FCC Test Report

Equipment	:	**MetroLinq 60 LW**
Brand Name	:	**Ignitenet**
Model No.	:	**ML-60-LW**
FCC ID	:	**HEDML60LW**
Standard	:	**47 CFR FCC Part 15.407**
Operating Band	:	**5150 MHz – 5250 MHz** **5725 MHz – 5850 MHz**
Applicant	:	**Accton Technology Corp** **No. 1, Creation Rd. III, Science-based Industrial Park** **Hsin Chu 30077, Taiwan**
Manufacturer (1)	:	**Joy Technology (Shen Zhen) Co. Ltd** **HengKeng Ind., Shangpai, Shangwu, Aiqun Rd., Shiyan Town, Shenzhen 518108 China**
Manufacturer (2)	:	**Accton Technology Corp** **No. 1, Creation Rd. III, Science-based Industrial Park** **Hsin Chu 30077, Taiwan**
Function	:	☒ **Outdoor;** ☐ **Indoor;** ☐ **Fixed P2P** ☐ **Client**

The product sample received on Jan. 09, 2018 and completely tested on Jan. 24, 2018. 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

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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
FR7D2234-01AB	Rev. 01	Initial issue of report	Jan. 25, 2018

1 General Description

1.1 Information

1.1.1 RF General Information

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

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

Note 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: HEDML60PRS4601
Note 3: WLAN and 60G doesn't work at the same time.

1.1.2 Antenna Information

For WLAN 2.4GHz and WLAN 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Remark
1	Accton	120G00000186X	Dipole Antenna	MMCX	7	2.4GHz
2	Accton	120G00000181X	Sector Antenna	MMCX	15	5GHz

Note: The EUT has two sets of antenna, and each set contains two antennas.

1. For WLAN 2.4GHz:

   Port 1 and Port 2 could transmit/receive simultaneously.

   Port 1 (Connect to Ant. 1) and Port 2 (Connect to Ant. 1).

2. For WLAN 5GHz:

   Port 1 and Port 2 could transmit/receive simultaneously.

   Port 1 (Connect to Ant. 2) and Port 2 (Connect to Ant. 2).

For 60GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Accton	120300000225X	Chip Ant.	N/A	17.2

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.921	0.357	2.057m	1k
802.11ac VHT20	0.946	0.241	5.005m	300
802.11ac VHT40	0.938	0.278	2.409m	1k
802.11ac VHT80	0.858	0.665	1.133m	1k

1.1.4 EUT Operational Condition

EUT Power Type	From PoE or DC 24V			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Test Software Version	QRCT			

1.2 Testing Applied Standards

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

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

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Paul Chen	21°C / 65%	Jan. 15, 2018~Jan. 24, 2018
Radiated	03CH01-CB (below 1GHz)	Benson Su	23.5°C / 65%	Jan. 19, 2018
Radiated	03CH01-CB (above 1GHz)	Nylec Chang, Stim Song	22°C / 54%	Jan. 09, 2018~Jan. 13, 2018
AC Conduction	CO01-CB	Max Lin, Ryo Fan	24°C / 52%	Jan. 18, 2018

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	12
5200MHz	13
5240MHz	14
5745MHz	12
5785MHz	12.5
5825MHz	12.5
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	11
5200MHz	12
5240MHz	14
5745MHz	11.5
5785MHz	11.5
5825MHz	12.5
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	11.5
5230MHz	12
5755MHz	12
5795MHz	13
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	11.5
5775MHz	12

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	CTX
1	WLAN 2.4GHz
2	WLAN 5GHz
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	CTX
1	WLAN 2.4GHz
2	WLAN 5GHz
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz+WLAN 5GHz+60GHz
Refer to Sporton Test Report No.: FA7D2234-01 for Co-location RF Exposure Evaluation.	

Note: 1. The EUT can only be used at Y axis position.
2. The PoE is for measurement only, would not be marketed, and its information as below:

Equipment	Brand Name	Model Name	FCC ID
PoE	GME	GME241DA-240100G	DoC

2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.4 Accessories

N/A

2.5 Support Equipment

For Test Site No: CO01-CB

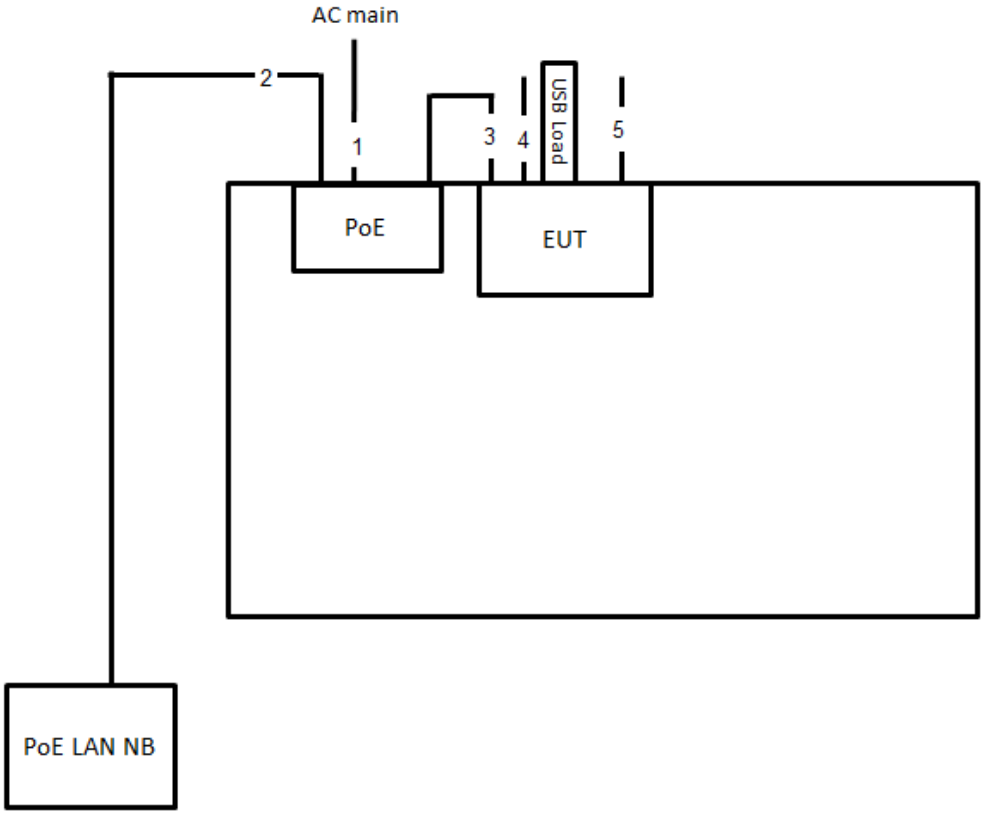
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E6430	DoC
2	Flash disk	Silicon Power	I-Series	DoC
3	PoE	GME	GME241DA-240100G	DoC

For Test Site No: 03CH01-CB and TH01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E4300	DoC
2	PoE	GME	GME241DA-240100G	DoC

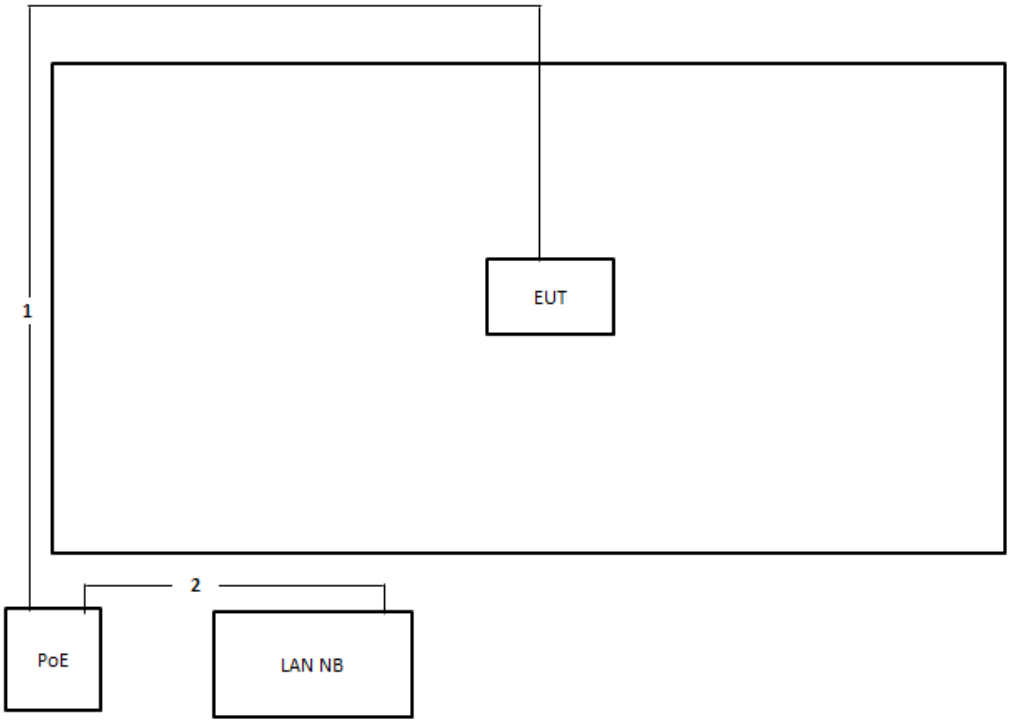
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



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

Test Setup Diagram - Radiated Test



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

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

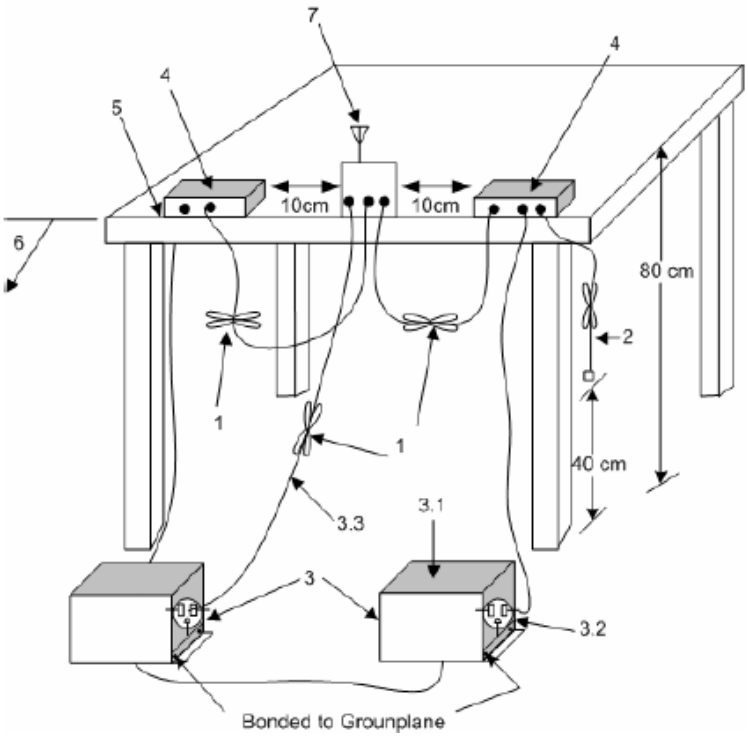
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

3.2.2 Measuring Instruments

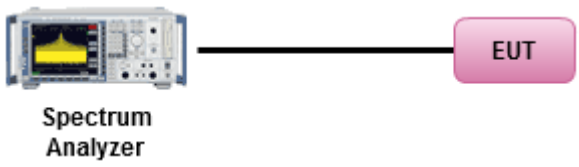
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

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

3.2.4 Test Setup

Emission Bandwidth



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

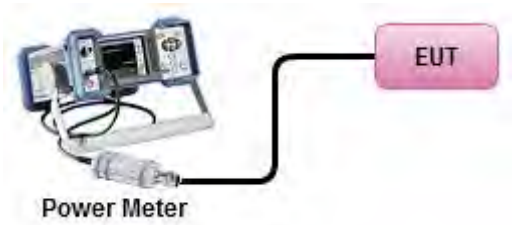
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

3.3.4 Test Setup

RF Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

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

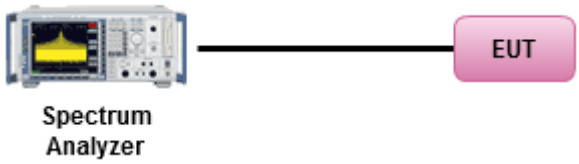
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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

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

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

3.5.2 Measuring Instruments

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

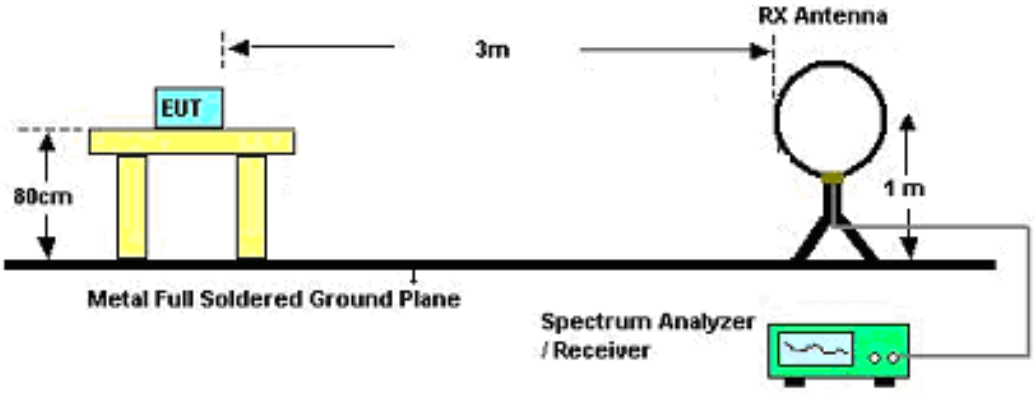
3.5.3 Test Procedures

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

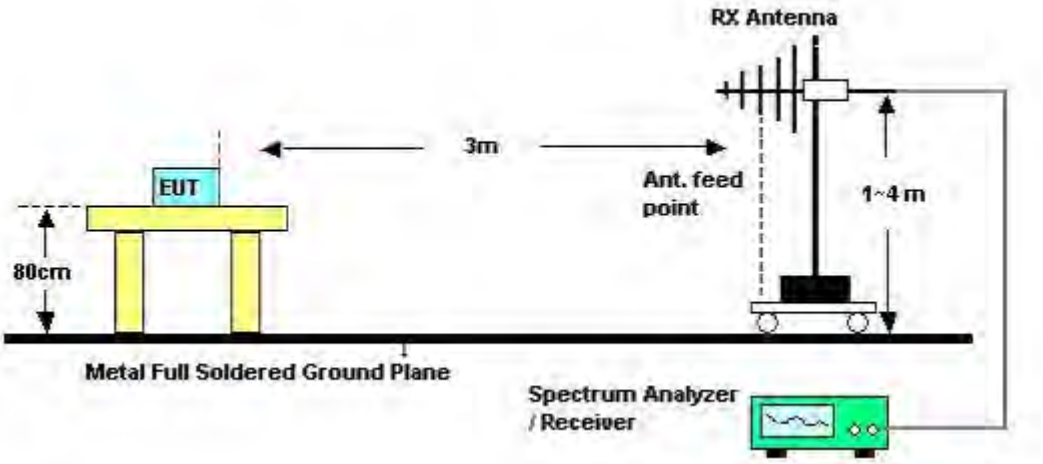
3.5.4 Test Setup

Transmitter Radiated Unwanted Emissions

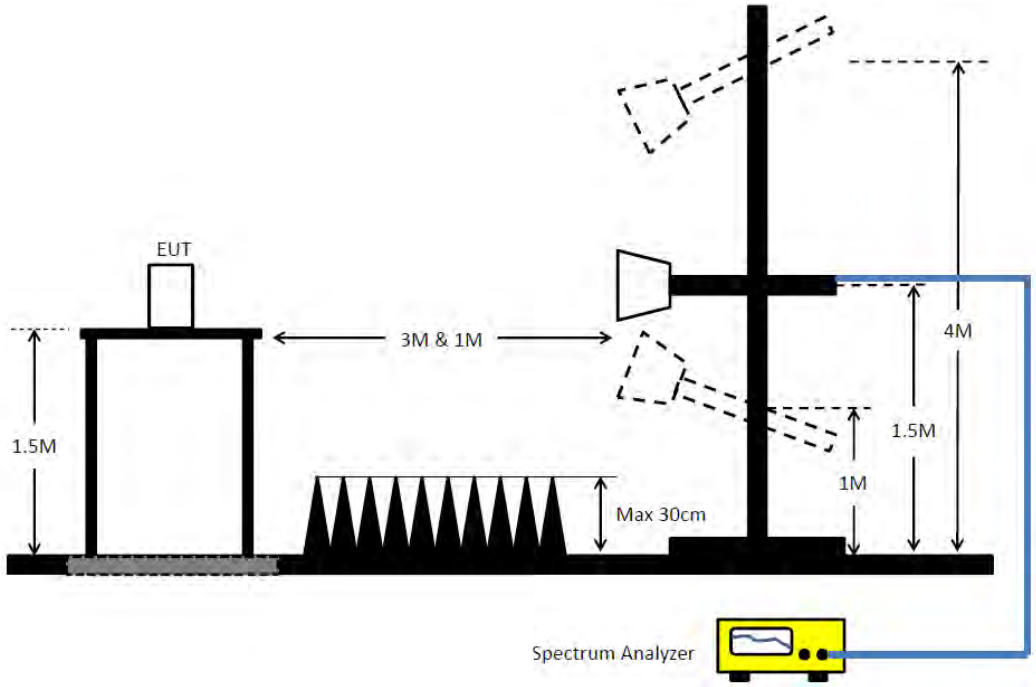
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Frequency Stability

3.6.1 Frequency Stability Limit

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

3.6.2 Measuring Instruments

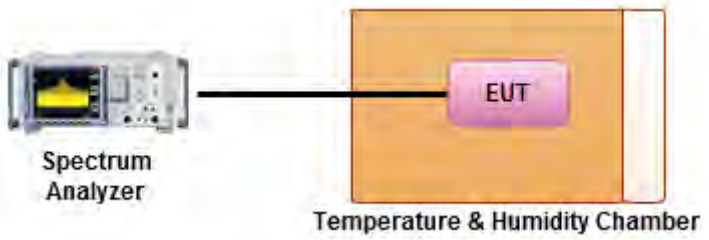
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
▪ Refer as ANSI C63.10, clause 6.8 for frequency stability tests	
	▪ Frequency stability with respect to ambient temperature
	▪ Frequency stability when varying supply voltage
	▪ Extreme temperature is 0˚C~50˚C.

3.6.4 Test Setup

Frequency Stability



3.6.5 Test Result of Frequency Stability

Refer as Appendix F

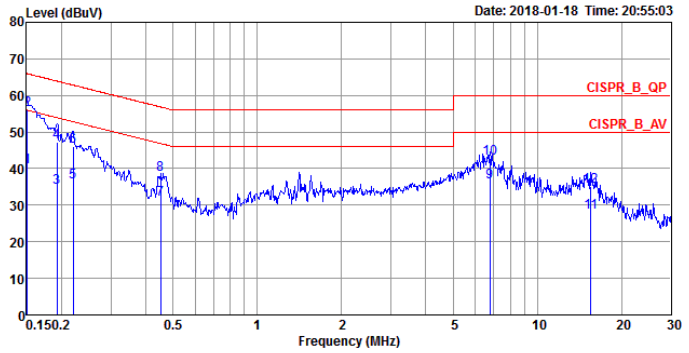
4 Test Equipment and Calibration Data

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. 20, 2017	Dec. 19, 2018	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 29, 2017	Dec. 28, 2018	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	May 22, 2018	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 20, 2017	Nov. 19, 2018	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. 09, 2018	Jan. 08, 2019	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. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 21, 2017	Dec. 20, 2018	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 02, 2017	Jun. 01, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 20, 2017	Nov. 19, 2018	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.

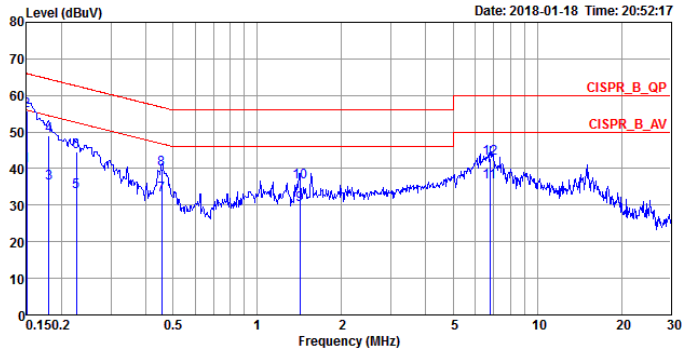
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	CTX		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1508	40.58	-15.38	55.96	30.32	10.10	0.16	Average	NEUTRAL
2	0.1508	56.07	-9.89	65.96	45.81	10.10	0.16	QP	NEUTRAL
3	0.1924	34.84	-19.09	53.93	24.70	10.01	0.13	Average	NEUTRAL
4	0.1924	47.20	-16.73	63.93	37.06	10.01	0.13	QP	NEUTRAL
5	0.2197	36.25	-16.58	52.83	26.09	10.05	0.11	Average	NEUTRAL
6	0.2197	46.03	-16.80	62.83	35.87	10.05	0.11	QP	NEUTRAL
7	0.4516	31.54	-15.31	46.85	21.27	10.24	0.03	Average	NEUTRAL
8	0.4516	38.43	-18.42	56.85	28.16	10.24	0.03	QP	NEUTRAL
9	6.7691	36.45	-13.55	50.00	26.25	10.07	0.13	Average	NEUTRAL
10	6.7691	42.86	-17.14	60.00	32.66	10.07	0.13	QP	NEUTRAL
11	15.5523	27.91	-22.09	50.00	17.44	10.28	0.19	Average	NEUTRAL
12	15.5523	35.20	-24.80	60.00	24.73	10.28	0.19	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	CTX		



	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	40.60	-15.40	56.00	30.44	10.00	0.16	Average	LINE
2	0.1500	55.94	-10.06	66.00	45.78	10.00	0.16	QP	LINE
3	0.1806	36.07	-18.39	54.46	26.02	9.91	0.14	Average	LINE
4	0.1806	49.00	-15.46	64.46	38.95	9.91	0.14	QP	LINE
5	0.2256	33.75	-18.86	52.61	23.72	9.92	0.11	Average	LINE
6	0.2256	44.54	-18.07	62.61	34.51	9.92	0.11	QP	LINE
7	0.4564	32.70	-14.06	46.76	22.72	9.95	0.03	Average	LINE
8	0.4564	39.76	-17.00	56.76	29.78	9.95	0.03	QP	LINE
9	1.4182	30.02	-15.98	46.00	19.86	9.96	0.20	Average	LINE
10	1.4182	36.40	-19.60	56.00	26.24	9.96	0.20	QP	LINE
11	6.7691	36.40	-13.60	50.00	26.23	10.04	0.13	Average	LINE
12	6.7691	42.77	-17.23	60.00	32.60	10.04	0.13	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	22.025M	16.542M	16M5D1D	21.475M	16.467M
802.11ac VHT20_Nss1,(MCS0)_2TX	23.4M	17.741M	17M7D1D	22.8M	17.691M
802.11ac VHT40_Nss1,(MCS0)_2TX	45.05M	36.282M	36M3D1D	44.15M	36.232M
802.11ac VHT80_Nss1,(MCS0)_2TX	89.7M	76.062M	76M1D1D	88.5M	76.062M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.375M	16.542M	16M5D1D	16.325M	16.467M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.6M	17.766M	17M8D1D	17.575M	17.716M
802.11ac VHT40_Nss1,(MCS0)_2TX	36.3M	36.282M	36M3D1D	35.65M	36.232M
802.11ac VHT80_Nss1,(MCS0)_2TX	76.4M	76.262M	76M3D1D	76.4M	75.862M

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

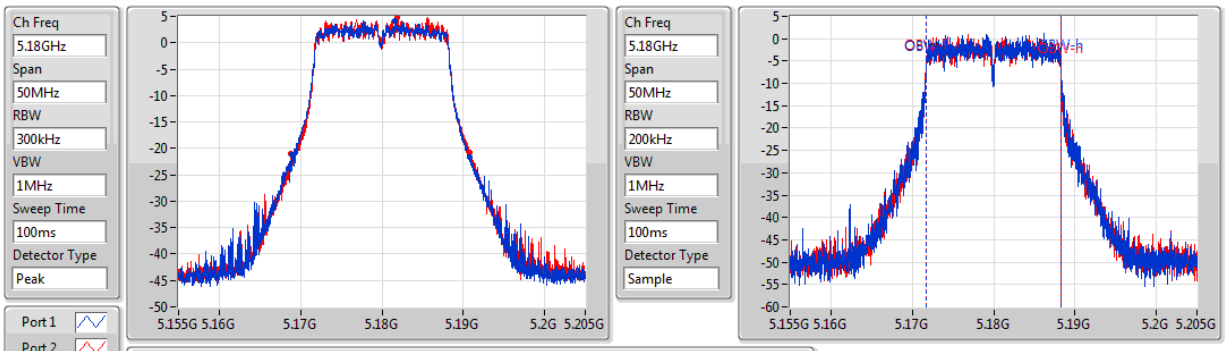
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.875M	16.517M	21.975M	16.517M
5200MHz	Pass	Inf	21.925M	16.542M	21.775M	16.542M
5240MHz	Pass	Inf	22.025M	16.517M	21.475M	16.467M
5745MHz	Pass	500k	16.325M	16.542M	16.375M	16.492M
5785MHz	Pass	500k	16.35M	16.517M	16.375M	16.467M
5825MHz	Pass	500k	16.325M	16.517M	16.35M	16.517M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	23.4M	17.716M	22.9M	17.741M
5200MHz	Pass	Inf	23.225M	17.691M	22.9M	17.741M
5240MHz	Pass	Inf	23.375M	17.716M	22.8M	17.741M
5745MHz	Pass	500k	17.6M	17.741M	17.575M	17.716M
5785MHz	Pass	500k	17.6M	17.741M	17.575M	17.716M
5825MHz	Pass	500k	17.575M	17.716M	17.6M	17.766M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	44.15M	36.282M	45.05M	36.232M
5230MHz	Pass	Inf	44.6M	36.282M	44.8M	36.282M
5755MHz	Pass	500k	36.3M	36.232M	36.3M	36.282M
5795MHz	Pass	500k	35.65M	36.232M	36.3M	36.282M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	89.7M	76.062M	88.5M	76.062M
5775MHz	Pass	500k	76.4M	76.262M	76.4M	75.862M

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

24/01/2018

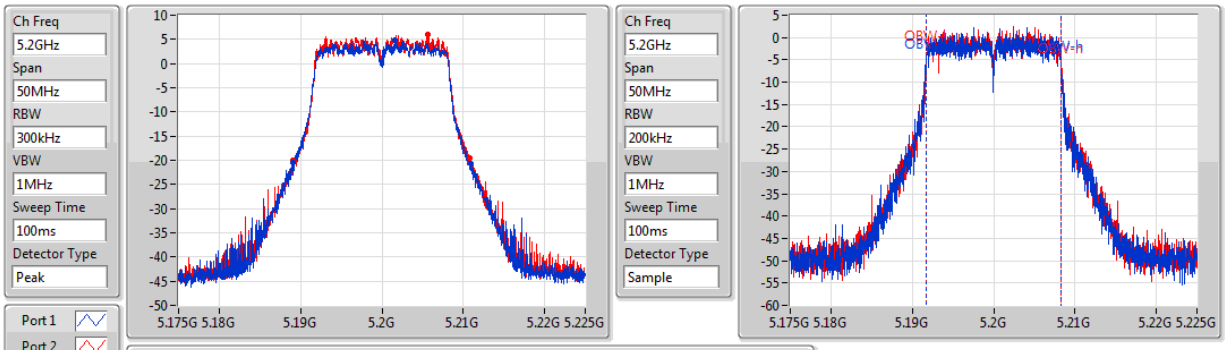


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.875M	5.16895G	5.190825G	16.517M	5.171729G	5.188246G	Inf	1
21.975M	5.16885G	5.190825G	16.517M	5.171729G	5.188246G	Inf	2

802.11a_Nss1,(6Mbps)_2TX — EBW

5200MHz

24/01/2018

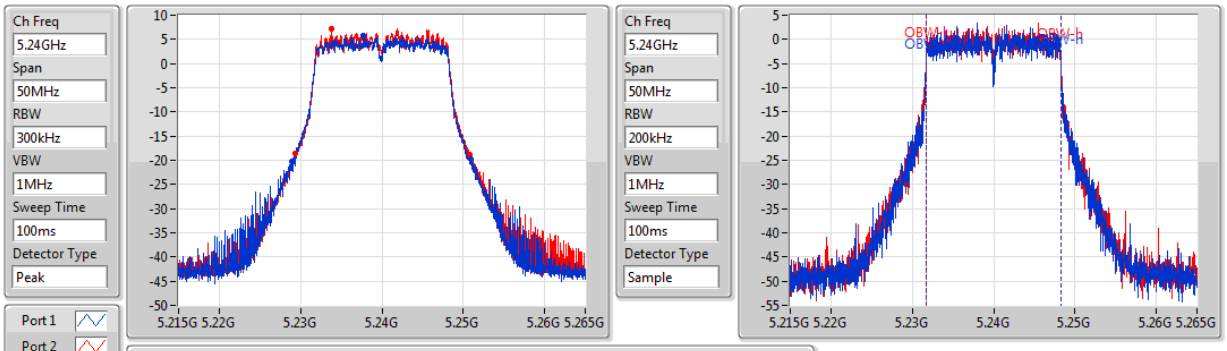


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.925M	5.189G	5.210925G	16.542M	5.191704G	5.208246G	Inf	1
21.775M	5.189075G	5.21085G	16.542M	5.191729G	5.208271G	Inf	2

802.11a_Nss1,(6Mbps)_2TX — EBW

5240MHz

24/01/2018

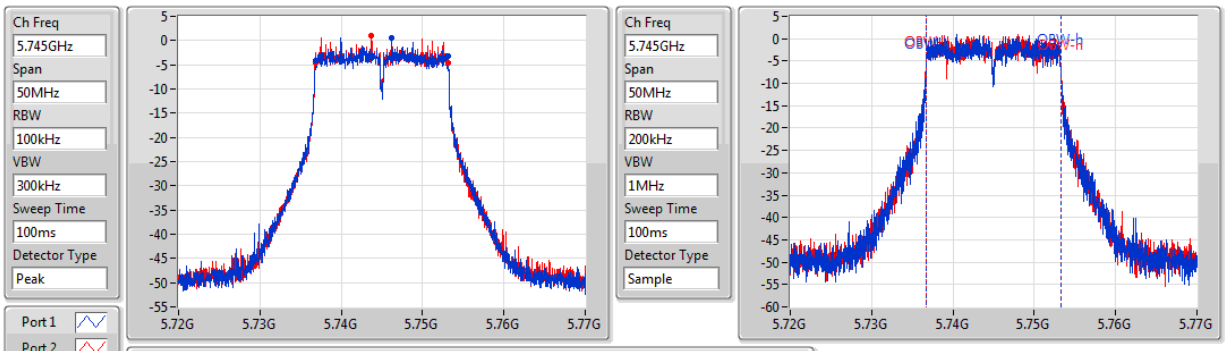


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.025M	5.228925G	5.25095G	16.517M	5.231729G	5.248246G	Inf	1
21.475M	5.229325G	5.2508G	16.467M	5.231754G	5.248221G	Inf	2

