



FCC Test Report

Equipment : MAX-STREAM AC5400 MU-MIMO Tri-Band Router
Brand Name : LINKSYS
Model No. : EA9500 V2, EA9400 V2, EA9500S
FCC ID : Q87-EA9500V2
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Function : ☒ Point-to-multipoint; ☐ Point-to-point
Applicant : Linksys LLC
121 Theory Drive Irvine, CA 92617

The product sample received on Mar. 07, 2017 and completely tested on Apr. 20, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Cliff Chang
SPORTON INTERNATIONAL INC.





Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Testing Applied Standards	8
1.3	Testing Location Information.....	8
1.4	Measurement Uncertainty	9
2	TEST CONFIGURATION OF EUT	10
2.1	Test Channel Mode	10
2.2	The Worst Case Measurement Configuration.....	11
EUT Operation during Test.....		13
2.3	Accessories	14
2.4	Support Equipment.....	14
2.5	Test Setup Diagram	16
3	TRANSMITTER TEST RESULT	20
3.1	AC Power-line Conducted Emissions	20
3.2	DTS Bandwidth	22
3.3	Maximum Conducted Output Power	23
3.4	Power Spectral Density	25
3.5	Emissions in Non-restricted Frequency Bands	27
3.6	Emissions in Restricted Frequency Bands.....	28
4	TEST EQUIPMENT AND CALIBRATION DATA	32
APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS		
APPENDIX B. TEST RESULTS OF DTS BANDWIDTH		
APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER		
APPENDIX D. TEST RESULTS OF POWER SPECTRAL DENSITY		
APPENDIX E. TEST RESULTS OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS		
APPENDIX F. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS		
APPENDIX G. TEST RESULTS OF RADIATED EMISSION CO-LOCATION		
APPENDIX H. TEST PHOTOS		
APPENDIX I. PHOTOGRAPHS OF EUT		

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



SPORTON INTERNATIONAL INC.
TEL : 886-3-3273456
FAX : 886-3-3270973
FCC ID: Q87-EA9500V2

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	4TX
2.4-2.4835GHz	802.11g	20	4TX
2.4-2.4835GHz	802.11n HT20	20	4TX
2.4-2.4835GHz	802.11n HT20-BF	20	4TX
2.4-2.4835GHz	802.11ac VHT20	20	4TX
2.4-2.4835GHz	802.11ac VHT20-BF	20	4TX
2.4-2.4835GHz	802.11n HT40	40	4TX
2.4-2.4835GHz	802.11n HT40-BF	40	4TX
2.4-2.4835GHz	802.11ac VHT40	40	4TX
2.4-2.4835GHz	802.11ac VHT40-BF	40	4TX

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 and 1024QAM 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.	Chain	Port	Brand	Part No.	Antenna Type	Connector	Gain (dBi)
1	1	1	ARISTOTLE	RFA-52-F90-11-9597	Dipole	I-PEX	Note
2	2	2	ARISTOTLE	RFA-52-F90-21-9597	Dipole	I-PEX	
3	3	3	ARISTOTLE	RFA-52-F90-31-9597	Dipole	I-PEX	
4	4	4	ARISTOTLE	RFA-52-F90-41-9597	Dipole	I-PEX	
5	5	1	ARISTOTLE	RFA-05-F90-1-9597	Dipole	I-PEX	
6	6	2	ARISTOTLE	RFA-05-F90-2-9597	Dipole	I-PEX	
7	7	3	ARISTOTLE	RFA-05-F90-31-9597	Dipole	I-PEX	
8	8	4	ARISTOTLE	RFA-05-F90-4-9597	Dipole	I-PEX	
9	9	1	arcadyan	WG9117BAC44-88	Dipole	I-PEX	

Note:

Chain Band	2.4GHz WLAN (dBi)	5GHz Band 1 (dBi)	5GHz Band 4 (dBi)	Bluetooth (dBi)
1	1.64	2.64	-	-
2	1.75	2.42	-	-
3	1.72	2.50	-	-
4	1.59	2.51	-	-
5	-	-	2.64	-
6	-	-	1.88	-
7	-	-	2.86	-
8	-	-	1.18	-
9	-	-	-	2.14

Note: **For 2.4GHz function:**

For IEEE 802.11b/g/n/ac mode (4TX/4RX):

Chain1 (Port 1), Chain2 (Port 2), Chain3 (Port 3) and Chain4 (Port 4) can be used as transmitting/receiving antenna.

Chain1 (Port 1), Chain2 (Port 2), Chain3 (Port 3) and Chain4 (Port 4) could transmit/receive simultaneously.

For 5GHz (Band 1) function:

For IEEE 802.11a/n/ac mode (4TX/4RX):

Chain1 (Port 1), Chain2 (Port 2), Chain3 (Port 3) and Chain4 (Port 4) can be used as transmitting/receiving antenna.

Chain1 (Port 1), Chain2 (Port 2), Chain3 (Port 3) and Chain4 (Port 4) could transmit/receive simultaneously.

For 5GHz (Band 4) function:

For IEEE 802.11a/n/ac mode (4TX/4RX):

Chain5 (Port 1), Chain6 (Port 2), Chain7 (Port 3) and Chain8 (Port 4) can be used as transmitting/receiving antenna.

Chain5 (Port 1), Chain6 (Port 2), Chain7 (Port 3) and Chain8 (Port 4) could transmit/receive simultaneously.

For Bluetooth function:

Only Chain 9 (Port 1) can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)
802.11b	0.999	0.004
802.11g	0.986	0.061
802.11ac VHT20	0.985	0.066
802.11ac VHT20-BF	0.922	0.353
802.11ac VHT40	0.953	0.209
802.11ac VHT40-BF	0.916	0.381

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter		
Beamforming Function	☒	With beamforming for IEEE 802 11n/ac in 2.4GHz/5GHz	☐ Without beamforming

1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Description
EA9500 V2	All the models are identical, the difference model names served as marketing strategy.
EA9400 V2	
EA9500S	

Note: From the above models, model: EA9500 V2 was selected as representative model for the test and its data was recorded in this report.

1.2 Testing Applied Standards

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

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ FCC KDB 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	Lucke Hsieh / Gino Huang Ron Huang	23°C / 54%	Mar. 06, 2017~Mar. 10, 2017
Radiated Below 1GHz	03CH01-CB	Welson Chen / Mason Chen Steven Liang	22°C / 54%	Apr. 20, 2017
Radiated Above 1 GHz	03CH01-CB	Welson Chen / Mason Chen Steven Liang	22°C / 54%	Feb. 24, 2017~Apr. 20, 2017
AC Conduction	CO01-CB	GN Hou	24°C / 58%	Mar. 24, 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

Band	Power Setting
802.11b_(1Mbps)_4TX	-
2412MHz	96
2437MHz	97
2462MHz	96
802.11g_(6Mbps)_4TX	-
2412MHz	80
2437MHz	98
2462MHz	94
802.11ac VHT20_Nss1,(MCS0)_4TX	-
2412MHz	80
2437MHz	98
2462MHz	81
802.11ac VHT40_Nss1,(MCS0)_4TX	-
2422MHz	61
2437MHz	77
2452MHz	71
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
2412MHz	77
2437MHz	92
2462MHz	78
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
2422MHz	57
2437MHz	75
2452MHz	62

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 in 2.4GHz/5GHz. One is beamforming mode, and the other is non-beamforming mode. Both modes have been tested and recorded in this test 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
1	Normal Link – Adapter 2
2	Normal Link – Adapter 3
3	Normal Link – Adapter 1
For operating mode 2 is the worst case and it was record in this test report.	

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
1	Normal Link – EUT in Z axis + Adapter 2
2	Normal Link – EUT in Z axis + Adapter 3
3	Normal Link – EUT in Z axis + Adapter 1
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
1	CTX-EUT in Z axis



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WLAN 2.4GHz+WLAN 5GHz Band1+WLAN 5GHz Band4
Refer to Appendix G for Radiated Emission Co-location.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz+WLAN 5GHz Band1+WLAN 5GHz Band4+Bluetooth
Refer to Sporton Test Report No.: FA730736 for Co-location RF Exposure Evaluation.	

Note: The EUT can only be used in Z-axis position.

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 "Telnet" to link with the remote workstation to transmit and receive packet by WLAN module and transmit duty cycle no less 98%.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories					
No.	Equipment Name	Brand Name	Model Name	Rating	DC Power Line
1	Adapter 1	APD	DA-48T12	Input: 100-240V~50-60Hz, 1.4A Max Output: 12V, 4A	non-shielded, 1.4m
2	Adapter 2	APD	DA-60M12	Input: 100-240V~50-60Hz 1.5A Max Output: 12V, 5A	non-shielded, 1.4m
3	Adapter 3	Ktec	KSA-65W-1 20500M2	Input: 100-240V~50/60Hz 1.5A Output: 12V, 5.0A	non-shielded, 1.4m
Others					
Power Cable*1, non-shielded , 1.7m,					

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*5	DELL	E6430	DoC
2	Smart phone	Samsung	Galaxy J2	Doc
3	Flash disk3.0*2	Transcend	JetFlash-700	DoC

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

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*2	DELL	E4300	DoC
2	NB*3	APPLE	Mac Book	DoC
3	Flash disk3.0	Silicon Power	B06	DoC
4	Flash disk3.0	Transcend	JetFlash-700	DoC
5	Cell-phone	Samsung	Galaxy J2	N/A

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

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB*2	DELL	E4300	DoC
2	WLAN module	Boardcom	BCM943162ZP	QDS-BRCM1075



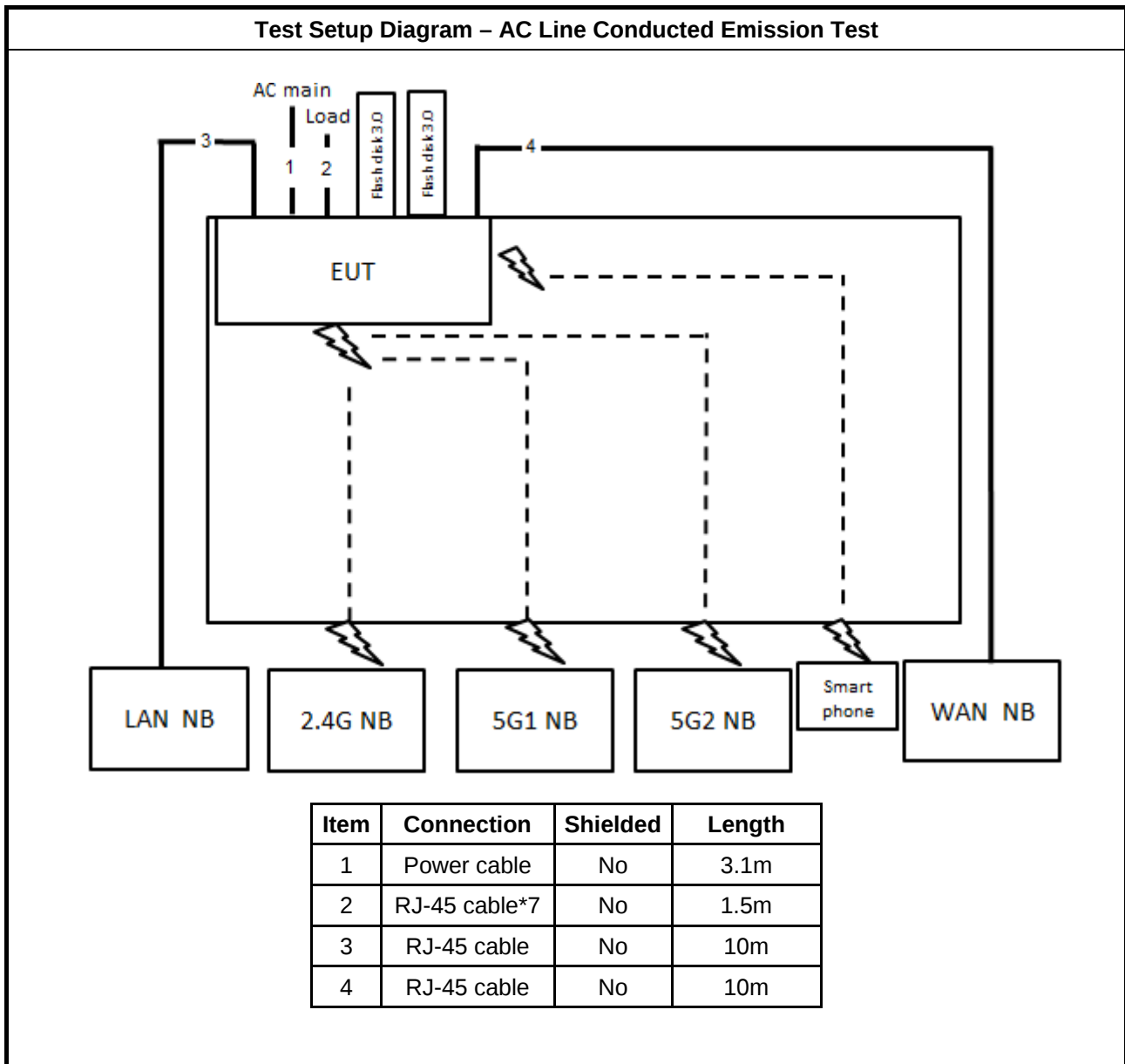
For Test Site No: 03CH01-CB (above 1GHz)
(For Non-Beamforming Mode)

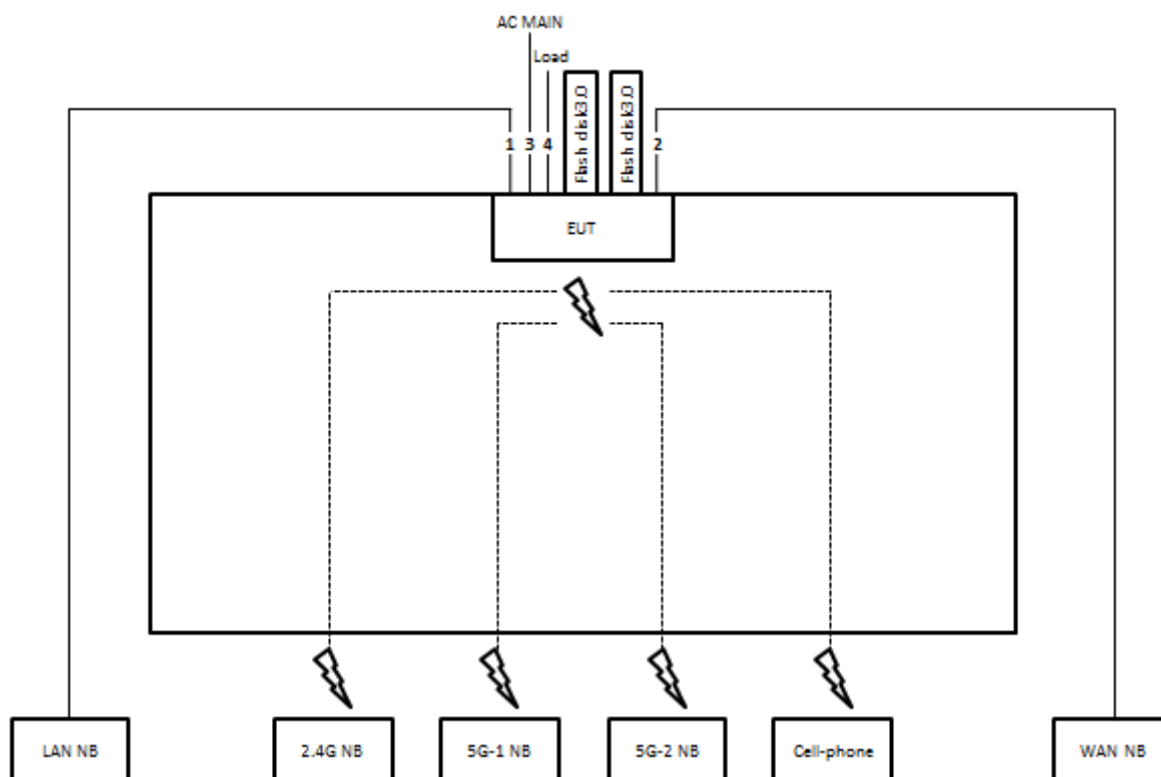
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

For Test Site No: TH01-CB

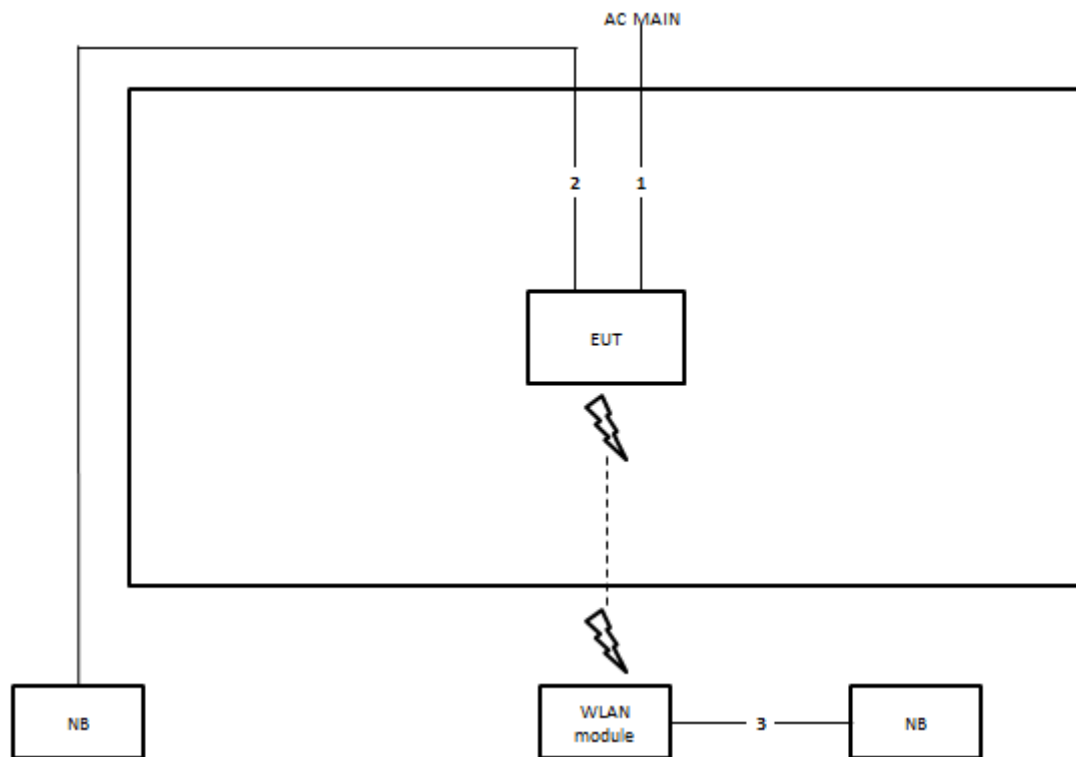
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	NB	DELL	E4300	DoC

2.6 Test Setup Diagram

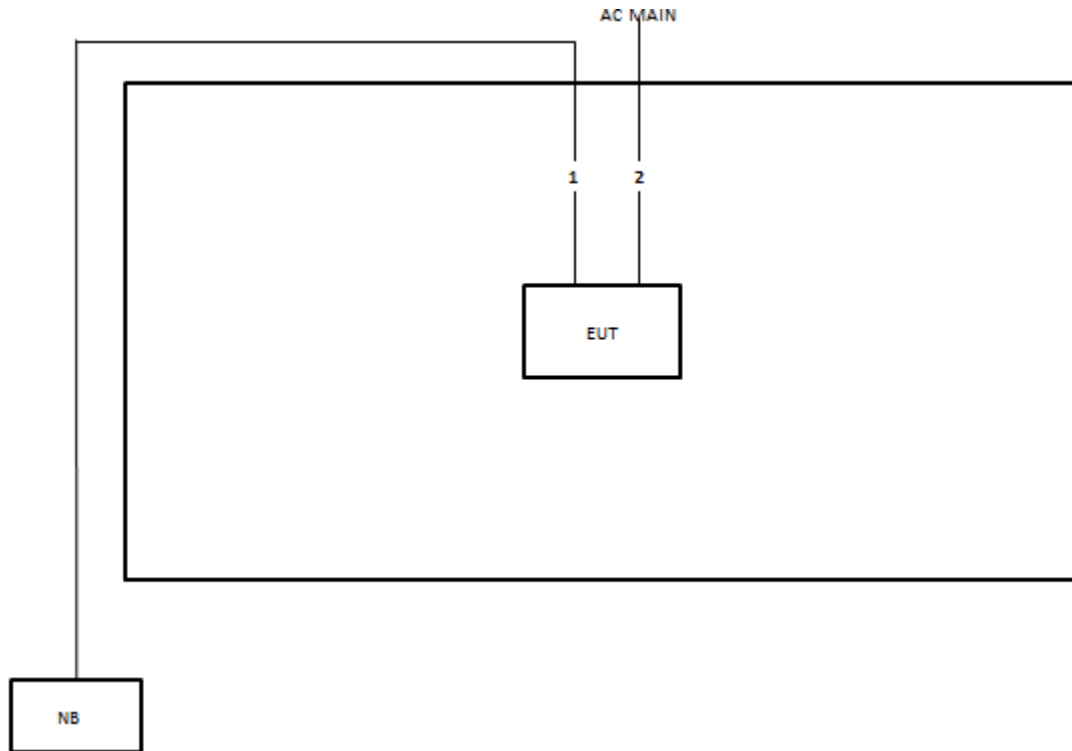


Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	RJ-45 cable	No	10m
3	Power cable	No	3.1m
4	RJ-45 cable*7	No	1.5m

Test Setup Diagram - Radiated Test > 1GHz (Beamforming)


Item	Connection	Shielded	Length
1	Power cable	No	3.1m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m

Test Setup Diagram - Radiated Test > 1GHz (Non-Beamforming)


Item	Connection	Shielded	Length
1	Power Cable	No	3.1m
2	RJ45 Cable	No	10m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

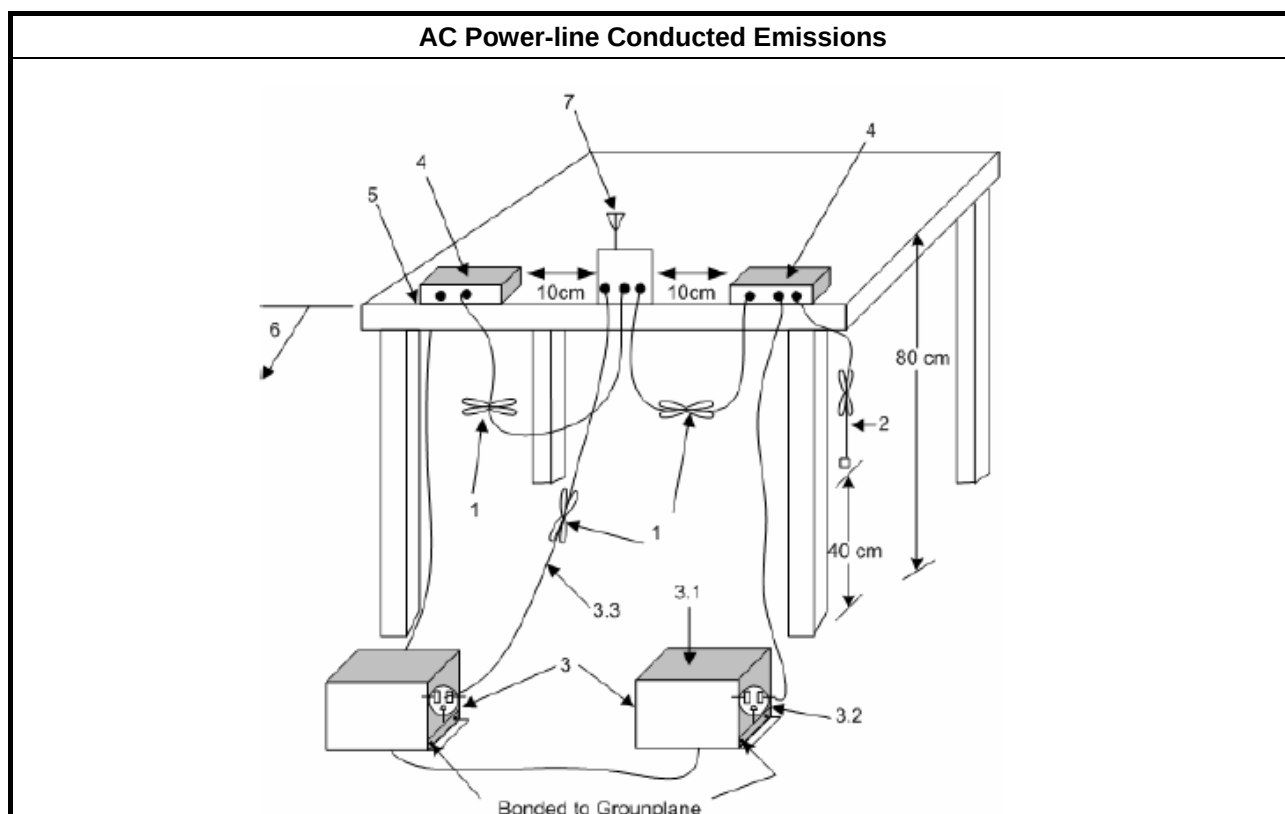
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup





3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

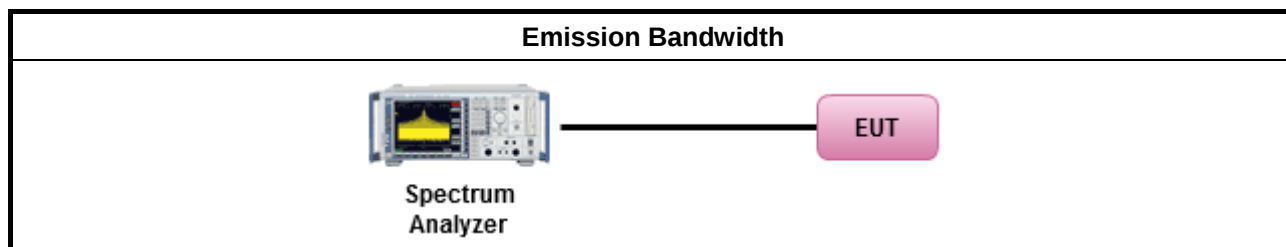
3.2.2 Measuring Instruments

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 $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ 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.	

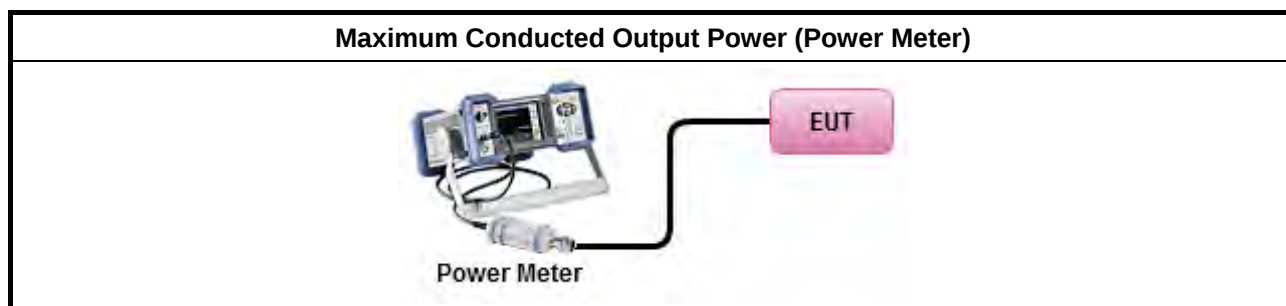
3.3.2 Measuring Instruments

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) $\leq$ 8 dBm/3kHz

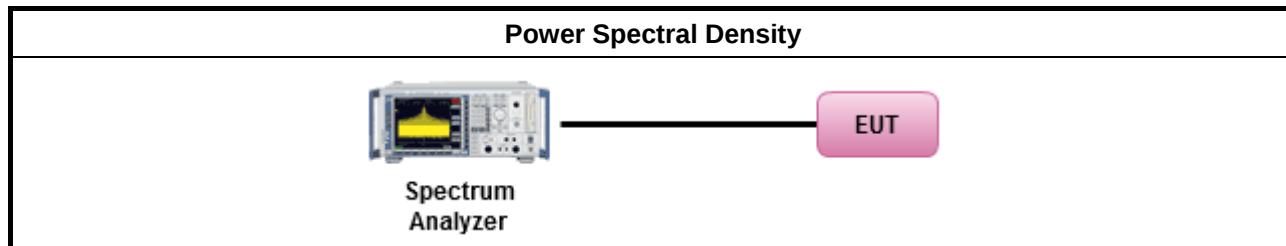
3.4.2 Measuring Instruments

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.	

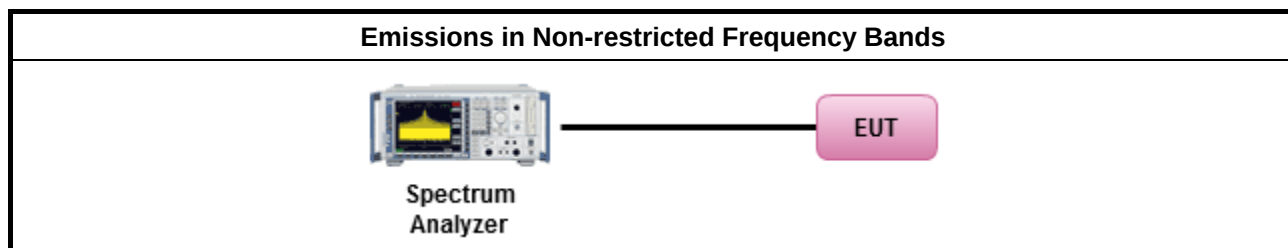
3.5.2 Measuring Instruments

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.

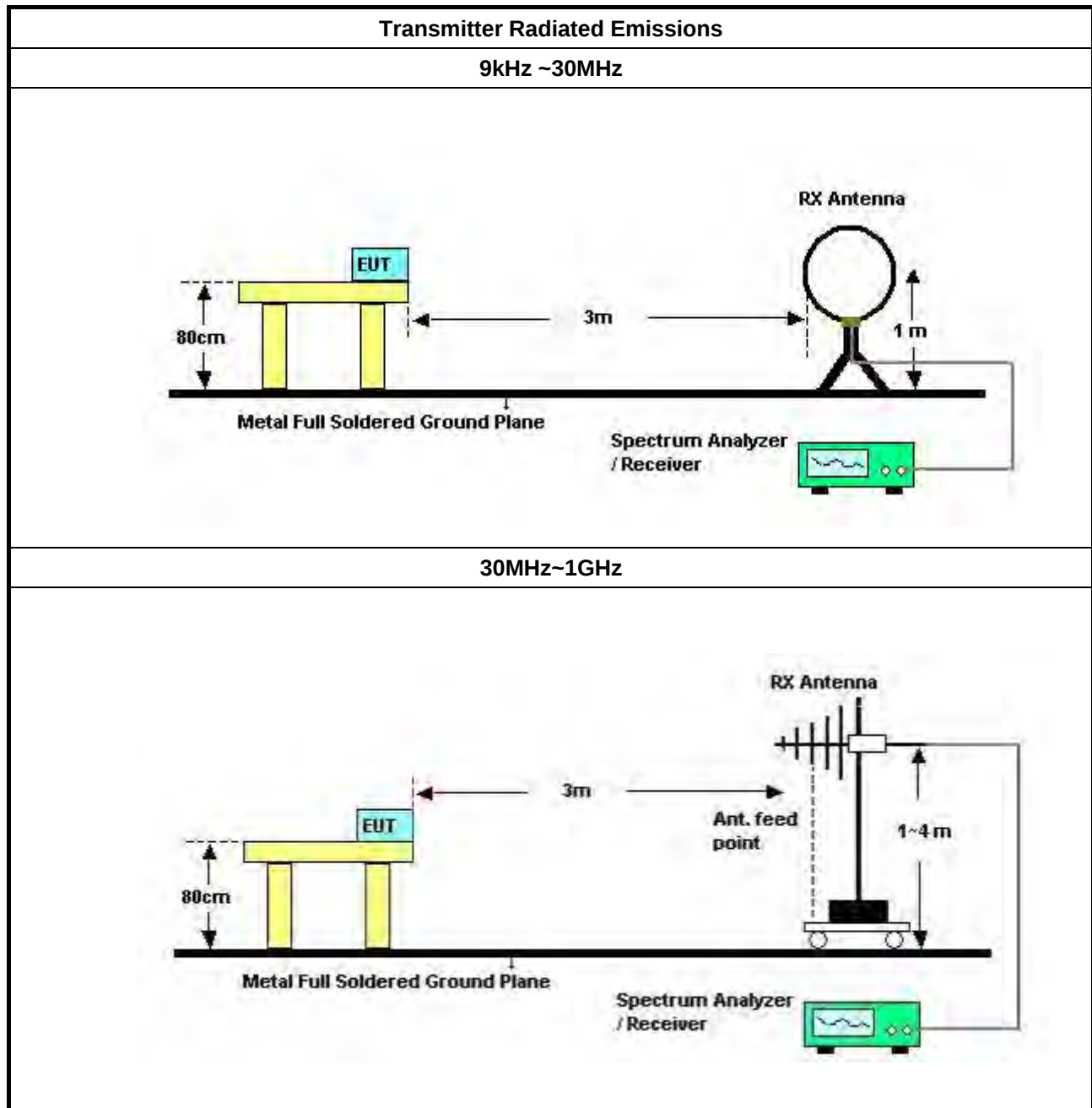
3.6.2 Measuring Instruments

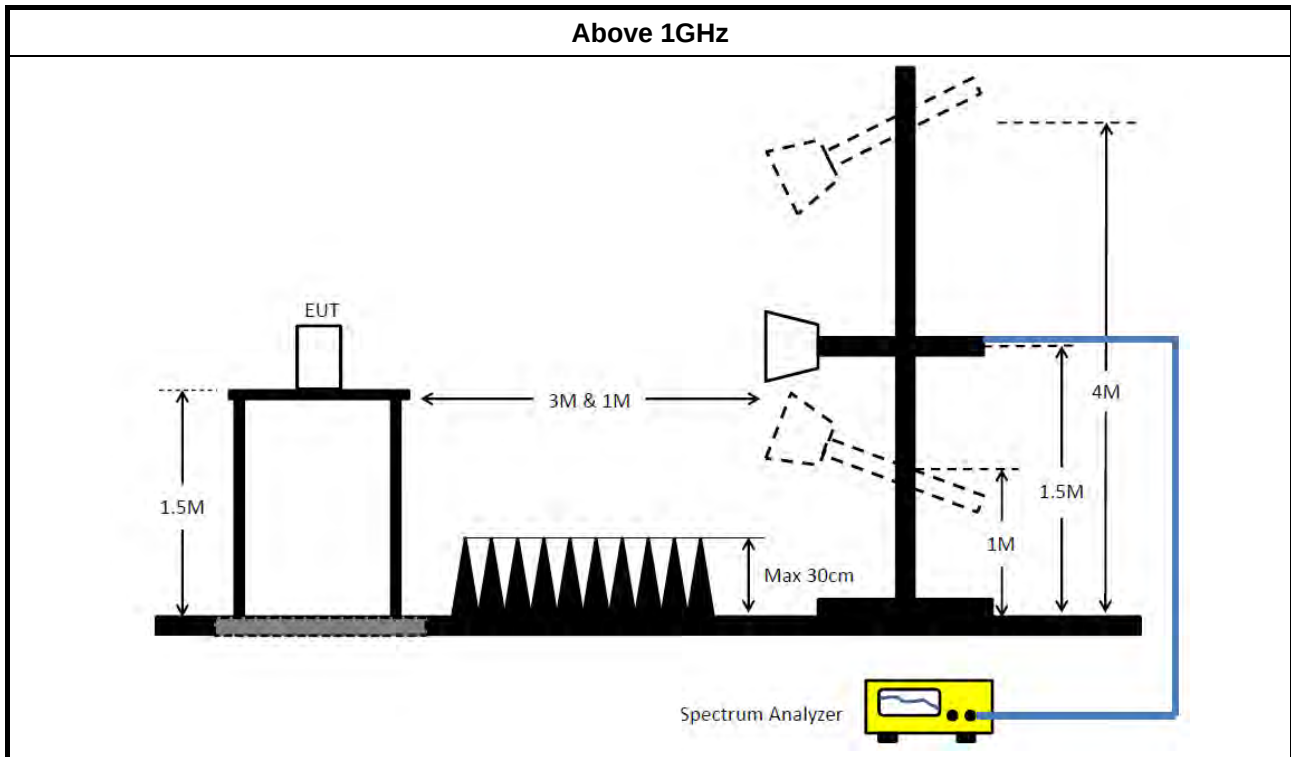
Refer a test equipment and calibration data table in this test report.

