FCC Test Report

Equipment	:	**cnPilot E501S Outdoor**
Brand Name	:	**Cambium Networks**
Model No.	:	**cnPilot E501S Outdoor**
FCC ID	:	**Z8H89FT0029**
Standard	:	**47 CFR FCC Part 15.407**
Operating Band	:	**5150 MHz – 5250 MHz** **5725 MHz – 5850 MHz**
Applicant	:	**Cambium Networks Inc.** **3800 Golf Road, Suite 360 Rolling Meadows, IL 60008, USA**
Manufacturer	:	**Cambium Networks Inc.** **3800 Golf Road, Suite 360 Rolling Meadows, IL 60008, USA**
Function	:	**☒ Outdoor; ☐ Indoor; ☐ Fixed P2P** **☐ Client**

The product sample received on Feb. 15, 2017 and completely tested on Mar. 13, 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
FR721518AB	Rev. 01	Initial issue of report	Mar. 29, 2017
FR721518AB	Rev. 02	Adding second Wall-mounted rack (2)	Mar. 30, 2017
FR721518AB	Rev. 03	1. Changing the Equipment name to "cnPilot Outdoor E501S" from "cnPilot E501S" 2. Changing the model name to "cnPilot Outdoor E501S" from "cnPilot E501S"	Apr. 11, 2017
FR721518AB	Rev. 04	1. Changing the Equipment name to "cnPilot E501S Outdoor" from "cnPilot Outdoor E501S" 2. Changing the model name to "cnPilot E501S Outdoor" from "cnPilot Outdoor E501S"	Apr. 19, 2017
FR721518AB	Rev. 05	Adding 30 degree elevation gain	Feb. 05, 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	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11n HT40	40	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11a	20	2TX
5.725-5.85GHz	802.11n HT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11n HT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX

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

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
						2.4GHz	5GHz
1	1, 2	Cambium	A005332	Embedded Ant.	I-PEX	10.5	-
2	1, 2	Cambium	A005332	Embedded Ant.	I-PEX	-	13

Note: The EUT has two antennas.

<For 2.4GHz Band>

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

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

Port 1, Port 2 could transmit/receive simultaneously.

<For 5GHz Band>

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

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

Port 1, Port 2 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)
802.11a	0.947	0.237
802.11ac VHT20	0.94	0.269
802.11ac VHT40	0.91	0.41
802.11ac VHT80	0.827	0.825

1.1.4 EUT Operational Condition

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

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 v01r03
- FCC KDB 644545 D03 v01
- FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location			
☐	HWA YA	ADD :	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
		TEL :	886-3-327-3456 FAX : 886-3-318-0055
☒	JHUBEI	ADD :	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
		TEL :	886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Serway Lin/Peter Wu	25°C / 56%	Feb. 22, 2017~ Feb. 24, 2017
Radiated	03CH01-CB	Justin Lin/Welson Chen	22°C / 54%	Feb. 15, 2017~ Feb. 23, 2017
AC Conduction	CO02-CB	Hank Yang	24°C / 55%	Feb. 25, 2017~ Mar. 13, 2017

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

1.4 Measurement Uncertainty

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

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

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_(6Mbps)_2TX	-
5180MHz	17.5
5200MHz	17.5
5240MHz	17
5745MHz	17.5
5785MHz	18
5825MHz	19.5
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	17.5
5200MHz	17.5
5240MHz	17.5
5745MHz	20
5785MHz	19.5
5825MHz	19
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	14
5230MHz	18
5755MHz	20.5
5795MHz	20.5
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	10.5
5775MHz	19

Note:
- VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.

2.2 The Worst Case Measurement Configuration

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

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
Operating Mode > 1GHz	CTX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 5GHz +WLAN 2.4GHz
Refer to Sporton Test Report No.: FA721518 for Co-location RF Exposure Evaluation.	

Note 1: The EUT can only be used in Y-axis position.

Note 2: The PoE below is for measurement only, would not be marked.

Support Unit	Brand	Model	FCC ID
PoE	Cambium Networks	NET-P30-56IN	DoC

2.3 EUT Operation during Test

During the test, the EUT operation to normal function.

2.4 Accessories

Wall-mounted rack (1)*1
Wall-mounted rack (2)*2 (Set)

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*3	DELL	E6430	DoC
2	AP	HP	MRLBB-1305	DoC
3	PoE	Cambium Networks	NET-P30-56IN	DoC

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

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*3	DELL	E4300	DoC
2	AP	HP	MRLBB-1305	DoC
3	PoE	Cambium Networks	NET-P30-56IN	DoC

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

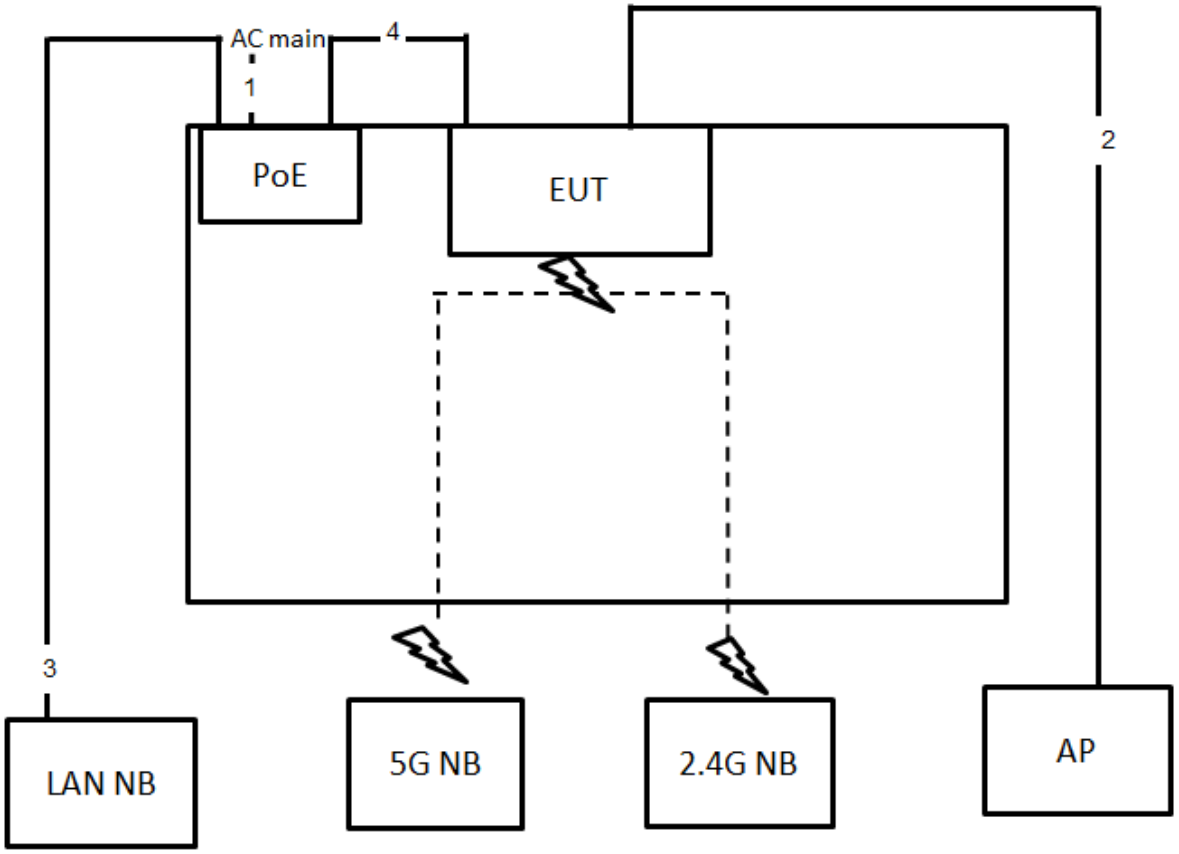
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC
2	PoE	Cambium Networks	NET-P30-56IN	DoC

For Test Site No: TH01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E4300	DoC
2	PoE	Cambium Networks	NET-P30-56IN	DoC

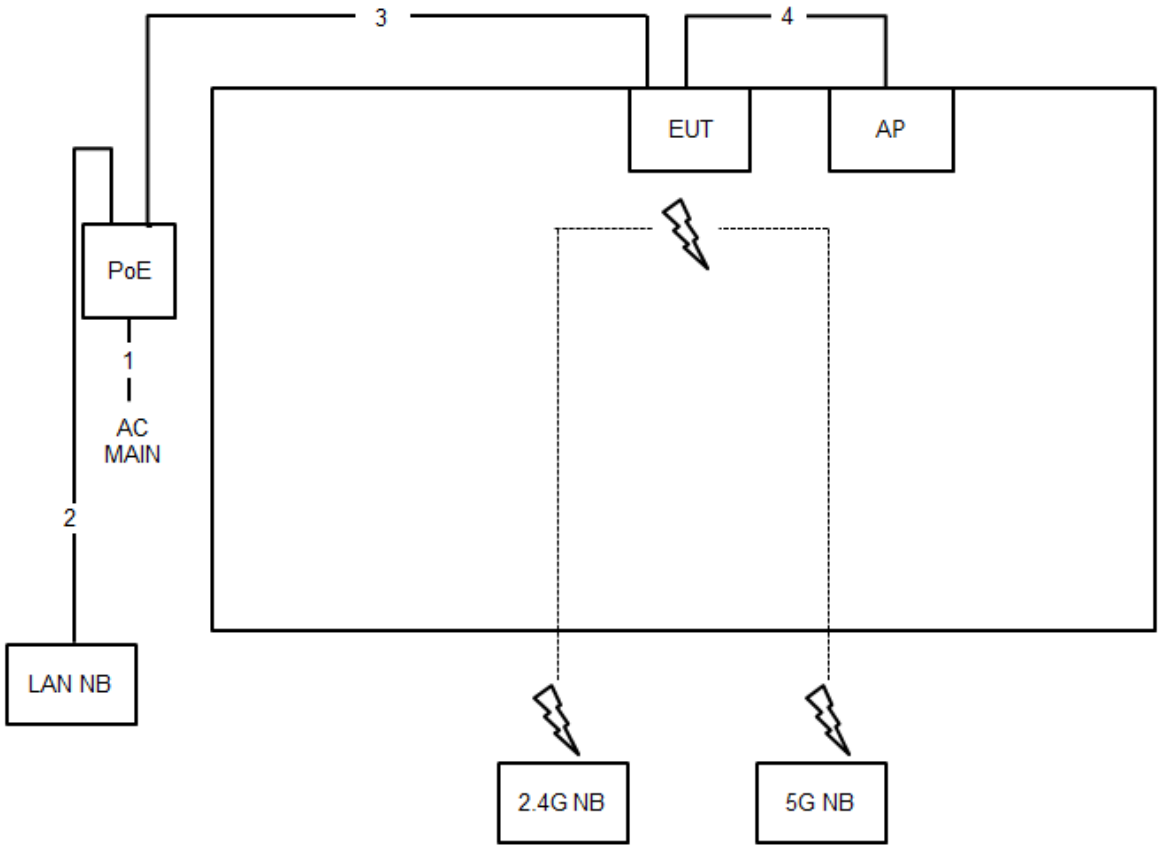
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



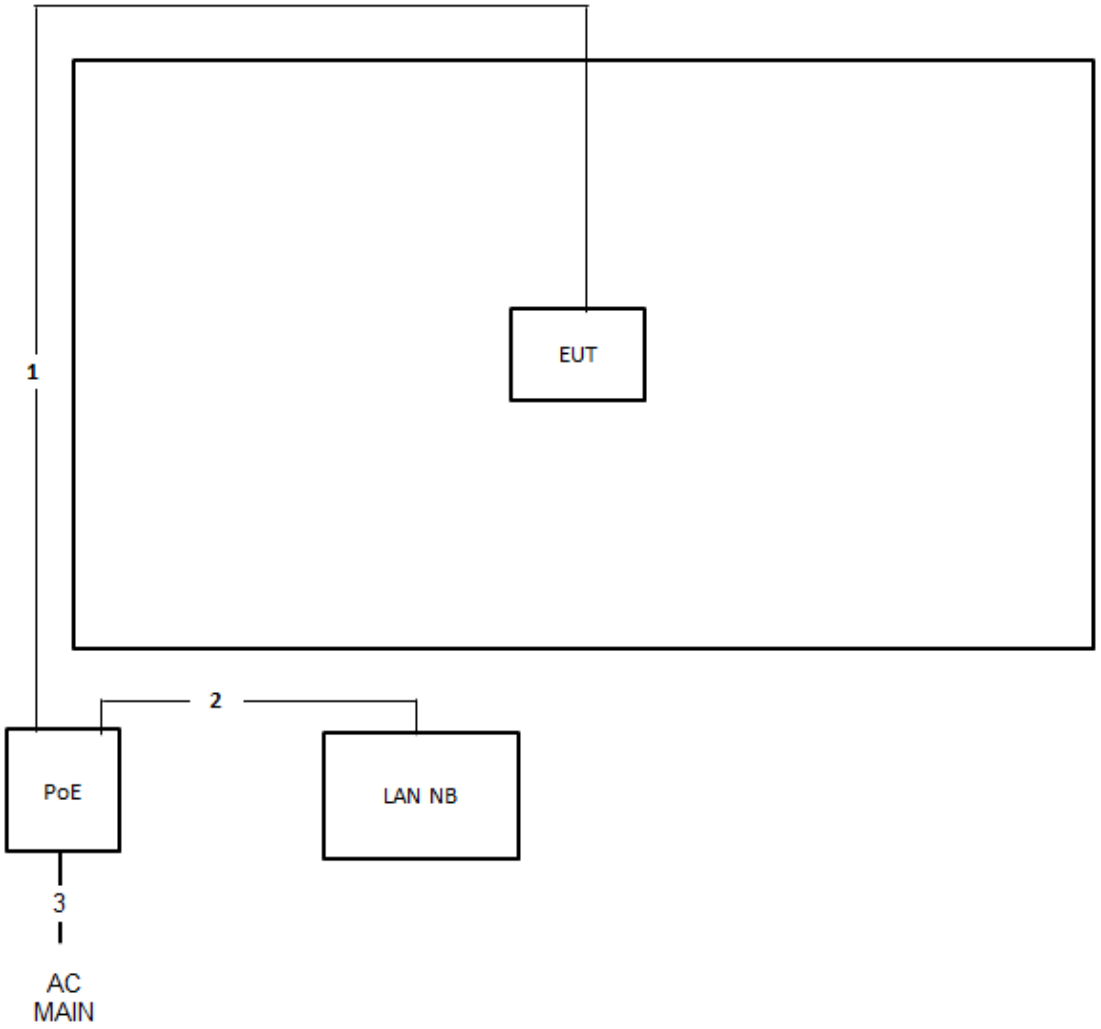
Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	10m
4	RJ-45 cable	No	1m

Test Setup Diagram - Radiated Test (Below 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	1m

Test Setup Diagram - Radiated Test (Above 1GHz)



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

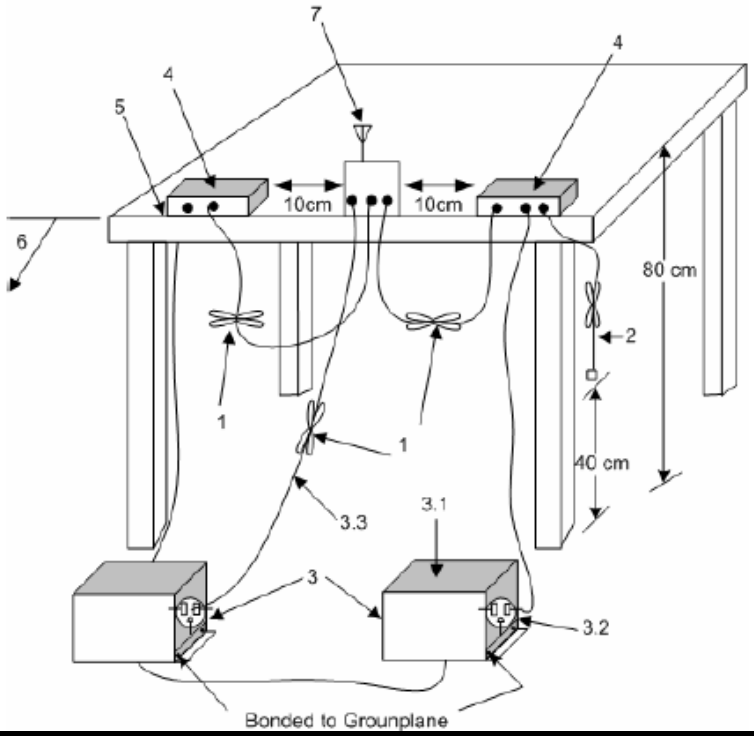
Refer a test equipment and calibration data table in this test report.

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

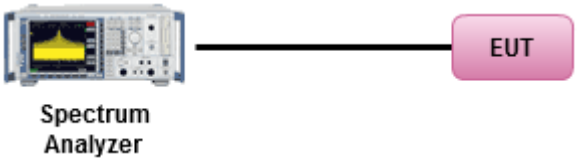
Refer a test equipment and calibration data table in this test report.

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.	

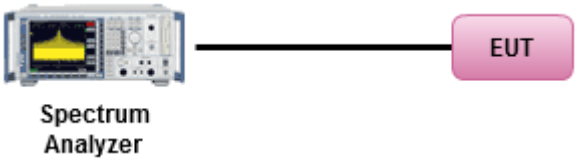
3.4.2 Measuring Instruments

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.

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.

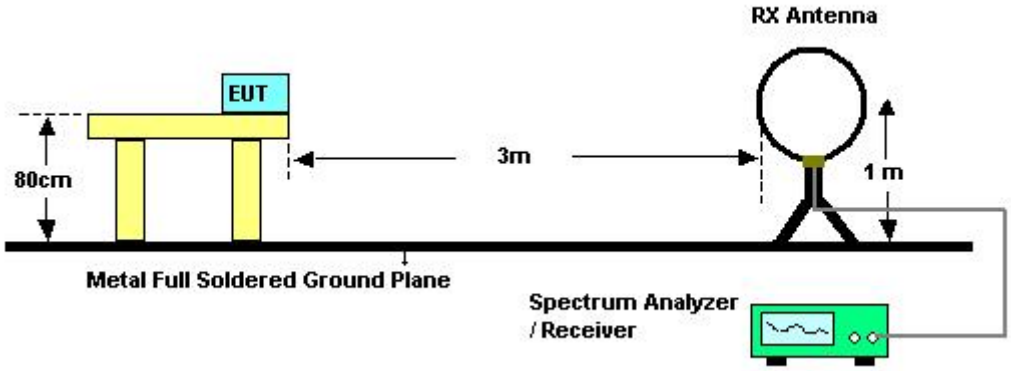
3.5.3 Test Procedures

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.		

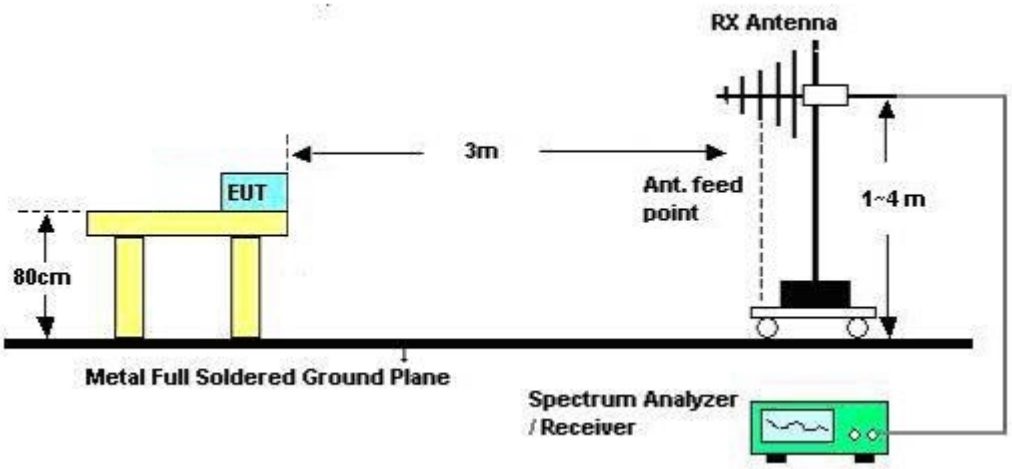
3.5.4 Test Setup

Transmitter Radiated Unwanted Emissions

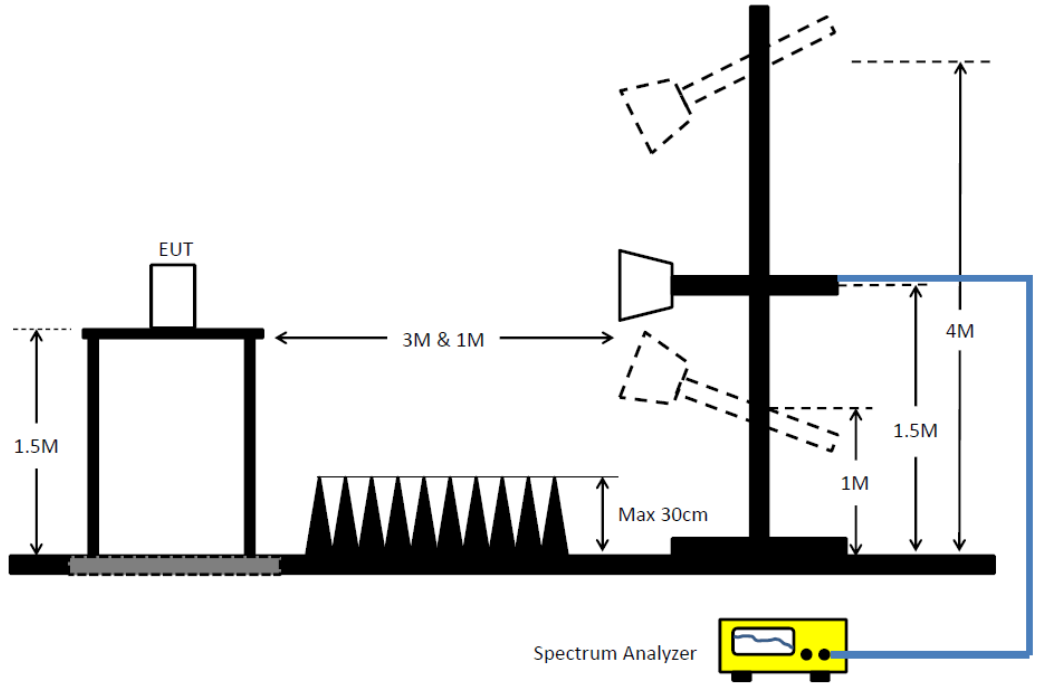
9kHz ~30MHz



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

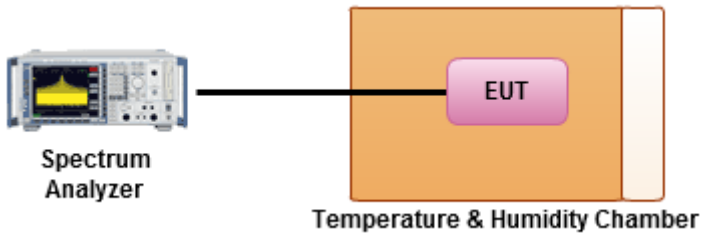
Refer a test equipment and calibration data table in this test report.

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 -40°C~70°C.

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	Remark
LISN	Schwarzbeck	NSLK 8127	8127650	9kHz ~ 30MHz	Nov. 23, 2016	Conduction (CO02-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 15, 2016	Conduction (CO02-CB)
EMI Receiver	Agilent	N9038A	MY52260140	9kHz ~ 8.4GHz	Jan. 16, 2017	Conduction (CO02-CB)
COND Cable	Woken	Cable	01	0.15MHz ~ 30MHz	Nov. 30, 2016	Conduction (CO02-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO02-CB)
Pulse Limiter	Schwarzbeck	VTSD 9561F	9561-F073	9kHz ~ 30MHz	Sep. 29, 2016	Conduction (CO02-CB)
BILOG ANTENNA with 6dB Attenator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2016	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Mar. 15, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 21, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 16, 2016	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)

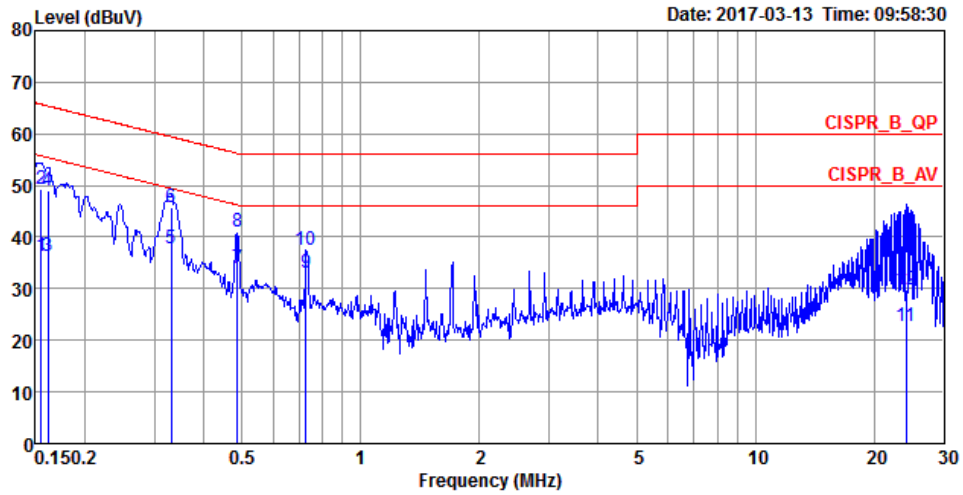
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-l0-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 03, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Conducted (TH01-CB)

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

"*" Calibration Interval of instruments listed above is two years.

NCR means Non-Calibration required.

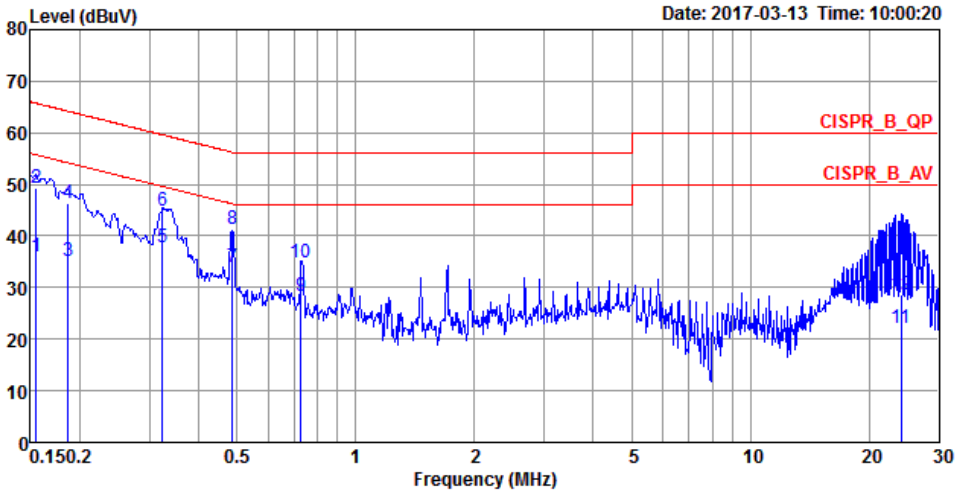
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1548	36.43	-19.31	55.74	26.45	9.94	0.04	Average	NEUTRAL
2	0.1548	49.35	-16.39	65.74	39.37	9.94	0.04	QP	NEUTRAL
3	0.1616	36.37	-19.01	55.38	26.38	9.95	0.04	Average	NEUTRAL
4	0.1616	49.01	-16.37	65.38	39.02	9.95	0.04	QP	NEUTRAL
5	0.3303	37.82	-11.62	49.44	27.81	9.97	0.04	Average	NEUTRAL
6	0.3303	45.77	-13.67	59.44	35.76	9.97	0.04	QP	NEUTRAL
7	0.4863	33.81	-12.42	46.23	23.80	9.97	0.04	Average	NEUTRAL
8	0.4863	41.06	-15.17	56.23	31.05	9.97	0.04	QP	NEUTRAL
9	0.7274	33.18	-12.82	46.00	23.15	9.98	0.05	Average	NEUTRAL
10	0.7274	37.54	-18.46	56.00	27.51	9.98	0.05	QP	NEUTRAL
11	24.1423	22.80	-27.20	50.00	12.22	10.31	0.27	Average	NEUTRAL
12	24.1423	29.79	-30.21	60.00	19.21	10.31	0.27	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	0.1548	36.10	-19.64	55.74	26.11	9.95	0.04	Average	LINE
2	0.1548	49.18	-16.56	65.74	39.19	9.95	0.04	QP	LINE
3	0.1864	35.11	-19.09	54.20	25.13	9.93	0.05	Average	LINE
4	0.1864	46.46	-17.74	64.20	36.48	9.93	0.05	QP	LINE
5	0.3234	37.78	-11.84	49.62	27.84	9.90	0.04	Average	LINE
6	0.3234	44.87	-14.75	59.62	34.93	9.90	0.04	QP	LINE
7	0.4863	33.86	-12.37	46.23	23.91	9.91	0.04	Average	LINE
8	0.4863	41.19	-15.04	56.23	31.24	9.91	0.04	QP	LINE
9	0.7274	28.27	-17.73	46.00	18.28	9.94	0.05	Average	LINE
10	0.7274	34.93	-21.07	56.00	24.94	9.94	0.05	QP	LINE
11	24.1423	22.03	-27.97	50.00	11.47	10.29	0.27	Average	LINE
12	24.1423	28.68	-31.32	60.00	18.12	10.29	0.27	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	22.675M	16.567M	16M6D1D	21.325M	16.467M
5.725-5.85GHz	16.35M	16.542M	16M5D1D	16.275M	16.467M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	23.475M	17.741M	17M7D1D	22.875M	17.691M
5.725-5.85GHz	17.6M	17.741M	17M7D1D	17.125M	17.666M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	45.2M	36.332M	36M3D1D	43.45M	36.232M
5.725-5.85GHz	36.25M	36.282M	36M3D1D	35.75M	36.182M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	87.7M	75.962M	76M0D1D	84.8M	75.562M
5.725-5.85GHz	75.7M	75.762M	75M8D1D	73.2M	75.462M

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;

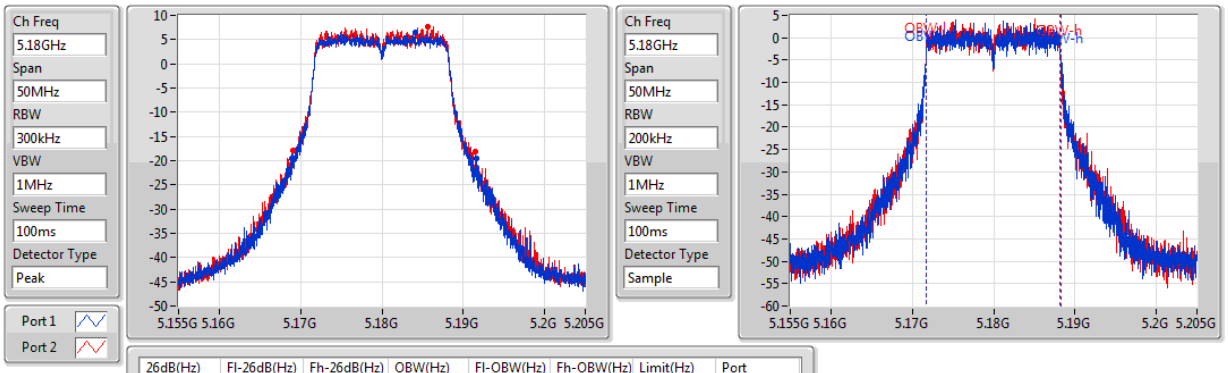
Result

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	22.675M	16.567M	22.4M	16.492M
5200MHz	Pass	Inf	22.5M	16.517M	22.2M	16.542M
5240MHz	Pass	Inf	22.15M	16.492M	21.325M	16.467M
5745MHz	Pass	500k	16.275M	16.492M	16.325M	16.467M
5785MHz	Pass	500k	16.3M	16.517M	16.35M	16.542M
5825MHz	Pass	500k	16.275M	16.517M	16.325M	16.517M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	22.875M	17.691M	23M	17.716M
5200MHz	Pass	Inf	23.15M	17.716M	23.475M	17.741M
5240MHz	Pass	Inf	22.875M	17.691M	23M	17.716M
5745MHz	Pass	500k	17.55M	17.741M	17.575M	17.716M
5785MHz	Pass	500k	17.125M	17.716M	17.55M	17.666M
5825MHz	Pass	500k	17.55M	17.691M	17.6M	17.691M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	44.35M	36.232M	45.2M	36.332M
5230MHz	Pass	Inf	43.45M	36.232M	44.75M	36.232M
5755MHz	Pass	500k	35.75M	36.282M	36.25M	36.182M
5795MHz	Pass	500k	35.95M	36.282M	35.85M	36.182M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	87.7M	75.562M	84.8M	75.962M
5775MHz	Pass	500k	73.2M	75.462M	75.7M	75.762M

