



FCC Test Report

FCC ID : Q9DAPEX017
Equipment : Wireless Access Point
Brand Name : aruba 、 Hewlett Packard Enterprise
Model Name : APEX017
Applicant : Hewlett Packard Enterprise Company
3333 Scott Blvd Santa Clara, CA. 94089
Manufacturer : Hewlett Packard Enterprise Company
3333 Scott Blvd Santa Clara, CA. 94089
Standard : 47 CFR FCC Part 15.407

The product was received on May 27, 2019, and testing was started from May 29, 2019 and completed on Aug. 02, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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History of this test report

[illegible]

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Conducted Output Power	PASS	-
3.4	15.407(a)	Peak Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and explanations:

None

Reviewed by: Sam Tsai

Report Producer: Ann Hou

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(Port 1)
5.725-5.85GHz	802.11a	20	2TX(Port 1)
5.15-5.25GHz	802.11a	20	2TX(Port 2)
5.725-5.85GHz	802.11a	20	2TX(Port 2)
5.15-5.25GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11ac VHT20	20	2TX(Port 1)
5.725-5.85GHz	802.11ac VHT20	20	2TX(Port 1)
5.15-5.25GHz	802.11ac VHT20	20	2TX(Port 2)
5.725-5.85GHz	802.11ac VHT20	20	2TX(Port 2)
5.15-5.25GHz	802.11ac VHT20	20	2TX
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX(Port 1)
5.725-5.85GHz	802.11ac VHT40	40	2TX(Port 1)
5.15-5.25GHz	802.11ac VHT40	40	2TX(Port 2)
5.725-5.85GHz	802.11ac VHT40	40	2TX(Port 2)
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX(Port 1)
5.725-5.85GHz	802.11ac VHT80	80	2TX(Port 1)
5.15-5.25GHz	802.11ac VHT80	80	2TX(Port 2)
5.725-5.85GHz	802.11ac VHT80	80	2TX(Port 2)
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX

Note:

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ TX is the abbreviation of Transmits.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	HPE	ANT-17	Dipole Antenna	I-PEX
2	HPE	ANT-17	Dipole Antenna	I-PEX
3	HPE	ANT-17	Dipole Antenna	I-PEX
4	HPE	ANT-17	Dipole Antenna	I-PEX

Ant.	Port	Gain (dBi)				
		2.4G		5G		BT
		Vertical polarized	Horizontal polarized	Vertical polarized	Horizontal polarized	
1	1	-	1.8	-	3.5	-
2	2	1.8	-	-	-	-
3	3	-	-	3.5	-	-
4	4	-	-	-	-	2.7

Ant.	Port	Elevation angle above 30 degrees Gain (dBi)	
		5G	
		Vertical polarized	Horizontal polarized
1	1	-	0.9
2	2	-	-
3	3	0.9	-
4	4	-	-

For 2.4GHz function:

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

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

Cross-polarized antenna combination is Ant.1 with Ant.2.

For 5GHz function:

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

Ant. 1 (port 1) and Ant. 3 (port 3) could transmit/receive simultaneously.

Cross-polarized antenna combination is Ant.1 with Ant.3.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 4 (port 4) could transmit/receive simultaneously.

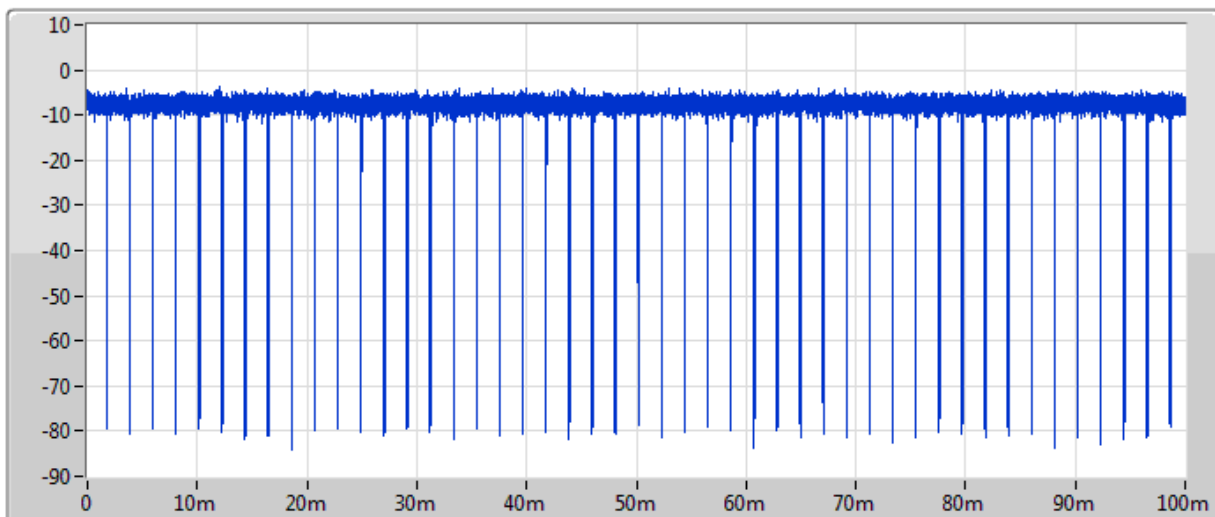
1.1.3 EUT Information

Identify EUT			
Software version	R6201.1.0.3.009		
Operational Condition			
EUT Power Type	From PoE		
EUT Function	☒ Outdoor	☐ Indoor	
	☐ Fixed P2P	☒ Client	
Beamforming Function	☒ With beamforming	☐ Without beamforming	
Note: Beamforming Function refer as "Letter of Beamforming Declaration"			
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.:		...
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:		...
☐	Other:		

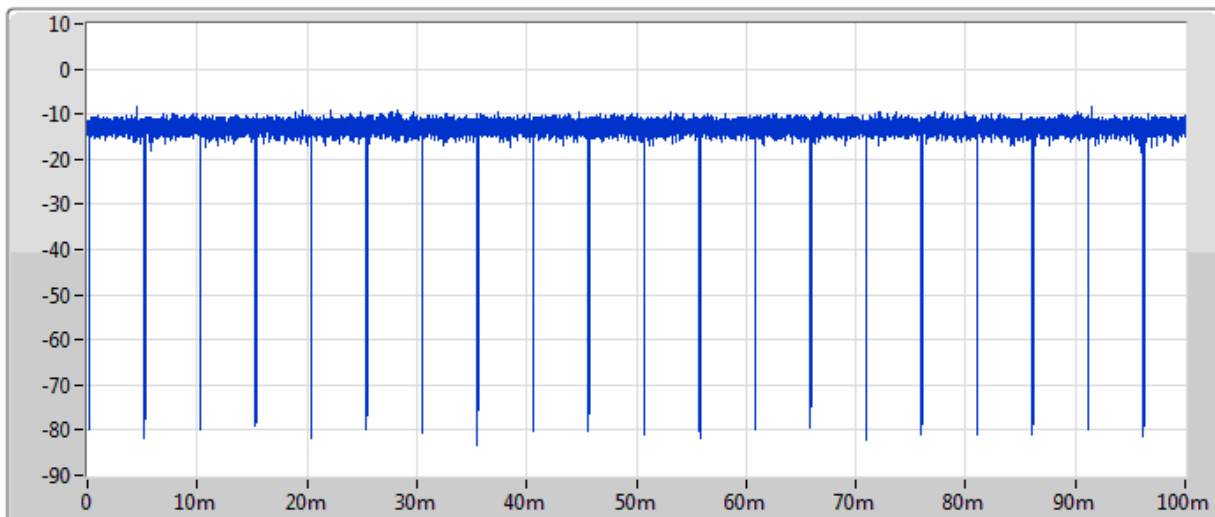
1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.965	0.15	2.034m	1k
802.11ac VHT20	0.984	0.07	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT40	0.967	0.15	2.422m	1k
802.11ac VHT80	0.936	0.29	1.141m	1k

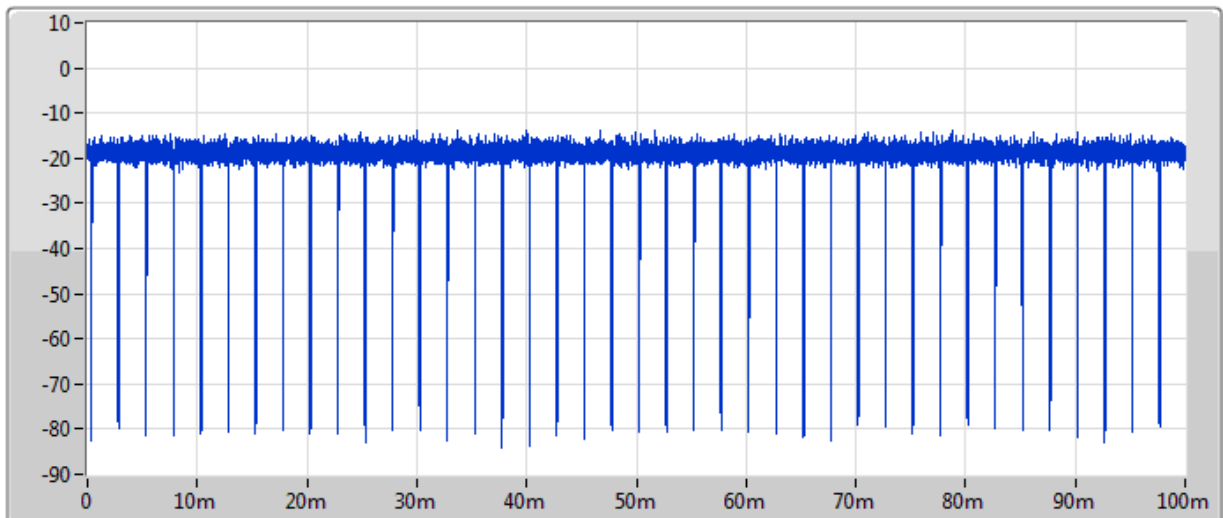
Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

802.11a


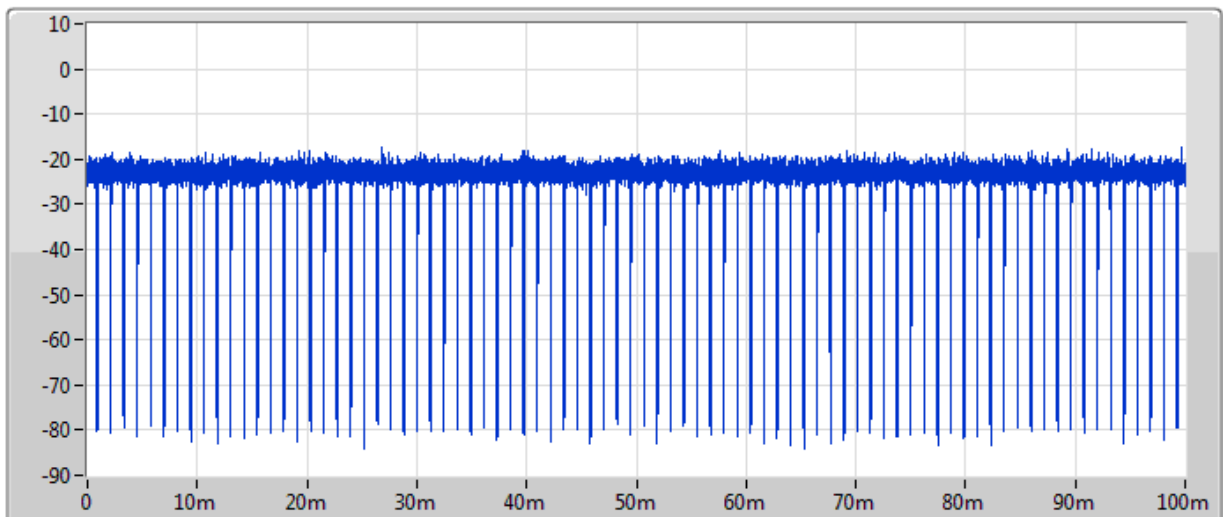
CF	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
5.18GHz	1MHz	3MHz	100ms	32001	3.125us	96.4875ms	0.965

802.11ac VHT20


CF	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
5.18GHz	1MHz	3MHz	100ms	32001	3.125us	98.39375ms	0.984

802.11ac VHT40


CF	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
5.19GHz	1MHz	3MHz	100ms	32001	3.125us	96.659375ms	0.967

802.11ac VHT80


CF	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
5.21GHz	1MHz	3MHz	100ms	32001	3.125us	93.621875ms	0.936

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
- ♦ KDB 789033 D02 v02r01
- ♦ KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO01-HY	Edward	22.5~26°C / 58.3~63.1%	01/Jun/2019
RF Conducted	TH01-HY	Andy	20.3~22°C / 59~63%	31/May/2019~02/Aug/2019
Radiated	03CH03-HY	Andy	23.2~24.1°C / 51.2~62.4%	29/May/2019~17/Jun/2019

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)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Test Software Version	QRCT V4.0 00123
-----------------------	-----------------

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX(Port1)	-
5180MHz	20
5200MHz	20
5240MHz	20
5745MHz	25
5785MHz	25
5825MHz	25
802.11a_Nss1,(6Mbps)_2TX(Port2)	-
5180MHz	20
5200MHz	20
5240MHz	20
5745MHz	25
5785MHz	25
5825MHz	25
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	20
5200MHz	20
5240MHz	20
5745MHz	25
5785MHz	25
5825MHz	25
802.11ac VHT20_Nss1,(MCS0)_2TX(Port1)	-
5180MHz	20
5200MHz	20
5240MHz	20
5745MHz	25

Mode	Power Setting
5785MHz	25
5825MHz	25
802.11ac VHT20_Nss1,(MCS0)_2TX(Port2)	-
5180MHz	20
5200MHz	20
5240MHz	20
5745MHz	25
5785MHz	25
5825MHz	25
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	20
5200MHz	20
5240MHz	20
5745MHz	25
5785MHz	25
5825MHz	25
802.11ac VHT40_Nss1,(MCS0)_2TX(Port1)	-
5190MHz	20
5230MHz	20
5755MHz	25
5795MHz	25
802.11ac VHT40_Nss1,(MCS0)_2TX(Port2)	-
5190MHz	20
5230MHz	20
5755MHz	25
5795MHz	25
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	20
5230MHz	20
5755MHz	25
5795MHz	25
802.11ac VHT80_Nss1,(MCS0)_2TX(Port1)	-
5210MHz	20
5775MHz	22
802.11ac VHT80_Nss1,(MCS0)_2TX(Port2)	-
5210MHz	20
5775MHz	22
802.11ac VHT80_Nss1,(MCS0)_2TX	-

Mode	Power Setting
5210MHz	20
5775MHz	22

2.3 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	Continuous Transmits
1	PoE mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density
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	Continuous Transmits		
1	PoE mode		
Operating Mode > 1GHz	Continuous Transmits		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	Normal link
1	Bluetooth+WLAN 2.4GHz+WLAN 5GHz
Refer to Sporton Test Report No.: Appendix F for Radiated Emission Co-location	
Operating Mode	Continuous Transmits
2	Bluetooth+WLAN 2.4GHz+WLAN 5GHz
Refer to Sporton Test Report No.: FA952258 for Co-location RF Exposure Evaluation.	

2.4 Support Equipment

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PoE	PowerDsine	PD-3501G/AC	N/A

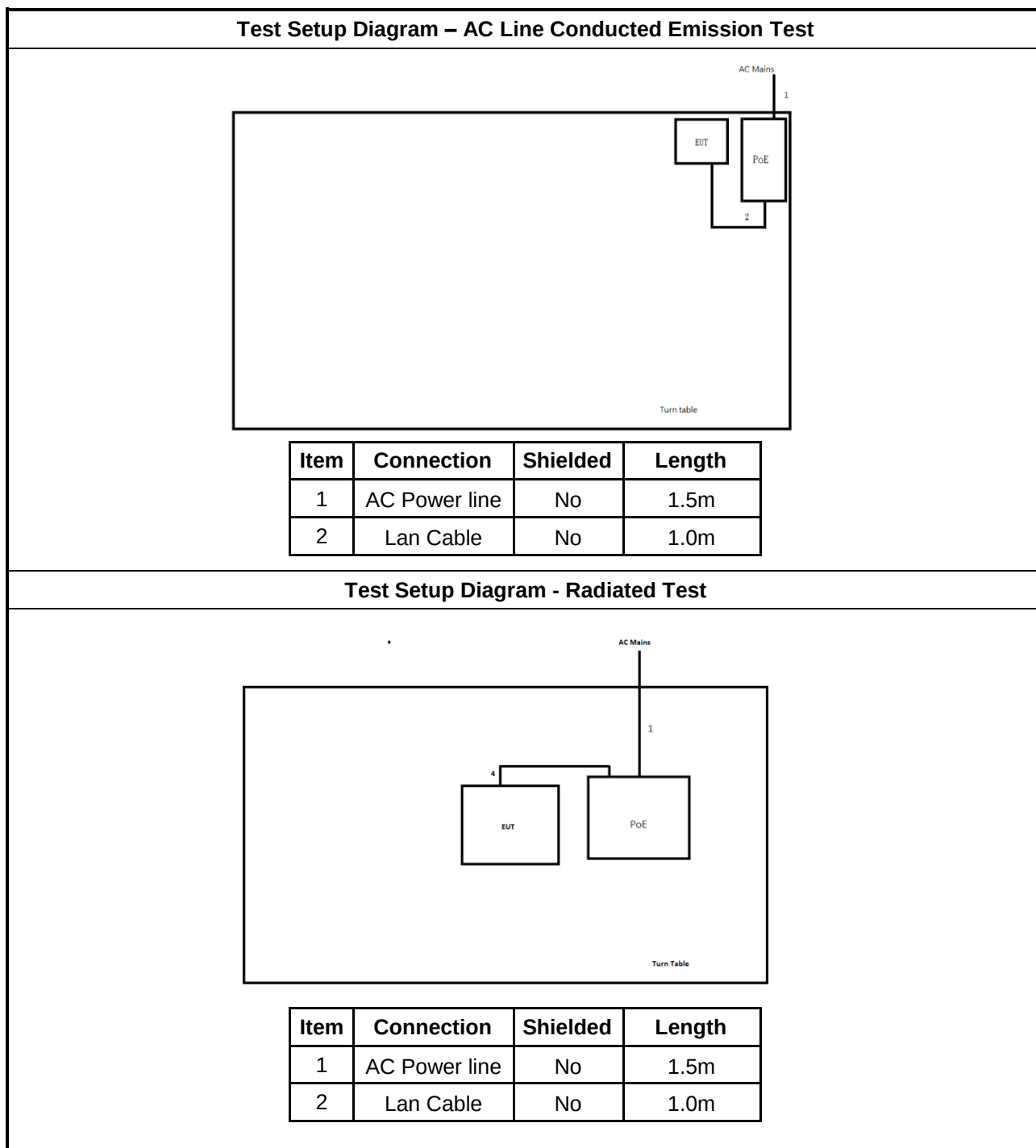
Note: Support equipment No.1 was provided by customer.

Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for Notebook	DELL	HA65NM130	DoC
3	AC Power Source	GW	APS-9102	N/A

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PoE	PowerDsine	PD-3501G/AC	N/A

Note: Support equipment No.1 was provided by customer.

2.5 Test Setup Diagram



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

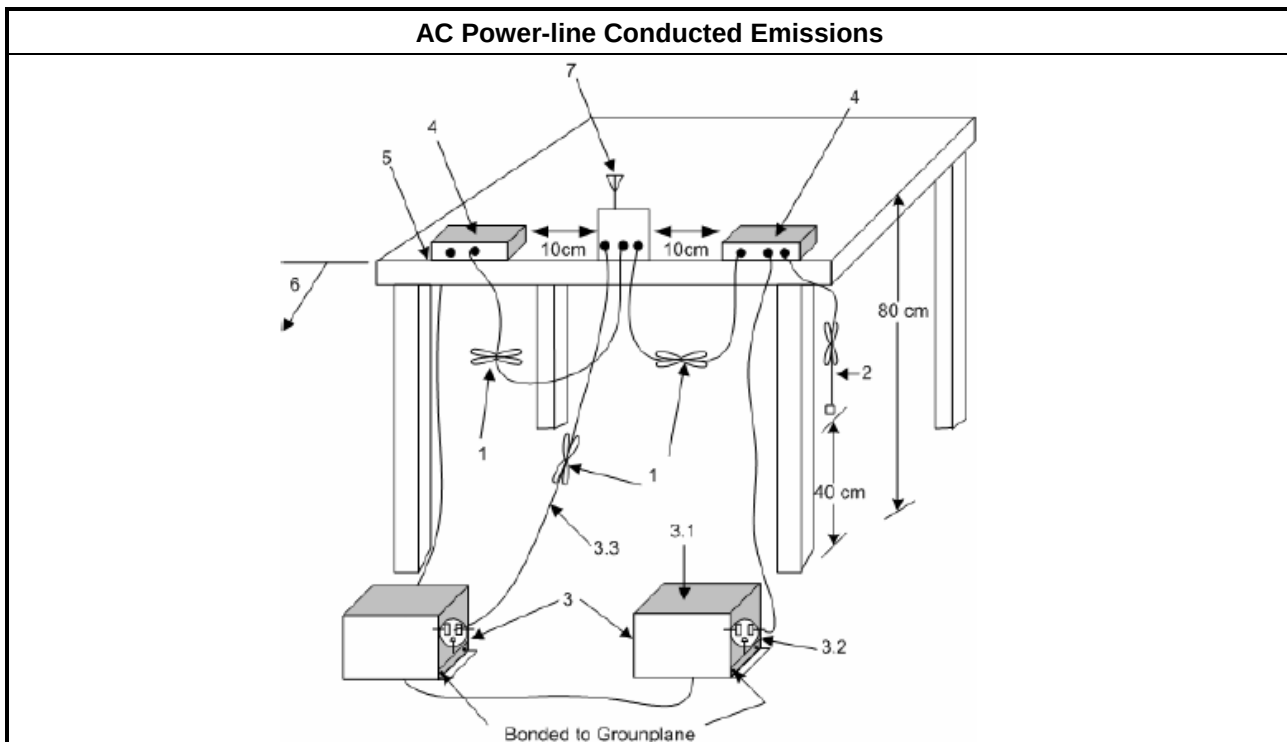
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, N/A
☐	For the 5.25-5.35 GHz band, N/A
☐	For the 5.47-5.725 GHz band, N/A
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

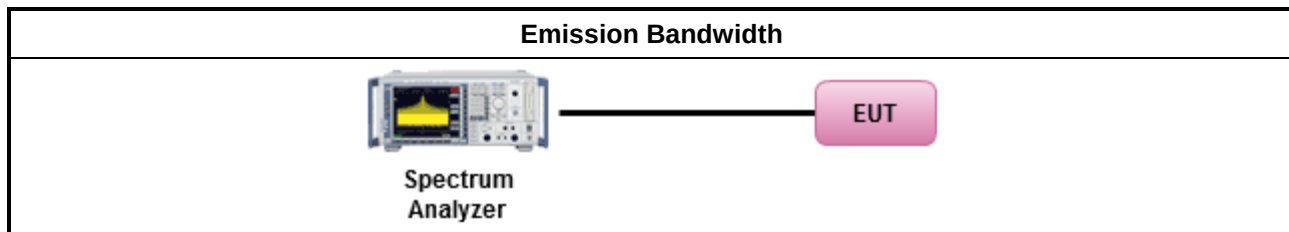
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 6.7 for bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

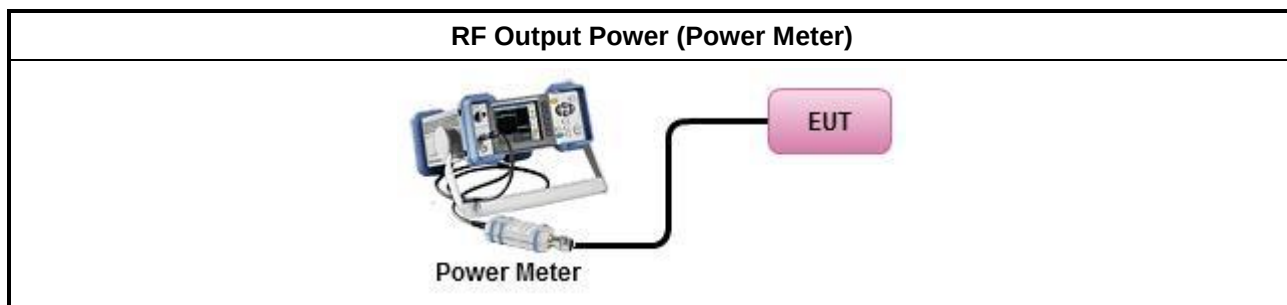
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Conducted Output Power	
	Duty cycle $\geq 98\%$
☐	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle $< 98\%$
☐	Refer as 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 KDB 789033, clause E Method PM (using an RF average power meter).
For conducted measurement.	
	If the EUT supports multiple transmit chains using options given below: Refer as 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: $P_{\text{total}} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
	Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
	Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
	Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$.
	Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☐ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
	Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$.
	Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that the 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.	

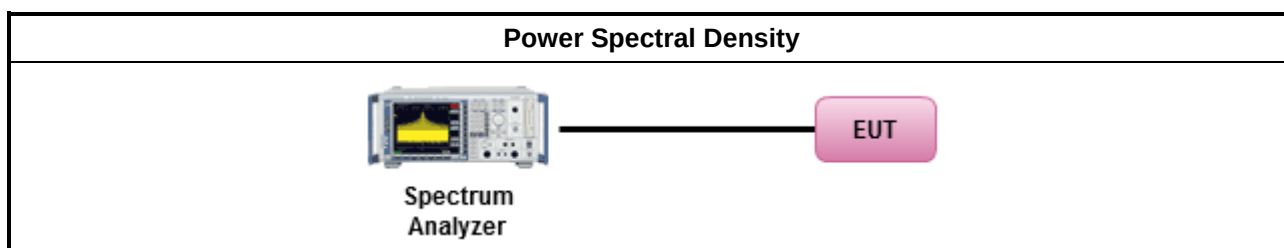
3.4.2 Measuring Instruments

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 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%	
☒ Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).	
Duty cycle < 98%	
☒ Refer as 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:	
☐ Measure and sum the spectra across the outputs. Refer as 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.	
If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$	

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

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

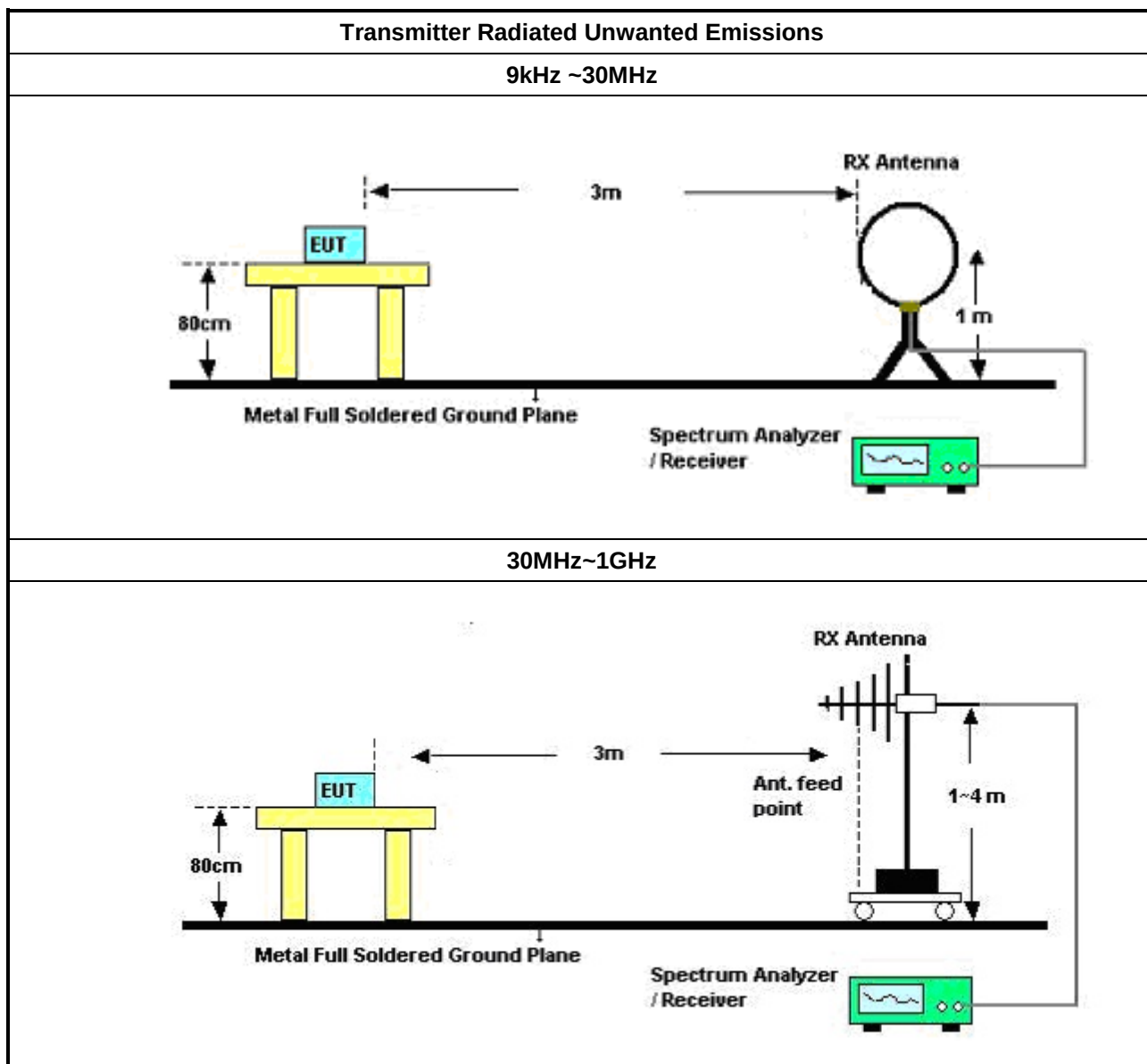
3.5.2 Measuring Instruments

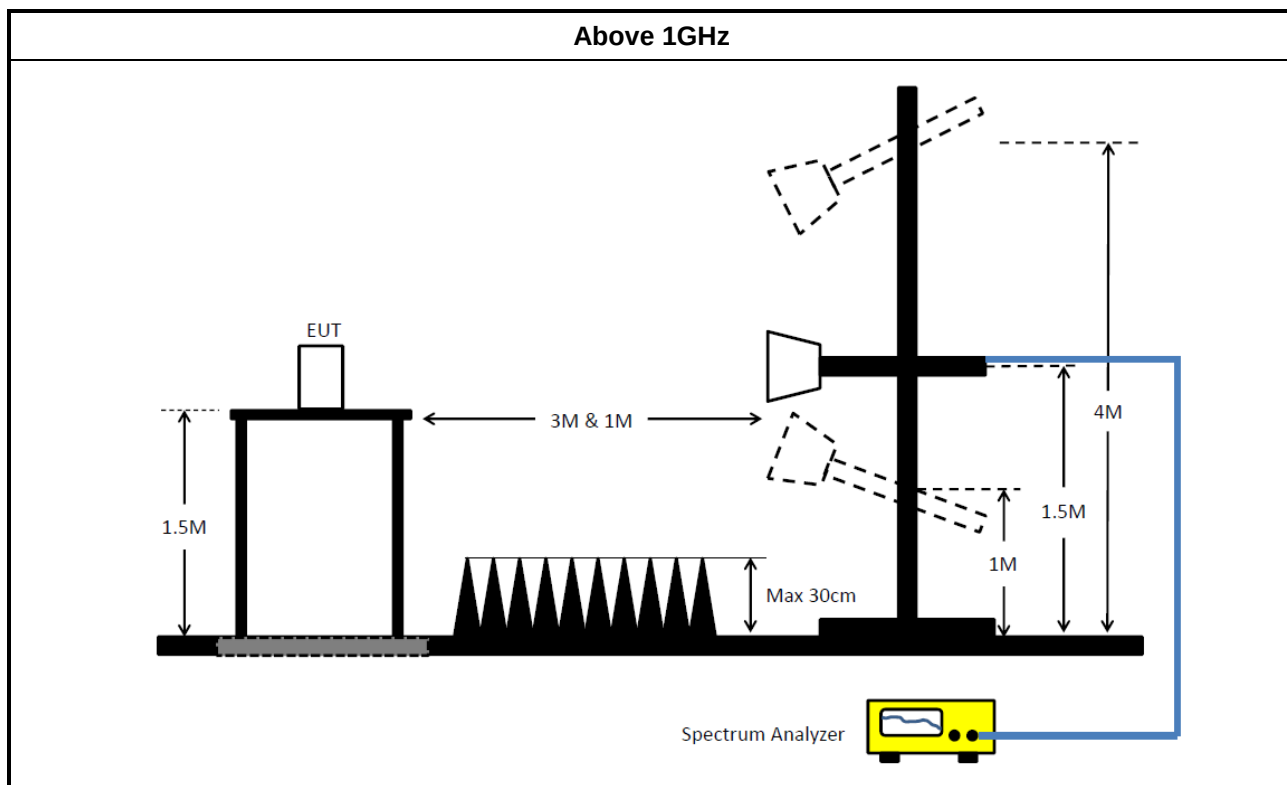
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.
	☒ Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.
	☒ Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.
For radiated measurement.	
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
The any unwanted emissions level shall not exceed the fundamental emission level.	
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	

3.5.4 Test Setup





3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB 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 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV 216	101274	9kHz ~ 30MHz	12/Jun/2018	11/Jun/2019
RF Cable-CON	MTJ	RG142	CB001-CO	9kHz ~ 30MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11003G	F308010045	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561F	9495	9kHz ~ 30MHz	11/Oct/2018	10/Oct/2019

NCR : Non-Calibration Require

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	30/Oct/2018	29/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	30/Oct/2018	29/Oct/2019
Amplifier	IFI	SCCX150	03CH03-HY	10KHz ~ 100MHz	14/Sep/2017	13/Sep/2019
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	22/Apr/2019	21/Apr/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
Bilog Antenna with 5dB Pad	ETS	3142B & MTJ6102-05	00022055	26 MHz - 3 GHz	19/Nov/2018	18/Nov/2019
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	05/Sep/2018	04/Sep/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	22/Mar/2019	21/Mar/2020
RF CABLE 6m	HUBER+SUHNER	SUOFLEX 104	SN 805801/4	1GHz ~ 40GHz	21/Mar/2019	20/Mar/2020
RF CABLE 7m	HUBER+SUHNER	SUOFLEX 104	SN 805805/4	1GHz ~ 40GHz	01/May/2019	30/Apr/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar/2019	21/Mar/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	09/Mar/ 2019	08/Mar/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	15/Mar/2019	14/Mar/2020

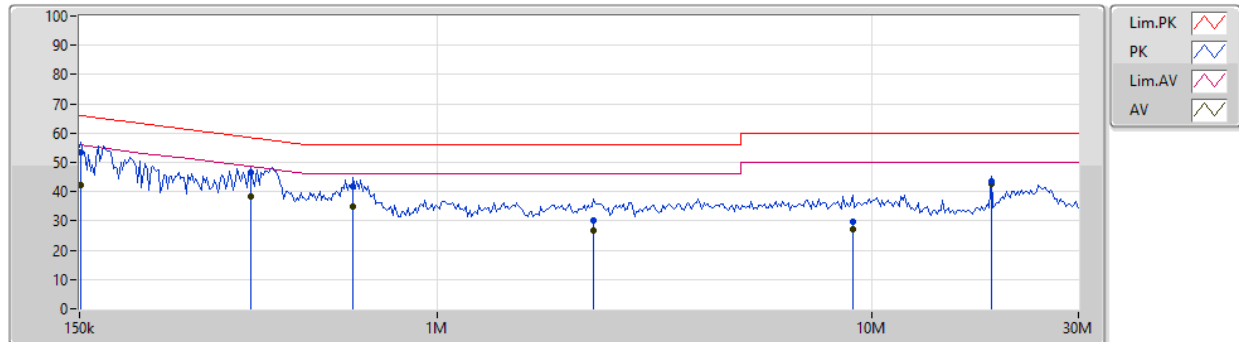
Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz ~18G	21/Mar/2019	20/Mar/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz ~18G	21/Mar/2019	20/Mar/2020
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz ~18G	21/Mar/2019	20/Mar/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	PoE mode		

