



FCC Test Report

Equipment : AC2200 Smart Whole-Home Wi-Fi System
Brand Name : TP-Link
Model No. : Deco M6
FCC ID : TE7M6
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Function : ☒ Point-to-multipoint; ☐ Point-to-point
Applicant : TP-Link Technologies Co., Ltd.
Building 24 (floors 1,3,4,5) and 28 (floors1-4)
Central Science and Technology Park,Shennan Rd,
Nanshan, Shenzhen,China
Manufacturer : TP-Link Technologies Co., Ltd.
Building 24 (floors 1,3,4,5) and 28 (floors1-4)
Central Science and Technology Park,Shennan Rd,
Nanshan, Shenzhen,China

The product sample received on May 18, 2017 and completely tested on Jul. 04, 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.


Sam Chen
SPORTON INTERNATIONAL INC.



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Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
1.1.2	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	FCC 15.207	Complied
3.2	15.247(a)	DTS Bandwidth	≥500kHz	Complied
3.3	15.247(b)	Maximum Conducted Output Power	Power [dBm]:30	Complied
3.4	15.247(e)	Power Spectral Density	PSD [dBm/3kHz]:8	Complied
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	Non-Restricted Bands: > 30 dBc	Complied
3.6	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied



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FCC ID: TE7M6

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), ac (VHT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), ac (VHT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT20-BF	20	2TX
2.4-2.4835GHz	802.11ac VHT20	20	2TX
2.4-2.4835GHz	802.11ac VHT20-BF	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	802.11n HT40-BF	40	2TX
2.4-2.4835GHz	802.11ac VHT40	40	2TX
2.4-2.4835GHz	802.11ac VHT40-BF	40	2TX

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40 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	Product Number	Type	Connector	Gain (dBi)	Remark
1	TP-LINK	3101501303	Omni-Directional	I-PEX	1.2	WLAN 2.4GHz TX/RX
2	TP-LINK	3101501305	Omni-Directional	I-PEX	1.3	WLAN 2.4GHz TX/RX
3	TP-LINK	3101501307	Omni-Directional	I-PEX	0.85	WLAN 5GHz band 1 TX/RX
4	TP-LINK	3101501309	Omni-Directional	I-PEX	0.64	WLAN 5GHz band 1 TX/RX
5	TP-LINK	3101501306	Omni-Directional	I-PEX	0.81	WLAN 5GHz band 4 TX/RX
6	TP-LINK	3101501308	Omni-Directional	I-PEX	0.88	WLAN 5GHz band 4 TX/RX
7	TP-LINK	6035500107	Omni-Directional	N/A	1.4	Bluetooth TX/RX
8	TP-LINK	3101501304	Omni-Directional	I-PEX	1.1	Zigbee TX/RX

Note: The EUT has eight antennas.

For WLAN 2.4GHz b/g/n/ac (2TX/2RX):

Ant. 1 (Port 1), and Ant. 2 (Port 2) can be used as transmitting/receiving antenna.

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

For WLAN 5GHz band 1 a/n/ac (2TX/2RX):

Ant. 3 (Port 1), and Ant. 4 (Port 2) can be used as transmitting/receiving antenna.

Ant. 3 (Port 1), and Ant. 4 (Port 2) could transmit/receive simultaneously.

For WLAN 5GHz band 4 a/n/ac (2TX/2RX):

Ant. 5 (Port 1), and Ant. 6 (Port 2) can be used as transmitting/receiving antenna.

Ant. 5 (Port 1), and Ant. 6 (Port 2) could transmit/receive simultaneously.

For Bluetooth (1TX/1RX):

Only Ant. 7 (Port 1) can be used as transmitting/receiving antenna.

For Zigbee (1TX/1RX):

Only Ant. 8 (Port 1) can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)
802.11b	0.992	0.035
802.11g	0.962	0.168
802.11ac VHT20	0.984	0.07
802.11ac VHT40	0.968	0.141

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter		
Beamforming Function	☒	With beamforming	☐ Without beamforming
	The product has beamforming function for 802.11n/ac.		

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 558074 D01 v04
- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 644545 D01 v01r02
- ♦ FCC KDB 412172 D01 v01r01

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	Brian Sun	22°C / 54%	Jun. 27, 2017~Jul. 03, 2017
Radiated	03CH01-CB	Paul Chen, Jay Luo, Welson Chen	22°C / 54%	Jun. 20, 2017~Jul. 04, 2017
AC Conduction	CO01-CB	GN Hou	23°C / 53%	Jun. 27, 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%

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	23
2437MHz	23
2462MHz	23
802.11g_(6Mbps)_2TX	-
2412MHz	18
2437MHz	23.5
2462MHz	19
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2412MHz	18.5
2437MHz	23.5
2462MHz	19
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2422MHz	16.5
2437MHz	18.5
2452MHz	17
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	20
2437MHz	26
2462MHz	22
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	20
2437MHz	22
2452MHz	20

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.
- ♦ There are two modes of EUT for 802.11n/ac. One is beamforming mode, and the other is non-beamforming mode, and all test results were recorded in this report.

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 (Repeater mode)

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
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 (Repeater mode)
Operating Mode > 1GHz	CTX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz+WLAN 5GHz+Bluetooth+Zigbee
Refer to Sporton Test Report No.: FA751835 for Co-location RF Exposure Evaluation.	

Note: 1. The EUT can only be used at Z axis position.

2. All the specification of test configurations and test modes were based on customer's request.
3. There are two modes of EUT, one is AP mode, and other is Repeater mode, Repeater mode was selected as representative test mode because it equipped with the most complicated functions.

2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN XP were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under Telnet.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

For Normal Link:

During the test, the EUT operation to normal function.

During the test, the following programs under WIN 7 were executed:

The remote notebook executed "ping.exe" to link with the EUT to maintain the connection by LAN, WAN and WLAN.

The remote notebook executed "Telnet" to traffic packet data and sent instruction to another device.

The remote notebook executed "Telnet" to control the EUT continuously transmit Bluetooth and Zigbee signal.

The remote notebook executed "Winthrax.exe" to read and write data from EUT.

2.4 Accessories

Accessories				
No.	Equipment Name	Brand Name	Model Name	Rating
1	Adapter	TP-Link	T120200-2B4	Input: 100-240V ~ 50/60Hz, 0.8A Output: 12V, 2A

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*6	DELL	E6430	DoC
2	AP	TP-LINK	Deco M6	DoC
3	Device	TP-LINK	Deco M6	DoC
4	Flash disk3.0	Transcend	639205 7755	DoC

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

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*4	DELL	E4300	DoC
2	NB*2	Apple	Mac Book	DoC
3	AP	TP-LINK	Deco M6	DoC
4	Device	TP-LINK	Deco M6	DoC
5	Flash disk	Silicon Power	I-Series	DoC

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

For non-beamforming mode:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*2	DELL	E4300	DoC
2	RX Device	TP-LINK	Deco M6	DoC

For beamforming mode:

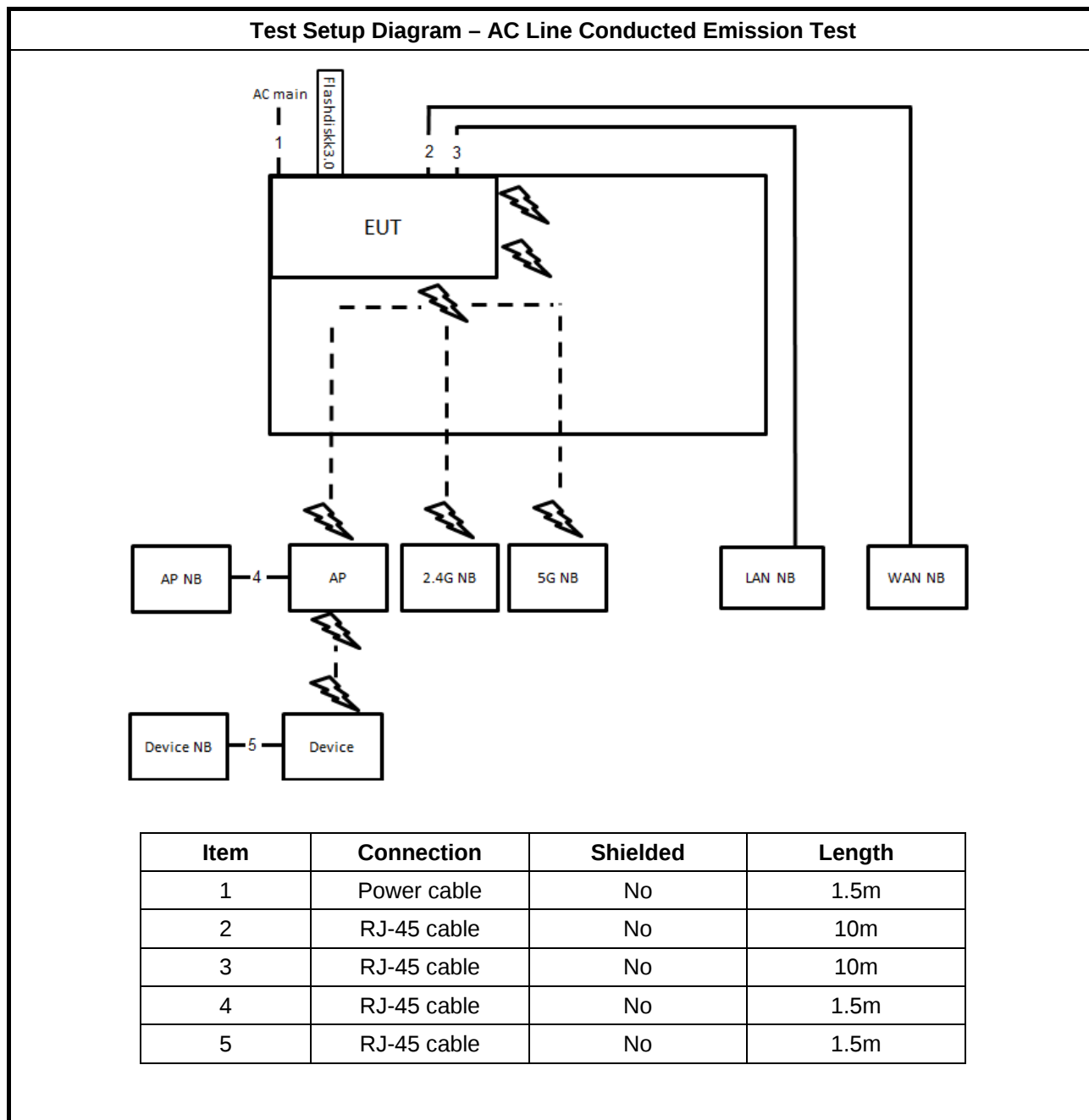
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

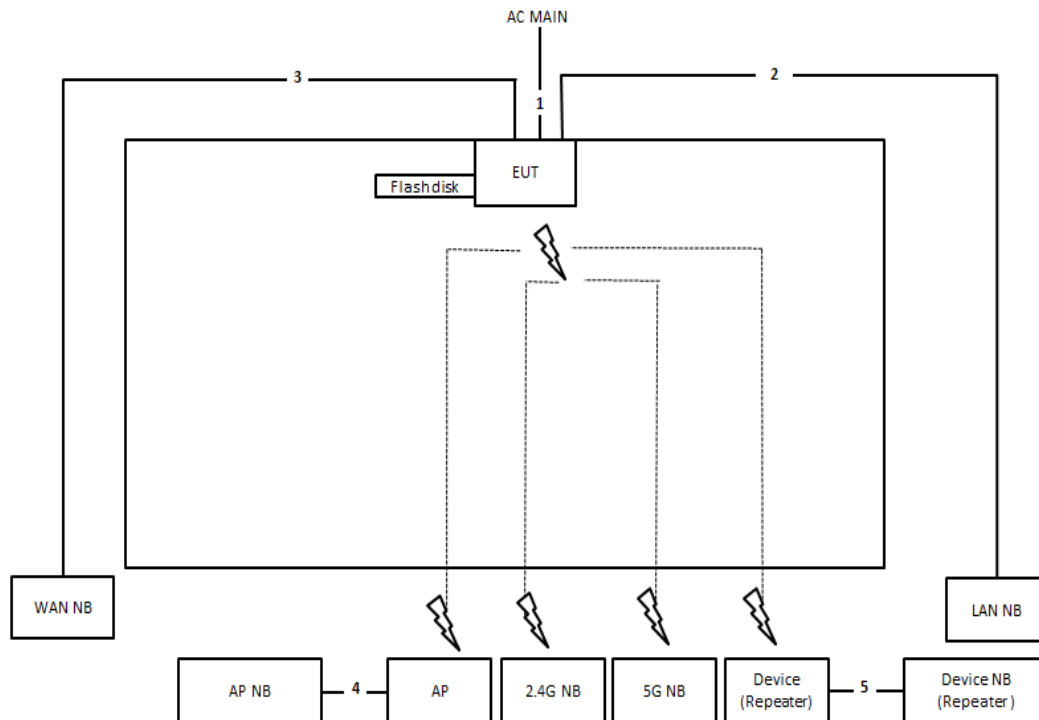
For Test Site No: TH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID

1	NB	DELL	E4300	DoC
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2.6 Test Setup Diagram

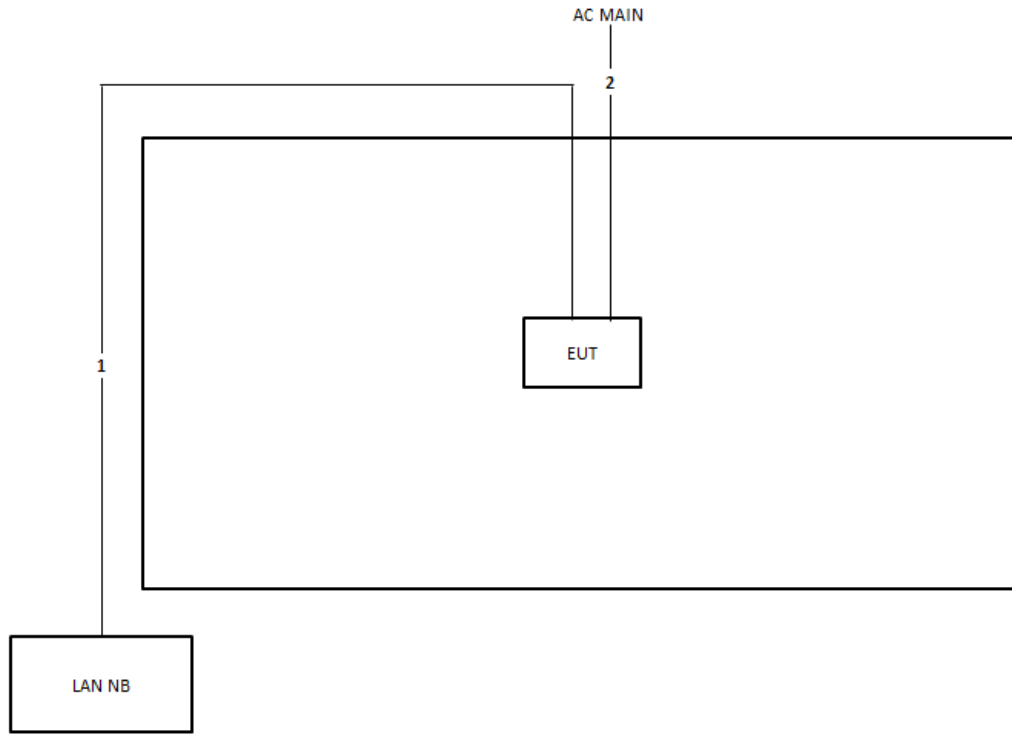


Test Setup Diagram - Radiated Test < 1GHz


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

Test Setup Diagram - Radiated Test > 1GHz

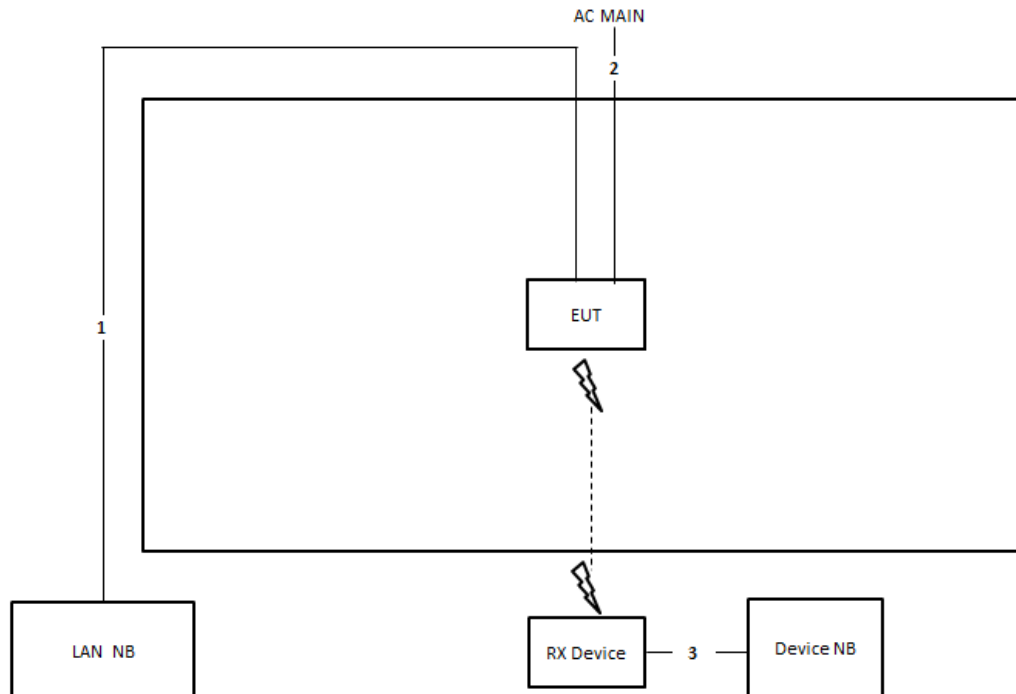
For non-beamforming mode:



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

Test Setup Diagram - Radiated Test > 1GHz

For beamforming mode:



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

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

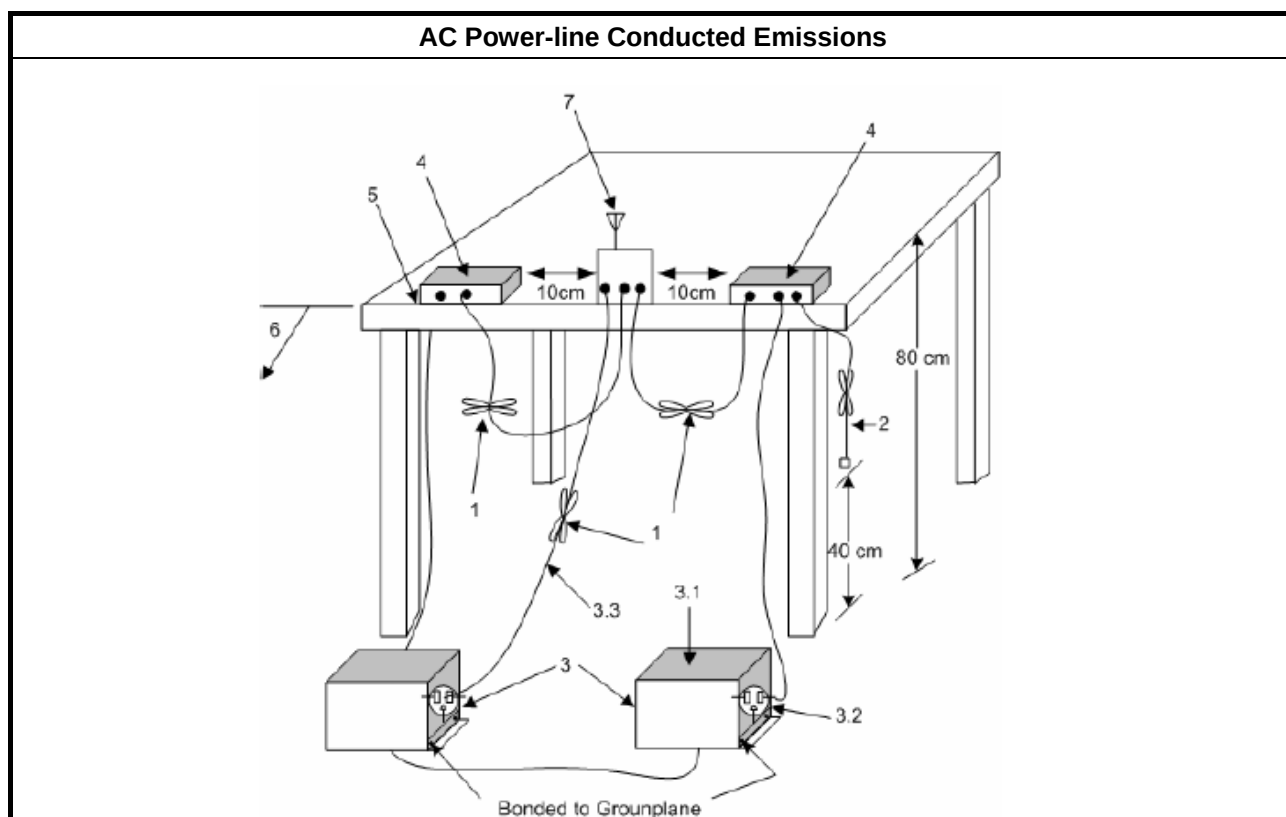
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
▪	6 dB bandwidth $\geq$ 500 kHz.

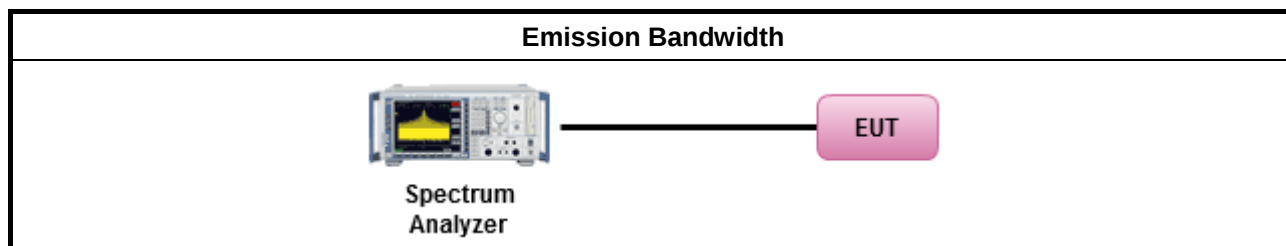
3.2.2 Measuring Instruments

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 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
☐	Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied 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	
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	▪ Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

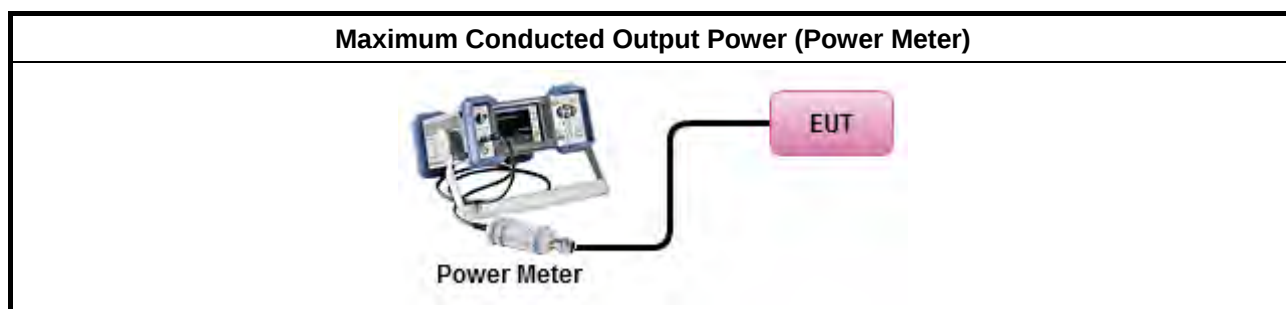
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
☐	Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW ≥ DTS BW)
Maximum Conducted Output Power	
[duty cycle ≥ 98% or external video / power trigger]	
☐	Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
☐	Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
☐	Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
☐	Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
RF power meter and average over on/off periods with duty factor or gated trigger	
☒	Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM-G (using an RF average power meter).
☐	Refer as FCC KDB 558074, clause 9.1.2 PKPM1 Peak power meter method.
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 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
Power Spectral Density (PSD) ≤ 8 dBm/3kHz

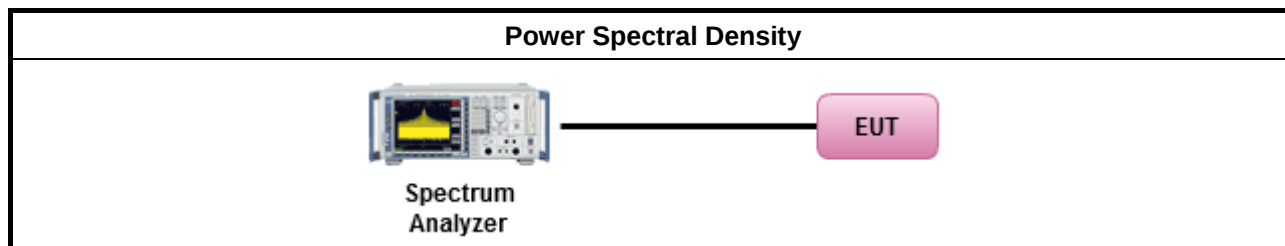
3.4.2 Measuring Instruments

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. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒ Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak). [duty cycle $\geq 98\%$ or external video / power trigger]
☐ Refer as FCC KDB 558074, clause 10.3 Method AVGPS-1 (spectral trace averaging).
☐ Refer as FCC KDB 558074, clause 10.4 Method AVGPS-2 (slow sweep speed)
duty cycle $< 98\%$ and average over on/off periods with duty factor
☐ Refer as FCC KDB 558074, clause 10.5 Method AVGPS-1 Alt (spectral trace averaging).
☐ Refer as FCC KDB 558074, clause 10.6 Method AVGPS-2 Alt. (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.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

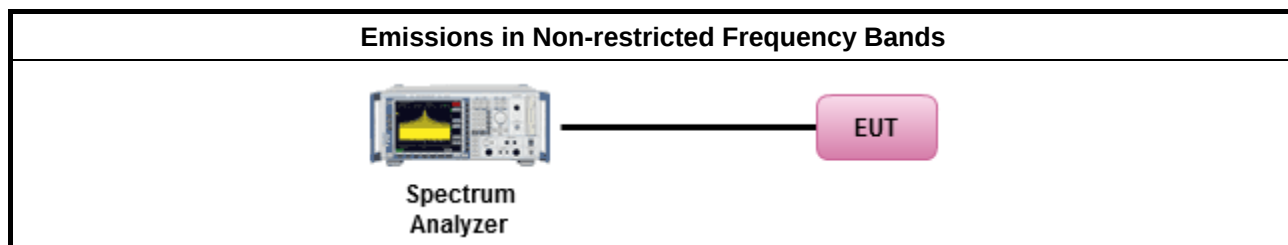
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
Refer as FCC KDB 558074, clause 11 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions 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.

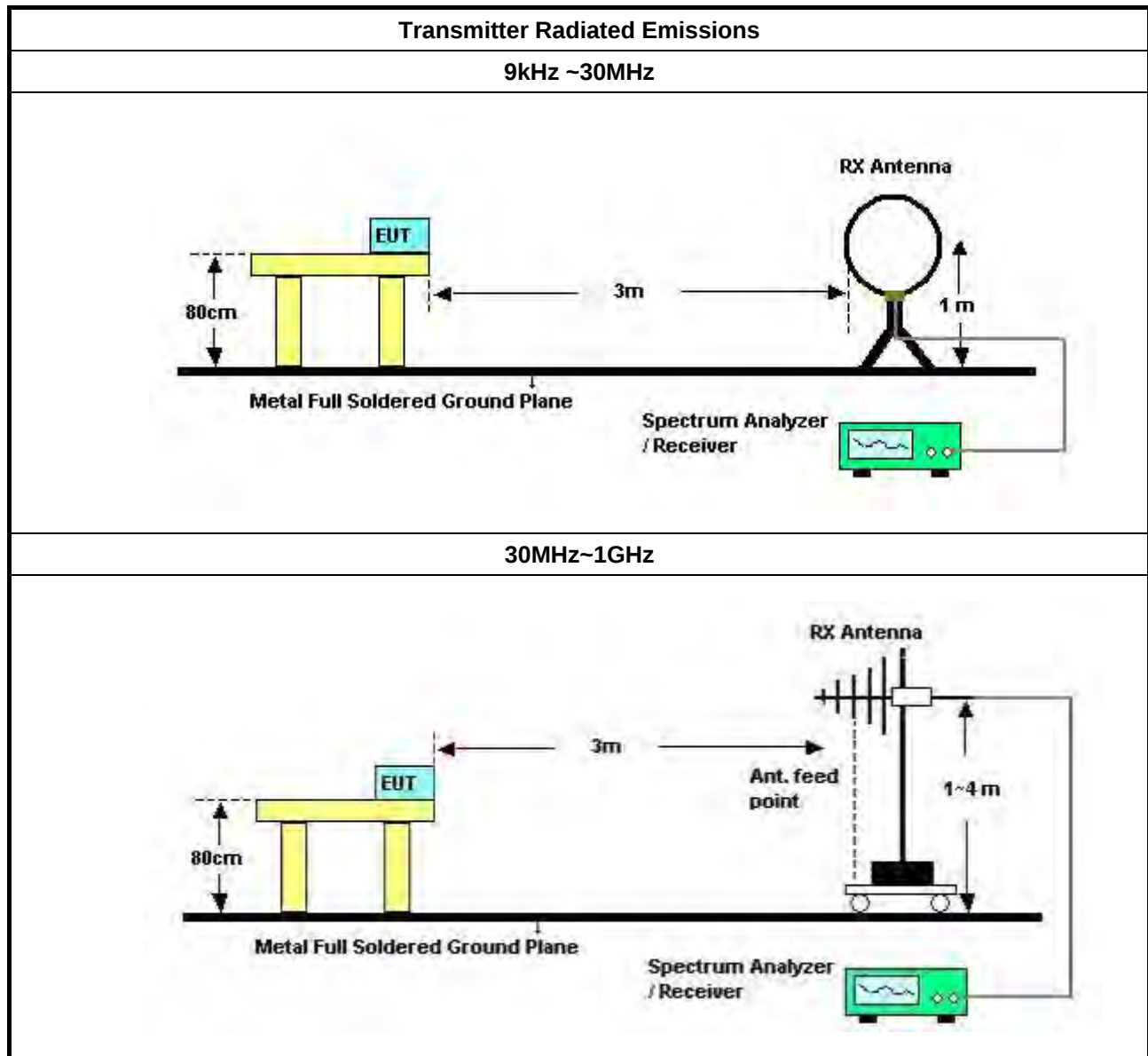
3.6.2 Measuring Instruments

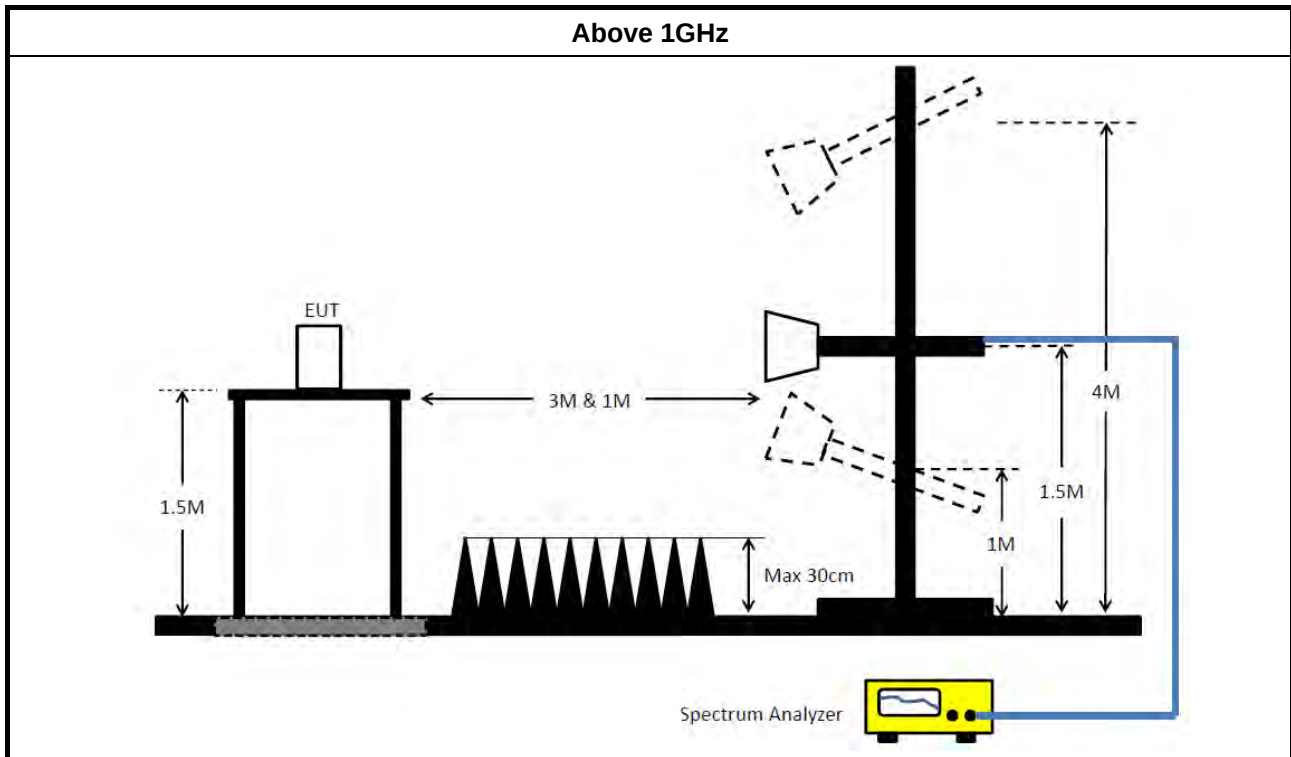
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.9.2.2 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle $\geq 98\%$)
	☐ Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
	☒ Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW $\geq 1/T$).
	☐ 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 558074, clause 12.2.4 measurement procedure peak limit.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as FCC KDB 558074 clause 13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	Refer as FCC KDB 558074, clause 13.2 (ANSI C63.10, clause 6.9.3) for marker-delta method for band-edge measurements.
	Refer as FCC KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 12.2.2.	
	For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add $10 \log(N)$ dB
	For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.6.4 Test Setup





3.6.5 Transmitter Radiated 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.

3.6.6 Test Result of Transmitter Radiated Unwanted Emissions

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 23, 2017	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-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)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 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)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	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 06, 2017	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)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (10CH01-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)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)