802.11a_Nss1,(6Mbps)_2TX — EBW

5745MHz

24/01/2018

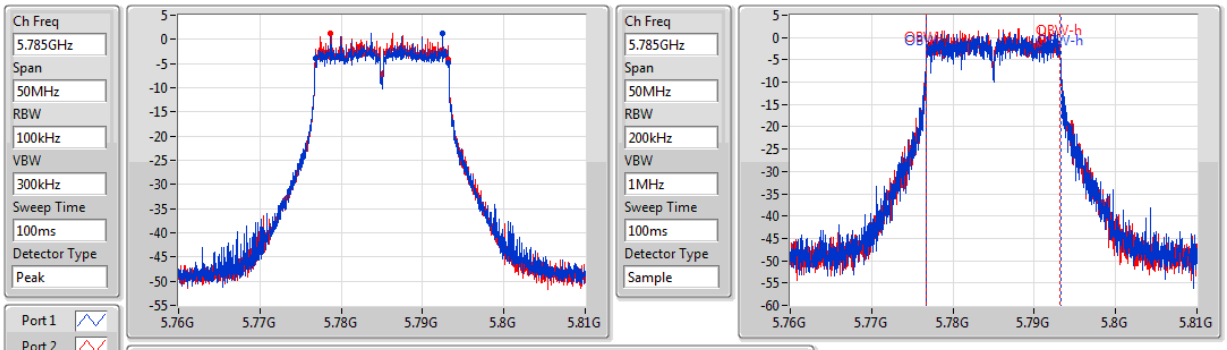


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	5.736825G	5.75315G	16.542M	5.736704G	5.753246G	500k	1
16.375M	5.7368G	5.753175G	16.492M	5.736729G	5.753221G	500k	2

802.11a_Nss1,(6Mbps)_2TX — EBW

5785MHz

24/01/2018

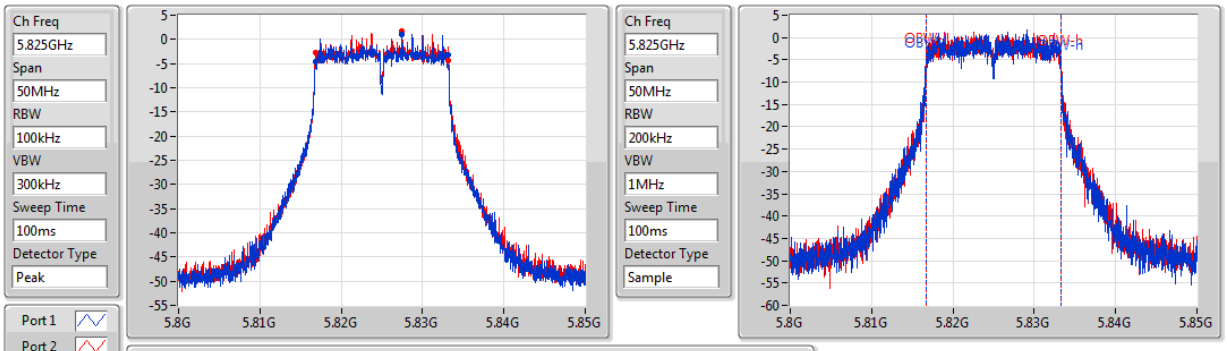


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	5.776825G	5.793175G	16.517M	5.776729G	5.793246G	500k	1
16.375M	5.7768G	5.793175G	16.467M	5.776729G	5.793196G	500k	2

802.11a_Nss1,(6Mbps)_2TX — EBW

5825MHz

24/01/2018

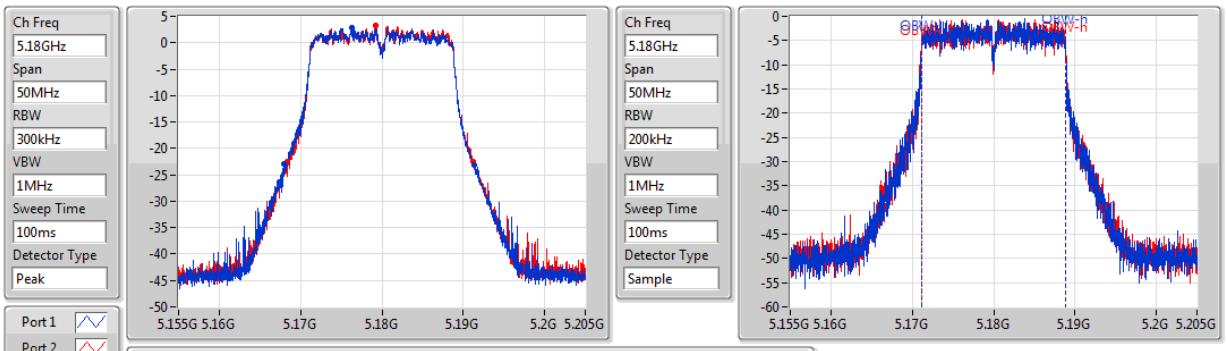


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	5.816825G	5.83315G	16.517M	5.816729G	5.833246G	500k	1
16.35M	5.816825G	5.833175G	16.517M	5.816729G	5.833246G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

5180MHz

24/01/2018

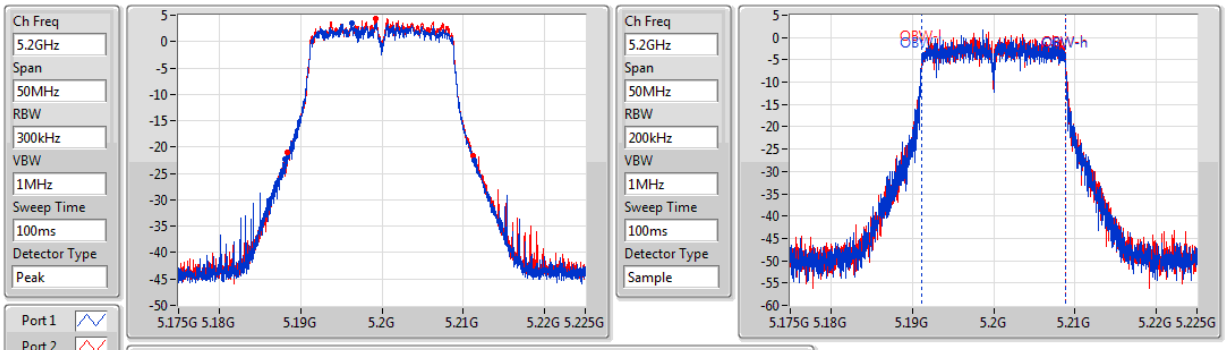


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.4M	5.167975G	5.191375G	17.716M	5.171104G	5.188821G	Inf	1
22.9M	5.168375G	5.191275G	17.741M	5.171104G	5.188846G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

5200MHz

24/01/2018

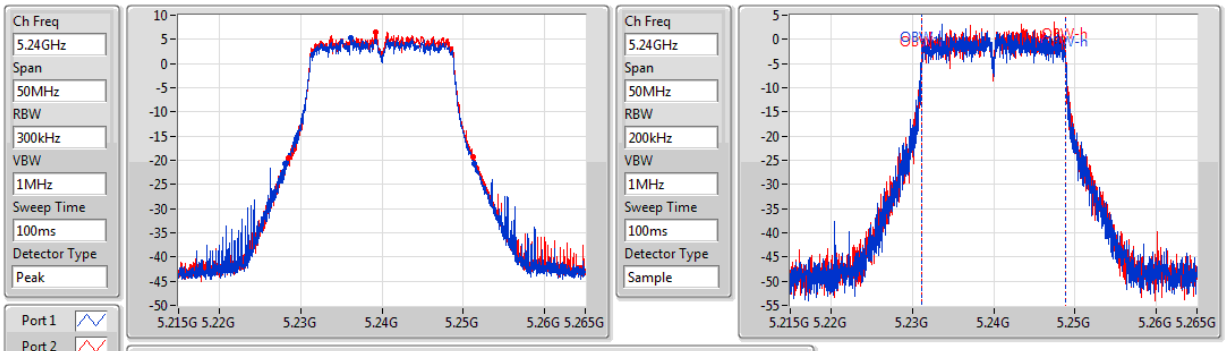


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.225M	5.188125G	5.21135G	17.691M	5.191129G	5.208821G	Inf	1
22.9M	5.188375G	5.211275G	17.741M	5.191129G	5.208871G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

5240MHz

24/01/2018

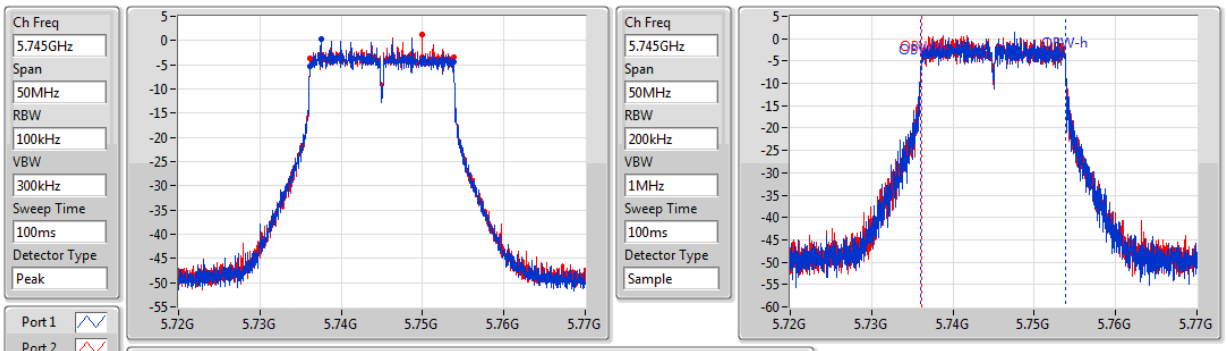


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.375M	5.228025G	5.2514G	17.716M	5.231129G	5.248846G	Inf	1
22.8M	5.22845G	5.25125G	17.741M	5.231104G	5.248846G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

5745MHz

24/01/2018

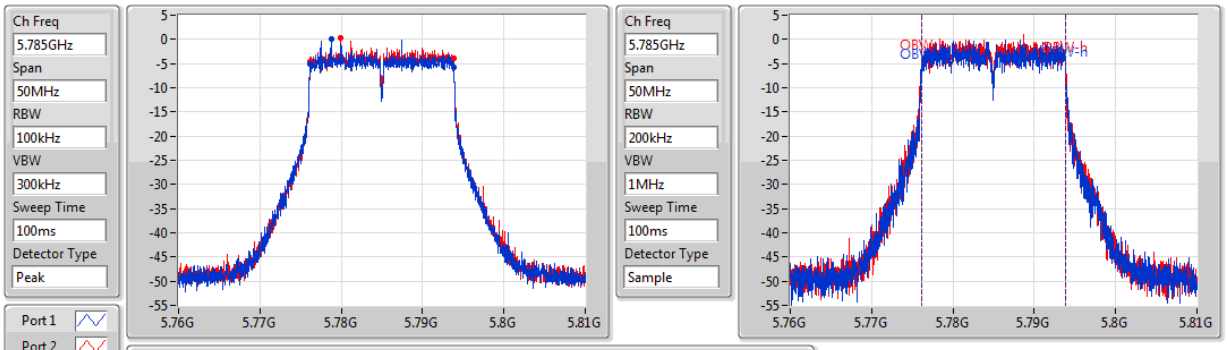


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.6M	5.736175G	5.753775G	17.741M	5.736079G	5.753821G	500k	1
17.575M	5.7362G	5.753775G	17.716M	5.736104G	5.753821G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

5785MHz

24/01/2018

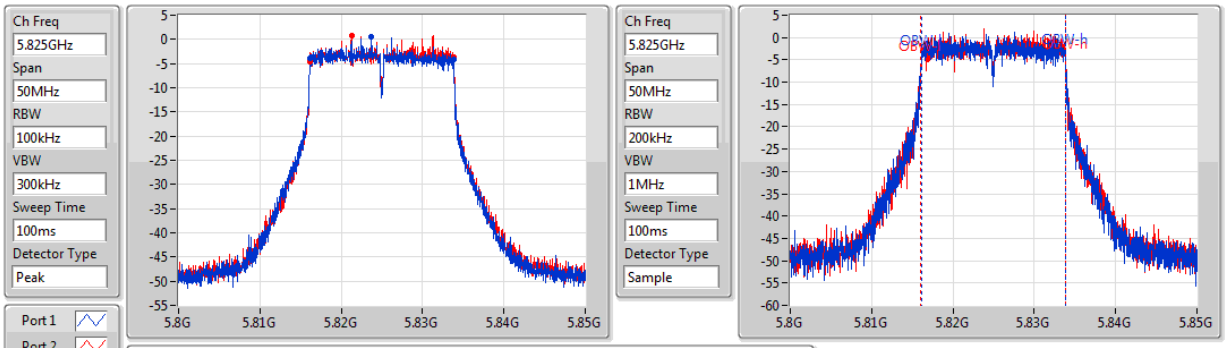


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.6M	5.7762G	5.7938G	17.741M	5.776104G	5.793846G	500k	1
17.575M	5.7762G	5.793775G	17.716M	5.776129G	5.793846G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX — EBW

5825MHz

24/01/2018

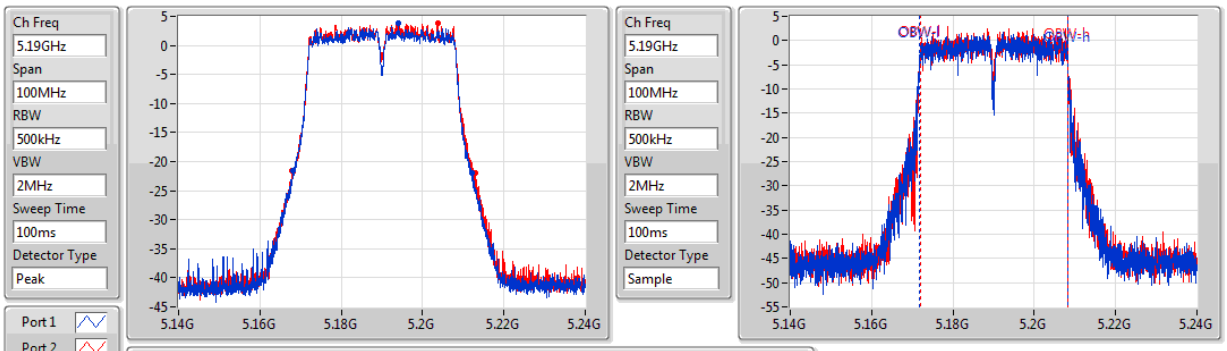


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	5.8162G	5.833775G	17.716M	5.816104G	5.833821G	500k	1
17.6M	5.816175G	5.833775G	17.766M	5.816079G	5.833846G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX — EBW

5190MHz

24/01/2018

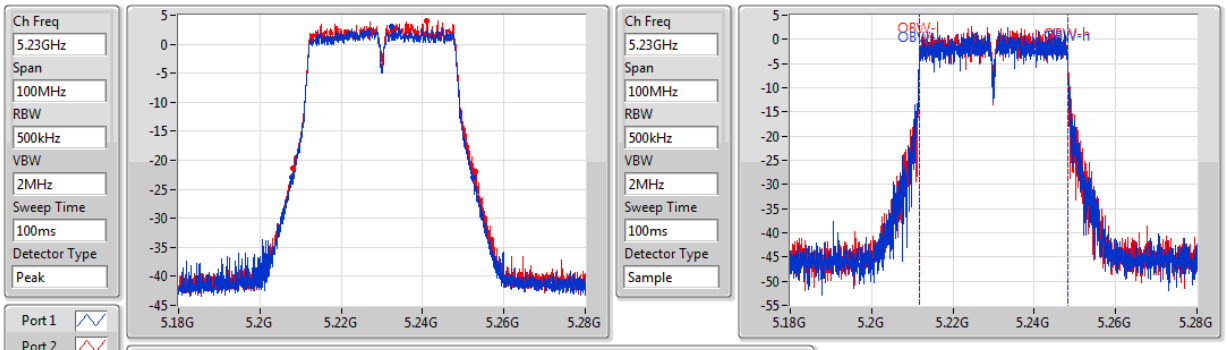


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
44.15M	5.16805G	5.2122G	36.282M	5.171859G	5.208141G	Inf	1
45.05M	5.16785G	5.2129G	36.232M	5.171909G	5.208141G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX — EBW

5230MHz

24/01/2018

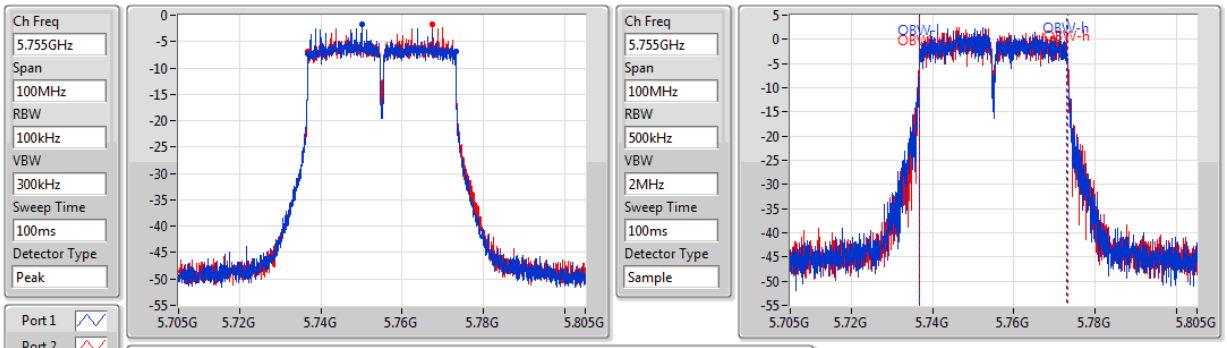


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
44.6M	5.2078G	5.2524G	36.282M	5.211859G	5.248141G	Inf	1
44.8M	5.2082G	5.253G	36.282M	5.211859G	5.248141G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX — EBW

5755MHz

24/01/2018

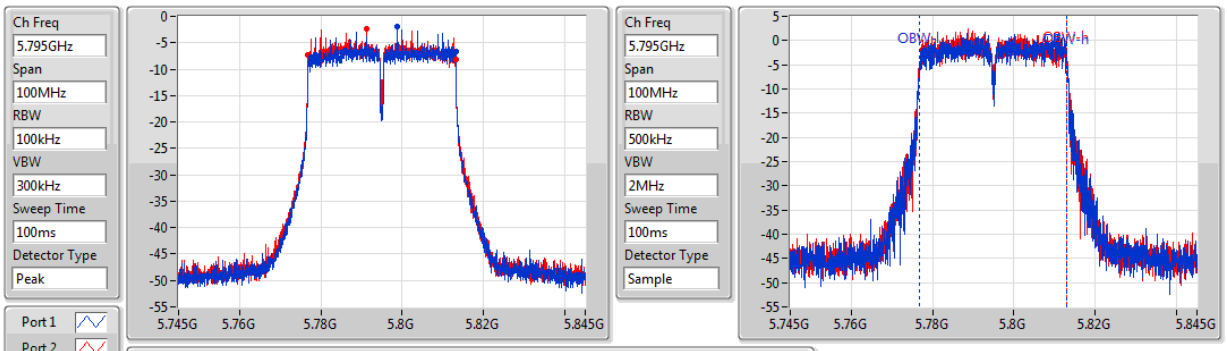


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	5.73685G	5.77315G	36.232M	5.736859G	5.773091G	500k	1
36.3M	5.73685G	5.77315G	36.282M	5.736859G	5.773141G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX — EBW

5795MHz

24/01/2018

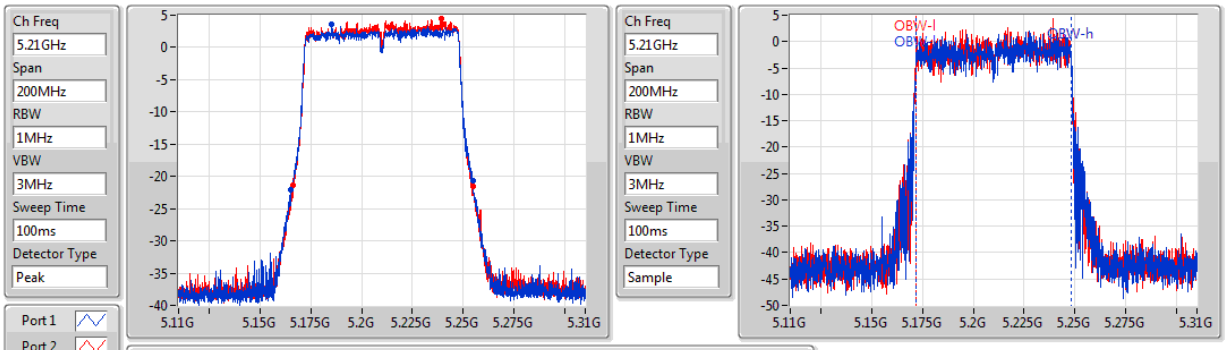


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.65M	5.7775G	5.81315G	36.232M	5.776859G	5.813091G	500k	1
36.3M	5.77685G	5.81315G	36.282M	5.776809G	5.813091G	500k	2

802.11ac VHT80_Nss1,(MCS0)_2TX — EBW

5210MHz

24/01/2018

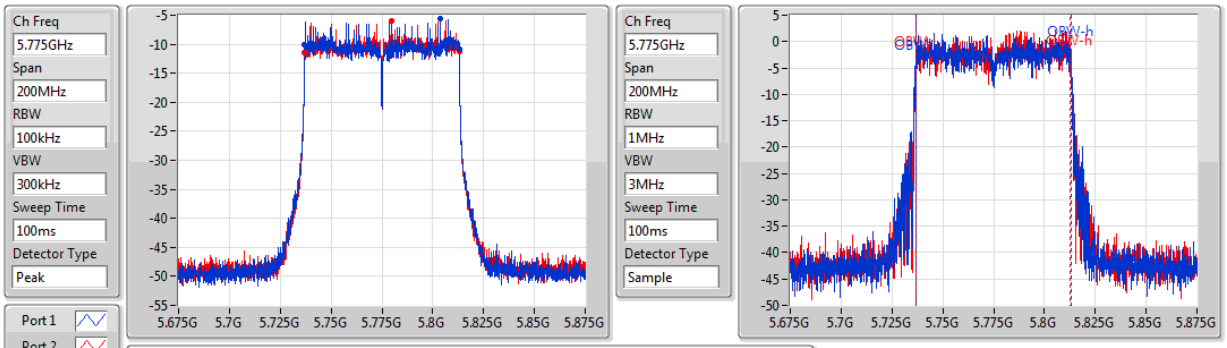


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
89.7M	5.1653G	5.255G	76.062M	5.172019G	5.248081G	Inf	1
88.5M	5.1662G	5.2547G	76.062M	5.171919G	5.247981G	Inf	2

802.11ac VHT80_Nss1,(MCS0)_2TX — EBW

5775MHz

24/01/2018



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
76.4M	5.7368G	5.8132G	76.262M	5.736819G	5.813081G	500k	1
76.4M	5.7368G	5.8132G	75.862M	5.737019G	5.812881G	500k	2

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	16.77	0.04753	31.77/6.86	1.50314/0.00485
802.11ac VHT20_Nss1,(MCS0)_2TX	17.68	0.05861	32.68/7.77	1.85353/0.00598
802.11ac VHT40_Nss1,(MCS0)_2TX	16.07	0.04046	31.07/6.16	1.27938/0.00413
802.11ac VHT80_Nss1,(MCS0)_2TX	15.67	0.03690	30.67/5.76	1.16681/0.00377
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.73	0.03741	30.73	1.18304
802.11ac VHT20_Nss1,(MCS0)_2TX	15.80	0.03802	30.80	1.20226
802.11ac VHT40_Nss1,(MCS0)_2TX	16.63	0.04603	31.63	1.45546
802.11ac VHT80_Nss1,(MCS0)_2TX	15.06	0.03206	30.06	1.01391

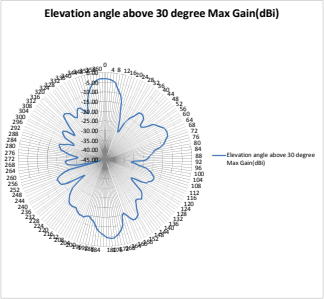
Result

Mode	Result	Directional Gain (Output Power) / Gain-Elevation 30° (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP / EIRP-Elevation 30° (dBm)	EIRP Limit / EIRP Limit-Elevation 30° (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	15.00/-9.91	12.50	13.00	15.77	21.00	30.77/5.86	36.00/21.00
5200MHz	Pass	15.00/-9.91	13.07	13.58	16.34	21.00	31.34/6.43	36.00/21.00
5240MHz	Pass	15.00/-9.91	13.51	14.00	16.77	21.00	31.77/6.86	36.00/21.00
5745MHz	Pass	15.00	12.28	12.68	15.49	21.00	30.49	36.00
5785MHz	Pass	15.00	12.48	12.94	15.73	21.00	30.73	36.00
5825MHz	Pass	15.00	12.11	12.61	15.38	21.00	30.38	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	15.00/-9.91	11.79	12.12	14.97	21.00	29.97/5.06	36.00/21.00
5200MHz	Pass	15.00/-9.91	12.78	13.27	16.04	21.00	31.04/6.13	36.00/21.00
5240MHz	Pass	15.00/-9.91	14.34	14.98	17.68	21.00	32.68/7.77	36.00/21.00
5745MHz	Pass	15.00	11.84	12.47	15.18	21.00	30.18	36.00
5785MHz	Pass	15.00	11.36	11.87	14.63	21.00	29.63	36.00
5825MHz	Pass	15.00	12.54	13.03	15.80	21.00	30.80	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	15.00/-9.91	12.58	13.05	15.83	21.00	30.83/5.92	36.00/21.00
5230MHz	Pass	15.00/-9.91	13.34	12.75	16.07	21.00	31.07/6.16	36.00/21.00
5755MHz	Pass	15.00	12.95	13.51	16.25	21.00	31.25	36.00
5795MHz	Pass	15.00	13.31	13.91	16.63	21.00	31.63	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	15.00/-9.91	12.32	12.97	15.67	21.00	30.67/5.76	36.00/21.00
5775MHz	Pass	15.00	11.63	12.44	15.06	21.00	30.06	36.00

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

SPORTON International Inc.
No.3, 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)		-9.91
Freq. (MHz)	5180	Elevation Angle Define
H-Plan angle(Degree)	Gain(dBm)	
0	-3.00	0° reference angle
2	-3.19	0° ~ 30°
4	-3.47	
6	-4.15	
8	-5.04	
10	-7.57	
12	-9.33	
14	-10.91	
16	-14.02	
18	-19.64	
20	-22.55	
22	-26.30	
24	-29.11	
26	-29.08	
28	-23.58	
30	-20.88	
32	-19.22	
34	-17.67	
36	-15.15	
38	-14.78	
40	-14.72	
42	-15.44	
44	-16.17	
46	-19.49	
48	-19.87	
50	-19.14	
52	-17.50	
54	-14.24	
56	-13.24	
58	-12.56	
60	-11.51	
62	-10.55	
64	-10.10	
66	-9.91	
68	-10.15	
70	-10.50	
72	-11.71	
74	-12.84	
76	-13.89	
78	-15.71	
80	-18.98	
82	-19.66	
84	-20.85	
86	-21.80	
88	-22.47	
90	-23.47	
92	-24.82	
94	-30.14	
96	-31.38	
98	-29.31	
100	-27.75	
102	-23.46	
104	-22.18	
106	-20.45	
108	-19.36	
110	-18.19	
112	-17.89	
114	-17.98	
116	-18.75	
118	-20.03	
120	-20.24	
122	-22.57	
124	-27.18	
126	-28.55	
128	-27.26	
130	-24.90	
132	-20.13	
134	-18.89	
136	-18.05	
138	-17.10	
140	-18.10	
142	-18.52	
144	-18.72	
146	-16.68	0° ~ 30°
148	-14.84	
150	-11.76	
152	-10.81	
154	-10.41	
156	-10.55	
158	-12.39	
160	-14.28	
162	-15.71	
164	-14.51	
166	-9.55	
168	-7.76	
170	-6.19	
172	-5.03	
174	-4.13	
176	-3.97	0° reference angle
178	-4.27	0° ~ 30°
180	-4.60	
182	-5.82	
184	-6.65	
186	-7.68	
188	-8.91	
190	-11.09	
192	-12.44	
194	-13.06	
196	-14.41	
198	-14.43	
200	-13.80	
202	-13.16	
204	-13.60	
206	-13.58	
208	-14.08	Above 30°
210	-14.68	
212	-15.72	
214	-15.73	
216	-15.49	
218	-15.50	
220	-15.73	
222	-16.32	
224	-17.68	
226	-18.93	
228	-20.71	
230	-22.45	
232	-27.12	
234	-31.59	
236	-29.10	
238	-25.04	
240	-20.55	
242	-18.96	
244	-18.49	
246	-18.44	
248	-17.98	
250	-18.79	
252	-20.41	
254	-22.66	
256	-25.78	
258	-42.20	
260	-30.26	
262	-26.08	
264	-25.34	
266	-24.72	
268	-24.22	
270	-25.08	
272	-27.85	
274	-30.20	
276	-30.83	
278	-28.60	
280	-25.70	
282	-24.06	
284	-21.43	
286	-21.10	
288	-20.24	
290	-19.97	
292	-22.76	
294	-24.00	
296	-27.36	
298	-26.43	
300	-21.56	
302	-20.08	
304	-18.85	
306	-18.78	
308	-20.38	
310	-25.00	
312	-23.70	
314	-20.31	
316	-17.06	
318	-13.89	
320	-13.27	
322	-13.98	
324	-14.86	
326	-18.03	
328	-18.93	
330	-17.56	0° ~ 30°
332	-15.87	
334	-14.93	
336	-15.20	
338	-17.14	
340	-18.60	
342	-19.42	
344	-15.31	
346	-12.13	
348	-9.29	
350	-7.37	
352	-5.39	
354	-4.51	
356	-3.67	
358	-3.14	
360	-3.00	0° reference angle