01/06/2019

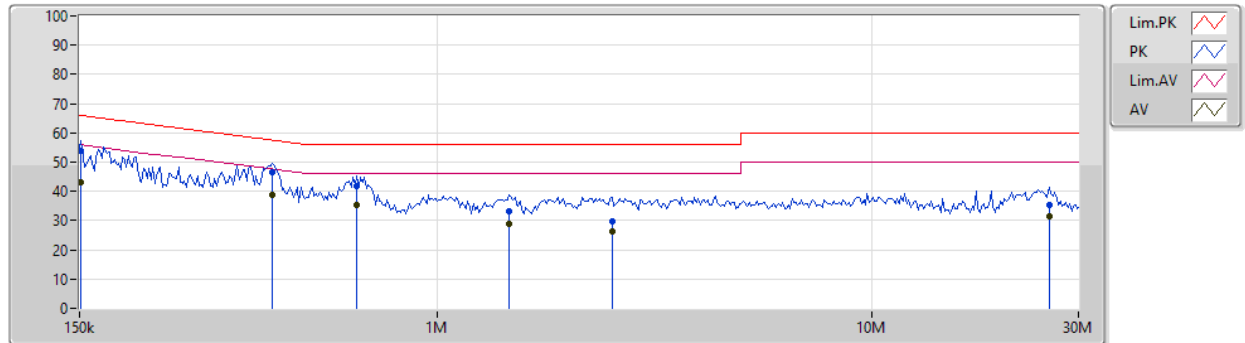


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	151.5k	53.62	65.92	-12.30	19.52	Neutral	-	34.10	9.65	0.01	9.86			
AV	151.5k	42.11	55.92	-13.81	19.52	Neutral	-	22.59	9.65	0.01	9.86			
QP	370.968k	46.59	58.49	-11.90	19.51	Neutral	-	27.08	9.64	0.01	9.86			
AV	370.968k	38.36	48.49	-10.13	19.51	Neutral	-	18.85	9.64	0.01	9.86			
QP	641.227k	41.67	56.00	-14.33	19.51	Neutral	-	22.16	9.64	0.01	9.86			
AV	641.227k	34.86	46.00	-11.14	19.51	Neutral	-	15.35	9.64	0.01	9.86			
QP	2.292M	30.07	56.00	-25.93	19.56	Neutral	-	10.51	9.65	0.04	9.87			
AV	2.292M	26.86	46.00	-19.14	19.56	Neutral	-	7.30	9.65	0.04	9.87			
QP	9.047M	29.87	60.00	-30.13	19.67	Neutral	-	10.20	9.70	0.07	9.90			
AV	9.047M	27.15	50.00	-22.85	19.67	Neutral	-	7.48	9.70	0.07	9.90			
QP	18.892M	43.56	60.00	-16.44	19.77	Neutral	-	23.79	9.71	0.11	9.95			
AV	18.892M	42.62	50.00	-7.38	19.77	Neutral	"Worst"	22.85	9.71	0.11	9.95			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	PoE mode		

01/06/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	151.5k	53.70	65.92	-12.22	19.48	Line	-	34.22	9.61	0.01	9.86			
AV	151.5k	43.13	55.92	-12.79	19.48	Line	-	23.65	9.61	0.01	9.86			
QP	418.016k	46.45	57.49	-11.04	19.48	Line	-	26.97	9.61	0.01	9.86			
AV	418.016k	38.83	47.49	-8.66	19.48	Line	"Worst"	19.35	9.61	0.01	9.86			
QP	654.116k	41.82	56.00	-14.18	19.48	Line	-	22.34	9.61	0.01	9.86			
AV	654.116k	35.49	46.00	-10.51	19.48	Line	-	16.01	9.61	0.01	9.86			
QP	1.464M	33.20	56.00	-22.80	19.52	Line	-	13.68	9.62	0.03	9.87			
AV	1.464M	28.85	46.00	-17.15	19.52	Line	-	9.33	9.62	0.03	9.87			
QP	2.531M	29.78	56.00	-26.22	19.53	Line	-	10.25	9.62	0.04	9.87			
AV	2.531M	26.09	46.00	-19.91	19.53	Line	-	6.56	9.62	0.04	9.87			
QP	25.718M	35.34	60.00	-24.66	19.68	Line	-	15.66	9.57	0.12	9.99			
AV	25.718M	31.28	50.00	-18.72	19.68	Line	-	11.60	9.57	0.12	9.99			

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.17M	16.432M	16M4D1D	18.9M	16.372M
802.11ac VHT20_Nss1,(MCS0)_2TX	20.43M	17.631M	17M6D1D	19.95M	17.571M
802.11ac VHT40_Nss1,(MCS0)_2TX	39.66M	36.102M	36M1D1D	39.36M	35.922M
802.11ac VHT80_Nss1,(MCS0)_2TX	84.12M	75.682M	75M7D1D	83.64M	75.562M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.35M	16.822M	16M8D1D	16.32M	16.492M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.61M	18.141M	18M1D1D	17.55M	17.691M
802.11ac VHT40_Nss1,(MCS0)_2TX	35.1M	36.762M	36M8D1D	34.92M	36.222M
802.11ac VHT80_Nss1,(MCS0)_2TX	76.32M	75.682M	75M7D1D	75.48M	75.682M

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

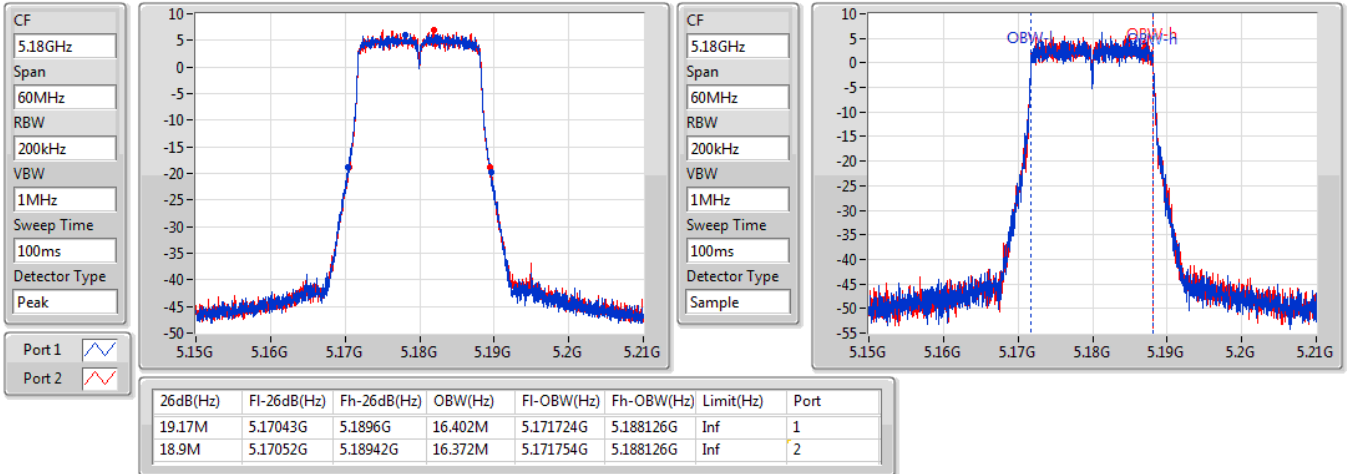
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	19.17M	16.402M	18.9M	16.372M
5200MHz_TnomVnom	Pass	Inf	19.14M	16.402M	19.02M	16.432M
5240MHz_TnomVnom	Pass	Inf	19.05M	16.372M	18.9M	16.402M
5745MHz_TnomVnom	Pass	500k	16.35M	16.582M	16.32M	16.492M
5785MHz_TnomVnom	Pass	500k	16.32M	16.642M	16.35M	16.732M
5825MHz_TnomVnom	Pass	500k	16.32M	16.702M	16.32M	16.822M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz_TnomVnom	Pass	Inf	20.28M	17.601M	19.95M	17.571M
5200MHz_TnomVnom	Pass	Inf	20.43M	17.631M	20.28M	17.601M
5240MHz_TnomVnom	Pass	Inf	20.19M	17.601M	20.4M	17.601M
5745MHz_TnomVnom	Pass	500k	17.61M	17.751M	17.55M	17.691M
5785MHz_TnomVnom	Pass	500k	17.55M	17.811M	17.55M	18.021M
5825MHz_TnomVnom	Pass	500k	17.55M	18.051M	17.58M	18.141M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz_TnomVnom	Pass	Inf	39.54M	36.102M	39.66M	35.922M
5230MHz_TnomVnom	Pass	Inf	39.36M	36.042M	39.54M	36.042M
5755MHz_TnomVnom	Pass	500k	35.1M	36.222M	34.98M	36.222M
5795MHz_TnomVnom	Pass	500k	34.92M	36.342M	35.1M	36.762M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz_TnomVnom	Pass	Inf	84.12M	75.562M	83.64M	75.682M
5775MHz_TnomVnom	Pass	500k	76.32M	75.682M	75.48M	75.682M

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

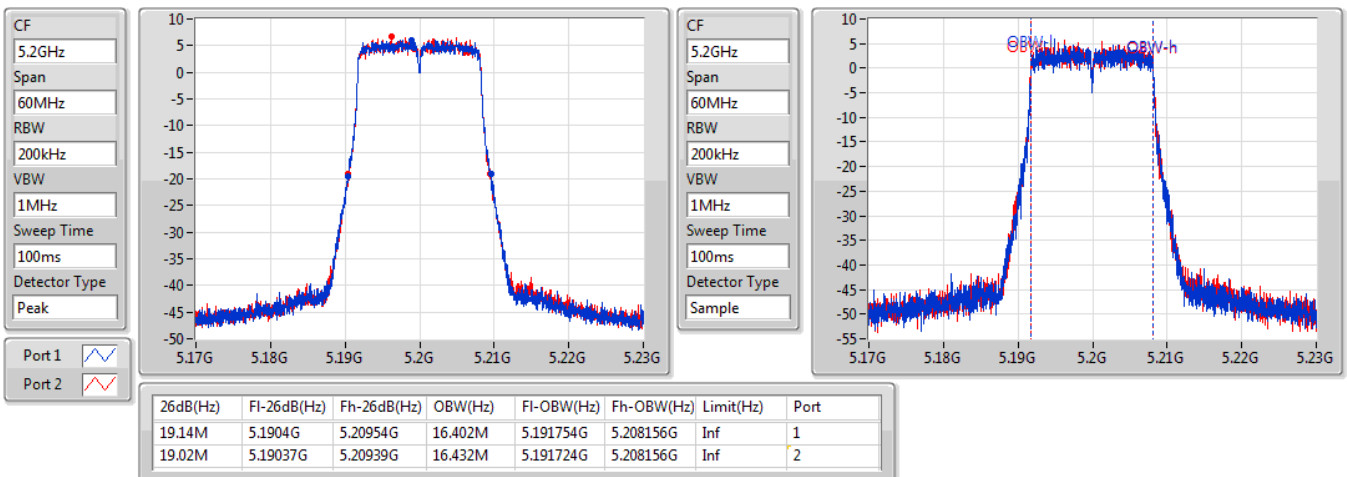
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_2TX
EBW
5180MHz

