



FCC Test Report

Equipment : cnPilot E410 Indoor
Brand Name : Cambium Networks
Model No. : cnPilot E410 Indoor
FCC ID : Z8H89FT0035
Standard : 47 CFR FCC Part 15.407
Operating Band : 5150 MHz – 5250 MHz
5725 MHz – 5850 MHz
Applicant : Cambium Networks Inc.
3800 Golf Road, Suite 360 Rolling Meadows, IL 60008,
USA
Manufacturer : Cambium Networks Inc.
3800 Golf Road, Suite 360 Rolling Meadows, IL 60008,
USA
Function : ☐ Outdoor; ☒ Indoor; ☐ Fixed P2P
☐ Client

The product sample received on Apr. 06, 2017 and completely tested on May 09, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Cliff Chang
SPORTON INTERNATIONAL INC.



Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Testing Applied Standards	7
1.3	Testing Location Information	7
1.4	Measurement Uncertainty	7
2	TEST CONFIGURATION OF EUT	8
2.1	Test Channel Mode	8
2.2	The Worst Case Measurement Configuration.....	9
2.3	EUT Operation during Test	10
2.4	Support Equipment.....	10
2.5	Test Setup Diagram	11
3	TRANSMITTER TEST RESULT	14
3.1	AC Power-line Conducted Emissions	14
3.2	Emission Bandwidth	16
3.3	Maximum Conducted Output Power	17
3.4	Peak Power Spectral Density.....	19
3.5	Unwanted Emissions.....	22
3.6	Frequency Stability.....	26
4	TEST EQUIPMENT AND CALIBRATION DATA	27
APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS		
APPENDIX B. TEST RESULTS OF EMISSION BANDWIDTH		
APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER		
APPENDIX D. TEST RESULTS OF PEAK POWER SPECTRAL DENSITY		
APPENDIX E. TEST RESULTS OF UNWANTED EMISSIONS		
APPENDIX F. TEST RESULTS OF FREQUENCY STABILITY		
APPENDIX G. TEST RESULTS OF RADIATED EMISSION CO-LOCATION		
APPENDIX H. TEST PHOTOS		
PHOTOGRAPHS OF EUT V01		

Summary of Test Result

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

Revision History

[illegible]

1 General Description

1.1 Information

1.1.1 RF General Information

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

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

Note:

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

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Accton	120G00000168A	PIFA Antenna	I-PEX	Note
2	Accton	120G00000168A	PIFA Antenna	I-PEX	

Note:

Ant.	Gain (dBi)		
	2.4GHz	5GHz Band 1	5GHz Band 4
1	4.38	4.54	5.47
2	5.24	5.32	4.72

Note: The EUT has two antennas.

Ant.1 = port 1, Ant.2 = port 2

For 2.4GHz WLAN function

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

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

For 5GHz WLAN function

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

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)
802.11a	0.917	0.376
802.11ac VHT20	0.957	0.191
802.11ac VHT40	0.912	0.4
802.11ac VHT80	0.928	0.325

1.1.4 EUT Operational Condition

EUT Power Type	From PoE
-----------------------	----------

1.2 Testing Applied Standards

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

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

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Peter Wu	25°C / 55%	Apr. 17, 2017
Radiated	03CH01-CB	Paul Chen / Mason Chen	22°C / 54%	Apr. 11, 2017~May 09, 2017
AC Conduction	CO01-CB	Edison Lin	23°C / 57%	Apr. 14, 2017

Test site Designation No. TW0006 with FCC

Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

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

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_(6Mbps)_2TX	-
5180MHz	20.5
5200MHz	24.5
5240MHz	24.5
5745MHz	30
5785MHz	30
5825MHz	30
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	20.5
5200MHz	25
5240MHz	24.5
5745MHz	30
5785MHz	30
5825MHz	30
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	19
5230MHz	30
5755MHz	30
5795MHz	30
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	19
5775MHz	22

Note:

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

2.2 The Worst Case Measurement Configuration

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

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT in Y axis Normal Link
2	EUT in Z axis Normal Link
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at Z axis and Y axis position. The worst case was found at Y axis, so it was selected to perform test and its test result was written in the report.	
1	EUT in Y axis

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WLAN 2.4GHz+WLAN 5 GHz-in Y axis
2	WLAN 2.4GHz+WLAN 5 GHz-in Z axis
Refer to Appendix G for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests

Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz+WLAN 5GHz
Refer to Sporton Test Report No.: FA721427-01 for Co-location RF Exposure Evaluation.	

Noted: The PoE below is for measurement only, would not be marked

Support Unit	Brand	Model
PoE	Cambium Networks	NET-P15-56IN

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*3	DELL	E6430	DoC
2	PoE	Cambium Networks	NET-P15-56IN	DoC

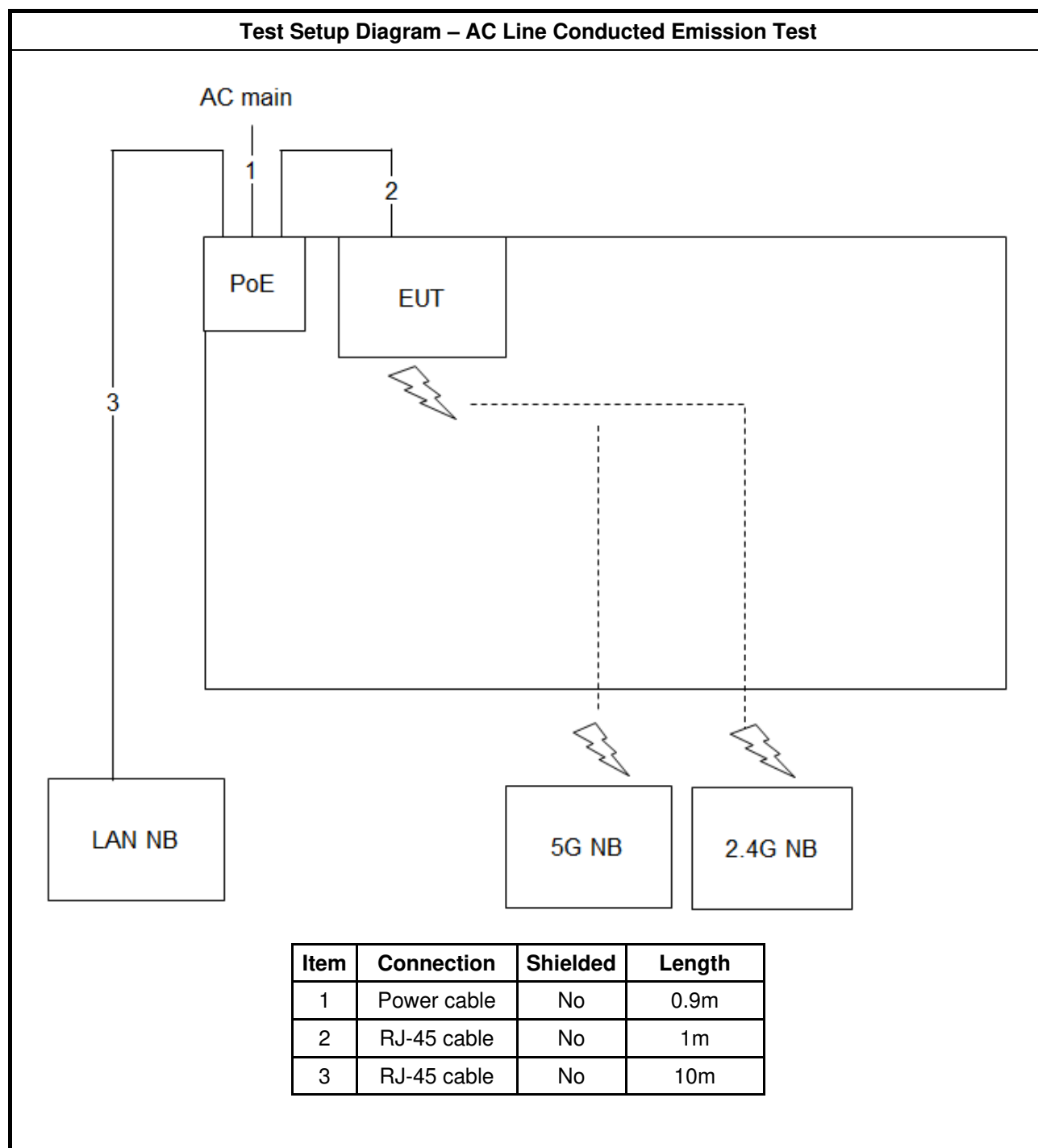
For Test Site No: 03CH01-CB (below 1GHz)

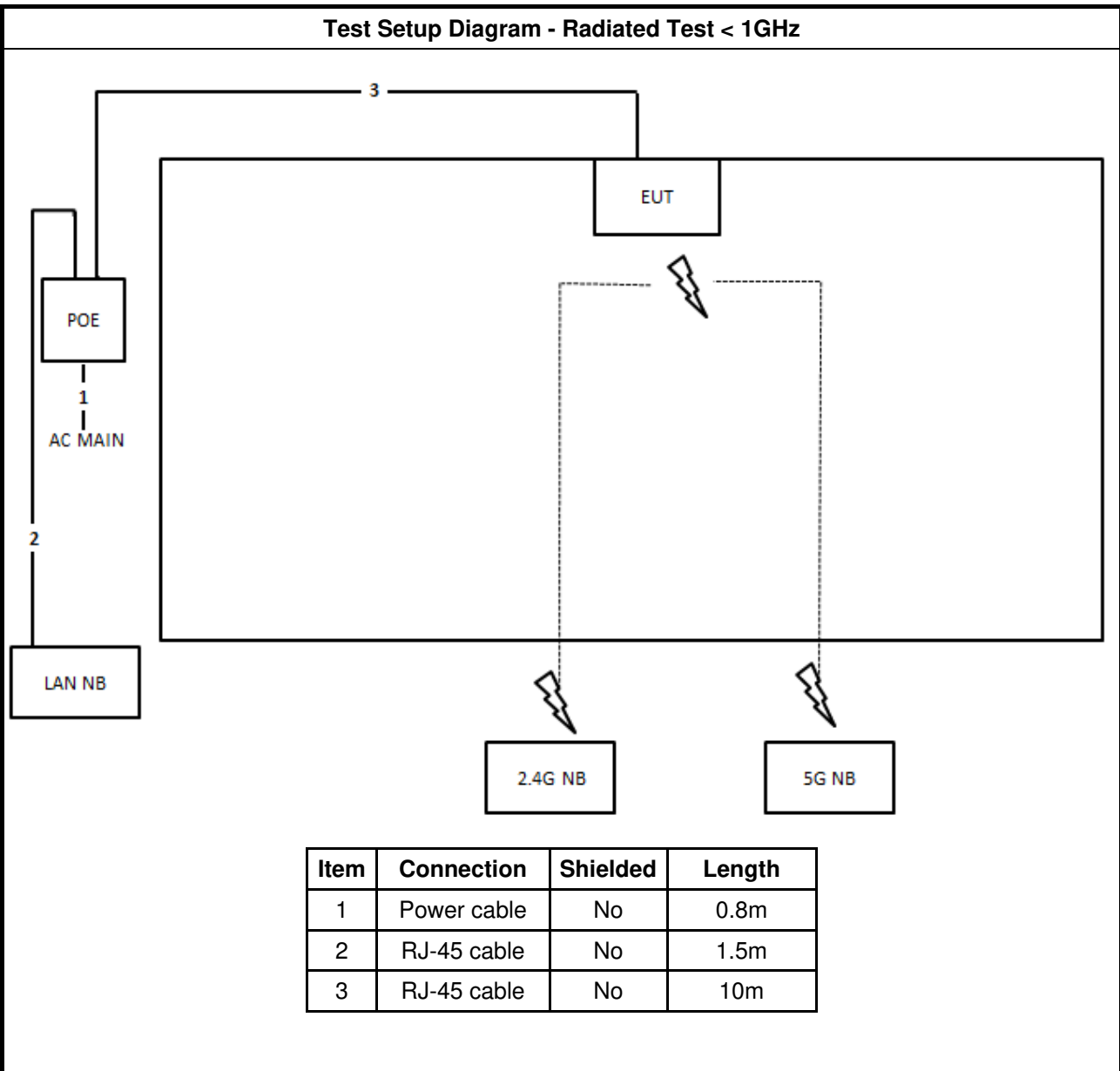
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	NB *2	Apple	Mac Book	DoC
3	PoE	Cambium Networks	NET-P15-56IN	DoC

For Test Site No: 03CH01-CB (above 1GHz) / TH01-CB

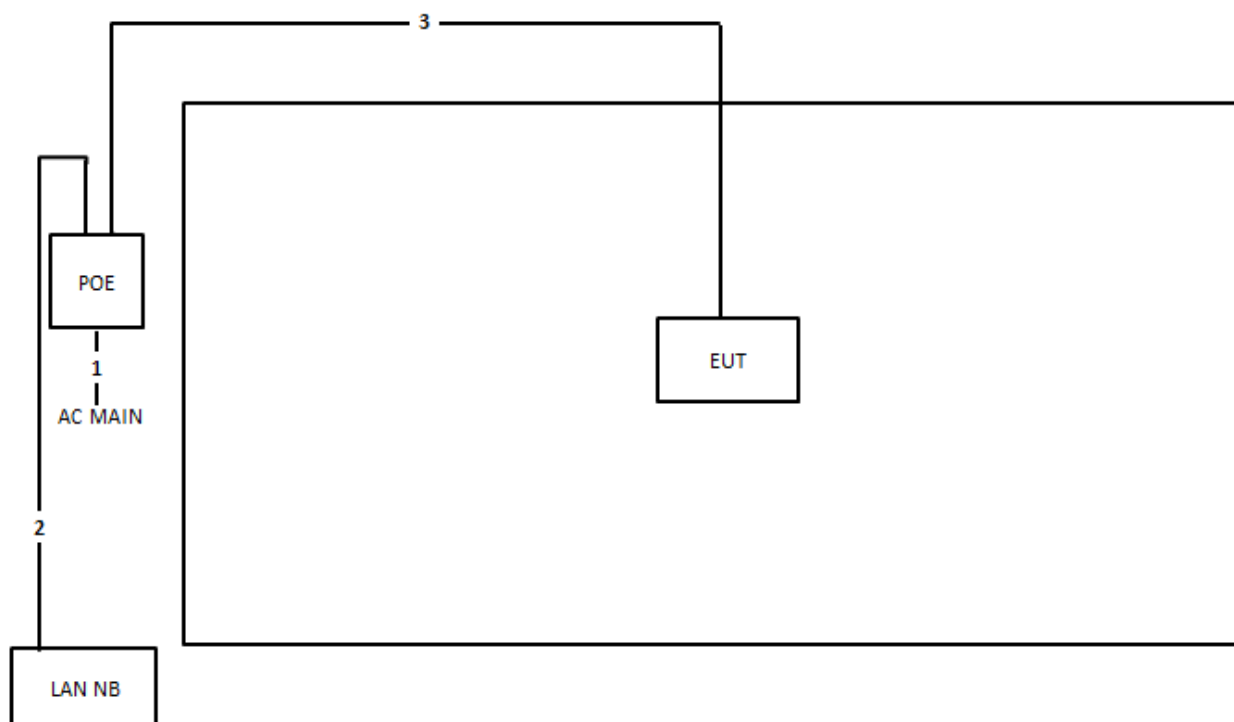
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC
2	PoE	Cambium Networks	NET-P15-56IN	DoC

2.5 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz


Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	0.8m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	10m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

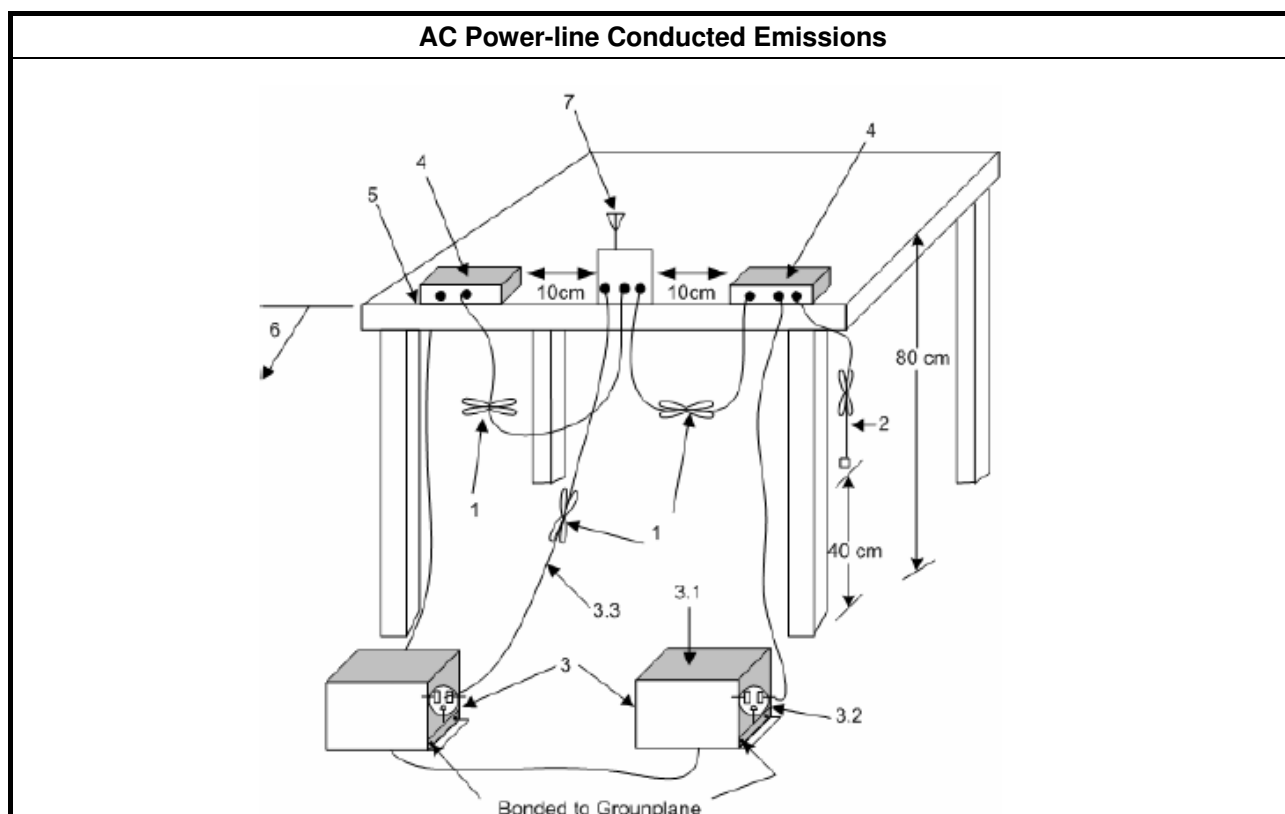
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup





3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

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

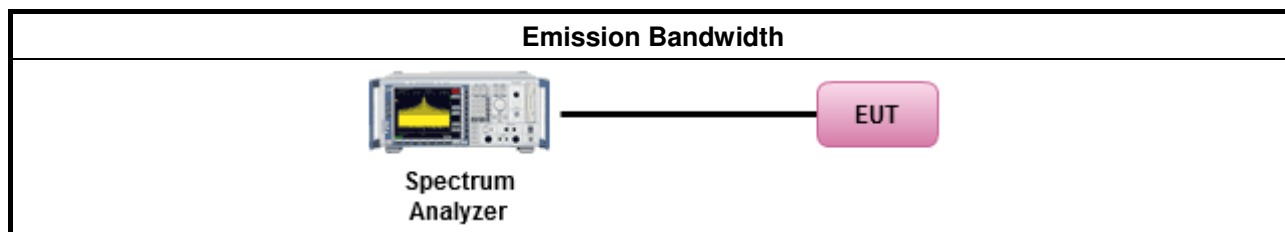
3.2.2 Measuring Instruments

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 FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☒	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

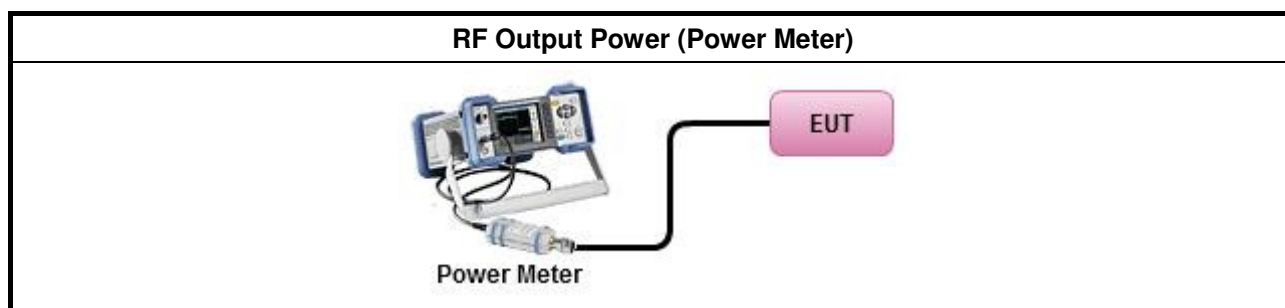
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

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.
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the peak power spectral density (PPSD) ≤ 4 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
	e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; $-13 - 0.716 (\theta - 8)$ dBW/MHz for $8^\circ \leq \theta < 40^\circ$; $-35.9 - 1.22 (\theta - 40)$ dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz and the e.i.r.p. peak power spectral density (PPSD) ≤ 17 dBm/MHz.	
☐ For the 5.725-5.85 GHz band:	
	- Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

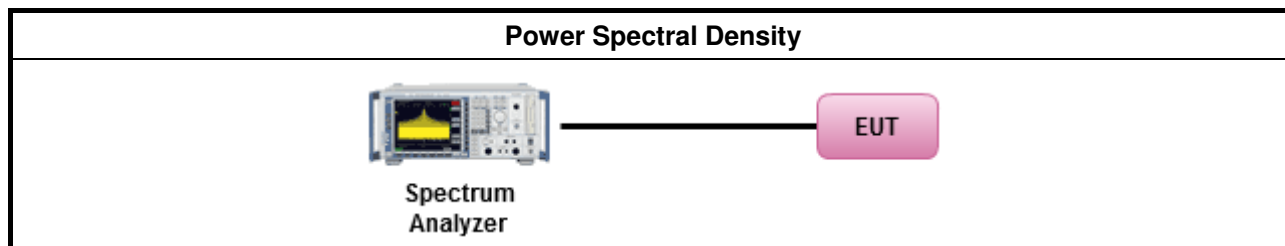
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
☐ Refer as FCC KDB 789033, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth	
[duty cycle ≥ 98% or external video / power trigger]	
☒ Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).	
☐ Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)	
duty cycle < 98% and average over on/off periods with duty factor	
☒ Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).	
☐ Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below:	
☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.	
☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,	
☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.	
If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (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.

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

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

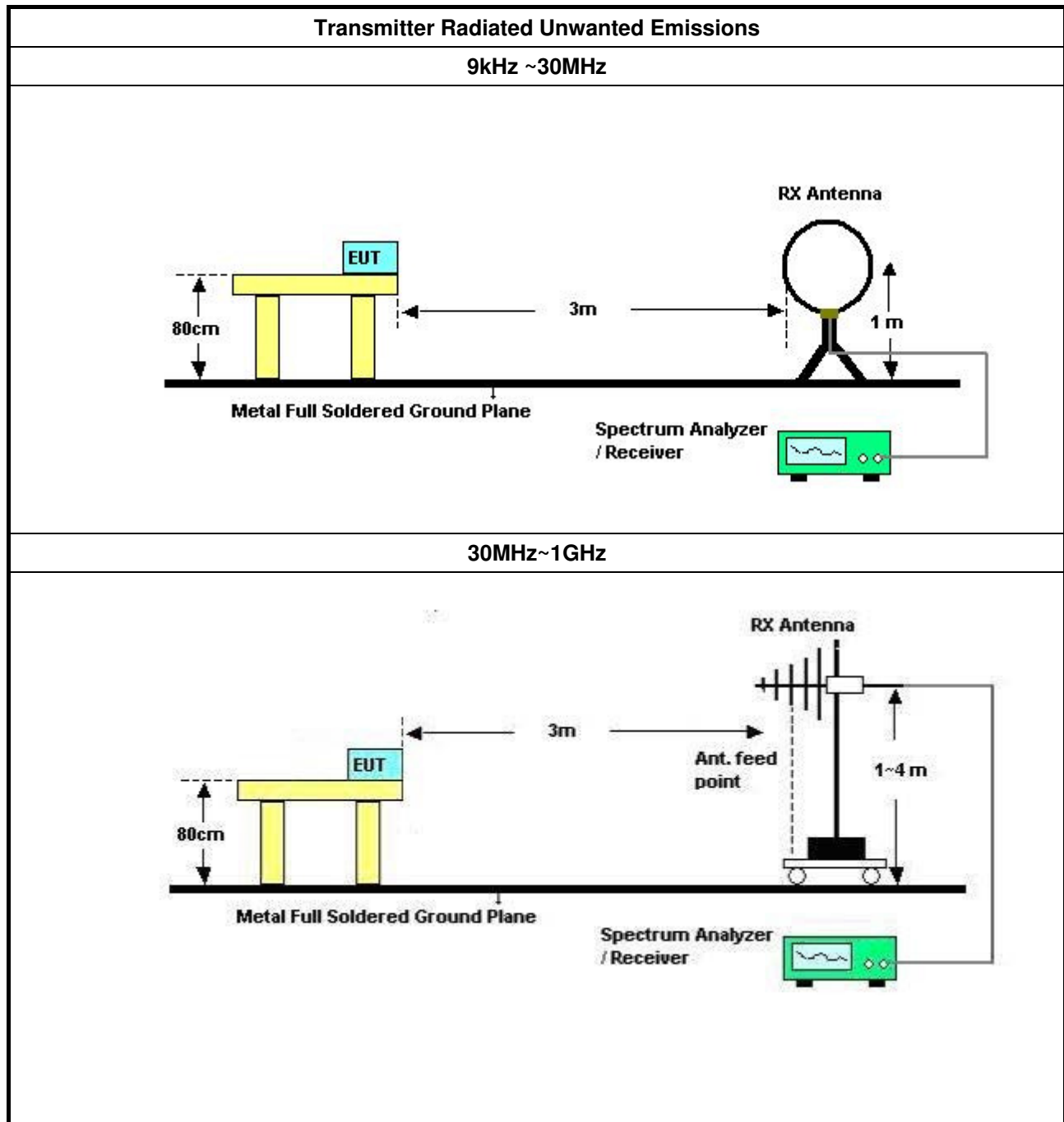
3.5.2 Measuring Instruments

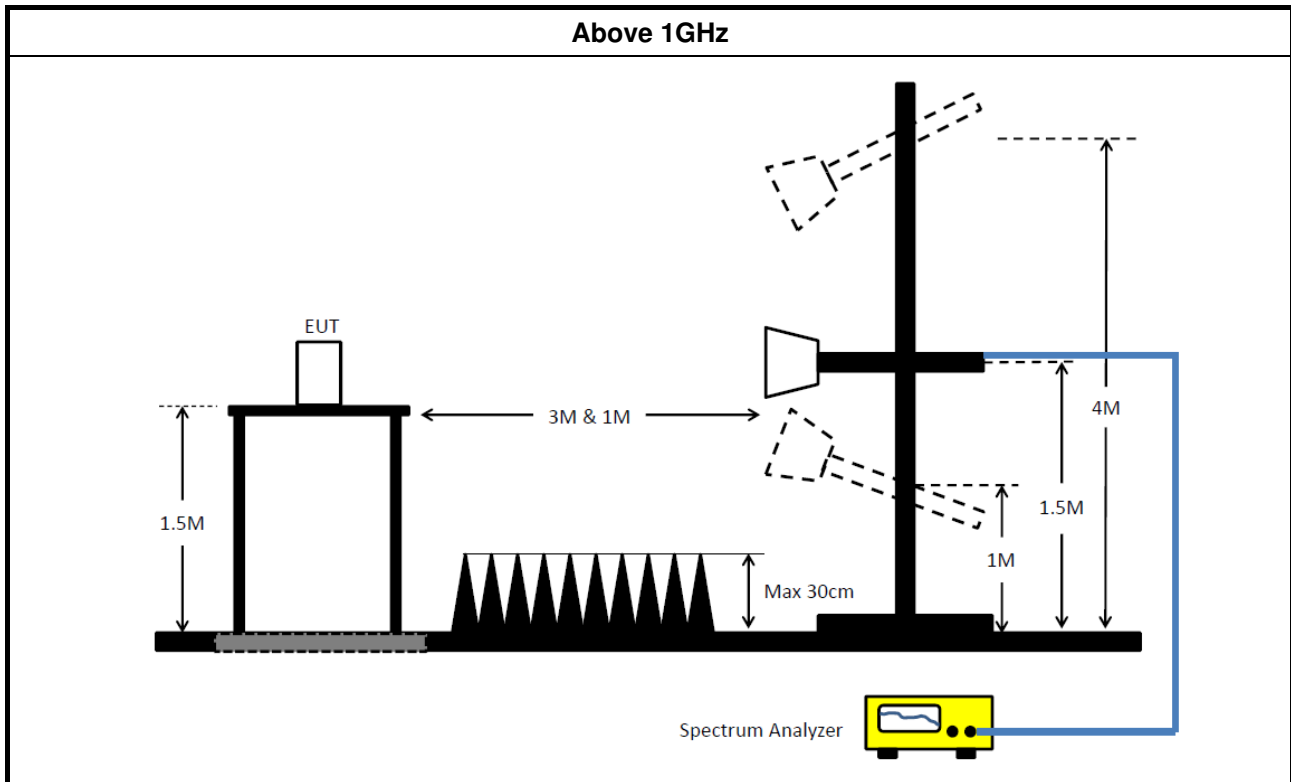
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

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

3.5.4 Test Setup





3.5.5 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

3.6 Frequency Stability

3.6.1 Frequency Stability Limit

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

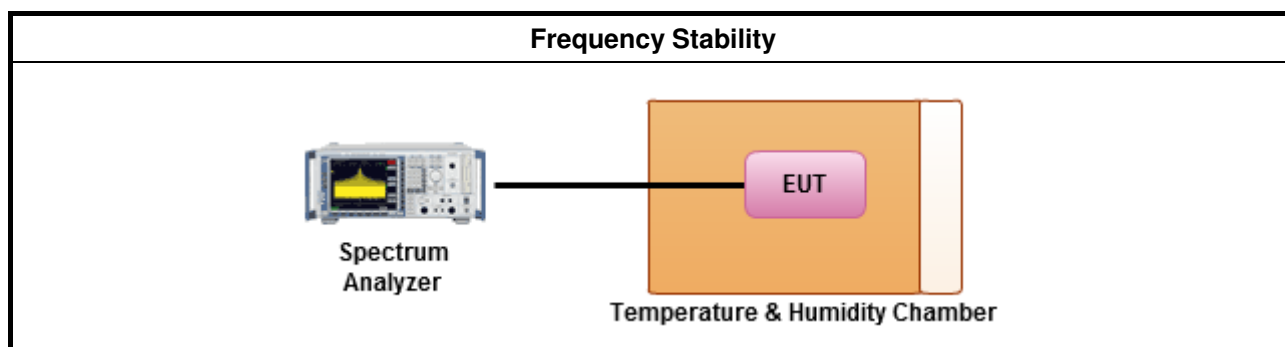
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

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

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 24, 2016	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (03CH01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCi	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2016	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Mar. 13, 2017	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 16, 2016	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-I0-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 03, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)



