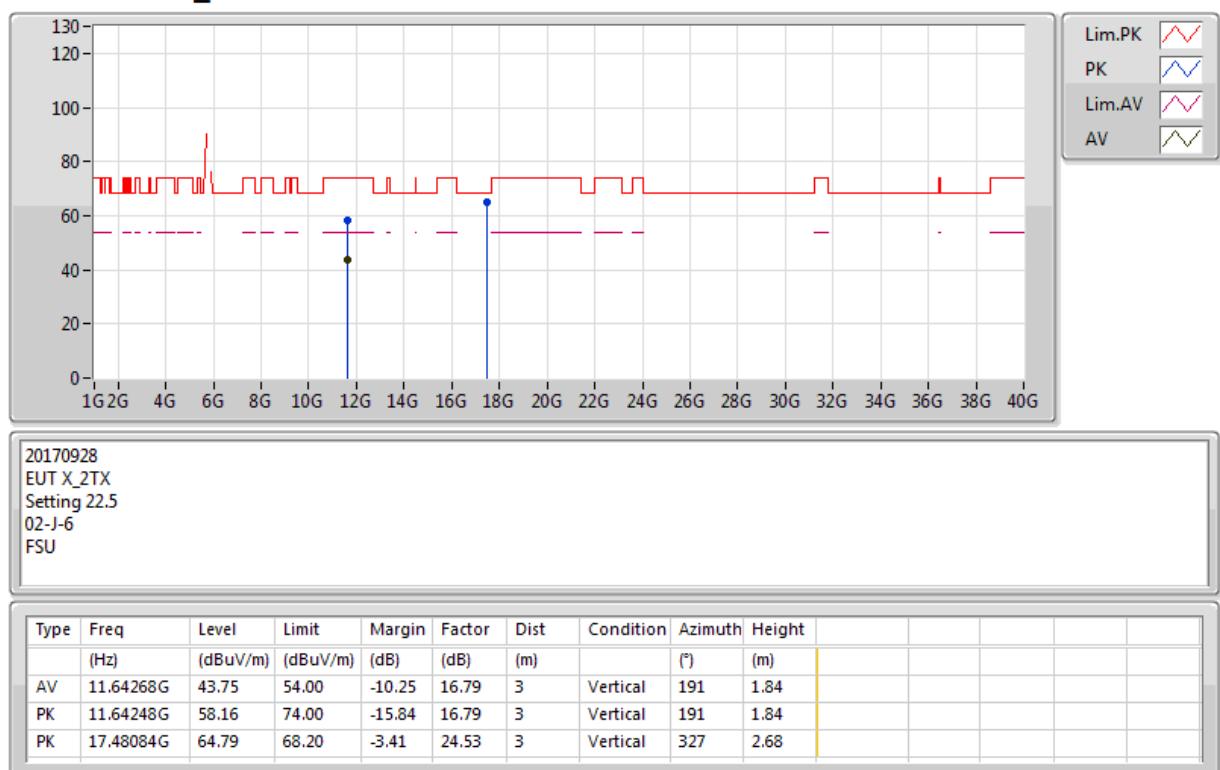
802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX