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

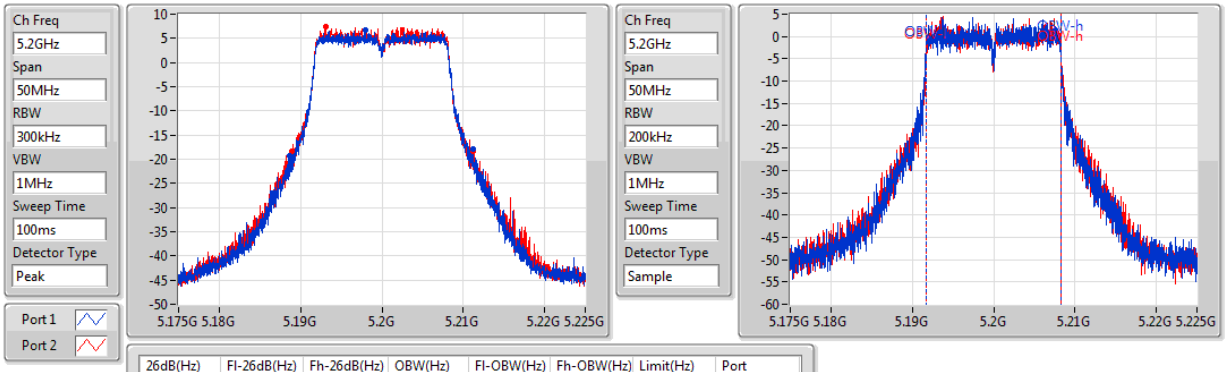
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.675M	5.168925G	5.1916G	16.567M	5.171704G	5.188271G	Inf	1
22.4M	5.1691G	5.1915G	16.492M	5.171704G	5.188196G	Inf	2

802.11a_(6Mbps)_2TX EBW

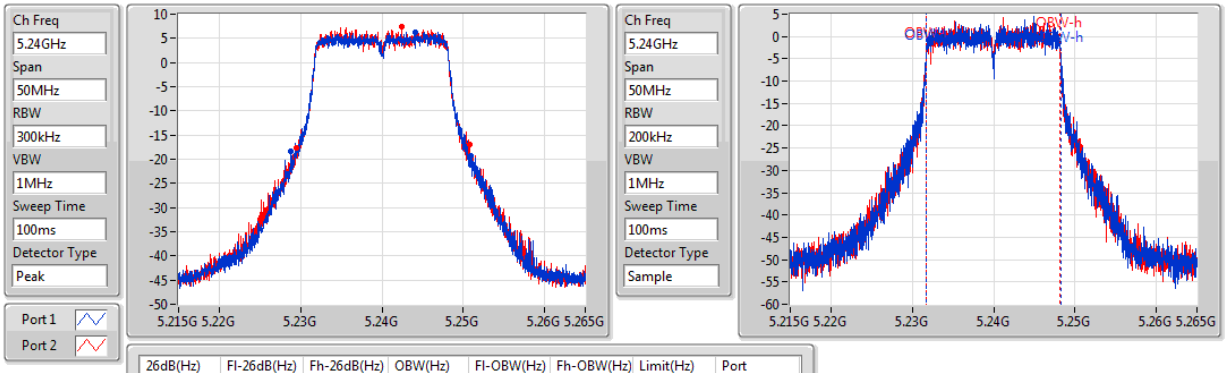
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.5M	5.18865G	5.21115G	16.517M	5.191704G	5.208221G	Inf	1
22.2M	5.188975G	5.211175G	16.542M	5.191729G	5.208271G	Inf	2

802.11a_(6Mbps)_2TX EBW

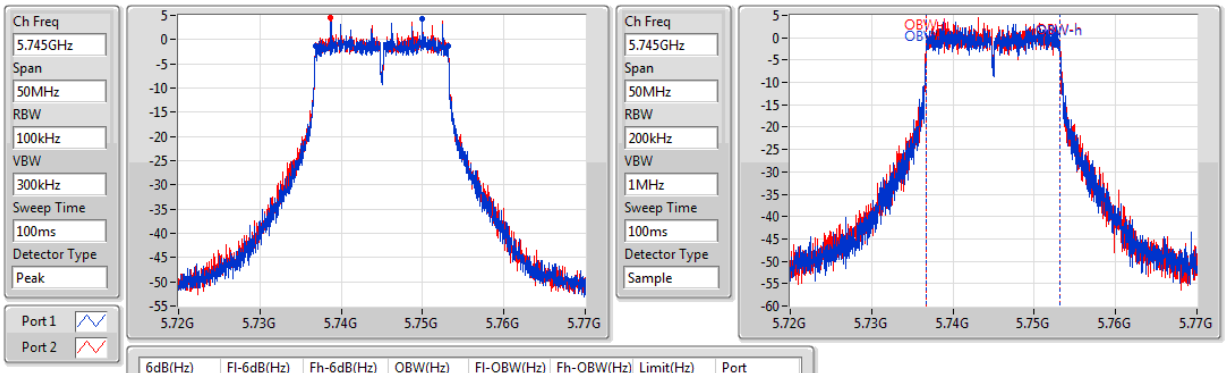
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.15M	5.22885G	5.251G	16.492M	5.231729G	5.248221G	Inf	1
21.325M	5.229425G	5.25075G	16.467M	5.231729G	5.248196G	Inf	2

802.11a_(6Mbps)_2TX EBW

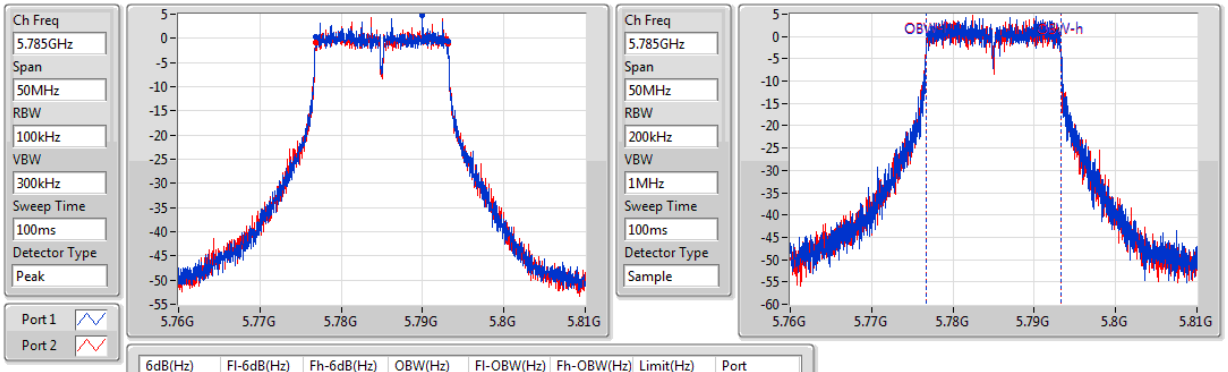
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	5.73685G	5.753125G	16.492M	5.736704G	5.753196G	500k	1
16.325M	5.736825G	5.75315G	16.467M	5.736729G	5.753196G	500k	2

802.11a_(6Mbps)_2TX EBW

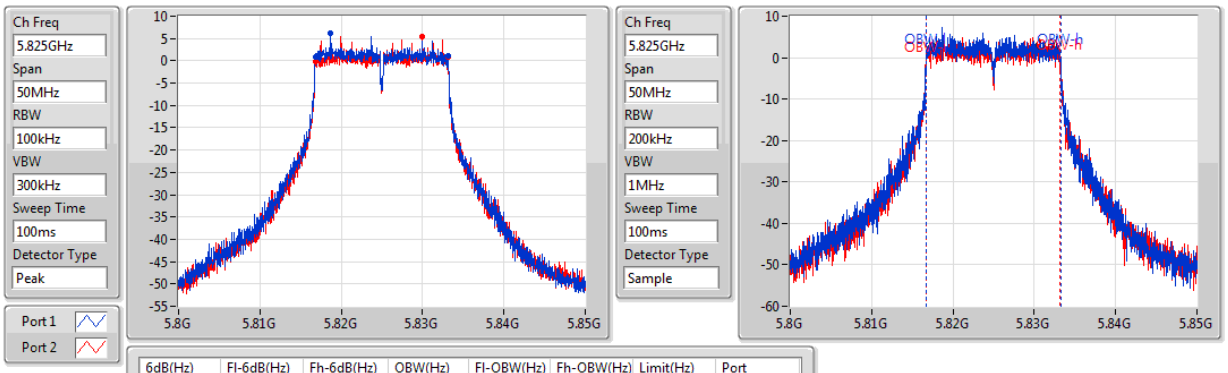
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	5.776825G	5.793125G	16.517M	5.776704G	5.793221G	500k	1
16.35M	5.7768G	5.79315G	16.542M	5.776704G	5.793246G	500k	2

802.11a_(6Mbps)_2TX EBW

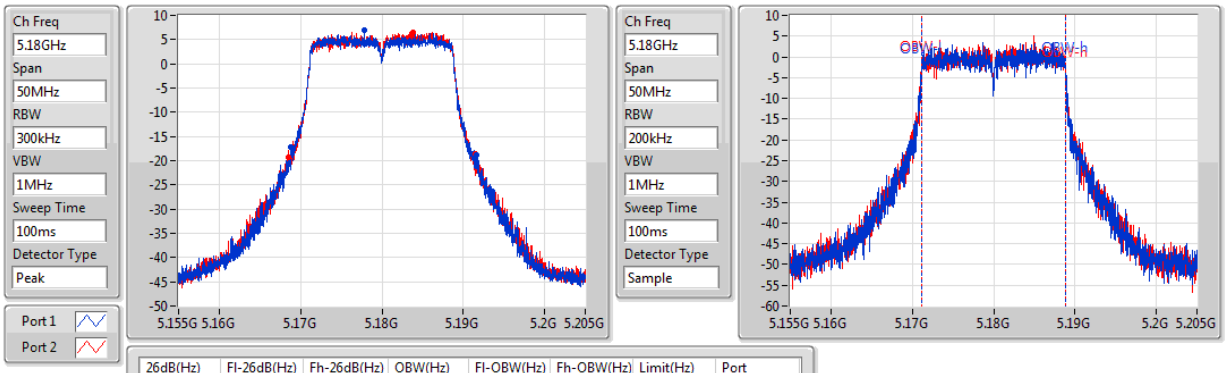
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	5.816825G	5.8331G	16.517M	5.816704G	5.833221G	500k	1
16.325M	5.8168G	5.833125G	16.517M	5.816679G	5.833196G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

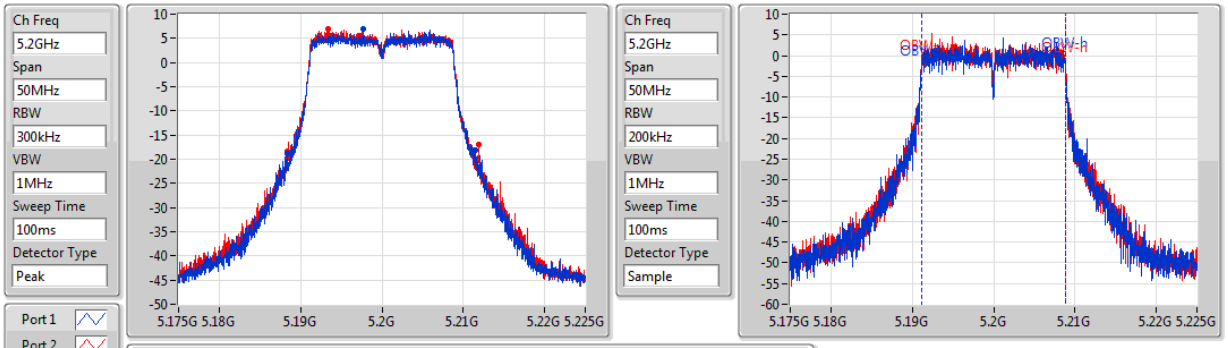
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.875M	5.16875G	5.191625G	17.691M	5.171129G	5.188821G	Inf	1
23M	5.16845G	5.19145G	17.716M	5.171129G	5.188846G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

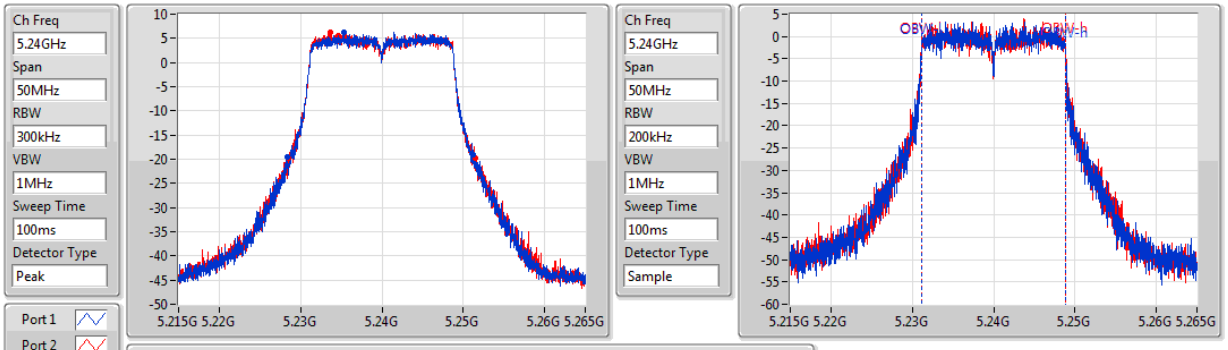
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.15M	5.1884G	5.21155G	17.716M	5.191104G	5.208821G	Inf	1
23.475M	5.1884G	5.211875G	17.741M	5.191104G	5.208846G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5240MHz

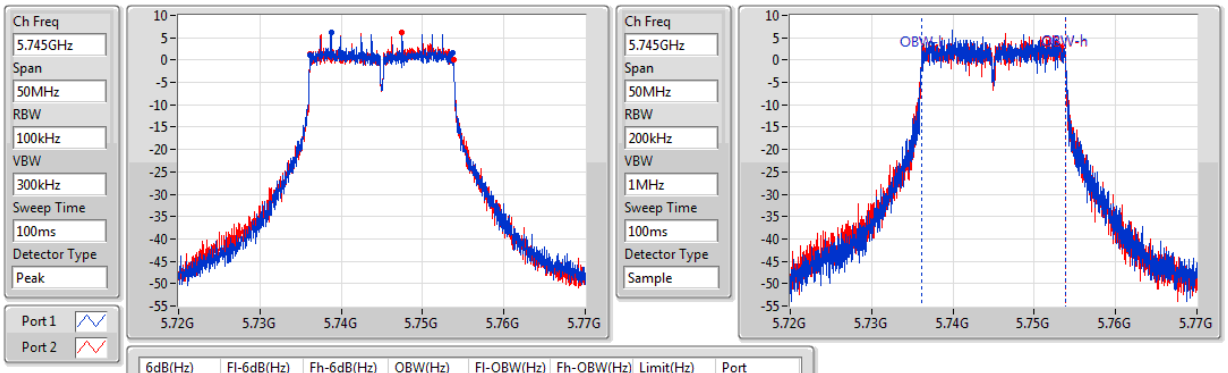


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.875M	5.2284G	5.251275G	17.691M	5.231129G	5.248821G	Inf	1
23M	5.22845G	5.25145G	17.716M	5.231104G	5.248821G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5745MHz

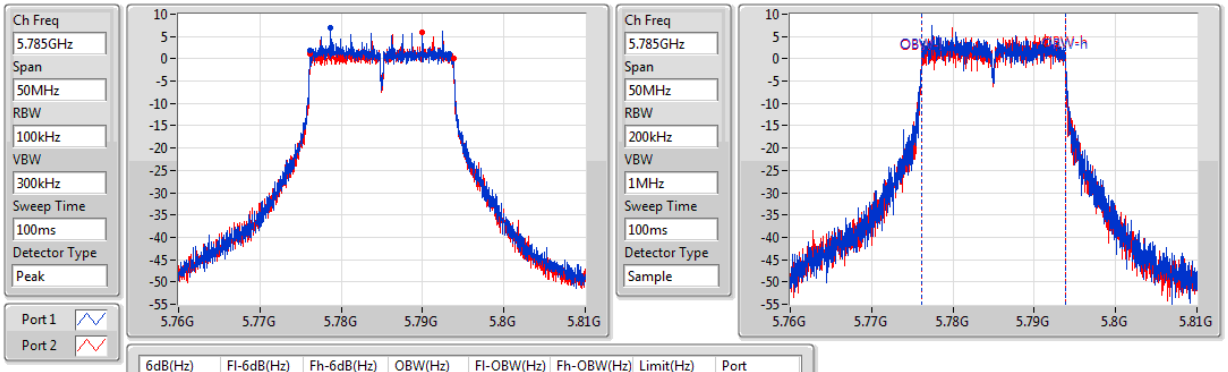


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	5.7362G	5.75375G	17.741M	5.736104G	5.753846G	500k	1
17.575M	5.7362G	5.753775G	17.716M	5.736104G	5.753821G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5785MHz

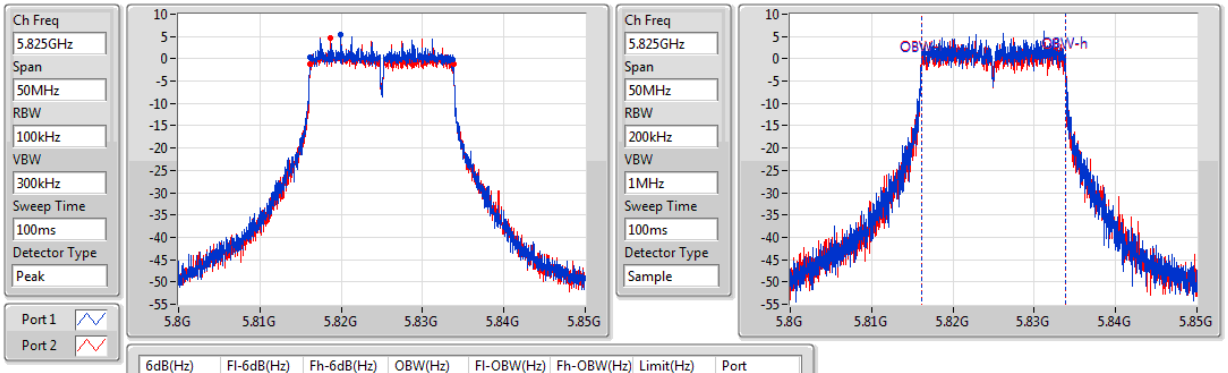


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.125M	5.776225G	5.79335G	17.716M	5.776104G	5.793821G	500k	1
17.55M	5.776225G	5.793775G	17.666M	5.776129G	5.793796G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

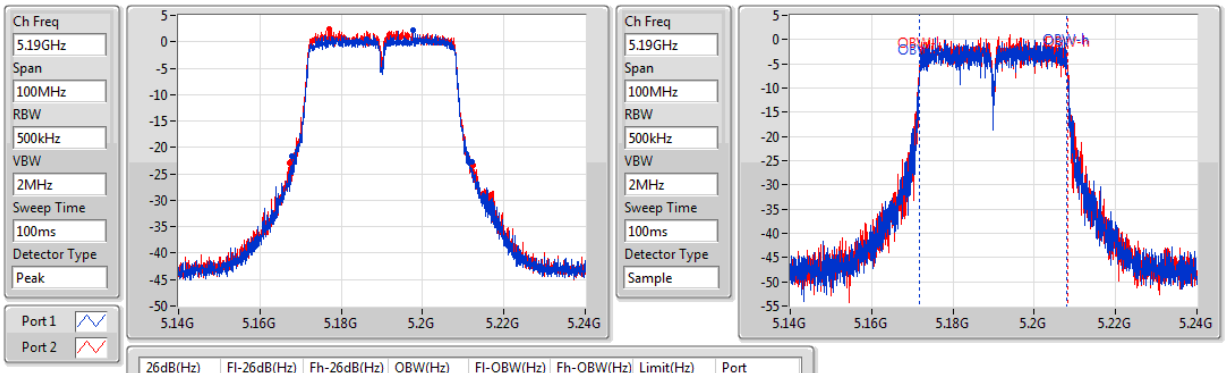
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	5.8162G	5.83375G	17.691M	5.816104G	5.833796G	500k	1
17.6M	5.816175G	5.833775G	17.691M	5.816104G	5.833796G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

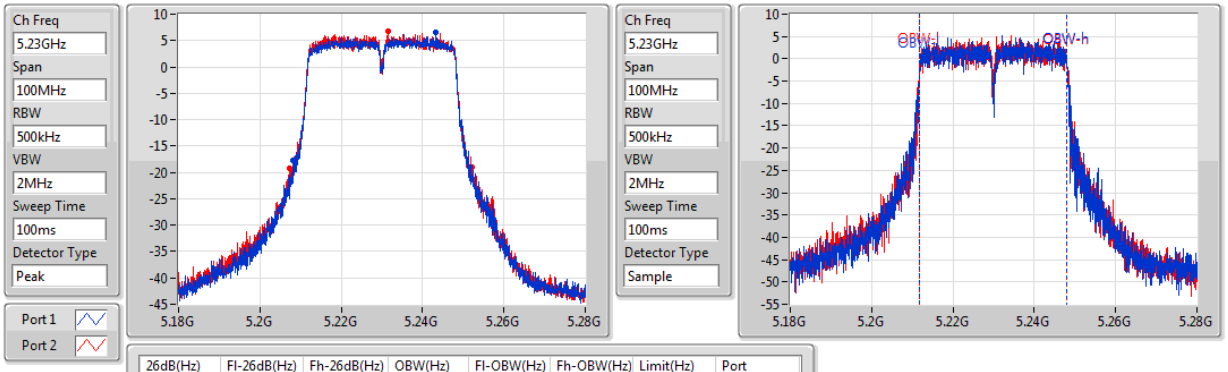
5190MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
44.35M	5.16775G	5.2121G	36.232M	5.171859G	5.208091G	Inf	1
45.2M	5.16725G	5.21245G	36.332M	5.171809G	5.208141G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

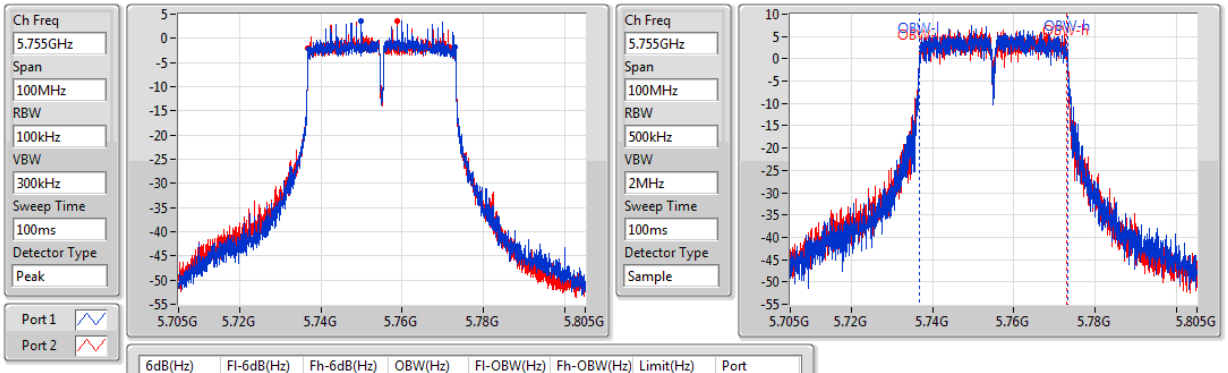
5230MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43.45M	5.20815G	5.2516G	36.232M	5.211859G	5.248091G	Inf	1
44.75M	5.2074G	5.25215G	36.232M	5.211859G	5.248091G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5755MHz

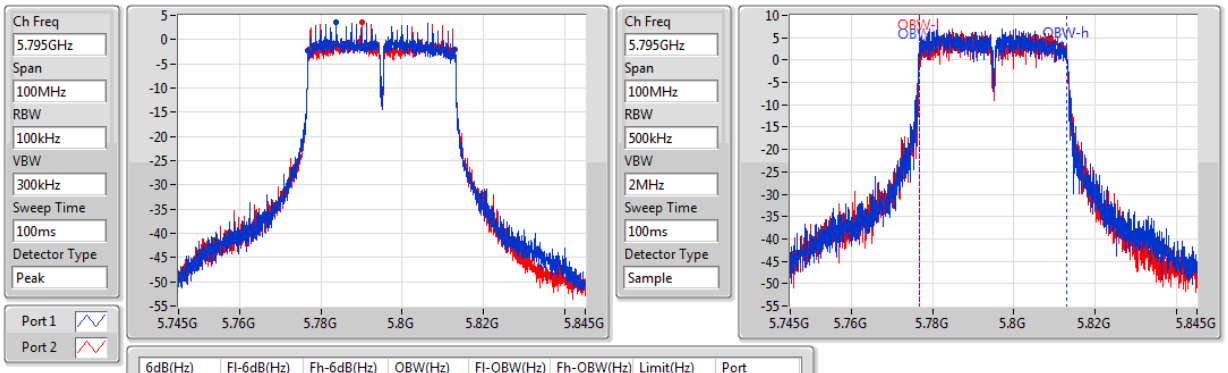


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.75M	5.7371G	5.77285G	36.282M	5.736859G	5.773141G	500k	1
36.25M	5.73685G	5.7731G	36.182M	5.736859G	5.773041G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

5795MHz

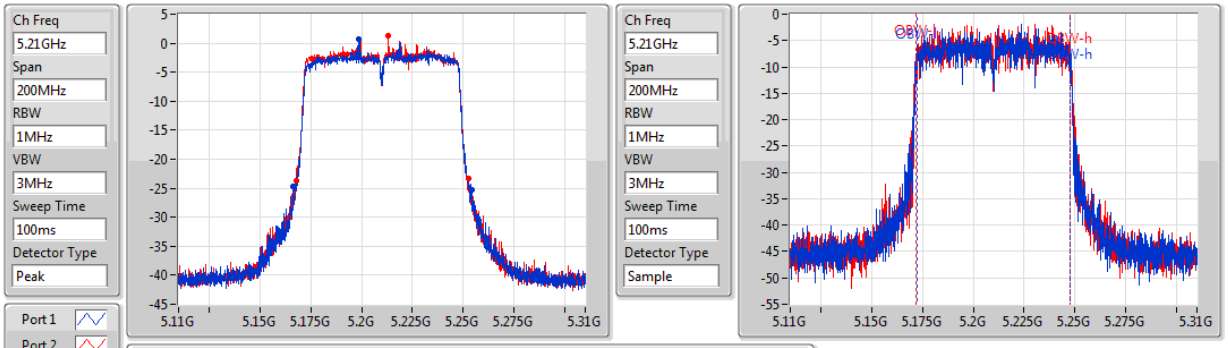


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.95M	5.7768G	5.81275G	36.282M	5.776759G	5.813041G	500k	1
35.85M	5.77705G	5.8129G	36.182M	5.776859G	5.813041G	500k	2

802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5210MHz

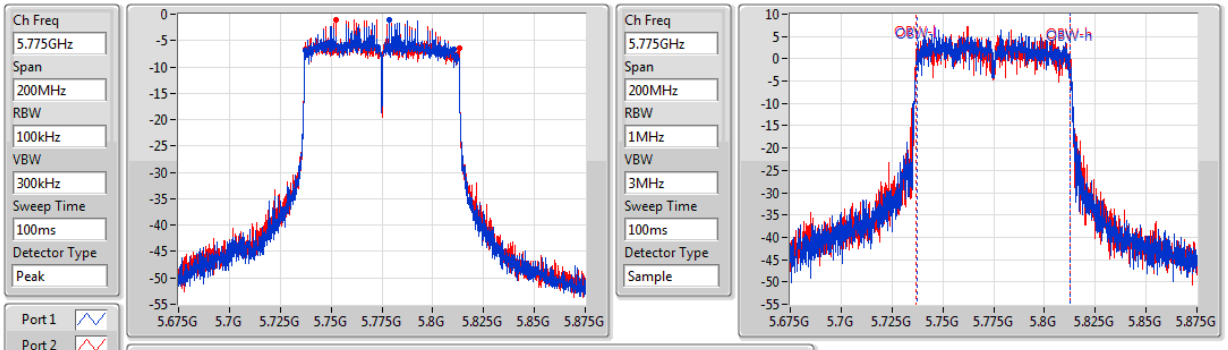


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
87.7M	5.1664G	5.2541G	75.562M	5.172219G	5.247781G	Inf	1
84.8M	5.1677G	5.2525G	75.962M	5.171919G	5.247881G	Inf	2

802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5775MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
73.2M	5.7374G	5.8106G	75.462M	5.737219G	5.812681G	500k	1
75.7M	5.7372G	5.8129G	75.762M	5.737019G	5.812781G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
802.11a_(6Mbps)_2TX	-	-	-	-
5.15-5.25GHz	19.57	0.09057	32.57	1.80717
5.725-5.85GHz	22.12	0.16293	35.12	3.25087
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	19.58	0.09078	32.58	1.81134
5.725-5.85GHz	22.64	0.18365	35.64	3.66438
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	19.64	0.09204	32.64	1.83654
5.725-5.85GHz	22.84	0.19231	35.84	3.83707
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	11.87	0.01538	24.87	0.30690
5.725-5.85GHz	21.18	0.13122	34.18	2.61818

Result

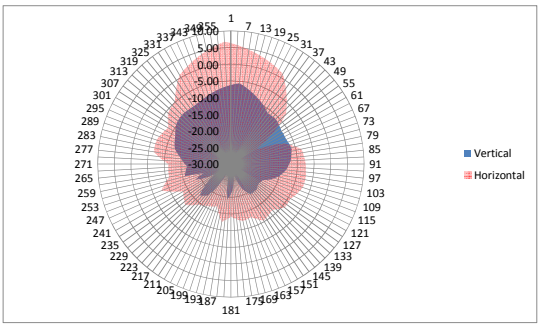
Mode	Result	DG (dBi)	30° Gain (Note1) (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_(6Mbps)_2TX	-	-		-	-	-	-	-	-
5180MHz	Pass	13.00	Inf	16.27	16.84	19.57	23.00	32.57	36.00
5200MHz	Pass	13.00	Inf	16.44	16.65	19.56	23.00	32.56	36.00
5240MHz	Pass	13.00	Inf	16.43	16.59	19.52	23.00	32.52	36.00
5180MHz(Note2)	Pass	13.00	1.27	16.27	16.84	19.57	23.00	20.84	21.00
5200MHz(Note2)	Pass	13.00	1.27	16.44	16.65	19.56	23.00	20.83	21.00
5240MHz(Note2)	Pass	13.00	1.27	16.43	16.59	19.52	23.00	20.79	21.00
5745MHz	Pass	13.00	Inf	17.02	17.28	20.16	23.00	33.16	36.00
5785MHz	Pass	13.00	Inf	17.93	17.88	20.92	23.00	33.92	36.00
5825MHz	Pass	13.00	Inf	19.37	18.84	22.12	23.00	35.12	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-		-	-	-	-	-	-
5180MHz	Pass	13.00	Inf	16.42	16.72	19.58	23.00	32.58	36.00
5200MHz	Pass	13.00	Inf	16.4	16.68	19.55	23.00	32.55	36.00
5240MHz	Pass	13.00	Inf	16.37	16.59	19.49	23.00	32.49	36.00
5180MHz(Note2)	Pass	13.00	1.27	16.42	16.72	19.58	23.00	20.85	21.00
5200MHz(Note2)	Pass	13.00	1.27	16.4	16.68	19.55	23.00	20.82	21.00
5240MHz(Note2)	Pass	13.00	1.27	16.37	16.59	19.49	23.00	20.76	21.00
5745MHz	Pass	13.00	Inf	19.58	19.67	22.64	23.00	35.64	36.00
5785MHz	Pass	13.00	Inf	19.63	19.09	22.38	23.00	35.38	36.00
5825MHz	Pass	13.00	Inf	18.97	18.34	21.68	23.00	34.68	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-		-	-	-	-	-	-
5190MHz	Pass	13.00	Inf	11.92	12.81	15.40	23.00	28.40	36.00
5230MHz	Pass	13.00	Inf	16.58	16.68	19.64	23.00	32.64	36.00
5190MHz(Note2)	Pass	13.00	1.27	11.92	12.81	15.40	23.00	16.67	21.00
5230MHz(Note2)	Pass	13.00	1.27	16.58	16.68	19.64	23.00	20.91	21.00
5755MHz	Pass	13.00	Inf	19.68	19.76	22.73	23.00	35.73	36.00
5795MHz	Pass	13.00	Inf	20.03	19.61	22.84	23.00	35.84	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-		-	-	-	-	-	-
5210MHz	Pass	13.00	Inf	8.61	9.09	11.87	23.00	24.87	36.00
5210MHz(Note2)	Pass	13.00	1.27	8.61	9.09	11.87	23.00	13.14	21.00
5775MHz	Pass	13.00	Inf	18.26	18.07	21.18	23.00	34.18	36.00

DG = Directional Gain; **Port X** = Port X output power
Note1: The antenna gain at elevation angle higher than 30° from horizon.
Note2: The measurement result of emission at elevation angle higher than 30° from horizon.

SPORTON LAB.