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 24, 2016	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)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Mar. 13, 2017	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 21, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 16, 2016	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-I0-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz ~ 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)



FCC Test Report

Report No. : FR730736AA

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
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)

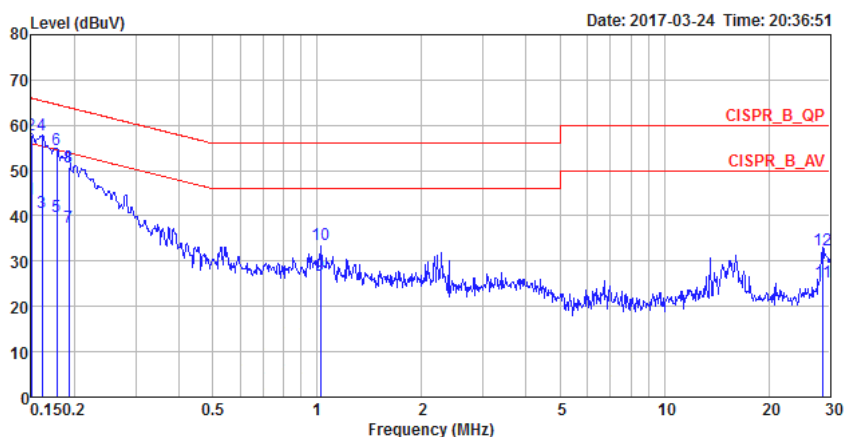
Note: Calibration Interval of instruments listed above is one year.

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

N.C.R means Non-Calibration required.

AC Power-line Conducted Emissions Result

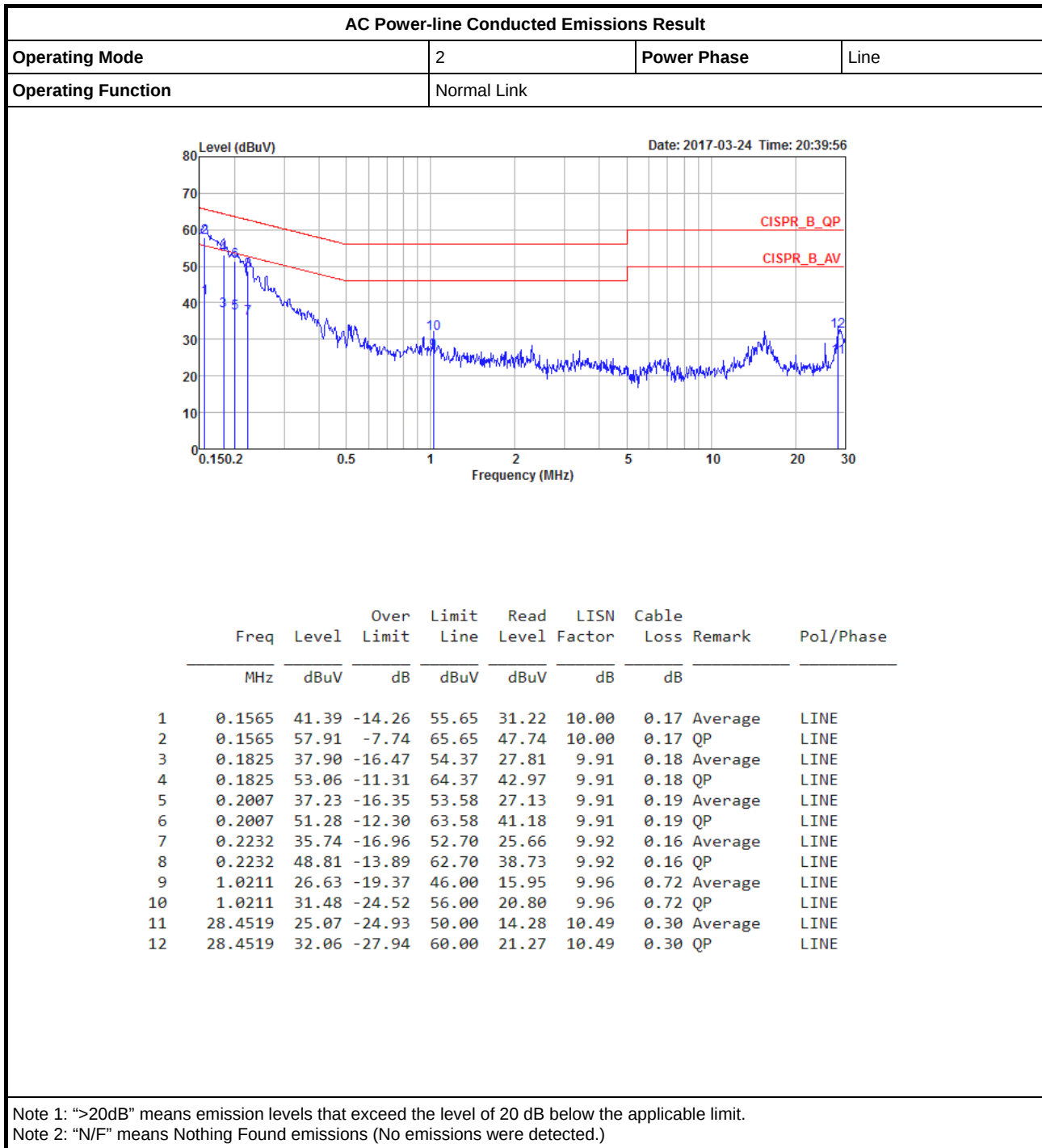
Operating Mode	2	Power Phase	Neutral
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1500	43.76	-12.24	56.00	33.50	10.10	0.16	Average	NEUTRAL
2	0.1500	57.94	-8.06	66.00	47.68	10.10	0.16	QP	NEUTRAL
3	0.1616	40.77	-14.61	55.38	30.50	10.10	0.17	Average	NEUTRAL
4	0.1616	57.73	-7.65	65.38	47.46	10.10	0.17	QP	NEUTRAL
5	0.1777	39.92	-14.67	54.59	29.73	10.01	0.18	Average	NEUTRAL
6	0.1777	54.64	-9.95	64.59	44.45	10.01	0.18	QP	NEUTRAL
7	0.1924	37.56	-16.37	53.93	27.36	10.01	0.19	Average	NEUTRAL
8	0.1924	50.64	-13.29	63.93	40.44	10.01	0.19	QP	NEUTRAL
9	1.0211	26.80	-19.20	46.00	16.03	10.05	0.72	Average	NEUTRAL
10	1.0211	33.61	-22.39	56.00	22.84	10.05	0.72	QP	NEUTRAL
11	28.6030	25.41	-24.59	50.00	14.55	10.55	0.31	Average	NEUTRAL
12	28.6030	32.45	-27.55	60.00	21.59	10.55	0.31	QP	NEUTRAL

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

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



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_4TX	-	-	-	-	-
2.4-2.4835GHz	8.025M	10.7M	10M7G1D	7.05M	10.4M
802.11g_(6Mbps)_4TX	-	-	-	-	-
2.4-2.4835GHz	15.1M	16.575M	16M6D1D	13.15M	16.4M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-
2.4-2.4835GHz	15.075M	17.7M	17M7D1D	14M	17.575M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-
2.4-2.4835GHz	36.35M	36.7M	36M7D1D	35.7M	36.45M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-
2.4-2.4835GHz	16.65M	17.65M	17M6D1D	12.8M	17.55M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-
2.4-2.4835GHz	36.35M	36.75M	36M7D1D	35.7M	36.45M

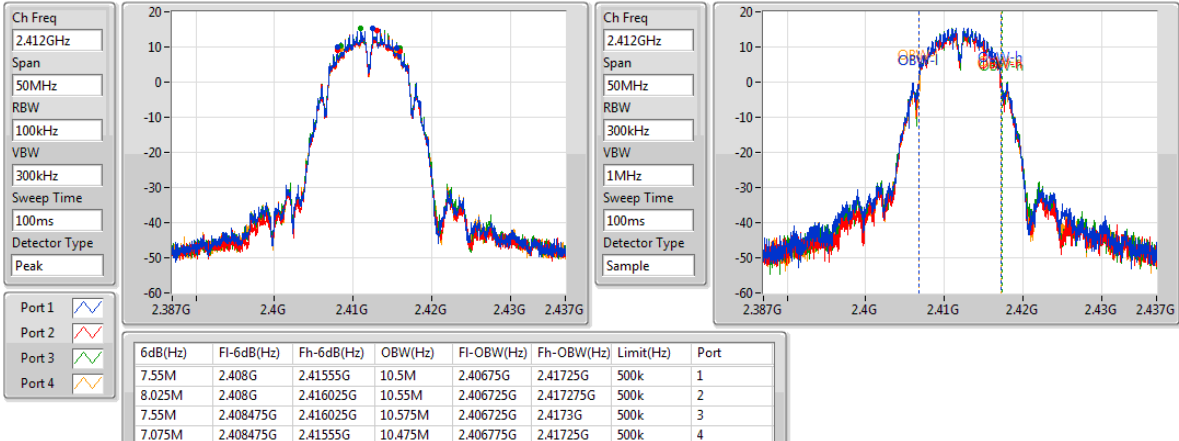
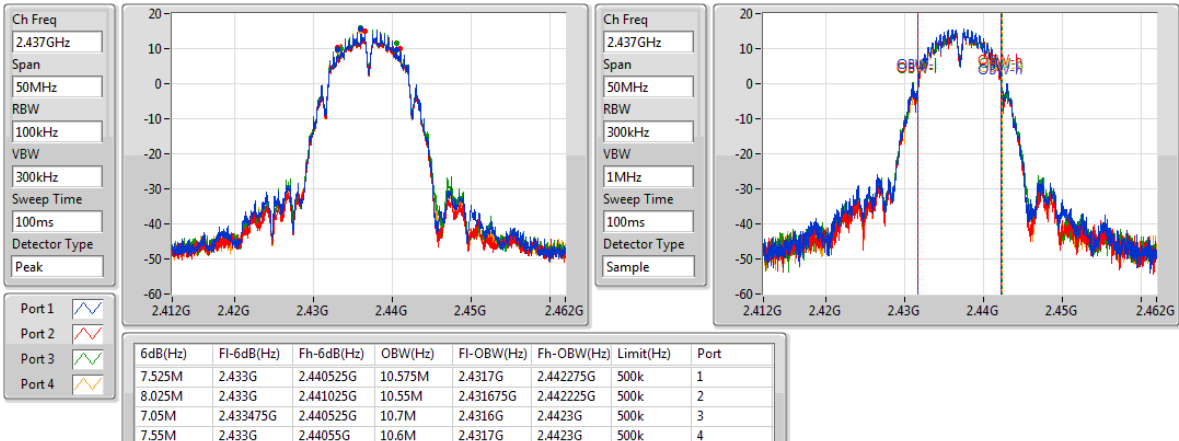
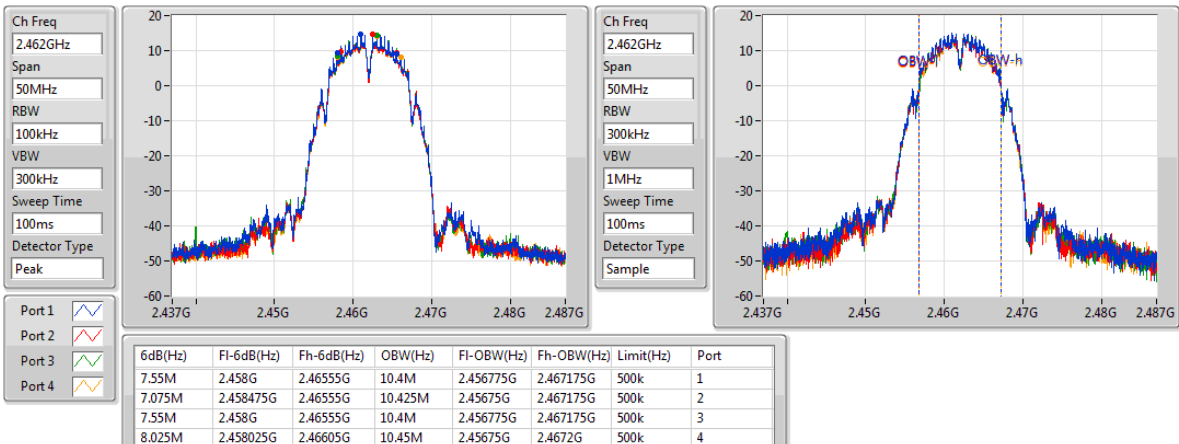
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

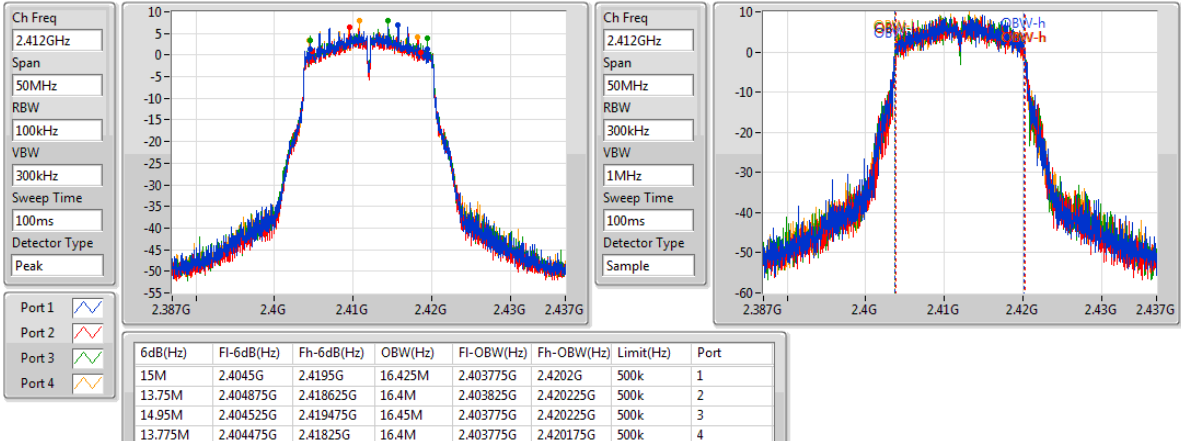
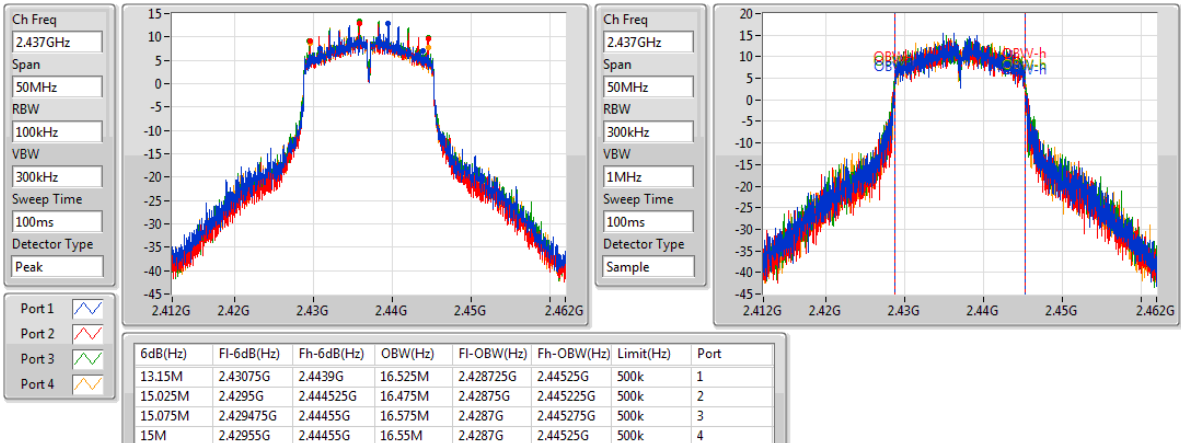
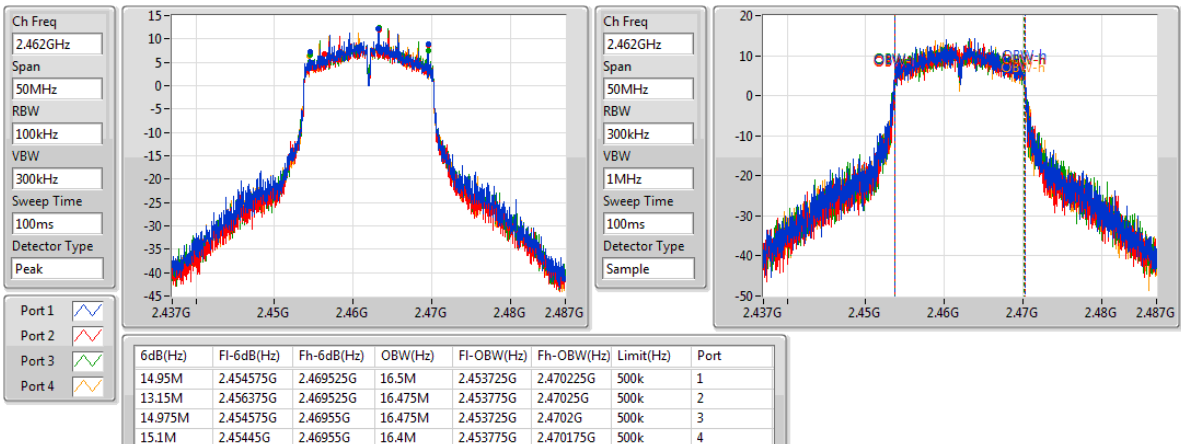
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

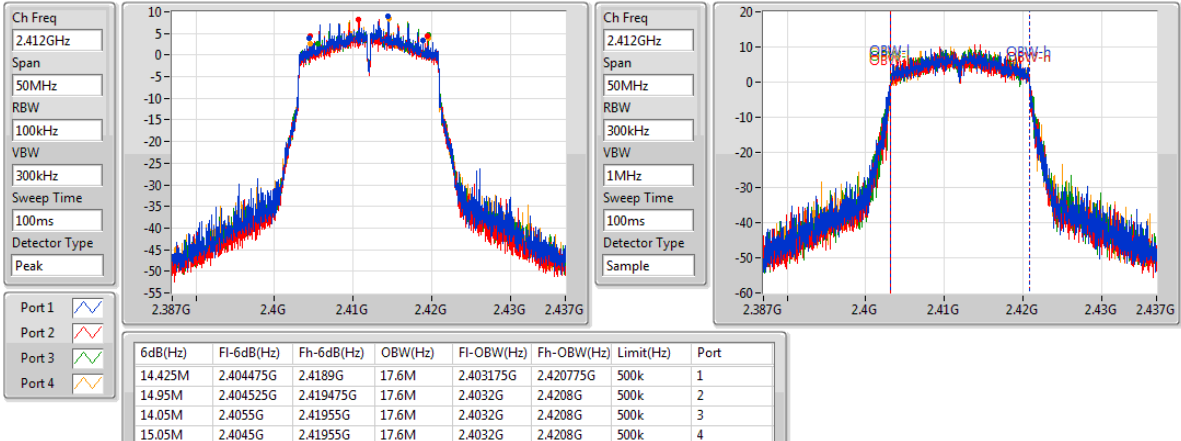
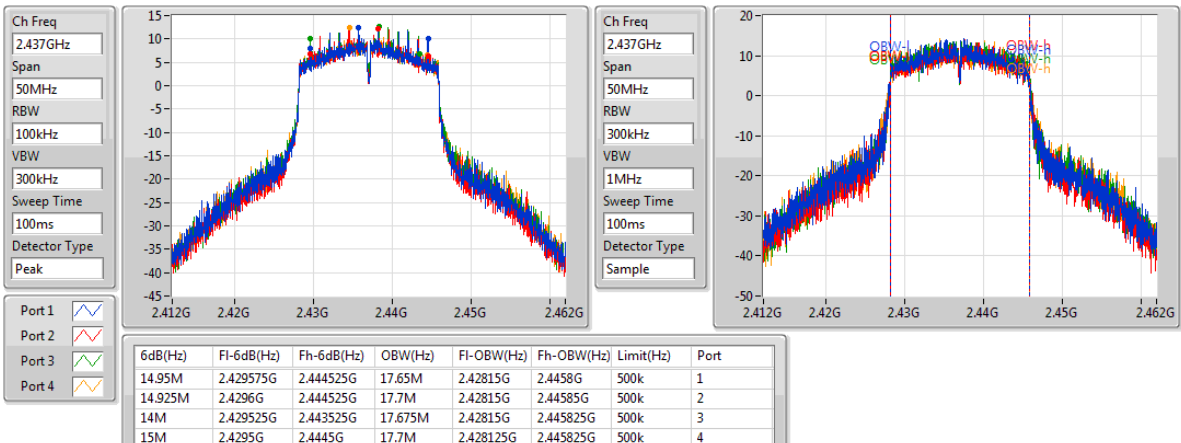
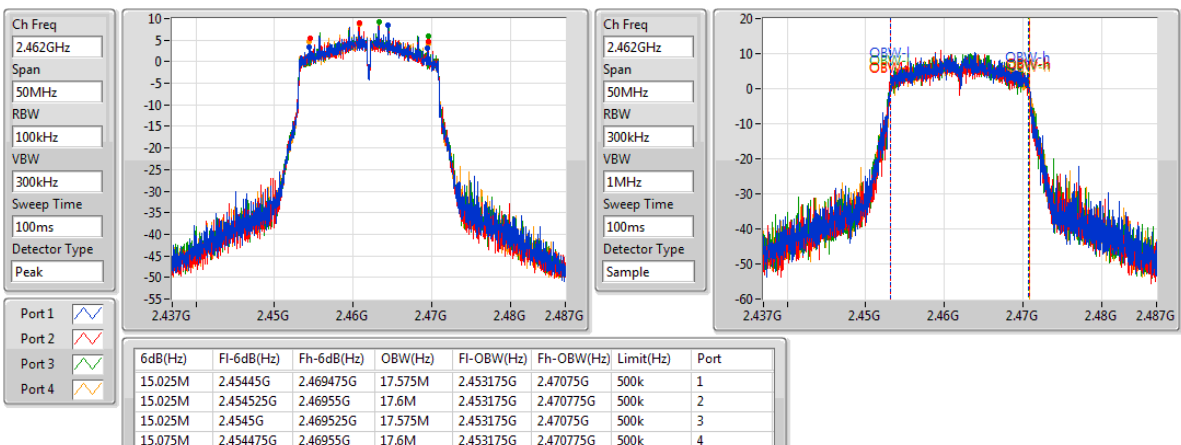
Result

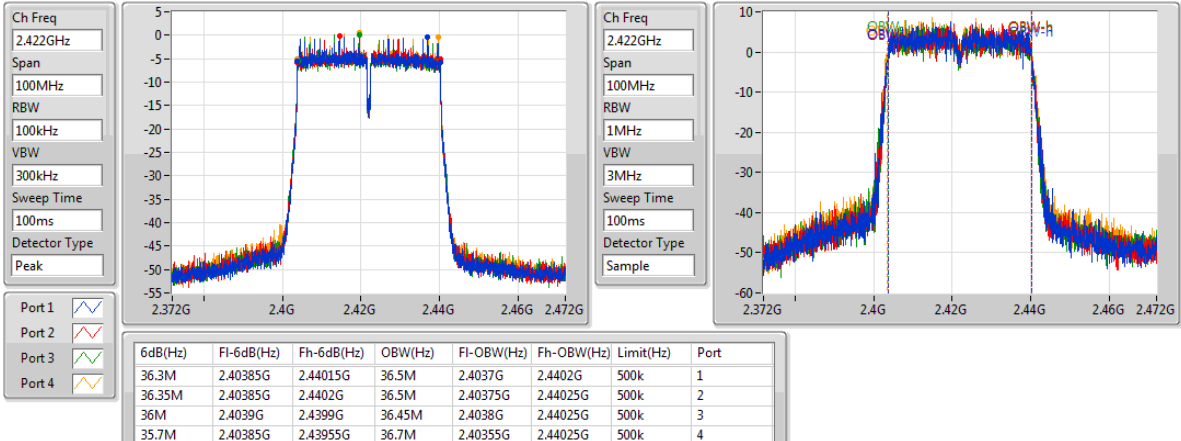
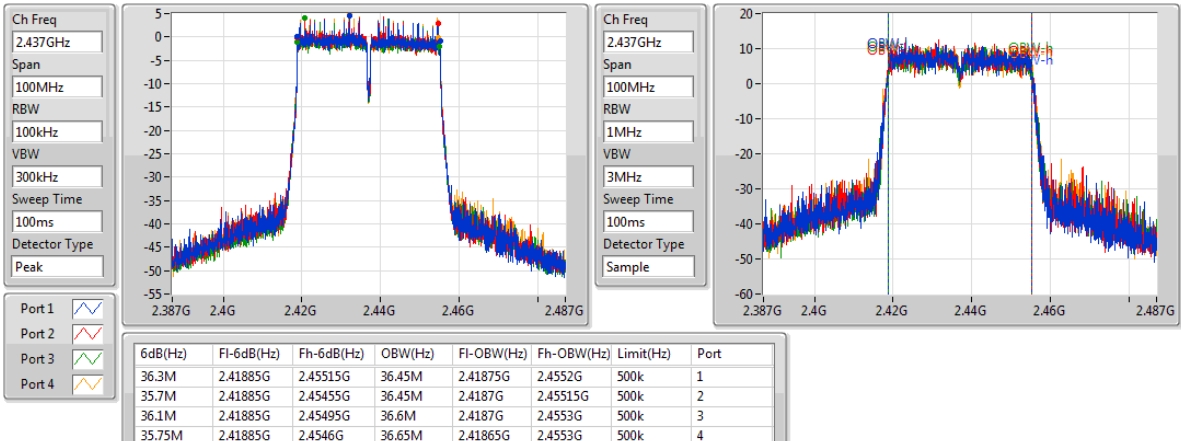
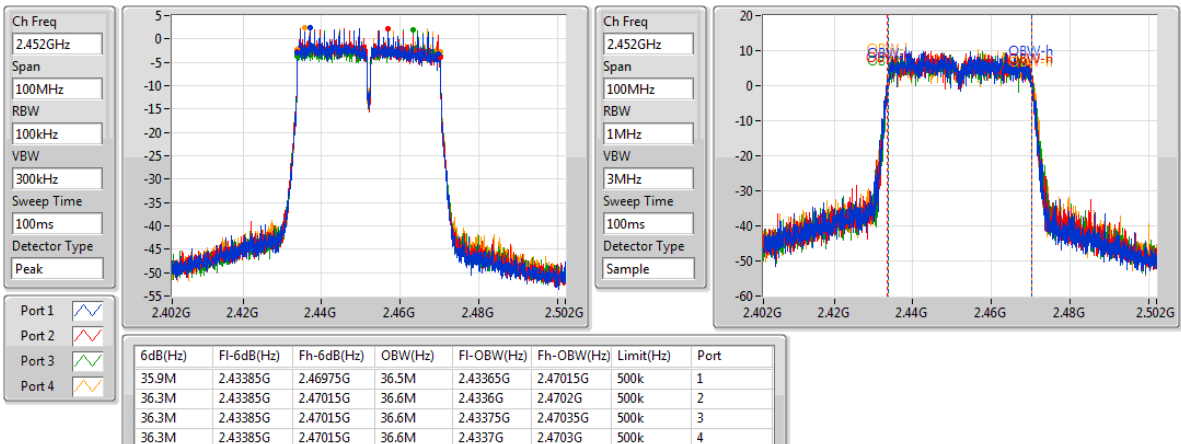
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11b_(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	7.55M	10.5M	8.025M	10.55M	7.55M	10.575M	7.075M	10.475M
2437MHz	Pass	500k	7.525M	10.575M	8.025M	10.55M	7.05M	10.7M	7.55M	10.6M
2462MHz	Pass	500k	7.55M	10.4M	7.075M	10.425M	7.55M	10.4M	8.025M	10.45M
802.11g_(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	15M	16.425M	13.75M	16.4M	14.95M	16.45M	13.775M	16.4M
2437MHz	Pass	500k	13.15M	16.525M	15.025M	16.475M	15.075M	16.575M	15M	16.55M
2462MHz	Pass	500k	14.95M	16.5M	13.15M	16.475M	14.975M	16.475M	15.1M	16.4M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	14.425M	17.6M	14.95M	17.6M	14.05M	17.6M	15.05M	17.6M
2437MHz	Pass	500k	14.95M	17.65M	14.925M	17.7M	14M	17.675M	15M	17.7M
2462MHz	Pass	500k	15.025M	17.575M	15.025M	17.6M	15.025M	17.575M	15.075M	17.6M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36.3M	36.5M	36.35M	36.5M	36M	36.45M	35.7M	36.7M
2437MHz	Pass	500k	36.3M	36.45M	35.7M	36.45M	36.1M	36.6M	35.75M	36.65M
2452MHz	Pass	500k	35.9M	36.5M	36.3M	36.6M	36.3M	36.6M	36.3M	36.6M
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	15.1M	17.6M	16.65M	17.625M	14.1M	17.6M	14.975M	17.6M
2437MHz	Pass	500k	15.075M	17.6M	15.025M	17.575M	14.35M	17.625M	15.075M	17.625M
2462MHz	Pass	500k	14.4M	17.625M	15.1M	17.6M	12.8M	17.65M	13.775M	17.55M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36M	36.55M	36.35M	36.55M	36.25M	36.45M	36.25M	36.5M
2437MHz	Pass	500k	36.3M	36.55M	35.9M	36.5M	36.1M	36.6M	36.3M	36.65M
2452MHz	Pass	500k	36.3M	36.55M	35.7M	36.55M	36.3M	36.75M	36.3M	36.55M