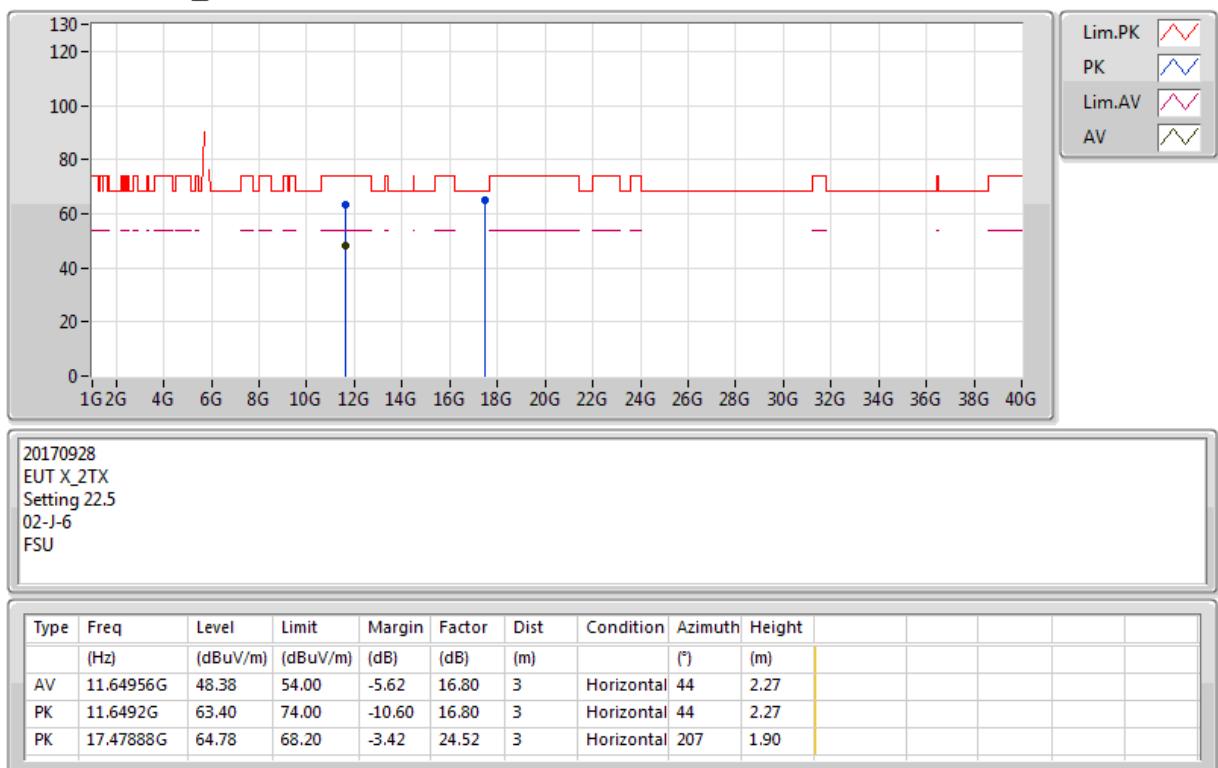
802.11ac VHT20_Nss1,(MCS0)_2TX

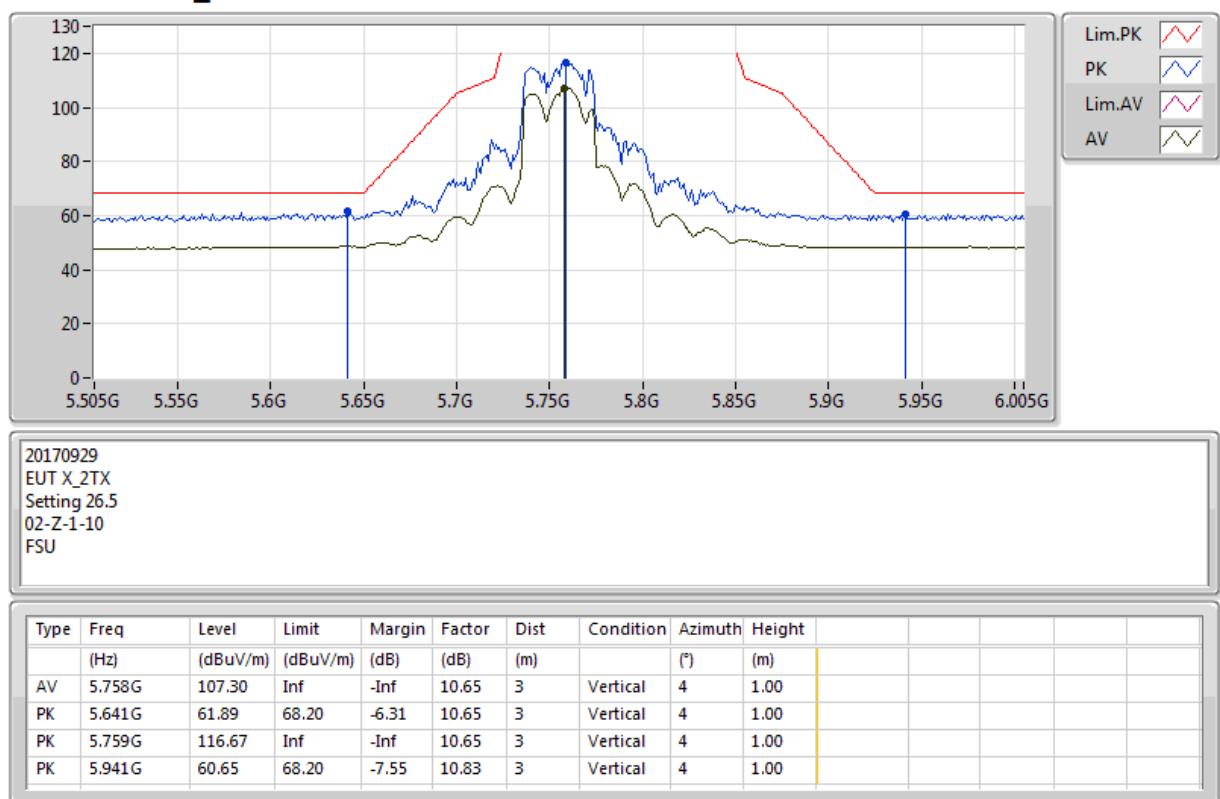
5825MHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX

