FCC Test Report

Equipment	:	Araknis Networks 110-series Single-WAN Gigabit VPN Router with Wi-Fi
Brand Name	:	Araknis Networks
Model No.	:	AN-110-RT-2L1W-WIFI
FCC ID	:	2AJAC-110WIFI
Standard	:	47 CFR FCC Part 15.407
Operating Band	:	5150 MHz – 5250 MHz 5725 MHz – 5850 MHz
Applicant	:	Wirepath Home Systems. DBA SnapAV 1800 Continental Blvd. Suite 200 Charlotte, NC 28273 USA
Manufacturer	:	Wirepath Home Systems. DBA SnapAV 1800 Continental Blvd. Suite 200 Charlotte, NC 28273 USA
Function	:	☐ Outdoor; ☒ Indoor; ☐ Fixed P2P ☐ Client

The product sample received on Jun. 02, 2017 and completely tested on Aug. 02, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Cliff Chang
SPORTON INTERNATIONAL INC.

Testing Laboratory
1190

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Summary of Test Result

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

Revision History

Report No.	Version	Description	Issued Date
FR731408AB	Rev. 01	Initial issue of report	Feb. 12, 2018

1 General Description

1.1 Information

1.1.1 RF General Information

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

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

Note:
- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, 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.	Brand	P/N	Antenna Type	Connector	Gain (dBi)	
					2.4GHz	5GHz
1	LYNwave	ALX17M-052XX2-00	PIFA Antenna	I-PEX	3.67	-
2	LYNwave	ALX17M-052XX2-01	PIFA Antenna	I-PEX	3.07	-
3	LYNwave	ALX17M-092XX1-00	PIFA Antenna	I-PEX	-	3.80
4	LYNwave	ALX17M-092XX1-01	PIFA Antenna	I-PEX	-	3.19

Note: The EUT has four antennas.

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

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

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

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.802	0.958	1.4m	1k
802.11ac VHT20-BF	0.995	0.022	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40-BF	0.983	0.074	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT80-BF	0.993	0.031	n/a (DC>=0.98)	n/a (DC>=0.98)

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for 802.11n/ac in 5GHz.			
Test Software Version	QA UI (MT7615) Version:0.0.1.71			

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 v02r01
- 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 & Gino Huang & Peter Wu	20°C / 55%	Jun. 21, 2017~Jul. 24, 2017
Radiated	03CH01-CB	Jay Luo & Joy Tseng	22°C / 54%	Jun. 02, 2017~Jul. 27, 2017
AC Conduction	CO01-CB	Wei Li	26°C / 63%	Aug. 02, 2017

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

1.4 Measurement Uncertainty

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

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

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_(6Mbps)_2TX	-
5180MHz	1C
5200MHz	23
5240MHz	28
5745MHz	23
5785MHz	25
5825MHz	22
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	39
5200MHz	46
5240MHz	40
5745MHz	46
5785MHz	46
5825MHz	46
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	33
5230MHz	42
5755MHz	46
5795MHz	46
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	27
5775MHz	34

Note1: 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.

Note2:There are two modes of EUT for 802.11n/ac in 5GHz. One is beamforming mode, and the other is non-beamforming mode, after evaluating, beamforming mode has been evaluated to be the worst case, so it was selected to test and record in this test report.

2.2 The Worst Case Measurement Configuration

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

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	Place EUT in Z axis + Adapter
2	Place EUT in Y axis + Adapter
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at Z axis and Y axis position. The worst case was found at Z axis, so it was selected to perform test and its test result was written in the report.	
1	Place EUT in Z axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
The EUT was performed at Z axis and Y axis position. The worst case was found at Z axis, so it was selected to perform test and its test result was written in the report.	
1	Place EUT in Z axis - WLAN 2.4GHz + WLAN 5GHz + WWAN
Refer to Appendix G for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz + WWAN
Refer to Sporton Test Report No.: FA731408 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 7 were executed.
The program was executed as follows:
1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under Telnet.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories			
Equipment Name	**Brand Name**	**Model Name**	**Rating**
Adapter	APD	WA-24Q12R	INPUT: 100-240V~50-60Hz, 0.7A Max OUTPUT: 12V, 2A
Other			
Plug*1			

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*4	DELL	E6430	DoC
2	LTE Base station	Anritsu	MT8820C	DoC
3	4G Dongle	HUAWEI	E3372h	QISE3372H-510

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

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*2	DELL	E4300	DoC
2	NB*2	Apple	Mac Book	DoC
3	LTE Base station	Anritsu	MT8820C	DoC
4	4G Dongle	HUAWEI	E3372h	QISE3372H-510

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

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

For beamforming mode:

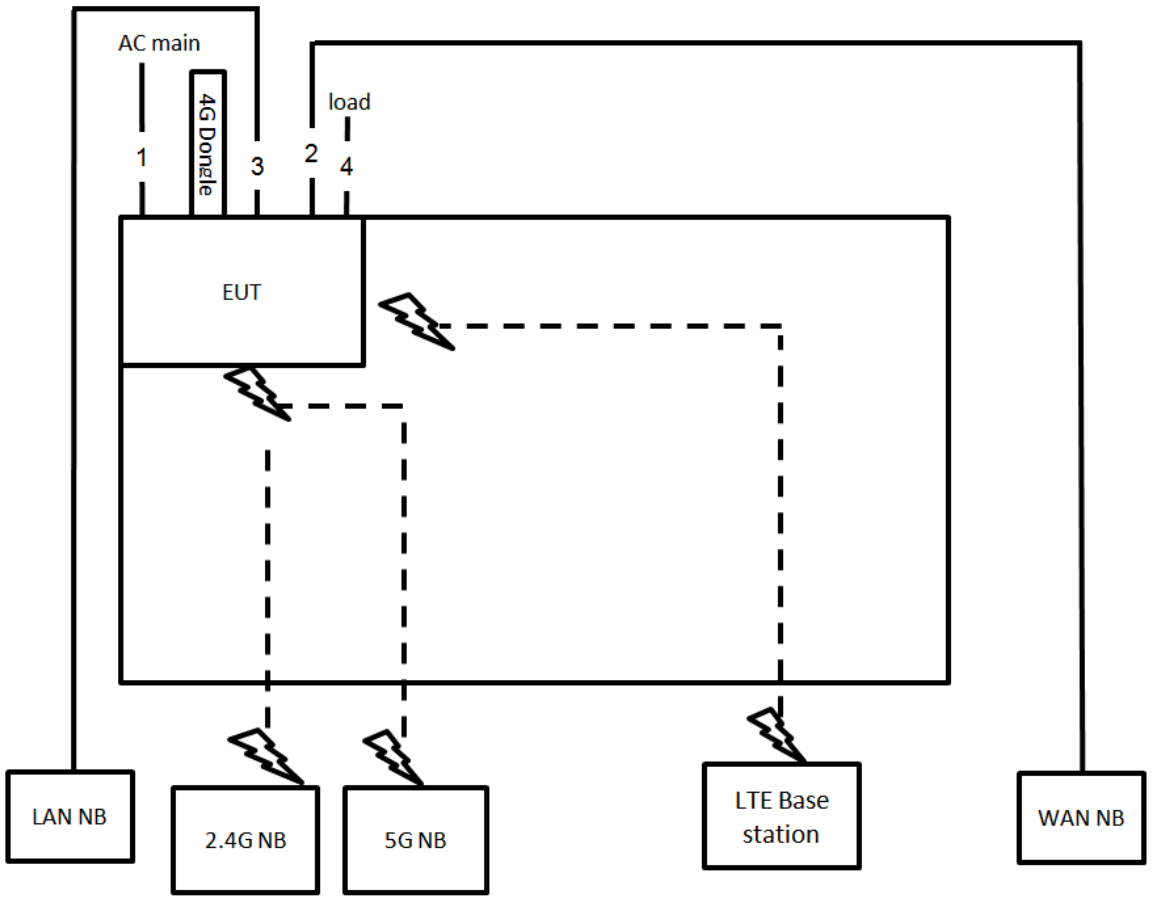
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*2	DELL	E4300	DoC
2	RX Device	Araknis Networks	AN-110-RT-2L1W-WIFI	2AG6R-110WIFI

For Test Site No: TH01-CB

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

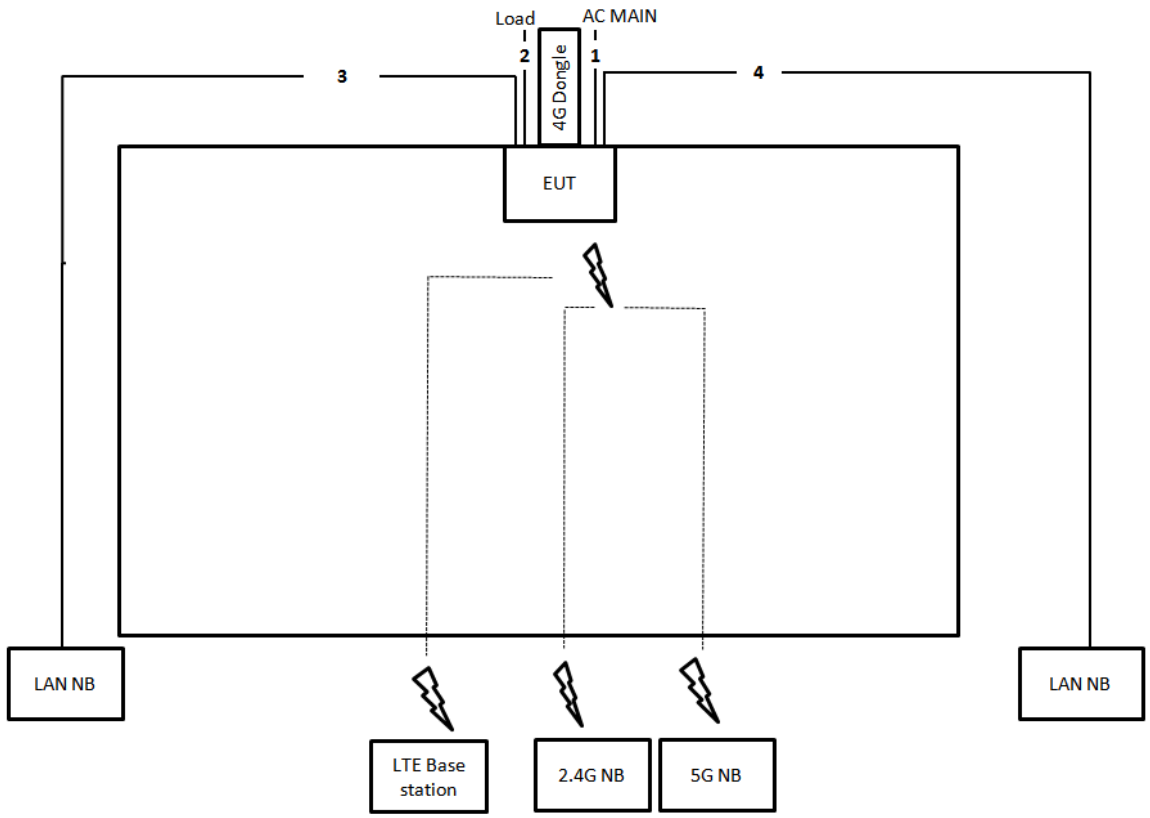
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



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

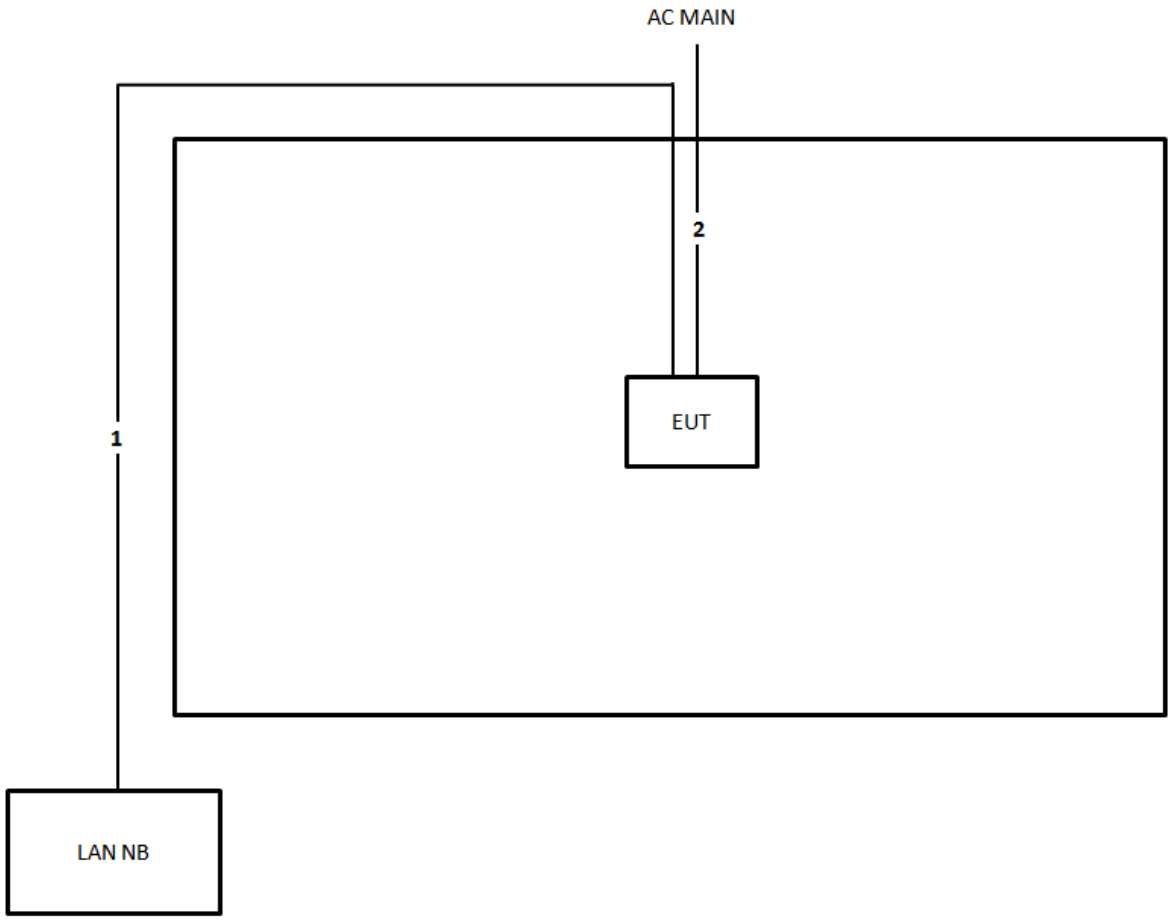
Test Setup Diagram - Radiated Test < 1GHz



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

Test Setup Diagram - Radiated Test > 1GHz

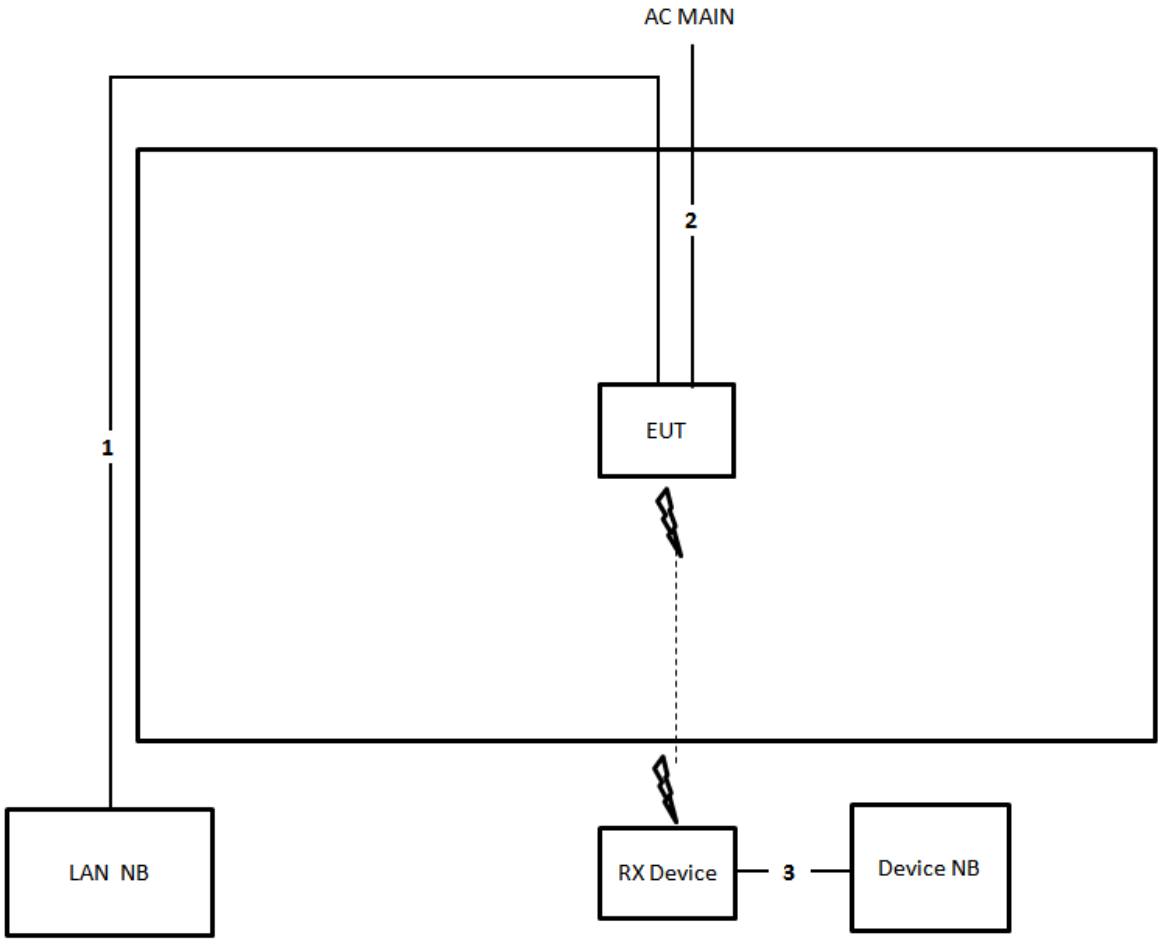
For non-beamforming mode:



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

Test Setup Diagram - Radiated Test > 1GHz

For beamforming mode:



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

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

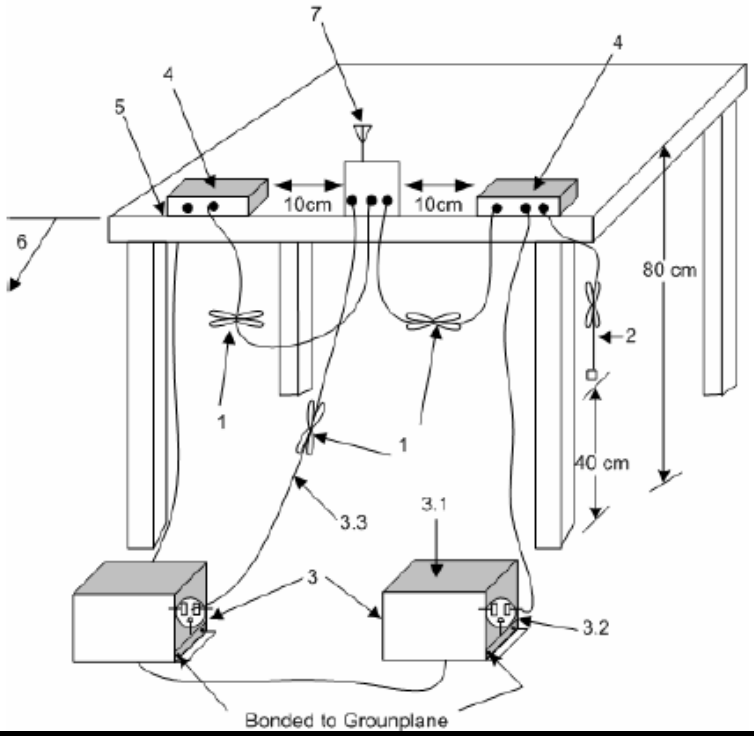
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

3.2.2 Measuring Instruments

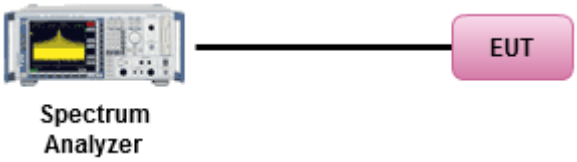
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

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

3.2.4 Test Setup

Emission Bandwidth



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band:
	▪ Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6). e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm]
	▪ Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)
	▪ Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W If G_{TX} > 23 dBi, then P_{Out} = 30 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☐	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☐	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G_{TX} > 6 dBi, then P_{Out} = 24 – (G_{TX} – 6).
☒	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
LE-LAN Devices	
☐	For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

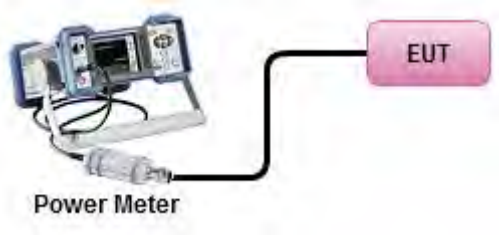
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
▪ Maximum Conducted Output Power	
	Average over on/off periods with duty factor
	☐ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
	☒ Refer as FCC KDB 789033, clause E Method PM-G (using an RF average power meter).
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

RF Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band:
	▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 23 dBi, then P_{Out} = 17 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6)..
☐	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).
☐	For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).
☒	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
LE-LAN Devices	
☐	For the 5.15-5.25 GHz band, the 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° ≤ θ < 8° ; -13 − 0.716 (θ-8) dBW/MHz for 8° ≤ θ < 40° -35.9 − 1.22 (θ-40) dBW/MHz for 40° ≤ θ ≤ 45° ; -42 dBW/MHz for θ > 45°
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz 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.	

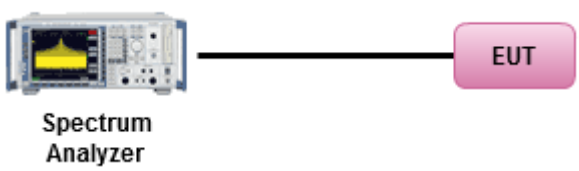
3.4.2 Measuring Instruments

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, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
	[duty cycle ≥ 98% or external video / power trigger]
	☒ Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
	duty cycle < 98% and average over on/off periods with duty factor
	☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
	☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below:
	☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
	☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
	☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
	▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \ldots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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

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

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

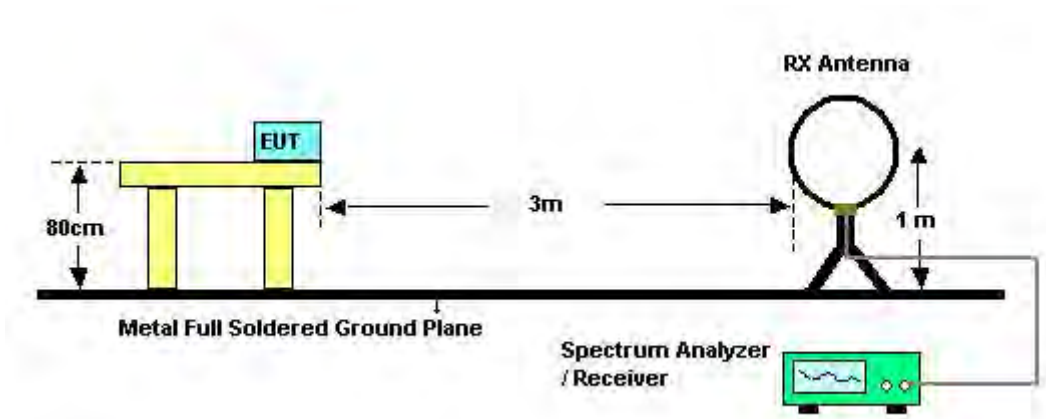
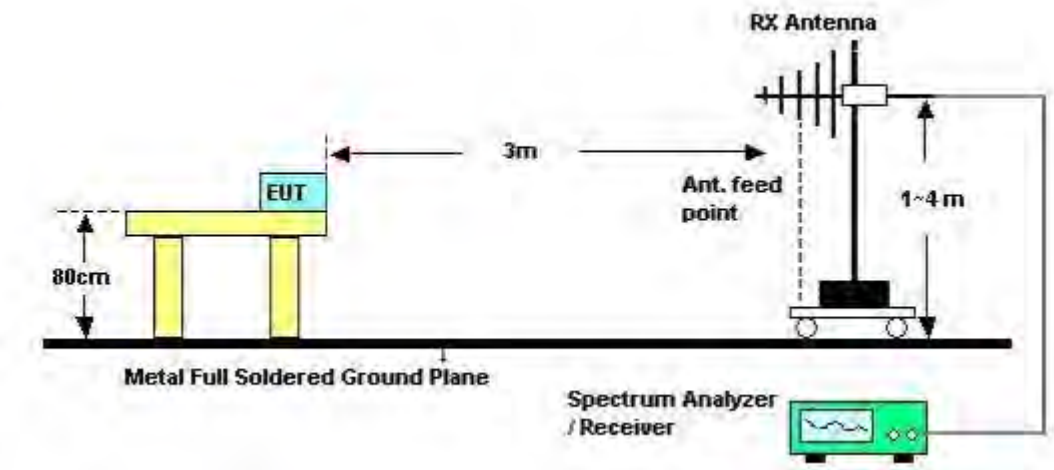
3.5.2 Measuring Instruments

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

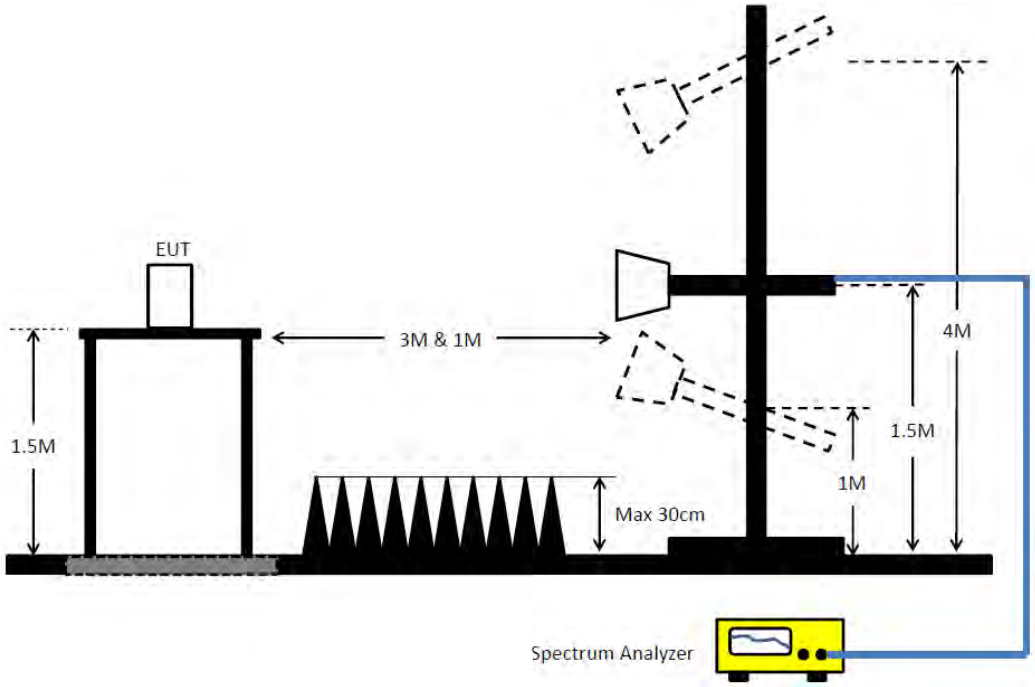
3.5.3 Test Procedures

Test Method		
▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).		
▪ The average emission levels shall be measured in [duty cycle ≥ 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 ≥ 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

Transmitter Radiated Unwanted Emissions
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



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

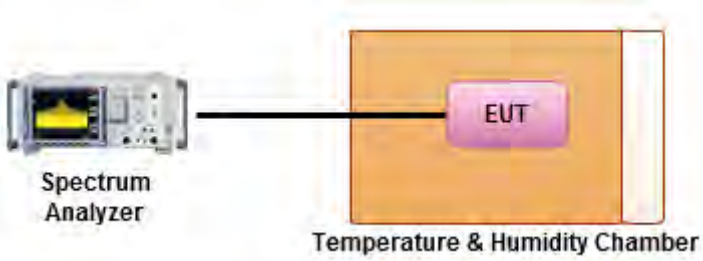
Refer a test equipment and calibration data table in this test report.

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 0℃~50℃.

3.6.4 Test Setup

Frequency Stability



3.6.5 Test Result of Frequency Stability

Refer as Appendix F

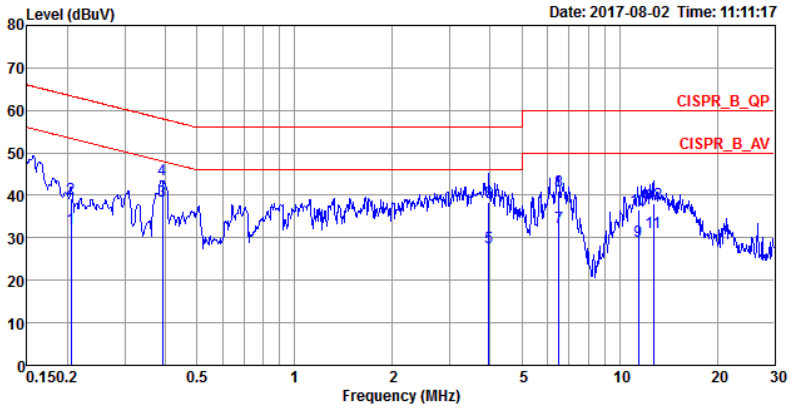
4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Jan. 22, 2018	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Dec. 13, 2017	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Dec. 20, 2017	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	May 22, 2018	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2016	Aug. 29, 2017	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Nov. 09, 2017	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Jul. 24, 2017	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 16, 2017	Jun. 15, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	May 01, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz~26.5GHz	Jan. 16, 2017	Jan. 15, 2018	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Jun. 27, 2017	Radiation (03CH01-CB)
Pre-Amplifier	-	-	TF-130N-R1	26GHz ~ 40GHz	Jun. 20, 2017	Jun. 19, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Nov. 21, 2017	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz~40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz~40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-l0-7	N/A	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Dec. 25, 2017	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Jun. 01, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz–26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz–26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz–26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz–26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz–26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Nov. 21, 2017	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.
"*" Calibration Interval of instruments listed above is two years.
NCR means Non-Calibration required.

