FCC Test Report

Equipment	:	Liberty Wireless Module
Brand Name	:	Bowers & Wilkins
Model No.	:	CC72036
FCC ID	:	2ACIX-LWM
Standard	:	47 CFR FCC Part 15.247
Operating Band	:	2400 MHz – 2483.5 MHz
Function	:	☒ Point-to-multipoint; ☐ Point-to-point
Applicant	:	B&W Group Ltd. Dale Road Worthing, West Sussex BN11 2BH, United Kingdom
Manufacturer	:	B&W Group Ltd. Dale Road Worthing, West Sussex BN11 2BH, United Kingdom

The product sample received on Sep. 15, 2017 and completely tested on Nov. 17, 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.

Testing Laboratory
1190

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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

Revision History

Report No.	Version	Description	Issued Date
FR790630AA	Rev. 01	Initial issue of report	Dec. 15, 2017
FR790630AA	Rev. 02	Adding twelve dipole antennas	Jan. 08, 2018

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
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	802.11ac VHT20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	802.11ac VHT40	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.	Port	Radio	Brand	P/N	Antenna Type	Connector	Gain (dBi)		
							WLAN 2.4GHz	WLAN 5GHz	BT
1	1	R1	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	2.02	3.06	-
2	2	R1	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	2.02	-	-
3	1	R2	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	-	3.06	-
4	2	R2	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	-	3.06	-
5	1	R3/R4	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	-	3.06	2.02
6	2	R3	LUXSHARE ICT	DCIW303	Dipole Antenna	I-PEX	-	3.06	-
7	-	R2/R3	ACON	ZZ35343	Dipole Antenna	I-PEX 20670-001R-37	-	1.28	-
8	-	R1/R2/R3	ACON	ZZ35351	Dipole Antenna	I-PEX 20670-001R-37	1.92	2	-
9	-	R2/R3	ACON	ZZ35378	Dipole Antenna	I-PEX 20670-001R-37	-	1.77	-
10	-	R2/R3	ACON	ZZ35386	Dipole Antenna	I-PEX 20670-001R-37	-	2.93	-
11	-	R1	ACON	ZZ35394	Dipole Antenna	I-PEX 20670-001R-37	1.53	NA	-
12	-	R1/R2/R3/R4	ACON	ZZ35408	Dipole Antenna	I-PEX 20670-001R-37	1.92	1.52	1.92
13	-	R2/R3	ACON	ZZ35491	Dipole Antenna	I-PEX 20670-001R-37	-	2.12	-
14	-	R1/R2/R3	ACON	ZZ35505	Dipole Antenna	I-PEX 20670-001R-37	1.94	2.88	-
15	-	R2/R3	ACON	ZZ35513	Dipole Antenna	I-PEX 20670-001R-37	-	1.73	-
16	-	R2/R3	ACON	ZZ35521	Dipole Antenna	I-PEX 20670-001R-37	-	1.41	-
17	-	R1	ACON	ZZ35548	Dipole Antenna	I-PEX 20670-001R-37	1.91	-	-
18	-	R1/R2/R3/R4	ACON	ZZ35556	Dipole Antenna	I-PEX 20670-001R-37	1.62	0.46	1.62

Note:There are 18 antennas in the antenna table list, antenna 1~6 are the highest gain antennas.

They were selected to perform the test and recorded in this report.

For 2.4GHz function:

Radio 1

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

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

For 5GHz function:

Radio 1 (For B1~B4)

For IEEE 802.11a/n/ac mode (1RX)

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

Radio 2 (For B3~B4)

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

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

Radio 3 (For B1~B2)

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

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

For bluetooth function:

Radio 4

For bluetooth mode (1TX/1RX)

Only Ant.5 (Port 1) can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.996	0.017	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.961	0.173	2.068m	1k
802.11ac VHT20	0.98	0.088	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40	0.945	0.246	2.436m	1k

1.1.4 EUT Operational Condition

EUT Power Type	From host system			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Test Software Version	Radio1:QRCT Version 3.0.244.0			

1.1.5 Table for EUT functions

Radio	2.4GHz & 5GHz (B1~B4) (5GHz Scanning only)	5GHz (B1&B2)	5GHz (B3&B4)	Bluetooth
1	V	-	-	-
2	-	-	V	-
3	-	V	-	-
4	-	-	-	V

Type of function	2.4GHz (Radio 1)	5GHz (B1&B2) (Radio 3)	5GHz (B3&B4) (Radio 2)	5GHz (Radio 1) (B1~B4) (Scanning only)	Bluetooth (Radio 4)
AP Mode (Master)	N/A	V	V	V	V
Station Mode (Slave without radar detection)	V	V	V	N/A	V
Station Mode (Slave without radar detection)	N/A	V	V	V	V
Test Mode	**2.4GHz (Radio 1)**	**5GHz (B1&B2) (Radio 3)**	**5GHz (B3&B4) (Radio 2)**	**5GHz (Radio 1) (B1~B4) (Scanning only)**	**Bluetooth (Radio 4)**
AP Mode (For lisn and Emissions in Non-restricted Frequency Bands below 1GHz)	Station Mode	AP Mode	AP Mode	Not work (Note)	Not work (Note)
Station Mode	Station Mode	Station Mode	Station Mode	Not work (Note)	Not work (Note)
For Radiated Emission Co-location					
AP Mode	Station Mode	AP Mode	AP Mode	Not work (Note)	AP Mode

Note: Normal link does not support BT link and RX Scanning function.

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 & Eddie Weng	22°C / 54%	Sep. 26, 2017 ~ Nov. 16, 2017
Radiated	03CH01-CB	Paul Chen & DK Chang & Justin Lin & Joy Tseng & Zero Chen & Mason Chen	22°C / 54%	Sep. 28, 2017 ~ Oct. 06, 2017
AC Conduction	CO01-CB	Max Lin	25°C / 59%	Nov. 17, 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_Nss1,(1Mbps)_2TX	-
2412MHz	25.5
2437MHz	24.5
2462MHz	24
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	20.5
2437MHz	26.5
2462MHz	20.5
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2412MHz	20.5
2437MHz	26.5
2462MHz	21
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2422MHz	19
2437MHz	20.5
2452MHz	18.5

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

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	AP Mode
2	Station Mode
Mode 2 generated the worst test result, so it was recorded in this 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	AP Mode-EUT in Y axis
2	AP Mode-EUT in Z axis
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	Station Mode-EUT in Y axis
Mode 1 generated the worst test result, so it was recorded in this report.	
Operating Mode > 1GHz	CTX
	The EUT was performed at X axis, Y axis and Z axis position for Emissions in Restricted Frequency Bands above 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration.
1	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	EUT in X axis - R1 (2.4G / Station mode) + R3 (5G B1~B2 / AP mode) + R2 (5G B3~B4 / AP mode) + R4 (BT / AP mode)
2	EUT in Y axis - R1 (2.4G / Station mode) + R3 (5G B1~B2 / AP mode) + R2 (5G B3~B4 / AP mode) + R4 (BT / AP mode)
3	EUT in Z axis - R1 (2.4G / Station mode) + R3 (5G B1~B2 / AP mode) + R2 (5G B3~B4 / AP mode) + R4 (BT / AP mode)
Mode 3 generated the worst test result, so it was recorded in this report.	
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	R1 (2.4G) + R3 (5G B1~B2) + R2 (5G B3~B4) + R4 (BT)
Refer to Sporton Test Report No.: FA790630 for Co-location RF Exposure Evaluation.	

Note: All the specification of test configurations and test modes were based on customer's request.

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

N/A

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB*4	DELL	E6430	DoC
2	AP Router*3	Planex	GW-AP54SGX	KA220030603014-1
3	Mouse	Logitech	M-U0026	DoC
4	Earphone	e-Power	S90W	DoC
5	Test fixture	Arcadyan	WN9722BTBAC22-WB JIG TEST	N/A

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	WLAN AP	D-LINK	DIR860L	KA2IR860LA1
3	Mouse	Logitech	M-U0026	DoC
4	Earphone	SHYARO CHI	MIC-04	N/A
5	Test fixture	Arcadyan	WN9722BTBAC22-WB JIG TEST	N/A

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

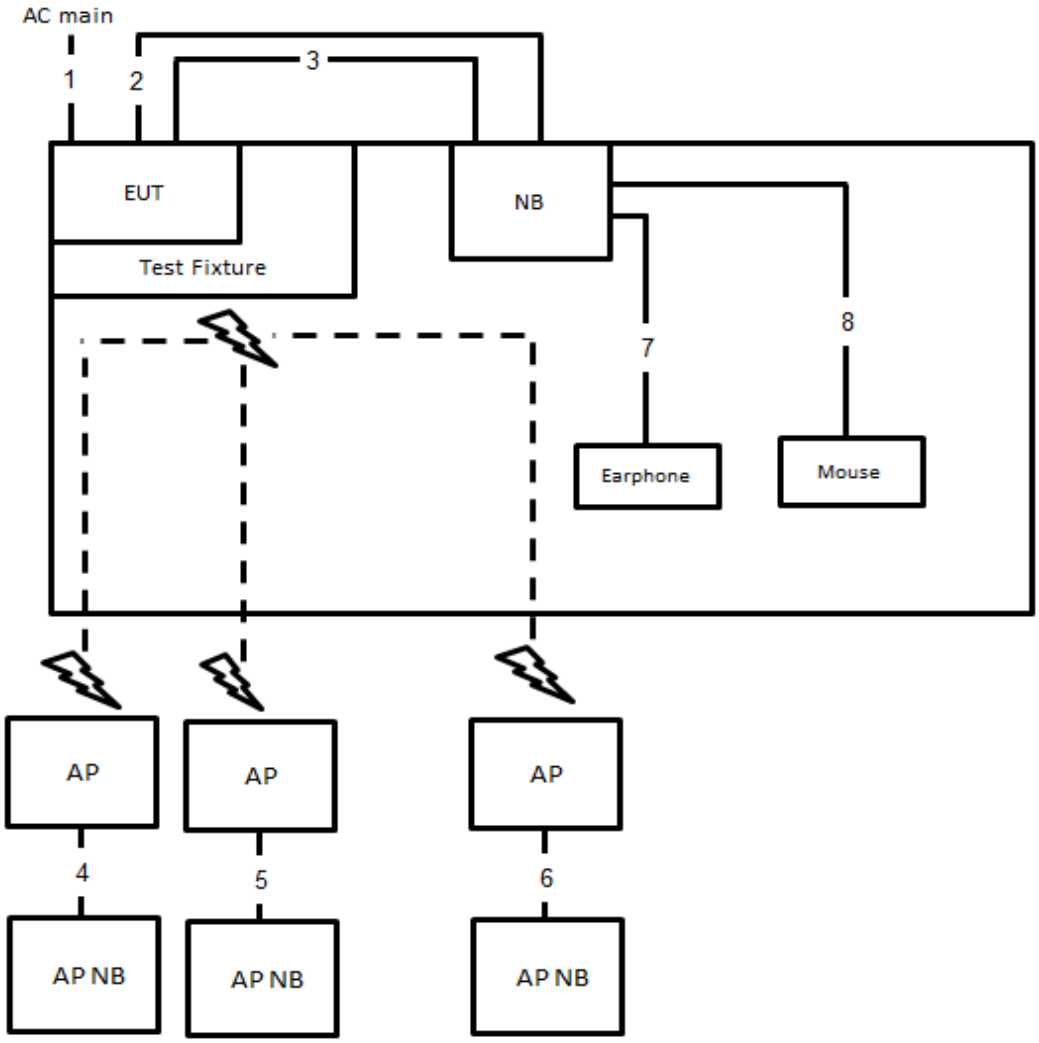
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC
2	Test fixture	Arcadyan	WN9722BTBAC22-WB JIG TEST	N/A

For Test Site No: TH01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC
2	Test fixture	Arcadyan	WN9722BTBAC22-WB JIG TEST	N/A