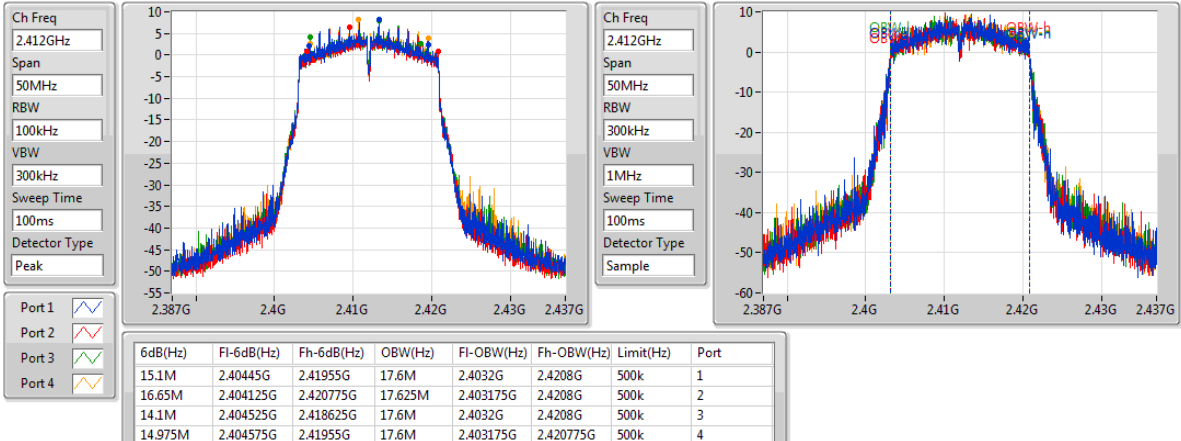
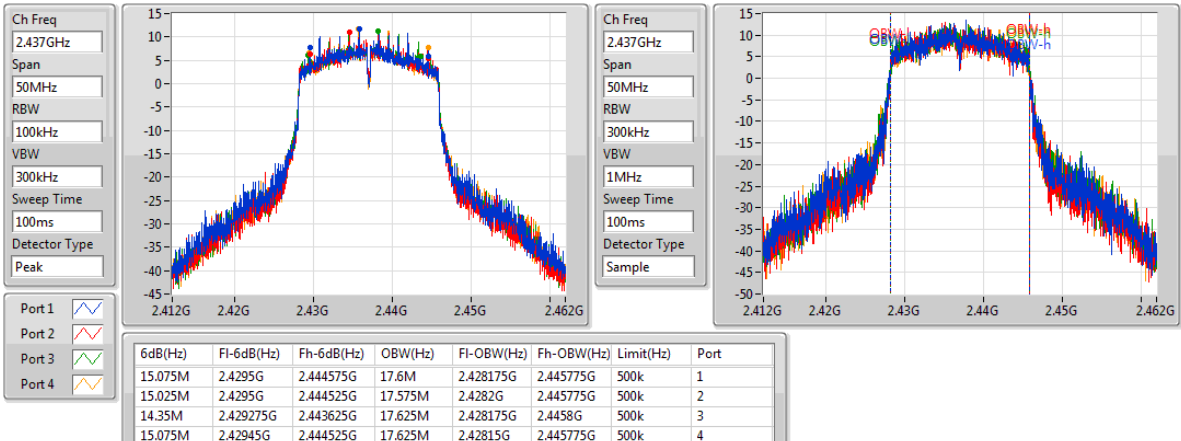
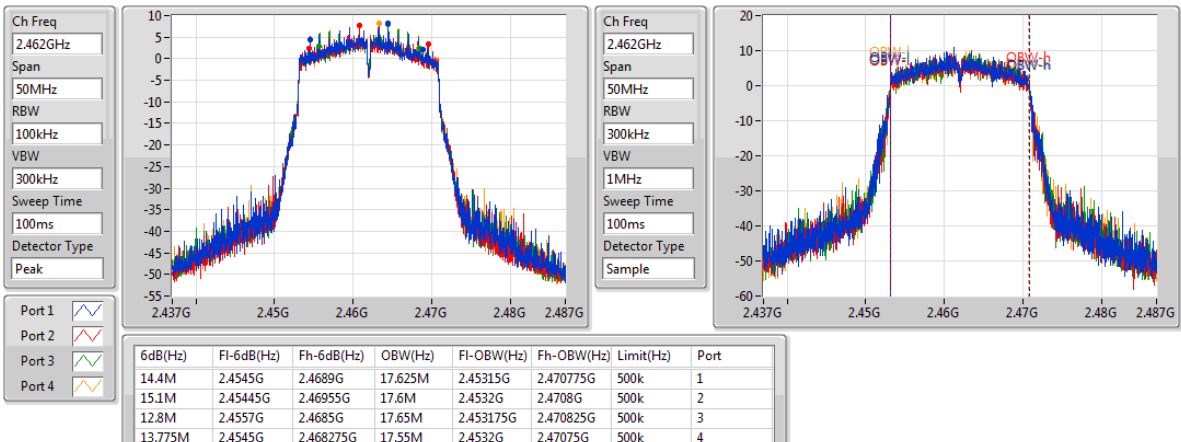
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

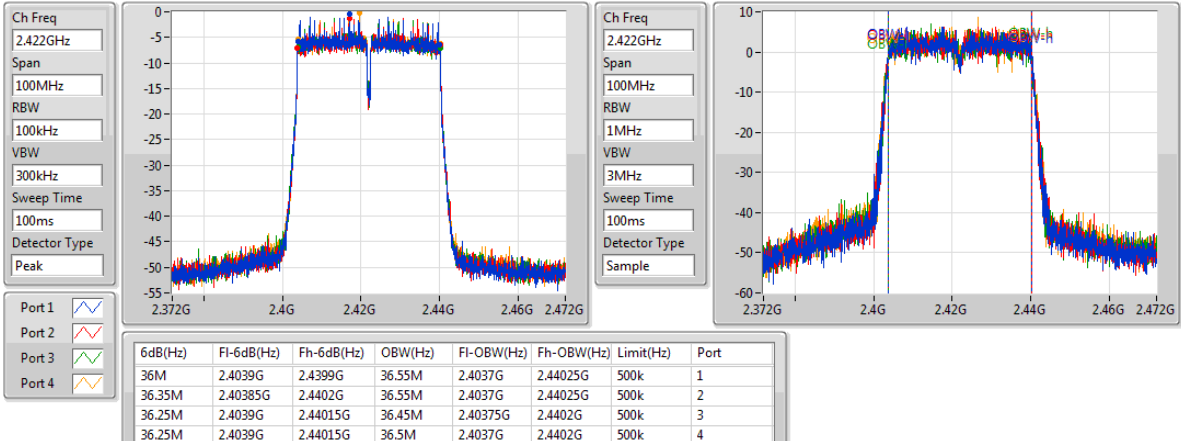
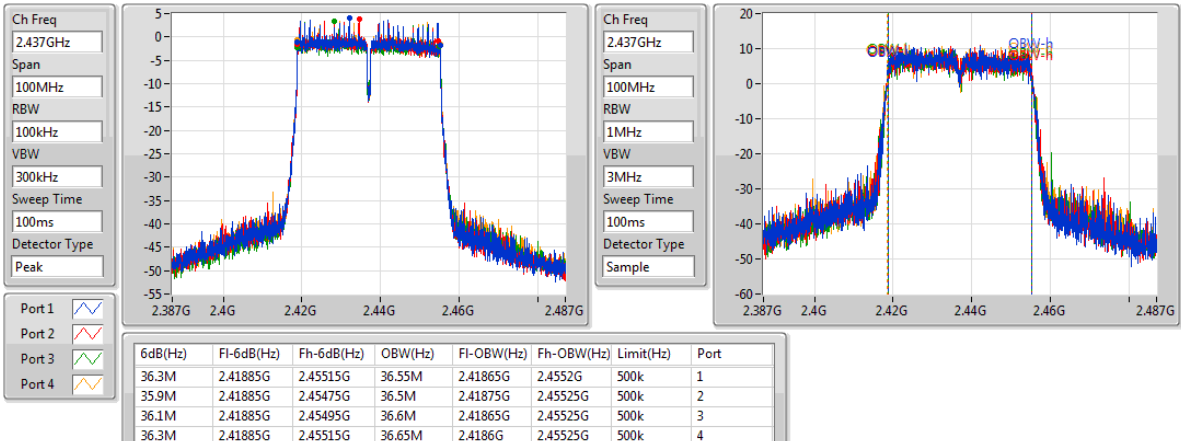
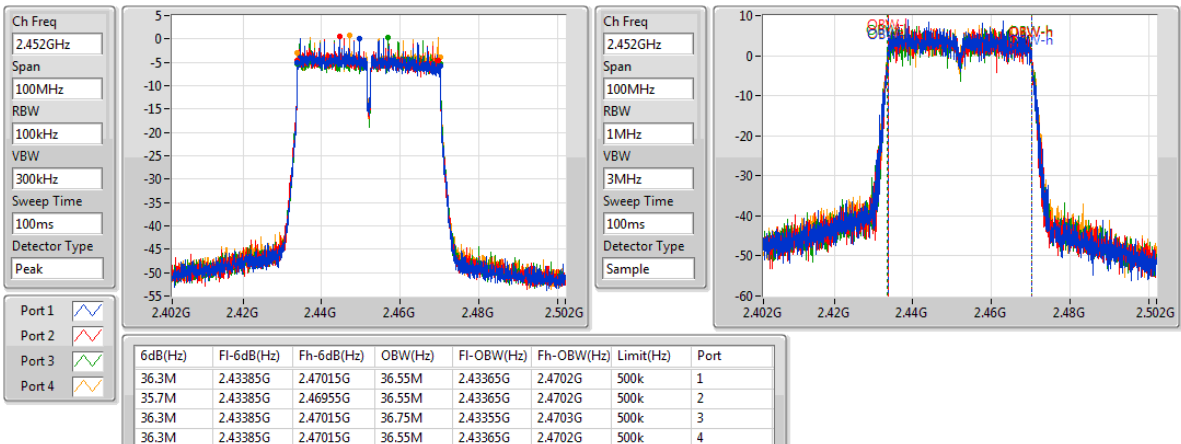
802.11b_(1Mbps)_4TX
EBW
2412MHz

802.11b_(1Mbps)_4TX
EBW
2437MHz

802.11b_(1Mbps)_4TX
EBW
2462MHz


802.11g_(6Mbps)_4TX
EBW
2412MHz

802.11g_(6Mbps)_4TX
EBW
2437MHz

802.11g_(6Mbps)_4TX
EBW
2462MHz


802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
2412MHz

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
2437MHz

802.11ac VHT20_Nss1,(MCS0)_4TX
EBW
2462MHz


802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
2422MHz

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
2437MHz

802.11ac VHT40_Nss1,(MCS0)_4TX
EBW
2452MHz


802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
2412MHz

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
2437MHz

802.11ac VHT20-BF_Nss1,(MCS0)_4TX
EBW
2462MHz


802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
2422MHz

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
2437MHz

802.11ac VHT40-BF_Nss1,(MCS0)_4TX
EBW
2452MHz


Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_4TX	-	-
2.4-2.4835GHz	29.95	0.98855
802.11g_(6Mbps)_4TX	-	-
2.4-2.4835GHz	29.82	0.95940
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-
2.4-2.4835GHz	29.76	0.94624
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-
2.4-2.4835GHz	24.72	0.29648
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-
2.4-2.4835GHz	28.23	0.66527
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-
2.4-2.4835GHz	24.07	0.25527

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.75	24.17	23.55	24.00	23.57	29.85	30.00
2437MHz	Pass	1.75	24.10	23.67	24.15	23.76	29.95	30.00
2462MHz	Pass	1.75	23.70	23.43	24.23	23.47	29.74	30.00
802.11g_(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.75	19.12	19.30	19.70	19.50	25.43	30.00
2437MHz	Pass	1.75	23.85	23.66	23.86	23.82	29.82	30.00
2462MHz	Pass	1.75	22.89	22.76	22.77	22.86	28.84	30.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	1.75	19.57	19.11	19.53	19.09	25.35	30.00
2437MHz	Pass	1.75	23.83	23.57	23.85	23.71	29.76	30.00
2462MHz	Pass	1.75	19.86	19.41	19.63	19.35	25.59	30.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	1.75	14.64	14.46	14.52	14.86	20.64	30.00
2437MHz	Pass	1.75	18.68	18.90	18.54	18.66	24.72	30.00
2452MHz	Pass	1.75	17.00	16.86	16.81	17.17	22.98	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.70	18.54	18.33	18.72	18.49	24.54	28.30
2437MHz	Pass	7.70	22.39	21.77	22.43	22.23	28.23	28.30
2462MHz	Pass	7.70	18.70	18.28	18.81	18.70	24.65	28.30
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	7.70	13.64	13.64	13.50	13.89	19.69	28.30
2437MHz	Pass	7.70	17.99	18.08	17.90	18.21	24.07	28.30
2452MHz	Pass	7.70	14.81	14.77	14.50	14.87	20.76	28.30

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

Summary

Mode	PD (dBm/RBW)
802.11b_(1Mbps)_4TX	-
2.4-2.4835GHz	4.49
802.11g_(6Mbps)_4TX	-
2.4-2.4835GHz	4.07
802.11ac VHT20_Nss1,(MCS0)_4TX	-
2.4-2.4835GHz	2.45
802.11ac VHT40_Nss1,(MCS0)_4TX	-
2.4-2.4835GHz	-5.83
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-
2.4-2.4835GHz	0.34
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-
2.4-2.4835GHz	-7.01

RBW=3kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_(1Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.70	1.12	0.33	2.31	0.68	4.49	6.30
2437MHz	Pass	7.70	1.60	0.54	0.84	0.64	4.41	6.30
2462MHz	Pass	7.70	-0.04	0.57	-0.07	0.11	3.10	6.30
802.11g_(6Mbps)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.70	-5.67	-5.64	-5.76	-5.79	-1.64	6.30
2437MHz	Pass	7.70	-1.79	-1.42	-0.68	-1.70	4.07	6.30
2462MHz	Pass	7.70	-2.95	-2.63	-2.31	-2.10	2.24	6.30
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.70	-6.12	-6.46	-6.52	-5.48	-1.91	6.30
2437MHz	Pass	7.70	-1.20	-1.96	-1.30	-1.64	2.45	6.30
2462MHz	Pass	7.70	-5.01	-5.33	-4.81	-6.23	-1.70	6.30
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	7.70	-12.95	-13.88	-12.60	-14.57	-9.95	6.30
2437MHz	Pass	7.70	-9.49	-9.75	-10.26	-9.31	-5.83	6.30
2452MHz	Pass	7.70	-11.77	-10.89	-11.69	-11.74	-6.76	6.30
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2412MHz	Pass	7.70	-5.11	-7.08	-6.50	-6.40	-2.87	6.30
2437MHz	Pass	7.70	-2.96	-3.71	-3.43	-3.76	0.34	6.30
2462MHz	Pass	7.70	-5.59	-7.06	-6.18	-5.57	-2.49	6.30
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
2422MHz	Pass	7.70	-14.52	-13.56	-14.68	-14.65	-9.82	6.30
2437MHz	Pass	7.70	-10.69	-9.07	-10.37	-11.28	-7.01	6.30
2452MHz	Pass	7.70	-13.25	-12.62	-13.68	-13.43	-9.06	6.30

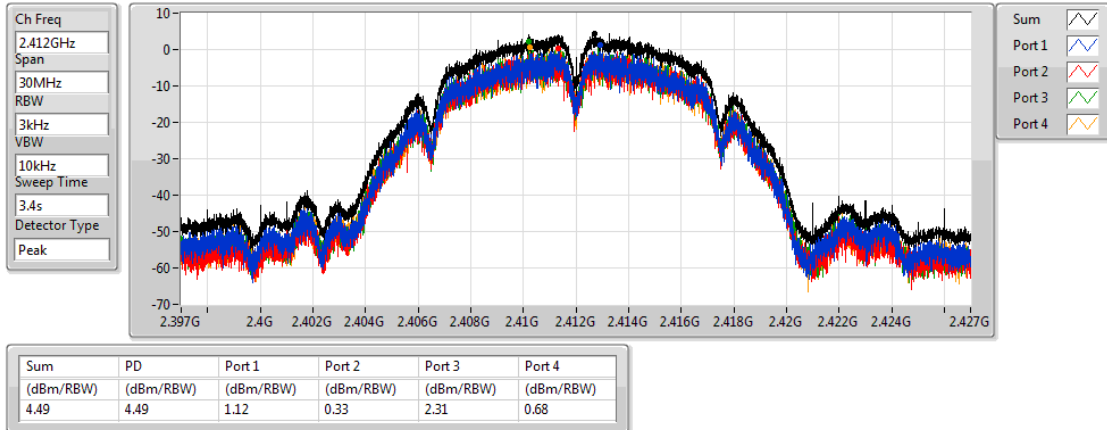
DG = Directional Gain; RBW=3kHz;

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)_4TX

PSD

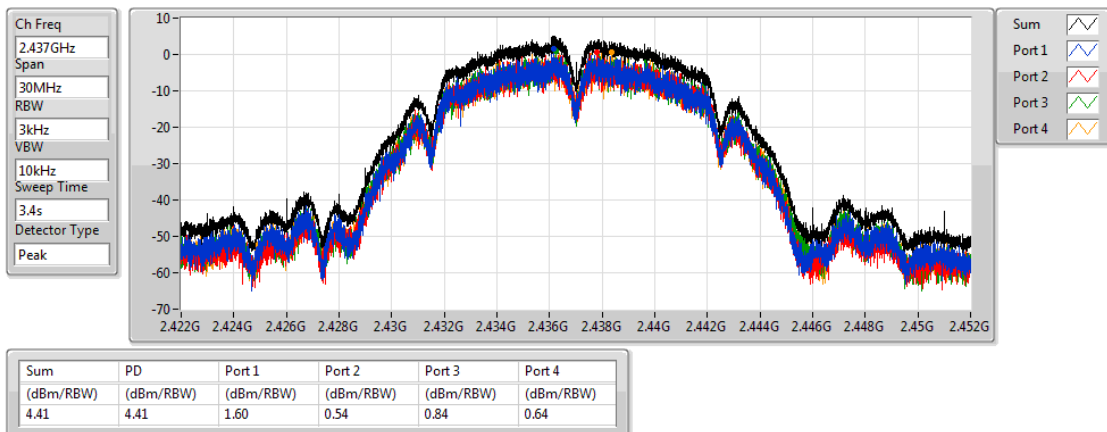
2412MHz



802.11b_(1Mbps)_4TX

PSD

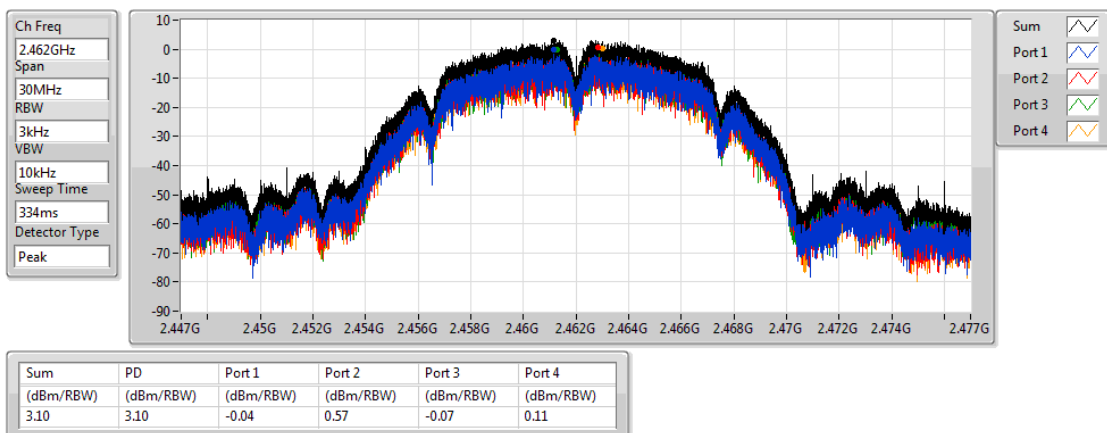
2437MHz



802.11b_(1Mbps)_4TX

PSD

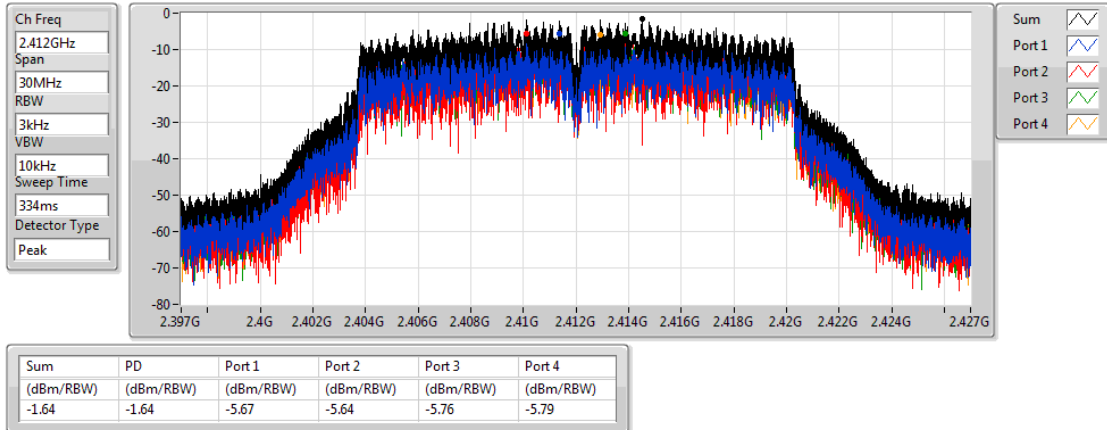
2462MHz



802.11g_(6Mbps)_4TX

PSD

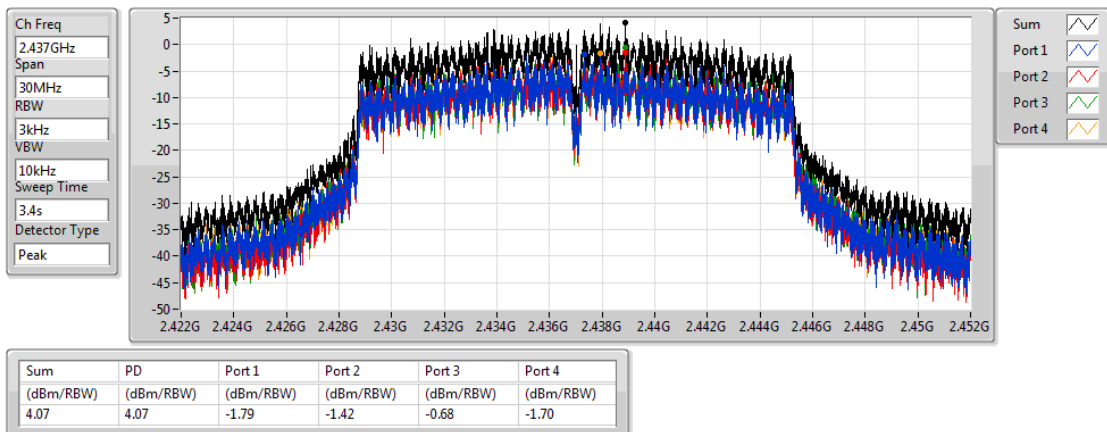
2412MHz



802.11g_(6Mbps)_4TX

PSD

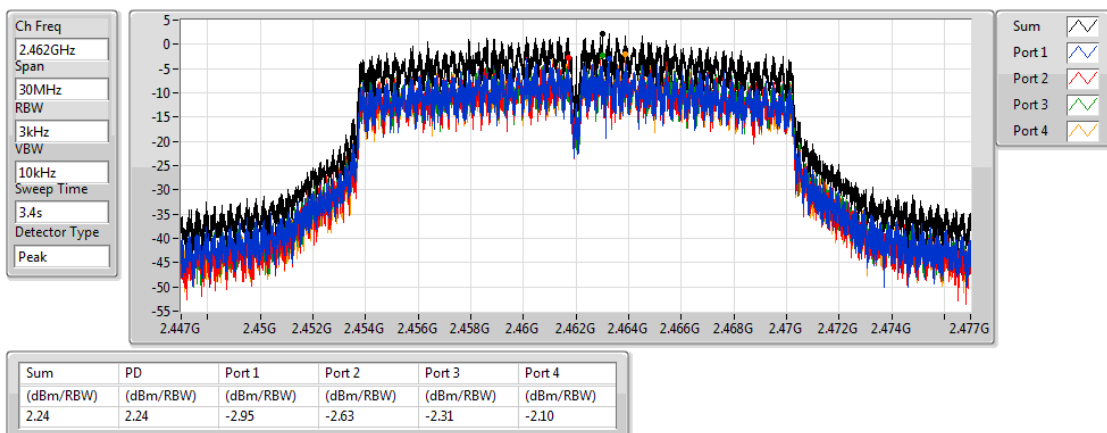
2437MHz



802.11g_(6Mbps)_4TX

PSD

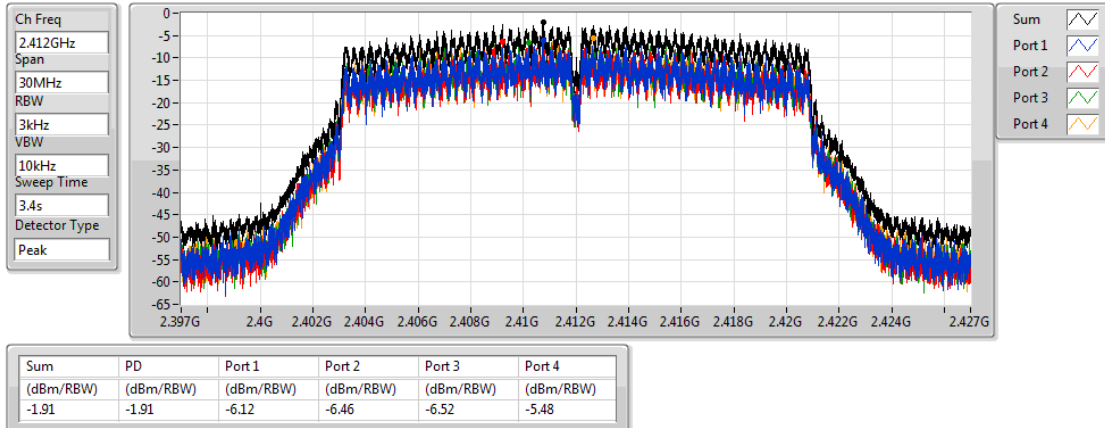
2462MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

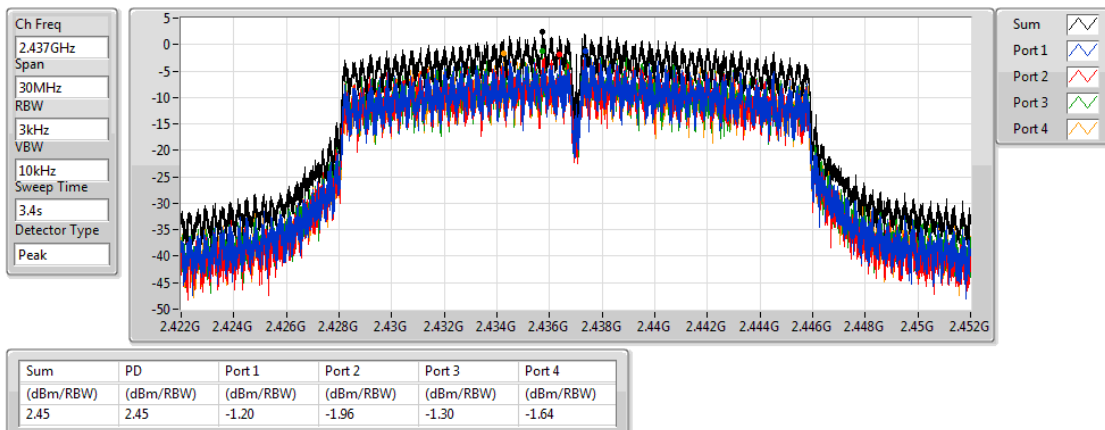
2412MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

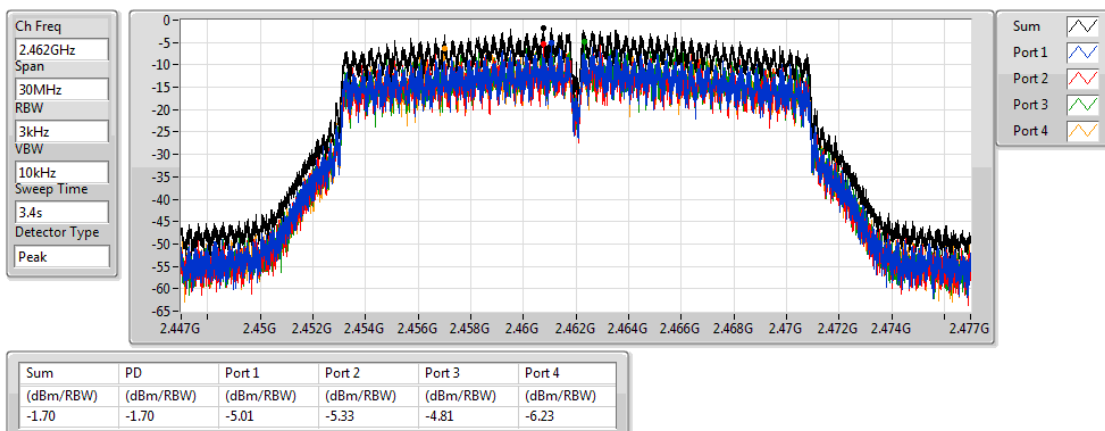
2437MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

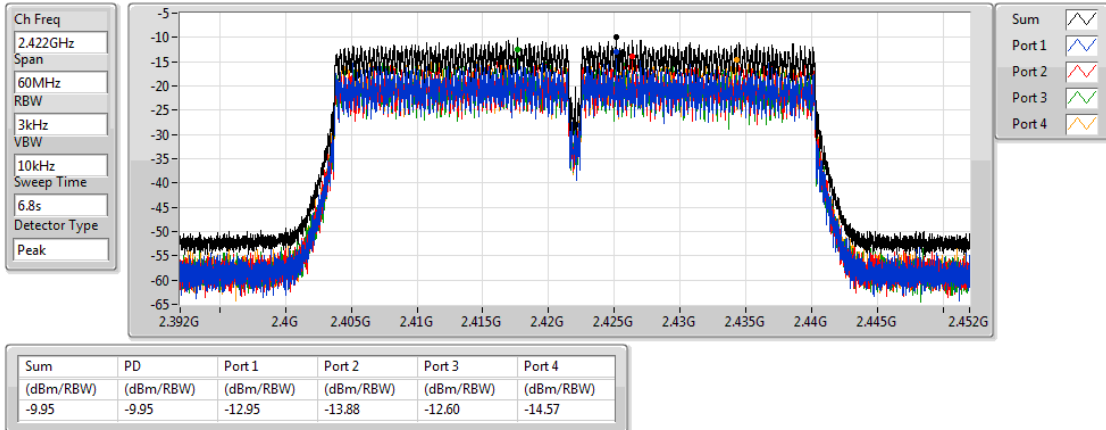
2462MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

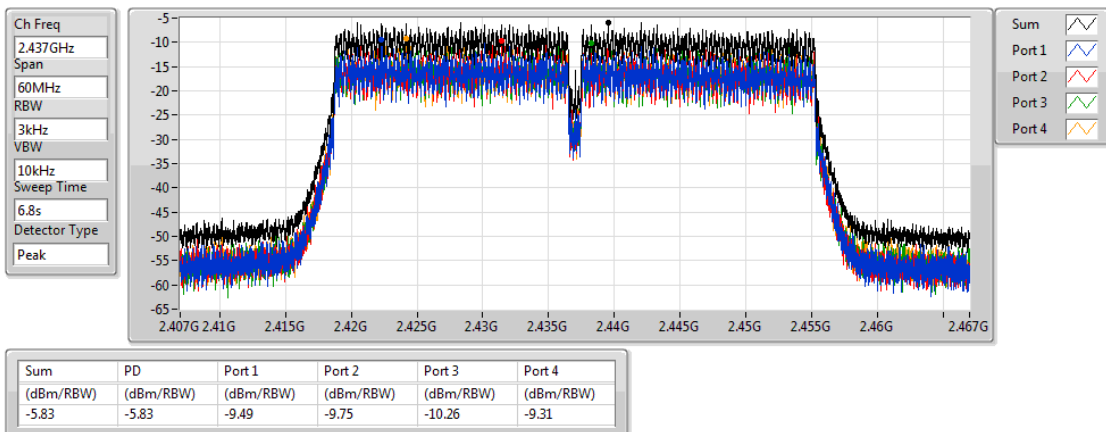
2422MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

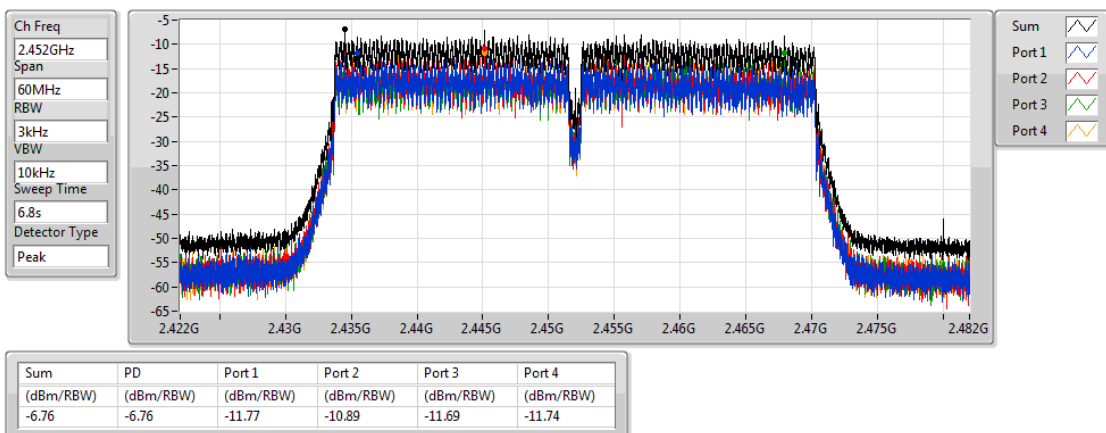
2437MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