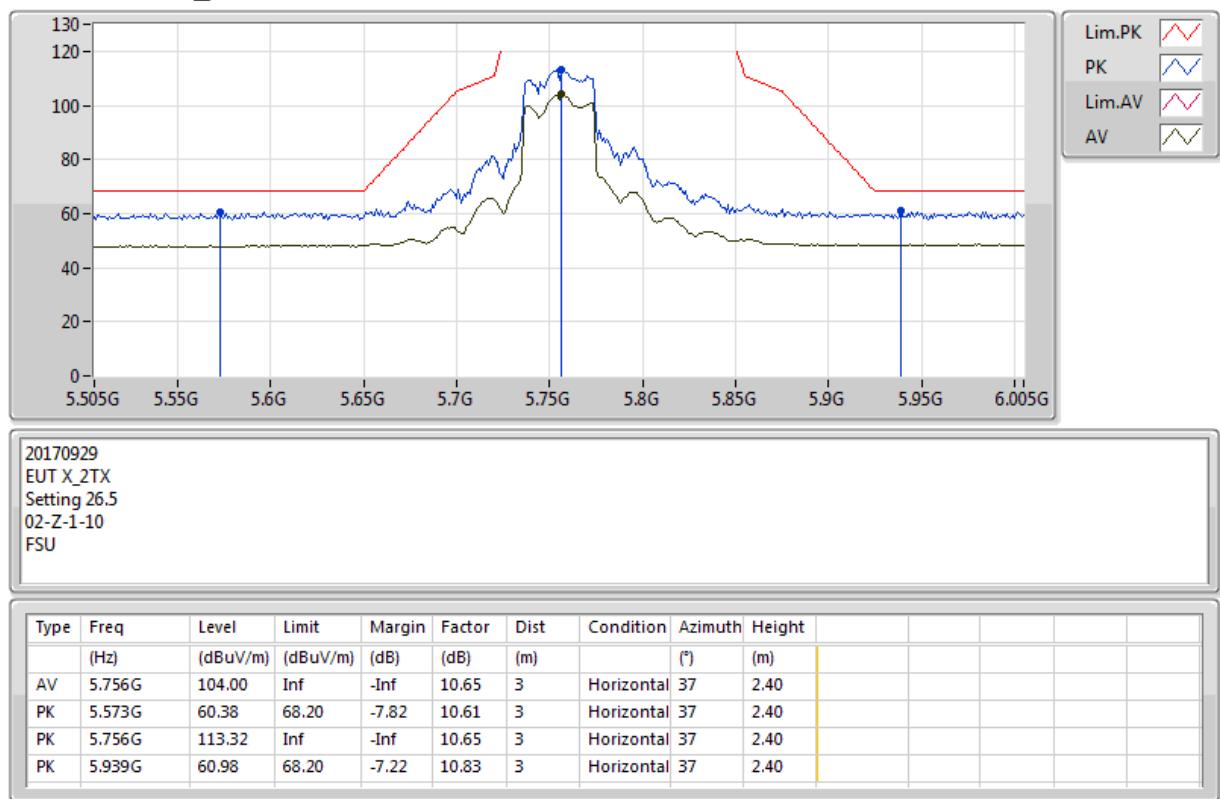
5825MHz_TX

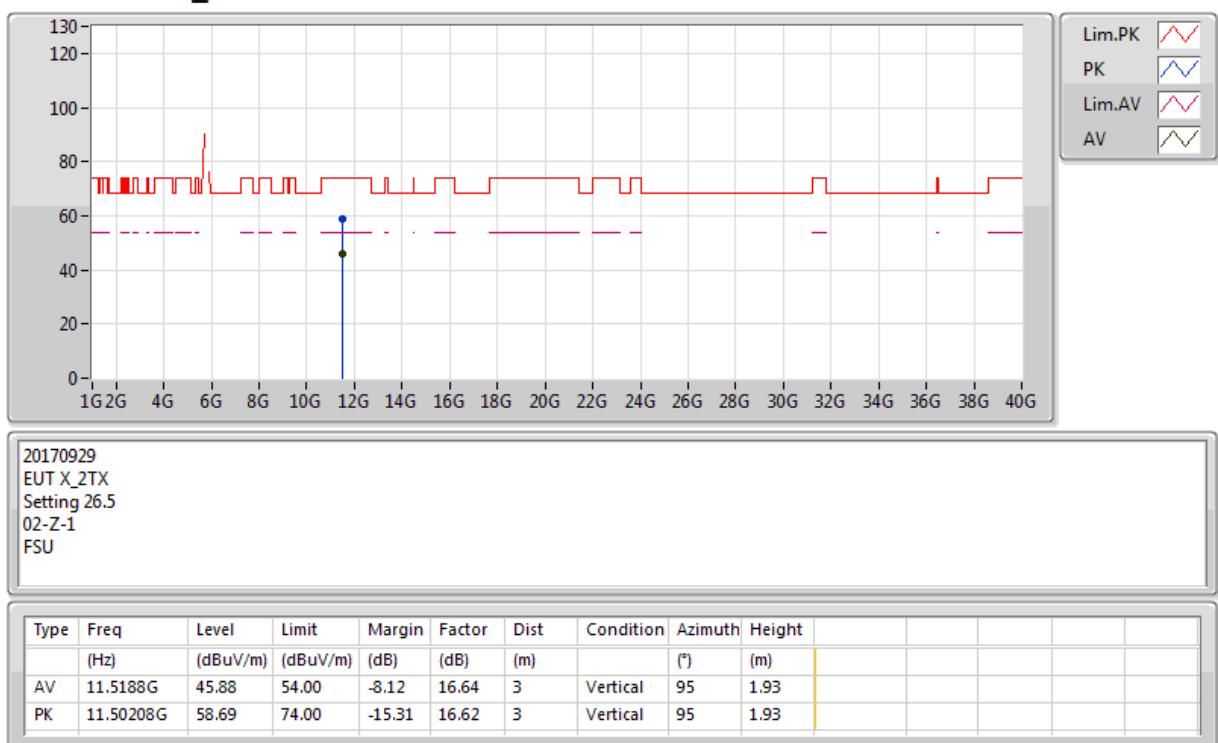


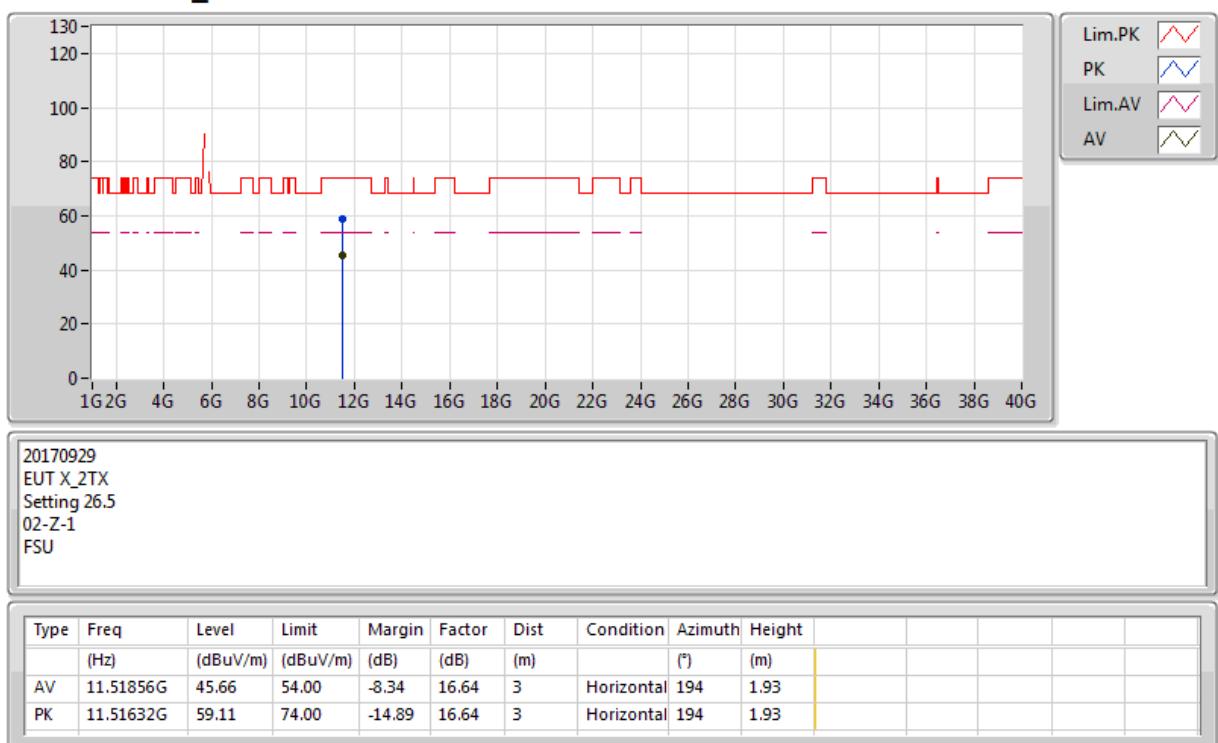
802.11ac VHT40_Nss1,(MCS0)_2TX
5755MHz_TX


