



FCC RADIO TEST REPORT

FCC ID : Q87-03564
Equipment : Linksys Tri-Band Wireless-AC Router
Brand Name : Linksys
Model Name : MR8300 V1.1/ MR8250 V1.1
Applicant : Linksys LLC
121 Theory Drive Irvine, CA 92617, United States
Standard : 47 CFR FCC Part 15.407

The product was received on Mar. 06, 2020, and testing was started from Mar. 06, 2020 and completed on Apr. 07, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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



Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
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History of this test report



Summary of Test Result

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

Declaration of Conformity:

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

Comments and Explanations:

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen**Report Producer: Viola Huang**



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5700	100-140 [11]
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	102-134 [5]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5610	106-122 [2]
5725-5850		5775	155 [1]

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



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

Note:

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



1.1.2 Antenna Information

Ant.	Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	1	FIT	ANEP5M2-CCG05-EH	Dipole Antenna	I-PEX	Note1
2	2	FIT	ANEP5M2-CCG06-EH	Dipole Antenna	I-PEX	
3	1	FIT	ANEP5M2-CCG07-EH	Dipole Antenna	I-PEX	
4	2	FIT	ANEP5M2-CCG08-EH	Dipole Antenna	I-PEX	
5	1	PSA	RFMTA271200NNAB003	PIFA Antenna	N/A	

Note 1:

Ant.	Port	Gain (dBi)					
		WLAN 2.4GHz	WLAN 5GHz Band 1	WLAN 5GHz Band 2	WLAN 5GHz Band 3	WLAN 5GHz Band 4	Bluetooth
1	1	2.81	2.54	2.87	-	-	-
2	2	2.35	2.75	2.41	-	-	-
3	1	-	-	-	3.15	2.89	-
4	2	-	-	-	3.35	2.97	-
5	1	-	-	-	-	-	3.28

Note 2: The above information was declared by manufacturer.

Note 3:

For 2.4GHz function:

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

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

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

For 5GHz function:

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

Band 1~Band 2

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

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

Band 3~Band 4

Ant. 3 (Port 1) and Ant. 4 (Port 2) can be used as transmitting/receiving antenna.

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

For Bluetooth function (1TX/1RX):

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



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a-BF	0.969	0.14	2.065m	1k
802.11ac VHT20-BF	0.984	0.07	n/a (DC ≥ 0.98)	n/a (DC ≥ 0.98)
802.11ac VHT40-BF	0.97	0.13	2.437m	1k
802.11ac VHT80-BF	0.937	0.28	1.148m	1k

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter		
Beamforming Function	<input checked="" type="checkbox"/> With beamforming	<input type="checkbox"/> Without beamforming	
The product has beamforming function for 11g/11n/VHT in 2.4GHz and 11a/11n/11ac in 5GHz.			
Weather Band	<input checked="" type="checkbox"/> With 5600~5650MHz	<input type="checkbox"/> Without 5600~5650MHz	
Function	<input type="checkbox"/> Outdoor P2M	<input checked="" type="checkbox"/> Indoor P2M	
	<input type="checkbox"/> Fixed P2P	<input type="checkbox"/> Client	
TPC Function	<input checked="" type="checkbox"/> With TPC	<input type="checkbox"/> Without TPC	
Test Software Version	QCA Tool version 3.0.187.0		

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

Model Name	Software Versions	Equip Adapter	LED Design	Support Function	Description
MR8300 V1.1	WLAN: 2.0.0.200811 Bluetooth: OpenWrt Chaos Calmer 15.05.1 r35193 /	Adapter 1~3	Please refer to the photographs of EUT	Master (AP Router, Repeater, Bridge)	All models are identical; different models serve as marketing strategy.
MR8250 V1.1	LuCI branch (git-16.190.28508-c9d9415)	Adapter 1~3	Same as above		

Note: From the above models, model: MR8300 V1.1 was selected as representative model for the test and its data was recorded in this report.

Note: Only AP Router mode has been selected to test and recorded in the test report from manufacturer requirement.



1.2 Applicable Standards

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

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

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location				
	HWA YA	ADD	: No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL	: 886-3-327-3456	FAX : 886-3-327-0973
<input checked="" type="checkbox"/>	JHUBEI	ADD	: No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.	
		TEL	: 886-3-656-9065	FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH02-CB	Jay Luo	20.9~22.3°C / 47~48%	Mar. 19, 2020 ~ Mar. 27, 2020
Radiated below 1GHz	03CH05-CB	Cola Fan	21.3~23.2°C / 46~49%	Mar. 13, 2020 ~ Apr. 07, 2020
Radiated above 1GHz	03CH01-CB	Cola Fan	20~21.5°C / 46~50%	Mar. 06, 2020 ~ Apr. 07, 2020
AC Conduction	CO01-CB	Peter Wu	23~24°C / 55~58%	Mar. 14, 2020

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)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	2.4 dB	Confidence levels of 95%
Output Power Measurement	1.5 dB	Confidence levels of 95%
Power Density Measurement	2.4 dB	Confidence levels of 95%
Bandwidth Measurement	2%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a-BF_Nss1,(6Mbps)_2TX	-
5180MHz	20.5
5200MHz	26
5240MHz	25.5
5260MHz	19.5
5300MHz	19.5
5320MHz	20
5500MHz	20.5
5580MHz	20.5
5700MHz	20
5745MHz	26
5785MHz	26
5825MHz	26
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	20.5
5200MHz	26
5240MHz	25.5
5260MHz	20
5300MHz	19.5
5320MHz	20
5500MHz	21
5580MHz	20.5
5700MHz	20.5
5745MHz	26
5785MHz	26
5825MHz	26
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	19.5
5230MHz	25
5270MHz	19.5
5310MHz	19
5510MHz	19
5550MHz	20
5670MHz	19.5
5755MHz	24.5
5795MHz	26



Mode	Power Setting
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	18.5
5290MHz	19
5530MHz	19
5610MHz	19.5
5775MHz	22

Note:

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



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	AP Router mode: EUT + Adapter 1
2	AP Router mode: EUT + Adapter 2 + US plug
3	AP Router mode: EUT + Adapter 3

For operating mode 3 is the worst case and it was record in this test report.

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



The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
WLAN 2.4GHz: The EUT was performed at Y axis and Z axis position for Emissions in Restricted Frequency Bands above 1GHz test, and the worst case was found at Y axis. So the measurement will follow this same test configuration. WLAN 5GHz/Bluetooth: The EUT was performed at Y axis and Z axis position for Emissions in Restricted Frequency Bands above 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.	
1	WLAN 2.4GHz: EUT in Y axis + Adapter 1
2	WLAN 2.4GHz: EUT in Y axis + Adapter 2 + US plug
3	WLAN 2.4GHz: EUT in Y axis + Adapter 3
Mode 1 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4~6 will follow this same test mode.	
4	WLAN 5GHz: EUT in Z axis + Adapter 1
5	Bluetooth BR+EDR: EUT in Z axis + Adapter 1
6	Bluetooth LE: EUT in Z axis + Adapter 1
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at Y axis and Z axis position, and the worst case was found at Z axis. So the measurement will follow this same test configuration.	
1	EUT in Z axis



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
The EUT was performed at Y axis and Z axis position for Emissions in Restricted Frequency Bands above 1GHz test, and the worst case was found at Y axis. So the measurement will follow this same test configuration.	
1	EUT in Y axis - WLAN 2.4GHz + WLAN 5GHz Band 1~2
Refer to Appendix F for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz Band 1~2 + WLAN 5GHz Band 3~4 + Bluetooth
Refer to Sporton Test Report No.: FA710901-06 for Co-location RF Exposure Evaluation.	



2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

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

The program was executed as follows:

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

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1 (Fixed plug)	Ktec	KSA-24W-120200HU	Input: 100-240V, 50/60Hz, 0.6A Output: 12V, 2.0A
Adapter 2 (Interchangeable plug)	Ktec	KSA-24W-120200D5	Input: 100-240V, 50/60Hz, 0.6A Output: 12V, 2.0A
Adapter 3 (Fixed plug)	APD	WB-24J12FU	Input: 100-240V, 50-60Hz, 0.7A Max. Output: 12V, 2A
Others			
US plug*1 (for adapter 2 use only)			
RJ-45 cable*1, Non-shielded, 0.9m			



2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN1 NB	DELL	E6430	N/A
B	WAN NB	DELL	E6430	N/A
C	2.4G NB	DELL	E6430	N/A
D	5G-1 NB	Apple	A1278	N/A
E	5G-2 NB	DELL	E6430	N/A
F	Smart phone	Samsung	Galaxy J2	N/A
G	Flash disk3.0	Transcend	JetFlash-700	N/A

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

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	M4800	N/A

For Radiated (above 1GHz) / Beamforming mode:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	M4800	N/A
B	Linksys Tri-Band Wireless-AC Router (RX Device)	Linksys	MR8300 V2	N/A
C	NB	DELL	E4300	N/A

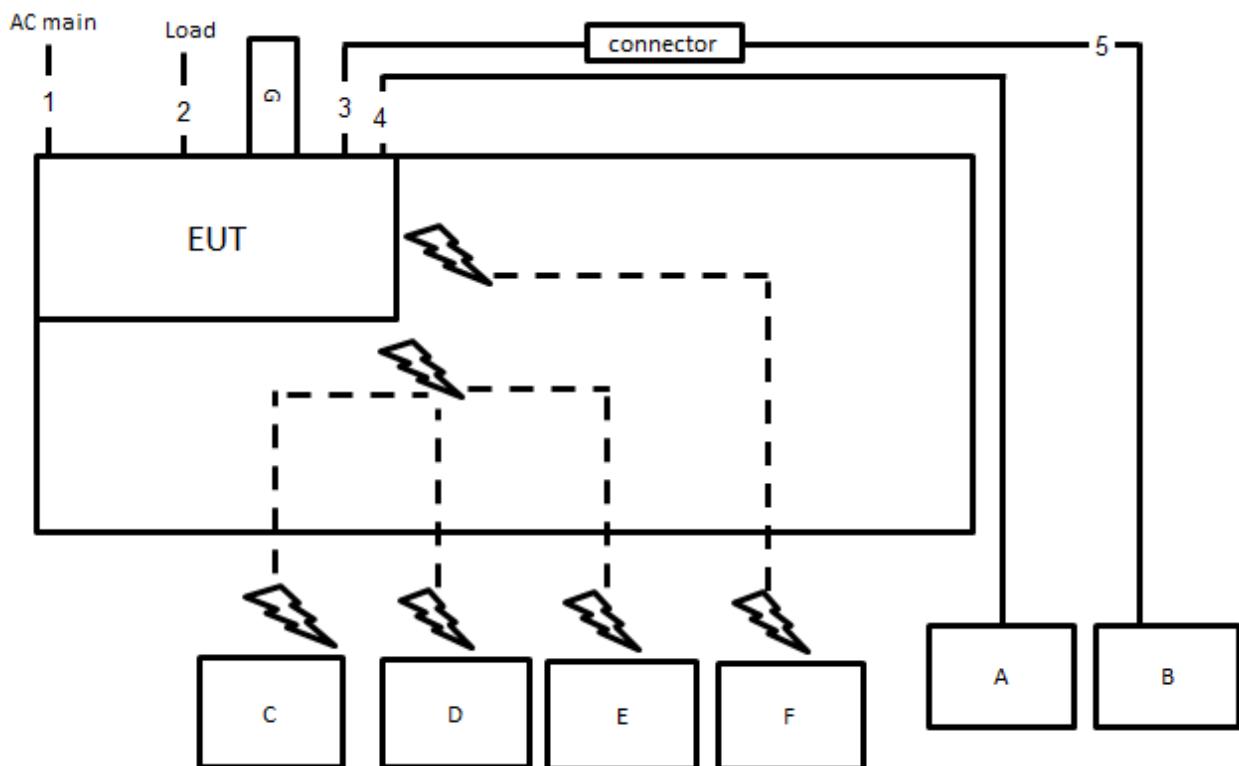
For RF Conducted:

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



2.6 Test Setup Diagram

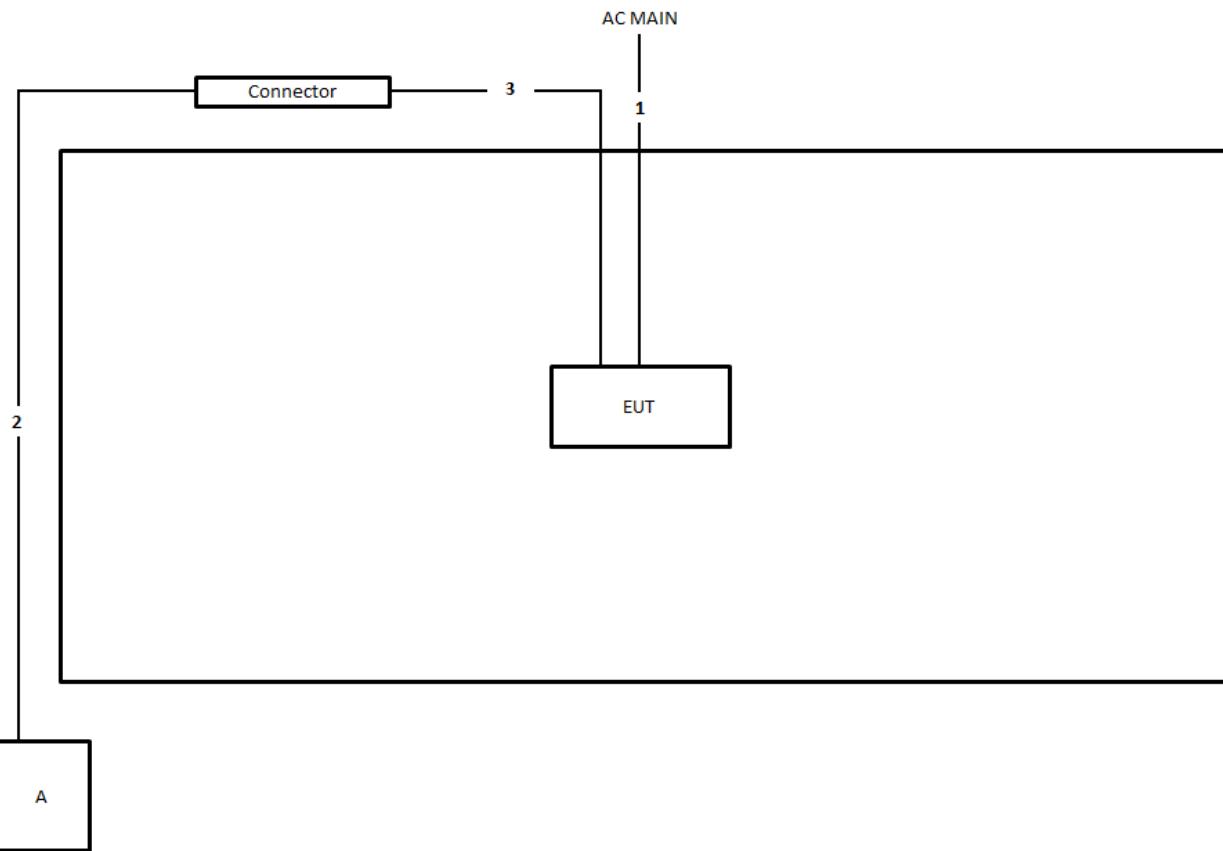
Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable*3	No	1.5m
3	RJ-45 cable	No	0.9m
4	RJ-45 cable	No	10m
5	RJ-45 cable	No	10m



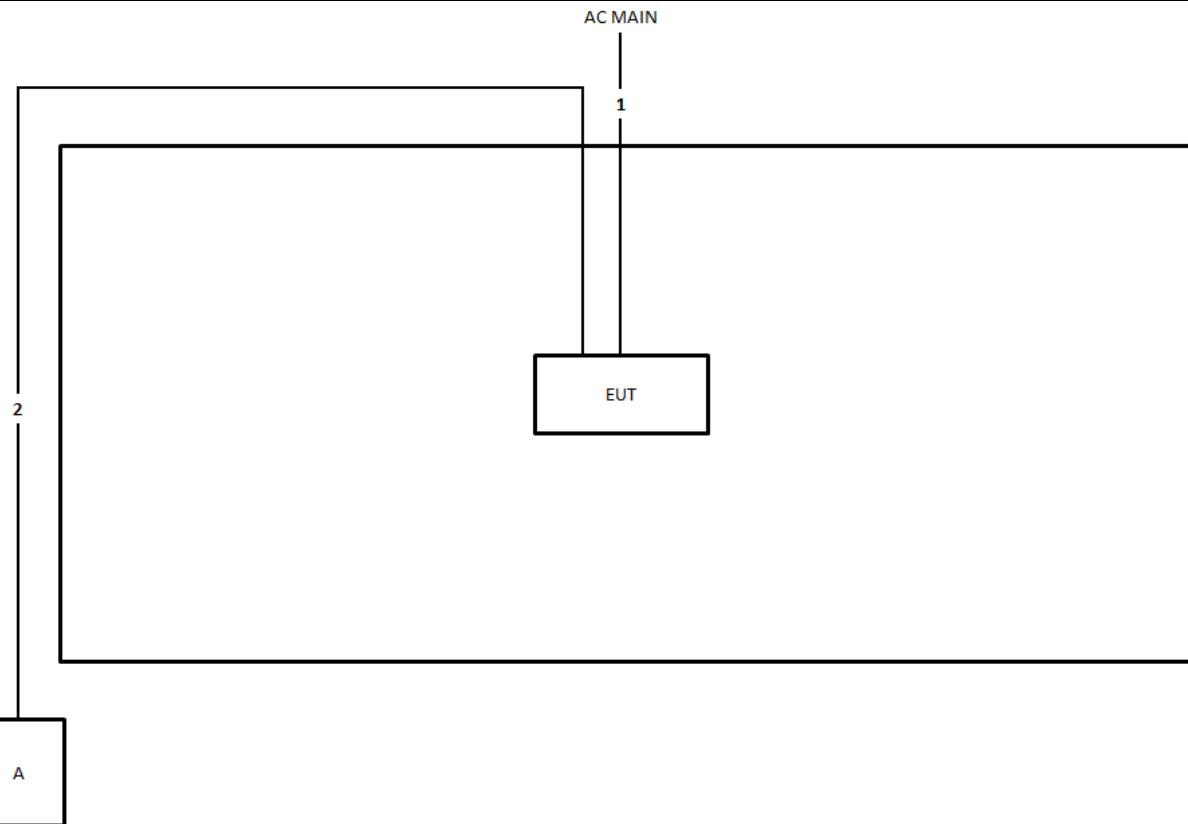
Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	0.9m



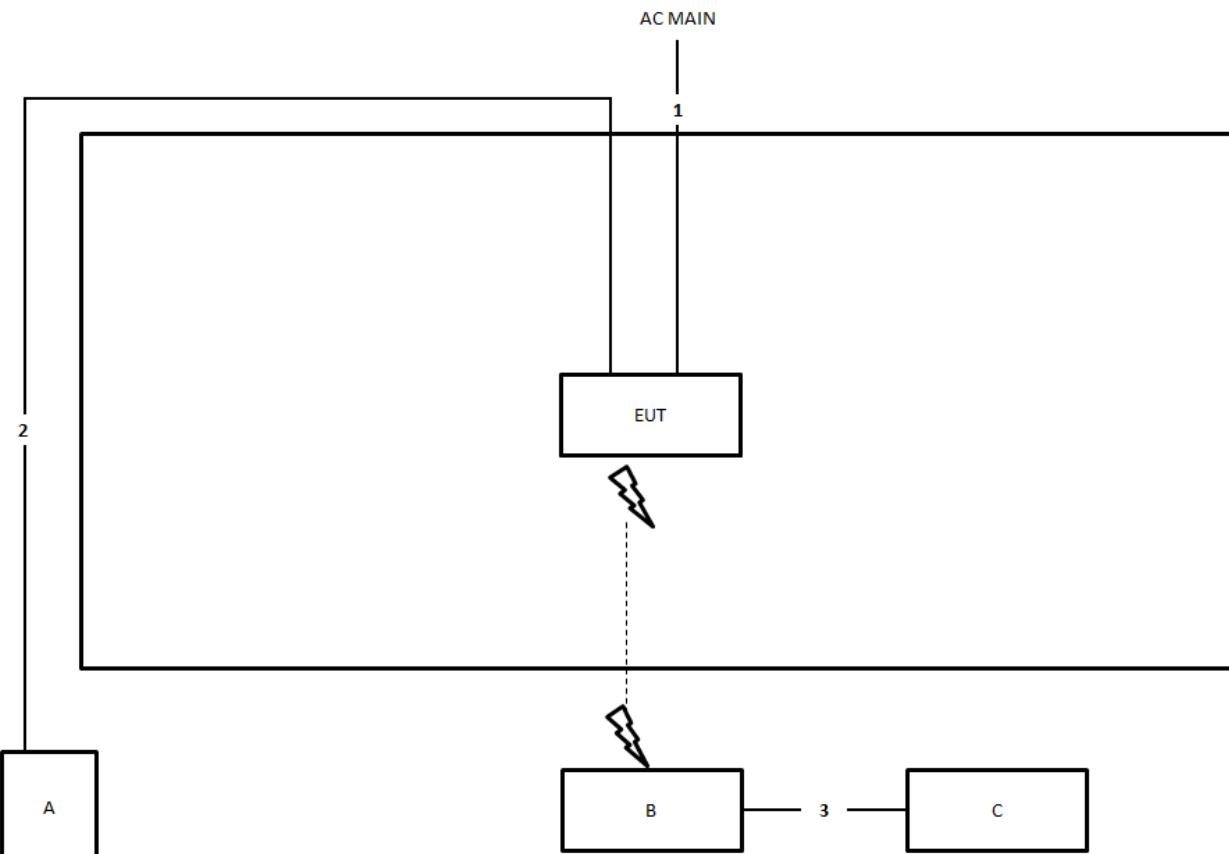
Test Setup Diagram - Radiated Test > 1GHz / Non beamforming mode



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m



Test Setup Diagram - Radiated Test > 1GHz / Beamforming mode



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m



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.

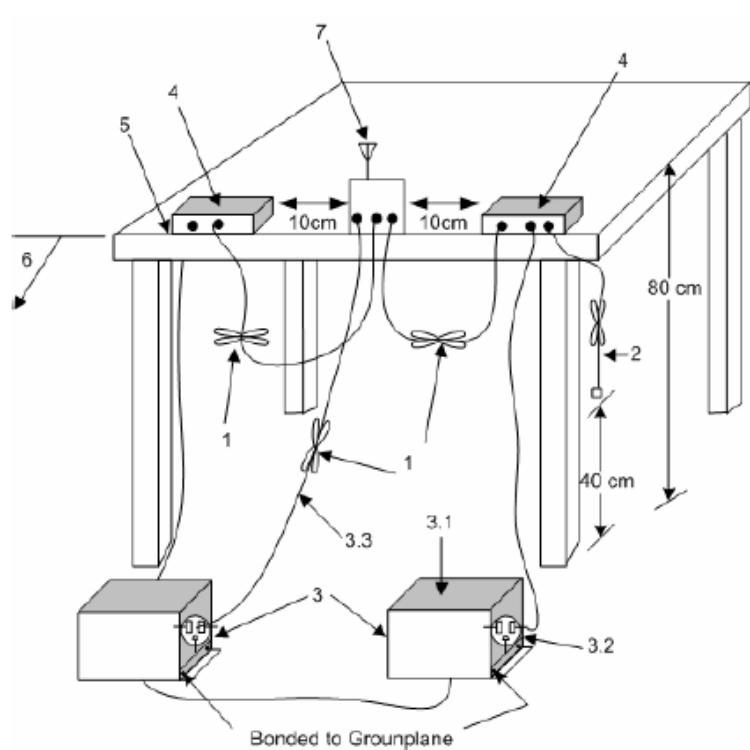
3.1.2 Measuring Instruments

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



- 1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
- 2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in $50\ \Omega$ loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
 - 3.1—All other equipment powered from additional LISN(s).
 - 3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
 - 3.3—LISN at least 80 cm from nearest part of EUT chassis.
- 4—Non-EUT components of EUT system being tested.
- 5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
- 6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
- 7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading (dBuV) = LISN Factor + Cable Loss + Read Level = Level
- b. Margin = - Limit + (Read Level + LISN Factor + Cable Loss)

3.1.6 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 $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq 500\text{kHz}$.
LE-LAN Devices	
<input type="checkbox"/>	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq 500\text{kHz}$.

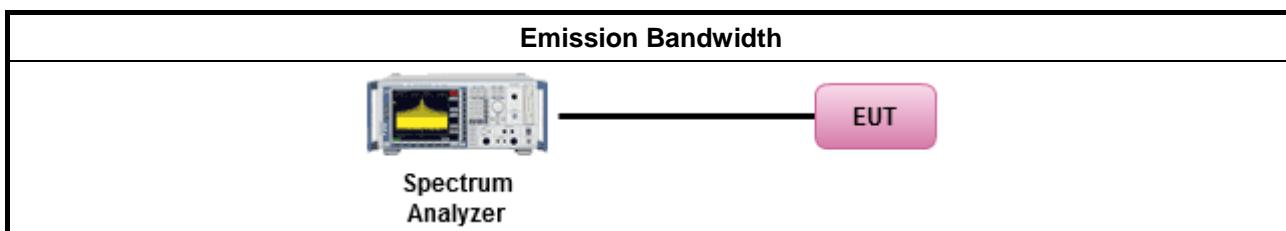
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪	For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
<input 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 $G_{TX} > 6$ dBi, then $P_{out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees ≤ 125 mW [21 dBm]Indoor AP: the maximum conducted output power (P_{out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{out} = 30 - (G_{TX} - 6)$Point-to-point AP: the maximum conducted output power (P_{out}) shall not exceed the lesser of 1 W. If $G_{TX} > 23$ dBi, then $P_{out} = 30 - (G_{TX} - 23)$.Mobile or Portable Client: the maximum conducted output power (P_{out}) shall not exceed the lesser of 250 mW. If $G_{TX} > 6$ dBi, then $P_{out} = 24 - (G_{TX} - 6)$.
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the maximum conducted output power (P_{out}) shall not exceed the lesser of 250 mW or 11 dBm + $10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{out} = 24 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the maximum conducted output power (P_{out}) shall not exceed the lesser of 250 mW or 11 dBm + $10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{out} = 24 - (G_{TX} - 6)$.	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	<ul style="list-style-type: none">Point-to-multipoint systems (P2M): the maximum conducted output power (P_{out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{out} = 30 - (G_{TX} - 6)$.Point-to-point systems (P2P): the maximum conducted output power (P_{out}) shall not exceed the lesser of 1 W.
LE-LAN Devices	
<input type="checkbox"/> For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.	
<input type="checkbox"/> For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
<input type="checkbox"/> For the 5.725-5.85 GHz band:	<ul style="list-style-type: none">Point-to-multipoint systems (P2M): the maximum conducted output power (P_{out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{out} = 30 - (G_{TX} - 6)$.Point-to-point systems (P2P): the maximum conducted output power (P_{out}) shall not exceed the lesser of 1 W.
P_{out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	



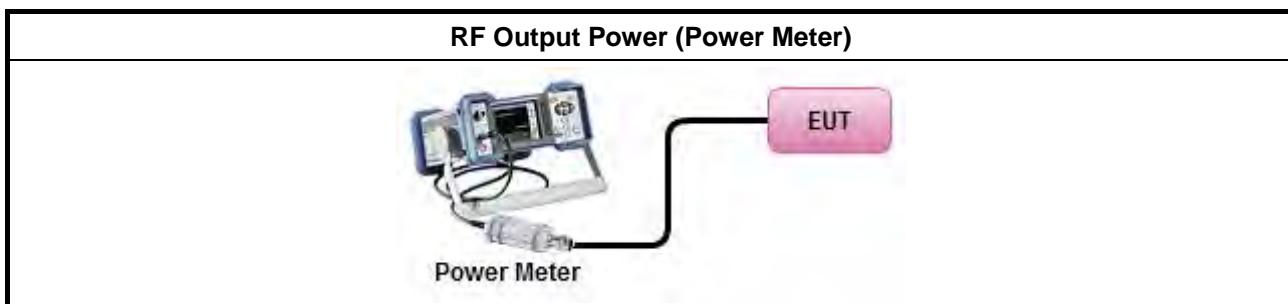
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
▪ Maximum Conducted Output Power	
	Average over on/off periods with duty factor
	<input 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



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 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.	
<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.	<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 5.725-5.85 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 the 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.

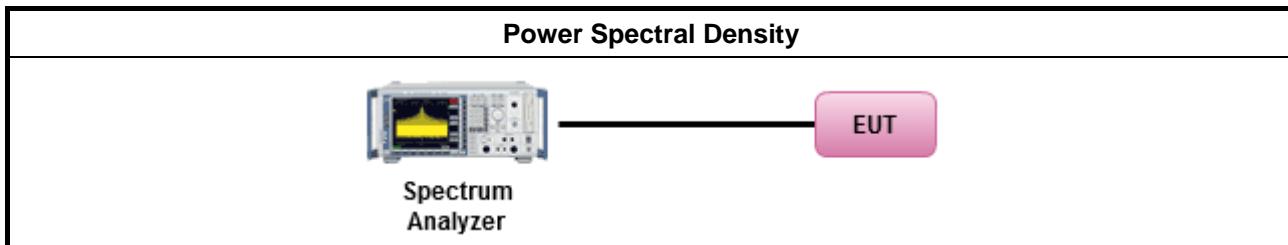


3.4.3 Test Procedures

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



3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Unwanted Emissions Limit

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

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
<input checked="" type="checkbox"/> 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
<input checked="" type="checkbox"/> 5.725 - 5.85 GHz	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).



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

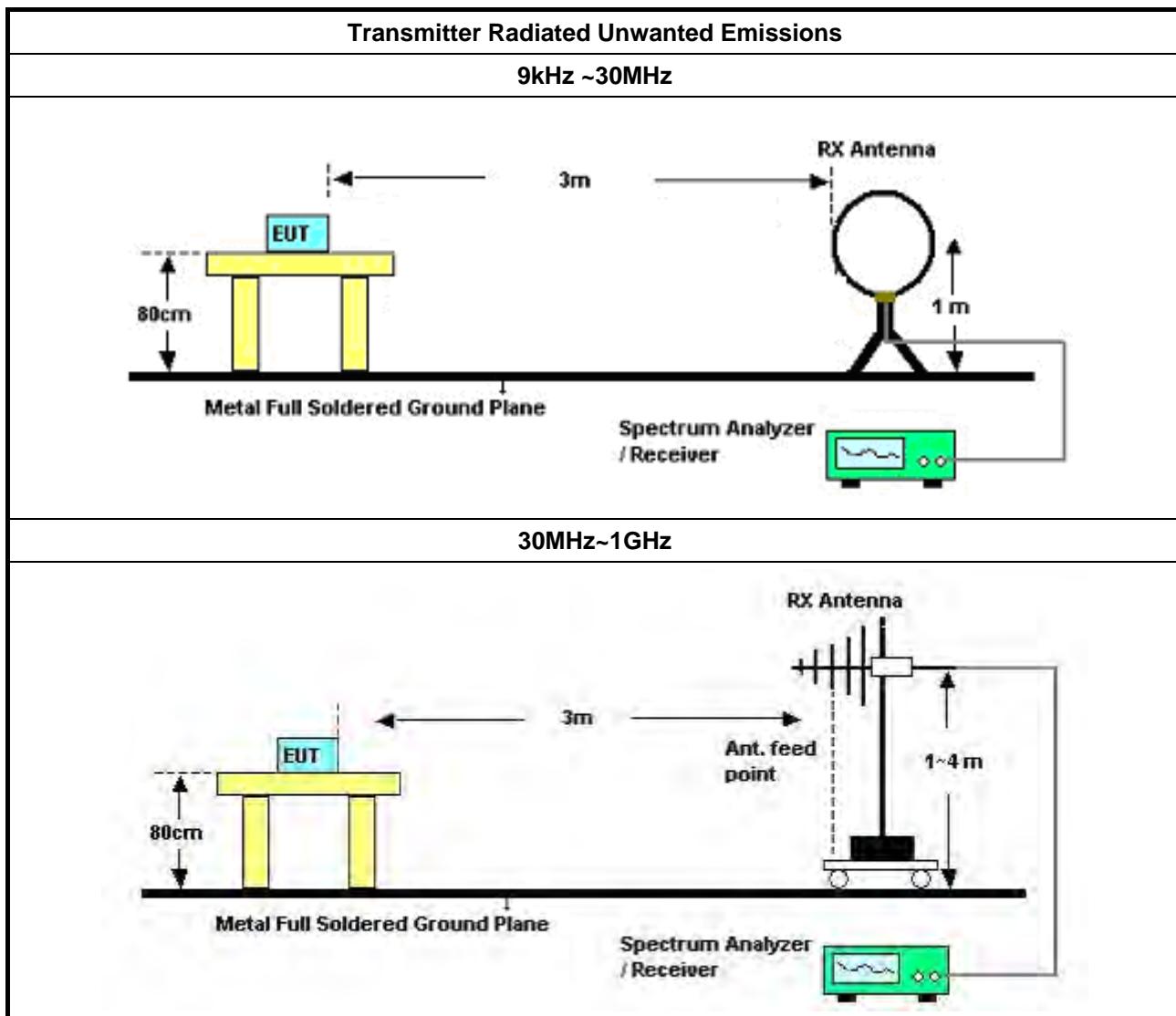
3.5.2 Measuring Instruments

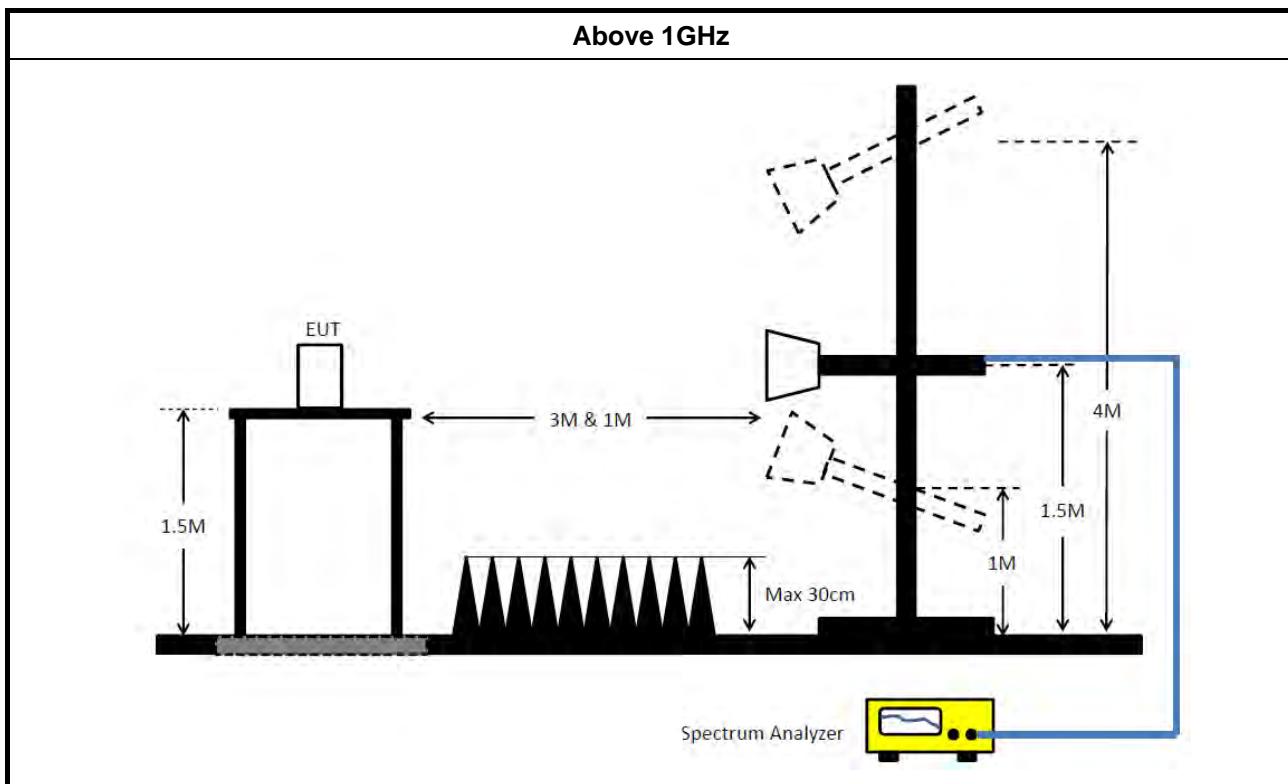
Refer a test equipment and calibration data table in this test report.

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 G)2) for unwanted emissions into non-restricted bands.	
▪ Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.	
<input type="checkbox"/> Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).	
<input checked="" type="checkbox"/> Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).	
<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW \geq 1/T, where T is pulse time.	
<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.	
<input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.	
<input type="checkbox"/> Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.	
▪ For radiated measurement.	
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.	
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.	
<input type="checkbox"/> 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 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor (if applicable) = Level.

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



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	Feb. 26, 2020	Feb. 25, 2021	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 25, 2019	Dec. 24, 2020	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Feb. 25, 2020	Feb. 24, 2021	Conduction (CO01-CB)
Impedance Stabilization Network	Teseq	ISN T800	24557	150kHz ~ 230MHz	Nov. 25, 2019	Nov. 24, 2020	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 21, 2019	May 20, 2020	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Bilog Antenna with 6dB Attenuator	Schaffner & EMCI	CBL6112 & N-06	2888 & AT-N0611	30MHz ~ 1GHz	Oct. 12, 2019	Oct. 11, 2020	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH05-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 16, 2020	Mar. 15, 2021	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 01, 2019	Apr. 30, 2020	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Aug. 15, 2019	Aug. 14, 2020	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	LOW Cable-04+23	30MHz~1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
Horn Antenna	ETS-LINDGREN	3115	00075790	750MHz ~ 18GHz	Nov. 04, 2019	Nov. 03, 2020	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 27, 2019	Jun. 26, 2020	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 08, 2020	Jan. 07, 2021	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 19, 2019	Jun. 18, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH01-CB)

**FCC RADIO TEST REPORT****Report No. : FR710901-06AB**

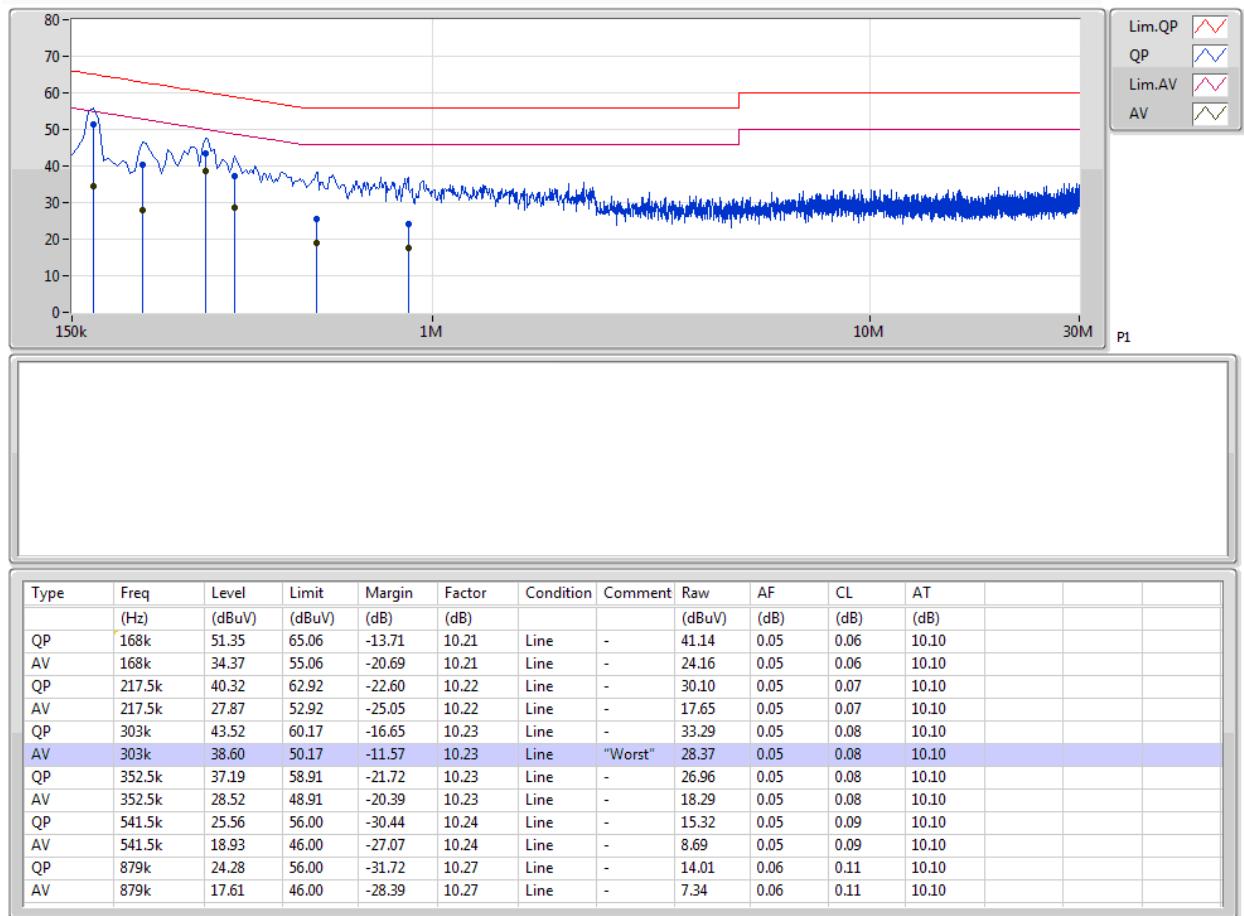
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 02, 2019	Jul. 01, 2020	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-3	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)

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

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

**Summary**

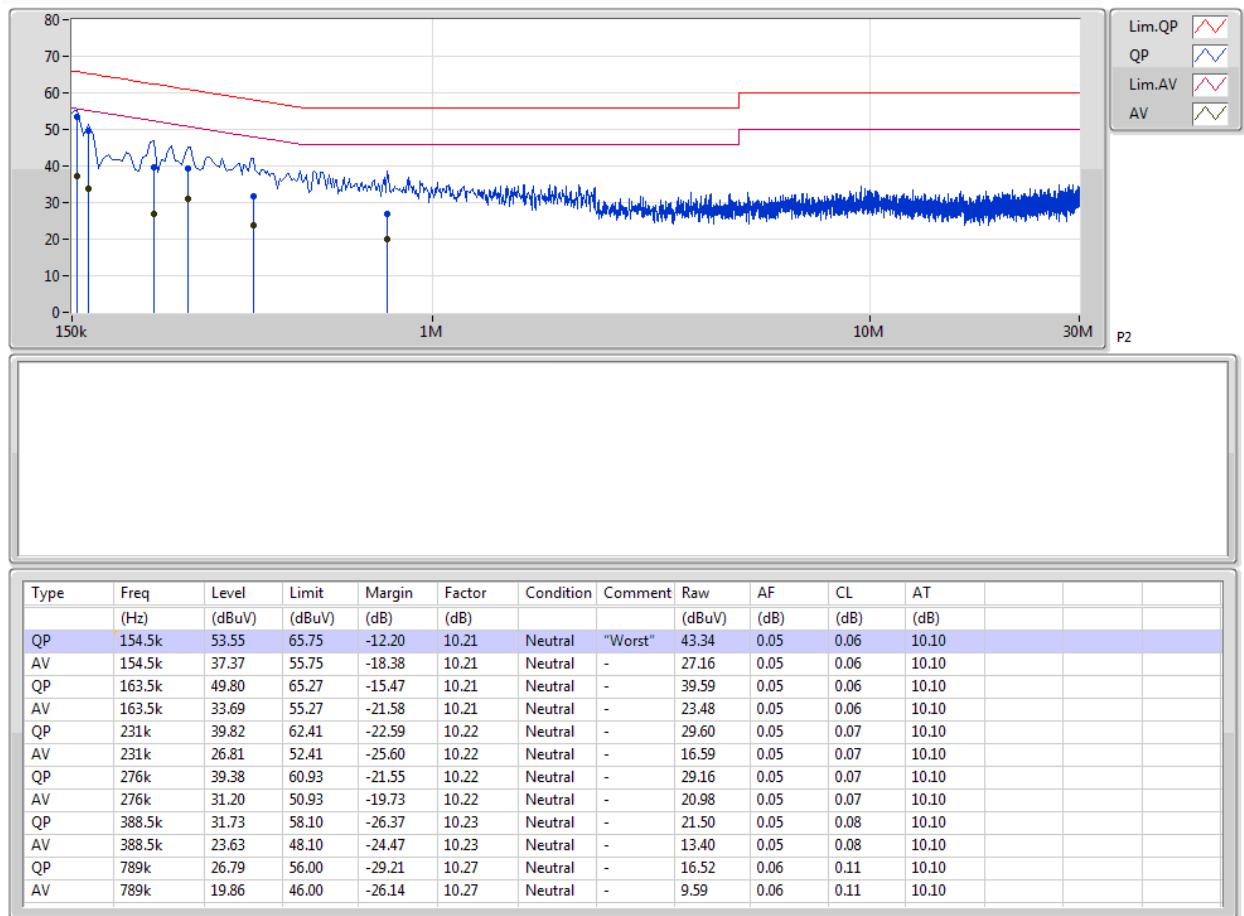
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition
Mode 3	Pass	AV	303k	38.60	50.17	-11.57	10.23	Line

**Mode 3**

Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)				
QP	168k	51.35	65.06	-13.71	10.21	Line	-	41.14	0.05	0.06	10.10				
AV	168k	34.37	55.06	-20.69	10.21	Line	-	24.16	0.05	0.06	10.10				
QP	217.5k	40.32	62.92	-22.60	10.22	Line	-	30.10	0.05	0.07	10.10				
AV	217.5k	27.87	52.92	-25.05	10.22	Line	-	17.65	0.05	0.07	10.10				
QP	303k	43.52	60.17	-16.65	10.23	Line	-	33.29	0.05	0.08	10.10				
AV	303k	38.60	50.17	-11.57	10.23	Line	"Worst"	28.37	0.05	0.08	10.10				
QP	352.5k	37.19	58.91	-21.72	10.23	Line	-	26.96	0.05	0.08	10.10				
AV	352.5k	28.52	48.91	-20.39	10.23	Line	-	18.29	0.05	0.08	10.10				
QP	541.5k	25.56	56.00	-30.44	10.24	Line	-	15.32	0.05	0.09	10.10				
AV	541.5k	18.93	46.00	-27.07	10.24	Line	-	8.69	0.05	0.09	10.10				
QP	879k	24.28	56.00	-31.72	10.27	Line	-	14.01	0.06	0.11	10.10				
AV	879k	17.61	46.00	-28.39	10.27	Line	-	7.34	0.06	0.11	10.10				



Mode 3



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	35.94M	20.96M	21M0D1D	18.87M	16.372M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	37.53M	20.66M	20M7D1D	19.86M	17.571M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	78.06M	38.681M	38M7D1D	39.54M	35.922M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	83.16M	75.682M	75M7D1D	83.16M	75.562M
5.25-5.35GHz	-	-	-	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	19.14M	16.432M	16M4D1D	18.99M	16.372M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.04M	17.601M	17M6D1D	19.86M	17.571M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	39.72M	35.982M	36M0D1D	39.48M	35.802M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	82.92M	75.562M	75M6D1D	82.44M	75.442M
5.47-5.725GHz	-	-	-	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	19.77M	16.402M	16M4D1D	19.65M	16.402M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.28M	17.601M	17M6D1D	20.07M	17.571M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	40.02M	35.922M	35M9D1D	39.78M	35.802M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	83.88M	75.802M	75M8D1D	83.16M	75.682M
5.725-5.85GHz	-	-	-	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	16.32M	16.762M	16M8D1D	16.26M	16.492M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	17.58M	17.751M	17M8D1D	16.8M	17.631M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	35.64M	38.561M	38M6D1D	35.04M	36.102M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	75.96M	75.802M	75M8D1D	75.6M	75.802M

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

Max-OBW = Maximum99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;



Result

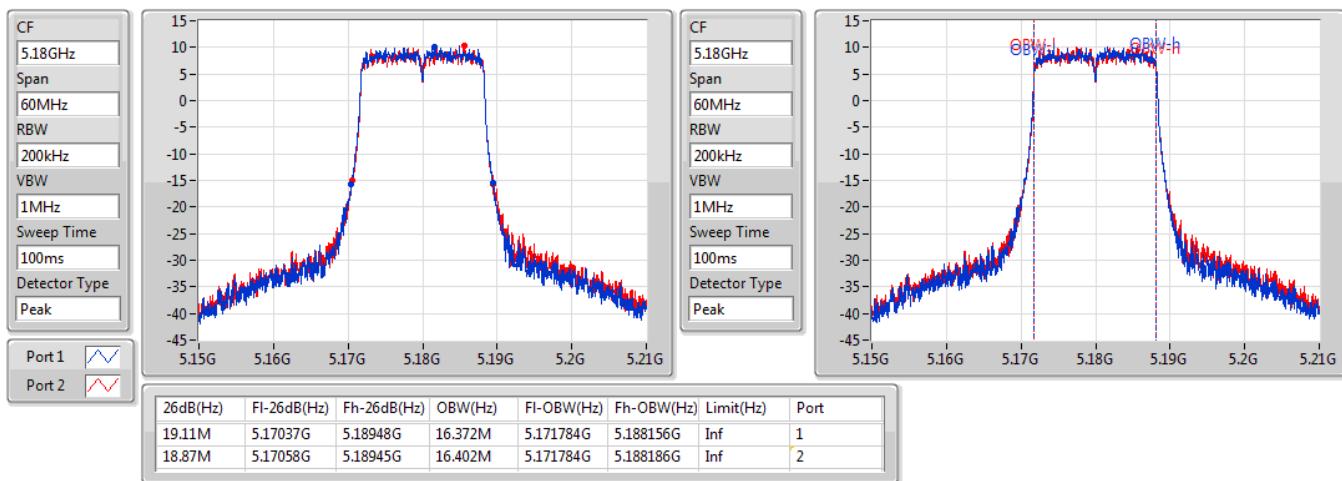
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.11M	16.372M	18.87M	16.402M
5200MHz	Pass	Inf	35.88M	19.67M	35.94M	20.96M
5240MHz	Pass	Inf	35.22M	17.691M	35.88M	18.831M
5260MHz	Pass	Inf	19.14M	16.402M	19.08M	16.372M
5300MHz	Pass	Inf	19.11M	16.402M	19.08M	16.372M
5320MHz	Pass	Inf	19.05M	16.432M	18.99M	16.402M
5500MHz	Pass	Inf	19.65M	16.402M	19.77M	16.402M
5580MHz	Pass	Inf	19.65M	16.402M	19.71M	16.402M
5700MHz	Pass	Inf	19.65M	16.402M	19.68M	16.402M
5745MHz	Pass	500k	16.26M	16.642M	16.32M	16.552M
5785MHz	Pass	500k	16.29M	16.762M	16.32M	16.762M
5825MHz	Pass	500k	16.32M	16.492M	16.32M	16.582M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.86M	17.571M	19.95M	17.571M
5200MHz	Pass	Inf	37.53M	20.66M	36.9M	19.79M
5240MHz	Pass	Inf	36.96M	18.501M	35.94M	18.951M
5260MHz	Pass	Inf	19.89M	17.571M	19.86M	17.571M
5300MHz	Pass	Inf	20.01M	17.571M	19.92M	17.571M
5320MHz	Pass	Inf	19.89M	17.601M	20.04M	17.571M
5500MHz	Pass	Inf	20.16M	17.571M	20.22M	17.601M
5580MHz	Pass	Inf	20.07M	17.571M	20.16M	17.571M
5700MHz	Pass	Inf	20.19M	17.571M	20.28M	17.571M
5745MHz	Pass	500k	16.8M	17.721M	16.92M	17.691M
5785MHz	Pass	500k	17.16M	17.751M	17.55M	17.721M
5825MHz	Pass	500k	16.92M	17.631M	17.58M	17.691M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.54M	35.982M	39.78M	35.922M
5230MHz	Pass	Inf	78.06M	38.681M	77.7M	37.901M
5270MHz	Pass	Inf	39.54M	35.982M	39.72M	35.922M
5310MHz	Pass	Inf	39.48M	35.802M	39.6M	35.862M
5510MHz	Pass	Inf	39.9M	35.862M	40.02M	35.862M
5550MHz	Pass	Inf	39.9M	35.922M	39.78M	35.922M
5670MHz	Pass	Inf	39.96M	35.862M	39.9M	35.802M
5755MHz	Pass	500k	35.64M	36.162M	35.28M	36.102M
5795MHz	Pass	500k	35.04M	37.661M	35.04M	38.561M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	83.16M	75.682M	83.16M	75.562M
5290MHz	Pass	Inf	82.92M	75.442M	82.44M	75.562M
5530MHz	Pass	Inf	83.88M	75.802M	83.28M	75.802M
5610MHz	Pass	Inf	83.16M	75.682M	83.28M	75.682M
5775MHz	Pass	500k	75.6M	75.802M	75.96M	75.802M

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

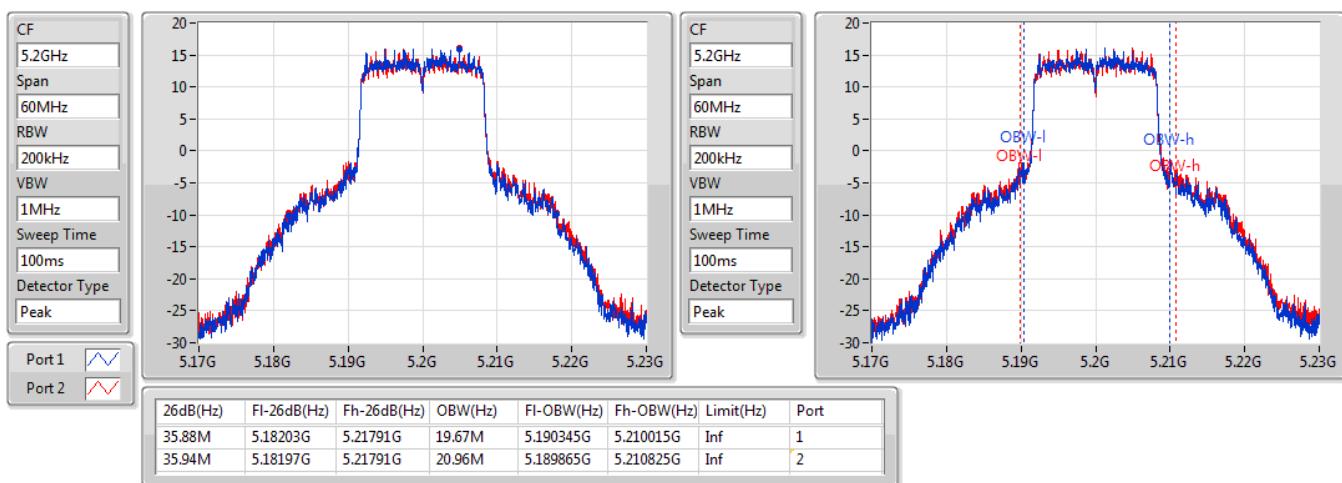
Port X-OBW = Port X 99% occupied bandwidth;