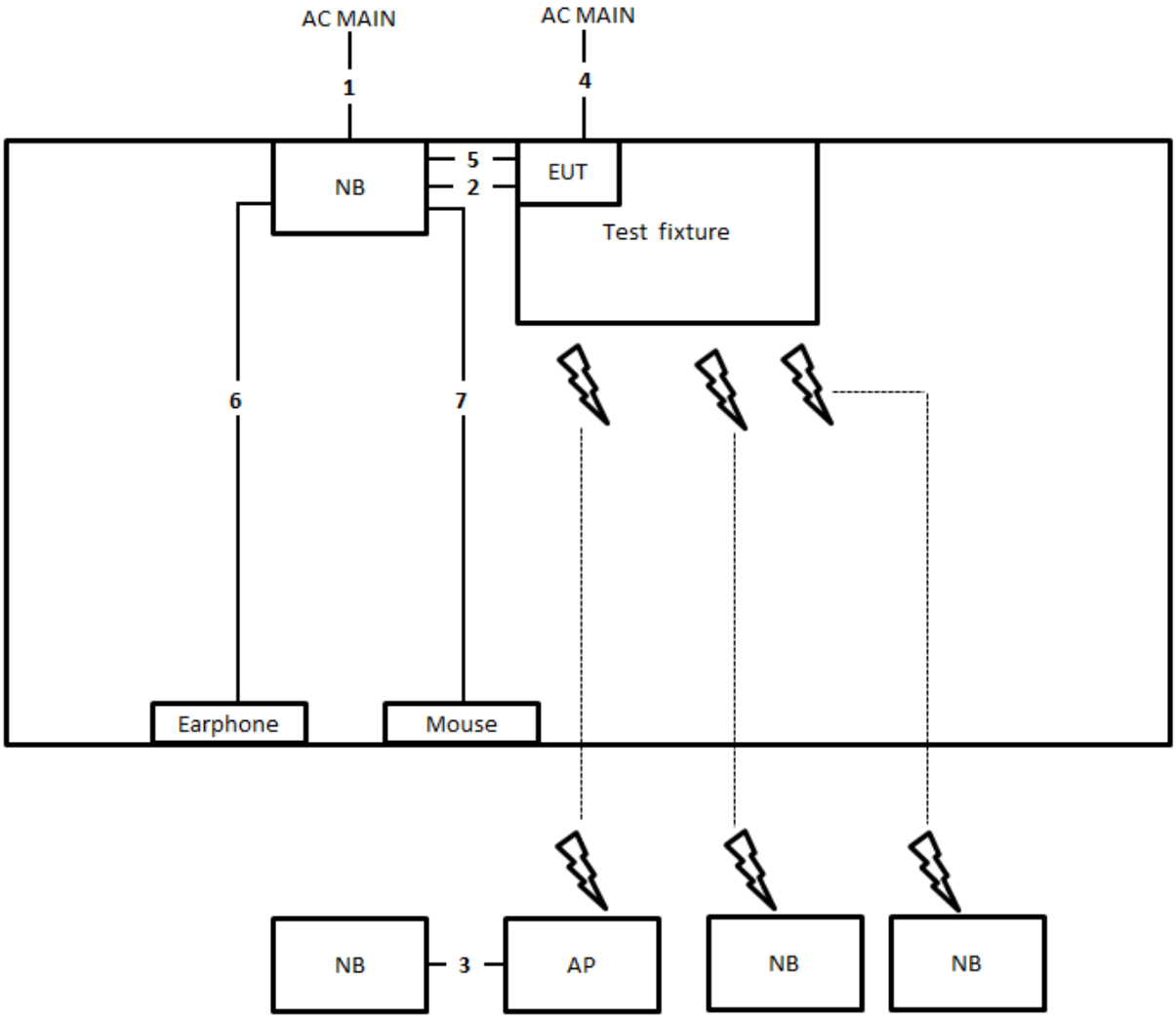
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



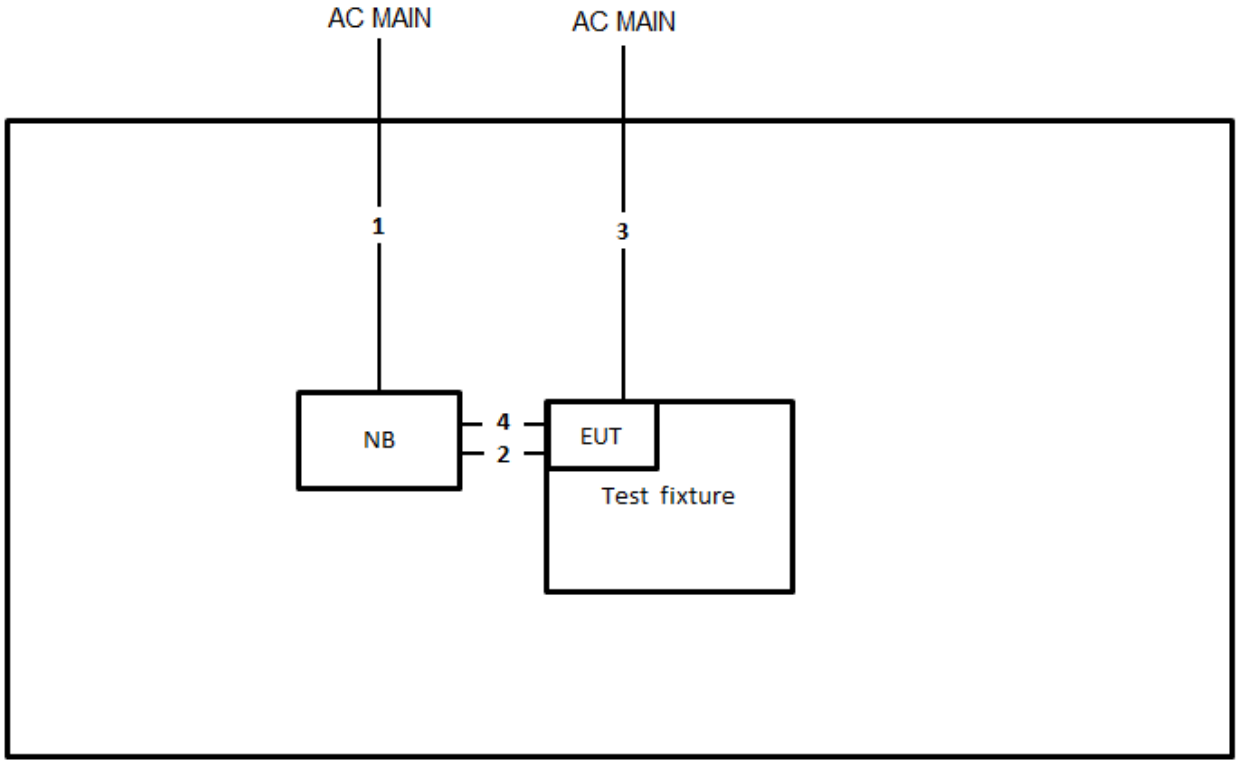
Item	Connection	Shielded	Length
1	Power cable	No	3m
2	RJ-45 cable	No	1m
3	USB cable	Yes	1m
4	RJ-45 cable	No	1.5m
5	RJ-45 cable	No	1.5m
6	RJ-45 cable	No	1.5m
7	Audio cable	No	1.4m
8	USB cable	Yes	1.8m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	3m
2	USB cable	Yes	1m
3	RJ-45 cable	No	1.5m
4	Power cable	No	1.3m
5	USB cable	Yes	1m
6	Audio cable	No	1.1m
7	USB cable	Yes	1.8m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	3m
2	USB cable	Yes	1m
3	Power cable	No	1.3m
4	USB cable	Yes	1m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

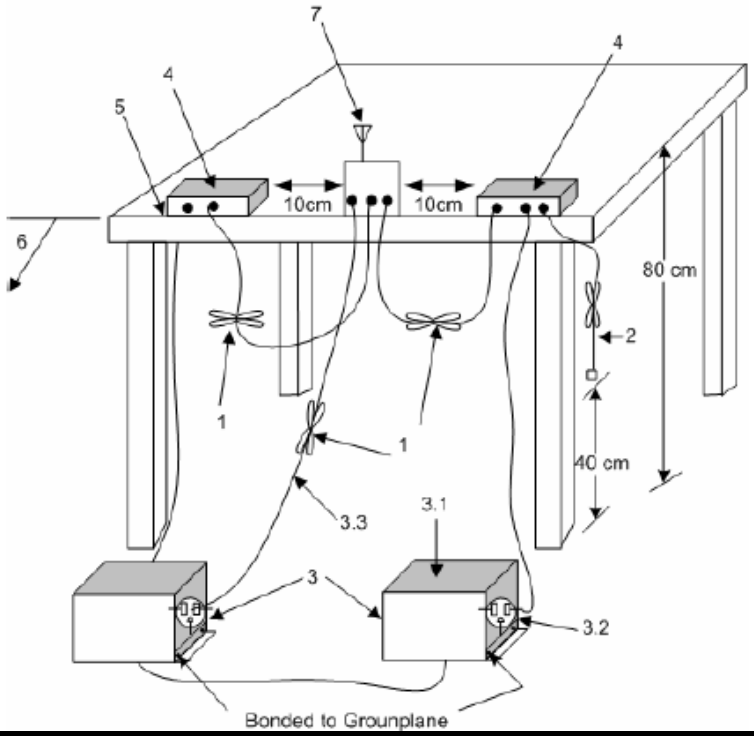
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



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 ≥ 500 kHz.

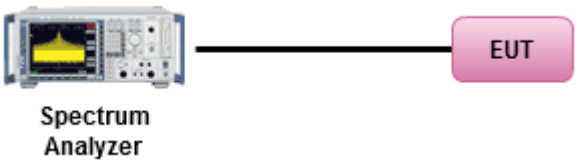
3.2.2 Measuring Instruments

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

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	▪ 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: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


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

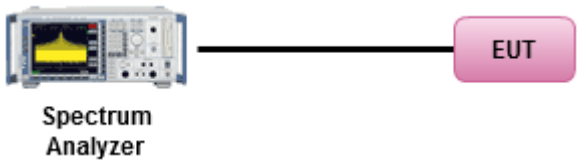
3.4.2 Measuring Instruments

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 ≥ 98% or external video / power trigger]	
	☐ Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging).	
	☐ Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-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 AVGPSD-1 Alt (spectral trace averaging).	
	☐ Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-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

Power Spectral Density


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.	

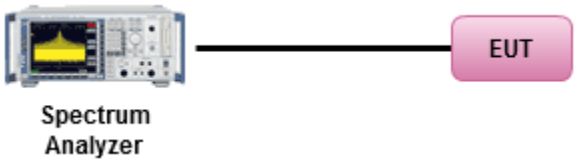
3.5.2 Measuring Instruments

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

Emissions in Non-restricted Frequency Bands


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.

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

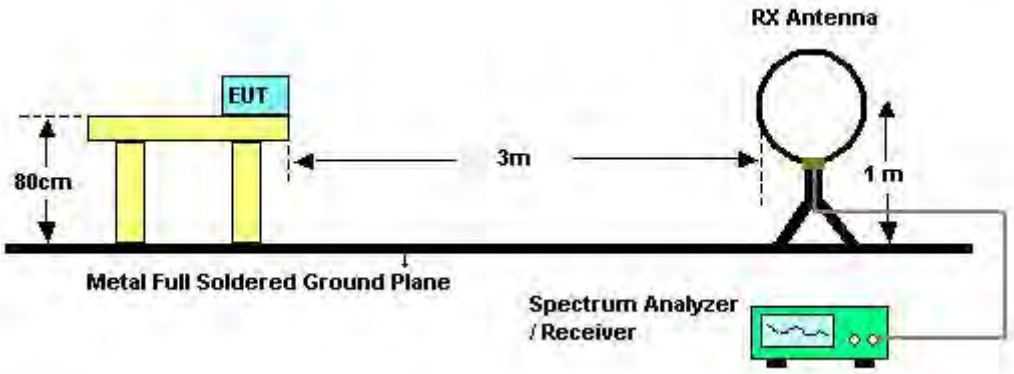
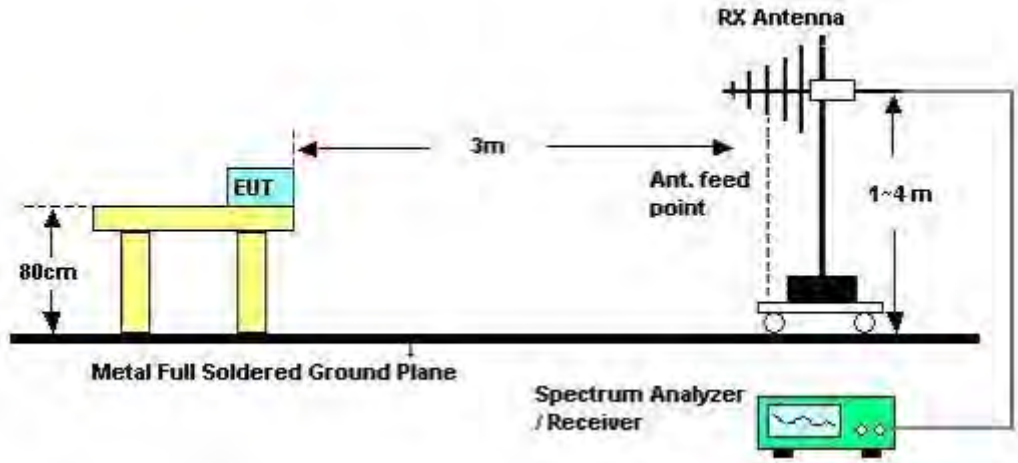
3.6.2 Measuring Instruments

