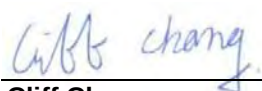


FCC Test Report

Equipment : Access Point
Brand Name : LITE-ON, MOJO
Model No. : WP8721, C-95
FCC ID : PPQ-WP8721
Standard : 47 CFR FCC Part 15.407
Operating Band : 5150 MHz – 5250 MHz
5725 MHz – 5850 MHz
Applicant : LITE-ON Technology Corp.
Bldg. C, 90, Chien 1 Rd., Chung-Ho, New Taipei City,
23585 Taiwan
Manufacturer : Lite-On Network Communication (Dongguan) Limited
30#Keji Rd., Yin Hu Industrial Area, Qingxi
Town, DongGuan City, Guangdong, China
Function : ☐ Outdoor; ☒ Indoor; ☐ Fixed P2P
☐ Client

The product sample received on Jun. 16, 2017 and completely tested on Jul. 01, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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



Cliff Chang
SPORTON INTERNATIONAL INC.





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Summary of Test Result

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

Note: For PoE mode: The PoE is for measurement only, would not be marketed, it's not necessary to apply to AC Power Port Conducted emission test.



SPORTON INTERNATIONAL INC.
TEL : 886-3-3273456
FAX : 886-3-3270973
FCC ID: PPQ-WP8721

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	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11n HT40	40	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11a	20	2TX
5.725-5.85GHz	802.11n HT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11n HT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40 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	Model No.	Antenna Type	Connector	Gain (dBi)		
						2.4GHz	5GHz band 1	5GHz band 4
1	1	LITE-ON	WP8721	PIFA Antenna	I-PEX	5.9	-	-
2	2	LITE-ON	WP8721	PIFA Antenna	I-PEX	6.5	-	-
3	1	LITE-ON	WP8721	PIFA Antenna	I-PEX	-	6.0	6.6
4	2	LITE-ON	WP8721	PIFA Antenna	I-PEX	-	6.3	6.5

Note: The EUT has four antennas.

For 2.4GHz function:

For IEEE 802.11b mode (1TX/1RX):

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

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

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

Ant. 1, and Ant. 2 could transmit/receive simultaneously.

For 5GHz function:

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

Ant. 3, and Ant. 4 can be used as transmitting/receiving antenna.

Ant. 3, and Ant. 4 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	1	0	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT20	1	0	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT40	1	0	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT80	1	0	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter or PoE			
Beamforming Function	☐	With beamforming	☒	Without beamforming

1.1.5 Table for Multiple Listing

1. The EUT has two model numbers and two brand names which are identical to each other in all aspects except for the following table:

Brand Name	Model No.	Description
LITE-ON	WP8721	All the models are identical, the difference model for difference model numbers and brand names served as marketing strategy.
MOJO	C-95	

From the above models, model: WP8721 was selected as representative model for the test and its data was recorded in this report.

2. The EUT has two sources of thermal pads. Please refer to the following table for detail information.

Thermal Pads	Photo
Main source	
Second source	

1.2 Testing Applied Standards

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

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013
- ◆ FCC KDB 789033 D02 v01r04
- ◆ FCC KDB 644545 D03 v01
- ◆ FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location				
☐	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.	TEL : 886-3-327-3456	FAX : 886-3-318-0055
☒	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	Serway Li	20°C / 50%	Jul. 01, 2017
Radiated	03CH01-CB	Owen Hsu, Welson Chen	22°C / 54%	May 20, 2017~Jun. 29, 2017
AC Conduction	CO01-CB	GN Hou	22°C / 55%	Jun. 29, 2017

Test site Designation No. TW0006 with FCC

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%
Frequency Stability	6.06×10^{-8}	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_(6Mbps)_2TX	-
5180MHz	33/36
5200MHz	33/35
5240MHz	33/33
5745MHz	28/26
5785MHz	26/26
5825MHz	22/27
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	32/36
5200MHz	32/34
5240MHz	33/33
5745MHz	28/26
5785MHz	29/28
5825MHz	26/29
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	33/36
5230MHz	32/33
5755MHz	29/29
5795MHz	29/30
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	35/37
5775MHz	31/31

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.

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 (main source thermal pad) + Adapter

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT Y axis (main source thermal pad) + Adapter
2	EUT Z axis (main source thermal pad) + Adapter
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT Y axis (second source thermal pad) + Adapter
Mode 1 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4 will follow this same test mode.	
4	EUT Y axis (main source thermal pad) + PoE
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
There are two sources of thermal pads. After evaluating, second source thermal pad has been evaluated to be the worst case, so it was selected to test and record in this test report.	
The EUT was performed at X axis, Y axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found at Y axis. So the measurement will follow this same test configuration.	

**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.: FA761520 for Co-location RF Exposure Evaluation.	

Note: 1. All the specification of test configurations and test modes were based on customer's request.
2. The PoE is for measurement only, would not be marketed.

Support Equipment

Equipment	Brand Name	Model Name	FCC ID
PoE	PowerDsine	7001G	N/A

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories

Power	Brand	Model	Rating
Adapter	APD	WB-18D12FU	Input: 100-240V~50-60Hz, 0.5A Max. Output: 12V, 1.5A

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*3	DELL	E6430	DoC
2	Flash disk	Silicon	I-Series	DoC

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

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*3	DELL	E4300	DoC
2	Flash disk	Silicon	I-Series	DoC

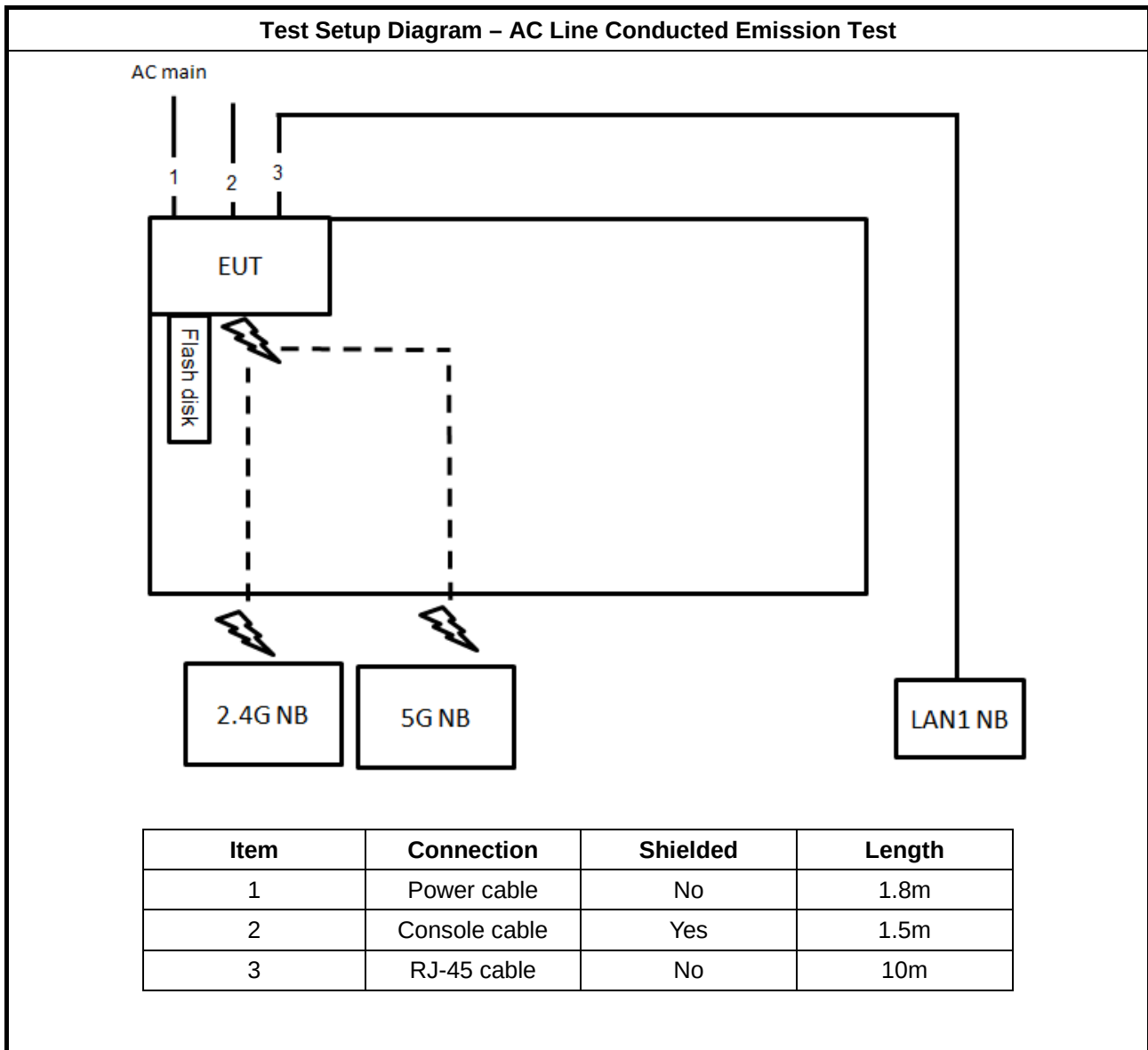
For Test Site No: 03CH01-CB (above 1GHz)

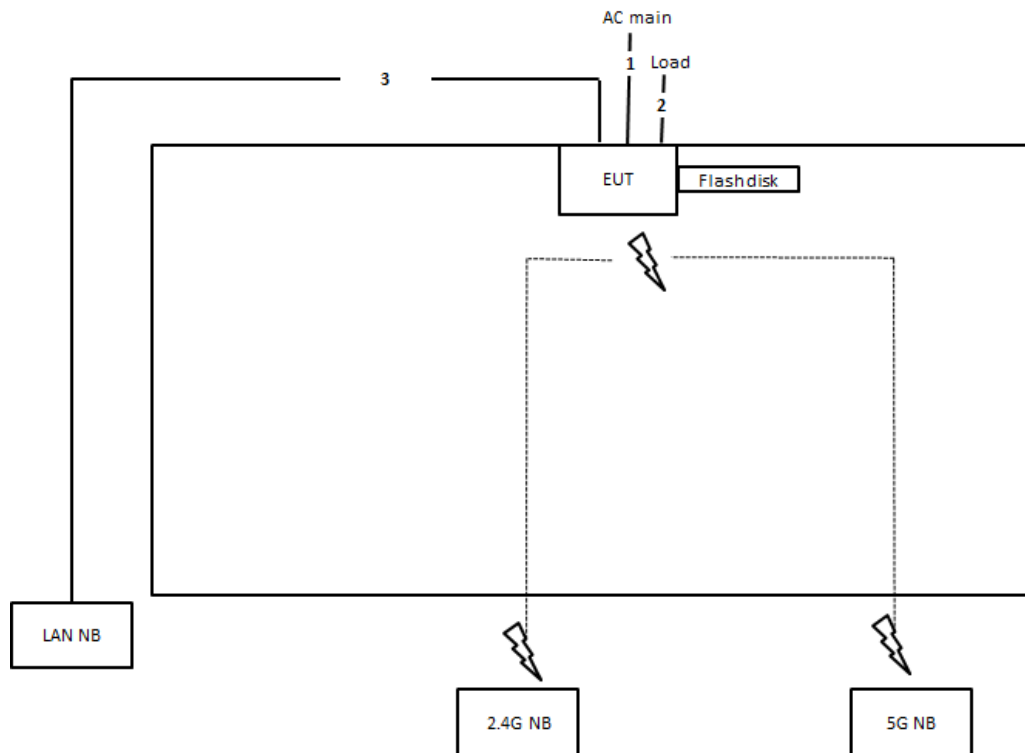
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	PoE	PowerDsine	7001G	N/A

For Test Site No: TH01-CB

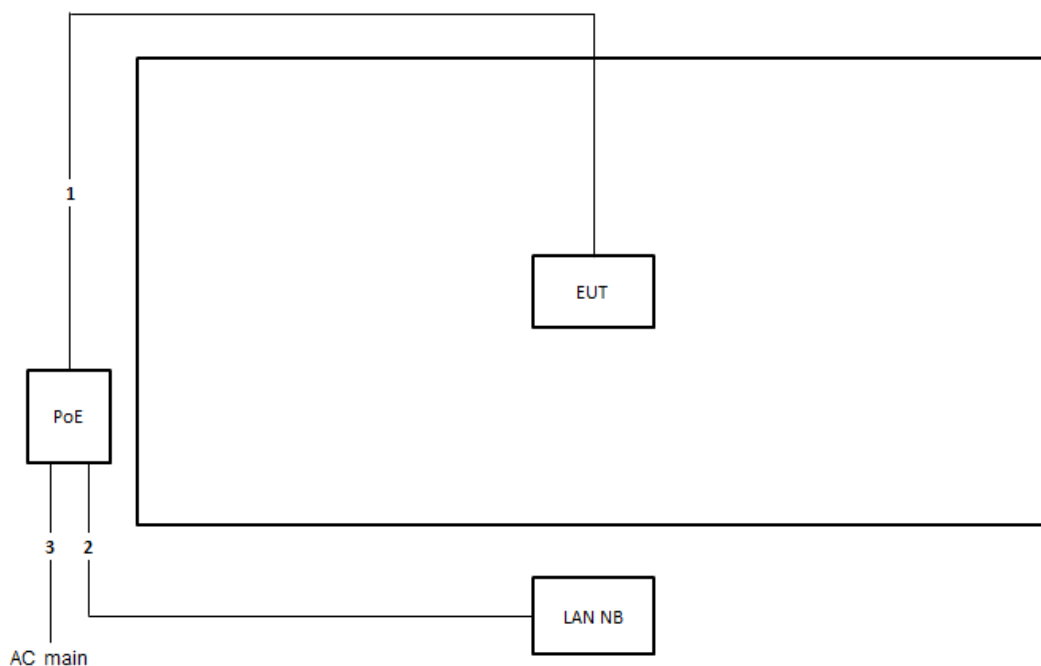
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	1.5m
3	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	1.5m
3	Power cable	No	0.6m

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.

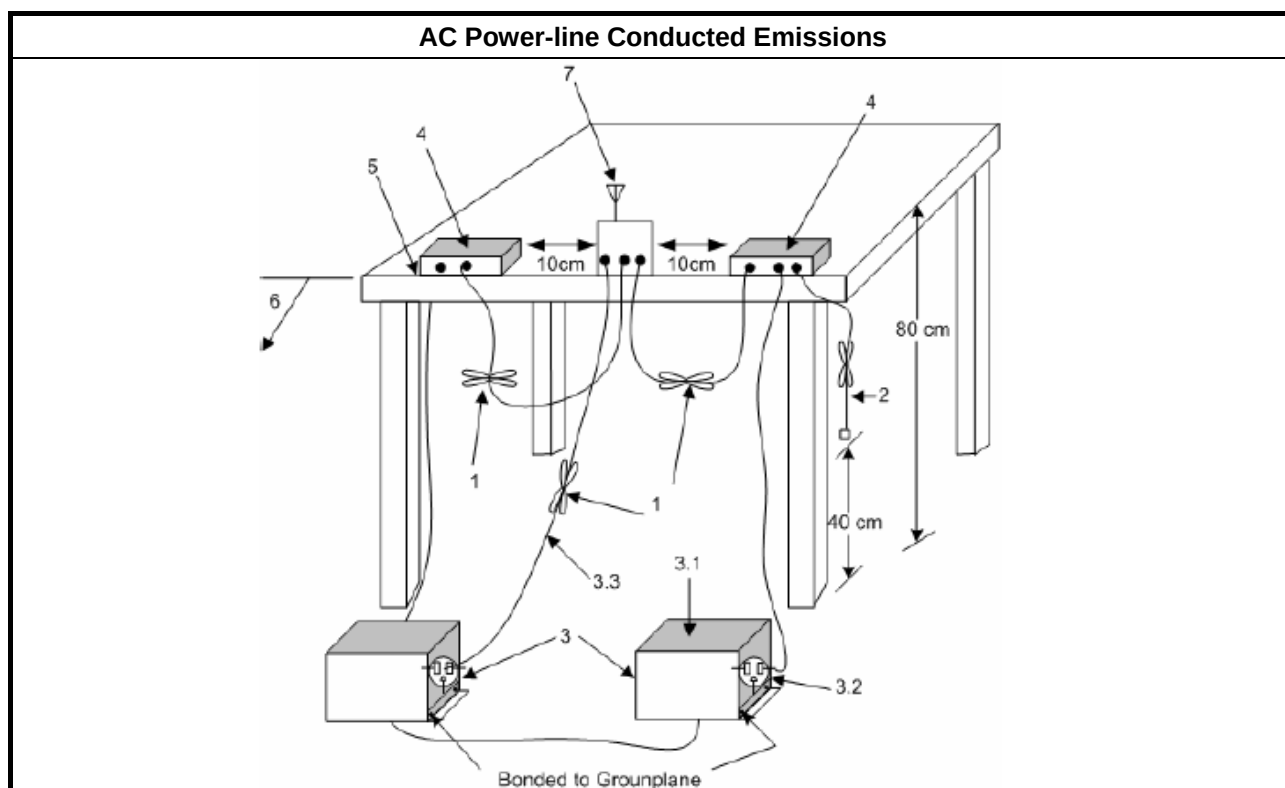
3.1.2 Measuring Instruments

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.

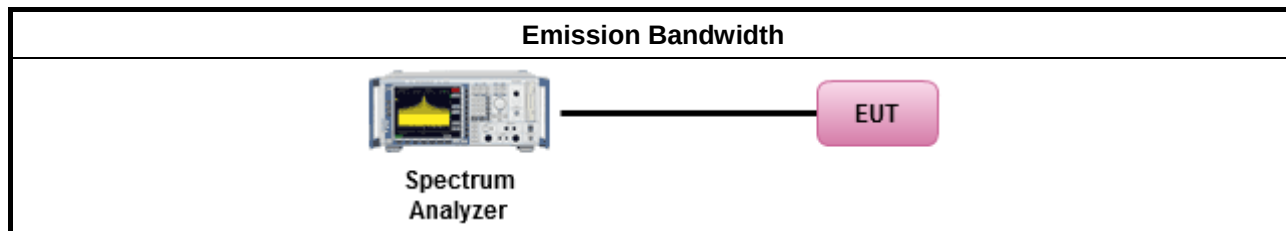
3.2.2 Measuring Instruments

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.	

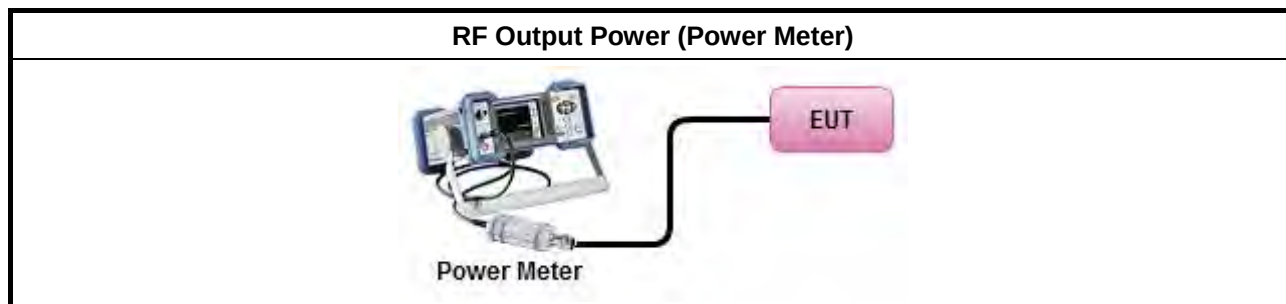
3.3.2 Measuring Instruments

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 peak power spectral density (PPSD) ≤ 4 dBm/MHz and 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 and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 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 and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 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.	

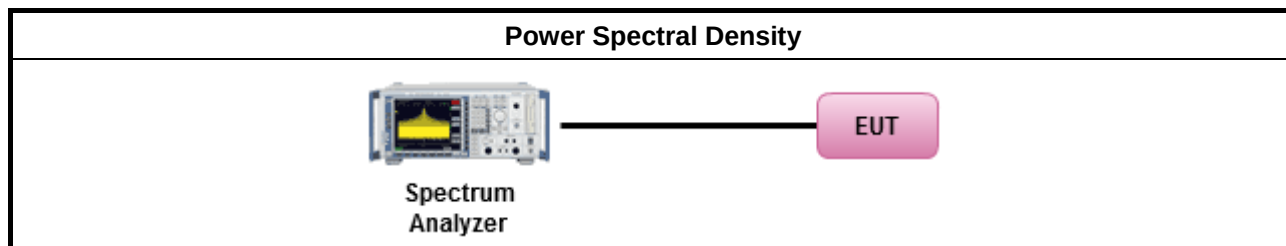
3.4.2 Measuring Instruments

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, F5) 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 Radiated Unwanted Emissions Limit

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

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

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

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

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

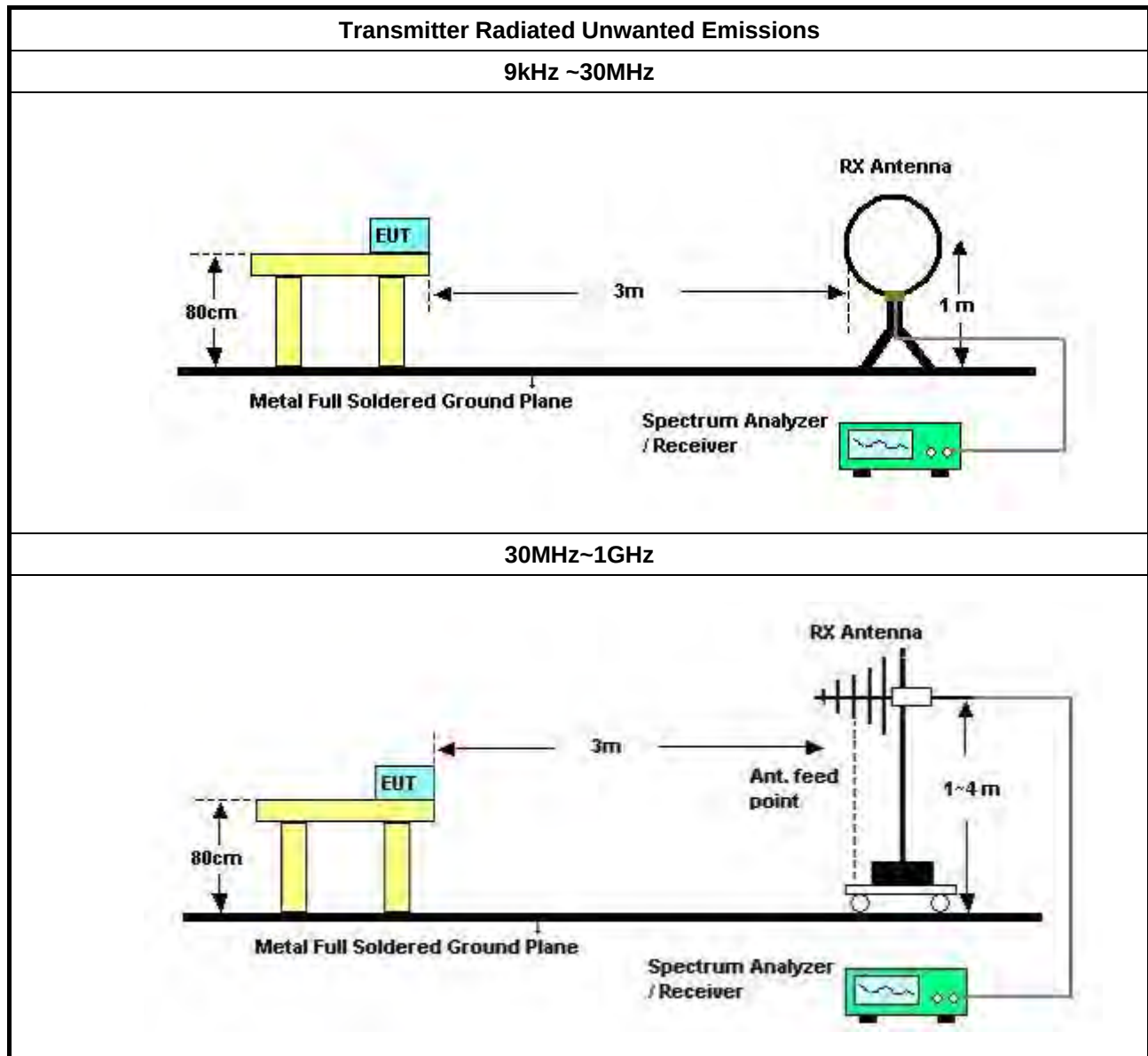
3.5.2 Measuring Instruments

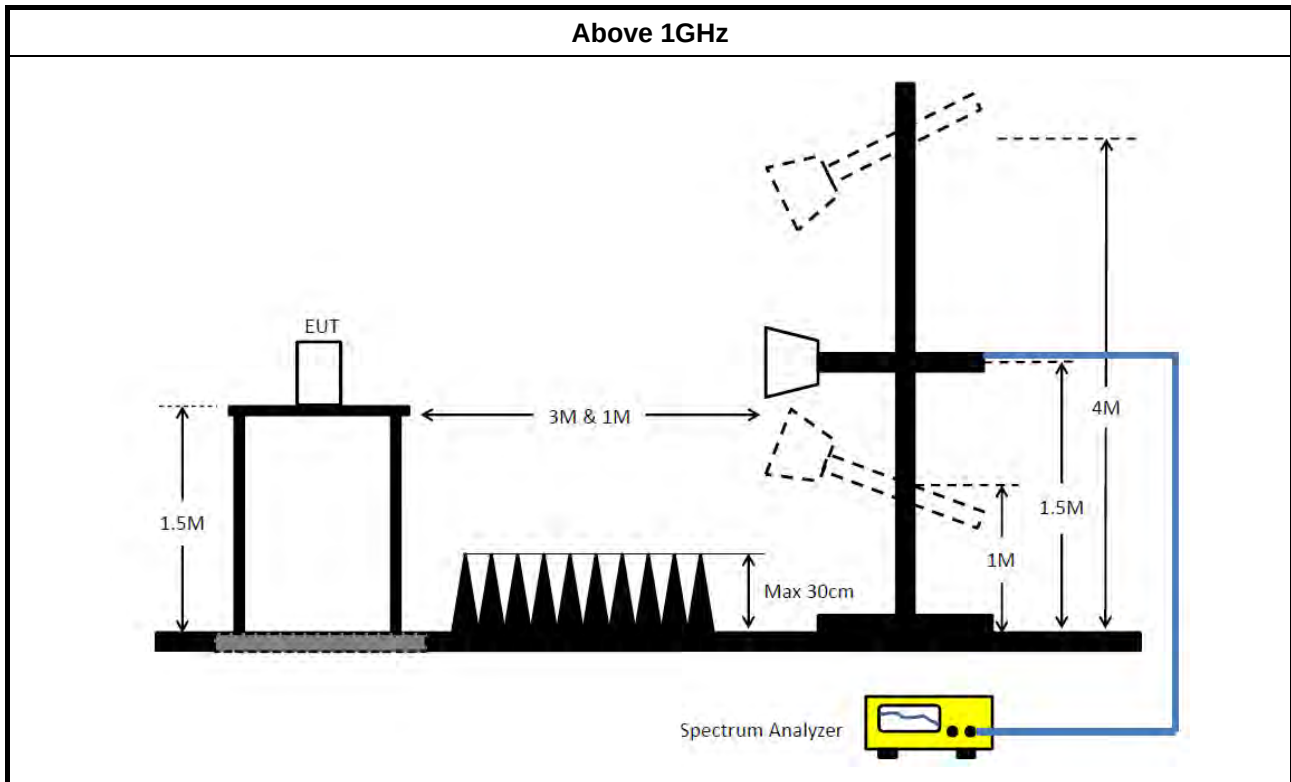
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

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

3.5.4 Test Setup





3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Frequency Stability

3.6.1 Frequency Stability Limit

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

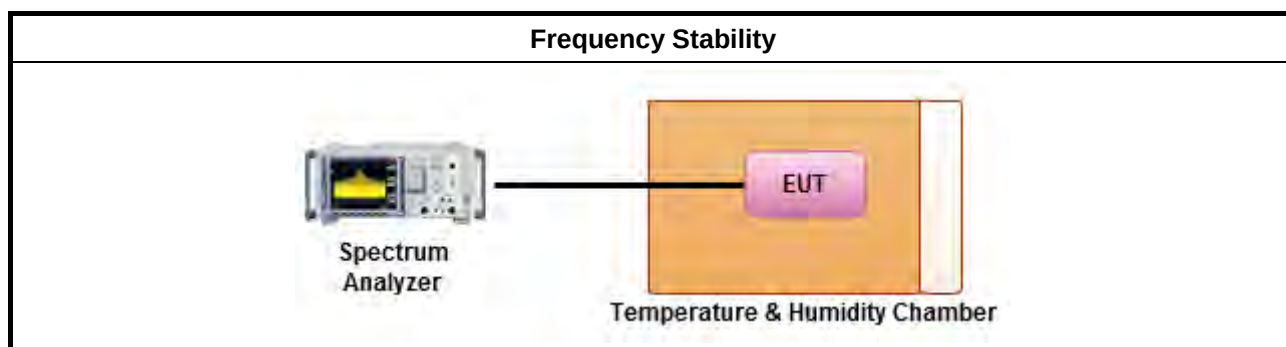
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

Test Method
Refer as ANSI C63.10, clause 6.8 for frequency stability tests
- Frequency stability with respect to ambient temperature - Frequency stability when varying supply voltage - Extreme temperature is -20°C~45°C.