802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5180MHz

19/03/2020

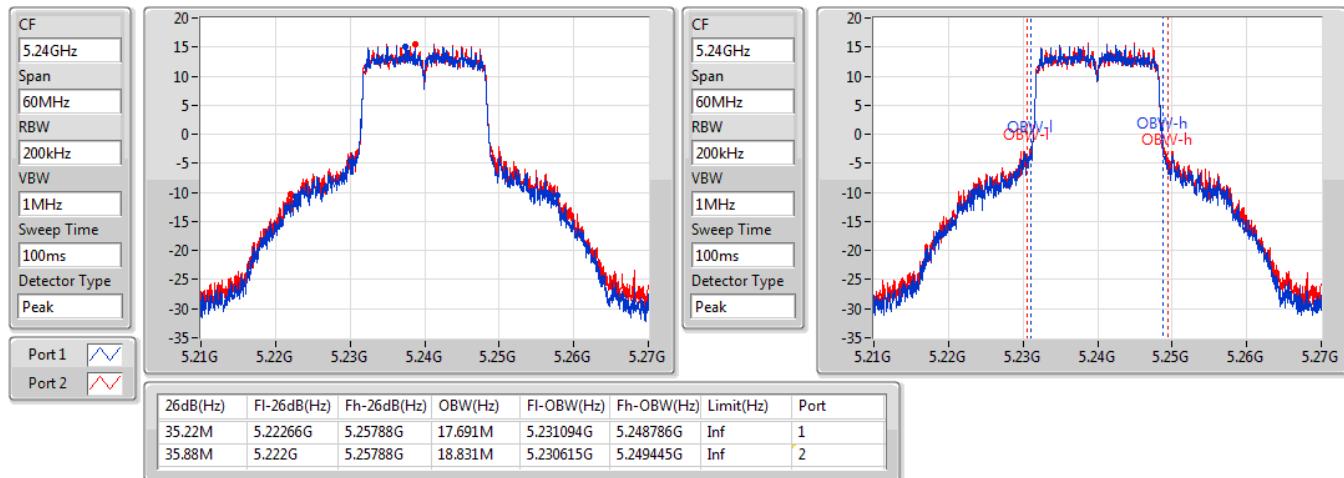

802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5200MHz

19/03/2020

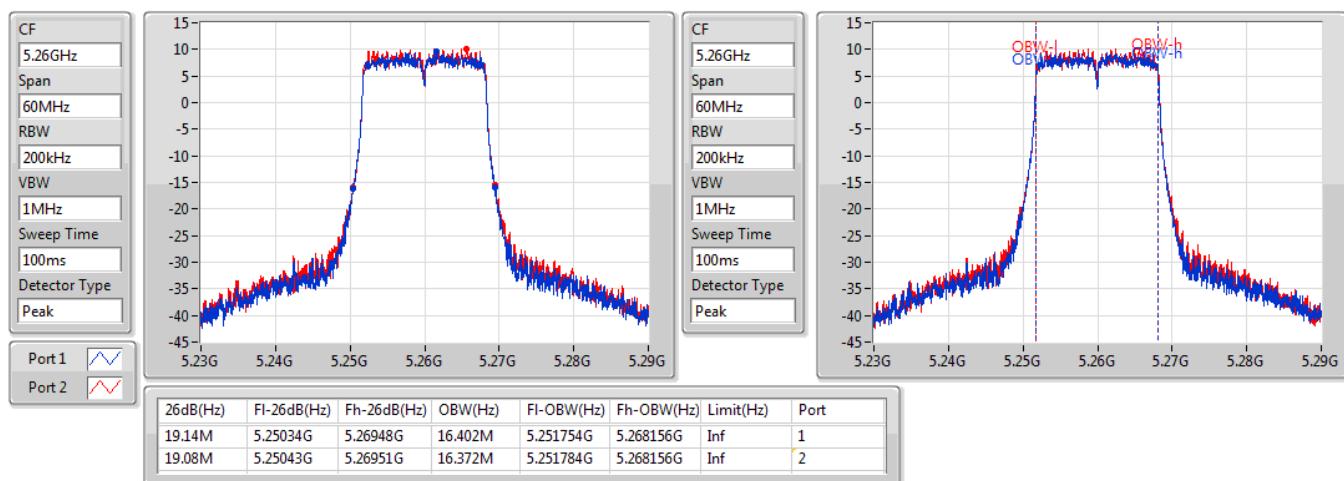


802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5240MHz

19/03/2020

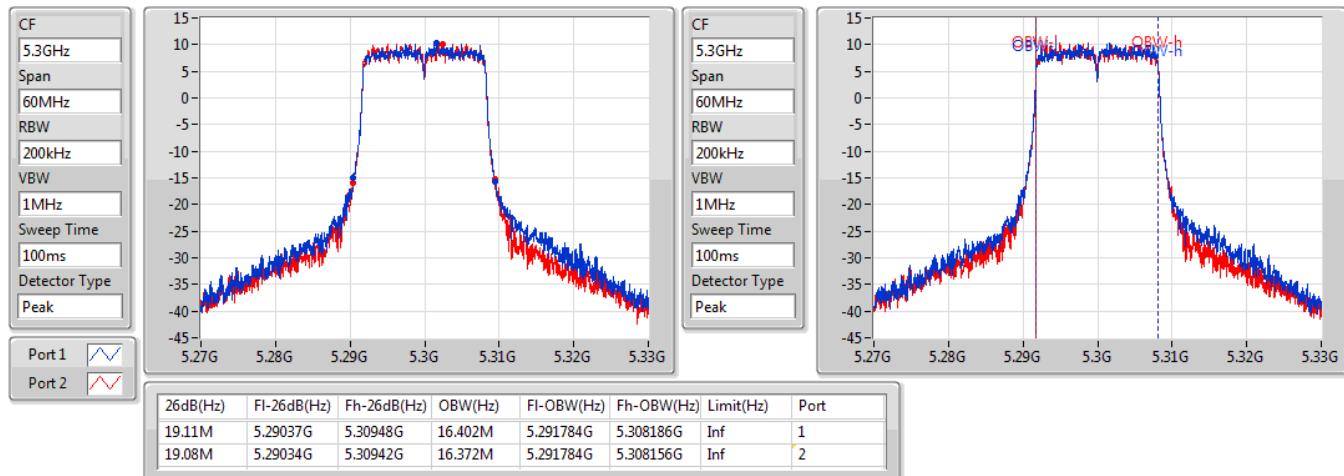

802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5260MHz

19/03/2020

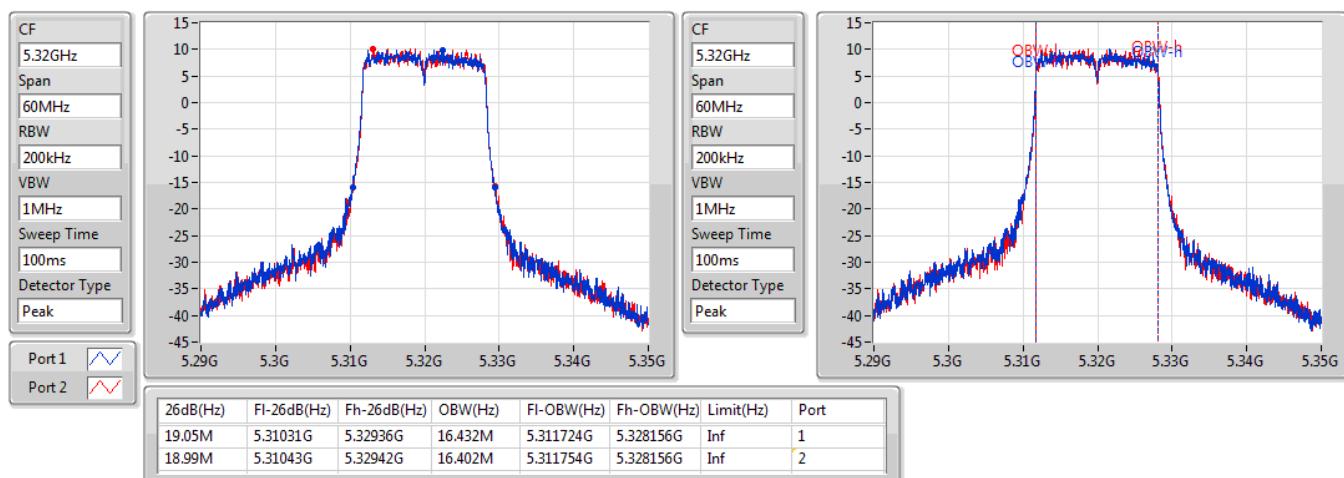


802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5300MHz

19/03/2020

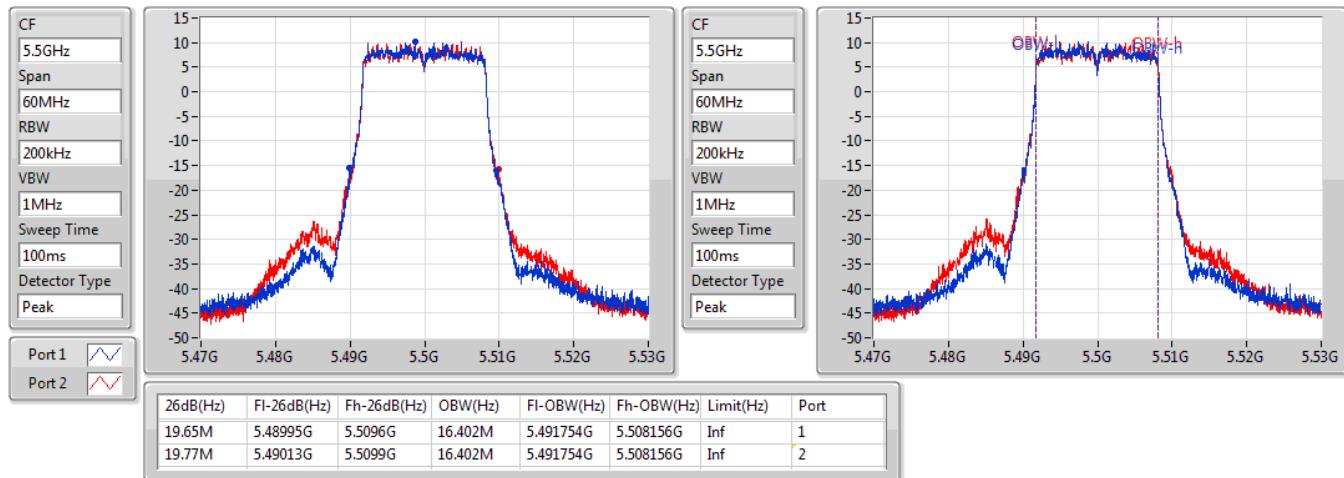

802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5320MHz

19/03/2020

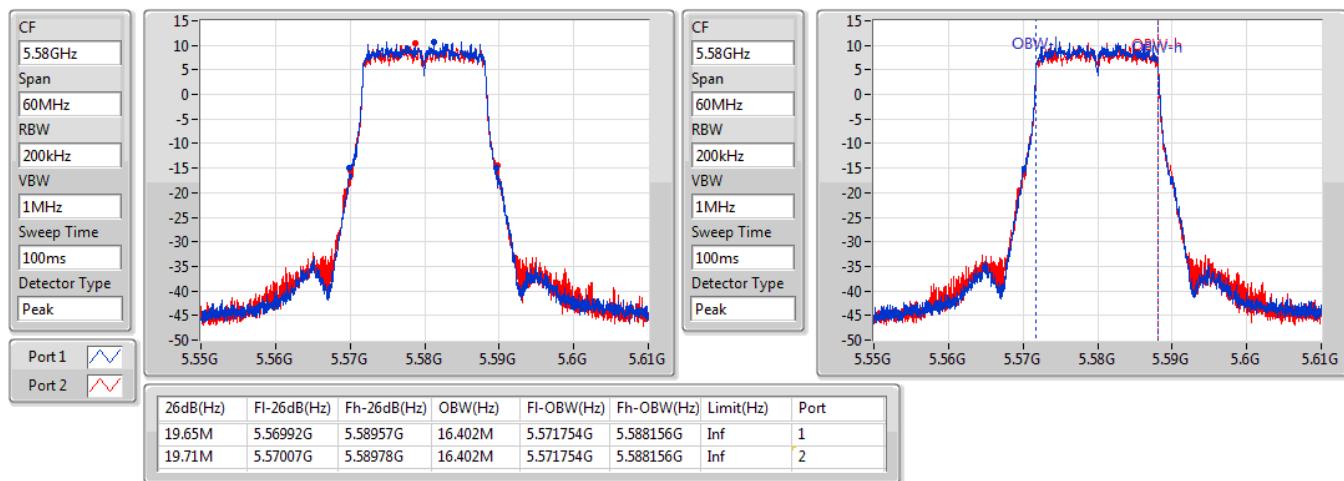


802.11a-BF_Nss1,(6Mbps)_2TX
EBW
550MHz

19/03/2020

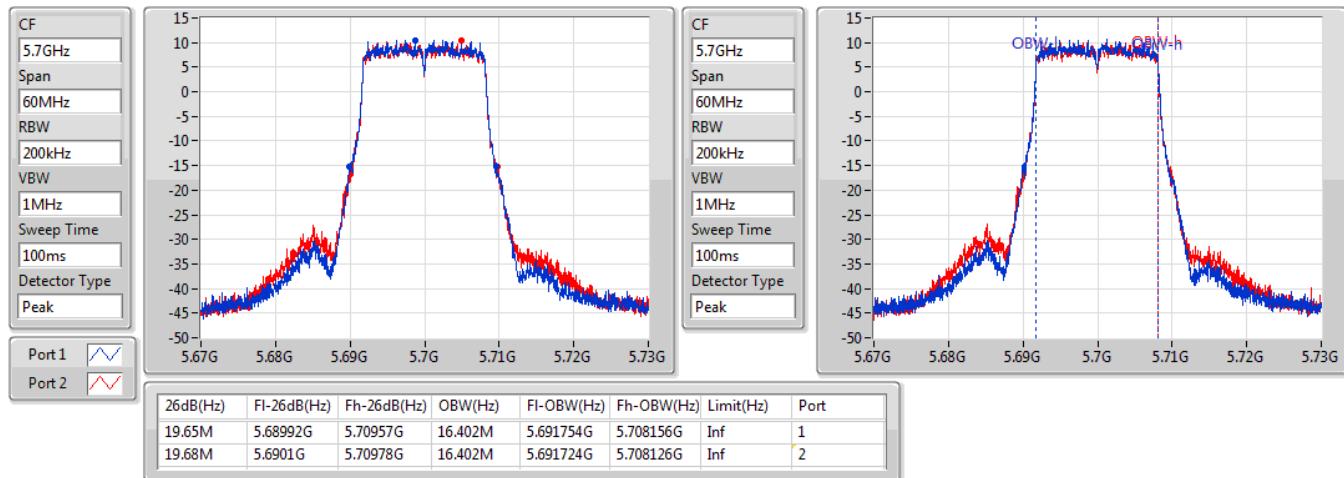

802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5580MHz

19/03/2020

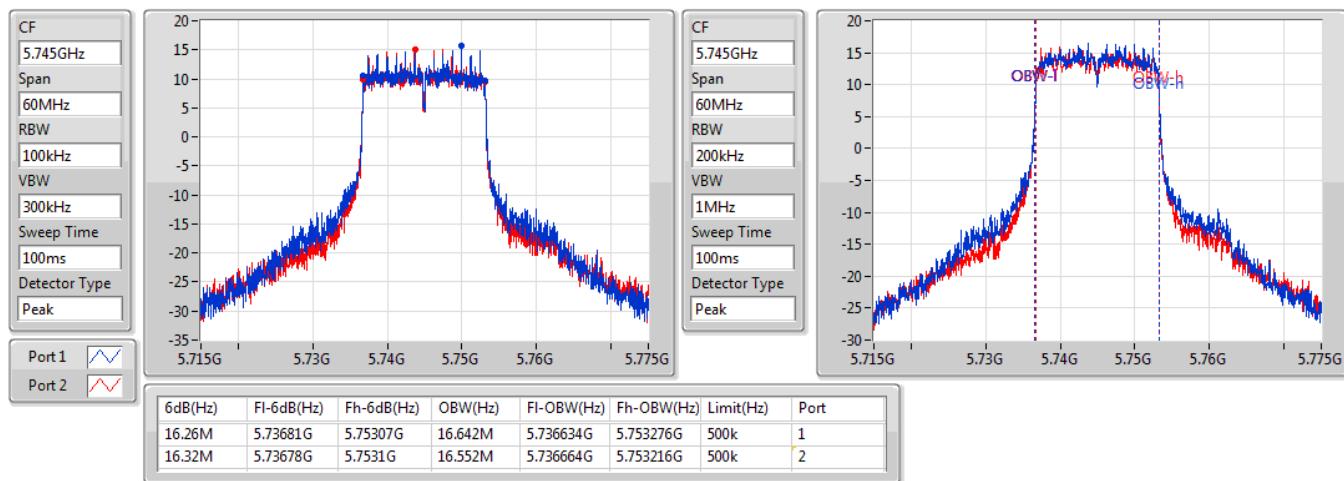


802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5700MHz

19/03/2020

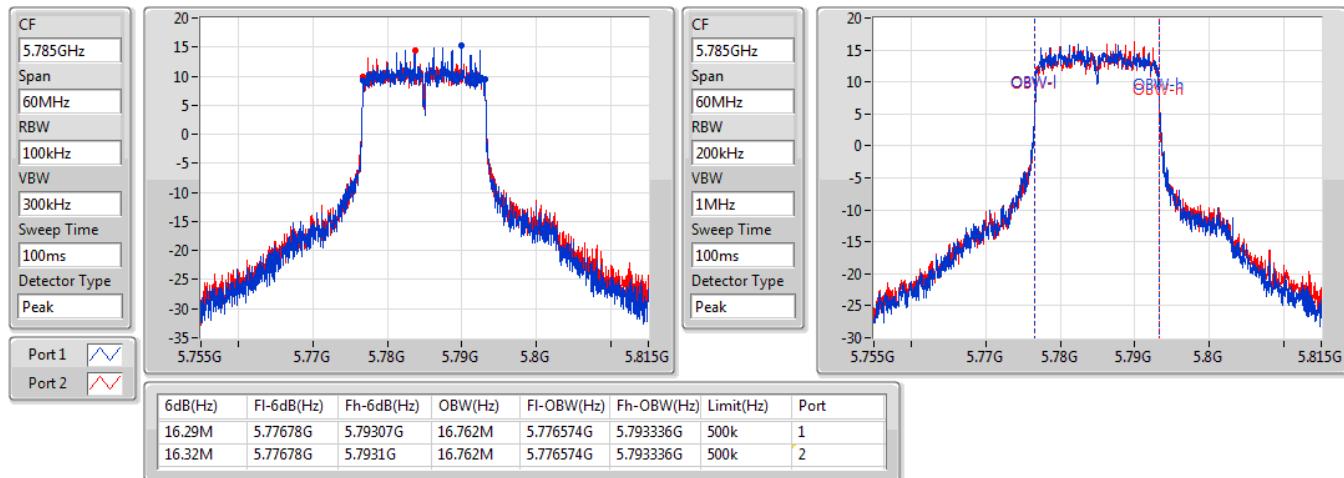

802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5745MHz

19/03/2020

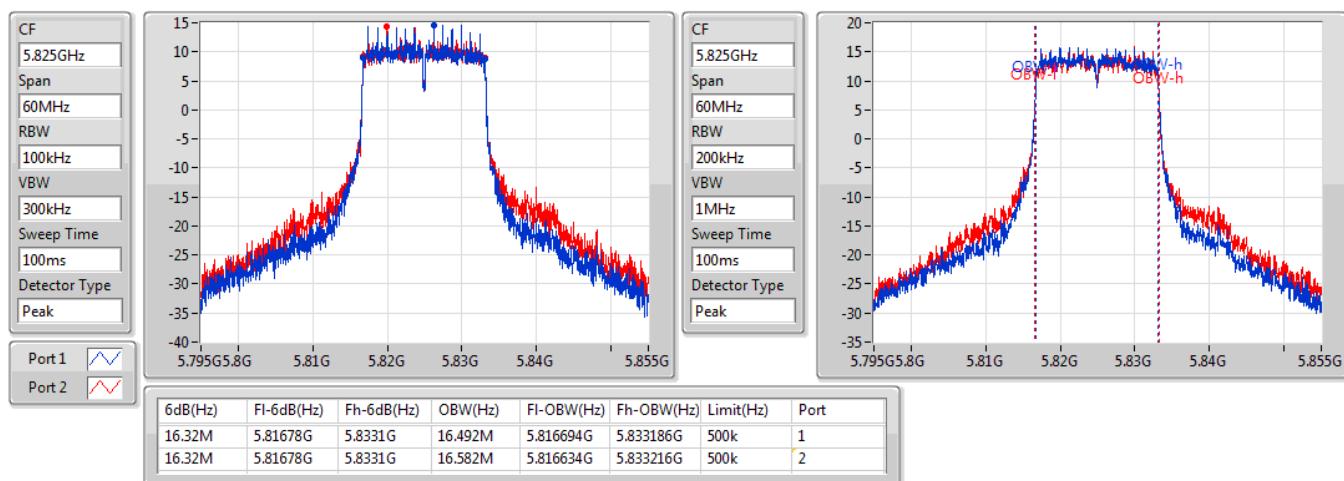


802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5785MHz

19/03/2020

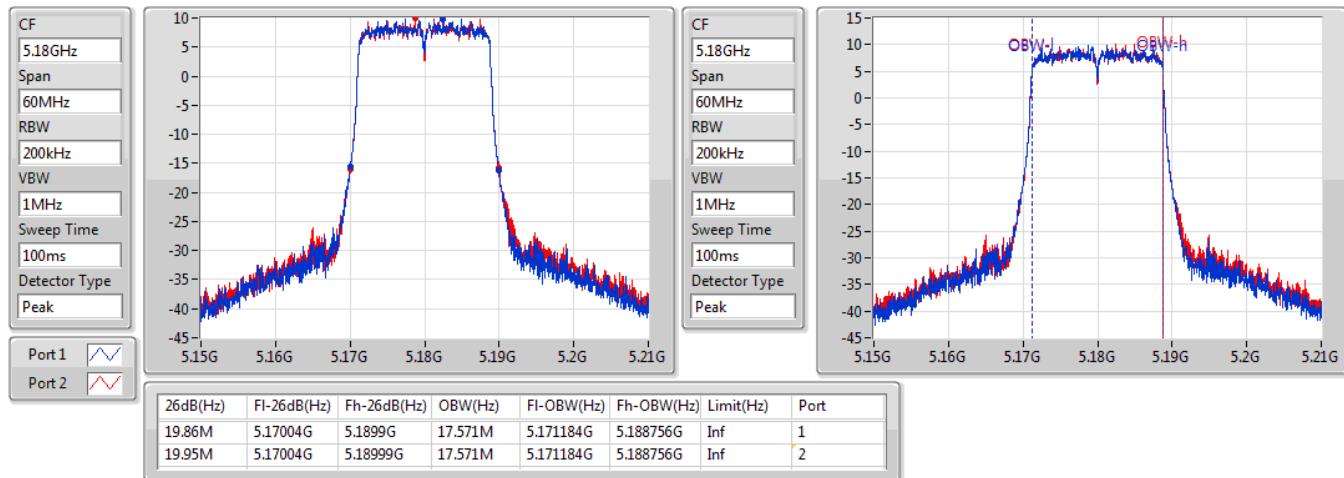

802.11a-BF_Nss1,(6Mbps)_2TX
EBW
5825MHz

19/03/2020

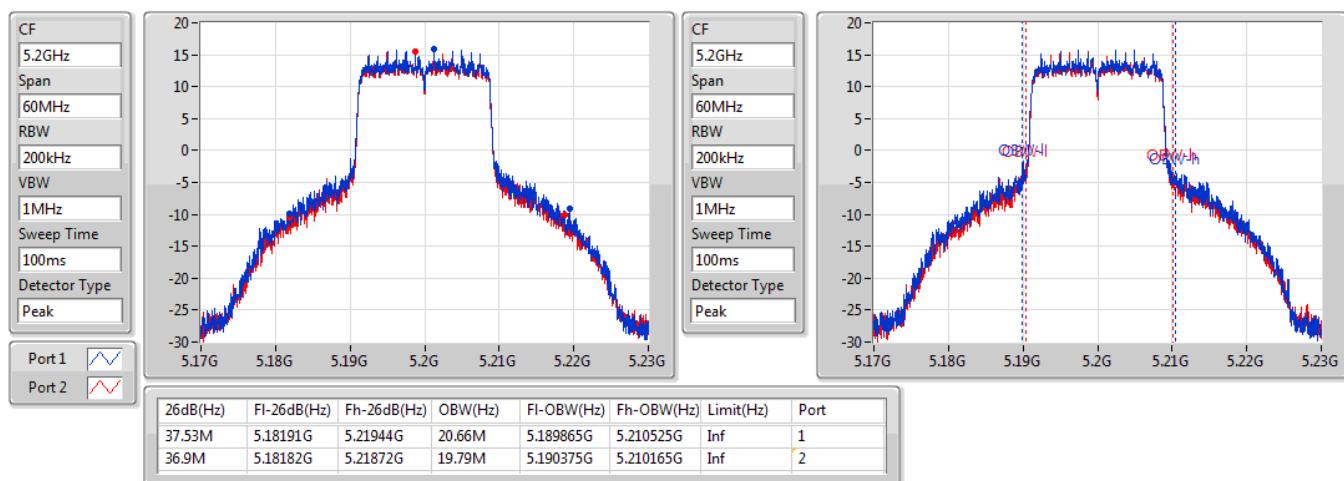


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5180MHz

19/03/2020

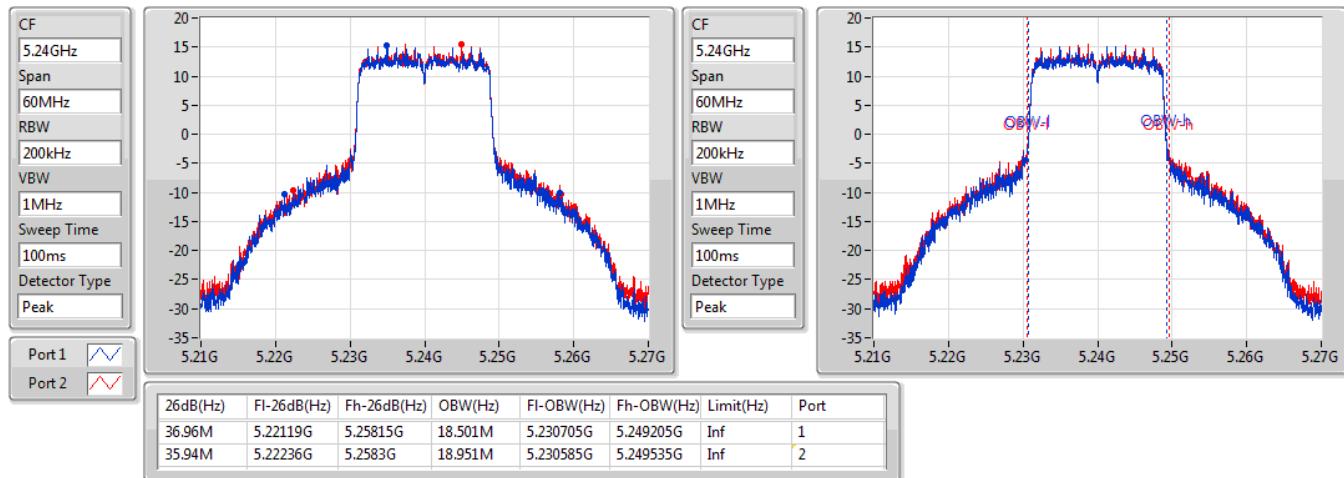

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5200MHz

19/03/2020

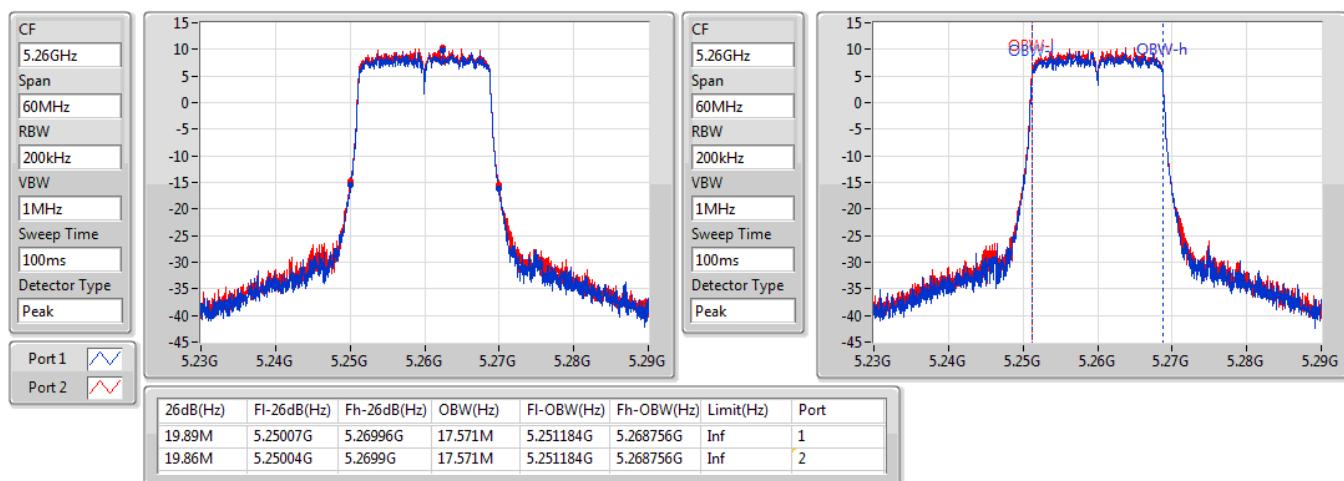


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5240MHz

19/03/2020

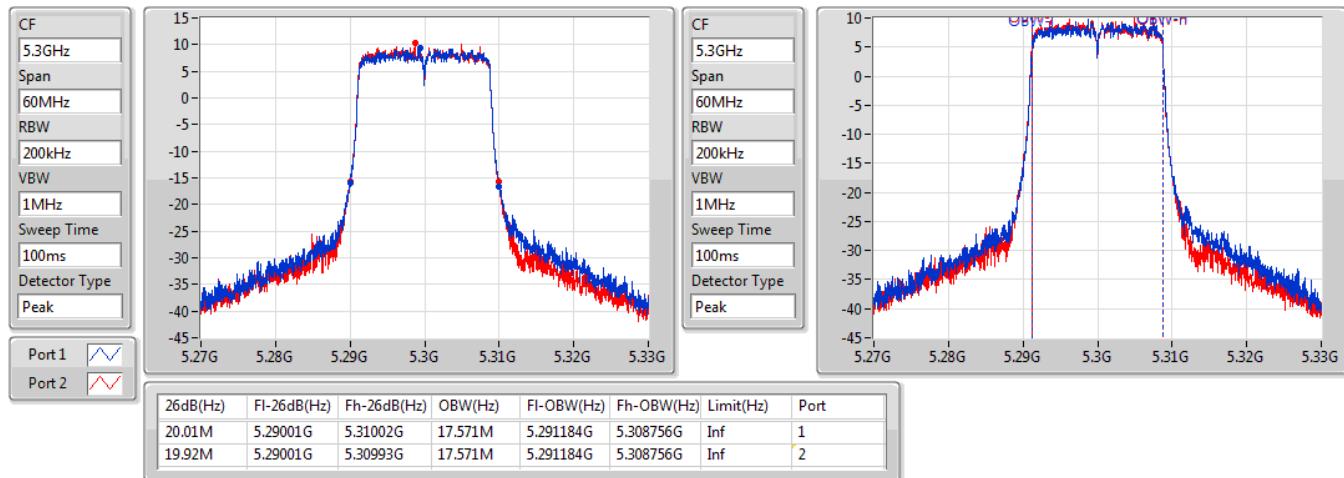

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5260MHz

19/03/2020

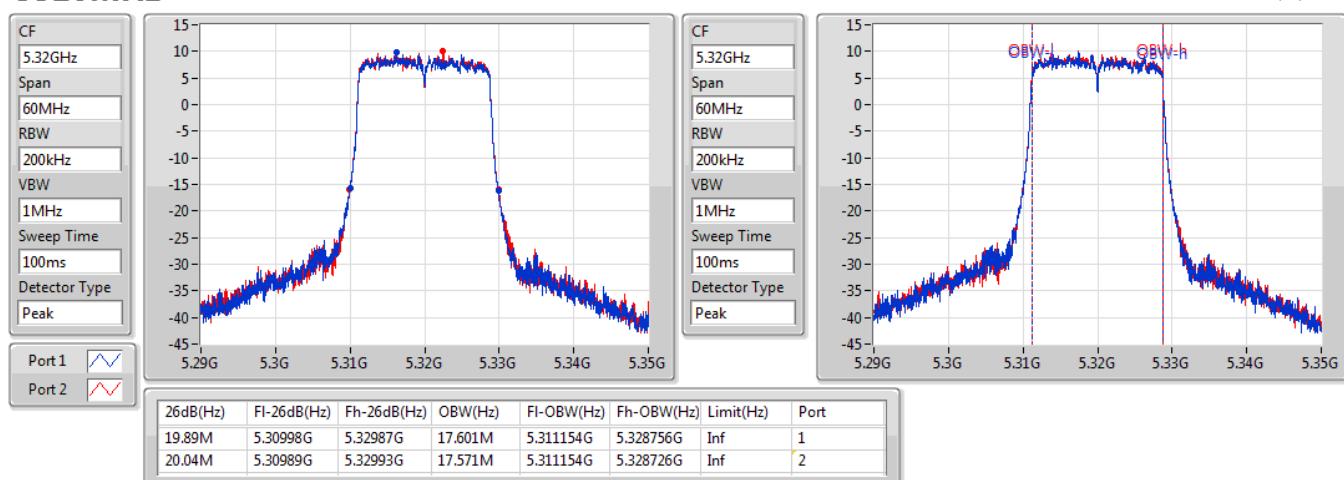


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5300MHz

19/03/2020

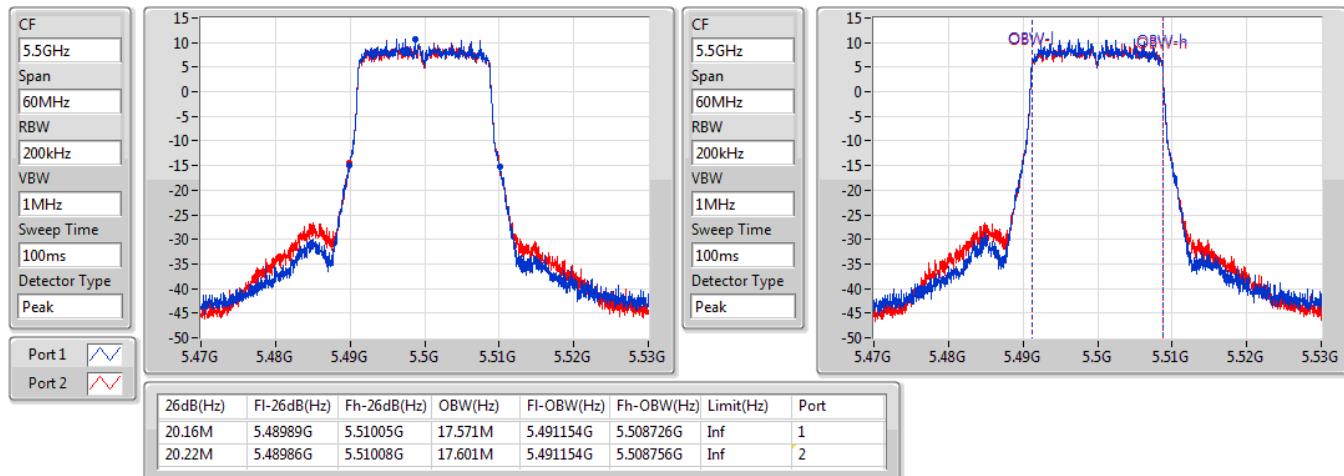

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5320MHz

19/03/2020

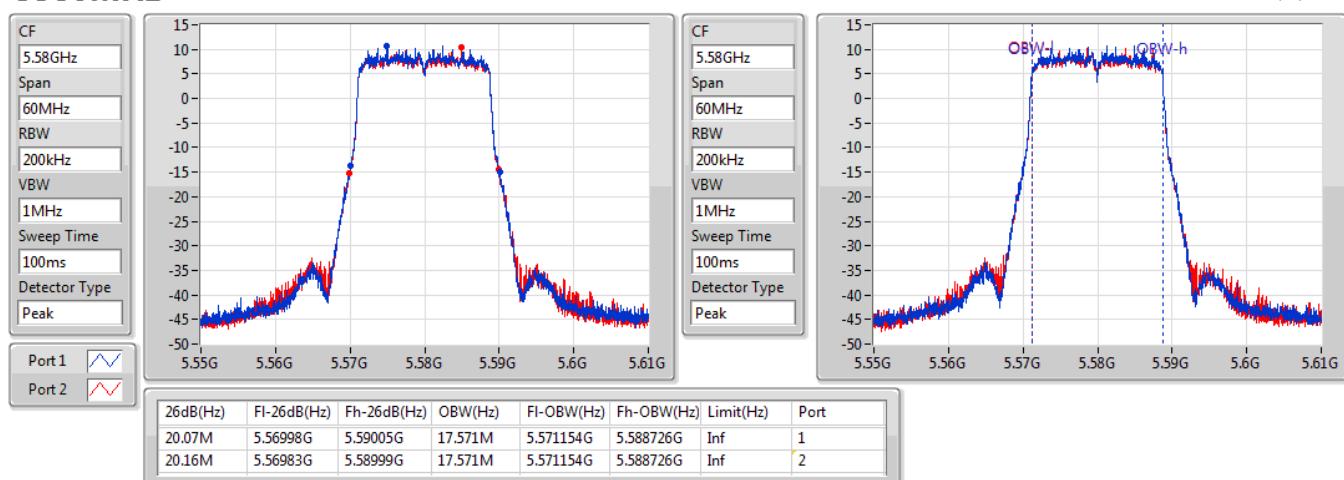


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
550MHz

19/03/2020

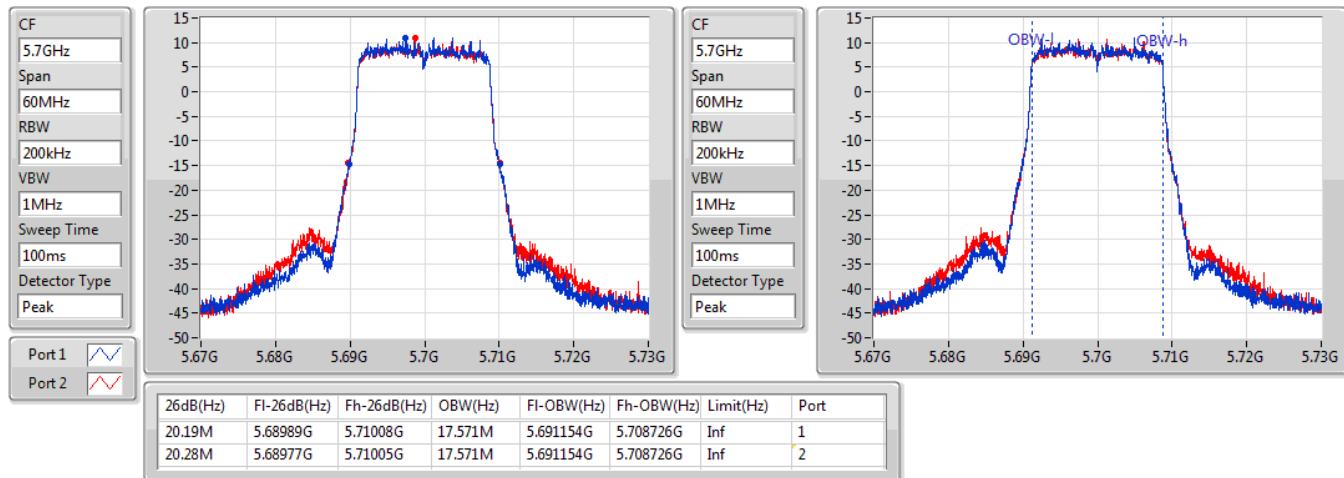

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5580MHz

19/03/2020

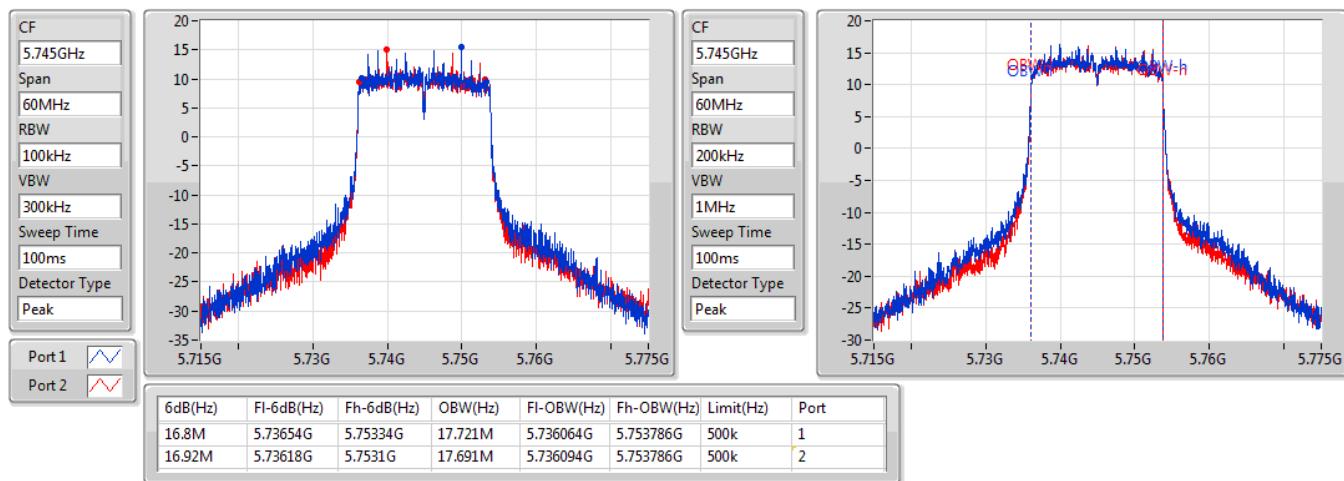


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5700MHz

19/03/2020

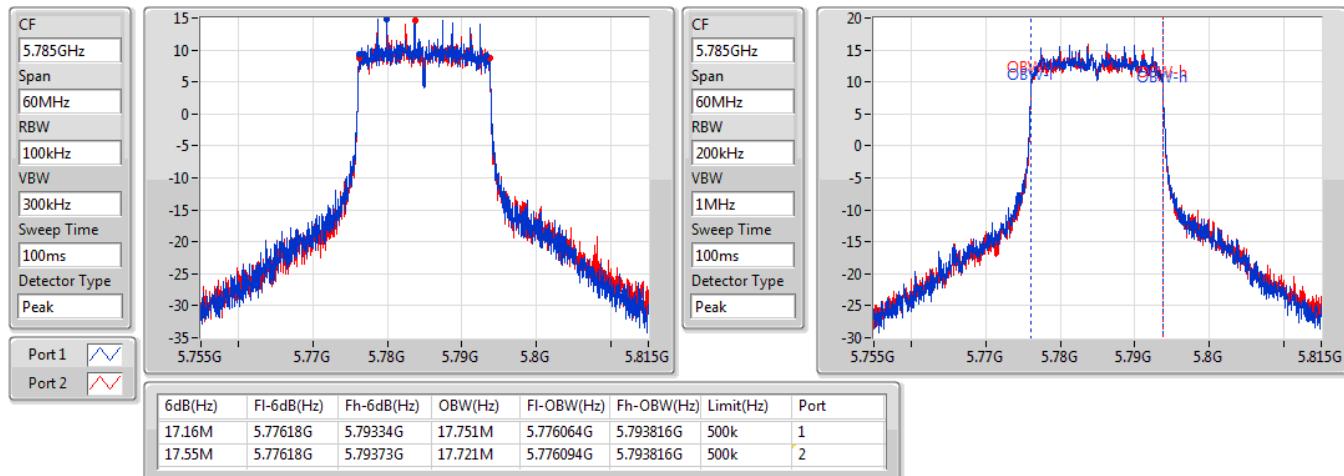

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5745MHz

19/03/2020

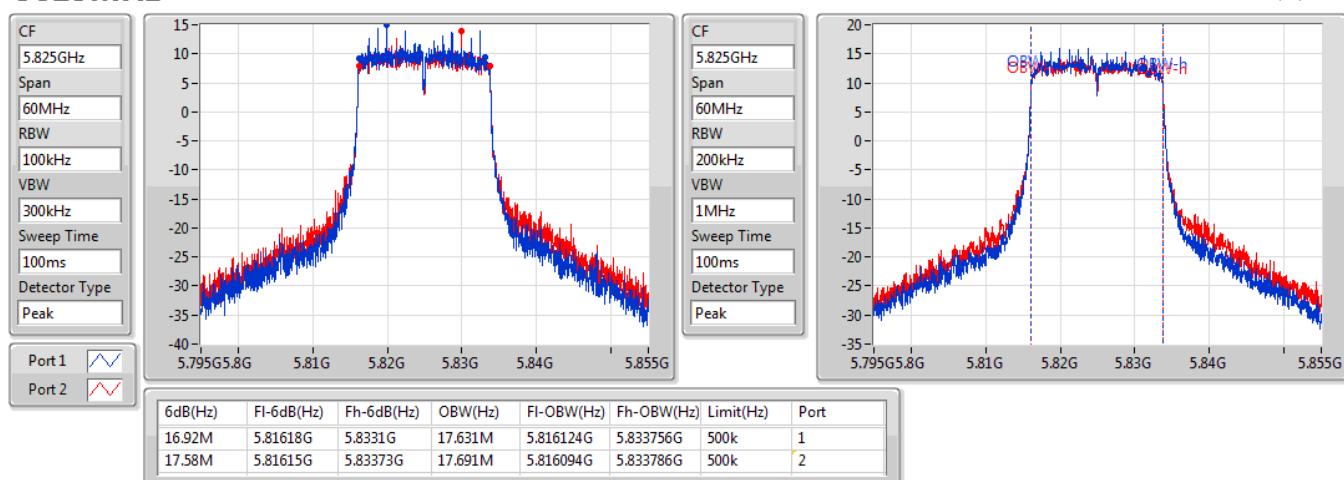


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5785MHz

19/03/2020

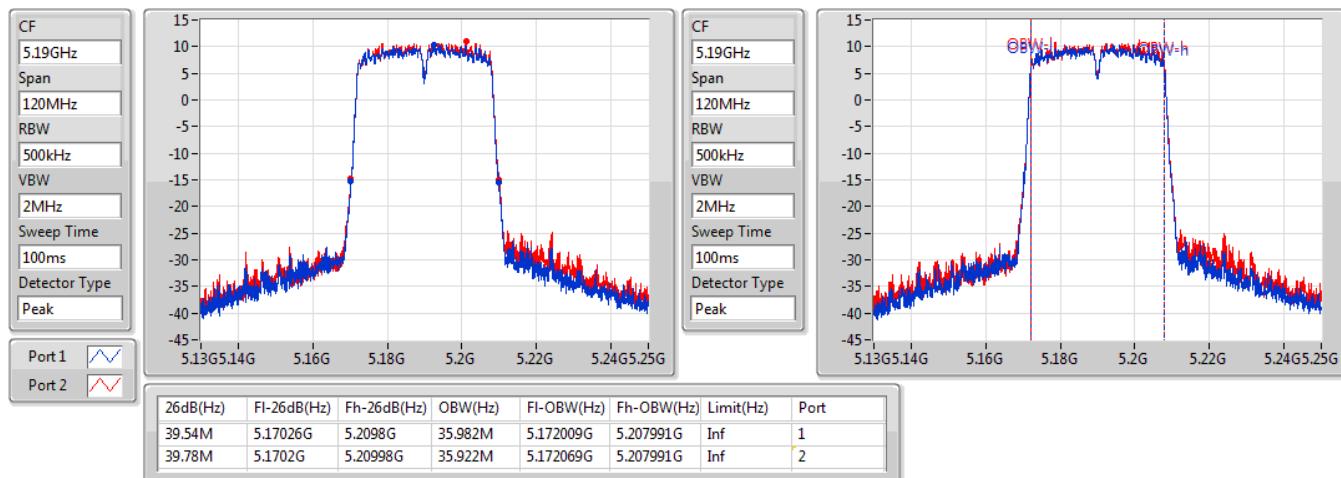

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5825MHz

19/03/2020

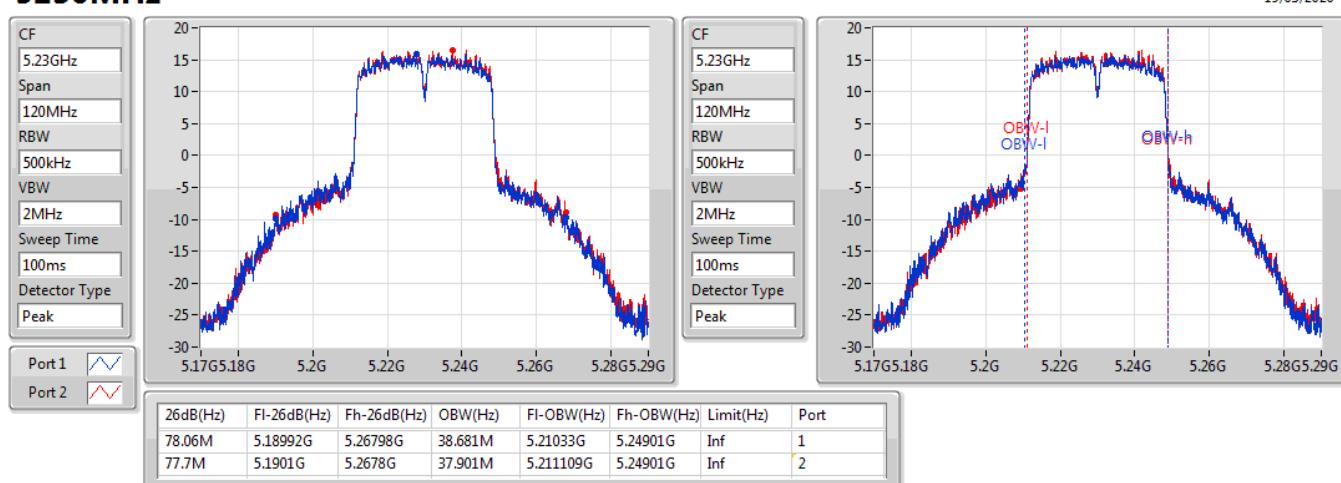


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5190MHz

19/03/2020

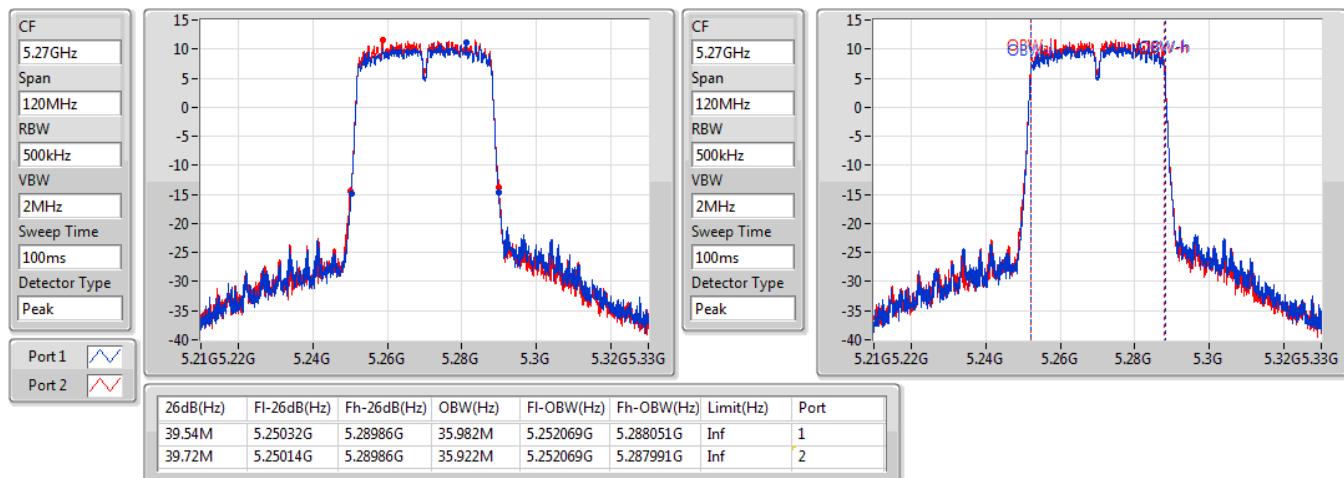

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5230MHz

19/03/2020

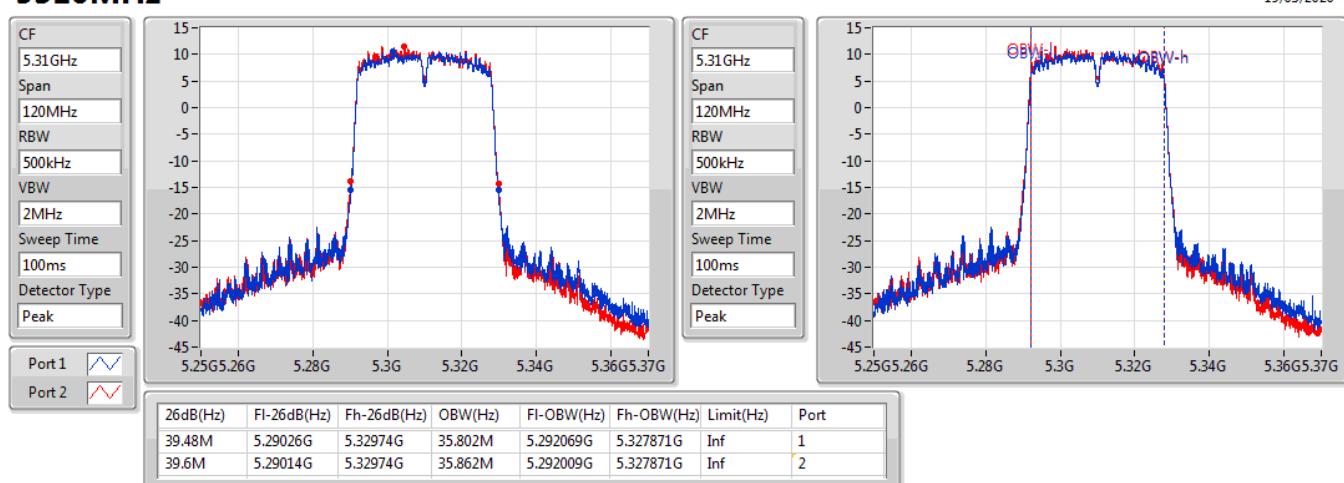


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5270MHz

19/03/2020

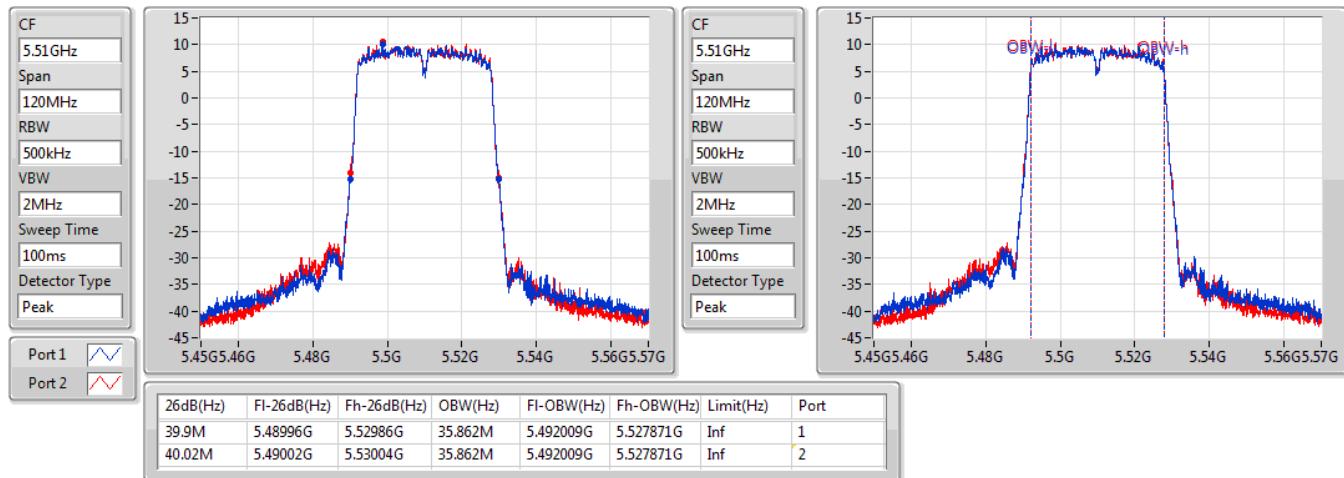

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5310MHz

19/03/2020

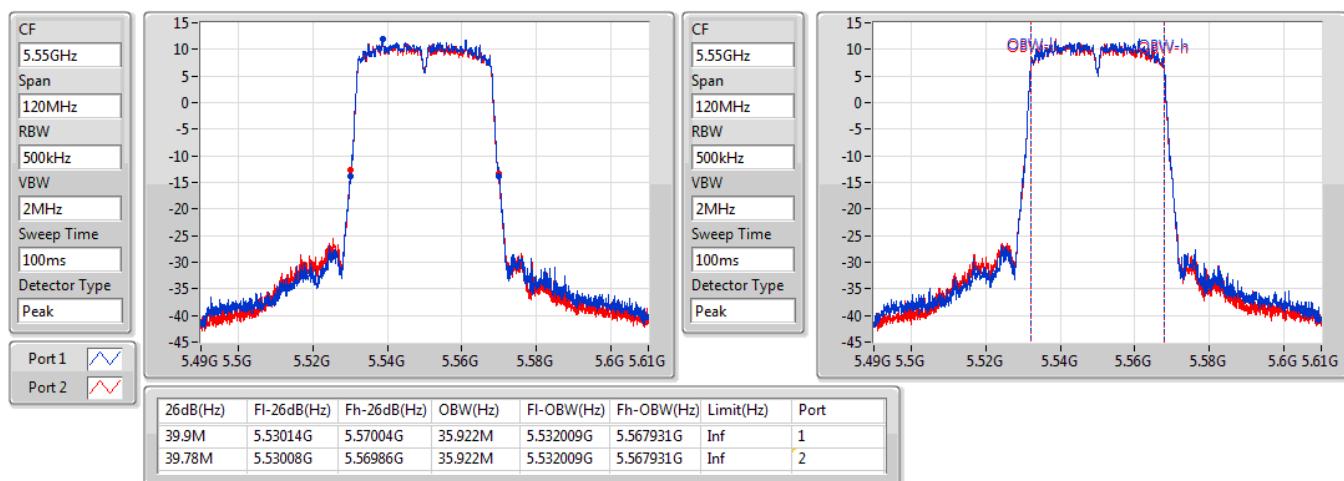


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5510MHz

19/03/2020

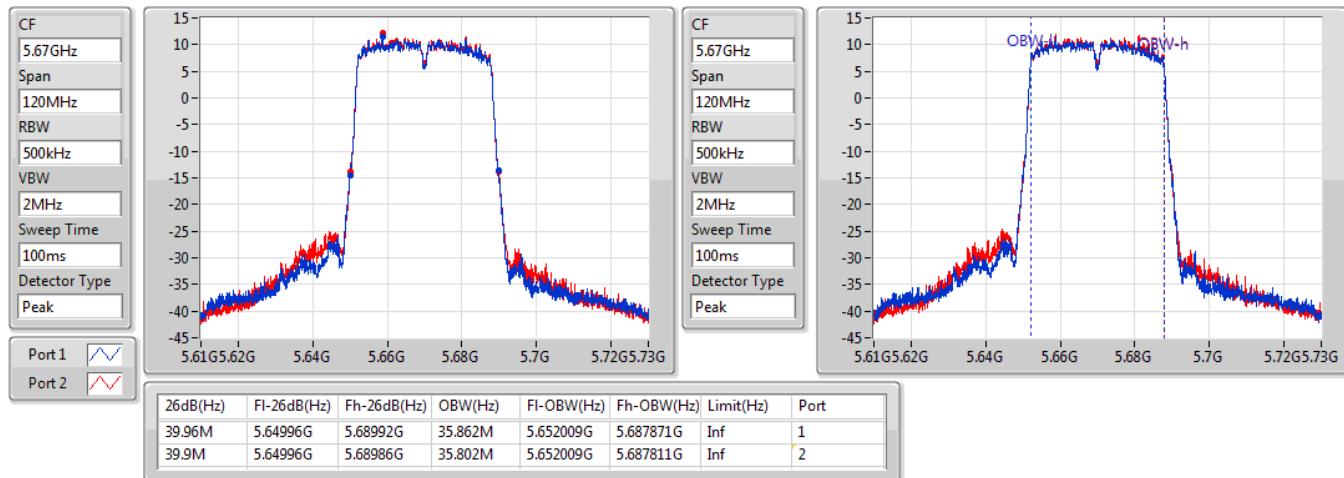

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5550MHz

19/03/2020

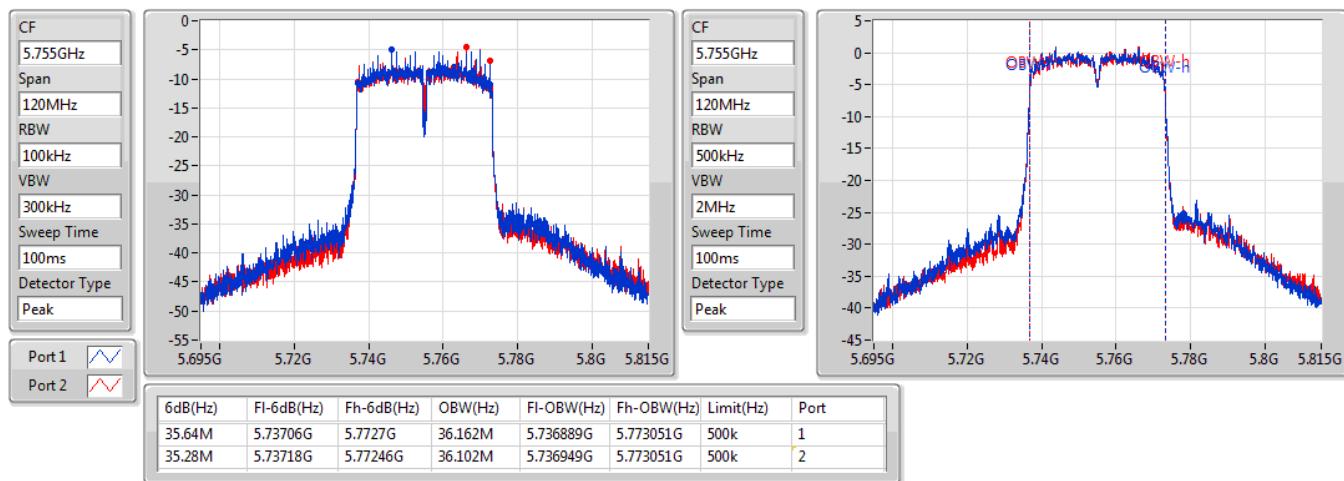


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5670MHz

19/03/2020

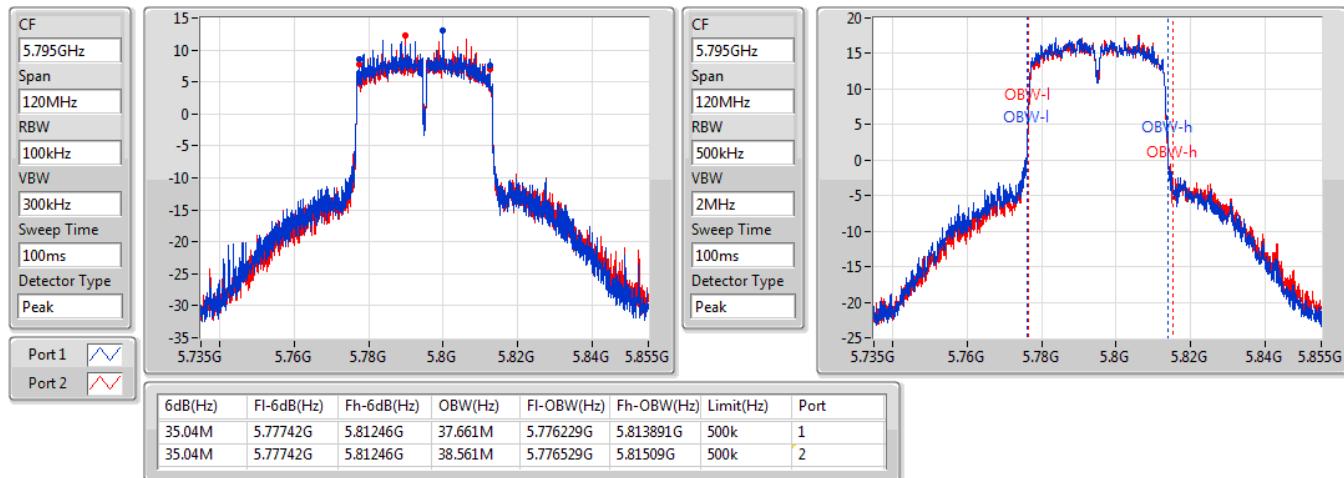

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5755MHz

19/03/2020

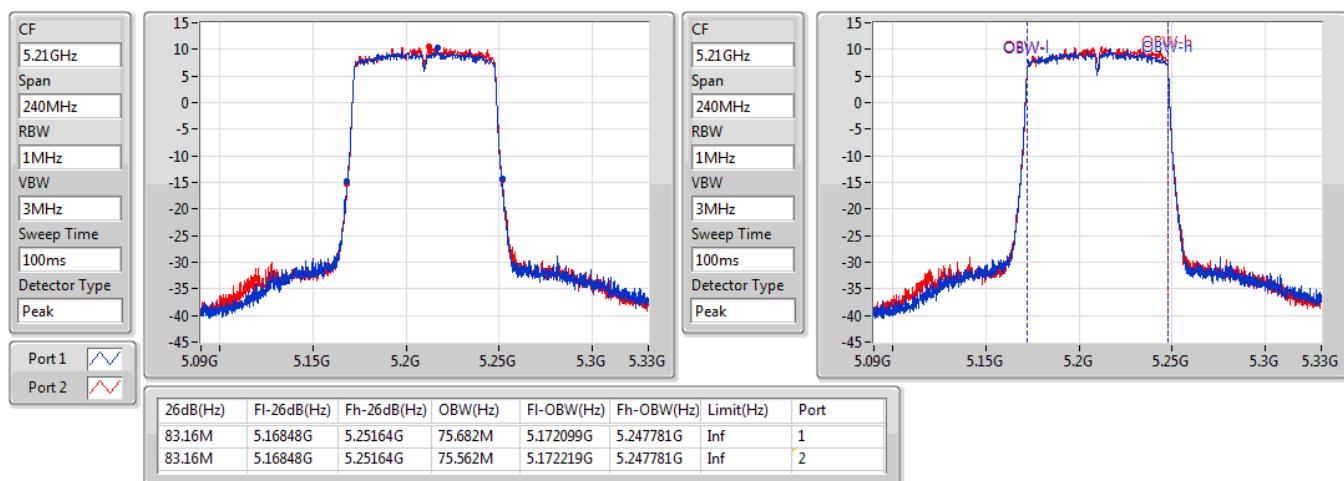


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5795MHz

19/03/2020

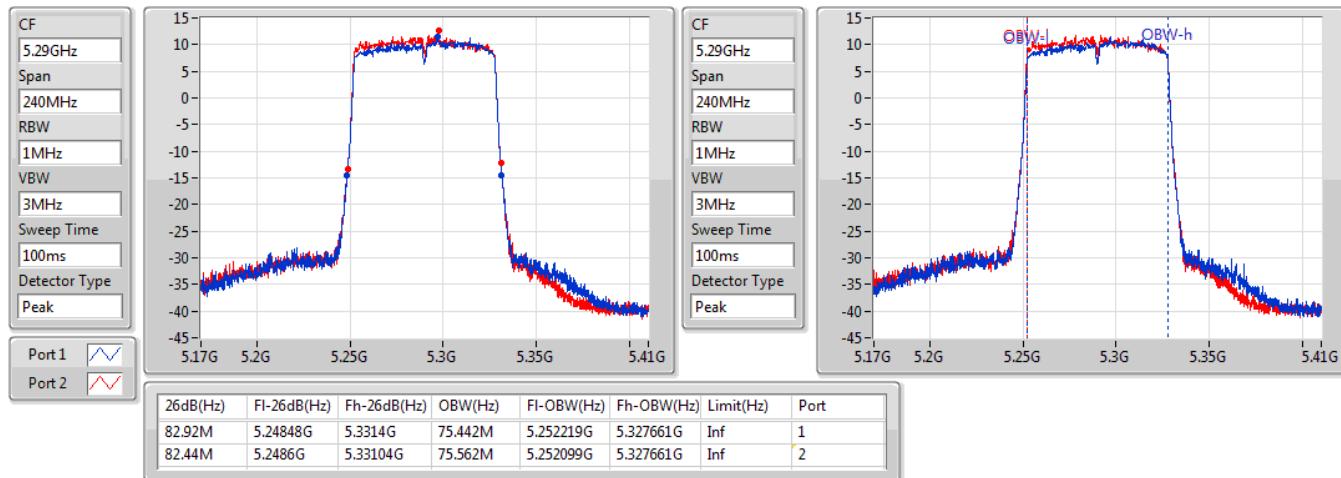

802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5210MHz

19/03/2020

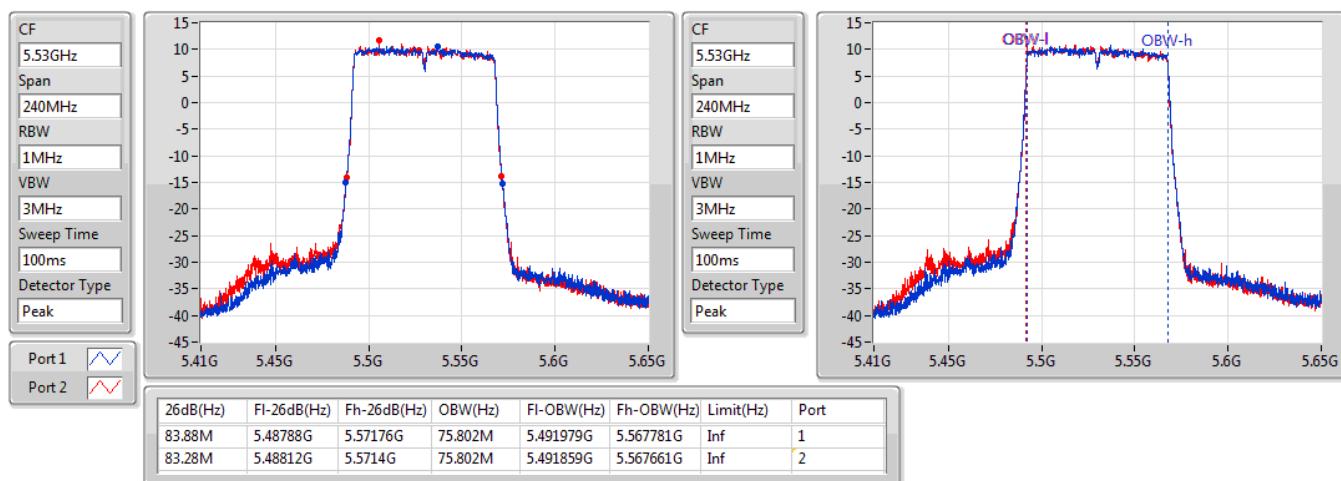


802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5290MHz

19/03/2020

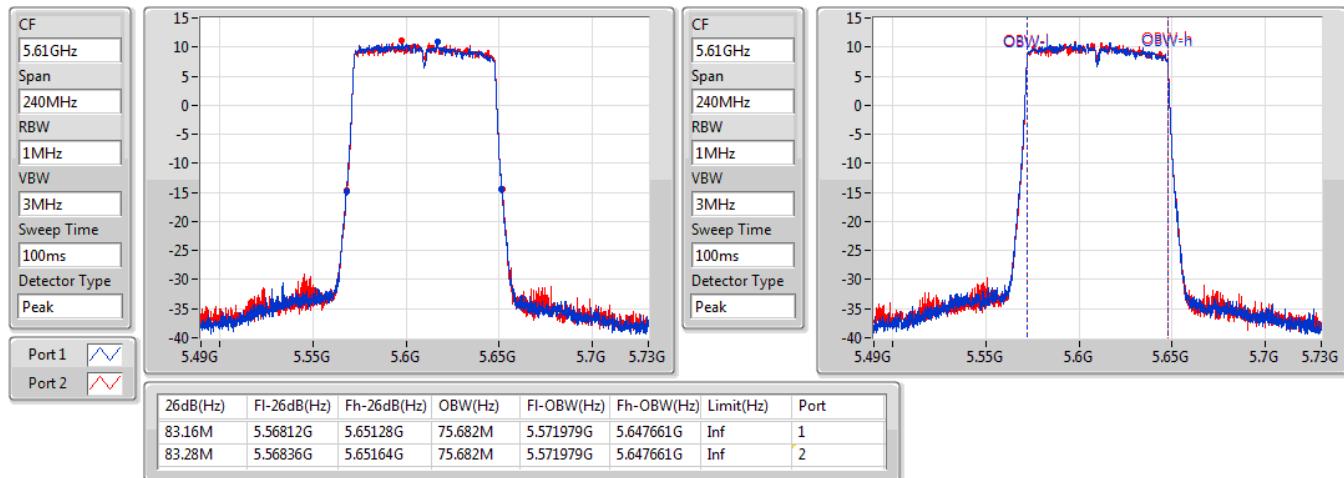

802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5530MHz

19/03/2020

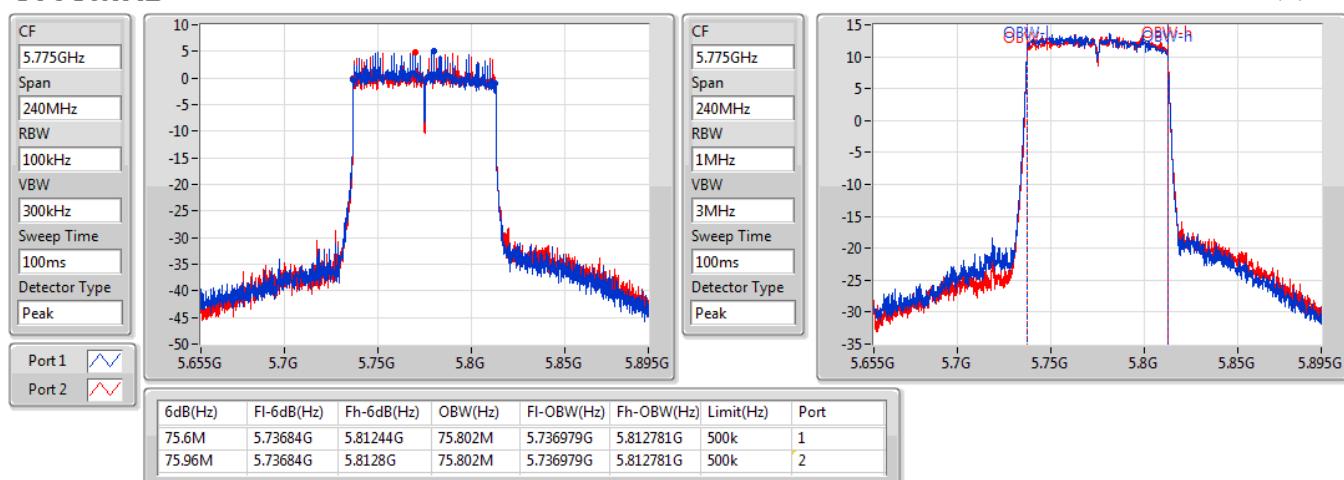


802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5610MHz

19/03/2020


802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5775MHz

19/03/2020



**Summary**

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	28.79	0.75683
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	28.54	0.71450
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	28.40	0.69183
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	21.86	0.15346
5.25-5.35GHz	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	23.78	0.23878
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	23.94	0.24774
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	23.70	0.23442
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	22.84	0.19231
5.47-5.725GHz	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	23.51	0.22439
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	23.68	0.23335
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	23.68	0.23335
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	22.44	0.17539
5.725-5.85GHz	-	-
802.11a-BF_Nss1,(6Mbps)_2TX	28.98	0.79068
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	28.83	0.76384
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	29.36	0.86298
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	25.32	0.34041

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.66	20.83	20.88	23.87	30.00
5200MHz	Pass	5.66	25.74	25.82	28.79	30.00
5240MHz	Pass	5.66	25.10	25.50	28.31	30.00
5260MHz	Pass	5.65	20.11	20.76	23.46	23.81
5300MHz	Pass	5.65	20.62	20.91	23.78	23.81
5320MHz	Pass	5.65	20.46	20.77	23.63	23.79
5500MHz	Pass	6.26	20.02	20.15	23.10	23.67
5580MHz	Pass	6.26	20.54	20.22	23.39	23.67
5700MHz	Pass	6.26	20.53	20.46	23.51	23.67
5745MHz	Pass	5.94	26.04	25.90	28.98	30.00
5785MHz	Pass	5.94	25.50	25.62	28.57	30.00
5825MHz	Pass	5.94	25.37	25.29	28.34	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.66	20.89	21.00	23.96	30.00
5200MHz	Pass	5.66	25.57	25.48	28.54	30.00
5240MHz	Pass	5.66	25.16	25.52	28.35	30.00
5260MHz	Pass	5.65	20.67	21.18	23.94	23.98
5300MHz	Pass	5.65	20.67	20.91	23.80	23.98
5320MHz	Pass	5.65	20.54	20.84	23.70	23.98
5500MHz	Pass	6.26	20.25	20.34	23.31	23.72
5580MHz	Pass	6.26	20.46	20.15	23.32	23.72
5700MHz	Pass	6.26	20.74	20.59	23.68	23.72
5745MHz	Pass	5.94	25.86	25.77	28.83	30.00
5785MHz	Pass	5.94	25.63	25.40	28.53	30.00
5825MHz	Pass	5.94	25.22	25.01	28.13	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	5.66	19.99	20.28	23.15	30.00
5230MHz	Pass	5.66	25.29	25.48	28.40	30.00
5270MHz	Pass	5.65	20.47	20.90	23.70	23.98
5310MHz	Pass	5.65	20.02	20.19	23.12	23.98
5510MHz	Pass	6.26	19.14	19.16	22.16	23.72
5550MHz	Pass	6.26	20.91	20.42	23.68	23.72
5670MHz	Pass	6.26	20.34	20.48	23.42	23.72
5755MHz	Pass	5.94	25.09	24.96	28.04	30.00
5795MHz	Pass	5.94	26.49	26.20	29.36	30.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	5.66	18.70	18.99	21.86	30.00
5290MHz	Pass	5.65	19.55	20.10	22.84	23.98
5530MHz	Pass	6.26	19.40	19.34	22.38	23.72
5610MHz	Pass	6.26	19.43	19.43	22.44	23.72
5775MHz	Pass	5.94	22.40	22.22	25.32	30.00

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

**Summary**

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a-BF_Nss1,(6Mbps)_2TX	15.99
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	15.31
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	12.37
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	2.86
5.25-5.35GHz	-
802.11a-BF_Nss1,(6Mbps)_2TX	10.98
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	10.78
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	7.81
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	4.03
5.47-5.725GHz	-
802.11a-BF_Nss1,(6Mbps)_2TX	10.71
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	10.42
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	7.83
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	3.44
5.725-5.85GHz	-
802.11a-BF_Nss1,(6Mbps)_2TX	14.76
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	14.08
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	11.99
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	4.63

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



Result

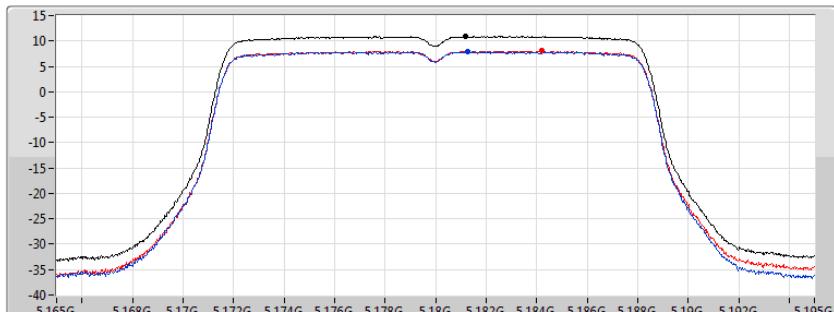
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a-BF_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.66	7.93	8.05	10.90	17.00
5200MHz	Pass	5.66	12.96	13.11	15.99	17.00
5240MHz	Pass	5.66	12.44	12.70	15.51	17.00
5260MHz	Pass	5.65	7.38	8.04	10.68	11.00
5300MHz	Pass	5.65	7.98	8.18	10.98	11.00
5320MHz	Pass	5.65	7.99	8.13	10.98	11.00
5500MHz	Pass	6.26	7.27	7.55	10.32	10.74
