

FCC RADIO TEST REPORT

FCC ID : Q87-03459
Equipment : LINKSYS MAX-STREAM AC1900 MU-MIMO
GIGABIT ROUTER, LINKSYS MAX-STREAM
AC1750 MU-MIMO GIGABIT ROUTER
Brand Name : LINKSYS
Model Name : EA7500 V3, EA7430, EA7250, EA7500S
Applicant : Linksys LLC
121 Theory Drive, Irvine, CA 92617, USA
Standard : 47 CFR FCC Part 15.407

The product was received on Jun. 17, 2019, and testing was started from Jul. 08, 2019 and completed on Sep. 04, 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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TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB Ver1.0



Summary of Test Result

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

Declaration of Conformity:

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

Comments and Explanations:

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

Reviewed by: Sam Chen

Report Producer: Viola Huang

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20)	5180-5240	36-48 [4]
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	3TX
5.15-5.25GHz	802.11n HT20	20	3TX
5.15-5.25GHz	802.11n HT20-BF	20	3TX
5.15-5.25GHz	802.11ac VHT20	20	3TX
5.15-5.25GHz	802.11ac VHT20-BF	20	3TX
5.15-5.25GHz	802.11n HT40	40	3TX
5.15-5.25GHz	802.11n HT40-BF	40	3TX
5.15-5.25GHz	802.11ac VHT40	40	3TX
5.15-5.25GHz	802.11ac VHT40-BF	40	3TX
5.15-5.25GHz	802.11ac VHT80	80	3TX
5.15-5.25GHz	802.11ac VHT80-BF	80	3TX
5.725-5.85GHz	802.11a	20	3TX
5.725-5.85GHz	802.11n HT20	20	3TX
5.725-5.85GHz	802.11n HT20-BF	20	3TX
5.725-5.85GHz	802.11ac VHT20	20	3TX
5.725-5.85GHz	802.11ac VHT20-BF	20	3TX
5.725-5.85GHz	802.11n HT40	40	3TX
5.725-5.85GHz	802.11n HT40-BF	40	3TX
5.725-5.85GHz	802.11ac VHT40	40	3TX
5.725-5.85GHz	802.11ac VHT40-BF	40	3TX
5.725-5.85GHz	802.11ac VHT80	80	3TX
5.725-5.85GHz	802.11ac VHT80-BF	80	3TX



Note:

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

**1.1.2 Antenna Information**

Ant.	Port		Brand	P/N	Antenna Type	Connector	Gain (dBi)		
	2.4G	5G					2.4GHz	5GHz Band 1	5GHz Band 4
1	3	1	FIT	4TS4009-A0007-JH	Dipole Antenna	I-PEX	3.17	3.22	2.77
2	2	2	FIT	4TS4009-A0008-JH	Dipole Antenna	I-PEX	3.12	2.90	2.87
3	1	3	FIT	4TS4009-A0009-JH	Dipole Antenna	I-PEX	2.54	3.15	3.06

Note 1: The above information was declared by manufacturer.

Note 2: The EUT has three antennas.

For 2.4GHz WLAN function**IEEE 802.11b/g/n mode (3TX/3RX):**

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

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

For 5GHz WLAN function**IEEE 802.11a/n/ac mode (3TX/3RX):**

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

Port 1, port 2 and port 3 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	1.397m	1k
802.11ac VHT20-BF	0.958	0.19	1.317m	1k
802.11ac VHT40-BF	0.917	0.38	656.563u	3k
802.11ac VHT80-BF	0.845	0.73	324.375u	10k

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
	For IEEE802.11n in 2.4GHz and 11n/ac in 5GHz.			
Function	☐	Outdoor P2M	☒	Indoor P2M
	☐	Fixed P2P	☐	Client
Test Software Version	QATool:v 0.0.2.5			

Note: The above information was declared by manufacturer.

1.1.5 EUT Supports Type

The EUT supports master (AP router, bridge, repeater) functions, only the master (AP router) was performed for all the tests, and it was based on manufacturer's request.

1.1.6 Table for Multiple Listing

Equipment Name	Model Name	Description
LINKSYS MAX-STREAM AC1900 MU-MIMO GIGABIT ROUTER	EA7500 V3	All the equipment names/model names are identical, the different equipment names/model names served as marketing strategy.
	EA7430	
	EA7500S	
LINKSYS MAX-STREAM AC1750 MU-MIMO GIGABIT ROUTER	EA7250	

From the above list, equipment name: LINKSYS MAX-STREAM AC1900 MU-MIMO GIGABIT ROUTER and model name: EA7500 V3 was selected as representative model for the test and its data was recorded in this report.



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
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Eddie Weng	25.4~26.9°C / 62~66%	Jul. 11, 2019 ~ Aug. 13, 2019
Radiated below 1GHz	03CH06-CB	KJ Chang	23.8~25.5°C / 59~63%	Aug. 08, 2019 ~ Sep. 04, 2019
Radiated above 1GHz	03CH04-CB	KJ Chang	25.3~25.7°C / 60~65%	Jul. 08, 2019 ~ Aug. 12, 2019
AC Conduction	CO01-CB	Max Lin	23.2~24.1°C / 55~56%	Jul. 08, 2019 ~ Jul. 09, 2019

Test site Designation No. TW0006 with FCC

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 dB	Confidence levels of 95%
Conducted Emission	2.4 dB	Confidence levels of 95%
Output Power Measurement	1.5 dB	Confidence levels of 95%
Power Density Measurement	2.4 dB	Confidence levels of 95%
Bandwidth Measurement	2%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	PowerSetting
802.11a_Nss1,(6Mbps)_3TX	-
5180MHz	22
5200MHz	26
5240MHz	26
5745MHz	2C
5785MHz	2B
5825MHz	28
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-
5180MHz	34
5200MHz	39
5240MHz	39
5745MHz	46
5785MHz	46
5825MHz	48
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-
5190MHz	30
5230MHz	36
5755MHz	41
5795MHz	42
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-
5210MHz	24
5775MHz	33

Note:

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

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	Normal Link-EUT + Adapter 1
2	Normal Link-EUT + Adapter 2
3	Normal Link-EUT + Adapter 3
4	Normal Link-EUT + Adapter 4
For operating mode 3 is the worst case and it was record in this test report.	

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

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



Operating Mode > 1GHz	CTX
	The EUT was performed at Y axis and Z axis position and the harmonic worst case was found at Y axis and the bandedge worst case was found at Z axis. So the measurement will follow this same test configuration.
1	EUT in Y axis for harmonic and EUT in Z axis for bandedge

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	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.: FA971025 for Co-location RF Exposure Evaluation.	



2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

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

The program was executed as follows:

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

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1 (Interchangeable plug)	Ktec	KSA-24W-120200D5	INPUT: 100-240V~50/60Hz, 0.6A OUTPUT: 12V, 2.0A
Adapter 2 (Fixed plug)	Ktec	KSA-24W-120200HU	INPUT: 100-240V~50/60Hz, 0.6A OUTPUT: 12V, 2.0A
Adapter 3 (Fixed plug)	APD	WB-24J12FU	INPUT: 100-240V~50-60Hz, 0.7A Max. OUTPUT: 12V, 2A
Adapter 4 (Interchangeable plug)	APD	WB-24J12R	INPUT: 100-240V~50-60Hz, 0.7A Max. OUTPUT: 12V, 2A
Others			
Plug of Ktec*1 (Use for Adapter 1)			
Plug of APD*1 (Use for Adapter 4)			
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	LAN NB	DELL	E6430	N/A
C	WAN NB	DELL	E6430	N/A
D	2.4G NB	DELL	E6430	N/A
E	5G NB	DELL	E6430	N/A

For Radiated (below 1GHz):

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

For Radiated (above 1GHz):
(For non-beamforming mode)

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

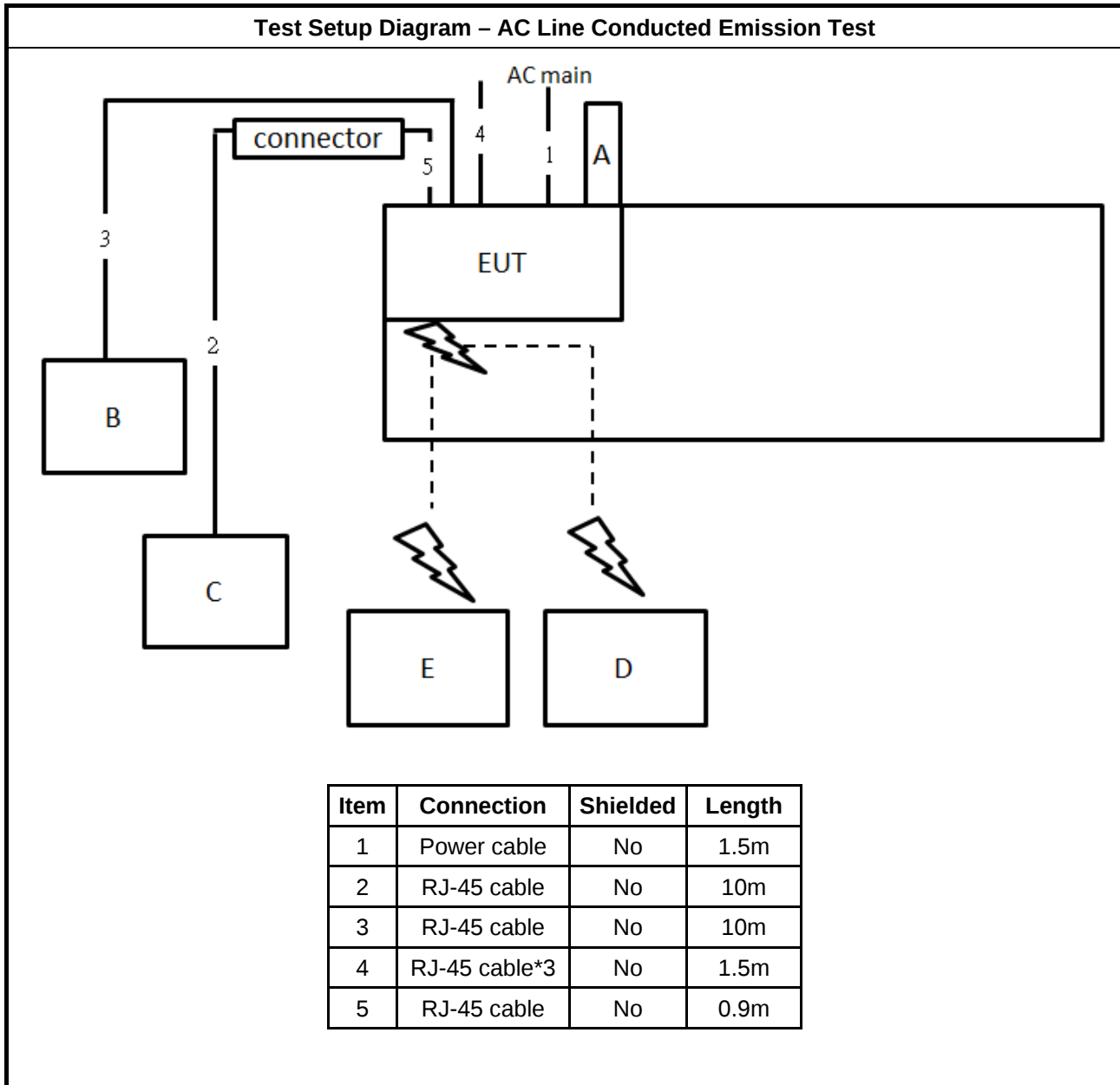
(For beamforming mode)

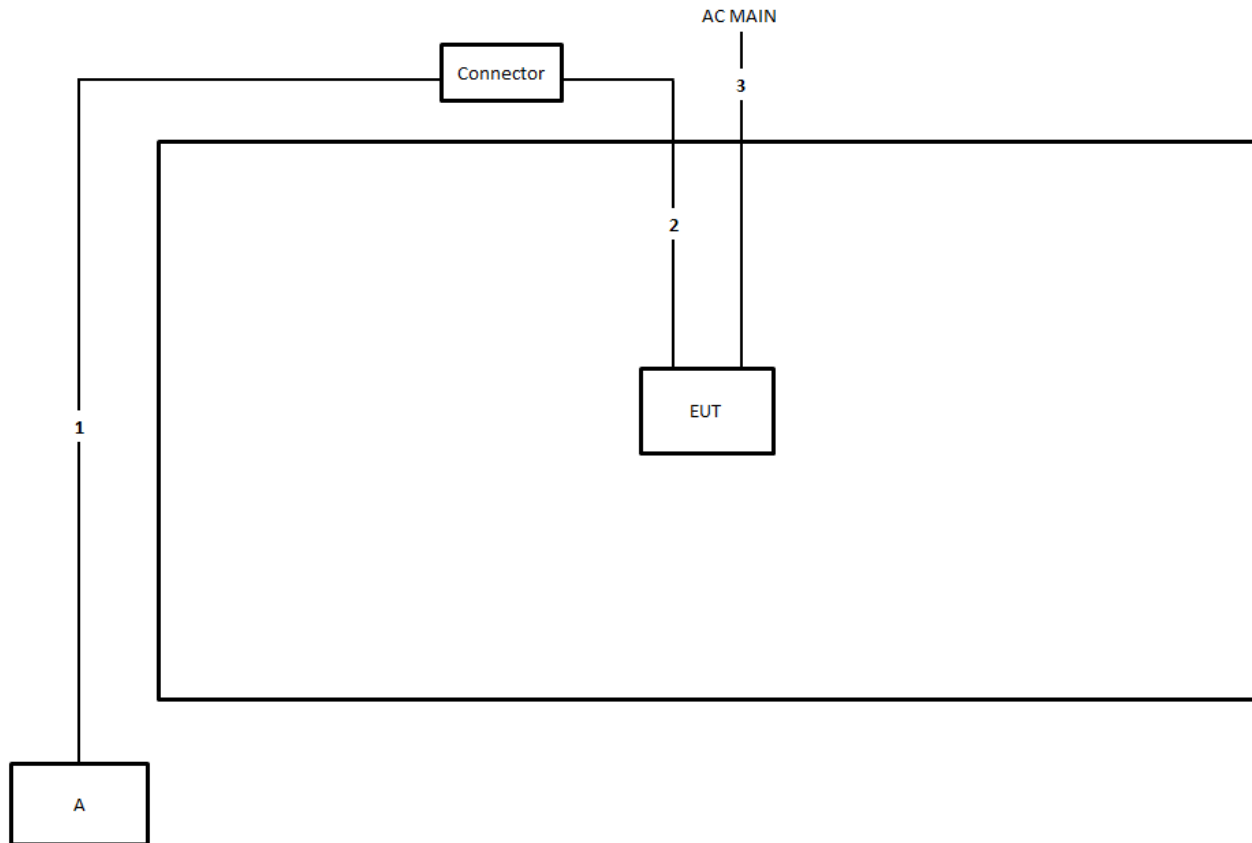
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A
B	Client	LINKSYS	EA7500 V3	Q87-03459
C	NB	DELL	E4300	N/A

For RF Conducted:

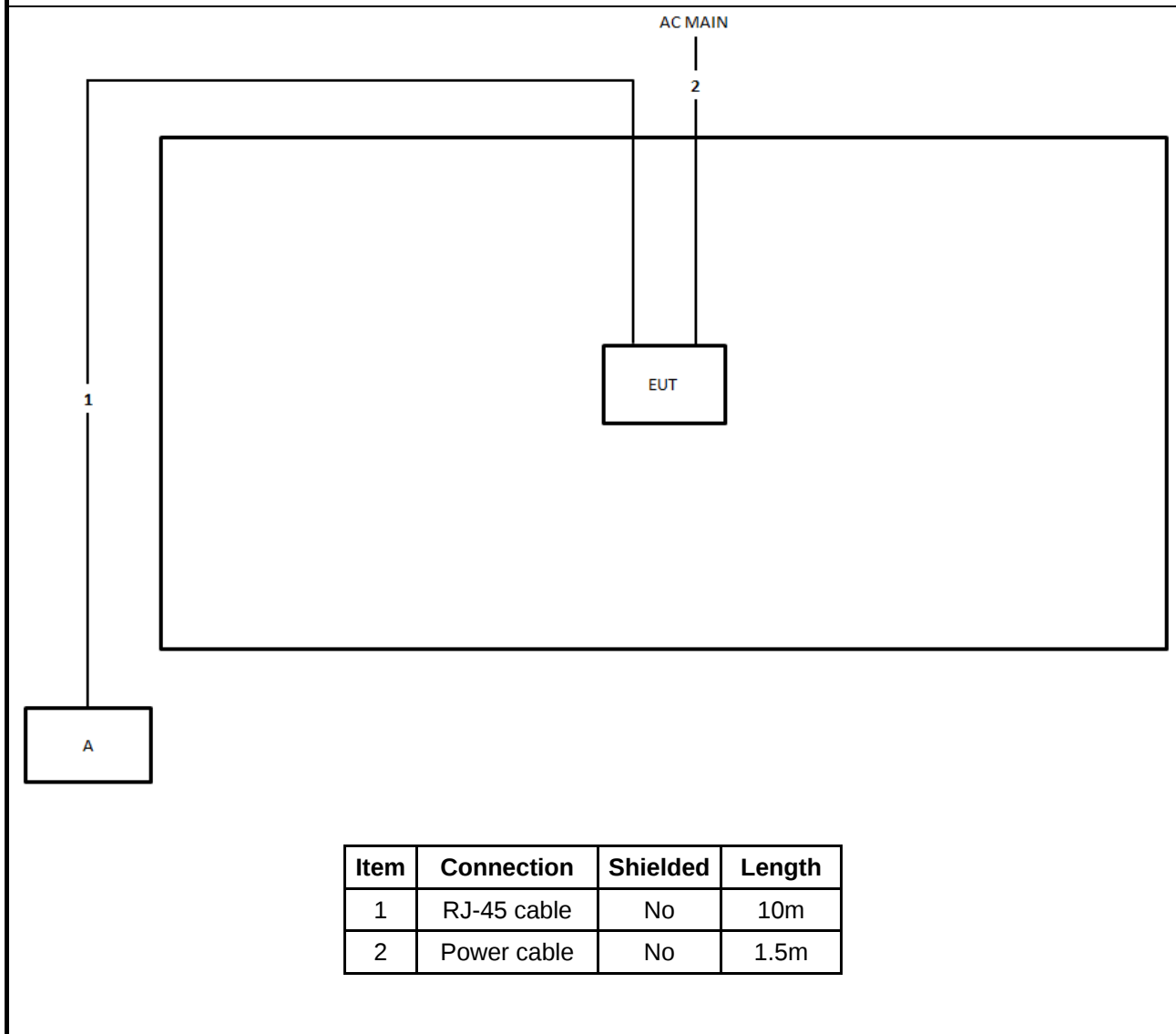
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

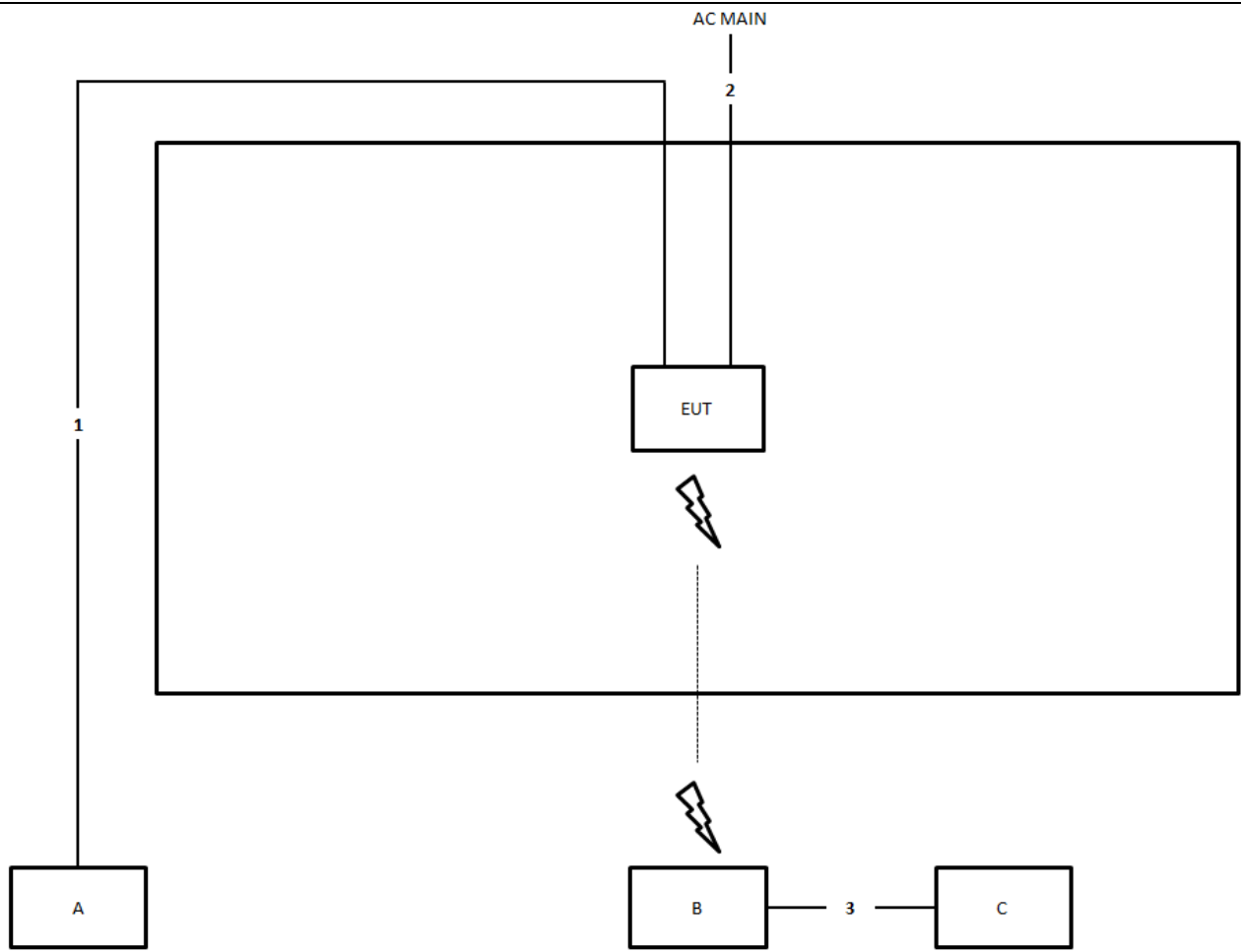
2.6 Test Setup Diagram



Test Setup Diagram - 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


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	1.5m



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

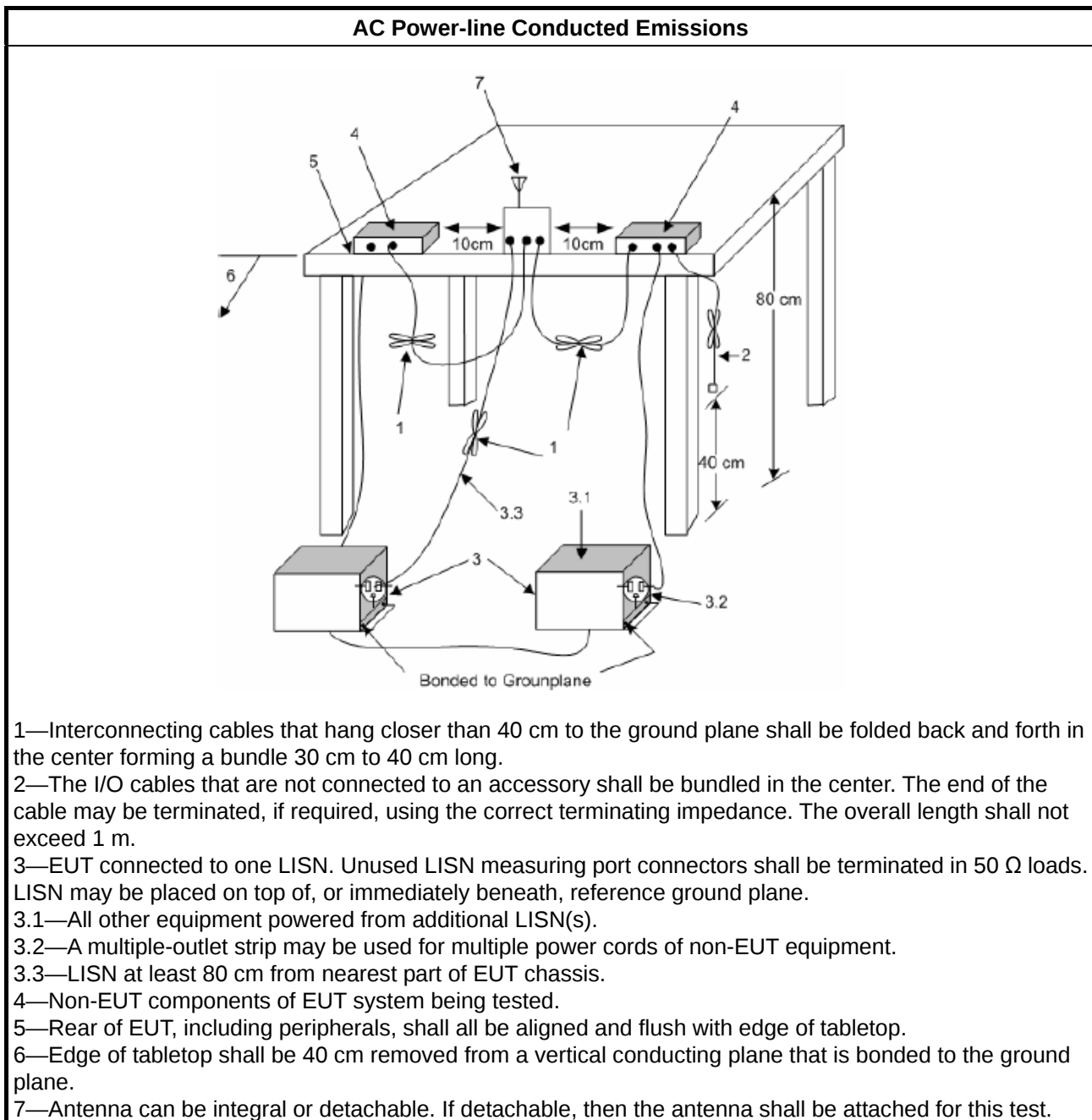
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	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 $\geq$ 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 $\geq$ 500kHz.

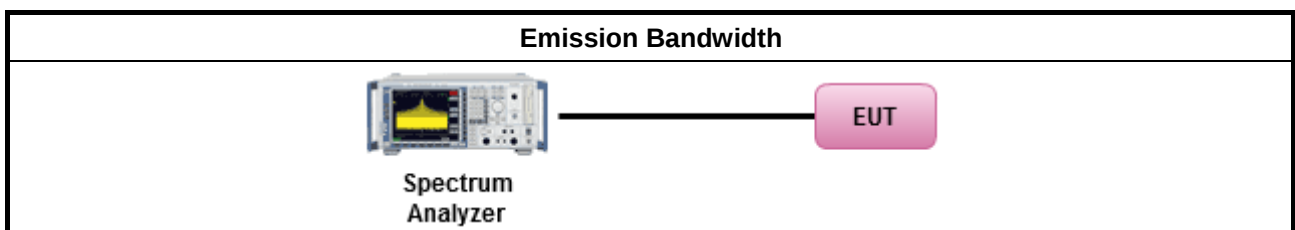
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	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



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.	

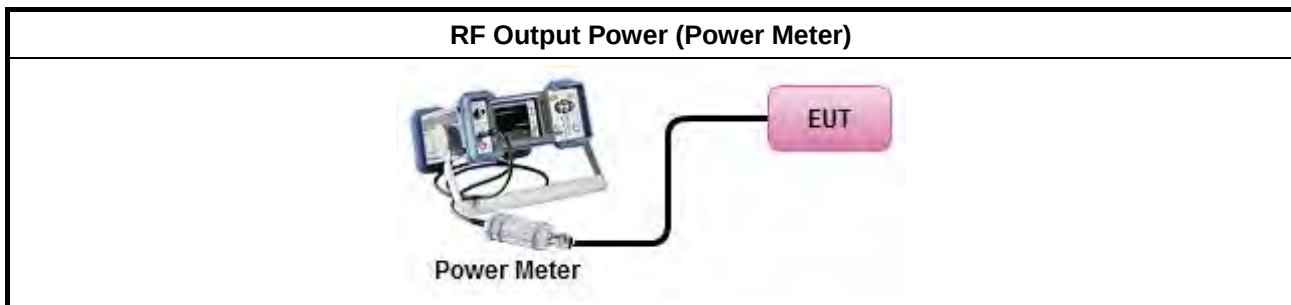
3.3.2 Measuring Instruments

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: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒ 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 $0^\circ \leq \theta < 8^\circ$; -13 - 0.716 (θ-8) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 (θ-40) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
☐	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 the same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.4.2 Measuring Instruments

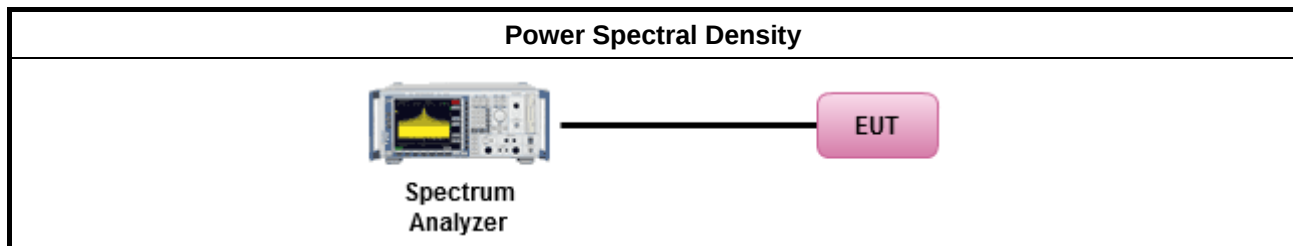
Refer a test equipment and calibration data table in this test report.