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2016	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)



FCC Test Report

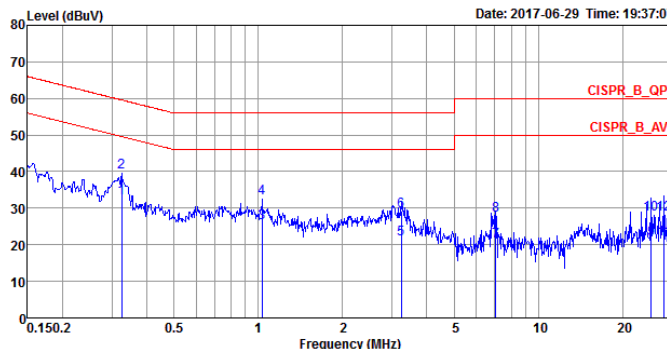
Report No. : FR761520AB

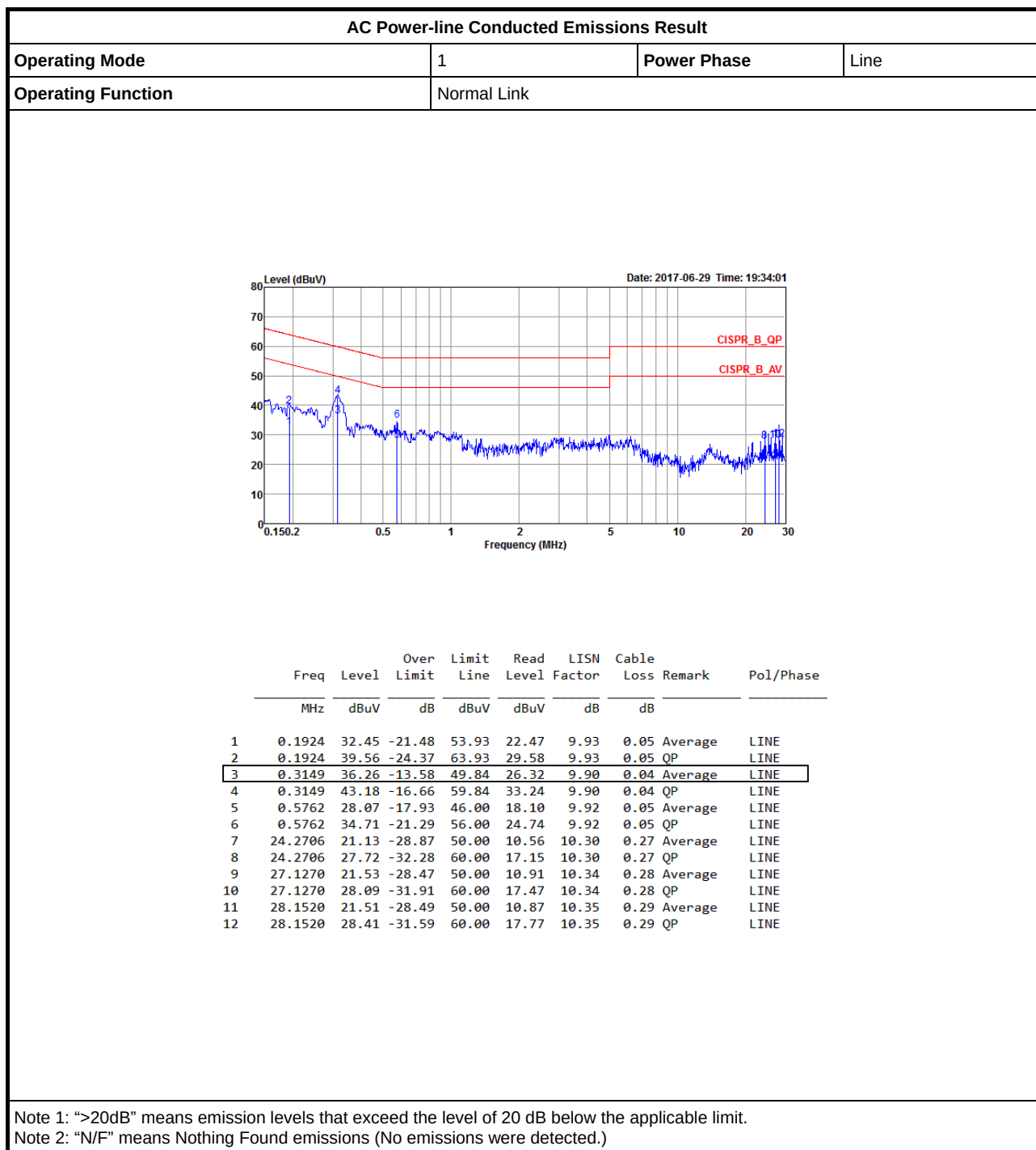
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Conducted (TH01-CB)

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

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

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

AC Power-line Conducted Emissions Result																																																																																																																																																					
Operating Mode		1			Power Phase			Neutral																																																																																																																																													
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Level (dBuV)  Date: 2017-06-29 Time: 19:37:07 <table><tr><th></th><th>Freq</th><th>Level</th><th>Over Limit</th><th>Limit Line</th><th>Read Level</th><th>LISN Factor</th><th>Cable Loss</th><th>Remark</th><th>Pol/Phase</th></tr><tr><th></th><th>MHz</th><th>dBuV</th><th>dB</th><th>dBuV</th><th>dBuV</th><th>dB</th><th>dB</th><th></th><th></th></tr><tr><td>1</td><td>0.3251</td><td>32.68</td><td>-16.89</td><td>49.57</td><td>22.67</td><td>9.97</td><td>0.04</td><td>Average</td><td>NEUTRAL</td></tr><tr><td>2</td><td>0.3251</td><td>39.85</td><td>-19.72</td><td>59.57</td><td>29.84</td><td>9.97</td><td>0.04</td><td>QP</td><td>NEUTRAL</td></tr><tr><td>3</td><td>1.0320</td><td>25.96</td><td>-20.04</td><td>46.00</td><td>15.91</td><td>9.99</td><td>0.06</td><td>Average</td><td>NEUTRAL</td></tr><tr><td>4</td><td>1.0320</td><td>32.67</td><td>-23.33</td><td>56.00</td><td>22.62</td><td>9.99</td><td>0.06</td><td>QP</td><td>NEUTRAL</td></tr><tr><td>5</td><td>3.2411</td><td>21.66</td><td>-24.34</td><td>46.00</td><td>11.51</td><td>10.04</td><td>0.11</td><td>Average</td><td>NEUTRAL</td></tr><tr><td>6</td><td>3.2411</td><td>29.20</td><td>-26.80</td><td>56.00</td><td>19.05</td><td>10.04</td><td>0.11</td><td>QP</td><td>NEUTRAL</td></tr><tr><td>7</td><td>7.0622</td><td>20.97</td><td>-29.03</td><td>50.00</td><td>10.68</td><td>10.13</td><td>0.16</td><td>Average</td><td>NEUTRAL</td></tr><tr><td>8</td><td>7.0622</td><td>27.93</td><td>-32.07</td><td>60.00</td><td>17.64</td><td>10.13</td><td>0.16</td><td>QP</td><td>NEUTRAL</td></tr><tr><td>9</td><td>25.3214</td><td>21.56</td><td>-28.44</td><td>50.00</td><td>10.97</td><td>10.32</td><td>0.27</td><td>Average</td><td>NEUTRAL</td></tr><tr><td>10</td><td>25.3214</td><td>28.25</td><td>-31.75</td><td>60.00</td><td>17.66</td><td>10.32</td><td>0.27</td><td>QP</td><td>NEUTRAL</td></tr><tr><td>11</td><td>28.1520</td><td>21.66</td><td>-28.34</td><td>50.00</td><td>11.04</td><td>10.33</td><td>0.29</td><td>Average</td><td>NEUTRAL</td></tr><tr><td>12</td><td>28.1520</td><td>28.33</td><td>-31.67</td><td>60.00</td><td>17.71</td><td>10.33</td><td>0.29</td><td>QP</td><td>NEUTRAL</td></tr></table>											Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase		MHz	dBuV	dB	dBuV	dBuV	dB	dB			1	0.3251	32.68	-16.89	49.57	22.67	9.97	0.04	Average	NEUTRAL	2	0.3251	39.85	-19.72	59.57	29.84	9.97	0.04	QP	NEUTRAL	3	1.0320	25.96	-20.04	46.00	15.91	9.99	0.06	Average	NEUTRAL	4	1.0320	32.67	-23.33	56.00	22.62	9.99	0.06	QP	NEUTRAL	5	3.2411	21.66	-24.34	46.00	11.51	10.04	0.11	Average	NEUTRAL	6	3.2411	29.20	-26.80	56.00	19.05	10.04	0.11	QP	NEUTRAL	7	7.0622	20.97	-29.03	50.00	10.68	10.13	0.16	Average	NEUTRAL	8	7.0622	27.93	-32.07	60.00	17.64	10.13	0.16	QP	NEUTRAL	9	25.3214	21.56	-28.44	50.00	10.97	10.32	0.27	Average	NEUTRAL	10	25.3214	28.25	-31.75	60.00	17.66	10.32	0.27	QP	NEUTRAL	11	28.1520	21.66	-28.34	50.00	11.04	10.33	0.29	Average	NEUTRAL	12	28.1520	28.33	-31.67	60.00	17.71	10.33	0.29	QP	NEUTRAL
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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)
802.11a_(6Mbps)_2TX	-	-	-	-	-
5.15-5.25GHz	21.125M	17.566M	17M6D1D	21.025M	17.541M
5.725-5.85GHz	17.6M	17.591M	17M6D1D	17.575M	17.516M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	21.15M	17.566M	17M6D1D	21M	17.541M
5.725-5.85GHz	17.6M	17.591M	17M6D1D	17.575M	17.541M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	41.75M	35.932M	35M9D1D	41.6M	35.832M
5.725-5.85GHz	36.35M	35.982M	36M0D1D	36.3M	35.832M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	82.4M	75.262M	75M3D1D	82.3M	75.062M
5.725-5.85GHz	75.8M	75.262M	75M3D1D	73.7M	75.262M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

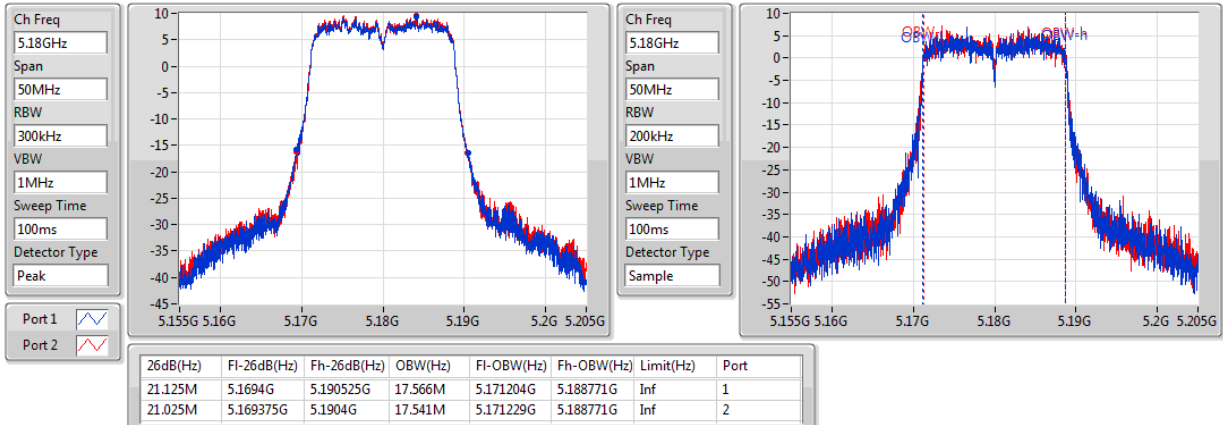
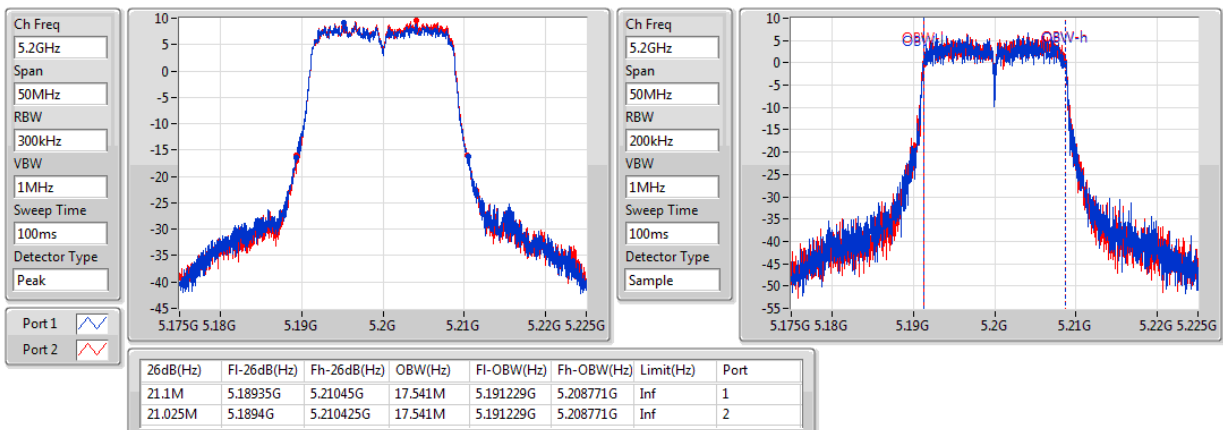
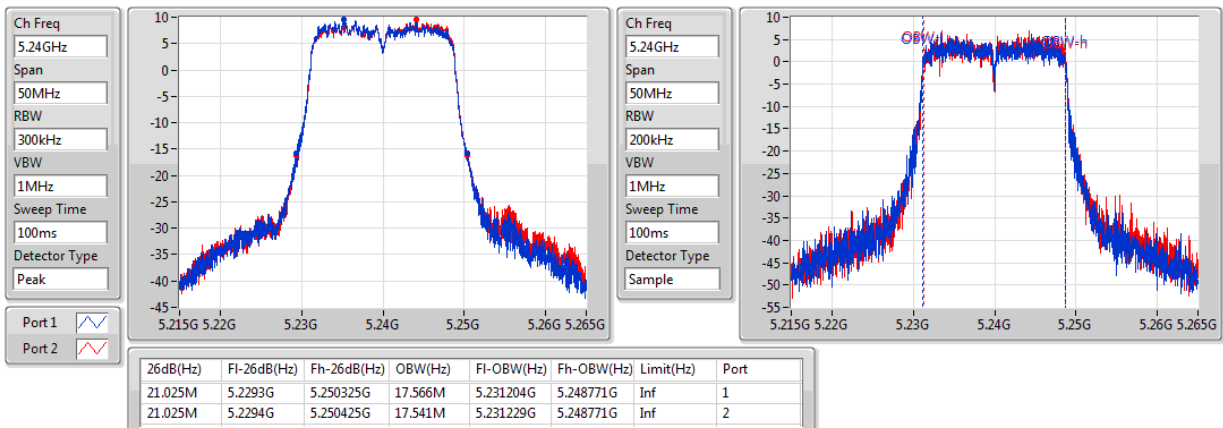
Min-OBW = Minimum 99% occupied bandwidth;

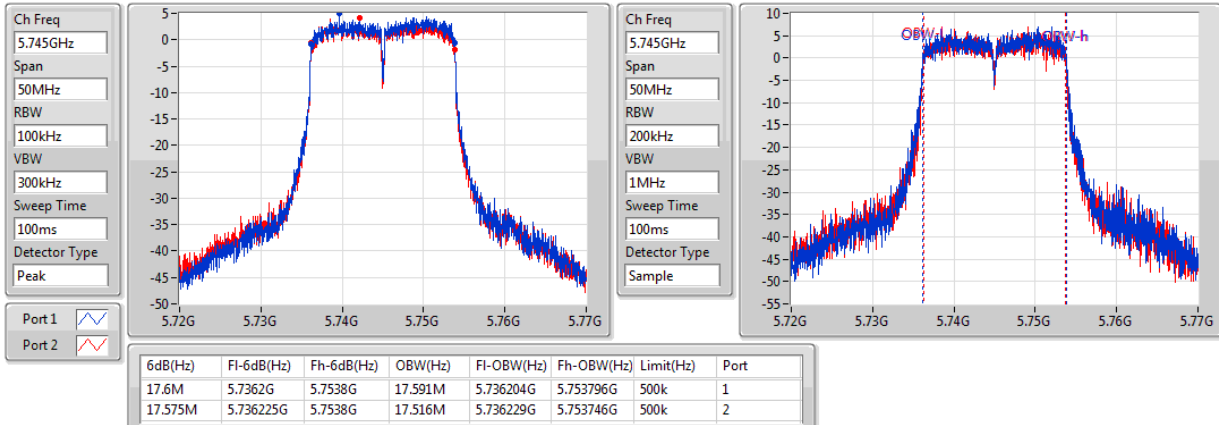
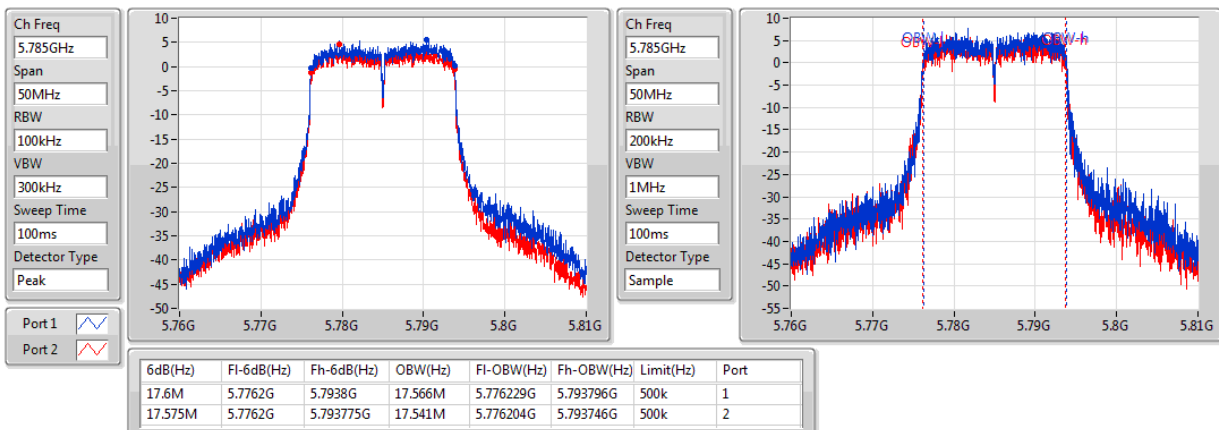
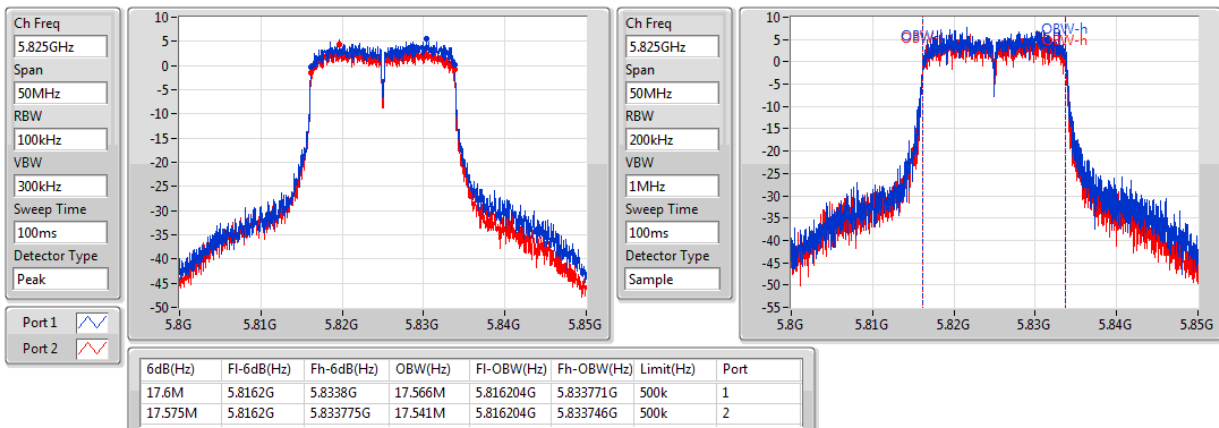
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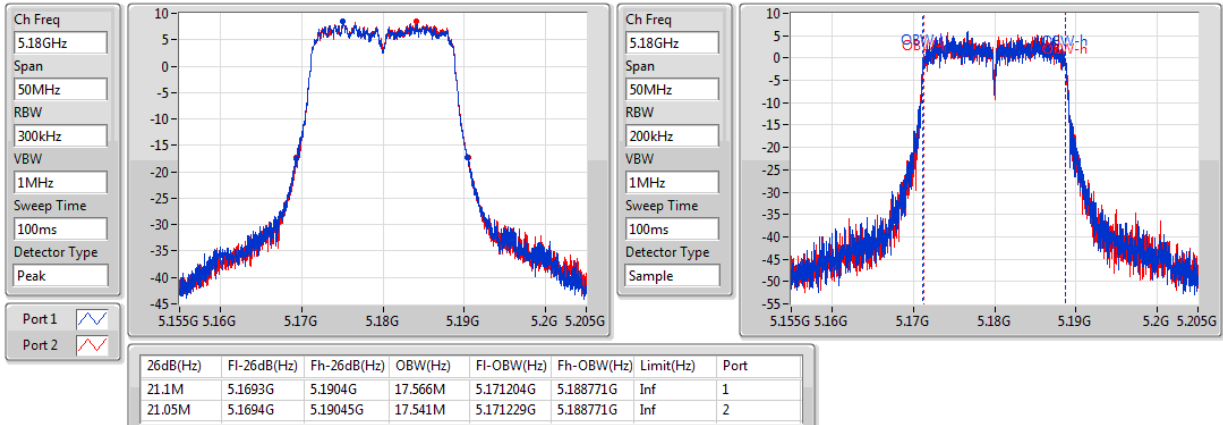
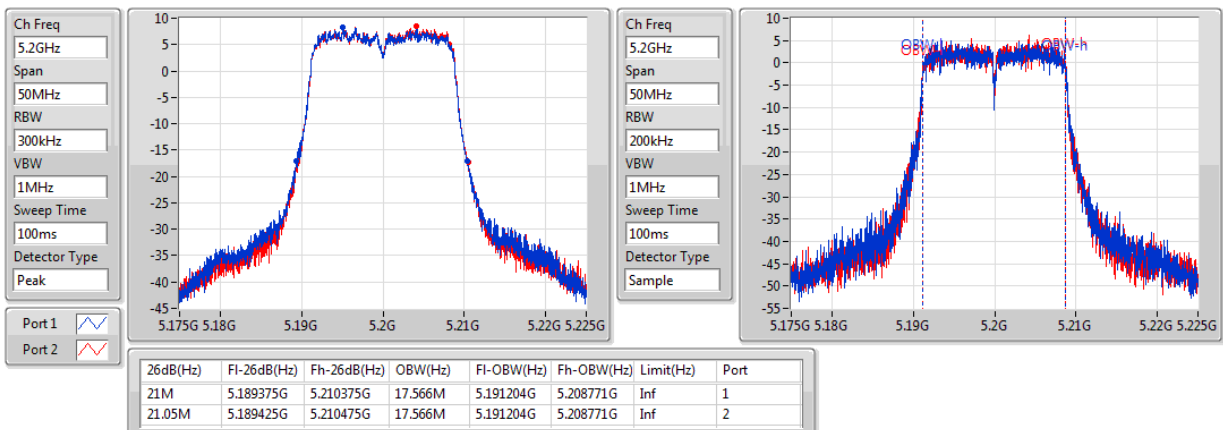
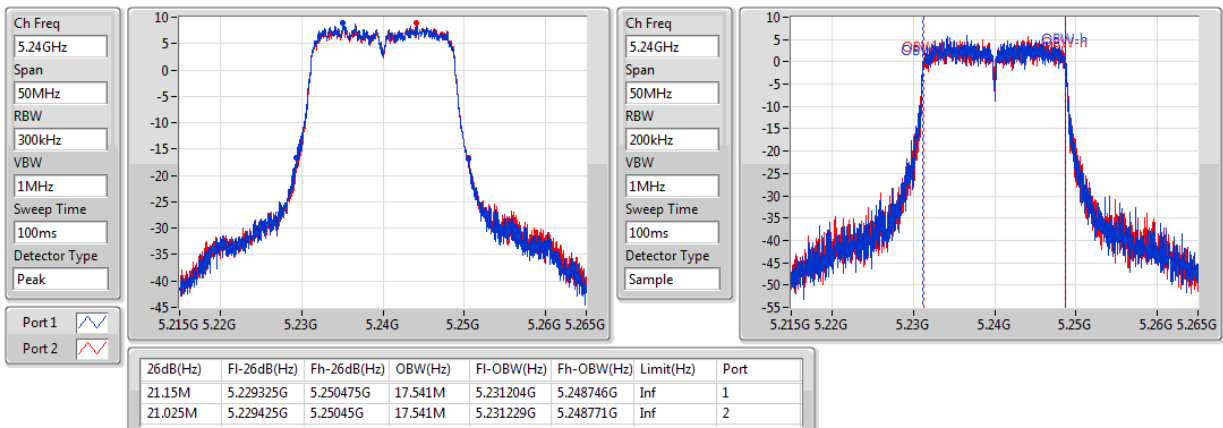
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.125M	17.566M	21.025M	17.541M
5200MHz	Pass	Inf	21.1M	17.541M	21.025M	17.541M
5240MHz	Pass	Inf	21.025M	17.566M	21.025M	17.541M
5745MHz	Pass	500k	17.6M	17.591M	17.575M	17.516M
5785MHz	Pass	500k	17.6M	17.566M	17.575M	17.541M
5825MHz	Pass	500k	17.6M	17.566M	17.575M	17.541M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.1M	17.566M	21.05M	17.541M
5200MHz	Pass	Inf	21M	17.566M	21.05M	17.566M
5240MHz	Pass	Inf	21.15M	17.541M	21.025M	17.541M
5745MHz	Pass	500k	17.6M	17.591M	17.6M	17.541M
5785MHz	Pass	500k	17.6M	17.591M	17.575M	17.541M
5825MHz	Pass	500k	17.6M	17.541M	17.575M	17.566M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	41.6M	35.932M	41.6M	35.932M
5230MHz	Pass	Inf	41.75M	35.932M	41.7M	35.832M
5755MHz	Pass	500k	36.35M	35.832M	36.3M	35.932M
5795MHz	Pass	500k	36.3M	35.982M	36.3M	35.832M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	82.3M	75.062M	82.4M	75.262M
5775MHz	Pass	500k	73.7M	75.262M	75.8M	75.262M

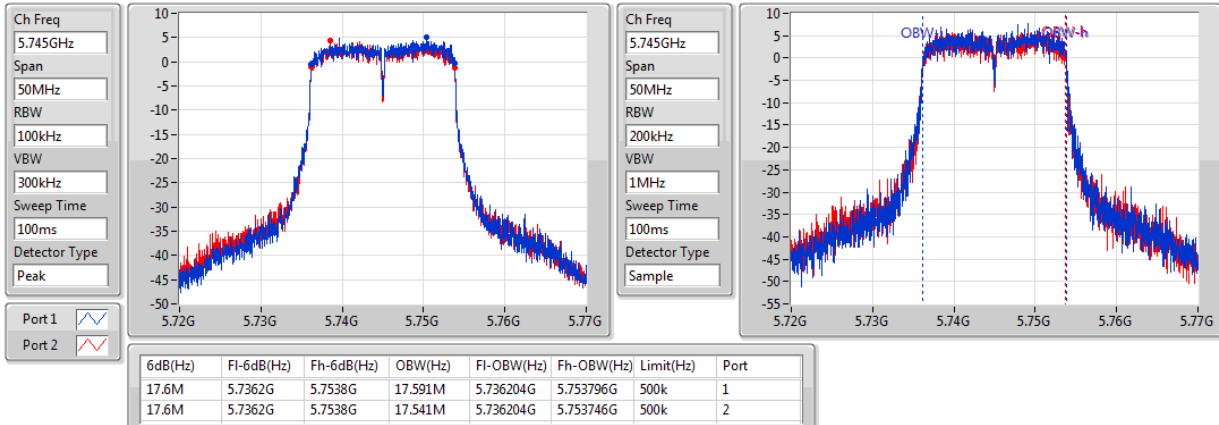
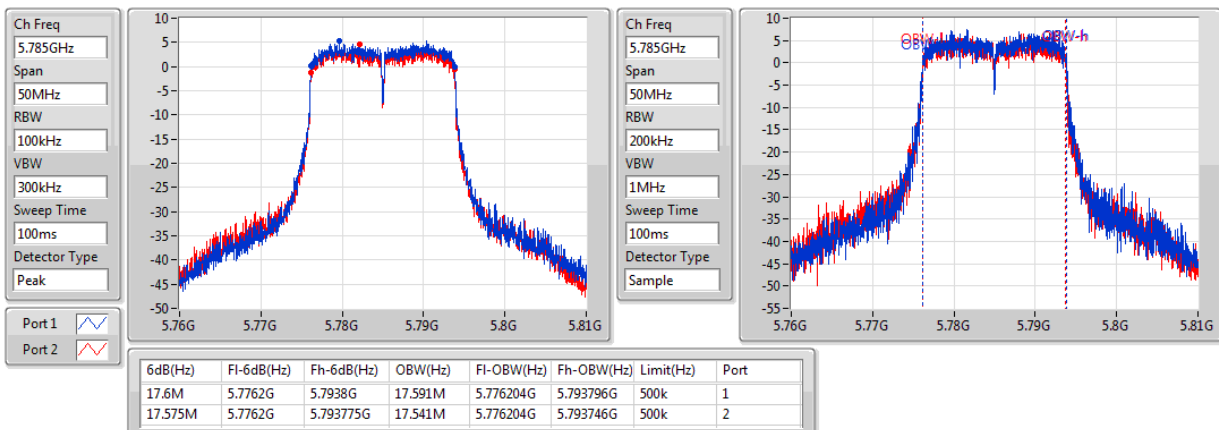
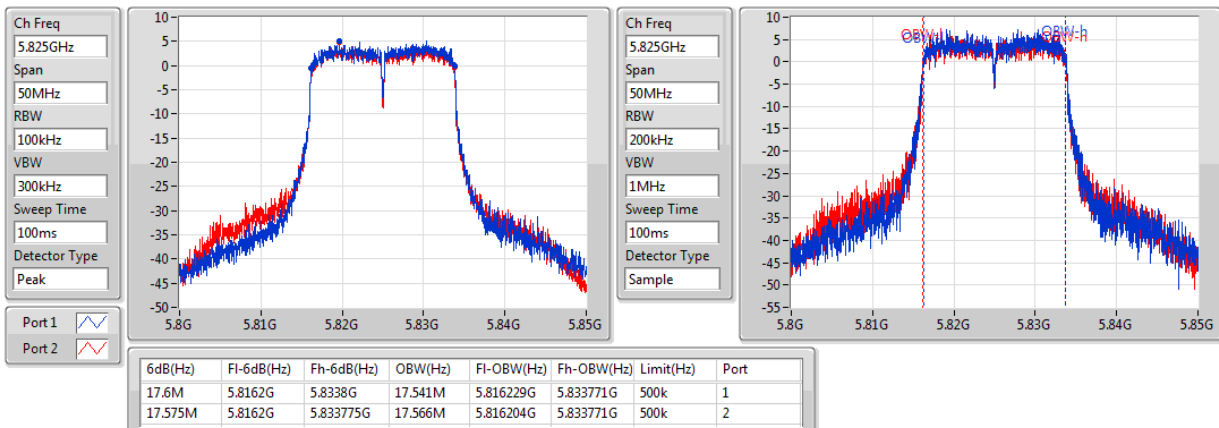
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

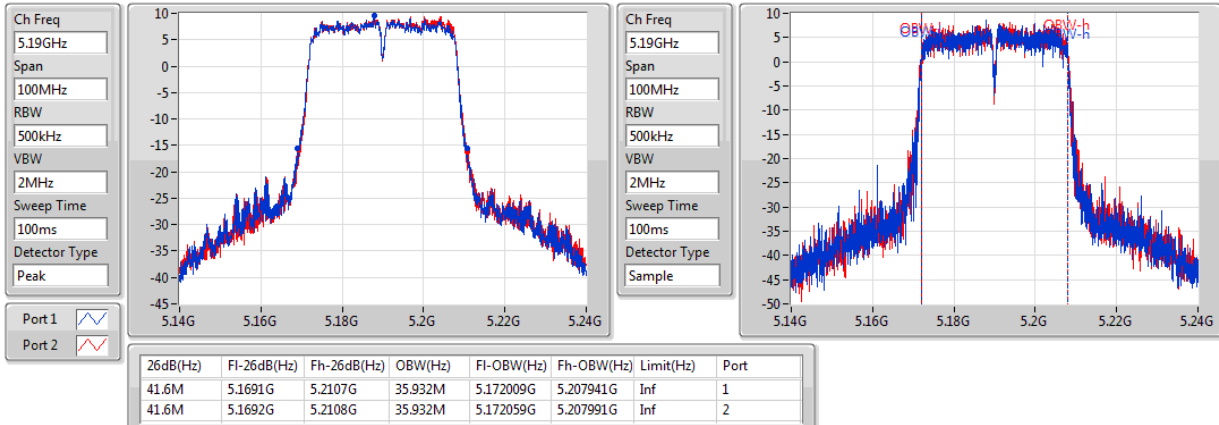
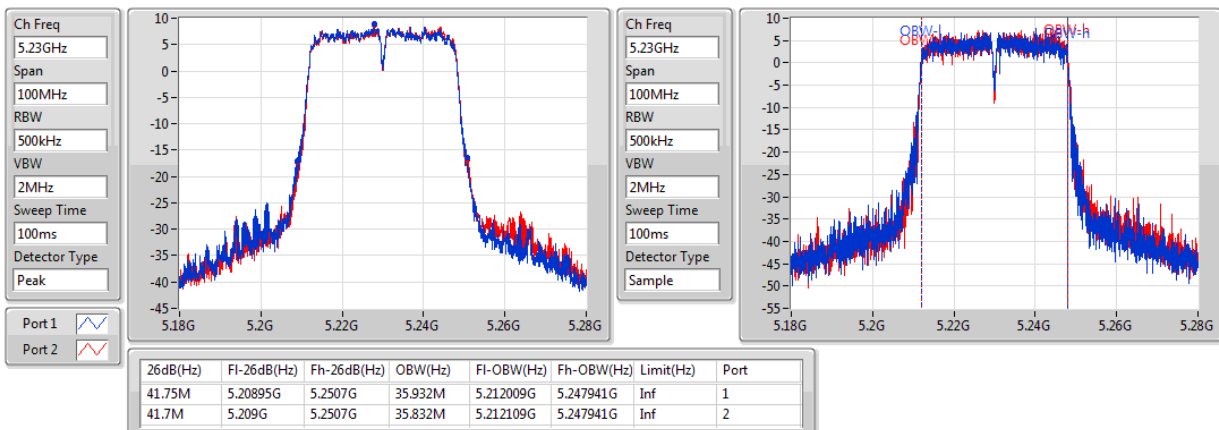
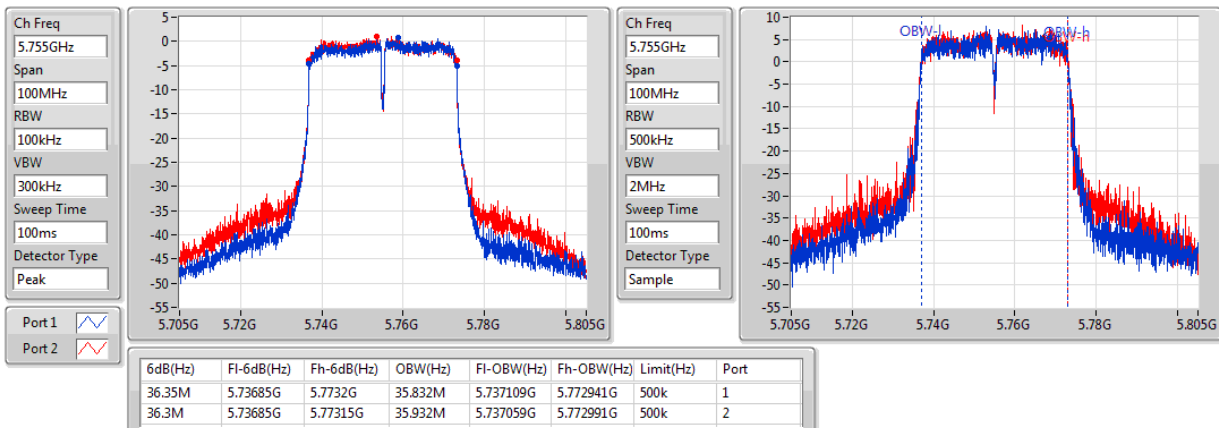
Port X-OBW = Port X 99% occupied bandwidth;