FCC Test Report

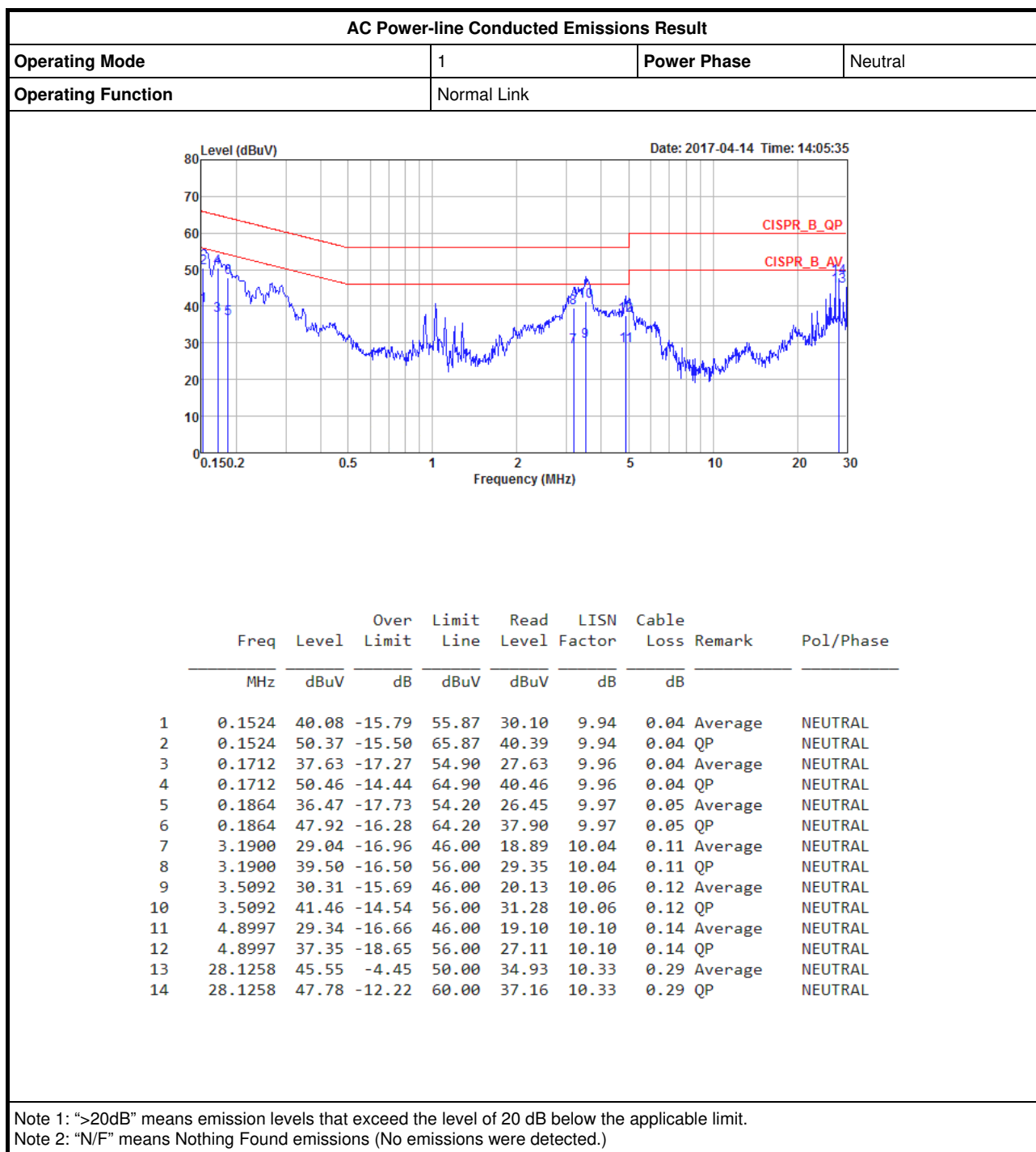
Report No. : FR721427-01AB

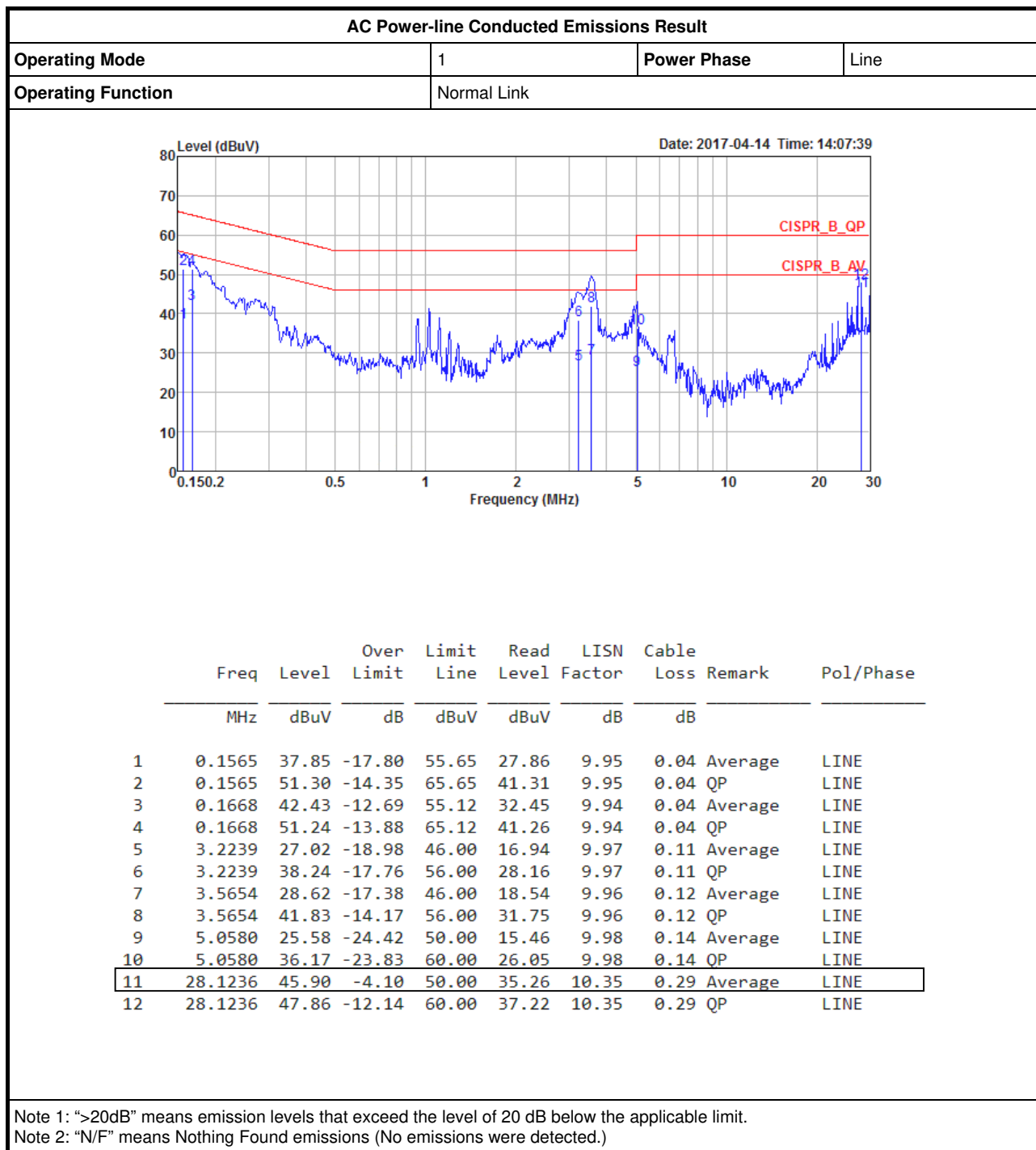
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	RG402	High Cable-8	1 GHz ~26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz ~26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz ~26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Conducted (TH01-CB)

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

“*” Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.





Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11a_(6Mbps)_2TX	-	-	-	-	-
5.15-5.25GHz	36.775M	17.016M	17M0D1D	19.3M	16.417M
5.725-5.85GHz	16.325M	19.015M	19M0D1D	15.1M	16.667M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	44.025M	19.79M	19M8D1D	19.975M	17.616M
5.725-5.85GHz	17.55M	18.766M	18M8D1D	16.275M	17.716M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	80.75M	36.632M	36M6D1D	39.55M	35.982M
5.725-5.85GHz	35.15M	36.732M	36M7D1D	32.55M	36.382M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-
5.15-5.25GHz	83.5M	75.762M	75M8D1D	82.9M	75.562M
5.725-5.85GHz	76.1M	75.962M	76M0D1D	75.9M	75.662M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

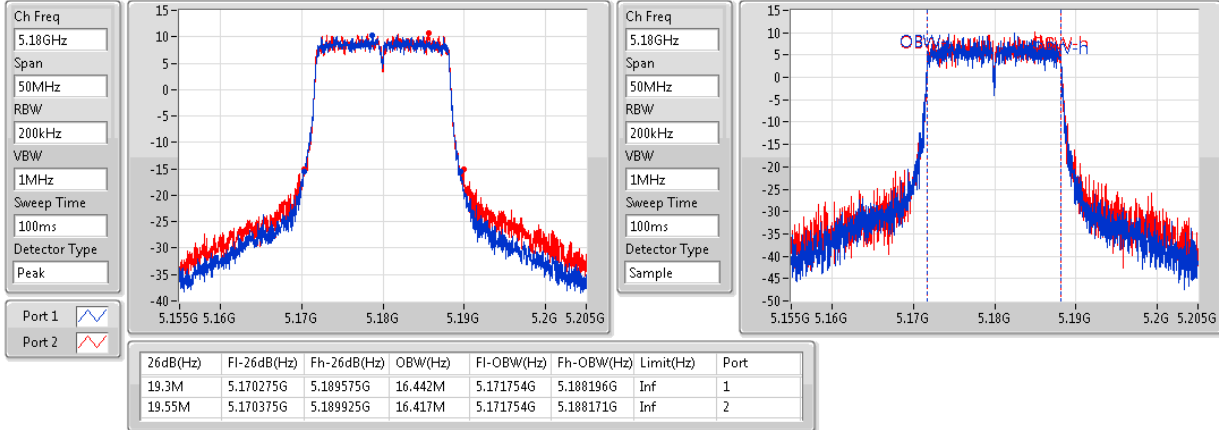
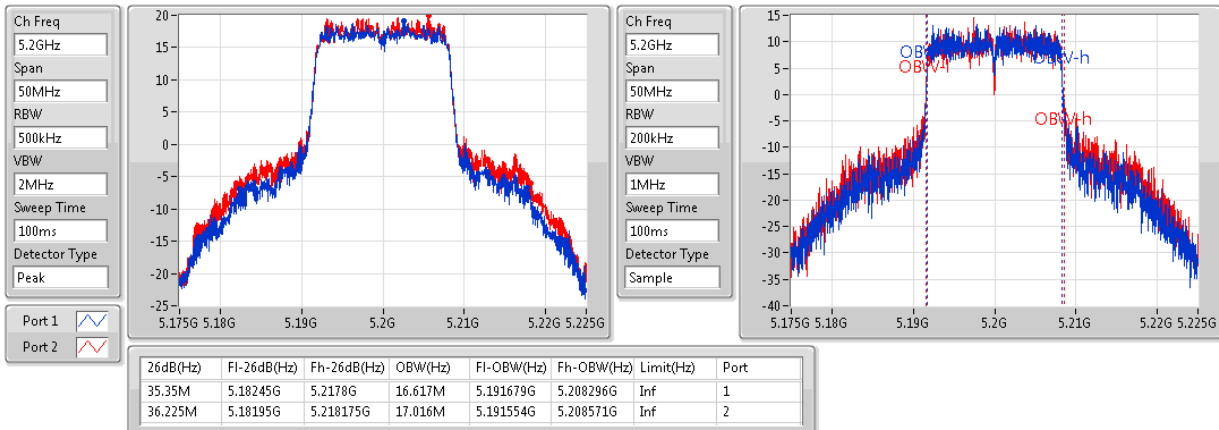
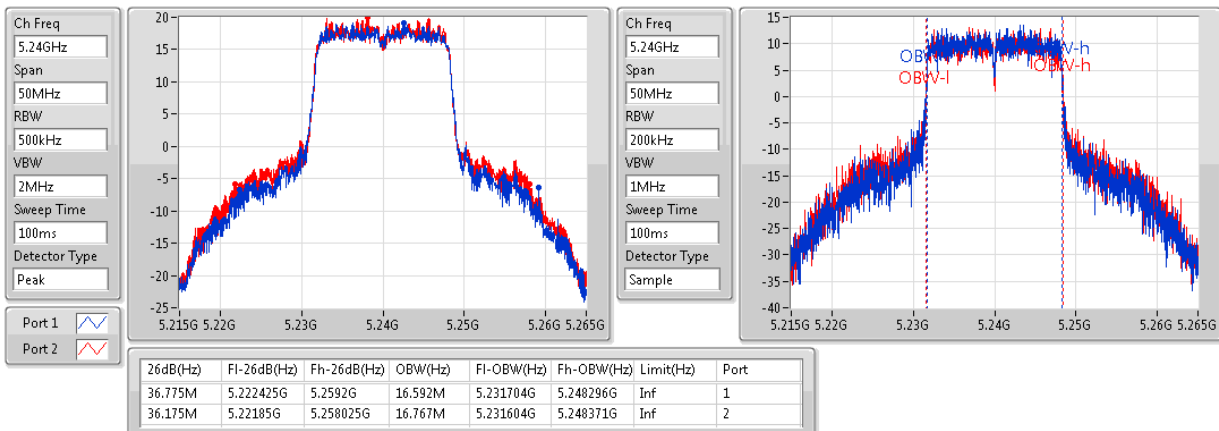
Min-OBW = Minimum 99% occupied bandwidth;

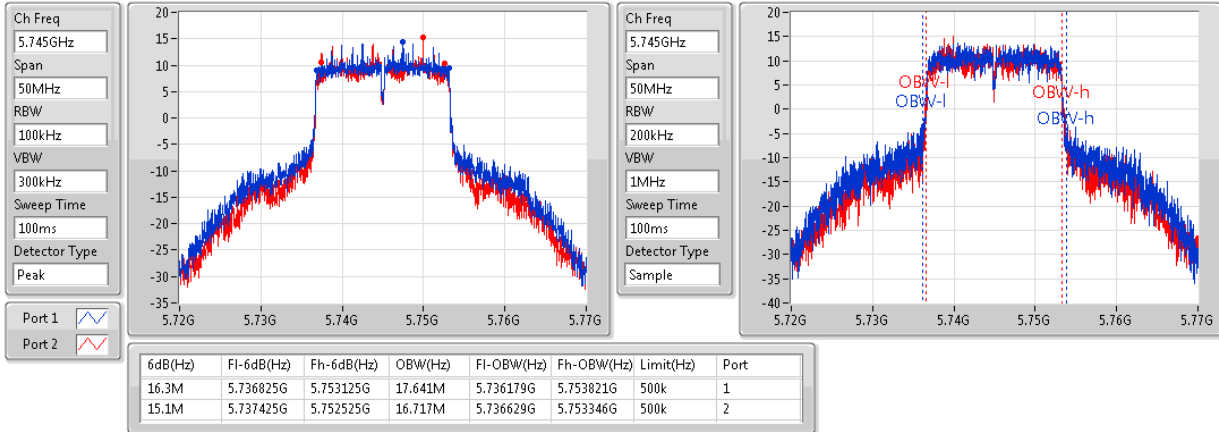
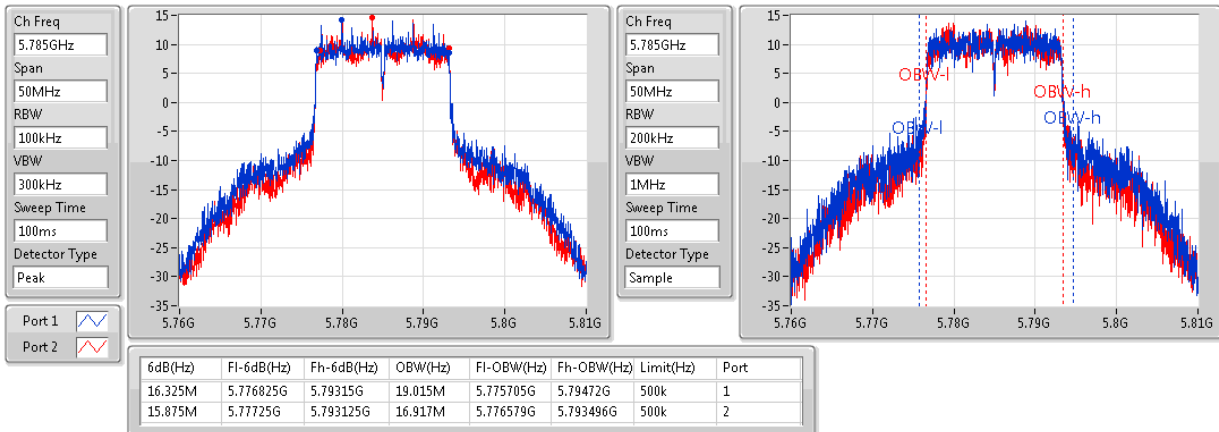
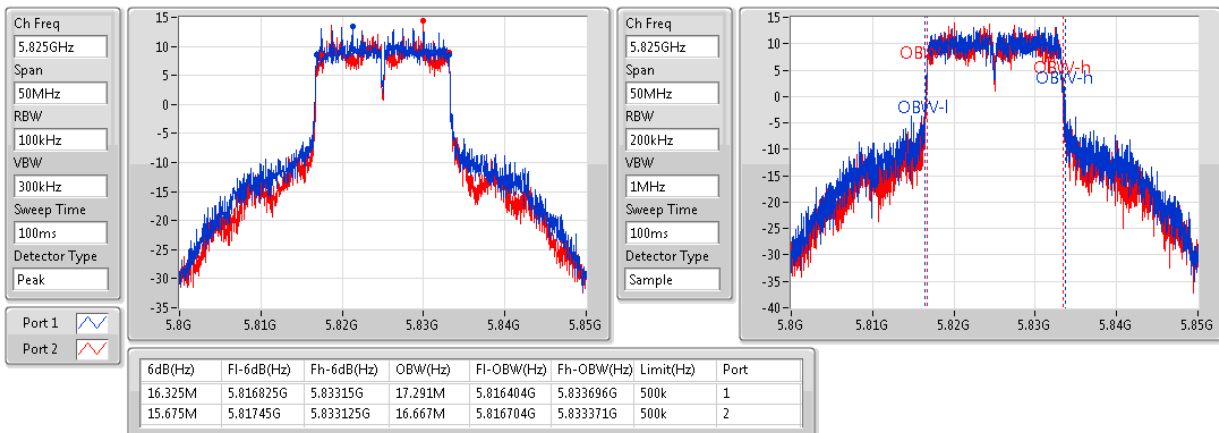
Result

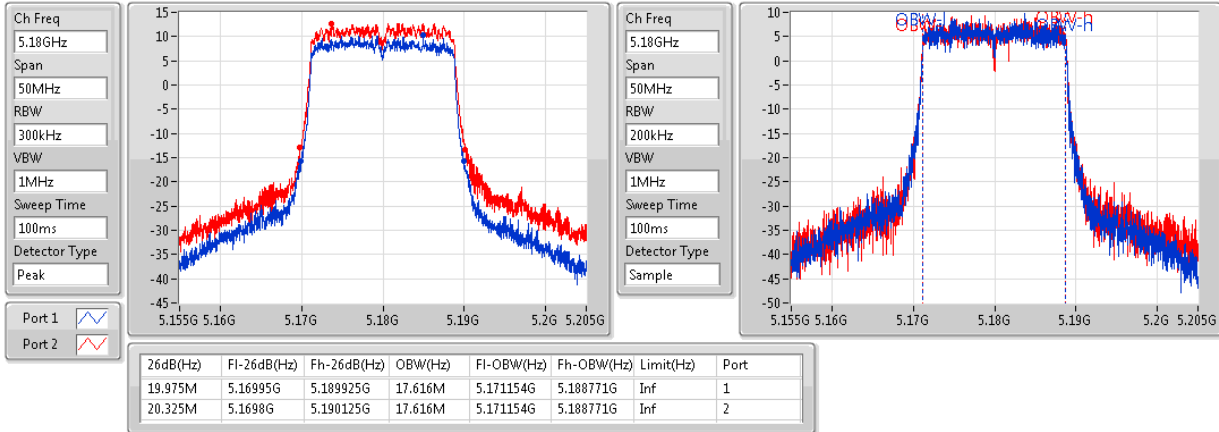
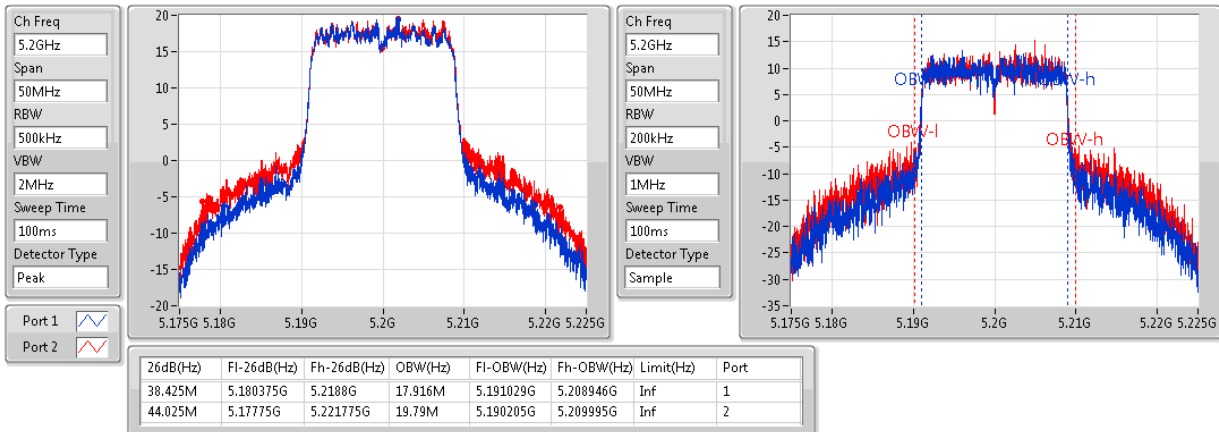
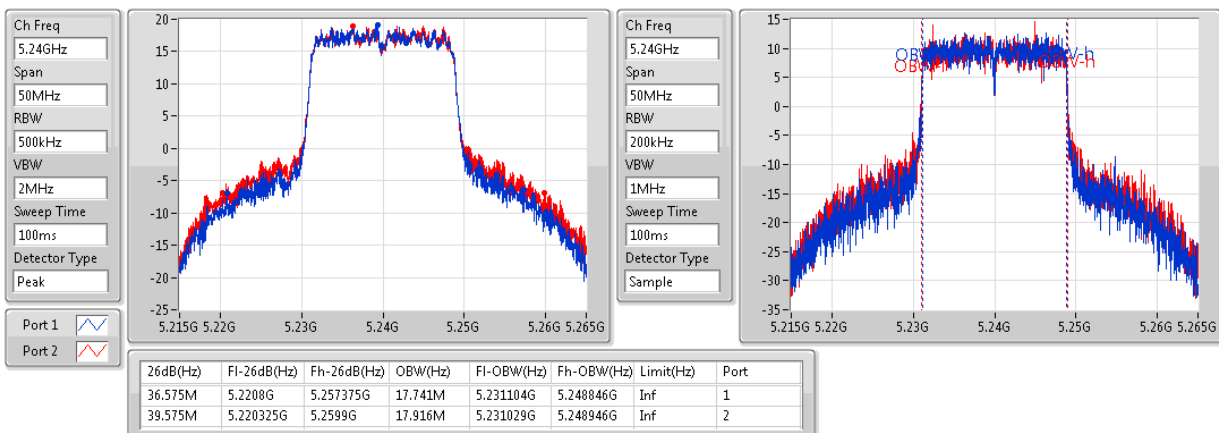
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.3M	16.442M	19.55M	16.417M
5200MHz	Pass	Inf	35.35M	16.617M	36.225M	17.016M
5240MHz	Pass	Inf	36.775M	16.592M	36.175M	16.767M
5745MHz	Pass	500k	16.3M	17.641M	15.1M	16.717M
5785MHz	Pass	500k	16.325M	19.015M	15.875M	16.917M
5825MHz	Pass	500k	16.325M	17.291M	15.675M	16.667M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.975M	17.616M	20.325M	17.616M
5200MHz	Pass	Inf	38.425M	17.916M	44.025M	19.79M
5240MHz	Pass	Inf	36.575M	17.741M	39.575M	17.916M
5745MHz	Pass	500k	17.55M	18.066M	17.55M	17.791M
5785MHz	Pass	500k	17.525M	18.766M	16.275M	17.891M
5825MHz	Pass	500k	17.55M	18.016M	16.3M	17.716M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.55M	35.982M	39.8M	35.982M
5230MHz	Pass	Inf	80.65M	36.632M	80.75M	36.532M
5755MHz	Pass	500k	35.15M	36.532M	33.75M	36.382M
5795MHz	Pass	500k	35.1M	36.732M	32.55M	36.482M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	83.5M	75.762M	82.9M	75.562M
5775MHz	Pass	500k	76.1M	75.662M	75.9M	75.962M

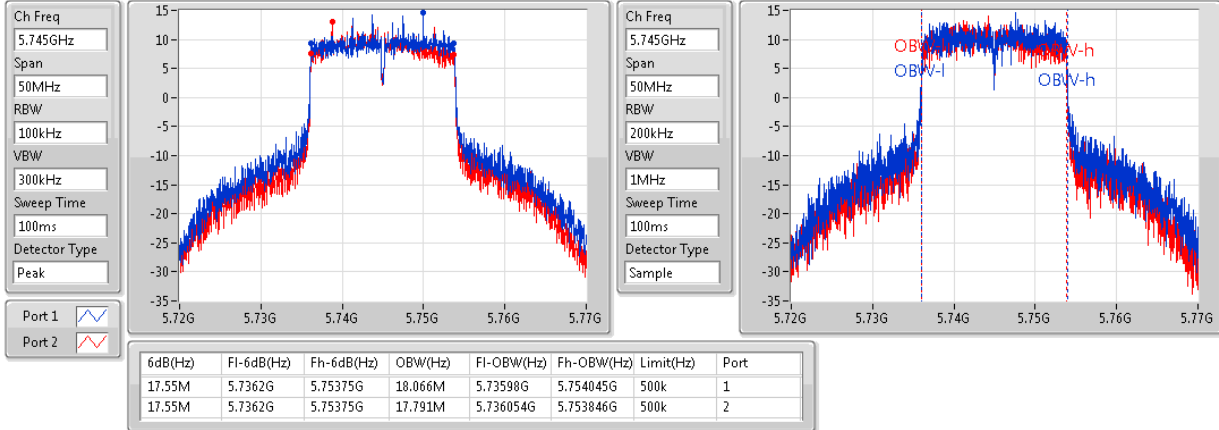
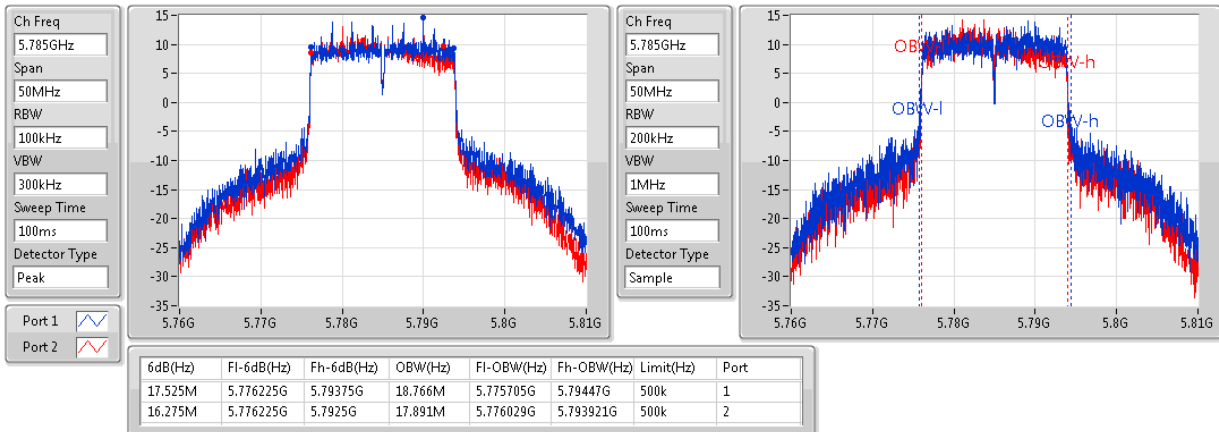
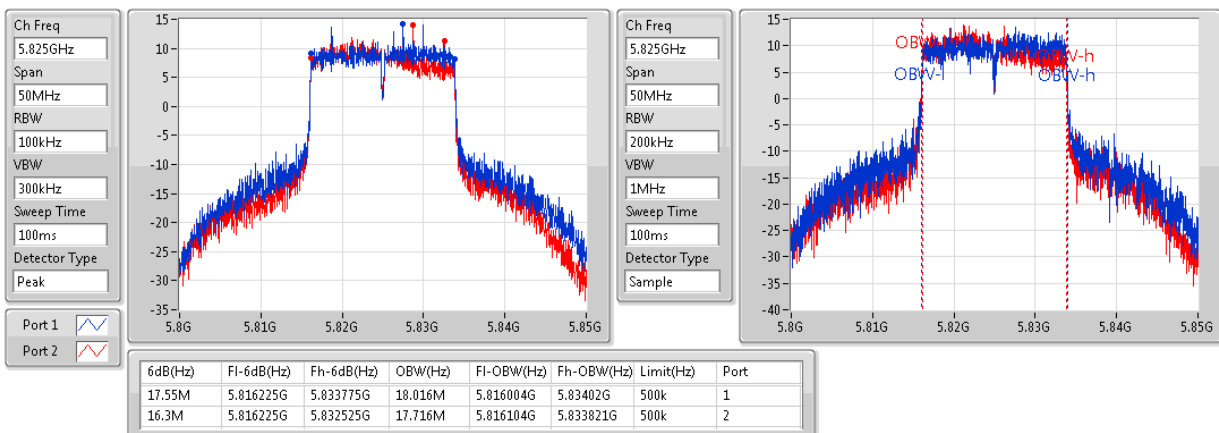
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

