FCC RADIO TEST REPORT

FCC ID	:	Q87-03431
Equipment	:	LINKSYS Smart Wi-Fi Router AC1200
Brand Name	:	LINKSYS
Model Name	:	EA6350 V4
Applicant	:	Linksys LLC 121 Theory Drive, Irvine, CA 92617, USA
Standard	:	47 CFR FCC Part 15.407

The product was received on May 23, 2019, and testing was started from Jun. 18, 2019 and completed on Jul. 08, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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

Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR932530AB	01	Initial issue of report	Aug. 08, 2019

Summary of Test Result

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

Declaration of Conformity:

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

Comments and Explanations:

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: Cindy Peng

1 General Description

1.1 Information

1.1.1 RF General Information

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

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

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

1.1.2 Antenna Information

Ant.	Port	Brand	P/N	Antenna Type	Connector	Gain (dBi)	
						2.4Gz	5GHz
1	1	FIT	4TS2449-A0001-JH	Dipole Antenna	I-PEX	2.88	3.32
2	2	FIT	4TS2449-A0001-JH	Dipole Antenna	I-PEX	2.36	3.22

Note1: The above information was declared by manufacturer.

Note2: The EUT has two antennas.

For WLAN 2.4GHz (2TX/2RX):

Port 1 and Port 2 could transmit/receive simultaneously.

For WLAN 5GHz (2TX/2RX):

Port 1 and Port 2 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.958	0.19	1.398m	1k
802.11ac VHT20-BF	0.961	0.17	4.983m	300
802.11ac VHT40-BF	0.947	0.24	2.423m	1k
802.11ac VHT80-BF	0.971	0.13	4.423m	300

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

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for 802.11n/ac in 5GHz band.			
Function	☐	Outdoor P2M	☒	Indoor P2M
	☐	Fixed P2P	☐	Client
Test Software Version	For non-beamforming mode: MT7663 QA 0.0.2.6			
	For beamforming mode: Telnet			

Note: The above information was declared by manufacturer.

1.1.5 EUT Supports Type

The EUT supports Master (AP router, Bridge) functions, only the Master (AP router) was performed for AC power-line conducted emissions test, and it was based on manufacturer's request.

1.2 Applicable Standards

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

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

1.3 Testing Location Information

Testing Location			
☐	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
☒	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	Owen Hsu	22~24°C / 50~54%	Jun. 20, 2019~Jul. 03, 2019
Radiated below 1GHz	03CH06-CB	KJ Chang	24~27°C / 48~58%	Jun. 19, 2019~Jul. 08, 2019
Radiated above 1GHz	03CH01-CB	KJ Chang	21~25°C / 52~62%	Jun. 19, 2019~Jul. 08, 2019
AC Conduction	CO01-CB	GN Hou	21.6~22.1°C / 64~68%	Jun. 18, 2019

Test site Designation No. TW0006 with FCC
Test site registered number IC 4086B with Industry Canada.

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
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_Nss1,(6Mbps)_2TX	-
5180MHz	20
5200MHz	28
5240MHz	28
5745MHz	2C
5785MHz	2C
5825MHz	2C
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	35
5200MHz	41
5240MHz	45
5745MHz	45
5785MHz	45
5825MHz	45
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	30
5230MHz	41
5755MHz	41
5795MHz	41
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	29
5775MHz	39

Note:
- VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.
- There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802.11n/ac in 5GHz band, 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	EUT + Adapter 1
2	EUT + Adapter 2
For operating mode 2 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
The EUT can be placed in Y axis and Z axis. After evaluating, “Y axis” generated the worst test result for Unwanted Emissions above 1GHz test, so the measurement will follow this same test configuration.	
1	EUT Y axis with WLAN 2.4GHz + Adapter 1
2	EUT Y axis with WLAN 2.4GHz + Adapter 2
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT Y axis with WLAN 5GHz + Adapter 2
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
1	EUT Y axis
2	EUT Z axis
Mode 1 has been evaluated to be the worst case after evaluating. Consequently, measurement will follow this same test mode.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
The EUT can be placed in Y axis and Z axis. After evaluating, “Y axis” generated the worst test result for Unwanted Emissions above 1GHz test, so the measurement will follow this same test configuration.	
Operating Mode	Normal Link
1	EUT Y axis with WLAN 2.4GHz + WLAN 5GHz
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
Refer to Sporton Test Report No.: FA932530 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

For non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

For beamforming 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 "Telnet with MTK code" 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				
No.	**Equipment Name**	**Brand Name**	**Model Name**	**Rating**
1	Adapter	Ktec	KSA-18W-120150VU	INPUT: 100-240V~50/60Hz, 0.5A OUTPUT: 12V, 1.5A
2	Adapter	LEI	MU18B1120150-A1	INPUT: 100-240V~50/60Hz, 0.6A OUTPUT: 12V, 1.5A
No.	**Other**			
3	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	Flash disk3.0	Transcend	JetFlash-700	N/A
B	WAN NB	DELL	E6430	N/A
C	LAN NB	DELL	E6430	N/A
D	2.4G NB	DELL	E6430	N/A
E	5G NB	DELL	E6430	N/A

For Radiated and RF Conducted:

For non-beamforming mode:

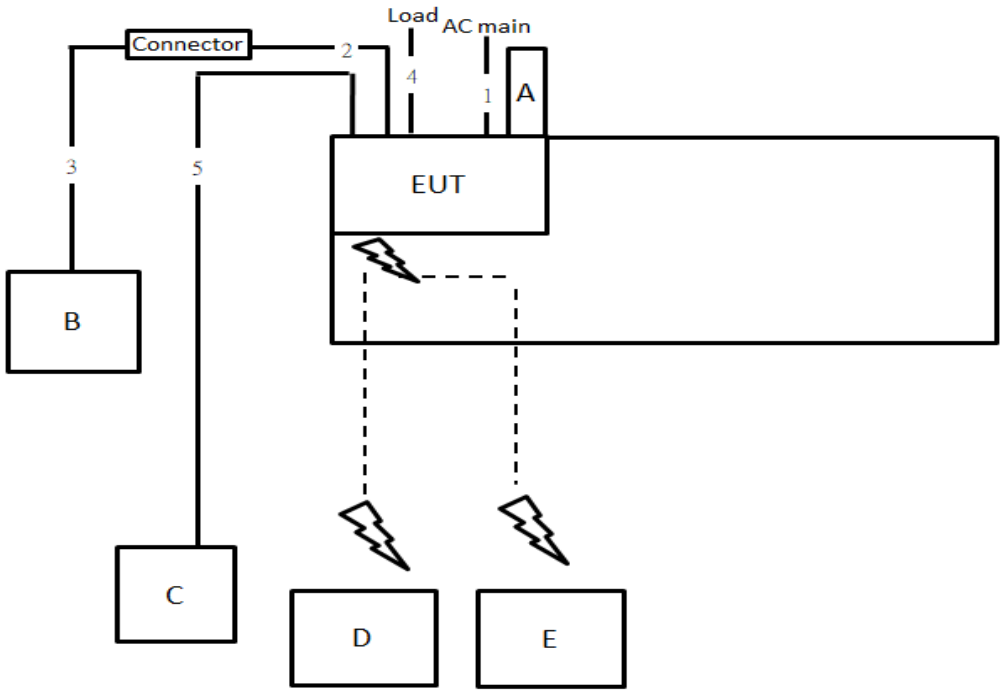
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

For beamforming mode:

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A
B	RX Device	LINKSY	EA6350 V4	Q87-EA6350V4
C	NB	DELL	E4300	N/A

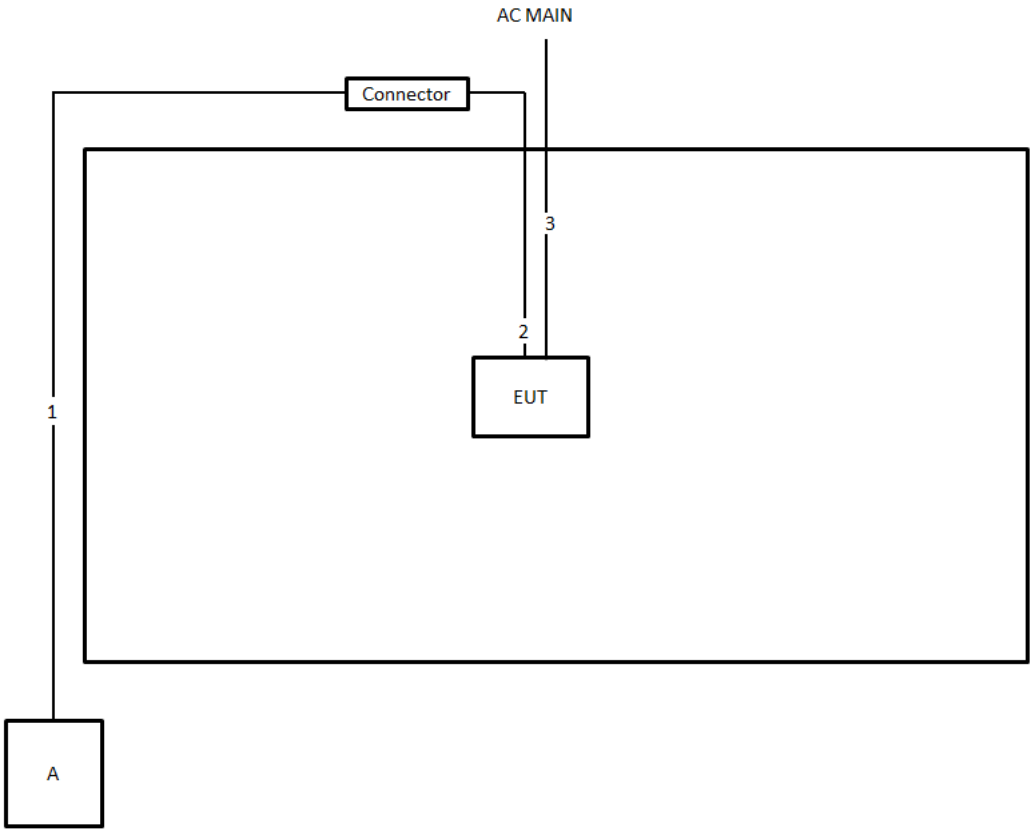
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



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

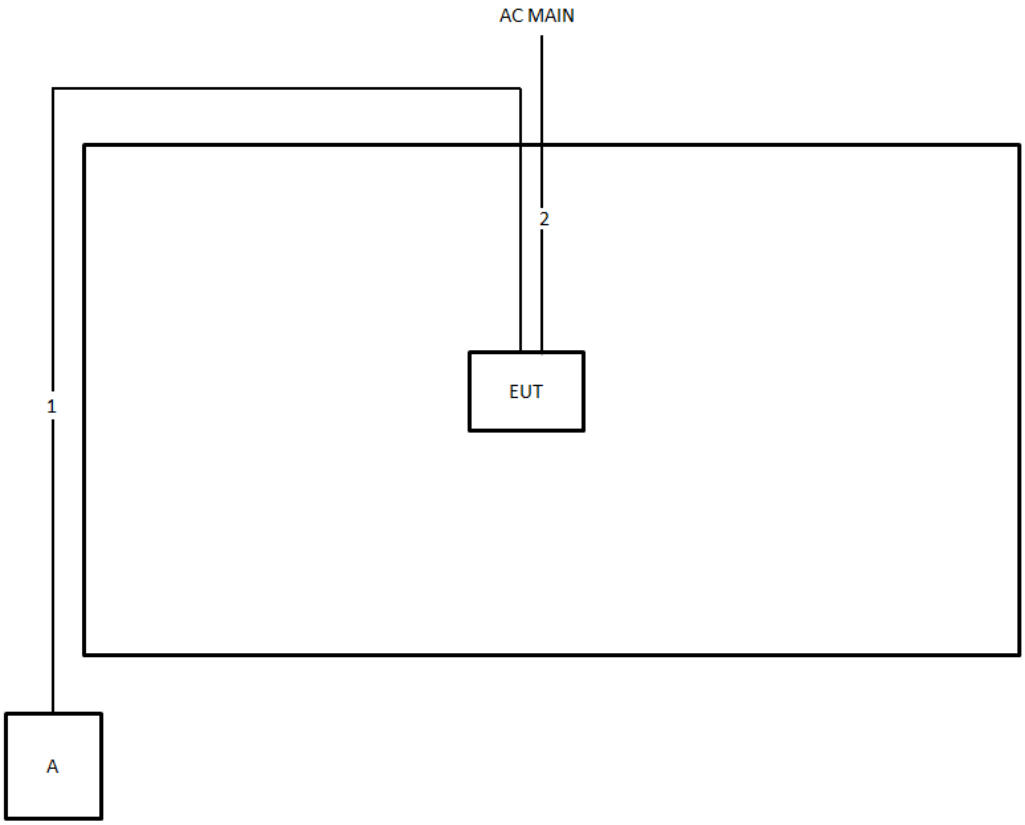
Test Setup Diagram - Radiated Test < 1GHz



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

Test Setup Diagram - Radiated Test > 1GHz

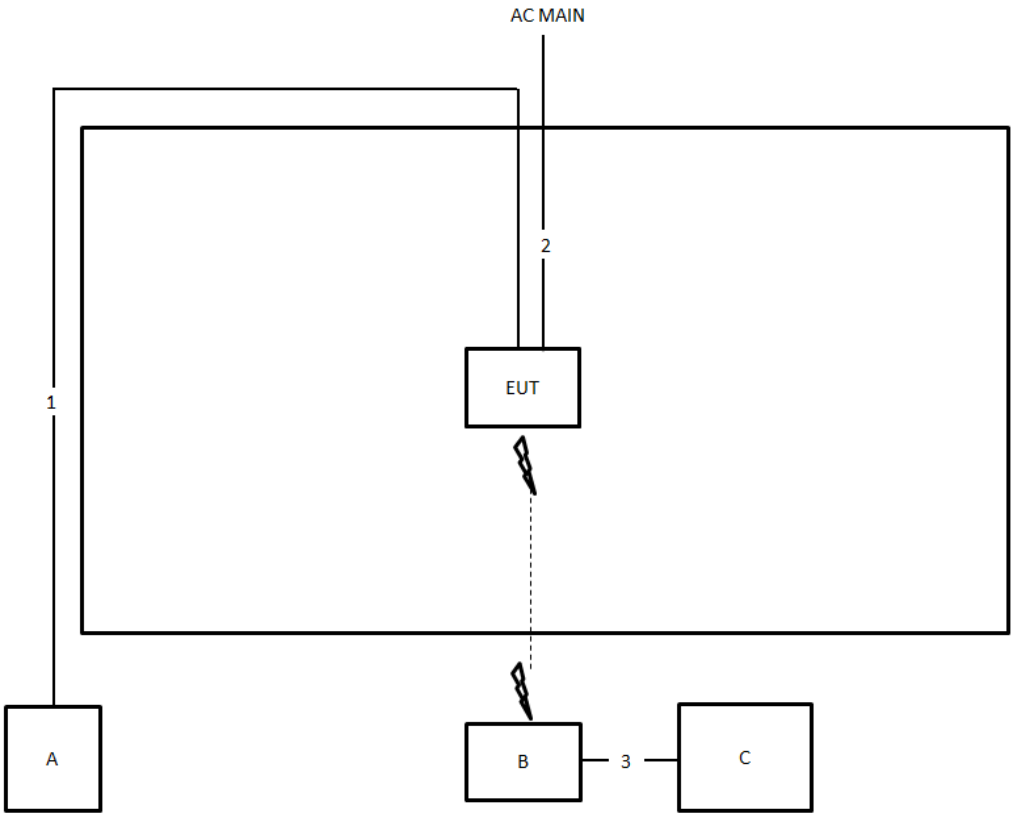
For non-beamforming mode:



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

Test Setup Diagram - Radiated Test > 1GHz

For beamforming mode:



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

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

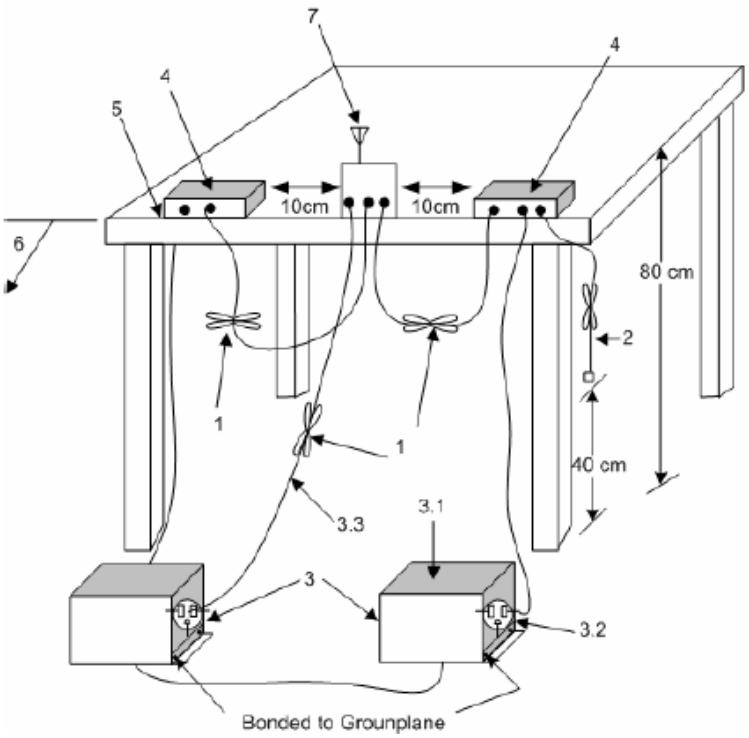
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup

AC Power-line Conducted Emissions



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

3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, N/A
☐	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.
LE-LAN Devices	
☐	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.
☐	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
☐	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
☐	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

3.2.2 Measuring Instruments

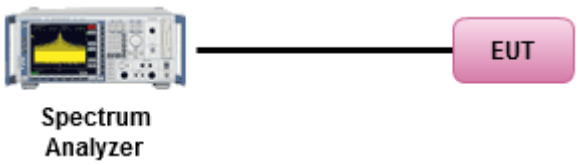
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪	For the emission bandwidth shall be measured using one of the options below:
☒	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth



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	
☒	For the 5.15-5.25 GHz band:
	▪ Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6). e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm]
	▪ Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
	▪ Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W If G_{TX} > 23 dBi, then P_{Out} = 30 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☐	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).
☐	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).
☒	For the 5.725-5.85 GHz band:
	▪ 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	
☐	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.
☐	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
☐	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
☐	For the 5.725-5.85 GHz band:
	▪ 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
	☐ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ 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
	☒ Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
▪ For conducted measurement.	
	▪ 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: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

RF Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band:
	▪ 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)..
☐	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).
☐	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).
☒	For the 5.725-5.85 GHz band:
	▪ 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	
☐	For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.
☐	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.
	▪ 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° ≤ θ < 8° ; -13 − 0.716 (θ-8) dBW/MHz for 8° ≤ θ < 40° -35.9 − 1.22 (θ-40) dBW/MHz for 40° ≤ θ ≤ 45° ; -42 dBW/MHz for θ > 45°
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.
☐	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

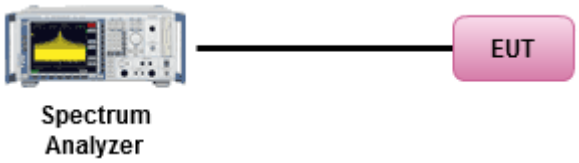
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method		
▪ 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:		
	☐ Refer as FCC KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth	
	[duty cycle ≥ 98% or external video / power trigger]	
	☒ Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).	
	☐ 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	
	☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).	
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
▪ For conducted measurement.		
	▪ If the EUT supports multiple transmit chains using options given below:	
		☒ 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.
		☐ 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,
		☐ 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.
	▪	If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \ldots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

3.4.4 Test Setup

Power Spectral Density


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

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

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

3.5.2 Measuring Instruments

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

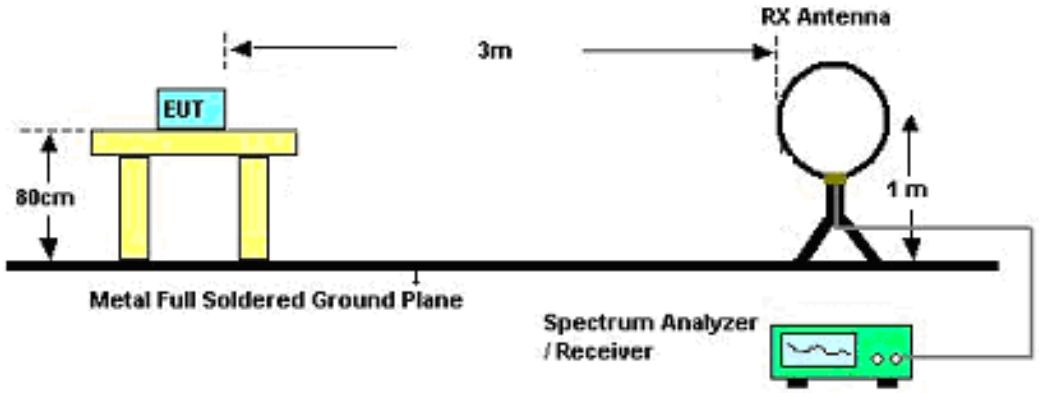
3.5.3 Test Procedures

Test Method		
▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).		
▪ The average emission levels shall be measured in [duty cycle ≥ 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.	
		☐ Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).
		☒ Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).
		☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
		☒ Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.
		☐ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
▪ For radiated measurement.		
	▪ Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.	
	▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.	
	▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.	
▪ The any unwanted emissions level shall not exceed the fundamental emission level.		
▪ All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.		

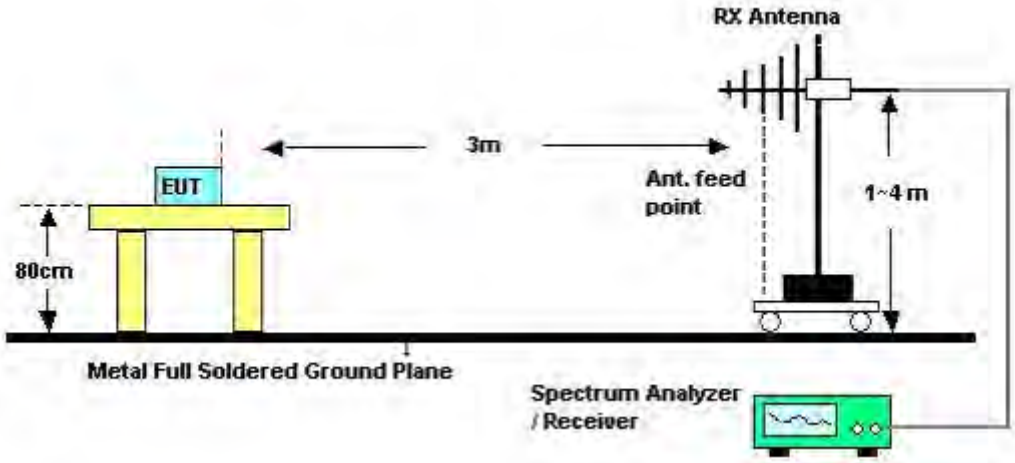
3.5.4 Test Setup

Transmitter Radiated Unwanted Emissions

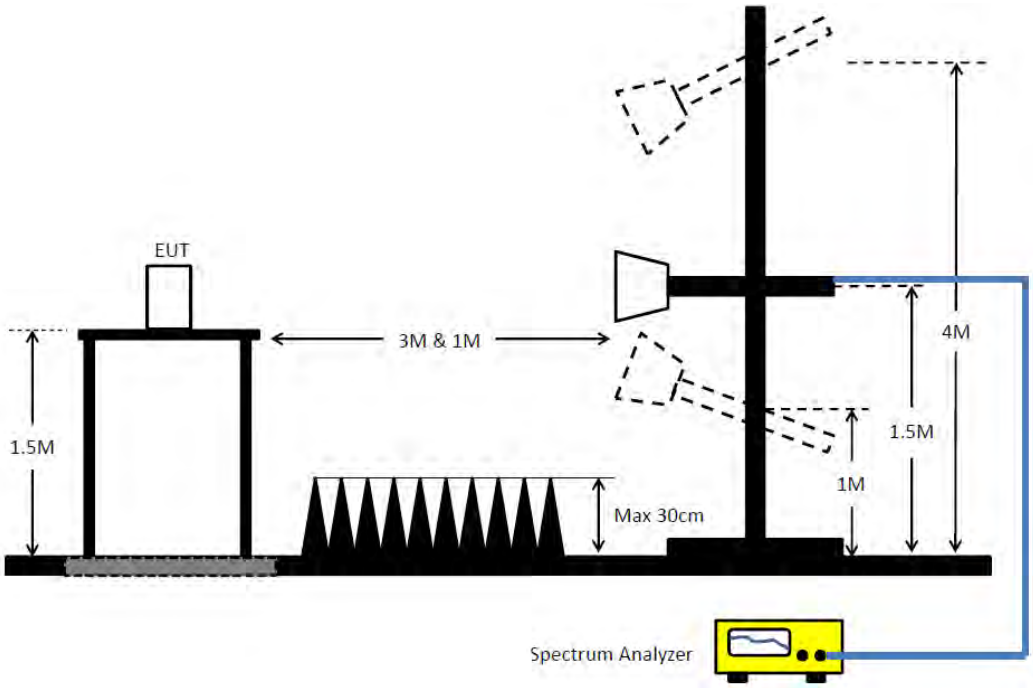
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.5.5 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

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

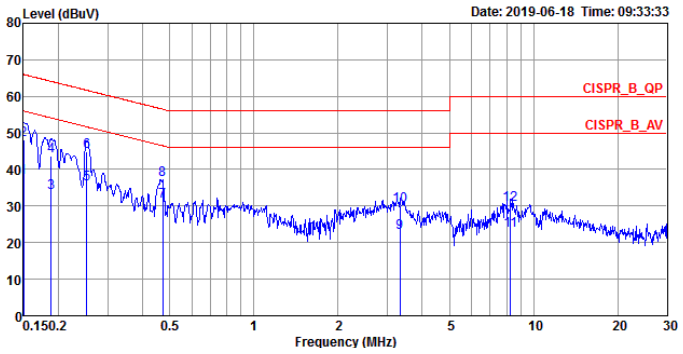
4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 28, 2019	Jan. 29, 2020	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50 -16-2	04083	150kHz ~ 100MHz	Dec. 24, 2018	Dec. 23, 2019	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Jan. 11, 2019	Jan. 10, 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)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Aug. 04, 2018	Aug. 03, 2019	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	May 07, 2019	May 06, 2020	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 03, 2018	Oct. 02, 2019	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESCS	100359	9kHz ~ 2.75GHz	Jul. 03, 2018	Jul. 02, 2019	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESCS	100359	9kHz ~ 2.75GHz	Jun. 26, 2019	Jun. 25, 2020	Radiation (03CH06-CB)
RF Cable-low	HUBER+SUHNER	RG402	Low Cable-05+24	30MHz~1GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH06-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 13, 2018	Nov. 12, 2019	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	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, 2019	Jan. 07, 2020	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	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	100056	9kHz ~ 40GHz	Jan. 31, 2019	Jan. 30, 2020	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)

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. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Feb. 25, 2019	Feb. 24, 2020	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 03, 2018	Sep. 02, 2019	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 03, 2018	Sep. 02, 2019	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-3	1 GHz – 26.5 GHz	Oct. 24, 2018	Oct. 23, 2019	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH02-CB)

Note: Calibration Interval of instruments listed above is one year.
N.C.R. means Non-Calibration required.

