FCC Test Report

Equipment	:	Metrolinq2.5 Outdoor 60GHz PTP + 5 GHz
Brand Name	:	IgniteNet
Model No.	:	ML2.5-60-35 / ML2.5-60-19
FCC ID	:	HEDML2560
Standard	:	47 CFR FCC Part 15.407
Operating Band	:	5150 MHz – 5250 MHz 5725 MHz – 5850 MHz
Applicant	:	Accton Technology Corporation No. 1, Creation Rd. III, Science-based Industrial Park Hsin Chu 30077, Taiwan R.O.C.
Manufacturer(1)	:	Joy Technology (Shen Zhen) Co. Ltd HengKeng Ind., Shangpai, Shangwu, Aiqun Rd., Shiyan Town, Shenzhen 518108 China
Manufacturer(2)	:	Accton Technology Corporation No. 1, Creation Rd. III, Science-based Industrial Park Hsin Chu 30077, Taiwan R.O.C.
Function	:	☒ Outdoor; ☐ Indoor; ☐ Fixed P2P ☐ Client

The product sample received on Aug. 16, 2017 and completely tested on Sep. 25, 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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PHOTOGRAPHS OF EUT V01

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
FR781526	Rev. 01	Initial issue of report	Sep. 28, 2017

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

Note 2: This device contains transmitter 60GHz module FCC ID: HED-ML60MDSB

Note 3: WLAN and 60G work at the same time.

1.1.2 Antenna Information

Ant.	Brand	Part Number	Antenna Type	Connector	Gain (dBi)	
					Band 1	Band 4
1	Accton	120G00000174X	Dish Antenna	N/A	17.3	20
2	Accton	120G00000175X	Dish Antenna	N/A	9.1	13.4

Note: Both Ant. 1 and Ant. 2 are the same type. Only Ant. 1 was selected to test because it's gain was higher than that of Ant. 2.
Port 1 and Port 2 connect to Ant. 1
Port 1 and Port 2 can be used as transmitting/receiving antenna.
Port 1 and Port 2 could transmit/receive simultaneously.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.968	0.141	2.068m	1k
802.11ac VHT20	0.987	0.057	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40	0.968	0.141	2.433m	1k
802.11ac VHT80	0.941	0.264	1.153m	1k

1.1.4 EUT Operational Condition

EUT Power Type	From PoE / DC 48V			
Beamforming Function	☐	With beamforming	☒	Without beamforming

1.1.5 Table for Multiple Listing

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

Model Name	5GHz/60GHz	Antenna Gain (dBi)			Description	Remark
		5GHz Ban 1	5GHz Band 4	60GHz		
ML2.5-60-35	Internal / Dish Ant.	17.3	20	40	Alll the EUTs are identical except for the antenna gain and the size of the antenna reflective board.	Outdoor use
ML2.5-60-19	Internal / Dish Ant.	9.1	13.4	34		

From the above models, model: ML2.5-60-35 was selected as representative model for the test and its data was recorded in this report.

1.2 Testing Applied Standards

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

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

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Eddie Weng	22°C / 54%	Sep. 25, 2017
Radiated	03CH01-CB	Justin Lin	22°C / 54%	Sep. 21, 2017~Sep. 23, 2017
AC Conduction	CO01-CB	Rick Yeh	25°C / 65%	Sep. 20, 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_Nss1,(6Mbps)_2TX	-
5180MHz	10.5
5200MHz	11
5240MHz	11
5745MHz	12.5
5785MHz	12.5
5825MHz	13
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	11
5200MHz	11.5
5240MHz	11.5
5745MHz	13
5785MHz	12.5
5825MHz	13
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	12.5
5230MHz	13
5755MHz	11.5
5795MHz	11.5
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	12
5775MHz	12.5

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

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	Normal Link - 5GHz + 60 GHz - AC Mode
2	Normal Link - 5GHz + 60 GHz - DC Mode
For operating mode 1 is the worst case and it was record in this test report.	

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	Normal Link - 5GHz + 60 GHz - AC Mode
2	Normal Link - 5GHz + 60 GHz - DC Mode
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
1	CTX - 5 GHz

Note 1: The EUT can only be used in Y axis.
Note 2: The test configuration and test modes written in this test report are designated by the applicant.

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories				
No.	**Equipment Name**	**Brand Name**	**Model Name**	**Rating**
1	PoE	GME	GME241DA-480050G	Input: 100-240Vac, 50-60Hz, 0.55A Output: 48Vdc, 0.5A
Other				
Power cable*1, Non-Shielded, 0.9m				

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*4	DELL	E6430	DoC
2	Device	IgniteNet	ML2.5-60-35	DoC
3	Flash disk3.0	ADATA	C103	DoC

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

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*4	DELL	E4300	DoC
2	Device	IgniteNet	ML25-60-35	DoC
3	Flash disk	Silicon Power	I-Series	DoC

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

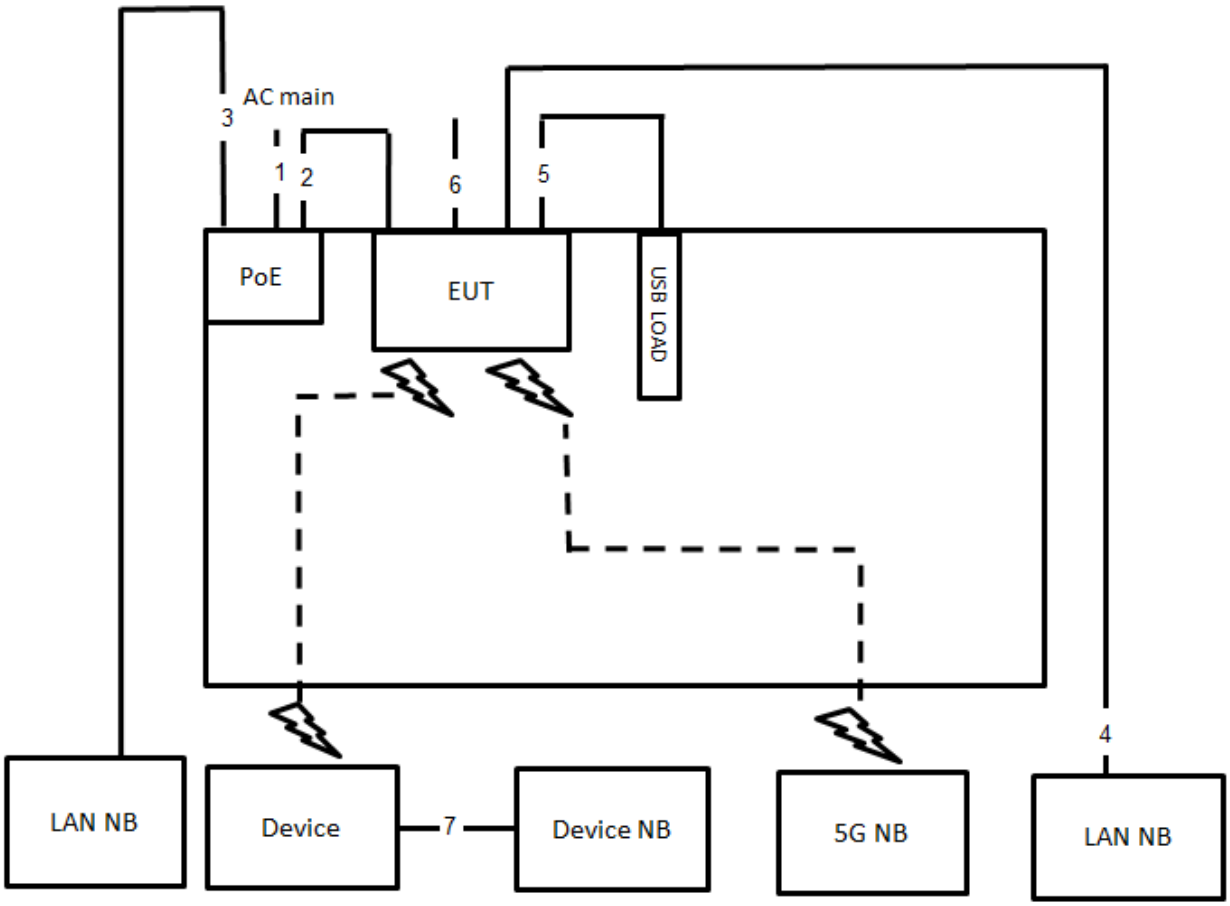
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC

For Test Site No: TH01-CB

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

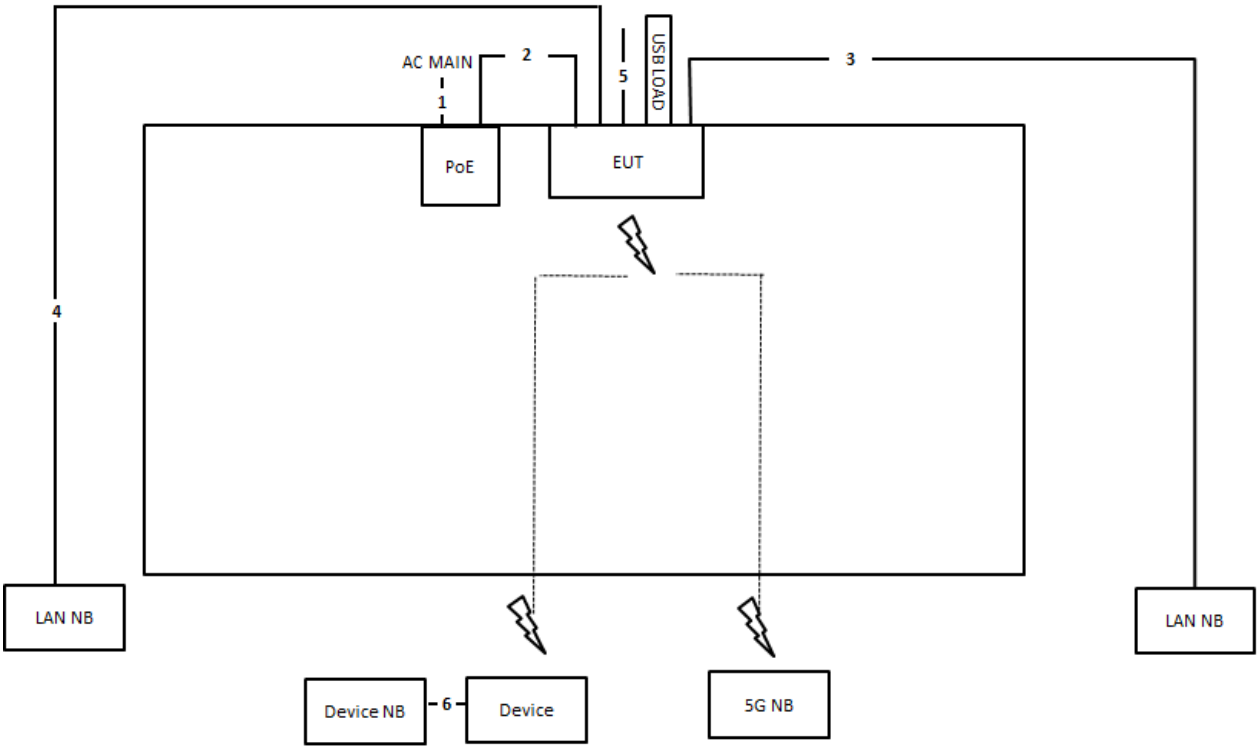
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



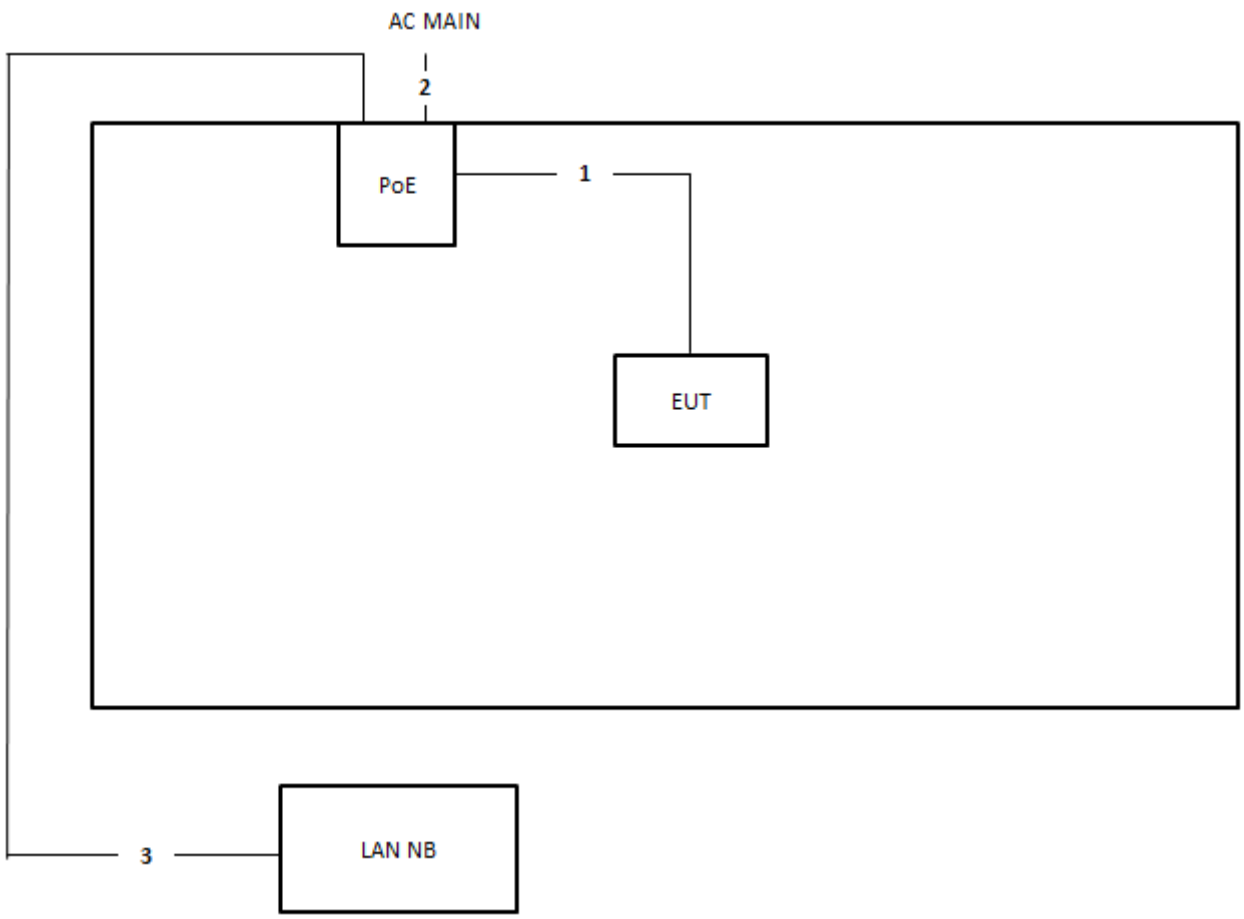
Item	Connection	Shielded	Length
1	Power cable	No	0.9m
2	RJ-45 cable	No	2m
3	RJ-45 cable	No	10m
4	RJ-45 cable	No	10m
5	USB cable	Yes	1.5m
6	Ground cable	No	1.5m
7	RJ-45 cable	No	2m

Test Setup Diagram - Radiated Test < 1GHz



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

Test Setup Diagram - Radiated Test > 1GHz



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

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

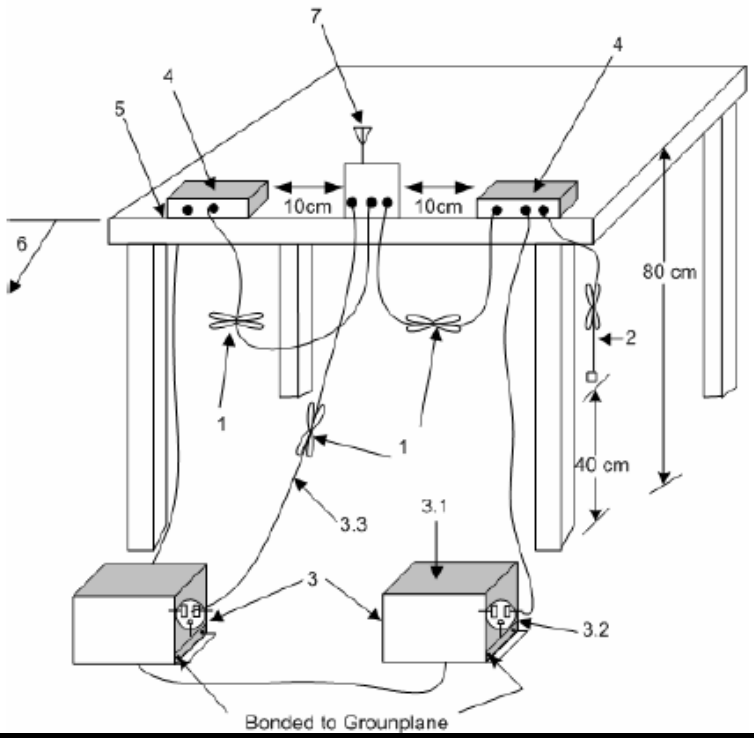
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

3.2.2 Measuring Instruments

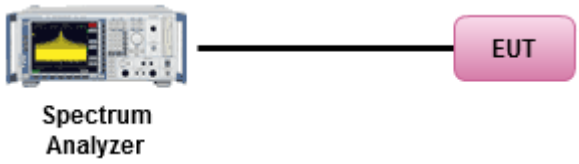
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

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

3.2.4 Test Setup

Emission Bandwidth



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

3.3.4 Test Setup

RF Output Power (Power Meter)

3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band:
	▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 – (G_{TX} – 6).
	▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 23 dBi, then P_{Out} = 17 – (G_{TX} – 23).
	▪ Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6)..
☐	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).
☐	For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 – (G_{TX} – 6).
☒	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
LE-LAN Devices	
☐	For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) ≤ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.
☐	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.
	▪ e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for 0° ≤ θ < 8° ; -13 − 0.716 (θ-8) dBW/MHz for 8° ≤ θ < 40° -35.9 − 1.22 (θ-40) dBW/MHz for 40° ≤ θ ≤ 45° ; -42 dBW/MHz for θ > 45°
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.
☐	For the 5.725-5.85 GHz band:
	▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 – (G_{TX} – 6).
	▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

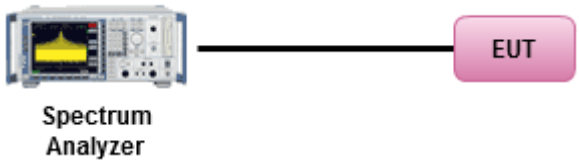
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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

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

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

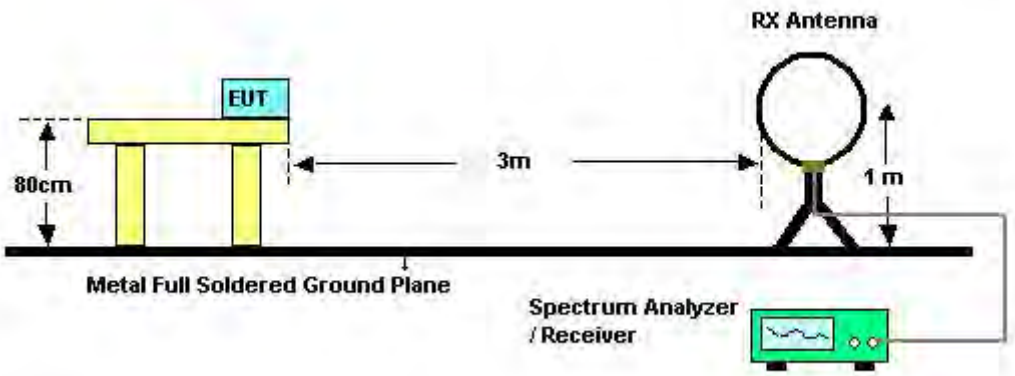
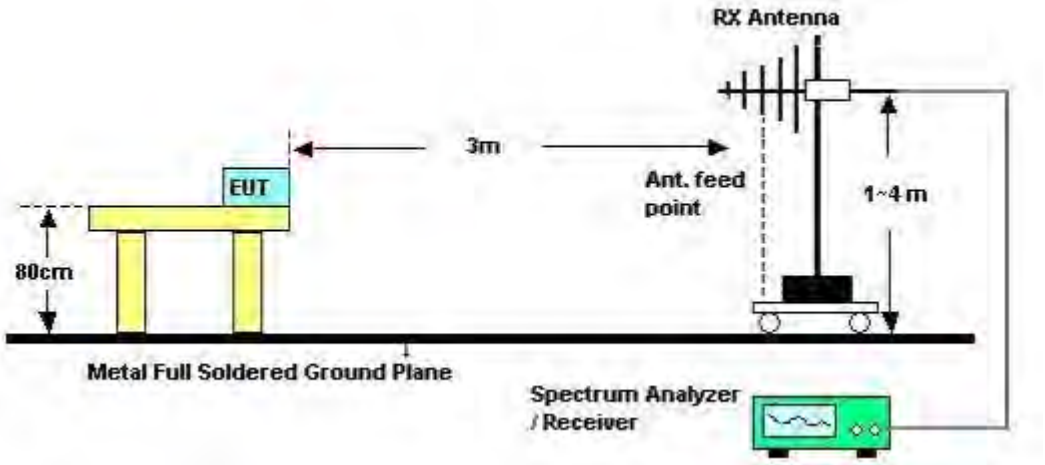
3.5.2 Measuring Instruments

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

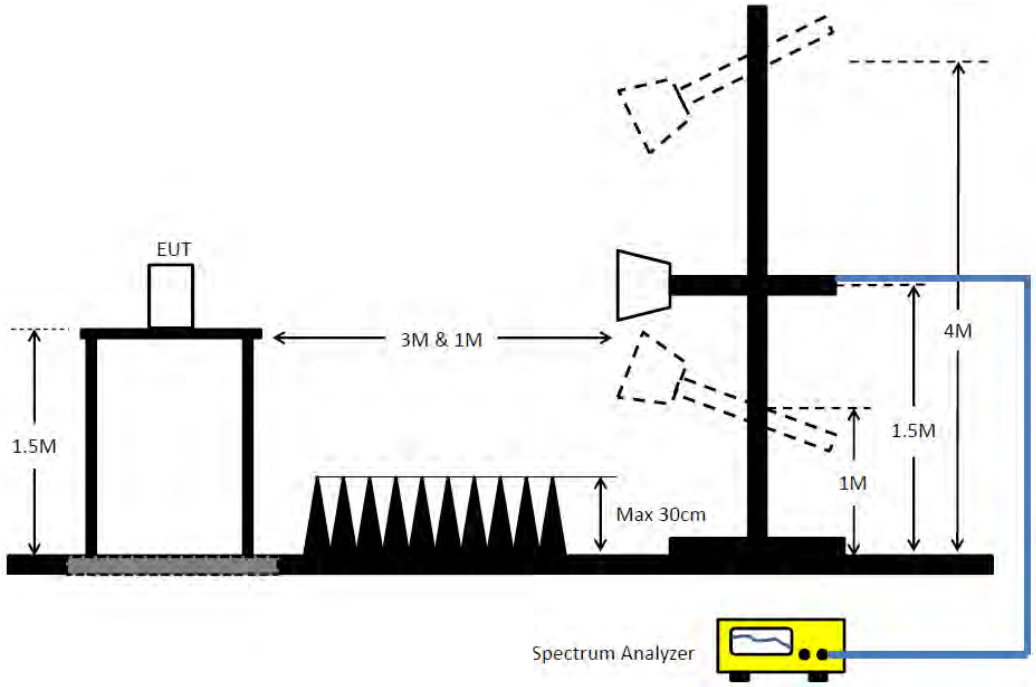
3.5.3 Test Procedures

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

3.5.4 Test Setup

Transmitter Radiated Unwanted Emissions
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Frequency Stability

3.6.1 Frequency Stability Limit

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

3.6.2 Measuring Instruments

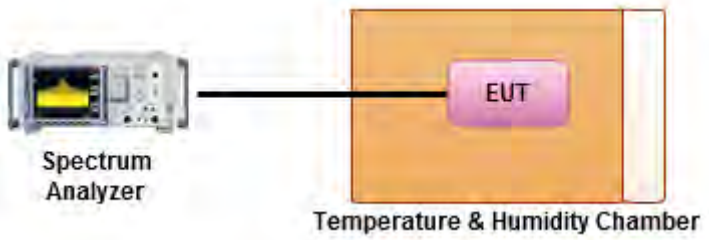
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
▪ Refer as ANSI C63.10, clause 6.8 for frequency stability tests	
	▪ Frequency stability with respect to ambient temperature
	▪ Frequency stability when varying supply voltage
	▪ Extreme temperature is -30˚C~55˚C.

3.6.4 Test Setup

Frequency Stability



3.6.5 Test Result of Frequency Stability

Refer as Appendix F

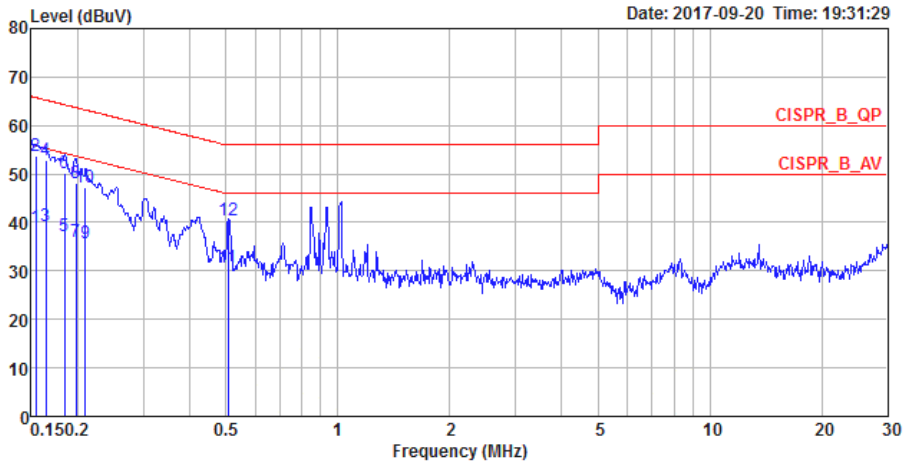
4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Jan. 22, 2018	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Dec. 13, 2017	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Dec. 20, 2017	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	May 22, 2018	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Nov. 09, 2017	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	May 01, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Jan. 15, 2018	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Nov. 21, 2017	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-l0-7	N/A	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Dec. 25, 2017	Conducted (TH01-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Jun. 01, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Nov. 21, 2017	Conducted (TH01-CB)

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

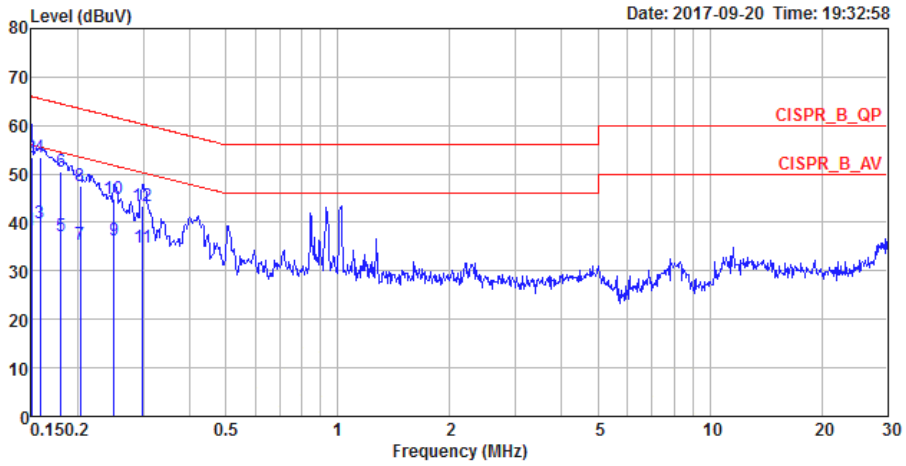
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1540	38.93	-16.85	55.78	28.67	10.10	0.16	Average	NEUTRAL
2	0.1540	53.82	-11.96	65.78	43.56	10.10	0.16	QP	NEUTRAL
3	0.1641	39.12	-16.13	55.25	28.87	10.10	0.15	Average	NEUTRAL
4	0.1641	52.75	-12.50	65.25	42.50	10.10	0.15	QP	NEUTRAL
5	0.1844	37.32	-16.96	54.28	27.17	10.01	0.14	Average	NEUTRAL
6	0.1844	50.10	-14.18	64.28	39.95	10.01	0.14	QP	NEUTRAL
7	0.1976	35.88	-17.83	53.71	25.74	10.01	0.13	Average	NEUTRAL
8	0.1976	48.07	-15.64	63.71	37.93	10.01	0.13	QP	NEUTRAL
9	0.2094	35.85	-17.38	53.23	25.68	10.05	0.12	Average	NEUTRAL
10	0.2094	47.11	-16.12	63.23	36.94	10.05	0.12	QP	NEUTRAL
11	0.5074	30.71	-15.29	46.00	20.43	10.22	0.06	Average	NEUTRAL
12	0.5074	40.39	-15.61	56.00	30.11	10.22	0.06	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	0.1500	38.47	-17.53	56.00	28.31	10.00	0.16	Average	LINE
2	0.1500	53.51	-12.49	66.00	43.35	10.00	0.16	QP	LINE
3	0.1582	39.83	-15.73	55.56	29.68	10.00	0.15	Average	LINE
4	0.1582	53.56	-12.00	65.56	43.41	10.00	0.15	QP	LINE
5	0.1806	37.08	-17.38	54.46	27.03	9.91	0.14	Average	LINE
6	0.1806	50.52	-13.94	64.46	40.47	9.91	0.14	QP	LINE
7	0.2029	35.51	-17.98	53.49	25.47	9.91	0.13	Average	LINE
8	0.2029	47.57	-15.92	63.49	37.53	9.91	0.13	QP	LINE
9	0.2508	36.35	-15.38	51.73	26.34	9.92	0.09	Average	LINE
10	0.2508	44.76	-16.97	61.73	34.75	9.92	0.09	QP	LINE
11	0.2987	34.86	-15.42	50.28	24.87	9.93	0.06	Average	LINE
12	0.2987	43.32	-16.96	60.28	33.33	9.93	0.06	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)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.875M	16.417M	16M4D1D	19.575M	16.392M
802.11ac VHT20_Nss1,(MCS0)_2TX	20.575M	17.616M	17M6D1D	20.3M	17.591M
802.11ac VHT40_Nss1,(MCS0)_2TX	39.8M	35.982M	36M0D1D	39.6M	35.832M
802.11ac VHT80_Nss1,(MCS0)_2TX	84.7M	75.762M	75M8D1D	84.6M	75.762M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.325M	16.417M	16M4D1D	16.3M	16.367M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.55M	17.641M	17M6D1D	16.925M	17.591M
802.11ac VHT40_Nss1,(MCS0)_2TX	35.7M	35.982M	36M0D1D	33.8M	35.932M
802.11ac VHT80_Nss1,(MCS0)_2TX	75.7M	75.762M	75M8D1D	72.9M	75.662M

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;