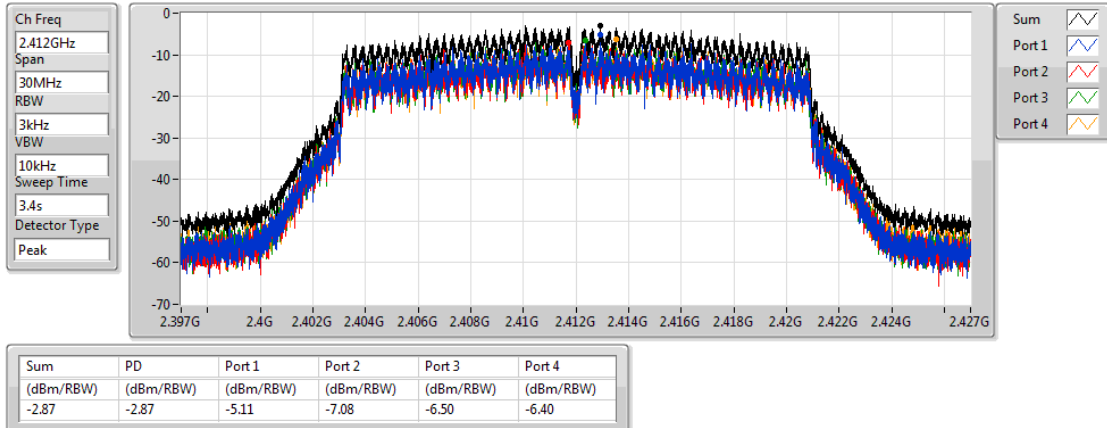
2452MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

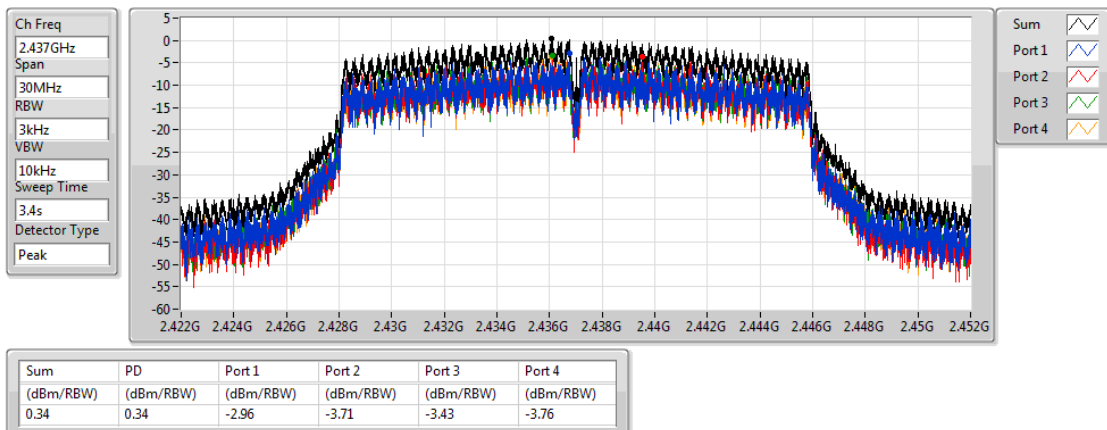
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

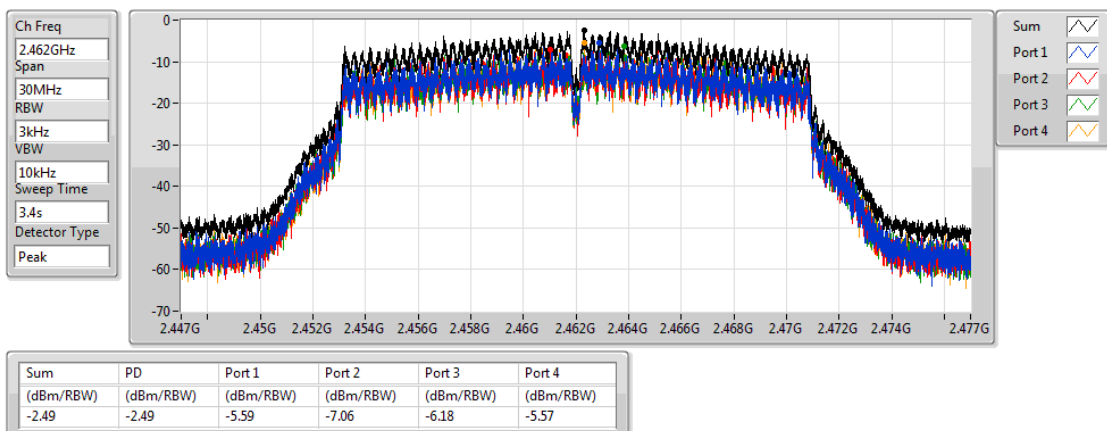
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

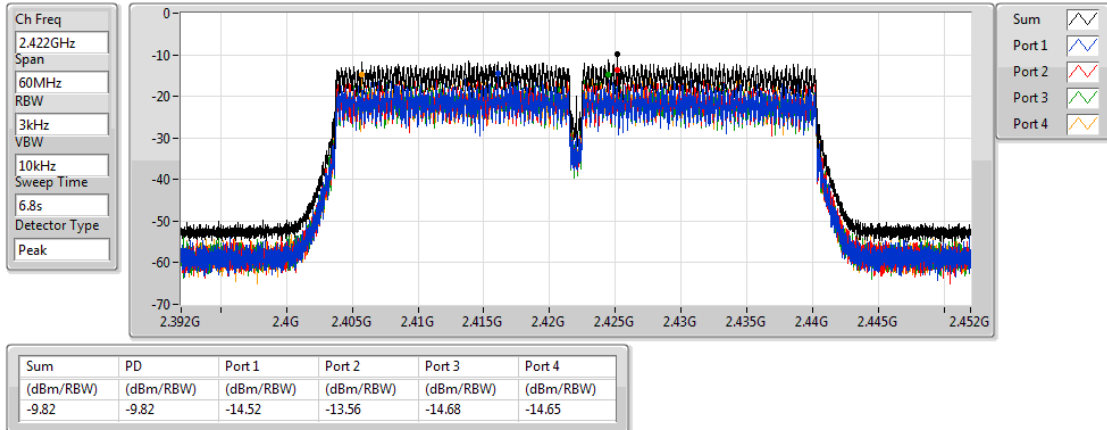
2462MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

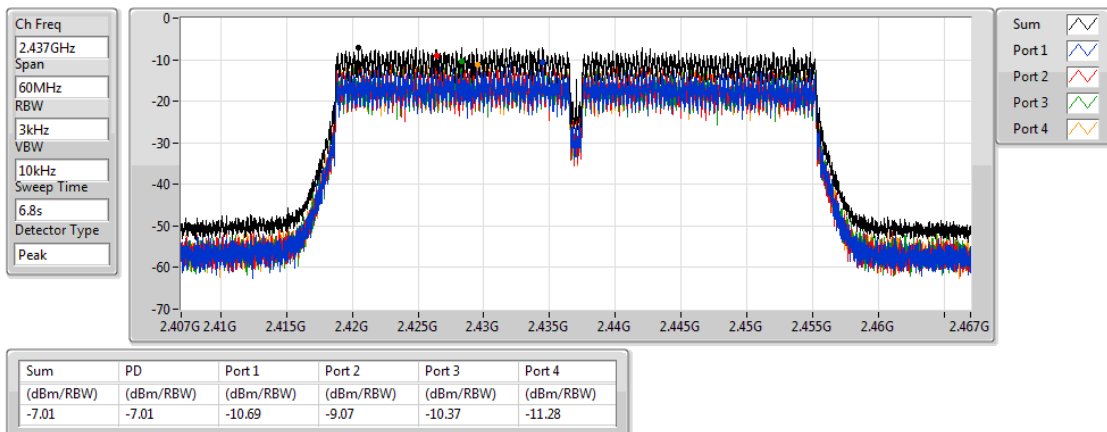
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

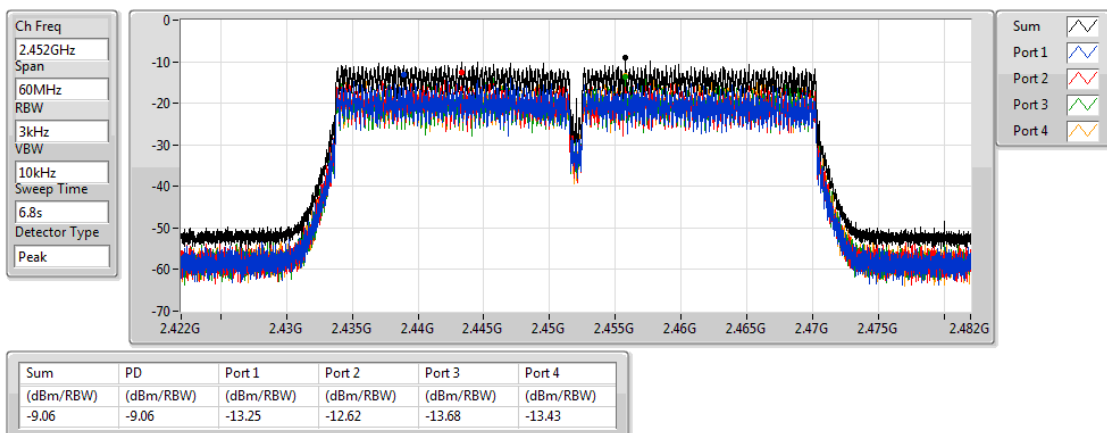
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

2452MHz



**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
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	2.422044G	-11.86	-41.86	1.7475G	-64.17	2.39888G	-60.90	2.5051G	-62.22	21.662571G	-44.35	3

Result

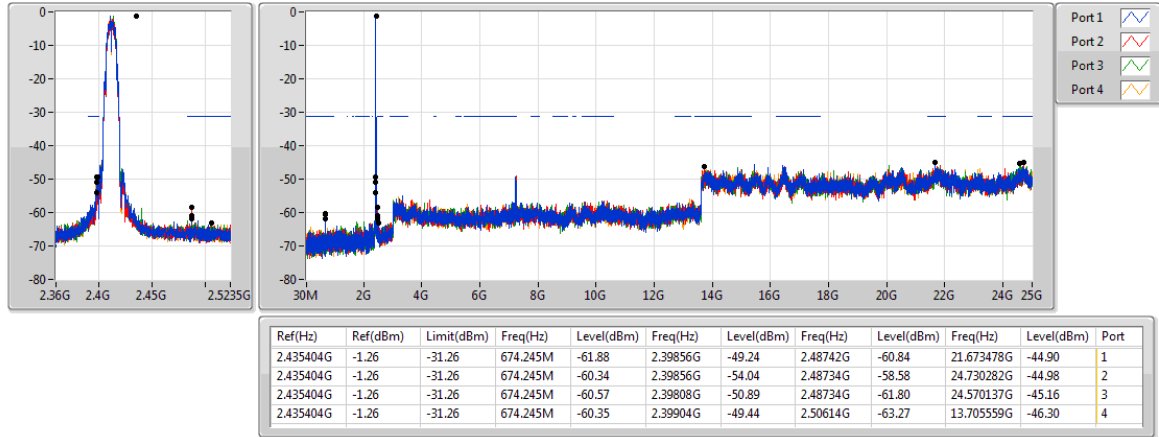
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.435404G	-1.26	-31.26	674.245M	-61.88	2.39856G	-49.24	2.48742G	-60.84	21.673478G	-44.90	1
2412MHz	Pass	2.435404G	-1.26	-31.26	674.245M	-60.34	2.39856G	-54.04	2.48734G	-58.58	24.730282G	-44.98	2
2412MHz	Pass	2.435404G	-1.26	-31.26	674.245M	-60.57	2.39808G	-50.89	2.48734G	-61.80	24.570137G	-45.16	3
2412MHz	Pass	2.435404G	-1.26	-31.26	674.245M	-60.35	2.39904G	-49.44	2.50614G	-63.27	13.705559G	-46.30	4
2437MHz	Pass	2.435404G	-1.26	-31.26	698.71M	-58.84	2.39328G	-63.19	2.51638G	-63.49	24.640376G	-44.98	1
2437MHz	Pass	2.435404G	-1.26	-31.26	698.71M	-60.61	2.39448G	-63.59	2.48534G	-62.88	24.730282G	-45.16	2
2437MHz	Pass	2.435404G	-1.26	-31.26	698.71M	-58.35	2.39976G	-62.96	2.51174G	-62.86	24.595423G	-45.45	3
2437MHz	Pass	2.435404G	-1.26	-31.26	698.71M	-59.90	2.3996G	-63.21	2.48774G	-62.91	16.501073G	-45.84	4
2462MHz	Pass	2.435404G	-1.26	-31.26	724.34M	-61.77	2.3952G	-62.49	2.48558G	-61.73	21.670668G	-45.80	1
2462MHz	Pass	2.435404G	-1.26	-31.26	724.34M	-63.28	2.396G	-63.71	2.48606G	-61.39	21.667859G	-45.63	2
2462MHz	Pass	2.435404G	-1.26	-31.26	724.34M	-60.91	2.39624G	-63.13	2.48406G	-61.16	21.780241G	-45.01	3
2462MHz	Pass	2.435404G	-1.26	-31.26	724.34M	-61.94	2.39888G	-63.70	2.48678G	-62.55	24.778045G	-45.64	4
802.11g_(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.435738G	-2.27	-32.27	2.30641G	-64.22	2.39912G	-51.01	2.48734G	-61.61	21.681907G	-44.75	1
2412MHz	Pass	2.435738G	-2.27	-32.27	812.88M	-63.98	2.3996G	-51.19	2.48734G	-61.30	24.609471G	-45.83	2
2412MHz	Pass	2.435738G	-2.27	-32.27	577.55M	-63.58	2.39992G	-51.11	2.48734G	-61.19	21.667859G	-44.79	3
2412MHz	Pass	2.435738G	-2.27	-32.27	1.76818G	-63.61	2.3996G	-50.15	2.48734G	-59.21	21.816766G	-45.00	4
2437MHz	Pass	2.435738G	-2.27	-32.27	880.45M	-63.71	2.39584G	-59.20	2.51318G	-62.80	24.572947G	-44.92	1
2437MHz	Pass	2.435738G	-2.27	-32.27	755.795M	-64.15	2.39936G	-61.93	2.5163G	-61.93	21.805527G	-46.11	2
2437MHz	Pass	2.435738G	-2.27	-32.27	696.38M	-63.56	2.39992G	-61.10	2.48566G	-62.57	24.690948G	-45.83	3
2437MHz	Pass	2.435738G	-2.27	-32.27	698.71M	-62.38	2.398G	-60.18	2.51318G	-61.41	21.679097G	-45.51	4
2462MHz	Pass	2.435738G	-2.27	-32.27	1.90565G	-64.43	2.39712G	-63.83	2.48382G	-50.76	21.65943G	-46.01	1
2462MHz	Pass	2.435738G	-2.27	-32.27	1.83575G	-64.90	2.39104G	-62.24	2.48358G	-50.03	24.794902G	-44.74	2
2462MHz	Pass	2.435738G	-2.27	-32.27	739.485M	-64.42	2.39704G	-63.32	2.48414G	-50.71	24.693758G	-44.46	3
2462MHz	Pass	2.435738G	-2.27	-32.27	837.345M	-63.89	2.39296G	-63.14	2.48382G	-49.14	16.492645G	-45.57	4
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.435738G	-2.54	-32.54	1.881185G	-63.78	2.39952G	-47.79	2.48734G	-63.56	21.805527G	-45.70	1
2412MHz	Pass	2.435738G	-2.54	-32.54	1.84041G	-64.90	2.39984G	-47.58	2.48734G	-62.89	14.955814G	-45.60	2
2412MHz	Pass	2.435738G	-2.54	-32.54	581.045M	-64.76	2.3992G	-49.06	2.48734G	-60.95	21.673478G	-44.87	3
2412MHz	Pass	2.435738G	-2.54	-32.54	2.04545G	-63.68	2.39928G	-47.32	2.48734G	-59.18	24.74152G	-44.71	4
2437MHz	Pass	2.435738G	-2.54	-32.54	2.051275G	-64.26	2.3996G	-56.91	2.48998G	-62.62	21.66224G	-45.81	1
2437MHz	Pass	2.435738G	-2.54	-32.54	1.71226G	-64.09	2.39888G	-59.11	2.48766G	-61.91	24.48866G	-46.17	2
2437MHz	Pass	2.435738G	-2.54	-32.54	698.71M	-62.94	2.39952G	-59.66	2.4839G	-62.38	24.648805G	-45.44	3
2437MHz	Pass	2.435738G	-2.54	-32.54	828.025M	-64.23	2.39928G	-58.54	2.51318G	-61.94	24.654424G	-44.93	4
2462MHz	Pass	2.435738G	-2.54	-32.54	181.45M	-63.92	2.39648G	-63.10	2.4839G	-57.23	21.676288G	-44.52	1
2462MHz	Pass	2.435738G	-2.54	-32.54	717.35M	-64.09	2.39688G	-63.59	2.48454G	-59.96	24.609471G	-46.20	2
2462MHz	Pass	2.435738G	-2.54	-32.54	1.767015G	-63.72	2.3916G	-63.98	2.48382G	-56.25	24.704996G	-45.81	3
2462MHz	Pass	2.435738G	-2.54	-32.54	1.94526G	-64.33	2.39456G	-63.82	2.4839G	-56.04	14.947385G	-45.58	4
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.422044G	-11.36	-41.36	2.096725G	-64.12	2.3984G	-60.54	2.52942G	-63.46	24.705521G	-45.87	1
2422MHz	Pass	2.422044G	-11.36	-41.36	2.039475G	-64.76	2.39712G	-59.52	2.4883G	-63.08	13.714441G	-45.65	2

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
2422MHz	Pass	2.422044G	-11.36	-41.36	2.076115G	-63.68	2.39984G	-60.25	2.50718G	-63.67	24.699912G	-45.44	3
2422MHz	Pass	2.422044G	-11.36	-41.36	2.0223G	-64.53	2.39488G	-59.18	2.4899G	-63.14	13.714441G	-44.90	4
2437MHz	Pass	2.422044G	-11.36	-41.36	717M	-63.64	2.39968G	-54.49	2.48382G	-59.94	21.735489G	-46.11	1
2437MHz	Pass	2.422044G	-11.36	-41.36	927.68M	-64.69	2.3992G	-55.32	2.48462G	-61.91	24.596143G	-44.51	2
2437MHz	Pass	2.422044G	-11.36	-41.36	828.065M	-63.94	2.39936G	-56.27	2.49022G	-62.41	21.777558G	-44.97	3
2437MHz	Pass	2.422044G	-11.36	-41.36	1.80246G	-64.15	2.39968G	-55.29	2.48478G	-59.53	21.769144G	-44.77	4
2452MHz	Pass	2.422044G	-11.36	-41.36	704.405M	-63.94	2.39856G	-62.15	2.48414G	-60.94	21.72988G	-45.29	1
2452MHz	Pass	2.422044G	-11.36	-41.36	1.792155G	-64.41	2.3984G	-62.77	2.4851G	-60.08	16.496567G	-44.46	2
2452MHz	Pass	2.422044G	-11.36	-41.36	2.30626G	-63.91	2.39936G	-62.01	2.48542G	-60.14	16.426452G	-46.26	3
2452MHz	Pass	2.422044G	-11.36	-41.36	2.117335G	-64.32	2.3992G	-62.09	2.48766G	-60.93	21.676593G	-45.15	4
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.434569G	-5.05	-35.05	49.805M	-49.60	2.3996G	-48.81	2.48398G	-63.84	24.702186G	-45.34	1
2412MHz	Pass	2.434569G	-5.05	-35.05	49.805M	-48.73	2.39976G	-50.50	2.48734G	-59.64	24.505517G	-45.70	2
2412MHz	Pass	2.434569G	-5.05	-35.05	49.805M	-48.91	2.3996G	-51.59	2.48734G	-60.74	21.673478G	-44.99	3
2412MHz	Pass	2.434569G	-5.05	-35.05	49.805M	-49.02	2.39824G	-49.52	2.48734G	-62.50	16.419596G	-45.79	4
2437MHz	Pass	2.434569G	-5.05	-35.05	2.19457G	-64.64	2.39992G	-61.55	2.49926G	-63.28	21.665049G	-45.78	1
2437MHz	Pass	2.434569G	-5.05	-35.05	909.575M	-64.23	2.39352G	-62.39	2.51318G	-62.57	21.679097G	-45.34	2
2437MHz	Pass	2.434569G	-5.05	-35.05	794.24M	-63.87	2.39952G	-61.64	2.51318G	-62.93	21.681907G	-45.29	3
2437MHz	Pass	2.434569G	-5.05	-35.05	1.767015G	-63.74	2.39648G	-62.68	2.48622G	-62.95	24.727472G	-46.17	4
2462MHz	Pass	2.434569G	-5.05	-35.05	49.805M	-60.32	2.3916G	-63.44	2.48518G	-60.46	13.716797G	-44.93	1
2462MHz	Pass	2.434569G	-5.05	-35.05	49.805M	-62.55	2.3984G	-63.42	2.48374G	-57.97	24.626328G	-45.56	2
2462MHz	Pass	2.434569G	-5.05	-35.05	49.805M	-62.56	2.39416G	-63.62	2.48358G	-59.80	16.489835G	-45.50	3
2462MHz	Pass	2.434569G	-5.05	-35.05	49.805M	-60.74	2.39712G	-64.37	2.48358G	-60.14	13.722416G	-46.15	4
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.422044G	-11.86	-41.86	2.01772G	-64.71	2.39968G	-60.38	2.53822G	-63.77	16.496567G	-45.02	1
2422MHz	Pass	2.422044G	-11.86	-41.86	539.525M	-64.83	2.39712G	-59.82	2.48654G	-63.78	16.488153G	-44.60	2
2422MHz	Pass	2.422044G	-11.86	-41.86	1.7475G	-64.17	2.39888G	-60.90	2.5051G	-62.22	21.662571G	-44.35	3
2422MHz	Pass	2.422044G	-11.86	-41.86	1.8162G	-64.85	2.39936G	-60.53	2.49838G	-62.79	21.814017G	-45.89	4
2437MHz	Pass	2.422044G	-11.86	-41.86	2.04749G	-64.32	2.39952G	-55.73	2.4875G	-62.27	24.587729G	-45.51	1
2437MHz	Pass	2.422044G	-11.86	-41.86	1.966195G	-64.16	2.3992G	-56.32	2.48798G	-62.48	21.771949G	-46.03	2
2437MHz	Pass	2.422044G	-11.86	-41.86	49.465M	-62.80	2.39952G	-56.32	2.48366G	-62.77	21.673789G	-45.08	3
2437MHz	Pass	2.422044G	-11.86	-41.86	2.044055G	-64.92	2.39952G	-55.87	2.48366G	-61.33	13.933196G	-45.55	4
2452MHz	Pass	2.422044G	-11.86	-41.86	2.19405G	-63.94	2.39904G	-62.76	2.48622G	-62.83	14.872725G	-44.99	1
2452MHz	Pass	2.422044G	-11.86	-41.86	2.07497G	-63.89	2.39664G	-63.70	2.48718G	-62.61	21.679398G	-44.93	2
2452MHz	Pass	2.422044G	-11.86	-41.86	1.918105G	-64.60	2.3952G	-62.39	2.48478G	-61.80	21.676593G	-44.88	3
2452MHz	Pass	2.422044G	-11.86	-41.86	1.803605G	-64.03	2.39616G	-63.61	2.48446G	-61.98	21.766339G	-44.61	4

802.11b_(1Mbps)_4TX

CSE NdB

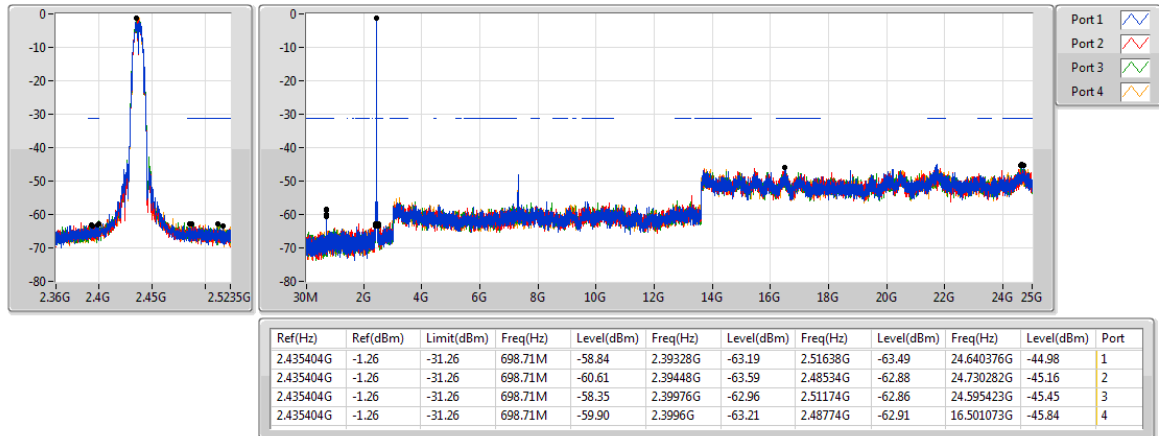
2412MHz



802.11b_(1Mbps)_4TX

CSE NdB

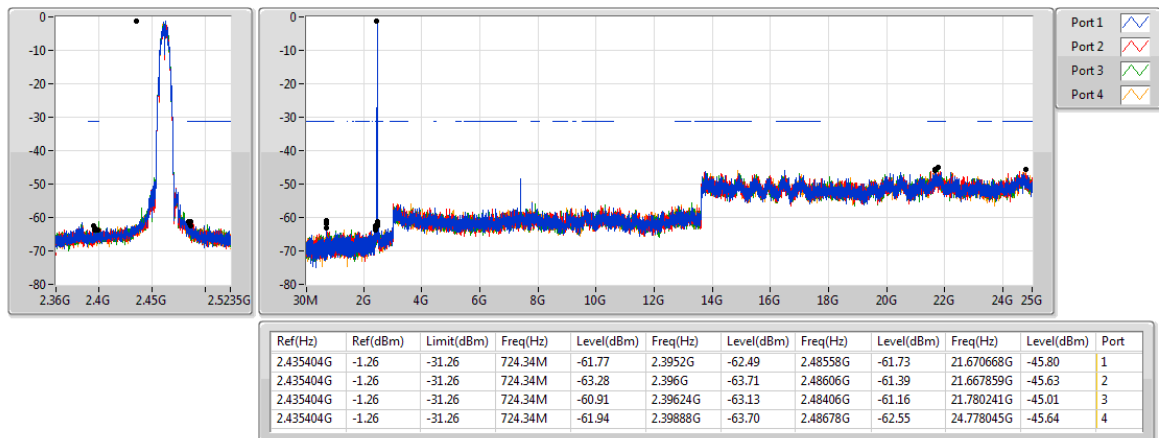
2437MHz



802.11b_(1Mbps)_4TX

CSE NdB

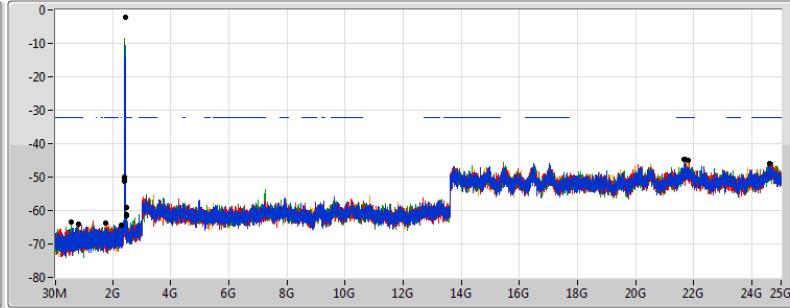
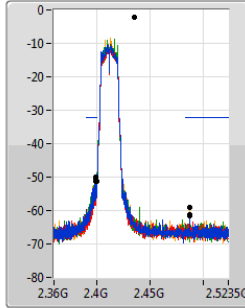
2462MHz



802.11g_(6Mbps)_4TX

CSE NdB

2412MHz

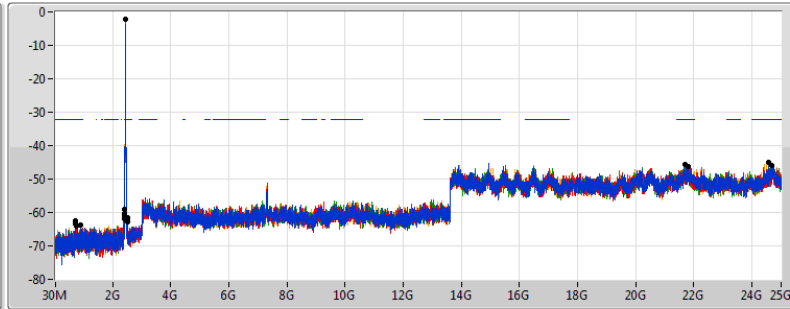
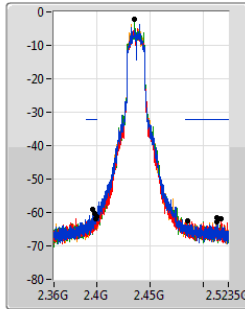


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.435738G	-2.27	-32.27	2.30641G	-64.22	2.39912G	-51.01	2.48734G	-61.61	21.681907G	-44.75	1
2.435738G	-2.27	-32.27	812.88M	-63.98	2.3996G	-51.19	2.48734G	-61.30	24.609471G	-45.83	2
2.435738G	-2.27	-32.27	577.55M	-63.58	2.39992G	-51.11	2.48734G	-61.19	21.667859G	-44.79	3
2.435738G	-2.27	-32.27	1.76818G	-63.61	2.3996G	-50.15	2.48734G	-59.21	21.816766G	-45.00	4

802.11g_(6Mbps)_4TX

CSE NdB

2437MHz

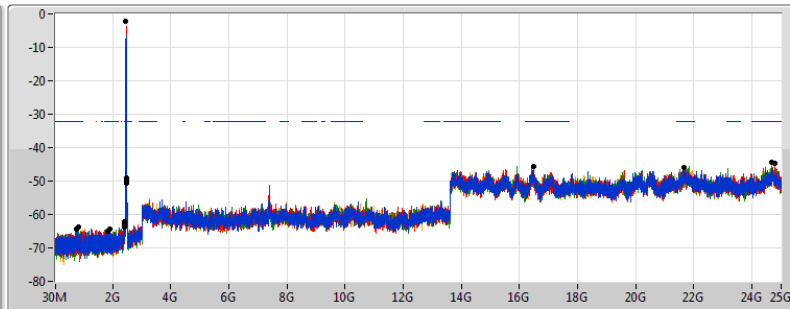
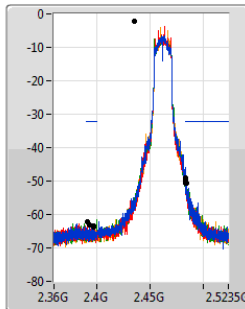


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.435738G	-2.27	-32.27	880.45M	-63.71	2.39584G	-59.20	2.51318G	-62.80	24.572947G	-44.92	1
2.435738G	-2.27	-32.27	755.795M	-64.15	2.39936G	-61.93	2.5163G	-61.93	21.805527G	-46.11	2
2.435738G	-2.27	-32.27	696.38M	-63.56	2.39992G	-61.10	2.48566G	-62.57	24.690948G	-45.83	3
2.435738G	-2.27	-32.27	698.71M	-62.38	2.398G	-60.18	2.51318G	-61.41	21.679097G	-45.51	4

802.11g_(6Mbps)_4TX

CSE NdB

2462MHz

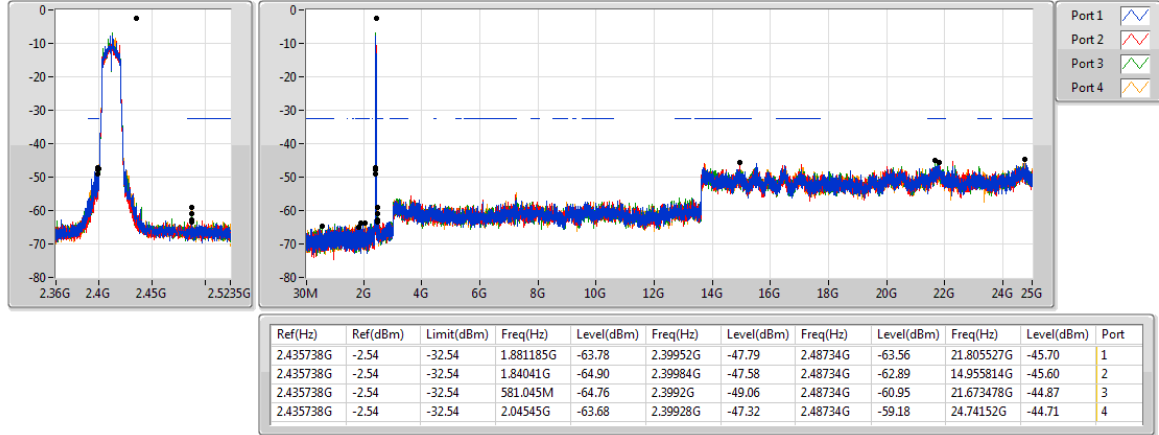


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.435738G	-2.27	-32.27	1.90565G	-64.43	2.39712G	-63.83	2.48382G	-50.76	21.65943G	-46.01	1
2.435738G	-2.27	-32.27	1.83575G	-64.90	2.39104G	-62.24	2.48358G	-50.03	24.794902G	-44.74	2
2.435738G	-2.27	-32.27	739.485M	-64.42	2.39704G	-63.32	2.48414G	-50.71	24.693758G	-44.46	3
2.435738G	-2.27	-32.27	837.345M	-63.89	2.39296G	-63.14	2.48382G	-49.14	16.492645G	-45.57	4