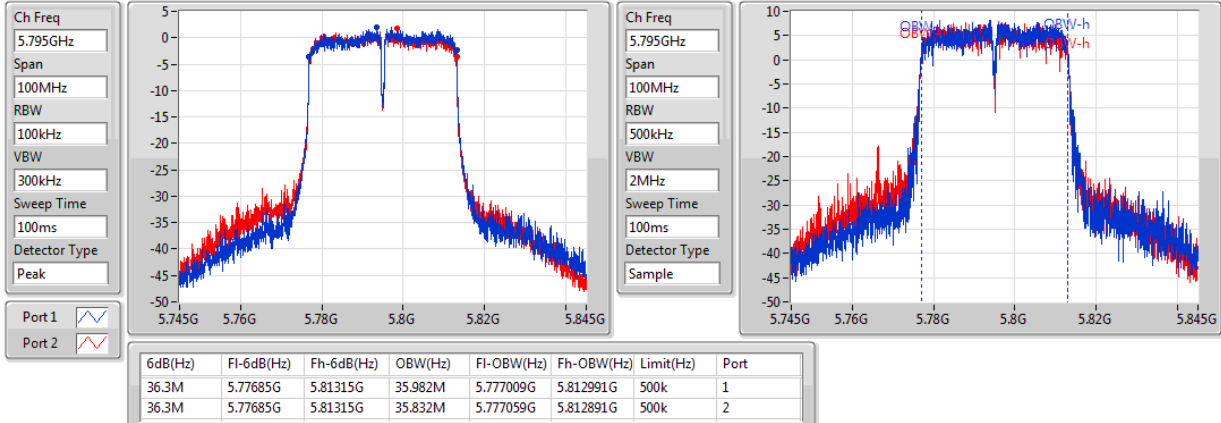
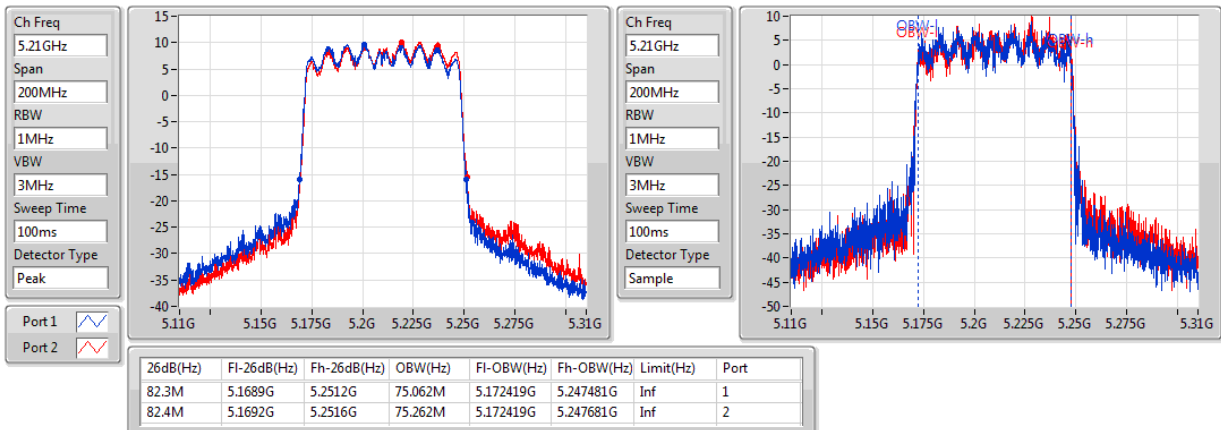
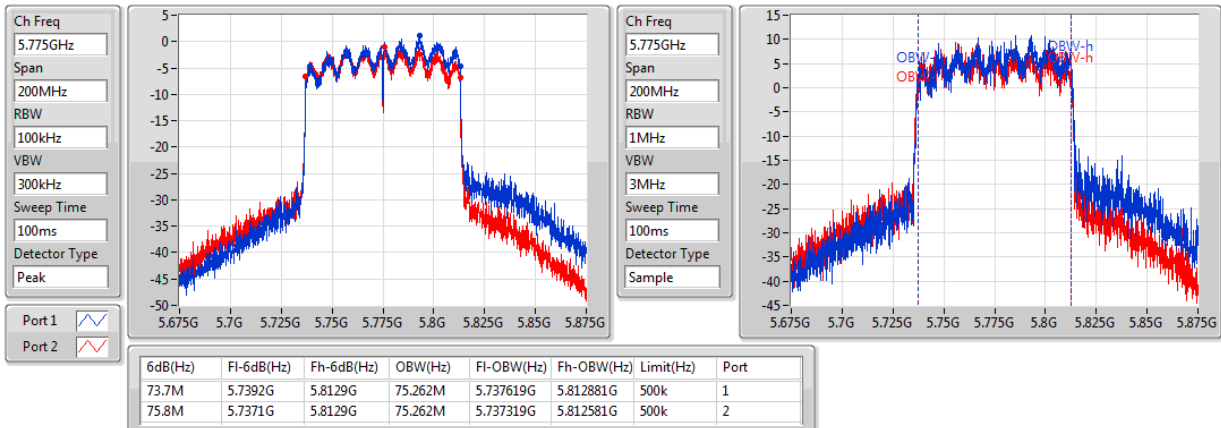
802.11a_(6Mbps)_2TX
EBW
5180MHz

802.11a_(6Mbps)_2TX
EBW
5200MHz

802.11a_(6Mbps)_2TX
EBW
5240MHz


802.11a_(6Mbps)_2TX
EBW
5745MHz

802.11a_(6Mbps)_2TX
EBW
5785MHz

802.11a_(6Mbps)_2TX
EBW
5825MHz


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5180MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5200MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5240MHz


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5745MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5785MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5825MHz


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5190MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5230MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5755MHz


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5795MHz

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5210MHz

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5775MHz


Summary

Mode	Total Power (dBm)	Total Power (W)
802.11a_(6Mbps)_2TX	-	-
5.15-5.25GHz	21.90	0.15488
5.725-5.85GHz	21.97	0.15740
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	22.04	0.15996
5.725-5.85GHz	22.00	0.15849
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	21.87	0.15382
5.725-5.85GHz	21.97	0.15740
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	21.89	0.15453
5.725-5.85GHz	21.77	0.15031

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	6.30	18.78	18.78	21.79	29.70
5200MHz	Pass	6.30	18.84	18.93	21.90	29.70
5240MHz	Pass	6.30	18.81	18.85	21.84	29.70
5745MHz	Pass	6.60	18.62	18.73	21.69	29.40
5785MHz	Pass	6.60	18.95	18.78	21.88	29.40
5825MHz	Pass	6.60	19.09	18.83	21.97	29.40
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	6.30	18.76	18.87	21.83	29.70
5200MHz	Pass	6.30	18.77	18.88	21.84	29.70
5240MHz	Pass	6.30	19.02	19.04	22.04	29.70
5745MHz	Pass	6.60	18.84	18.76	21.81	29.40
5785MHz	Pass	6.60	19.03	18.75	21.90	29.40
5825MHz	Pass	6.60	19.04	18.94	22.00	29.40
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	6.30	18.85	18.83	21.85	29.70
5230MHz	Pass	6.30	18.80	18.92	21.87	29.70
5755MHz	Pass	6.60	18.84	19.01	21.94	29.40
5795MHz	Pass	6.60	18.87	19.04	21.97	29.40
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	6.30	18.71	19.05	21.89	29.70
5775MHz	Pass	6.60	18.79	18.72	21.77	29.40

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

Summary

Mode	PD (dBm/RBW)
802.11a_(6Mbps)_2TX	-
5.15-5.25GHz	7.81
5.725-5.85GHz	7.60
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5.15-5.25GHz	7.78
5.725-5.85GHz	7.64
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5.15-5.25GHz	5.64
5.725-5.85GHz	4.73
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5.15-5.25GHz	3.42
5.725-5.85GHz	3.35

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	9.16	4.44	4.78	7.60	13.84
5200MHz	Pass	9.16	4.56	5.06	7.81	13.84
5240MHz	Pass	9.16	4.65	4.83	7.70	13.84
5745MHz	Pass	9.56	4.58	3.78	7.20	26.44
5785MHz	Pass	9.56	5.31	3.81	7.60	26.44
5825MHz	Pass	9.56	5.22	3.77	7.53	26.44
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	9.16	4.52	4.74	7.63	13.84
5200MHz	Pass	9.16	4.47	4.89	7.67	13.84
5240MHz	Pass	9.16	4.76	4.88	7.78	13.84
5745MHz	Pass	9.56	4.83	4.12	7.47	26.44
5785MHz	Pass	9.56	5.10	4.12	7.64	26.44
5825MHz	Pass	9.56	4.88	4.26	7.52	26.44
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	9.16	2.49	2.80	5.64	13.84
5230MHz	Pass	9.16	2.63	2.56	5.59	13.84
5755MHz	Pass	9.56	0.78	1.10	3.91	26.44
5795MHz	Pass	9.56	1.88	1.61	4.73	26.44
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	9.16	0.11	0.74	3.42	13.84
5775MHz	Pass	9.56	1.15	-0.65	3.35	26.44

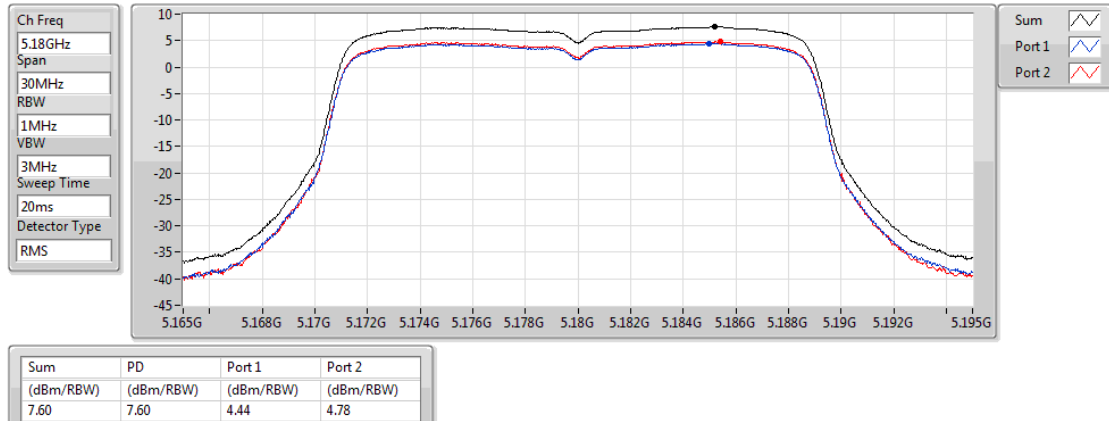
DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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

802.11a_(6Mbps)_2TX

PSD

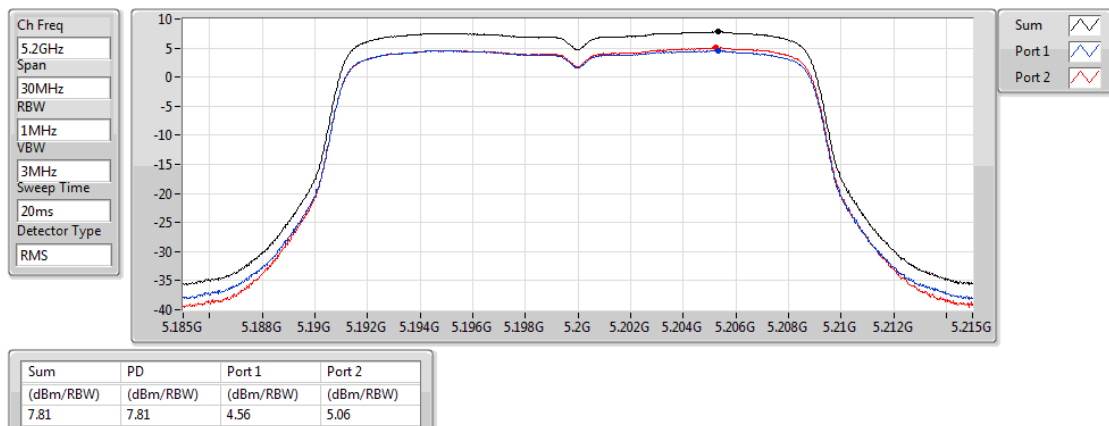
5180MHz



802.11a_(6Mbps)_2TX

PSD

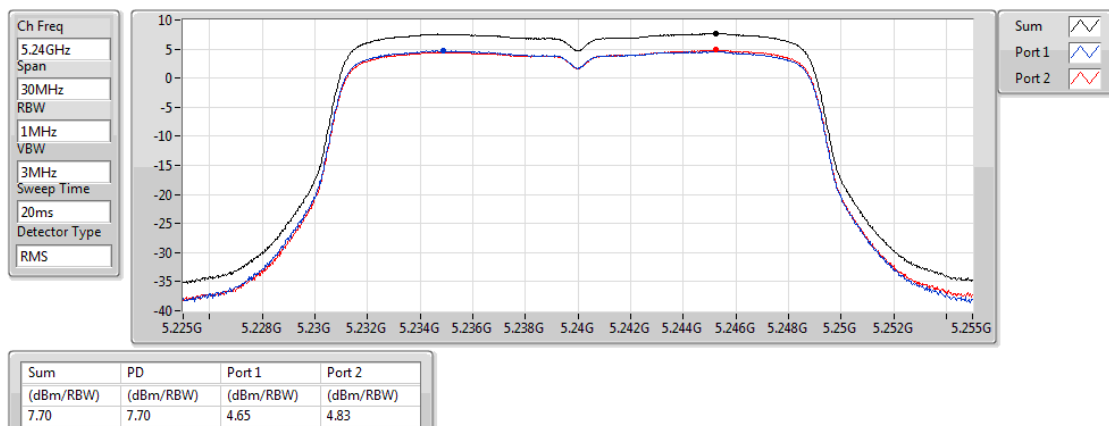
5200MHz



802.11a_(6Mbps)_2TX

PSD

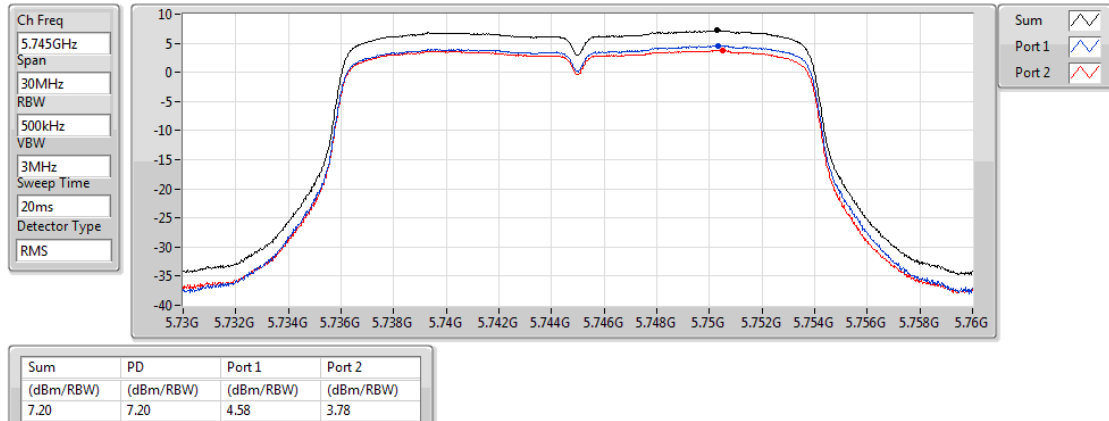
5240MHz



802.11a_(6Mbps)_2TX

PSD

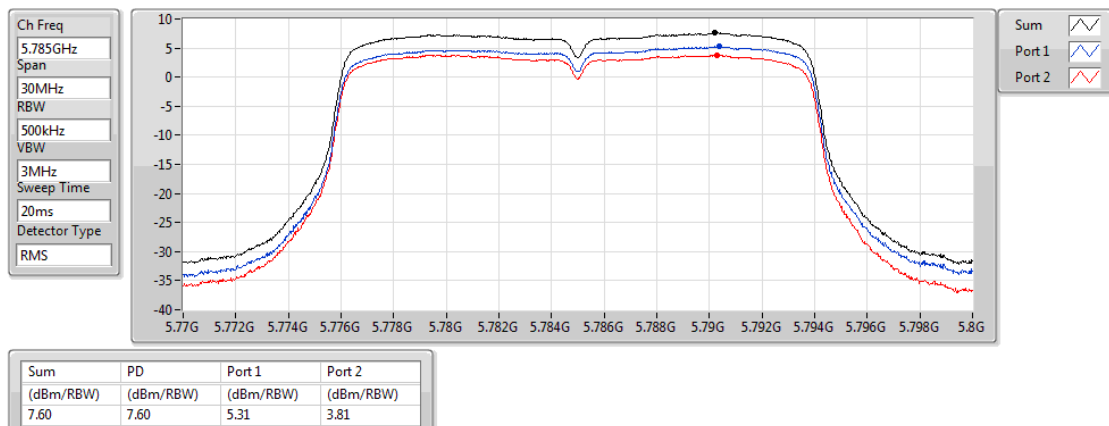
5745MHz



802.11a_(6Mbps)_2TX

PSD

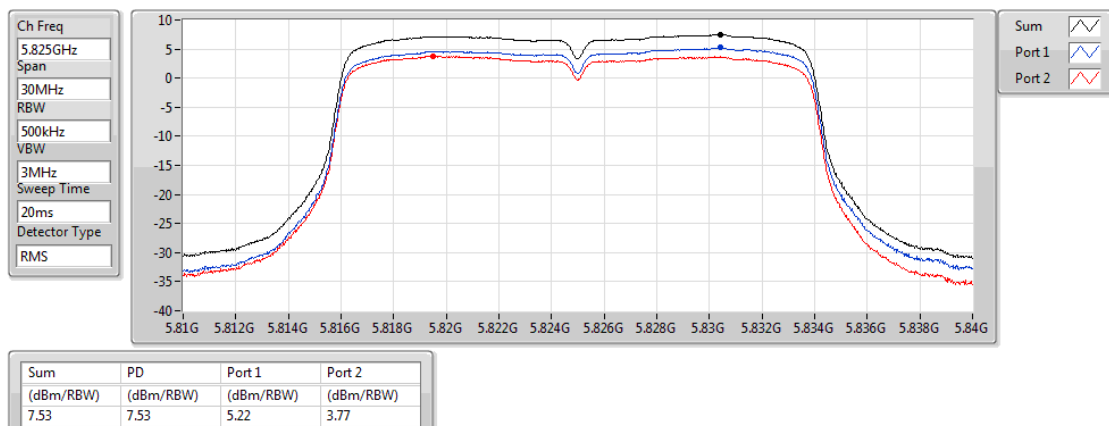
5785MHz



802.11a_(6Mbps)_2TX

PSD

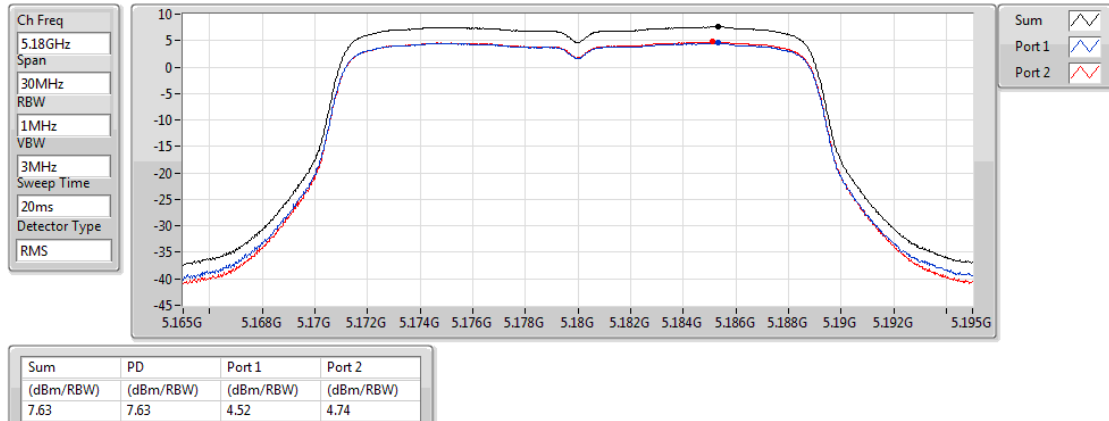
5825MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

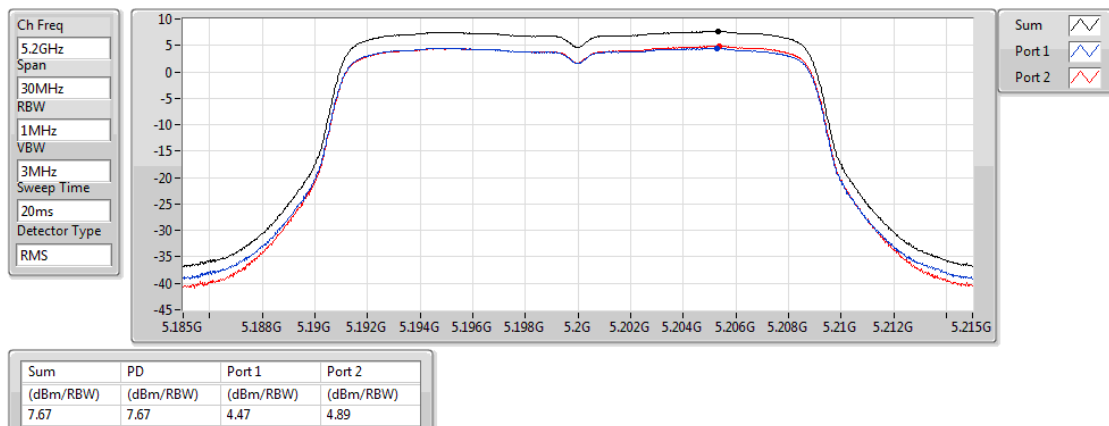
5180MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

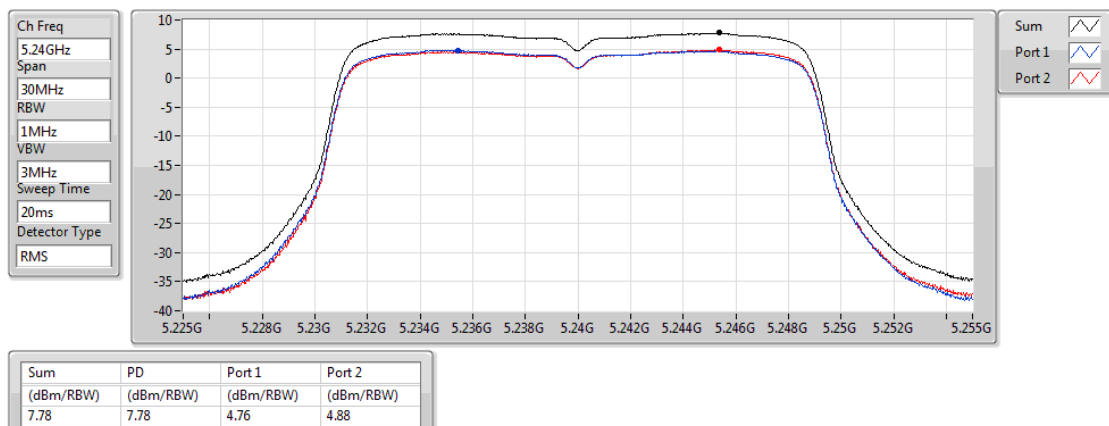
5200MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

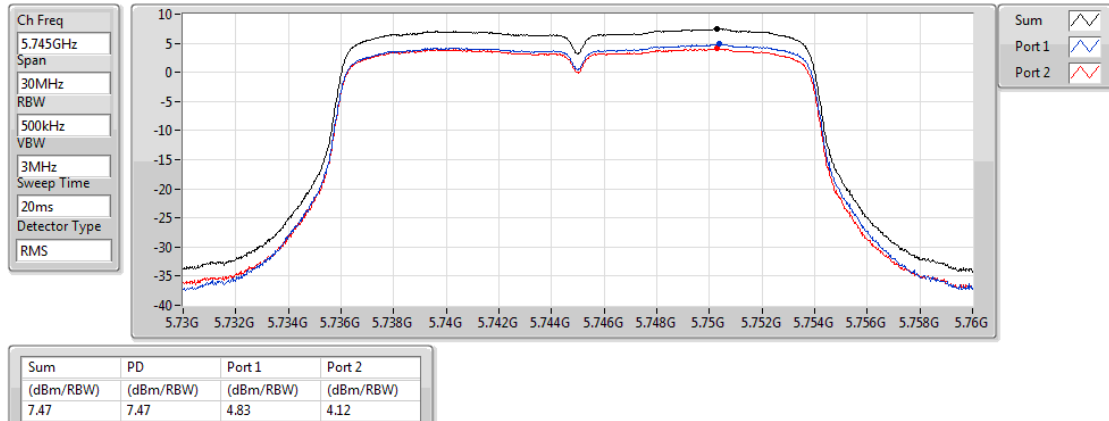
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802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

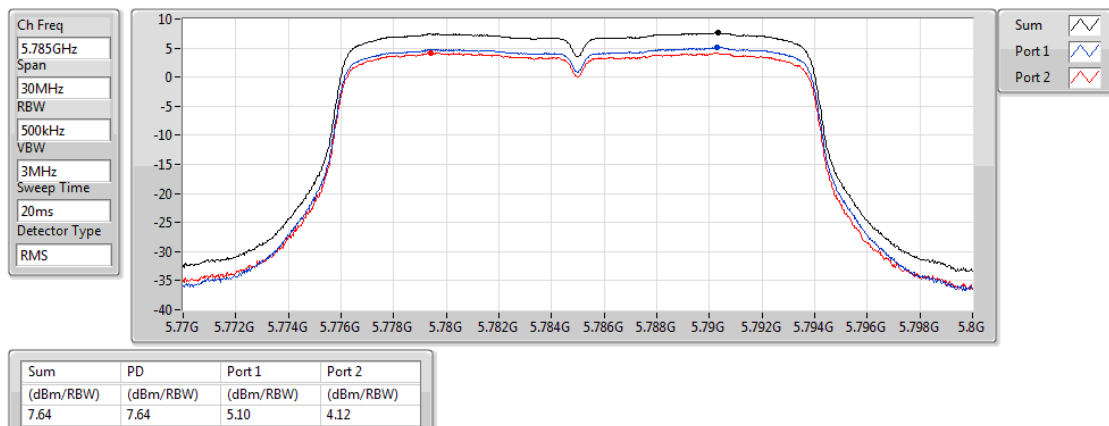
5745MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

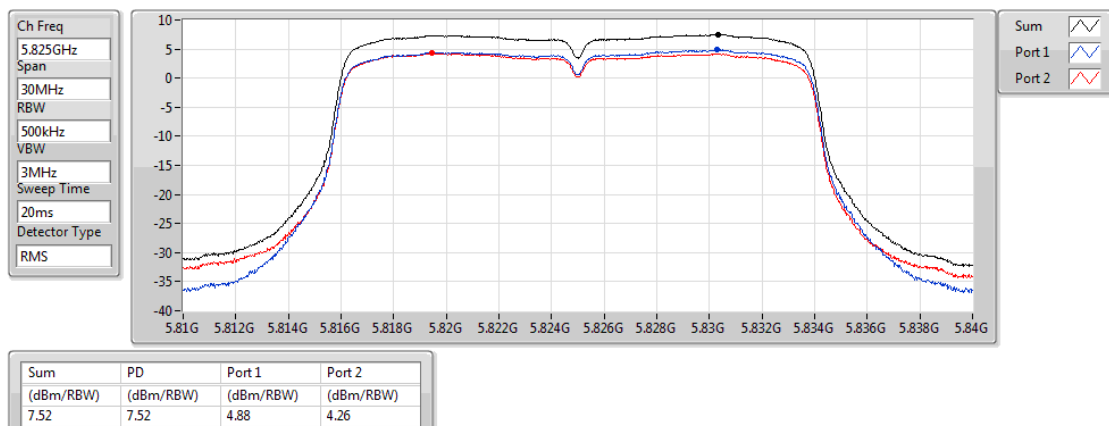
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802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

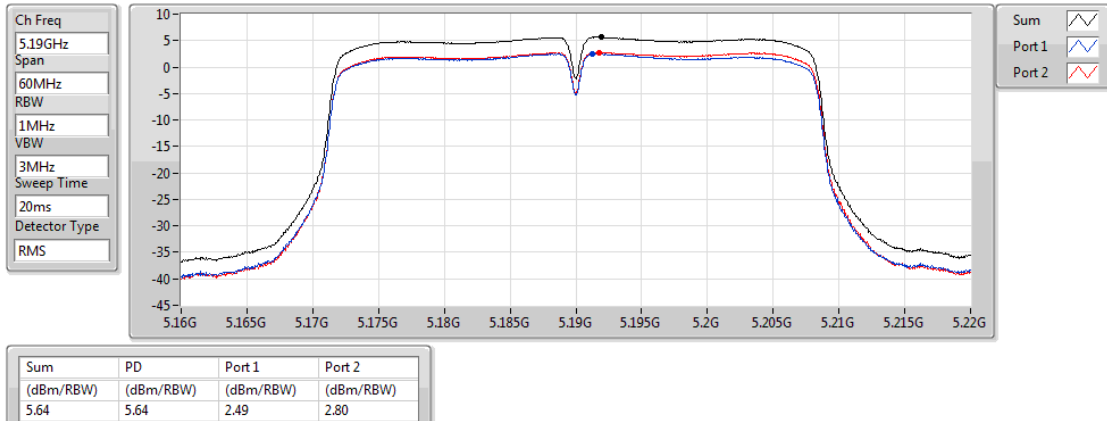
5825MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

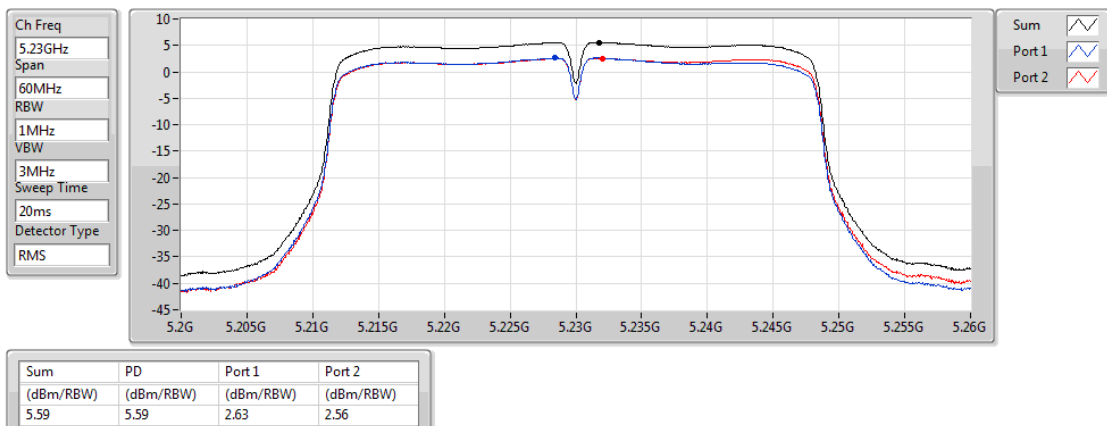
5190MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

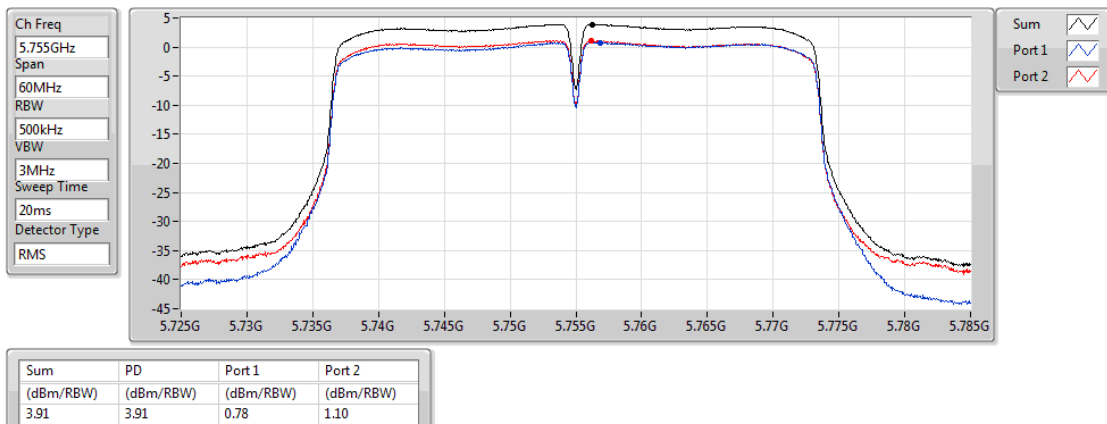
5230MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