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

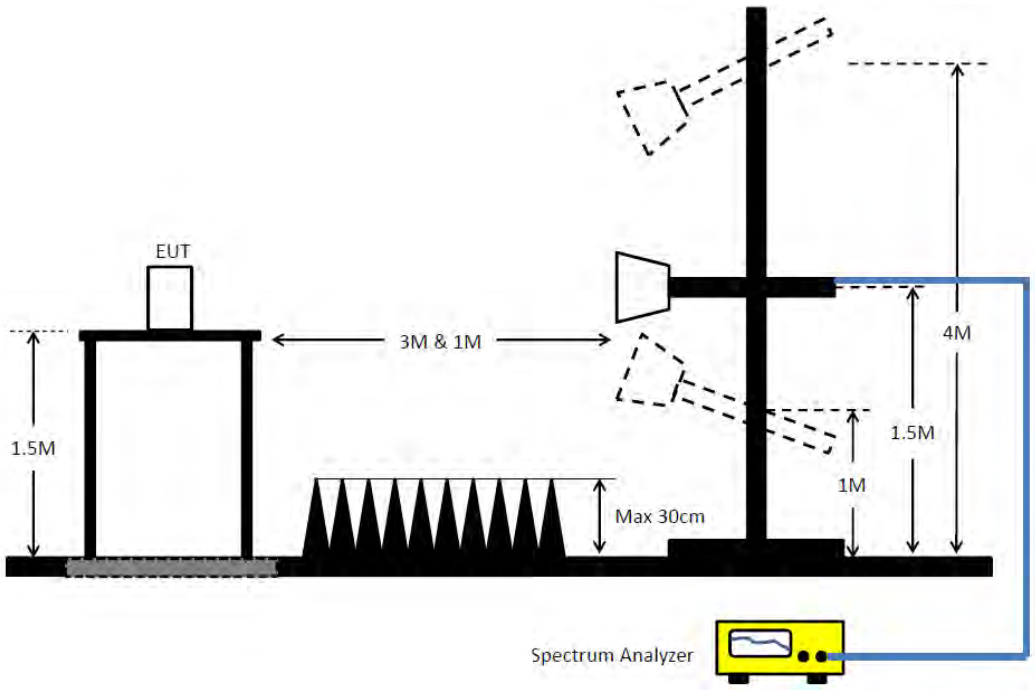
3.6.3 Test Procedures

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 ≥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≥1/T).
		☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
		☒ Refer as FCC KDB 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

Transmitter Radiated Emissions
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



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	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Jan. 22, 2018	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz~100MHz	Dec. 14, 2016	Dec. 13, 2017	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Dec. 20, 2017	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	May 22, 2018	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Mar. 15, 2018*	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~ 8GHz	Nov. 10, 2016	Nov. 09, 2017	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 05, 2017	Jul. 04, 2018	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	May 01, 2018	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Jan. 15, 2018	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 10, 2017	Jul. 09, 2018	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Nov. 21, 2017	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	May 05, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Oct. 23, 2017	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-l0-7	N/A	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Dec. 25, 2017	Conducted (TH01-CB)

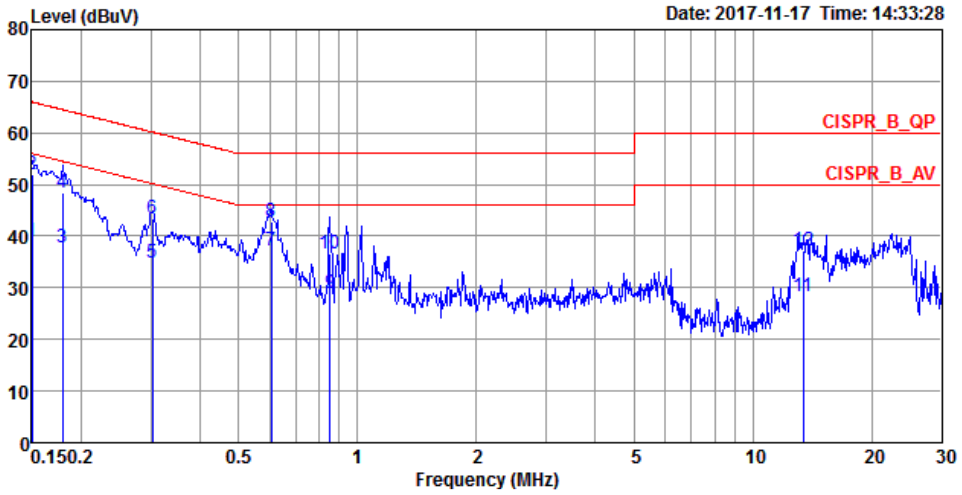
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-6	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Oct. 23, 2017	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 11, 2017	Oct. 10, 2018	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Nov. 21, 2017	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.

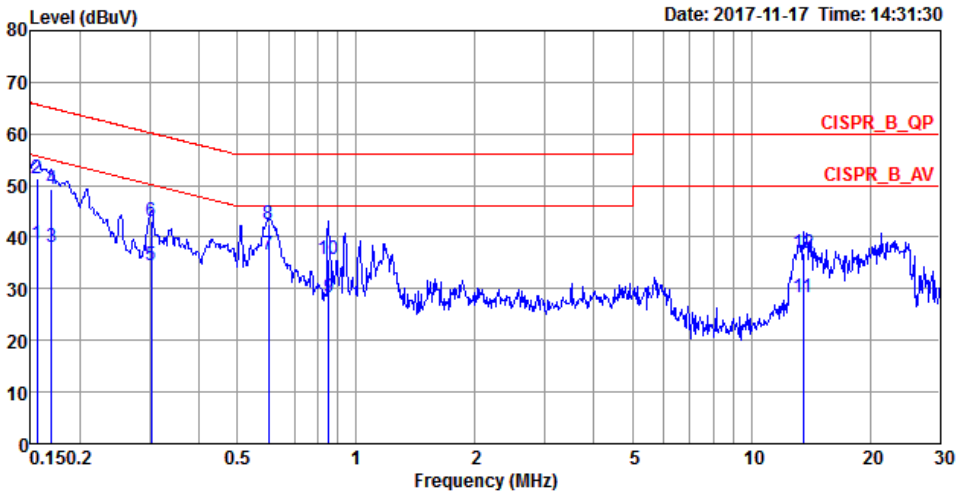
AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Neutral
Operating Function	Normal Link - Station Mode		



	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	39.11	-16.89	56.00	28.85	10.10	0.16	Average	NEUTRAL
2	0.1500	51.90	-14.10	66.00	41.64	10.10	0.16	QP	NEUTRAL
3	0.1796	37.87	-16.63	54.50	27.72	10.01	0.14	Average	NEUTRAL
4	0.1796	48.48	-16.02	64.50	38.33	10.01	0.14	QP	NEUTRAL
5	0.3035	34.72	-15.43	50.15	24.51	10.15	0.06	Average	NEUTRAL
6	0.3035	43.33	-16.82	60.15	33.12	10.15	0.06	QP	NEUTRAL
7	0.6043	37.13	-8.87	46.00	26.85	10.19	0.09	Average	NEUTRAL
8	0.6043	42.92	-13.08	56.00	32.64	10.19	0.09	QP	NEUTRAL
9	0.8528	28.96	-17.04	46.00	18.70	10.10	0.16	Average	NEUTRAL
10	0.8528	36.72	-19.28	56.00	26.46	10.10	0.16	QP	NEUTRAL
11	13.4080	28.33	-21.67	50.00	17.90	10.25	0.18	Average	NEUTRAL
12	13.4080	37.12	-22.88	60.00	26.69	10.25	0.18	QP	NEUTRAL

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

AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Line
Operating Function	Normal Link - Station Mode		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1557	38.77	-16.92	55.69	28.61	10.00	0.16	Average	LINE
2	0.1557	51.46	-14.23	65.69	41.30	10.00	0.16	QP	LINE
3	0.1694	38.17	-16.82	54.99	28.02	10.00	0.15	Average	LINE
4	0.1694	49.31	-15.68	64.99	39.16	10.00	0.15	QP	LINE
5	0.3035	34.51	-15.64	50.15	24.52	9.93	0.06	Average	LINE
6	0.3035	43.15	-17.00	60.15	33.16	9.93	0.06	QP	LINE
7	0.6011	36.75	-9.25	46.00	26.71	9.95	0.09	Average	LINE
8	0.6011	42.63	-13.37	56.00	32.59	9.95	0.09	QP	LINE
9	0.8528	28.44	-17.56	46.00	18.32	9.96	0.16	Average	LINE
10	0.8528	35.82	-20.18	56.00	25.70	9.96	0.16	QP	LINE
11	13.5509	28.40	-21.60	50.00	18.02	10.20	0.18	Average	LINE
12	13.5509	36.99	-23.01	60.00	26.61	10.20	0.18	QP	LINE

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

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	8.05M	13.943M	13M9G1D	7.125M	12.944M
802.11g_Nss1,(6Mbps)_2TX	16.325M	16.617M	16M6D1D	16.275M	16.367M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.575M	17.866M	17M9D1D	17.175M	17.591M
802.11ac VHT40_Nss1,(MCS0)_2TX	35.1M	35.982M	36M0D1D	33.75M	35.882M

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

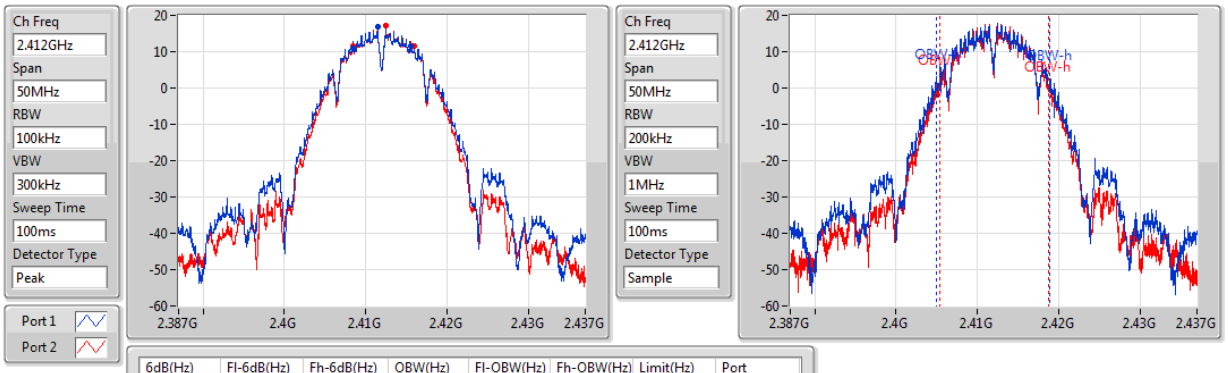
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	7.125M	13.943M	7.55M	13.368M
2437MHz	Pass	500k	8.05M	13.018M	8.025M	12.944M
2462MHz	Pass	500k	7.575M	12.969M	8M	12.944M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.367M	16.3M	16.392M
2437MHz	Pass	500k	16.275M	16.617M	16.3M	16.542M
2462MHz	Pass	500k	16.325M	16.417M	16.325M	16.417M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.575M	17.591M	17.175M	17.591M
2437MHz	Pass	500k	17.525M	17.866M	17.575M	17.741M
2462MHz	Pass	500k	17.525M	17.616M	17.5M	17.591M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	33.8M	35.932M	34.2M	35.932M
2437MHz	Pass	500k	35.1M	35.882M	33.75M	35.932M
2452MHz	Pass	500k	34M	35.982M	33.85M	35.932M