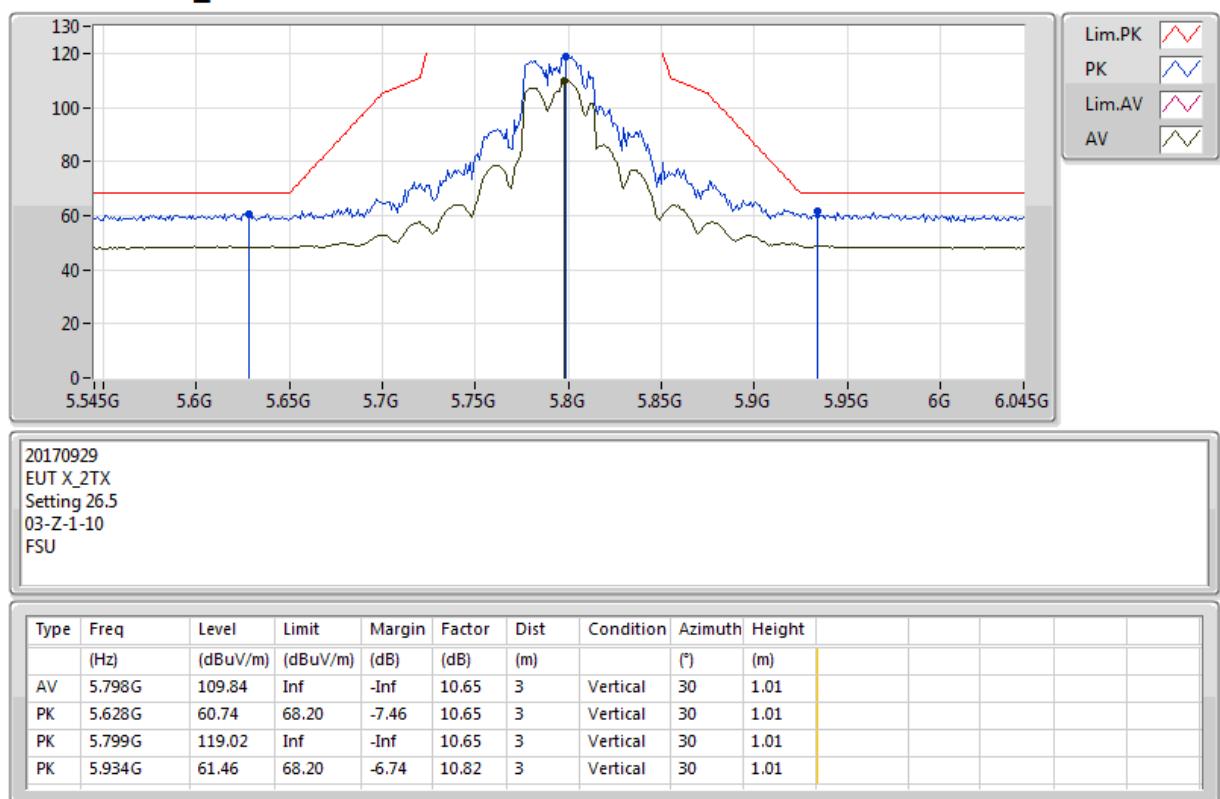
802.11ac VHT40_Nss1,(MCS0)_2TX

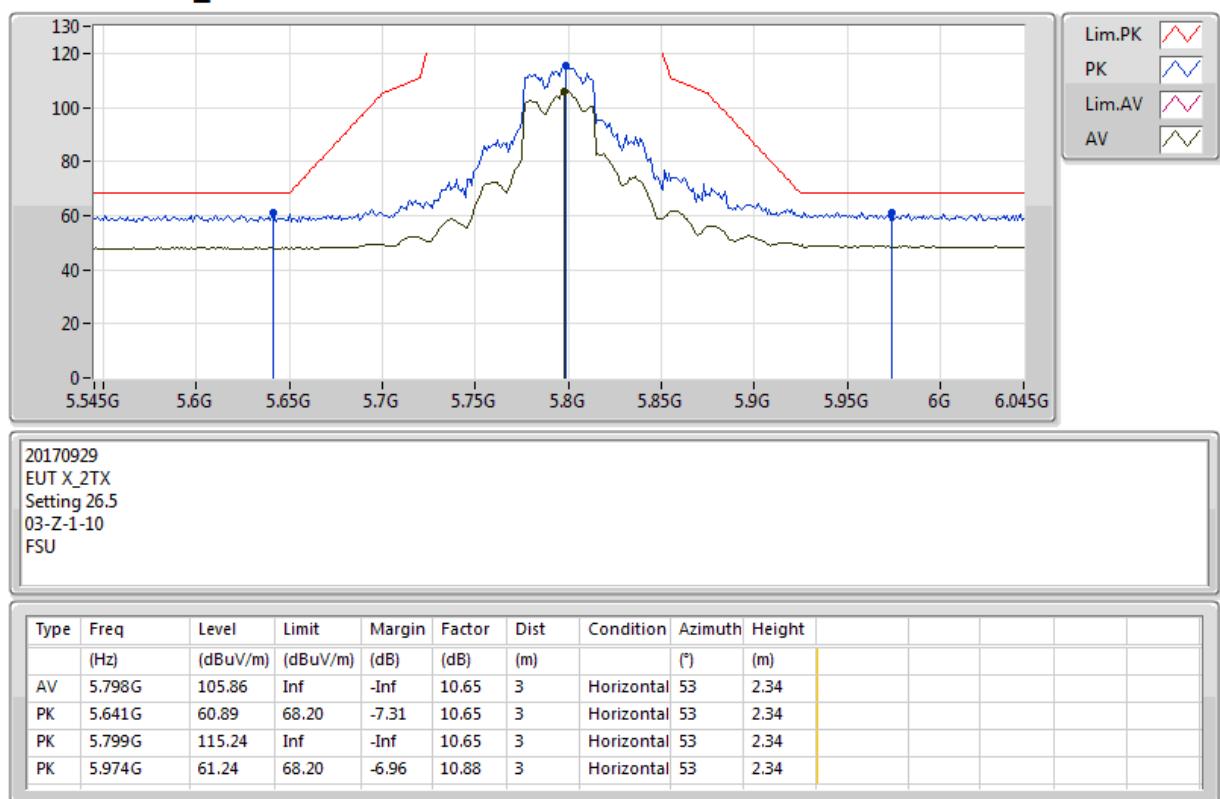
5755MHz_TX



802.11ac VHT40_Nss1,(MCS0)_2TX**5755MHz_TX**