Summary

Mode	PD (dBm/RBW)
5.15-5.25GHz	-
802.11a_Nss1,(6Mbps)_2TX	4.61
802.11ac VHT20_Nss1,(MCS0)_2TX	4.47
802.11ac VHT40_Nss1,(MCS0)_2TX	-0.14
802.11ac VHT80_Nss1,(MCS0)_2TX	-3.97
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_2TX	2.06
802.11ac VHT20_Nss1,(MCS0)_2TX	1.16
802.11ac VHT40_Nss1,(MCS0)_2TX	-0.93
802.11ac VHT80_Nss1,(MCS0)_2TX	-5.09

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

Result

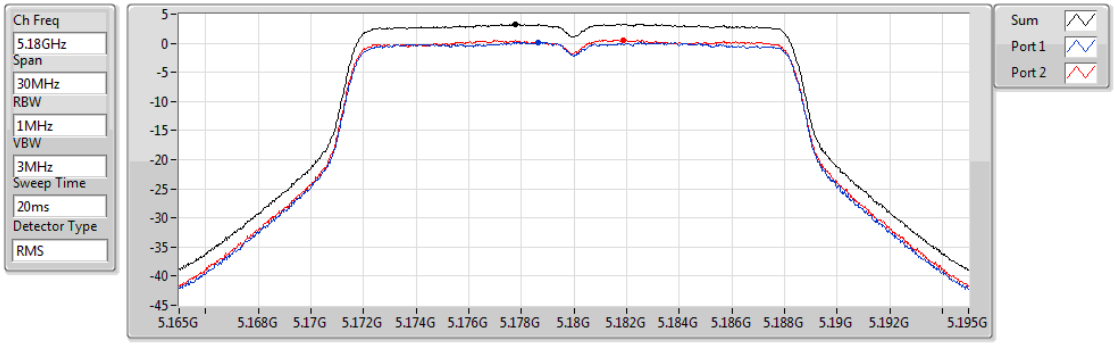
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	18.01	0.21	0.55	3.27	4.99
5200MHz	Pass	18.01	0.71	1.63	4.06	4.99
5240MHz	Pass	18.01	0.94	2.43	4.61	4.99
5745MHz	Pass	18.01	-1.49	-0.94	1.71	17.99
5785MHz	Pass	18.01	-1.27	-0.58	2.06	17.99
5825MHz	Pass	18.01	-1.45	-0.87	1.76	17.99
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	18.01	-1.04	-0.70	2.03	4.99
5200MHz	Pass	18.01	-0.55	0.27	2.82	4.99
5240MHz	Pass	18.01	0.63	2.26	4.47	4.99
5745MHz	Pass	18.01	-2.77	-2.21	0.46	17.99
5785MHz	Pass	18.01	-2.85	-2.39	0.29	17.99
5825MHz	Pass	18.01	-1.96	-1.64	1.16	17.99
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	18.01	-3.38	-2.95	-0.37	4.99
5230MHz	Pass	18.01	-3.68	-2.44	-0.14	4.99
5755MHz	Pass	18.01	-4.63	-4.42	-1.62	17.99
5795MHz	Pass	18.01	-4.08	-3.45	-0.93	17.99
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	18.01	-7.28	-6.30	-3.97	4.99
5775MHz	Pass	18.01	-8.31	-7.63	-5.09	17.99

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 Xpower density;

802.11a_Nss1,(6Mbps)_2TX PSD

5180MHz

15/01/2018

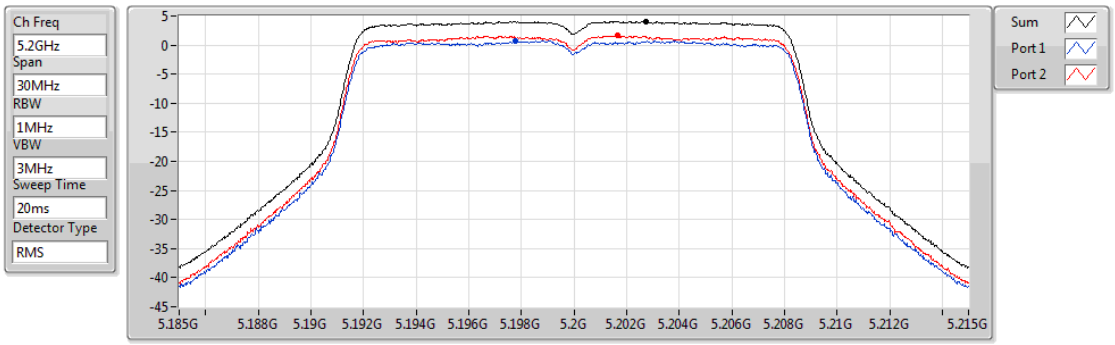


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.27	3.27	0.21	0.55

802.11a_Nss1,(6Mbps)_2TX PSD

5200MHz

15/01/2018

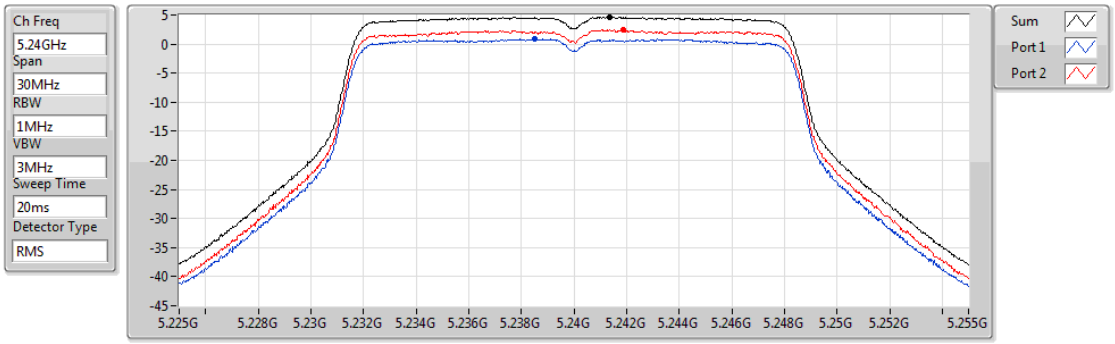


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.06	4.06	0.71	1.63

802.11a_Nss1,(6Mbps)_2TX PSD

5240MHz

15/01/2018

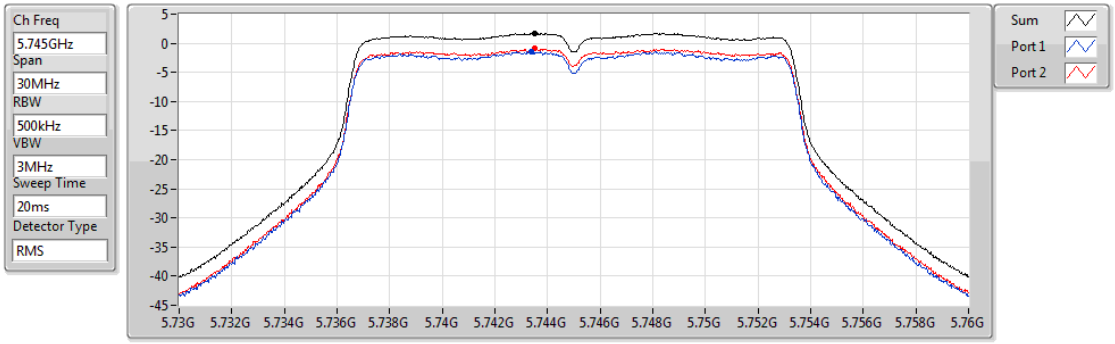


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.61	4.61	0.94	2.43

802.11a_Nss1,(6Mbps)_2TX **PSD**

5745MHz

15/01/2018

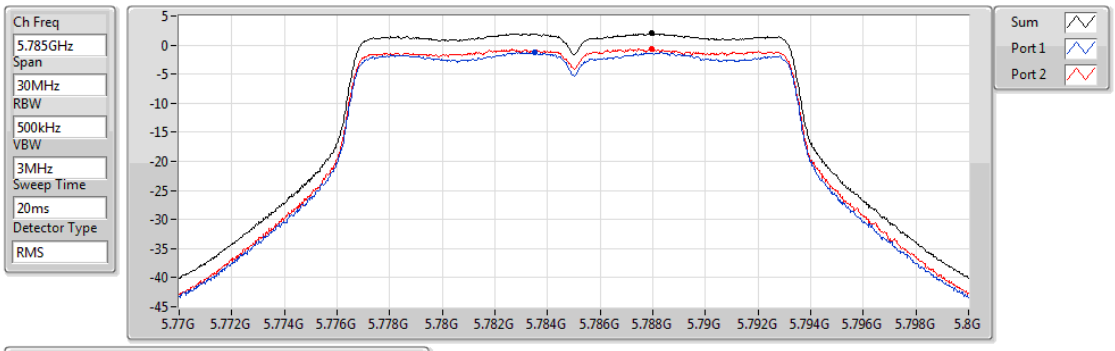


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.71	1.71	-1.49	-0.94

802.11a_Nss1,(6Mbps)_2TX **PSD**

5785MHz

15/01/2018

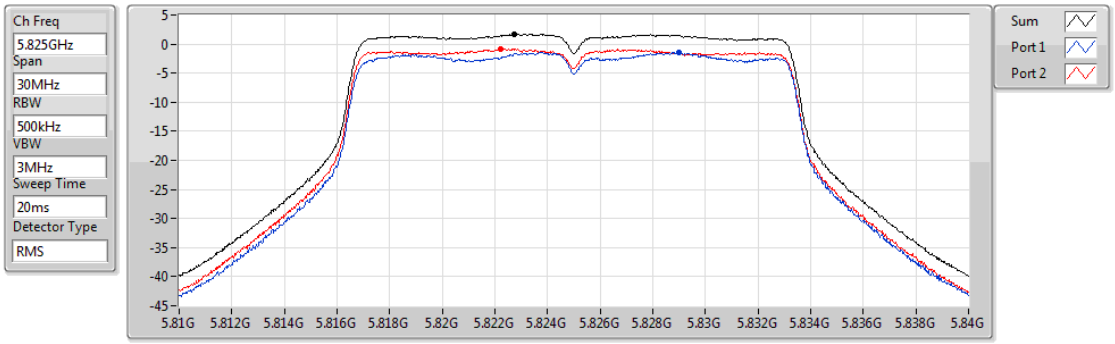


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.06	2.06	-1.27	-0.58

802.11a_Nss1,(6Mbps)_2TX **PSD**

5825MHz

15/01/2018

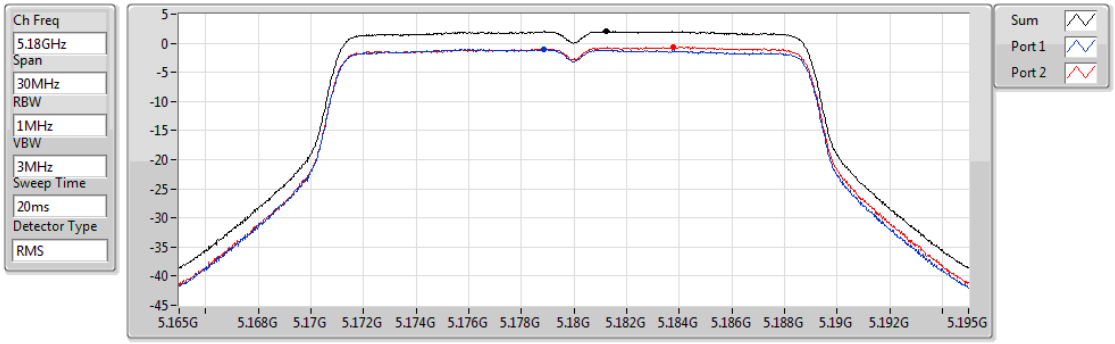


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.76	1.76	-1.45	-0.87

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

5180MHz

15/01/2018

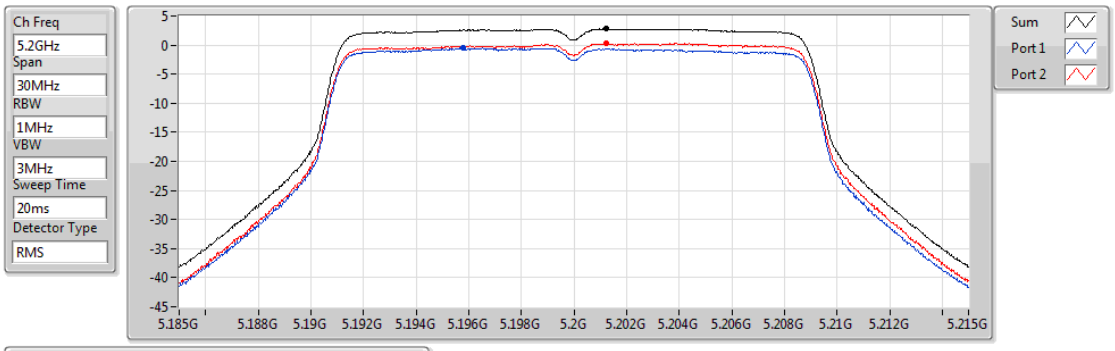


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.03	2.03	-1.04	-0.70

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

5200MHz

15/01/2018

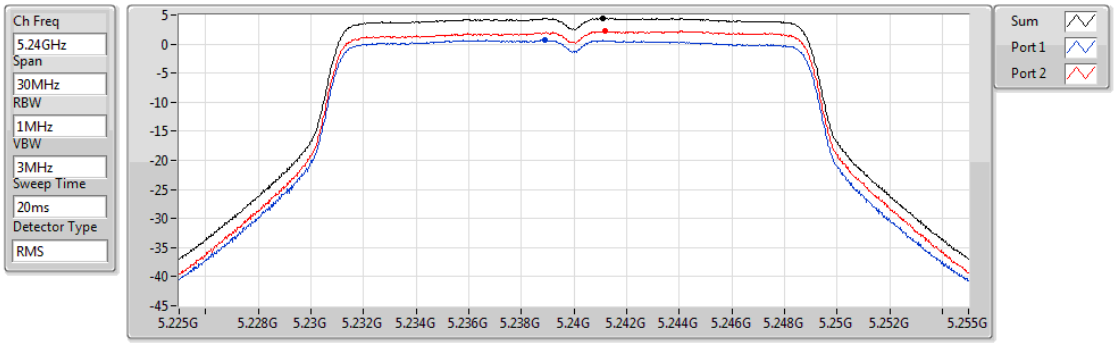


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.82	2.82	-0.55	0.27

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

5240MHz

15/01/2018

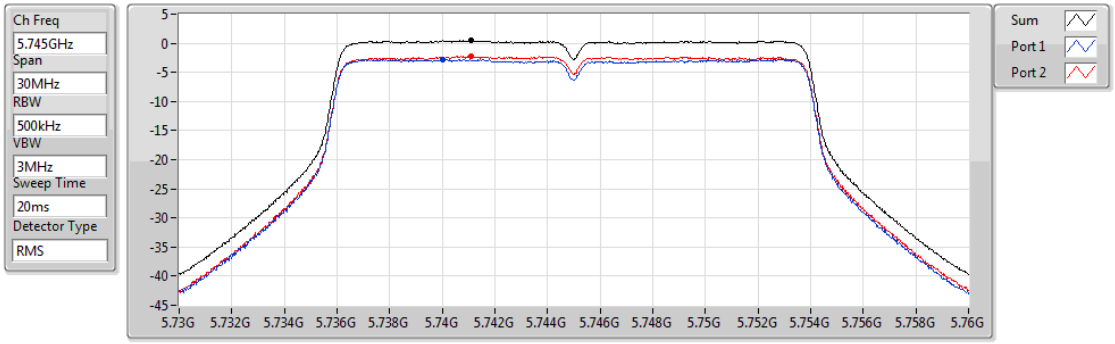


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.47	4.47	0.63	2.26

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

5745MHz

15/01/2018

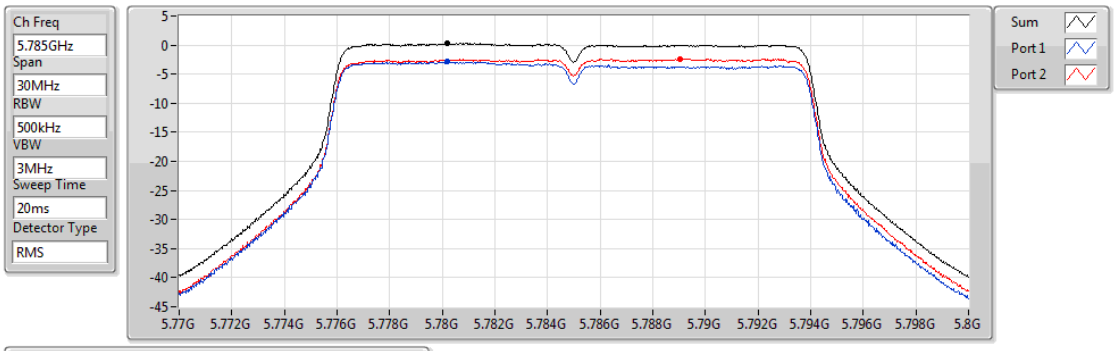


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.46	0.46	-2.77	-2.21

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

5785MHz

15/01/2018

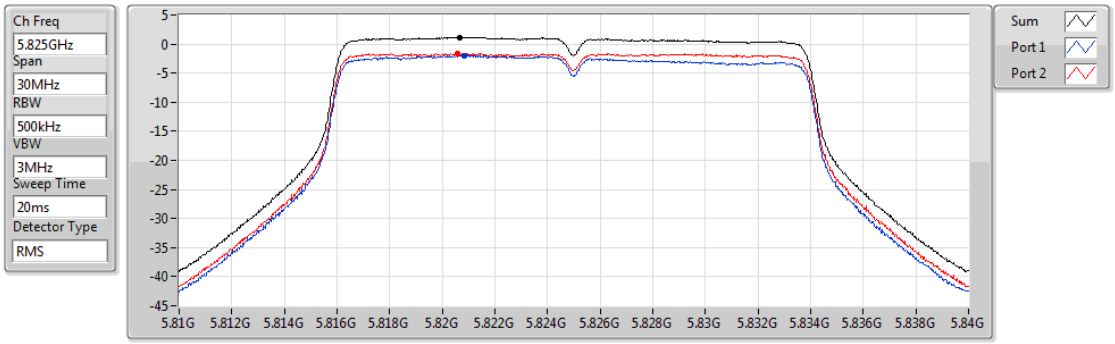


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.29	0.29	-2.85	-2.39

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

5825MHz

15/01/2018

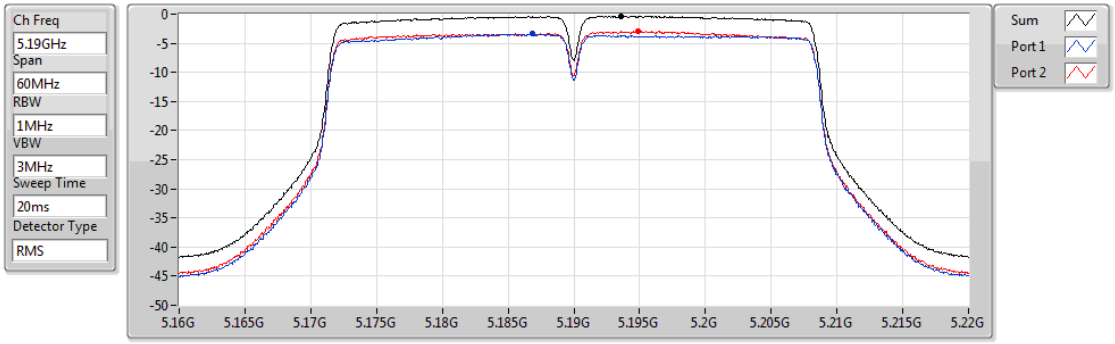


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.16	1.16	-1.96	-1.64

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

5190MHz

15/01/2018

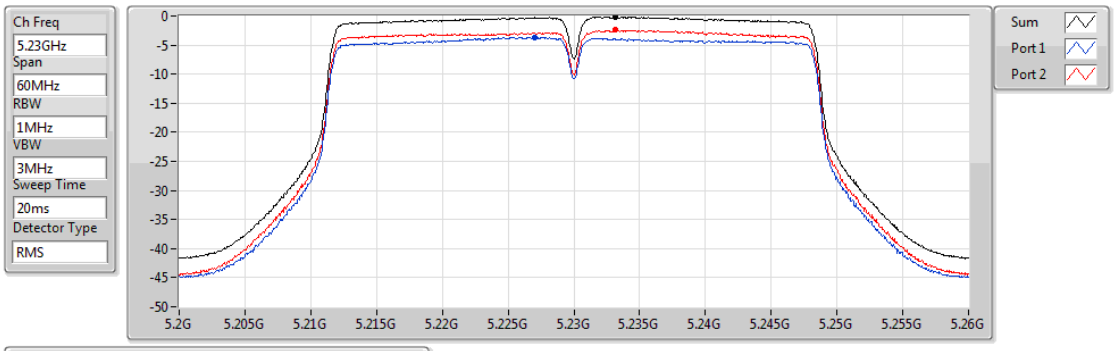


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.37	-0.37	-3.38	-2.95

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

5230MHz

15/01/2018

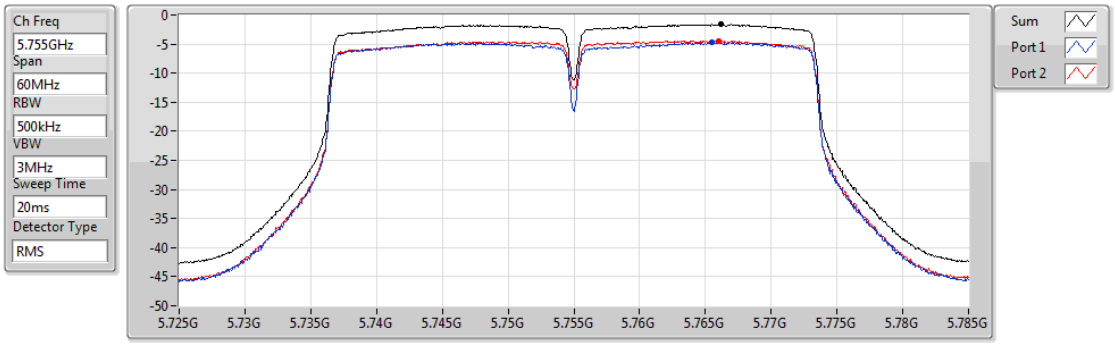


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.14	-0.14	-3.68	-2.44

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

5755MHz

15/01/2018

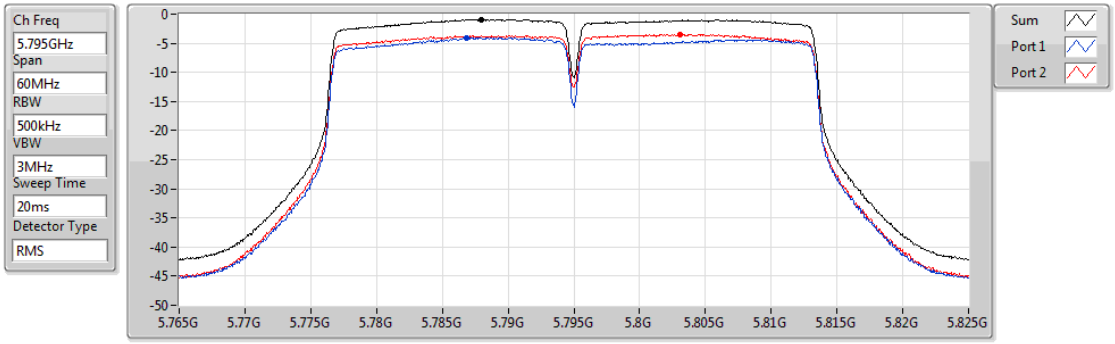


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.62	-1.62	-4.63	-4.42

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

5795MHz

15/01/2018

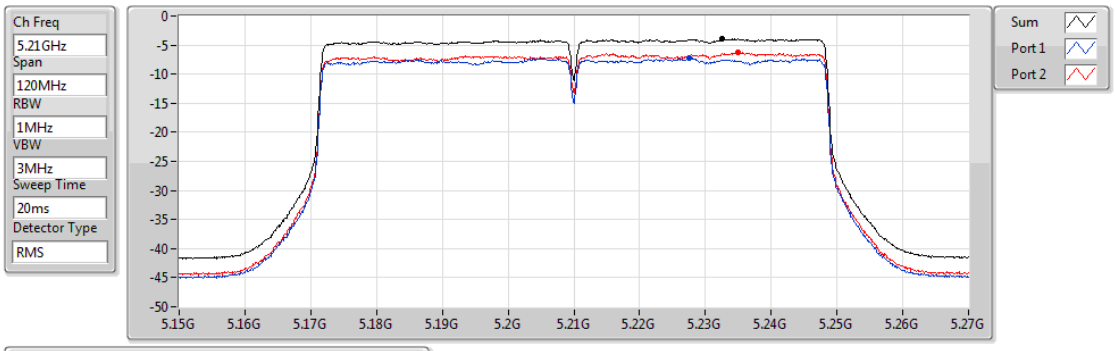


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.93	-0.93	-4.08	-3.45

802.11ac VHT80_Nss1,(MCS0)_2TX PSD

5210MHz

15/01/2018

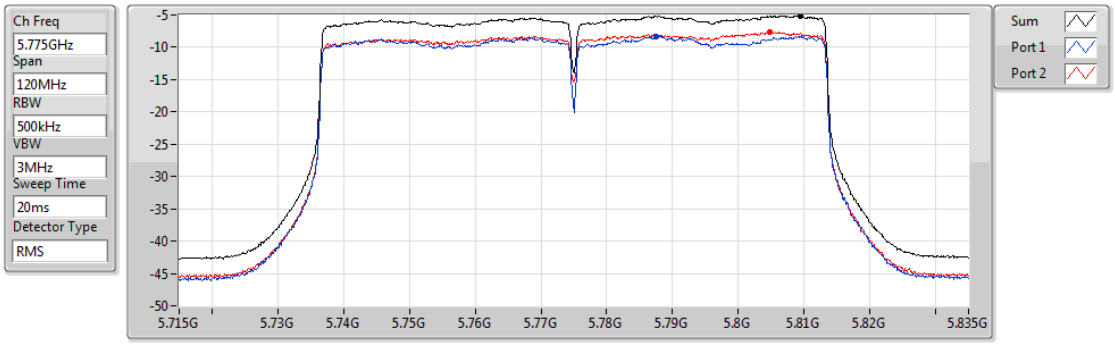


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.97	-3.97	-7.28	-6.30

802.11ac VHT80_Nss1,(MCS0)_2TX PSD

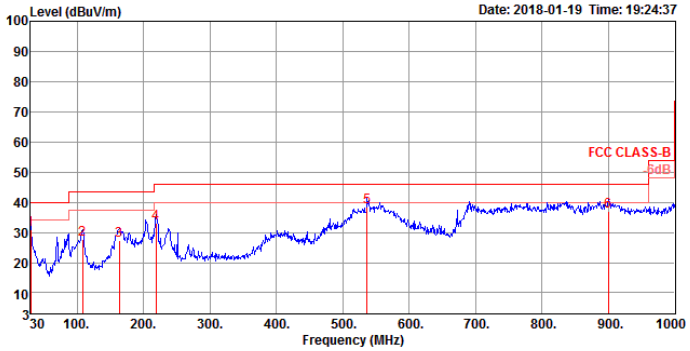
5775MHz

15/01/2018



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.09	-5.09	-8.31	-7.63

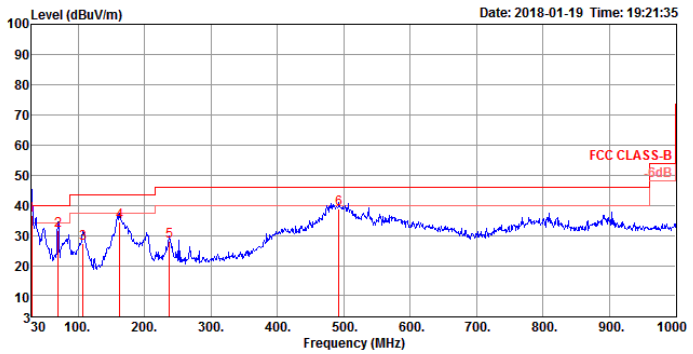
RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	CTX		



	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	30.00	30.87	40.00	-9.13	36.73	0.97	25.60	32.43	200	239	QP	HORIZONTAL
2	108.57	27.82	43.50	-15.68	41.18	0.97	18.04	32.37	300	267	QP	HORIZONTAL
3	163.86	27.38	43.50	-16.12	42.30	1.10	16.31	32.33	125	230	QP	HORIZONTAL
4	219.15	32.99	46.00	-13.01	46.77	2.12	16.40	32.30	150	307	QP	HORIZONTAL
5	536.34	38.31	46.00	-7.69	43.57	2.79	24.30	32.35	150	26	QP	HORIZONTAL
6	900.09	37.15	46.00	-8.85	36.46	4.77	27.50	31.58	100	185	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	CTX		



	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	30.00	36.66	40.00	-3.34	42.52	0.97	25.60	32.43	100	290	QP	VERTICAL
2	69.77	31.48	40.00	-8.52	50.34	0.94	12.60	32.40	100	190	QP	VERTICAL
3	107.60	27.33	43.50	-16.17	40.81	0.96	17.93	32.37	125	357	QP	VERTICAL
4	162.89	34.47	43.50	-9.03	49.37	1.07	16.36	32.33	100	53	QP	VERTICAL
5	237.58	27.96	46.00	-18.04	40.20	2.28	17.77	32.29	100	37	QP	VERTICAL
6	492.69	38.90	46.00	-7.10	44.62	2.92	23.69	32.33	100	156	QP	VERTICAL