802.11ac VHT20_Nss1,(MCS0)_4TX

CSE NdB

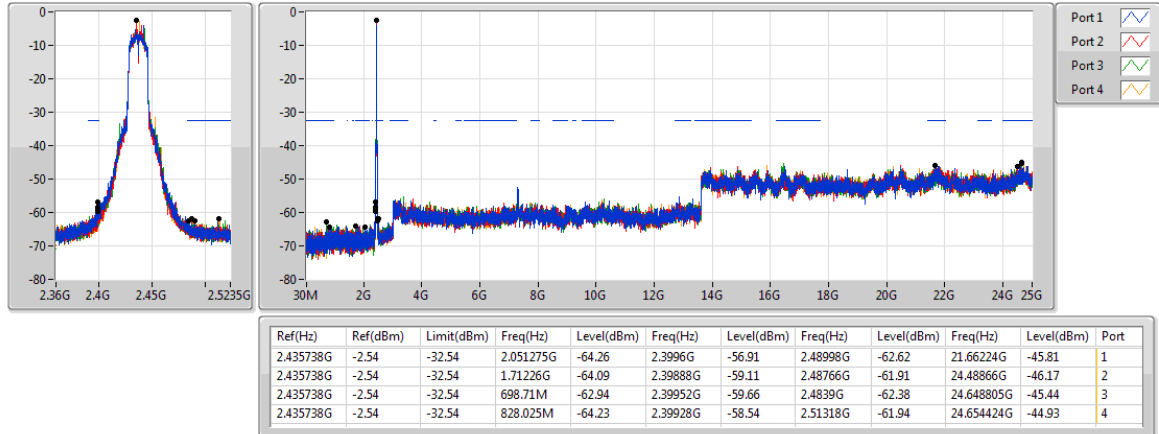
2412MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

CSE NdB

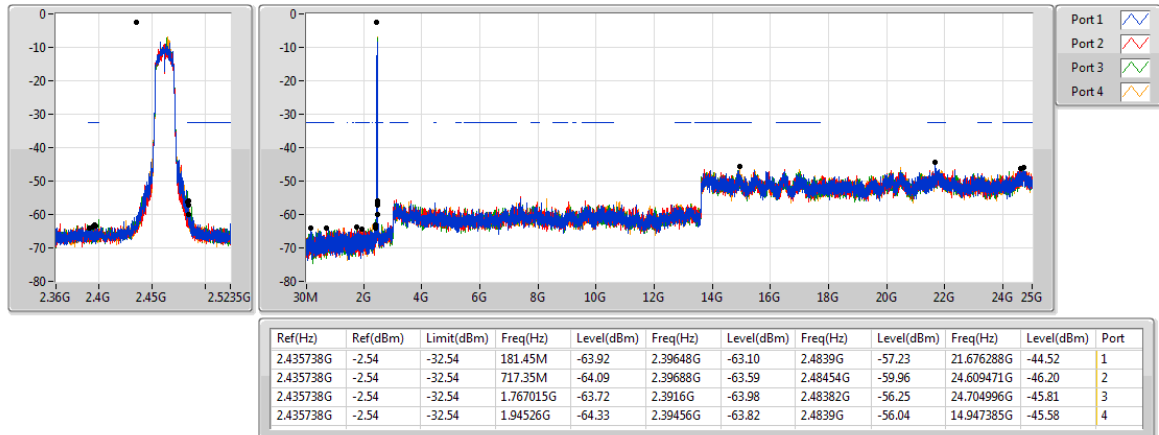
2437MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

CSE NdB

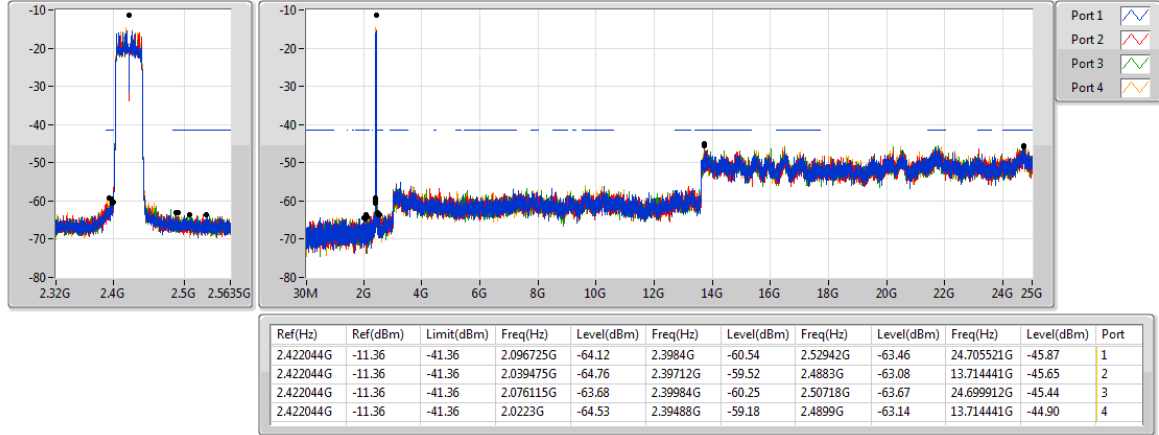
2462MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

CSE NdB

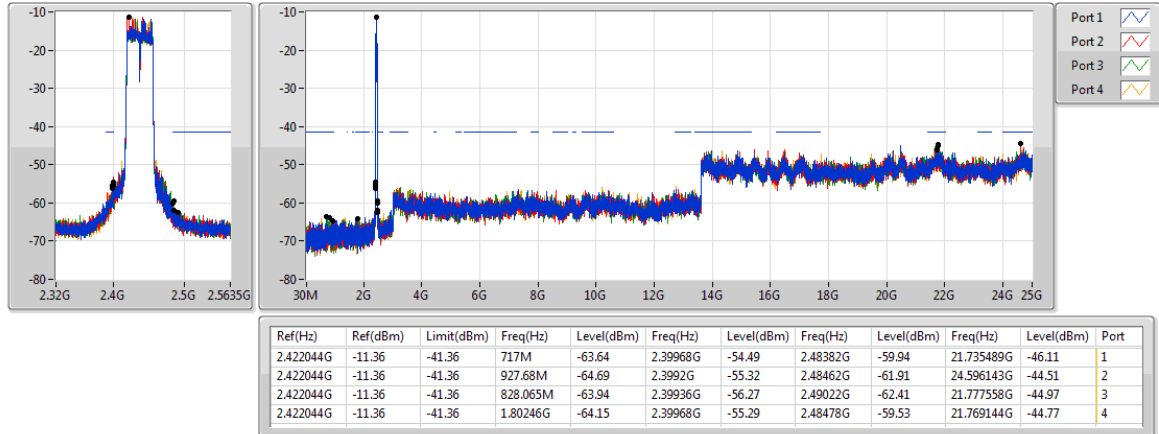
2422MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

CSE NdB

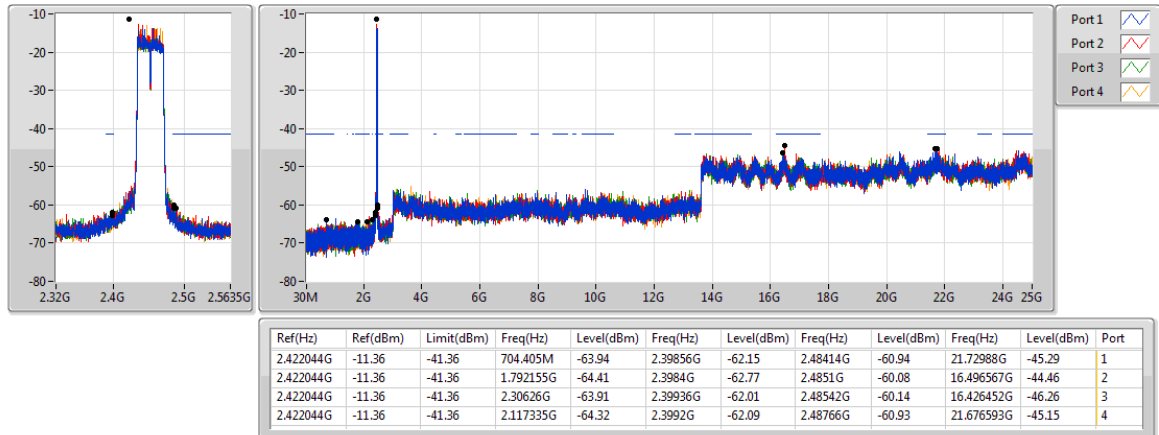
2437MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

CSE NdB

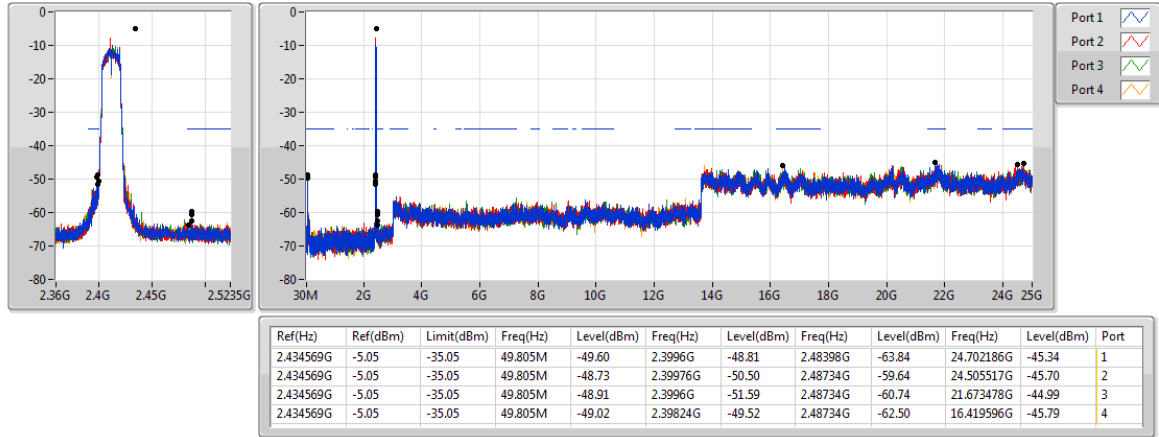
2452MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

CSE NdB

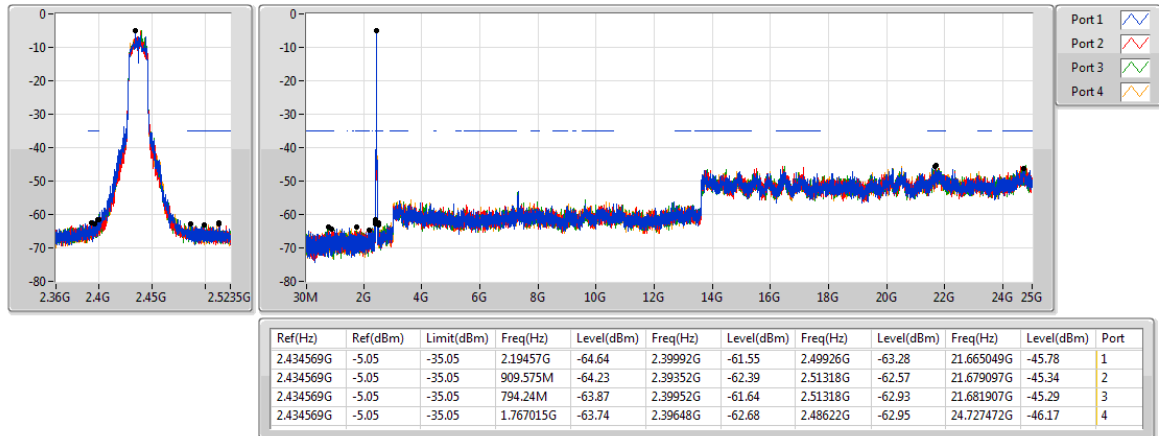
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

CSE NdB

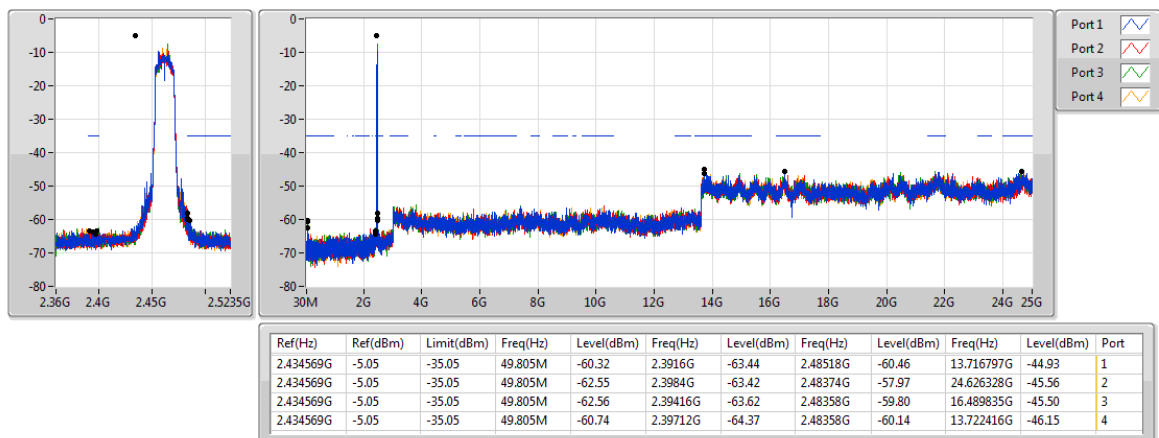
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

CSE NdB

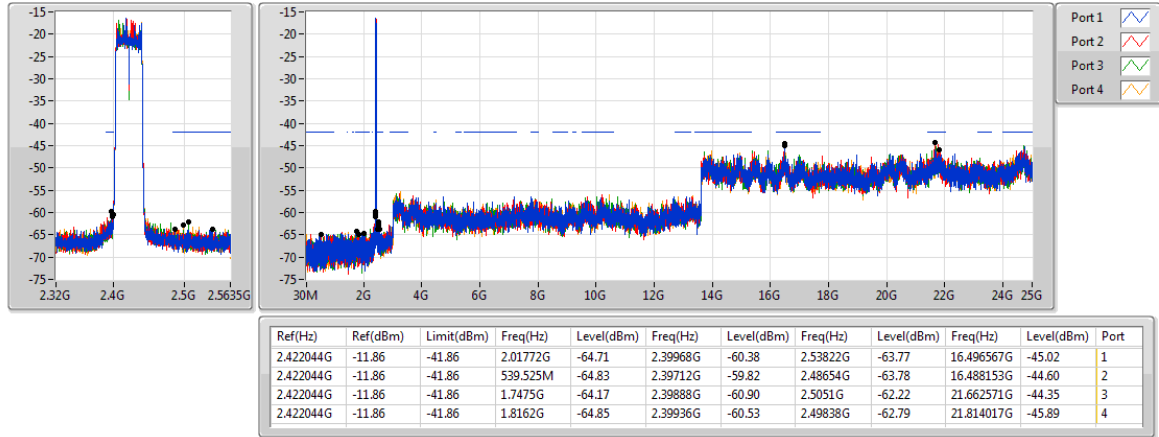
2462MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

CSE NdB

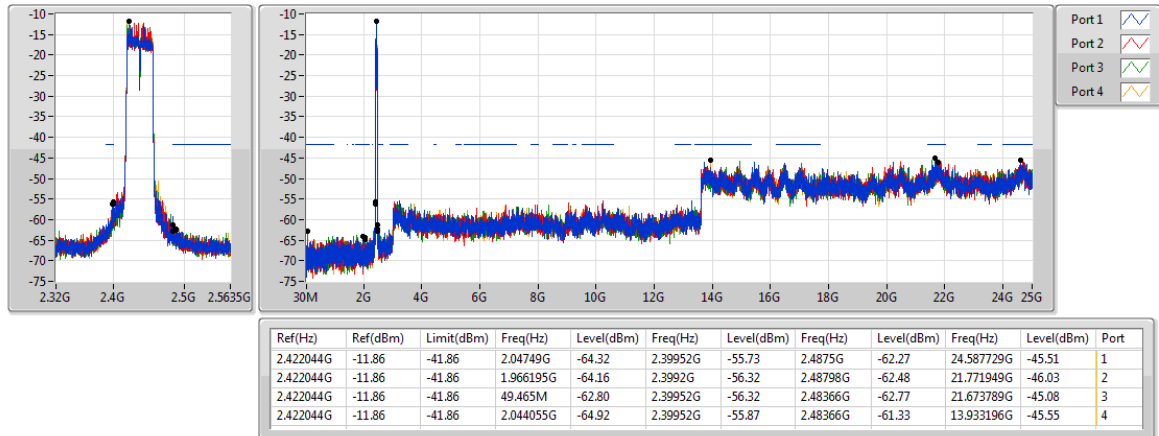
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

CSE NdB

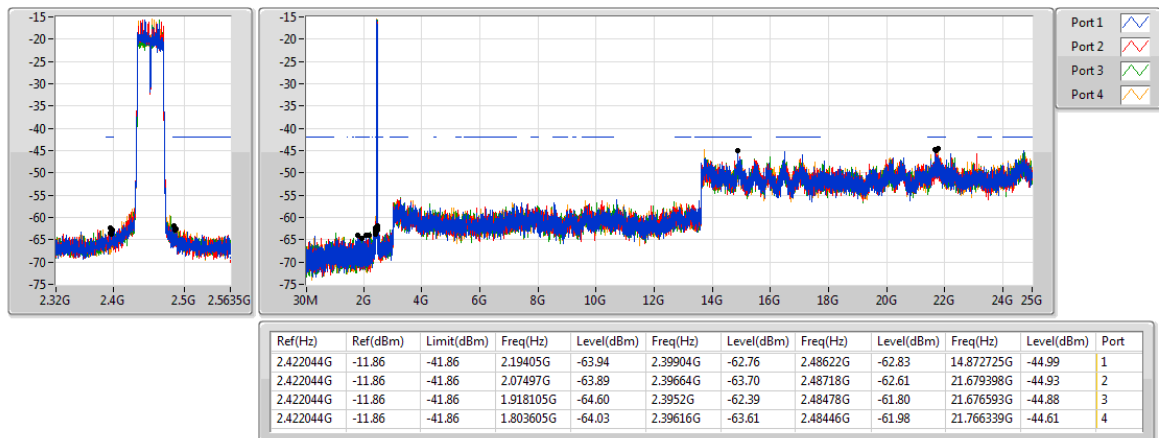
2437MHz

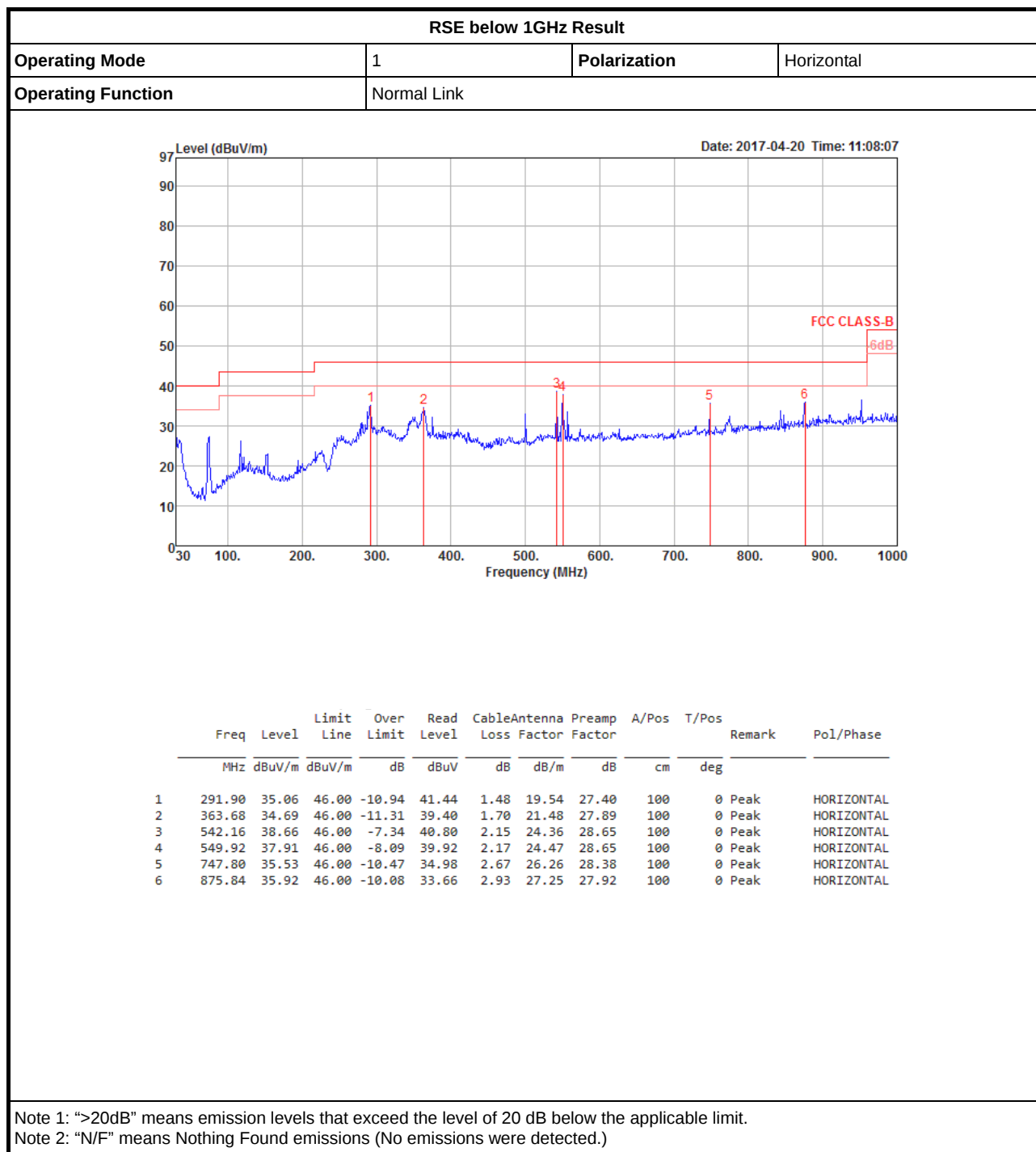


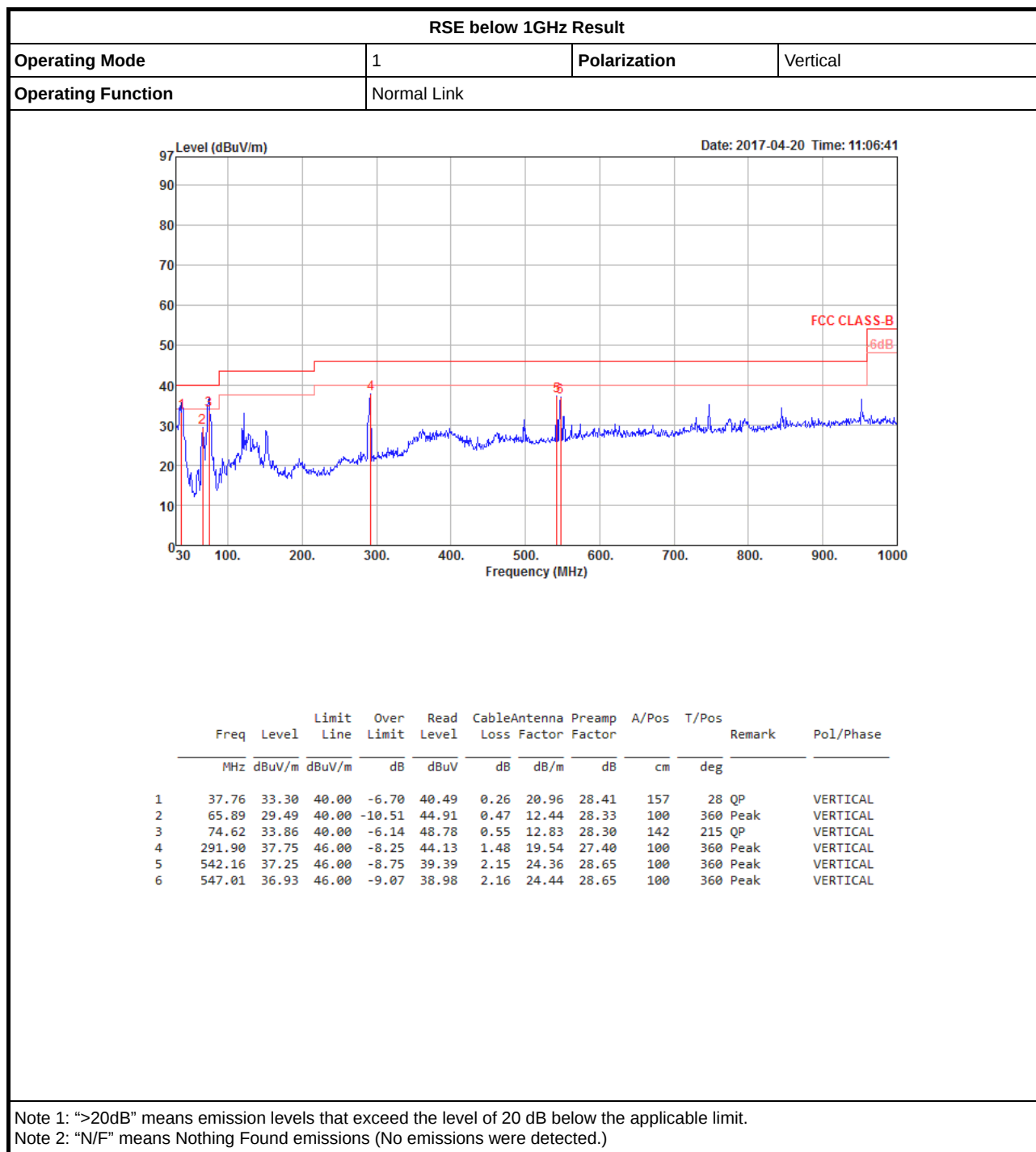
802.11ac VHT40-BF_Nss1,(MCS0)_4TX

CSE NdB

2452MHz





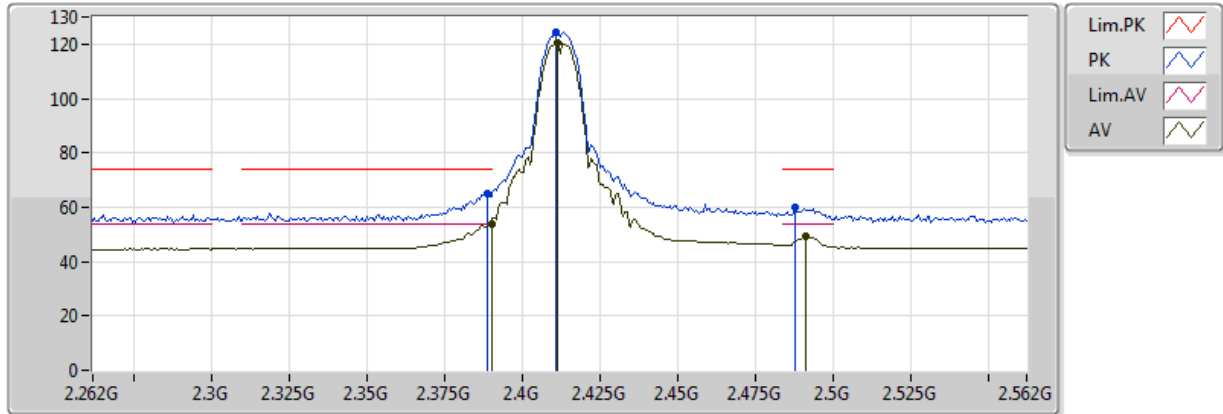


**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11b_(1Mbps)_4TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	AV	2.4836G	53.98	54.00	-0.02	32.14	3	V	296	1.29	-

802.11b_(1Mbps)_4TX

2412MHz_TX

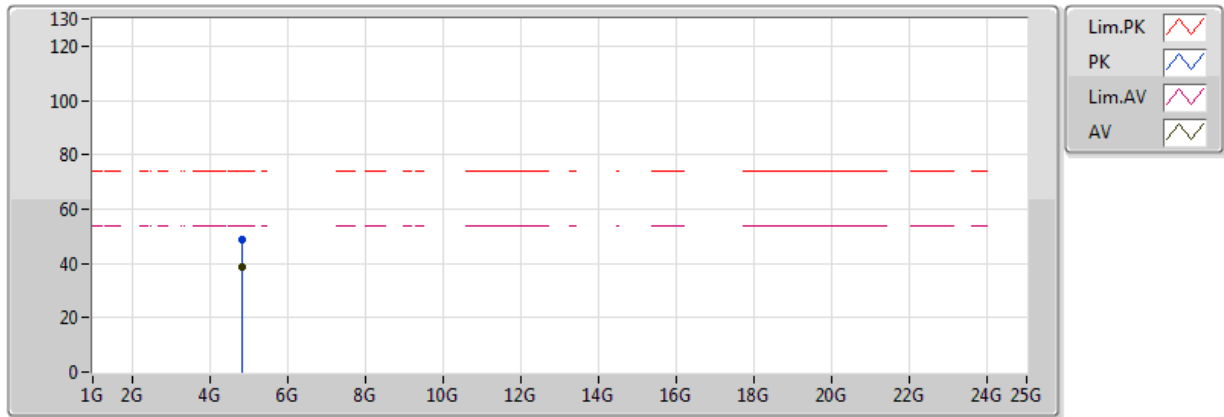


20170224
EUT_Z_4TX
Setting 98
03-W-3
FSP(100019)

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	53.97	54.00	-0.03	31.91	3	V	297	1.07	-
AV	2.4114G	120.51	Inf	-Inf	31.97	3	V	297	1.07	-
AV	2.4912G	49.14	54.00	-4.86	32.16	3	V	297	1.07	-
PK	2.3886G	65.08	74.00	-8.92	31.91	3	V	297	1.07	-
PK	2.4108G	124.38	Inf	-Inf	31.97	3	V	297	1.07	-
PK	2.4876G	59.82	74.00	-14.18	32.15	3	V	297	1.07	-

802.11b_(1Mbps)_4TX

2412MHz_TX

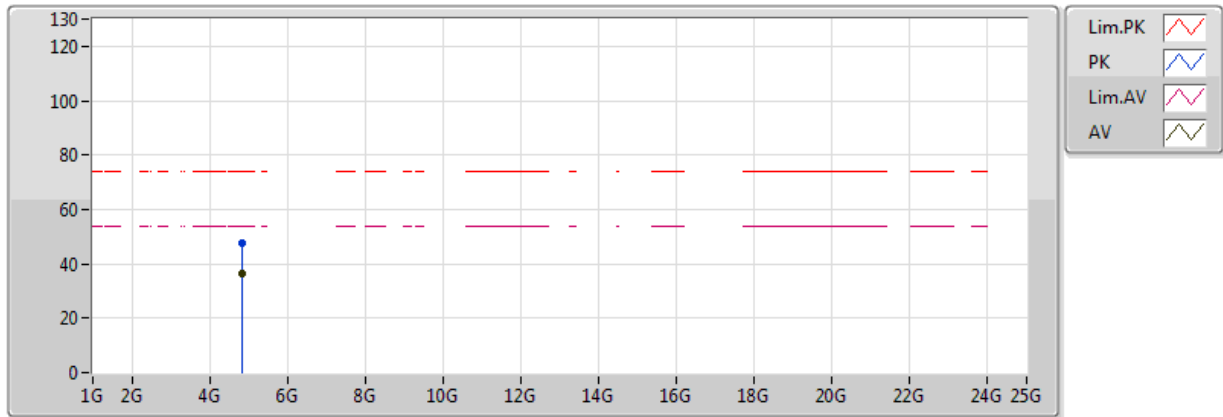


20170303
EUT_Z_4TX
Setting 98
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.824052G	38.75	54.00	-15.25	7.69	3	V	298	1.63	-
PK	4.824016G	48.59	74.00	-25.41	7.69	3	V	298	1.63	-

802.11b_(1Mbps)_4TX

2412MHz_TX

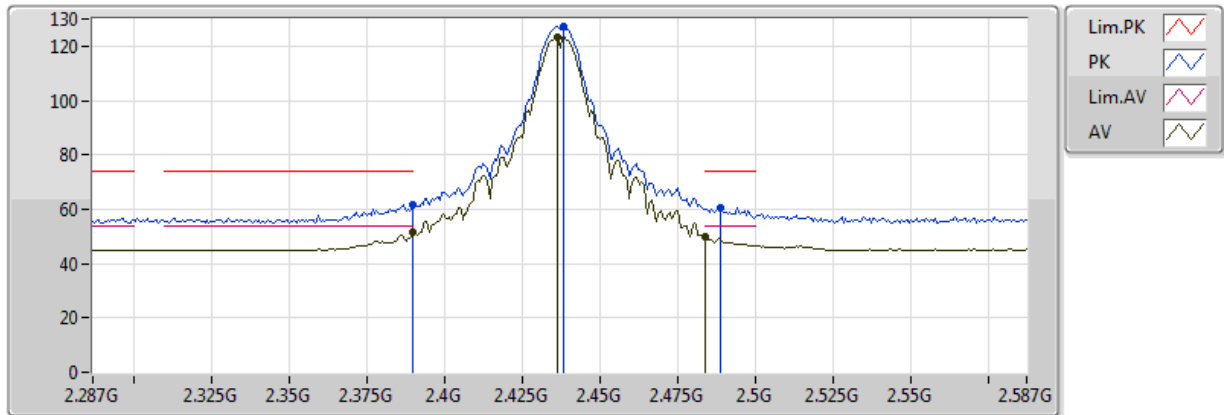


20170303
EUT_Z_4TX
Setting 98
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.824016G	36.60	54.00	-17.40	7.69	3	H	349	2.40	-
PK	4.823972G	47.49	74.00	-26.51	7.69	3	H	349	2.40	-