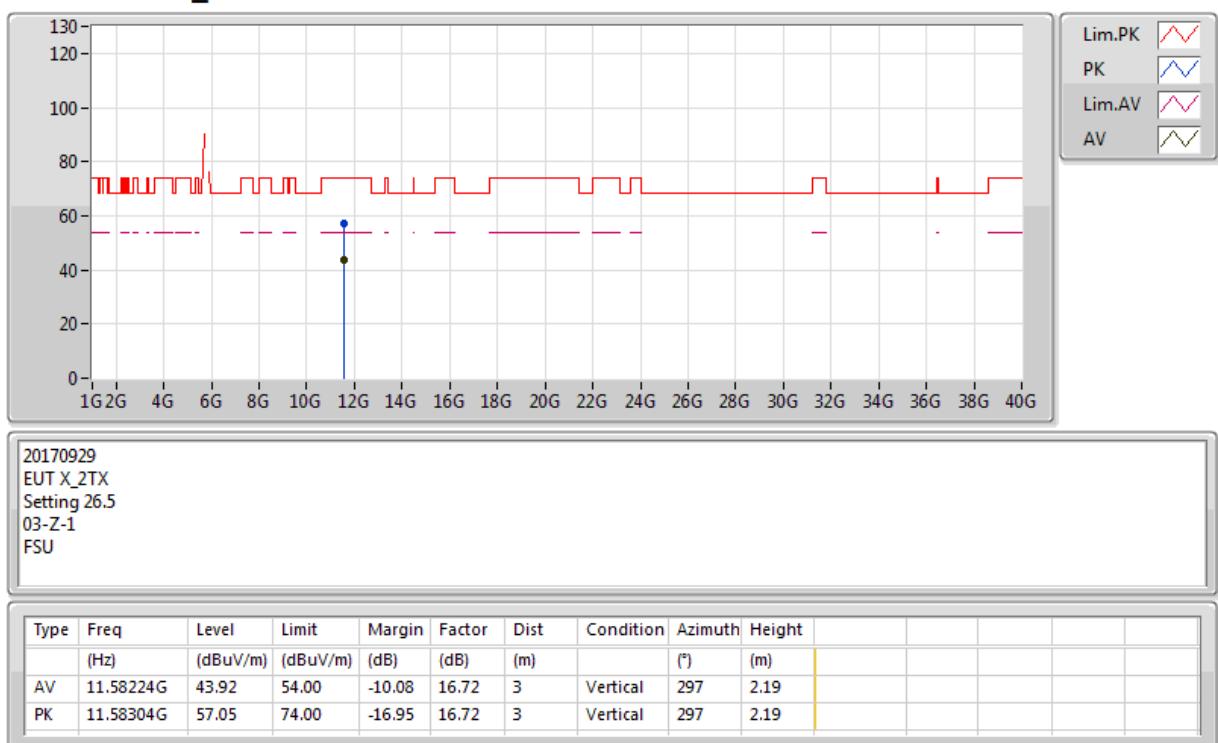
802.11ac VHT40_Nss1,(MCS0)_2TX**5755MHz_TX**

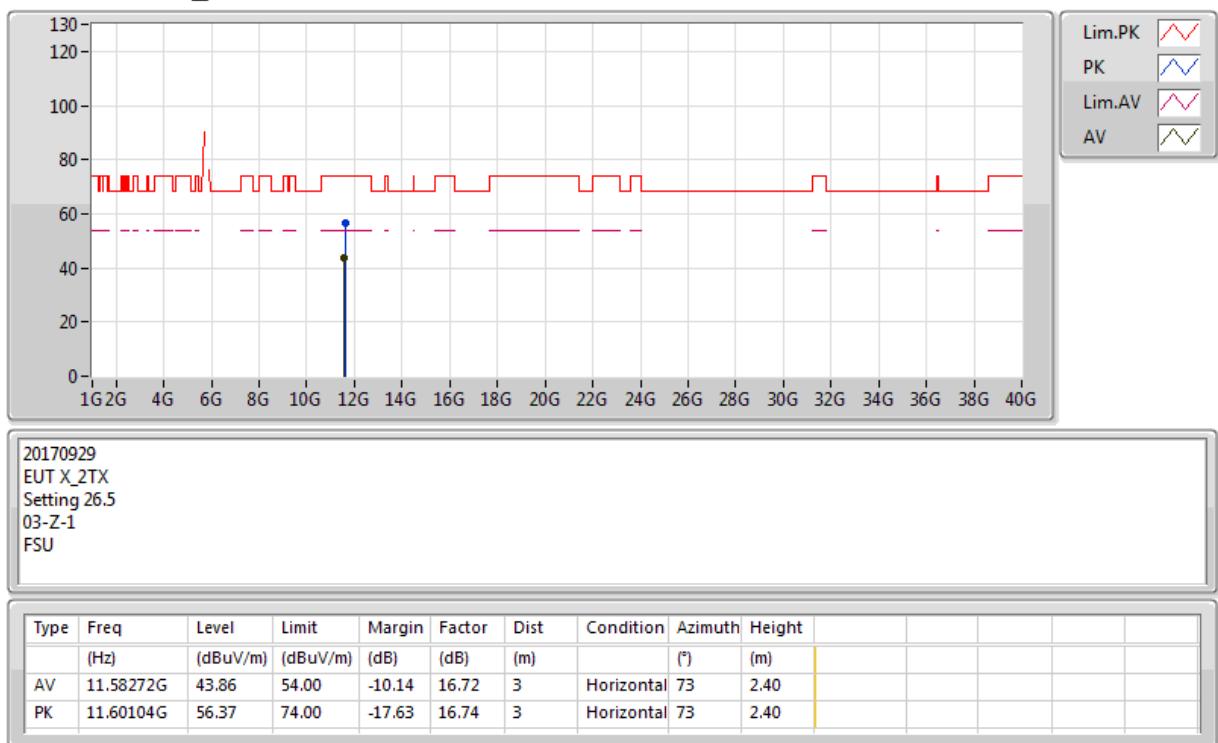
802.11ac VHT40_Nss1,(MCS0)_2TX
5795MHz_TX