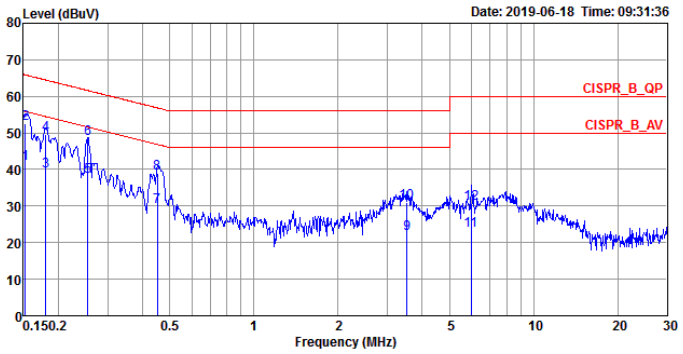
AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Line
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1500	37.82	-18.18	56.00	27.92	9.84	0.06	Average	LINE
2	0.1500	48.06	-17.94	66.00	38.16	9.84	0.06	QP	LINE
3	0.1884	33.65	-20.46	54.11	23.74	9.85	0.06	Average	LINE
4	0.1884	43.81	-20.30	64.11	33.90	9.85	0.06	QP	LINE
5	0.2521	35.94	-15.75	51.69	26.02	9.86	0.06	Average	LINE
6	0.2521	44.79	-16.90	61.69	34.87	9.86	0.06	QP	LINE
7	0.4711	31.15	-15.34	46.49	21.21	9.87	0.07	Average	LINE
8	0.4711	37.20	-19.29	56.49	27.26	9.87	0.07	QP	LINE
9	3.3281	22.75	-23.25	46.00	12.66	9.93	0.16	Average	LINE
10	3.3281	29.98	-26.02	56.00	19.89	9.93	0.16	QP	LINE
11	8.2789	23.40	-26.60	50.00	13.09	10.09	0.22	Average	LINE
12	8.2789	30.31	-29.69	60.00	20.00	10.09	0.22	QP	LINE

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Neutral
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1524	41.57	-14.30	55.87	31.68	9.83	0.06	Average	NEUTRAL
2	0.1524	52.43	-13.44	65.87	42.54	9.83	0.06	QP	NEUTRAL
3	0.1806	39.45	-15.01	54.46	29.56	9.83	0.06	Average	NEUTRAL
4	0.1806	49.50	-14.96	64.46	39.61	9.83	0.06	QP	NEUTRAL
5	0.2548	38.10	-13.50	51.60	28.20	9.84	0.06	Average	NEUTRAL
6	0.2548	48.55	-13.05	61.60	38.65	9.84	0.06	QP	NEUTRAL
7	0.4516	29.86	-16.99	46.85	19.95	9.85	0.06	Average	NEUTRAL
8	0.4516	38.85	-18.00	56.85	28.94	9.85	0.06	QP	NEUTRAL
9	3.5278	22.45	-23.55	46.00	12.38	9.91	0.16	Average	NEUTRAL
10	3.5278	30.94	-25.06	56.00	20.87	9.91	0.16	QP	NEUTRAL
11	5.9925	23.31	-26.69	50.00	13.11	10.00	0.20	Average	NEUTRAL
12	5.9925	30.56	-29.44	60.00	20.36	10.00	0.20	QP	NEUTRAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	42.96M	18.84M	18M8D1D	20.16M	16.47M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	39.81M	19.07M	19M1D1D	20.49M	17.571M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	78.78M	39.24M	39M2D1D	41.4M	36.24M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	82.08M	75.682M	75M7D1D	81.84M	75.562M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.48M	17.73M	17M7D1D	14.43M	17.28M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	15.9M	19.76M	19M8D1D	14.19M	18.441M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	35.1M	37.74M	37M7D1D	31.32M	36.96M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	74.16M	75.96M	76M0D1D	60M	75.72M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth;

Result

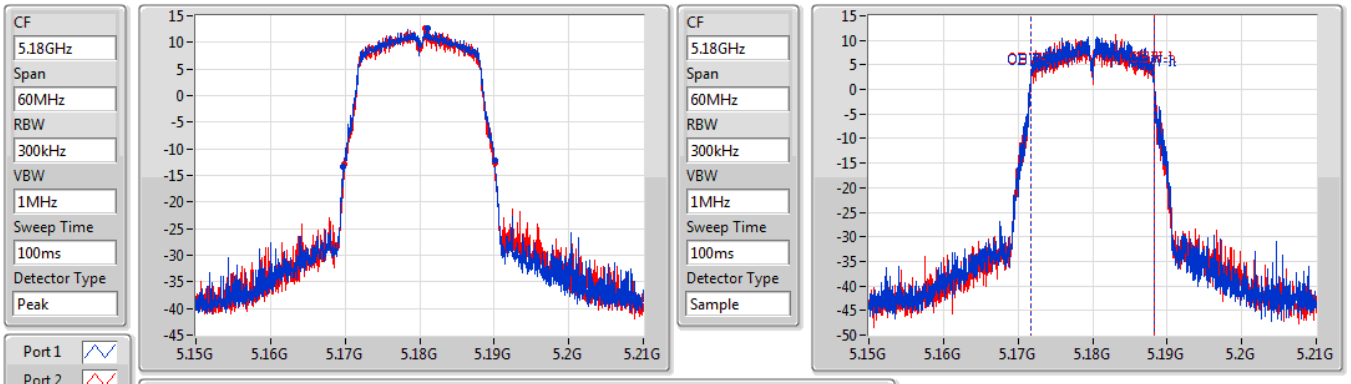
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	20.46M	16.53M	20.16M	16.47M
5200MHz	Pass	Inf	41.1M	17.25M	38.94M	17.7M
5240MHz	Pass	Inf	42.3M	17.58M	42.96M	18.84M
5745MHz	Pass	500k	14.49M	17.43M	15.09M	17.28M
5785MHz	Pass	500k	15.48M	17.52M	15.33M	17.34M
5825MHz	Pass	500k	15M	17.67M	14.43M	17.73M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	20.49M	17.601M	20.49M	17.571M
5200MHz	Pass	Inf	38.46M	18.471M	39.81M	19.01M
5240MHz	Pass	Inf	38.1M	18.141M	38.91M	19.07M
5745MHz	Pass	500k	15.03M	18.441M	14.19M	18.771M
5785MHz	Pass	500k	15M	18.711M	15.66M	18.471M
5825MHz	Pass	500k	15.03M	19.01M	15.9M	19.76M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	41.58M	36.24M	41.4M	36.24M
5230MHz	Pass	Inf	78.78M	38.22M	76.62M	39.24M
5755MHz	Pass	500k	32.58M	37.74M	33.78M	37.14M
5795MHz	Pass	500k	35.1M	37.44M	31.32M	36.96M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.84M	75.562M	82.08M	75.682M
5775MHz	Pass	500k	60M	75.72M	74.16M	75.96M

Port X-N dB = Port **X** 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port **X** 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_2TX EBW

5180MHz

01/07/2019

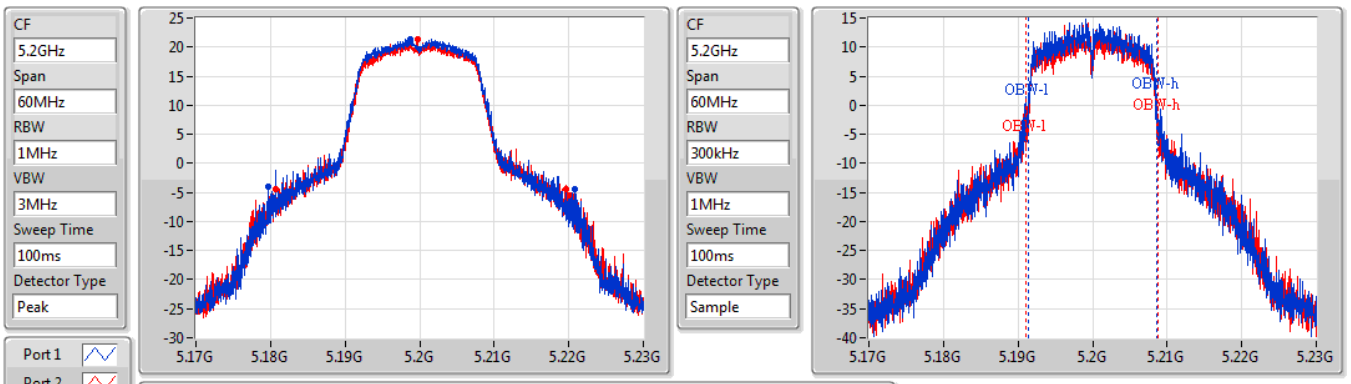


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.46M	5.16971G	5.19017G	16.53M	5.17169G	5.18822G	Inf	1
20.16M	5.16992G	5.19008G	16.47M	5.17172G	5.18819G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5200MHz

01/07/2019

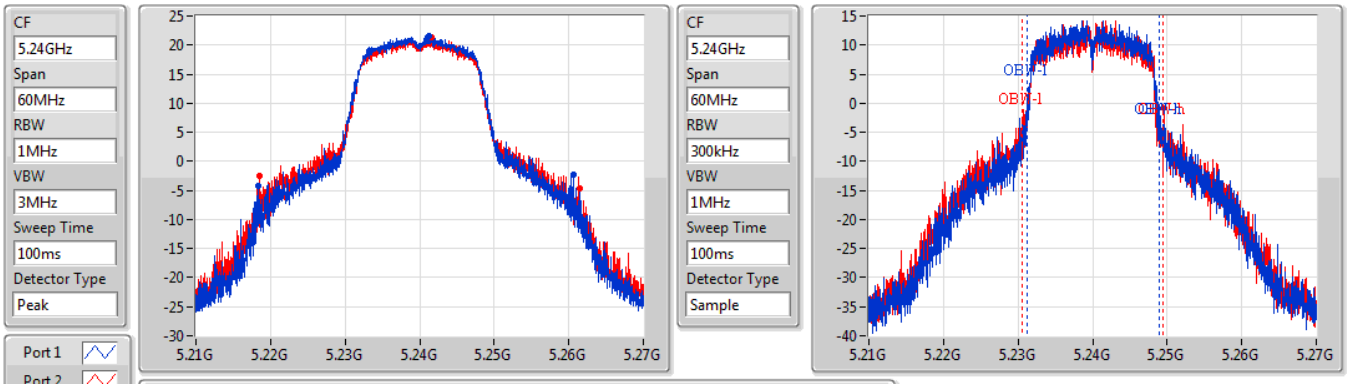


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.1M	5.17972G	5.22082G	17.25M	5.19133G	5.20858G	Inf	1
38.94M	5.18068G	5.21962G	17.7M	5.19112G	5.20882G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5240MHz

01/07/2019

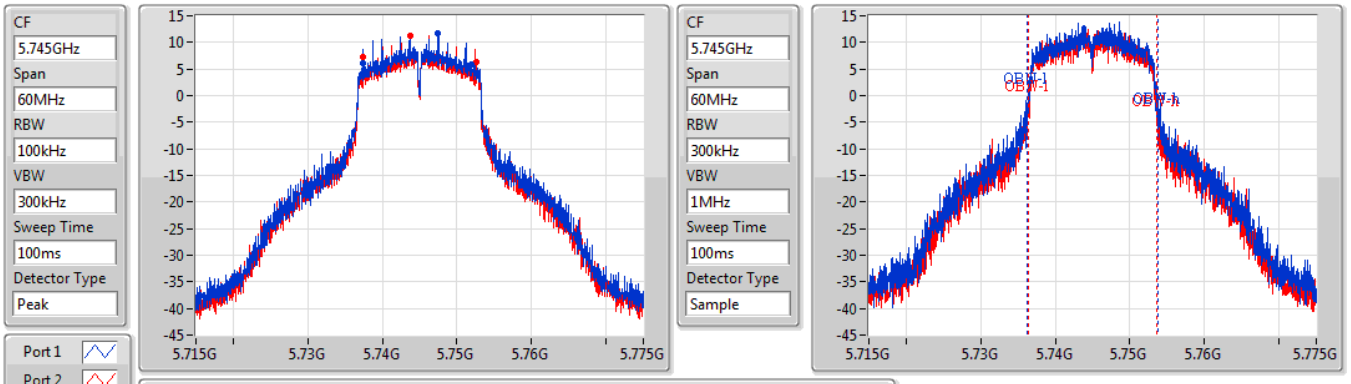


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.3M	5.21831G	5.26061G	17.58M	5.2313G	5.24888G	Inf	1
42.96M	5.21846G	5.26142G	18.84M	5.23052G	5.24936G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5745MHz

01/07/2019

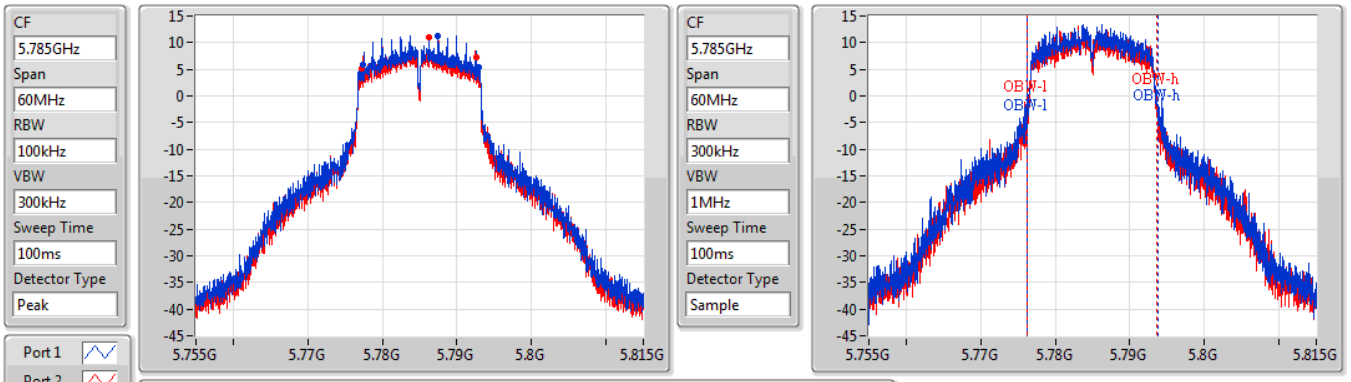


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
14.49M	5.73741G	5.7519G	17.43M	5.7363G	5.75373G	500k	1
15.09M	5.73744G	5.75253G	17.28M	5.73633G	5.75361G	500k	2

802.11a_Nss1,(6Mbps)_2TX EBW

5785MHz

01/07/2019

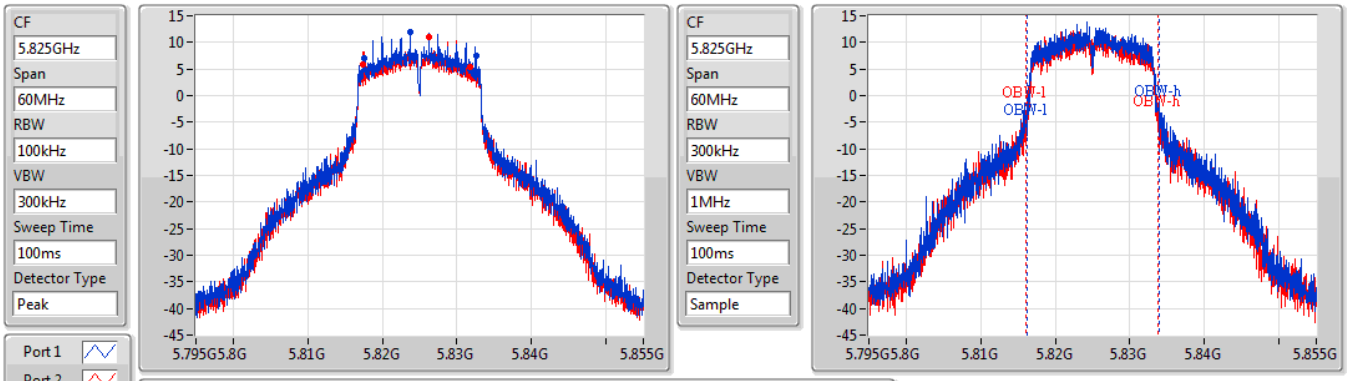


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.48M	5.77741G	5.79289G	17.52M	5.77627G	5.79379G	500k	1
15.33M	5.7772G	5.79253G	17.34M	5.7763G	5.79364G	500k	2

802.11a_Nss1,(6Mbps)_2TX EBW

5825MHz

01/07/2019

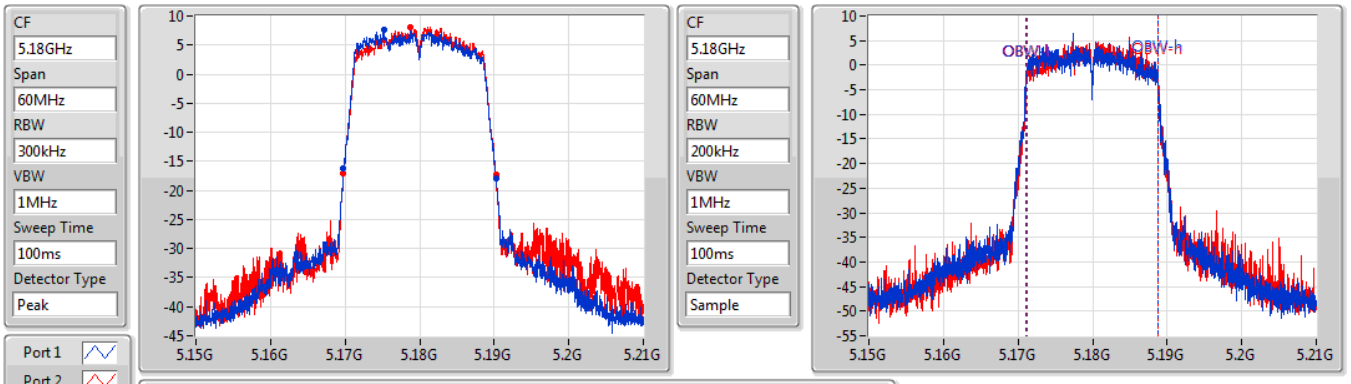


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15M	5.81753G	5.83253G	17.67M	5.81624G	5.83391G	500k	1
14.43M	5.81741G	5.83184G	17.73M	5.81612G	5.83385G	500k	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

5180MHz

27/06/2019

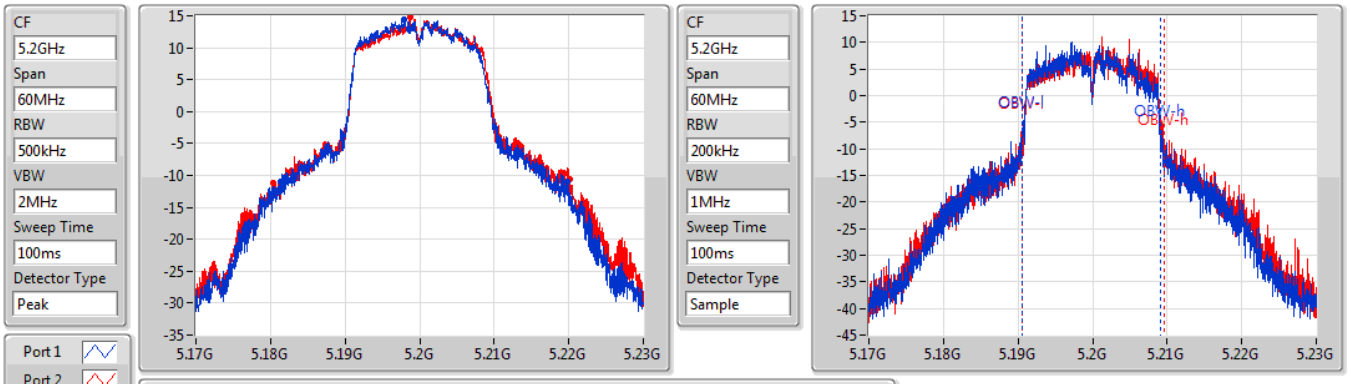


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.49M	5.16977G	5.19026G	17.601M	5.171124G	5.188726G	Inf	1
20.49M	5.16974G	5.19023G	17.571M	5.171184G	5.188756G	Inf	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

5200MHz

27/06/2019

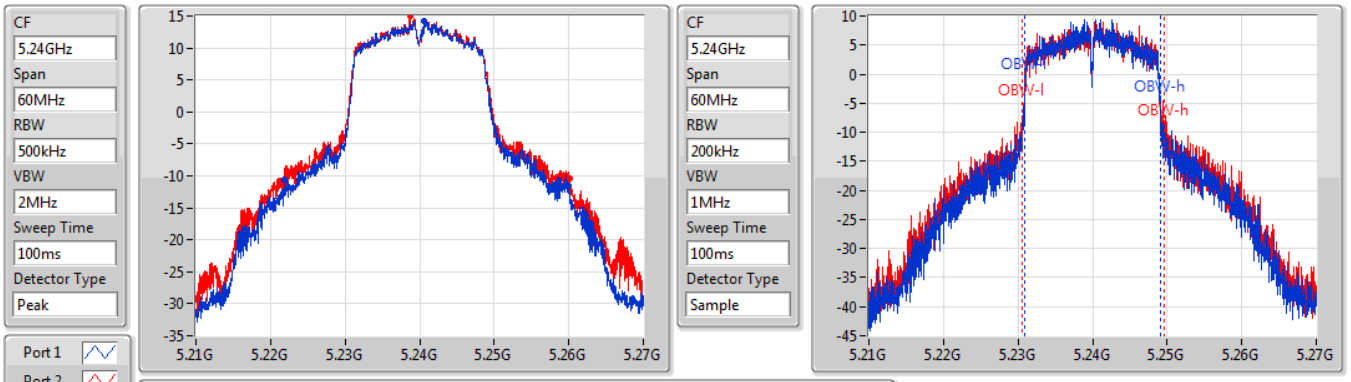


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
38.46M	5.18134G	5.2198G	18.471M	5.190615G	5.209085G	Inf	1
39.81M	5.18041G	5.22022G	19.01M	5.190615G	5.209625G	Inf	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

5240MHz

27/06/2019

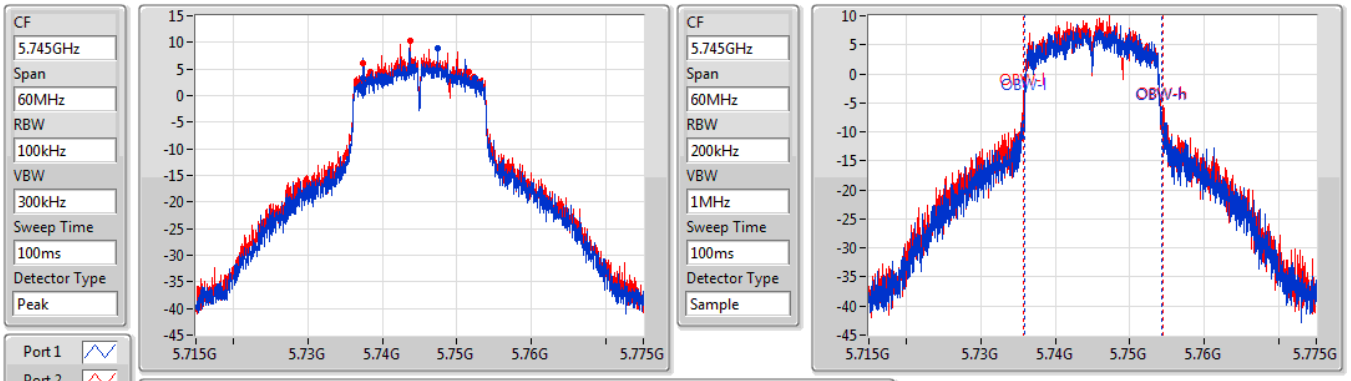


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
38.1M	5.22194G	5.26004G	18.141M	5.230945G	5.249085G	Inf	1
38.91M	5.22128G	5.26019G	19.07M	5.230615G	5.249685G	Inf	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

5745MHz

27/06/2019

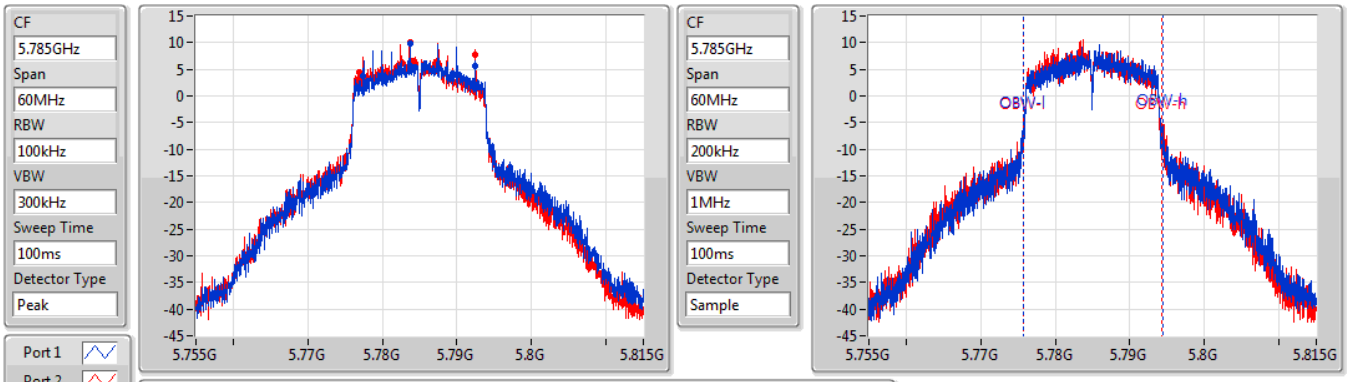


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.03M	5.73744G	5.75247G	18.441M	5.735855G	5.754295G	500k	1
14.19M	5.73744G	5.75163G	18.771M	5.735675G	5.754445G	500k	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