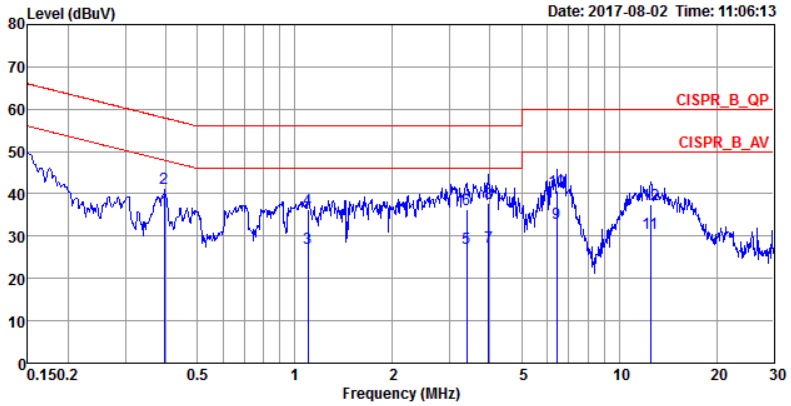
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.2050	32.30	-21.10	53.40	22.27	9.98	0.05	Average	NEUTRAL
2	0.2050	39.34	-24.06	63.40	29.31	9.98	0.05	QP	NEUTRAL
3	0.3918	38.56	-9.46	48.02	28.56	9.96	0.04	Average	NEUTRAL
4	0.3918	43.71	-14.31	58.02	33.71	9.96	0.04	QP	NEUTRAL
5	3.9621	27.86	-18.14	46.00	17.65	10.08	0.13	Average	NEUTRAL
6	3.9621	38.44	-17.56	56.00	28.23	10.08	0.13	QP	NEUTRAL
7	6.4956	32.46	-17.54	50.00	22.19	10.12	0.15	Average	NEUTRAL
8	6.4956	40.91	-19.09	60.00	30.64	10.12	0.15	QP	NEUTRAL
9	11.4158	29.28	-20.72	50.00	18.90	10.18	0.20	Average	NEUTRAL
10	11.4158	36.51	-23.49	60.00	26.13	10.18	0.20	QP	NEUTRAL
11	12.6950	31.15	-18.85	50.00	20.74	10.20	0.21	Average	NEUTRAL
12	12.6950	37.99	-22.01	60.00	27.58	10.20	0.21	QP	NEUTRAL

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

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.3955	35.99	-11.96	47.95	26.06	9.89	0.04	Average	LINE
2	0.3955	41.30	-16.65	57.95	31.37	9.89	0.04	QP	LINE
3	1.0997	27.13	-18.87	46.00	17.09	9.98	0.06	Average	LINE
4	1.0997	36.36	-19.64	56.00	26.32	9.98	0.06	QP	LINE
5	3.3814	27.14	-18.86	46.00	17.06	9.97	0.11	Average	LINE
6	3.3814	36.45	-19.55	56.00	26.37	9.97	0.11	QP	LINE
7	3.9602	27.59	-18.41	46.00	17.51	9.95	0.13	Average	LINE
8	3.9602	37.82	-18.18	56.00	27.74	9.95	0.13	QP	LINE
9	6.4258	32.96	-17.04	50.00	22.80	10.01	0.15	Average	LINE
10	6.4258	40.88	-19.12	60.00	30.72	10.01	0.15	QP	LINE
11	12.5156	30.83	-19.17	50.00	20.51	10.11	0.21	Average	LINE
12	12.5156	37.53	-22.47	60.00	27.21	10.11	0.21	QP	LINE

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

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	36.375M	19.015M	19M0D1D	19.675M	16.392M
5.725-5.85GHz	15.125M	21.639M	21M6D1D	15.05M	17.266M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	42.475M	18.416M	18M4D1D	37.15M	17.866M
5.725-5.85GHz	17.675M	29.71M	29M7D1D	15.4M	24.363M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	85.8M	39.63M	39M6D1D	68.45M	36.182M
5.725-5.85GHz	35M	52.474M	52M5D1D	33.75M	49.725M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	139M	76.262M	76M3D1D	106.4M	75.862M
5.725-5.85GHz	75M	83.758M	83M8D1D	72.6M	76.262M

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;

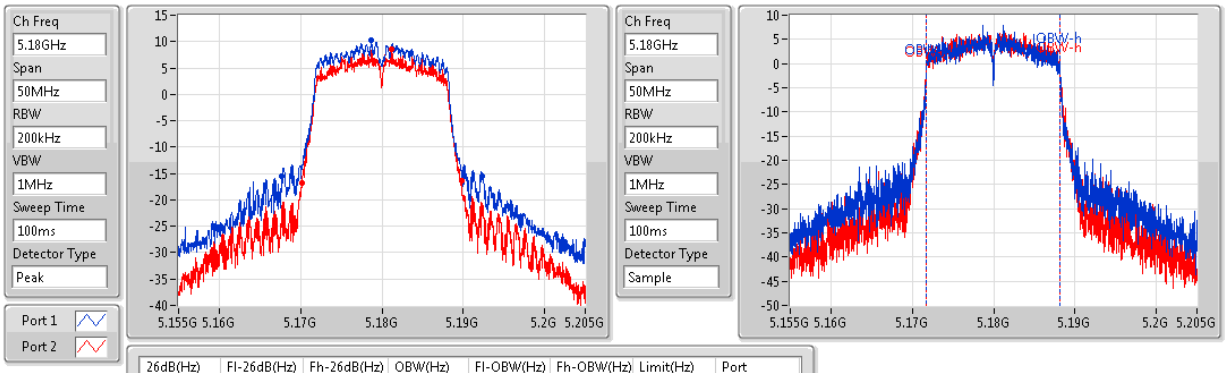
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	24.65M	16.392M	19.675M	16.417M
5200MHz	Pass	Inf	35.4M	17.266M	31.525M	16.542M
5240MHz	Pass	Inf	36.375M	19.015M	33.225M	16.717M
5745MHz	Pass	500k	15.075M	17.616M	15.125M	18.091M
5785MHz	Pass	500k	15.1M	21.639M	15.125M	21.514M
5825MHz	Pass	500k	15.075M	17.266M	15.05M	17.466M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	37.15M	17.866M	42.475M	18.416M
5200MHz	Pass	Inf	41.85M	17.991M	41.25M	18.266M
5240MHz	Pass	Inf	42.15M	17.941M	41.675M	18.141M
5745MHz	Pass	500k	17.55M	29.71M	15.975M	28.361M
5785MHz	Pass	500k	16.325M	27.136M	15.4M	24.363M
5825MHz	Pass	500k	17.675M	29.385M	17.125M	28.386M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	68.45M	36.332M	70.9M	36.182M
5230MHz	Pass	Inf	83.1M	36.982M	85.8M	39.63M
5755MHz	Pass	500k	33.75M	49.725M	35M	51.774M
5795MHz	Pass	500k	33.8M	52.474M	33.8M	50.675M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	139M	76.262M	106.4M	75.862M
5775MHz	Pass	500k	72.6M	83.758M	75M	76.262M

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

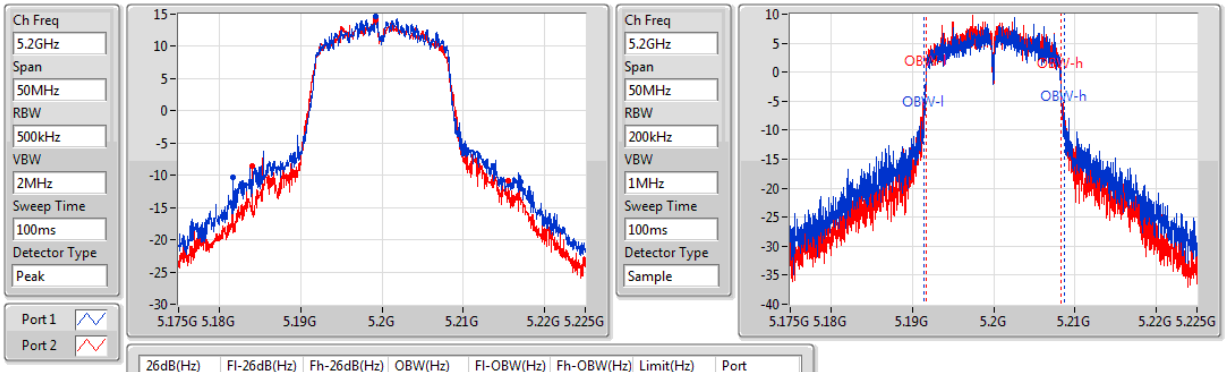
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
24.65M	5.1677G	5.19235G	16.392M	5.171754G	5.188146G	Inf	1
19.675M	5.170175G	5.18985G	16.417M	5.171729G	5.188146G	Inf	2

802.11a_(6Mbps)_2TX EBW

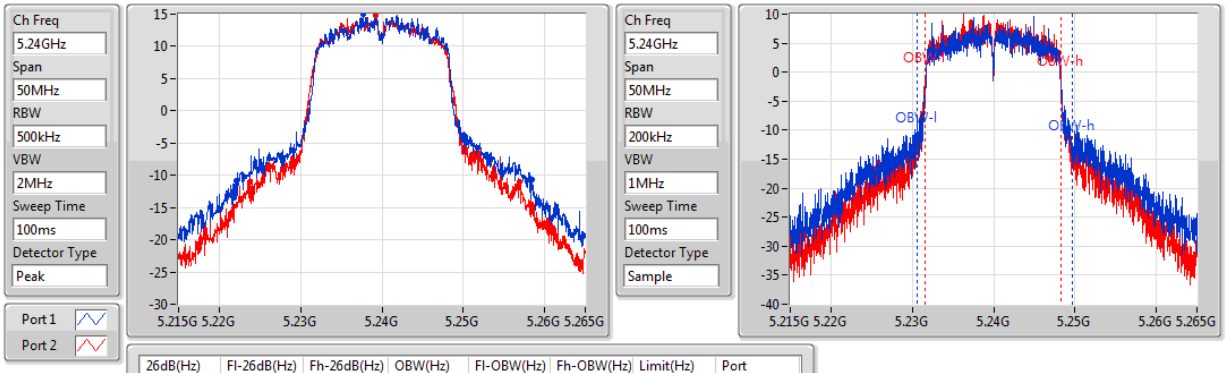
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.4M	5.181725G	5.217125G	17.266M	5.191404G	5.208671G	Inf	1
31.525M	5.18405G	5.215575G	16.542M	5.191704G	5.208246G	Inf	2

802.11a_(6Mbps)_2TX EBW

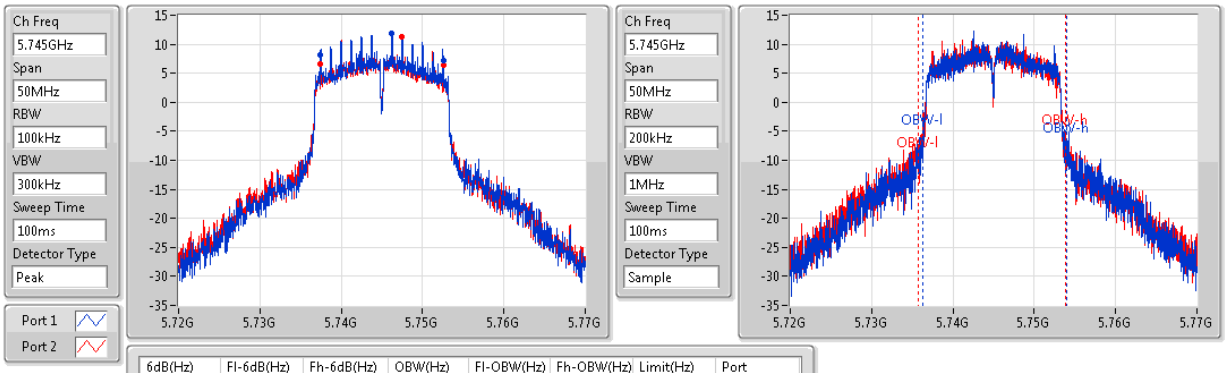
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.375M	5.22205G	5.258425G	19.015M	5.23063G	5.249645G	Inf	1
33.225M	5.223725G	5.25695G	16.717M	5.231579G	5.248296G	Inf	2

802.11a_(6Mbps)_2TX EBW

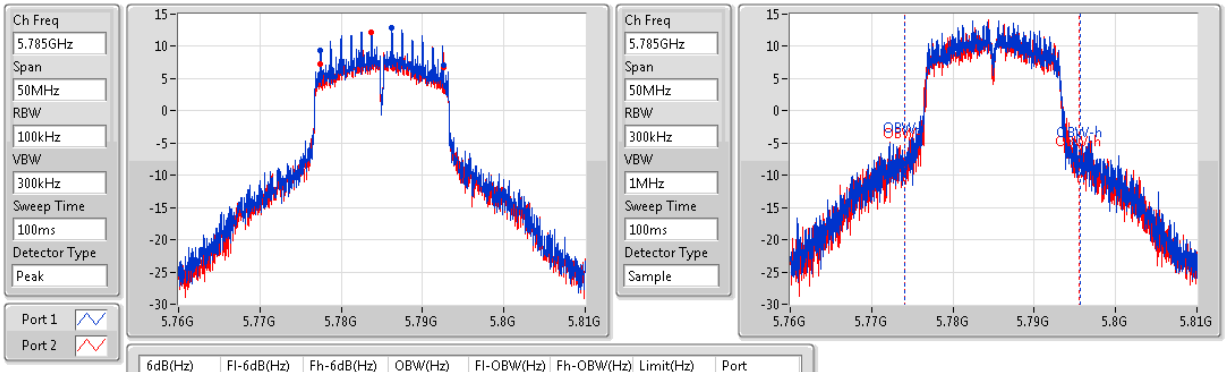
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.075M	5.73745G	5.752525G	17.616M	5.736329G	5.753946G	500k	1
15.125M	5.737425G	5.75255G	18.091M	5.735755G	5.753846G	500k	2

802.11a_(6Mbps)_2TX EBW

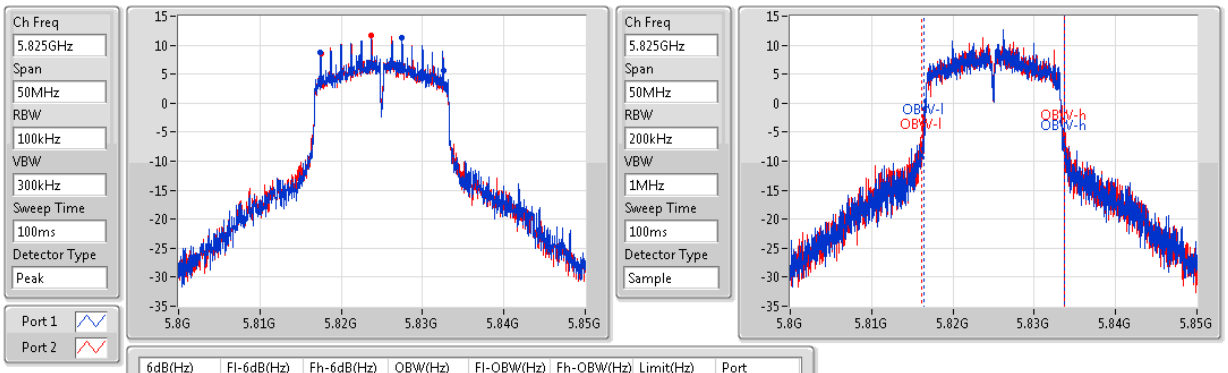
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.1M	5.77745G	5.79255G	21.639M	5.77408G	5.79572G	500k	1
15.125M	5.777425G	5.79255G	21.514M	5.77403G	5.795545G	500k	2

802.11a_(6Mbps)_2TX EBW

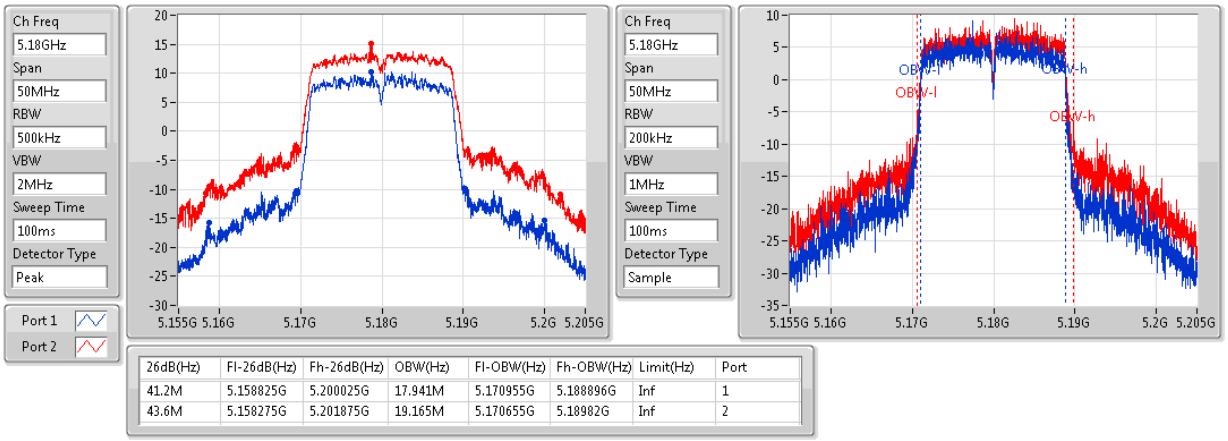
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.075M	5.817475G	5.83255G	17.266M	5.816379G	5.833646G	500k	1
15.05M	5.8175G	5.83255G	17.466M	5.816204G	5.833671G	500k	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

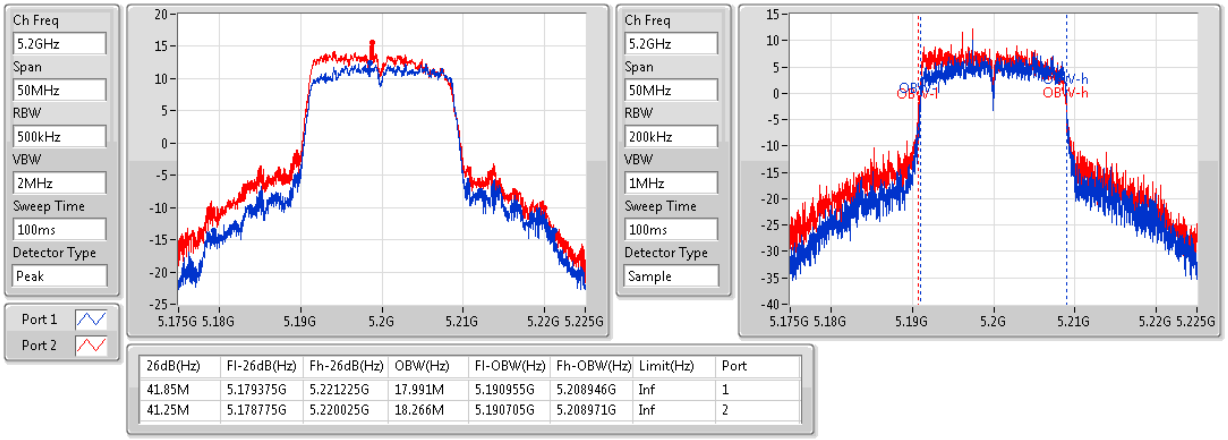
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.2M	5.158825G	5.200025G	17.941M	5.170955G	5.188896G	Inf	1
43.6M	5.158275G	5.201875G	19.165M	5.170655G	5.18982G	Inf	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

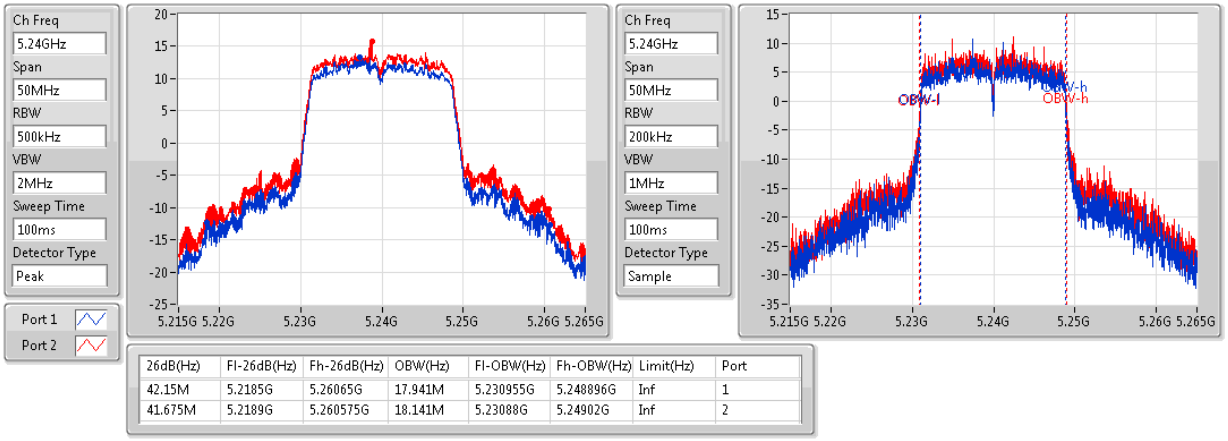
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.85M	5.179375G	5.221225G	17.991M	5.190955G	5.208946G	Inf	1
41.25M	5.178775G	5.220025G	18.266M	5.190705G	5.208971G	Inf	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

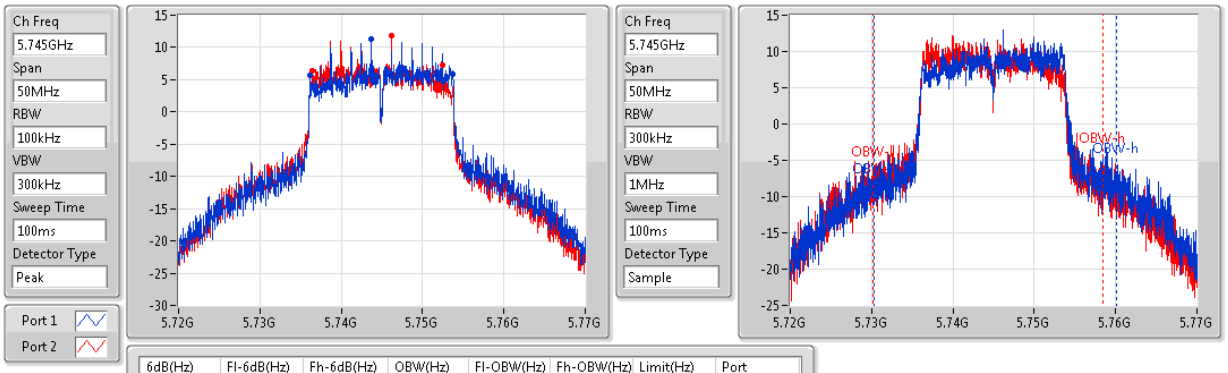
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.15M	5.2185G	5.26065G	17.941M	5.230955G	5.248896G	Inf	1
41.675M	5.2189G	5.260575G	18.141M	5.23088G	5.24902G	Inf	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

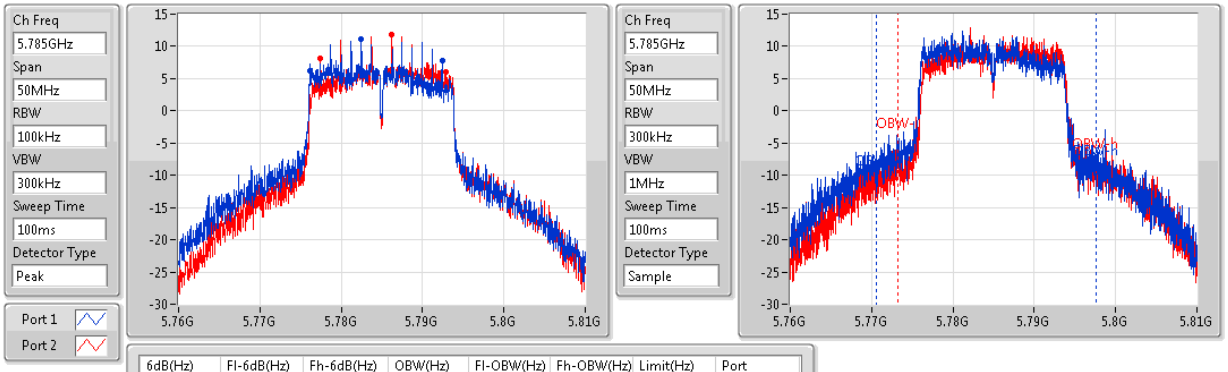
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	5.7362G	5.75375G	29.71M	5.730332G	5.760042G	500k	1
15.975M	5.736425G	5.7524G	28.361M	5.730107G	5.758468G	500k	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

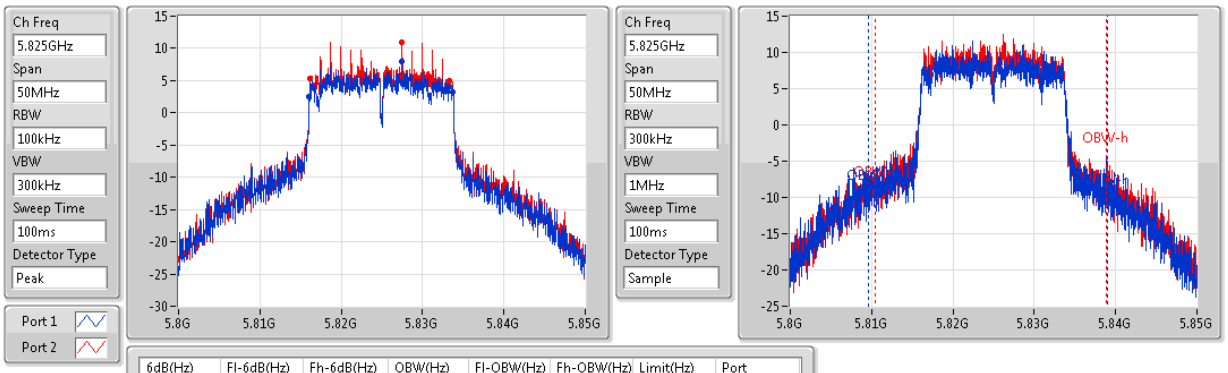
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	5.77615G	5.792475G	27.136M	5.770532G	5.797669G	500k	1
15.4M	5.777425G	5.792825G	24.363M	5.773231G	5.797594G	500k	2

802.11ac VHT20-BF_Nss1,(MCS0)_2TX EBW

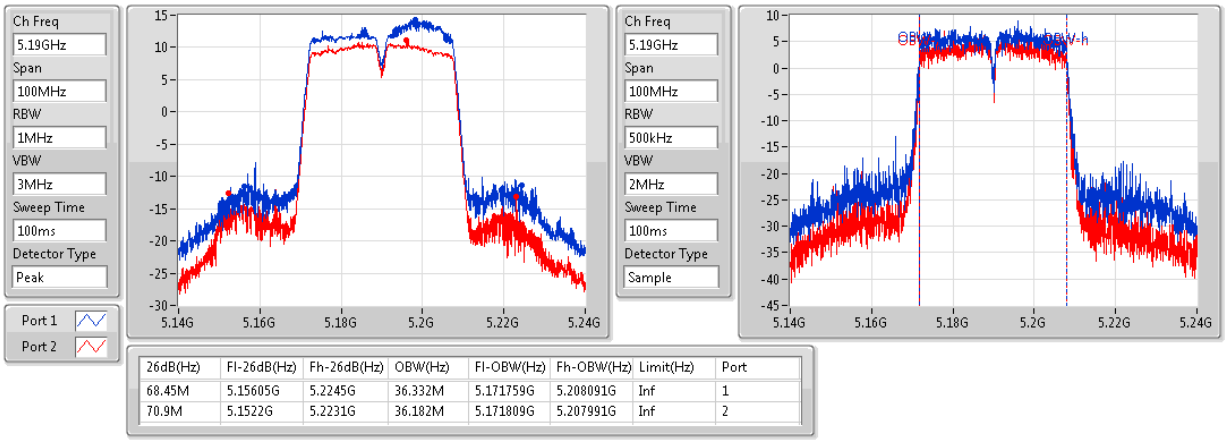
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.675M	5.816075G	5.83375G	29.385M	5.809558G	5.838943G	500k	1
17.125M	5.8162G	5.833325G	28.386M	5.810457G	5.838843G	500k	2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX EBW

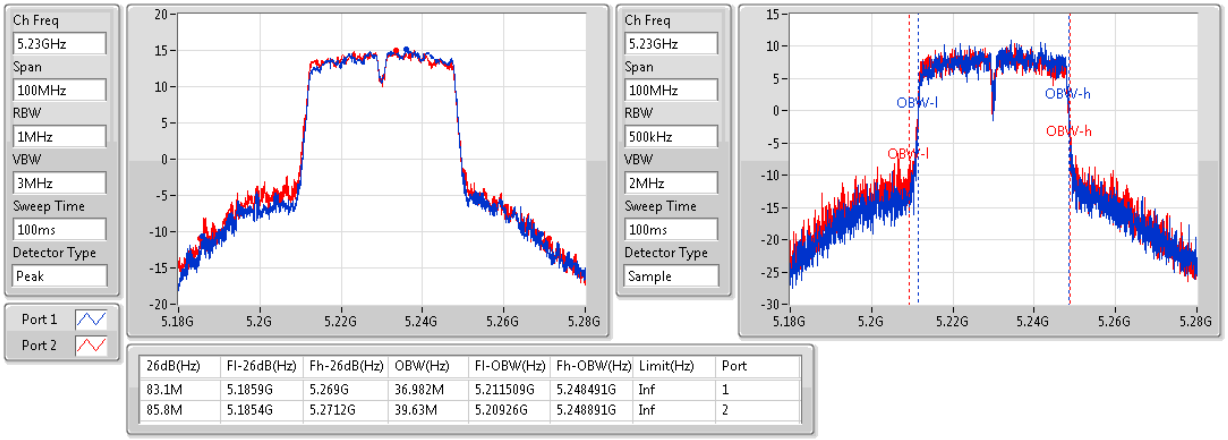
5190MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
68.45M	5.15605G	5.2245G	36.332M	5.171759G	5.208091G	Inf	1
70.9M	5.1522G	5.2231G	36.182M	5.171809G	5.207991G	Inf	2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX EBW

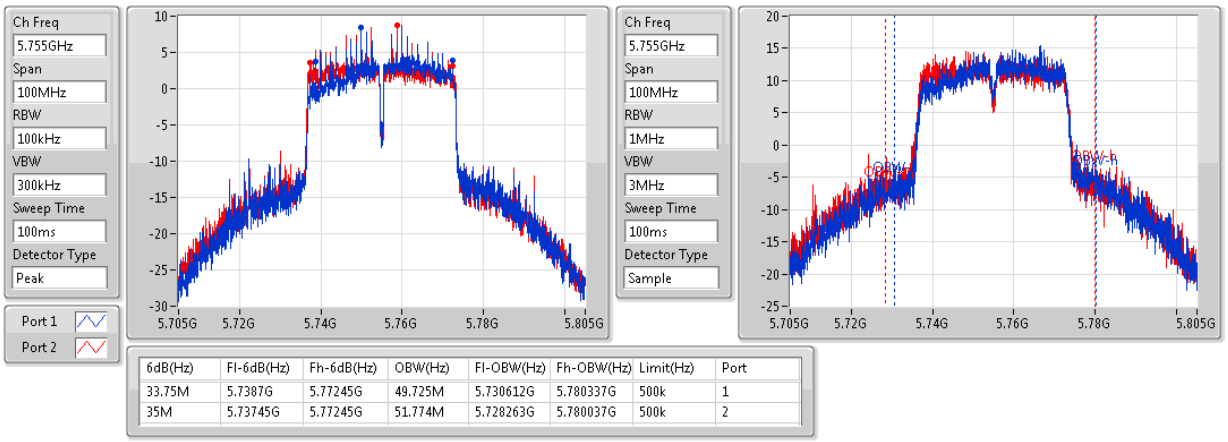
5230MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
83.1M	5.1859G	5.269G	36.982M	5.211509G	5.248491G	Inf	1
85.8M	5.1854G	5.2712G	39.63M	5.20926G	5.248891G	Inf	2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX EBW

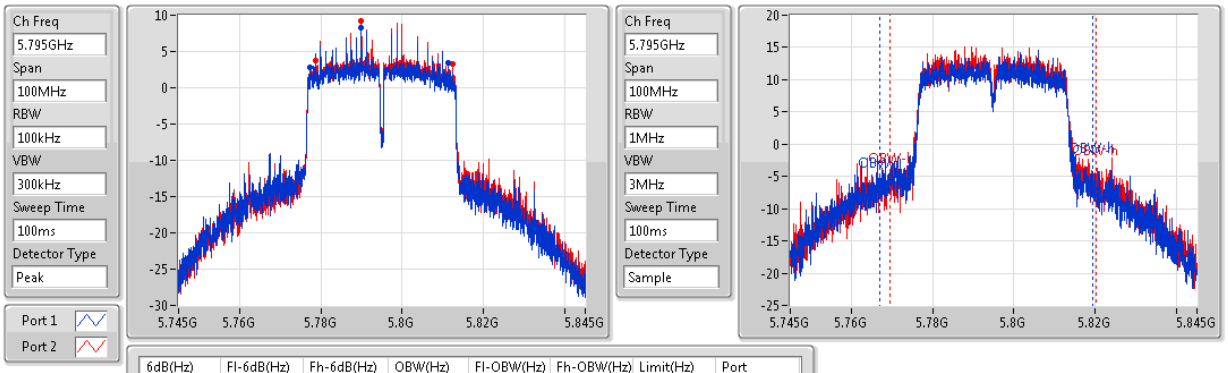
5755MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.75M	5.7387G	5.77245G	49.725M	5.730612G	5.780337G	500k	1
35M	5.73745G	5.77245G	51.774M	5.728263G	5.780037G	500k	2