802.11ac VHT40_Nss1,(MCS0)_2TX
5795MHz_TX


802.11ac VHT40_Nss1,(MCS0)_2TX

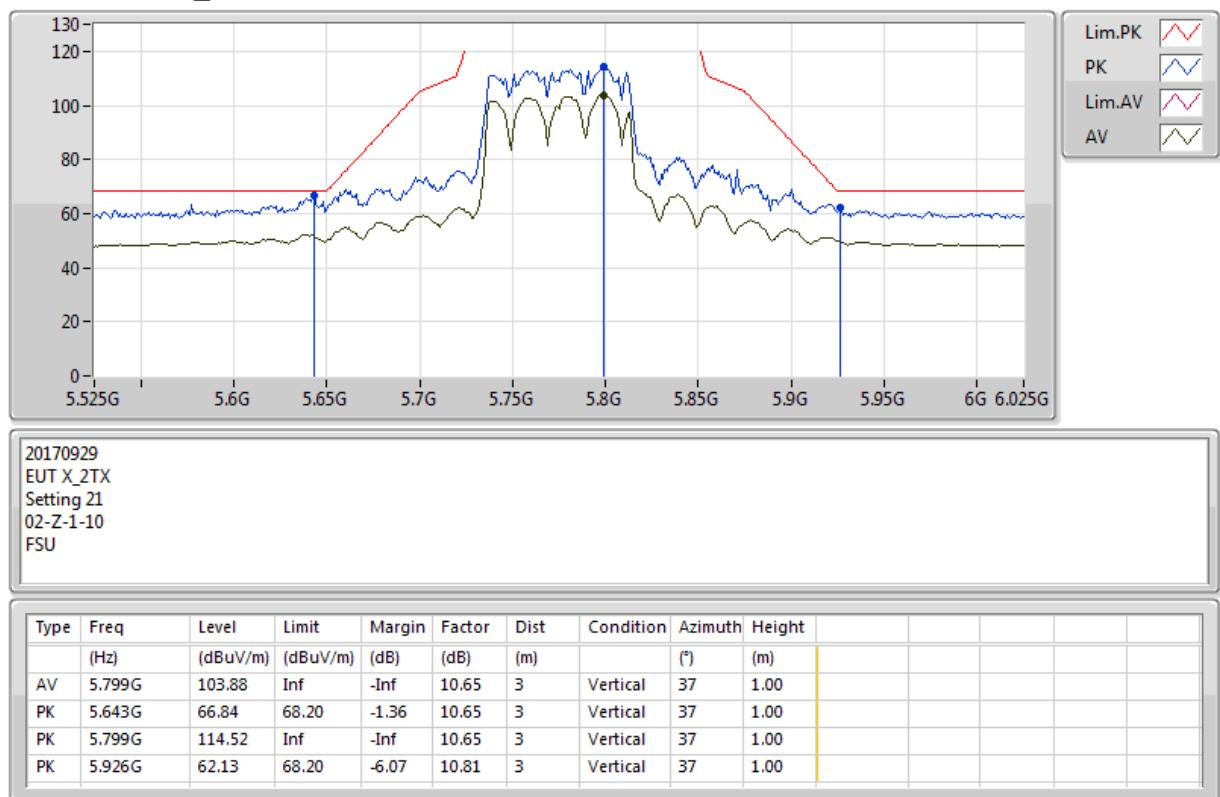
5795MHz_TX



802.11ac VHT40_Nss1,(MCS0)_2TX**5795MHz_TX**

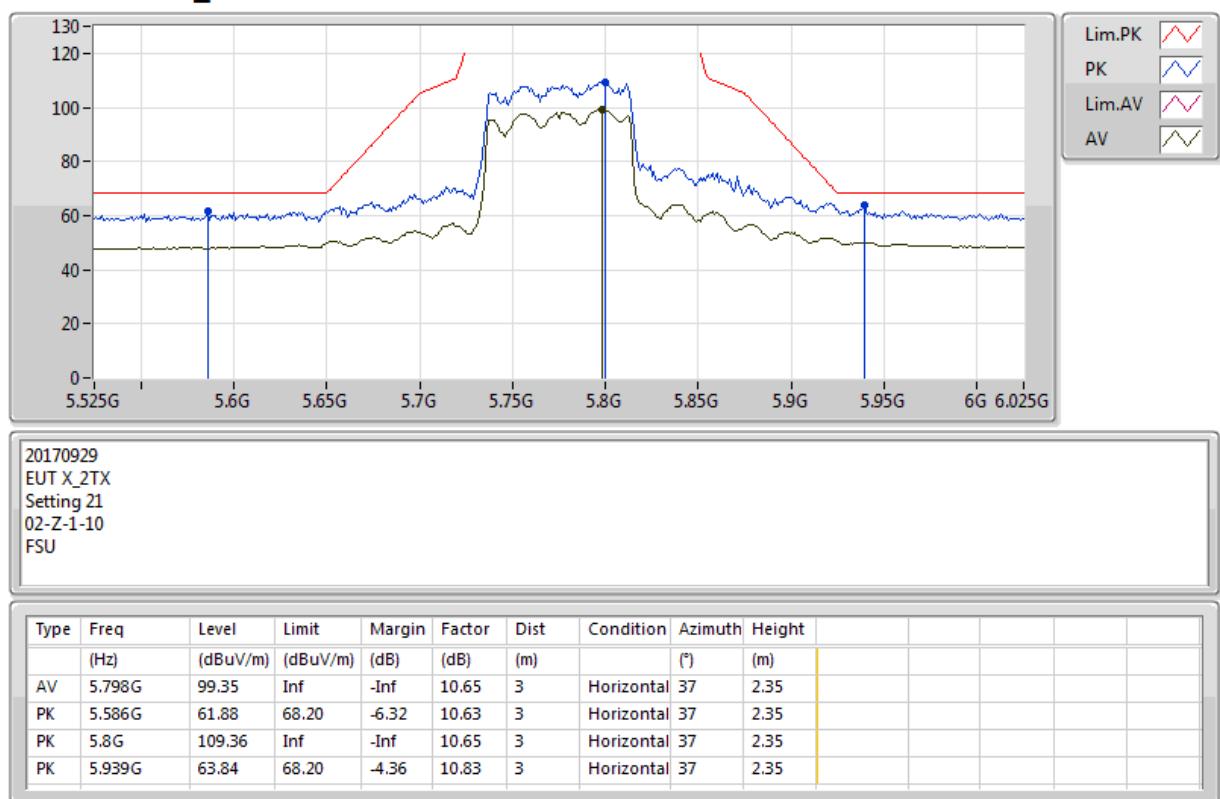
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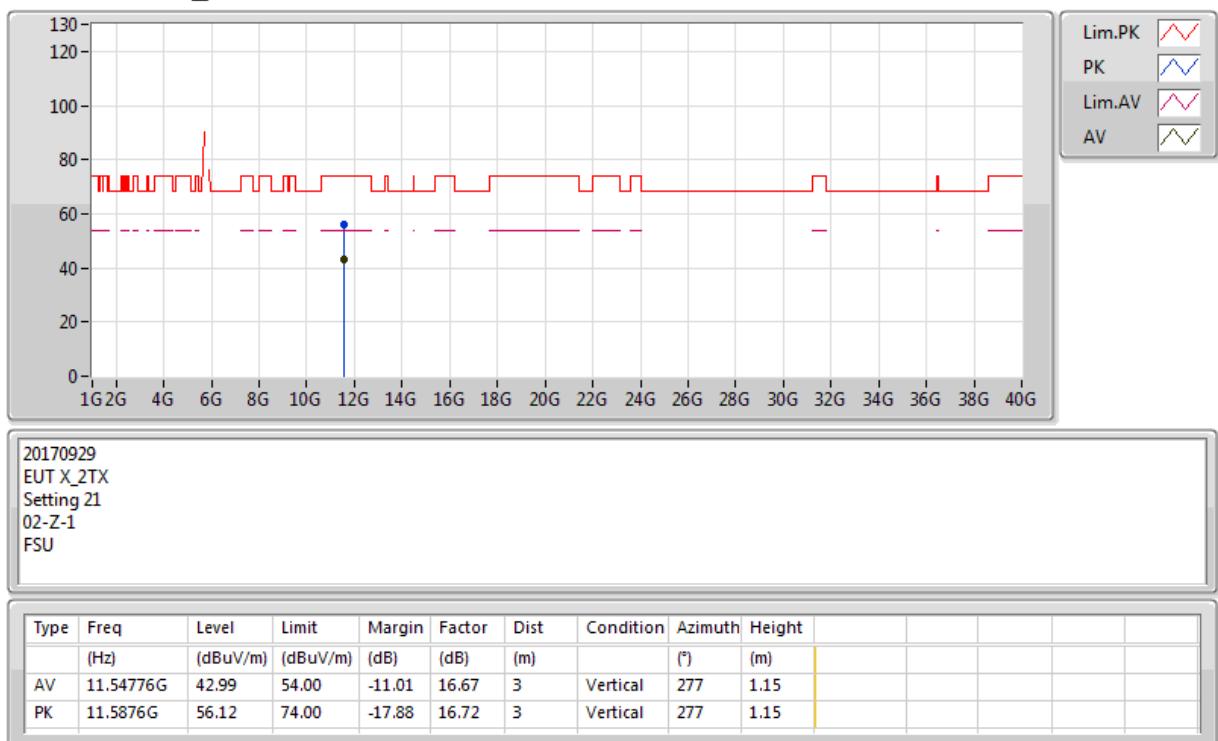
5775MHz_TX