5580MHz	Pass	6.26	7.88	7.55	10.71	10.74
5700MHz	Pass	6.26	7.67	7.68	10.64	10.74
5745MHz	Pass	5.94	11.86	11.73	14.76	30.00
5785MHz	Pass	5.94	11.49	11.47	14.38	30.00
5825MHz	Pass	5.94	11.24	11.26	14.18	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.66	7.66	7.67	10.63	17.00
5200MHz	Pass	5.66	12.50	12.19	15.31	17.00
5240MHz	Pass	5.66	11.86	12.29	15.03	17.00
5260MHz	Pass	5.65	7.43	8.16	10.78	11.00
5300MHz	Pass	5.65	7.58	7.83	10.61	11.00
5320MHz	Pass	5.65	7.45	7.87	10.61	11.00
5500MHz	Pass	6.26	7.39	7.37	10.33	10.74
5580MHz	Pass	6.26	7.30	6.99	10.13	10.74
5700MHz	Pass	6.26	7.56	7.38	10.42	10.74
5745MHz	Pass	5.94	11.21	11.03	14.08	30.00
5785MHz	Pass	5.94	10.97	10.78	13.82	30.00
5825MHz	Pass	5.94	10.66	10.52	13.53	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	5.66	4.13	4.28	7.17	17.00
5230MHz	Pass	5.66	9.42	9.47	12.37	17.00
5270MHz	Pass	5.65	4.65	5.12	7.81	11.00
5310MHz	Pass	5.65	4.43	4.64	7.45	11.00
5510MHz	Pass	6.26	3.47	3.41	6.40	10.74
5550MHz	Pass	6.26	5.10	4.61	7.83	10.74
5670MHz	Pass	6.26	4.52	4.69	7.54	10.74
5755MHz	Pass	5.94	7.77	7.61	10.62	30.00
5795MHz	Pass	5.94	9.12	8.84	11.99	30.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	5.66	-0.12	0.01	2.86	17.00
5290MHz	Pass	5.65	1.01	1.23	4.03	11.00
5530MHz	Pass	6.26	0.40	0.43	3.35	10.74
5610MHz	Pass	6.26	0.63	0.34	3.44	10.74
5775MHz	Pass	5.94	1.84	1.55	4.63	30.00

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

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

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5180MHz

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



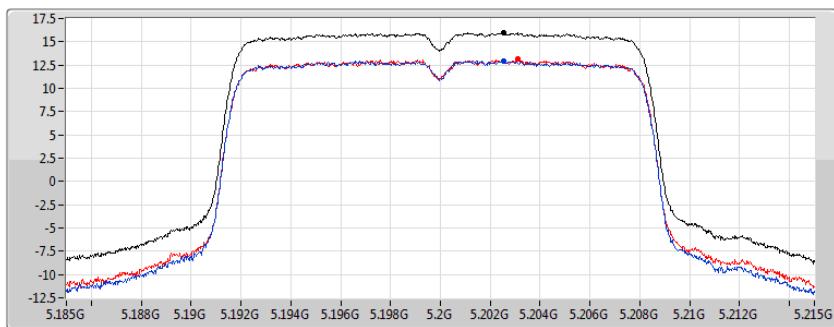
19/03/2020

Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.90	10.90	7.93	8.05

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5200MHz

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



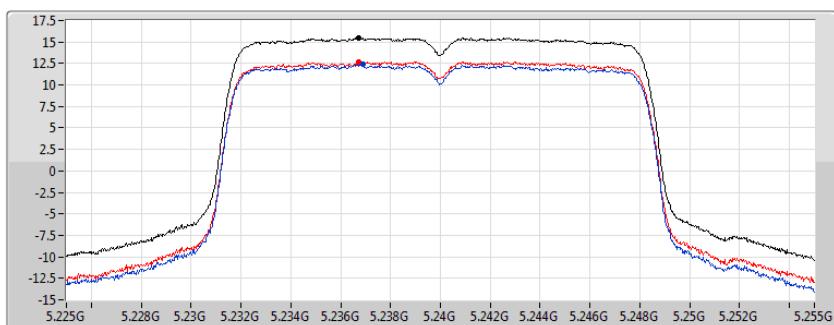
19/03/2020

Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.99	15.99	12.96	13.11

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5240MHz

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



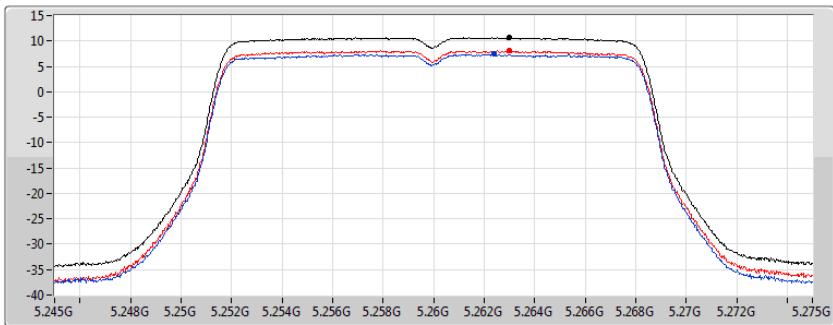
19/03/2020

Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
15.51	15.51	12.44	12.70

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5260MHz

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

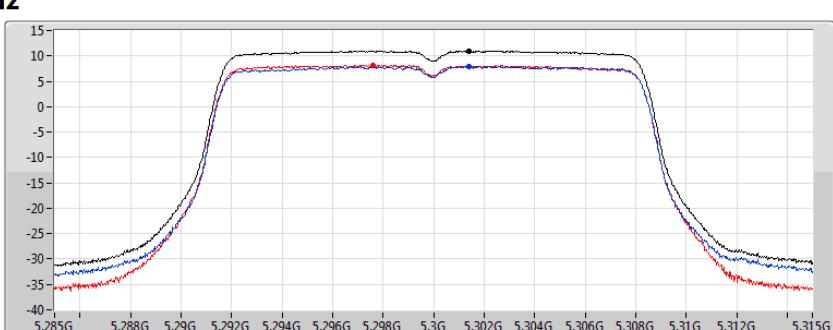


19/03/2020

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

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5300MHz

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

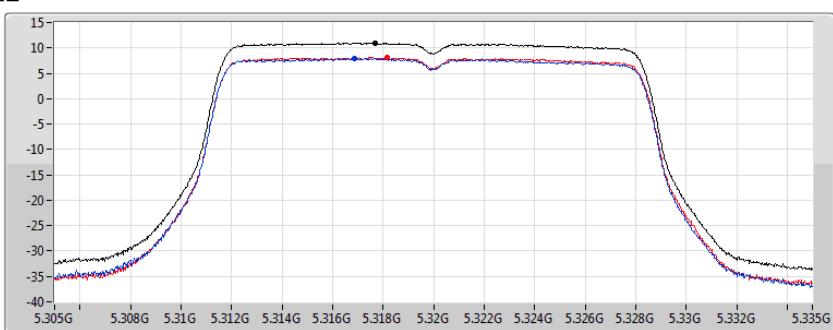


19/03/2020

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

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5320MHz

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

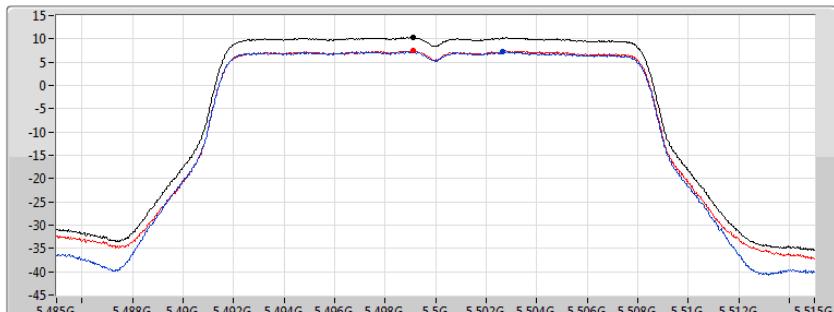


19/03/2020

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

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5500MHz

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



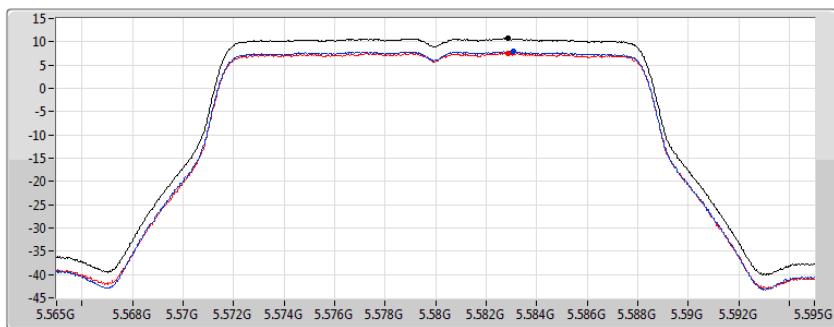
19/03/2020

Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.32	10.32	7.27	7.55

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5580MHz

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



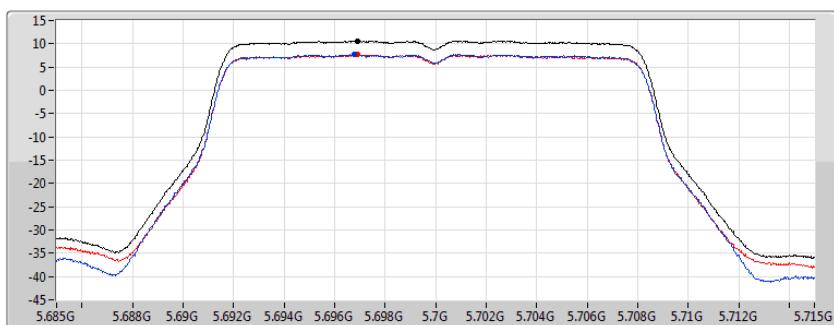
19/03/2020

Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.71	10.71	7.88	7.55

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5700MHz

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



19/03/2020

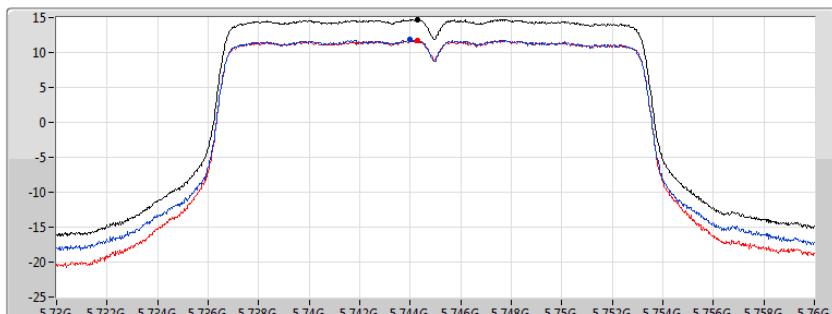
Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.64	10.64	7.67	7.68

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5745MHz

19/03/2020

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

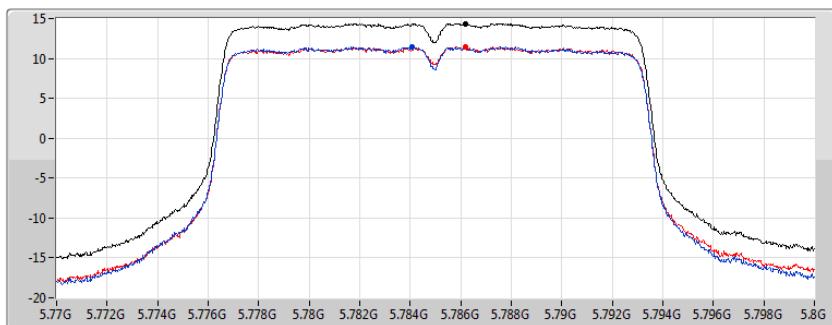


Sum	<input checked="" type="checkbox"/>
Port 1	<input checked="" type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5785MHz

19/03/2020

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

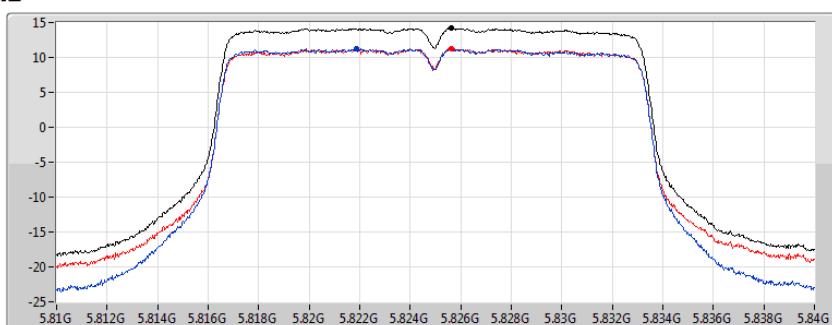


Sum	<input checked="" type="checkbox"/>
Port 1	<input checked="" type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>

802.11a-BF_Nss1,(6Mbps)_2TX
PSD
5825MHz

19/03/2020

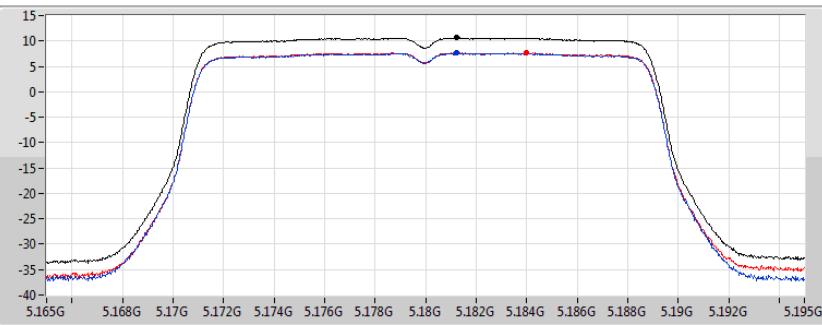
CF
5.825GHz
Span
30MHz
RBW
500kHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



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

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5180MHz

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

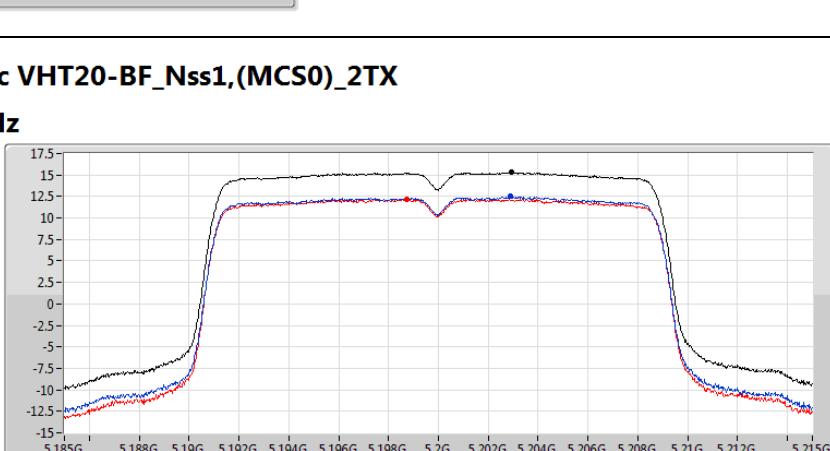


19/03/2020

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

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5200MHz

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

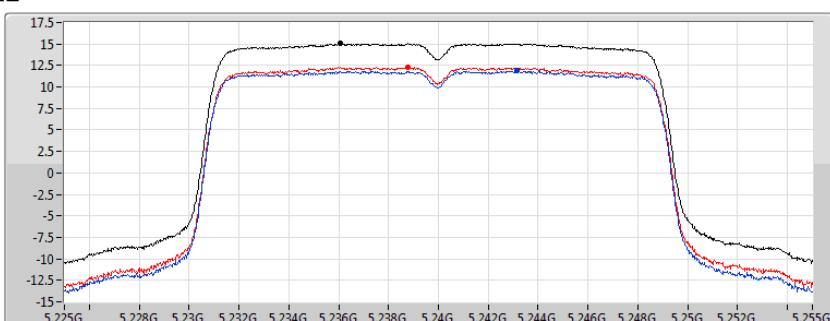


19/03/2020

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

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5240MHz

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

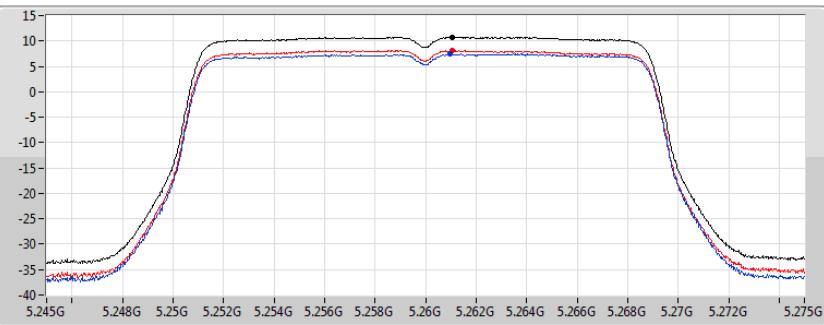


19/03/2020

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

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5260MHz

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



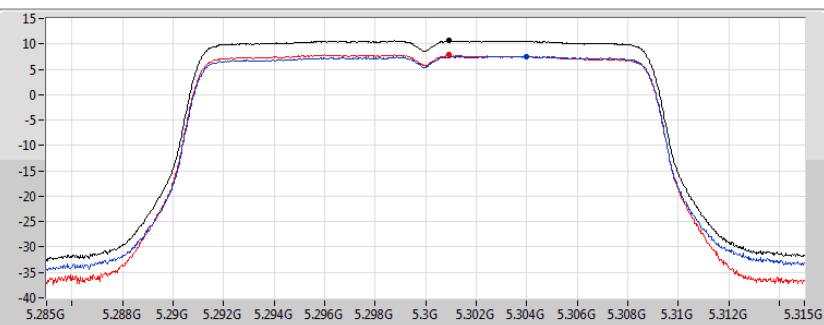
19/03/2020

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

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.78	10.78	7.43	8.16

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5300MHz

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



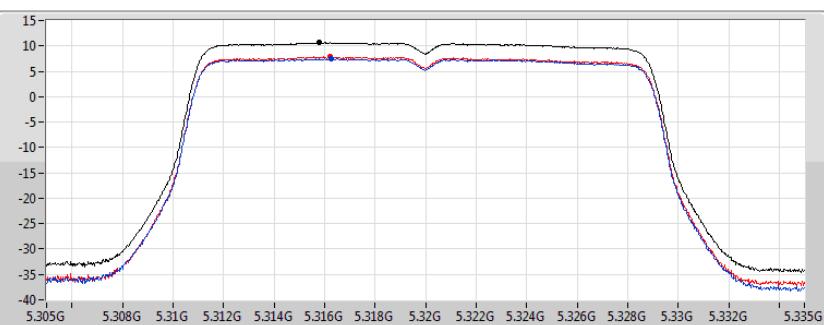
19/03/2020

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

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.61	10.61	7.58	7.83

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5320MHz

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



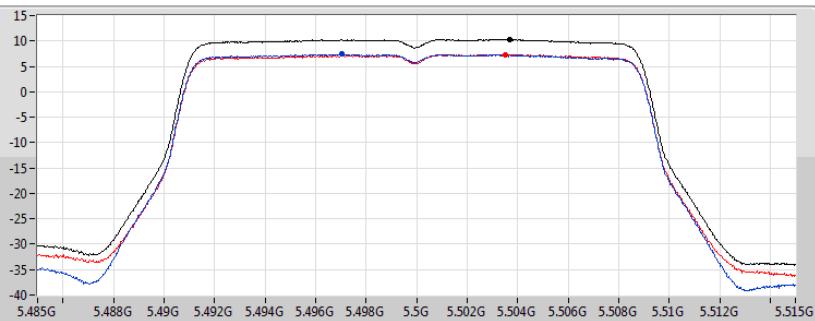
19/03/2020

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

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.61	10.61	7.45	7.87

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5500MHz

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



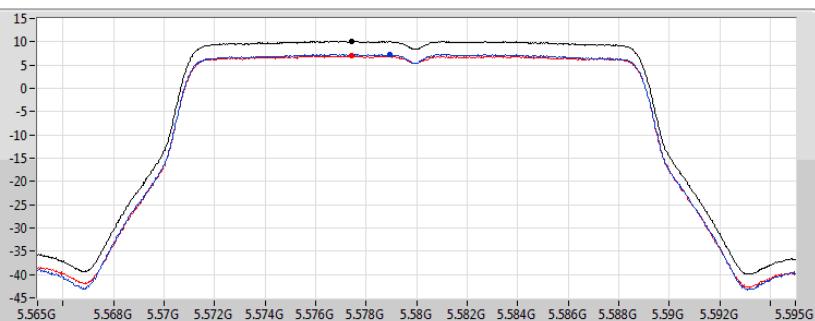
19/03/2020

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

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.33	10.33	7.39	7.37

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5580MHz

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



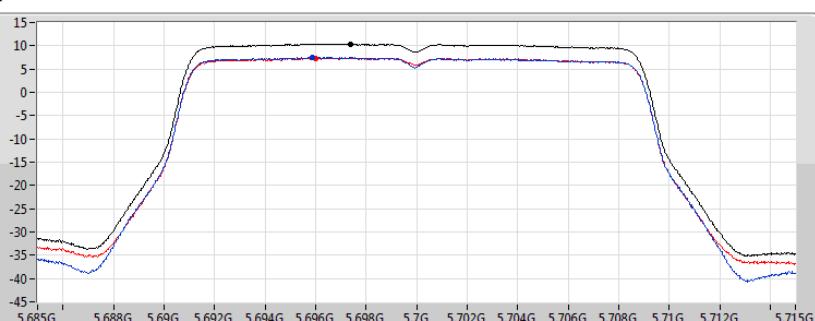
19/03/2020

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

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.13	10.13	7.30	6.99

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5700MHz

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



19/03/2020

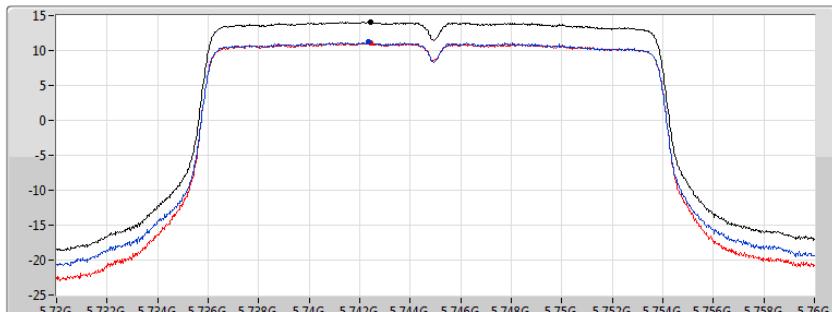
Sum	<input checked="" type="checkbox"/>
Port 1	<input type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.42	10.42	7.56	7.38

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5745MHz

19/03/2020

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



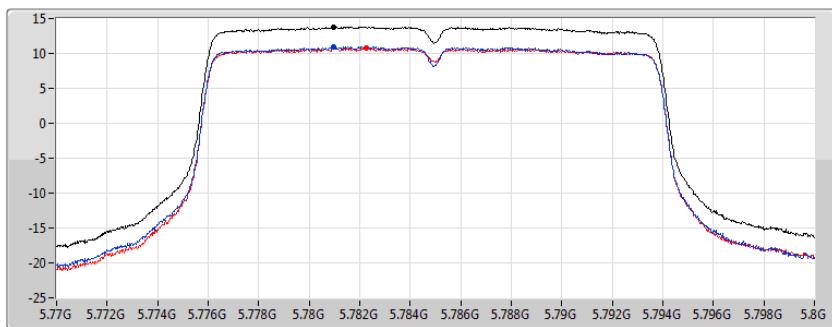
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Port 1	<input checked="" type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.08	14.08	11.21	11.03

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5785MHz

19/03/2020

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



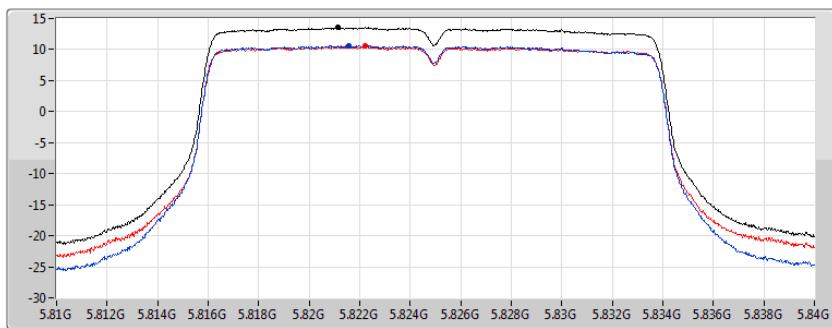
Sum	<input checked="" type="checkbox"/>
Port 1	<input checked="" type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.82	13.82	10.97	10.78

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
PSD
5825MHz

19/03/2020

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

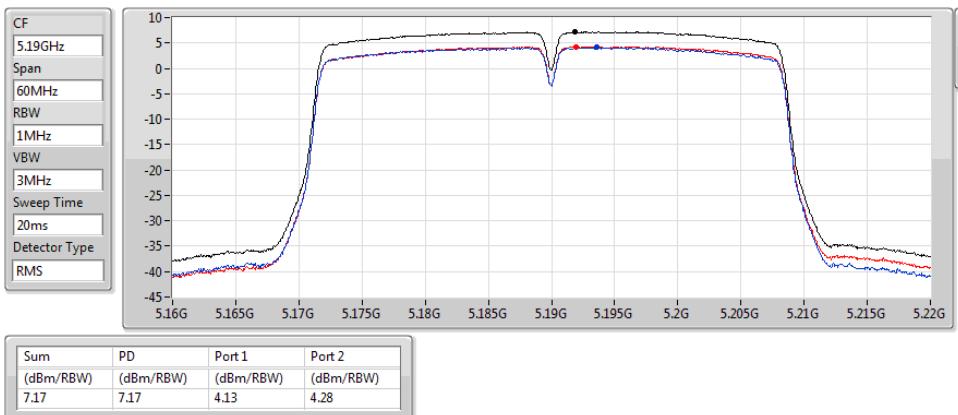


Sum	<input checked="" type="checkbox"/>
Port 1	<input checked="" type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>

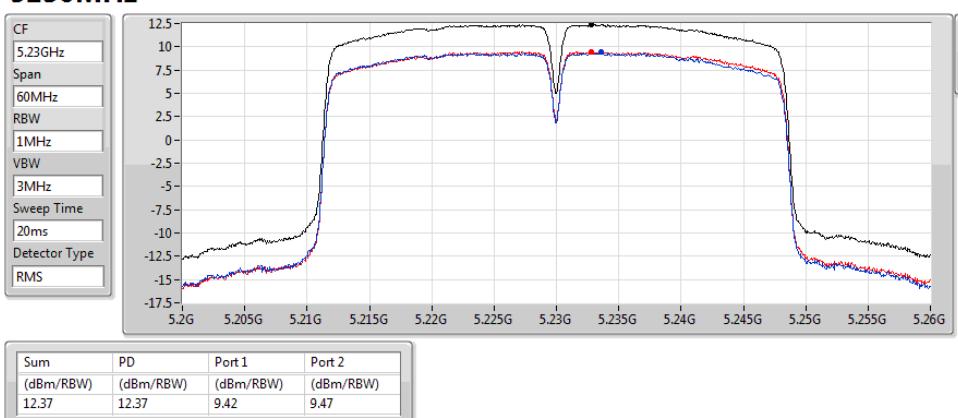
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.53	13.53	10.66	10.52

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
PSD
5190MHz

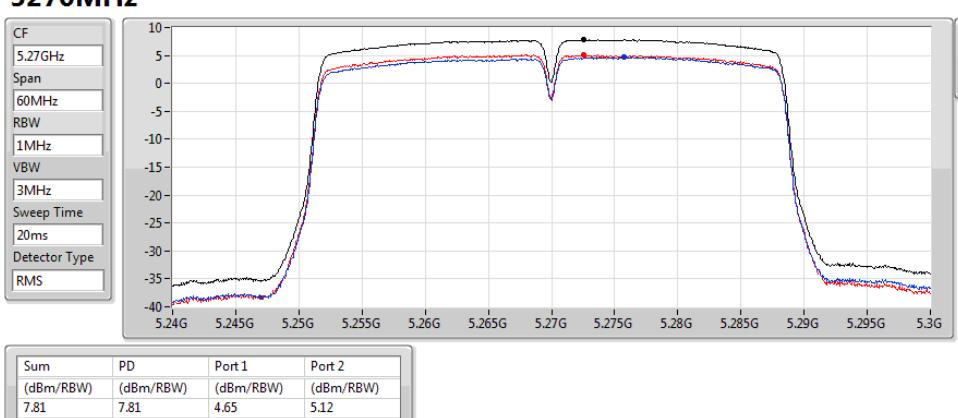
19/03/2020


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
PSD
5230MHz

19/03/2020

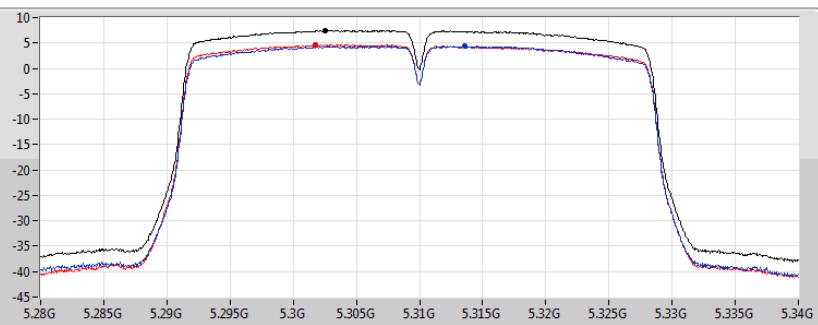

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
PSD
5270MHz

19/03/2020



802.11ac VHT40-BF_Nss1,(MCS0)_2TX
PSD
5310MHz

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

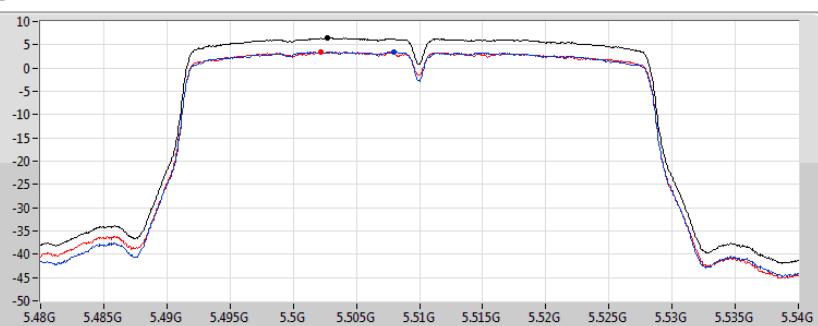


19/03/2020

Sum
Port 1
Port 2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
PSD
5510MHz

CF
5.51GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS

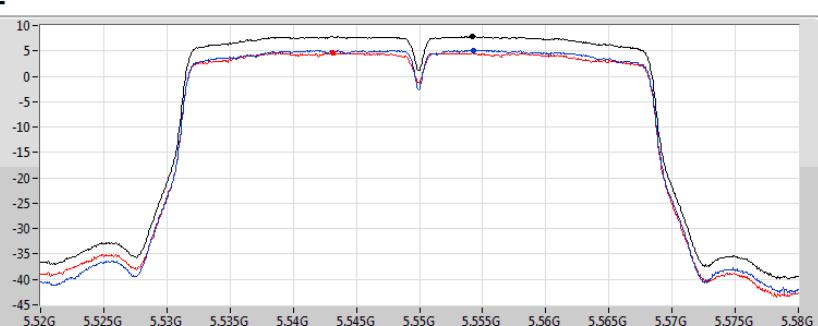


19/03/2020

Sum
Port 1
Port 2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
PSD
5550MHz