30 degree elevation gain

Test Frequency(MHz)	5180MHz	
degree	Vertical	Horizontal
	Gain(dBi)	Gain(dBi)
1	-6.27	6.33
4	-5.94	5.83
7	-5.62	5.32
10	-6.17	4.81
13	-6.72	4.31
16	-7.27	3.80
19	-7.82	3.30
22	-8.37	2.79
25	-8.91	2.28
28	-9.46	1.78
31	-10.01	1.27
34	-10.56	-0.29
37	-11.11	-1.86
40	-11.04	-3.42
43	-10.96	-4.84
46	-10.89	-6.25
49	-11.12	-7.67
52	-11.36	-11.08
55	-11.59	-14.49
58	-11.82	-17.90
61	-11.82	-21.31
64	-11.81	-18.47
67	-11.81	-15.62
70	-11.60	-12.78
73	-11.38	-11.29
76	-11.17	-9.79
79	-11.38	-8.30
82	-11.59	-8.10
85	-11.80	-7.90
88	-12.01	-7.69
91	-12.43	-7.49
94	-12.86	-7.40
97	-13.28	-7.30
100	-13.90	-7.21
103	-14.53	-7.22
106	-15.15	-7.22
109	-16.19	-7.23
112	-17.23	-7.71
115	-18.27	-8.20
118	-19.31	-8.68
121	-19.47	-9.16
124	-19.62	-9.19
127	-19.78	-9.21
130	-19.56	-9.24
133	-19.34	-9.97
136	-19.12	-10.70
139	-19.14	-11.43
142	-19.15	-11.16
145	-19.17	-10.90
148	-19.18	-10.63
151	-20.12	-10.36
154	-21.05	-11.20
157	-21.99	-12.05
160	-23.62	-12.89
163	-25.25	-12.76
166	-26.88	-12.62
169	-25.61	-12.49
172	-24.35	-12.89
175	-23.08	-13.30
178	-21.81	-13.70
181	-20.95	-14.10
184	-20.08	-13.52
187	-19.22	-12.95
190	-22.74	-12.37
193	-26.25	-13.80
196	-29.77	-15.22
199	-28.56	-16.65
202	-27.34	-16.34
205	-26.13	-16.04
208	-24.91	-15.73
211	-22.72	-15.42
214	-20.53	-15.04
217	-18.34	-14.66
220	-17.78	-14.28
223	-17.21	-13.37
226	-16.65	-12.45
229	-18.57	-11.54
232	-20.48	-12.02
235	-22.40	-12.50
238	-24.31	-12.97
241	-22.31	-13.45
244	-20.30	-11.53
247	-18.30	-9.60
250	-19.86	-7.68
253	-21.43	-8.78
256	-15.70	-9.89
259	-15.97	-10.99
262	-16.24	-11.03
265	-16.51	-11.06
268	-16.78	-11.10
271	-16.19	-11.13
274	-15.61	-9.60
277	-15.02	-8.07
280	-14.20	-6.54
283	-13.37	-6.54
286	-12.55	-6.53
289	-12.22	-6.53
292	-11.89	-6.96
295	-11.55	-7.39
298	-11.22	-7.82
301	-10.71	-8.25
304	-10.21	-7.39
307	-9.70	-6.54
310	-9.52	-5.68
313	-9.33	-5.42
316	-9.15	-5.15
319	-9.21	-4.89
322	-9.28	-3.46
325	-9.34	-2.04
328	-9.40	-0.61
331	-9.22	0.82
334	-9.03	1.49
337	-8.85	2.16
340	-8.53	2.83
343	-8.20	3.50
346	-7.88	4.16
349	-7.56	4.83
352	-7.24	5.50
355	-6.91	6.17
358	-6.59	6.84
Elevation angle 30 degrees Gain(dBi)	-9.03	1.27



SPORTON INTERNATIONAL INC.
TEL : 886-3-327-3456
FAX : 886-3-327-0973

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
802.11a_(6Mbps)_2TX	-	-
5.15-5.25GHz	5.46	9.74
5.725-5.85GHz	7.75	23.76
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	5.12	9.40
5.725-5.85GHz	8.23	24.24
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	2.22	6.50
5.725-5.85GHz	5.69	21.70
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	-8.85	-4.57
5.725-5.85GHz	1.79	17.80

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

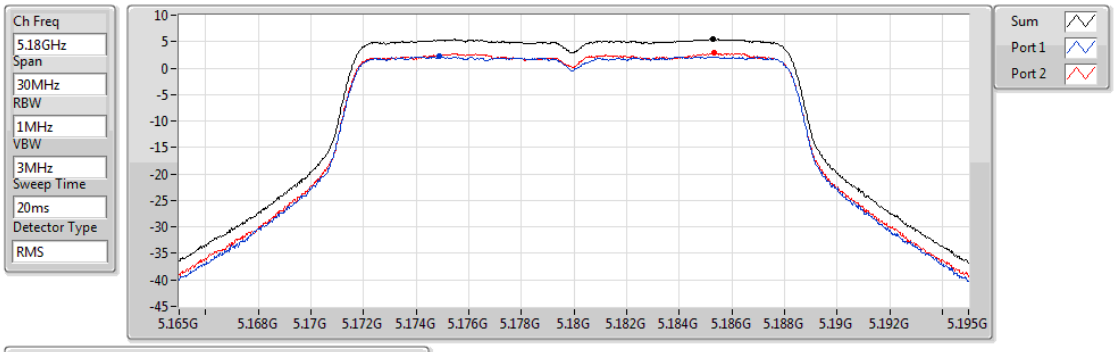
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	16.01	2.16	2.81	5.46	6.99
5200MHz	Pass	16.01	2.2	2.77	5.42	6.99
5240MHz	Pass	16.01	2.1	2.26	5.17	6.99
5745MHz	Pass	16.01	3.31	3.52	6.03	19.99
5785MHz	Pass	16.01	3.83	3.95	6.73	19.99
5825MHz	Pass	16.01	5.25	4.79	7.75	19.99
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	16.01	1.75	2.44	5.02	6.99
5200MHz	Pass	16.01	1.97	2.5	5.12	6.99
5240MHz	Pass	16.01	1.78	1.95	4.76	6.99
5745MHz	Pass	16.01	5.56	5.74	8.23	19.99
5785MHz	Pass	16.01	6.08	5.07	8.11	19.99
5825MHz	Pass	16.01	4.31	3.96	7.02	19.99
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	16.01	-5.21	-4.57	-2.03	6.99
5230MHz	Pass	16.01	-0.76	-0.6	2.22	6.99
5755MHz	Pass	16.01	2.93	2.85	5.62	19.99
5795MHz	Pass	16.01	3.21	2.39	5.69	19.99
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	16.01	-12.08	-11.51	-8.85	6.99
5775MHz	Pass	16.01	-0.75	-1.37	1.79	19.99

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

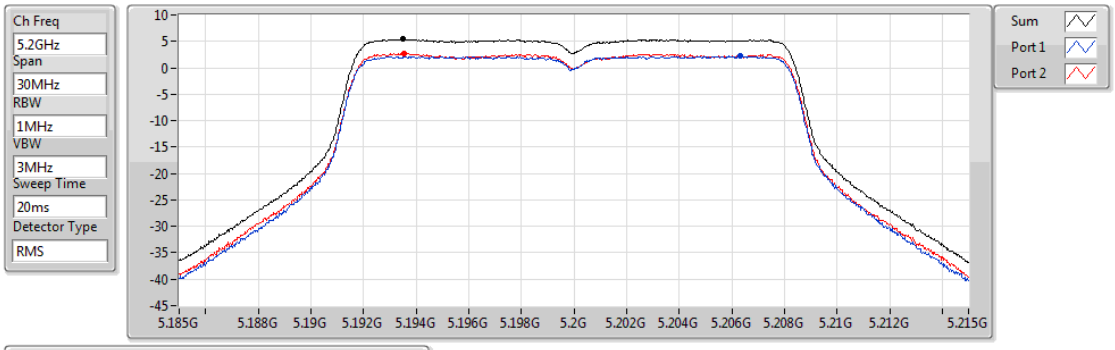
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.46	5.46	2.16	2.81

802.11a_(6Mbps)_2TX PSD

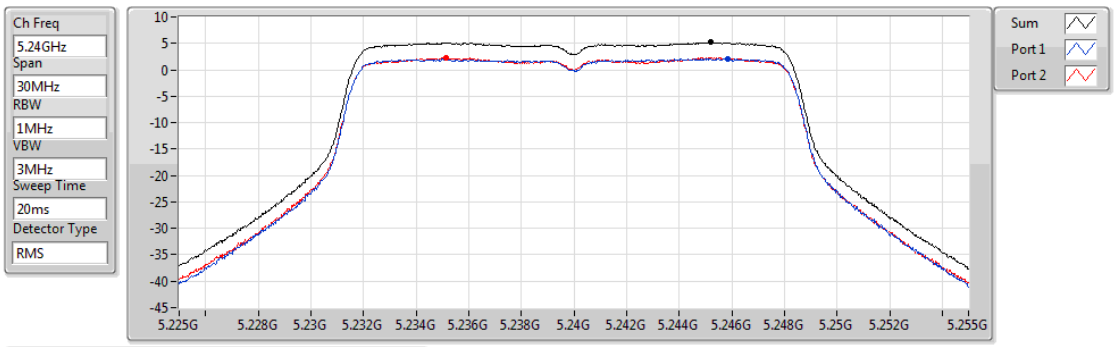
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.42	5.42	2.20	2.77

802.11a_(6Mbps)_2TX PSD

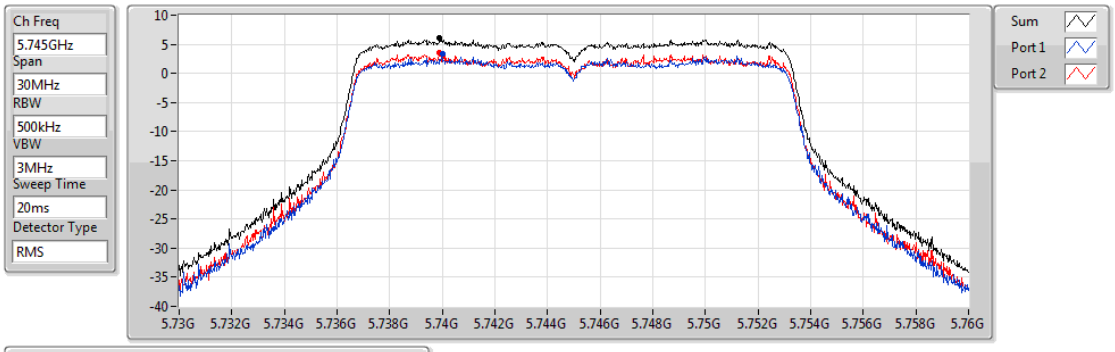
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.17	5.17	2.10	2.26

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

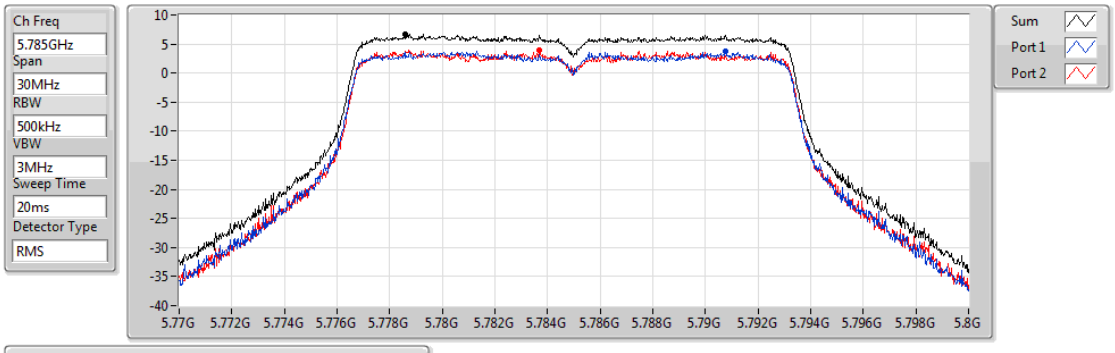
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.03	6.03	3.31	3.52

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

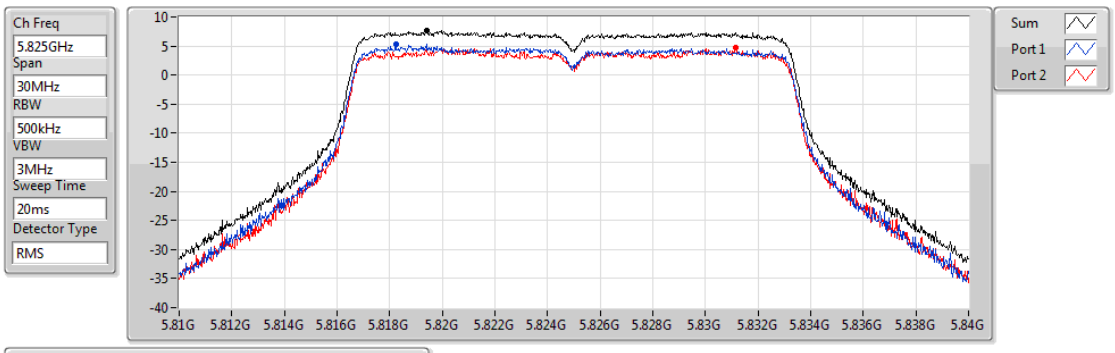
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.73	6.73	3.83	3.95

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

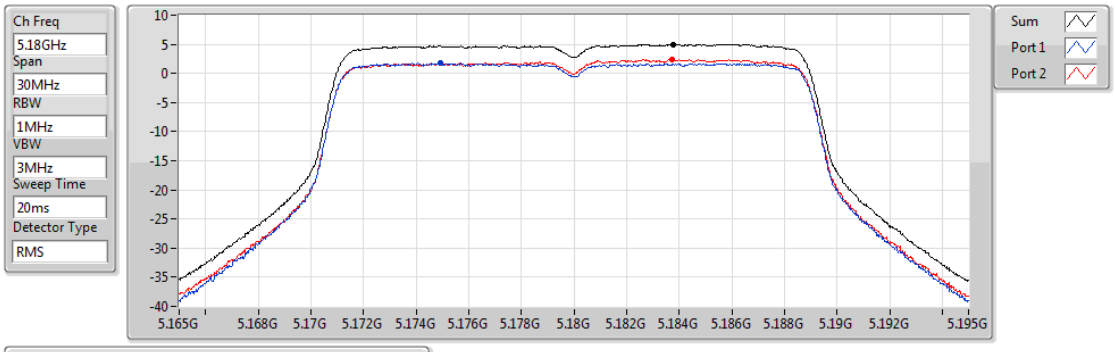
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.75	7.75	5.25	4.79

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

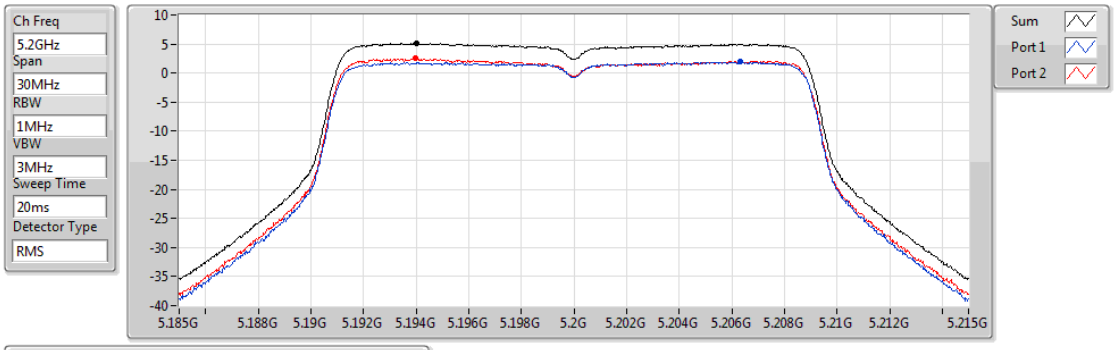
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.02	5.02	1.75	2.44

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

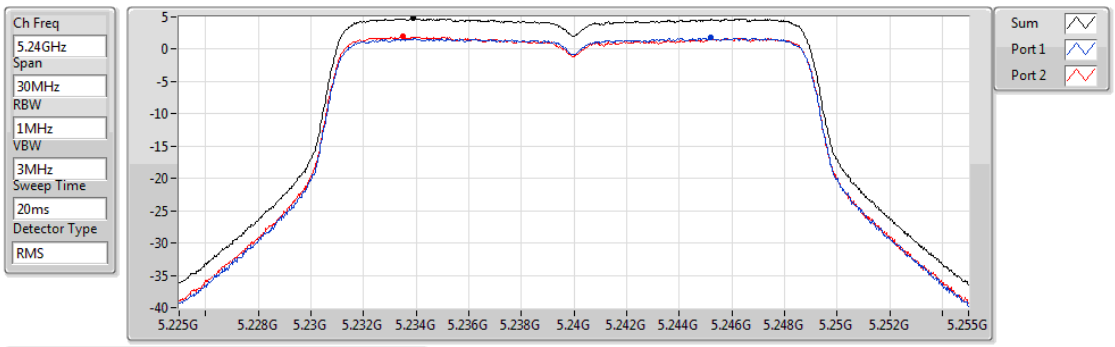
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.12	5.12	1.97	2.50

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

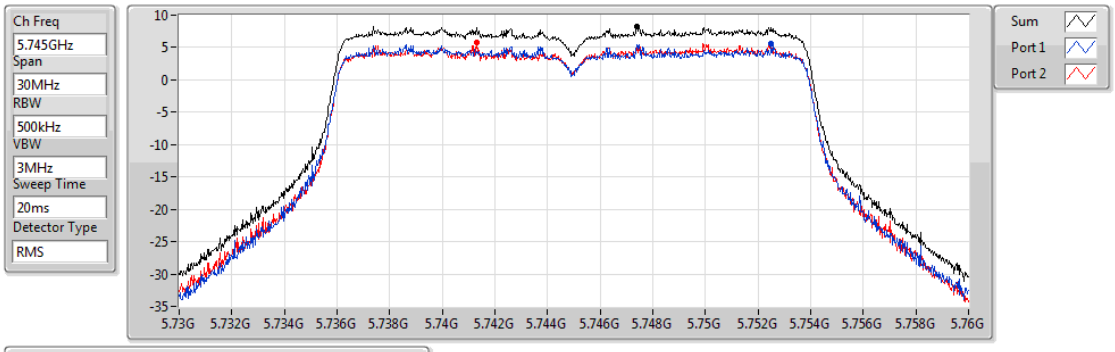
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.76	4.76	1.78	1.95

802.11ac VHT20_Nss1,(MCS0)_2TX **PSD**

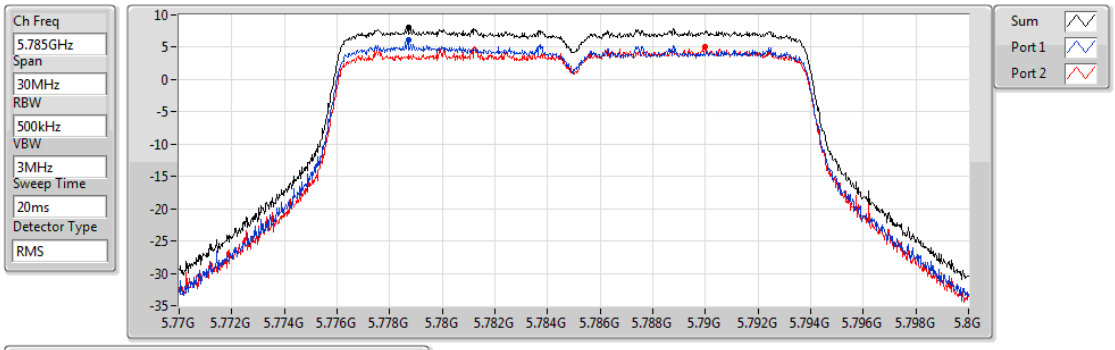
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.23	8.23	5.56	5.74

802.11ac VHT20_Nss1,(MCS0)_2TX **PSD**

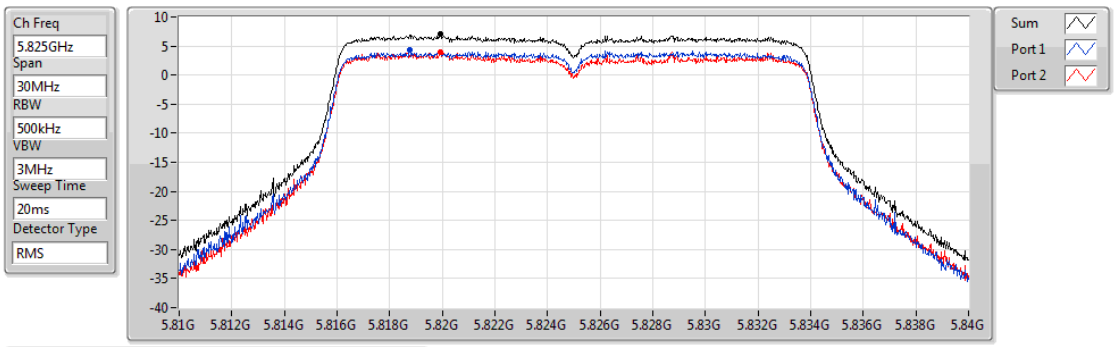
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.11	8.11	6.08	5.07

802.11ac VHT20_Nss1,(MCS0)_2TX **PSD**

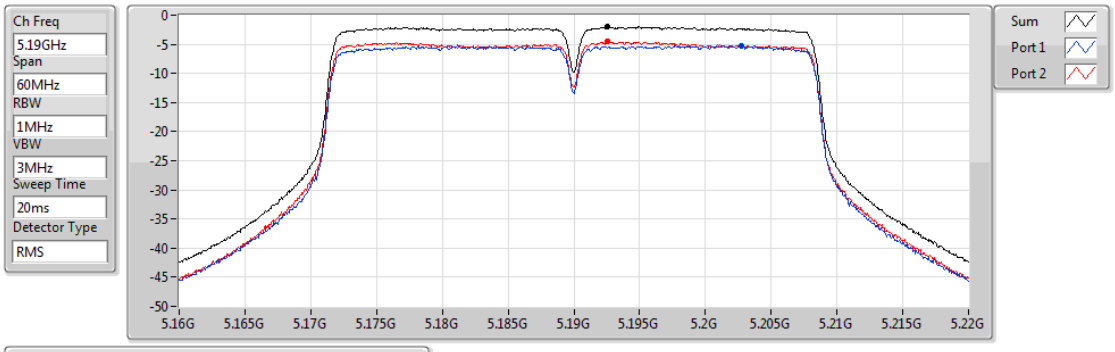
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.02	7.02	4.31	3.96

802.11ac VHT40_Nss1,(MCS0)_2TX **PSD**

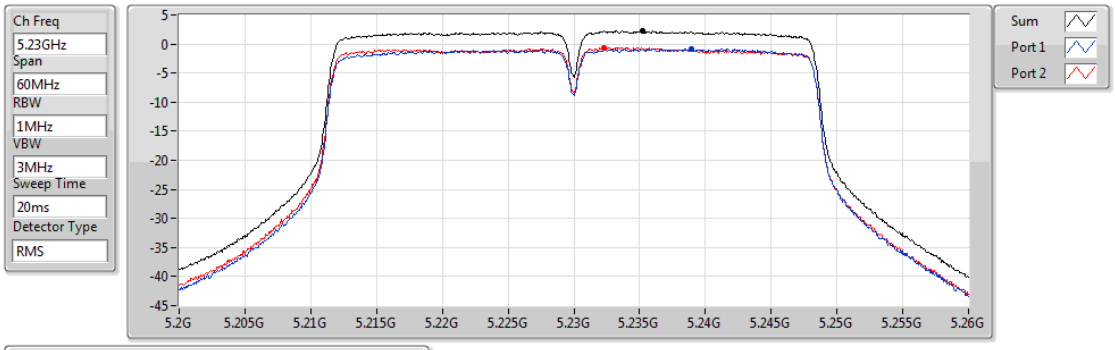
5190MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.03	-2.03	-5.21	-4.57

802.11ac VHT40_Nss1,(MCS0)_2TX **PSD**

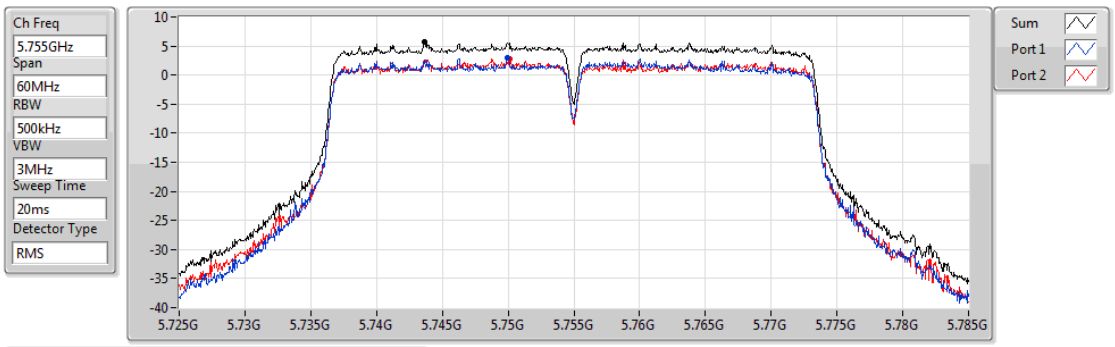
5230MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.22	2.22	-0.76	-0.60

802.11ac VHT40_Nss1,(MCS0)_2TX **PSD**

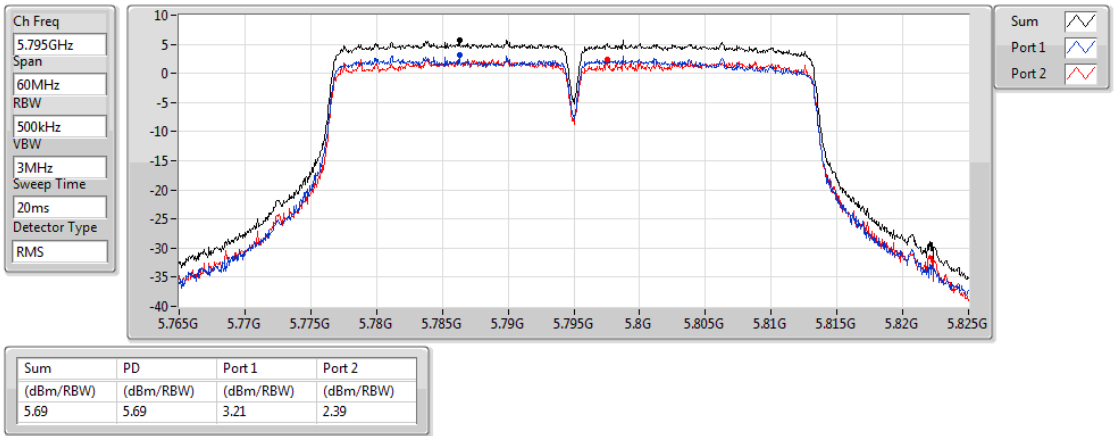
5755MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.62	5.62	2.93	2.85

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

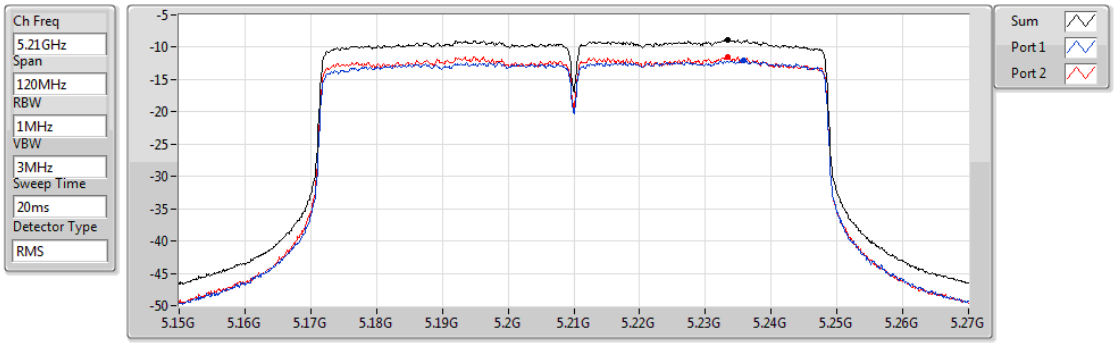
5795MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.69	5.69	3.21	2.39

802.11ac VHT80_Nss1,(MCS0)_2TX PSD

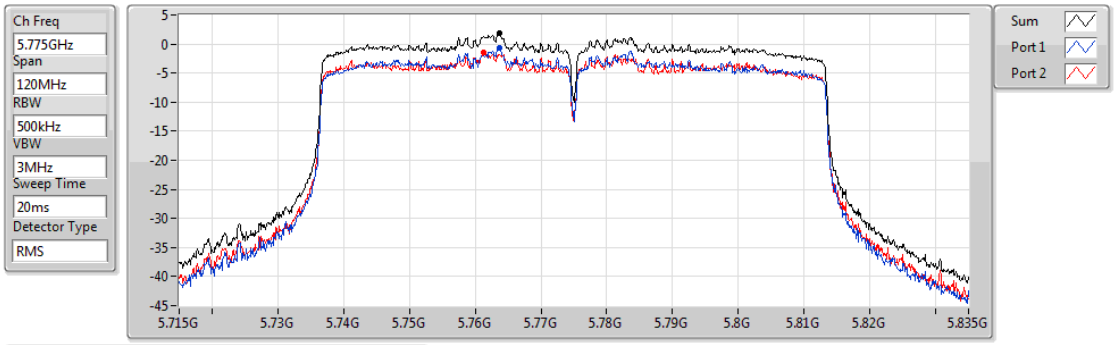
5210MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.85	-8.85	-12.08	-11.51

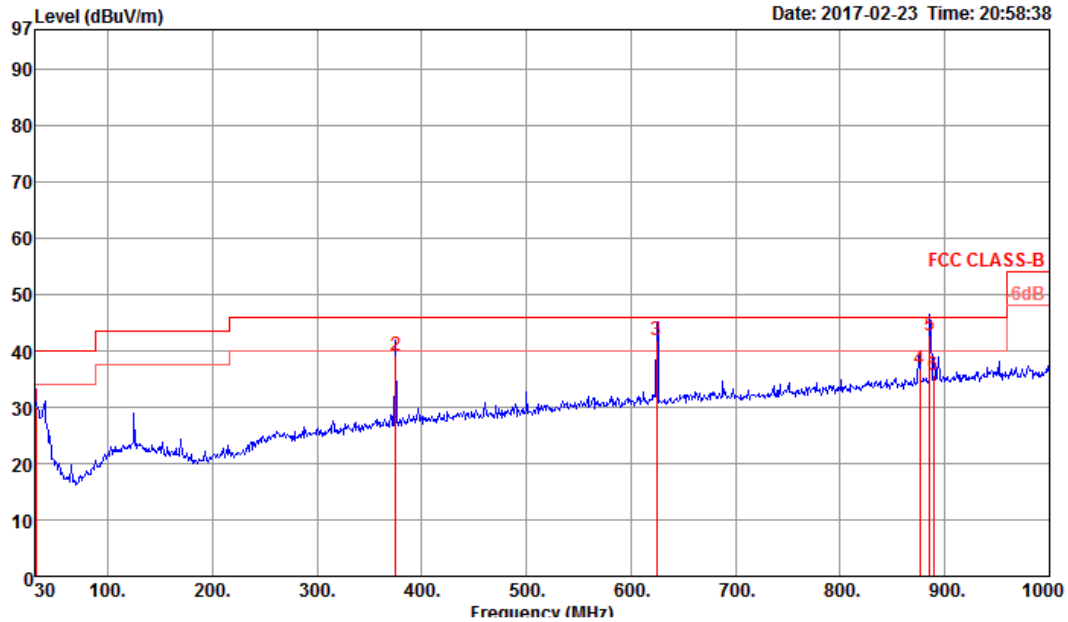
802.11ac VHT80_Nss1,(MCS0)_2TX PSD

5775MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.79	1.79	-0.75	-1.37

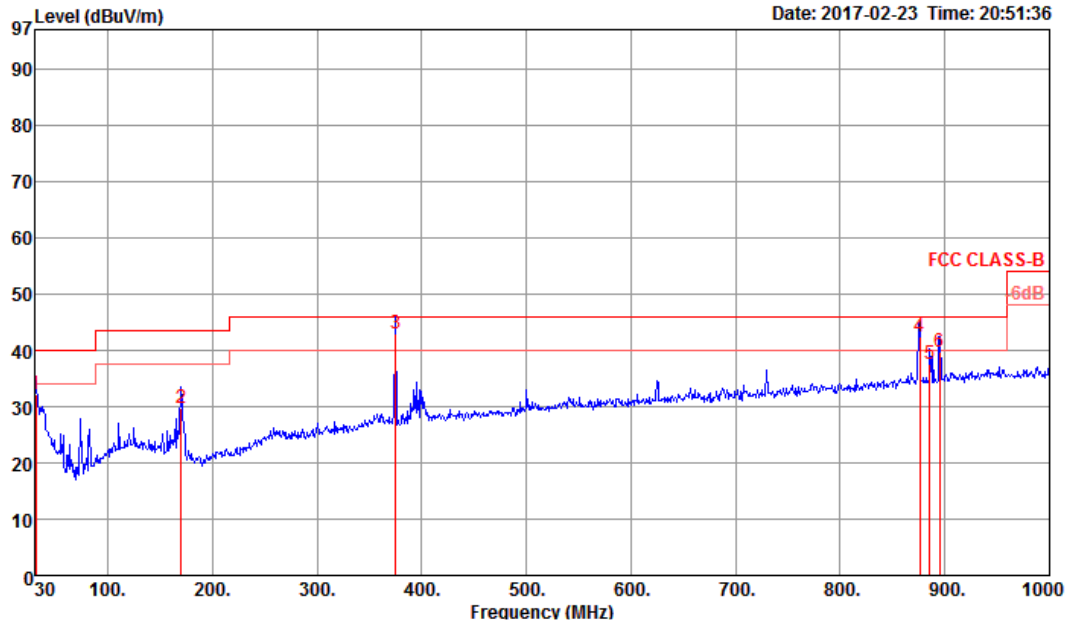
RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	Normal Link		