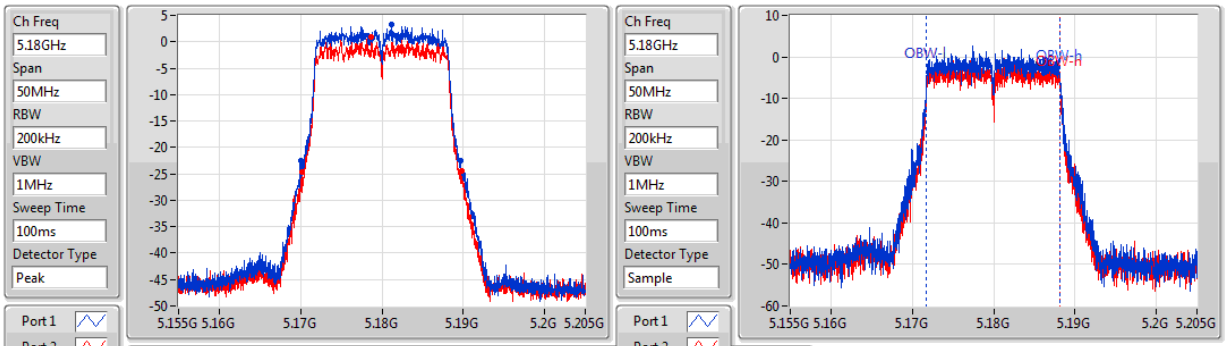
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.65M	16.392M	19.7M	16.417M
5200MHz	Pass	Inf	19.675M	16.417M	19.875M	16.417M
5240MHz	Pass	Inf	19.6M	16.392M	19.575M	16.417M
5745MHz	Pass	500k	16.325M	16.417M	16.3M	16.417M
5785MHz	Pass	500k	16.325M	16.417M	16.325M	16.367M
5825MHz	Pass	500k	16.3M	16.417M	16.325M	16.392M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	20.475M	17.616M	20.575M	17.616M
5200MHz	Pass	Inf	20.3M	17.616M	20.575M	17.591M
5240MHz	Pass	Inf	20.5M	17.591M	20.425M	17.591M
5745MHz	Pass	500k	17.55M	17.616M	16.925M	17.591M
5785MHz	Pass	500k	17.55M	17.641M	17.55M	17.591M
5825MHz	Pass	500k	17.55M	17.641M	17.55M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.7M	35.982M	39.6M	35.982M
5230MHz	Pass	Inf	39.75M	35.882M	39.8M	35.832M
5755MHz	Pass	500k	34.45M	35.982M	35.7M	35.932M
5795MHz	Pass	500k	35.05M	35.982M	33.8M	35.982M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	84.6M	75.762M	84.7M	75.762M
5775MHz	Pass	500k	75.7M	75.662M	72.9M	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_Nss1,(6Mbps)_2TX — EBW

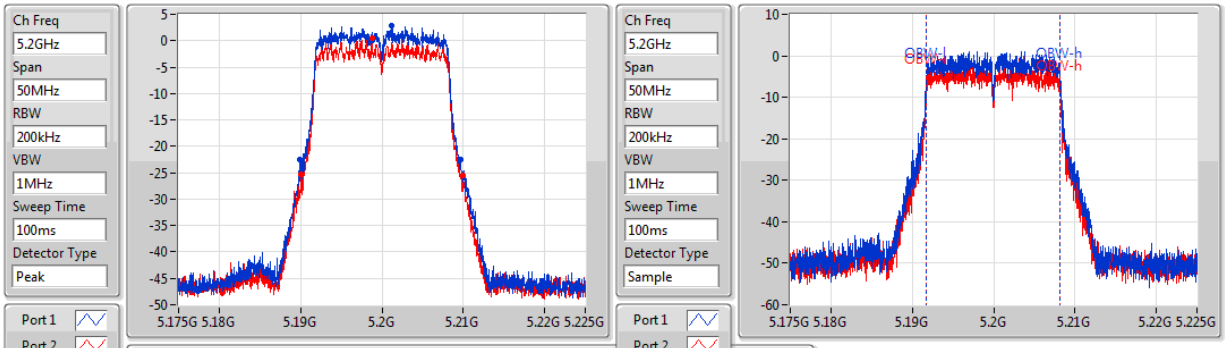
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.65M	5.170025G	5.189675G	16.392M	5.171779G	5.188171G	Inf	1
19.7M	5.170125G	5.189825G	16.417M	5.171779G	5.188196G	Inf	2

802.11a_Nss1,(6Mbps)_2TX — EBW

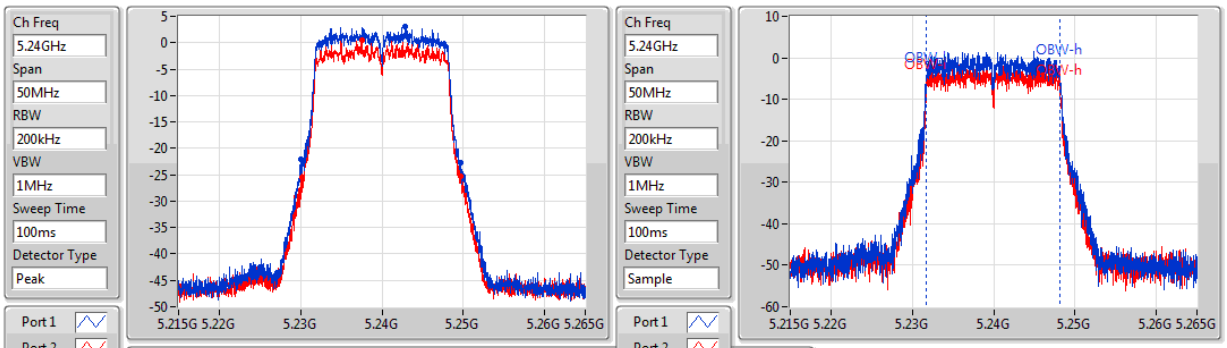
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.675M	5.18995G	5.209625G	16.417M	5.191779G	5.208196G	Inf	1
19.875M	5.1901G	5.209975G	16.417M	5.191779G	5.208196G	Inf	2

802.11a_Nss1,(6Mbps)_2TX — EBW

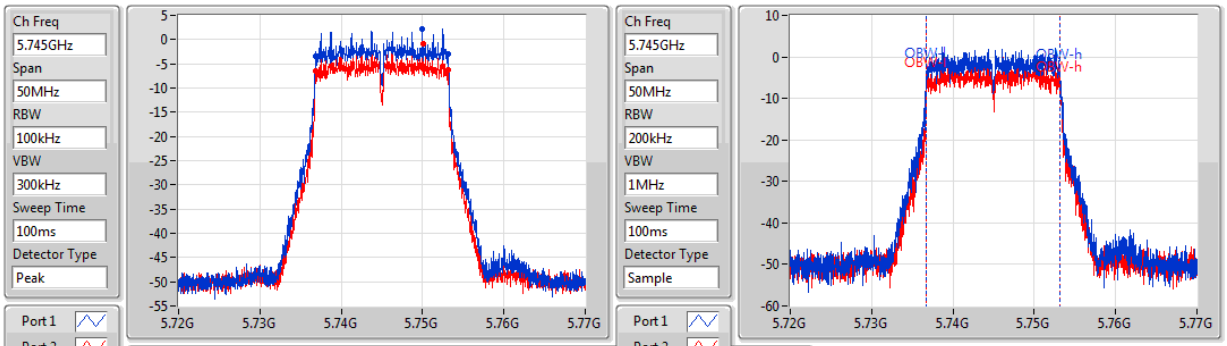
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.6M	5.230025G	5.249625G	16.392M	5.231779G	5.248171G	Inf	1
19.575M	5.23015G	5.249725G	16.417M	5.231754G	5.248171G	Inf	2

802.11a_Nss1,(6Mbps)_2TX — EBW

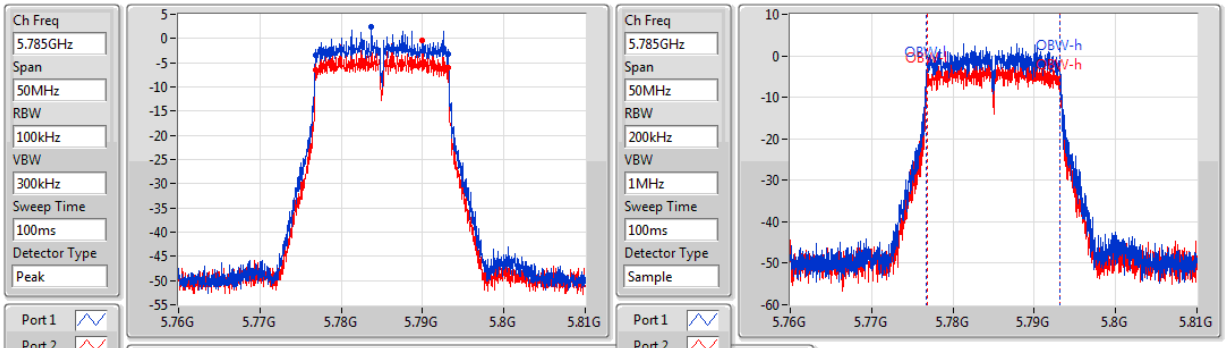
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	5.736825G	5.75315G	16.417M	5.736779G	5.753196G	500k	1
16.3M	5.73685G	5.75315G	16.417M	5.736779G	5.753196G	500k	2

802.11a_Nss1,(6Mbps)_2TX — EBW

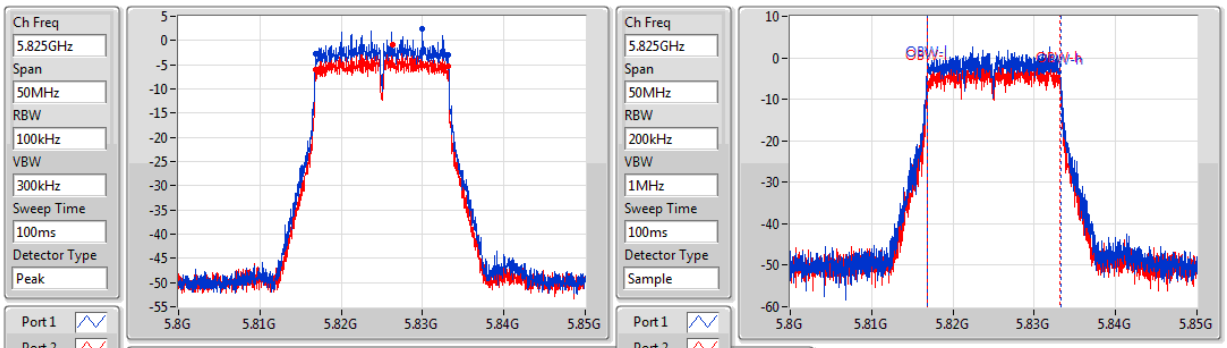
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	5.776825G	5.79315G	16.417M	5.776779G	5.793196G	500k	1
16.325M	5.776825G	5.79315G	16.367M	5.776804G	5.793171G	500k	2

802.11a_Nss1,(6Mbps)_2TX — EBW

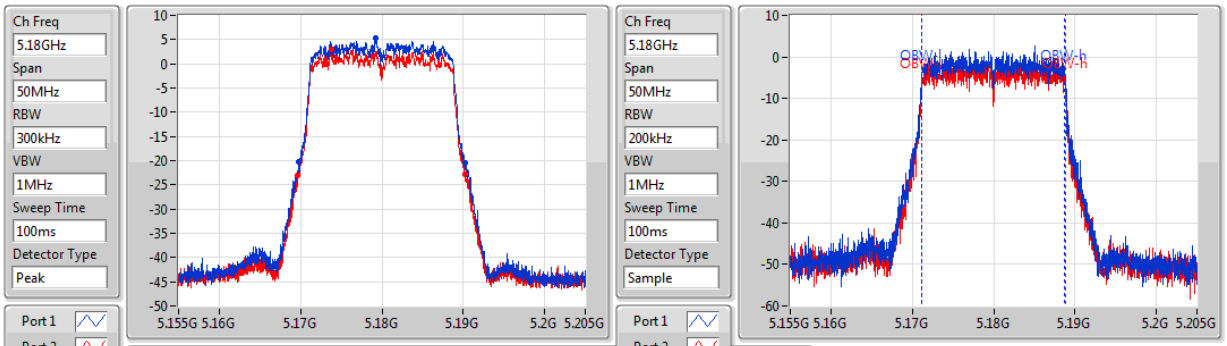
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	5.81685G	5.83315G	16.417M	5.816804G	5.833221G	500k	1
16.325M	5.816825G	5.83315G	16.392M	5.816804G	5.833196G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

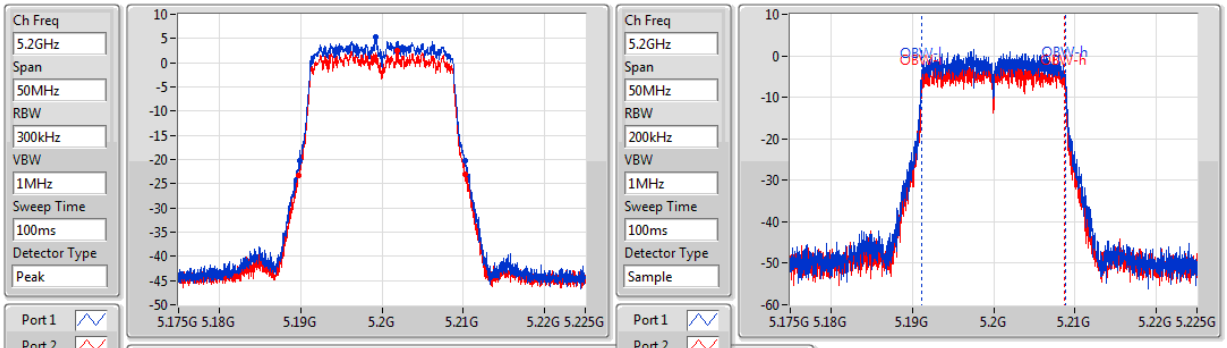
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.475M	5.169775G	5.19025G	17.616M	5.171154G	5.188771G	Inf	1
20.575M	5.16965G	5.190225G	17.616M	5.171179G	5.188796G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

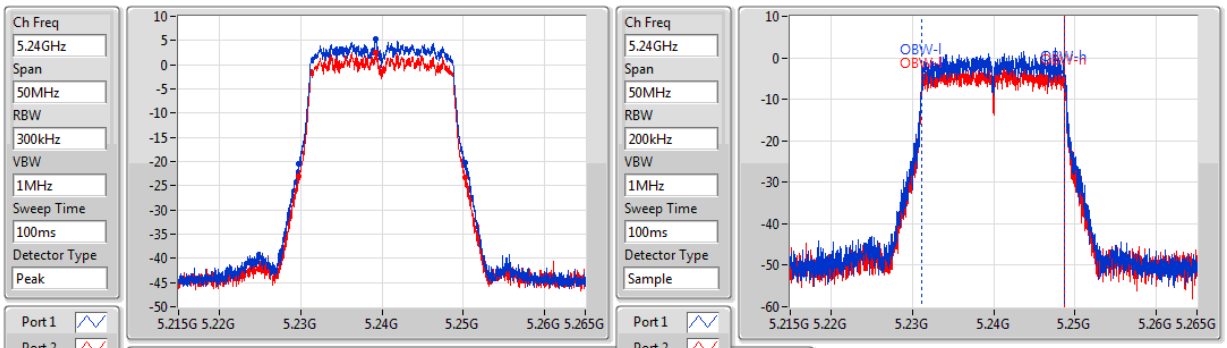
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.3M	5.1899G	5.2102G	17.616M	5.191179G	5.208796G	Inf	1
20.575M	5.189725G	5.2103G	17.591M	5.191179G	5.208771G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

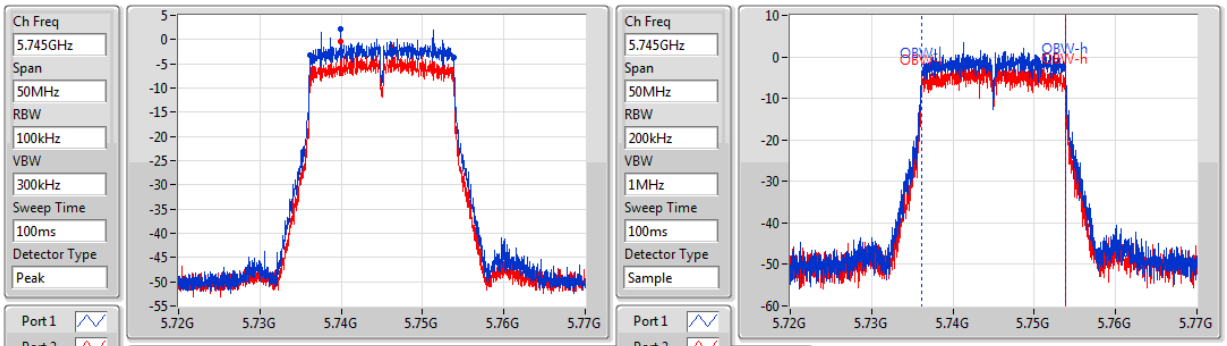
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.5M	5.229775G	5.250275G	17.591M	5.231179G	5.248771G	Inf	1
20.425M	5.229775G	5.2502G	17.591M	5.231179G	5.248771G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

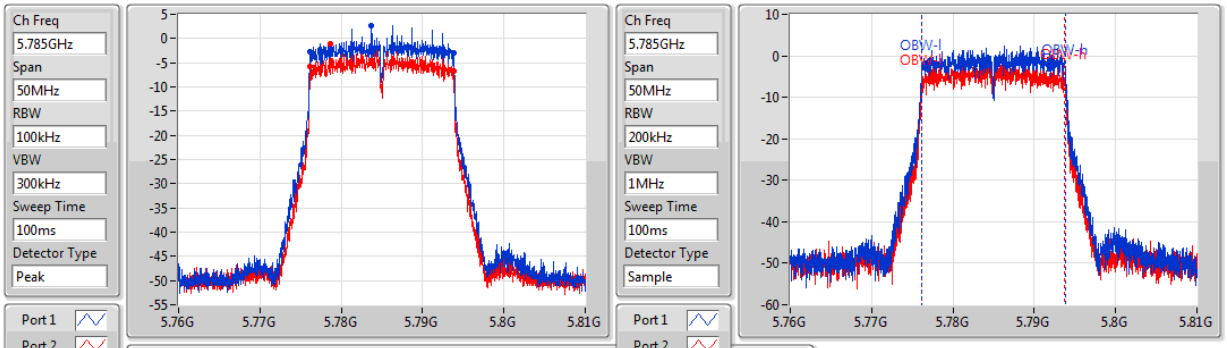
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	5.736225G	5.753775G	17.616M	5.736179G	5.753796G	500k	1
16.925M	5.7366G	5.753525G	17.591M	5.736204G	5.753796G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

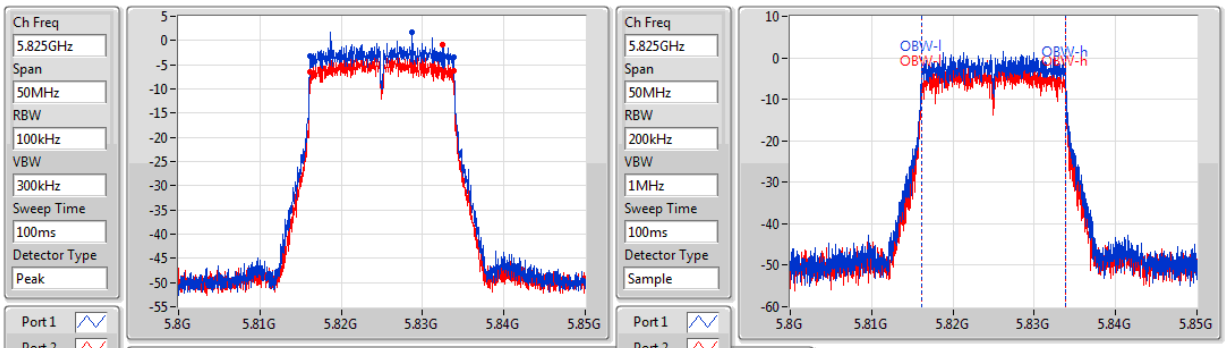
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	5.776225G	5.793775G	17.641M	5.776154G	5.793796G	500k	1
17.55M	5.776225G	5.793775G	17.591M	5.776179G	5.793771G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

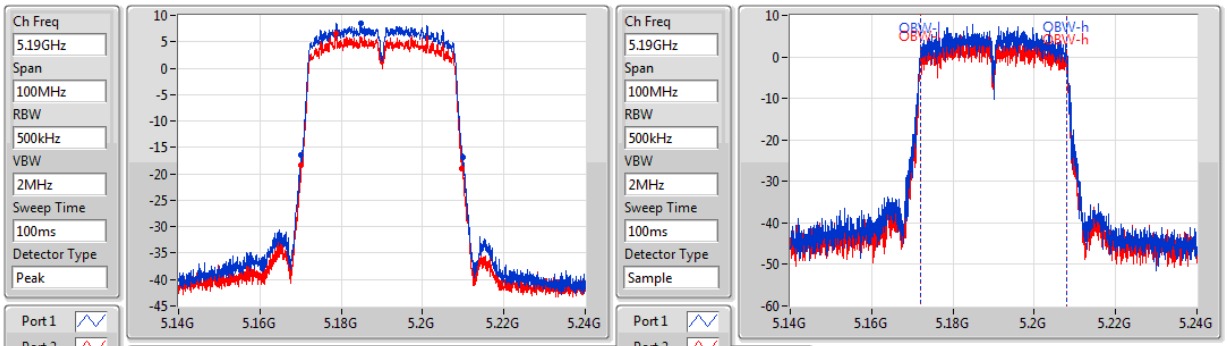
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	5.816225G	5.833775G	17.641M	5.816179G	5.833821G	500k	1
17.55M	5.816225G	5.833775G	17.616M	5.816179G	5.833796G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX — EBW

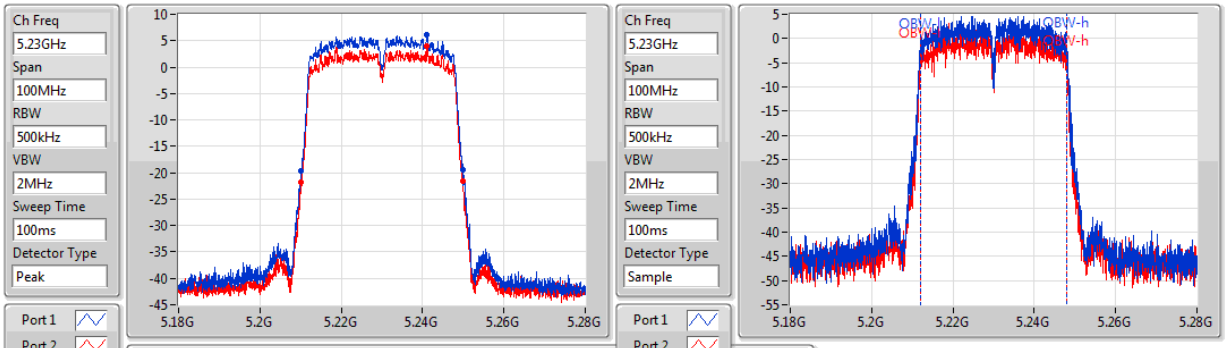
5190MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
39.7M	5.1702G	5.2099G	35.982M	5.171959G	5.207941G	Inf	1
39.6M	5.17015G	5.20975G	35.982M	5.171959G	5.207941G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX — EBW

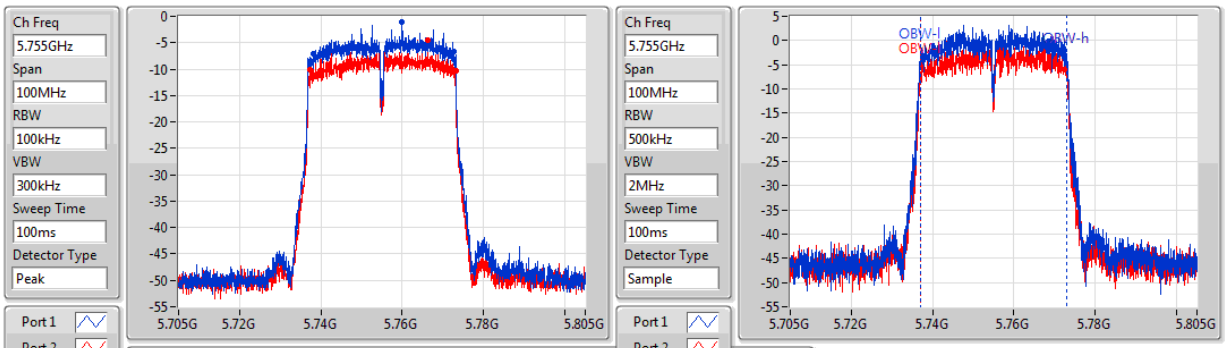
5230MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
39.75M	5.2101G	5.24985G	35.882M	5.212009G	5.247891G	Inf	1
39.8M	5.21005G	5.24985G	35.832M	5.212059G	5.247891G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX — EBW

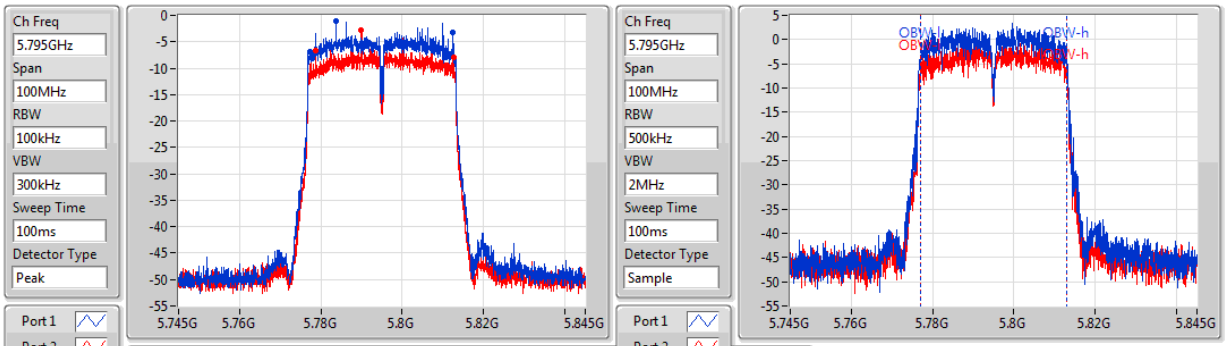
5755MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.45M	5.7381G	5.77255G	35.982M	5.737009G	5.772991G	500k	1
35.7M	5.73745G	5.77315G	35.932M	5.737059G	5.772991G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX — EBW

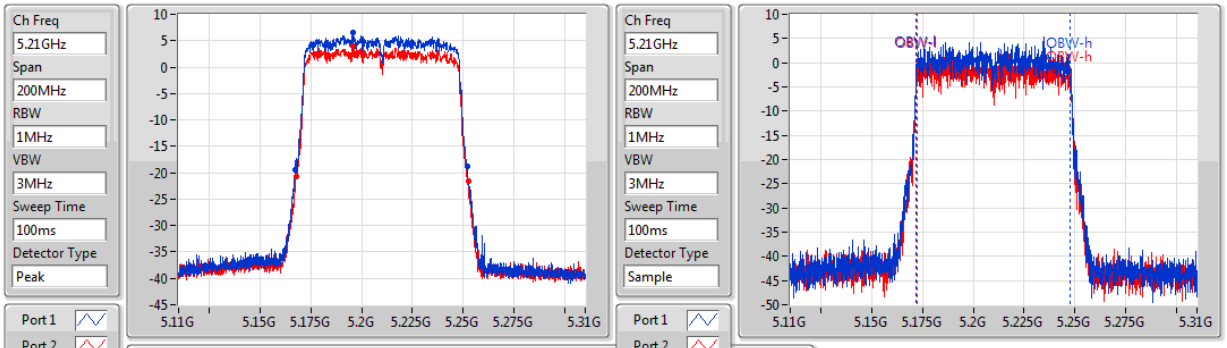
5795MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	5.77745G	5.8125G	35.982M	5.776959G	5.812941G	500k	1
33.8M	5.77875G	5.81255G	35.982M	5.776959G	5.812941G	500k	2

802.11ac VHT80_Nss1,(MCS0)_2TX — EBW

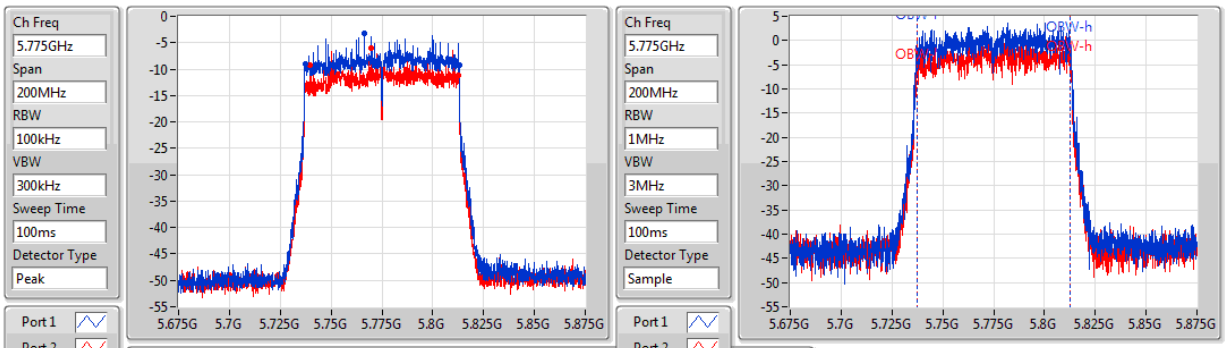
5210MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
84.6M	5.1673G	5.2519G	75.762M	5.172019G	5.247781G	Inf	1
84.7M	5.1677G	5.2524G	75.762M	5.172119G	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
75.7M	5.7372G	5.8129G	75.662M	5.737219G	5.812881G	500k	1
72.9M	5.7399G	5.8128G	75.762M	5.737119G	5.812881G	500k	2

TEL : 886-3-327-3456

FAX : 886-3-327-0973

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP/ EIRP-Elevation 30° (dBm)	EIRP/ EIRP-Elevation 30° (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.77	0.03776	33.07/10.91	2.02768/0.01233
802.11ac VHT20_Nss1,(MCS0)_2TX	16.01	0.03990	33.31/11.15	2.14289/0.01303
802.11ac VHT40_Nss1,(MCS0)_2TX	18.55	0.07161	35.85/13.69	3.84592/0.02338
802.11ac VHT80_Nss1,(MCS0)_2TX	16.89	0.04887	34.19/12.03	2.62422/0.01595
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.88	0.03873	35.88	3.87258
802.11ac VHT20_Nss1,(MCS0)_2TX	15.93	0.03917	35.93	3.91742
802.11ac VHT40_Nss1,(MCS0)_2TX	15.46	0.03516	35.46	3.51560
802.11ac VHT80_Nss1,(MCS0)_2TX	15.90	0.03890	35.90	3.89045

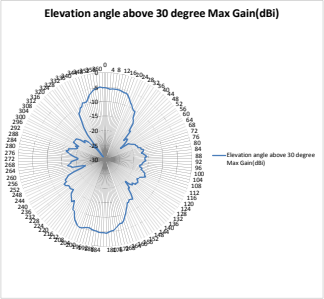
Result

Mode	Result	Directional Gain (Output Power) / Gain-Elevation 30°	Port 1	Port 2	Total Power	Power Limit	EIRP / EIRP-Elevation 30°	EIRP Limit / EIRP Limit-Elevation 30°
		(dBi)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	17.30/-4.86	13.38	11.00	15.36	18.70	32.66/10.50	36.00/21.00
5200MHz	Pass	17.30/-4.86	13.82	11.36	15.77	18.70	33.07/10.91	36.00/21.00
5240MHz	Pass	17.30/-4.86	13.29	11.00	15.30	18.70	32.60/10.44	36.00/21.00
5745MHz	Pass	20.00	13.82	10.70	15.54	16.00	35.54	36.00
5785MHz	Pass	20.00	14.14	11.08	15.88	16.00	35.88	36.00
5825MHz	Pass	20.00	13.97	11.21	15.82	16.00	35.82	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	17.30/-4.86	13.38	11.38	15.50	18.70	32.80/10.64	36.00/21.00
5200MHz	Pass	17.30/-4.86	14.00	11.69	16.01	18.70	33.31/11.15	36.00/21.00
5240MHz	Pass	17.30/-4.86	13.83	11.23	15.73	18.70	33.03/10.87	36.00/21.00
5745MHz	Pass	20.00	14.20	11.11	15.93	16.00	35.93	36.00
5785MHz	Pass	20.00	13.95	10.92	15.70	16.00	35.70	36.00
5825MHz	Pass	20.00	13.90	11.24	15.78	16.00	35.78	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	17.30/-4.86	16.32	14.08	18.35	18.70	35.65/13.49	36.00/21.00
5230MHz	Pass	17.30/-4.86	16.66	14.04	18.55	18.70	35.85/13.69	36.00/21.00
5755MHz	Pass	20.00	13.71	10.67	15.46	16.00	35.46	36.00
5795MHz	Pass	20.00	14.00	9.96	15.44	16.00	35.44	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	17.30/-4.86	14.82	12.68	16.89	18.70	34.19/12.03	36.00/21.00
5775MHz	Pass	20.00	14.09	11.22	15.90	16.00	35.90	36.00