CF
5.55GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



19/03/2020

Sum
Port 1
Port 2

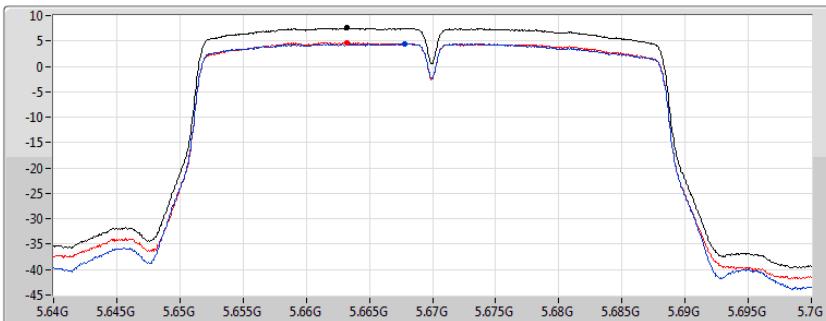
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.45	7.45	4.43	4.64

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.40	6.40	3.47	3.41

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.83	7.83	5.10	4.61

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
PSD
5670MHz

CF
5.67GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
20ms
Detector Type
RMS



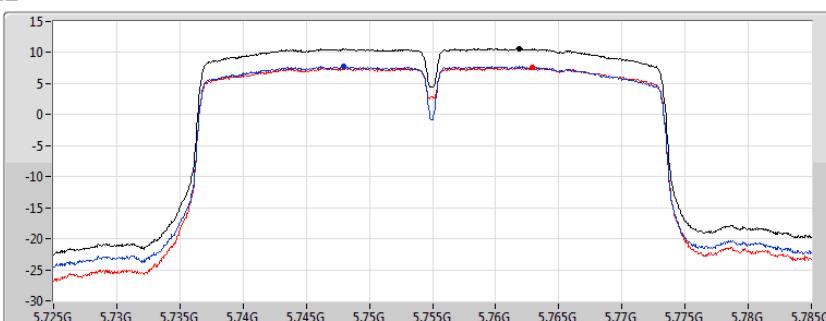
19/03/2020

Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.54	7.54	4.52	4.69

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
PSD
5755MHz

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



19/03/2020

Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.62	10.62	7.77	7.61

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
PSD
5795MHz

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



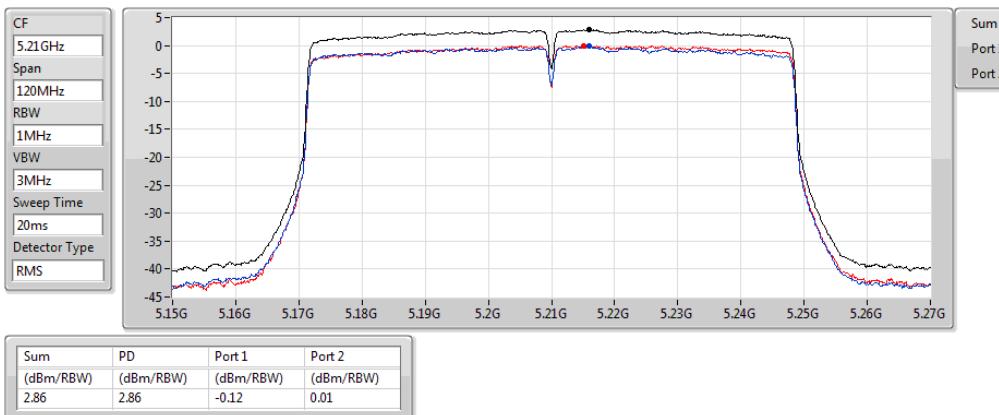
19/03/2020

Sum
Port 1
Port 2

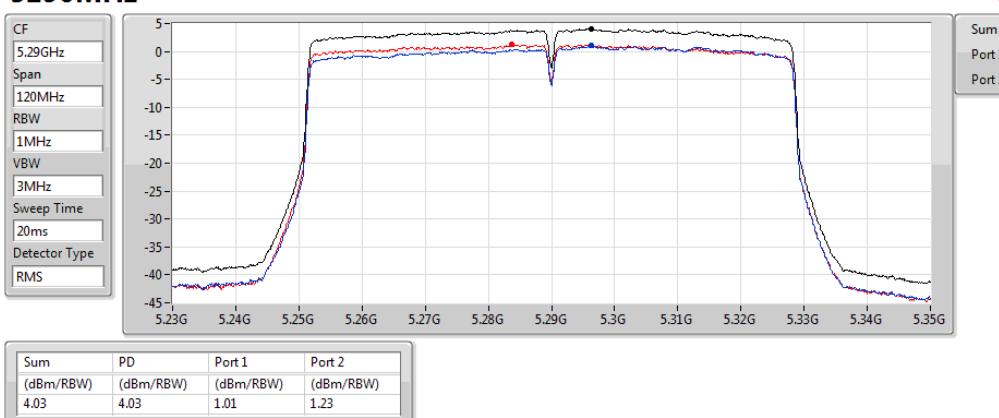
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.99	11.99	9.12	8.84

802.11ac VHT80-BF_Nss1,(MCS0)_2TX
PSD
5210MHz

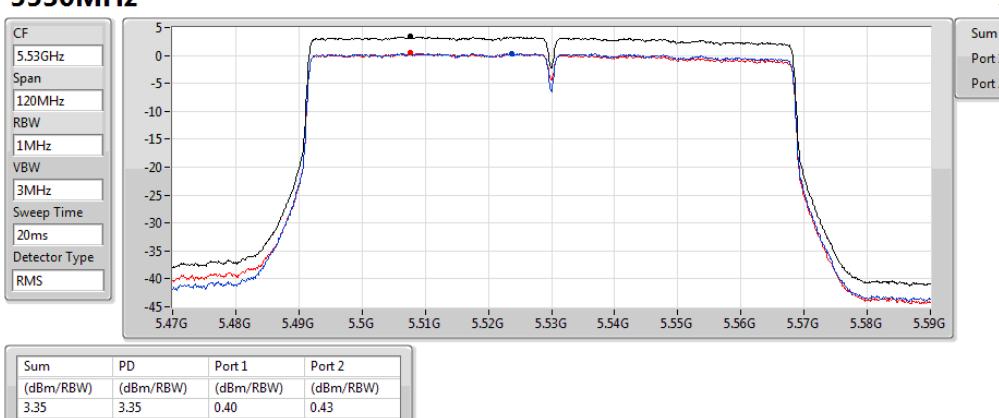
19/03/2020


802.11ac VHT80-BF_Nss1,(MCS0)_2TX
PSD
5290MHz

19/03/2020


802.11ac VHT80-BF_Nss1,(MCS0)_2TX
PSD
5530MHz

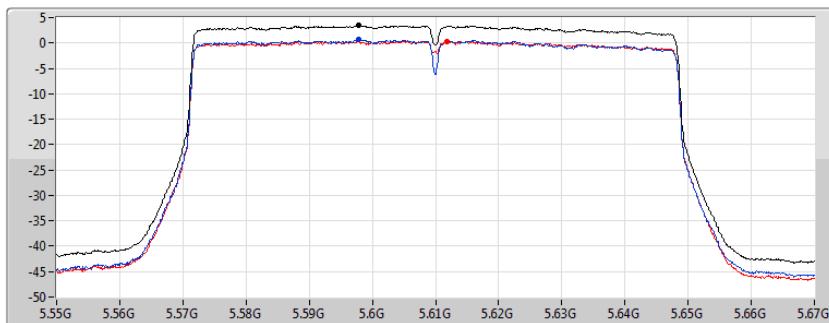
19/03/2020



802.11ac VHT80-BF_Nss1,(MCS0)_2TX
PSD
5610MHz

19/03/2020

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



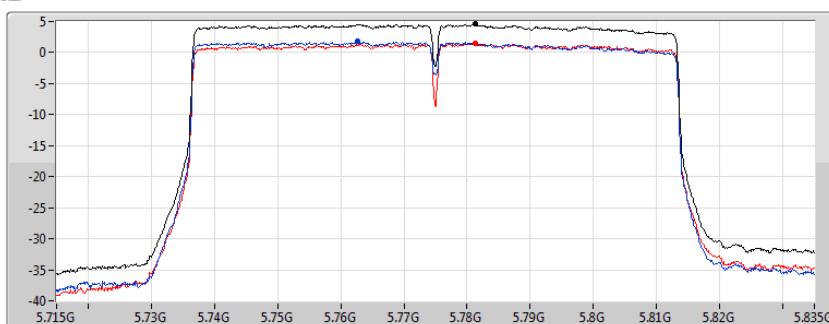
Sum	<input checked="" type="checkbox"/>
Port 1	<input checked="" type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.44	3.44	0.63	0.34

802.11ac VHT80-BF_Nss1,(MCS0)_2TX
PSD
5775MHz

19/03/2020

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



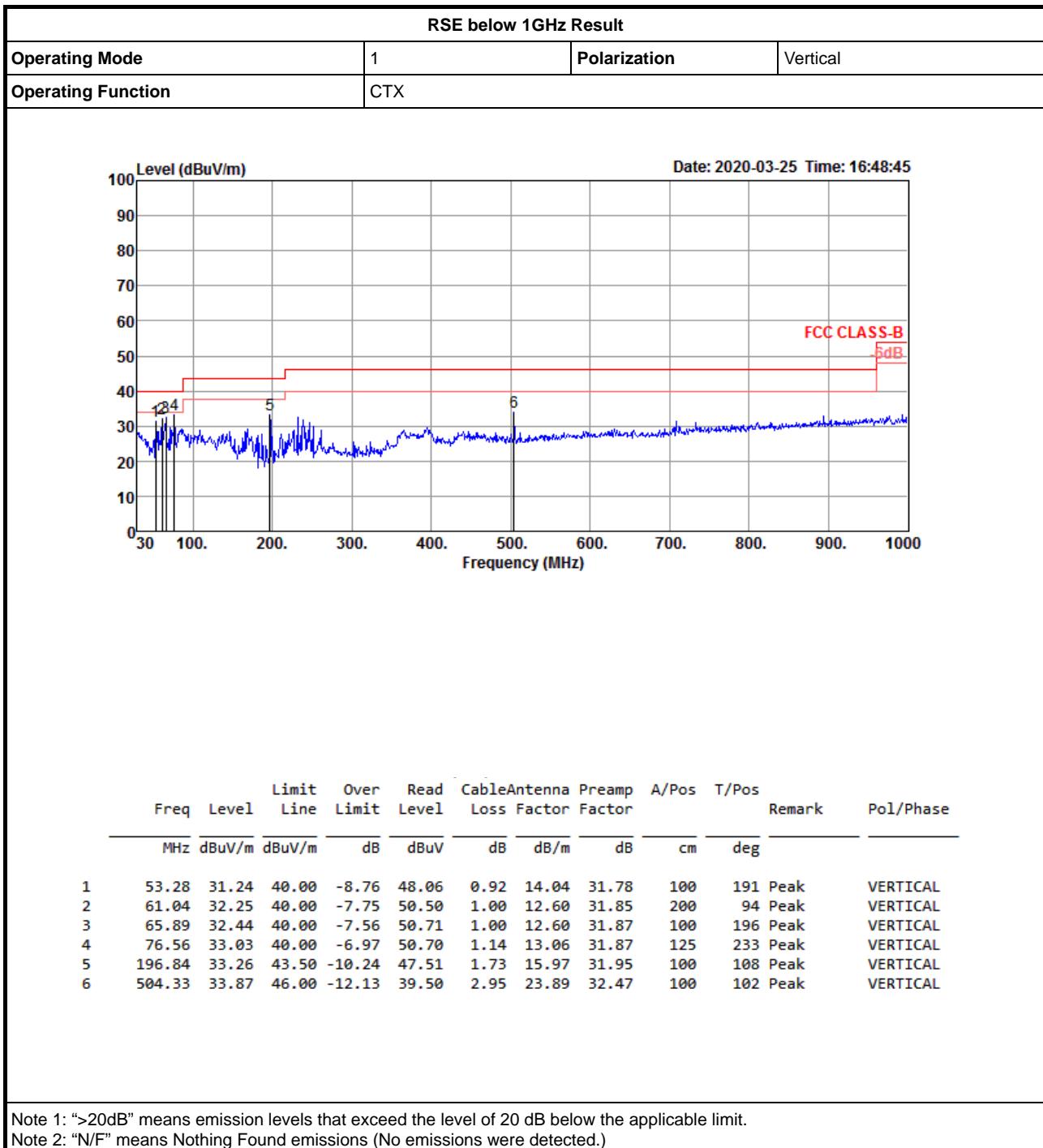
Sum	<input checked="" type="checkbox"/>
Port 1	<input checked="" type="checkbox"/>
Port 2	<input checked="" type="checkbox"/>

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.63	4.63	1.84	1.55



RSE below 1GHz Result

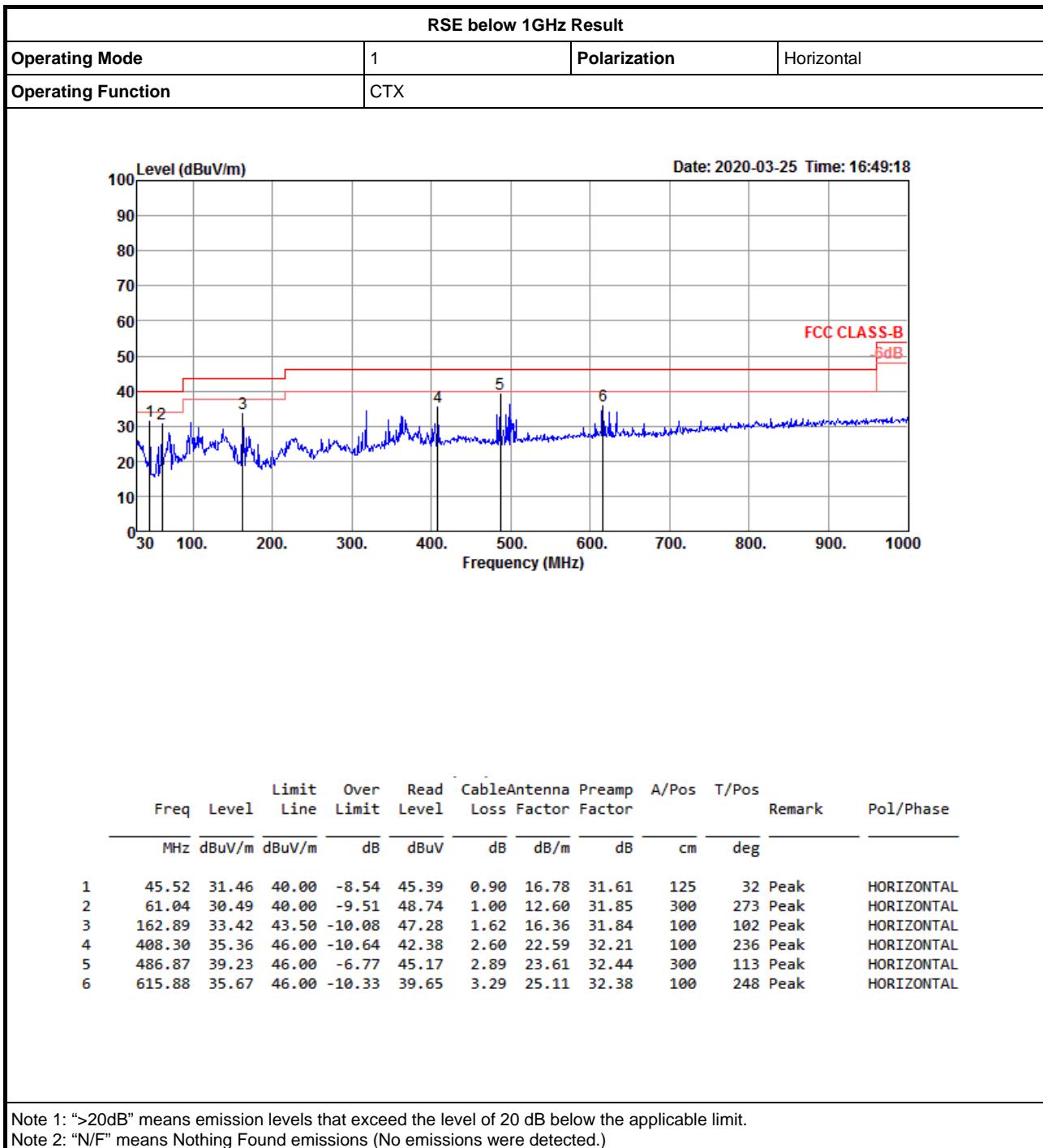
Appendix E.1





RSE below 1GHz Result

Appendix E.1

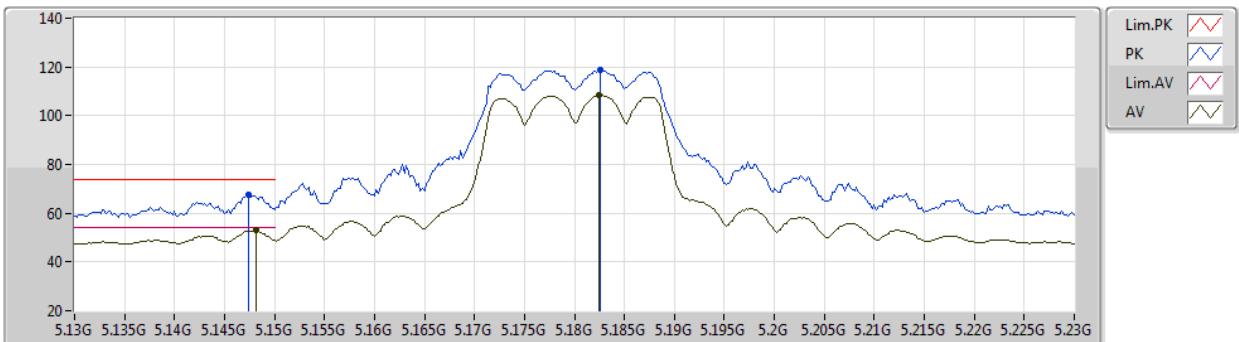


**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT40-BF_Nss1_(MCS0)_2TX	Pass	AV	5.15G	52.91	54.00	-1.09	3	Vertical	119	1.80	-

802.11a-BF_Nss1,(6Mbps)_2TX

18/03/2020

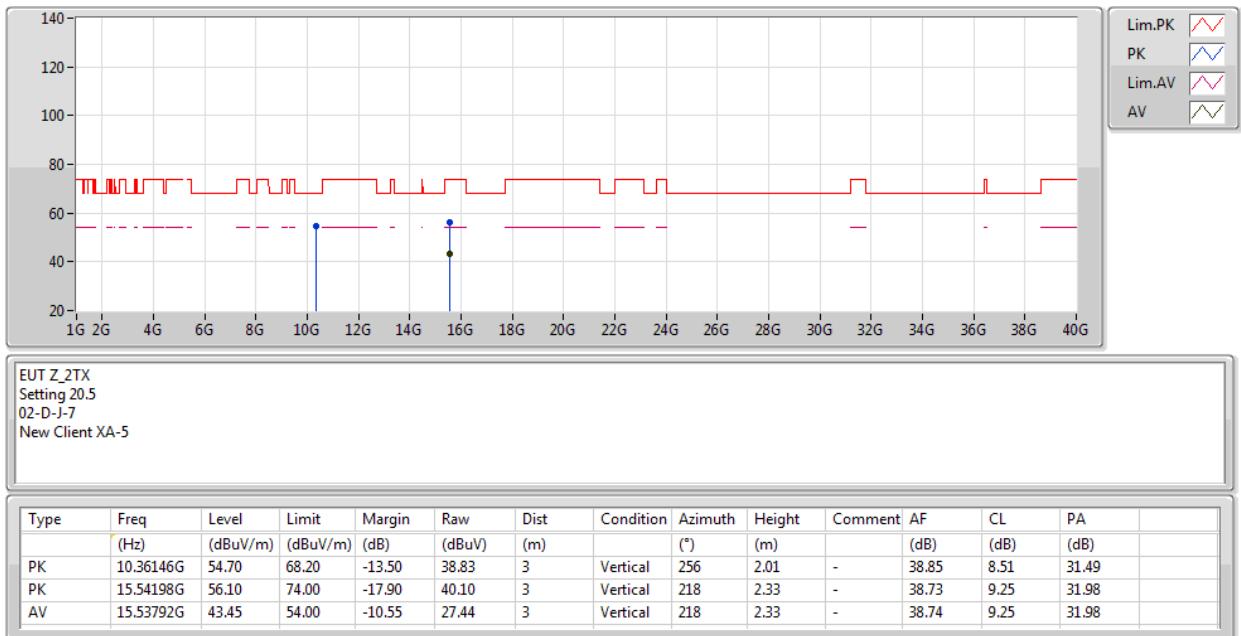
5180MHz_TX


EUT_Z_2TX
 Setting 20.5
 02-D-J-7-10
 New Client XA-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.1474G	67.84	74.00	-6.16	58.70	3	Vertical	270	1.90	-	33.55	5.97	30.38	
AV	5.1482G	52.88	54.00	-1.12	43.74	3	Vertical	270	1.90	-	33.55	5.97	30.38	
PK	5.1826G	118.98	Inf	-Inf	109.80	3	Vertical	270	1.90	-	33.58	5.99	30.39	
AV	5.1824G	108.45	Inf	-Inf	99.27	3	Vertical	270	1.90	-	33.58	5.99	30.39	

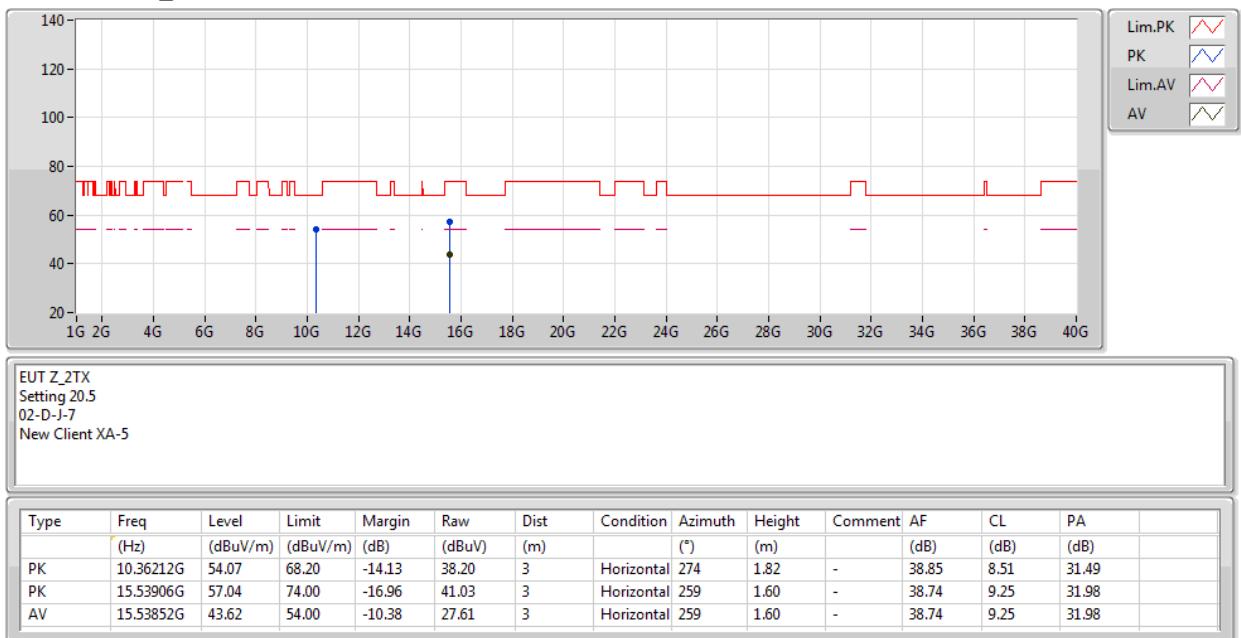
**802.11a-BF_Nss1,(6Mbps)_2TX**

18/03/2020

5180MHz_TX

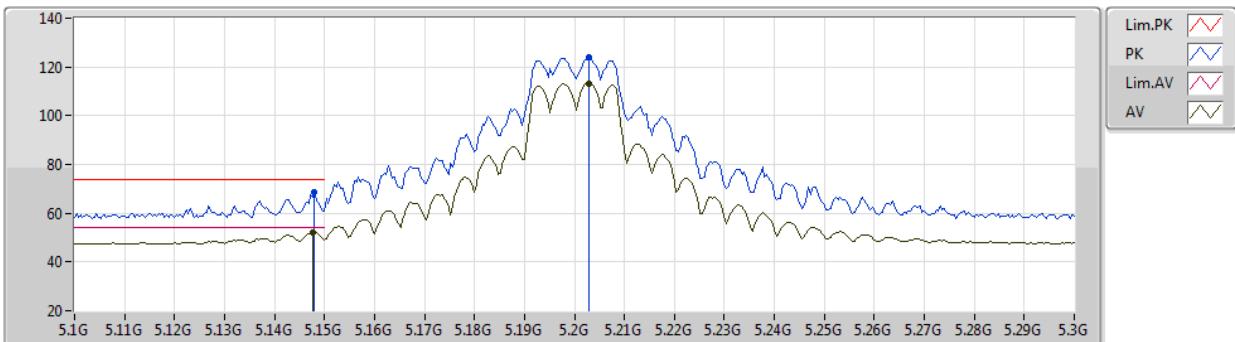
**802.11a-BF_Nss1,(6Mbps)_2TX**

18/03/2020

5180MHz_TX

802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

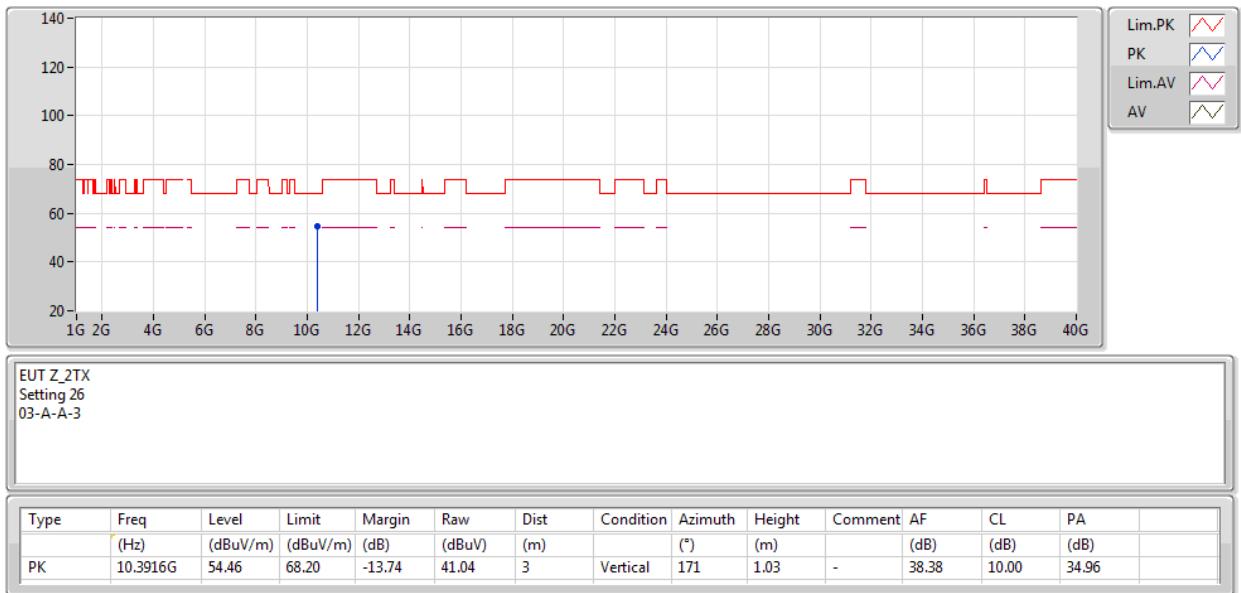
5200MHz_TX

 EUT Z_2TX
 Setting 26
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.148G	68.43	74.00	-5.57	59.29	3	Vertical	271	1.32	-	33.55	5.97	30.38	
AV	5.1476G	52.27	54.00	-1.73	43.13	3	Vertical	271	1.32	-	33.55	5.97	30.38	
PK	5.2028G	124.05	Inf	-Inf	114.84	3	Vertical	271	1.32	-	33.61	6.00	30.40	
AV	5.2028G	113.31	Inf	-Inf	104.10	3	Vertical	271	1.32	-	33.61	6.00	30.40	

802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

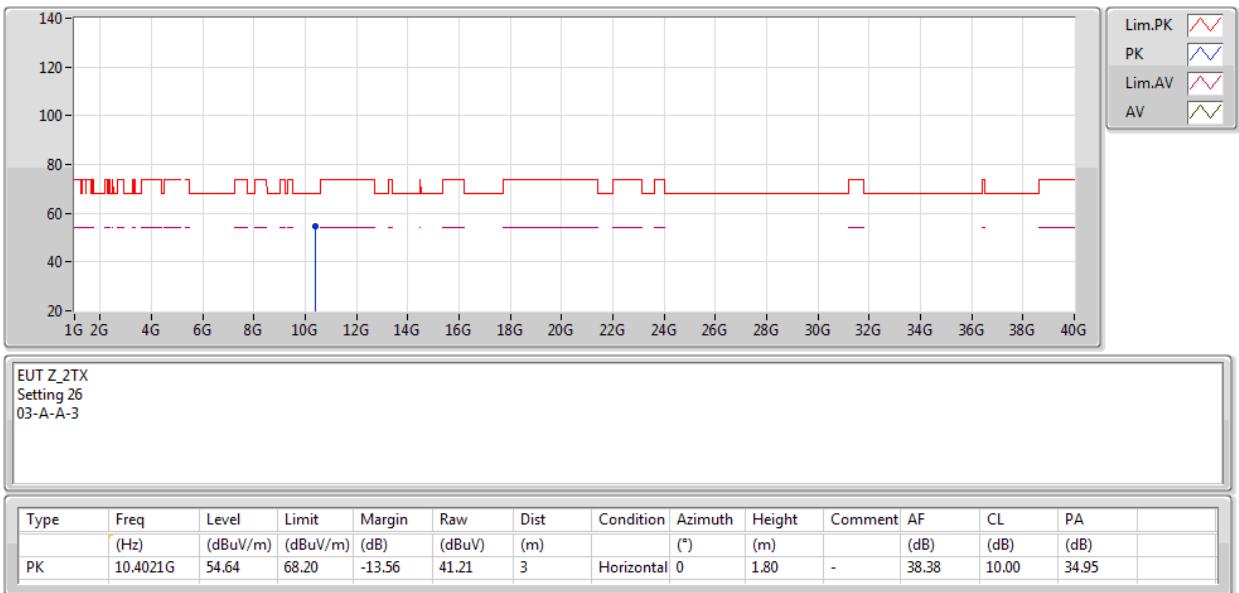
5200MHz_TX



802.11a-BF_Nss1,(6Mbps)_2TX

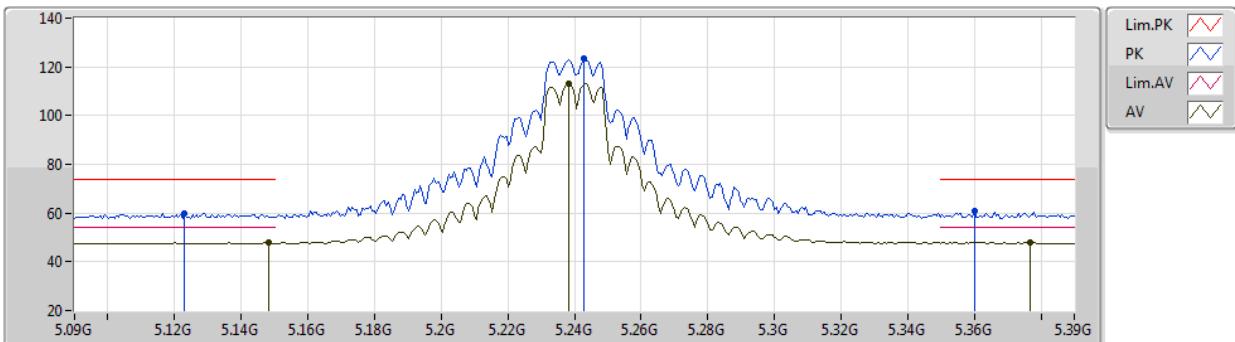
06/03/2020

5200MHz_TX



802.11a-BF_Nss1,(6Mbps)_2TX

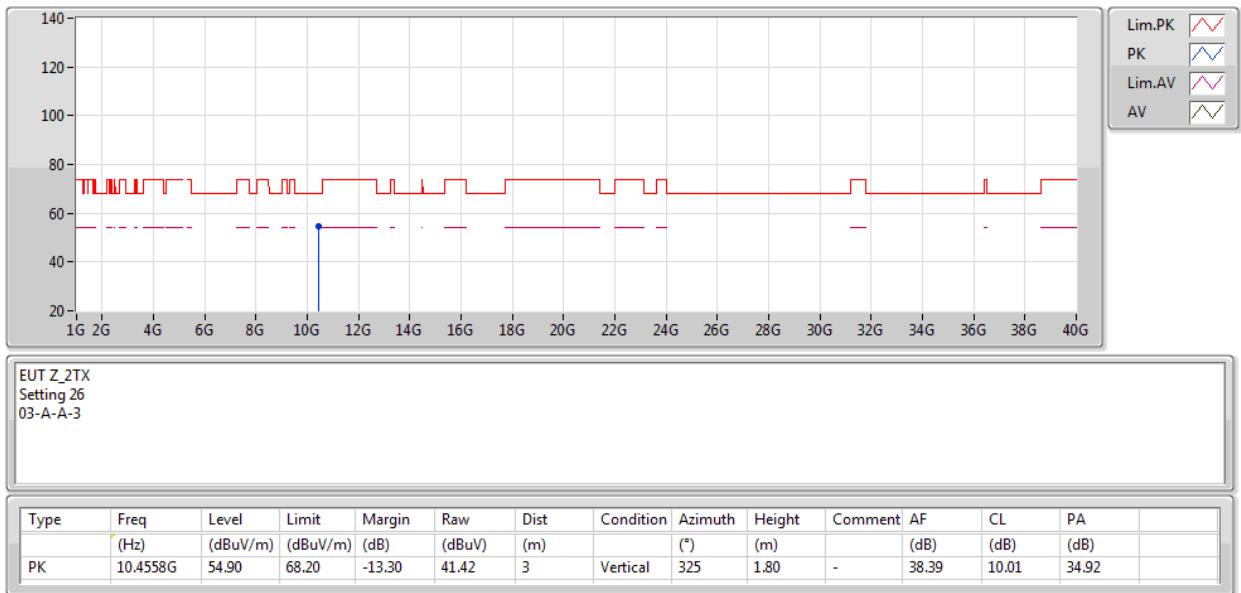
06/03/2020

5240MHz_TX

 EUT Z_2TX
 Setting 26
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.123G	60.04	74.00	-13.96	50.94	3	Vertical	242	1.62	-	33.52	5.96	30.38	
AV	5.1482G	47.82	54.00	-6.18	38.68	3	Vertical	242	1.62	-	33.55	5.97	30.38	
PK	5.243G	123.23	Inf	-Inf	113.94	3	Vertical	242	1.62	-	33.69	6.02	30.42	
AV	5.2382G	112.90	Inf	-Inf	103.62	3	Vertical	242	1.62	-	33.68	6.02	30.42	
PK	5.36G	61.00	74.00	-13.00	51.52	3	Vertical	242	1.62	-	33.86	6.08	30.46	
AV	5.3768G	47.90	54.00	-6.10	38.39	3	Vertical	242	1.62	-	33.88	6.09	30.46	

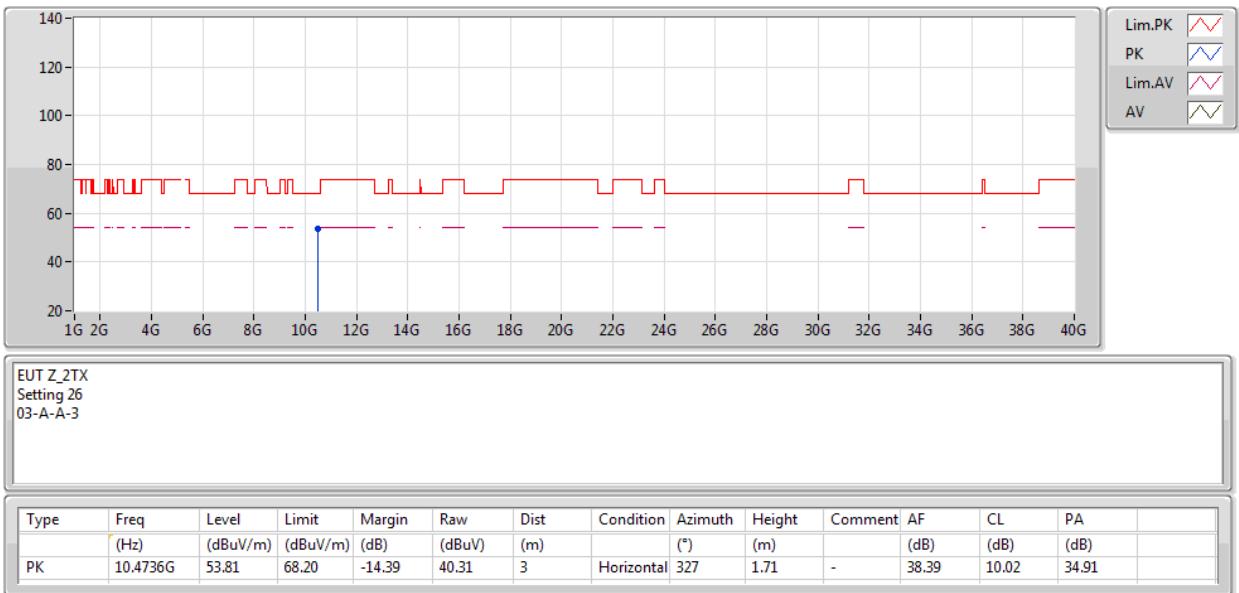
802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

5240MHz_TX


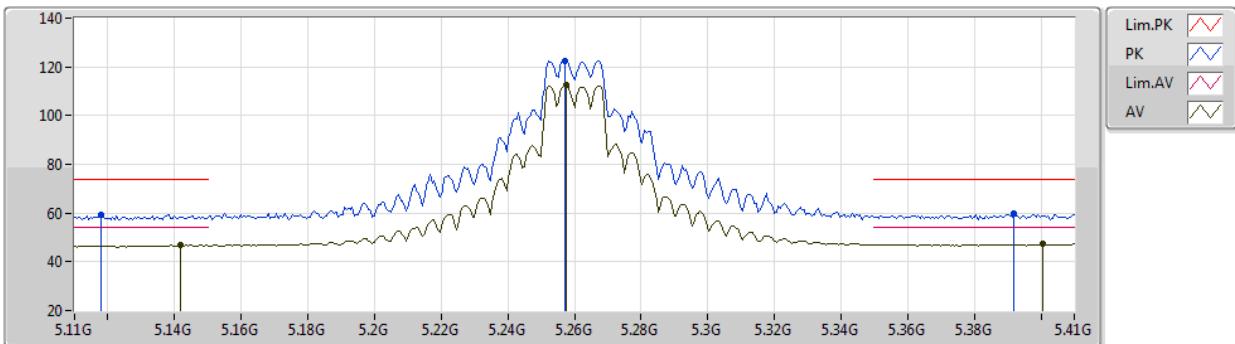
802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

5240MHz_TX

802.11a-BF_Nss1,(6Mbps)_2TX

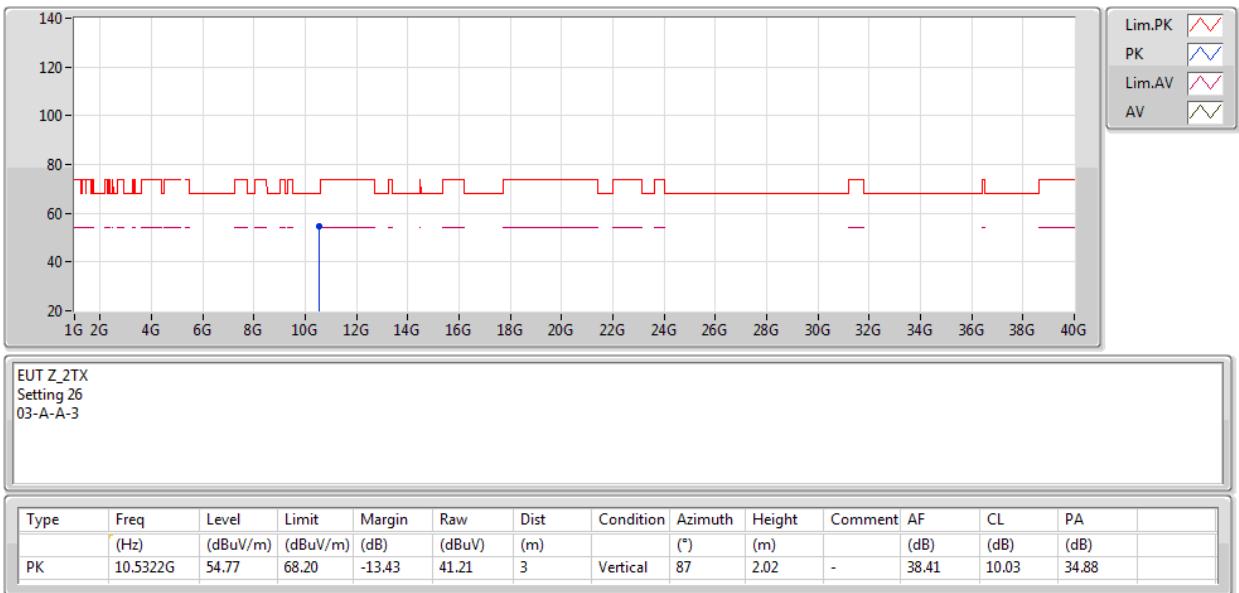
06/03/2020

5260MHz_TX

 EUT_Z_2TX
 Setting 26
 03-A-A-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.1178G	59.19	74.00	-14.81	53.21	3	Vertical	239	1.73	-	34.02	6.71	34.75	
AV	5.1418G	46.95	54.00	-7.05	40.95	3	Vertical	239	1.73	-	34.04	6.73	34.77	
PK	5.257G	122.37	Inf	-Inf	116.19	3	Vertical	239	1.73	-	34.21	6.82	34.85	
AV	5.2576G	112.68	Inf	-Inf	106.49	3	Vertical	239	1.73	-	34.22	6.82	34.85	
PK	5.392G	59.63	74.00	-14.37	53.26	3	Vertical	239	1.73	-	34.39	6.92	34.94	
AV	5.4004G	47.31	54.00	-6.69	40.93	3	Vertical	239	1.73	-	34.40	6.93	34.95	

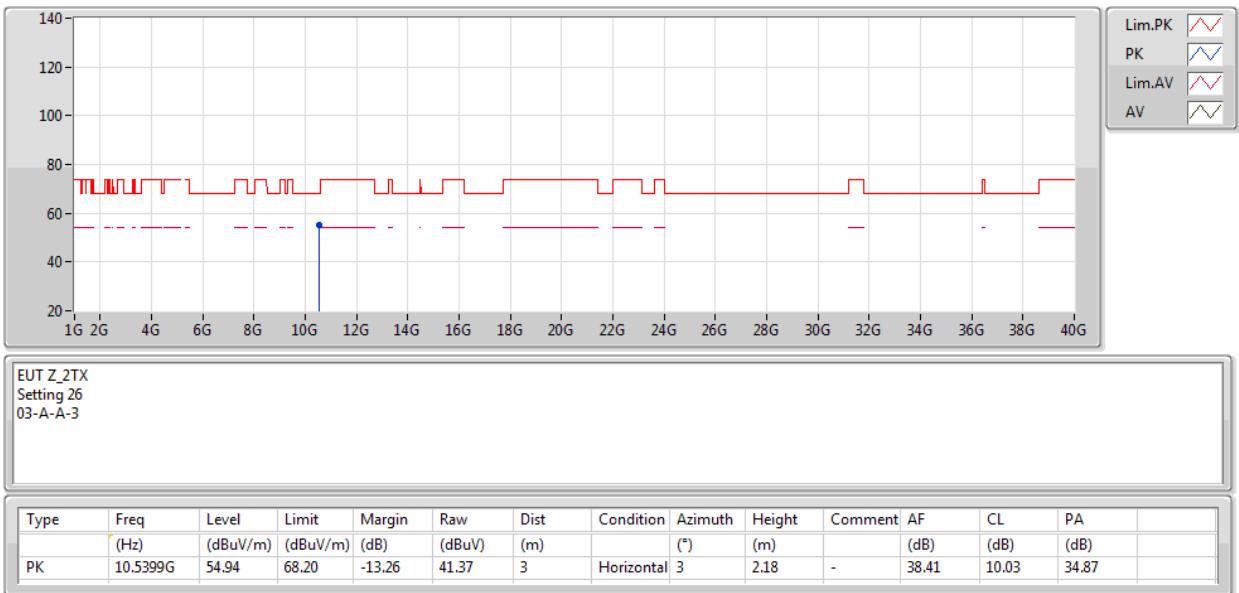
802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

5260MHz_TX

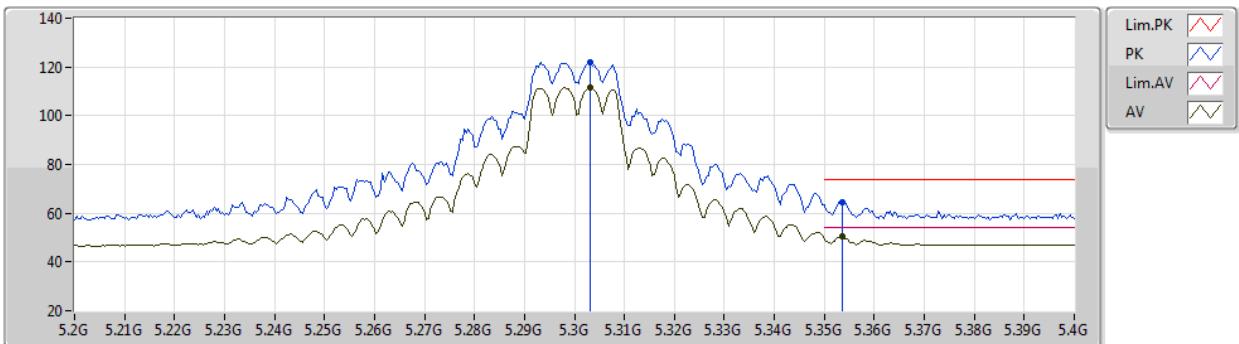
802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

5260MHz_TX

802.11a-BF_Nss1,(6Mbps)_2TX

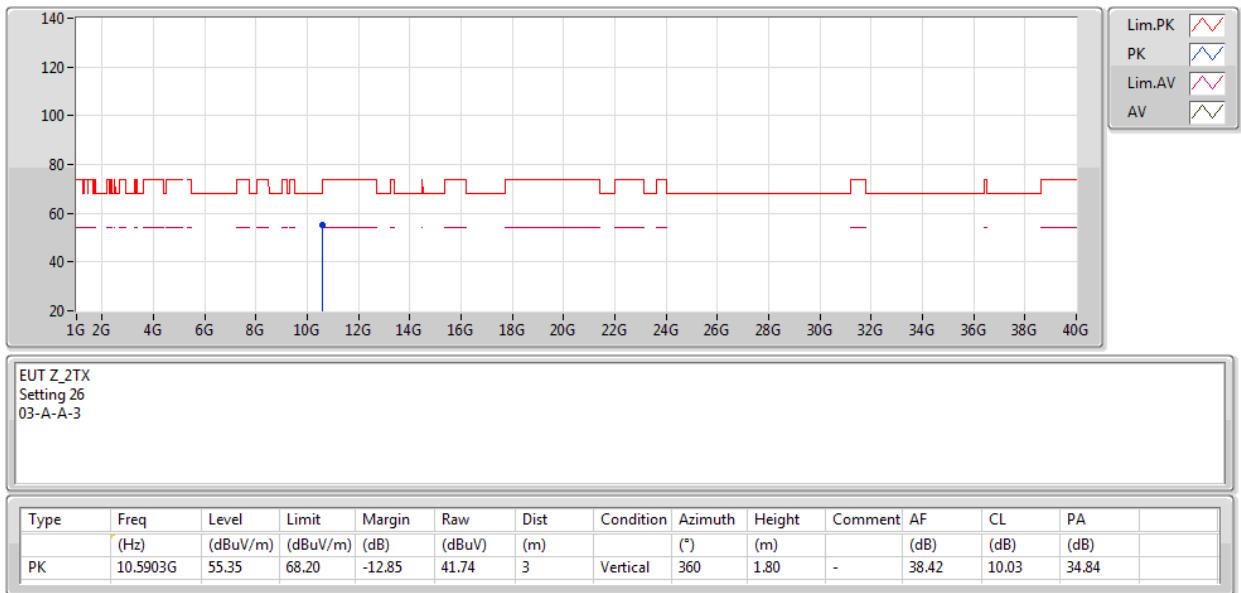
06/03/2020

5300MHz_TX

 EUT Z_2TX
 Setting 26
 03-A-A-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.3032G	122.02	Inf	-Inf	115.74	3	Vertical	240	1.00	-	34.30	6.86	34.88	
AV	5.3032G	111.39	Inf	-Inf	105.11	3	Vertical	240	1.00	-	34.30	6.86	34.88	
PK	5.3536G	64.68	74.00	-9.32	58.35	3	Vertical	240	1.00	-	34.35	6.90	34.92	
AV	5.3536G	50.29	54.00	-3.71	43.96	3	Vertical	240	1.00	-	34.35	6.90	34.92	

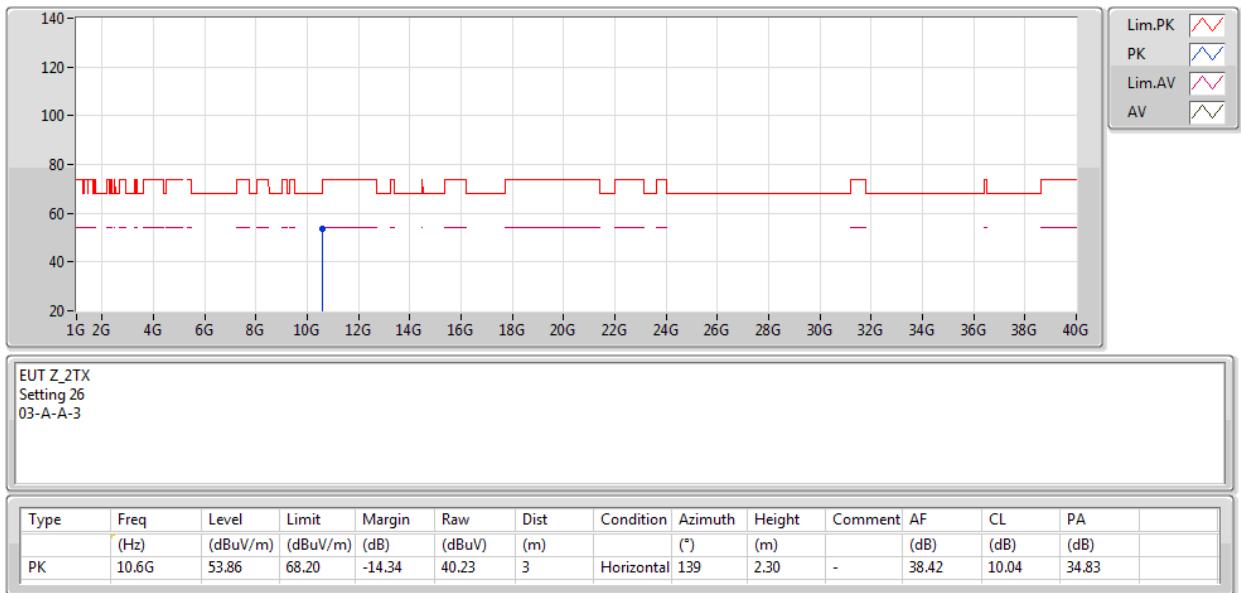
802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

5300MHz_TX

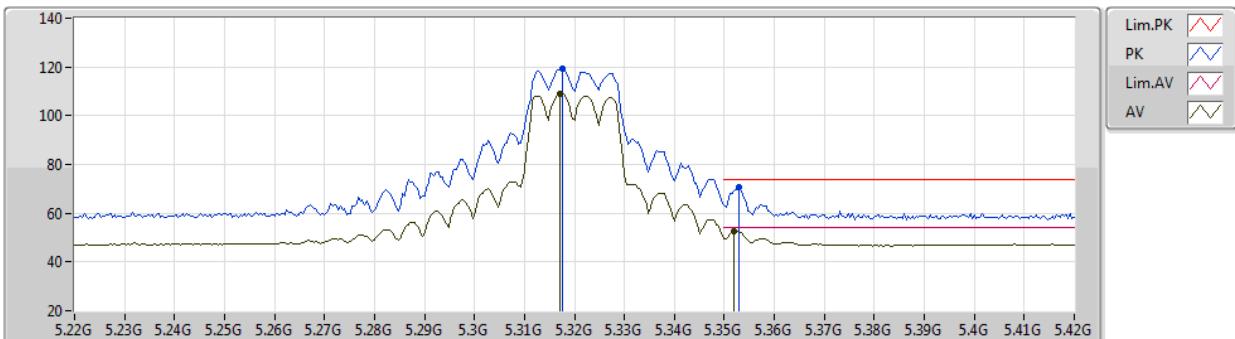
802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

5300MHz_TX


802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

5320MHz_TX


EUT_Z_2TX
Setting 21.5
03-A-A-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.3176G	119.06	Inf	-Inf	112.76	3	Vertical	237	1.80	-	34.32	6.87	34.89	
AV	5.3172G	108.96	Inf	-Inf	102.66	3	Vertical	237	1.80	-	34.32	6.87	34.89	
PK	5.3528G	70.59	74.00	-3.41	64.26	3	Vertical	237	1.80	-	34.35	6.90	34.92	
AV	5.352G	52.69	54.00	-1.31	46.36	3	Vertical	237	1.80	-	34.35	6.90	34.92	