	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	30.97	30.12	40.00	-9.88	31.50	2.11	24.93	28.42	158	241	QP	HORIZONTAL
2	375.32	39.17	46.00	-6.83	42.41	3.04	21.68	27.96	149	278	QP	HORIZONTAL
3	624.61	41.85	46.00	-4.15	41.40	3.80	25.26	28.61	135	24	QP	HORIZONTAL
4	875.84	36.76	46.00	-9.24	32.80	4.48	27.40	27.92	108	175	QP	HORIZONTAL
5	885.54	42.60	46.00	-3.40	38.50	4.50	27.48	27.88	157	252	QP	HORIZONTAL
6	889.42	35.70	46.00	-10.30	31.50	4.52	27.52	27.84	123	304	QP	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	30.97	32.12	40.00	-7.88	33.50	2.11	24.93	28.42	134	175	QP	VERTICAL
2	169.68	29.82	43.50	-13.68	39.10	2.40	16.12	27.80	112	58	QP	VERTICAL
3	375.32	42.87	46.00	-3.13	46.11	3.04	21.68	27.96	156	178	QP	VERTICAL
4	875.84	42.49	46.00	-3.51	38.53	4.48	27.40	27.92	143	203	QP	VERTICAL
5	885.54	37.60	46.00	-8.40	33.50	4.50	27.48	27.88	124	254	QP	VERTICAL
6	895.24	39.68	46.00	-6.32	35.40	4.53	27.55	27.80	118	201	QP	VERTICAL

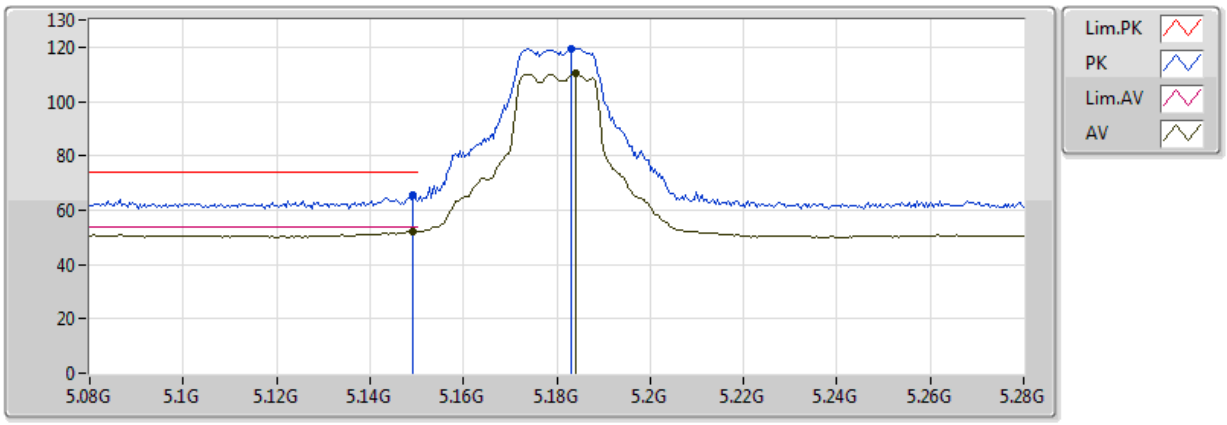
Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

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	-	-	-	-	-	-	-	-	-	-	-	-
5.15-5.25GHz	Pass	AV	5.149995G	53.96	54.00	-0.04	4.77	3	H	357	1.50	-

802.11a_(6Mbps)_2TX

5180MHz_TX

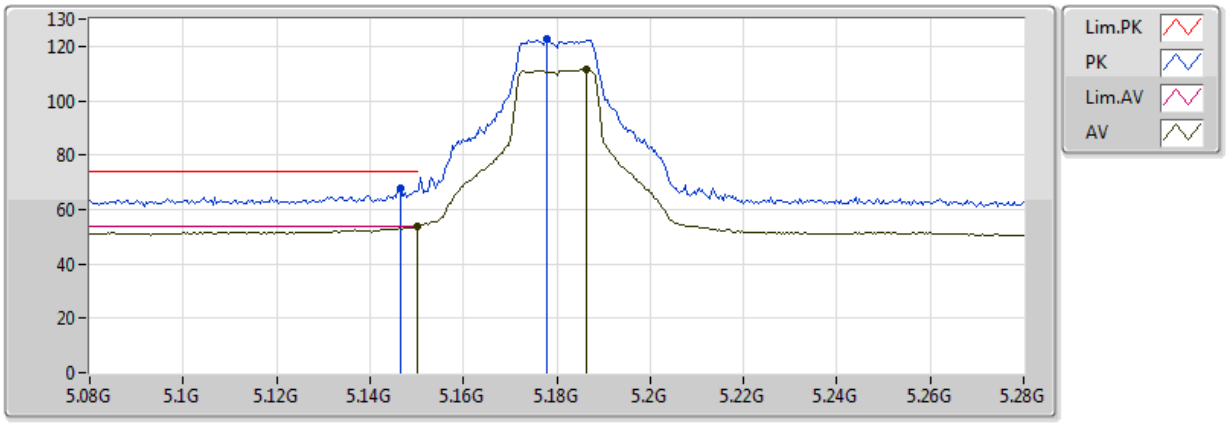


20170216
EUT Y_2TX
Setting:21
04-J-4-12
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1492G	52.24	54.00	-1.76	4.77	3	V	2	1.49	-
AV	5.184G	110.33	Inf	-Inf	4.89	3	V	2	1.49	-
PK	5.1492G	65.32	74.00	-8.68	4.77	3	V	2	1.49	-
PK	5.1832G	119.50	Inf	-Inf	4.89	3	V	2	1.49	-

802.11a_(6Mbps)_2TX

5180MHz_TX

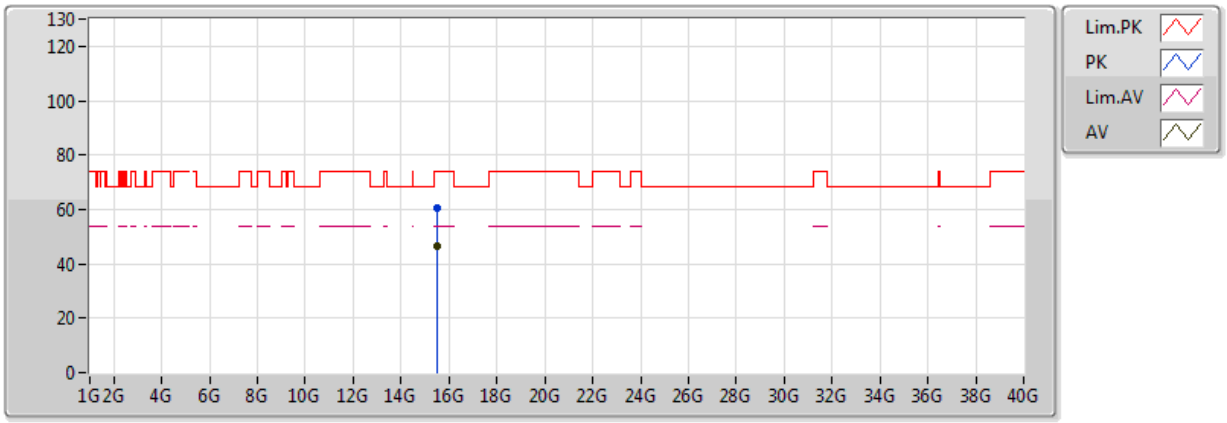


20170216
EUT Y_2TX
Setting:21
04-J-4-12
FSP(100142)

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	53.85	54.00	-0.15	4.77	3	H	352	1.50	-
AV	5.1864G	111.71	Inf	-Inf	4.90	3	H	352	1.50	-
PK	5.1464G	67.91	74.00	-6.09	4.76	3	H	352	1.50	-
PK	5.178G	122.52	Inf	-Inf	4.87	3	H	352	1.50	-

802.11a_(6Mbps)_2TX

5180MHz_TX

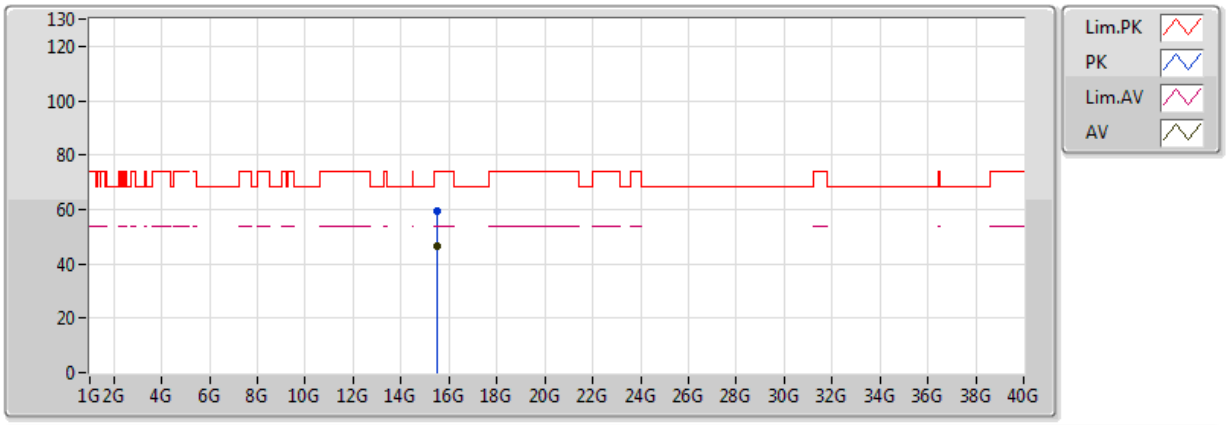


20170216
EUT Y_2TX
Setting:21
04-J-4
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.52632G	46.34	54.00	-7.66	15.74	3	V	313	1.39	-
PK	15.52698G	60.41	74.00	-13.59	15.74	3	V	313	1.39	-

802.11a_(6Mbps)_2TX

5180MHz_TX

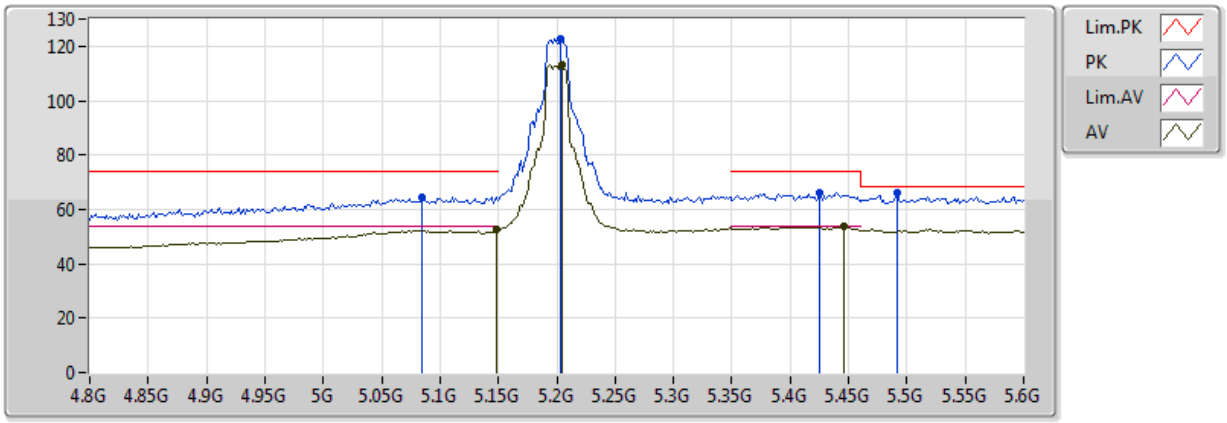


20170216
EUT Y_2TX
Setting:21
04-J-4
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.528G	46.27	54.00	-7.73	15.74	3	H	273	2.38	-
PK	15.5295G	59.62	74.00	-14.38	15.74	3	H	273	2.38	-

802.11a_(6Mbps)_2TX

5200MHz_TX

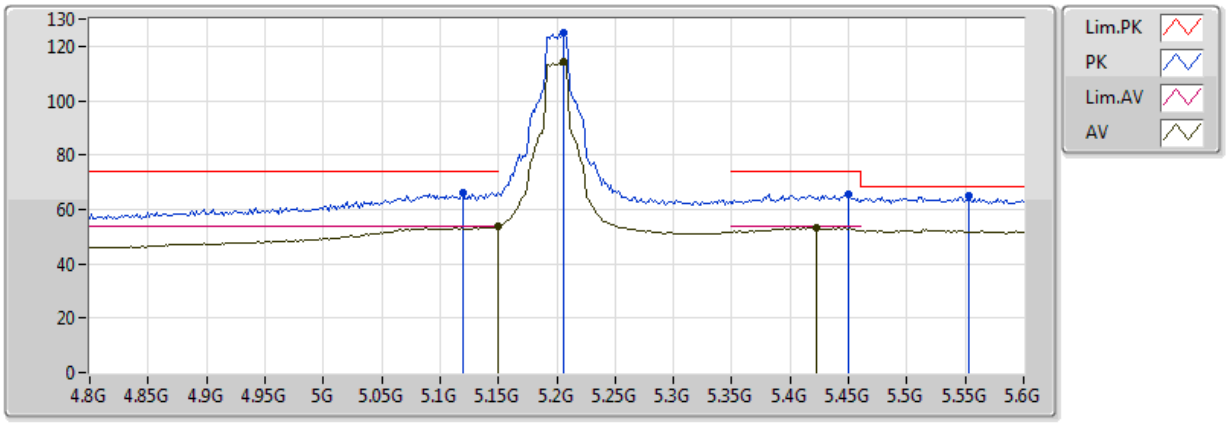


20170216
EUT Y_2TX
Setting:24.5
04-J-4-12
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1488G	52.81	54.00	-1.19	4.77	3	V	3	1.51	-
AV	5.2048G	113.09	Inf	-Inf	4.96	3	V	3	1.51	-
AV	5.4464G	53.54	54.00	-0.46	5.35	3	V	3	1.51	-
PK	5.0848G	64.51	74.00	-9.49	4.54	3	V	3	1.51	-
PK	5.2032G	122.82	Inf	-Inf	4.95	3	V	3	1.51	-
PK	5.4256G	66.01	74.00	-7.99	5.26	3	V	3	1.51	-
PK	5.4912G	65.97	68.20	-2.23	5.56	3	V	3	1.51	-

802.11a_(6Mbps)_2TX

5200MHz_TX

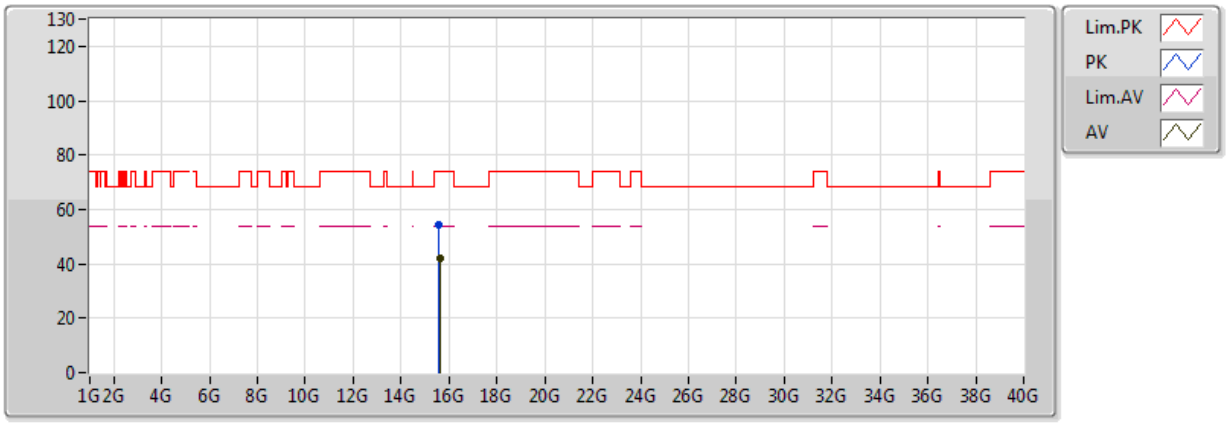


20170216
EUT Y_2TX
Setting:24.5
04-J-4-12
FSP(100142)

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	53.96	54.00	-0.04	4.77	3	H	357	1.50	-
AV	5.2064G	114.35	Inf	-Inf	4.96	3	H	357	1.50	-
AV	5.4224G	53.37	54.00	-0.63	5.24	3	H	357	1.50	-
PK	5.12G	66.20	74.00	-7.80	4.67	3	H	357	1.50	-
PK	5.2064G	124.79	Inf	-Inf	4.96	3	H	357	1.50	-
PK	5.4496G	65.65	74.00	-8.35	5.37	3	H	357	1.50	-
PK	5.5536G	65.00	68.20	-3.20	5.89	3	H	357	1.50	-

802.11a_(6Mbps)_2TX

5200MHz_TX

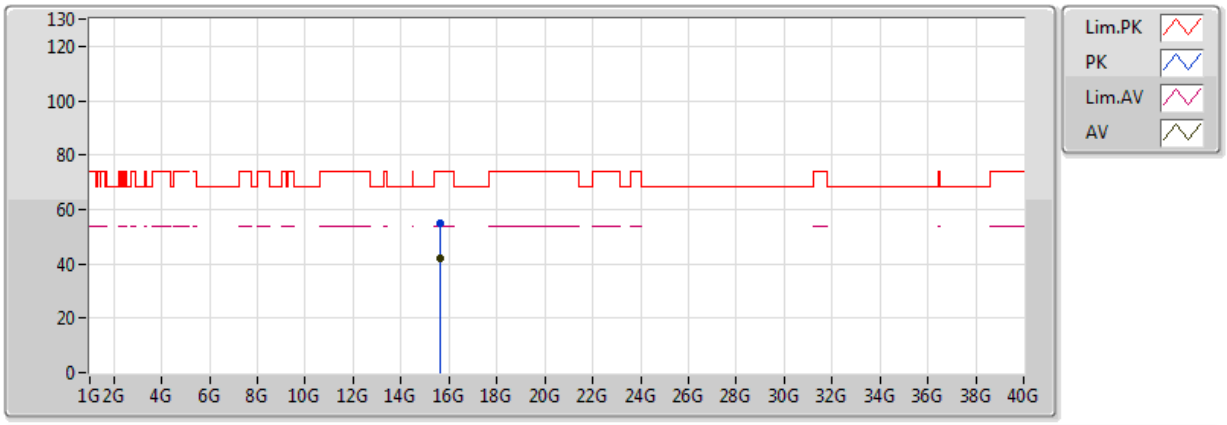


20170216
EUT Y_2TX
Setting:24.5
04-J-4
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.60996G	41.82	54.00	-12.18	15.69	3	V	319	2.24	-
PK	15.58908G	54.24	74.00	-19.76	15.71	3	V	319	2.24	-

802.11a_(6Mbps)_2TX

5200MHz_TX

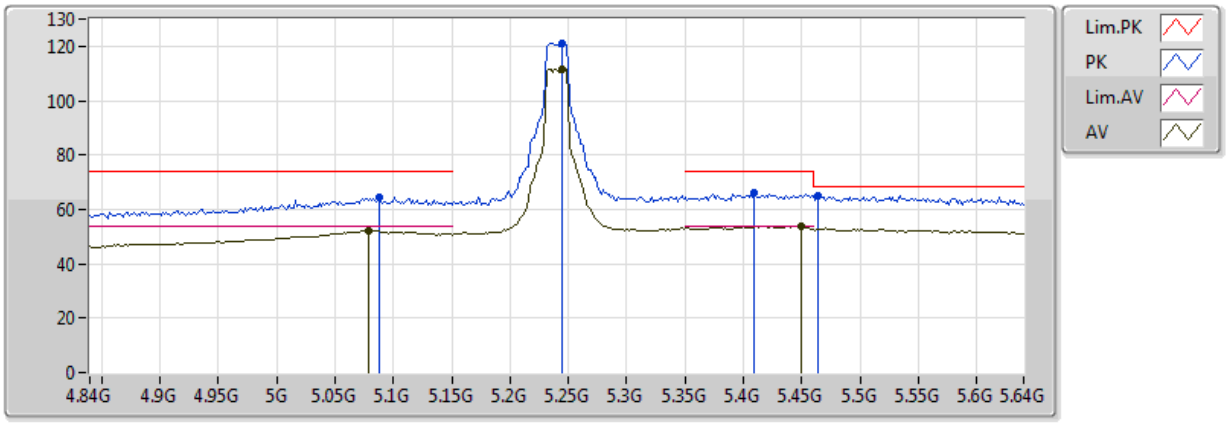


20170216
EUT Y_2TX
Setting:24.5
04-J-4
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.6111G	41.95	54.00	-12.05	15.69	3	H	223	1.51	-
PK	15.60906G	54.75	74.00	-19.25	15.70	3	H	223	1.51	-

802.11a_(6Mbps)_2TX

5240MHz_TX

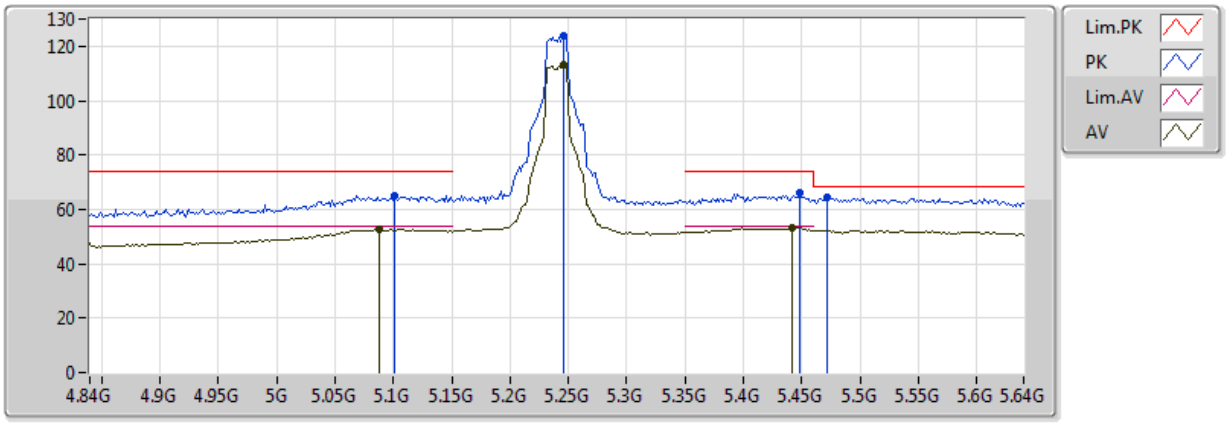


20170216
EUT Y_2TX
Setting:23
04-J-4-12
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.0784G	52.34	54.00	-1.66	4.51	3	V	1	1.50	-
AV	5.2448G	111.70	Inf	-Inf	5.00	3	V	1	1.50	-
AV	5.4496G	53.84	54.00	-0.16	5.37	3	V	1	1.50	-
PK	5.088G	64.54	74.00	-9.46	4.55	3	V	1	1.50	-
PK	5.2448G	121.11	Inf	-Inf	5.00	3	V	1	1.50	-
PK	5.4096G	65.86	74.00	-8.14	5.18	3	V	1	1.50	-
PK	5.464G	65.11	68.20	-3.09	5.43	3	V	1	1.50	-

802.11a_(6Mbps)_2TX

5240MHz_TX

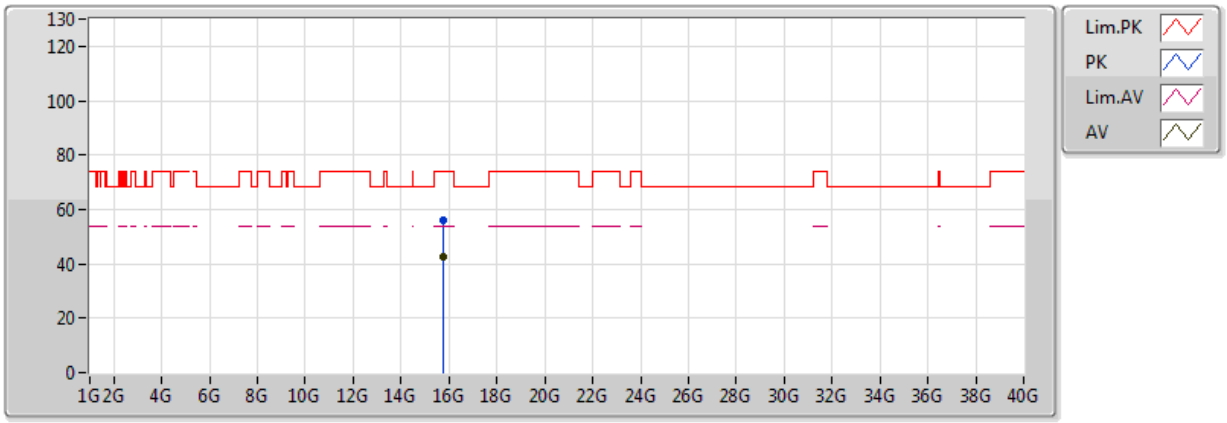


20170216
EUT Y_2TX
Setting:23
04-J-4-12
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.088G	52.79	54.00	-1.21	4.55	3	H	355	1.51	-
AV	5.2464G	113.23	Inf	-Inf	5.00	3	H	355	1.51	-
AV	5.4416G	53.21	54.00	-0.79	5.33	3	H	355	1.51	-
PK	5.1008G	65.06	74.00	-8.94	4.60	3	H	355	1.51	-
PK	5.2464G	123.67	Inf	-Inf	5.00	3	H	355	1.51	-
PK	5.448G	66.10	74.00	-7.90	5.36	3	H	355	1.51	-
PK	5.472G	64.62	68.20	-3.58	5.47	3	H	355	1.51	-

802.11a_(6Mbps)_2TX

5240MHz_TX

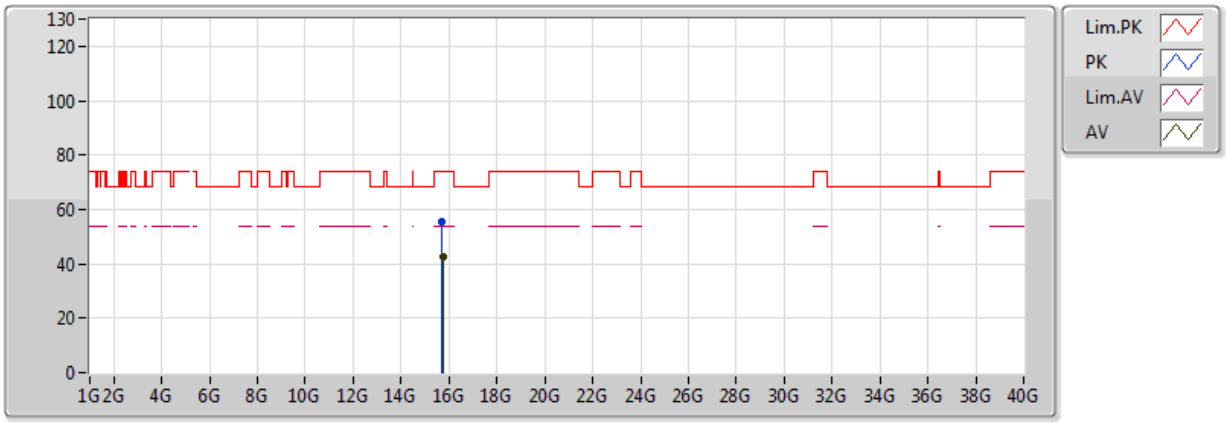


20170216
EUT Y_2TX
Setting:23
04-J-4
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.73104G	42.36	54.00	-11.64	15.63	3	V	77	1.48	-
PK	15.72996G	55.92	74.00	-18.08	15.63	3	V	77	1.48	-

802.11a_(6Mbps)_2TX

5240MHz_TX

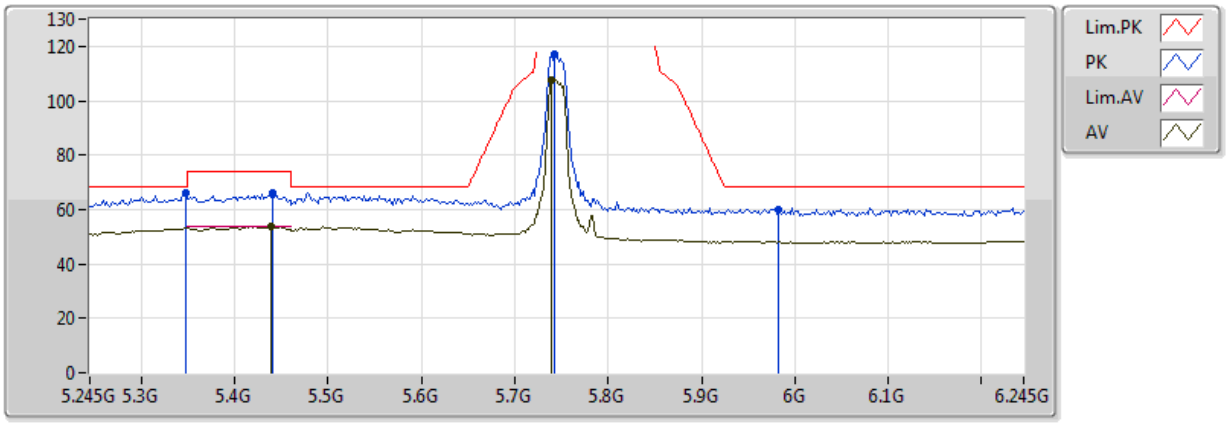


20170216
EUT Y_2TX
Setting:23
04-J-4
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.7332G	42.55	54.00	-11.45	15.63	3	H	242	1.63	-
PK	15.7269G	55.64	74.00	-18.36	15.63	3	H	242	1.63	-

802.11a_(6Mbps)_2TX

5745MHz_TX

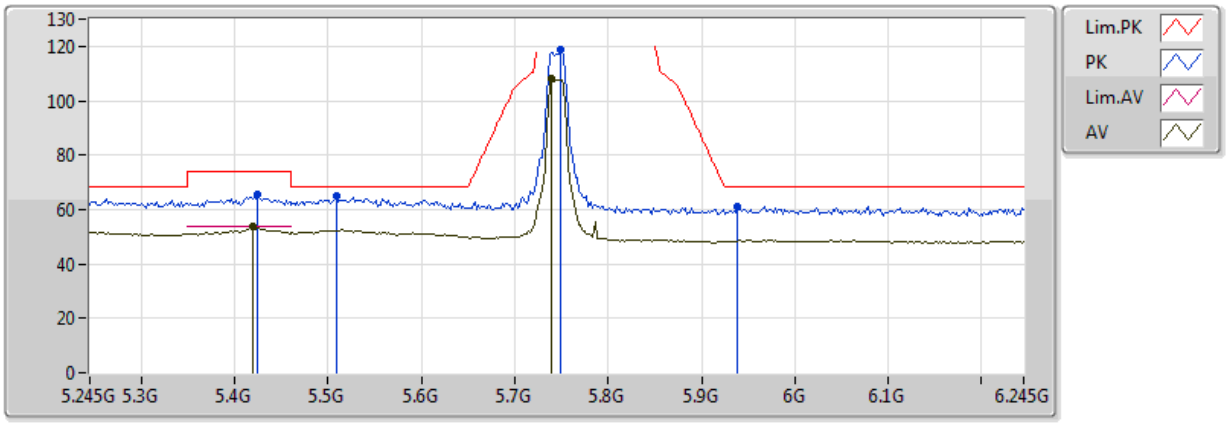


20170217
EUT Y_2TX
Setting:17.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.439G	53.67	54.00	-0.33	5.32	3	V	0	1.50	-
AV	5.739G	107.65	Inf	-Inf	6.32	3	V	0	1.50	-
PK	5.347G	66.18	68.20	-2.02	5.10	3	V	0	1.50	-
PK	5.441G	65.99	74.00	-8.01	5.33	3	V	0	1.50	-
PK	5.743G	117.18	Inf	-Inf	6.32	3	V	0	1.50	-
PK	5.983G	60.18	68.20	-8.02	7.45	3	V	0	1.50	-