802.11ac VHT40-BF_Nss1,(MCS0)_2TX EBW

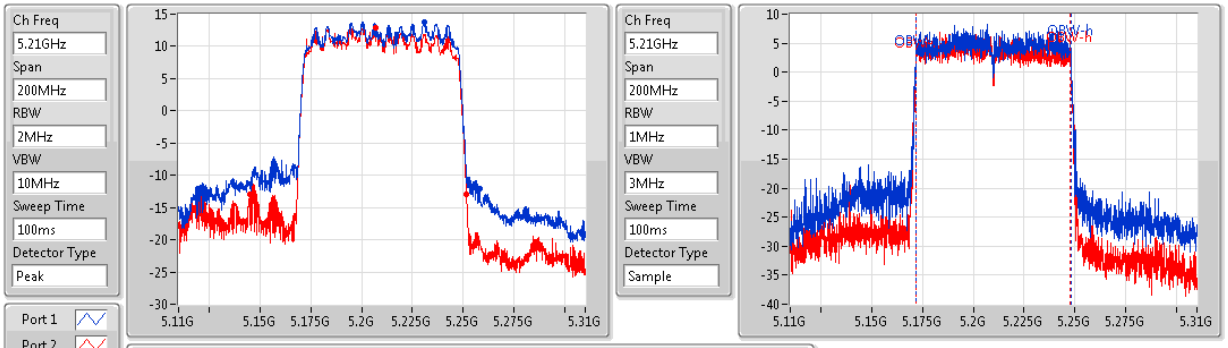
5795MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.8M	5.7774G	5.8112G	52.474M	5.767014G	5.819488G	500k	1
33.8M	5.77865G	5.81245G	50.675M	5.769463G	5.820137G	500k	2

802.11ac VHT80-BF_Nss1,(MCS0)_2TX EBW

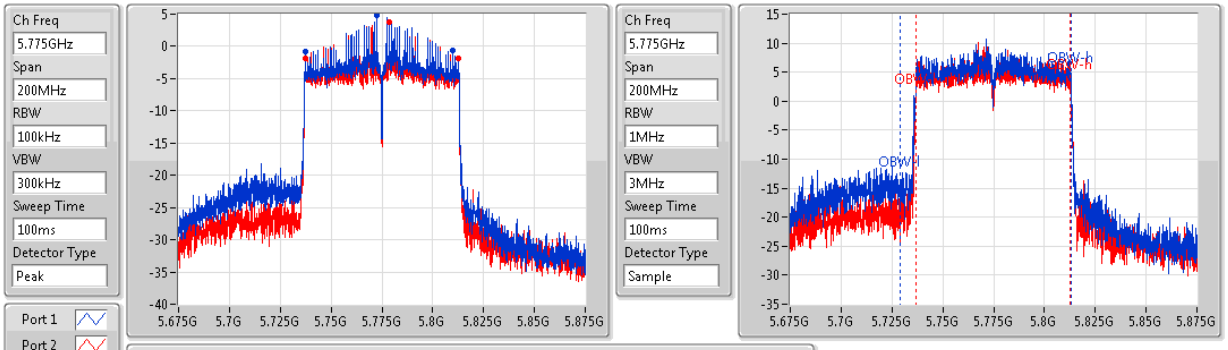
5210MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
139M	5.1193G	5.2583G	76.262M	5.171719G	5.247981G	Inf	1
106.4M	5.1451G	5.2515G	75.862M	5.171919G	5.247781G	Inf	2

802.11ac VHT80-BF_Nss1,(MCS0)_2TX EBW

5775MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
72.6M	5.7374G	5.81G	83.758M	5.729223G	5.812981G	500k	1
75M	5.7375G	5.8125G	76.262M	5.736619G	5.812881G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
802.11a_(6Mbps)_2TX	-	-	-	-
5.15-5.25GHz	24.27	0.26730	28.07	0.64121
5.725-5.85GHz	24.97	0.31405	28.77	0.75336
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	23.57	0.22751	30.08	1.01859
5.725-5.85GHz	24.99	0.31550	31.50	1.41254
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	24.26	0.26669	30.77	1.19399
5.725-5.85GHz	24.93	0.31117	31.44	1.39316
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	20.88	0.12246	27.39	0.54828
5.725-5.85GHz	21.92	0.15560	28.43	0.69663

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.80	17.19	17.39	20.30	30.00	24.10	36.00
5200MHz	Pass	3.80	20.22	19.82	23.03	30.00	26.83	36.00
5240MHz	Pass	3.80	21.34	21.17	24.27	30.00	28.07	36.00
5745MHz	Pass	3.80	21.47	21.31	24.40	30.00	28.20	36.00
5785MHz	Pass	3.80	22.16	21.75	24.97	30.00	28.77	36.00
5825MHz	Pass	3.80	21.06	21.02	24.05	30.00	27.85	36.00
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.51	19.46	20.77	23.17	29.49	29.69	36.00
5200MHz	Pass	6.51	19.60	21.31	23.55	29.49	30.06	36.00
5240MHz	Pass	6.51	19.97	21.08	23.57	29.49	30.08	36.00
5745MHz	Pass	6.51	21.90	22.06	24.99	29.49	31.50	36.00
5785MHz	Pass	6.51	21.83	21.80	24.83	29.49	31.34	36.00
5825MHz	Pass	6.51	21.00	21.84	24.45	29.49	30.96	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.51	19.07	17.11	21.21	29.49	27.72	36.00
5230MHz	Pass	6.51	21.32	21.18	24.26	29.49	30.77	36.00
5755MHz	Pass	6.51	21.83	22.00	24.93	29.49	31.44	36.00
5795MHz	Pass	6.51	21.61	22.19	24.92	29.49	31.43	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.51	18.34	17.35	20.88	29.49	27.39	36.00
5775MHz	Pass	6.51	19.28	18.51	21.92	29.49	28.43	36.00

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

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
802.11a_(6Mbps)_2TX	-	-
5.15-5.25GHz	12.16	18.67
5.725-5.85GHz	12.01	18.52
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	10.36	16.87
5.725-5.85GHz	9.87	16.38
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	8.15	14.66
5.725-5.85GHz	6.95	13.46
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	1.37	7.88
5.725-5.85GHz	1.15	7.66

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

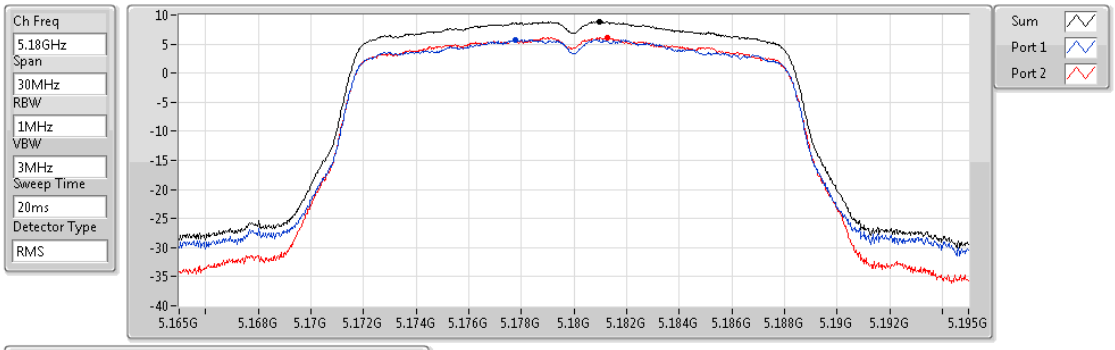
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.51	5.75	6.10	8.86	16.49	15.37	Inf
5200MHz	Pass	6.51	7.48	8.14	10.75	16.49	17.26	Inf
5240MHz	Pass	6.51	8.46	9.74	12.16	16.49	18.67	Inf
5745MHz	Pass	6.51	8.41	8.34	11.32	29.49	17.83	Inf
5785MHz	Pass	6.51	9.36	8.99	12.01	29.49	18.52	Inf
5825MHz	Pass	6.51	8.24	8.32	11.18	29.49	17.69	Inf
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.51	6.38	7.02	9.62	16.49	16.13	Inf
5200MHz	Pass	6.51	6.23	8.02	10.06	16.49	16.57	Inf
5240MHz	Pass	6.51	7.33	7.81	10.36	16.49	16.87	Inf
5745MHz	Pass	6.51	7.36	7.41	9.87	29.49	16.38	Inf
5785MHz	Pass	6.51	7.12	7.01	9.50	29.49	16.01	Inf
5825MHz	Pass	6.51	6.08	6.80	9.39	29.49	15.90	Inf
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.51	2.31	0.86	4.60	16.49	11.11	Inf
5230MHz	Pass	6.51	5.74	4.94	8.15	16.49	14.66	Inf
5755MHz	Pass	6.51	4.30	3.83	6.95	29.49	13.46	Inf
5795MHz	Pass	6.51	3.63	4.12	6.65	29.49	13.16	Inf
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.51	-1.13	-2.21	1.37	16.49	7.88	Inf
5775MHz	Pass	6.51	-1.34	-2.42	1.15	29.49	7.66	Inf

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**

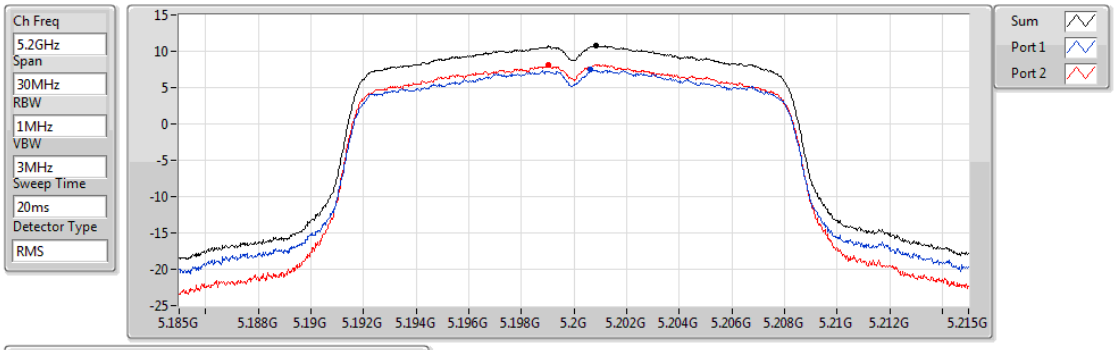
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.86	8.86	5.75	6.10

802.11a_(6Mbps)_2TX **PSD**

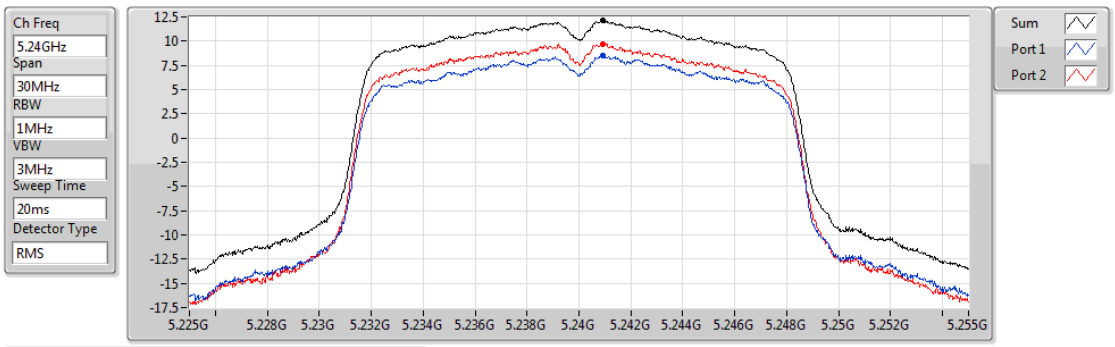
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.75	10.75	7.48	8.14

802.11a_(6Mbps)_2TX **PSD**

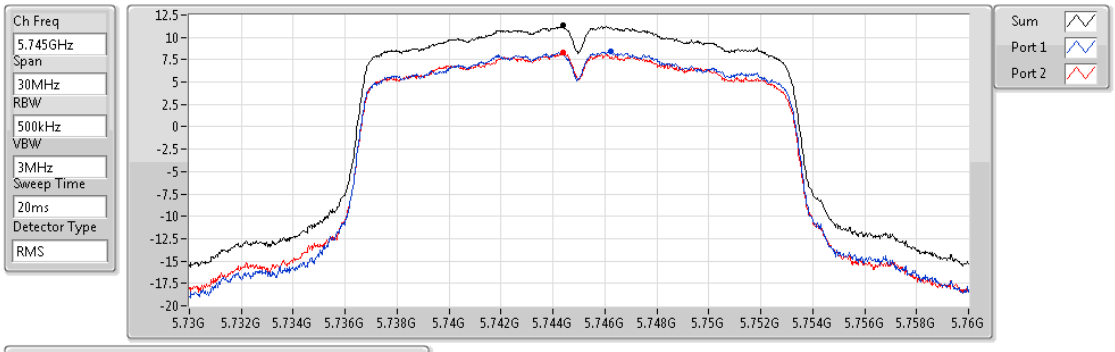
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.16	12.16	8.46	9.74

802.11a_(6Mbps)_2TX **PSD**

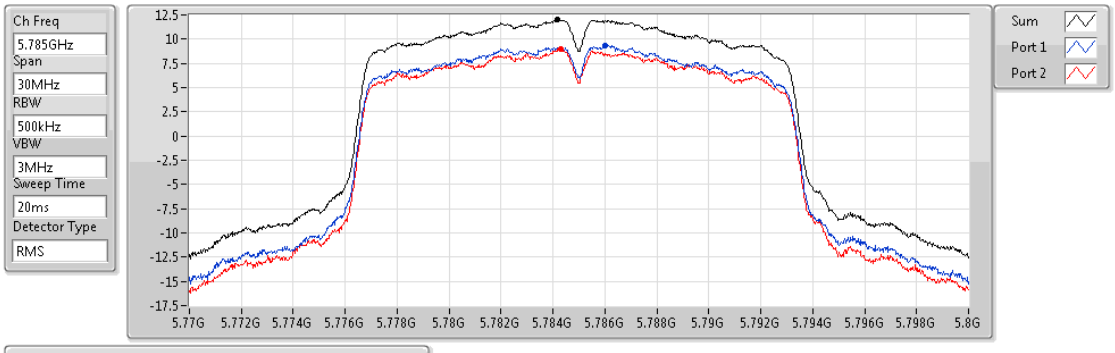
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.32	11.32	8.41	8.34

802.11a_(6Mbps)_2TX **PSD**

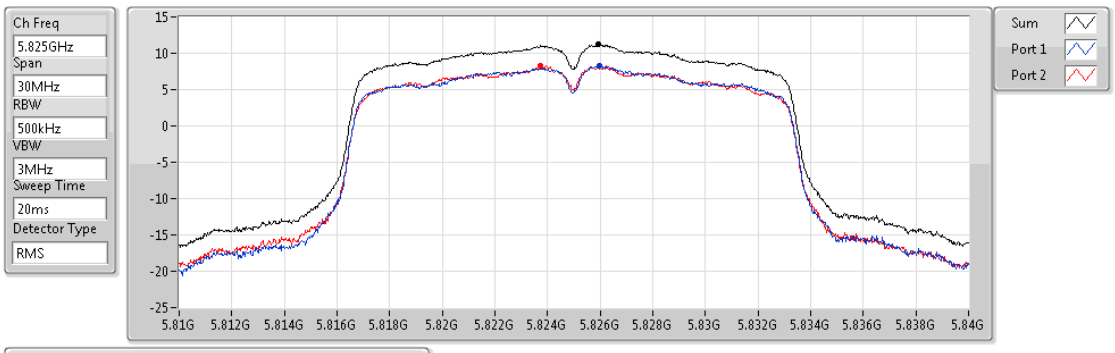
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.01	12.01	9.36	8.99

802.11a_(6Mbps)_2TX **PSD**

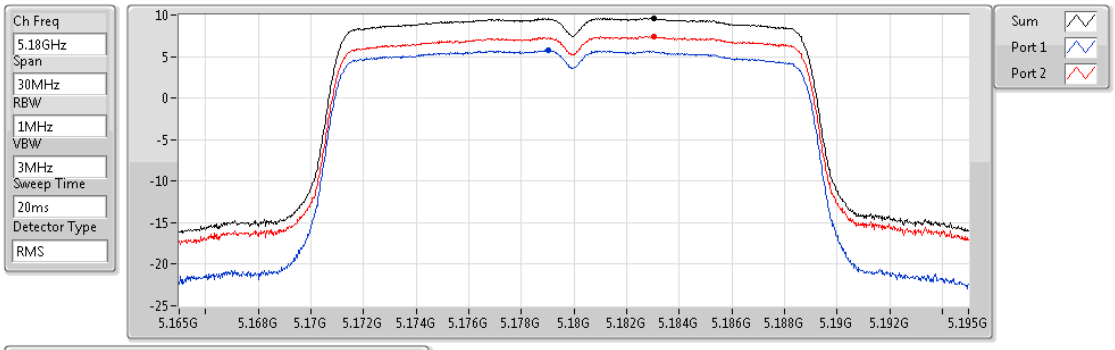
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.18	11.18	8.24	8.32

802.11ac VHT20-BF_Nss1,(MCS0)_2TX PSD

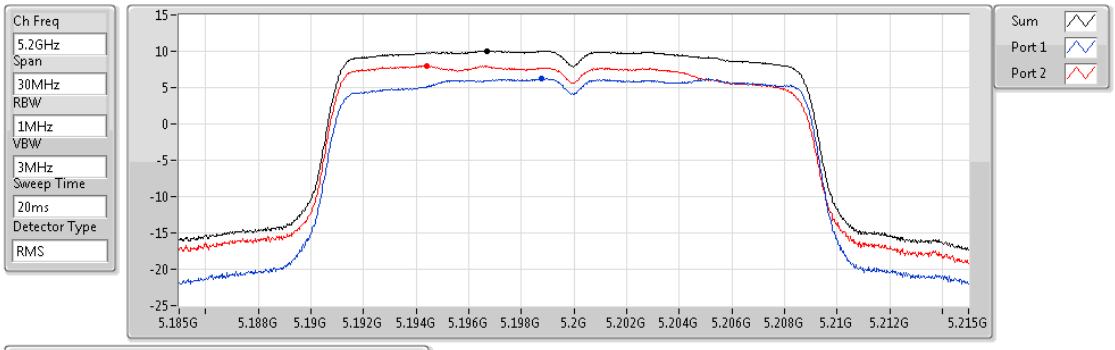
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.64	9.64	5.79	7.43

802.11ac VHT20-BF_Nss1,(MCS0)_2TX PSD

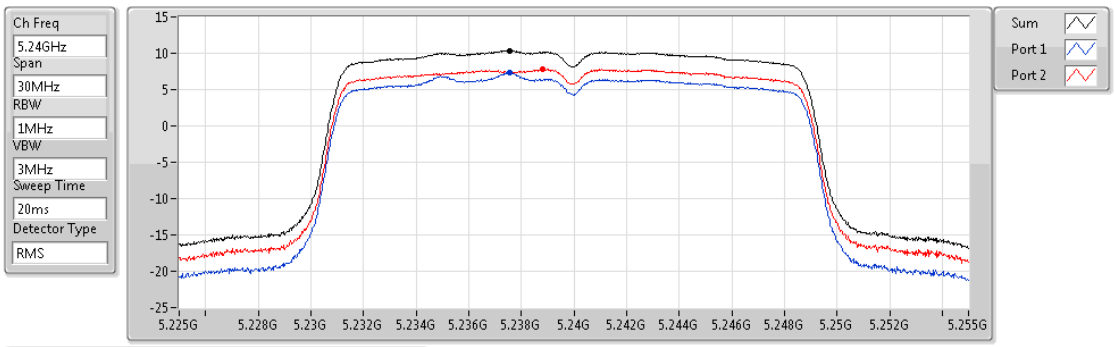
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.06	10.06	6.23	8.02

802.11ac VHT20-BF_Nss1,(MCS0)_2TX PSD

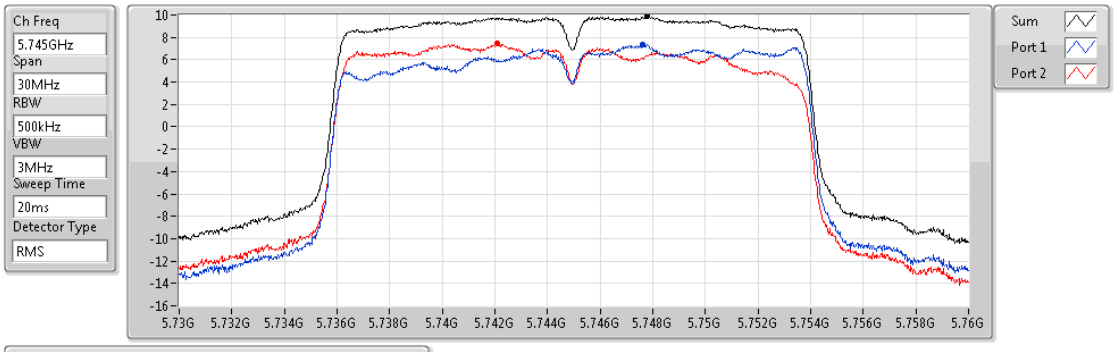
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.36	10.36	7.33	7.81

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

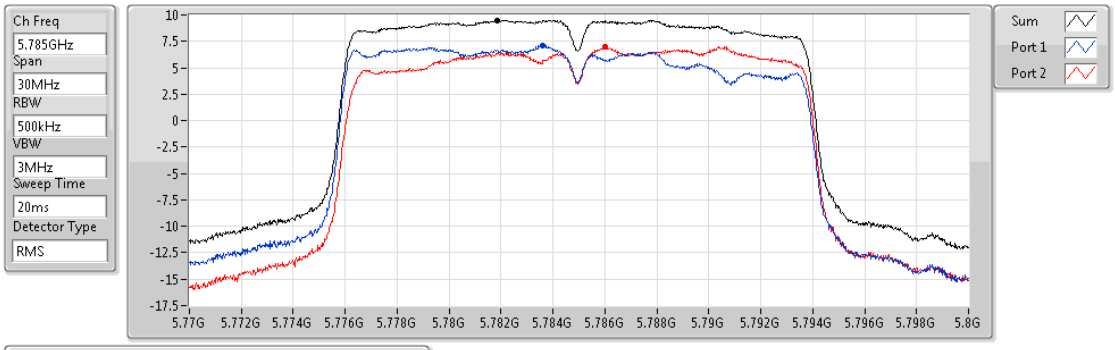
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.87	9.87	7.36	7.41

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

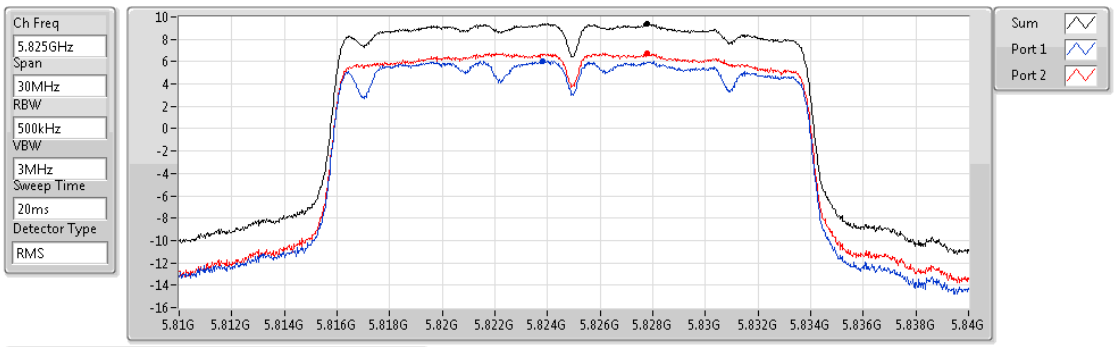
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.50	9.50	7.12	7.01

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

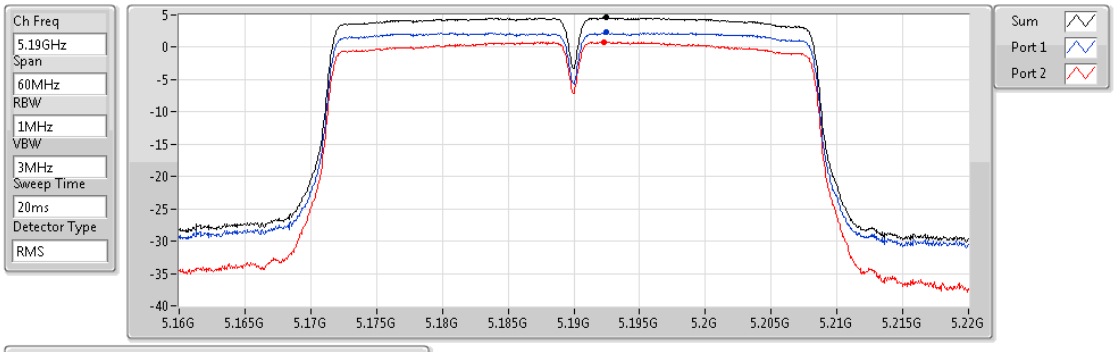
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.39	9.39	6.08	6.80

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

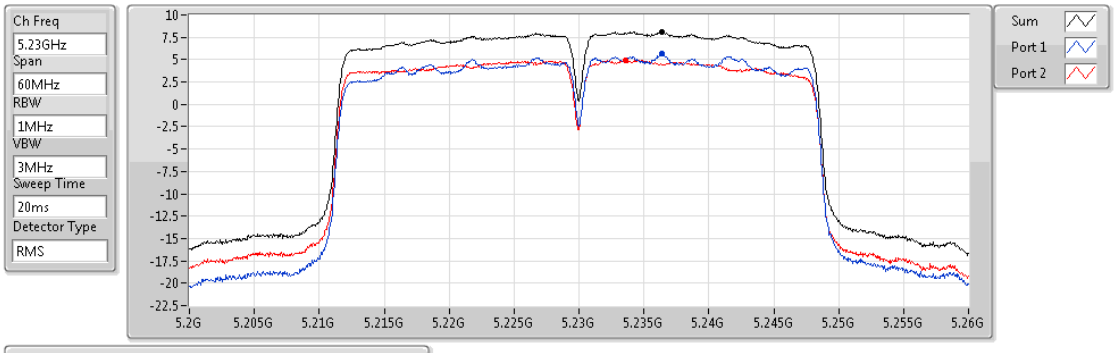
5190MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.60	4.60	2.31	0.86

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

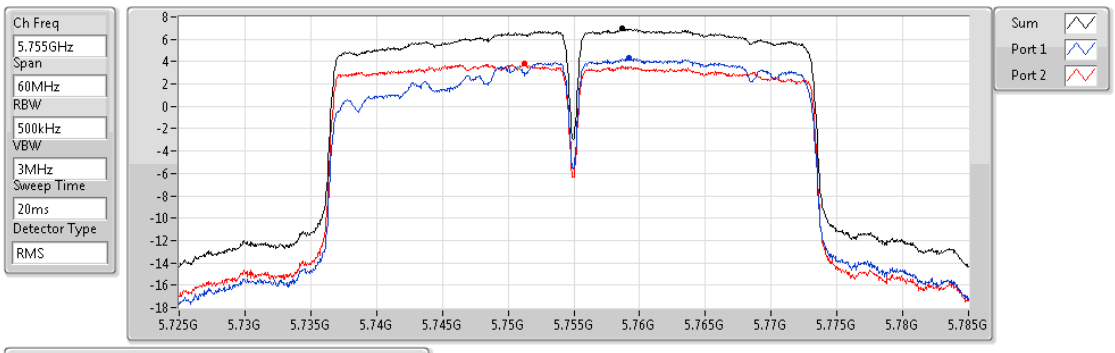
5230MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.15	8.15	5.74	4.94

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

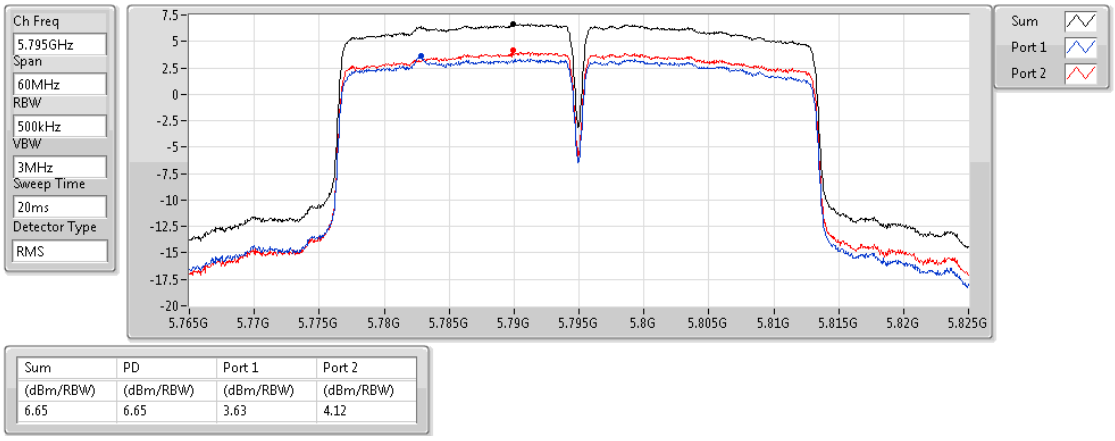
5755MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.95	6.95	4.30	3.83

802.11ac VHT40-BF_Nss1,(MCS0)_2TX PSD

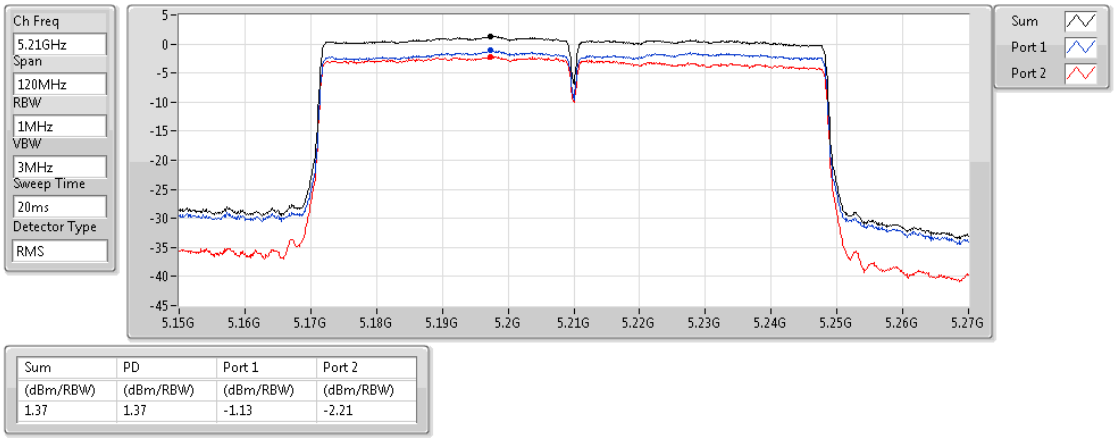
5795MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.65	6.65	3.63	4.12

802.11ac VHT80-BF_Nss1,(MCS0)_2TX PSD

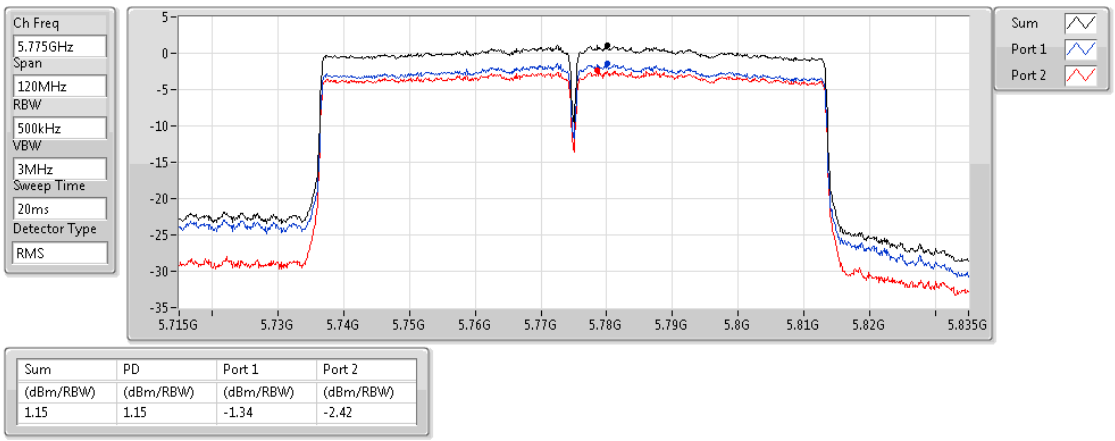
5210MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.37	1.37	-1.13	-2.21