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

802.11b_Nss1,(1Mbps)_2TX

EBW

2412MHz

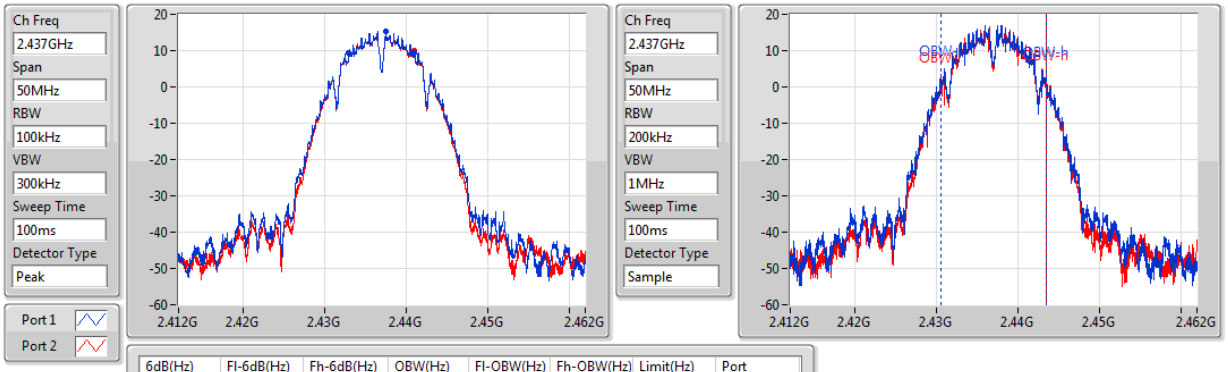


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.125M	2.4084G	2.415525G	13.943M	2.405003G	2.418947G	500k	1
7.55M	2.408425G	2.415975G	13.368M	2.405378G	2.418747G	500k	2

802.11b_Nss1,(1Mbps)_2TX

EBW

2437MHz

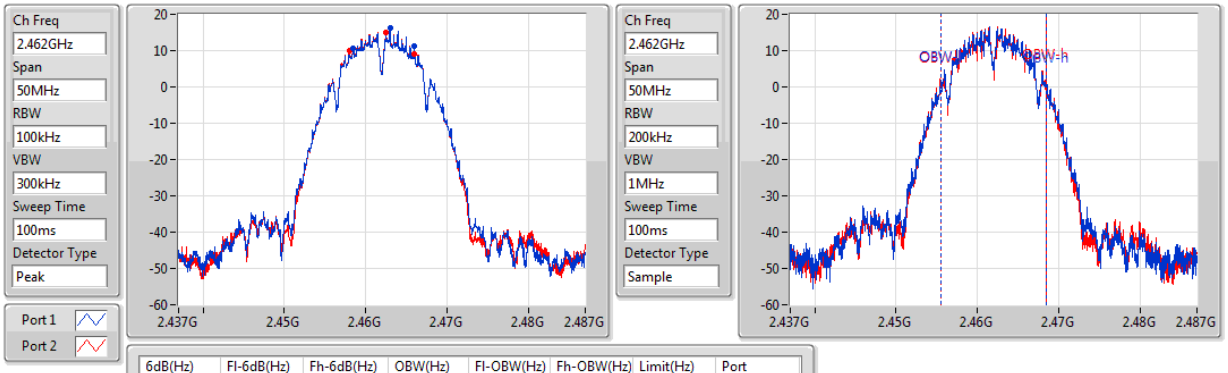


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.05M	2.432925G	2.440975G	13.018M	2.430478G	2.443497G	500k	1
8.025M	2.43295G	2.440975G	12.944M	2.430528G	2.443472G	500k	2

802.11b_Nss1,(1Mbps)_2TX

EBW

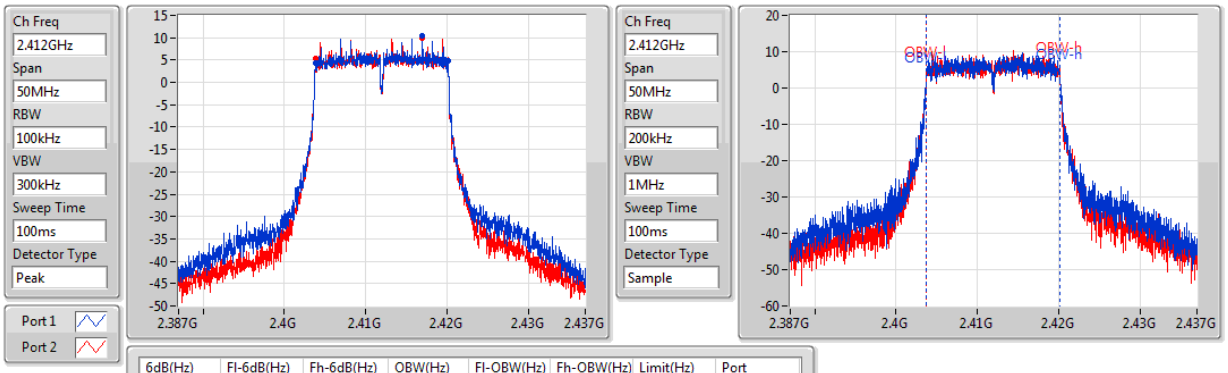
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.575M	2.458425G	2.466G	12.969M	2.455503G	2.468472G	500k	1
8M	2.457975G	2.465975G	12.944M	2.455503G	2.468447G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

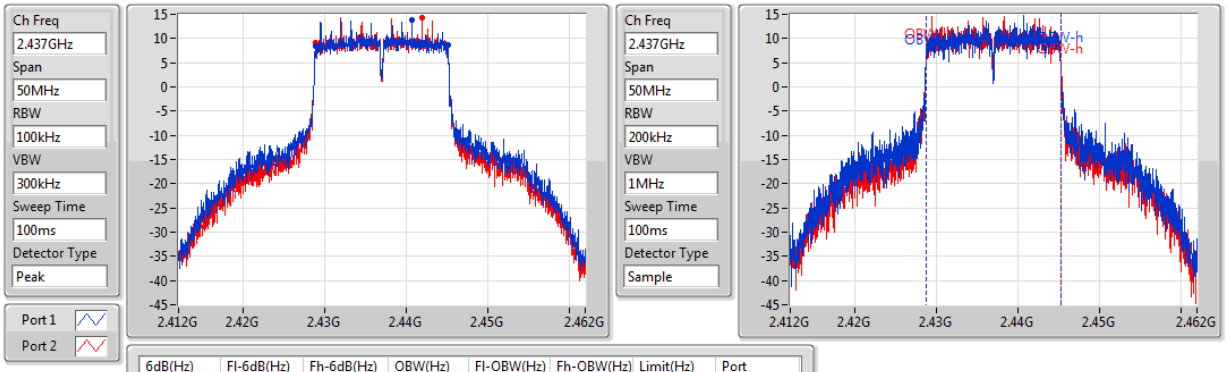
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.403825G	2.420125G	16.367M	2.403779G	2.420146G	500k	1
16.3M	2.403825G	2.420125G	16.392M	2.403754G	2.420146G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

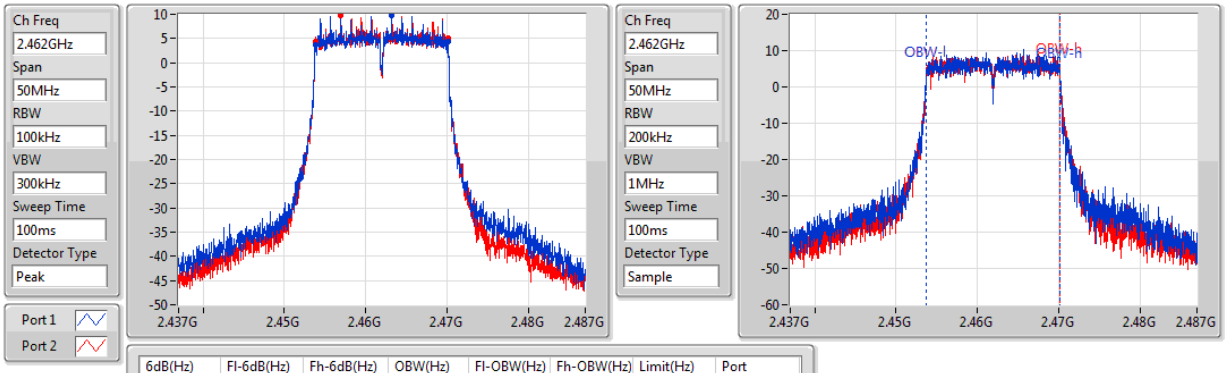
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	2.428825G	2.4451G	16.617M	2.428654G	2.445271G	500k	1
16.3M	2.428825G	2.445125G	16.542M	2.428704G	2.445246G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

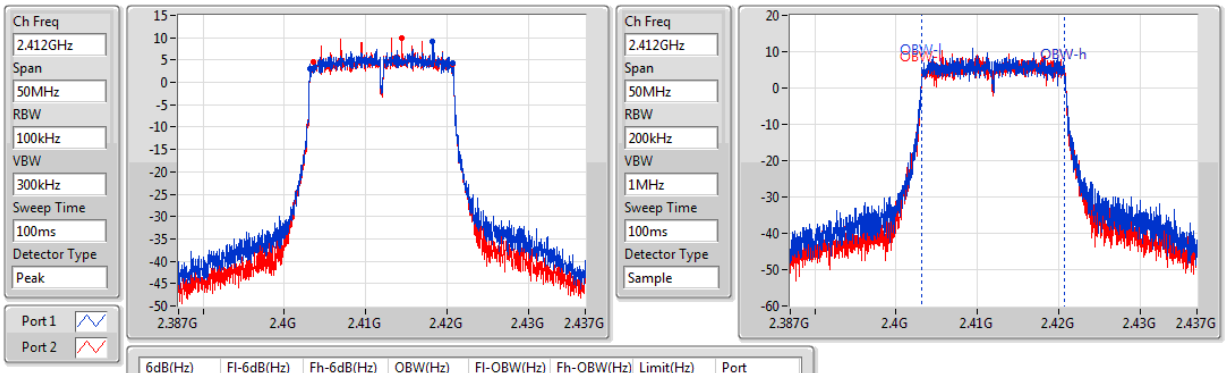
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.4538G	2.470125G	16.417M	2.453754G	2.470171G	500k	1
16.325M	2.4538G	2.470125G	16.417M	2.453754G	2.470171G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

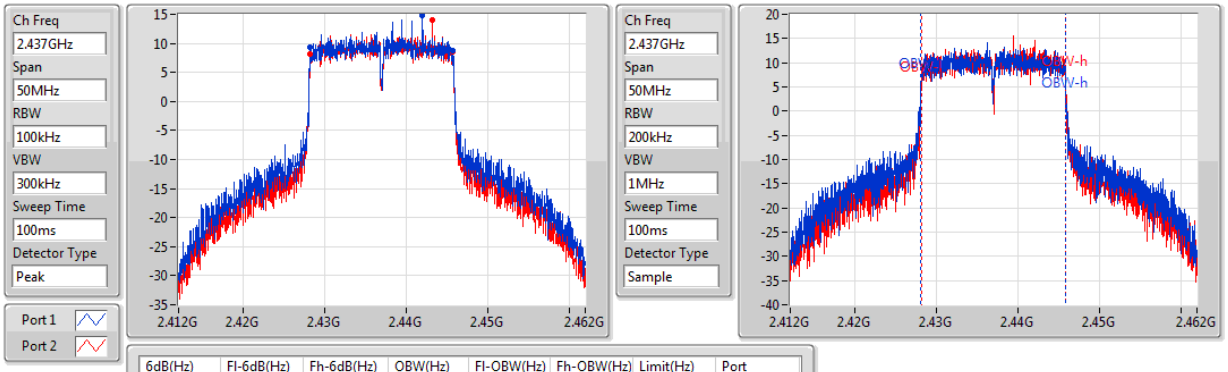
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.403175G	2.42075G	17.591M	2.403179G	2.420771G	500k	1
17.175M	2.403575G	2.42075G	17.591M	2.403179G	2.420771G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