5785MHz

27/06/2019

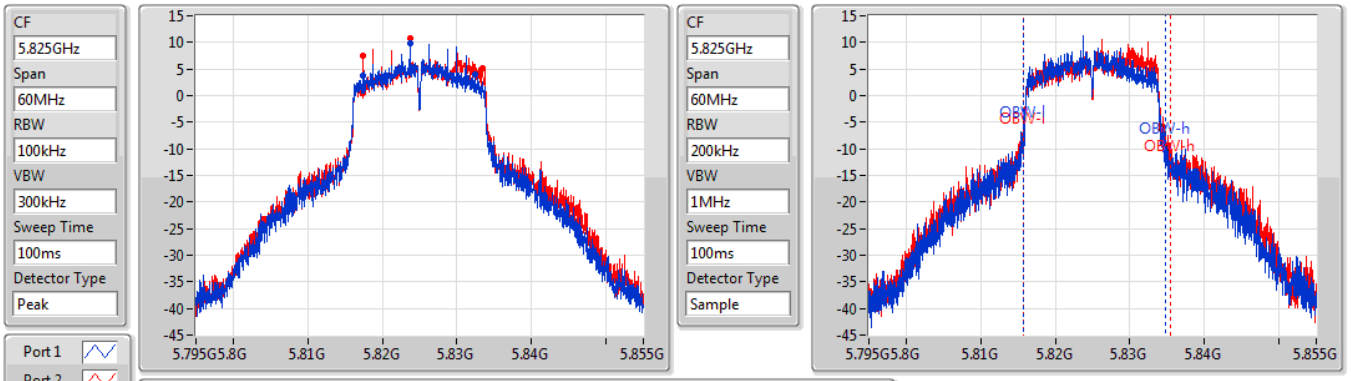


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15M	5.77747G	5.79247G	18.711M	5.775765G	5.794475G	500k	1
15.66M	5.77684G	5.7925G	18.471M	5.775735G	5.794205G	500k	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

5825MHz

27/06/2019

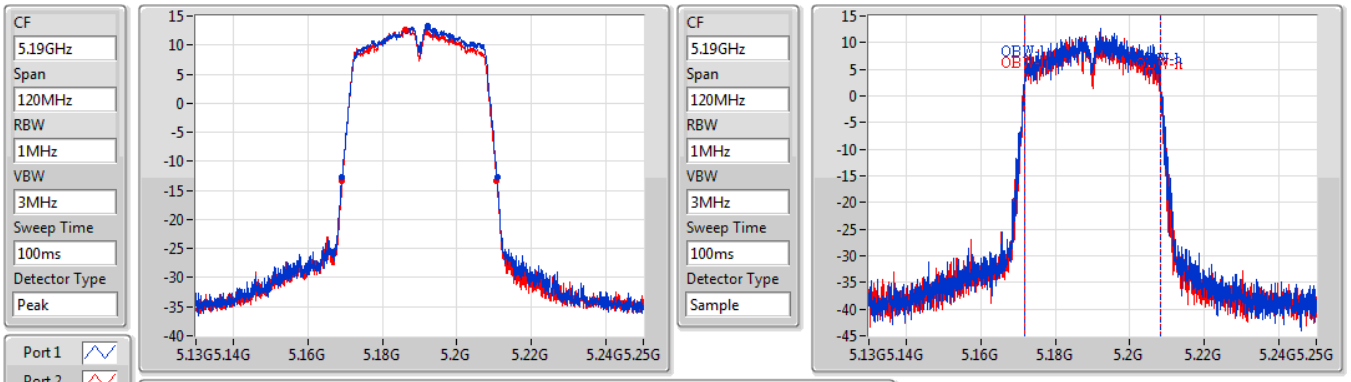


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.03M	5.81741G	5.83244G	19.01M	5.815705G	5.834715G	500k	1
15.9M	5.81747G	5.83337G	19.76M	5.815675G	5.835435G	500k	2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX EBW

5190MHz

01/07/2019

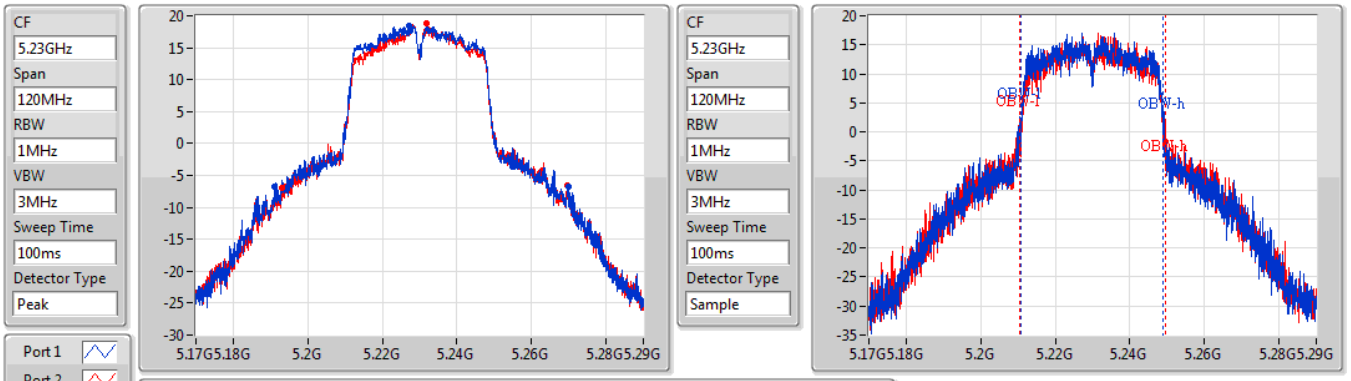


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.58M	5.16918G	5.21076G	36.24M	5.17188G	5.20812G	Inf	1
41.4M	5.16924G	5.21064G	36.24M	5.17182G	5.20806G	Inf	2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX EBW

5230MHz

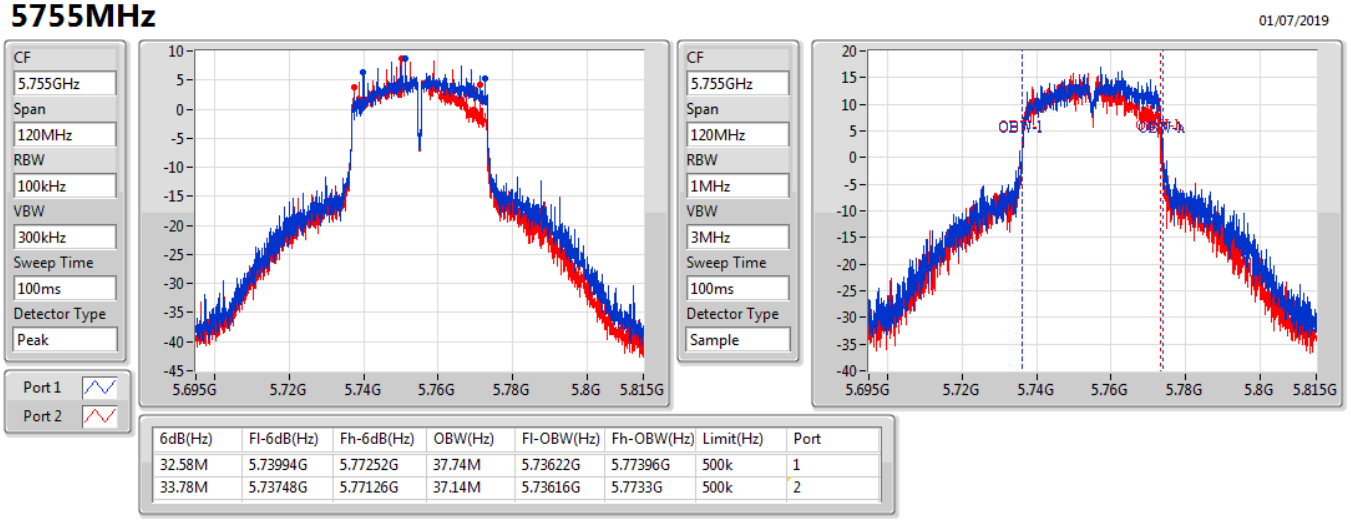
01/07/2019



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
78.78M	5.19112G	5.2699G	38.22M	5.21074G	5.24896G	Inf	1
76.62M	5.19298G	5.2696G	39.24M	5.21038G	5.24962G	Inf	2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX EBW

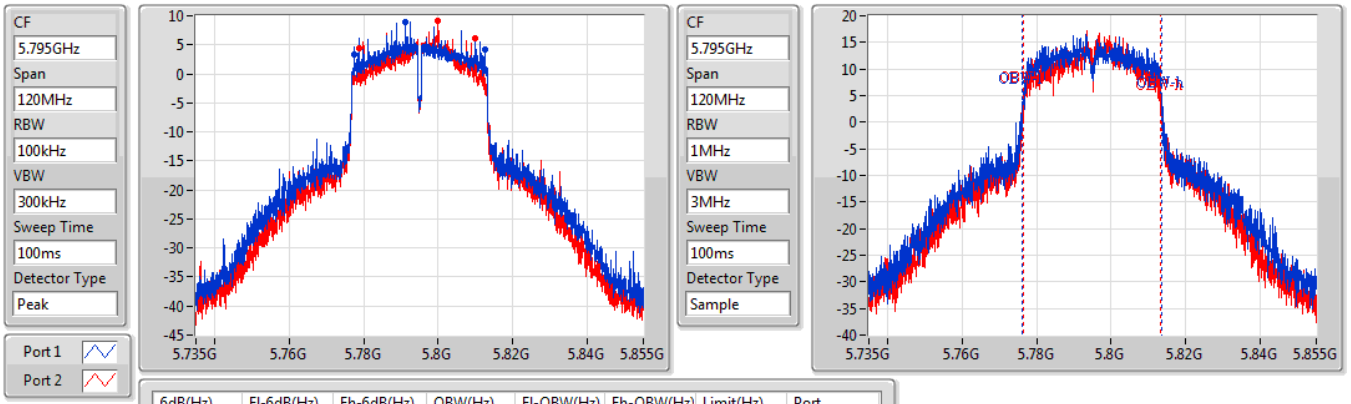
5755MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
32.58M	5.73994G	5.77252G	37.74M	5.73622G	5.77396G	500k	1
33.78M	5.73748G	5.77126G	37.14M	5.73616G	5.7733G	500k	2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX EBW

5795MHz

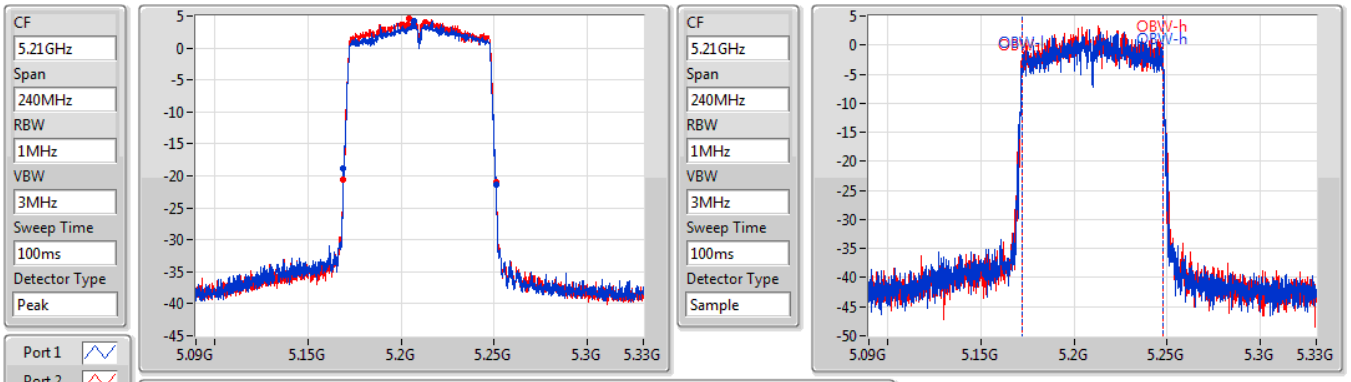


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.1M	5.77742G	5.81252G	37.44M	5.77616G	5.8136G	500k	1
31.32M	5.77868G	5.81G	36.96M	5.7764G	5.81336G	500k	2

802.11ac VHT80-BF_Nss1,(MCS0)_2TX EBW

5210MHz

27/06/2019

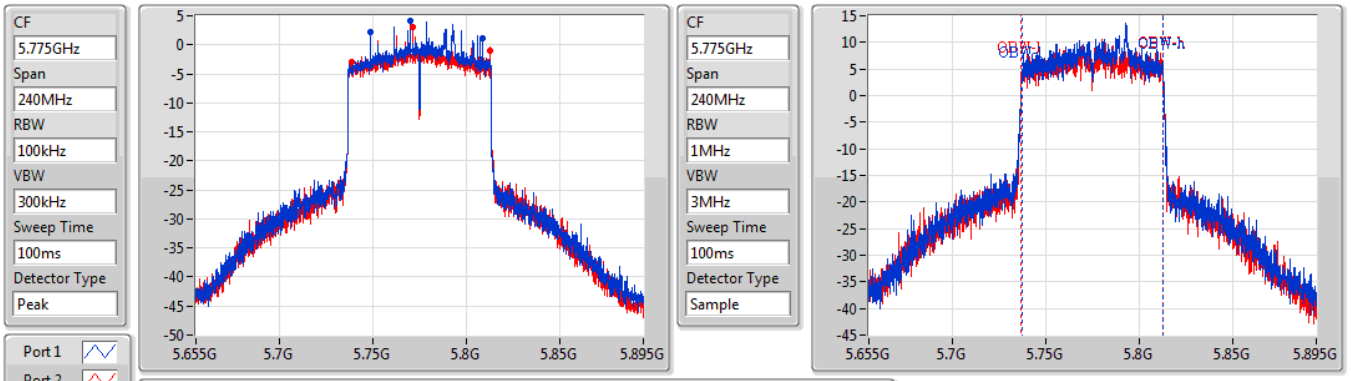


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.84M	5.1692G	5.25104G	75.562M	5.172219G	5.247781G	Inf	1
82.08M	5.16908G	5.25116G	75.682M	5.172099G	5.247781G	Inf	2

802.11ac VHT80-BF_Nss1,(MCS0)_2TX EBW

5775MHz

01/07/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
60M	5.74872G	5.80872G	75.72M	5.73708G	5.8128G	500k	1
74.16M	5.7384G	5.81256G	75.96M	5.73684G	5.8128G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	24.88	0.30761
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	26.90	0.48978
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	25.20	0.33113
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	18.83	0.07638
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	25.45	0.35075
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	25.76	0.37670
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	24.21	0.26363
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	23.12	0.20512

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	3.32	19.01	18.73	21.88	30.00
5200MHz	Pass	3.32	22.30	21.37	24.87	30.00
5240MHz	Pass	3.32	22.18	21.53	24.88	30.00
5745MHz	Pass	3.32	22.98	21.83	25.45	30.00
5785MHz	Pass	3.32	22.95	21.74	25.40	30.00
5825MHz	Pass	3.32	22.78	21.68	25.28	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	6.28	19.78	19.17	22.50	29.72
5200MHz	Pass	6.28	21.07	21.14	24.12	29.72
5240MHz	Pass	6.28	24.33	23.40	26.90	29.72
5745MHz	Pass	6.28	23.37	22.02	25.76	29.72
5785MHz	Pass	6.28	23.31	22.10	25.76	29.72
5825MHz	Pass	6.28	22.97	22.02	25.53	29.72
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	6.28	17.29	16.62	19.98	29.72
5230MHz	Pass	6.28	22.46	21.91	25.20	29.72
5755MHz	Pass	6.28	21.38	20.66	24.05	29.72
5795MHz	Pass	6.28	21.50	20.87	24.21	29.72
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	6.28	16.09	15.54	18.83	29.72
5775MHz	Pass	6.28	20.10	20.11	23.12	29.72

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

Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_2TX	13.52
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	14.67
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	10.26
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-2.73
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	11.15
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	12.26
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	6.71
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	2.10

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

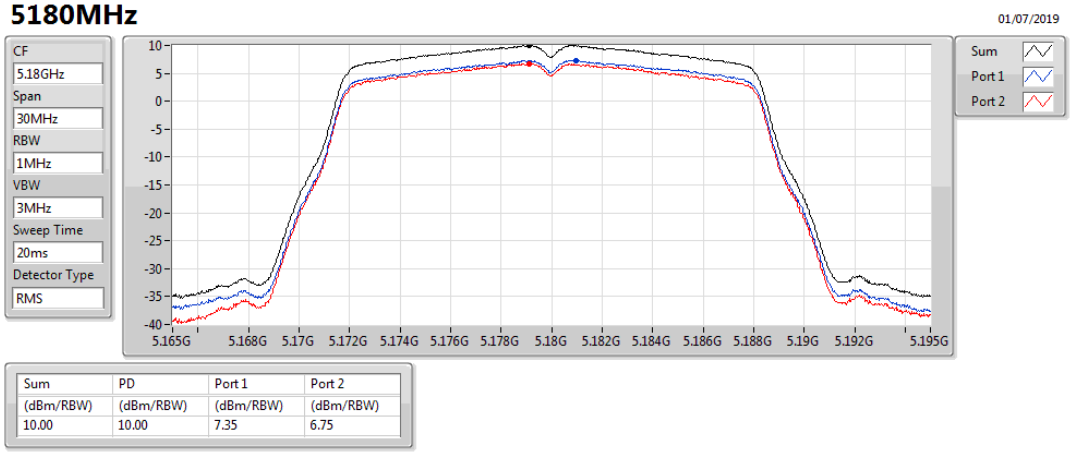
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	6.28	7.35	6.75	10.00	16.72
5200MHz	Pass	6.28	10.73	9.89	13.32	16.72
5240MHz	Pass	6.28	10.92	10.17	13.52	16.72
5745MHz	Pass	6.28	8.56	7.35	10.95	29.72
5785MHz	Pass	6.28	8.85	7.56	11.15	29.72
5825MHz	Pass	6.28	8.40	7.34	10.88	29.72
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	6.28	4.60	4.54	7.10	16.72
5200MHz	Pass	6.28	7.91	8.35	10.98	16.72
5240MHz	Pass	6.28	12.16	11.24	14.67	16.72
5745MHz	Pass	6.28	8.33	7.21	10.47	29.72
5785MHz	Pass	6.28	9.12	9.53	12.26	29.72
5825MHz	Pass	6.28	7.86	7.91	10.89	29.72
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	6.28	2.34	1.81	4.87	16.72
5230MHz	Pass	6.28	7.58	7.22	10.26	16.72
5755MHz	Pass	6.28	3.83	3.36	6.37	29.72
5795MHz	Pass	6.28	3.79	4.61	6.71	29.72
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	6.28	-6.07	-5.39	-2.73	16.72
5775MHz	Pass	6.28	0.88	-2.69	2.10	29.72

DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11a_Nss1,(6Mbps)_2TX PSD

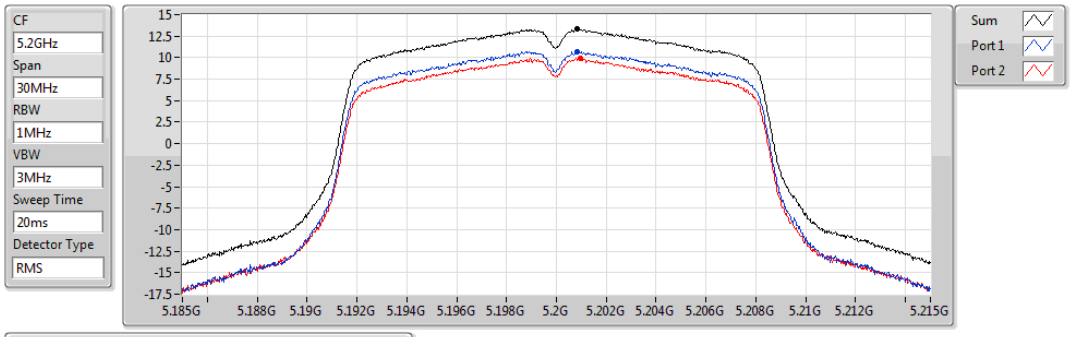
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.00	10.00	7.35	6.75

802.11a_Nss1,(6Mbps)_2TX PSD

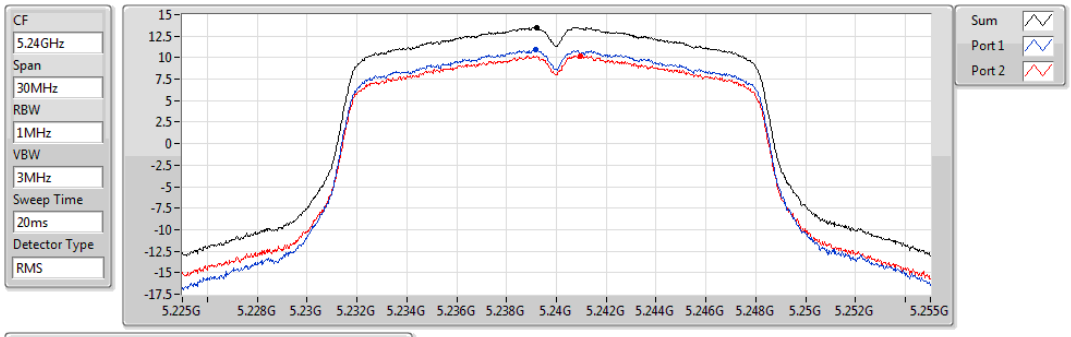
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.32	13.32	10.73	9.89

802.11a_Nss1,(6Mbps)_2TX PSD

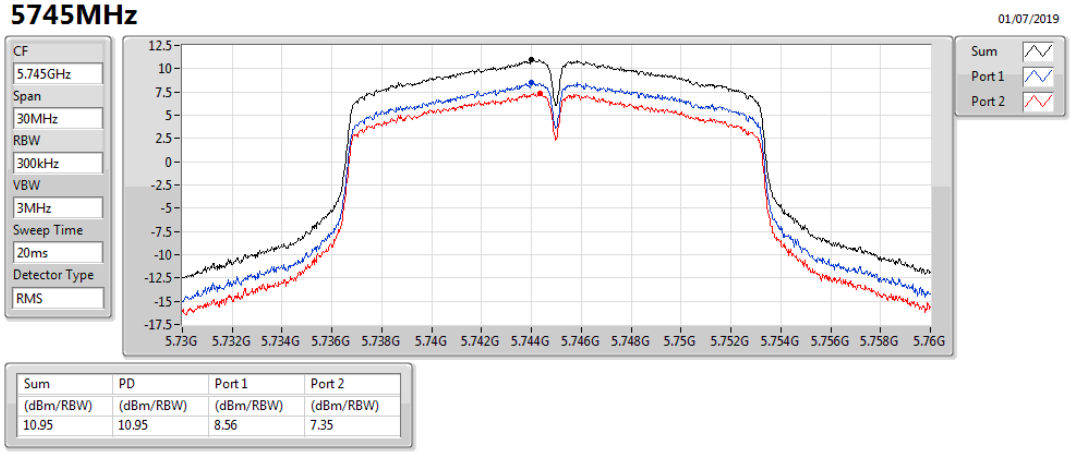
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.52	13.52	10.92	10.17

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

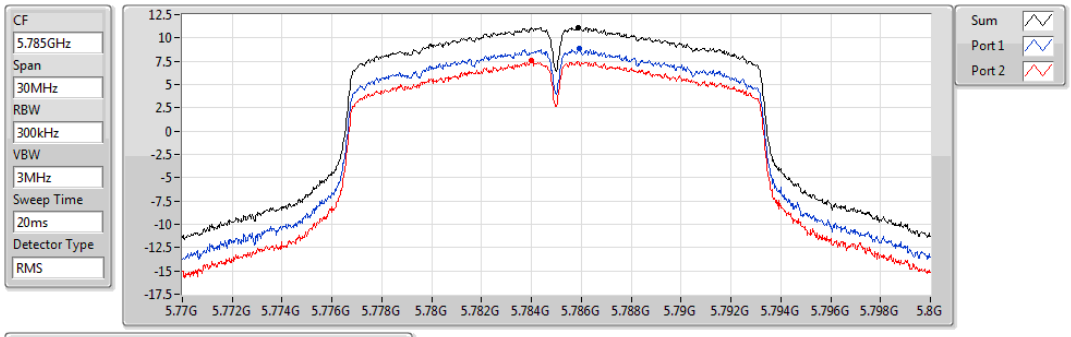
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.95	10.95	8.56	7.35

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

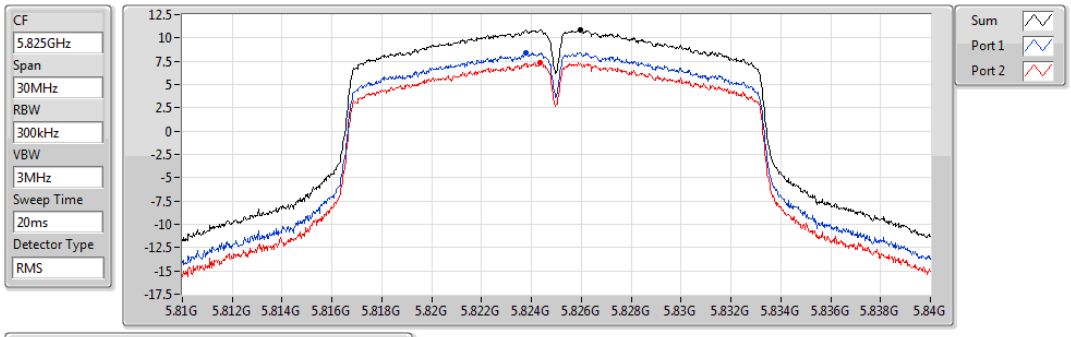
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.15	11.15	8.85	7.56

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

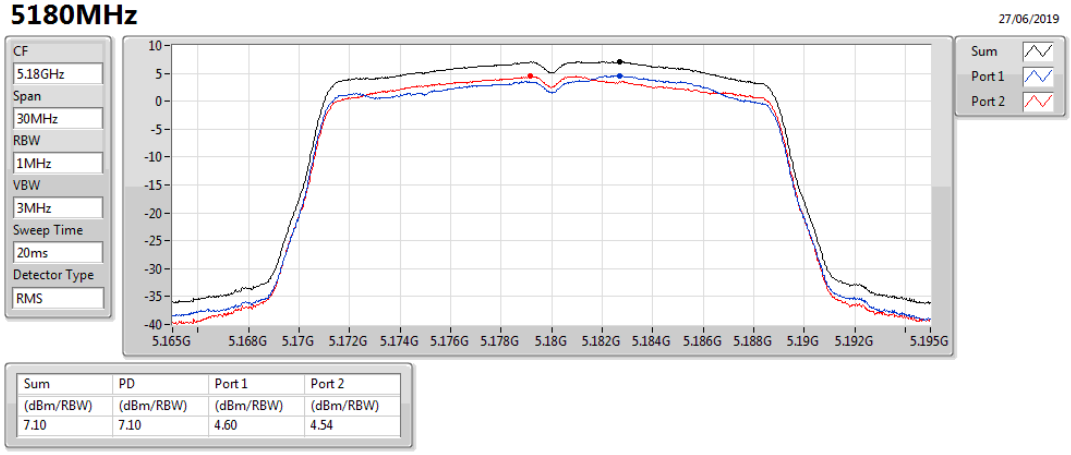
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.88	10.88	8.40	7.34