802.11a_(6Mbps)_2TX

5745MHz_TX

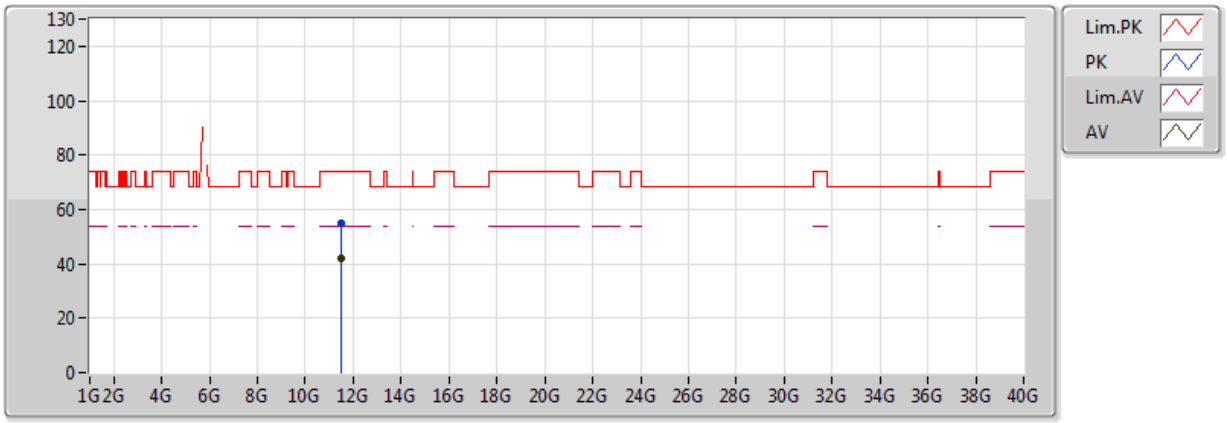


20170217
EUT Y_2TX
Setting:17.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.419G	53.64	54.00	-0.36	5.23	3	H	355	1.50	-
AV	5.739G	108.23	Inf	-Inf	6.32	3	H	355	1.50	-
PK	5.425G	65.36	74.00	-8.64	5.25	3	H	355	1.50	-
PK	5.509G	64.75	68.20	-3.45	5.65	3	H	355	1.50	-
PK	5.749G	118.84	Inf	-Inf	6.33	3	H	355	1.50	-
PK	5.939G	61.08	68.20	-7.12	7.20	3	H	355	1.50	-

802.11a_(6Mbps)_2TX

5745MHz_TX

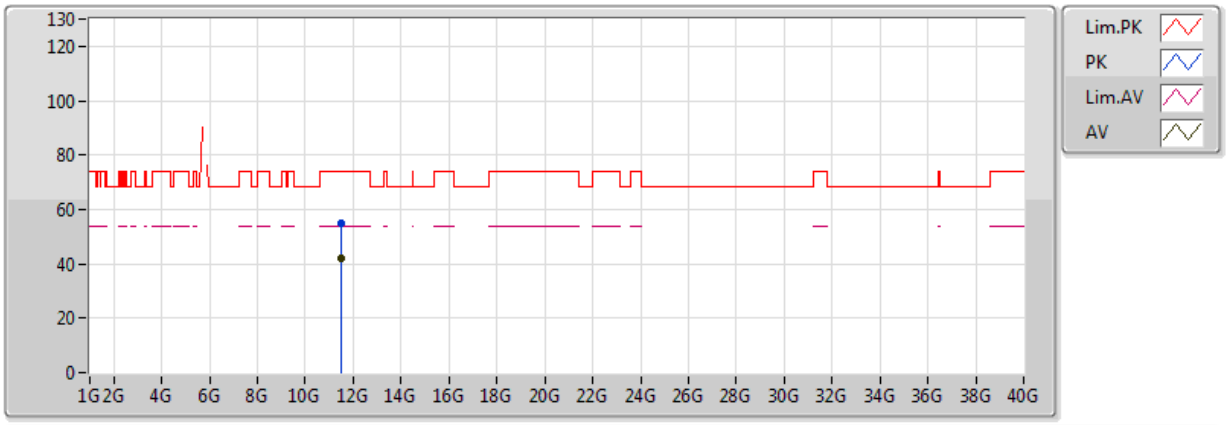


20170217
EUT Y_2TX
Setting:17.5
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.4984G	41.87	54.00	-12.13	14.75	3	V	237	1.76	-
PK	11.47674G	54.77	74.00	-19.23	14.74	3	V	237	1.76	-

802.11a_(6Mbps)_2TX

5745MHz_TX

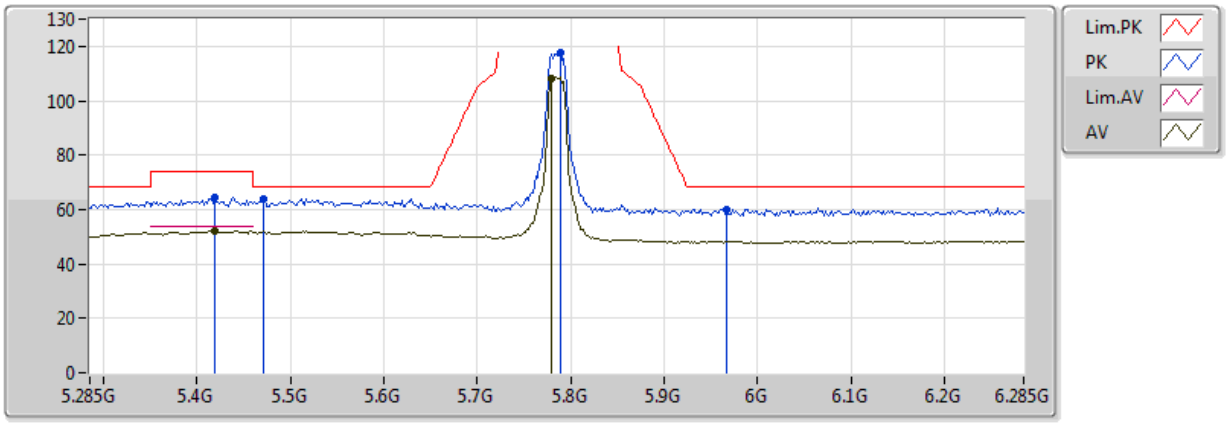


20170217
EUT Y_2TX
Setting:17.5
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.50164G	41.82	54.00	-12.18	14.75	3	H	87	2.01	-
PK	11.50356G	54.65	74.00	-19.35	14.75	3	H	87	2.01	-

802.11a_(6Mbps)_2TX

5785MHz_TX

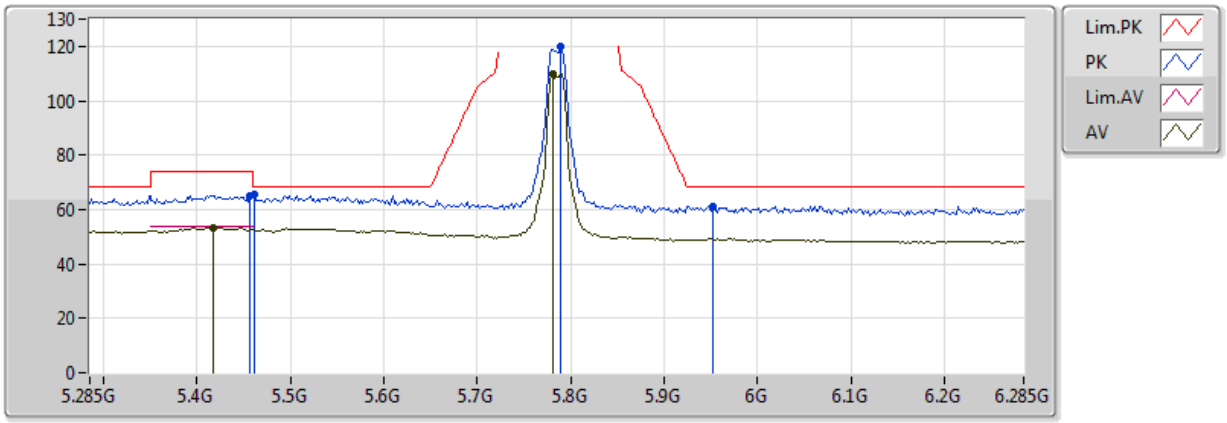


20170217
EUT Y_2TX
Setting:18
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.419G	52.02	54.00	-1.98	5.23	3	V	356	1.50	-
AV	5.779G	108.26	Inf	-Inf	6.36	3	V	356	1.50	-
PK	5.419G	64.52	74.00	-9.48	5.23	3	V	356	1.50	-
PK	5.471G	64.00	68.20	-4.20	5.47	3	V	356	1.50	-
PK	5.789G	117.47	Inf	-Inf	6.38	3	V	356	1.50	-
PK	5.967G	60.05	68.20	-8.15	7.36	3	V	356	1.50	-

802.11a_(6Mbps)_2TX

5785MHz_TX

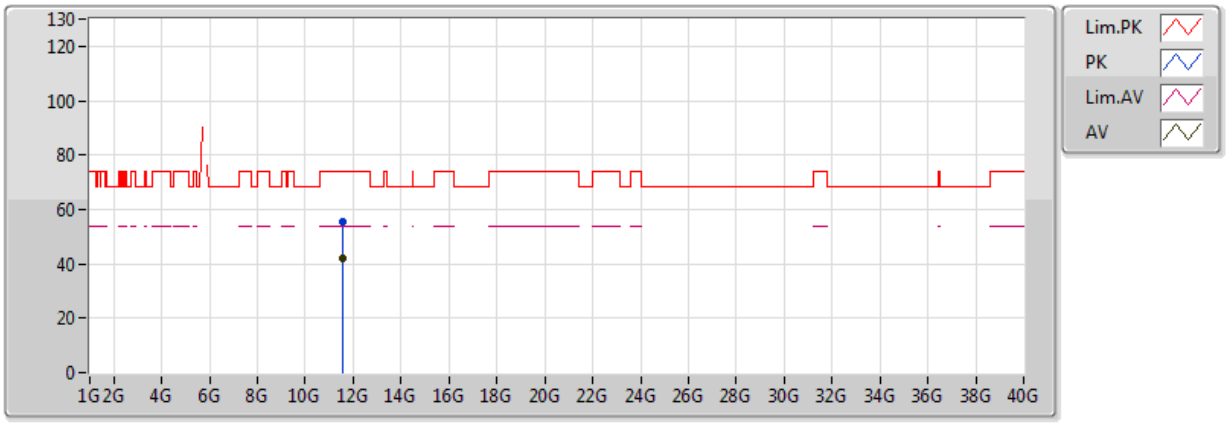


20170217
EUT Y_2TX
Setting:18
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.417G	53.43	54.00	-0.57	5.22	3	H	2	1.50	-
AV	5.781G	109.65	Inf	-Inf	6.37	3	H	2	1.50	-
PK	5.457G	65.17	74.00	-8.83	5.40	3	H	2	1.50	-
PK	5.461G	65.63	68.20	-2.57	5.42	3	H	2	1.50	-
PK	5.789G	119.72	Inf	-Inf	6.38	3	H	2	1.50	-
PK	5.953G	60.99	68.20	-7.21	7.28	3	H	2	1.50	-

802.11a_(6Mbps)_2TX

5785MHz_TX

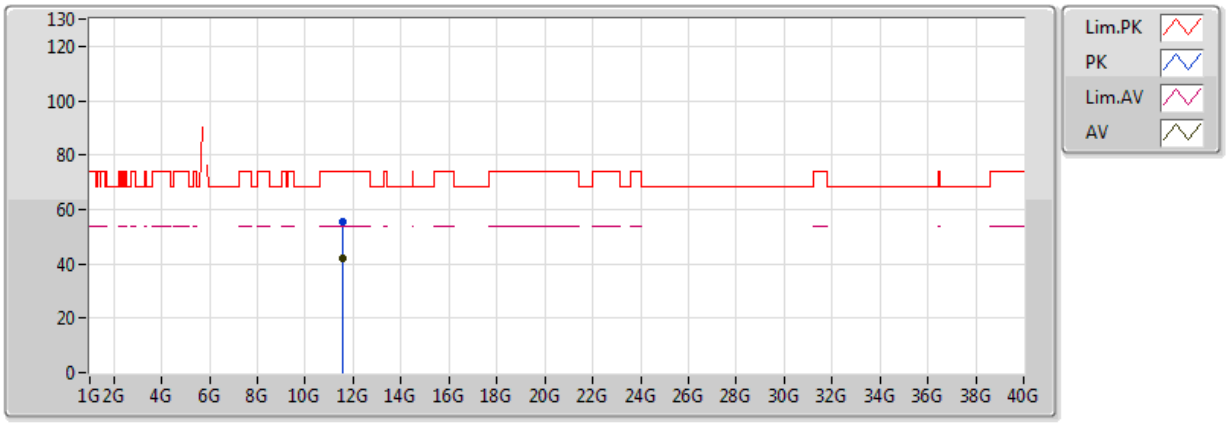


20170217
EUT Y_2TX
Setting:18
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.58392G	41.88	54.00	-12.12	14.77	3	V	321	1.27	-
PK	11.56118G	55.25	74.00	-18.75	14.76	3	V	321	1.27	-

802.11a_(6Mbps)_2TX

5785MHz_TX

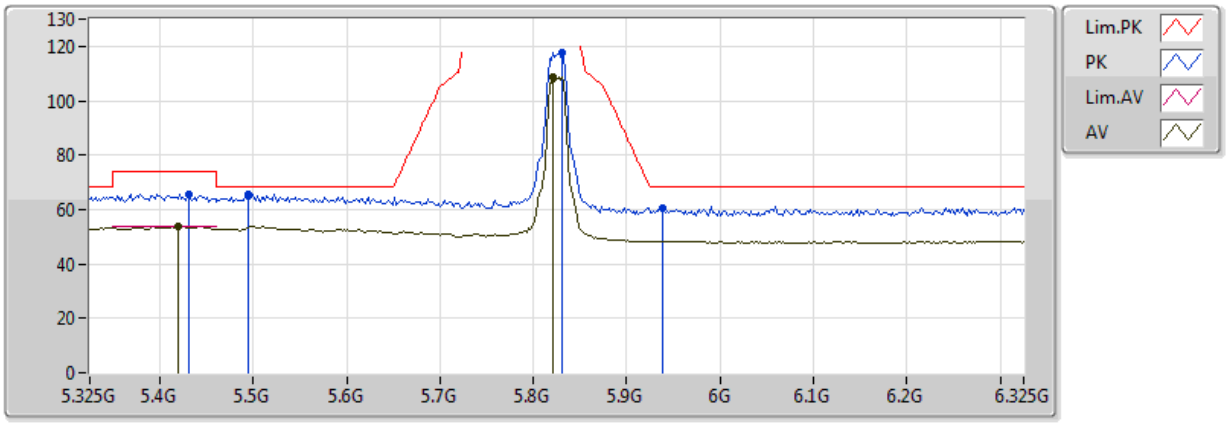


20170217
EUT Y_2TX
Setting:18
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57834G	41.85	54.00	-12.15	14.77	3	H	299	1.94	-
PK	11.58224G	55.43	74.00	-18.57	14.77	3	H	299	1.94	-

802.11a_(6Mbps)_2TX

5825MHz_TX

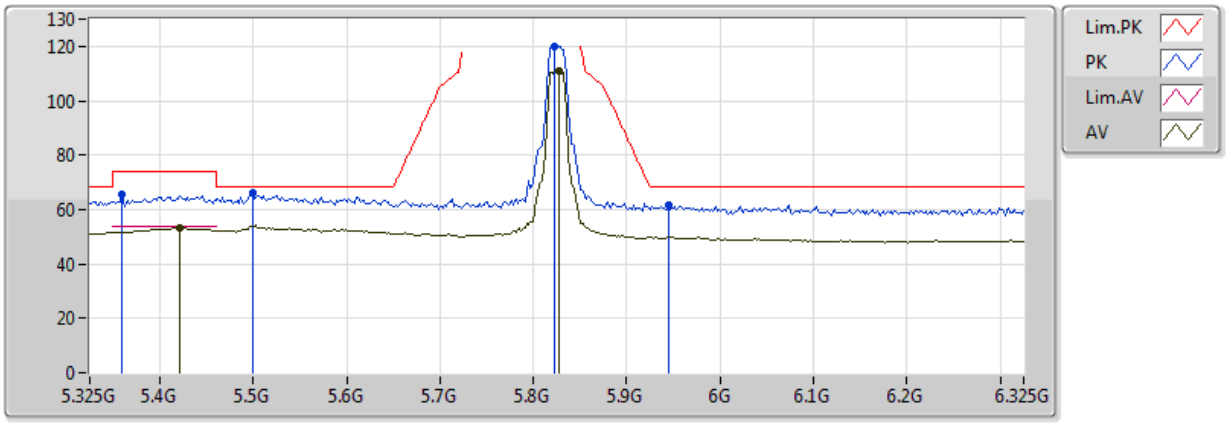


20170217
EUT Y_2TX
Setting:19.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.419G	53.77	54.00	-0.23	5.23	3	V	358	1.50	-
AV	5.821G	108.50	Inf	-Inf	6.51	3	V	358	1.50	-
PK	5.431G	65.78	74.00	-8.22	5.28	3	V	358	1.50	-
PK	5.495G	65.83	68.20	-2.37	5.58	3	V	358	1.50	-
PK	5.831G	117.81	Inf	-Inf	6.57	3	V	358	1.50	-
PK	5.939G	60.56	68.20	-7.64	7.20	3	V	358	1.50	-

802.11a_(6Mbps)_2TX

5825MHz_TX

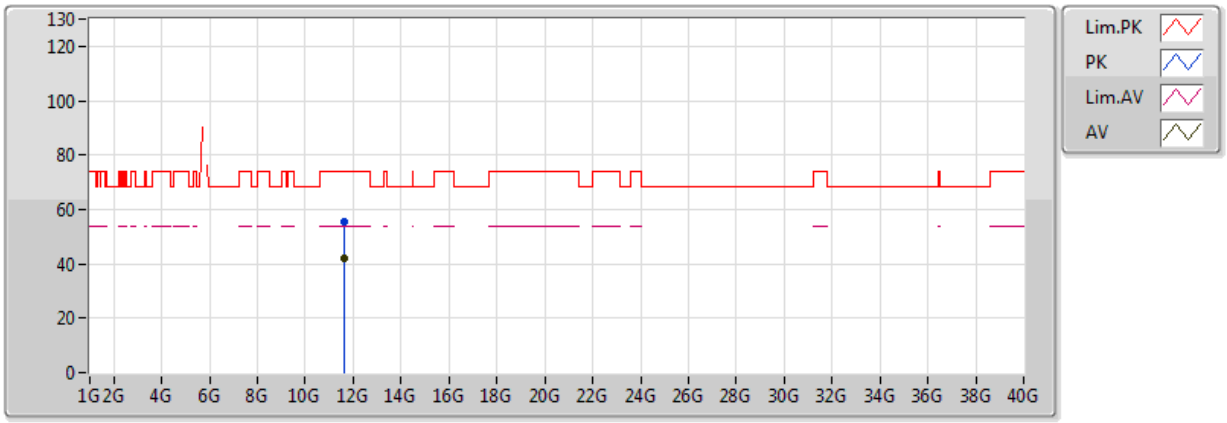


20170217
EUT Y_2TX
Setting:19.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.421G	53.30	54.00	-0.70	5.24	3	H	2	1.71	-
AV	5.827G	110.86	Inf	-Inf	6.55	3	H	2	1.71	-
PK	5.359G	65.30	74.00	-8.70	5.11	3	H	2	1.71	-
PK	5.499G	66.02	68.20	-2.18	5.60	3	H	2	1.71	-
PK	5.823G	120.19	Inf	-Inf	6.52	3	H	2	1.71	-
PK	5.945G	61.63	68.20	-6.57	7.23	3	H	2	1.71	-

802.11a_(6Mbps)_2TX

5825MHz_TX

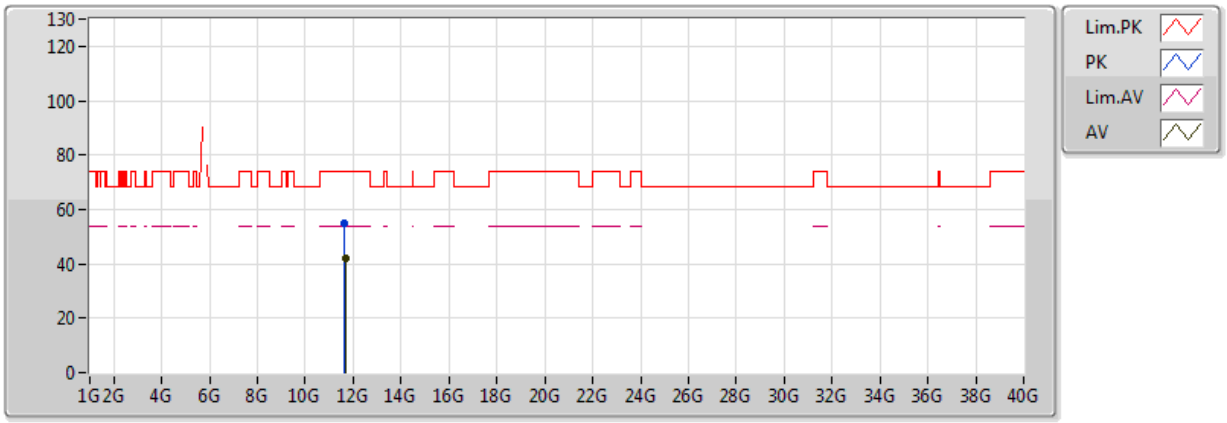


20170217
EUT Y_2TX
Setting:19.5
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.64874G	41.97	54.00	-12.03	14.79	3	V	348	1.00	-
PK	11.6422G	55.49	74.00	-18.51	14.78	3	V	348	1.00	-

802.11a_(6Mbps)_2TX

5825MHz_TX

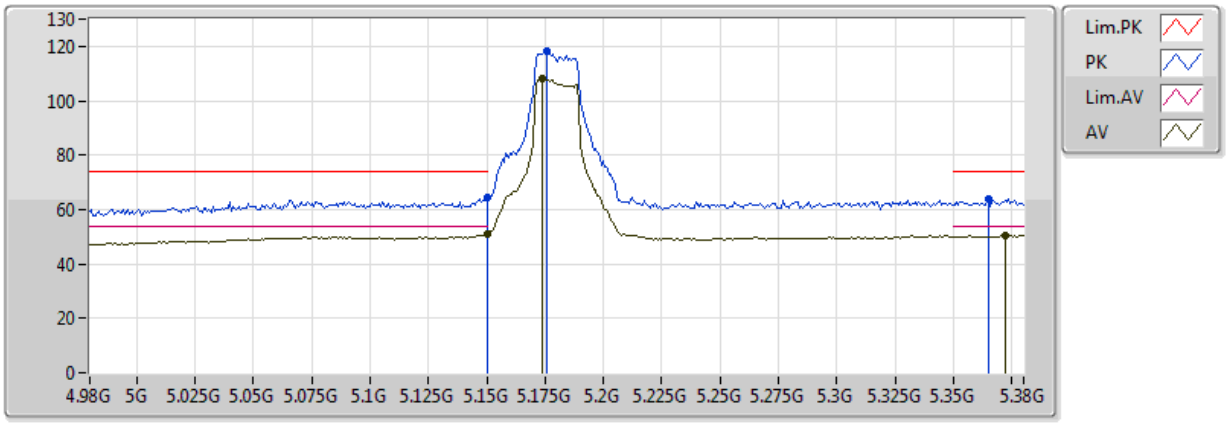


20170217
EUT Y_2TX
Setting:19.5
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.66008G	41.83	54.00	-12.17	14.79	3	H	21	1.84	-
PK	11.64124G	55.07	74.00	-18.93	14.78	3	H	21	1.84	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

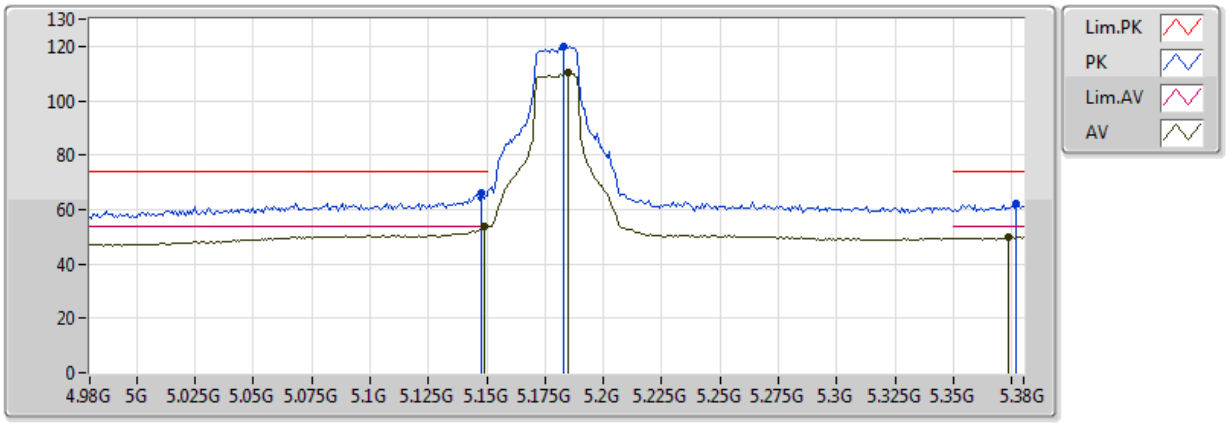


20170217
EUT Y_2TX
Setting:21.5
04-J-5-13
FSP(100142)

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	50.97	54.00	-3.03	4.77	3	V	9	1.45	-
AV	5.1736G	108.12	Inf	-Inf	4.86	3	V	9	1.45	-
AV	5.372G	50.47	54.00	-3.53	5.12	3	V	9	1.45	-
PK	5.149995G	64.30	74.00	-9.70	4.77	3	V	9	1.45	-
PK	5.176G	117.96	Inf	-Inf	4.87	3	V	9	1.45	-
PK	5.3648G	64.11	74.00	-9.89	5.11	3	V	9	1.45	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

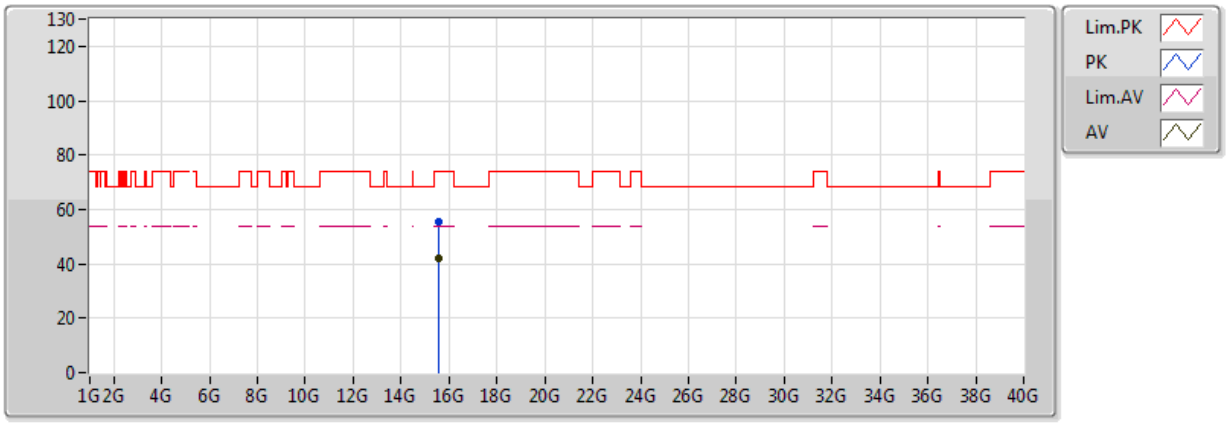


20170217
EUT Y_2TX
Setting:21.5
04-J-5-13
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1488G	53.55	54.00	-0.45	4.77	3	H	0	1.40	-
AV	5.1848G	110.25	Inf	-Inf	4.90	3	H	0	1.40	-
AV	5.3736G	50.12	54.00	-3.88	5.12	3	H	0	1.40	-
PK	5.148G	66.33	74.00	-7.67	4.77	3	H	0	1.40	-
PK	5.1832G	119.76	Inf	-Inf	4.89	3	H	0	1.40	-
PK	5.3768G	61.94	74.00	-12.06	5.12	3	H	0	1.40	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

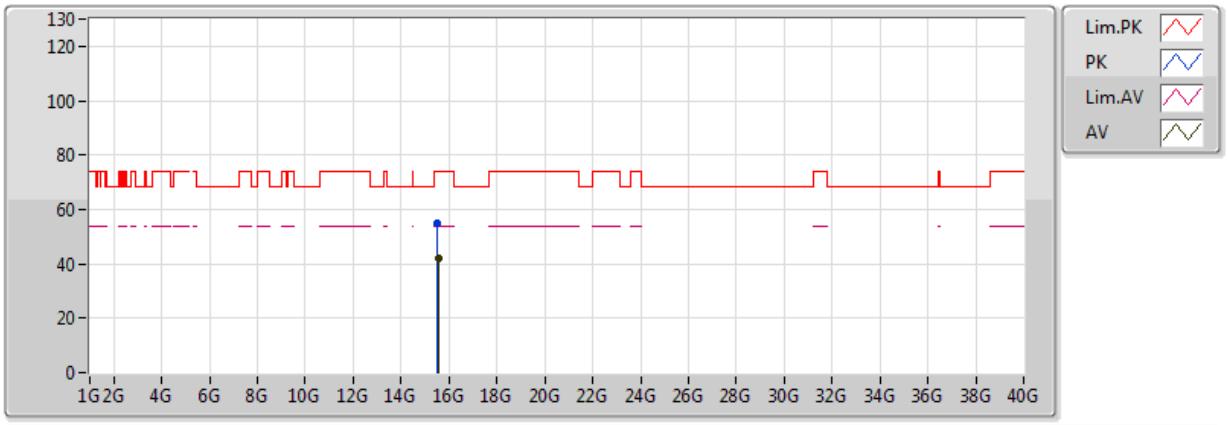


20170217
EUT Y_2TX
Setting:21.5
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.55038G	42.18	54.00	-11.82	15.73	3	V	272	2.02	-
PK	15.55314G	55.68	74.00	-18.32	15.73	3	V	272	2.02	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

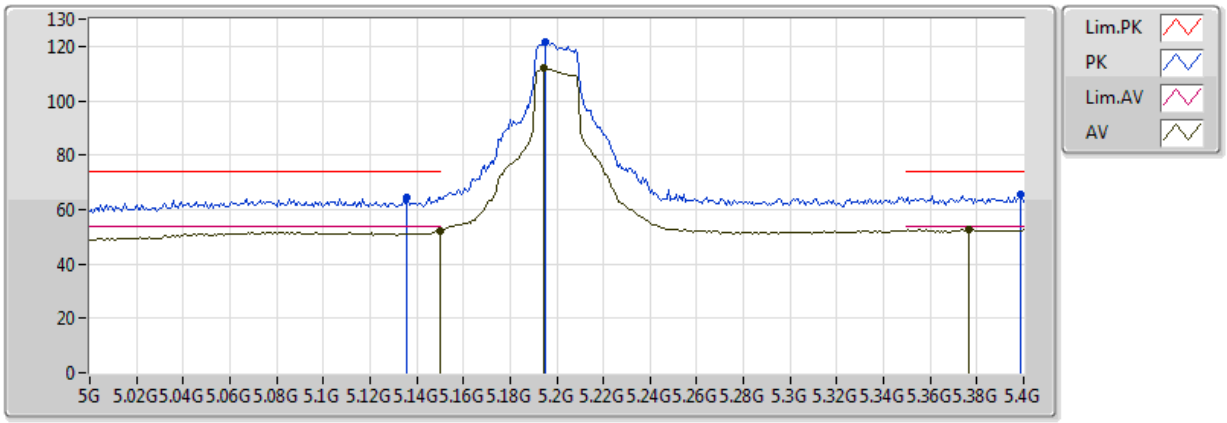


20170217
EUT Y_2TX
Setting:21.5
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.54876G	42.06	54.00	-11.94	15.73	3	H	103	2.18	-
PK	15.53142G	55.03	74.00	-18.97	15.74	3	H	103	2.18	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