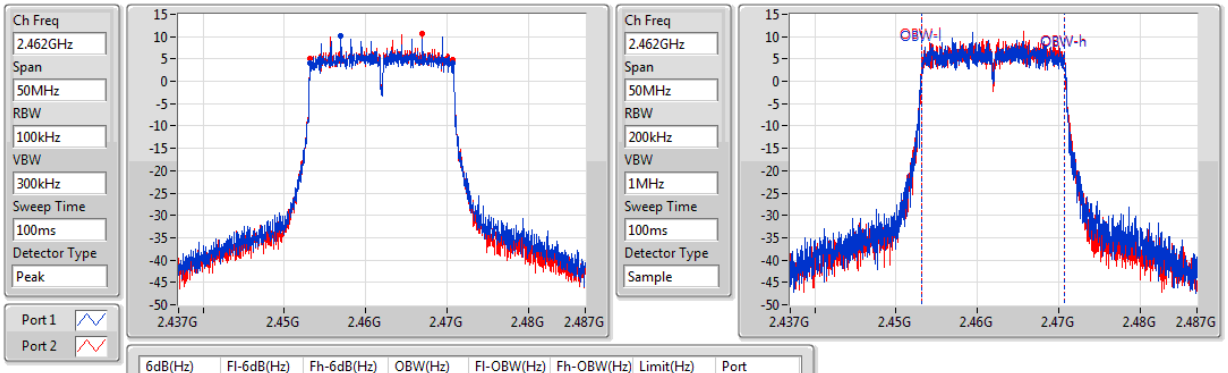
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.428225G	2.44575G	17.866M	2.428029G	2.445896G	500k	1
17.575M	2.428175G	2.44575G	17.741M	2.428104G	2.445846G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

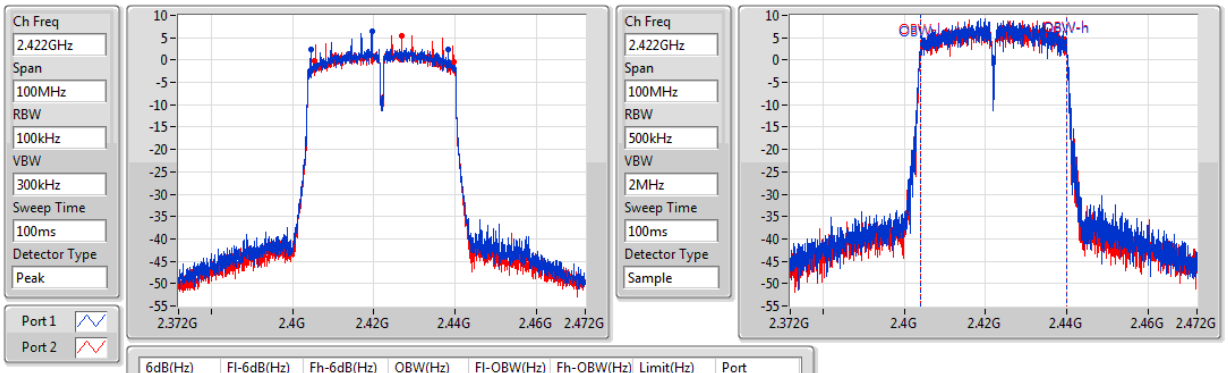
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.4532G	2.470725G	17.616M	2.453154G	2.470771G	500k	1
17.5M	2.453225G	2.470725G	17.591M	2.453154G	2.470746G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

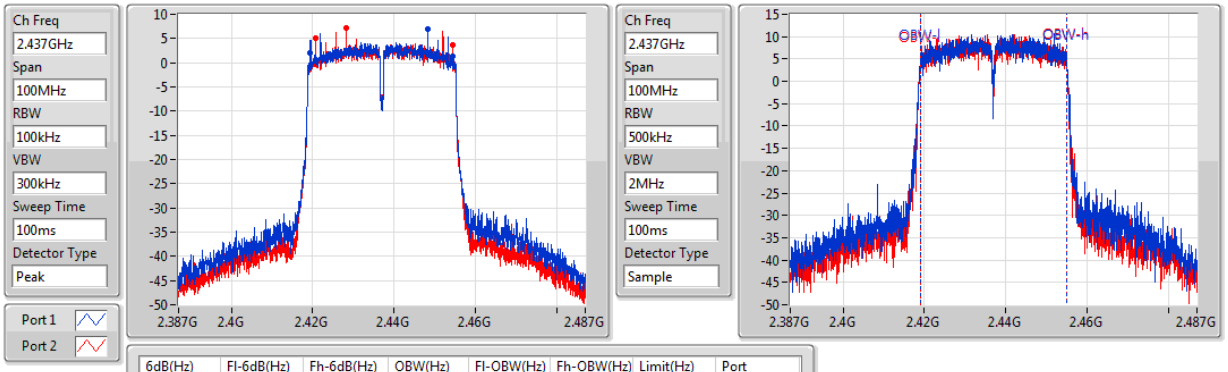
2422MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.8M	2.4045G	2.4383G	35.932M	2.404009G	2.439941G	500k	1
34.2M	2.40535G	2.43955G	35.932M	2.404009G	2.439941G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

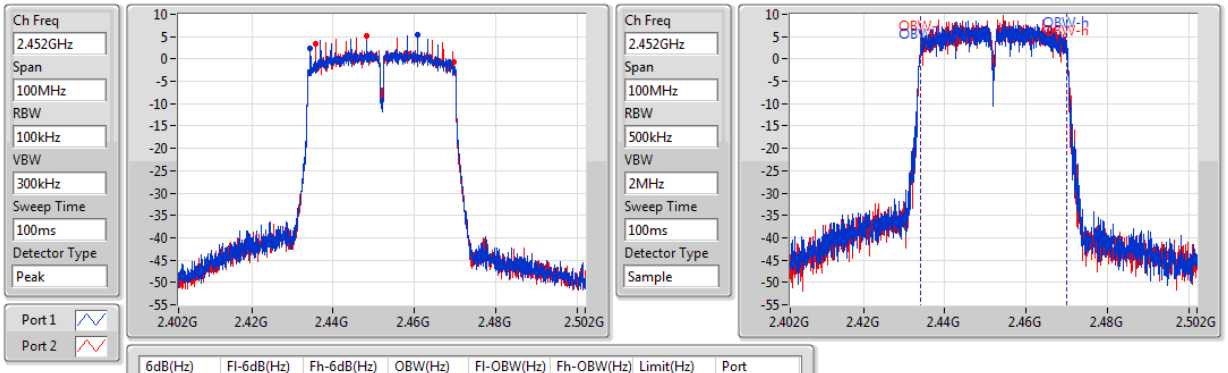
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.1M	2.4194G	2.4545G	35.882M	2.419059G	2.454941G	500k	1
33.75M	2.4207G	2.45445G	35.932M	2.419009G	2.454941G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

2452MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34M	2.43445G	2.46845G	35.982M	2.434009G	2.469991G	500k	1
33.85M	2.4357G	2.46955G	35.932M	2.434009G	2.469941G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	29.12	0.81658
802.11g_Nss1,(6Mbps)_2TX	27.99	0.62951
802.11ac VHT20_Nss1,(MCS0)_2TX	28.75	0.74989
802.11ac VHT40_Nss1,(MCS0)_2TX	24.24	0.26546

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.02	26.18	26.04	29.12	30.00
2437MHz	Pass	2.02	24.89	24.87	27.89	30.00
2462MHz	Pass	2.02	24.19	24.48	27.35	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.02	21.04	21.06	24.06	30.00
2437MHz	Pass	2.02	25.01	24.95	27.99	30.00
2462MHz	Pass	2.02	20.97	21.02	24.01	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.02	21.14	21.01	24.09	30.00
2437MHz	Pass	2.02	25.80	25.67	28.75	30.00
2462MHz	Pass	2.02	21.22	21.65	24.45	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	2.02	19.84	19.64	22.75	30.00
2437MHz	Pass	2.02	21.33	21.12	24.24	30.00
2452MHz	Pass	2.02	19.19	19.30	22.26	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	1.65
802.11g_Nss1,(6Mbps)_2TX	-0.76
802.11ac VHT20_Nss1,(MCS0)_2TX	-0.21
802.11ac VHT40_Nss1,(MCS0)_2TX	-6.66

RBW=3kHz.

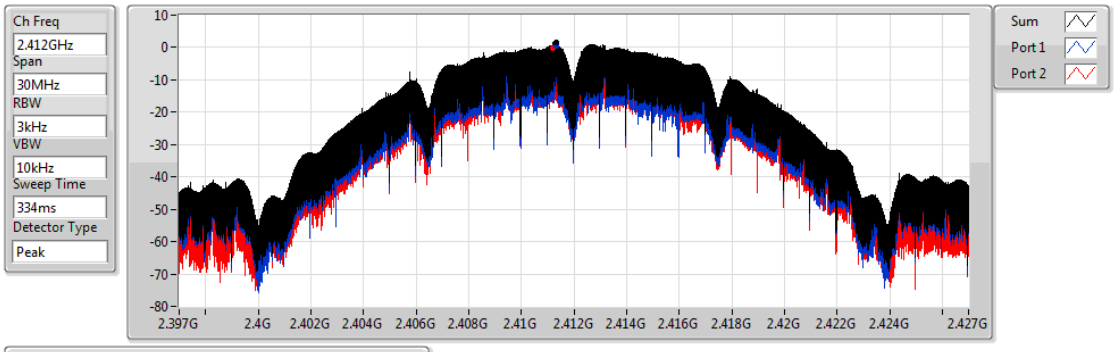
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.03	0.44	-0.26	1.65	8.00
2437MHz	Pass	5.03	-1.37	-2.09	0.02	8.00
2462MHz	Pass	5.03	-0.31	-1.47	0.31	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.03	-6.35	-7.68	-5.20	8.00
2437MHz	Pass	5.03	-2.84	-3.56	-0.76	8.00
2462MHz	Pass	5.03	-6.36	-7.02	-5.06	8.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.03	-6.20	-6.70	-3.44	8.00
2437MHz	Pass	5.03	-2.69	-1.45	-0.21	8.00
2462MHz	Pass	5.03	-7.33	-6.22	-4.72	8.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.03	-10.24	-11.11	-8.24	8.00
2437MHz	Pass	5.03	-8.47	-8.70	-6.66	8.00
2452MHz	Pass	5.03	-11.27	-10.99	-8.44	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_Nss1,(1Mbps)_2TX **PSD**

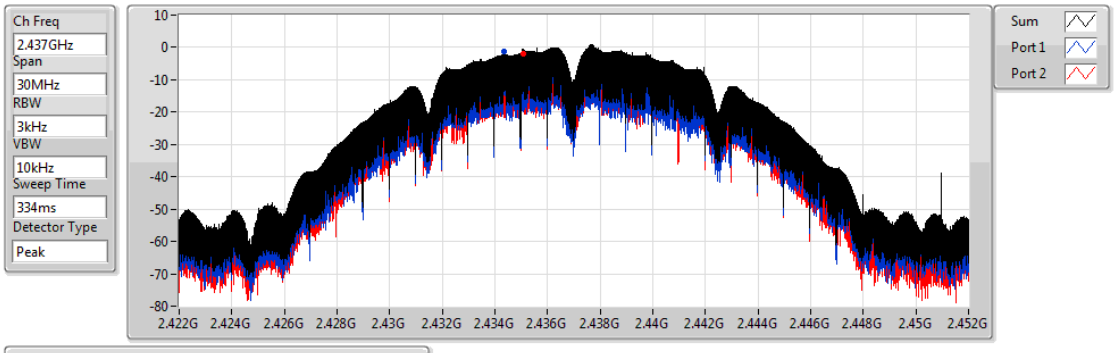
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.65	1.65	0.44	-0.26

802.11b_Nss1,(1Mbps)_2TX **PSD**

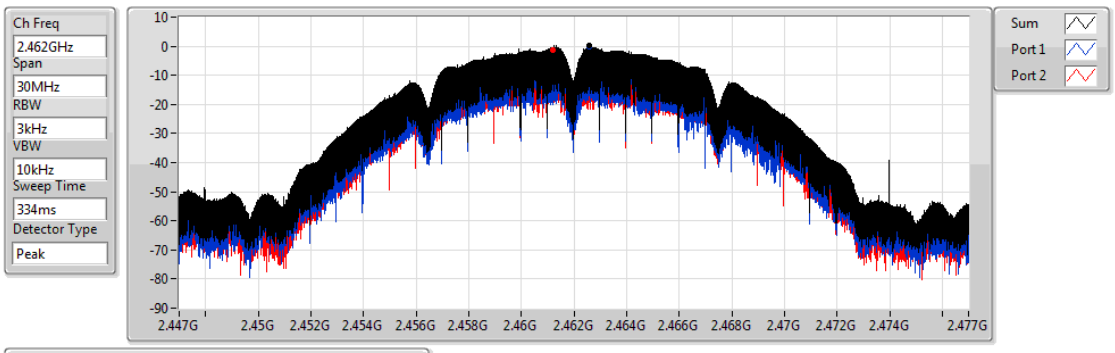
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.02	0.02	-1.37	-2.09