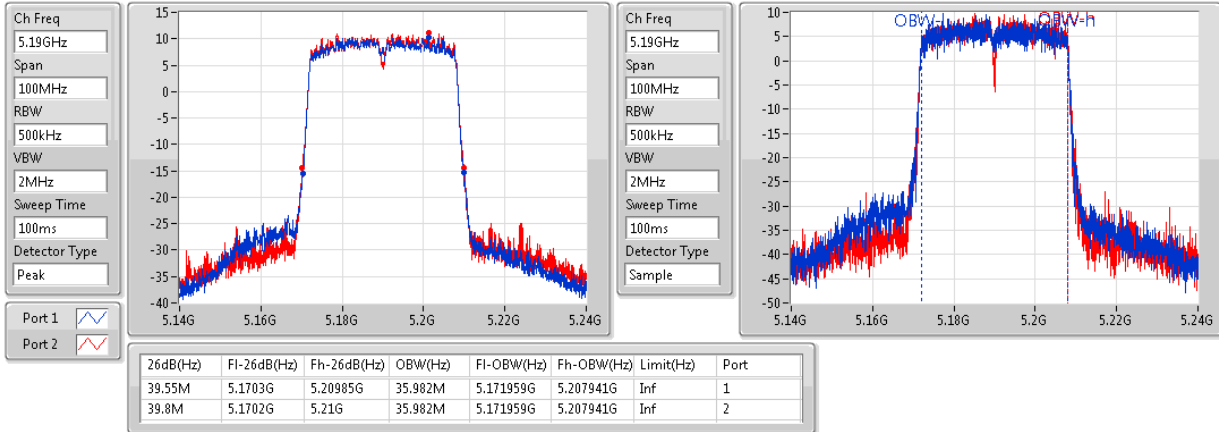
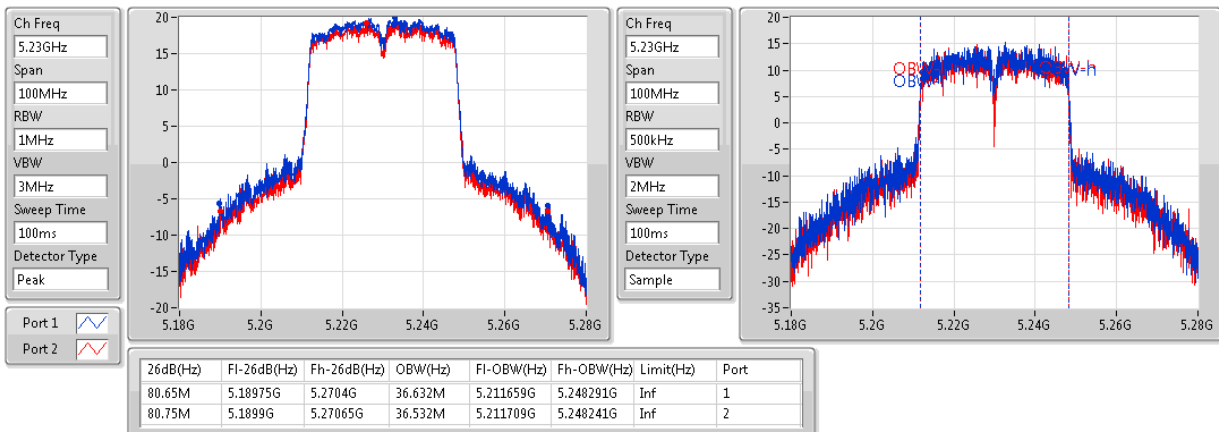
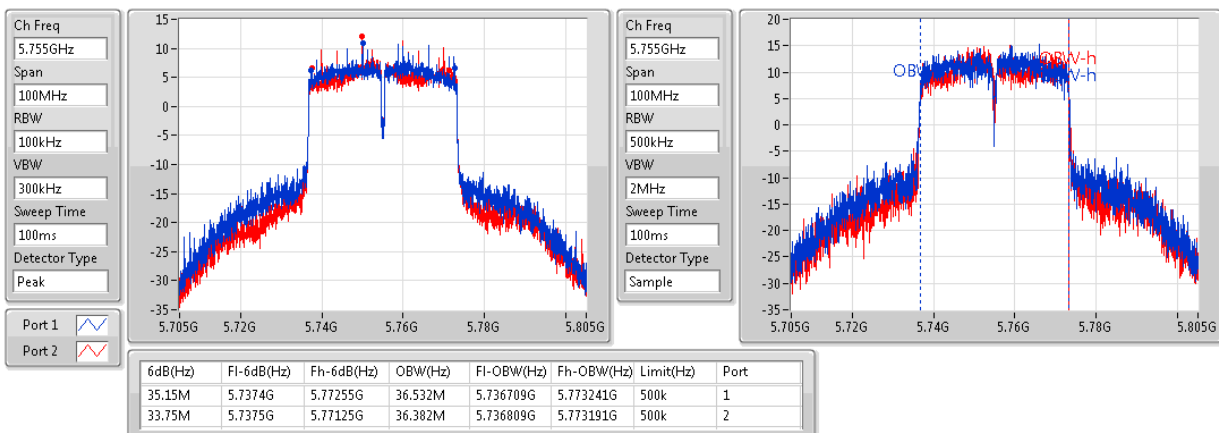
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_(6Mbps)_2TX
EBW
5180MHz

802.11a_(6Mbps)_2TX
EBW
5200MHz

802.11a_(6Mbps)_2TX
EBW
5240MHz


802.11a_(6Mbps)_2TX
EBW
5745MHz

802.11a_(6Mbps)_2TX
EBW
5785MHz

802.11a_(6Mbps)_2TX
EBW
5825MHz


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5180MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5200MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5240MHz


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5745MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5785MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5825MHz


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5190MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5230MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5755MHz


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5795MHz

Ch Freq
5.795GHz

Span
100MHz

RBW
100kHz

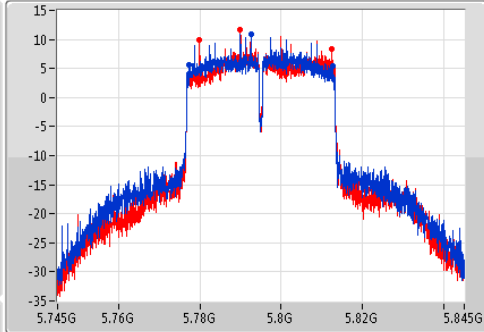
VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port 1 

Port 2 



Ch Freq
5.795GHz

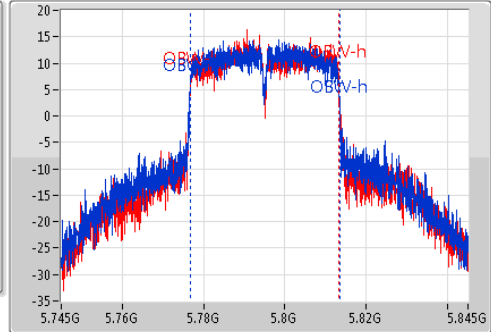
Span
100MHz

RBW
500kHz

VBW
2MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.1M	5.77745G	5.81255G	36.732M	5.776659G	5.813391G	500k	1
32.55M	5.77995G	5.8125G	36.482M	5.776809G	5.813291G	500k	2

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5210MHz

Ch Freq
5.21GHz

Span
200MHz

RBW
1MHz

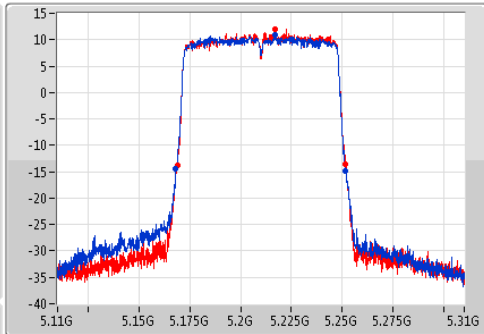
VBW
3MHz

Sweep Time
100ms

Detector Type
Peak

Port 1 

Port 2 



Ch Freq
5.21GHz

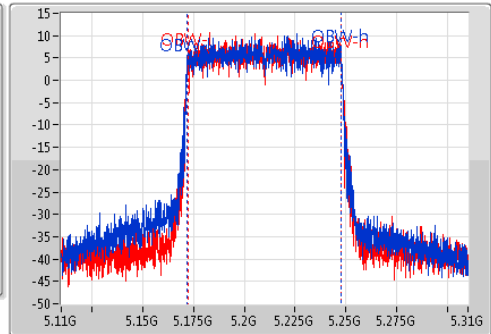
Span
200MHz

RBW
1MHz

VBW
3MHz

Sweep Time
100ms

Detector Type
Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
83.5M	5.1682G	5.2517G	75.762M	5.172019G	5.247781G	Inf	1
82.9M	5.1688G	5.2517G	75.562M	5.172119G	5.247681G	Inf	2

802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5775MHz

Ch Freq
5.775GHz

Span
200MHz

RBW
100kHz

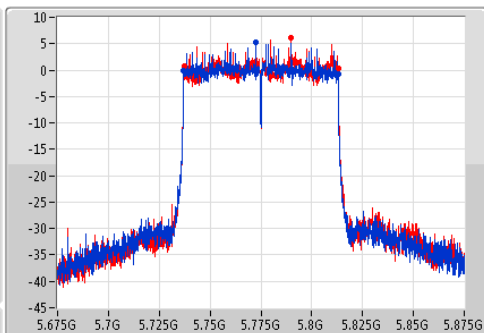
VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port 1 

Port 2 



Ch Freq
5.775GHz

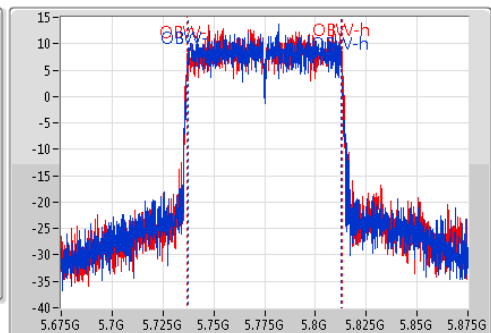
Span
200MHz

RBW
1MHz

VBW
3MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
76.1M	5.7368G	5.8129G	75.662M	5.737119G	5.812781G	500k	1
75.9M	5.7372G	5.8131G	75.962M	5.737019G	5.812981G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
802.11a_(6Mbps)_2TX	-	-	-	-
5.15-5.25GHz	27.78	0.59979	33.10	2.04174
5.725-5.85GHz	28.32	0.67920	33.79	2.39332
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	28.17	0.65615	33.49	2.23357
5.725-5.85GHz	28.34	0.68234	33.81	2.40436
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	28.23	0.66527	33.55	2.26464
5.725-5.85GHz	27.92	0.61944	33.39	2.18273
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-
5.15-5.25GHz	22.87	0.19364	28.19	0.65917
5.725-5.85GHz	25.39	0.34594	30.86	1.21899

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.32	21.03	21.39	24.22	30.00
5200MHz	Pass	5.32	24.61	24.71	27.67	30.00
5240MHz	Pass	5.32	24.82	24.71	27.78	30.00
5745MHz	Pass	5.47	25.51	25.09	28.32	30.00
5785MHz	Pass	5.47	25.22	25.01	28.13	30.00
5825MHz	Pass	5.47	25.23	25.03	28.14	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	5.32	21.22	21.52	24.38	30.00
5200MHz	Pass	5.32	25.07	25.24	28.17	30.00
5240MHz	Pass	5.32	24.63	24.74	27.70	30.00
5745MHz	Pass	5.47	25.48	25.18	28.34	30.00
5785MHz	Pass	5.47	25.30	25.12	28.22	30.00
5825MHz	Pass	5.47	25.23	24.85	28.05	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	5.32	20.04	20.21	23.14	30.00
5230MHz	Pass	5.32	25.34	25.09	28.23	30.00
5755MHz	Pass	5.47	25.11	24.69	27.92	30.00
5795MHz	Pass	5.47	25.03	24.70	27.88	30.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	5.32	19.78	19.93	22.87	30.00
5775MHz	Pass	5.47	22.29	22.46	25.39	30.00

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

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
802.11a_(6Mbps)_2TX	-	-
5.15-5.25GHz	14.88	22.83
5.725-5.85GHz	14.13	22.24
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	15.00	22.95
5.725-5.85GHz	13.87	21.98
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	12.27	20.22
5.725-5.85GHz	10.84	18.95
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-
5.15-5.25GHz	3.61	11.56
5.725-5.85GHz	4.93	13.04

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.95	8.13	8.44	11.23	15.05
5200MHz	Pass	7.95	11.78	11.78	14.75	15.05
5240MHz	Pass	7.95	11.98	11.97	14.88	15.05
5745MHz	Pass	8.11	11.11	11.52	14.13	27.89
5785MHz	Pass	8.11	10.95	11.49	14.02	27.89
5825MHz	Pass	8.11	10.82	11.30	13.89	27.89
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	7.95	8.17	8.34	11.16	15.05
5200MHz	Pass	7.95	11.99	12.13	15.00	15.05
5240MHz	Pass	7.95	11.83	11.72	14.79	15.05
5745MHz	Pass	8.11	10.86	11.15	13.87	27.89
5785MHz	Pass	8.11	10.73	11.24	13.79	27.89
5825MHz	Pass	8.11	10.51	11.14	13.66	27.89
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	7.95	4.05	4.36	7.17	15.05
5230MHz	Pass	7.95	9.69	8.86	12.27	15.05
5755MHz	Pass	8.11	7.72	8.14	10.84	27.89
5795MHz	Pass	8.11	7.72	8.29	10.80	27.89
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	7.95	0.74	0.75	3.61	15.05
5775MHz	Pass	8.11	1.74	2.62	4.93	27.89

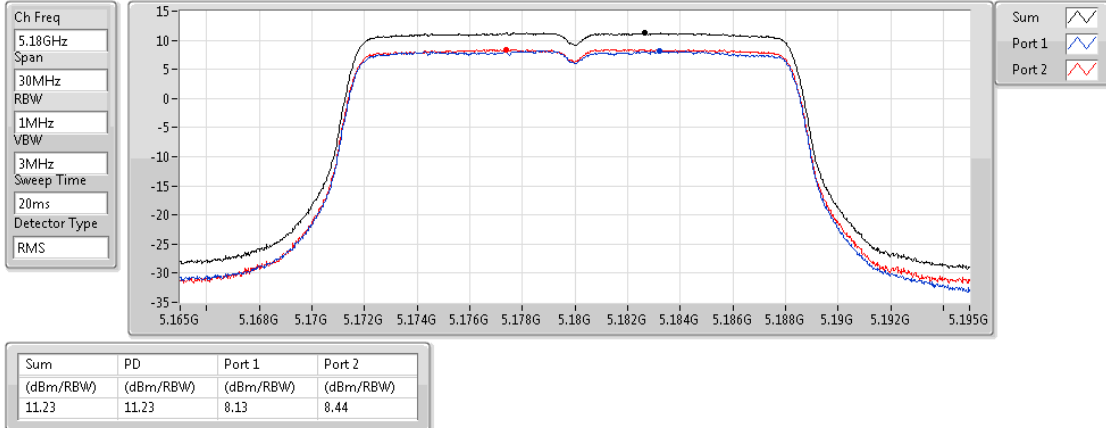
DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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

802.11a_(6Mbps)_2TX

PSD

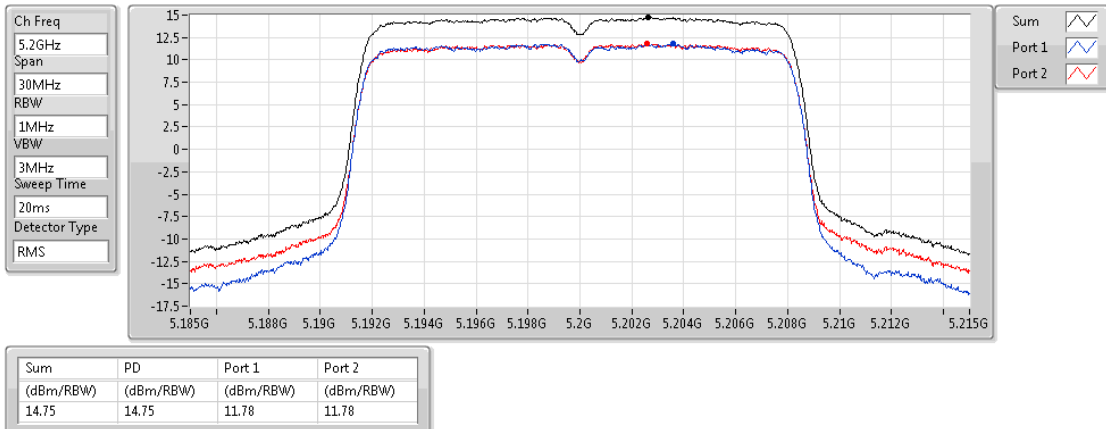
5180MHz



802.11a_(6Mbps)_2TX

PSD

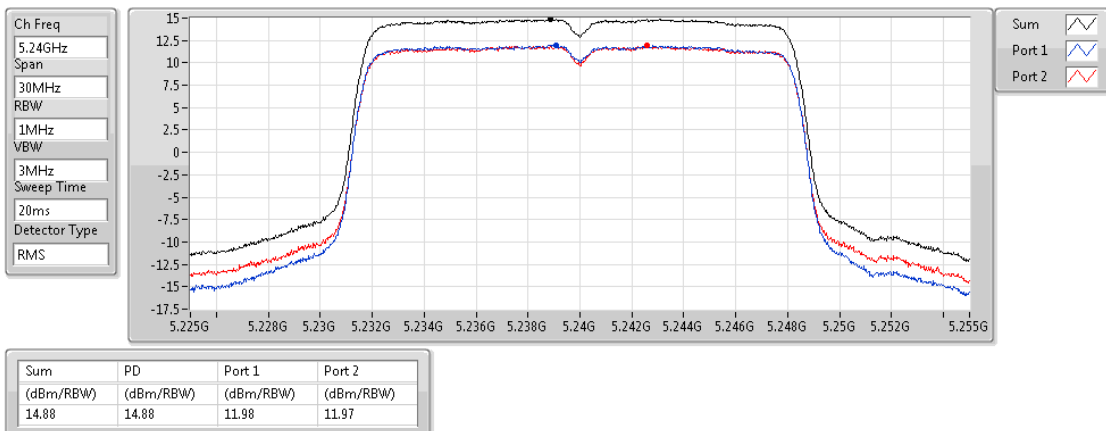
5200MHz



802.11a_(6Mbps)_2TX

PSD

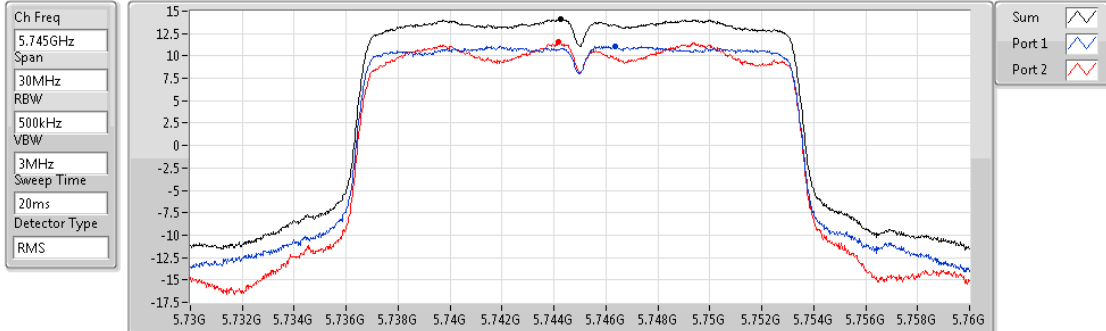
5240MHz



802.11a_(6Mbps)_2TX

PSD

5745MHz

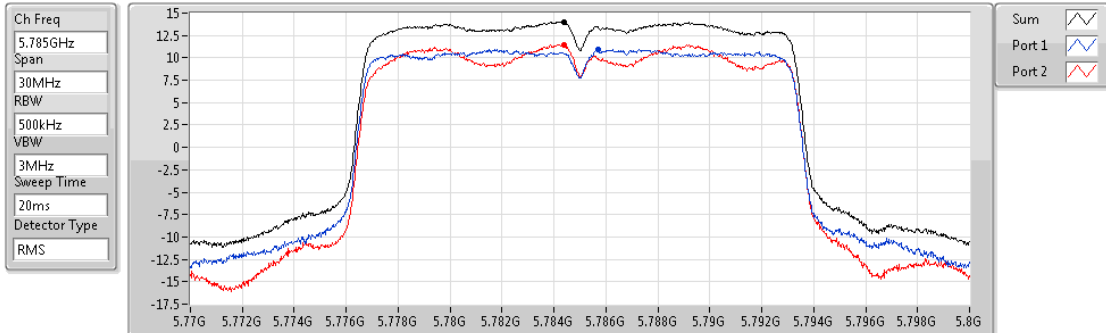


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
14.13	14.13	11.11	11.52

802.11a_(6Mbps)_2TX

PSD

5785MHz

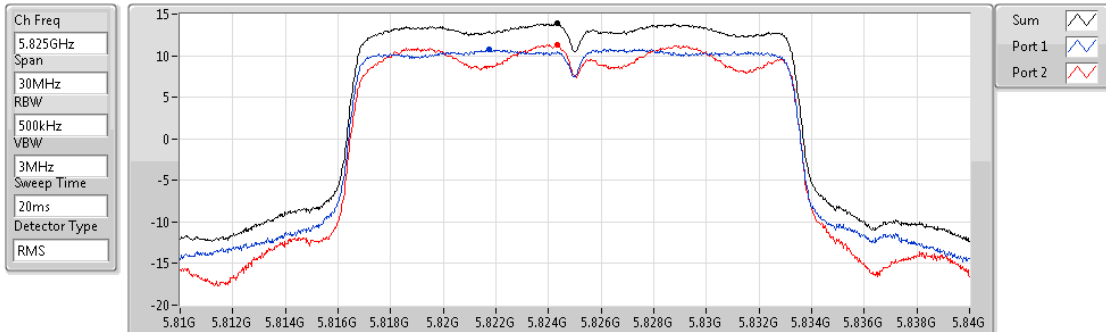


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
14.02	14.02	10.95	11.49

802.11a_(6Mbps)_2TX

PSD

5825MHz

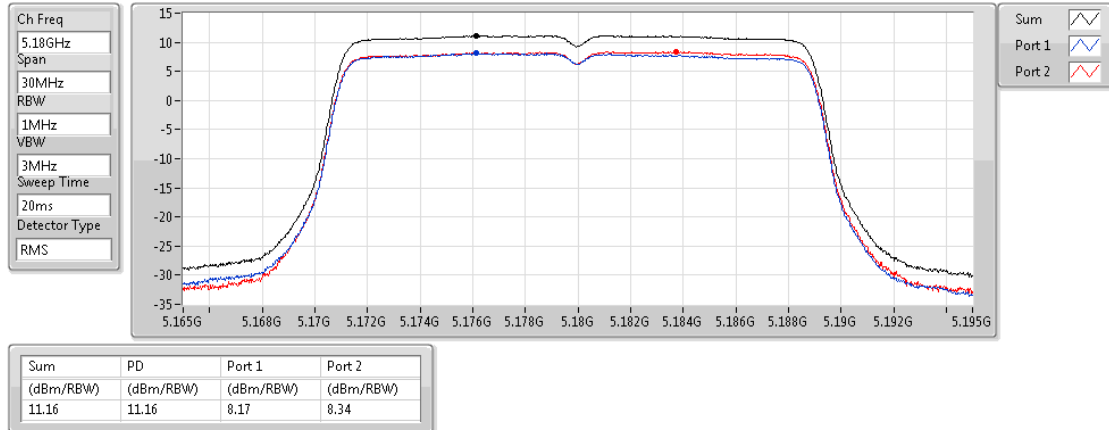


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
13.89	13.89	10.82	11.30

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

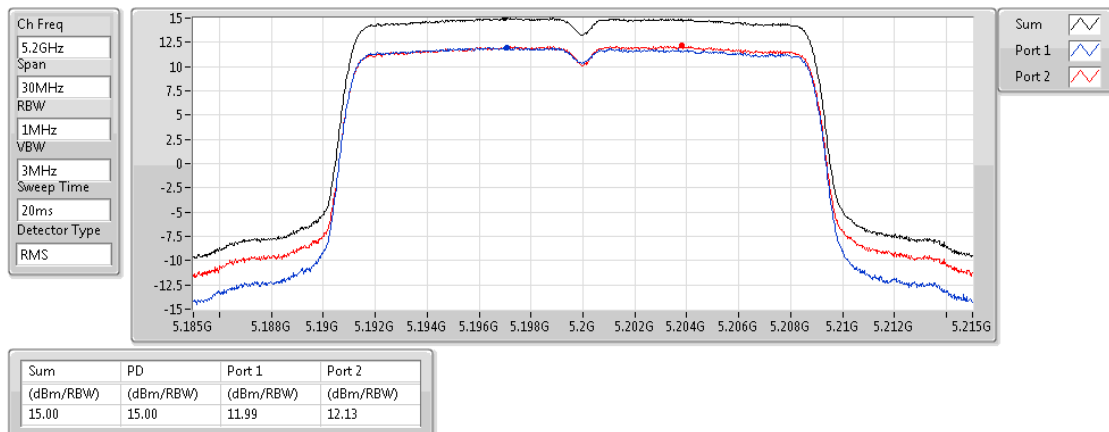
5180MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

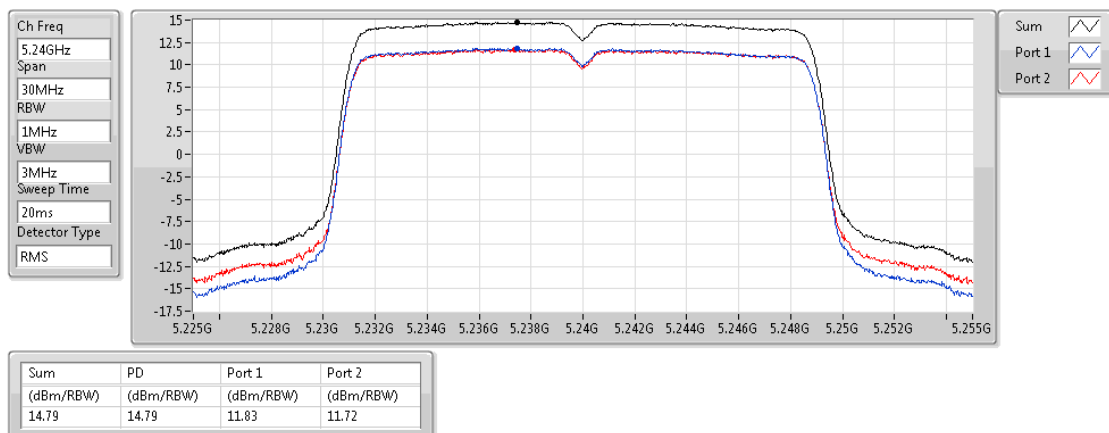
5200MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

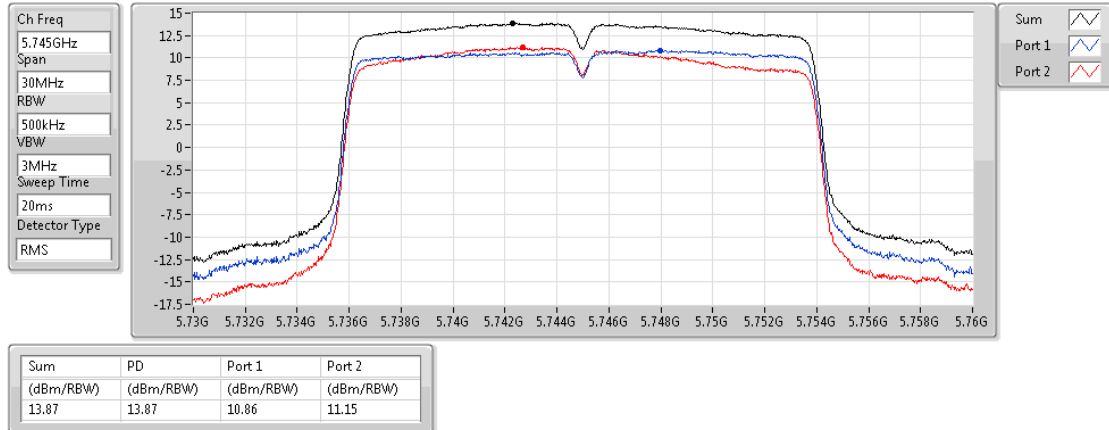
5240MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

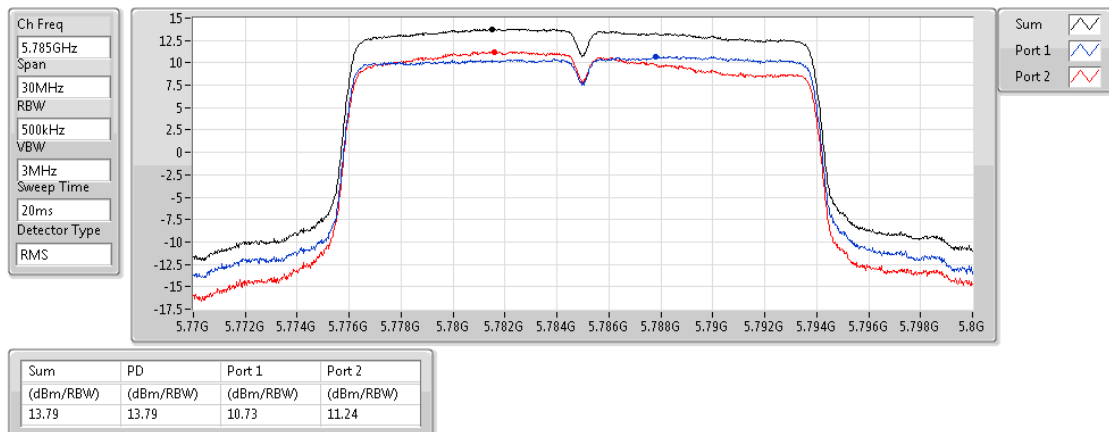
5745MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

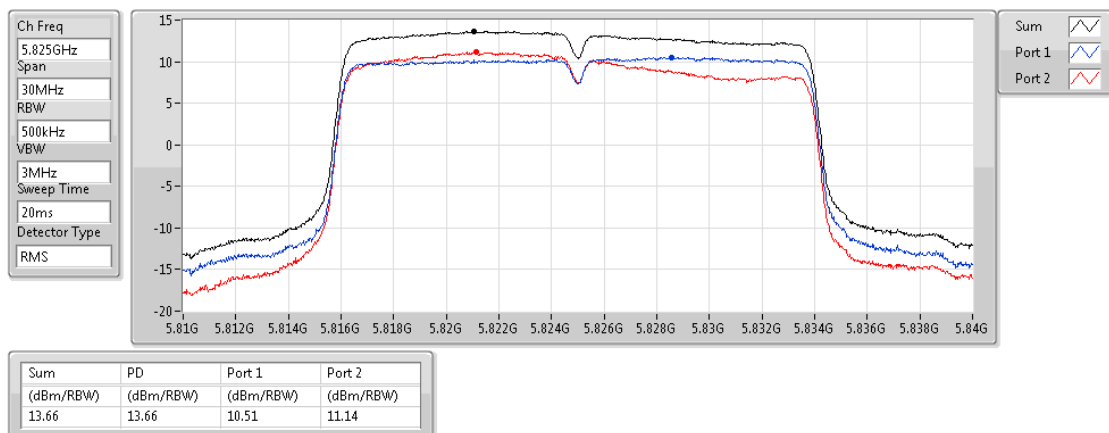
5785MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

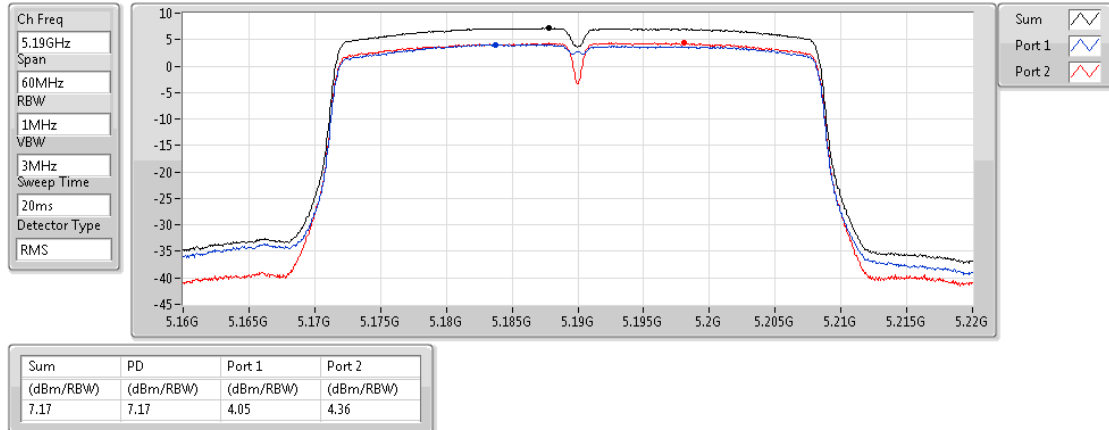
5825MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

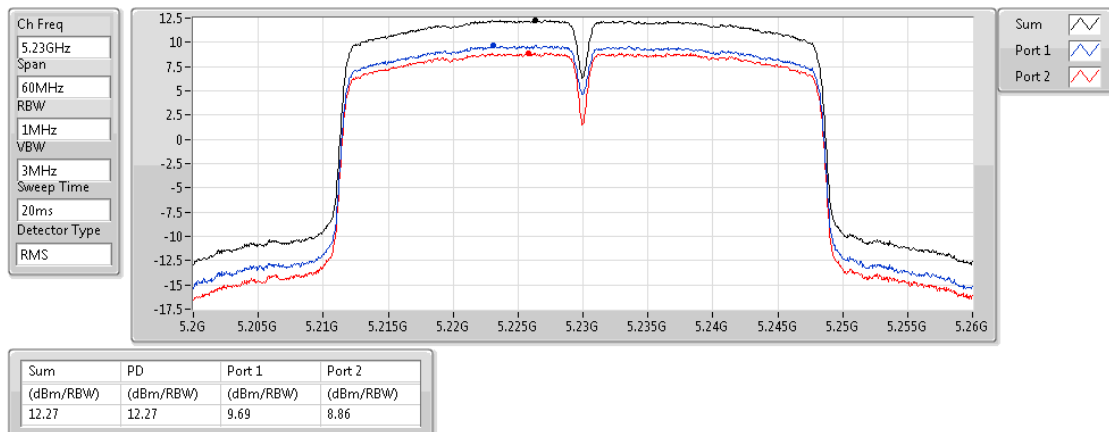
5190MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