30/05/2019


802.11a_Nss1,(6Mbps)_2TX
EBW
5200MHz

30/05/2019

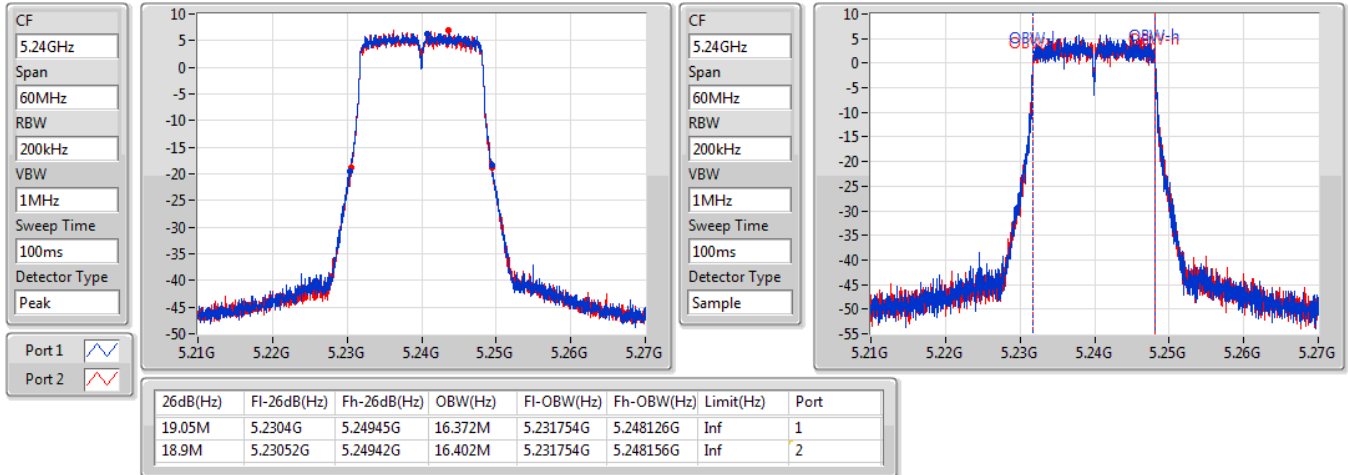


802.11a_Nss1,(6Mbps)_2TX

EBW

5240MHz

30/05/2019

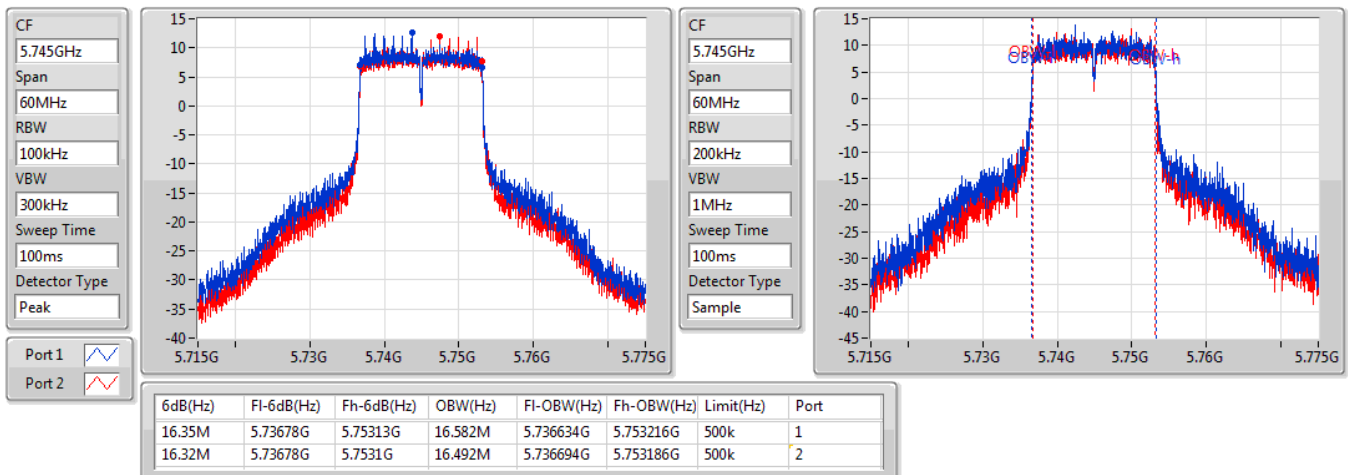


802.11a_Nss1,(6Mbps)_2TX

EBW

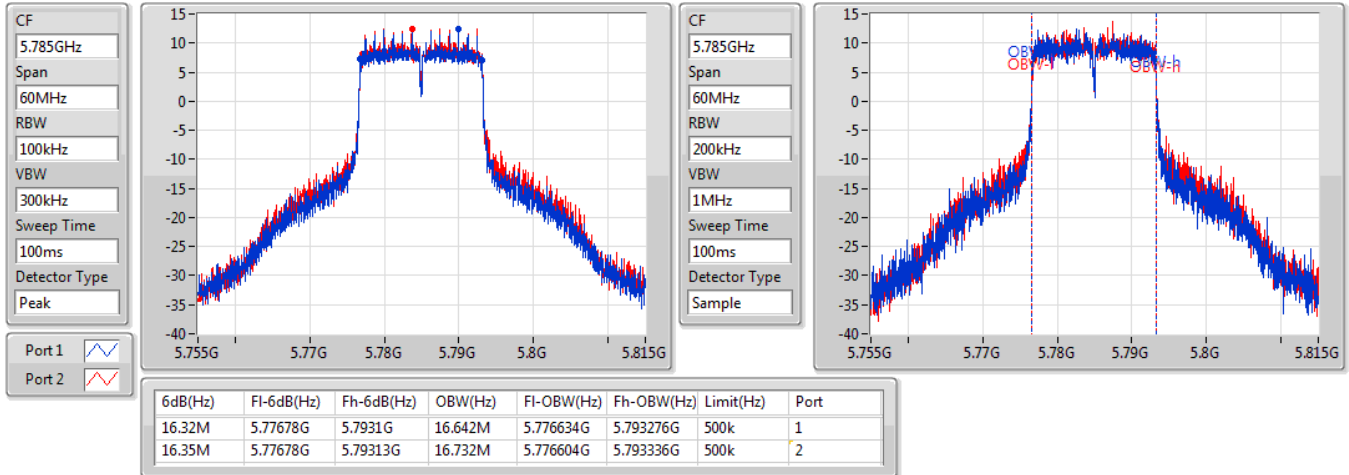
5745MHz

30/05/2019

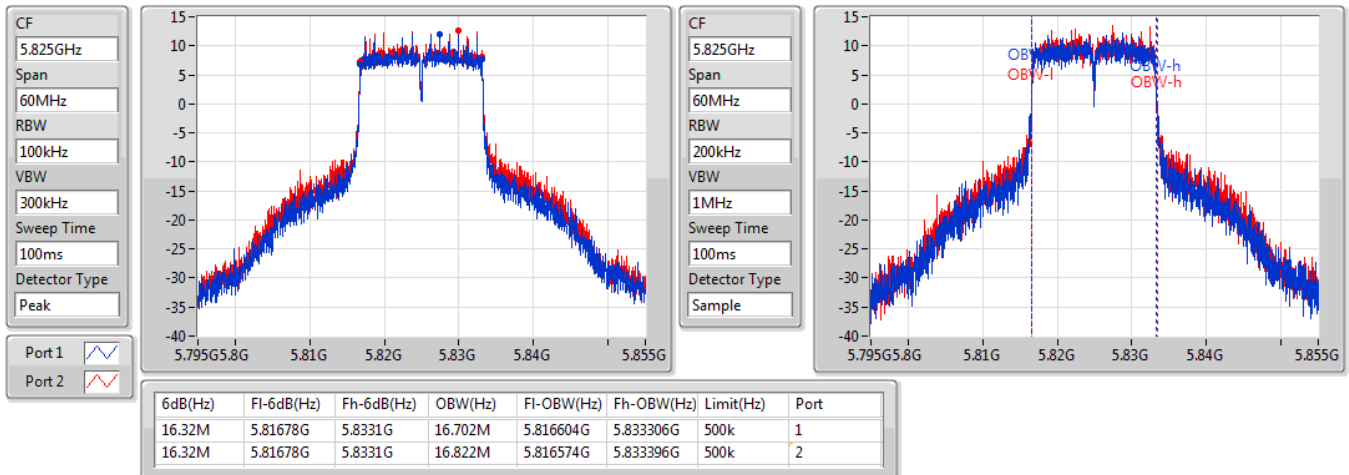


802.11a_Nss1,(6Mbps)_2TX
EBW
5785MHz

30/05/2019


802.11a_Nss1,(6Mbps)_2TX
EBW
5825MHz

30/05/2019

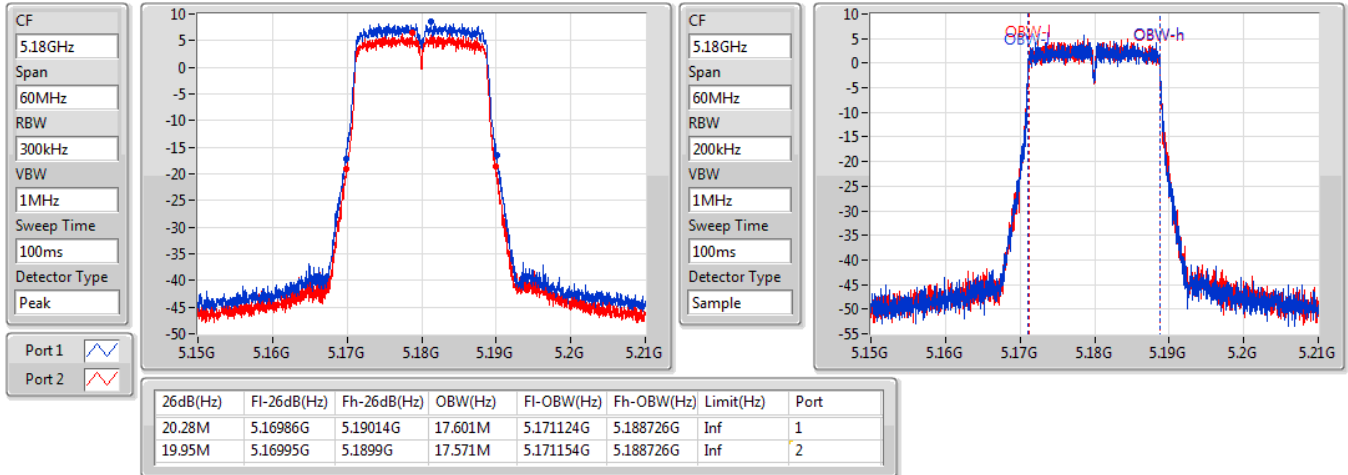


802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5180MHz

30/05/2019

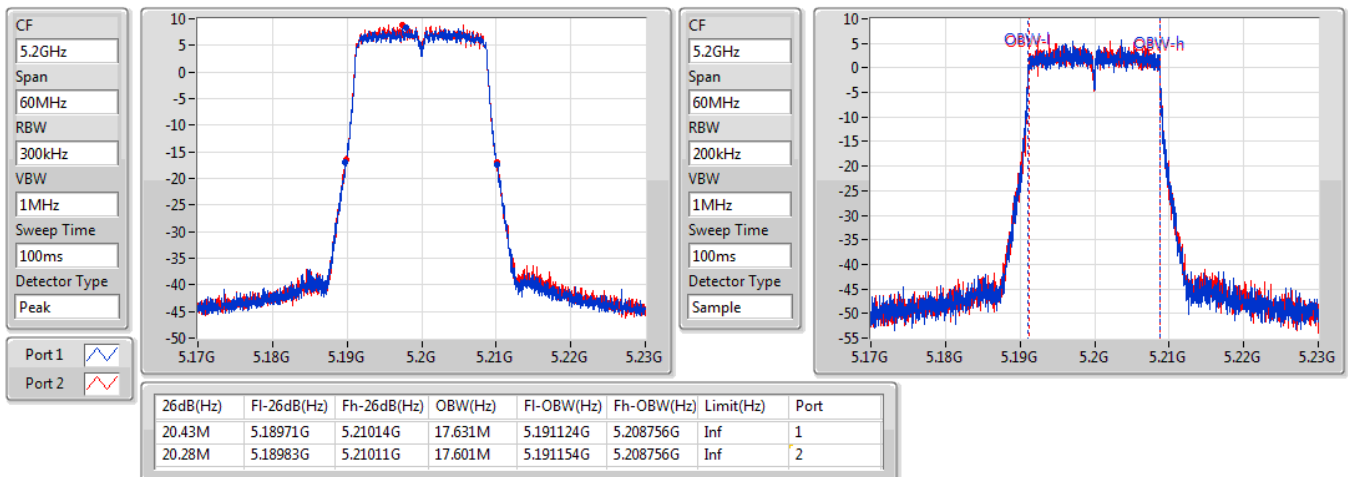


802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5200MHz

30/05/2019

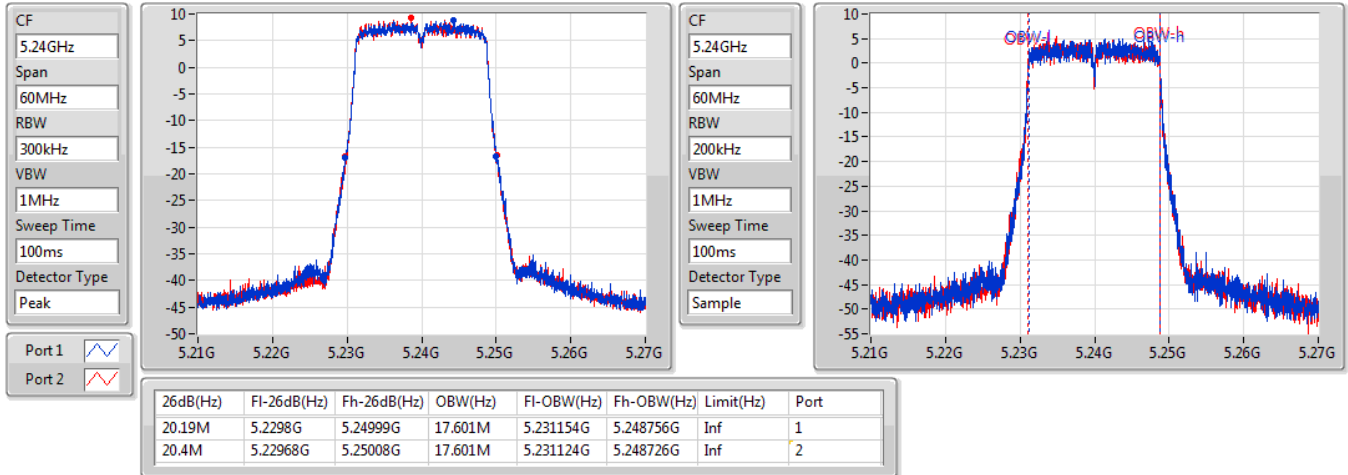


802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5240MHz

30/05/2019

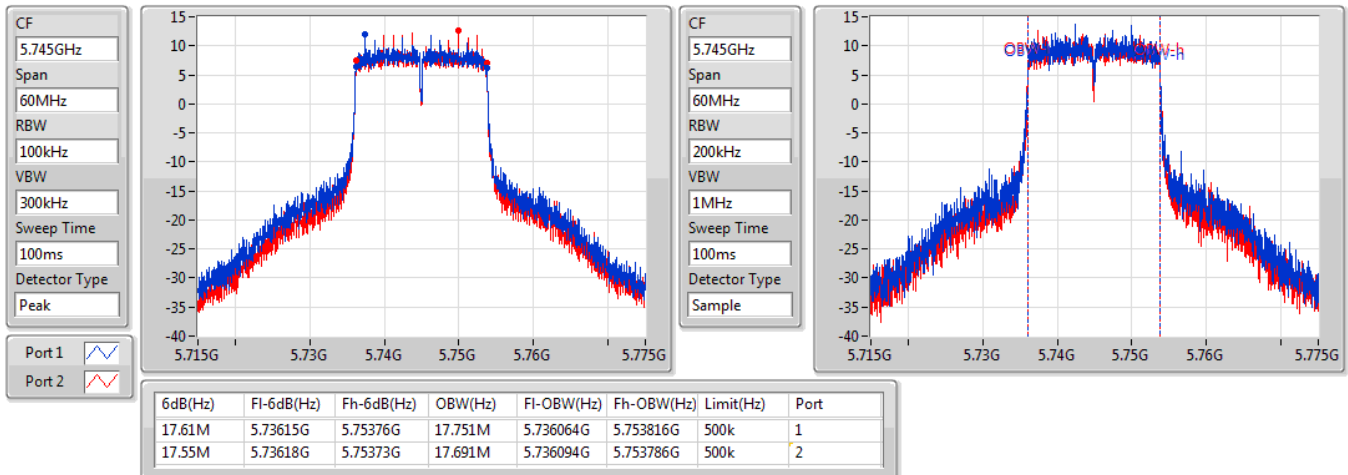


802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

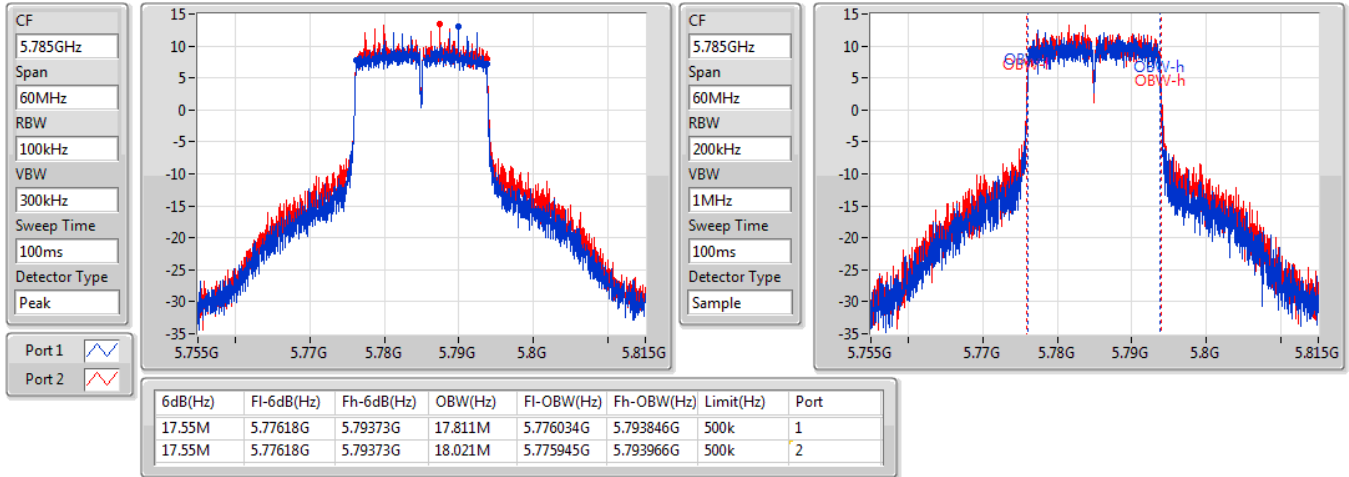
5745MHz

30/05/2019

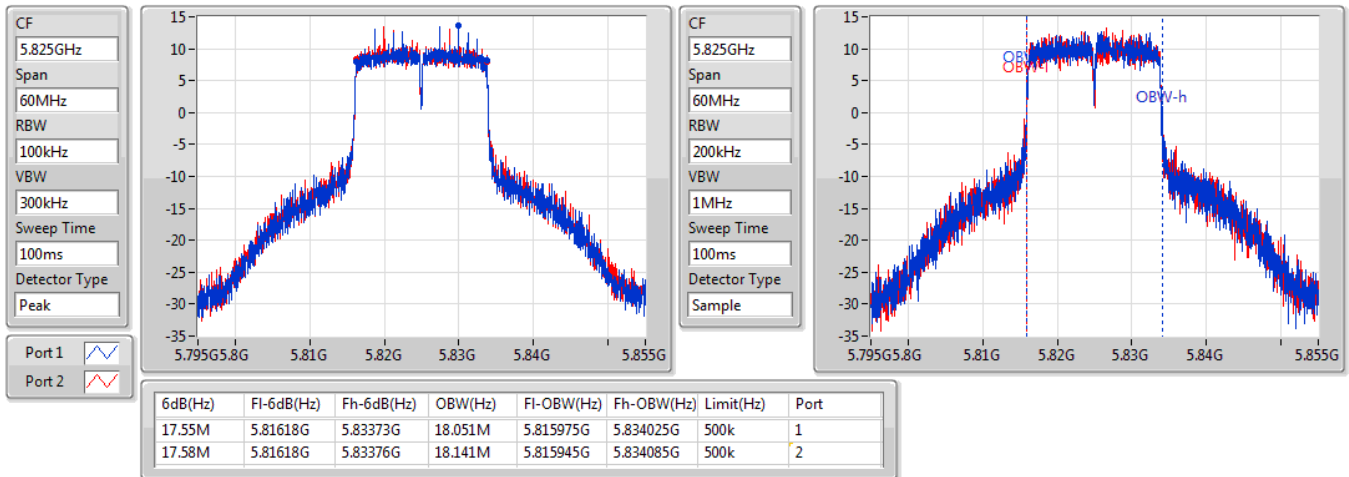


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5785MHz

30/05/2019

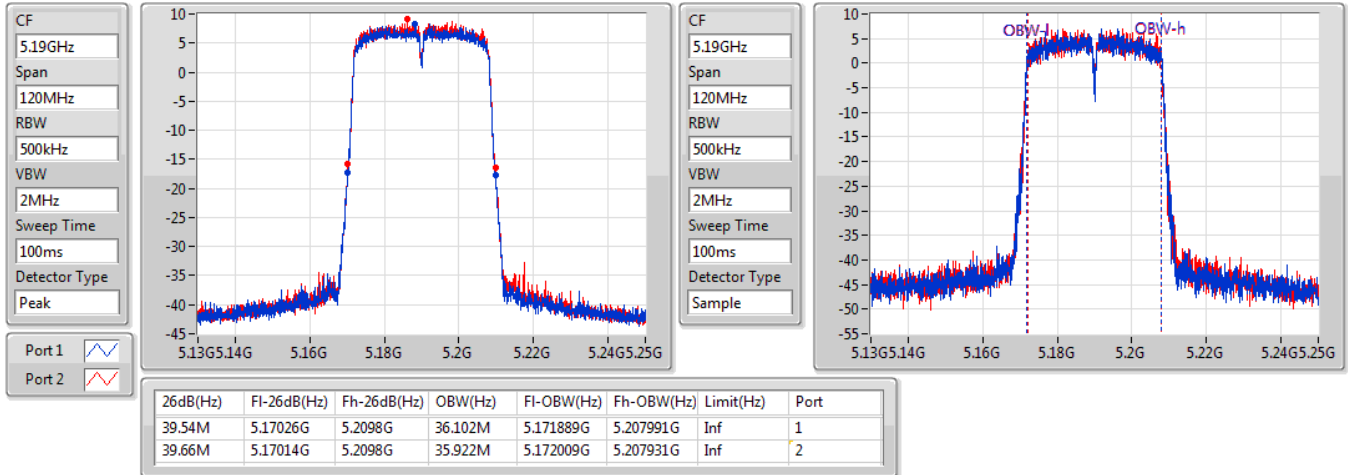

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5825MHz

30/05/2019

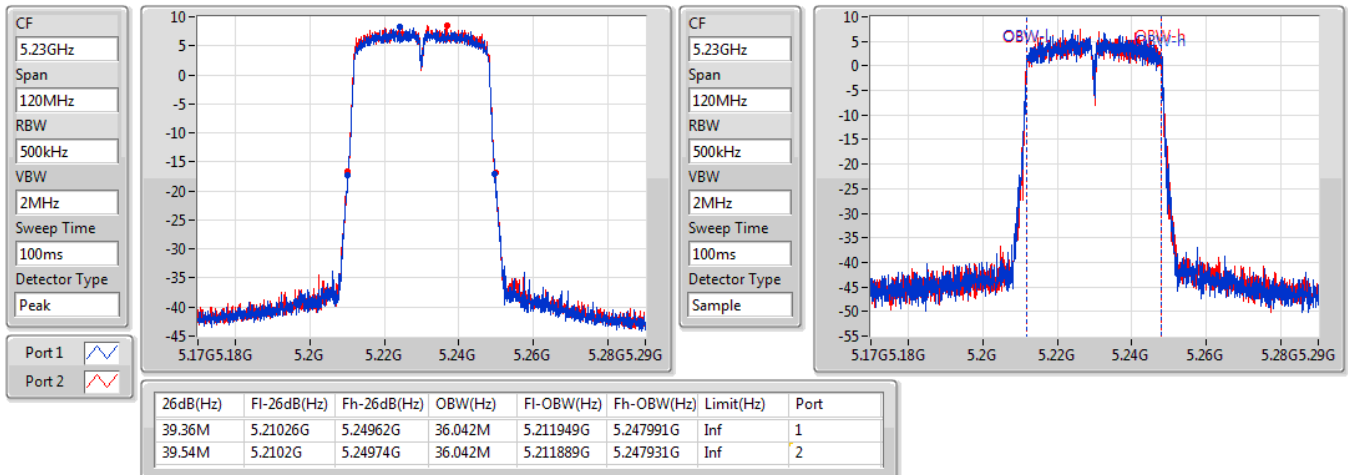


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5190MHz

30/05/2019

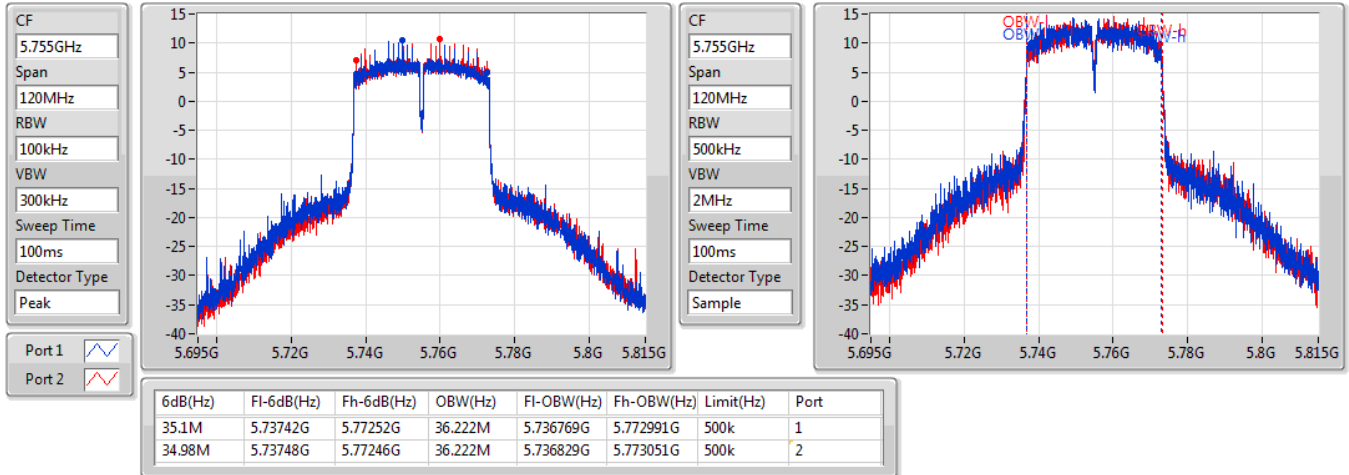

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5230MHz

30/05/2019

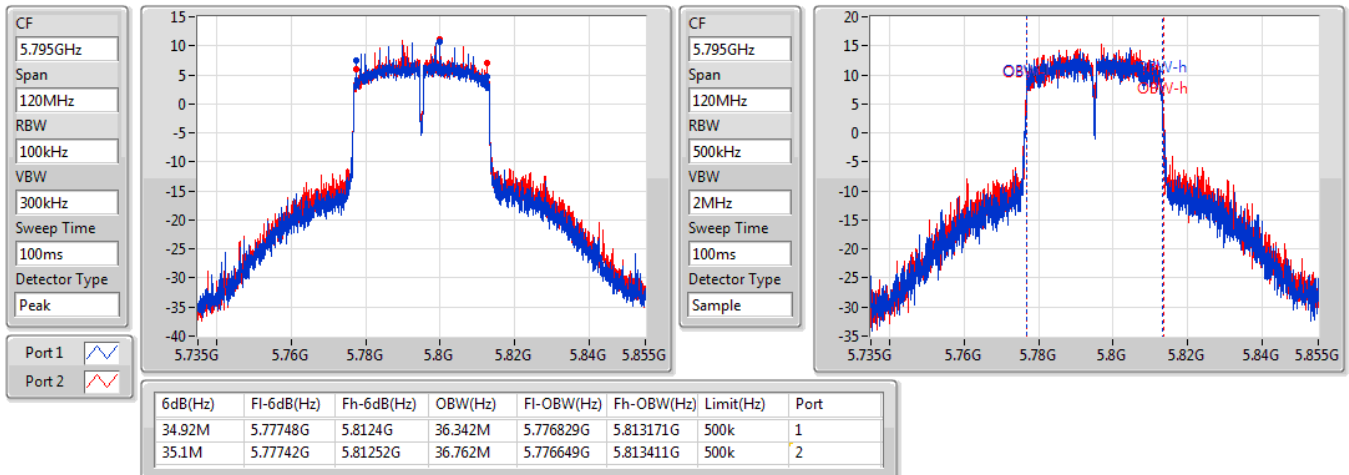


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5755MHz

30/05/2019


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5795MHz

30/05/2019

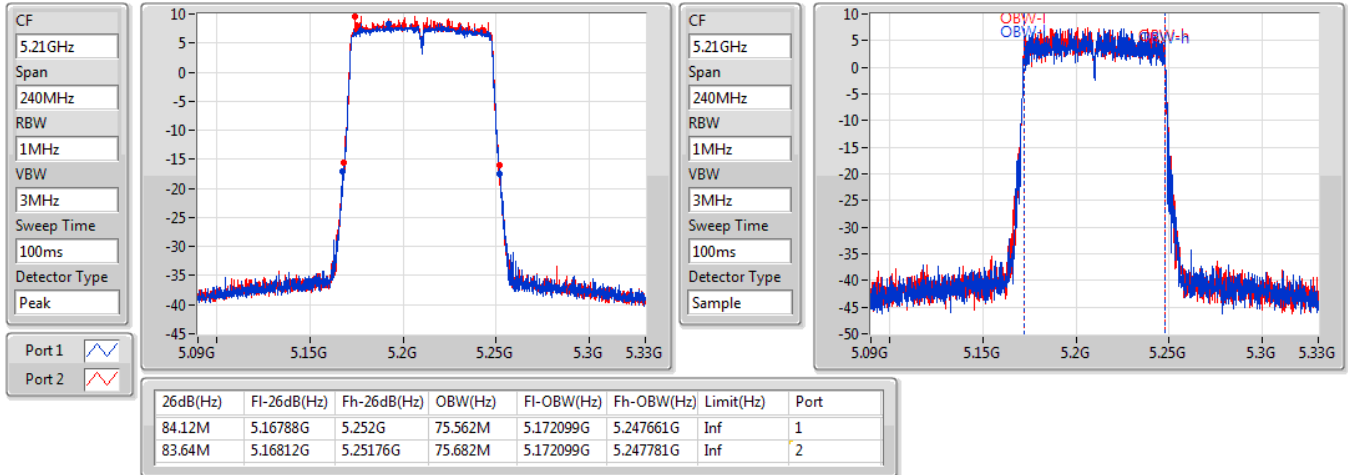


802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5210MHz

30/05/2019

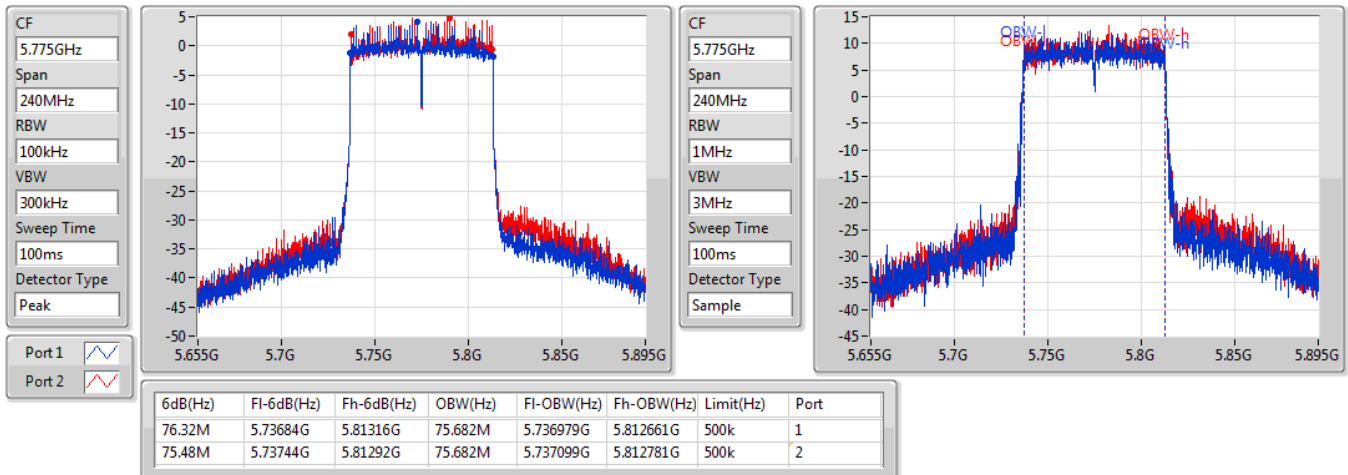


802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5775MHz

30/05/2019





Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	23.10	0.20417
802.11ac VHT20_Nss1,(MCS0)_2TX	23.09	0.20370
802.11ac VHT40_Nss1,(MCS0)_2TX	23.06	0.20230
802.11ac VHT80_Nss1,(MCS0)_2TX	22.97	0.19815
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	26.73	0.47098
802.11ac VHT20_Nss1,(MCS0)_2TX	27.36	0.54450
802.11ac VHT40_Nss1,(MCS0)_2TX	27.40	0.54954
802.11ac VHT80_Nss1,(MCS0)_2TX	24.55	0.28510

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	3.50	20.09	20.08	23.10	30.00
5200MHz	Pass	3.50	20.07	20.02	23.06	30.00
5240MHz	Pass	3.50	20.05	19.81	22.94	30.00
5745MHz	Pass	3.50	23.80	23.63	26.73	30.00
5785MHz	Pass	3.50	23.46	23.64	26.56	30.00
5825MHz	Pass	3.50	23.27	23.71	26.51	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	3.50	20.06	20.04	23.06	30.00
5200MHz	Pass	3.50	20.08	20.07	23.09	30.00
5240MHz	Pass	3.50	20.02	19.72	22.88	30.00
5745MHz	Pass	3.50	23.82	23.52	26.68	30.00
5785MHz	Pass	3.50	23.50	24.02	26.78	30.00
5825MHz	Pass	3.50	24.22	24.47	27.36	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	3.50	20.08	20.01	23.06	30.00
5230MHz	Pass	3.50	20.01	20.05	23.04	30.00
5755MHz	Pass	3.50	24.31	24.24	27.29	30.00
5795MHz	Pass	3.50	24.21	24.57	27.40	30.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	3.50	20.01	19.91	22.97	30.00
5775MHz	Pass	3.50	21.37	21.71	24.55	30.00

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

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX(Port1)	20.09	0.10209	23.59	0.22856
802.11a_Nss1,(6Mbps)_2TX(Port2)	20.08	0.10186	23.58	0.22803
802.11ac VHT20_Nss1,(MCS0)_2TX(Port1)	20.08	0.10186	23.58	0.22803
802.11ac VHT20_Nss1,(MCS0)_2TX(Port2)	20.07	0.10162	23.57	0.22751
802.11ac VHT40_Nss1,(MCS0)_2TX(Port1)	20.08	0.10186	23.58	0.22803
802.11ac VHT40_Nss1,(MCS0)_2TX(Port2)	20.05	0.10116	23.55	0.22646
802.11ac VHT80_Nss1,(MCS0)_2TX(Port1)	20.01	0.10023	23.51	0.22439
802.11ac VHT80_Nss1,(MCS0)_2TX(Port2)	19.91	0.09795	23.41	0.21928
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX(Port1)	23.80	0.23988	27.30	0.53703
802.11a_Nss1,(6Mbps)_2TX(Port2)	23.71	0.23496	27.21	0.52602
802.11ac VHT20_Nss1,(MCS0)_2TX(Port1)	24.22	0.26424	27.72	0.59156
802.11ac VHT20_Nss1,(MCS0)_2TX(Port2)	24.47	0.27990	27.97	0.62661
802.11ac VHT40_Nss1,(MCS0)_2TX(Port1)	24.31	0.26977	27.81	0.60395
802.11ac VHT40_Nss1,(MCS0)_2TX(Port2)	24.57	0.28642	28.07	0.64121
802.11ac VHT80_Nss1,(MCS0)_2TX(Port1)	21.37	0.13709	24.87	0.30690
802.11ac VHT80_Nss1,(MCS0)_2TX(Port2)	21.71	0.14825	25.21	0.33189

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX(Port1)	-	-	-	-	-	-	-
5180MHz	Pass	3.50	20.09		20.09	23.59	36.00
5200MHz	Pass	3.50	20.07		20.07	23.57	36.00
5240MHz	Pass	3.50	20.05		20.05	23.55	36.00
5745MHz	Pass	3.50	23.80		23.80	27.30	36.00
5785MHz	Pass	3.50	23.46		23.46	26.96	36.00
5825MHz	Pass	3.50	23.27		23.27	26.77	36.00
802.11a_Nss1,(6Mbps)_2TX(Port2)	-	-	-	-	-	-	-
5180MHz	Pass	3.50		20.08	20.08	23.58	36.00
5200MHz	Pass	3.50		20.02	20.02	23.52	36.00
5240MHz	Pass	3.50		19.81	19.81	23.31	36.00
5745MHz	Pass	3.50		23.63	23.63	27.13	36.00
5785MHz	Pass	3.50		23.64	23.64	27.14	36.00
5825MHz	Pass	3.50		23.71	23.71	27.21	36.00
802.11ac_VHT20_Nss1,(MCS0)_2TX(Port1)	-	-	-	-	-	-	-
5180MHz	Pass	3.50	20.06		20.06	23.56	36.00
5200MHz	Pass	3.50	20.08		20.08	23.58	36.00
5240MHz	Pass	3.50	20.02		20.02	23.52	36.00
5745MHz	Pass	3.50	23.82		23.82	27.32	36.00
5785MHz	Pass	3.50	23.50		23.50	27.00	36.00
5825MHz	Pass	3.50	24.22		24.22	27.72	36.00
802.11ac_VHT20_Nss1,(MCS0)_2TX(Port2)	-	-	-	-	-	-	-
5180MHz	Pass	3.50		20.04	20.04	23.54	36.00
5200MHz	Pass	3.50		20.07	20.07	23.57	36.00
5240MHz	Pass	3.50		19.72	19.72	23.22	36.00
5745MHz	Pass	3.50		23.52	23.52	27.02	36.00
5785MHz	Pass	3.50		24.02	24.02	27.52	36.00
5825MHz	Pass	3.50		24.47	24.47	27.97	36.00
802.11ac_VHT40_Nss1,(MCS0)_2TX(Port1)	-	-	-	-	-	-	-
5190MHz	Pass	3.50	20.08		20.08	23.58	36.00
5230MHz	Pass	3.50	20.01		20.01	23.51	36.00
5755MHz	Pass	3.50	24.31		24.31	27.81	36.00
5795MHz	Pass	3.50	24.21		24.21	27.71	36.00
802.11ac_VHT40_Nss1,(MCS0)_2TX(Port2)	-	-	-	-	-	-	-
5190MHz	Pass	3.50		20.01	20.01	23.51	36.00
5230MHz	Pass	3.50		20.05	20.05	23.55	36.00
5755MHz	Pass	3.50		24.24	24.24	27.74	36.00
5795MHz	Pass	3.50		24.57	24.57	28.07	36.00
802.11ac_VHT80_Nss1,(MCS0)_2TX(Port1)	-	-	-	-	-	-	-
5210MHz	Pass	3.50	20.01		20.01	23.51	36.00
5775MHz	Pass	3.50	21.37		21.37	24.87	36.00
802.11ac_VHT80_Nss1,(MCS0)_2TX(Port2)	-	-	-	-	-	-	-
5210MHz	Pass	3.50		19.91	19.91	23.41	36.00
5775MHz	Pass	3.50		21.71	21.71	25.21	36.00



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



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX(Port1)	20.09	0.10209	20.99	0.12560
802.11a_Nss1,(6Mbps)_2TX(Port2)	20.08	0.10186	20.98	0.12531
802.11ac VHT20_Nss1,(MCS0)_2TX(Port1)	20.08	0.10186	20.98	0.12531
802.11ac VHT20_Nss1,(MCS0)_2TX(Port2)	20.07	0.10162	20.97	0.12503
802.11ac VHT40_Nss1,(MCS0)_2TX(Port1)	20.08	0.10186	20.98	0.12531
802.11ac VHT40_Nss1,(MCS0)_2TX(Port2)	20.05	0.10116	20.95	0.12445
802.11ac VHT80_Nss1,(MCS0)_2TX(Port1)	20.01	0.10023	20.91	0.12331
802.11ac VHT80_Nss1,(MCS0)_2TX(Port2)	19.91	0.09795	20.81	0.12050

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX(Port1)	-	-	-	-	-	-	-
5180MHz	Pass	0.90	20.09		20.09	20.99	21.00
5200MHz	Pass	0.90	20.07		20.07	20.97	21.00
5240MHz	Pass	0.90	20.05		20.05	20.95	21.00
802.11a_Nss1,(6Mbps)_2TX(Port2)	-	-	-	-	-	-	-
5180MHz	Pass	0.90		20.08	20.08	20.98	21.00
5200MHz	Pass	0.90		20.02	20.02	20.92	21.00
5240MHz	Pass	0.90		19.81	19.81	20.71	21.00
802.11ac VHT20_Nss1,(MCS0)_2TX(Port1)	-	-	-	-	-	-	-
5180MHz	Pass	0.90	20.06		20.06	20.96	21.00
5200MHz	Pass	0.90	20.08		20.08	20.98	21.00
5240MHz	Pass	0.90	20.02		20.02	20.92	21.00
802.11ac VHT20_Nss1,(MCS0)_2TX(Port2)	-	-	-	-	-	-	-
5180MHz	Pass	0.90		20.04	20.04	20.94	21.00
5200MHz	Pass	0.90		20.07	20.07	20.97	21.00
5240MHz	Pass	0.90		19.72	19.72	20.62	21.00
802.11ac VHT40_Nss1,(MCS0)_2TX(Port1)	-	-	-	-	-	-	-
5190MHz	Pass	0.90	20.08		20.08	20.98	21.00
5230MHz	Pass	0.90	20.01		20.01	20.91	21.00
802.11ac VHT40_Nss1,(MCS0)_2TX(Port2)	-	-	-	-	-	-	-
5190MHz	Pass	0.90		20.01	20.01	20.91	21.00
5230MHz	Pass	0.90		20.05	20.05	20.95	21.00
802.11ac VHT80_Nss1,(MCS0)_2TX(Port1)	-	-	-	-	-	-	-
5210MHz	Pass	0.90	20.01		20.01	20.91	21.00
802.11ac VHT80_Nss1,(MCS0)_2TX(Port2)	-	-	-	-	-	-	-
5210MHz	Pass	0.90		19.91	19.91	20.81	21.00

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

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	9.92	16.43
802.11ac VHT20_Nss1,(MCS0)_2TX	9.68	16.19
802.11ac VHT40_Nss1,(MCS0)_2TX	7.20	13.71
802.11ac VHT80_Nss1,(MCS0)_2TX	3.50	10.01
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	12.48	18.99
802.11ac VHT20_Nss1,(MCS0)_2TX	12.92	19.43
802.11ac VHT40_Nss1,(MCS0)_2TX	10.15	16.66
802.11ac VHT80_Nss1,(MCS0)_2TX	4.07	10.58

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.51	6.91	6.99	9.91	16.49	16.42	23.00
5200MHz	Pass	6.51	6.96	6.91	9.92	16.49	16.43	23.00
5240MHz	Pass	6.51	6.97	6.67	9.81	16.49	16.32	23.00
5745MHz	Pass	6.51	9.65	9.31	12.48	29.49	18.99	36.00
5785MHz	Pass	6.51	9.28	9.54	12.41	29.49	18.92	36.00
5825MHz	Pass	6.51	9.07	9.52	12.31	29.49	18.82	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.51	6.69	6.80	9.68	16.49	16.19	23.00
5200MHz	Pass	6.51	6.66	6.71	9.68	16.49	16.19	23.00
5240MHz	Pass	6.51	6.66	6.57	9.54	16.49	16.05	23.00
5745MHz	Pass	6.51	9.42	9.10	12.24	29.49	18.75	36.00
5785MHz	Pass	6.51	9.44	9.82	12.58	29.49	19.09	36.00
5825MHz	Pass	6.51	9.89	10.06	12.92	29.49	19.43	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.51	4.12	4.26	7.16	16.49	13.67	23.00
5230MHz	Pass	6.51	4.22	4.18	7.20	16.49	13.71	23.00
5755MHz	Pass	6.51	7.24	7.09	10.15	29.49	16.66	36.00
5795MHz	Pass	6.51	7.01	7.33	10.15	29.49	16.66	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.51	0.50	0.52	3.50	16.49	10.01	23.00
5775MHz	Pass	6.51	0.89	1.49	4.07	29.49	10.58	36.00

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

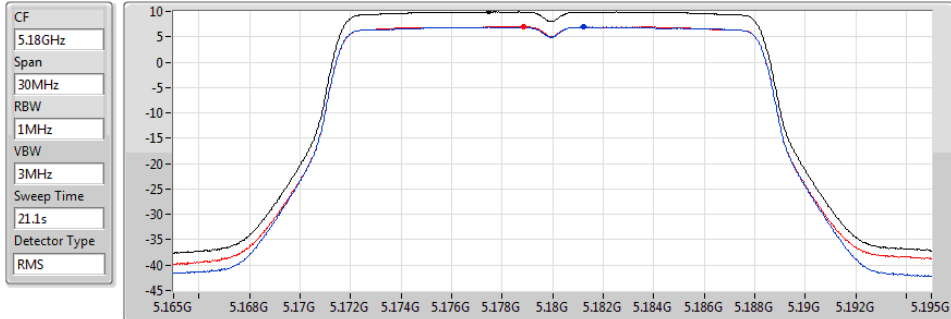
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11a_Nss1,(6Mbps)_2TX

PSD

5180MHz

02/08/2019



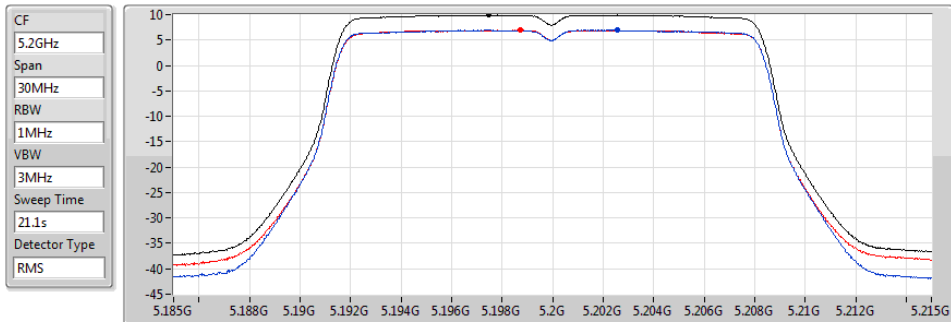
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
9.91	9.91	6.91	6.99

802.11a_Nss1,(6Mbps)_2TX

PSD

5200MHz

02/08/2019



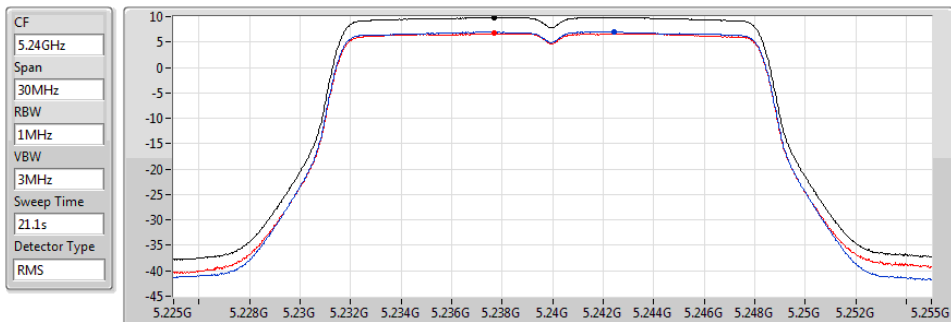
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
9.92	9.92	6.96	6.91

802.11a_Nss1,(6Mbps)_2TX

PSD

5240MHz

02/08/2019



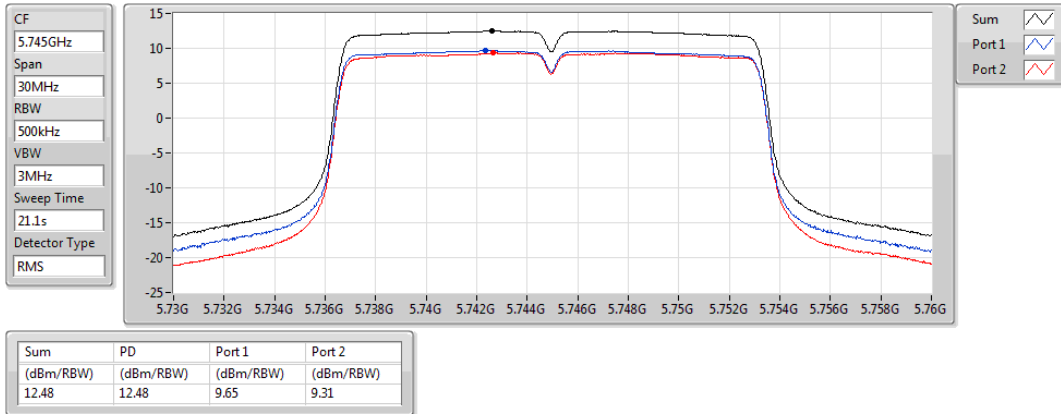
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
9.81	9.81	6.97	6.67

802.11a_Nss1,(6Mbps)_2TX

PSD

5745MHz

30/05/2019

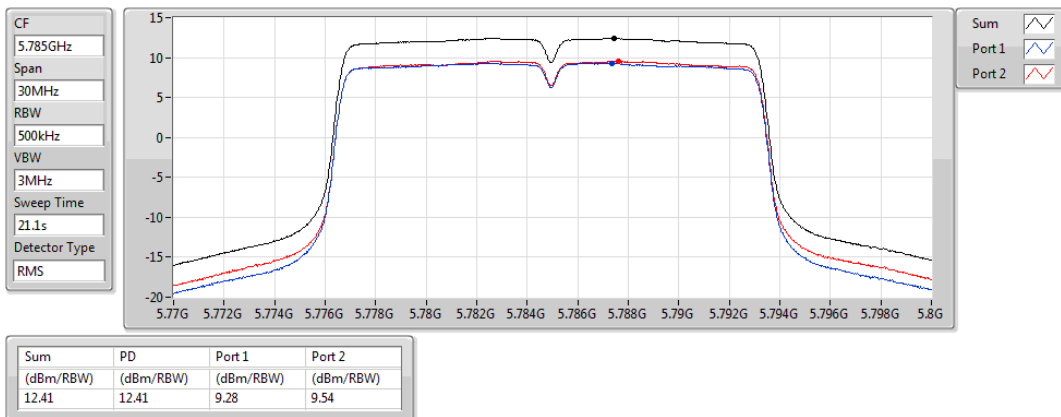


802.11a_Nss1,(6Mbps)_2TX

PSD

5785MHz

30/05/2019

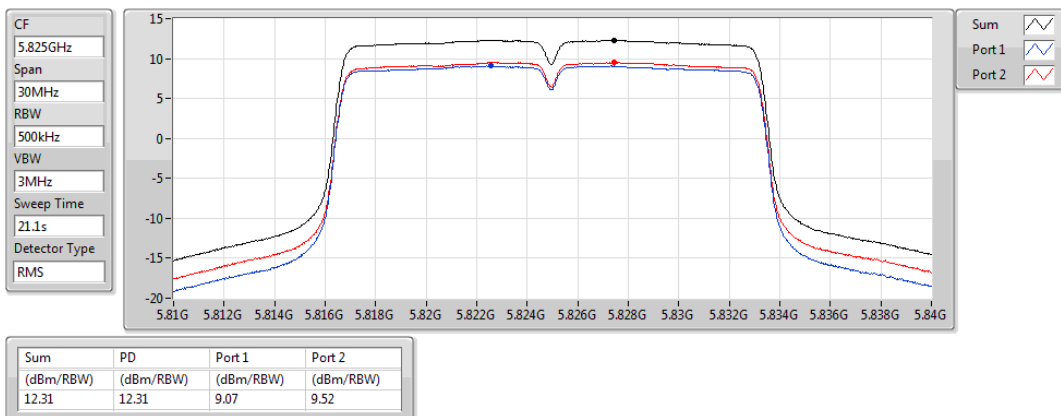


802.11a_Nss1,(6Mbps)_2TX

PSD

5825MHz

30/05/2019

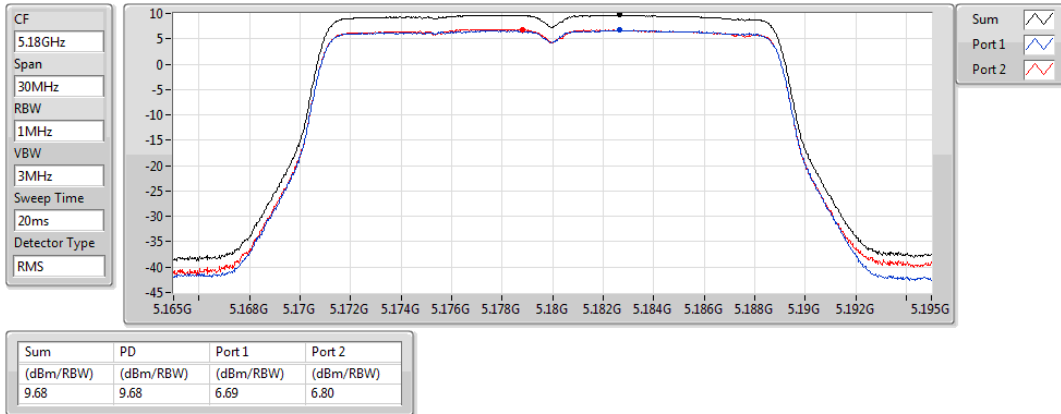


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5180MHz

02/08/2019

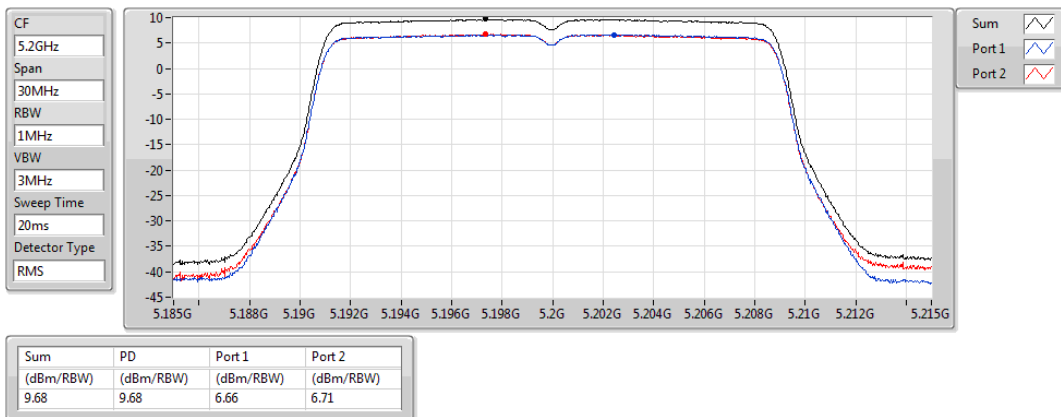


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5200MHz

02/08/2019

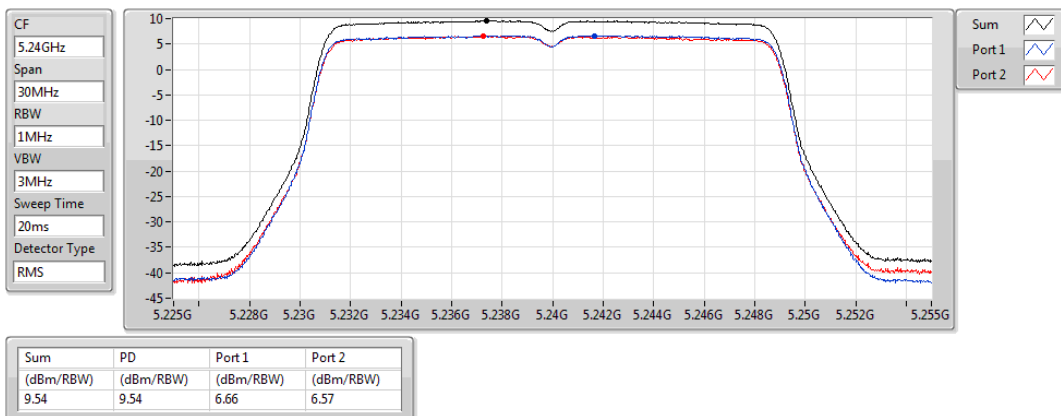


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5240MHz

02/08/2019

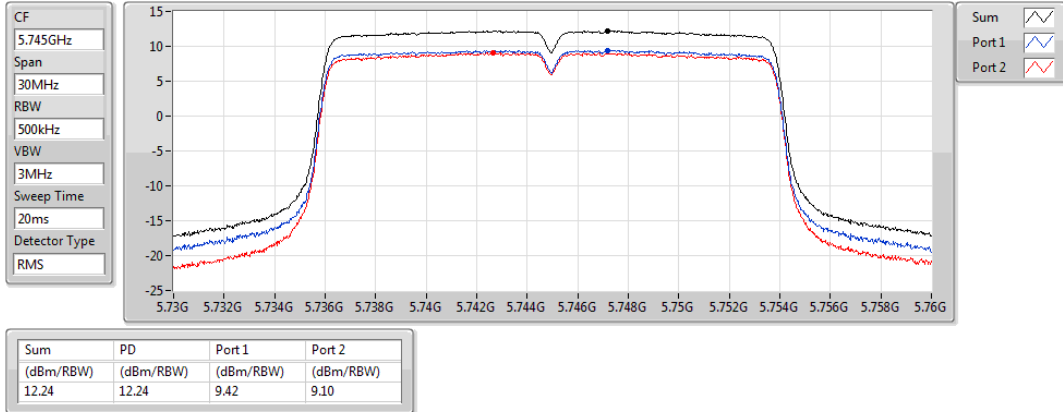


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5745MHz

30/05/2019

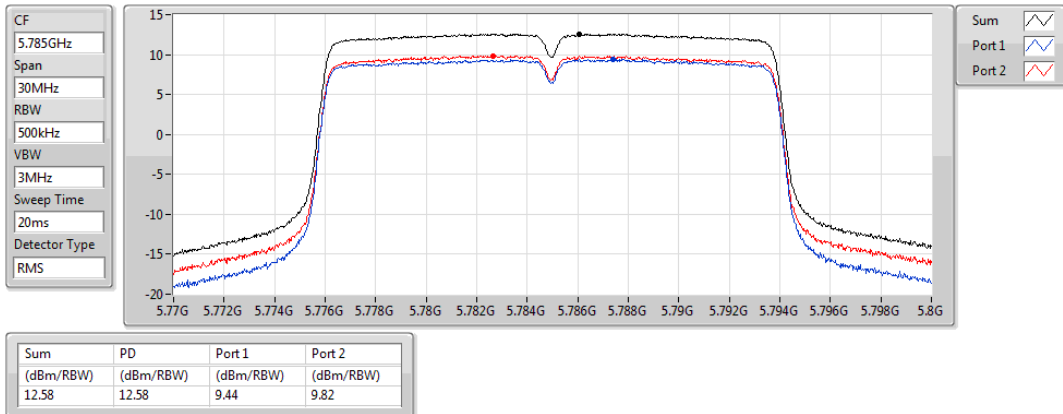


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5785MHz

30/05/2019

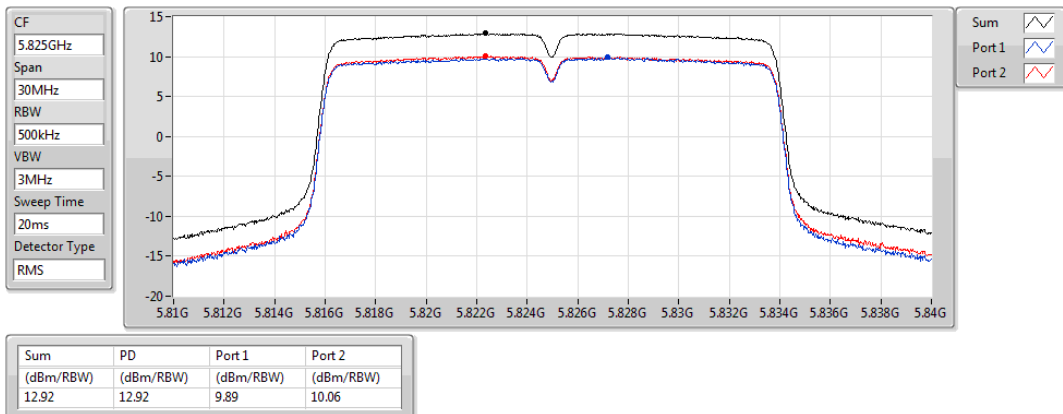


802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5825MHz

30/05/2019



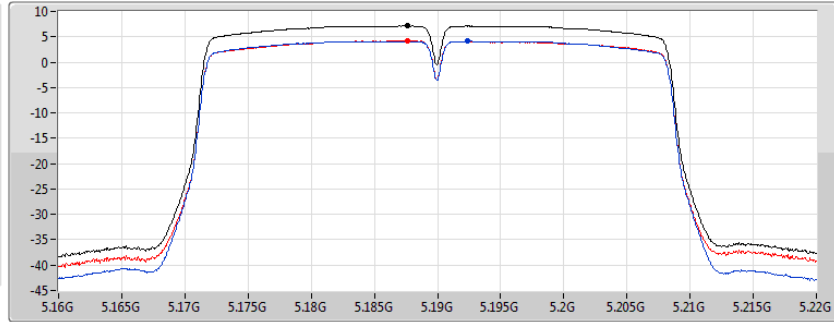
802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5190MHz

02/08/2019

CF
5.19GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
25s
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
7.16	7.16	4.12	4.26

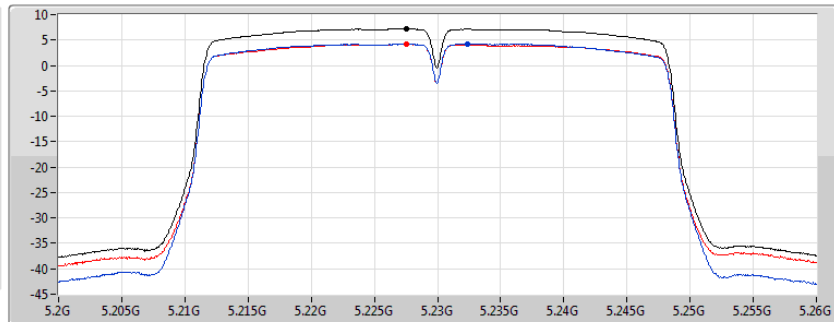
802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5230MHz

02/08/2019

CF
5.23GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
25s
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
7.20	7.20	4.22	4.18

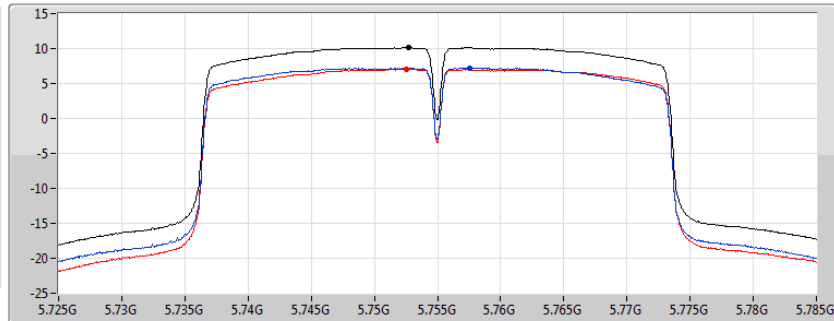
802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5755MHz