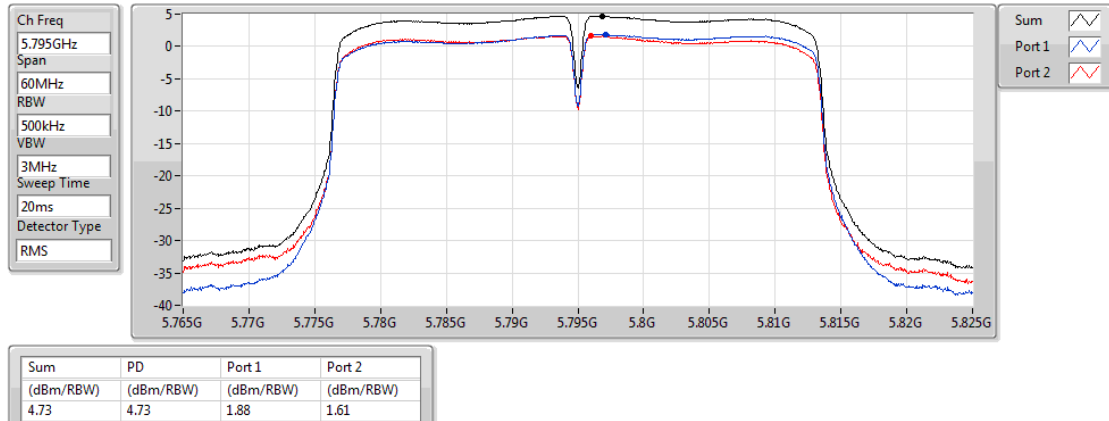
5755MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

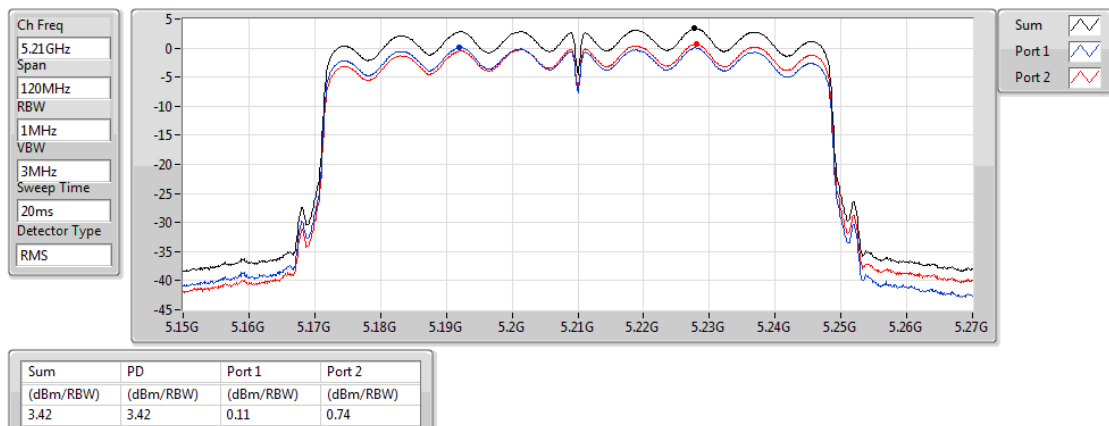
5795MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

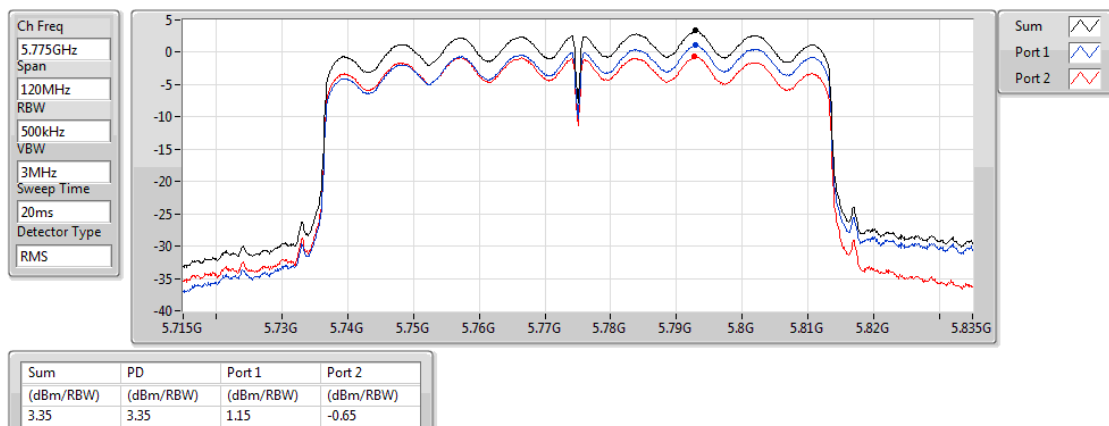
5210MHz

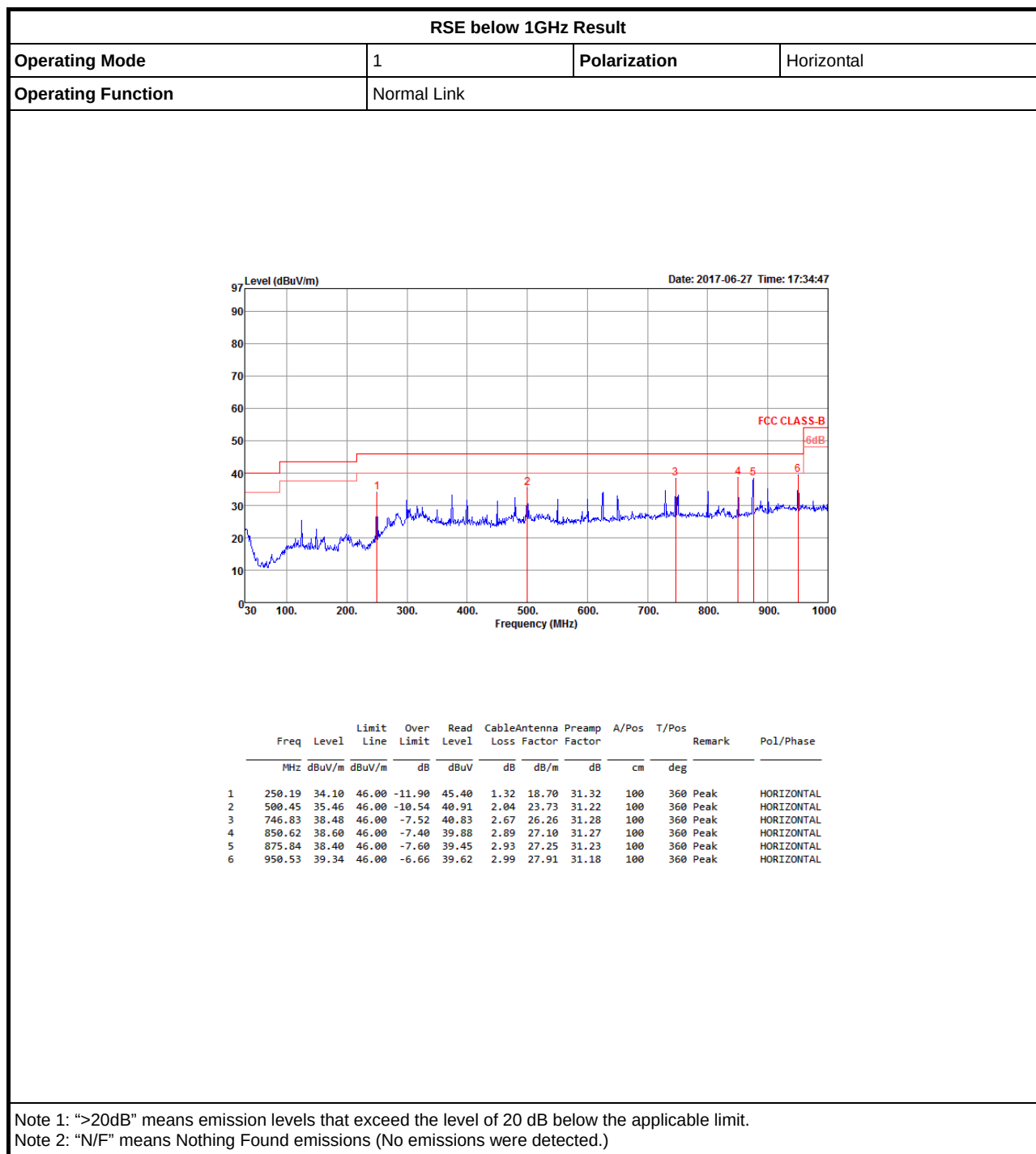


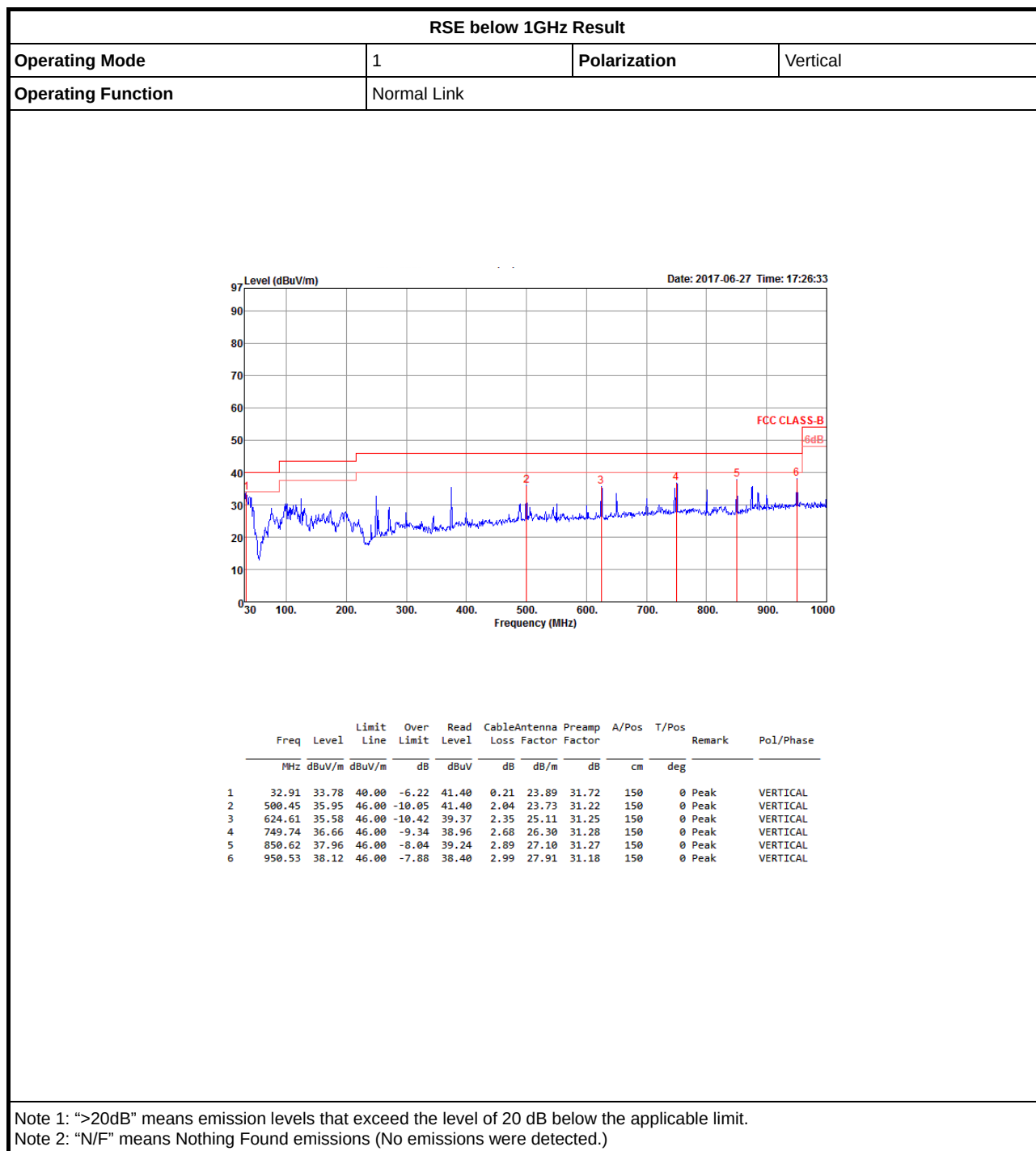
802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5775MHz









RSE TX above 1GHz Result

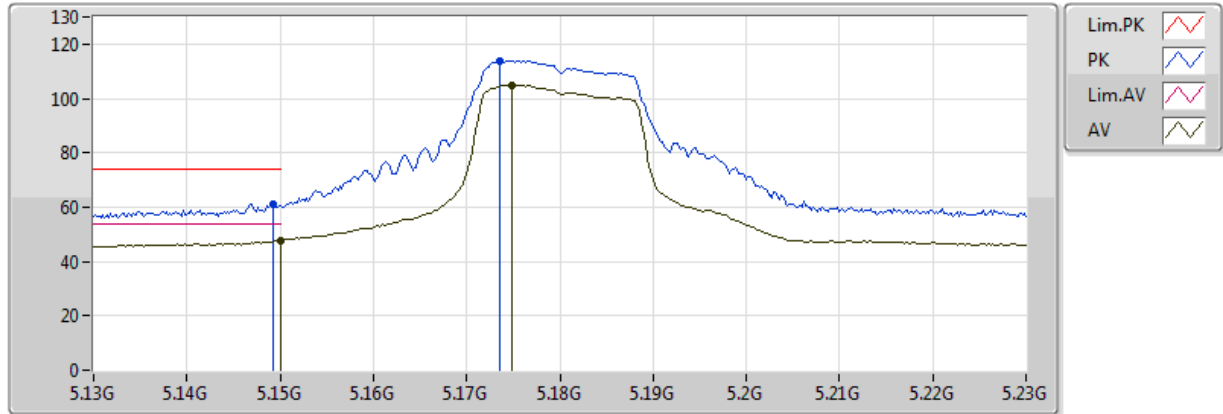
Appendix E.2

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.15-5.25GHz	Pass	AV	5.149995G	53.91	54.00	-0.09	4.27	3	V	340	1.87	-

802.11a_(6Mbps)_2TX

5180MHz_TX

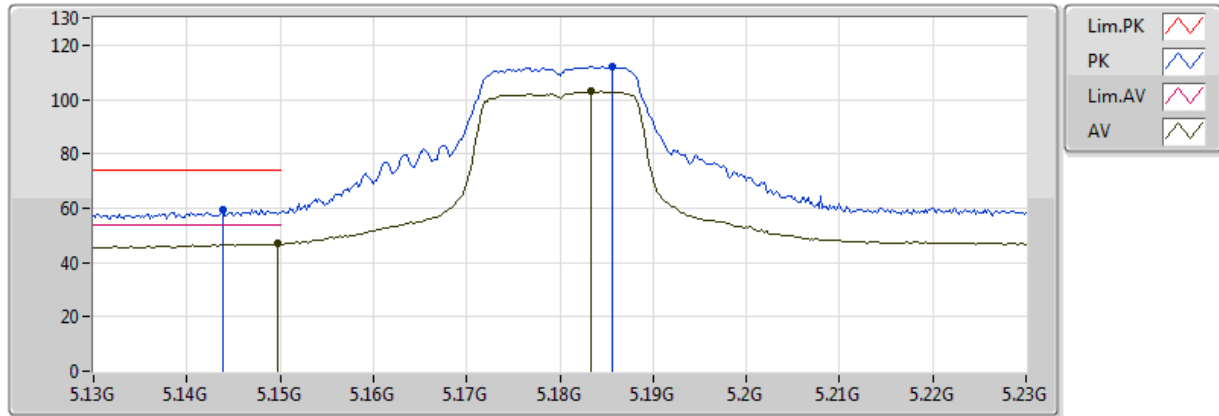


20170623
EUT_X_2TX
Setting 33/36
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	47.58	54.00	-6.42	4.27	3	V	334	1.72	-
AV	5.1748G	104.94	Inf	-Inf	4.32	3	V	334	1.72	-
PK	5.1492G	61.28	74.00	-12.72	4.27	3	V	334	1.72	-
PK	5.1736G	113.98	Inf	-Inf	4.32	3	V	334	1.72	-

802.11a_(6Mbps)_2TX

5180MHz_TX

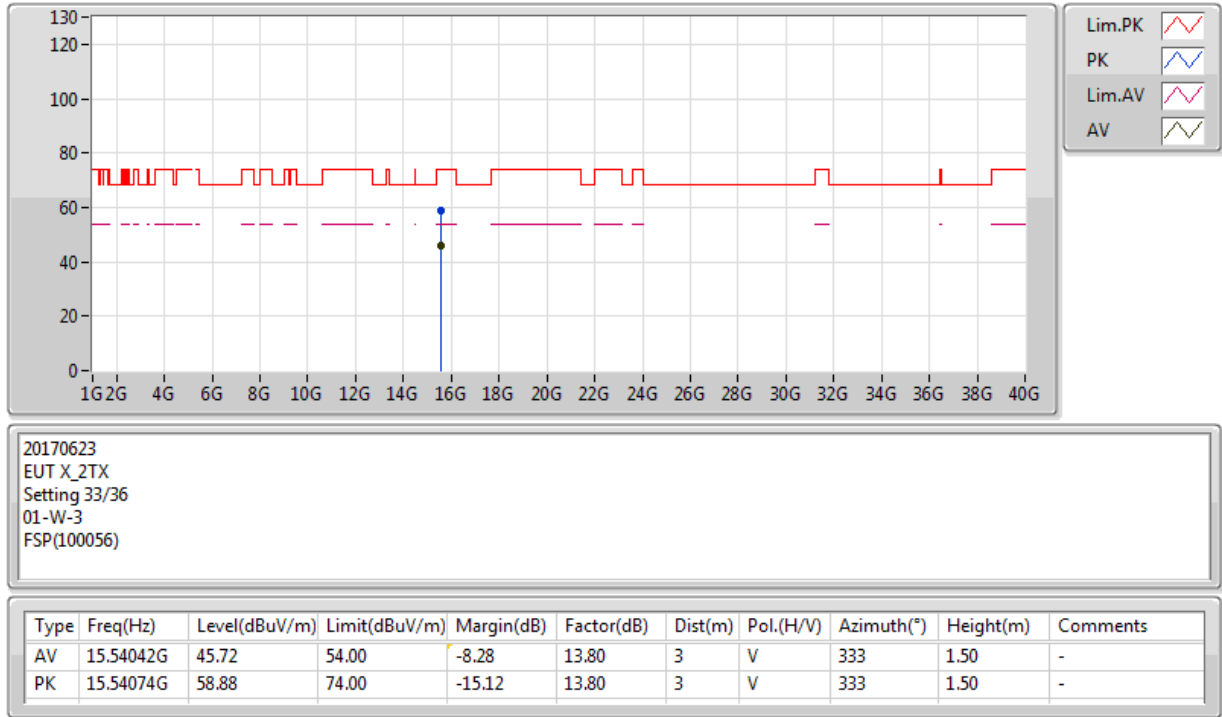


20170623
EUT X_2TX
Setting 33/36
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1498G	46.89	54.00	-7.11	4.27	3	H	5	2.84	-
AV	5.1834G	102.96	Inf	-Inf	4.34	3	H	5	2.84	-
PK	5.1438G	59.33	74.00	-14.67	4.26	3	H	5	2.84	-
PK	5.1856G	112.25	Inf	-Inf	4.35	3	H	5	2.84	-

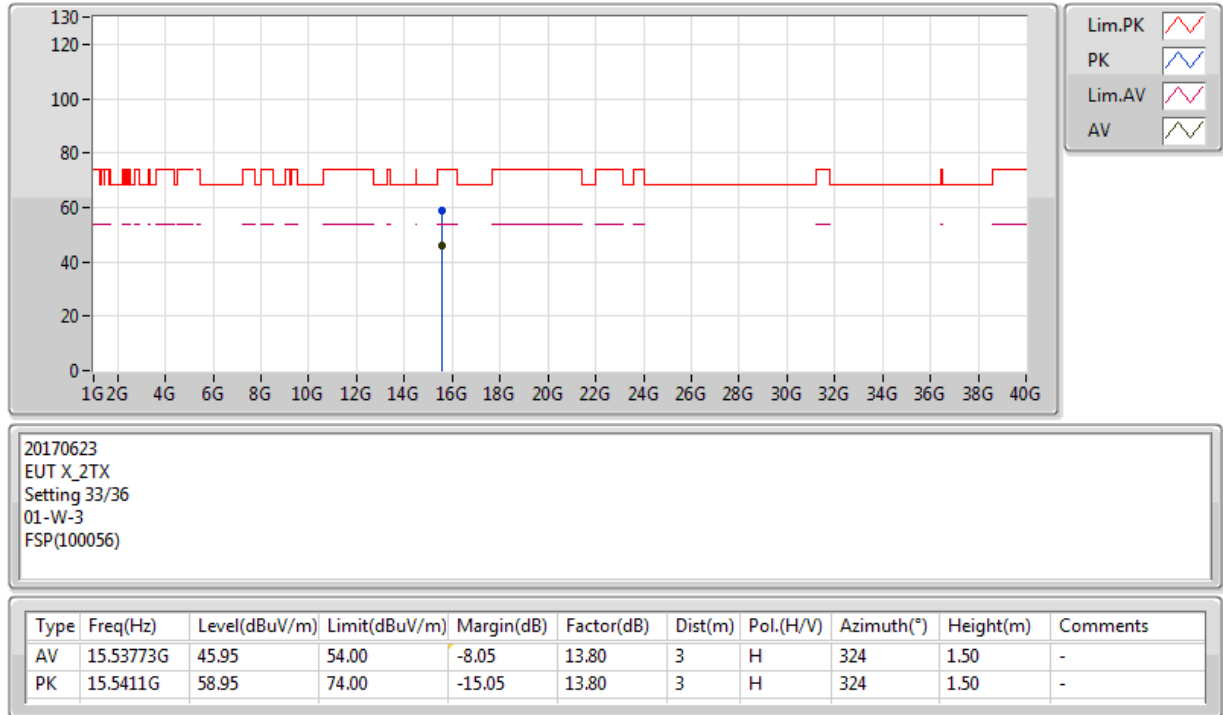
802.11a_(6Mbps)_2TX

5180MHz_TX



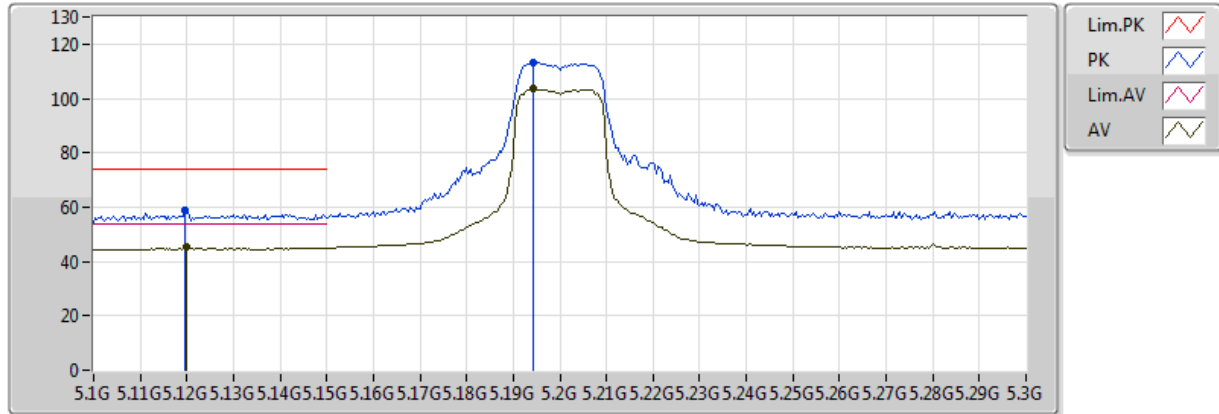
802.11a_(6Mbps)_2TX

5180MHz_TX



802.11a_(6Mbps)_2TX

5200MHz_TX

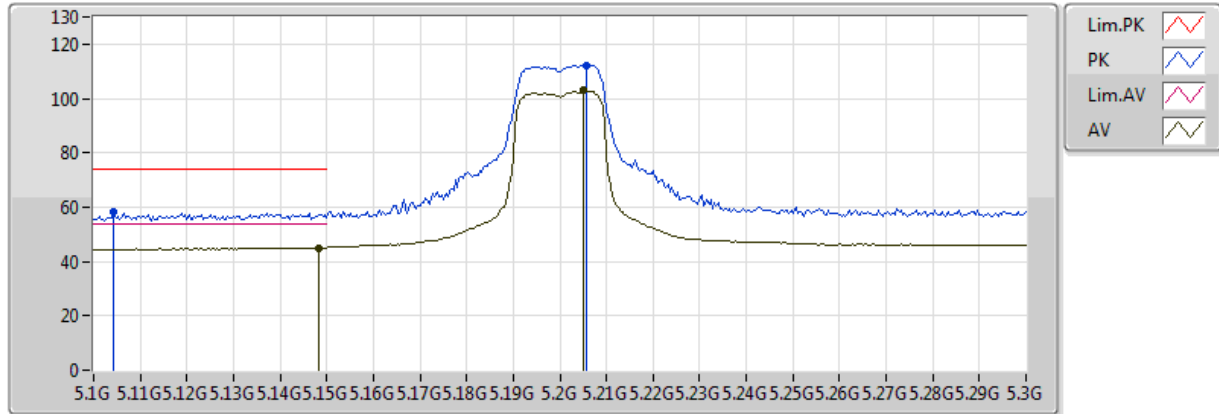


20170623
EUT_X_2TX
Setting 33/35
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.12G	45.51	54.00	-8.49	4.20	3	V	342	1.87	-
AV	5.1944G	103.39	Inf	-Inf	4.37	3	V	342	1.87	-
PK	5.1196G	58.89	74.00	-15.11	4.20	3	V	342	1.87	-
PK	5.1944G	113.14	Inf	-Inf	4.37	3	V	342	1.87	-

802.11a_(6Mbps)_2TX

5200MHz_TX

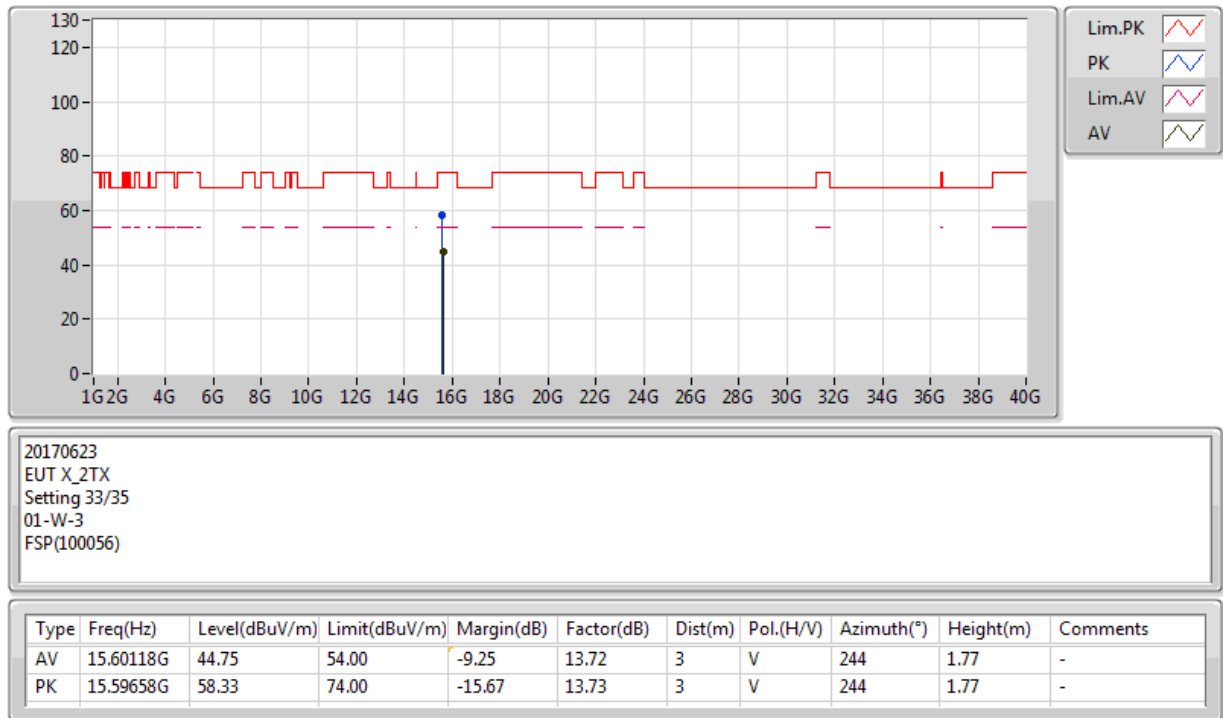


20170623
EUT_X_2TX
Setting 33/35
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1484G	45.10	54.00	-8.90	4.27	3	H	21	1.90	-
AV	5.2052G	102.86	Inf	-Inf	4.39	3	H	21	1.90	-
PK	5.1044G	58.30	74.00	-15.70	4.17	3	H	21	1.90	-
PK	5.2056G	112.24	Inf	-Inf	4.39	3	H	21	1.90	-

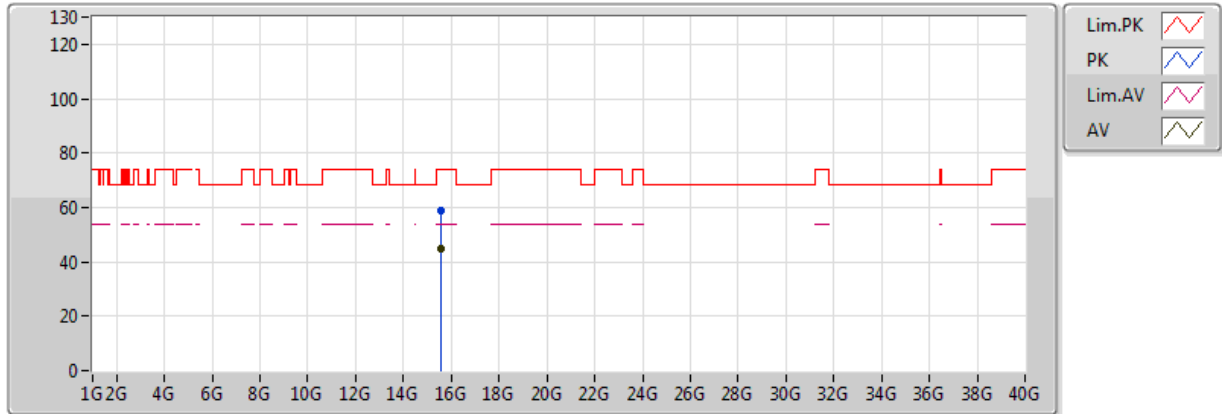
802.11a_(6Mbps)_2TX

5200MHz_TX



802.11a_(6Mbps)_2TX

5200MHz_TX

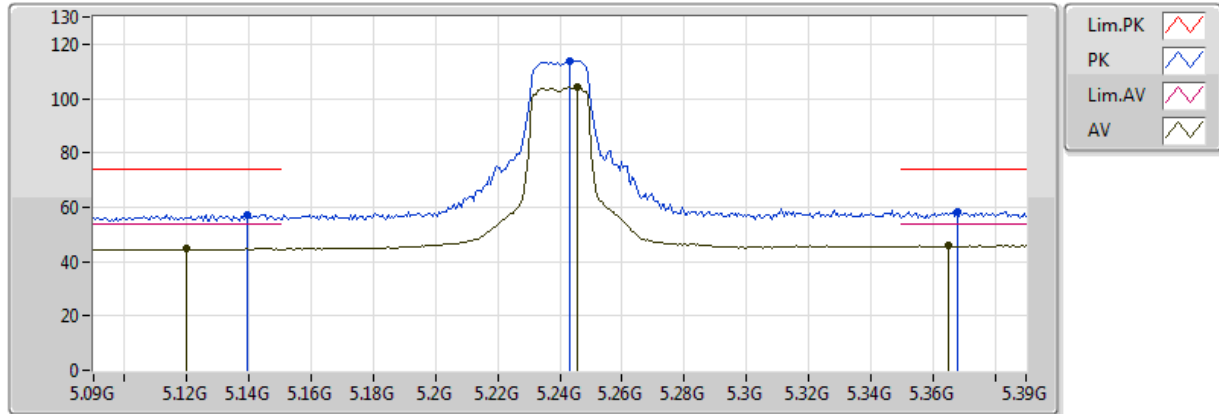


20170623
EUT_X_2TX
Setting 33/35
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.59776G	44.73	54.00	-9.27	13.73	3	H	176	1.89	-
PK	15.59512G	58.92	74.00	-15.08	13.73	3	H	176	1.89	-