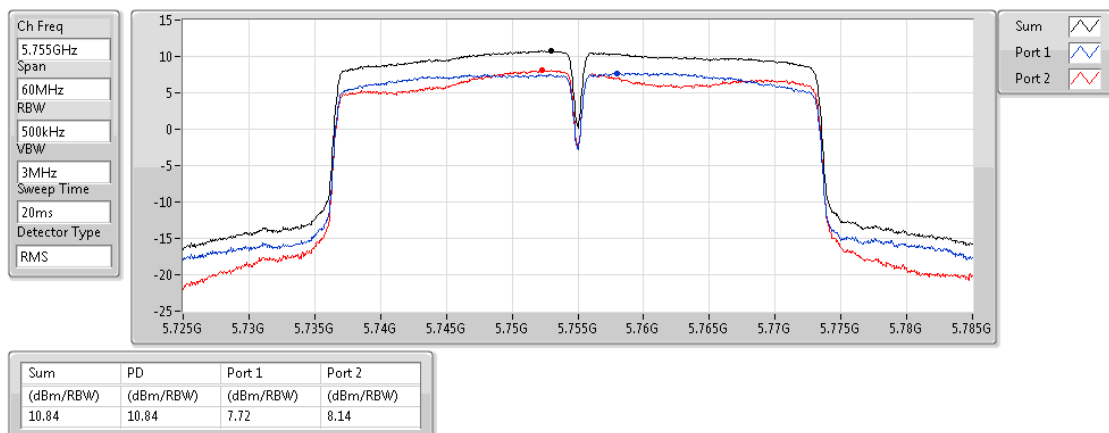
5230MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

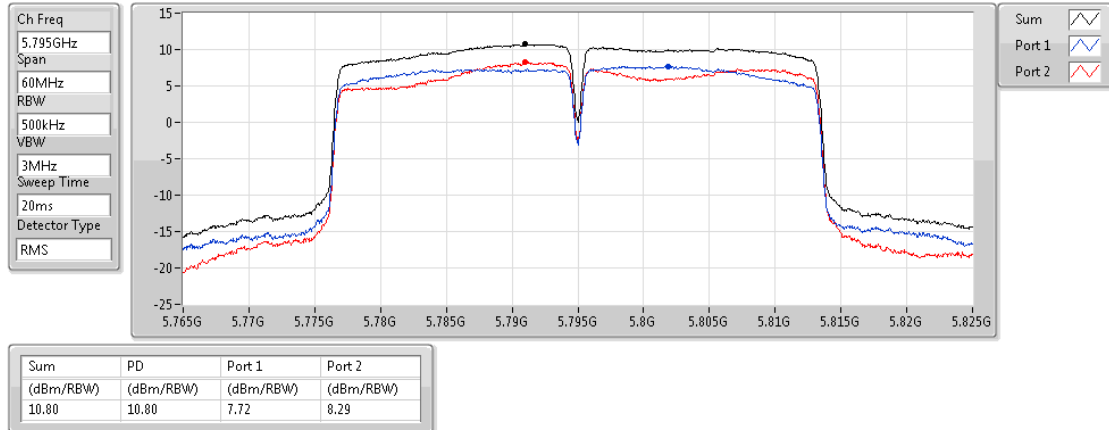
5755MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

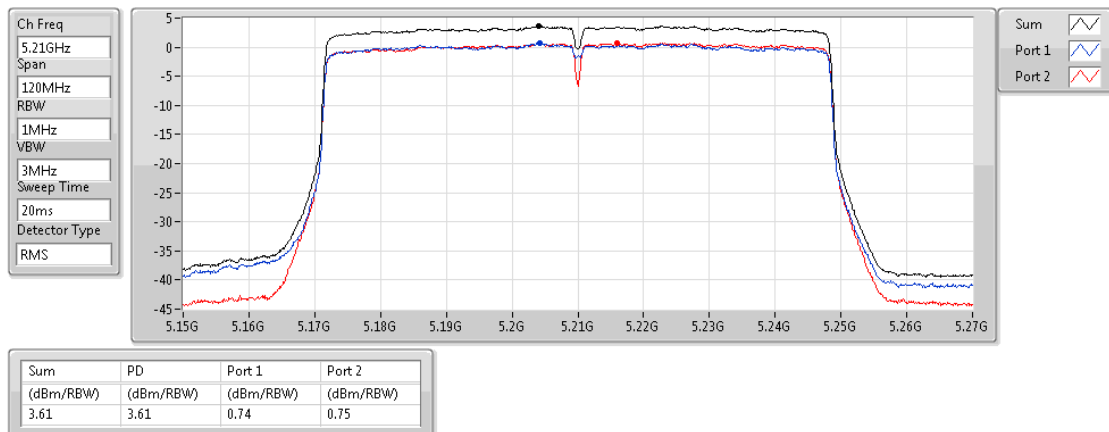
5795MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

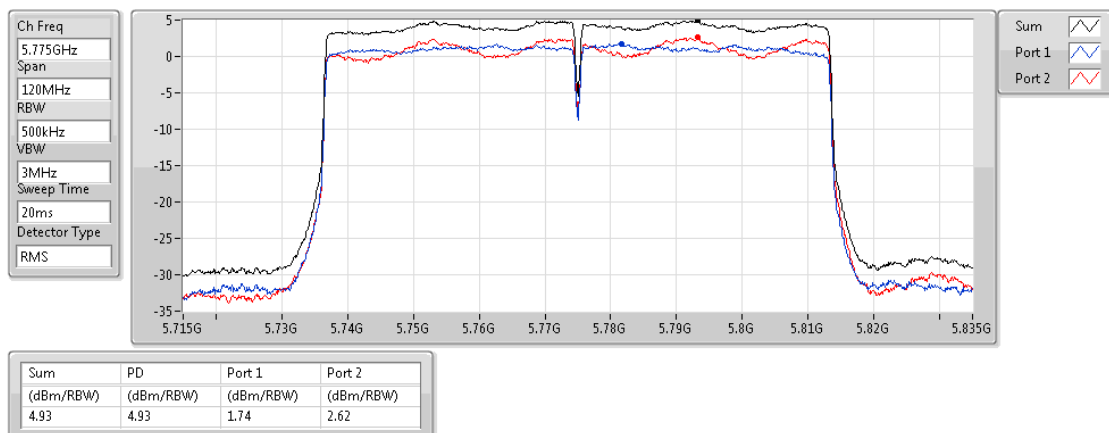
5210MHz

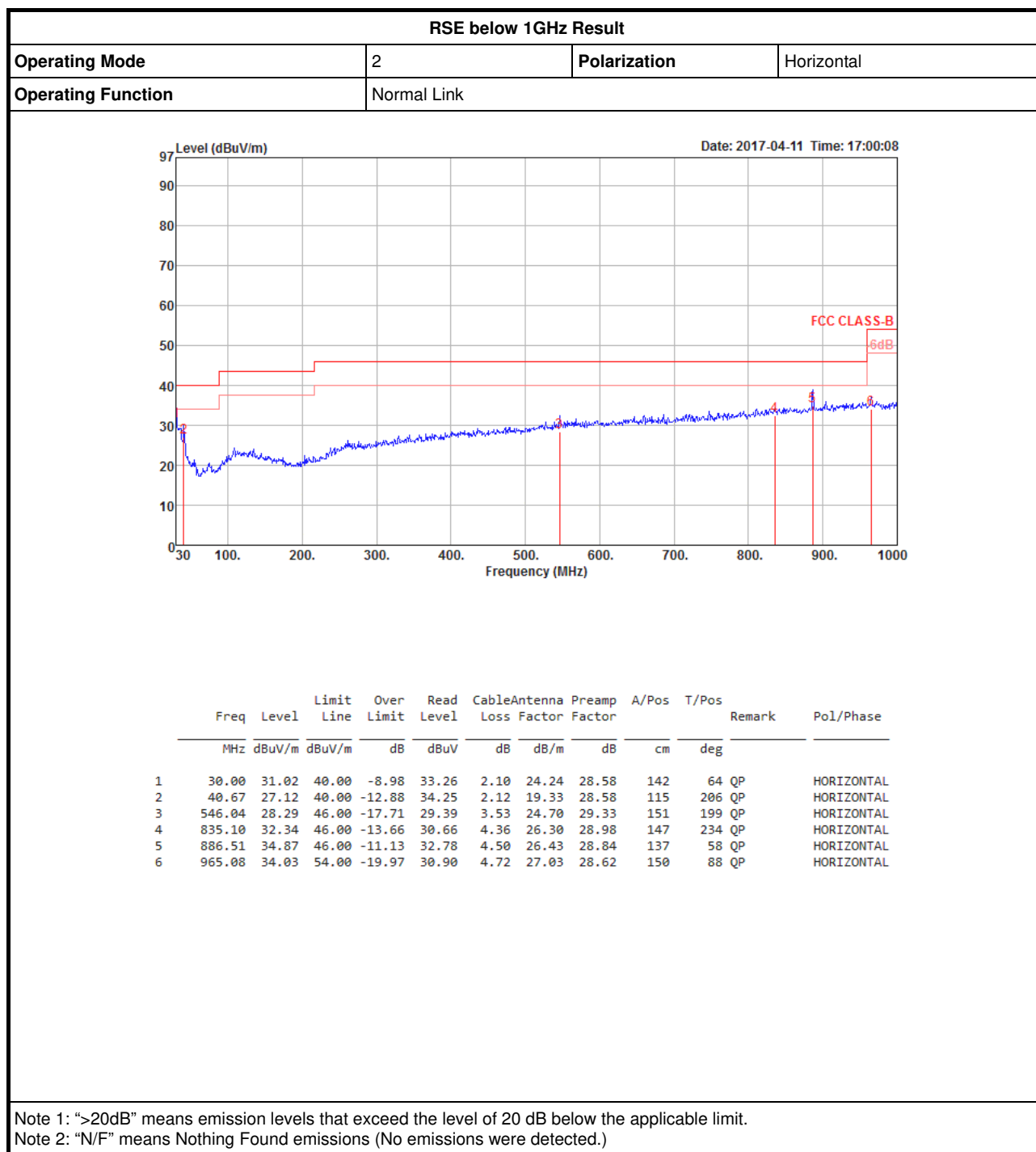


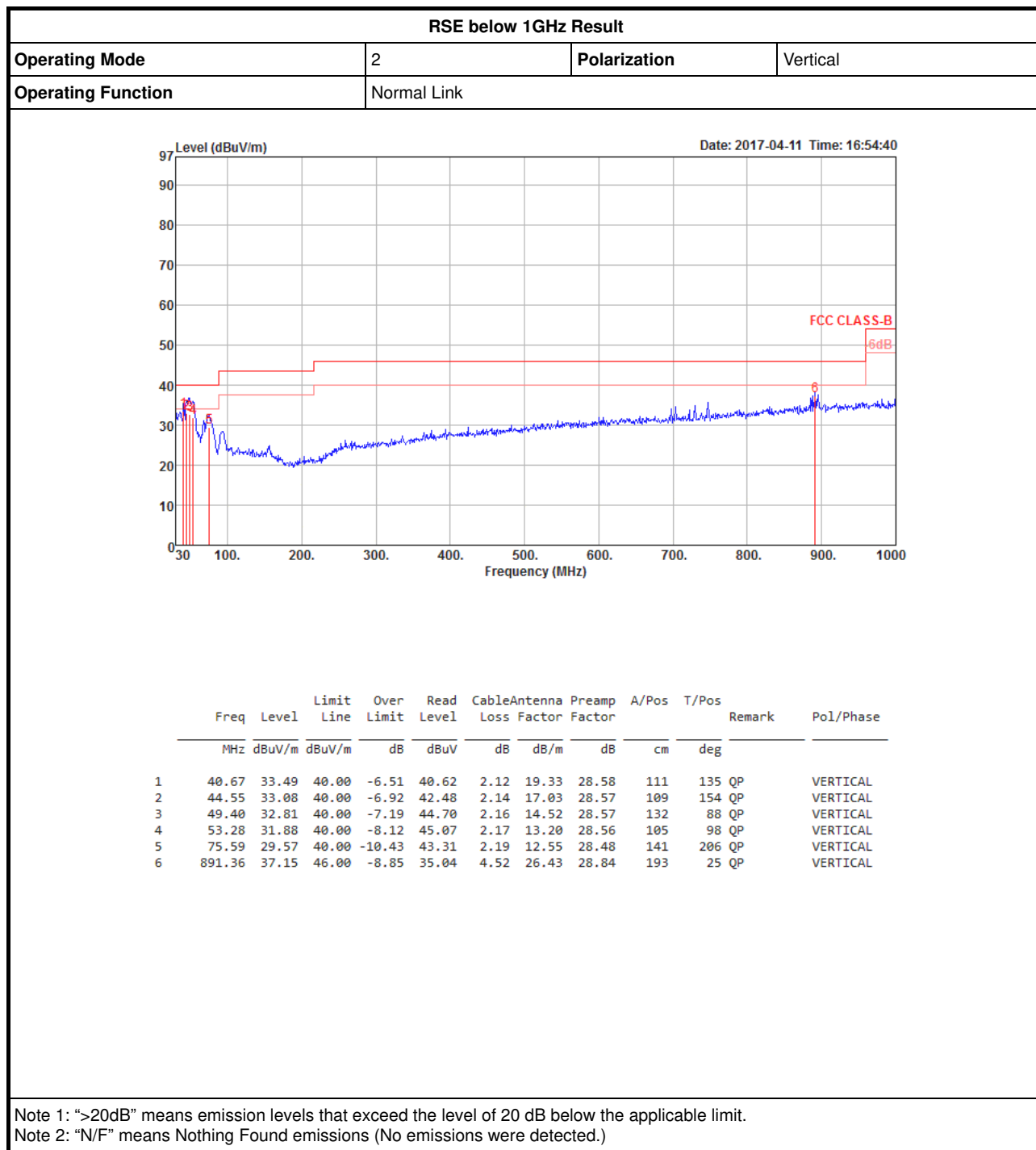
802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5775MHz





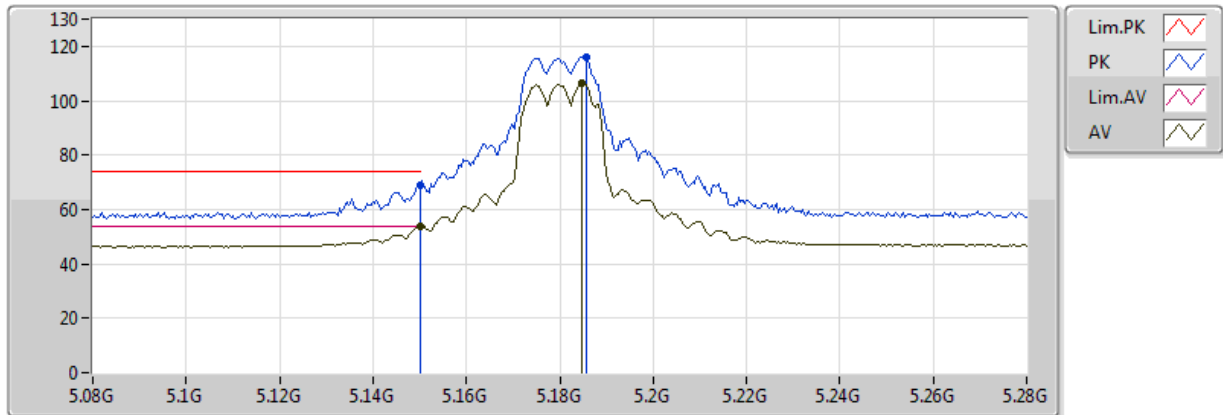


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11a_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
5.15-5.25GHz	Pass	AV	5.149995G	53.98	54.00	-0.02	8.93	3	V	341	2.58	-

802.11a_(6Mbps)_2TX

5180MHz_TX

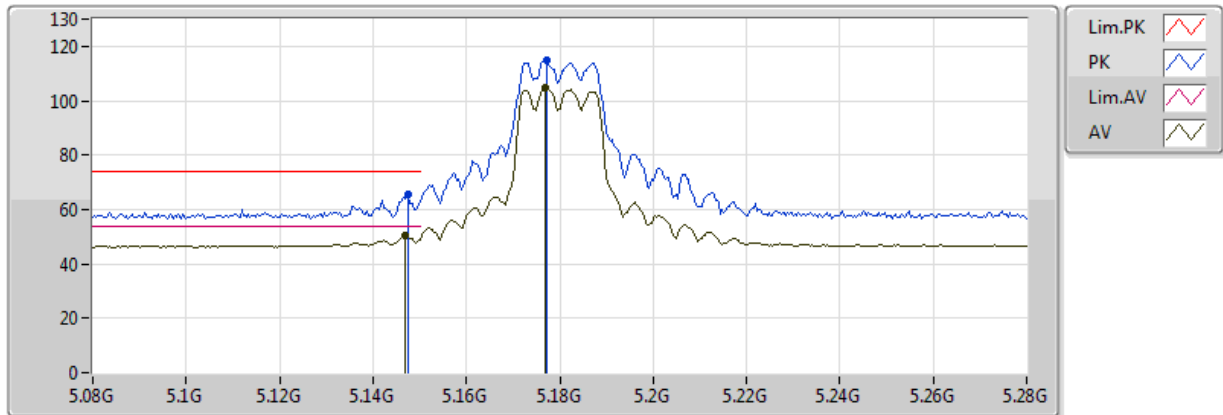


20170508
EUT_Y_2TX
Setting 20.5
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.87	54.00	-0.13	8.93	3	V	342	2.71	-
AV	5.1848G	106.21	Inf	-Inf	9.02	3	V	342	2.71	-
PK	5.149995G	69.04	74.00	-4.96	8.93	3	V	342	2.71	-
PK	5.1856G	116.02	Inf	-Inf	9.02	3	V	342	2.71	-

802.11a_(6Mbps)_2TX

5180MHz_TX

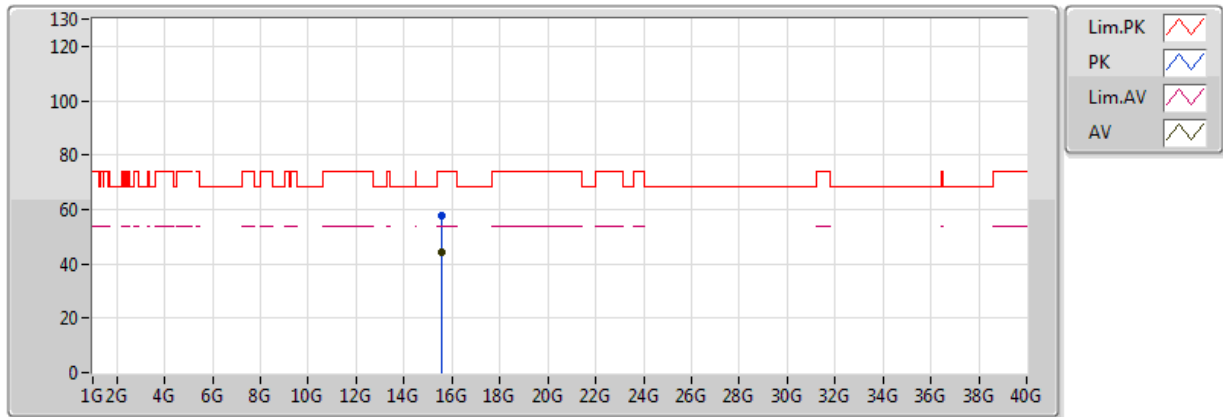


20170508
EUT Y_2TX
Setting 20.5
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1468G	50.28	54.00	-3.72	8.92	3	H	75	2.05	-
AV	5.1768G	104.59	Inf	-Inf	9.00	3	H	75	2.05	-
PK	5.1476G	65.39	74.00	-8.61	8.92	3	H	75	2.05	-
PK	5.1772G	114.74	Inf	-Inf	9.00	3	H	75	2.05	-

802.11a_(6Mbps)_2TX

5180MHz_TX

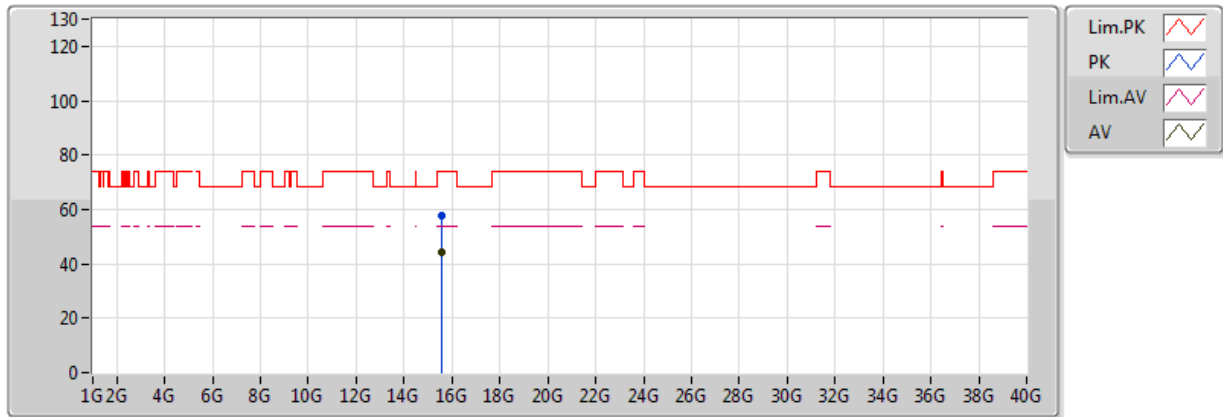


20170508
EUT Y_2TX
Setting 20.5
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.5388G	44.17	54.00	-9.83	18.12	3	V	80	2.41	-
PK	15.54124G	57.70	74.00	-16.30	18.11	3	V	80	2.41	-

802.11a_(6Mbps)_2TX

5180MHz_TX

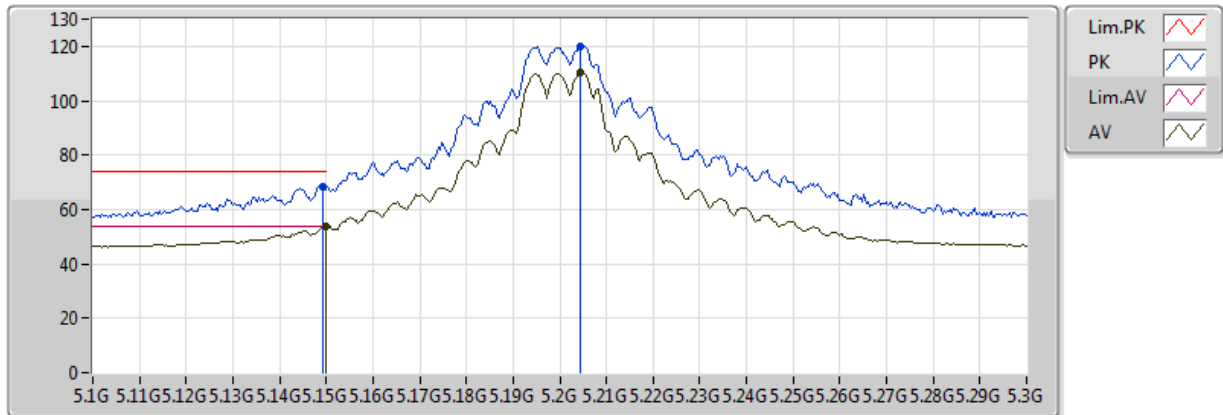


20170508
EUT Y_2TX
Setting 20.5
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.5441G	44.15	54.00	-9.85	18.10	3	H	13	2.08	-
PK	15.54192G	57.98	74.00	-16.02	18.11	3	H	13	2.08	-

802.11a_(6Mbps)_2TX

5200MHz_TX

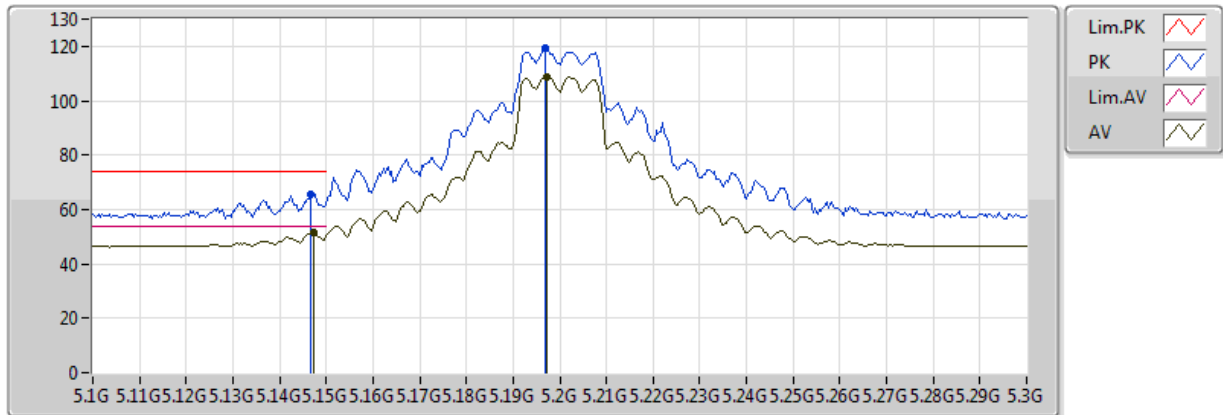


20170508
EUT Y_2TX
Setting 25.5
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.98	54.00	-0.02	8.93	3	V	341	2.58	-
AV	5.2044G	110.20	Inf	-Inf	9.07	3	V	341	2.58	-
PK	5.1492G	68.56	74.00	-5.44	8.93	3	V	341	2.58	-
PK	5.2044G	119.97	Inf	-Inf	9.07	3	V	341	2.58	-

802.11a_(6Mbps)_2TX

5200MHz_TX

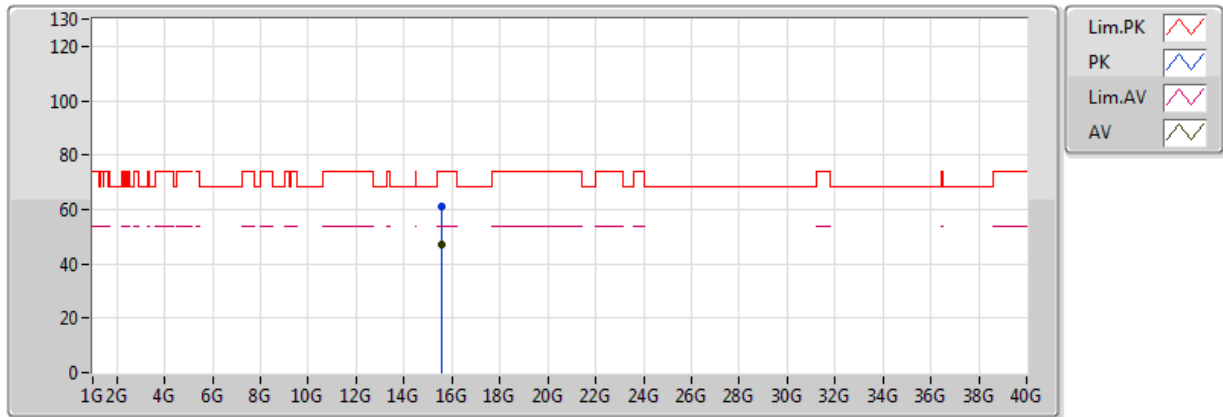


20170508
EUT Y_2TX
Setting 25.5
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1472G	51.39	54.00	-2.61	8.92	3	H	12	2.97	-
AV	5.1972G	108.72	Inf	-Inf	9.05	3	H	12	2.97	-
PK	5.1468G	65.62	74.00	-8.38	8.92	3	H	12	2.97	-
PK	5.1968G	119.13	Inf	-Inf	9.05	3	H	12	2.97	-

802.11a_(6Mbps)_2TX

5200MHz_TX

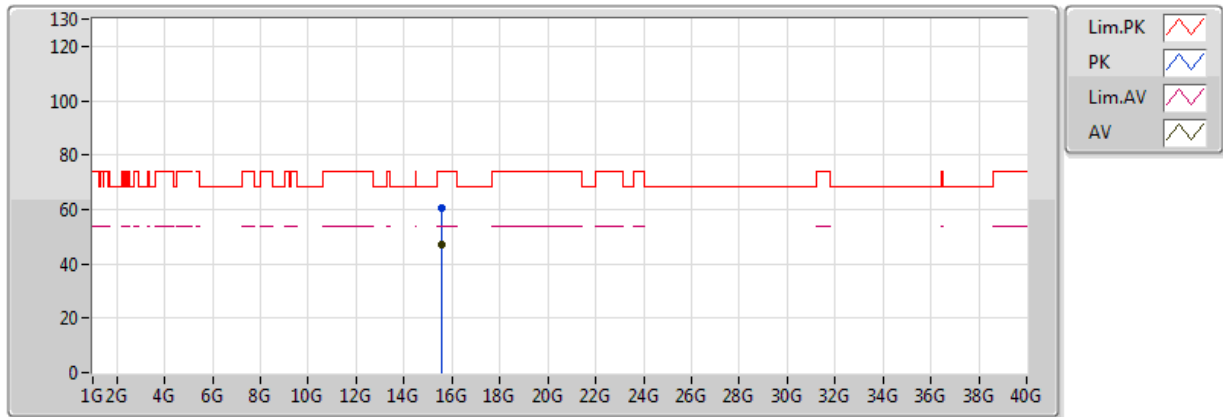


20170508
EUT Y_2TX
Setting 25.5
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.5995G	47.21	54.00	-6.79	17.96	3	V	156	2.88	-
PK	15.60012G	60.91	74.00	-13.09	17.96	3	V	156	2.88	-

802.11a_(6Mbps)_2TX

5200MHz_TX

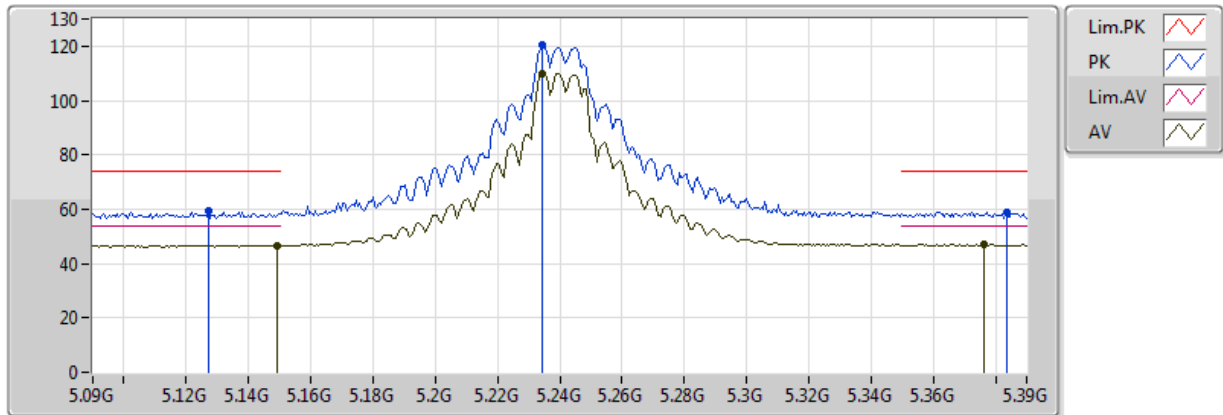


20170508
EUT Y_2TX
Setting 25.5
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.59984G	46.94	54.00	-7.06	17.96	3	H	264	3.00	-
PK	15.60016G	60.58	74.00	-13.42	17.96	3	H	264	3.00	-