3.4.3 Test Procedures

Test Method	
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: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Unwanted Emissions Limit

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

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
☒ 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).

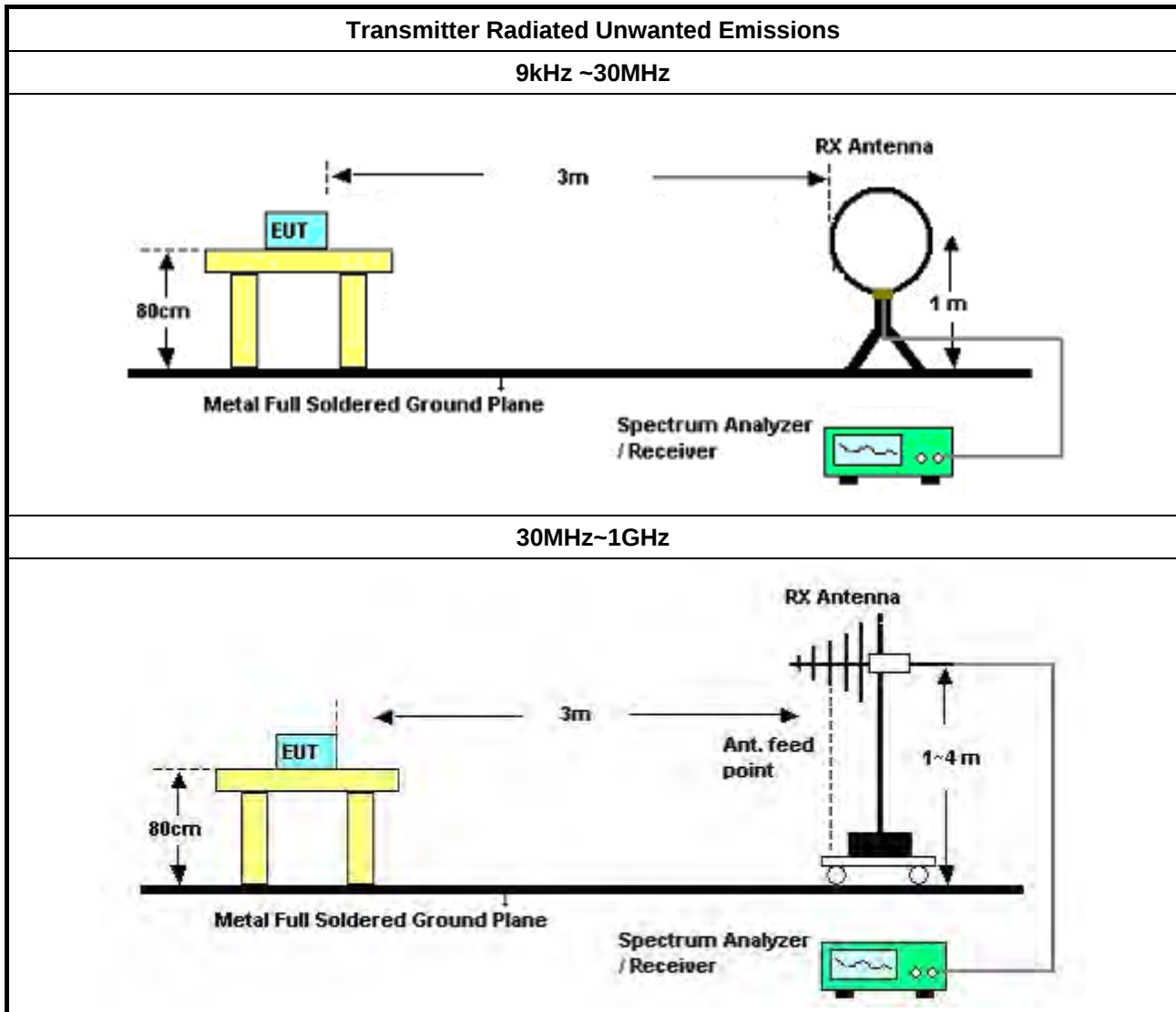
3.5.2 Measuring Instruments

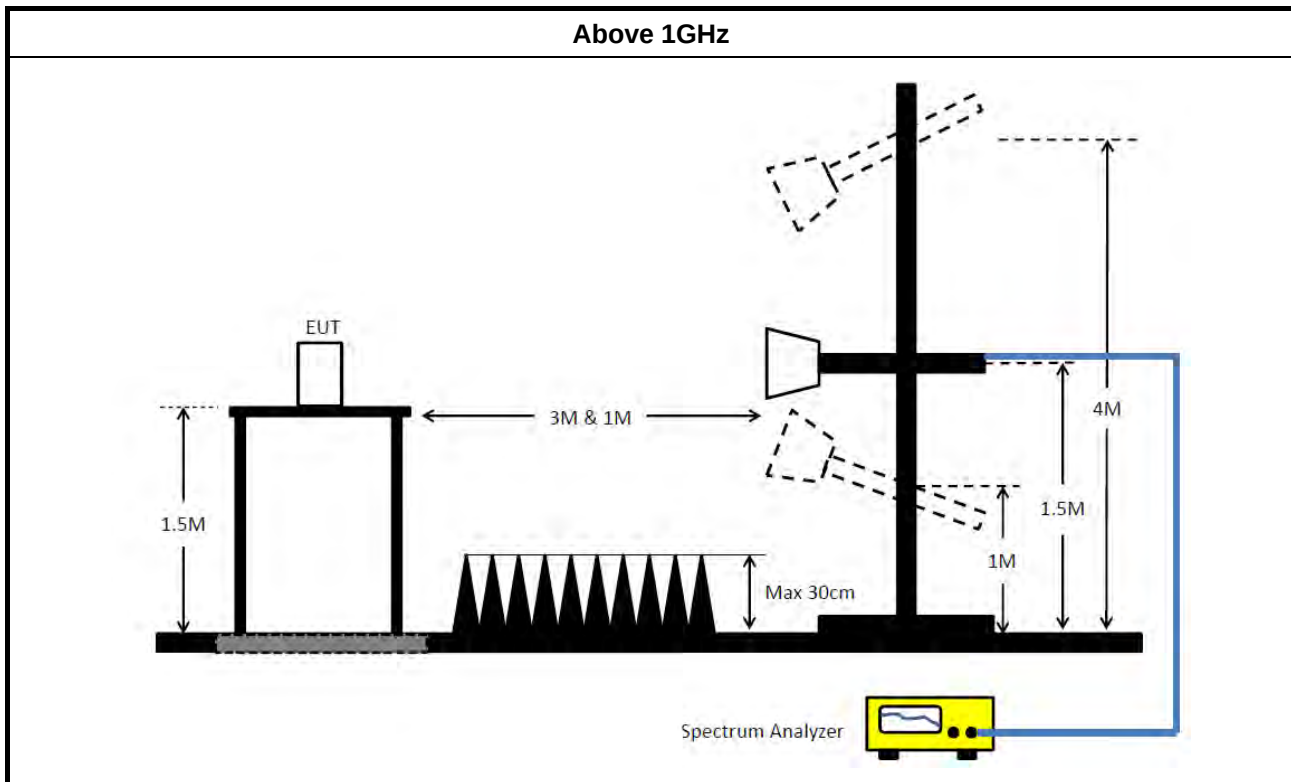
Refer a test equipment and calibration data table in this test report.

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 $\geq 1/T$, 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





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)

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

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

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

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 28, 2019	Jan. 29, 2020	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-1 6-2	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)
Bilog Antenna with 6 dB attenuator	Schaffner	CBL6112B & N-6-06	2928 & AT-N0607	20MHz ~ 2GHz	Jan. 02, 2019	Jan. 01, 2020	Radiation (03CH06-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	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	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 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	ETS • Lindgren	3115	00143147	750MHz~18GHz	Oct. 26, 2018	Oct. 25, 2019	Radiation (03CH04-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 12, 2019	Jun. 11, 2020	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Mar. 19, 2019	Mar. 18, 2020	Radiation (03CH04-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 26, 2018	Dec. 25, 2019	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+22	1GHz - 18GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH04-CB)



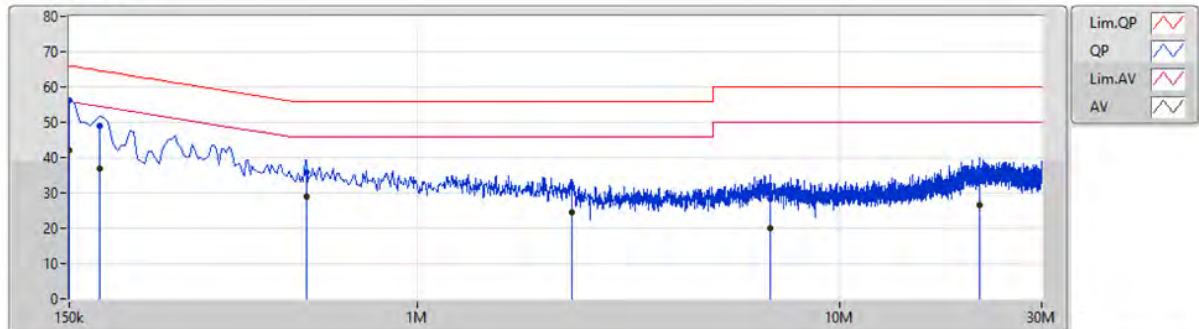
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Feb. 25, 2019	Feb. 24, 2020	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	May 30, 2019	May 29, 2020	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz –26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	Conducted (TH01-CB)
Power Sensor	Agilent	E9327A	US40442088	50MHz~18GHz	Jan. 15, 2019	Jan. 14, 2020	Conducted (TH01-CB)
Power Meter	Agilent	E4416A	GB41291199	50MHz~18GHz	Jan. 15, 2019	Jan. 14, 2020	Conducted (TH01-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	3	Power Phase	Line
Operating Function	Normal Link		



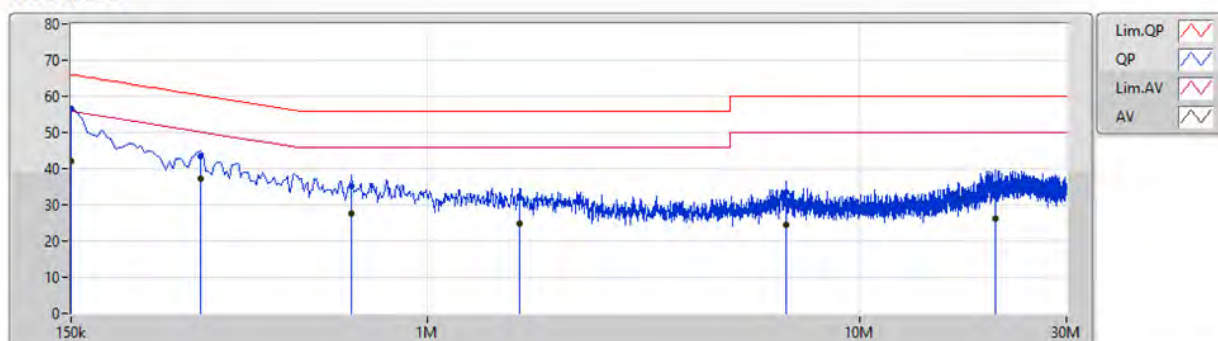
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)
QP	150k	56.31	66.00	-9.69	9.90	Line	"Worst"	46.41	0.05	0.06	9.79
AV	150k	42.09	56.00	-13.91	9.90	Line	-	32.19	0.05	0.06	9.79
QP	177k	48.88	64.62	-15.74	9.91	Line	-	38.97	0.06	0.06	9.79
AV	177k	37.06	54.62	-17.56	9.91	Line	-	27.15	0.06	0.06	9.79
QP	546k	35.81	56.00	-20.19	9.94	Line	-	25.87	0.06	0.07	9.81
AV	546k	28.92	46.00	-17.08	9.94	Line	-	18.98	0.06	0.07	9.81
QP	2.324M	31.68	56.00	-24.32	10.06	Line	-	21.62	0.10	0.13	9.83
AV	2.324M	24.55	46.00	-21.45	10.06	Line	-	14.49	0.10	0.13	9.83
QP	6.833M	28.23	60.00	-31.77	10.25	Line	-	17.98	0.17	0.21	9.87
AV	6.833M	19.86	50.00	-30.14	10.25	Line	-	9.61	0.17	0.21	9.87
QP	21.368M	33.52	60.00	-26.48	10.58	Line	-	22.94	0.30	0.28	10.00
AV	21.368M	26.57	50.00	-23.43	10.58	Line	-	15.99	0.30	0.28	10.00

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	3	Power Phase	Neutral
Operating Function	Normal Link		



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	AF (dB)	CL (dB)	AT (dB)
QP	150k	56.56	66.00	-9.44	9.89	Neutral	"Worst"	46.67	0.04	0.06	9.79
AV	150k	42.04	56.00	-13.96	9.89	Neutral	-	32.15	0.04	0.06	9.79
QP	298.5k	43.54	60.28	-16.74	9.90	Neutral	-	33.64	0.04	0.06	9.80
AV	298.5k	37.20	50.28	-13.08	9.90	Neutral	-	27.30	0.04	0.06	9.80
QP	667.5k	35.26	56.00	-20.74	9.95	Neutral	-	25.31	0.05	0.08	9.82
AV	667.5k	27.67	46.00	-18.33	9.95	Neutral	-	17.72	0.05	0.08	9.82
QP	1.635M	32.05	56.00	-23.95	10.01	Neutral	-	22.04	0.07	0.11	9.83
AV	1.635M	24.95	46.00	-21.05	10.01	Neutral	-	14.94	0.07	0.11	9.83
QP	6.761M	33.35	60.00	-26.65	10.22	Neutral	-	23.13	0.15	0.20	9.87
AV	6.761M	24.39	50.00	-25.61	10.22	Neutral	-	14.17	0.15	0.20	9.87
QP	20.544M	33.37	60.00	-26.63	10.51	Neutral	-	22.86	0.26	0.26	9.99
AV	20.544M	26.29	50.00	-23.71	10.51	Neutral	-	15.78	0.26	0.26	9.99

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)_3TX	38.75M	19.865M	19M9D1D	19.875M	16.417M
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	41.475M	18.666M	18M7D1D	19.85M	17.541M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	71.15M	36.182M	36M2D1D	39.85M	35.932M
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	81.3M	75.162M	75M2D1D	79.8M	74.863M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_3TX	15.9M	33.533M	33M5D1D	14.15M	16.667M
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	16.475M	30.21M	30M2D1D	13.8M	20.565M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	35.05M	57.771M	57M8D1D	30.7M	36.782M
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	75M	75.362M	75M4D1D	72.5M	75.062M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	19.875M	16.417M	20.15M	16.417M	24.75M	16.517M
5200MHz	Pass	Inf	35.8M	16.967M	36.3M	17.191M	38.75M	19.865M
5240MHz	Pass	Inf	36.05M	17.016M	34.875M	17.391M	37.6M	19.04M
5745MHz	Pass	500k	15.075M	24.688M	15.6M	33.108M	14.725M	32.984M
5785MHz	Pass	500k	14.15M	25.637M	15.9M	32.084M	15M	33.533M
5825MHz	Pass	500k	15.075M	16.667M	15M	18.341M	14.45M	19.215M
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.575M	17.541M	19.85M	17.591M	26.325M	17.616M
5200MHz	Pass	Inf	39.525M	17.741M	38.8M	17.866M	41.475M	18.666M
5240MHz	Pass	Inf	37.95M	17.791M	37.9M	18.016M	41.375M	18.566M
5745MHz	Pass	500k	15.05M	20.565M	15.05M	27.211M	16.475M	27.386M
5785MHz	Pass	500k	15.075M	21.039M	15.05M	27.411M	15M	28.411M
5825MHz	Pass	500k	13.8M	20.765M	14.325M	29.485M	15.9M	30.21M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.65M	35.932M	39.85M	35.932M	40.6M	35.932M
5230MHz	Pass	Inf	44.65M	36.032M	42.65M	36.082M	71.15M	36.182M
5755MHz	Pass	500k	30.7M	36.782M	35.05M	48.676M	32.5M	50.525M
5795MHz	Pass	500k	33.85M	37.881M	35M	54.923M	33.1M	57.771M
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.3M	75.162M	79.8M	74.863M	80.2M	75.162M
5775MHz	Pass	500k	72.5M	75.162M	75M	75.062M	73.8M	75.362M

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

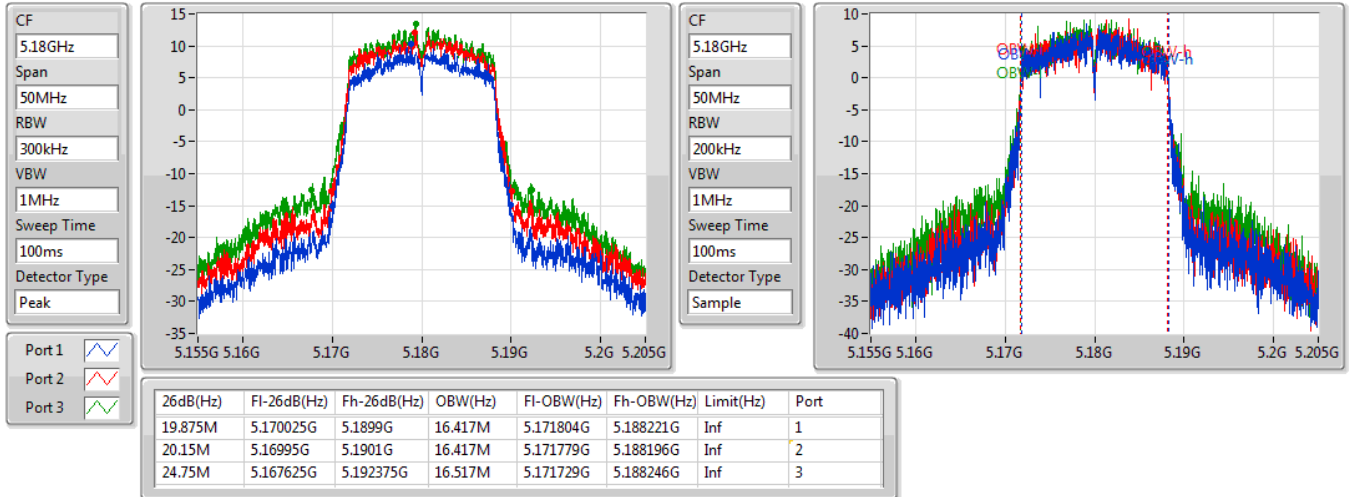
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_3TX