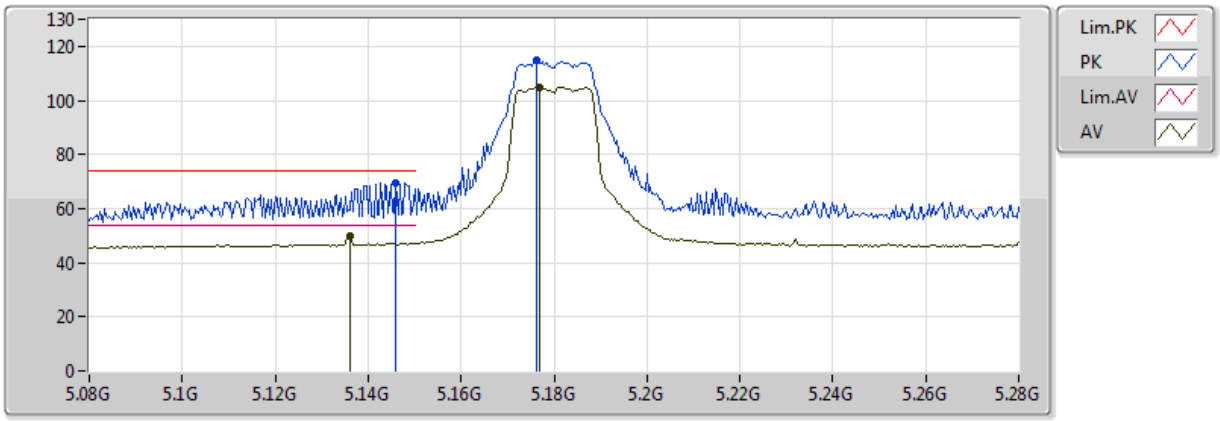
Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	AV	5.149995G	53.97	54.00	-0.03	4.06	3	Horizontal	183	1.80	-

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

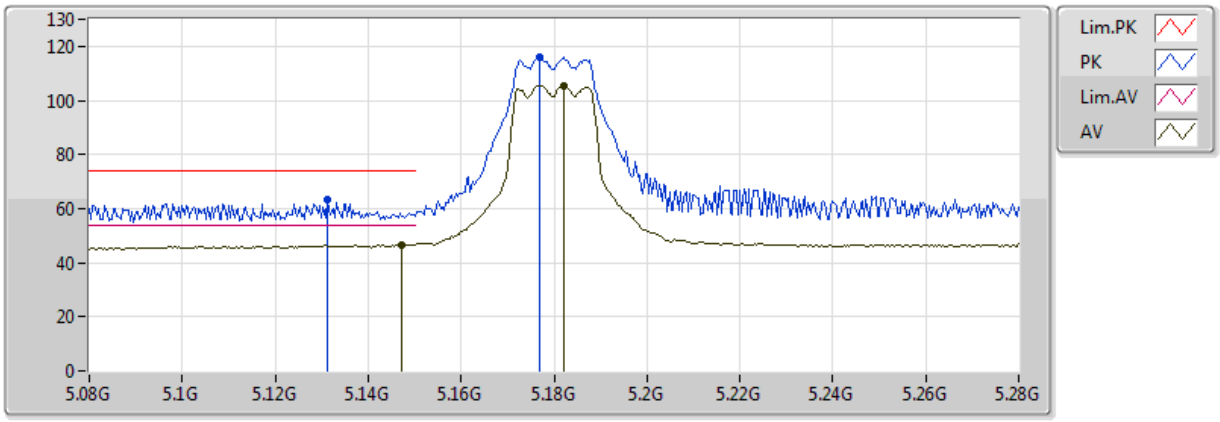


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.136G	49.81	54.00	-4.19	4.02	3	Vertical	180	1.65
AV	5.1768G	105.03	Inf	-Inf	4.14	3	Vertical	180	1.65
PK	5.146G	69.46	74.00	-4.54	4.05	3	Vertical	180	1.65
PK	5.1764G	114.89	Inf	-Inf	4.14	3	Vertical	180	1.65

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

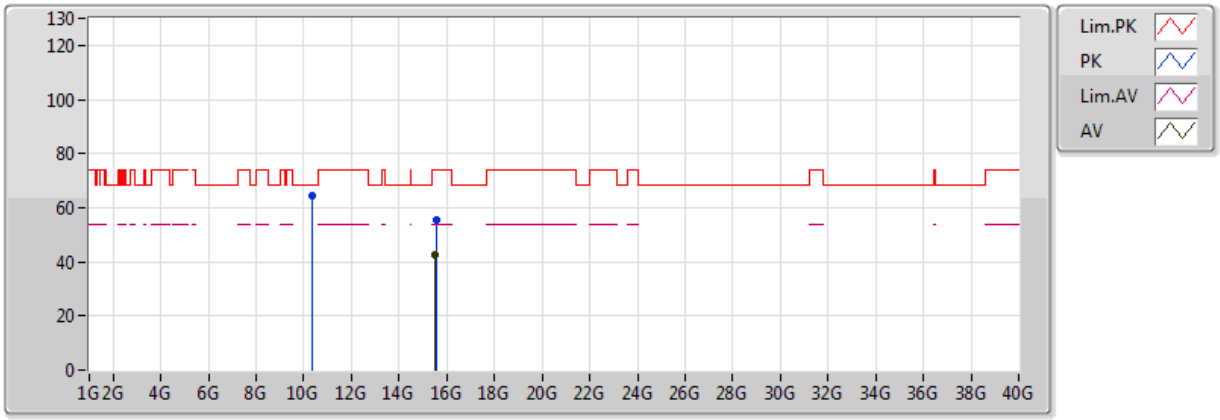


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.1472G	46.76	54.00	-7.24	4.05	3	Horizontal	177	1.74
AV	5.182G	105.48	Inf	-Inf	4.16	3	Horizontal	177	1.74
PK	5.1312G	63.52	74.00	-10.48	4.00	3	Horizontal	177	1.74
PK	5.1768G	115.93	Inf	-Inf	4.14	3	Horizontal	177	1.74

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

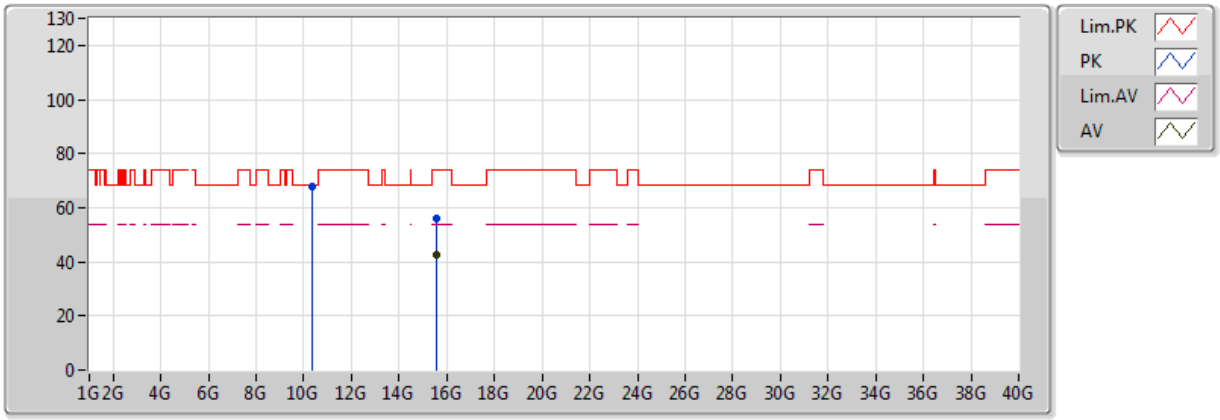


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.52992G	42.71	54.00	-11.29	15.23	3	Vertical	284	1.50
PK	15.54828G	55.32	74.00	-18.68	15.21	3	Vertical	284	1.50
PK	10.36264G	64.56	68.20	-3.64	12.47	3	Vertical	346	1.57

802.11a_Nss1,(6Mbps)_2TX

5180MHz_TX

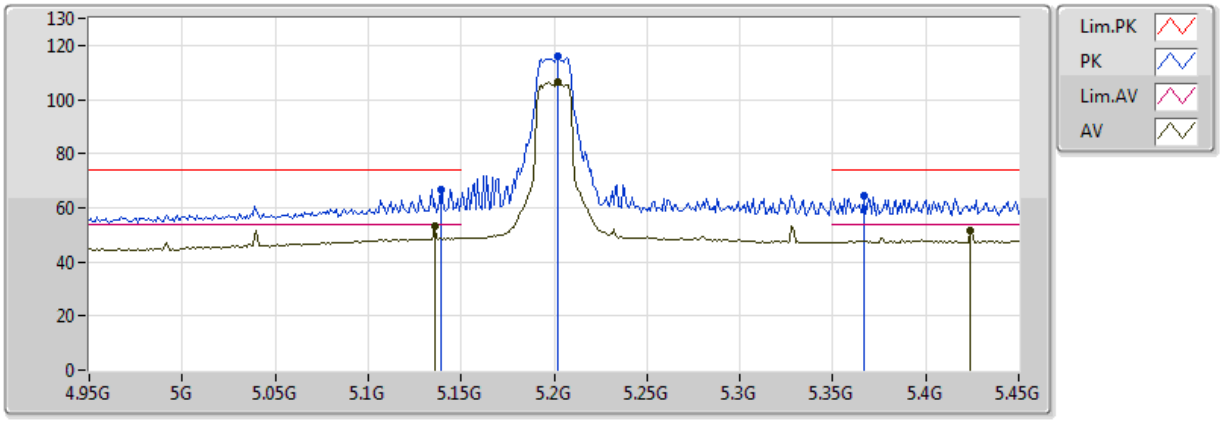


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.53772G	42.67	54.00	-11.33	15.22	3	Horizontal	304	1.52
PK	10.35442G	68.05	68.20	-0.15	12.46	3	Horizontal	318	1.47
PK	15.54636G	55.99	74.00	-18.01	15.22	3	Horizontal	304	1.52

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

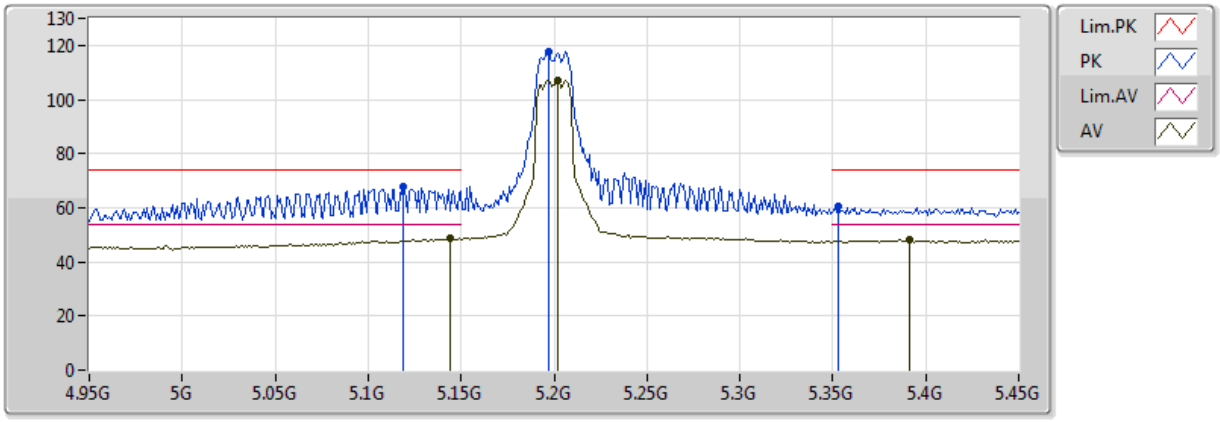


20180113
EUT Y_2TX
Setting 13
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.136G	52.97	54.00	-1.03	4.02	3	Vertical	178	1.47
AV	5.202G	106.23	Inf	-Inf	4.21	3	Vertical	178	1.47
AV	5.424G	51.37	54.00	-2.63	4.71	3	Vertical	178	1.47
PK	5.139G	66.62	74.00	-7.38	4.03	3	Vertical	178	1.47
PK	5.202G	116.08	Inf	-Inf	4.21	3	Vertical	178	1.47
PK	5.367G	64.30	74.00	-9.70	4.60	3	Vertical	178	1.47

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

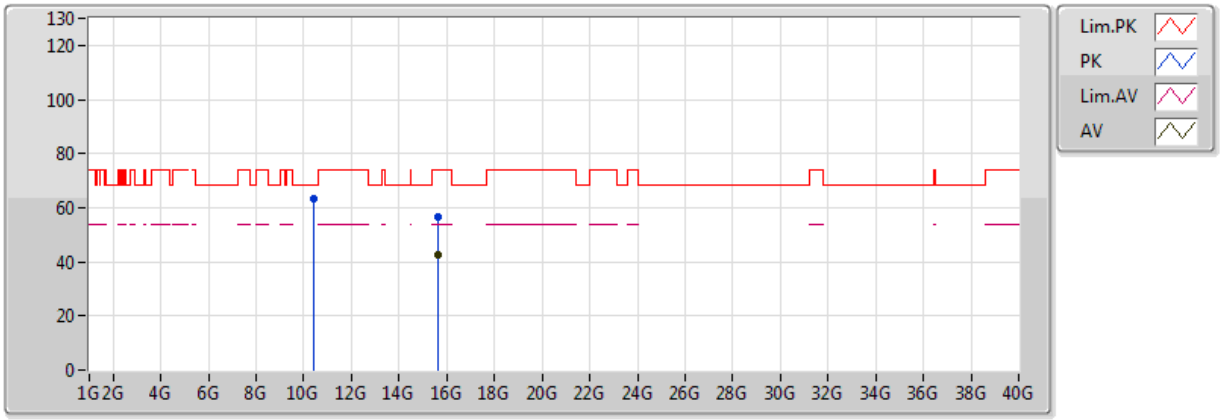


20180113
EUT Y_2TX
Setting 13
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.144G	48.55	54.00	-5.45	4.04	3	Horizontal	178	1.80
AV	5.202G	107.25	Inf	-Inf	4.21	3	Horizontal	178	1.80
AV	5.391G	48.03	54.00	-5.97	4.65	3	Horizontal	178	1.80
PK	5.119G	67.61	74.00	-6.39	3.97	3	Horizontal	178	1.80
PK	5.197G	117.44	Inf	-Inf	4.20	3	Horizontal	178	1.80
PK	5.353G	60.49	74.00	-13.51	4.57	3	Horizontal	178	1.80

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

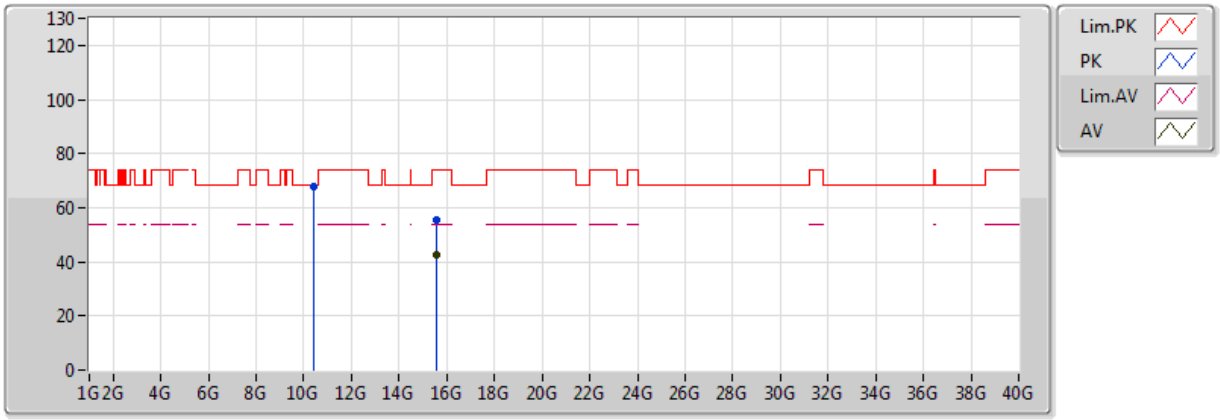


20180113
EUT Y_2TX
Setting 13
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.60396G	42.66	54.00	-11.34	15.15	3	Vertical	41	1.37
PK	10.40234G	63.27	68.20	-4.93	12.51	3	Vertical	37	1.22
PK	15.61254G	56.47	74.00	-17.53	15.14	3	Vertical	41	1.37

802.11a_Nss1,(6Mbps)_2TX

5200MHz_TX

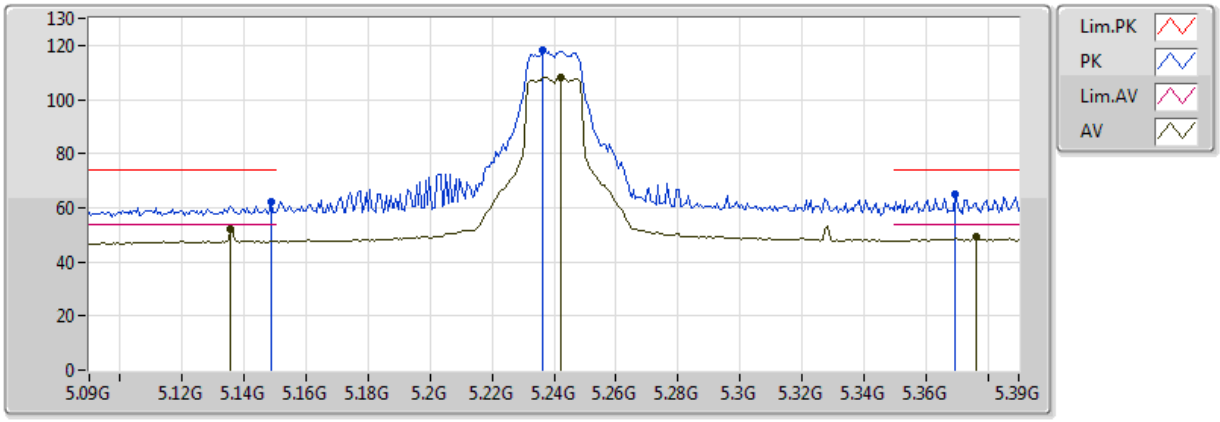


20180113
EUT Y_2TX
Setting 13
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.59622G	42.68	54.00	-11.32	15.16	3	Horizontal	359	1.01
PK	10.40012G	67.98	68.20	-0.22	12.51	3	Horizontal	2	1.15
PK	15.59028G	55.49	74.00	-18.51	15.17	3	Horizontal	359	1.01

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

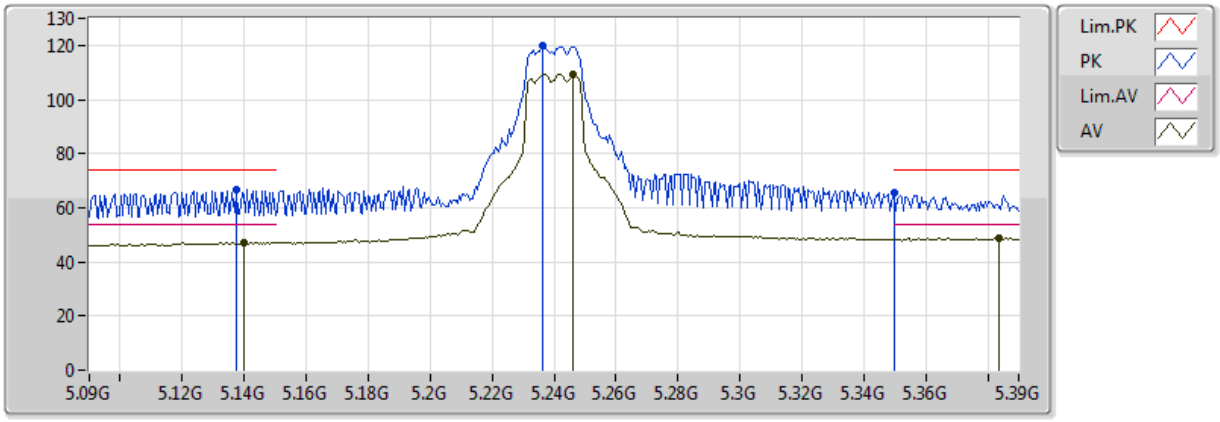


20180113
EUT Y_2TX
Setting 15.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.1356G	52.17	54.00	-1.83	4.02	3	Vertical	179	1.56
AV	5.2424G	108.25	Inf	-Inf	4.32	3	Vertical	179	1.56
AV	5.3762G	49.29	54.00	-4.71	4.62	3	Vertical	179	1.56
PK	5.1488G	61.94	74.00	-12.06	4.06	3	Vertical	179	1.56
PK	5.2364G	118.11	Inf	-Inf	4.30	3	Vertical	179	1.56
PK	5.3696G	65.13	74.00	-8.87	4.61	3	Vertical	179	1.56

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

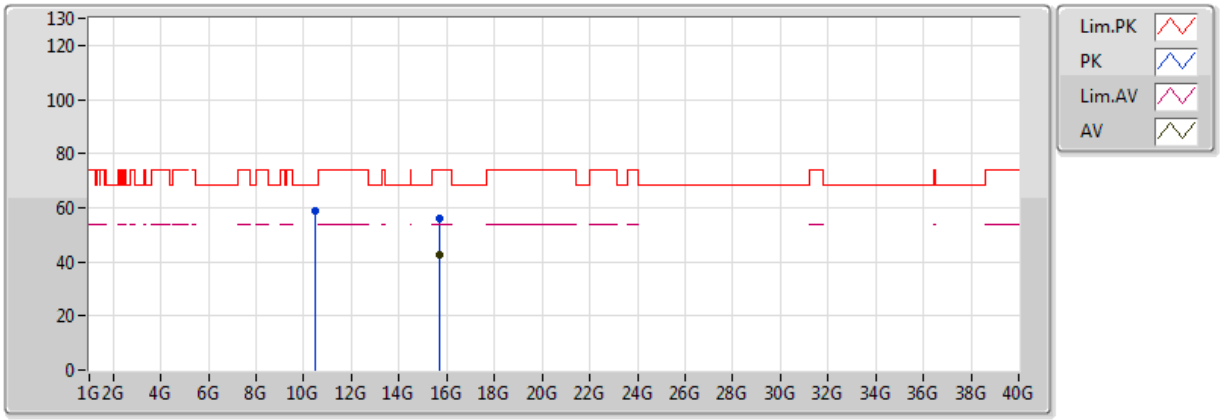


20180113
EUT Y_2TX
Setting 15.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.1398G	47.18	54.00	-6.82	4.03	3	Horizontal	182	1.80
AV	5.246G	109.34	Inf	-Inf	4.32	3	Horizontal	182	1.80
AV	5.3834G	48.74	54.00	-5.26	4.64	3	Horizontal	182	1.80
PK	5.1374G	66.83	74.00	-7.17	4.02	3	Horizontal	182	1.80
PK	5.2364G	120.09	Inf	-Inf	4.30	3	Horizontal	182	1.80
PK	5.350005G	65.41	74.00	-8.59	4.57	3	Horizontal	182	1.80

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

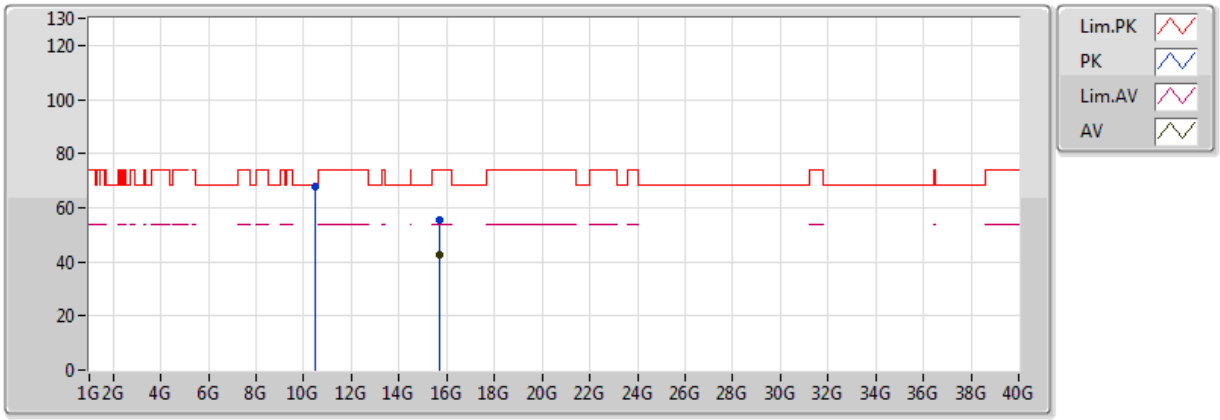


20180113
EUT Y_2TX
Setting 15.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.70776G	42.65	54.00	-11.35	15.04	3	Vertical	217	1.71
PK	10.47916G	59.04	68.20	-9.16	12.60	3	Vertical	114	1.63
PK	15.72372G	56.08	74.00	-17.92	15.03	3	Vertical	217	1.71

802.11a_Nss1,(6Mbps)_2TX

5240MHz_TX

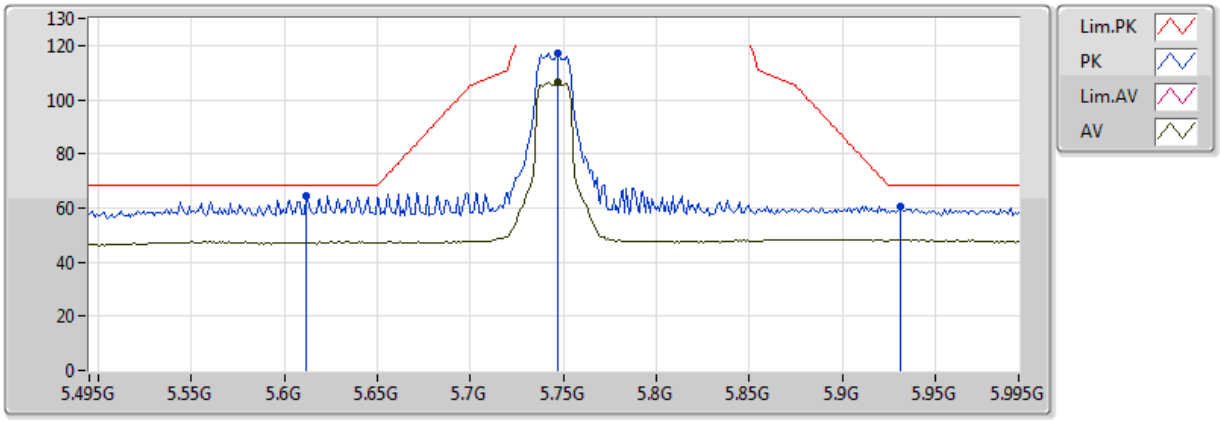


20180113
EUT Y_2TX
Setting 15.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.71742G	42.61	54.00	-11.39	15.03	3	Horizontal	283	1.61
PK	10.47442G	67.83	68.20	-0.37	12.60	3	Horizontal	147	1.73
PK	15.72606G	55.52	74.00	-18.48	15.02	3	Horizontal	283	1.61

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

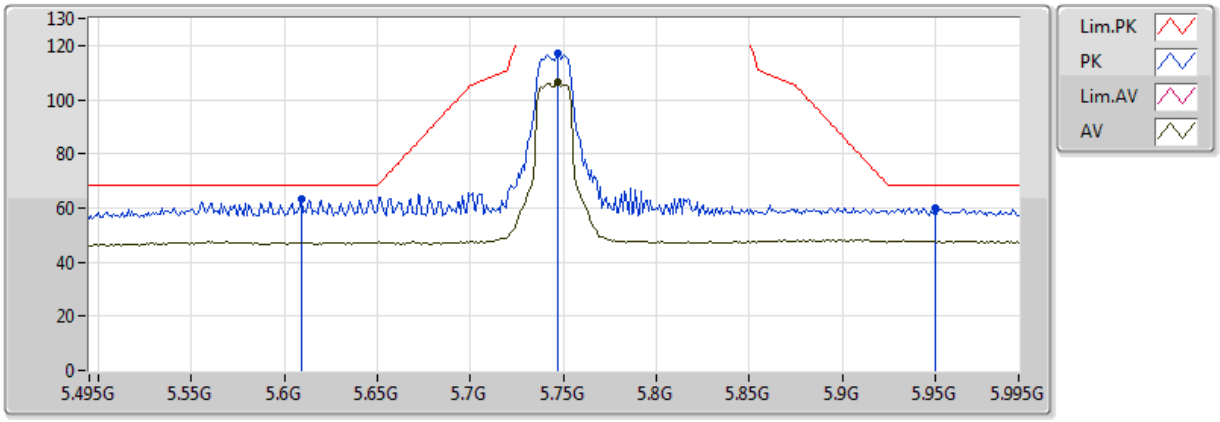


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.747G	106.51	Inf	-Inf	5.66	3	Vertical	183	1.82
PK	5.612G	64.46	68.20	-3.74	5.16	3	Vertical	183	1.82
PK	5.747G	117.32	Inf	-Inf	5.66	3	Vertical	183	1.82
PK	5.931G	60.37	68.20	-7.83	6.34	3	Vertical	183	1.82

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

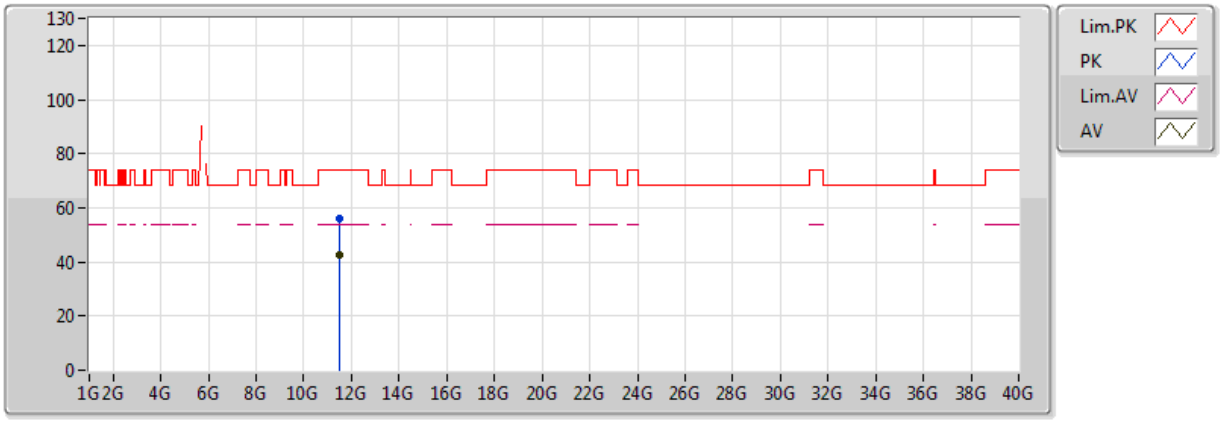


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.747G	106.30	Inf	-Inf	5.66	3	Horizontal	181	1.79
PK	5.609G	63.32	68.20	-4.88	5.15	3	Horizontal	181	1.79
PK	5.747G	116.92	Inf	-Inf	5.66	3	Horizontal	181	1.79
PK	5.95G	59.84	68.20	-8.36	6.41	3	Horizontal	181	1.79