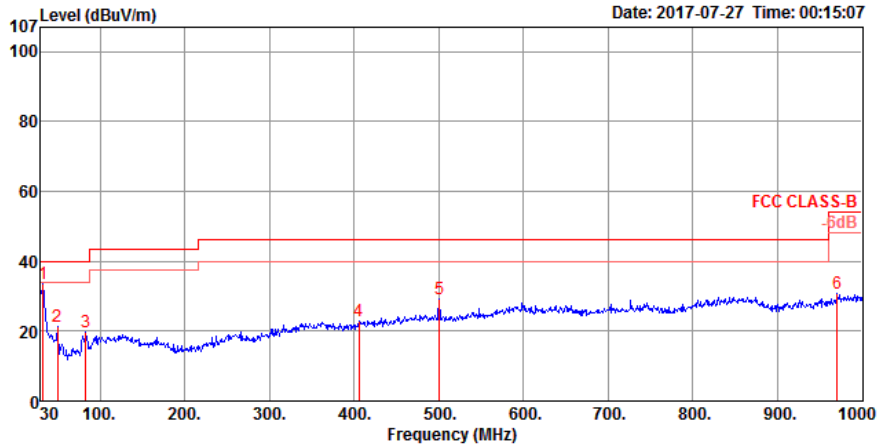
802.11ac VHT80-BF_Nss1,(MCS0)_2TX PSD

5775MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.15	1.15	-1.34	-2.42

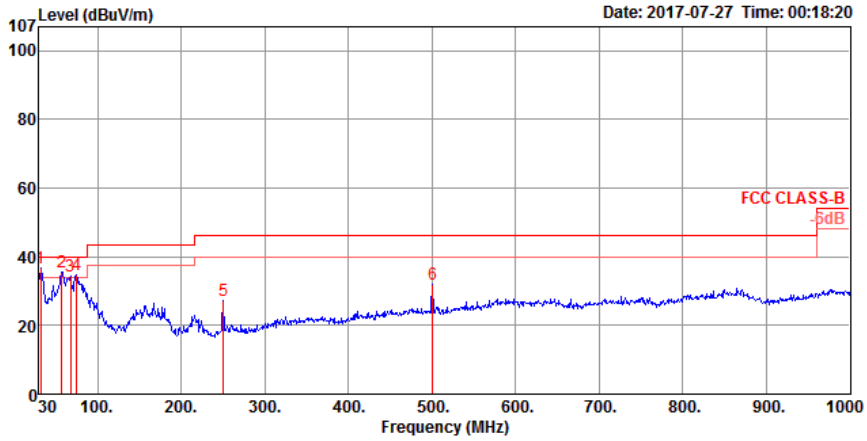
RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	32.91	33.68	40.00	-6.32	43.06	0.53	22.62	32.53	150	347	Peak	HORIZONTAL
2	49.40	21.15	40.00	-18.85	38.95	0.61	14.09	32.50	100	245	Peak	HORIZONTAL
3	83.35	19.65	40.00	-20.35	38.12	0.75	13.32	32.54	100	127	Peak	HORIZONTAL
4	405.39	22.76	46.00	-23.24	31.96	1.55	21.70	32.45	200	344	Peak	HORIZONTAL
5	500.45	29.16	46.00	-16.84	36.58	1.76	23.31	32.49	100	35	Peak	HORIZONTAL
6	970.90	30.76	54.00	-23.24	32.39	2.46	27.08	31.17	150	243	Peak	HORIZONTAL

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

RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Vertical
Operating Function	Normal Link		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	31.94	36.72	40.00	-3.28	45.53	0.53	23.19	32.53	150	292	Peak	VERTICAL
2	57.16	35.44	40.00	-4.56	54.77	0.61	12.57	32.51	100	184	Peak	VERTICAL
3	67.83	34.37	40.00	-5.63	53.89	0.69	12.32	32.53	100	78	Peak	VERTICAL
4	74.62	34.83	40.00	-5.17	54.45	0.75	12.16	32.53	200	157	Peak	VERTICAL
5	250.19	27.11	46.00	-18.89	39.94	1.25	18.38	32.46	100	29	Peak	VERTICAL
6	500.45	31.82	46.00	-14.18	39.24	1.76	23.31	32.49	100	283	Peak	VERTICAL

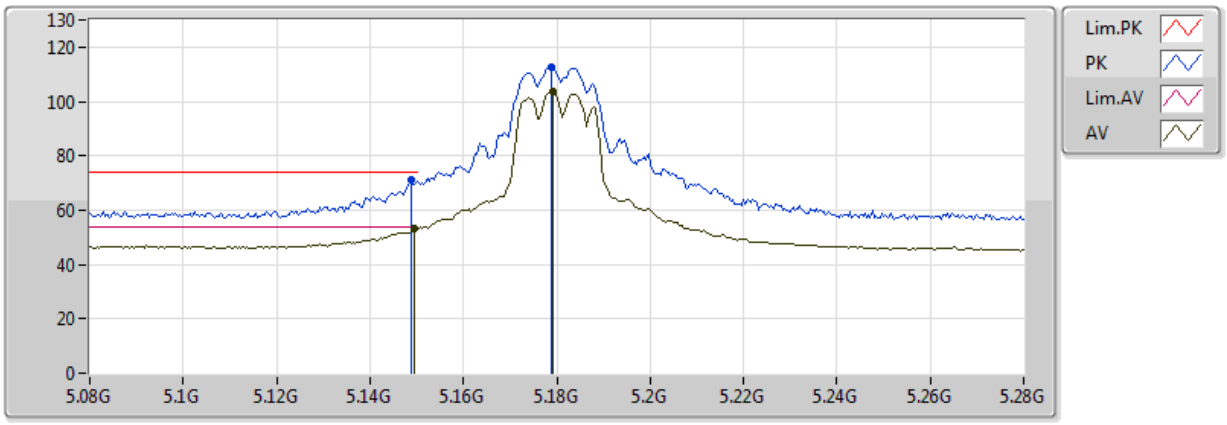
Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

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
802.11a_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.725-5.85GHz	Pass	AV	11.56928G	53.89	54.00	-0.11	16.18	3	V	228	2.07	-

802.11a_(6Mbps)_2TX

5180MHz_TX

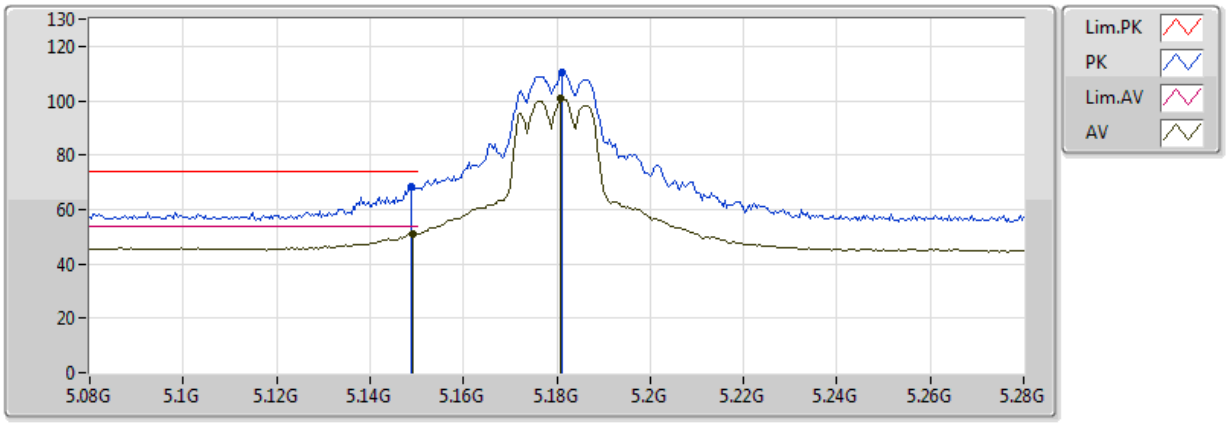


20170704
EUT Z_2TX
Setting 1C
01-O-1-10
FSP(100056)

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	53.11	54.00	-0.89	4.27	3	V	299	1.10	-
AV	5.1792G	103.82	Inf	-Inf	4.33	3	V	299	1.10	-
PK	5.1488G	71.02	74.00	-2.98	4.27	3	V	299	1.10	-
PK	5.1788G	112.82	Inf	-Inf	4.33	3	V	299	1.10	-

802.11a_(6Mbps)_2TX

5180MHz_TX

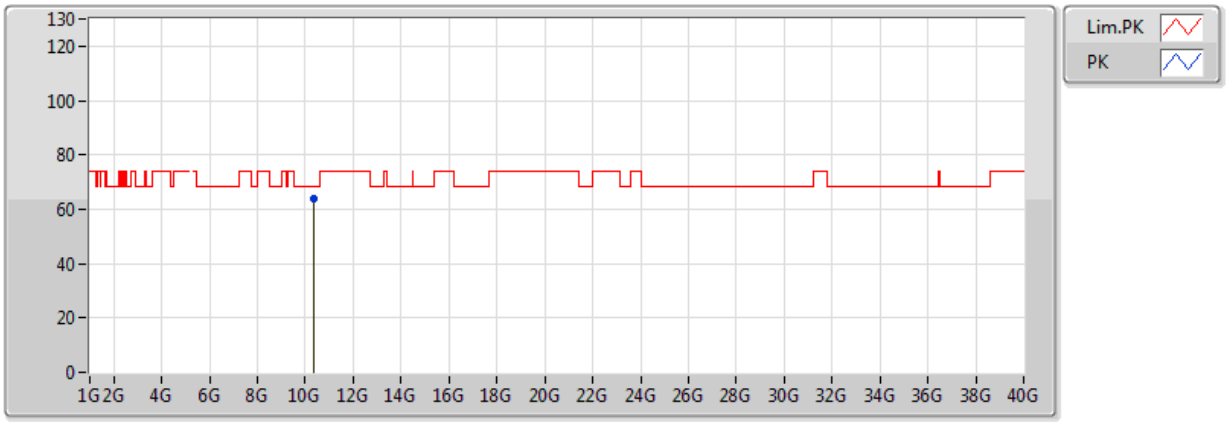


20170704
EUT Z_2TX
Setting 1C
01-O-1-10
FSP(100056)

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	51.08	54.00	-2.92	4.27	3	H	359	1.14	-
AV	5.1808G	100.69	Inf	-Inf	4.34	3	H	359	1.14	-
PK	5.1488G	68.23	74.00	-5.77	4.27	3	H	359	1.14	-
PK	5.1812G	110.37	Inf	-Inf	4.34	3	H	359	1.14	-

802.11a_(6Mbps)_2TX

5180MHz_TX

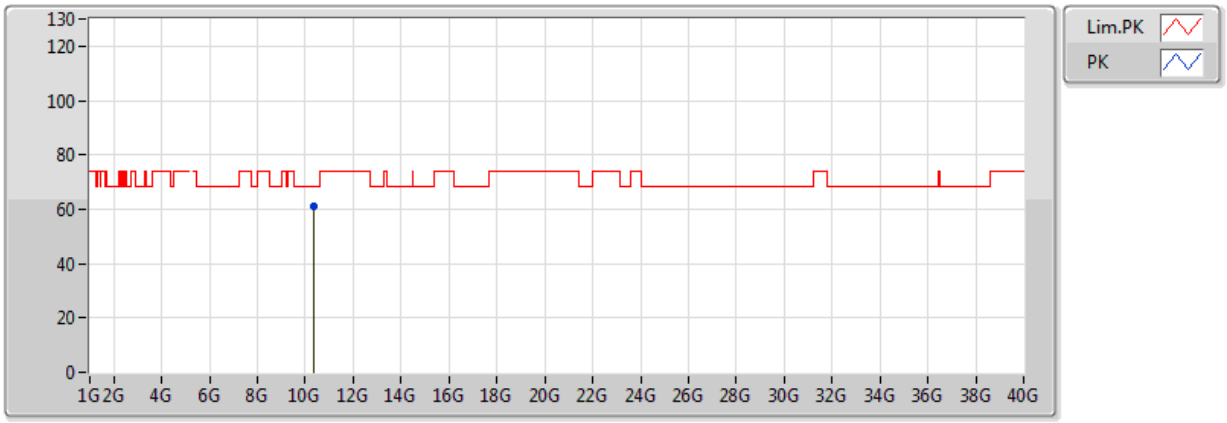


20170704
EUT Z_2TX
Setting 1C
01-O-1
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	10.35977G	64.01	68.20	-4.19	11.08	3	V	130	1.14	-

802.11a_(6Mbps)_2TX

5180MHz_TX

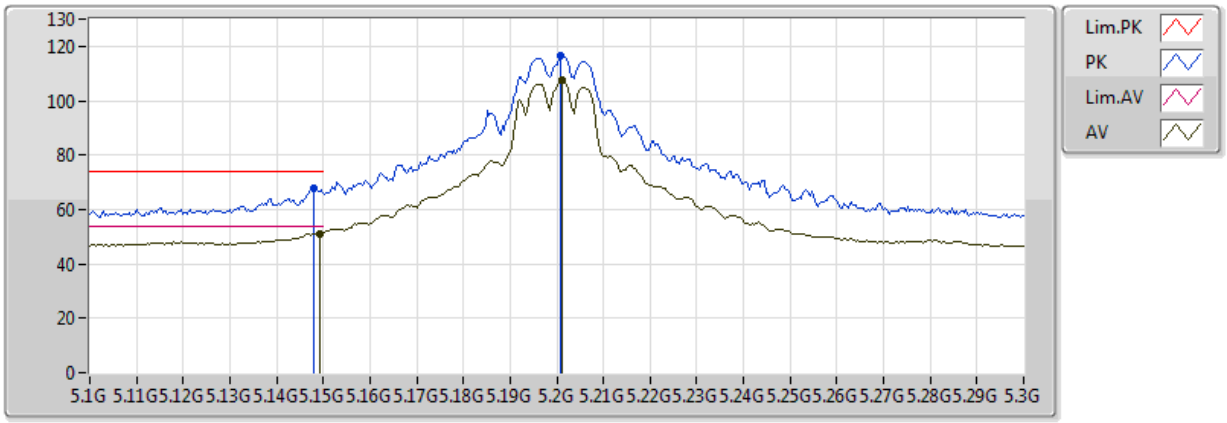


20170704
EUT Z_2TX
Setting 1C
01-O-1
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	10.36137G	61.22	68.20	-6.98	11.08	3	H	233	1.13	-

802.11a_(6Mbps)_2TX

5200MHz_TX

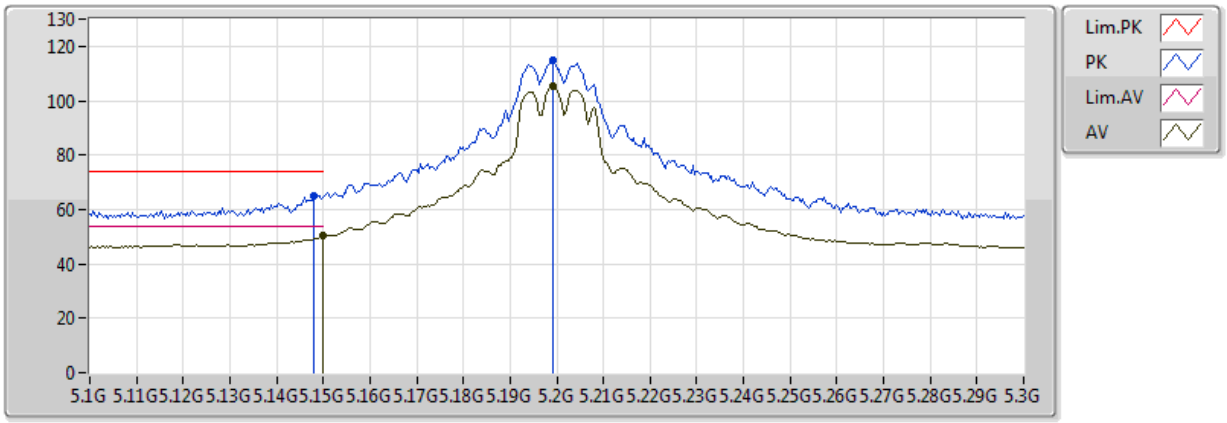


20170602
EUT Z_2TX
Setting 23
01-J-5-10
FSP(100080)

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	51.05	54.00	-2.95	4.27	3	V	264	1.06	-
AV	5.2012G	107.43	Inf	-Inf	4.38	3	V	264	1.06	-
PK	5.148G	67.91	74.00	-6.09	4.27	3	V	264	1.06	-
PK	5.2008G	116.59	Inf	-Inf	4.38	3	V	264	1.06	-

802.11a_(6Mbps)_2TX

5200MHz_TX

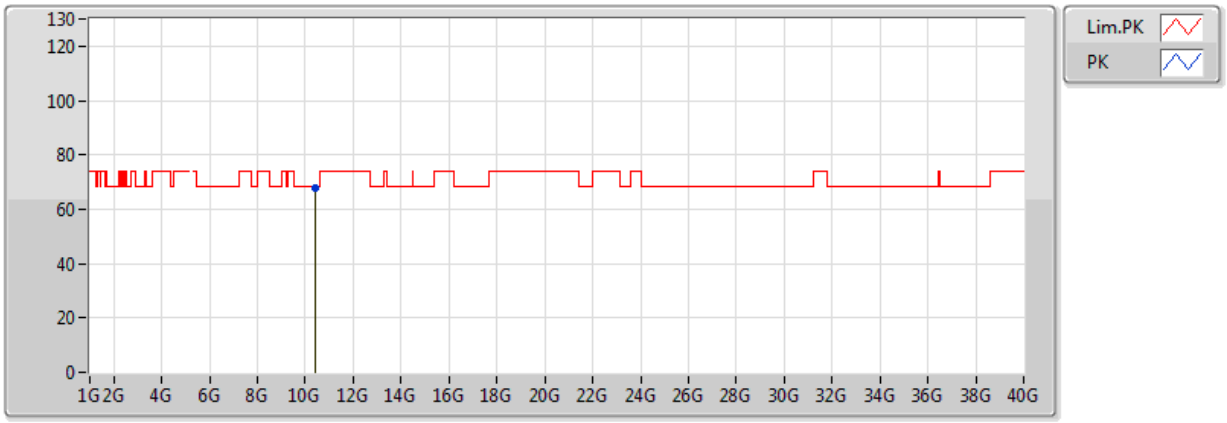


20170602
EUT Z_2TX
Setting 23
01-J-5-10
FSP(100080)

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	50.44	54.00	-3.56	4.27	3	H	353	1.01	-
AV	5.1992G	105.44	Inf	-Inf	4.38	3	H	353	1.01	-
PK	5.148G	65.18	74.00	-8.82	4.27	3	H	353	1.01	-
PK	5.1992G	114.60	Inf	-Inf	4.38	3	H	353	1.01	-

802.11a_(6Mbps)_2TX

5200MHz_TX

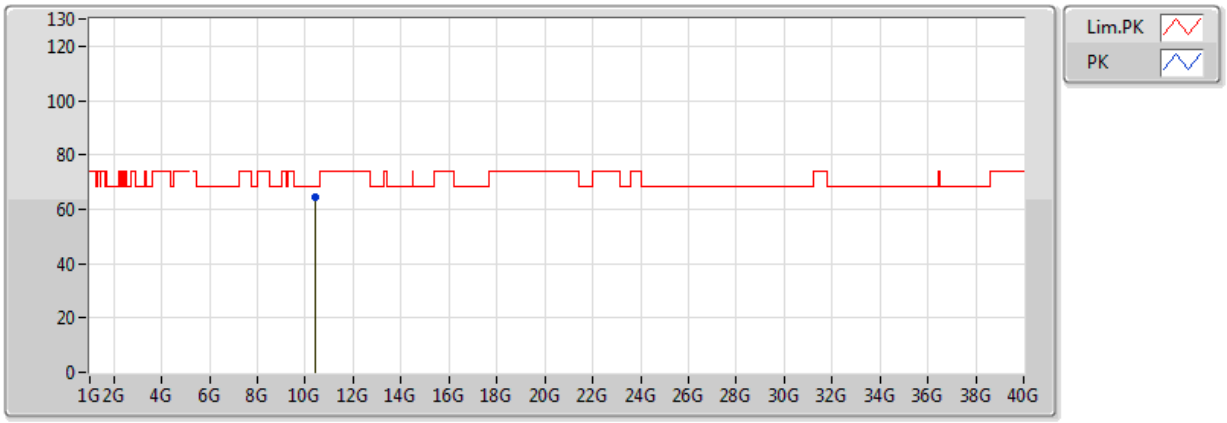


20170602
EUT Z_2TX
Setting 23
01-J-5
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	10.39634G	67.92	68.20	-0.28	11.12	3	V	129	1.28	-

802.11a_(6Mbps)_2TX

5200MHz_TX

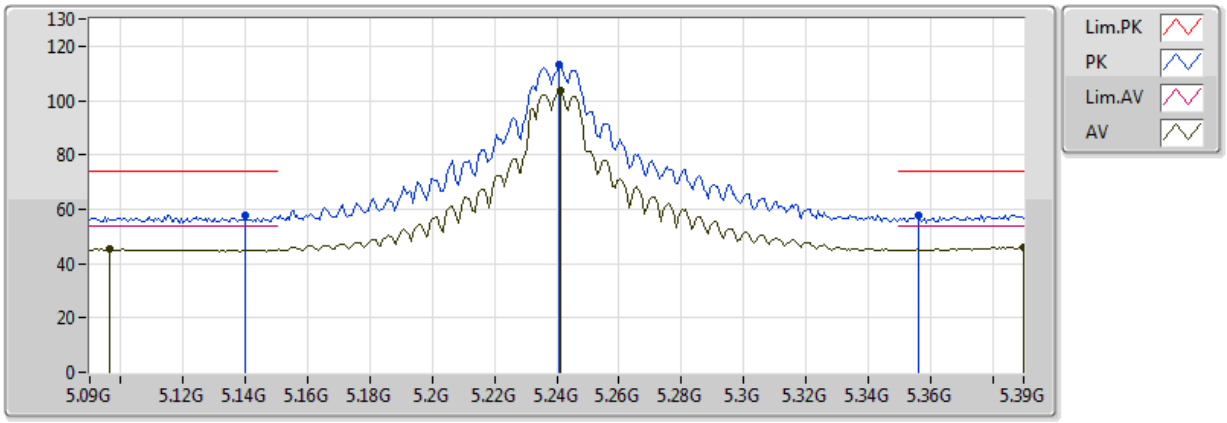


20170602
EUT Z_2TX
Setting 23
01-J-5
FSP(100080)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	10.40048G	64.25	68.20	-3.95	11.12	3	H	235	1.17	-

802.11a_(6Mbps)_2TX

5240MHz_TX

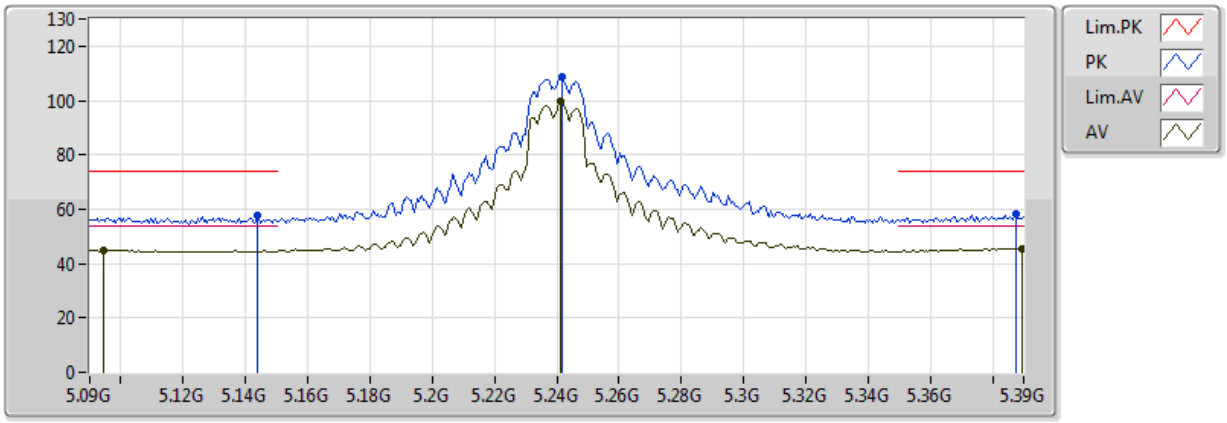


20170708
EUT Z_2TX
Setting 2B
04-N-2-10
FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.0966G	45.52	54.00	-8.48	5.13	3	V	91	1.03	-
AV	5.2412G	103.83	Inf	-Inf	5.54	3	V	91	1.03	-
AV	5.39G	45.97	54.00	-8.03	5.69	3	V	91	1.03	-
PK	5.1398G	57.84	74.00	-16.16	5.28	3	V	91	1.03	-
PK	5.2406G	113.21	Inf	-Inf	5.53	3	V	91	1.03	-
PK	5.3564G	57.90	74.00	-16.10	5.66	3	V	91	1.03	-

802.11a_(6Mbps)_2TX

5240MHz_TX

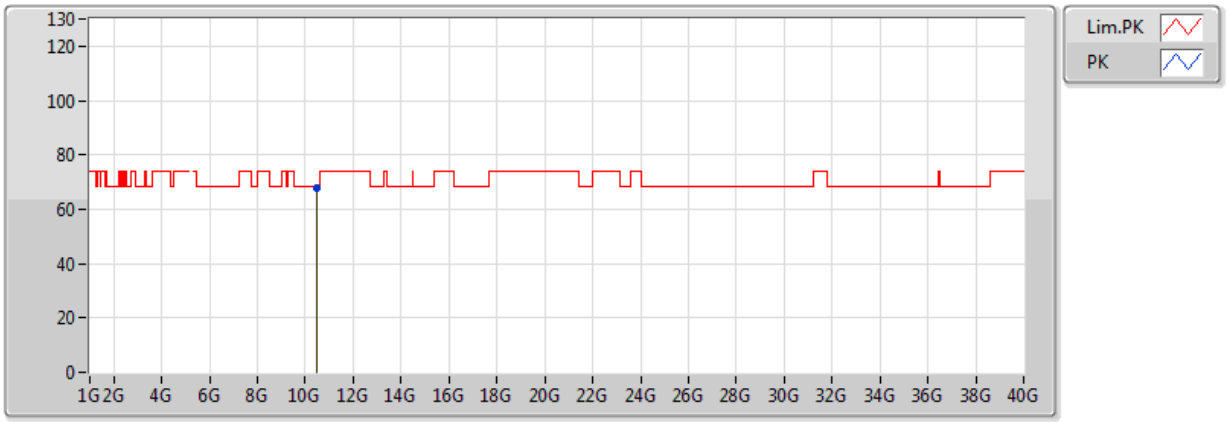


20170708
EUT Z_2TX
Setting 2B
04-N-2-10
FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.0942G	44.97	54.00	-9.03	5.12	3	H	33	1.01	-
AV	5.2412G	99.58	Inf	-Inf	5.54	3	H	33	1.01	-
AV	5.3894G	45.54	54.00	-8.46	5.69	3	H	33	1.01	-
PK	5.144G	57.57	74.00	-16.43	5.29	3	H	33	1.01	-
PK	5.2418G	108.96	Inf	-Inf	5.54	3	H	33	1.01	-
PK	5.3876G	58.42	74.00	-15.58	5.69	3	H	33	1.01	-

802.11a_(6Mbps)_2TX

5240MHz_TX

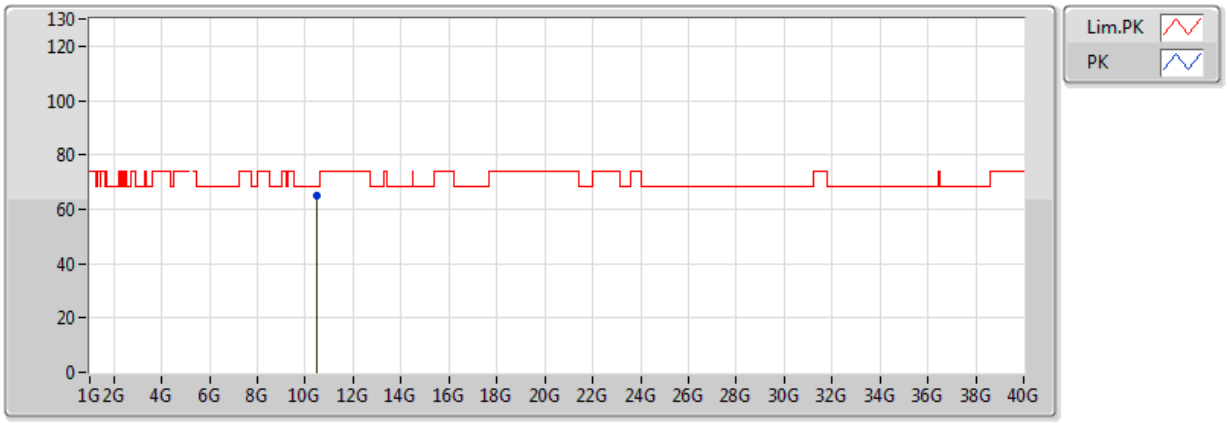


20170708
EUT Z_2TX
Setting 2B
04-N-2-10
FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	10.48008G	67.75	68.20	-0.45	15.01	3	V	225	2.13	-

802.11a_(6Mbps)_2TX

5240MHz_TX

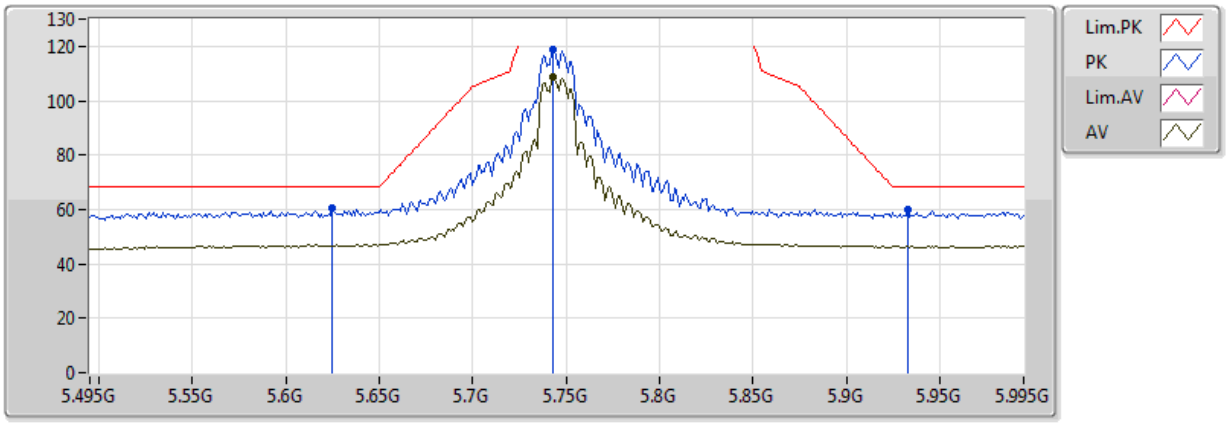


20170708
EUT Z_2TX
Setting 2B
04-N-2-10
FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	10.4788G	64.95	68.20	-3.25	15.01	3	H	145	2.21	-

802.11a_(6Mbps)_2TX

5745MHz_TX

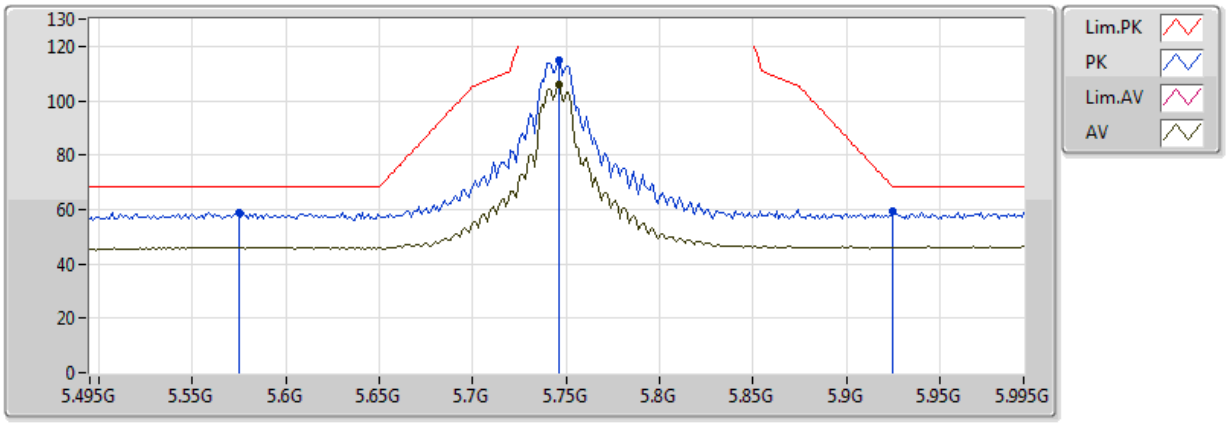


20170704
EUT Z_2TX
Setting 23
01-O-1-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.743G	108.81	Inf	-Inf	5.80	3	V	231	2.64	-
PK	5.625G	60.49	68.20	-7.71	5.46	3	V	231	2.64	-
PK	5.743G	119.04	Inf	-Inf	5.80	3	V	231	2.64	-
PK	5.933G	59.87	68.20	-8.33	6.47	3	V	231	2.64	-