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

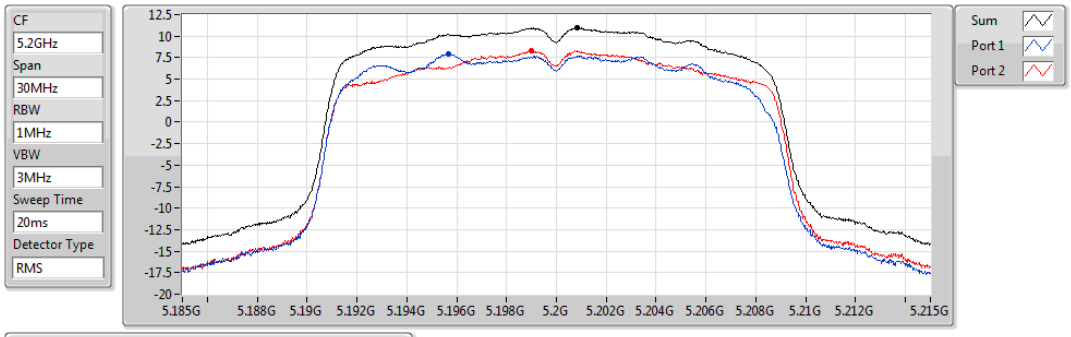
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.10	7.10	4.60	4.54

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

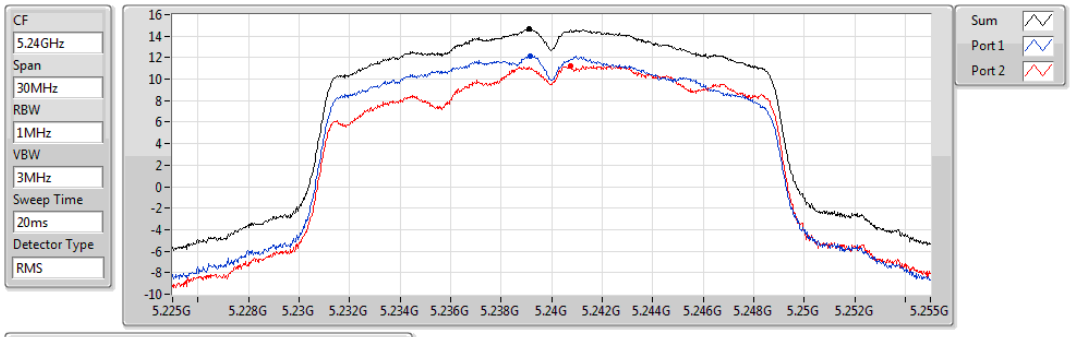
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.98	10.98	7.91	8.35

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

5240MHz

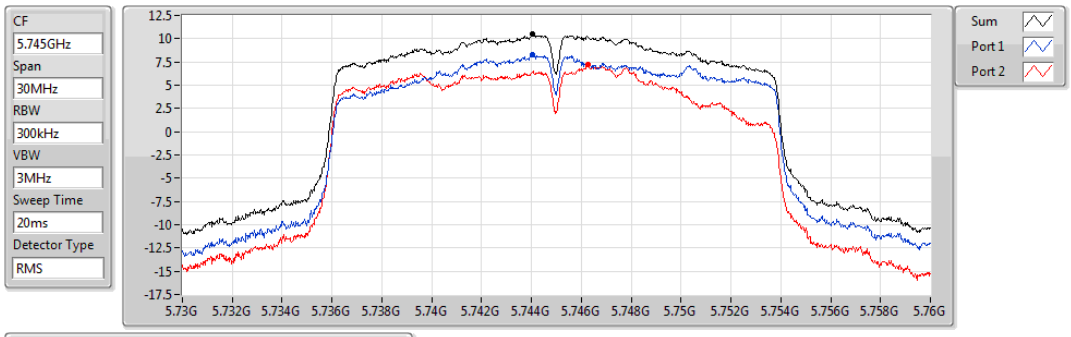


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
14.67	14.67	12.16	11.24

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

5745MHz

02/07/2019

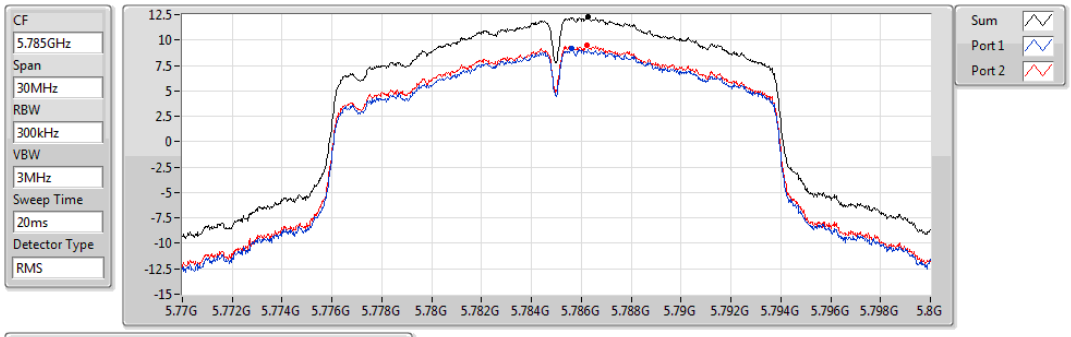


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.47	10.47	8.33	7.21

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

5785MHz

02/07/2019

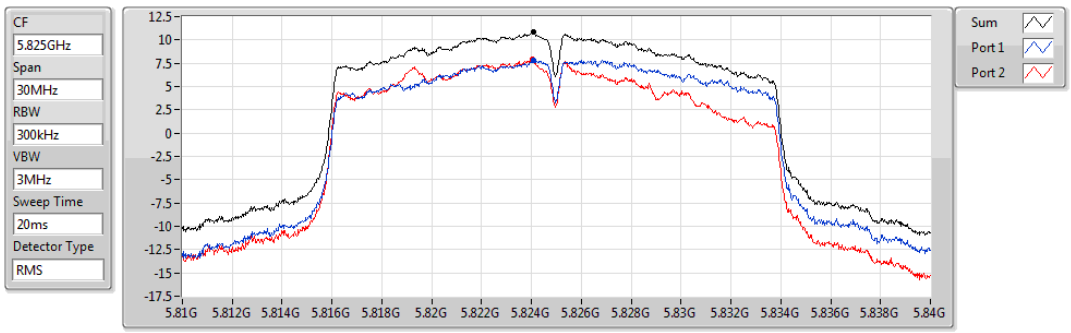


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.26	12.26	9.12	9.53

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

5825MHz

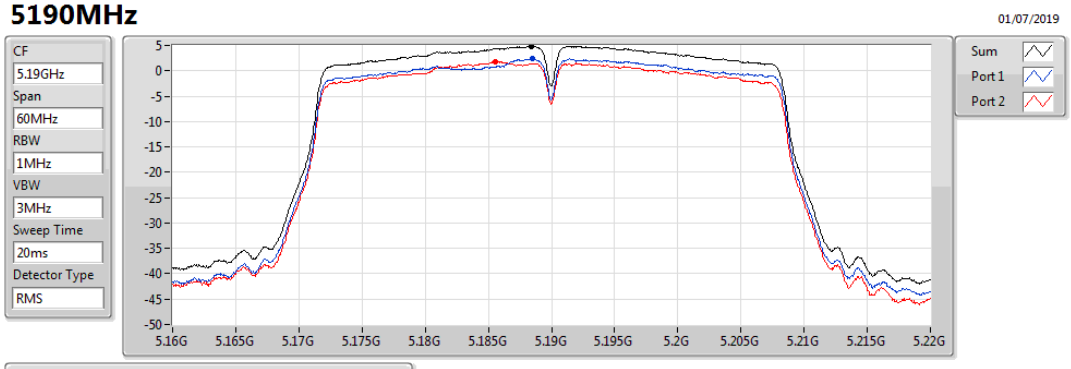
02/07/2019



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.89	10.89	7.86	7.91

802.11ac VHT40-BF_Nss1,(MCS0)_2TX PSD

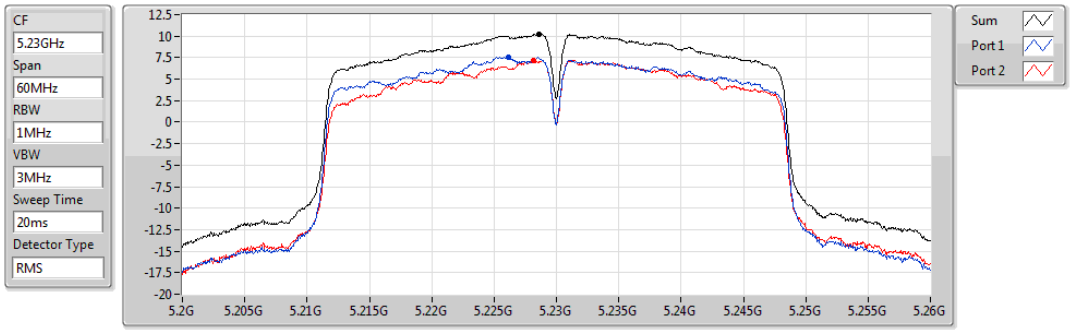
5190MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.87	4.87	2.34	1.81

802.11ac VHT40-BF_Nss1,(MCS0)_2TX PSD

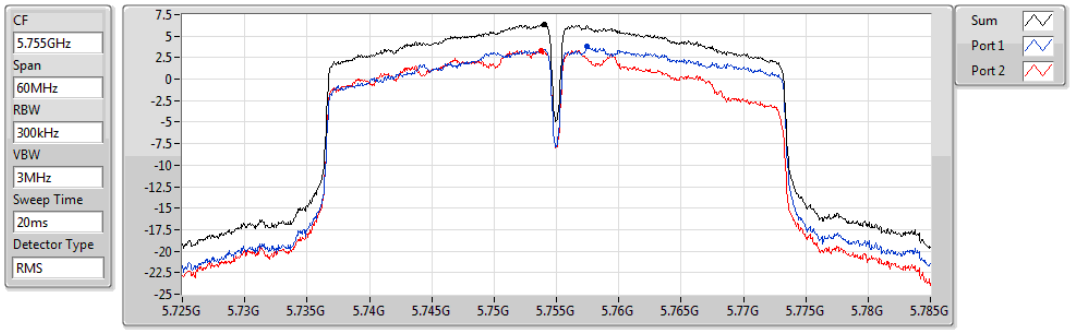
5230MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.26	10.26	7.58	7.22

802.11ac VHT40-BF_Nss1,(MCS0)_2TX PSD

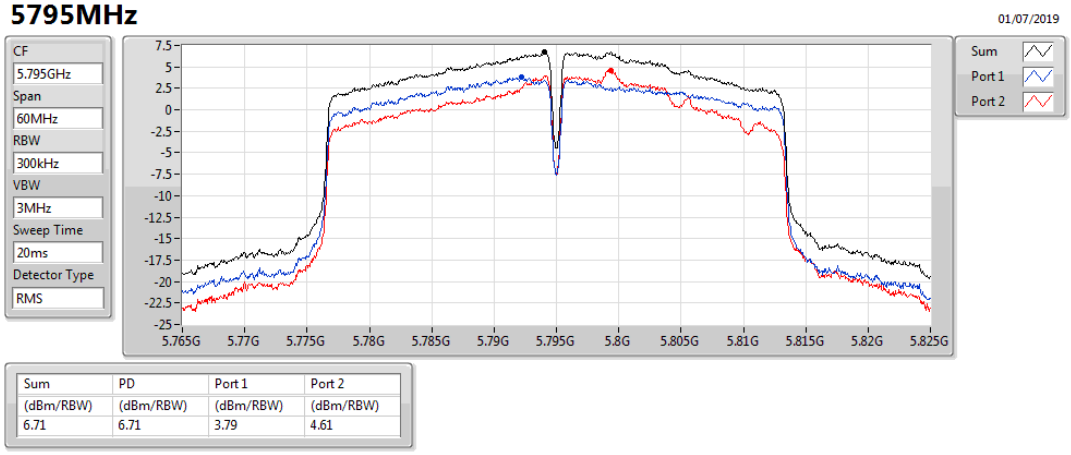
5755MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.37	6.37	3.83	3.36

802.11ac VHT40-BF_Nss1,(MCS0)_2TX **PSD**

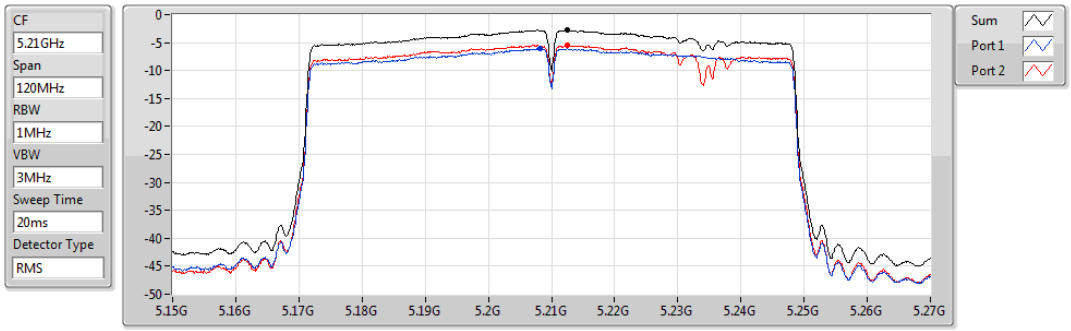
5795MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.71	6.71	3.79	4.61

802.11ac VHT80-BF_Nss1,(MCS0)_2TX **PSD**

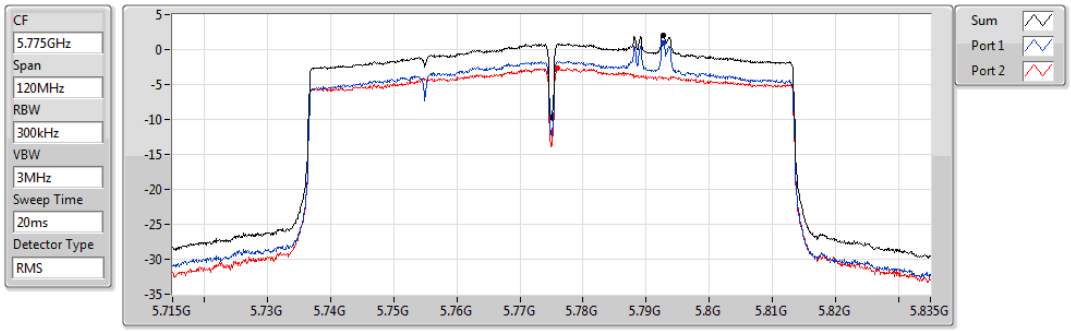
5210MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.73	-2.73	-6.07	-5.39

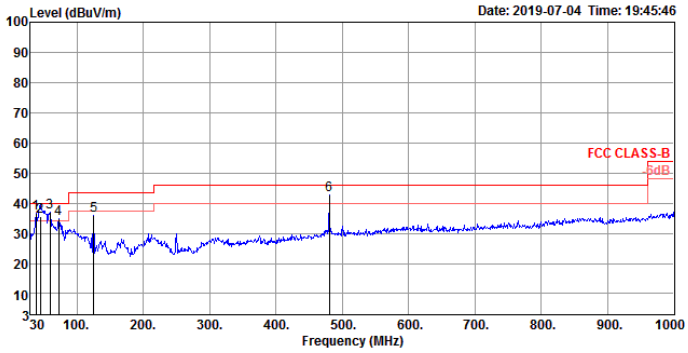
802.11ac VHT80-BF_Nss1,(MCS0)_2TX **PSD**

5775MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.10	2.10	0.88	-2.69

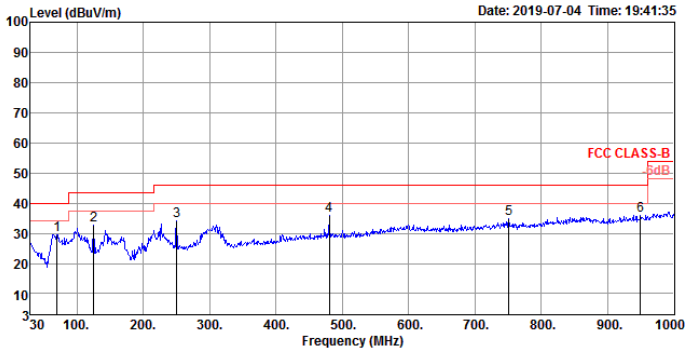
RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Vertical
Operating Function	CTX		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	38.73	36.82	40.00	-3.18	49.03	1.21	19.15	32.57	100	237	Peak	VERTICAL
2	44.55	35.71	40.00	-4.29	50.90	1.30	16.19	32.68	100	277	QP	VERTICAL
3	59.10	36.98	40.00	-3.02	55.78	1.52	12.22	32.54	200	252	Peak	VERTICAL
4	72.68	34.75	40.00	-5.25	53.46	1.71	12.04	32.46	125	60	Peak	VERTICAL
5	125.06	35.78	43.50	-7.72	48.21	2.25	17.85	32.53	100	253	Peak	VERTICAL
6	480.08	42.76	46.00	-3.24	47.65	4.19	23.08	32.16	125	63	Peak	VERTICAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

RSE below 1GHz Result			
Operating Mode	2	**Polarization**	Horizontal
Operating Function	CTX		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	69.77	29.61	40.00	-10.39	48.31	1.67	12.06	32.43	300	297	Peak	HORIZONTAL
2	125.06	32.66	43.50	-10.84	45.09	2.25	17.85	32.53	300	297	Peak	HORIZONTAL
3	250.19	34.28	46.00	-11.72	45.40	2.95	18.30	32.37	100	273	Peak	HORIZONTAL
4	480.08	36.11	46.00	-9.89	41.00	4.19	23.08	32.16	200	225	Peak	HORIZONTAL
5	750.71	35.00	46.00	-11.00	36.49	5.20	25.37	32.06	100	236	Peak	HORIZONTAL
6	949.56	35.91	46.00	-10.09	35.04	5.82	26.46	31.41	150	98	Peak	HORIZONTAL

Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

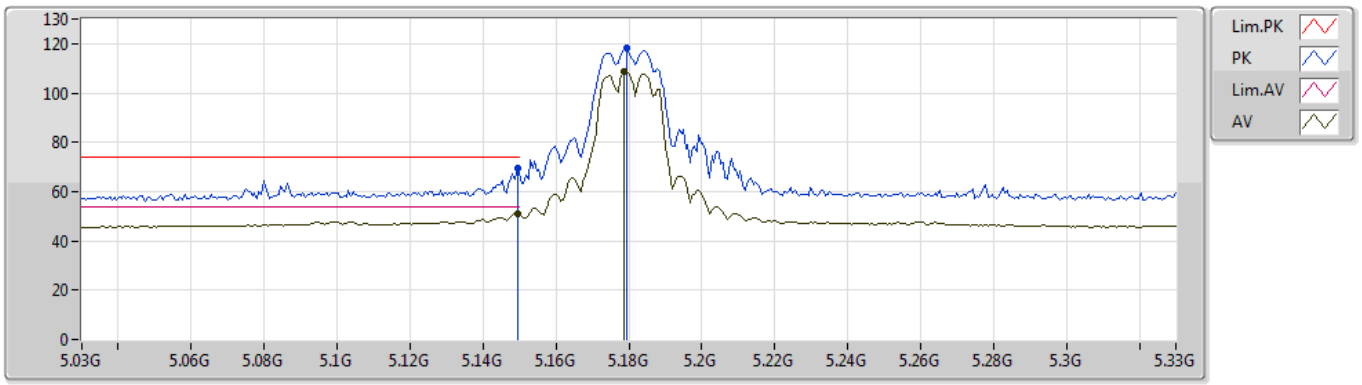
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	Pass	AV	5.15G	52.97	54.00	-1.03	7.94	3	Vertical	297	1.49	-

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

26/06/2019



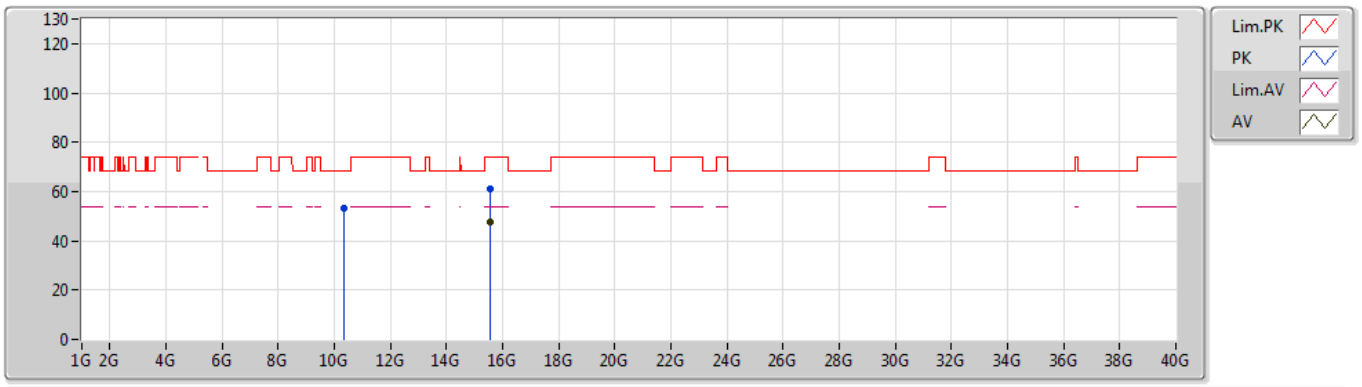
EUT Y_2TX
Setting 20
01-W-3-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.1494G	69.65	74.00	-4.35	4.25	3	Vertical	16	1.50	-
AV	5.1494G	51.10	54.00	-2.90	4.25	3	Vertical	16	1.50	-
PK	5.1794G	118.38	Inf	-Inf	4.26	3	Vertical	16	1.50	-
AV	5.1788G	108.80	Inf	-Inf	4.26	3	Vertical	16	1.50	-

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

26/06/2019



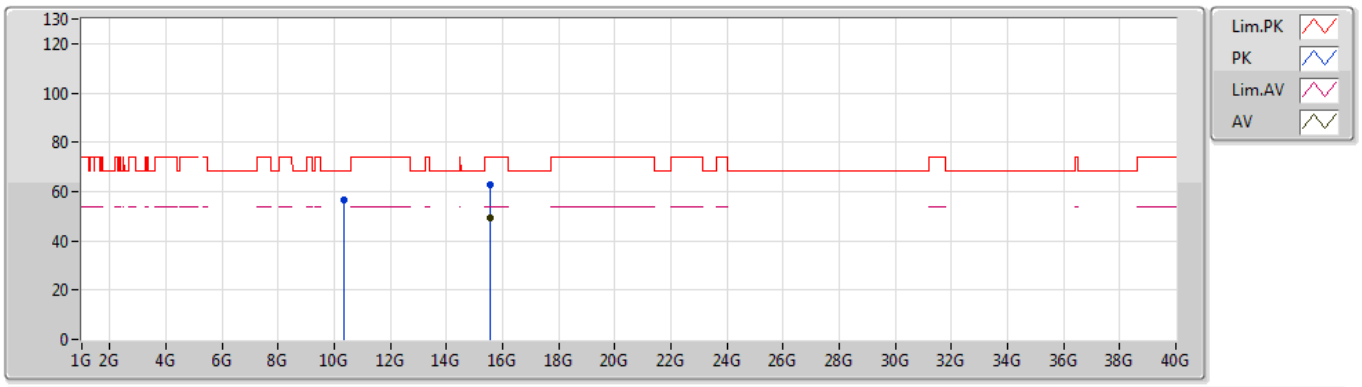
EUT Y_2TX
Setting 20
01-W-3
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.36618G	53.11	68.20	-15.09	10.85	3	Vertical	38	2.99	-
PK	15.53304G	61.23	74.00	-12.77	14.46	3	Vertical	131	2.03	-
AV	15.53508G	47.61	54.00	-6.39	14.46	3	Vertical	131	2.03	-

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

26/06/2019



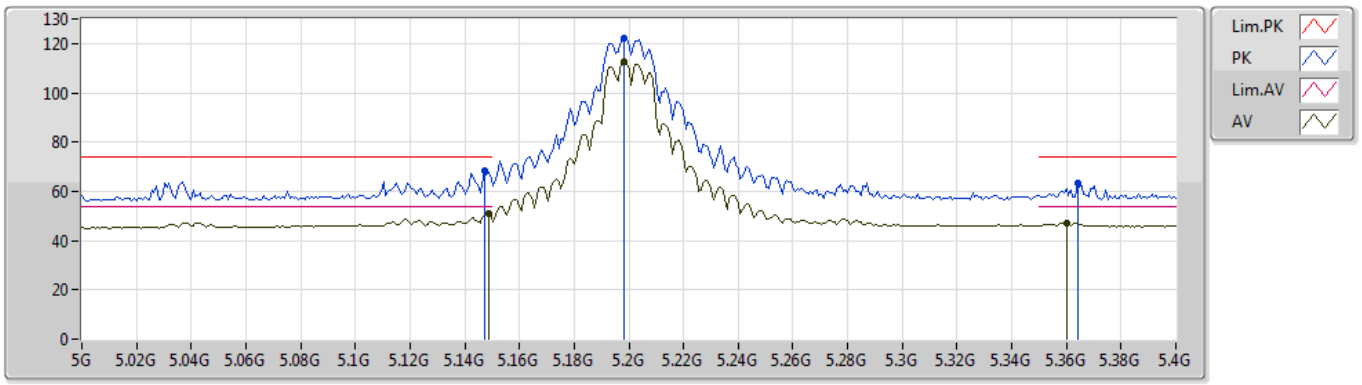
EUT Y_2TX
Setting 20
01-W-3
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.36224G	56.80	68.20	-11.40	10.85	3	Horizontal	315	2.09	-
PK	15.53432G	62.63	74.00	-11.37	14.46	3	Horizontal	86	1.50	-
AV	15.54104G	49.16	54.00	-4.84	14.46	3	Horizontal	86	1.50	-