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

SPORTON International Inc.
No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C.
Ph: 886-3-656-9065 / FAX: 886-3-656-9085 / www.sporton.com.tw

Elevation angle above 30 degree Max Gain(dBi)		-4.86
Freq. (MHz)	5180	Elevation Angle Define
H-Plan angle(Degree)	Gain(dBm)	
0	-5.13	Above 30°
2	-5.39	
4	-5.58	
6	-5.5	
8	-5.46	
10	-5.44	
12	-5.51	
14	-5.81	
16	-5.97	
18	-5.97	
20	-6.68	
22	-7.46	
24	-8.46	
26	-9.05	
28	-9.78	
30	-10.45	
32	-10.52	
34	-12.74	
36	-13.43	
38	-14.22	
40	-17.03	
42	-16.9	
44	-20.79	
46	-19.75	
48	-19.52	
50	-20.6	
52	-21.73	
54	-23.45	
56	-20.24	
58	-20	
60	-19.47	
62	-18.8	
64	-18.43	
66	-18.28	
68	-17.91	
70	-17.93	
72	-17.1	
74	-17.1	
76	-16.24	
78	-16.52	
80	-17.32	
82	-16.7	
84	-16.06	
86	-15.58	
88	-16.28	
90	-16.32	
92	-15.93	
94	-16.59	
96	-17.11	
98	-17.21	
100	-18.05	
102	-17.77	
104	-16.94	
106	-17.17	
108	-16.24	
110	-15.51	
112	-15.34	
114	-14.81	
116	-15.67	
118	-16.59	
120	-16.74	
122	-17.12	
124	-16.53	
126	-16.16	
128	-16.56	
130	-16.44	
132	-17.7	
134	-17.15	
136	-18.15	
138	-19.66	
140	-17.18	
142	-17.24	
144	-15	
146	-13.4	
148	-13.66	
150	-13.83	0° ~ 30°
152	-13.16	
154	-13.19	
156	-12.15	
158	-11.32	
160	-10.13	
162	-9.09	
164	-8.05	
166	-7.28	
168	-7.33	
170	-6.65	
172	-6.08	
174	-5.35	
176	-5.17	
178	-4.92	
180	-4.54	0° reference angle
182	-4.71	0° ~ 30°
184	-4.75	
186	-4.76	
188	-5.14	
190	-5.19	
192	-5.45	
194	-5.83	
196	-5.7	
198	-5.45	
200	-5.12	
202	-4.95	
204	-5.36	
206	-6.05	
208	-6.8	
210	-7.93	
212	-9.2	Above 30°
214	-9.45	
216	-11.09	
218	-12.22	
220	-11.43	
222	-12.26	
224	-12.76	
226	-13.4	
228	-14.99	
230	-14.61	
232	-14.34	
234	-14.53	
236	-14.52	
238	-13.73	
240	-13.47	
242	-14.6	
244	-14.42	
246	-15.39	
248	-16.15	
250	-18.39	
252	-21.42	
254	-22.78	
256	-21.9	
258	-18.32	
260	-17.87	
262	-16.91	
264	-17.39	
266	-18.1	
268	-19.22	
270	-19.44	
272	-20.44	
274	-20.61	
276	-19.55	
278	-18.7	
280	-17.66	
282	-17.17	
284	-16.15	
286	-16.95	
288	-16.85	
290	-18.06	
292	-19.22	
294	-19.68	
296	-18.74	
298	-19.76	
300	-17.57	
302	-17.62	
304	-17.67	
306	-17.71	
308	-17.85	
310	-18.96	
312	-20.91	
314	-20.22	
316	-20.75	
318	-21.78	
320	-24.74	
322	-24.32	
324	-28.84	
326	-19.54	
328	-16.61	
330	-14.98	
332	-11.71	
334	-11.31	
336	-10.27	
338	-10.12	
340	-8.96	
342	-9.05	
344	-8.99	
346	-8.16	
348	-7.12	
350	-6.54	
352	-5.8	
354	-5.31	
356	-5.11	
358	-4.86	
360	-5.13	



Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	2.63	22.94
802.11ac VHT20_Nss1,(MCS0)_2TX	2.51	22.82
802.11ac VHT40_Nss1,(MCS0)_2TX	2.44	22.75
802.11ac VHT80_Nss1,(MCS0)_2TX	-2.13	18.18
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	1.36	24.37
802.11ac VHT20_Nss1,(MCS0)_2TX	0.98	23.99
802.11ac VHT40_Nss1,(MCS0)_2TX	-2.08	20.93
802.11ac VHT80_Nss1,(MCS0)_2TX	-4.62	18.39

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

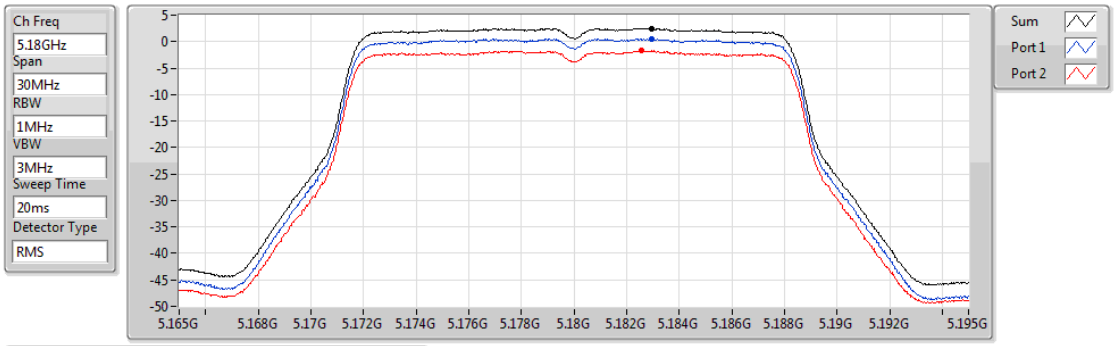
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	20.31	0.50	-1.73	2.52	2.69
5200MHz	Pass	20.31	0.68	-1.55	2.63	2.69
5240MHz	Pass	20.31	0.45	-2.07	2.34	2.69
5745MHz	Pass	23.01	-0.73	-3.54	0.88	12.99
5785MHz	Pass	23.01	-0.34	-3.22	1.36	12.99
5825MHz	Pass	23.01	-0.57	-3.20	1.20	12.99
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	20.31	0.48	-1.77	2.44	2.69
5200MHz	Pass	20.31	0.62	-1.79	2.51	2.69
5240MHz	Pass	20.31	0.32	-2.29	2.21	2.69
5745MHz	Pass	23.01	-0.65	-3.73	0.98	12.99
5785MHz	Pass	23.01	-1.07	-3.83	0.67	12.99
5825MHz	Pass	23.01	-1.21	-3.62	0.68	12.99
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	20.31	0.30	-1.74	2.30	2.69
5230MHz	Pass	20.31	0.65	-2.04	2.44	2.69
5755MHz	Pass	23.01	-3.69	-6.91	-2.08	12.99
5795MHz	Pass	23.01	-3.73	-6.69	-2.09	12.99
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	20.31	-4.16	-6.35	-2.13	2.69
5775MHz	Pass	23.01	-6.17	-9.59	-4.62	12.99

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_Nss1,(6Mbps)_2TX PSD

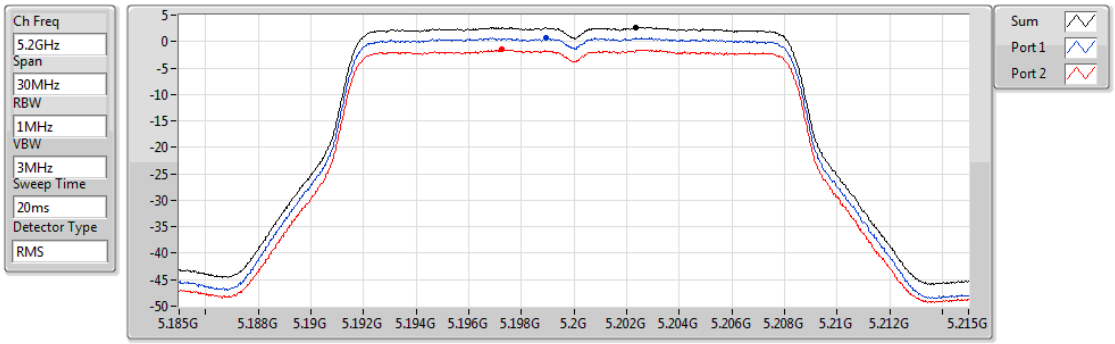
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.52	2.52	0.50	-1.73

802.11a_Nss1,(6Mbps)_2TX PSD

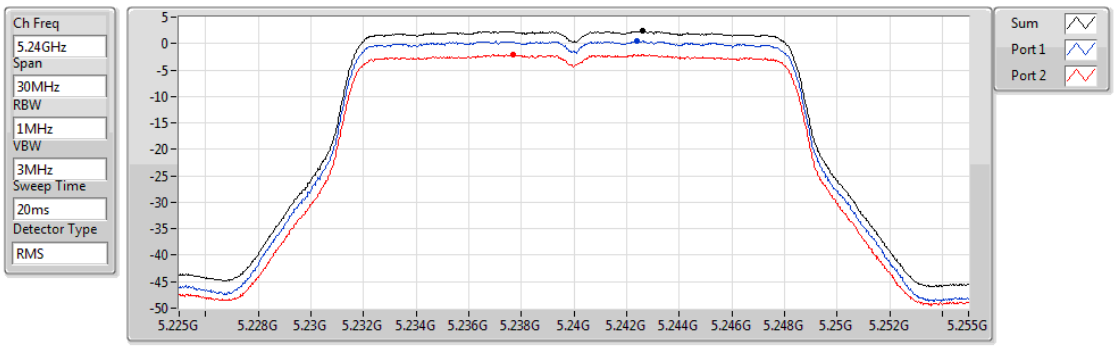
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.63	2.63	0.68	-1.55

802.11a_Nss1,(6Mbps)_2TX PSD

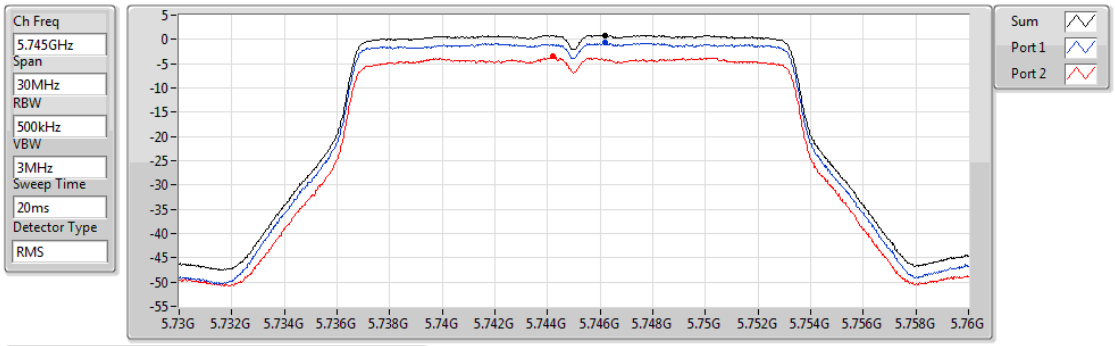
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.34	2.34	0.45	-2.07

802.11a_Nss1,(6Mbps)_2TX PSD

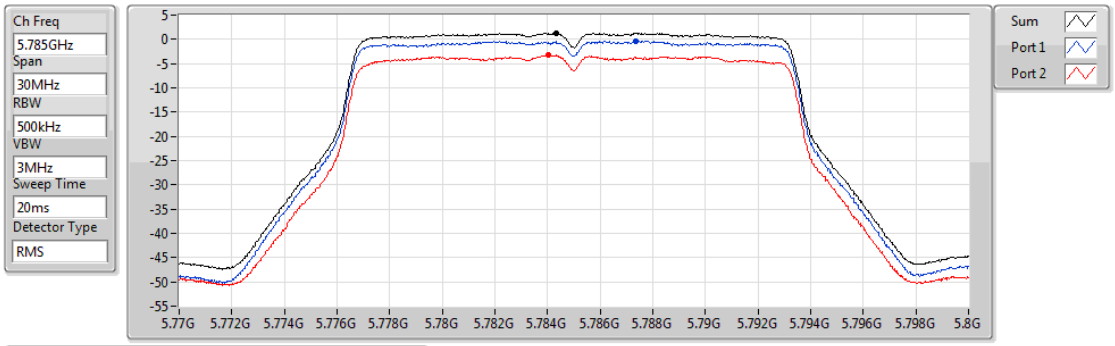
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.88	0.88	-0.73	-3.54

802.11a_Nss1,(6Mbps)_2TX PSD

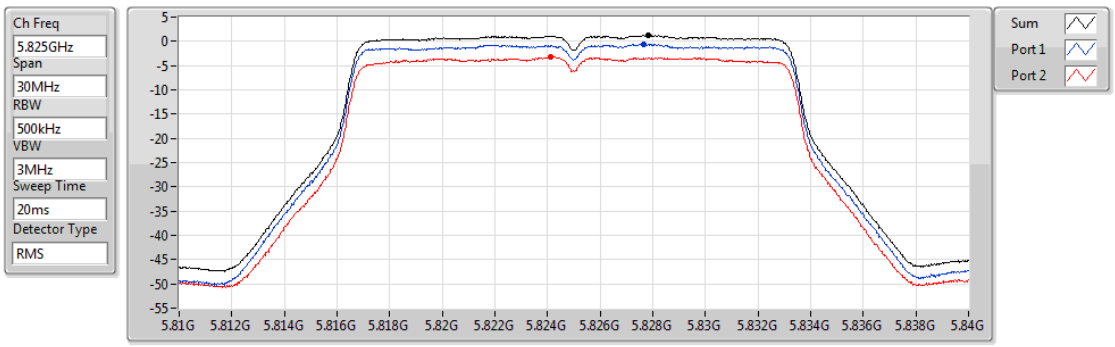
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.36	1.36	-0.34	-3.22

802.11a_Nss1,(6Mbps)_2TX PSD

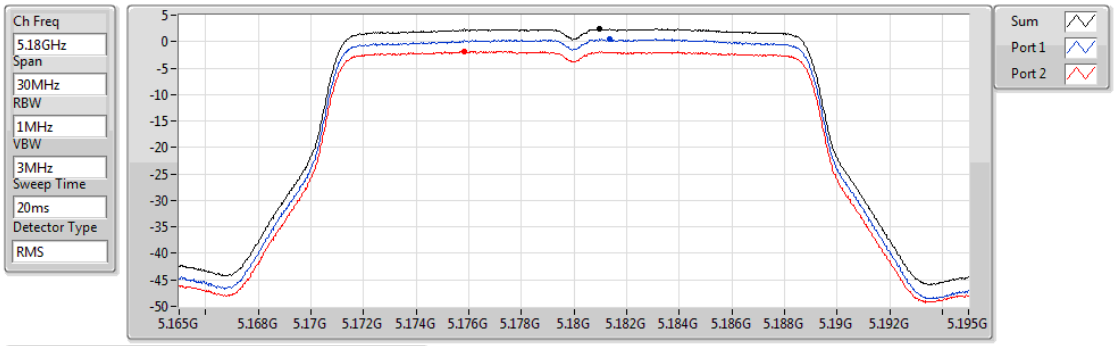
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.20	1.20	-0.57	-3.20

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

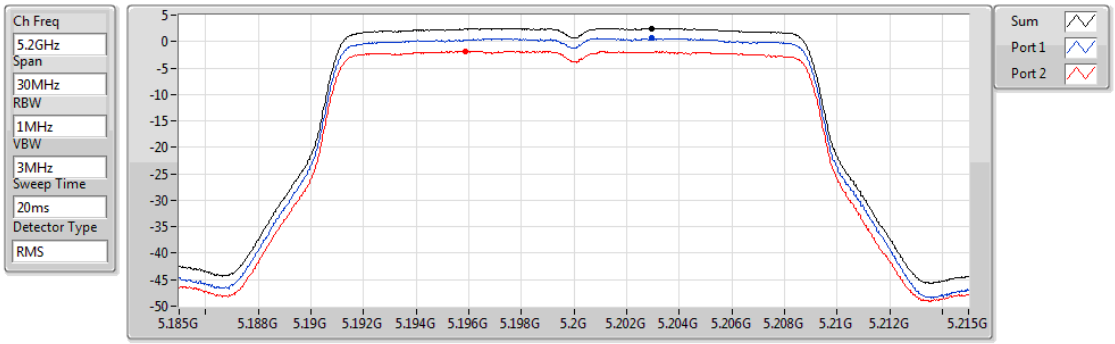
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.44	2.44	0.48	-1.77

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

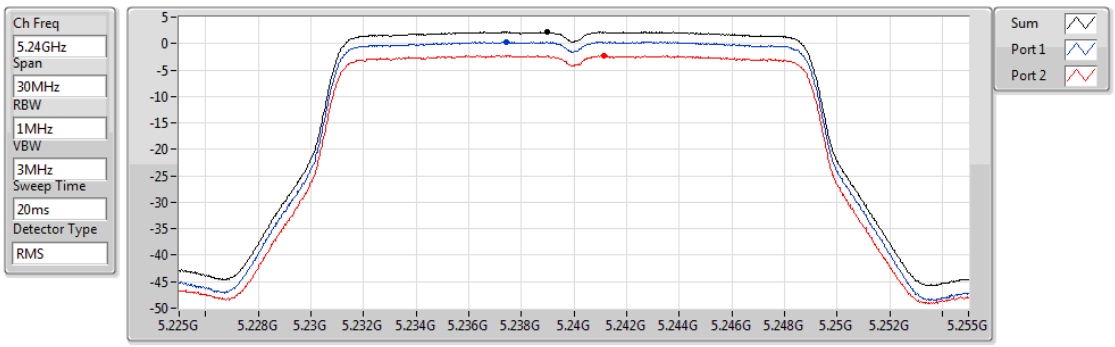
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.51	2.51	0.62	-1.79

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

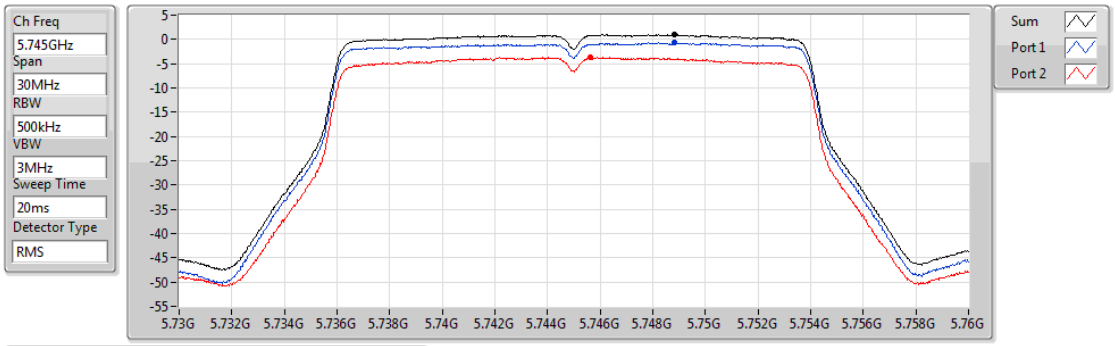
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.21	2.21	0.32	-2.29

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

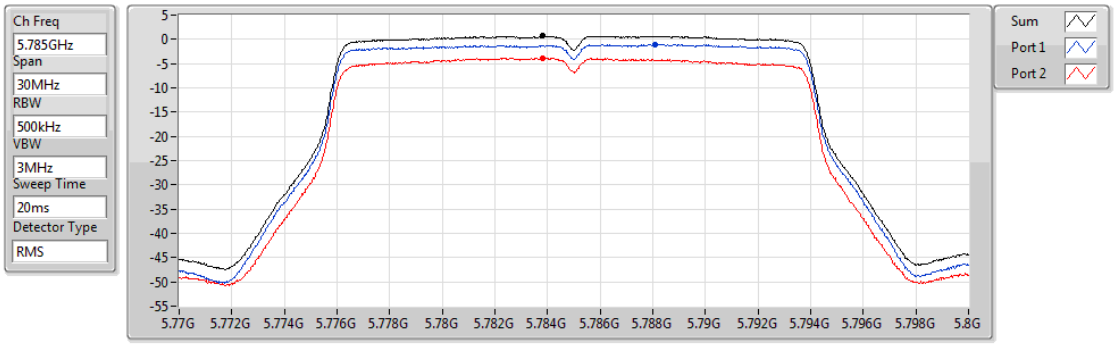
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.98	0.98	-0.65	-3.73

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

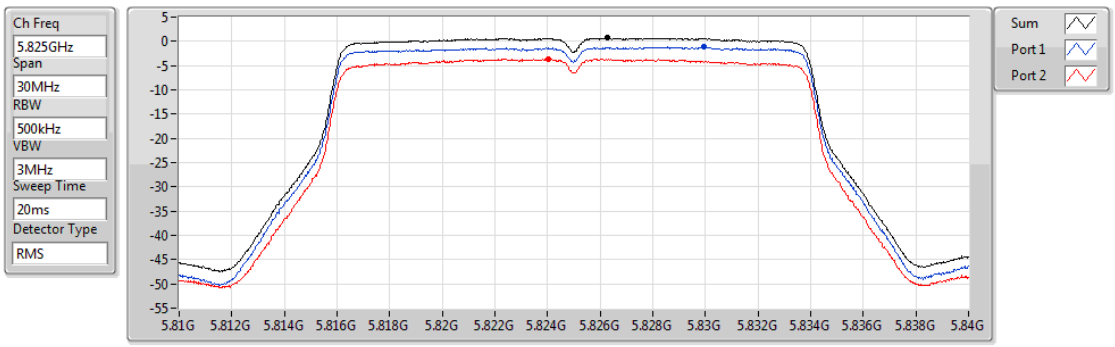
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.67	0.67	-1.07	-3.83

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

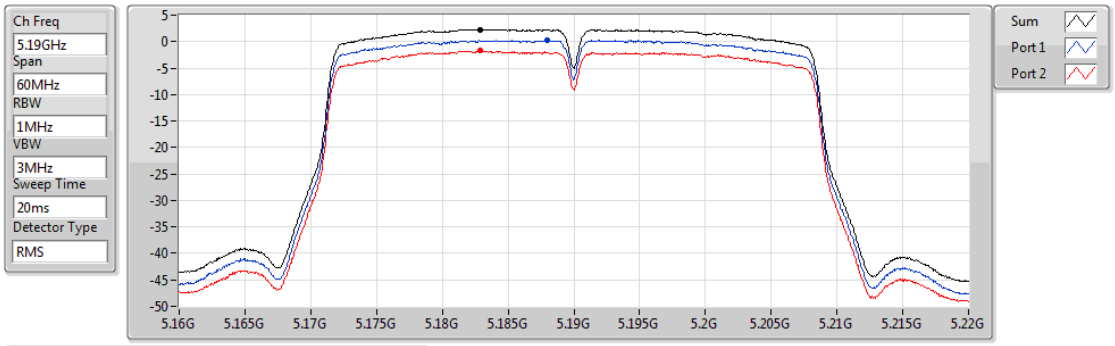
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.68	0.68	-1.21	-3.62

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

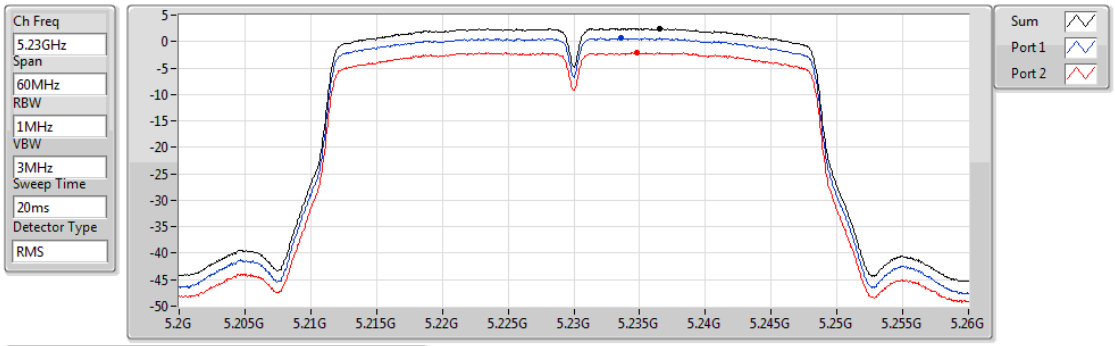
5190MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.30	2.30	0.30	-1.74

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

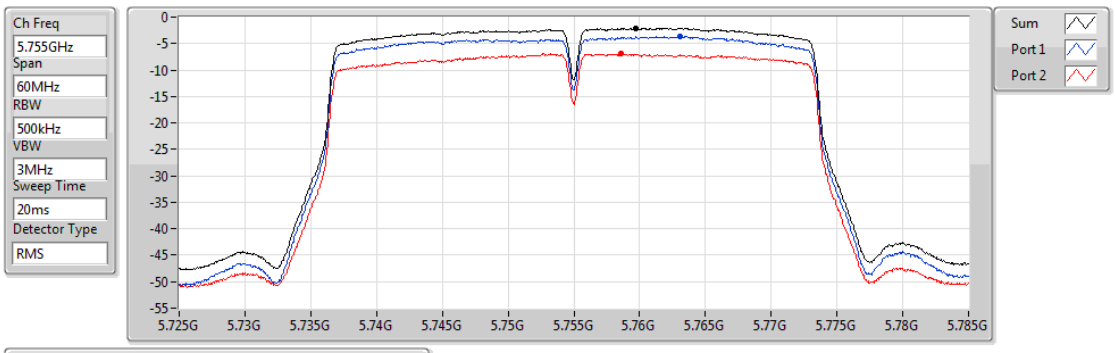
5230MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.44	2.44	0.65	-2.04

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

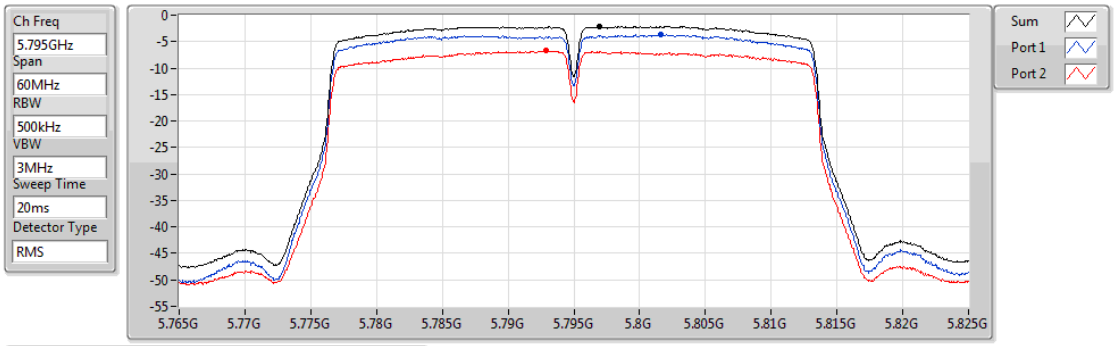
5755MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.08	-2.08	-3.69	-6.91

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

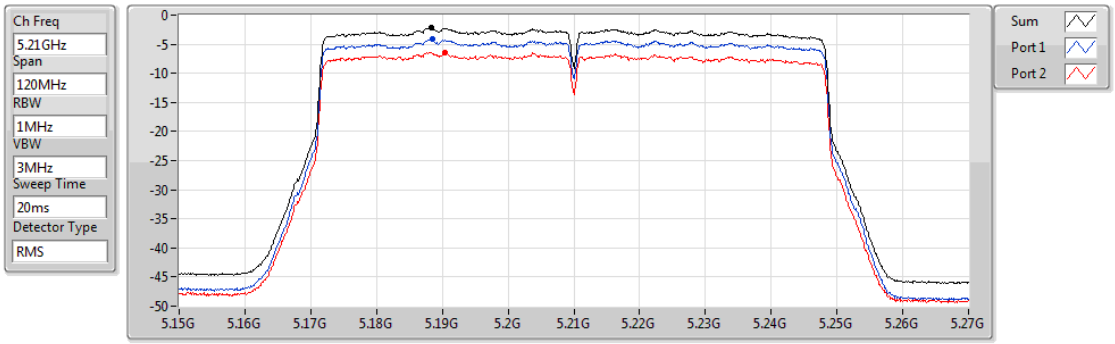
5795MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.09	-2.09	-3.73	-6.69

802.11ac VHT80_Nss1,(MCS0)_2TX PSD

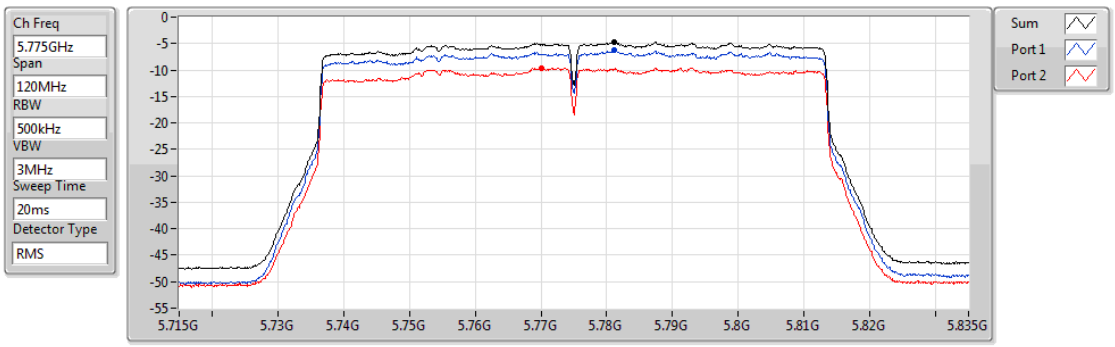
5210MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.13	-2.13	-4.16	-6.35