802.11b_Nss1,(1Mbps)_2TX **PSD**

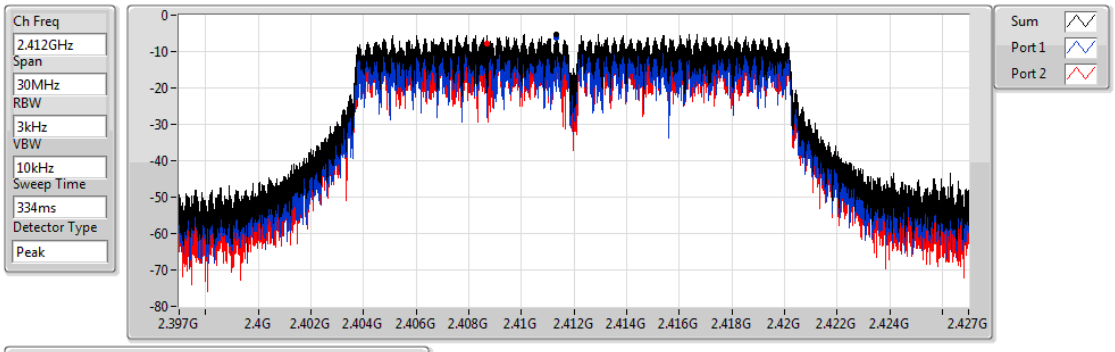
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.31	0.31	-0.31	-1.47

802.11g_Nss1,(6Mbps)_2TX PSD

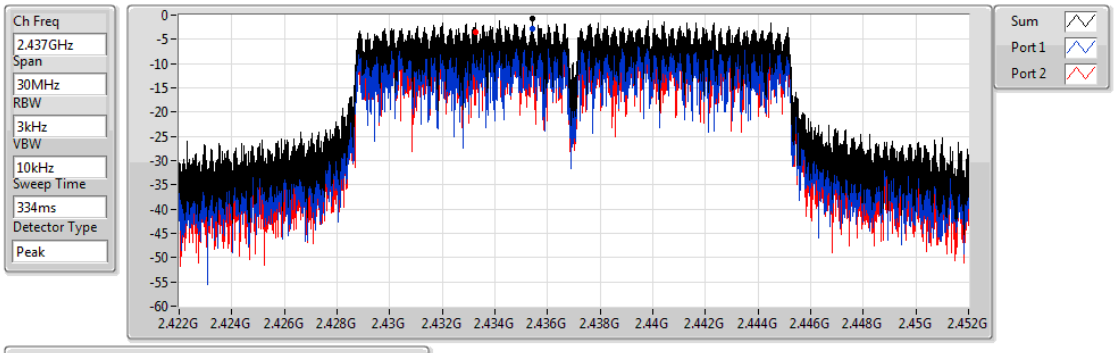
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.20	-5.20	-6.35	-7.68

802.11g_Nss1,(6Mbps)_2TX PSD

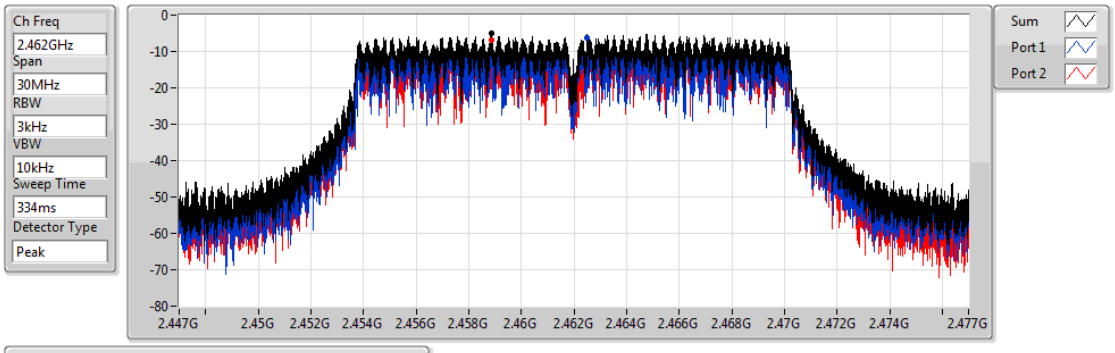
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.76	-0.76	-2.84	-3.56

802.11g_Nss1,(6Mbps)_2TX PSD

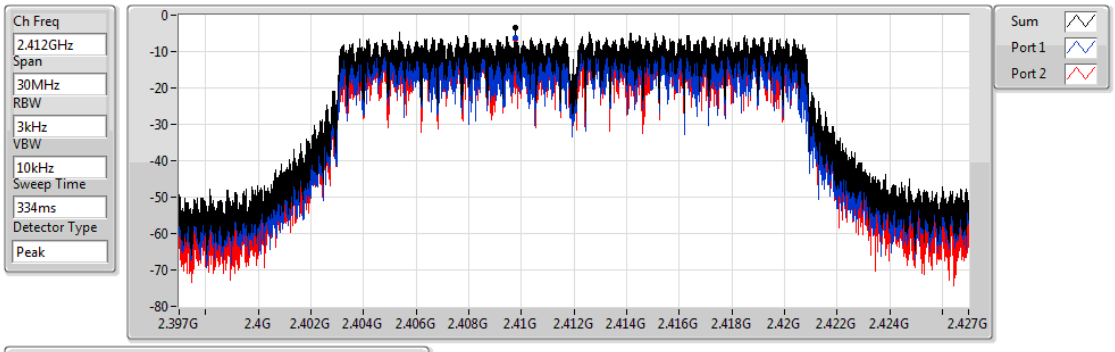
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.06	-5.06	-6.36	-7.02

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

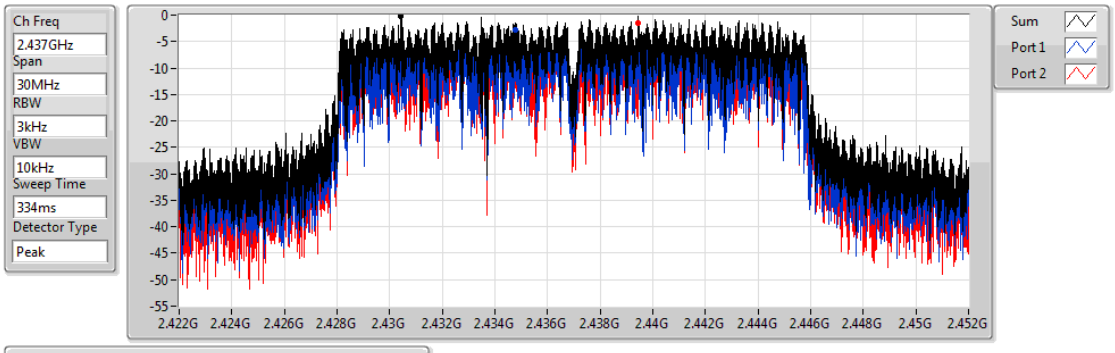
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.44	-3.44	-6.20	-6.70

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

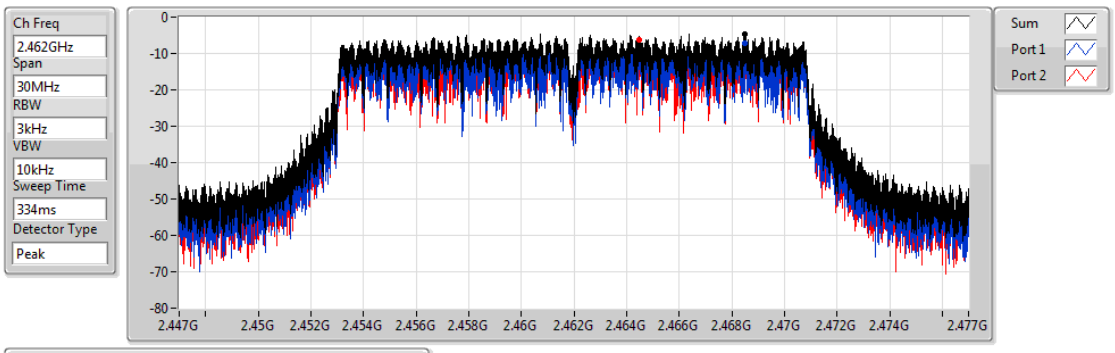
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.21	-0.21	-2.69	-1.45

802.11ac VHT20_Nss1,(MCS0)_2TX PSD

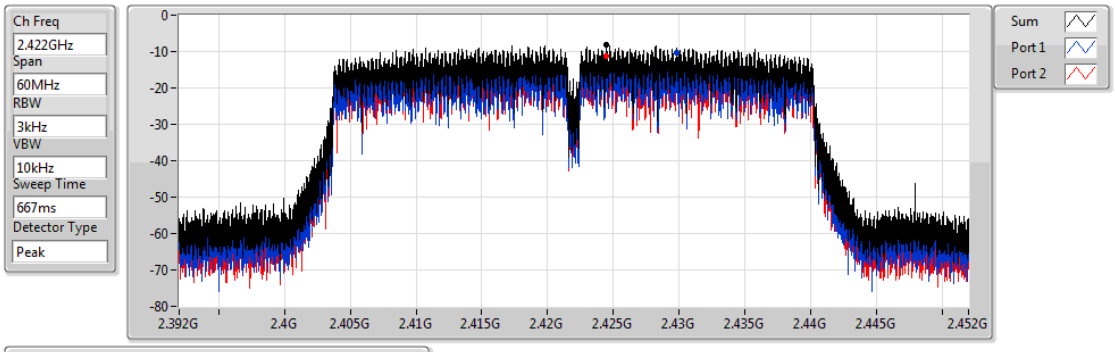
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.72	-4.72	-7.33	-6.22

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

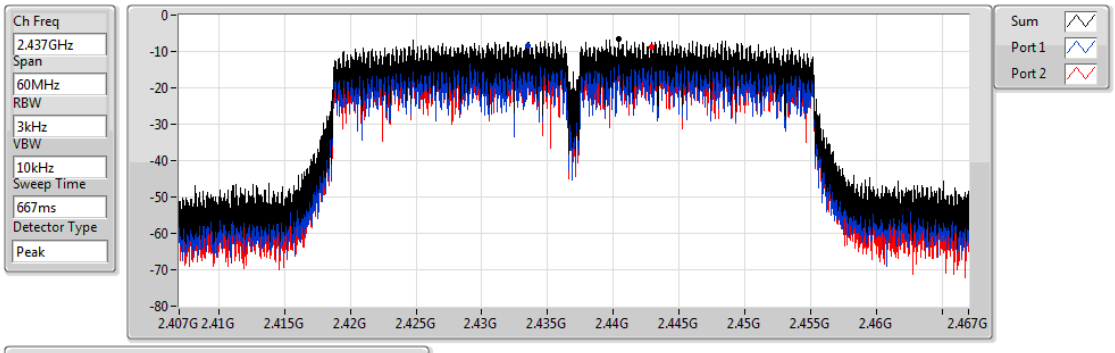
2422MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.24	-8.24	-10.24	-11.11

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

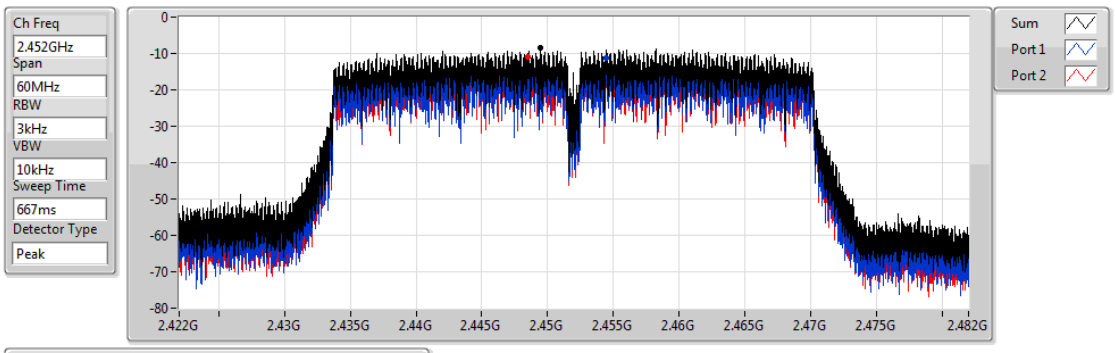
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.66	-6.66	-8.47	-8.70