802.11a_(6Mbps)_2TX

5745MHz_TX

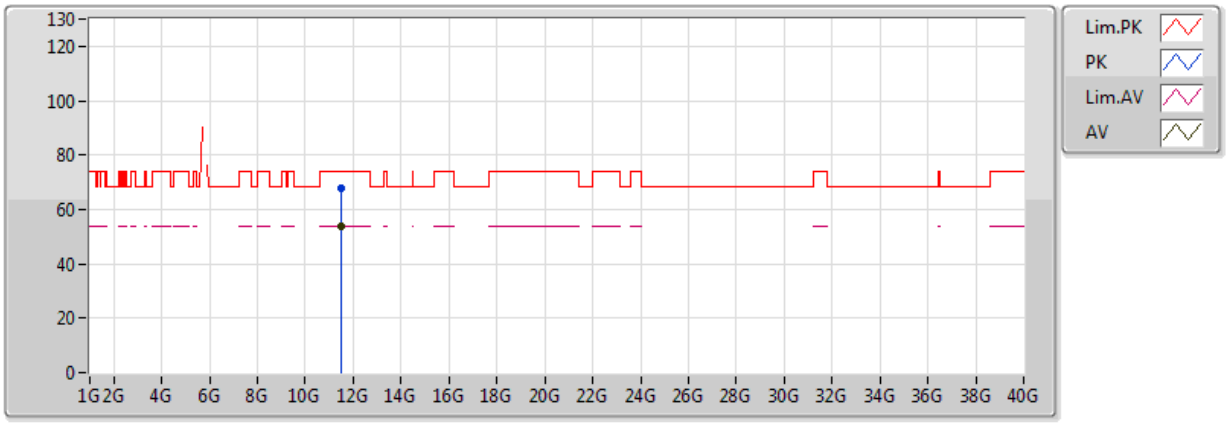


20170704
EUT Z_2TX
Setting 23
01-O-1-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.746G	105.89	Inf	-Inf	5.81	3	H	188	1.13	-
PK	5.575G	59.07	68.20	-9.13	5.29	3	H	188	1.13	-
PK	5.746G	114.91	Inf	-Inf	5.81	3	H	188	1.13	-
PK	5.925G	59.64	68.20	-8.56	6.43	3	H	188	1.13	-

802.11a_(6Mbps)_2TX

5745MHz_TX

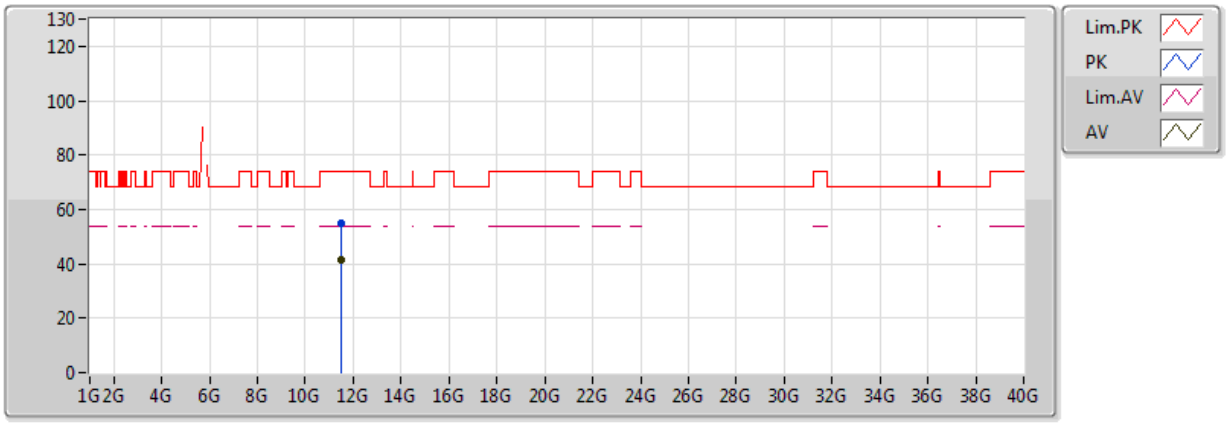


20170704
EUT Z_2TX
Setting 23
01-O-1
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.499G	53.80	54.00	-0.20	12.05	3	V	128	2.17	-
PK	11.489G	67.84	74.00	-6.16	12.05	3	V	128	2.17	-

802.11a_(6Mbps)_2TX

5745MHz_TX

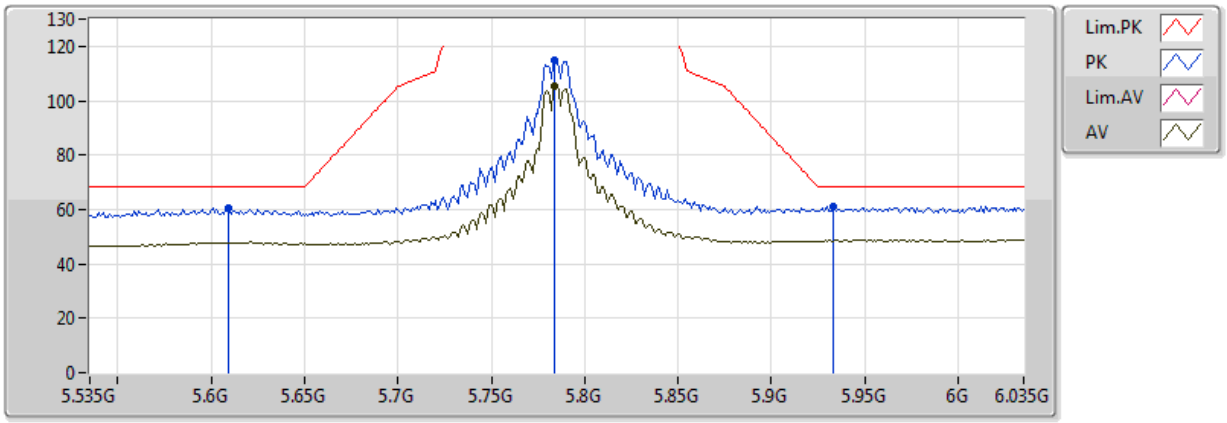


20170704
EUT Z_2TX
Setting 23
01-O-1
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49002G	41.24	54.00	-12.76	12.04	3	H	10	2.21	-
PK	11.48962G	54.71	74.00	-19.29	12.04	3	H	10	2.21	-

802.11a_(6Mbps)_2TX

5785MHz_TX

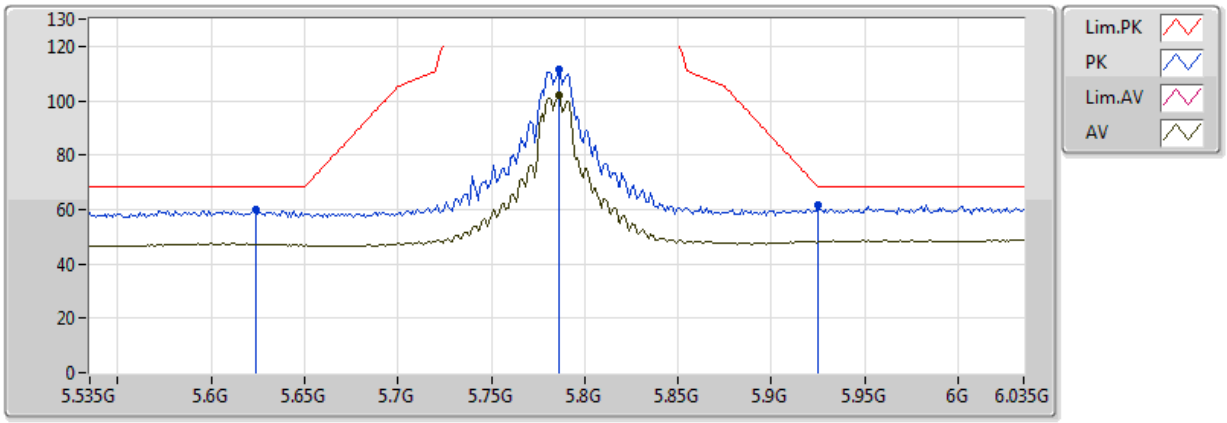


20170708
EUT Z_2TX
Setting 25
04-N-2-10
FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.784G	105.39	Inf	-Inf	7.15	3	V	133	1.01	-
PK	5.609G	60.60	68.20	-7.60	6.80	3	V	133	1.01	-
PK	5.784G	115.13	Inf	-Inf	7.15	3	V	133	1.01	-
PK	5.933G	61.34	68.20	-6.86	8.04	3	V	133	1.01	-

802.11a_(6Mbps)_2TX

5785MHz_TX

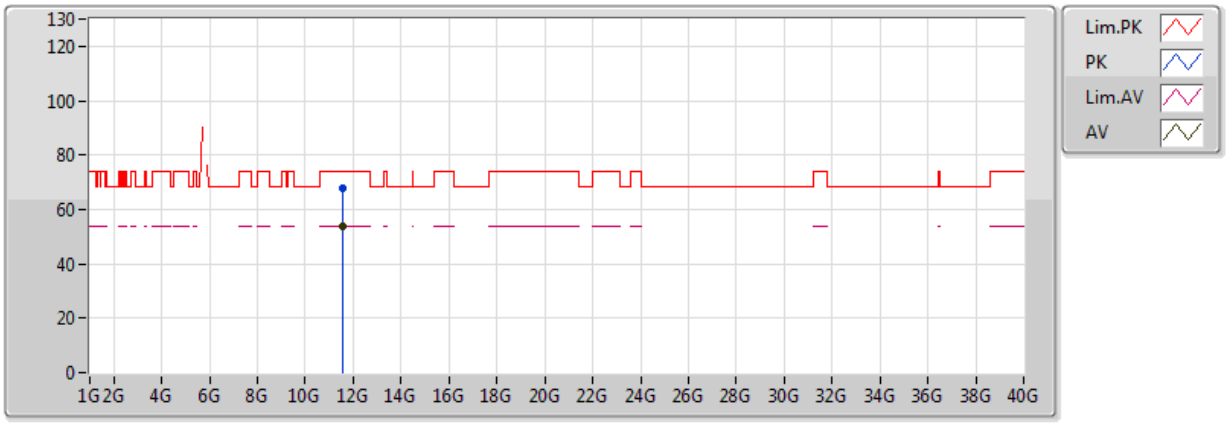


20170708
EUT Z_2TX
Setting 25
04-N-2-10
FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.786G	102.19	Inf	-Inf	7.15	3	H	168	1.01	-
PK	5.624G	59.68	68.20	-8.52	6.83	3	H	168	1.01	-
PK	5.786G	111.49	Inf	-Inf	7.15	3	H	168	1.01	-
PK	5.925G	61.79	68.20	-6.41	7.99	3	H	168	1.01	-

802.11a_(6Mbps)_2TX

5785MHz_TX

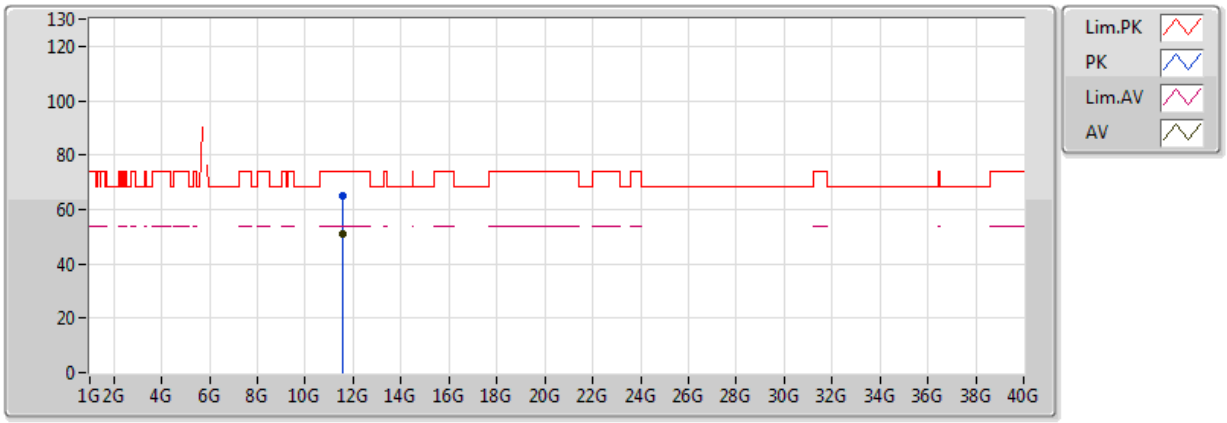


20170708
EUT Z_2TX
Setting 25
04-N-2-10
FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.56928G	53.89	54.00	-0.11	16.18	3	V	228	2.07	-
PK	11.56888G	67.94	74.00	-6.06	16.18	3	V	228	2.07	-

802.11a_(6Mbps)_2TX

5785MHz_TX

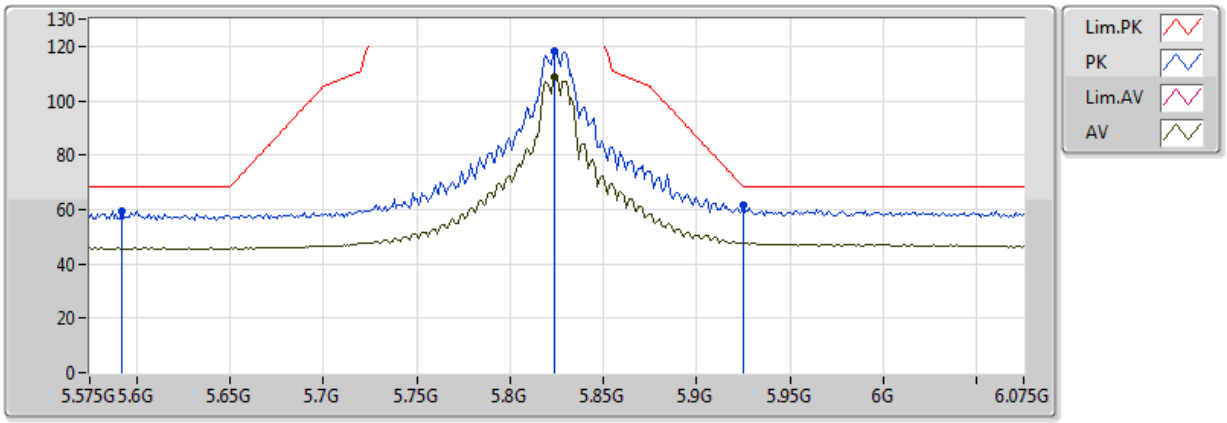


20170708
EUT Z_2TX
Setting 25
04-N-2-10
FSP(100304)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57G	50.90	54.00	-3.10	16.18	3	H	327	2.16	-
PK	11.56624G	64.79	74.00	-9.21	16.17	3	H	327	2.16	-

802.11a_(6Mbps)_2TX

5825MHz_TX

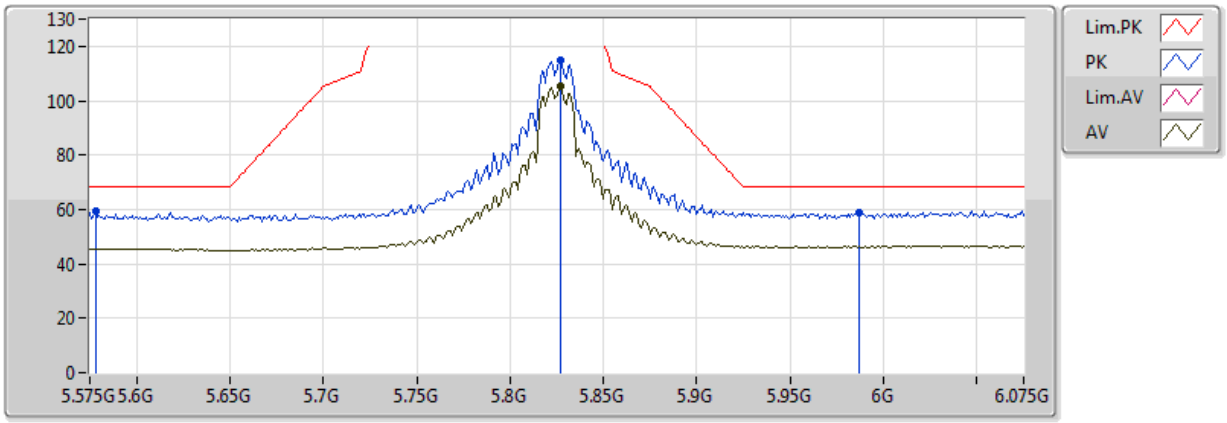


20170704
EUT Z_2TX
Setting 22
01-O-1-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.824G	108.70	Inf	-Inf	6.05	3	V	226	2.35	-
PK	5.592G	59.36	68.20	-8.84	5.35	3	V	226	2.35	-
PK	5.824G	118.36	Inf	-Inf	6.05	3	V	226	2.35	-
PK	5.925G	61.40	68.20	-6.80	6.43	3	V	226	2.35	-

802.11a_(6Mbps)_2TX

5825MHz_TX

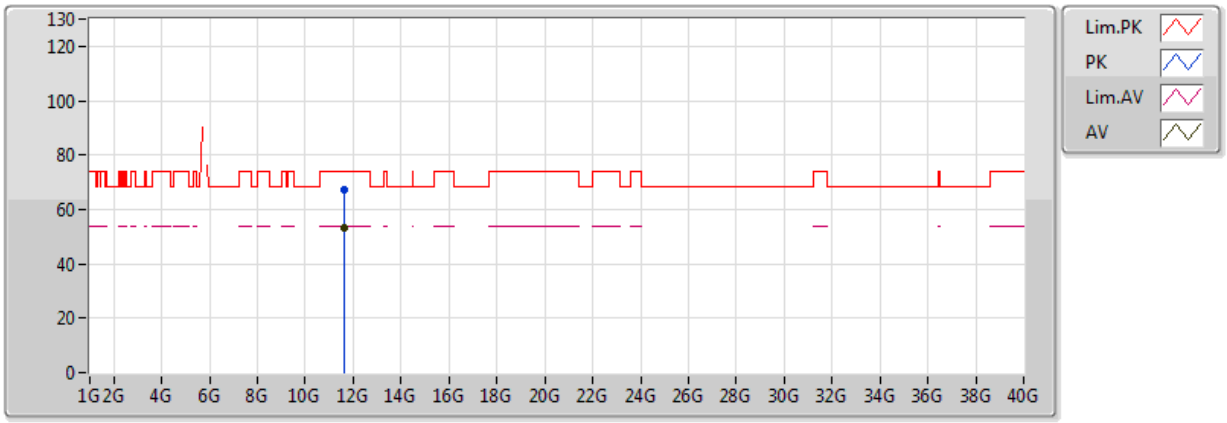


20170704
EUT Z_2TX
Setting 22
01-O-1-10
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.827G	105.15	Inf	-Inf	6.06	3	H	191	1.14	-
PK	5.578G	59.38	68.20	-8.82	5.30	3	H	191	1.14	-
PK	5.827G	115.09	Inf	-Inf	6.06	3	H	191	1.14	-
PK	5.987G	58.81	68.20	-9.39	6.67	3	H	191	1.14	-

802.11a_(6Mbps)_2TX

5825MHz_TX

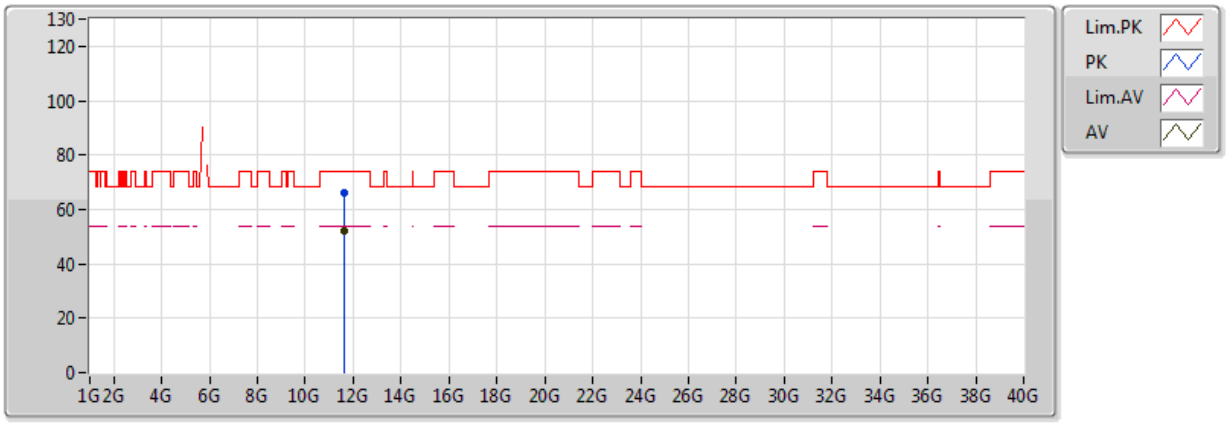


20170704
EUT Z_2TX
Setting 22
01-O-1
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.65016G	53.34	54.00	-0.66	12.12	3	V	126	1.28	-
PK	11.64981G	67.33	74.00	-6.67	12.12	3	V	126	1.28	-

802.11a_(6Mbps)_2TX

5825MHz_TX

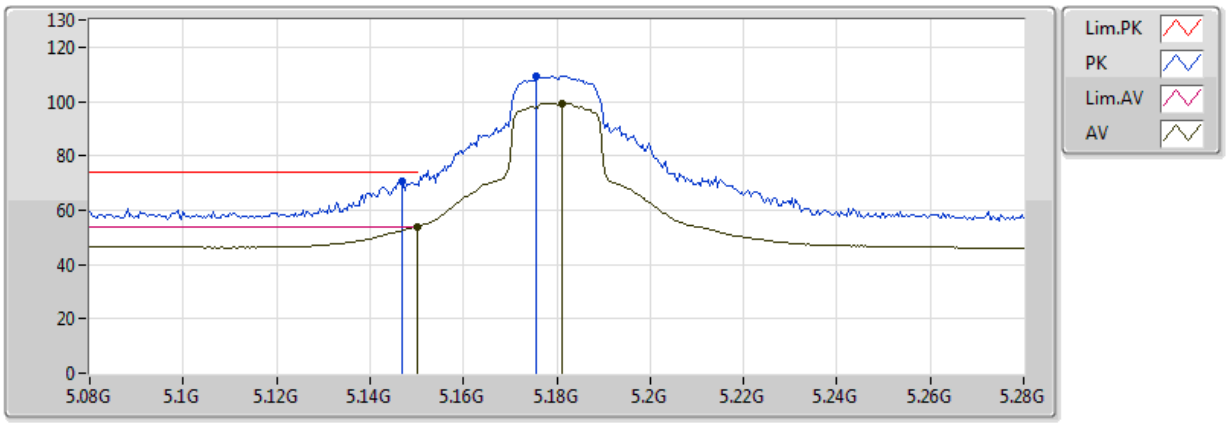


20170704
EUT Z_2TX
Setting 22
01-O-1
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.64995G	52.19	54.00	-1.81	12.12	3	H	0	1.19	-
PK	11.65032G	66.06	74.00	-7.94	12.12	3	H	0	1.19	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5180MHz_TX

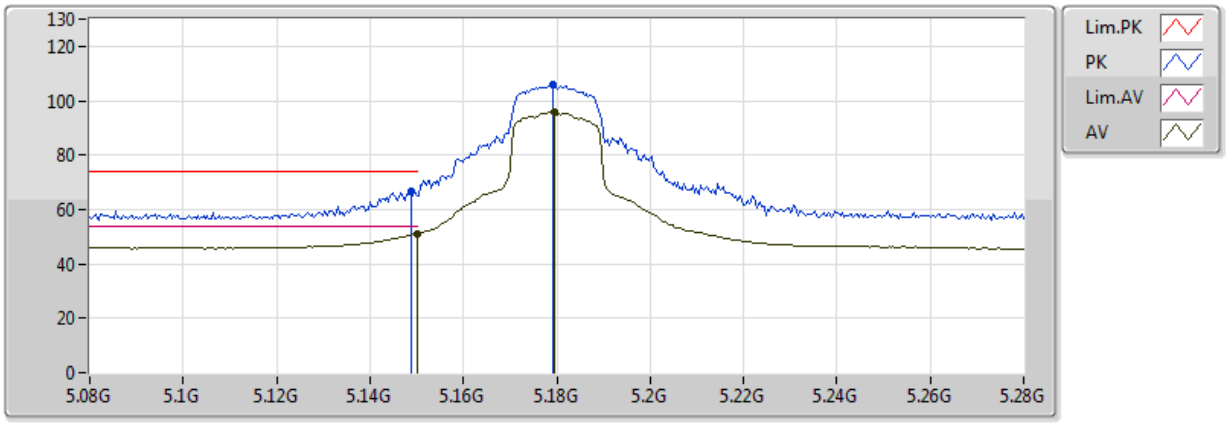


20170714
EUT Z_2TX
Setting 39
04-J-5-10
FSP(100142)

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	53.87	54.00	-0.13	5.31	3	V	360	2.94	-
AV	5.1812G	99.45	Inf	-Inf	5.42	3	V	360	2.94	-
PK	5.1468G	70.73	74.00	-3.27	5.30	3	V	360	2.94	-
PK	5.1756G	109.46	Inf	-Inf	5.40	3	V	360	2.94	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5180MHz_TX

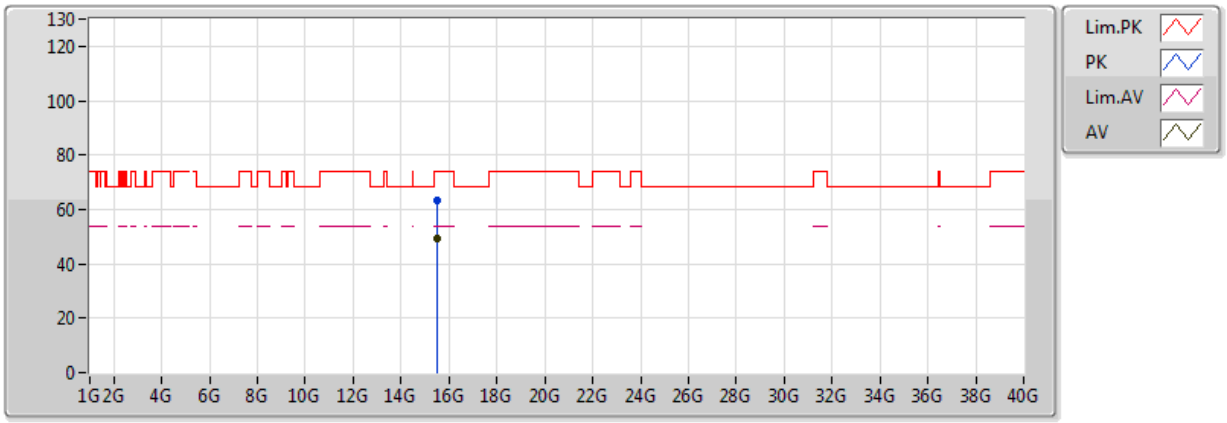


20170714
EUT Z_2TX
Setting 39
04-J-5-10
FSP(100142)

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	51.08	54.00	-2.92	5.31	3	H	346	1.01	-
AV	5.1796G	95.58	Inf	-Inf	5.42	3	H	346	1.01	-
PK	5.1488G	66.63	74.00	-7.37	5.31	3	H	346	1.01	-
PK	5.1792G	105.69	Inf	-Inf	5.42	3	H	346	1.01	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5180MHz_TX

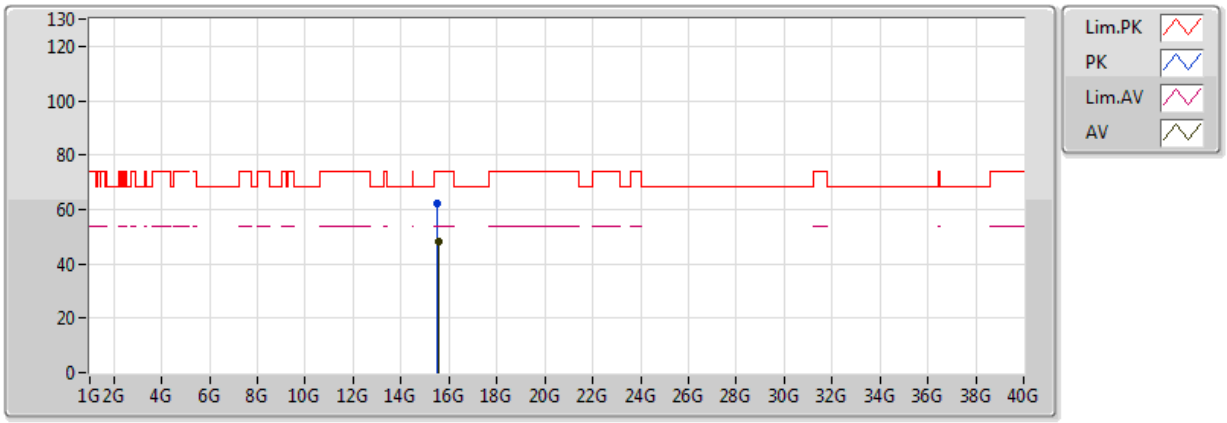


20170714
EUT Z_2TX
Setting 39
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.53598G	49.18	54.00	-4.82	17.79	3	V	189	2.79	-
PK	15.53604G	63.09	74.00	-10.91	17.79	3	V	189	2.79	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5180MHz_TX

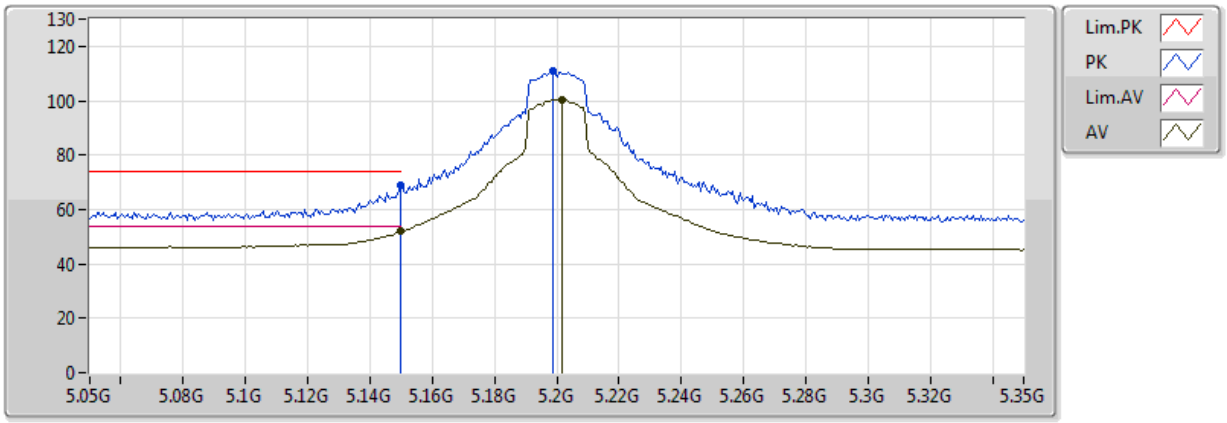


20170714
EUT Z_2TX
Setting 39
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.53802G	48.28	54.00	-5.72	17.80	3	H	309	1.31	-
PK	15.53292G	62.26	74.00	-11.74	17.79	3	H	309	1.31	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5200MHz_TX