30/05/2019

CF
5.755GHz
Span
60MHz
RBW
500kHz
VBW
3MHz
Sweep Time
25s
Detector Type
RMS



Sum
Port 1
Port 2

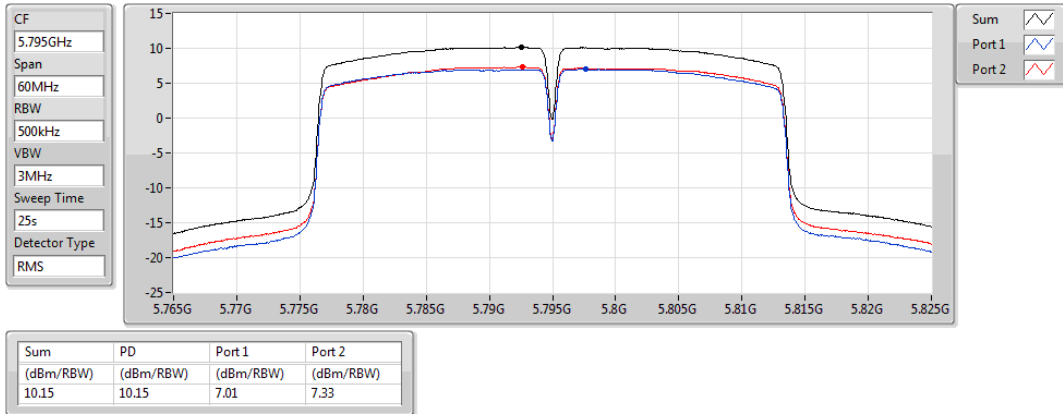
Sum	PD	Port 1	Port 2
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
10.15	10.15	7.24	7.09

802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5795MHz

30/05/2019

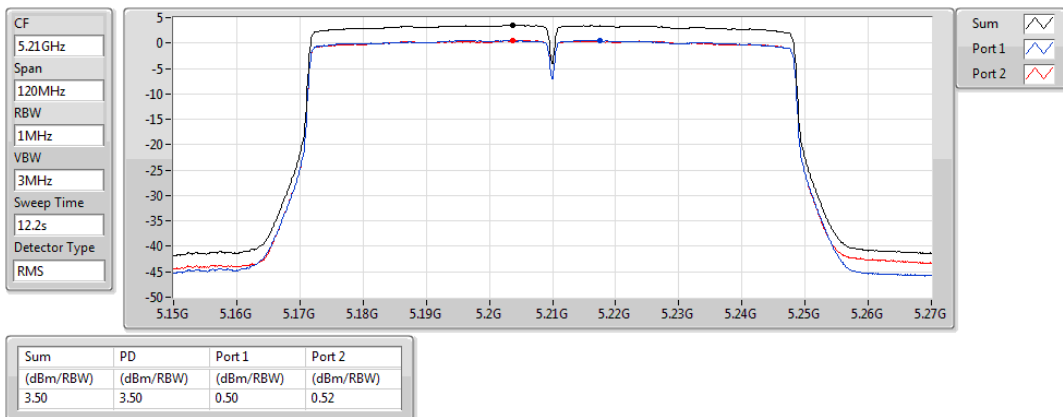


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5210MHz

02/08/2019

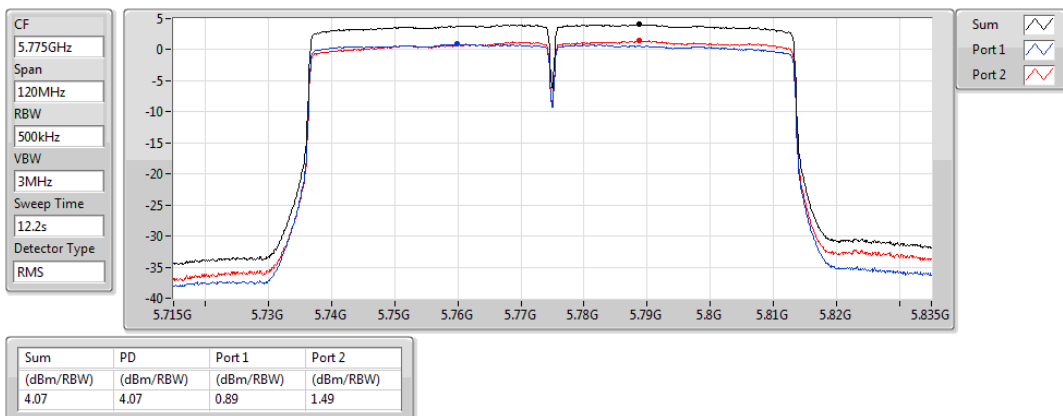


802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5775MHz

30/05/2019





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	PK	478.14M	34.71	46.00	-11.29	-12.12	3	Vertical	360	1.28	-

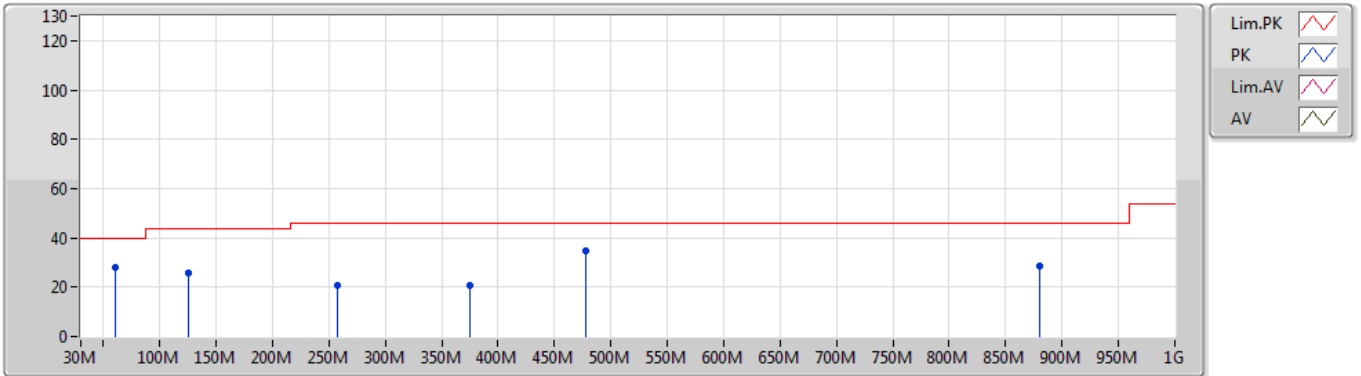
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	PK	61.04M	28.01	40.00	-11.99	-25.47	3	Vertical	360	1.30	-
5775MHz	Pass	PK	125.06M	25.85	43.50	-17.65	-19.00	3	Vertical	360	1.29	-
5775MHz	Pass	PK	256.98M	20.52	46.00	-25.48	-16.07	3	Vertical	360	1.29	-
5775MHz	Pass	PK	375.32M	20.95	46.00	-25.05	-14.72	3	Vertical	360	1.28	-
5775MHz	Pass	PK	478.14M	34.71	46.00	-11.29	-12.12	3	Vertical	360	1.28	-
5775MHz	Pass	PK	879.72M	28.83	46.00	-17.17	-6.64	3	Vertical	360	1.28	-
5775MHz	Pass	PK	61.04M	23.99	40.00	-16.01	-25.47	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	123.12M	25.05	43.50	-18.45	-19.03	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	258.92M	21.20	46.00	-24.80	-15.77	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	476.2M	27.33	46.00	-18.67	-12.16	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	625.58M	26.75	46.00	-19.25	-9.73	3	Horizontal	0	1.00	-
5775MHz	Pass	PK	889.42M	29.22	46.00	-16.78	-6.62	3	Horizontal	0	1.00	-

802.11ac VHT80_Nss1,(MCS0)_2TX

31/05/2019

5775MHz_PoE

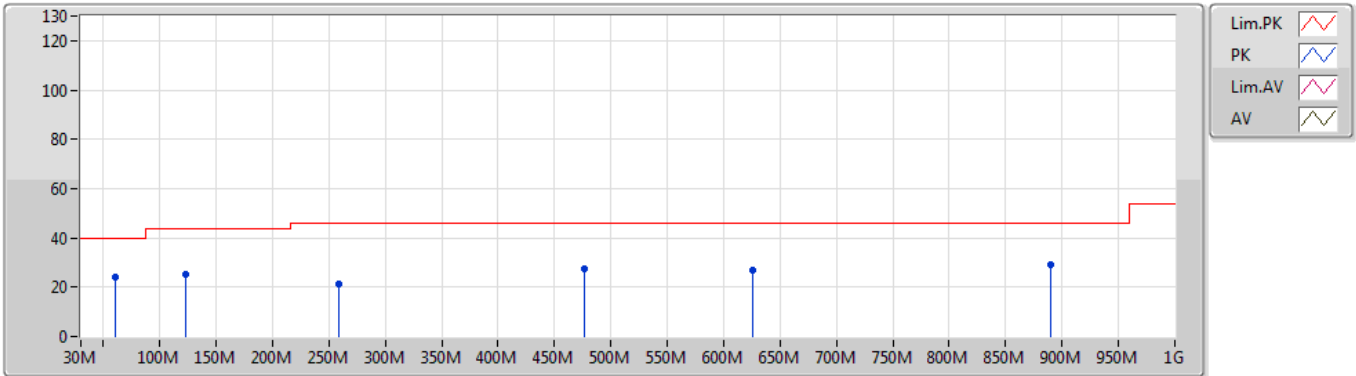


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	61.04M	28.01	40.00	-11.99	-25.47	3	Vertical	360	1.00	-				
PK	125.06M	25.85	43.50	-17.65	-19.00	3	Vertical	360	1.00	-				
PK	256.98M	20.52	46.00	-25.48	-16.07	3	Vertical	360	1.00	-				
PK	375.32M	20.95	46.00	-25.05	-14.72	3	Vertical	360	1.00	-				
PK	478.14M	34.71	46.00	-11.29	-12.12	3	Vertical	360	1.00	-				
PK	879.72M	28.83	46.00	-17.17	-6.64	3	Vertical	360	1.00	-				

802.11ac VHT80_Nss1,(MCS0)_2TX

31/05/2019

5775MHz_PoE



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	61.04M	23.99	40.00	-16.01	-25.47	3	Horizontal	0	1.00	-				
PK	123.12M	25.05	43.50	-18.45	-19.03	3	Horizontal	0	1.00	-				
PK	258.92M	21.20	46.00	-24.80	-15.77	3	Horizontal	0	1.00	-				
PK	476.2M	27.33	46.00	-18.67	-12.16	3	Horizontal	0	1.00	-				
PK	625.58M	26.75	46.00	-19.25	-9.73	3	Horizontal	0	1.00	-				
PK	889.42M	29.22	46.00	-16.78	-6.62	3	Horizontal	0	1.00	-				

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	Pass	AV	5.15G	52.96	54.00	-1.04	4.20	3	Horizontal	76	1.60	-
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	PK	5.1466G	73.04	74.00	-0.96	8.62	3	Horizontal	287	1.00	-
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	AV	5.15G	53.00	54.00	-1.00	4.20	3	Horizontal	77	1.62	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	AV	5.135G	53.23	54.00	-0.77	4.17	3	Horizontal	84	1.58	-
5.725-5.85GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	Pass	PK	5.635G	60.34	68.20	-7.86	9.39	3	Horizontal	279	1.01	-
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	PK	5.9334G	58.26	68.20	-9.94	5.66	3	Vertical	317	1.59	-
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	PK	5.939G	58.67	68.20	-9.53	5.66	3	Horizontal	88	2.16	-
802.11ac VHT80_Nss1,(MCS0)_2TX	Pass	PK	5.6406G	67.20	68.20	-1.00	5.13	3	Horizontal	85	2.14	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.147G	48.49	54.00	-5.51	4.19	3	Vertical	55	1.44	-
5180MHz	Pass	AV	5.1818G	102.23	Inf	-Inf	4.27	3	Vertical	55	1.44	-
5180MHz	Pass	PK	5.1474G	66.30	74.00	-7.70	4.19	3	Vertical	55	1.44	-
5180MHz	Pass	PK	5.1818G	112.34	Inf	-Inf	4.27	3	Vertical	55	1.44	-
5180MHz	Pass	AV	5.15G	52.96	54.00	-1.04	4.20	3	Horizontal	76	1.60	-
5180MHz	Pass	AV	5.181G	104.65	Inf	-Inf	4.27	3	Horizontal	76	1.60	-
5180MHz	Pass	PK	5.1496G	72.29	74.00	-1.71	4.20	3	Horizontal	76	1.60	-
5180MHz	Pass	PK	5.1812G	114.52	Inf	-Inf	4.27	3	Horizontal	76	1.60	-
5180MHz	Pass	PK	10.35154G	52.57	68.20	-15.63	14.81	3	Vertical	186	2.30	-
5180MHz	Pass	PK	10.35742G	52.72	68.20	-15.48	14.83	3	Horizontal	194	2.70	-
5200MHz	Pass	AV	5.1476G	47.32	54.00	-6.68	4.19	3	Vertical	59	1.48	-
5200MHz	Pass	AV	5.2016G	105.08	Inf	-Inf	4.30	3	Vertical	59	1.48	-
5200MHz	Pass	PK	5.1464G	61.44	74.00	-12.56	4.19	3	Vertical	59	1.48	-
5200MHz	Pass	PK	5.2024G	115.07	Inf	-Inf	4.30	3	Vertical	59	1.48	-
5200MHz	Pass	AV	5.15G	50.74	54.00	-3.26	4.20	3	Horizontal	86	2.11	-
5200MHz	Pass	AV	5.2008G	107.22	Inf	-Inf	4.30	3	Horizontal	86	2.11	-
5200MHz	Pass	PK	5.1496G	66.84	74.00	-7.16	4.20	3	Horizontal	86	2.11	-
5200MHz	Pass	PK	5.2056G	117.29	Inf	-Inf	4.31	3	Horizontal	86	2.11	-
5200MHz	Pass	PK	10.40126G	52.69	68.20	-15.51	14.93	3	Vertical	158	1.45	-
5200MHz	Pass	PK	10.40438G	52.76	68.20	-15.44	14.95	3	Horizontal	72	1.70	-
5240MHz	Pass	AV	5.1356G	43.72	54.00	-10.28	4.17	3	Vertical	329	2.05	-
5240MHz	Pass	AV	5.2424G	106.58	Inf	-Inf	4.38	3	Vertical	329	2.05	-
5240MHz	Pass	AV	5.39G	43.92	54.00	-10.08	4.66	3	Vertical	329	2.05	-
5240MHz	Pass	PK	5.117G	56.16	74.00	-17.84	4.13	3	Vertical	329	2.05	-
5240MHz	Pass	PK	5.2376G	116.61	Inf	-Inf	4.37	3	Vertical	329	2.05	-
5240MHz	Pass	PK	5.366G	55.84	74.00	-18.16	4.62	3	Vertical	329	2.05	-
5240MHz	Pass	AV	5.1356G	44.12	54.00	-9.88	4.17	3	Horizontal	77	1.62	-
5240MHz	Pass	AV	5.2364G	107.68	Inf	-Inf	4.36	3	Horizontal	77	1.62	-
5240MHz	Pass	AV	5.384G	43.90	54.00	-10.10	4.65	3	Horizontal	77	1.62	-
5240MHz	Pass	PK	5.1434G	56.37	74.00	-17.63	4.19	3	Horizontal	77	1.62	-
5240MHz	Pass	PK	5.2412G	117.79	Inf	-Inf	4.37	3	Horizontal	77	1.62	-
5240MHz	Pass	PK	5.378G	56.04	74.00	-17.96	4.64	3	Horizontal	77	1.62	-
5240MHz	Pass	PK	10.47334G	53.19	68.20	-15.01	15.10	3	Vertical	112	2.38	-
5240MHz	Pass	PK	10.47112G	53.28	68.20	-14.92	15.10	3	Horizontal	59	2.20	-
5745MHz	Pass	AV	5.739G	107.39	Inf	-Inf	9.57	3	Vertical	57	1.01	-
5745MHz	Pass	PK	5.6394G	59.70	68.20	-8.50	9.41	3	Vertical	57	1.01	-
5745MHz	Pass	PK	5.7498G	116.94	Inf	-Inf	9.60	3	Vertical	57	1.01	-
5745MHz	Pass	PK	5.9694G	58.94	68.20	-9.26	9.57	3	Vertical	57	1.01	-
5745MHz	Pass	AV	5.7462G	110.23	Inf	-Inf	9.59	3	Horizontal	285	1.00	-
5745MHz	Pass	PK	5.6058G	59.21	68.20	-8.99	9.34	3	Horizontal	285	1.00	-
5745MHz	Pass	PK	5.7462G	120.17	Inf	-Inf	9.59	3	Horizontal	285	1.00	-
5745MHz	Pass	PK	5.925G	59.43	68.20	-8.77	9.76	3	Horizontal	285	1.00	-
5745MHz	Pass	AV	11.4901G	44.88	54.00	-9.12	18.69	3	Vertical	2	1.50	-
5745MHz	Pass	PK	11.48797G	57.83	74.00	-16.17	18.70	3	Vertical	2	1.50	-
5745MHz	Pass	AV	11.49122G	44.57	54.00	-9.43	18.69	3	Horizontal	67	1.50	-
5745MHz	Pass	PK	11.48921G	57.18	74.00	-16.82	18.70	3	Horizontal	67	1.50	-
5785MHz	Pass	AV	5.7826G	105.83	Inf	-Inf	9.66	3	Vertical	3	1.02	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5785MHz	Pass	PK	5.5978G	58.87	68.20	-9.33	9.31	3	Vertical	3	1.02	-
5785MHz	Pass	PK	5.7826G	115.44	Inf	-Inf	9.66	3	Vertical	3	1.02	-
5785MHz	Pass	PK	5.9302G	60.09	68.20	-8.11	9.74	3	Vertical	3	1.02	-
5785MHz	Pass	AV	5.7862G	109.67	Inf	-Inf	9.67	3	Horizontal	279	1.01	-
5785MHz	Pass	PK	5.635G	60.34	68.20	-7.86	9.39	3	Horizontal	279	1.01	-
5785MHz	Pass	PK	5.791G	118.72	Inf	-Inf	9.67	3	Horizontal	279	1.01	-
5785MHz	Pass	PK	5.9386G	60.30	68.20	-7.90	9.70	3	Horizontal	279	1.01	-
5785MHz	Pass	AV	11.57162G	44.28	54.00	-9.72	18.66	3	Vertical	213	1.50	-
5785MHz	Pass	PK	11.57114G	56.77	74.00	-17.23	18.66	3	Vertical	213	1.50	-
5785MHz	Pass	AV	11.57225G	44.24	54.00	-9.76	18.67	3	Horizontal	283	2.93	-
5785MHz	Pass	PK	11.57113G	57.55	74.00	-16.45	18.66	3	Horizontal	283	2.93	-
5825MHz	Pass	AV	5.8274G	106.51	Inf	-Inf	9.74	3	Vertical	3	1.50	-
5825MHz	Pass	PK	5.5994G	59.76	68.20	-8.44	9.33	3	Vertical	3	1.50	-
5825MHz	Pass	PK	5.8274G	115.10	Inf	-Inf	9.74	3	Vertical	3	1.50	-
5825MHz	Pass	PK	5.9282G	59.54	68.20	-8.66	9.75	3	Vertical	3	1.50	-
5825MHz	Pass	AV	5.8262G	109.79	Inf	-Inf	9.74	3	Horizontal	288	1.01	-
5825MHz	Pass	PK	5.6306G	59.79	68.20	-8.41	9.38	3	Horizontal	288	1.01	-
5825MHz	Pass	PK	5.8262G	119.11	Inf	-Inf	9.74	3	Horizontal	288	1.01	-
5825MHz	Pass	PK	5.9258G	59.22	68.20	-8.98	9.76	3	Horizontal	288	1.01	-
5825MHz	Pass	AV	11.6581G	43.95	54.00	-10.05	18.65	3	Vertical	340	1.50	-
5825MHz	Pass	PK	11.65114G	56.75	74.00	-17.25	18.65	3	Vertical	340	1.50	-
5825MHz	Pass	AV	11.64991G	44.29	54.00	-9.71	18.65	3	Horizontal	0	1.81	-
5825MHz	Pass	PK	11.65121G	57.56	74.00	-16.44	18.65	3	Horizontal	0	1.81	-
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	AV	5.15G	51.94	54.00	-2.06	8.62	3	Vertical	31	1.00	-
5180MHz	Pass	AV	5.186G	101.19	Inf	-Inf	8.68	3	Vertical	31	1.00	-
5180MHz	Pass	PK	5.146G	69.44	74.00	-4.56	8.62	3	Vertical	31	1.00	-
5180MHz	Pass	PK	5.1856G	113.14	Inf	-Inf	8.68	3	Vertical	31	1.00	-
5180MHz	Pass	AV	5.146G	52.01	54.00	-1.99	8.62	3	Horizontal	287	1.00	-
5180MHz	Pass	AV	5.1826G	104.41	Inf	-Inf	8.68	3	Horizontal	287	1.00	-
5180MHz	Pass	PK	5.1466G	73.04	74.00	-0.96	8.62	3	Horizontal	287	1.00	-
5180MHz	Pass	PK	5.182G	116.92	Inf	-Inf	8.67	3	Horizontal	287	1.00	-
5180MHz	Pass	PK	10.36858G	53.11	68.20	-15.09	14.86	3	Vertical	311	1.45	-
5180MHz	Pass	PK	10.3615G	53.16	68.20	-15.04	14.84	3	Horizontal	278	2.32	-
5200MHz	Pass	AV	5.1428G	48.89	54.00	-5.11	8.62	3	Vertical	88	1.00	-
5200MHz	Pass	AV	5.2024G	104.92	Inf	-Inf	8.70	3	Vertical	88	1.00	-
5200MHz	Pass	PK	5.146G	62.64	74.00	-11.36	8.62	3	Vertical	88	1.00	-
5200MHz	Pass	PK	5.2044G	114.67	Inf	-Inf	8.70	3	Vertical	88	1.00	-
5200MHz	Pass	AV	5.1456G	51.55	54.00	-2.45	8.62	3	Horizontal	285	1.00	-
5200MHz	Pass	AV	5.2028G	108.94	Inf	-Inf	8.70	3	Horizontal	285	1.00	-
5200MHz	Pass	PK	5.1476G	67.08	74.00	-6.92	8.62	3	Horizontal	285	1.00	-
5200MHz	Pass	PK	5.2032G	119.08	Inf	-Inf	8.70	3	Horizontal	285	1.00	-
5200MHz	Pass	PK	10.40402G	53.58	68.20	-14.62	14.95	3	Vertical	146	1.48	-
5200MHz	Pass	PK	10.40732G	52.66	68.20	-15.54	14.95	3	Horizontal	176	2.11	-
5240MHz	Pass	AV	5.1362G	46.05	54.00	-7.95	8.60	3	Vertical	36	1.02	-
5240MHz	Pass	AV	5.2478G	103.50	Inf	-Inf	8.76	3	Vertical	36	1.02	-
5240MHz	Pass	AV	5.3588G	44.86	54.00	-9.14	8.94	3	Vertical	36	1.02	-
5240MHz	Pass	PK	5.1266G	59.89	74.00	-14.11	8.59	3	Vertical	36	1.02	-
5240MHz	Pass	PK	5.2334G	114.31	Inf	-Inf	8.74	3	Vertical	36	1.02	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5240MHz	Pass	PK	5.357G	57.69	74.00	-16.31	8.92	3	Vertical	36	1.02	-
5240MHz	Pass	AV	5.1356G	46.09	54.00	-7.91	8.60	3	Horizontal	282	1.02	-
5240MHz	Pass	AV	5.2424G	106.75	Inf	-Inf	8.76	3	Horizontal	282	1.02	-
5240MHz	Pass	AV	5.35G	44.99	54.00	-9.01	8.92	3	Horizontal	282	1.02	-
5240MHz	Pass	PK	5.1332G	58.94	74.00	-15.06	8.60	3	Horizontal	282	1.02	-
5240MHz	Pass	PK	5.243G	117.80	Inf	-Inf	8.76	3	Horizontal	282	1.02	-
5240MHz	Pass	PK	5.3726G	58.06	74.00	-15.94	8.95	3	Horizontal	282	1.02	-
5240MHz	Pass	PK	10.48648G	54.12	68.20	-14.08	15.13	3	Vertical	316	1.34	-
5240MHz	Pass	PK	10.4884G	53.89	68.20	-14.31	15.14	3	Horizontal	163	1.68	-
5745MHz	Pass	AV	5.7426G	107.75	Inf	-Inf	5.31	3	Vertical	317	1.59	-
5745MHz	Pass	PK	5.649G	57.15	68.20	-11.05	5.14	3	Vertical	317	1.59	-
5745MHz	Pass	PK	5.7426G	117.91	Inf	-Inf	5.31	3	Vertical	317	1.59	-
5745MHz	Pass	PK	5.9334G	58.26	68.20	-9.94	5.66	3	Vertical	317	1.59	-
5745MHz	Pass	AV	5.7474G	109.62	Inf	-Inf	5.33	3	Horizontal	86	2.02	-
5745MHz	Pass	PK	5.5338G	56.82	68.20	-11.38	4.93	3	Horizontal	86	2.02	-
5745MHz	Pass	PK	5.7498G	119.95	Inf	-Inf	5.33	3	Horizontal	86	2.02	-
5745MHz	Pass	PK	5.9346G	57.28	68.20	-10.92	5.66	3	Horizontal	86	2.02	-
5745MHz	Pass	AV	11.47608G	39.72	54.00	-14.28	15.80	3	Vertical	178	1.54	-
5745MHz	Pass	PK	11.4936G	53.31	74.00	-20.69	15.79	3	Vertical	178	1.54	-
5745MHz	Pass	AV	11.47872G	39.74	54.00	-14.26	15.81	3	Horizontal	272	1.94	-
5745MHz	Pass	PK	11.49072G	52.92	74.00	-21.08	15.79	3	Horizontal	272	1.94	-
5785MHz	Pass	AV	5.7826G	107.75	Inf	-Inf	5.39	3	Vertical	319	1.42	-
5785MHz	Pass	PK	5.5618G	56.83	68.20	-11.37	4.99	3	Vertical	319	1.42	-
5785MHz	Pass	PK	5.7814G	117.40	Inf	-Inf	5.38	3	Vertical	319	1.42	-
5785MHz	Pass	PK	5.9614G	57.59	68.20	-10.61	5.71	3	Vertical	319	1.42	-
5785MHz	Pass	AV	5.7874G	109.12	Inf	-Inf	5.38	3	Horizontal	87	2.12	-
5785MHz	Pass	PK	5.6398G	56.50	68.20	-11.70	5.13	3	Horizontal	87	2.12	-
5785MHz	Pass	PK	5.7886G	119.21	Inf	-Inf	5.38	3	Horizontal	87	2.12	-
5785MHz	Pass	PK	5.9758G	57.57	68.20	-10.63	5.73	3	Horizontal	87	2.12	-
5785MHz	Pass	AV	11.58326G	39.59	54.00	-14.41	15.68	3	Vertical	44	2.12	-
5785MHz	Pass	PK	11.56052G	52.74	74.00	-21.26	15.72	3	Vertical	44	2.12	-
5785MHz	Pass	AV	11.5772G	39.59	54.00	-14.41	15.68	3	Horizontal	39	2.19	-
5785MHz	Pass	PK	11.57396G	52.76	74.00	-21.24	15.70	3	Horizontal	39	2.19	-
5825MHz	Pass	AV	5.8226G	107.28	Inf	-Inf	5.45	3	Vertical	316	1.50	-
5825MHz	Pass	PK	5.6246G	56.46	68.20	-11.74	5.10	3	Vertical	316	1.50	-
5825MHz	Pass	PK	5.825G	117.54	Inf	-Inf	5.46	3	Vertical	316	1.50	-
5825MHz	Pass	PK	5.9738G	57.01	68.20	-11.19	5.73	3	Vertical	316	1.50	-
5825MHz	Pass	AV	5.8274G	109.09	Inf	-Inf	5.46	3	Horizontal	86	2.06	-
5825MHz	Pass	PK	5.627G	56.86	68.20	-11.34	5.10	3	Horizontal	86	2.06	-
5825MHz	Pass	PK	5.8274G	119.85	Inf	-Inf	5.46	3	Horizontal	86	2.06	-
5825MHz	Pass	PK	5.933G	57.48	68.20	-10.72	5.65	3	Horizontal	86	2.06	-
5825MHz	Pass	AV	11.65324G	40.21	54.00	-13.79	15.60	3	Vertical	85	1.47	-
5825MHz	Pass	PK	11.65972G	53.23	74.00	-20.77	15.59	3	Vertical	85	1.47	-
5825MHz	Pass	AV	11.6479G	40.19	54.00	-13.81	15.61	3	Horizontal	109	2.37	-
5825MHz	Pass	PK	11.64484G	53.19	74.00	-20.81	15.62	3	Horizontal	109	2.37	-
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	AV	5.15G	48.55	54.00	-5.45	4.20	3	Vertical	59	1.40	-
5190MHz	Pass	AV	5.1988G	98.97	Inf	-Inf	4.30	3	Vertical	59	1.40	-
5190MHz	Pass	PK	5.1464G	66.92	74.00	-7.08	4.19	3	Vertical	59	1.40	-

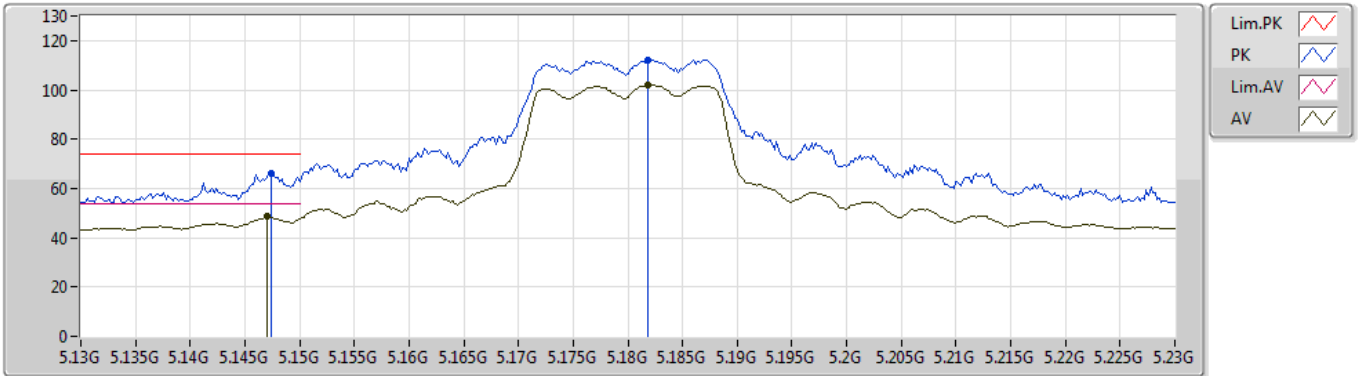
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5190MHz	Pass	PK	5.1984G	108.72	Inf	-Inf	4.30	3	Vertical	59	1.40	-
5190MHz	Pass	AV	5.15G	53.00	54.00	-1.00	4.20	3	Horizontal	77	1.62	-
5190MHz	Pass	AV	5.1936G	101.07	Inf	-Inf	4.29	3	Horizontal	77	1.62	-
5190MHz	Pass	PK	5.15G	70.83	74.00	-3.17	4.20	3	Horizontal	77	1.62	-
5190MHz	Pass	PK	5.1956G	111.32	Inf	-Inf	4.29	3	Horizontal	77	1.62	-
5190MHz	Pass	PK	10.36824G	53.15	68.20	-15.05	14.86	3	Vertical	287	1.03	-
5190MHz	Pass	PK	10.38114G	52.92	68.20	-15.28	14.88	3	Horizontal	10	1.17	-
5230MHz	Pass	AV	5.1388G	48.58	54.00	-5.42	4.17	3	Vertical	61	1.50	-
5230MHz	Pass	AV	5.2388G	102.63	Inf	-Inf	4.37	3	Vertical	61	1.50	-
5230MHz	Pass	PK	5.1416G	63.54	74.00	-10.46	4.18	3	Vertical	61	1.50	-
5230MHz	Pass	PK	5.238G	112.96	Inf	-Inf	4.37	3	Vertical	61	1.50	-
5230MHz	Pass	AV	5.15G	53.00	54.00	-1.00	4.20	3	Horizontal	77	1.68	-
5230MHz	Pass	AV	5.2348G	104.24	Inf	-Inf	4.36	3	Horizontal	77	1.68	-
5230MHz	Pass	PK	5.1496G	67.65	74.00	-6.35	4.20	3	Horizontal	77	1.68	-
5230MHz	Pass	PK	5.2344G	115.35	Inf	-Inf	4.36	3	Horizontal	77	1.68	-
5230MHz	Pass	PK	10.46936G	53.16	68.20	-15.04	15.10	3	Vertical	40	1.22	-
5230MHz	Pass	PK	10.45616G	54.02	68.20	-14.18	15.07	3	Horizontal	78	2.01	-
5755MHz	Pass	AV	5.7466G	104.58	Inf	-Inf	5.32	3	Vertical	1	1.44	-
5755MHz	Pass	PK	5.629G	57.73	68.20	-10.47	5.10	3	Vertical	1	1.44	-
5755MHz	Pass	PK	5.7454G	114.84	Inf	-Inf	5.31	3	Vertical	1	1.44	-
5755MHz	Pass	PK	5.9662G	56.56	68.20	-11.64	5.72	3	Vertical	1	1.44	-
5755MHz	Pass	AV	5.7574G	106.28	Inf	-Inf	5.33	3	Horizontal	82	2.25	-
5755MHz	Pass	PK	5.653G	60.79	70.42	-9.63	5.14	3	Horizontal	82	2.25	-
5755MHz	Pass	PK	5.7598G	115.91	Inf	-Inf	5.33	3	Horizontal	82	2.25	-
5755MHz	Pass	PK	5.941G	57.22	68.20	-10.98	5.67	3	Horizontal	82	2.25	-
5755MHz	Pass	AV	11.52488G	40.15	54.00	-13.85	15.76	3	Vertical	353	1.98	-
5755MHz	Pass	PK	11.49536G	52.93	74.00	-21.07	15.79	3	Vertical	353	1.98	-
5755MHz	Pass	AV	11.49896G	40.21	54.00	-13.79	15.79	3	Horizontal	205	1.17	-
5755MHz	Pass	PK	11.50172G	52.70	74.00	-21.30	15.78	3	Horizontal	205	1.17	-
5795MHz	Pass	AV	5.7926G	104.87	Inf	-Inf	5.39	3	Vertical	313	1.54	-
5795MHz	Pass	PK	5.6042G	56.69	68.20	-11.51	5.06	3	Vertical	313	1.54	-
5795MHz	Pass	PK	5.7914G	114.96	Inf	-Inf	5.39	3	Vertical	313	1.54	-
5795MHz	Pass	PK	5.9258G	58.63	68.20	-9.57	5.64	3	Vertical	313	1.54	-
5795MHz	Pass	AV	5.7974G	106.40	Inf	-Inf	5.41	3	Horizontal	88	2.16	-
5795MHz	Pass	PK	5.6282G	56.80	68.20	-11.40	5.10	3	Horizontal	88	2.16	-
5795MHz	Pass	PK	5.7974G	116.06	Inf	-Inf	5.41	3	Horizontal	88	2.16	-
5795MHz	Pass	PK	5.939G	58.67	68.20	-9.53	5.66	3	Horizontal	88	2.16	-
5795MHz	Pass	AV	11.58046G	40.24	54.00	-13.76	15.69	3	Vertical	176	1.18	-
5795MHz	Pass	PK	11.60068G	53.49	74.00	-20.51	15.67	3	Vertical	176	1.18	-
5795MHz	Pass	AV	11.60356G	40.31	54.00	-13.69	15.67	3	Horizontal	43	2.09	-
5795MHz	Pass	PK	11.58016G	53.44	74.00	-20.56	15.69	3	Horizontal	43	2.09	-
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	AV	5.14G	50.66	54.00	-3.34	4.17	3	Vertical	59	1.33	-
5210MHz	Pass	AV	5.2G	95.09	Inf	-Inf	4.30	3	Vertical	59	1.33	-
5210MHz	Pass	AV	5.361G	44.87	54.00	-9.13	4.61	3	Vertical	59	1.33	-
5210MHz	Pass	PK	5.137G	65.03	74.00	-8.97	4.17	3	Vertical	59	1.33	-
5210MHz	Pass	PK	5.2G	106.06	Inf	-Inf	4.30	3	Vertical	59	1.33	-
5210MHz	Pass	PK	5.363G	56.99	74.00	-17.01	4.61	3	Vertical	59	1.33	-
5210MHz	Pass	AV	5.135G	53.23	54.00	-0.77	4.17	3	Horizontal	84	1.58	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5210MHz	Pass	AV	5.213G	97.68	Inf	-Inf	4.33	3	Horizontal	84	1.58	-
5210MHz	Pass	AV	5.354G	46.83	54.00	-7.17	4.59	3	Horizontal	84	1.58	-
5210MHz	Pass	PK	5.148G	69.40	74.00	-4.60	4.19	3	Horizontal	84	1.58	-
5210MHz	Pass	PK	5.213G	107.61	Inf	-Inf	4.33	3	Horizontal	84	1.58	-
5210MHz	Pass	PK	5.357G	59.47	74.00	-14.53	4.60	3	Horizontal	84	1.58	-
5210MHz	Pass	PK	10.40566G	53.20	68.20	-15.00	14.95	3	Vertical	143	1.20	-
5210MHz	Pass	PK	10.408G	53.00	68.20	-15.20	14.95	3	Horizontal	8	2.03	-
5775MHz	Pass	AV	5.7726G	99.53	Inf	-Inf	5.36	3	Vertical	313	1.43	-
5775MHz	Pass	PK	5.6514G	66.80	69.24	-2.44	5.14	3	Vertical	313	1.43	-
5775MHz	Pass	PK	5.7726G	109.02	Inf	-Inf	5.36	3	Vertical	313	1.43	-
5775MHz	Pass	PK	5.9346G	61.76	68.20	-6.44	5.66	3	Vertical	313	1.43	-
5775MHz	Pass	AV	5.7774G	100.62	Inf	-Inf	5.37	3	Horizontal	85	2.14	-
5775MHz	Pass	PK	5.6406G	67.20	68.20	-1.00	5.13	3	Horizontal	85	2.14	-
5775MHz	Pass	PK	5.7582G	110.87	Inf	-Inf	5.33	3	Horizontal	85	2.14	-
5775MHz	Pass	PK	5.9406G	63.88	68.20	-4.32	5.67	3	Horizontal	85	2.14	-
5775MHz	Pass	AV	11.54856G	40.18	54.00	-13.82	15.72	3	Vertical	90	2.24	-
5775MHz	Pass	PK	11.55024G	53.21	74.00	-20.79	15.72	3	Vertical	90	2.24	-
5775MHz	Pass	AV	11.54526G	40.05	54.00	-13.95	15.73	3	Horizontal	174	1.49	-
5775MHz	Pass	PK	11.55942G	53.04	74.00	-20.96	15.72	3	Horizontal	174	1.49	-