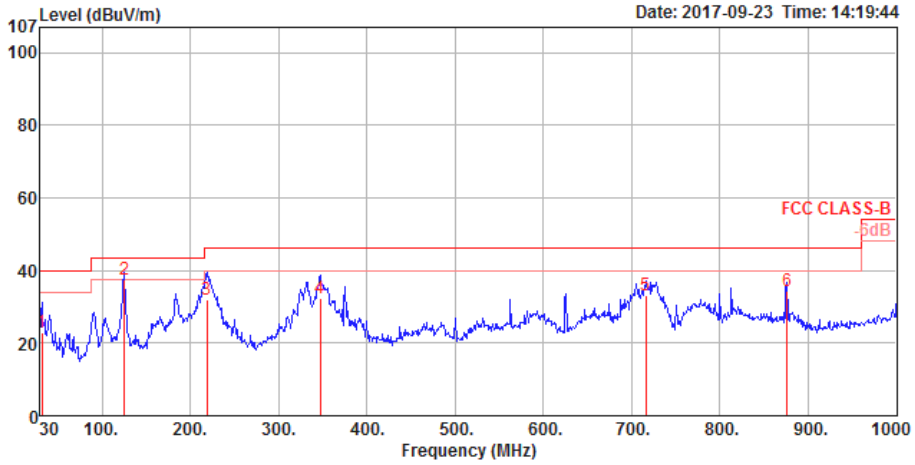
802.11ac VHT80_Nss1,(MCS0)_2TX PSD

5775MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.62	-4.62	-6.17	-9.59

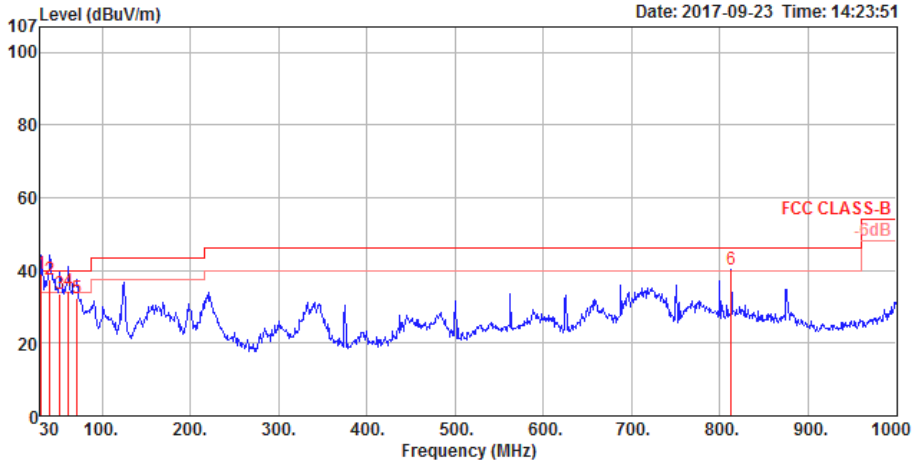
RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	Normal Link		



	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	31.94	23.01	40.00	-16.99	30.79	0.53	23.19	31.50	113	98	QP	HORIZONTAL
2	125.06	37.39	43.50	-6.11	50.10	0.89	18.27	31.87	233	108	QP	HORIZONTAL
3	219.15	31.86	46.00	-14.14	47.40	1.18	15.21	31.93	147	319	QP	HORIZONTAL
4	347.19	32.52	46.00	-13.48	43.04	1.45	20.10	32.07	116	75	QP	HORIZONTAL
5	715.79	33.26	46.00	-12.74	38.33	2.12	25.31	32.50	169	197	QP	HORIZONTAL
6	875.84	34.53	46.00	-11.47	38.13	2.38	26.45	32.43	103	357	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	38.97	40.00	-1.03	46.10	0.53	23.82	31.48	104	148	QP	VERTICAL
2	40.67	37.65	40.00	-2.35	50.60	0.54	18.17	31.66	106	152	QP	VERTICAL
3	52.31	33.41	40.00	-6.59	51.29	0.61	13.26	31.75	129	194	QP	VERTICAL
4	62.01	34.47	40.00	-5.53	53.31	0.61	12.35	31.80	137	329	QP	VERTICAL
5	71.71	32.31	40.00	-7.69	51.10	0.75	12.30	31.84	163	12	QP	VERTICAL
6	812.79	40.16	46.00	-5.84	44.30	2.31	26.02	32.47	103	226	QP	VERTICAL

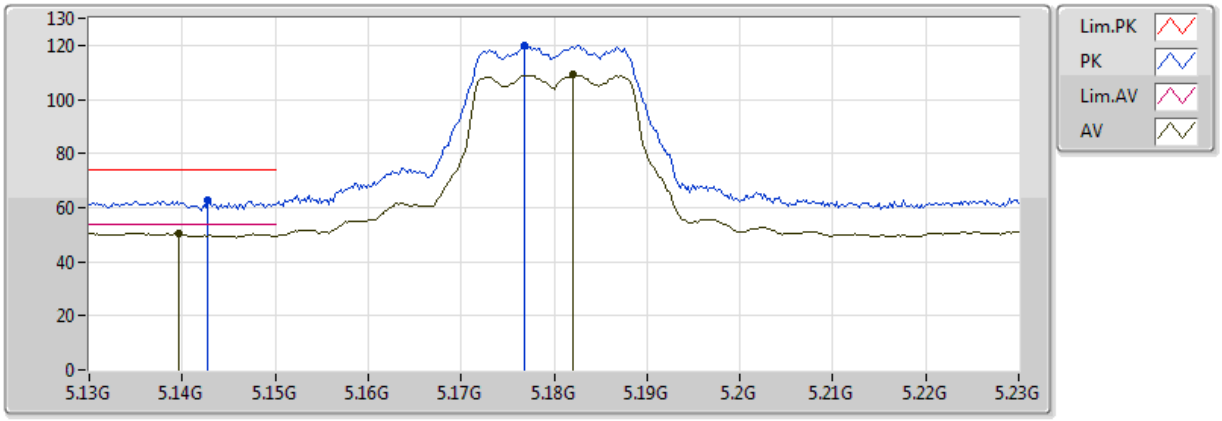
Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	AV	15.71608G	53.98	54.00	-0.02	18.32	3	Vertical	325	2.06	-

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

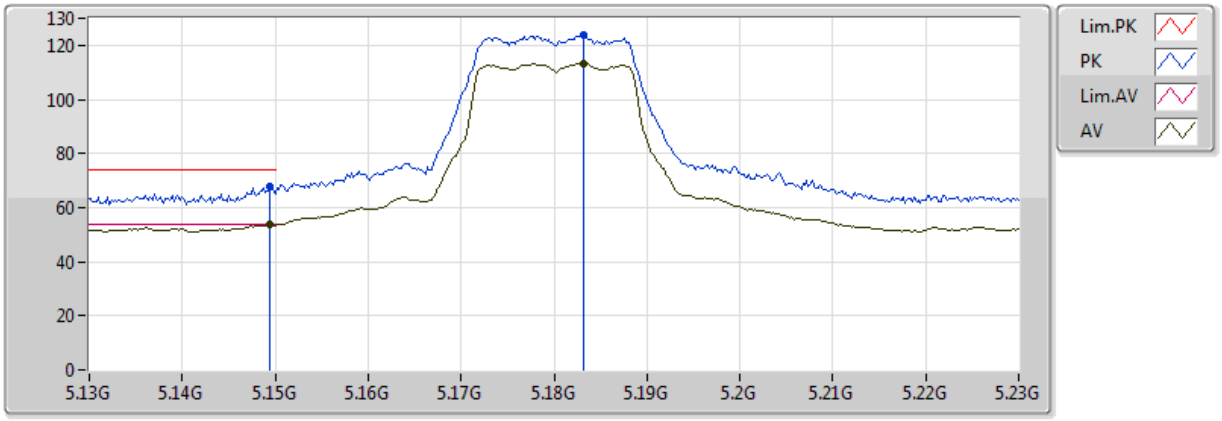


20170921
EUT Y_2TX
Setting 17
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.1396G	50.61	54.00	-3.39	9.74	3	Vertical	353	1.61
AV	5.182G	109.01	Inf	-Inf	9.84	3	Vertical	353	1.61
PK	5.1428G	62.58	74.00	-11.42	9.75	3	Vertical	353	1.61
PK	5.1768G	119.94	Inf	-Inf	9.83	3	Vertical	353	1.61

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

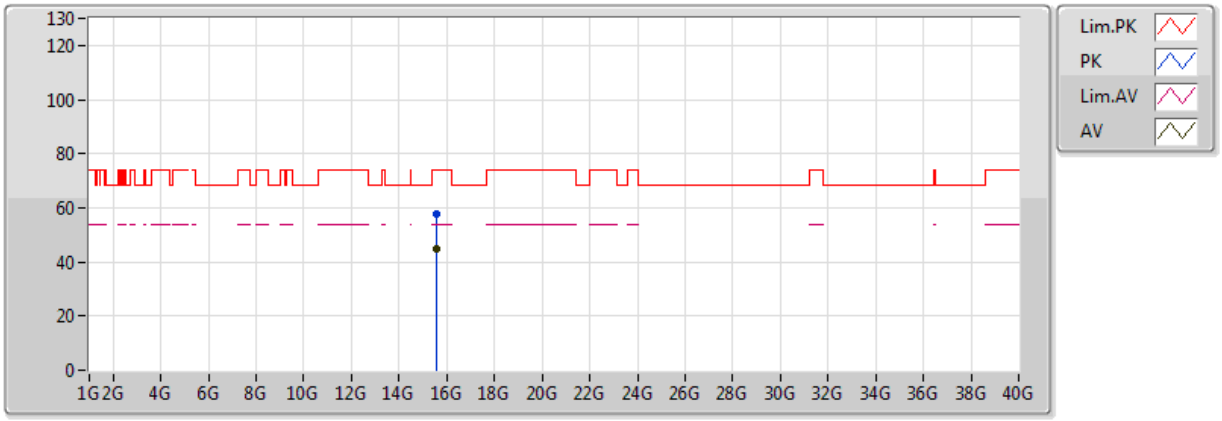


20170921
EUT Y_2TX
Setting 17
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.1494G	53.92	54.00	-0.08	9.76	3	Horizontal	360	1.67
AV	5.1832G	113.33	Inf	-Inf	9.84	3	Horizontal	360	1.67
PK	5.1494G	67.95	74.00	-6.05	9.76	3	Horizontal	360	1.67
PK	5.1832G	123.81	Inf	-Inf	9.84	3	Horizontal	360	1.67

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

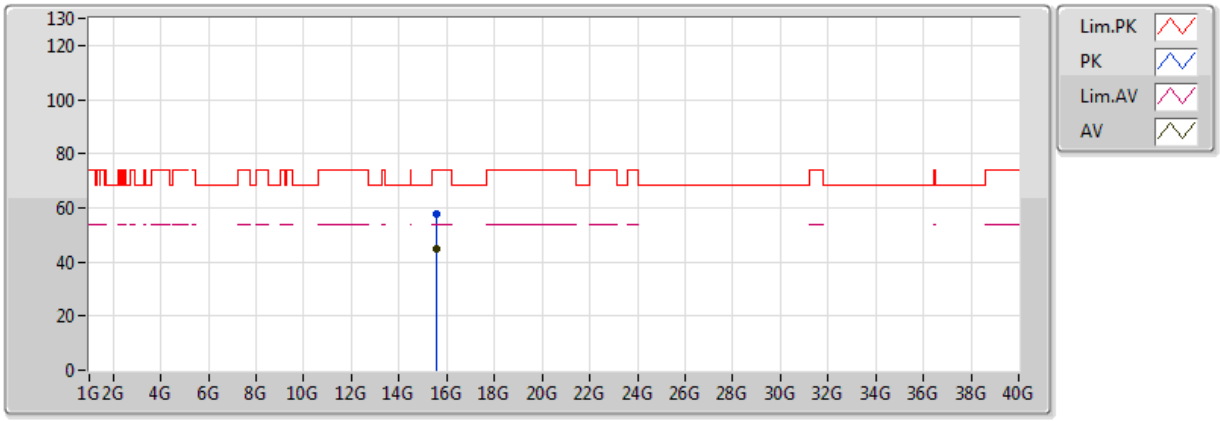


20170921
EUT Y_2TX
Setting 17
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.54268G	44.56	54.00	-9.44	18.69	3	Vertical	28	1.23
PK	15.5418G	57.89	74.00	-16.11	18.70	3	Vertical	28	1.23

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

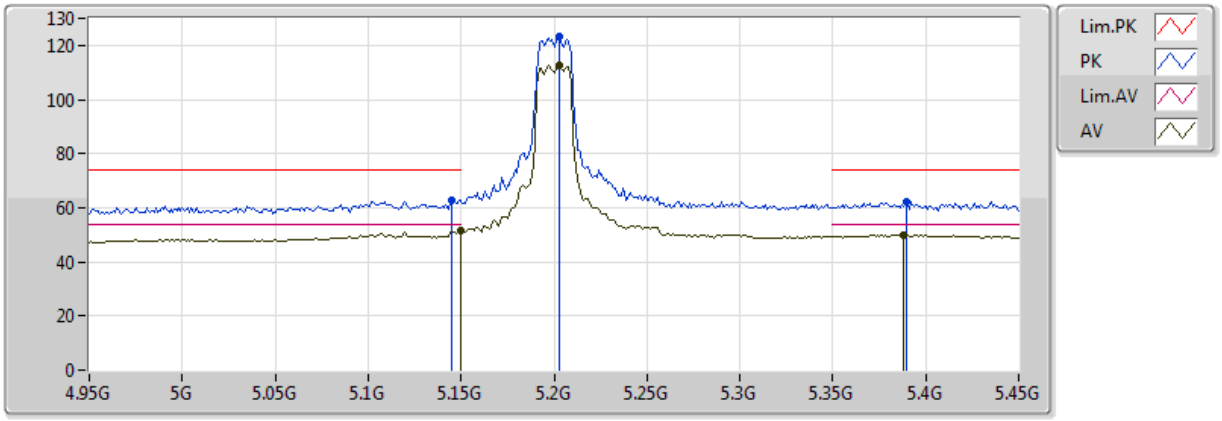


20170921
EUT Y_2TX
Setting 17
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.53784G	44.68	54.00	-9.32	18.70	3	Horizontal	123	2.14
PK	15.541G	57.97	74.00	-16.03	18.70	3	Horizontal	123	2.14

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

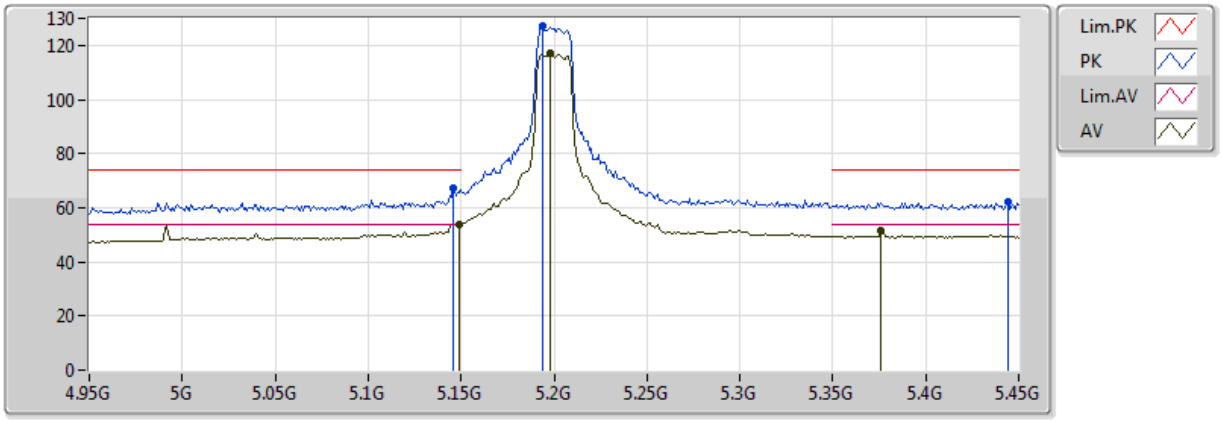


20170921
EUT Y_2TX
Setting 21
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.149995G	51.45	54.00	-2.55	9.76	3	Vertical	0	1.50
AV	5.203G	112.46	Inf	-Inf	9.88	3	Vertical	0	1.50
AV	5.388G	50.03	54.00	-3.97	10.13	3	Vertical	0	1.50
PK	5.145G	63.03	74.00	-10.97	9.75	3	Vertical	0	1.50
PK	5.203G	123.39	Inf	-Inf	9.88	3	Vertical	0	1.50
PK	5.39G	62.37	74.00	-11.63	10.14	3	Vertical	0	1.50

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

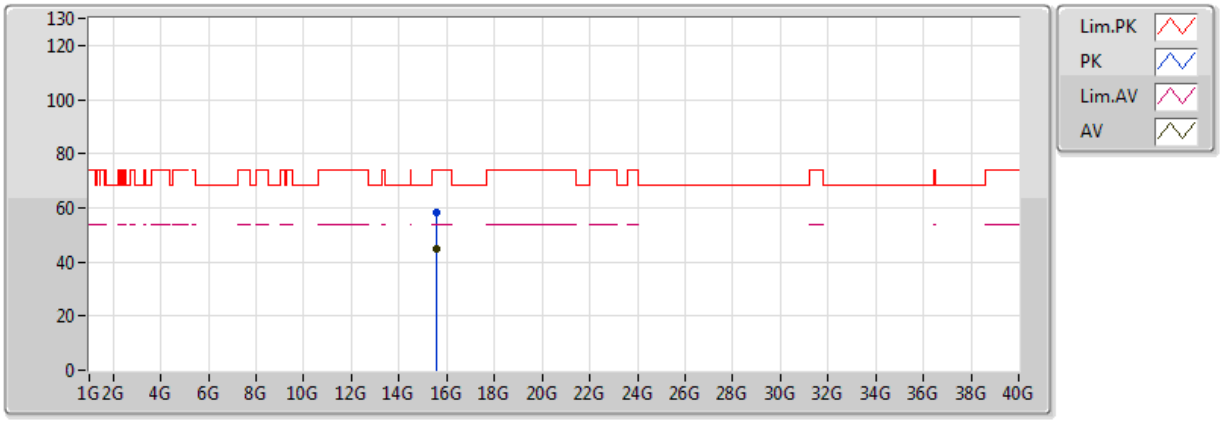


20170921
EUT Y_2TX
Setting 21
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.149G	53.97	54.00	-0.03	9.76	3	Horizontal	2	1.50
AV	5.198G	117.09	Inf	-Inf	9.88	3	Horizontal	2	1.50
AV	5.376G	51.67	54.00	-2.33	10.12	3	Horizontal	2	1.50
PK	5.146G	67.51	74.00	-6.49	9.76	3	Horizontal	2	1.50
PK	5.194G	127.31	Inf	-Inf	9.87	3	Horizontal	2	1.50
PK	5.444G	62.38	74.00	-11.62	10.30	3	Horizontal	2	1.50

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

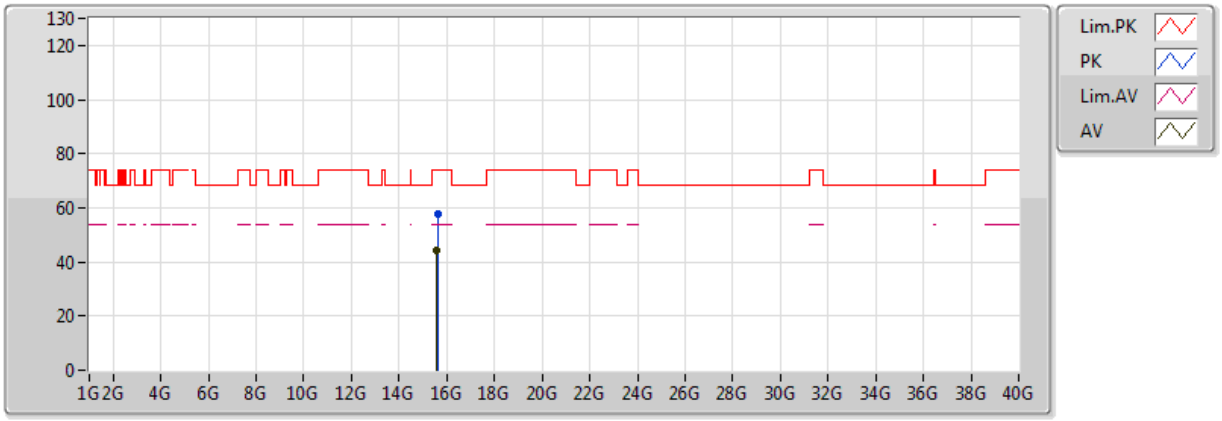


20170921
EUT Y_2TX
Setting 21
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.59612G	44.59	54.00	-9.41	18.58	3	Vertical	220	1.41
PK	15.59932G	58.13	74.00	-15.87	18.57	3	Vertical	220	1.41

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

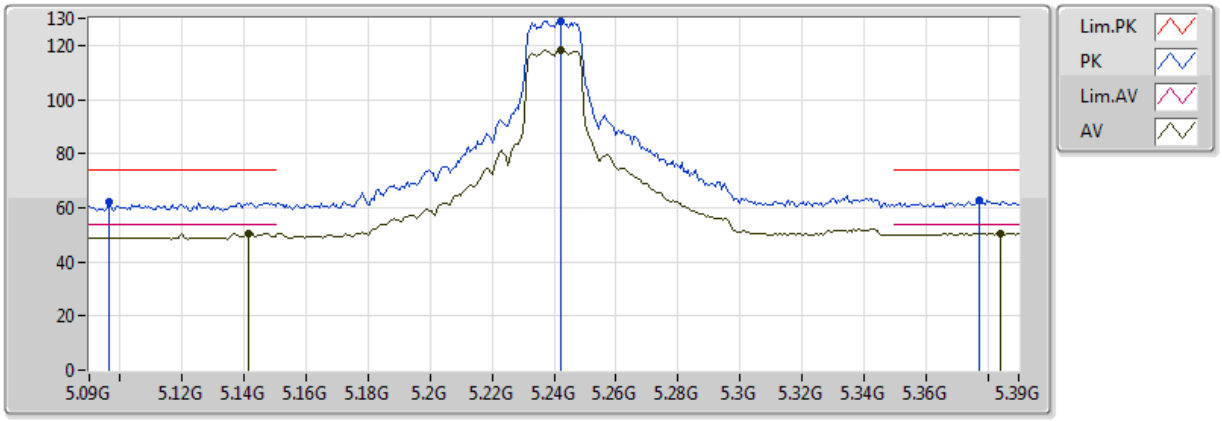


20170921
EUT Y_2TX
Setting 21
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.59364G	44.52	54.00	-9.48	18.58	3	Horizontal	10	1.50
PK	15.6028G	57.71	74.00	-16.29	18.56	3	Horizontal	10	1.50

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

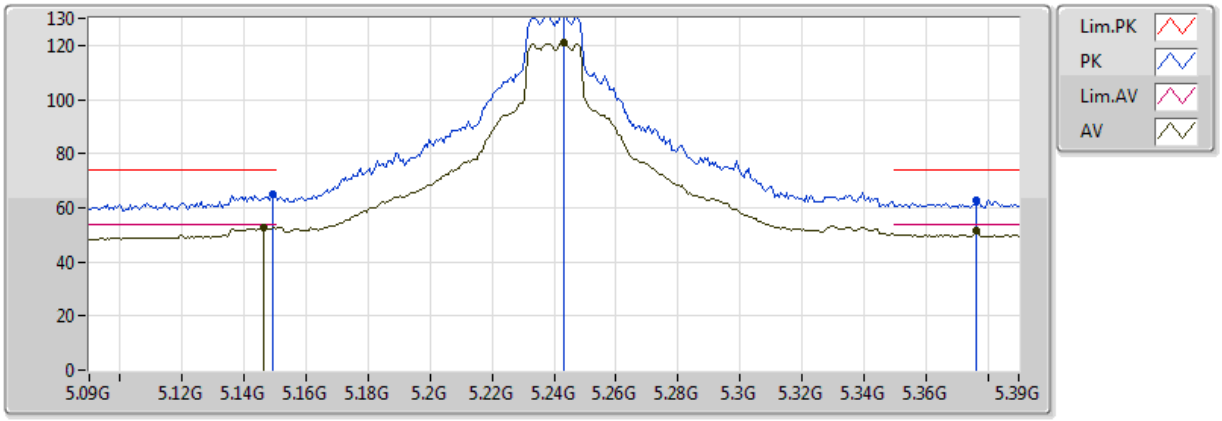


20170921
EUT Y_2TX
Setting 26.5
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.1416G	50.50	54.00	-3.50	9.75	3	Vertical	6	1.50
AV	5.2424G	118.41	Inf	-Inf	9.94	3	Vertical	6	1.50
AV	5.384G	50.70	54.00	-3.30	10.13	3	Vertical	6	1.50
PK	5.0966G	62.13	74.00	-11.87	9.64	3	Vertical	6	1.50
PK	5.2424G	128.87	Inf	-Inf	9.94	3	Vertical	6	1.50
PK	5.3774G	62.58	74.00	-11.42	10.12	3	Vertical	6	1.50

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

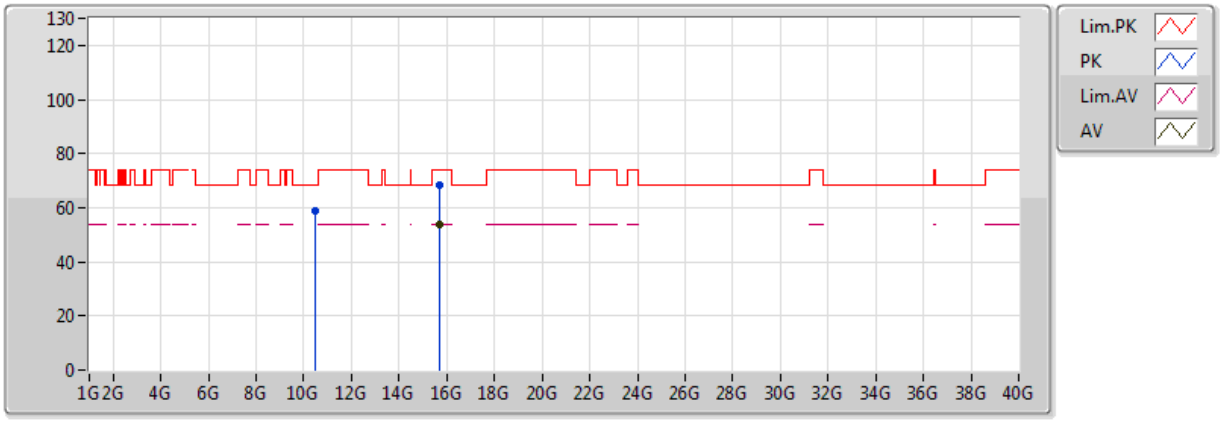


20170921
EUT Y_2TX
Setting 26.5
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.1464G	52.46	54.00	-1.54	9.76	3	Horizontal	7	1.50
AV	5.243G	121.30	Inf	-Inf	9.94	3	Horizontal	7	1.50
AV	5.3762G	51.75	54.00	-2.25	10.12	3	Horizontal	7	1.50
PK	5.1494G	65.17	74.00	-8.83	9.76	3	Horizontal	7	1.50
PK	5.243G	131.54	Inf	-Inf	9.94	3	Horizontal	7	1.50
PK	5.3762G	62.59	74.00	-11.41	10.12	3	Horizontal	7	1.50

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

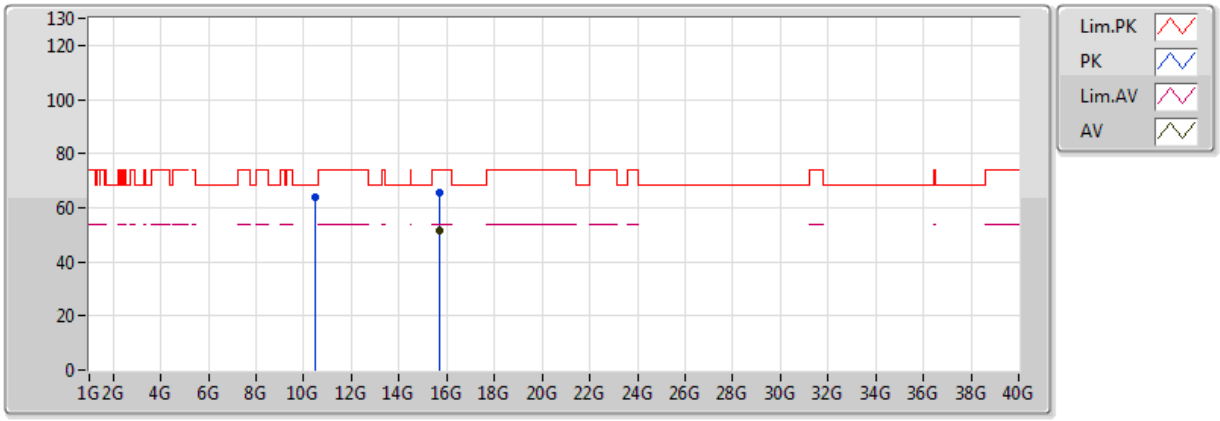


20170921
EUT Y_2TX
Setting 26.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.7177G	53.94	54.00	-0.06	18.32	3	Vertical	359	1.08
PK	10.4876G	58.88	68.20	-9.32	15.99	3	Vertical	4	1.50
PK	15.7151G	68.14	74.00	-5.86	18.32	3	Vertical	359	1.08

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

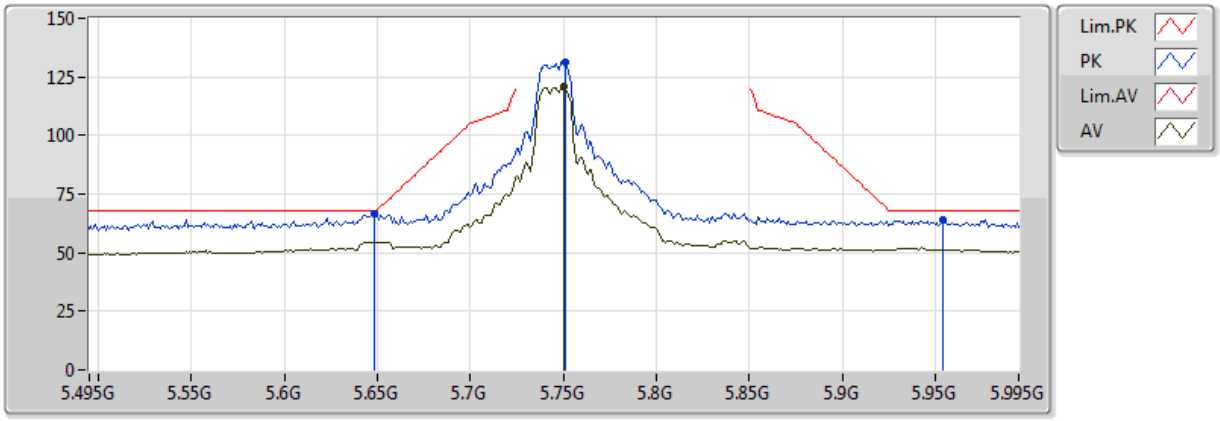


20170921
EUT Y_2TX
Setting 26.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.7177G	51.69	54.00	-2.31	18.32	3	Horizontal	16	1.50
PK	10.4778G	63.83	68.20	-4.37	15.99	3	Horizontal	9	1.50
PK	15.7221G	65.64	74.00	-8.36	18.31	3	Horizontal	16	1.50

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

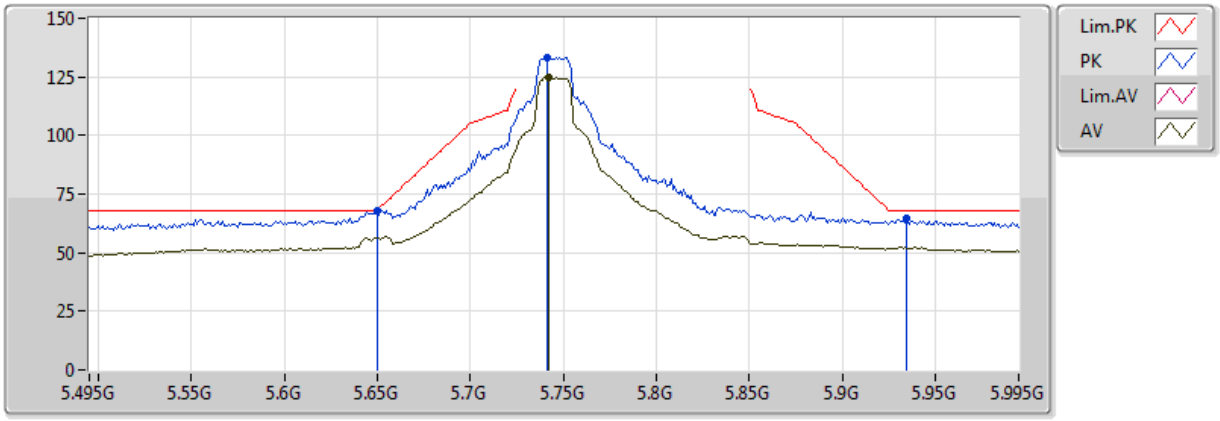


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.75G	120.61	Inf	-Inf	10.65	3	Vertical	356	1.50
PK	5.648G	66.59	68.20	-1.61	10.65	3	Vertical	356	1.50
PK	5.751G	131.36	Inf	-Inf	10.65	3	Vertical	356	1.50
PK	5.954G	63.94	68.20	-4.26	10.85	3	Vertical	356	1.50