802.11b_(1Mbps)_4TX

2437MHz_TX

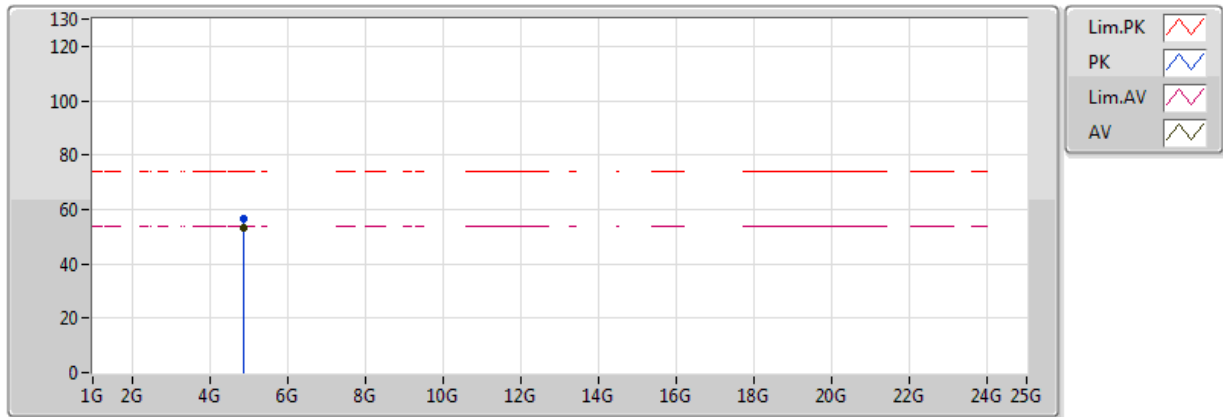


20170224
EUT_Z_4TX
Setting 112
03-W-3
FSP(100019)

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	51.30	54.00	-2.70	31.91	3	V	296	1.07	-
AV	2.4364G	123.42	Inf	-Inf	32.03	3	V	296	1.07	-
AV	2.483502G	49.97	54.00	-4.03	32.14	3	V	296	1.07	-
PK	2.389998G	61.66	74.00	-12.34	31.91	3	V	296	1.07	-
PK	2.4382G	127.33	Inf	-Inf	32.03	3	V	296	1.07	-
PK	2.4886G	60.69	74.00	-13.31	32.15	3	V	296	1.07	-

802.11b_(1Mbps)_4TX

2437MHz_TX

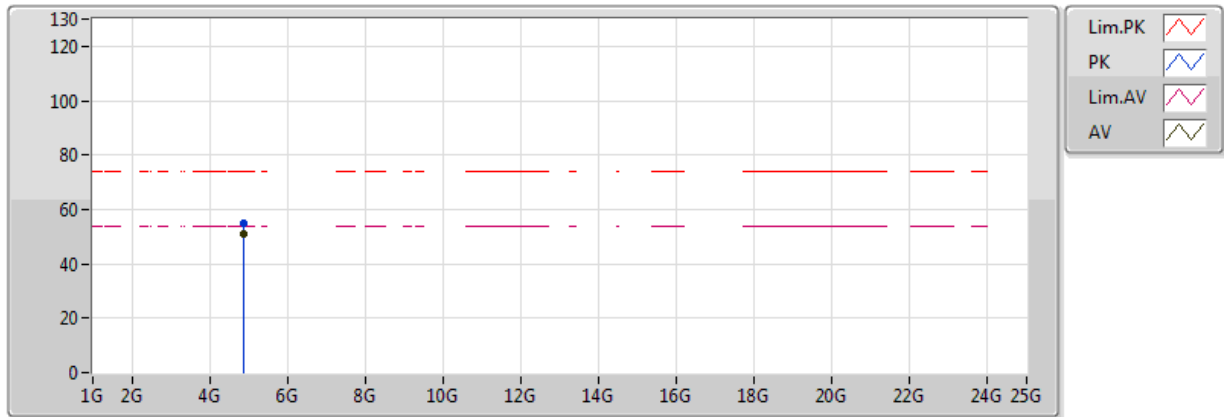


20170303
EUT_Z_4TX
Setting 112
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.874G	53.33	54.00	-0.67	7.91	3	V	151	1.50	-
PK	4.87404G	56.79	74.00	-17.21	7.91	3	V	151	1.50	-

802.11b_(1Mbps)_4TX

2437MHz_TX

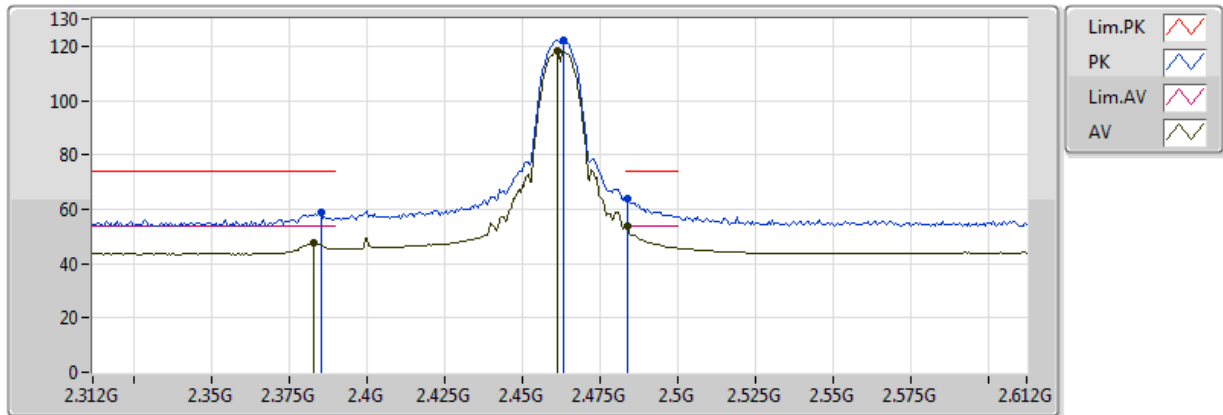


20170303
EUT_Z_4TX
Setting 112
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.874G	51.08	54.00	-2.92	7.91	3	H	40	2.90	-
PK	4.87408G	54.95	74.00	-19.05	7.91	3	H	40	2.90	-

802.11b_(1Mbps)_4TX

2462MHz_TX

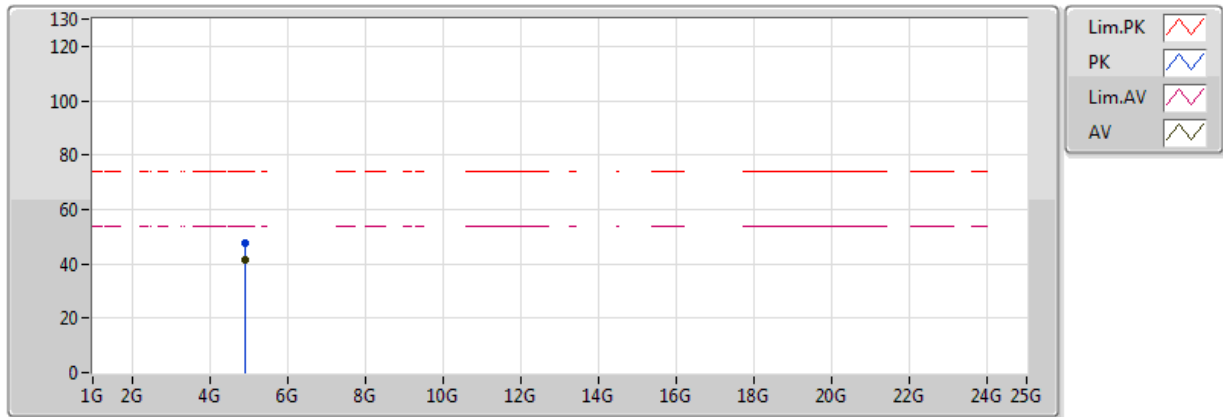


20170303
EUT_Z_4TX
Setting 96
03-W-3
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3828G	47.54	54.00	-6.46	31.90	3	V	296	1.29	-
AV	2.4614G	118.26	Inf	-Inf	32.09	3	V	296	1.29	-
AV	2.4836G	53.98	54.00	-0.02	32.14	3	V	296	1.29	-
PK	2.3852G	58.56	74.00	-15.44	31.90	3	V	296	1.29	-
PK	2.4632G	122.17	Inf	-Inf	32.09	3	V	296	1.29	-
PK	2.4836G	63.86	74.00	-10.14	32.14	3	V	296	1.29	-

802.11b_(1Mbps)_4TX

2462MHz_TX

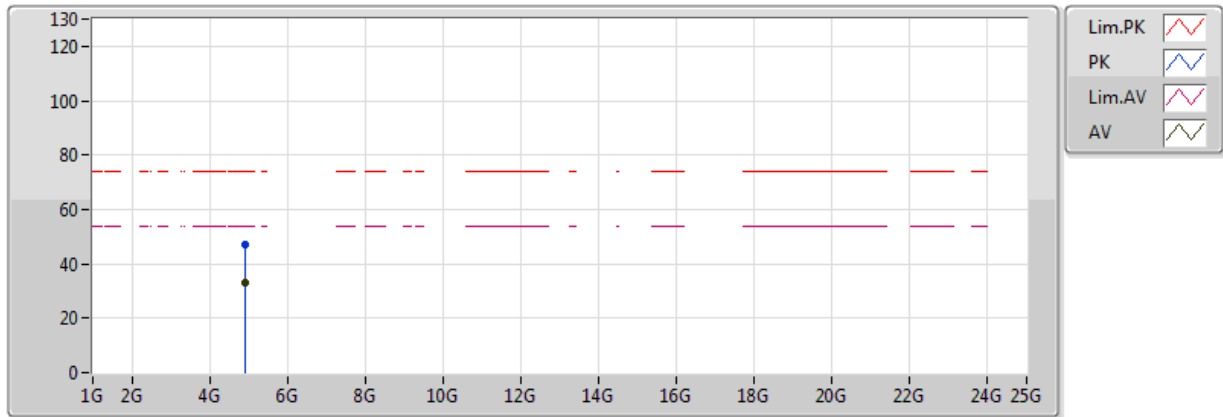


20170303
EUT_Z_4TX
Setting 96
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.924G	41.39	54.00	-12.61	8.15	3	V	328	2.57	-
PK	4.9241G	47.66	74.00	-26.34	8.15	3	V	328	2.57	-

802.11b_(1Mbps)_4TX

2462MHz_TX

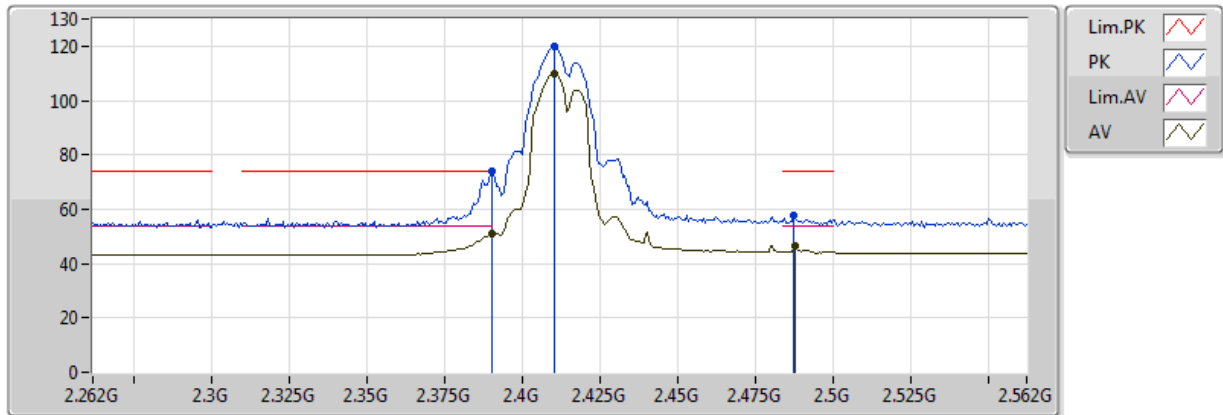


20170303
EUT_Z_4TX
Setting 96
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.91936G	32.85	54.00	-21.15	8.13	3	H	235	2.34	-
PK	4.92192G	46.83	74.00	-27.17	8.14	3	H	235	2.34	-

802.11g_(6Mbps)_4TX

2412MHz_TX

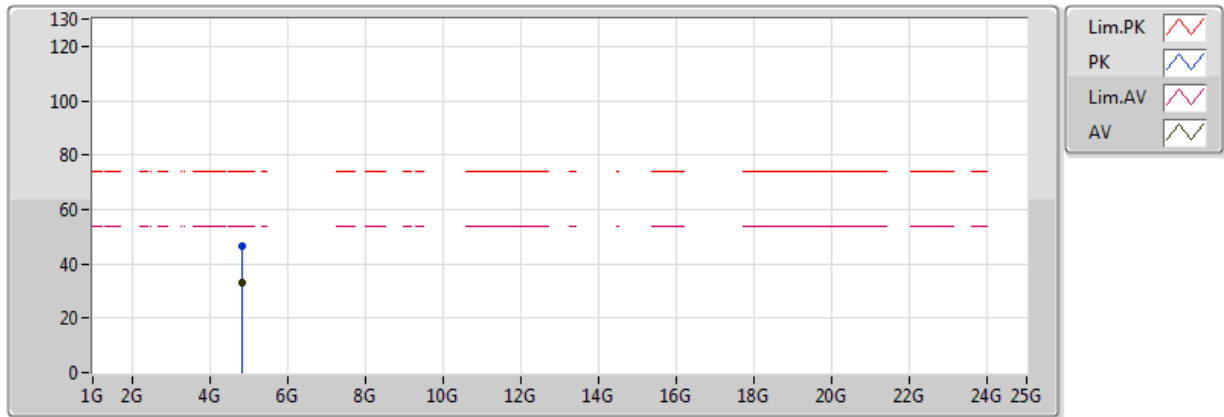


20170303
EUT_Z_4TX
Setting 80
03-W-3
FSP(100019)

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	50.79	54.00	-3.21	31.91	3	V	290	1.38	-
AV	2.4102G	109.81	Inf	-Inf	31.96	3	V	290	1.38	-
AV	2.4876G	46.77	54.00	-7.23	32.15	3	V	290	1.38	-
PK	2.389998G	73.71	74.00	-0.29	31.91	3	V	290	1.38	-
PK	2.4102G	119.92	Inf	-Inf	31.96	3	V	290	1.38	-
PK	2.487G	57.46	74.00	-16.54	32.15	3	V	290	1.38	-

802.11g_(6Mbps)_4TX

2412MHz_TX

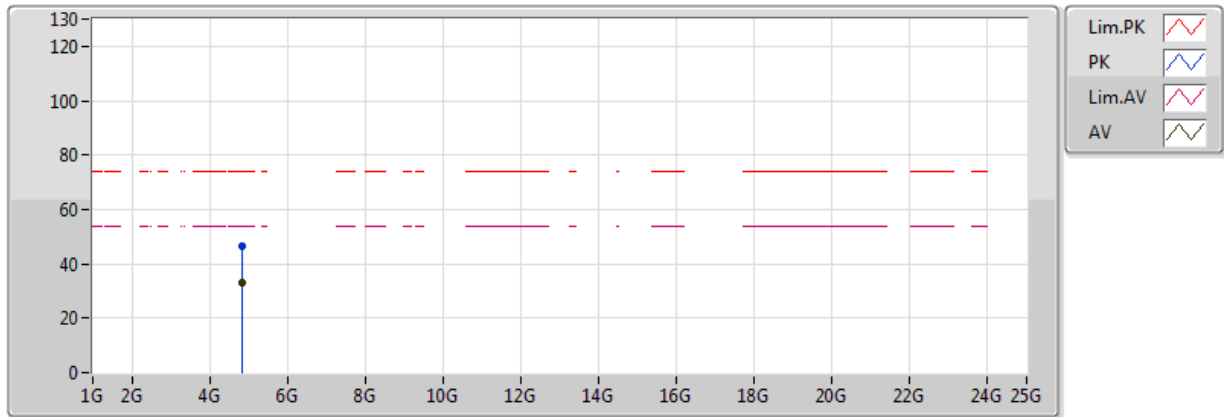


20170303
EUT_Z_4TX
Setting 80
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82238G	33.18	54.00	-20.82	7.68	3	V	325	2.24	-
PK	4.82718G	46.34	74.00	-27.66	7.70	3	V	325	2.24	-

802.11g_(6Mbps)_4TX

2412MHz_TX

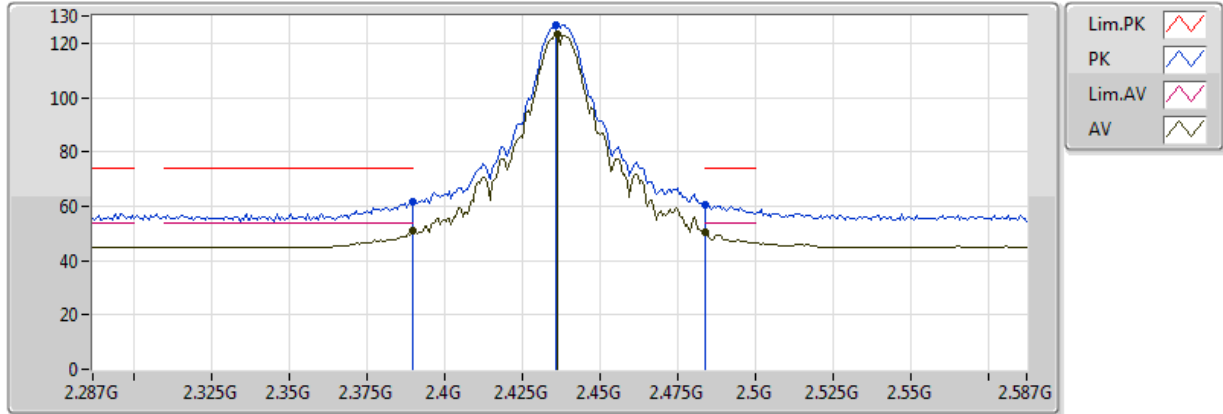


20170303
EUT_Z_4TX
Setting 80
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82516G	33.23	54.00	-20.77	7.69	3	H	145	1.44	-
PK	4.82464G	46.55	74.00	-27.45	7.69	3	H	145	1.44	-

802.11g_(6Mbps)_4TX

2437MHz_TX

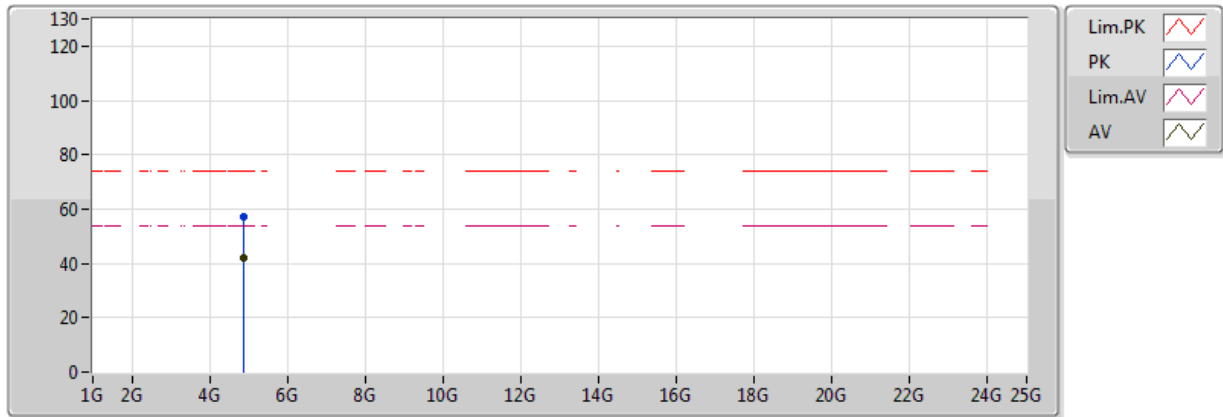


20170224
EUT_Z_4TX
Setting 112
03-W-3
FSP(100019)

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	51.01	54.00	-2.99	31.91	3	V	297	1.21	-
AV	2.4364G	123.05	Inf	-Inf	32.03	3	V	297	1.21	-
AV	2.4838G	50.41	54.00	-3.59	32.14	3	V	297	1.21	-
PK	2.389998G	61.52	74.00	-12.48	31.91	3	V	297	1.21	-
PK	2.4358G	126.91	Inf	-Inf	32.03	3	V	297	1.21	-
PK	2.4838G	60.64	74.00	-13.36	32.14	3	V	297	1.21	-

802.11g_(6Mbps)_4TX

2437MHz_TX

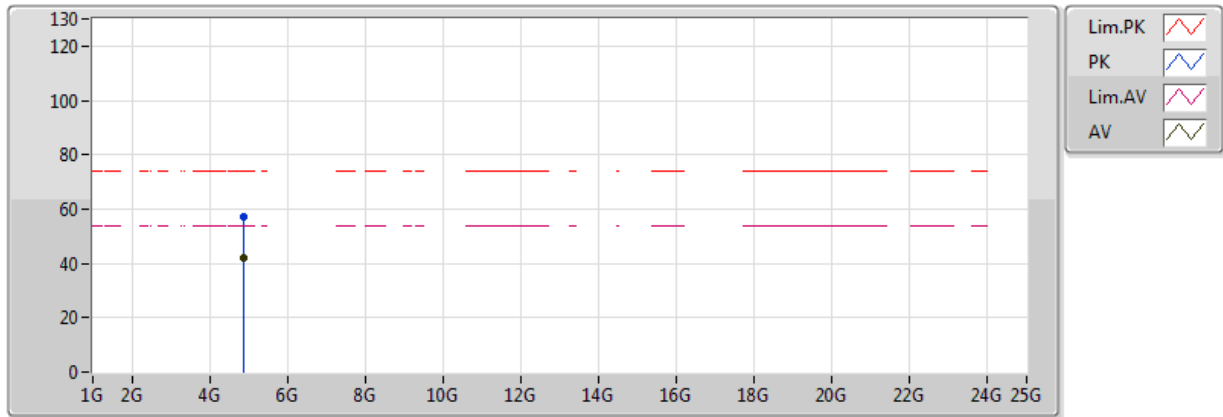


20170224
EUT_Z_4TX
Setting 112
03-W-3
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87592G	41.97	54.00	-12.03	7.92	3	V	196	1.17	-
PK	4.87682G	57.13	74.00	-16.87	7.93	3	V	196	1.17	-

802.11g_(6Mbps)_4TX

2437MHz_TX

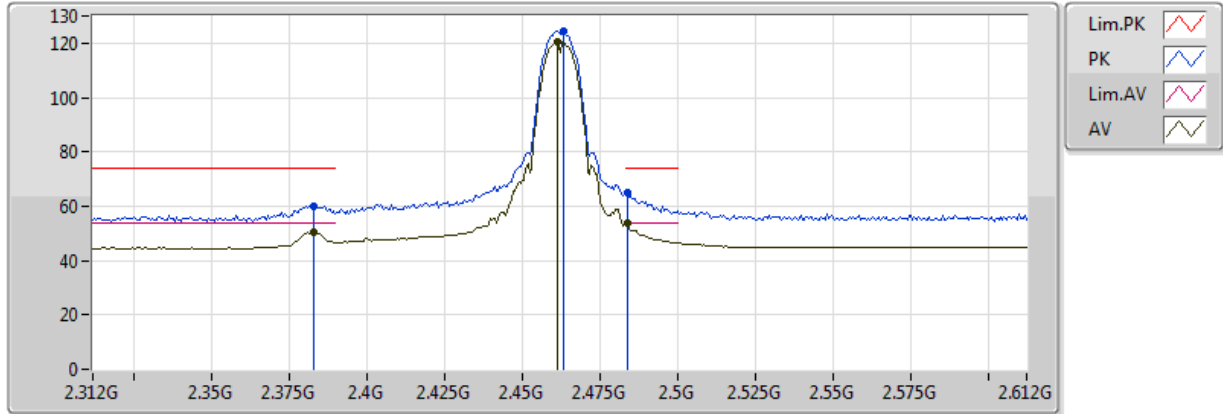


20170224
EUT_Z_4TX
Setting 112
03-W-3
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87602G	42.18	54.00	-11.82	7.92	3	H	213	1.41	-
PK	4.87678G	56.98	74.00	-17.02	7.93	3	H	213	1.41	-

802.11g_(6Mbps)_4TX

2462MHz_TX

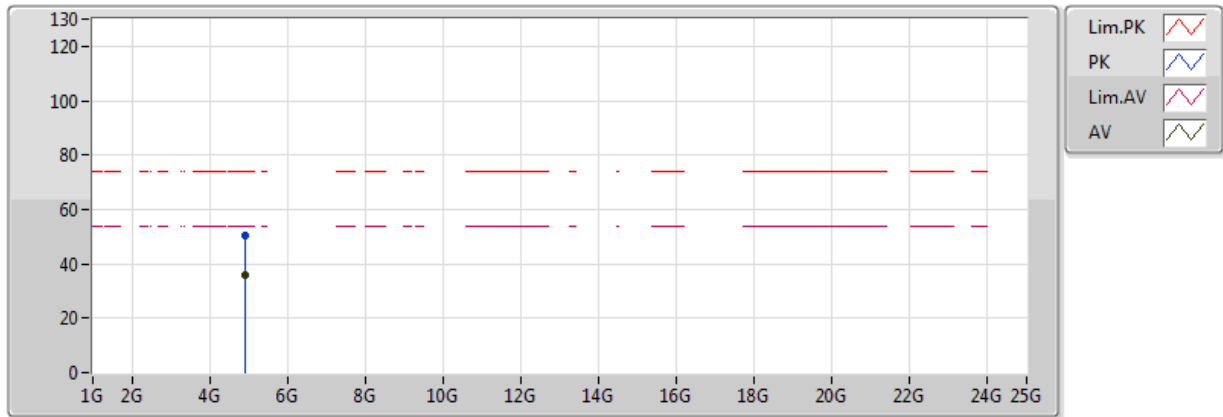


20170224
EUT_Z_4TX
Setting 94
03-W-3
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3828G	50.52	54.00	-3.48	31.90	3	V	295	1.07	-
AV	2.4614G	120.51	Inf	-Inf	32.09	3	V	295	1.07	-
AV	2.4836G	53.76	54.00	-0.24	32.14	3	V	295	1.07	-
PK	2.3828G	60.20	74.00	-13.80	31.90	3	V	295	1.07	-
PK	2.4632G	124.42	Inf	-Inf	32.09	3	V	295	1.07	-
PK	2.4836G	65.12	74.00	-8.88	32.14	3	V	295	1.07	-

802.11g_(6Mbps)_4TX

2462MHz_TX

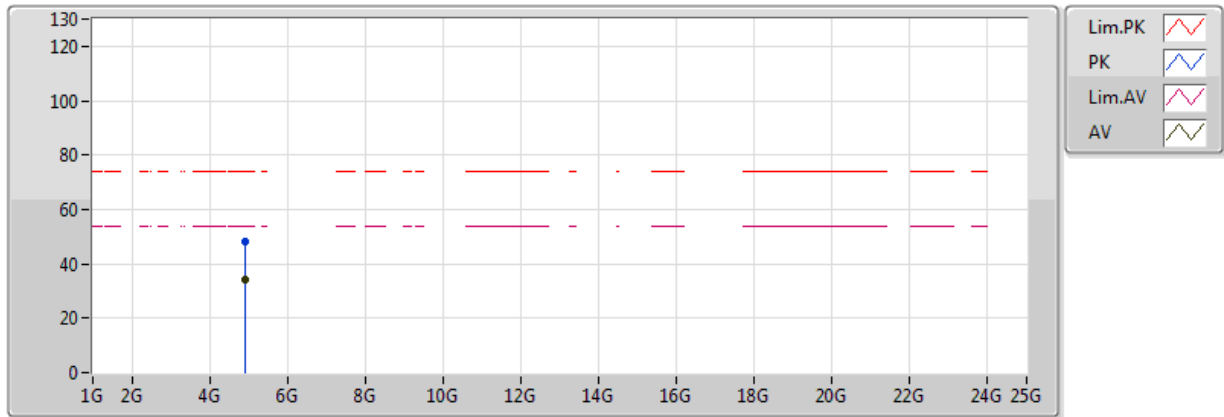


20170303
EUT_Z_4TX
Setting 94
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.923028G	35.91	54.00	-18.09	8.15	3	V	308	2.06	-
PK	4.923152G	50.36	74.00	-23.64	8.15	3	V	308	2.06	-

802.11g_(6Mbps)_4TX

2462MHz_TX

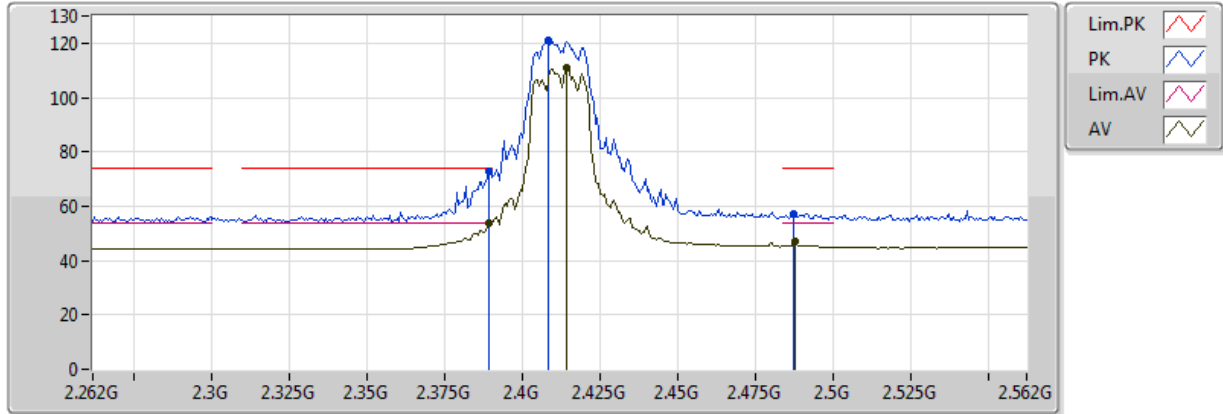


20170303
EUT_Z_4TX
Setting 94
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.9232G	33.98	54.00	-20.02	8.15	3	H	297	1.19	-
PK	4.92334G	48.30	74.00	-25.70	8.15	3	H	297	1.19	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

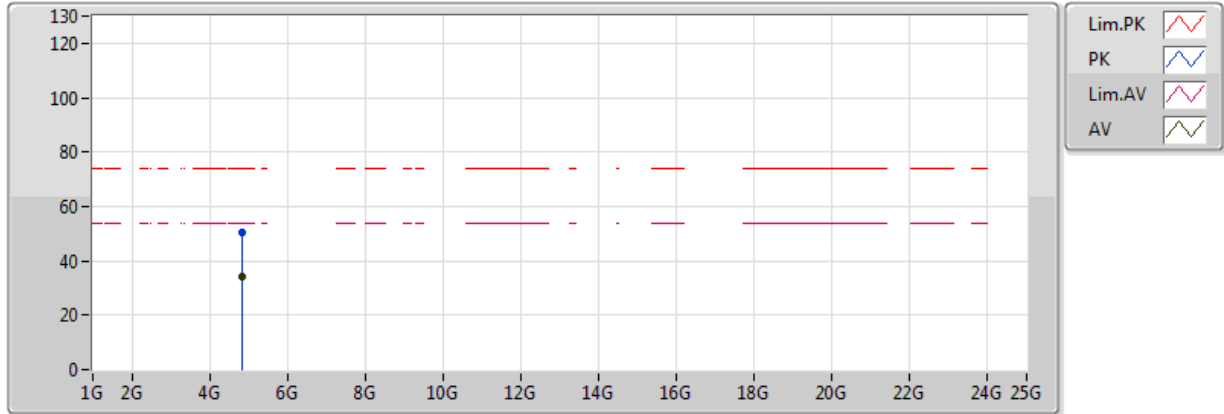


20170224
EUT_Z_4TX
Setting 80
03-W-3
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3892G	53.94	54.00	-0.06	31.91	3	V	276	1.09	-
AV	2.4144G	110.67	Inf	-Inf	31.97	3	V	276	1.09	-
AV	2.4876G	47.12	54.00	-6.88	32.15	3	V	276	1.09	-
PK	2.3892G	73.06	74.00	-0.94	31.91	3	V	276	1.09	-
PK	2.4084G	121.01	Inf	-Inf	31.96	3	V	276	1.09	-
PK	2.487G	57.15	74.00	-16.85	32.15	3	V	276	1.09	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