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

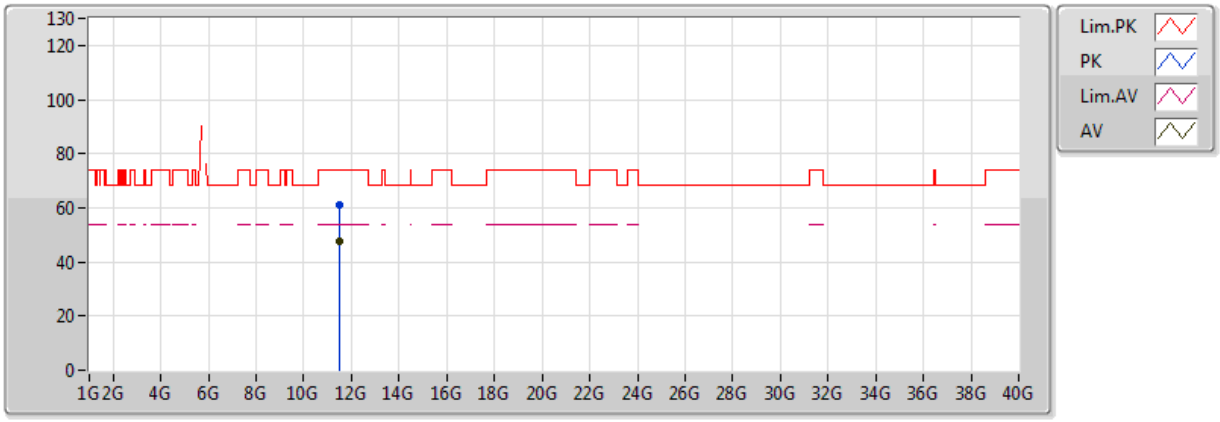


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.48716G	42.50	54.00	-11.50	13.32	3	Vertical	68	1.03
PK	11.49188G	56.28	74.00	-17.72	13.32	3	Vertical	68	1.03

802.11a_Nss1,(6Mbps)_2TX

5745MHz_TX

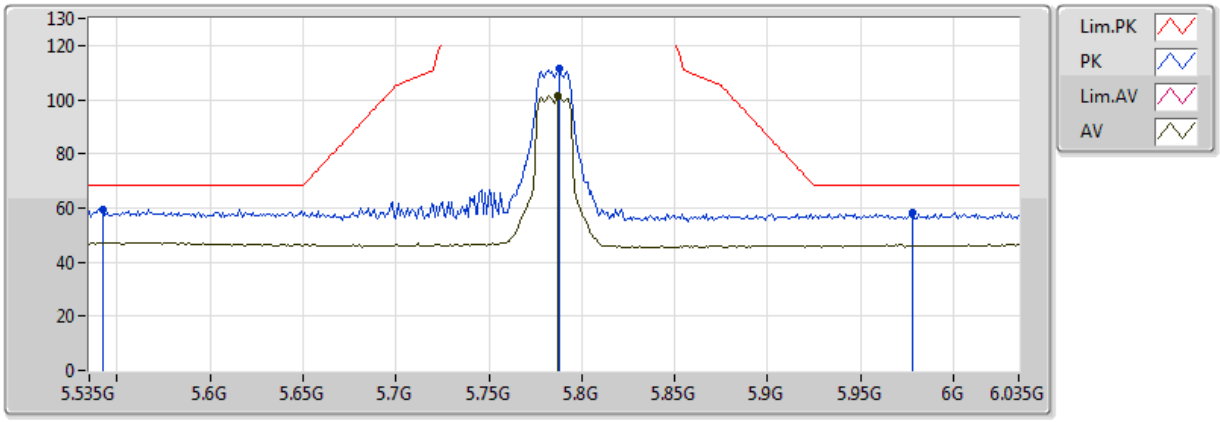


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.48742G	47.85	54.00	-6.15	13.32	3	Horizontal	325	1.65
PK	11.48796G	61.06	74.00	-12.94	13.32	3	Horizontal	325	1.65

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

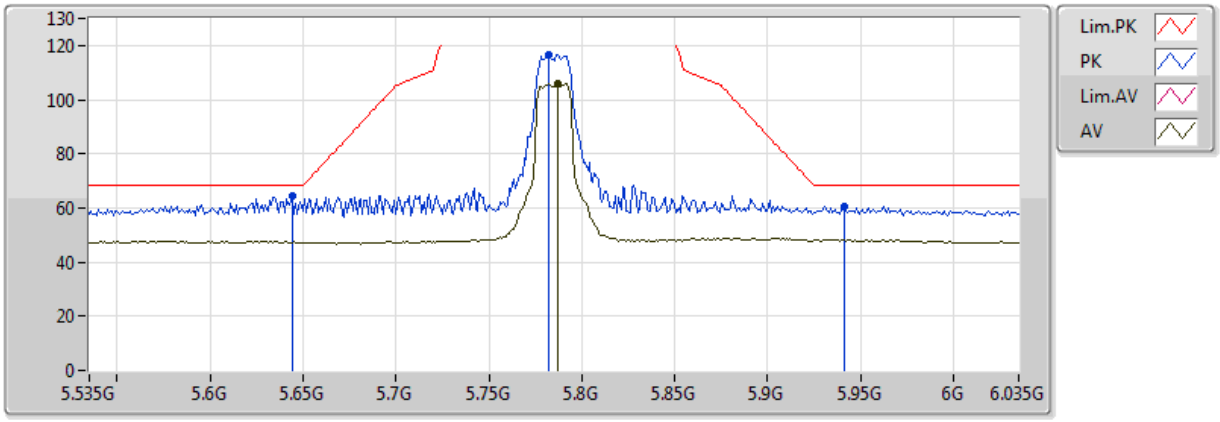


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.787G	101.45	Inf	-Inf	5.81	3	Vertical	178	1.82
PK	5.542G	59.55	68.20	-8.65	4.95	3	Vertical	178	1.82
PK	5.788G	111.32	Inf	-Inf	5.82	3	Vertical	178	1.82
PK	5.978G	58.07	68.20	-10.13	6.51	3	Vertical	178	1.82

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

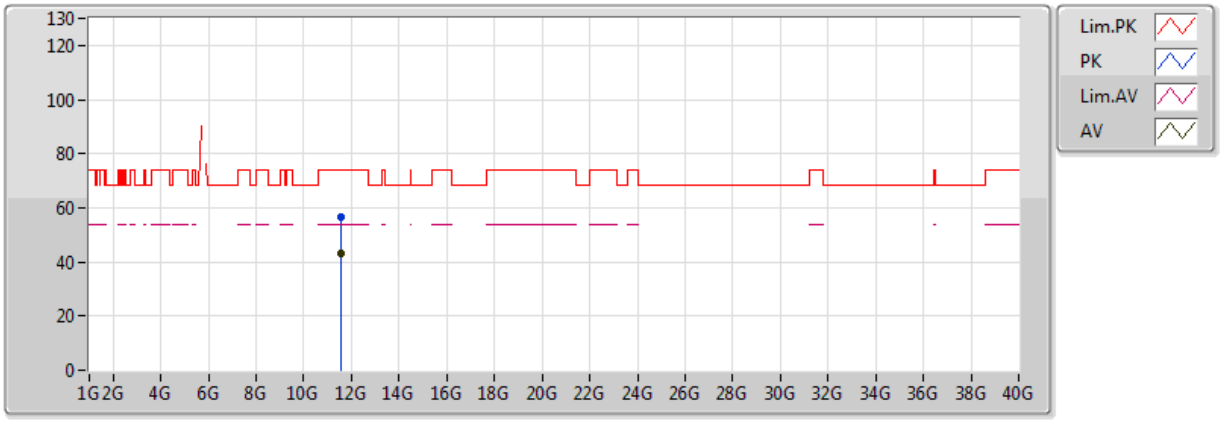


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.787G	106.11	Inf	-Inf	5.81	3	Horizontal	180	1.79
PK	5.644G	64.18	68.20	-4.02	5.28	3	Horizontal	180	1.79
PK	5.782G	116.74	Inf	-Inf	5.79	3	Horizontal	180	1.79
PK	5.941G	60.50	68.20	-7.70	6.38	3	Horizontal	180	1.79

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

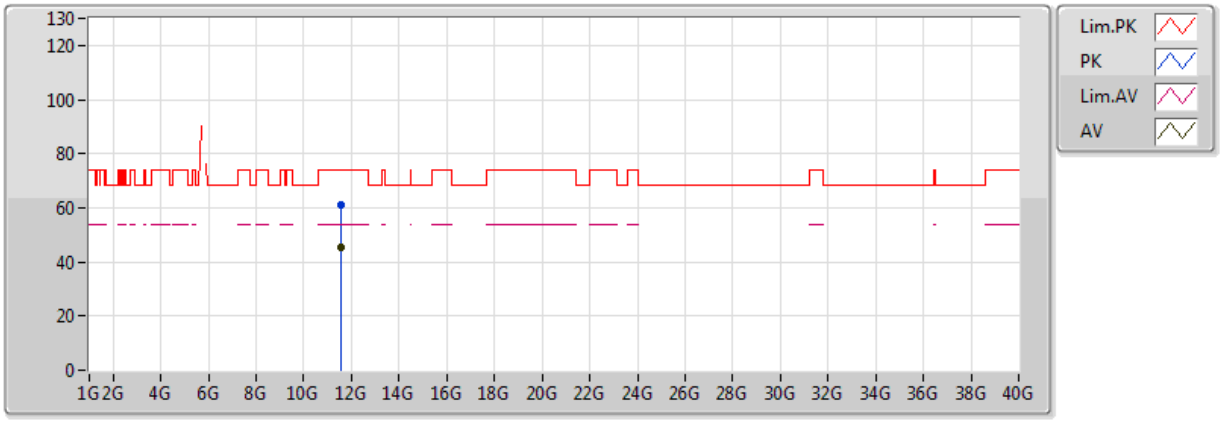


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.56024G	43.18	54.00	-10.82	13.33	3	Vertical	196	1.58
PK	11.57832G	56.73	74.00	-17.27	13.33	3	Vertical	196	1.58

802.11a_Nss1,(6Mbps)_2TX

5785MHz_TX

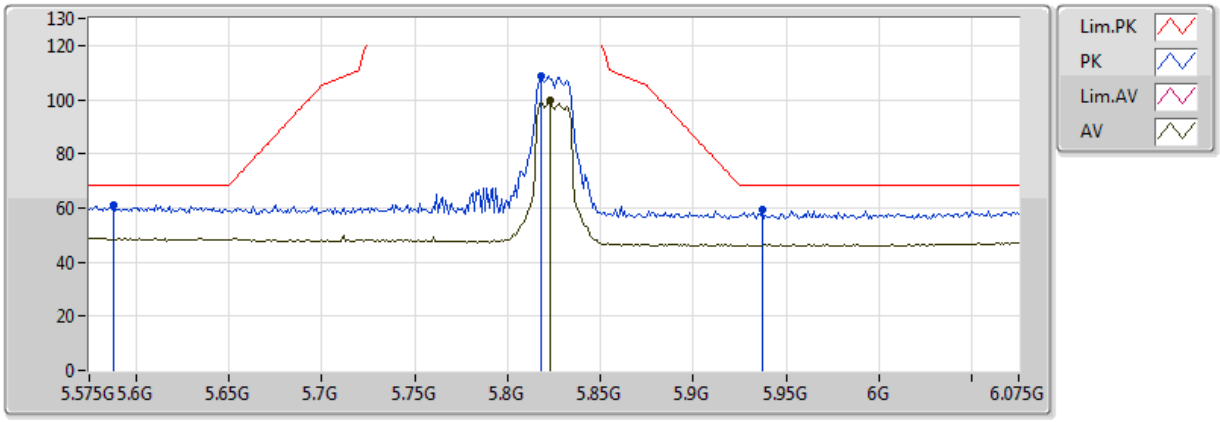


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.5732G	45.19	54.00	-8.81	13.33	3	Horizontal	147	1.58
PK	11.57284G	60.89	74.00	-13.11	13.33	3	Horizontal	147	1.58

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

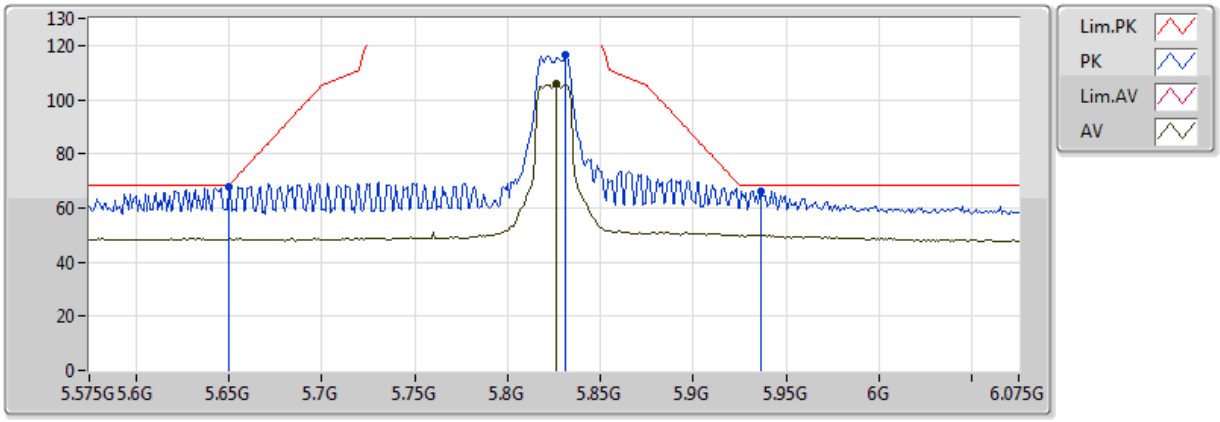


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.823G	99.47	Inf	-Inf	5.95	3	Vertical	179	1.73
PK	5.588G	61.08	68.20	-7.12	5.09	3	Vertical	179	1.73
PK	5.818G	108.78	Inf	-Inf	5.93	3	Vertical	179	1.73
PK	5.937G	59.18	68.20	-9.02	6.36	3	Vertical	179	1.73

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

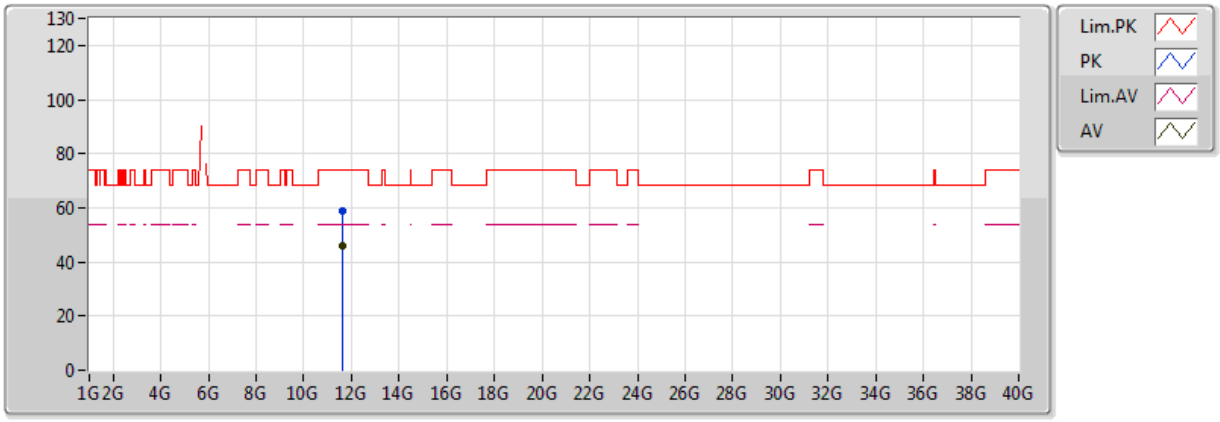


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.826G	105.88	Inf	-Inf	5.96	3	Horizontal	181	1.84
PK	5.65G	67.91	68.20	-0.29	5.30	3	Horizontal	181	1.84
PK	5.831G	116.47	Inf	-Inf	5.97	3	Horizontal	181	1.84
PK	5.936G	66.32	68.20	-1.88	6.36	3	Horizontal	181	1.84

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

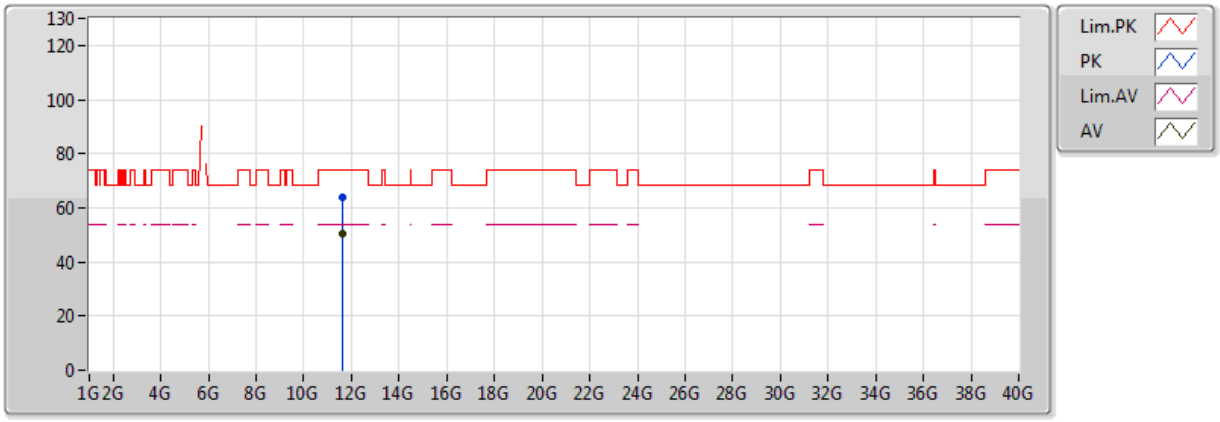


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.65008G	45.68	54.00	-8.32	13.35	3	Vertical	184	1.62
PK	11.6506G	58.69	74.00	-15.31	13.35	3	Vertical	184	1.62

802.11a_Nss1,(6Mbps)_2TX

5825MHz_TX

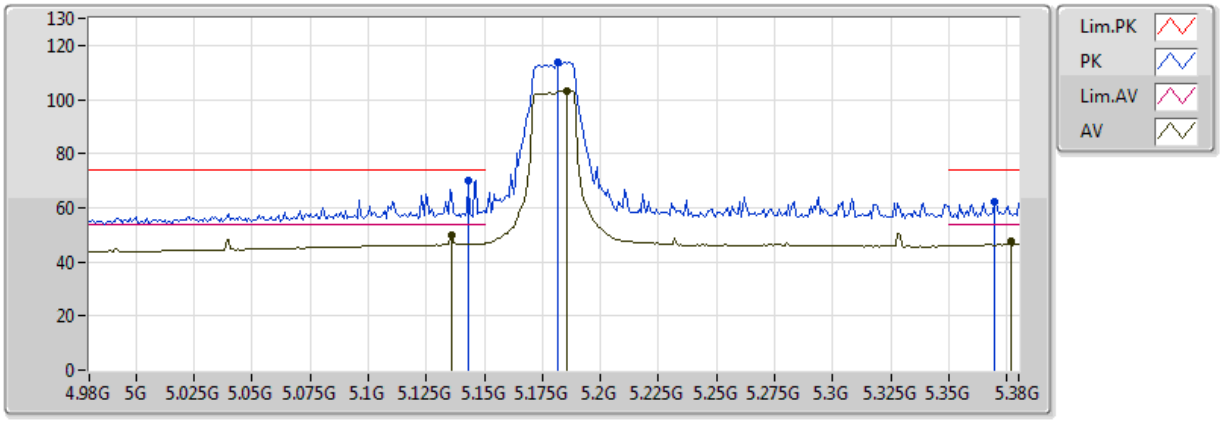


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.65016G	50.55	54.00	-3.45	13.35	3	Horizontal	145	1.70
PK	11.6506G	63.60	74.00	-10.40	13.35	3	Horizontal	145	1.70

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

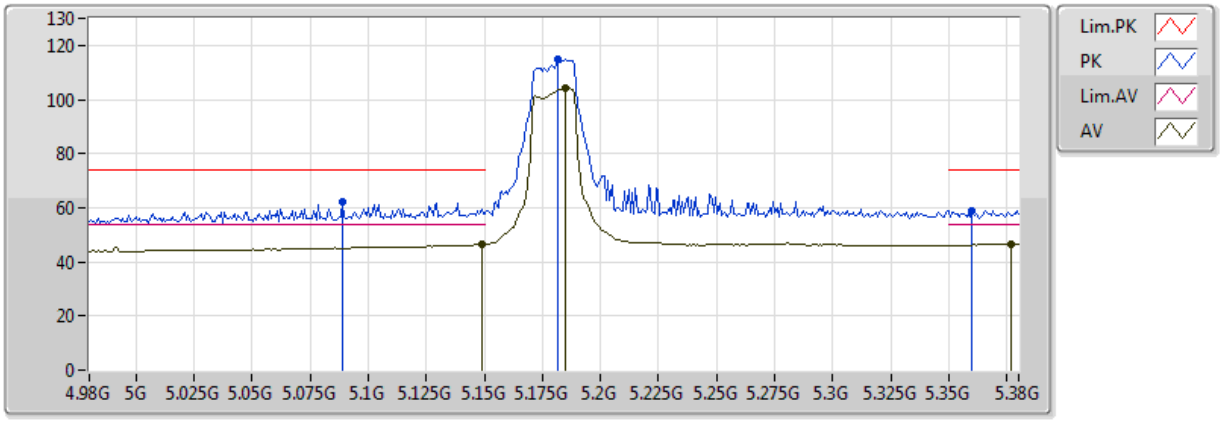


20180113
EUT Y_2TX
Setting 11
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.136G	49.91	54.00	-4.09	4.02	3	Vertical	180	1.73
AV	5.1856G	103.30	Inf	-Inf	4.17	3	Vertical	180	1.73
AV	5.3768G	47.44	54.00	-6.56	4.62	3	Vertical	180	1.73
PK	5.1432G	70.00	74.00	-4.00	4.04	3	Vertical	180	1.73
PK	5.1816G	113.76	Inf	-Inf	4.15	3	Vertical	180	1.73
PK	5.3696G	62.29	74.00	-11.71	4.61	3	Vertical	180	1.73

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

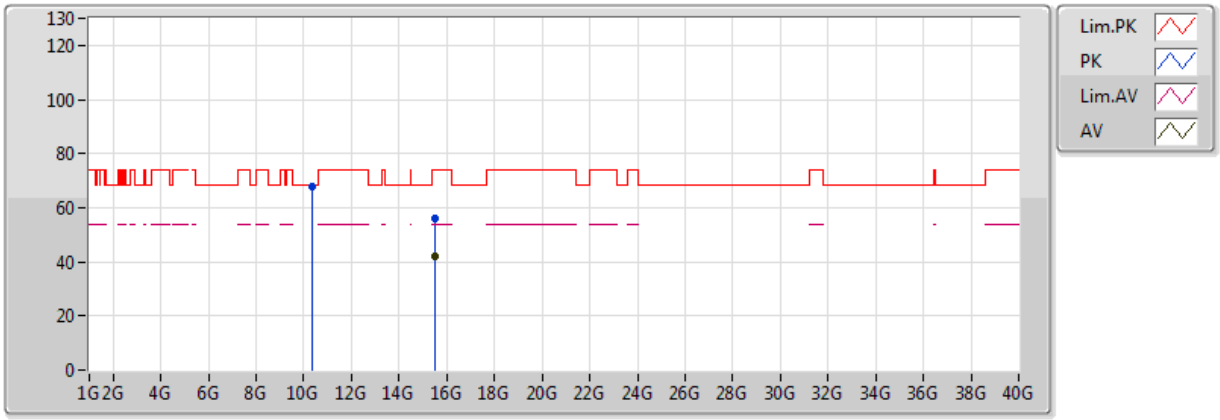


20180113
EUT Y_2TX
Setting 11
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.1488G	46.60	54.00	-7.40	4.06	3	Horizontal	182	1.83
AV	5.1848G	104.28	Inf	-Inf	4.16	3	Horizontal	182	1.83
AV	5.3768G	46.75	54.00	-7.25	4.62	3	Horizontal	182	1.83
PK	5.0888G	62.02	74.00	-11.98	3.87	3	Horizontal	182	1.83
PK	5.1816G	114.95	Inf	-Inf	4.15	3	Horizontal	182	1.83
PK	5.36G	59.04	74.00	-14.96	4.59	3	Horizontal	182	1.83

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

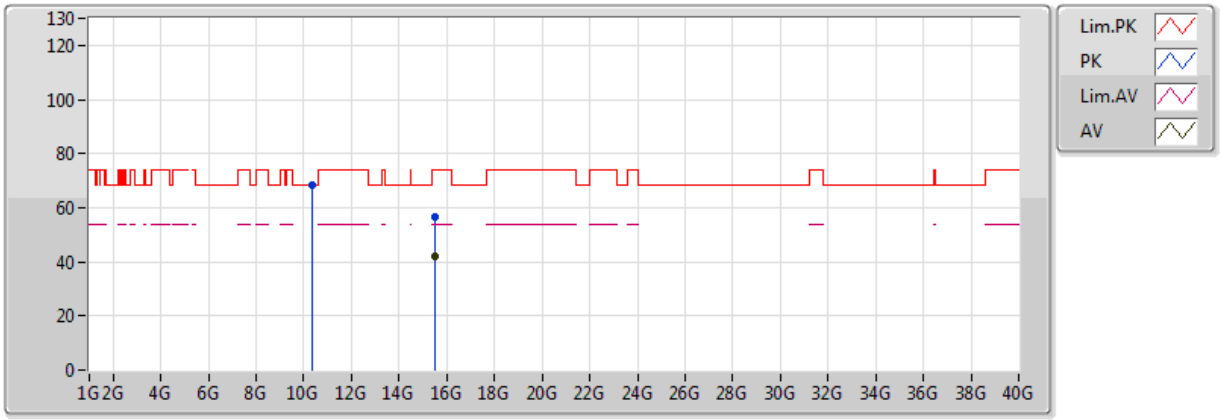


20180113
EUT Y_2TX
Setting 11
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.53106G	41.93	54.00	-12.07	15.23	3	Vertical	215	1.32
PK	10.3522G	67.99	68.20	-0.21	12.45	3	Vertical	113	1.47
PK	15.53472G	55.79	74.00	-18.21	15.23	3	Vertical	215	1.32

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

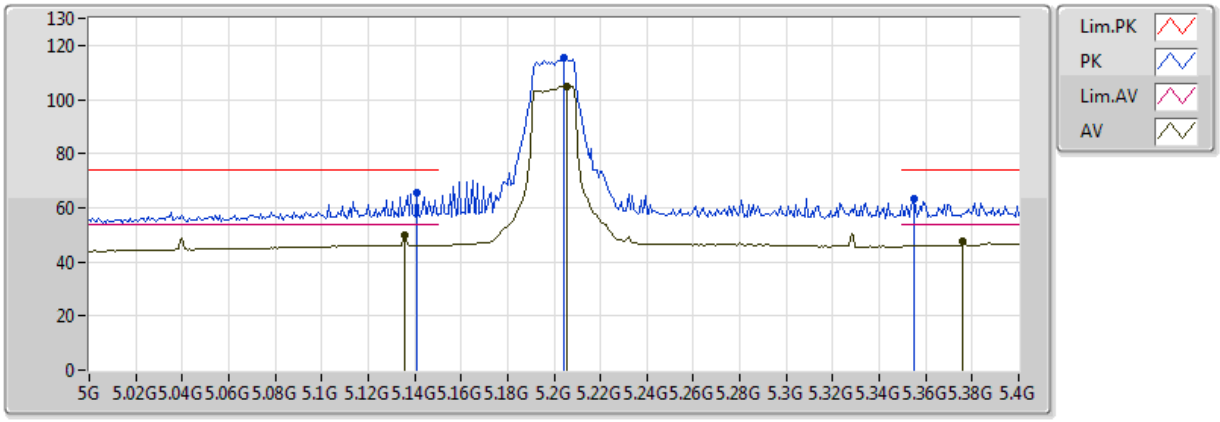


20180113
EUT Y_2TX
Setting 11
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.53358G	41.98	54.00	-12.02	15.23	3	Horizontal	309	1.35
PK	10.35802G	68.17	68.20	-0.03	12.46	3	Horizontal	118	1.67
PK	15.53628G	56.39	74.00	-17.61	15.23	3	Horizontal	309	1.35

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

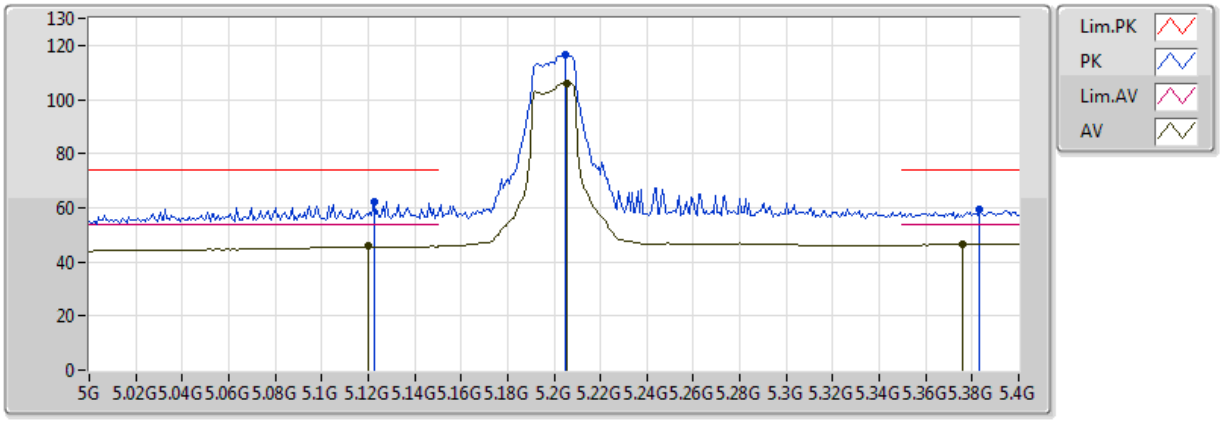


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.136G	49.78	54.00	-4.22	4.02	3	Vertical	181	1.64
AV	5.2056G	104.96	Inf	-Inf	4.22	3	Vertical	181	1.64
AV	5.376G	47.43	54.00	-6.57	4.62	3	Vertical	181	1.64
PK	5.1408G	65.73	74.00	-8.27	4.03	3	Vertical	181	1.64
PK	5.204G	115.21	Inf	-Inf	4.22	3	Vertical	181	1.64
PK	5.3552G	63.55	74.00	-10.45	4.58	3	Vertical	181	1.64