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

26/06/2019



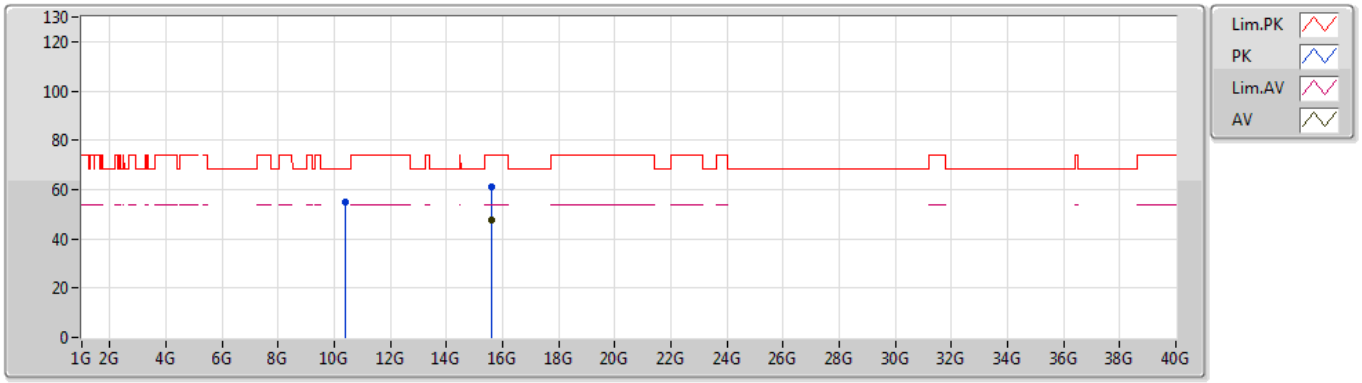
EUT Y_2TX
Setting 28
01-W-3-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.1472G	68.26	74.00	-5.74	4.25	3	Vertical	21	1.49	-
AV	5.1488G	51.12	54.00	-2.88	4.25	3	Vertical	21	1.49	-
PK	5.1984G	122.13	Inf	-Inf	4.27	3	Vertical	21	1.49	-
AV	5.1984G	112.60	Inf	-Inf	4.27	3	Vertical	21	1.49	-
PK	5.364G	63.19	74.00	-10.81	4.86	3	Vertical	21	1.49	-
AV	5.36G	47.23	54.00	-6.77	4.85	3	Vertical	21	1.49	-

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

26/06/2019



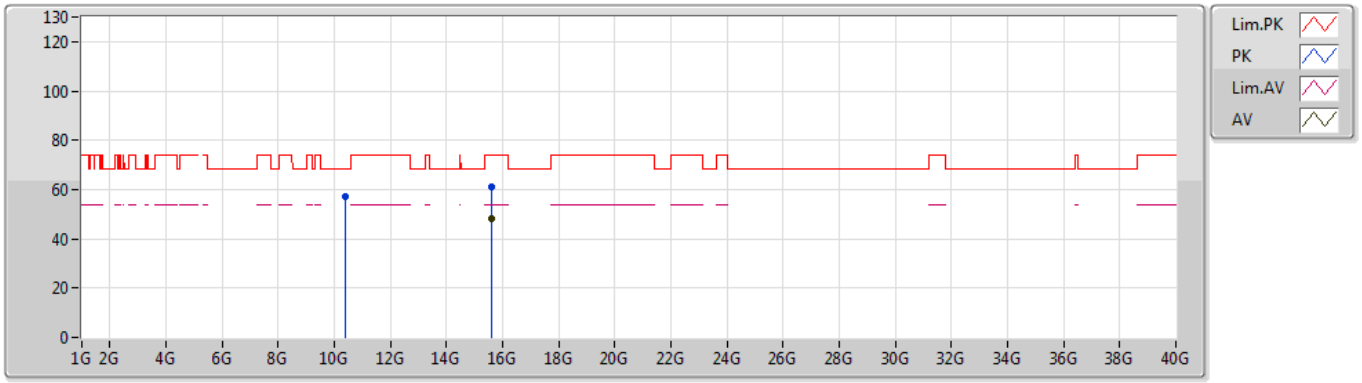
EUT Y_2TX
Setting 28
01-W-3
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.39676G	55.16	68.20	-13.04	10.91	3	Vertical	210	2.41	-
PK	15.60918G	61.24	74.00	-12.76	14.37	3	Vertical	124	1.76	-
AV	15.5976G	47.81	54.00	-6.19	14.39	3	Vertical	124	1.76	-

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

26/06/2019



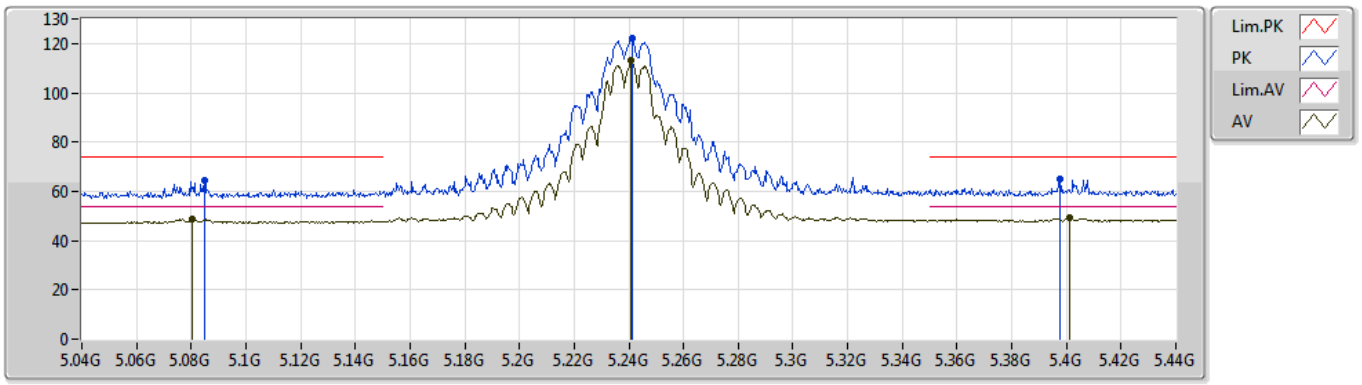
EUT Y_2TX
Setting 28
01-W-3
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.40162G	57.05	68.20	-11.15	10.91	3	Horizontal	168	2.14	-
PK	15.60354G	61.17	74.00	-12.83	14.38	3	Horizontal	86	2.99	-
AV	15.60276G	48.41	54.00	-5.59	14.38	3	Horizontal	86	2.99	-

802.11a_Nss1,(6Mbps)_2TX

27/06/2019

5240MHz_TX



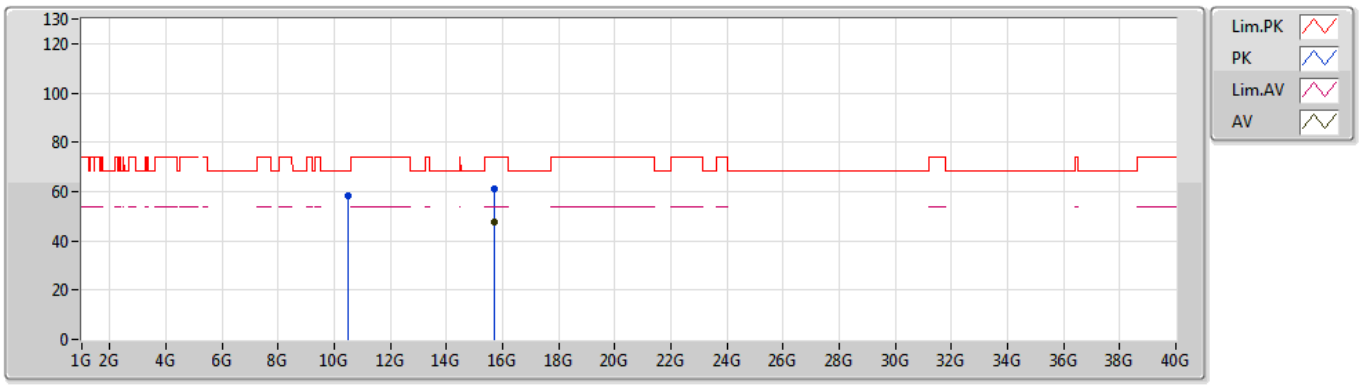
EUT Y_2TX
Setting 28
04-W-3-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.0848G	64.35	74.00	-9.65	7.28	3	Vertical	51	1.56	-
AV	5.0804G	48.79	54.00	-5.21	7.28	3	Vertical	51	1.56	-
PK	5.2412G	122.33	Inf	-Inf	7.52	3	Vertical	51	1.56	-
AV	5.2408G	112.91	Inf	-Inf	7.52	3	Vertical	51	1.56	-
PK	5.3976G	65.02	74.00	-8.98	8.16	3	Vertical	51	1.56	-
AV	5.4012G	49.55	54.00	-4.45	8.17	3	Vertical	51	1.56	-

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

27/06/2019



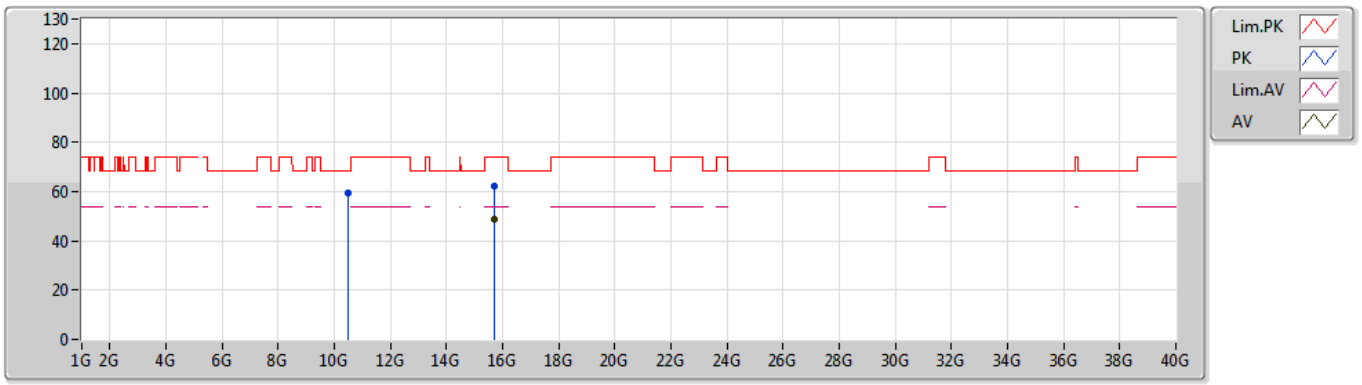
EUT Y_2TX
Setting 28
04-W-3
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.48432G	58.17	68.20	-10.03	15.09	3	Vertical	173	1.60	-
PK	15.72681G	61.11	74.00	-12.89	15.38	3	Vertical	125	1.49	-
AV	15.72258G	47.81	54.00	-6.19	15.38	3	Vertical	125	1.49	-

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

27/06/2019



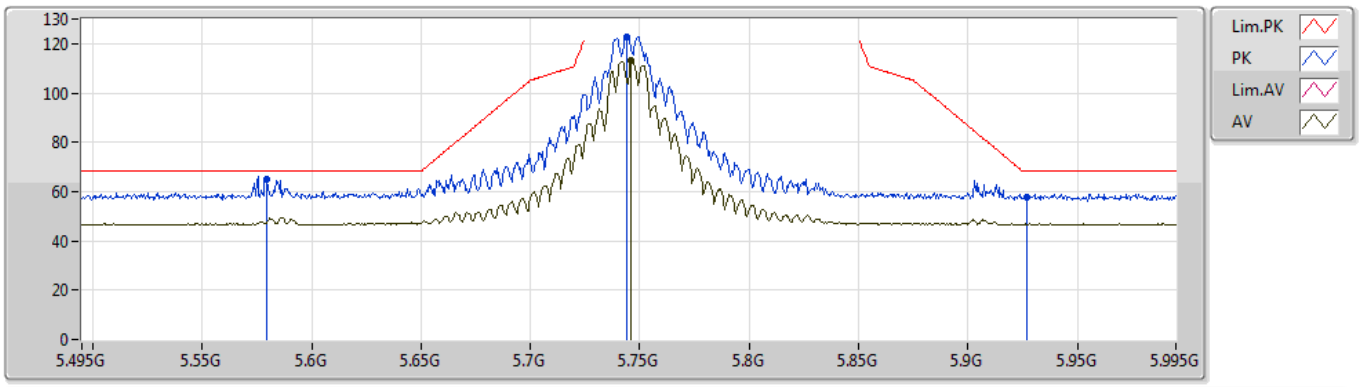
EUT Y_2TX
Setting 28
04-W-3
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.48519G	59.51	68.20	-8.69	15.09	3	Horizontal	69	1.01	-
PK	15.70808G	62.26	74.00	-11.74	15.39	3	Horizontal	111	1.50	-
AV	15.72268G	49.03	54.00	-4.97	15.38	3	Horizontal	111	1.50	-

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

01/07/2019



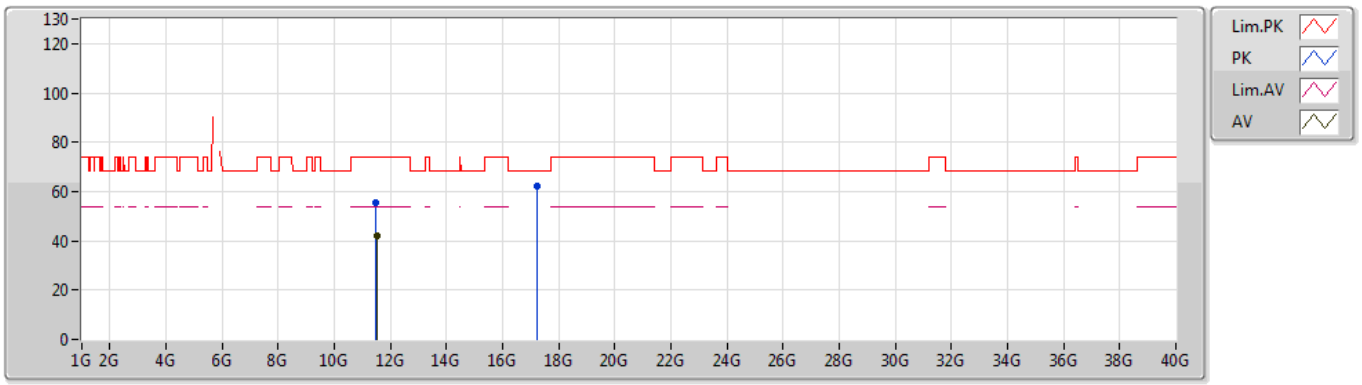
EUT Y_2TX
Setting 2C
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.5795G	65.26	68.20	-2.94	5.20	3	Vertical	2	1.60	-
PK	5.744G	122.70	Inf	-Inf	4.97	3	Vertical	2	1.60	-
AV	5.746G	113.25	Inf	-Inf	5.86	3	Vertical	2	1.60	-
PK	5.927G	57.95	68.20	-10.25	5.23	3	Vertical	2	1.60	-

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

01/07/2019



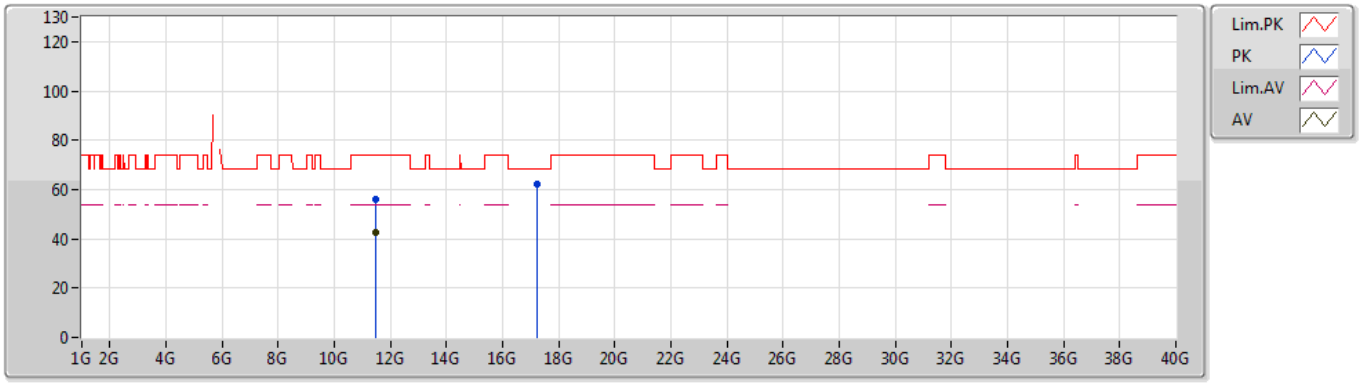
EUT Y_2TX
Setting 2C
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.48598G	55.50	74.00	-18.50	13.00	3	Vertical	17	2.87	-
AV	11.50473G	42.09	54.00	-11.91	13.00	3	Vertical	17	2.87	-
PK	17.24334G	61.92	68.20	-6.28	17.37	3	Vertical	0	1.05	-

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

01/07/2019



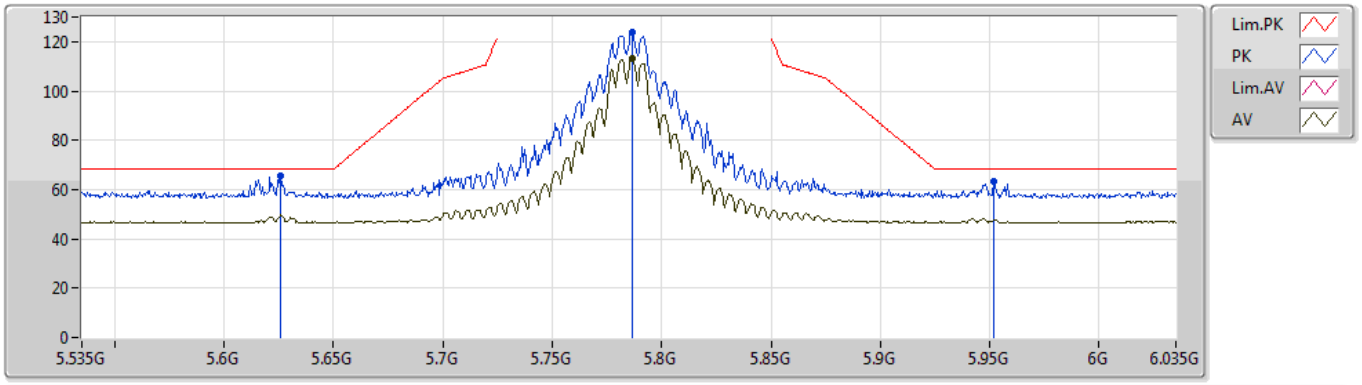
EUT Y_2TX
Setting 2C
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.48616G	55.76	74.00	-18.24	13.00	3	Horizontal	319	1.50	-
AV	11.4933G	42.51	54.00	-11.49	13.01	3	Horizontal	319	1.50	-
PK	17.24364G	62.24	68.20	-5.96	17.37	3	Horizontal	142	1.76	-

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

01/07/2019



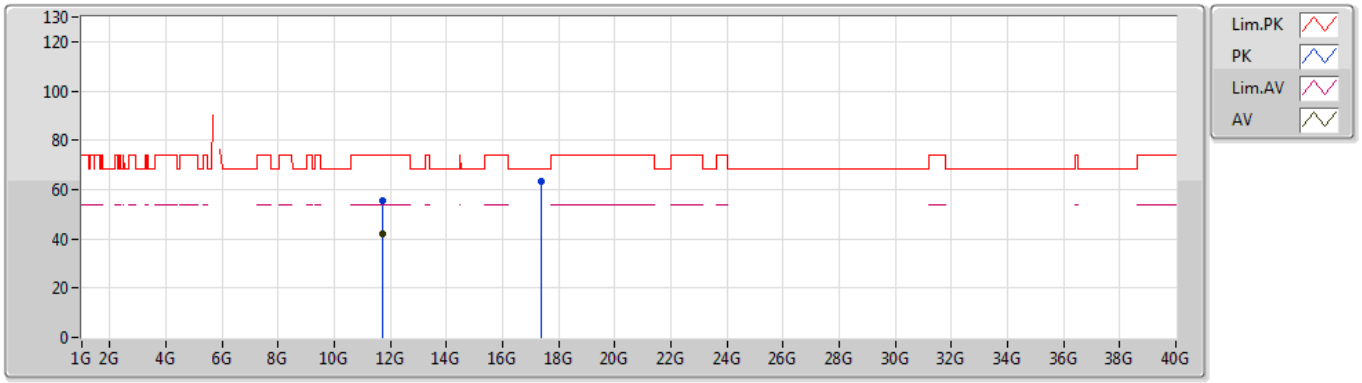
EUT Y_2TX
Setting 2C
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.6255G	65.67	68.20	-2.53	6.11	3	Vertical	3	1.67	-
PK	5.7865G	123.56	Inf	-Inf	5.80	3	Vertical	3	1.67	-
AV	5.7865G	113.28	Inf	-Inf	5.80	3	Vertical	3	1.67	-
PK	5.9515G	63.09	68.20	-5.11	6.23	3	Vertical	3	1.67	-

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

01/07/2019



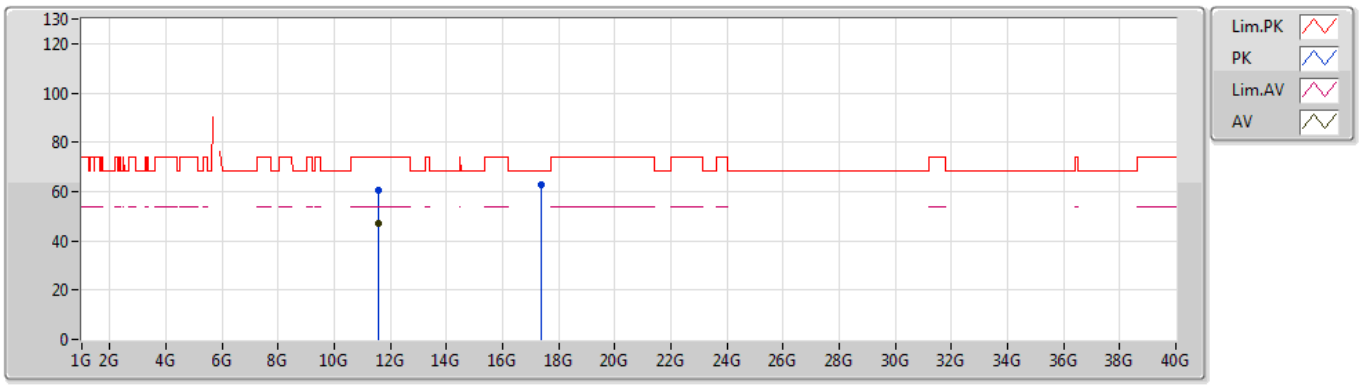
EUT Y_2TX
Setting 2C
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.7335G	55.52	74.00	-18.48	13.12	3	Vertical	205	1.50	-
AV	11.7285G	42.14	54.00	-11.86	13.12	3	Vertical	205	1.50	-
PK	17.36421G	63.54	68.20	-4.66	18.00	3	Vertical	167	1.96	-

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

01/07/2019



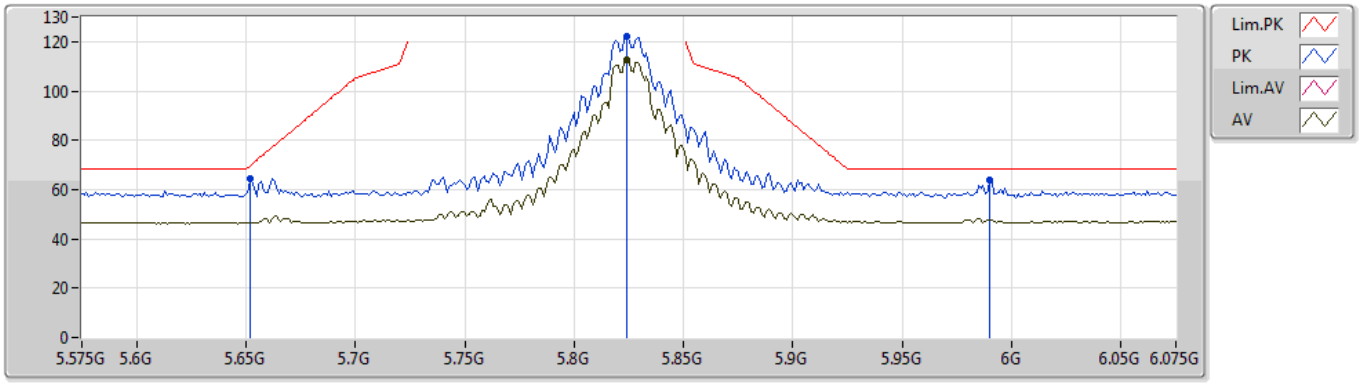
EUT Y_2TX
Setting 2C
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.57027G	60.35	74.00	-13.65	13.04	3	Horizontal	317	1.99	-
AV	11.57129G	46.92	54.00	-7.08	13.04	3	Horizontal	317	1.99	-
PK	17.35482G	62.96	68.20	-5.24	17.95	3	Horizontal	218	1.74	-

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

01/07/2019



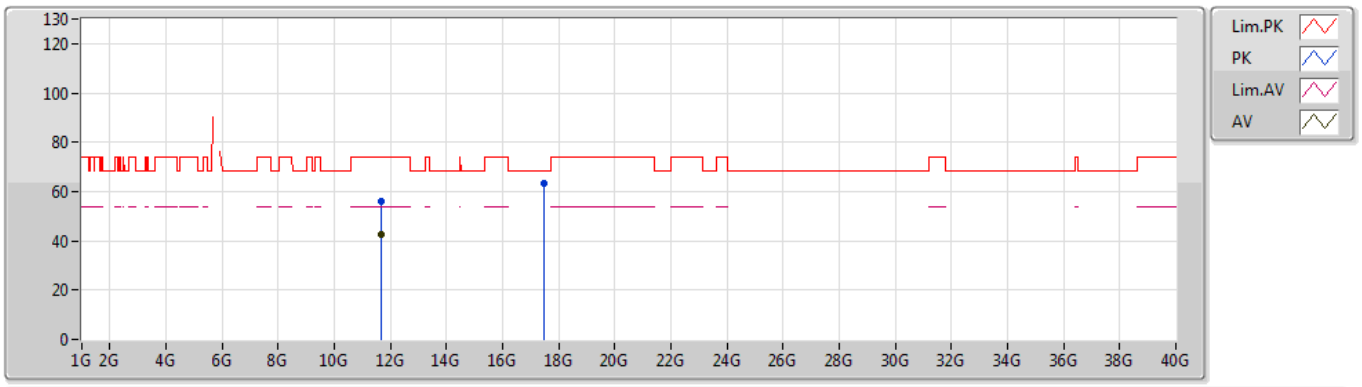
EUT Y_2TX
Setting 2C
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.652G	64.52	69.68	-5.16	6.04	3	Vertical	3	1.50	-
PK	5.824G	121.93	Inf	-Inf	5.85	3	Vertical	3	1.50	-
AV	5.824G	112.86	Inf	-Inf	5.85	3	Vertical	3	1.50	-
PK	5.99G	63.77	68.20	-4.43	6.38	3	Vertical	3	1.50	-