EBW

5180MHz

11/07/2019

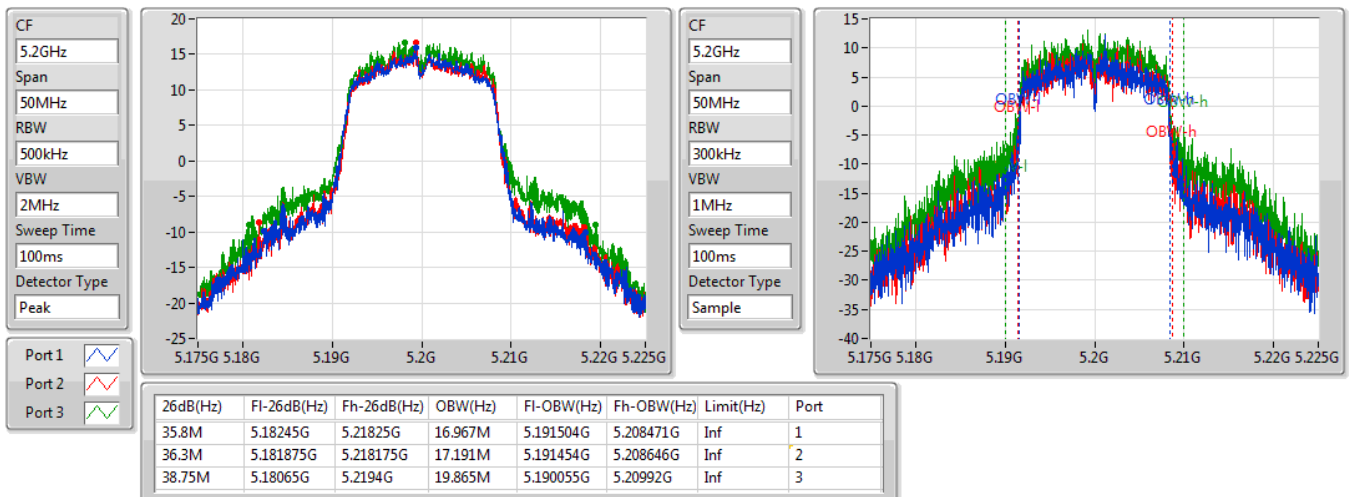


802.11a_Nss1,(6Mbps)_3TX

EBW

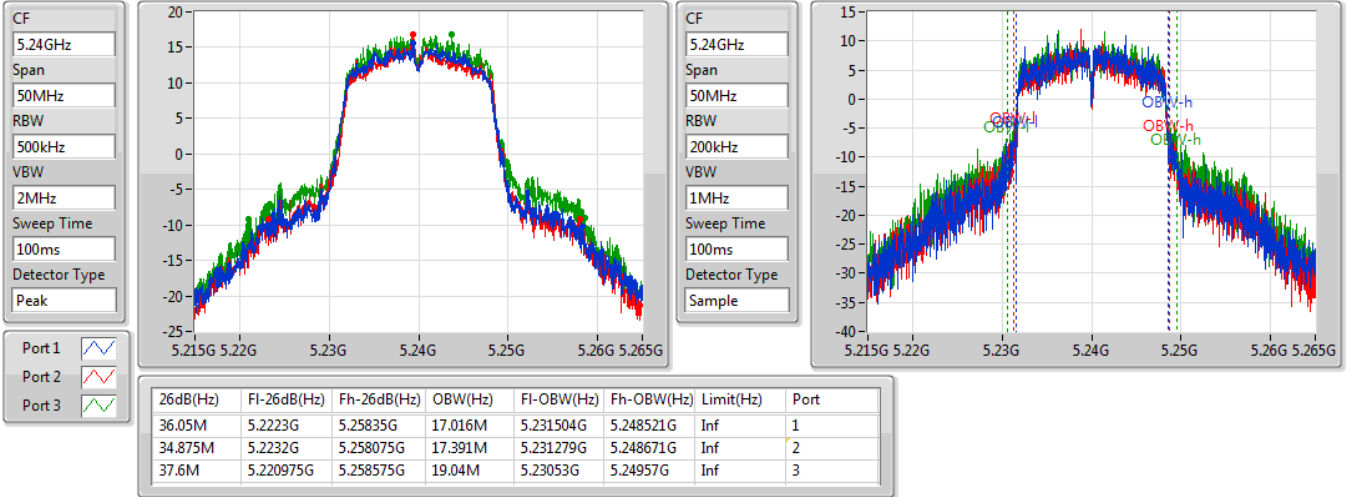
5200MHz

11/07/2019

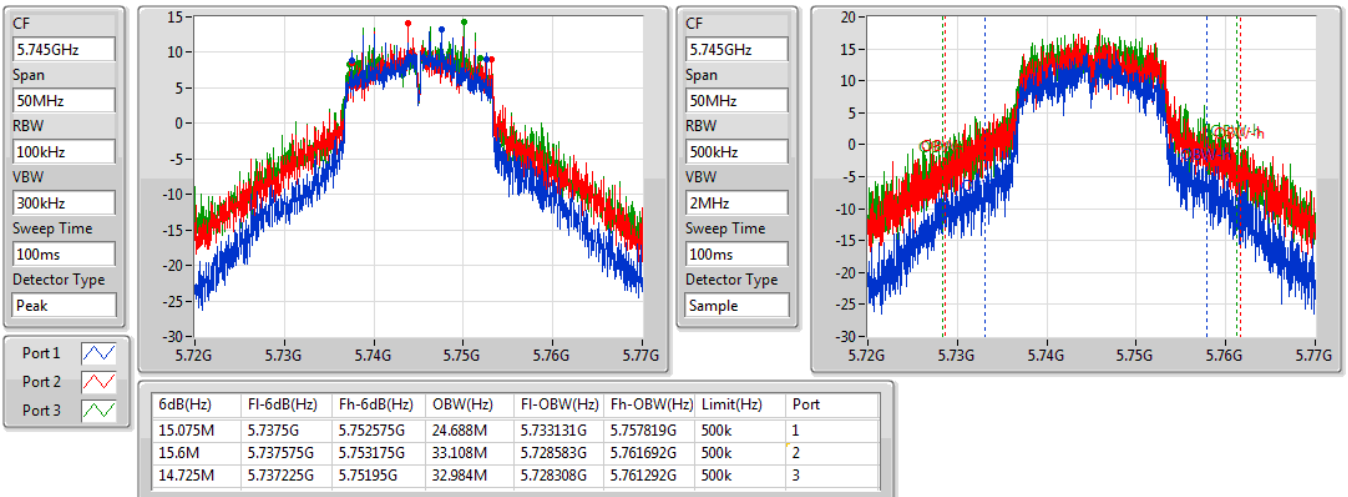


802.11a_Nss1,(6Mbps)_3TX
EBW
5240MHz

11/07/2019

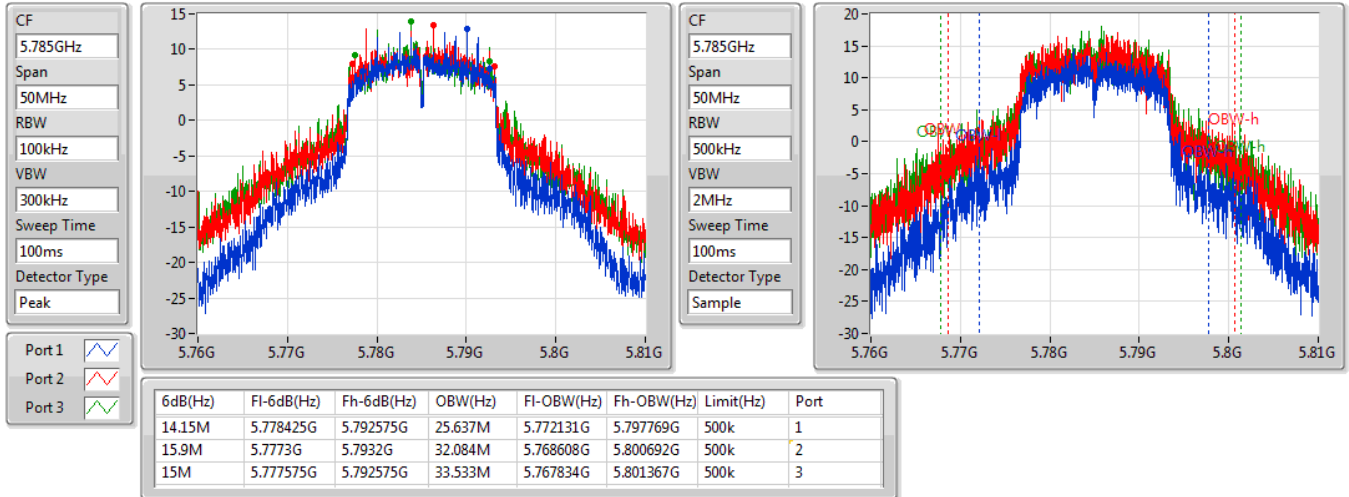

802.11a_Nss1,(6Mbps)_3TX
EBW
5745MHz

11/07/2019

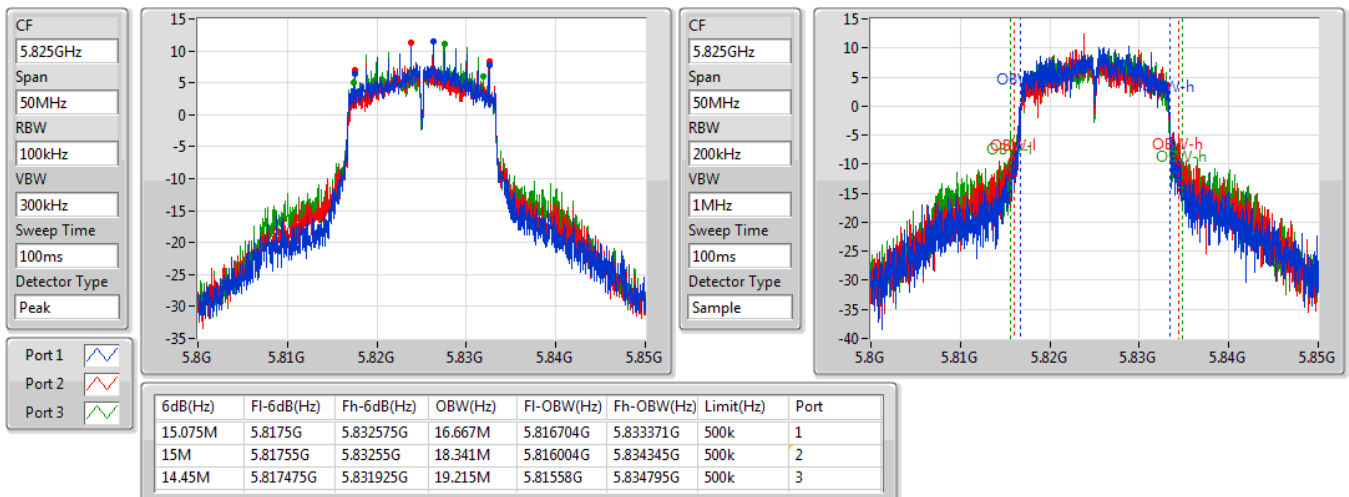


802.11a_Nss1,(6Mbps)_3TX
EBW
5785MHz

11/07/2019


802.11a_Nss1,(6Mbps)_3TX
EBW
5825MHz

11/07/2019

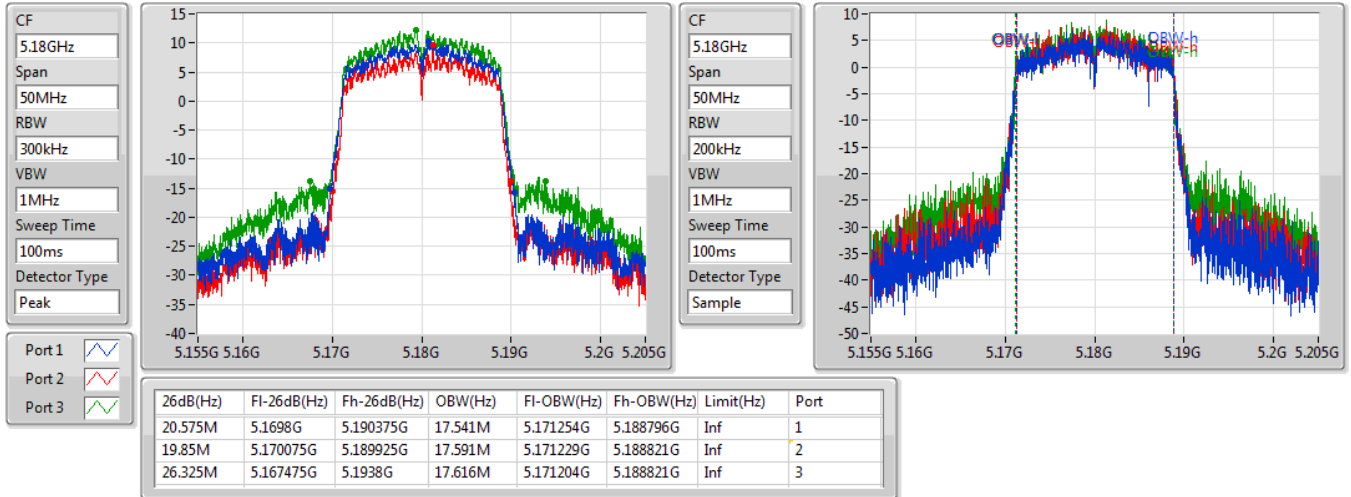


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

5180MHz

11/07/2019

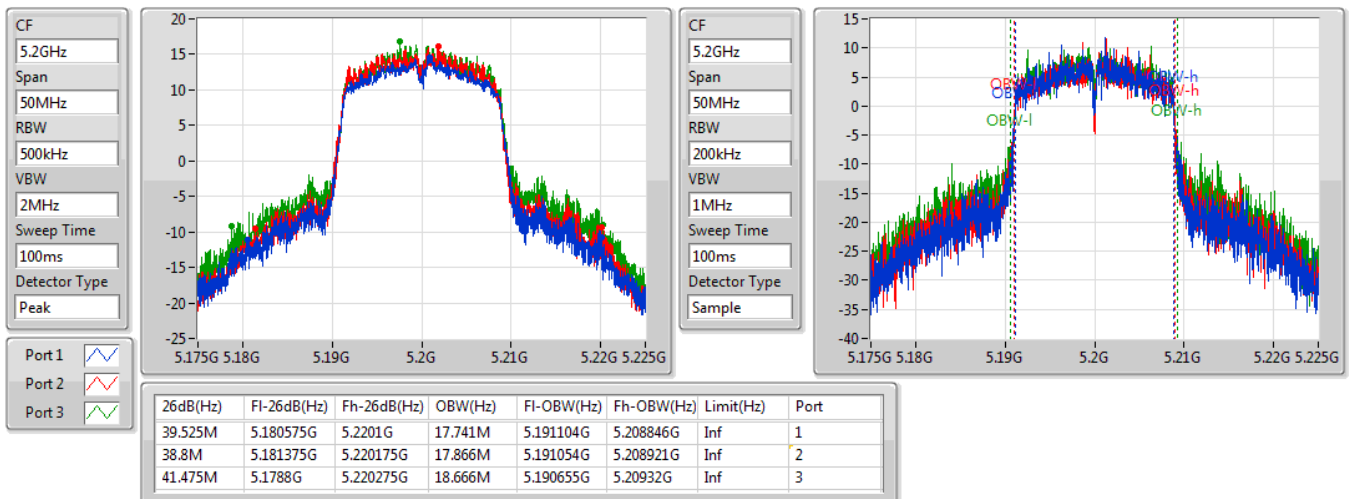


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

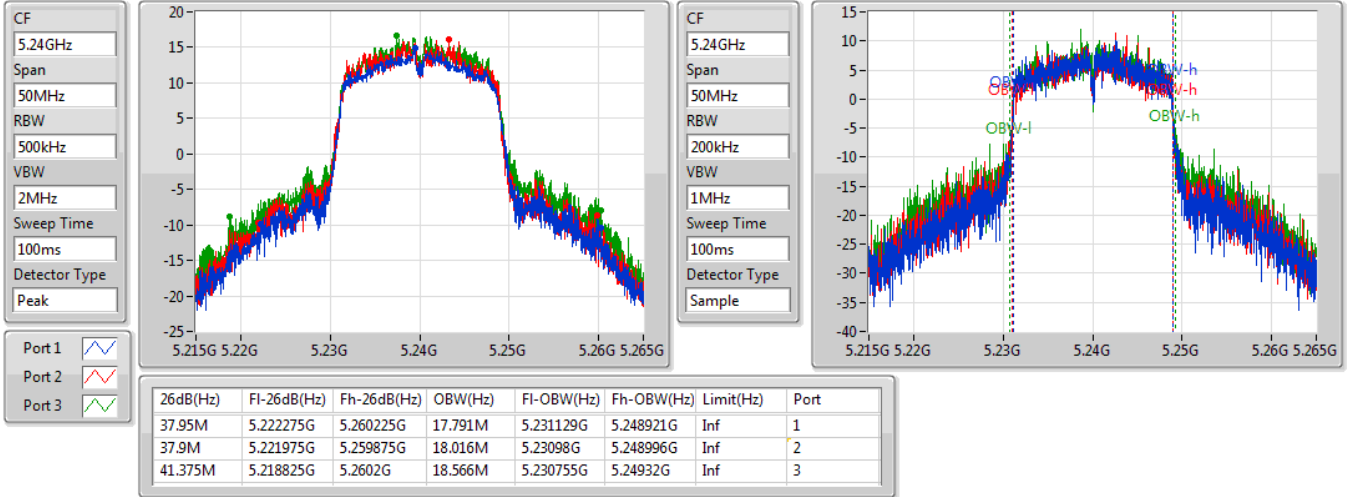
5200MHz

11/07/2019

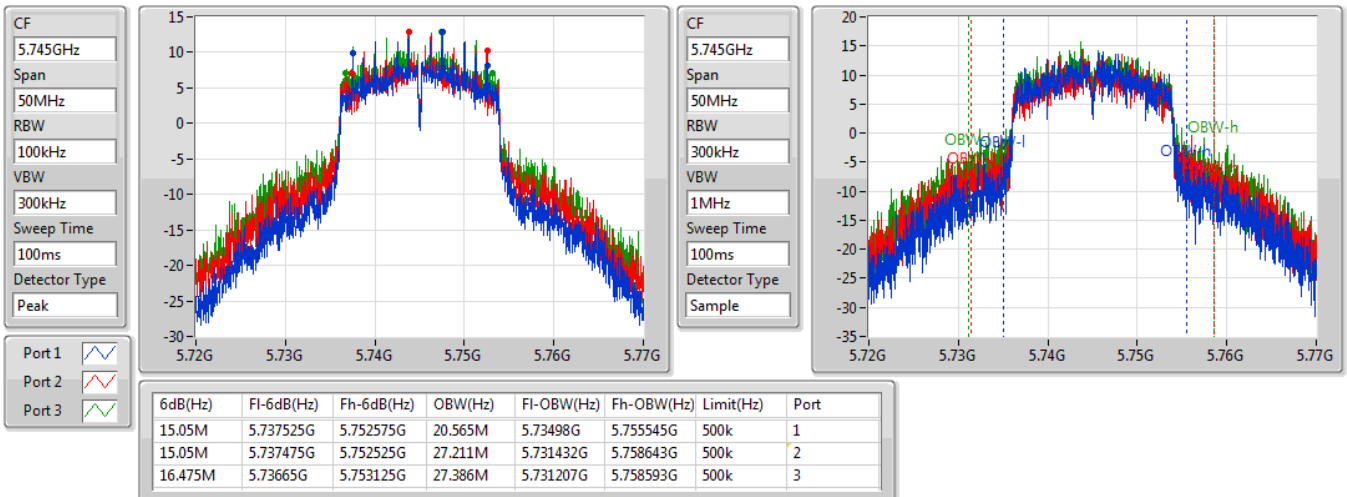


802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5240MHz

11/07/2019

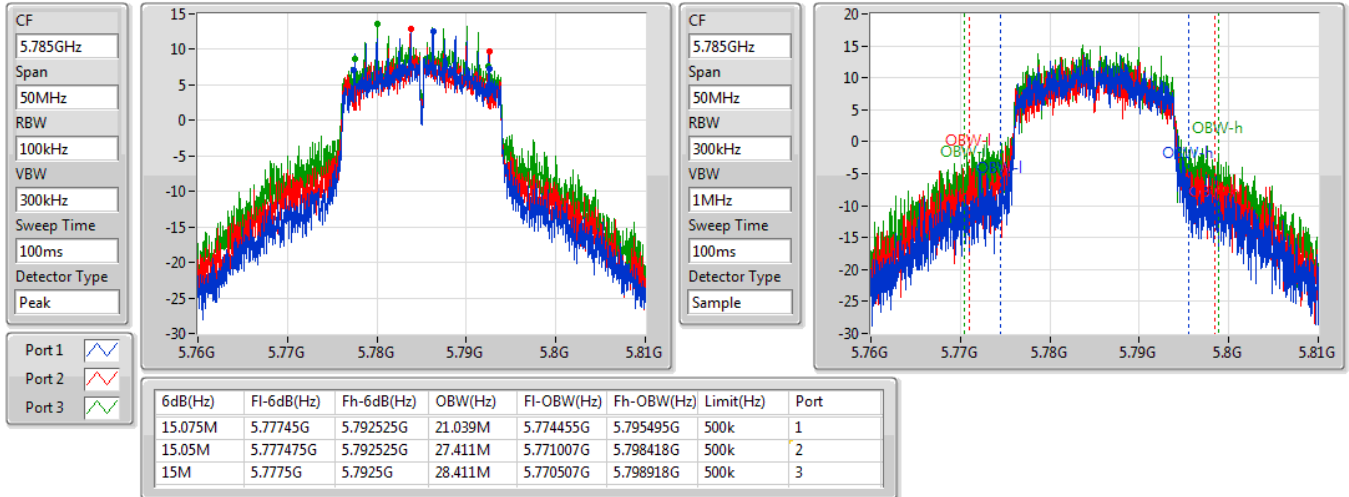

802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5745MHz

13/08/2019

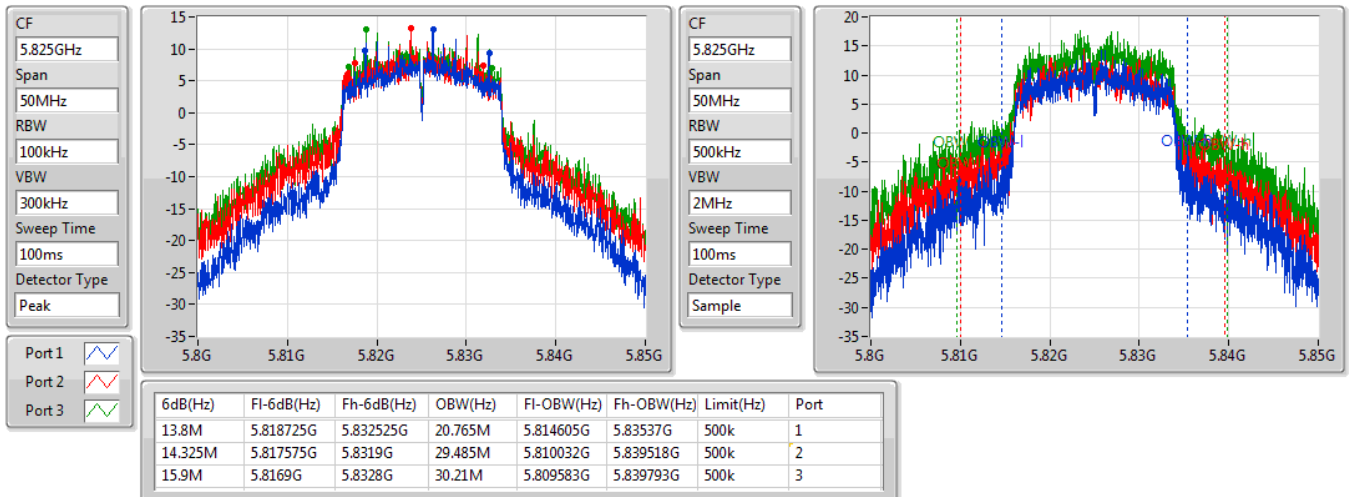


802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5785MHz

13/08/2019

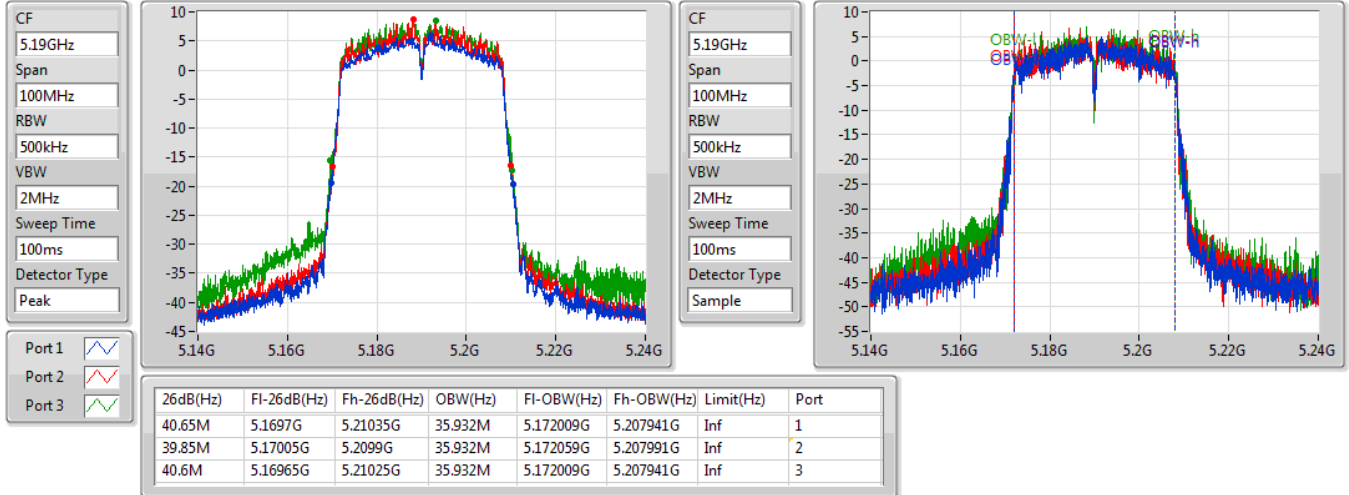

802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5825MHz

13/08/2019

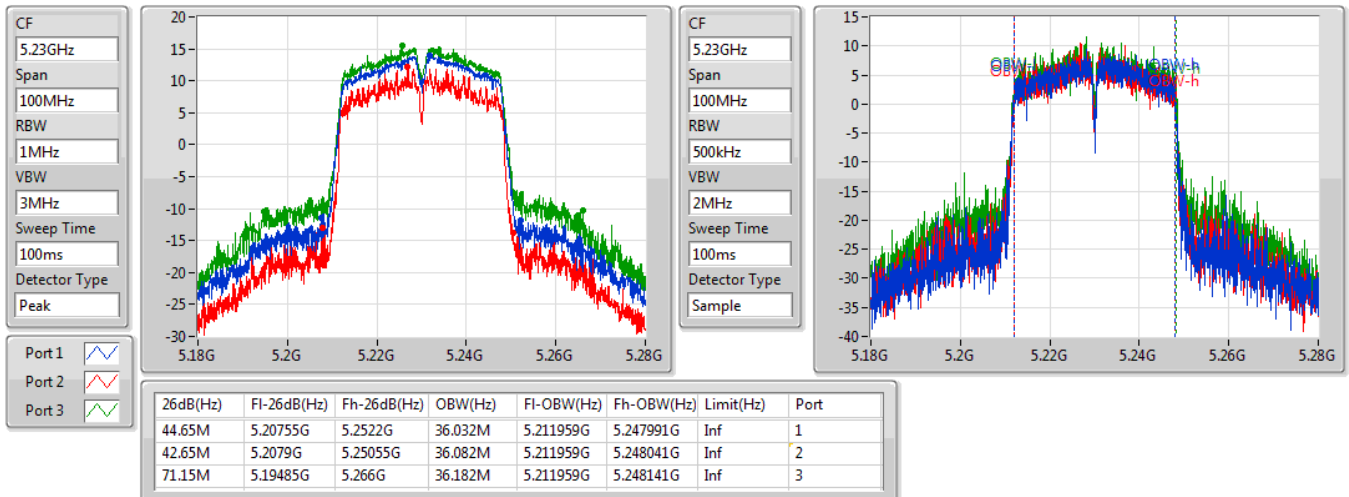


802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5190MHz

11/07/2019

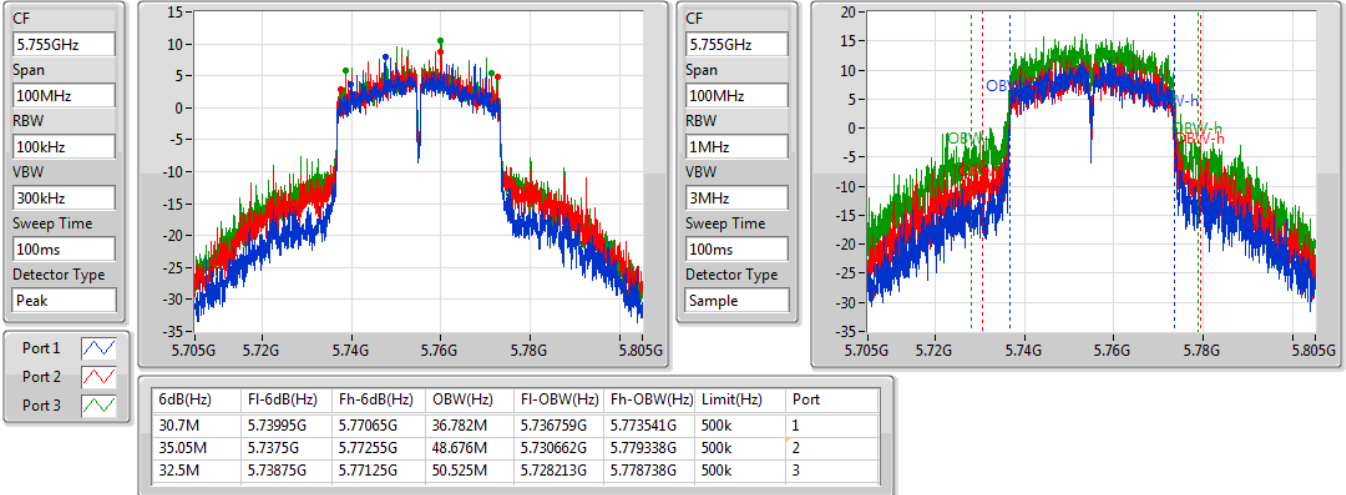

802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5230MHz

11/07/2019

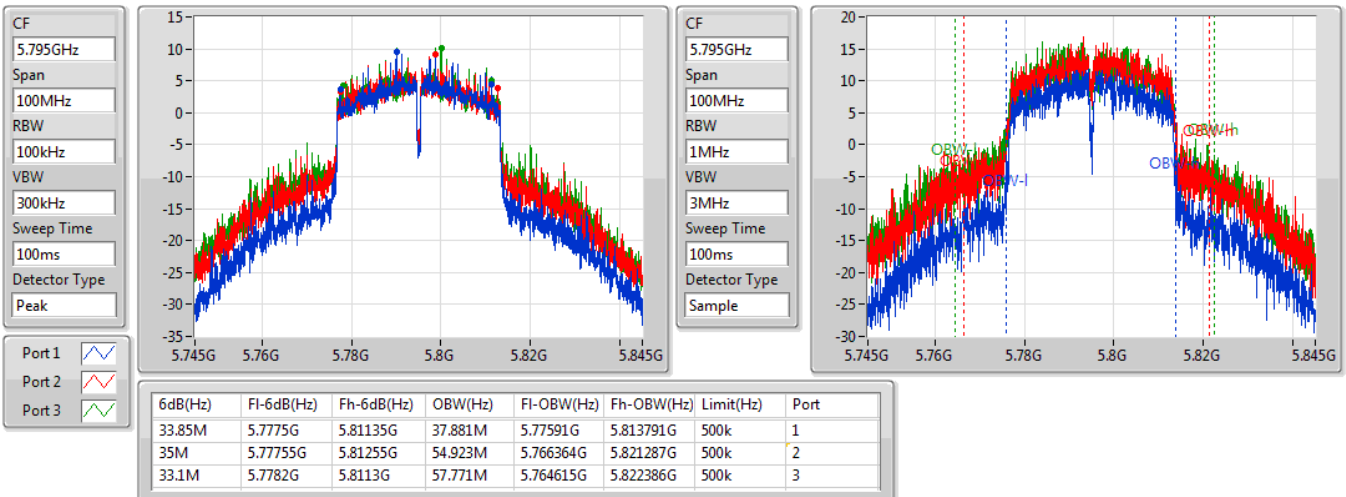


802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5755MHz

11/07/2019

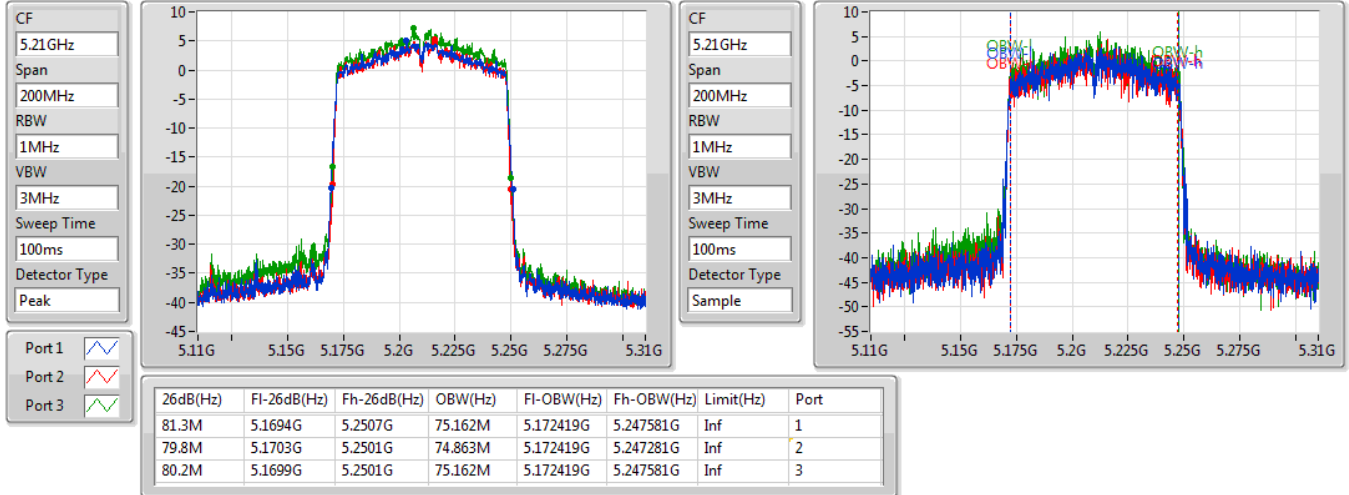

802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5795MHz

11/07/2019

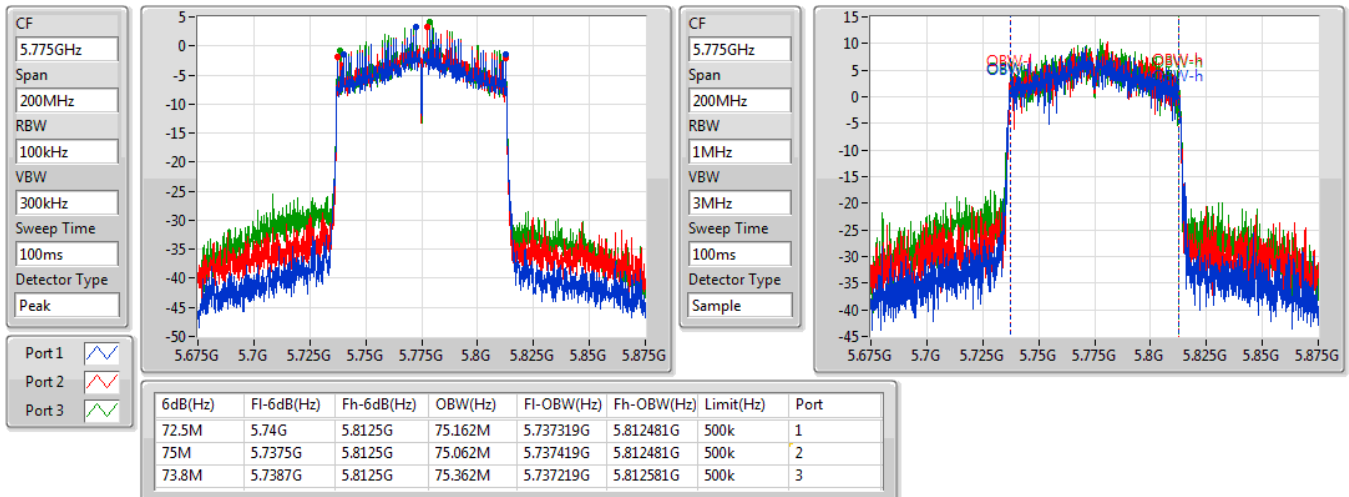


802.11ac VHT80-BF_Nss1,(MCS0)_3TX
EBW
5210MHz

11/07/2019


802.11ac VHT80-BF_Nss1,(MCS0)_3TX
EBW
5775MHz

11/07/2019





Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_3TX	26.03	0.40087
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	25.32	0.34041
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	24.34	0.27164
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	17.90	0.06166
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_3TX	28.18	0.65766
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	28.23	0.66527
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	27.11	0.51404
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	22.83	0.19187



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
5180MHz	Pass	3.22	19.17	19.11	20.24	24.31	30.00
5200MHz	Pass	3.22	21.13	21.03	21.60	26.03	30.00
5240MHz	Pass	3.22	20.65	20.47	21.53	25.68	30.00
5745MHz	Pass	3.06	23.00	23.24	23.93	28.18	30.00
5785MHz	Pass	3.06	22.58	22.42	23.01	27.45	30.00
5825MHz	Pass	3.06	21.54	21.02	21.37	26.09	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5180MHz	Pass	7.86	18.25	18.45	19.38	23.49	28.14
5200MHz	Pass	7.86	20.23	20.31	21.06	25.32	28.14
5240MHz	Pass	7.86	20.27	20.22	21.11	25.32	28.14
5745MHz	Pass	7.67	22.93	22.84	24.01	28.06	28.33
5785MHz	Pass	7.67	23.16	22.95	24.16	28.23	28.33
5825MHz	Pass	7.67	22.97	23.27	24.01	28.21	28.33
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5190MHz	Pass	7.86	16.55	16.41	16.42	21.23	28.14
5230MHz	Pass	7.86	19.37	19.31	19.98	24.34	28.14
5755MHz	Pass	7.67	21.64	21.91	22.53	26.81	28.33
5795MHz	Pass	7.67	22.20	22.31	22.51	27.11	28.33
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5210MHz	Pass	7.86	13.22	13.12	13.04	17.90	28.14
5775MHz	Pass	7.67	17.74	17.96	18.45	22.83	28.33

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

Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_3TX	14.22
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	13.77
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	9.57
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	0.70
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_3TX	14.93
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	14.05
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	10.63
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	3.83

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
5180MHz	Pass	7.86	8.12	7.88	8.89	13.01	15.14
5200MHz	Pass	7.86	9.50	9.20	9.78	14.22	15.14
5240MHz	Pass	7.86	9.48	9.32	9.85	14.14	15.14
5745MHz	Pass	7.67	10.58	10.41	10.30	14.93	28.33
5785MHz	Pass	7.67	8.84	9.71	9.42	13.99	28.33
5825MHz	Pass	7.67	8.26	7.92	8.32	12.81	28.33
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5180MHz	Pass	7.86	6.44	6.97	7.83	11.84	15.14
5200MHz	Pass	7.86	8.78	8.81	9.37	13.72	15.14
5240MHz	Pass	7.86	8.69	8.80	9.52	13.77	15.14
5745MHz	Pass	7.67	9.12	9.17	10.03	14.02	28.33
5785MHz	Pass	7.67	9.20	9.08	10.18	14.02	28.33
5825MHz	Pass	7.67	9.06	9.46	9.95	14.05	28.33
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5190MHz	Pass	7.86	1.89	1.76	1.61	6.40	15.14
5230MHz	Pass	7.86	4.90	4.59	5.27	9.57	15.14
5755MHz	Pass	7.67	5.81	5.87	6.78	10.63	28.33
5795MHz	Pass	7.67	6.00	6.23	6.58	10.55	28.33
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5210MHz	Pass	7.86	-3.68	-3.86	-4.06	0.70	15.14
5775MHz	Pass	7.67	-1.20	-0.64	-0.05	3.83	28.33