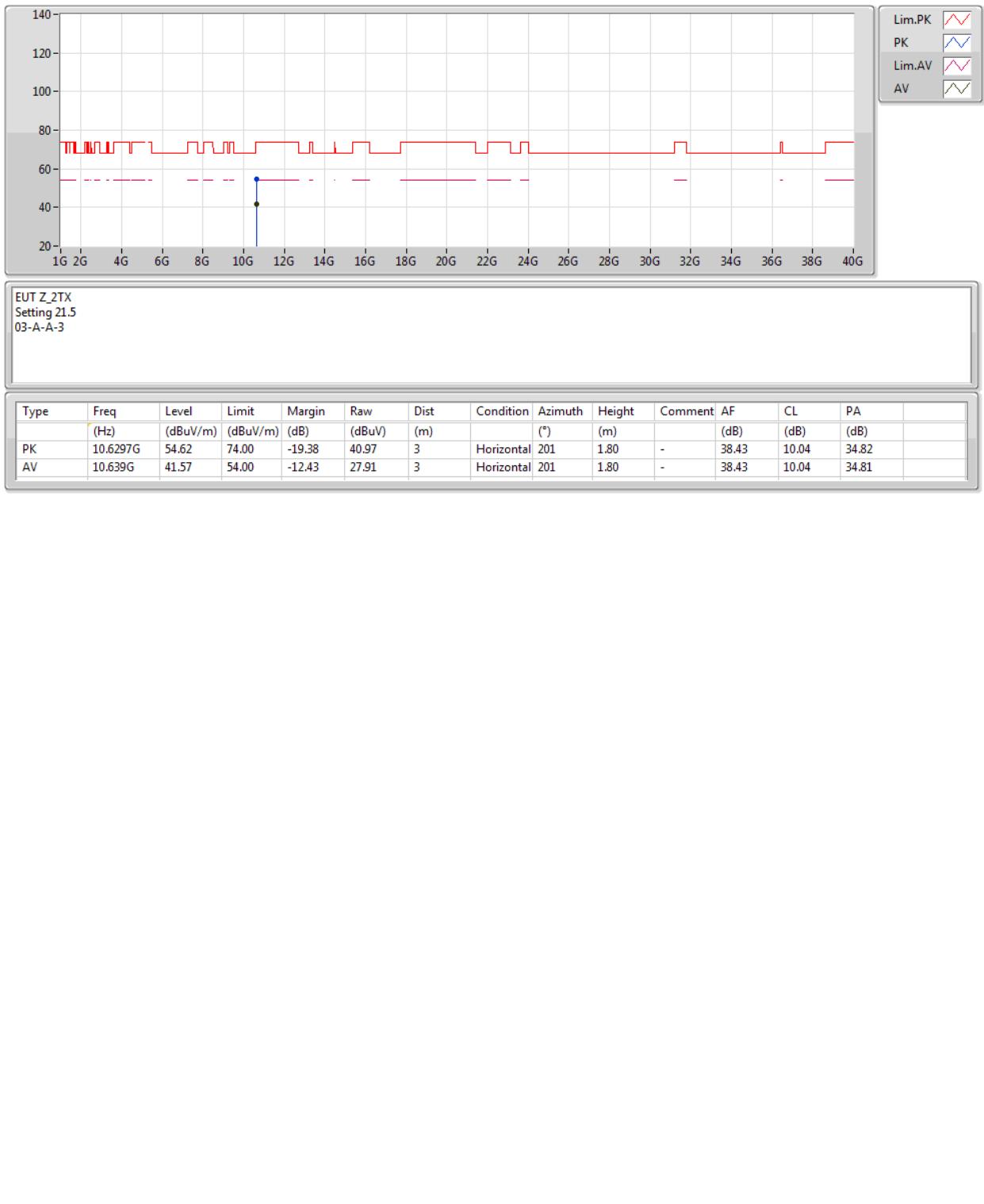
802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

5320MHz_TX

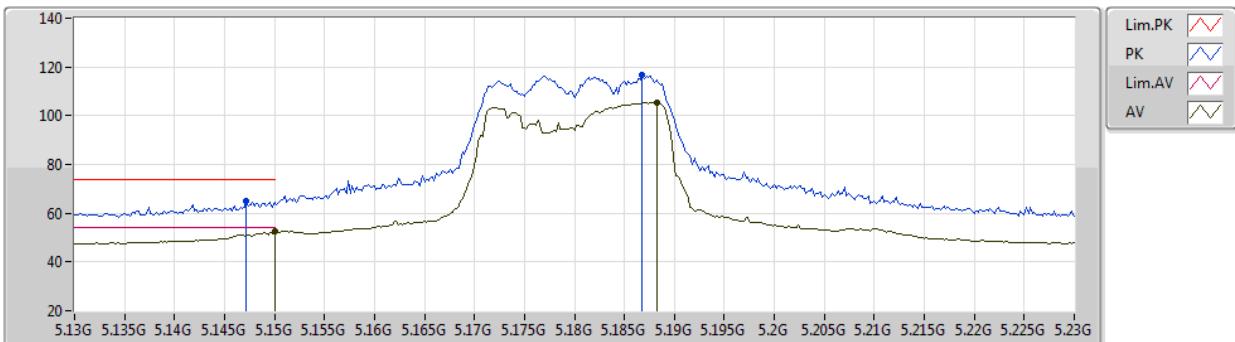

802.11a-BF_Nss1,(6Mbps)_2TX

06/03/2020

5320MHz_TX


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

18/03/2020

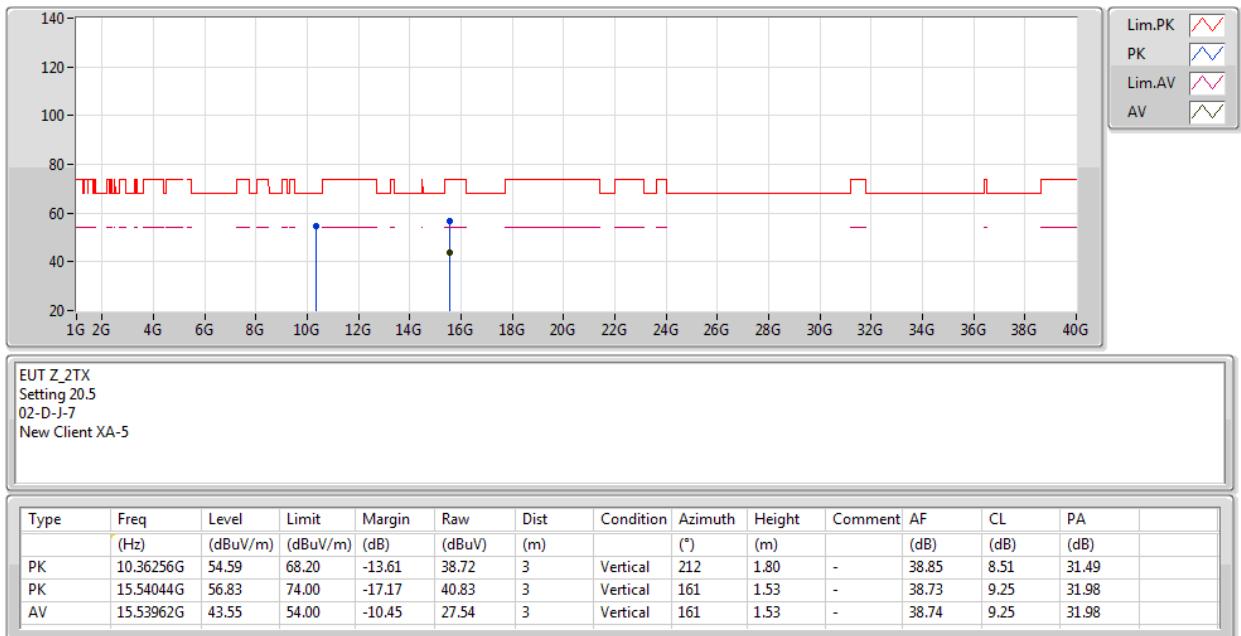
5180MHz_TX


EUT_Z_2TX
 Setting 20.5
 02-D-J-7-10
 New Client XA-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.1472G	65.15	74.00	-8.85	56.01	3	Vertical	236	1.75	-	33.55	5.97	30.38	
AV	5.15G	52.54	54.00	-1.46	43.40	3	Vertical	236	1.75	-	33.55	5.97	30.38	
PK	5.1868G	116.76	Inf	-Inf	107.58	3	Vertical	236	1.75	-	33.59	5.99	30.40	
AV	5.1882G	105.41	Inf	-Inf	96.23	3	Vertical	236	1.75	-	33.59	5.99	30.40	

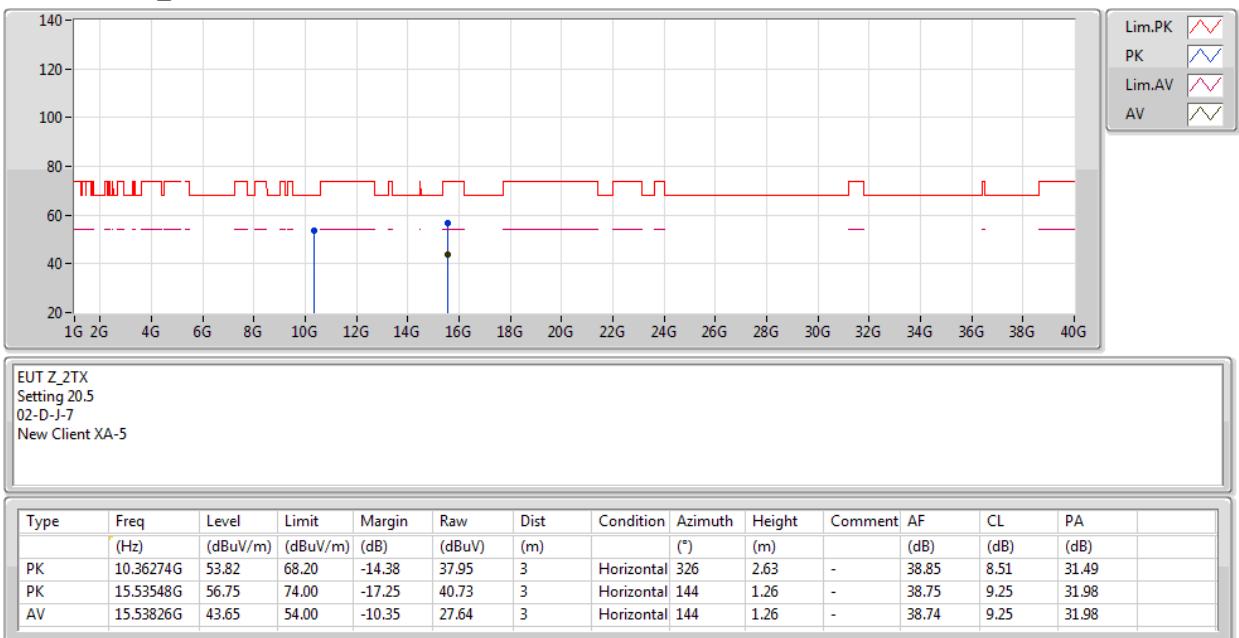
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

18/03/2020

5180MHz_TX


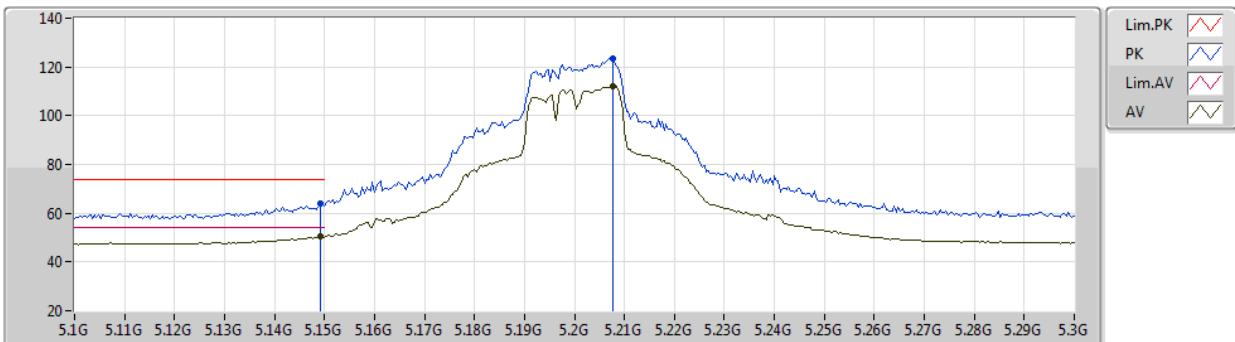
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

18/03/2020

5180MHz_TX


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

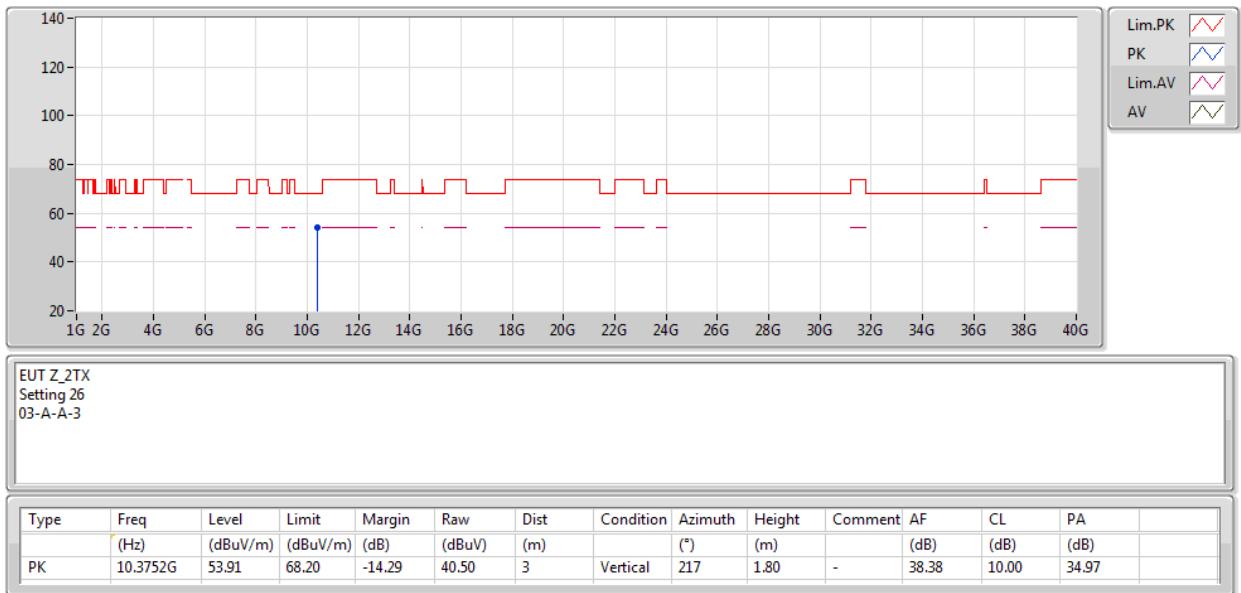
06/03/2020

5200MHz_TX

 EUT Z_2TX
 Setting 26
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.1492G	64.11	74.00	-9.89	54.97	3	Vertical	183	1.80	-	33.55	5.97	30.38	
AV	5.1492G	50.28	54.00	-3.72	41.14	3	Vertical	183	1.80	-	33.55	5.97	30.38	
PK	5.2076G	123.38	Inf	-Inf	114.16	3	Vertical	183	1.80	-	33.62	6.00	30.40	
AV	5.2076G	112.10	Inf	-Inf	102.88	3	Vertical	183	1.80	-	33.62	6.00	30.40	

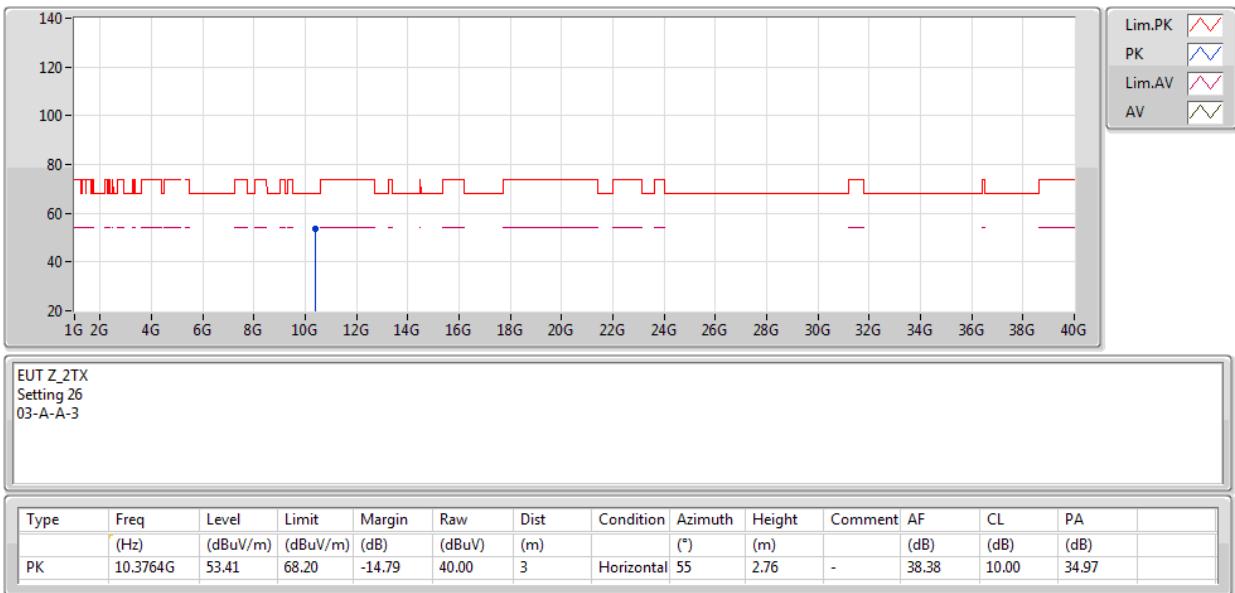
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5200MHz_TX

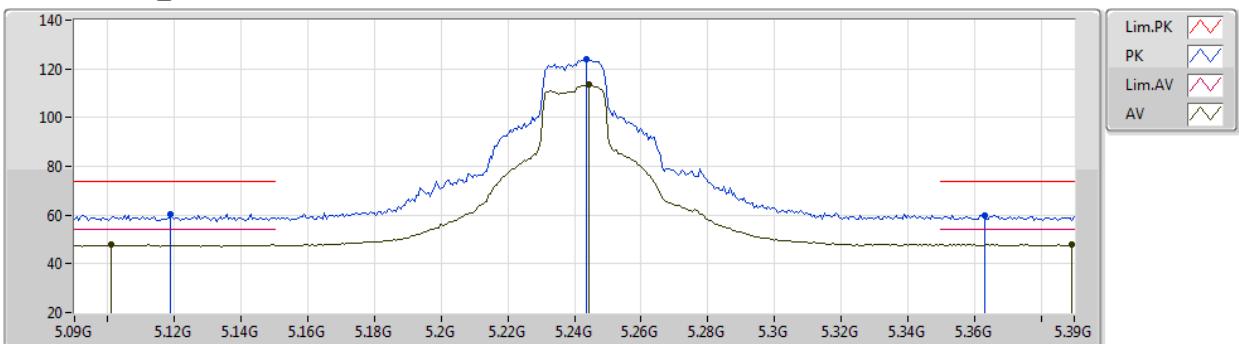
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5200MHz_TX

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

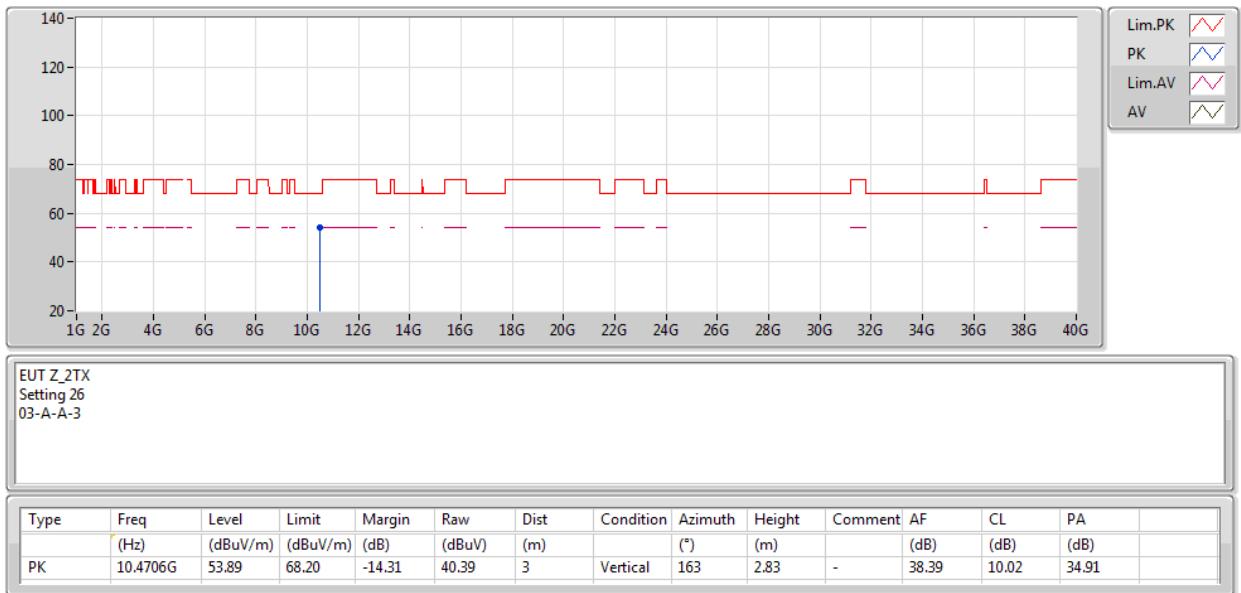
06/03/2020

5240MHz_TX

 EUT Z_2TX
 Setting 26
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment (dB)	AF (dB)	CL (dB)	PA (dB)	
PK	5.1188G	60.22	74.00	-13.78	51.12	3	Vertical	281	1.80	-	33.52	5.96	30.38	
AV	5.1008G	47.71	54.00	-6.29	38.63	3	Vertical	281	1.80	-	33.50	5.95	30.37	
PK	5.2436G	123.90	Inf	-Inf	114.61	3	Vertical	281	1.80	-	33.69	6.02	30.42	
AV	5.2442G	113.44	Inf	-Inf	104.15	3	Vertical	281	1.80	-	33.69	6.02	30.42	
PK	5.363G	59.88	74.00	-14.12	50.40	3	Vertical	281	1.80	-	33.86	6.08	30.46	
AV	5.3894G	47.89	54.00	-6.11	38.38	3	Vertical	281	1.80	-	33.89	6.09	30.47	

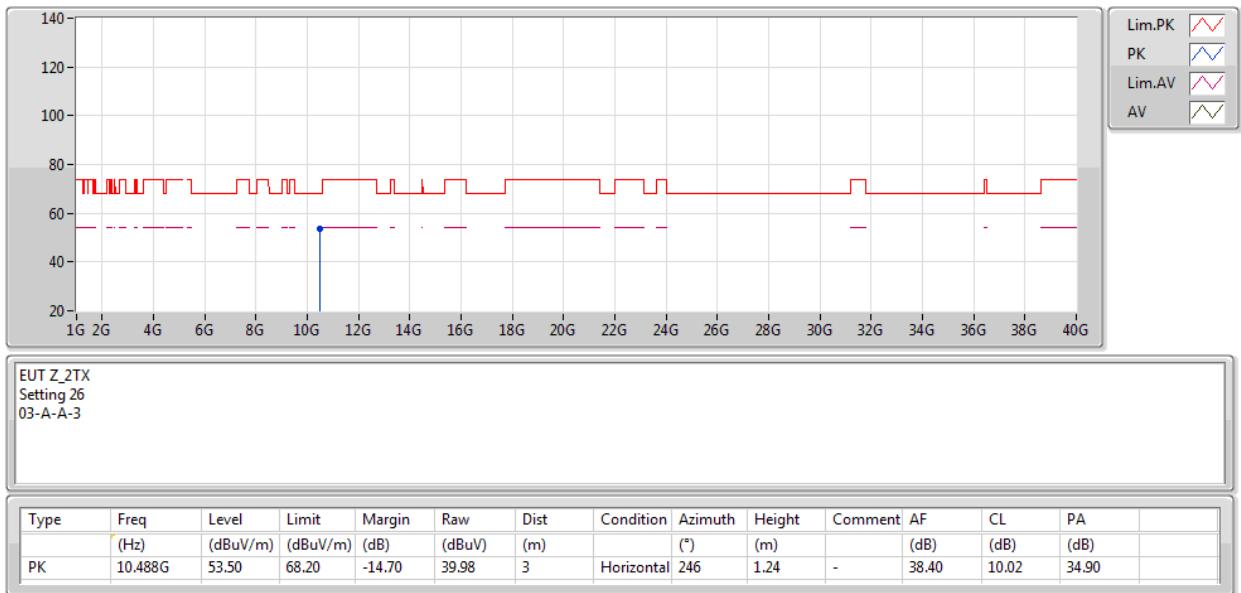
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5240MHz_TX

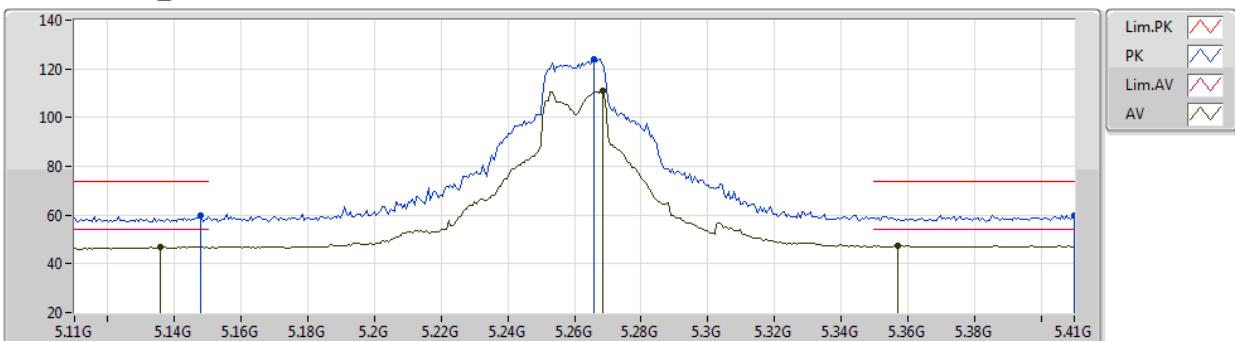
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5240MHz_TX

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

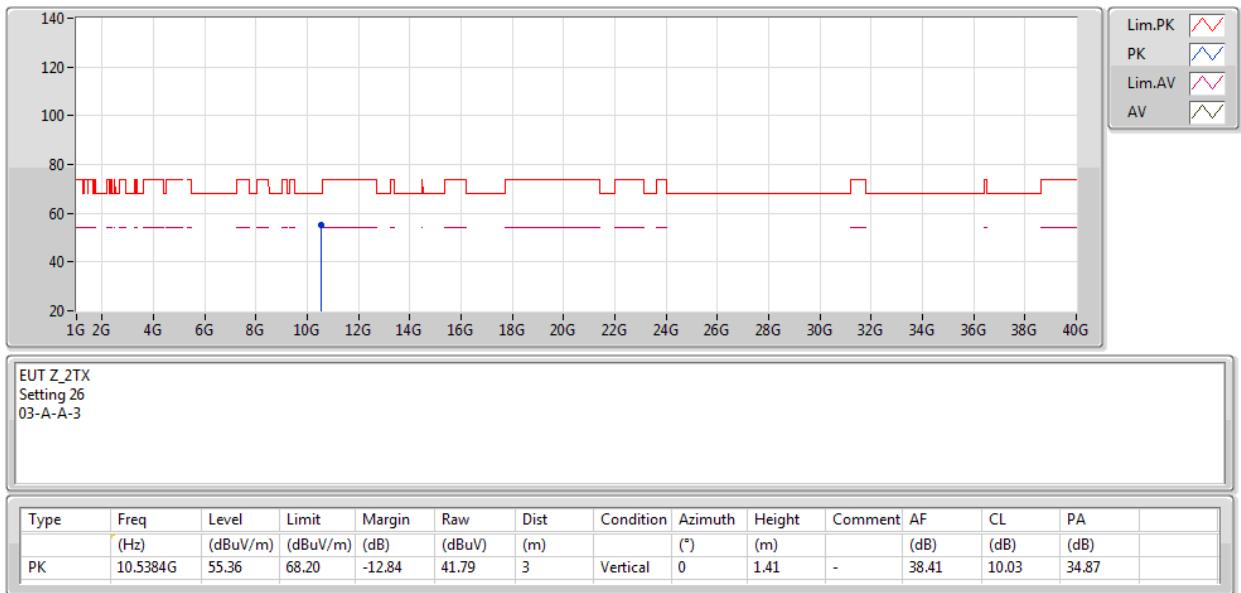
06/03/2020

5260MHz_TX

 EUT Z_2TX
 Setting 26
 03-A-A-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.1478G	59.66	74.00	-14.34	53.65	3	Vertical	206	1.84	-	34.05	6.73	34.77	
AV	5.1358G	47.09	54.00	-6.91	41.09	3	Vertical	206	1.84	-	34.04	6.73	34.77	
PK	5.266G	124.00	Inf	-Inf	117.80	3	Vertical	206	1.84	-	34.23	6.83	34.86	
AV	5.2684G	110.92	Inf	-Inf	104.71	3	Vertical	206	1.84	-	34.24	6.83	34.86	
PK	5.41G	59.93	74.00	-14.07	53.54	3	Vertical	206	1.84	-	34.41	6.94	34.96	
AV	5.3572G	47.41	54.00	-6.59	41.07	3	Vertical	206	1.84	-	34.36	6.90	34.92	

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5260MHz_TX

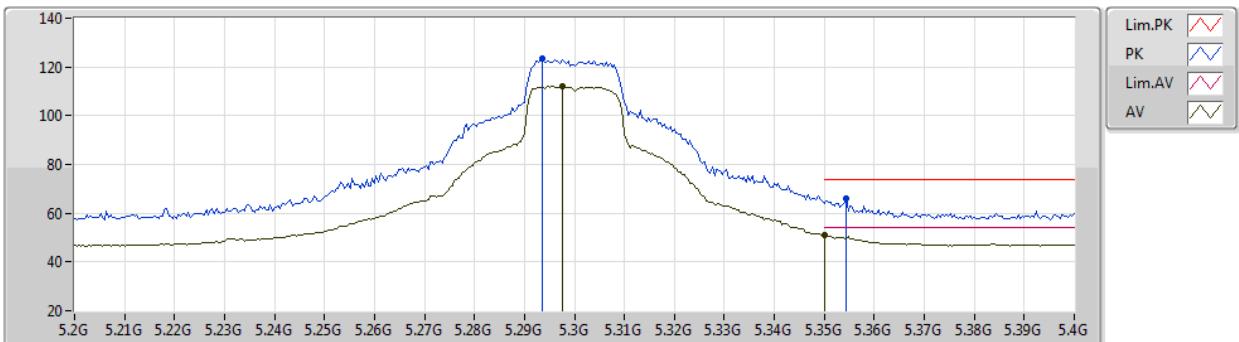
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5260MHz_TX

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

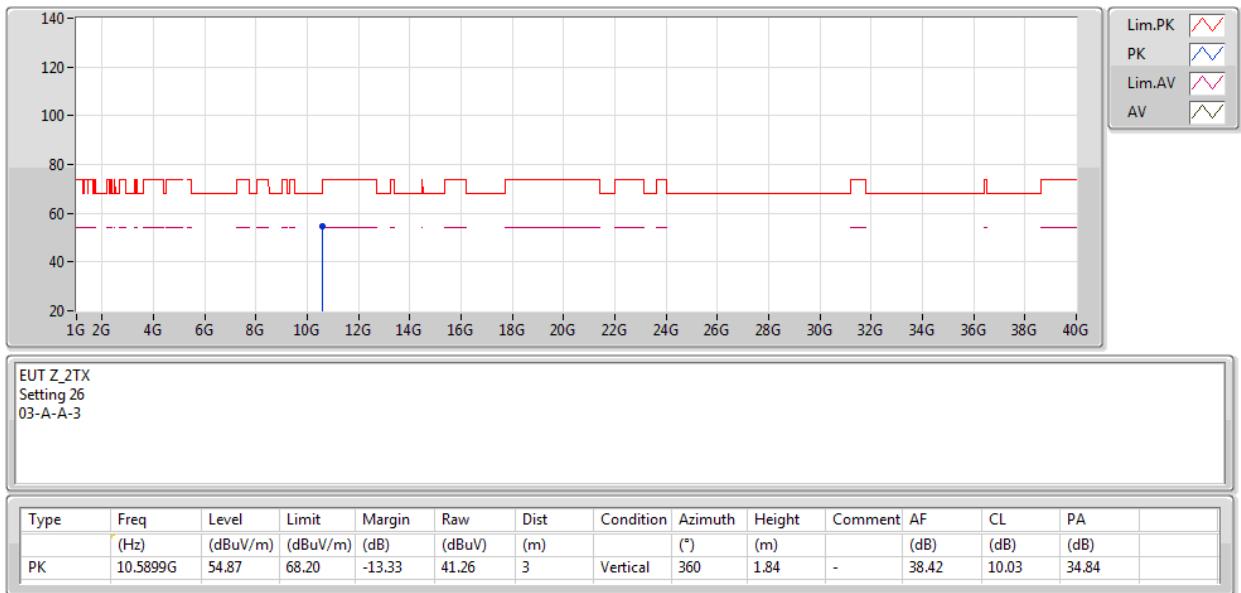
06/03/2020

5300MHz_TX

 EUT Z_2TX
 Setting 26
 03-A-A-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.2936G	123.60	Inf	-Inf	117.34	3	Vertical	206	1.85	-	34.29	6.85	34.88	
AV	5.2976G	112.02	Inf	-Inf	105.74	3	Vertical	206	1.85	-	34.30	6.86	34.88	
PK	5.3544G	66.20	74.00	-7.80	59.87	3	Vertical	206	1.85	-	34.35	6.90	34.92	
AV	5.35G	51.12	54.00	-2.88	44.79	3	Vertical	206	1.85	-	34.35	6.90	34.92	

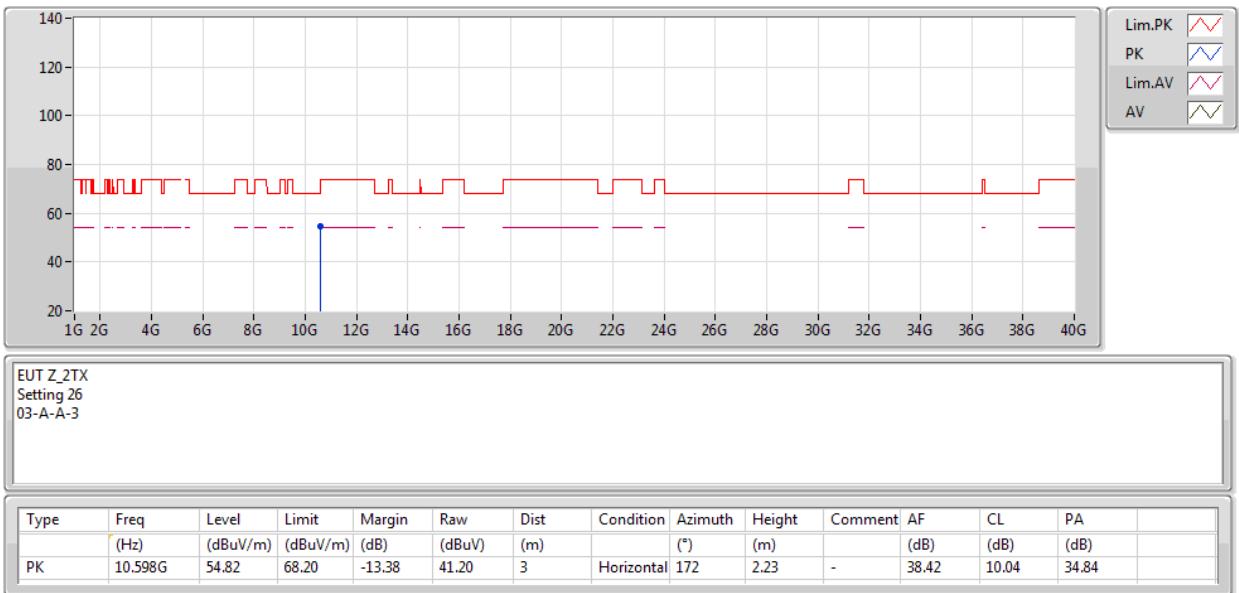
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5300MHz_TX


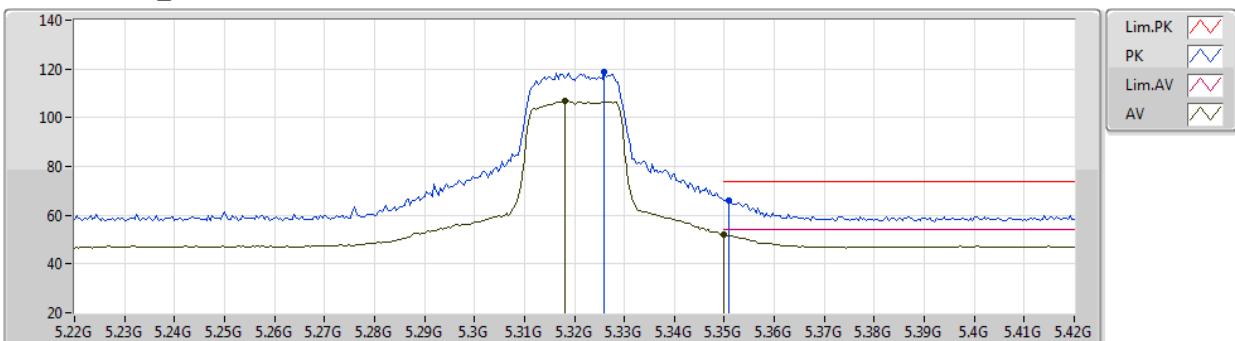
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5300MHz_TX


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

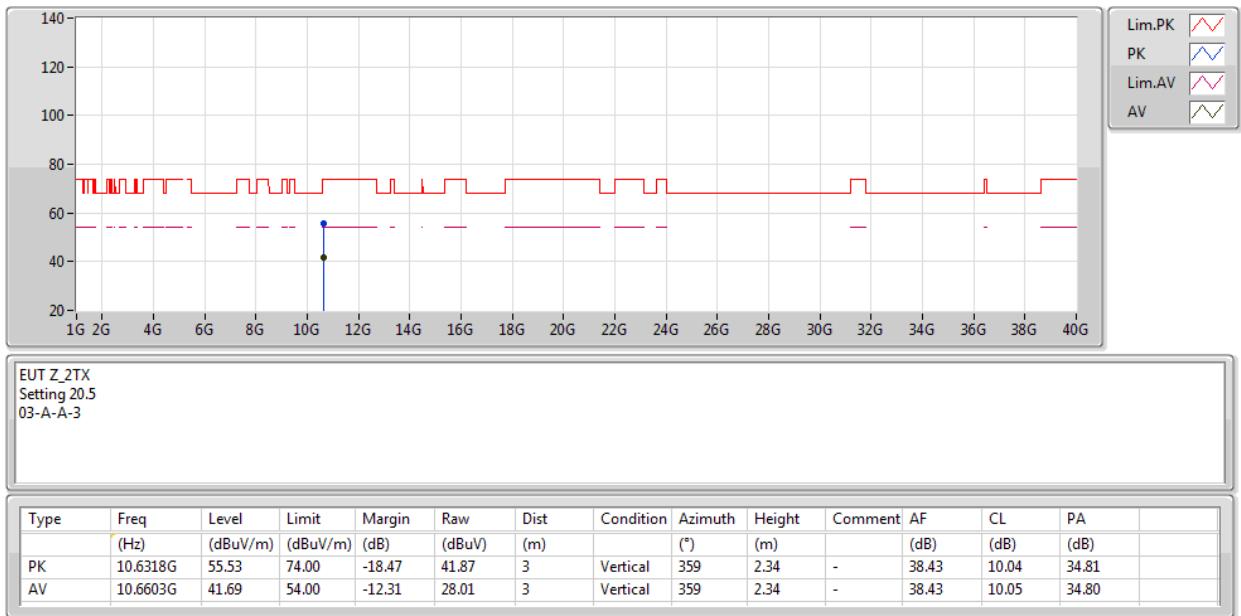
06/03/2020

5320MHz_TX

 EUT Z_2TX
 Setting 20.5
 03-A-A-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.326G	118.66	Inf	-Inf	112.35	3	Vertical	312	1.86	-	34.33	6.88	34.90	
AV	5.318G	106.97	Inf	-Inf	100.67	3	Vertical	312	1.86	-	34.32	6.87	34.89	
PK	5.3508G	66.06	74.00	-7.94	59.73	3	Vertical	312	1.86	-	34.35	6.90	34.92	
AV	5.35G	52.21	54.00	-1.79	45.88	3	Vertical	312	1.86	-	34.35	6.90	34.92	

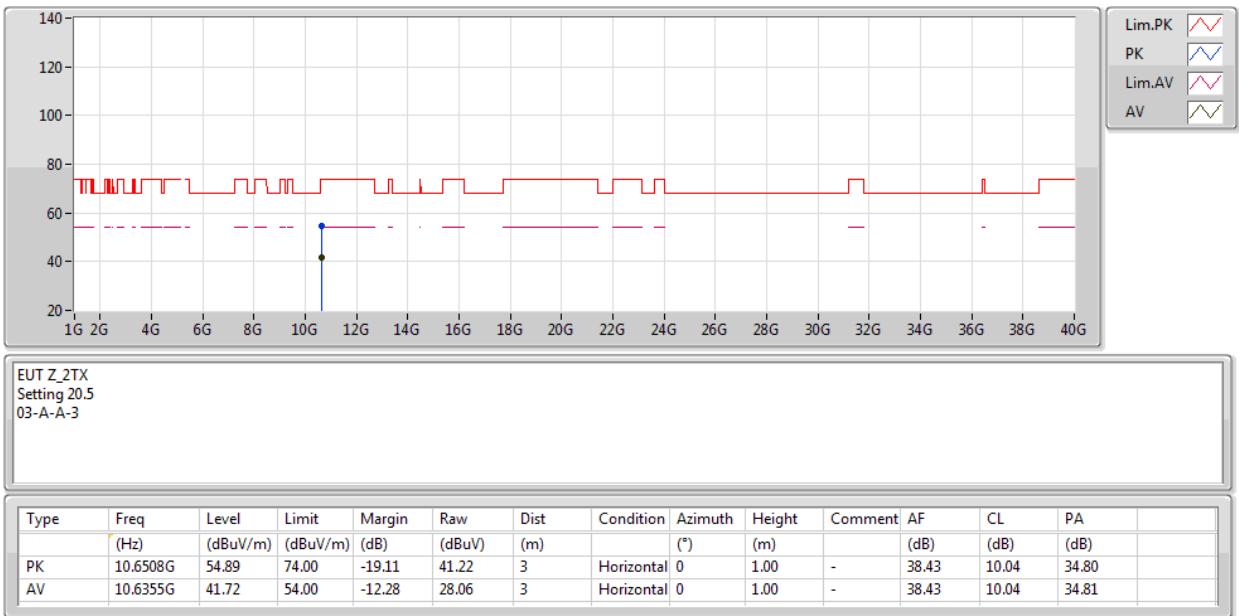
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5320MHz_TX


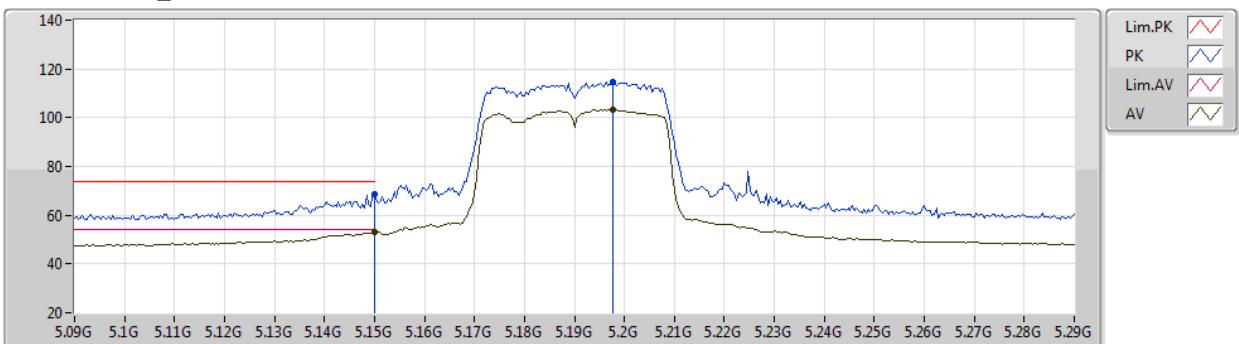
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

06/03/2020

5320MHz_TX


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

06/03/2020

5190MHz_TX

 EUT Z_2TX
 Setting 19.5
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.15G	68.38	74.00	-5.62	59.24	3	Vertical	119	1.80	-	33.55	5.97	30.38	
AV	5.15G	52.91	54.00	-1.09	43.77	3	Vertical	119	1.80	-	33.55	5.97	30.38	
PK	5.1976G	114.86	Inf	-Inf	105.66	3	Vertical	119	1.80	-	33.60	6.00	30.40	
AV	5.1976G	103.44	Inf	-Inf	94.24	3	Vertical	119	1.80	-	33.60	6.00	30.40	

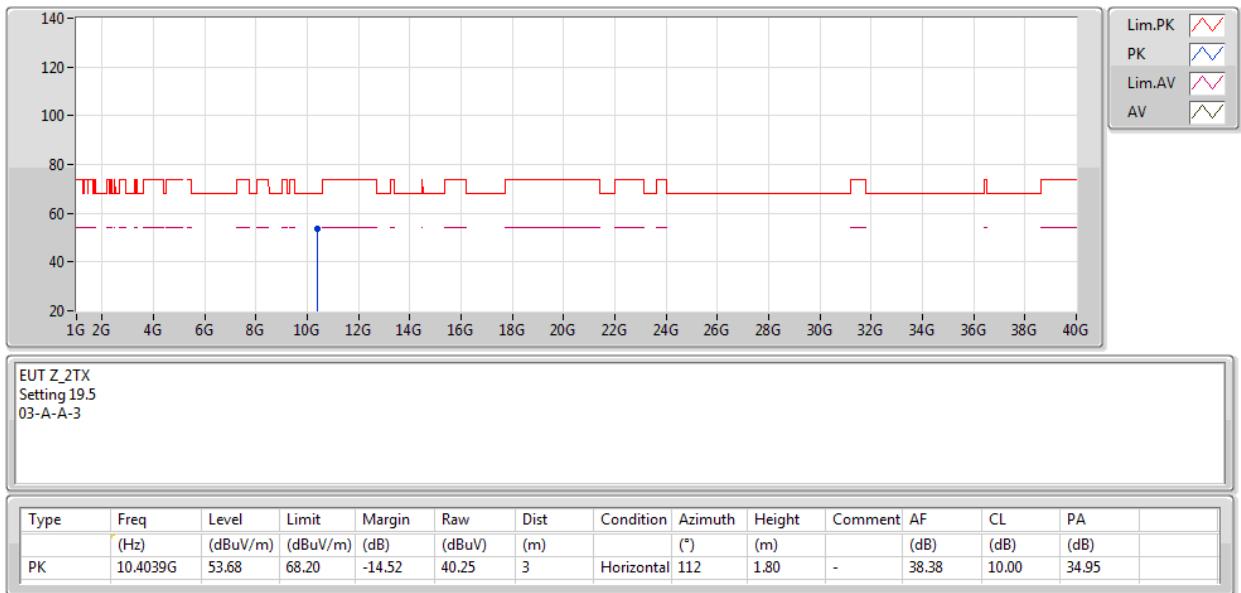
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

06/03/2020

5190MHz_TX

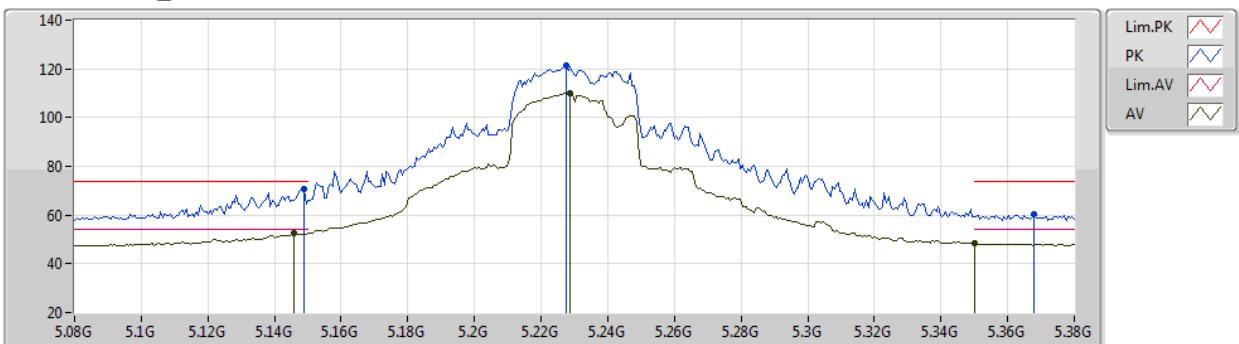
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

06/03/2020

5190MHz_TX

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

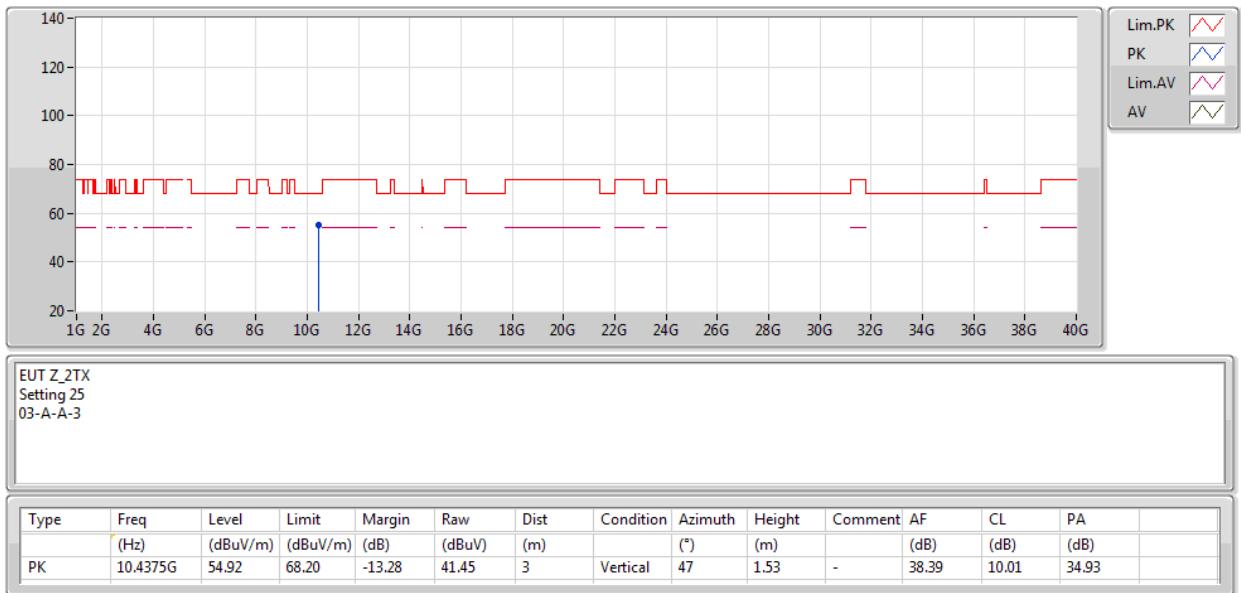
06/03/2020

5230MHz_TX

 EUT Z_2TX
 Setting 25
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment (dB)	AF (dB)	CL (dB)	PA (dB)	
PK	5.149G	70.73	74.00	-3.27	61.59	3	Vertical	209	1.88	-	33.55	5.97	30.38	
AV	5.146G	52.62	54.00	-1.38	43.48	3	Vertical	209	1.88	-	33.55	5.97	30.38	
PK	5.2276G	121.60	Inf	-Inf	112.34	3	Vertical	209	1.88	-	33.66	6.01	30.41	
AV	5.2288G	110.16	Inf	-Inf	100.90	3	Vertical	209	1.88	-	33.66	6.01	30.41	
PK	5.368G	60.27	74.00	-13.73	50.78	3	Vertical	209	1.88	-	33.87	6.08	30.46	
AV	5.35G	48.29	54.00	-5.71	38.82	3	Vertical	209	1.88	-	33.85	6.07	30.45	

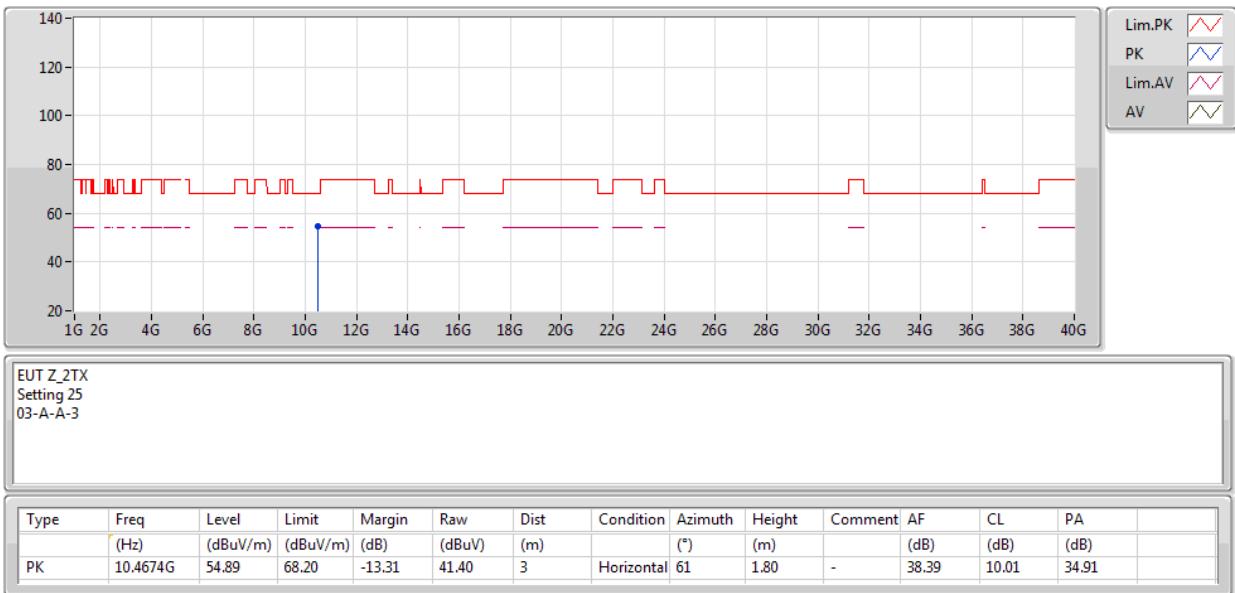
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

06/03/2020

5230MHz_TX


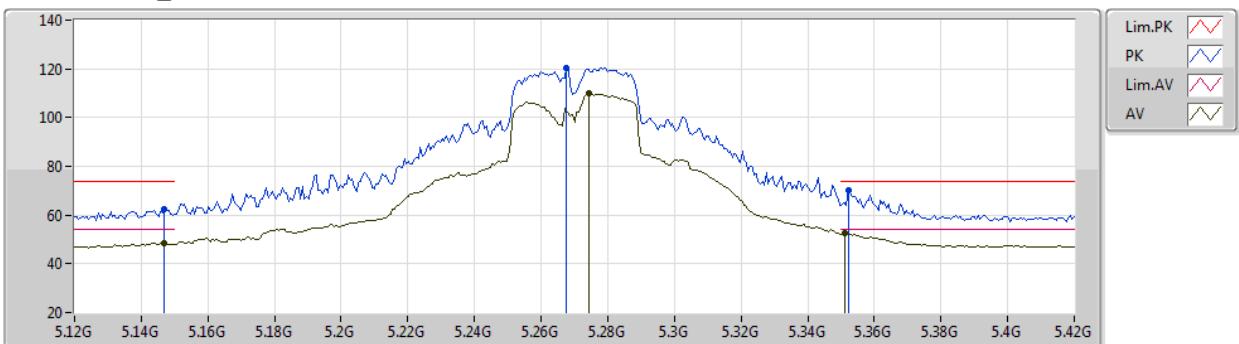
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