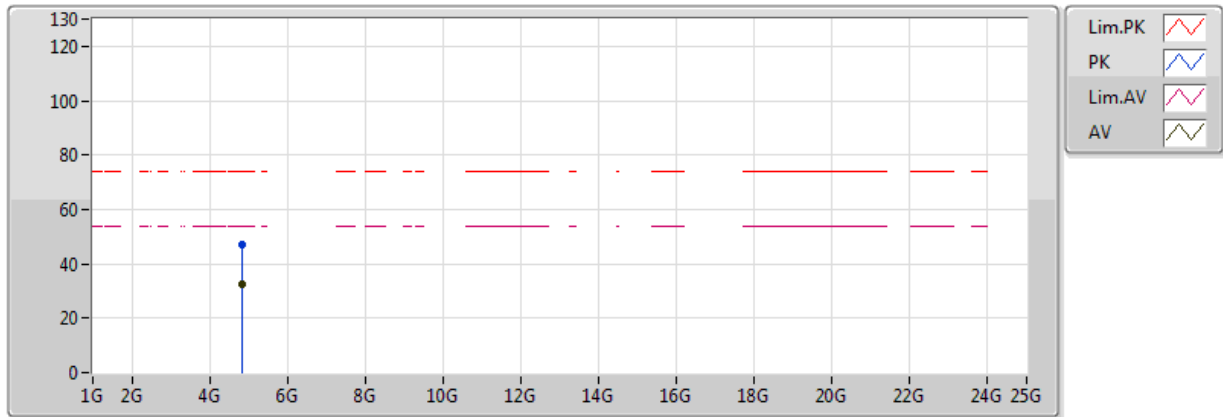


20170303
EUT_Z_4TX
Setting 80
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.823096G	34.43	54.00	-19.57	7.68	3	V	135	2.10	-
PK	4.823724G	50.30	74.00	-23.70	7.69	3	V	135	2.10	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2412MHz_TX

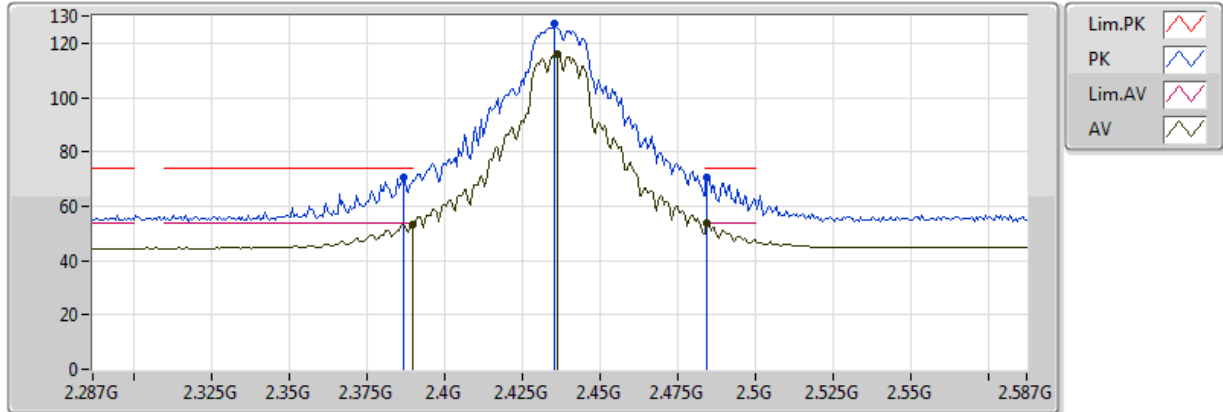


20170303
EUT_Z_4TX
Setting 80
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.823204G	32.44	54.00	-21.56	7.68	3	H	251	1.92	-
PK	4.823832G	46.94	74.00	-27.06	7.69	3	H	251	1.92	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

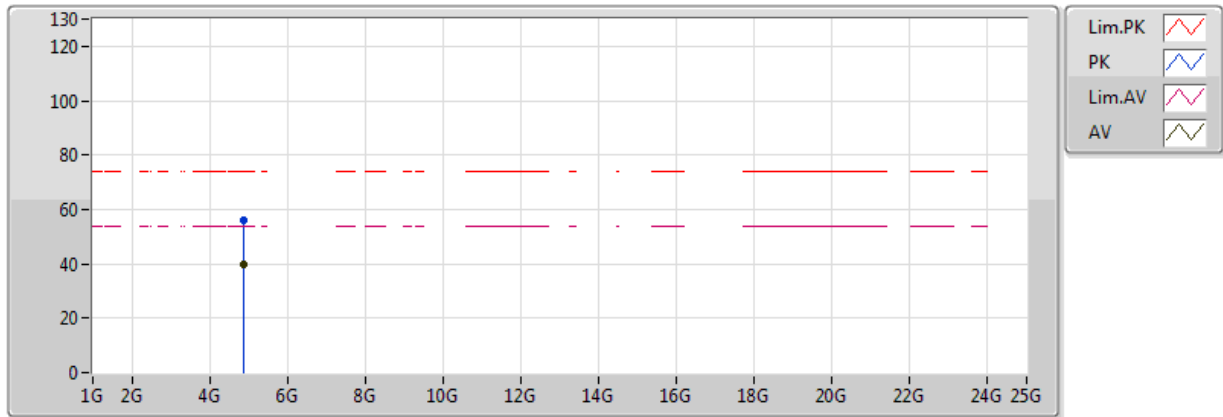


20170224
EUT_Z_4TX
Setting 108
03-W-3
FSP(100019)

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	53.50	54.00	-0.50	31.91	3	V	282	1.19	-
AV	2.4364G	115.90	Inf	-Inf	32.03	3	V	282	1.19	-
AV	2.4844G	53.68	54.00	-0.32	32.14	3	V	282	1.19	-
PK	2.3866G	70.74	74.00	-3.26	31.91	3	V	282	1.19	-
PK	2.4352G	127.10	Inf	-Inf	32.02	3	V	282	1.19	-
PK	2.4844G	70.35	74.00	-3.65	32.14	3	V	282	1.19	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

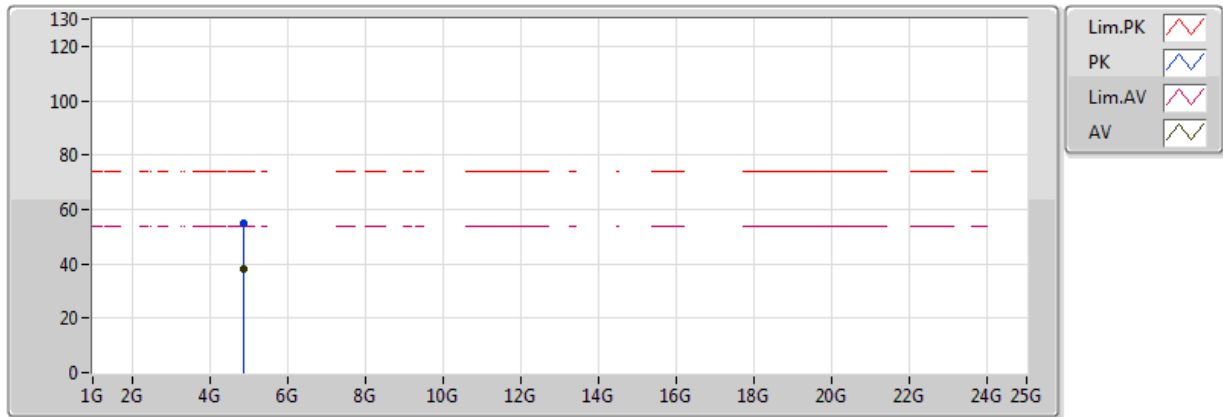


20170303
EUT_Z_4TX
Setting 108
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.873188G	40.05	54.00	-13.95	7.91	3	V	348	2.30	-
PK	4.873348G	55.79	74.00	-18.21	7.91	3	V	348	2.30	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2437MHz_TX

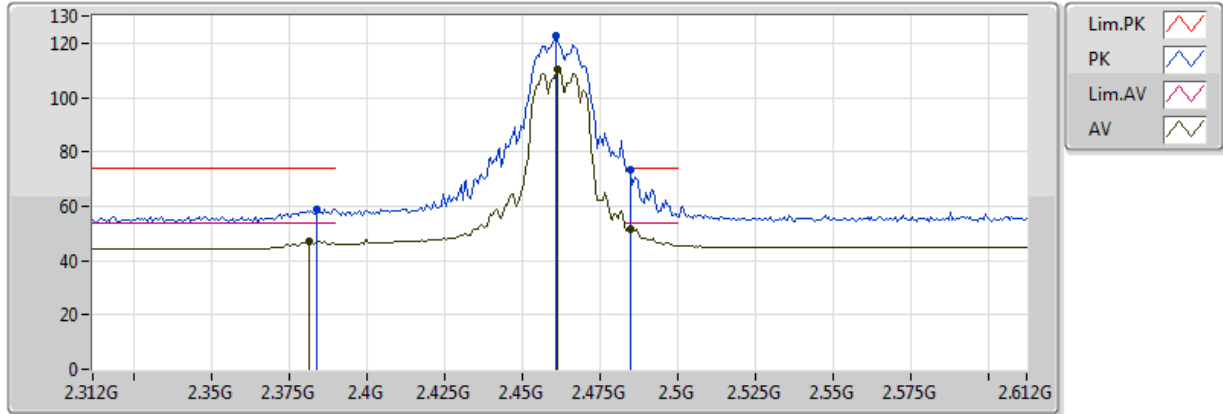


20170303
EUT_Z_4TX
Setting 108
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.873G	38.13	54.00	-15.87	7.91	3	H	118	2.26	-
PK	4.873144G	55.09	74.00	-18.91	7.91	3	H	118	2.26	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

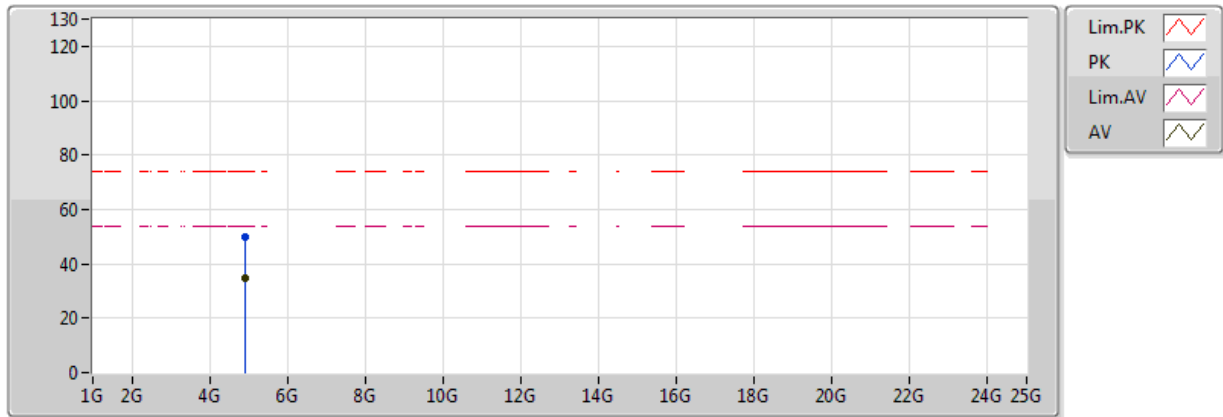


20170224
EUT_Z_4TX
Setting 81
03-W-3
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3816G	47.13	54.00	-6.87	31.89	3	V	286	1.07	-
AV	2.4614G	110.48	Inf	-Inf	32.09	3	V	286	1.07	-
AV	2.4848G	51.72	54.00	-2.28	32.14	3	V	286	1.07	-
PK	2.384G	58.94	74.00	-15.06	31.90	3	V	286	1.07	-
PK	2.4608G	122.62	Inf	-Inf	32.09	3	V	286	1.07	-
PK	2.4848G	73.43	74.00	-0.57	32.14	3	V	286	1.07	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

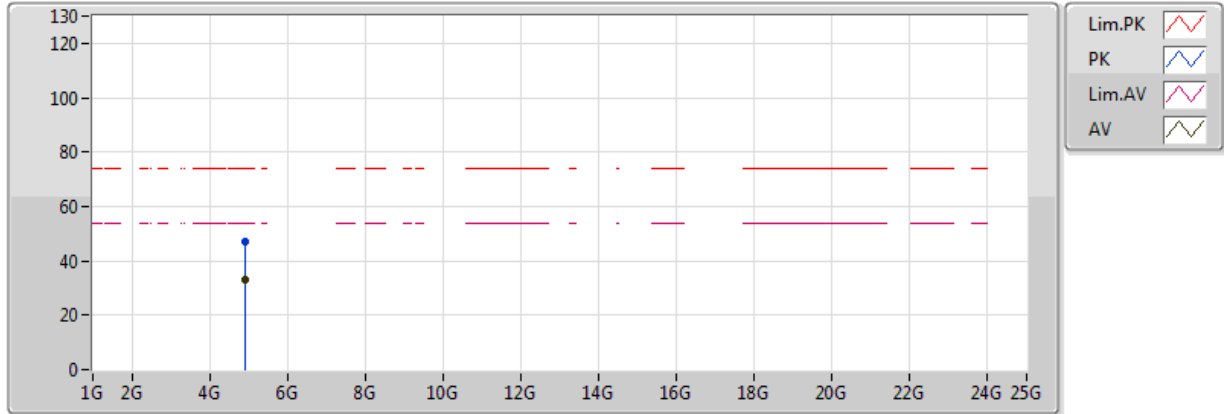


20170303
EUT_Z_4TX
Setting 81
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.924568G	34.67	54.00	-19.33	8.15	3	V	144	1.86	-
PK	4.924184G	49.77	74.00	-24.23	8.15	3	V	144	1.86	-

802.11ac VHT20_Nss1,(MCS0)_4TX

2462MHz_TX

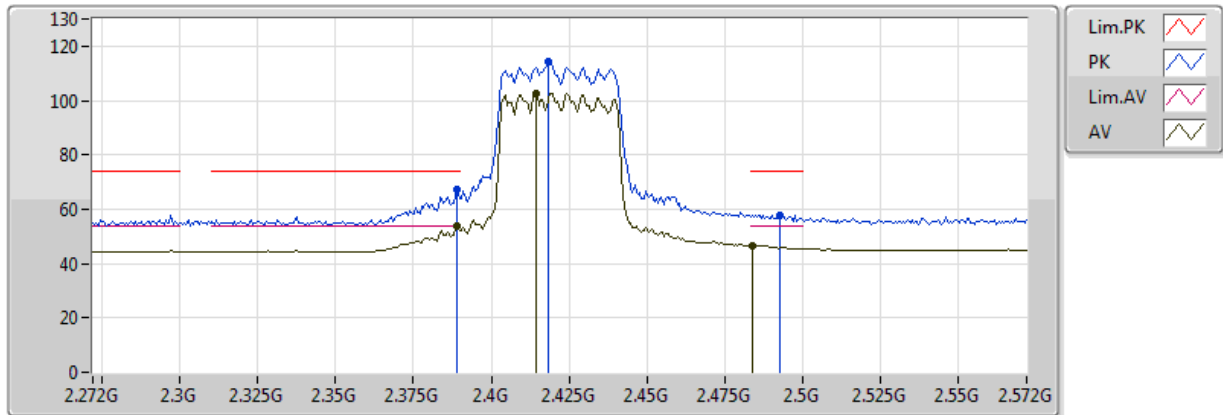


20170303
EUT_Z_4TX
Setting 81
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.923984G	32.79	54.00	-21.21	8.15	3	H	148	1.61	-
PK	4.923008G	47.24	74.00	-26.76	8.15	3	H	148	1.61	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

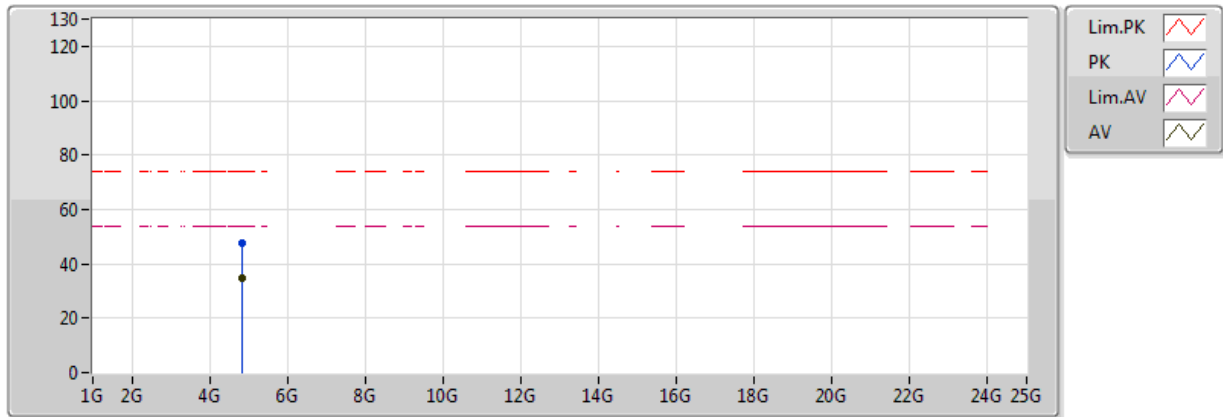


20170224
EUT_Z_4TX
Setting 61
03-W-3
FSP(100019)

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	53.80	54.00	-0.20	31.91	3	V	273	1.10	-
AV	2.4142G	102.60	Inf	-Inf	31.97	3	V	273	1.10	-
AV	2.4838G	46.70	54.00	-7.30	32.14	3	V	273	1.10	-
PK	2.389G	67.06	74.00	-6.94	31.91	3	V	273	1.10	-
PK	2.4184G	114.08	Inf	-Inf	31.98	3	V	273	1.10	-
PK	2.4928G	57.83	74.00	-16.17	32.16	3	V	273	1.10	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

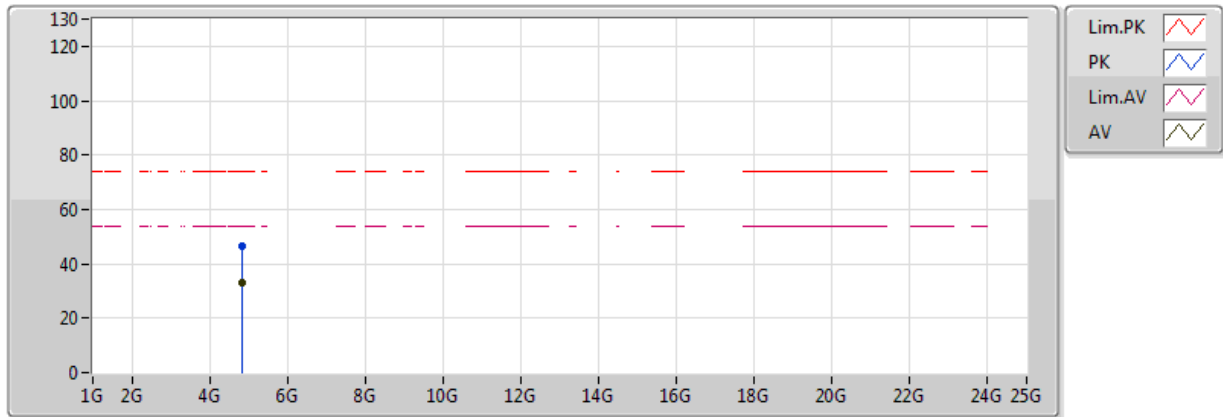


20170303
EUT_Z_4TX
Setting 61
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.843848G	34.67	54.00	-19.33	7.78	3	V	328	2.31	-
PK	4.843632G	47.40	74.00	-26.60	7.78	3	V	328	2.31	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2422MHz_TX

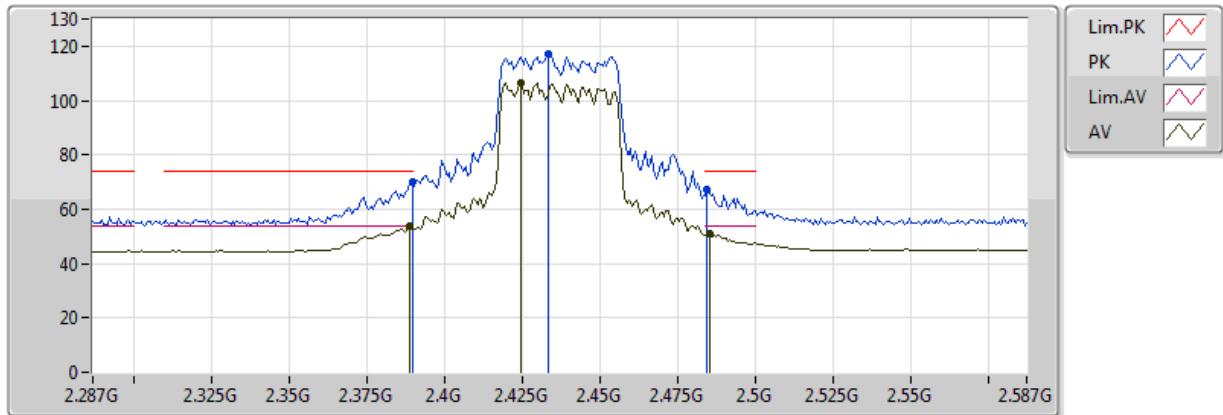


20170303
EUT_Z_4TX
Setting 61
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.843524G	33.07	54.00	-20.93	7.78	3	H	33	2.18	-
PK	4.844076G	46.64	74.00	-27.36	7.78	3	H	33	2.18	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

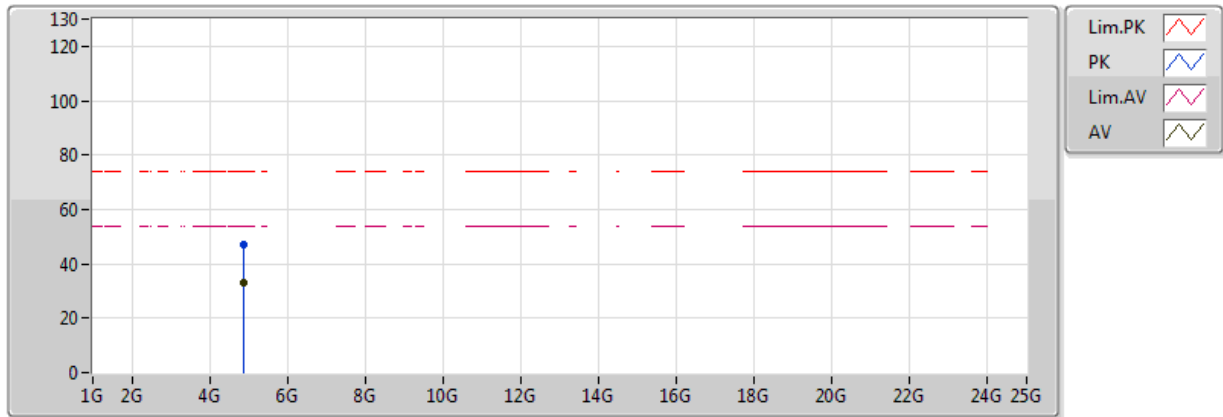


20170224
EUT_Z_4TX
Setting 77
03-W-3
FSP(100019)

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	53.96	54.00	-0.04	31.91	3	V	275	1.08	-
AV	2.4244G	106.31	Inf	-Inf	32.00	3	V	275	1.08	-
AV	2.485G	51.12	54.00	-2.88	32.14	3	V	275	1.08	-
PK	2.3896G	70.23	74.00	-3.77	31.91	3	V	275	1.08	-
PK	2.4334G	116.91	Inf	-Inf	32.02	3	V	275	1.08	-
PK	2.4844G	67.04	74.00	-6.96	32.14	3	V	275	1.08	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

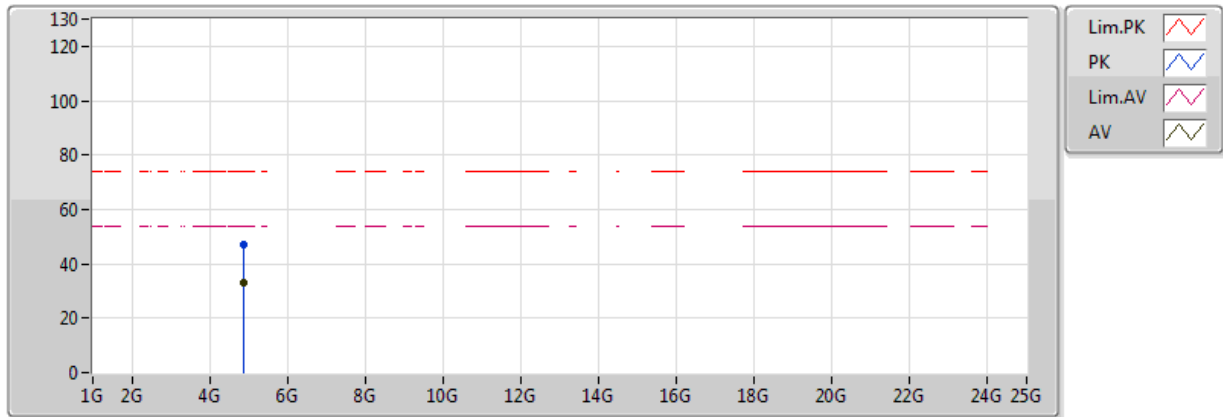


20170303
EUT_Z_4TX
Setting 77
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.873952G	32.97	54.00	-21.03	7.91	3	V	81	1.37	-
PK	4.873428G	46.99	74.00	-27.01	7.91	3	V	81	1.37	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2437MHz_TX

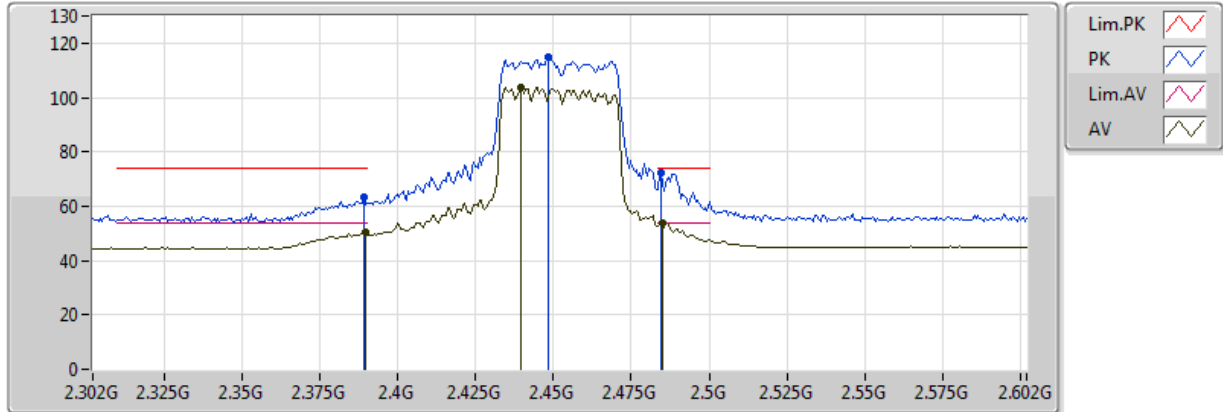


20170303
EUT_Z_4TX
Setting 77
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8738G	33.03	54.00	-20.97	7.91	3	H	343	2.22	-
PK	4.8732G	46.88	74.00	-27.12	7.91	3	H	343	2.22	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

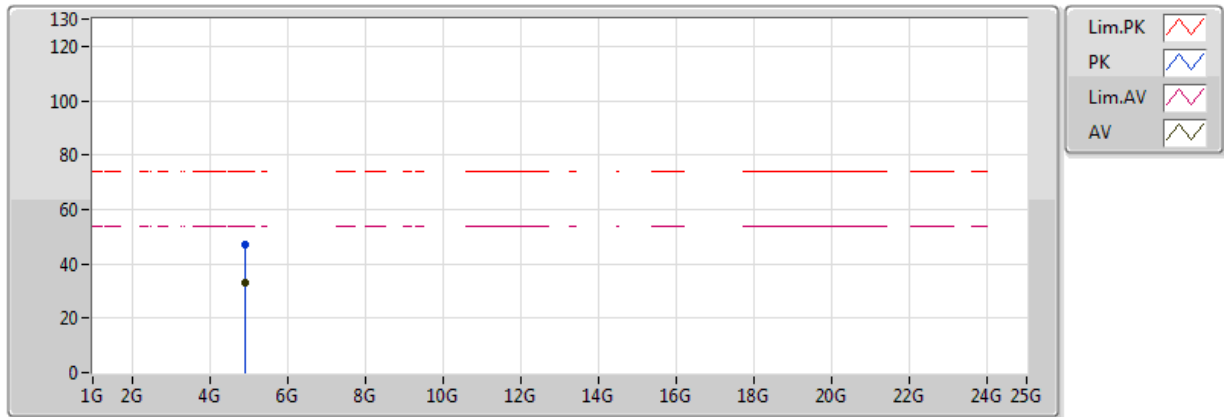


20170224
EUT_Z_4TX
Setting 71
03-W-3
FSP(100019)

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	50.16	54.00	-3.84	31.91	3	V	276	1.07	-
AV	2.4394G	103.82	Inf	-Inf	32.03	3	V	276	1.07	-
AV	2.485G	53.98	54.00	-0.02	32.14	3	V	276	1.07	-
PK	2.389G	63.45	74.00	-10.55	31.91	3	V	276	1.07	-
PK	2.4484G	115.10	Inf	-Inf	32.06	3	V	276	1.07	-
PK	2.4844G	72.27	74.00	-1.73	32.14	3	V	276	1.07	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

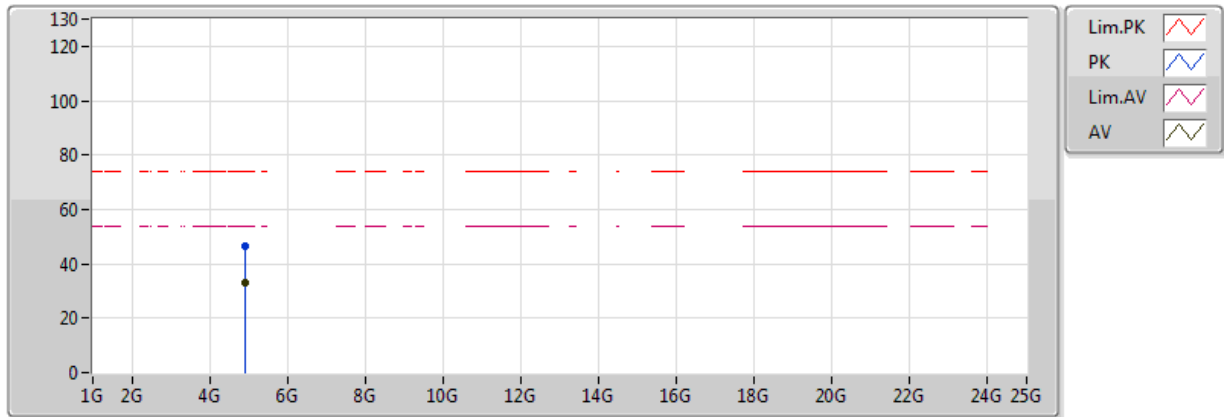


20170303
EUT_Z_4TX
Setting 71
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.904632G	33.08	54.00	-20.92	8.05	3	V	27	2.46	-
PK	4.903292G	46.95	74.00	-27.05	8.05	3	V	27	2.46	-

802.11ac VHT40_Nss1,(MCS0)_4TX

2452MHz_TX

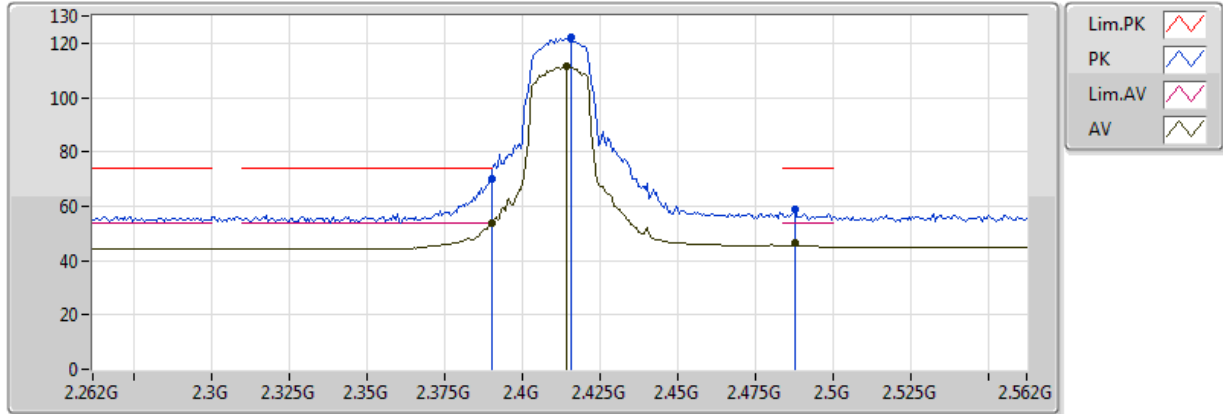


20170303
EUT_Z_4TX
Setting 71
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.904712G	33.24	54.00	-20.76	8.05	3	H	163	2.42	-
PK	4.903268G	46.75	74.00	-27.25	8.05	3	H	163	2.42	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2412MHz_TX