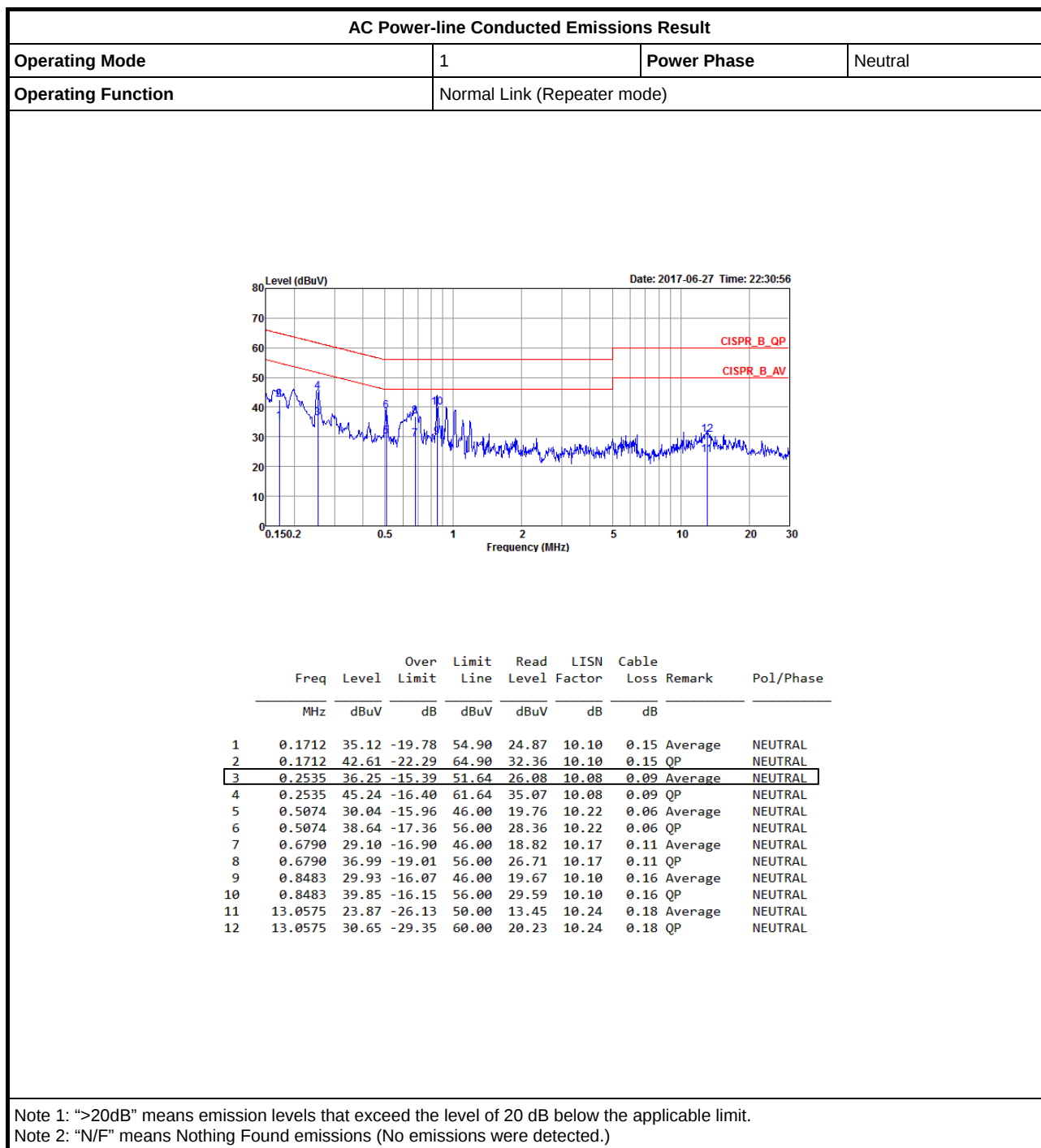


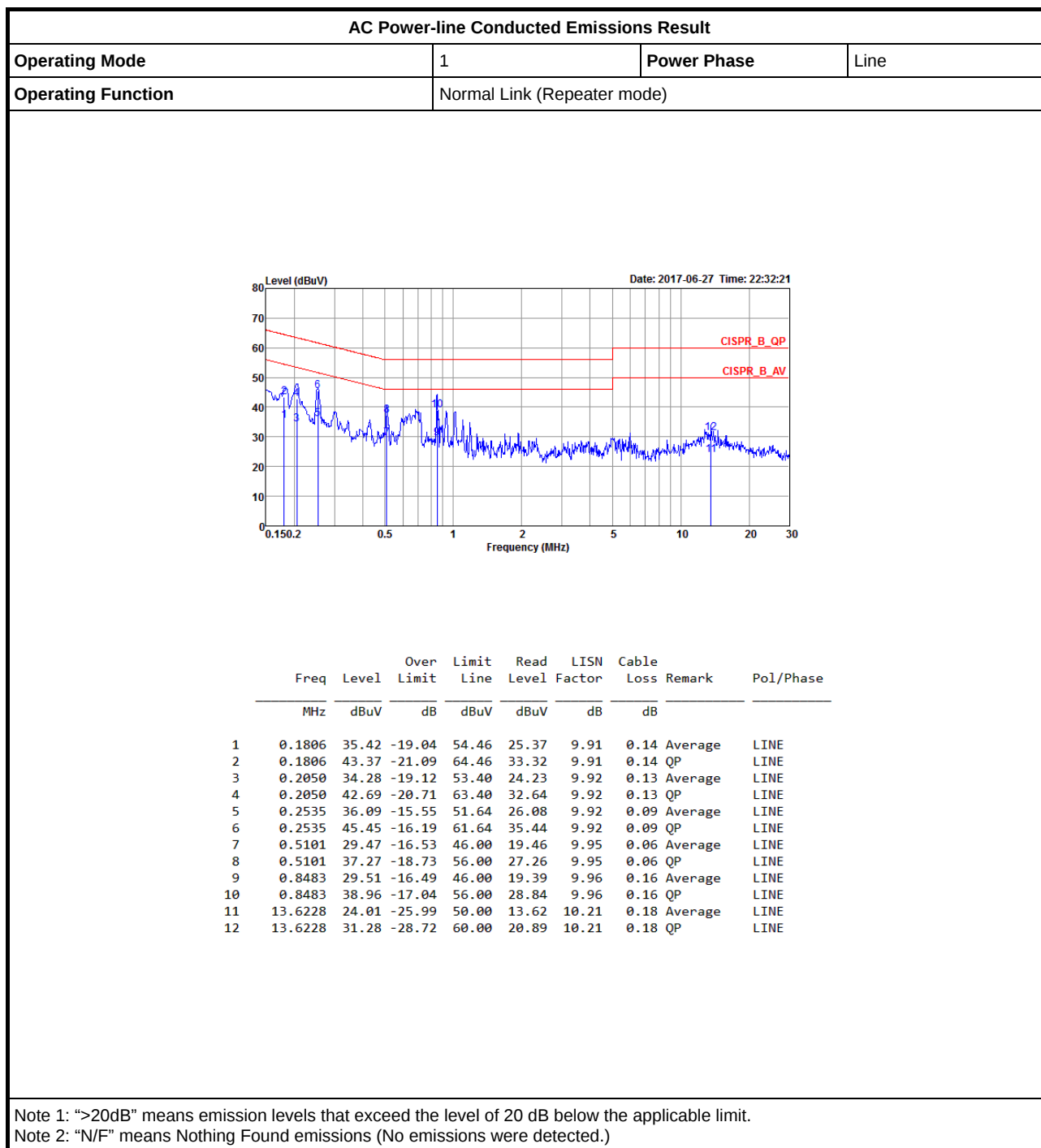
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Conducted (TH01-CB)

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

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

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





Summary

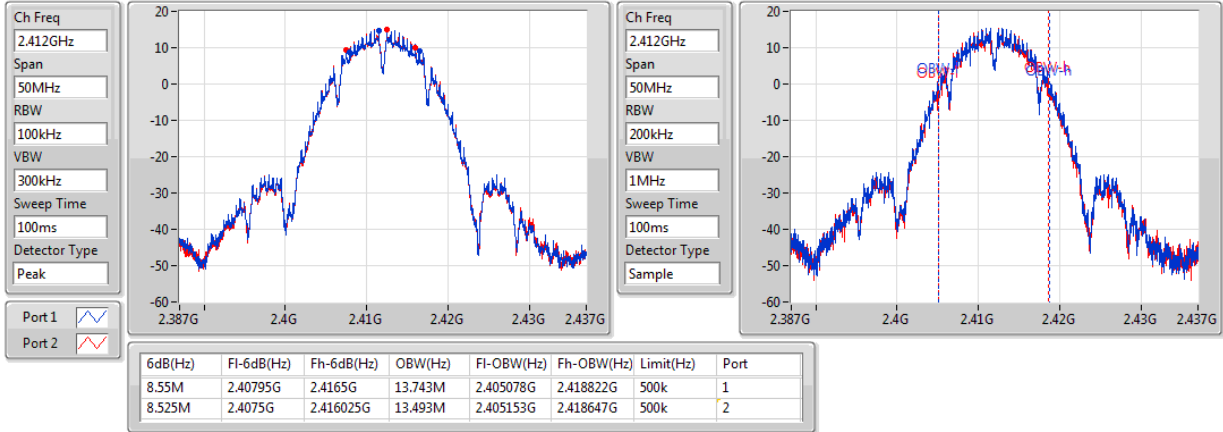
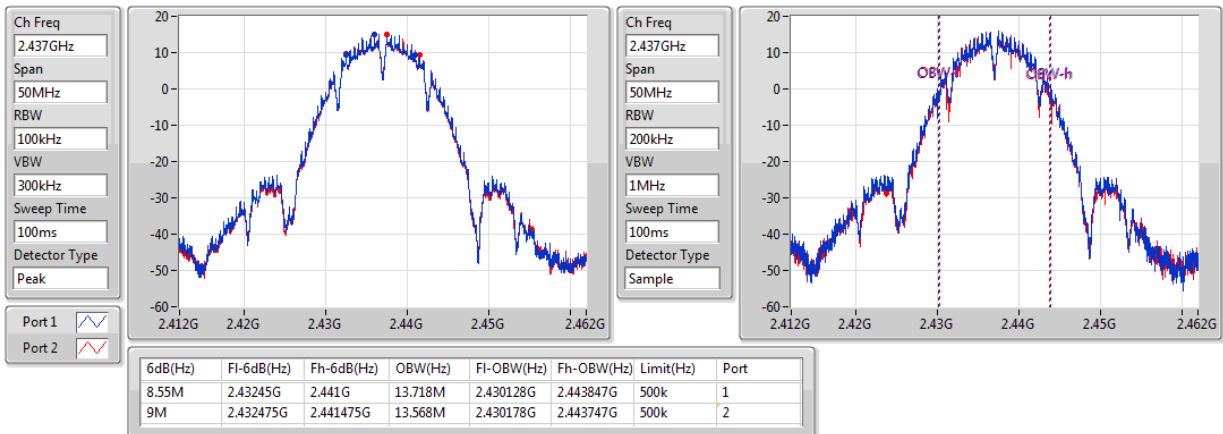
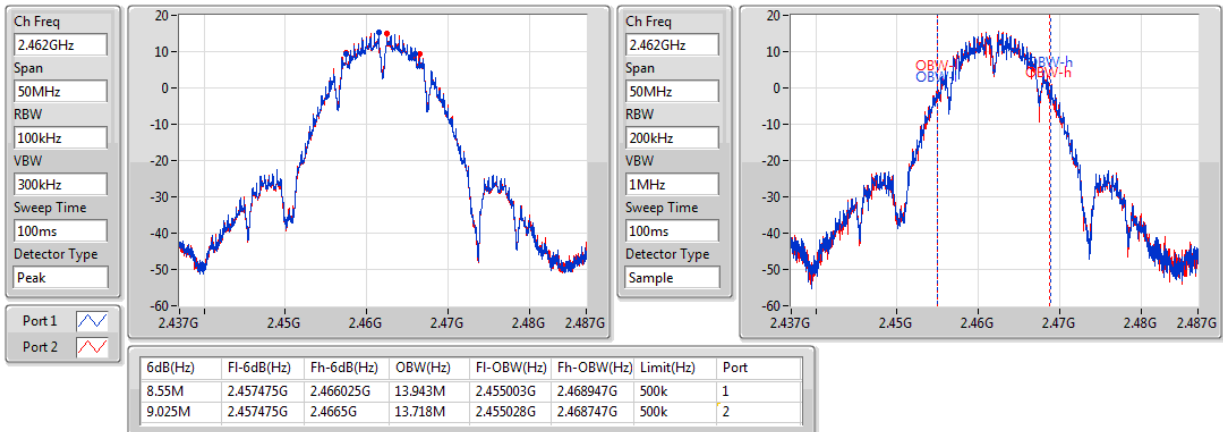
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	9.025M	13.943M	13M9G1D	8.525M	13.493M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	16.35M	16.767M	16M8D1D	16.3M	16.367M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.6M	17.866M	17M9D1D	17.55M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35.65M	36.032M	36M0D1D	34M	35.932M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.55M	17.766M	17M8D1D	15.825M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35.05M	35.982M	36M0D1D	27.55M	35.832M

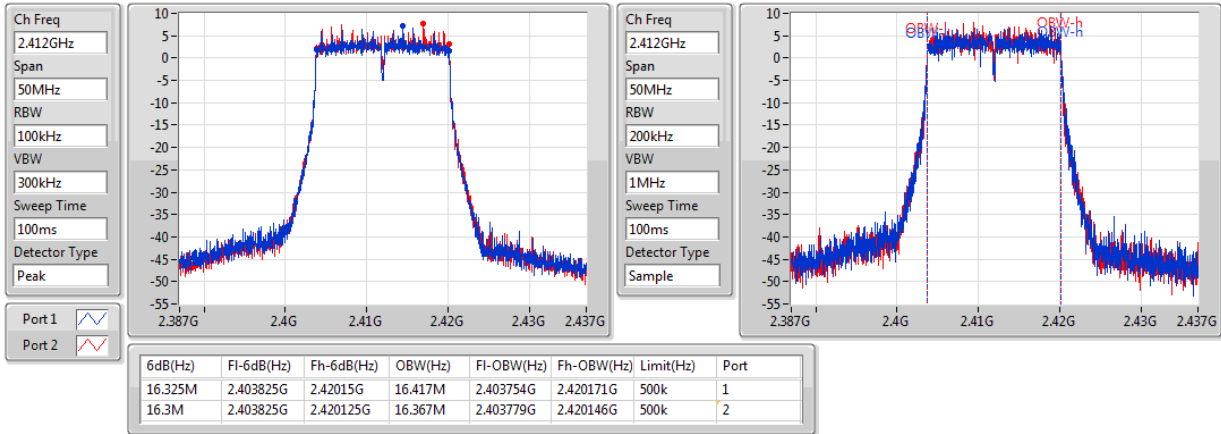
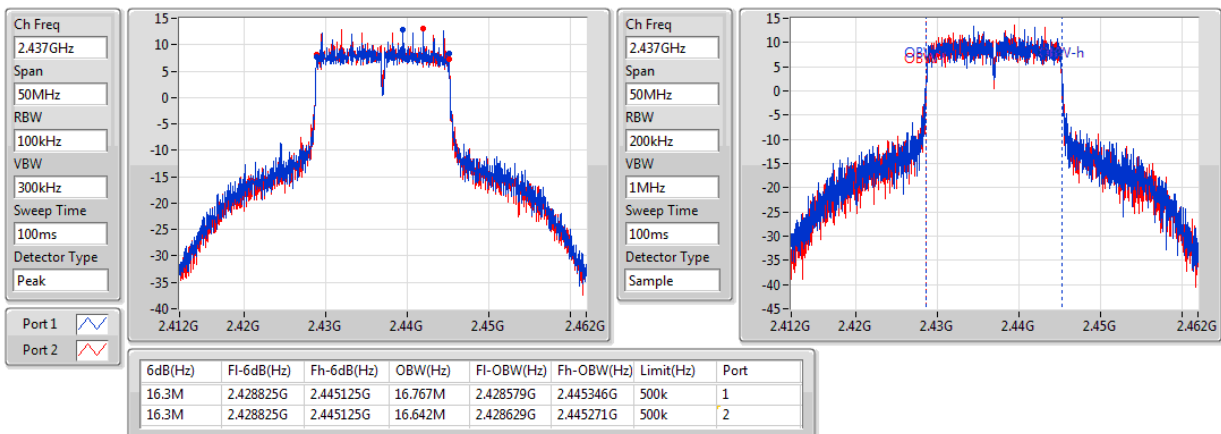
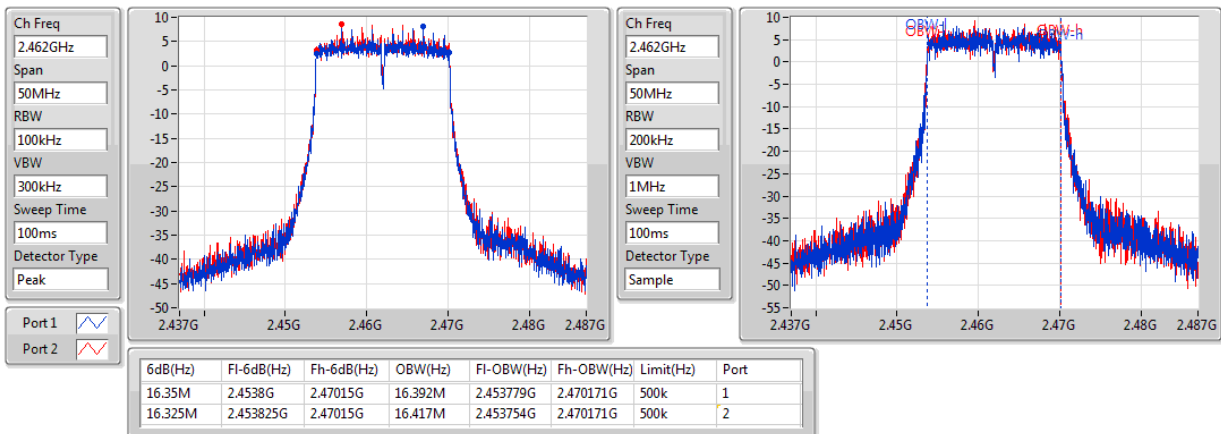
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

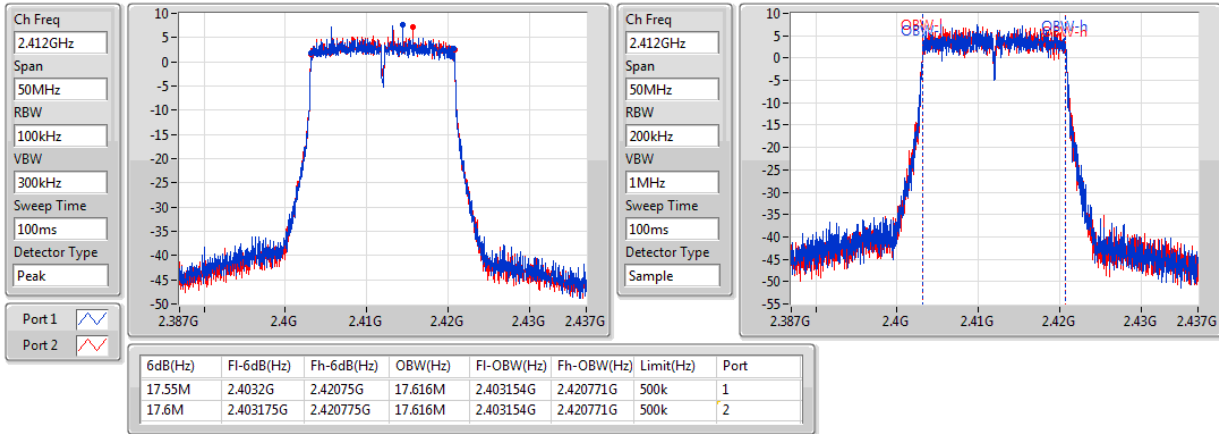
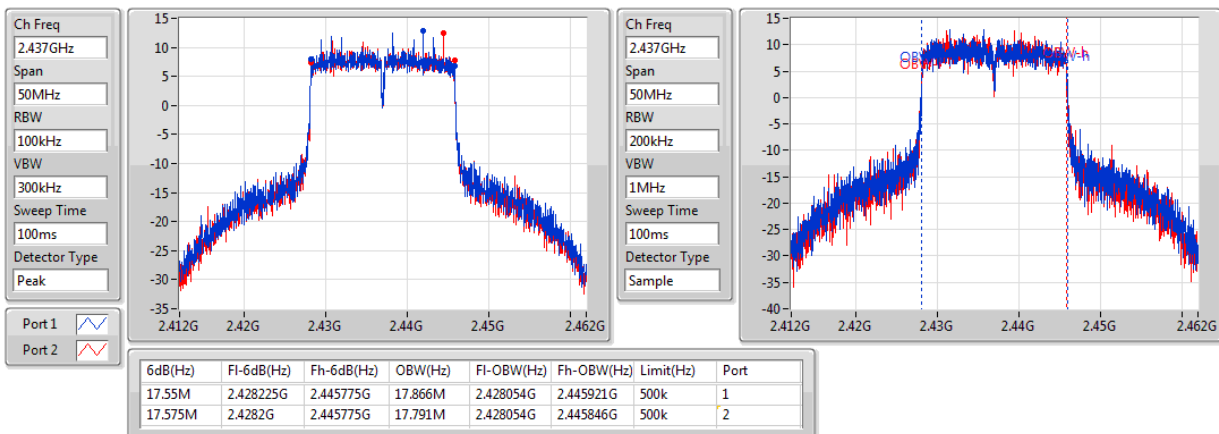
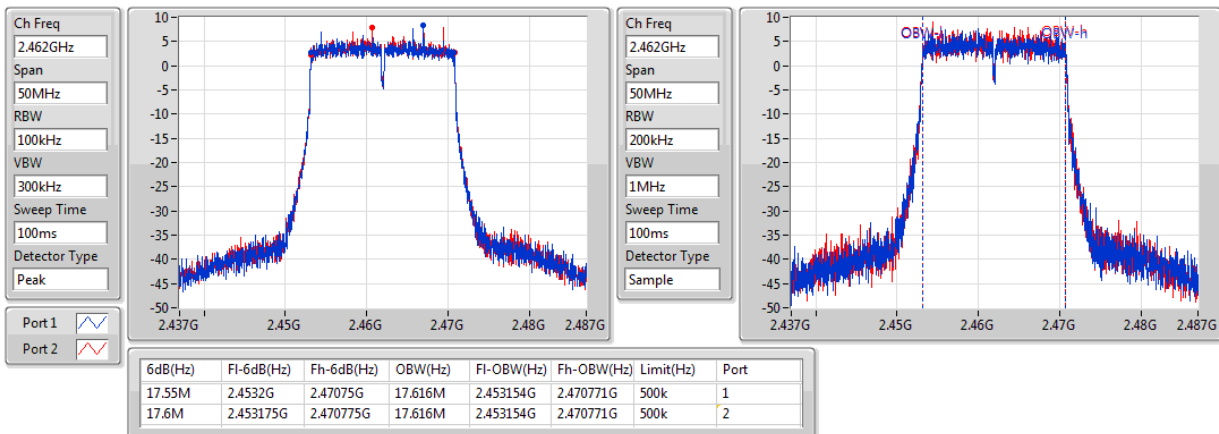
Result

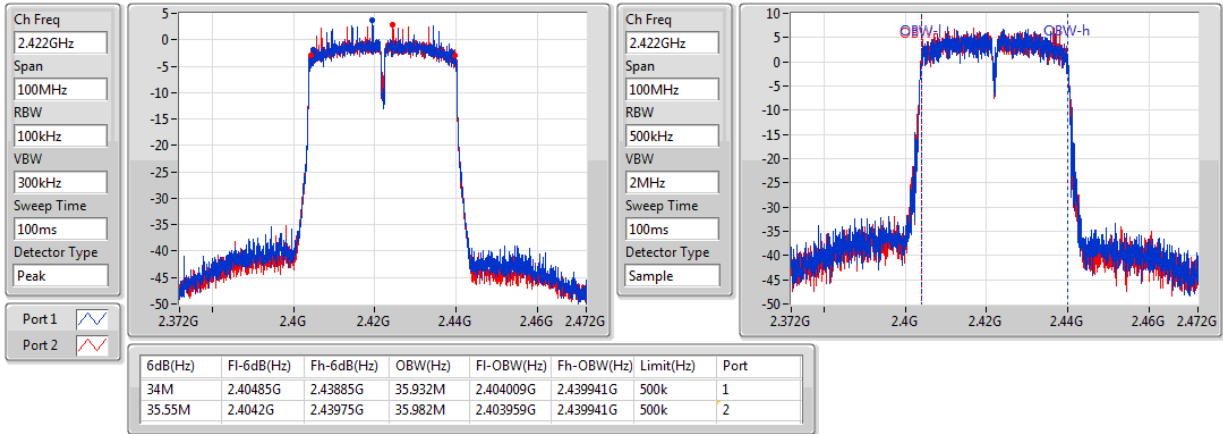
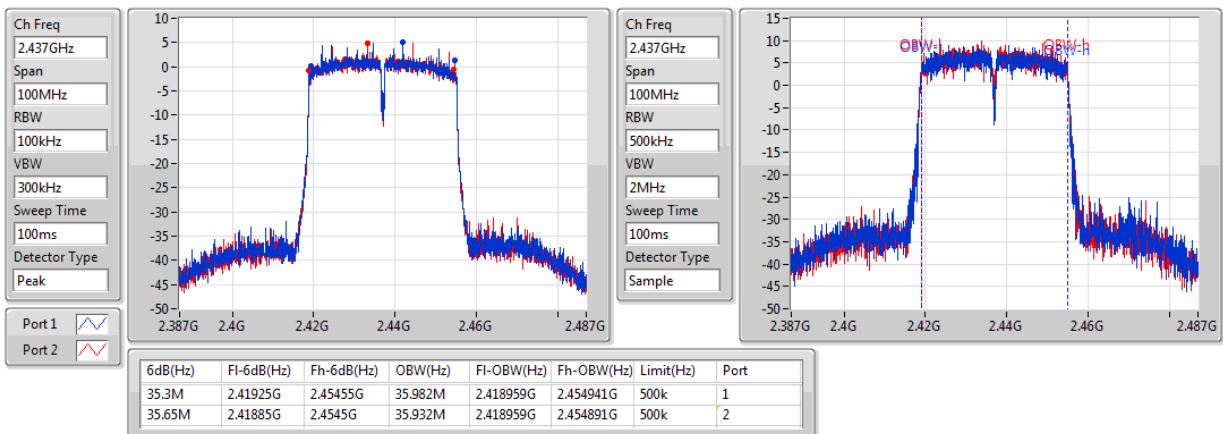
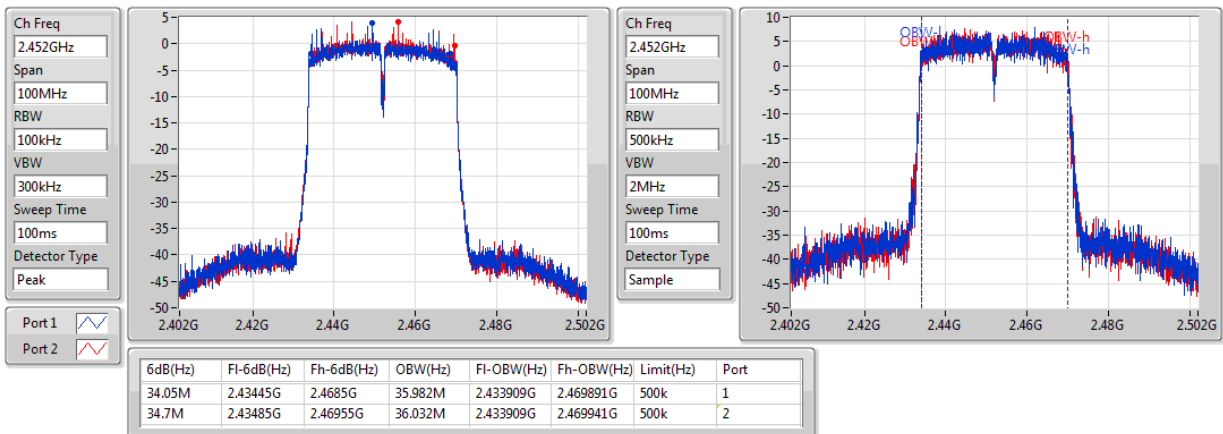
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.55M	13.743M	8.525M	13.493M
2437MHz	Pass	500k	8.55M	13.718M	9M	13.568M
2462MHz	Pass	500k	8.55M	13.943M	9.025M	13.718M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.417M	16.3M	16.367M
2437MHz	Pass	500k	16.3M	16.767M	16.3M	16.642M
2462MHz	Pass	500k	16.35M	16.392M	16.325M	16.417M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.616M	17.6M	17.616M
2437MHz	Pass	500k	17.55M	17.866M	17.575M	17.791M
2462MHz	Pass	500k	17.55M	17.616M	17.6M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	34M	35.932M	35.55M	35.982M
2437MHz	Pass	500k	35.3M	35.982M	35.65M	35.932M
2452MHz	Pass	500k	34.05M	35.982M	34.7M	36.032M
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.591M	15.825M	17.591M
2437MHz	Pass	500k	17.525M	17.741M	17.55M	17.766M
2462MHz	Pass	500k	17.55M	17.616M	16.275M	17.616M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	34.05M	35.982M	34.35M	35.882M
2437MHz	Pass	500k	35.05M	35.932M	27.55M	35.982M
2452MHz	Pass	500k	34.75M	35.982M	31.65M	35.832M

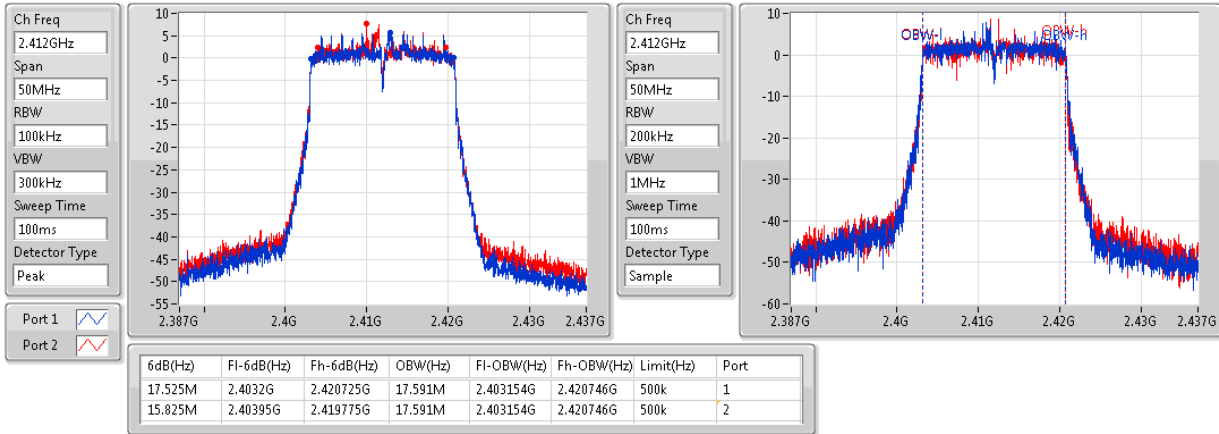
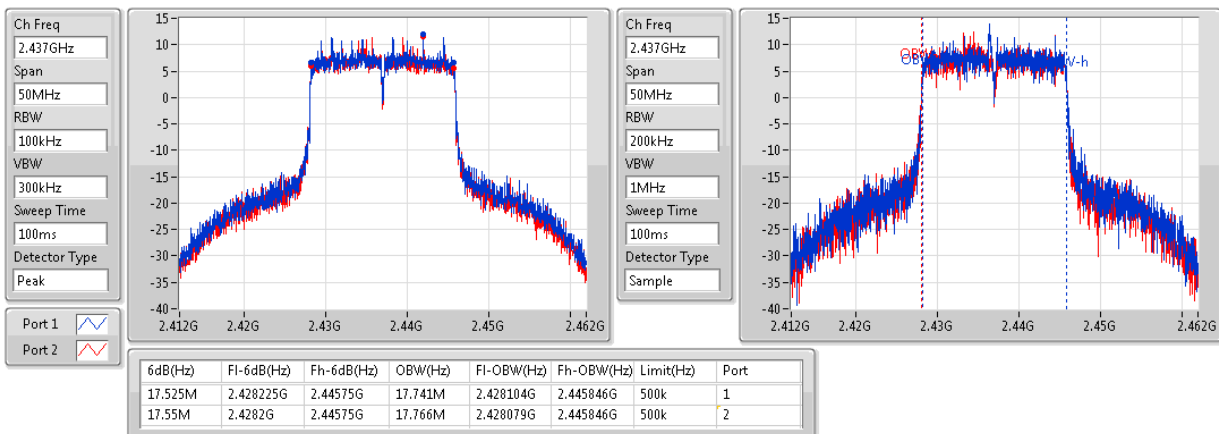
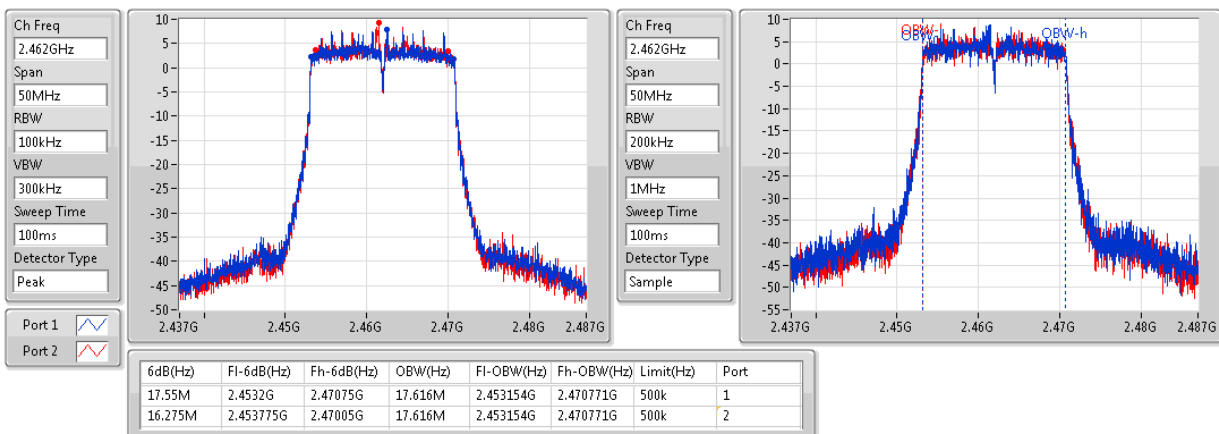
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