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

2452MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.44	-8.44	-11.27	-10.99

Summary

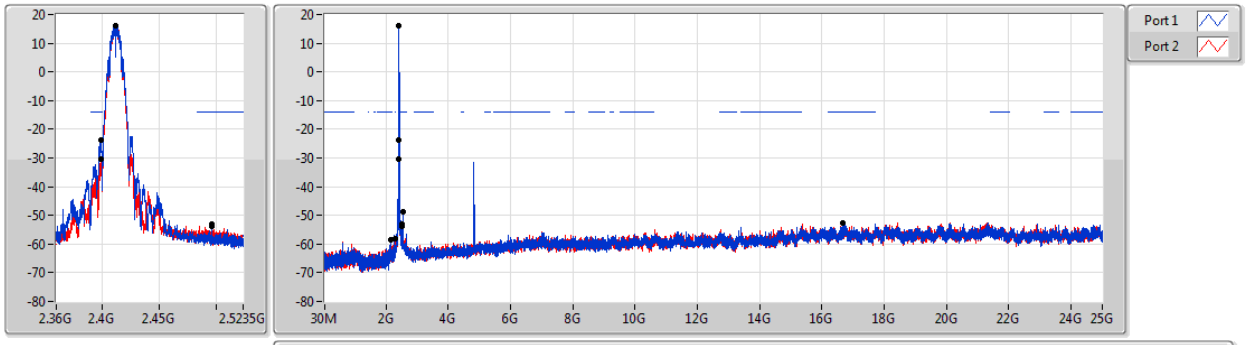
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.412358G	16.02	-13.98	2.160785G	-58.70	2.39952G	-23.93	2.49598G	-53.79	2.543167G	-48.74	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.441917G	14.59	-15.41	2.30641G	-57.86	2.39984G	-29.42	2.49598G	-52.34	2.543167G	-45.87	1
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	2.435738G	13.76	-16.24	2.30175G	-58.76	2.39888G	-29.30	2.49598G	-52.50	2.543167G	-44.93	1
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	2.434402G	7.45	-22.55	2.160845G	-57.73	2.39264G	-37.12	2.48382G	-41.88	2.574718G	-51.60	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_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.412358G	16.02	-13.98	2.160785G	-58.70	2.39952G	-23.93	2.49598G	-53.79	2.543167G	-48.74	1
2412MHz	Pass	2.412358G	16.02	-13.98	2.30641G	-58.12	2.39952G	-30.53	2.49598G	-52.86	16.661219G	-52.68	2
2437MHz	Pass	2.436406G	16.02	-13.98	2.160785G	-59.13	2.39128G	-51.41	2.49598G	-52.93	2.557215G	-47.93	1
2437MHz	Pass	2.437408G	16.02	-13.98	2.30408G	-57.63	2.39128G	-51.38	2.49598G	-51.49	17.405753G	-52.93	2
2462MHz	Pass	2.461456G	16.02	-13.98	2.188745G	-60.39	2.39992G	-53.98	2.48838G	-44.85	2.557215G	-47.75	1
2462MHz	Pass	2.462458G	16.02	-13.98	2.184085G	-58.87	2.39992G	-55.16	2.48742G	-46.08	23.544647G	-52.92	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.441917G	14.59	-15.41	2.30641G	-57.86	2.39984G	-29.42	2.49598G	-52.34	2.543167G	-45.87	1
2412MHz	Pass	2.441917G	14.59	-15.41	2.30408G	-55.83	2.39968G	-32.66	2.49598G	-51.09	7.226708G	-52.47	2
2437MHz	Pass	2.441917G	14.59	-15.41	2.160785G	-57.31	2.39696G	-37.68	2.48542G	-44.44	2.557215G	-48.94	1
2437MHz	Pass	2.441917G	14.59	-15.41	2.30408G	-58.76	2.39704G	-40.81	2.48854G	-46.31	16.680885G	-52.29	2
2462MHz	Pass	2.441917G	14.59	-15.41	2.30641G	-58.32	2.3972G	-54.32	2.48382G	-37.94	2.557215G	-46.75	1
2462MHz	Pass	2.441917G	14.59	-15.41	2.30408G	-56.40	2.39992G	-53.89	2.48366G	-41.62	21.440284G	-52.83	2
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.435738G	13.76	-16.24	2.30175G	-58.76	2.39888G	-29.30	2.49598G	-52.50	2.543167G	-44.93	1
2412MHz	Pass	2.435738G	13.76	-16.24	2.30408G	-56.25	2.39864G	-32.93	2.4959G	-51.57	7.235136G	-51.00	2
2437MHz	Pass	2.435738G	13.76	-16.24	2.30175G	-58.65	2.3996G	-37.18	2.48574G	-43.49	2.557215G	-48.32	1
2437MHz	Pass	2.435738G	13.76	-16.24	2.30408G	-57.16	2.39952G	-37.73	2.48478G	-45.03	16.315642G	-52.27	2
2462MHz	Pass	2.435738G	13.76	-16.24	2.30175G	-61.17	2.39992G	-52.60	2.48358G	-34.91	2.557215G	-47.01	1
2462MHz	Pass	2.435738G	13.76	-16.24	2.30408G	-58.09	2.39632G	-54.78	2.48382G	-39.55	16.380262G	-53.03	2
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.434402G	7.45	-22.55	2.160845G	-58.15	2.39856G	-37.90	2.55998G	-46.93	15.2878G	-53.16	1
2422MHz	Pass	2.434402G	7.45	-22.55	2.30626G	-59.60	2.39888G	-39.58	2.49598G	-51.61	24.873795G	-52.26	2
2437MHz	Pass	2.434402G	7.45	-22.55	2.160845G	-57.73	2.39264G	-37.12	2.48382G	-41.88	2.574718G	-51.60	1
2437MHz	Pass	2.434402G	7.45	-22.55	2.30397G	-57.51	2.39728G	-40.18	2.48494G	-45.12	17.422072G	-53.28	2
2452MHz	Pass	2.434402G	7.45	-22.55	2.300535G	-59.11	2.39936G	-49.68	2.48974G	-42.61	21.741098G	-52.35	1
2452MHz	Pass	2.434402G	7.45	-22.55	2.30397G	-59.66	2.3992G	-49.78	2.48478G	-45.15	16.7013G	-52.97	2

802.11b_Nss1,(1Mbps)_2TX **CSE NdB**

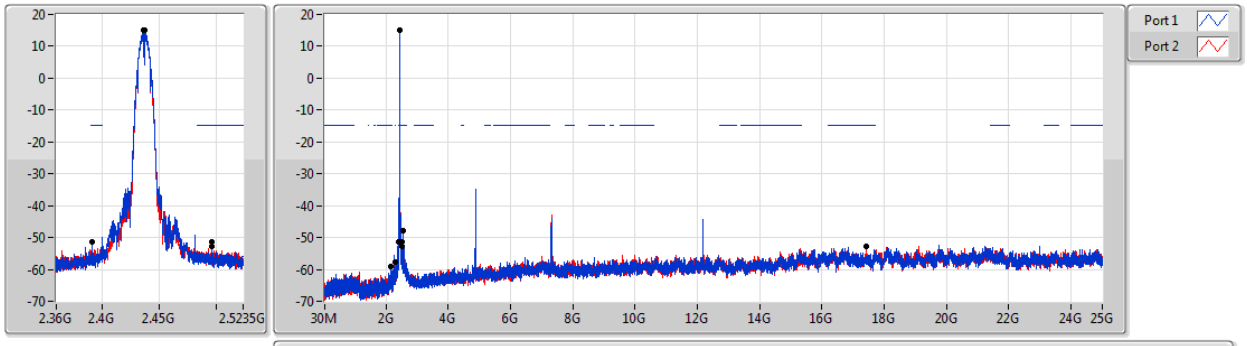
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.412358G	16.02	-13.98	2.160785G	-58.70	2.39952G	-23.93	2.49598G	-53.79	2.543167G	-48.74	1
2.412358G	16.02	-13.98	2.30641G	-58.12	2.39952G	-30.53	2.49598G	-52.86	16.661219G	-52.68	2

802.11b_Nss1,(1Mbps)_2TX **CSE NdB**

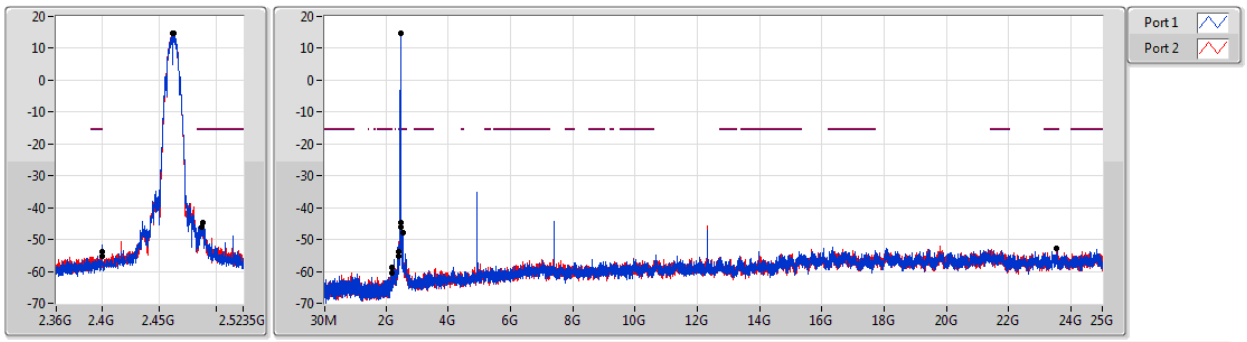
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.436406G	16.02	-13.98	2.160785G	-59.13	2.39128G	-51.41	2.49598G	-52.93	2.557215G	-47.93	1
2.437408G	16.02	-13.98	2.30408G	-57.63	2.39128G	-51.38	2.49598G	-51.49	17.405753G	-52.93	2

802.11b_Nss1,(1Mbps)_2TX **CSE NdB**

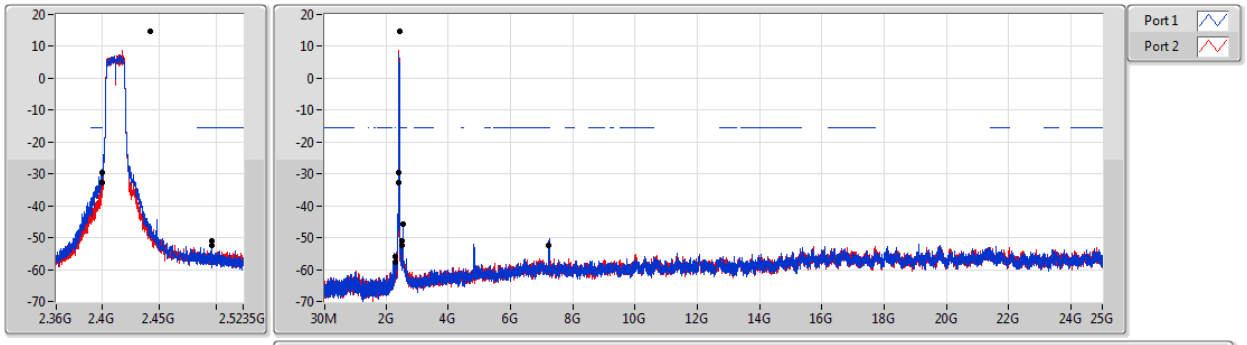
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.461456G	16.02	-13.98	2.188745G	-60.39	2.39992G	-53.98	2.48838G	-44.85	2.557215G	-47.75	1
2.462458G	16.02	-13.98	2.184085G	-58.87	2.39992G	-55.16	2.48742G	-46.08	23.544647G	-52.92	2