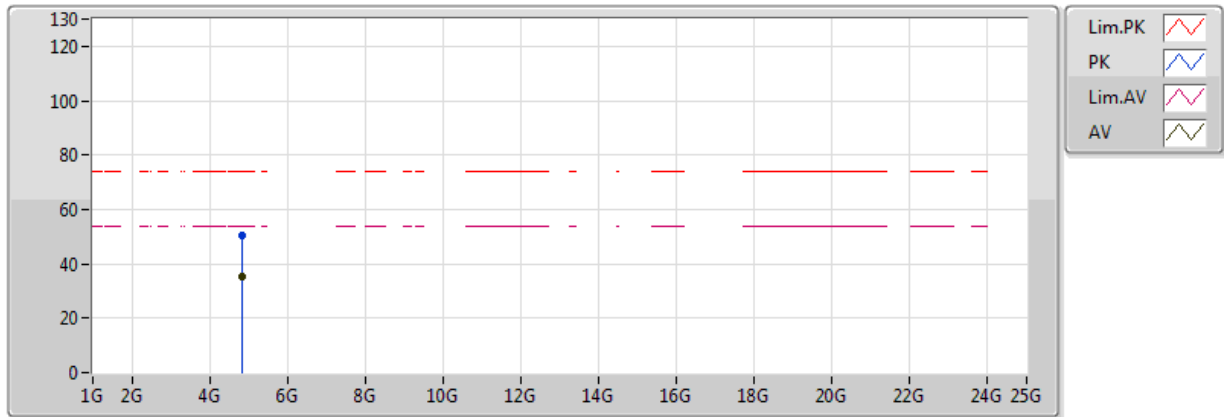


20170224
EUT_Z_4TX
Setting 77
03-W-3
FSP(100019)

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	53.86	54.00	-0.14	31.91	3	V	276	1.14	-
AV	2.4144G	111.63	Inf	-Inf	31.97	3	V	276	1.14	-
AV	2.4876G	46.61	54.00	-7.39	32.15	3	V	276	1.14	-
PK	2.389998G	70.11	74.00	-3.89	31.91	3	V	276	1.14	-
PK	2.4156G	122.13	Inf	-Inf	31.98	3	V	276	1.14	-
PK	2.4876G	58.93	74.00	-15.07	32.15	3	V	276	1.14	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2412MHz_TX

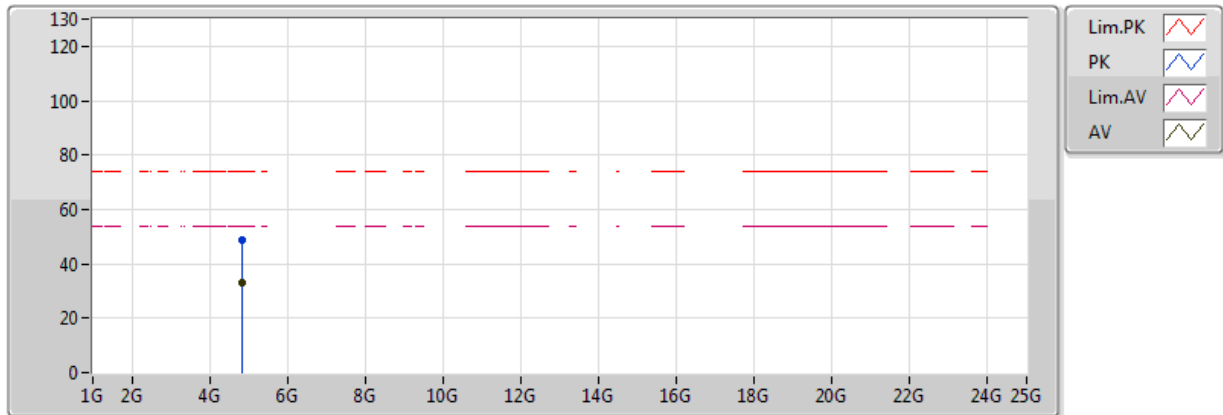


20170303
EUT_Z_4TX
Setting 77
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.824228G	35.48	54.00	-18.52	7.69	3	V	150	2.11	-
PK	4.824152G	50.64	74.00	-23.36	7.69	3	V	150	2.11	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2412MHz_TX

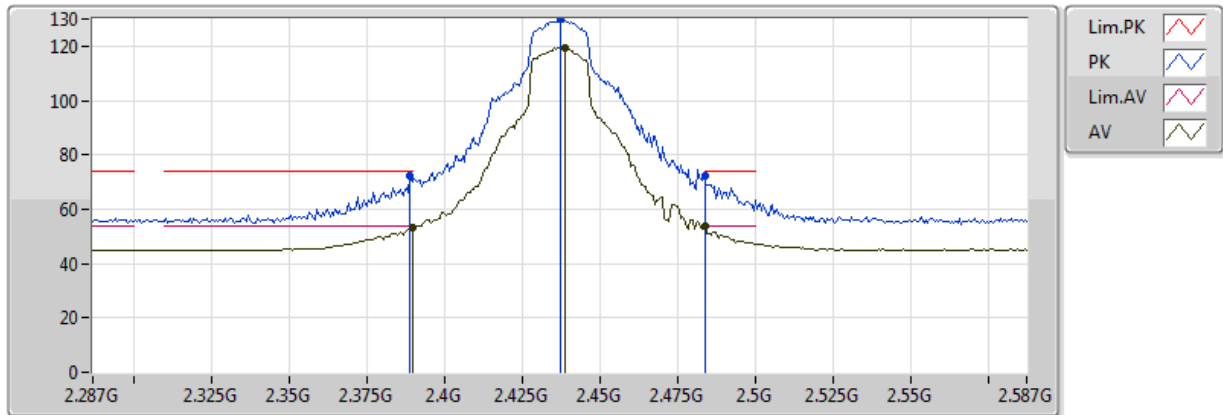


20170303
EUT_Z_4TX
Setting 77
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.823984G	33.34	54.00	-20.66	7.69	3	H	315	1.06	-
PK	4.8242G	48.74	74.00	-25.26	7.69	3	H	315	1.06	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2437MHz_TX

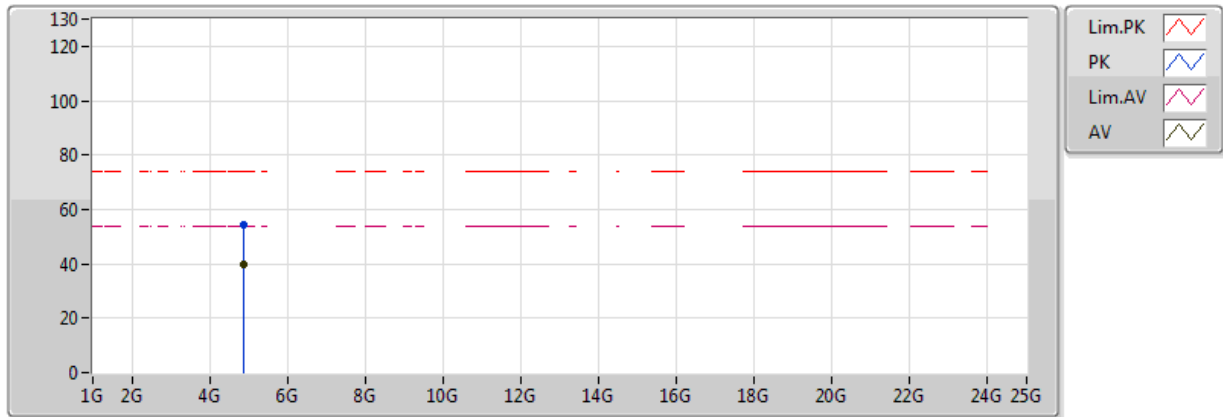


20170224
EUT_Z_4TX
Setting 107
03-W-3
FSP(100019)

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	53.10	54.00	-0.90	31.91	3	V	277	1.07	-
AV	2.4388G	119.48	Inf	-Inf	32.03	3	V	277	1.07	-
AV	2.4838G	53.97	54.00	-0.03	32.14	3	V	277	1.07	-
PK	2.389G	72.27	74.00	-1.73	31.91	3	V	277	1.07	-
PK	2.437G	129.86	Inf	-Inf	32.03	3	V	277	1.07	-
PK	2.483502G	72.35	74.00	-1.65	32.14	3	V	277	1.07	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2437MHz_TX

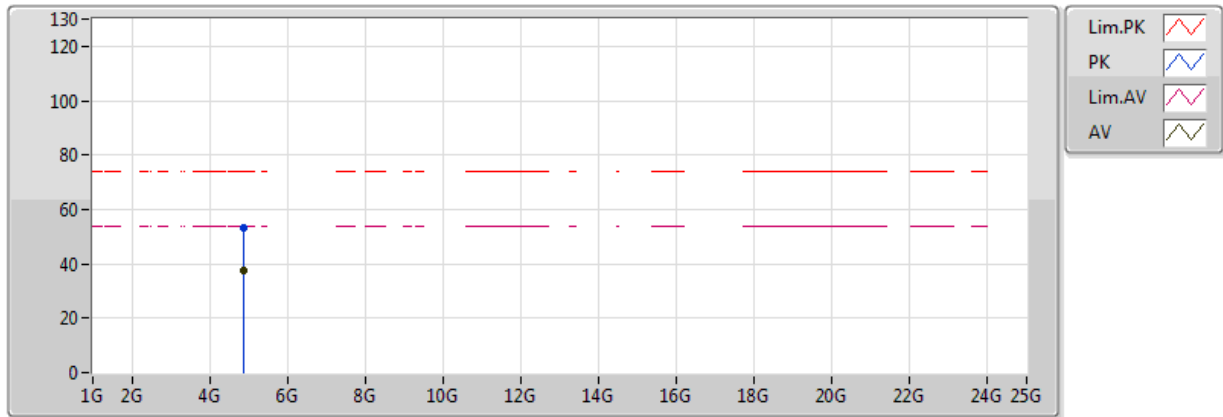


20170303
EUT_Z_4TX
Setting 107
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.873204G	39.52	54.00	-14.48	7.91	3	V	360	1.94	-
PK	4.873376G	54.08	74.00	-19.92	7.91	3	V	360	1.94	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2437MHz_TX

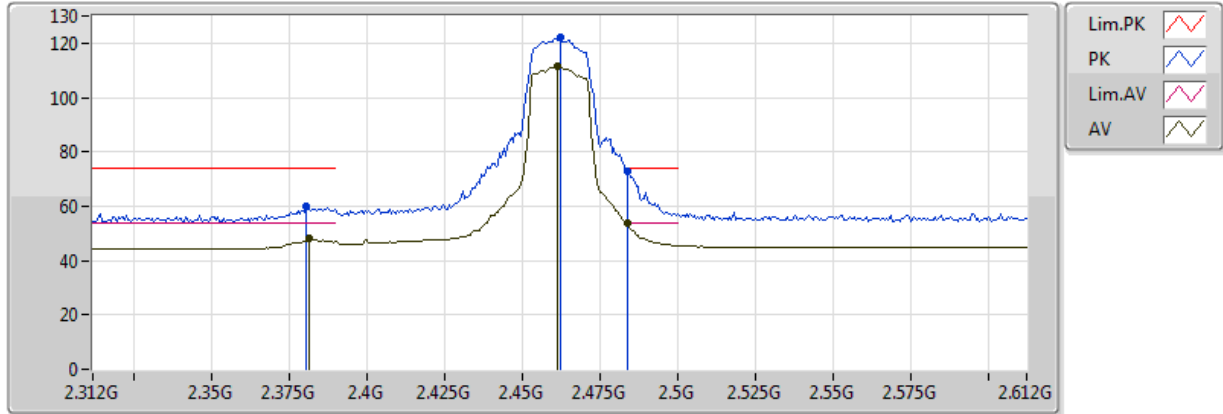


20170303
EUT_Z_4TX
Setting 107
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.873568G	37.39	54.00	-16.61	7.91	3	H	319	2.01	-
PK	4.873636G	53.34	74.00	-20.66	7.91	3	H	319	2.01	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

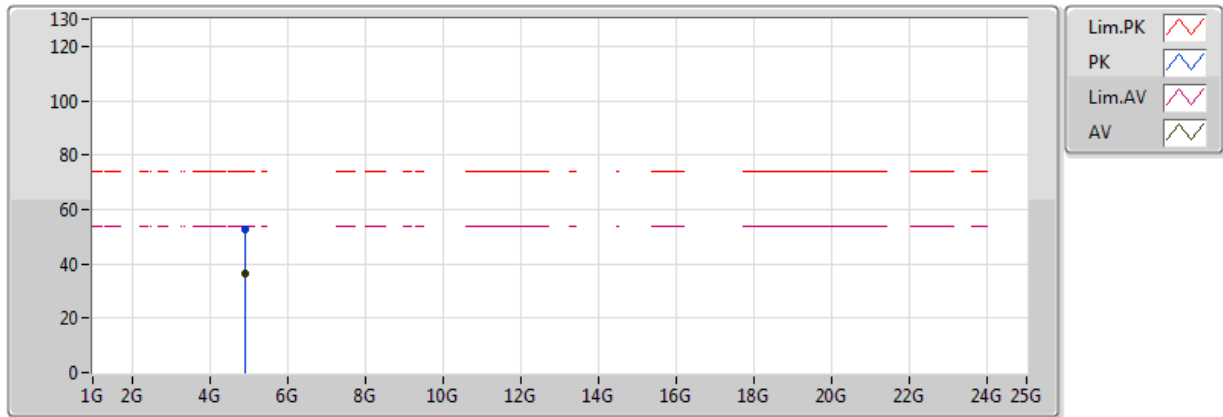


20170224
EUT_Z_4TX
Setting 78
03-W-3
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3816G	48.00	54.00	-6.00	31.89	3	V	289	1.07	-
AV	2.4614G	111.31	Inf	-Inf	32.09	3	V	289	1.07	-
AV	2.4836G	53.98	54.00	-0.02	32.14	3	V	289	1.07	-
PK	2.3804G	59.91	74.00	-14.09	31.89	3	V	289	1.07	-
PK	2.462G	122.02	Inf	-Inf	32.09	3	V	289	1.07	-
PK	2.4836G	72.75	74.00	-1.25	32.14	3	V	289	1.07	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

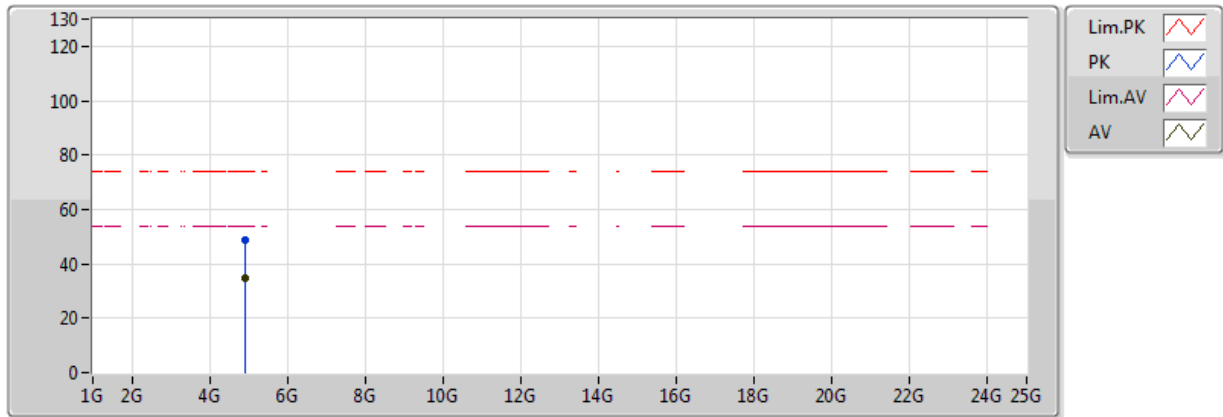


20170303
EUT_Z_4TX
Setting 78
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92466G	36.67	54.00	-17.33	8.15	3	V	354	2.16	-
PK	4.924132G	52.58	74.00	-21.42	8.15	3	V	354	2.16	-

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

2462MHz_TX

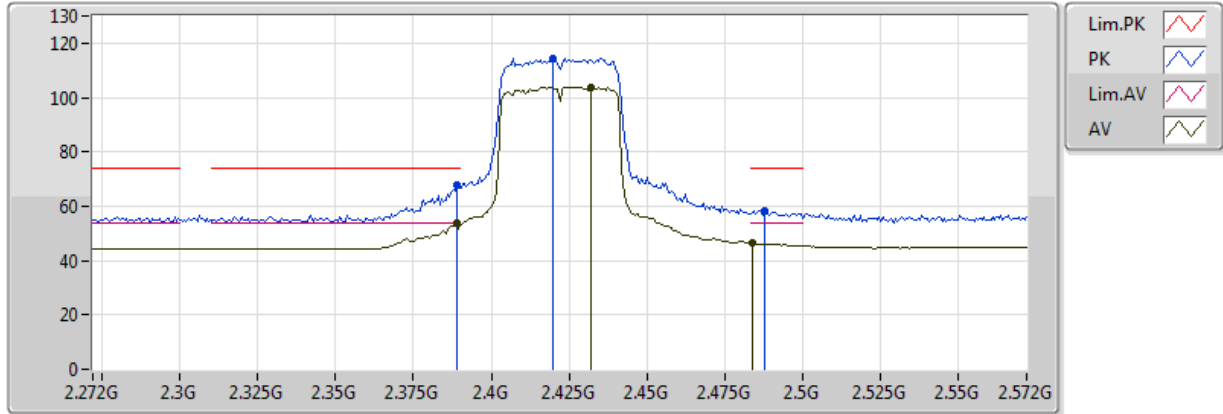


20170303
EUT_Z_4TX
Setting 78
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.923984G	34.67	54.00	-19.33	8.15	3	H	191	2.15	-
PK	4.924448G	49.00	74.00	-25.00	8.15	3	H	191	2.15	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

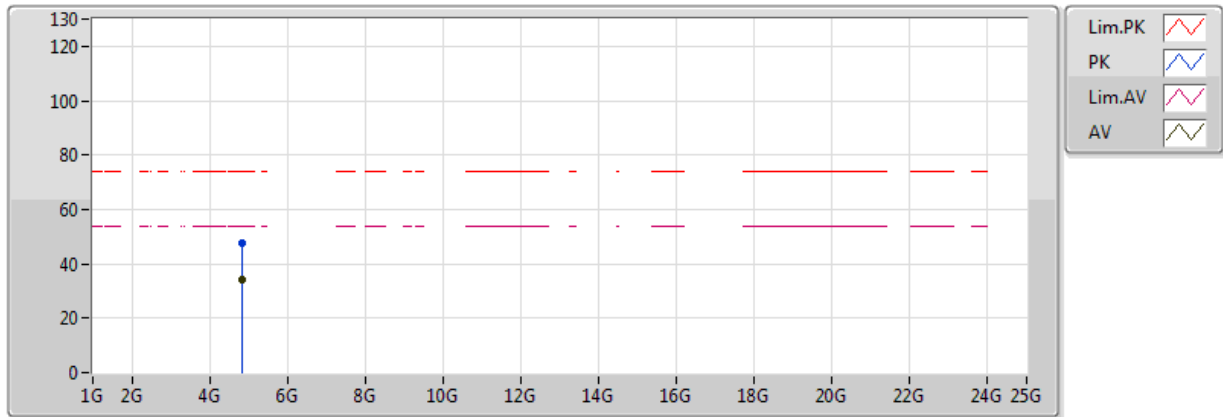


20170224
EUT_Z_4TX
Setting 57
03-W-3
FSP(100019)

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	53.65	54.00	-0.35	31.91	3	V	279	1.10	-
AV	2.4322G	103.94	Inf	-Inf	32.02	3	V	279	1.10	-
AV	2.4838G	46.45	54.00	-7.55	32.14	3	V	279	1.10	-
PK	2.389G	67.69	74.00	-6.31	31.91	3	V	279	1.10	-
PK	2.4196G	114.30	Inf	-Inf	31.99	3	V	279	1.10	-
PK	2.488G	58.24	74.00	-15.76	32.15	3	V	279	1.10	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

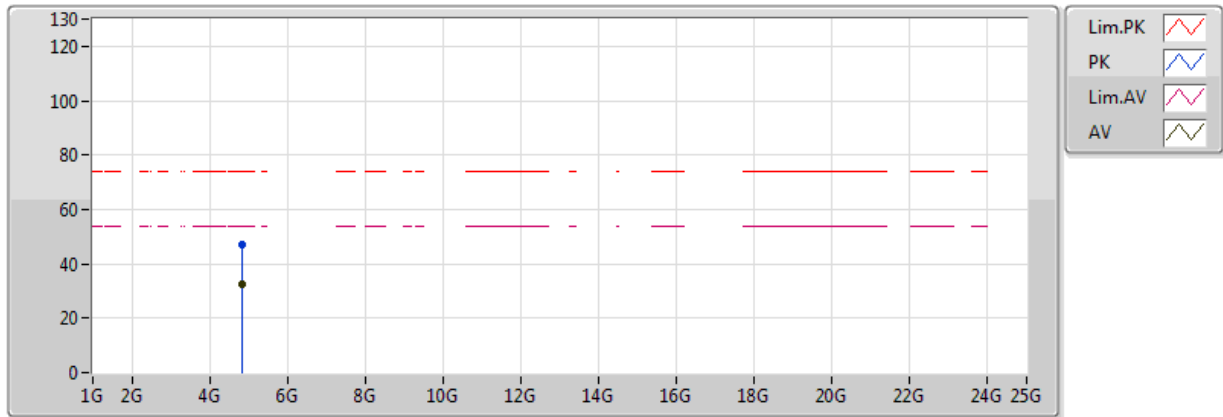


20170303
EUT_Z_4TX
Setting 57
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.843768G	33.96	54.00	-20.04	7.78	3	V	90	2.05	-
PK	4.843756G	47.84	74.00	-26.16	7.78	3	V	90	2.05	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2422MHz_TX

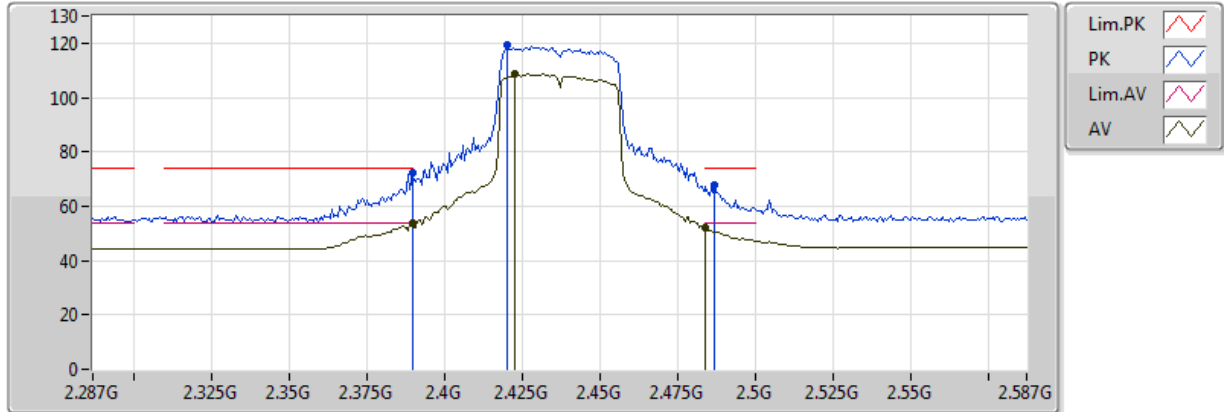


20170303
EUT_Z_4TX
Setting 57
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.843244G	32.62	54.00	-21.38	7.77	3	H	153	1.91	-
PK	4.843884G	46.88	74.00	-27.12	7.78	3	H	153	1.91	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2437MHz_TX

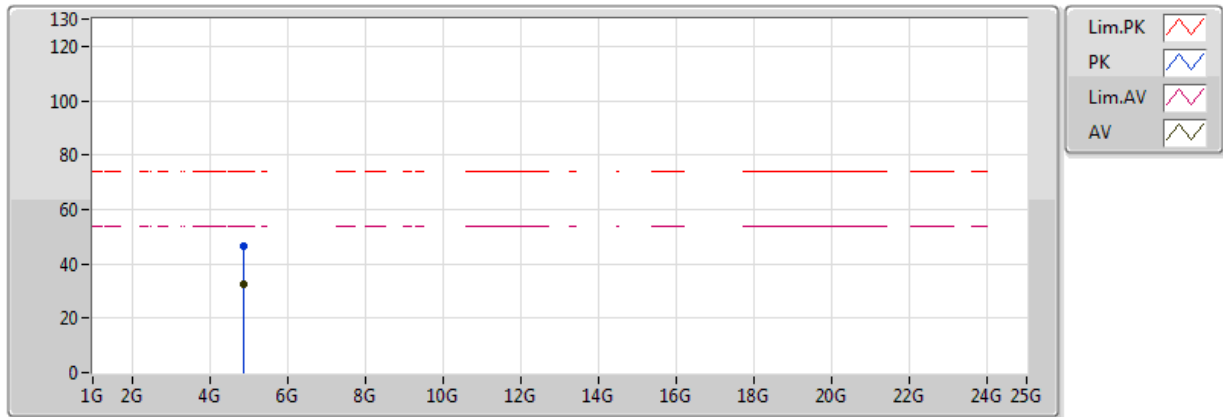


20170224
EUT_Z_4TX
Setting 75
03-W-3
FSP(100019)

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	53.89	54.00	-0.11	31.91	3	V	276	1.13	-
AV	2.4226G	108.60	Inf	-Inf	31.99	3	V	276	1.13	-
AV	2.483502G	52.18	54.00	-1.82	32.14	3	V	276	1.13	-
PK	2.3896G	72.11	74.00	-1.89	31.91	3	V	276	1.13	-
PK	2.4202G	119.08	Inf	-Inf	31.99	3	V	276	1.13	-
PK	2.4868G	67.62	74.00	-6.38	32.15	3	V	276	1.13	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2437MHz_TX

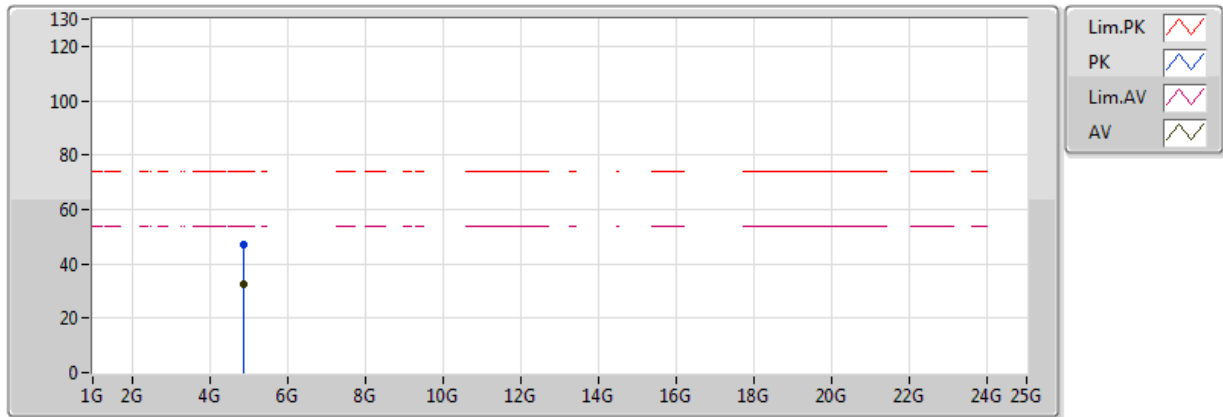


20170303
EUT_Z_4TX
Setting 75
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87446G	32.44	54.00	-21.56	7.92	3	V	32	1.95	-
PK	4.873176G	46.47	74.00	-27.53	7.91	3	V	32	1.95	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2437MHz_TX

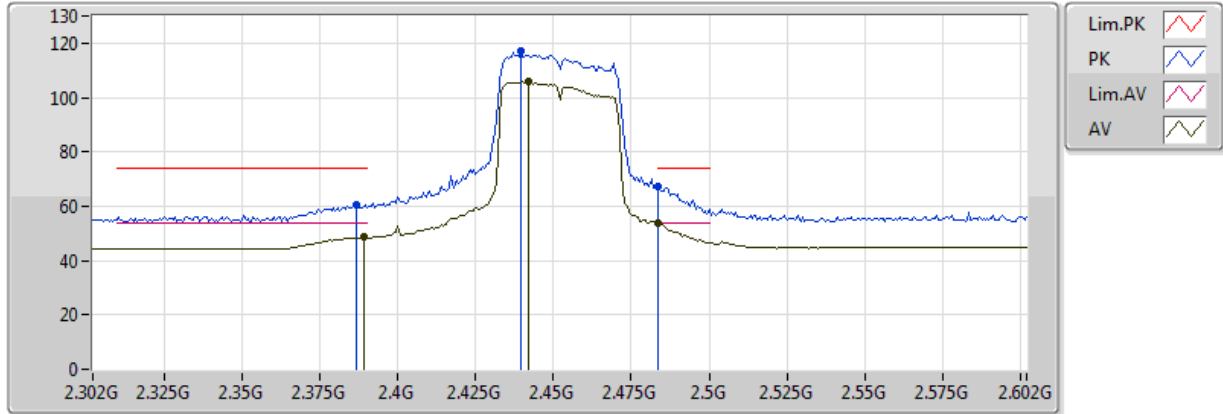


20170303
EUT_Z_4TX
Setting 75
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87308G	32.48	54.00	-21.52	7.91	3	H	231	1.77	-
PK	4.874816G	46.82	74.00	-27.18	7.92	3	H	231	1.77	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2452MHz_TX

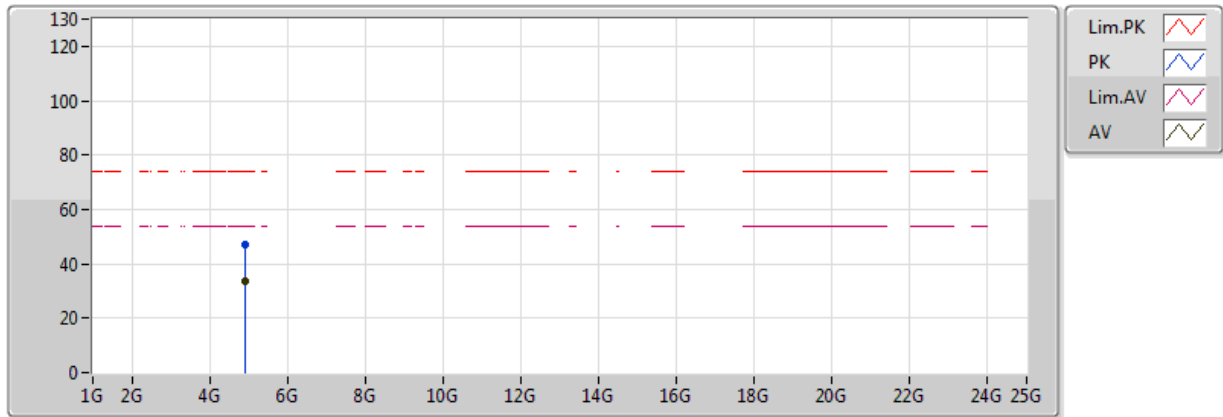


20170224
EUT_Z_4TX
Setting 62
03-W-3
FSP(100019)

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	48.64	54.00	-5.36	31.91	3	V	281	1.08	-
AV	2.4418G	105.83	Inf	-Inf	32.04	3	V	281	1.08	-
AV	2.483502G	53.76	54.00	-0.24	32.14	3	V	281	1.08	-
PK	2.3866G	60.59	74.00	-13.41	31.91	3	V	281	1.08	-
PK	2.4394G	117.27	Inf	-Inf	32.03	3	V	281	1.08	-
PK	2.483502G	67.13	74.00	-6.87	32.14	3	V	281	1.08	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2452MHz_TX

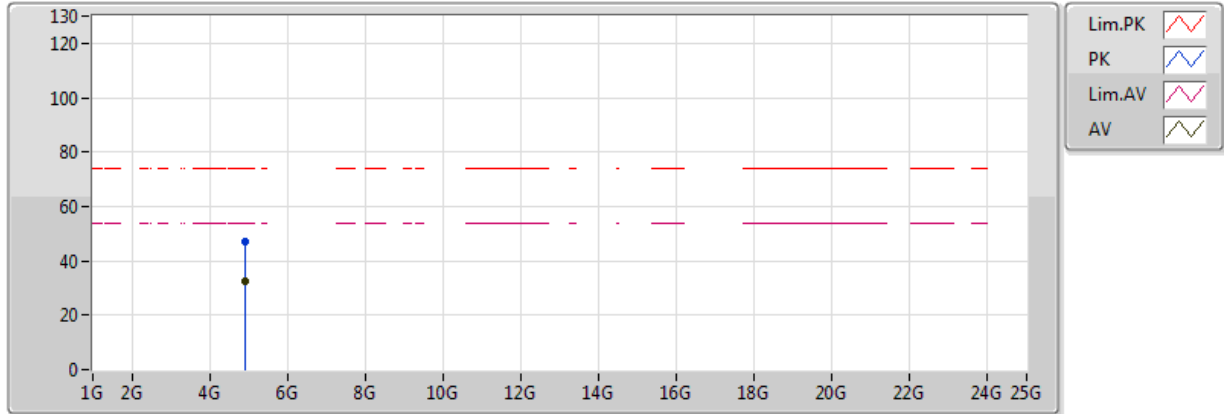


20170303
EUT_Z_4TX
Setting 62
02-M-1
FSP(100019)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.90354G	33.61	54.00	-20.39	8.05	3	V	294	1.56	-
PK	4.903028G	47.30	74.00	-26.70	8.05	3	V	294	1.56	-

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

2452MHz_TX



20170303
EUT_Z_4TX
Setting 62
02-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	4.903648G	32.65	54.00	-21.35	8.05	3	H	353	2.22	-
PK	4.904568G	46.89	74.00	-27.11	8.05	3	H	353	2.22	-



RSE Co-location Result

Appendix G