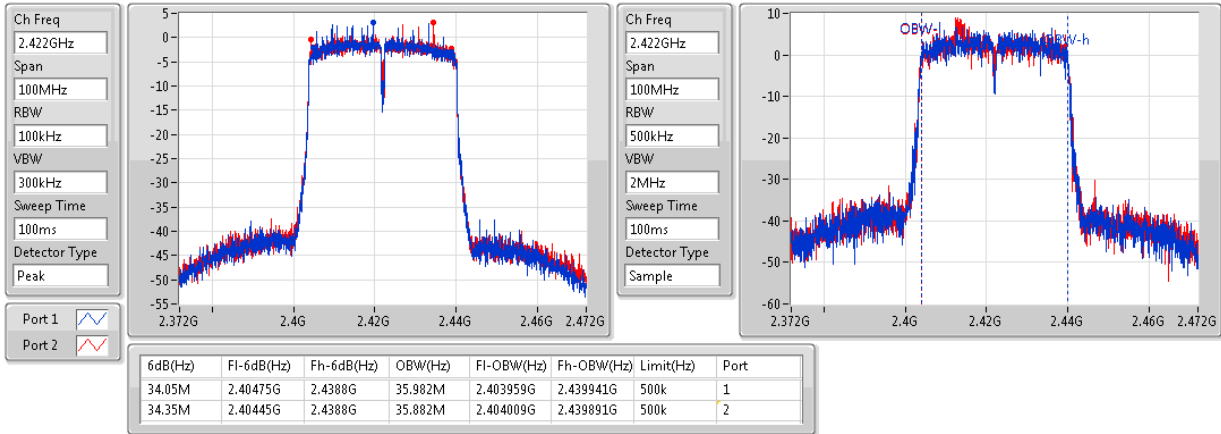
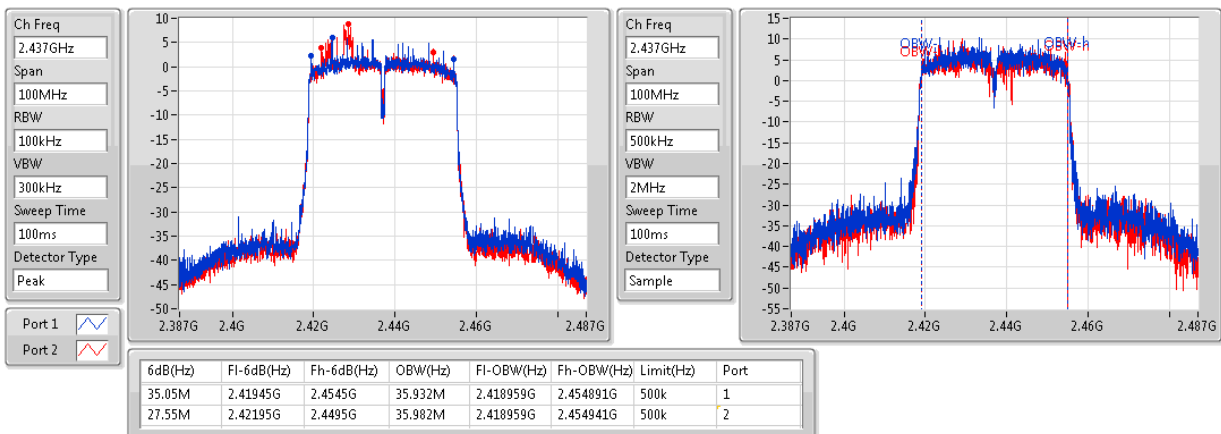
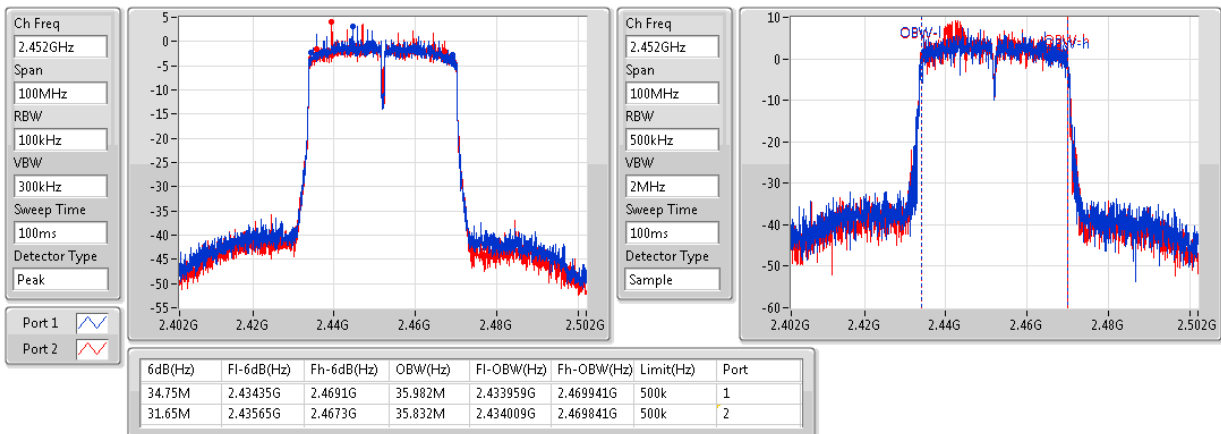
802.11b_(1Mbps)_2TX
EBW
2412MHz

802.11b_(1Mbps)_2TX
EBW
2437MHz

802.11b_(1Mbps)_2TX
EBW
2462MHz


802.11g_(6Mbps)_2TX
EBW
2412MHz

802.11g_(6Mbps)_2TX
EBW
2437MHz

802.11g_(6Mbps)_2TX
EBW
2462MHz


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
2412MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
2437MHz

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
2462MHz


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
2422MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
2437MHz

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
2452MHz


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
2412MHz

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
2437MHz

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
2462MHz


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
2422MHz

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
2437MHz

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
2452MHz


Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	26.31	0.42756
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	26.31	0.42756
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	26.28	0.42462
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	21.84	0.15276
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	25.85	0.38459
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	22.60	0.18197

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.30	23.06	23.22	26.15	30.00
2437MHz	Pass	1.30	23.15	23.26	26.22	30.00
2462MHz	Pass	1.30	23.18	23.41	26.31	30.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.30	18.05	18.07	21.07	30.00
2437MHz	Pass	1.30	23.14	23.45	26.31	30.00
2462MHz	Pass	1.30	19.06	19.34	22.21	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.30	18.60	18.62	21.62	30.00
2437MHz	Pass	1.30	23.11	23.42	26.28	30.00
2462MHz	Pass	1.30	19.12	19.44	22.29	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	1.30	16.82	16.75	19.80	30.00
2437MHz	Pass	1.30	18.79	18.86	21.84	30.00
2452MHz	Pass	1.30	17.41	17.33	20.38	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.26	17.30	17.47	20.40	30.00
2437MHz	Pass	4.26	22.94	22.74	25.85	30.00
2462MHz	Pass	4.26	19.33	19.10	22.23	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.26	17.50	17.69	20.61	30.00
2437MHz	Pass	4.26	19.68	19.49	22.60	30.00
2452MHz	Pass	4.26	17.83	17.65	20.75	30.00

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

Summary

Mode	PD (dBm/RBW)
802.11b_(1Mbps)_2TX	-
2.4-2.4835GHz	2.48
802.11g_(6Mbps)_2TX	-
2.4-2.4835GHz	0.50
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	0.56
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-6.73
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	0.24
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-0.36

RBW=3kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.26	0.87	0.26	1.95	8.00
2437MHz	Pass	4.26	0.28	0.17	2.02	8.00
2462MHz	Pass	4.26	2.26	0.49	2.48	8.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.26	-6.51	-5.53	-3.17	8.00
2437MHz	Pass	4.26	-1.42	-1.96	0.50	8.00
2462MHz	Pass	4.26	-6.41	-4.40	-3.29	8.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.26	-6.99	-5.12	-4.32	8.00
2437MHz	Pass	4.26	-2.06	-2.53	0.56	8.00
2462MHz	Pass	4.26	-6.75	-5.04	-4.15	8.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.26	-11.02	-9.78	-9.03	8.00
2437MHz	Pass	4.26	-8.76	-7.30	-6.73	8.00
2452MHz	Pass	4.26	-10.03	-10.09	-8.44	8.00
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.26	-5.46	-5.20	-4.03	8.00
2437MHz	Pass	4.26	-0.73	-1.50	0.24	8.00
2462MHz	Pass	4.26	-5.42	-3.77	-3.07	8.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.26	-8.10	-8.49	-7.37	8.00
2437MHz	Pass	4.26	-0.55	-5.70	-0.36	8.00
2452MHz	Pass	4.26	-7.36	-8.77	-6.98	8.00

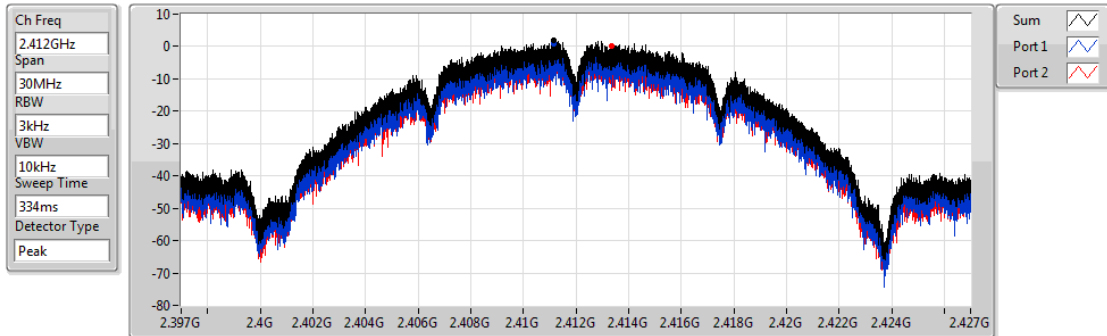
DG = Directional Gain; RBW=3kHz;

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

802.11b_(1Mbps)_2TX

PSD

2412MHz

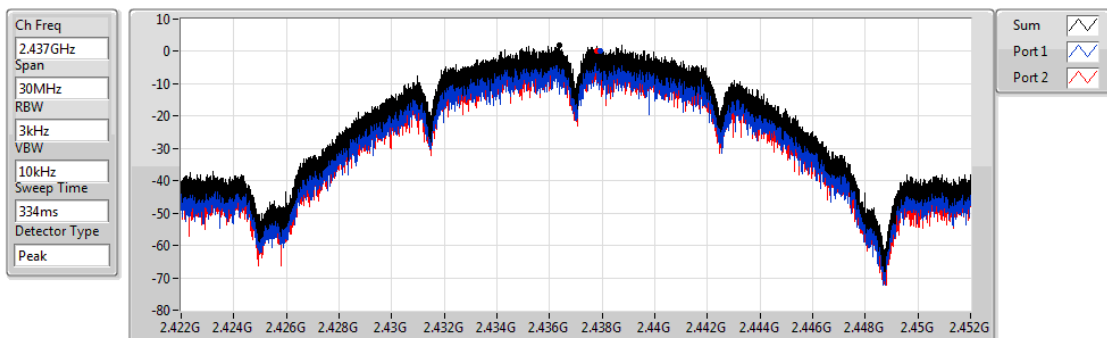


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
1.95	1.95	0.87	0.26

802.11b_(1Mbps)_2TX

PSD

2437MHz

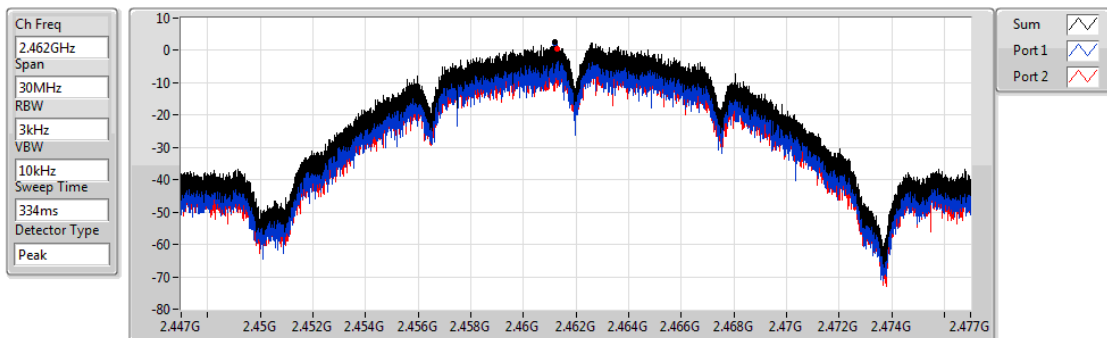


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.02	2.02	0.28	0.17

802.11b_(1Mbps)_2TX

PSD

2462MHz

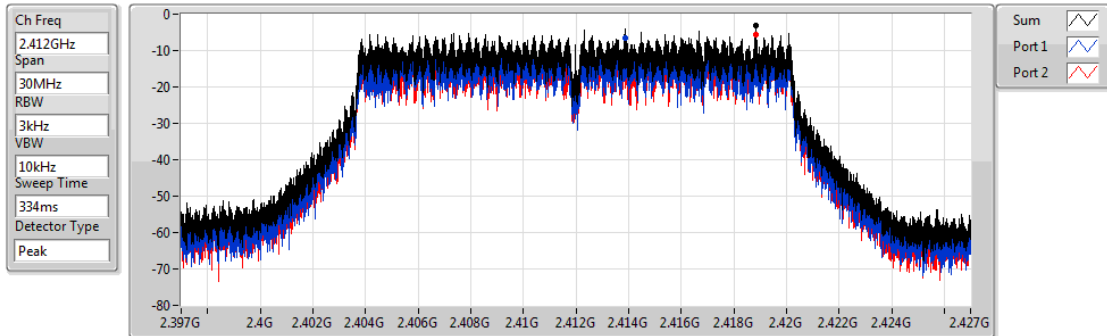


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.48	2.48	2.26	0.49

802.11g_(6Mbps)_2TX

PSD

2412MHz

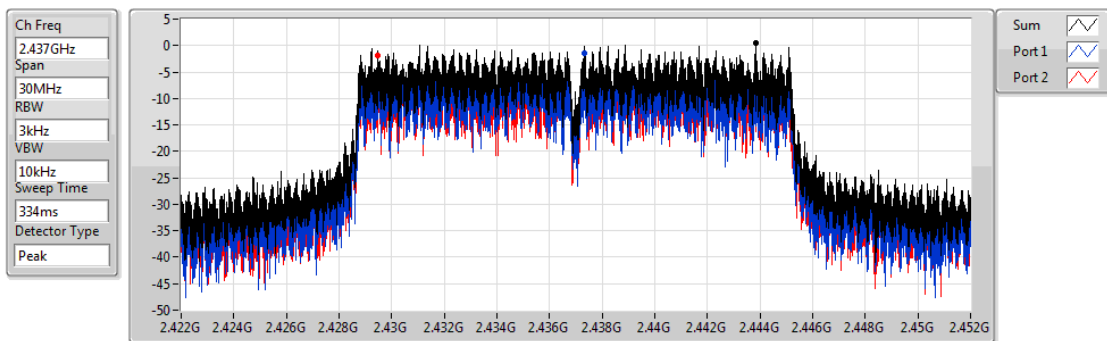


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.17	-3.17	-6.51	-5.53

802.11g_(6Mbps)_2TX

PSD

2437MHz

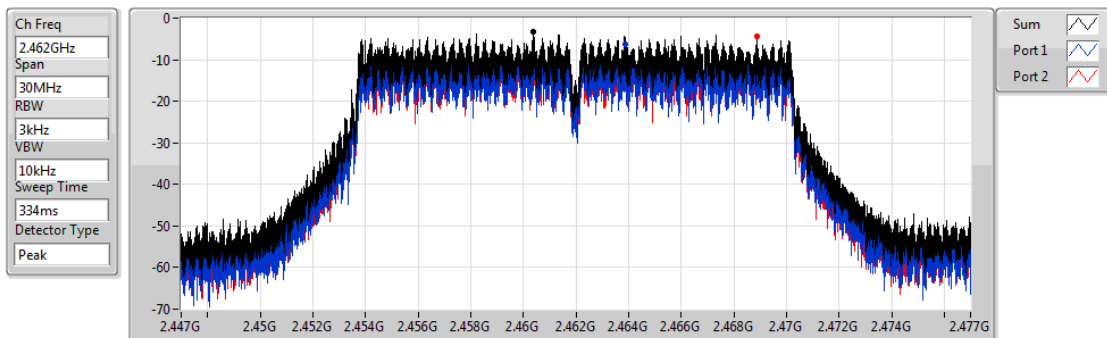


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.50	0.50	-1.42	-1.96

802.11g_(6Mbps)_2TX

PSD

2462MHz

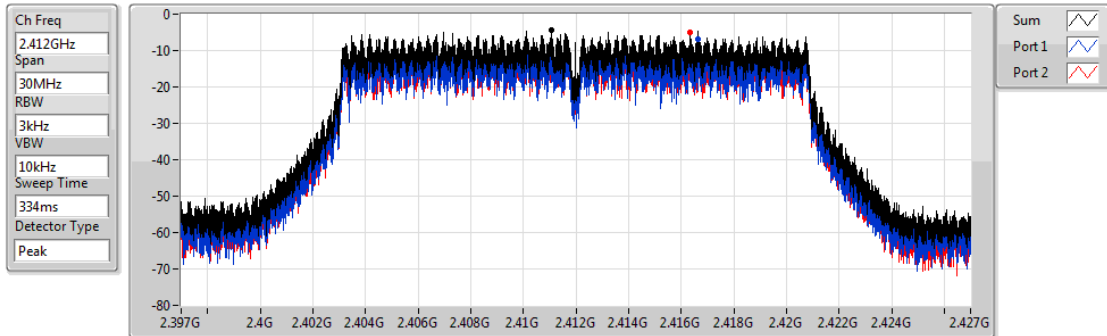


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.29	-3.29	-6.41	-4.40

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

2412MHz

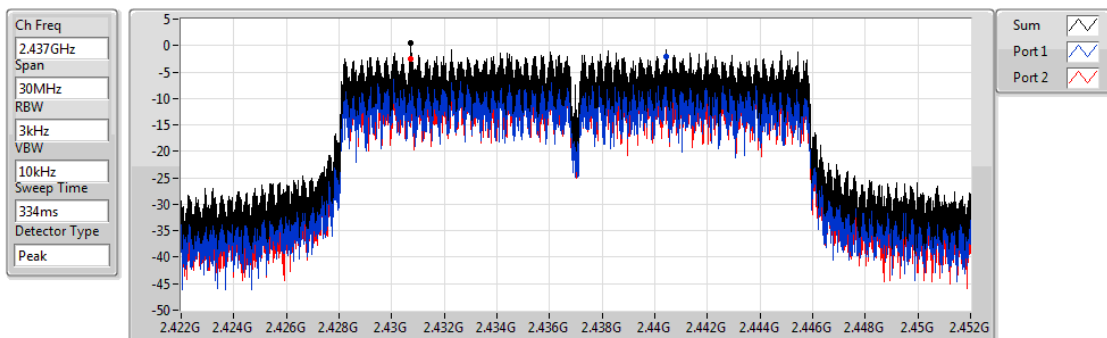


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.32	-4.32	-6.99	-5.12

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

2437MHz

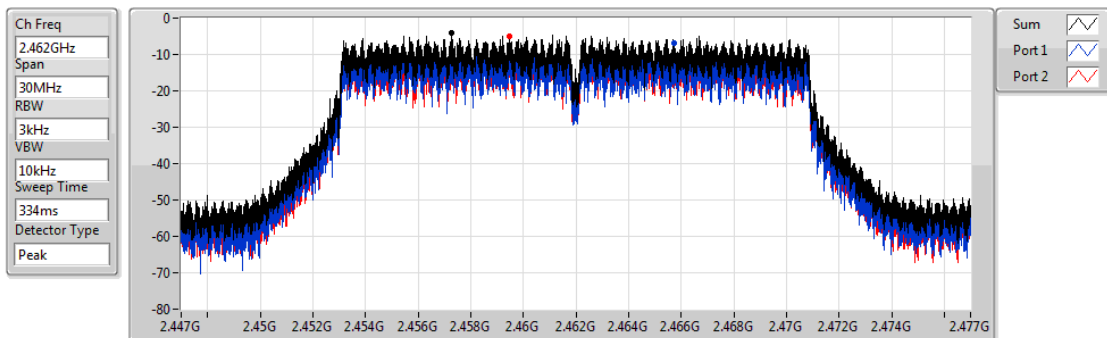


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.56	0.56	-2.06	-2.53

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

2462MHz

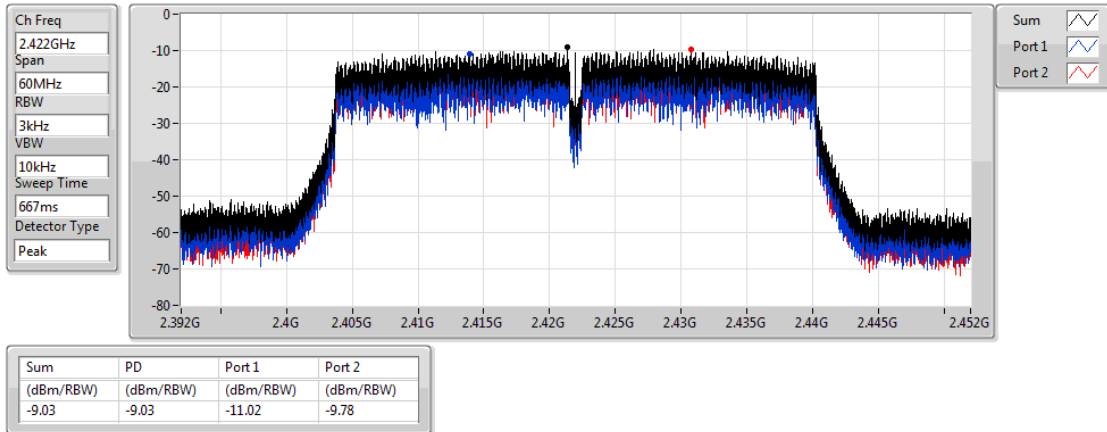


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.15	-4.15	-6.75	-5.04

802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

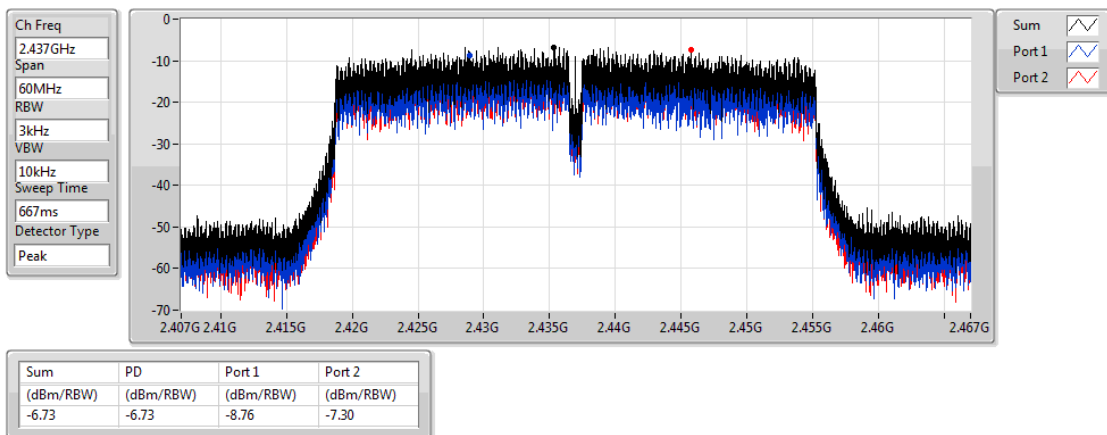
2422MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

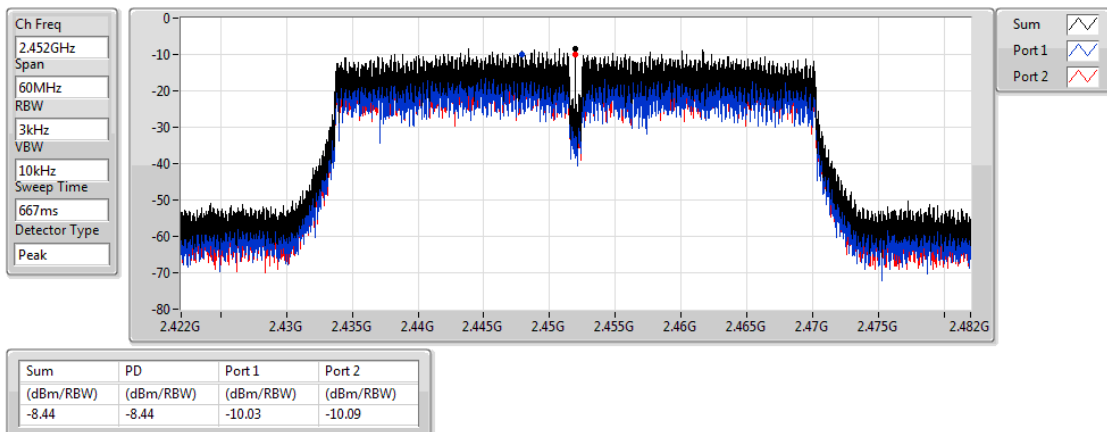
2437MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

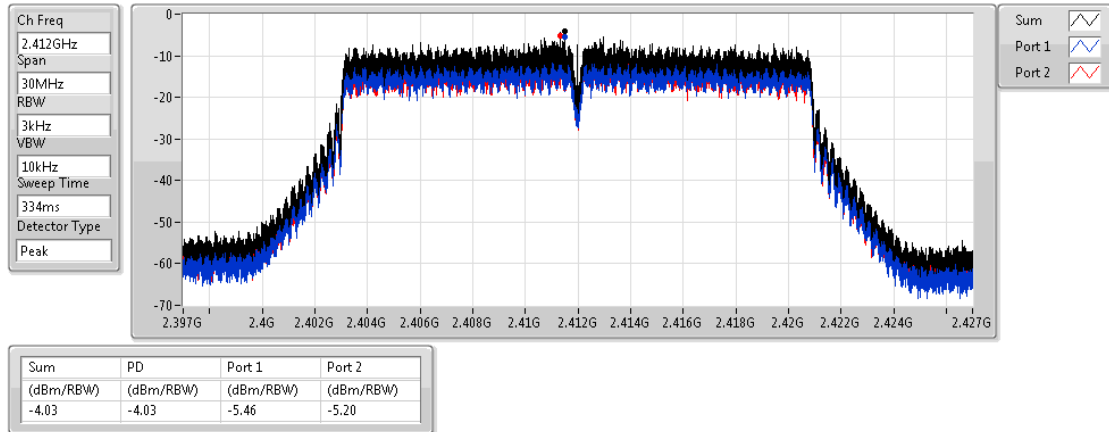
2452MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

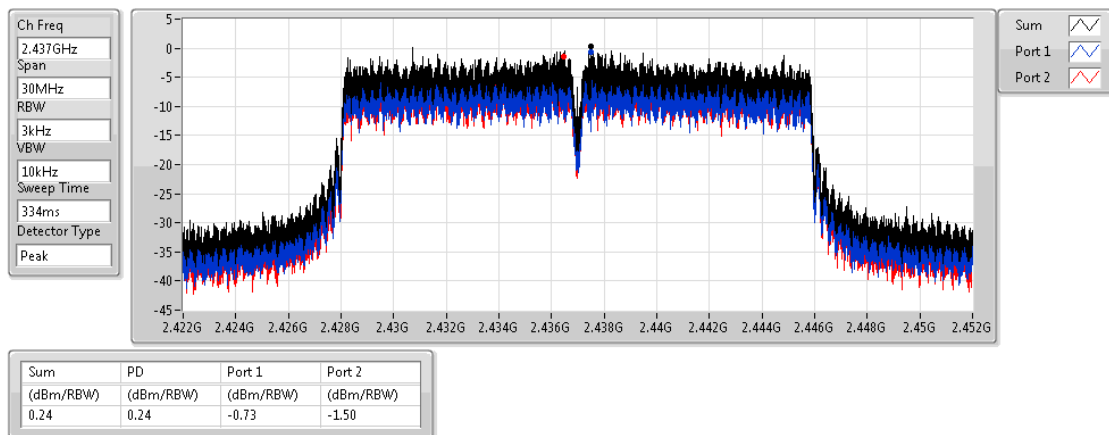
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

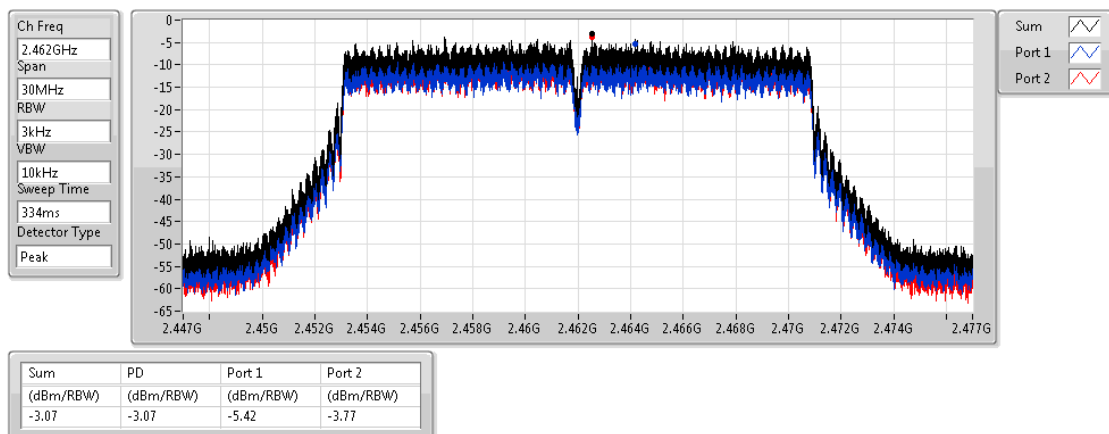
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

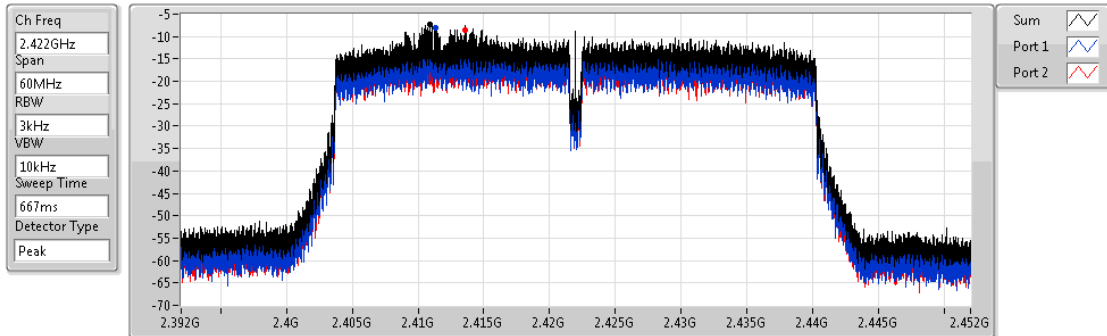
2462MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

2422MHz

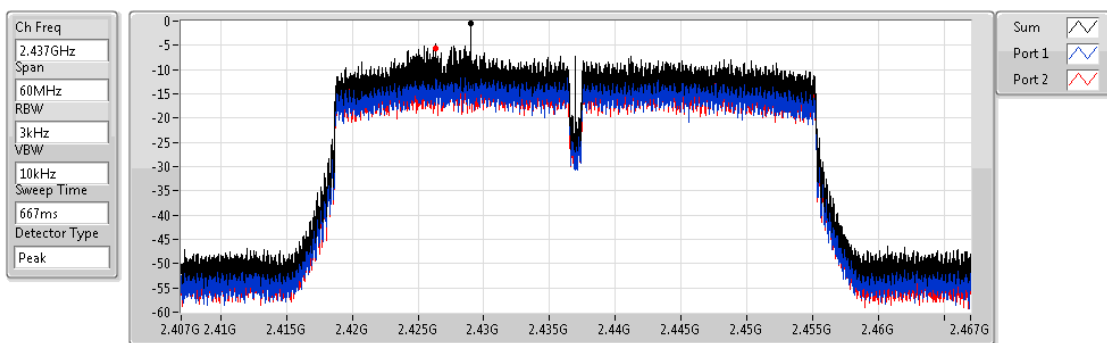


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.37	-7.37	-8.10	-8.49

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

2437MHz

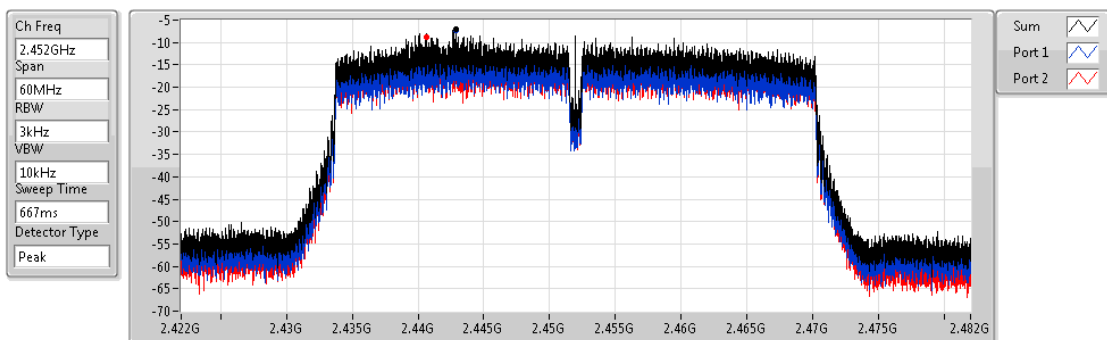


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.36	-0.36	-0.55	-5.70

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

2452MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.98	-6.98	-7.36	-8.77



CSE Non-restricted Band Result

Appendix E

Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	2.412859G	14.90	-15.10	2.06409G	-57.67	2.39904G	-24.23	2.50966G	-56.00	7.235136G	-50.12	1