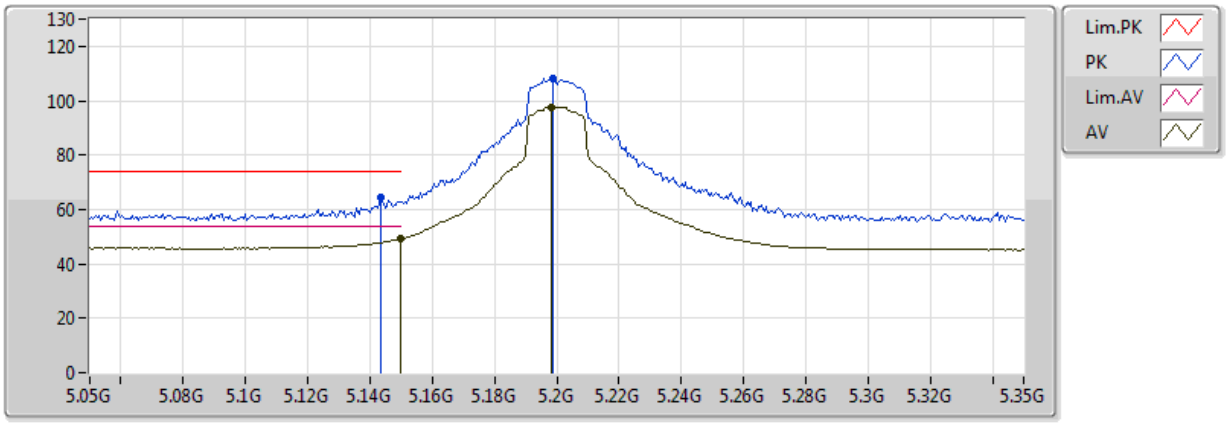


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

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	51.87	54.00	-2.13	5.31	3	V	297	1.01	-
AV	5.2018G	100.55	Inf	-Inf	5.49	3	V	297	1.01	-
PK	5.149995G	68.74	74.00	-5.26	5.31	3	V	297	1.01	-
PK	5.1988G	110.85	Inf	-Inf	5.49	3	V	297	1.01	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5200MHz_TX

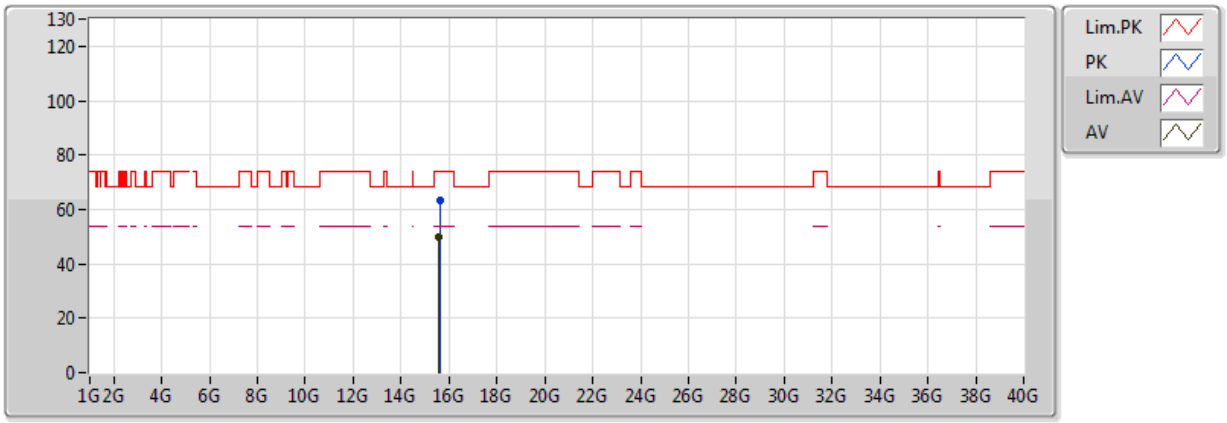


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

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	49.12	54.00	-4.88	5.31	3	H	343	1.06	-
AV	5.1982G	97.78	Inf	-Inf	5.48	3	H	343	1.06	-
PK	5.1436G	64.37	74.00	-9.63	5.29	3	H	343	1.06	-
PK	5.1988G	108.25	Inf	-Inf	5.49	3	H	343	1.06	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5200MHz_TX

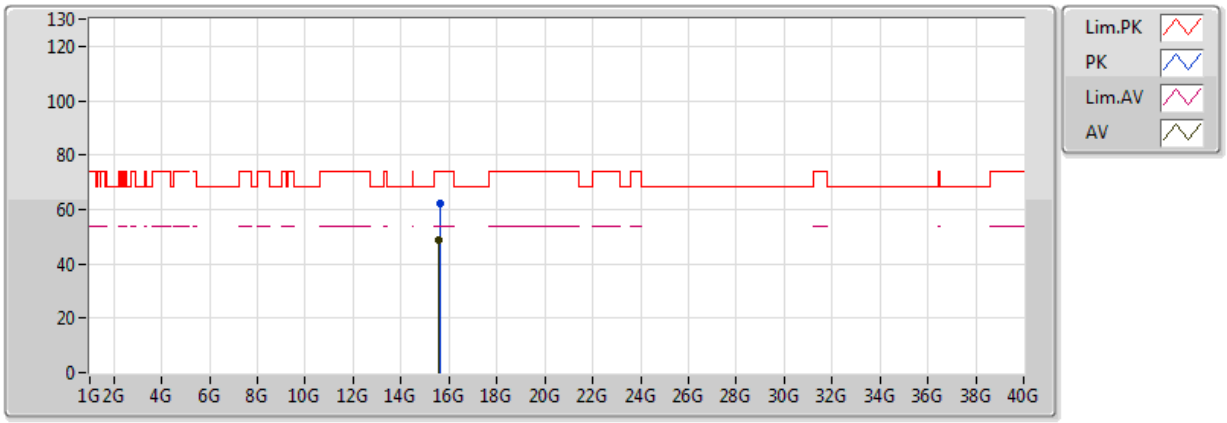


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.60084G	49.98	54.00	-4.02	17.85	3	V	186	2.20	-
PK	15.60648G	63.29	74.00	-10.71	17.85	3	V	186	2.20	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5200MHz_TX

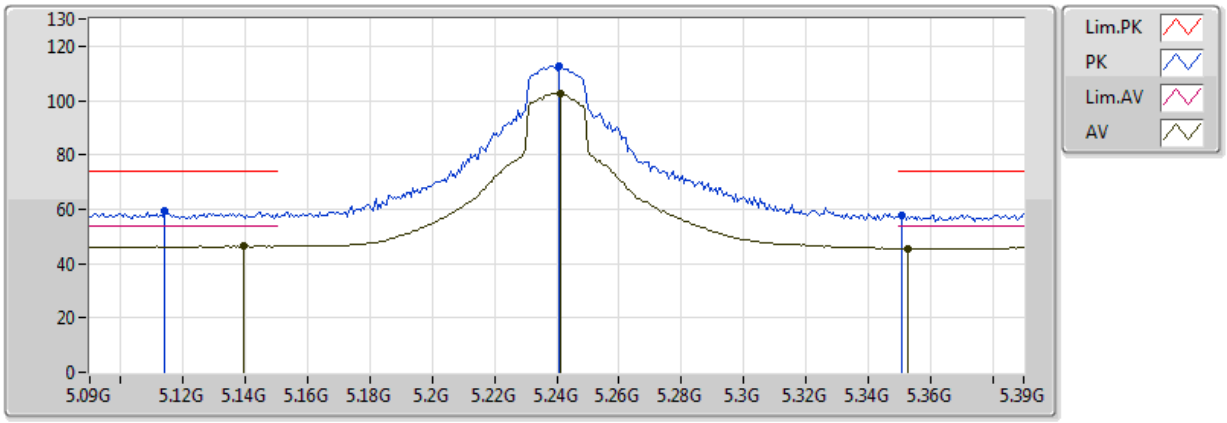


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.59604G	48.51	54.00	-5.49	17.84	3	H	272	2.92	-
PK	15.61068G	62.15	74.00	-11.85	17.85	3	H	272	2.92	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5240MHz_TX

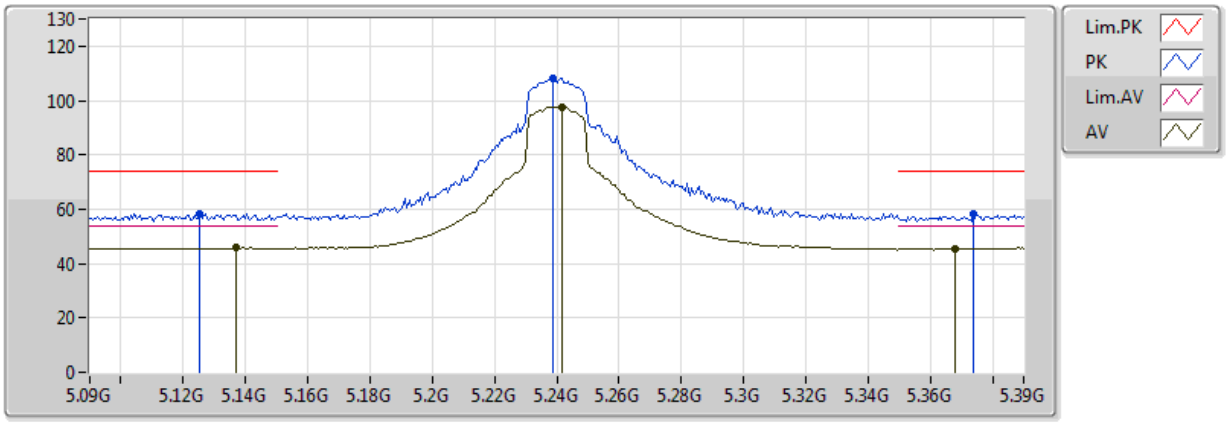


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1392G	46.35	54.00	-7.65	5.28	3	V	0	2.89	-
AV	5.2412G	102.54	Inf	-Inf	5.54	3	V	0	2.89	-
AV	5.3528G	45.48	54.00	-8.52	5.65	3	V	0	2.89	-
PK	5.114G	59.12	74.00	-14.88	5.19	3	V	0	2.89	-
PK	5.2406G	112.83	Inf	-Inf	5.53	3	V	0	2.89	-
PK	5.351G	57.97	74.00	-16.03	5.65	3	V	0	2.89	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5240MHz_TX

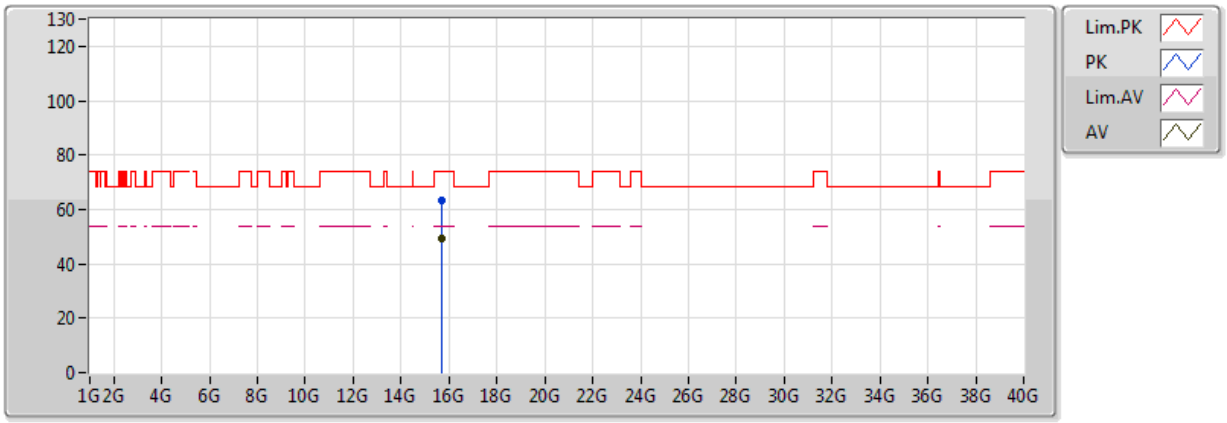


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1368G	45.75	54.00	-8.25	5.27	3	H	241	1.06	-
AV	5.2418G	97.71	Inf	-Inf	5.54	3	H	241	1.06	-
AV	5.3678G	45.36	54.00	-8.64	5.67	3	H	241	1.06	-
PK	5.1254G	58.16	74.00	-15.84	5.23	3	H	241	1.06	-
PK	5.2388G	108.21	Inf	-Inf	5.53	3	H	241	1.06	-
PK	5.3738G	58.31	74.00	-15.69	5.67	3	H	241	1.06	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5240MHz_TX

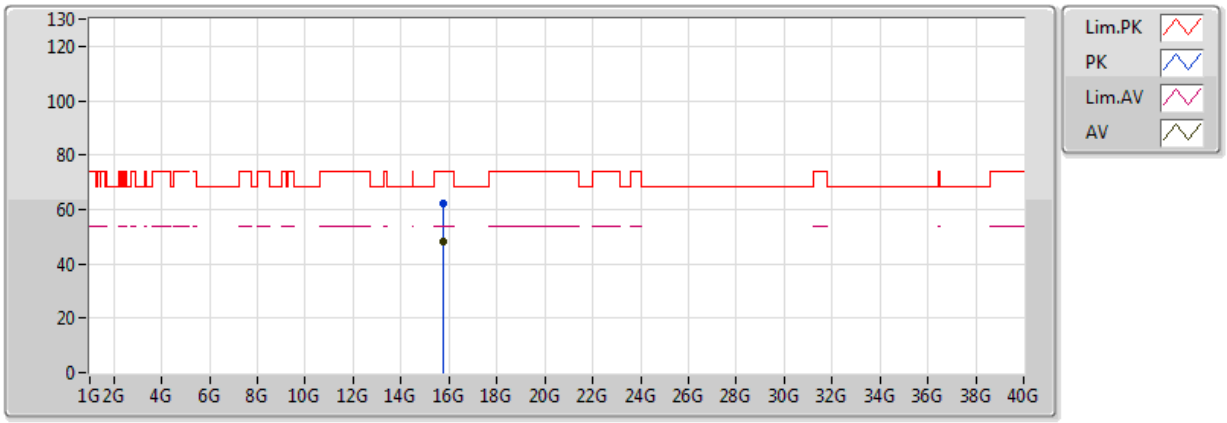


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.72258G	49.54	54.00	-4.46	17.95	3	V	185	2.60	-
PK	15.71244G	63.12	74.00	-10.88	17.94	3	V	185	2.60	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5240MHz_TX

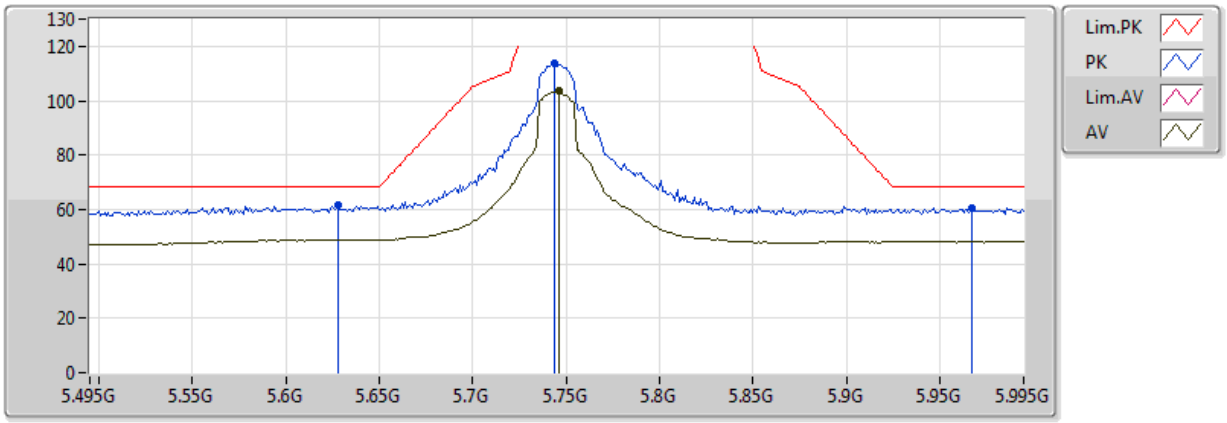


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.73224G	48.05	54.00	-5.95	17.95	3	H	259	2.72	-
PK	15.7344G	61.92	74.00	-12.08	17.95	3	H	259	2.72	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

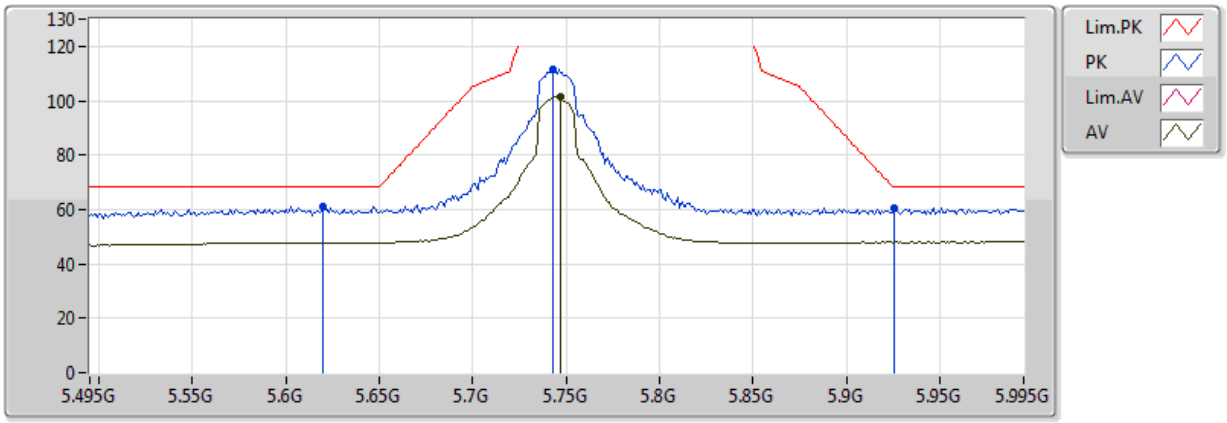


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.746G	103.54	Inf	-Inf	7.07	3	V	223	1.04	-
PK	5.628G	61.76	68.20	-6.44	6.83	3	V	223	1.04	-
PK	5.744G	113.61	Inf	-Inf	7.06	3	V	223	1.04	-
PK	5.967G	60.44	68.20	-7.76	8.27	3	V	223	1.04	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

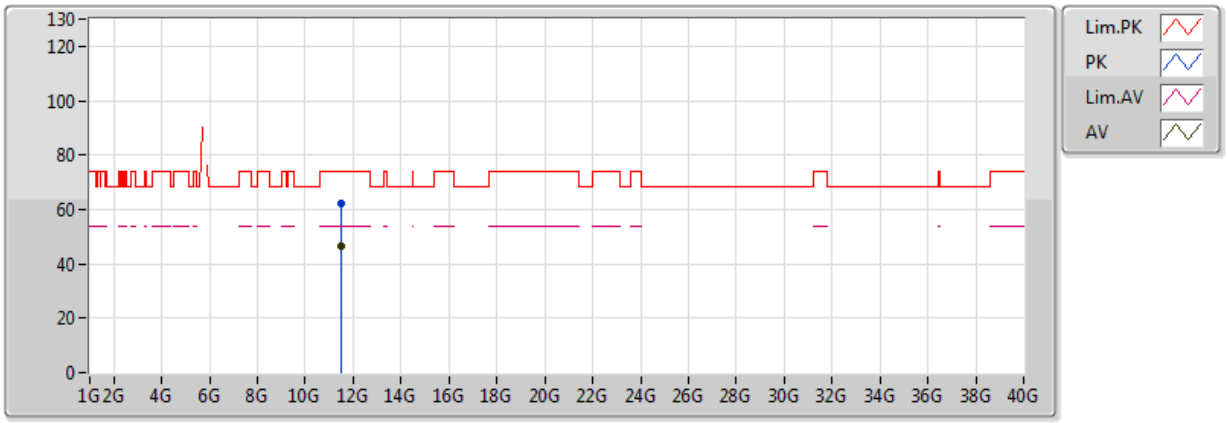


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.747G	101.33	Inf	-Inf	7.07	3	H	269	1.02	-
PK	5.62G	61.17	68.20	-7.03	6.82	3	H	269	1.02	-
PK	5.743G	111.56	Inf	-Inf	7.06	3	H	269	1.02	-
PK	5.926G	60.57	68.20	-7.63	8.00	3	H	269	1.02	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

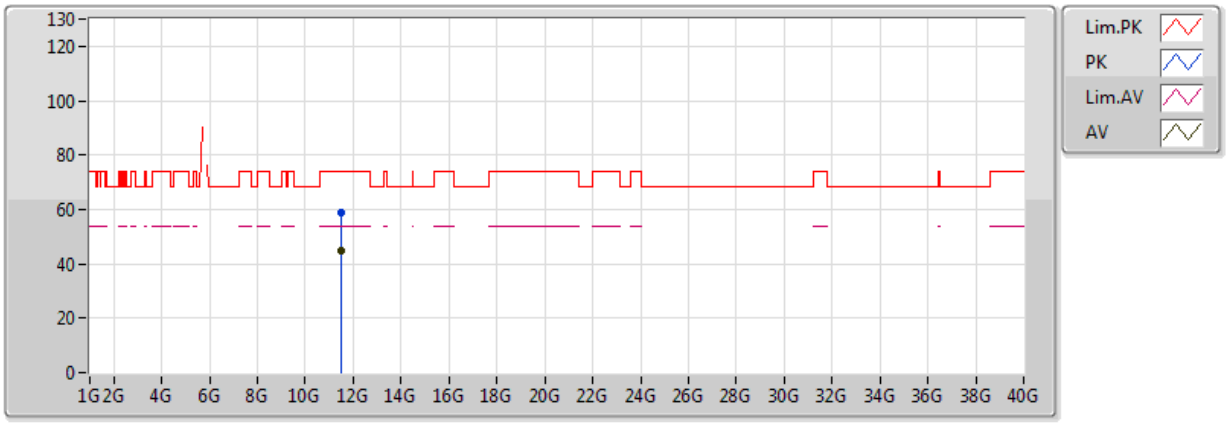


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49276G	46.78	54.00	-7.22	16.13	3	V	148	2.07	-
PK	11.49318G	62.45	74.00	-11.55	16.13	3	V	148	2.07	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5745MHz_TX

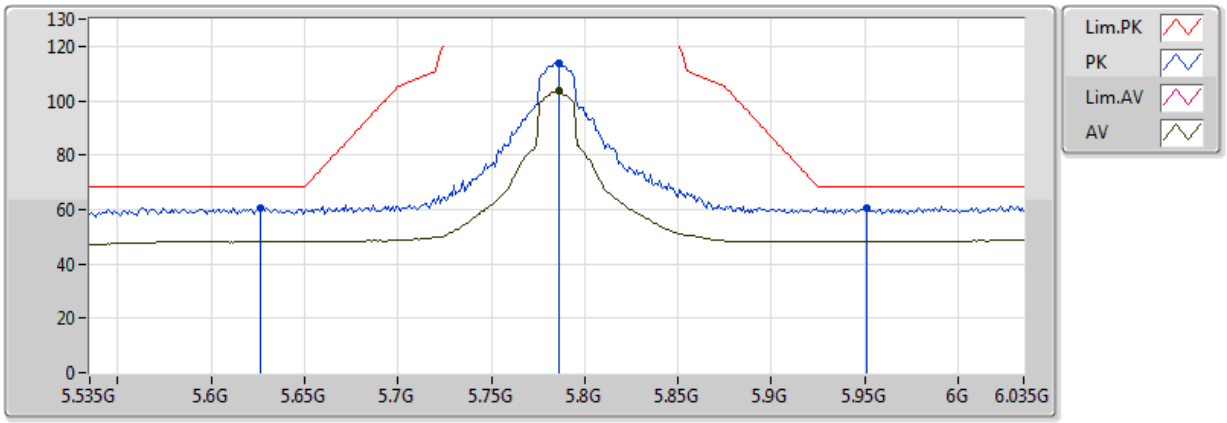


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49276G	44.95	54.00	-9.05	16.13	3	H	186	1.21	-
PK	11.48514G	59.08	74.00	-14.92	16.12	3	H	186	1.21	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

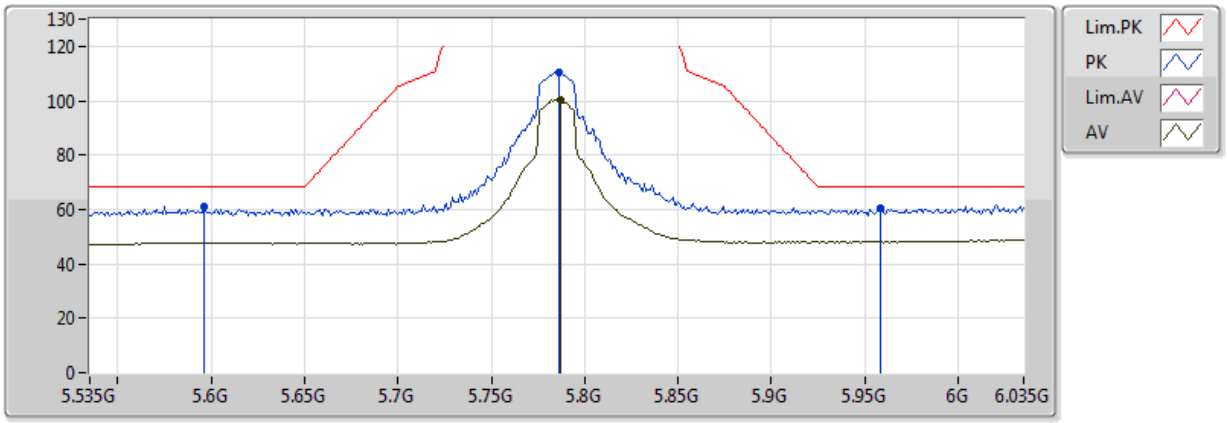


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.786G	103.57	Inf	-Inf	7.15	3	V	223	1.01	-
PK	5.626G	60.65	68.20	-7.55	6.83	3	V	223	1.01	-
PK	5.786G	113.67	Inf	-Inf	7.15	3	V	223	1.01	-
PK	5.951G	60.76	68.20	-7.44	8.16	3	V	223	1.01	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

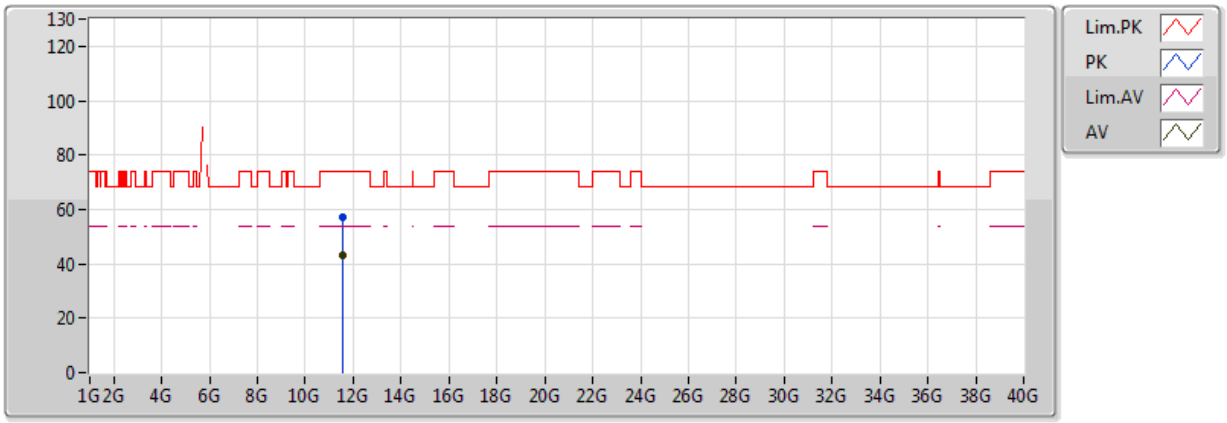


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.787G	100.36	Inf	-Inf	7.15	3	H	249	2.95	-
PK	5.596G	61.23	68.20	-6.97	6.76	3	H	249	2.95	-
PK	5.786G	110.31	Inf	-Inf	7.15	3	H	249	2.95	-
PK	5.958G	60.27	68.20	-7.93	8.21	3	H	249	2.95	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

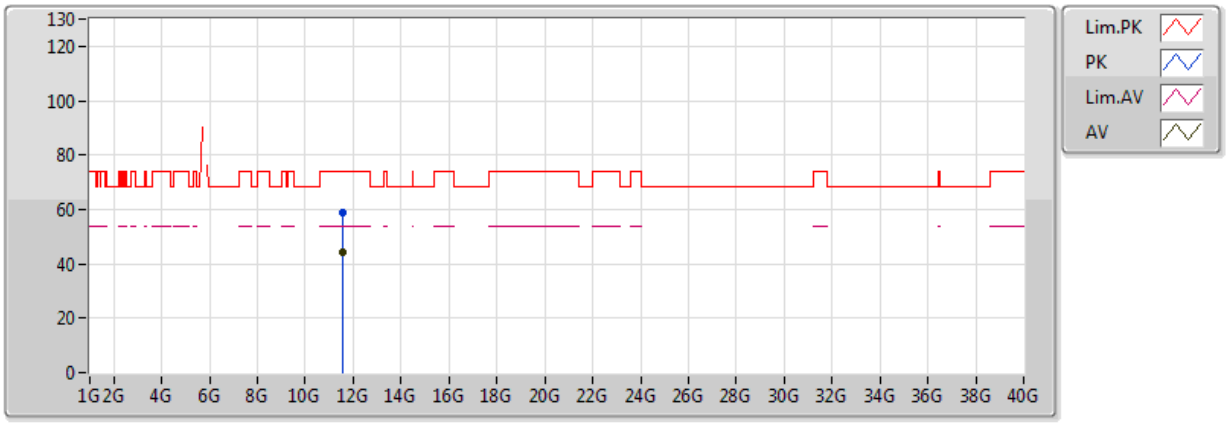


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57378G	43.27	54.00	-10.73	16.18	3	V	128	1.23	-
PK	11.56616G	56.97	74.00	-17.03	16.17	3	V	128	1.23	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5785MHz_TX

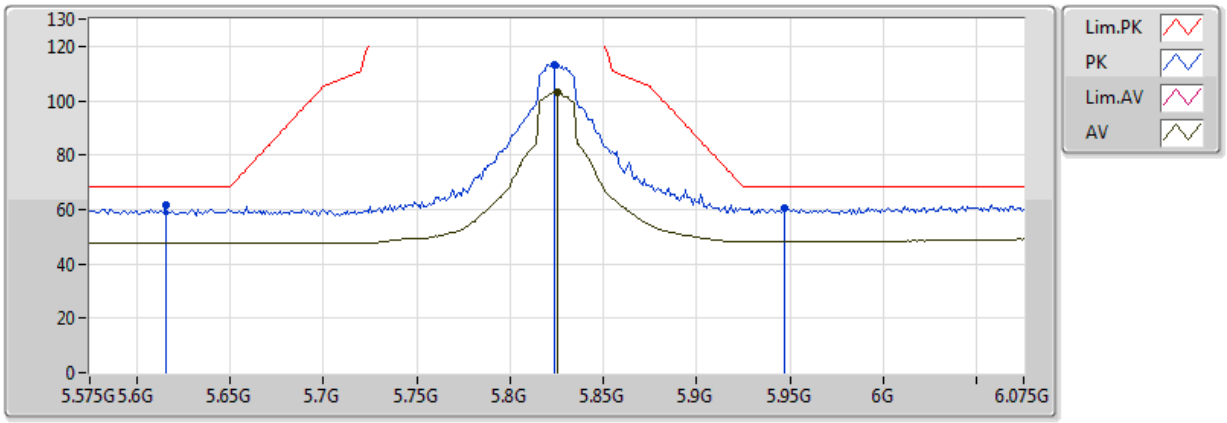


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57378G	44.49	54.00	-9.51	16.18	3	H	186	1.18	-
PK	11.57054G	58.75	74.00	-15.25	16.18	3	H	186	1.18	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