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

01/07/2019



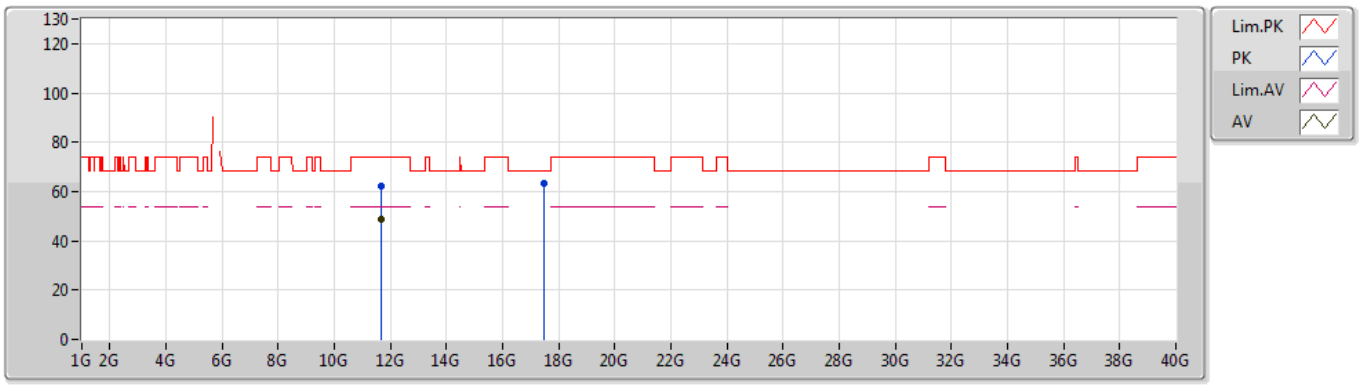
EUT Y_2TX
Setting 2C
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.64946G	56.07	74.00	-17.93	13.08	3	Vertical	173	1.50	-
AV	11.65366G	42.52	54.00	-11.48	13.09	3	Vertical	173	1.50	-
PK	17.4609G	63.21	68.20	-4.99	18.49	3	Vertical	172	2.37	-

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

01/07/2019



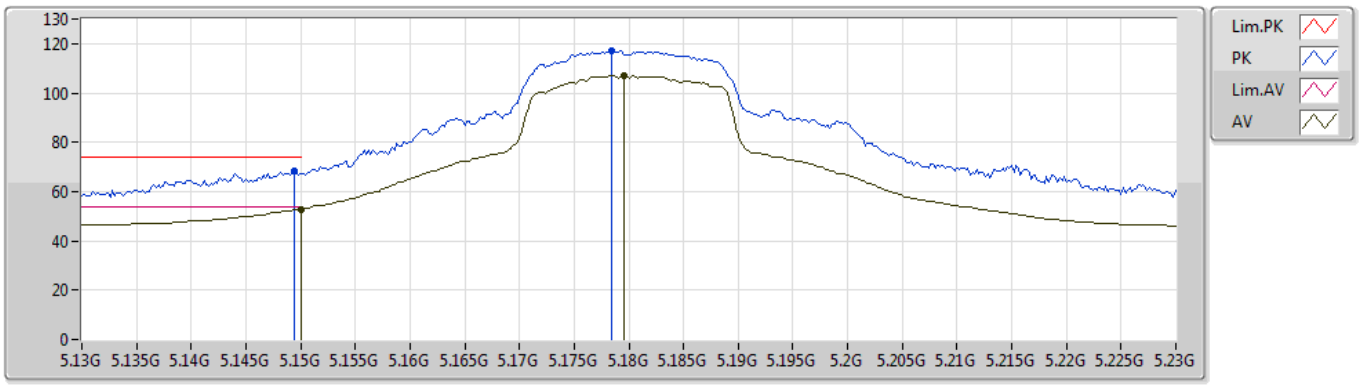
EUT Y_2TX
Setting 2C
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.6485G	62.31	74.00	-11.69	13.08	3	Horizontal	318	1.97	-
AV	11.64814G	48.48	54.00	-5.52	13.08	3	Horizontal	318	1.97	-
PK	17.47218G	63.37	68.20	-4.83	18.55	3	Horizontal	227	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

28/06/2019

5180MHz_TX



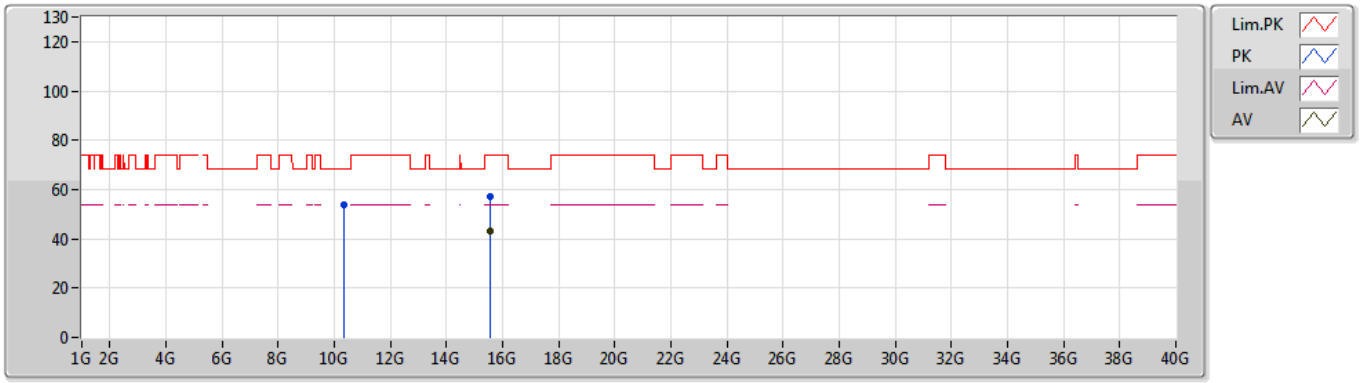
EUT Y_2TX
Setting 35
02-G-2-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.1494G	68.32	74.00	-5.68	7.94	3	Vertical	343	1.50	-
AV	5.15G	52.93	54.00	-1.07	7.94	3	Vertical	343	1.50	-
PK	5.1784G	117.03	Inf	-Inf	8.02	3	Vertical	343	1.50	-
AV	5.1796G	106.91	Inf	-Inf	8.02	3	Vertical	343	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5180MHz_TX

01/07/2019



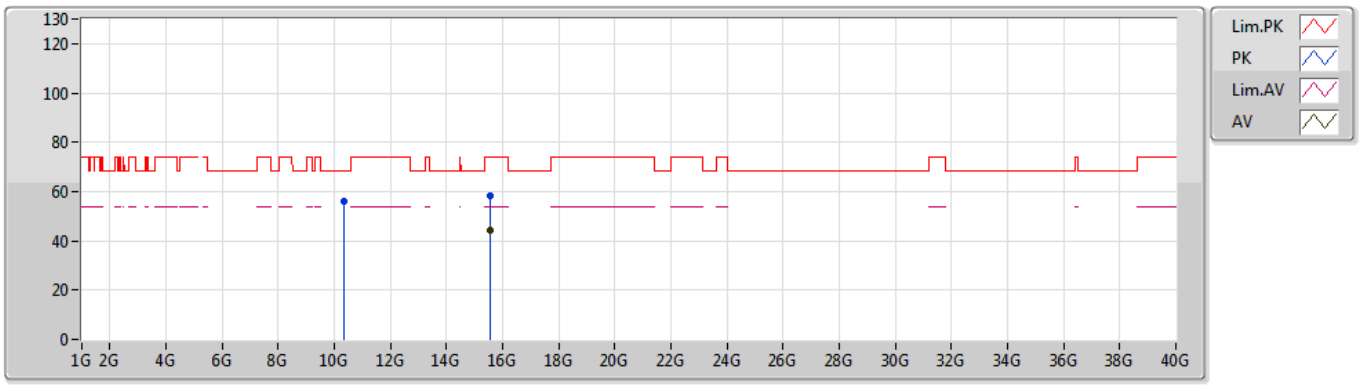
EUT Y_2TX
Setting 35
04-W-3
FSP(100019)
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.36372G	53.68	68.20	-14.52	10.67	3	Vertical	193	2.59	-
PK	15.534G	56.95	74.00	-17.05	10.80	3	Vertical	124	1.66	-
AV	15.54744G	43.11	54.00	-10.89	10.79	3	Vertical	124	1.66	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5180MHz_TX

01/07/2019



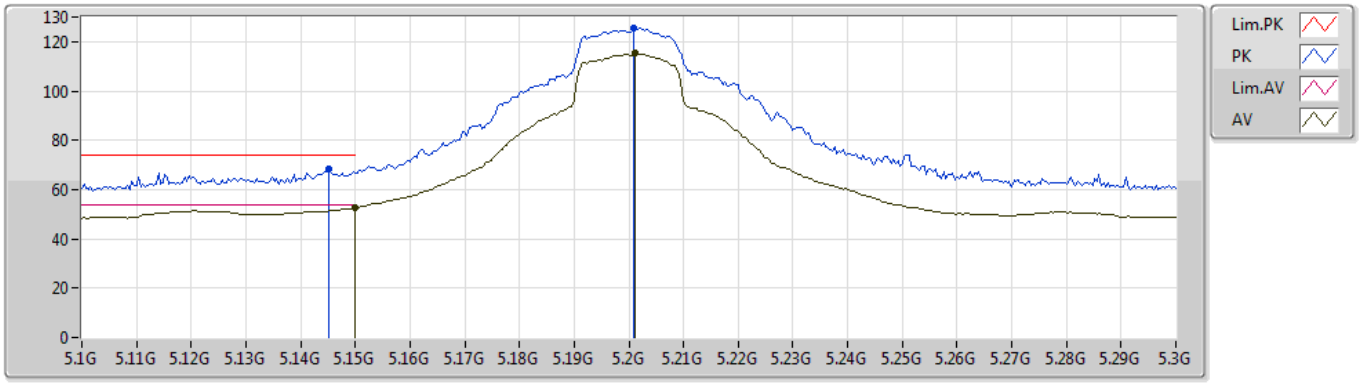
EUT Y_2TX
Setting 35
04-W-3
FSP(100019)
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.35874G	55.82	68.20	-12.38	10.67	3	Horizontal	168	2.07	-
PK	15.5408G	58.22	74.00	-15.78	10.80	3	Horizontal	217	2.86	-
AV	15.53408G	44.04	54.00	-9.96	10.80	3	Horizontal	217	2.86	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5200MHz_TX

02/07/2019



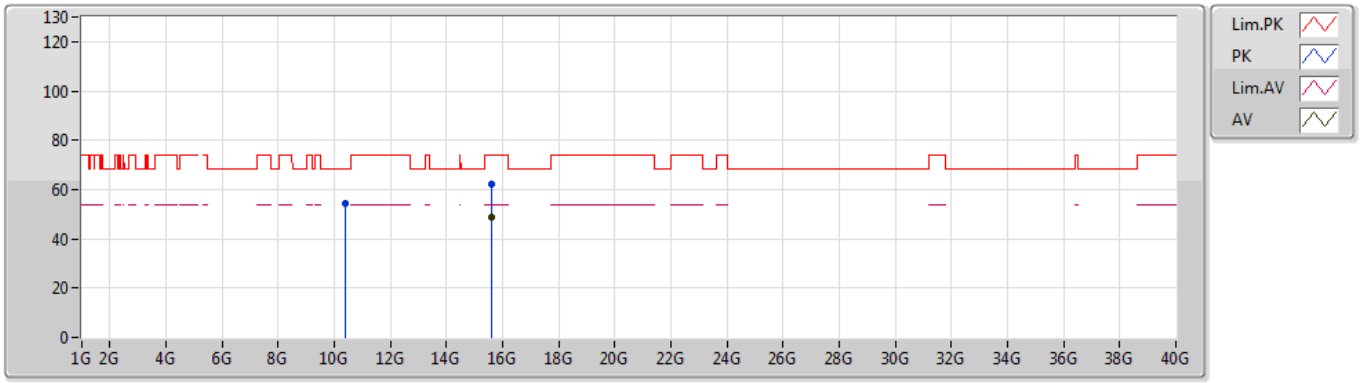
EUT Y_2TX
Setting 41
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.1452G	68.44	74.00	-5.56	5.50	3	Vertical	337	1.76	-
AV	5.15G	52.45	54.00	-1.55	5.50	3	Vertical	337	1.76	-
PK	5.2008G	125.33	Inf	-Inf	5.64	3	Vertical	337	1.76	-
AV	5.2012G	115.26	Inf	-Inf	5.64	3	Vertical	337	1.76	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5200MHz_TX

26/06/2019



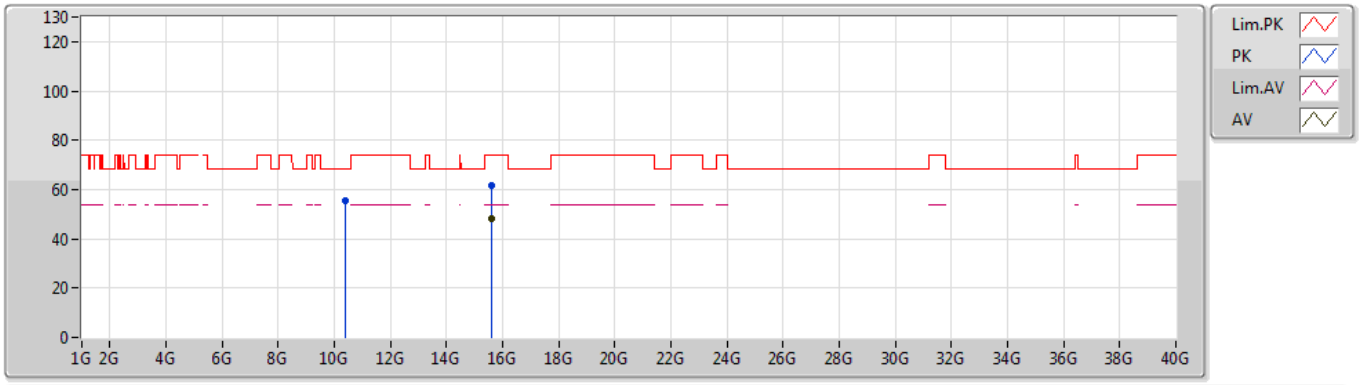
EUT Y_2TX
Setting 41
01-W-3
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.40248G	54.43	68.20	-13.77	10.91	3	Vertical	207	1.50	-
PK	15.59792G	62.17	74.00	-11.83	14.39	3	Vertical	165	2.74	-
AV	15.6004G	48.78	54.00	-5.22	14.39	3	Vertical	165	2.74	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5200MHz_TX

26/06/2019



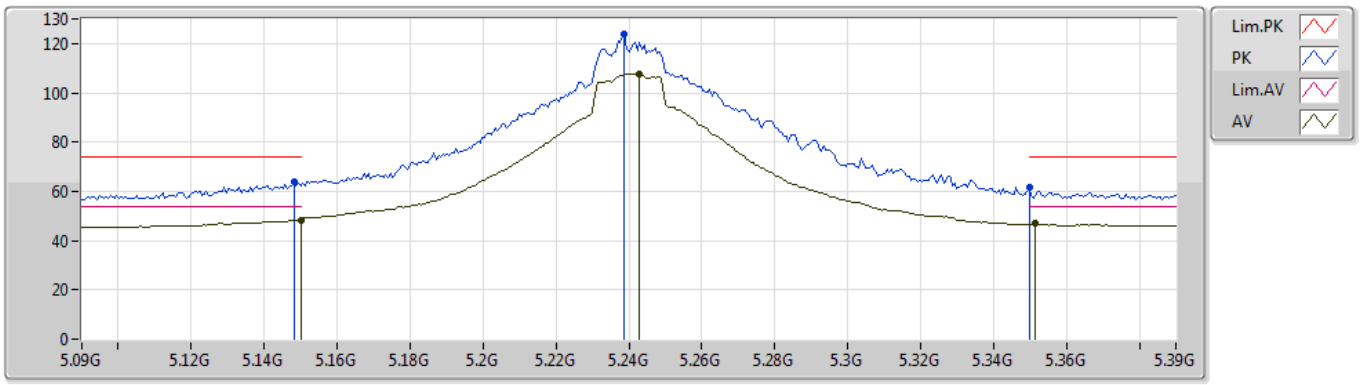
EUT Y_2TX
Setting 41
01-W-3
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.39144G	55.24	68.20	-12.96	10.89	3	Horizontal	168	2.40	-
PK	15.58984G	61.90	74.00	-12.10	14.40	3	Horizontal	91	1.50	-
AV	15.58776G	48.40	54.00	-5.60	14.40	3	Horizontal	91	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5240MHz_TX

02/07/2019



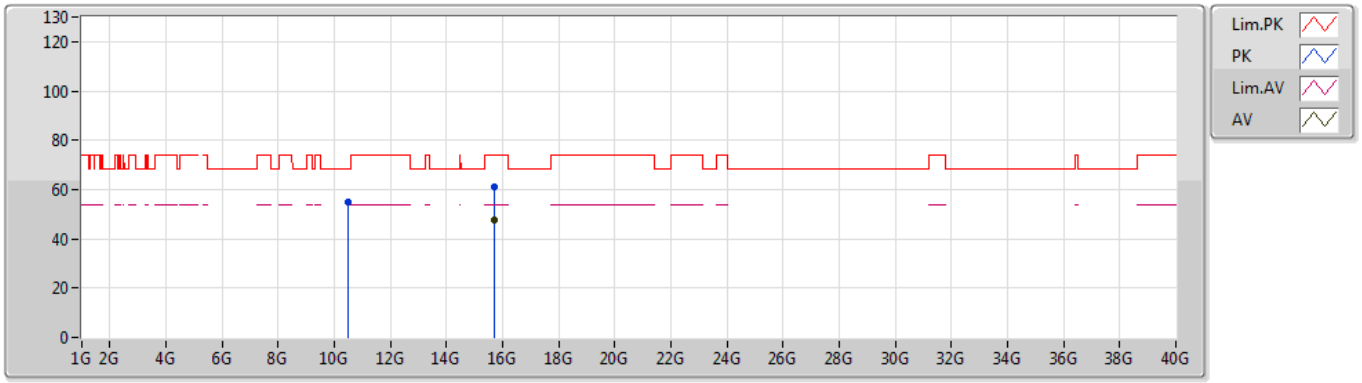
EUT Y_2TX
Setting 45
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.1482G	63.63	74.00	-10.37	5.50	3	Vertical	340	1.50	-
AV	5.15G	48.42	54.00	-5.58	5.50	3	Vertical	340	1.50	-
PK	5.2388G	123.72	Inf	-Inf	5.70	3	Vertical	340	1.50	-
AV	5.243G	107.74	Inf	-Inf	5.71	3	Vertical	340	1.50	-
PK	5.35G	61.77	74.00	-12.23	5.81	3	Vertical	340	1.50	-
AV	5.3516G	46.82	54.00	-7.18	5.81	3	Vertical	340	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5240MHz_TX

02/07/2019



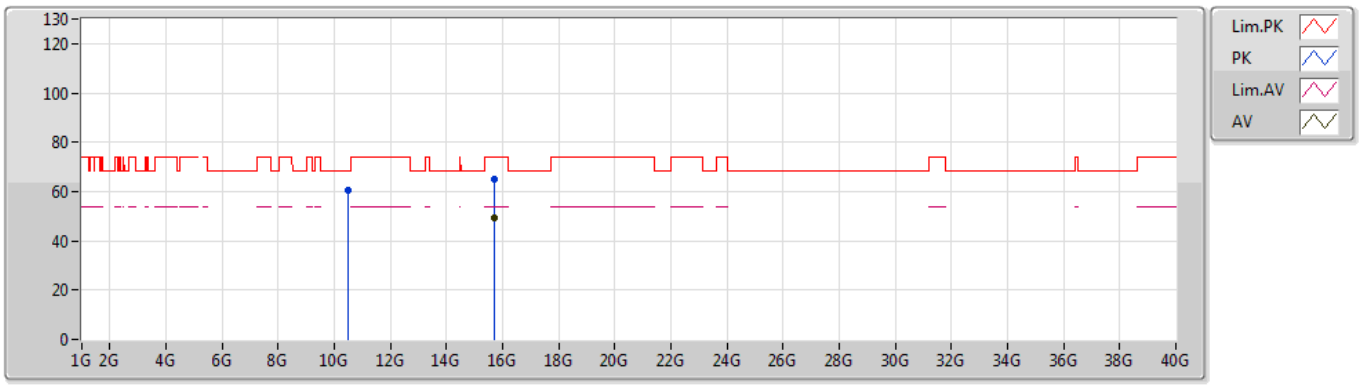
EUT Y_2TX
Setting 45
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.47406G	54.77	68.20	-13.43	12.28	3	Vertical	227	1.49	-
PK	15.72156G	60.91	74.00	-13.09	13.75	3	Vertical	166	2.80	-
AV	15.72312G	47.35	54.00	-6.65	13.74	3	Vertical	166	2.80	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5240MHz_TX

02/07/2019



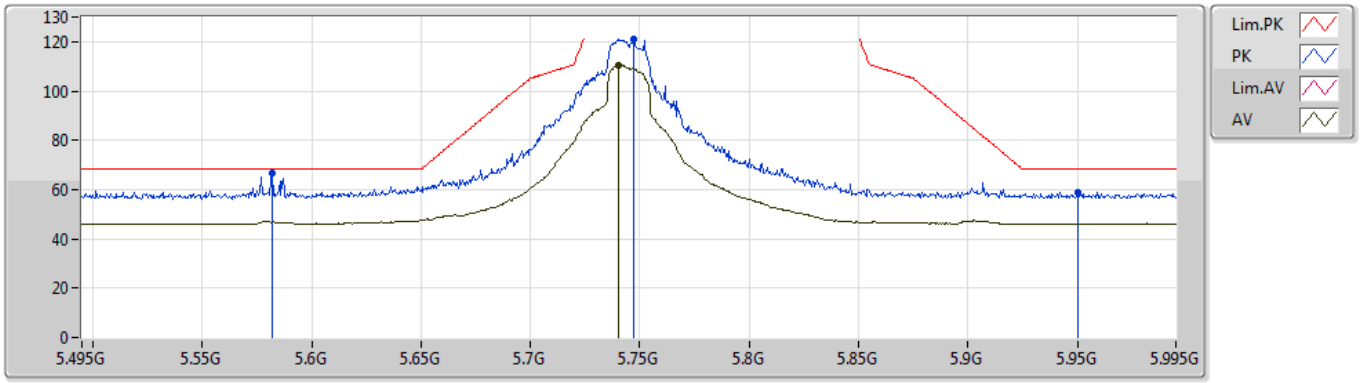
EUT Y_2TX
Setting 45
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.47784G	60.35	68.20	-7.85	12.29	3	Horizontal	318	2.08	-
PK	15.71964G	65.02	74.00	-8.98	13.75	3	Horizontal	116	1.55	-
AV	15.72066G	49.31	54.00	-4.69	13.75	3	Horizontal	116	1.55	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

02/07/2019



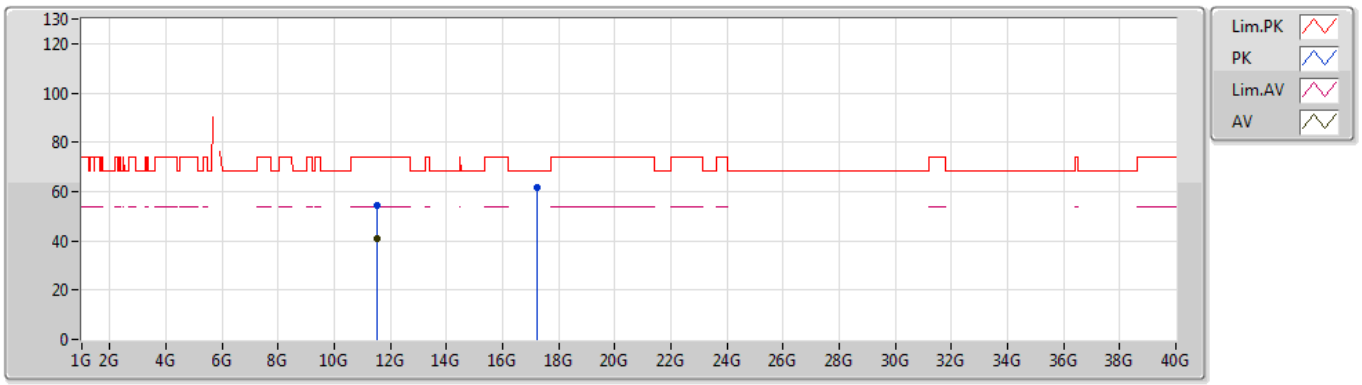
EUT Y_2TX
Setting 45
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.582G	66.43	68.20	-1.77	6.16	3	Vertical	317	1.50	-
PK	5.7475G	121.30	Inf	-Inf	5.86	3	Vertical	317	1.50	-
AV	5.7405G	110.37	Inf	-Inf	5.87	3	Vertical	317	1.50	-
PK	5.9505G	58.89	68.20	-9.31	6.23	3	Vertical	317	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

02/07/2019



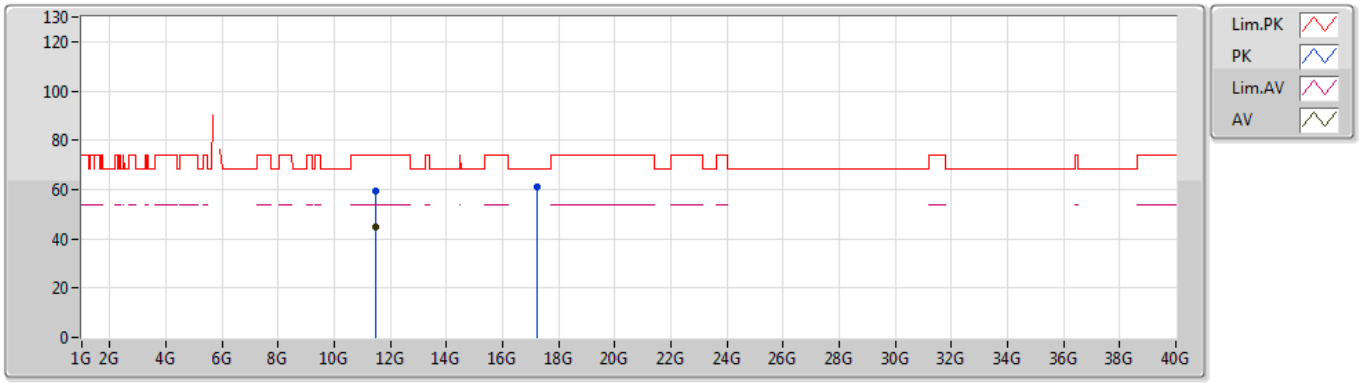
EUT Y_2TX
Setting 45
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.50017G	54.33	74.00	-19.67	13.00	3	Vertical	42	1.37	-
AV	11.50359G	41.14	54.00	-12.86	13.00	3	Vertical	42	1.37	-
PK	17.24307G	61.53	68.20	-6.67	17.37	3	Vertical	169	1.33	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