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

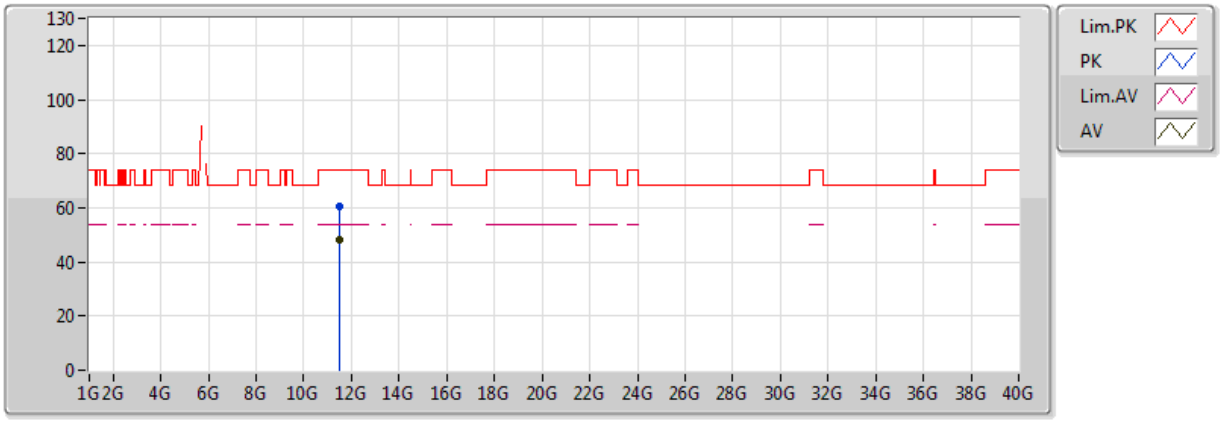


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.742G	124.84	Inf	-Inf	10.65	3	Horizontal	357	1.50
PK	5.65G	68.10	68.20	-0.10	10.65	3	Horizontal	357	1.50
PK	5.741G	133.36	Inf	-Inf	10.65	3	Horizontal	357	1.50
PK	5.935G	64.67	68.20	-3.53	10.83	3	Horizontal	357	1.50

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

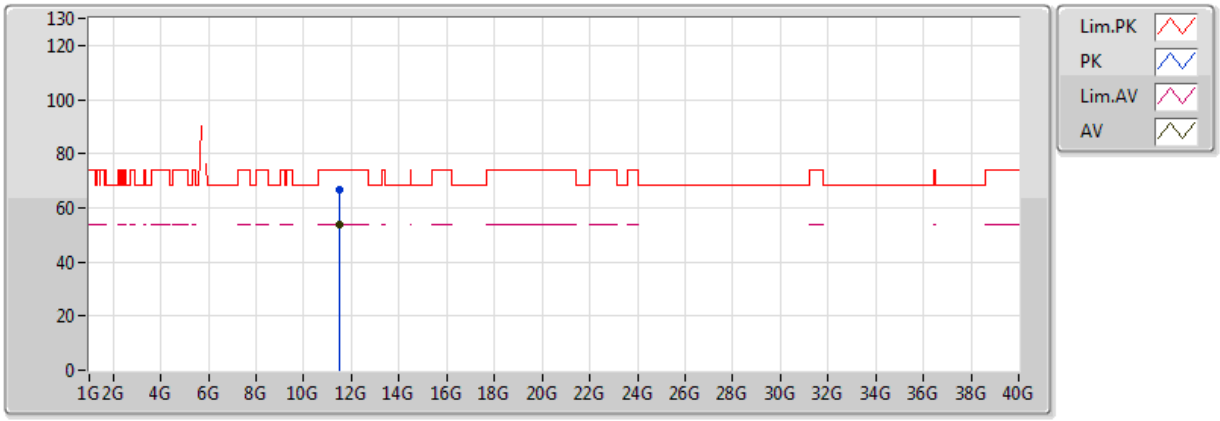


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.4884G	48.37	54.00	-5.63	16.60	3	Vertical	0	1.67
PK	11.4883G	60.72	74.00	-13.28	16.60	3	Vertical	0	1.67

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

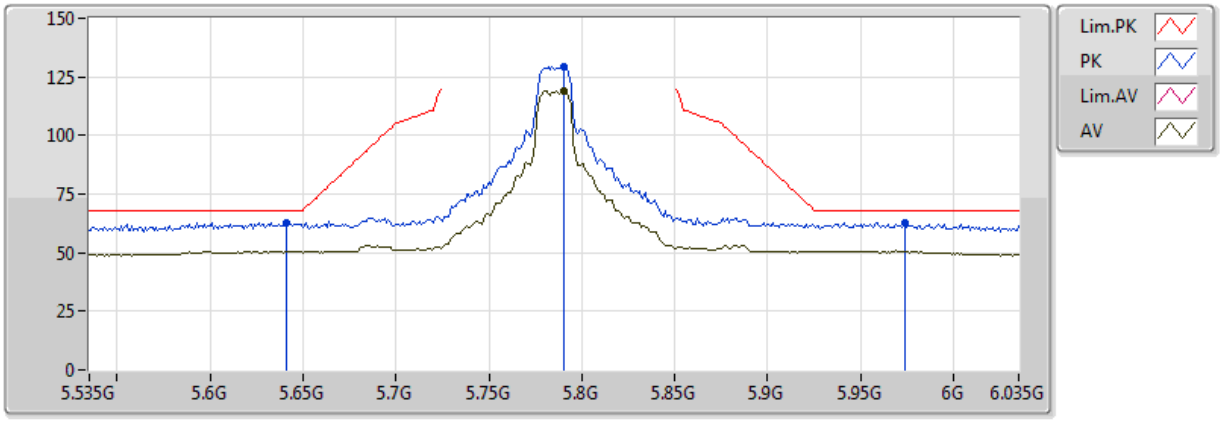


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.4881G	53.64	54.00	-0.36	16.60	3	Horizontal	355	1.71
PK	11.493G	66.41	74.00	-7.59	16.61	3	Horizontal	355	1.71

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

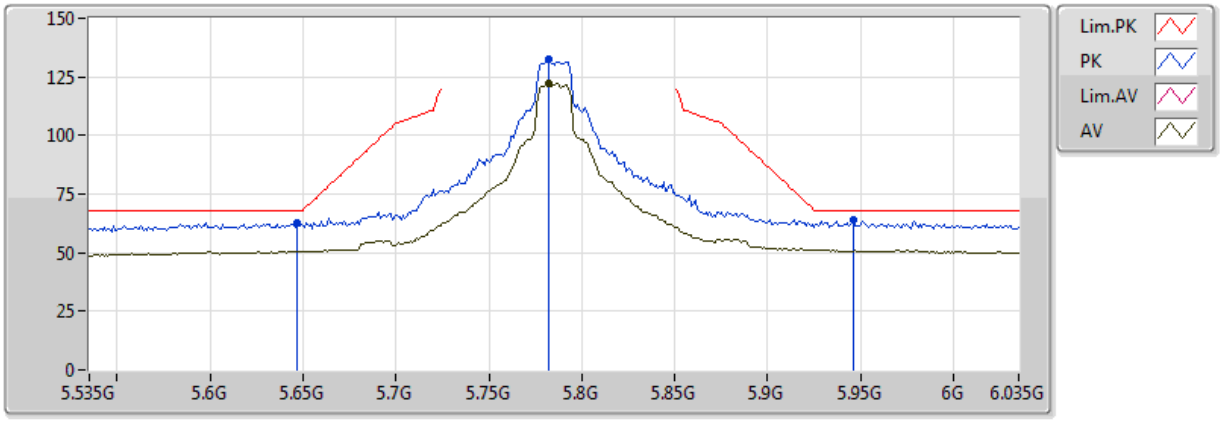


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.79G	119.20	Inf	-Inf	10.65	3	Vertical	7	1.50
PK	5.641G	63.02	68.20	-5.18	10.65	3	Vertical	7	1.50
PK	5.79G	129.36	Inf	-Inf	10.65	3	Vertical	7	1.50
PK	5.974G	62.89	68.20	-5.31	10.88	3	Vertical	7	1.50

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

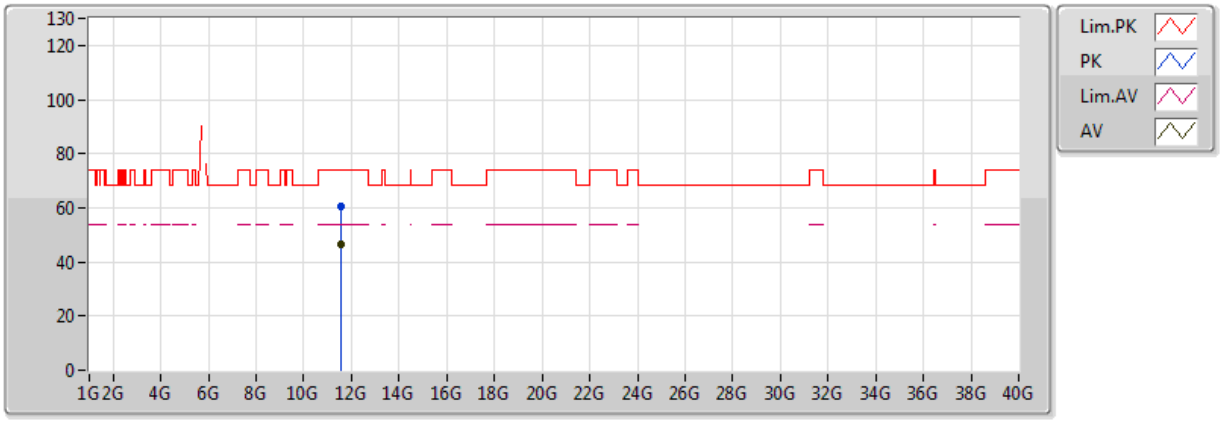


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.782G	122.23	Inf	-Inf	10.65	3	Horizontal	10	1.50
PK	5.647G	62.79	68.20	-5.41	10.65	3	Horizontal	10	1.50
PK	5.782G	132.40	Inf	-Inf	10.65	3	Horizontal	10	1.50
PK	5.946G	64.17	68.20	-4.03	10.84	3	Horizontal	10	1.50

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

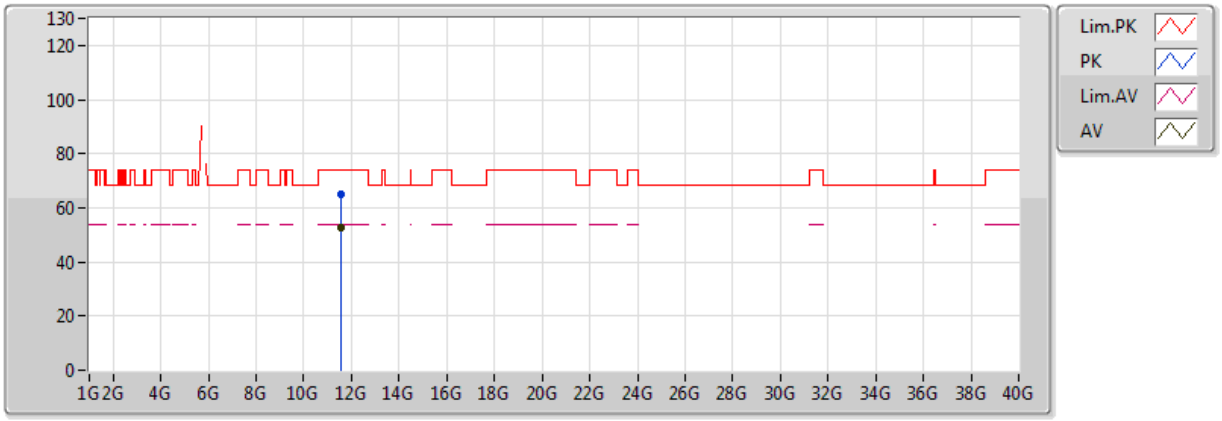


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.5686G	46.68	54.00	-7.32	16.70	3	Vertical	359	1.70
PK	11.5646G	60.35	74.00	-13.65	16.70	3	Vertical	359	1.70

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

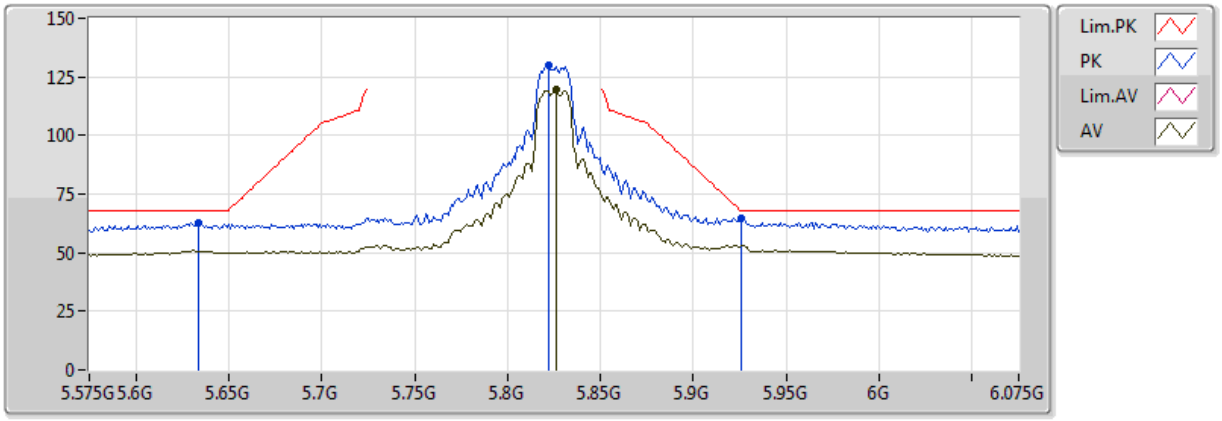


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.5685G	52.49	54.00	-1.51	16.70	3	Horizontal	359	1.62
PK	11.5647G	65.06	74.00	-8.94	16.70	3	Horizontal	359	1.62

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

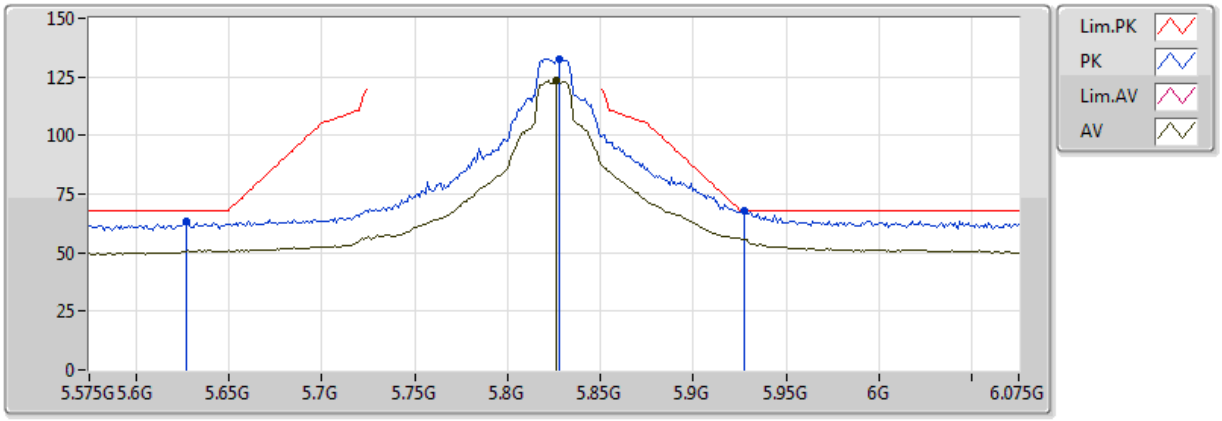


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.826G	119.33	Inf	-Inf	10.68	3	Vertical	337	1.50
PK	5.634G	62.85	68.20	-5.35	10.65	3	Vertical	337	1.50
PK	5.822G	129.93	Inf	-Inf	10.68	3	Vertical	337	1.50
PK	5.926G	64.81	68.20	-3.39	10.81	3	Vertical	337	1.50

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

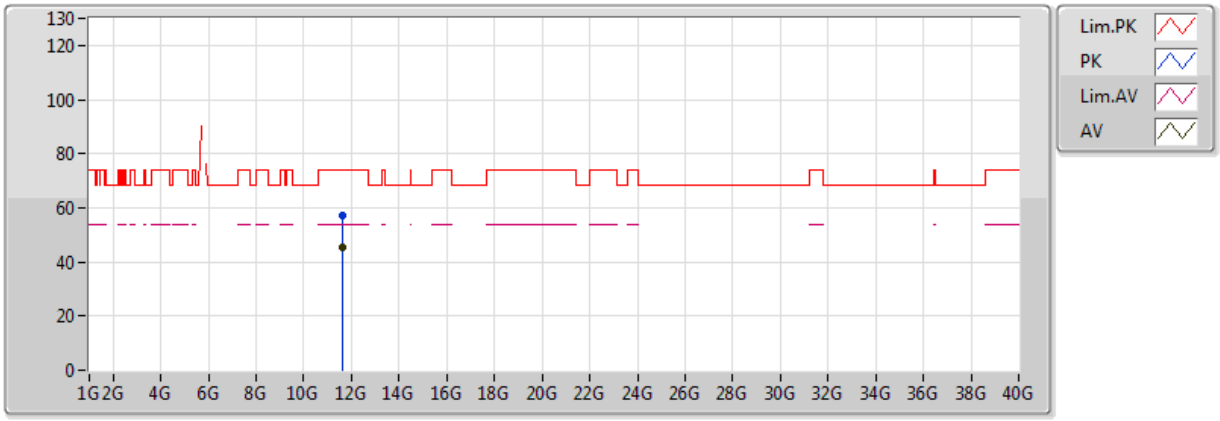


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.826G	123.43	Inf	-Inf	10.68	3	Horizontal	343	1.50
PK	5.627G	63.49	68.20	-4.71	10.65	3	Horizontal	343	1.50
PK	5.828G	132.70	Inf	-Inf	10.69	3	Horizontal	343	1.50
PK	5.927G	68.17	68.20	-0.03	10.82	3	Horizontal	343	1.50

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

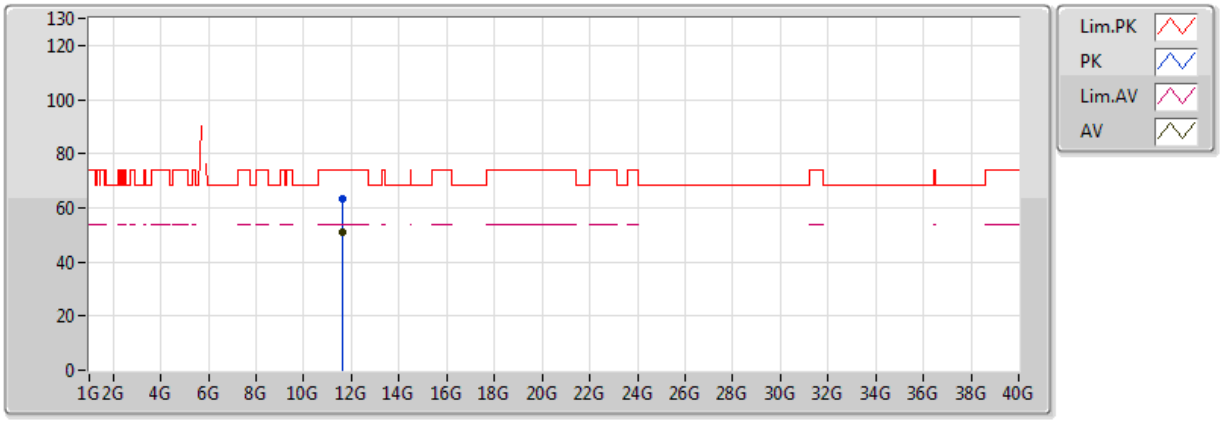


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.6478G	45.22	54.00	-8.78	16.80	3	Vertical	344	1.61
PK	11.6435G	57.38	74.00	-16.62	16.79	3	Vertical	344	1.61

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

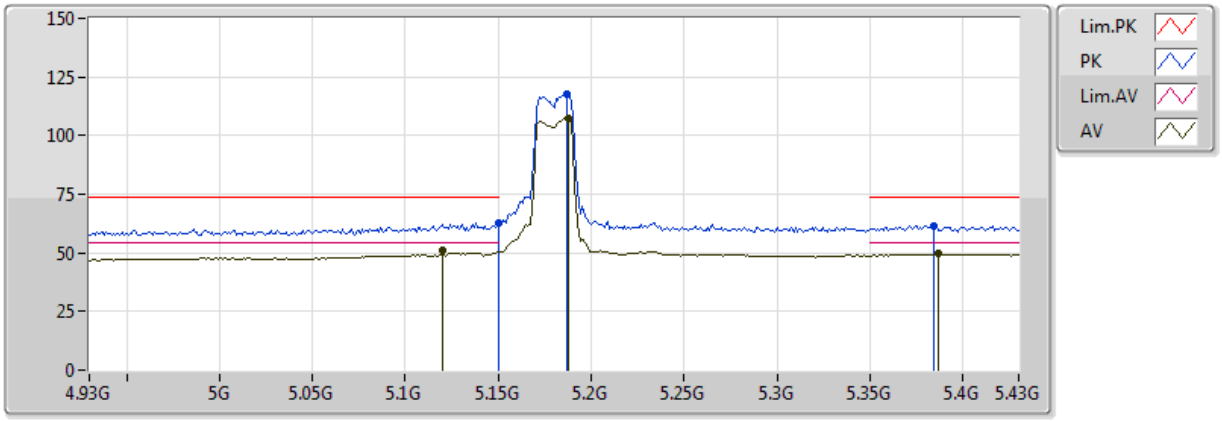


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.6484G	51.13	54.00	-2.87	16.80	3	Horizontal	341	1.72
PK	11.6531G	63.31	74.00	-10.69	16.81	3	Horizontal	341	1.72

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

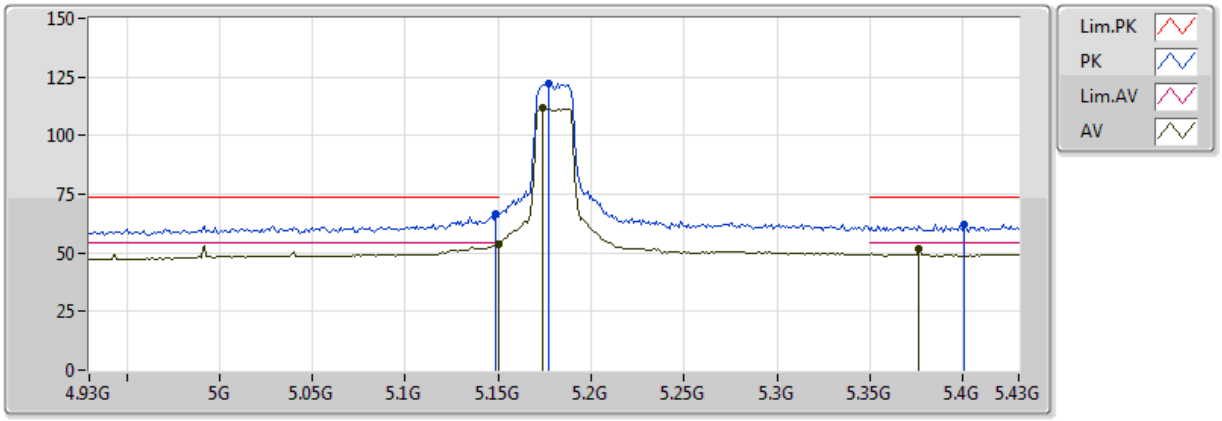


20170921
EUT Y_2TX
Setting 17
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.12G	50.87	54.00	-3.13	9.70	3	Vertical	5	1.67
AV	5.188G	107.13	Inf	-Inf	9.85	3	Vertical	5	1.67
AV	5.387G	49.48	54.00	-4.52	10.13	3	Vertical	5	1.67
PK	5.149995G	62.47	74.00	-11.53	9.76	3	Vertical	5	1.67
PK	5.187G	117.68	Inf	-Inf	9.85	3	Vertical	5	1.67
PK	5.384G	61.64	74.00	-12.36	10.13	3	Vertical	5	1.67

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

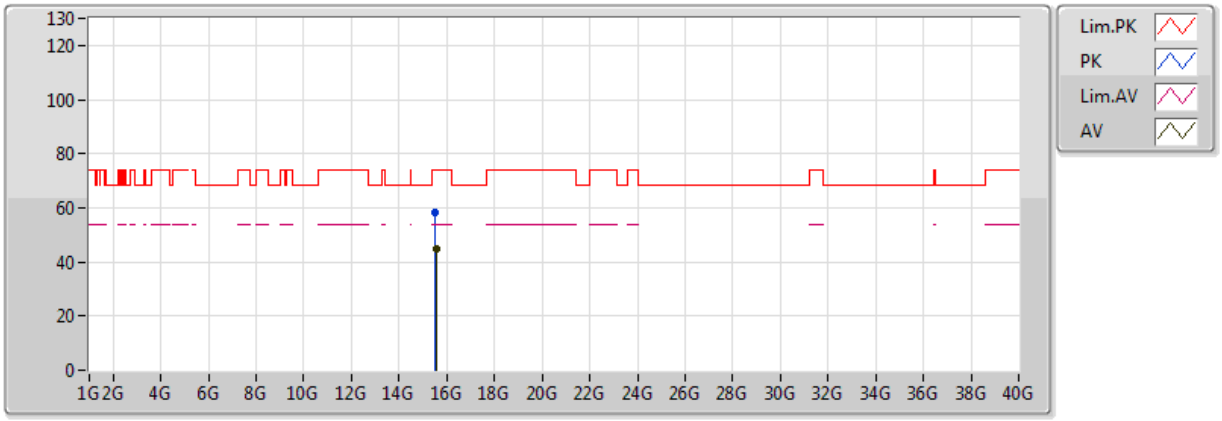


20170921
EUT Y_2TX
Setting 17
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.149995G	53.84	54.00	-0.16	9.76	3	Horizontal	337	1.50
AV	5.174G	111.80	Inf	-Inf	9.82	3	Horizontal	337	1.50
AV	5.376G	51.41	54.00	-2.59	10.12	3	Horizontal	337	1.50
PK	5.149G	66.70	74.00	-7.30	9.76	3	Horizontal	337	1.50
PK	5.177G	122.28	Inf	-Inf	9.83	3	Horizontal	337	1.50
PK	5.401G	62.29	74.00	-11.71	10.15	3	Horizontal	337	1.50

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

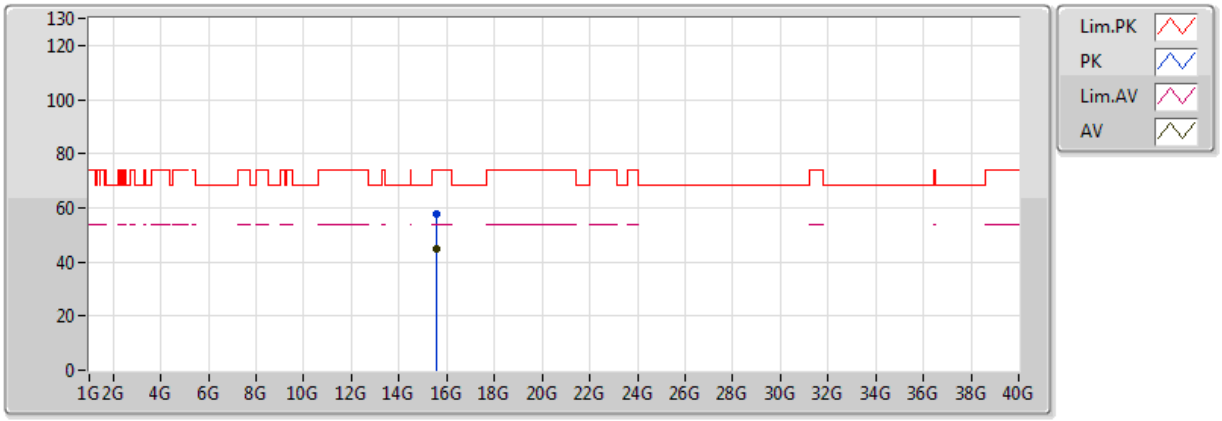


20170921
EUT Y_2TX
Setting 17
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.5382G	44.85	54.00	-9.15	18.70	3	Vertical	165	2.20
PK	15.53132G	58.26	74.00	-15.74	18.72	3	Vertical	165	2.20

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

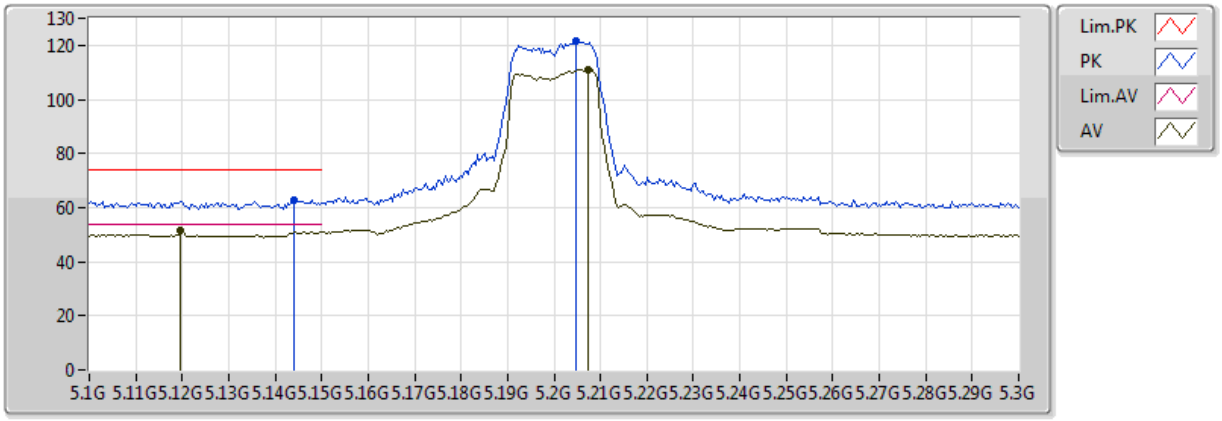


20170921
EUT Y_2TX
Setting 17
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.53864G	44.86	54.00	-9.14	18.70	3	Horizontal	322	1.76
PK	15.53996G	57.94	74.00	-16.06	18.70	3	Horizontal	322	1.76