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5180MHz_TX

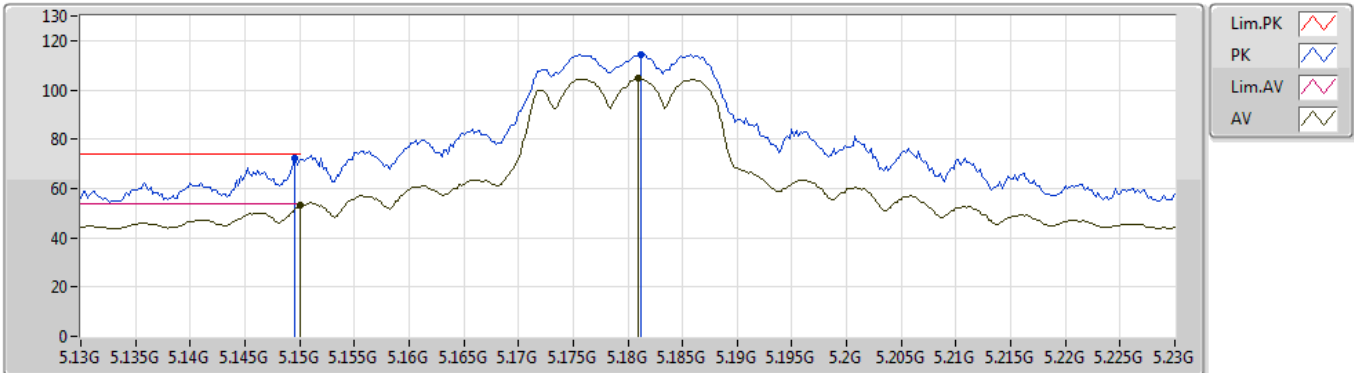


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.147G	48.49	54.00	-5.51	4.19	3	Vertical	55	1.44	-				
AV	5.1818G	102.23	Inf	-Inf	4.27	3	Vertical	55	1.44	-				
PK	5.1474G	66.30	74.00	-7.70	4.19	3	Vertical	55	1.44	-				
PK	5.1818G	112.34	Inf	-Inf	4.27	3	Vertical	55	1.44	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5180MHz_TX

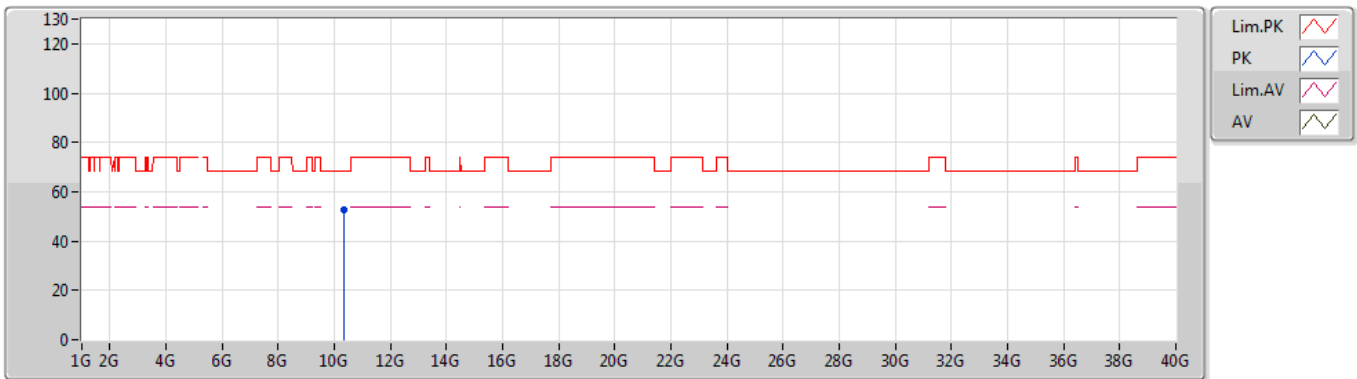


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.15G	52.96	54.00	-1.04	4.20	3	Horizontal	76	1.60	-				
AV	5.181G	104.65	Inf	-Inf	4.27	3	Horizontal	76	1.60	-				
PK	5.1496G	72.29	74.00	-1.71	4.20	3	Horizontal	76	1.60	-				
PK	5.1812G	114.52	Inf	-Inf	4.27	3	Horizontal	76	1.60	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5180MHz_TX

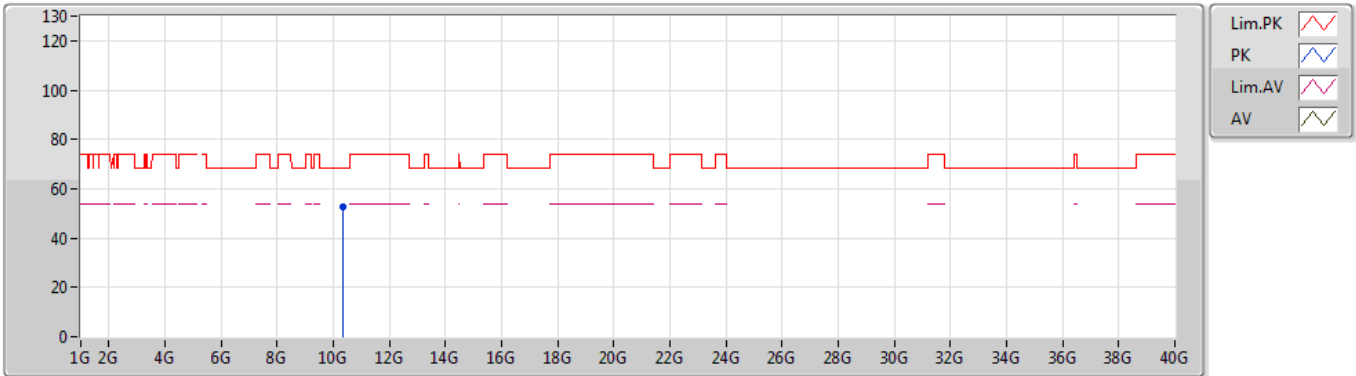


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.35154G	52.57	68.20	-15.63	14.81	3	Vertical	186	2.30	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5180MHz_TX

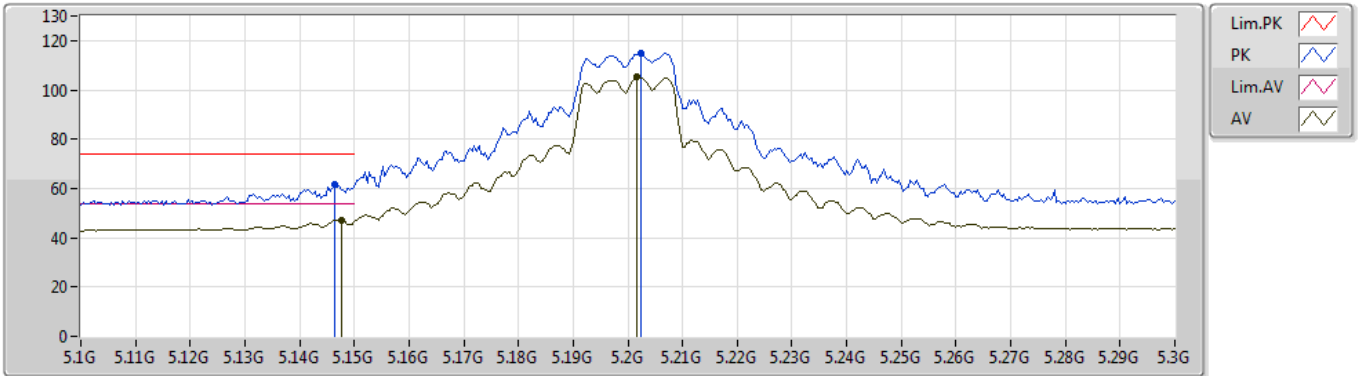


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.35742G	52.72	68.20	-15.48	14.83	3	Horizontal	194	2.70	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5200MHz_TX

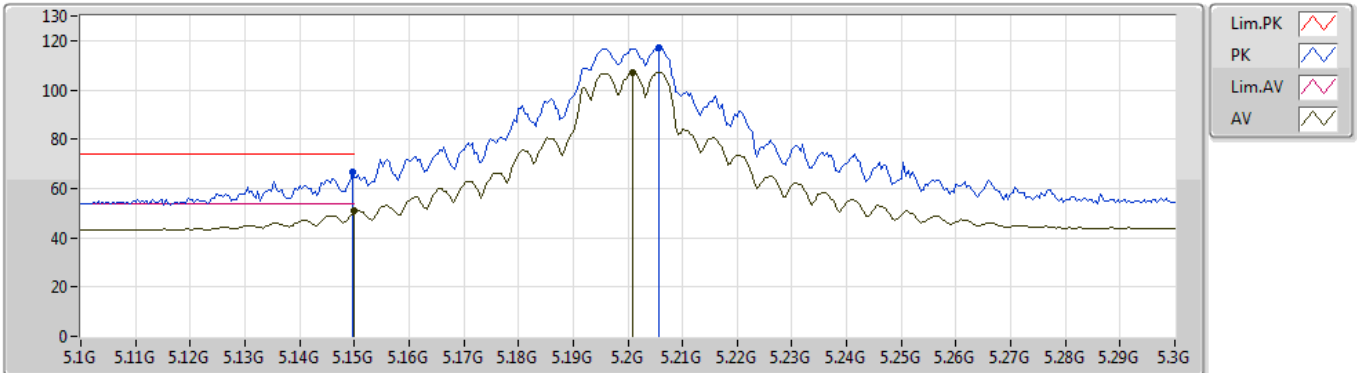


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.1476G	47.32	54.00	-6.68	4.19	3	Vertical	59	1.48	-				
AV	5.2016G	105.08	Inf	-Inf	4.30	3	Vertical	59	1.48	-				
PK	5.1464G	61.44	74.00	-12.56	4.19	3	Vertical	59	1.48	-				
PK	5.2024G	115.07	Inf	-Inf	4.30	3	Vertical	59	1.48	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5200MHz_TX

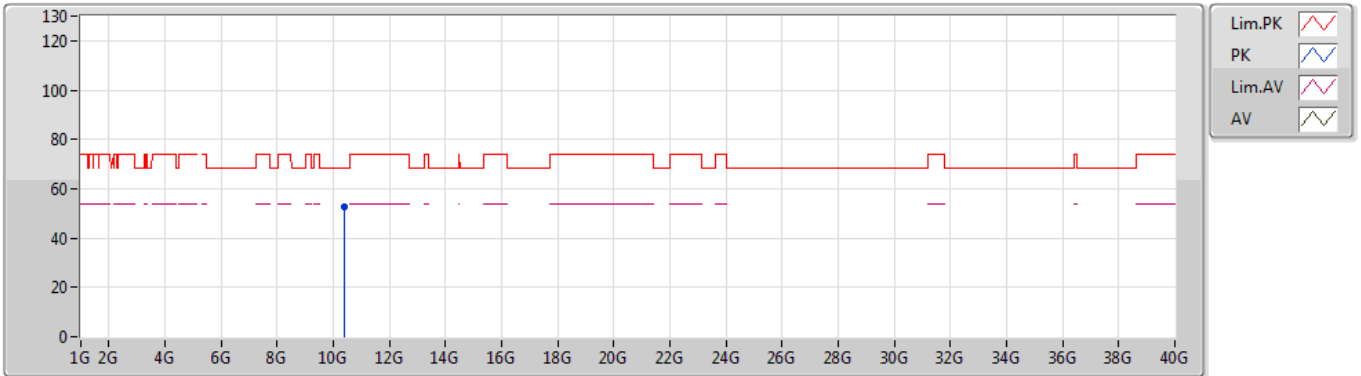


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.15G	50.74	54.00	-3.26	4.20	3	Horizontal	86	2.11	-				
AV	5.2008G	107.22	Inf	-Inf	4.30	3	Horizontal	86	2.11	-				
PK	5.1496G	66.84	74.00	-7.16	4.20	3	Horizontal	86	2.11	-				
PK	5.2056G	117.29	Inf	-Inf	4.31	3	Horizontal	86	2.11	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5200MHz_TX

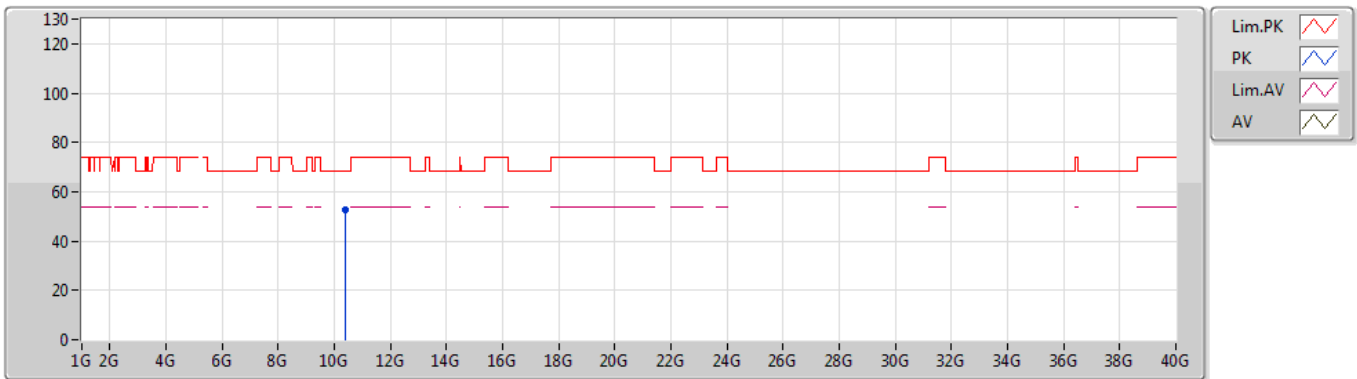


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.40126G	52.69	68.20	-15.51	14.93	3	Vertical	158	1.45	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5200MHz_TX

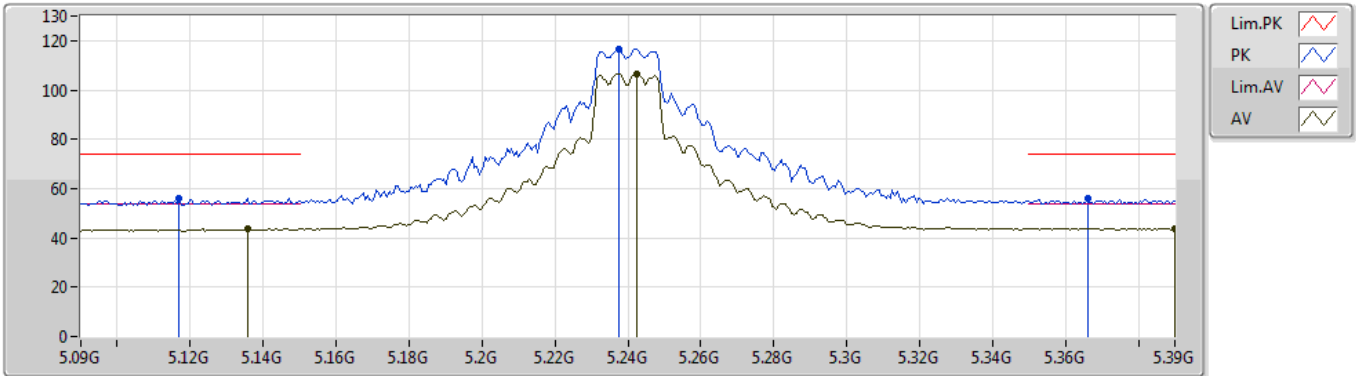


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.40438G	52.76	68.20	-15.44	14.95	3	Horizontal	72	1.70	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5240MHz_TX

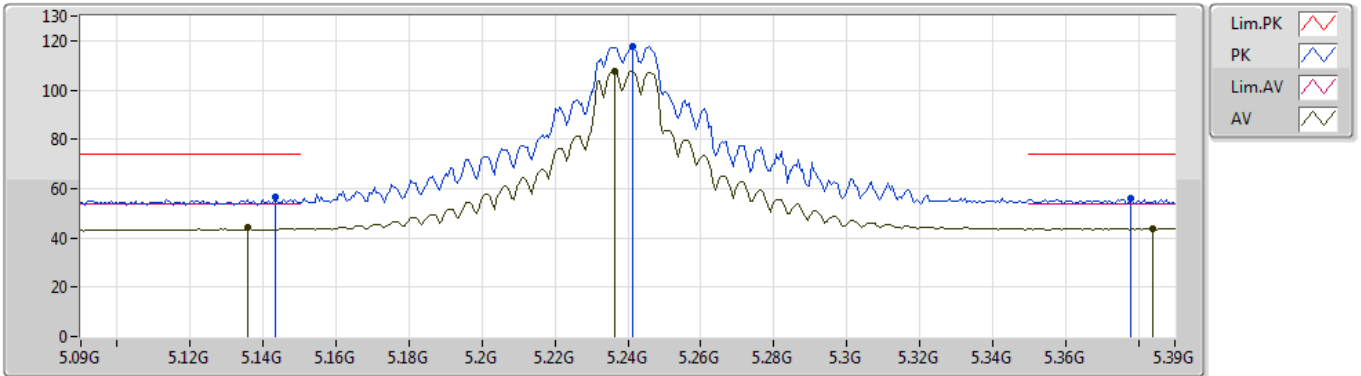


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	5.1356G	43.72	54.00	-10.28	4.17	3	Vertical	329	2.05	-
AV	5.2424G	106.58	Inf	-Inf	4.38	3	Vertical	329	2.05	-
AV	5.39G	43.92	54.00	-10.08	4.66	3	Vertical	329	2.05	-
PK	5.117G	56.16	74.00	-17.84	4.13	3	Vertical	329	2.05	-
PK	5.2376G	116.61	Inf	-Inf	4.37	3	Vertical	329	2.05	-
PK	5.366G	55.84	74.00	-18.16	4.62	3	Vertical	329	2.05	-

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5240MHz_TX

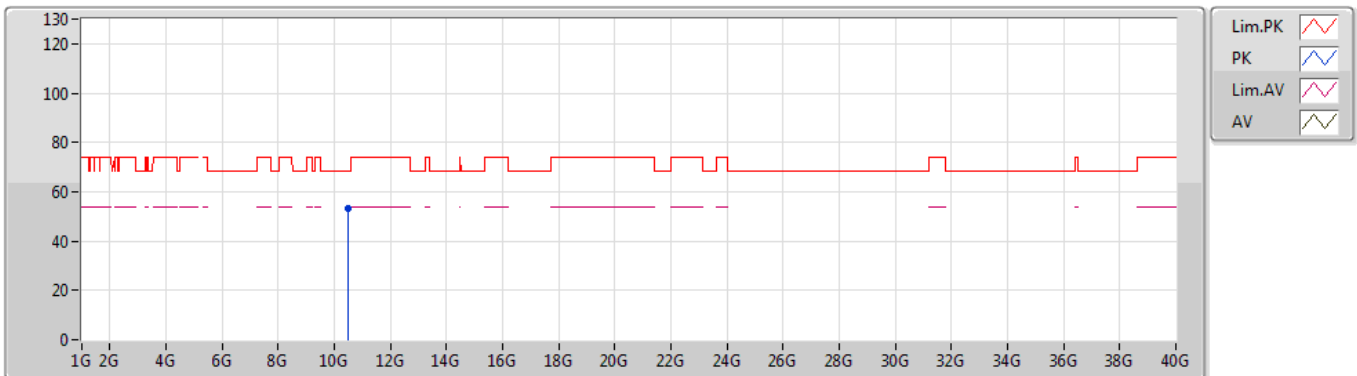


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.1356G	44.12	54.00	-9.88	4.17	3	Horizontal	77	1.62	-				
AV	5.2364G	107.68	Inf	-Inf	4.36	3	Horizontal	77	1.62	-				
AV	5.384G	43.90	54.00	-10.10	4.65	3	Horizontal	77	1.62	-				
PK	5.1434G	56.37	74.00	-17.63	4.19	3	Horizontal	77	1.62	-				
PK	5.2412G	117.79	Inf	-Inf	4.37	3	Horizontal	77	1.62	-				
PK	5.378G	56.04	74.00	-17.96	4.64	3	Horizontal	77	1.62	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5240MHz_TX

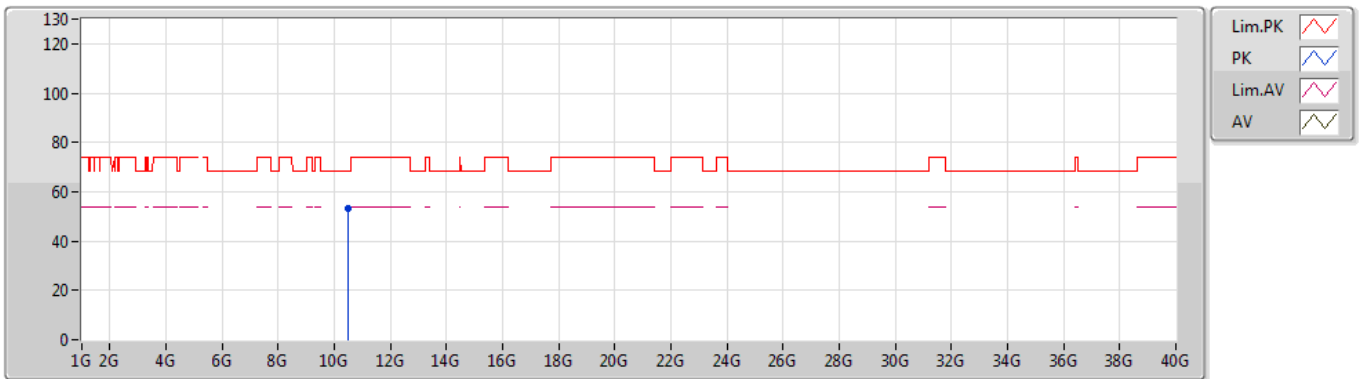


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.47334G	53.19	68.20	-15.01	15.10	3	Vertical	112	2.38	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5240MHz_TX

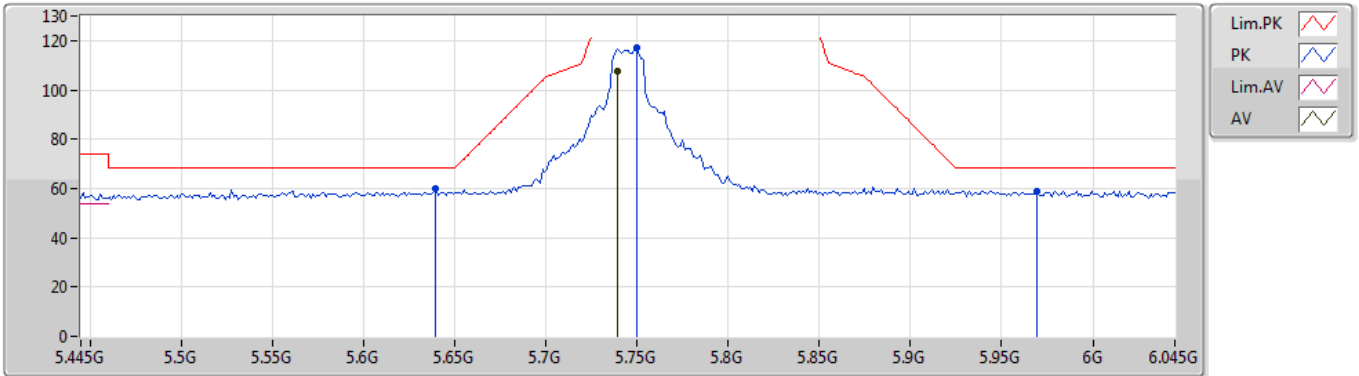


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.47112G	53.28	68.20	-14.92	15.10	3	Horizontal	59	2.20	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5745MHz_TX

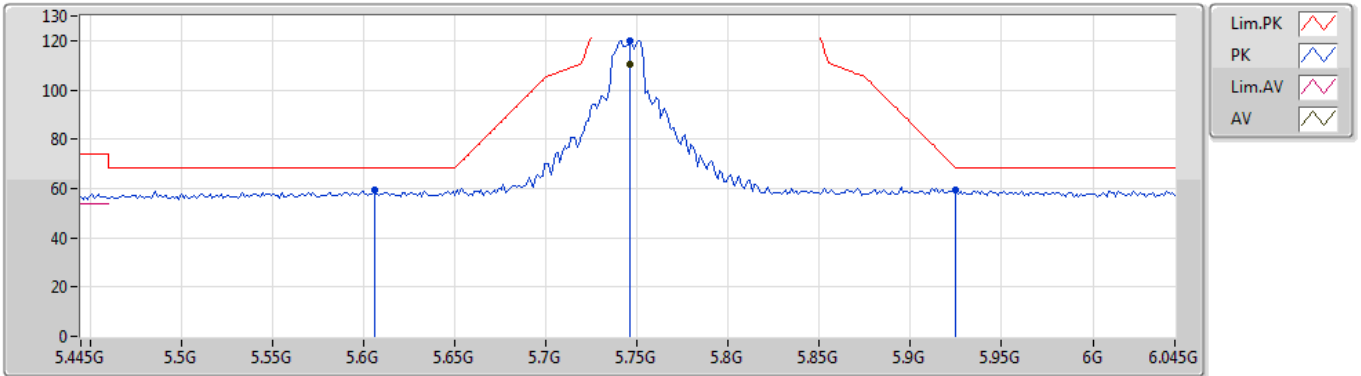


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.739G	107.39	Inf	-Inf	9.57	3	Vertical	57	1.01	-				
PK	5.6394G	59.70	68.20	-8.50	9.41	3	Vertical	57	1.01	-				
PK	5.7498G	116.94	Inf	-Inf	9.60	3	Vertical	57	1.01	-				
PK	5.9694G	58.94	68.20	-9.26	9.57	3	Vertical	57	1.01	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5745MHz_TX

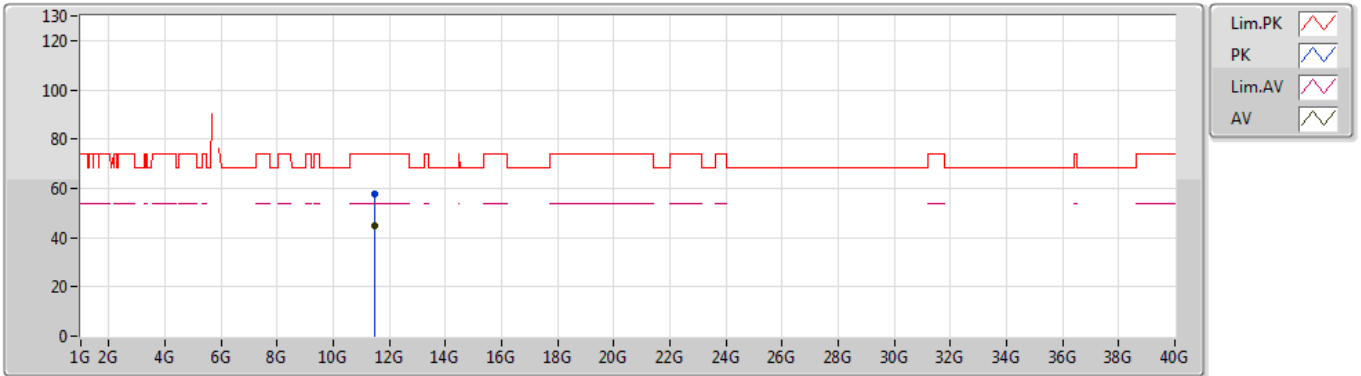


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7462G	110.23	Inf	-Inf	9.59	3	Horizontal	285	1.00	-				
PK	5.6058G	59.21	68.20	-8.99	9.34	3	Horizontal	285	1.00	-				
PK	5.7462G	120.17	Inf	-Inf	9.59	3	Horizontal	285	1.00	-				
PK	5.925G	59.43	68.20	-8.77	9.76	3	Horizontal	285	1.00	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5745MHz_TX

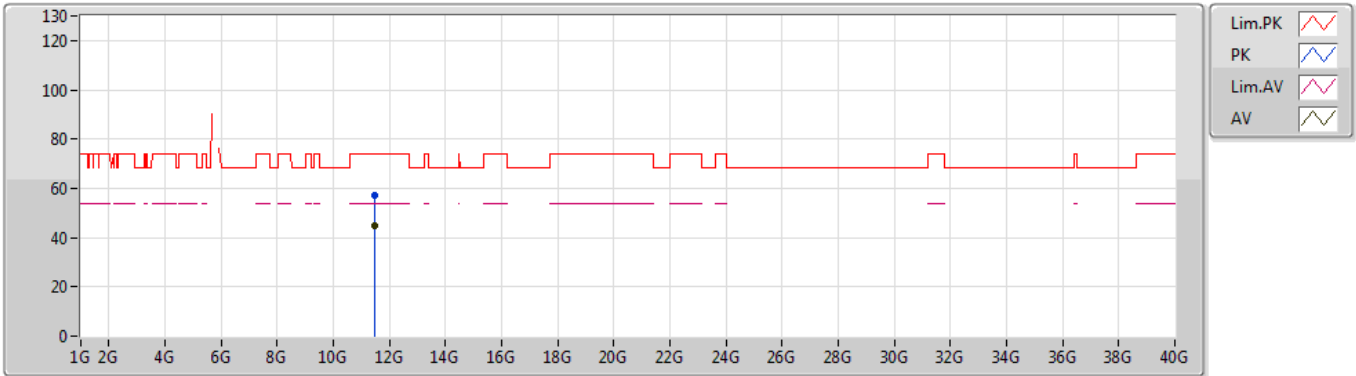


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.4901G	44.88	54.00	-9.12	18.69	3	Vertical	2	1.50	-				
PK	11.48797G	57.83	74.00	-16.17	18.70	3	Vertical	2	1.50	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5745MHz_TX

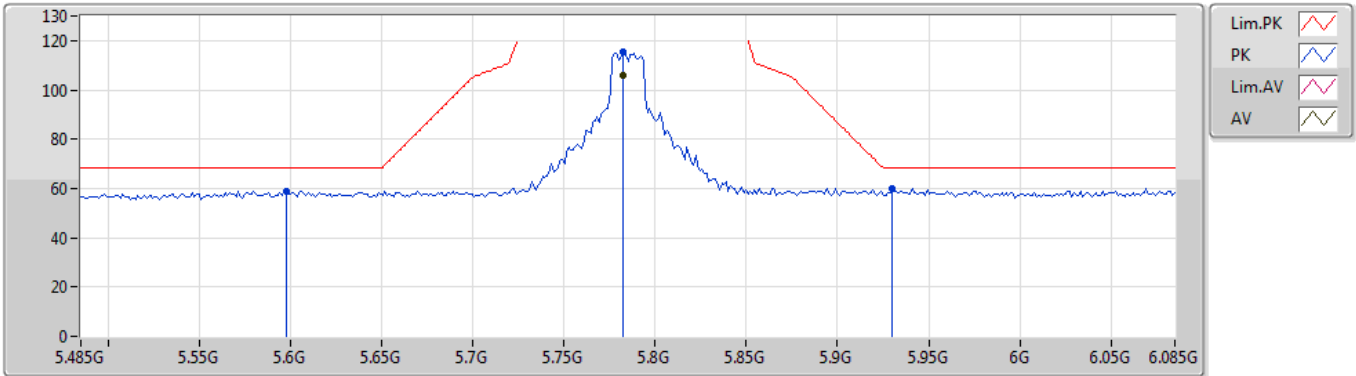


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.49122G	44.57	54.00	-9.43	18.69	3	Horizontal	67	1.50	-				
PK	11.48921G	57.18	74.00	-16.82	18.70	3	Horizontal	67	1.50	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5785MHz_TX

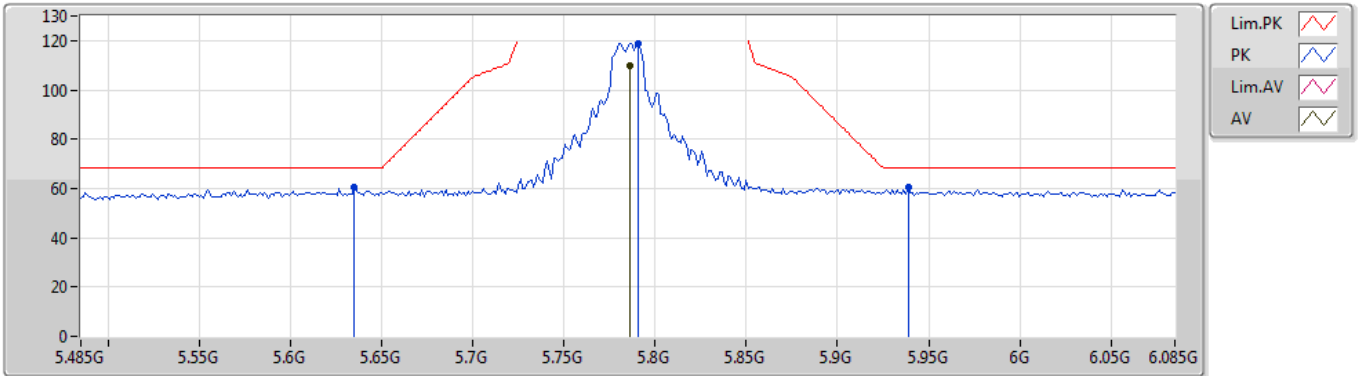


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7826G	105.83	Inf	-Inf	9.66	3	Vertical	3	1.02	-				
PK	5.5978G	58.87	68.20	-9.33	9.31	3	Vertical	3	1.02	-				
PK	5.7826G	115.44	Inf	-Inf	9.66	3	Vertical	3	1.02	-				
PK	5.9302G	60.09	68.20	-8.11	9.74	3	Vertical	3	1.02	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5785MHz_TX

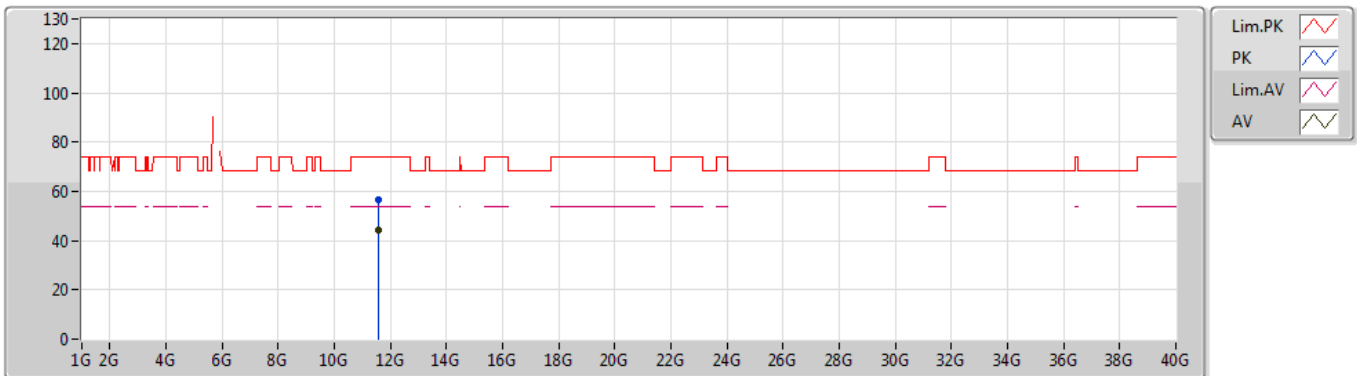


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7862G	109.67	Inf	-Inf	9.67	3	Horizontal	279	1.01	-				
PK	5.635G	60.34	68.20	-7.86	9.39	3	Horizontal	279	1.01	-				
PK	5.791G	118.72	Inf	-Inf	9.67	3	Horizontal	279	1.01	-				
PK	5.9386G	60.30	68.20	-7.90	9.70	3	Horizontal	279	1.01	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5785MHz_TX