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

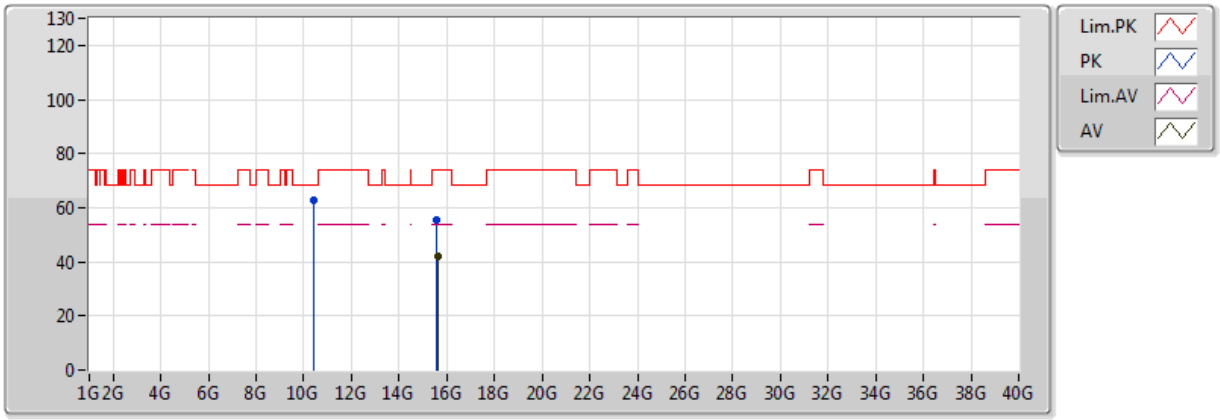


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.12G	45.84	54.00	-8.16	3.97	3	Horizontal	183	1.84
AV	5.2056G	106.06	Inf	-Inf	4.22	3	Horizontal	183	1.84
AV	5.376G	46.71	54.00	-7.29	4.62	3	Horizontal	183	1.84
PK	5.1224G	62.45	74.00	-11.55	3.98	3	Horizontal	183	1.84
PK	5.2048G	116.54	Inf	-Inf	4.22	3	Horizontal	183	1.84
PK	5.3832G	59.39	74.00	-14.61	4.63	3	Horizontal	183	1.84

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

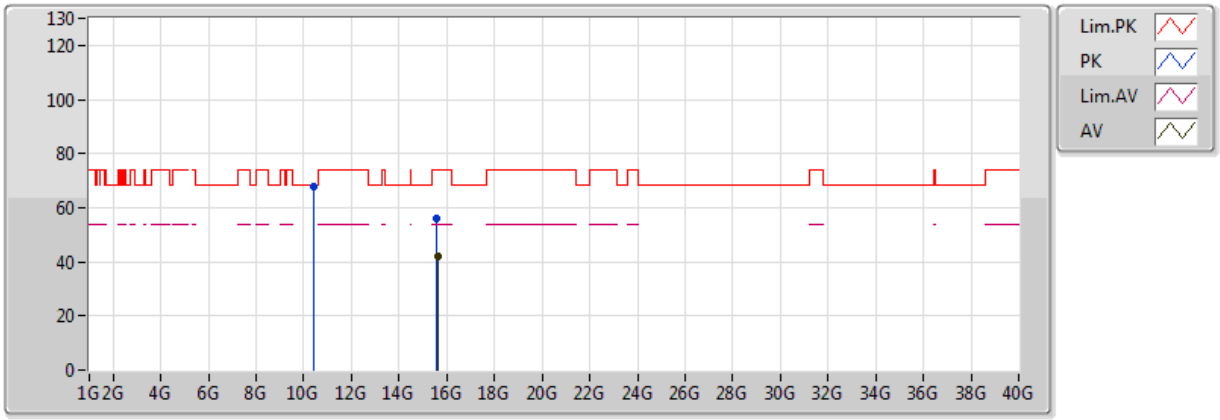


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.60138G	41.97	54.00	-12.03	15.16	3	Vertical	62	1.32
PK	10.3922G	62.91	68.20	-5.29	12.50	3	Vertical	145	1.43
PK	15.59232G	55.32	74.00	-18.68	15.17	3	Vertical	62	1.32

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

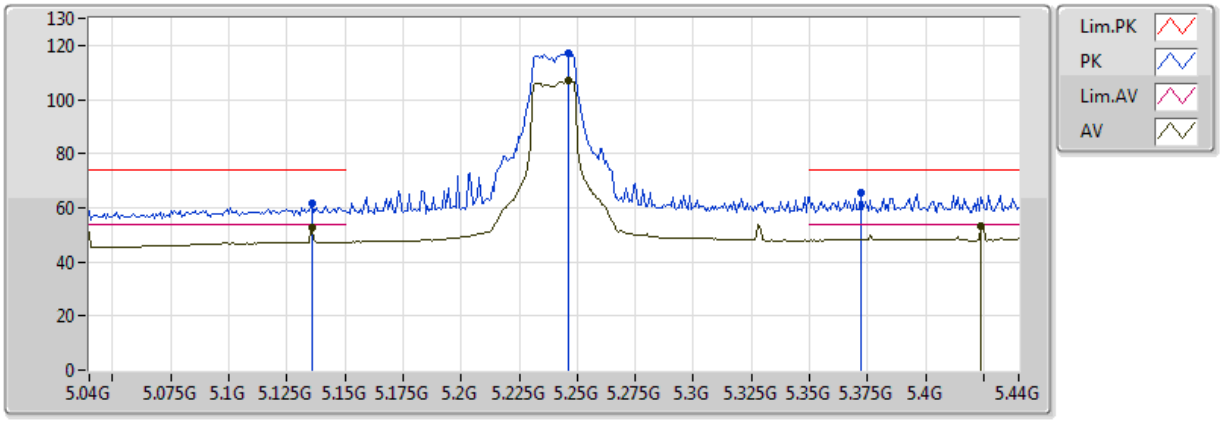


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.60956G	41.83	54.00	-12.17	15.15	3	Horizontal	296	1.37
PK	10.3964G	67.96	68.20	-0.24	12.51	3	Horizontal	126	1.49
PK	15.59764G	55.91	74.00	-18.09	15.16	3	Horizontal	296	1.37

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

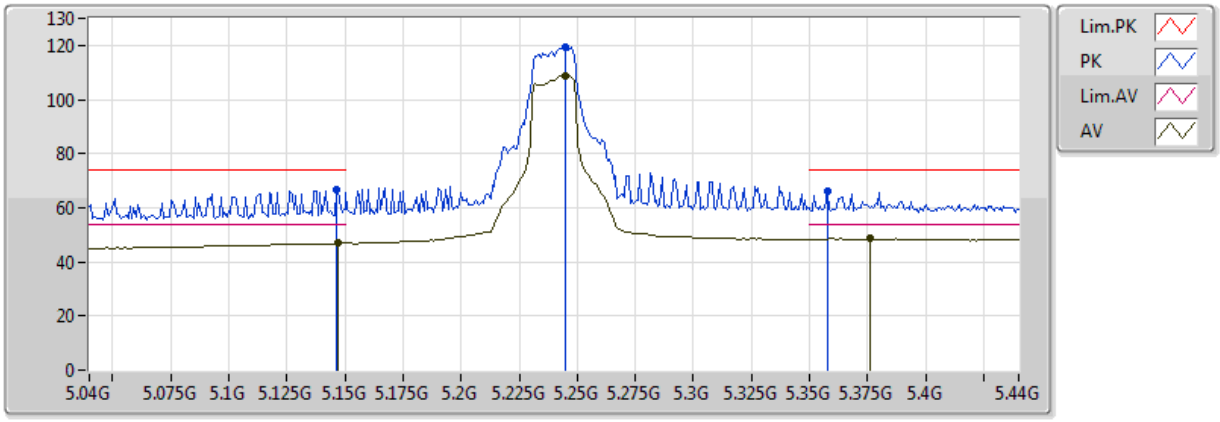


20180113
EUT Y_2TX
Setting 15
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.136G	52.68	54.00	-1.32	4.02	3	Vertical	179	1.74
AV	5.2464G	106.88	Inf	-Inf	4.33	3	Vertical	179	1.74
AV	5.424G	53.04	54.00	-0.96	4.71	3	Vertical	179	1.74
PK	5.136G	61.70	74.00	-12.30	4.02	3	Vertical	179	1.74
PK	5.2464G	117.36	Inf	-Inf	4.33	3	Vertical	179	1.74
PK	5.372G	65.64	74.00	-8.36	4.61	3	Vertical	179	1.74

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

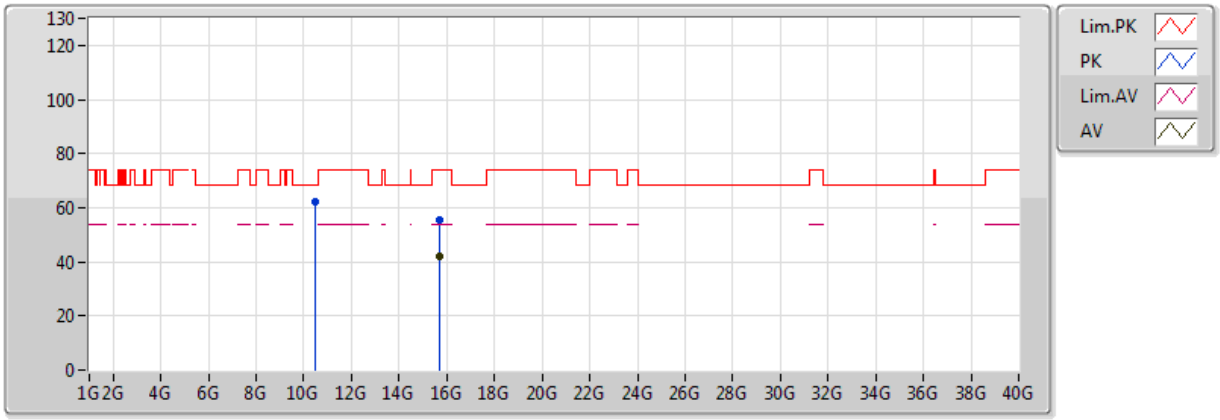


20180113
EUT Y_2TX
Setting 15
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.1472G	46.85	54.00	-7.15	4.05	3	Horizontal	185	1.70
AV	5.2448G	108.88	Inf	-Inf	4.32	3	Horizontal	185	1.70
AV	5.376G	48.96	54.00	-5.04	4.62	3	Horizontal	185	1.70
PK	5.1464G	66.45	74.00	-7.55	4.05	3	Horizontal	185	1.70
PK	5.2448G	119.31	Inf	-Inf	4.32	3	Horizontal	185	1.70
PK	5.3576G	65.88	74.00	-8.12	4.58	3	Horizontal	185	1.70

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

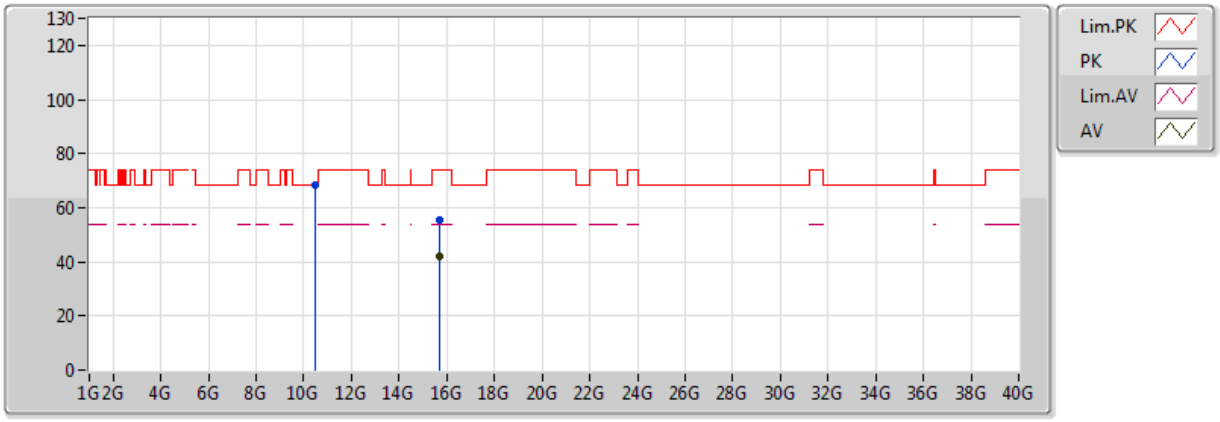


20180113
EUT Y_2TX
Setting 15
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.7146G	41.85	54.00	-12.15	15.04	3	Vertical	335	1.53
PK	10.47376G	62.28	68.20	-5.92	12.60	3	Vertical	247	1.67
PK	15.71124G	55.48	74.00	-18.52	15.04	3	Vertical	335	1.53

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

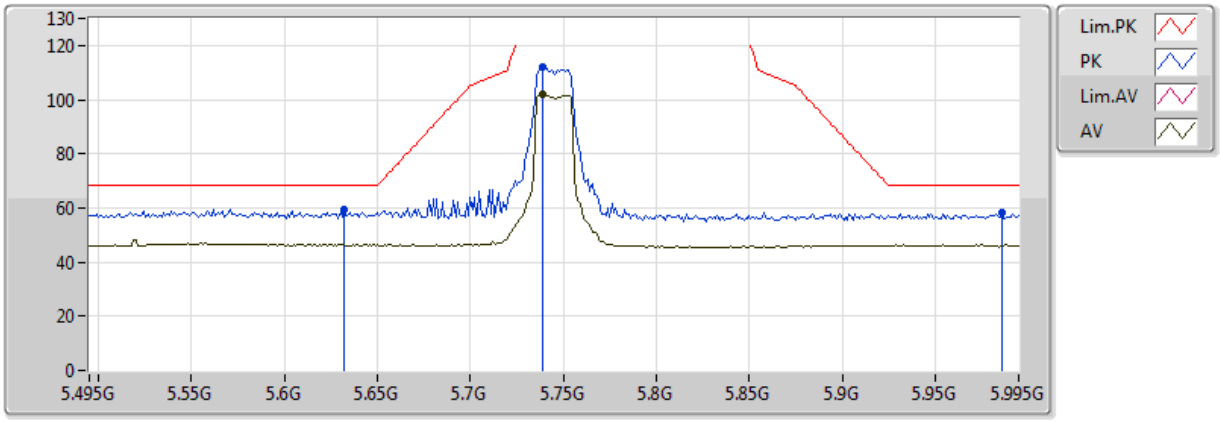


20180113
EUT Y_2TX
Setting 15
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.72068G	41.75	54.00	-12.25	15.03	3	Horizontal	273	1.35
PK	10.47922G	68.10	68.20	-0.10	12.61	3	Horizontal	256	1.14
PK	15.7188G	55.47	74.00	-18.53	15.03	3	Horizontal	273	1.35

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

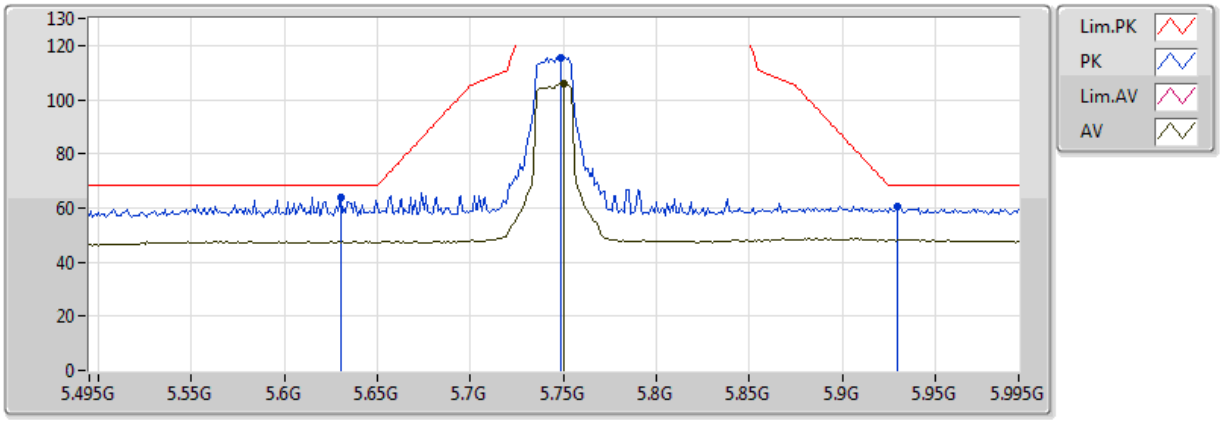


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.739G	101.96	Inf	-Inf	5.63	3	Vertical	177	1.73
PK	5.632G	59.30	68.20	-8.90	5.24	3	Vertical	177	1.73
PK	5.739G	111.93	Inf	-Inf	5.63	3	Vertical	177	1.73
PK	5.986G	58.26	68.20	-9.94	6.54	3	Vertical	177	1.73

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

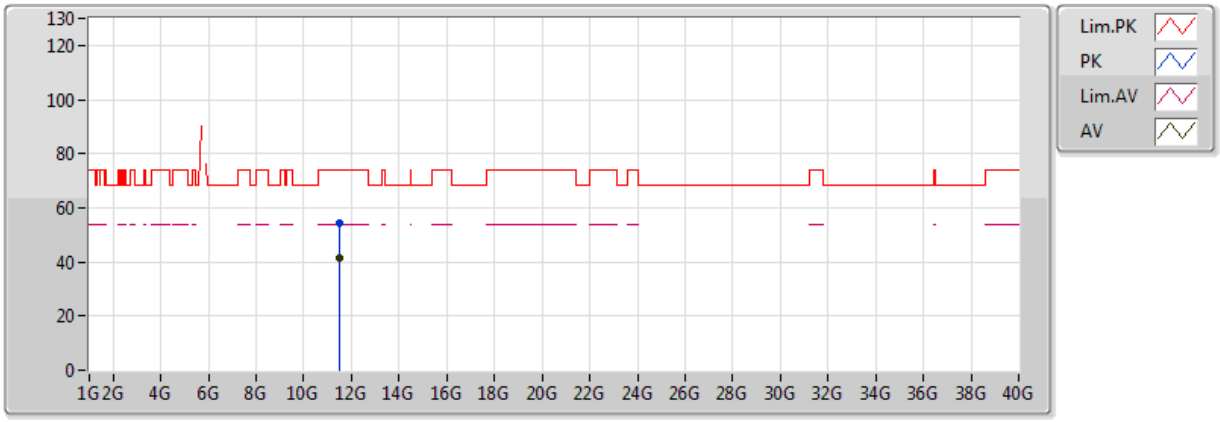


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.75G	105.75	Inf	-Inf	5.67	3	Horizontal	184	1.77
PK	5.63G	64.12	68.20	-4.08	5.23	3	Horizontal	184	1.77
PK	5.749G	115.62	Inf	-Inf	5.67	3	Horizontal	184	1.77
PK	5.93G	60.63	68.20	-7.57	6.34	3	Horizontal	184	1.77

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

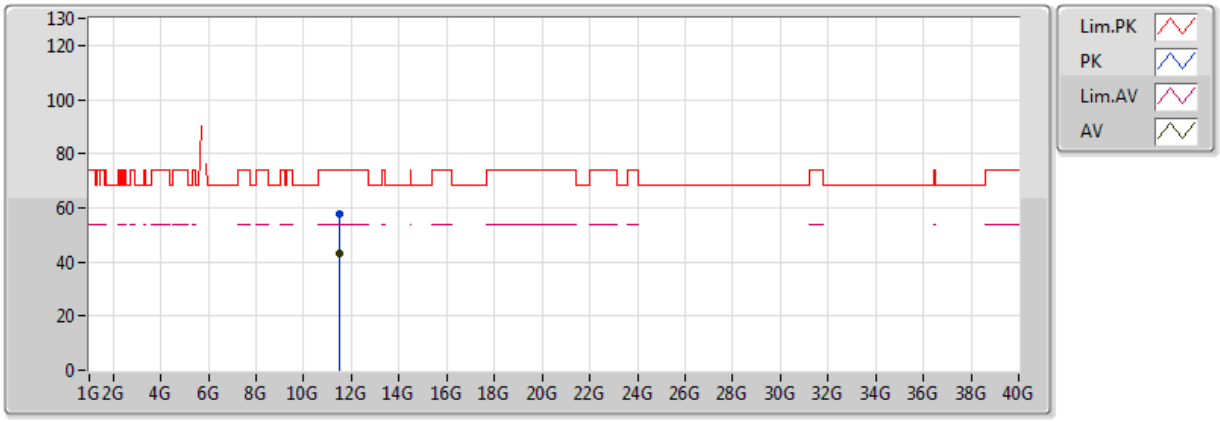


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.49G	41.40	54.00	-12.60	13.32	3	Vertical	197	1.58
PK	11.49252G	54.09	74.00	-19.91	13.32	3	Vertical	197	1.58

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

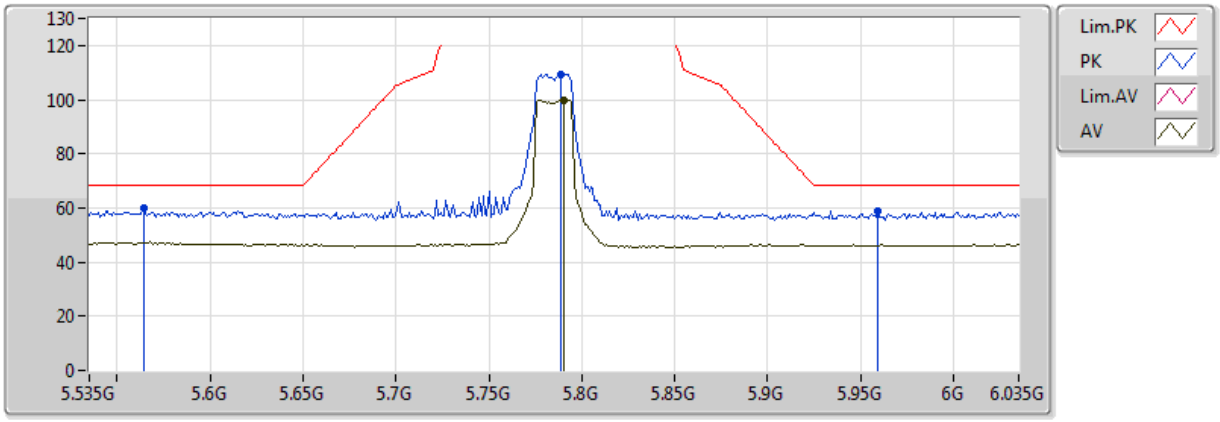


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.48408G	43.01	54.00	-10.99	13.32	3	Horizontal	145	1.64
PK	11.48428G	57.97	74.00	-16.03	13.32	3	Horizontal	145	1.64

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

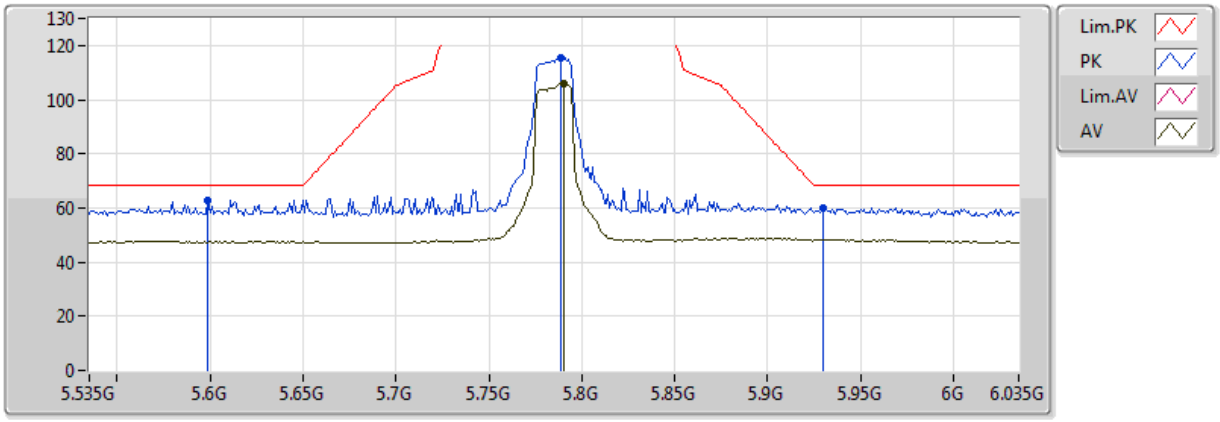


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.79G	100.01	Inf	-Inf	5.82	3	Vertical	181	1.83
PK	5.564G	59.94	68.20	-8.26	5.02	3	Vertical	181	1.83
PK	5.789G	109.48	Inf	-Inf	5.82	3	Vertical	181	1.83
PK	5.959G	58.81	68.20	-9.39	6.44	3	Vertical	181	1.83

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

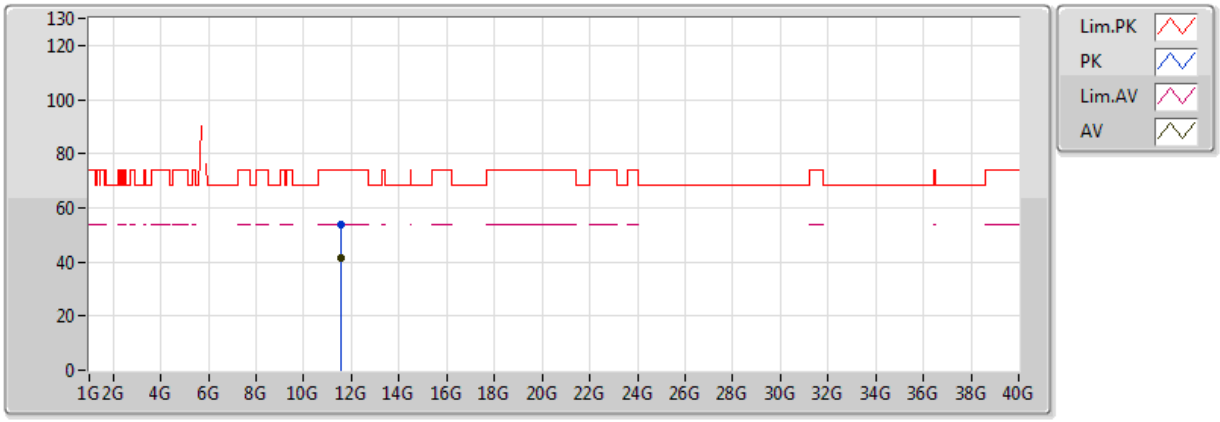


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.79G	105.78	Inf	-Inf	5.82	3	Horizontal	184	1.75
PK	5.599G	62.96	68.20	-5.24	5.12	3	Horizontal	184	1.75
PK	5.789G	115.70	Inf	-Inf	5.82	3	Horizontal	184	1.75
PK	5.93G	60.05	68.20	-8.15	6.34	3	Horizontal	184	1.75

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

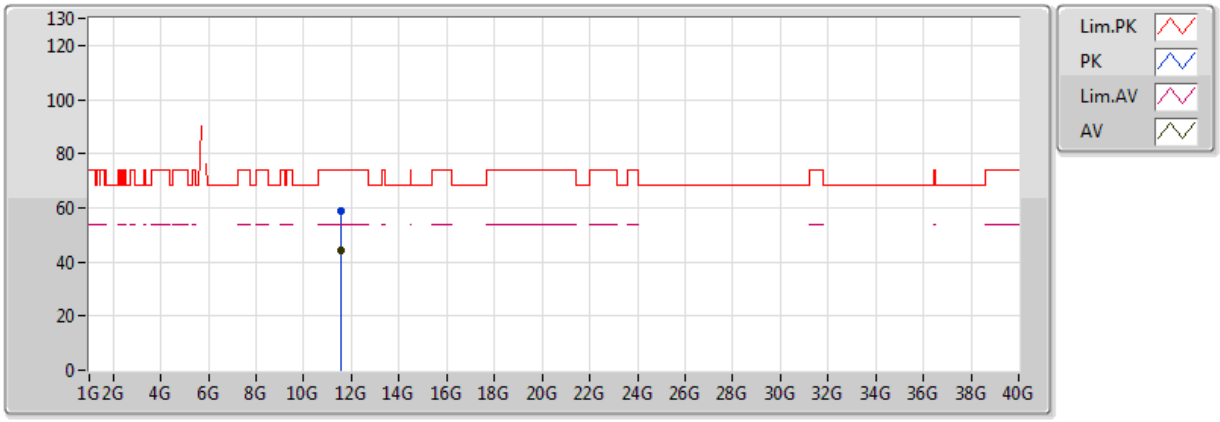


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.56G	41.31	54.00	-12.69	13.33	3	Vertical	231	1.60
PK	11.57568G	53.98	74.00	-20.02	13.33	3	Vertical	231	1.60

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

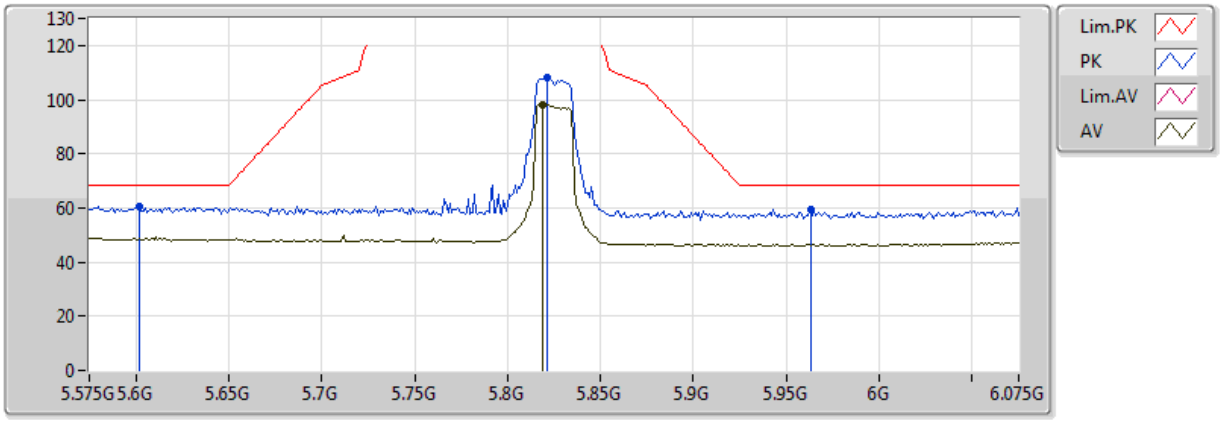


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.56976G	44.51	54.00	-9.49	13.33	3	Horizontal	141	1.69
PK	11.57272G	58.70	74.00	-15.30	13.33	3	Horizontal	141	1.69