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

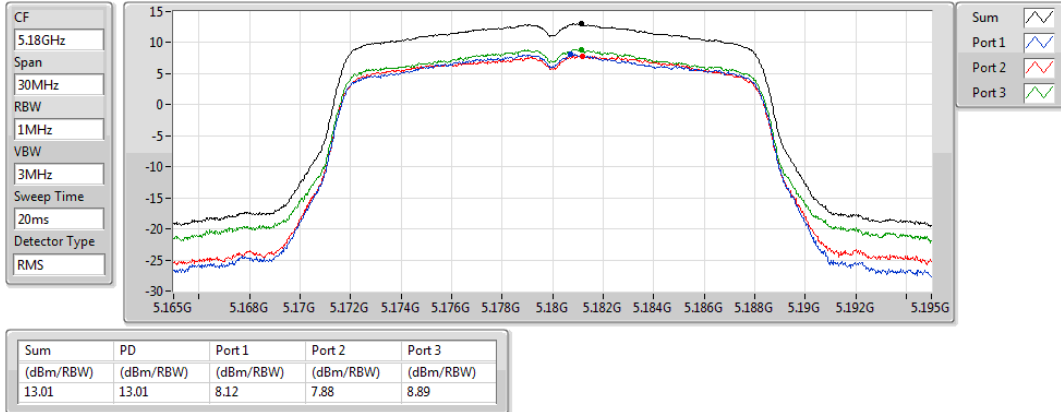
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11a_Nss1,(6Mbps)_3TX