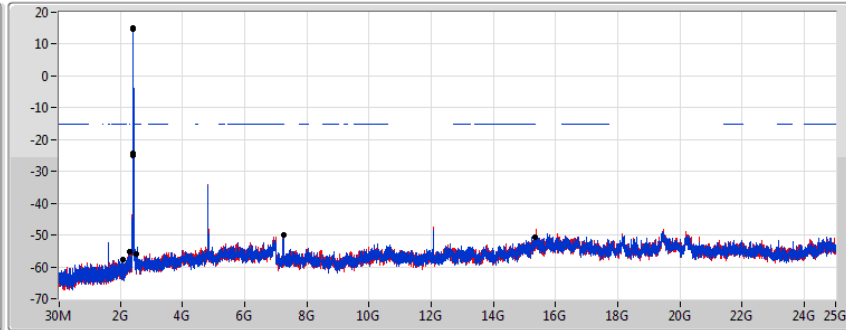
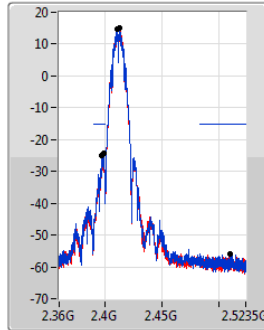
Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.412859G	14.90	-15.10	2.06409G	-57.67	2.39904G	-24.23	2.50966G	-56.00	7.235136G	-50.12	1
2412MHz	Pass	2.411022G	14.90	-15.10	2.309905G	-55.27	2.39752G	-24.99	2.50942G	-55.98	15.346343G	-50.52	2
2437MHz	Pass	2.437909G	14.90	-15.10	1.624885G	-54.30	2.39952G	-46.97	2.48398G	-53.85	16.692124G	-49.19	1
2437MHz	Pass	2.43841G	14.90	-15.10	2.30175G	-57.61	2.39904G	-48.37	2.4911G	-55.69	16.388691G	-49.67	2
2462MHz	Pass	2.462959G	14.90	-15.10	1.641195G	-52.89	2.39168G	-55.85	2.49094G	-44.23	16.39431G	-50.31	1
2462MHz	Pass	2.463126G	14.90	-15.10	2.30175G	-56.58	2.39704G	-54.26	2.49198G	-44.93	16.678076G	-50.19	2
802.11g_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.444422G	12.56	-17.44	2.307575G	-56.59	2.39696G	-37.78	2.50558G	-54.85	16.683695G	-48.90	1
2412MHz	Pass	2.444422G	12.56	-17.44	2.30874G	-56.42	2.39952G	-38.92	2.48846G	-55.05	16.385881G	-49.90	2
2437MHz	Pass	2.444422G	12.56	-17.44	1.88002G	-57.60	2.3976G	-37.27	2.48566G	-42.77	16.3325G	-49.05	1
2437MHz	Pass	2.444422G	12.56	-17.44	2.30408G	-56.76	2.39976G	-37.91	2.48414G	-43.57	16.697743G	-49.82	2
2462MHz	Pass	2.444422G	12.56	-17.44	2.19224G	-58.15	2.39568G	-53.04	2.48382G	-38.72	16.731458G	-48.81	1
2462MHz	Pass	2.444422G	12.56	-17.44	2.30408G	-56.09	2.39992G	-52.56	2.48406G	-39.80	16.7146G	-49.93	2
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.438243G	12.51	-17.49	952.68M	-57.64	2.39632G	-36.36	2.50022G	-54.26	16.658409G	-50.14	1
2412MHz	Pass	2.438243G	12.51	-17.49	2.307575G	-55.94	2.39992G	-37.07	2.50942G	-54.45	6.982276G	-49.40	2
2437MHz	Pass	2.438243G	12.51	-17.49	2.30641G	-55.05	2.39928G	-34.86	2.48526G	-42.82	16.405548G	-49.35	1
2437MHz	Pass	2.438243G	12.51	-17.49	1.92895G	-56.42	2.39984G	-37.65	2.48478G	-43.56	16.416787G	-49.73	2
2462MHz	Pass	2.438243G	12.51	-17.49	2.305245G	-56.54	2.39304G	-52.93	2.48414G	-38.92	16.692124G	-49.18	1
2462MHz	Pass	2.438243G	12.51	-17.49	2.309905G	-56.76	2.39008G	-52.67	2.48382G	-39.94	24.716234G	-49.20	2
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.423213G	3.85	-26.15	2.307405G	-56.73	2.3984G	-35.80	2.48382G	-51.38	16.706909G	-49.80	1
2422MHz	Pass	2.423213G	3.85	-26.15	2.305115G	-55.89	2.3984G	-35.77	2.4915G	-51.55	15.329869G	-49.39	2
2437MHz	Pass	2.423213G	3.85	-26.15	2.307405G	-56.37	2.39904G	-36.89	2.48382G	-39.92	16.667645G	-49.30	1
2437MHz	Pass	2.423213G	3.85	-26.15	2.30626G	-57.20	2.3992G	-36.51	2.4851G	-41.26	16.653622G	-49.83	2
2452MHz	Pass	2.423213G	3.85	-26.15	2.300535G	-57.21	2.39616G	-44.47	2.4851G	-37.13	16.378775G	-49.02	1
2452MHz	Pass	2.423213G	3.85	-26.15	2.305115G	-56.58	2.39856G	-47.61	2.48414G	-39.10	6.980686G	-50.02	2
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.439412G	10.78	-19.22	32.33M	-55.23	2.3992G	-41.73	2.48462G	-57.31	2.543167G	-55.52	1
2412MHz	Pass	2.439412G	10.78	-19.22	49.805M	-56.48	2.39704G	-38.75	2.48646G	-56.37	6.808083G	-57.49	2
2437MHz	Pass	2.439412G	10.78	-19.22	49.805M	-54.80	2.39984G	-38.93	2.48446G	-45.04	2.557215G	-54.09	1
2437MHz	Pass	2.439412G	10.78	-19.22	49.805M	-55.16	2.39928G	-39.59	2.48374G	-46.92	6.979466G	-57.27	2
2462MHz	Pass	2.439412G	10.78	-19.22	49.805M	-55.83	2.39984G	-54.68	2.48406G	-40.61	2.557215G	-50.84	1
2462MHz	Pass	2.439412G	10.78	-19.22	49.805M	-55.21	2.39992G	-54.75	2.48366G	-42.62	2.52631G	-56.76	2
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.429392G	7.37	-22.63	49.465M	-56.22	2.39456G	-38.74	2.49454G	-53.18	6.79278G	-57.39	1
2422MHz	Pass	2.429392G	7.37	-22.63	49.465M	-55.18	2.39584G	-37.61	2.48446G	-50.99	6.388923G	-58.09	2
2437MHz	Pass	2.429392G	7.37	-22.63	49.465M	-55.93	2.39952G	-35.88	2.48782G	-42.34	2.574718G	-55.59	1
2437MHz	Pass	2.429392G	7.37	-22.63	49.465M	-54.75	2.39952G	-36.68	2.48878G	-39.84	6.910572G	-56.45	2
2452MHz	Pass	2.429392G	7.37	-22.63	49.465M	-57.17	2.39968G	-45.03	2.48558G	-39.89	6.708643G	-58.11	1
2452MHz	Pass	2.429392G	7.37	-22.63	49.465M	-54.43	2.39456G	-47.83	2.48558G	-41.11	24.00438G	-57.20	2

802.11b_(1Mbps)_2TX

CSE NdB

2412MHz



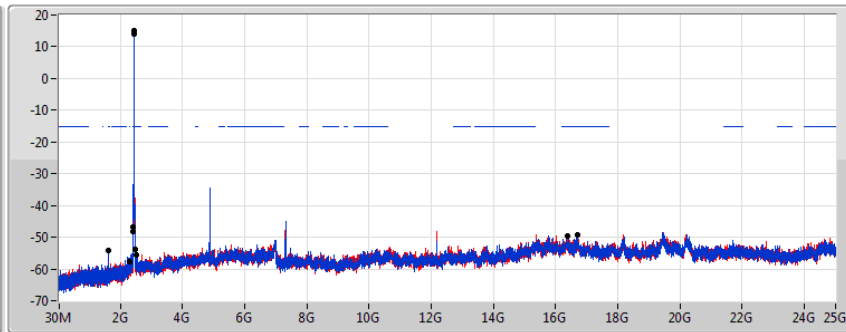
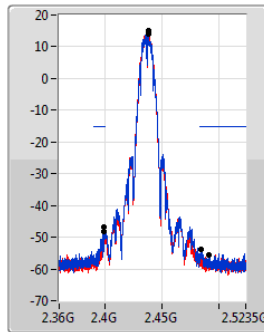
Port 1 
Port 2 

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.412859G	14.90	-15.10	2.06409G	-57.67	2.39904G	-24.23	2.50966G	-56.00	7.235136G	-50.12	1
2.411022G	14.90	-15.10	2.309905G	-55.27	2.39752G	-24.99	2.50942G	-55.98	15.346343G	-50.52	2

802.11b_(1Mbps)_2TX

CSE NdB

2437MHz



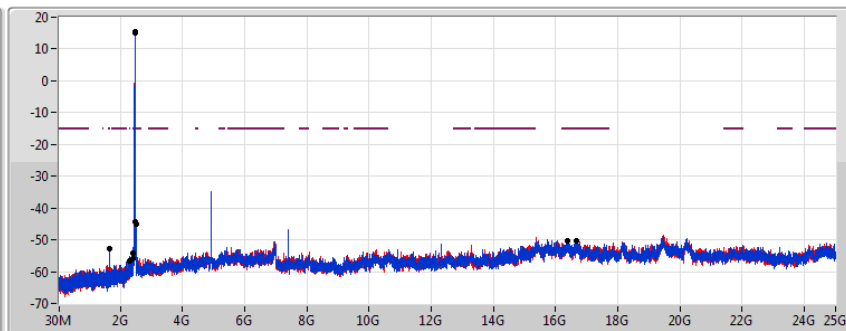
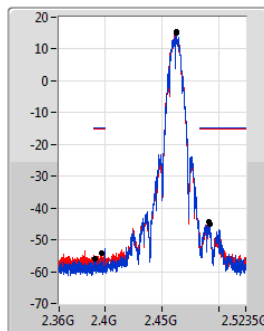
Port 1 
Port 2 

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.437909G	14.90	-15.10	1.624885G	-54.30	2.39952G	-46.97	2.48398G	-53.85	16.692124G	-49.19	1
2.43841G	14.90	-15.10	2.30175G	-57.61	2.39904G	-48.37	2.4911G	-55.69	16.388691G	-49.67	2

802.11b_(1Mbps)_2TX

CSE NdB

2462MHz



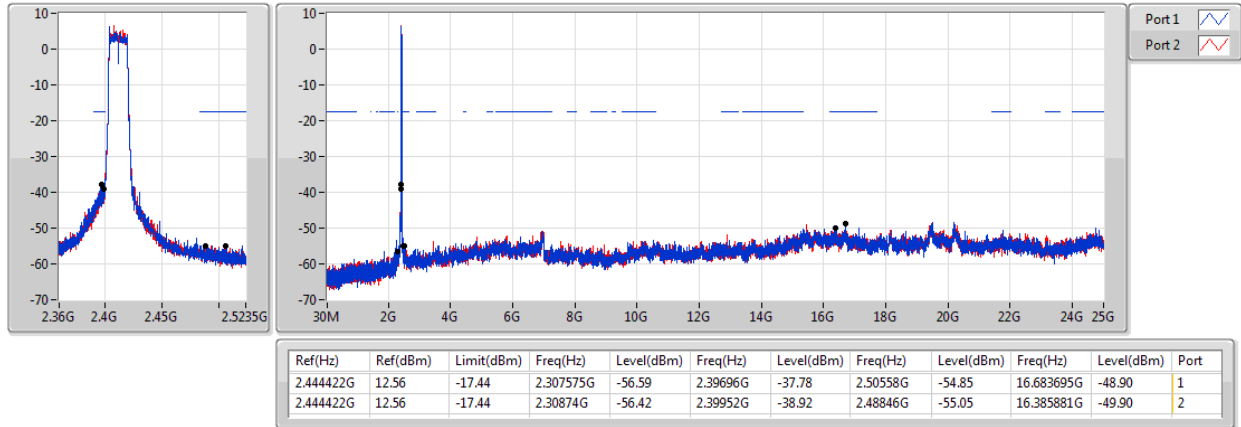
Port 1 
Port 2 

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.462959G	14.90	-15.10	1.641195G	-52.89	2.39168G	-55.85	2.49094G	-44.23	16.39431G	-50.31	1
2.463126G	14.90	-15.10	2.30175G	-56.58	2.39704G	-54.26	2.49198G	-44.93	16.678076G	-50.19	2

802.11g_(6Mbps)_2TX

CSE NdB

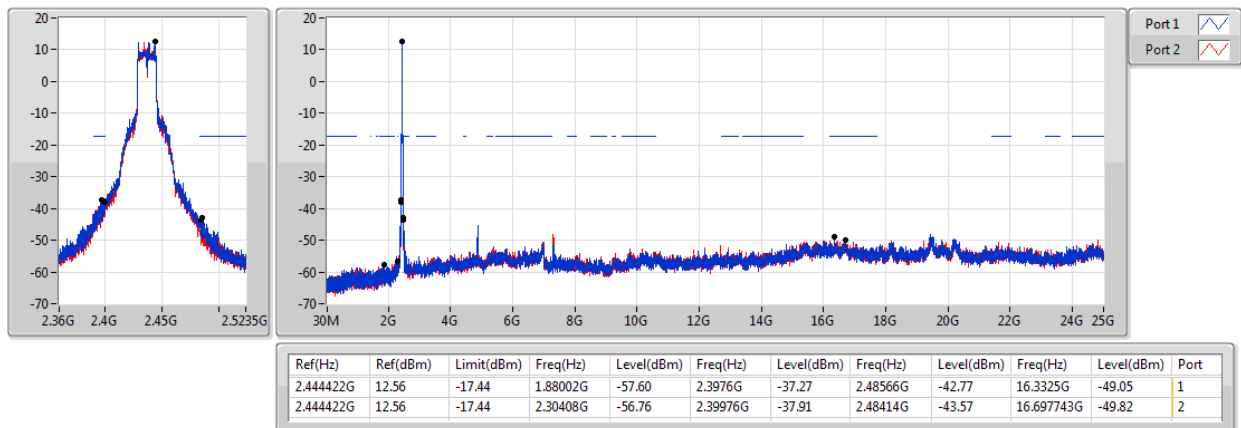
2412MHz



802.11g_(6Mbps)_2TX

CSE NdB

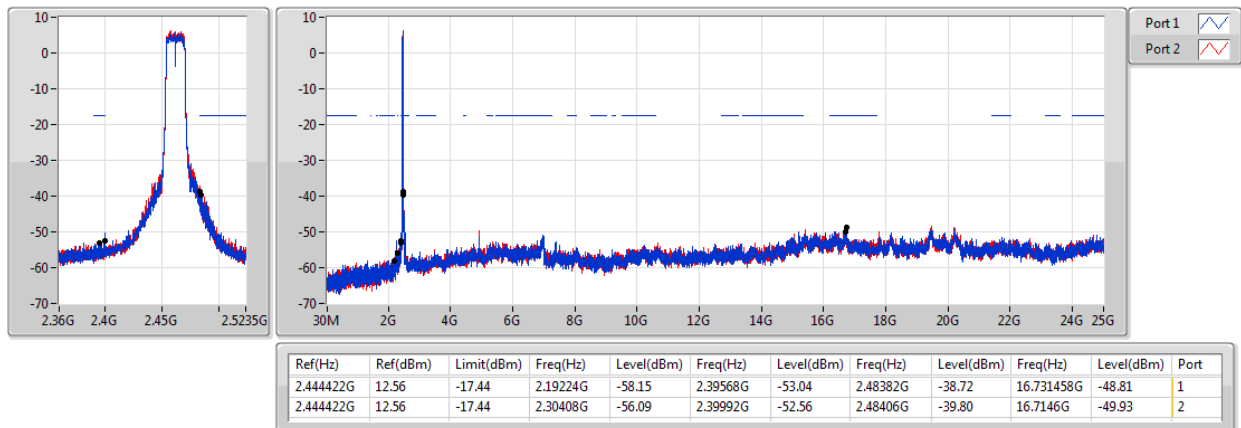
2437MHz



802.11g_(6Mbps)_2TX

CSE NdB

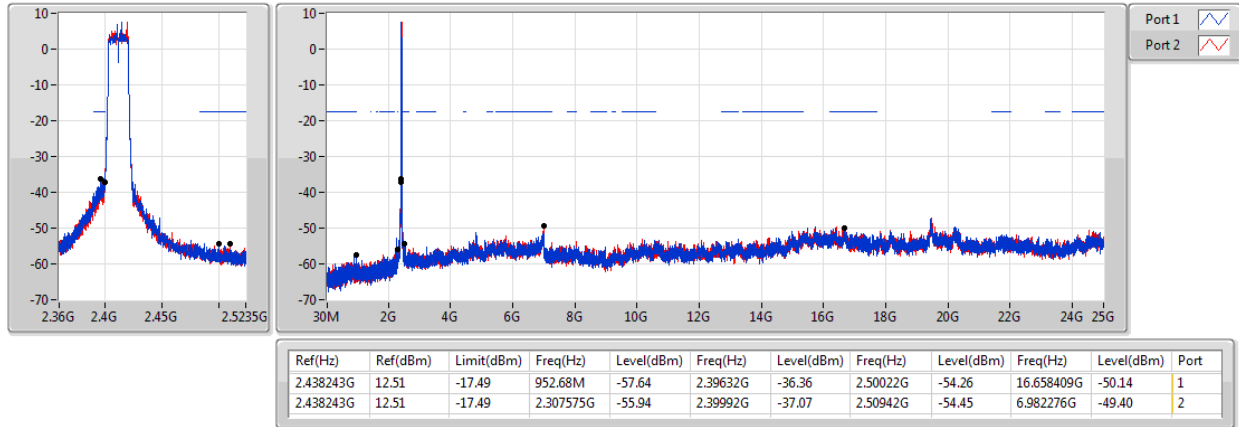
2462MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

CSE NdB

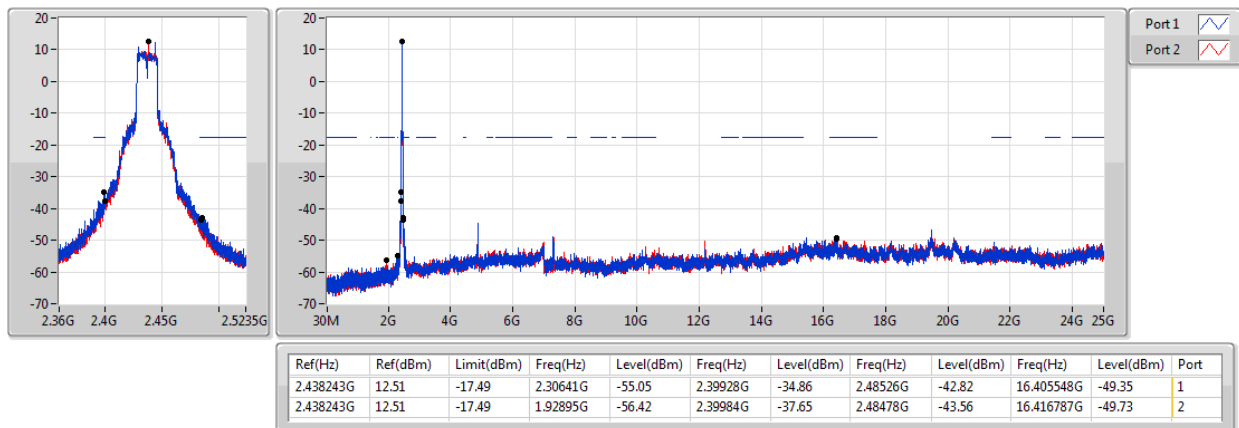
2412MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

CSE NdB

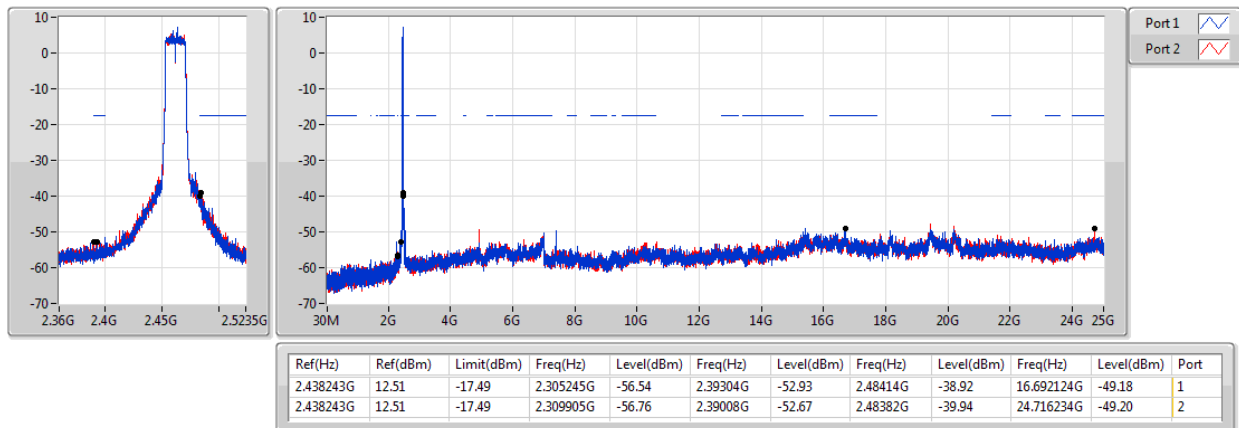
2437MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

CSE NdB

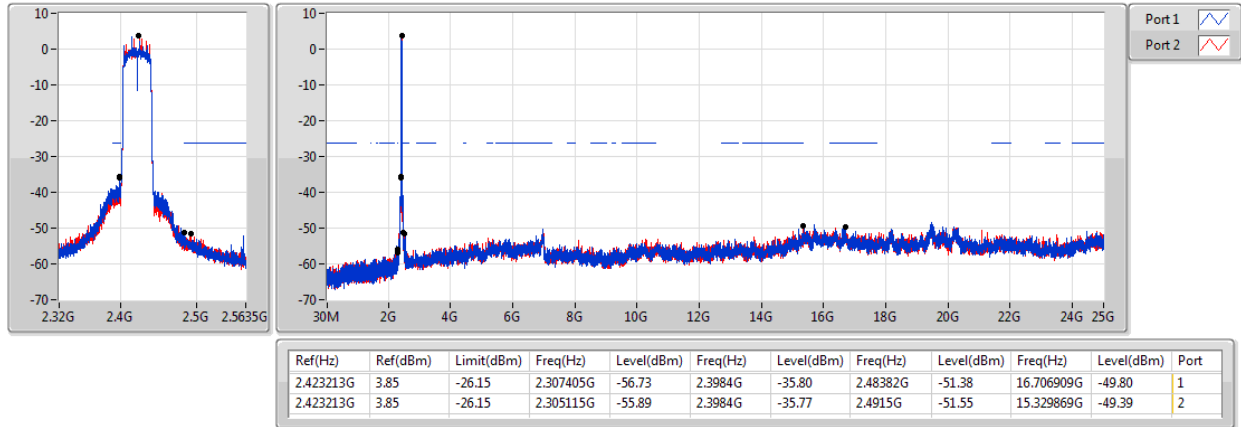
2462MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

CSE NdB

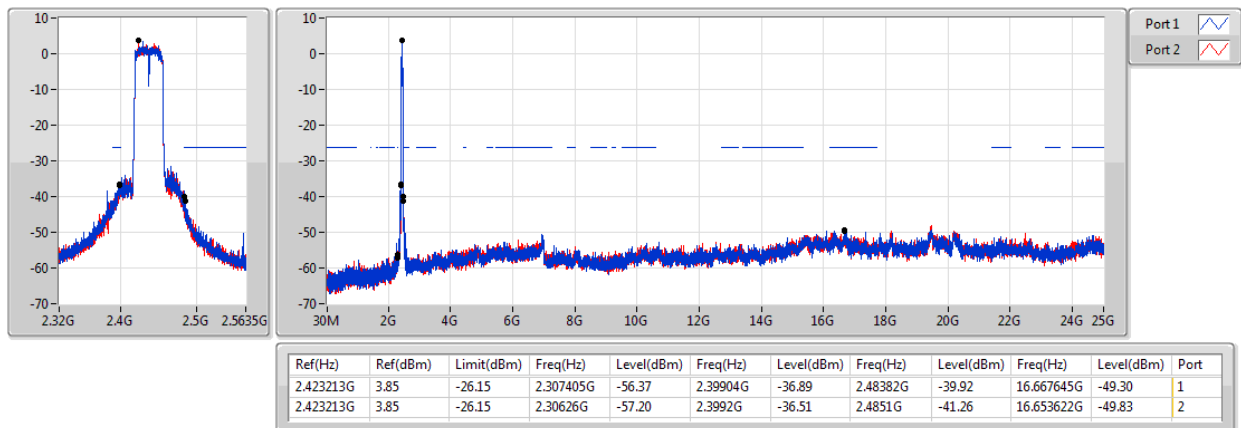
2422MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

CSE NdB

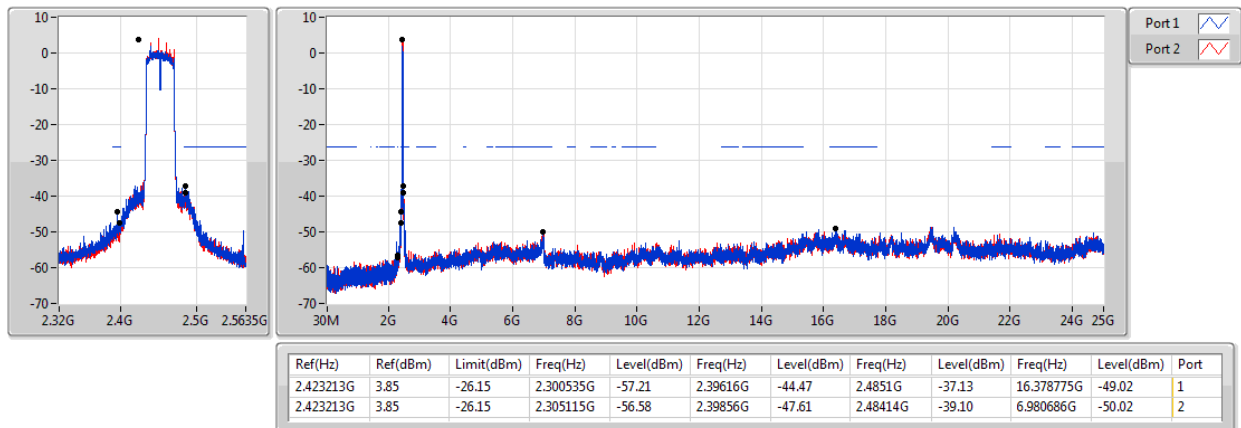
2437MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

CSE NdB

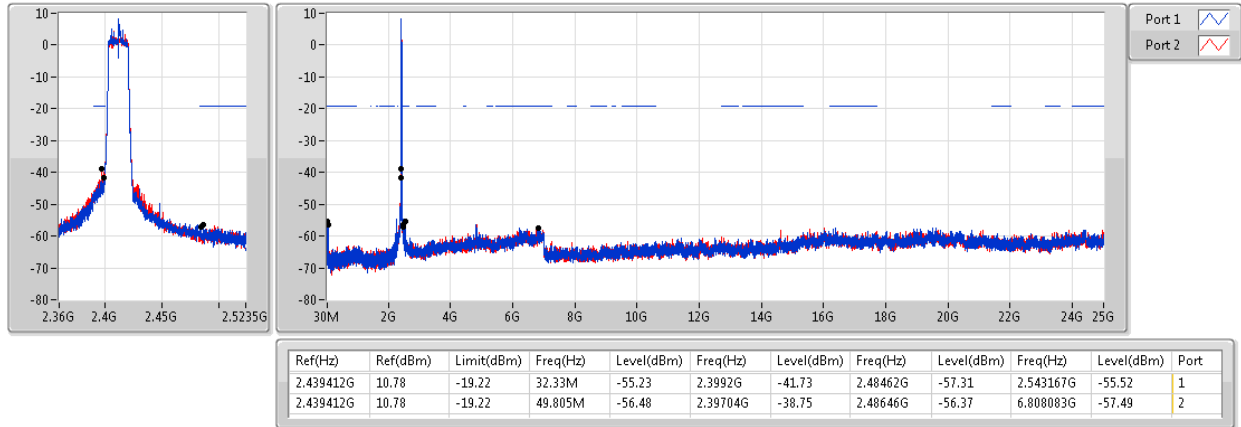
2452MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

CSE NdB

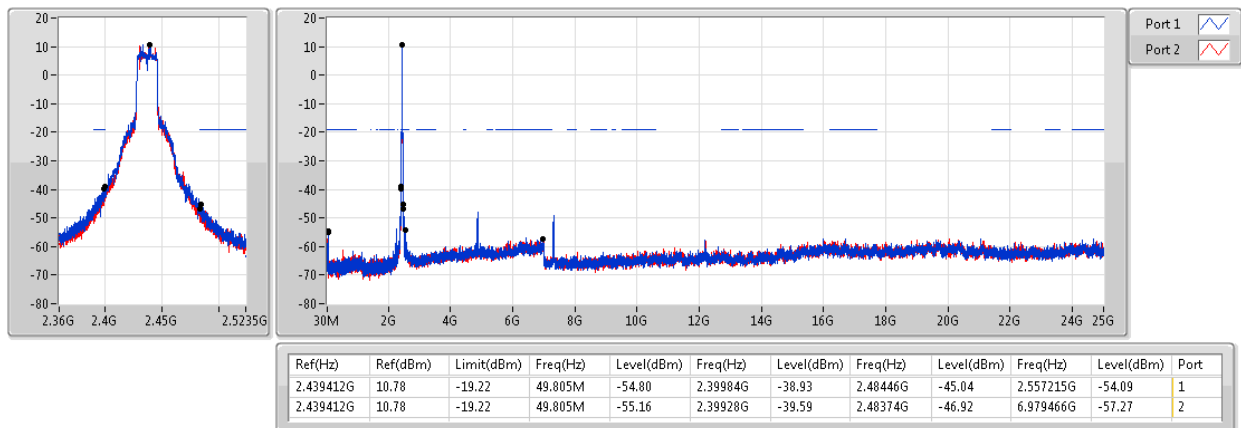
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

CSE NdB

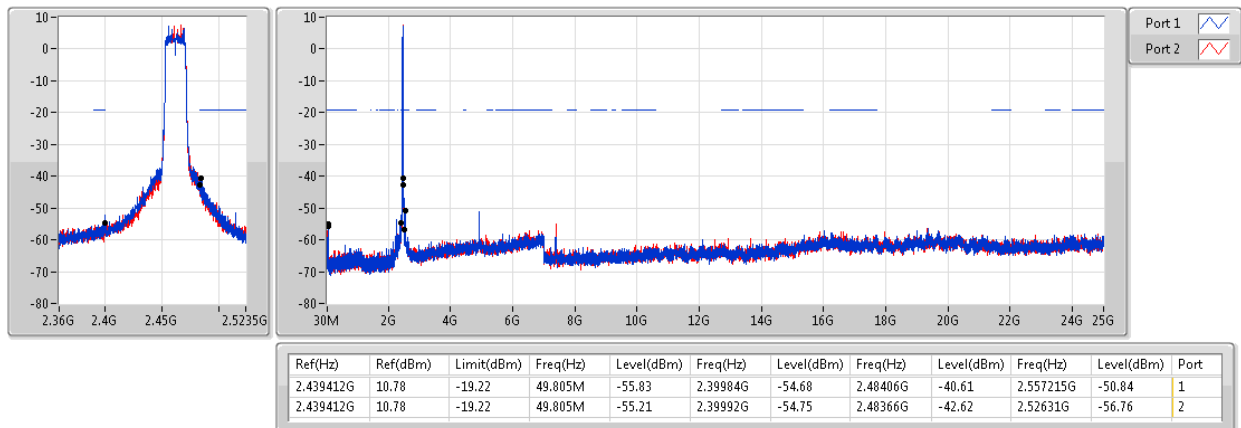
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

CSE NdB

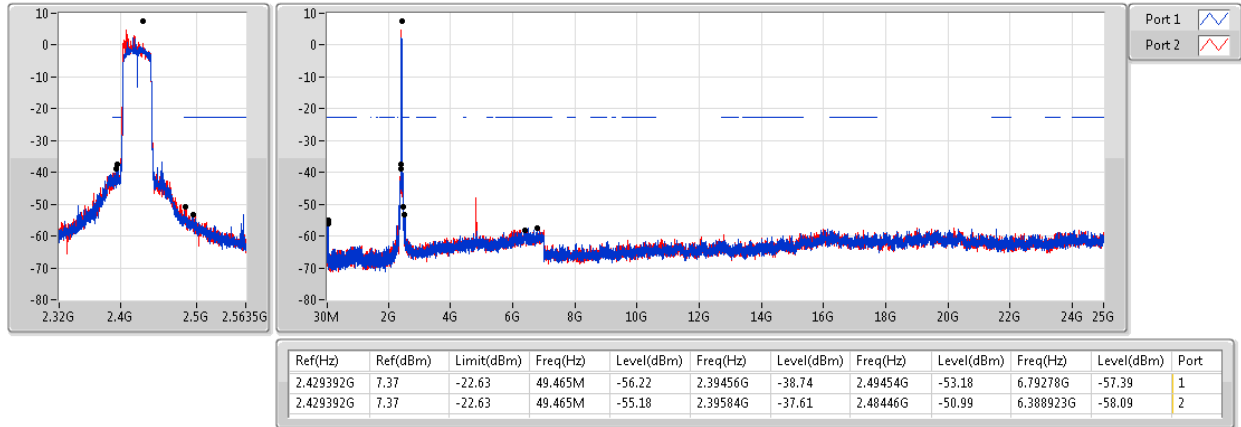
2462MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

CSE NdB

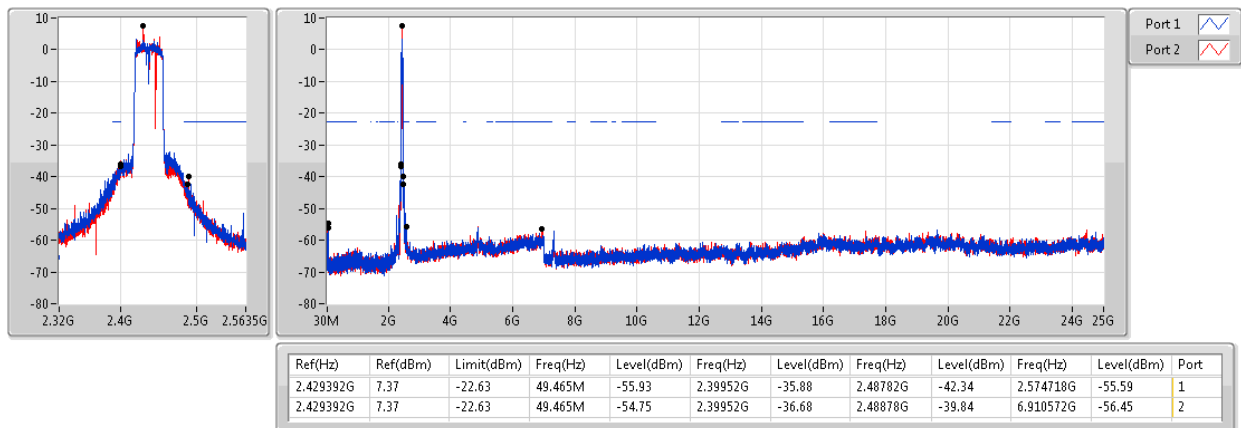
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