06/03/2020

5230MHz_TX

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

06/03/2020

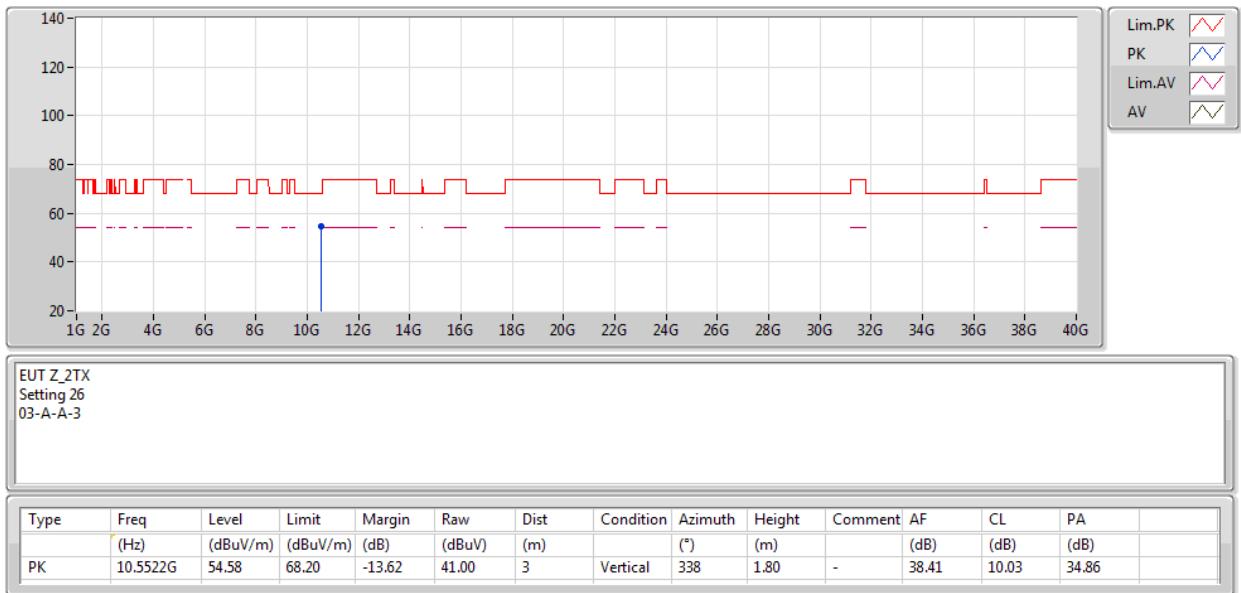
5270MHz_TX

 EUT Z_2TX
 Setting 26
 03-A-A-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.147G	62.39	74.00	-11.61	56.38	3	Vertical	205	1.78	-	34.05	6.73	34.77	
AV	5.147G	48.44	54.00	-5.56	42.43	3	Vertical	205	1.78	-	34.05	6.73	34.77	
PK	5.2676G	120.43	Inf	-Inf	114.22	3	Vertical	205	1.78	-	34.24	6.83	34.86	
AV	5.2742G	109.88	Inf	-Inf	103.65	3	Vertical	205	1.78	-	34.25	6.84	34.86	
PK	5.3522G	70.43	74.00	-3.57	64.10	3	Vertical	205	1.78	-	34.35	6.90	34.92	
AV	5.351G	52.43	54.00	-1.57	46.10	3	Vertical	205	1.78	-	34.35	6.90	34.92	

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

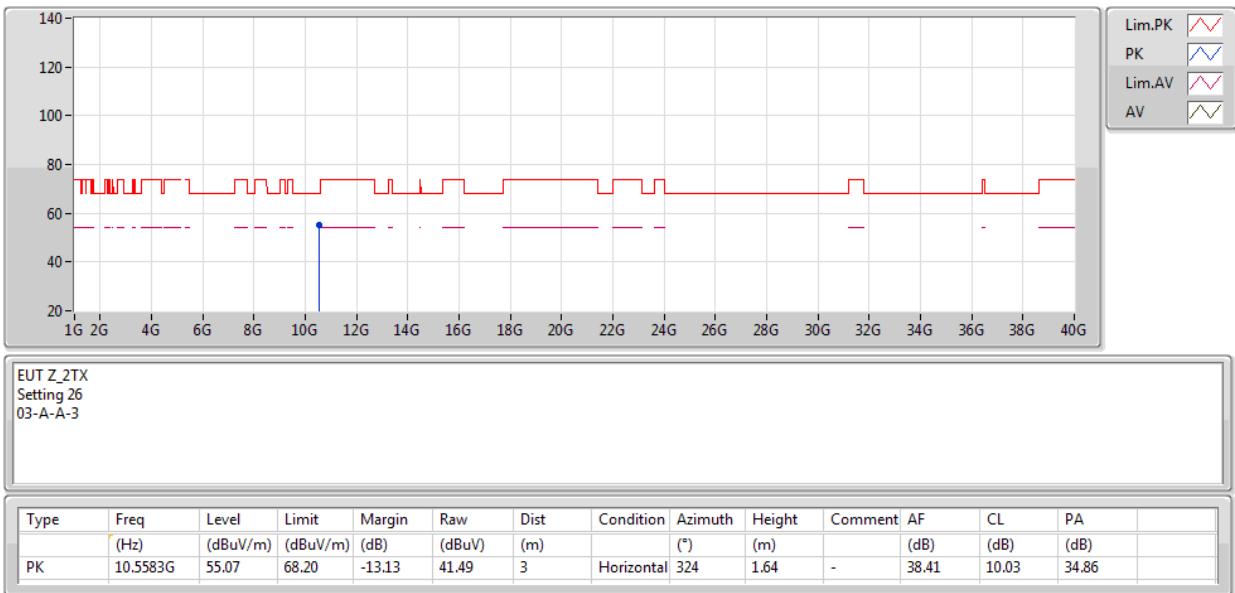
06/03/2020

5270MHz_TX



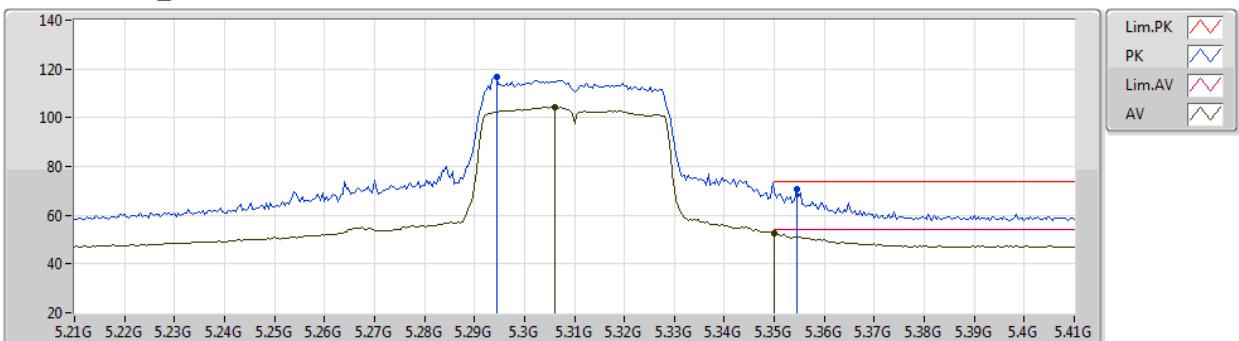
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

06/03/2020

5270MHz_TX

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

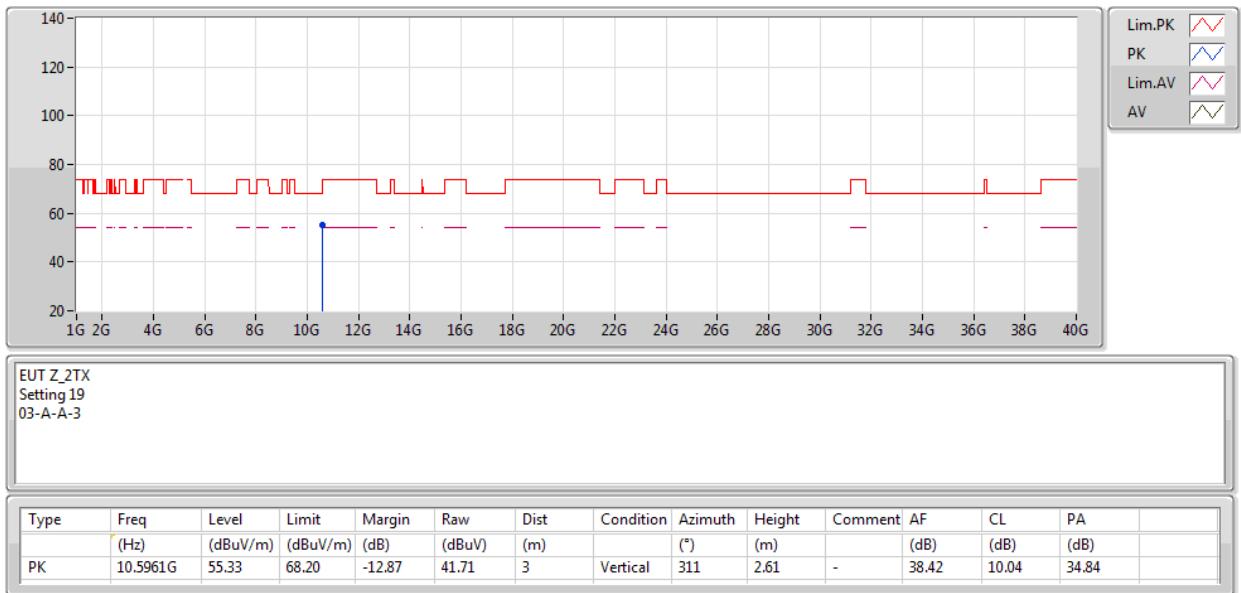
06/03/2020

5310MHz_TX

 EUT Z_2TX
 Setting 19
 03-A-A-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.2944G	116.89	Inf	-Inf	110.63	3	Vertical	282	1.61	-	34.29	6.85	34.88	
AV	5.306G	104.43	Inf	-Inf	98.14	3	Vertical	282	1.61	-	34.31	6.86	34.88	
PK	5.3544G	70.50	74.00	-3.50	64.17	3	Vertical	282	1.61	-	34.35	6.90	34.92	
AV	5.35G	52.75	54.00	-1.25	46.42	3	Vertical	282	1.61	-	34.35	6.90	34.92	

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

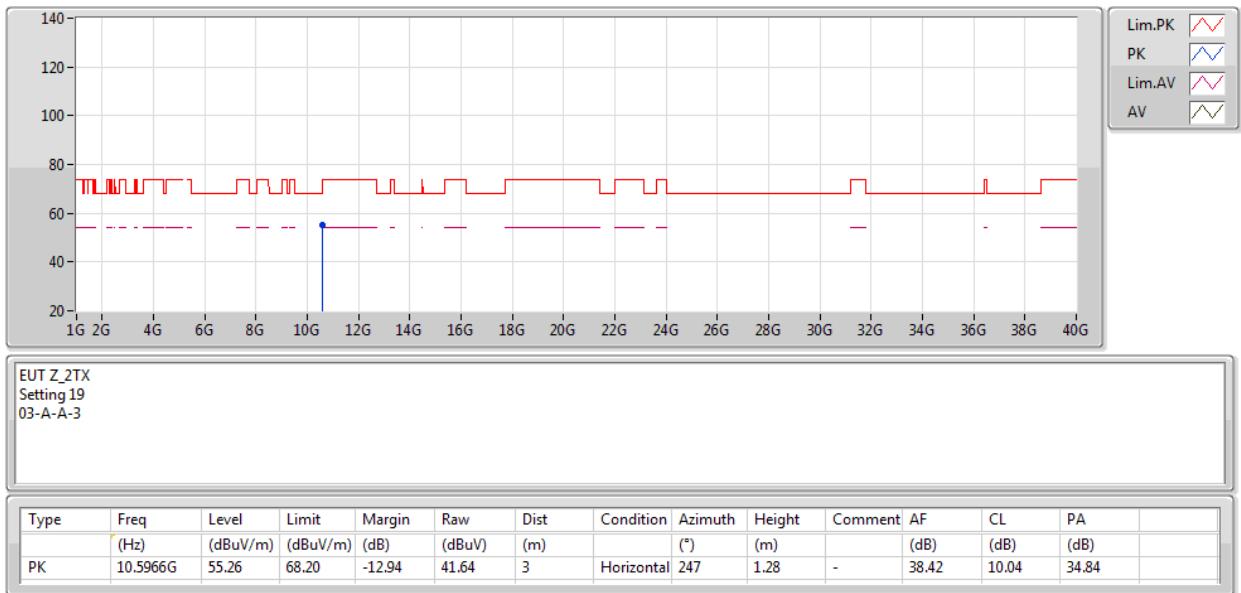
06/03/2020

5310MHz_TX

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

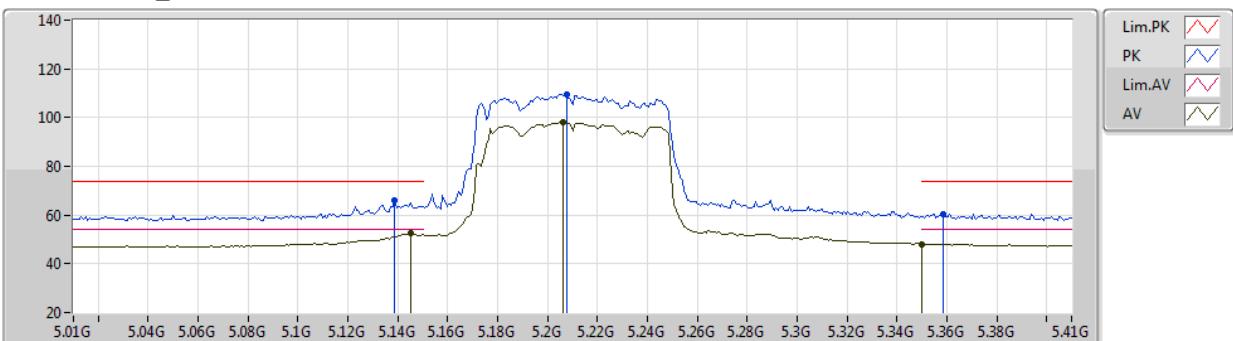
06/03/2020

5310MHz_TX



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

18/03/2020

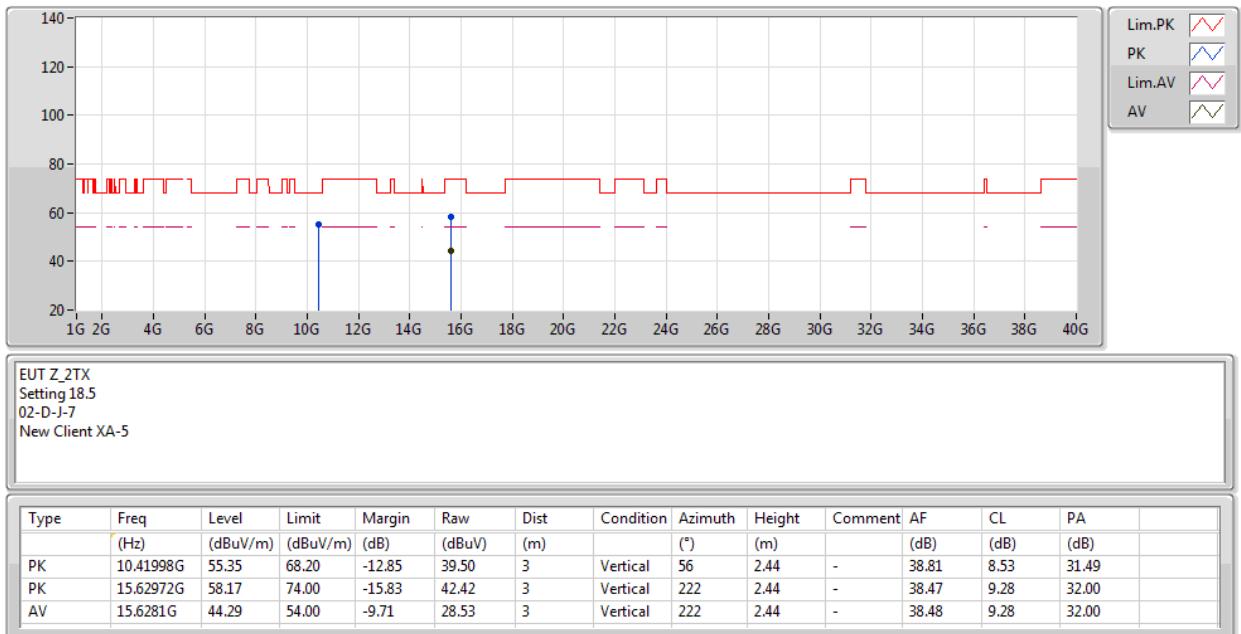
5210MHz_TX


EUT_Z_2TX
 Setting 18.5
 02-D-J-7-10
 New Client XA-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.1388G	65.90	74.00	-8.10	56.77	3	Vertical	276	1.65	-	33.54	5.97	30.38	
AV	5.1452G	52.69	54.00	-1.31	43.55	3	Vertical	276	1.65	-	33.55	5.97	30.38	
PK	5.2076G	109.39	Inf	-Inf	100.17	3	Vertical	276	1.65	-	33.62	6.00	30.40	
AV	5.206G	98.03	Inf	-Inf	88.82	3	Vertical	276	1.65	-	33.61	6.00	30.40	
PK	5.3588G	60.32	74.00	-13.68	50.84	3	Vertical	276	1.65	-	33.86	6.08	30.46	
AV	5.35G	48.15	54.00	-5.85	38.68	3	Vertical	276	1.65	-	33.85	6.07	30.45	

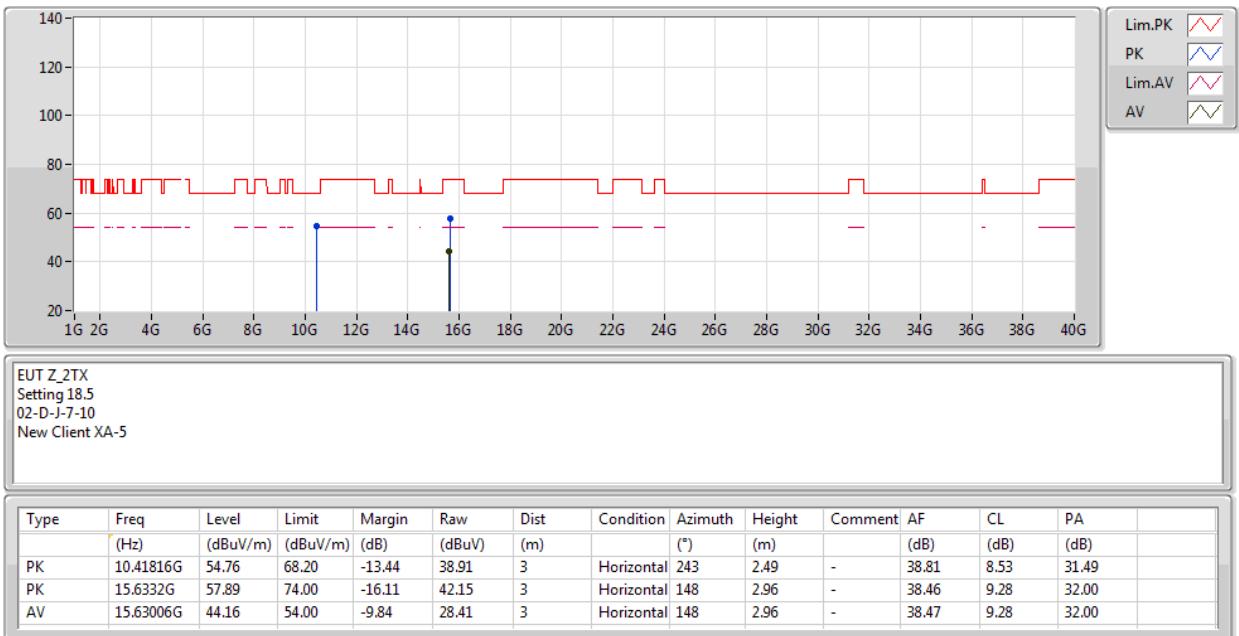
802.11ac VHT80-BF_Nss1,(MCS0)_2TX

18/03/2020

5210MHz_TX


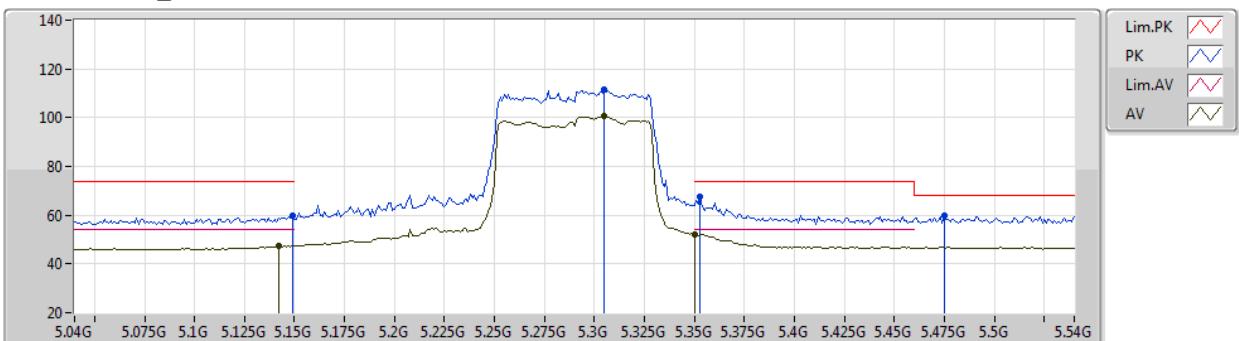
802.11ac VHT80-BF_Nss1,(MCS0)_2TX

18/03/2020

5210MHz_TX


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

12/03/2020

5290MHz_TX

 EUT Z_2TX
 Setting 19
 03-A-A-3-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.149G	59.58	74.00	-14.42	53.57	3	Vertical	201	1.36	-	34.05	6.73	34.77
AV	5.142G	47.43	54.00	-6.57	41.43	3	Vertical	201	1.36	-	34.04	6.73	34.77
PK	5.305G	111.35	Inf	-Inf	105.07	3	Vertical	201	1.36	-	34.30	6.86	34.88
AV	5.305G	100.64	Inf	-Inf	94.36	3	Vertical	201	1.36	-	34.30	6.86	34.88
PK	5.353G	67.38	74.00	-6.62	61.05	3	Vertical	201	1.36	-	34.35	6.90	34.92
AV	5.35G	52.27	54.00	-1.73	45.94	3	Vertical	201	1.36	-	34.35	6.90	34.92
PK	5.475G	59.64	68.20	-8.56	53.16	3	Vertical	201	1.36	-	34.48	6.99	34.99

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

12/03/2020

5290MHz_TX



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

12/03/2020

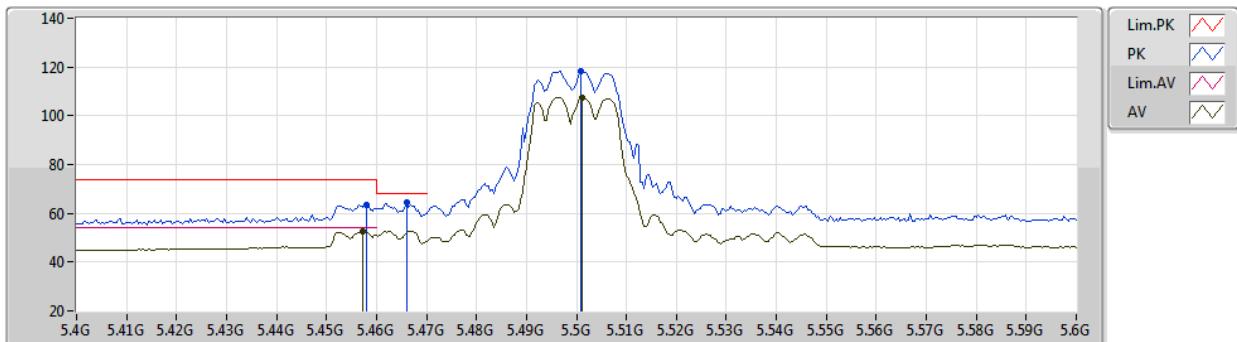
5290MHz_TX

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.47-5.725GHz	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	Pass	PK	5.4652G	67.19	68.20	-1.01	3	Vertical	141	1.65	-

**802.11a-BF_Nss1,(6Mbps)_2TX**

13/03/2020

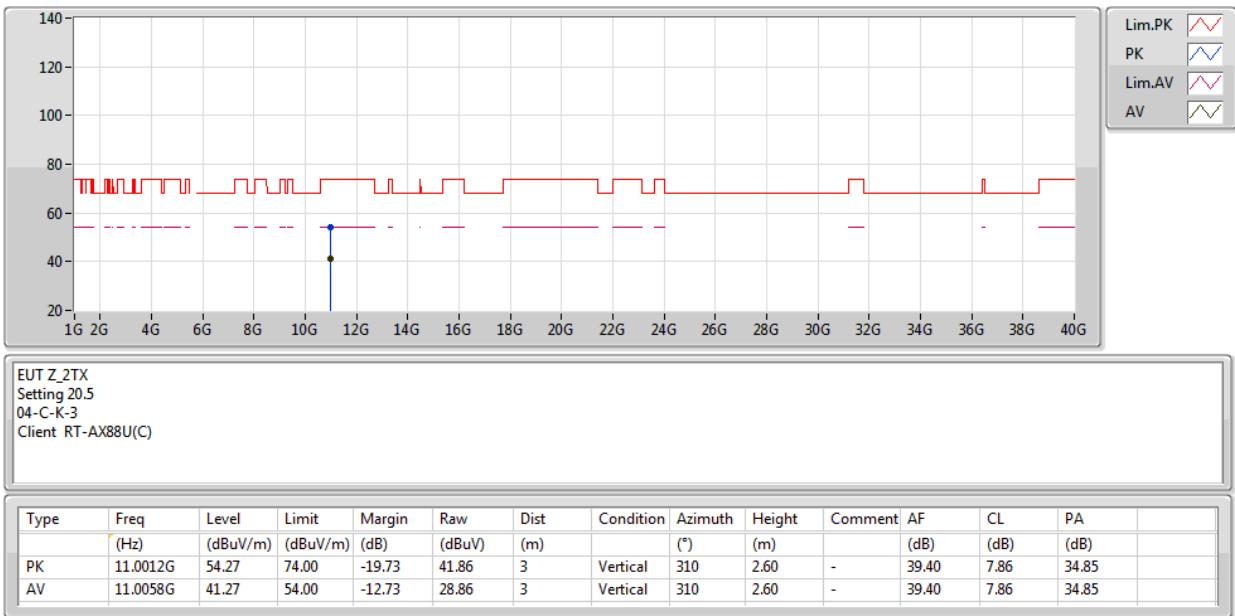
5500MHz_TX

EUT_Z_2TX
Setting 20.5
04-C-K-3-10
Client RT-AX88U(C)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.458G	63.36	74.00	-10.64	57.82	3	Vertical	139	1.80	-	33.67	5.26	33.39	
AV	5.4572G	52.71	54.00	-1.29	47.17	3	Vertical	139	1.80	-	33.67	5.26	33.39	
PK	5.466G	64.47	68.20	-3.73	58.89	3	Vertical	139	1.80	-	33.70	5.27	33.39	
PK	5.5008G	118.20	Inf	-Inf	112.50	3	Vertical	139	1.80	-	33.80	5.29	33.39	
AV	5.5012G	107.55	Inf	-Inf	101.85	3	Vertical	139	1.80	-	33.80	5.29	33.39	

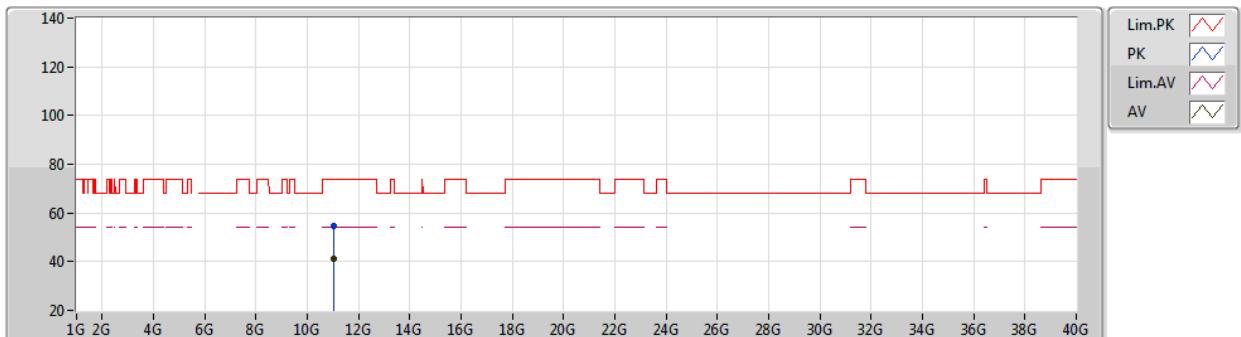
802.11a-BF_Nss1,(6Mbps)_2TX

13/03/2020

5500MHz_TX


802.11a-BF_Nss1,(6Mbps)_2TX

13/03/2020

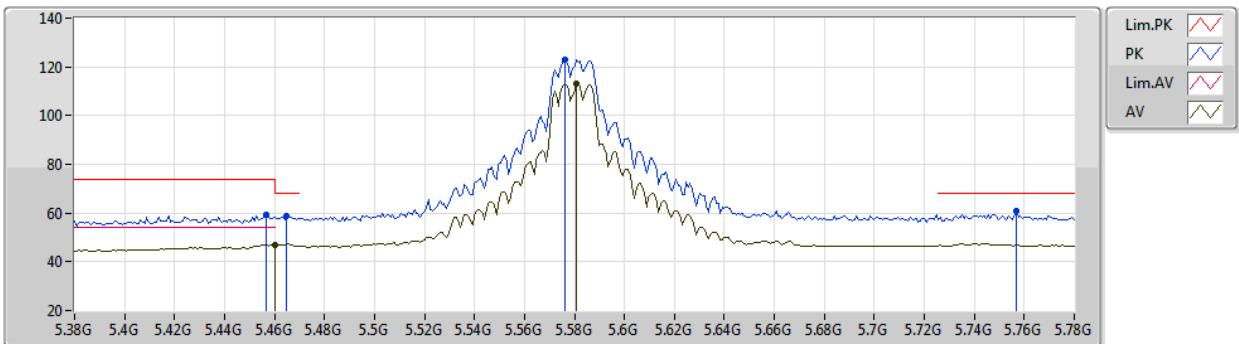
5500MHz_TX


EUT Z_2TX
 Setting 20.5
 04-C-K-3
 Client RT-AX88U(C)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment (dB)	AF (dB)	CL (dB)	PA (dB)	
PK	11.0216G	54.73	74.00	-19.27	42.33	3	Horizontal	311	1.80	-	39.39	7.87	34.86	
AV	11.021G	40.96	54.00	-13.04	28.56	3	Horizontal	311	1.80	-	39.39	7.87	34.86	

802.11a-BF_Nss1,(6Mbps)_2TX

13/03/2020

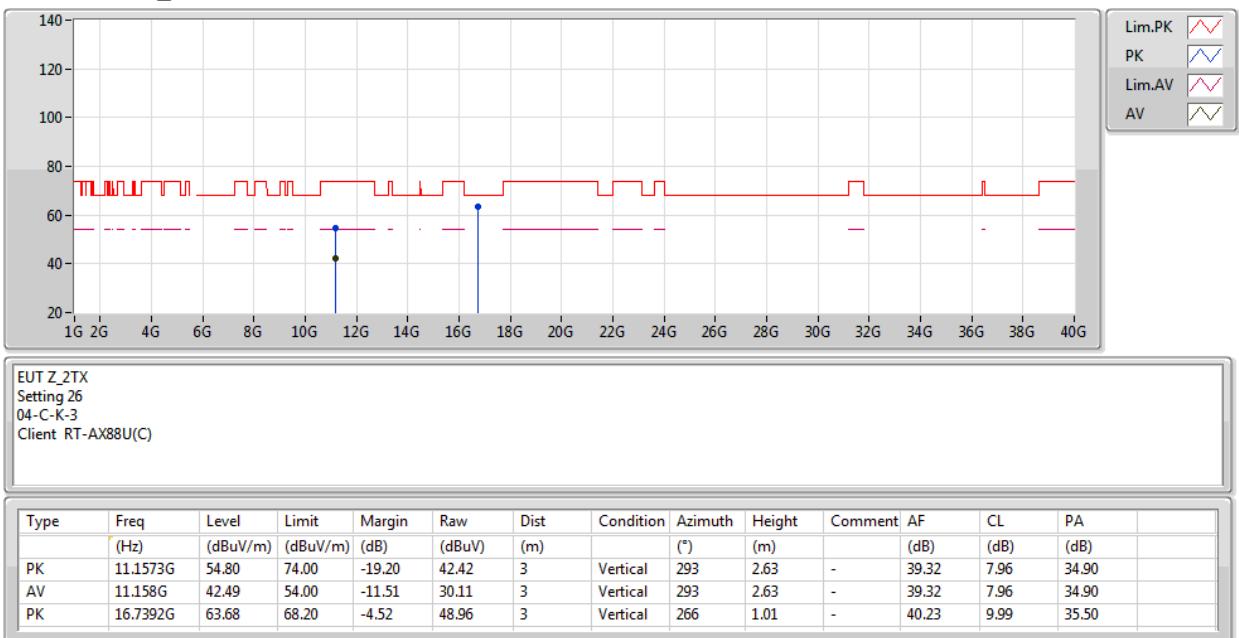
5580MHz_TX


EUT Z_2TX
 Setting 26
 04-C-K-3-10
 Client RT-AX88U(C)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.4568G	59.51	74.00	-14.49	53.97	3	Vertical	146	1.80	-	33.67	5.26	33.39	
AV	5.46G	46.93	54.00	-7.07	41.37	3	Vertical	146	1.80	-	33.68	5.27	33.39	
PK	5.4648G	58.60	68.20	-9.60	53.03	3	Vertical	146	1.80	-	33.69	5.27	33.39	
PK	5.576G	123.12	Inf	-Inf	117.20	3	Vertical	146	1.80	-	33.95	5.34	33.37	
AV	5.5808G	113.15	Inf	-Inf	107.21	3	Vertical	146	1.80	-	33.96	5.35	33.37	
PK	5.7568G	60.64	68.20	-7.56	54.30	3	Vertical	146	1.80	-	34.21	5.48	33.35	

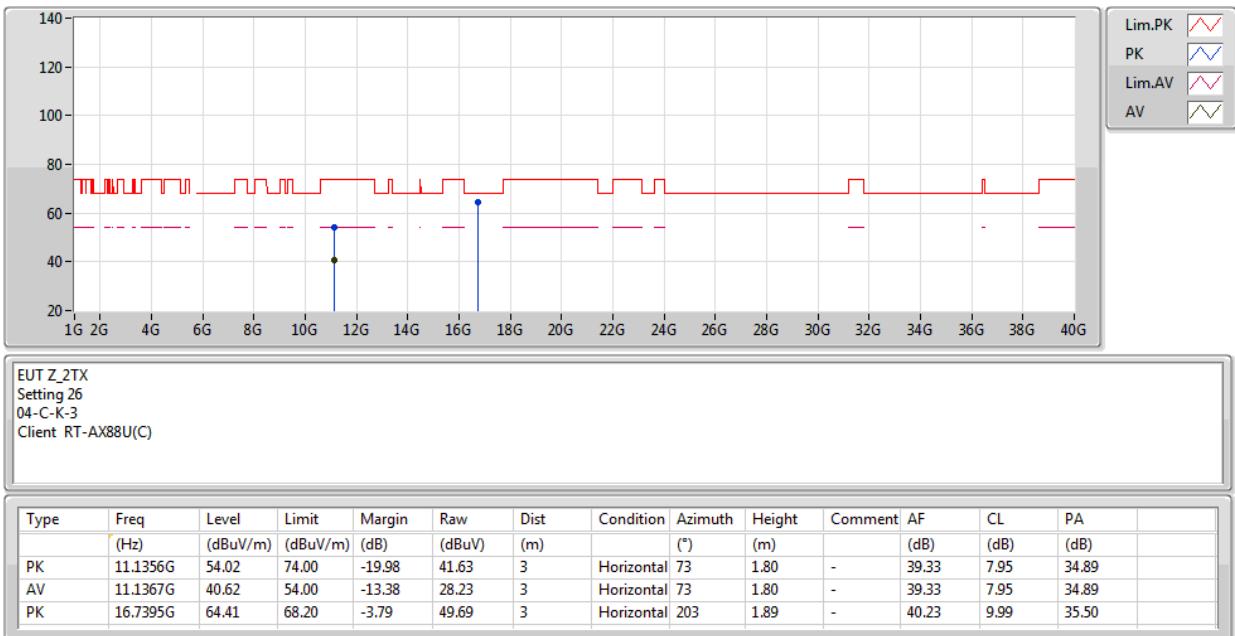
802.11a-BF_Nss1,(6Mbps)_2TX

13/03/2020

5580MHz_TX


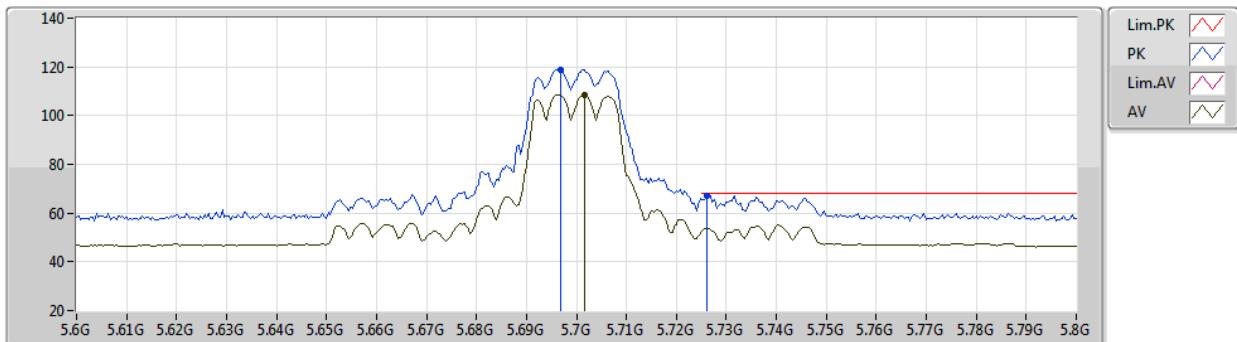
802.11a-BF_Nss1,(6Mbps)_2TX

13/03/2020

5580MHz_TX


802.11a-BF_Nss1,(6Mbps)_2TX

13/03/2020

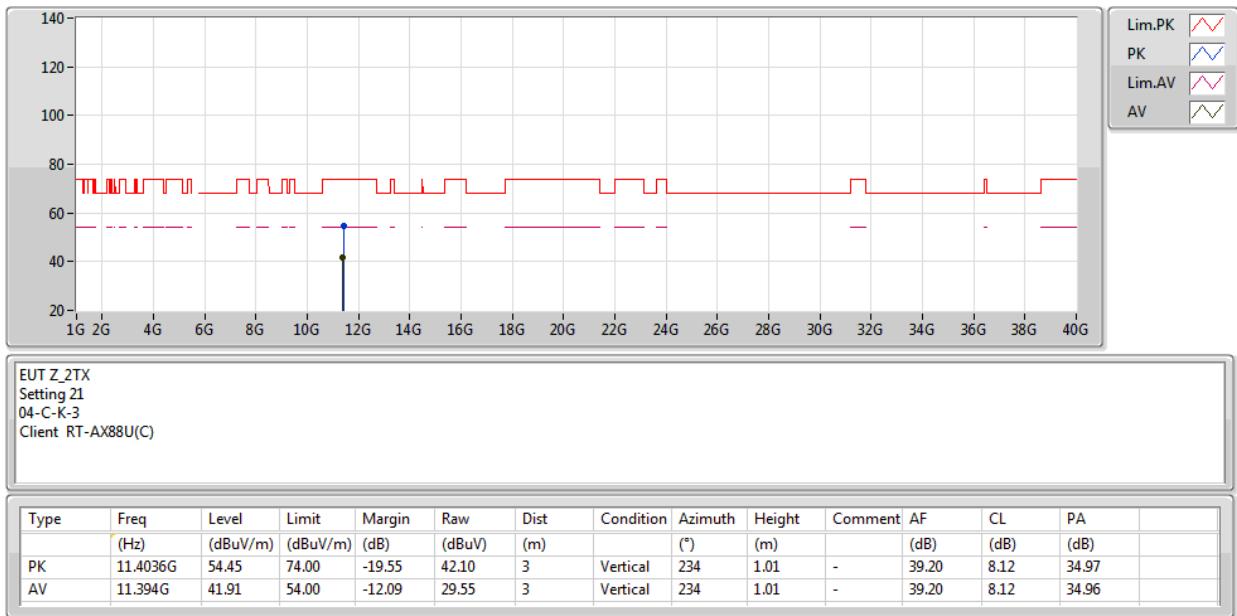
5700MHz_TX


EUT Z_2TX
 Setting 21
 04-C-K-3-10
 Client RT-AX88U(C)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.6968G	119.00	Inf	-Inf	112.82	3	Vertical	149	1.92	-	34.10	5.44	33.36	
AV	5.7016G	108.54	Inf	-Inf	102.36	3	Vertical	149	1.92	-	34.10	5.44	33.36	
PK	5.726G	67.02	68.20	-1.18	60.76	3	Vertical	149	1.92	-	34.15	5.46	33.35	

**802.11a-BF_Nss1,(6Mbps)_2TX**

13/03/2020

5700MHz_TX

802.11a-BF_Nss1,(6Mbps)_2TX

13/03/2020

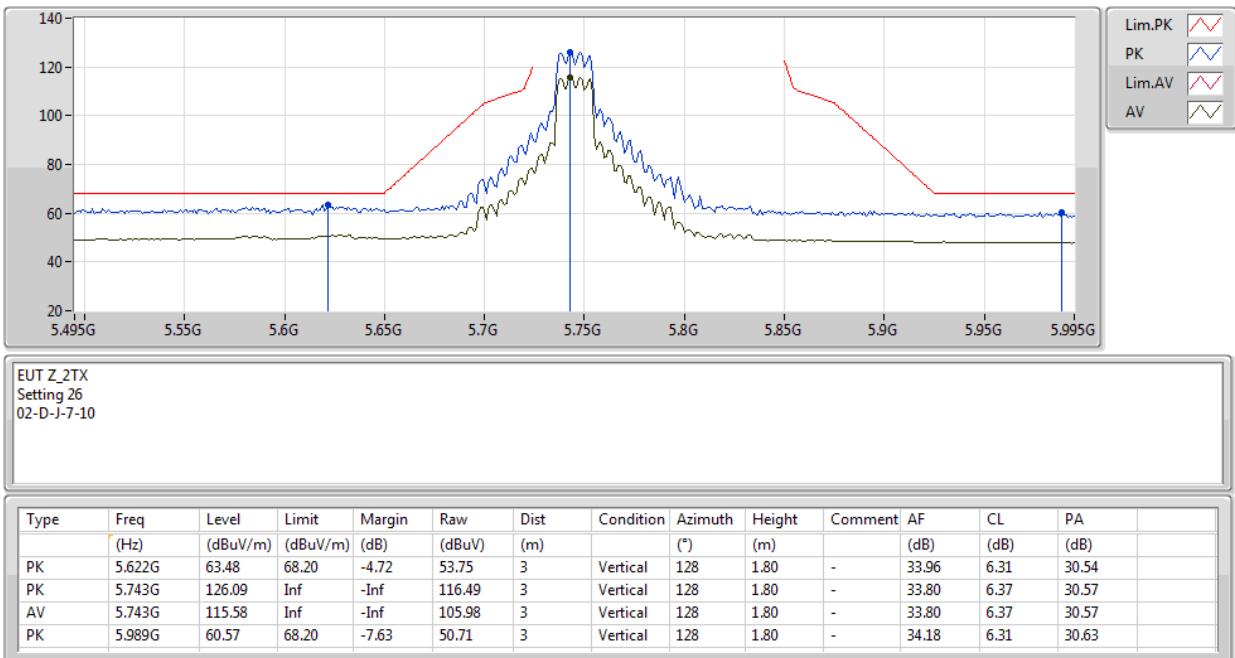
5700MHz_TX


EUT Z_2TX
 Setting 21
 04-C-K-3
 Client RT-AX88U(C)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	11.3912G	54.75	74.00	-19.25	42.40	3	Horizontal	322	2.75	-	39.20	8.11	34.96	
AV	11.3828G	41.33	54.00	-12.67	28.97	3	Horizontal	322	2.75	-	39.21	8.11	34.96	

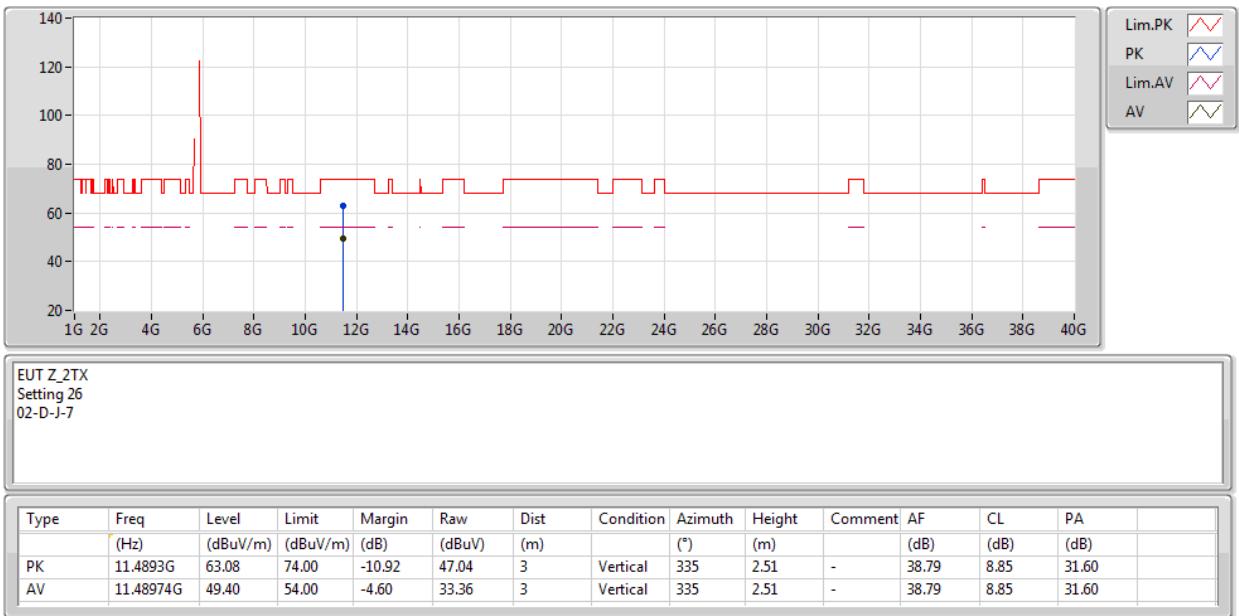
802.11a-BF_Nss1,(6Mbps)_2TX

17/03/2020

5745MHz_TX


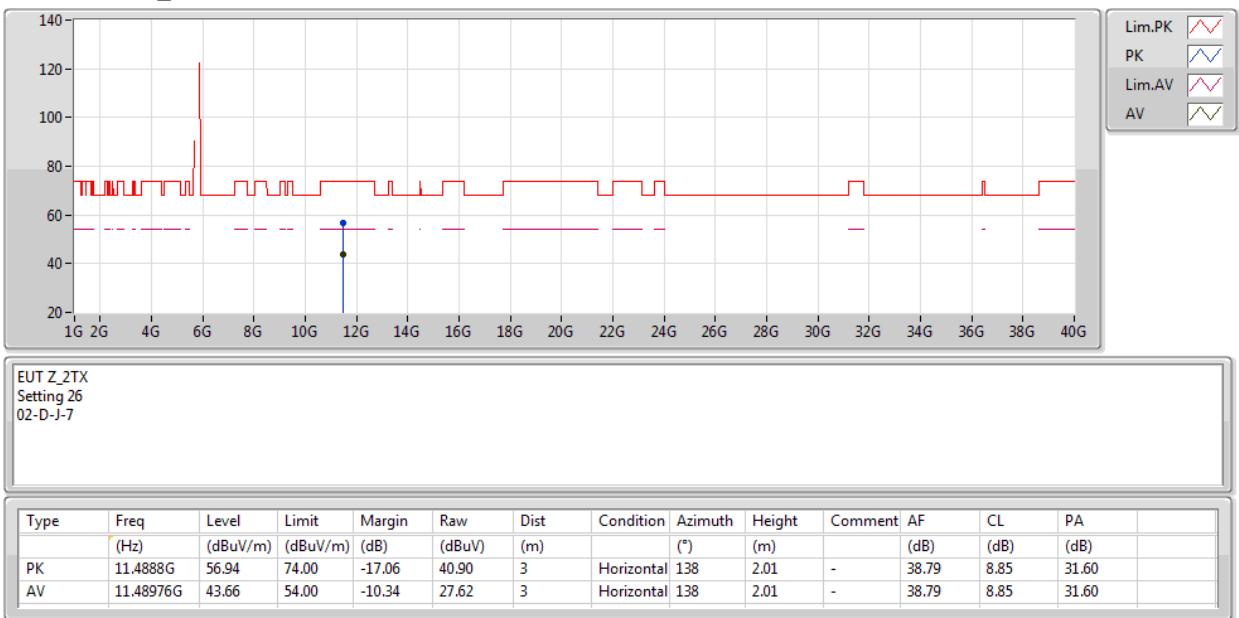
802.11a-BF_Nss1,(6Mbps)_2TX

17/03/2020

5745MHz_TX


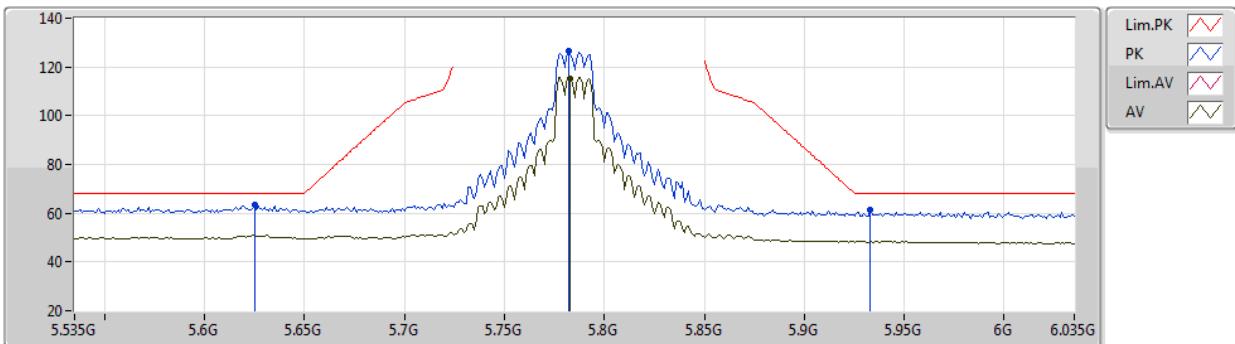
802.11a-BF_Nss1,(6Mbps)_2TX

17/03/2020

5745MHz_TX


802.11a-BF_Nss1,(6Mbps)_2TX

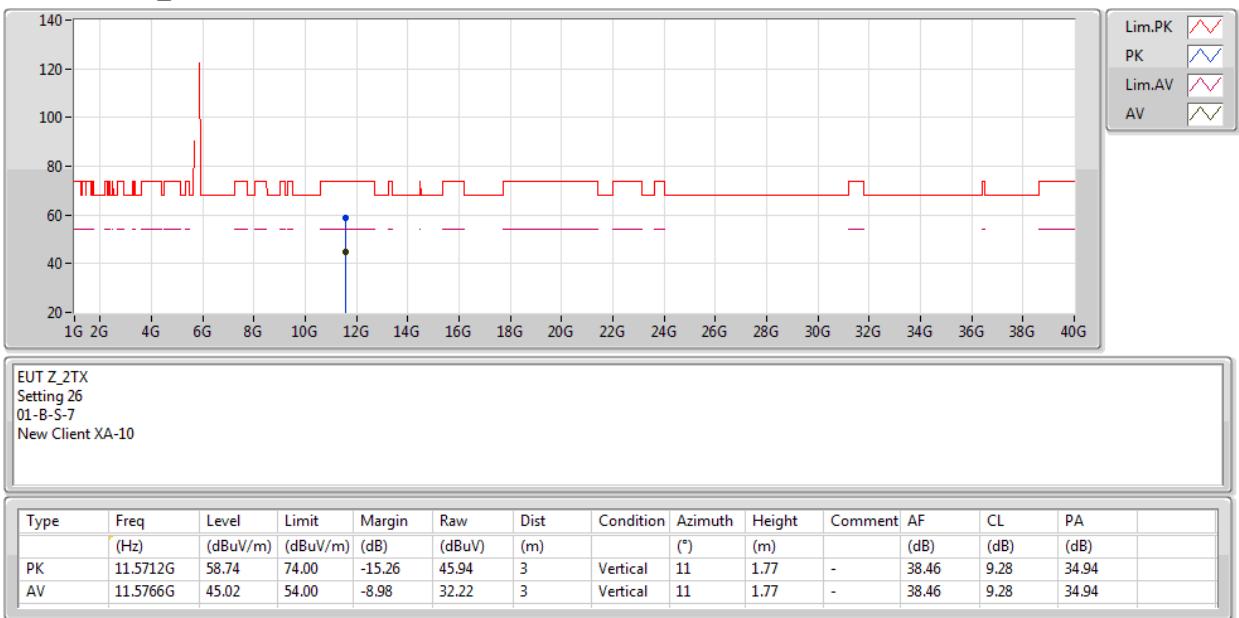
17/03/2020

5785MHz_TX

 EUT_Z_2TX
 Setting 26
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.625G	63.34	68.20	-4.86	53.62	3	Vertical	126	1.80	-	33.95	6.31	30.54	
PK	5.782G	126.54	Inf	-Inf	116.93	3	Vertical	126	1.80	-	33.80	6.39	30.58	
AV	5.783G	115.43	Inf	-Inf	105.82	3	Vertical	126	1.80	-	33.80	6.39	30.58	
PK	5.933G	61.61	68.20	-6.59	51.83	3	Vertical	126	1.80	-	34.07	6.33	30.62	