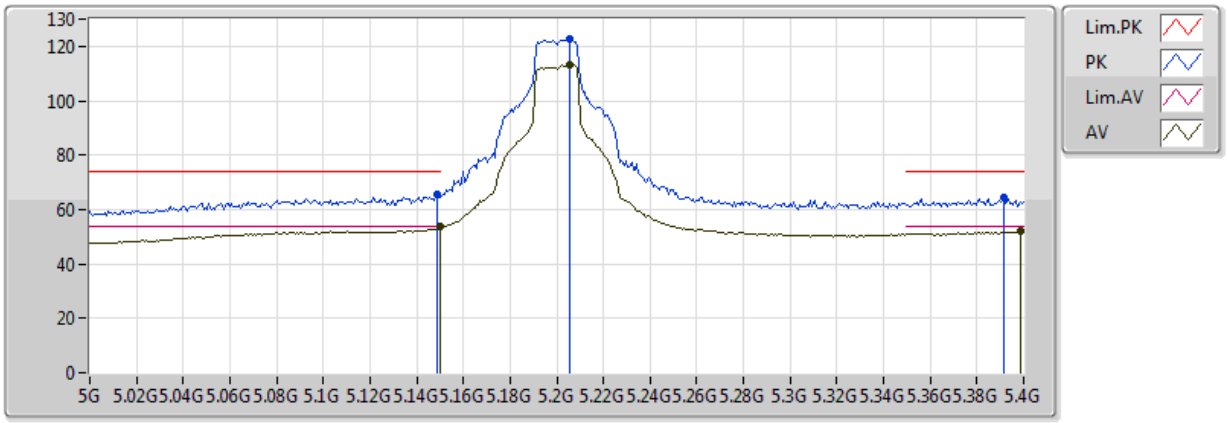


20170217
EUT Y_2TX
Setting:25
04-J-5-13
FSP(100142)

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	52.14	54.00	-1.86	4.77	3	V	9	1.43	-
AV	5.1944G	111.87	Inf	-Inf	4.93	3	V	9	1.43	-
AV	5.3768G	52.64	54.00	-1.36	5.12	3	V	9	1.43	-
PK	5.136G	64.32	74.00	-9.68	4.73	3	V	9	1.43	-
PK	5.1952G	121.44	Inf	-Inf	4.93	3	V	9	1.43	-
PK	5.3984G	65.35	74.00	-8.65	5.14	3	V	9	1.43	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

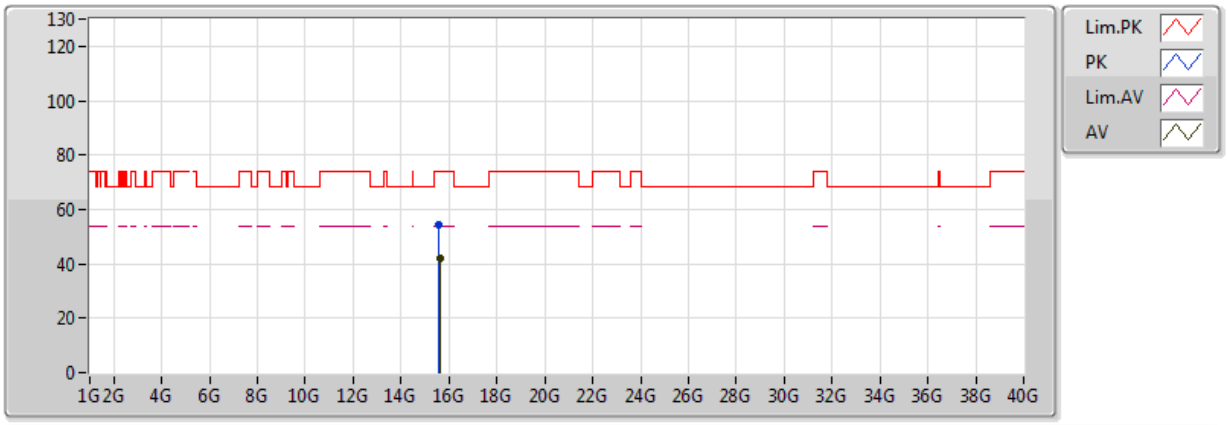


20170217
EUT Y_2TX
Setting:25
04-J-5-13
FSP(100142)

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	53.65	54.00	-0.35	4.77	3	H	0	1.47	-
AV	5.2056G	113.18	Inf	-Inf	4.96	3	H	0	1.47	-
AV	5.3984G	52.05	54.00	-1.95	5.14	3	H	0	1.47	-
PK	5.1488G	65.78	74.00	-8.22	4.77	3	H	0	1.47	-
PK	5.2056G	122.53	Inf	-Inf	4.96	3	H	0	1.47	-
PK	5.3912G	64.30	74.00	-9.70	5.13	3	H	0	1.47	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

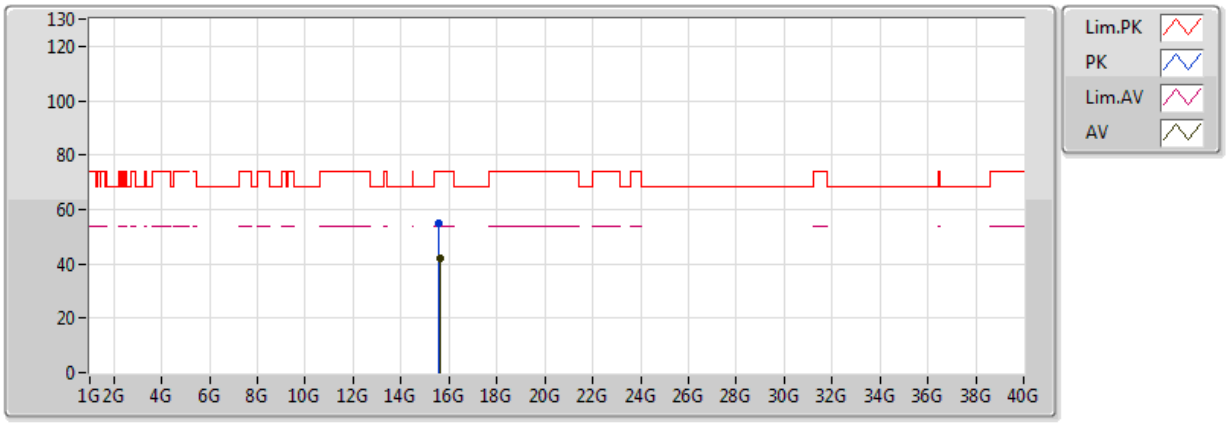


20170217
EUT Y_2TX
Setting:25
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.61266G	41.84	54.00	-12.16	15.69	3	V	84	1.31	-
PK	15.58926G	54.63	74.00	-19.37	15.71	3	V	84	1.31	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

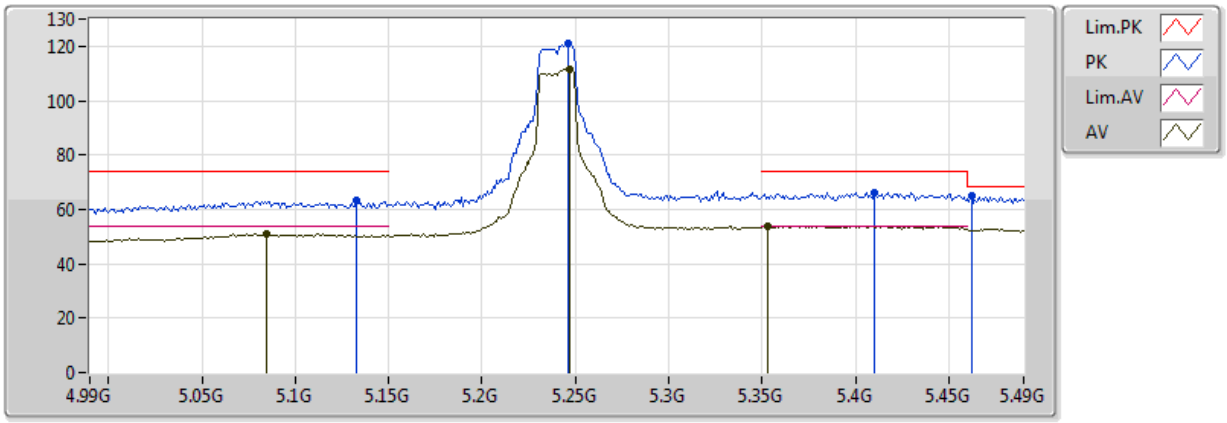


20170217
EUT Y_2TX
Setting:25
04-J-5
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.61182G	42.04	54.00	-11.96	15.69	3	H	149	2.47	-
PK	15.59094G	54.94	74.00	-19.06	15.70	3	H	149	2.47	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

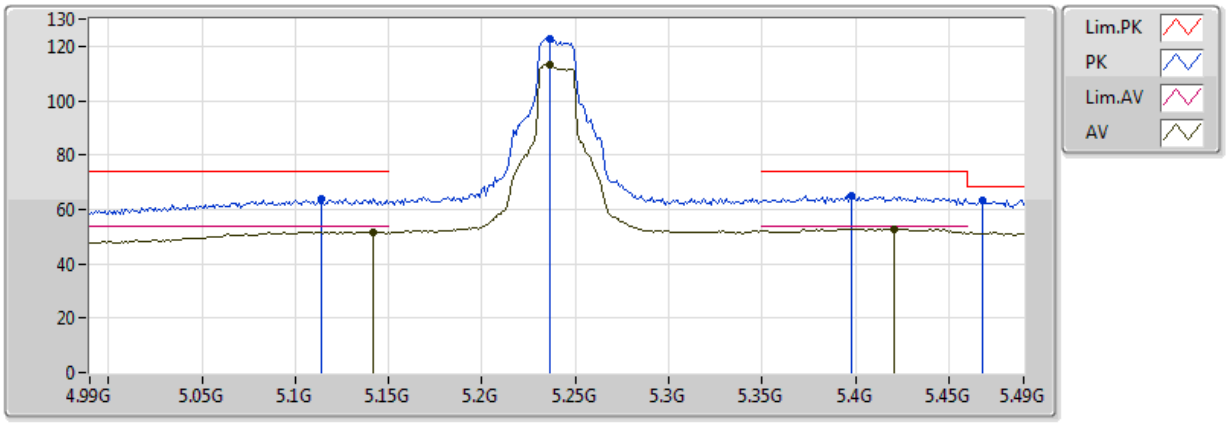


20170217
EUT Y_2TX
Setting:22.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.085G	50.98	54.00	-3.02	4.54	3	V	5	1.50	-
AV	5.247G	111.77	Inf	-Inf	5.00	3	V	5	1.50	-
PK	5.133G	63.10	74.00	-10.90	4.72	3	V	5	1.50	-
PK	5.246G	120.89	Inf	-Inf	5.00	3	V	5	1.50	-
PK	5.462G	65.14	68.20	-3.06	5.43	3	V	5	1.50	-
AV	5.353G	53.92	54.00	-0.08	5.10	3	V	5	1.50	-
PK	5.41G	66.33	74.00	-7.67	5.19	3	V	5	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

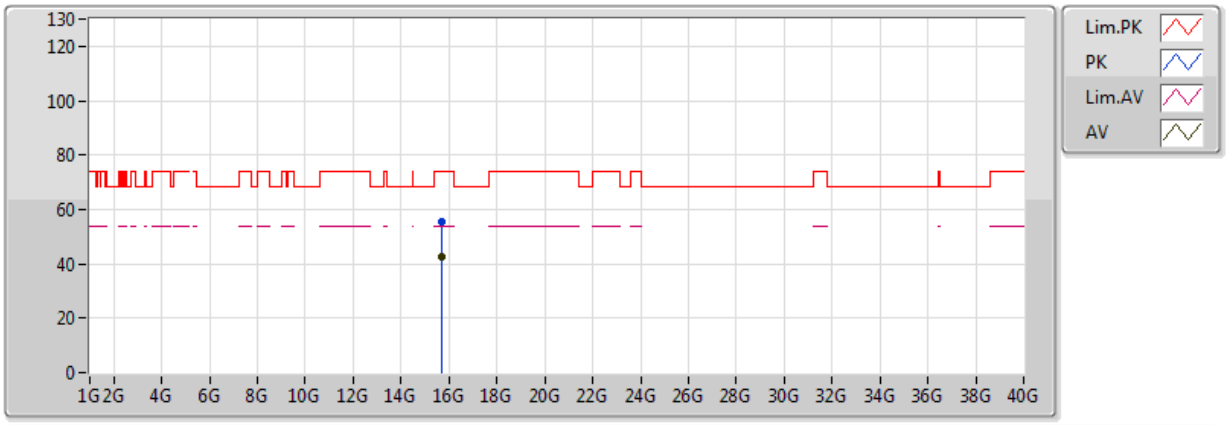


20170217
EUT Y_2TX
Setting:22.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.142G	51.75	54.00	-2.25	4.75	3	H	357	1.36	-
AV	5.236G	113.26	Inf	-Inf	4.99	3	H	357	1.36	-
AV	5.421G	52.94	54.00	-1.06	5.24	3	H	357	1.36	-
PK	5.114G	63.97	74.00	-10.03	4.65	3	H	357	1.36	-
PK	5.236G	122.70	Inf	-Inf	4.99	3	H	357	1.36	-
PK	5.468G	63.44	68.20	-4.76	5.45	3	H	357	1.36	-
PK	5.398G	65.07	74.00	-8.93	5.14	3	H	357	1.36	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

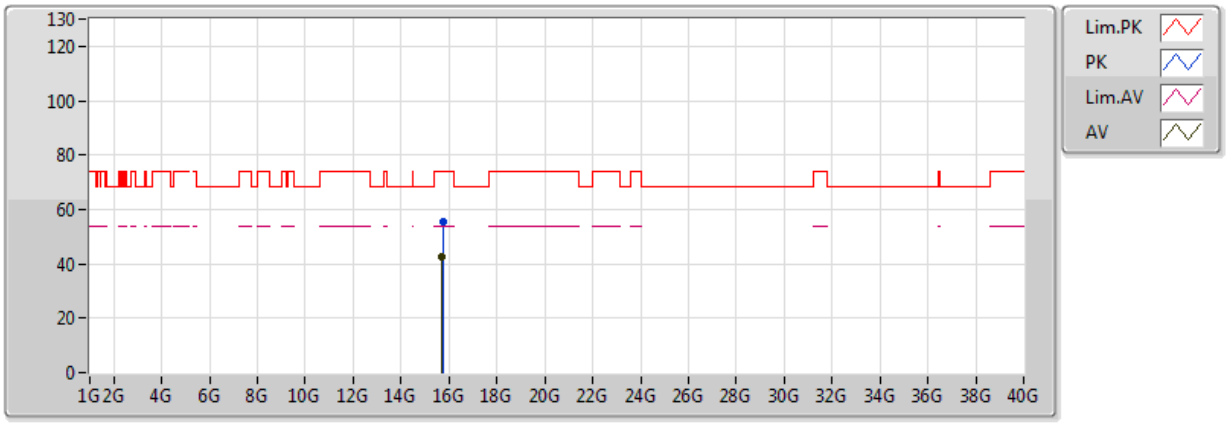


20170217
EUT Y_2TX
Setting:22.5
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.72204G	42.45	54.00	-11.55	15.63	3	V	8	1.81	-
PK	15.71028G	55.31	74.00	-18.69	15.64	3	V	8	1.81	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

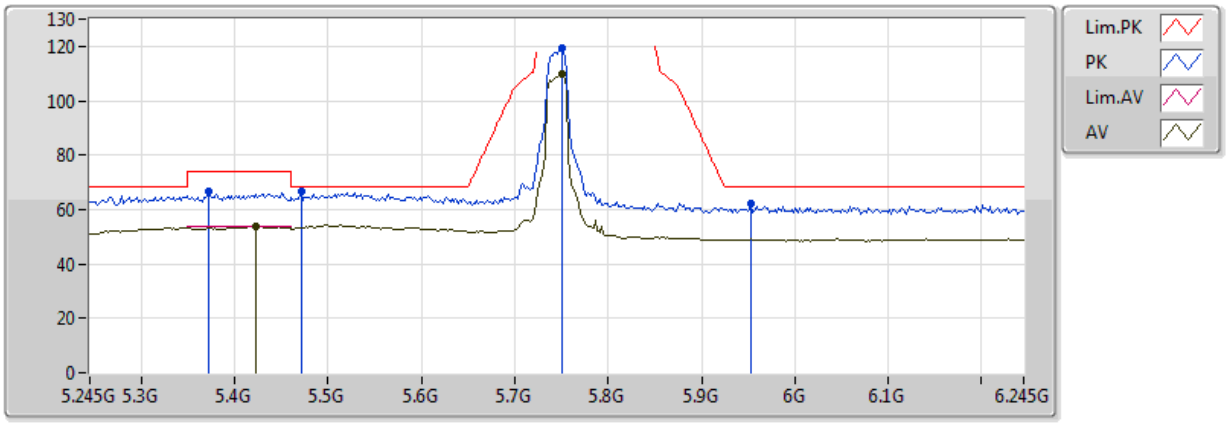


20170217
EUT Y_2TX
Setting:22.5
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.7251G	42.58	54.00	-11.42	15.63	3	H	146	2.44	-
PK	15.73404G	55.29	74.00	-18.71	15.63	3	H	146	2.44	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

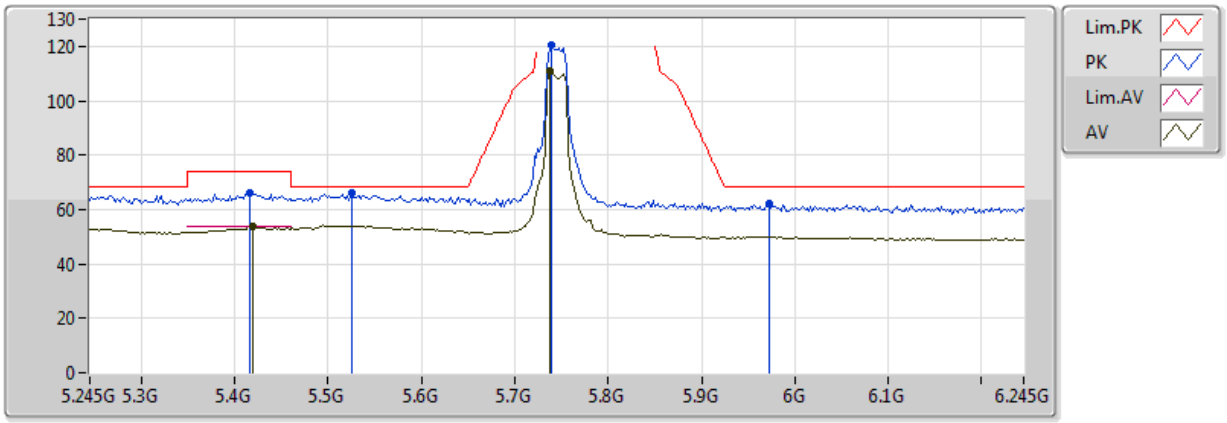


20170217
EUT Y_2TX
Setting:20.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.423G	53.93	54.00	-0.07	5.25	3	V	360	1.50	-
AV	5.751G	109.64	Inf	-Inf	6.33	3	V	360	1.50	-
PK	5.373G	66.93	74.00	-7.07	5.12	3	V	360	1.50	-
PK	5.471G	66.76	68.20	-1.44	5.47	3	V	360	1.50	-
PK	5.751G	119.15	Inf	-Inf	6.33	3	V	360	1.50	-
PK	5.953G	62.47	68.20	-5.73	7.28	3	V	360	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

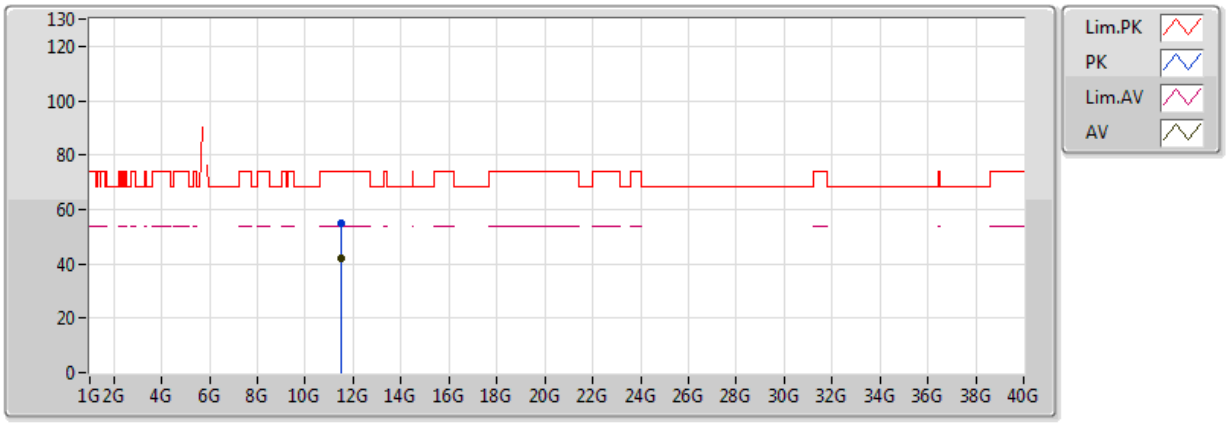


20170217
EUT Y_2TX
Setting:20.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.419G	53.95	54.00	-0.05	5.23	3	H	5	1.50	-
AV	5.737G	111.01	Inf	-Inf	6.31	3	H	5	1.50	-
PK	5.417G	66.07	74.00	-7.93	5.22	3	H	5	1.50	-
PK	5.525G	66.08	68.20	-2.12	5.74	3	H	5	1.50	-
PK	5.739G	120.45	Inf	-Inf	6.32	3	H	5	1.50	-
PK	5.973G	62.32	68.20	-5.88	7.39	3	H	5	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

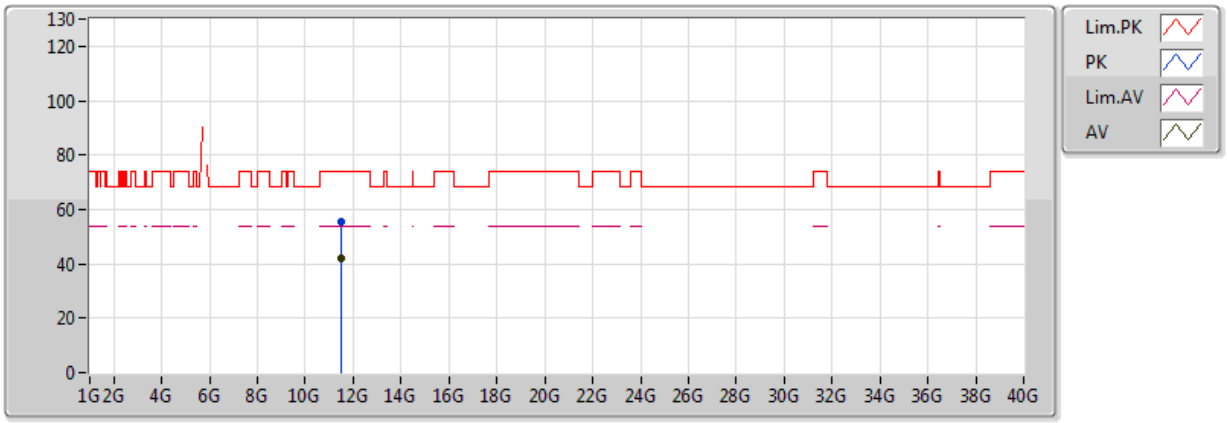


20170217
EUT Y_2TX
Setting:20.5
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.490264G	41.90	54.00	-12.10	14.75	3	V	80	1.14	-
PK	11.490236G	54.79	74.00	-19.21	14.75	3	V	80	1.14	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

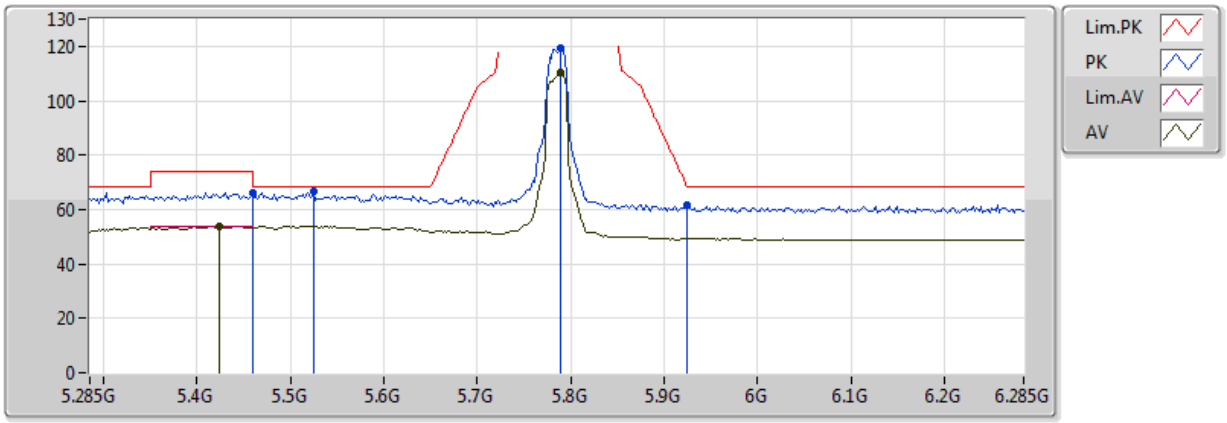


20170217
EUT Y_2TX
Setting:20.5
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.490204G	42.17	54.00	-11.83	14.75	3	H	168	1.88	-
PK	11.489784G	55.39	74.00	-18.61	14.75	3	H	168	1.88	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

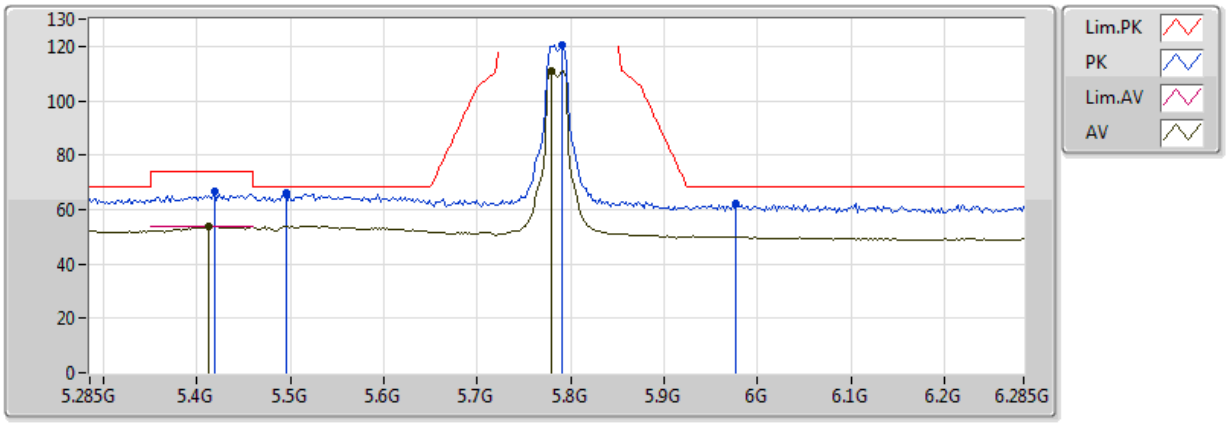


20170217
EUT Y_2TX
Setting:19.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.423G	53.91	54.00	-0.09	5.25	3	V	359	1.58	-
AV	5.789G	110.17	Inf	-Inf	6.38	3	V	359	1.58	-
PK	5.459G	66.18	74.00	-7.82	5.41	3	V	359	1.58	-
PK	5.525G	66.63	68.20	-1.57	5.74	3	V	359	1.58	-
PK	5.789G	119.20	Inf	-Inf	6.38	3	V	359	1.58	-
PK	5.925G	61.47	68.20	-6.73	7.12	3	V	359	1.58	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

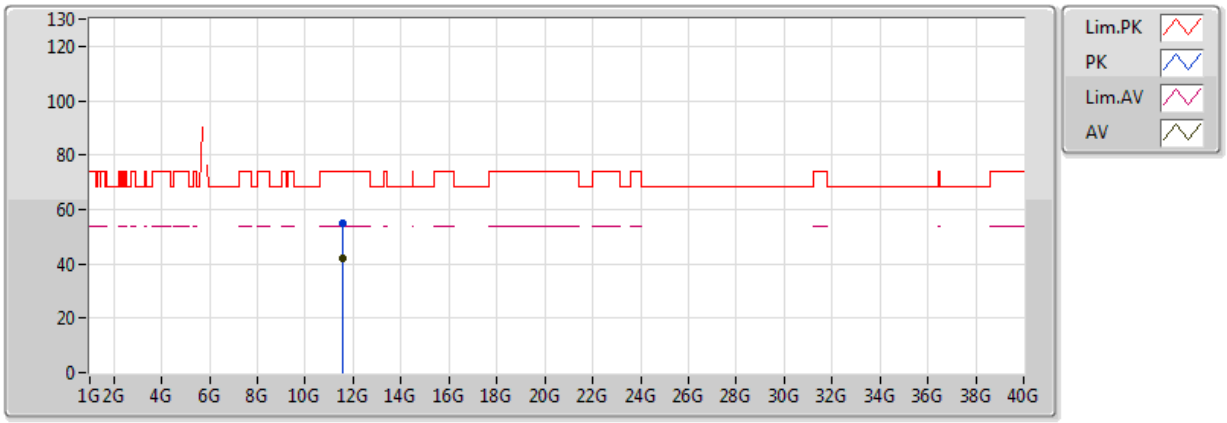


20170217
EUT Y_2TX
Setting:19.5
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.413G	53.75	54.00	-0.25	5.20	3	H	5	1.61	-
AV	5.779G	110.97	Inf	-Inf	6.36	3	H	5	1.61	-
PK	5.419G	66.46	74.00	-7.54	5.23	3	H	5	1.61	-
PK	5.495G	65.98	68.20	-2.22	5.58	3	H	5	1.61	-
PK	5.791G	120.58	Inf	-Inf	6.38	3	H	5	1.61	-
PK	5.977G	62.05	68.20	-6.15	7.42	3	H	5	1.61	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

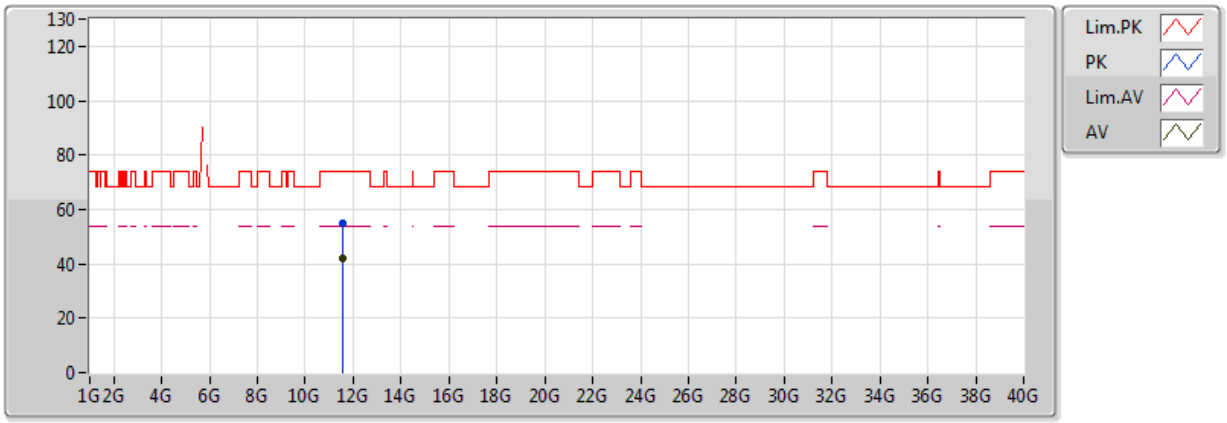


20170217
EUT Y_2TX
Setting:19.5
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.570728G	41.82	54.00	-12.18	14.77	3	V	248	1.89	-
PK	11.569648G	54.96	74.00	-19.04	14.77	3	V	248	1.89	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

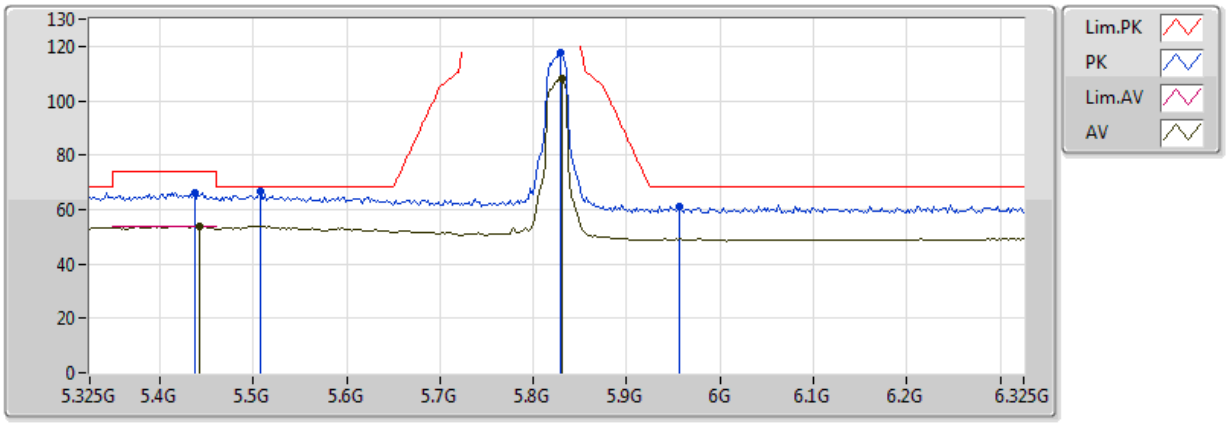


20170217
EUT Y_2TX
Setting:19.5
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.569964G	41.79	54.00	-12.21	14.77	3	H	248	2.15	-
PK	11.570896G	55.18	74.00	-18.82	14.77	3	H	248	2.15	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