PSD

5180MHz

11/07/2019

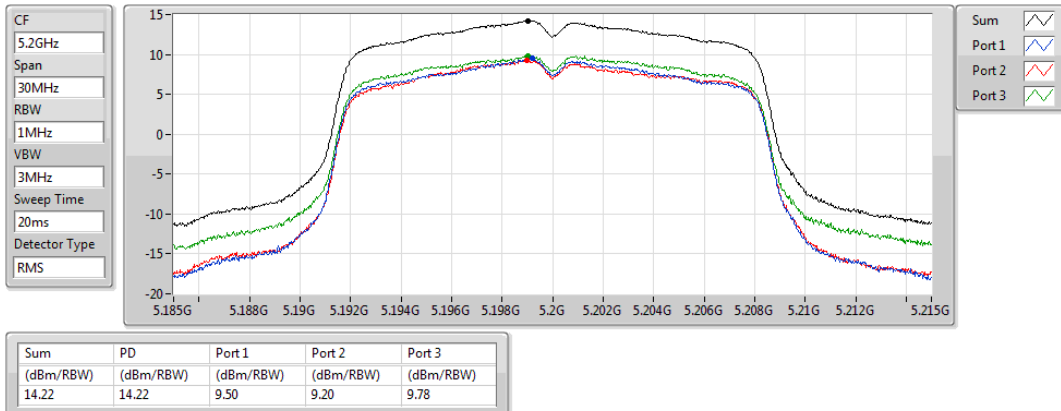


802.11a_Nss1,(6Mbps)_3TX

PSD

5200MHz

11/07/2019

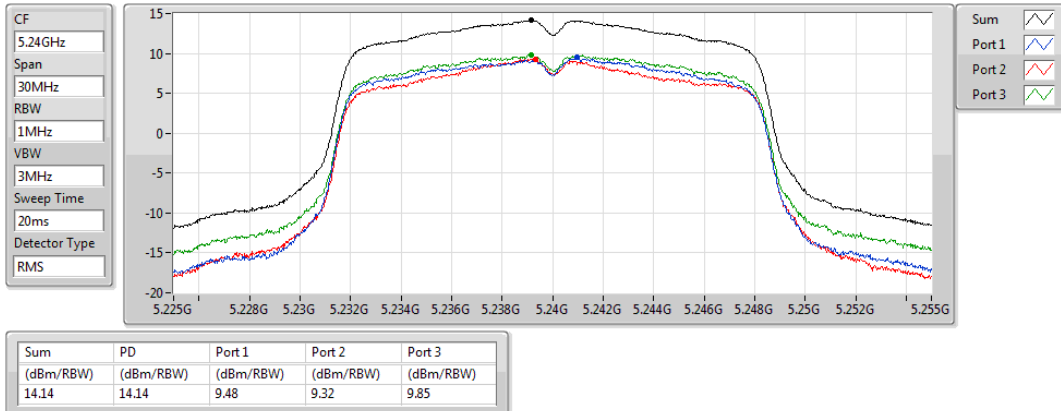


802.11a_Nss1,(6Mbps)_3TX

PSD

5240MHz

11/07/2019

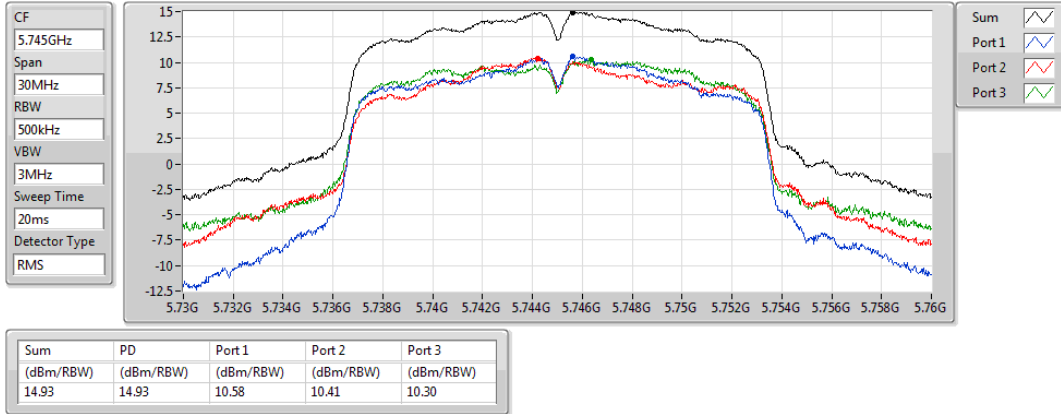


802.11a_Nss1,(6Mbps)_3TX

PSD

5745MHz

11/07/2019

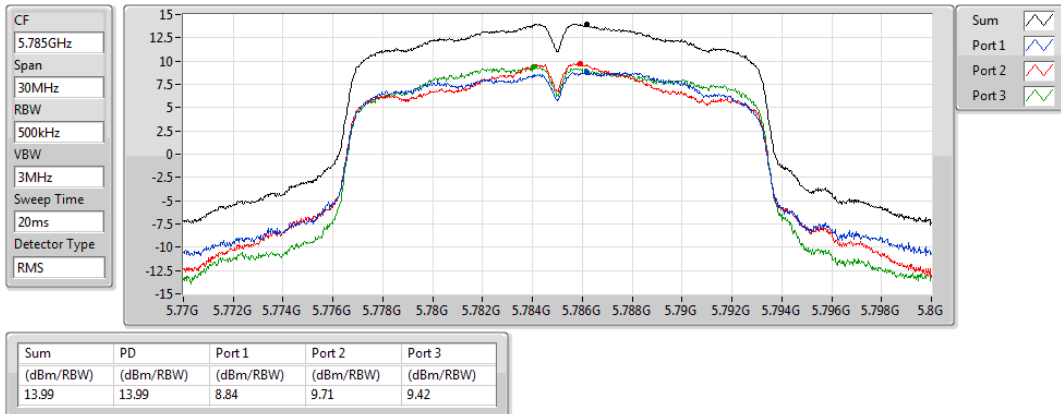


802.11a_Nss1,(6Mbps)_3TX

PSD

5785MHz

06/08/2019

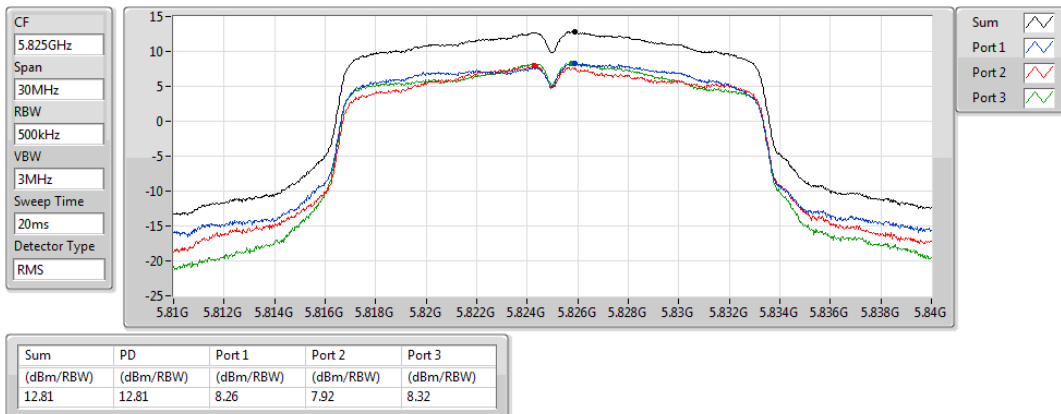


802.11a_Nss1,(6Mbps)_3TX

PSD

5825MHz

06/08/2019

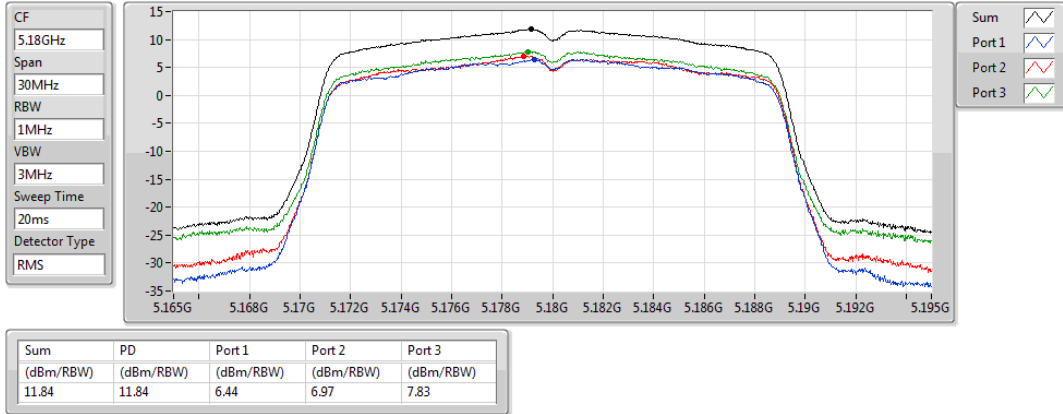


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

PSD

5180MHz

11/07/2019

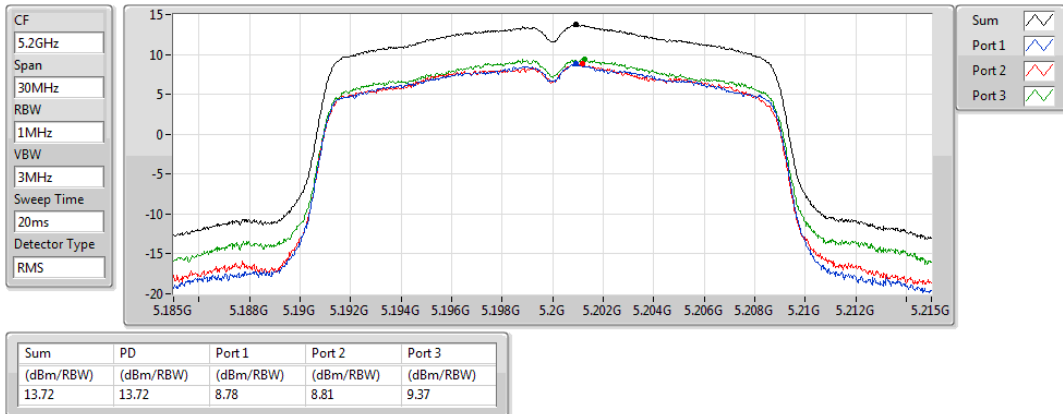


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

PSD

5200MHz

11/07/2019

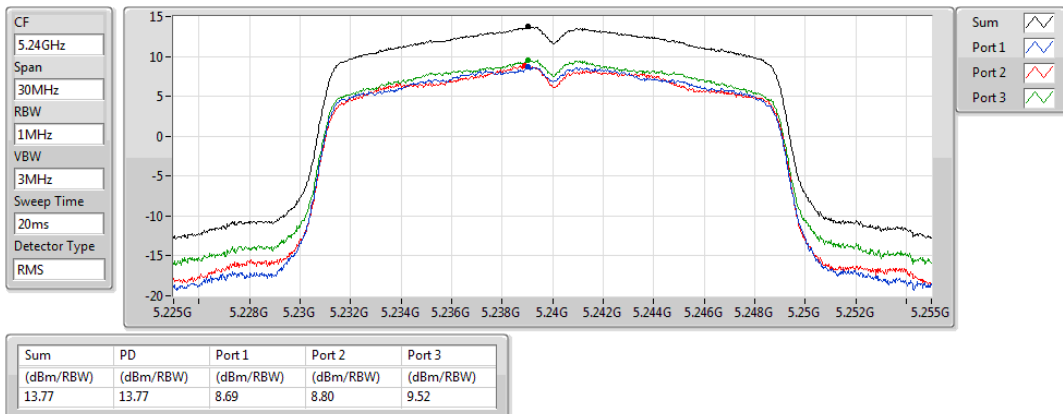


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

PSD

5240MHz

11/07/2019

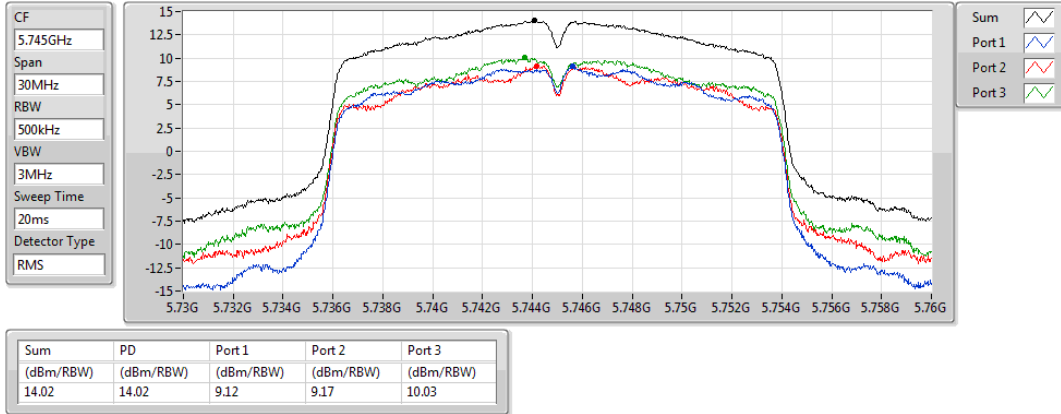


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

PSD

5745MHz

13/08/2019

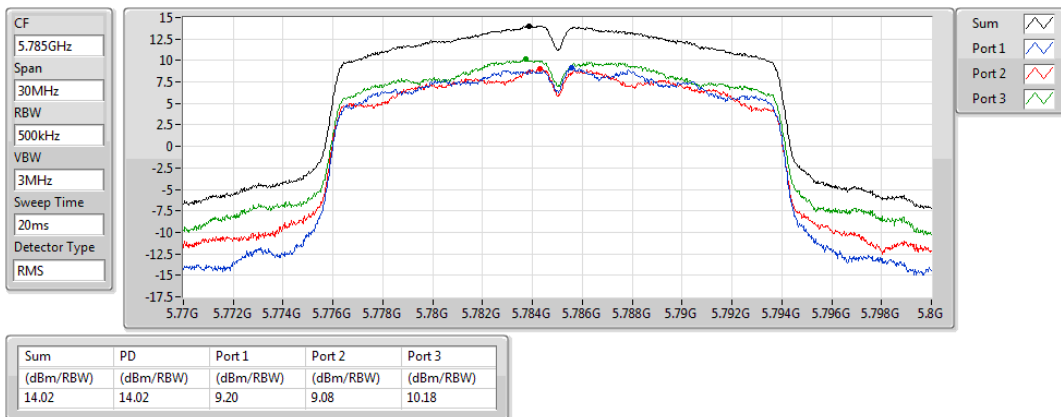


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

PSD

5785MHz

13/08/2019

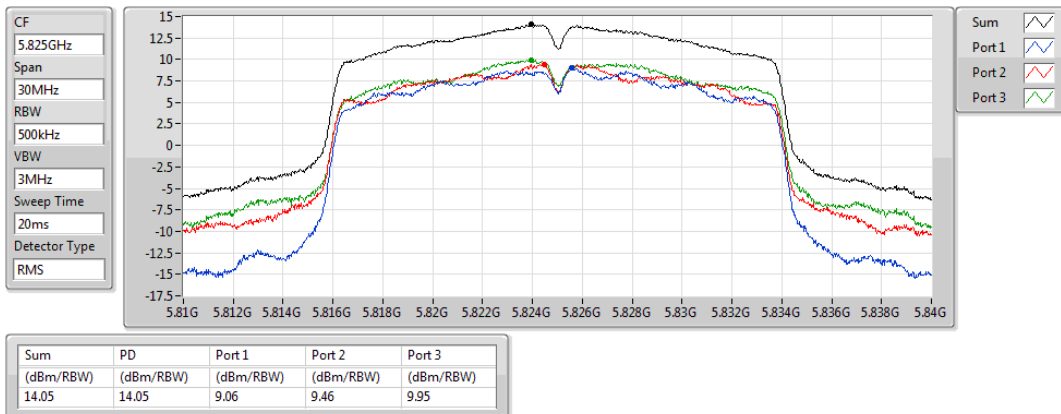


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

PSD

5825MHz

13/08/2019

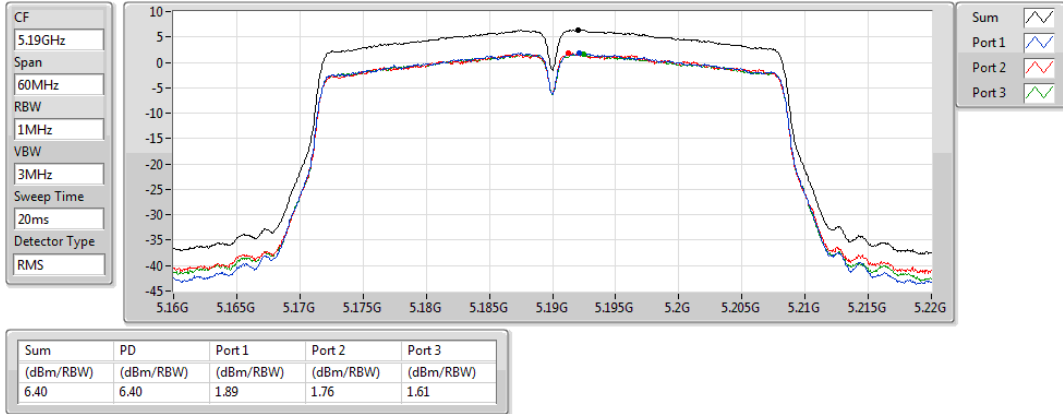


802.11ac VHT40-BF_Nss1,(MCS0)_3TX

PSD

5190MHz

24/07/2019

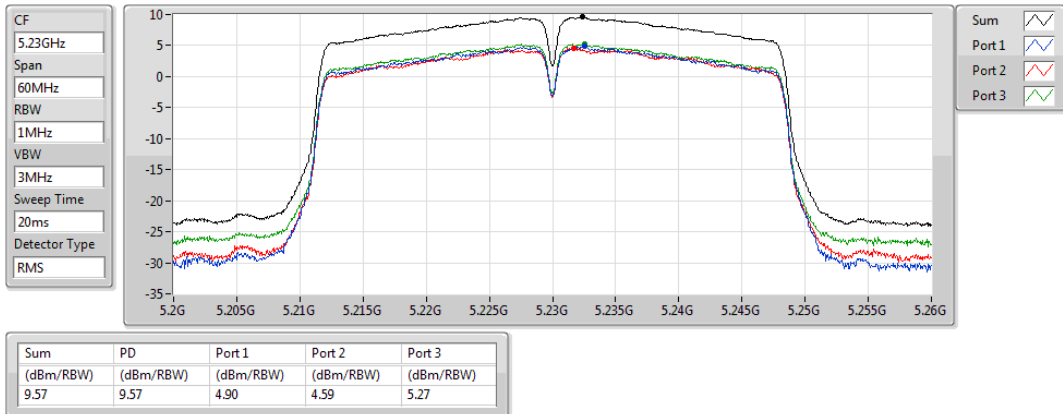


802.11ac VHT40-BF_Nss1,(MCS0)_3TX

PSD

5230MHz

24/07/2019

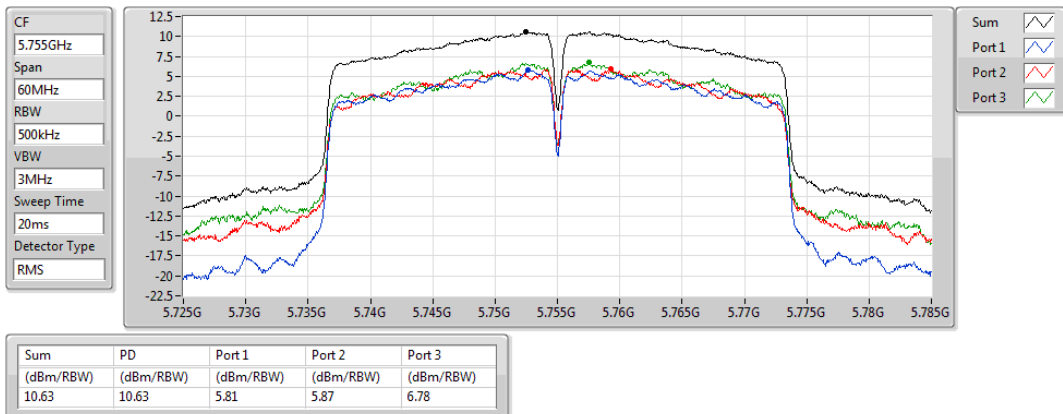


802.11ac VHT40-BF_Nss1,(MCS0)_3TX

PSD

5755MHz

11/07/2019

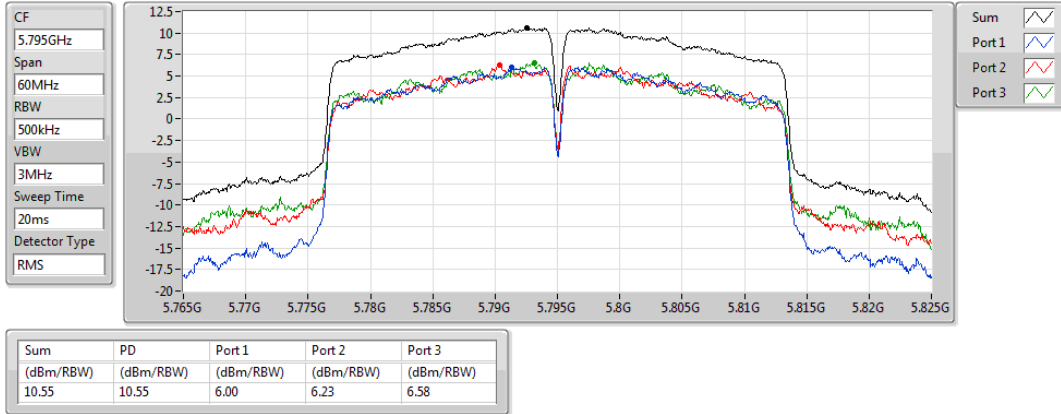


802.11ac VHT40-BF_Nss1,(MCS0)_3TX

PSD

5795MHz

11/07/2019

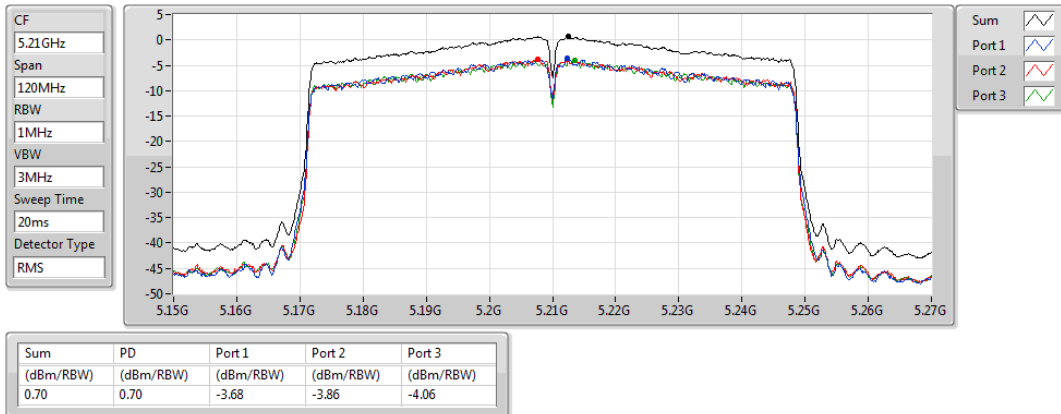


802.11ac VHT80-BF_Nss1,(MCS0)_3TX

PSD

5210MHz

24/07/2019

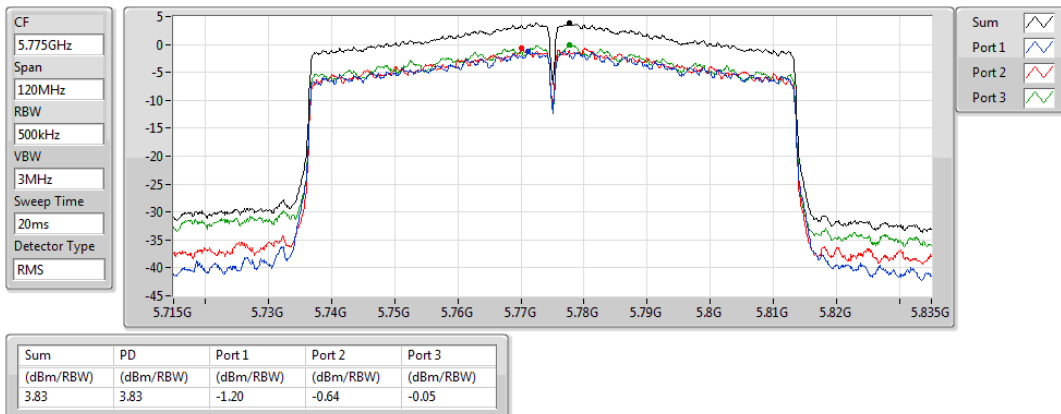


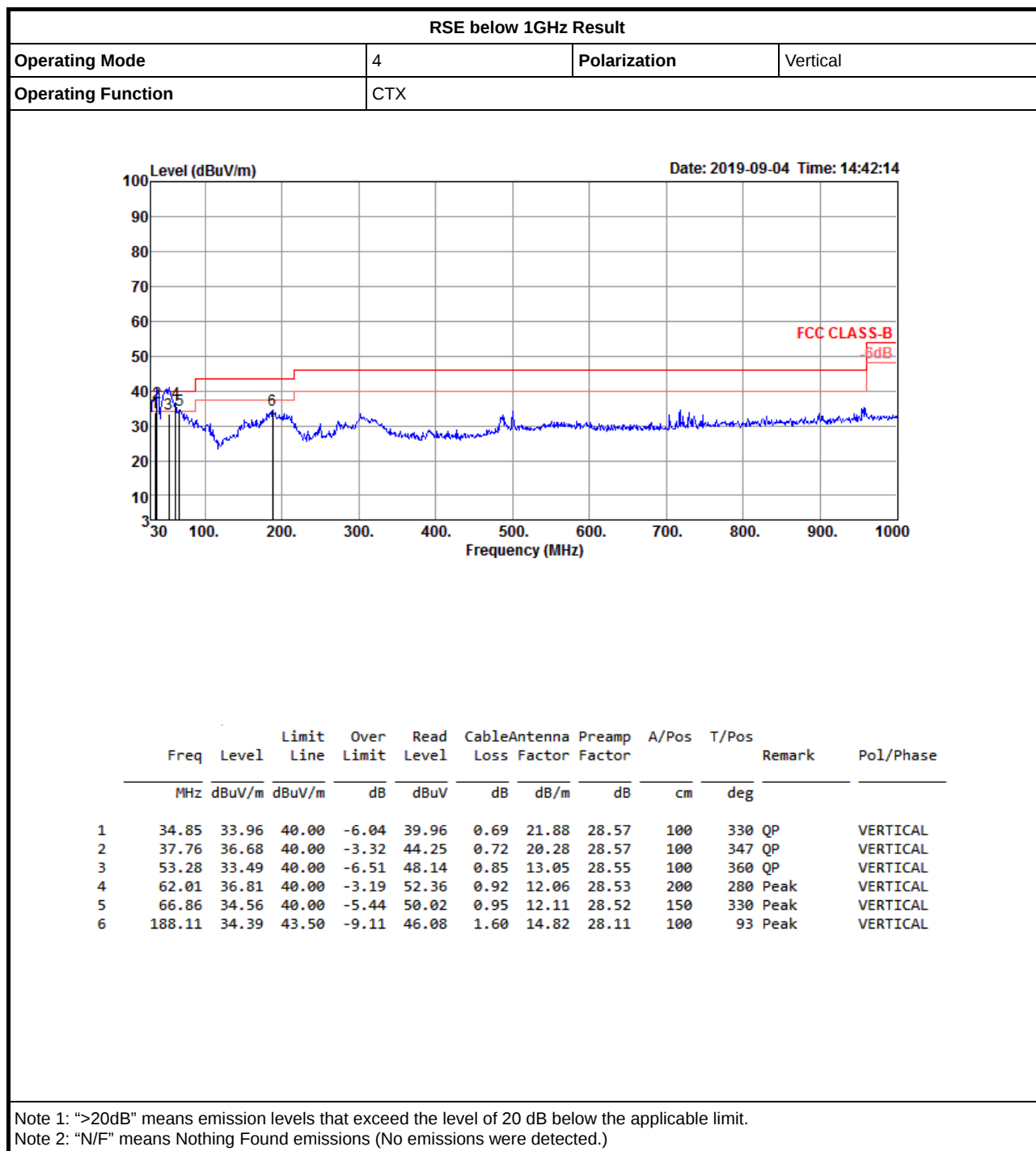
802.11ac VHT80-BF_Nss1,(MCS0)_3TX

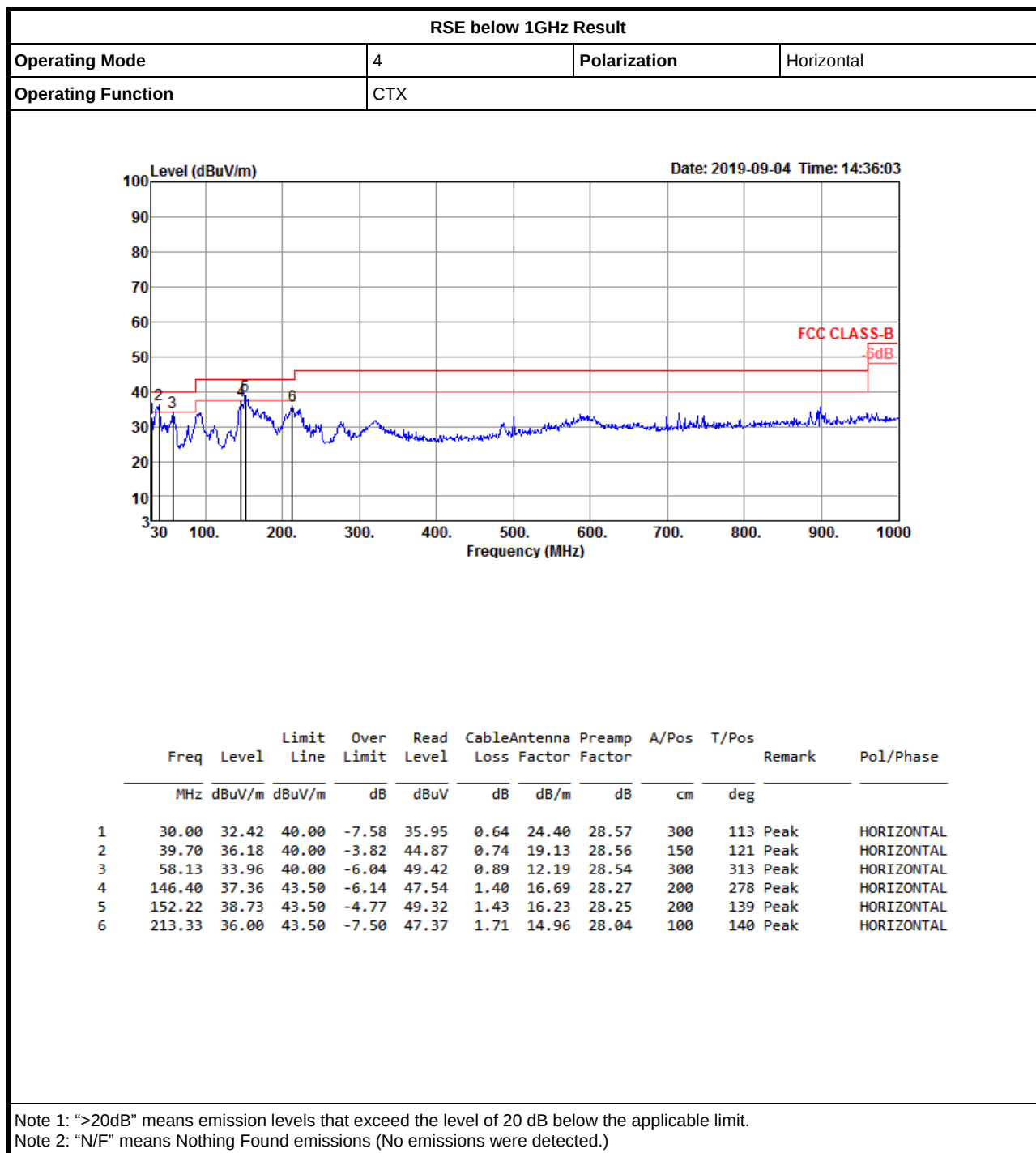
PSD

5775MHz

11/07/2019









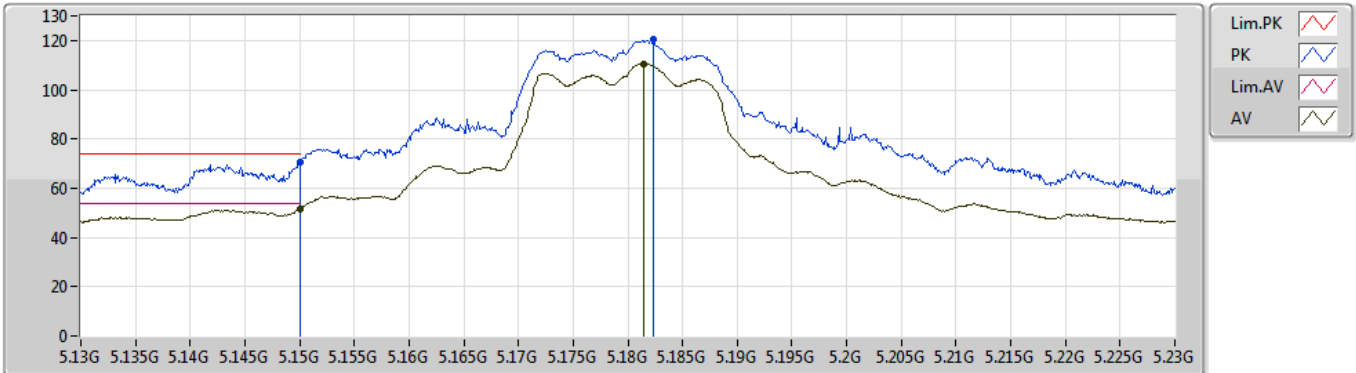
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	Pass	PK	5.636G	67.18	68.20	-1.02	7.63	3	Vertical	356	1.74	-

802.11a_Nss1,(6Mbps)_3TX

23/07/2019

5180MHz_TX



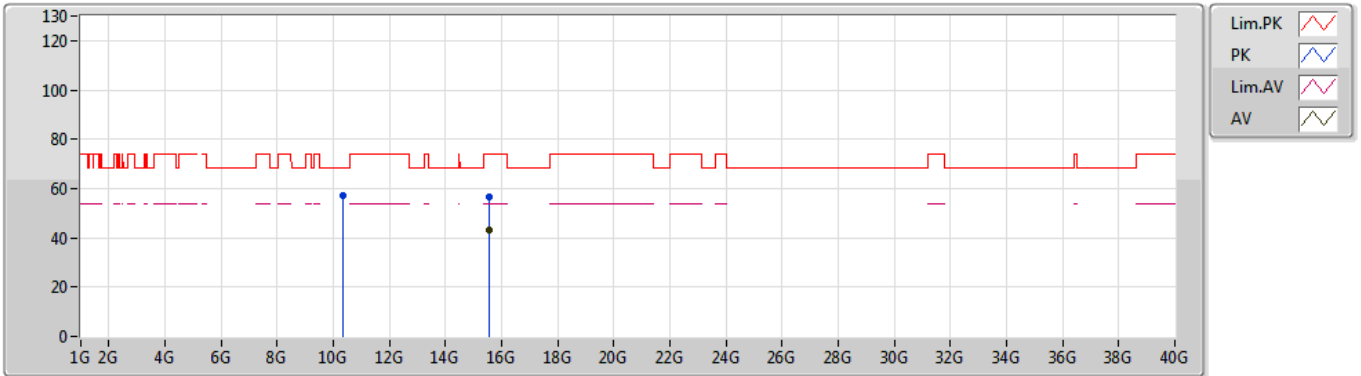
EUT Z_3TX
Setting 22
04-W-3-10
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	5.15G	70.78	74.00	-3.22	3.36	3	Vertical	1	1.86	-			
AV	5.15G	51.44	54.00	-2.56	3.36	3	Vertical	1	1.86	-			
PK	5.1823G	120.38	Inf	-Inf	3.39	3	Vertical	1	1.86	-			
AV	5.1815G	110.45	Inf	-Inf	3.39	3	Vertical	1	1.86	-			

802.11a_Nss1,(6Mbps)_3TX

16/07/2019

5180MHz_TX



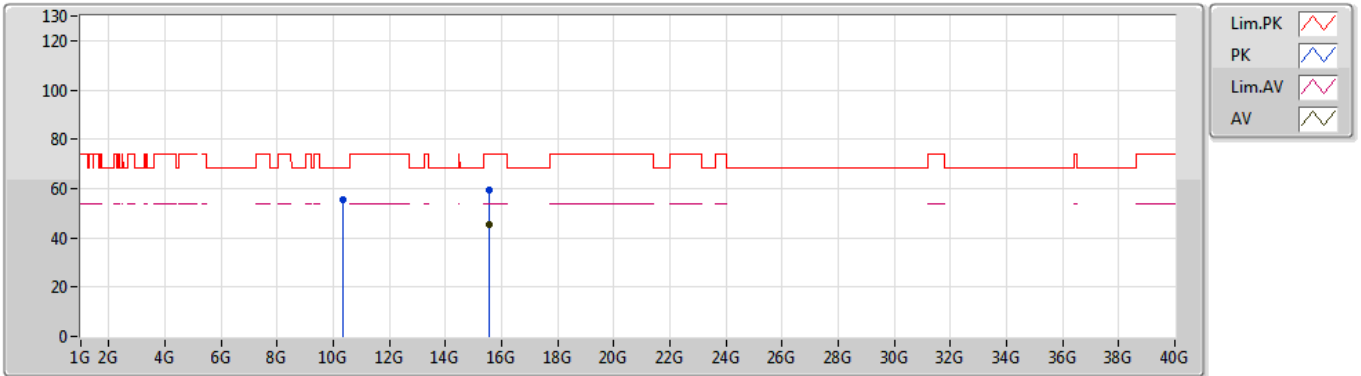
EUT Y_3TX
Setting 22
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.36348G	57.36	68.20	-10.84	10.67	3	Vertical	196	1.96	-				
PK	15.5484G	56.84	74.00	-17.16	10.79	3	Vertical	346	1.50	-				
AV	15.5506G	43.42	54.00	-10.58	10.79	3	Vertical	346	1.50	-				

802.11a_Nss1,(6Mbps)_3TX

16/07/2019

5180MHz_TX



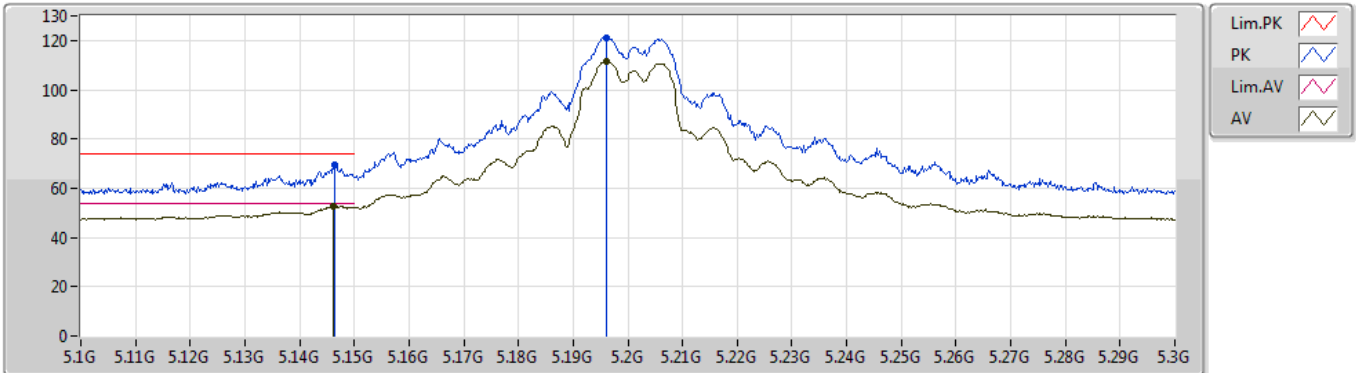
EUT Y_3TX
Setting 22
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	10.36372G	55.24	68.20	-12.96	10.67	3	Horizontal	211	1.78	-			
PK	15.54384G	59.43	74.00	-14.57	10.79	3	Horizontal	130	1.83	-			
AV	15.53876G	45.56	54.00	-8.44	10.80	3	Horizontal	130	1.83	-			

802.11a_Nss1,(6Mbps)_3TX

09/07/2019

5200MHz_TX



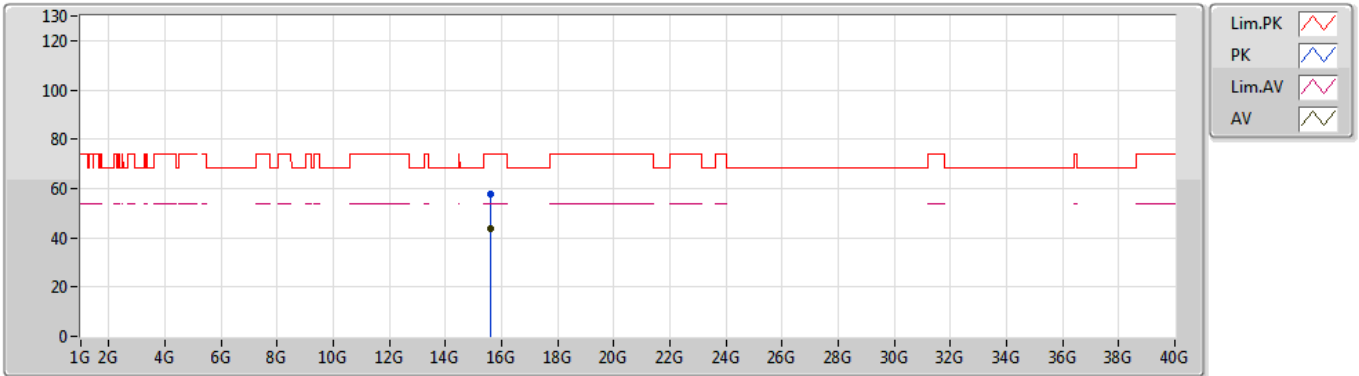
EUT Z_3TX
Setting 26
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	5.1464G	69.51	74.00	-4.49	7.32	3	Vertical	346	1.94	-			
AV	5.1462G	52.77	54.00	-1.23	7.32	3	Vertical	346	1.94	-			
PK	5.196G	121.19	Inf	-Inf	7.37	3	Vertical	346	1.94	-			
AV	5.1962G	111.37	Inf	-Inf	7.37	3	Vertical	346	1.94	-			

802.11a_Nss1,(6Mbps)_3TX

16/07/2019

5200MHz_TX



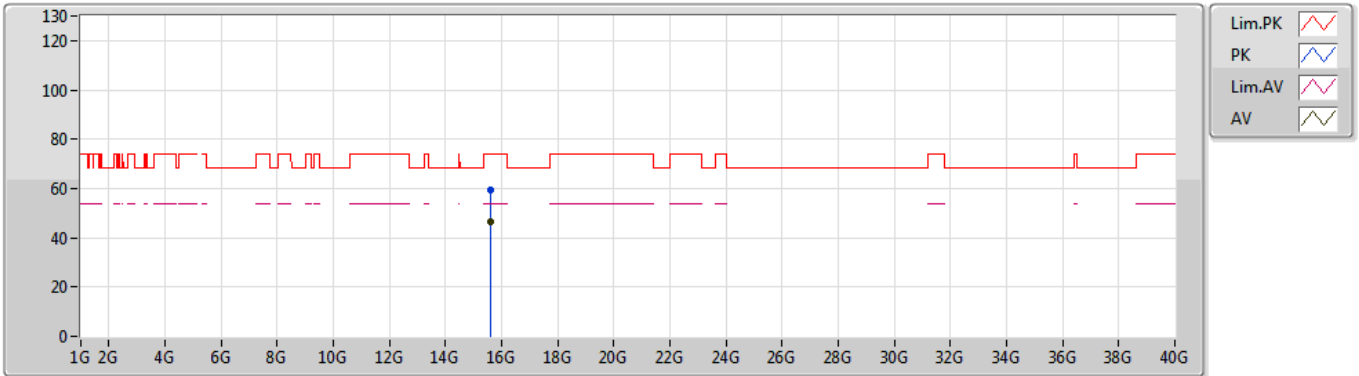
EUT Y_3TX
Setting 26
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.59436G	57.64	74.00	-16.36	10.75	3	Vertical	219	2.59	-				
AV	15.59562G	43.86	54.00	-10.14	10.75	3	Vertical	219	2.59	-				

802.11a_Nss1,(6Mbps)_3TX

16/07/2019

5200MHz_TX



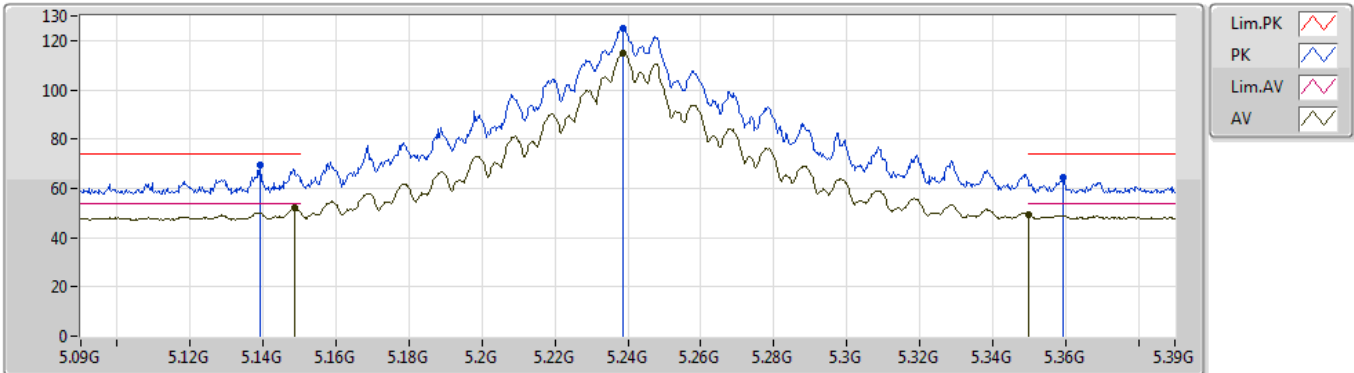
EUT Y_3TX
Setting 26
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	15.59838G	59.50	74.00	-14.50	10.74	3	Horizontal	114	1.85	-				
AV	15.59829G	46.75	54.00	-7.25	10.74	3	Horizontal	114	1.85	-				

802.11a_Nss1,(6Mbps)_3TX

09/07/2019

5240MHz_TX



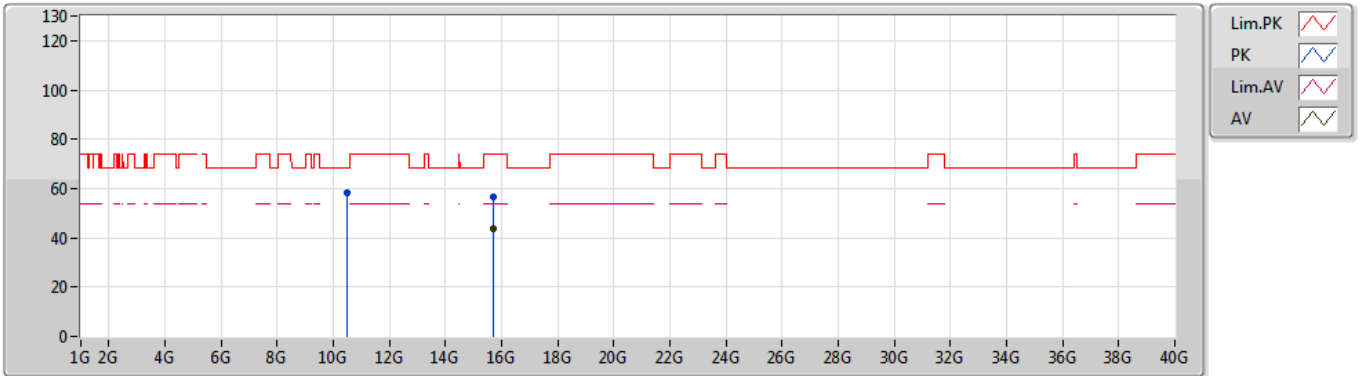
EUT Z_3TX
Setting 2C
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.1392G	69.64	74.00	-4.36	7.31	3	Vertical	345	1.82	-				
AV	5.1485G	51.99	54.00	-2.01	7.32	3	Vertical	345	1.82	-				
PK	5.2385G	124.84	Inf	-Inf	7.39	3	Vertical	345	1.82	-				
AV	5.2388G	114.64	Inf	-Inf	7.39	3	Vertical	345	1.82	-				
PK	5.3594G	64.31	74.00	-9.69	7.49	3	Vertical	345	1.82	-				
AV	5.35G	49.15	54.00	-4.85	7.47	3	Vertical	345	1.82	-				

802.11a_Nss1,(6Mbps)_3TX

16/07/2019

5240MHz_TX



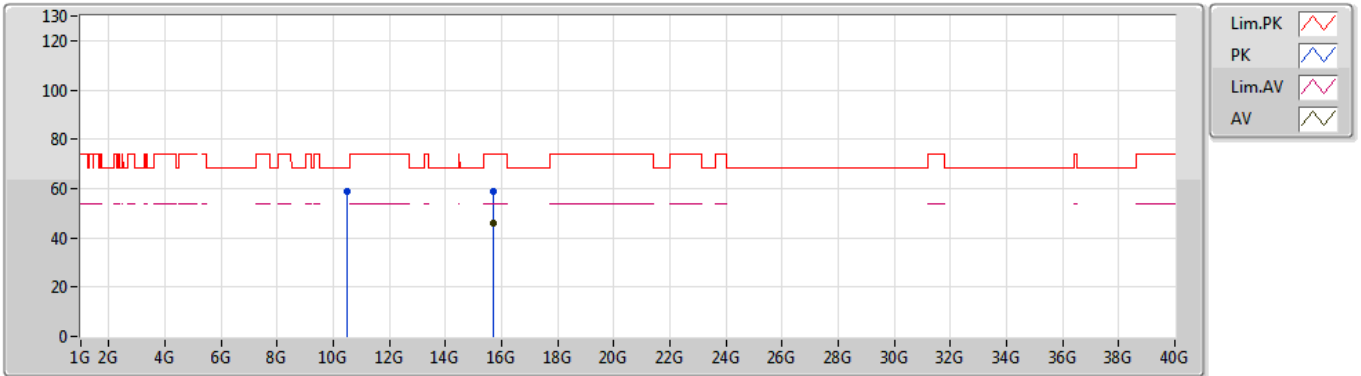
EUT Y_3TX
Setting 2C
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.48476G	58.45	68.20	-9.75	10.73	3	Vertical	167	1.21	-				
PK	15.72708G	56.71	74.00	-17.29	10.63	3	Vertical	214	2.81	-				
AV	15.71632G	43.54	54.00	-10.46	10.64	3	Vertical	214	2.81	-				

802.11a_Nss1,(6Mbps)_3TX

16/07/2019

5240MHz_TX



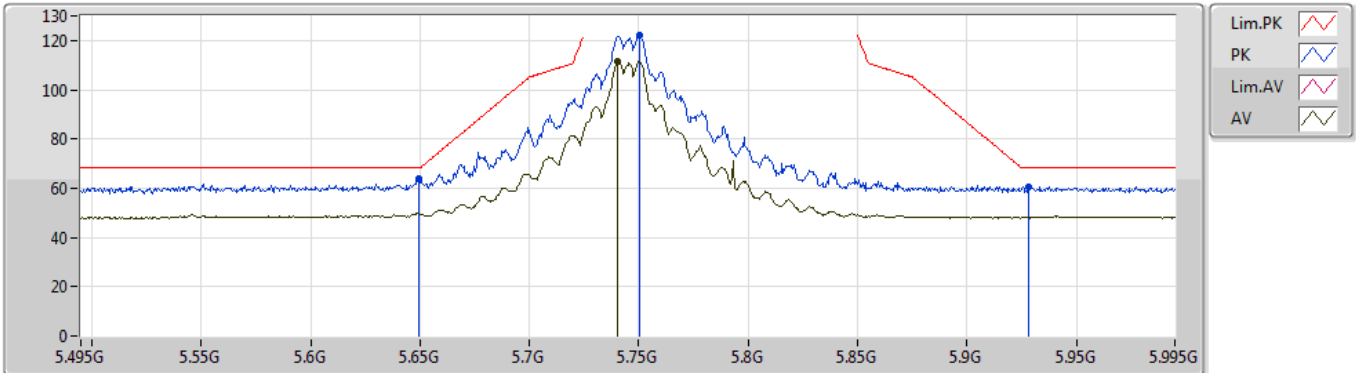
EUT Y_3TX
Setting 2C
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	10.47469G	58.75	68.20	-9.45	10.71	3	Horizontal	208	2.03	-
PK	15.71931G	58.81	74.00	-15.19	10.63	3	Horizontal	121	1.88	-
AV	15.71925G	45.68	54.00	-8.32	10.63	3	Horizontal	121	1.88	-

802.11a_Nss1,(6Mbps)_3TX

10/07/2019

5745MHz_TX



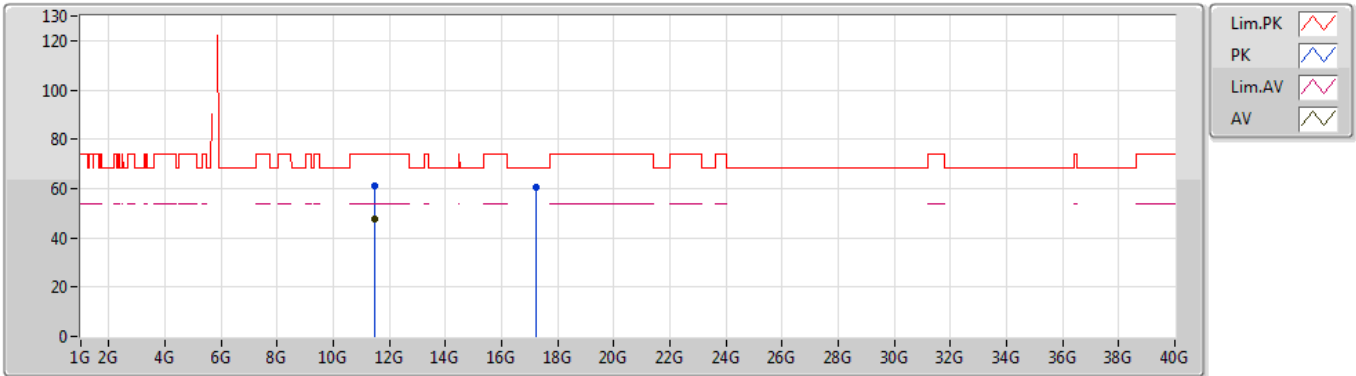
EUT_Z_3TX
Setting 2C
06-K-3-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.6495G	63.62	68.20	-4.58	7.65	3	Vertical	7	1.76	-				
PK	5.7505G	122.25	Inf	-Inf	7.86	3	Vertical	7	1.76	-				
AV	5.7405G	111.74	Inf	-Inf	7.84	3	Vertical	7	1.76	-				
PK	5.928G	60.76	68.20	-7.44	8.23	3	Vertical	7	1.76	-				

802.11a_Nss1,(6Mbps)_3TX

03/08/2019

5745MHz_TX



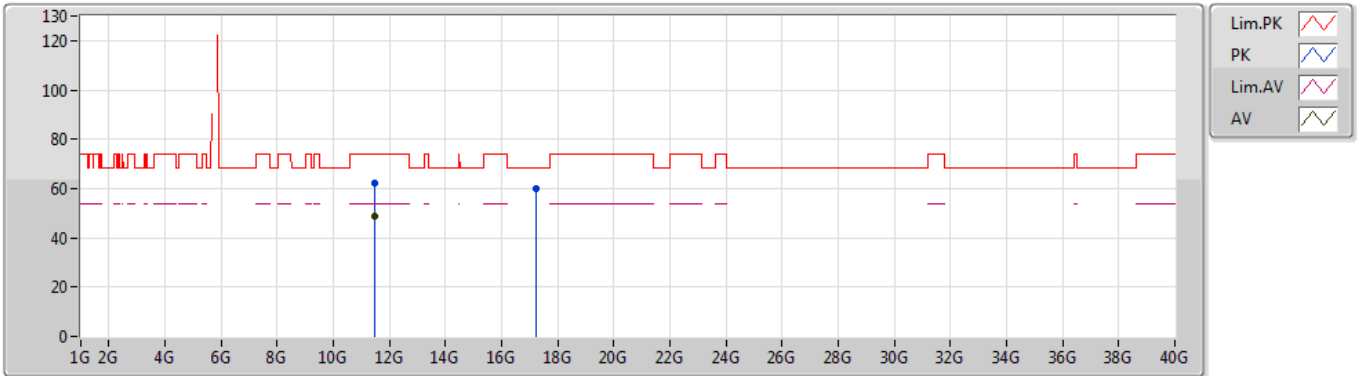
EUT Y_3TX
Setting 2C
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.4878G	61.25	74.00	-12.75	10.50	3	Vertical	119	1.69	-				
AV	11.48792G	47.77	54.00	-6.23	10.50	3	Vertical	119	1.69	-				
PK	17.23456G	60.43	68.20	-7.77	13.62	3	Vertical	57	1.99	-				