802.11a_(6Mbps)_2TX

5240MHz_TX

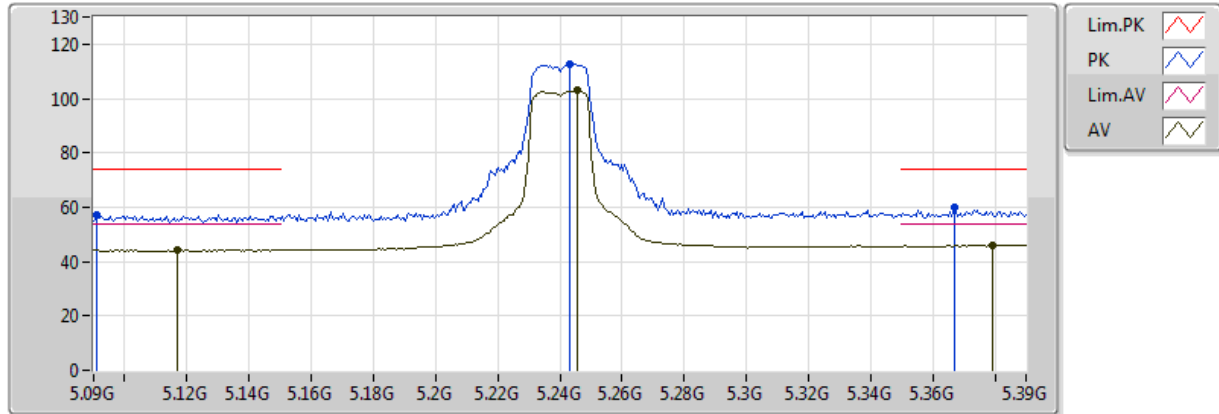


20170623
EUT_X_2TX
Setting 33/33
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.12G	44.73	54.00	-9.27	4.20	3	V	339	1.74	-
AV	5.2454G	104.45	Inf	-Inf	4.48	3	V	339	1.74	-
AV	5.3648G	46.03	54.00	-7.97	4.71	3	V	339	1.74	-
PK	5.1392G	57.29	74.00	-16.71	4.25	3	V	339	1.74	-
PK	5.243G	113.71	Inf	-Inf	4.47	3	V	339	1.74	-
PK	5.3678G	58.53	74.00	-15.47	4.71	3	V	339	1.74	-

802.11a_(6Mbps)_2TX

5240MHz_TX

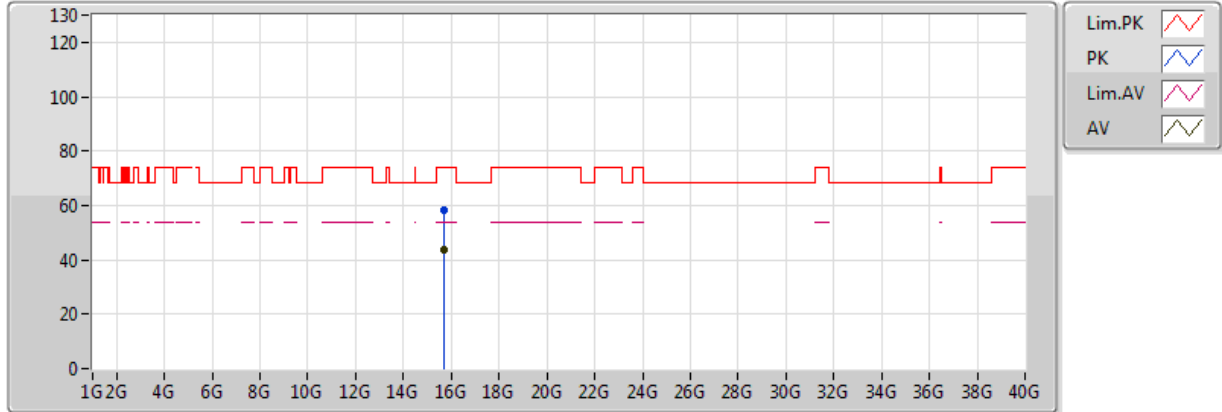


20170623
EUT_X_2TX
Setting 33/33
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.117G	44.24	54.00	-9.76	4.20	3	H	20	1.92	-
AV	5.2454G	103.34	Inf	-Inf	4.48	3	H	20	1.92	-
AV	5.3792G	46.09	54.00	-7.91	4.73	3	H	20	1.92	-
PK	5.0912G	57.41	74.00	-16.59	4.14	3	H	20	1.92	-
PK	5.243G	112.49	Inf	-Inf	4.47	3	H	20	1.92	-
PK	5.3672G	59.77	74.00	-14.23	4.71	3	H	20	1.92	-

802.11a_(6Mbps)_2TX

5240MHz_TX

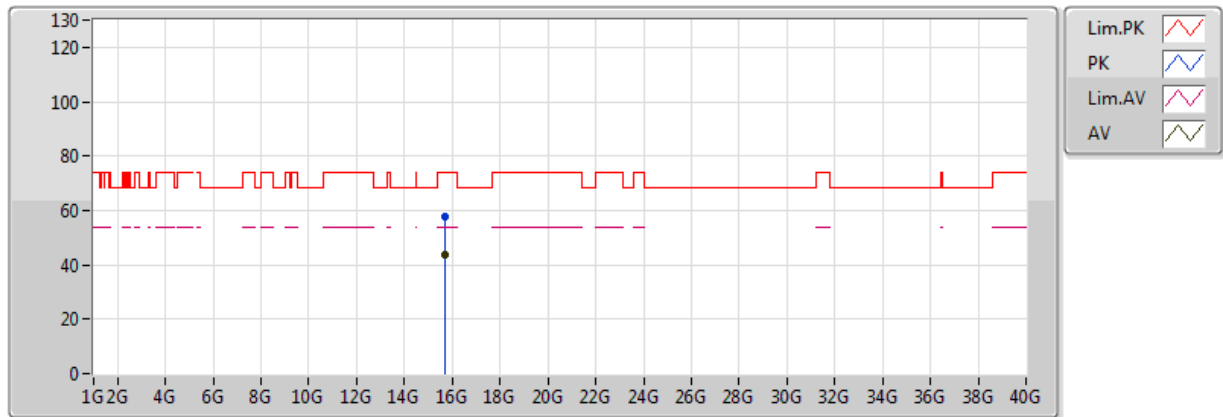


20170623
EUT_X_2TX
Setting 33/33
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.71534G	43.60	54.00	-10.40	13.58	3	V	210	1.83	-
PK	15.71778G	58.01	74.00	-15.99	13.58	3	V	210	1.83	-

802.11a_(6Mbps)_2TX

5240MHz_TX

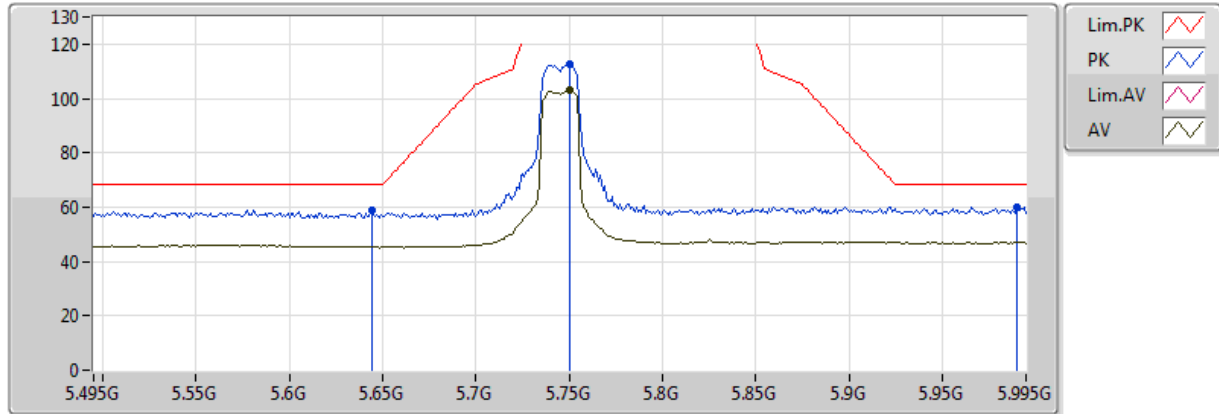


20170623
EUT_X_2TX
Setting 33/33
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.72366G	43.62	54.00	-10.38	13.57	3	H	50	2.40	-
PK	15.72364G	57.63	74.00	-16.37	13.57	3	H	50	2.40	-

802.11a_(6Mbps)_2TX

5745MHz_TX

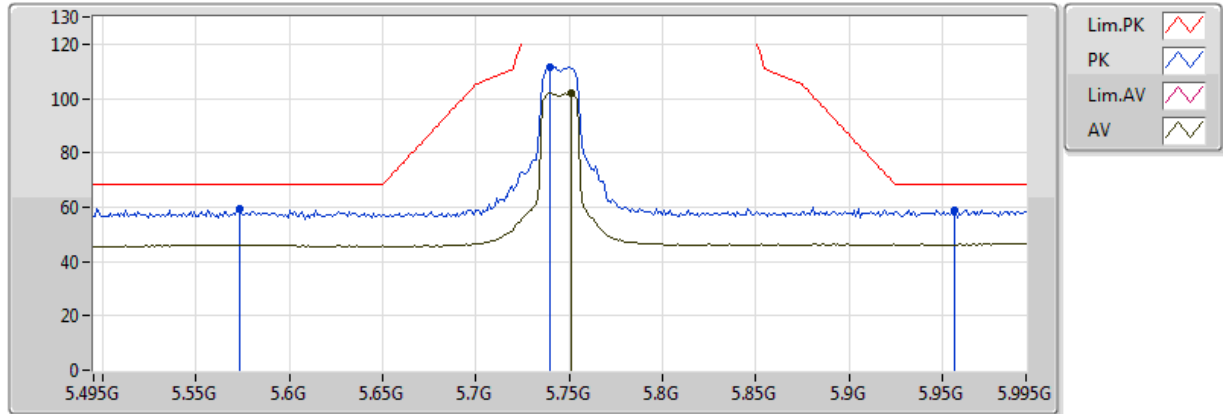


20170623
EUT_X_2TX
Setting 28/26
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.75G	103.18	Inf	-Inf	5.82	3	V	24	1.74	-
PK	5.644G	58.93	68.20	-9.27	5.51	3	V	24	1.74	-
PK	5.75G	112.52	Inf	-Inf	5.82	3	V	24	1.74	-
PK	5.99G	60.00	68.20	-8.20	6.68	3	V	24	1.74	-

802.11a_(6Mbps)_2TX

5745MHz_TX

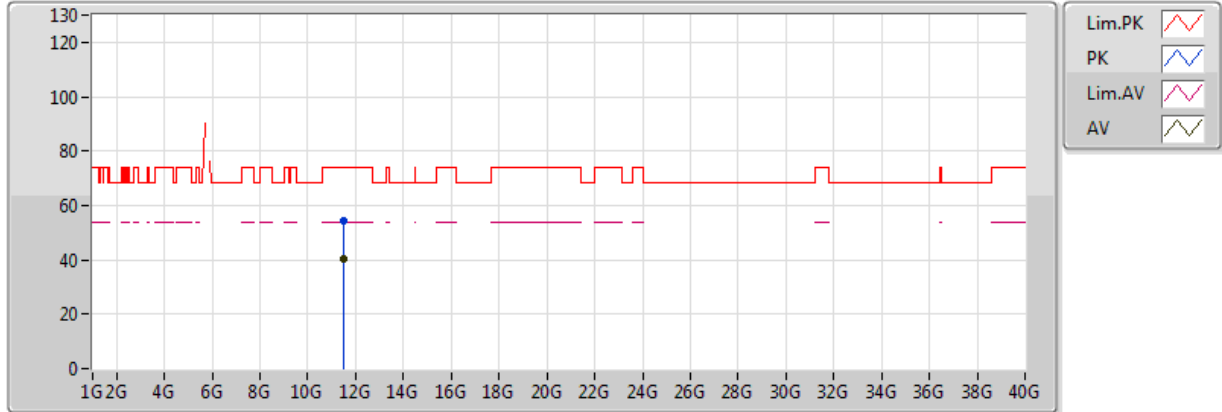


20170623
EUT_X_2TX
Setting 28/26
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.751G	102.10	Inf	-Inf	5.82	3	H	33	1.90	-
PK	5.573G	59.32	68.20	-8.88	5.29	3	H	33	1.90	-
PK	5.74G	111.56	Inf	-Inf	5.79	3	H	33	1.90	-
PK	5.957G	59.11	68.20	-9.09	6.56	3	H	33	1.90	-

802.11a_(6Mbps)_2TX

5745MHz_TX

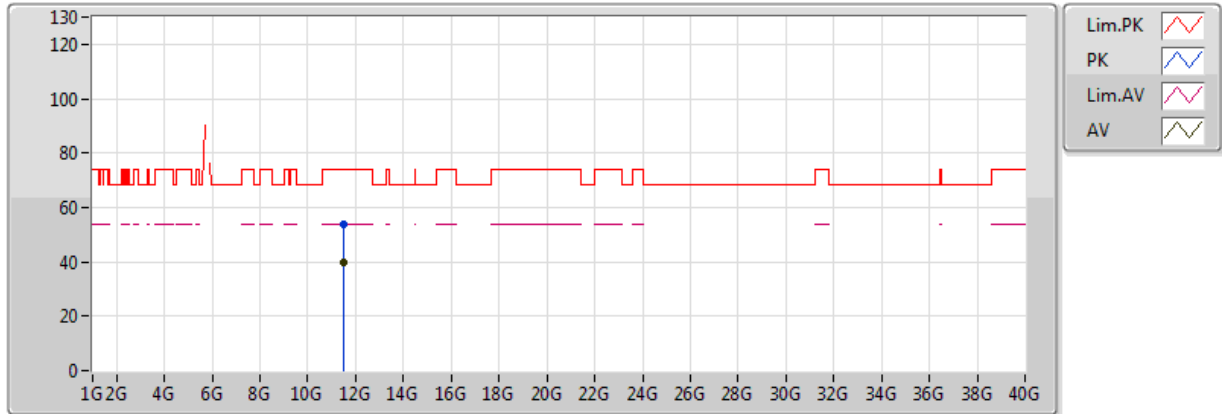


20170623
EUT X_2TX
Setting 28/26
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49342G	40.15	54.00	-13.85	12.04	3	V	57	1.52	-
PK	11.4866G	54.45	74.00	-19.55	12.04	3	V	57	1.52	-

802.11a_(6Mbps)_2TX

5745MHz_TX

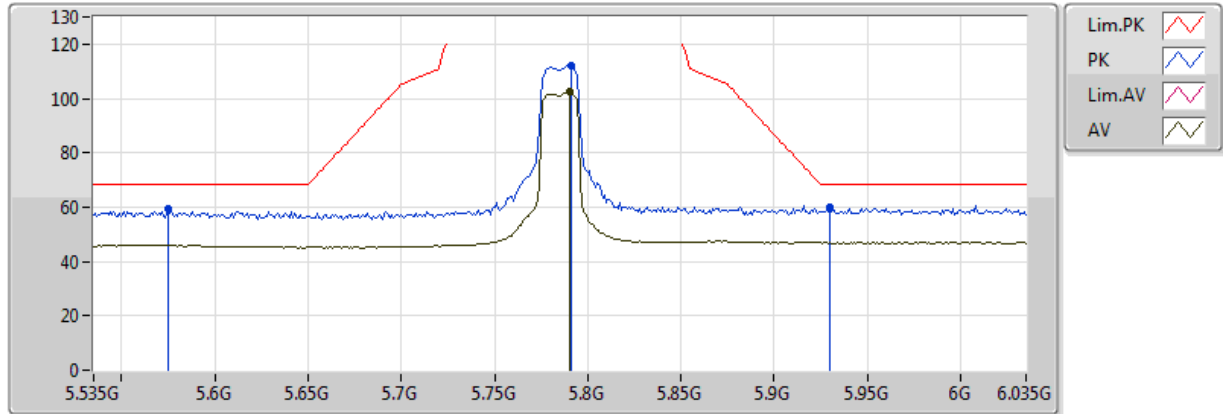


20170623
EUT_X_2TX
Setting 28/26
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.48684G	40.06	54.00	-13.94	12.04	3	H	307	1.62	-
PK	11.48656G	53.89	74.00	-20.11	12.04	3	H	307	1.62	-

802.11a_(6Mbps)_2TX

5785MHz_TX

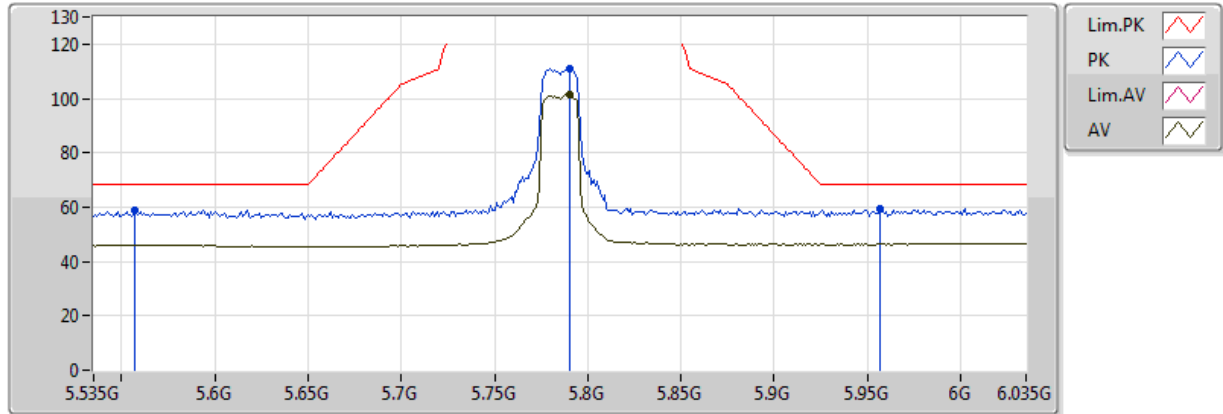


20170623
EUT_X_2TX
Setting 26/26
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.79G	102.67	Inf	-Inf	5.93	3	V	341	1.88	-
PK	5.575G	59.22	68.20	-8.98	5.29	3	V	341	1.88	-
PK	5.791G	112.06	Inf	-Inf	5.93	3	V	341	1.88	-
PK	5.93G	59.69	68.20	-8.51	6.45	3	V	341	1.88	-

802.11a_(6Mbps)_2TX

5785MHz_TX

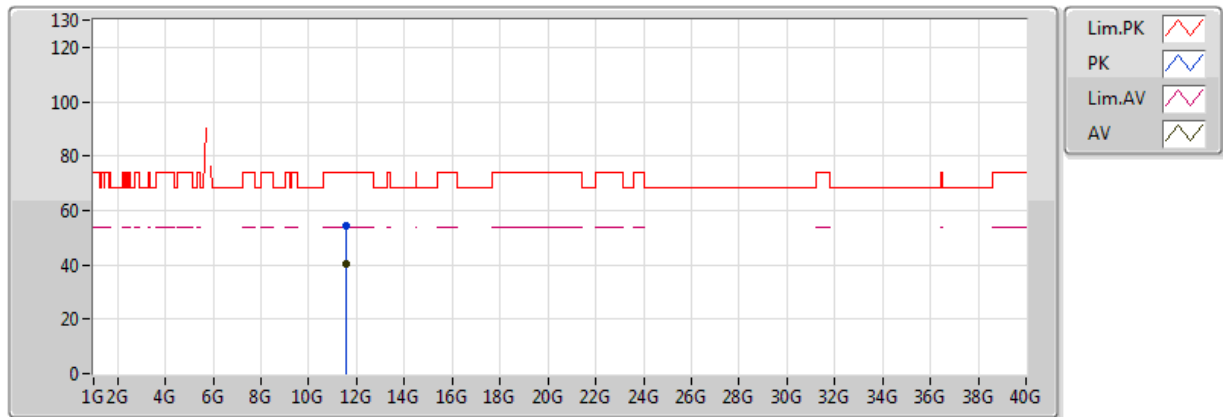


20170623
EUT X_2TX
Setting 26/26
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.79G	101.67	Inf	-Inf	5.93	3	H	9	1.99	-
PK	5.557G	58.65	68.20	-9.55	5.23	3	H	9	1.99	-
PK	5.79G	111.08	Inf	-Inf	5.93	3	H	9	1.99	-
PK	5.957G	59.29	68.20	-8.91	6.56	3	H	9	1.99	-

802.11a_(6Mbps)_2TX

5785MHz_TX

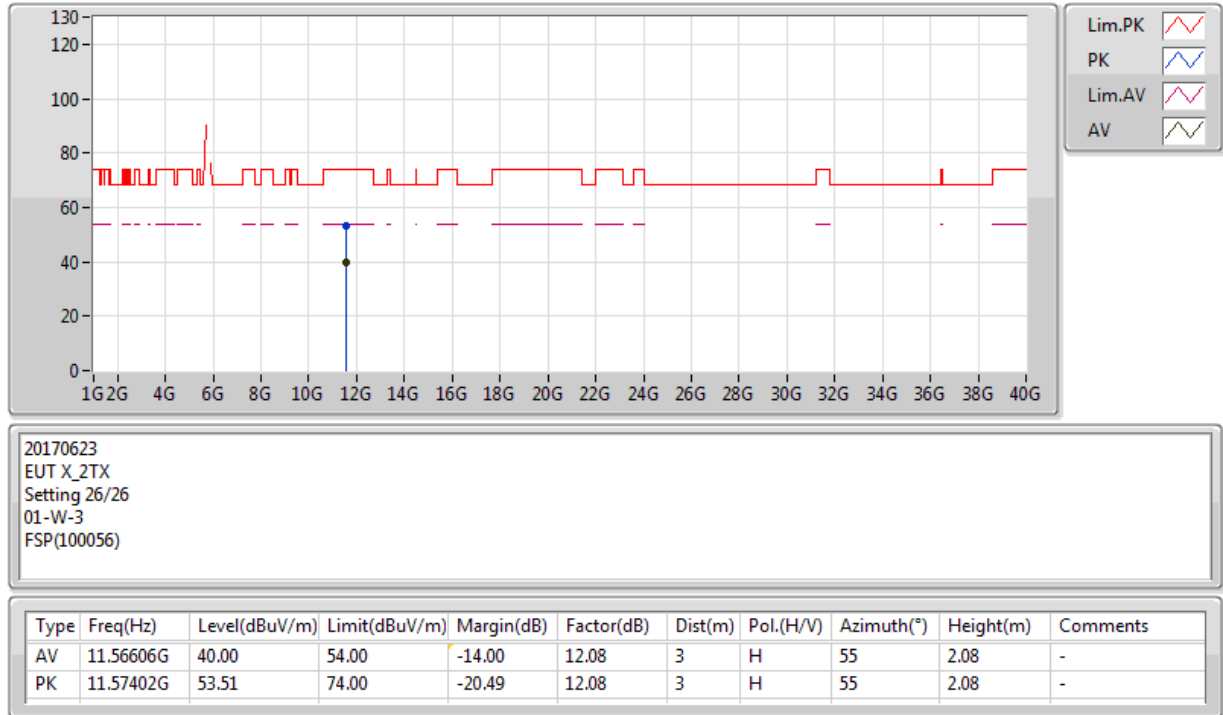


20170623
EUT_X_2TX
Setting 26/26
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.56662G	40.08	54.00	-13.92	12.08	3	V	270	1.31	-
PK	11.5651G	54.13	74.00	-19.87	12.08	3	V	270	1.31	-

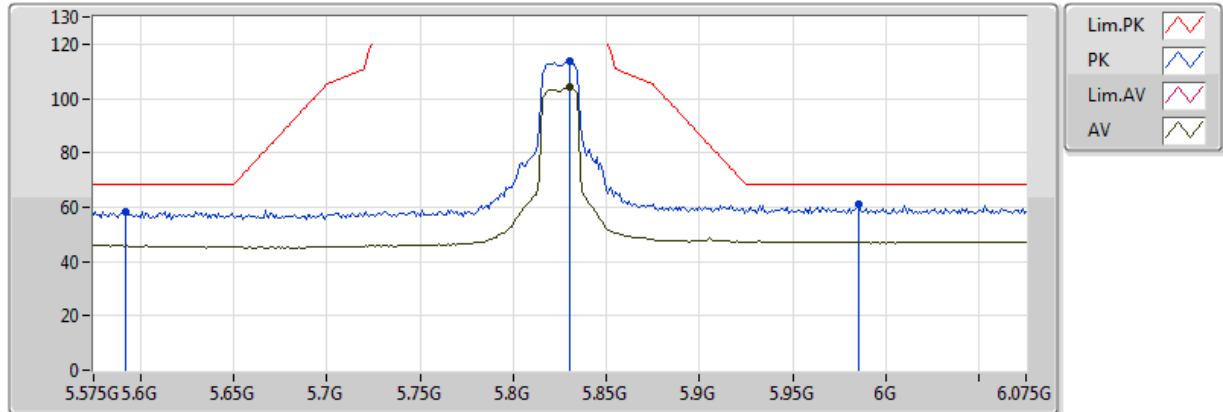
802.11a_(6Mbps)_2TX

5785MHz_TX



802.11a_(6Mbps)_2TX

5825MHz_TX

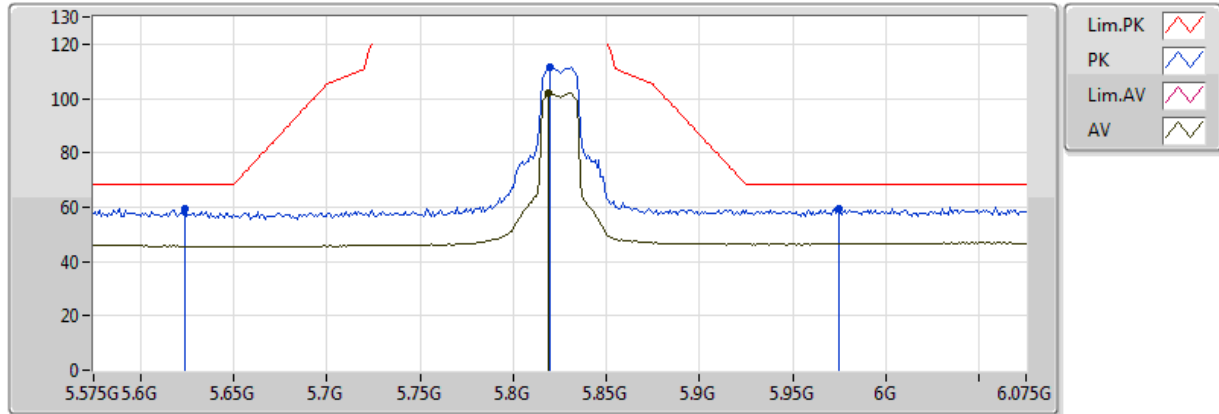


20170623
EUT X_2TX
Setting 22/27
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.83G	104.30	Inf	-Inf	6.07	3	V	317	1.86	-
PK	5.592G	58.49	68.20	-9.71	5.35	3	V	317	1.86	-
PK	5.83G	113.63	Inf	-Inf	6.07	3	V	317	1.86	-
PK	5.985G	60.93	68.20	-7.27	6.66	3	V	317	1.86	-

802.11a_(6Mbps)_2TX

5825MHz_TX

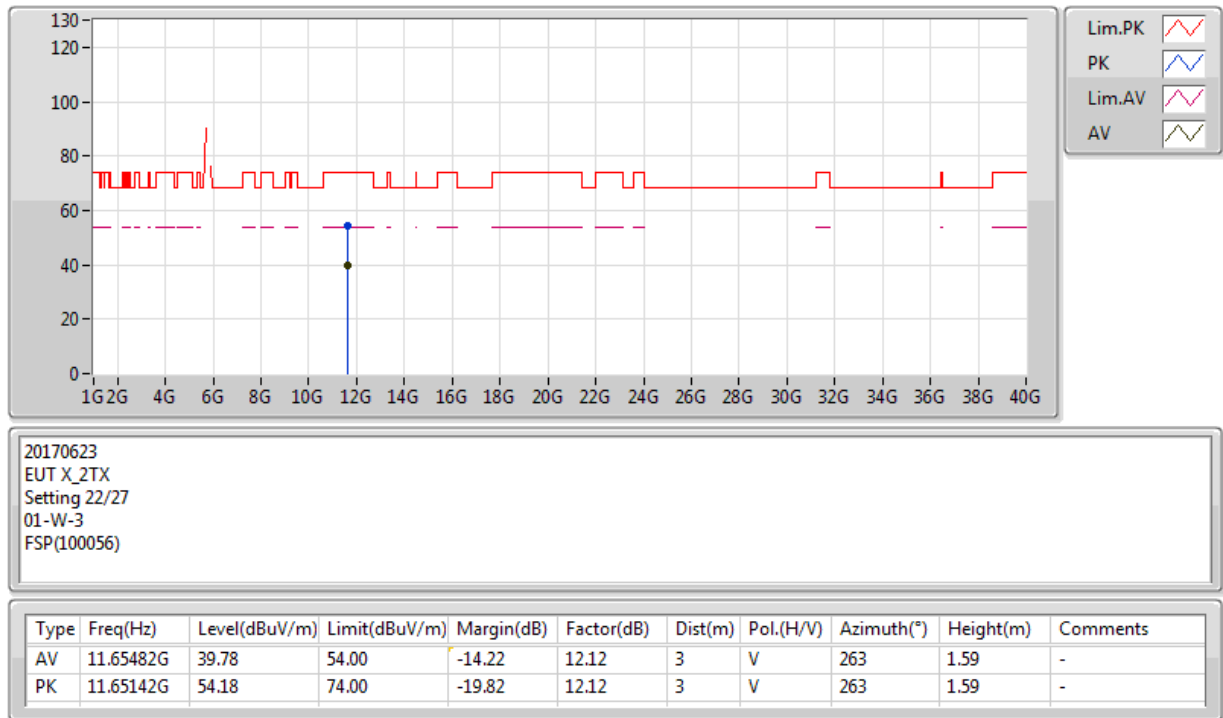


20170623
EUT X_2TX
Setting 22/27
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.819G	101.94	Inf	-Inf	6.03	3	H	32	1.81	-
PK	5.624G	59.24	68.20	-8.96	5.45	3	H	32	1.81	-
PK	5.82G	111.60	Inf	-Inf	6.04	3	H	32	1.81	-
PK	5.975G	59.44	68.20	-8.76	6.62	3	H	32	1.81	-

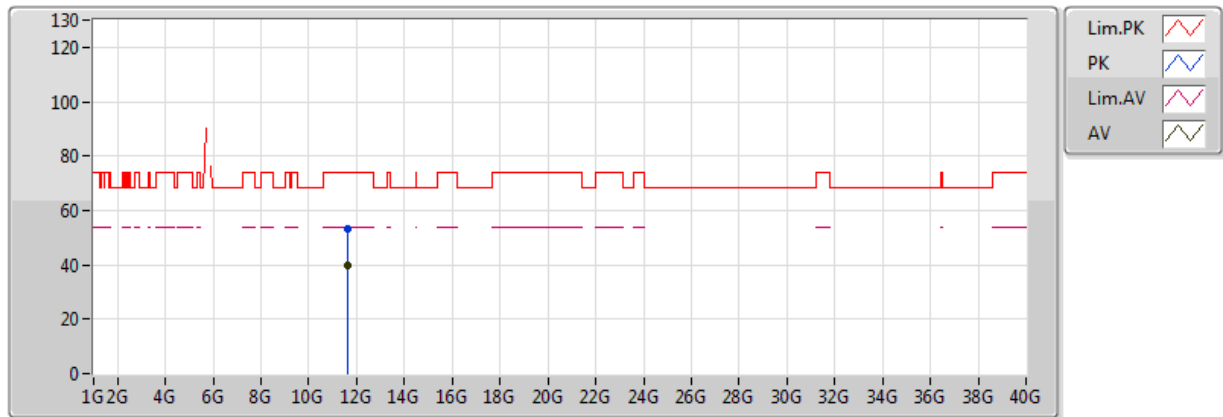
802.11a_(6Mbps)_2TX

5825MHz_TX



802.11a_(6Mbps)_2TX

5825MHz_TX

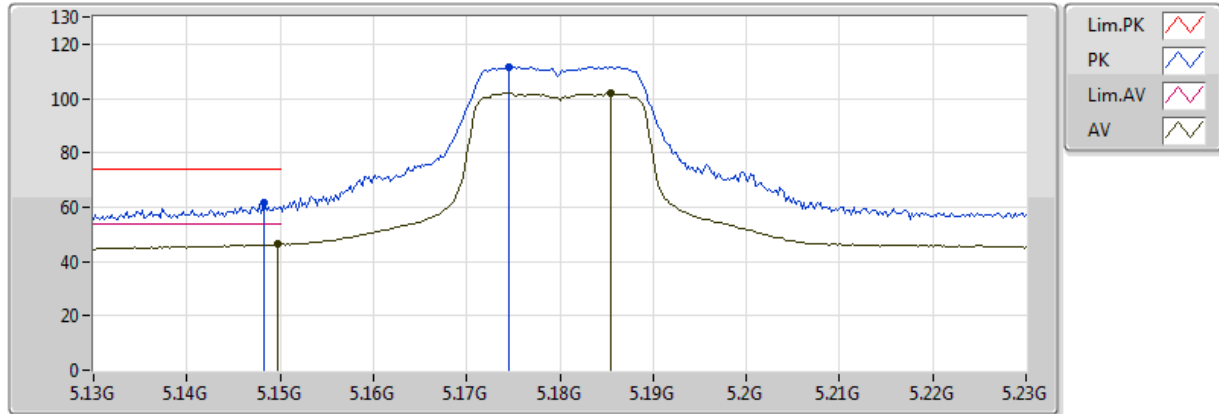


20170623
EUT_X_2TX
Setting 22/27
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.65382G	39.72	54.00	-14.28	12.12	3	H	136	1.00	-
PK	11.64832G	53.34	74.00	-20.66	12.12	3	H	136	1.00	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