802.11a_(6Mbps)_2TX

5240MHz_TX

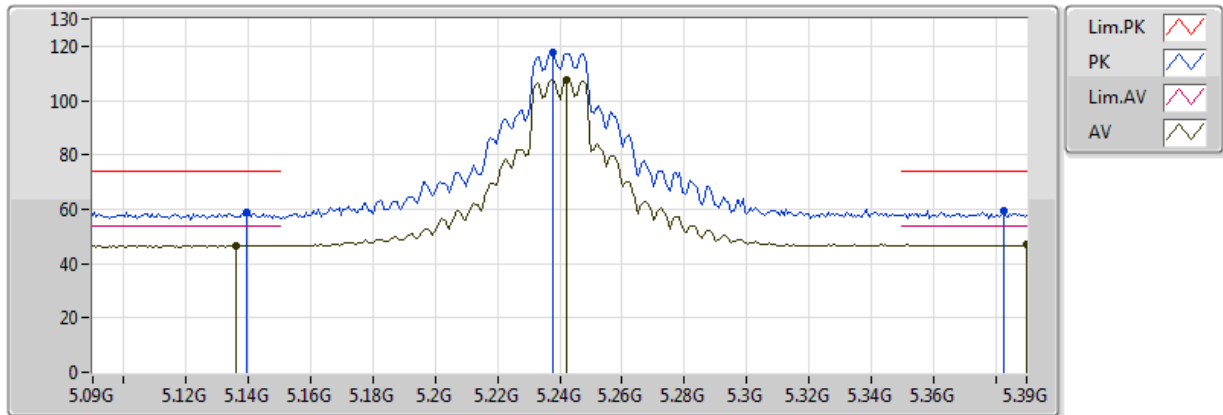


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1494G	46.69	54.00	-7.31	8.93	3	V	339	2.57	-
AV	5.2346G	109.95	Inf	-Inf	9.13	3	V	339	2.57	-
AV	5.3762G	47.02	54.00	-6.98	9.39	3	V	339	2.57	-
PK	5.1272G	59.13	74.00	-14.87	8.87	3	V	339	2.57	-
PK	5.2346G	120.25	Inf	-Inf	9.13	3	V	339	2.57	-
PK	5.3834G	58.85	74.00	-15.15	9.40	3	V	339	2.57	-

802.11a_(6Mbps)_2TX

5240MHz_TX

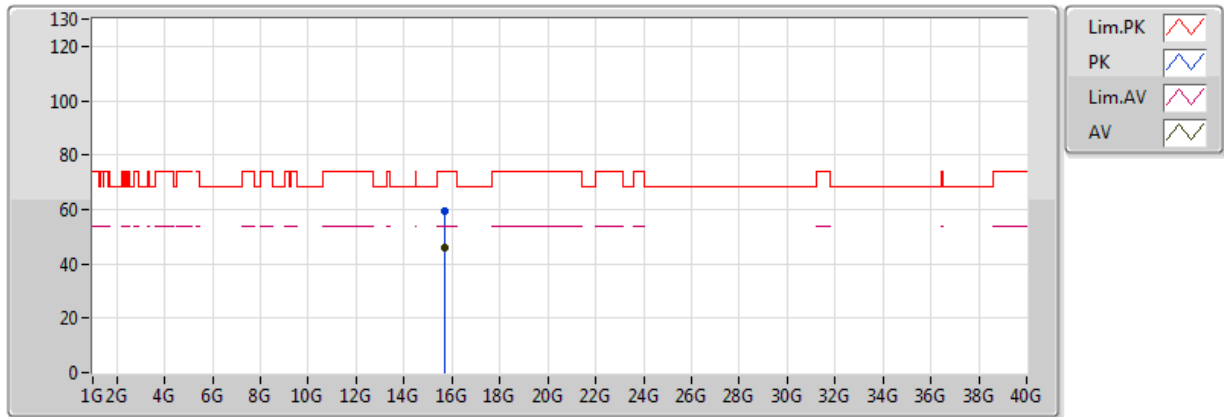


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1362G	46.65	54.00	-7.35	8.89	3	H	82	2.01	-
AV	5.2424G	107.66	Inf	-Inf	9.14	3	H	82	2.01	-
AV	5.39G	46.83	54.00	-7.17	9.41	3	H	82	2.01	-
PK	5.1392G	58.92	74.00	-15.08	8.90	3	H	82	2.01	-
PK	5.2376G	117.44	Inf	-Inf	9.13	3	H	82	2.01	-
PK	5.3828G	59.31	74.00	-14.69	9.40	3	H	82	2.01	-

802.11a_(6Mbps)_2TX

5240MHz_TX

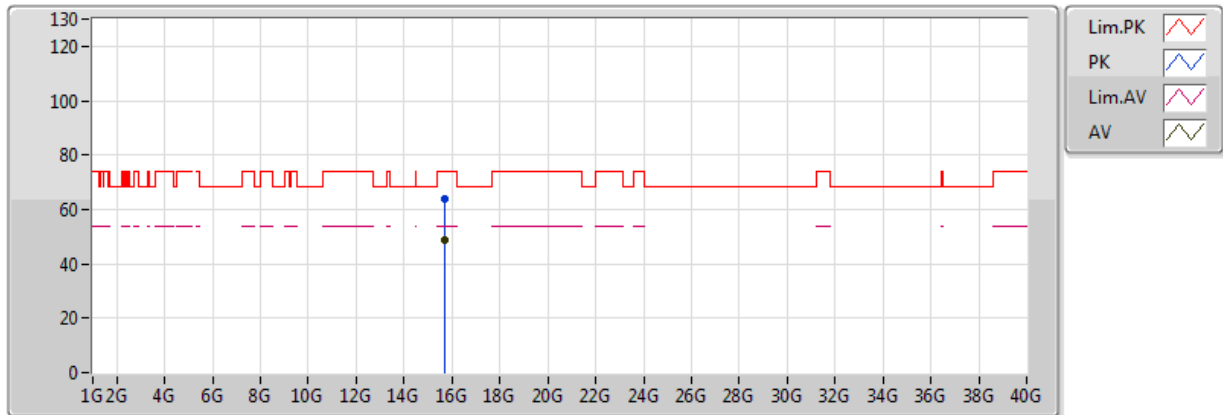


20170508
EUT_Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.71982G	46.15	54.00	-7.85	17.65	3	V	153	2.63	-
PK	15.72468G	59.58	74.00	-14.42	17.64	3	V	153	2.63	-

802.11a_(6Mbps)_2TX

5240MHz_TX

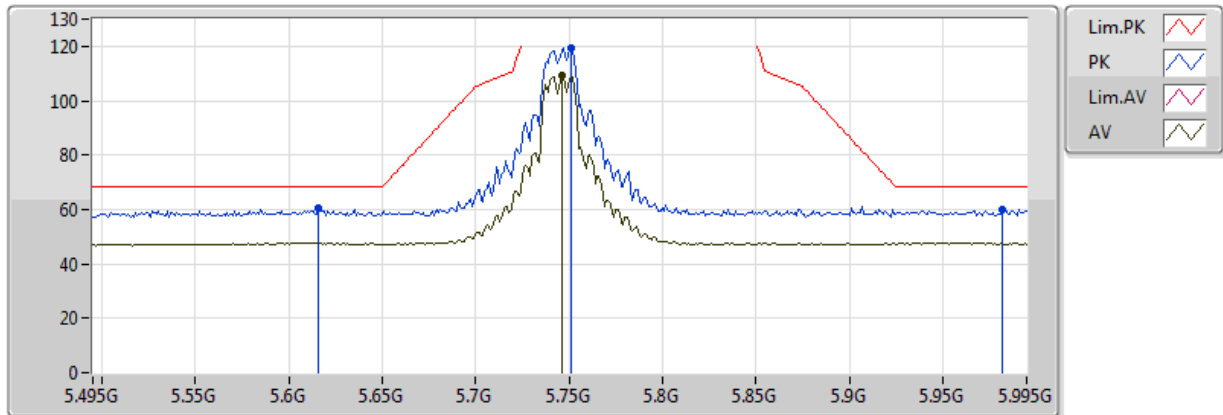


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.72044G	49.02	54.00	-4.98	17.65	3	H	127	2.61	-
PK	15.71528G	63.76	74.00	-10.24	17.66	3	H	127	2.61	-

802.11a_(6Mbps)_2TX

5745MHz_TX

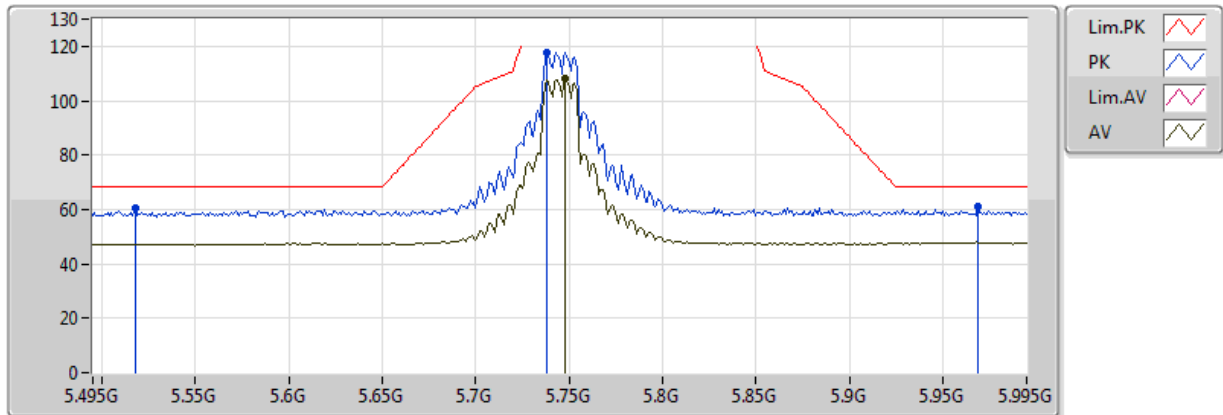


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.746G	109.21	Inf	-Inf	9.81	3	V	355	2.87	-
PK	5.616G	60.53	68.20	-7.67	9.78	3	V	355	2.87	-
PK	5.751G	119.16	Inf	-Inf	9.81	3	V	355	2.87	-
PK	5.982G	60.20	68.20	-8.00	10.07	3	V	355	2.87	-

802.11a_(6Mbps)_2TX

5745MHz_TX

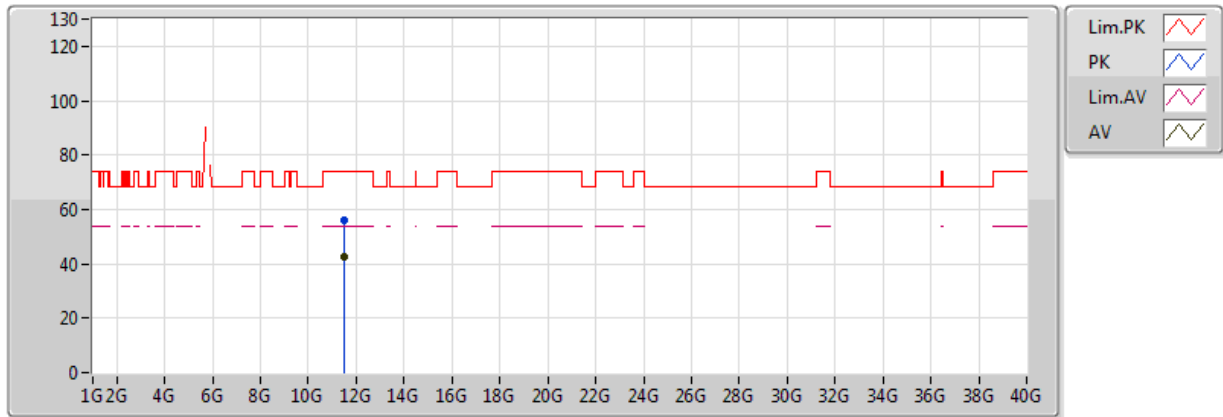


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.748G	107.99	Inf	-Inf	9.81	3	H	60	2.02	-
PK	5.518G	60.24	68.20	-7.96	9.71	3	H	60	2.02	-
PK	5.738G	117.85	Inf	-Inf	9.81	3	H	60	2.02	-
PK	5.969G	60.97	68.20	-7.23	10.06	3	H	60	2.02	-

802.11a_(6Mbps)_2TX

5745MHz_TX

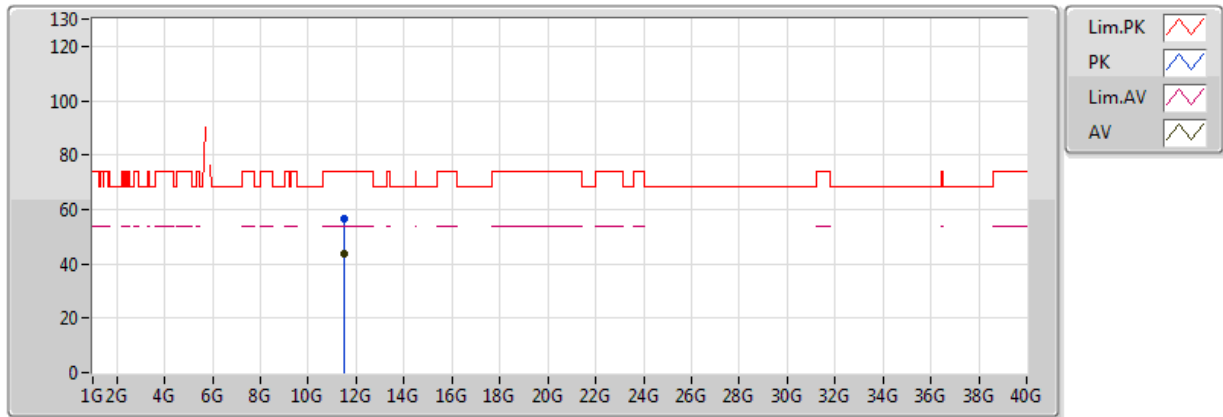


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49436G	42.45	54.00	-11.55	16.32	3	V	350	1.70	-
PK	11.48746G	56.11	74.00	-17.89	16.31	3	V	350	1.70	-

802.11a_(6Mbps)_2TX

5745MHz_TX

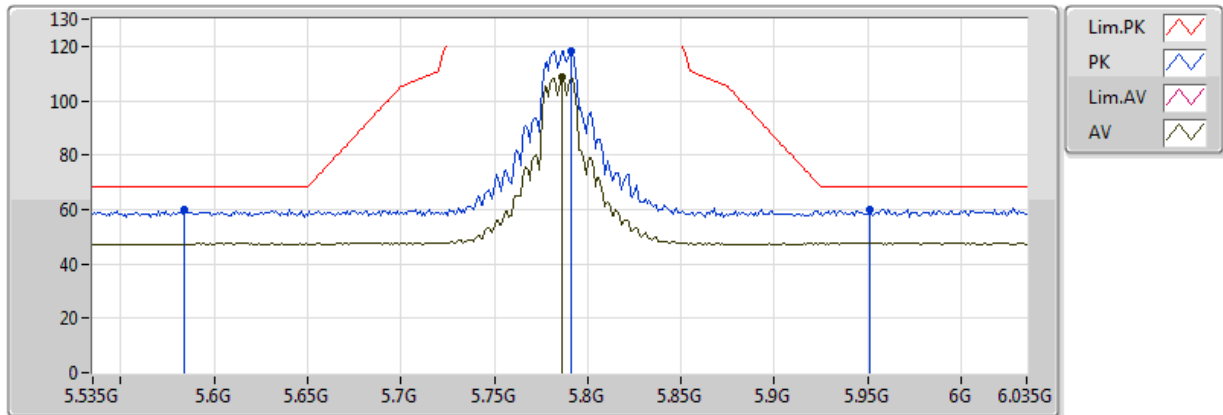


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49018G	43.51	54.00	-10.49	16.32	3	H	353	1.65	-
PK	11.48764G	56.73	74.00	-17.27	16.31	3	H	353	1.65	-

802.11a_(6Mbps)_2TX

5785MHz_TX

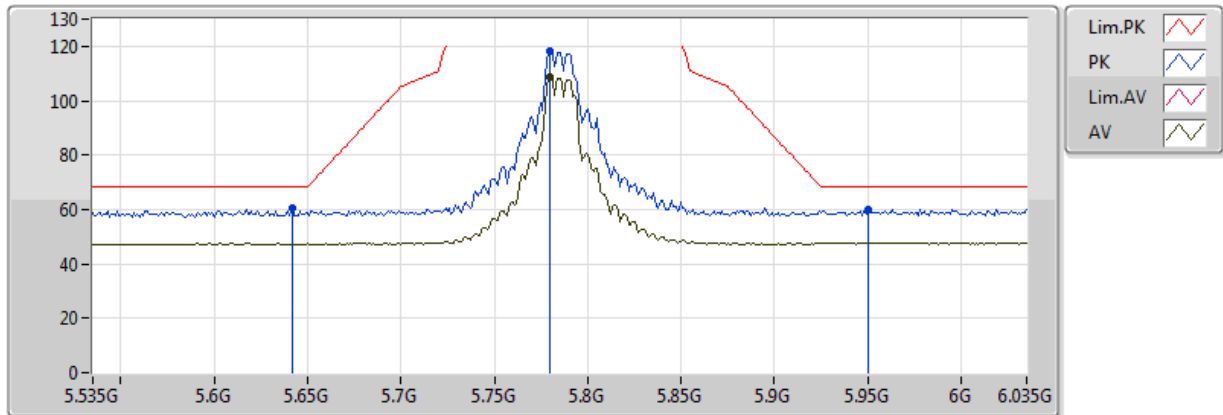


20170508
EUT_Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.786G	108.72	Inf	-Inf	9.82	3	V	345	2.95	-
PK	5.584G	60.17	68.20	-8.03	9.77	3	V	345	2.95	-
PK	5.791G	118.48	Inf	-Inf	9.82	3	V	345	2.95	-
PK	5.951G	59.91	68.20	-8.29	10.03	3	V	345	2.95	-

802.11a_(6Mbps)_2TX

5785MHz_TX

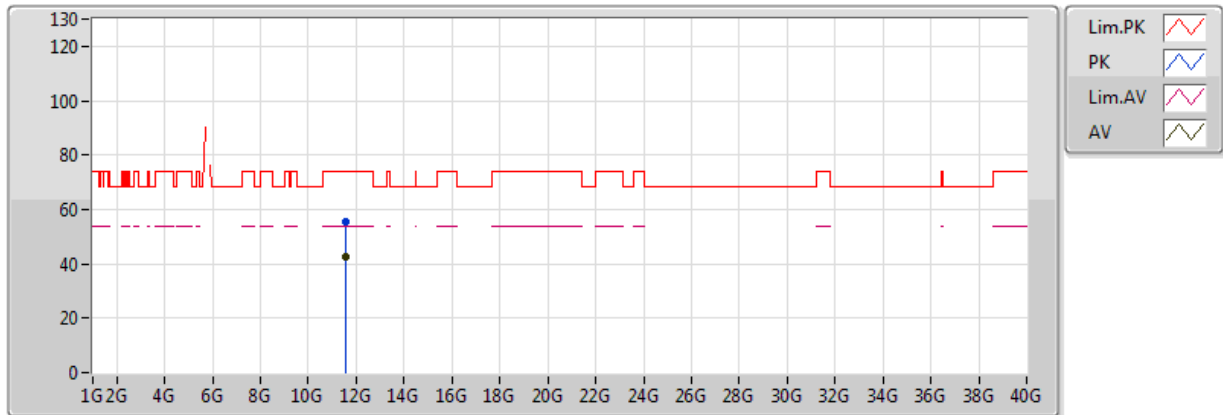


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.78G	108.48	Inf	-Inf	9.82	3	H	63	2.51	-
PK	5.642G	60.35	68.20	-7.85	9.79	3	H	63	2.51	-
PK	5.78G	118.48	Inf	-Inf	9.82	3	H	63	2.51	-
PK	5.95G	60.22	68.20	-7.98	10.03	3	H	63	2.51	-

802.11a_(6Mbps)_2TX

5785MHz_TX

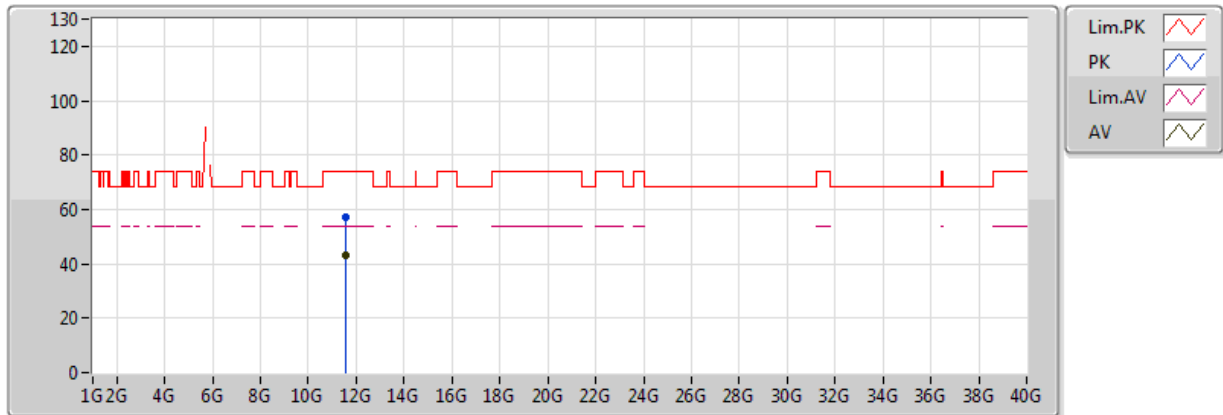


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57228G	42.67	54.00	-11.33	16.40	3	V	301	1.97	-
PK	11.57054G	55.74	74.00	-18.26	16.39	3	V	301	1.97	-

802.11a_(6Mbps)_2TX

5785MHz_TX

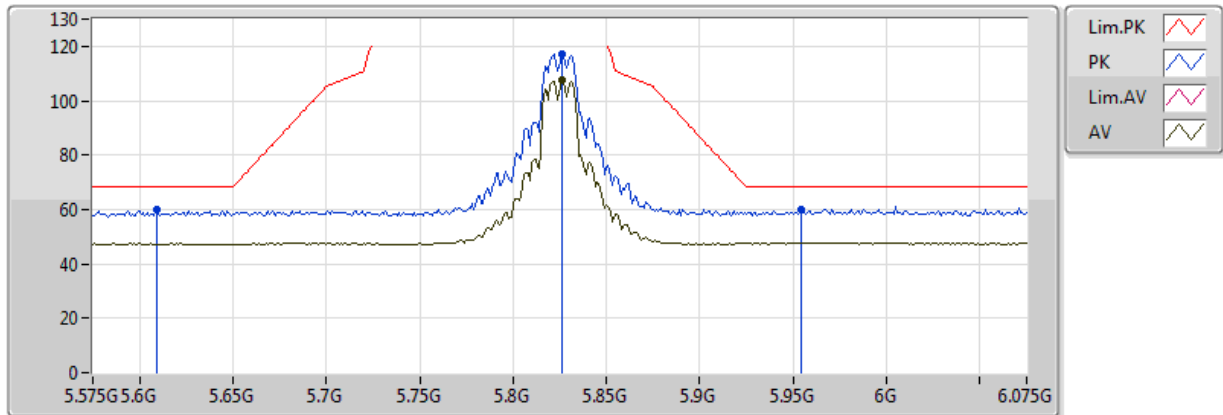


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.56806G	42.90	54.00	-11.10	16.39	3	H	304	1.57	-
PK	11.5708G	57.31	74.00	-16.69	16.40	3	H	304	1.57	-

802.11a_(6Mbps)_2TX

5825MHz_TX

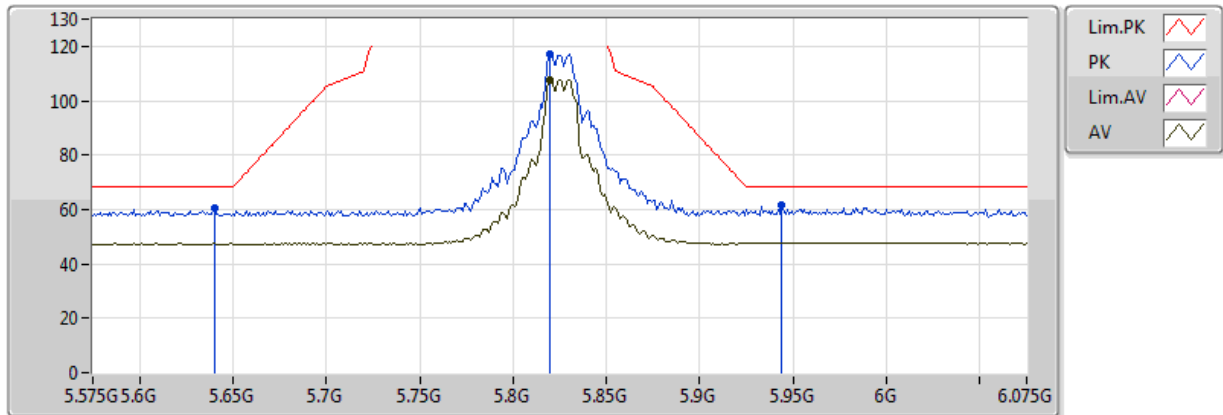


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.826G	107.32	Inf	-Inf	9.86	3	V	344	2.92	-
PK	5.609G	59.71	68.20	-8.49	9.78	3	V	344	2.92	-
PK	5.826G	117.10	Inf	-Inf	9.86	3	V	344	2.92	-
PK	5.954G	59.75	68.20	-8.45	10.04	3	V	344	2.92	-

802.11a_(6Mbps)_2TX

5825MHz_TX

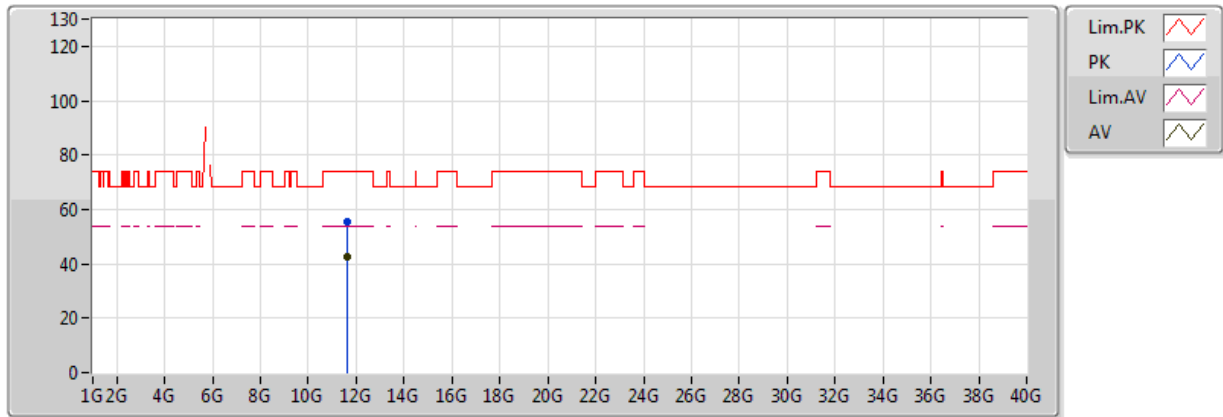


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.82G	107.78	Inf	-Inf	9.85	3	H	60	2.47	-
PK	5.64G	60.58	68.20	-7.62	9.79	3	H	60	2.47	-
PK	5.82G	117.35	Inf	-Inf	9.85	3	H	60	2.47	-
PK	5.944G	61.47	68.20	-6.73	10.02	3	H	60	2.47	-

802.11a_(6Mbps)_2TX

5825MHz_TX

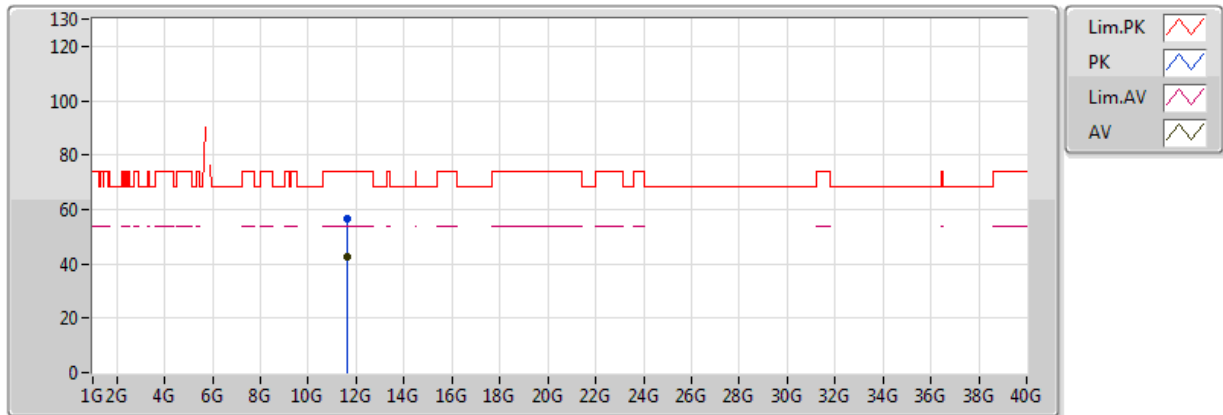


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.65316G	42.31	54.00	-11.69	16.48	3	V	92	1.61	-
PK	11.65042G	55.74	74.00	-18.26	16.47	3	V	92	1.61	-

802.11a_(6Mbps)_2TX

5825MHz_TX

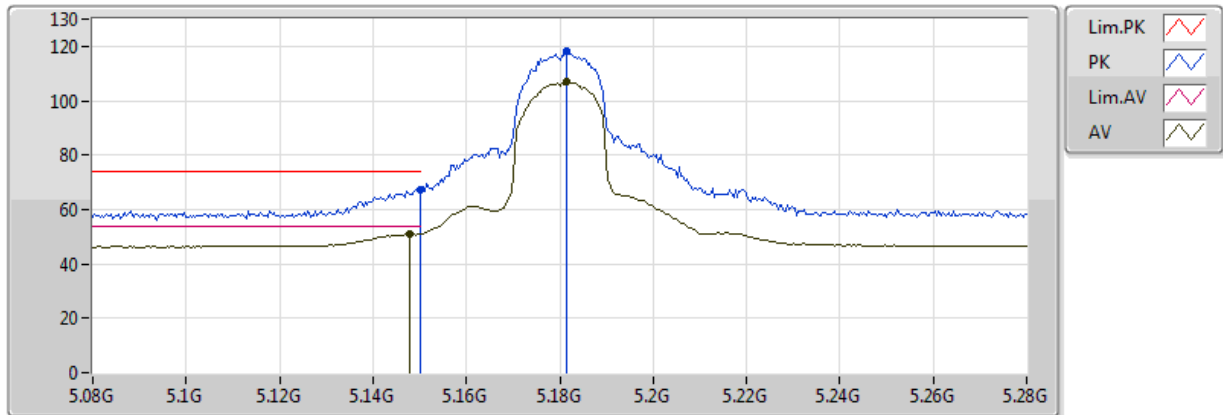


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.65036G	42.80	54.00	-11.20	16.47	3	H	239	1.73	-
PK	11.64714G	56.49	74.00	-17.51	16.47	3	H	239	1.73	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