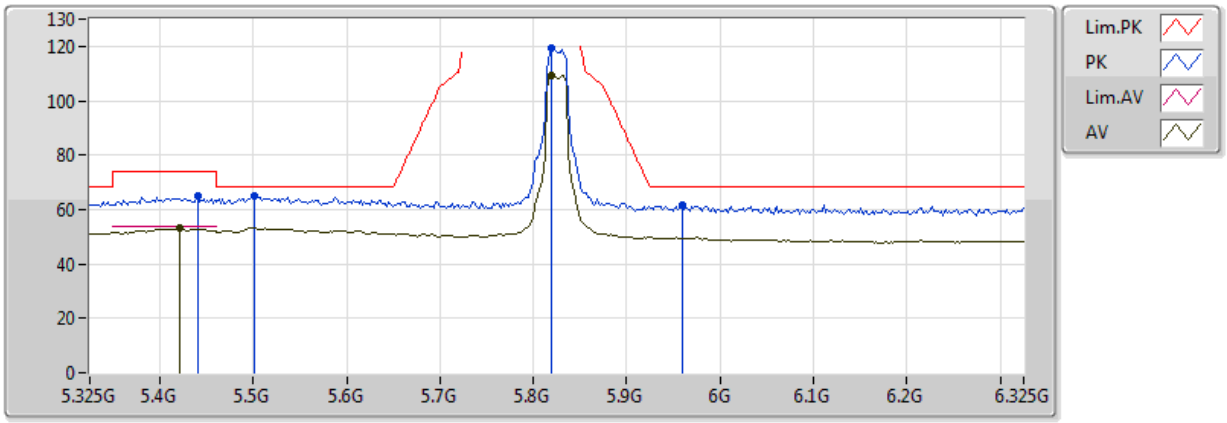


20170217
EUT Y_2TX
Setting:19
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.443G	53.97	54.00	-0.03	5.34	3	V	359	1.50	-
AV	5.831G	108.17	Inf	-Inf	6.57	3	V	359	1.50	-
PK	5.437G	66.09	74.00	-7.91	5.31	3	V	359	1.50	-
PK	5.507G	66.68	68.20	-1.52	5.64	3	V	359	1.50	-
PK	5.829G	117.69	Inf	-Inf	6.56	3	V	359	1.50	-
PK	5.957G	61.32	68.20	-6.88	7.30	3	V	359	1.50	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

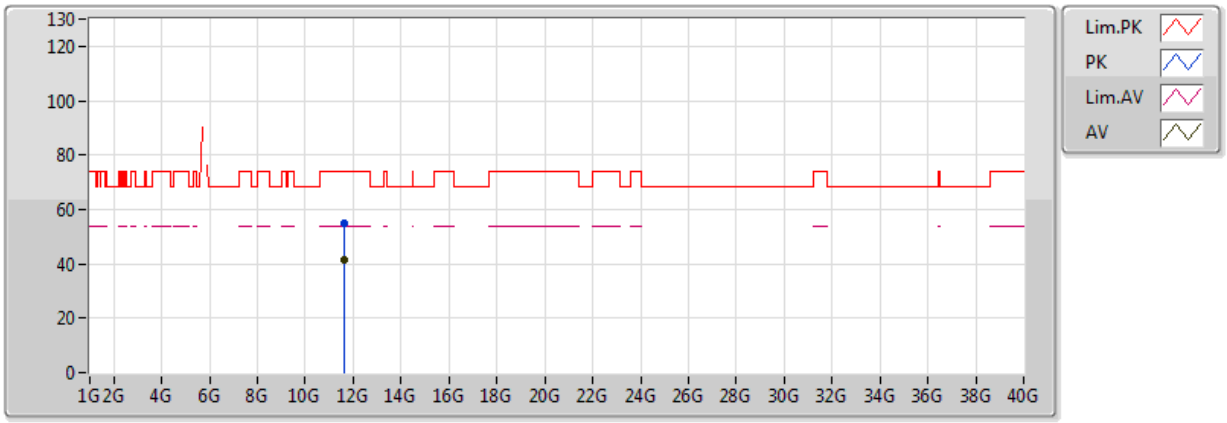


20170217
EUT Y_2TX
Setting:19
04-J-5-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.421G	53.01	54.00	-0.99	5.24	3	H	0	1.75	-
AV	5.819G	109.43	Inf	-Inf	6.50	3	H	0	1.75	-
PK	5.441G	65.19	74.00	-8.81	5.33	3	H	0	1.75	-
PK	5.501G	65.05	68.20	-3.15	5.61	3	H	0	1.75	-
PK	5.819G	119.42	Inf	-Inf	6.50	3	H	0	1.75	-
PK	5.959G	61.49	68.20	-6.71	7.31	3	H	0	1.75	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

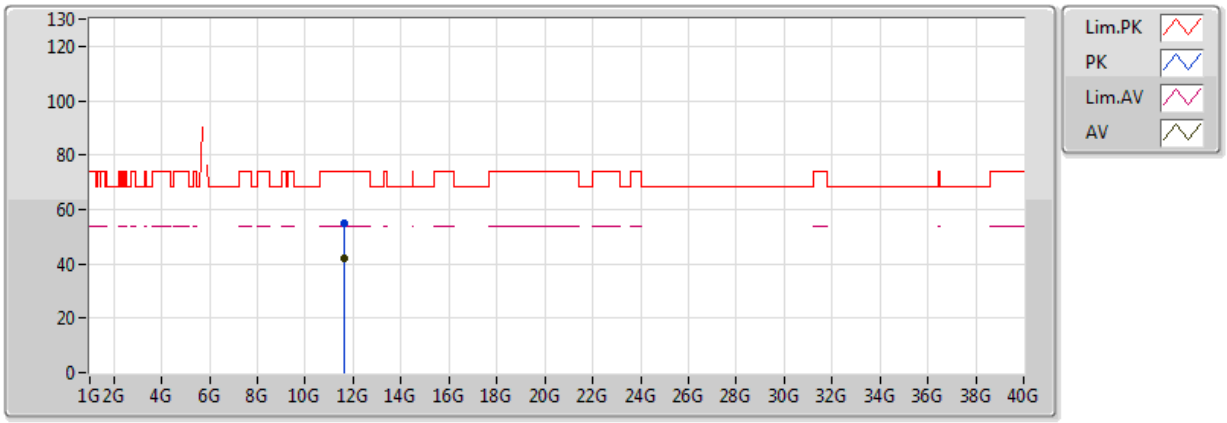


20170217
EUT Y_2TX
Setting:19
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.649736G	41.73	54.00	-12.27	14.79	3	V	132	1.99	-
PK	11.650964G	54.98	74.00	-19.02	14.79	3	V	132	1.99	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

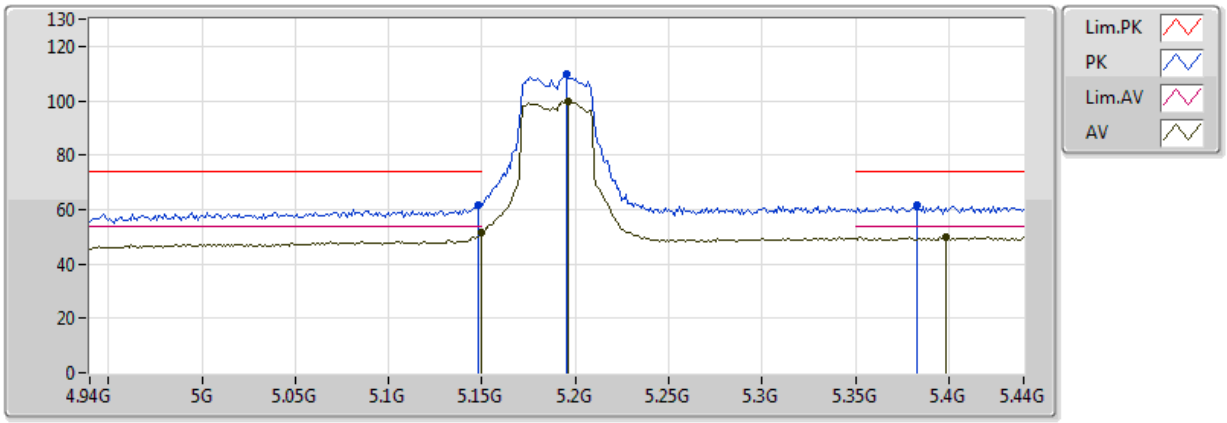


20170217
EUT Y_2TX
Setting:19
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.64948G	41.76	54.00	-12.24	14.79	3	H	25	1.44	-
PK	11.65078G	55.00	74.00	-19.00	14.79	3	H	25	1.44	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

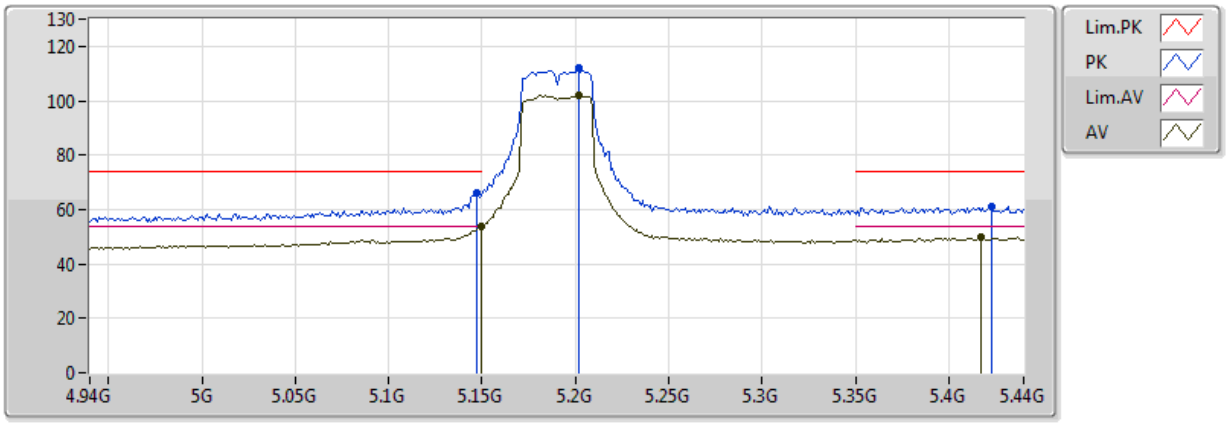


20170217
EUT Y_2TX
Setting:14
04-J-5-10
FSU(100015)

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	51.74	54.00	-2.26	4.77	3	V	8	1.50	-
AV	5.196G	99.69	Inf	-Inf	4.94	3	V	8	1.50	-
AV	5.398G	49.82	54.00	-4.18	5.14	3	V	8	1.50	-
PK	5.148G	61.61	74.00	-12.39	4.77	3	V	8	1.50	-
PK	5.195G	109.61	Inf	-Inf	4.93	3	V	8	1.50	-
PK	5.383G	61.36	74.00	-12.64	5.13	3	V	8	1.50	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

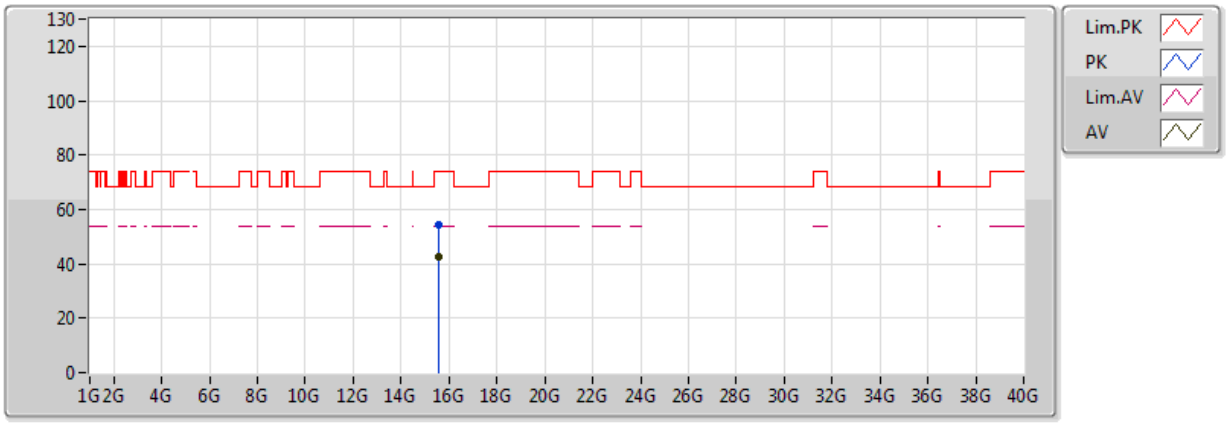


20170217
EUT Y_2TX
Setting:14
04-J-5-10
FSU(100015)

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	53.80	54.00	-0.20	4.77	3	H	2	1.50	-
AV	5.202G	102.03	Inf	-Inf	4.95	3	H	2	1.50	-
AV	5.417G	49.71	54.00	-4.29	5.22	3	H	2	1.50	-
PK	5.147G	66.13	74.00	-7.87	4.76	3	H	2	1.50	-
PK	5.202G	112.07	Inf	-Inf	4.95	3	H	2	1.50	-
PK	5.423G	61.14	74.00	-12.86	5.25	3	H	2	1.50	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

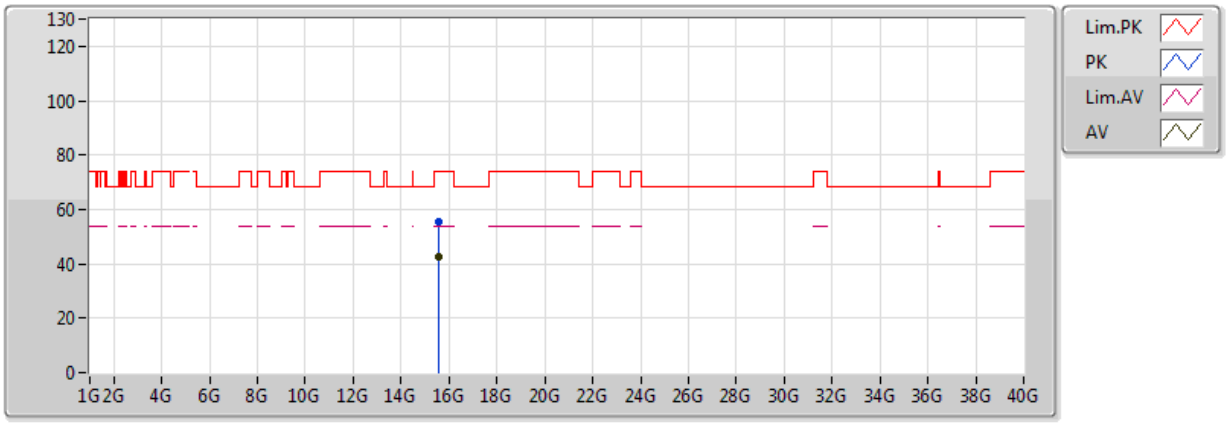


20170217
EUT Y_2TX
Setting:14
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.569964G	42.41	54.00	-11.59	15.72	3	V	322	1.50	-
PK	15.569692G	54.50	74.00	-19.50	15.72	3	V	322	1.50	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

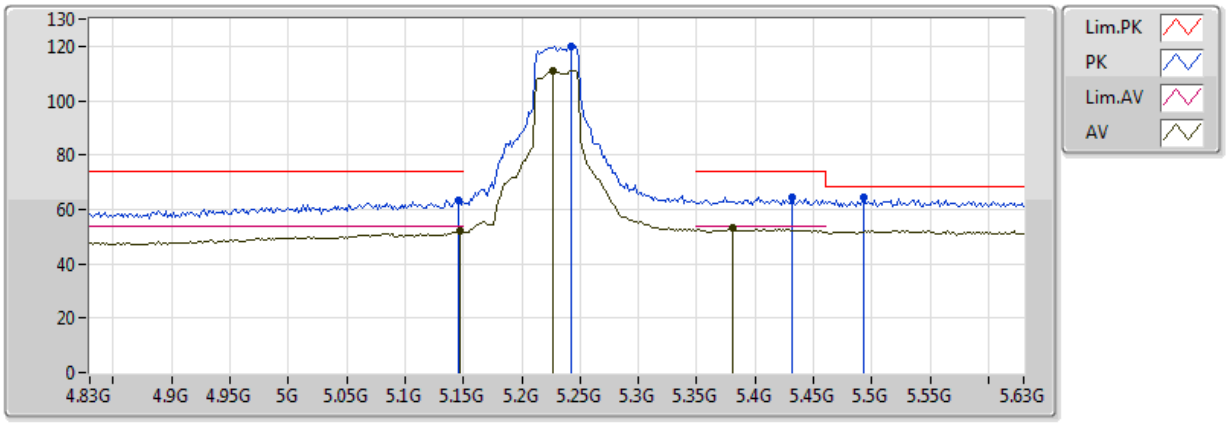


20170217
EUT Y_2TX
Setting:14
04-J-5
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.56932G	42.67	54.00	-11.33	15.72	3	H	33	1.47	-
PK	15.569052G	55.20	74.00	-18.80	15.72	3	H	33	1.47	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

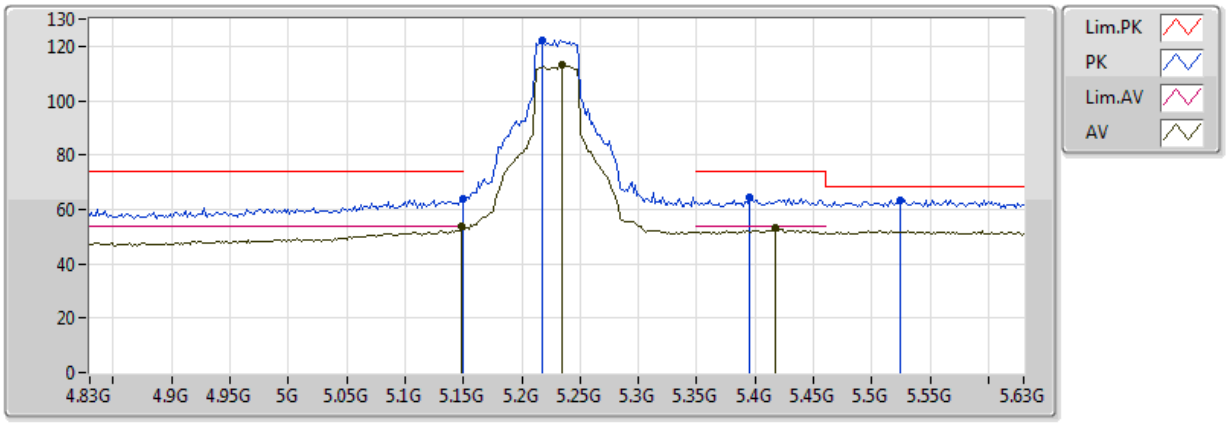


20170217
EUT Y_2TX
Setting:22
04-J-4-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1468G	51.99	54.00	-2.01	4.76	3	V	7	1.50	-
AV	5.2268G	111.10	Inf	-Inf	4.98	3	V	7	1.50	-
AV	5.3804G	53.07	54.00	-0.93	5.12	3	V	7	1.50	-
PK	5.1452G	63.27	74.00	-10.73	4.76	3	V	7	1.50	-
PK	5.2428G	120.07	Inf	-Inf	5.00	3	V	7	1.50	-
PK	5.4316G	64.53	74.00	-9.47	5.29	3	V	7	1.50	-
PK	5.4924G	64.62	68.20	-3.58	5.57	3	V	7	1.50	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

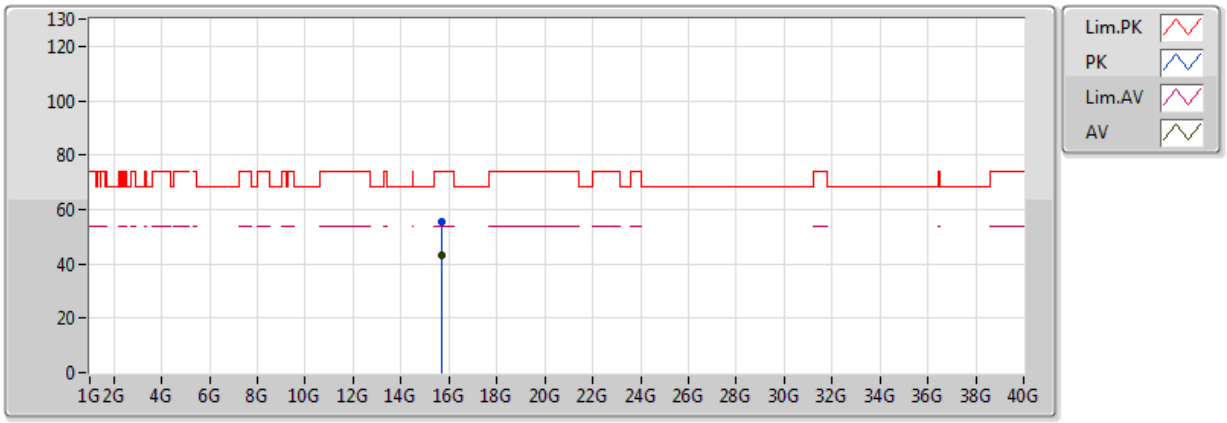


20170217
EUT Y_2TX
Setting:22
04-J-4-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1484G	53.57	54.00	-0.43	4.77	3	H	359	1.50	-
AV	5.2348G	112.97	Inf	-Inf	4.99	3	H	359	1.50	-
AV	5.4172G	52.96	54.00	-1.04	5.22	3	H	359	1.50	-
PK	5.149995G	64.15	74.00	-9.85	4.77	3	H	359	1.50	-
PK	5.2172G	122.36	Inf	-Inf	4.97	3	H	359	1.50	-
PK	5.3948G	64.54	74.00	-9.46	5.14	3	H	359	1.50	-
PK	5.5244G	63.19	68.20	-5.01	5.73	3	H	359	1.50	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

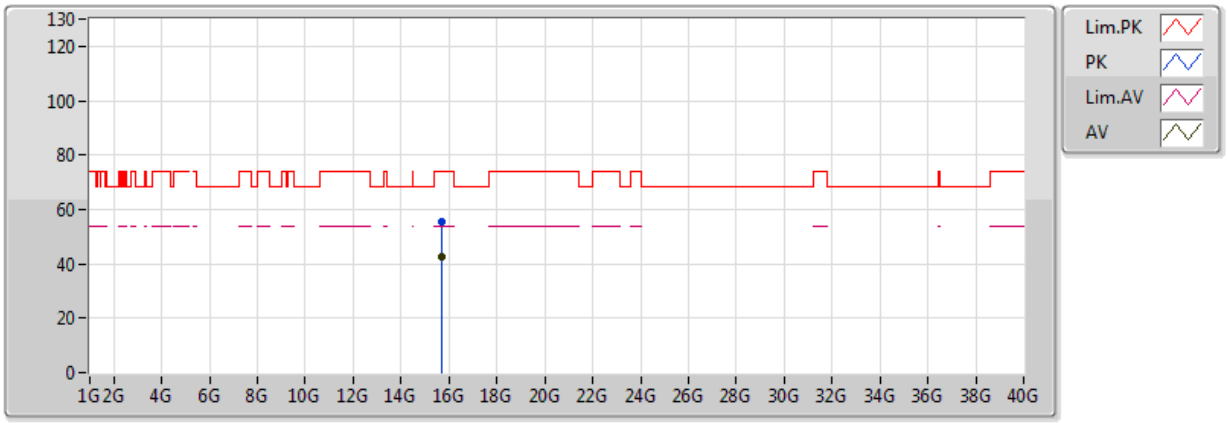


20170217
EUT Y_2TX
Setting:22
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.690252G	43.10	54.00	-10.90	15.65	3	V	133	2.01	-
PK	15.689868G	55.51	74.00	-18.49	15.65	3	V	133	2.01	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

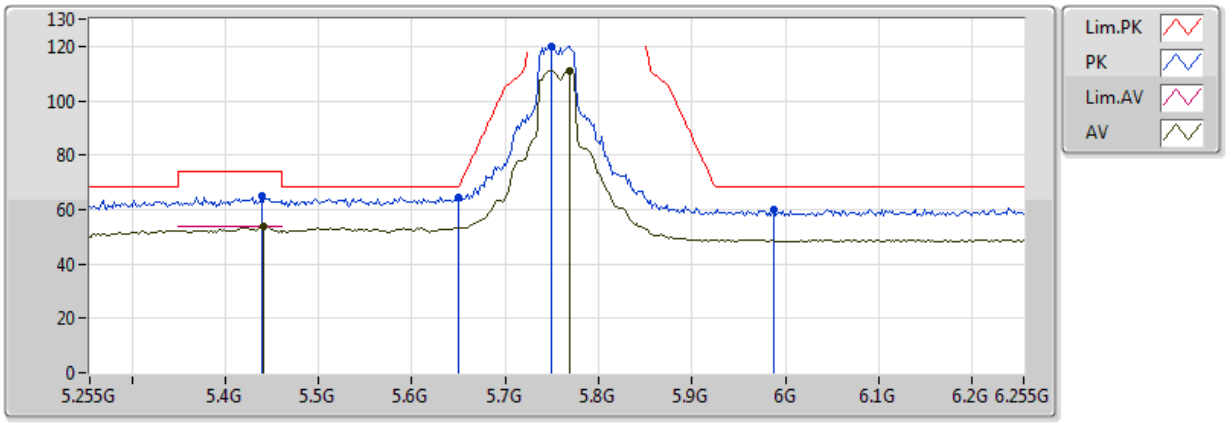


20170217
EUT Y_2TX
Setting:22
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.690568G	42.83	54.00	-11.17	15.65	3	H	36	1.37	-
PK	15.689496G	55.32	74.00	-18.68	15.65	3	H	36	1.37	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

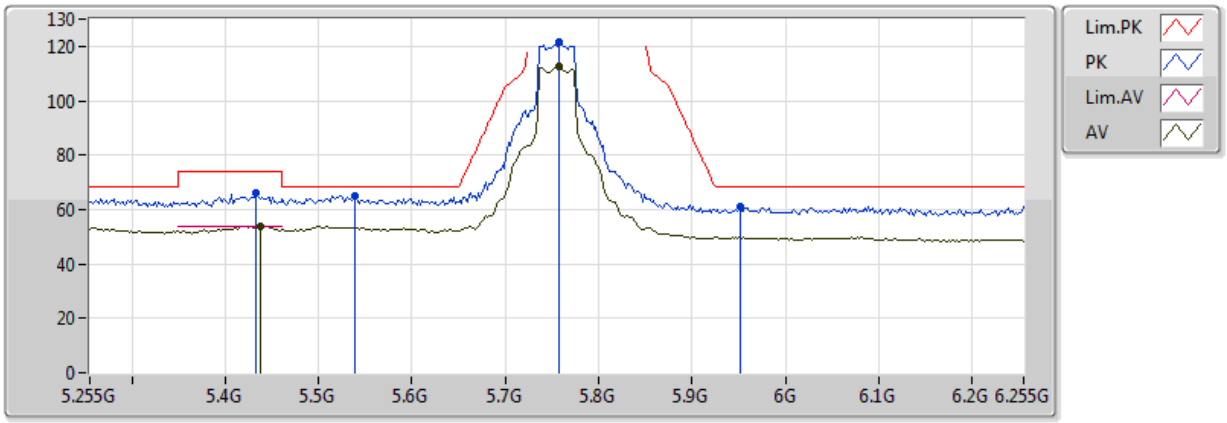


20170217
EUT Y_2TX
Setting:26
04-J-4-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.441G	53.75	54.00	-0.25	5.33	3	V	355	1.50	-
AV	5.769G	111.20	Inf	-Inf	6.35	3	V	355	1.50	-
PK	5.439G	64.75	74.00	-9.25	5.32	3	V	355	1.50	-
PK	5.649G	64.62	68.20	-3.58	6.21	3	V	355	1.50	-
PK	5.749G	119.92	Inf	-Inf	6.33	3	V	355	1.50	-
PK	5.987G	60.06	68.20	-8.14	7.47	3	V	355	1.50	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

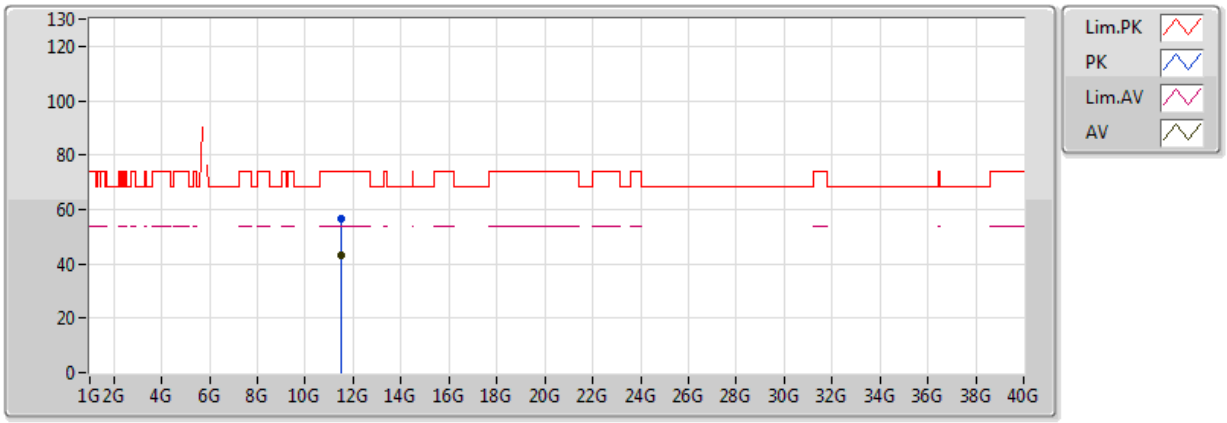


20170217
EUT Y_2TX
Setting:26
04-J-4-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.437G	53.96	54.00	-0.04	5.31	3	H	359	1.62	-
AV	5.757G	112.68	Inf	-Inf	6.34	3	H	359	1.62	-
PK	5.433G	65.97	74.00	-8.03	5.29	3	H	359	1.62	-
PK	5.539G	65.14	68.20	-3.06	5.81	3	H	359	1.62	-
PK	5.757G	121.34	Inf	-Inf	6.34	3	H	359	1.62	-
PK	5.951G	61.26	68.20	-6.94	7.27	3	H	359	1.62	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

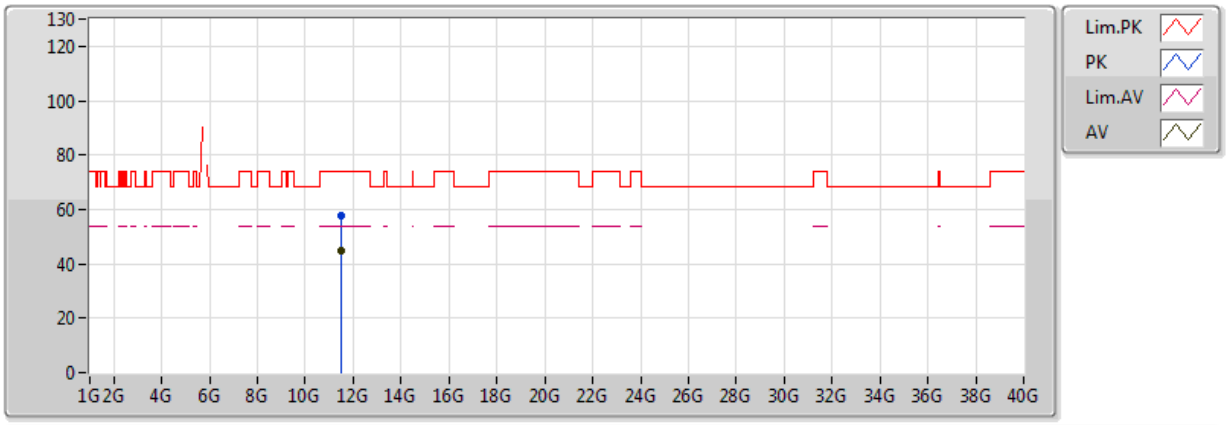


20170217
EUT Y_2TX
Setting:26
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.51324G	43.34	54.00	-10.66	14.75	3	V	96	1.47	-
PK	11.5028G	56.37	74.00	-17.63	14.75	3	V	96	1.47	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