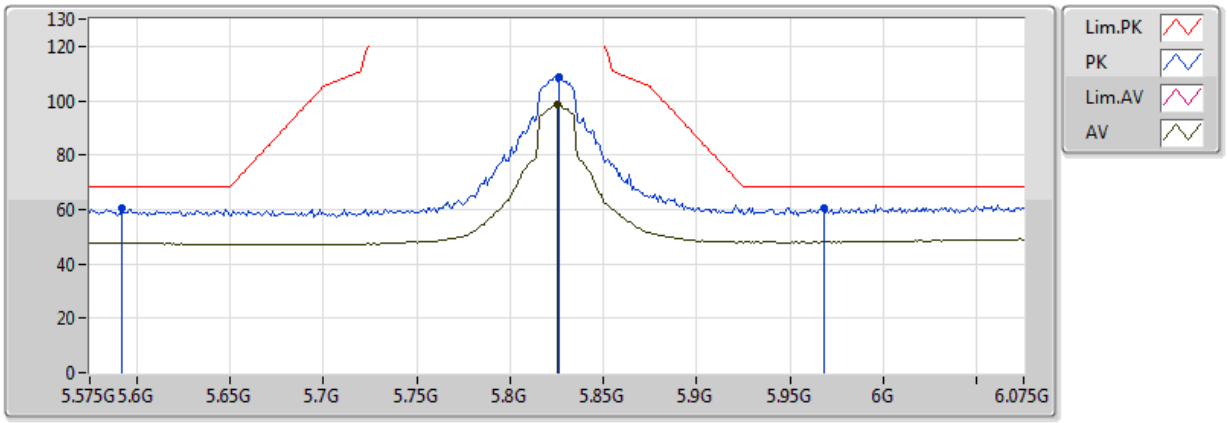


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.825G	103.18	Inf	-Inf	7.34	3	V	223	1.02	-
PK	5.616G	61.90	68.20	-6.30	6.81	3	V	223	1.02	-
PK	5.824G	113.45	Inf	-Inf	7.34	3	V	223	1.02	-
PK	5.947G	60.78	68.20	-7.42	8.14	3	V	223	1.02	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

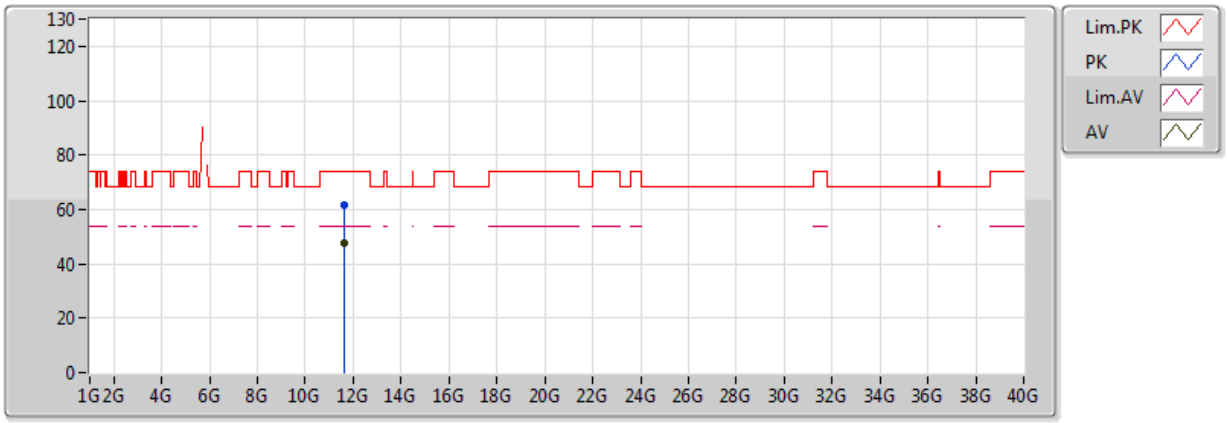


20170714
EUT Z_2TX
Setting 46
04-J-5-10
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.825G	98.52	Inf	-Inf	7.34	3	H	248	1.10	-
PK	5.592G	60.48	68.20	-7.72	6.73	3	H	248	1.10	-
PK	5.826G	108.82	Inf	-Inf	7.35	3	H	248	1.10	-
PK	5.968G	60.74	68.20	-7.46	8.27	3	H	248	1.10	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

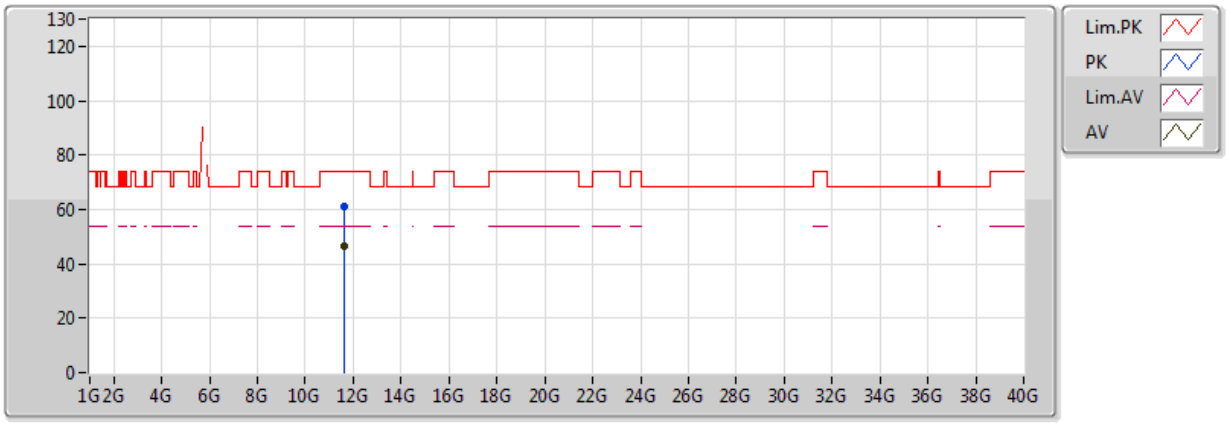


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.65426G	47.49	54.00	-6.51	16.23	3	V	75	1.20	-
PK	11.65288G	61.42	74.00	-12.58	16.23	3	V	75	1.20	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

5825MHz_TX

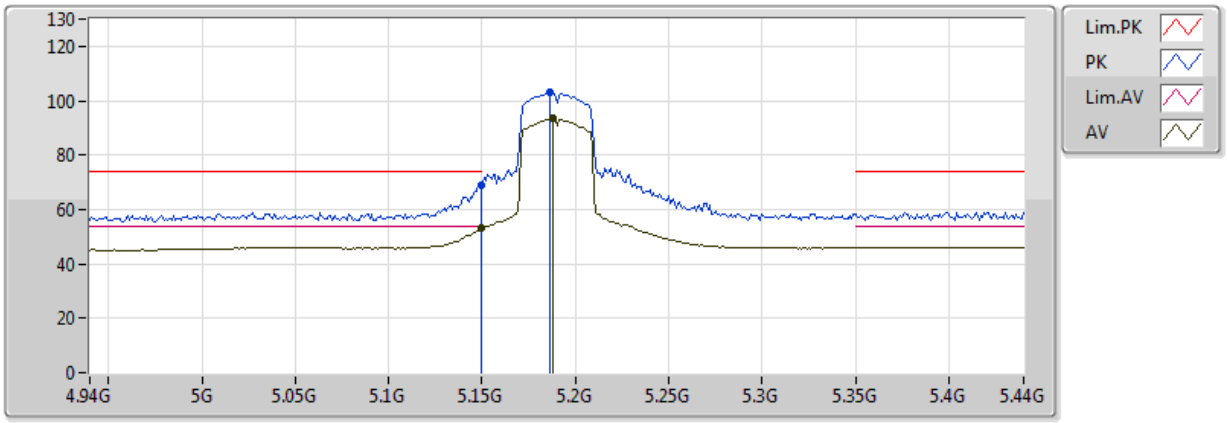


20170714
EUT Z_2TX
Setting 46
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.65408G	46.60	54.00	-7.40	16.23	3	H	188	1.17	-
PK	11.65102G	61.04	74.00	-12.96	16.23	3	H	188	1.17	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5190MHz_TX

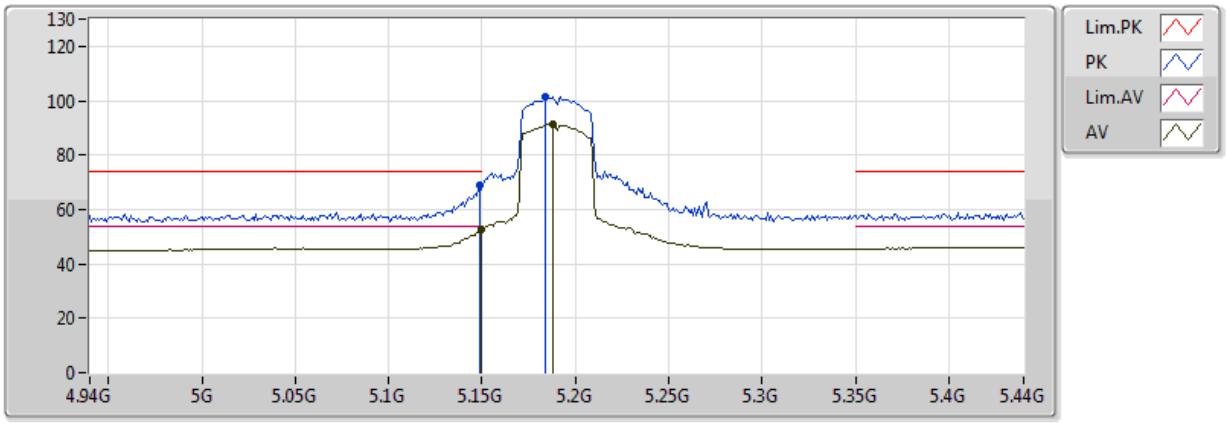


20170717
EUT Z_2TX
Setting 33
03-P-2-10
FSP(100019)

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	53.11	54.00	-0.89	5.44	3	V	265	1.13	-
AV	5.188G	93.44	Inf	-Inf	5.52	3	V	265	1.13	-
PK	5.149995G	69.06	74.00	-4.94	5.44	3	V	265	1.13	-
PK	5.186G	103.11	Inf	-Inf	5.52	3	V	265	1.13	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5190MHz_TX

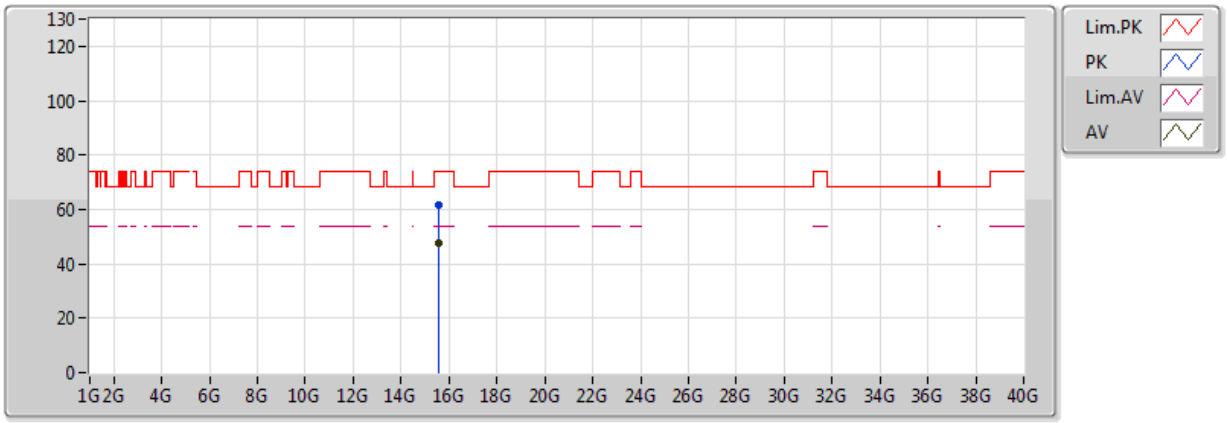


20170717
EUT Z_2TX
Setting 33
03-P-2-10
FSP(100019)

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	52.81	54.00	-1.19	5.44	3	H	346	1.26	-
AV	5.188G	91.53	Inf	-Inf	5.52	3	H	346	1.26	-
PK	5.149G	68.82	74.00	-5.18	5.44	3	H	346	1.26	-
PK	5.184G	101.38	Inf	-Inf	5.52	3	H	346	1.26	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5190MHz_TX

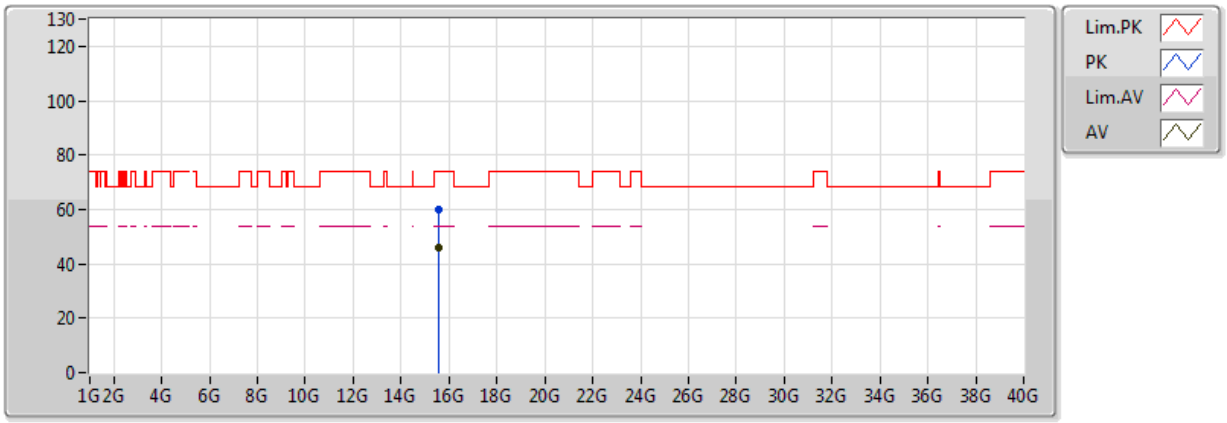


20170717
EUT Z_2TX
Setting 33
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.57088G	47.53	54.00	-6.47	16.20	3	V	189	2.23	-
PK	15.57206G	61.80	74.00	-12.20	16.20	3	V	189	2.23	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5190MHz_TX

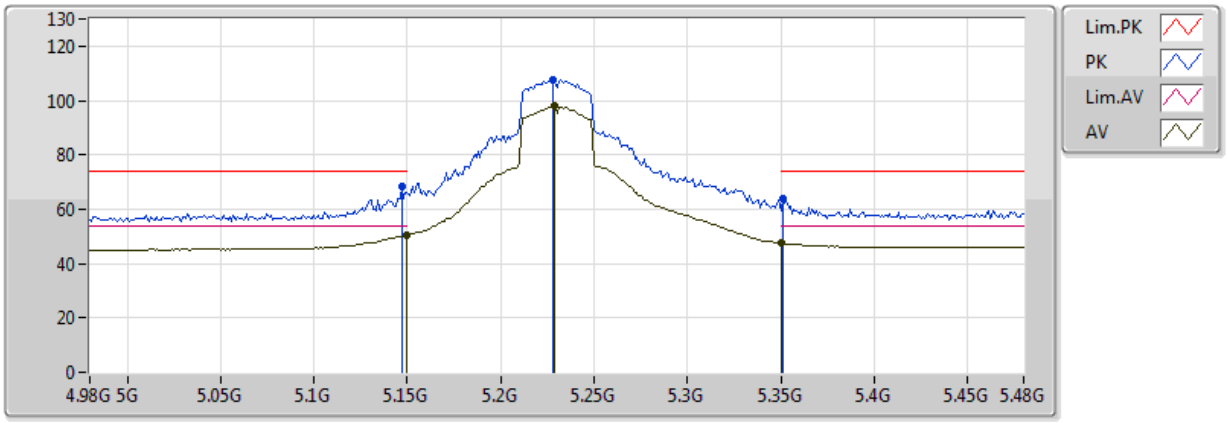


20170717
EUT Z_2TX
Setting 33
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.56738G	46.10	54.00	-7.90	16.22	3	H	131	2.55	-
PK	15.56664G	60.09	74.00	-13.91	16.22	3	H	131	2.55	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5230MHz_TX

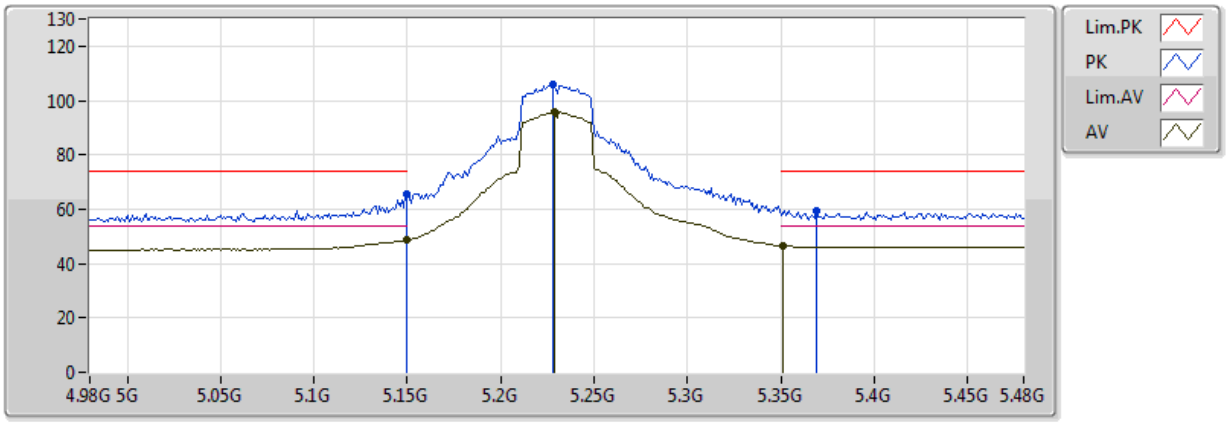


20170717
EUT Z_2TX
Setting 46
03-P-2-10
FSP(100019)

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	50.41	54.00	-3.59	5.44	3	V	267	1.07	-
AV	5.229G	97.83	Inf	-Inf	5.61	3	V	267	1.07	-
AV	5.350005G	47.43	54.00	-6.57	5.83	3	V	267	1.07	-
PK	5.147G	68.31	74.00	-5.69	5.44	3	V	267	1.07	-
PK	5.228G	107.82	Inf	-Inf	5.60	3	V	267	1.07	-
PK	5.351G	63.68	74.00	-10.32	5.83	3	V	267	1.07	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5230MHz_TX

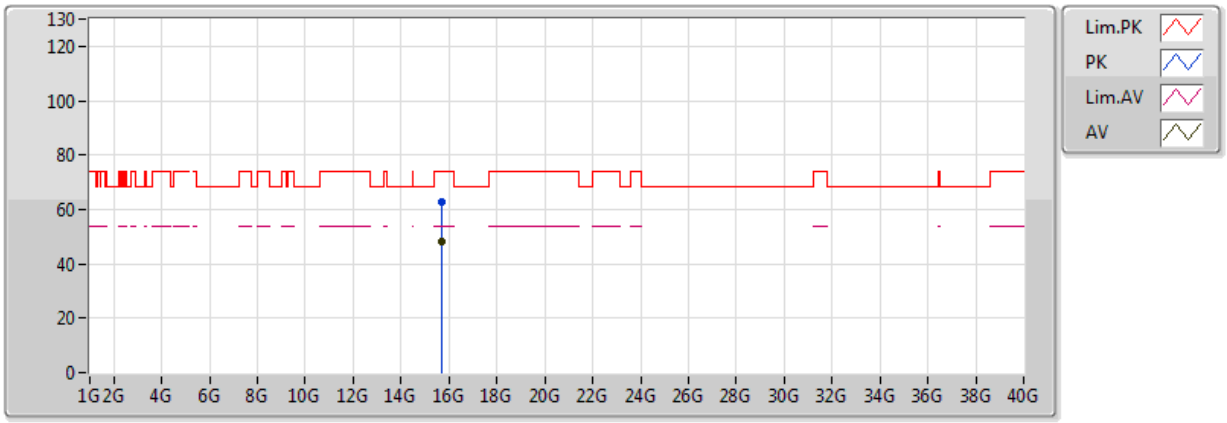


20170717
EUT Z_2TX
Setting 46
03-P-2-10
FSP(100019)

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	48.54	54.00	-5.46	5.44	3	H	346	1.20	-
AV	5.229G	95.94	Inf	-Inf	5.61	3	H	346	1.20	-
AV	5.351G	46.48	54.00	-7.52	5.83	3	H	346	1.20	-
PK	5.149995G	65.54	74.00	-8.46	5.44	3	H	346	1.20	-
PK	5.228G	105.99	Inf	-Inf	5.60	3	H	346	1.20	-
PK	5.369G	59.44	74.00	-14.56	5.86	3	H	346	1.20	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5230MHz_TX

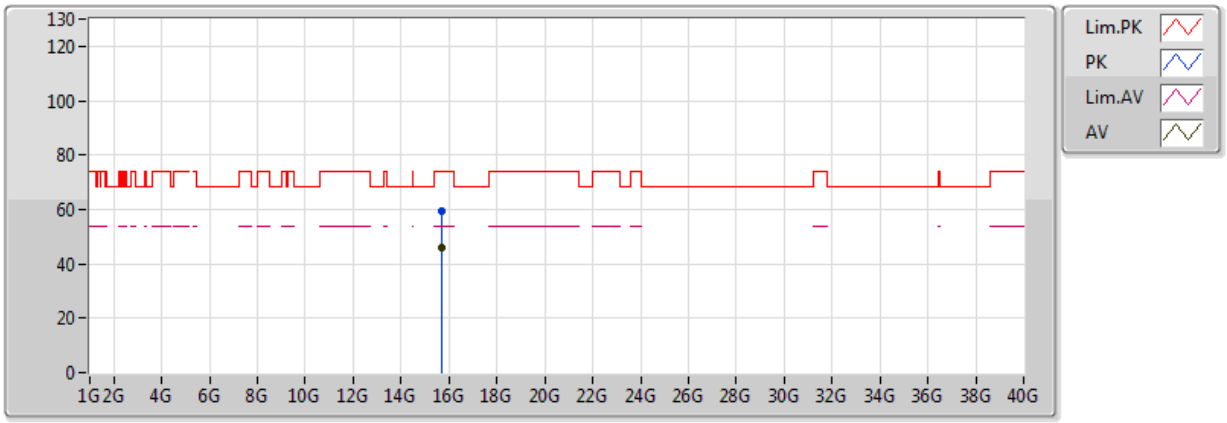


20170717
EUT Z_2TX
Setting 46
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.6857G	48.08	54.00	-5.92	15.83	3	V	189	2.37	-
PK	15.69442G	62.80	74.00	-11.20	15.80	3	V	189	2.37	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5230MHz_TX

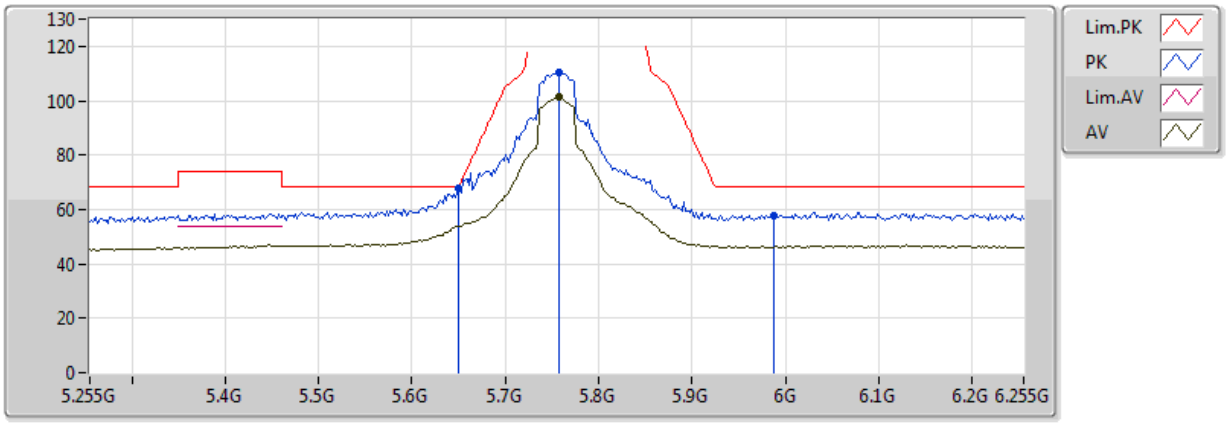


20170717
EUT Z_2TX
Setting 46
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.69138G	45.71	54.00	-8.29	15.81	3	H	281	1.50	-
PK	15.68608G	59.63	74.00	-14.37	15.83	3	H	281	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5755MHz_TX

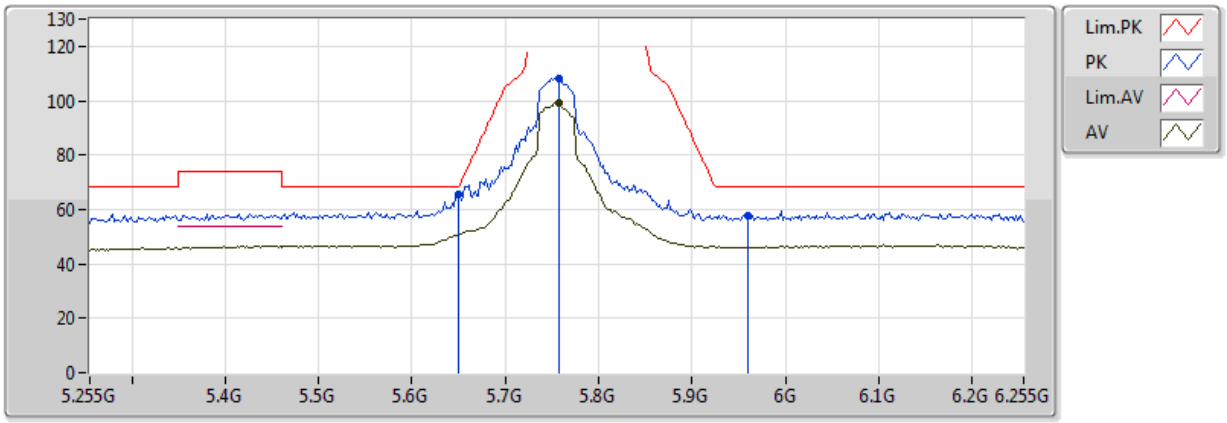


20170717
EUT Z_2TX
Setting 46
03-P-2-10
FSP(100019)

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	101.37	Inf	-Inf	6.25	3	V	220	1.09	-
PK	5.649G	67.71	68.20	-0.49	6.24	3	V	220	1.09	-
PK	5.757G	110.58	Inf	-Inf	6.25	3	V	220	1.09	-
PK	5.987G	57.98	68.20	-10.22	6.16	3	V	220	1.09	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5755MHz_TX

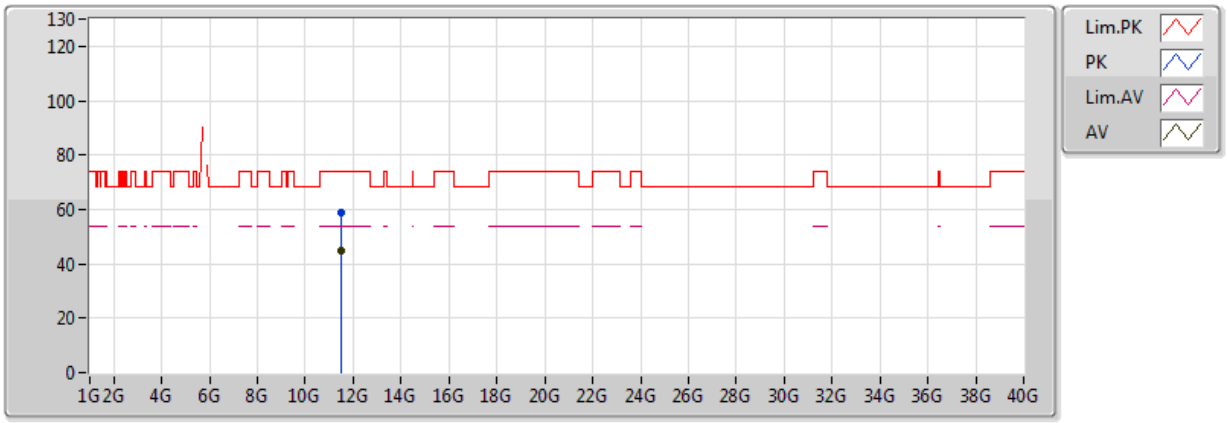


20170717
EUT Z_2TX
Setting 46
03-P-2-10
FSP(100019)

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	98.92	Inf	-Inf	6.25	3	H	275	2.93	-
PK	5.649G	65.34	68.20	-2.86	6.24	3	H	275	2.93	-
PK	5.757G	108.31	Inf	-Inf	6.25	3	H	275	2.93	-
PK	5.959G	57.72	68.20	-10.48	6.17	3	H	275	2.93	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5755MHz_TX

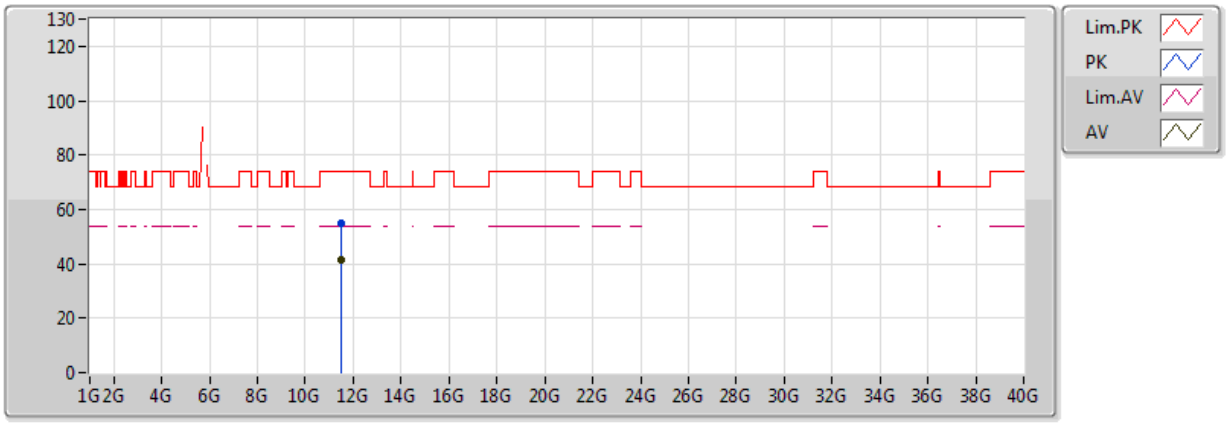


20170717
EUT Z_2TX
Setting 46
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.50996G	44.81	54.00	-9.19	13.44	3	V	152	2.14	-
PK	11.51072G	58.77	74.00	-15.23	13.44	3	V	152	2.14	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5755MHz_TX

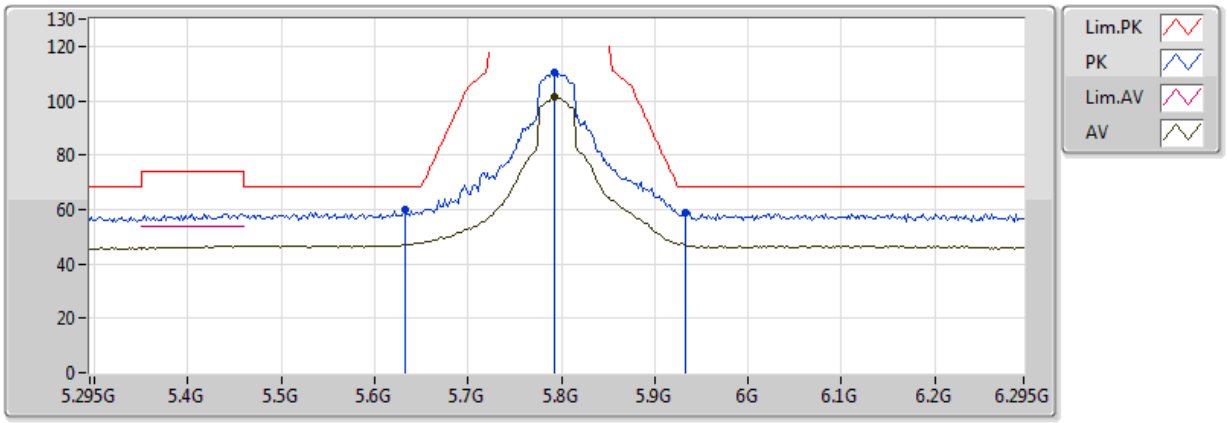


20170717
EUT Z_2TX
Setting 46
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.51008G	41.59	54.00	-12.41	13.44	3	H	185	1.32	-
PK	11.51078G	54.70	74.00	-19.30	13.44	3	H	185	1.32	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5795MHz_TX