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

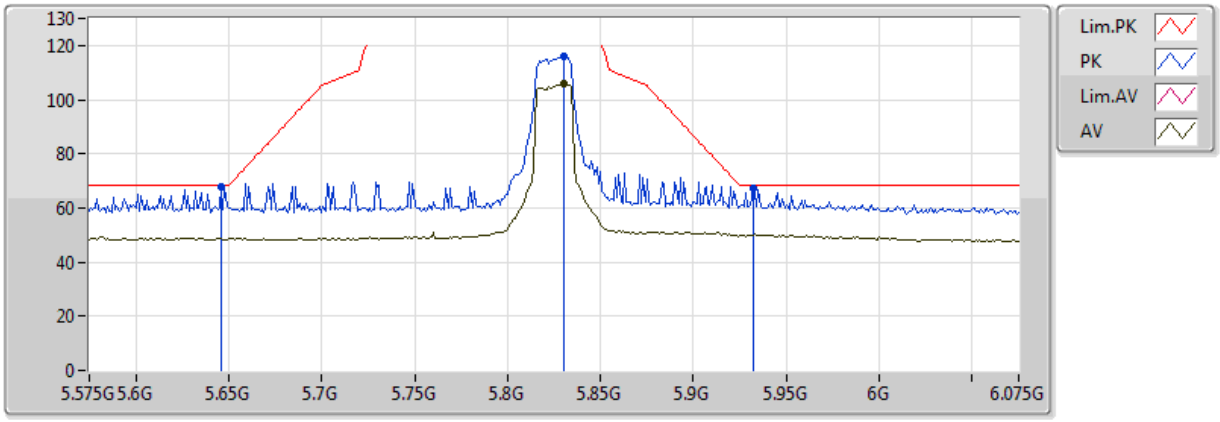


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.819G	98.26	Inf	-Inf	5.93	3	Vertical	183	1.72
PK	5.602G	60.79	68.20	-7.41	5.13	3	Vertical	183	1.72
PK	5.821G	108.09	Inf	-Inf	5.94	3	Vertical	183	1.72
PK	5.963G	59.60	68.20	-8.60	6.46	3	Vertical	183	1.72

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

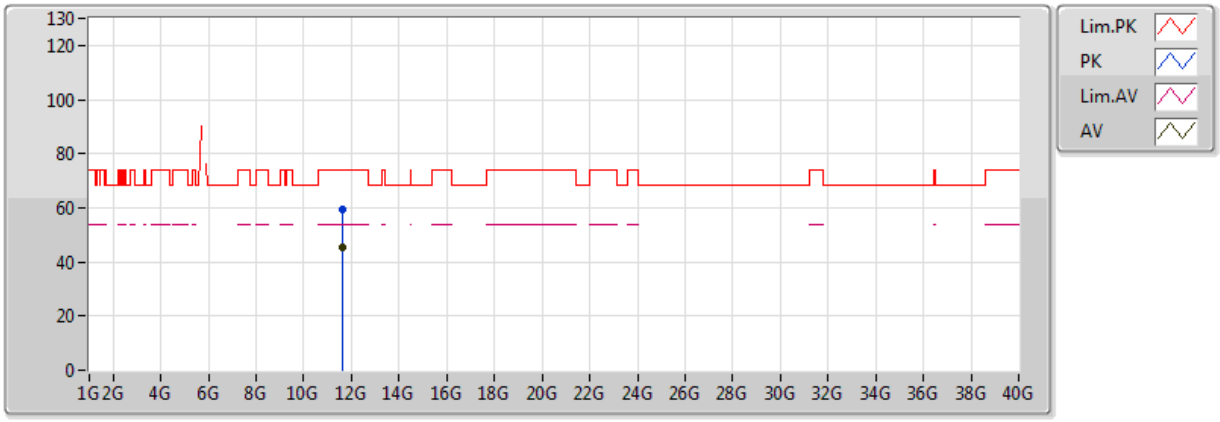


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.83G	106.07	Inf	-Inf	5.97	3	Horizontal	181	1.81
PK	5.646G	67.75	68.20	-0.45	5.29	3	Horizontal	181	1.81
PK	5.83G	116.07	Inf	-Inf	5.97	3	Horizontal	181	1.81
PK	5.932G	67.47	68.20	-0.73	6.35	3	Horizontal	181	1.81

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

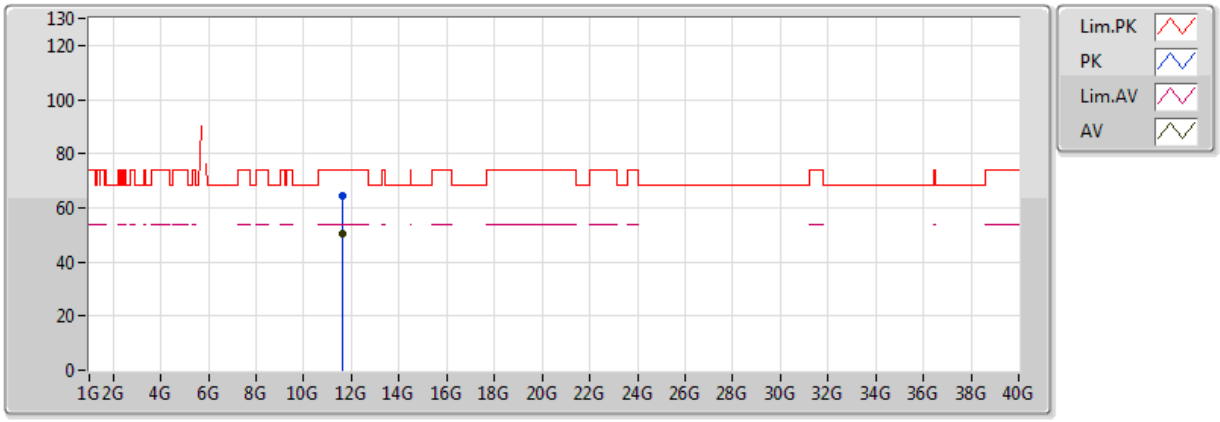


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.64956G	45.45	54.00	-8.55	13.35	3	Vertical	184	1.66
PK	11.648G	59.46	74.00	-14.54	13.35	3	Vertical	184	1.66

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

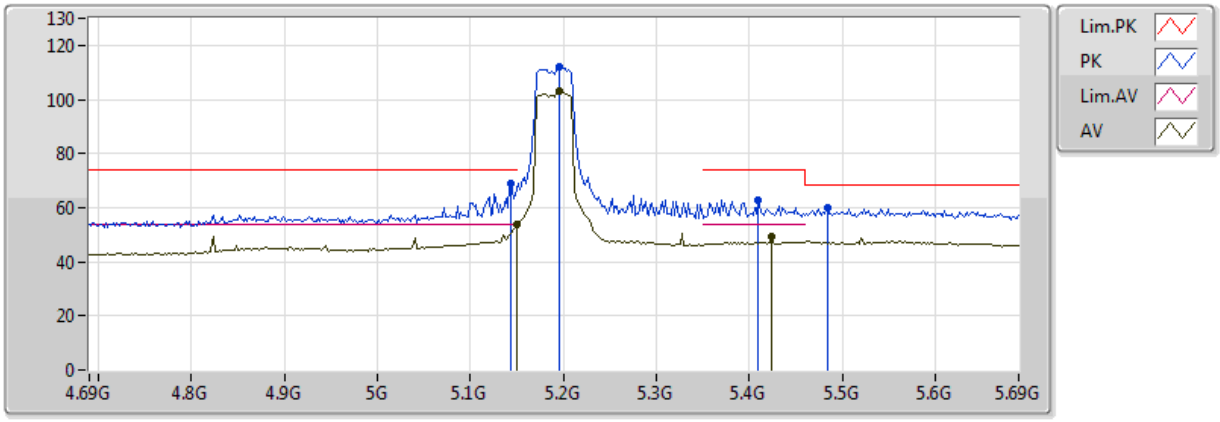


20180113
EUT Y_2TX
Setting 12.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.64972G	50.23	54.00	-3.77	13.35	3	Horizontal	143	1.67
PK	11.65252G	64.52	74.00	-9.48	13.35	3	Horizontal	143	1.67

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

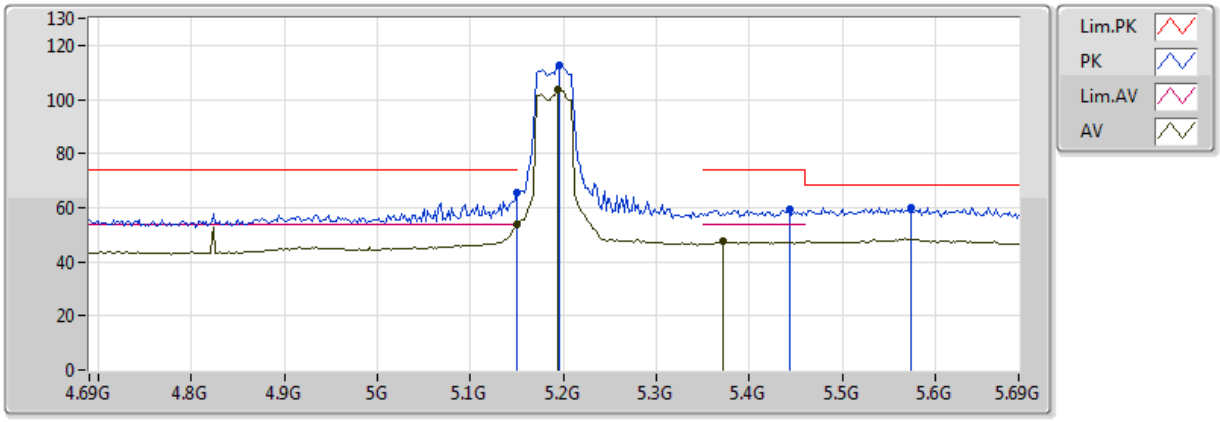


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.149995G	53.83	54.00	-0.17	4.06	3	Vertical	178	1.60
AV	5.196G	103.01	Inf	-Inf	4.20	3	Vertical	178	1.60
AV	5.424G	49.51	54.00	-4.49	4.71	3	Vertical	178	1.60
PK	5.144G	68.94	74.00	-5.06	4.04	3	Vertical	178	1.60
PK	5.196G	111.86	Inf	-Inf	4.20	3	Vertical	178	1.60
PK	5.484G	59.73	68.20	-8.47	4.80	3	Vertical	178	1.60
PK	5.41G	62.96	74.00	-11.04	4.69	3	Vertical	178	1.60

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

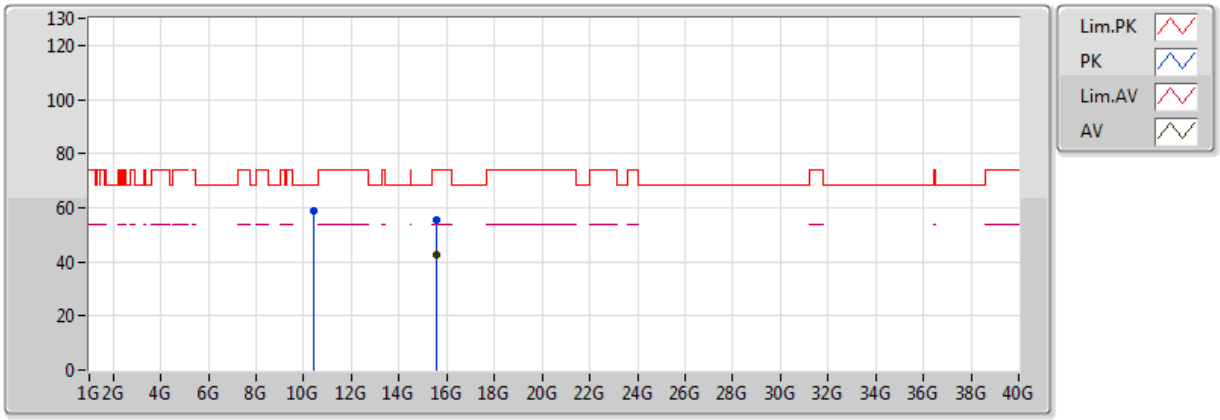


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.149995G	53.97	54.00	-0.03	4.06	3	Horizontal	183	1.80
AV	5.194G	103.77	Inf	-Inf	4.19	3	Horizontal	183	1.80
AV	5.372G	47.36	54.00	-6.64	4.61	3	Horizontal	183	1.80
PK	5.149995G	65.35	74.00	-8.65	4.06	3	Horizontal	183	1.80
PK	5.196G	112.80	Inf	-Inf	4.20	3	Horizontal	183	1.80
PK	5.574G	60.20	68.20	-8.00	5.04	3	Horizontal	183	1.80
PK	5.444G	59.38	74.00	-14.62	4.74	3	Horizontal	183	1.80

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

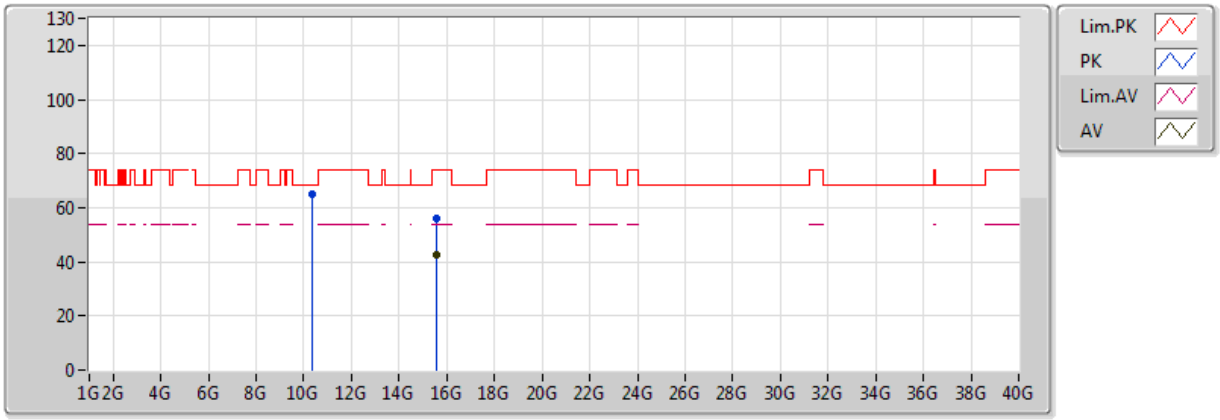


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.58356G	42.58	54.00	-11.42	15.18	3	Vertical	359	1.41
PK	10.39224G	58.87	68.20	-9.33	12.50	3	Vertical	320	1.67
PK	15.5583G	55.75	74.00	-18.25	15.20	3	Vertical	359	1.41

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

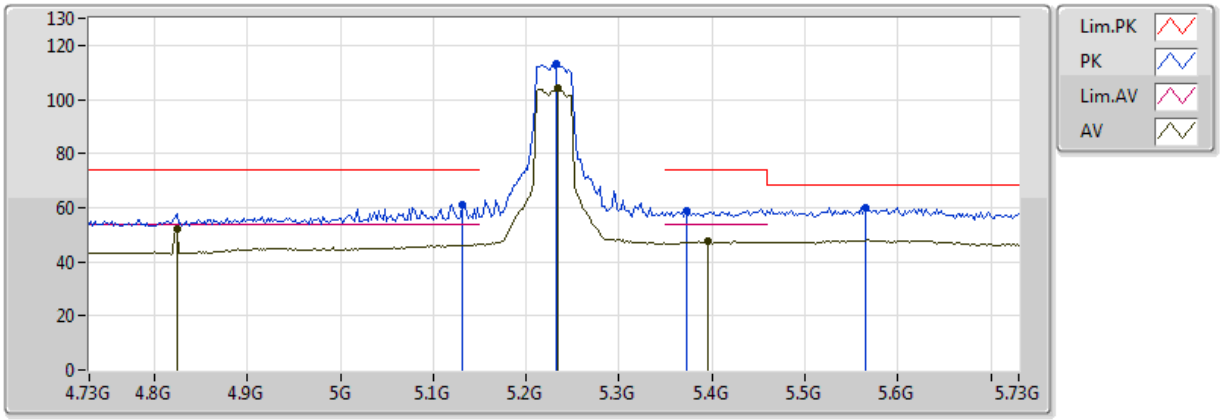


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.5733G	42.73	54.00	-11.27	15.19	3	Horizontal	232	1.13
PK	10.3791G	65.14	68.20	-3.06	12.48	3	Horizontal	267	1.35
PK	15.56052G	56.27	74.00	-17.73	15.20	3	Horizontal	232	1.13

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

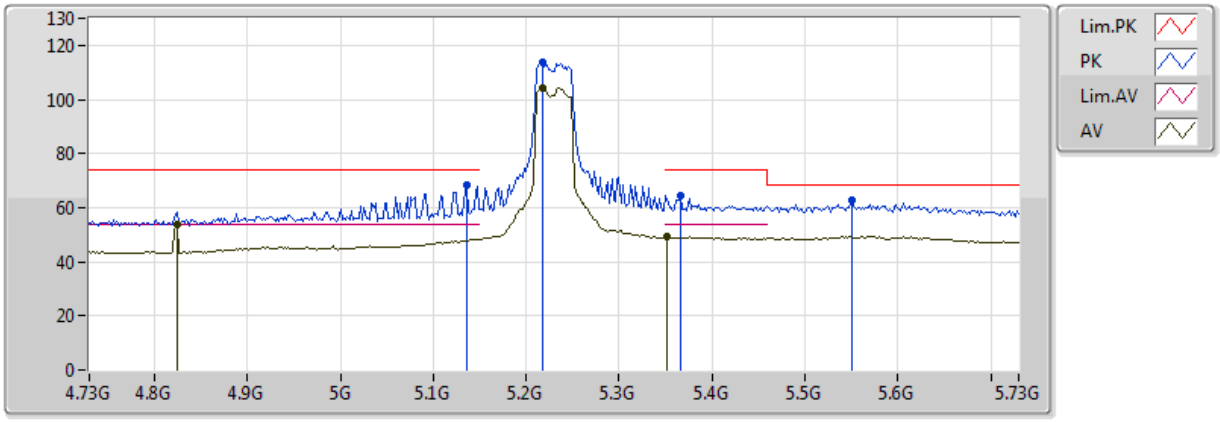


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	4.824G	52.23	54.00	-1.77	3.16	3	Vertical	187	1.87
AV	5.234G	104.09	Inf	-Inf	4.30	3	Vertical	187	1.87
AV	5.396G	47.54	54.00	-6.46	4.66	3	Vertical	187	1.87
PK	5.132G	61.28	74.00	-12.72	4.01	3	Vertical	187	1.87
PK	5.232G	113.17	Inf	-Inf	4.29	3	Vertical	187	1.87
PK	5.372G	58.98	74.00	-15.02	4.61	3	Vertical	187	1.87
PK	5.566G	59.92	68.20	-8.28	5.02	3	Vertical	187	1.87

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

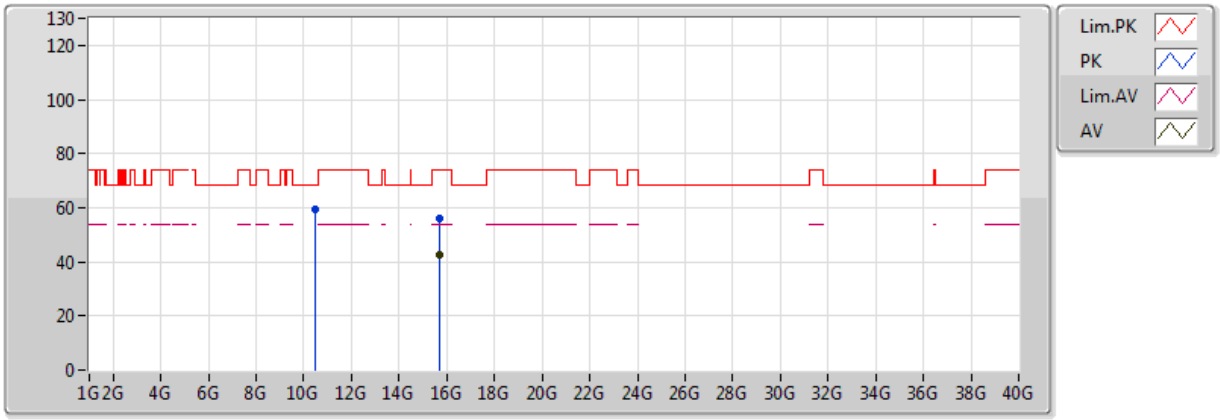


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	4.824G	53.88	54.00	-0.12	3.16	3	Horizontal	183	1.91
AV	5.218G	104.02	Inf	-Inf	4.25	3	Horizontal	183	1.91
AV	5.352G	49.05	54.00	-4.95	4.57	3	Horizontal	183	1.91
PK	5.136G	68.20	74.00	-5.80	4.02	3	Horizontal	183	1.91
PK	5.218G	113.78	Inf	-Inf	4.25	3	Horizontal	183	1.91
PK	5.366G	64.24	74.00	-9.76	4.60	3	Horizontal	183	1.91
PK	5.55G	62.57	68.20	-5.63	4.98	3	Horizontal	183	1.91

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

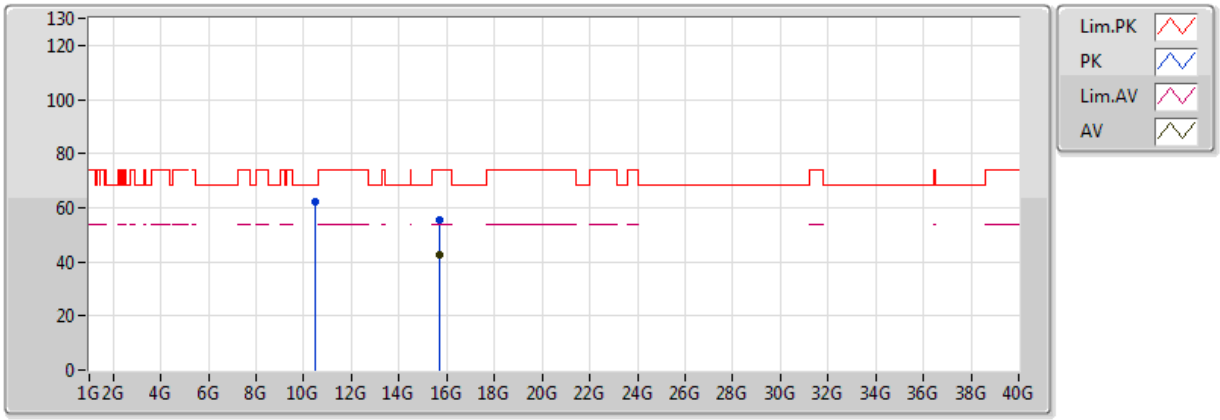


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.69432G	42.66	54.00	-11.34	15.06	3	Vertical	303	1.78
PK	10.4567G	59.24	68.20	-8.96	12.58	3	Vertical	311	1.63
PK	15.68808G	55.85	74.00	-18.15	15.06	3	Vertical	303	1.78

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

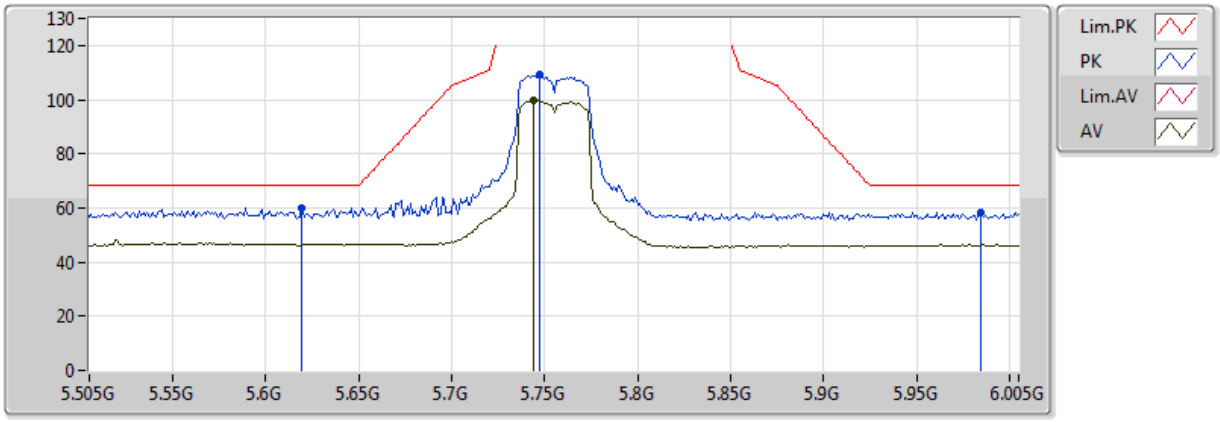


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.6801G	42.73	54.00	-11.27	15.07	3	Horizontal	297	1.45
PK	10.45664G	61.98	68.20	-6.22	12.58	3	Horizontal	300	1.34
PK	15.70434G	55.43	74.00	-18.57	15.05	3	Horizontal	297	1.45

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

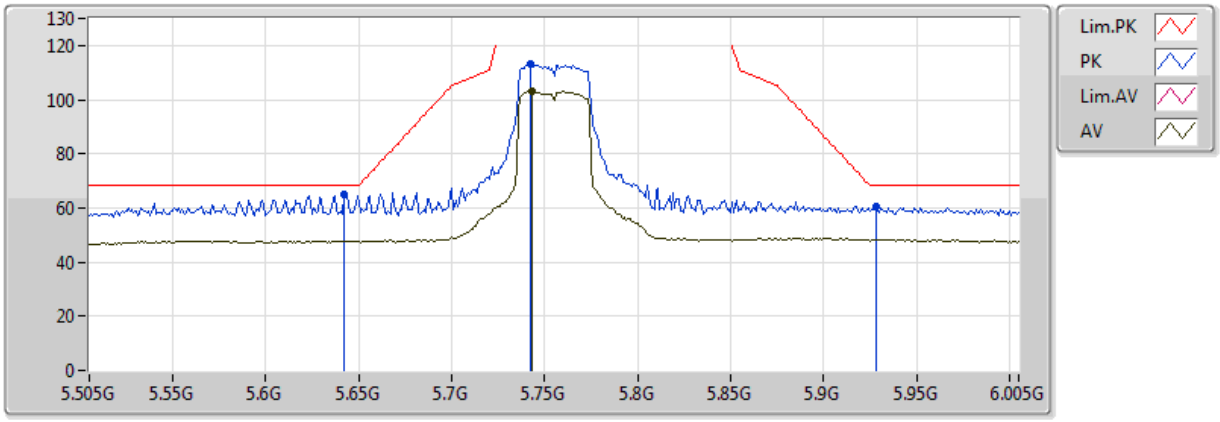


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.744G	99.87	Inf	-Inf	5.65	3	Vertical	179	1.87
PK	5.619G	59.99	68.20	-8.21	5.19	3	Vertical	179	1.87
PK	5.747G	109.18	Inf	-Inf	5.66	3	Vertical	179	1.87
PK	5.985G	58.52	68.20	-9.68	6.54	3	Vertical	179	1.87

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

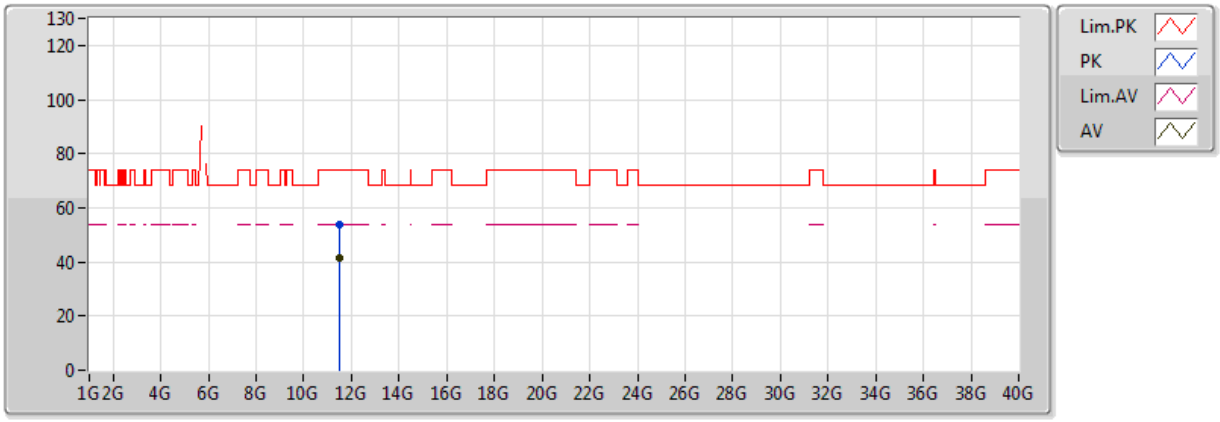


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.743G	103.11	Inf	-Inf	5.65	3	Horizontal	181	1.78
PK	5.642G	65.10	68.20	-3.10	5.28	3	Horizontal	181	1.78
PK	5.742G	113.13	Inf	-Inf	5.65	3	Horizontal	181	1.78
PK	5.928G	60.40	68.20	-7.80	6.33	3	Horizontal	181	1.78

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

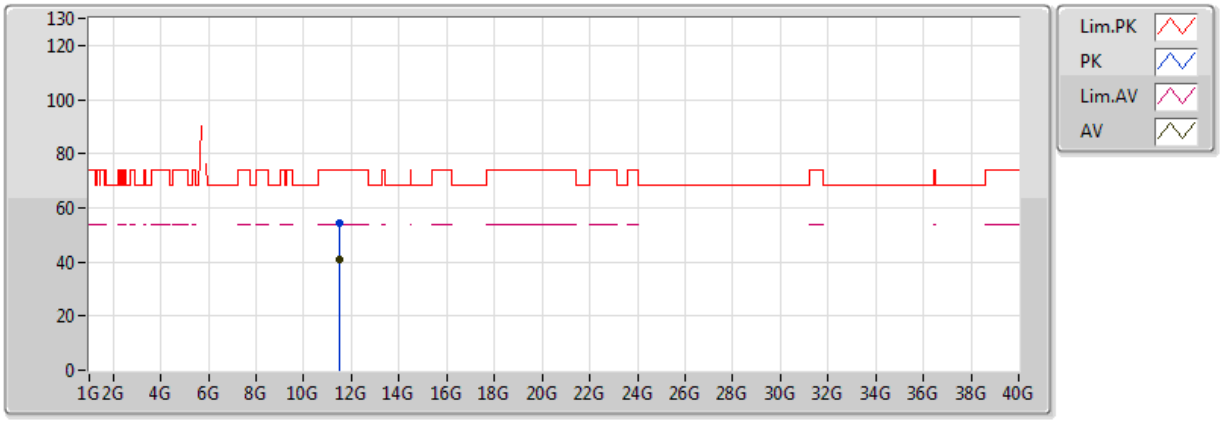


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.5176G	41.20	54.00	-12.80	13.32	3	Vertical	82	1.59
PK	11.51948G	53.99	74.00	-20.01	13.32	3	Vertical	82	1.59