CSE NdB

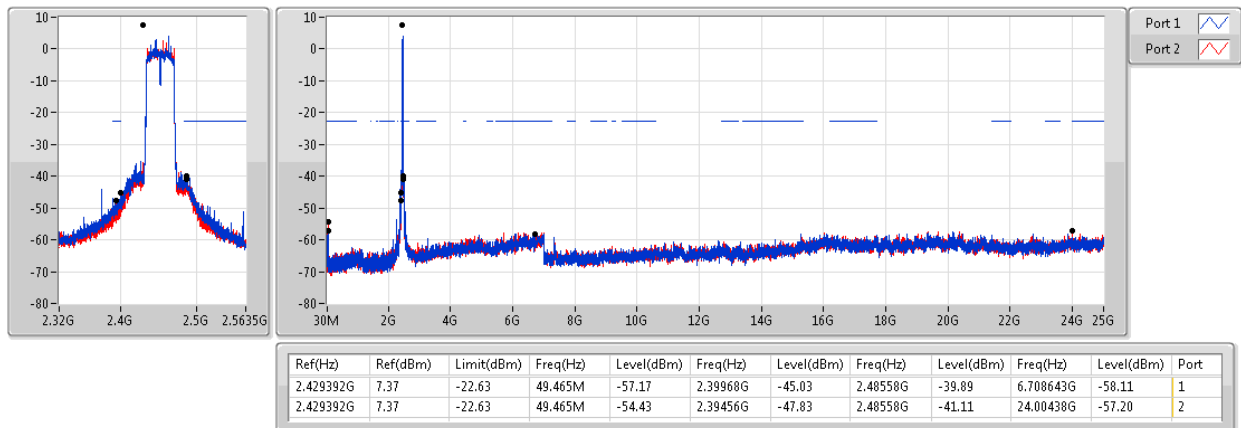
2437MHz

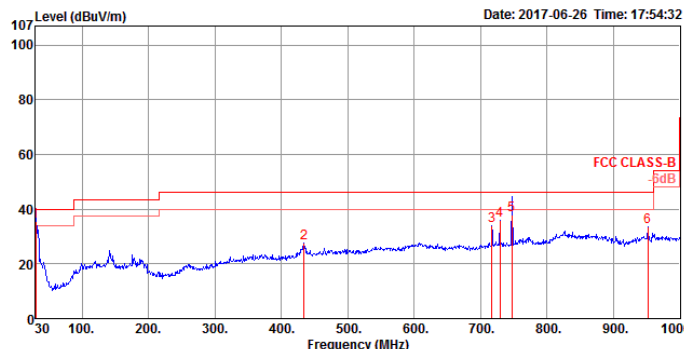


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

CSE NdB

2452MHz



RSE below 1GHz Result																																																																																																											
Operating Mode			1			Polarization			Horizontal																																																																																																		
Operating Function			Normal Link (Repeater mode)																																																																																																								
Level (dBuV/m) Date: 2017-06-26 Time: 17:54:32  <table><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>CableAntenna</th><th>Preamp</th><th>A/Pos</th><th>T/Pos</th><th>Remark</th><th>Pol/Phase</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th>dB/m</th><th>dB</th><th>cm</th><th>deg</th><th></th></tr><tr><td>1</td><td>30.00</td><td>35.55</td><td>40.00</td><td>-4.45</td><td>43.10</td><td>0.53</td><td>24.45</td><td>32.53</td><td>100</td><td>215 QP</td><td>HORIZONTAL</td></tr><tr><td>2</td><td>434.49</td><td>27.78</td><td>46.00</td><td>-18.22</td><td>36.30</td><td>1.62</td><td>22.32</td><td>32.46</td><td>100</td><td>221 Peak</td><td>HORIZONTAL</td></tr><tr><td>3</td><td>716.76</td><td>33.87</td><td>46.00</td><td>-12.13</td><td>38.91</td><td>2.12</td><td>25.31</td><td>32.47</td><td>100</td><td>125 Peak</td><td>HORIZONTAL</td></tr><tr><td>4</td><td>729.37</td><td>35.99</td><td>46.00</td><td>-10.01</td><td>40.79</td><td>2.15</td><td>25.50</td><td>32.45</td><td>100</td><td>245 Peak</td><td>HORIZONTAL</td></tr><tr><td>5</td><td>746.83</td><td>38.05</td><td>46.00</td><td>-7.95</td><td>42.51</td><td>2.18</td><td>25.78</td><td>32.42</td><td>100</td><td>211 QP</td><td>HORIZONTAL</td></tr><tr><td>6</td><td>951.50</td><td>33.62</td><td>46.00</td><td>-12.38</td><td>35.72</td><td>2.43</td><td>26.82</td><td>31.35</td><td>100</td><td>45 Peak</td><td>HORIZONTAL</td></tr></table>													Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		1	30.00	35.55	40.00	-4.45	43.10	0.53	24.45	32.53	100	215 QP	HORIZONTAL	2	434.49	27.78	46.00	-18.22	36.30	1.62	22.32	32.46	100	221 Peak	HORIZONTAL	3	716.76	33.87	46.00	-12.13	38.91	2.12	25.31	32.47	100	125 Peak	HORIZONTAL	4	729.37	35.99	46.00	-10.01	40.79	2.15	25.50	32.45	100	245 Peak	HORIZONTAL	5	746.83	38.05	46.00	-7.95	42.51	2.18	25.78	32.42	100	211 QP	HORIZONTAL	6	951.50	33.62	46.00	-12.38	35.72	2.43	26.82	31.35	100	45 Peak	HORIZONTAL
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase																																																																																																
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg																																																																																																	
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Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit. Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)																																																																																																											

RSE below 1GHz Result												
Operating Mode			1			Polarization			Vertical			
Operating Function			Normal Link (Repeater mode)									
Level (dBuV/m) 107 100 80 60 40 20 0 Date: 2017-06-26 Time: 17:47:46 FCC CLASS B 5dB 30 100. 200. 300. 400. 500. 600. 700. 800. 900. 1000 Frequency (MHz)												
	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	30.00	36.95	40.00	-3.05	44.50	0.53	24.45	32.53	300	360	Peak	VERTICAL
2	32.91	36.20	40.00	-3.80	45.58	0.53	22.62	32.53	300	360	Peak	VERTICAL
3	714.82	37.57	46.00	-8.43	42.66	2.12	25.27	32.48	100	248	Peak	VERTICAL
4	729.37	41.90	46.00	-4.10	46.70	2.15	25.50	32.45	100	241	QP	VERTICAL
5	746.83	38.98	46.00	-7.02	43.44	2.18	25.78	32.42	100	258	Peak	VERTICAL
6	951.50	34.46	46.00	-11.54	36.56	2.43	26.82	31.35	100	126	Peak	VERTICAL

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	30.00	36.95	40.00	-3.05	44.50	0.53	24.45	32.53	300	360	Peak
2	32.91	36.20	40.00	-3.80	45.58	0.53	22.62	32.53	300	360	Peak
3	714.82	37.57	46.00	-8.43	42.66	2.12	25.27	32.48	100	248	Peak
4	729.37	41.90	46.00	-4.10	46.70	2.15	25.50	32.45	100	241	QP
5	746.83	38.98	46.00	-7.02	43.44	2.18	25.78	32.42	100	258	Peak
6	951.50	34.46	46.00	-11.54	36.56	2.43	26.82	31.35	100	126	Peak

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

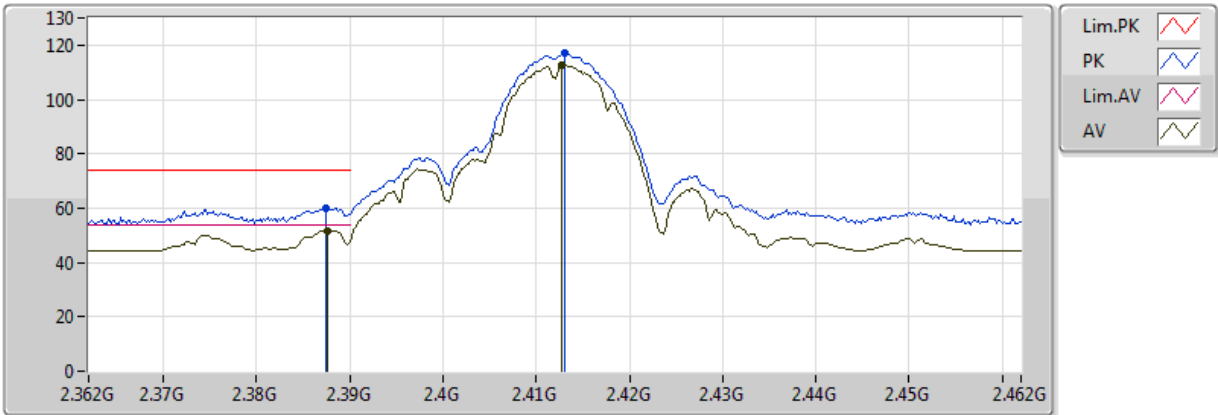
Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	AV	2.483502G	53.97	54.00	-0.03	30.92	3	V	108	1.25	-

802.11b_(1Mbps)_2TX

2412MHz_TX

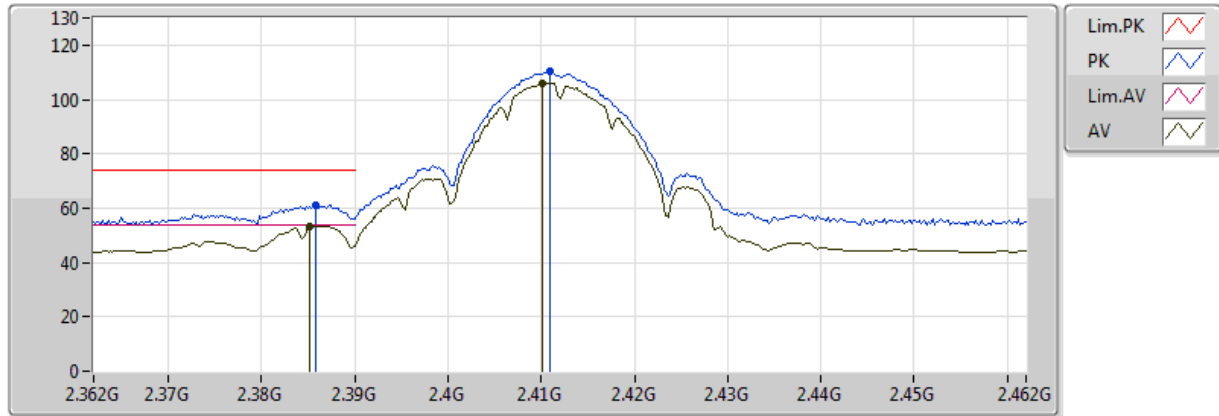


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3876G	51.83	54.00	-2.17	31.91	3	V	127	1.01	-
AV	2.4128G	112.58	Inf	-Inf	31.97	3	V	127	1.01	-
PK	2.3874G	59.93	74.00	-14.07	31.91	3	V	127	1.01	-
PK	2.413G	116.97	Inf	-Inf	31.97	3	V	127	1.01	-

802.11b_(1Mbps)_2TX

2412MHz_TX

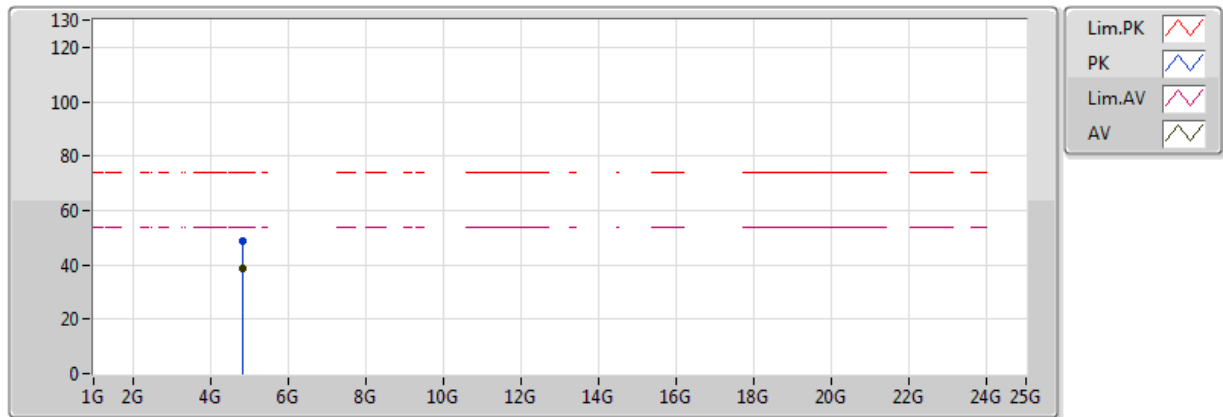


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3852G	53.50	54.00	-0.50	31.90	3	H	8	1.46	-
AV	2.4102G	105.91	Inf	-Inf	31.96	3	H	8	1.46	-
PK	2.3858G	61.22	74.00	-12.78	31.90	3	H	8	1.46	-
PK	2.411G	110.19	Inf	-Inf	31.97	3	H	8	1.46	-

802.11b_(1Mbps)_2TX

2412MHz_TX



20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82399G	38.55	54.00	-15.45	4.72	3	V	76	2.96	-
PK	4.82392G	48.58	74.00	-25.42	4.72	3	V	76	2.96	-

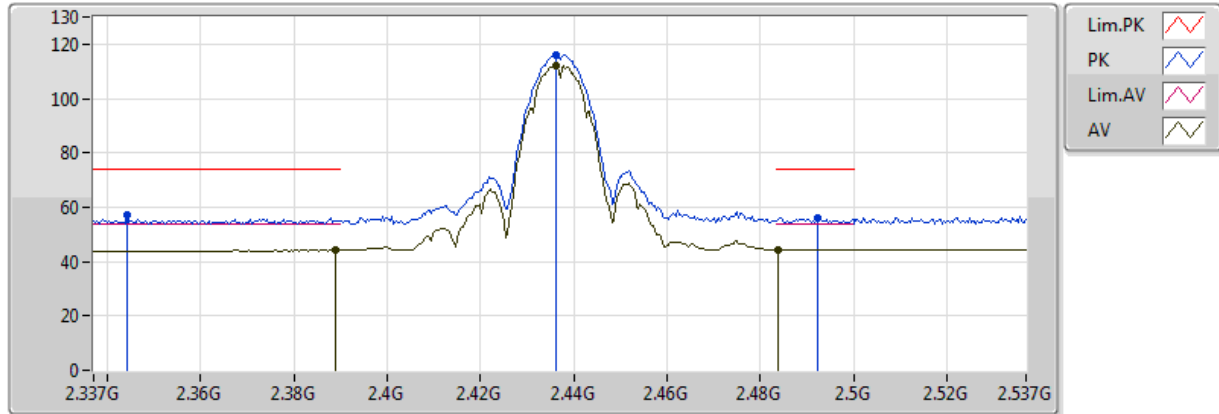
802.11b_(1Mbps)_2TX

2412MHz_TX



802.11b_(1Mbps)_2TX

2437MHz_TX

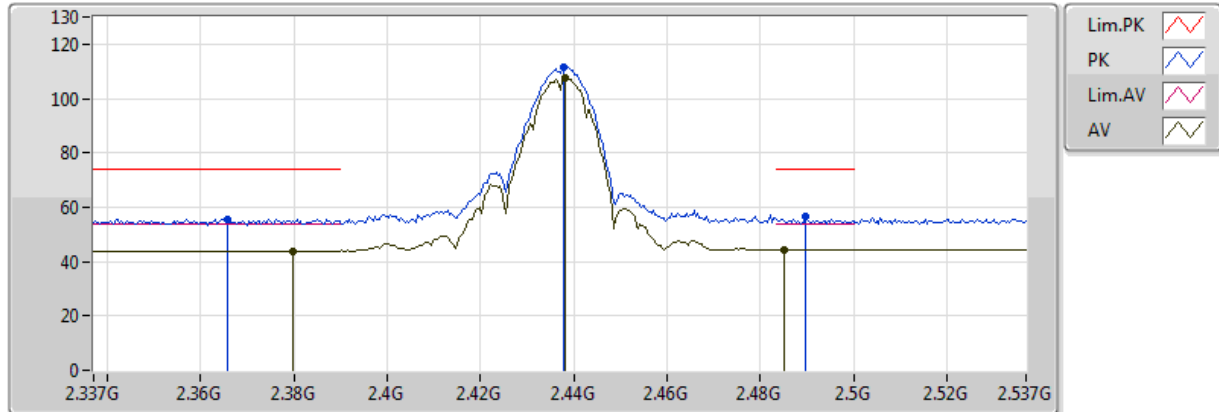


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389G	44.20	54.00	-9.80	31.91	3	V	198	1.78	-
AV	2.436G	112.24	Inf	-Inf	32.03	3	V	198	1.78	-
AV	2.4838G	44.46	54.00	-9.54	32.14	3	V	198	1.78	-
PK	2.3442G	57.06	74.00	-16.94	31.79	3	V	198	1.78	-
PK	2.4362G	116.15	Inf	-Inf	32.03	3	V	198	1.78	-
PK	2.4922G	56.29	74.00	-17.71	32.16	3	V	198	1.78	-

802.11b_(1Mbps)_2TX

2437MHz_TX

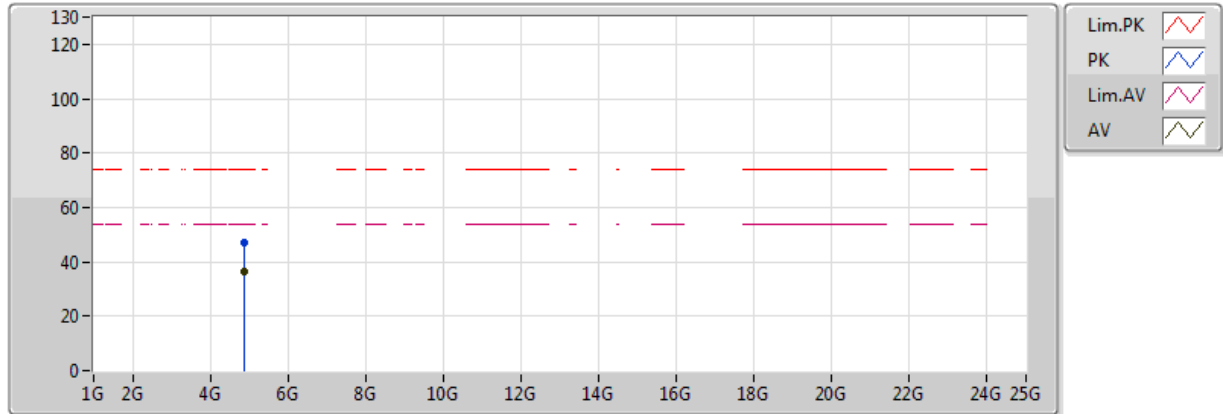


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3798G	43.96	54.00	-10.04	31.89	3	H	240	1.49	-
AV	2.4382G	107.63	Inf	-Inf	32.03	3	H	240	1.49	-
AV	2.485G	44.20	54.00	-9.80	32.14	3	H	240	1.49	-
PK	2.3658G	55.65	74.00	-18.35	31.85	3	H	240	1.49	-
PK	2.4378G	111.72	Inf	-Inf	32.03	3	H	240	1.49	-
PK	2.4898G	56.56	74.00	-17.44	32.16	3	H	240	1.49	-

802.11b_(1Mbps)_2TX

2437MHz_TX

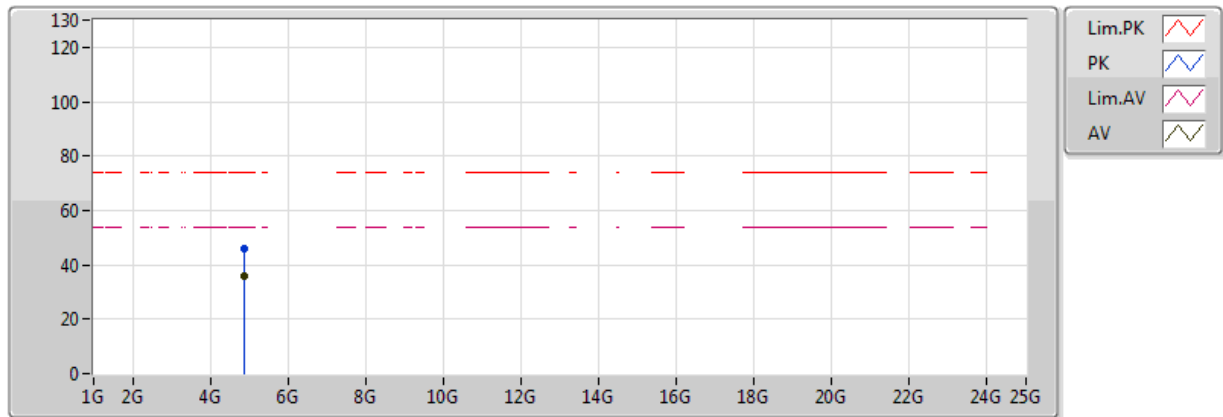


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.874G	36.67	54.00	-17.33	4.82	3	V	224	1.20	-
PK	4.87377G	47.27	74.00	-26.73	4.82	3	V	224	1.20	-

802.11b_(1Mbps)_2TX

2437MHz_TX

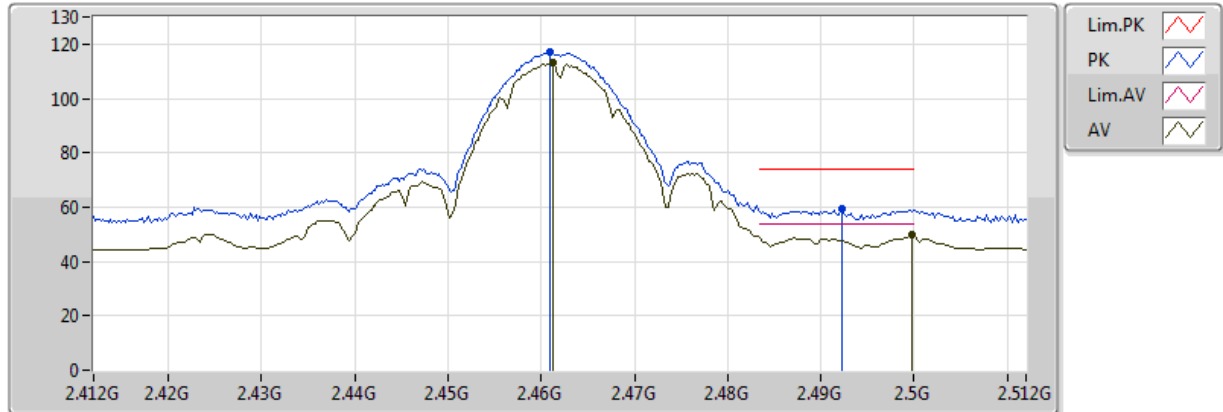


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87394G	35.65	54.00	-18.35	4.82	3	H	285	1.70	-
PK	4.87432G	46.03	74.00	-27.97	4.82	3	H	285	1.70	-

802.11b_(1Mbps)_2TX

2462MHz_TX

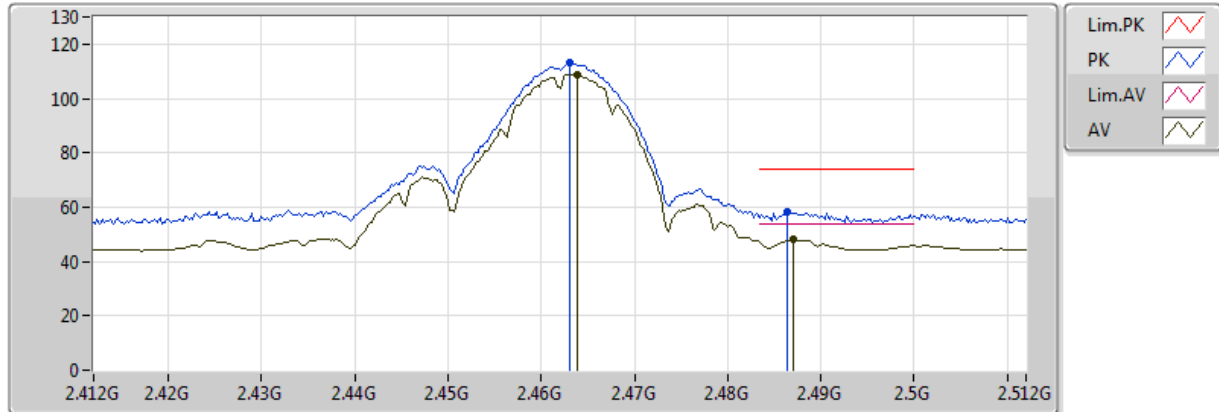


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4612G	113.03	Inf	-Inf	32.09	3	V	101	1.21	-
AV	2.4998G	49.70	54.00	-4.30	32.18	3	V	101	1.21	-
PK	2.461G	117.24	Inf	-Inf	32.09	3	V	101	1.21	-
PK	2.4922G	59.36	74.00	-14.64	32.16	3	V	101	1.21	-

802.11b_(1Mbps)_2TX

2462MHz_TX

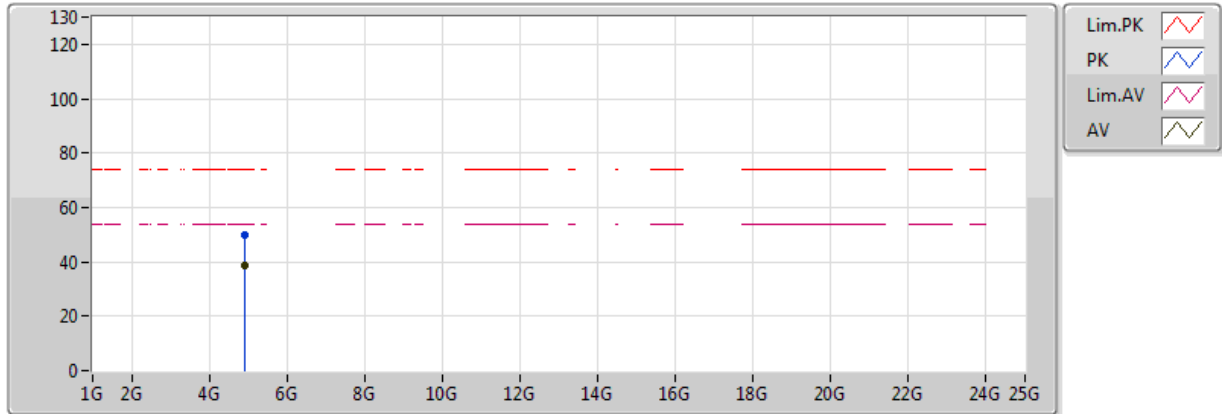


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4638G	108.95	Inf	-Inf	32.09	3	H	327	1.21	-
AV	2.487G	48.00	54.00	-6.00	32.15	3	H	327	1.21	-
PK	2.463G	113.03	Inf	-Inf	32.09	3	H	327	1.21	-
PK	2.4864G	58.44	74.00	-15.56	32.15	3	H	327	1.21	-

802.11b_(1Mbps)_2TX

2462MHz_TX

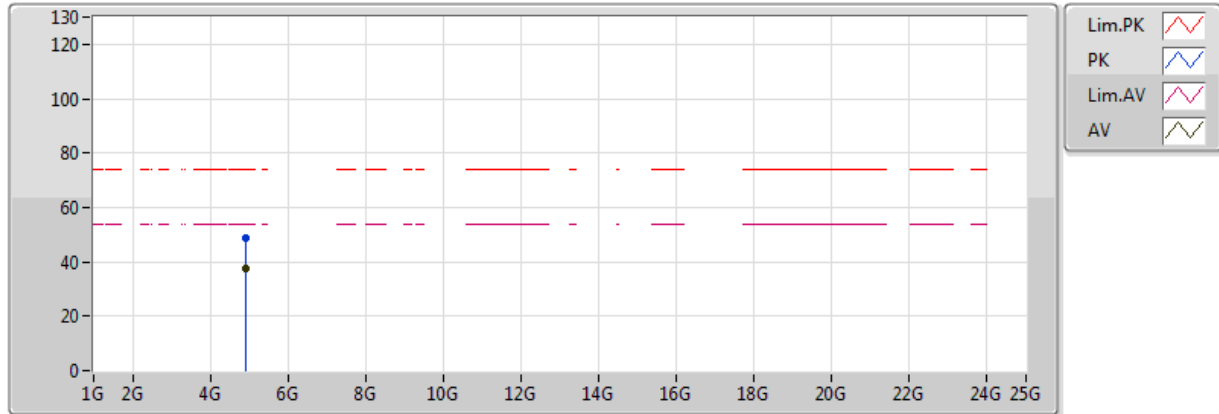


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.924G	38.65	54.00	-15.35	4.92	3	V	102	173	-
PK	4.92368G	49.84	74.00	-24.16	4.92	3	V	102	173	-

802.11b_(1Mbps)_2TX

2462MHz_TX

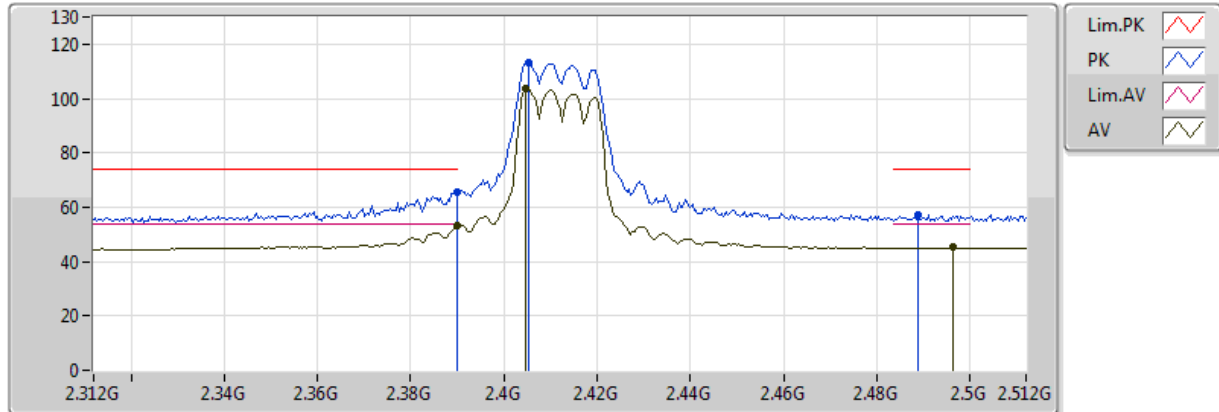


20170620
EUT Z(Only)_2TX
Setting 23
03-R-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92404G	37.37	54.00	-16.63	4.92	3	H	180	2.48	-
PK	4.92382G	48.64	74.00	-25.36	4.92	3	H	180	2.48	-

802.11g_(6Mbps)_2TX

2412MHz_TX

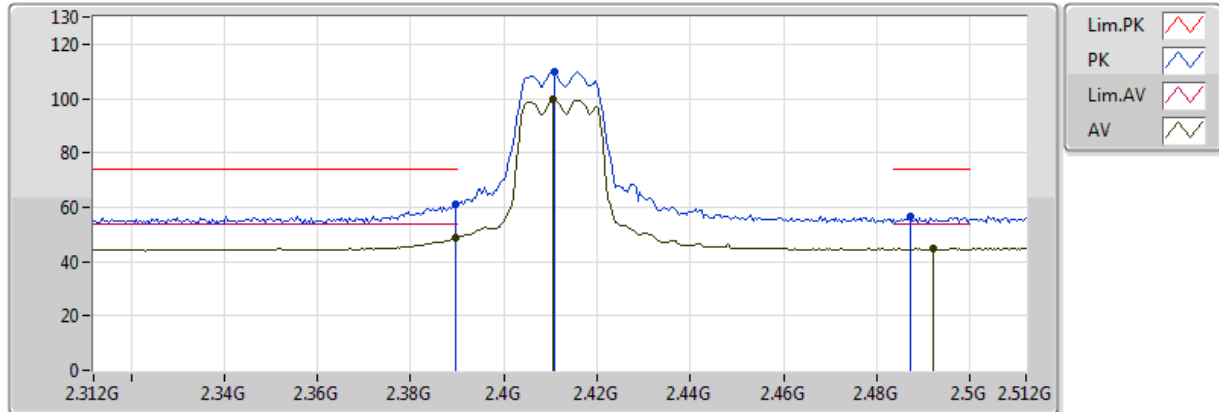


20170620
EUT Z(Only)_2TX
Setting 18
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	53.36	54.00	-0.64	31.91	3	V	128	1.14	-
AV	2.4048G	103.59	Inf	-Inf	31.95	3	V	128	1.14	-
AV	2.4964G	45.25	54.00	-8.75	32.17	3	V	128	1.14	-
PK	2.39G	65.57	74.00	-8.43	31.91	3	V	128	1.14	-
PK	2.4052G	113.37	Inf	-Inf	31.95	3	V	128	1.14	-
PK	2.4888G	56.94	74.00	-17.06	32.15	3	V	128	1.14	-

802.11g_(6Mbps)_2TX

2412MHz_TX

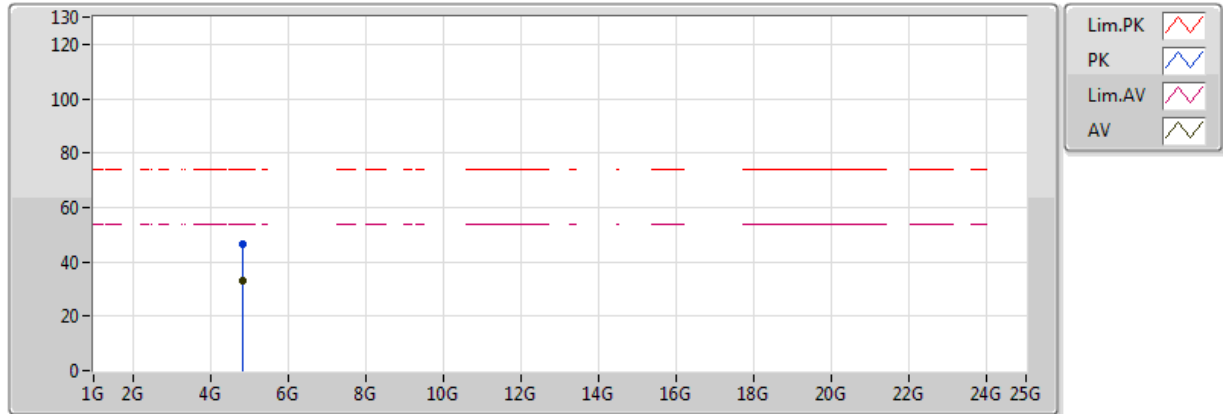


20170620
EUT Z(Only)_2TX
Setting 18
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	48.90	54.00	-5.10	31.91	3	H	26	1.00	-
AV	2.4104G	99.66	Inf	-Inf	31.96	3	H	26	1.00	-
AV	2.492G	44.67	54.00	-9.33	32.16	3	H	26	1.00	-
PK	2.3896G	61.02	74.00	-12.98	31.91	3	H	26	1.00	-
PK	2.4108G	110.01	Inf	-Inf	31.97	3	H	26	1.00	-
PK	2.4872G	56.54	74.00	-17.46	32.15	3	H	26	1.00	-

802.11g_(6Mbps)_2TX

2412MHz_TX

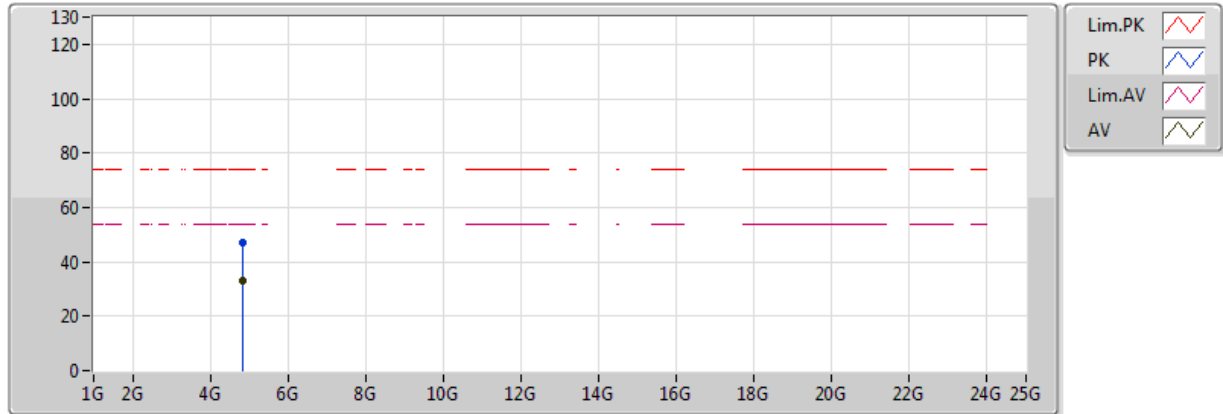


20170620
EUT Z(Only)_2TX
Setting 18
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82534G	32.98	54.00	-21.02	4.72	3	V	238	2.43	-
PK	4.828G	46.49	74.00	-27.51	4.73	3	V	238	2.43	-