02/07/2019



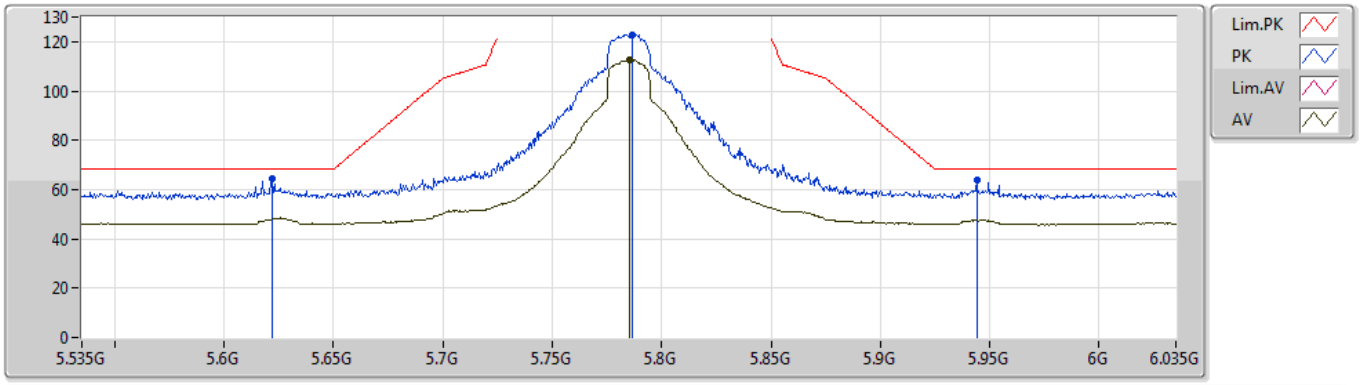
EUT Y_2TX
Setting 45
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.49123G	59.52	74.00	-14.48	13.00	3	Horizontal	316	2.01	-
AV	11.48463G	44.66	54.00	-9.34	13.00	3	Horizontal	316	2.01	-
PK	17.24475G	61.29	68.20	-6.91	17.38	3	Horizontal	126	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

02/07/2019



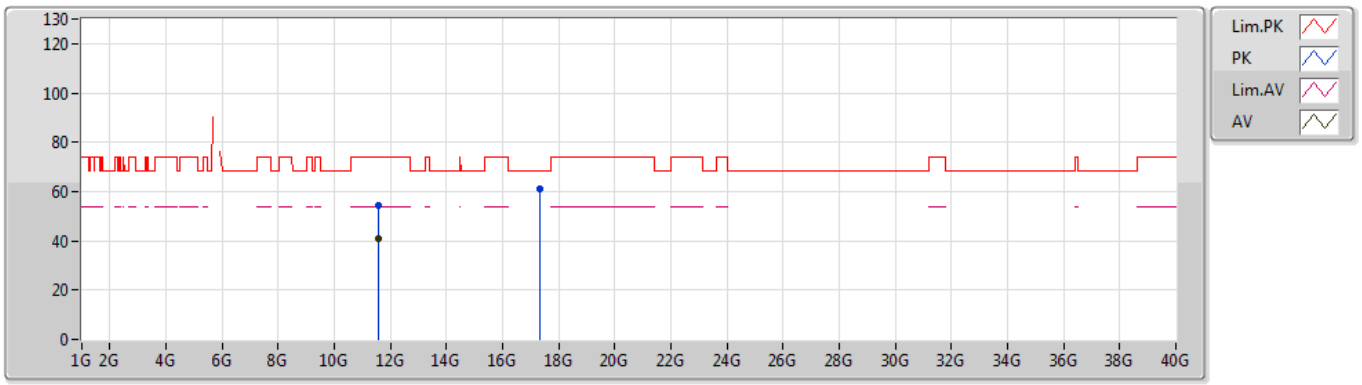
EUT Y_2TX
Setting 45
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.622G	64.42	68.20	-3.78	6.12	3	Vertical	5	1.50	-
PK	5.7865G	122.91	Inf	-Inf	5.80	3	Vertical	5	1.50	-
AV	5.7855G	112.76	Inf	-Inf	5.80	3	Vertical	5	1.50	-
PK	5.944G	63.93	68.20	-4.27	6.22	3	Vertical	5	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

02/07/2019



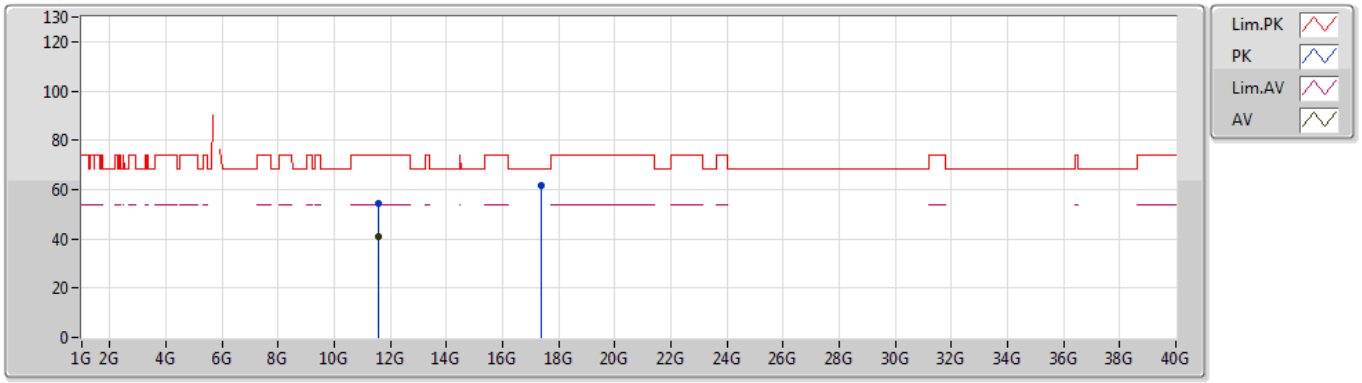
EUT Y_2TX
Setting 45
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.57669G	54.39	74.00	-19.61	13.04	3	Vertical	16	1.43	-
AV	11.56034G	40.80	54.00	-13.20	13.03	3	Vertical	16	1.43	-
PK	17.34654G	61.26	68.20	-6.94	17.91	3	Vertical	50	2.88	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

02/07/2019



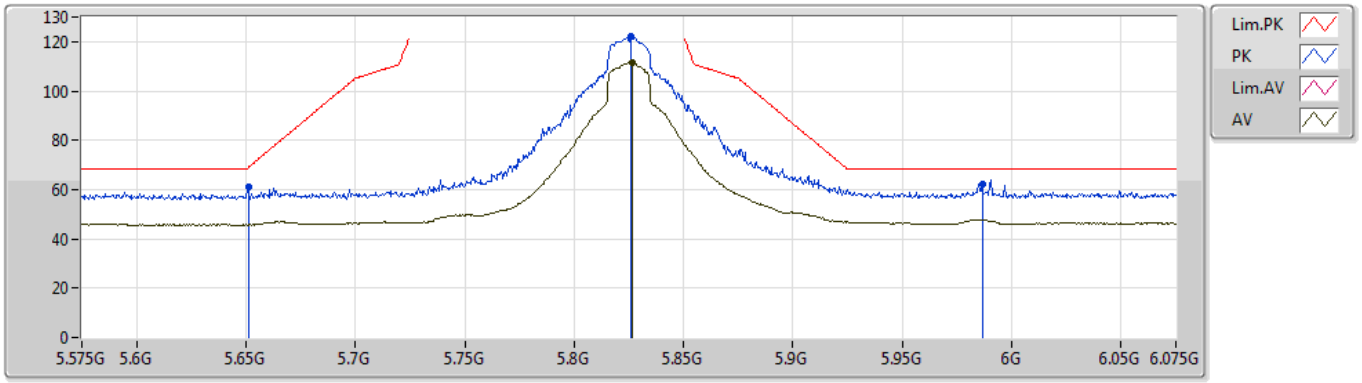
EUT Y_2TX
Setting 45
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.55533G	54.53	74.00	-19.47	13.03	3	Horizontal	35	1.50	-
AV	11.57471G	40.71	54.00	-13.29	13.04	3	Horizontal	35	1.50	-
PK	17.35341G	61.58	68.20	-6.62	17.94	3	Horizontal	0	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

02/07/2019



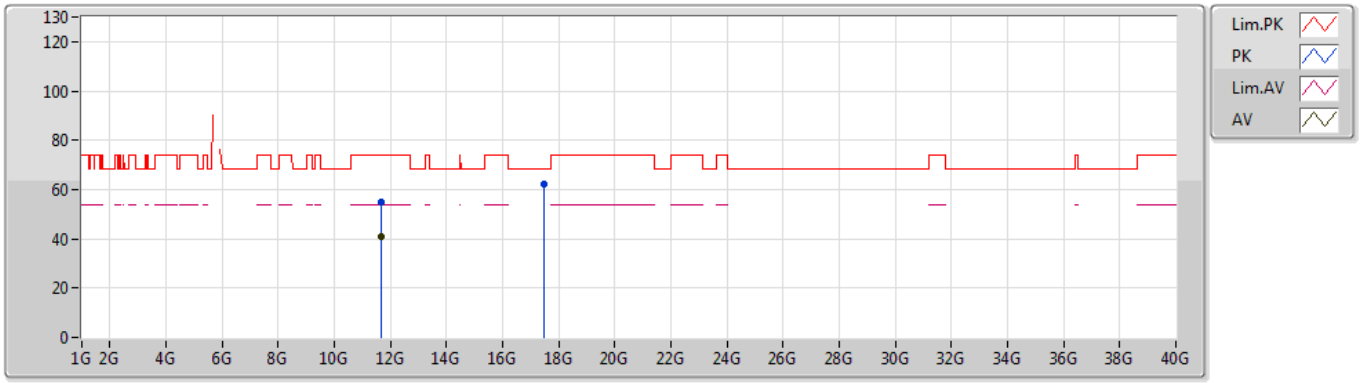
EUT Y_2TX
Setting 45
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.651G	60.99	68.94	-7.95	6.04	3	Vertical	329	2.38	-
PK	5.826G	121.92	Inf	-Inf	5.85	3	Vertical	329	2.38	-
AV	5.8265G	111.62	Inf	-Inf	5.85	3	Vertical	329	2.38	-
PK	5.9865G	62.41	68.20	-5.79	6.37	3	Vertical	329	2.38	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

02/07/2019



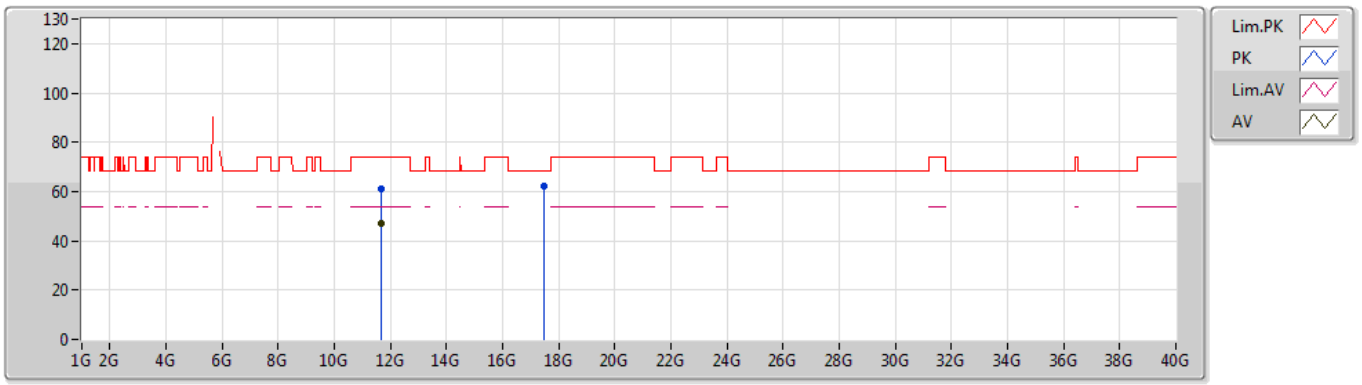
EUT Y_2TX
Setting 45
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.66113G	54.66	74.00	-19.34	13.08	3	Vertical	167	1.50	-
AV	11.65093G	41.07	54.00	-12.93	13.09	3	Vertical	167	1.50	-
PK	17.48727G	62.08	68.20	-6.12	18.63	3	Vertical	77	1.50	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

02/07/2019



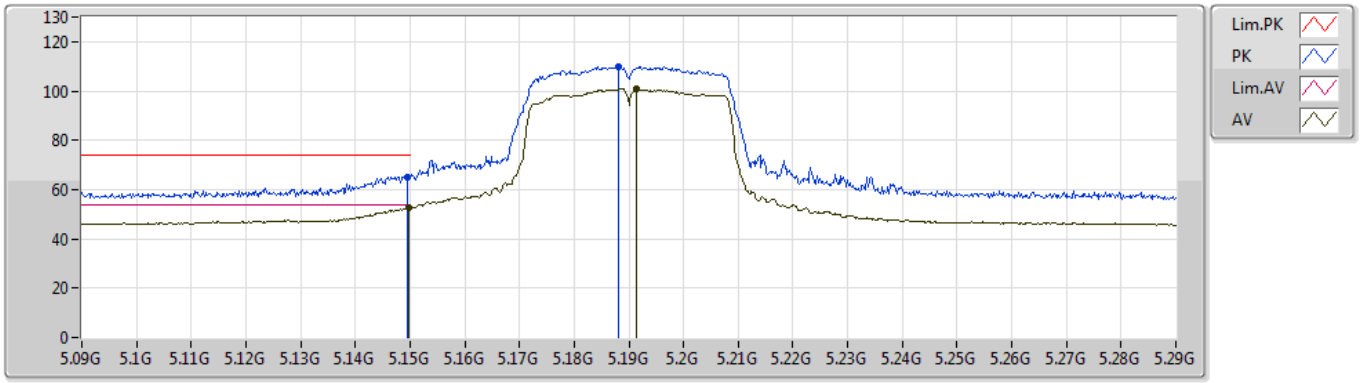
EUT Y_2TX
Setting 45
03-C-5
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.64781G	61.17	74.00	-12.83	13.08	3	Horizontal	319	1.98	-
AV	11.6527G	47.09	54.00	-6.91	13.09	3	Horizontal	319	1.98	-
PK	17.46354G	62.37	68.20	-5.83	18.50	3	Horizontal	168	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

28/06/2019

5190MHz_TX



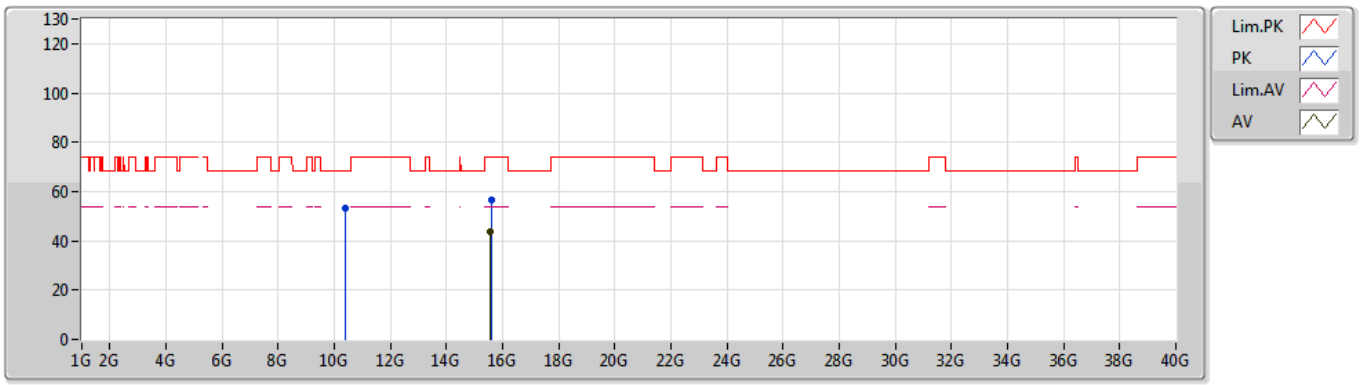
EUT Y_2TX
Setting 30
02-G-2-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.1494G	65.16	74.00	-8.84	7.94	3	Vertical	25	1.50	-
AV	5.1498G	52.71	54.00	-1.29	7.94	3	Vertical	25	1.50	-
PK	5.1882G	109.90	Inf	-Inf	8.04	3	Vertical	25	1.50	-
AV	5.1914G	100.83	Inf	-Inf	8.04	3	Vertical	25	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5190MHz_TX

01/07/2019



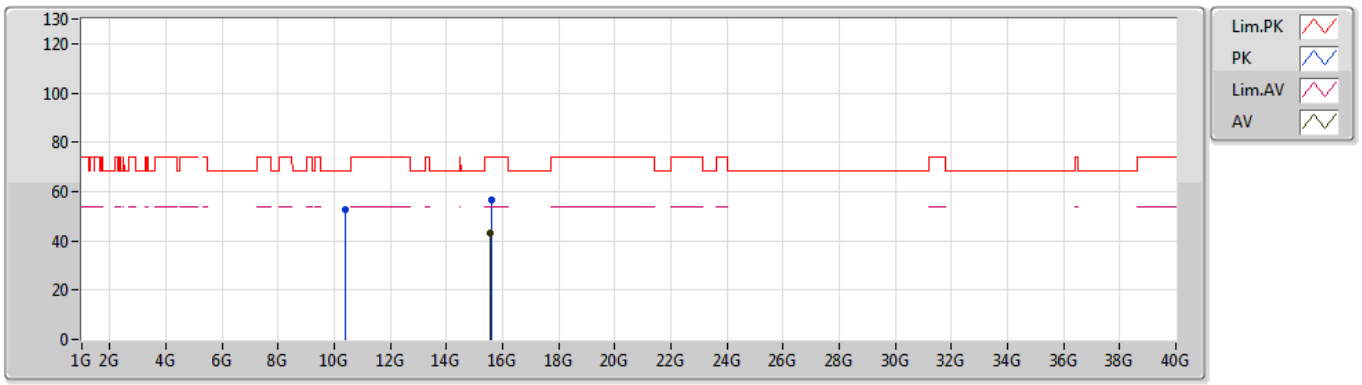
EUT Y_2TX
Setting 30
04-W-3
FSP(100019)
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.38565G	53.06	68.20	-15.14	10.68	3	Vertical	285	1.34	-
PK	15.5923G	56.58	74.00	-17.42	10.76	3	Vertical	25	1.00	-
AV	15.5802G	43.71	54.00	-10.29	10.76	3	Vertical	25	1.00	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5190MHz_TX

01/07/2019



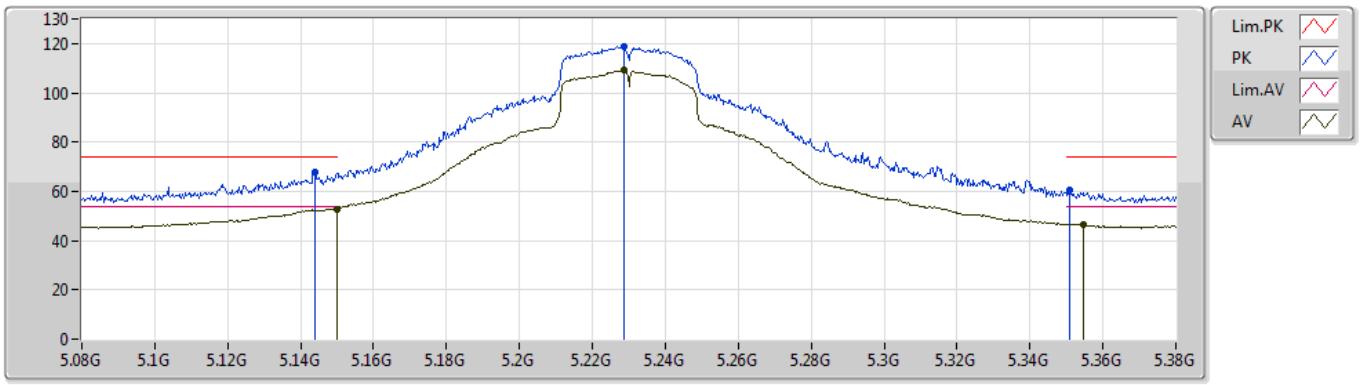
EUT Y_2TX
Setting 30
04-W-3
FSP(100019)
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.4G	52.58	68.20	-15.62	10.68	3	Horizontal	154	1.96	-
PK	15.5883G	56.85	74.00	-17.15	10.76	3	Horizontal	338	2.56	-
AV	15.56675G	43.41	54.00	-10.59	10.77	3	Horizontal	338	2.56	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5230MHz_TX

02/07/2019



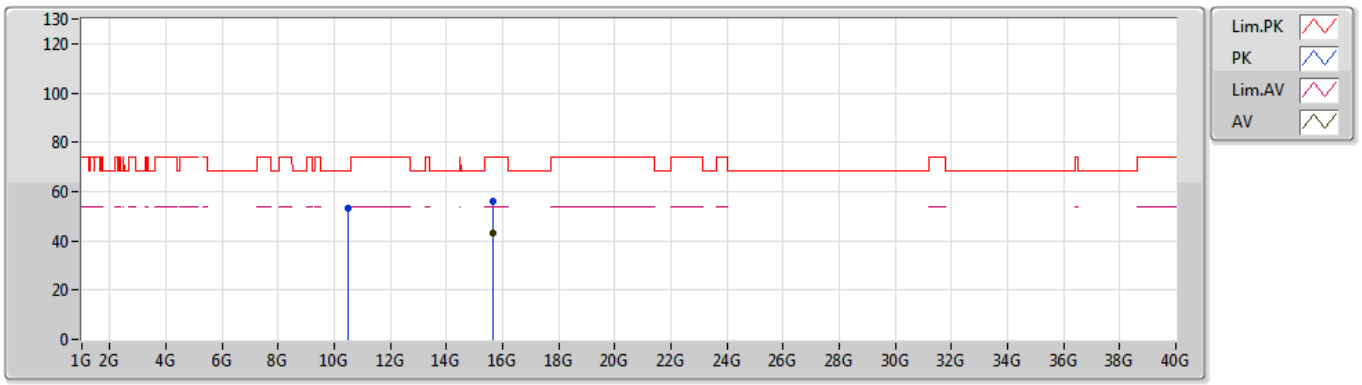
EUT Y_2TX
Setting 42
03-C-5-10
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.1439G	67.77	74.00	-6.23	5.48	3	Vertical	17	1.41	-
AV	5.1499G	52.79	54.00	-1.21	5.50	3	Vertical	17	1.41	-
PK	5.2285G	118.69	Inf	-Inf	5.69	3	Vertical	17	1.41	-
AV	5.2288G	109.20	Inf	-Inf	5.69	3	Vertical	17	1.41	-
PK	5.3509G	60.31	74.00	-13.69	5.81	3	Vertical	17	1.41	-
AV	5.3548G	46.65	54.00	-7.35	5.81	3	Vertical	17	1.41	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5230MHz_TX

01/07/2019



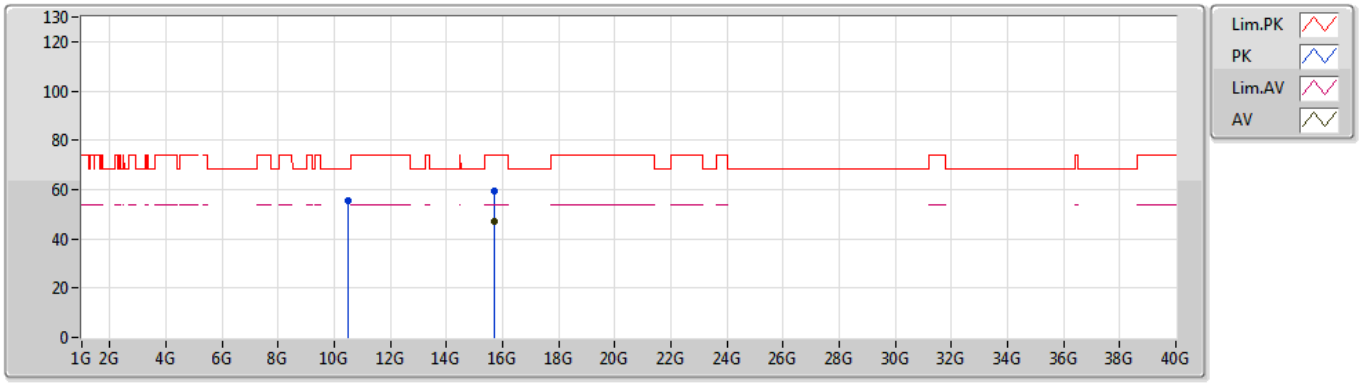
EUT Y_2TX
Setting 42
04-W-3
FSP(100019)
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.4778G	52.97	68.20	-15.23	10.71	3	Vertical	140	1.50	-
PK	15.6779G	56.25	74.00	-17.75	10.67	3	Vertical	180	2.53	-
AV	15.67485G	43.10	54.00	-10.90	10.67	3	Vertical	180	2.53	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5230MHz_TX

01/07/2019



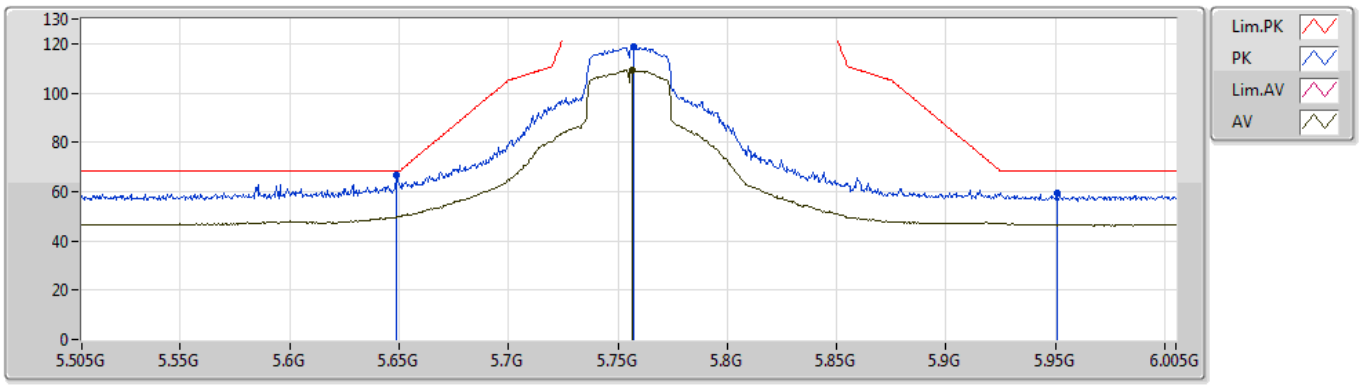
EUT Y_2TX
Setting 42
04-W-3
FSP(100019)
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.4814G	55.28	68.20	-12.92	10.72	3	Horizontal	295	2.12	-
PK	15.683G	59.51	74.00	-14.49	10.66	3	Horizontal	212	2.24	-
AV	15.68805G	47.31	54.00	-6.69	10.66	3	Horizontal	212	2.24	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5755MHz_TX