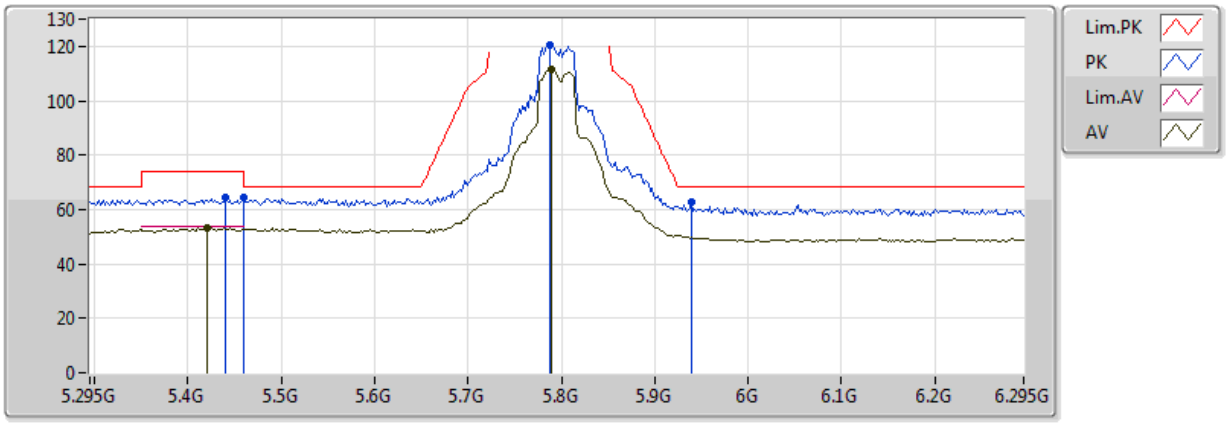


20170217
EUT Y_2TX
Setting:26
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.5094G	45.01	54.00	-8.99	14.75	3	H	215	2.14	-
PK	11.51096G	57.74	74.00	-16.26	14.75	3	H	215	2.14	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

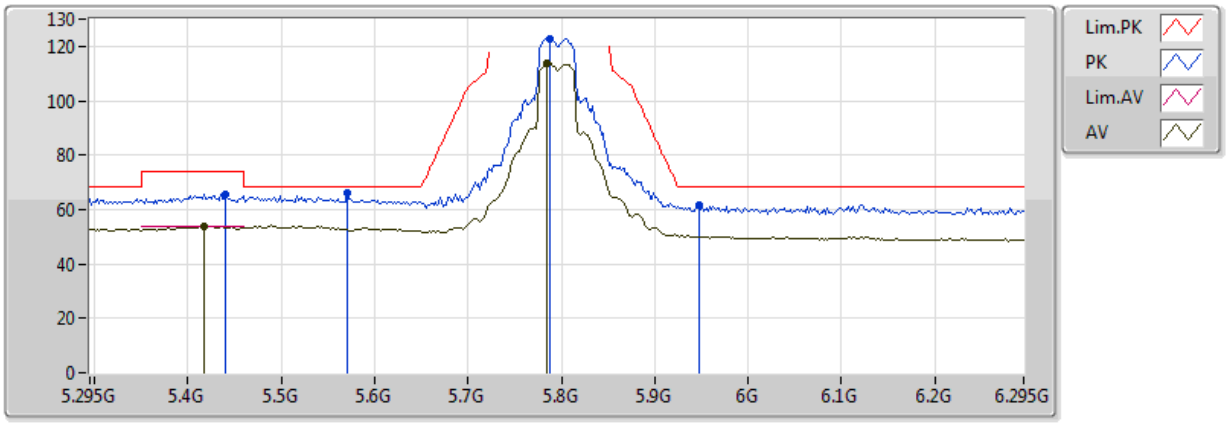


20170217
EUT Y_2TX
Setting:26
04-J-4-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.421G	53.18	54.00	-0.82	5.24	3	V	359	1.58	-
AV	5.789G	111.64	Inf	-Inf	6.38	3	V	359	1.58	-
PK	5.441G	64.50	74.00	-9.50	5.33	3	V	359	1.58	-
PK	5.460005G	64.29	68.20	-3.91	5.42	3	V	359	1.58	-
PK	5.787G	120.27	Inf	-Inf	6.37	3	V	359	1.58	-
PK	5.939G	62.61	68.20	-5.59	7.20	3	V	359	1.58	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

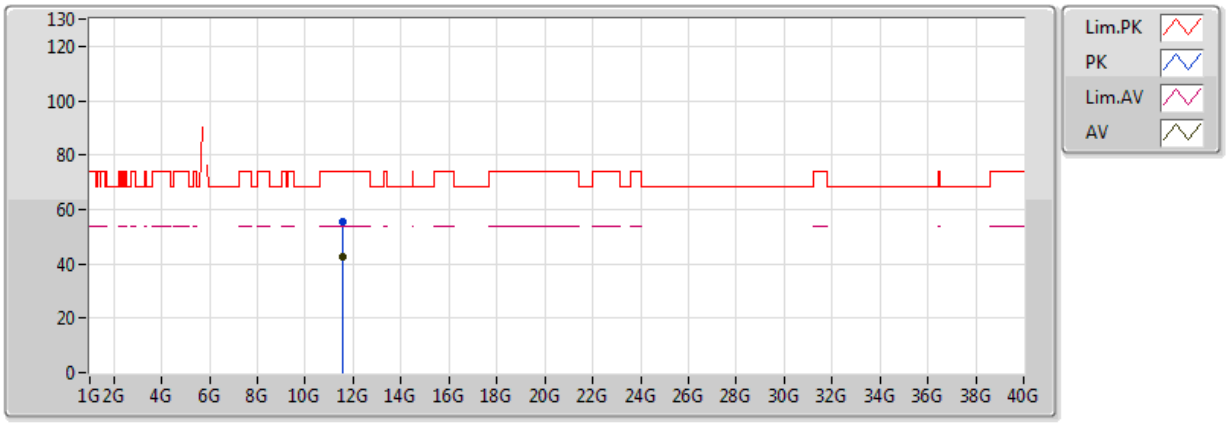


20170217
EUT Y_2TX
Setting:26
04-J-4-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.417G	53.98	54.00	-0.02	5.22	3	H	357	1.59	-
AV	5.785G	113.77	Inf	-Inf	6.37	3	H	357	1.59	-
PK	5.441G	65.67	74.00	-8.33	5.33	3	H	357	1.59	-
PK	5.571G	65.94	68.20	-2.26	5.99	3	H	357	1.59	-
PK	5.787G	122.85	Inf	-Inf	6.37	3	H	357	1.59	-
PK	5.947G	61.39	68.20	-6.81	7.24	3	H	357	1.59	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

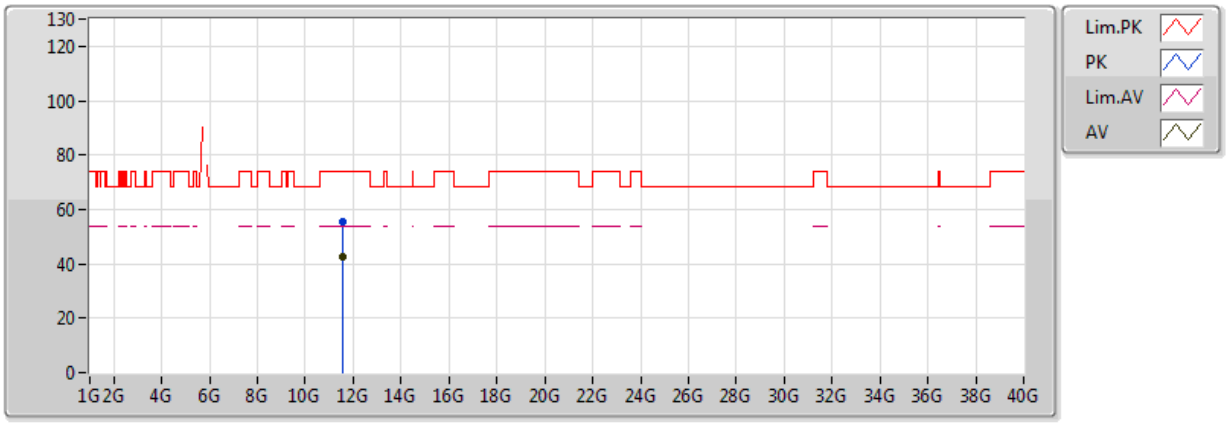


20170217
EUT Y_2TX
Setting:26
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.58984G	42.82	54.00	-11.18	14.77	3	V	46	1.29	-
PK	11.58992G	55.60	74.00	-18.40	14.77	3	V	46	1.29	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

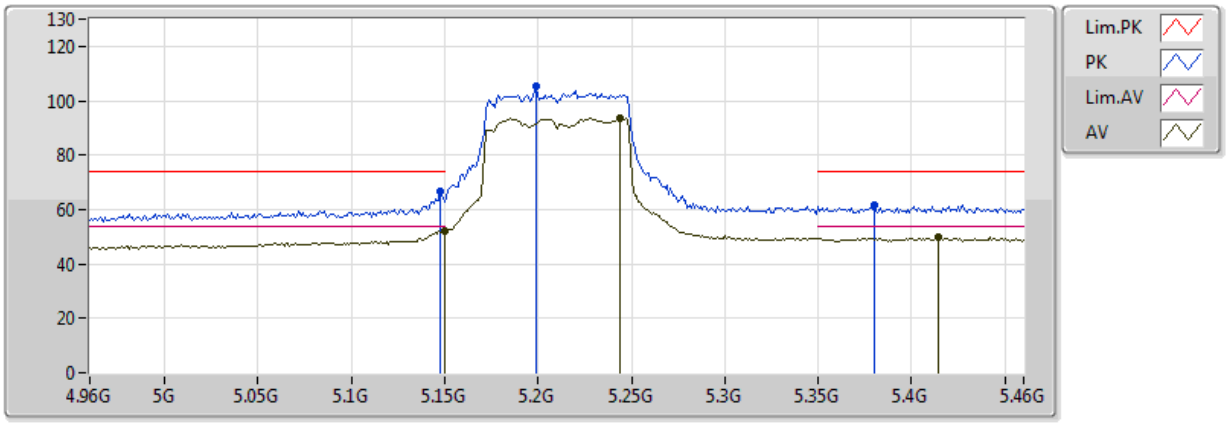


20170217
EUT Y_2TX
Setting:26
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.590104G	42.70	54.00	-11.30	14.77	3	H	332	1.93	-
PK	11.590588G	55.26	74.00	-18.74	14.77	3	H	332	1.93	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

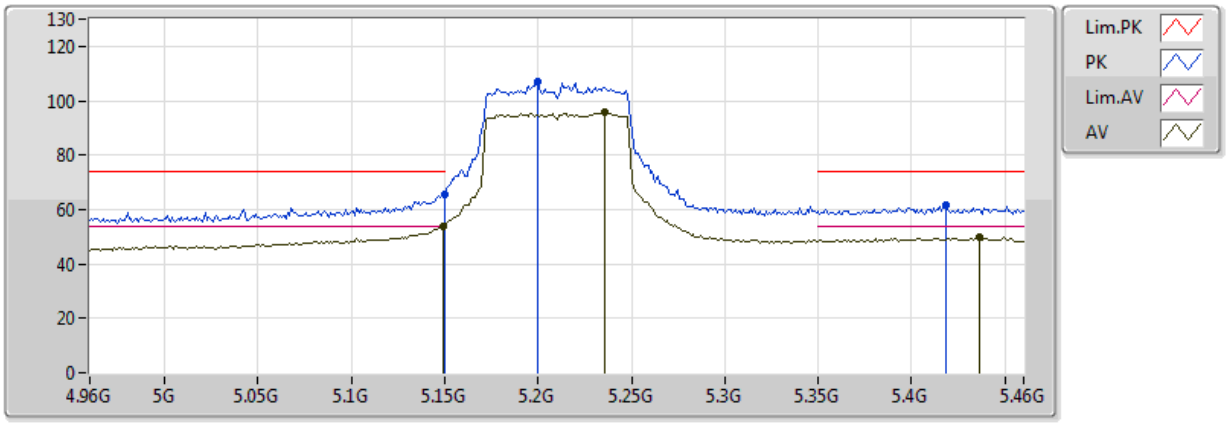


20170217
EUT Y_2TX
Setting:10.5
04-J-4-10
FSU(100015)

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	52.15	54.00	-1.85	4.77	3	V	8	1.48	-
AV	5.244G	93.76	Inf	-Inf	5.00	3	V	8	1.48	-
AV	5.414G	49.72	54.00	-4.28	5.20	3	V	8	1.48	-
PK	5.148G	66.48	74.00	-7.52	4.77	3	V	8	1.48	-
PK	5.199G	105.36	Inf	-Inf	4.95	3	V	8	1.48	-
PK	5.38G	61.53	74.00	-12.47	5.12	3	V	8	1.48	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

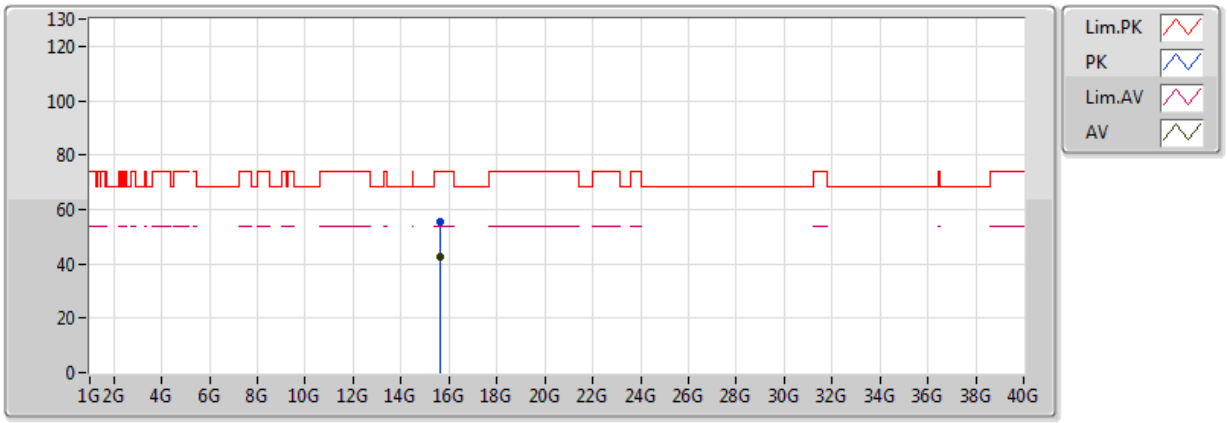


20170217
EUT Y_2TX
Setting:10.5
04-J-4-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149G	53.91	54.00	-0.09	4.77	3	H	0	1.50	-
AV	5.236G	96.01	Inf	-Inf	4.99	3	H	0	1.50	-
AV	5.436G	49.68	54.00	-4.32	5.31	3	H	0	1.50	-
PK	5.149995G	65.46	74.00	-8.54	4.77	3	H	0	1.50	-
PK	5.2G	106.91	Inf	-Inf	4.95	3	H	0	1.50	-
PK	5.418G	61.56	74.00	-12.44	5.22	3	H	0	1.50	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

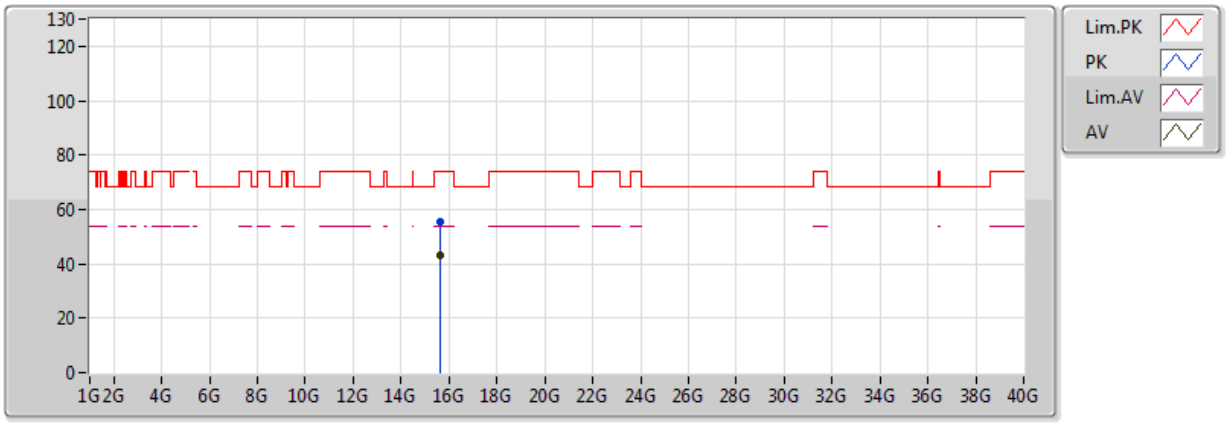


20170217
EUT Y_2TX
Setting:10.5
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.629552G	42.81	54.00	-11.19	15.68	3	V	23	2.24	-
PK	15.629172G	55.30	74.00	-18.70	15.68	3	V	23	2.24	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

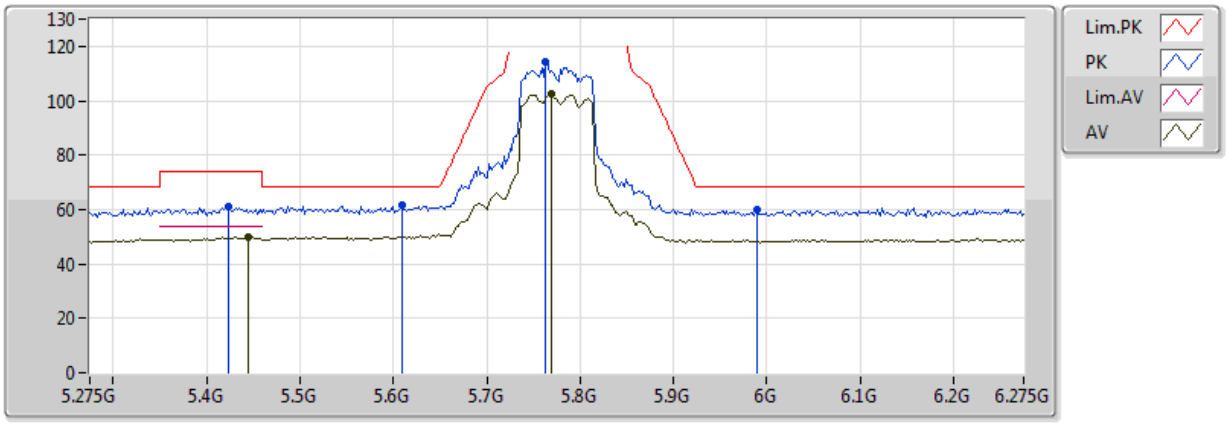


20170217
EUT Y_2TX
Setting:10.5
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.629912G	42.95	54.00	-11.05	15.68	3	H	299	2.24	-
PK	15.629104G	55.72	74.00	-18.28	15.68	3	H	299	2.24	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

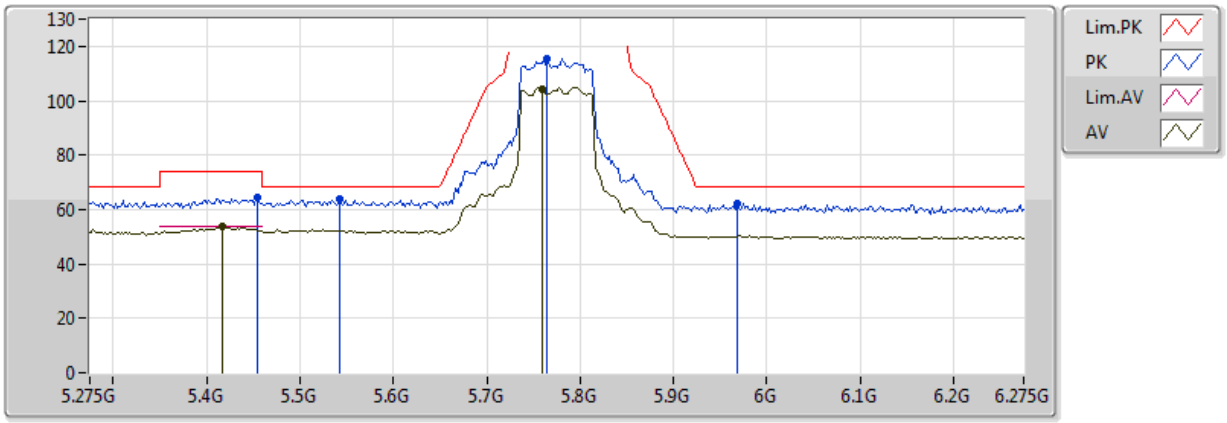


20170217
EUT Y_2TX
Setting:19
04-J-4-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.445G	49.76	54.00	-4.24	5.35	3	V	354	1.50	-
AV	5.769G	102.56	Inf	-Inf	6.35	3	V	354	1.50	-
PK	5.423G	61.34	74.00	-12.66	5.25	3	V	354	1.50	-
PK	5.609G	61.53	68.20	-6.67	6.16	3	V	354	1.50	-
PK	5.763G	114.59	Inf	-Inf	6.35	3	V	354	1.50	-
PK	5.989G	59.97	68.20	-8.23	7.49	3	V	354	1.50	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

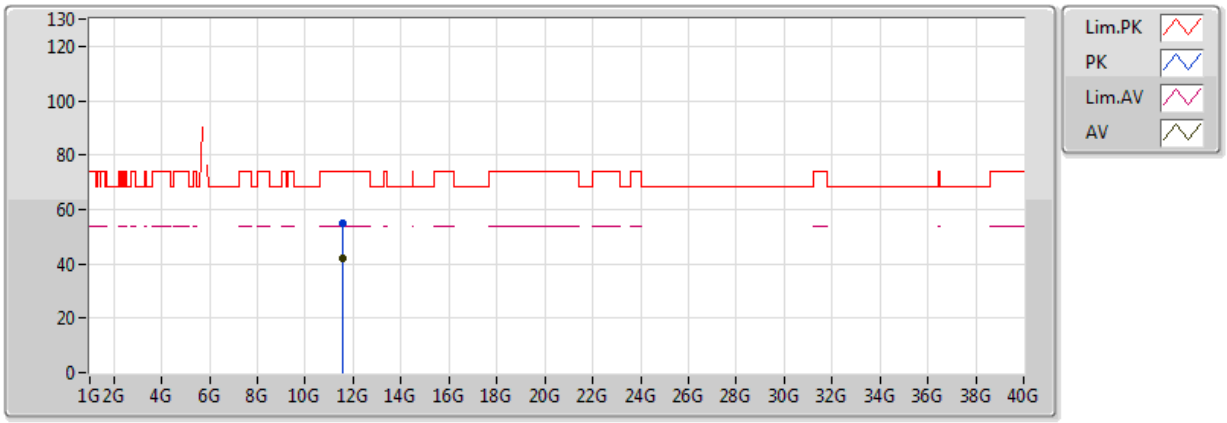


20170217
EUT Y_2TX
Setting:19
04-J-4-10
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.417G	53.53	54.00	-0.47	5.22	3	H	359	1.52	-
AV	5.759G	104.29	Inf	-Inf	6.34	3	H	359	1.52	-
PK	5.455G	64.51	74.00	-9.49	5.39	3	H	359	1.52	-
PK	5.543G	63.74	68.20	-4.46	5.84	3	H	359	1.52	-
PK	5.765G	115.71	Inf	-Inf	6.35	3	H	359	1.52	-
PK	5.969G	62.26	68.20	-5.94	7.37	3	H	359	1.52	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

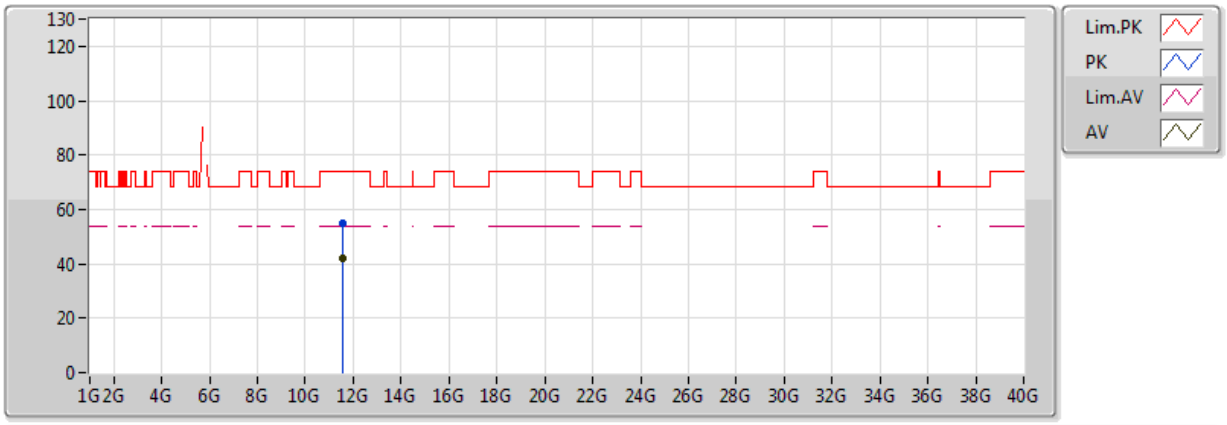


20170217
EUT Y_2TX
Setting:19
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.54932G	42.25	54.00	-11.75	14.76	3	V	218	1.26	-
PK	11.550808G	54.84	74.00	-19.16	14.76	3	V	218	1.26	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



20170217
EUT Y_2TX
Setting:19
04-J-4
FSU(100015)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.55026G	42.15	54.00	-11.85	14.76	3	H	114	1.72	-
PK	11.549968G	54.87	74.00	-19.13	14.76	3	H	114	1.72	-

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

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9797	5199.9788	5199.9783	5199.9774
110.00	5199.9793	5199.9788	5199.9781	5199.9774
93.50	5199.9786	5199.9784	5199.9776	5199.9775
Max. Deviation (MHz)	0.0214	0.0216	0.0224	0.0226
Max. Deviation (ppm)	4.12	4.15	4.31	4.35
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5199.9846	5199.9845	5199.9842	5199.9839
-30	5199.9840	5199.9830	5199.9828	5199.9822
-20	5199.9837	5199.9831	5199.9830	5199.9820
-10	5199.9833	5199.9832	5199.9825	5199.9822
0	5199.9820	5199.9815	5199.9812	5199.9810
10	5199.9807	5199.9800	5199.9797	5199.9793
20	5199.9793	5199.9784	5199.9778	5199.9771
30	5199.9784	5199.9774	5199.9767	5199.9760
40	5199.9765	5199.9760	5199.9755	5199.9753
50	5199.9754	5199.9747	5199.9742	5199.9738
60	5199.9756	5199.9754	5199.9745	5199.9739
70	5199.9758	5199.9756	5199.9748	5199.9740
Max. Deviation (MHz)	0.0244	0.0246	0.0255	0.0261
Max. Deviation (ppm)	4.69	4.73	4.90	5.02
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9796	5784.9787	5784.9777	5784.9768
110.00	5784.9793	5784.9789	5784.9784	5784.9776
93.50	5784.9790	5784.9782	5784.9775	5784.9769
Max. Deviation (MHz)	0.0210	0.0218	0.0225	0.0232
Max. Deviation (ppm)	3.63	3.77	3.89	4.01
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5784.9830	5784.9821	5784.9814	5784.9807
-30	5784.9827	5784.9825	5784.9823	5784.9814
-20	5784.9826	5784.9823	5784.9815	5784.9809
-10	5784.9820	5784.9814	5784.9809	5784.9803
0	5784.9819	5784.9811	5784.9803	5784.9798
10	5784.9811	5784.9803	5784.9802	5784.9793
20	5784.9793	5784.9786	5784.9785	5784.9777
30	5784.9784	5784.9775	5784.9773	5784.9764
40	5784.9778	5784.9772	5784.9765	5784.9755
50	5784.9769	5784.9759	5784.9751	5784.9746
60	5784.9763	5784.9755	5784.9745	5784.9742
70	5784.9754	5784.9748	5784.9746	5784.9741
Max. Deviation (MHz)	0.0246	0.0252	0.0255	0.0259
Max. Deviation (ppm)	4.25	4.36	4.41	4.48
Result	Pass			

Mode: 40 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9801	5189.9793	5189.9785	5189.9779
110.00	5189.9793	5189.9783	5189.9775	5189.9773
93.50	5189.9783	5189.9779	5189.9778	5189.9769
Max. Deviation (MHz)	0.0217	0.0221	0.0225	0.0231
Max. Deviation (ppm)	4.18	4.26	4.34	4.45
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5189.9855	5189.9848	5189.9842	5189.9836
-30	5189.9838	5189.9834	5189.9832	5189.9827
-20	5189.9835	5189.9827	5189.9818	5189.9814
-10	5189.9832	5189.9826	5189.9820	5189.9812
0	5189.9823	5189.9817	5189.9807	5189.9803
10	5189.9805	5189.9799	5189.9793	5189.9786
20	5189.9793	5189.9789	5189.9779	5189.9773
30	5189.9784	5189.9776	5189.9775	5189.9765
40	5189.9775	5189.9772	5189.9765	5189.9756
50	5189.9772	5189.9769	5189.9767	5189.9762
60	5189.9768	5189.9762	5189.9755	5189.9753
70	5189.9749	5189.9747	5189.9743	5189.9733
Max. Deviation (MHz)	0.0251	0.0253	0.0257	0.0267
Max. Deviation (ppm)	4.84	4.87	4.95	5.14
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9799	5754.9797	5754.9794	5754.9789
110.00	5754.9793	5754.9786	5754.9784	5754.9777
93.50	5754.9792	5754.9789	5754.9781	5754.9774
Max. Deviation (MHz)	0.0208	0.0214	0.0219	0.0226
Max. Deviation (ppm)	3.61	3.72	3.81	3.93
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5754.9853	5754.9847	5754.9844	5754.9843
-30	5754.9840	5754.9831	5754.9823	5754.9819
-20	5754.9828	5754.9821	5754.9811	5754.9803
-10	5754.9816	5754.9812	5754.9810	5754.9807
0	5754.9805	5754.9796	5754.9791	5754.9789
10	5754.9798	5754.9797	5754.9796	5754.9794
20	5754.9793	5754.9786	5754.9785	5754.9779
30	5754.9784	5754.9779	5754.9777	5754.9769
40	5754.9774	5754.9764	5754.9760	5754.9753
50	5754.9765	5754.9761	5754.9754	5754.9753
60	5754.9760	5754.9755	5754.9753	5754.9752
70	5754.9751	5754.9744	5754.9736	5754.9728
Max. Deviation (MHz)	0.0249	0.0256	0.0264	0.0272
Max. Deviation (ppm)	4.33	4.45	4.59	4.73
Result	Pass			

Mode: 80 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9794	5209.9784	5209.9774	5209.9766
110.00	5209.9793	5209.9785	5209.9782	5209.9776
93.50	5209.9792	5209.9790	5209.9783	5209.9777
Max. Deviation (MHz)	0.0208	0.0216	0.0226	0.0234
Max. Deviation (ppm)	3.99	4.15	4.34	4.49
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5209.9839	5209.9838	5209.9830	5209.9828
-30	5209.9836	5209.9827	5209.9826	5209.9823
-20	5209.9833	5209.9830	5209.9821	5209.9819
-10	5209.9819	5209.9811	5209.9808	5209.9801
0	5209.9805	5209.9796	5209.9789	5209.9788
10	5209.9800	5209.9797	5209.9793	5209.9785
20	5209.9793	5209.9786	5209.9781	5209.9775
30	5209.9784	5209.9774	5209.9771	5209.9770
40	5209.9774	5209.9772	5209.9765	5209.9761
50	5209.9755	5209.9748	5209.9744	5209.9736
60	5209.9751	5209.9745	5209.9738	5209.9729
70	5209.9735	5209.9731	5209.9724	5209.9716
Max. Deviation (MHz)	0.0265	0.0269	0.0276	0.0284
Max. Deviation (ppm)	5.09	5.16	5.30	5.45
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9799	5774.9795	5774.9789	5774.9784
110.00	5774.9793	5774.9790	5774.9780	5774.9770
93.50	5774.9784	5774.9774	5774.9764	5774.9754
Max. Deviation (MHz)	0.0216	0.0226	0.0236	0.0246
Max. Deviation (ppm)	3.74	3.91	4.09	4.26
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-40	5774.9848	5774.9844	5774.9839	5774.9832
-30	5774.9836	5774.9829	5774.9824	5774.9823
-20	5774.9816	5774.9809	5774.9801	5774.9796
-10	5774.9815	5774.9806	5774.9804	5774.9795
0	5774.9809	5774.9799	5774.9795	5774.9793
10	5774.9794	5774.9793	5774.9789	5774.9781
20	5774.9793	5774.9790	5774.9786	5774.9784
30	5774.9784	5774.9779	5774.9769	5774.9759
40	5774.9765	5774.9757	5774.9750	5774.9748
50	5774.9751	5774.9744	5774.9736	5774.9734
60	5774.9737	5774.9735	5774.9729	5774.9724
70	5774.9733	5774.9727	5774.9718	5774.9715
Max. Deviation (MHz)	0.0267	0.0273	0.0282	0.0285
Max. Deviation (ppm)	4.62	4.73	4.88	4.94
Result	Pass			