802.11g_(6Mbps)_2TX

2412MHz_TX

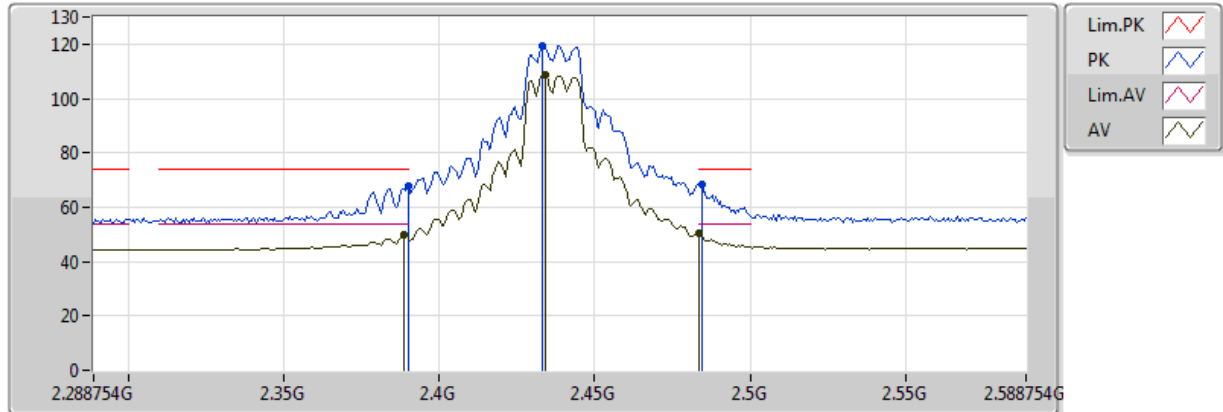


20170620
EUT Z(Only)_2TX
Setting 18
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82426G	33.01	54.00	-20.99	4.72	3	H	87	1.32	-
PK	4.82866G	46.93	74.00	-27.07	4.73	3	H	87	1.32	-

802.11g_(6Mbps)_2TX

2437MHz_TX

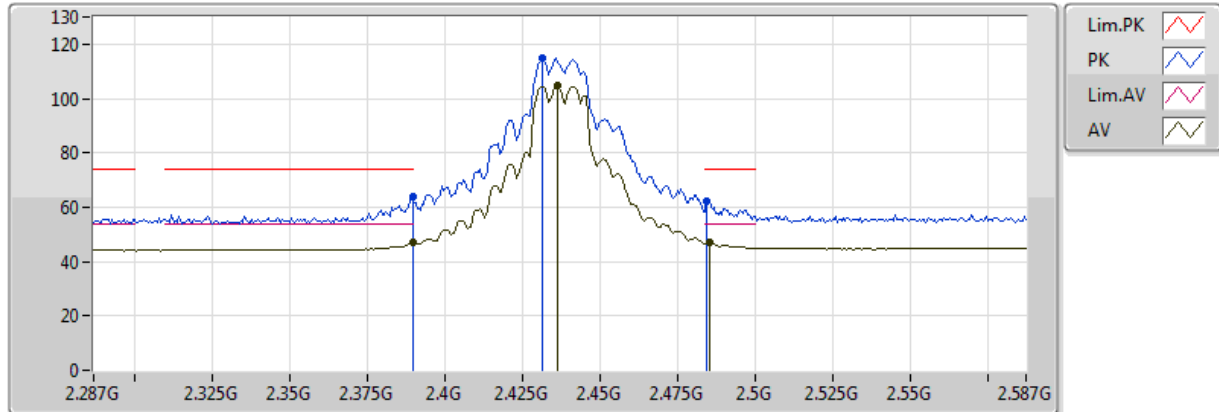


20170620
EUT Z(Only)_2TX
Setting 23.5
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.388354G	49.91	54.00	-4.09	31.91	3	V	89	1.45	-
AV	2.433954G	108.46	Inf	-Inf	32.02	3	V	89	1.45	-
AV	2.483754G	50.21	54.00	-3.79	32.14	3	V	89	1.45	-
PK	2.389998G	67.78	74.00	-6.22	31.91	3	V	89	1.45	-
PK	2.433354G	119.36	Inf	-Inf	32.02	3	V	89	1.45	-
PK	2.484354G	68.21	74.00	-5.79	32.14	3	V	89	1.45	-

802.11g_(6Mbps)_2TX

2437MHz_TX

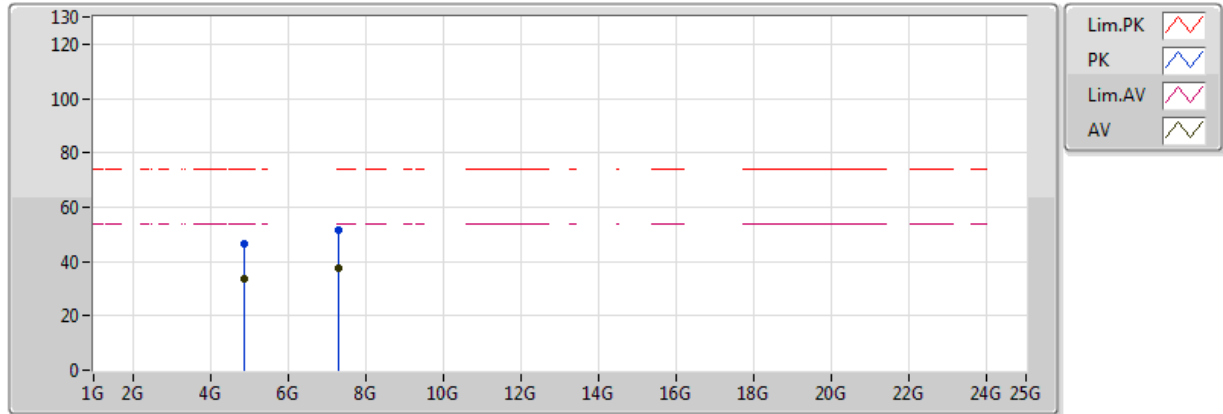


20170620
EUT Z(Only)_2TX
Setting 23.5
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	46.92	54.00	-7.08	31.91	3	H	35	1.44	-
AV	2.4364G	104.59	Inf	-Inf	32.03	3	H	35	1.44	-
AV	2.485G	47.02	54.00	-6.98	32.14	3	H	35	1.44	-
PK	2.3896G	63.61	74.00	-10.39	31.91	3	H	35	1.44	-
PK	2.4316G	114.90	Inf	-Inf	32.02	3	H	35	1.44	-
PK	2.4844G	62.45	74.00	-11.55	32.14	3	H	35	1.44	-

802.11g_(6Mbps)_2TX

2437MHz_TX

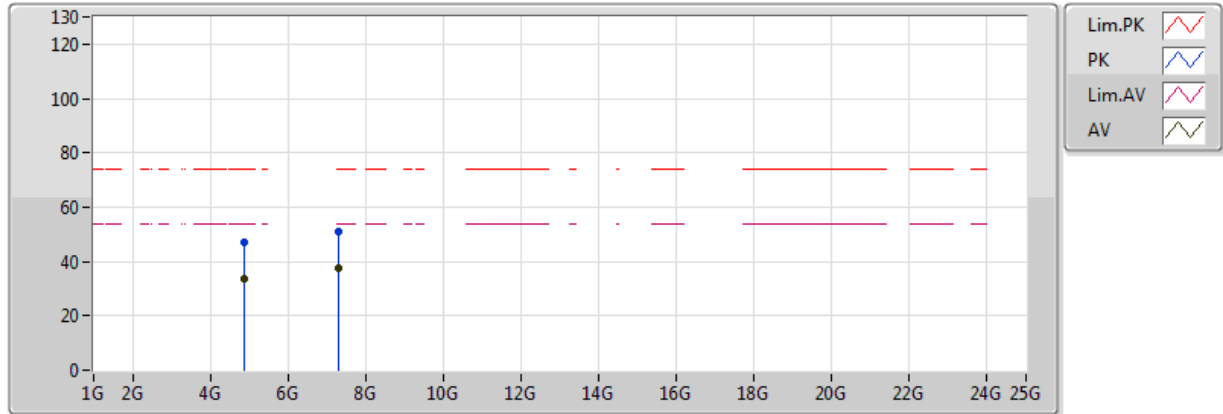


20170620
EUT Z(Only)_2TX
Setting 23.5
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87168G	33.52	54.00	-20.48	4.81	3	V	221	1.57	-
AV	7.30834G	37.60	54.00	-16.40	8.80	3	V	340	1.92	-
PK	4.87354G	46.70	74.00	-27.30	4.82	3	V	221	1.57	-
PK	7.314G	51.29	74.00	-22.71	8.80	3	V	340	1.92	-

802.11g_(6Mbps)_2TX

2437MHz_TX

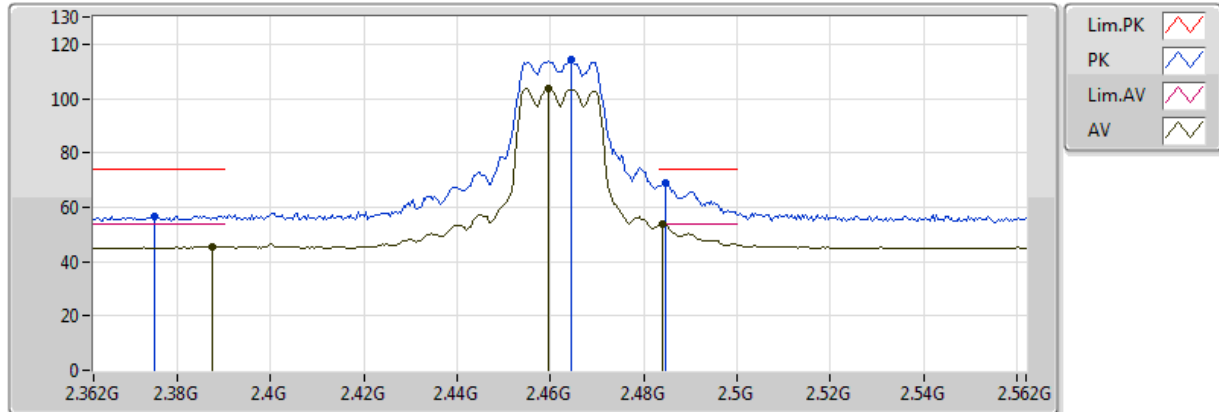


20170620
EUT Z(Only)_2TX
Setting 23.5
03-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87828G	33.49	54.00	-20.51	4.83	3	H	183	2.39	-
AV	7.30822G	37.81	54.00	-16.19	8.80	3	H	73	1.11	-
PK	4.87262G	47.10	74.00	-26.90	4.82	3	H	183	2.39	-
PK	7.3082G	50.82	74.00	-23.18	8.80	3	H	73	1.11	-

802.11g_(6Mbps)_2TX

2462MHz_TX

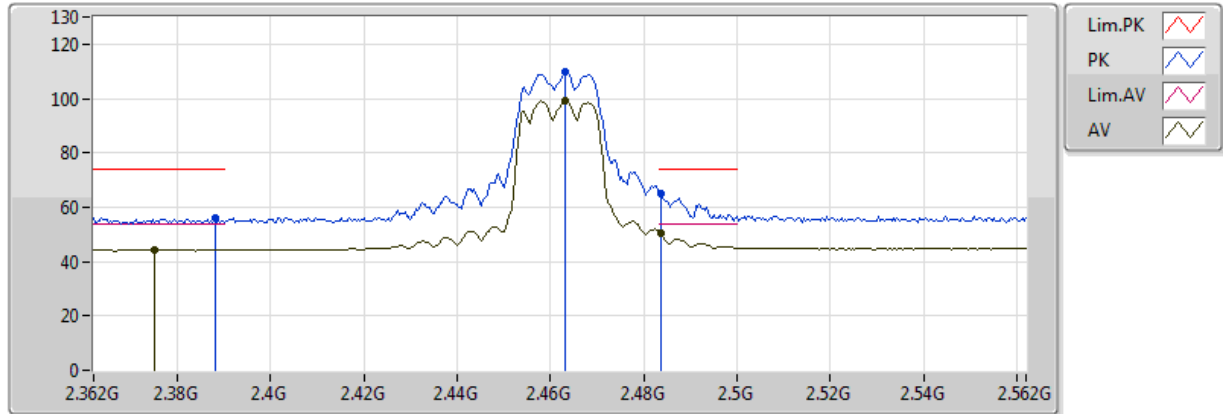


20170620
EUT Z(Only)_2TX
Setting 19
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3876G	45.40	54.00	-8.60	31.91	3	V	100	1.18	-
AV	2.4596G	103.54	Inf	-Inf	32.08	3	V	100	1.18	-
AV	2.484G	53.52	54.00	-0.48	32.14	3	V	100	1.18	-
PK	2.3752G	56.72	74.00	-17.28	31.88	3	V	100	1.18	-
PK	2.4644G	114.57	Inf	-Inf	32.09	3	V	100	1.18	-
PK	2.4848G	69.15	74.00	-4.85	32.14	3	V	100	1.18	-

802.11g_(6Mbps)_2TX

2462MHz_TX

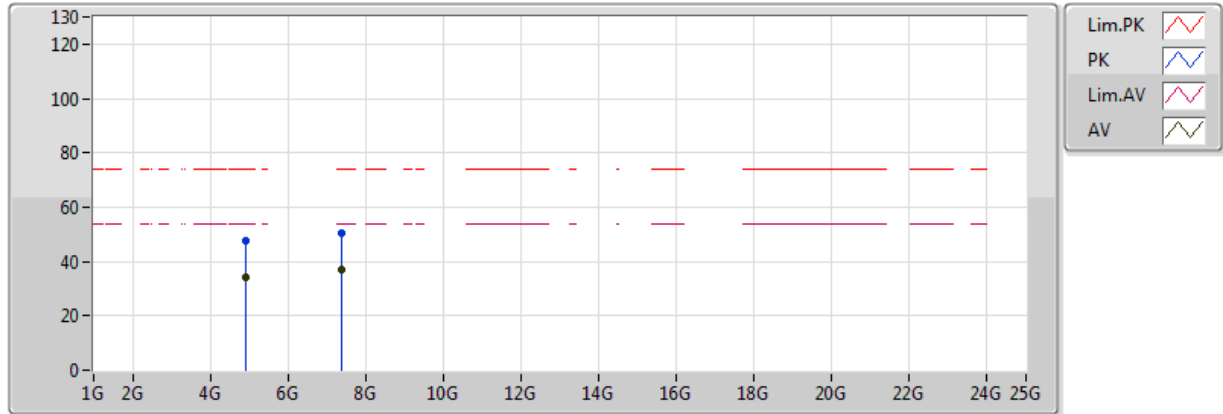


20170620
EUT Z(Only)_2TX
Setting 19
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3752G	44.35	54.00	-9.65	31.88	3	H	217	1.16	-
AV	2.4632G	99.11	Inf	-Inf	32.09	3	H	217	1.16	-
AV	2.4836G	50.58	54.00	-3.42	32.14	3	H	217	1.16	-
PK	2.388G	56.04	74.00	-17.96	31.91	3	H	217	1.16	-
PK	2.4632G	109.55	Inf	-Inf	32.09	3	H	217	1.16	-
PK	2.4836G	64.94	74.00	-9.06	32.14	3	H	217	1.16	-

802.11g_(6Mbps)_2TX

2462MHz_TX

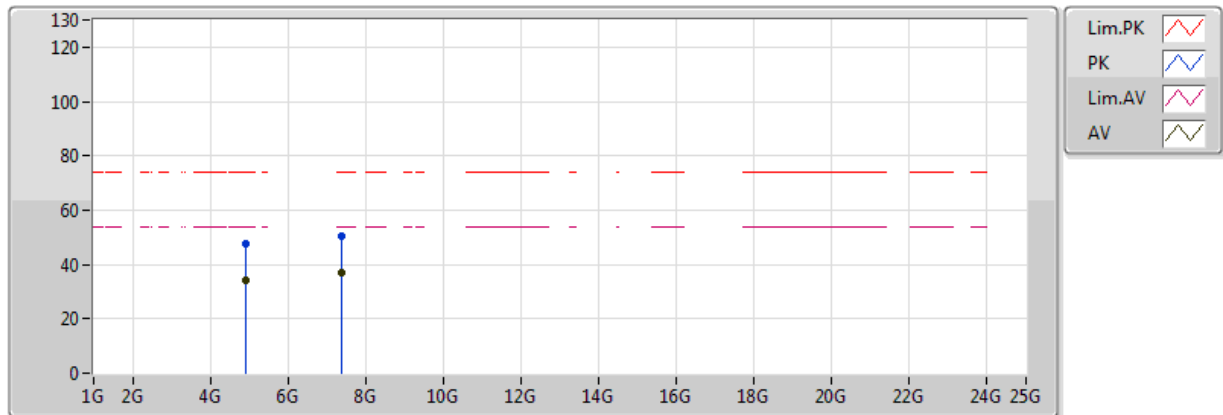


20170620
EUT Z(Only)_2TX
Setting 19
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.9252G	33.95	54.00	-20.05	4.93	3	V	318	1.30	-
AV	7.38742G	36.94	54.00	-17.06	8.83	3	V	283	1.76	-
PK	4.9281G	47.67	74.00	-26.33	4.93	3	V	318	1.30	-
PK	7.3811G	50.23	74.00	-23.77	8.82	3	V	283	1.76	-

802.11g_(6Mbps)_2TX

2462MHz_TX

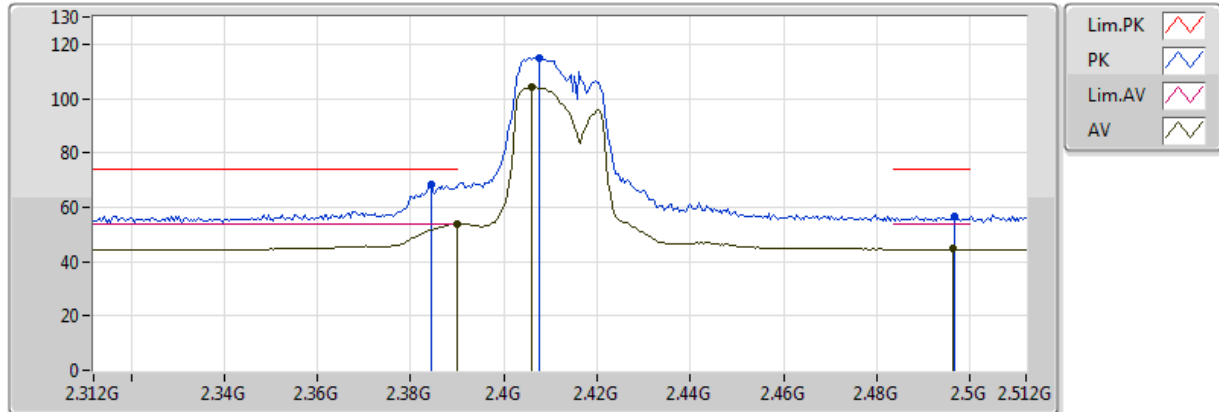


20170620
EUT Z(Only)_2TX
Setting 19
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92388G	34.00	54.00	-20.00	4.92	3	H	83	2.48	-
AV	7.38962G	36.83	54.00	-17.17	8.83	3	H	264	1.60	-
PK	4.92536G	47.64	74.00	-26.36	4.93	3	H	83	2.48	-
PK	7.38882G	50.51	74.00	-23.49	8.83	3	H	264	1.60	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2412MHz_TX

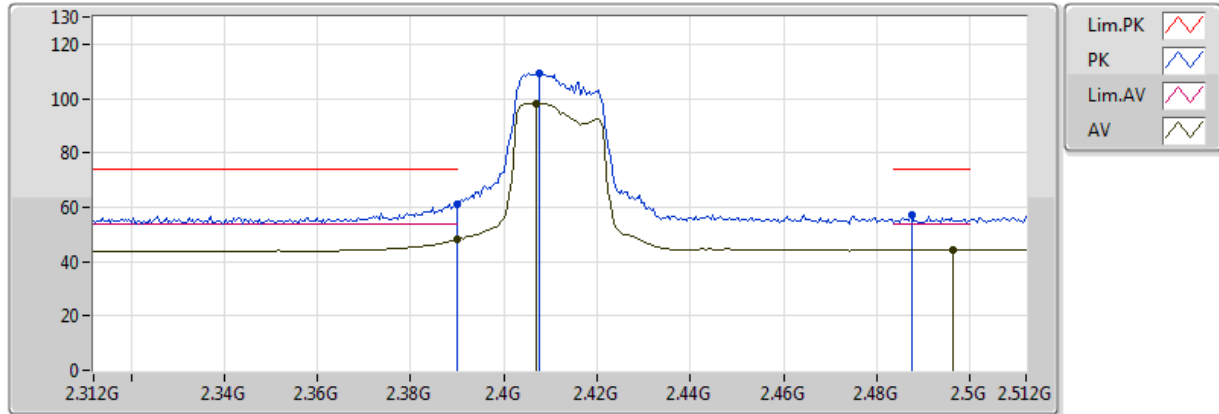


20170620
EUT Z(Only)_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	53.69	54.00	-0.31	31.91	3	V	126	1.11	-
AV	2.406G	104.16	Inf	-Inf	31.95	3	V	126	1.11	-
AV	2.4964G	45.03	54.00	-8.97	32.17	3	V	126	1.11	-
PK	2.3844G	68.17	74.00	-5.83	31.90	3	V	126	1.11	-
PK	2.4076G	115.14	Inf	-Inf	31.96	3	V	126	1.11	-
PK	2.4968G	56.52	74.00	-17.48	32.17	3	V	126	1.11	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2412MHz_TX

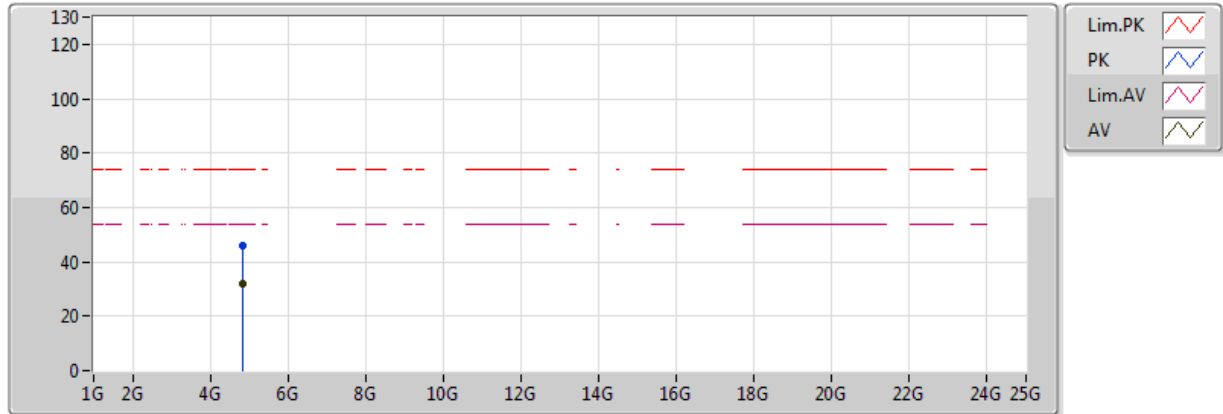


20170620
EUT Z(Only)_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	47.92	54.00	-6.08	31.91	3	H	3	2.37	-
AV	2.4068G	98.34	Inf	-Inf	31.96	3	H	3	2.37	-
AV	2.4964G	44.23	54.00	-9.77	32.17	3	H	3	2.37	-
PK	2.39G	61.13	74.00	-12.87	31.91	3	H	3	2.37	-
PK	2.4076G	109.45	Inf	-Inf	31.96	3	H	3	2.37	-
PK	2.4876G	56.90	74.00	-17.10	32.15	3	H	3	2.37	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2412MHz_TX

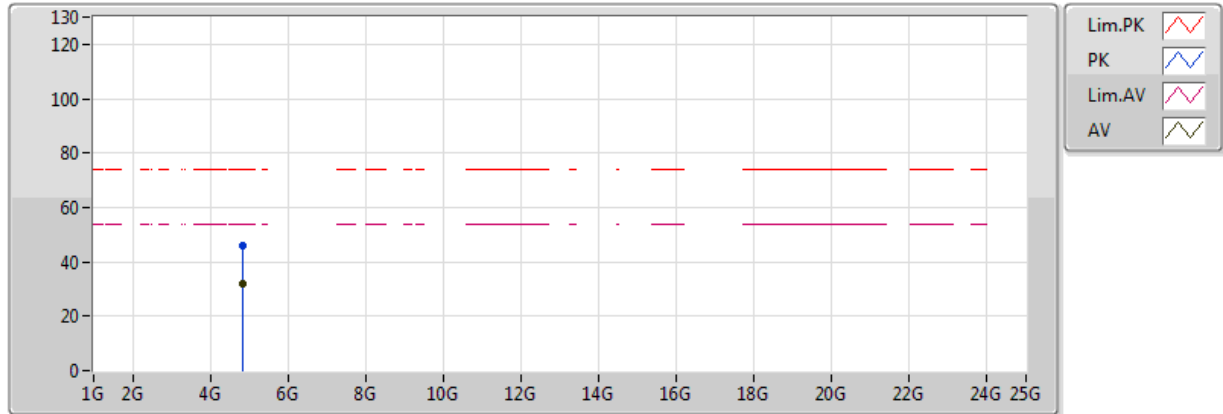


20170620
EUT Z(Only)_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82466G	32.18	54.00	-21.82	4.72	3	V	215	2.28	-
PK	4.82472G	46.14	74.00	-27.86	4.72	3	V	215	2.28	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2412MHz_TX

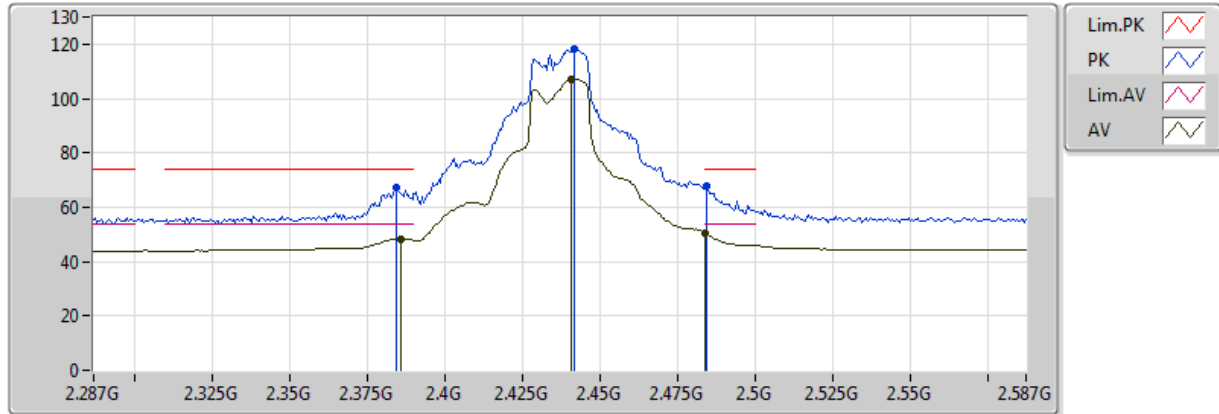


20170620
EUT Z(Only)_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8282G	32.21	54.00	-21.79	4.73	3	H	249	1.63	-
PK	4.82522G	46.05	74.00	-27.95	4.72	3	H	249	1.63	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2437MHz_TX

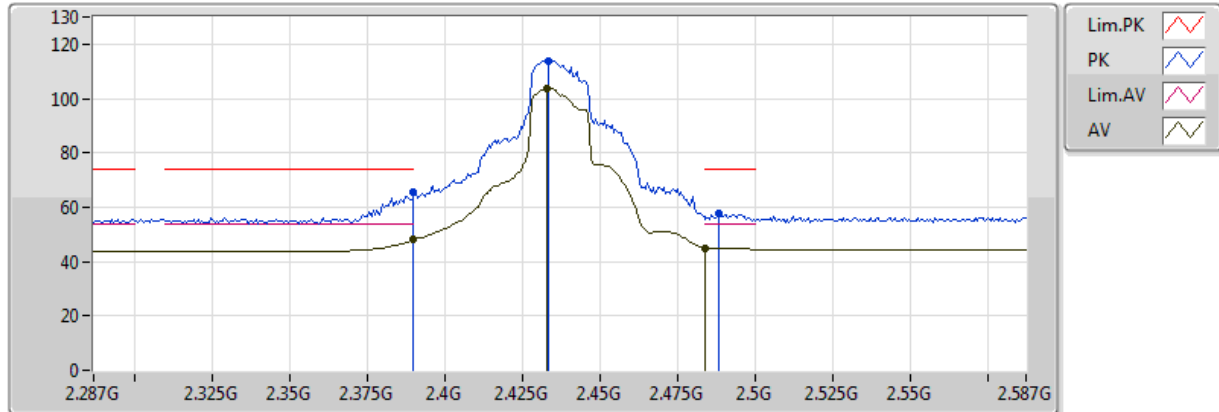


20170620
EUT Z(Only)_2TX
Setting 23.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.386G	48.28	54.00	-5.72	31.90	3	V	70	1.46	-
AV	2.4406G	106.87	Inf	-Inf	32.04	3	V	70	1.46	-
AV	2.483502G	50.47	54.00	-3.53	32.14	3	V	70	1.46	-
PK	2.3842G	67.06	74.00	-6.94	31.90	3	V	70	1.46	-
PK	2.4418G	118.47	Inf	-Inf	32.04	3	V	70	1.46	-
PK	2.4844G	67.85	74.00	-6.15	32.14	3	V	70	1.46	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2437MHz_TX

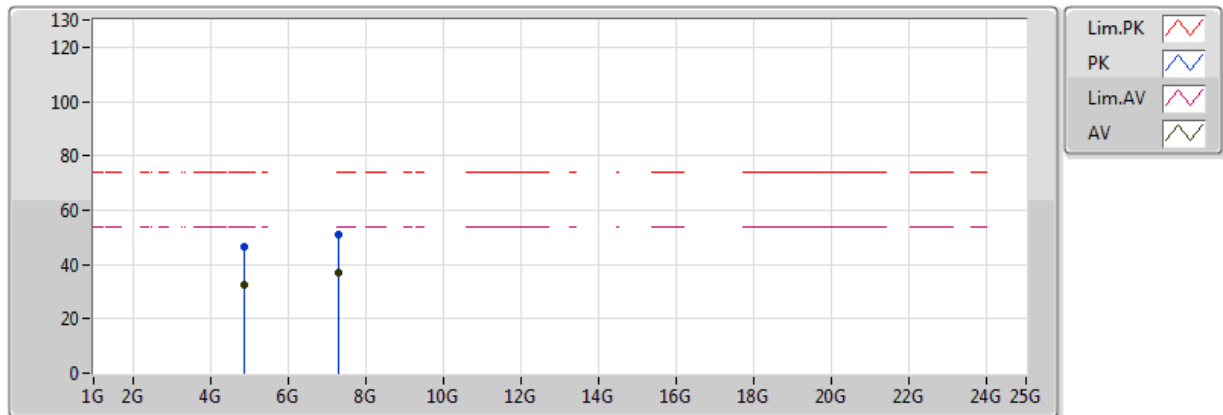


20170620
EUT Z(Only)_2TX
Setting 23.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	47.99	54.00	-6.01	31.91	3	H	4	1.22	-
AV	2.4328G	103.49	Inf	-Inf	32.02	3	H	4	1.22	-
AV	2.483502G	45.00	54.00	-9.00	32.14	3	H	4	1.22	-
PK	2.389998G	65.74	74.00	-8.26	31.91	3	H	4	1.22	-
PK	2.4334G	113.97	Inf	-Inf	32.02	3	H	4	1.22	-
PK	2.488G	57.50	74.00	-16.50	32.15	3	H	4	1.22	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2437MHz_TX

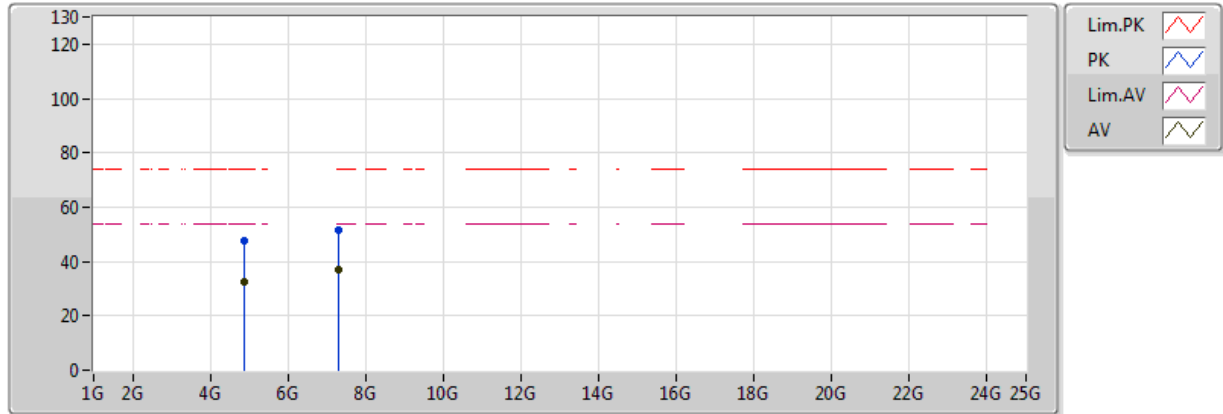


20170620
EUT Z(Only)_2TX
Setting 23.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87866G	32.64	54.00	-21.36	4.83	3	V	173	1.25	-
AV	7.31356G	36.92	54.00	-17.08	8.80	3	V	137	1.00	-
PK	4.86992G	46.46	74.00	-27.54	4.81	3	V	173	1.25	-
PK	7.31104G	51.13	74.00	-22.87	8.80	3	V	137	1.00	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2437MHz_TX

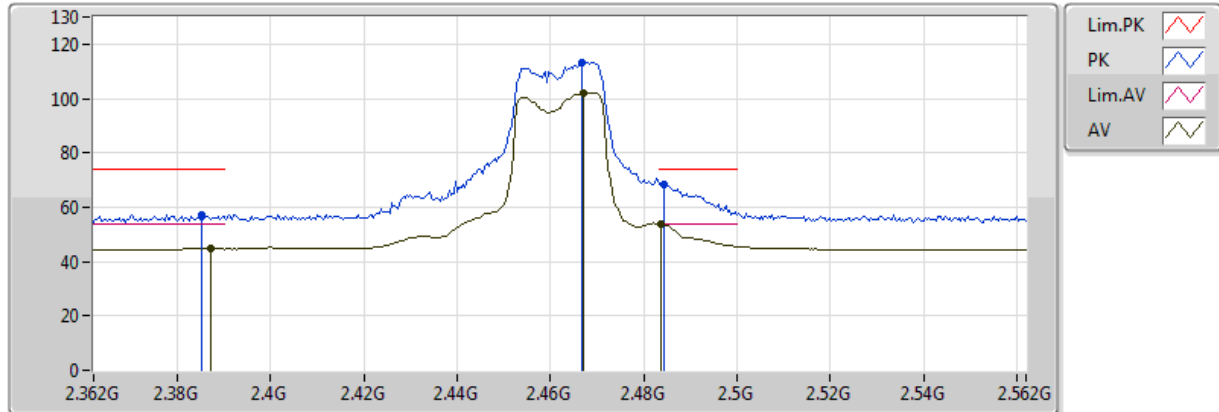


20170620
EUT Z(Only)_2TX
Setting 23.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8788G	32.68	54.00	-21.32	4.83	3	H	281	1.41	-
AV	7.31074G	36.82	54.00	-17.18	8.80	3	H	70	1.61	-
PK	4.87618G	47.86	74.00	-26.14	4.82	3	H	281	1.41	-
PK	7.30644G	51.46	74.00	-22.54	8.80	3	H	70	1.61	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2462MHz_TX