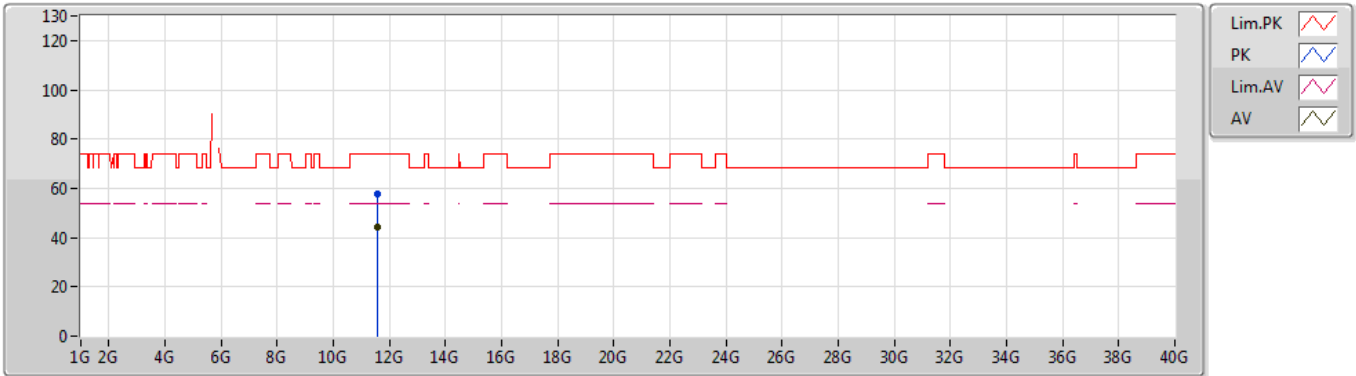


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.57162G	44.28	54.00	-9.72	18.66	3	Vertical	213	1.50	-				
PK	11.57114G	56.77	74.00	-17.23	18.66	3	Vertical	213	1.50	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5785MHz_TX

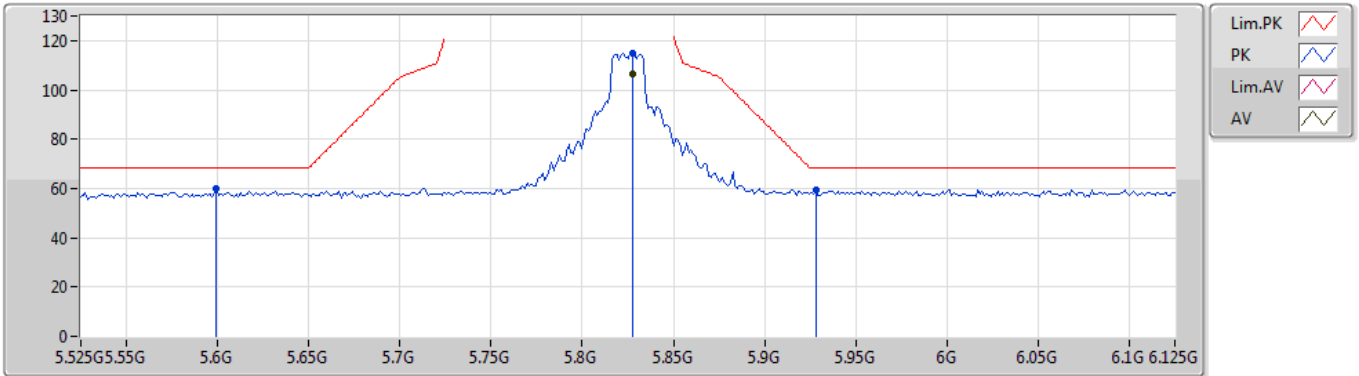


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.57225G	44.24	54.00	-9.76	18.67	3	Horizontal	283	2.93	-				
PK	11.57113G	57.55	74.00	-16.45	18.66	3	Horizontal	283	2.93	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5825MHz_TX

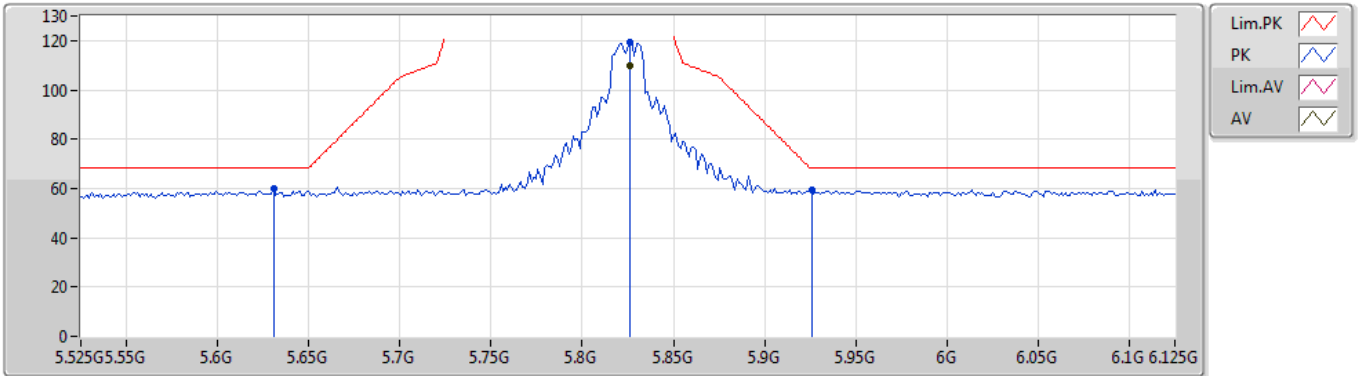


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.8274G	106.51	Inf	-Inf	9.74	3	Vertical	3	1.50	-				
PK	5.5994G	59.76	68.20	-8.44	9.33	3	Vertical	3	1.50	-				
PK	5.8274G	115.10	Inf	-Inf	9.74	3	Vertical	3	1.50	-				
PK	5.9282G	59.54	68.20	-8.66	9.75	3	Vertical	3	1.50	-				

802.11a_Nss1,(6Mbps)_2TX

29/05/2019

5825MHz_TX

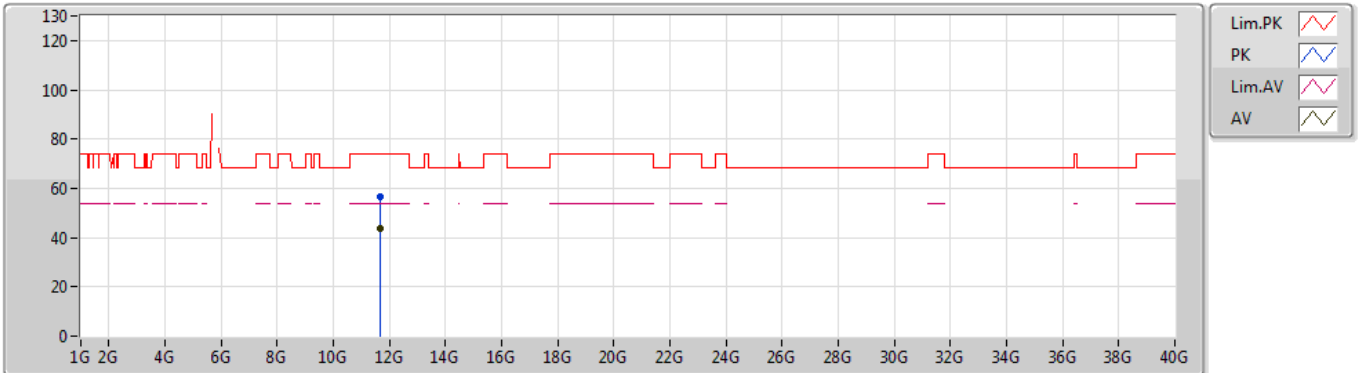


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.8262G	109.79	Inf	-Inf	9.74	3	Horizontal	288	1.01	-				
PK	5.6306G	59.79	68.20	-8.41	9.38	3	Horizontal	288	1.01	-				
PK	5.8262G	119.11	Inf	-Inf	9.74	3	Horizontal	288	1.01	-				
PK	5.9258G	59.22	68.20	-8.98	9.76	3	Horizontal	288	1.01	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5825MHz_TX

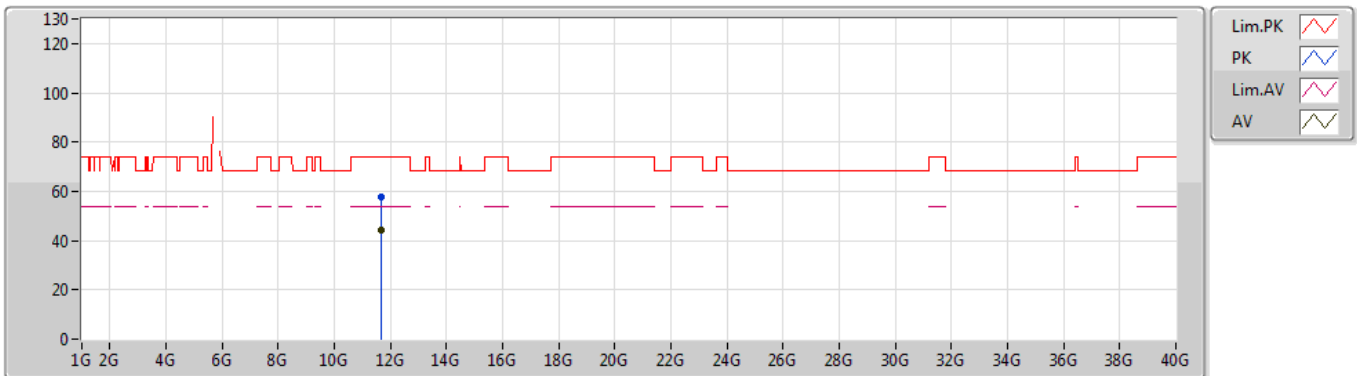


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.6581G	43.95	54.00	-10.05	18.65	3	Vertical	340	1.50	-				
PK	11.65114G	56.75	74.00	-17.25	18.65	3	Vertical	340	1.50	-				

802.11a_Nss1,(6Mbps)_2TX

30/05/2019

5825MHz_TX

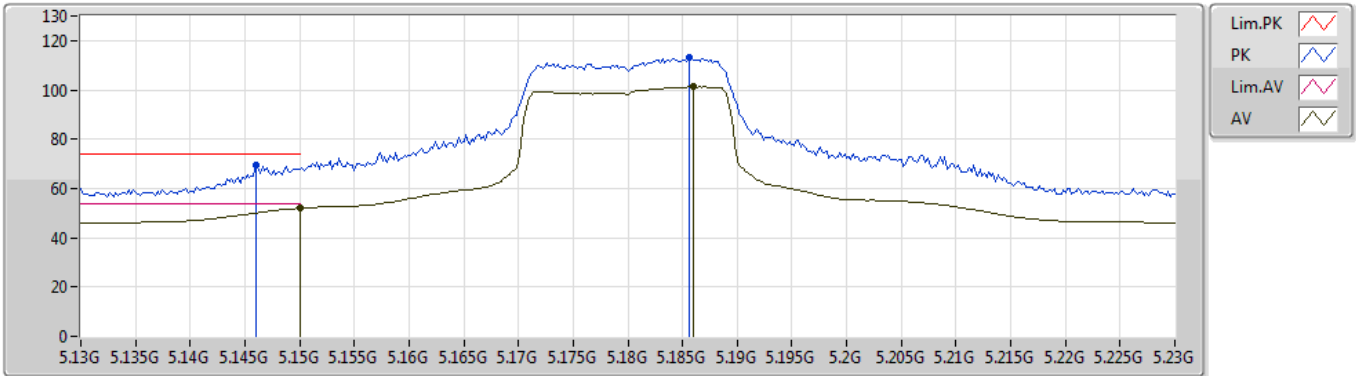


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.64991G	44.29	54.00	-9.71	18.65	3	Horizontal	0	1.81	-				
PK	11.65121G	57.56	74.00	-16.44	18.65	3	Horizontal	0	1.81	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

29/05/2019

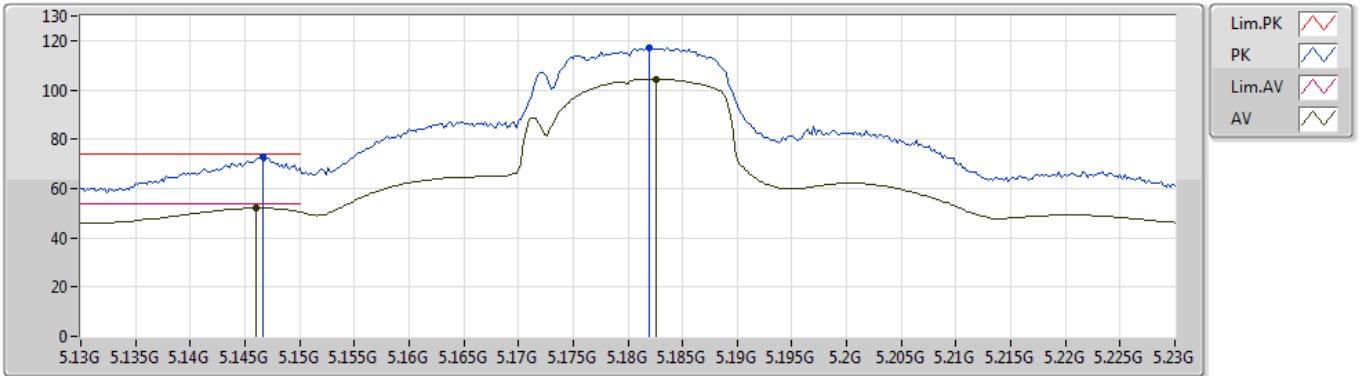
5180MHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX

29/05/2019

5180MHz_TX

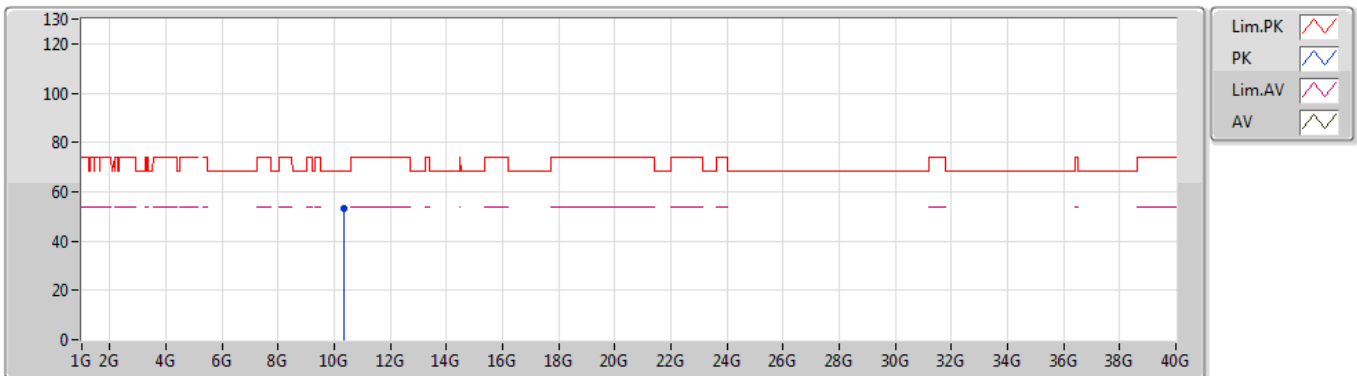


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.146G	52.01	54.00	-1.99	8.62	3	Horizontal	287	1.00	-				
AV	5.1826G	104.41	Inf	-Inf	8.68	3	Horizontal	287	1.00	-				
PK	5.1466G	73.04	74.00	-0.96	8.62	3	Horizontal	287	1.00	-				
PK	5.182G	116.92	Inf	-Inf	8.67	3	Horizontal	287	1.00	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5180MHz_TX

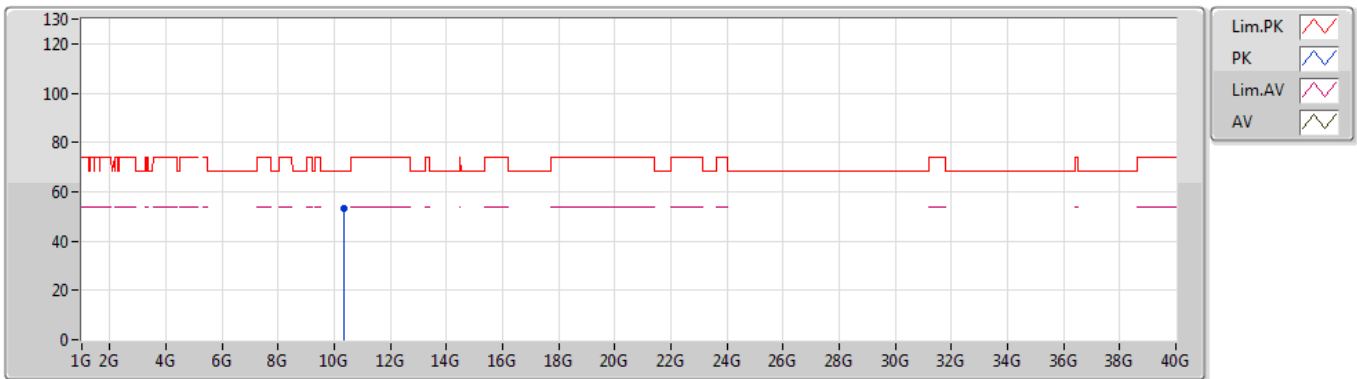


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.36858G	53.11	68.20	-15.09	14.86	3	Vertical	311	1.45	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5180MHz_TX

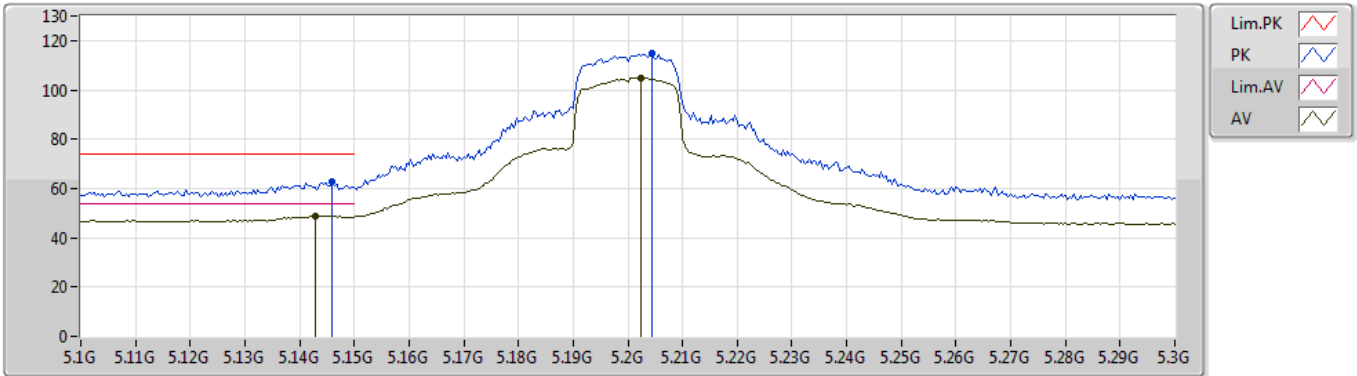


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.3615G	53.16	68.20	-15.04	14.84	3	Horizontal	278	2.32	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

29/05/2019

5200MHz_TX

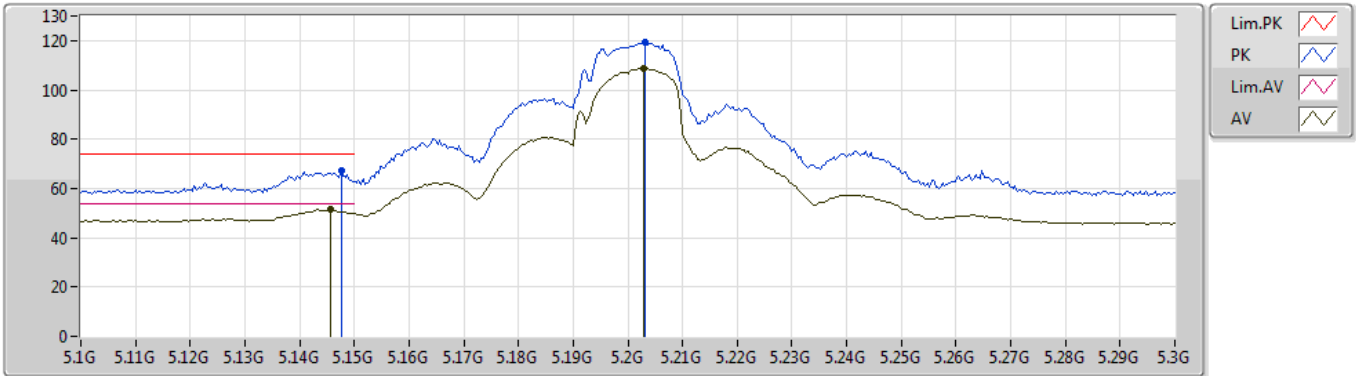


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.1428G	48.89	54.00	-5.11	8.62	3	Vertical	88	1.00	-				
AV	5.2024G	104.92	Inf	-Inf	8.70	3	Vertical	88	1.00	-				
PK	5.146G	62.64	74.00	-11.36	8.62	3	Vertical	88	1.00	-				
PK	5.2044G	114.67	Inf	-Inf	8.70	3	Vertical	88	1.00	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

29/05/2019

5200MHz_TX

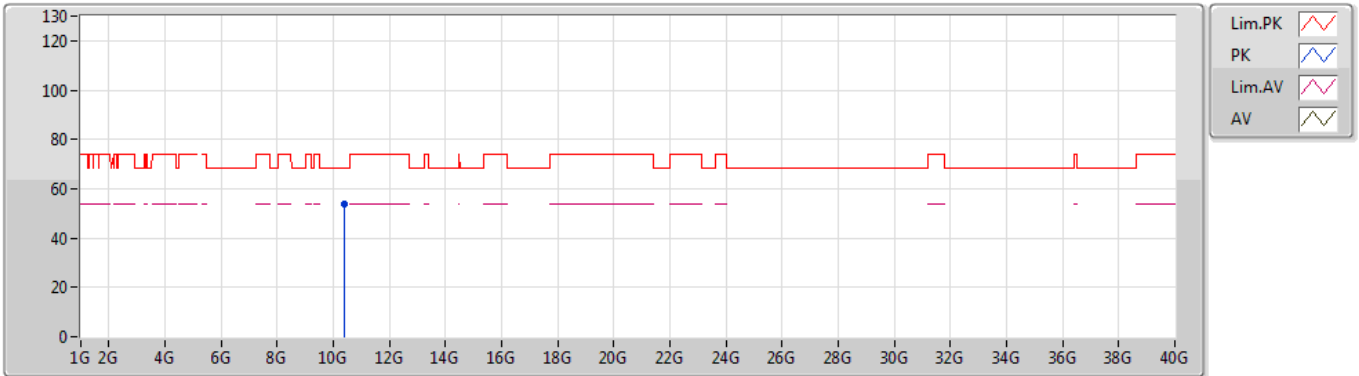


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	5.1456G	51.55	54.00	-2.45	8.62	3	Horizontal	285	1.00	-
AV	5.2028G	108.94	Inf	-Inf	8.70	3	Horizontal	285	1.00	-
PK	5.1476G	67.08	74.00	-6.92	8.62	3	Horizontal	285	1.00	-
PK	5.2032G	119.08	Inf	-Inf	8.70	3	Horizontal	285	1.00	-

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5200MHz_TX

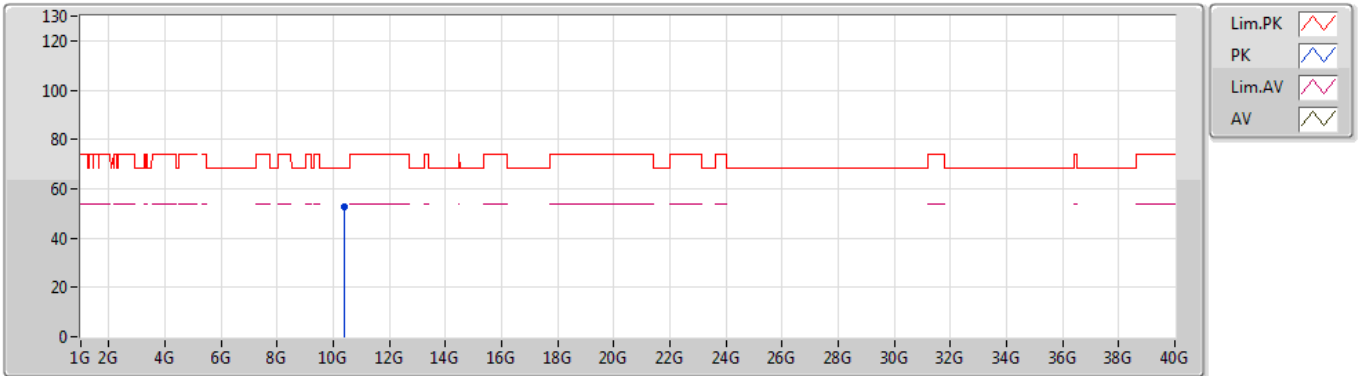


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.40402G	53.58	68.20	-14.62	14.95	3	Vertical	146	1.48	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5200MHz_TX

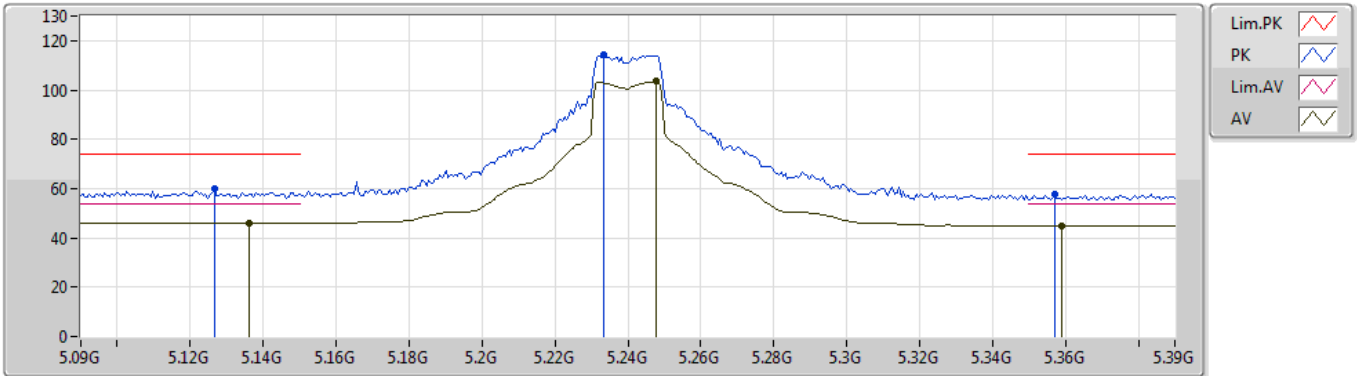


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.40732G	52.66	68.20	-15.54	14.95	3	Horizontal	176	2.11	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

29/05/2019

5240MHz_TX

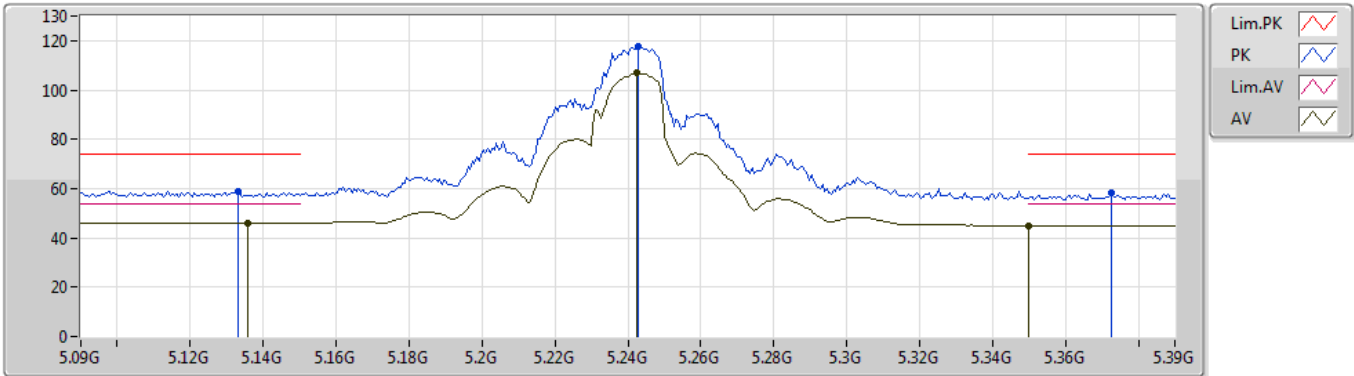


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.1362G	46.05	54.00	-7.95	8.60	3	Vertical	36	1.02	-				
AV	5.2478G	103.50	Inf	-Inf	8.76	3	Vertical	36	1.02	-				
AV	5.3588G	44.86	54.00	-9.14	8.94	3	Vertical	36	1.02	-				
PK	5.1266G	59.89	74.00	-14.11	8.59	3	Vertical	36	1.02	-				
PK	5.2334G	114.31	Inf	-Inf	8.74	3	Vertical	36	1.02	-				
PK	5.357G	57.69	74.00	-16.31	8.92	3	Vertical	36	1.02	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

29/05/2019

5240MHz_TX

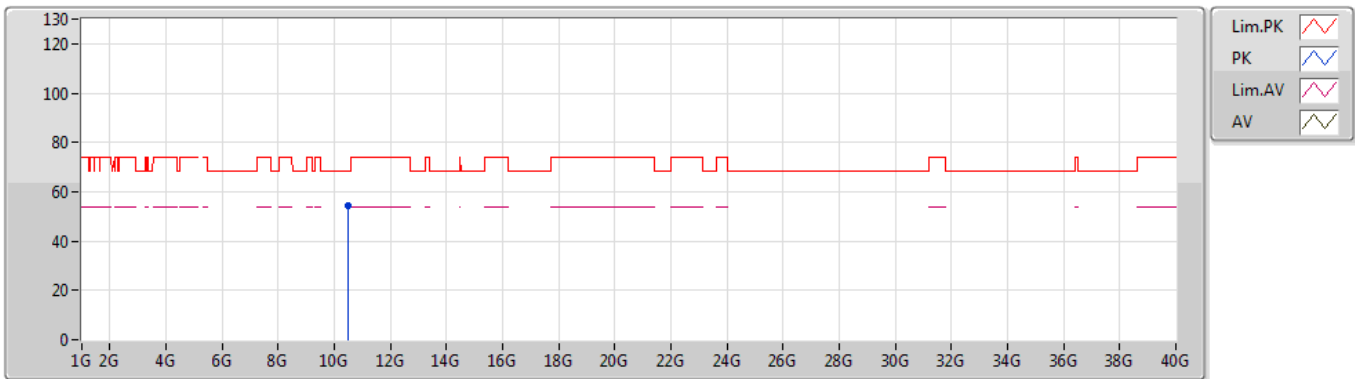


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.1356G	46.09	54.00	-7.91	8.60	3	Horizontal	282	1.02	-				
AV	5.2424G	106.75	Inf	-Inf	8.76	3	Horizontal	282	1.02	-				
AV	5.35G	44.99	54.00	-9.01	8.92	3	Horizontal	282	1.02	-				
PK	5.1332G	58.94	74.00	-15.06	8.60	3	Horizontal	282	1.02	-				
PK	5.243G	117.80	Inf	-Inf	8.76	3	Horizontal	282	1.02	-				
PK	5.3726G	58.06	74.00	-15.94	8.95	3	Horizontal	282	1.02	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5240MHz_TX

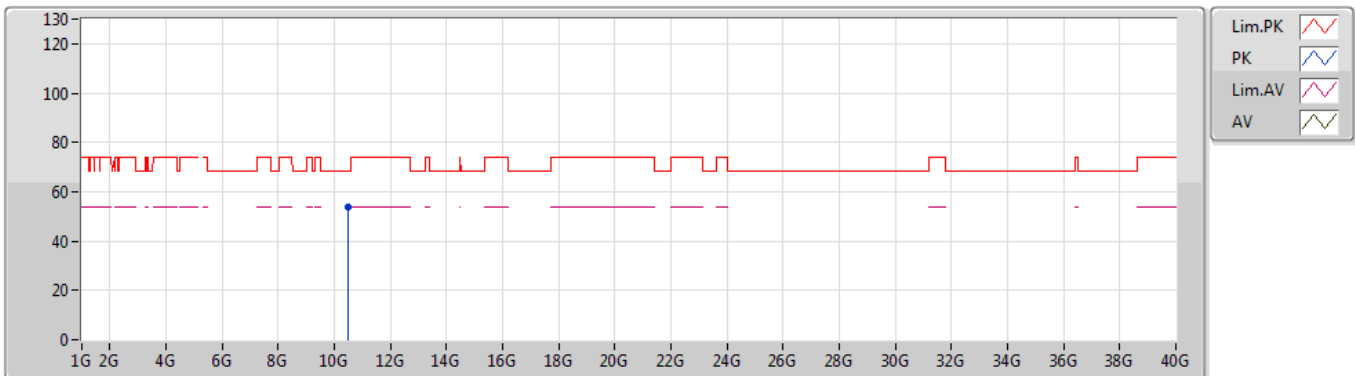


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.48648G	54.12	68.20	-14.08	15.13	3	Vertical	316	1.34	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

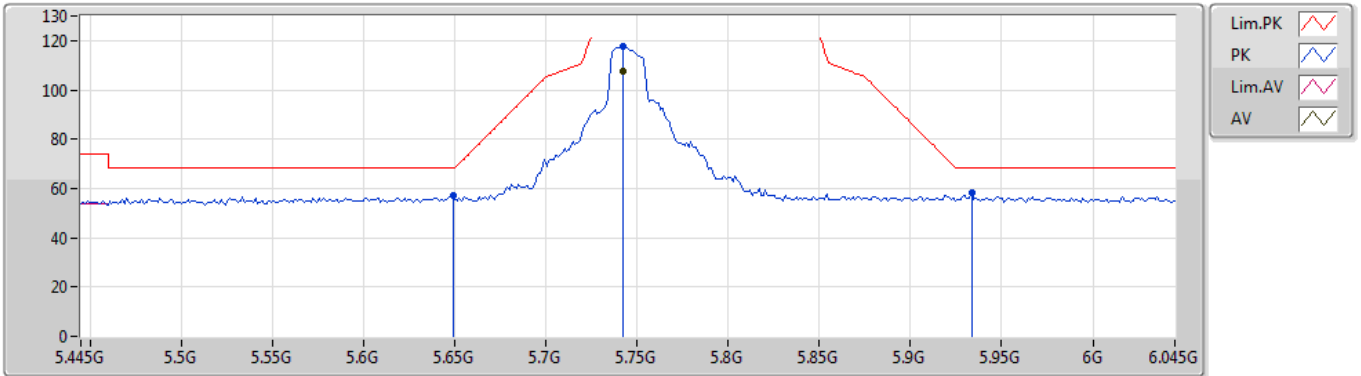
5240MHz_TX



802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5745MHz_TX

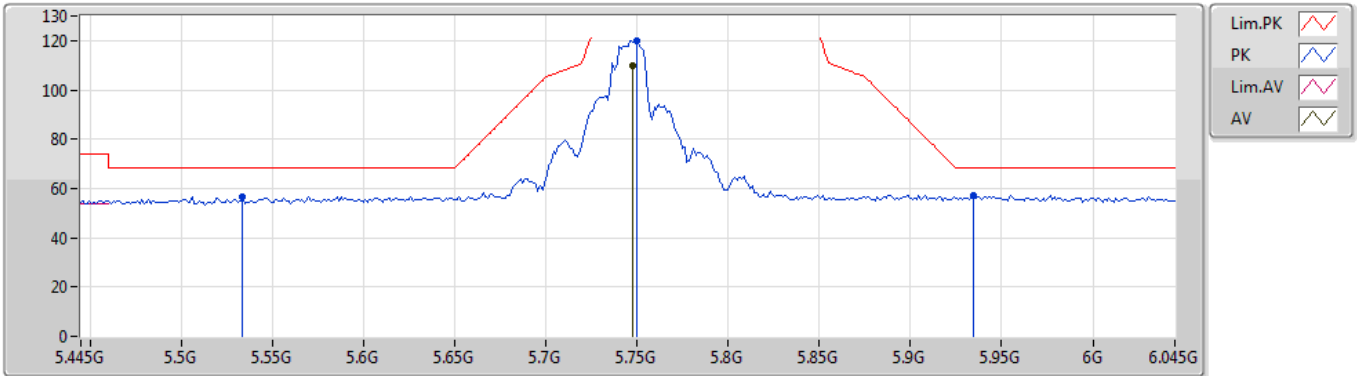


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7426G	107.75	Inf	-Inf	5.31	3	Vertical	317	1.59	-				
PK	5.649G	57.15	68.20	-11.05	5.14	3	Vertical	317	1.59	-				
PK	5.7426G	117.91	Inf	-Inf	5.31	3	Vertical	317	1.59	-				
PK	5.9334G	58.26	68.20	-9.94	5.66	3	Vertical	317	1.59	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5745MHz_TX