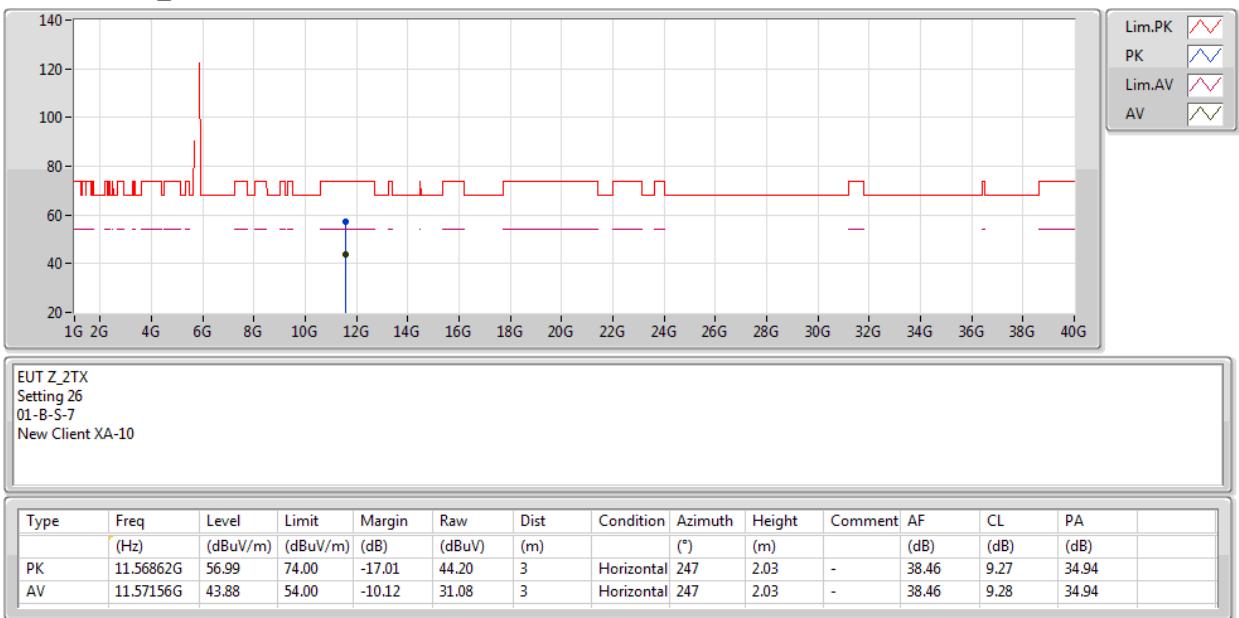
802.11a-BF_Nss1,(6Mbps)_2TX

17/03/2020

5785MHz_TX


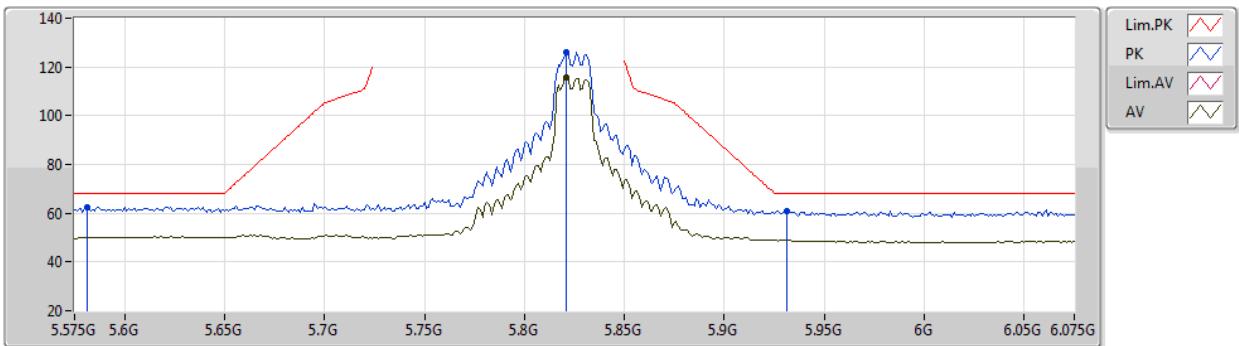
802.11a-BF_Nss1,(6Mbps)_2TX

17/03/2020

5785MHz_TX


802.11a-BF_Nss1,(6Mbps)_2TX

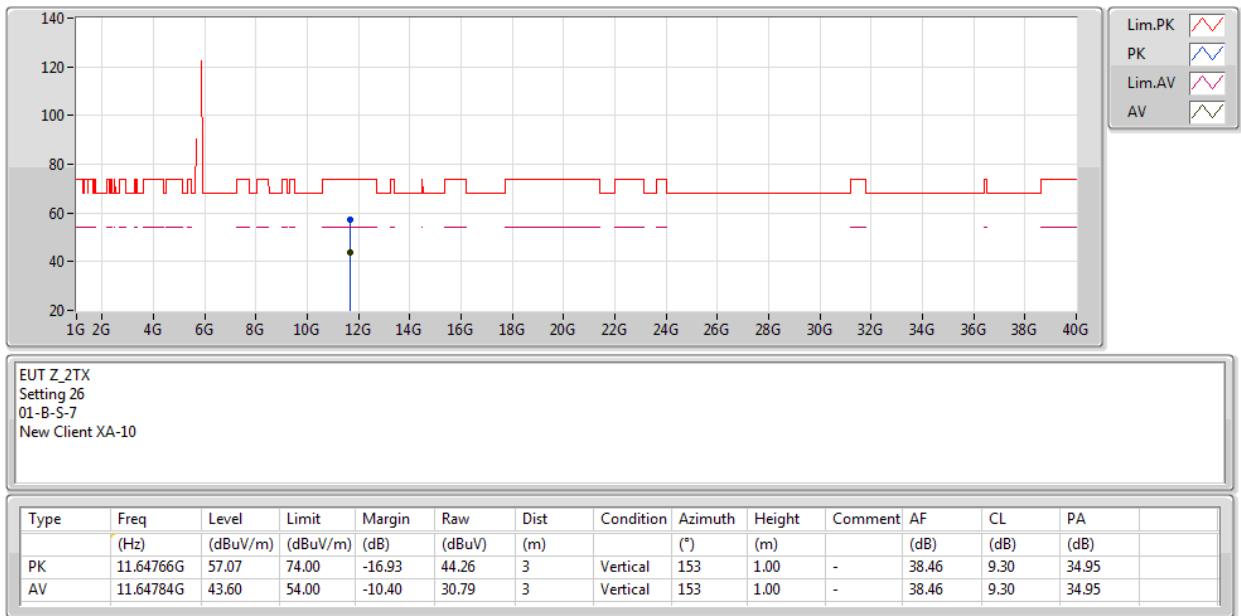
17/03/2020

5825MHz_TX

 EUT_Z_2TX
 Setting 26
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.581G	62.61	68.20	-5.59	52.88	3	Vertical	150	1.56	-	33.98	6.28	30.53	
PK	5.821G	126.05	Inf	-Inf	116.41	3	Vertical	150	1.56	-	33.84	6.39	30.59	
AV	5.821G	115.78	Inf	-Inf	106.14	3	Vertical	150	1.56	-	33.84	6.39	30.59	
PK	5.931G	60.67	68.20	-7.53	50.90	3	Vertical	150	1.56	-	34.06	6.33	30.62	

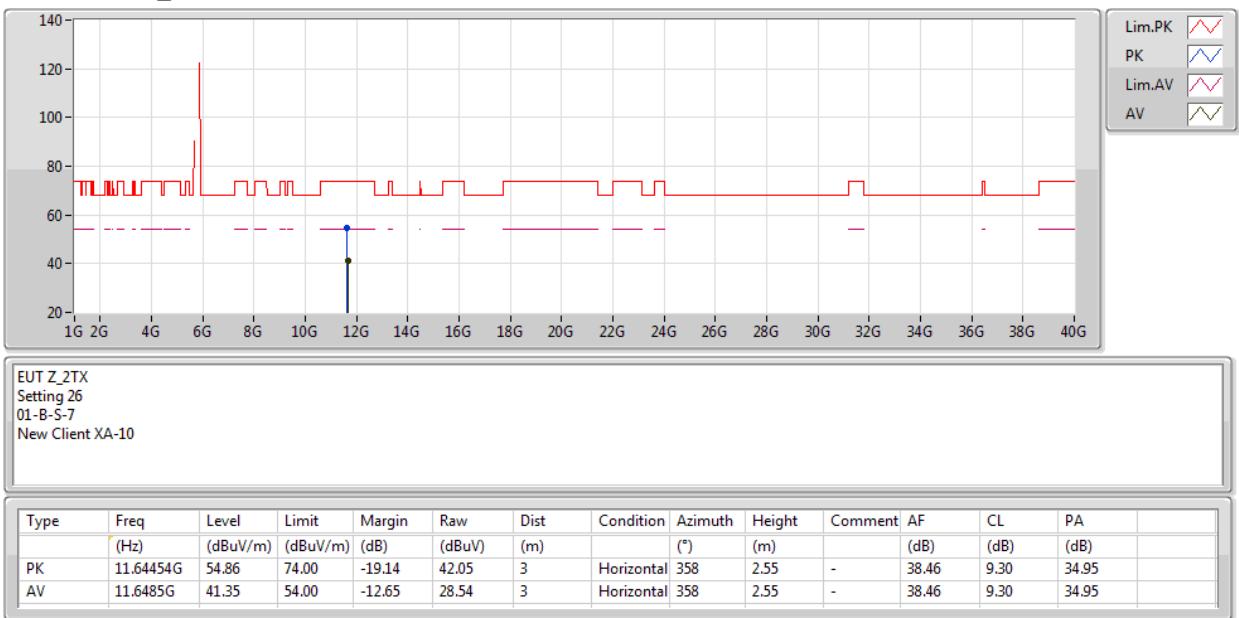
**802.11a-BF_Nss1,(6Mbps)_2TX**

17/03/2020

5825MHz_TX

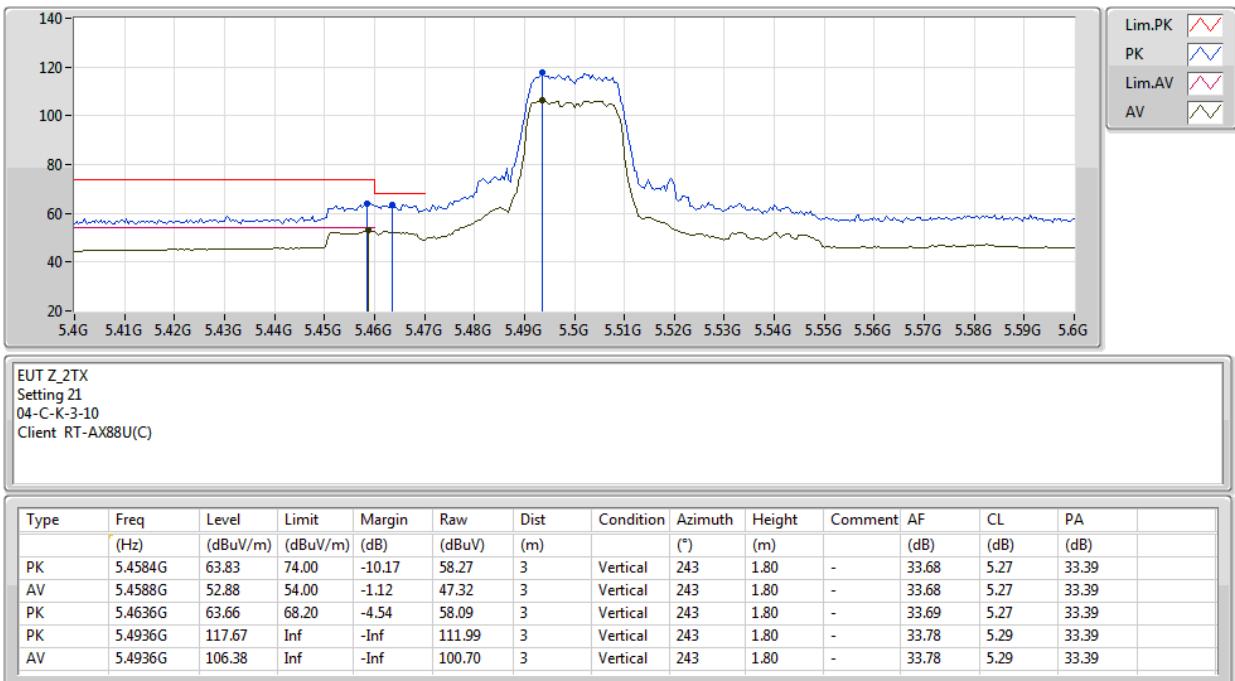
802.11a-BF_Nss1,(6Mbps)_2TX

17/03/2020

5825MHz_TX


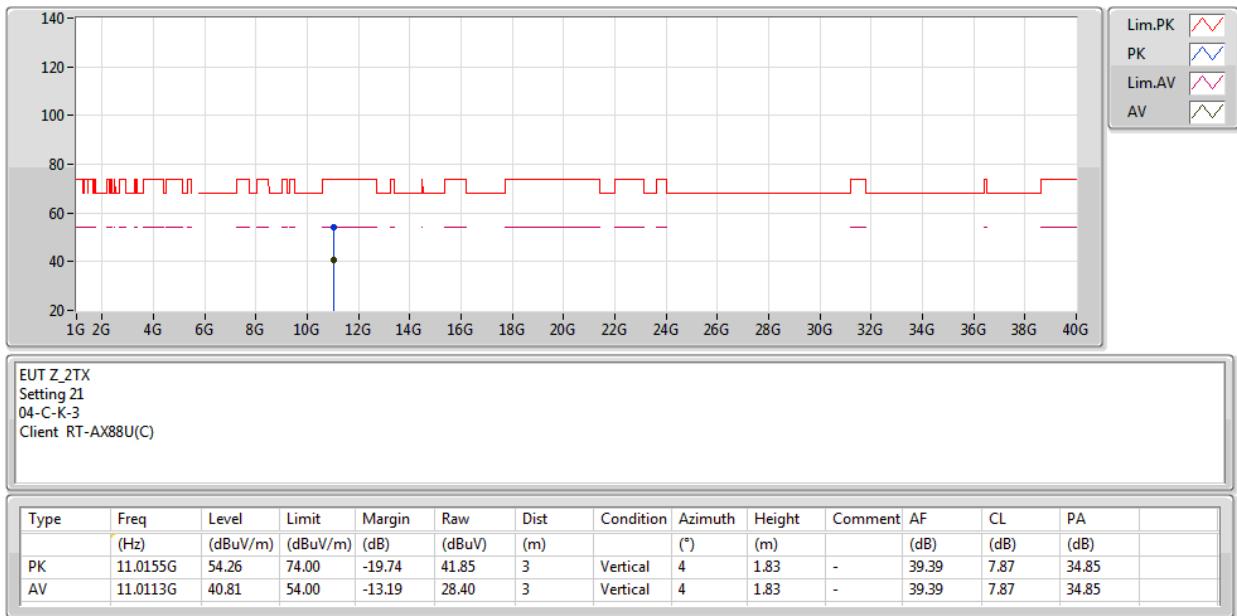
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

13/03/2020

5500MHz_TX


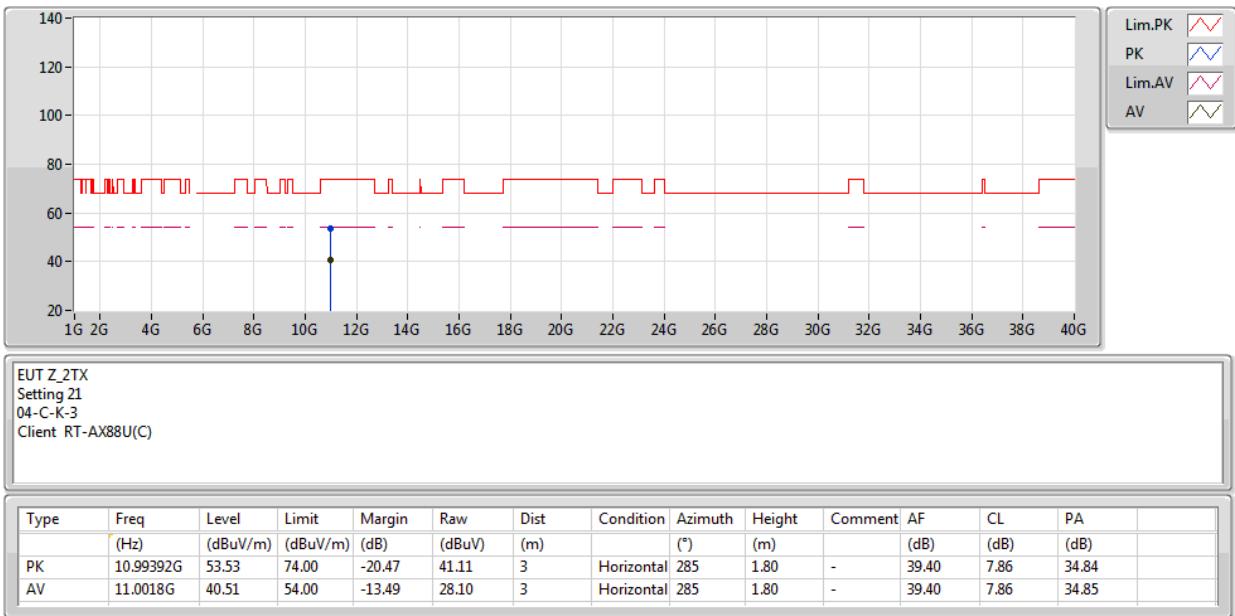
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

13/03/2020

5500MHz_TX


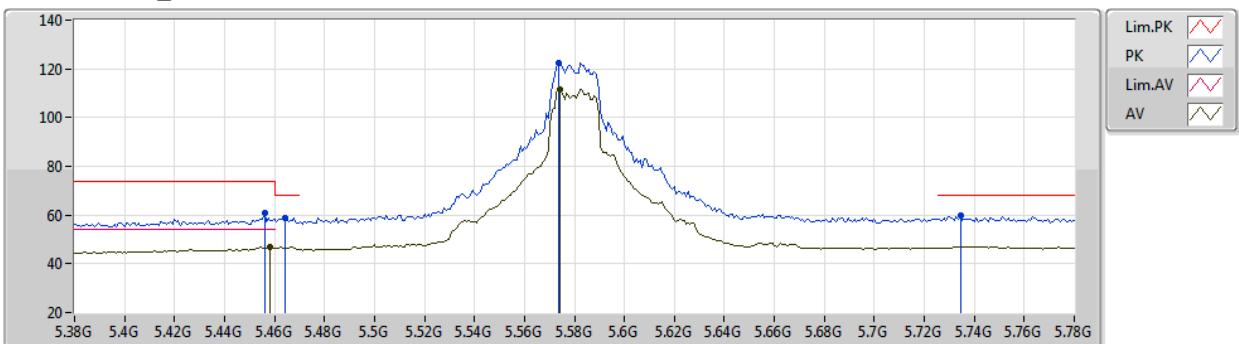
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

13/03/2020

5500MHz_TX


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

13/03/2020

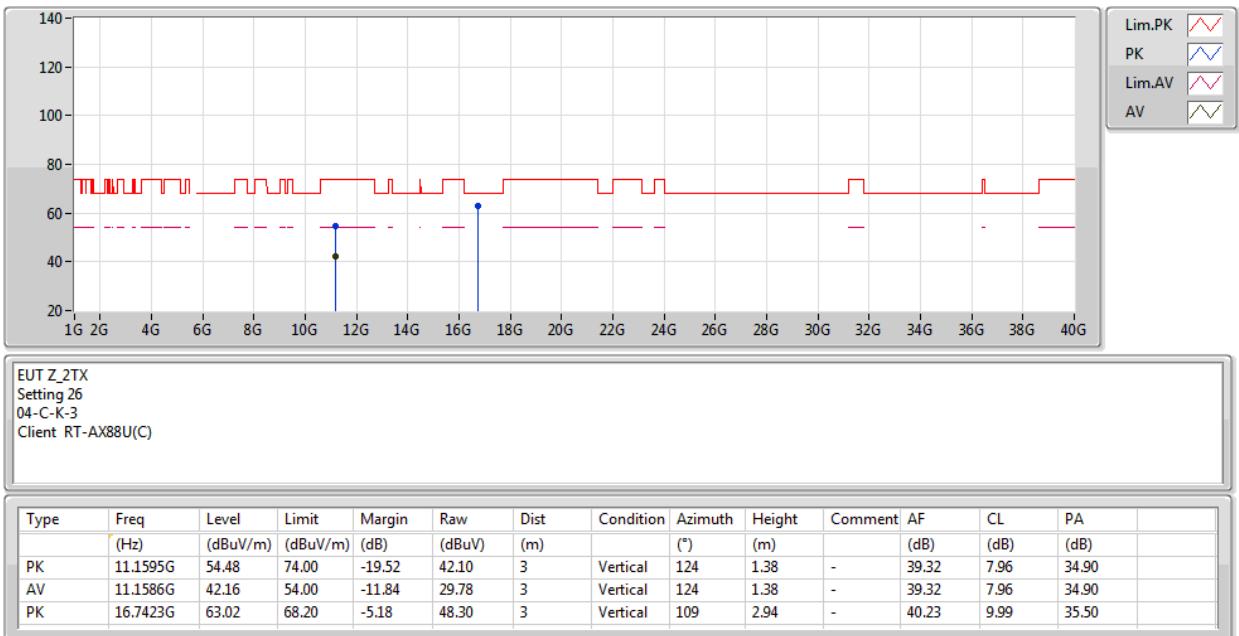
5580MHz_TX


EUT Z_2TX
 Setting 26
 04-C-K-3-10
 Client RT-AX88U(C)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment (dB)	AF (dB)	CL (dB)	PA (dB)	
PK	5.456G	60.61	74.00	-13.39	55.07	3	Vertical	165	1.80	-	33.67	5.26	33.39	
AV	5.4584G	46.76	54.00	-7.24	41.20	3	Vertical	165	1.80	-	33.68	5.27	33.39	
PK	5.464G	58.84	68.20	-9.36	53.27	3	Vertical	165	1.80	-	33.69	5.27	33.39	
PK	5.5736G	122.50	Inf	-Inf	116.59	3	Vertical	165	1.80	-	33.95	5.34	33.38	
AV	5.5744G	111.71	Inf	-Inf	105.80	3	Vertical	165	1.80	-	33.95	5.34	33.38	
PK	5.7344G	59.63	68.20	-8.57	53.35	3	Vertical	165	1.80	-	34.17	5.46	33.35	

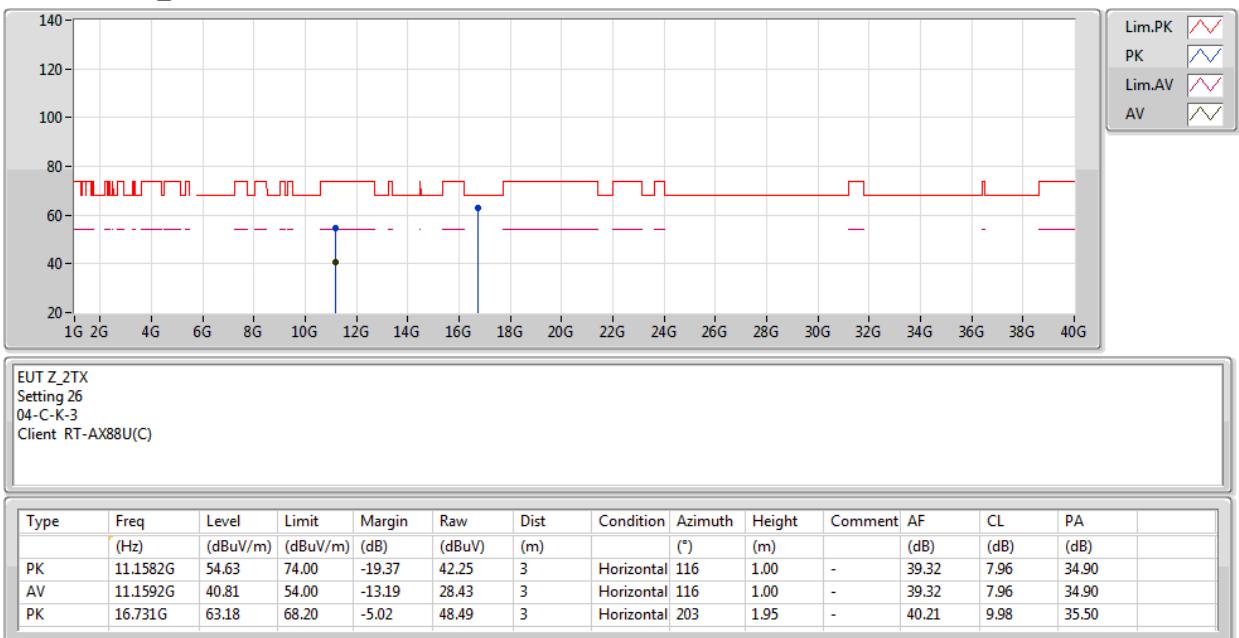
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

13/03/2020

5580MHz_TX


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

13/03/2020

5580MHz_TX


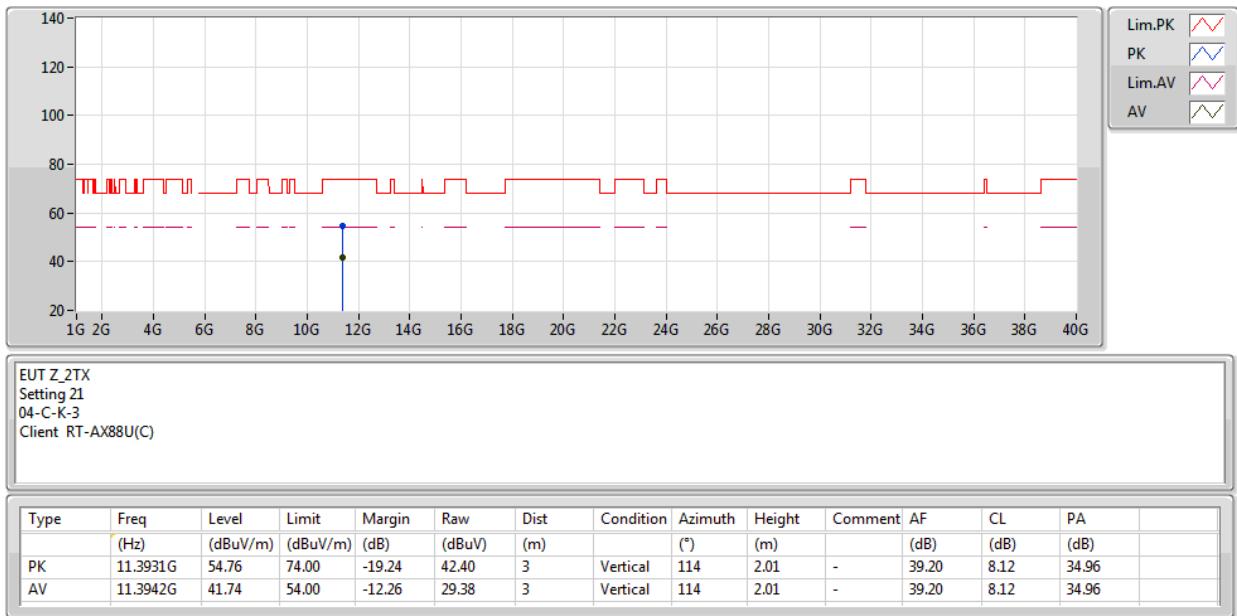
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

13/03/2020

5700MHz_TX

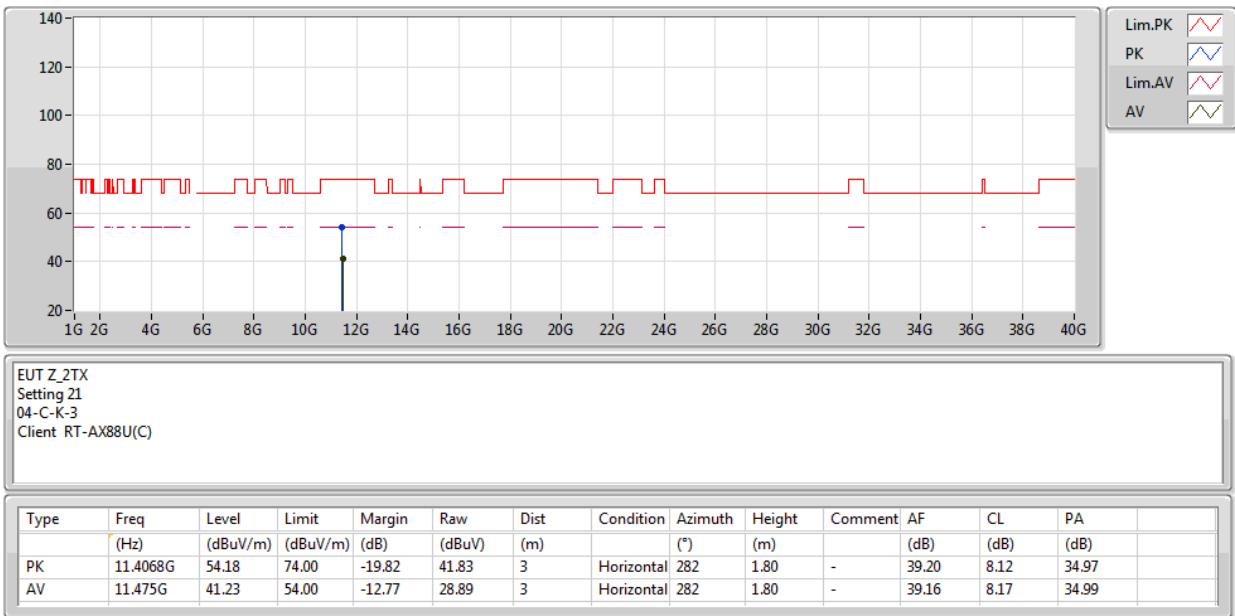

**802.11ac VHT20-BF_Nss1,(MCS0)_2TX**

13/03/2020

5700MHz_TX

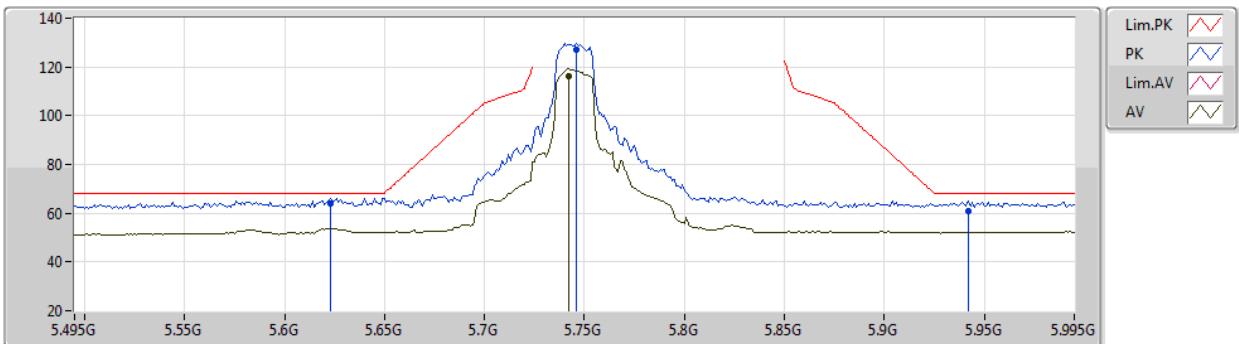
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

13/03/2020

5700MHz_TX


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

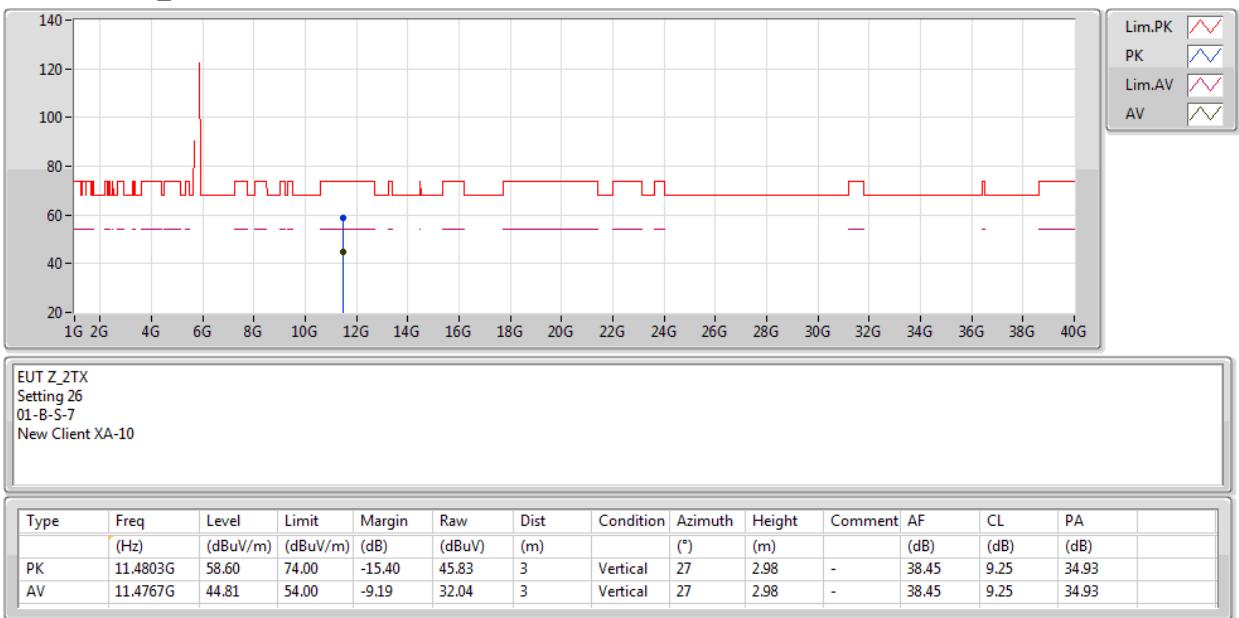
17/03/2020

5745MHz_TX

 EUT_Z_2TX
 Setting 26
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.623G	63.73	68.20	-4.47	54.01	3	Vertical	128	1.80	-	33.95	6.31	30.54	
PK	5.746G	126.91	Inf	-Inf	117.31	3	Vertical	128	1.80	-	33.80	6.37	30.57	
AV	5.742G	116.22	Inf	-Inf	106.62	3	Vertical	128	1.80	-	33.80	6.37	30.57	
PK	5.942G	61.12	68.20	-7.08	51.33	3	Vertical	128	1.80	-	34.08	6.33	30.62	

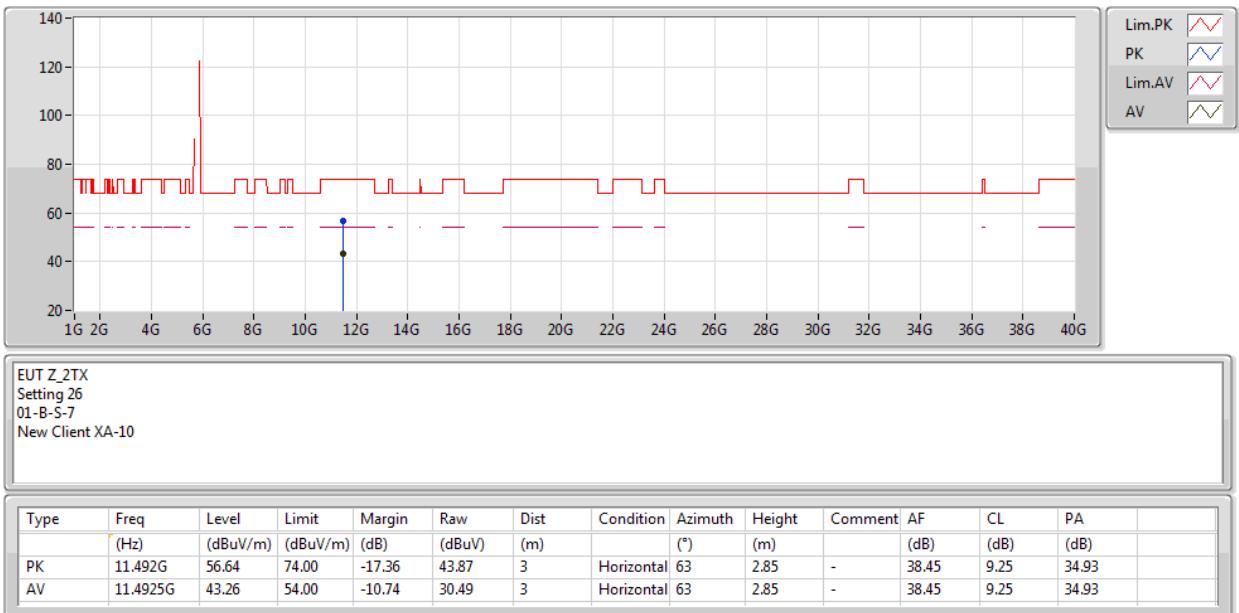
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

17/03/2020

5745MHz_TX


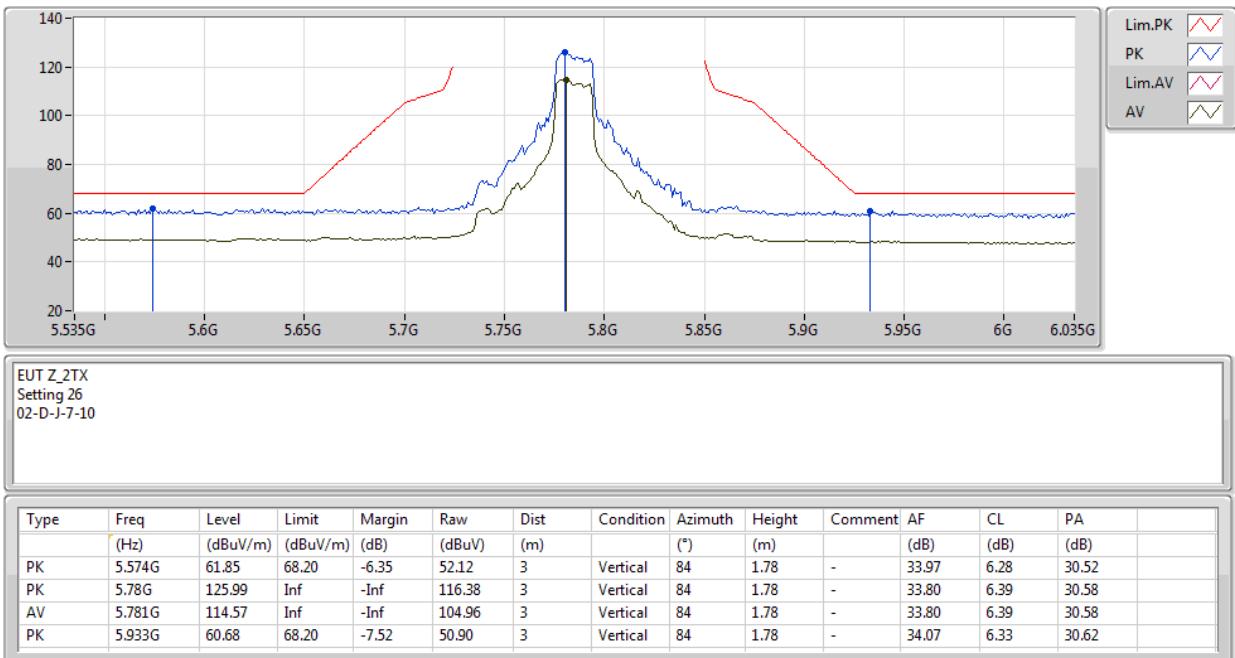
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

17/03/2020

5745MHz_TX


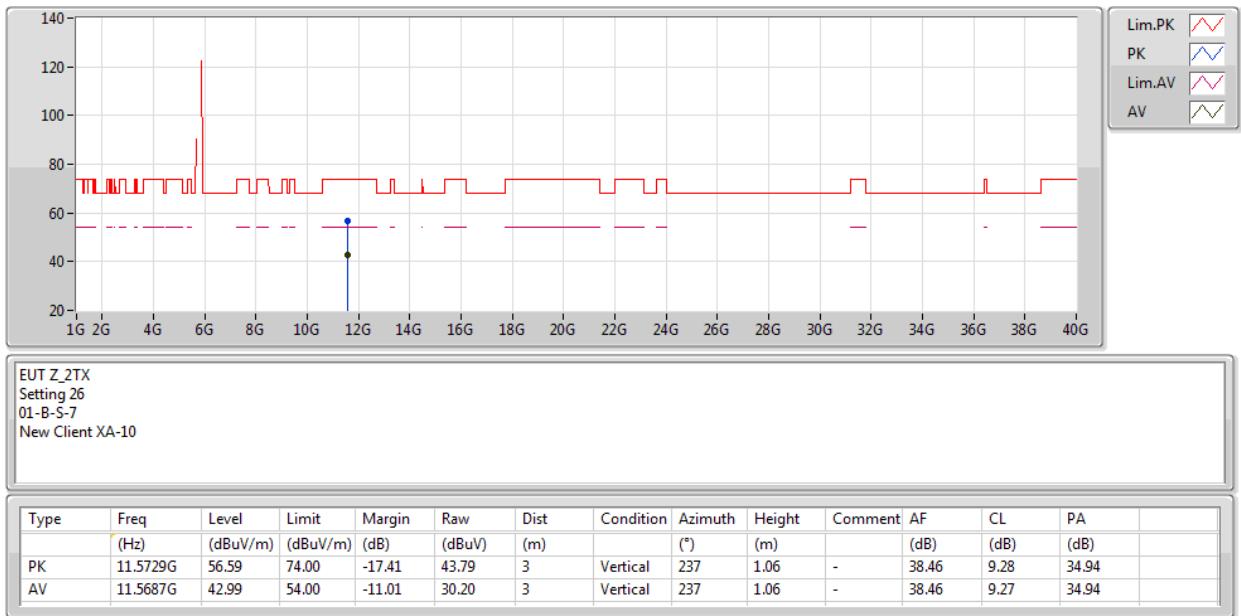
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

17/03/2020

5785MHz_TX


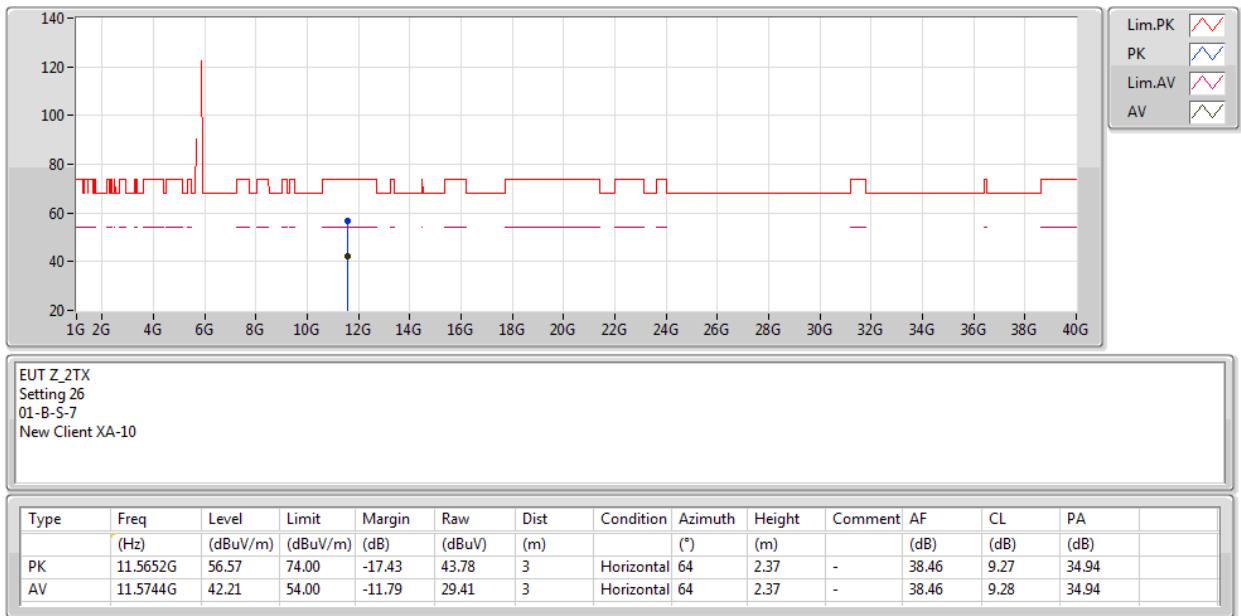
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

17/03/2020

5785MHz_TX


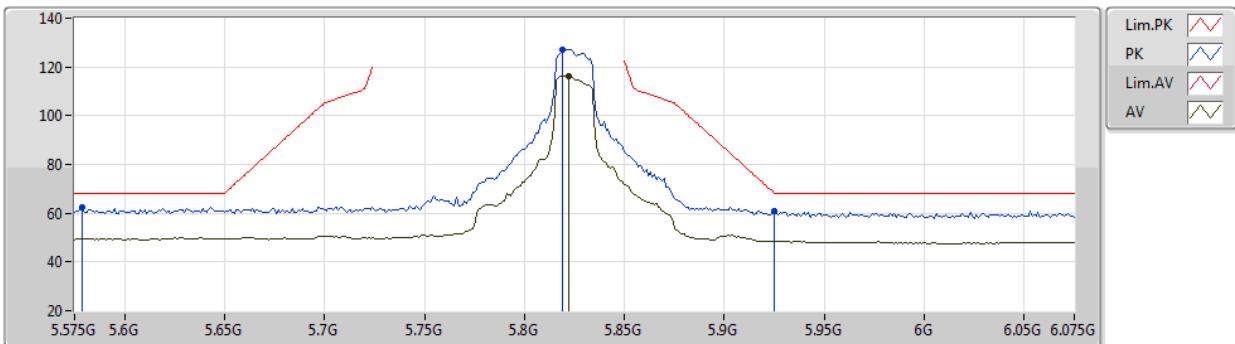
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

17/03/2020

5785MHz_TX


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

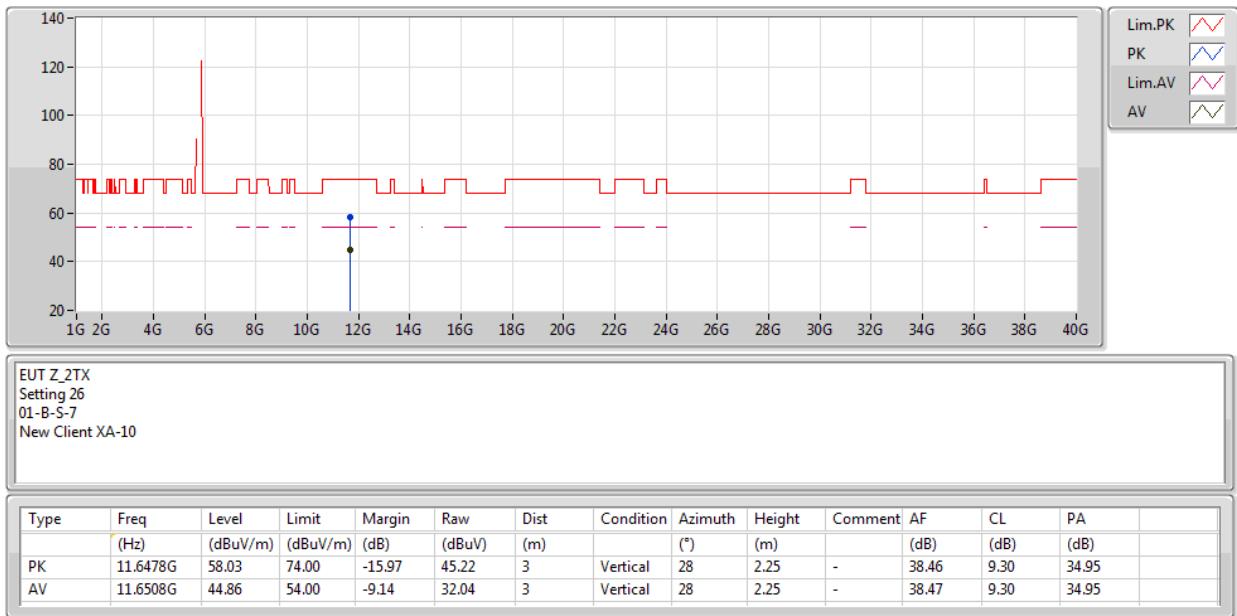
17/03/2020

5825MHz_TX

 EUT Z_2TX
 Setting 26
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (°)	Height (m)	Comment (dB)	AF (dB)	CL (dB)	PA (dB)	
PK	5.579G	62.16	68.20	-6.04	52.43	3	Vertical	128	1.59	-	33.98	6.28	30.53	
PK	5.819G	127.04	Inf	-Inf	117.40	3	Vertical	128	1.59	-	33.84	6.39	30.59	
AV	5.822G	116.16	Inf	-Inf	106.52	3	Vertical	128	1.59	-	33.84	6.39	30.59	
PK	5.925G	60.88	68.20	-7.32	51.10	3	Vertical	128	1.59	-	34.05	6.34	30.61	

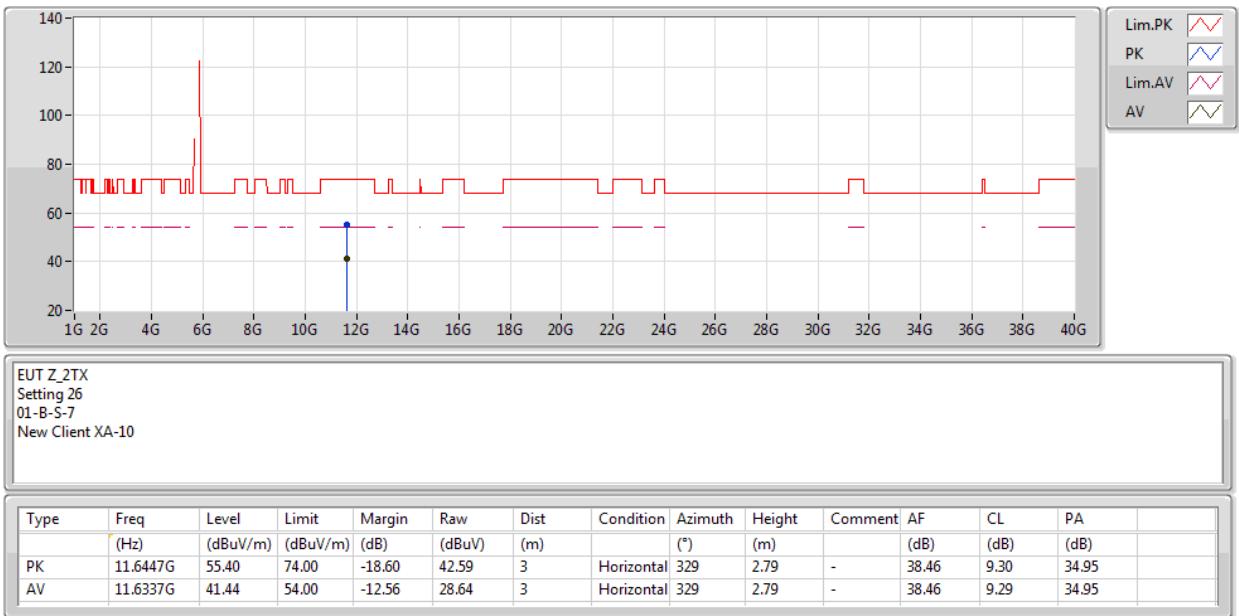
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

17/03/2020

5825MHz_TX


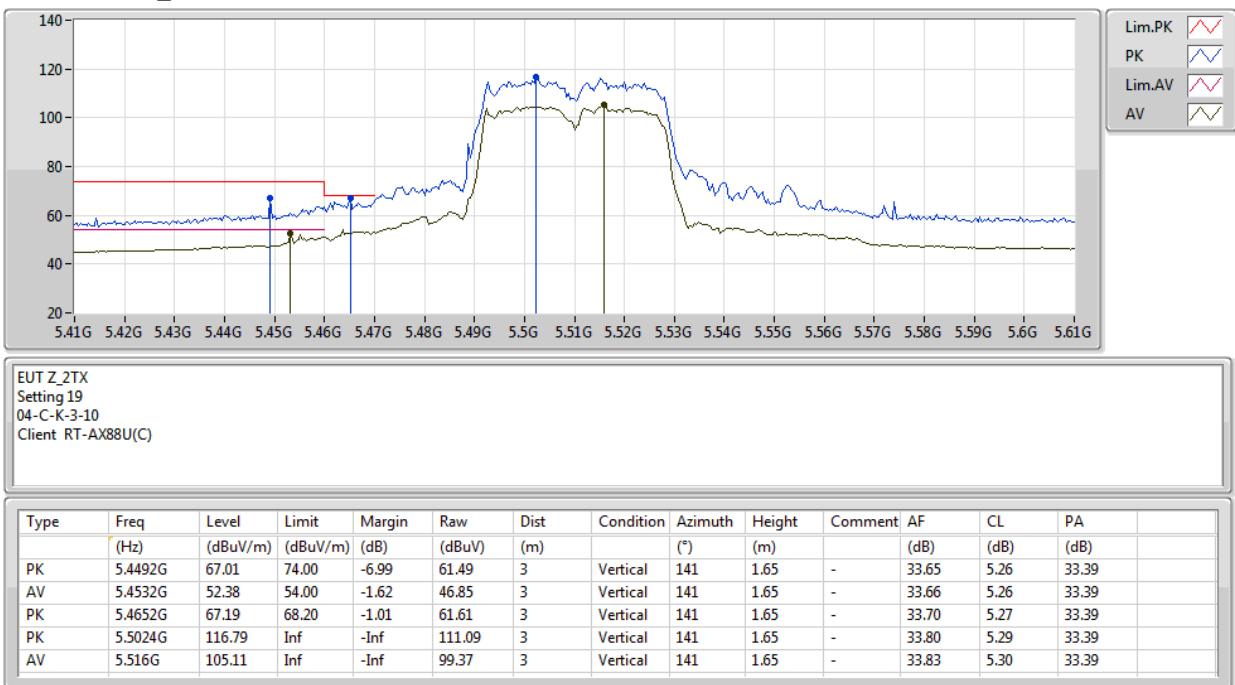
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

17/03/2020

5825MHz_TX


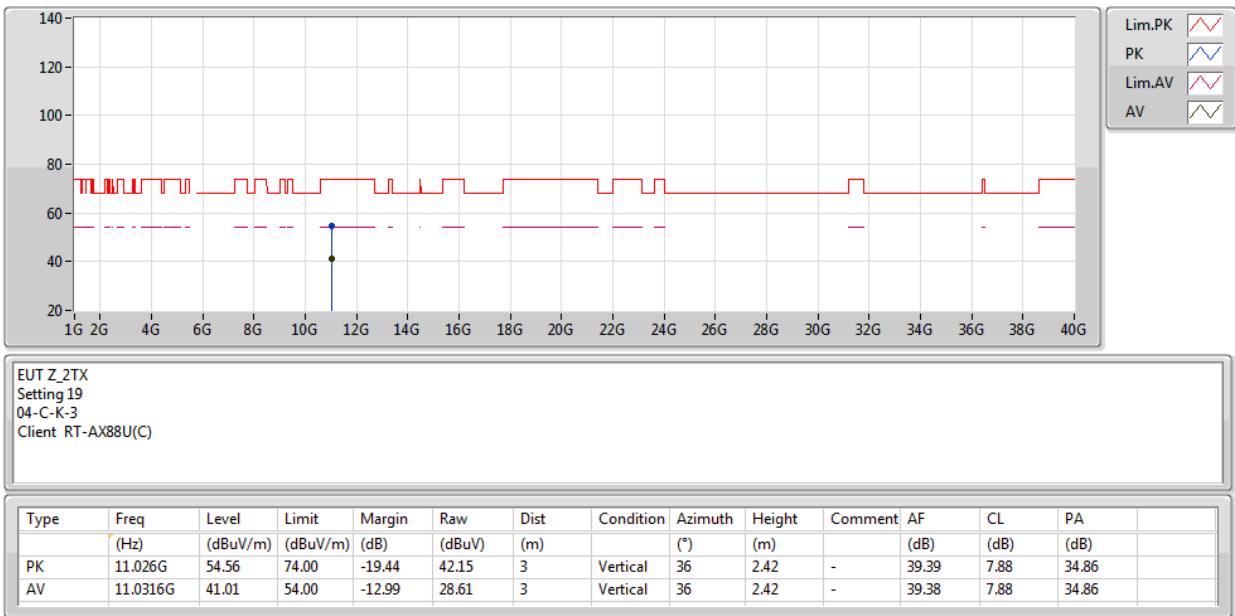
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

13/03/2020

5510MHz_TX


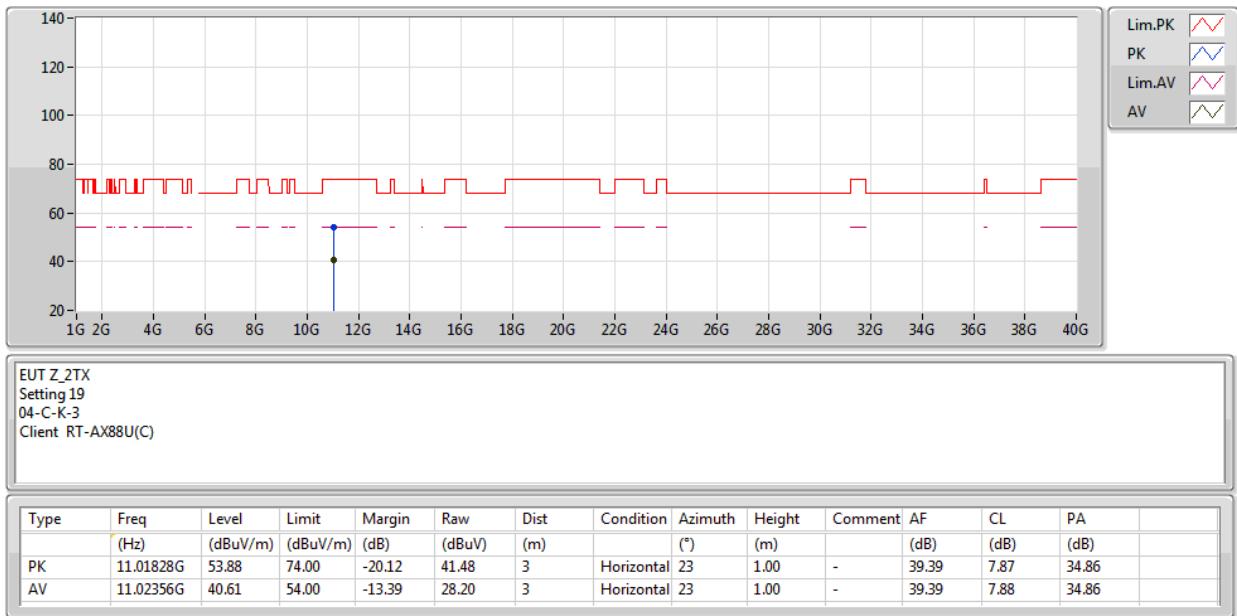
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