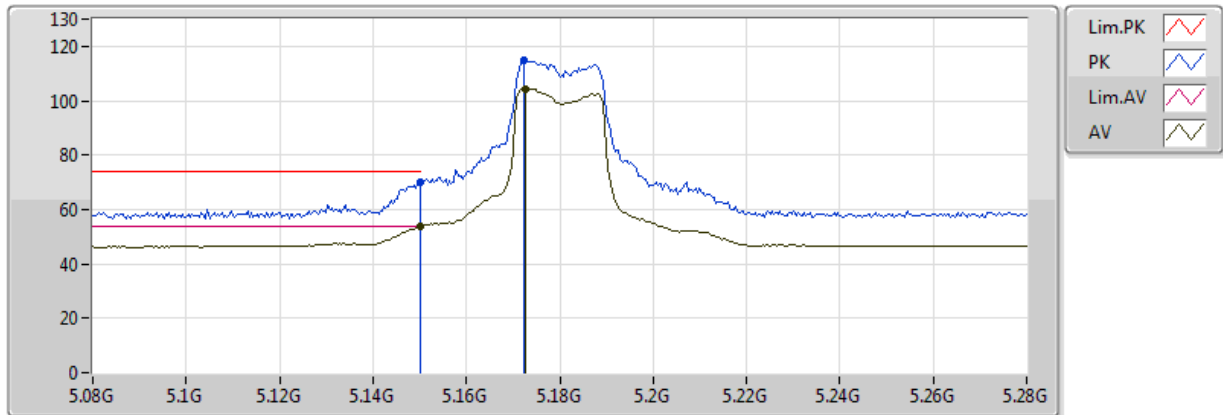


20170508
EUT Y_2TX
Setting 20.5
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.148G	51.00	54.00	-3.00	8.92	3	V	342	2.71	-
AV	5.1816G	106.86	Inf	-Inf	9.01	3	V	342	2.71	-
PK	5.149995G	67.33	74.00	-6.67	8.93	3	V	342	2.71	-
PK	5.1816G	118.28	Inf	-Inf	9.01	3	V	342	2.71	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

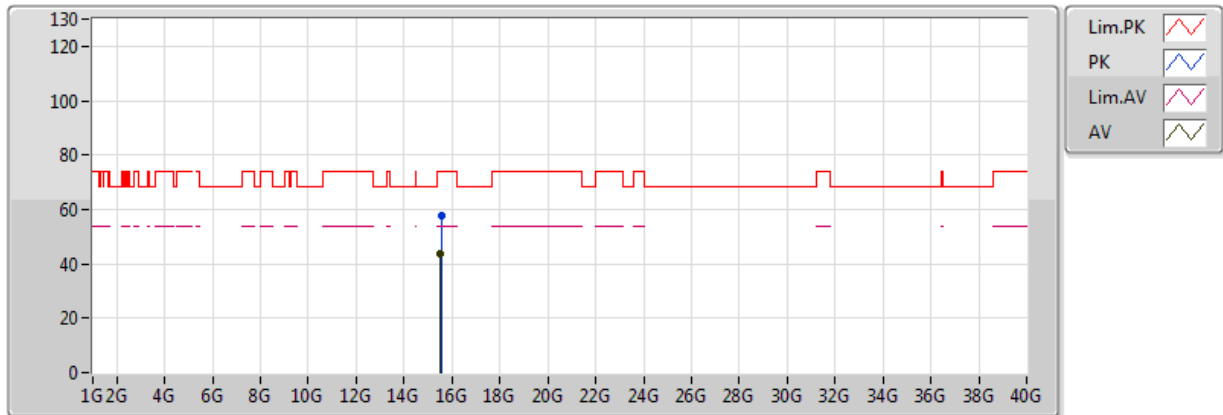


20170508
EUT Y_2TX
Setting 20.5
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.71	54.00	-0.29	8.93	3	H	17	3.00	-
AV	5.1728G	104.48	Inf	-Inf	8.99	3	H	17	3.00	-
PK	5.149995G	69.79	74.00	-4.21	8.93	3	H	17	3.00	-
PK	5.1724G	114.81	Inf	-Inf	8.99	3	H	17	3.00	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

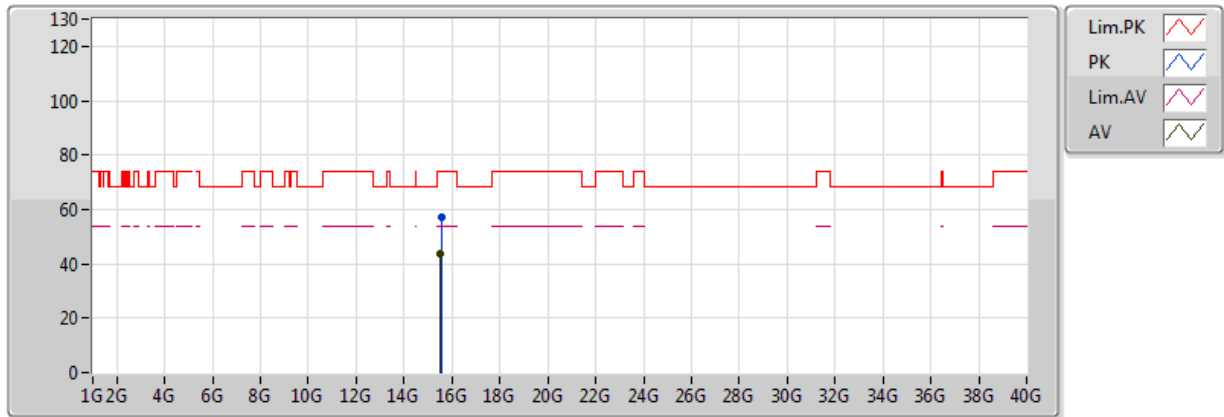


20170508
EUT Y_2TX
Setting 20.5
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.53538G	43.79	54.00	-10.21	18.12	3	V	280	1.08	-
PK	15.54132G	57.55	74.00	-16.45	18.11	3	V	280	1.08	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5180MHz_TX

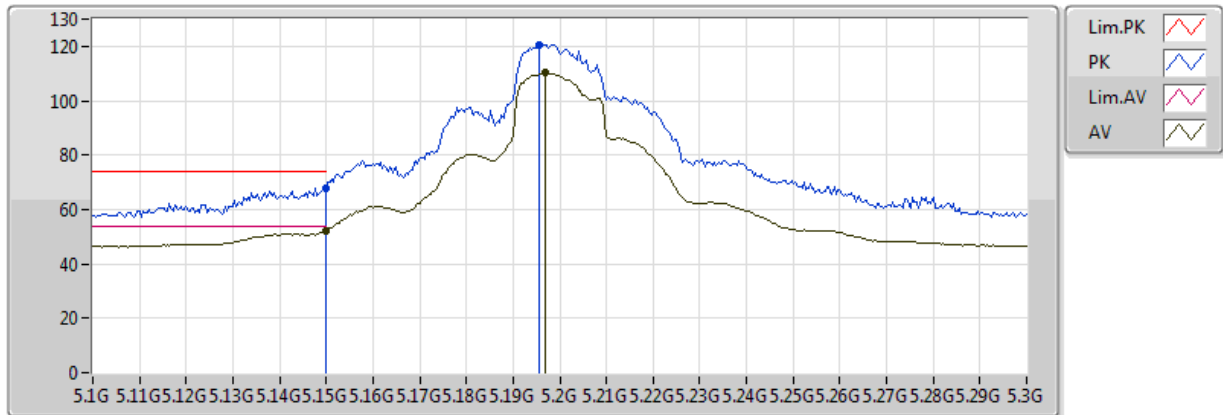


20170508
EUT Y_2TX
Setting 20.5
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.53696G	43.76	54.00	-10.24	18.12	3	H	177	2.01	-
PK	15.54032G	57.06	74.00	-16.94	18.11	3	H	177	2.01	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

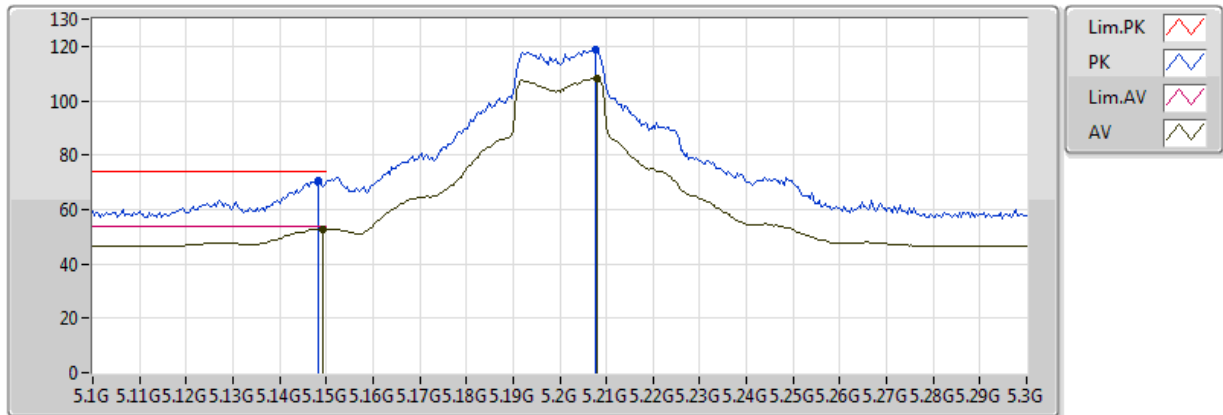


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	52.17	54.00	-1.83	8.93	3	V	337	2.60	-
AV	5.1968G	110.25	Inf	-Inf	9.05	3	V	337	2.60	-
PK	5.149995G	67.70	74.00	-6.30	8.93	3	V	337	2.60	-
PK	5.1956G	120.67	Inf	-Inf	9.05	3	V	337	2.60	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

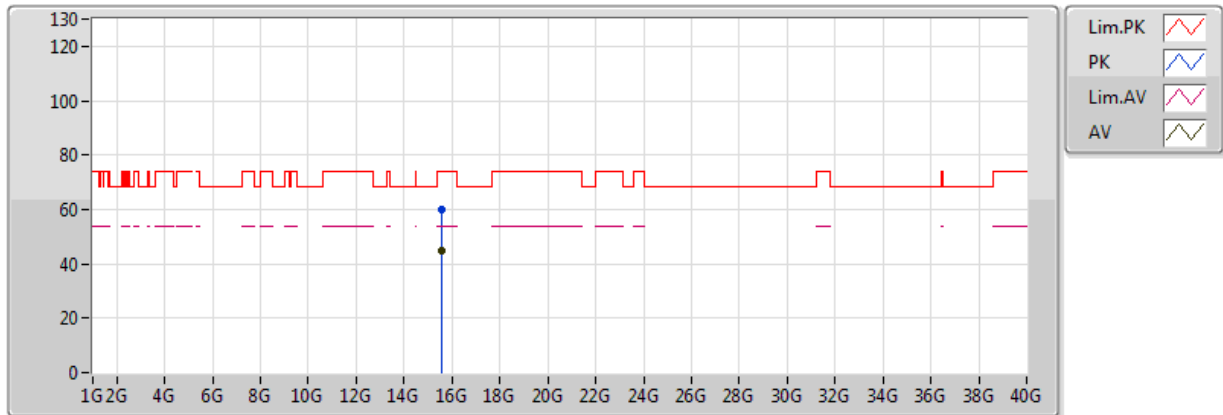


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1492G	52.84	54.00	-1.16	8.93	3	H	10	2.94	-
AV	5.208G	108.14	Inf	-Inf	9.08	3	H	10	2.94	-
PK	5.1484G	70.40	74.00	-3.60	8.93	3	H	10	2.94	-
PK	5.2076G	118.70	Inf	-Inf	9.07	3	H	10	2.94	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

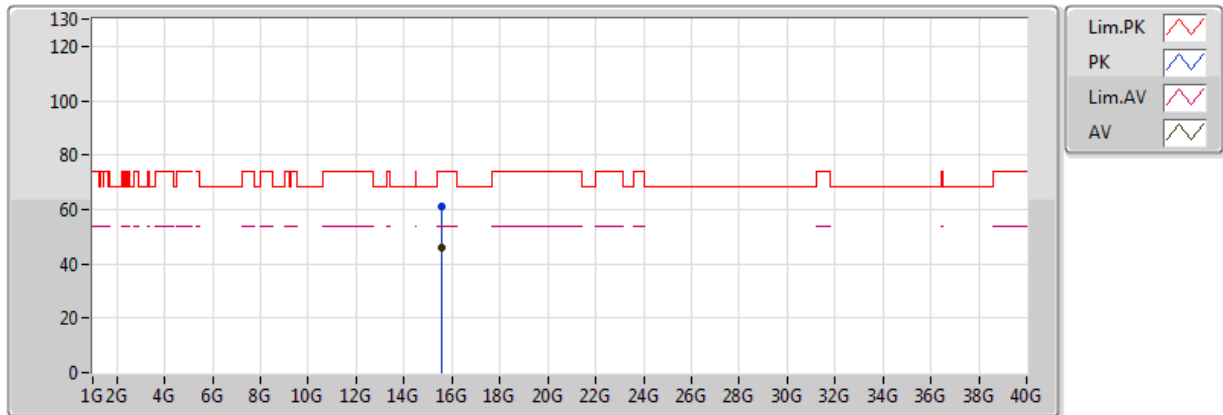


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.60074G	44.81	54.00	-9.19	17.96	3	V	312	2.02	-
PK	15.59966G	60.23	74.00	-13.77	17.96	3	V	312	2.02	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5200MHz_TX

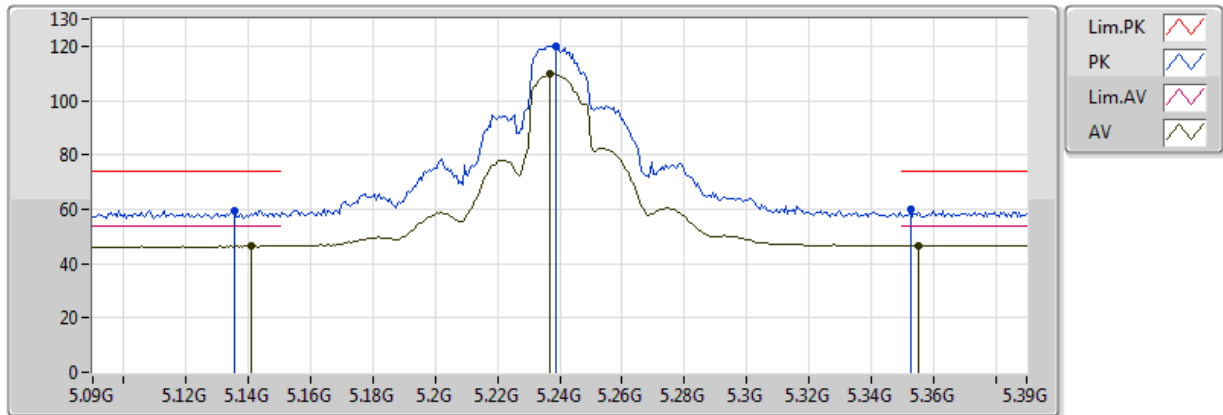


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.60108G	46.11	54.00	-7.89	17.96	3	H	262	2.97	-
PK	15.59828G	60.97	74.00	-13.03	17.96	3	H	262	2.97	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

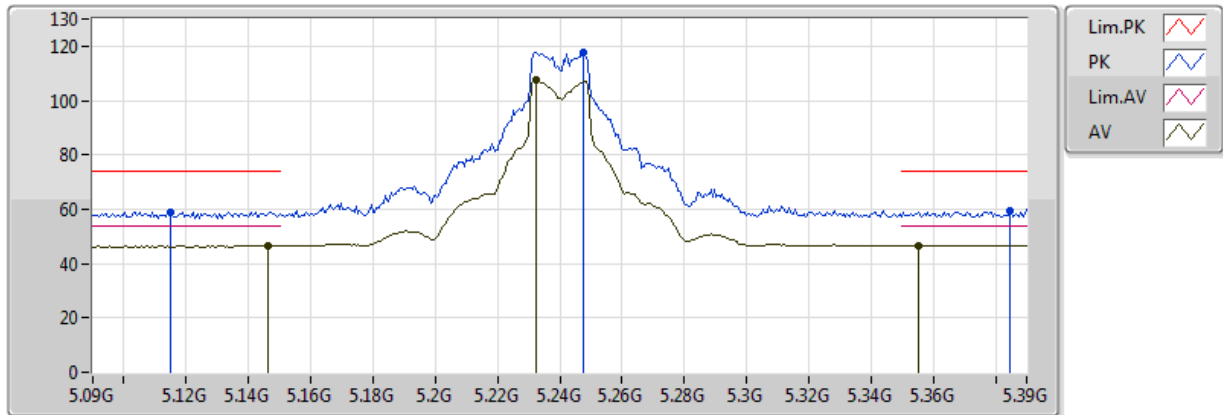


20170508
EUT Y_2TX
Setting 24.5
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.141G	46.44	54.00	-7.56	8.91	3	V	338	2.56	-
AV	5.237G	109.97	Inf	-Inf	9.13	3	V	338	2.56	-
AV	5.3552G	46.73	54.00	-7.27	9.35	3	V	338	2.56	-
PK	5.1356G	59.54	74.00	-14.46	8.89	3	V	338	2.56	-
PK	5.2388G	120.17	Inf	-Inf	9.13	3	V	338	2.56	-
PK	5.3528G	59.81	74.00	-14.19	9.35	3	V	338	2.56	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

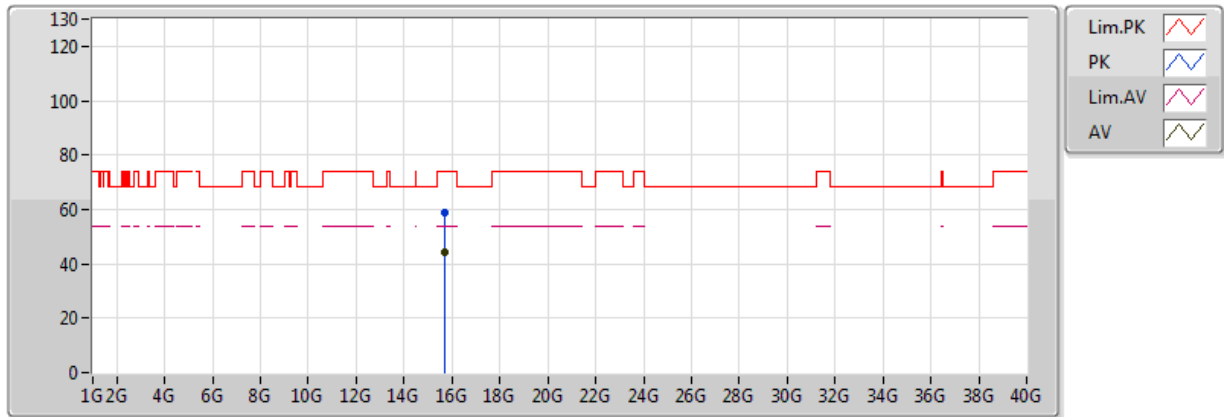


20170508
EUT Y_2TX
Setting 24.5
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1464G	46.54	54.00	-7.46	8.92	3	H	21	2.92	-
AV	5.2322G	107.33	Inf	-Inf	9.12	3	H	21	2.92	-
AV	5.3552G	46.65	54.00	-7.35	9.35	3	H	21	2.92	-
PK	5.1152G	59.05	74.00	-14.95	8.84	3	H	21	2.92	-
PK	5.2478G	117.41	Inf	-Inf	9.15	3	H	21	2.92	-
PK	5.3846G	59.42	74.00	-14.58	9.40	3	H	21	2.92	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

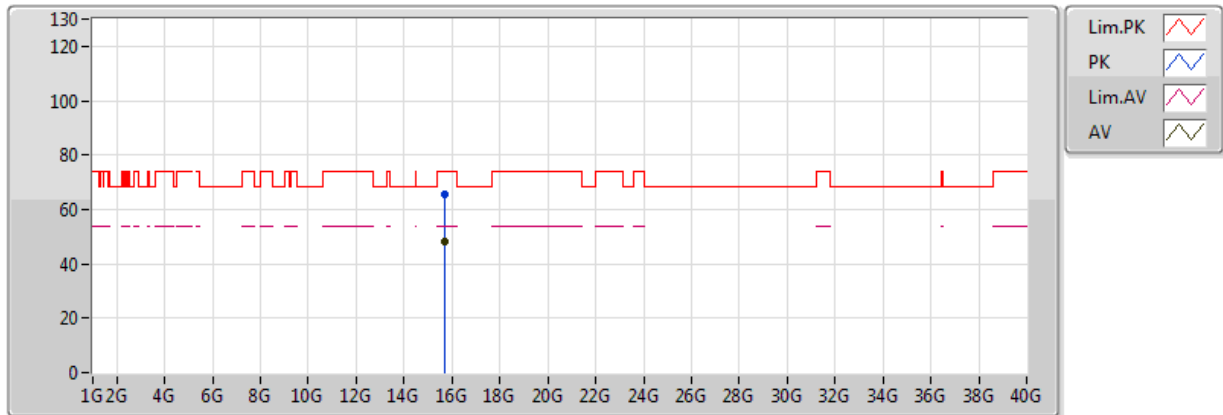


20170508
EUT Y_2TX
Setting 24.5
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.72146G	44.27	54.00	-9.73	17.65	3	V	310	2.04	-
PK	15.72138G	58.63	74.00	-15.37	17.65	3	V	310	2.04	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5240MHz_TX

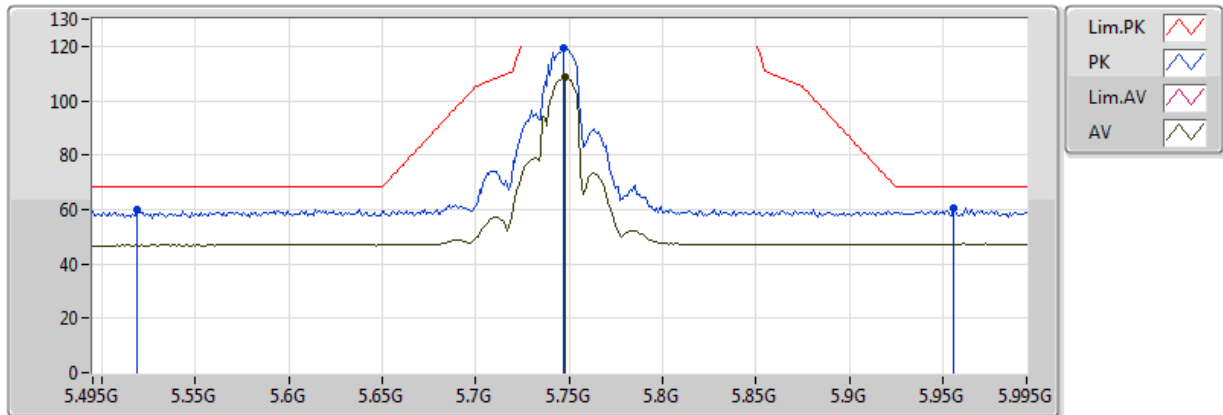


20170508
EUT Y_2TX
Setting 24.5
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.72146G	48.22	54.00	-5.78	17.65	3	H	130	2.61	-
PK	15.72174G	65.44	74.00	-8.56	17.65	3	H	130	2.61	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

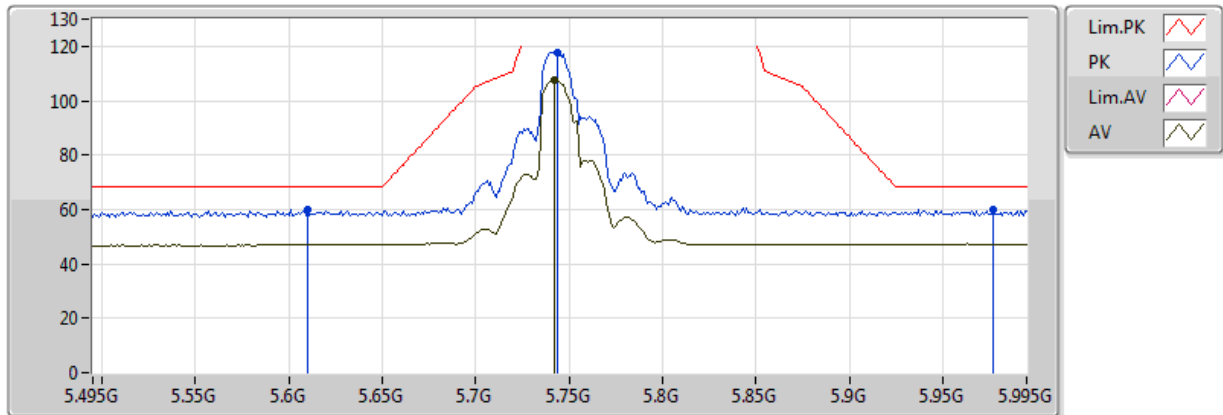


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.748G	108.69	Inf	-Inf	9.81	3	V	348	2.87	-
PK	5.519G	59.97	68.20	-8.23	9.71	3	V	348	2.87	-
PK	5.747G	119.30	Inf	-Inf	9.81	3	V	348	2.87	-
PK	5.956G	60.76	68.20	-7.44	10.04	3	V	348	2.87	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

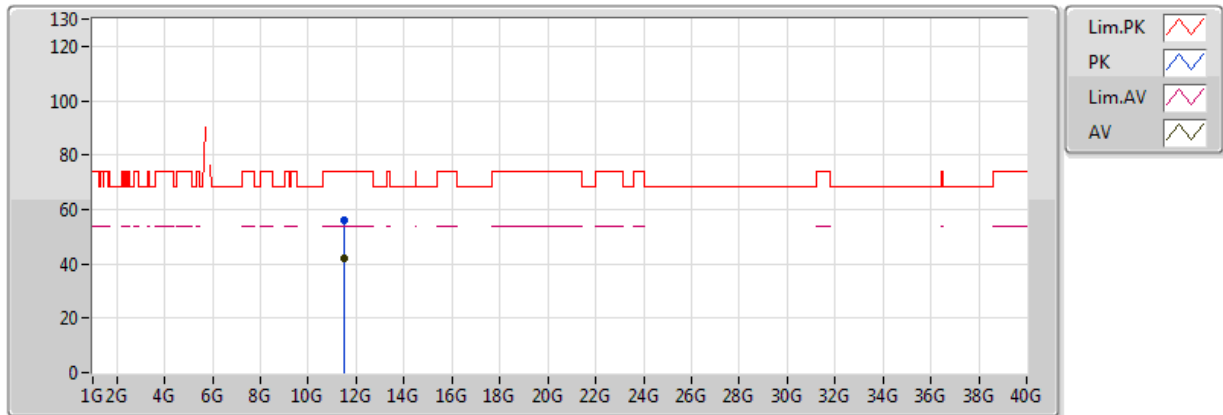


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.742G	107.84	Inf	-Inf	9.81	3	H	62	2.54	-
PK	5.61G	59.77	68.20	-8.43	9.78	3	H	62	2.54	-
PK	5.744G	117.83	Inf	-Inf	9.81	3	H	62	2.54	-
PK	5.977G	59.98	68.20	-8.22	10.07	3	H	62	2.54	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

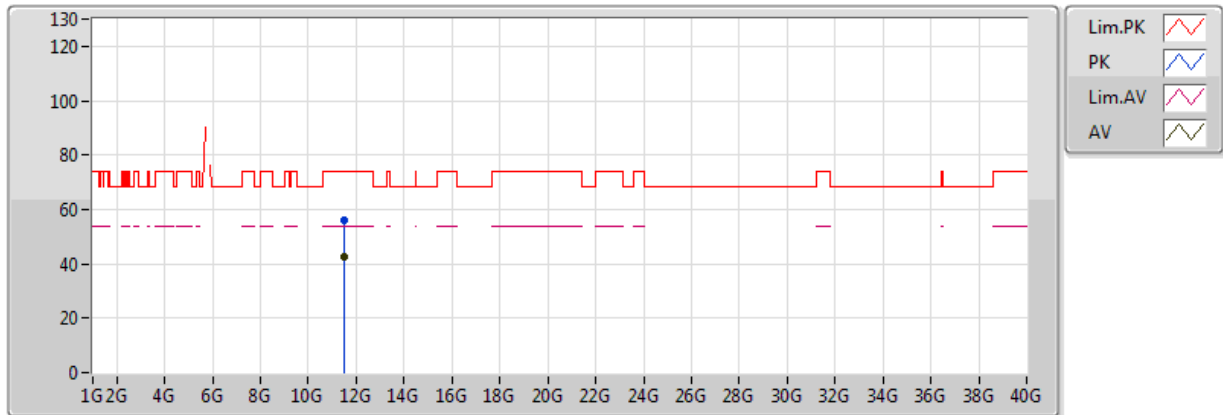


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.49232G	41.91	54.00	-12.09	16.32	3	V	22	1.06	-
PK	11.4884G	56.12	74.00	-17.88	16.31	3	V	22	1.06	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5745MHz_TX

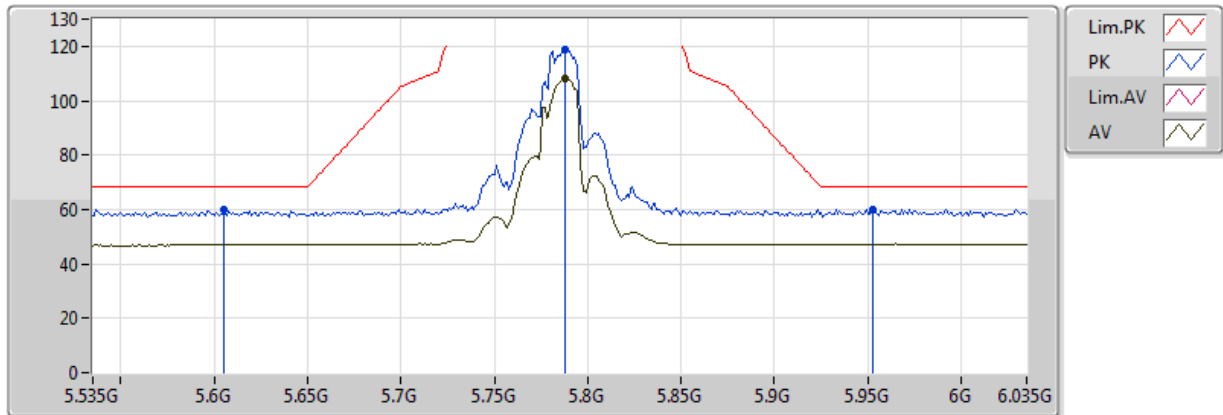


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.4879G	42.77	54.00	-11.23	16.31	3	H	207	1.05	-
PK	11.49382G	55.98	74.00	-18.02	16.32	3	H	207	1.05	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

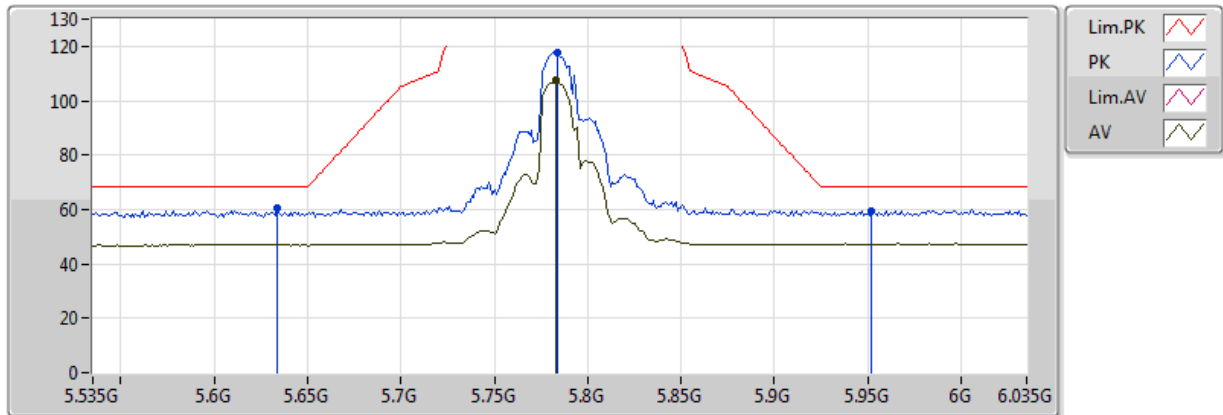


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.788G	108.02	Inf	-Inf	9.82	3	V	348	2.84	-
PK	5.605G	59.94	68.20	-8.26	9.78	3	V	348	2.84	-
PK	5.788G	118.90	Inf	-Inf	9.82	3	V	348	2.84	-
PK	5.953G	60.18	68.20	-8.02	10.03	3	V	348	2.84	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