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

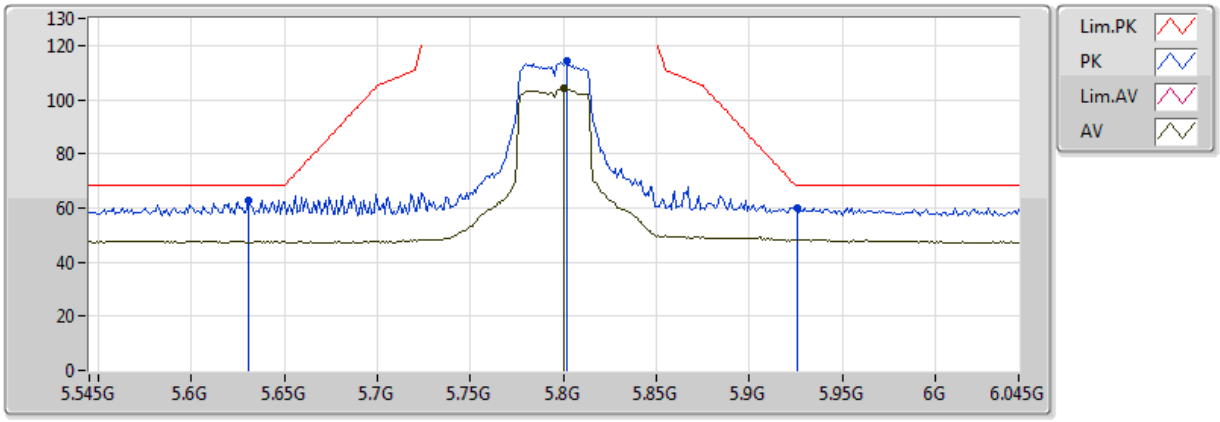


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.51324G	40.93	54.00	-13.07	13.32	3	Horizontal	138	1.50
PK	11.506G	54.09	74.00	-19.91	13.32	3	Horizontal	138	1.50

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

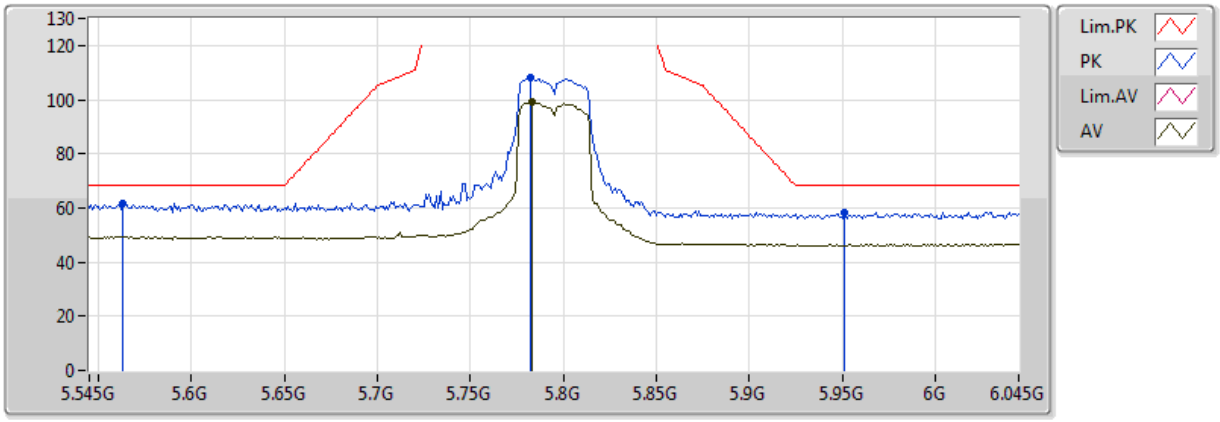


20180113
EUT Y_2TX
Setting 13
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.8G	104.18	Inf	-Inf	5.86	3	Vertical	180	1.86
PK	5.631G	62.81	68.20	-5.39	5.23	3	Vertical	180	1.86
PK	5.802G	114.13	Inf	-Inf	5.87	3	Vertical	180	1.86
PK	5.926G	60.13	68.20	-8.07	6.32	3	Vertical	180	1.86

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

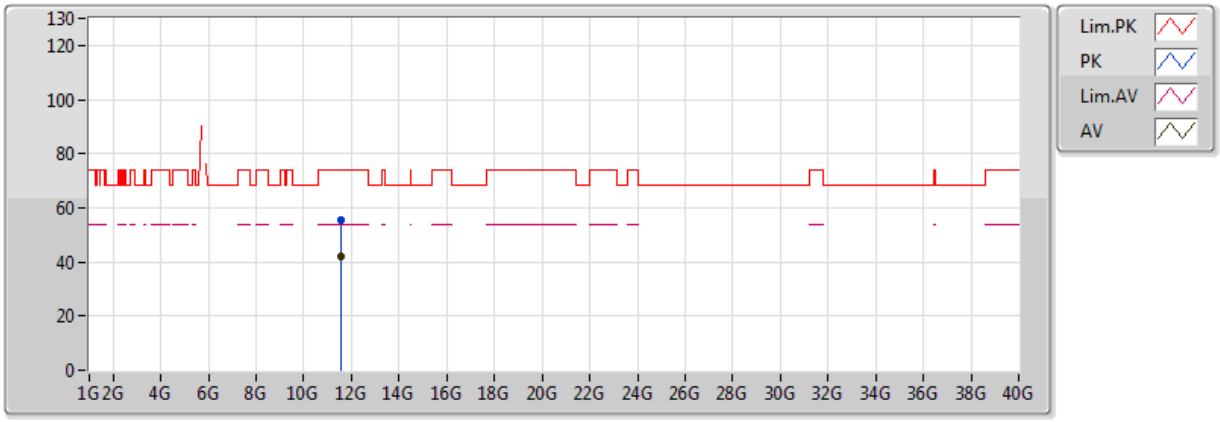


20180113
EUT Y_2TX
Setting 13
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.783G	99.06	Inf	-Inf	5.80	3	Horizontal	181	1.83
PK	5.563G	61.62	68.20	-6.58	5.01	3	Horizontal	181	1.83
PK	5.782G	107.93	Inf	-Inf	5.79	3	Horizontal	181	1.83
PK	5.951G	58.44	68.20	-9.76	6.41	3	Horizontal	181	1.83

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

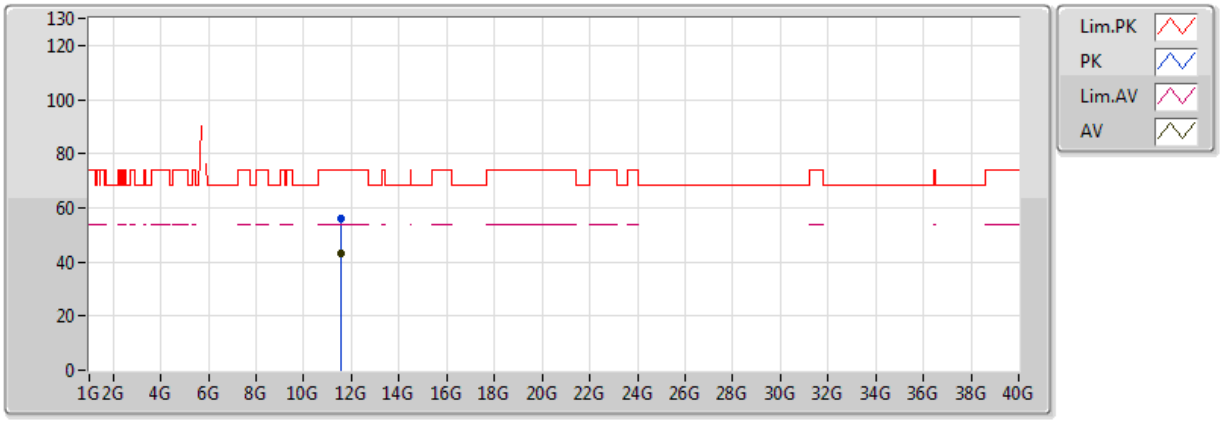


20180113
EUT Y_2TX
Setting 13
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.58148G	41.96	54.00	-12.04	13.33	3	Vertical	162	2.08
PK	11.58736G	55.44	74.00	-18.56	13.34	3	Vertical	162	2.08

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

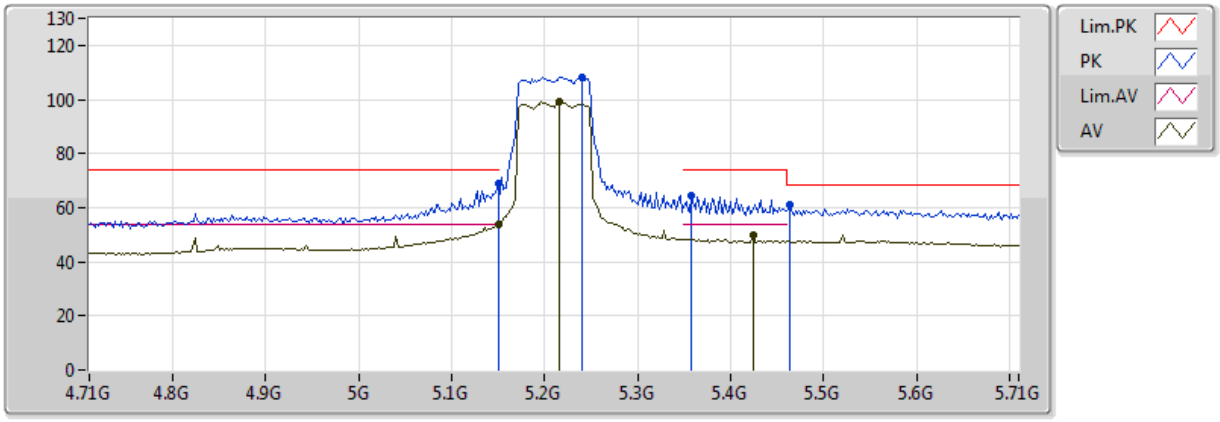


20180113
EUT Y_2TX
Setting 13
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.59008G	43.28	54.00	-10.72	13.34	3	Horizontal	108	1.72
PK	11.59036G	55.91	74.00	-18.09	13.34	3	Horizontal	108	1.72

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

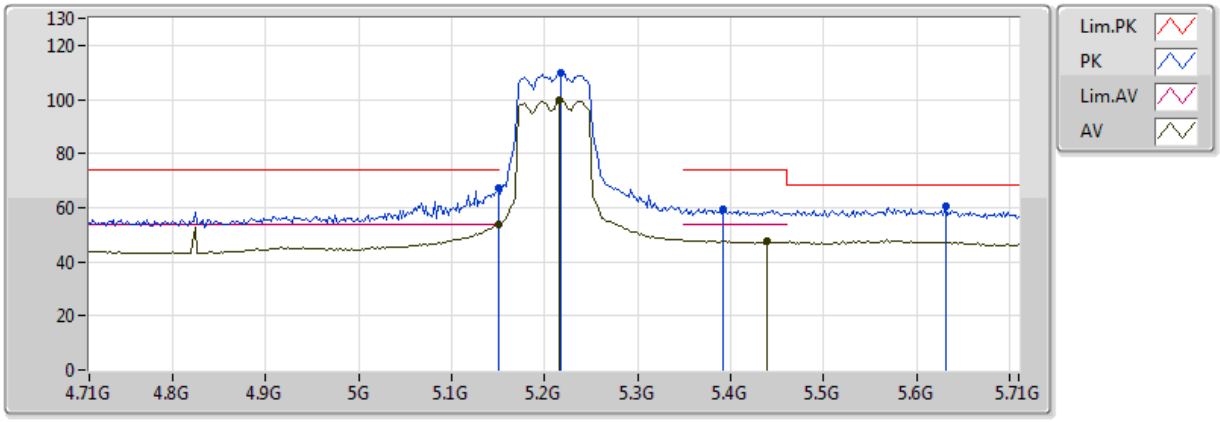


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.149995G	53.66	54.00	-0.34	4.06	3	Vertical	179	1.80
AV	5.216G	99.14	Inf	-Inf	4.25	3	Vertical	179	1.80
AV	5.424G	49.76	54.00	-4.24	4.71	3	Vertical	179	1.80
PK	5.149995G	68.67	74.00	-5.33	4.06	3	Vertical	179	1.80
PK	5.24G	108.21	Inf	-Inf	4.31	3	Vertical	179	1.80
PK	5.358G	64.18	74.00	-9.82	4.58	3	Vertical	179	1.80
PK	5.464G	61.13	68.20	-7.07	4.77	3	Vertical	179	1.80

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

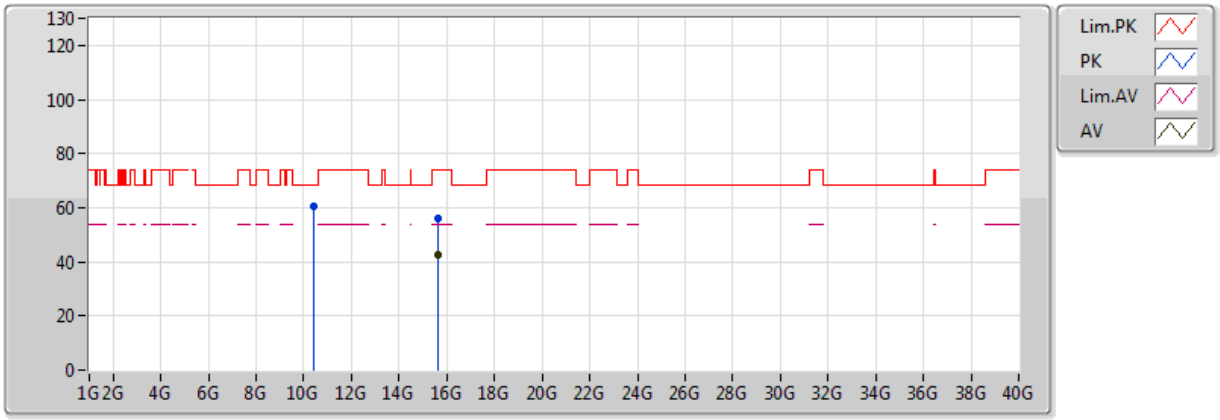


20180113
EUT Y_2TX
Setting 11.5
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.149995G	53.62	54.00	-0.38	4.06	3	Horizontal	177	1.96
AV	5.216G	99.73	Inf	-Inf	4.25	3	Horizontal	177	1.96
AV	5.44G	47.89	54.00	-6.11	4.73	3	Horizontal	177	1.96
PK	5.149995G	67.08	74.00	-6.92	4.06	3	Horizontal	177	1.96
PK	5.218G	109.55	Inf	-Inf	4.25	3	Horizontal	177	1.96
PK	5.392G	59.52	74.00	-14.48	4.65	3	Horizontal	177	1.96
PK	5.632G	60.52	68.20	-7.68	5.24	3	Horizontal	177	1.96

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

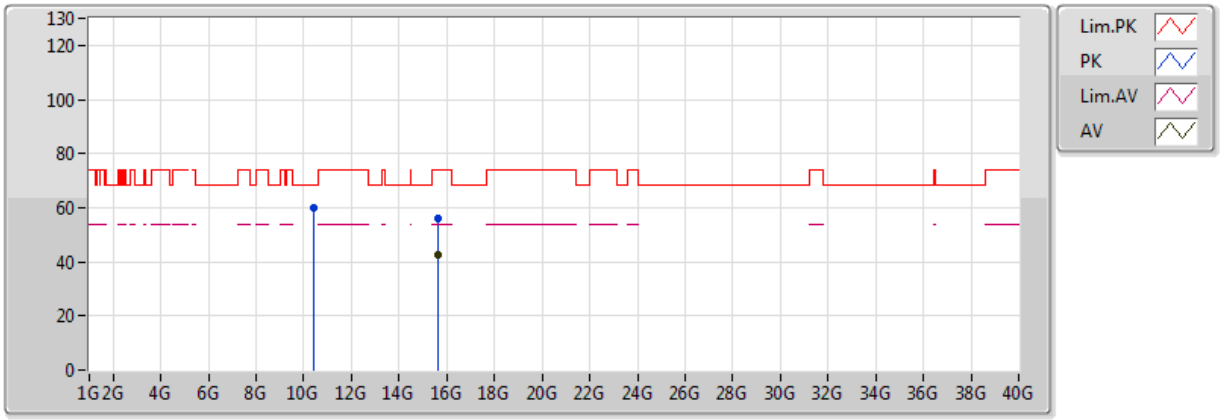


20180113
EUT Y_2TX
Setting 17
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.63804G	42.78	54.00	-11.22	15.12	3	Vertical	311	1.62
PK	10.41142G	60.55	68.20	-7.65	12.52	3	Vertical	301	1.53
PK	15.6447G	55.76	74.00	-18.24	15.11	3	Vertical	311	1.62

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

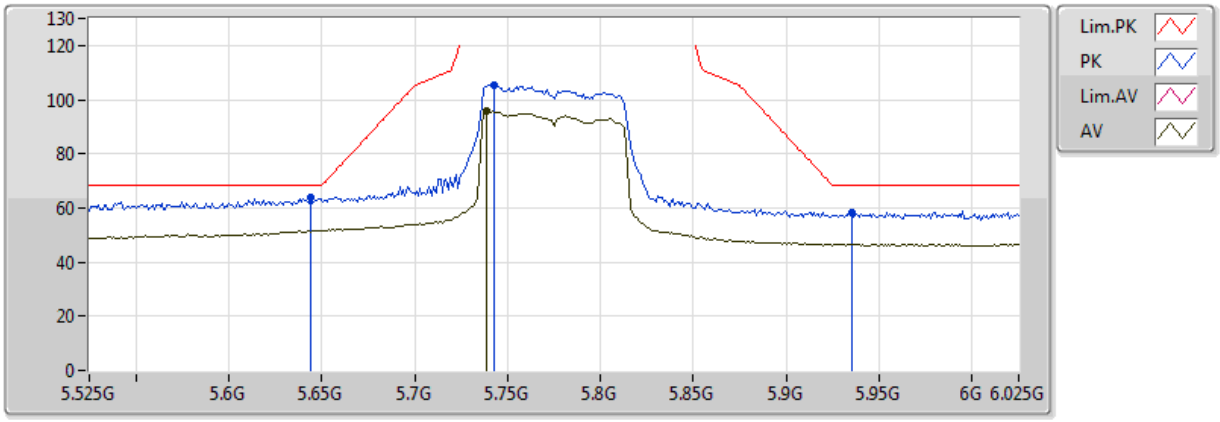


20180113
EUT Y_2TX
Setting 17
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	15.6354G	42.77	54.00	-11.23	15.12	3	Horizontal	307	1.32
PK	10.4192G	59.93	68.20	-8.27	12.53	3	Horizontal	298	1.40
PK	15.6294G	56.13	74.00	-17.87	15.13	3	Horizontal	307	1.32

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

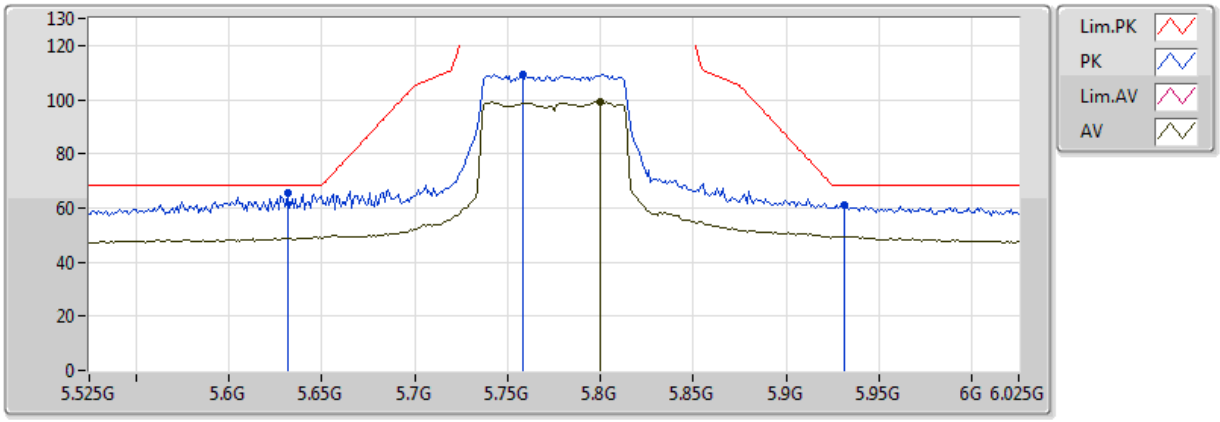


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.739G	95.73	Inf	-Inf	5.63	3	Vertical	181	1.84
PK	5.644G	63.63	68.20	-4.57	5.28	3	Vertical	181	1.84
PK	5.743G	105.42	Inf	-Inf	5.65	3	Vertical	181	1.84
PK	5.935G	58.50	68.20	-9.70	6.36	3	Vertical	181	1.84

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

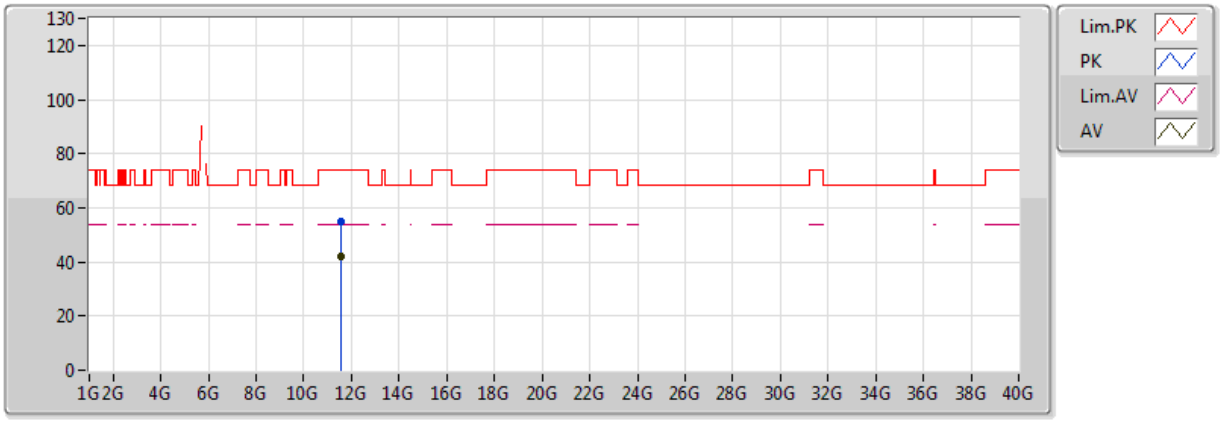


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	5.8G	99.06	Inf	-Inf	5.86	3	Horizontal	183	1.82
PK	5.632G	65.31	68.20	-2.89	5.24	3	Horizontal	183	1.82
PK	5.758G	109.13	Inf	-Inf	5.70	3	Horizontal	183	1.82
PK	5.931G	61.20	68.20	-7.00	6.34	3	Horizontal	183	1.82

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

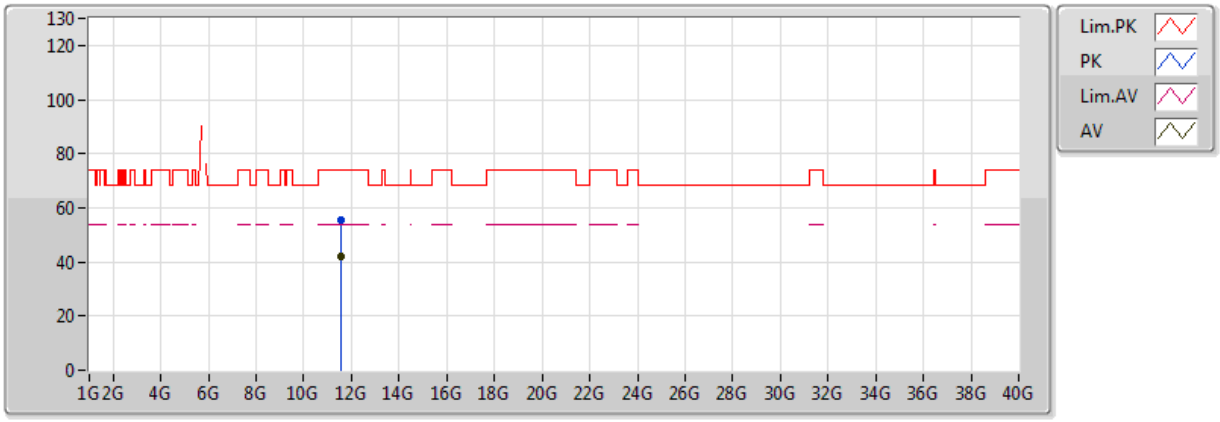


20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.54824G	42.19	54.00	-11.81	13.33	3	Vertical	177	1.18
PK	11.55084G	54.81	74.00	-19.19	13.33	3	Vertical	177	1.18

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



20180113
EUT Y_2TX
Setting 12
04-S-5
FSP(100142)

Type	Freq	Level	Limit	Margin	Factor	Dist	Pol.	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)	(H/V)	(°)	(m)
AV	11.54784G	42.23	54.00	-11.77	13.33	3	Horizontal	270	1.38
PK	11.55044G	55.44	74.00	-18.56	13.33	3	Horizontal	270	1.38

Mode: 20 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9630	5199.9620	5199.9611	5199.9601
110.00	5199.9622	5199.9618	5199.9614	5199.9612
93.50	5199.9615	5199.9614	5199.9609	5199.9605
Max. Deviation (MHz)	0.0385	0.0386	0.0391	0.0399
Max. Deviation (ppm)	7.40	7.42	7.52	7.67
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5199.9615	5199.9614	5199.9609	5199.9600
10	5199.9617	5199.9612	5199.9602	5199.9595
20	5199.9622	5199.9619	5199.9615	5199.9611
30	5199.9968	5199.9963	5199.9960	5199.9958
40	5199.9985	5199.9978	5199.9977	5199.9970
50	5199.9996	5199.9993	5199.9989	5199.9981
Max. Deviation (MHz)	0.0406	0.0412	0.0417	0.0421
Max. Deviation (ppm)	7.81	7.92	8.02	8.10
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9628	5784.9618	5784.9612	5784.9602
110.00	5784.9622	5784.9618	5784.9608	5784.9598
93.50	5784.9617	5784.9607	5784.9598	5784.9595
Max. Deviation (MHz)	0.0383	0.0393	0.0402	0.0405
Max. Deviation (ppm)	6.62	6.79	6.95	7.00
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5784.9609	5784.9608	5784.9598	5784.9594
10	5784.9612	5784.9606	5784.9599	5784.9594
20	5784.9622	5784.9614	5784.9609	5784.9601
30	5784.9968	5784.9962	5784.9957	5784.9951
40	5784.9984	5784.9979	5784.9972	5784.9968
50	5784.9978	5784.9974	5784.9972	5784.9962
Max. Deviation (MHz)	0.0425	0.0433	0.0441	0.0448
Max. Deviation (ppm)	7.35	7.48	7.62	7.74
Result	Pass			

Mode: 40 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9628	5189.9623	5189.9620	5189.9611
110.00	5189.9622	5189.9614	5189.9605	5189.9603
93.50	5189.9621	5189.9611	5189.9603	5189.9598
Max. Deviation (MHz)	0.0379	0.0389	0.0397	0.0402
Max. Deviation (ppm)	7.30	7.50	7.65	7.75
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5189.9590	5189.9586	5189.9576	5189.9572
10	5189.9604	5189.9594	5189.9588	5189.9583
20	5189.9622	5189.9612	5189.9611	5189.9606
30	5189.9968	5189.9958	5189.9949	5189.9943
40	5189.9980	5189.9979	5189.9976	5189.9971
50	5189.9624	5189.9619	5189.9618	5189.9617
Max. Deviation (MHz)	0.0430	0.0431	0.0432	0.0434
Max. Deviation (ppm)	8.29	8.30	8.32	8.36
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9624	5754.9623	5754.9621	5754.9616
110.00	5754.9622	5754.9618	5754.9609	5754.9600
93.50	5754.9617	5754.9607	5754.9606	5754.9602
Max. Deviation (MHz)	0.0383	0.0393	0.0394	0.0400
Max. Deviation (ppm)	6.66	6.83	6.85	6.95
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5754.9604	5754.9599	5754.9594	5754.9590
10	5754.9618	5754.9616	5754.9609	5754.9602
20	5754.9622	5754.9616	5754.9608	5754.9601
30	5754.9968	5754.9964	5754.9956	5754.9949
40	5754.9985	5754.9984	5754.9980	5754.9976
50	5754.9639	5754.9637	5754.9636	5754.9628
Max. Deviation (MHz)	0.0440	0.0450	0.0451	0.0454
Max. Deviation (ppm)	7.65	7.82	7.84	7.89
Result	Pass			

Mode: 80 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9630	5209.9623	5209.9614	5209.9613
110.00	5209.9622	5209.9612	5209.9607	5209.9598
93.50	5209.9621	5209.9612	5209.9605	5209.9598
Max. Deviation (MHz)	0.0379	0.0388	0.0395	0.0402
Max. Deviation (ppm)	7.27	7.45	7.58	7.72
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5209.9605	5209.9596	5209.9589	5209.9584
10	5209.9618	5209.9608	5209.9604	5209.9601
20	5209.9622	5209.9620	5209.9617	5209.9609
30	5209.9968	5209.9964	5209.9960	5209.9954
40	5209.9976	5209.9968	5209.9959	5209.9956
50	5209.9635	5209.9629	5209.9619	5209.9616
Max. Deviation (MHz)	0.0438	0.0447	0.0451	0.0454
Max. Deviation (ppm)	8.41	8.58	8.66	8.71
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9626	5774.9622	5774.9617	5774.9614
110.00	5774.9622	5774.9621	5774.9615	5774.9607
93.50	5774.9619	5774.9616	5774.9615	5774.9612
Max. Deviation (MHz)	0.0381	0.0384	0.0385	0.0393
Max. Deviation (ppm)	6.60	6.65	6.67	6.81
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5774.9605	5774.9601	5774.9600	5774.9593
10	5774.9615	5774.9613	5774.9610	5774.9609
20	5774.9622	5774.9620	5774.9616	5774.9615
30	5774.9968	5774.9967	5774.9958	5774.9949
40	5774.9987	5774.9980	5774.9974	5774.9969
50	5774.9637	5774.9635	5774.9631	5774.9626
Max. Deviation (MHz)	0.0418	0.0425	0.0427	0.0430
Max. Deviation (ppm)	7.24	7.36	7.39	7.45
Result	Pass			