802.11a_Nss1,(6Mbps)_3TX

03/08/2019

5745MHz_TX



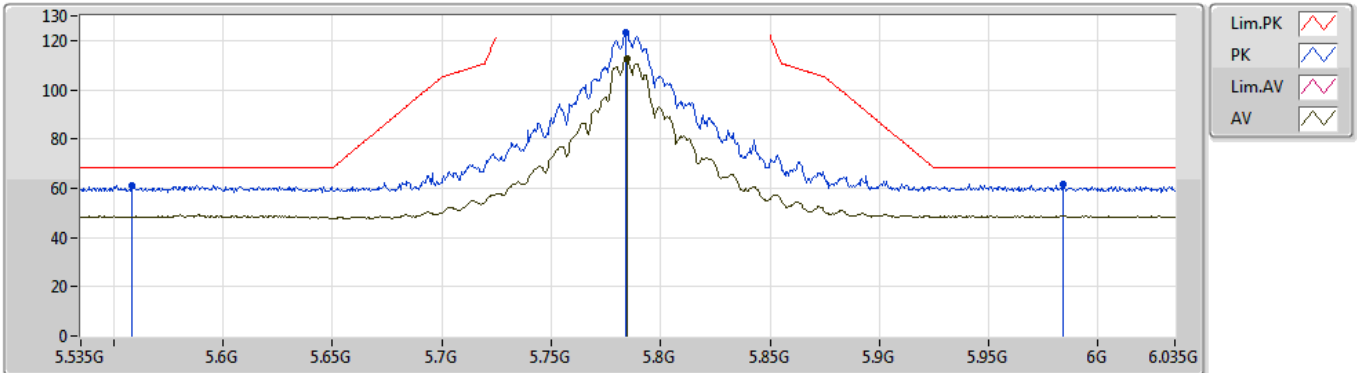
EUT Y_3TX
Setting 2C
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.48856G	62.00	74.00	-12.00	10.50	3	Horizontal	115	1.93	-			
AV	11.48812G	48.88	54.00	-5.12	10.50	3	Horizontal	115	1.93	-			
PK	17.23472G	59.85	68.20	-8.35	13.62	3	Horizontal	58	1.97	-			

802.11a_Nss1,(6Mbps)_3TX

23/07/2019

5785MHz_TX



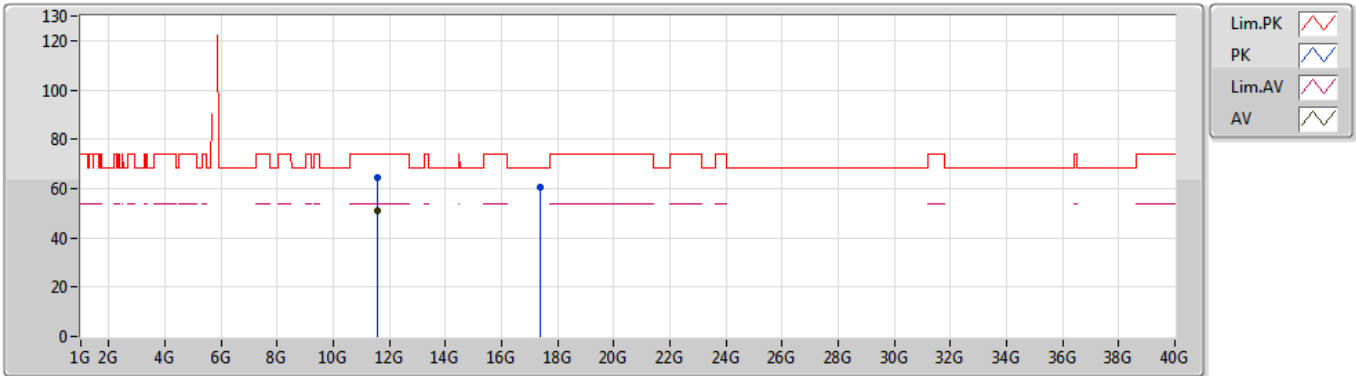
EUT_Z_3TX
Setting 2B
06-K-3-10
FSP(100142)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.5585G	61.35	68.20	-6.85	7.57	3	Vertical	352	1.78	-				
PK	5.784G	123.12	Inf	-Inf	7.94	3	Vertical	352	1.78	-				
AV	5.7845G	112.81	Inf	-Inf	7.94	3	Vertical	352	1.78	-				
PK	5.984G	61.57	68.20	-6.63	8.39	3	Vertical	352	1.78	-				

802.11a_Nss1,(6Mbps)_3TX

16/07/2019

5785MHz_TX



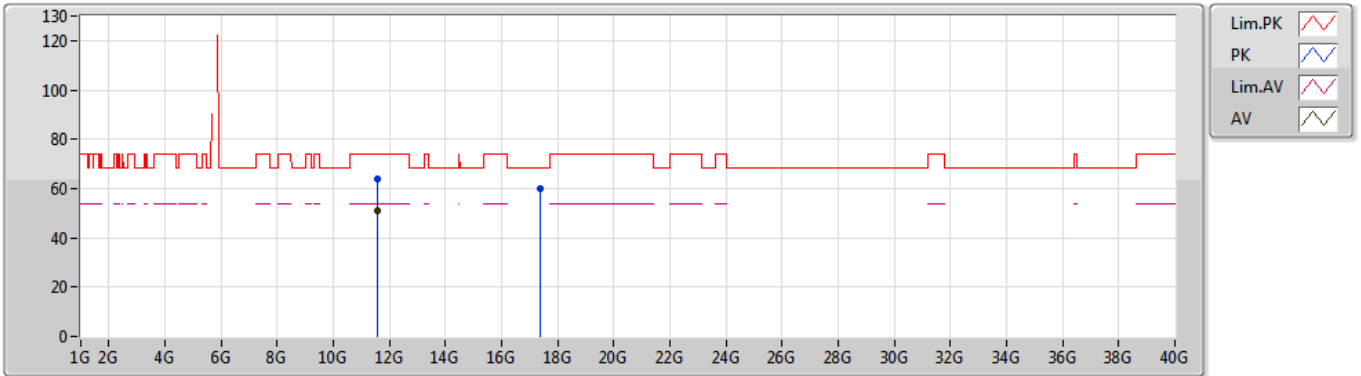
EUT Y_3TX
Setting 2B
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.56672G	64.52	74.00	-9.48	10.43	3	Vertical	123	1.67	-			
AV	11.56772G	51.00	54.00	-3.00	10.43	3	Vertical	123	1.67	-			
PK	17.36312G	60.70	68.20	-7.50	13.88	3	Vertical	128	2.85	-			

802.11a_Nss1,(6Mbps)_3TX

16/07/2019

5785MHz_TX



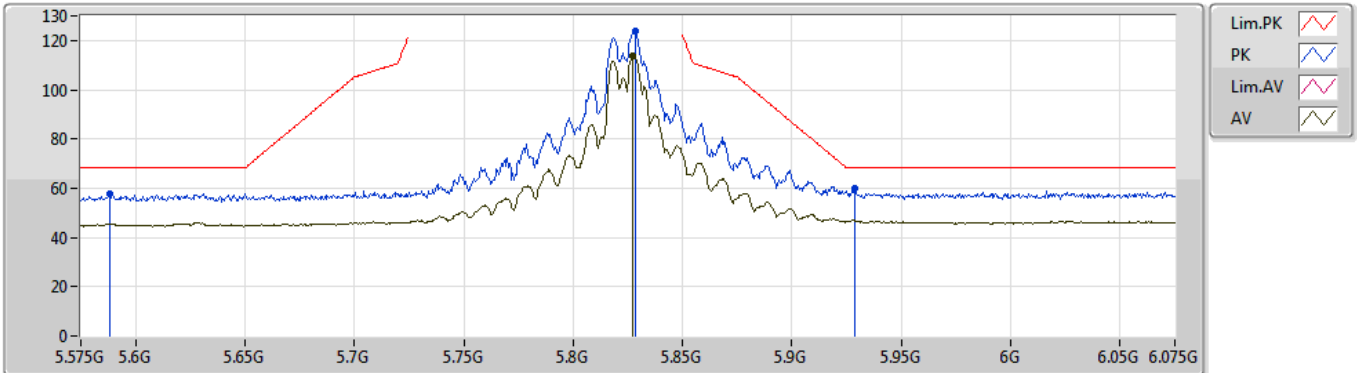
EUT Y_3TX
Setting 2B
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	11.56672G	63.73	74.00	-10.27	10.43	3	Horizontal	122	1.72	-
AV	11.56768G	51.00	54.00	-3.00	10.43	3	Horizontal	122	1.72	-
PK	17.3542G	59.75	68.20	-8.45	13.86	3	Horizontal	47	1.98	-

802.11a_Nss1,(6Mbps)_3TX

23/07/2019

5825MHz_TX



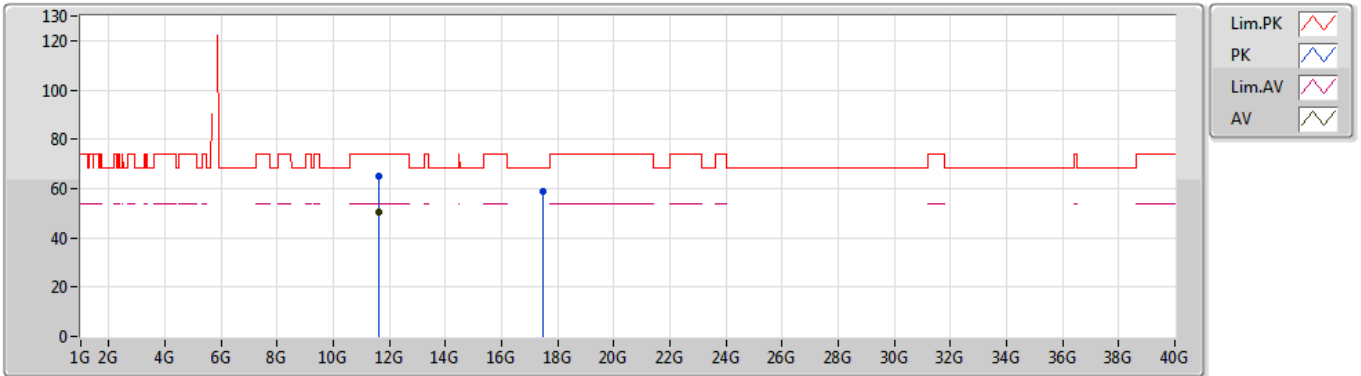
EUT_Z_3TX
Setting 28
04-W-3-10
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.5885G	57.72	68.20	-10.48	4.67	3	Vertical	325	2.14	-				
PK	5.8285G	123.81	Inf	-Inf	5.15	3	Vertical	325	2.14	-				
AV	5.8275G	113.83	Inf	-Inf	5.15	3	Vertical	325	2.14	-				
PK	5.929G	59.76	68.20	-8.44	5.72	3	Vertical	325	2.14	-				

802.11a_Nss1,(6Mbps)_3TX

23/07/2019

5825MHz_TX



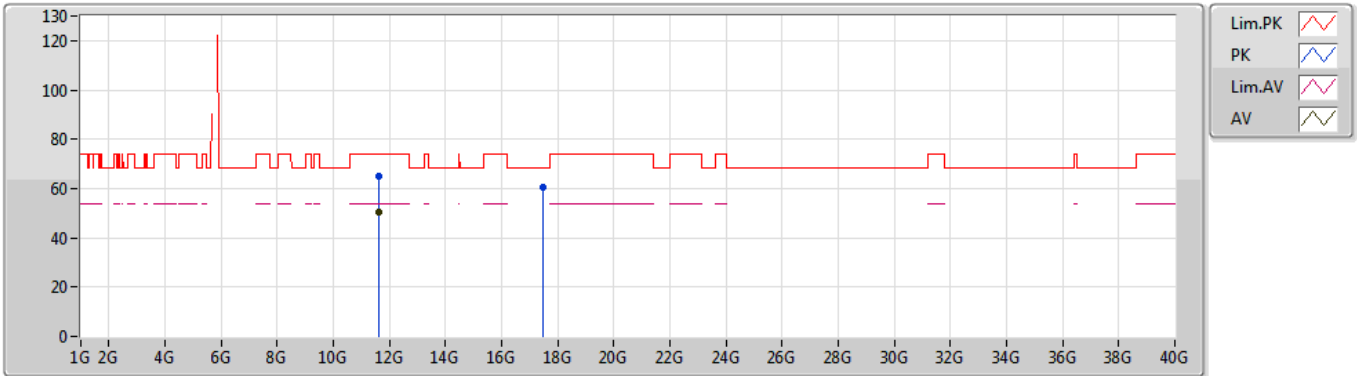
EUT Y_3TX
Setting 28
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.64644G	64.74	74.00	-9.26	10.36	3	Vertical	358	2.05	-			
AV	11.64596G	50.33	54.00	-3.67	10.36	3	Vertical	358	2.05	-			
PK	17.47372G	58.92	68.20	-9.28	14.10	3	Vertical	47	2.52	-			

802.11a_Nss1,(6Mbps)_3TX

23/07/2019

5825MHz_TX



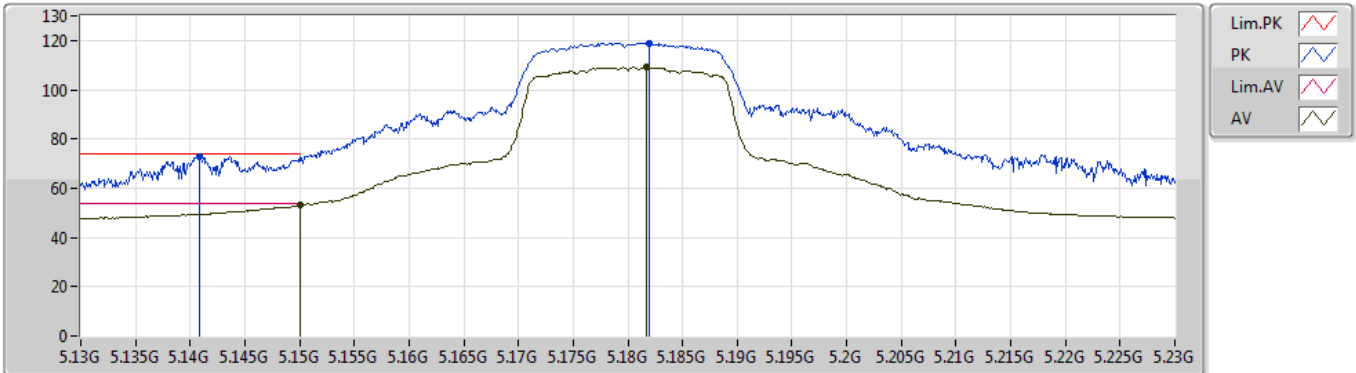
EUT Y_3TX
Setting 28
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.64636G	65.25	74.00	-8.75	10.36	3	Horizontal	133	1.96	-			
AV	11.64592G	50.51	54.00	-3.49	10.36	3	Horizontal	133	1.96	-			
PK	17.47278G	60.41	68.20	-7.79	14.09	3	Horizontal	55	1.56	-			

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

09/07/2019

5180MHz_TX



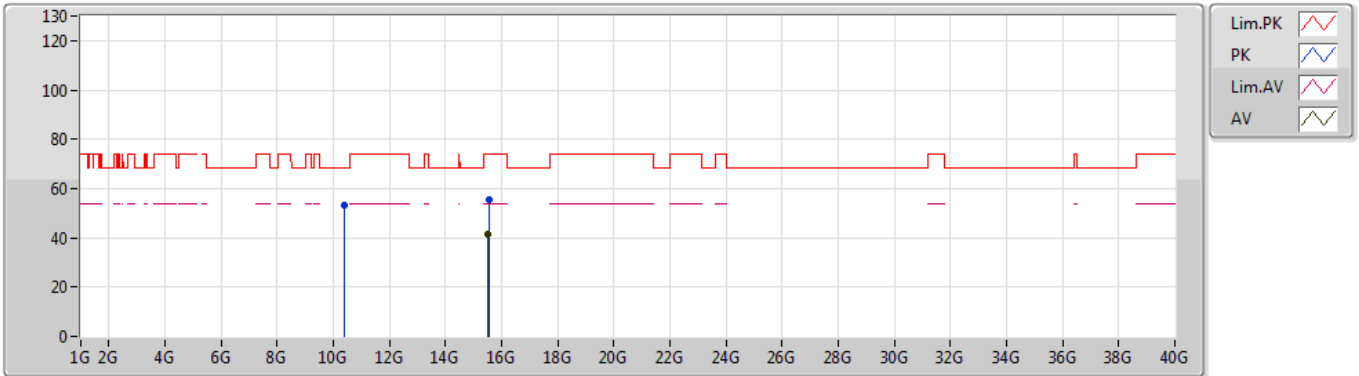
EUT_Z_3TX
Setting 34
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.1408G	72.96	74.00	-1.04	7.31	3	Vertical	309	1.93	-				
AV	5.15G	52.96	54.00	-1.04	7.32	3	Vertical	309	1.93	-				
PK	5.182G	119.05	Inf	-Inf	7.35	3	Vertical	309	1.93	-				
AV	5.1817G	109.26	Inf	-Inf	7.35	3	Vertical	309	1.93	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

02/08/2019

5180MHz_TX



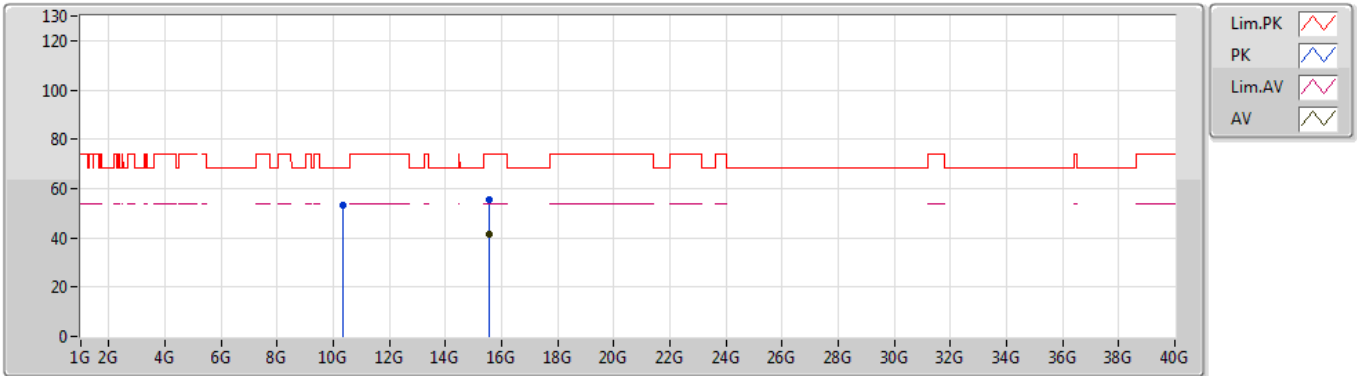
EUT Y_3TX
Setting 34
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.37104G	52.97	68.20	-15.23	14.66	3	Vertical	295	1.53	-				
PK	15.53442G	55.48	74.00	-18.52	16.09	3	Vertical	65	1.46	-				
AV	15.53043G	41.29	54.00	-12.71	16.10	3	Vertical	65	1.46	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

02/08/2019

5180MHz_TX



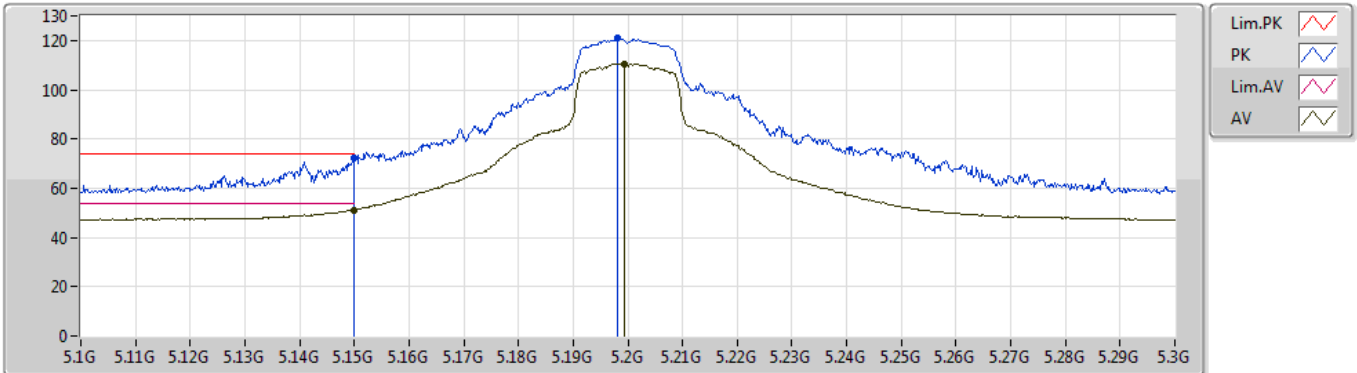
EUT Y_3TX
Setting 34
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.35142G	53.23	68.20	-14.97	14.67	3	Horizontal	132	1.44	-				
PK	15.54453G	55.23	74.00	-18.77	16.06	3	Horizontal	277	1.53	-				
AV	15.54351G	41.33	54.00	-12.67	16.06	3	Horizontal	277	1.53	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

09/07/2019

5200MHz_TX



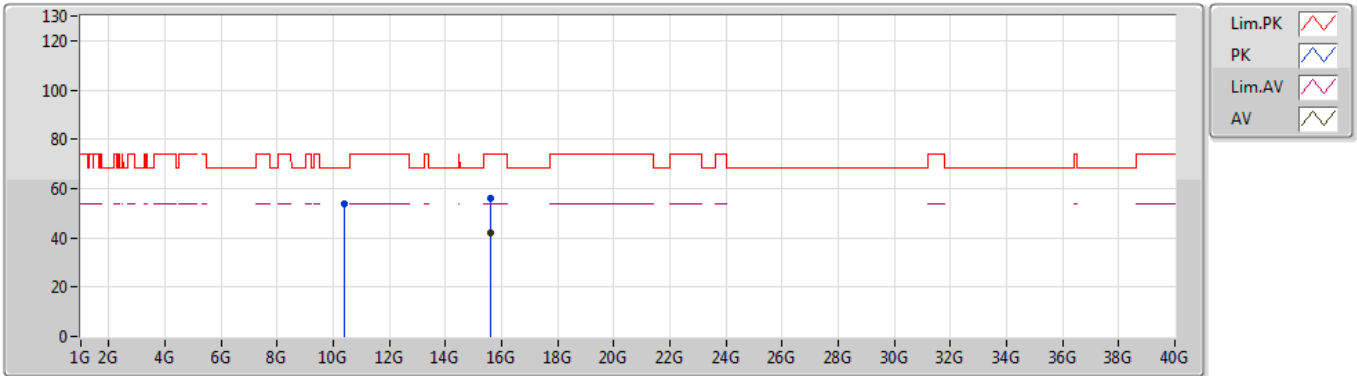
EUT_Z_3TX
Setting 39
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.15G	72.30	74.00	-1.70	7.32	3	Vertical	355	1.50	-				
AV	5.15G	51.13	54.00	-2.87	7.32	3	Vertical	355	1.50	-				
PK	5.1982G	120.83	Inf	-Inf	7.37	3	Vertical	355	1.50	-				
AV	5.1994G	110.58	Inf	-Inf	7.37	3	Vertical	355	1.50	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

02/08/2019

5200MHz_TX



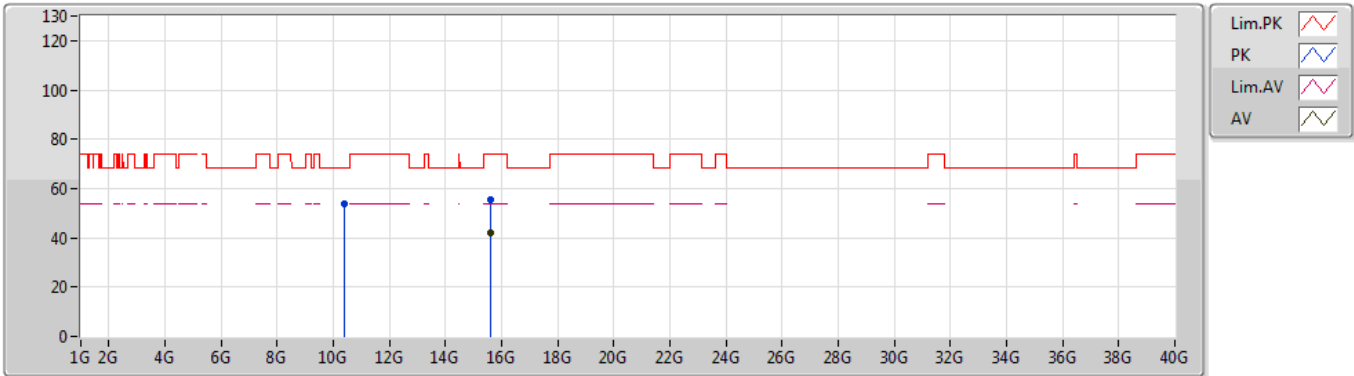
EUT Y_3TX
Setting 39
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.40807G	53.76	68.20	-14.44	14.63	3	Vertical	21	1.74	-				
PK	15.59406G	55.85	74.00	-18.15	15.93	3	Vertical	131	1.57	-				
AV	15.60177G	41.81	54.00	-12.19	15.90	3	Vertical	131	1.57	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

02/08/2019

5200MHz_TX



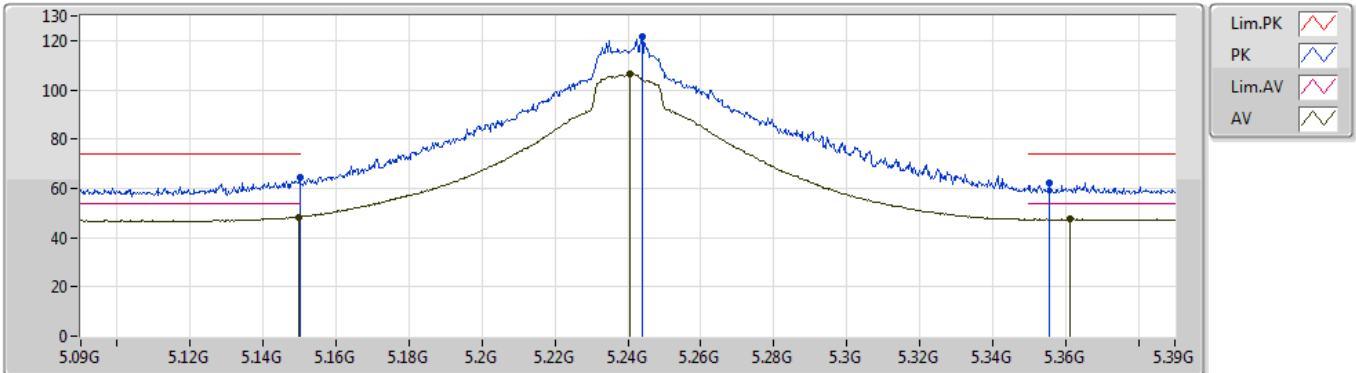
EUT Y_3TX
Setting 39
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.39991G	53.68	68.20	-14.52	14.64	3	Horizontal	184	2.07	-				
PK	15.59964G	55.66	74.00	-18.34	15.91	3	Horizontal	273	1.86	-				
AV	15.60156G	41.99	54.00	-12.01	15.91	3	Horizontal	273	1.86	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

09/07/2019

5240MHz_TX



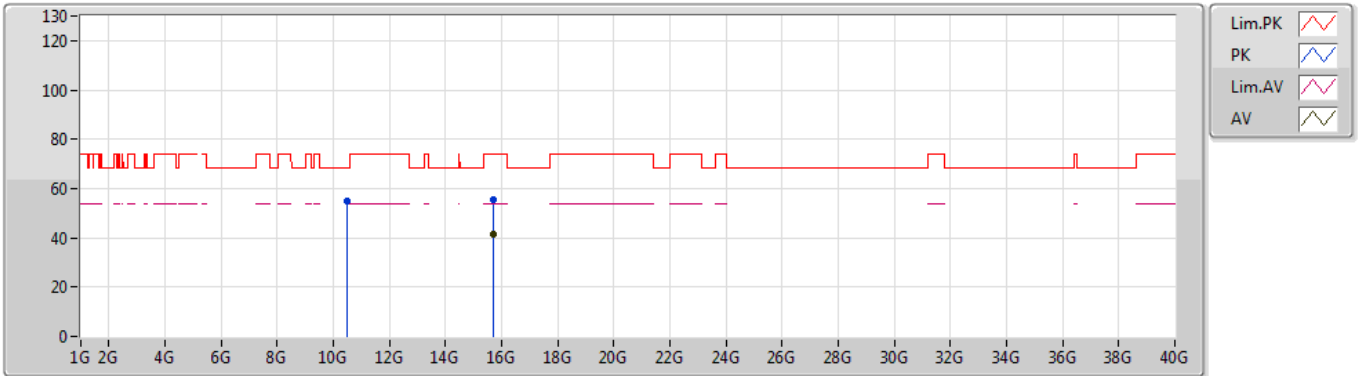
EUT_Z_3TX
Setting 46
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	5.15G	64.45	74.00	-9.55	7.32	3	Vertical	355	1.94	-
AV	5.1497G	48.39	54.00	-5.61	7.32	3	Vertical	355	1.94	-
PK	5.2439G	121.61	Inf	-Inf	7.41	3	Vertical	355	1.94	-
AV	5.2406G	106.25	Inf	-Inf	7.39	3	Vertical	355	1.94	-
PK	5.3555G	62.47	74.00	-11.53	7.47	3	Vertical	355	1.94	-
AV	5.3612G	47.46	54.00	-6.54	7.49	3	Vertical	355	1.94	-