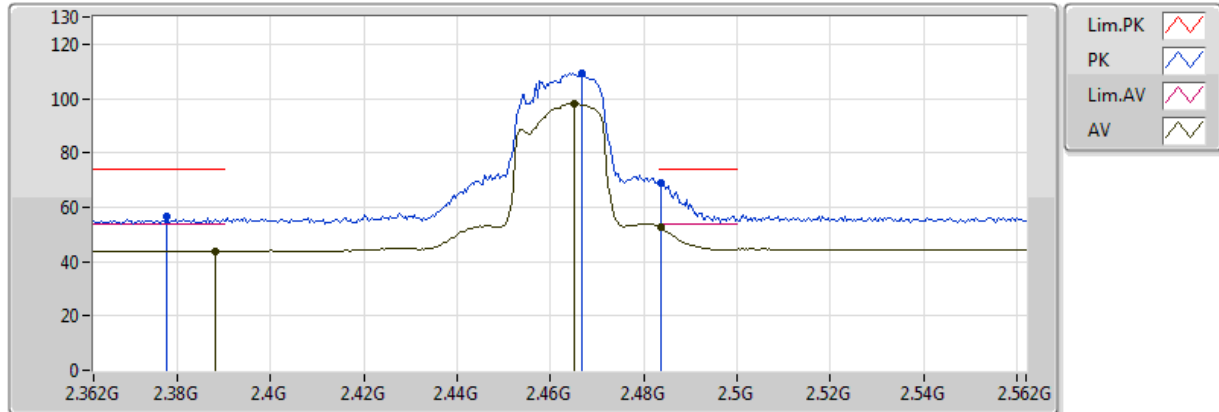


20170620
EUT Z(Only)_2TX
Setting 19
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3872G	44.65	54.00	-9.35	31.91	3	V	88	1.49	-
AV	2.4672G	102.22	Inf	-Inf	32.10	3	V	88	1.49	-
AV	2.4836G	53.94	54.00	-0.06	32.14	3	V	88	1.49	-
PK	2.3852G	57.15	74.00	-16.85	31.90	3	V	88	1.49	-
PK	2.4668G	113.33	Inf	-Inf	32.10	3	V	88	1.49	-
PK	2.4844G	68.61	74.00	-5.39	32.14	3	V	88	1.49	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2462MHz_TX

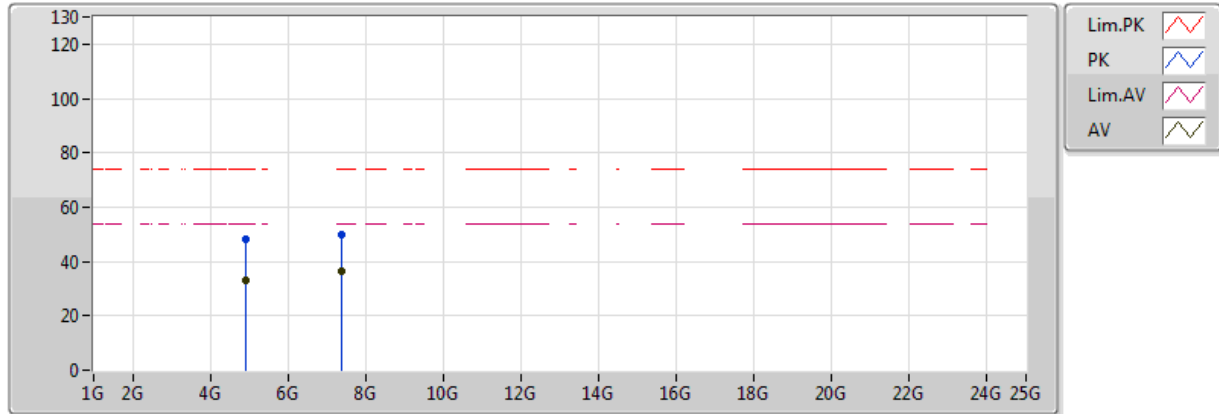


20170620
EUT Z(Only)_2TX
Setting 19
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.388G	43.89	54.00	-10.11	31.91	3	H	215	1.17	-
AV	2.4652G	98.31	Inf	-Inf	32.10	3	H	215	1.17	-
AV	2.4836G	52.68	54.00	-1.32	32.14	3	H	215	1.17	-
PK	2.3776G	56.58	74.00	-17.42	31.88	3	H	215	1.17	-
PK	2.4668G	109.36	Inf	-Inf	32.10	3	H	215	1.17	-
PK	2.4836G	69.01	74.00	-4.99	32.14	3	H	215	1.17	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2462MHz_TX

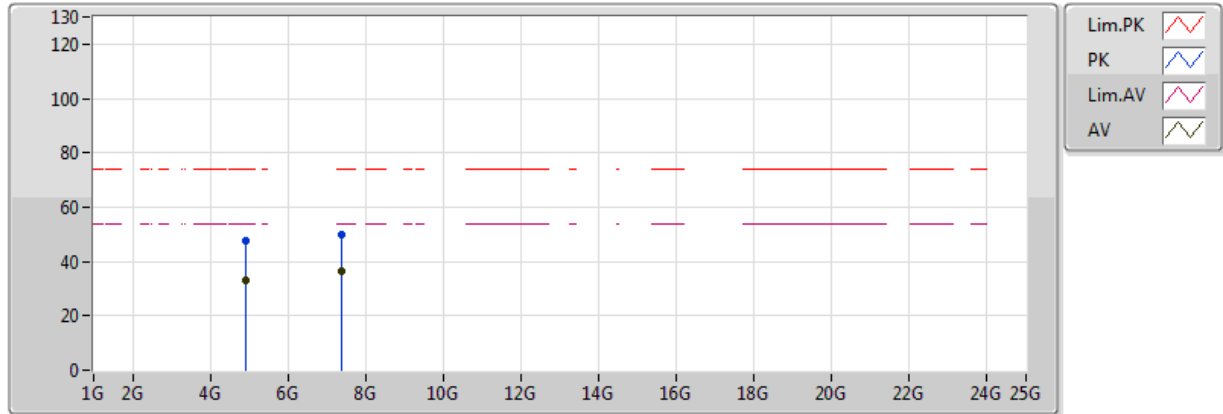


20170620
EUT Z(Only)_2TX
Setting 19
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92674G	33.24	54.00	-20.76	4.93	3	V	169	1.65	-
AV	7.38992G	36.16	54.00	-17.84	8.83	3	V	308	2.31	-
PK	4.92758G	48.09	74.00	-25.91	4.93	3	V	169	1.65	-
PK	7.3908G	50.02	74.00	-23.98	8.83	3	V	308	2.31	-

802.11ac VHT20_Nss1,(MCS0)_2TX

2462MHz_TX

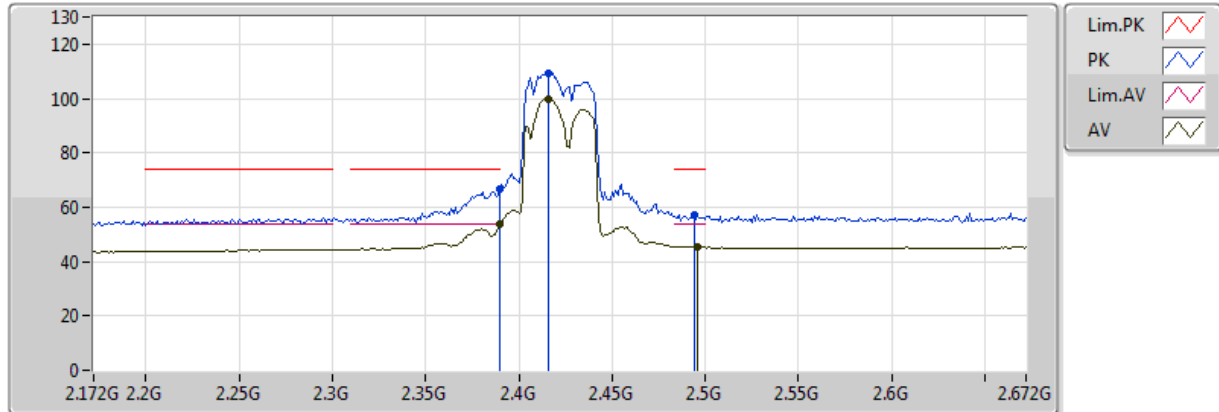


20170620
EUT Z(Only)_2TX
Setting 19
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92598G	33.22	54.00	-20.78	4.93	3	H	359	1.61	-
AV	7.38964G	36.16	54.00	-17.84	8.83	3	H	5	1.08	-
PK	4.92756G	47.80	74.00	-26.20	4.93	3	H	359	1.61	-
PK	7.3842G	49.87	74.00	-24.13	8.83	3	H	5	1.08	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2422MHz_TX

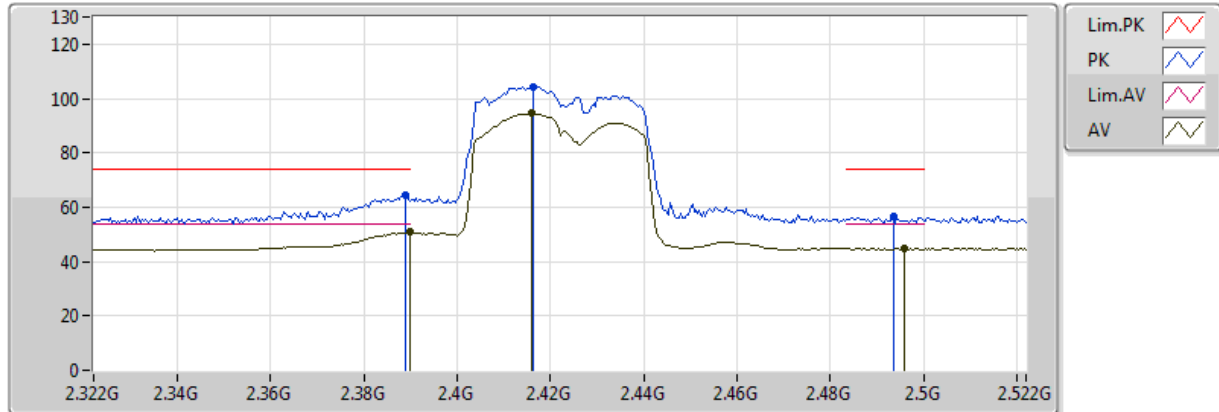


20170620
EUT Z(Only)_2TX
Setting 16.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	53.66	54.00	-0.34	31.91	3	V	126	1.12	-
AV	2.416G	99.73	Inf	-Inf	31.98	3	V	126	1.12	-
AV	2.496G	45.60	54.00	-8.40	32.17	3	V	126	1.12	-
PK	2.39G	66.91	74.00	-7.09	31.91	3	V	126	1.12	-
PK	2.416G	109.25	Inf	-Inf	31.98	3	V	126	1.12	-
PK	2.494G	57.26	74.00	-16.74	32.17	3	V	126	1.12	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2422MHz_TX

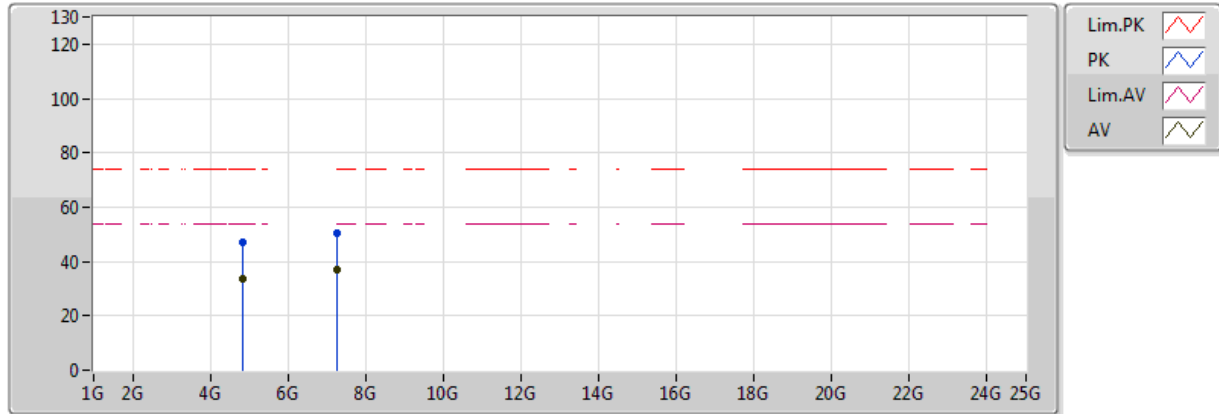


20170620
EUT Z(Only)_2TX
Setting 16.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	50.80	54.00	-3.20	31.91	3	H	0	2.75	-
AV	2.416G	94.56	Inf	-Inf	31.98	3	H	0	2.75	-
AV	2.496G	44.75	54.00	-9.25	32.17	3	H	0	2.75	-
PK	2.3888G	64.40	74.00	-9.60	31.91	3	H	0	2.75	-
PK	2.4164G	104.14	Inf	-Inf	31.98	3	H	0	2.75	-
PK	2.4936G	56.51	74.00	-17.49	32.16	3	H	0	2.75	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2422MHz_TX

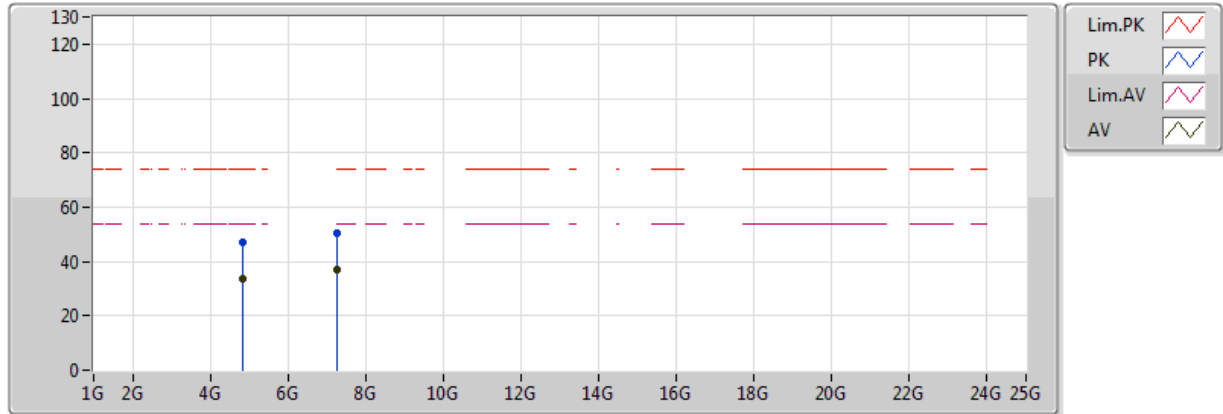


20170620
EUT Z(Only)_2TX
Setting 16.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8482G	33.44	54.00	-20.56	4.77	3	V	49	1.43	-
AV	7.26192G	36.92	54.00	-17.08	8.78	3	V	318	2.03	-
PK	4.84714G	46.85	74.00	-27.15	4.76	3	V	49	1.43	-
PK	7.26936G	50.65	74.00	-23.35	8.79	3	V	318	2.03	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2422MHz_TX

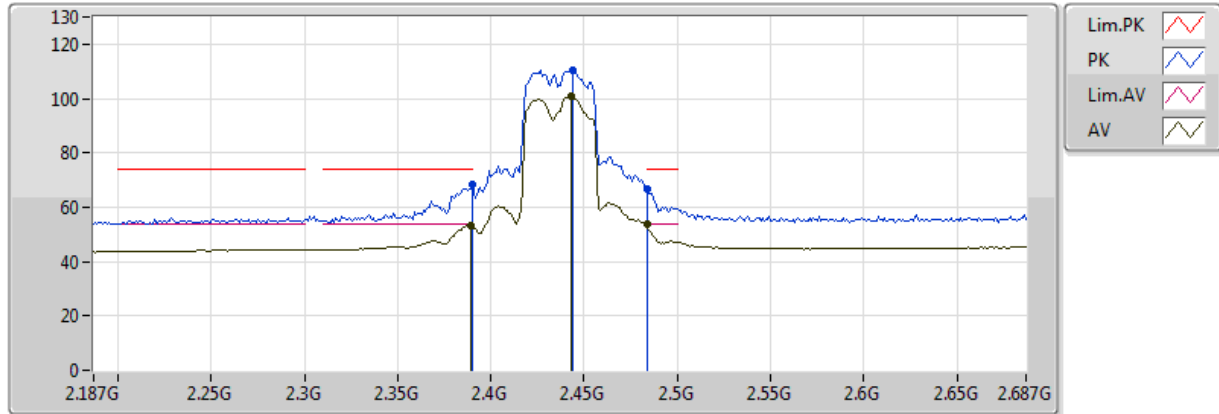


20170620
EUT Z(Only)_2TX
Setting 16.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.84656G	33.41	54.00	-20.59	4.76	3	H	123	1.91	-
AV	7.27088G	37.06	54.00	-16.94	8.79	3	H	187	1.31	-
PK	4.8489G	47.32	74.00	-26.68	4.77	3	H	123	1.91	-
PK	7.26828G	50.30	74.00	-23.70	8.79	3	H	187	1.31	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2437MHz_TX

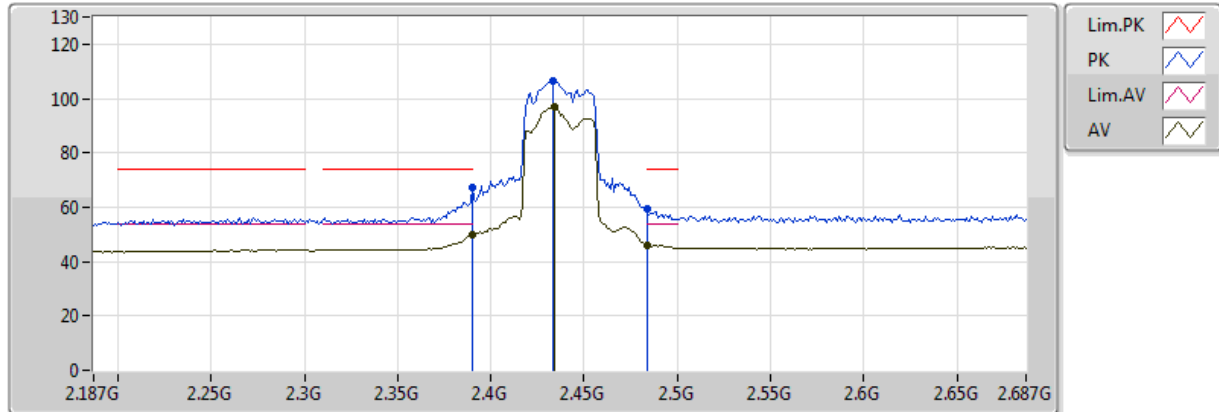


20170620
EUT Z(Only)_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389G	53.36	54.00	-0.64	31.91	3	V	69	1.47	-
AV	2.443G	100.69	Inf	-Inf	32.04	3	V	69	1.47	-
AV	2.483502G	53.66	54.00	-0.34	32.14	3	V	69	1.47	-
PK	2.39G	68.18	74.00	-5.82	31.91	3	V	69	1.47	-
PK	2.444G	110.60	Inf	-Inf	32.05	3	V	69	1.47	-
PK	2.483502G	66.95	74.00	-7.05	32.14	3	V	69	1.47	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2437MHz_TX

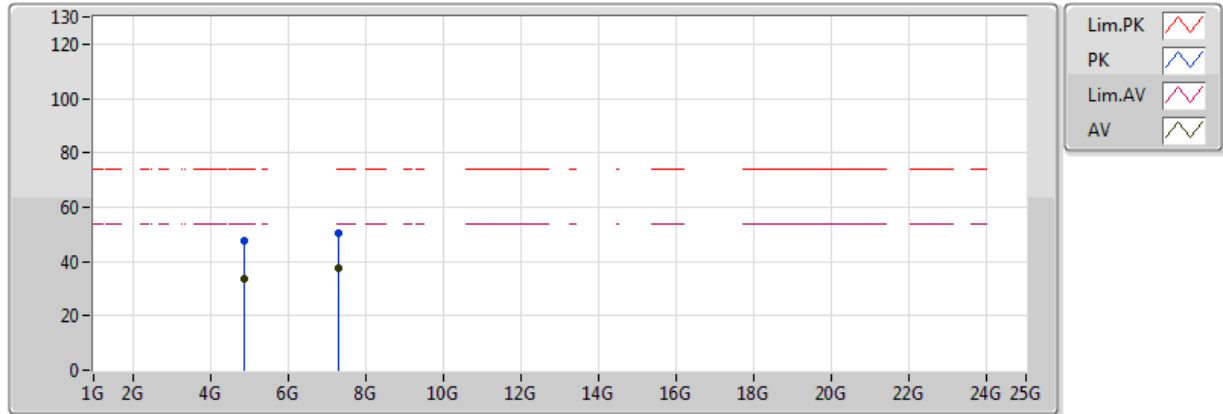


20170620
EUT Z(Only)_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	49.81	54.00	-4.19	31.91	3	H	2	1.21	-
AV	2.434G	96.89	Inf	-Inf	32.02	3	H	2	1.21	-
AV	2.483502G	46.08	54.00	-7.92	32.14	3	H	2	1.21	-
PK	2.39G	67.49	74.00	-6.51	31.91	3	H	2	1.21	-
PK	2.433G	106.49	Inf	-Inf	32.02	3	H	2	1.21	-
PK	2.483502G	59.63	74.00	-14.37	32.14	3	H	2	1.21	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2437MHz_TX

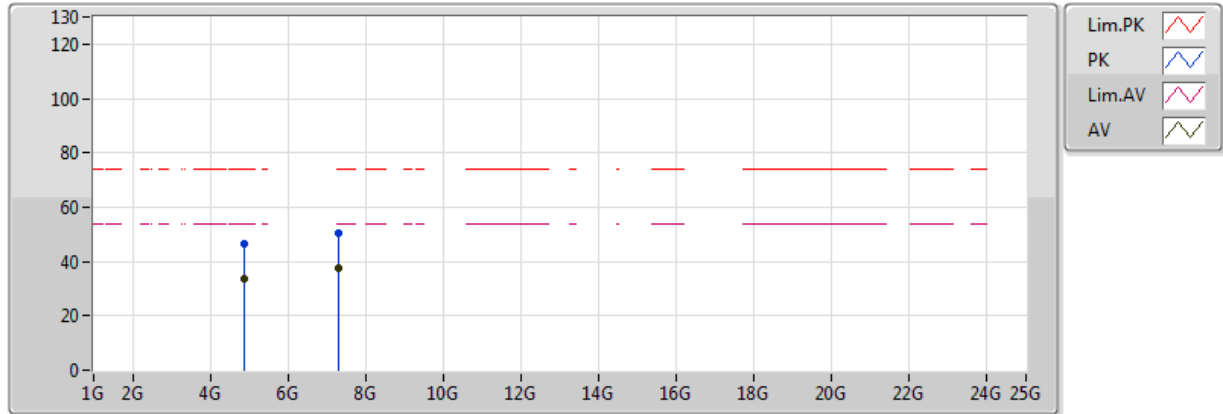


20170620
EUT Z(Only)_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87186G	33.36	54.00	-20.64	4.81	3	V	36	2.01	-
AV	7.306G	37.39	54.00	-16.61	8.80	3	V	75	2.37	-
PK	4.87168G	47.47	74.00	-26.53	4.81	3	V	36	2.01	-
PK	7.31392G	50.55	74.00	-23.45	8.80	3	V	75	2.37	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2437MHz_TX

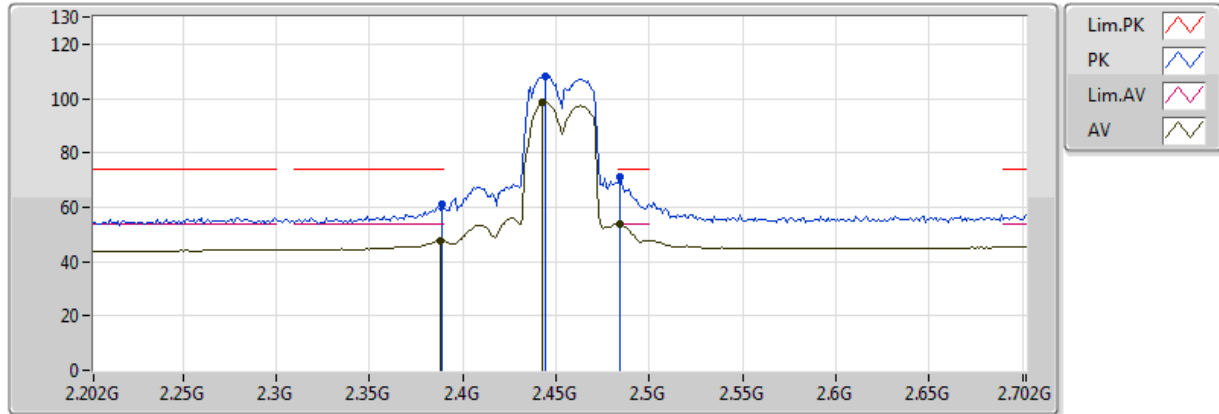


20170620
EUT Z(Only)_2TX
Setting 18.5
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.881G	33.36	54.00	-20.64	4.83	3	H	219	1.74	-
AV	7.30916G	37.37	54.00	-16.63	8.80	3	H	63	1.12	-
PK	4.86756G	46.54	74.00	-27.46	4.81	3	H	219	1.74	-
PK	7.30792G	50.61	74.00	-23.39	8.80	3	H	63	1.12	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2452MHz_TX

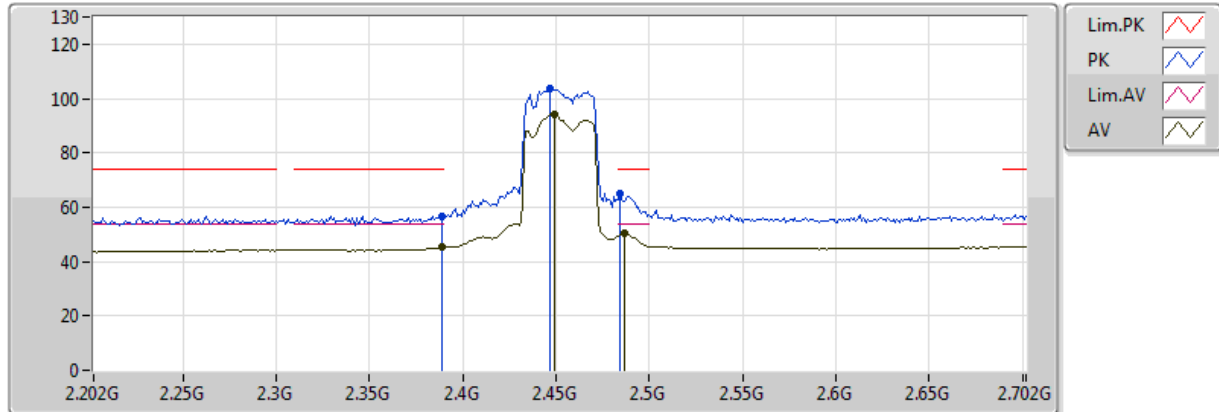


20170620
EUT Z(Only)_2TX
Setting 17
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.388G	47.61	54.00	-6.39	31.91	3	V	113	1.46	-
AV	2.443G	98.73	Inf	-Inf	32.04	3	V	113	1.46	-
AV	2.484G	53.80	54.00	-0.20	32.14	3	V	113	1.46	-
PK	2.389G	61.31	74.00	-12.69	31.91	3	V	113	1.46	-
PK	2.444G	108.38	Inf	-Inf	32.05	3	V	113	1.46	-
PK	2.484G	71.04	74.00	-2.96	32.14	3	V	113	1.46	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2452MHz_TX

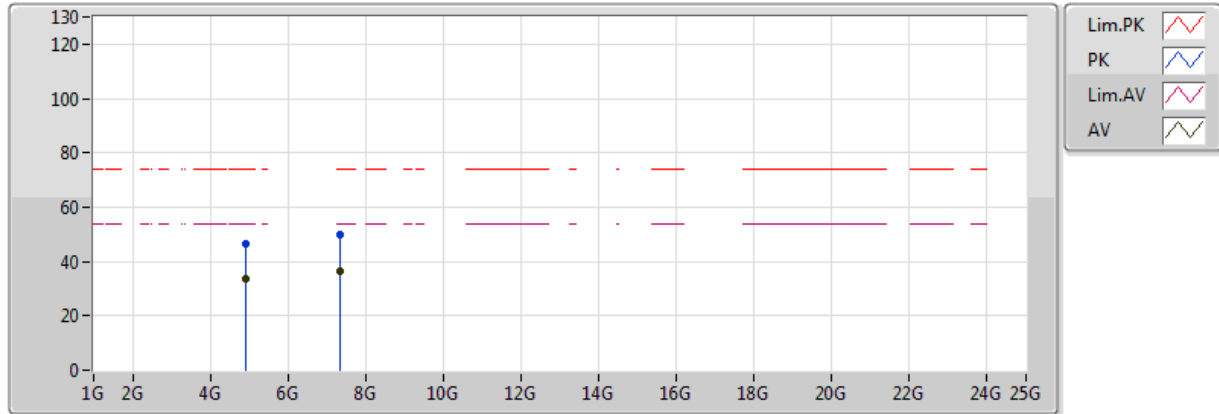


20170620
EUT Z(Only)_2TX
Setting 17
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389G	45.21	54.00	-8.79	31.91	3	H	7	1.19	-
AV	2.449G	94.08	Inf	-Inf	32.06	3	H	7	1.19	-
AV	2.487G	50.34	54.00	-3.66	32.15	3	H	7	1.19	-
PK	2.389G	56.56	74.00	-17.44	31.91	3	H	7	1.19	-
PK	2.447G	103.80	Inf	-Inf	32.05	3	H	7	1.19	-
PK	2.484G	65.01	74.00	-8.99	32.14	3	H	7	1.19	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2452MHz_TX

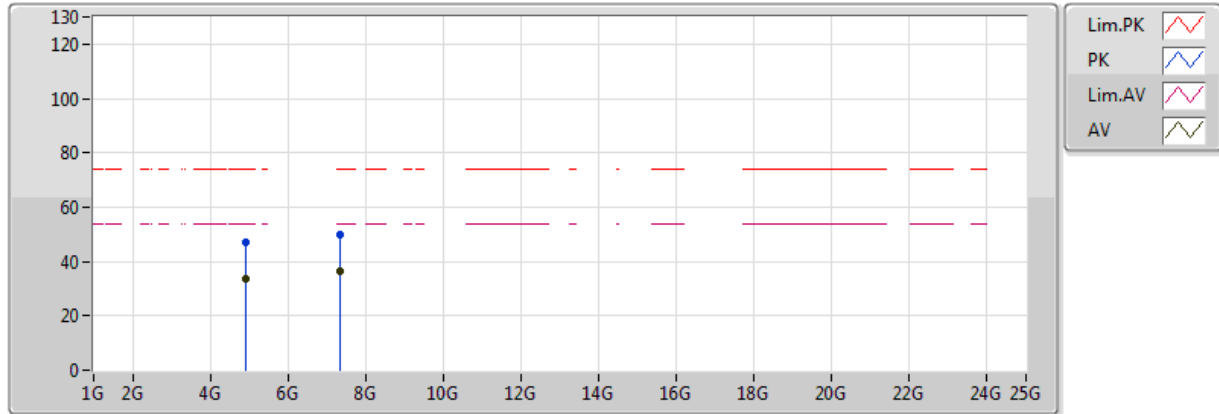


20170620
EUT Z(Only)_2TX
Setting 17
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.90282G	33.35	54.00	-20.65	4.88	3	V	161	1.12	-
AV	7.346G	36.20	54.00	-17.80	8.81	3	V	110	2.13	-
PK	4.9005G	46.52	74.00	-27.48	4.87	3	V	161	1.12	-
PK	7.35984G	49.93	74.00	-24.07	8.82	3	V	110	2.13	-

802.11ac VHT40_Nss1,(MCS0)_2TX

2452MHz_TX

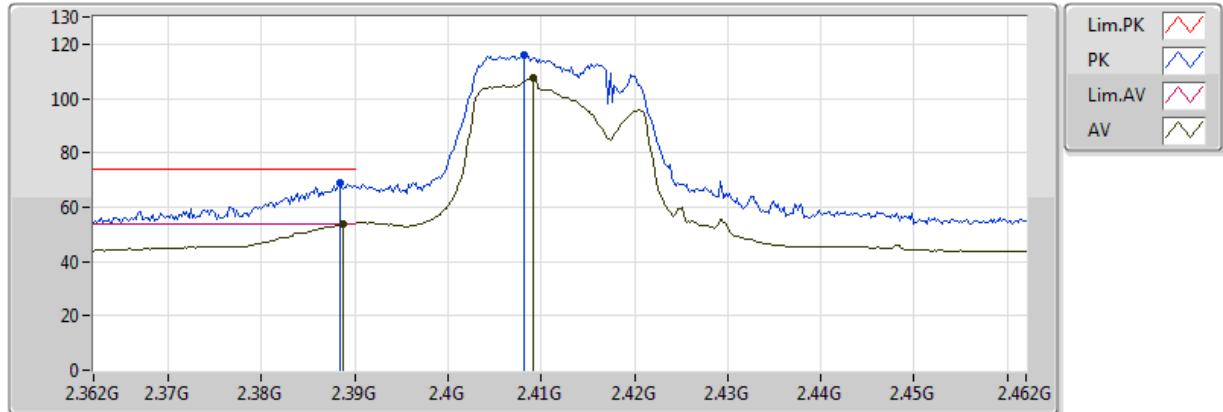


20170620
EUT Z(Only)_2TX
Setting 17
03-P-2
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.9136G	33.52	54.00	-20.48	4.90	3	H	294	2.08	-
AV	7.35148G	36.57	54.00	-17.43	8.82	3	H	162	1.73	-
PK	4.90056G	47.00	74.00	-27.00	4.87	3	H	294	2.08	-
PK	7.34944G	50.07	74.00	-23.93	8.81	3	H	162	1.73	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2412MHz_TX

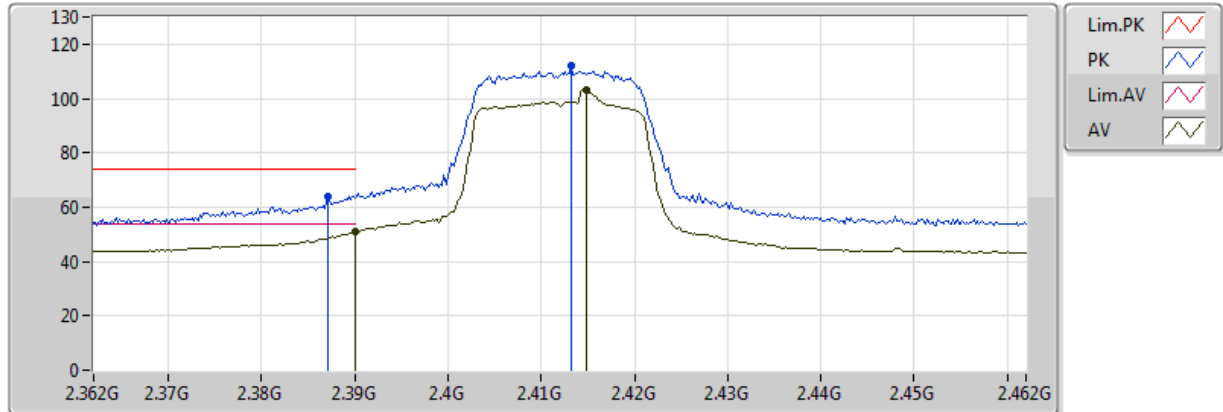


20170710
EUT_Z_2TX
Setting 20
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3888G	53.94	54.00	-0.06	31.04	3	V	121	1.01	-
AV	2.4092G	107.72	Inf	-Inf	31.01	3	V	121	1.01	-
PK	2.3884G	68.92	74.00	-5.08	31.04	3	V	121	1.01	-
PK	2.4082G	115.99	Inf	-Inf	31.01	3	V	121	1.01	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2412MHz_TX