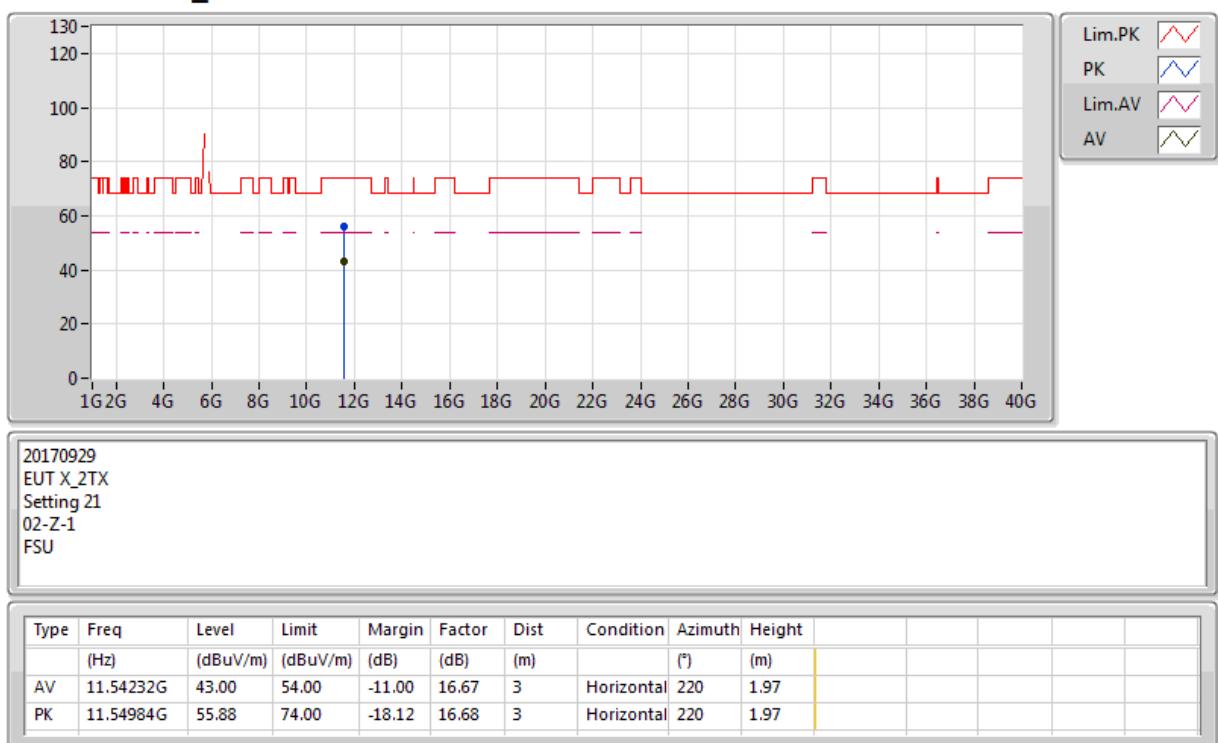


802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



802.11ac VHT80_Nss1,(MCS0)_2TX**5775MHz_TX**

802.11ac VHT80_Nss1,(MCS0)_2TX**5775MHz_TX**



FS Result

Appendix F

Mode: 20 MHz / port 2

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9945	5199.9941	5199.9933	5199.9930
110.00	5199.9936	5199.9929	5199.9922	5199.9919
93.50	5199.9932	5199.9929	5199.9924	5199.9917
Max. Deviation (MHz)	0.0068	0.0071	0.0078	0.0083
Max. Deviation (ppm)	1.31	1.37	1.50	1.60
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5200 MHz			
0 Minute	2 Minute	5 Minute	10 Minute	
-10	5199.9901	5199.9896	5199.9890	5199.9885
0	5199.9905	5199.9900	5199.9891	5199.9890
10	5199.9917	5199.9916	5199.9907	5199.9904
20	5199.9936	5199.9935	5199.9930	5199.9921
30	5199.9954	5199.9945	5199.9935	5199.9930
40	5199.9966	5199.9965	5199.9963	5199.9959
Max. Deviation (MHz)	0.0123	0.0124	0.0131	0.0137
Max. Deviation (ppm)	2.37	2.38	2.52	2.63
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5300 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5299.9944	5299.9942	5299.9935	5299.9931
110.00	5299.9936	5299.9932	5299.9928	5299.9927
93.50	5299.9929	5299.9922	5299.9912	5299.9903
Max. Deviation (MHz)	0.0071	0.0078	0.0088	0.0097
Max. Deviation (ppm)	1.34	1.47	1.66	1.83
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5300 MHz			
0 Minute	2 Minute	5 Minute	10 Minute	
-10	5299.9906	5299.9903	5299.9899	5299.9897
0	5299.9914	5299.9908	5299.9903	5299.9895
10	5299.9927	5299.9919	5299.9916	5299.9913
20	5299.9936	5299.9931	5299.9922	5299.9921
30	5299.9954	5299.9944	5299.9941	5299.9939
40	5299.9957	5299.9950	5299.9940	5299.9931
Max. Deviation (MHz)	0.0123	0.0127	0.0136	0.0142
Max. Deviation (ppm)	2.32	2.40	2.57	2.68
Result	Pass			

**Voltage vs. Frequency Stability**

Voltage (V)	Measurement Frequency (MHz)			
	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5579.9944	5579.9937	5579.9928	5579.9918
110.00	5579.9936	5579.9932	5579.9929	5579.9919
93.50	5579.9927	5579.9924	5579.9917	5579.9911
Max. Deviation (MHz)	0.0073	0.0076	0.0083	0.0089
Max. Deviation (ppm)	1.31	1.36	1.49	1.59
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5580 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5579.9885	5579.9883	5579.9882	5579.9872
0	5579.9903	5579.9894	5579.9893	5579.9884
10	5579.9918	5579.9917	5579.9908	5579.9903
20	5579.9936	5579.9926	5579.9924	5579.9914
30	5579.9954	5579.9951	5579.9944	5579.9939
40	5579.9962	5579.9959	5579.9953	5579.9945
Max. Deviation (MHz)	0.0140	0.0141	0.0143	0.0150
Max. Deviation (ppm)	2.51	2.53	2.56	2.69
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9945	5784.9936	5784.9935	5784.9934
110.00	5784.9936	5784.9933	5784.9928	5784.9925
93.50	5784.9931	5784.9928	5784.9925	5784.9917
Max. Deviation (MHz)	0.0069	0.0072	0.0075	0.0083
Max. Deviation (ppm)	1.19	1.24	1.30	1.43
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5784.9893	5784.9888	5784.9879	5784.9871
0	5784.9913	5784.9906	5784.9900	5784.9899
10	5784.9916	5784.9907	5784.9906	5784.9898
20	5784.9936	5784.9931	5784.9928	5784.9926
30	5784.9954	5784.9953	5784.9951	5784.9950
40	5784.9973	5784.9966	5784.9964	5784.9961
Max. Deviation (MHz)	0.0122	0.0132	0.0136	0.0145
Max. Deviation (ppm)	2.11	2.28	2.35	2.51
Result	Pass			



Mode: 40 MHz / port 2

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9944	5189.9940	5189.9937	5189.9933
110.00	5189.9936	5189.9935	5189.9926	5189.9922
93.50	5189.9929	5189.9928	5189.9925	5189.9919
Max. Deviation (MHz)	0.0071	0.0072	0.0075	0.0081
Max. Deviation (ppm)	1.37	1.39	1.45	1.56
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5189.9914	5189.9911	5189.9907	5189.9906
0	5189.9922	5189.9920	5189.9912	5189.9903
10	5189.9924	5189.9919	5189.9918	5189.9916
20	5189.9935	5189.9934	5189.9932	5189.9930
30	5189.9936	5189.9935	5189.9934	5189.9933
40	5189.9954	5189.9952	5189.9951	5189.9948
Max. Deviation (MHz)	0.0102	0.0108	0.0109	0.0113
Max. Deviation (ppm)	1.97	2.08	2.10	2.18
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5310 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5309.9942	5309.9934	5309.9925	5309.9916
110.00	5309.9936	5309.9935	5309.9929	5309.9920
93.50	5309.9933	5309.9927	5309.9919	5309.9918
Max. Deviation (MHz)	0.0067	0.0073	0.0081	0.0084
Max. Deviation (ppm)	1.26	1.37	1.53	1.58
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5310 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5309.9908	5309.9905	5309.9902	5309.9897
0	5309.9910	5309.9908	5309.9901	5309.9892
10	5309.9915	5309.9906	5309.9899	5309.9890
20	5309.9918	5309.9917	5309.9909	5309.9901
30	5309.9936	5309.9930	5309.9924	5309.9915
40	5309.9954	5309.9950	5309.9943	5309.9937
Max. Deviation (MHz)	0.0104	0.0112	0.0117	0.0125
Max. Deviation (ppm)	1.96	2.11	2.20	2.35
Result	Pass			



FS Result

Appendix F

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5549.9942	5549.9939	5549.9933	5549.9929
110.00	5549.9936	5549.9935	5549.9925	5549.9923
93.50	5549.9930	5549.9921	5549.9915	5549.9910
Max. Deviation (MHz)	0.0070	0.0079	0.0085	0.0090
Max. Deviation (ppm)	1.26	1.42	1.53	1.62
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5550 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5549.9899	5549.9894	5549.9889	5549.9883
0	5549.9916	5549.9913	5549.9907	5549.9900
10	5549.9919	5549.9913	5549.9912	5549.9909
20	5549.9920	5549.9910	5549.9903	5549.9895
30	5549.9936	5549.9933	5549.9930	5549.9922
40	5549.9954	5549.9952	5549.9947	5549.9946
Max. Deviation (MHz)	0.0128	0.0130	0.0139	0.0149
Max. Deviation (ppm)	2.31	2.34	2.50	2.68
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9941	5754.9932	5754.9926	5754.9925
110.00	5754.9936	5754.9934	5754.9929	5754.9924
93.50	5754.9933	5754.9932	5754.9924	5754.9917
Max. Deviation (MHz)	0.0067	0.0068	0.0076	0.0083
Max. Deviation (ppm)	1.16	1.18	1.32	1.44
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5754.9875	5754.9872	5754.9865	5754.9858
0	5754.9889	5754.9881	5754.9877	5754.9872
10	5754.9908	5754.9907	5754.9905	5754.9904
20	5754.9918	5754.9912	5754.9903	5754.9895
30	5754.9936	5754.9933	5754.9928	5754.9918
40	5754.9954	5754.9946	5754.9941	5754.9932
Max. Deviation (MHz)	0.0154	0.0158	0.0168	0.0174
Max. Deviation (ppm)	2.68	2.75	2.92	3.02
Result	Pass			