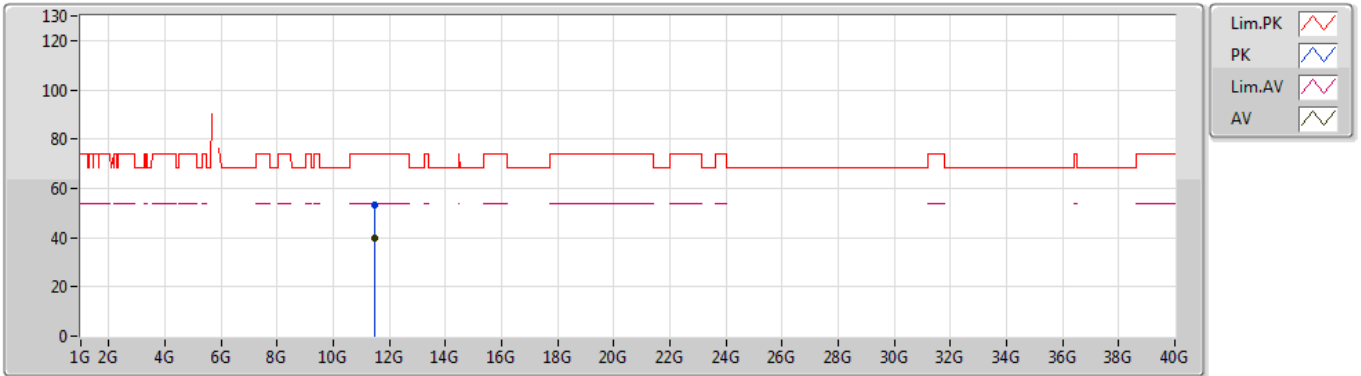


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7474G	109.62	Inf	-Inf	5.33	3	Horizontal	86	2.02	-				
PK	5.5338G	56.82	68.20	-11.38	4.93	3	Horizontal	86	2.02	-				
PK	5.7498G	119.95	Inf	-Inf	5.33	3	Horizontal	86	2.02	-				
PK	5.9346G	57.28	68.20	-10.92	5.66	3	Horizontal	86	2.02	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5745MHz_TX

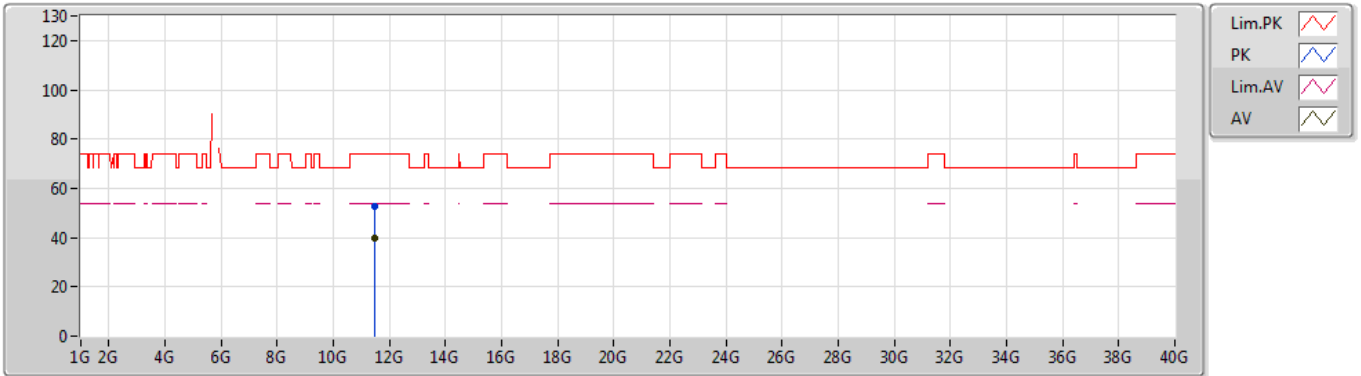


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.47608G	39.72	54.00	-14.28	15.80	3	Vertical	178	1.54	-				
PK	11.4936G	53.31	74.00	-20.69	15.79	3	Vertical	178	1.54	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5745MHz_TX

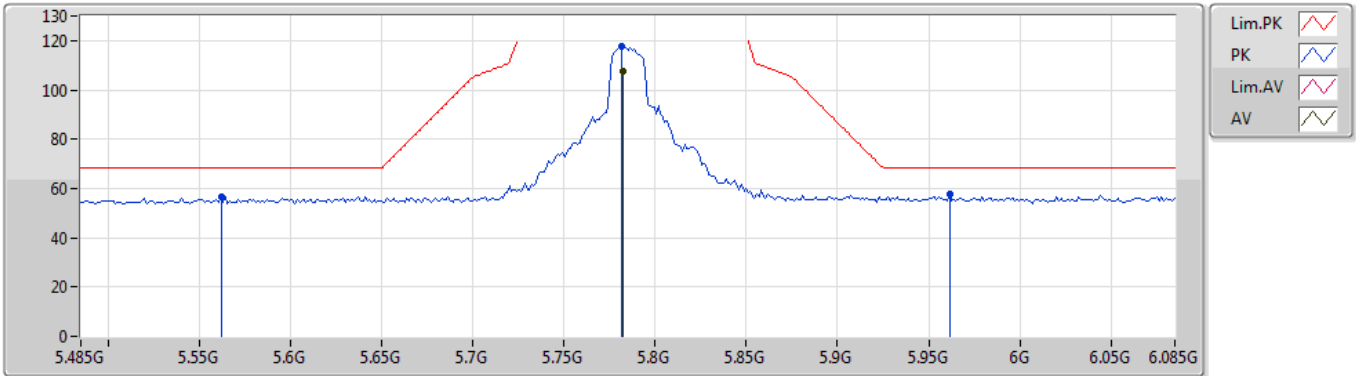


Type	Freq (Hz)	Level (dBm)	Limit (dBm)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.47872G	39.74	54.00	-14.26	15.81	3	Horizontal	272	1.94	-				
PK	11.49072G	52.92	74.00	-21.08	15.79	3	Horizontal	272	1.94	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5785MHz_TX

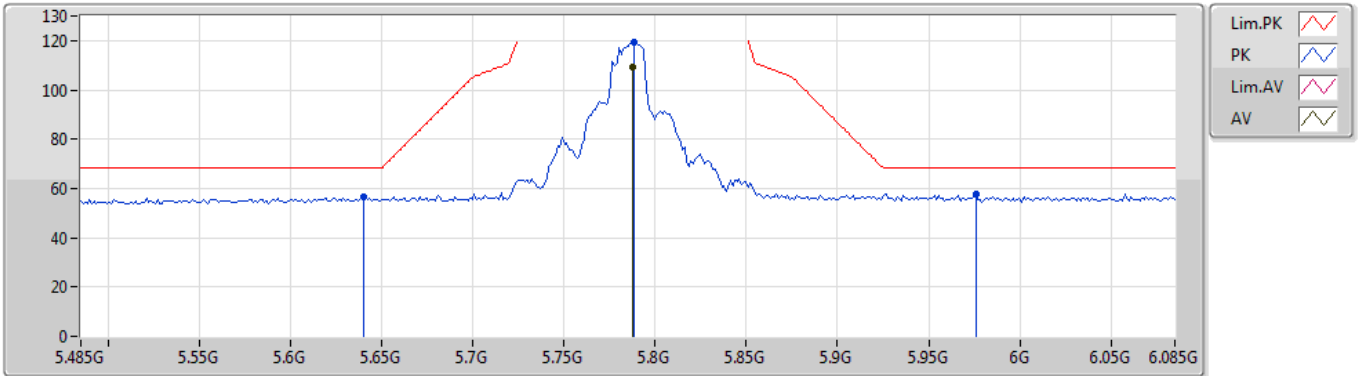


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7826G	107.75	Inf	-Inf	5.39	3	Vertical	319	1.42	-				
PK	5.5618G	56.83	68.20	-11.37	4.99	3	Vertical	319	1.42	-				
PK	5.7814G	117.40	Inf	-Inf	5.38	3	Vertical	319	1.42	-				
PK	5.9614G	57.59	68.20	-10.61	5.71	3	Vertical	319	1.42	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5785MHz_TX

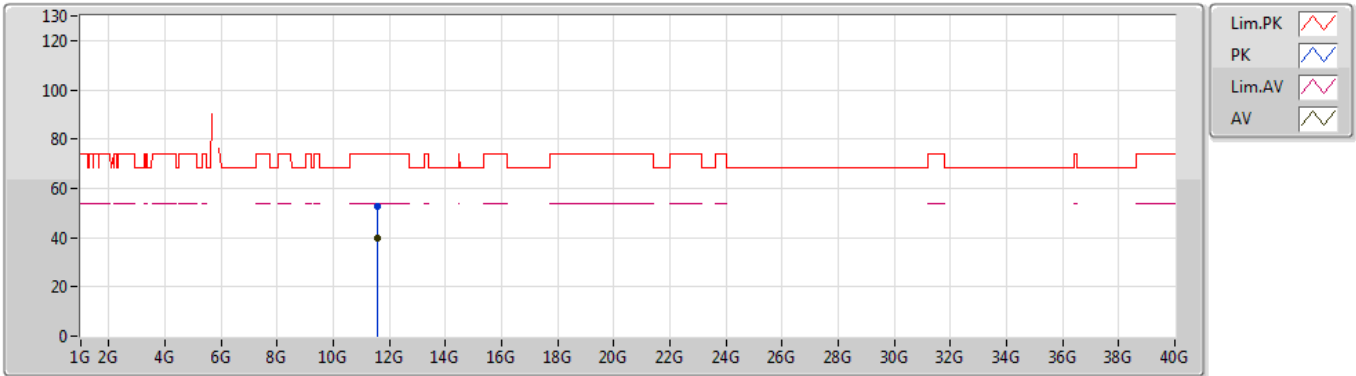


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	5.7874G	109.12	Inf	-Inf	5.38	3	Horizontal	87	2.12	-
PK	5.6398G	56.50	68.20	-11.70	5.13	3	Horizontal	87	2.12	-
PK	5.7886G	119.21	Inf	-Inf	5.38	3	Horizontal	87	2.12	-
PK	5.9758G	57.57	68.20	-10.63	5.73	3	Horizontal	87	2.12	-

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5785MHz_TX

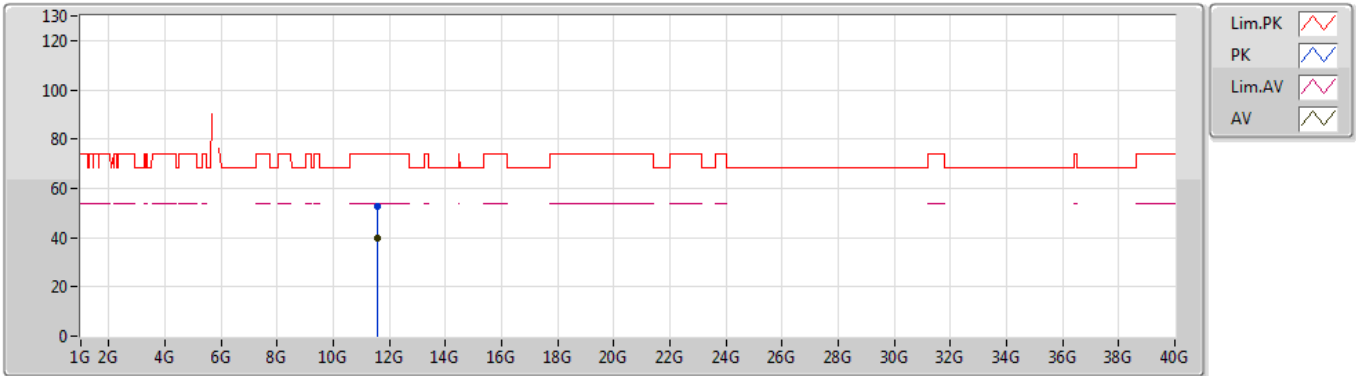


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.58326G	39.59	54.00	-14.41	15.68	3	Vertical	44	2.12	-				
PK	11.56052G	52.74	74.00	-21.26	15.72	3	Vertical	44	2.12	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5785MHz_TX

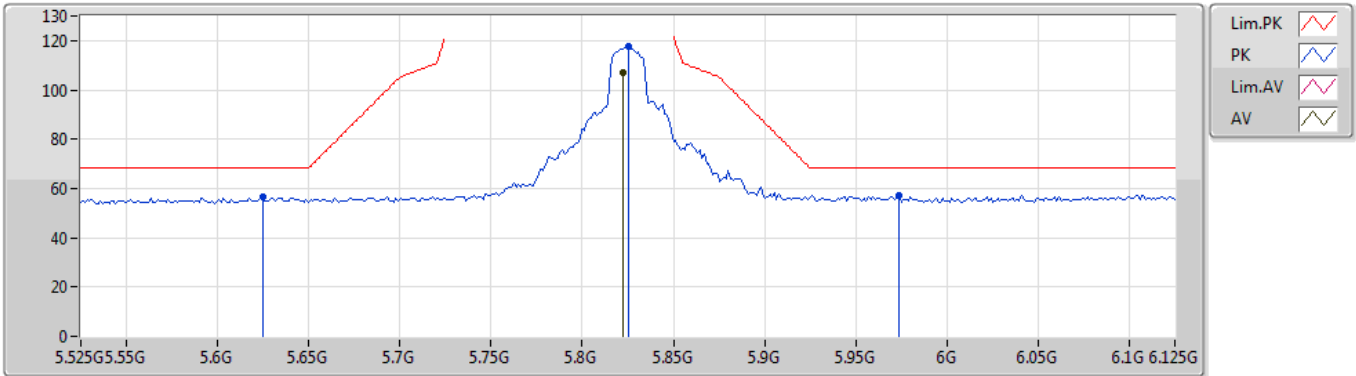


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.5772G	39.59	54.00	-14.41	15.68	3	Horizontal	39	2.19	-				
PK	11.57396G	52.76	74.00	-21.24	15.70	3	Horizontal	39	2.19	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5825MHz_TX

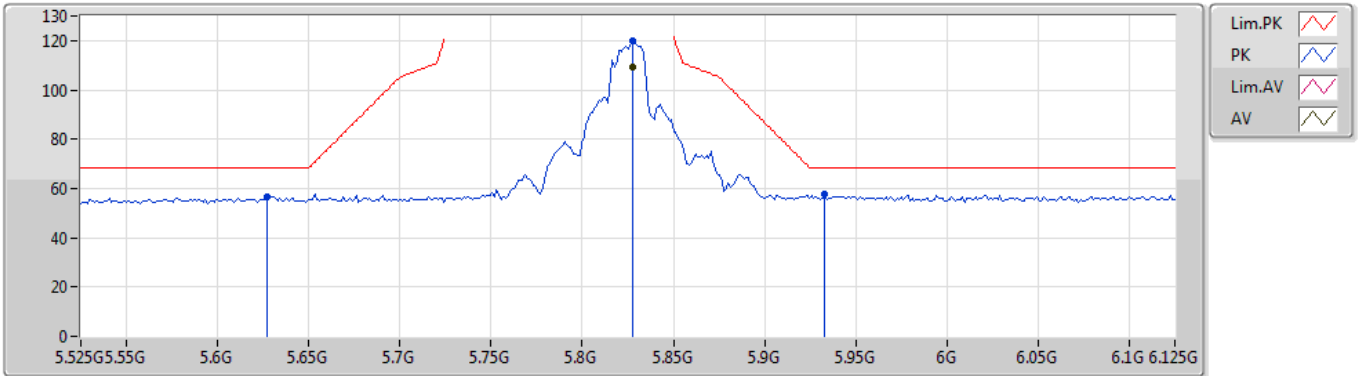


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.8226G	107.28	Inf	-Inf	5.45	3	Vertical	316	1.50	-				
PK	5.6246G	56.46	68.20	-11.74	5.10	3	Vertical	316	1.50	-				
PK	5.825G	117.54	Inf	-Inf	5.46	3	Vertical	316	1.50	-				
PK	5.9738G	57.01	68.20	-11.19	5.73	3	Vertical	316	1.50	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5825MHz_TX

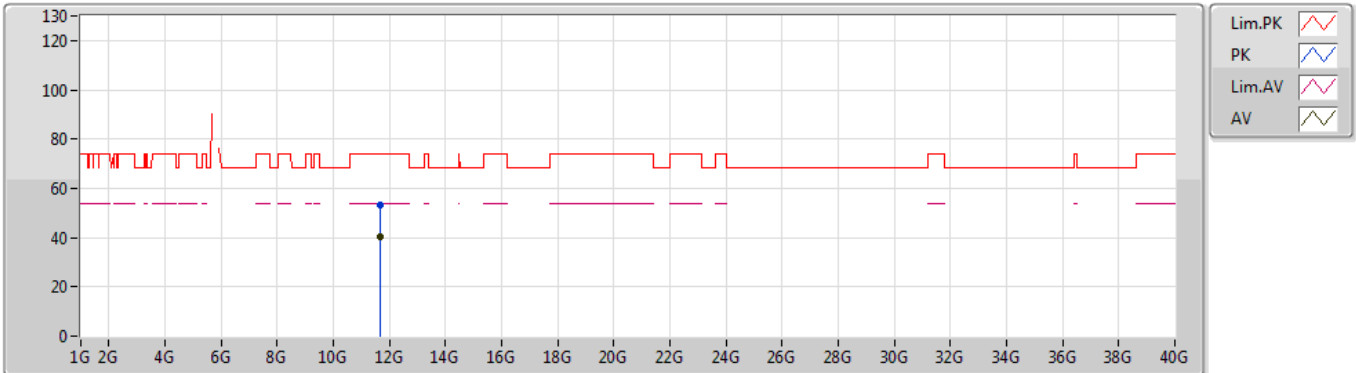


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.8274G	109.09	Inf	-Inf	5.46	3	Horizontal	86	2.06	-				
PK	5.627G	56.86	68.20	-11.34	5.10	3	Horizontal	86	2.06	-				
PK	5.8274G	119.85	Inf	-Inf	5.46	3	Horizontal	86	2.06	-				
PK	5.933G	57.48	68.20	-10.72	5.65	3	Horizontal	86	2.06	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5825MHz_TX

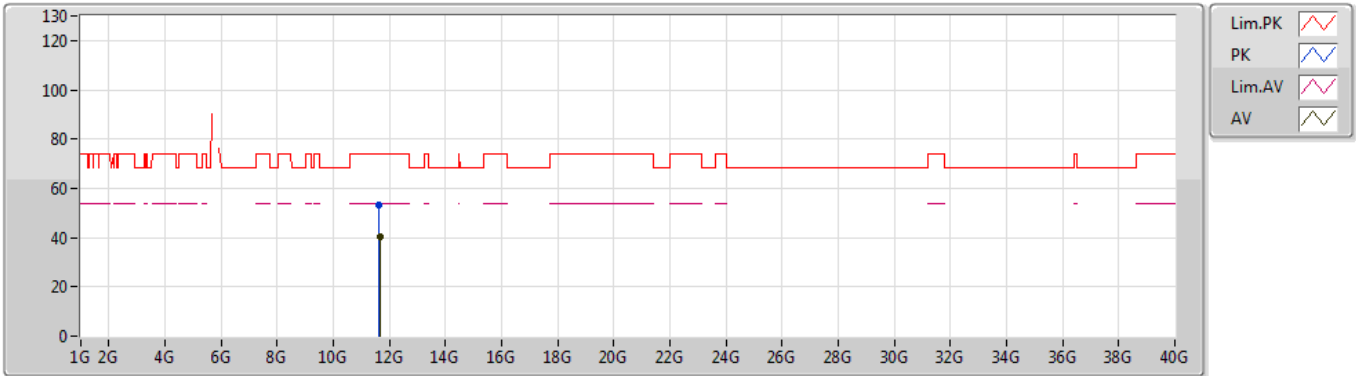


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.65324G	40.21	54.00	-13.79	15.60	3	Vertical	85	1.47	-				
PK	11.65972G	53.23	74.00	-20.77	15.59	3	Vertical	85	1.47	-				

802.11ac VHT20_Nss1,(MCS0)_2TX

30/05/2019

5825MHz_TX

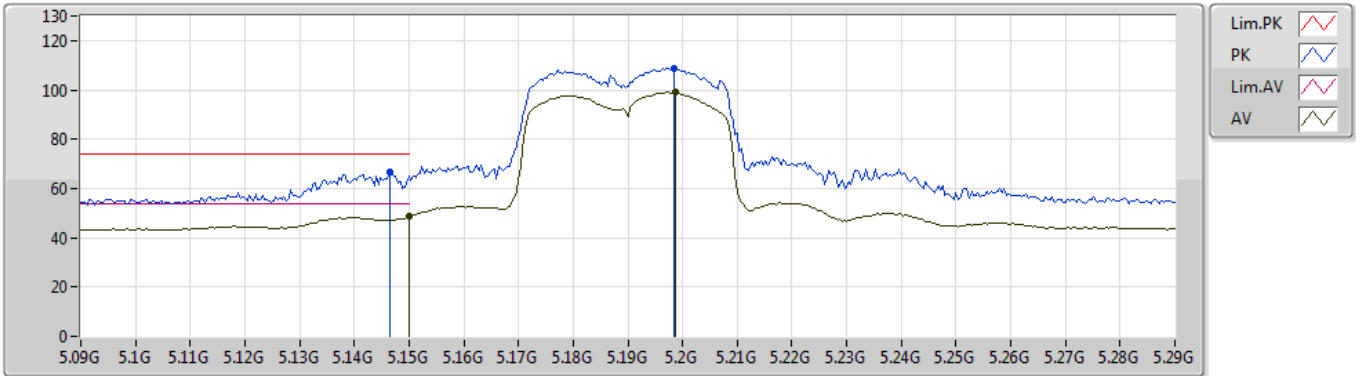


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.6479G	40.19	54.00	-13.81	15.61	3	Horizontal	109	2.37	-				
PK	11.64484G	53.19	74.00	-20.81	15.62	3	Horizontal	109	2.37	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5190MHz_TX

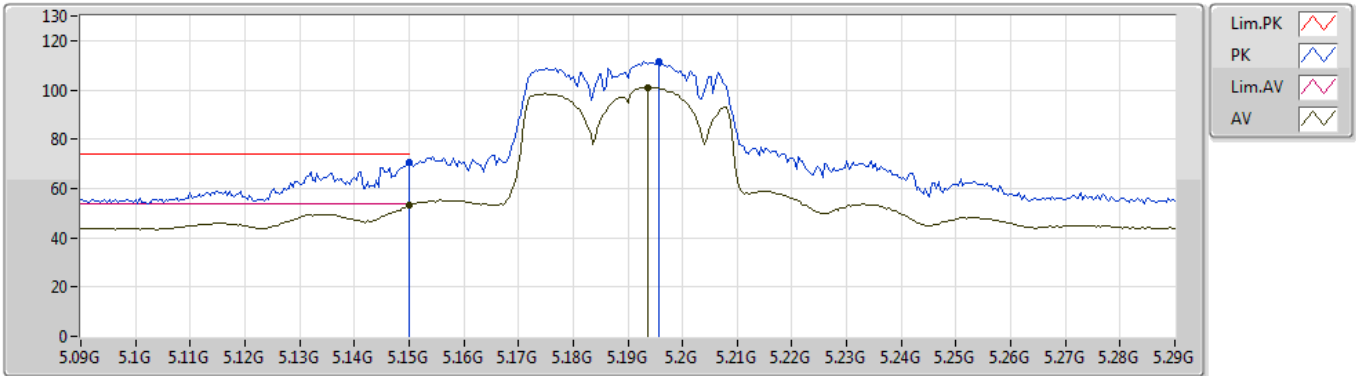


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.15G	48.55	54.00	-5.45	4.20	3	Vertical	59	1.40	-				
AV	5.1988G	98.97	Inf	-Inf	4.30	3	Vertical	59	1.40	-				
PK	5.1464G	66.92	74.00	-7.08	4.19	3	Vertical	59	1.40	-				
PK	5.1984G	108.72	Inf	-Inf	4.30	3	Vertical	59	1.40	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5190MHz_TX

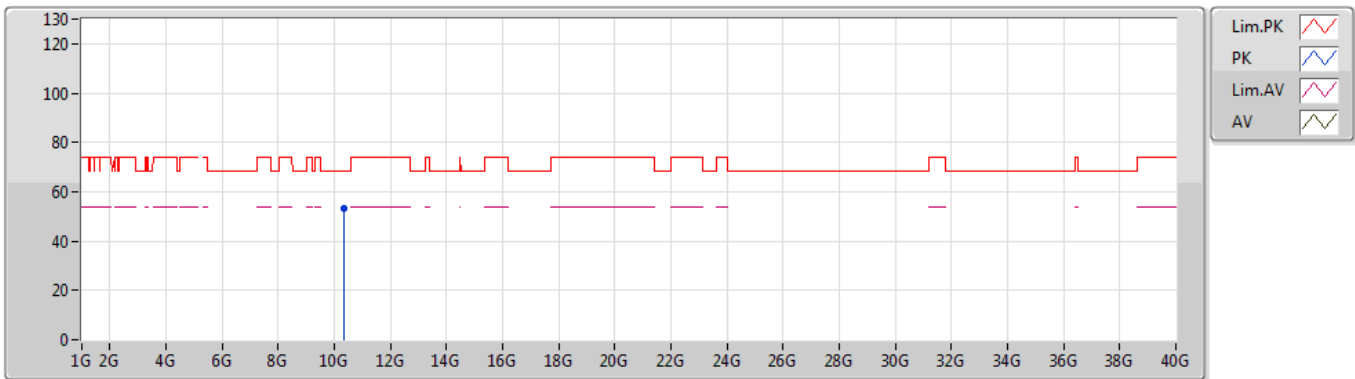


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.15G	53.00	54.00	-1.00	4.20	3	Horizontal	77	1.62	-				
AV	5.1936G	101.07	Inf	-Inf	4.29	3	Horizontal	77	1.62	-				
PK	5.15G	70.83	74.00	-3.17	4.20	3	Horizontal	77	1.62	-				
PK	5.1956G	111.32	Inf	-Inf	4.29	3	Horizontal	77	1.62	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5190MHz_TX

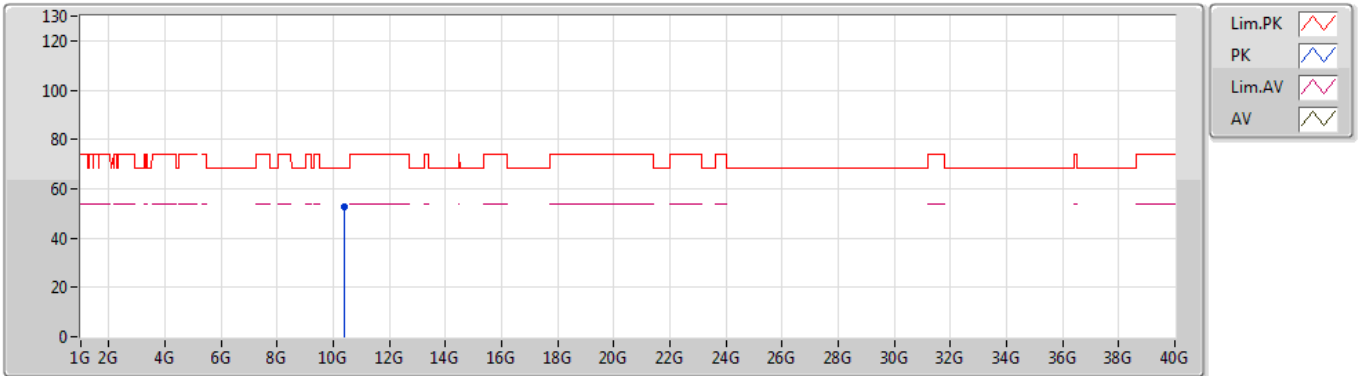


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.36824G	53.15	68.20	-15.05	14.86	3	Vertical	287	1.03	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5190MHz_TX

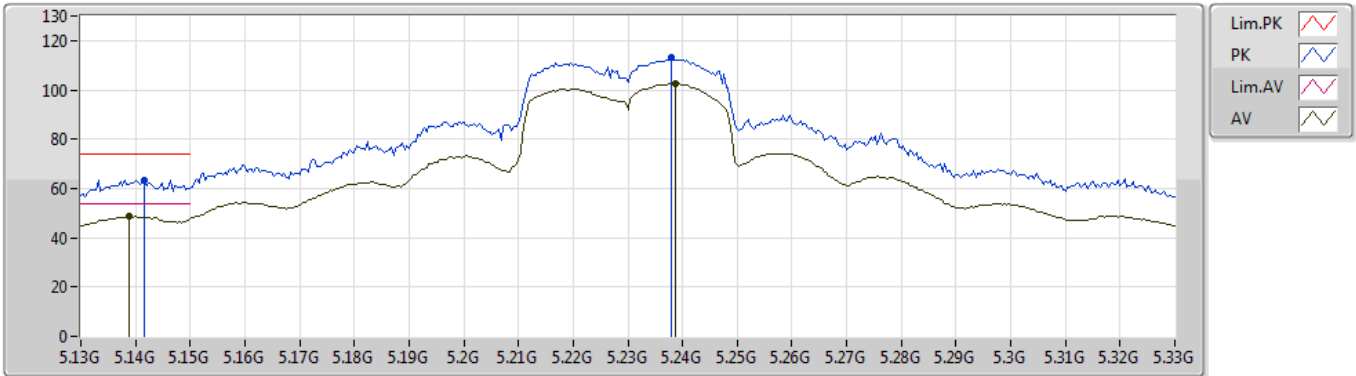


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.38114G	52.92	68.20	-15.28	14.88	3	Horizontal	10	1.17	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5230MHz_TX

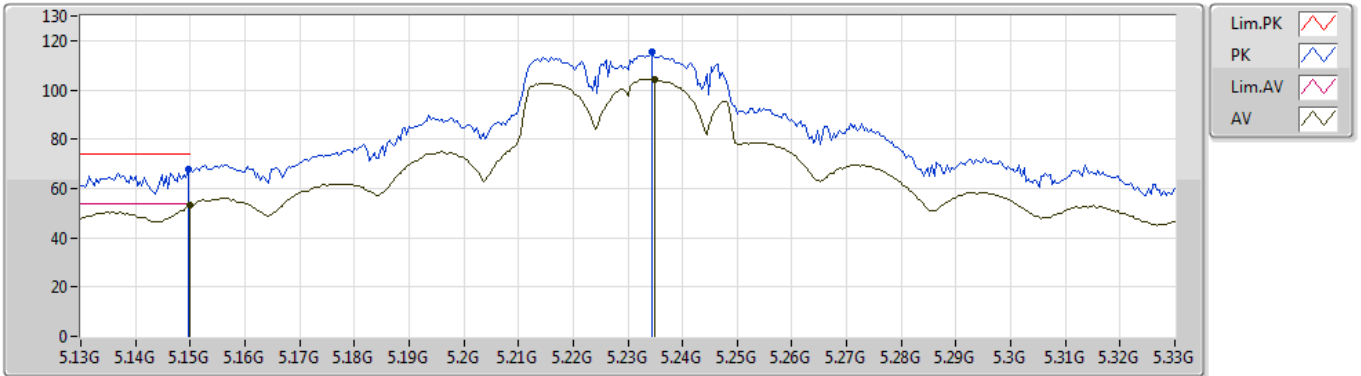


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.1388G	48.58	54.00	-5.42	4.17	3	Vertical	61	1.50	-				
AV	5.2388G	102.63	Inf	-Inf	4.37	3	Vertical	61	1.50	-				
PK	5.1416G	63.54	74.00	-10.46	4.18	3	Vertical	61	1.50	-				
PK	5.238G	112.96	Inf	-Inf	4.37	3	Vertical	61	1.50	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5230MHz_TX

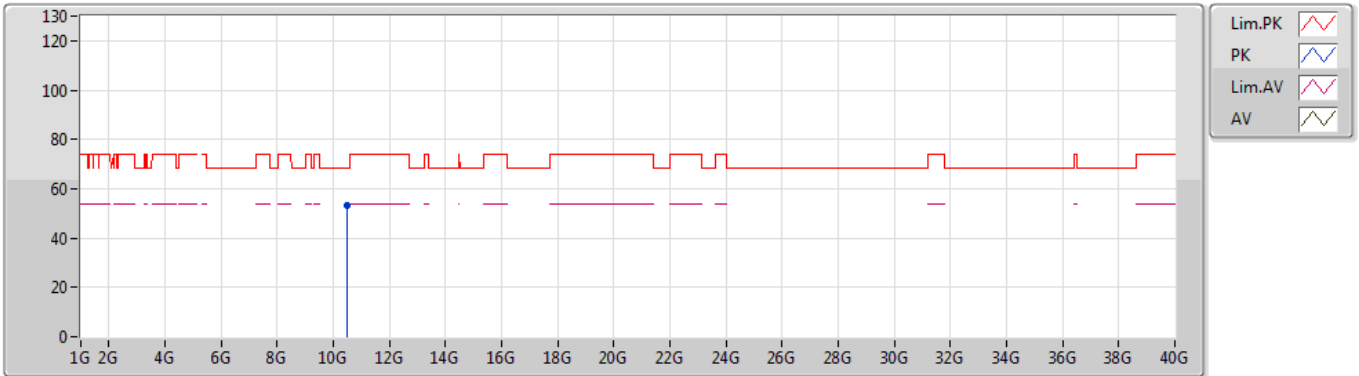


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.15G	53.00	54.00	-1.00	4.20	3	Horizontal	77	1.68	-				
AV	5.2348G	104.24	Inf	-Inf	4.36	3	Horizontal	77	1.68	-				
PK	5.1496G	67.65	74.00	-6.35	4.20	3	Horizontal	77	1.68	-				
PK	5.2344G	115.35	Inf	-Inf	4.36	3	Horizontal	77	1.68	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5230MHz_TX

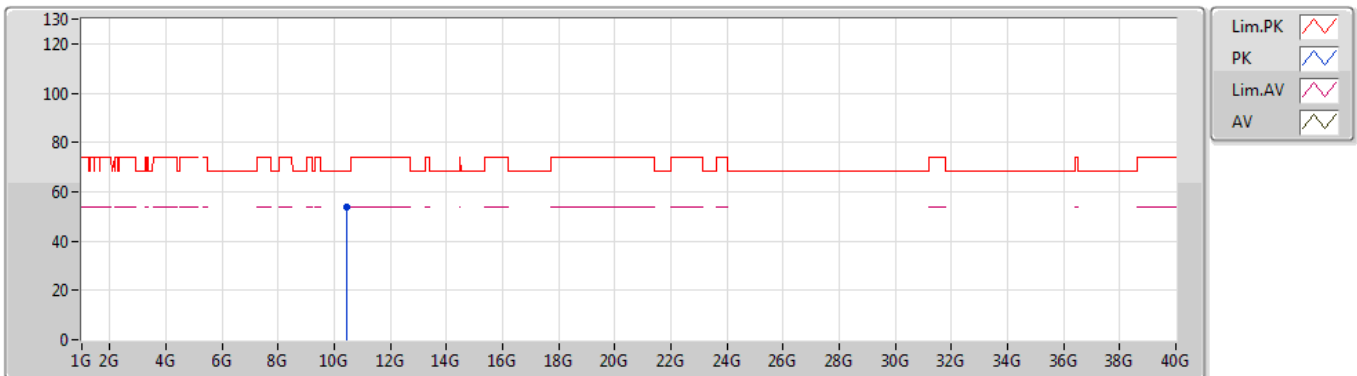


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.46936G	53.16	68.20	-15.04	15.10	3	Vertical	40	1.22	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5230MHz_TX

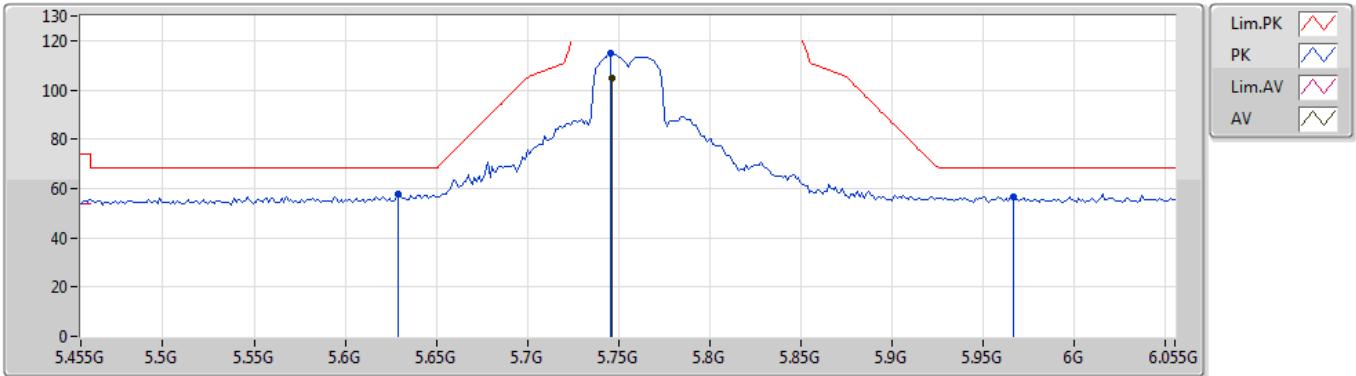


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.45616G	54.02	68.20	-14.18	15.07	3	Horizontal	78	2.01	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5755MHz_TX