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

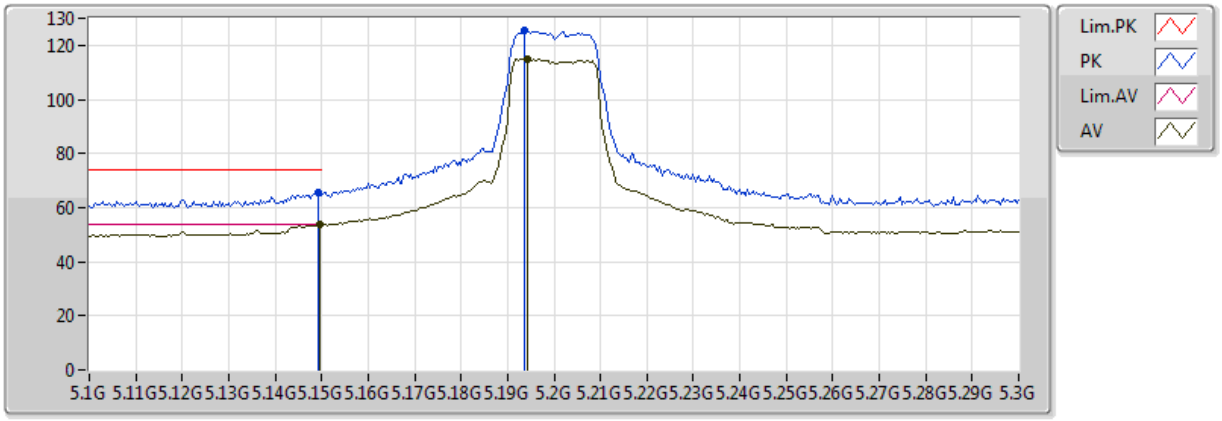


20170921
EUT Y_2TX
Setting 20
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.1196G	51.45	54.00	-2.55	9.70	3	Vertical	4	1.59
AV	5.2072G	111.11	Inf	-Inf	9.89	3	Vertical	4	1.59
PK	5.144G	62.70	74.00	-11.30	9.75	3	Vertical	4	1.59
PK	5.2048G	121.41	Inf	-Inf	9.89	3	Vertical	4	1.59

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

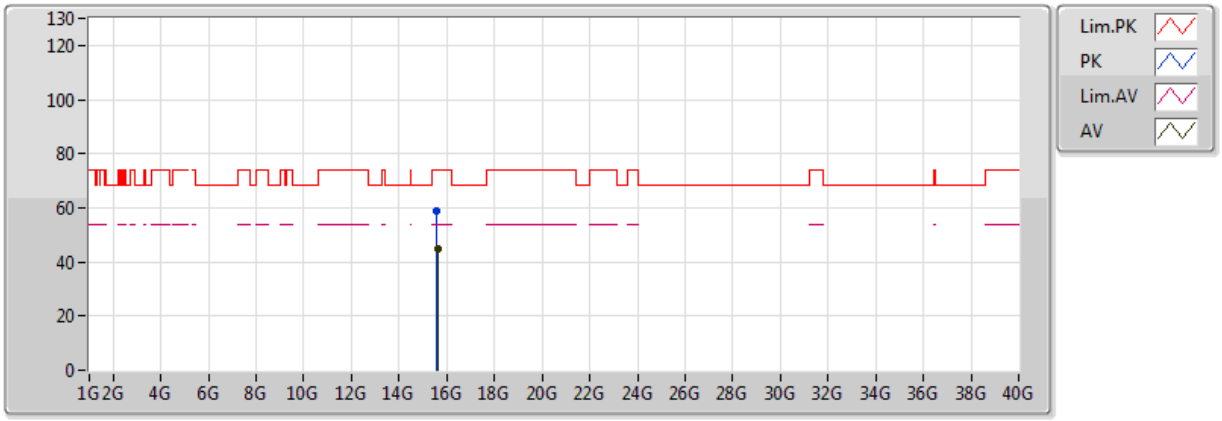


20170921
EUT Y_2TX
Setting 20
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.1496G	53.64	54.00	-0.36	9.76	3	Horizontal	0	1.50
AV	5.1944G	115.13	Inf	-Inf	9.87	3	Horizontal	0	1.50
PK	5.1492G	65.45	74.00	-8.55	9.76	3	Horizontal	0	1.50
PK	5.1936G	125.43	Inf	-Inf	9.87	3	Horizontal	0	1.50

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

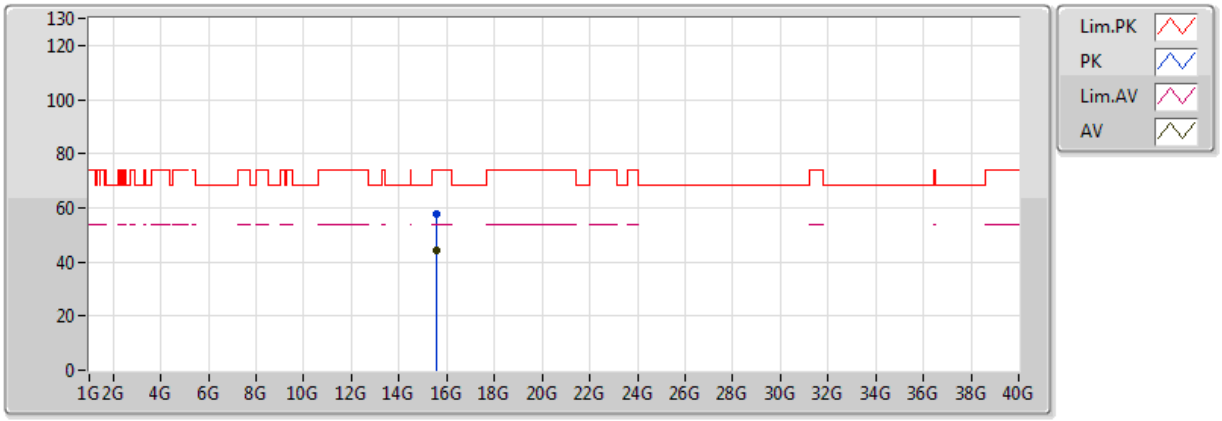


20170921
EUT Y_2TX
Setting 20
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.609G	44.60	54.00	-9.40	18.55	3	Vertical	287	2.45
PK	15.5946G	58.74	74.00	-15.26	18.58	3	Vertical	287	2.45

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

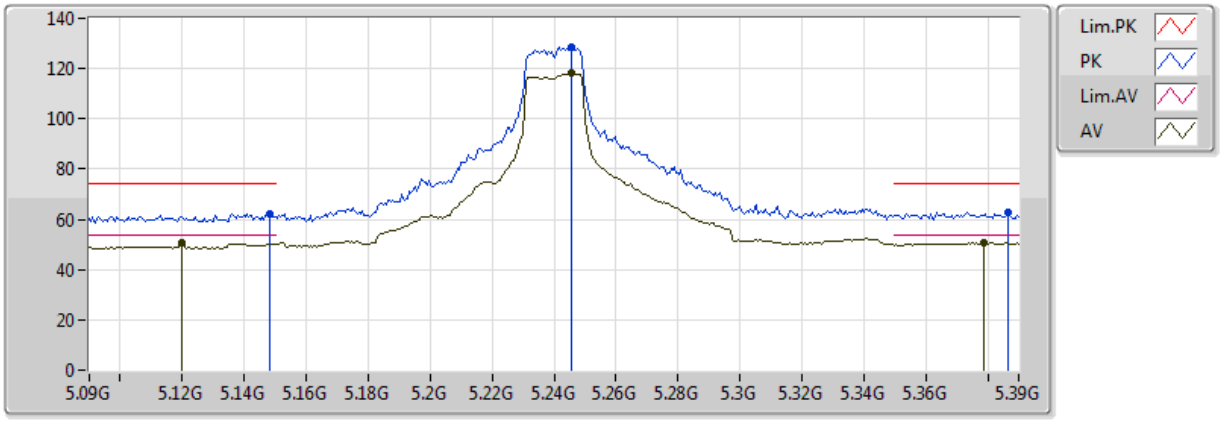


20170921
EUT Y_2TX
Setting 20
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.59672G	44.49	54.00	-9.51	18.58	3	Horizontal	347	1.39
PK	15.59252G	57.63	74.00	-16.37	18.59	3	Horizontal	347	1.39

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

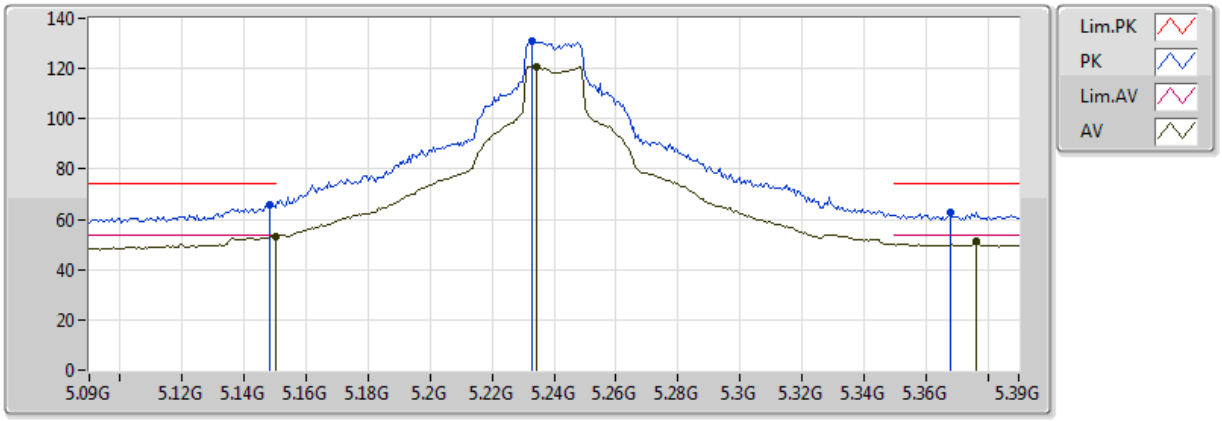


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.12G	50.46	54.00	-3.54	9.70	3	Vertical	360	1.57
AV	5.2454G	117.99	Inf	-Inf	9.94	3	Vertical	360	1.57
AV	5.3786G	50.55	54.00	-3.45	10.12	3	Vertical	360	1.57
PK	5.1482G	62.32	74.00	-11.68	9.76	3	Vertical	360	1.57
PK	5.2454G	128.67	Inf	-Inf	9.94	3	Vertical	360	1.57
PK	5.3864G	62.95	74.00	-11.05	10.13	3	Vertical	360	1.57

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

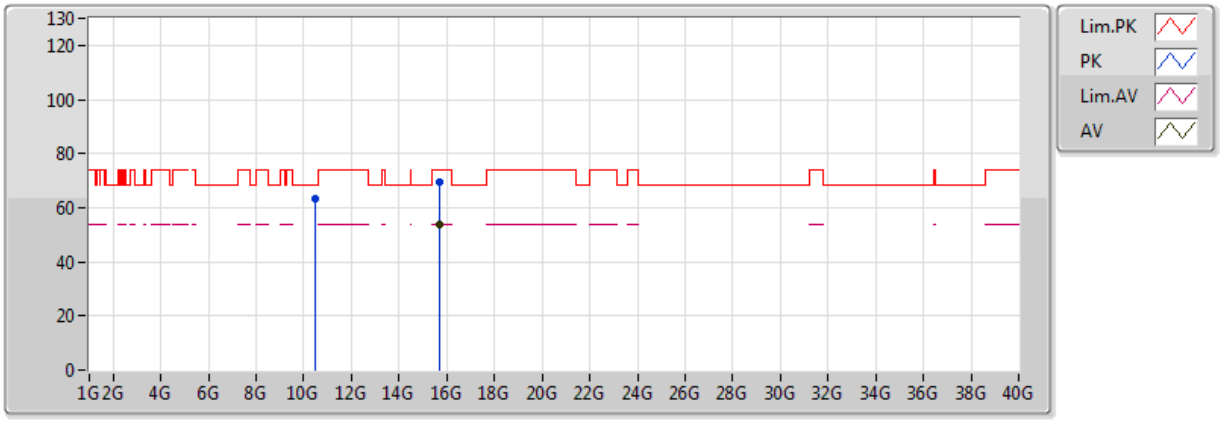


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.149995G	53.13	54.00	-0.87	9.76	3	Horizontal	0	1.50
AV	5.2346G	120.76	Inf	-Inf	9.93	3	Horizontal	0	1.50
AV	5.3762G	51.08	54.00	-2.92	10.12	3	Horizontal	0	1.50
PK	5.1482G	65.65	74.00	-8.35	9.76	3	Horizontal	0	1.50
PK	5.2328G	130.89	Inf	-Inf	9.93	3	Horizontal	0	1.50
PK	5.3678G	62.73	74.00	-11.27	10.11	3	Horizontal	0	1.50

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

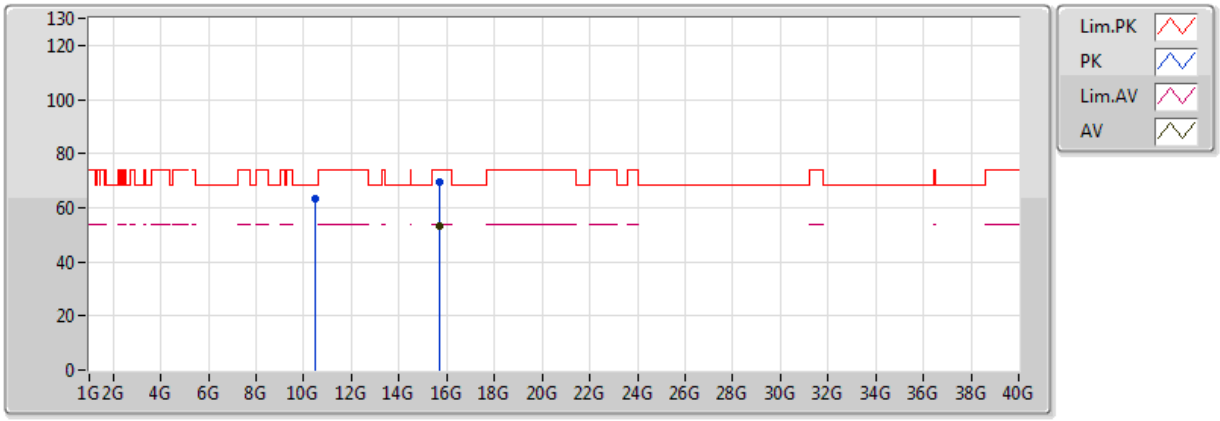


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.71608G	53.98	54.00	-0.02	18.32	3	Vertical	325	2.06
PK	10.47232G	63.49	68.20	-4.71	15.99	3	Vertical	0	1.28
PK	15.72664G	69.65	74.00	-4.35	18.30	3	Vertical	325	2.06

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

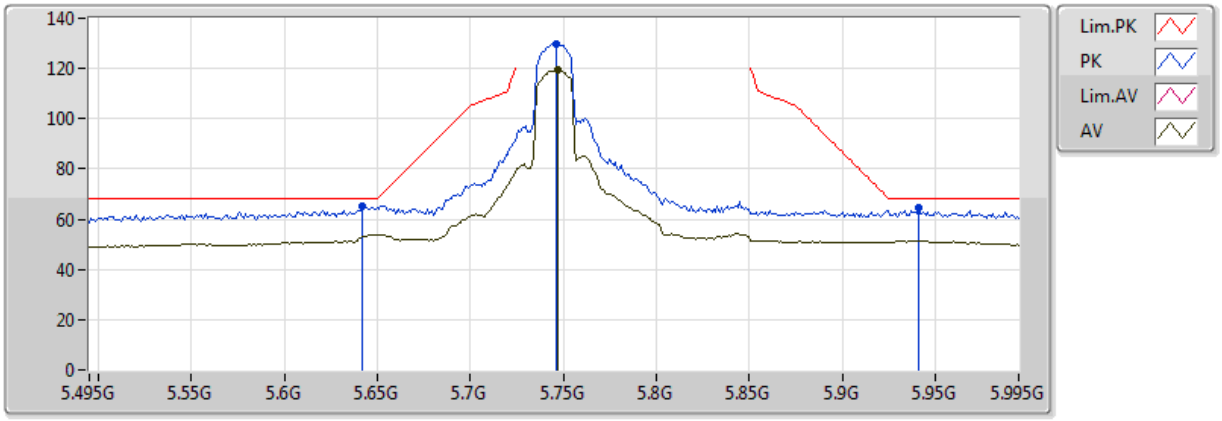


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.72704G	52.98	54.00	-1.02	18.30	3	Horizontal	8	1.51
PK	10.47216G	63.50	68.20	-4.70	15.99	3	Horizontal	6	1.22
PK	15.72688G	69.72	74.00	-4.28	18.30	3	Horizontal	8	1.51

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

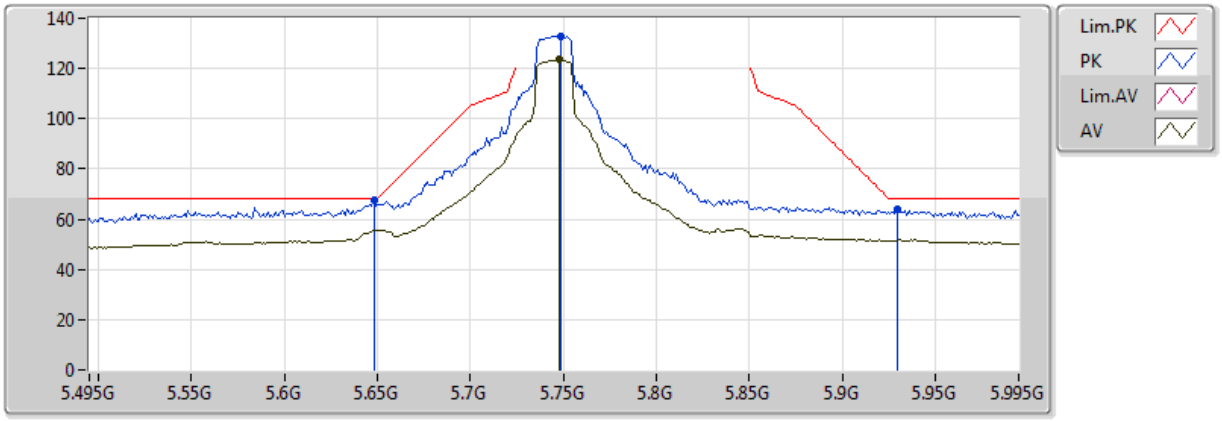


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.747G	119.52	Inf	-Inf	10.65	3	Vertical	360	1.51
PK	5.642G	65.07	68.20	-3.13	10.65	3	Vertical	360	1.51
PK	5.746G	129.74	Inf	-Inf	10.65	3	Vertical	360	1.51
PK	5.941G	64.44	68.20	-3.76	10.83	3	Vertical	360	1.51

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

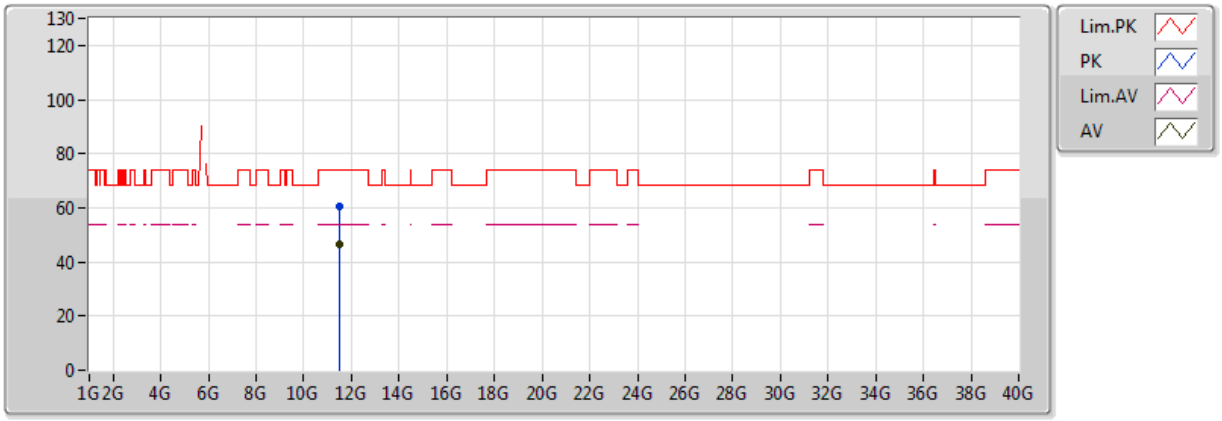


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.748G	123.78	Inf	-Inf	10.65	3	Horizontal	0	1.68
PK	5.648G	67.79	68.20	-0.41	10.65	3	Horizontal	0	1.68
PK	5.749G	132.70	Inf	-Inf	10.65	3	Horizontal	0	1.68
PK	5.93G	64.06	68.20	-4.14	10.82	3	Horizontal	0	1.68

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

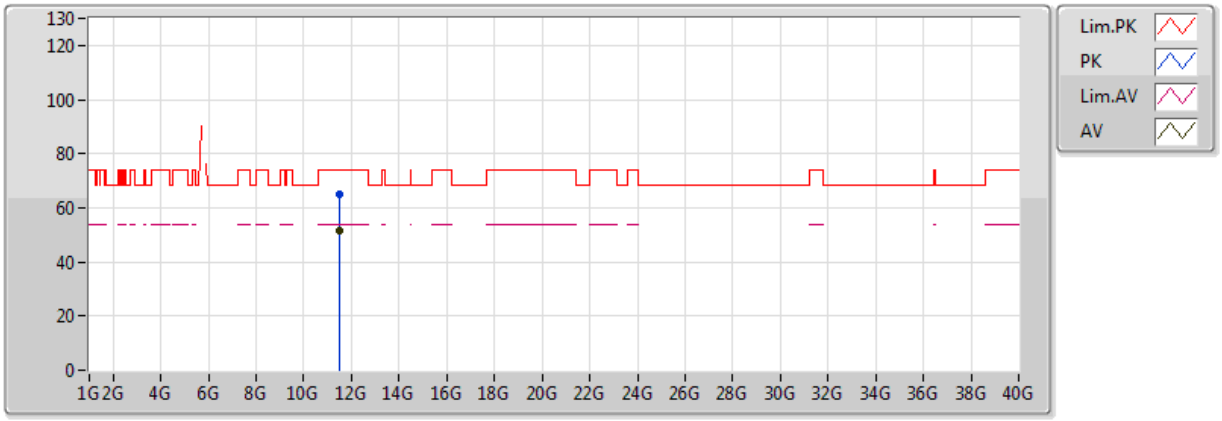


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.4848G	46.46	54.00	-7.54	16.60	3	Vertical	2	1.62
PK	11.48656G	60.37	74.00	-13.63	16.60	3	Vertical	2	1.62

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

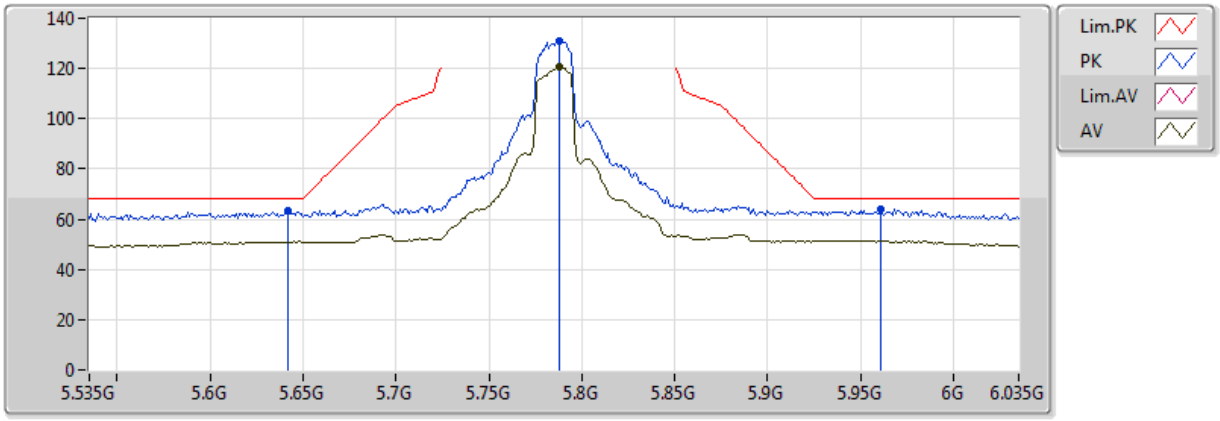


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.48288G	51.39	54.00	-2.61	16.59	3	Horizontal	358	1.83
PK	11.48376G	64.81	74.00	-9.19	16.59	3	Horizontal	358	1.83

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

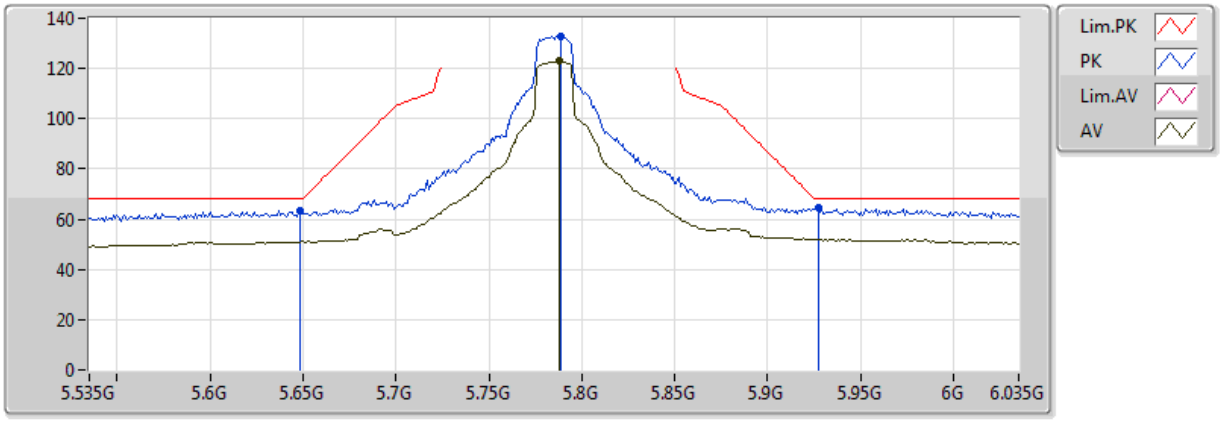


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.788G	120.59	Inf	-Inf	10.65	3	Vertical	360	1.63
PK	5.642G	63.25	68.20	-4.95	10.65	3	Vertical	360	1.63
PK	5.788G	131.02	Inf	-Inf	10.65	3	Vertical	360	1.63
PK	5.961G	63.84	68.20	-4.36	10.86	3	Vertical	360	1.63

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

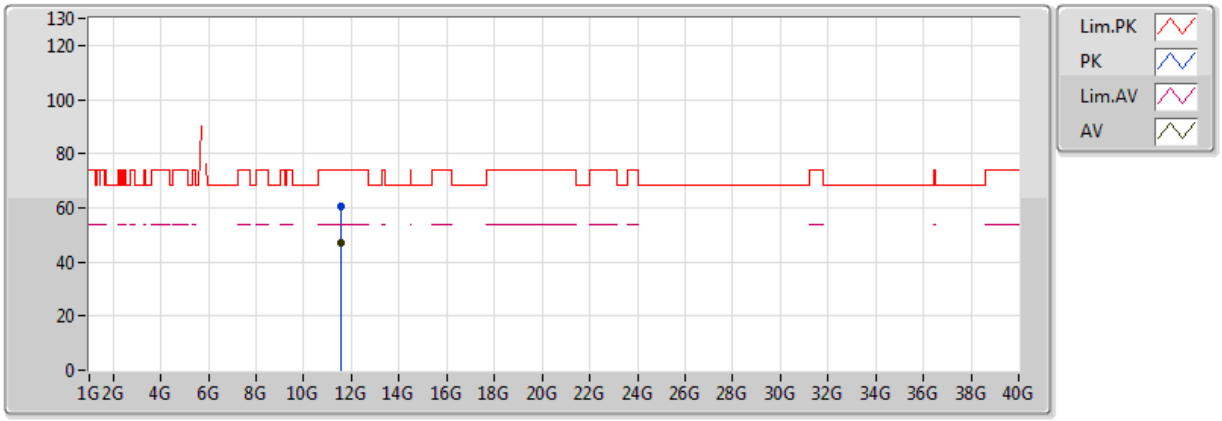


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.788G	123.33	Inf	-Inf	10.65	3	Horizontal	0	1.66
PK	5.648G	63.38	68.20	-4.82	10.65	3	Horizontal	0	1.66
PK	5.789G	132.57	Inf	-Inf	10.65	3	Horizontal	0	1.66
PK	5.927G	64.54	68.20	-3.66	10.82	3	Horizontal	0	1.66

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

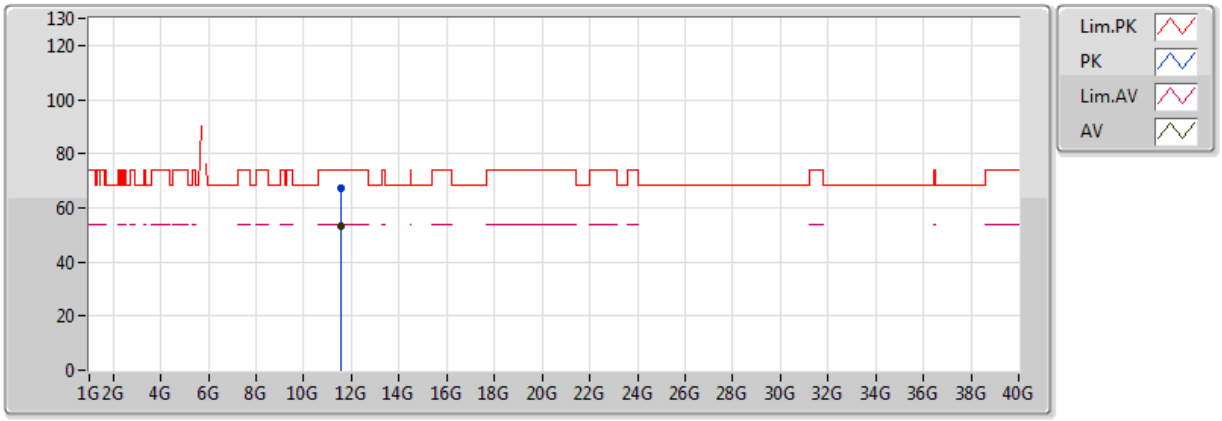


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.5668G	46.96	54.00	-7.04	16.70	3	Vertical	0	1.68
PK	11.56688G	60.42	74.00	-13.58	16.70	3	Vertical	0	1.68

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

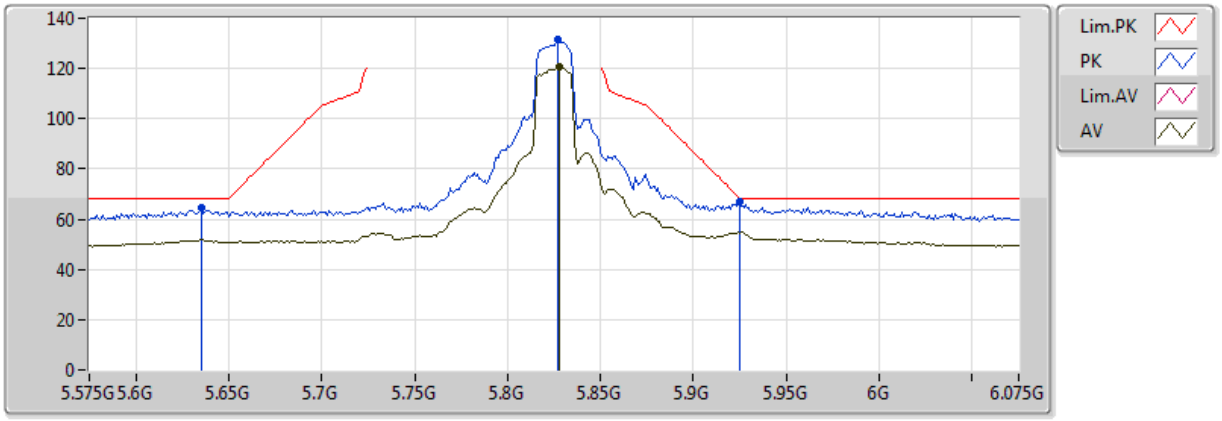


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.56328G	53.09	54.00	-0.91	16.69	3	Horizontal	358	1.78
PK	11.56248G	67.05	74.00	-6.95	16.69	3	Horizontal	358	1.78