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

02/08/2019

5240MHz_TX



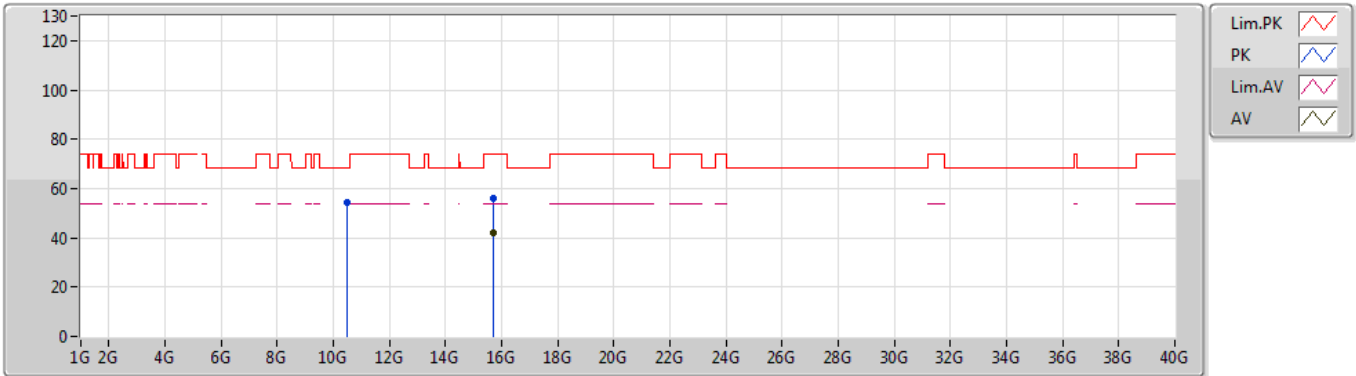
EUT Y_3TX
Setting 46
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.48465G	54.72	68.20	-13.48	14.59	3	Vertical	162	1.66	-				
PK	15.72426G	55.25	74.00	-18.75	15.59	3	Vertical	60	1.40	-				
AV	15.71589G	41.42	54.00	-12.58	15.61	3	Vertical	60	1.40	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

02/08/2019

5240MHz_TX



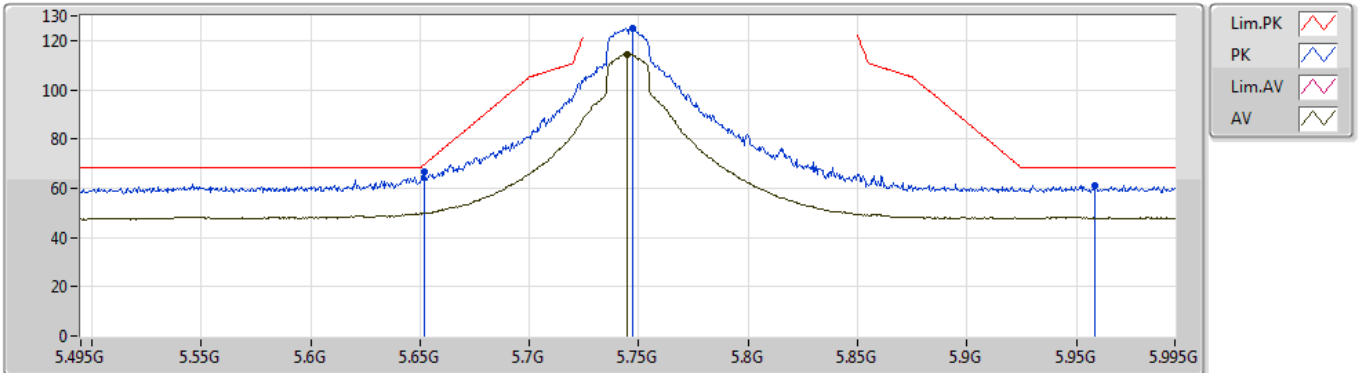
EUT Y_3TX
Setting 46
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.4848G	54.38	68.20	-13.82	14.59	3	Horizontal	139	1.61	-				
PK	15.71583G	56.17	74.00	-17.83	15.61	3	Horizontal	215	1.72	-				
AV	15.72024G	41.93	54.00	-12.07	15.60	3	Horizontal	215	1.72	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

10/07/2019

5745MHz_TX



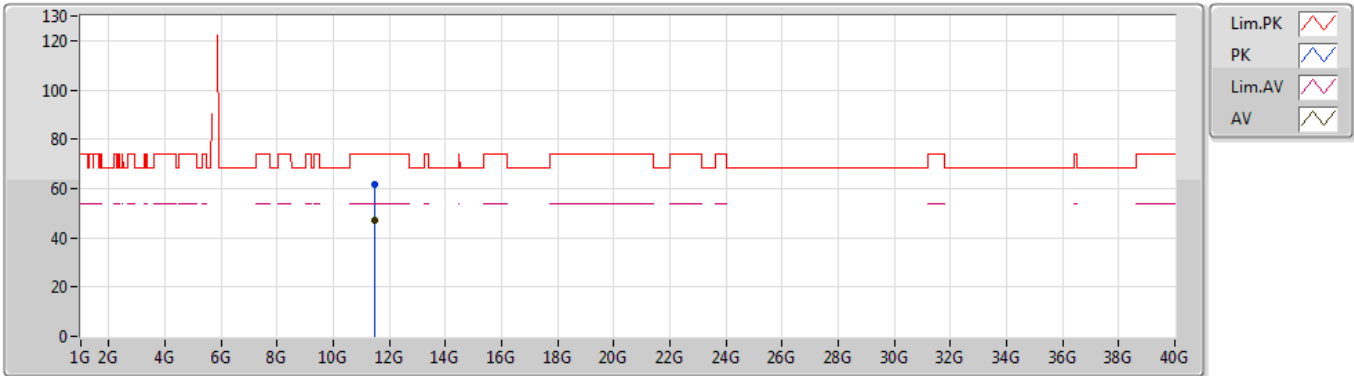
EUT_Z_3TX
Setting 46
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.652G	66.61	69.68	-3.07	7.66	3	Vertical	335	2.01	-				
PK	5.747G	125.08	Inf	-Inf	7.86	3	Vertical	335	2.01	-				
AV	5.7445G	114.37	Inf	-Inf	7.86	3	Vertical	335	2.01	-				
PK	5.9585G	61.17	68.20	-7.03	8.32	3	Vertical	335	2.01	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

03/08/2019

5745MHz_TX



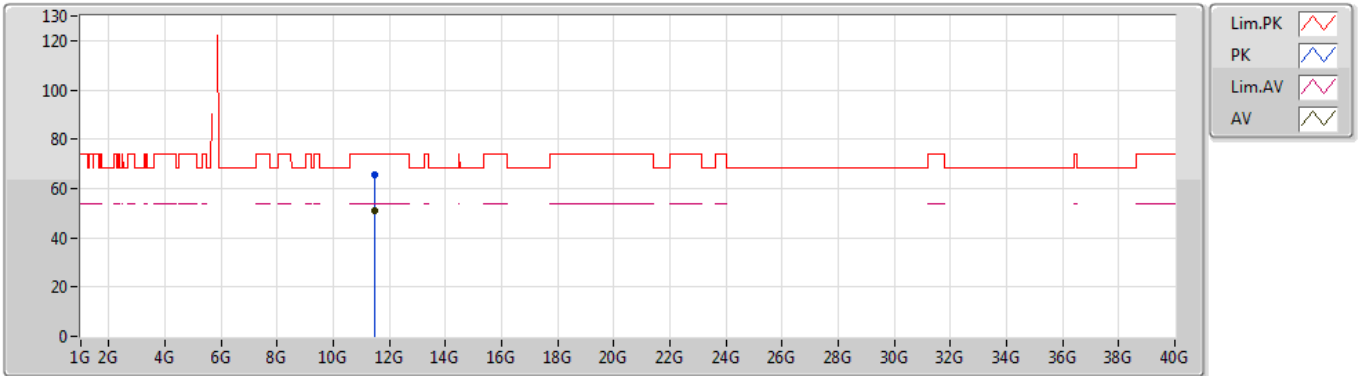
EUT Y_3TX
Setting 46
06-K-3
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.49085G	61.63	74.00	-12.37	16.62	3	Vertical	202	1.53	-				
AV	11.4919G	47.13	54.00	-6.87	16.62	3	Vertical	202	1.53	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

03/08/2019

5745MHz_TX



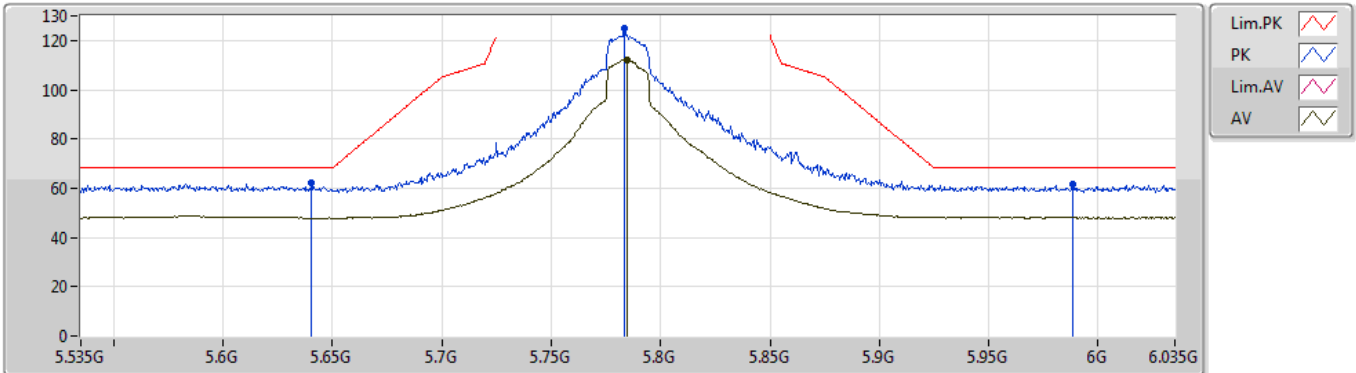
EUT Y_3TX
Setting 46
06-K-3
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.4932G	65.53	74.00	-8.47	16.62	3	Horizontal	170	1.86	-				
AV	11.4945G	50.91	54.00	-3.09	16.62	3	Horizontal	170	1.86	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

10/07/2019

5785MHz_TX



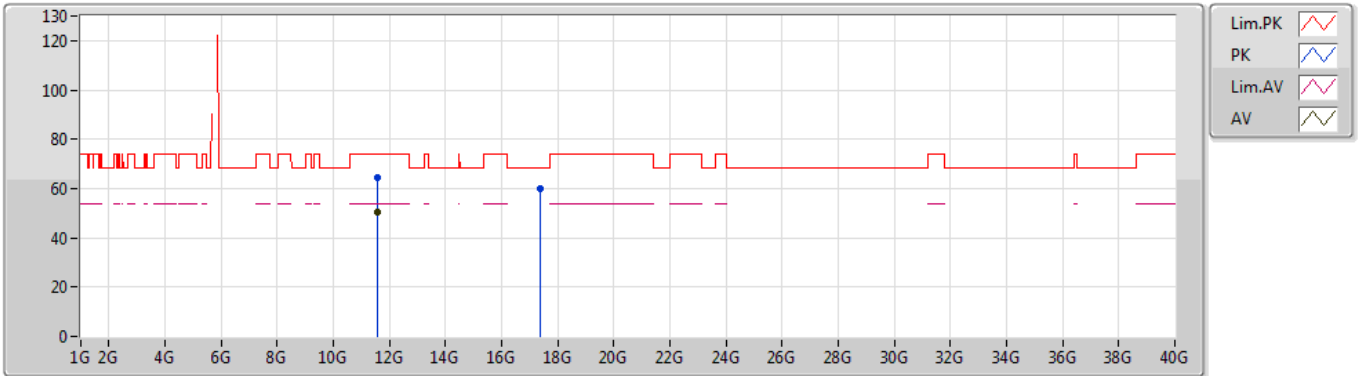
EUT_Z_3TX
Setting 46
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	5.6405G	62.08	68.20	-6.12	7.63	3	Vertical	2	1.76	-
PK	5.7835G	124.74	Inf	-Inf	7.94	3	Vertical	2	1.76	-
AV	5.7845G	112.14	Inf	-Inf	7.94	3	Vertical	2	1.76	-
PK	5.9885G	61.59	68.20	-6.61	8.40	3	Vertical	2	1.76	-

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

03/08/2019

5785MHz_TX



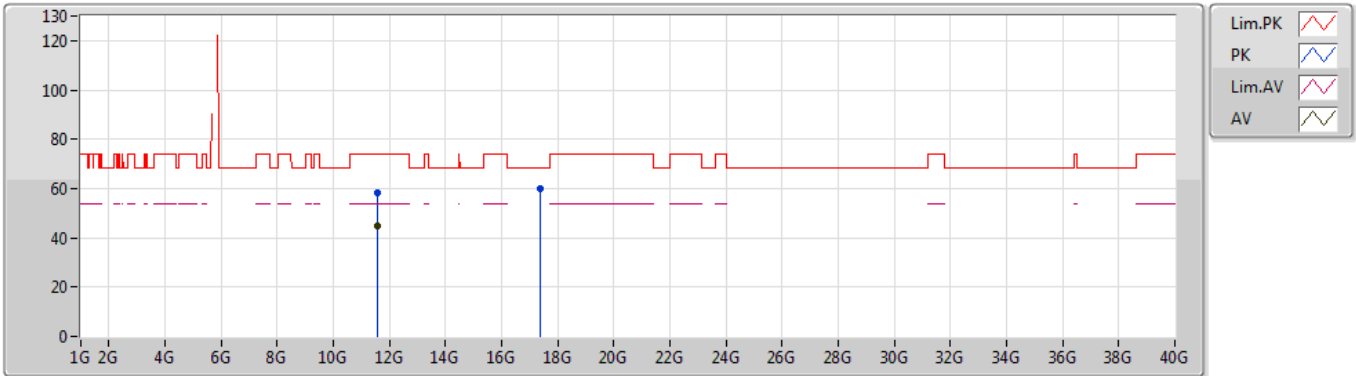
EUT Y_3TX
Setting 46
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.57855G	64.34	74.00	-9.66	15.01	3	Vertical	2	2.19	-			
AV	11.57012G	50.62	54.00	-3.38	15.00	3	Vertical	2	2.19	-			
PK	17.35473G	60.01	68.20	-8.19	21.42	3	Vertical	81	1.75	-			

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

03/08/2019

5785MHz_TX



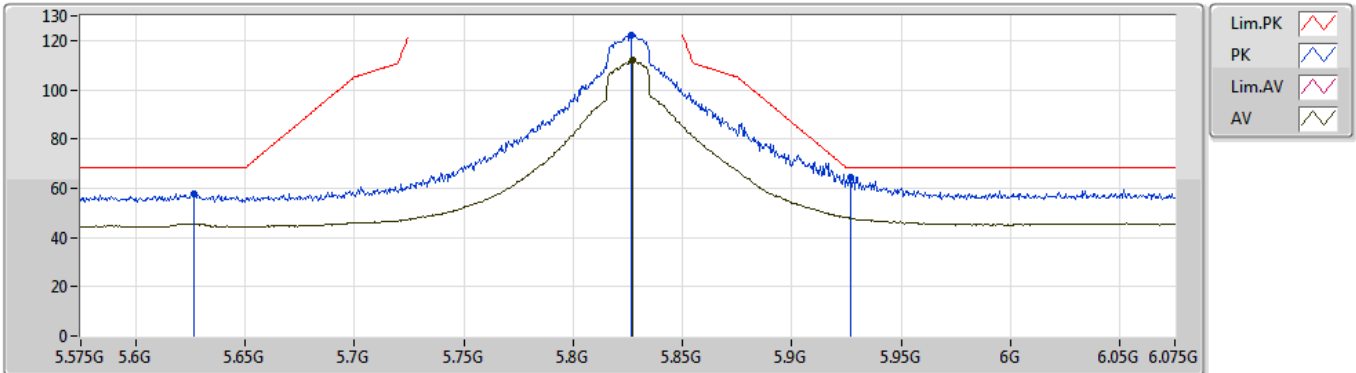
EUT Y_3TX
Setting 46
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.57342G	58.54	74.00	-15.46	15.00	3	Horizontal	320	2.15	-				
AV	11.57597G	44.63	54.00	-9.37	15.01	3	Horizontal	320	2.15	-				
PK	17.36739G	60.23	68.20	-7.97	21.50	3	Horizontal	199	1.80	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

08/07/2019

5825MHz_TX



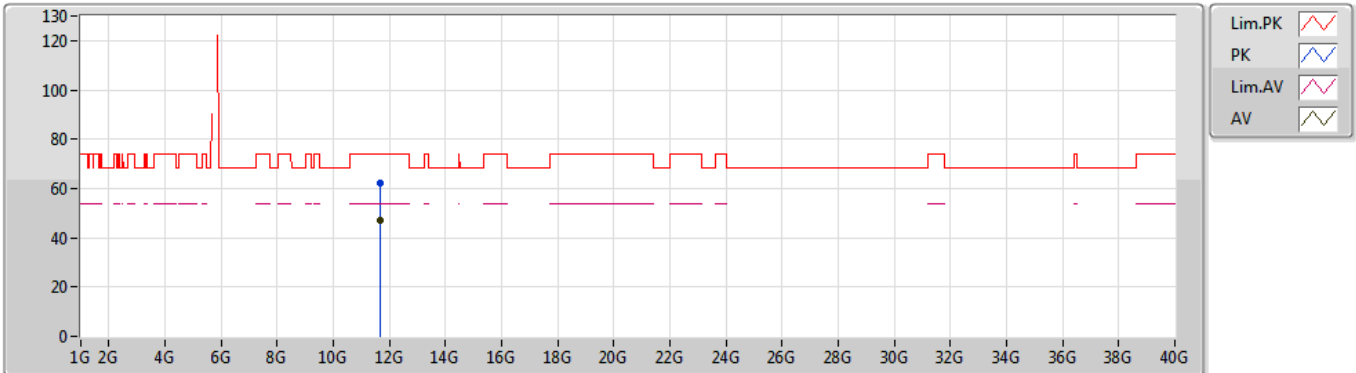
EUT_Z_3TX
Setting 50
04-W-3-10
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.627G	57.52	68.20	-10.68	4.72	3	Vertical	346	2.07	-				
PK	5.8265G	122.30	Inf	-Inf	5.14	3	Vertical	346	2.07	-				
AV	5.827G	111.96	Inf	-Inf	5.14	3	Vertical	346	2.07	-				
PK	5.927G	64.56	68.20	-3.64	5.70	3	Vertical	346	2.07	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

08/07/2019

5825MHz_TX



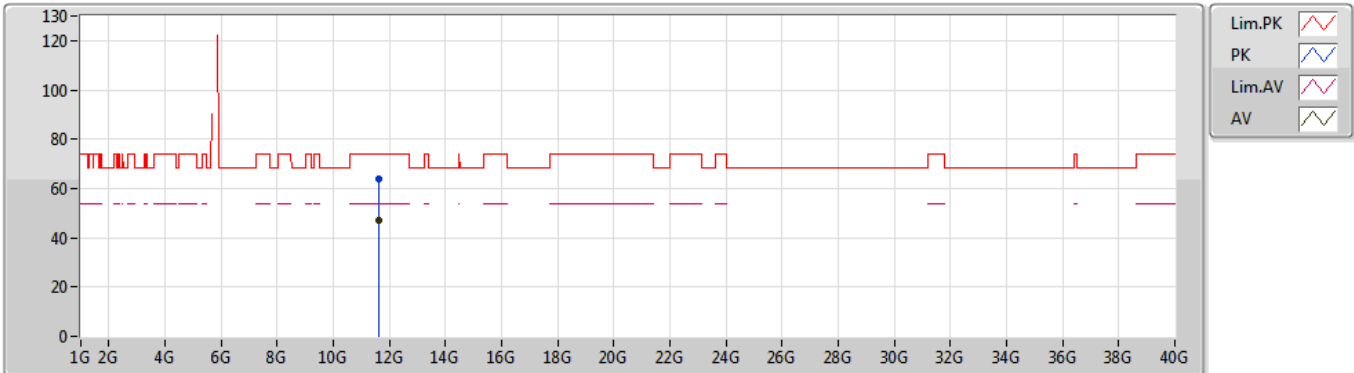
EUT Y_3TX
Setting 50
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.65672G	62.47	74.00	-11.53	10.36	3	Vertical	163	1.87	-				
AV	11.64826G	47.26	54.00	-6.74	10.37	3	Vertical	163	1.87	-				

802.11ac VHT20-BF_Nss1,(MCS0)_3TX

08/07/2019

5825MHz_TX



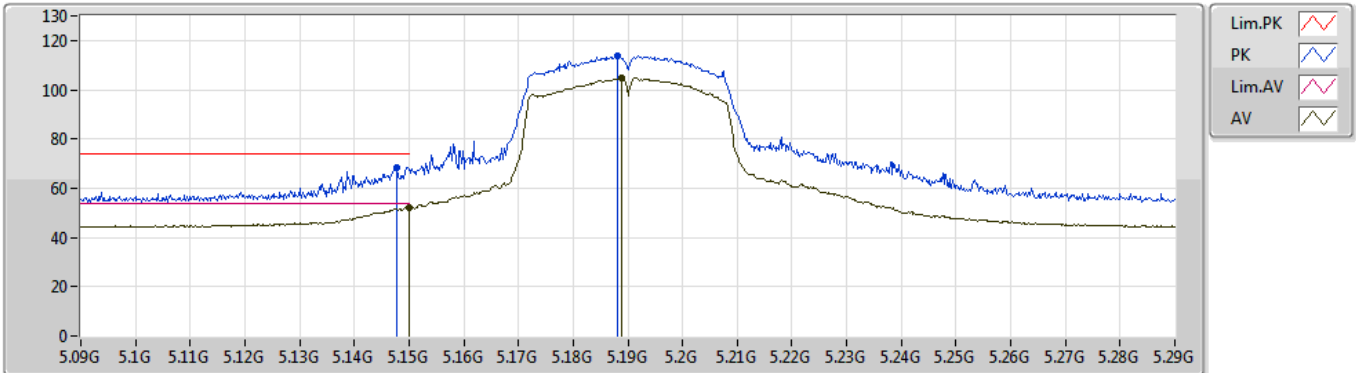
EUT Y_3TX
Setting 50
04-W-3
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.64478G	63.73	74.00	-10.27	10.36	3	Horizontal	168	1.76	-			
AV	11.64487G	47.25	54.00	-6.75	10.36	3	Horizontal	168	1.76	-			

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

16/07/2019

5190MHz_TX



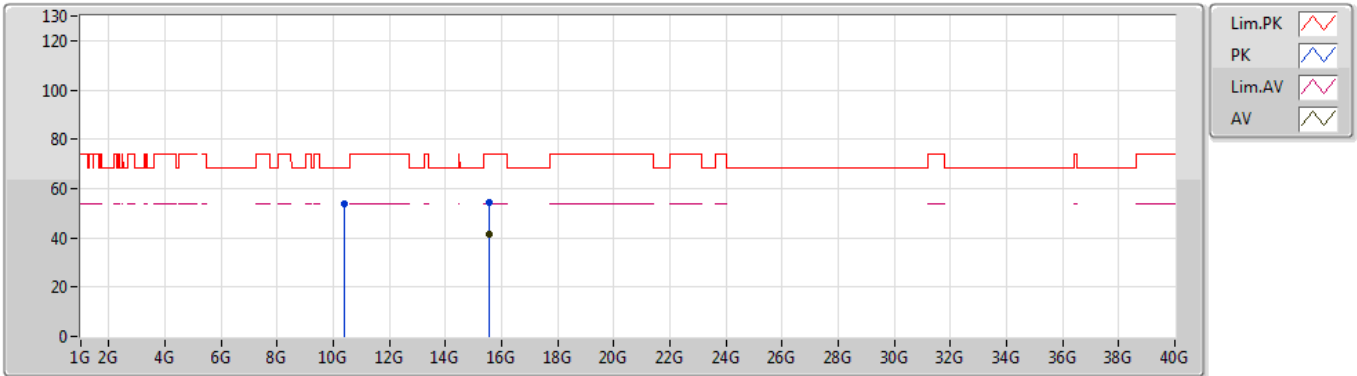
EUT_Z_3TX
Setting 30
04-W-3-10
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	5.1478G	68.56	74.00	-5.44	3.36	3	Vertical	4	2.03	-			
AV	5.15G	52.21	54.00	-1.79	3.36	3	Vertical	4	2.03	-			
PK	5.1882G	113.69	Inf	-Inf	3.40	3	Vertical	4	2.03	-			
AV	5.1888G	104.71	Inf	-Inf	3.40	3	Vertical	4	2.03	-			

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

03/08/2019

5190MHz_TX



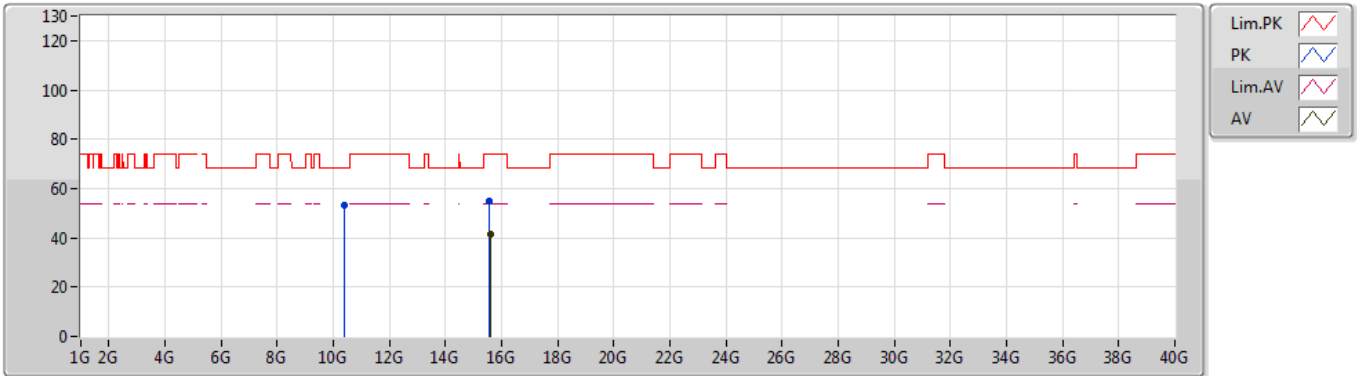
EUT Y_3TX
Setting 30
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.38801G	53.54	68.20	-14.66	14.65	3	Vertical	228	1.39	-				
PK	15.57174G	54.53	74.00	-19.47	15.99	3	Vertical	304	1.47	-				
AV	15.56004G	41.25	54.00	-12.75	16.02	3	Vertical	304	1.47	-				

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

03/08/2019

5190MHz_TX



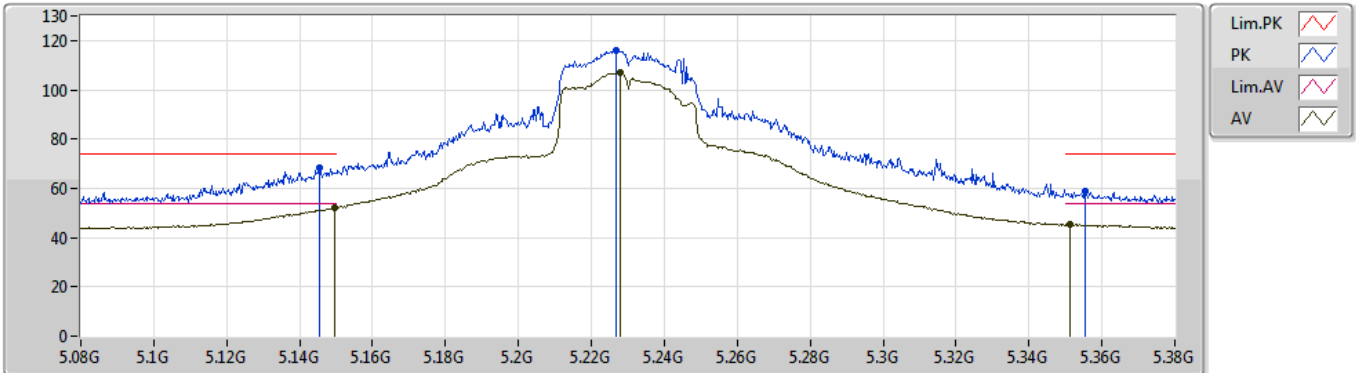
EUT Y_3TX
Setting 30
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.38591G	53.10	68.20	-15.10	14.65	3	Horizontal	87	2.01	-				
PK	15.58104G	54.89	74.00	-19.11	15.96	3	Horizontal	183	1.81	-				
AV	15.58341G	41.66	54.00	-12.34	15.95	3	Horizontal	183	1.81	-				