13/03/2020

5510MHz_TX


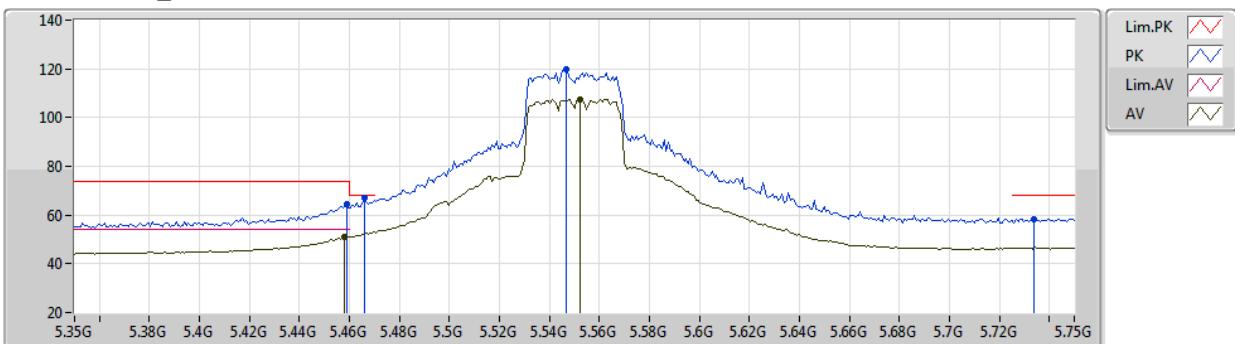
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

13/03/2020

5510MHz_TX


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

13/03/2020

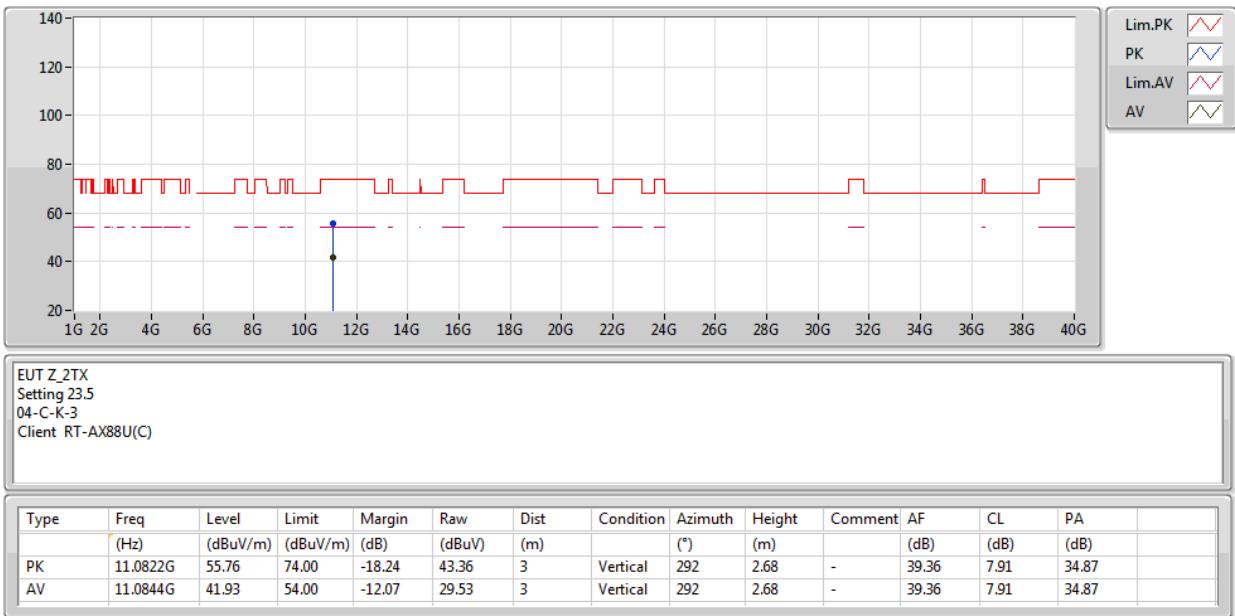
5550MHz_TX


EUT Z_2TX
 Setting 23.5
 04-C-K-3-10
 Client RT-AX88U(C)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.4588G	64.59	74.00	-9.41	59.03	3	Vertical	239	1.89	-	33.68	5.27	33.39	
AV	5.458G	50.82	54.00	-3.18	45.28	3	Vertical	239	1.89	-	33.67	5.26	33.39	
PK	5.466G	66.92	68.20	-1.28	61.34	3	Vertical	239	1.89	-	33.70	5.27	33.39	
PK	5.5468G	119.70	Inf	-Inf	113.87	3	Vertical	239	1.89	-	33.89	5.32	33.38	
AV	5.5524G	107.64	Inf	-Inf	101.79	3	Vertical	239	1.89	-	33.90	5.33	33.38	
PK	5.734G	58.47	68.20	-9.73	52.19	3	Vertical	239	1.89	-	34.17	5.46	33.35	

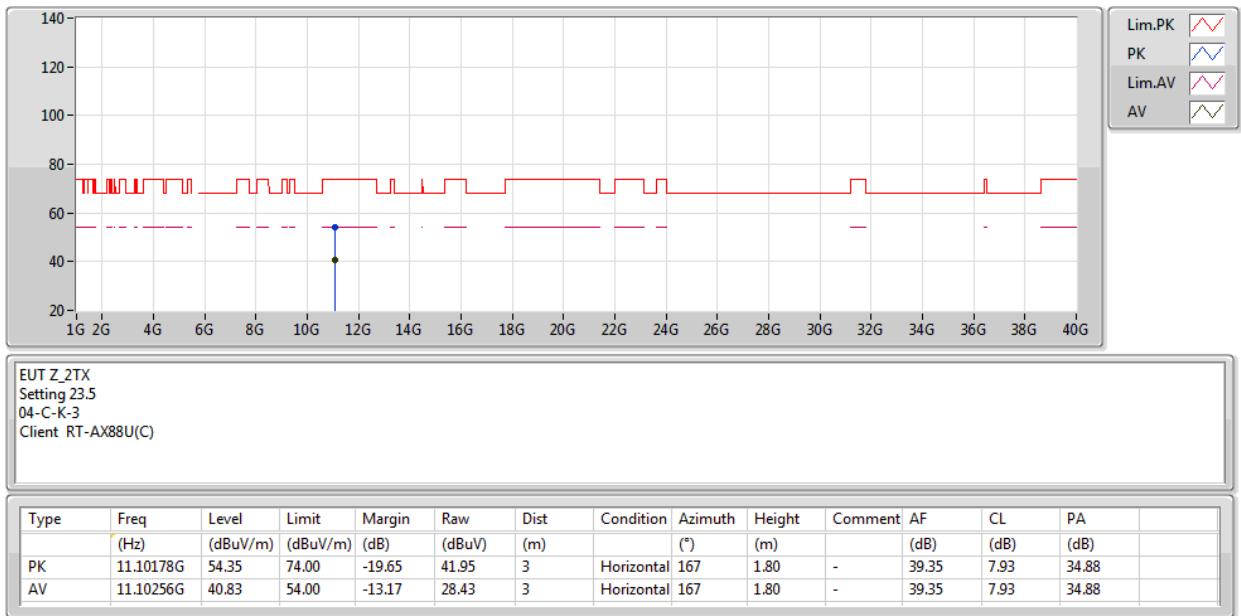
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

13/03/2020

5550MHz_TX


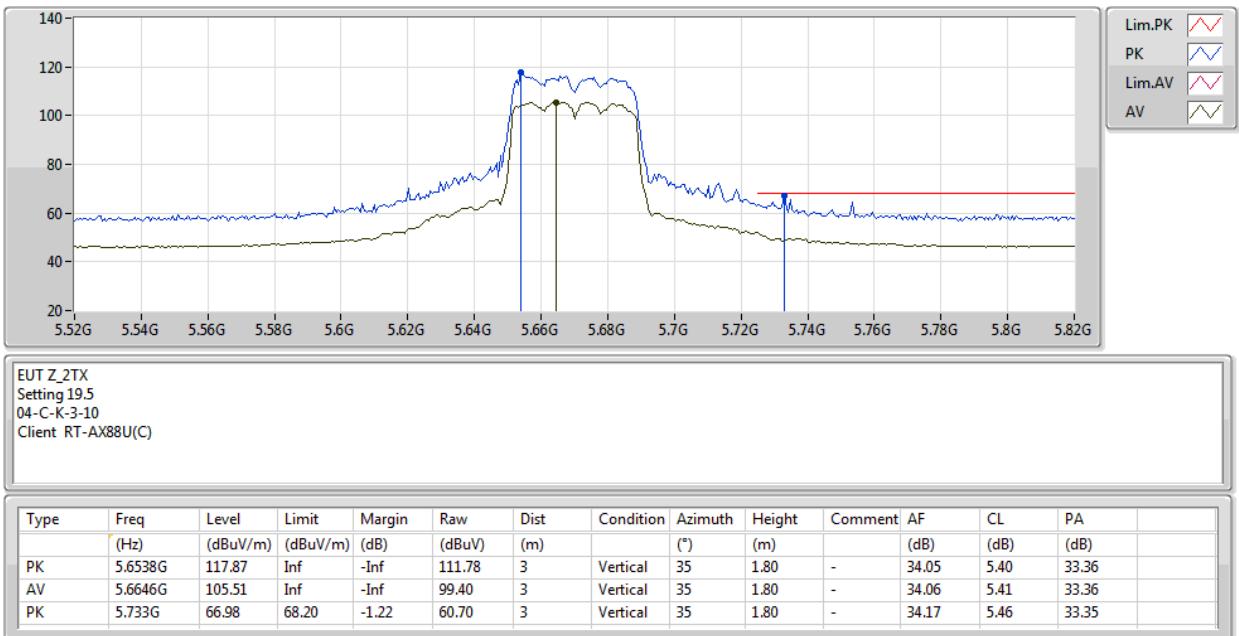
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

13/03/2020

5550MHz_TX


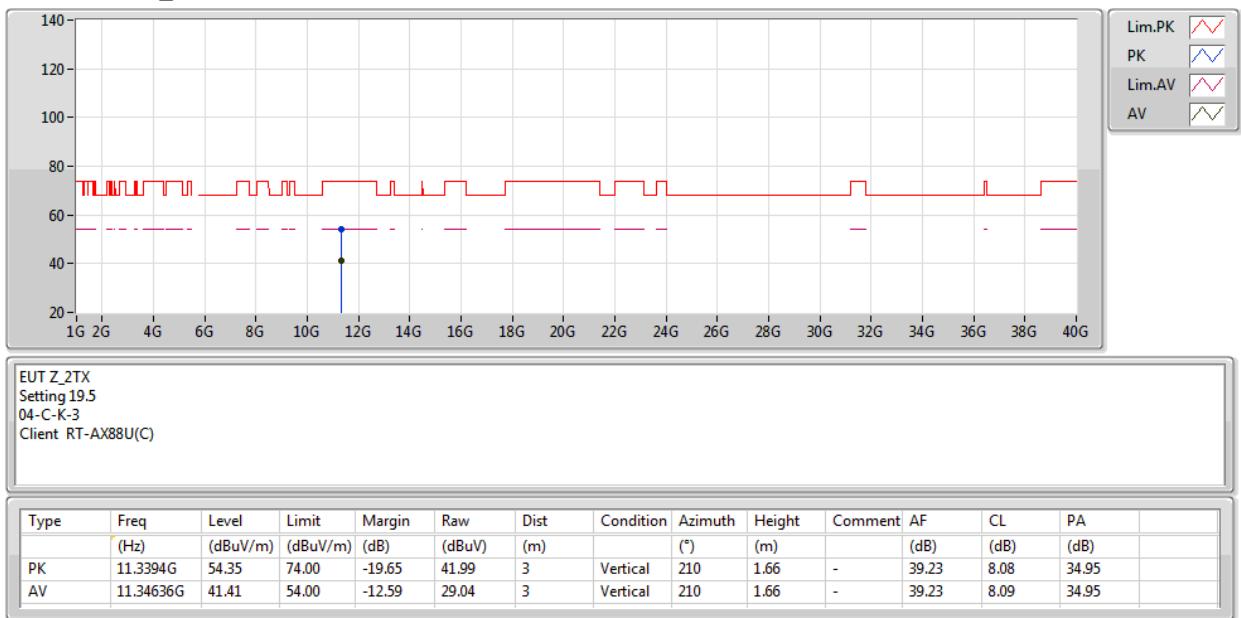
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

13/03/2020

5670MHz_TX


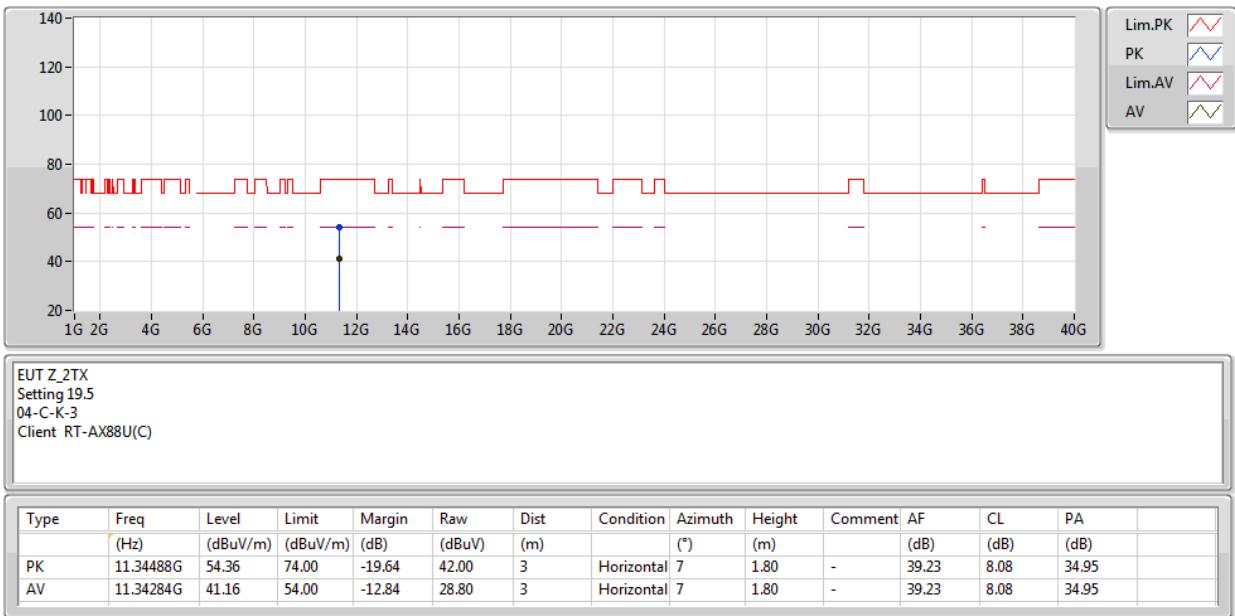
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

13/03/2020

5670MHz_TX


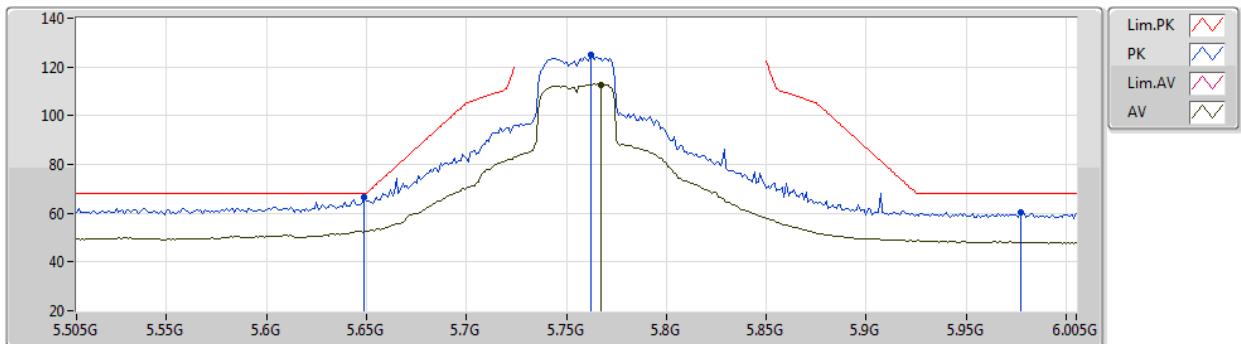
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

13/03/2020

5670MHz_TX


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

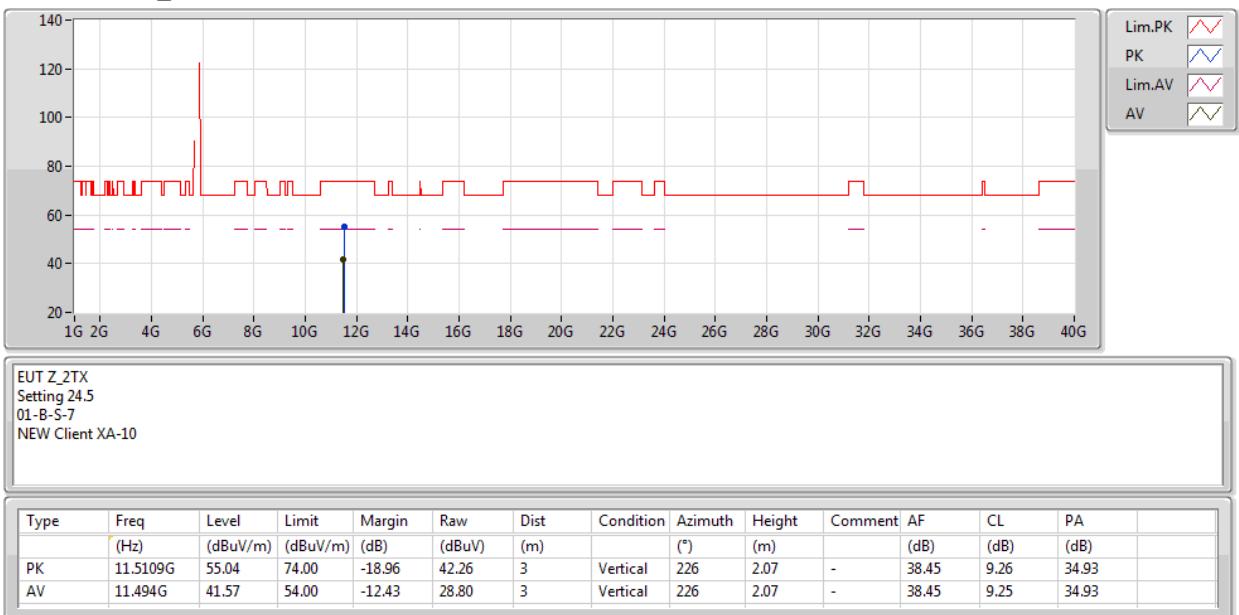
17/03/2020

5755MHz_TX

 EUT_Z_2TX
 Setting 24.5
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (*)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.649G	66.42	68.20	-1.78	56.74	3	Vertical	131	1.85	-	33.90	6.32	30.54	
PK	5.762G	124.96	Inf	-Inf	115.35	3	Vertical	131	1.85	-	33.80	6.38	30.57	
AV	5.767G	112.75	Inf	-Inf	103.14	3	Vertical	131	1.85	-	33.80	6.38	30.57	
PK	5.977G	60.28	68.20	-7.92	50.45	3	Vertical	131	1.85	-	34.15	6.31	30.63	

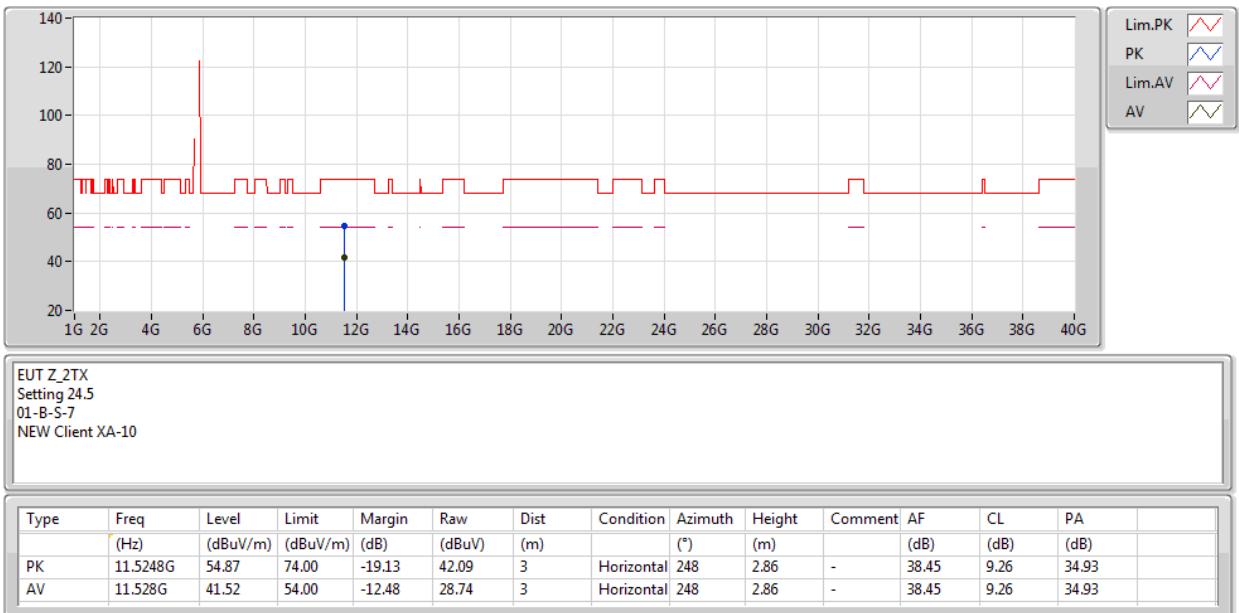
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

17/03/2020

5755MHz_TX


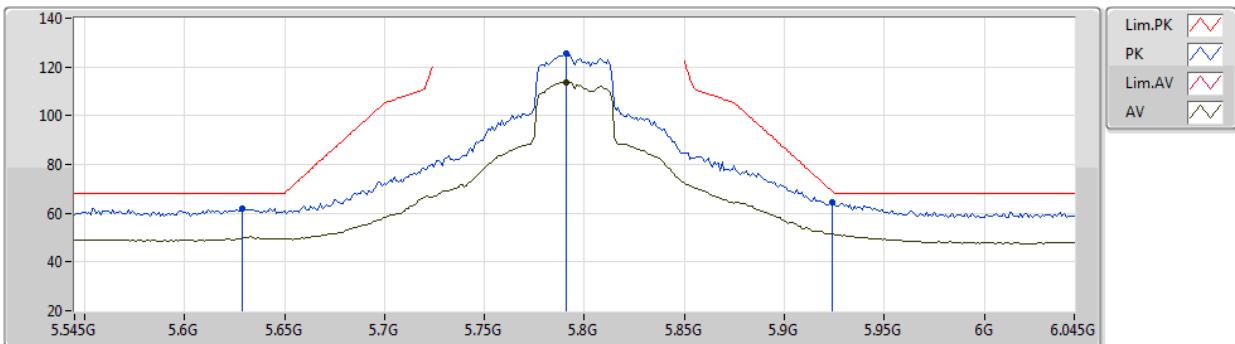
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

17/03/2020

5755MHz_TX


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

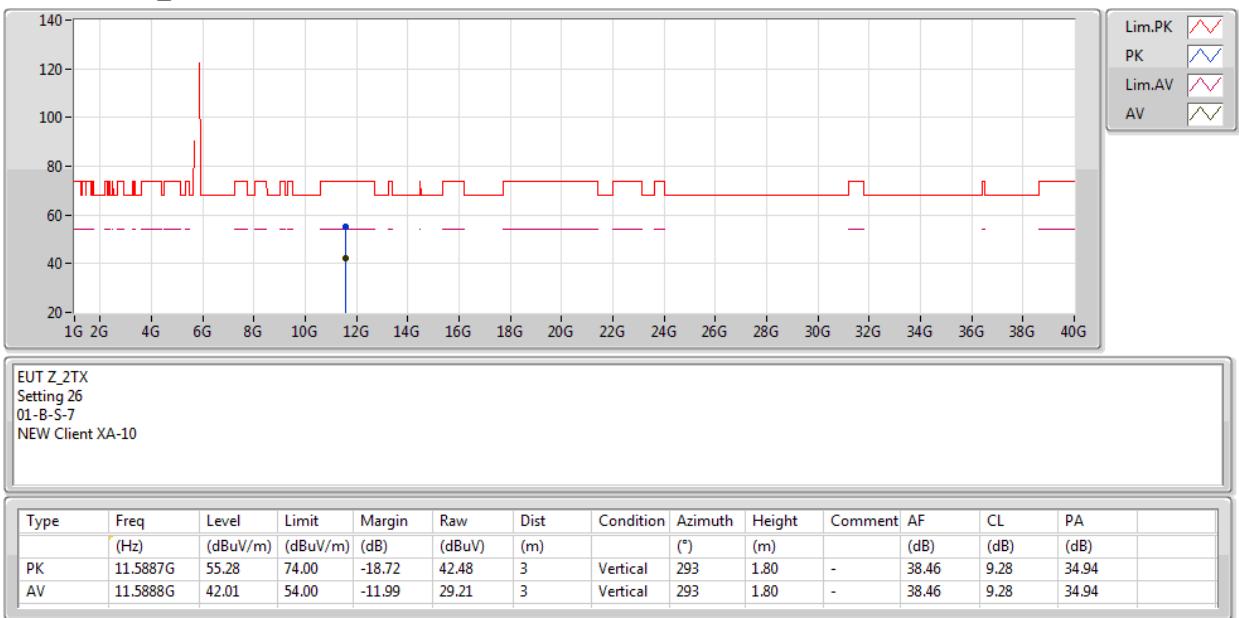
17/03/2020

5795MHz_TX

 EUT_Z_2TX
 Setting 26
 02-D-J-7-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.629G	62.04	68.20	-6.16	52.33	3	Vertical	71	1.54	-	33.94	6.31	30.54	
PK	5.791G	125.28	Inf	-Inf	115.66	3	Vertical	71	1.54	-	33.80	6.40	30.58	
AV	5.791G	113.57	Inf	-Inf	103.95	3	Vertical	71	1.54	-	33.80	6.40	30.58	
PK	5.924G	64.72	68.94	-4.22	54.94	3	Vertical	71	1.54	-	34.05	6.34	30.61	

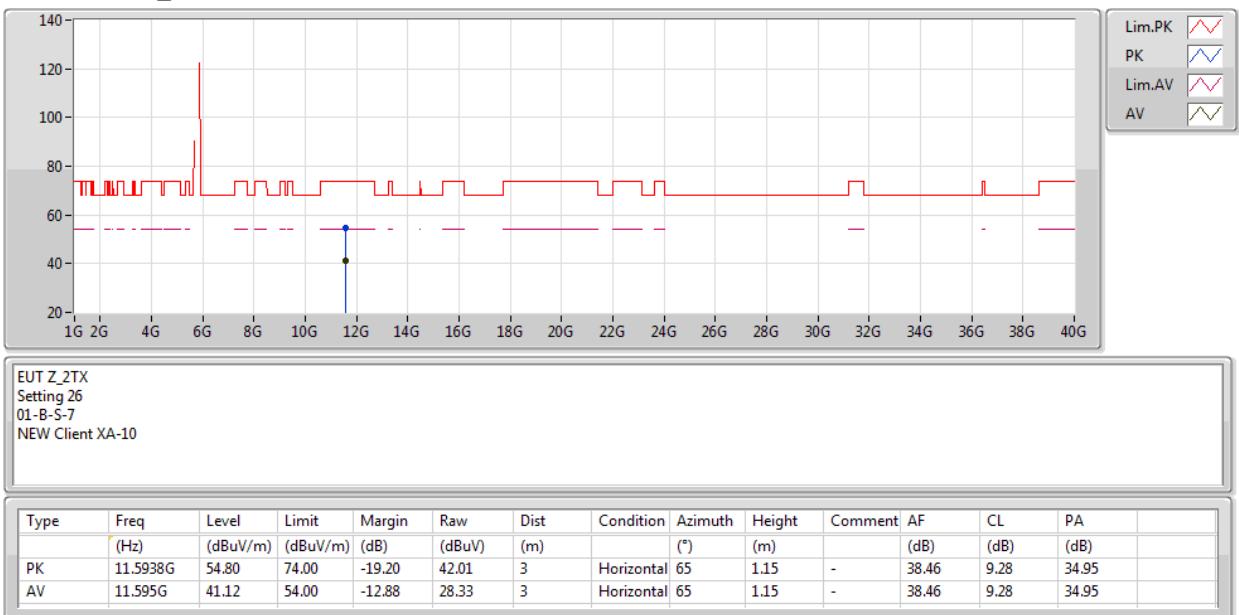
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

17/03/2020

5795MHz_TX


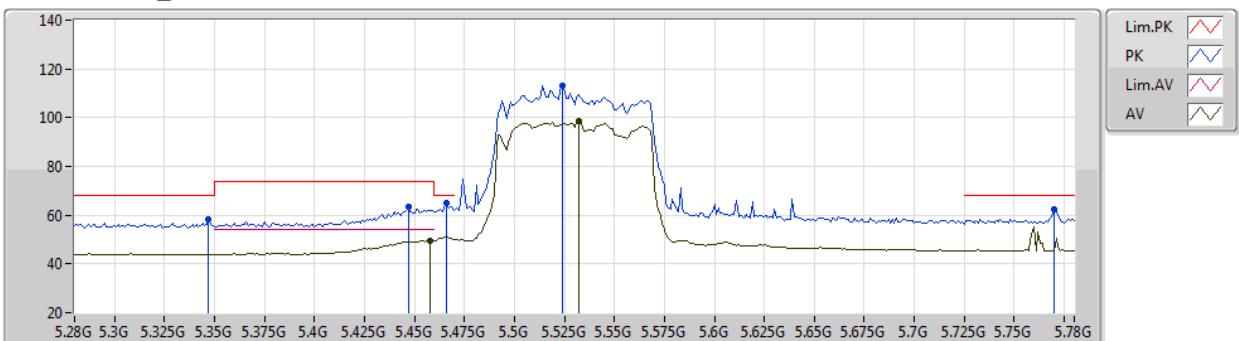
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

17/03/2020

5795MHz_TX


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

17/03/2020

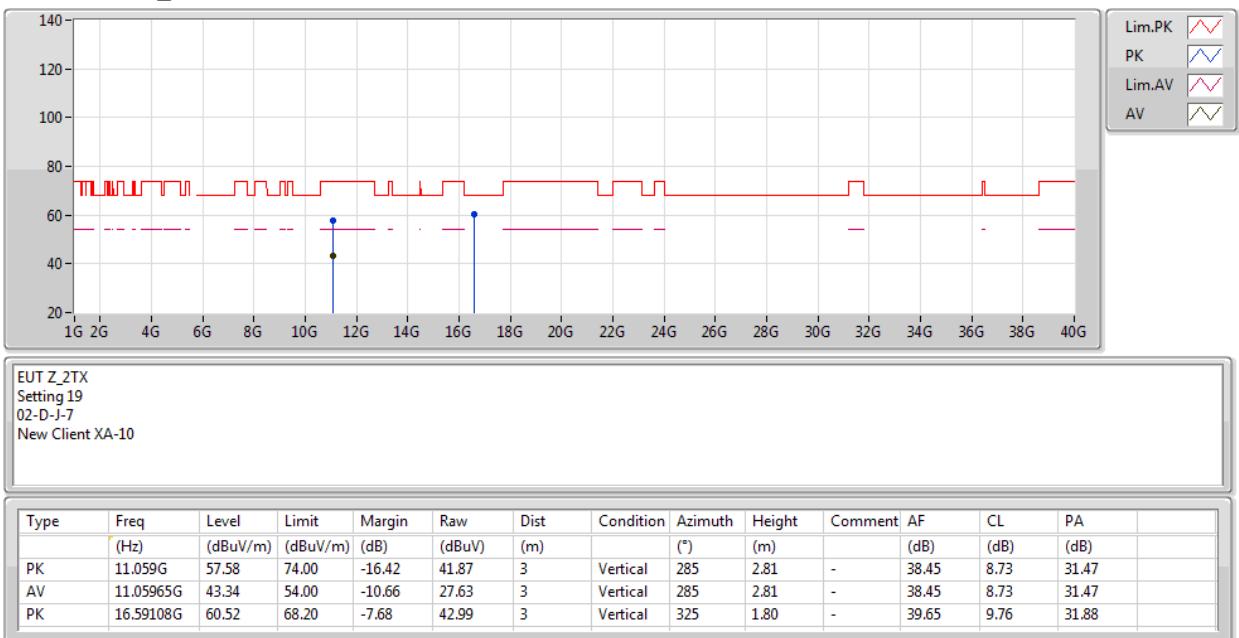
5530MHz_TX


EUT_Z_2TX
 Setting 19
 01-B-K-3-10
 New Client XA-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	5.347G	58.04	68.20	-10.16	53.31	3	Vertical	0	1.87	-	33.15	6.28	34.70
PK	5.447G	63.37	74.00	-10.63	58.25	3	Vertical	0	1.87	-	33.48	6.38	34.74
PK	5.466G	65.00	68.20	-3.20	59.78	3	Vertical	0	1.87	-	33.60	6.37	34.75
AV	5.458G	49.69	54.00	-4.31	44.51	3	Vertical	0	1.87	-	33.55	6.37	34.74
PK	5.524G	112.90	Inf	-Inf	107.46	3	Vertical	0	1.87	-	33.85	6.34	34.75
AV	5.532G	98.43	Inf	-Inf	92.99	3	Vertical	0	1.87	-	33.86	6.33	34.75
PK	5.77G	62.36	68.20	-5.84	56.42	3	Vertical	0	1.87	-	34.21	6.39	34.66

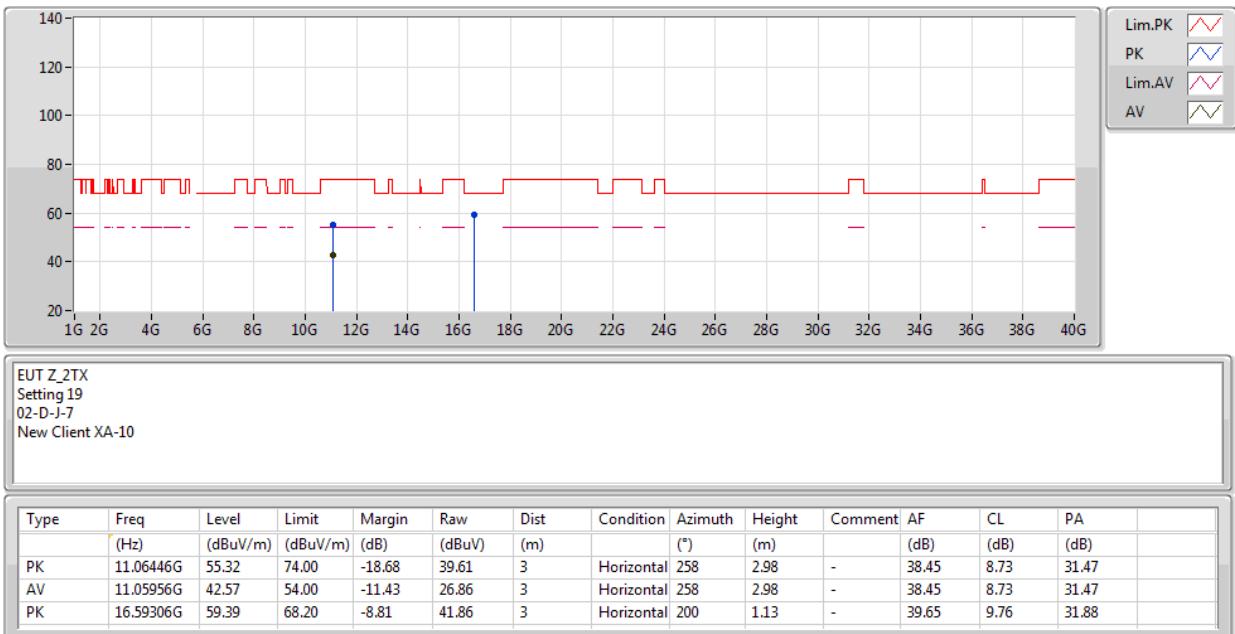
802.11ac VHT80-BF_Nss1,(MCS0)_2TX

17/03/2020

5530MHz_TX


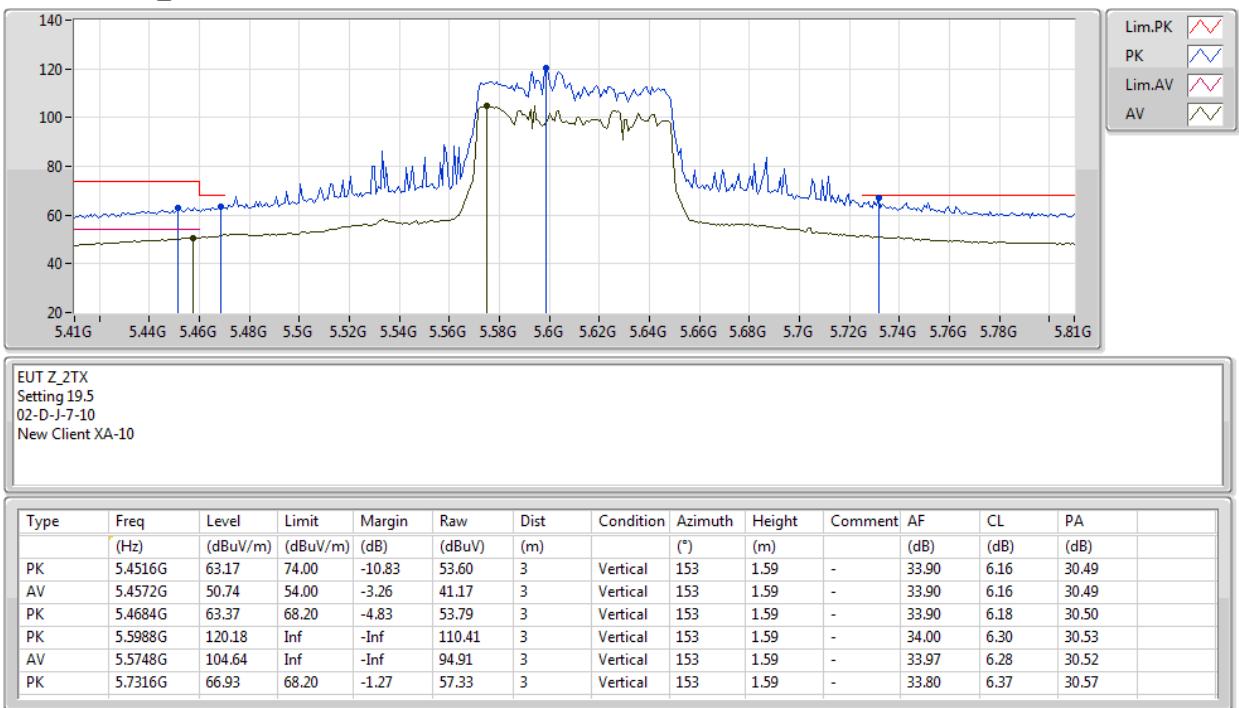
802.11ac VHT80-BF_Nss1,(MCS0)_2TX

17/03/2020

5530MHz_TX


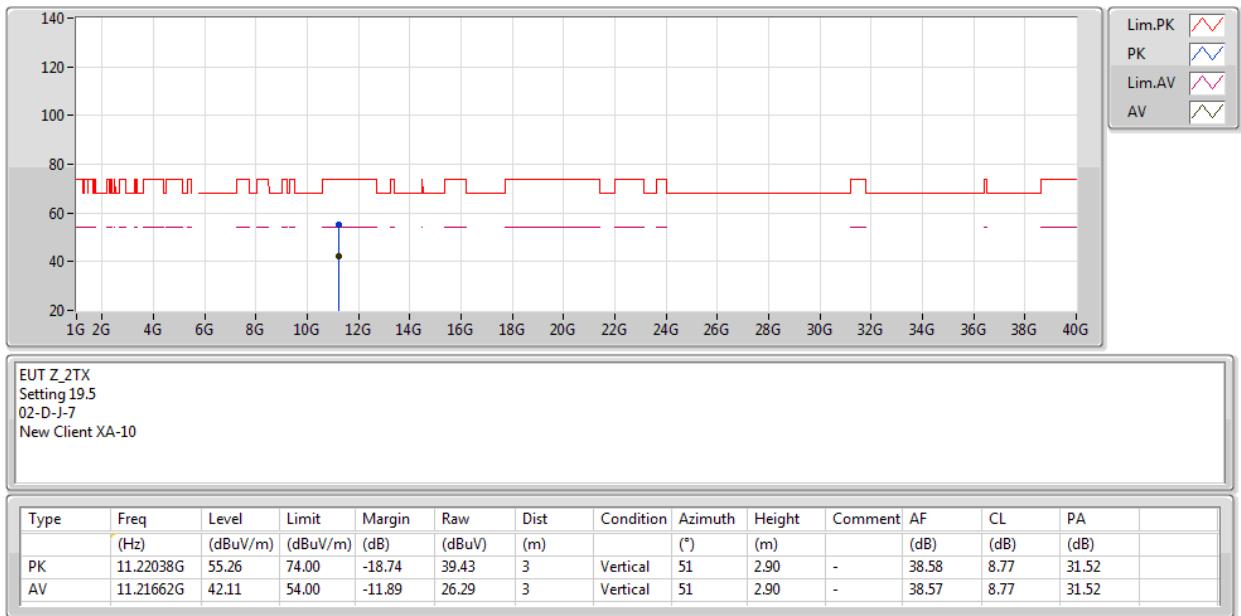
802.11ac VHT80-BF_Nss1,(MCS0)_2TX

18/03/2020

5610MHz_TX


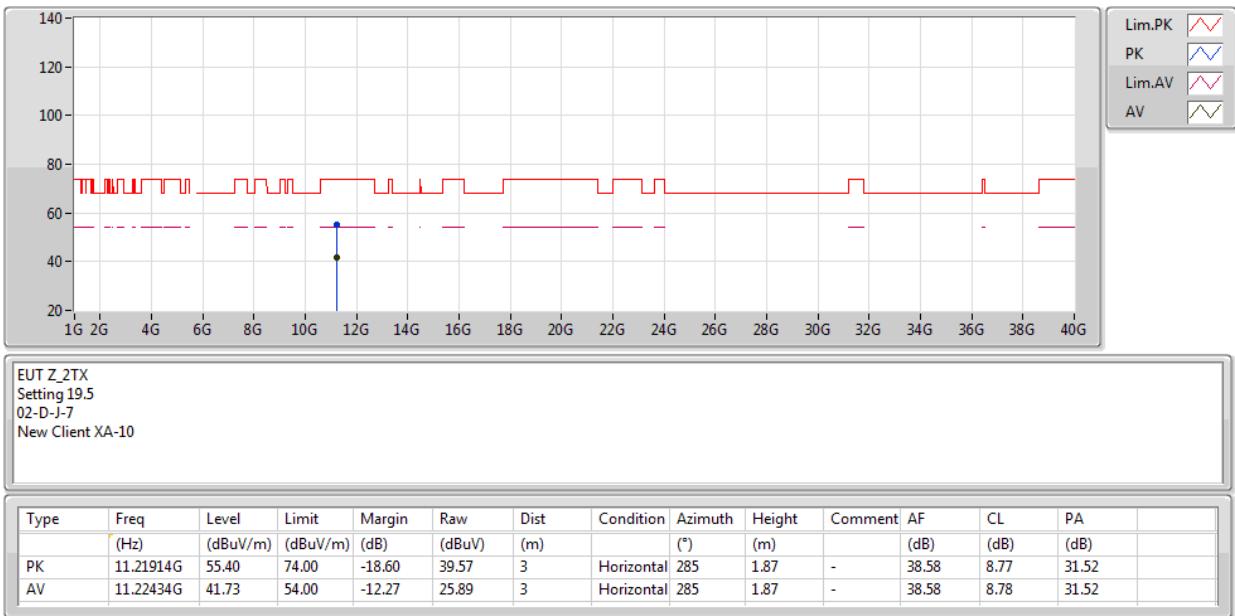
802.11ac VHT80-BF_Nss1,(MCS0)_2TX

18/03/2020

5610MHz_TX


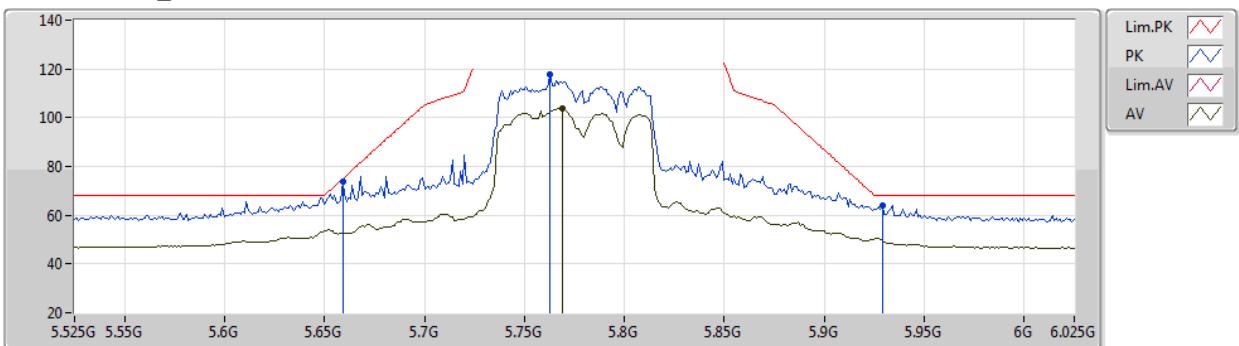
802.11ac VHT80-BF_Nss1,(MCS0)_2TX

18/03/2020

5610MHz_TX


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

17/03/2020

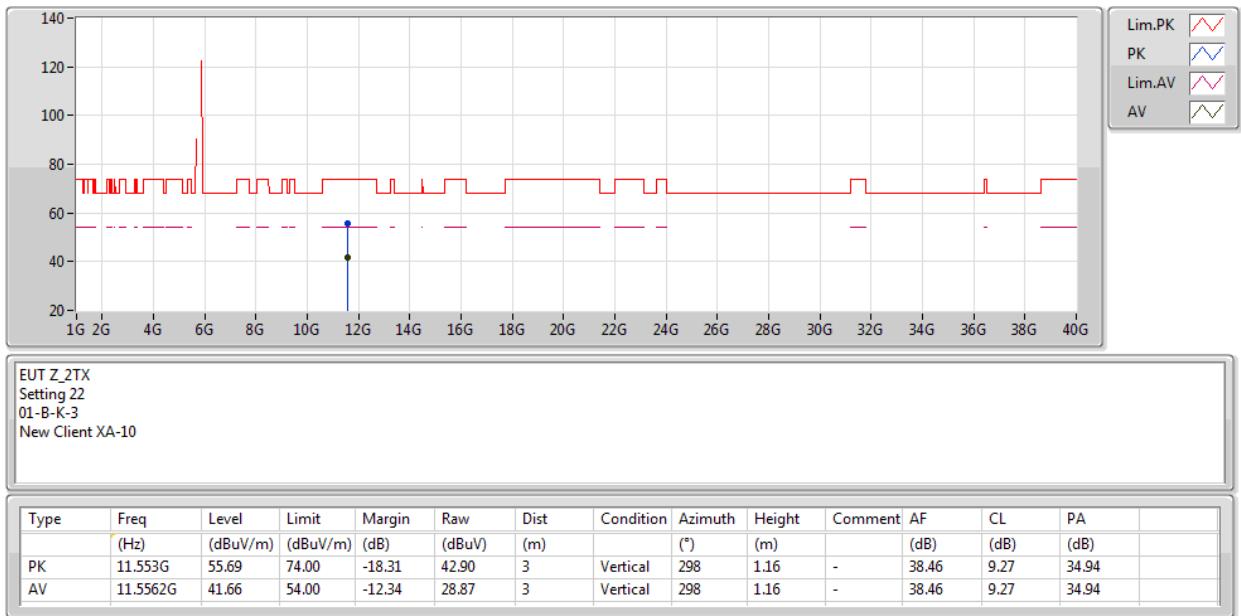
5775MHz_TX


EUT_Z_2TX
 Setting 22
 01-B-K-3-10
 New Client XA-10

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition (*)	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)	
PK	5.659G	73.67	74.86	-1.19	68.04	3	Vertical	121	1.82	-	34.00	6.33	34.70	
PK	5.763G	117.90	Inf	-Inf	111.99	3	Vertical	121	1.82	-	34.19	6.38	34.66	
AV	5.769G	103.56	Inf	-Inf	97.63	3	Vertical	121	1.82	-	34.21	6.38	34.66	
PK	5.929G	63.73	68.20	-4.47	56.93	3	Vertical	121	1.82	-	34.94	6.46	34.60	

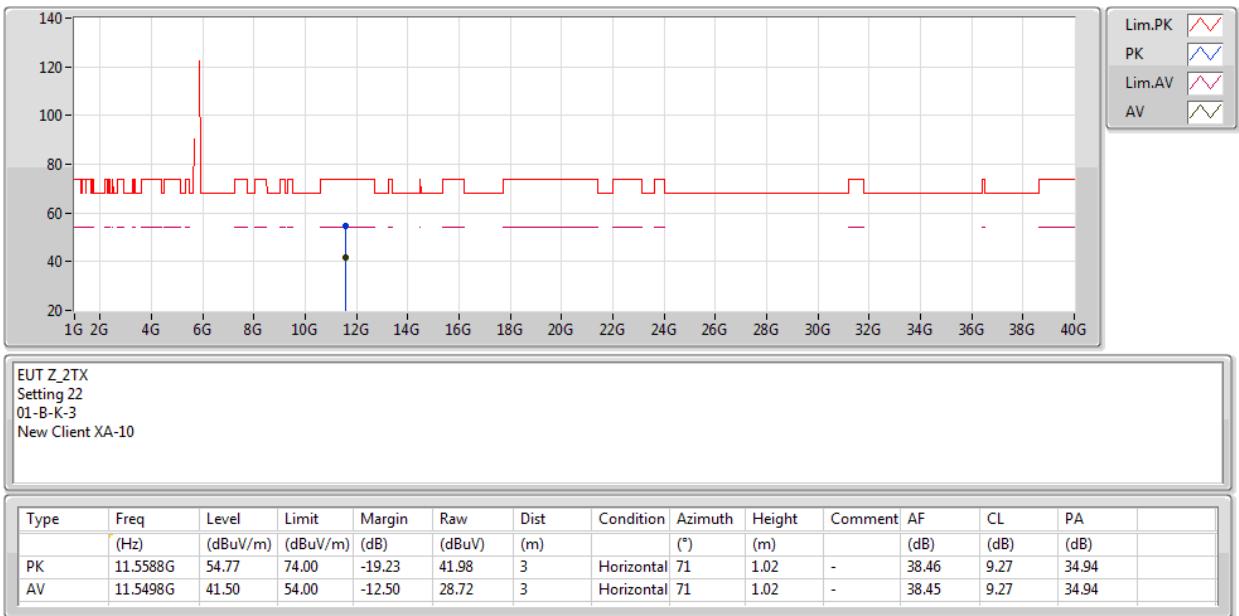
802.11ac VHT80-BF_Nss1,(MCS0)_2TX

17/03/2020

5775MHz_TX


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

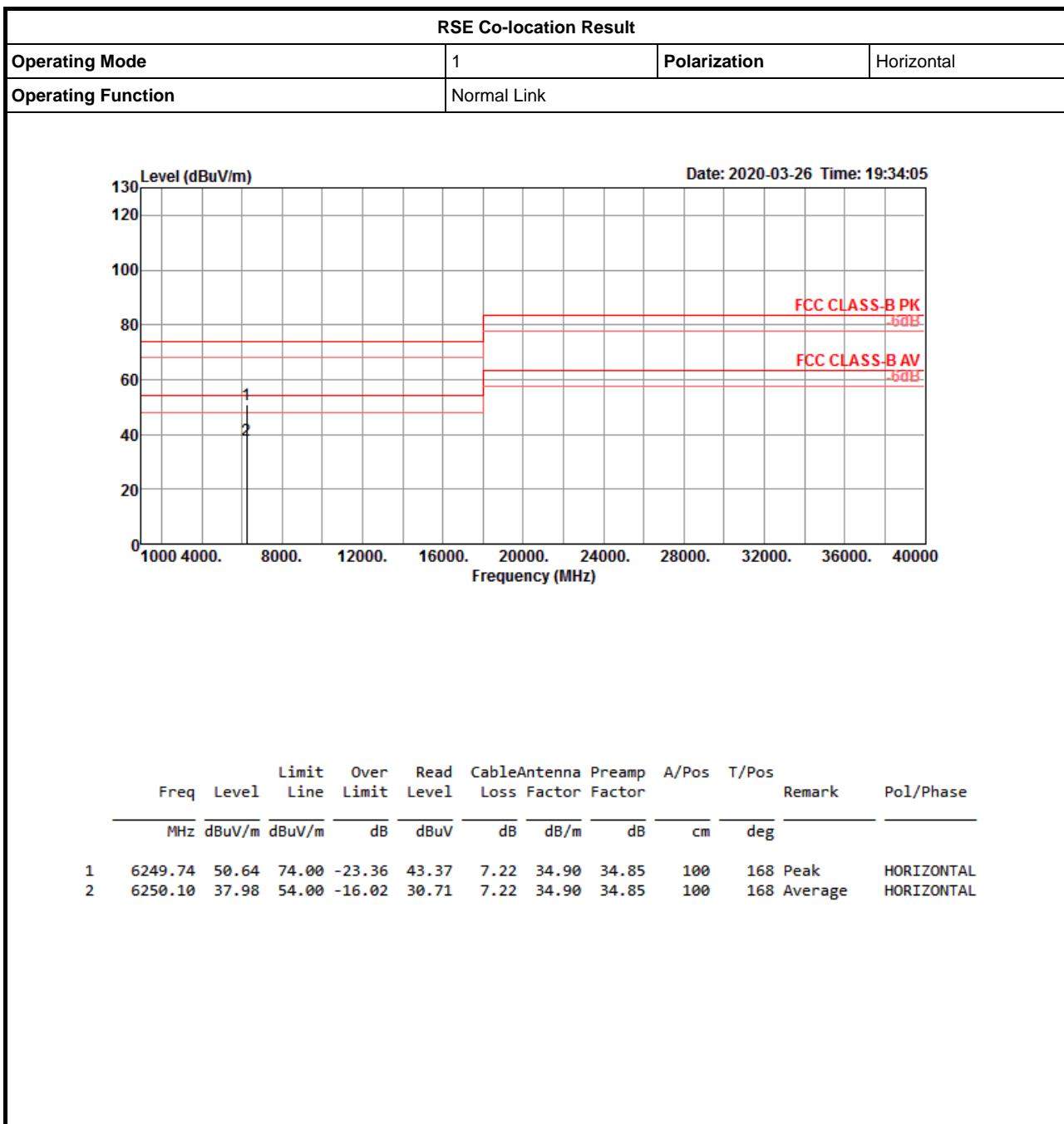
17/03/2020

5775MHz_TX




RSE Co-location Result

Appendix F





RSE Co-location Result

Appendix F