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

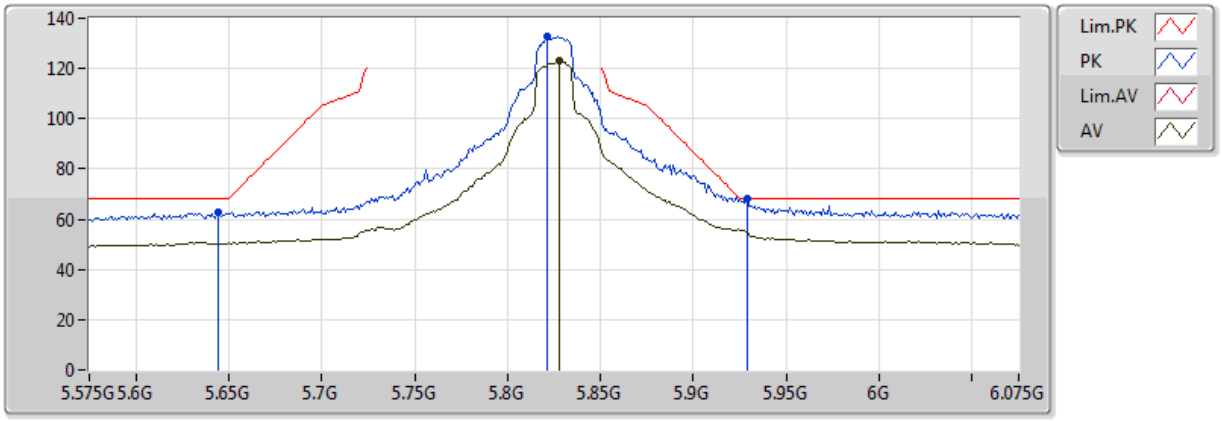


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.828G	120.57	Inf	-Inf	10.69	3	Vertical	2	1.47
PK	5.635G	64.44	68.20	-3.76	10.65	3	Vertical	2	1.47
PK	5.827G	131.48	Inf	-Inf	10.69	3	Vertical	2	1.47
PK	5.925G	67.01	68.20	-1.19	10.81	3	Vertical	2	1.47

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

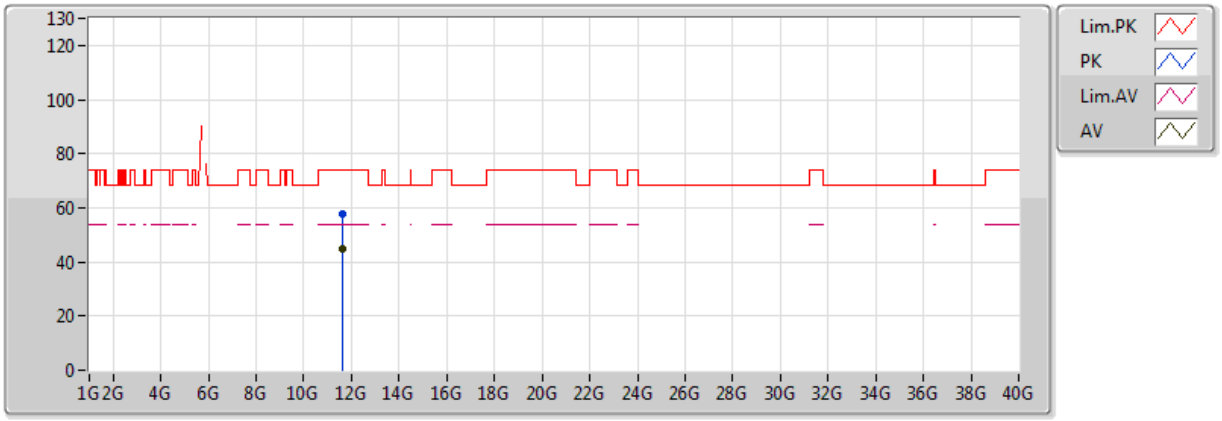


20170921
EUT Y_2TX
Setting 27
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.828G	123.01	Inf	-Inf	10.69	3	Horizontal	360	1.72
PK	5.644G	62.75	68.20	-5.45	10.65	3	Horizontal	360	1.72
PK	5.821G	132.78	Inf	-Inf	10.68	3	Horizontal	360	1.72
PK	5.929G	68.10	68.20	-0.10	10.82	3	Horizontal	360	1.72

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

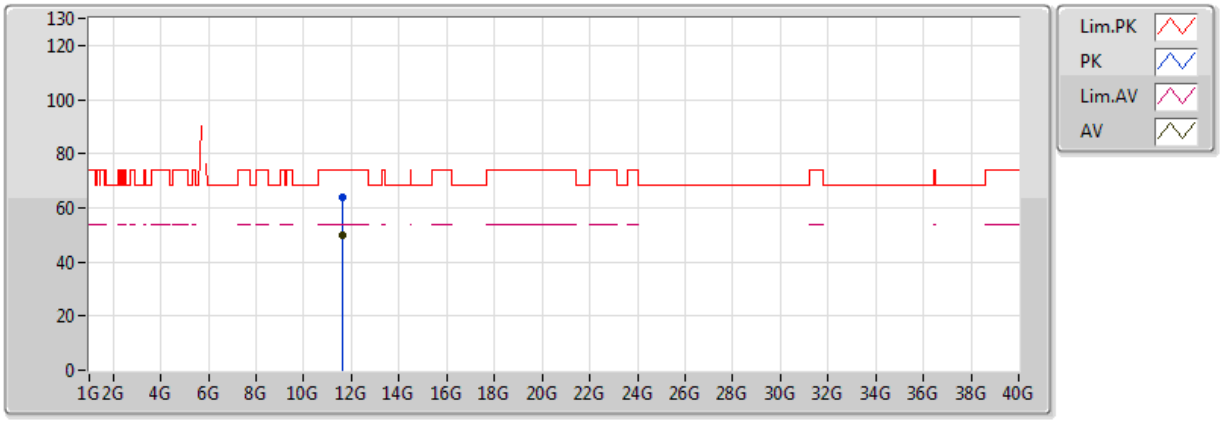


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.64896G	44.76	54.00	-9.24	16.80	3	Vertical	3	1.67
PK	11.64512G	57.94	74.00	-16.06	16.80	3	Vertical	3	1.67

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

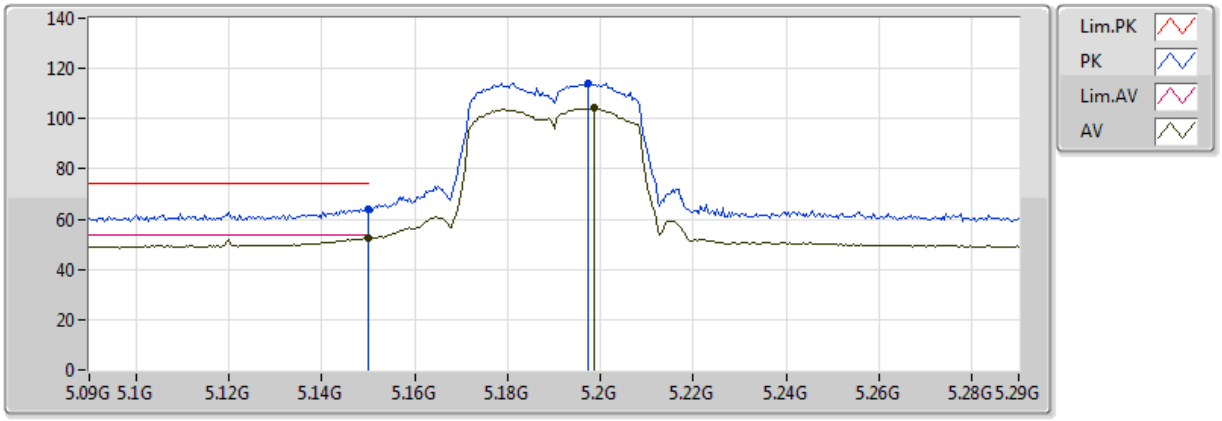


20170921
EUT Y_2TX
Setting 27
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.644G	49.95	54.00	-4.05	16.80	3	Horizontal	0	1.76
PK	11.6444G	63.62	74.00	-10.38	16.80	3	Horizontal	0	1.76

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

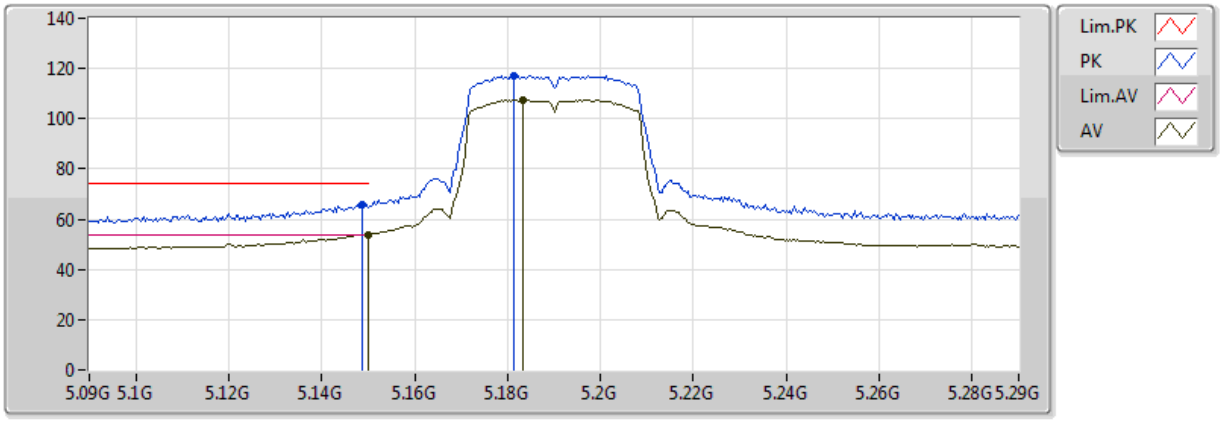


20170921
EUT Y_2TX
Setting 14
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.149995G	52.52	54.00	-1.48	9.76	3	Vertical	357	1.59
AV	5.1988G	104.11	Inf	-Inf	9.88	3	Vertical	357	1.59
PK	5.149995G	64.12	74.00	-9.88	9.76	3	Vertical	357	1.59
PK	5.1972G	114.28	Inf	-Inf	9.87	3	Vertical	357	1.59

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

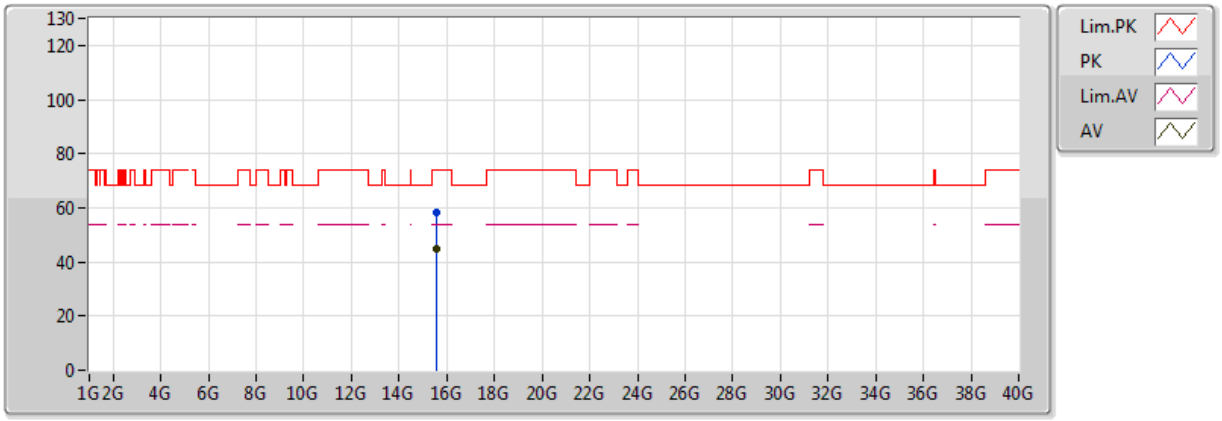


20170921
EUT Y_2TX
Setting 14
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.149995G	53.81	54.00	-0.19	9.76	3	Horizontal	0	1.50
AV	5.1832G	107.59	Inf	-Inf	9.84	3	Horizontal	0	1.50
PK	5.1488G	65.76	74.00	-8.24	9.76	3	Horizontal	0	1.50
PK	5.1812G	117.16	Inf	-Inf	9.84	3	Horizontal	0	1.50

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

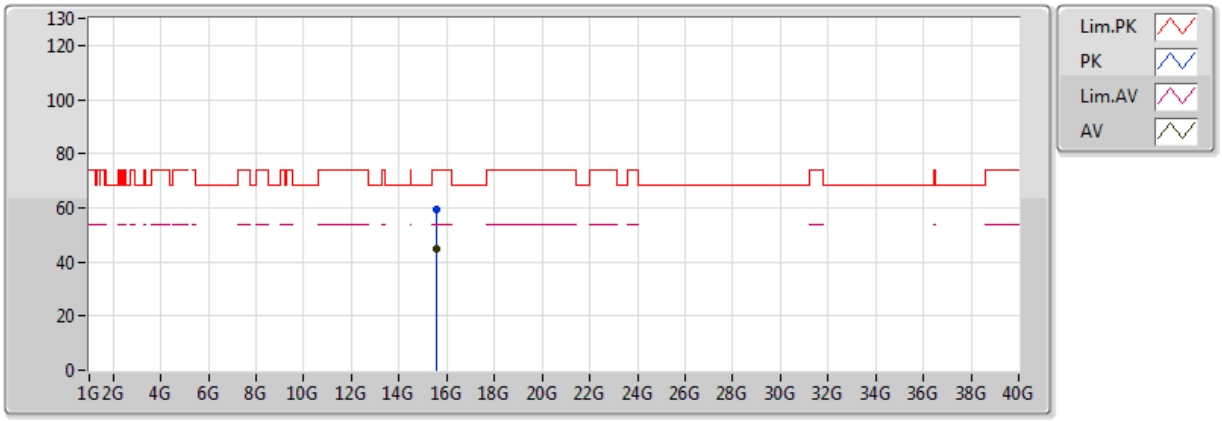


20170921
EUT Y_2TX
Setting 14
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.56176G	44.88	54.00	-9.12	18.65	3	Vertical	160	2.13
PK	15.5792G	58.30	74.00	-15.70	18.61	3	Vertical	160	2.13

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

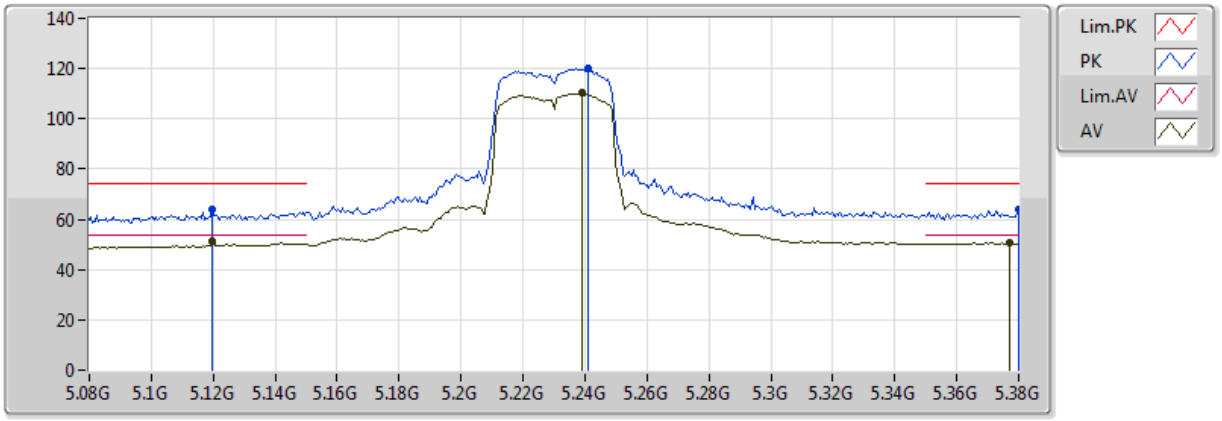


20170921
EUT Y_2TX
Setting 14
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.55552G	44.82	54.00	-9.18	18.67	3	Horizontal	23	1.65
PK	15.55024G	59.21	74.00	-14.79	18.68	3	Horizontal	23	1.65

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

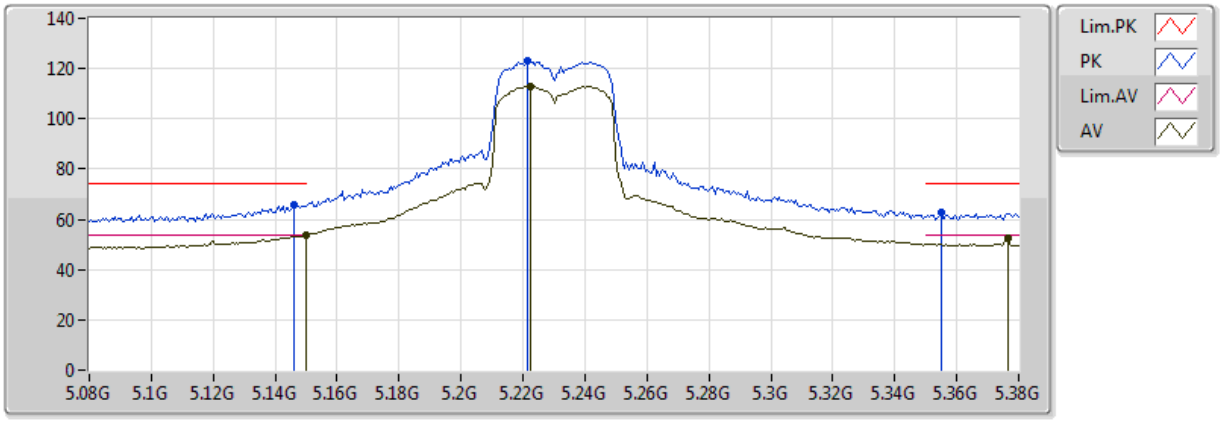


20170921
EUT Y_2TX
Setting 19.5
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.1196G	51.18	54.00	-2.82	9.70	3	Vertical	345	1.50
AV	5.239G	110.13	Inf	-Inf	9.93	3	Vertical	345	1.50
AV	5.377G	50.52	54.00	-3.48	10.12	3	Vertical	345	1.50
PK	5.1196G	63.78	74.00	-10.22	9.70	3	Vertical	345	1.50
PK	5.2408G	119.97	Inf	-Inf	9.94	3	Vertical	345	1.50
PK	5.38G	63.79	74.00	-10.21	10.12	3	Vertical	345	1.50

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

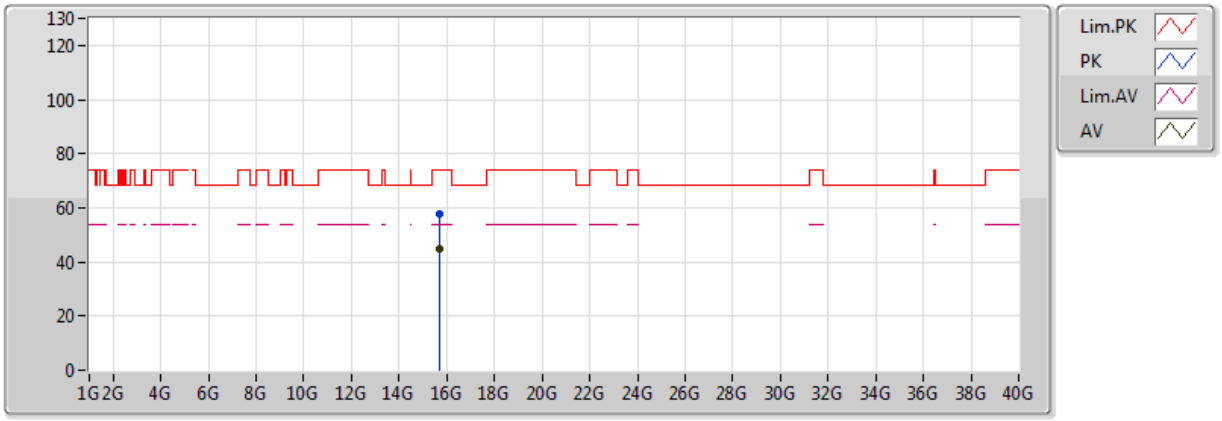


20170921
EUT Y_2TX
Setting 19.5
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.149995G	53.86	54.00	-0.14	9.76	3	Horizontal	348	1.70
AV	5.2222G	112.88	Inf	-Inf	9.91	3	Horizontal	348	1.70
AV	5.3764G	52.37	54.00	-1.63	10.12	3	Horizontal	348	1.70
PK	5.146G	65.67	74.00	-8.33	9.76	3	Horizontal	348	1.70
PK	5.2216G	122.83	Inf	-Inf	9.91	3	Horizontal	348	1.70
PK	5.3548G	62.92	74.00	-11.08	10.09	3	Horizontal	348	1.70

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

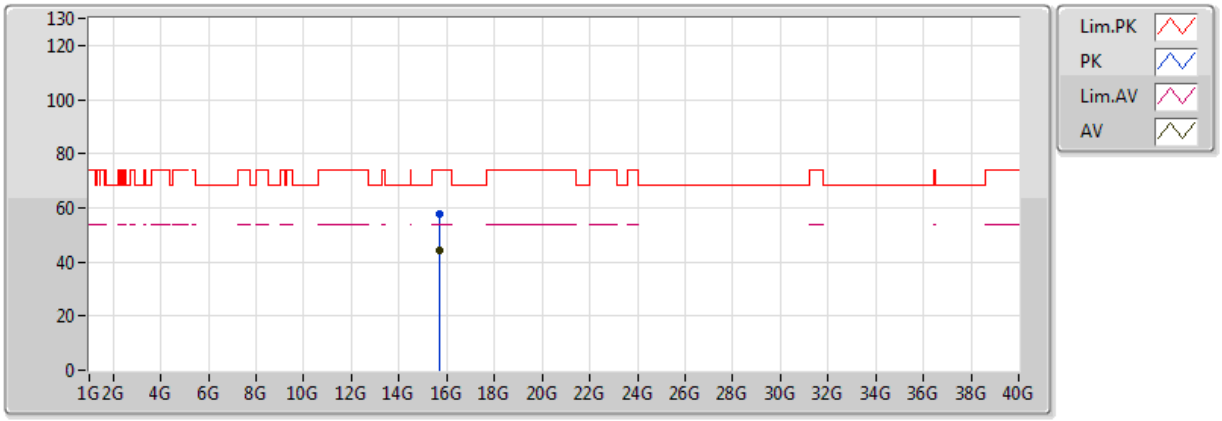


20170921
EUT Y_2TX
Setting 19.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.69336G	44.60	54.00	-9.40	18.37	3	Vertical	13	1.88
PK	15.68464G	57.55	74.00	-16.45	18.39	3	Vertical	13	1.88

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

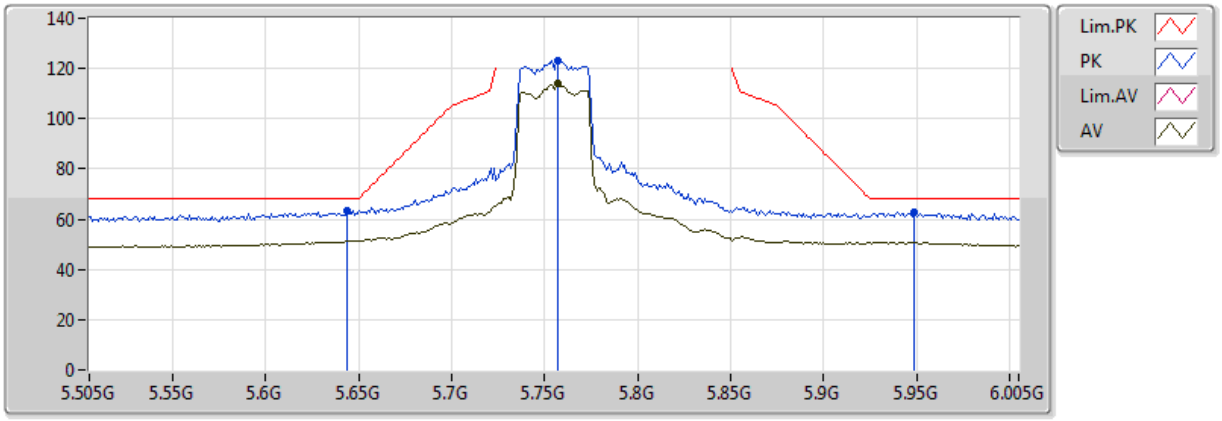


20170921
EUT Y_2TX
Setting 19.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.67696G	44.54	54.00	-9.46	18.40	3	Horizontal	282	1.01
PK	15.70928G	57.57	74.00	-16.43	18.34	3	Horizontal	282	1.01

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

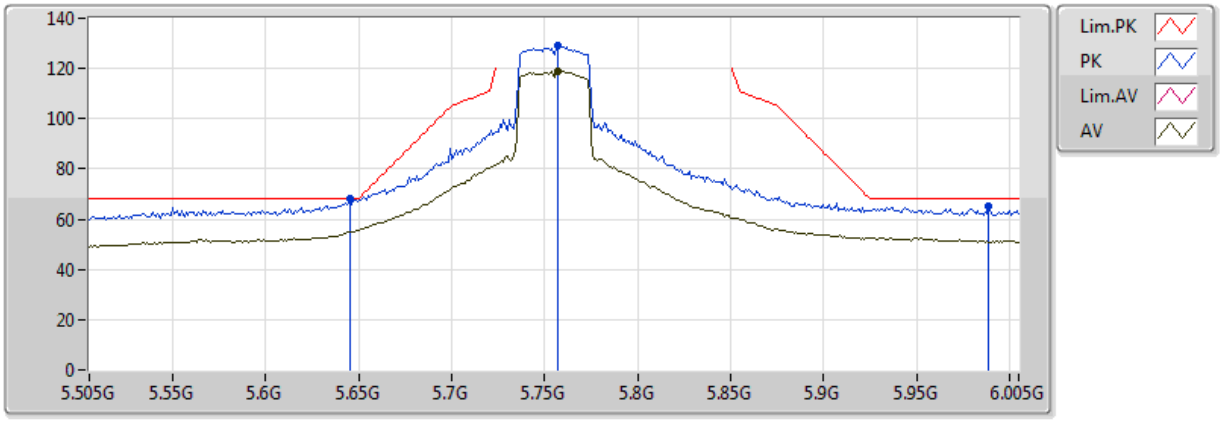


20170921
EUT Y_2TX
Setting 23
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.757G	113.91	Inf	-Inf	10.65	3	Vertical	336	1.50
PK	5.644G	63.41	68.20	-4.79	10.65	3	Vertical	336	1.50
PK	5.757G	123.34	Inf	-Inf	10.65	3	Vertical	336	1.50
PK	5.949G	62.68	68.20	-5.52	10.84	3	Vertical	336	1.50

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

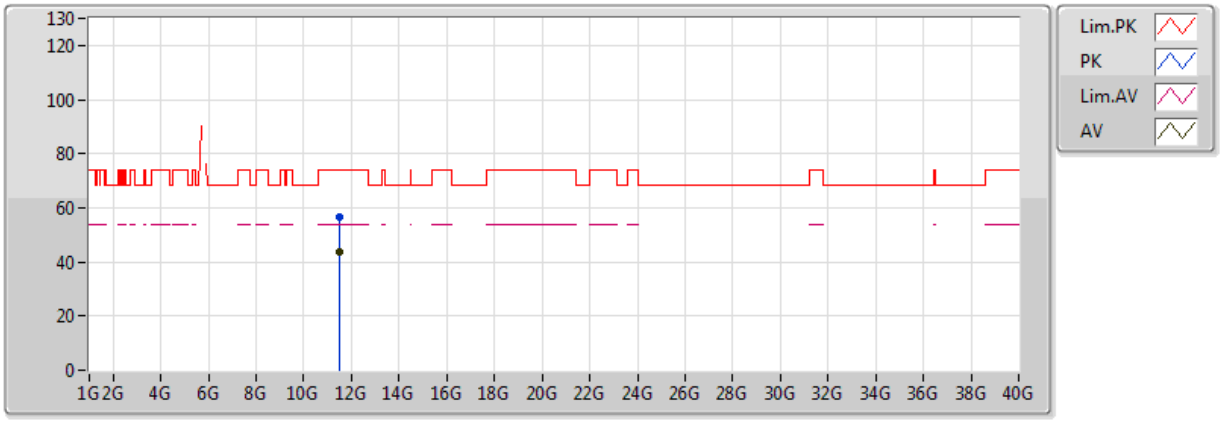


20170921
EUT Y_2TX
Setting 23
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.757G	119.17	Inf	-Inf	10.65	3	Horizontal	339	1.49
PK	5.645G	67.98	68.20	-0.22	10.65	3	Horizontal	339	1.49
PK	5.757G	129.08	Inf	-Inf	10.65	3	Horizontal	339	1.49
PK	5.989G	64.97	68.20	-3.23	10.90	3	Horizontal	339	1.49

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

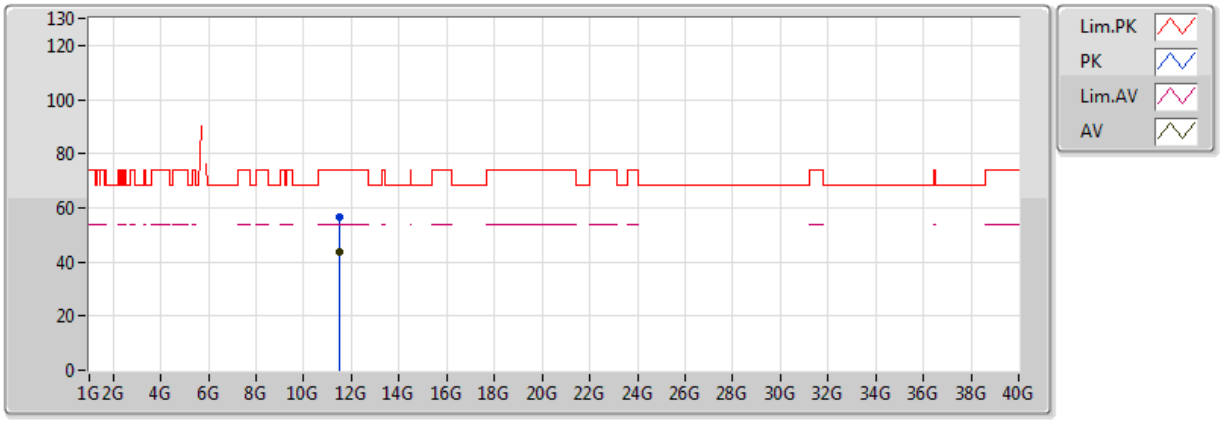


20170921
EUT Y_2TX
Setting 23
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.50992G	43.68	54.00	-10.32	16.63	3	Vertical	359	2.02
PK	11.52656G	56.39	74.00	-17.61	16.65	3	Vertical	359	2.02