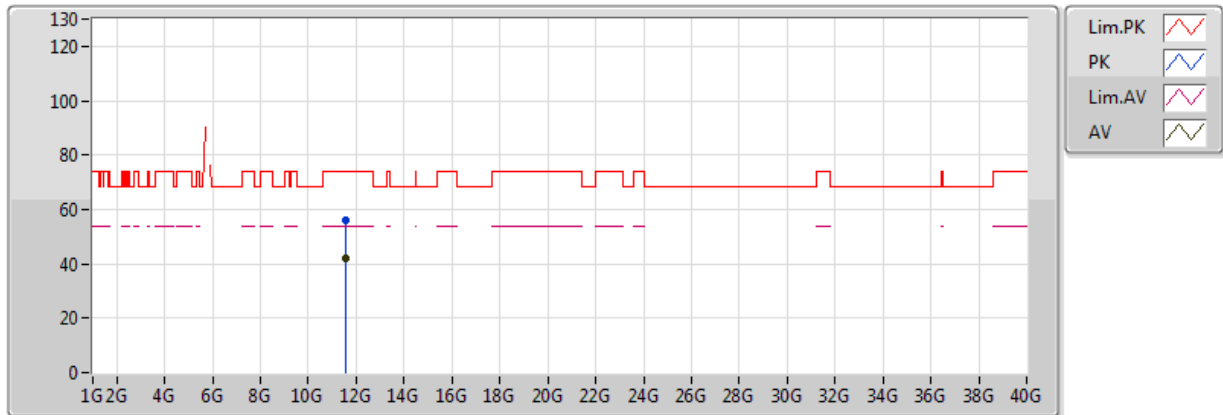


20170508
EUT_Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.783G	107.50	Inf	-Inf	9.82	3	H	55	2.42	-
PK	5.634G	60.67	68.20	-7.53	9.79	3	H	55	2.42	-
PK	5.784G	117.66	Inf	-Inf	9.82	3	H	55	2.42	-
PK	5.952G	59.57	68.20	-8.63	10.03	3	H	55	2.42	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

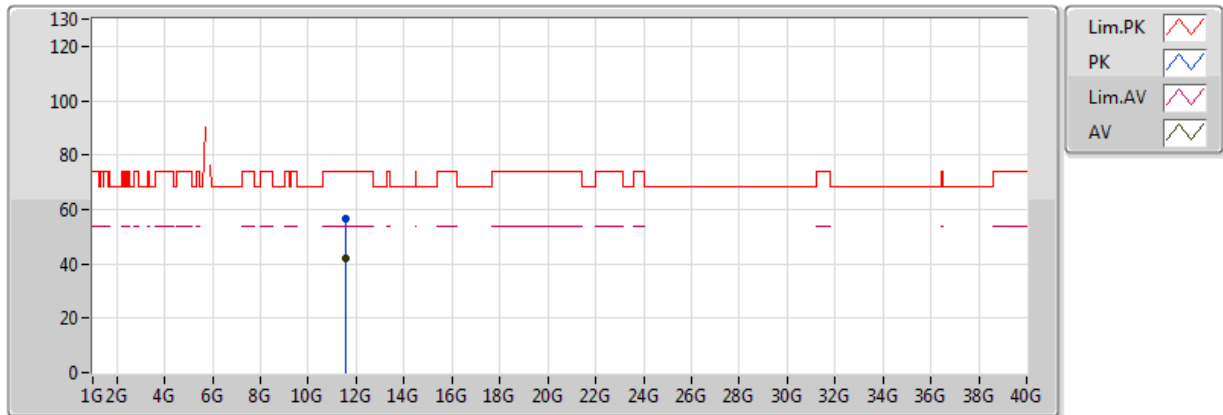


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.56628G	42.11	54.00	-11.89	16.39	3	V	292	1.07	-
PK	11.57062G	56.00	74.00	-18.00	16.39	3	V	292	1.07	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5785MHz_TX

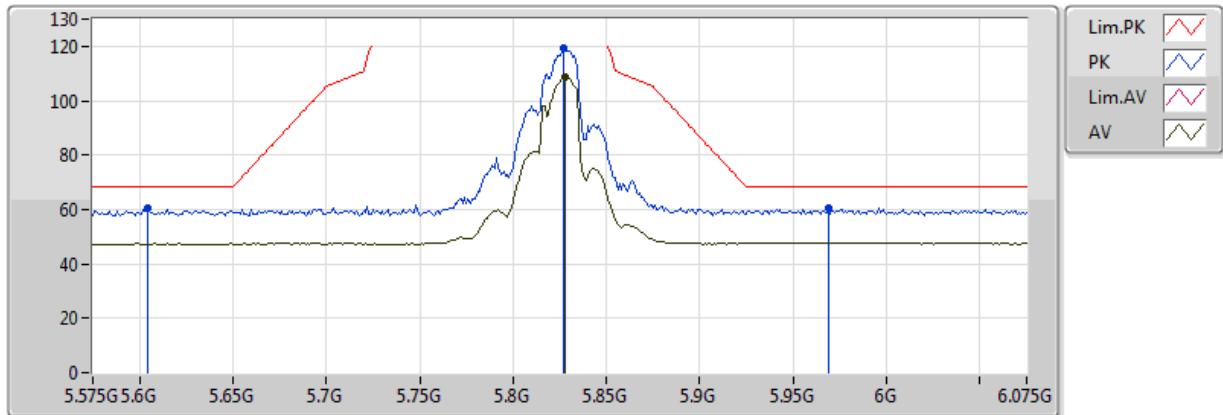


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.57284G	42.06	54.00	-11.94	16.40	3	H	135	1.44	-
PK	11.5749G	56.36	74.00	-17.64	16.40	3	H	135	1.44	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

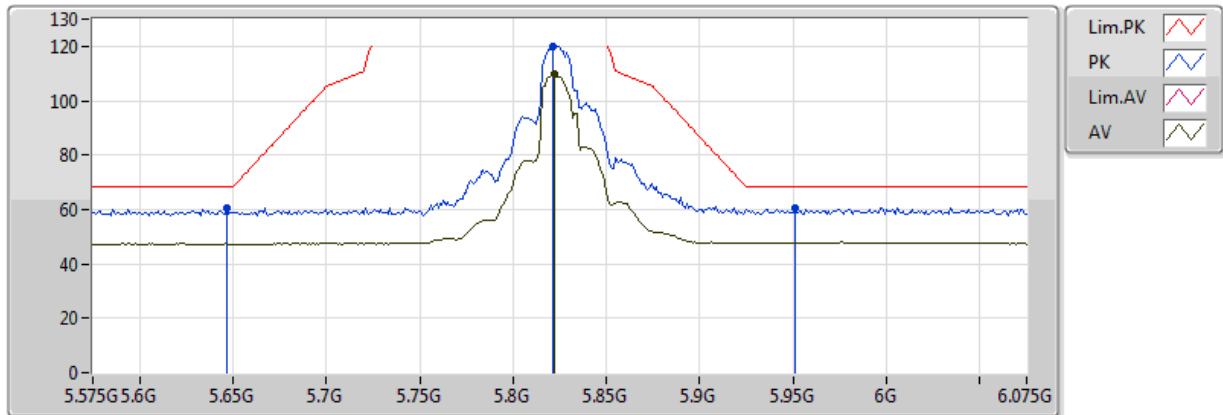


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.828G	108.49	Inf	-Inf	9.86	3	V	346	2.93	-
PK	5.604G	60.24	68.20	-7.96	9.78	3	V	346	2.93	-
PK	5.827G	119.19	Inf	-Inf	9.86	3	V	346	2.93	-
PK	5.969G	60.28	68.20	-7.92	10.06	3	V	346	2.93	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

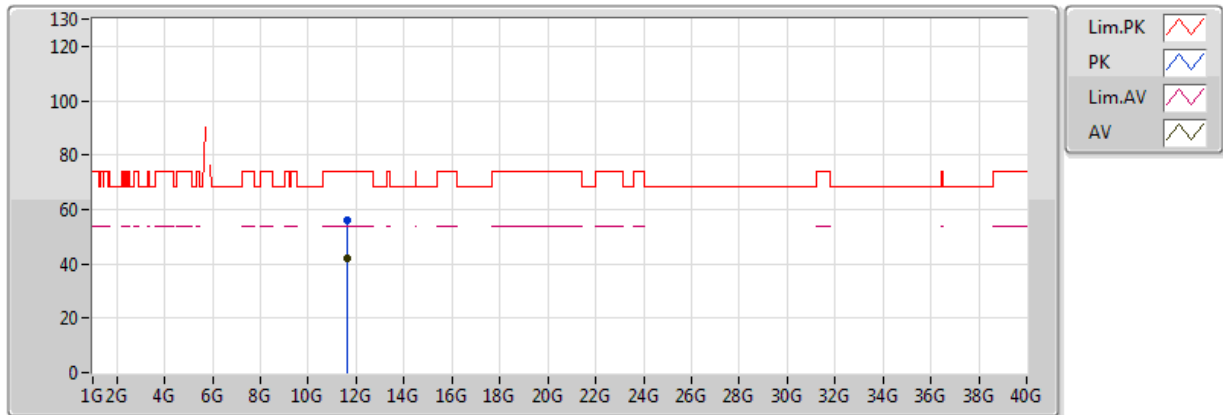


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.822G	109.79	Inf	-Inf	9.85	3	H	55	2.38	-
PK	5.647G	60.52	68.20	-7.68	9.79	3	H	55	2.38	-
PK	5.821G	120.13	Inf	-Inf	9.85	3	H	55	2.38	-
PK	5.951G	60.58	68.20	-7.62	10.03	3	H	55	2.38	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

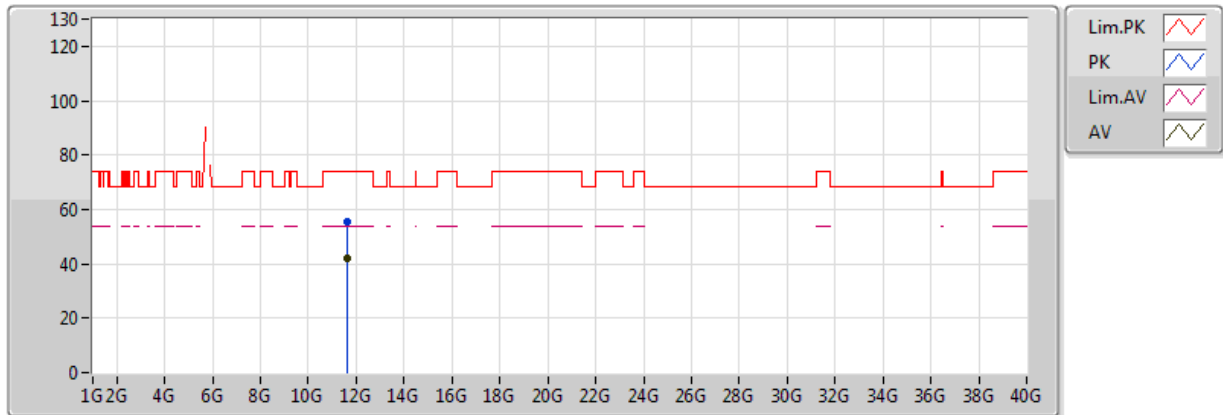


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.64606G	42.05	54.00	-11.95	16.47	3	V	276	2.30	-
PK	11.65128G	55.97	74.00	-18.03	16.47	3	V	276	2.30	-

802.11ac VHT20_Nss1,(MCS0)_2TX

5825MHz_TX

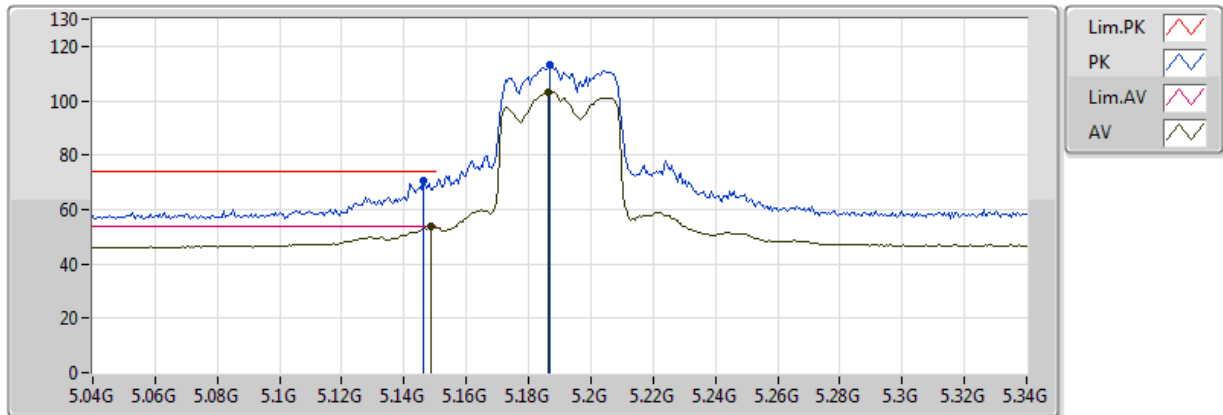


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.65402G	42.24	54.00	-11.76	16.48	3	H	49	2.42	-
PK	11.65034G	55.75	74.00	-18.25	16.47	3	H	49	2.42	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

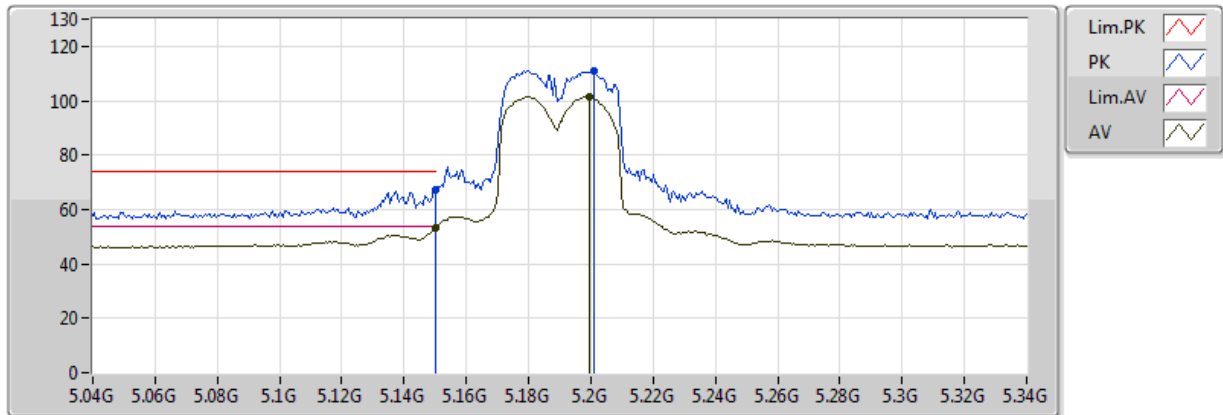


20170508
EUT Y_2TX
Setting 19
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1486G	53.59	54.00	-0.41	8.93	3	V	342	2.47	-
AV	5.1864G	103.02	Inf	-Inf	9.02	3	V	342	2.47	-
PK	5.1462G	70.71	74.00	-3.29	8.92	3	V	342	2.47	-
PK	5.187G	113.02	Inf	-Inf	9.03	3	V	342	2.47	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

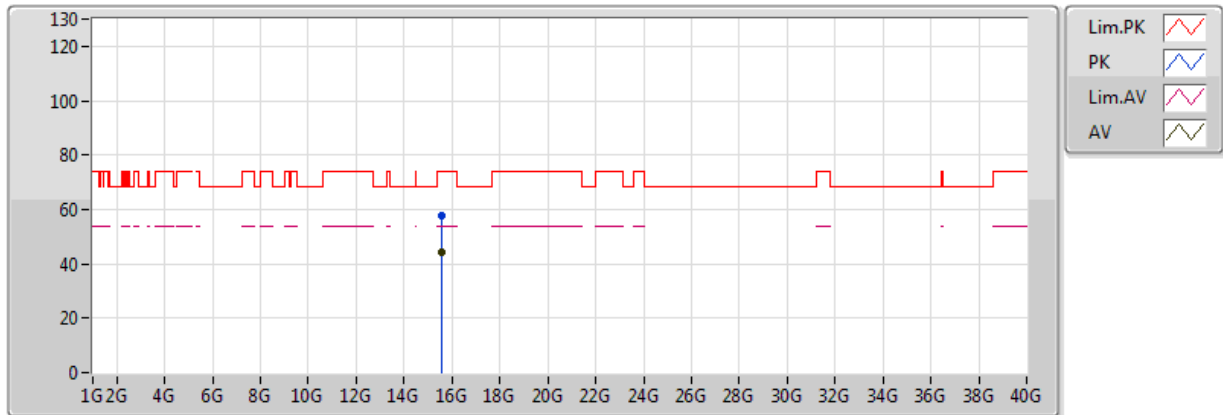


20170508
EUT Y_2TX
Setting 19
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.05	54.00	-0.95	8.93	3	H	22	2.81	-
AV	5.1996G	101.60	Inf	-Inf	9.06	3	H	22	2.81	-
PK	5.149995G	67.44	74.00	-6.56	8.93	3	H	22	2.81	-
PK	5.2008G	110.82	Inf	-Inf	9.06	3	H	22	2.81	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

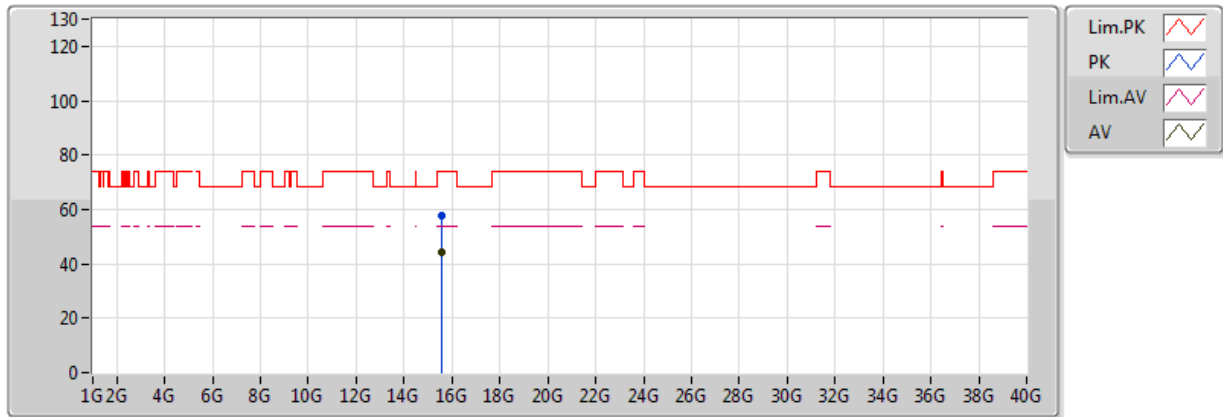


20170508
EUT Y_2TX
Setting 19
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.5704G	44.08	54.00	-9.92	18.03	3	V	230	2.07	-
PK	15.5657G	57.69	74.00	-16.31	18.05	3	V	230	2.07	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5190MHz_TX

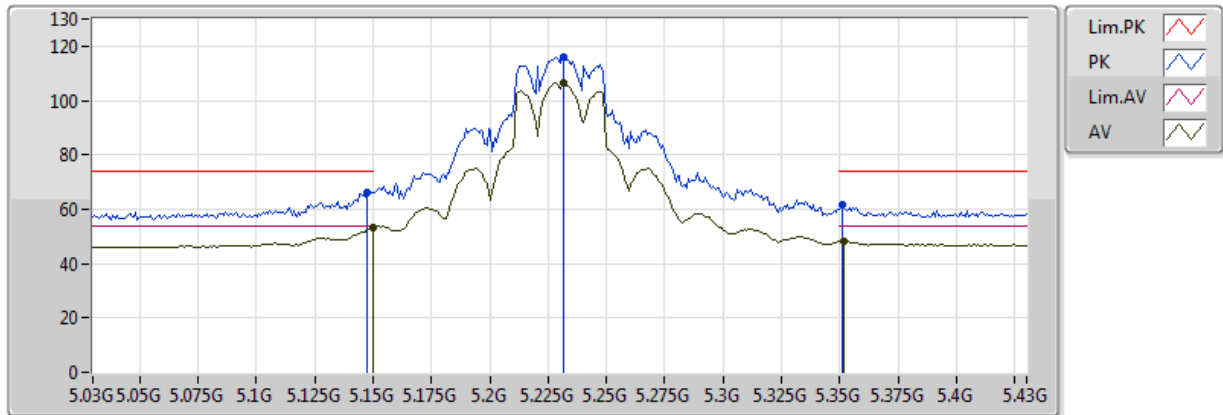


20170508
EUT Y_2TX
Setting 19
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.56782G	44.12	54.00	-9.88	18.04	3	H	268	1.08	-
PK	15.5747G	57.74	74.00	-16.26	18.02	3	H	268	1.08	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

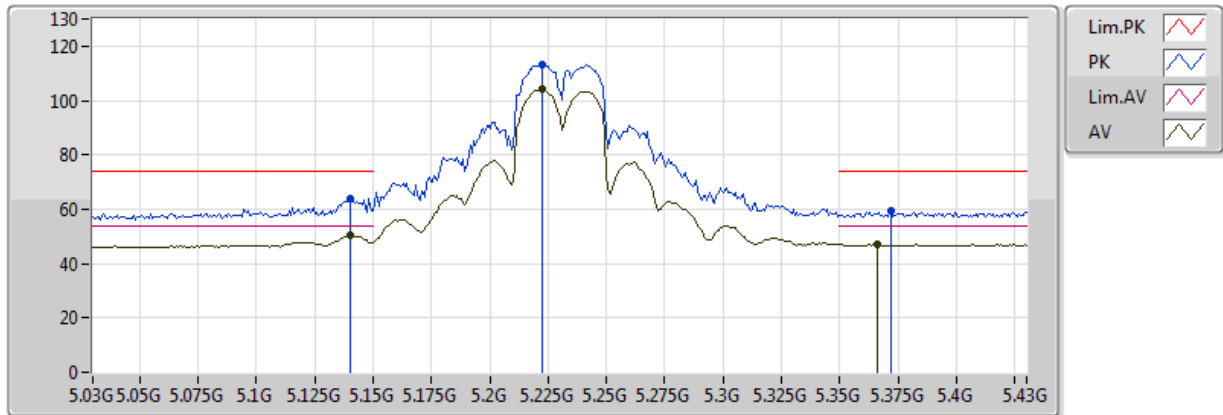


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.19	54.00	-0.81	8.93	3	V	345	2.94	-
AV	5.2316G	106.62	Inf	-Inf	9.12	3	V	345	2.94	-
AV	5.3516G	48.11	54.00	-5.89	9.34	3	V	345	2.94	-
PK	5.1476G	66.31	74.00	-7.69	8.92	3	V	345	2.94	-
PK	5.2316G	115.85	Inf	-Inf	9.12	3	V	345	2.94	-
PK	5.3508G	61.87	74.00	-12.13	9.34	3	V	345	2.94	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

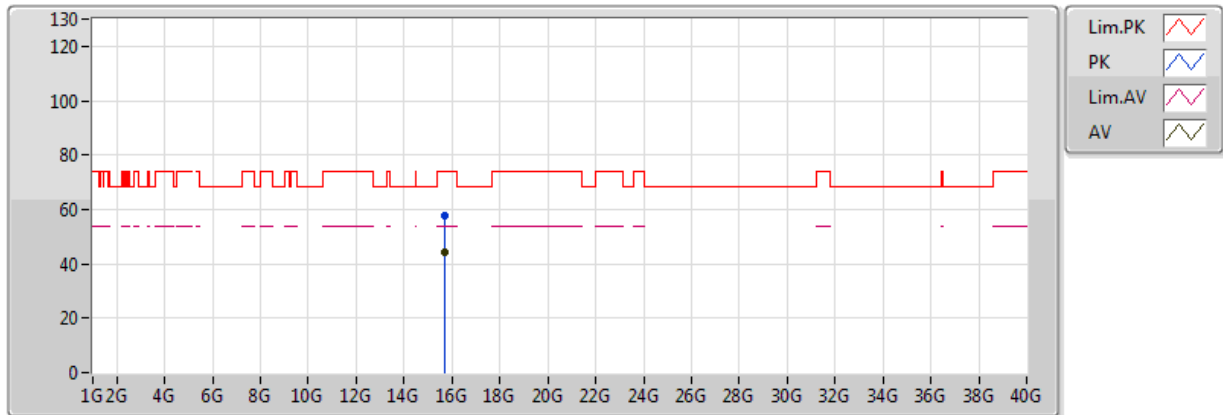


20170508
EUT_Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.1404G	50.32	54.00	-3.68	8.91	3	H	90	2.24	-
AV	5.2228G	103.97	Inf	-Inf	9.10	3	H	90	2.24	-
AV	5.366G	47.06	54.00	-6.94	9.37	3	H	90	2.24	-
PK	5.1404G	63.99	74.00	-10.01	8.91	3	H	90	2.24	-
PK	5.2228G	113.46	Inf	-Inf	9.10	3	H	90	2.24	-
PK	5.3716G	59.36	74.00	-14.64	9.38	3	H	90	2.24	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

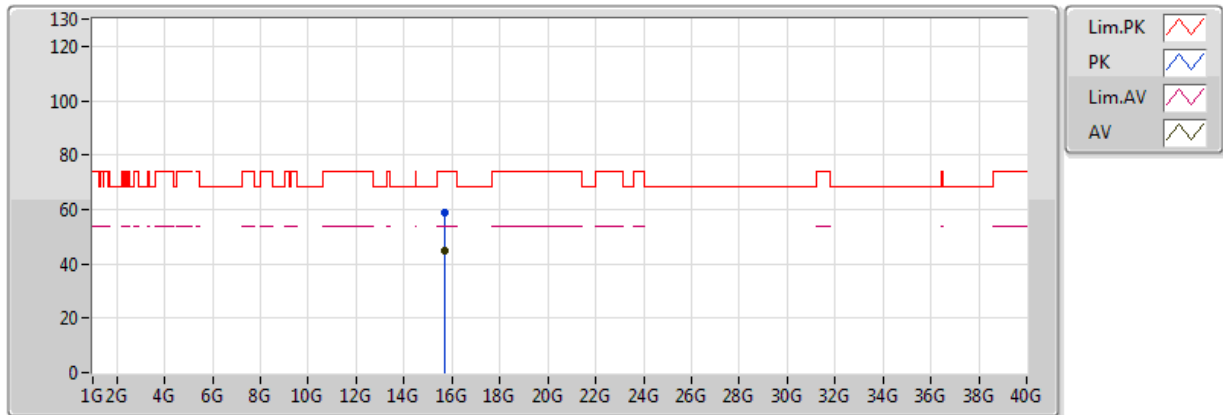


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.68504G	44.10	54.00	-9.90	17.74	3	V	257	1.46	-
PK	15.69232G	57.77	74.00	-16.23	17.72	3	V	257	1.46	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5230MHz_TX

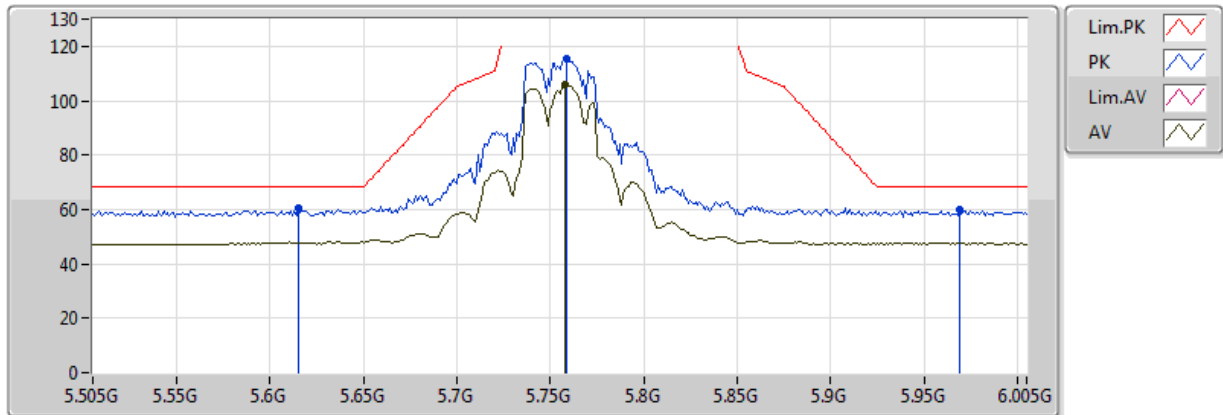


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.69396G	44.70	54.00	-9.30	17.72	3	H	132	1.81	-
PK	15.69162G	58.79	74.00	-15.21	17.72	3	H	132	1.81	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

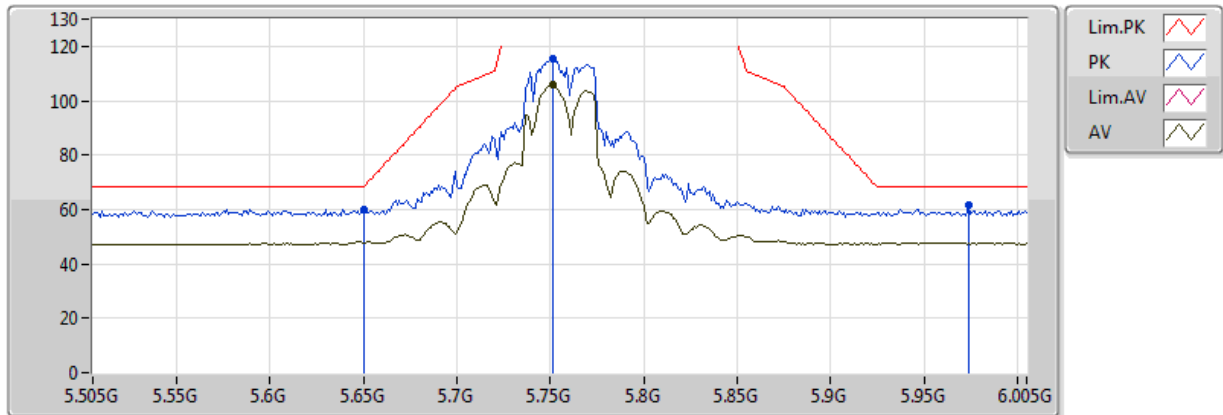


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.758G	105.75	Inf	-Inf	9.81	3	V	350	2.86	-
PK	5.615G	60.32	68.20	-7.88	9.78	3	V	350	2.86	-
PK	5.759G	115.25	Inf	-Inf	9.81	3	V	350	2.86	-
PK	5.969G	60.11	68.20	-8.09	10.06	3	V	350	2.86	-

802.11ac VHT40_Nss1,(MCS0)_2TX

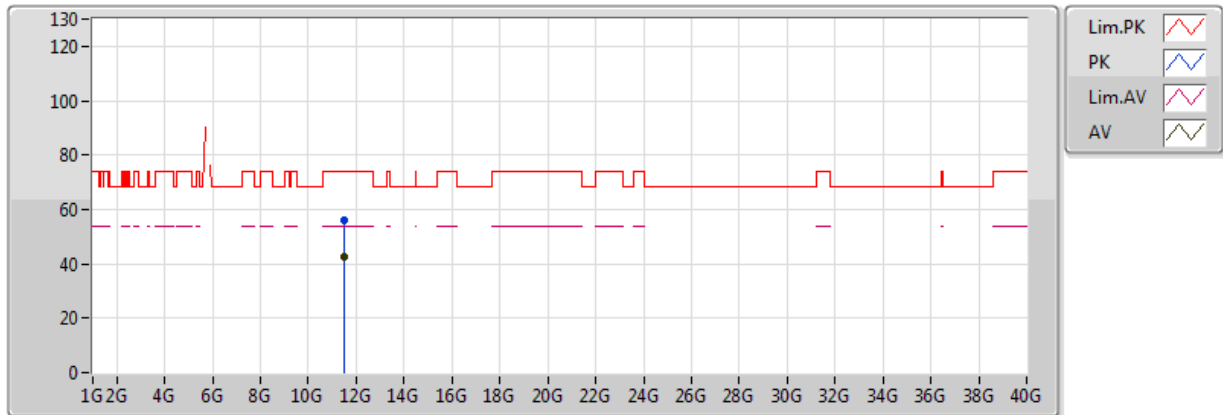
5755MHz_TX



Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.751G	105.68	Inf	-Inf	9.81	3	H	57	2.34	-
PK	5.65G	60.07	68.20	-8.13	9.79	3	H	57	2.34	-
PK	5.751G	115.20	Inf	-Inf	9.81	3	H	57	2.34	-
PK	5.974G	61.42	68.20	-6.78	10.06	3	H	57	2.34	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