20170710
EUT_Z_2TX
Setting 20
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	51.01	54.00	-2.99	31.04	3	H	184	1.39	-
AV	2.4148G	102.97	Inf	-Inf	31.00	3	H	184	1.39	-
PK	2.3872G	64.01	74.00	-9.99	31.04	3	H	184	1.39	-
PK	2.4132G	111.93	Inf	-Inf	31.00	3	H	184	1.39	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2412MHz_TX



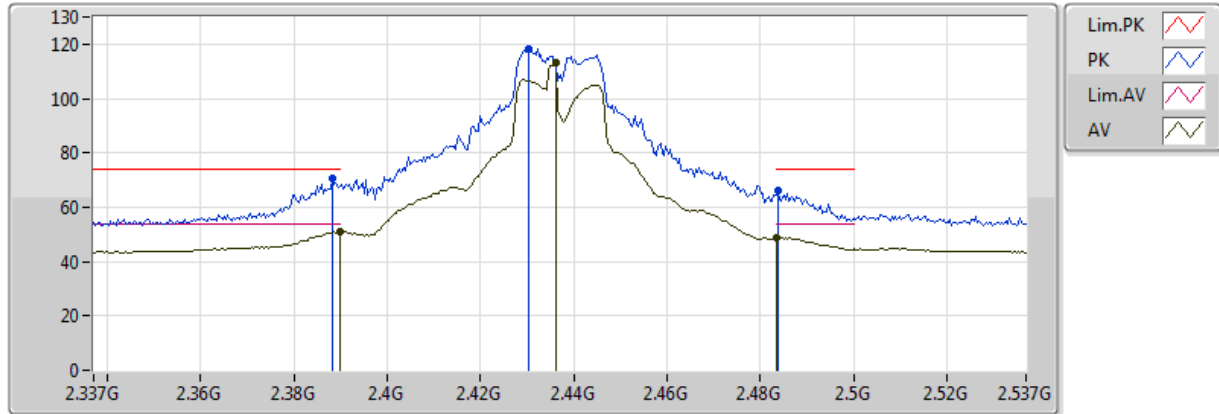
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2412MHz_TX



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

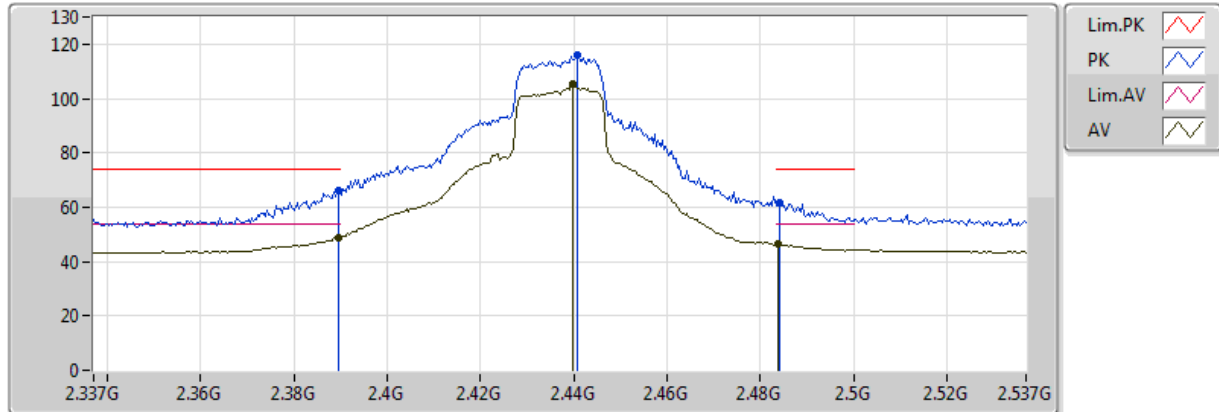


20170710
EUT_Z_2TX
Setting 26(Max setting)
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	50.77	54.00	-3.23	31.04	3	V	90	1.03	-
AV	2.4362G	112.91	Inf	-Inf	30.98	3	V	90	1.03	-
AV	2.483502G	48.89	54.00	-5.11	30.92	3	V	90	1.03	-
PK	2.3882G	70.71	74.00	-3.29	31.04	3	V	90	1.03	-
PK	2.4302G	118.34	Inf	-Inf	30.98	3	V	90	1.03	-
PK	2.4838G	65.90	74.00	-8.10	30.92	3	V	90	1.03	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

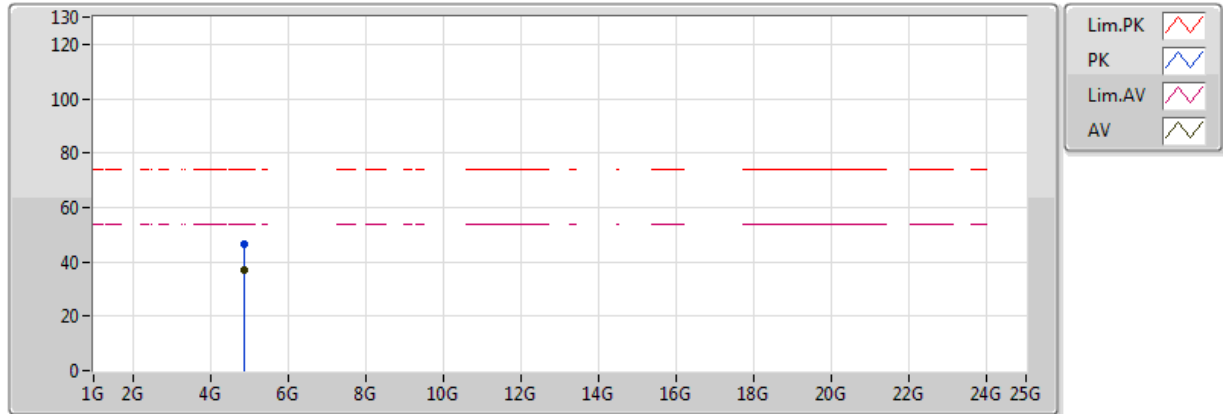


20170710
EUT_Z_2TX
Setting 26(Max setting)
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3894G	48.90	54.00	-5.10	31.04	3	H	178	1.34	-
AV	2.4398G	105.55	Inf	-Inf	30.97	3	H	178	1.34	-
AV	2.4838G	46.33	54.00	-7.67	30.92	3	H	178	1.34	-
PK	2.3894G	65.86	74.00	-8.14	31.04	3	H	178	1.34	-
PK	2.4406G	115.90	Inf	-Inf	30.97	3	H	178	1.34	-
PK	2.4842G	61.43	74.00	-12.57	30.92	3	H	178	1.34	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

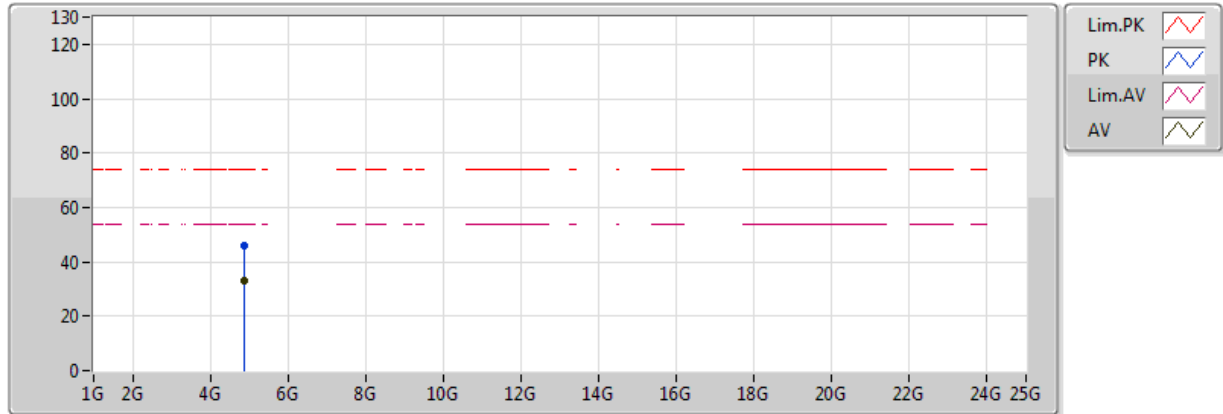


20170710
EUT_Z_2TX
Setting 26(Max setting)
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.874004G	36.84	54.00	-17.16	3.55	3	V	158	1.26	-
PK	4.873976G	46.78	74.00	-27.22	3.55	3	V	158	1.26	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2437MHz_TX

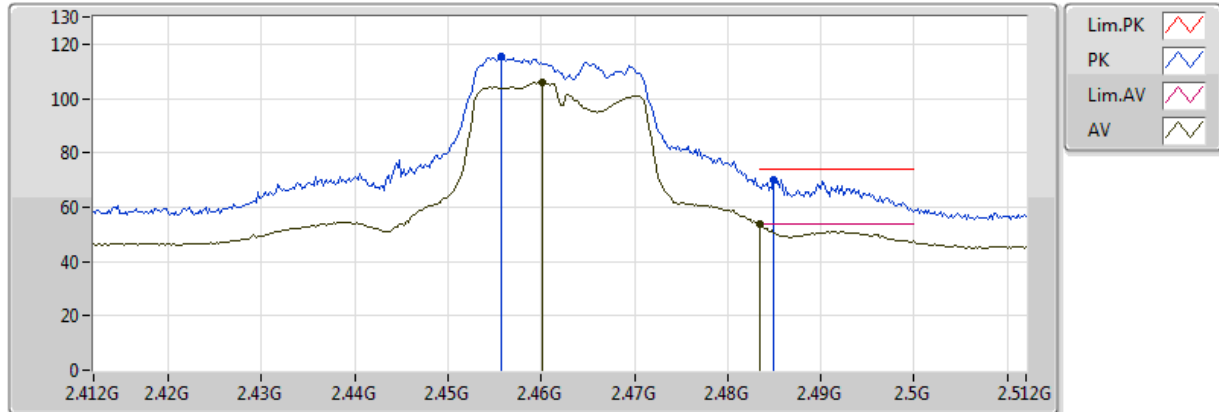


20170710
EUT_Z_2TX
Setting 26(Max setting)
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.873956G	32.92	54.00	-21.08	3.55	3	H	156	1.29	-
PK	4.873912G	46.22	74.00	-27.78	3.55	3	H	156	1.29	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2462MHz_TX

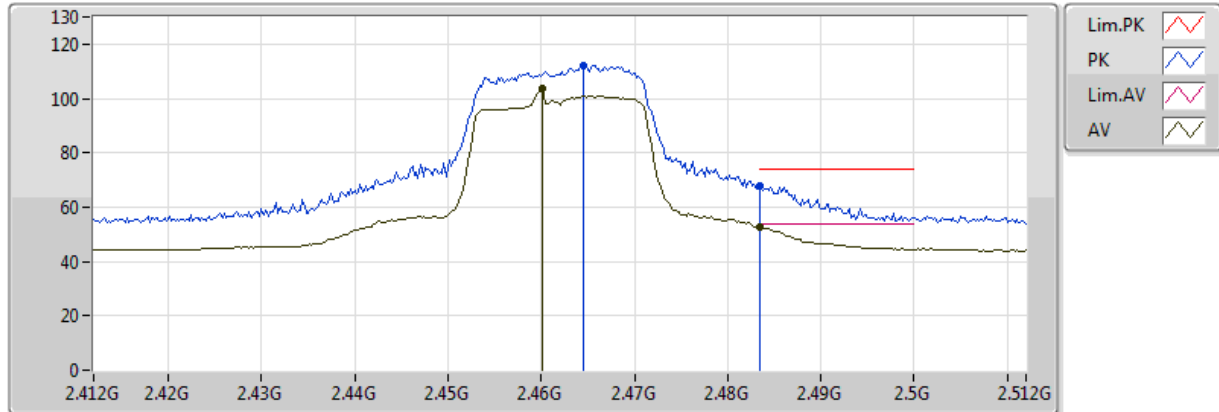


20170710
EUT_Z_2TX
Setting 22
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4602G	106.07	Inf	-Inf	30.95	3	V	108	1.25	-
AV	2.483502G	53.97	54.00	-0.03	30.92	3	V	108	1.25	-
PK	2.4558G	115.37	Inf	-Inf	30.95	3	V	108	1.25	-
PK	2.485G	69.92	74.00	-4.08	30.92	3	V	108	1.25	-

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2462MHz_TX



20170710
EUT_Z_2TX
Setting 22
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4602G	103.50	Inf	-Inf	30.95	3	H	183	1.50	-
AV	2.483502G	52.94	54.00	-1.06	30.92	3	H	183	1.50	-
PK	2.4646G	112.16	Inf	-Inf	30.94	3	H	183	1.50	-
PK	2.483502G	68.03	74.00	-5.97	30.92	3	H	183	1.50	-

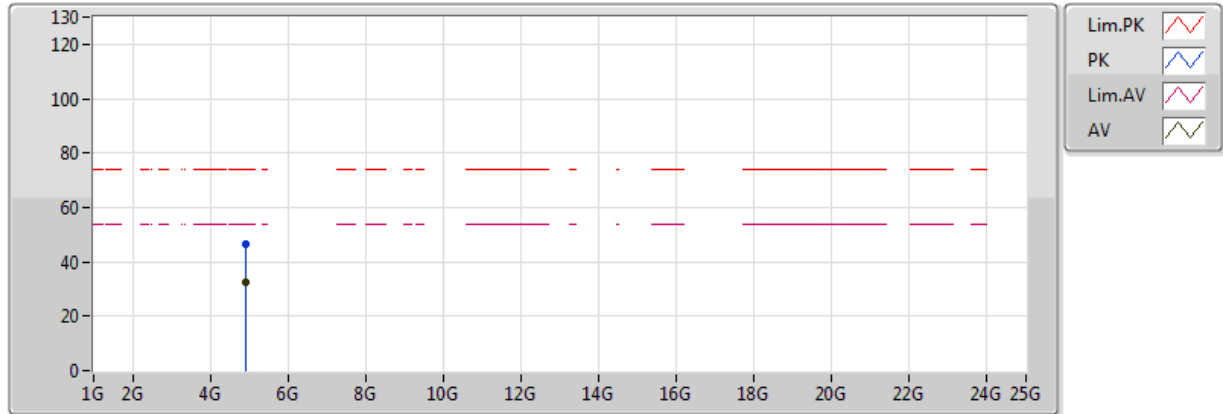
802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2462MHz_TX



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2462MHz_TX

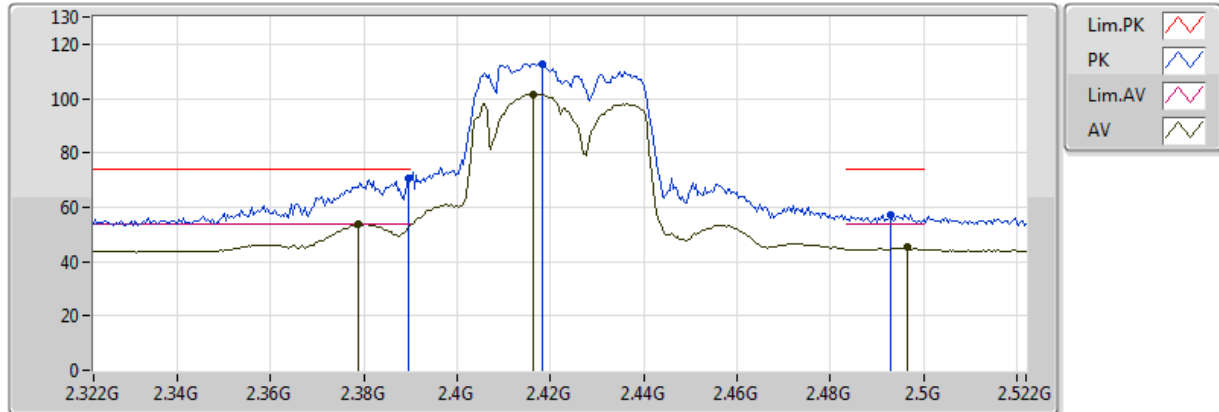


20170710
EUT_Z_2TX
Setting 22
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.923912G	32.72	54.00	-21.28	3.70	3	H	108	1.23	-
PK	4.92354G	46.39	74.00	-27.61	3.70	3	H	108	1.23	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

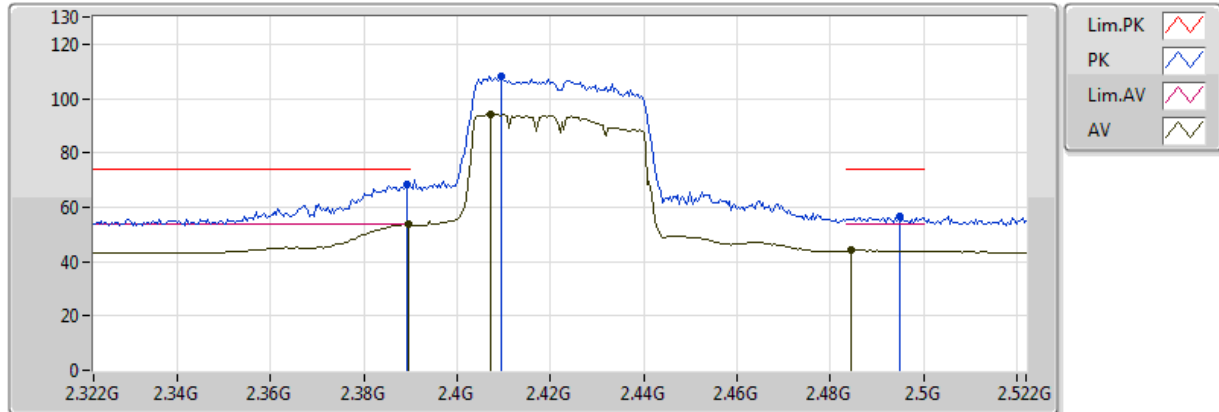
2422MHz_TX



Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3788G	53.92	54.00	-0.08	31.05	3	V	122	1.11	-
AV	2.4164G	101.60	Inf	-Inf	31.00	3	V	122	1.11	-
AV	2.4964G	45.16	54.00	-8.84	30.90	3	V	122	1.11	-
PK	2.3896G	70.57	74.00	-3.43	31.04	3	V	122	1.11	-
PK	2.4184G	112.85	Inf	-Inf	31.00	3	V	122	1.11	-
PK	2.4928G	57.40	74.00	-16.60	30.91	3	V	122	1.11	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2422MHz_TX



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EUT_Z_2TX
Setting 20
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	53.70	54.00	-0.30	31.04	3	H	179	1.03	-
AV	2.4072G	94.20	Inf	-Inf	31.01	3	H	179	1.03	-
AV	2.4844G	44.12	54.00	-9.88	30.92	3	H	179	1.03	-
PK	2.3892G	68.26	74.00	-5.74	31.04	3	H	179	1.03	-
PK	2.4096G	108.22	Inf	-Inf	31.01	3	H	179	1.03	-
PK	2.4948G	56.72	74.00	-17.28	30.91	3	H	179	1.03	-

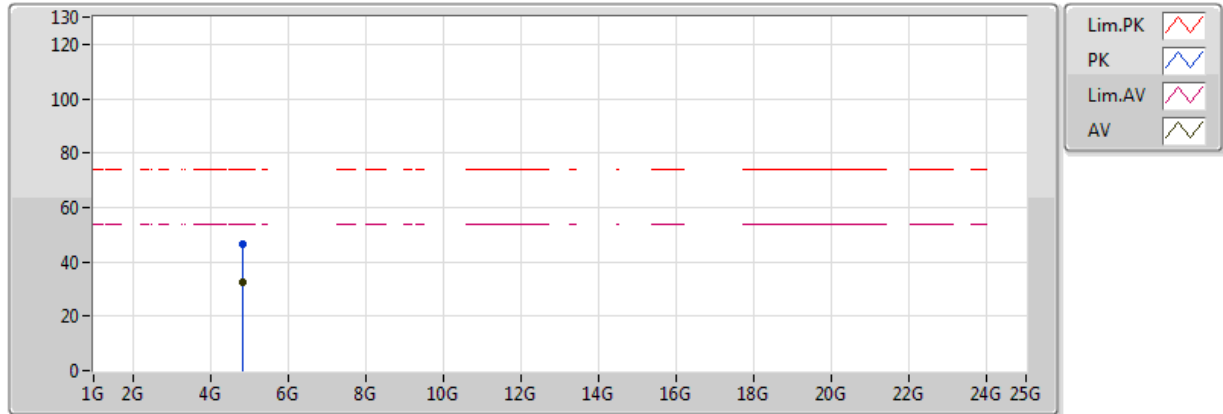
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2422MHz_TX



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2422MHz_TX

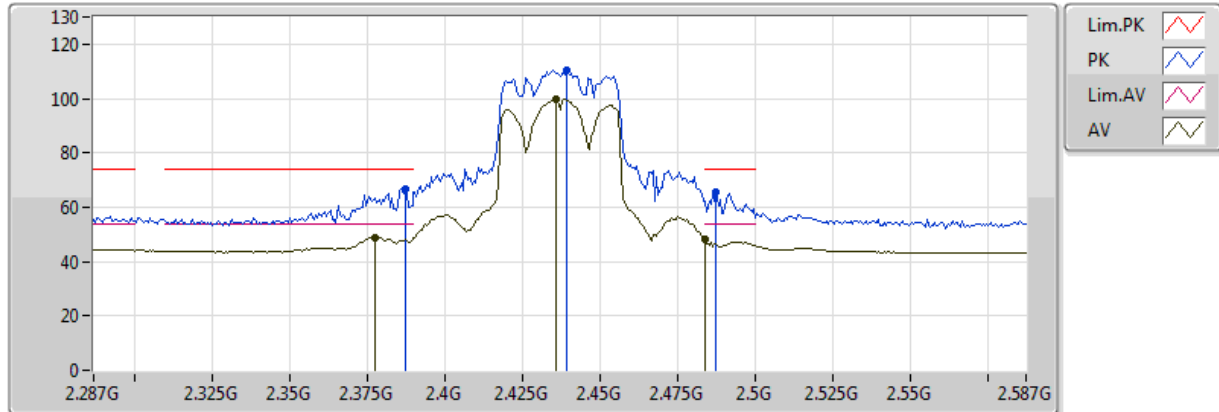


20170710
EUT_Z_2TX
Setting 20
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.844704G	32.62	54.00	-21.38	3.46	3	H	42	2.00	-
PK	4.843648G	46.54	74.00	-27.46	3.46	3	H	42	2.00	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

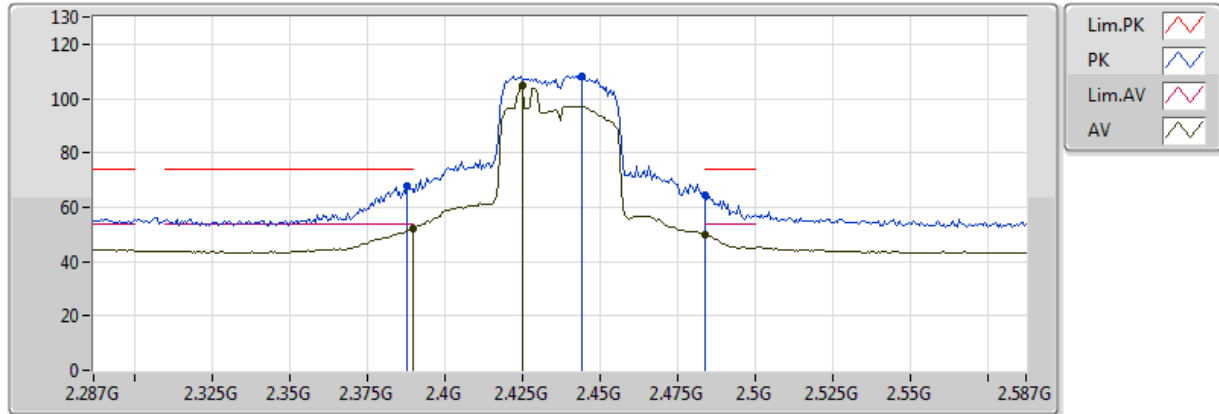


20170710
EUT_Z_2TX
Setting 22
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3776G	48.96	54.00	-5.04	31.05	3	V	184	1.50	-
AV	2.4358G	99.85	Inf	-Inf	30.98	3	V	184	1.50	-
AV	2.483502G	48.27	54.00	-5.73	30.92	3	V	184	1.50	-
PK	2.3872G	66.51	74.00	-7.49	31.04	3	V	184	1.50	-
PK	2.4394G	110.57	Inf	-Inf	30.97	3	V	184	1.50	-
PK	2.4874G	65.61	74.00	-8.39	30.92	3	V	184	1.50	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

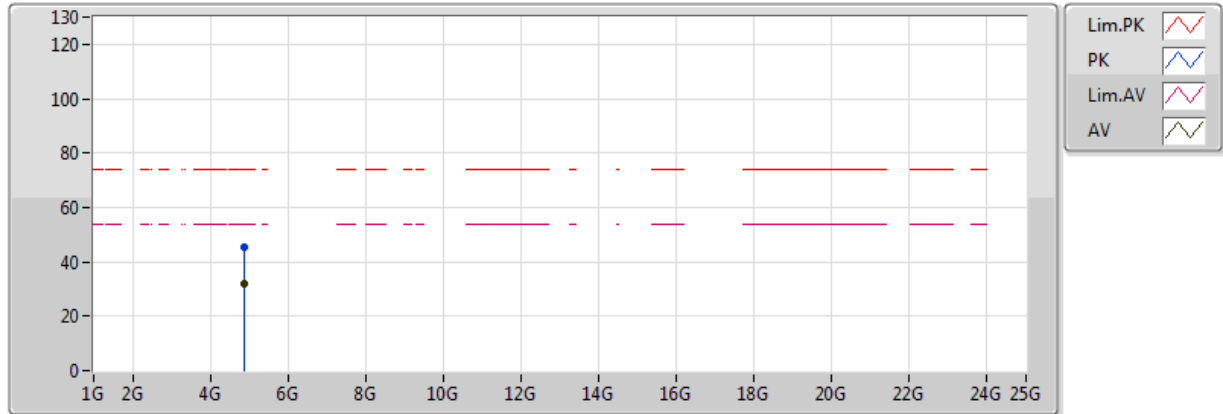


20170710
EUT_Z_2TX
Setting 22(23 fail)
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	52.20	54.00	-1.80	31.04	3	H	174	1.36	-
AV	2.425G	104.78	Inf	-Inf	30.99	3	H	174	1.36	-
AV	2.483502G	50.02	54.00	-3.98	30.92	3	H	174	1.36	-
PK	2.3878G	67.72	74.00	-6.28	31.04	3	H	174	1.36	-
PK	2.4442G	108.20	Inf	-Inf	30.97	3	H	174	1.36	-
PK	2.483502G	64.45	74.00	-9.55	30.92	3	H	174	1.36	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

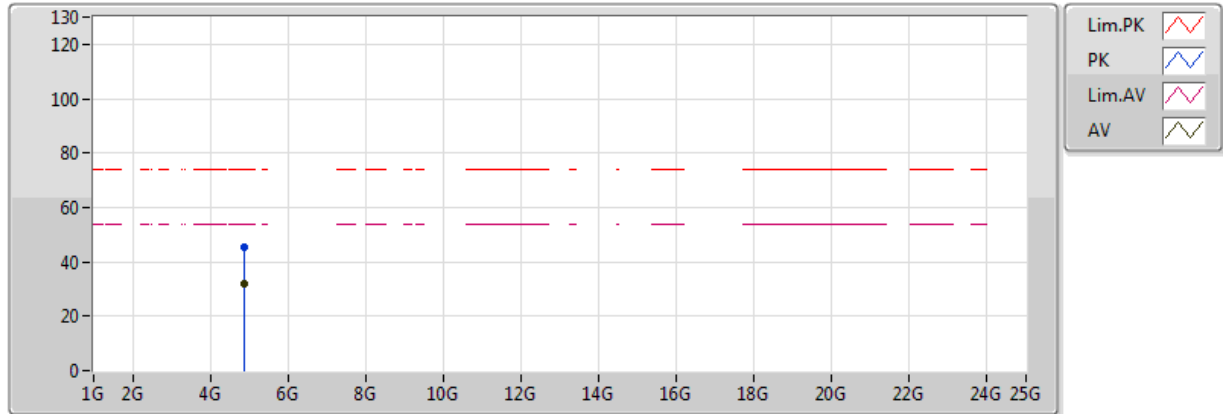


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EUT_Z_2TX
Setting 22
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.874912G	32.13	54.00	-21.87	3.55	3	V	265	1.46	-
PK	4.872674G	45.58	74.00	-28.42	3.55	3	V	265	1.46	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2437MHz_TX

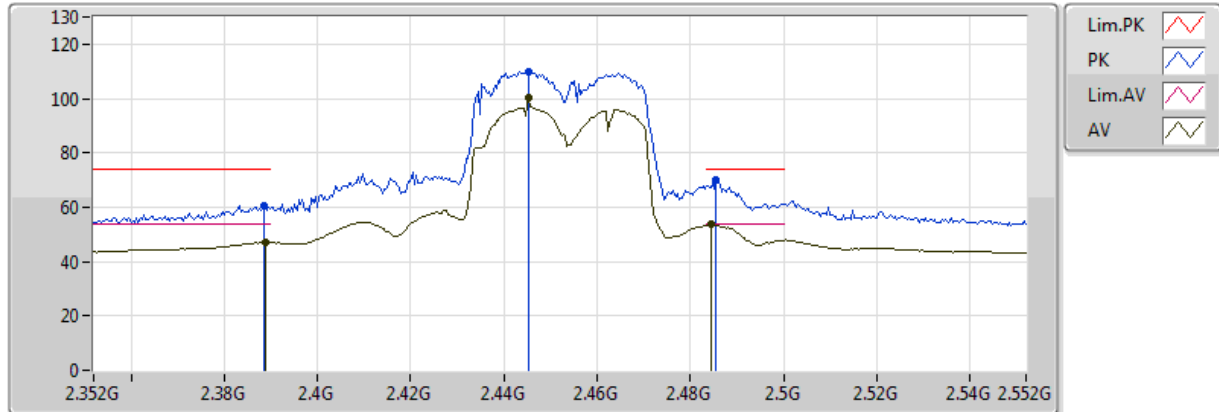


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EUT_Z_2TX
Setting 22
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.874948G	32.16	54.00	-21.84	3.55	3	H	283	1.28	-
PK	4.875272G	45.65	74.00	-28.35	3.56	3	H	283	1.28	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX

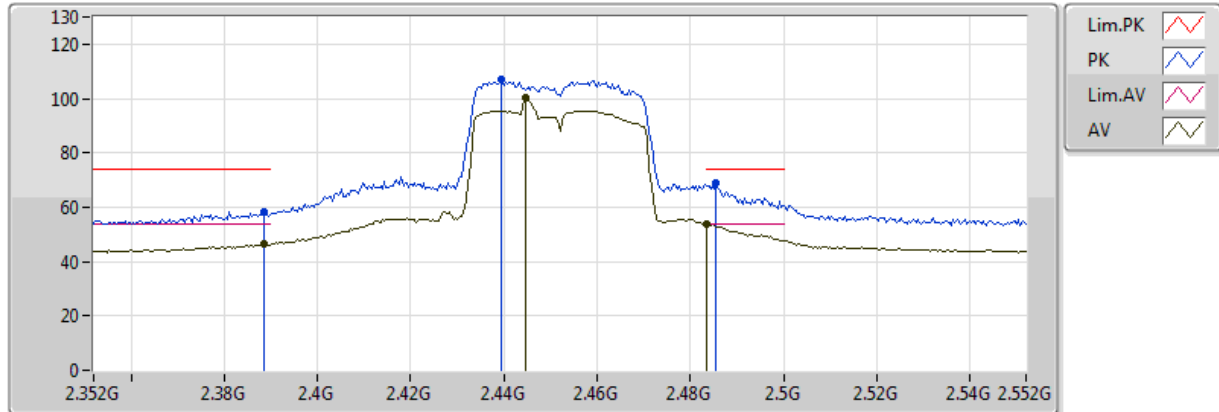


20170710
EUT_Z_2TX
Setting 20
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3888G	46.97	54.00	-7.03	31.04	3	V	105	1.29	-
AV	2.4452G	100.09	Inf	-Inf	30.97	3	V	105	1.29	-
AV	2.4844G	53.72	54.00	-0.28	30.92	3	V	105	1.29	-
PK	2.3884G	60.52	74.00	-13.48	31.04	3	V	105	1.29	-
PK	2.4452G	109.86	Inf	-Inf	30.97	3	V	105	1.29	-
PK	2.4856G	70.32	74.00	-3.68	30.92	3	V	105	1.29	-

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX



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EUT_Z_2TX
Setting 20
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3884G	46.42	54.00	-7.58	31.04	3	H	176	1.34	-
AV	2.4448G	100.08	Inf	-Inf	30.97	3	H	176	1.34	-
AV	2.483502G	53.74	54.00	-0.26	30.92	3	H	176	1.34	-
PK	2.3884G	58.38	74.00	-15.62	31.04	3	H	176	1.34	-
PK	2.4396G	106.76	Inf	-Inf	30.97	3	H	176	1.34	-
PK	2.4856G	69.11	74.00	-4.89	30.92	3	H	176	1.34	-

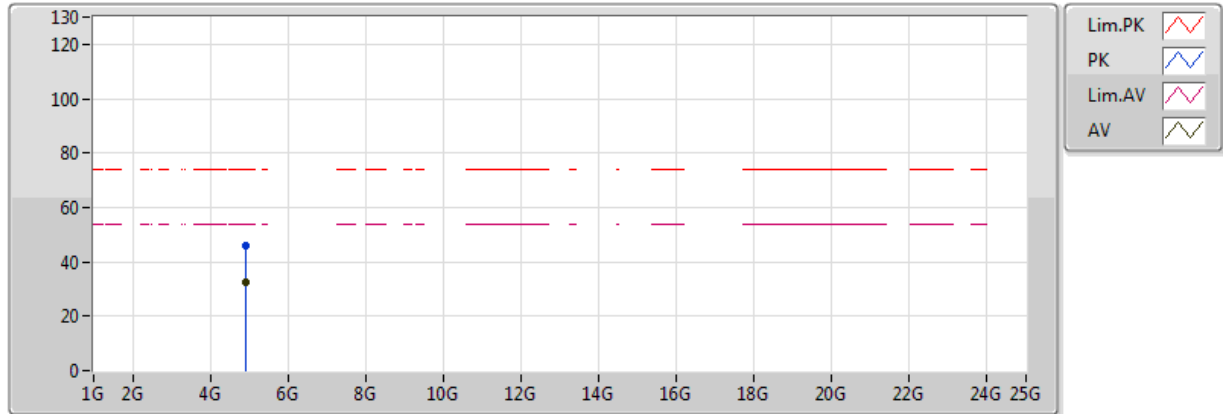
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2452MHz_TX



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EUT_Z_2TX
Setting 20
01-W-3
FSP(100056)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.903572G	32.47	54.00	-21.53	3.64	3	H	160	2.13	-
PK	4.904276G	46.03	74.00	-27.97	3.64	3	H	160	2.13	-