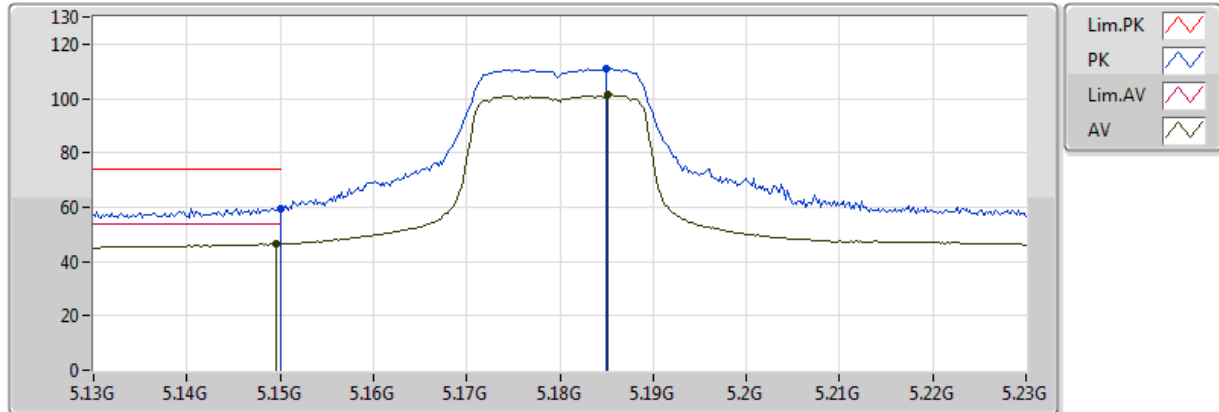


20170623
EUT_X_2TX
Setting 32/36
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1498G	46.29	54.00	-7.71	4.27	3	V	27	1.74	-
AV	5.1854G	102.04	Inf	-Inf	4.35	3	V	27	1.74	-
PK	5.1482G	61.62	74.00	-12.38	4.27	3	V	27	1.74	-
PK	5.1746G	111.67	Inf	-Inf	4.32	3	V	27	1.74	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

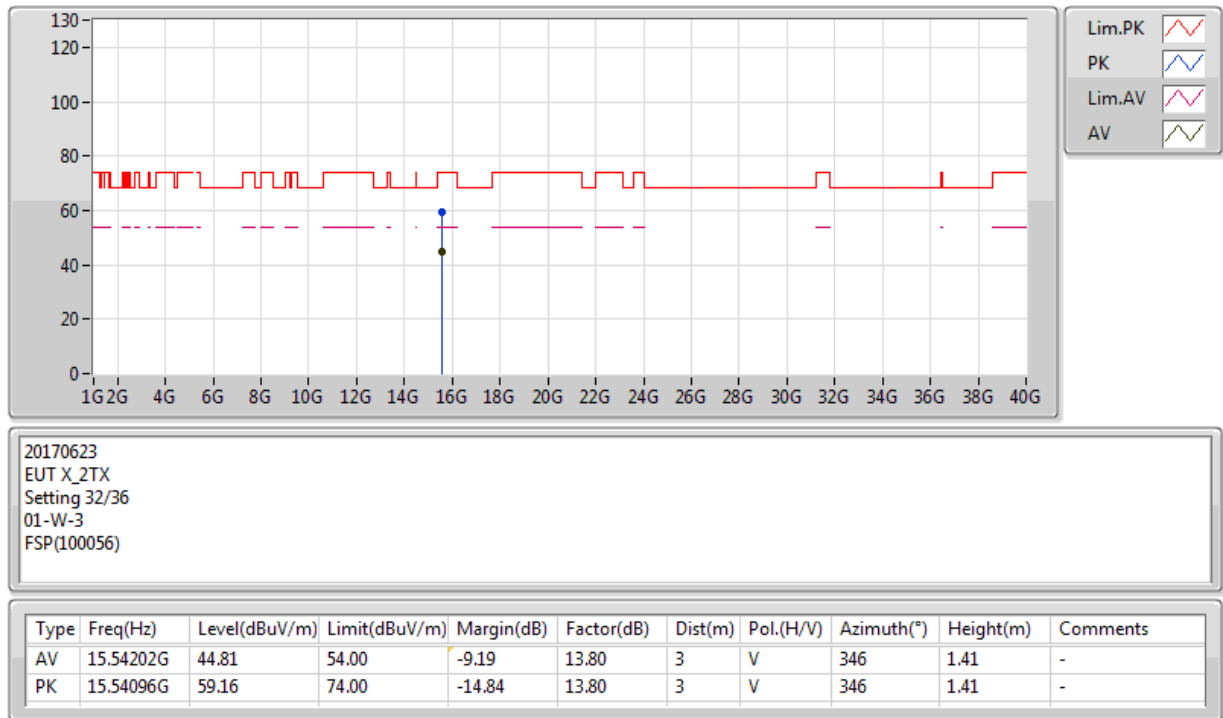


20170623
EUT_X_2TX
Setting 32/36
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1496G	46.33	54.00	-7.67	4.27	3	H	27	1.92	-
AV	5.1852G	101.35	Inf	-Inf	4.35	3	H	27	1.92	-
PK	5.149995G	59.54	74.00	-14.46	4.27	3	H	27	1.92	-
PK	5.185G	110.77	Inf	-Inf	4.35	3	H	27	1.92	-

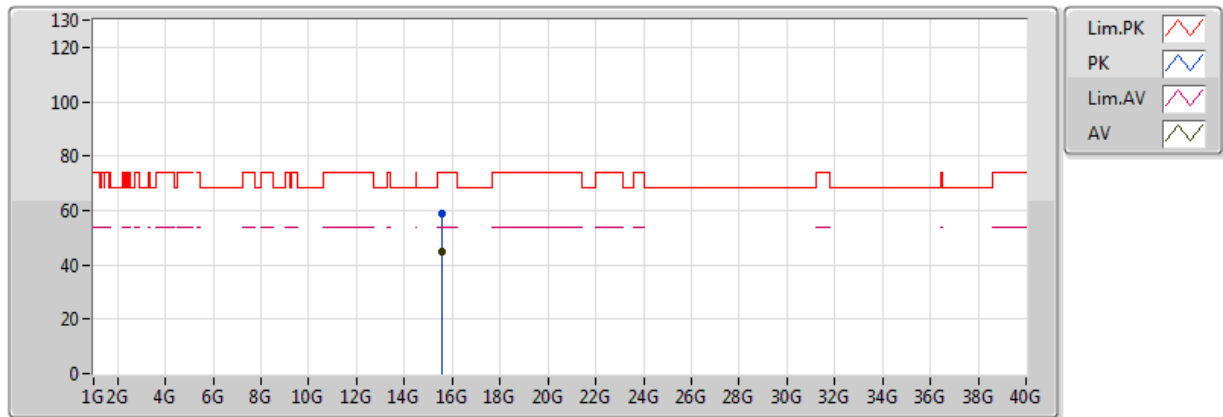
802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

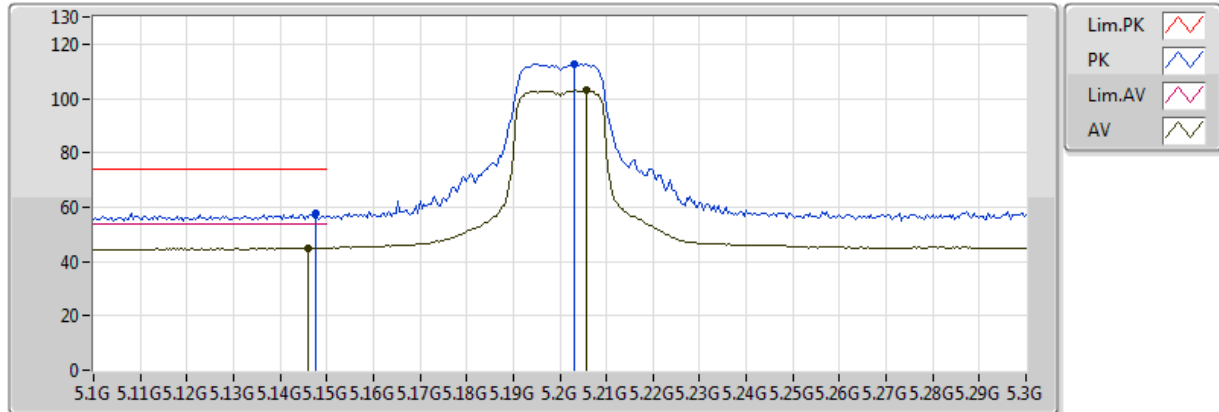


20170623
EUT X_2TX
Setting 32/36
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.53912G	44.92	54.00	-9.08	13.80	3	H	98	1.13	-
PK	15.54352G	58.66	74.00	-15.34	13.80	3	H	98	1.13	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

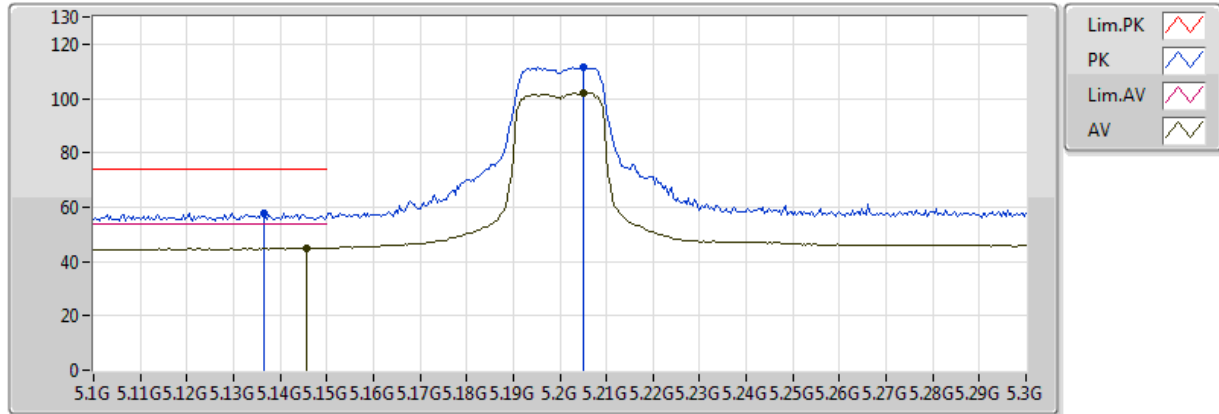


20170623
EUT X_2TX
Setting 32/34
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.146G	45.07	54.00	-8.93	4.26	3	V	340	1.79	-
AV	5.2056G	103.13	Inf	-Inf	4.39	3	V	340	1.79	-
PK	5.1476G	57.63	74.00	-16.37	4.26	3	V	340	1.79	-
PK	5.2032G	112.48	Inf	-Inf	4.39	3	V	340	1.79	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

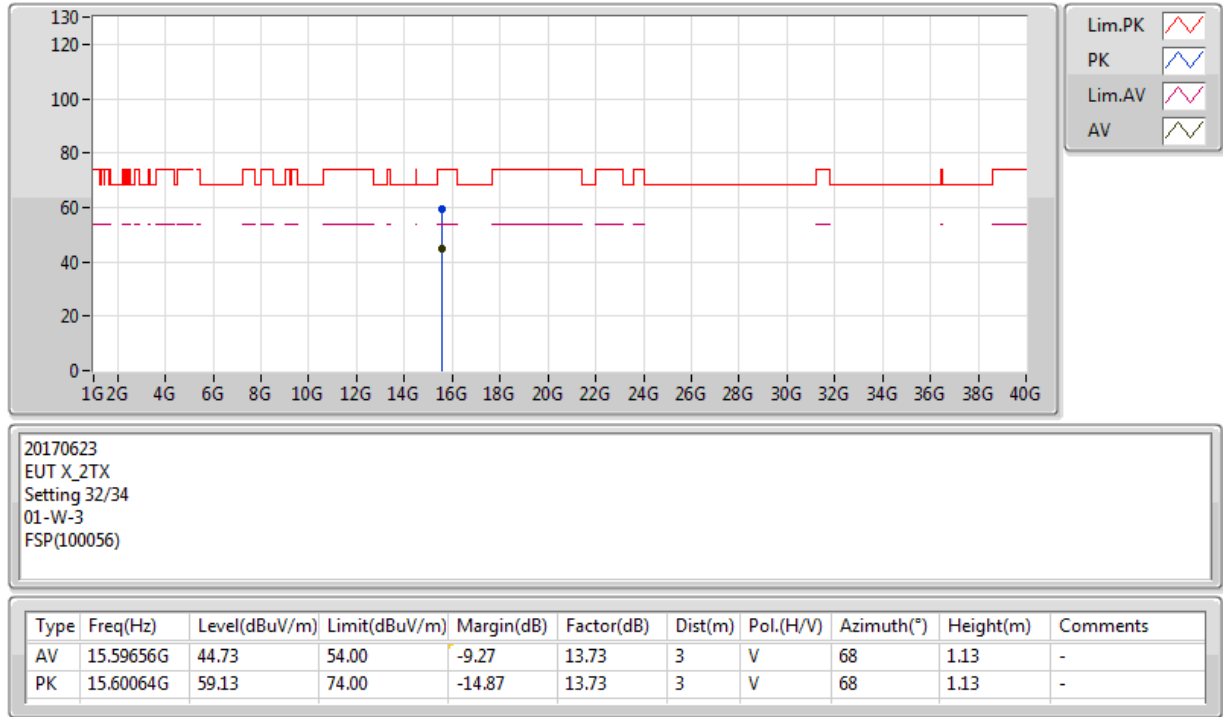


20170623
EUT X_2TX
Setting 32/34
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1456G	45.00	54.00	-9.00	4.26	3	H	15	1.91	-
AV	5.2052G	102.20	Inf	-Inf	4.39	3	H	15	1.91	-
PK	5.1364G	57.91	74.00	-16.09	4.24	3	H	15	1.91	-
PK	5.2052G	111.53	Inf	-Inf	4.39	3	H	15	1.91	-

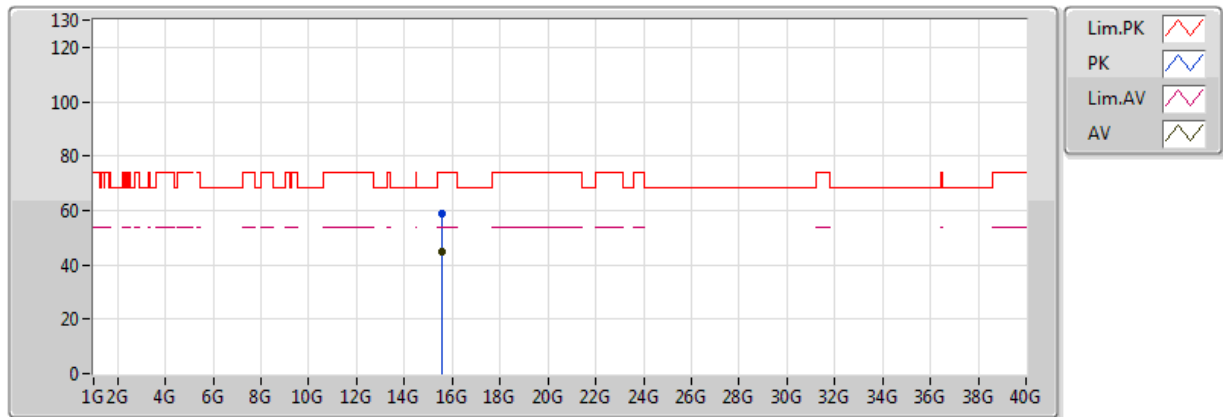
802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

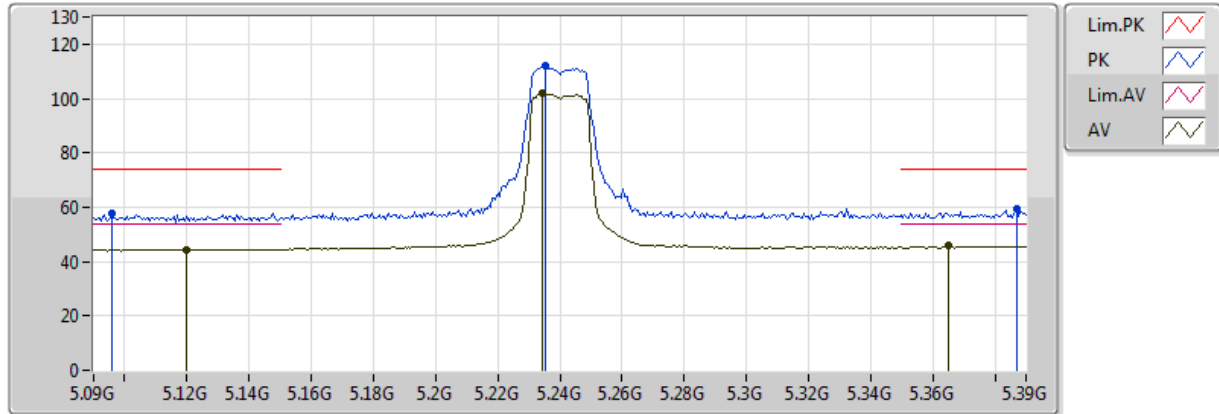


20170623
EUT X_2TX
Setting 32/34
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.6002G	44.68	54.00	-9.32	13.73	3	H	217	1.01	-
PK	15.59904G	58.84	74.00	-15.16	13.73	3	H	217	1.01	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

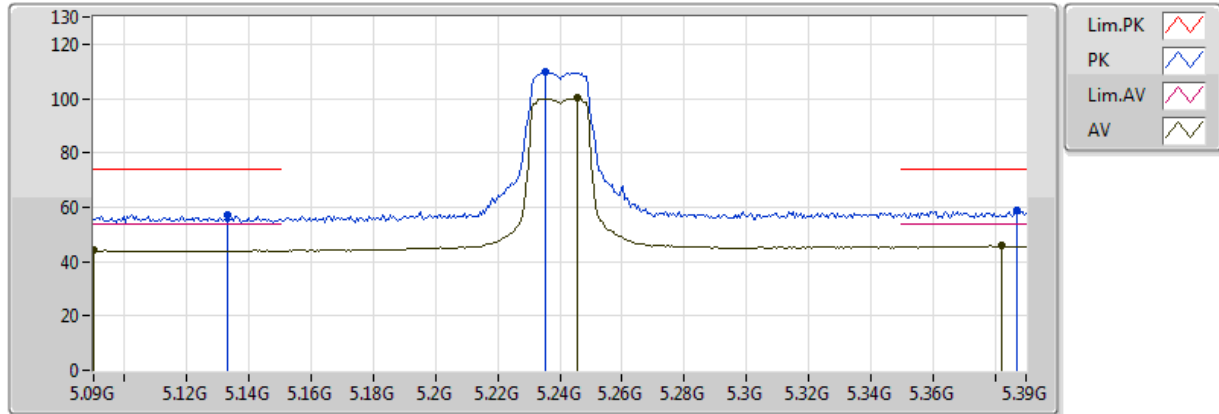


20170623
EUT_X_2TX
Setting 33/33
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.12G	44.52	54.00	-9.48	4.20	3	V	35	1.92	-
AV	5.2346G	101.84	Inf	-Inf	4.45	3	V	35	1.92	-
AV	5.3648G	45.68	54.00	-8.32	4.71	3	V	35	1.92	-
PK	5.096G	57.96	74.00	-16.04	4.15	3	V	35	1.92	-
PK	5.2352G	111.79	Inf	-Inf	4.45	3	V	35	1.92	-
PK	5.387G	59.25	74.00	-14.75	4.75	3	V	35	1.92	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

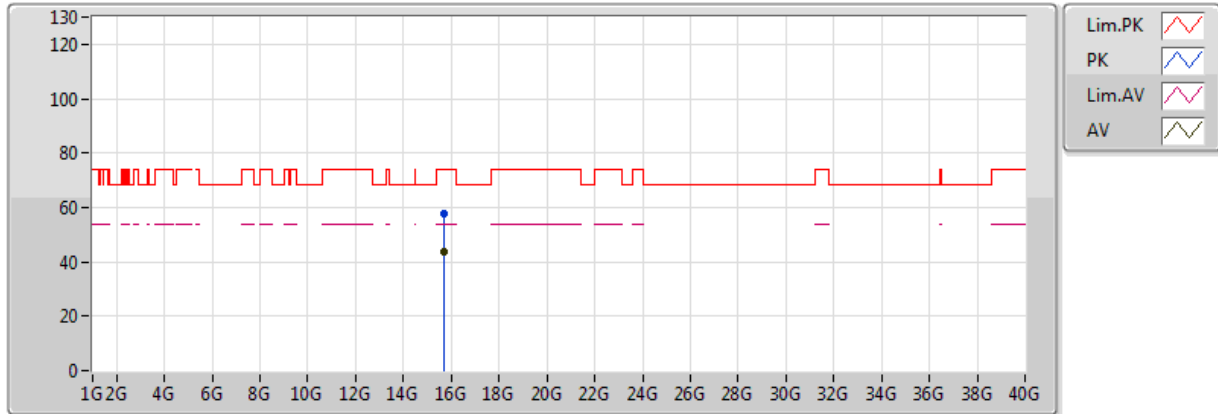


20170623
EUT_X_2TX
Setting 33/33
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.09G	44.14	54.00	-9.86	4.14	3	H	34	1.88	-
AV	5.245G	100.22	Inf	-Inf	4.48	3	H	34	1.88	-
AV	5.3822G	45.79	54.00	-8.21	4.74	3	H	34	1.88	-
PK	5.1332G	57.23	74.00	-16.77	4.23	3	H	34	1.88	-
PK	5.2352G	109.72	Inf	-Inf	4.45	3	H	34	1.88	-
PK	5.387G	58.90	74.00	-15.10	4.75	3	H	34	1.88	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

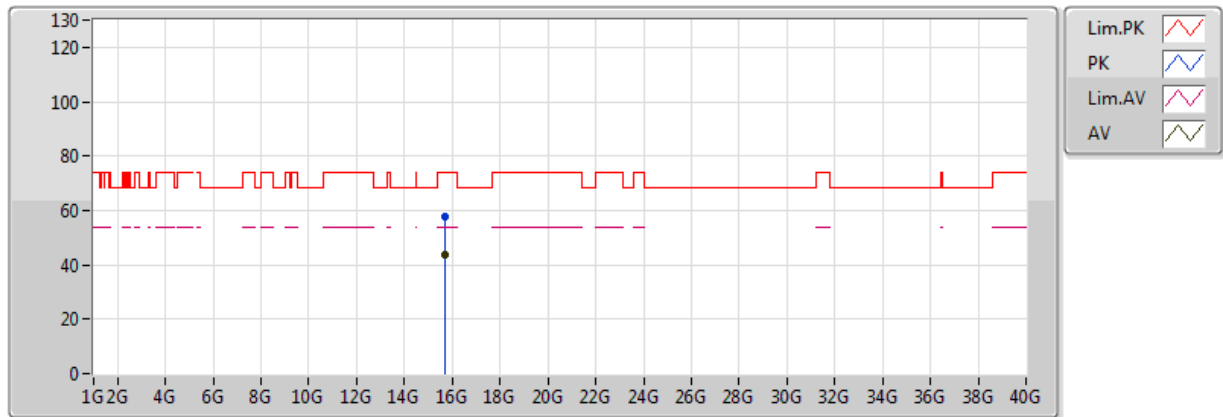


20170623
EUT X_2TX
Setting 33/33
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.72174G	43.54	54.00	-10.46	13.58	3	V	196	1.65	-
PK	15.72144G	57.68	74.00	-16.32	13.58	3	V	196	1.65	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

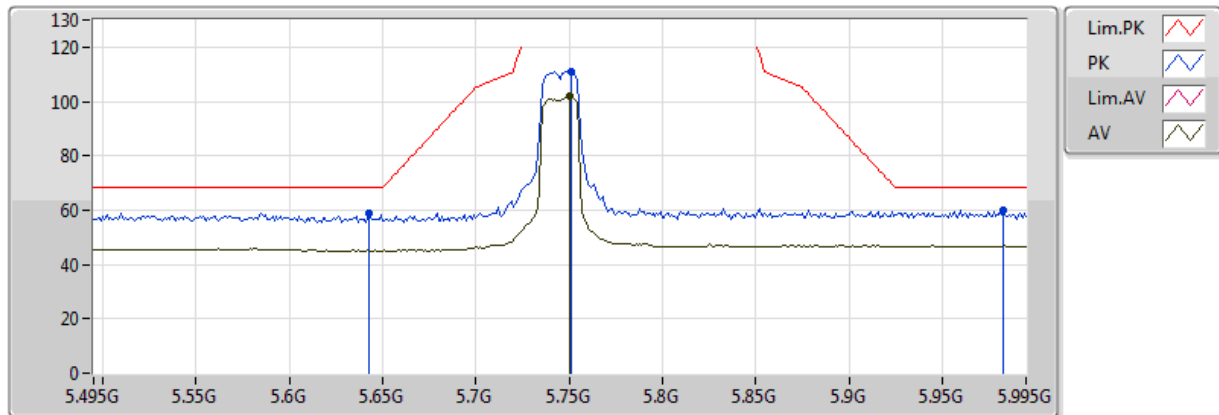


20170623
EUT X_2TX
Setting 33/33
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.7163G	43.54	54.00	-10.46	13.58	3	H	277	2.44	-
PK	15.71604G	57.63	74.00	-16.37	13.58	3	H	277	2.44	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

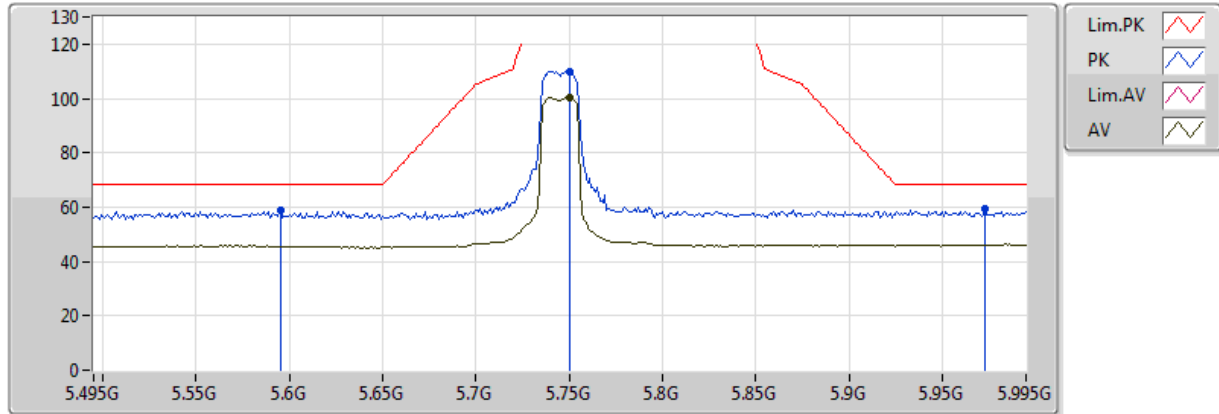


20170623
EUT_X_2TX
Setting 28/26
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.75G	101.94	Inf	-Inf	5.82	3	V	336	1.71	-
PK	5.643G	58.61	68.20	-9.59	5.51	3	V	336	1.71	-
PK	5.751G	111.22	Inf	-Inf	5.82	3	V	336	1.71	-
PK	5.983G	60.01	68.20	-8.19	6.66	3	V	336	1.71	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

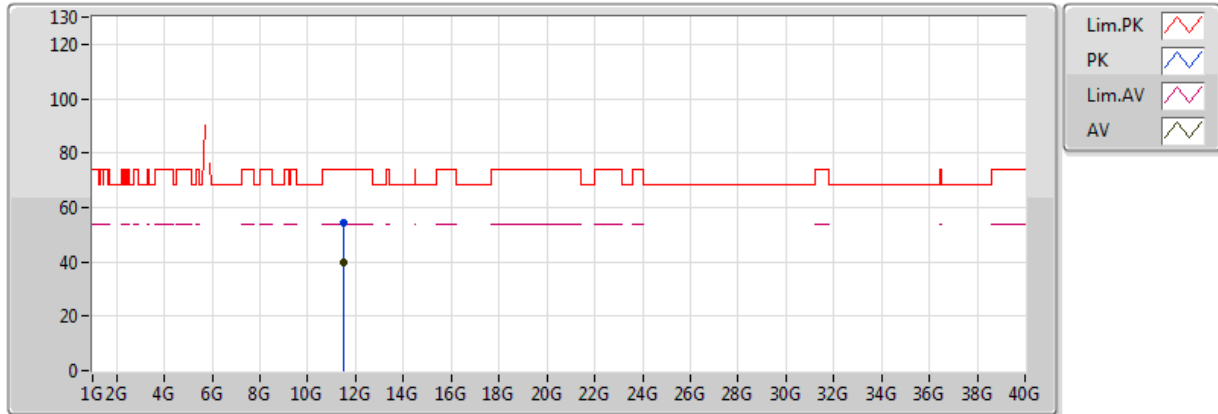


20170623
EUT_X_2TX
Setting 28/26
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.75G	100.56	Inf	-Inf	5.82	3	H	11	1.92	-
PK	5.595G	58.60	68.20	-9.60	5.36	3	H	11	1.92	-
PK	5.75G	109.96	Inf	-Inf	5.82	3	H	11	1.92	-
PK	5.973G	59.16	68.20	-9.04	6.62	3	H	11	1.92	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

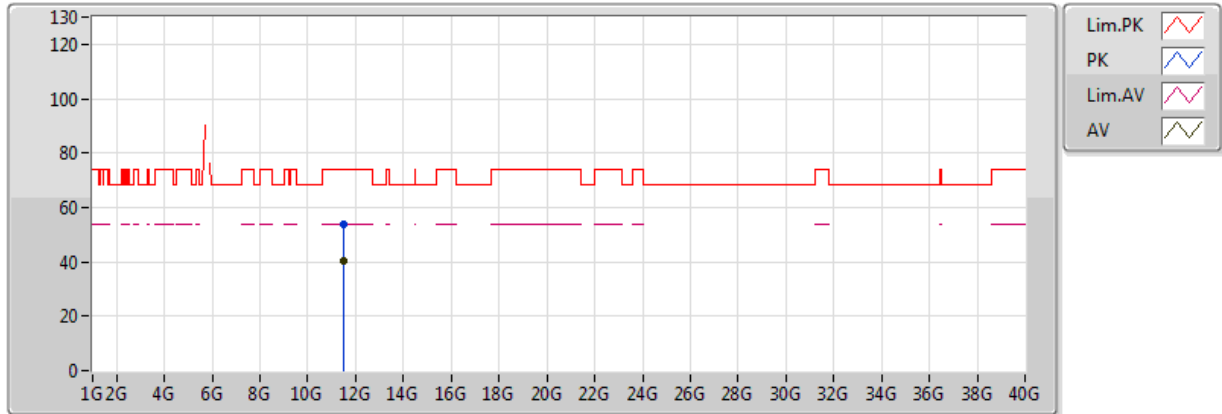


20170623
EUT_X_2TX
Setting 28/26
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.48858G	40.03	54.00	-13.97	12.04	3	V	249	2.39	-
PK	11.4909G	54.47	74.00	-19.53	12.04	3	V	249	2.39	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

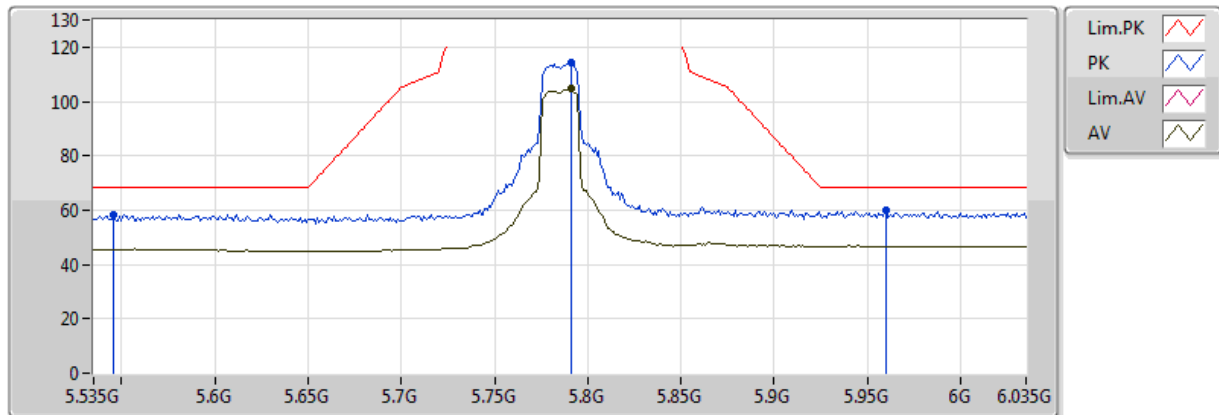


20170623
EUT_X_2TX
Setting 28/26
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.48872G	40.07	54.00	-13.93	12.04	3	H	338	1.15	-
PK	11.48946G	54.01	74.00	-19.99	12.04	3	H	338	1.15	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