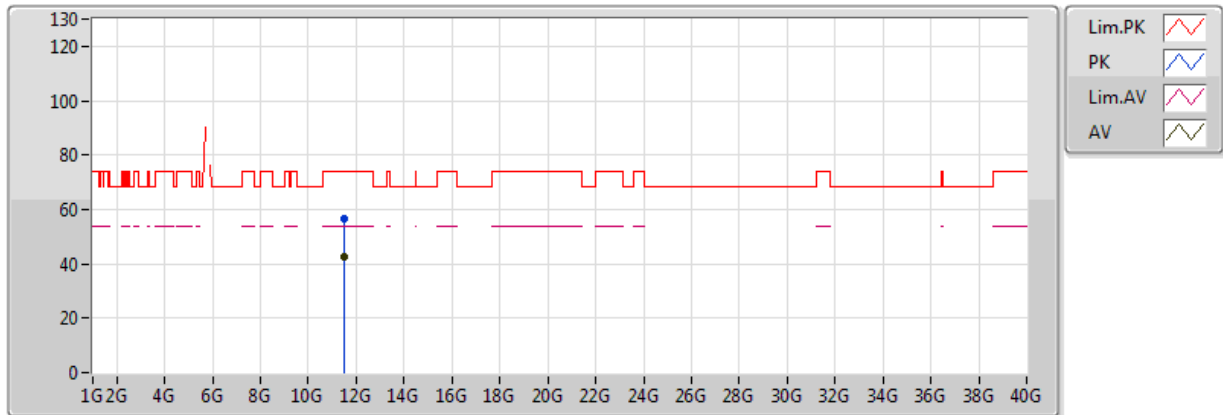


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.50724G	42.68	54.00	-11.32	16.33	3	V	208	1.80	-
PK	11.5104G	55.77	74.00	-18.23	16.34	3	V	208	1.80	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5755MHz_TX

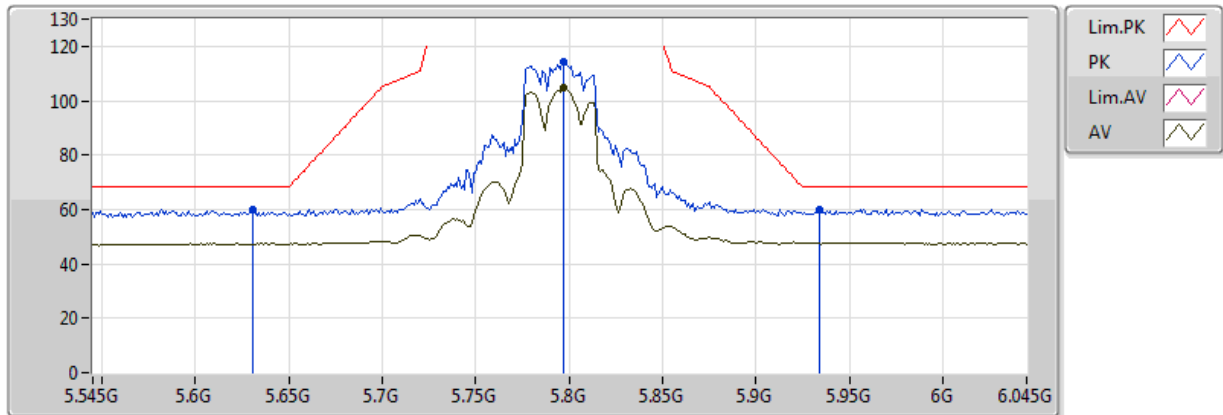


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.50744G	42.52	54.00	-11.48	16.33	3	H	46	1.19	-
PK	11.51102G	56.34	74.00	-17.66	16.34	3	H	46	1.19	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

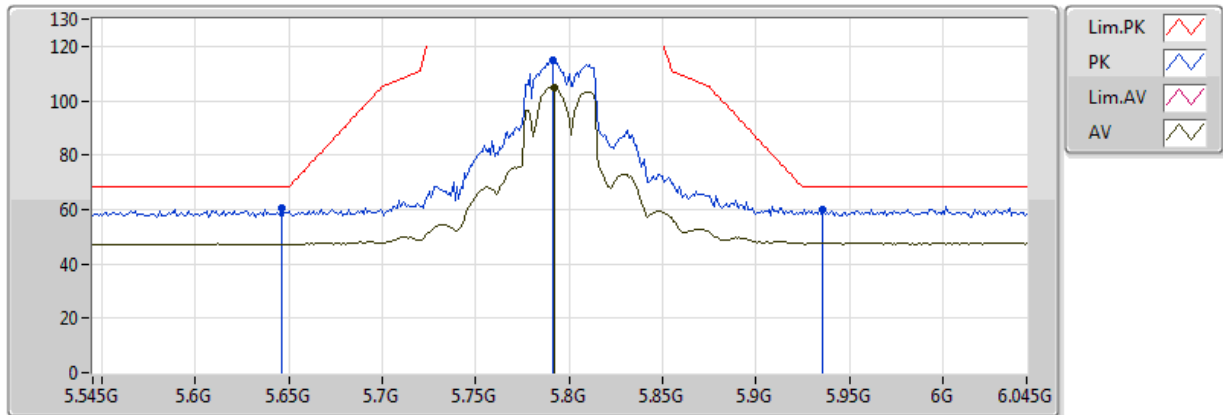


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.797G	104.84	Inf	-Inf	9.82	3	V	347	2.61	-
PK	5.631G	59.98	68.20	-8.22	9.79	3	V	347	2.61	-
PK	5.797G	114.04	Inf	-Inf	9.82	3	V	347	2.61	-
PK	5.934G	60.18	68.20	-8.02	10.01	3	V	347	2.61	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

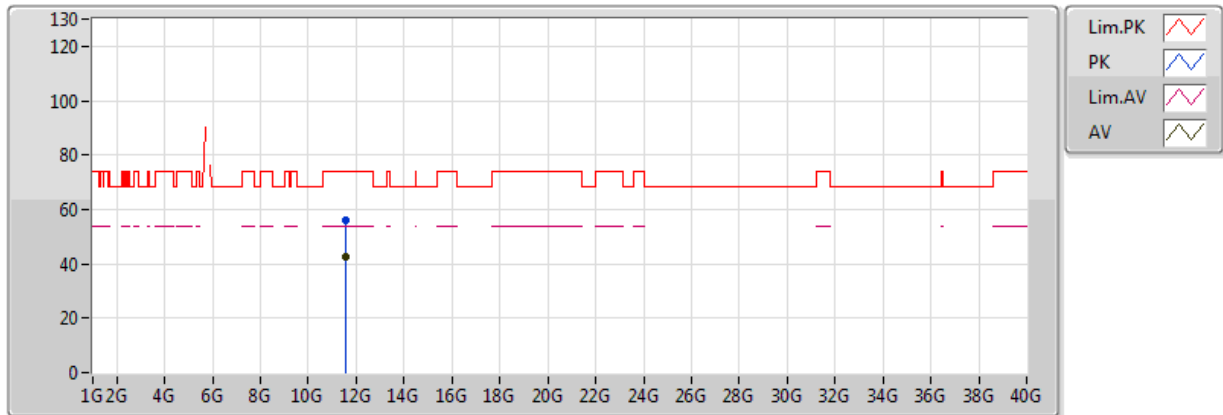


20170508
EUT_Y_2TX
Setting 30(Max setting)
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.792G	105.01	Inf	-Inf	9.82	3	H	58	2.30	-
PK	5.646G	60.38	68.20	-7.82	9.79	3	H	58	2.30	-
PK	5.791G	114.63	Inf	-Inf	9.82	3	H	58	2.30	-
PK	5.936G	60.10	68.20	-8.10	10.01	3	H	58	2.30	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

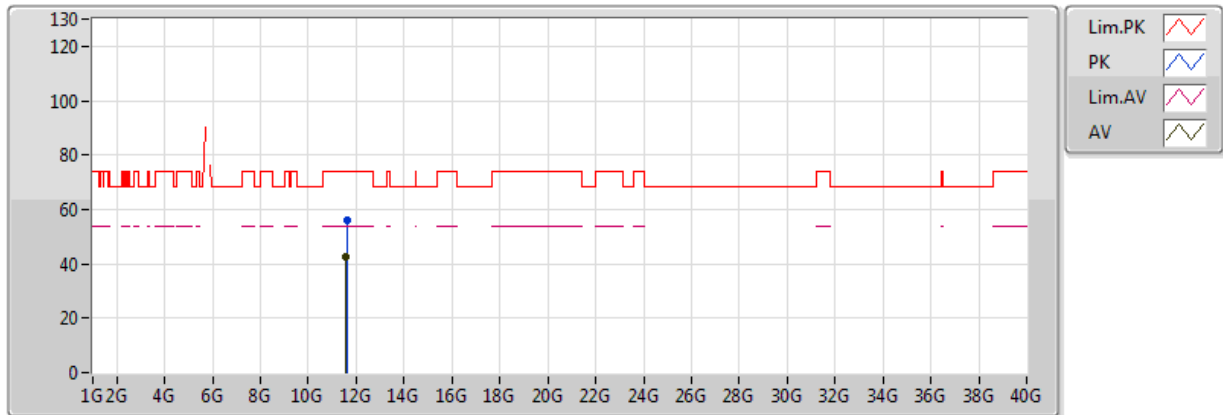


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.59022G	42.56	54.00	-11.44	16.41	3	V	139	1.17	-
PK	11.5851G	55.96	74.00	-18.04	16.41	3	V	139	1.17	-

802.11ac VHT40_Nss1,(MCS0)_2TX

5795MHz_TX

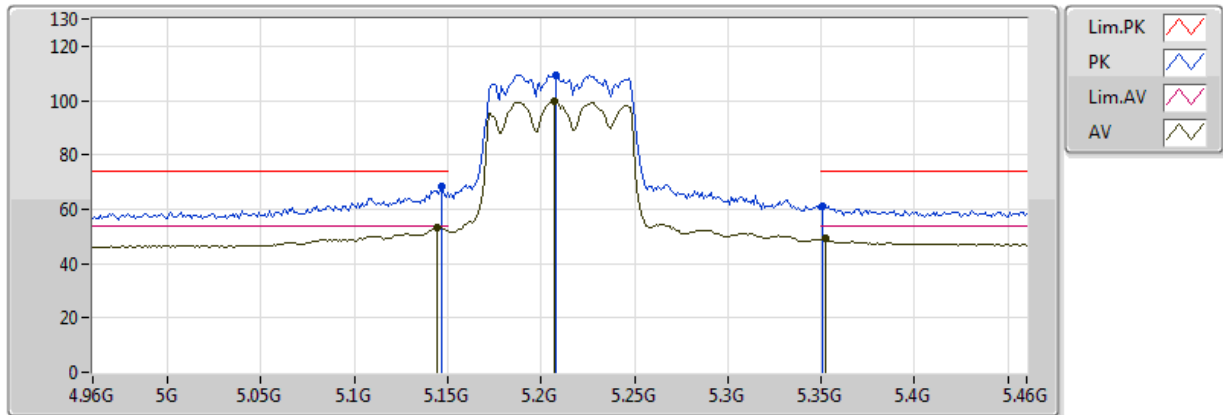


20170508
EUT Y_2TX
Setting 30(Max setting)
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.5886G	42.65	54.00	-11.35	16.41	3	H	137	1.63	-
PK	11.59454G	55.82	74.00	-18.18	16.42	3	H	137	1.63	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

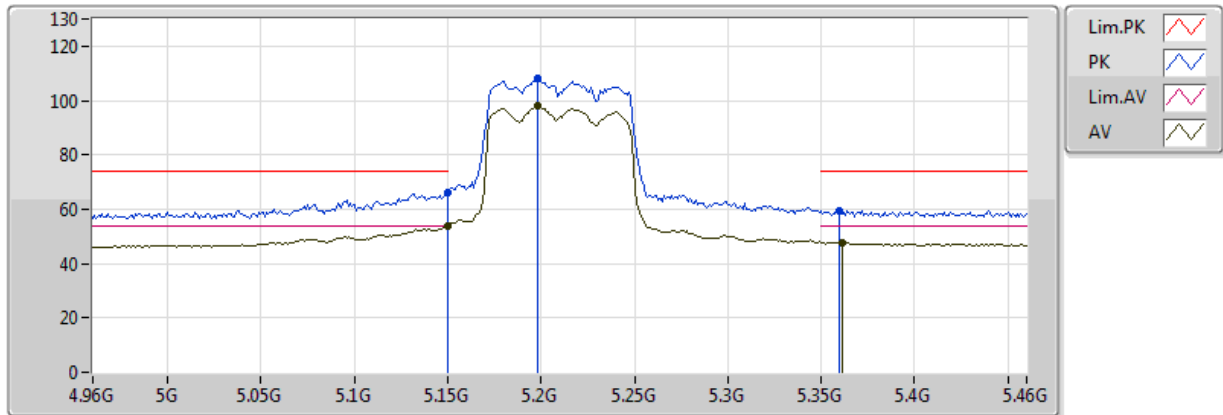


20170508
EUT Y_2TX
Setting 19
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.144G	53.42	54.00	-0.58	8.91	3	V	339	2.58	-
AV	5.207G	99.78	Inf	-Inf	9.07	3	V	339	2.58	-
AV	5.352G	49.06	54.00	-4.94	9.34	3	V	339	2.58	-
PK	5.147G	68.34	74.00	-5.66	8.92	3	V	339	2.58	-
PK	5.208G	109.47	Inf	-Inf	9.08	3	V	339	2.58	-
PK	5.351G	61.11	74.00	-12.89	9.34	3	V	339	2.58	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

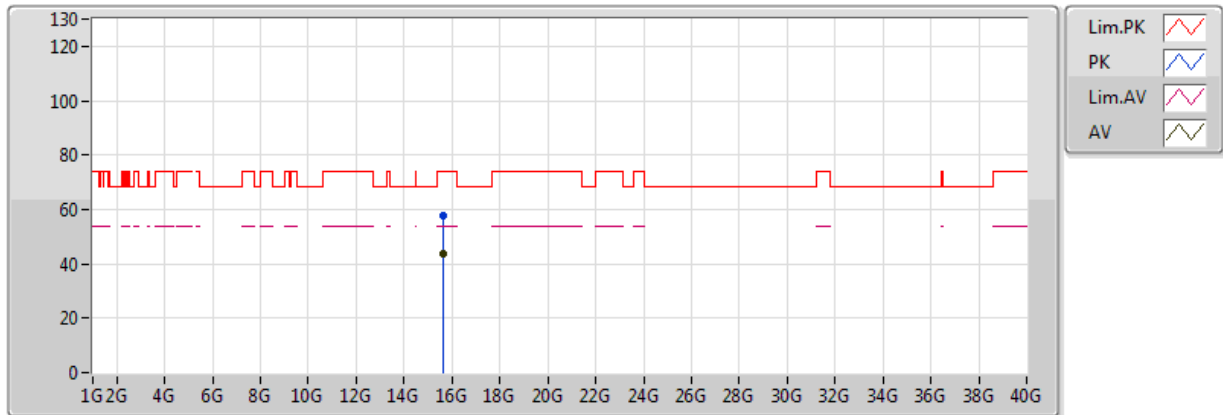


20170508
EUT Y_2TX
Setting 19
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.149995G	53.76	54.00	-0.24	8.93	3	H	10	2.94	-
AV	5.198G	98.02	Inf	-Inf	9.05	3	H	10	2.94	-
AV	5.361G	47.88	54.00	-6.12	9.36	3	H	10	2.94	-
PK	5.149995G	65.91	74.00	-8.09	8.93	3	H	10	2.94	-
PK	5.198G	108.38	Inf	-Inf	9.05	3	H	10	2.94	-
PK	5.36G	59.65	74.00	-14.35	9.36	3	H	10	2.94	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

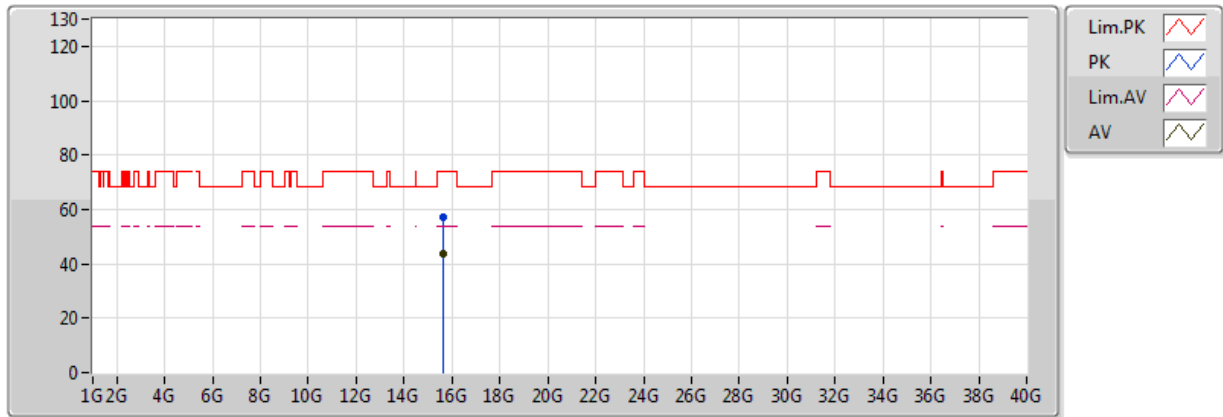


20170508
EUT Y_2TX
Setting 19
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.6286G	43.91	54.00	-10.09	17.88	3	V	19	2.15	-
PK	15.633G	57.61	74.00	-16.39	17.87	3	V	19	2.15	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5210MHz_TX

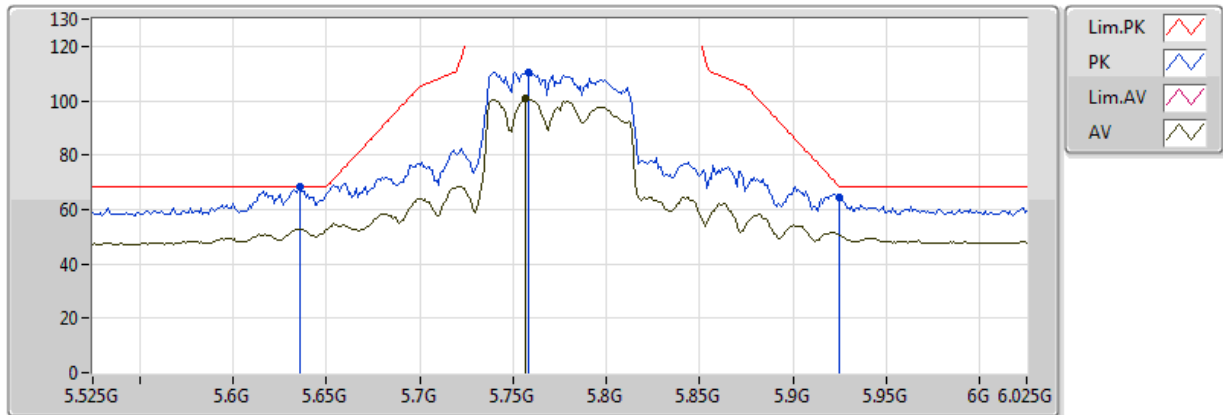


20170508
EUT_Y_2TX
Setting 19
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	15.63066G	43.84	54.00	-10.16	17.88	3	H	333	1.50	-
PK	15.63068G	57.23	74.00	-16.77	17.88	3	H	333	1.50	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

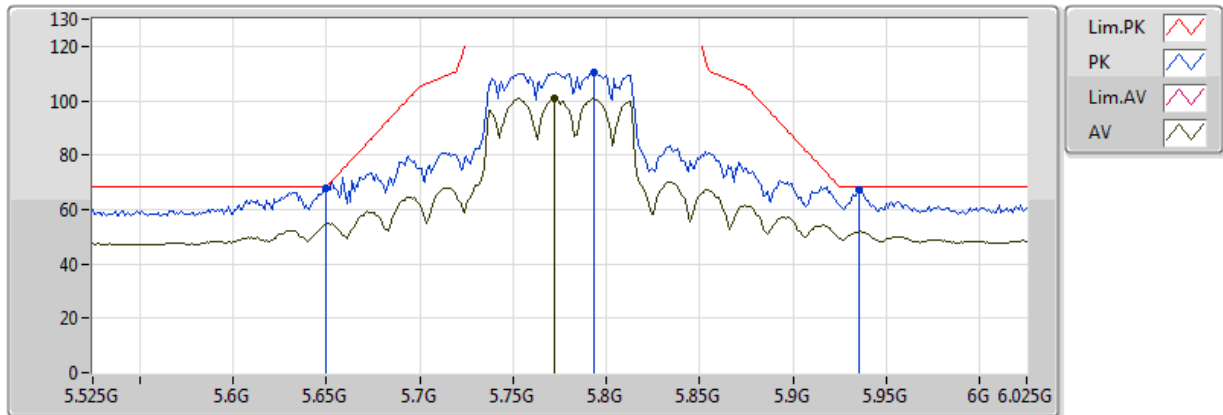


20170508
EUT Y_2TX
Setting 22
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.757G	100.64	Inf	-Inf	9.81	3	V	356	2.86	-
PK	5.636G	68.18	68.20	-0.02	9.79	3	V	356	2.86	-
PK	5.758G	110.64	Inf	-Inf	9.81	3	V	356	2.86	-
PK	5.925G	64.58	68.20	-3.62	10.00	3	V	356	2.86	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

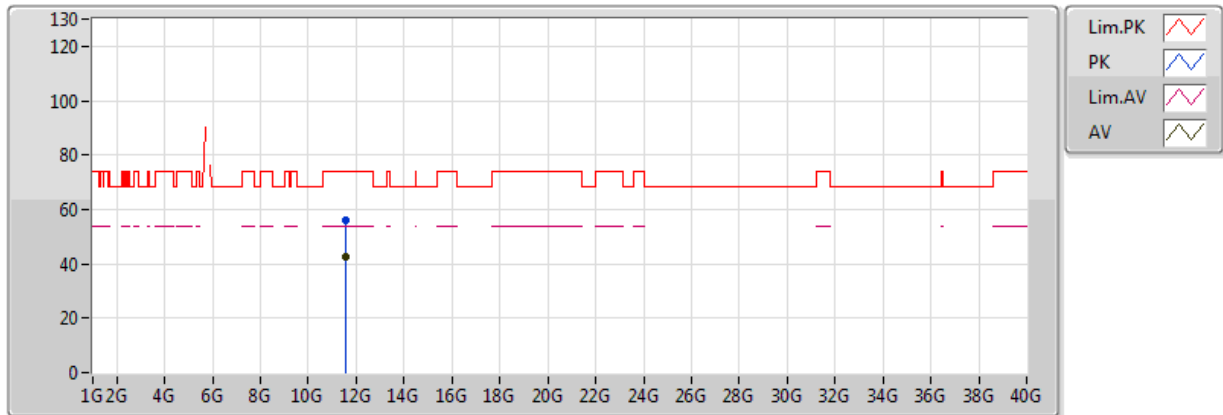


20170508
EUT Y_2TX
Setting 22
02-W-3-10
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	5.772G	100.95	Inf	-Inf	9.81	3	H	62	2.52	-
PK	5.65G	68.07	68.20	-0.13	9.79	3	H	62	2.52	-
PK	5.793G	110.45	Inf	-Inf	9.82	3	H	62	2.52	-
PK	5.935G	67.39	68.20	-0.81	10.01	3	H	62	2.52	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX

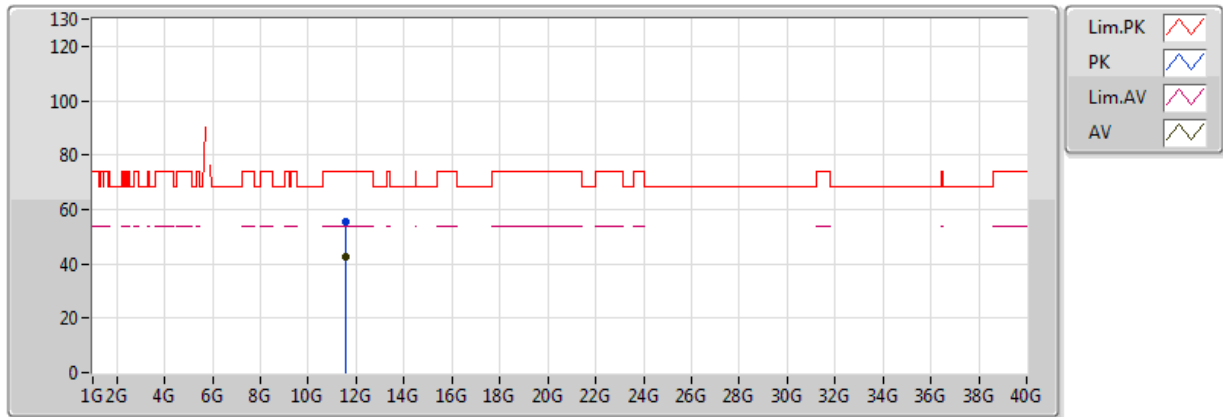


20170508
EUT Y_2TX
Setting 22
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.5512G	42.46	54.00	-11.54	16.38	3	V	260	2.24	-
PK	11.55454G	56.18	74.00	-17.82	16.38	3	V	260	2.24	-

802.11ac VHT80_Nss1,(MCS0)_2TX

5775MHz_TX



20170508
EUT Y_2TX
Setting 22
02-W-3
FSU

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	11.55026G	42.47	54.00	-11.53	16.37	3	H	155	2.46	-
PK	11.5458G	55.72	74.00	-18.28	16.37	3	H	155	2.46	-

Mode: 20 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5199.9920	5199.9918	5199.9909	5199.9907
110.00	5199.9914	5199.9912	5199.9906	5199.9904
93.50	5199.9910	5199.9902	5199.9892	5199.9890
Max. Deviation (MHz)	0.0090	0.0098	0.0108	0.0110
Max. Deviation (ppm)	1.73	1.88	2.08	2.12
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5200 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5199.9933	5199.9932	5199.9929	5199.9920
10	5199.9926	5199.9922	5199.9912	5199.9905
20	5199.9914	5199.9905	5199.9898	5199.9895
30	5199.9896	5199.9891	5199.9886	5199.9882
40	5199.9888	5199.9884	5199.9876	5199.9868
50	5199.9877	5199.9870	5199.9866	5199.9863
Max. Deviation (MHz)	0.0123	0.0130	0.0134	0.0137
Max. Deviation (ppm)	2.37	2.50	2.58	2.63
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5784.9915	5784.9914	5784.9913	5784.9907
110.00	5784.9914	5784.9908	5784.9902	5784.9894
93.50	5784.9906	5784.9898	5784.9891	5784.9883
Max. Deviation (MHz)	0.0094	0.0102	0.0109	0.0117
Max. Deviation (ppm)	1.62	1.76	1.88	2.02
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5785 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5784.9927	5784.9921	5784.9915	5784.9911
10	5784.9924	5784.9918	5784.9916	5784.9913
20	5784.9914	5784.9913	5784.9910	5784.9905
30	5784.9896	5784.9889	5784.9888	5784.9885
40	5784.9887	5784.9880	5784.9874	5784.9870
50	5784.9875	5784.9865	5784.9859	5784.9849
Max. Deviation (MHz)	0.0125	0.0135	0.0141	0.0151
Max. Deviation (ppm)	2.16	2.33	2.44	2.61
Result	Pass			

Mode: 40 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5189.9923	5189.9918	5189.9917	5189.9911
110.00	5189.9914	5189.9908	5189.9905	5189.9895
93.50	5189.9910	5189.9908	5189.9901	5189.9896
Max. Deviation (MHz)	0.0090	0.0092	0.0099	0.0105
Max. Deviation (ppm)	1.73	1.77	1.91	2.02
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5190 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5189.9923	5189.9922	5189.9917	5189.9912
10	5189.9915	5189.9908	5189.9904	5189.9903
20	5189.9914	5189.9910	5189.9908	5189.9900
30	5189.9896	5189.9891	5189.9889	5189.9879
40	5189.9894	5189.9887	5189.9879	5189.9869
50	5189.9874	5189.9871	5189.9862	5189.9861
Max. Deviation (MHz)	0.0126	0.0129	0.0138	0.0139
Max. Deviation (ppm)	2.43	2.49	2.66	2.68
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5754.9923	5754.9914	5754.9913	5754.9909
110.00	5754.9914	5754.9906	5754.9897	5754.9889
93.50	5754.9908	5754.9905	5754.9900	5754.9893
Max. Deviation (MHz)	0.0092	0.0095	0.0103	0.0111
Max. Deviation (ppm)	1.60	1.65	1.79	1.93
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5755 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5754.9931	5754.9928	5754.9919	5754.9914
10	5754.9918	5754.9911	5754.9905	5754.9902
20	5754.9914	5754.9912	5754.9907	5754.9897
30	5754.9896	5754.9894	5754.9892	5754.9889
40	5754.9887	5754.9884	5754.9875	5754.9870
50	5754.9878	5754.9869	5754.9862	5754.9858
Max. Deviation (MHz)	0.0122	0.0131	0.0138	0.0142
Max. Deviation (ppm)	2.12	2.28	2.40	2.47
Result	Pass			

Mode: 80 MHz / Port 2

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5209.9924	5209.9917	5209.9915	5209.9909
110.00	5209.9914	5209.9912	5209.9905	5209.9898
93.50	5209.9913	5209.9903	5209.9893	5209.9885
Max. Deviation (MHz)	0.0087	0.0097	0.0107	0.0115
Max. Deviation (ppm)	1.67	1.86	2.05	2.21
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5210 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5209.9941	5209.9938	5209.9932	5209.9928
10	5209.9934	5209.9931	5209.9926	5209.9922
20	5209.9914	5209.9908	5209.9900	5209.9894
30	5209.9896	5209.9894	5209.9892	5209.9891
40	5209.9894	5209.9888	5209.9887	5209.9885
50	5209.9887	5209.9880	5209.9874	5209.9866
Max. Deviation (MHz)	0.0113	0.0120	0.0126	0.0134
Max. Deviation (ppm)	2.17	2.30	2.42	2.57
Result	Pass			

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
126.50	5774.9918	5774.9912	5774.9909	5774.9906
110.00	5774.9914	5774.9909	5774.9907	5774.9904
93.50	5774.9911	5774.9905	5774.9901	5774.9899
Max. Deviation (MHz)	0.0089	0.0095	0.0099	0.0101
Max. Deviation (ppm)	1.54	1.65	1.71	1.75
Result	Pass			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(°C)	5775 MHz			
	0 Minute	2 Minute	5 Minute	10 Minute
0	5774.9939	5774.9938	5774.9929	5774.9924
10	5774.9929	5774.9922	5774.9916	5774.9908
20	5774.9914	5774.9906	5774.9905	5774.9895
30	5774.9896	5774.9892	5774.9888	5774.9879
40	5774.9876	5774.9872	5774.9868	5774.9861
50	5774.9866	5774.9860	5774.9852	5774.9844
Max. Deviation (MHz)	0.0134	0.0140	0.0148	0.0156
Max. Deviation (ppm)	2.32	2.42	2.56	2.70
Result	Pass			