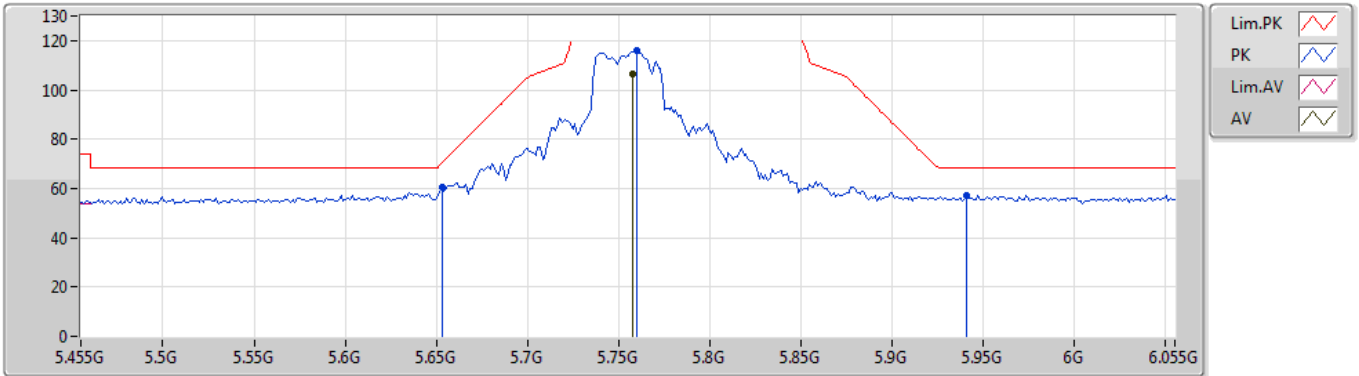


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7466G	104.58	Inf	-Inf	5.32	3	Vertical	1	1.44	-				
PK	5.629G	57.73	68.20	-10.47	5.10	3	Vertical	1	1.44	-				
PK	5.7454G	114.84	Inf	-Inf	5.31	3	Vertical	1	1.44	-				
PK	5.9662G	56.56	68.20	-11.64	5.72	3	Vertical	1	1.44	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5755MHz_TX

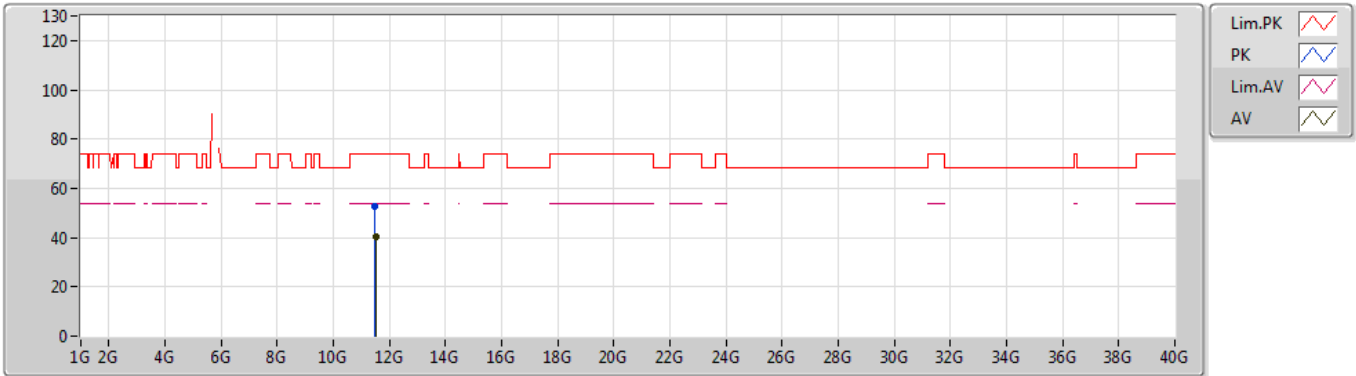


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment
AV	5.7574G	106.28	Inf	-Inf	5.33	3	Horizontal	82	2.25	-
PK	5.653G	60.79	70.42	-9.63	5.14	3	Horizontal	82	2.25	-
PK	5.7598G	115.91	Inf	-Inf	5.33	3	Horizontal	82	2.25	-
PK	5.941G	57.22	68.20	-10.98	5.67	3	Horizontal	82	2.25	-

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5755MHz_TX

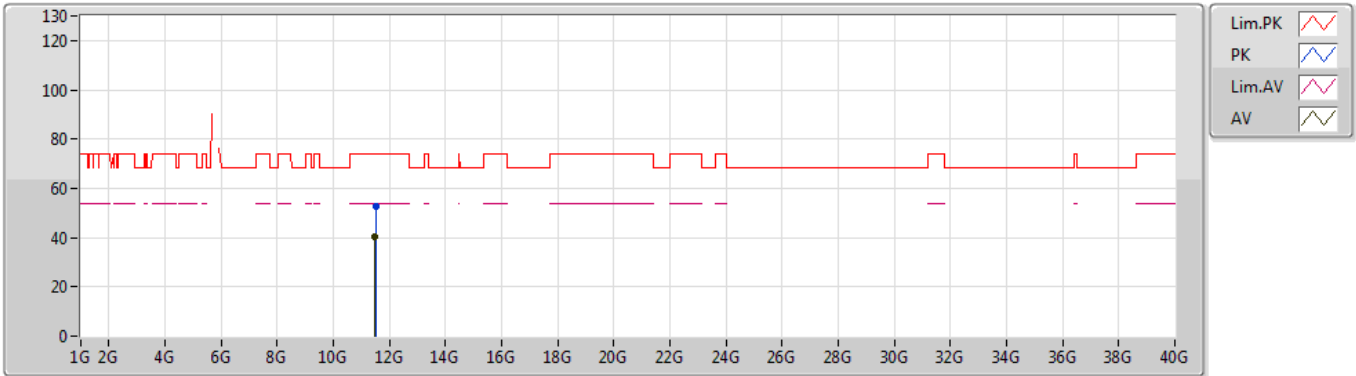


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.52488G	40.15	54.00	-13.85	15.76	3	Vertical	353	1.98	-				
PK	11.49536G	52.93	74.00	-21.07	15.79	3	Vertical	353	1.98	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5755MHz_TX

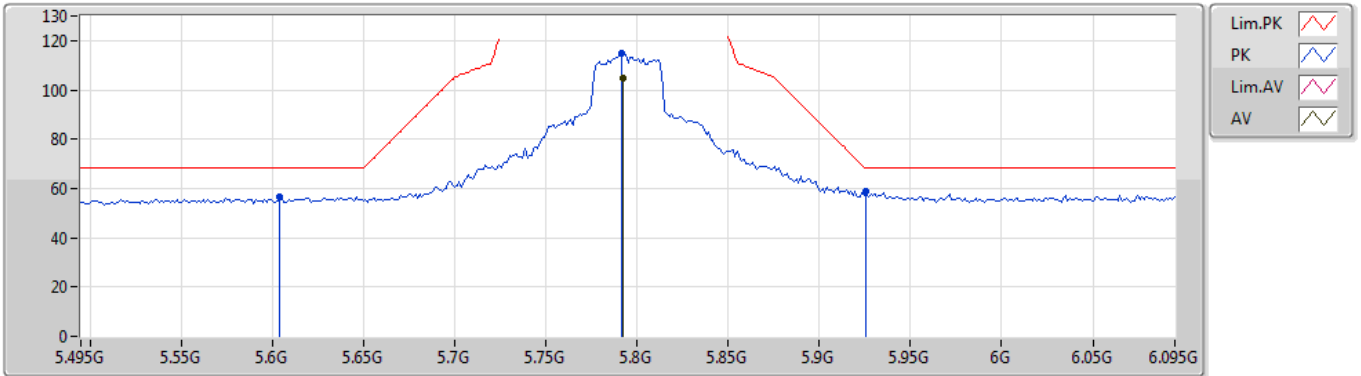


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.49896G	40.21	54.00	-13.79	15.79	3	Horizontal	205	1.17	-				
PK	11.50172G	52.70	74.00	-21.30	15.78	3	Horizontal	205	1.17	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5795MHz_TX

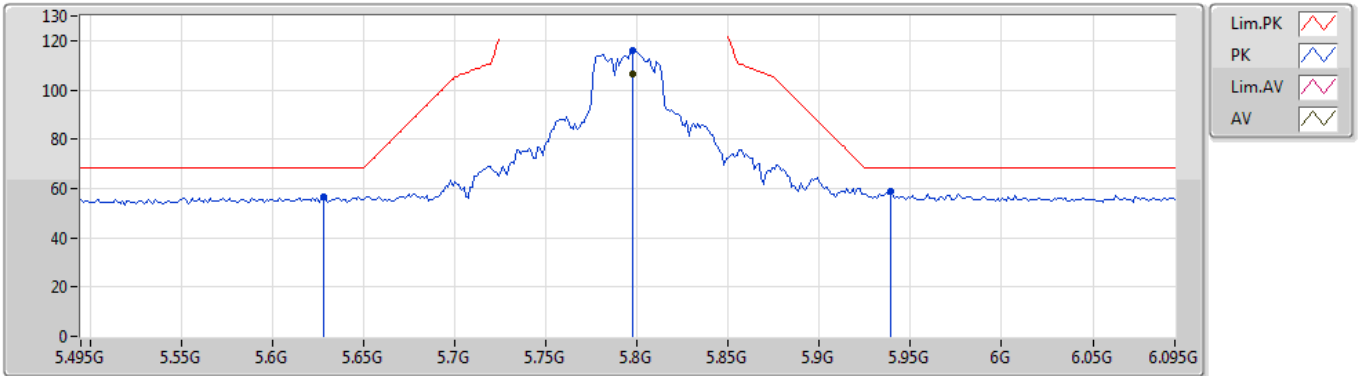


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7926G	104.87	Inf	-Inf	5.39	3	Vertical	313	1.54	-				
PK	5.6042G	56.69	68.20	-11.51	5.06	3	Vertical	313	1.54	-				
PK	5.7914G	114.96	Inf	-Inf	5.39	3	Vertical	313	1.54	-				
PK	5.9258G	58.63	68.20	-9.57	5.64	3	Vertical	313	1.54	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5795MHz_TX

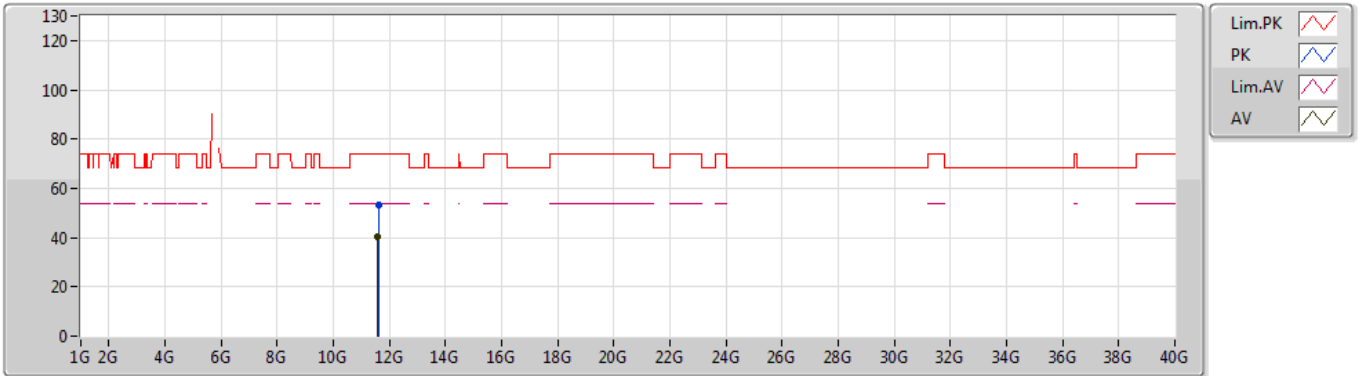


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7974G	106.40	Inf	-Inf	5.41	3	Horizontal	88	2.16	-				
PK	5.6282G	56.80	68.20	-11.40	5.10	3	Horizontal	88	2.16	-				
PK	5.7974G	116.06	Inf	-Inf	5.41	3	Horizontal	88	2.16	-				
PK	5.939G	58.67	68.20	-9.53	5.66	3	Horizontal	88	2.16	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5795MHz_TX

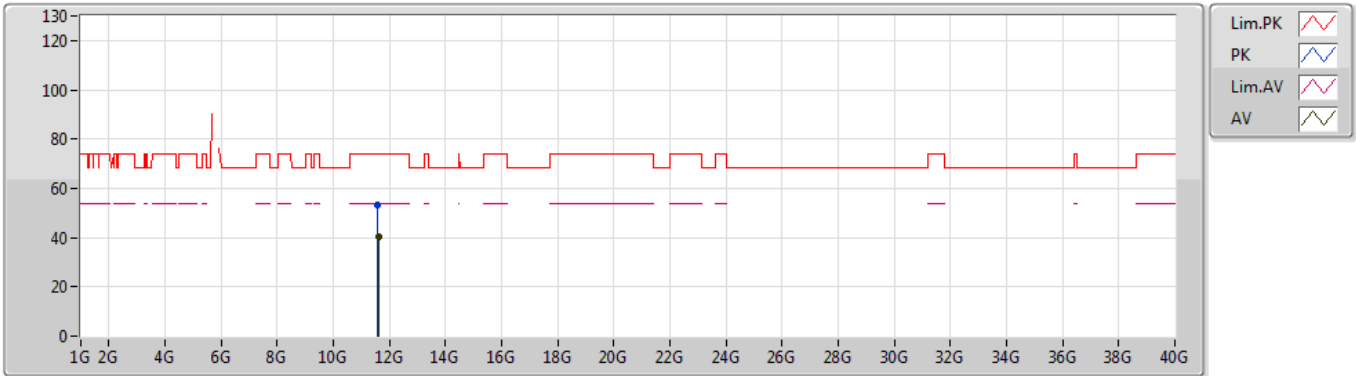


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.58046G	40.24	54.00	-13.76	15.69	3	Vertical	176	1.18	-				
PK	11.60068G	53.49	74.00	-20.51	15.67	3	Vertical	176	1.18	-				

802.11ac VHT40_Nss1,(MCS0)_2TX

30/05/2019

5795MHz_TX

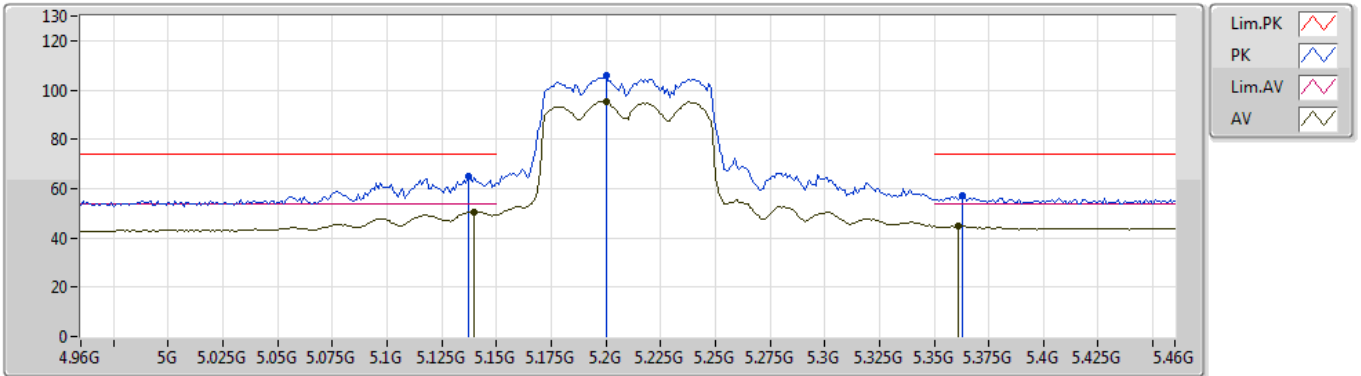


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.60356G	40.31	54.00	-13.69	15.67	3	Horizontal	43	2.09	-				
PK	11.58016G	53.44	74.00	-20.56	15.69	3	Horizontal	43	2.09	-				

802.11ac VHT80_Nss1,(MCS0)_2TX

30/05/2019

5210MHz_TX

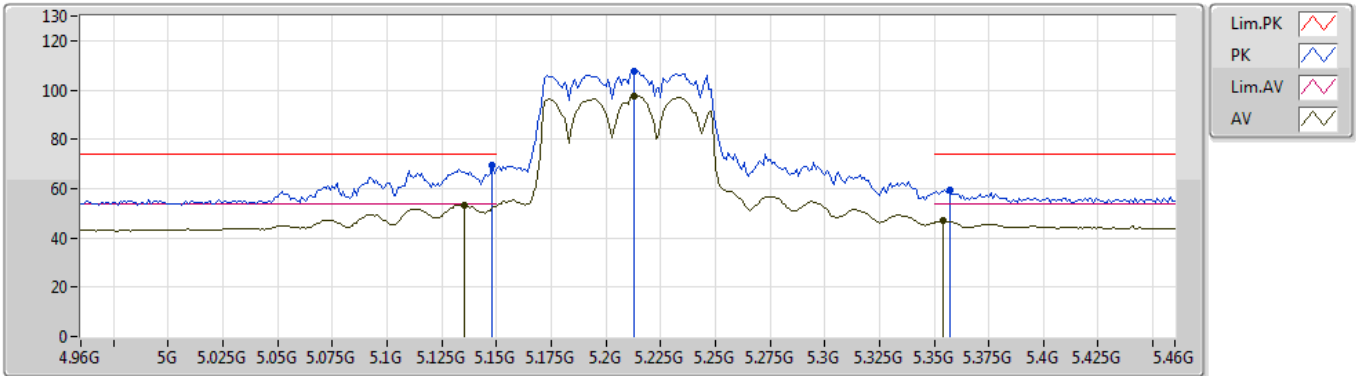


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.14G	50.66	54.00	-3.34	4.17	3	Vertical	59	1.33	-				
AV	5.2G	95.09	Inf	-Inf	4.30	3	Vertical	59	1.33	-				
AV	5.361G	44.87	54.00	-9.13	4.61	3	Vertical	59	1.33	-				
PK	5.137G	65.03	74.00	-8.97	4.17	3	Vertical	59	1.33	-				
PK	5.2G	106.06	Inf	-Inf	4.30	3	Vertical	59	1.33	-				
PK	5.363G	56.99	74.00	-17.01	4.61	3	Vertical	59	1.33	-				

802.11ac VHT80_Nss1,(MCS0)_2TX

30/05/2019

5210MHz_TX

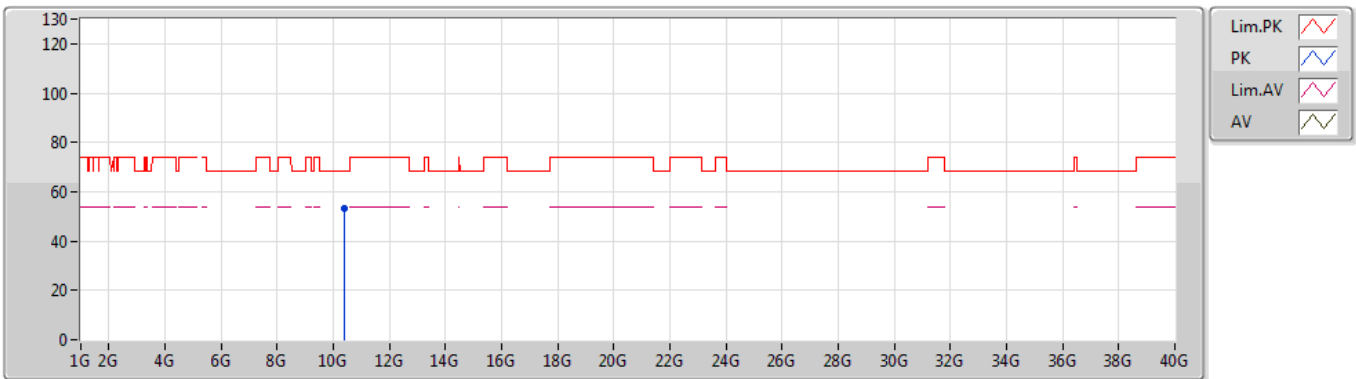


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.135G	53.23	54.00	-0.77	4.17	3	Horizontal	84	1.58	-				
AV	5.213G	97.68	Inf	-Inf	4.33	3	Horizontal	84	1.58	-				
AV	5.354G	46.83	54.00	-7.17	4.59	3	Horizontal	84	1.58	-				
PK	5.148G	69.40	74.00	-4.60	4.19	3	Horizontal	84	1.58	-				
PK	5.213G	107.61	Inf	-Inf	4.33	3	Horizontal	84	1.58	-				
PK	5.357G	59.47	74.00	-14.53	4.60	3	Horizontal	84	1.58	-				

802.11ac VHT80_Nss1,(MCS0)_2TX

30/05/2019

5210MHz_TX

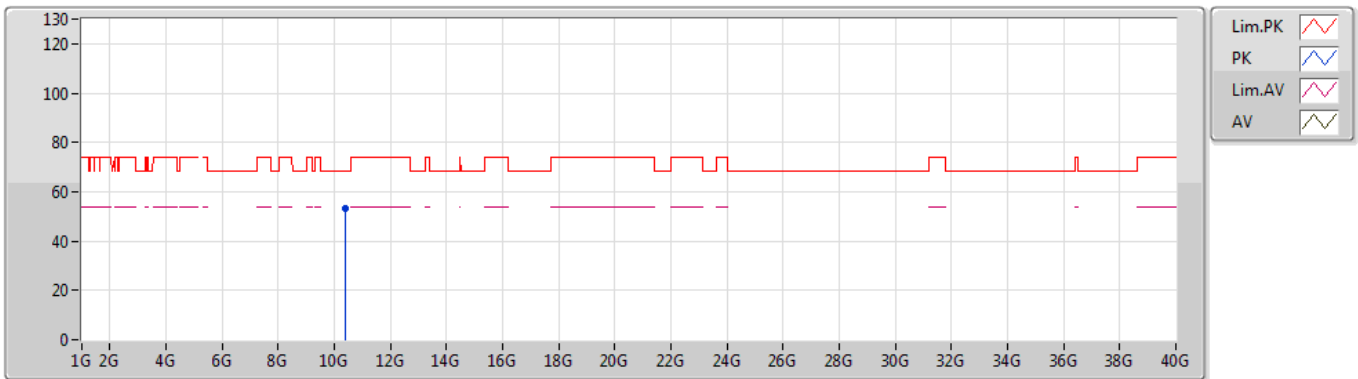


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.40566G	53.20	68.20	-15.00	14.95	3	Vertical	143	1.20	-				

802.11ac VHT80_Nss1,(MCS0)_2TX

30/05/2019

5210MHz_TX

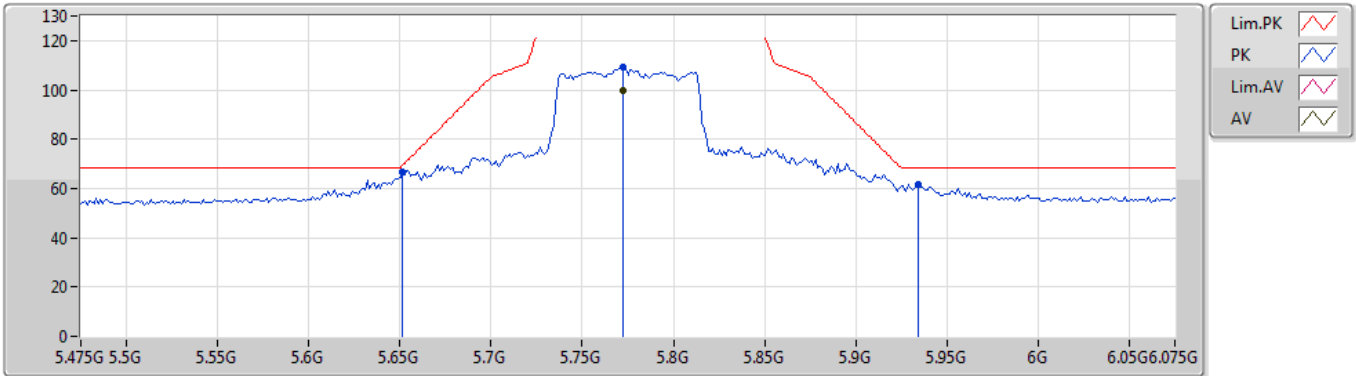


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
PK	10.408G	53.00	68.20	-15.20	14.95	3	Horizontal	8	2.03	-				

802.11ac VHT80_Nss1,(MCS0)_2TX

30/05/2019

5775MHz_TX

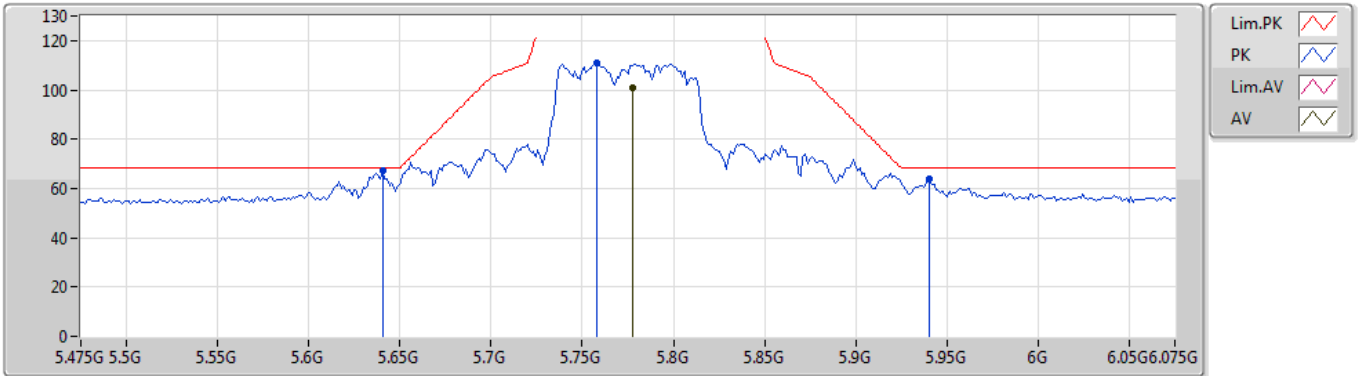


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7726G	99.53	Inf	-Inf	5.36	3	Vertical	313	1.43	-				
PK	5.6514G	66.80	69.24	-2.44	5.14	3	Vertical	313	1.43	-				
PK	5.7726G	109.02	Inf	-Inf	5.36	3	Vertical	313	1.43	-				
PK	5.9346G	61.76	68.20	-6.44	5.66	3	Vertical	313	1.43	-				

802.11ac VHT80_Nss1,(MCS0)_2TX

30/05/2019

5775MHz_TX

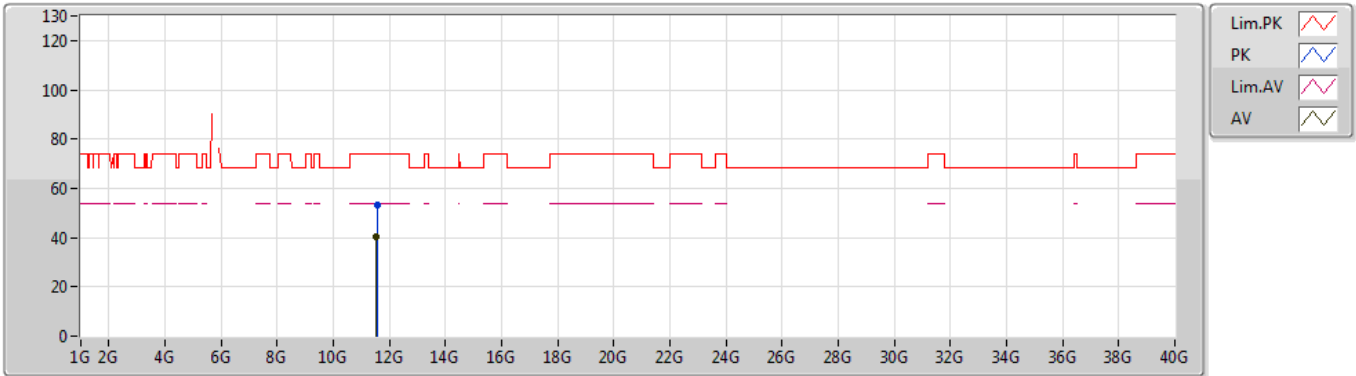


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	5.7774G	100.62	Inf	-Inf	5.37	3	Horizontal	85	2.14	-				
PK	5.6406G	67.20	68.20	-1.00	5.13	3	Horizontal	85	2.14	-				
PK	5.7582G	110.87	Inf	-Inf	5.33	3	Horizontal	85	2.14	-				
PK	5.9406G	63.88	68.20	-4.32	5.67	3	Horizontal	85	2.14	-				

802.11ac VHT80_Nss1,(MCS0)_2TX

30/05/2019

5775MHz_TX

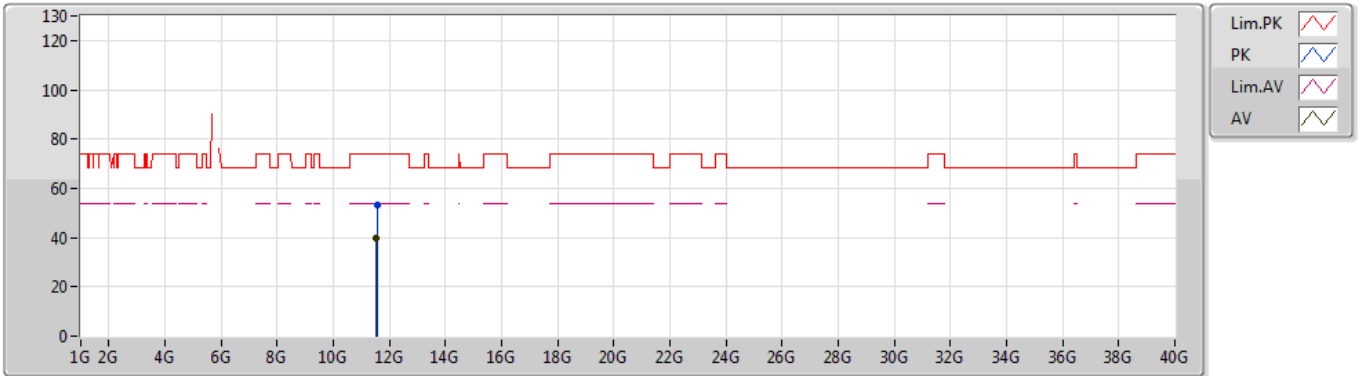


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.54856G	40.18	54.00	-13.82	15.72	3	Vertical	90	2.24	-				
PK	11.55024G	53.21	74.00	-20.79	15.72	3	Vertical	90	2.24	-				

802.11ac VHT80_Nss1,(MCS0)_2TX

30/05/2019

5775MHz_TX



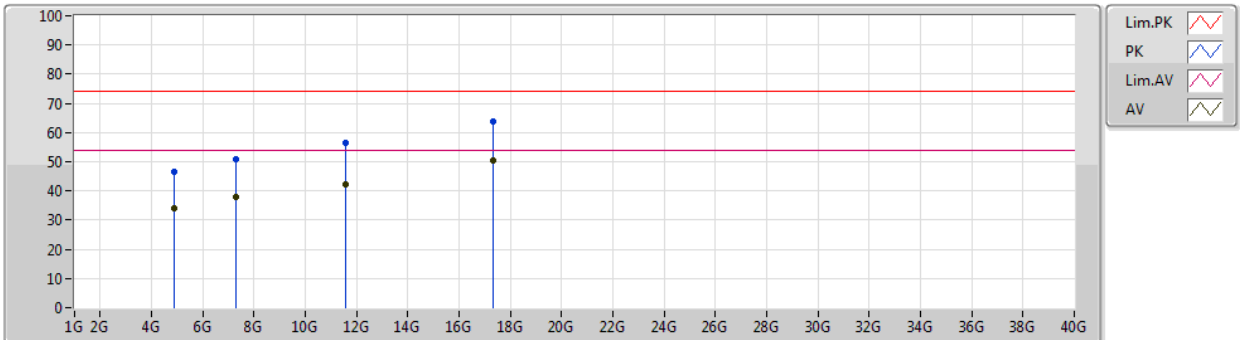
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment				
AV	11.54526G	40.05	54.00	-13.95	15.73	3	Horizontal	174	1.49	-				
PK	11.55942G	53.04	74.00	-20.96	15.72	3	Horizontal	174	1.49	-				

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Condition
Mode 1	Pass	AV	17.325G	50.82	54.00	-3.18	20.02	Horizontal

Radiation-above 1GHz_Mode 1

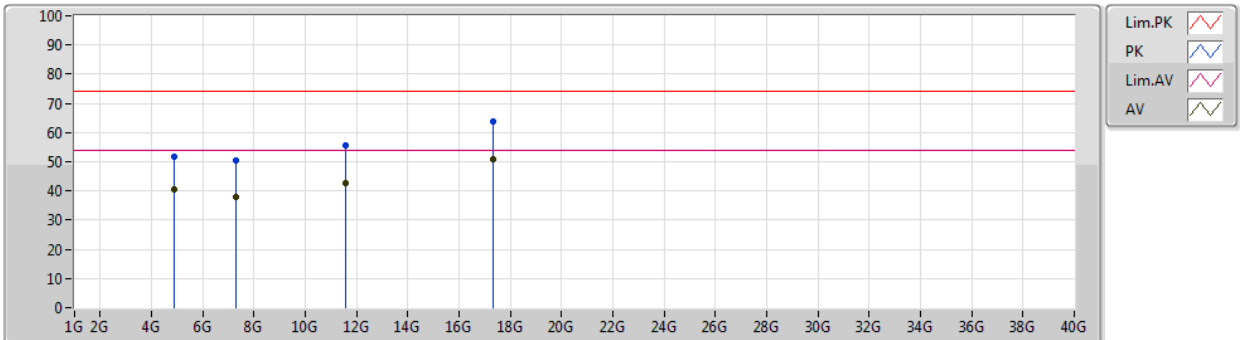
19/07/2019



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.874G	34.10	54.00	-19.90	1.79	3	Vertical	5	1.48	-	32.31	31.27	5.36	34.84
AV	7.311G	37.83	54.00	-16.17	8.01	3	Vertical	336	1.50	-	29.82	36.49	6.61	35.09
AV	11.55001G	42.34	54.00	-11.66	13.17	3	Vertical	317	1.50	-	29.17	39.58	8.36	34.77
AV	17.32499G	50.23	54.00	-3.77	20.01	3	Vertical	138	1.50	-	30.22	43.57	10.68	34.24
PK	4.87559G	46.47	74.00	-27.53	1.81	3	Vertical	5	1.48	-	44.66	31.28	5.36	34.83
PK	7.311G	51.07	74.00	-22.93	8.01	3	Vertical	336	1.50	-	43.06	36.49	6.61	35.09
PK	11.55001G	56.32	74.00	-17.68	13.17	3	Vertical	317	1.50	-	43.15	39.58	8.36	34.77
PK	17.32501G	63.87	74.00	-10.13	20.02	3	Vertical	138	1.50	-	43.85	43.58	10.68	34.24

Radiation-above 1GHz_Mode 1

19/07/2019



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87391G	40.54	54.00	-13.46	1.79	3	Horizontal	47	1.74	-	38.75	31.27	5.36	34.84
AV	7.31128G	37.77	54.00	-16.23	8.01	3	Horizontal	297	2.71	-	29.76	36.49	6.61	35.09
AV	11.55G	42.87	54.00	-11.13	13.17	3	Horizontal	354	1.21	-	29.70	39.58	8.36	34.77
AV	17.325G	50.82	54.00	-3.18	20.02	3	Horizontal	6	2.98	-	30.80	43.58	10.68	34.24
PK	4.87391G	51.63	74.00	-22.37	1.79	3	Horizontal	47	1.74	-	49.84	31.27	5.36	34.84
PK	7.31146G	50.52	74.00	-23.48	8.01	3	Horizontal	297	2.71	-	42.51	36.49	6.61	35.09
PK	11.55G	55.76	74.00	-18.24	13.18	3	Horizontal	354	1.21	-	42.58	39.59	8.36	34.77
PK	17.32501G	63.89	74.00	-10.11	20.02	3	Horizontal	6	2.98	-	43.87	43.58	10.68	34.24



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1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
 - For CDD transmissions, directional gain is calculated as follows, $N_{ANT} = 2$, $N_{SS} = 1$.
 - If all antennas have the same gain, G_{ANT} , Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows.
 - For power spectral density (PSD) measurements on all devices,
 $\text{Array Gain} = 10 \log (N_{ANT} / N_{SS}) \text{ dB} = 3.01$;
 - For power measurements on IEEE 802.11 devices, Array Gain = 0 dB for $N_{ANT} \leq 4$;
2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n/ac, not include 802.11a/b/g. Directional gain = $G_{ANT} + \text{BF Gain}$, BF Gain is declared by the manufacture.
3. ArubaOS algorithm will reduce the Tx Power by a factor of $10 \log(N)$ when BF Mode is active.

Sincerely,

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