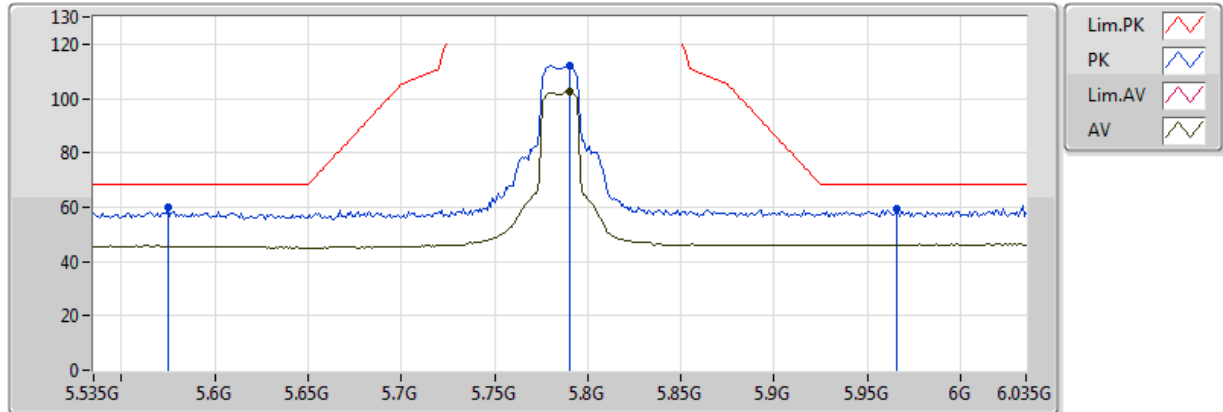


20170623
EUT_X_2TX
Setting 29/28
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.791G	104.86	Inf	-Inf	5.93	3	V	321	1.74	-
PK	5.546G	58.20	68.20	-10.00	5.19	3	V	321	1.74	-
PK	5.791G	114.07	Inf	-Inf	5.93	3	V	321	1.74	-
PK	5.96G	59.89	68.20	-8.31	6.57	3	V	321	1.74	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

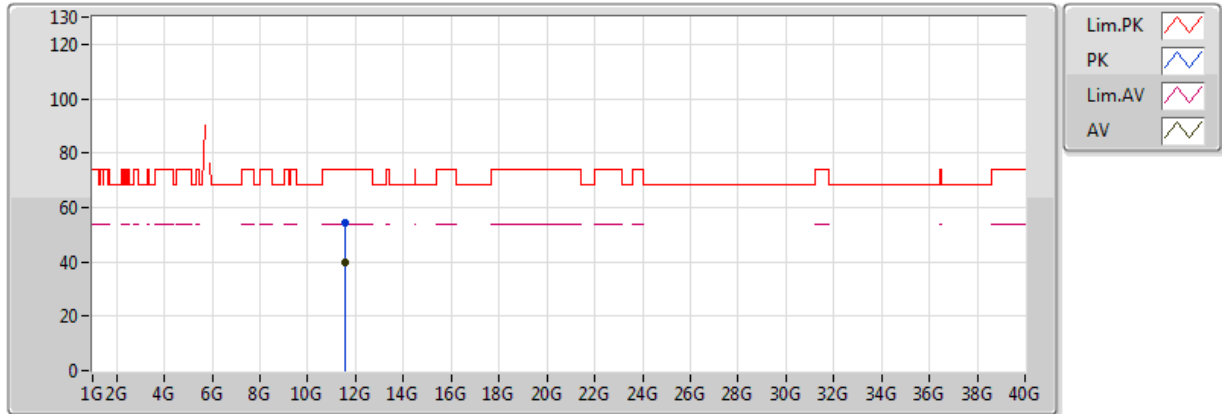


20170623
EUT X_2TX
Setting 29/28
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.79G	102.80	Inf	-Inf	5.93	3	H	35	1.85	-
PK	5.575G	59.69	68.20	-8.51	5.29	3	H	35	1.85	-
PK	5.79G	112.25	Inf	-Inf	5.93	3	H	35	1.85	-
PK	5.966G	59.22	68.20	-8.98	6.59	3	H	35	1.85	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

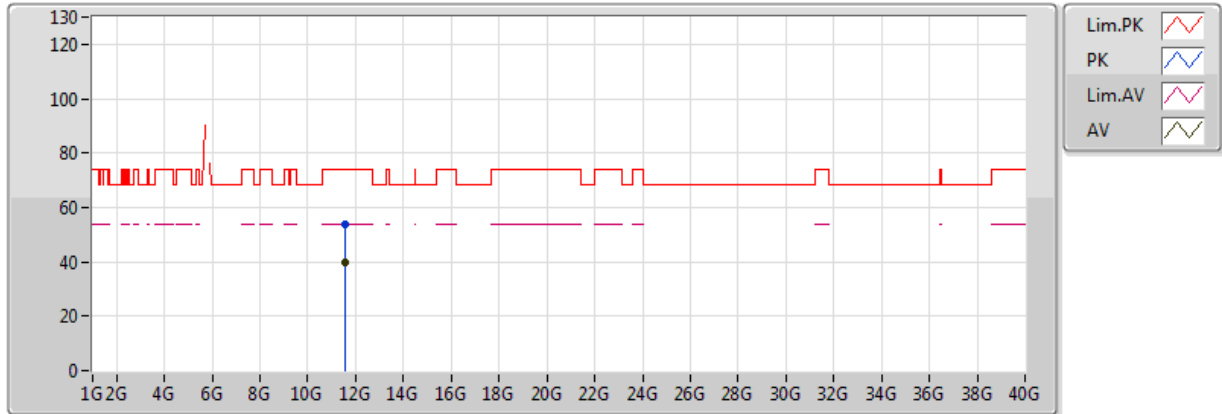


20170623
EUT X_2TX
Setting 29/28
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.5669G	39.94	54.00	-14.06	12.08	3	V	243	2.19	-
PK	11.56566G	54.11	74.00	-19.89	12.08	3	V	243	2.19	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

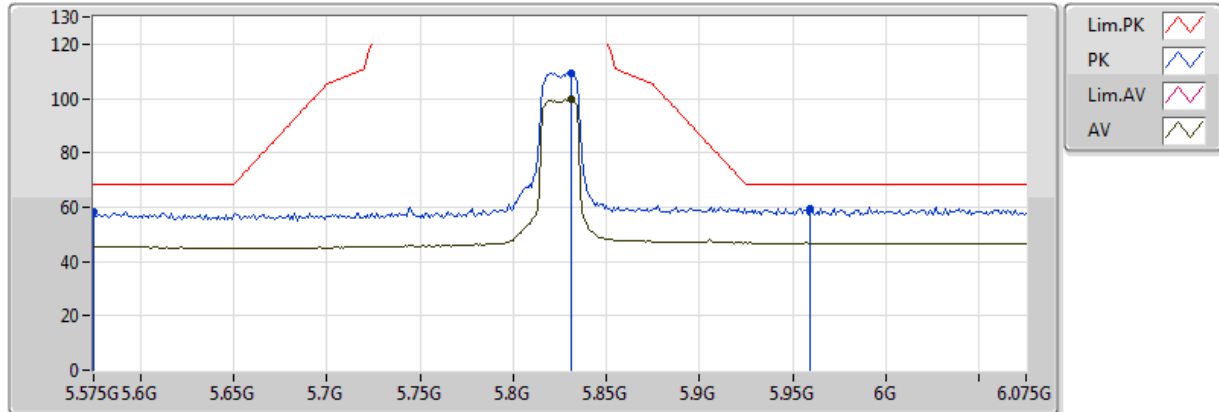


20170623
EUT X_2TX
Setting 29/28
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57456G	39.99	54.00	-14.01	12.08	3	H	148	1.77	-
PK	11.57452G	53.73	74.00	-20.27	12.08	3	H	148	1.77	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

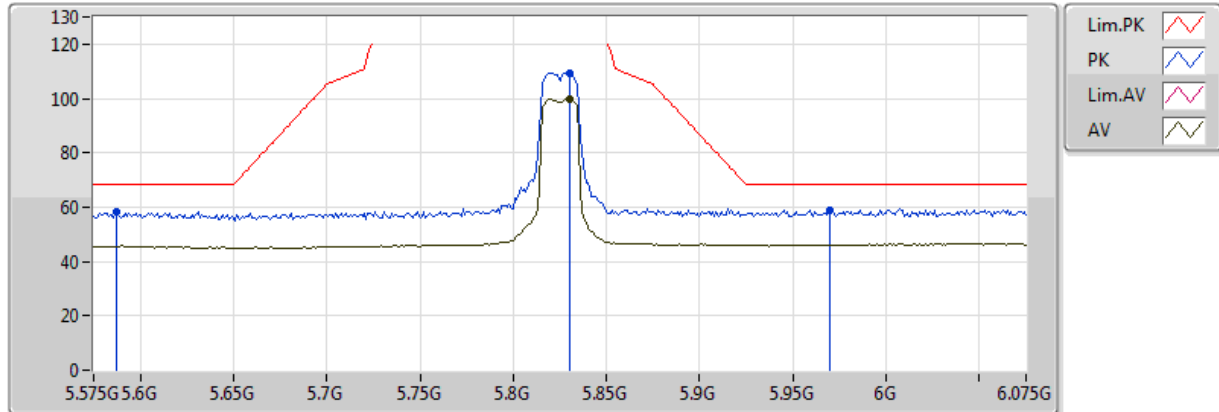


20170623
EUT_X_2TX
Setting 26/29
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.831G	99.96	Inf	-Inf	6.08	3	V	339	1.92	-
PK	5.575G	58.25	68.20	-9.95	5.29	3	V	339	1.92	-
PK	5.831G	109.47	Inf	-Inf	6.08	3	V	339	1.92	-
PK	5.959G	59.58	68.20	-8.62	6.56	3	V	339	1.92	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

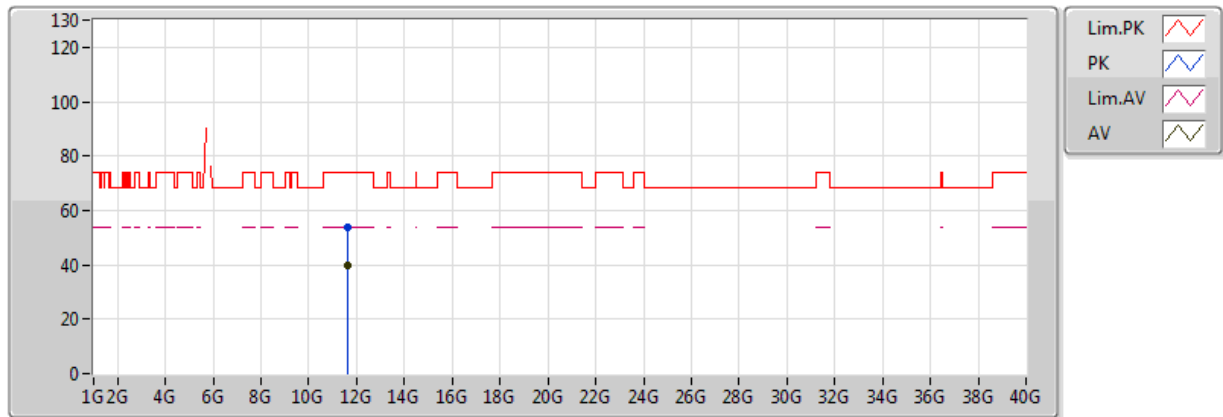


20170623
EUT_X_2TX
Setting 26/29
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.83G	100.00	Inf	-Inf	6.07	3	H	8	1.99	-
PK	5.587G	58.43	68.20	-9.77	5.33	3	H	8	1.99	-
PK	5.83G	109.50	Inf	-Inf	6.07	3	H	8	1.99	-
PK	5.97G	58.91	68.20	-9.29	6.61	3	H	8	1.99	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

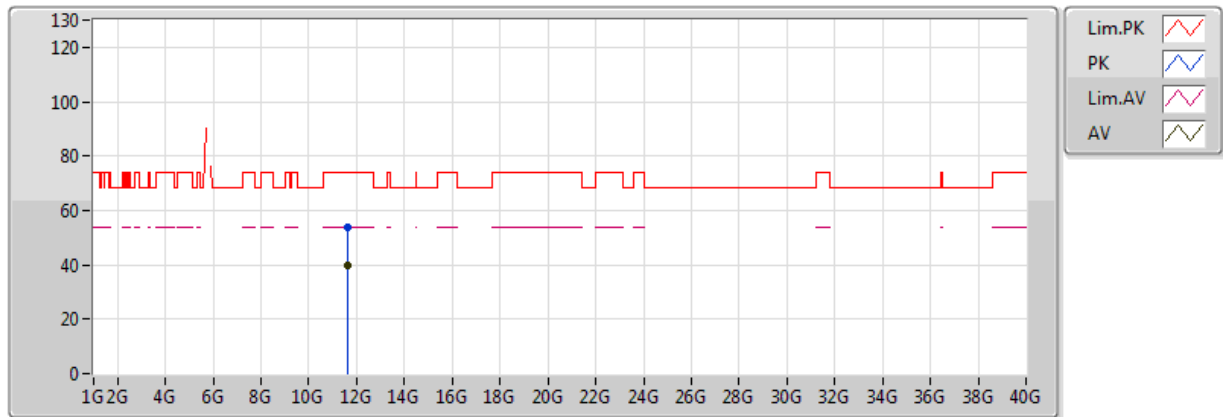


20170623
EUT_X_2TX
Setting 26/29
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.6524G	39.77	54.00	-14.23	12.12	3	V	50	1.74	-
PK	11.65426G	53.83	74.00	-20.17	12.12	3	V	50	1.74	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

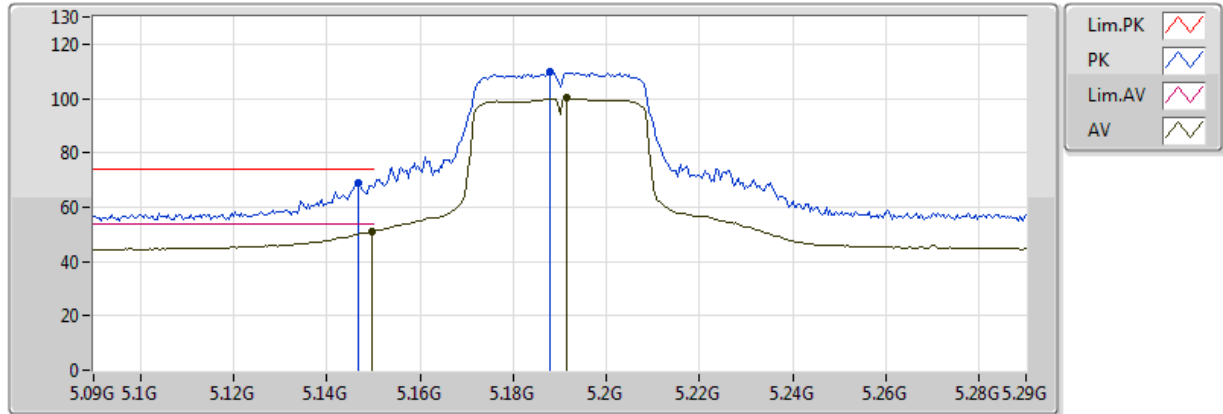


20170623
EUT_X_2TX
Setting 26/29
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.64878G	39.75	54.00	-14.25	12.12	3	H	343	2.36	-
PK	11.64936G	53.91	74.00	-20.09	12.12	3	H	343	2.36	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

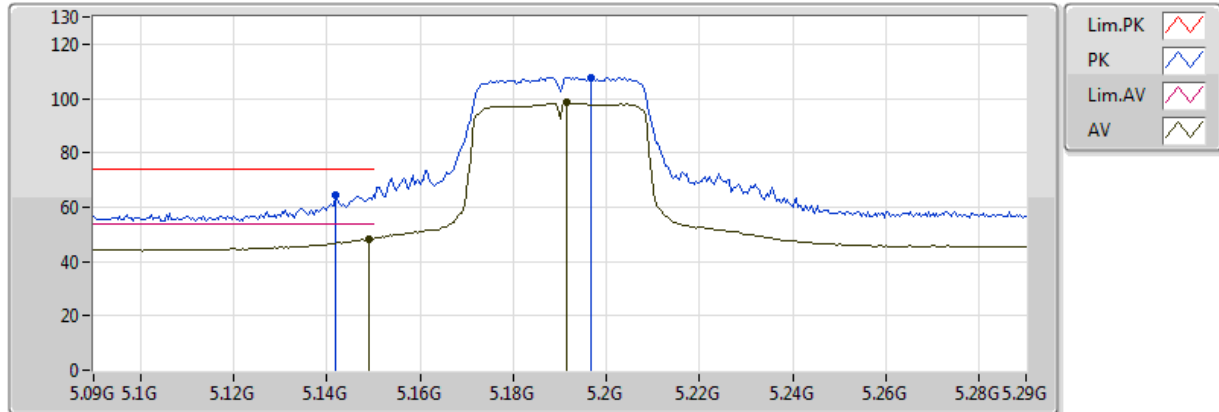


20170623
EUT X_2TX
Setting 33/36
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1496G	50.93	54.00	-3.07	4.27	3	V	35	1.87	-
AV	5.1916G	100.20	Inf	-Inf	4.36	3	V	35	1.87	-
PK	5.1468G	69.09	74.00	-4.91	4.26	3	V	35	1.87	-
PK	5.188G	109.72	Inf	-Inf	4.35	3	V	35	1.87	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

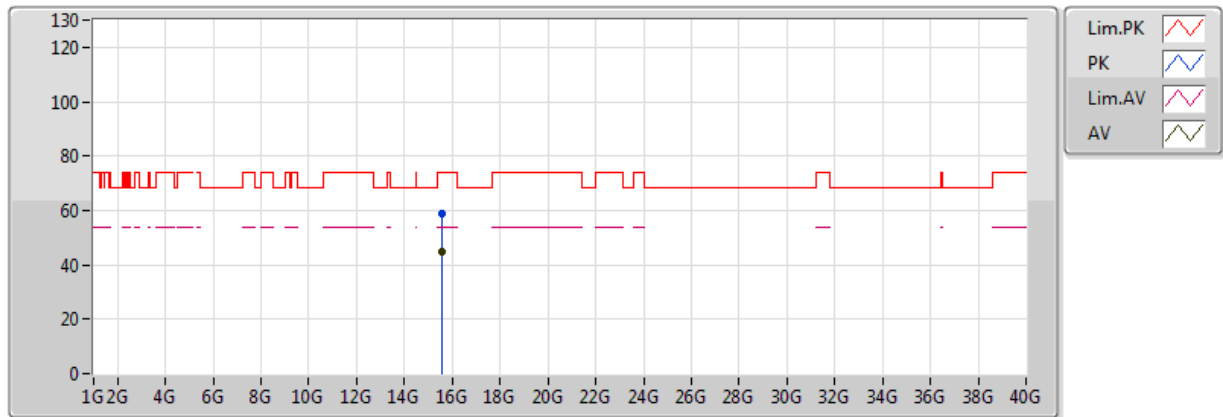


20170623
EUT_X_2TX
Setting 33/36
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1492G	48.34	54.00	-5.66	4.27	3	H	359	2.97	-
AV	5.1916G	98.50	Inf	-Inf	4.36	3	H	359	2.97	-
PK	5.142G	64.38	74.00	-9.62	4.25	3	H	359	2.97	-
PK	5.1968G	107.84	Inf	-Inf	4.37	3	H	359	2.97	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

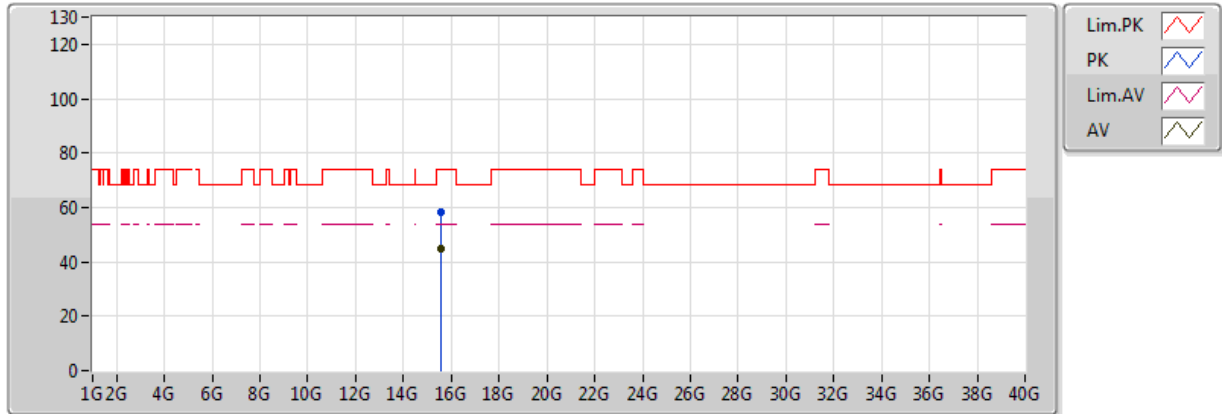


20170623
EUT X_2TX
Setting 33/36
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.57342G	44.90	54.00	-9.10	13.76	3	V	86	1.19	-
PK	15.56744G	58.60	74.00	-15.40	13.77	3	V	86	1.19	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

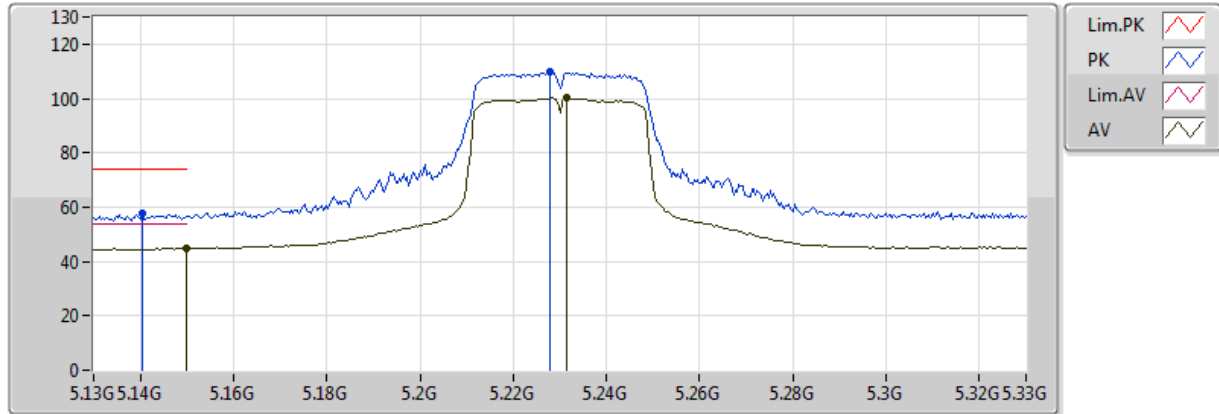


20170623
EUT_X_2TX
Setting 33/36
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.57012G	44.90	54.00	-9.10	13.76	3	H	239	2.34	-
PK	15.57148G	58.32	74.00	-15.68	13.76	3	H	239	2.34	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

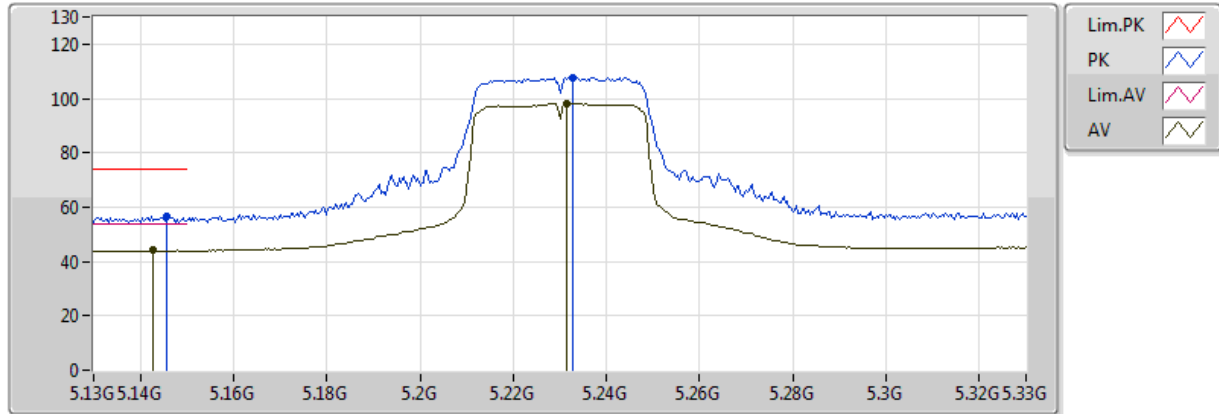


20170623
EUT_X_2TX
Setting 32/33
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	44.89	54.00	-9.11	4.27	3	V	34	1.94	-
AV	5.2316G	100.28	Inf	-Inf	4.45	3	V	34	1.94	-
PK	5.1404G	57.60	74.00	-16.40	4.25	3	V	34	1.94	-
PK	5.228G	110.02	Inf	-Inf	4.44	3	V	34	1.94	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

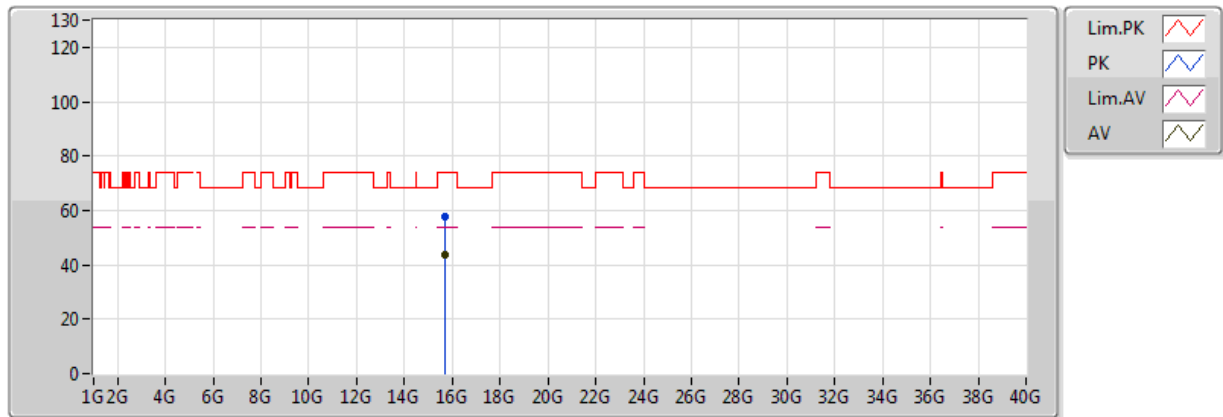


20170623
EUT X_2TX
Setting 32/33
01-W-3-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1428G	44.11	54.00	-9.89	4.25	3	H	360	1.87	-
AV	5.2316G	98.19	Inf	-Inf	4.45	3	H	360	1.87	-
PK	5.1456G	56.58	74.00	-17.42	4.26	3	H	360	1.87	-
PK	5.2328G	107.78	Inf	-Inf	4.45	3	H	360	1.87	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

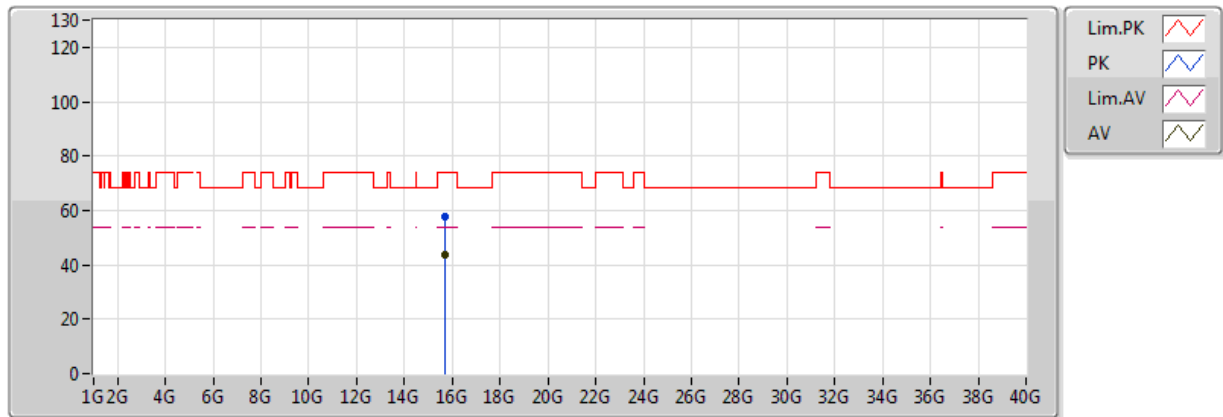


20170623
EUT X_2TX
Setting 32/33
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.68716G	43.64	54.00	-10.36	13.62	3	V	62	1.92	-
PK	15.69018G	57.52	74.00	-16.48	13.61	3	V	62	1.92	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

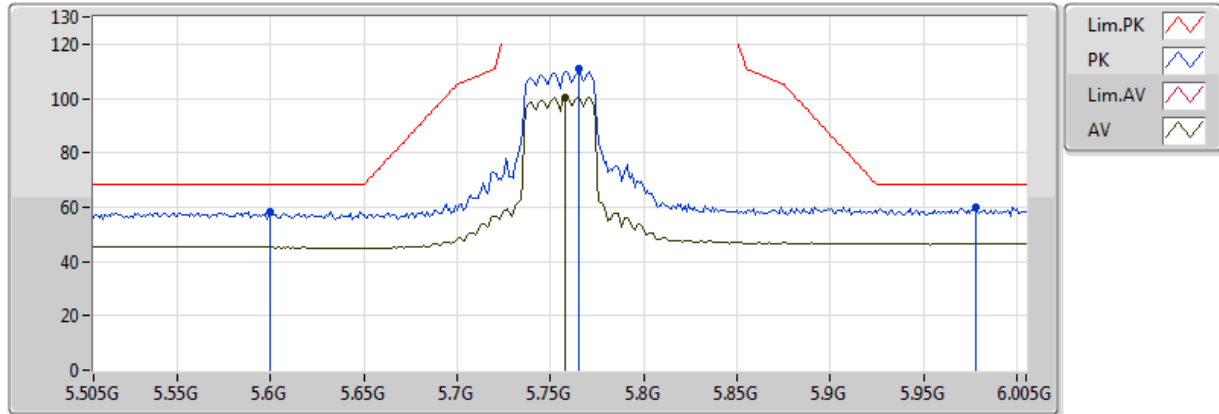


20170623
EUT X_2TX
Setting 32/33
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.6863G	43.66	54.00	-10.34	13.62	3	H	180	1.98	-
PK	15.685G	57.53	74.00	-16.47	13.62	3	H	180	1.98	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

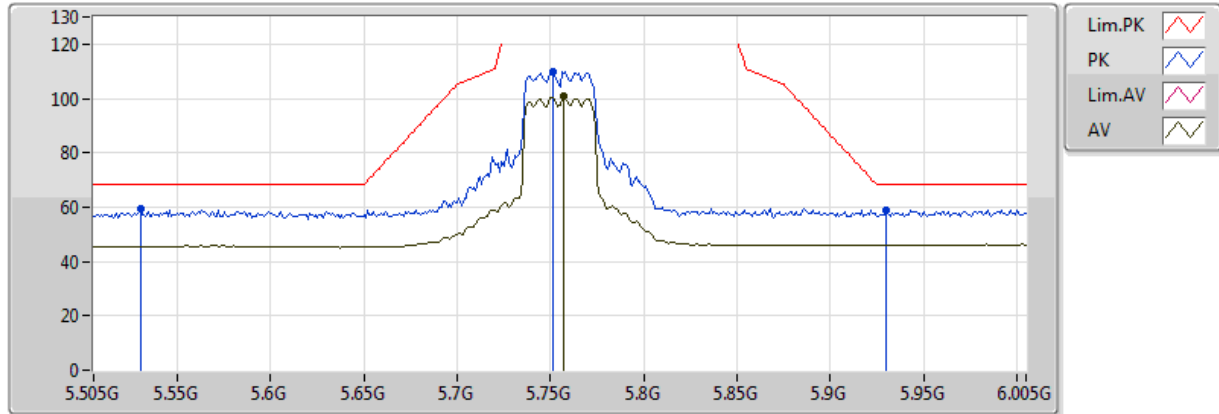


20170623
EUT X_2TX
Setting 29/29
01-B-2-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.758G	100.48	Inf	-Inf	5.84	3	V	24	1.75	-
PK	5.6G	58.31	68.20	-9.89	5.38	3	V	24	1.75	-
PK	5.765G	110.72	Inf	-Inf	5.86	3	V	24	1.75	-
PK	5.978G	59.84	68.20	-8.36	6.64	3	V	24	1.75	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