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

16/07/2019

5230MHz_TX



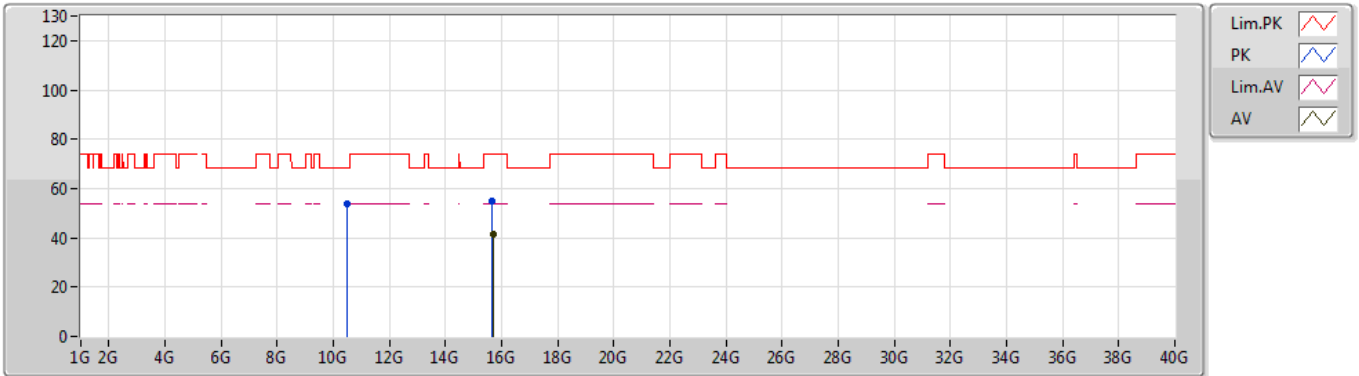
EUT_Z_3TX
Setting 36
04-W-3-10
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.1454G	68.11	74.00	-5.89	3.36	3	Vertical	42	1.96	-				
AV	5.1496G	51.96	54.00	-2.04	3.36	3	Vertical	42	1.96	-				
PK	5.2267G	116.01	Inf	-Inf	3.49	3	Vertical	42	1.96	-				
AV	5.2279G	106.77	Inf	-Inf	3.51	3	Vertical	42	1.96	-				
PK	5.3554G	58.72	74.00	-15.28	3.96	3	Vertical	42	1.96	-				
AV	5.3512G	45.26	54.00	-8.74	3.94	3	Vertical	42	1.96	-				

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

03/08/2019

5230MHz_TX



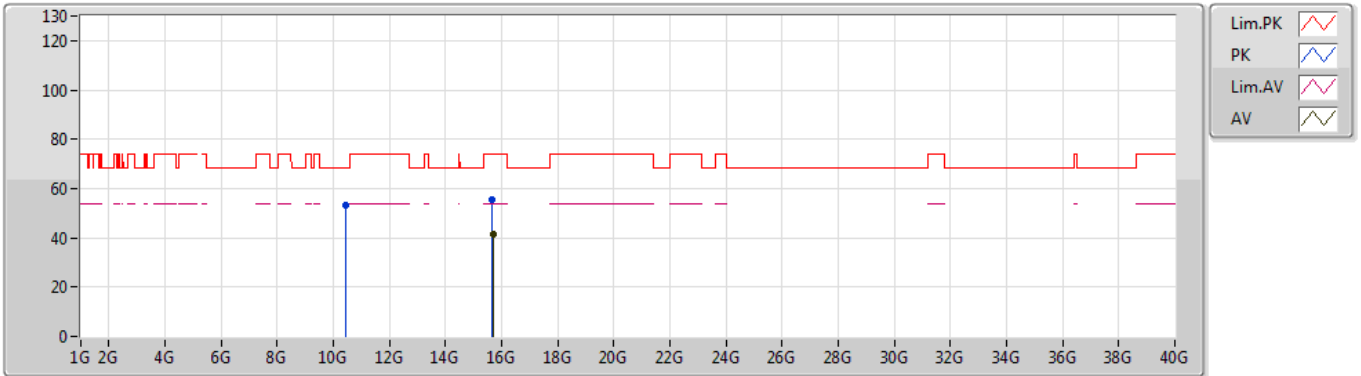
EUT Y_3TX
Setting 36
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
PK	10.46927G	53.81	68.20	-14.39	14.60	3	Vertical	163	1.78	-
PK	15.6753G	55.11	74.00	-18.89	15.71	3	Vertical	70	1.55	-
AV	15.68037G	41.35	54.00	-12.65	15.70	3	Vertical	70	1.55	-

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

03/08/2019

5230MHz_TX



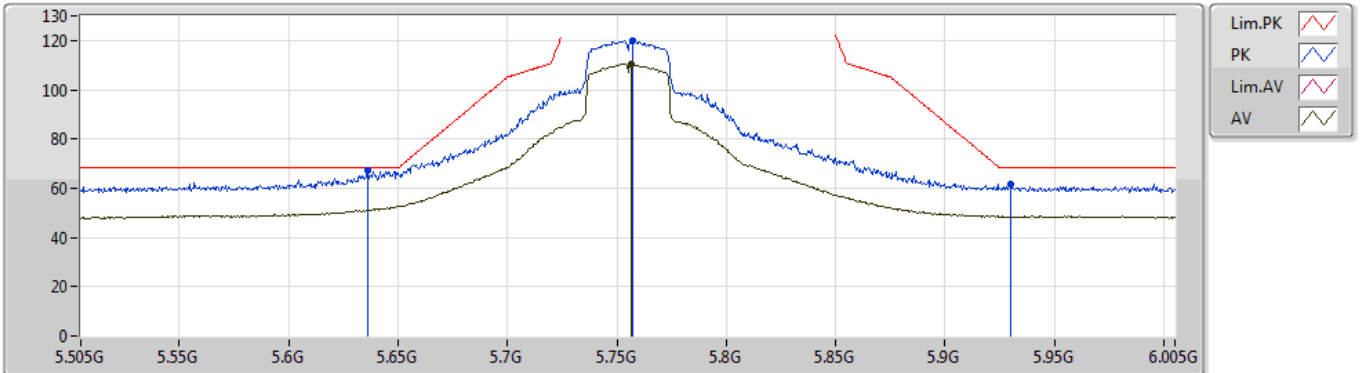
EUT Y_3TX
Setting 36
02-C-4
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	10.46237G	53.31	68.20	-14.89	14.60	3	Horizontal	85	1.64	-			
PK	15.67869G	55.54	74.00	-18.46	15.70	3	Horizontal	156	1.34	-			
AV	15.69111G	41.31	54.00	-12.69	15.68	3	Horizontal	156	1.34	-			

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

10/07/2019

5755MHz_TX



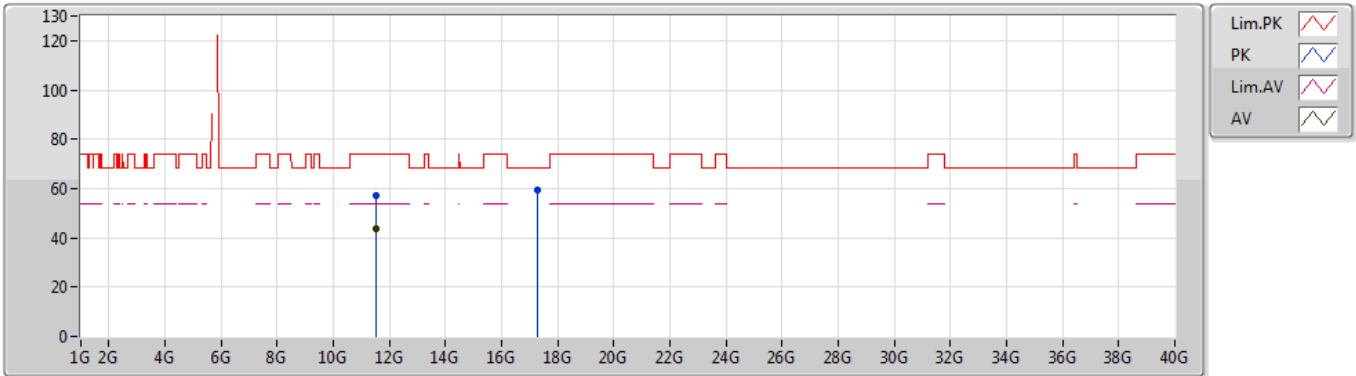
EUT_Z_3TX
Setting 41
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.636G	67.18	68.20	-1.02	7.63	3	Vertical	356	1.74	-				
PK	5.757G	119.82	Inf	-Inf	7.87	3	Vertical	356	1.74	-				
AV	5.7565G	110.60	Inf	-Inf	7.87	3	Vertical	356	1.74	-				
PK	5.93G	61.49	68.20	-6.71	8.24	3	Vertical	356	1.74	-				

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

03/08/2019

5755MHz_TX



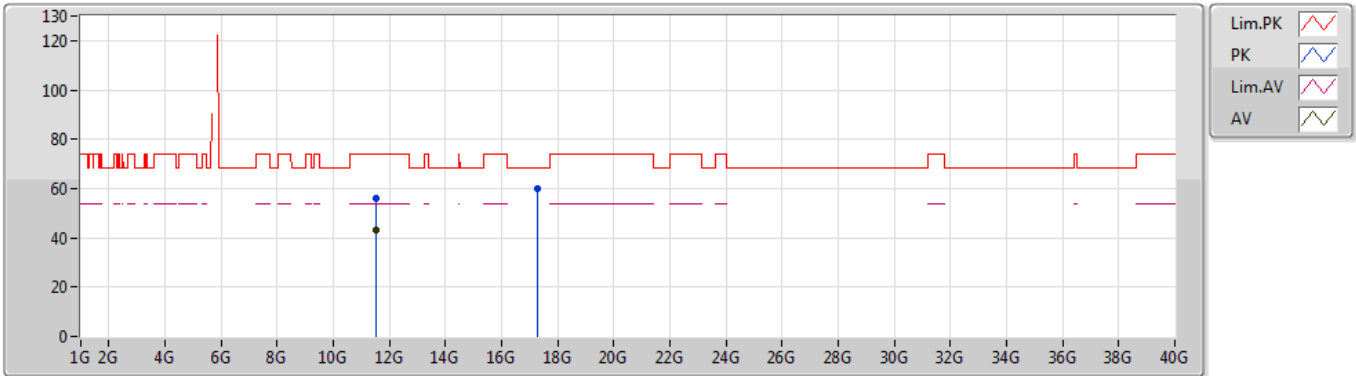
EUT Y_3TX
Setting 41
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.51129G	56.89	74.00	-17.11	14.92	3	Vertical	359	2.26	-			
AV	11.52188G	43.68	54.00	-10.32	14.94	3	Vertical	359	2.26	-			
PK	17.26356G	59.21	68.20	-8.99	20.88	3	Vertical	228	1.86	-			

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

03/08/2019

5755MHz_TX



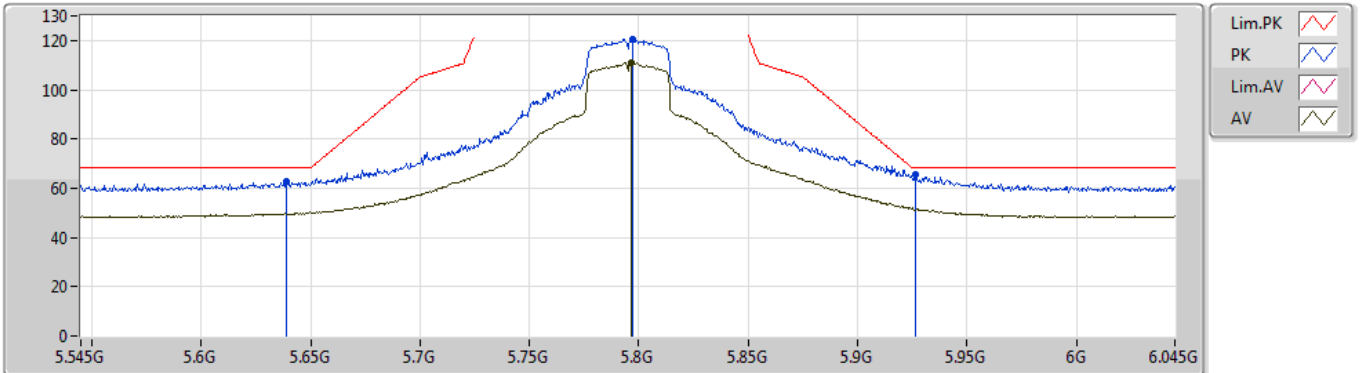
EUT Y_3TX
Setting 41
02-C-4
FSU

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.51801G	55.99	74.00	-18.01	14.92	3	Horizontal	113	2.00	-				
AV	11.51528G	42.95	54.00	-11.05	14.92	3	Horizontal	113	2.00	-				
PK	17.27925G	59.73	68.20	-8.47	20.97	3	Horizontal	176	1.61	-				

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

10/07/2019

5795MHz_TX



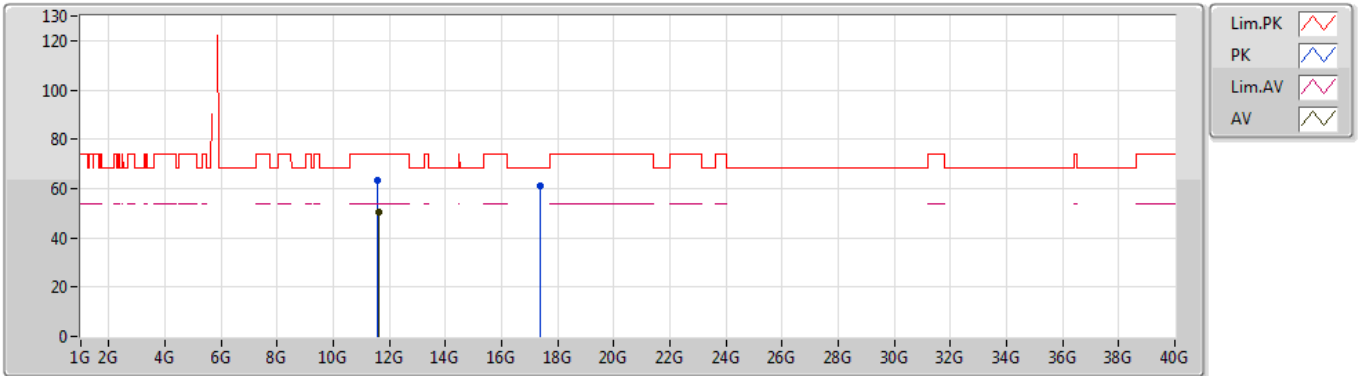
EUT_Z_3TX
Setting 42
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.639G	62.56	68.20	-5.64	7.63	3	Vertical	354	1.85	-				
PK	5.797G	120.58	Inf	-Inf	7.96	3	Vertical	354	1.85	-				
AV	5.7965G	111.20	Inf	-Inf	7.96	3	Vertical	354	1.85	-				
PK	5.9265G	65.81	68.20	-2.39	8.22	3	Vertical	354	1.85	-				

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

03/08/2019

5795MHz_TX



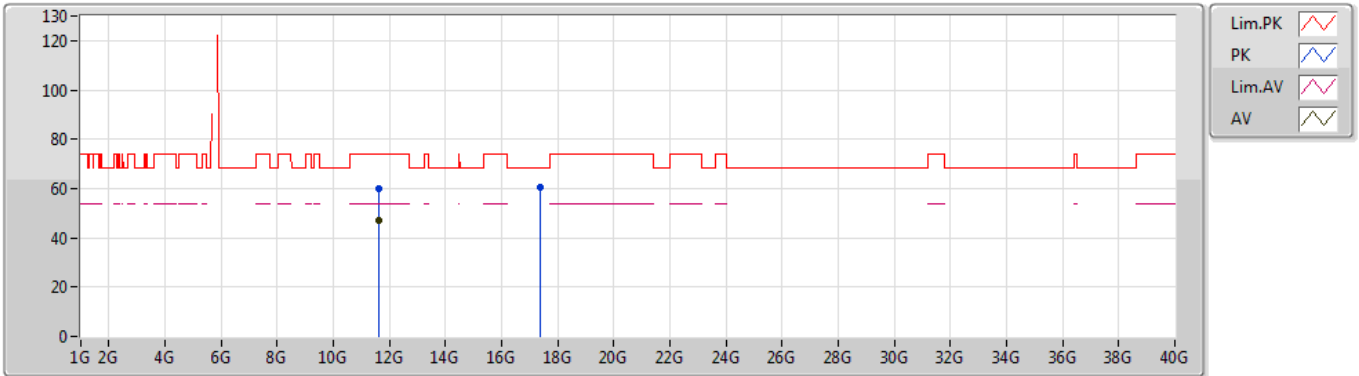
EUT Y_3TX
Setting 42
02-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.59621G	63.44	74.00	-10.56	15.04	3	Vertical	351	2.26	-			
AV	11.5993G	50.31	54.00	-3.69	15.04	3	Vertical	351	2.26	-			
PK	17.39139G	60.85	68.20	-7.35	21.63	3	Vertical	199	1.87	-			

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

03/08/2019

5795MHz_TX



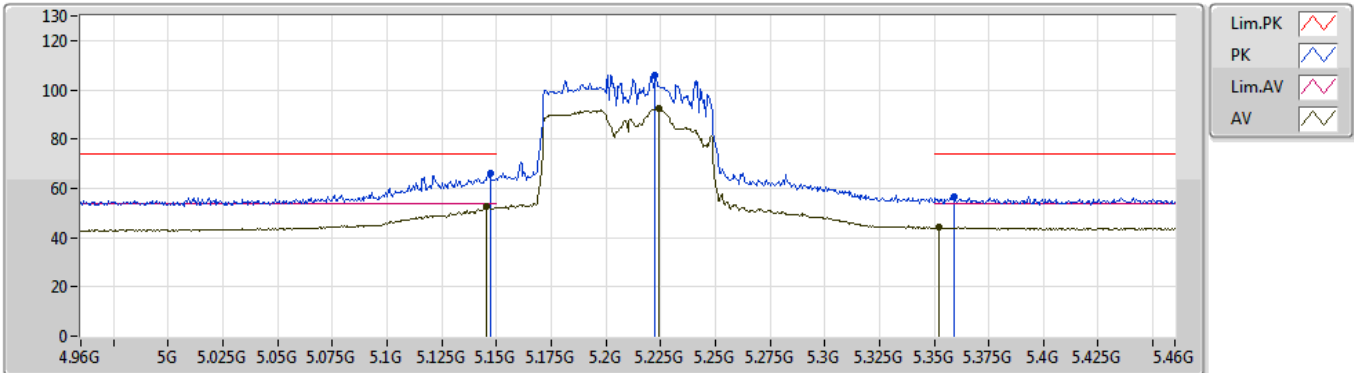
EUT Y_3TX
Setting 42
02-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.59936G	59.99	74.00	-14.01	15.04	3	Horizontal	125	1.79	-			
AV	11.60149G	47.02	54.00	-6.98	15.04	3	Horizontal	125	1.79	-			
PK	17.38827G	60.73	68.20	-7.47	21.62	3	Horizontal	194	1.42	-			

802.11ac VHT80-BF_Nss1,(MCS0)_3TX

16/07/2019

5210MHz_TX



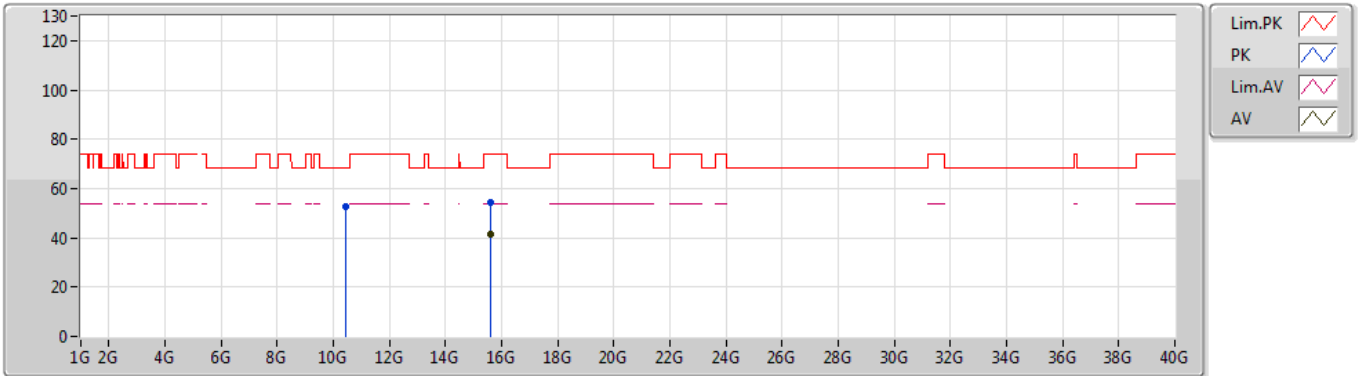
EUT_Z_3TX
Setting 24
04-W-3-10
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.147G	65.86	74.00	-8.14	3.36	3	Vertical	352	2.05	-				
AV	5.1455G	52.42	54.00	-1.58	3.36	3	Vertical	352	2.05	-				
PK	5.2225G	105.99	Inf	-Inf	3.49	3	Vertical	352	2.05	-				
AV	5.224G	92.32	Inf	-Inf	3.49	3	Vertical	352	2.05	-				
PK	5.359G	56.64	74.00	-17.36	3.97	3	Vertical	352	2.05	-				
AV	5.352G	44.21	54.00	-9.79	3.95	3	Vertical	352	2.05	-				

802.11ac VHT80-BF_Nss1,(MCS0)_3TX

03/08/2019

5210MHz_TX



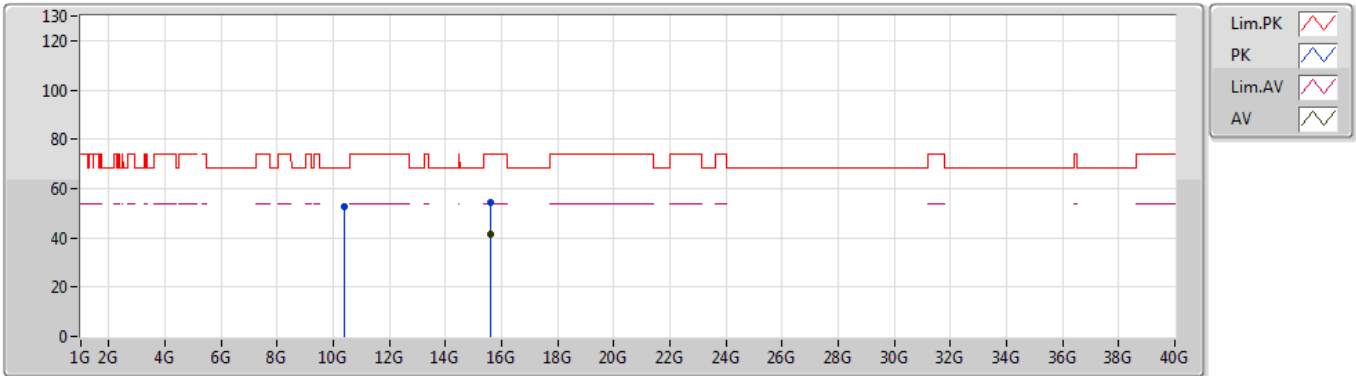
EUT Y_3TX
Setting 24
02-C-4
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.42696G	52.72	68.20	-15.48	14.62	3	Vertical	114	1.46	-				
PK	15.61773G	54.23	74.00	-19.77	15.86	3	Vertical	172	1.68	-				
AV	15.61755G	41.25	54.00	-12.75	15.86	3	Vertical	172	1.68	-				

802.11ac VHT80-BF_Nss1,(MCS0)_3TX

03/08/2019

5210MHz_TX



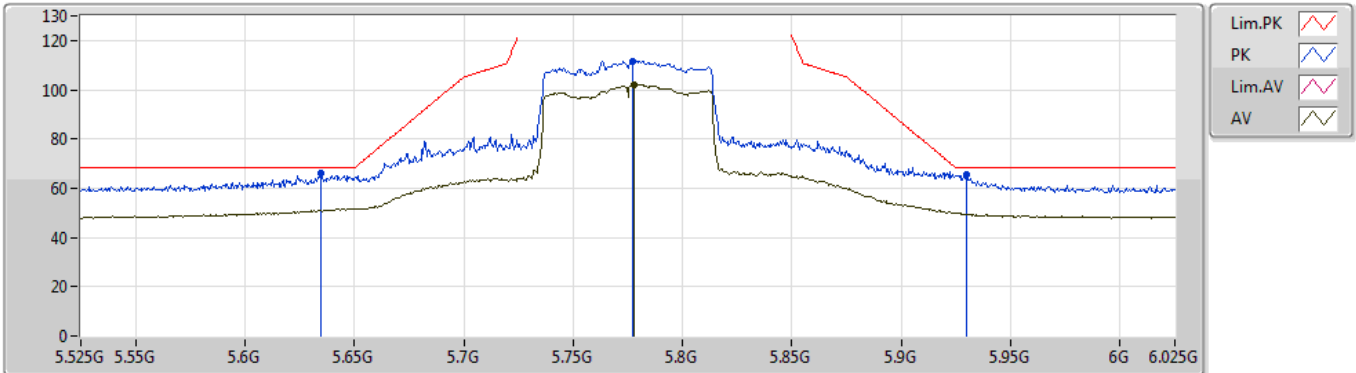
EUT Y_3TX
Setting 24
02-C-4
FSP(100019)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.41154G	52.53	68.20	-15.67	14.63	3	Horizontal	151	1.34	-				
PK	15.63066G	54.52	74.00	-19.48	15.83	3	Horizontal	71	1.53	-				
AV	15.61611G	41.19	54.00	-12.81	15.86	3	Horizontal	71	1.53	-				

802.11ac VHT80-BF_Nss1,(MCS0)_3TX

10/07/2019

5775MHz_TX



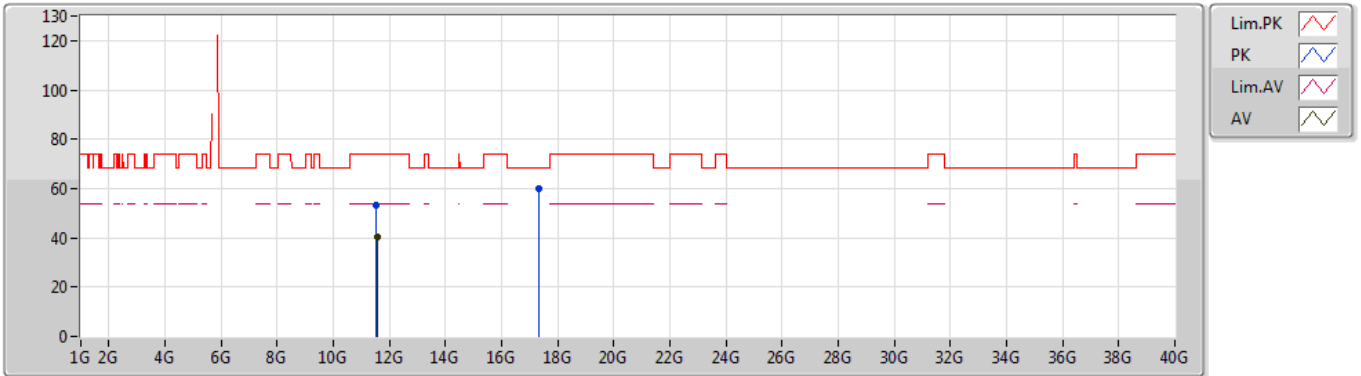
EUT_Z_3TX
Setting 33
06-K-3-10
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	5.6345G	66.20	68.20	-2.00	7.63	3	Vertical	4	1.90	-				
PK	5.777G	111.62	Inf	-Inf	7.92	3	Vertical	4	1.90	-				
AV	5.778G	102.02	Inf	-Inf	7.93	3	Vertical	4	1.90	-				
PK	5.93G	65.38	68.20	-2.82	8.24	3	Vertical	4	1.90	-				

802.11ac VHT80-BF_Nss1,(MCS0)_3TX

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5775MHz_TX



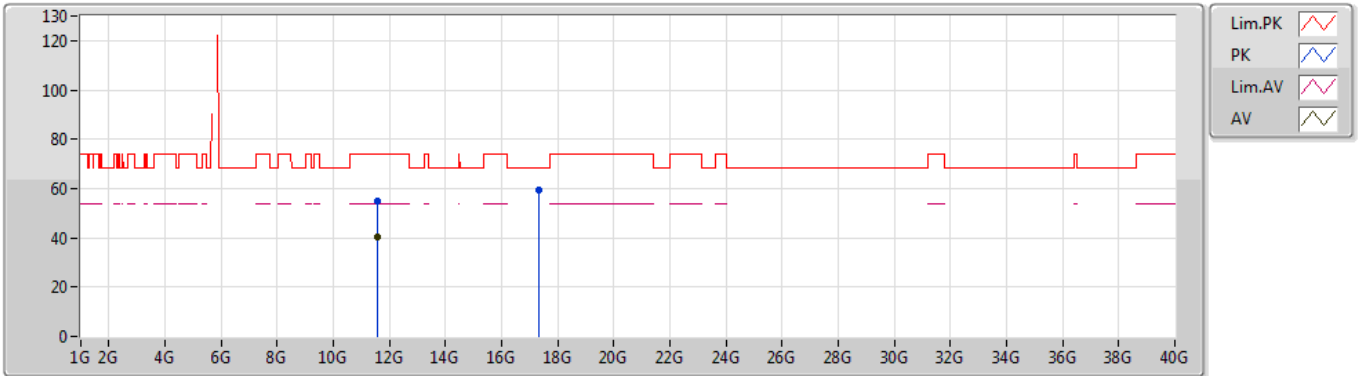
EUT Y_3TX
Setting 33
02-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment			
PK	11.54682G	53.31	74.00	-20.69	14.97	3	Vertical	312	1.20	-			
AV	11.55282G	40.29	54.00	-13.71	14.97	3	Vertical	312	1.20	-			
PK	17.31648G	60.22	68.20	-7.98	21.20	3	Vertical	153	1.58	-			

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EUT Y_3TX
Setting 33
02-C-4
FSP

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	11.55594G	54.72	74.00	-19.28	14.97	3	Horizontal	23	1.34	-				
AV	11.55135G	40.16	54.00	-13.84	14.97	3	Horizontal	23	1.34	-				
PK	17.32125G	59.62	68.20	-8.58	21.22	3	Horizontal	133	1.67	-				