Mode: 80 MHz / port 2

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9940	5209.9932	5209.9928	5209.9919
110.00	5209.9936	5209.9927	5209.9917	5209.9907
93.50	5209.9933	5209.9930	5209.9926	5209.9920
Max. Deviation (MHz)	0.0067	0.0073	0.0083	0.0093
Max. Deviation (ppm)	1.29	1.40	1.59	1.79
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5209.9913	5209.9904	5209.9902	5209.9900
0	5209.9922	5209.9917	5209.9911	5209.9902
10	5209.9925	5209.9924	5209.9918	5209.9915
20	5209.9934	5209.9931	5209.9923	5209.9916
30	5209.9936	5209.9930	5209.9922	5209.9917
40	5209.9954	5209.9947	5209.9940	5209.9937
Max. Deviation (MHz)	0.0107	0.0112	0.0115	0.0124
Max. Deviation (ppm)	2.05	2.15	2.21	2.38
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5290 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5289.9943	5289.9939	5289.9934	5289.9933
110.00	5289.9936	5289.9933	5289.9923	5289.9922
93.50	5289.9929	5289.9920	5289.9917	5289.9912
Max. Deviation (MHz)	0.0071	0.0080	0.0083	0.0088
Max. Deviation (ppm)	1.34	1.51	1.57	1.66
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5290 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5289.9886	5289.9883	5289.9877	5289.9875
0	5289.9896	5289.9888	5289.9878	5289.9872
10	5289.9907	5289.9900	5289.9898	5289.9896
20	5289.9923	5289.9922	5289.9916	5289.9909
30	5289.9936	5289.9927	5289.9921	5289.9917
40	5289.9954	5289.9945	5289.9944	5289.9937
Max. Deviation (MHz)	0.0127	0.0136	0.0140	0.0150
Max. Deviation (ppm)	2.40	2.57	2.65	2.84
Result	Pass			



FS Result

Appendix F

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5529.9937	5529.9931	5529.9925	5529.9923
110.00	5529.9936	5529.9929	5529.9922	5529.9919
93.50	5529.9932	5529.9925	5529.9920	5529.9915
Max. Deviation (MHz)	0.0068	0.0075	0.0080	0.0085
Max. Deviation (ppm)	1.23	1.36	1.45	1.54
Result	Pass			

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5530 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5529.9891	5529.9882	5529.9877	5529.9874
0	5529.9895	5529.9885	5529.9883	5529.9877
10	5529.9900	5529.9895	5529.9885	5529.9880
20	5529.9916	5529.9906	5529.9901	5529.9895
30	5529.9936	5529.9927	5529.9922	5529.9917
40	5529.9954	5529.9945	5529.9937	5529.9933
Max. Deviation (MHz)	0.0133	0.0136	0.0143	0.0150
Max. Deviation (ppm)	2.41	2.46	2.59	2.71
Result	Pass			

Voltage vs. Frequency Stability

Voltage (V)	Measurement Frequency (MHz)			
	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9941	5774.9940	5774.9938	5774.9934
110.00	5774.9936	5774.9931	5774.9923	5774.9918
93.50	5774.9933	5774.9924	5774.9917	5774.9908
Max. Deviation (MHz)	0.0067	0.0076	0.0083	0.0092
Max. Deviation (ppm)	1.16	1.32	1.44	1.59
Result	Pass			

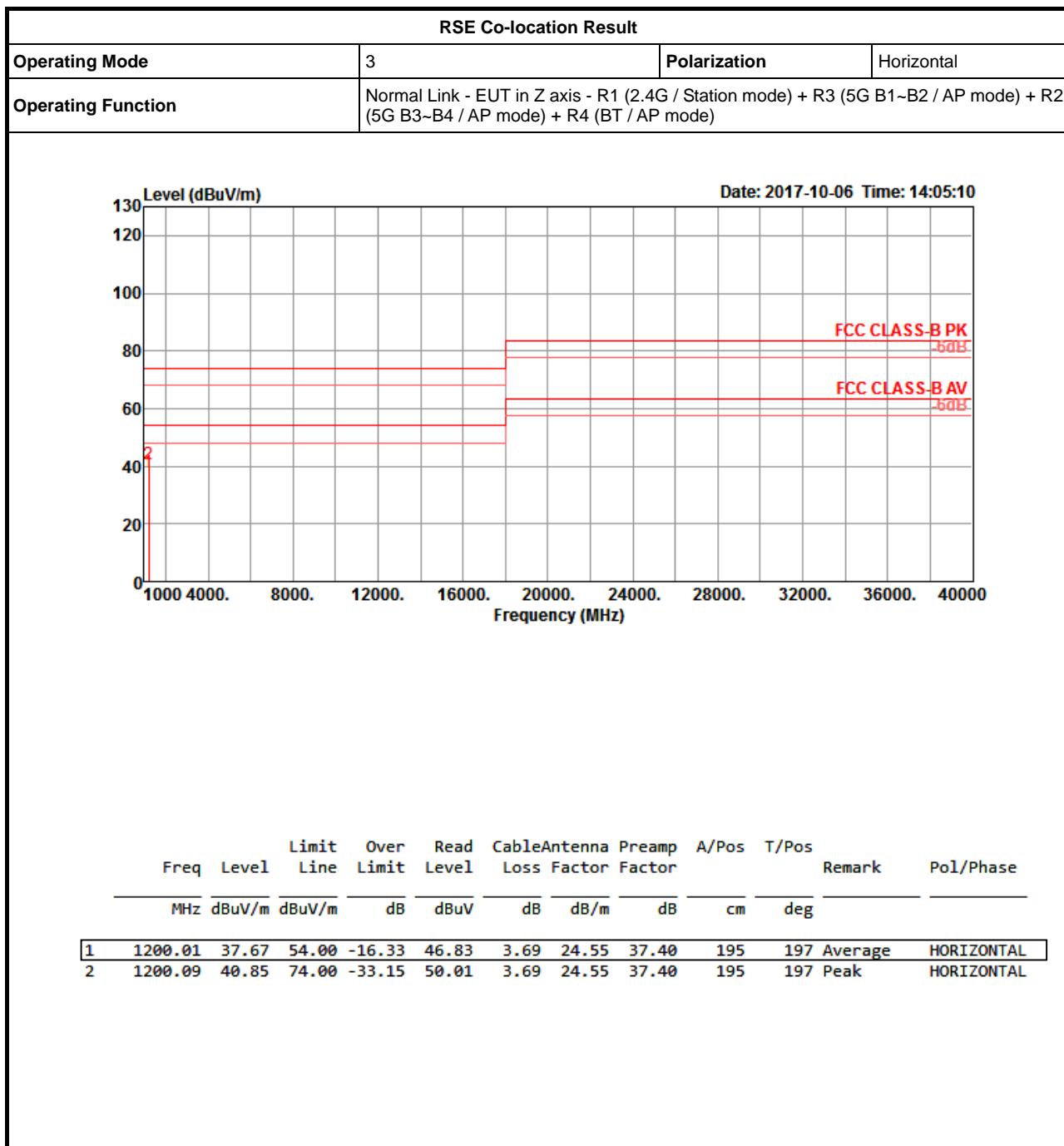
Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-10	5774.9889	5774.9883	5774.9877	5774.9867
0	5774.9904	5774.9897	5774.9892	5774.9884
10	5774.9923	5774.9913	5774.9908	5774.9899
20	5774.9928	5774.9926	5774.9918	5774.9914
30	5774.9936	5774.9931	5774.9925	5774.9917
40	5774.9954	5774.9951	5774.9948	5774.9946
Max. Deviation (MHz)	0.0128	0.0138	0.0140	0.0150
Max. Deviation (ppm)	2.22	2.39	2.42	2.60
Result	Pass			



RSE Co-location Result

Appendix G





RSE Co-location Result

Appendix G