02/07/2019



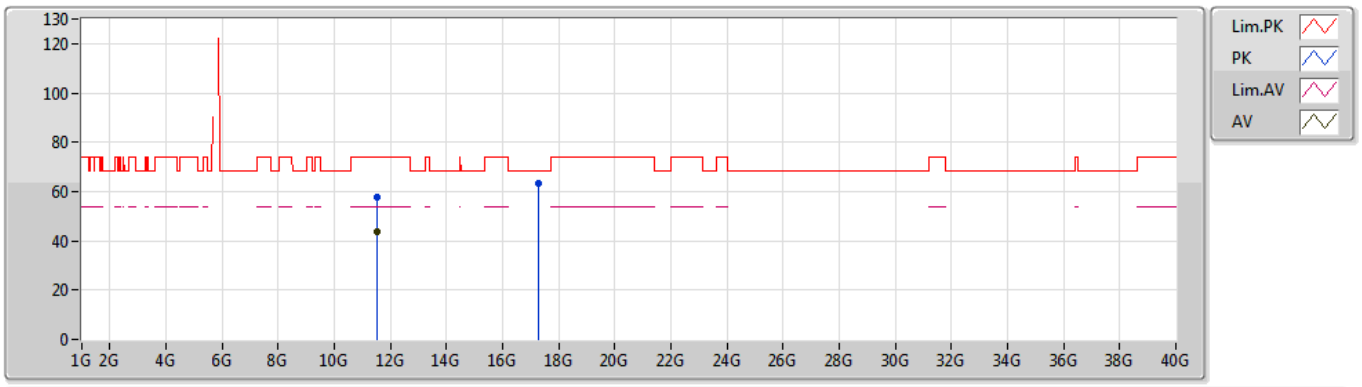
EUT Y_2TX
Setting 41
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.649G	66.91	68.20	-1.29	6.06	3	Vertical	8	1.94	-
PK	5.7575G	118.58	Inf	-Inf	5.85	3	Vertical	8	1.94	-
AV	5.7565G	109.35	Inf	-Inf	5.85	3	Vertical	8	1.94	-
PK	5.9505G	59.39	68.20	-8.81	6.23	3	Vertical	8	1.94	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

27/06/2019

5755MHz_TX



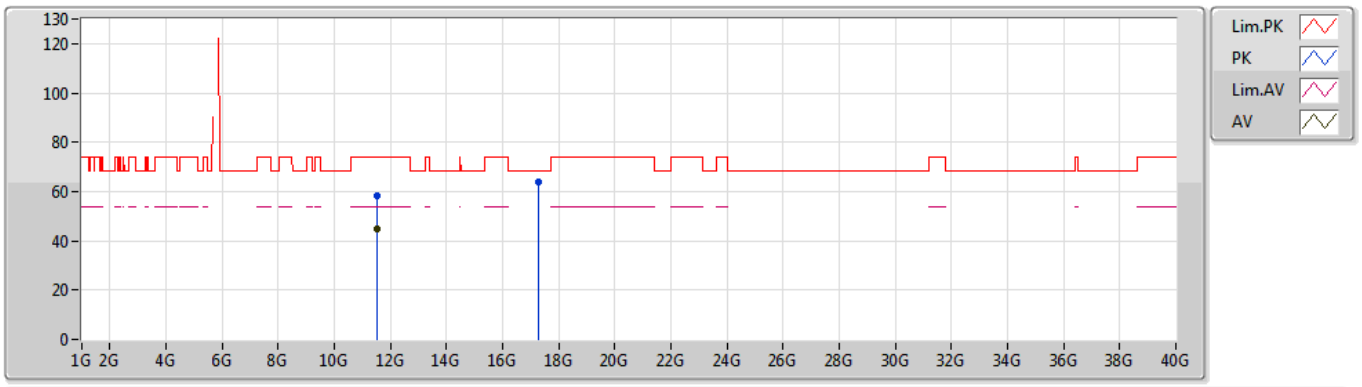
EUT Y_2TX
Setting 41
04-M-1
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.50486G	57.98	74.00	-16.02	15.08	3	Vertical	177	1.43	-
AV	11.50076G	43.93	54.00	-10.07	15.08	3	Vertical	177	1.43	-
PK	17.26082G	63.49	68.20	-4.71	17.84	3	Vertical	323	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

27/06/2019

5755MHz_TX



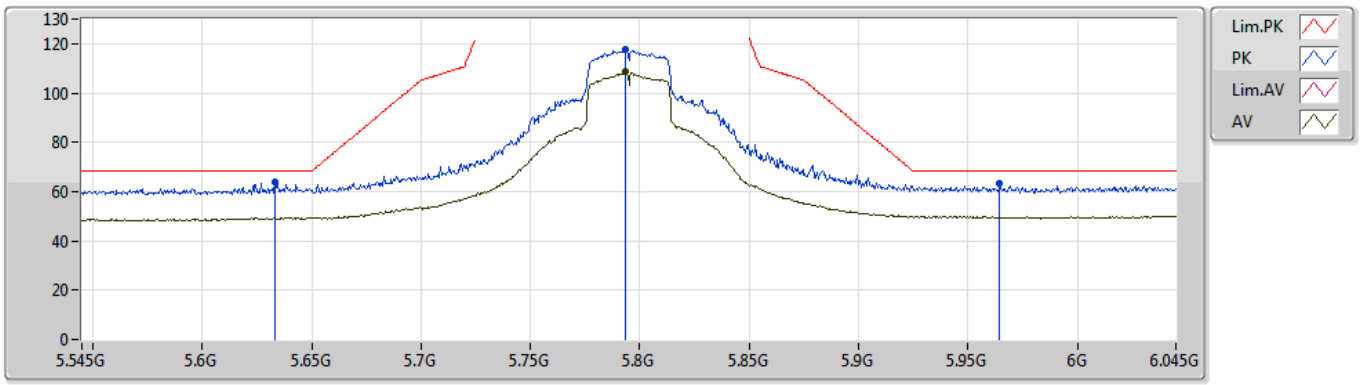
EUT Y_2TX
Setting 41
04-M-1
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.51686G	58.48	74.00	-15.52	15.06	3	Horizontal	319	2.40	-
AV	11.51638G	45.07	54.00	-8.93	15.06	3	Horizontal	319	2.40	-
PK	17.26468G	63.87	68.20	-4.33	17.86	3	Horizontal	55	1.60	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

27/06/2019

5795MHz_TX



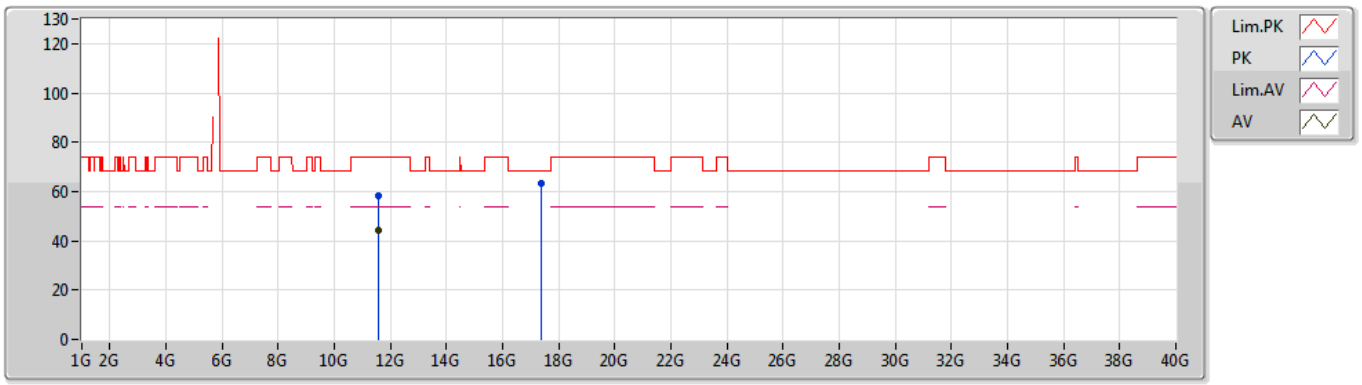
EUT Y_2TX
Setting 41
04-M-1-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.633G	64.14	68.20	-4.06	8.62	3	Vertical	24	1.50	-
PK	5.7935G	117.84	Inf	-Inf	8.67	3	Vertical	24	1.50	-
AV	5.7935G	108.45	Inf	-Inf	8.67	3	Vertical	24	1.50	-
PK	5.9645G	63.48	68.20	-4.72	9.66	3	Vertical	24	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

27/06/2019

5795MHz_TX



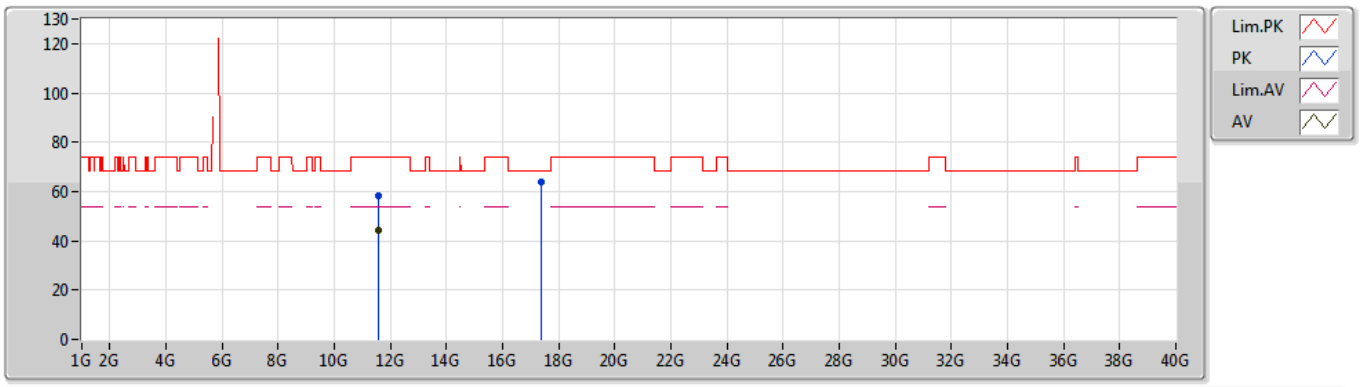
EUT Y_2TX
Setting 41
04-M-1
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.59236G	58.38	74.00	-15.62	15.01	3	Vertical	259	1.01	-
AV	11.59056G	44.27	54.00	-9.73	15.01	3	Vertical	259	1.01	-
PK	17.38605G	63.36	68.20	-4.84	18.02	3	Vertical	296	2.59	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

27/06/2019

5795MHz_TX



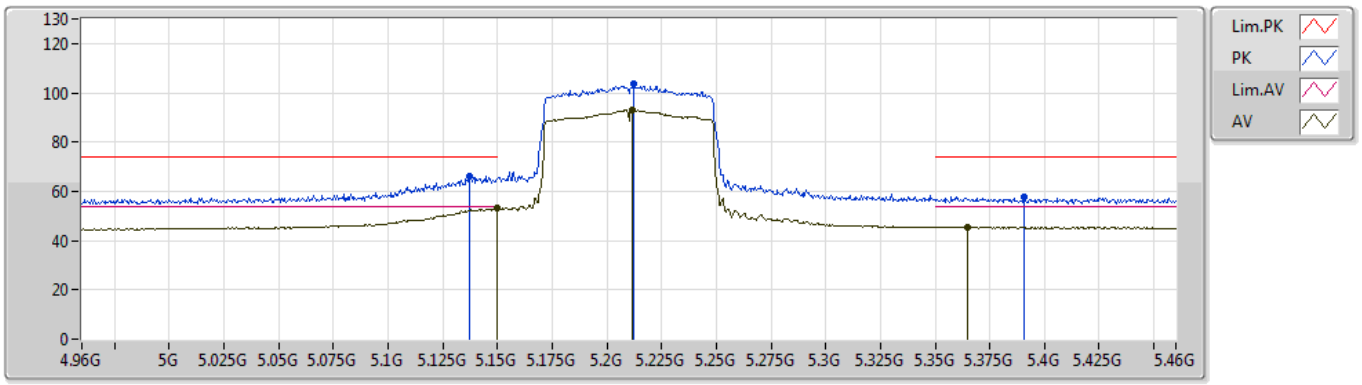
EUT Y_2TX
Setting 41
04-M-1
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.58868G	58.16	74.00	-15.84	15.01	3	Horizontal	331	1.50	-
AV	11.59161G	44.37	54.00	-9.63	15.01	3	Horizontal	331	1.50	-
PK	17.38435G	64.10	68.20	-4.10	18.02	3	Horizontal	153	1.50	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

28/06/2019

5210MHz_TX



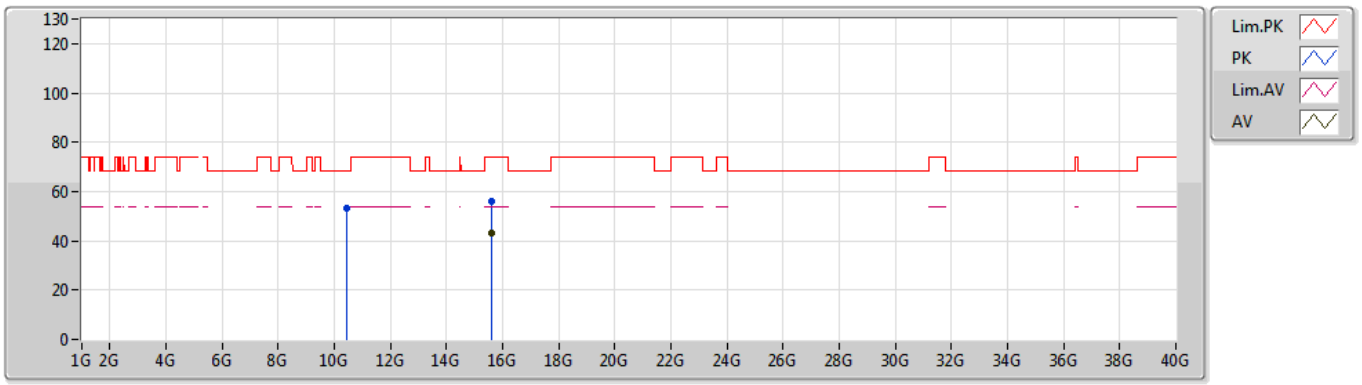
EUT Y_2TX
Setting 29
02-G-2-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.137G	66.37	74.00	-7.63	7.92	3	Vertical	297	1.49	-
AV	5.15G	52.97	54.00	-1.03	7.94	3	Vertical	297	1.49	-
PK	5.2125G	103.43	Inf	-Inf	8.07	3	Vertical	297	1.49	-
AV	5.2115G	93.20	Inf	-Inf	8.07	3	Vertical	297	1.49	-
PK	5.3905G	57.90	74.00	-16.10	8.33	3	Vertical	297	1.49	-
AV	5.365G	45.62	54.00	-8.38	8.29	3	Vertical	297	1.49	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5210MHz_TX

01/07/2019



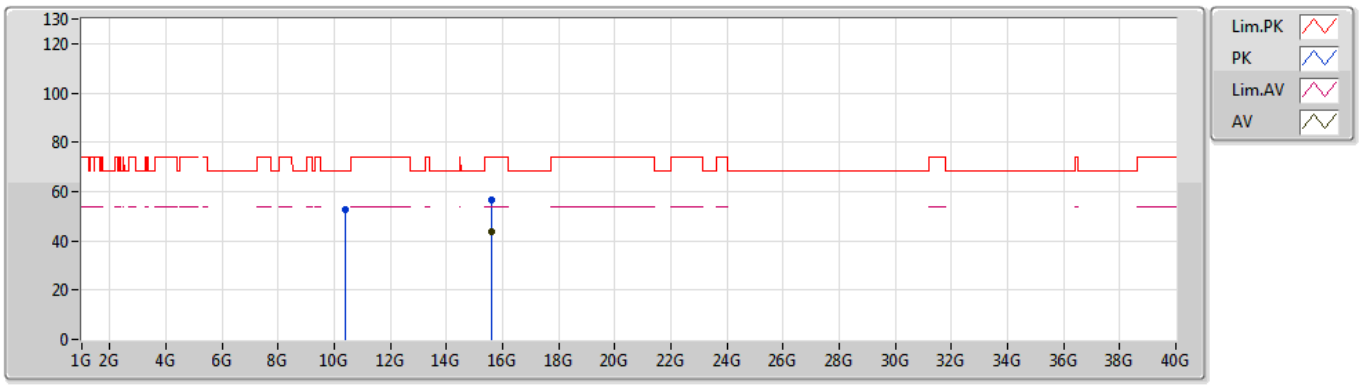
EUT Y_2TX
Setting 29
04-W-3
FSP(100019)
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.42696G	53.47	68.20	-14.73	10.70	3	Vertical	193	1.51	-
PK	15.60584G	56.31	74.00	-17.69	10.74	3	Vertical	108	1.50	-
AV	15.59696G	42.93	54.00	-11.07	10.74	3	Vertical	108	1.50	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5210MHz_TX

01/07/2019



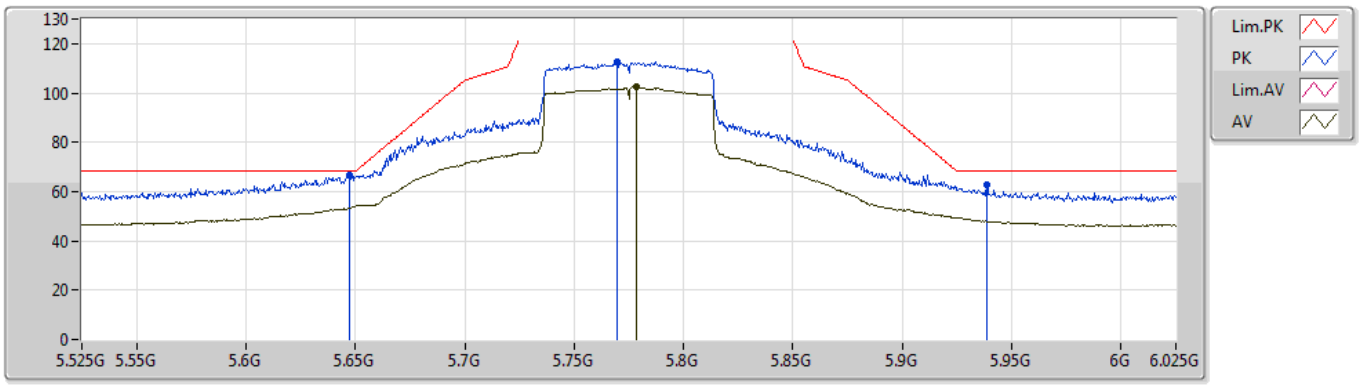
EUT Y_2TX
Setting 29
04-W-3
FSP(100019)
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	10.3944G	52.89	68.20	-15.31	10.69	3	Horizontal	146	1.95	-
PK	15.62672G	56.52	74.00	-17.48	10.72	3	Horizontal	289	1.50	-
AV	15.6004G	43.56	54.00	-10.44	10.74	3	Horizontal	289	1.50	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX

02/07/2019



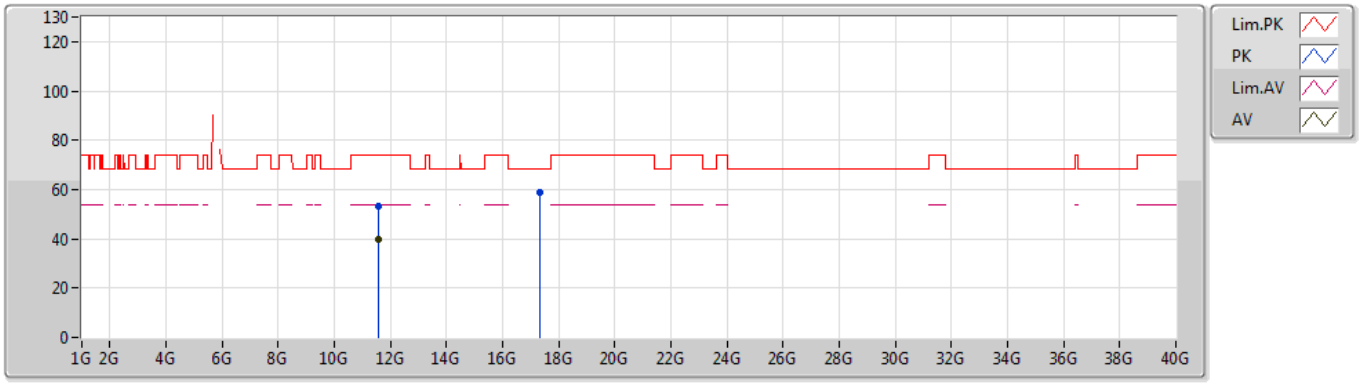
EUT Y_2TX
Setting 39
03-C-5-10
FSP
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	5.6475G	66.93	68.20	-1.27	6.06	3	Vertical	319	1.56	-
PK	5.7695G	112.78	Inf	-Inf	5.83	3	Vertical	319	1.56	-
AV	5.7785G	102.34	Inf	-Inf	5.81	3	Vertical	319	1.56	-
PK	5.9385G	62.97	68.20	-5.23	6.20	3	Vertical	319	1.56	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX

02/07/2019



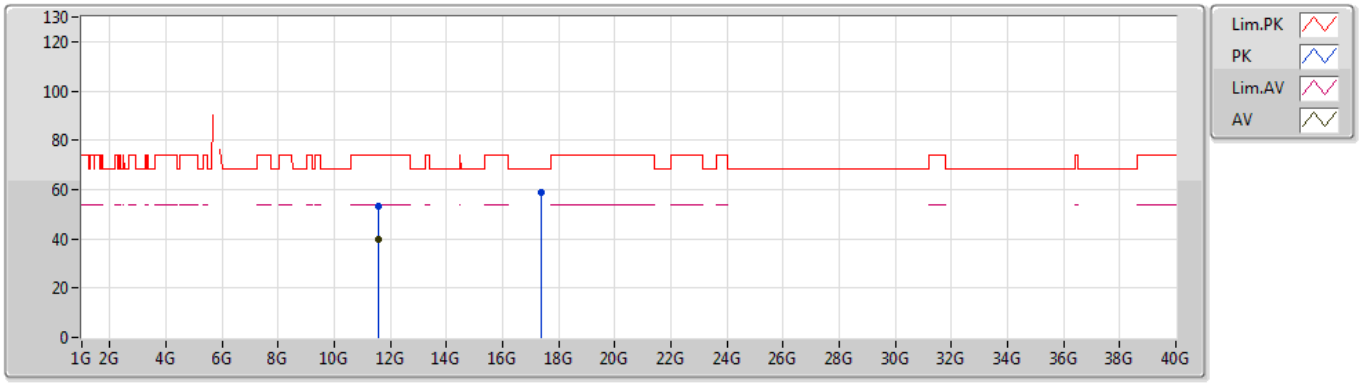
EUT Y_2TX
Setting 39
04-W-3
FSP(100019)
Sample 2

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.57376G	52.96	74.00	-21.04	10.43	3	Vertical	239	1.04	-
AV	11.5548G	39.65	54.00	-14.35	10.45	3	Vertical	239	1.04	-
PK	17.33532G	58.75	68.20	-9.45	13.82	3	Vertical	209	1.50	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX

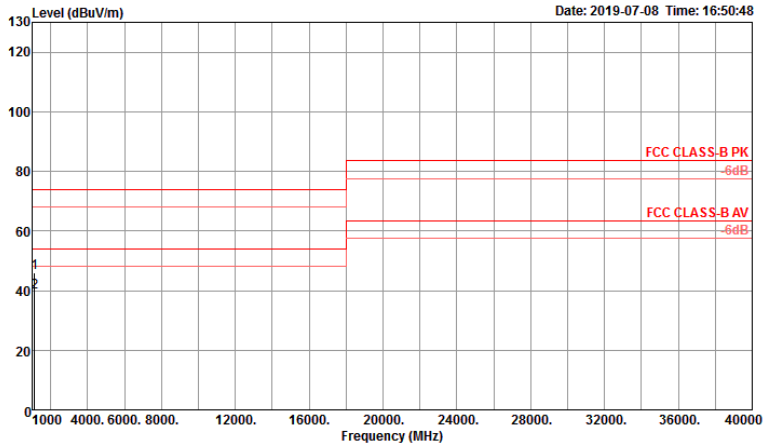
02/07/2019



EUT Y_2TX
Setting 39
04-W-3
FSP(100019)
Sample 2

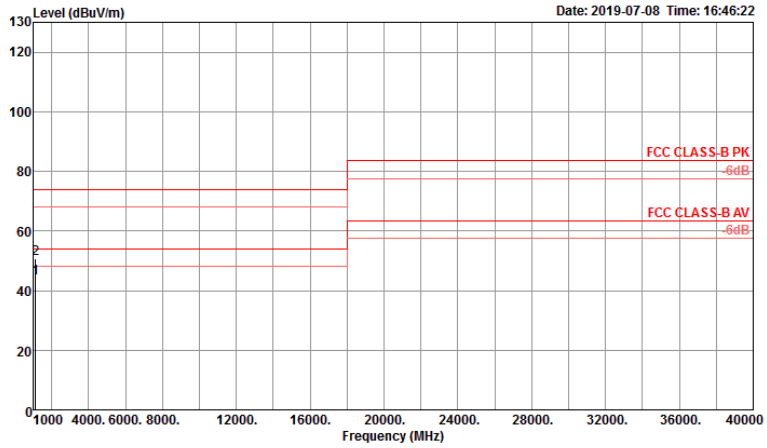
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	11.56384G	53.41	74.00	-20.59	10.43	3	Horizontal	288	2.04	-
AV	11.56136G	39.69	54.00	-14.31	10.44	3	Horizontal	288	2.04	-
PK	17.35772G	58.66	68.20	-9.54	13.87	3	Horizontal	232	2.63	-

RSE Co-location Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1139.96	45.87	74.00	-28.13	52.80	2.99	24.32	34.24	180	199	Peak	HORIZONTAL
2	1140.16	39.63	54.00	-14.37	46.56	2.99	24.32	34.24	180	199	Average	HORIZONTAL

RSE Co-location Result			
Operating Mode	1	**Polarization**	Vertical
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1140.08	44.15	54.00	-9.85	51.08	2.99	24.32	34.24	106	153	Average	VERTICAL
2	1140.16	50.83	74.00	-23.17	57.76	2.99	24.32	34.24	106	153	Peak	VERTICAL