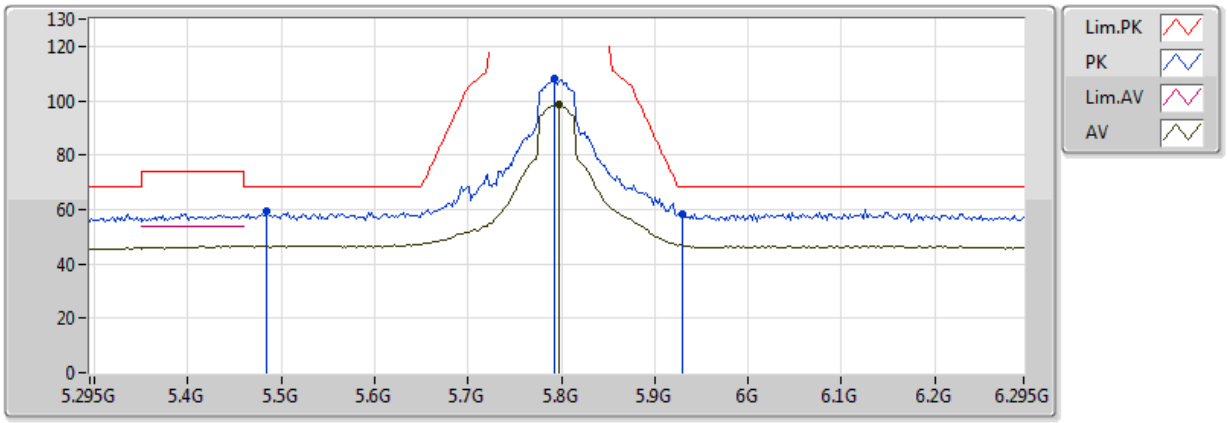


20170717
EUT Z_2TX
Setting 46
03-P-2-10
FSP(100019)

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	101.16	Inf	-Inf	6.25	3	V	219	1.07	-
PK	5.633G	59.94	68.20	-8.26	6.24	3	V	219	1.07	-
PK	5.793G	110.63	Inf	-Inf	6.25	3	V	219	1.07	-
PK	5.933G	58.99	68.20	-9.21	6.18	3	V	219	1.07	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5795MHz_TX

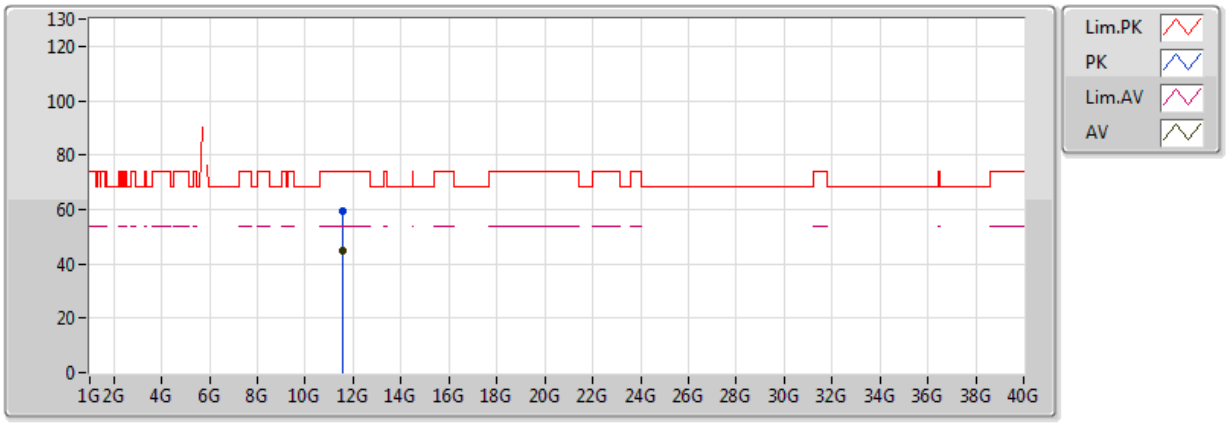


20170717
EUT Z_2TX
Setting 46
03-P-2-10
FSP(100019)

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	98.54	Inf	-Inf	6.25	3	H	336	1.11	-
PK	5.485G	59.50	68.20	-8.70	6.12	3	H	336	1.11	-
PK	5.793G	108.02	Inf	-Inf	6.25	3	H	336	1.11	-
PK	5.929G	58.50	68.20	-9.70	6.19	3	H	336	1.11	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5795MHz_TX

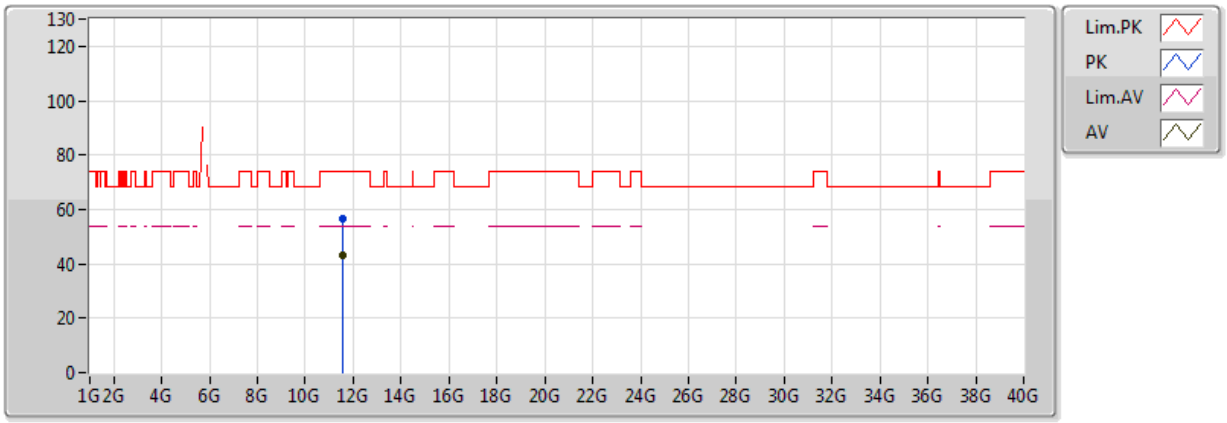


20170717
EUT Z_2TX
Setting 46
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.58988G	44.73	54.00	-9.27	13.52	3	V	150	2.12	-
PK	11.59056G	59.18	74.00	-14.82	13.52	3	V	150	2.12	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

5795MHz_TX

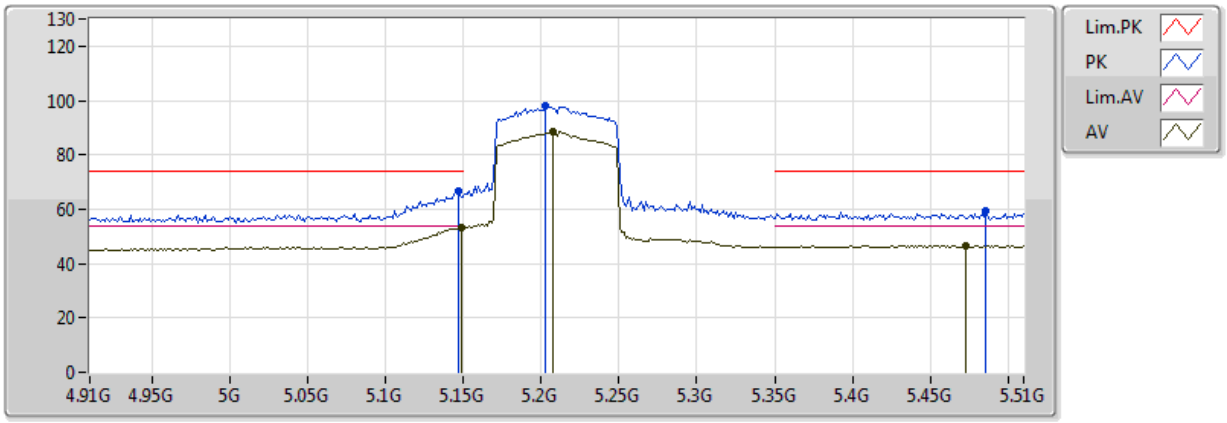


20170717
EUT Z_2TX
Setting 46
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.58978G	42.91	54.00	-11.09	13.52	3	H	192	1.20	-
PK	11.59072G	56.55	74.00	-17.45	13.52	3	H	192	1.20	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5210MHz_TX

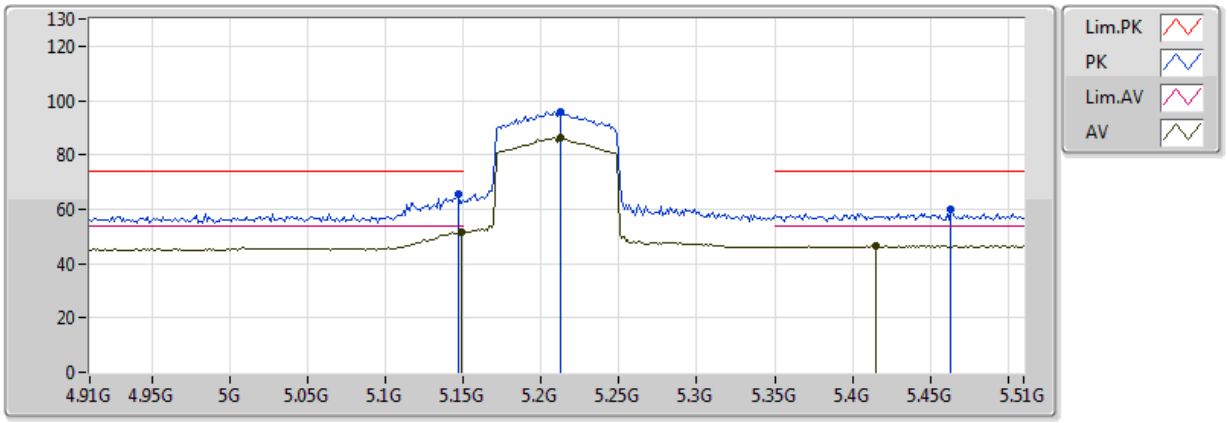


20170717
EUT Z_2TX
Setting 27
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1488G	53.42	54.00	-0.58	5.44	3	V	269	1.02	-
AV	5.2076G	88.71	Inf	-Inf	5.56	3	V	269	1.02	-
AV	5.4728G	46.55	54.00	-7.45	6.09	3	V	269	1.02	-
PK	5.1464G	66.52	74.00	-7.48	5.44	3	V	269	1.02	-
PK	5.2028G	98.07	Inf	-Inf	5.56	3	V	269	1.02	-
PK	5.486G	59.49	74.00	-14.51	6.12	3	V	269	1.02	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5210MHz_TX

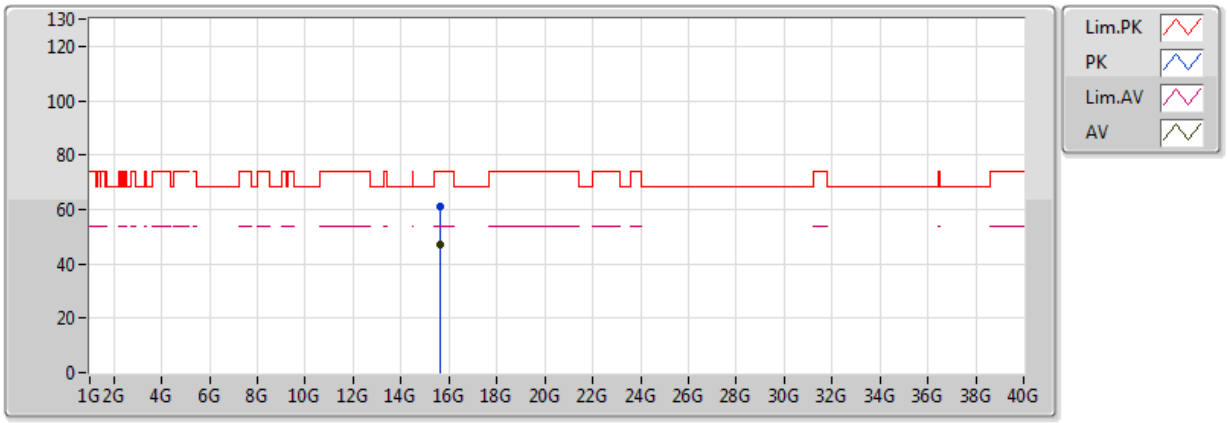


20170717
EUT Z_2TX
Setting 27
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1488G	51.49	54.00	-2.51	5.44	3	H	326	1.10	-
AV	5.2124G	86.24	Inf	-Inf	5.57	3	H	326	1.10	-
AV	5.4152G	46.53	54.00	-7.47	5.95	3	H	326	1.10	-
PK	5.1464G	65.79	74.00	-8.21	5.44	3	H	326	1.10	-
PK	5.2124G	95.84	Inf	-Inf	5.57	3	H	326	1.10	-
PK	5.4632G	60.06	74.00	-13.94	6.07	3	H	326	1.10	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5210MHz_TX

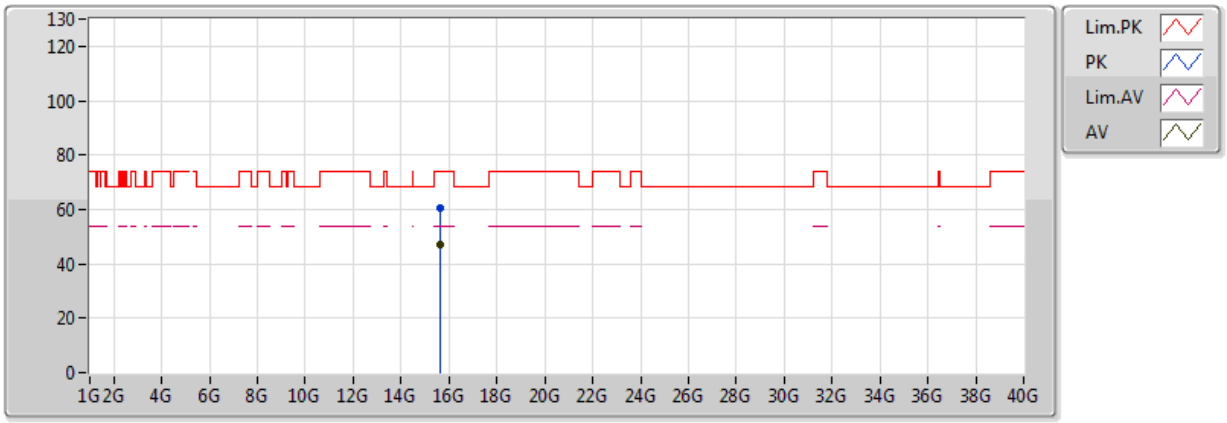


20170717
EUT Z_2TX
Setting 27
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.62852G	47.08	54.00	-6.92	16.02	3	V	227	1.83	-
PK	15.62682G	60.83	74.00	-13.17	16.02	3	V	227	1.83	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5210MHz_TX

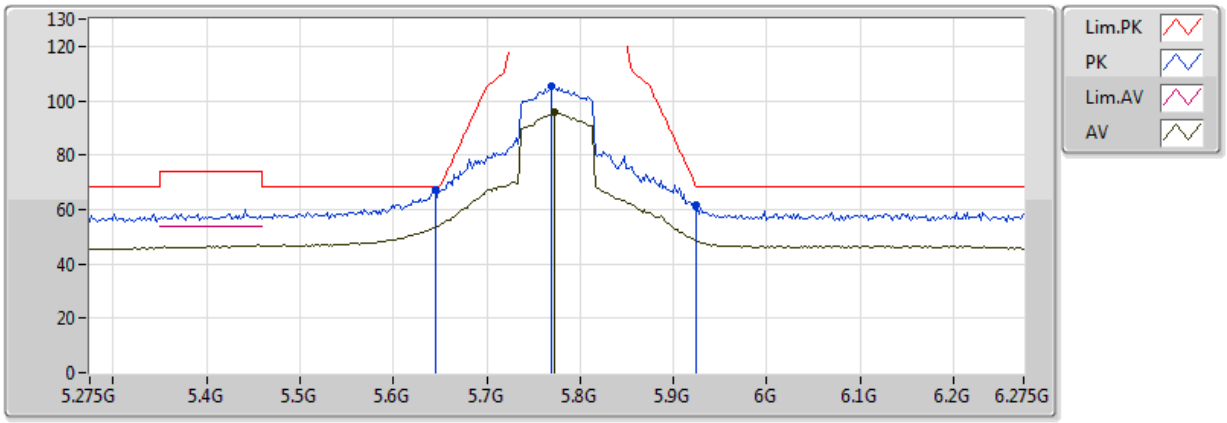


20170717
EUT Z_2TX
Setting 27
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.6259G	47.09	54.00	-6.91	16.03	3	H	50	1.98	-
PK	15.6274G	60.59	74.00	-13.41	16.02	3	H	50	1.98	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX

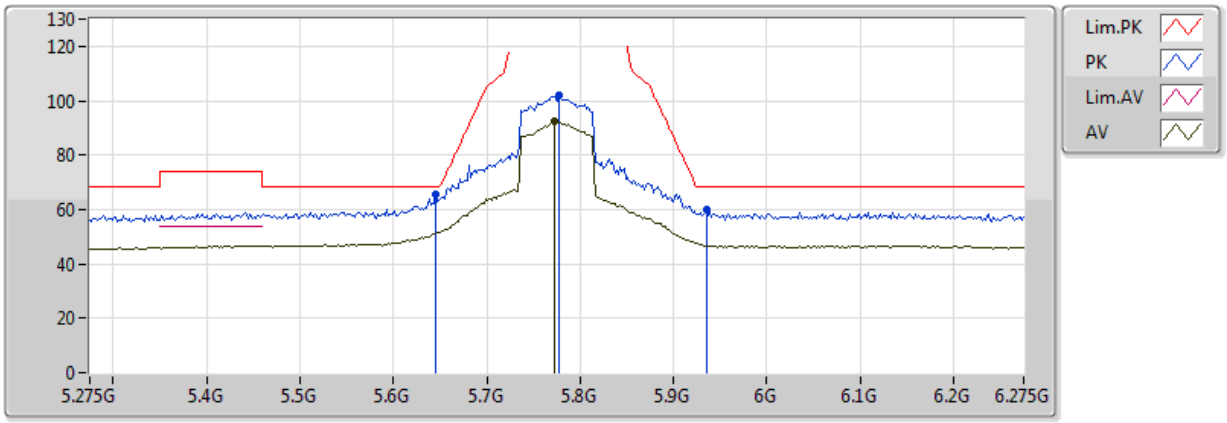


20170717
EUT Z_2TX
Setting 37
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.773G	95.99	Inf	-Inf	6.25	3	V	221	1.11	-
PK	5.645G	67.44	68.20	-0.76	6.24	3	V	221	1.11	-
PK	5.769G	105.34	Inf	-Inf	6.25	3	V	221	1.11	-
PK	5.925G	61.36	68.20	-6.84	6.19	3	V	221	1.11	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX

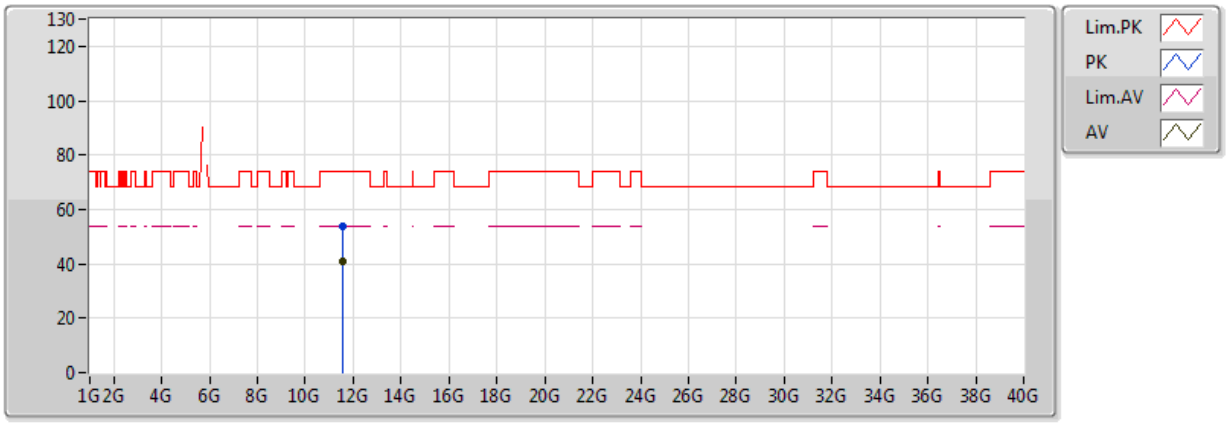


20170717
EUT Z_2TX
Setting 37
03-P-2-10
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.773G	92.30	Inf	-Inf	6.25	3	H	7	1.17	-
PK	5.645G	65.46	68.20	-2.74	6.24	3	H	7	1.17	-
PK	5.777G	101.80	Inf	-Inf	6.25	3	H	7	1.17	-
PK	5.935G	59.94	68.20	-8.26	6.18	3	H	7	1.17	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX

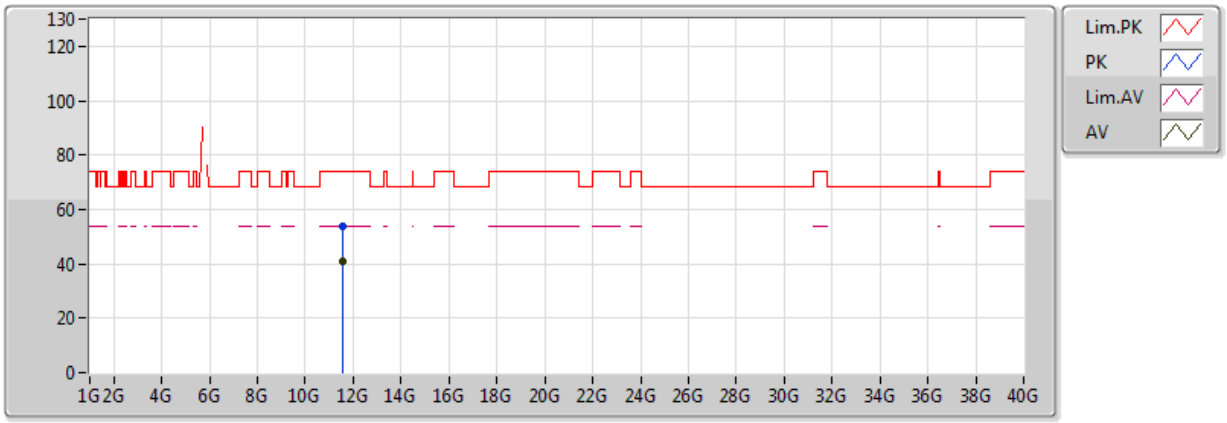


20170717
EUT Z_2TX
Setting 37
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.54838G	41.01	54.00	-12.99	13.48	3	V	73	2.57	-
PK	11.562G	54.03	74.00	-19.97	13.49	3	V	73	2.57	-

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

5775MHz_TX



20170717
EUT Z_2TX
Setting 37
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.54964G	40.74	54.00	-13.26	13.48	3	H	11	1.50	-
PK	11.54934G	53.81	74.00	-20.19	13.48	3	H	11	1.50	-

Mode: 20 MHz / Port 1
Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9826	5199.9823	5199.9814	5199.9811
110.00	5199.9823	5199.9819	5199.9818	5199.9808
93.50	5199.9820	5199.9811	5199.9804	5199.9801
Max. Deviation (MHz)	0.0180	0.0189	0.0196	0.0199
Max. Deviation (ppm)	3.46	3.63	3.77	3.83
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5199.9853	5199.9844	5199.9841	5199.9837
10	5199.9833	5199.9825	5199.9823	5199.9821
20	5199.9823	5199.9813	5199.9809	5199.9802
30	5199.9820	5199.9813	5199.9808	5199.9800
40	5199.9813	5199.9803	5199.9794	5199.9792
50	5199.9795	5199.9785	5199.9782	5199.9778
Max. Deviation (MHz)	0.0205	0.0215	0.0218	0.0222
Max. Deviation (ppm)	3.94	4.13	4.19	4.27
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9831	5784.9822	5784.9814	5784.9813
110.00	5784.9823	5784.9813	5784.9810	5784.9807
93.50	5784.9817	5784.9813	5784.9806	5784.9803
Max. Deviation (MHz)	0.0183	0.0187	0.0194	0.0197
Max. Deviation (ppm)	3.16	3.23	3.35	3.41
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5784.9844	5784.9835	5784.9833	5784.9827
10	5784.9831	5784.9824	5784.9822	5784.9817
20	5784.9823	5784.9814	5784.9805	5784.9800
30	5784.9820	5784.9812	5784.9805	5784.9803
40	5784.9811	5784.9810	5784.9804	5784.9796
50	5784.9792	5784.9785	5784.9784	5784.9779
Max. Deviation (MHz)	0.0208	0.0215	0.0216	0.0221
Max. Deviation (ppm)	3.60	3.72	3.73	3.82
Result	Pass			

Mode: 40 MHz / Port 1

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9828	5189.9826	5189.9824	5189.9816
110.00	5189.9823	5189.9817	5189.9815	5189.9809
93.50	5189.9815	5189.9813	5189.9808	5189.9801
Max. Deviation (MHz)	0.0185	0.0187	0.0192	0.0199
Max. Deviation (ppm)	3.56	3.60	3.70	3.83
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5189.9863	5189.9861	5189.9851	5189.9844
10	5189.9843	5189.9834	5189.9827	5189.9823
20	5189.9823	5189.9820	5189.9810	5189.9803
30	5189.9820	5189.9813	5189.9807	5189.9802
40	5189.9810	5189.9804	5189.9802	5189.9792
50	5189.9796	5189.9788	5189.9779	5189.9775
Max. Deviation (MHz)	0.0204	0.0212	0.0221	0.0225
Max. Deviation (ppm)	3.93	4.08	4.26	4.34
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9828	5754.9820	5754.9818	5754.9811
110.00	5754.9823	5754.9817	5754.9816	5754.9815
93.50	5754.9820	5754.9816	5754.9809	5754.9801
Max. Deviation (MHz)	0.0180	0.0184	0.0191	0.0199
Max. Deviation (ppm)	3.13	3.20	3.32	3.46
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5754.9845	5754.9844	5754.9842	5754.9832
10	5754.9838	5754.9828	5754.9819	5754.9817
20	5754.9823	5754.9813	5754.9805	5754.9802
30	5754.9820	5754.9814	5754.9807	5754.9806
40	5754.9810	5754.9801	5754.9792	5754.9787
50	5754.9794	5754.9793	5754.9788	5754.9778
Max. Deviation (MHz)	0.0206	0.0207	0.0212	0.0222
Max. Deviation (ppm)	3.58	3.60	3.68	3.86
Result	Pass			

Mode: 80 MHz / Port 1

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9824	5209.9815	5209.9812	5209.9804
110.00	5209.9823	5209.9817	5209.9813	5209.9807
93.50	5209.9814	5209.9807	5209.9801	5209.9800
Max. Deviation (MHz)	0.0186	0.0193	0.0199	0.0200
Max. Deviation (ppm)	3.57	3.70	3.82	3.84
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5209.9849	5209.9846	5209.9842	5209.9837
10	5209.9832	5209.9822	5209.9813	5209.9804
20	5209.9823	5209.9821	5209.9815	5209.9812
30	5209.9820	5209.9817	5209.9816	5209.9809
40	5209.9812	5209.9802	5209.9801	5209.9792
50	5209.9797	5209.9787	5209.9778	5209.9769
Max. Deviation (MHz)	0.0203	0.0213	0.0222	0.0231
Max. Deviation (ppm)	3.90	4.09	4.26	4.43
Result	Pass			

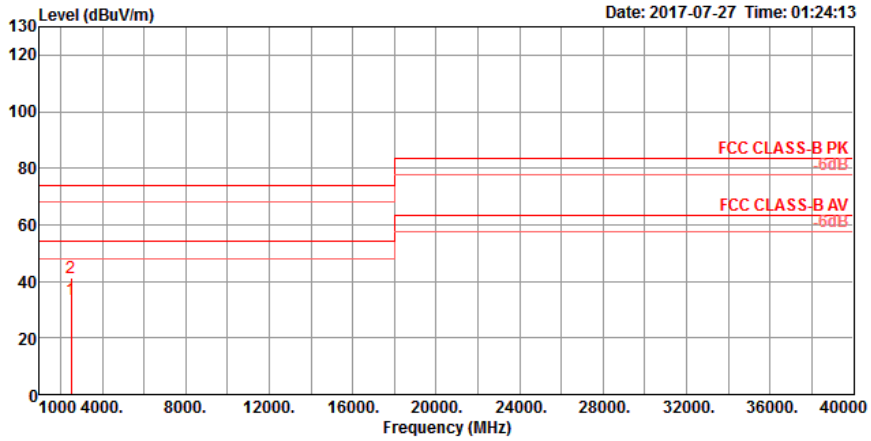
Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9824	5774.9818	5774.9811	5774.9804
110.00	5774.9823	5774.9822	5774.9816	5774.9810
93.50	5774.9818	5774.9810	5774.9809	5774.9805
Max. Deviation (MHz)	0.0182	0.0190	0.0191	0.0196
Max. Deviation (ppm)	3.15	3.29	3.31	3.39
Result	Pass			

Temperature vs. Frequency Stability

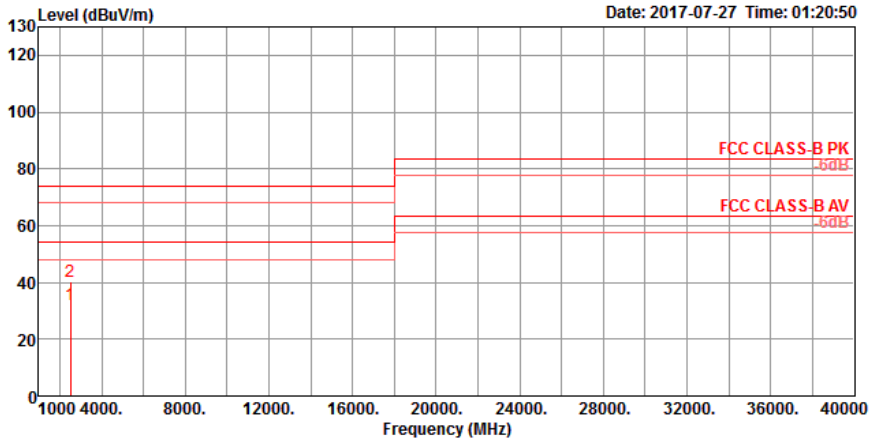
Temperature	Measurement Frequency (MHz)			
(℃)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5774.9853	5774.9843	5774.9841	5774.9840
10	5774.9834	5774.9824	5774.9820	5774.9813
20	5774.9823	5774.9819	5774.9815	5774.9813
30	5774.9820	5774.9810	5774.9801	5774.9797
40	5774.9807	5774.9801	5774.9798	5774.9792
50	5774.9799	5774.9793	5774.9784	5774.9779
Max. Deviation (MHz)	0.0201	0.0207	0.0216	0.0221
Max. Deviation (ppm)	3.48	3.58	3.74	3.83
Result	Pass			

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



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	2500.03	33.79	54.00	-20.21	37.41	5.51	28.20	37.33	148	219	Average	HORIZONTAL
2	2500.08	41.44	74.00	-32.56	45.06	5.51	28.20	37.33	148	219	Peak	HORIZONTAL

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



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	2500.00	32.23	54.00	-21.77	35.85	5.51	28.20	37.33	196	138	Average	VERTICAL
2	2500.06	40.19	74.00	-33.81	43.81	5.51	28.20	37.33	196	138	Peak	VERTICAL