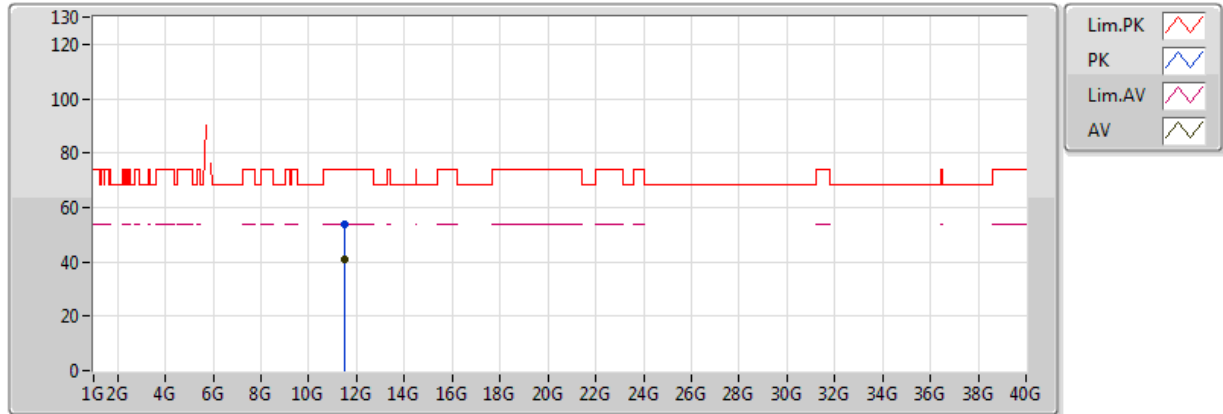


20170623
EUT_X_2TX
Setting 29/29
01-B-2-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.757G	100.61	Inf	-Inf	5.84	3	H	30	1.87	-
PK	5.53G	59.63	68.20	-8.57	5.13	3	H	30	1.87	-
PK	5.751G	109.97	Inf	-Inf	5.82	3	H	30	1.87	-
PK	5.93G	58.69	68.20	-9.51	6.45	3	H	30	1.87	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

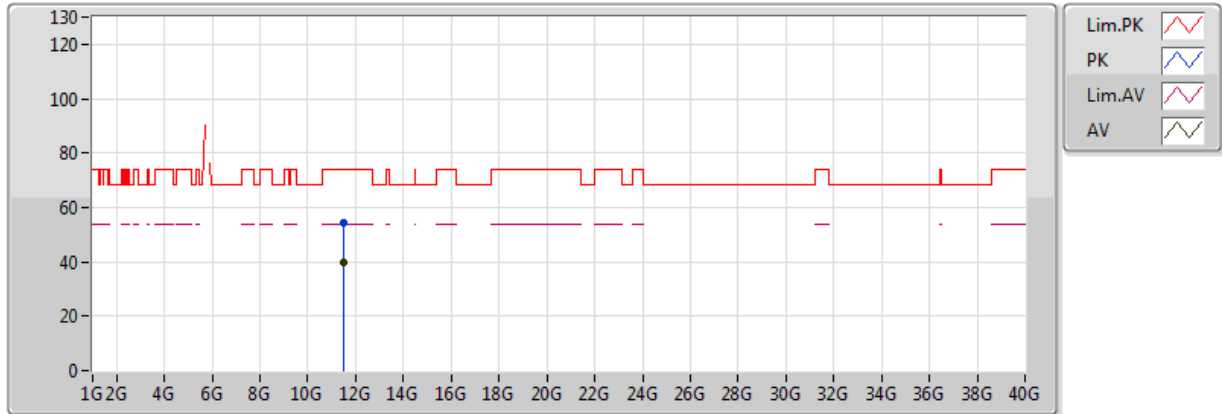


20170623
EUT X_2TX
Setting 29/29
01-B-2
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.51452G	40.73	54.00	-13.27	12.05	3	V	240	1.48	-
PK	11.50832G	53.62	74.00	-20.38	12.05	3	V	240	1.48	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

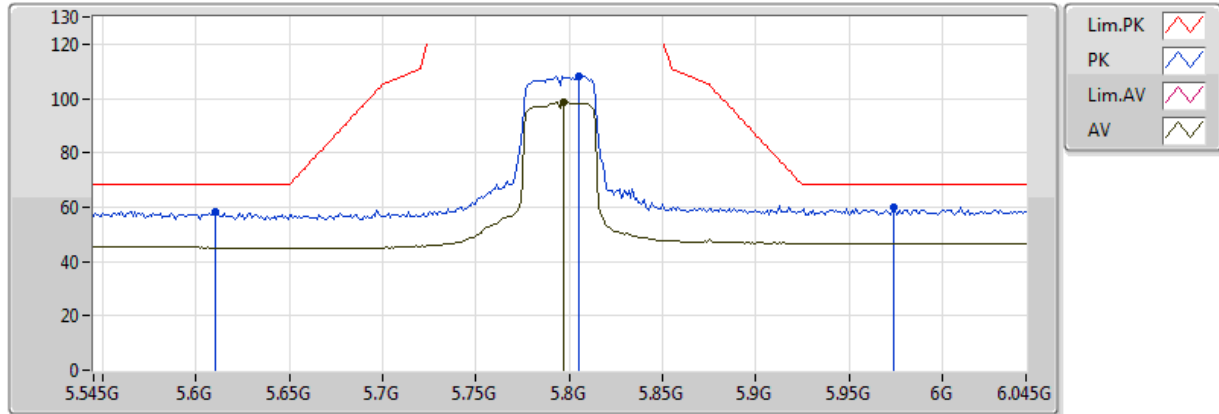


20170623
EUT X_2TX
Setting 29/29
01-B-2
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.50968G	39.85	54.00	-14.15	12.05	3	H	327	1.56	-
PK	11.50668G	54.27	74.00	-19.73	12.05	3	H	327	1.56	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

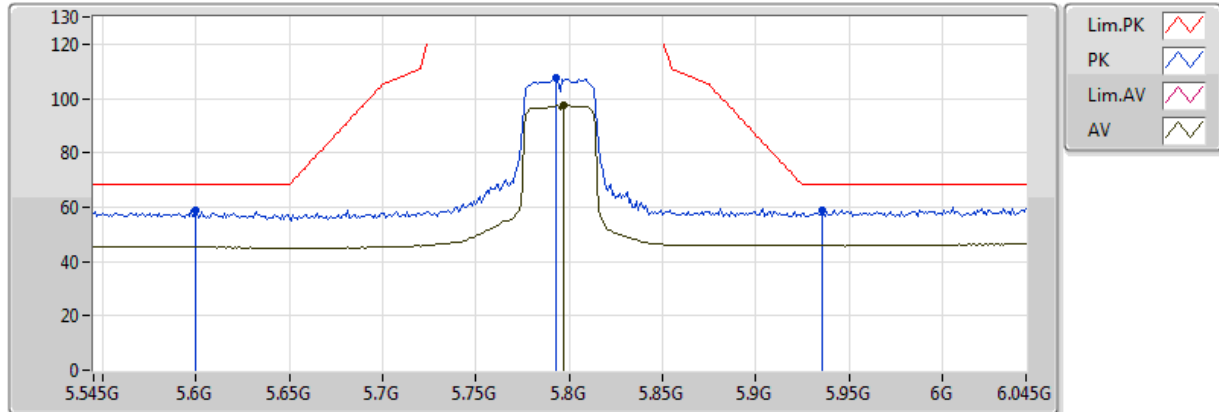


20170623
EUT_X_2TX
Setting 29/30
01-B-2-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.797G	98.71	Inf	-Inf	5.95	3	V	339	1.83	-
PK	5.61G	58.30	68.20	-9.90	5.41	3	V	339	1.83	-
PK	5.805G	108.41	Inf	-Inf	5.98	3	V	339	1.83	-
PK	5.974G	59.70	68.20	-8.50	6.62	3	V	339	1.83	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

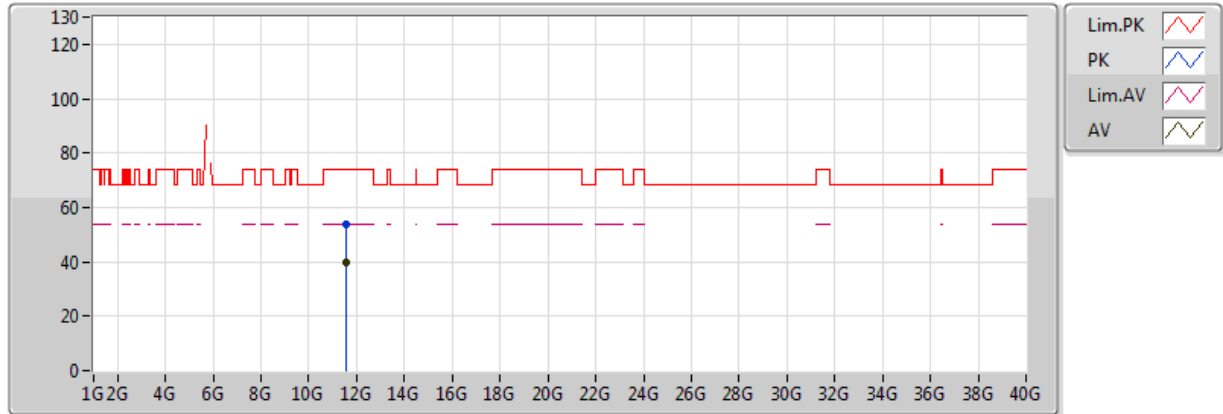


20170623
EUT_X_2TX
Setting 29/30
01-B-2-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.797G	97.69	Inf	-Inf	5.95	3	H	9	2.00	-
PK	5.6G	58.82	68.20	-9.38	5.38	3	H	9	2.00	-
PK	5.793G	107.65	Inf	-Inf	5.94	3	H	9	2.00	-
PK	5.936G	59.09	68.20	-9.11	6.48	3	H	9	2.00	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

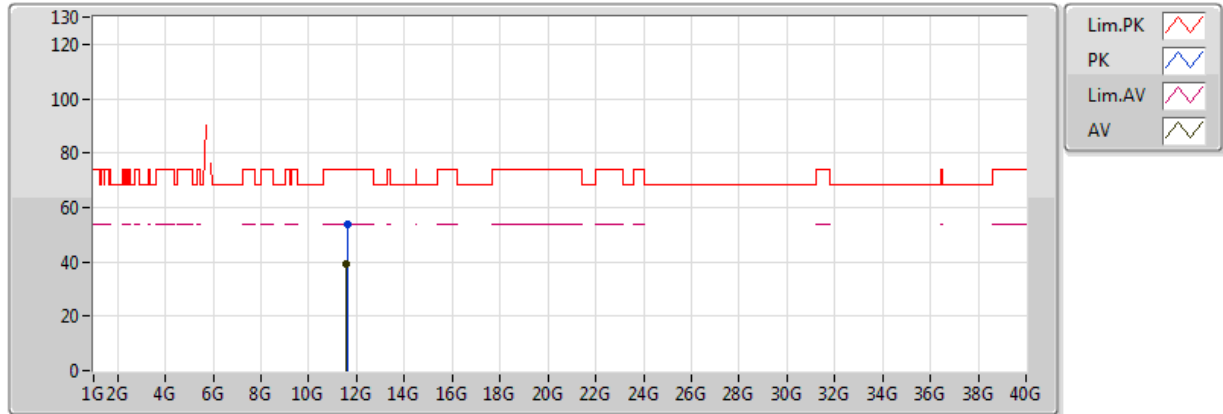


20170623
EUT X_2TX
Setting 29/30
01-B-2
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.5856G	39.57	54.00	-14.43	12.09	3	V	207	1.69	-
PK	11.59108G	53.76	74.00	-20.24	12.09	3	V	207	1.69	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

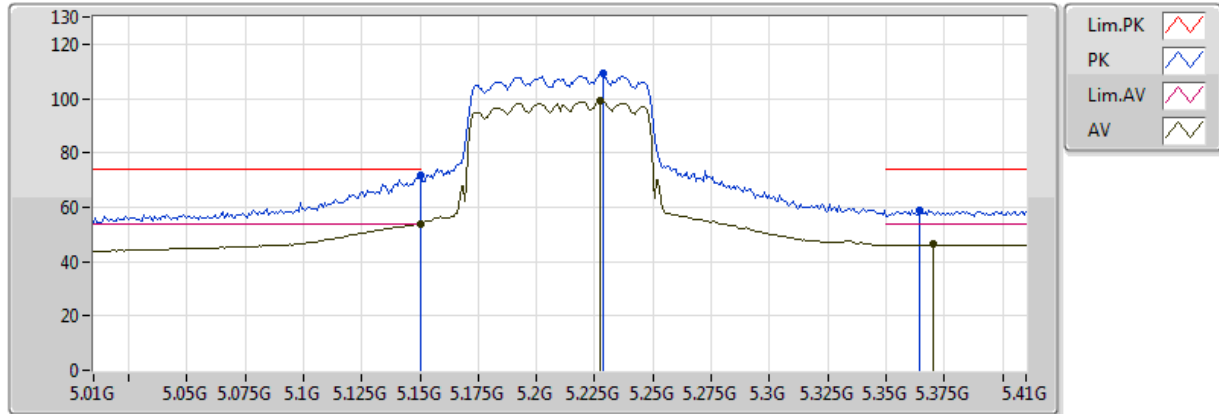


20170623
EUT X_2TX
Setting 29/30
01-B-2
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.58758G	39.50	54.00	-14.50	12.09	3	H	351	1.54	-
PK	11.59442G	53.91	74.00	-20.09	12.09	3	H	351	1.54	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

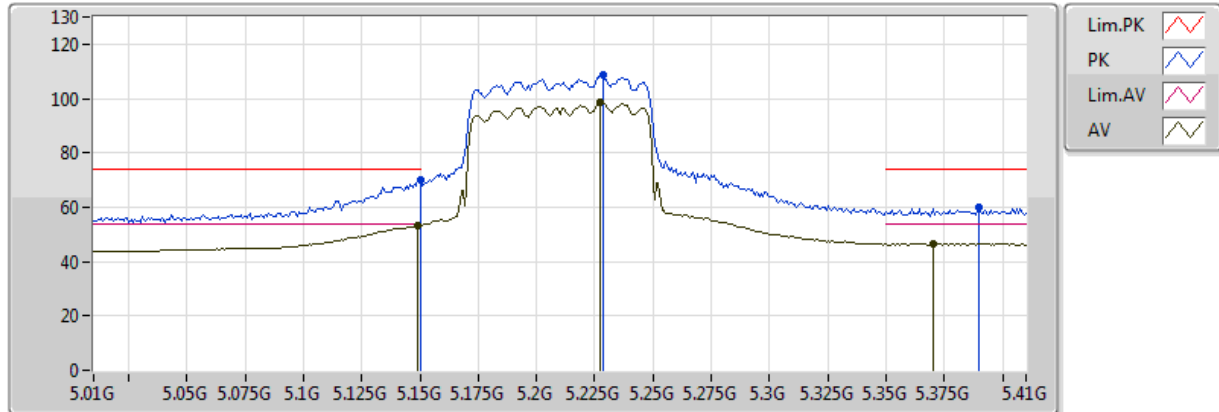


20170623
EUT_X_2TX
Setting 35/37
01-B-2-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.91	54.00	-0.09	4.27	3	V	340	1.87	-
AV	5.2276G	99.43	Inf	-Inf	4.44	3	V	340	1.87	-
AV	5.37G	46.41	54.00	-7.59	4.72	3	V	340	1.87	-
PK	5.149995G	71.78	74.00	-2.22	4.27	3	V	340	1.87	-
PK	5.2284G	109.50	Inf	-Inf	4.44	3	V	340	1.87	-
PK	5.3644G	59.10	74.00	-14.90	4.71	3	V	340	1.87	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

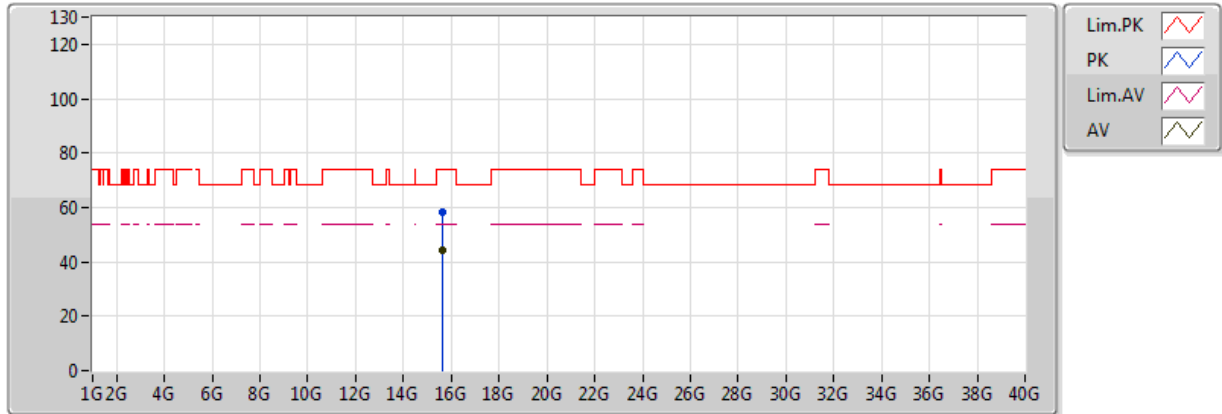


20170623
EUT X_2TX
Setting 35/37
01-B-2-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1492G	53.03	54.00	-0.97	4.27	3	H	20	1.95	-
AV	5.2276G	98.51	Inf	-Inf	4.44	3	H	20	1.95	-
AV	5.37G	46.61	54.00	-7.39	4.72	3	H	20	1.95	-
PK	5.149995G	70.32	74.00	-3.68	4.27	3	H	20	1.95	-
PK	5.2284G	108.77	Inf	-Inf	4.44	3	H	20	1.95	-
PK	5.39G	59.77	74.00	-14.23	4.75	3	H	20	1.95	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

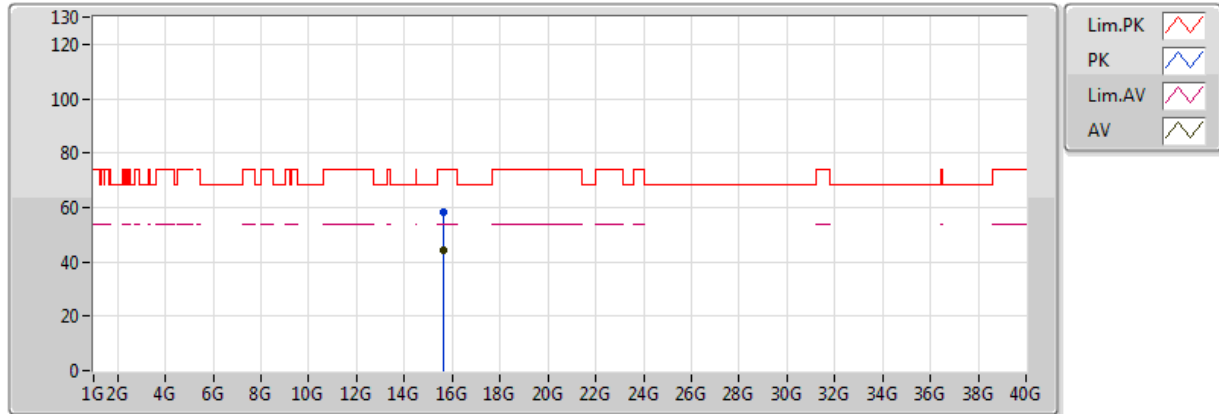


20170623
EUT_X_2TX
Setting 35/37
01-B-2
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.62776G	44.30	54.00	-9.70	13.69	3	V	112	1.96	-
PK	15.63488G	58.38	74.00	-15.62	13.68	3	V	112	1.96	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

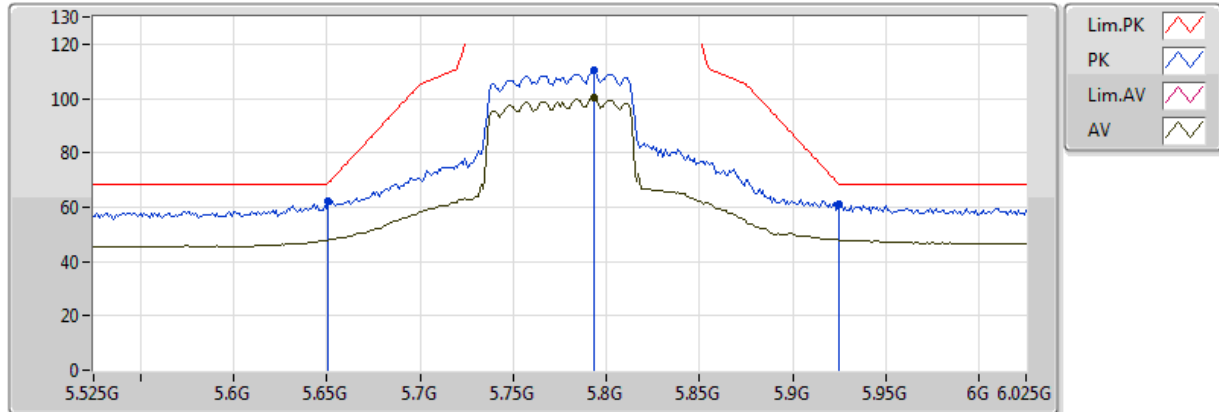


20170623
EUT X_2TX
Setting 35/37
01-B-2
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.62506G	44.30	54.00	-9.70	13.69	3	H	281	2.49	-
PK	15.62538G	58.53	74.00	-15.47	13.69	3	H	281	2.49	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

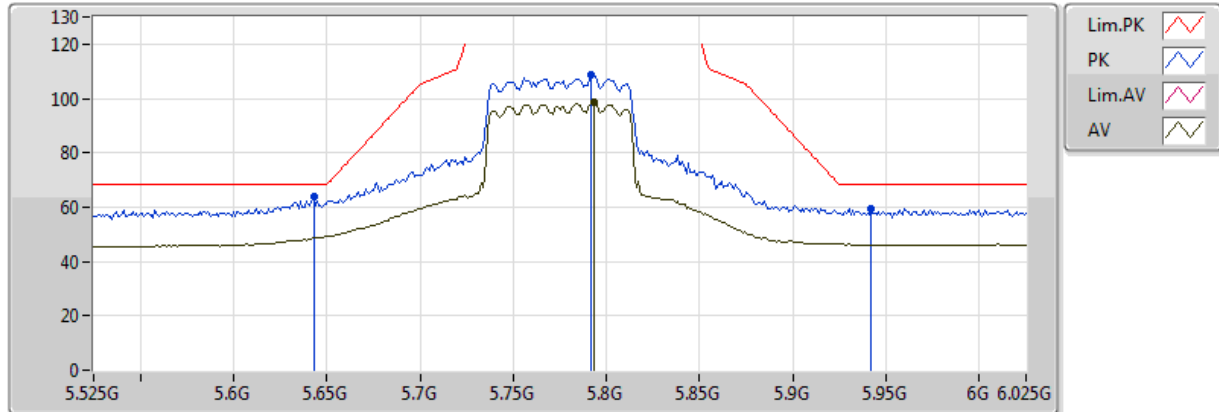


20170623
EUT_X_2TX
Setting 31/31
01-B-2-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.793G	100.29	Inf	-Inf	5.94	3	V	23	1.73	-
PK	5.651G	62.03	68.94	-6.91	5.53	3	V	23	1.73	-
PK	5.793G	110.64	Inf	-Inf	5.94	3	V	23	1.73	-
PK	5.925G	60.87	68.20	-7.33	6.43	3	V	23	1.73	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

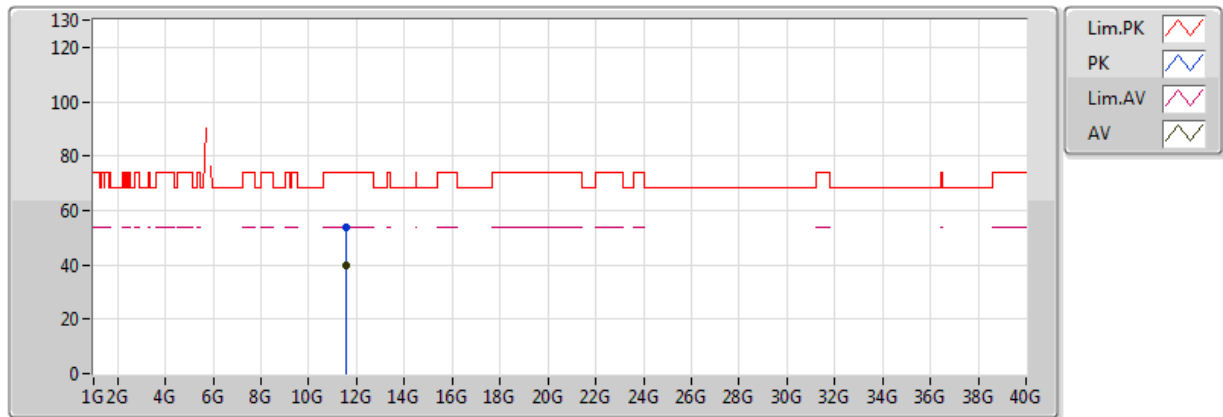


20170623
EUT_X_2TX
Setting 31/31
01-B-2-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.793G	98.45	Inf	-Inf	5.94	3	H	32	1.84	-
PK	5.643G	63.63	68.20	-4.57	5.51	3	H	32	1.84	-
PK	5.792G	108.50	Inf	-Inf	5.94	3	H	32	1.84	-
PK	5.942G	59.36	68.20	-8.84	6.50	3	H	32	1.84	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

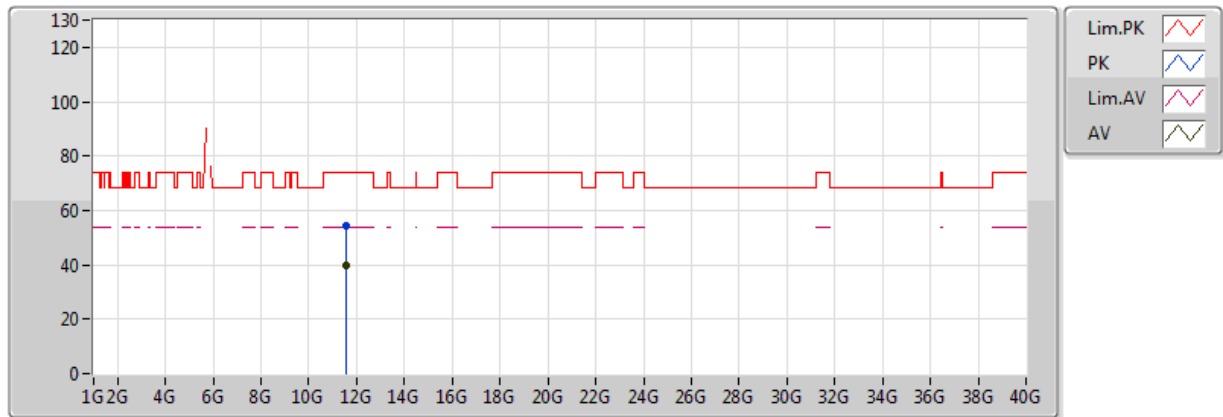


20170623
EUT_X_2TX
Setting 31/31
01-B-2
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.54984G	39.95	54.00	-14.05	12.07	3	V	143	1.68	-
PK	11.54686G	53.60	74.00	-20.40	12.07	3	V	143	1.68	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



20170623
EUT_X_2TX
Setting 31/31
01-B-2
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.5497G	39.98	54.00	-14.02	12.07	3	H	248	1.67	-
PK	11.54626G	54.26	74.00	-19.74	12.07	3	H	248	1.67	-

Mode: 20 MHz / Port 2
Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9975	5199.9968	5199.9958	5199.9950
110.00	5199.9973	5199.9966	5199.9956	5199.9951
93.50	5199.9967	5199.9964	5199.9954	5199.9948
Max. Deviation (MHz)	0.0033	0.0036	0.0046	0.0052
Max. Deviation (ppm)	0.63	0.69	0.88	1.00
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-20	5199.9932	5199.9923	5199.9917	5199.9911
-10	5199.9943	5199.9936	5199.9931	5199.9925
0	5199.9948	5199.9939	5199.9930	5199.9924
10	5199.9964	5199.9960	5199.9951	5199.9950
20	5199.9973	5199.9967	5199.9963	5199.9960
30	5199.9976	5199.9968	5199.9967	5199.9957
40	5199.9994	5199.9985	5199.9979	5199.9977
45	5200.0009	5199.9999	5199.9997	5199.9993
Max. Deviation (MHz)	0.0068	0.0077	0.0083	0.0089
Max. Deviation (ppm)	1.31	1.48	1.60	1.71
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9977	5784.9976	5784.9969	5784.9963
110.00	5784.9973	5784.9966	5784.9957	5784.9948
93.50	5784.9972	5784.9968	5784.9967	5784.9961
Max. Deviation (MHz)	0.0028	0.0034	0.0043	0.0052
Max. Deviation (ppm)	0.48	0.59	0.74	0.90
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-20	5784.9928	5784.9921	5784.9916	5784.9910
-10	5784.9929	5784.9923	5784.9917	5784.9915
0	5784.9948	5784.9941	5784.9932	5784.9928
10	5784.9961	5784.9960	5784.9953	5784.9943
20	5784.9973	5784.9971	5784.9969	5784.9968
30	5784.9976	5784.9968	5784.9966	5784.9964
40	5784.9985	5784.9978	5784.9974	5784.9967
45	5784.9988	5784.9984	5784.9979	5784.9977
Max. Deviation (MHz)	0.0072	0.0079	0.0084	0.0090
Max. Deviation (ppm)	1.24	1.37	1.45	1.56
Result	Pass			

Mode: 40 MHz / Port 2
Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9982	5189.9972	5189.9968	5189.9967
110.00	5189.9973	5189.9968	5189.9961	5189.9959
93.50	5189.9968	5189.9967	5189.9957	5189.9949
Max. Deviation (MHz)	0.0032	0.0033	0.0043	0.0051
Max. Deviation (ppm)	0.62	0.64	0.83	0.98
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-20	5189.9938	5189.9929	5189.9925	5189.9915
-10	5189.9944	5189.9935	5189.9930	5189.9929
0	5189.9956	5189.9949	5189.9946	5189.9936
10	5189.9965	5189.9964	5189.9960	5189.9954
20	5189.9973	5189.9971	5189.9964	5189.9955
30	5189.9976	5189.9967	5189.9958	5189.9949
40	5189.9983	5189.9973	5189.9963	5189.9953
45	5189.9988	5189.9986	5189.9976	5189.9970
Max. Deviation (MHz)	0.0062	0.0071	0.0075	0.0085
Max. Deviation (ppm)	1.19	1.37	1.45	1.64
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9974	5754.9972	5754.9967	5754.9959
110.00	5754.9973	5754.9972	5754.9962	5754.9953
93.50	5754.9966	5754.9958	5754.9955	5754.9953
Max. Deviation (MHz)	0.0034	0.0042	0.0045	0.0047
Max. Deviation (ppm)	0.59	0.73	0.78	0.82
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-20	5754.9924	5754.9918	5754.9916	5754.9909
-10	5754.9934	5754.9927	5754.9923	5754.9913
0	5754.9951	5754.9949	5754.9940	5754.9935
10	5754.9953	5754.9951	5754.9943	5754.9941
20	5754.9973	5754.9965	5754.9958	5754.9956
30	5754.9976	5754.9973	5754.9963	5754.9957
40	5754.9978	5754.9974	5754.9972	5754.9962
45	5754.9993	5754.9990	5754.9989	5754.9985
Max. Deviation (MHz)	0.0076	0.0082	0.0084	0.0091
Max. Deviation (ppm)	1.32	1.42	1.46	1.58
Result	Pass			

Mode: 80 MHz / Port 2
Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9980	5209.9976	5209.9968	5209.9961
110.00	5209.9973	5209.9963	5209.9959	5209.9958
93.50	5209.9965	5209.9957	5209.9956	5209.9949
Max. Deviation (MHz)	0.0035	0.0043	0.0044	0.0051
Max. Deviation (ppm)	0.67	0.83	0.84	0.98
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-20	5209.9923	5209.9921	5209.9918	5209.9915
-10	5209.9938	5209.9933	5209.9926	5209.9923
0	5209.9939	5209.9937	5209.9934	5209.9929
10	5209.9956	5209.9952	5209.9951	5209.9949
20	5209.9973	5209.9965	5209.9964	5209.9960
30	5209.9976	5209.9970	5209.9966	5209.9965
40	5209.9987	5209.9977	5209.9974	5209.9970
45	5210.0006	5210.0004	5210.0001	5209.9997
Max. Deviation (MHz)	0.0077	0.0079	0.0082	0.0085
Max. Deviation (ppm)	1.48	1.52	1.57	1.63
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9980	5774.9977	5774.9972	5774.9970
110.00	5774.9973	5774.9969	5774.9965	5774.9961
93.50	5774.9963	5774.9959	5774.9955	5774.9946
Max. Deviation (MHz)	0.0037	0.0041	0.0045	0.0054
Max. Deviation (ppm)	0.64	0.71	0.78	0.94
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-20	5774.9952	5774.9947	5774.9941	5774.9939
-10	5774.9958	5774.9950	5774.9949	5774.9941
0	5774.9959	5774.9957	5774.9954	5774.9947
10	5774.9964	5774.9955	5774.9954	5774.9944
20	5774.9973	5774.9969	5774.9966	5774.9957
30	5774.9976	5774.9967	5774.9962	5774.9952
40	5774.9984	5774.9975	5774.9970	5774.9961
45	5774.9996	5774.9993	5774.9983	5774.9978
Max. Deviation (MHz)	0.0048	0.0053	0.0059	0.0061
Max. Deviation (ppm)	0.83	0.92	1.02	1.06
Result	Pass			