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

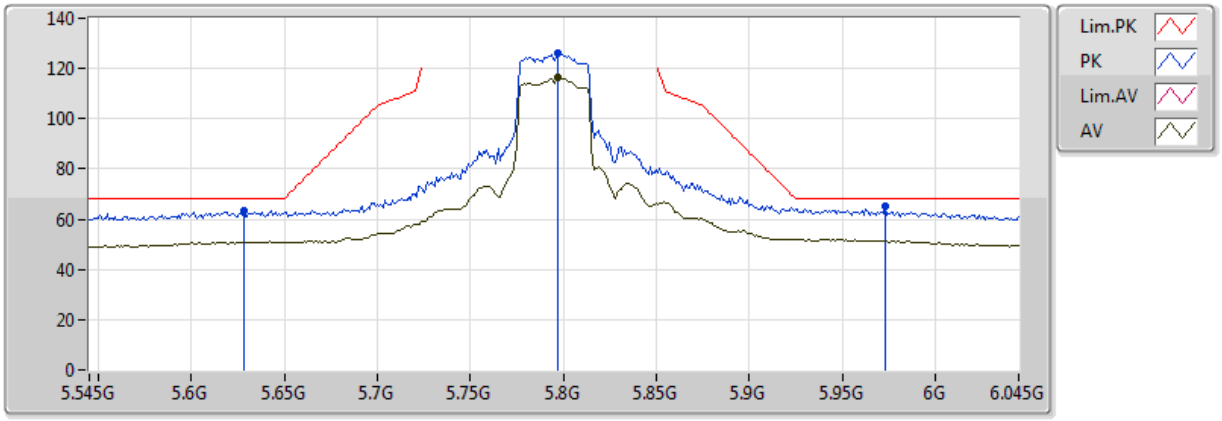


20170921
EUT Y_2TX
Setting 23
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.50464G	43.72	54.00	-10.28	16.62	3	Horizontal	42	1.36
PK	11.52288G	56.86	74.00	-17.14	16.64	3	Horizontal	42	1.36

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

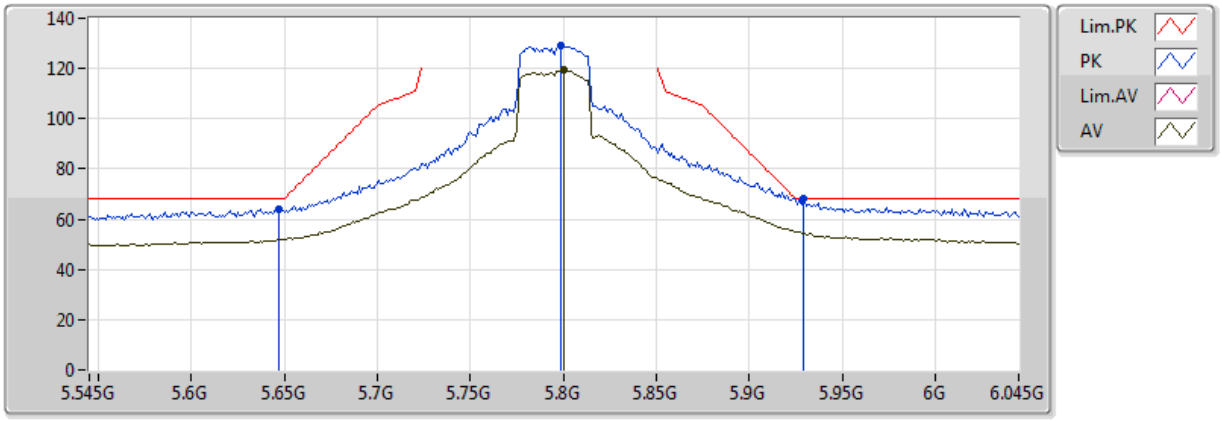


20170921
EUT Y_2TX
Setting 24
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.797G	116.33	Inf	-Inf	10.65	3	Vertical	0	1.50
PK	5.628G	63.56	68.20	-4.64	10.65	3	Vertical	0	1.50
PK	5.797G	125.93	Inf	-Inf	10.65	3	Vertical	0	1.50
PK	5.973G	65.12	68.20	-3.08	10.87	3	Vertical	0	1.50

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

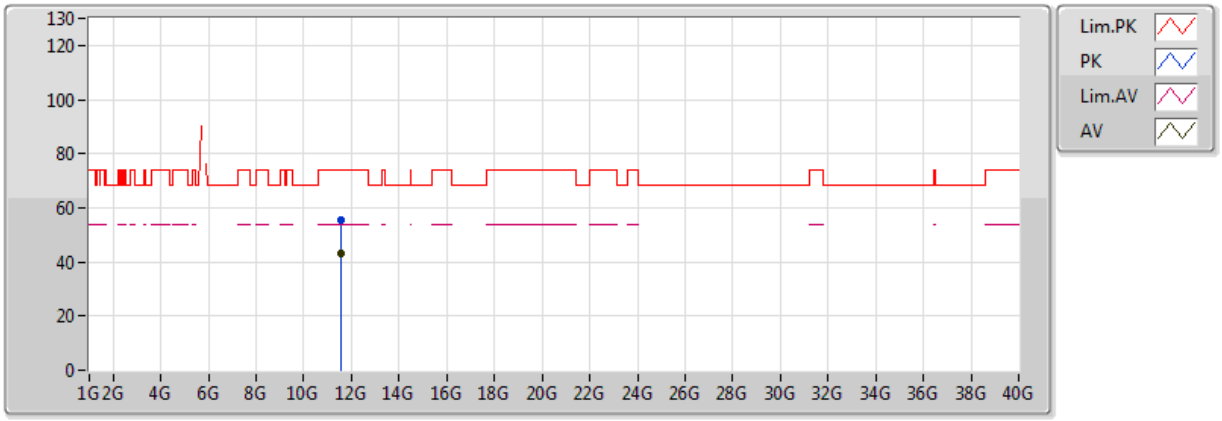


20170921
EUT Y_2TX
Setting 24
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.8G	119.39	Inf	-Inf	10.65	3	Horizontal	3	1.50
PK	5.647G	64.14	68.20	-4.06	10.65	3	Horizontal	3	1.50
PK	5.799G	129.07	Inf	-Inf	10.65	3	Horizontal	3	1.50
PK	5.929G	67.95	68.20	-0.25	10.82	3	Horizontal	3	1.50

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

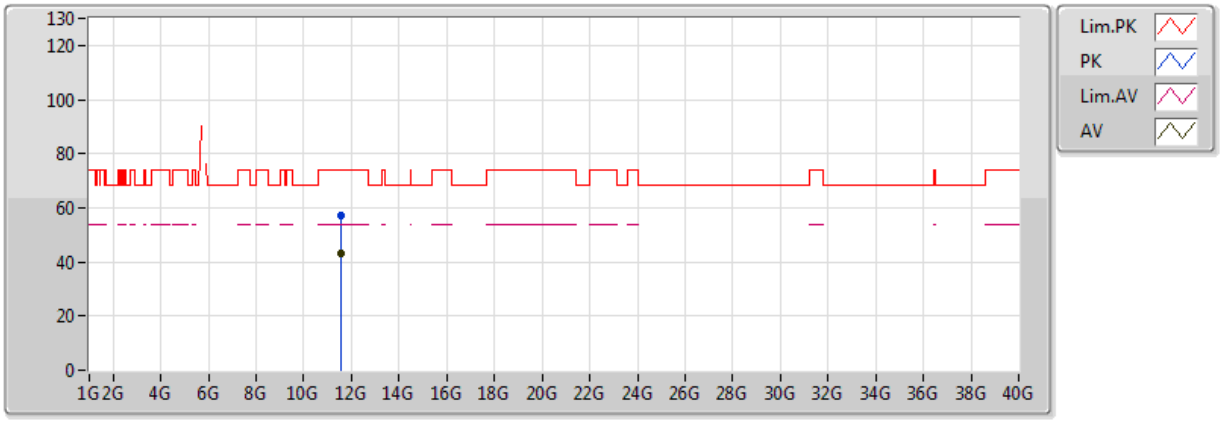


20170921
EUT Y_2TX
Setting 24
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.58416G	43.09	54.00	-10.91	16.72	3	Vertical	305	1.08
PK	11.58976G	55.71	74.00	-18.29	16.73	3	Vertical	305	1.08

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

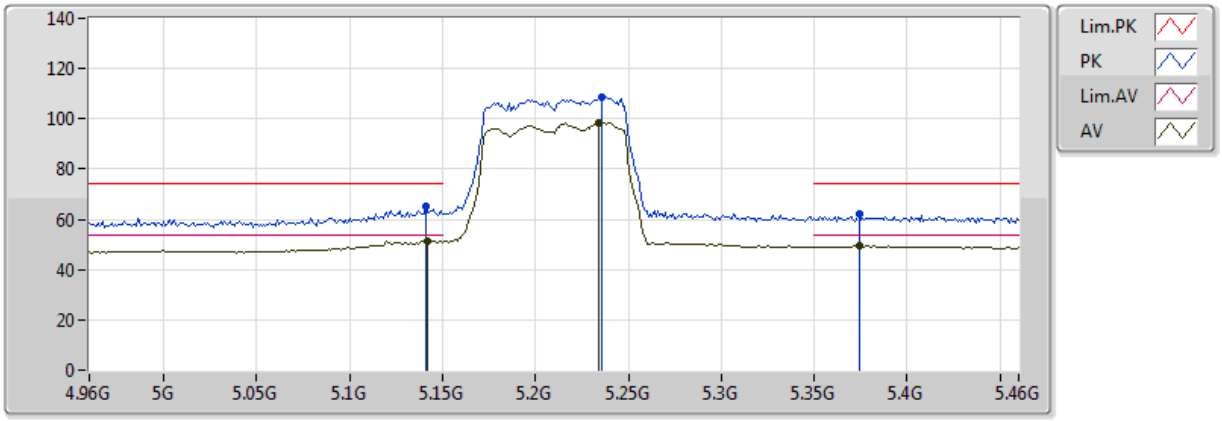


20170921
EUT Y_2TX
Setting 24
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.58448G	43.07	54.00	-10.93	16.72	3	Horizontal	4	1.43
PK	11.5836G	57.03	74.00	-16.97	16.72	3	Horizontal	4	1.43

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

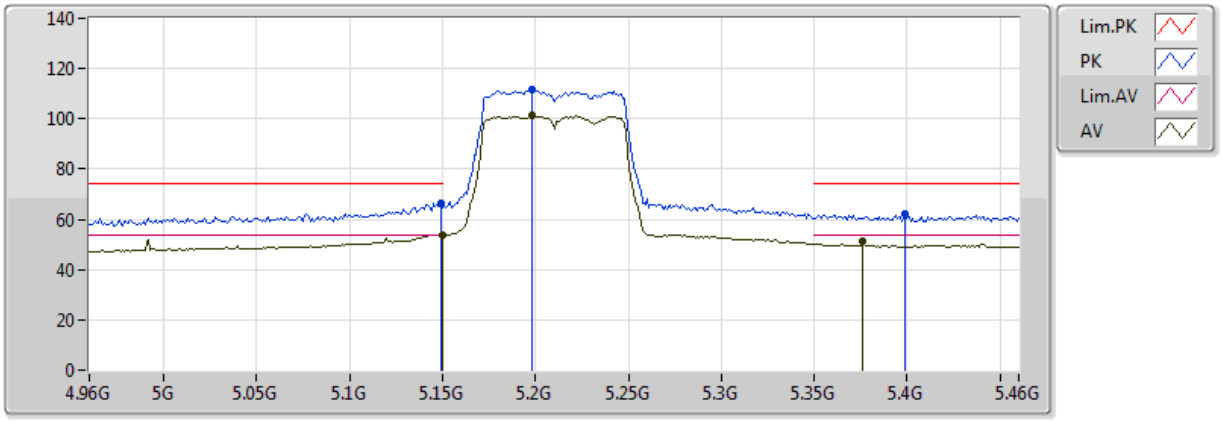


20170921
EUT Y_2TX
Setting 12
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.142G	51.58	54.00	-2.42	9.75	3	Vertical	360	1.70
AV	5.234G	98.41	Inf	-Inf	9.93	3	Vertical	360	1.70
AV	5.374G	49.37	54.00	-4.63	10.12	3	Vertical	360	1.70
PK	5.141G	65.06	74.00	-8.94	9.74	3	Vertical	360	1.70
PK	5.236G	108.60	Inf	-Inf	9.93	3	Vertical	360	1.70
PK	5.374G	61.92	74.00	-12.08	10.12	3	Vertical	360	1.70

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

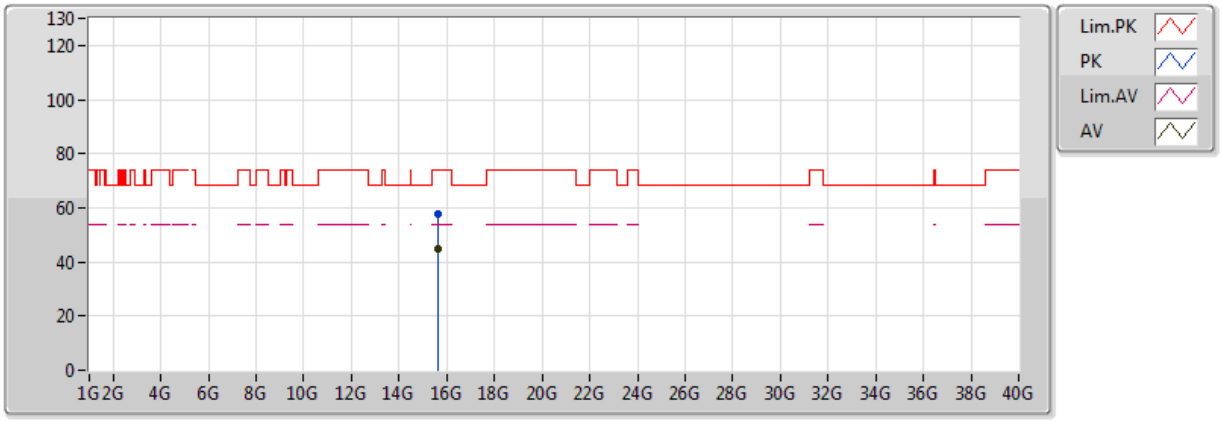


20170921
EUT Y_2TX
Setting 12
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.149995G	53.97	54.00	-0.03	9.76	3	Horizontal	0	1.50
AV	5.198G	101.62	Inf	-Inf	9.88	3	Horizontal	0	1.50
AV	5.376G	51.40	54.00	-2.60	10.12	3	Horizontal	0	1.50
PK	5.149G	66.19	74.00	-7.81	9.76	3	Horizontal	0	1.50
PK	5.198G	111.63	Inf	-Inf	9.88	3	Horizontal	0	1.50
PK	5.399G	61.90	74.00	-12.10	10.15	3	Horizontal	0	1.50

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

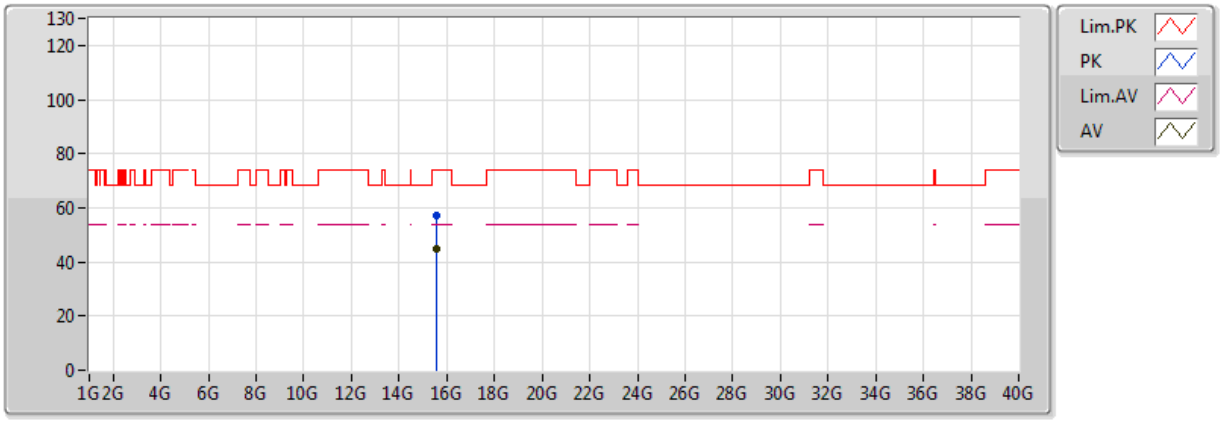


20170921
EUT Y_2TX
Setting 12
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.62344G	44.62	54.00	-9.38	18.52	3	Vertical	275	1.42
PK	15.60232G	57.81	74.00	-16.19	18.57	3	Vertical	275	1.42

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

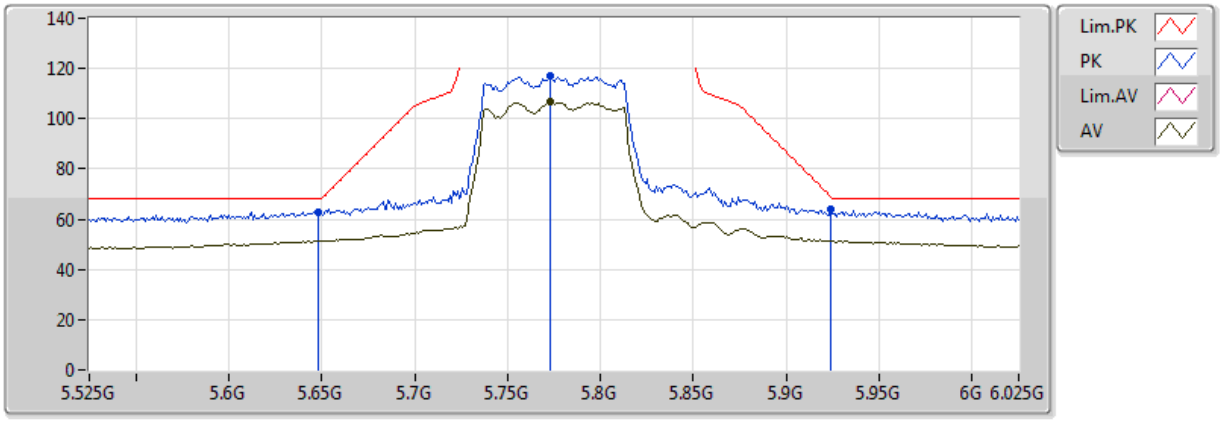


20170921
EUT Y_2TX
Setting 12
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	15.59784G	44.57	54.00	-9.43	18.57	3	Horizontal	123	1.64
PK	15.59976G	57.41	74.00	-16.59	18.57	3	Horizontal	123	1.64

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

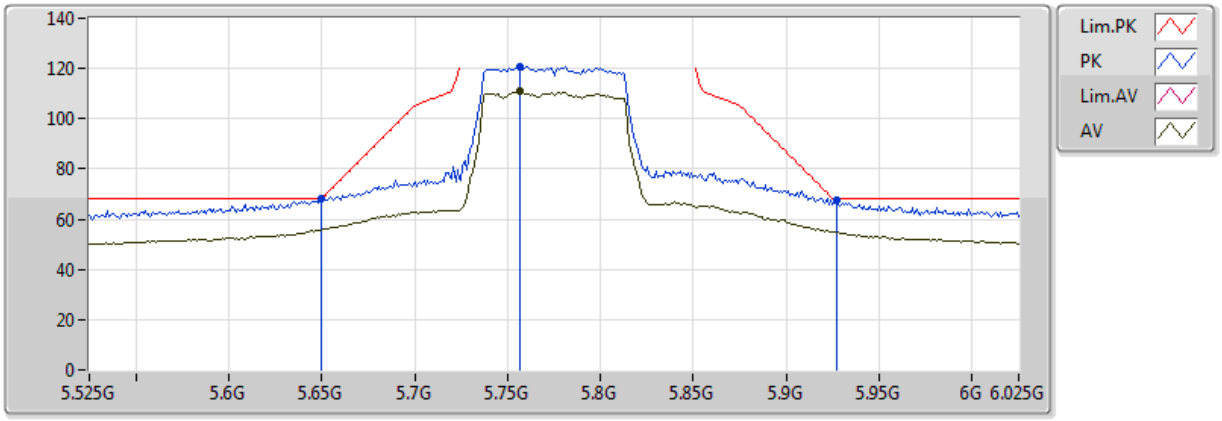


20170921
EUT Y_2TX
Setting 19
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.773G	106.55	Inf	-Inf	10.65	3	Vertical	348	1.49
PK	5.648G	62.80	68.20	-5.40	10.65	3	Vertical	348	1.49
PK	5.773G	116.88	Inf	-Inf	10.65	3	Vertical	348	1.49
PK	5.924G	64.07	68.94	-4.87	10.81	3	Vertical	348	1.49

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

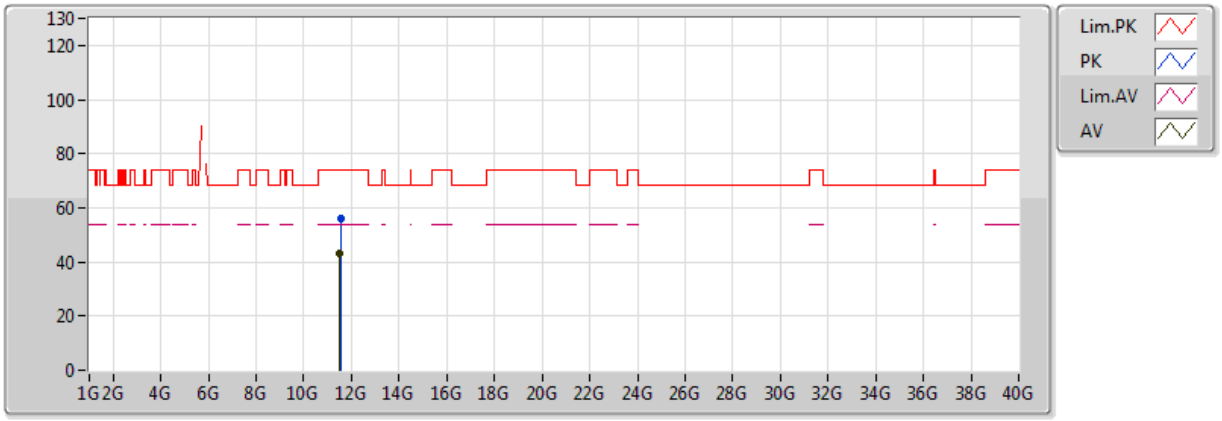


20170921
EUT Y_2TX
Setting 19
02-Z-1-10
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	5.757G	110.76	Inf	-Inf	10.65	3	Horizontal	354	1.50
PK	5.65G	68.18	68.20	-0.02	10.65	3	Horizontal	354	1.50
PK	5.757G	120.95	Inf	-Inf	10.65	3	Horizontal	354	1.50
PK	5.927G	67.48	68.20	-0.72	10.82	3	Horizontal	354	1.50

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

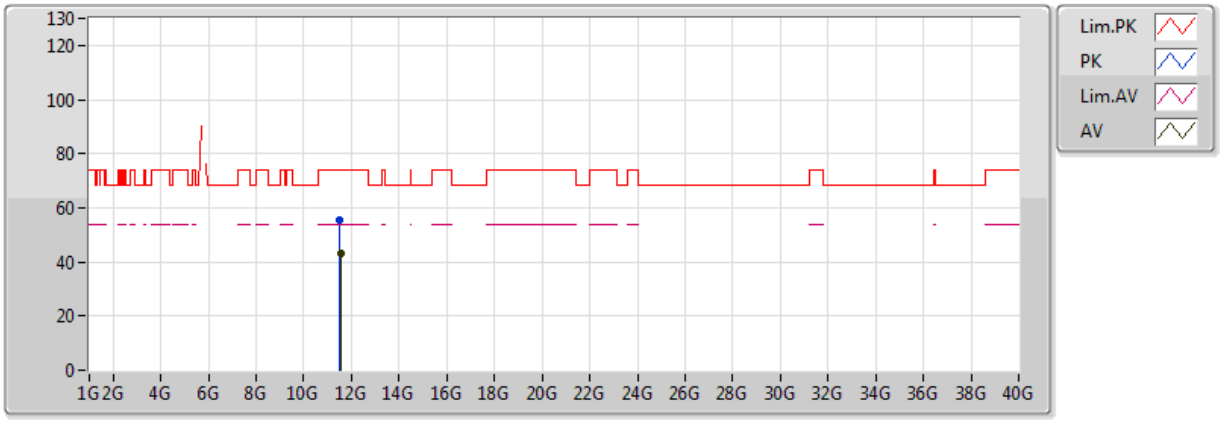


20170921
EUT Y_2TX
Setting 19
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.52072G	43.04	54.00	-10.96	16.64	3	Vertical	352	1.04
PK	11.53496G	56.20	74.00	-17.80	16.66	3	Vertical	352	1.04

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



20170921
EUT Y_2TX
Setting 19
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	11.53512G	42.94	54.00	-11.06	16.66	3	Horizontal	102	2.49
PK	11.51784G	55.56	74.00	-18.44	16.64	3	Horizontal	102	2.49

Mode: 20 MHz / Port 1

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9957	5199.9947	5199.9946	5199.9940
110.00	5199.9953	5199.9952	5199.9947	5199.9941
93.50	5199.9945	5199.9935	5199.9933	5199.9925
Max. Deviation (MHz)	0.0055	0.0065	0.0067	0.0075
Max. Deviation (ppm)	1.06	1.25	1.29	1.44
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-30	5199.9906	5199.9899	5199.9894	5199.9888
-20	5199.9918	5199.9910	5199.9909	5199.9902
-10	5199.9922	5199.9915	5199.9905	5199.9900
0	5199.9928	5199.9925	5199.9918	5199.9908
10	5199.9946	5199.9938	5199.9931	5199.9928
20	5199.9953	5199.9946	5199.9941	5199.9933
30	5199.9958	5199.9954	5199.9951	5199.9948
40	5199.9959	5199.9957	5199.9953	5199.9948
50	5199.9961	5199.9958	5199.9948	5199.9940
55	5199.9961	5199.9958	5199.9948	5199.9940
Max. Deviation (MHz)	0.0094	0.0101	0.0106	0.0112
Max. Deviation (ppm)	1.81	1.94	2.04	2.15
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9955	5784.9947	5784.9941	5784.9933
110.00	5784.9953	5784.9947	5784.9942	5784.9937
93.50	5784.9945	5784.9942	5784.9938	5784.9937
Max. Deviation (MHz)	0.0055	0.0058	0.0062	0.0067
Max. Deviation (ppm)	0.95	1.00	1.07	1.16
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-30	5784.9902	5784.9892	5784.9883	5784.9879
-20	5784.9911	5784.9909	5784.9902	5784.9898
-10	5784.9919	5784.9910	5784.9900	5784.9897
0	5784.9934	5784.9930	5784.9927	5784.9925
10	5784.9952	5784.9946	5784.9942	5784.9933
20	5784.9953	5784.9943	5784.9933	5784.9924
30	5784.9958	5784.9951	5784.9949	5784.9940
40	5784.9976	5784.9969	5784.9959	5784.9949
50	5784.9968	5784.9963	5784.9954	5784.9945
55	5784.9968	5784.9963	5784.9954	5784.9945
Max. Deviation (MHz)	0.0098	0.0108	0.0117	0.0121
Max. Deviation (ppm)	1.69	1.87	2.02	2.09
Result	Pass			

Mode: 40 MHz / Port 1

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9961	5189.9956	5189.9953	5189.9944
110.00	5189.9953	5189.9943	5189.9934	5189.9925
93.50	5189.9950	5189.9943	5189.9934	5189.9933
Max. Deviation (MHz)	0.0050	0.0057	0.0066	0.0075
Max. Deviation (ppm)	0.96	1.10	1.27	1.45
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-30	5189.9919	5189.9918	5189.9917	5189.9909
-20	5189.9922	5189.9912	5189.9906	5189.9901
-10	5189.9935	5189.9926	5189.9923	5189.9921
0	5189.9941	5189.9933	5189.9930	5189.9924
10	5189.9945	5189.9935	5189.9926	5189.9917
20	5189.9953	5189.9952	5189.9944	5189.9936
30	5189.9958	5189.9949	5189.9940	5189.9938
40	5189.9966	5189.9960	5189.9957	5189.9953
50	5189.9972	5189.9969	5189.9968	5189.9964
55	5189.9972	5189.9969	5189.9968	5189.9964
Max. Deviation (MHz)	0.0081	0.0088	0.0094	0.0099
Max. Deviation (ppm)	1.56	1.70	1.81	1.91
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9960	5754.9958	5754.9955	5754.9945
110.00	5754.9953	5754.9947	5754.9945	5754.9937
93.50	5754.9946	5754.9936	5754.9931	5754.9921
Max. Deviation (MHz)	0.0054	0.0064	0.0069	0.0079
Max. Deviation (ppm)	0.94	1.11	1.20	1.37
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-30	5754.9908	5754.9903	5754.9898	5754.9888
-20	5754.9919	5754.9916	5754.9911	5754.9901
-10	5754.9920	5754.9912	5754.9911	5754.9903
0	5754.9935	5754.9928	5754.9918	5754.9913
10	5754.9948	5754.9941	5754.9937	5754.9927
20	5754.9953	5754.9951	5754.9943	5754.9936
30	5754.9958	5754.9957	5754.9951	5754.9942
40	5754.9972	5754.9968	5754.9961	5754.9951
50	5754.9958	5754.9949	5754.9943	5754.9941
55	5754.9958	5754.9949	5754.9943	5754.9941
Max. Deviation (MHz)	0.0092	0.0097	0.0102	0.0112
Max. Deviation (ppm)	1.60	1.69	1.77	1.95
Result	Pass			

Mode: 80 MHz / Port 1

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9960	5209.9958	5209.9957	5209.9953
110.00	5209.9953	5209.9949	5209.9944	5209.9936
93.50	5209.9948	5209.9943	5209.9936	5209.9931
Max. Deviation (MHz)	0.0052	0.0057	0.0064	0.0069
Max. Deviation (ppm)	1.00	1.09	1.23	1.32
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-30	5209.9910	5209.9902	5209.9893	5209.9889
-20	5209.9919	5209.9910	5209.9903	5209.9902
-10	5209.9933	5209.9932	5209.9925	5209.9923
0	5209.9948	5209.9943	5209.9933	5209.9925
10	5209.9949	5209.9948	5209.9945	5209.9944
20	5209.9953	5209.9951	5209.9943	5209.9942
30	5209.9958	5209.9948	5209.9938	5209.9934
40	5209.9961	5209.9959	5209.9953	5209.9947
50	5209.9971	5209.9964	5209.9960	5209.9951
55	5209.9971	5209.9964	5209.9960	5209.9951
Max. Deviation (MHz)	0.0090	0.0098	0.0107	0.0111
Max. Deviation (ppm)	1.73	1.88	2.05	2.13
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9957	5774.9956	5774.9951	5774.9946
110.00	5774.9953	5774.9947	5774.9938	5774.9934
93.50	5774.9951	5774.9949	5774.9942	5774.9937
Max. Deviation (MHz)	0.0049	0.0053	0.0062	0.0066
Max. Deviation (ppm)	0.85	0.92	1.07	1.14
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
-30	5774.9905	5774.9901	5774.9894	5774.9889
-20	5774.9920	5774.9918	5774.9913	5774.9905
-10	5774.9929	5774.9922	5774.9916	5774.9914
0	5774.9932	5774.9926	5774.9919	5774.9918
10	5774.9950	5774.9949	5774.9948	5774.9943
20	5774.9953	5774.9946	5774.9941	5774.9931
30	5774.9958	5774.9955	5774.9947	5774.9942
40	5774.9966	5774.9965	5774.9962	5774.9952
50	5774.9956	5774.9952	5774.9946	5774.9945
55	5774.9956	5774.9952	5774.9946	5774.9945
Max. Deviation (MHz)	0.0095	0.0099	0.0106	0.0111
Max. Deviation (ppm)	1.65	1.71	1.84	1.92
Result	Pass			