802.11g_Nss1,(6Mbps)_2TX **CSE NdB**

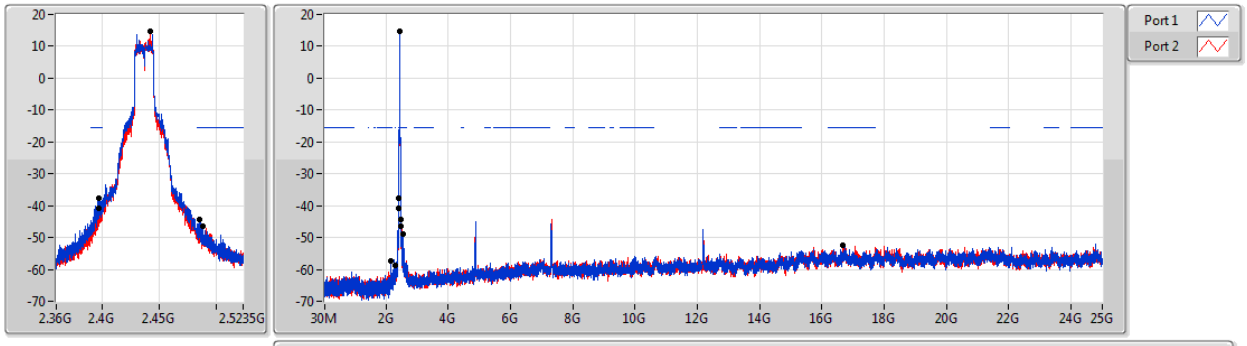
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441917G	14.59	-15.41	2.30641G	-57.86	2.39984G	-29.42	2.49598G	-52.34	2.543167G	-45.87	1
2.441917G	14.59	-15.41	2.30408G	-55.83	2.39968G	-32.66	2.49598G	-51.09	7.226708G	-52.47	2

802.11g_Nss1,(6Mbps)_2TX **CSE NdB**

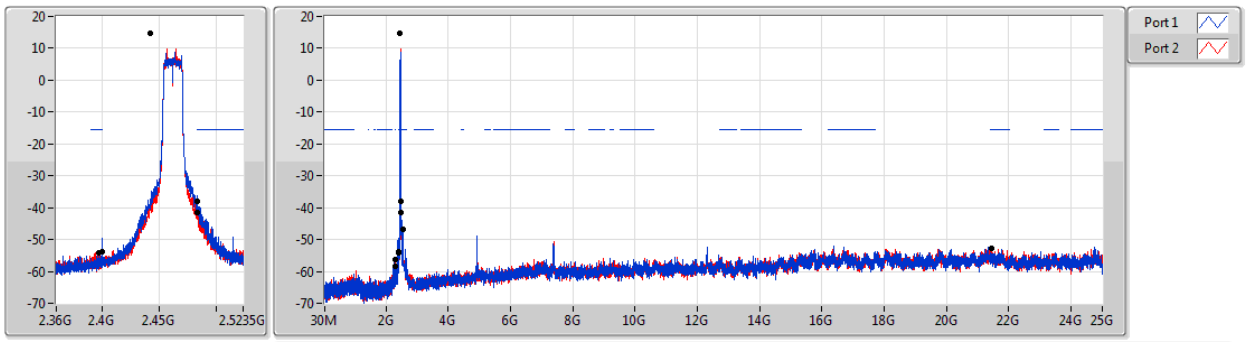
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441917G	14.59	-15.41	2.160785G	-57.31	2.39696G	-37.68	2.48542G	-44.44	2.557215G	-48.94	1
2.441917G	14.59	-15.41	2.30408G	-58.76	2.39704G	-40.81	2.48854G	-46.31	16.680885G	-52.29	2

802.11g_Nss1,(6Mbps)_2TX **CSE NdB**

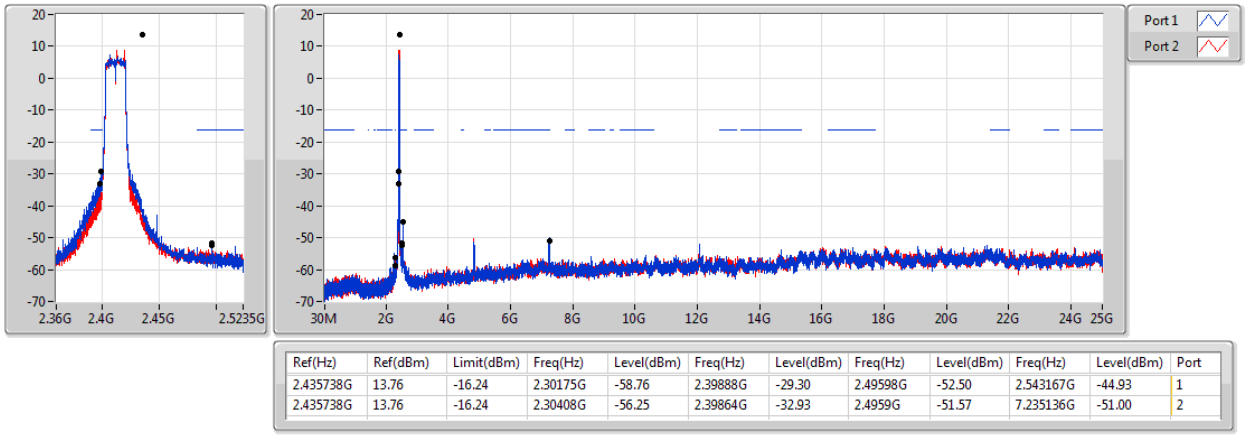
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441917G	14.59	-15.41	2.30641G	-58.32	2.3972G	-54.32	2.48382G	-37.94	2.557215G	-46.75	1
2.441917G	14.59	-15.41	2.30408G	-56.40	2.39992G	-53.89	2.48366G	-41.62	21.440284G	-52.83	2

802.11ac VHT20_Nss1,(MCS0)_2TX **CSE NdB**

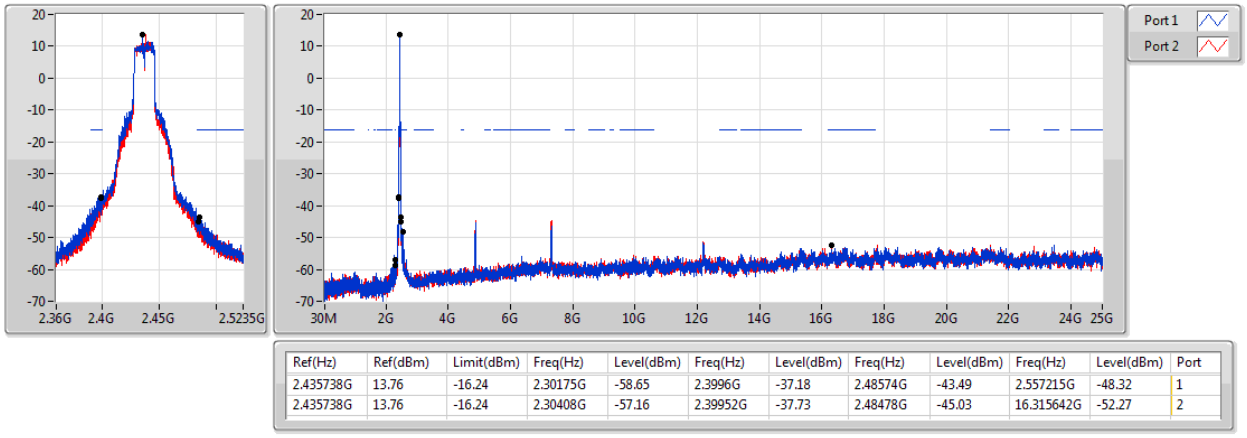
2412MHz



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	13.76	-16.24	2.30175G	-58.76	2.39888G	-29.30	2.49598G	-52.50	2.543167G	-44.93	1
2.435738G	13.76	-16.24	2.30408G	-56.25	2.39864G	-32.93	2.4959G	-51.57	7.235136G	-51.00	2

802.11ac VHT20_Nss1,(MCS0)_2TX **CSE NdB**

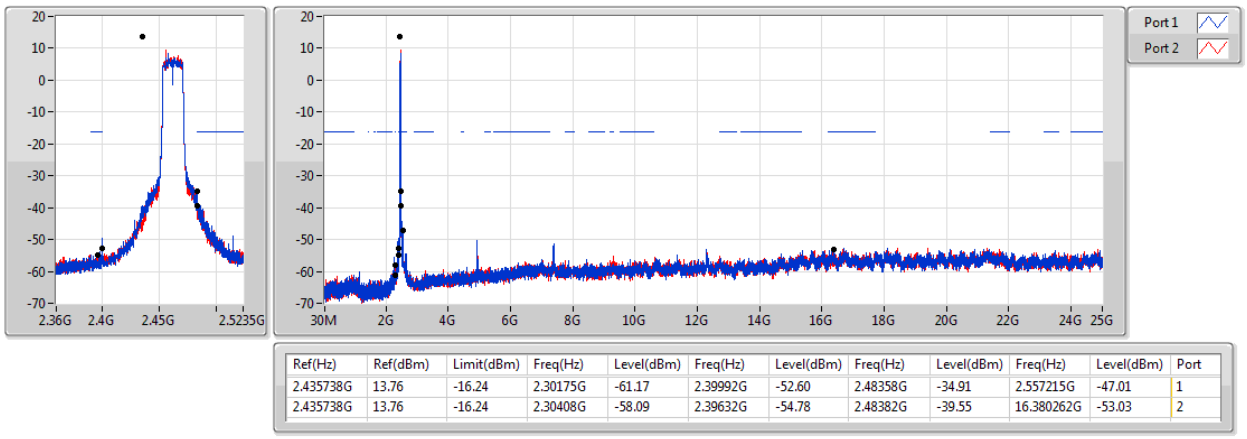
2437MHz



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	13.76	-16.24	2.30175G	-58.65	2.3996G	-37.18	2.48574G	-43.49	2.557215G	-48.32	1
2.435738G	13.76	-16.24	2.30408G	-57.16	2.39952G	-37.73	2.48478G	-45.03	16.315642G	-52.27	2

802.11ac VHT20_Nss1,(MCS0)_2TX **CSE NdB**

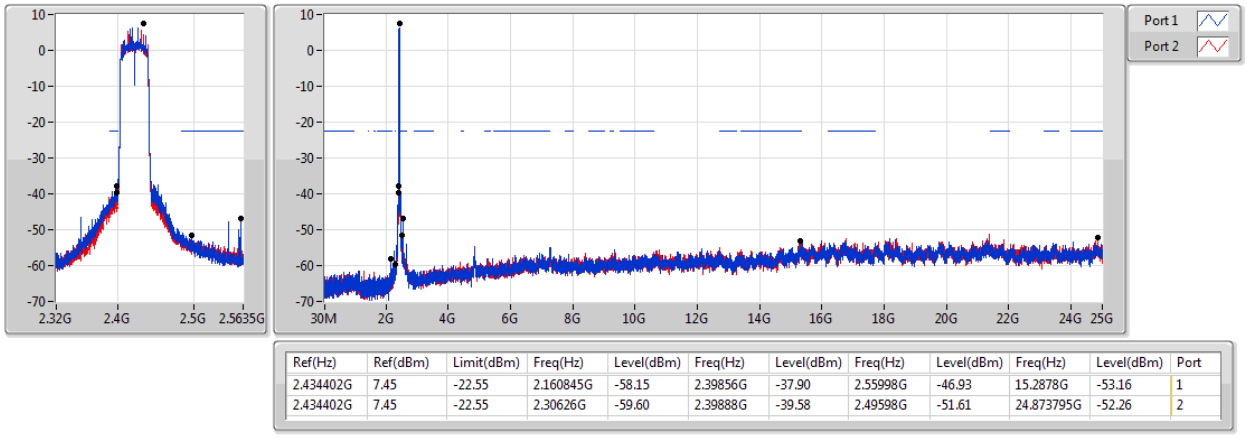
2462MHz



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	13.76	-16.24	2.30175G	-61.17	2.39992G	-52.60	2.48358G	-34.91	2.557215G	-47.01	1
2.435738G	13.76	-16.24	2.30408G	-58.09	2.39632G	-54.78	2.48382G	-39.55	16.380262G	-53.03	2

802.11ac VHT40_Nss1,(MCS0)_2TX **CSE NdB**

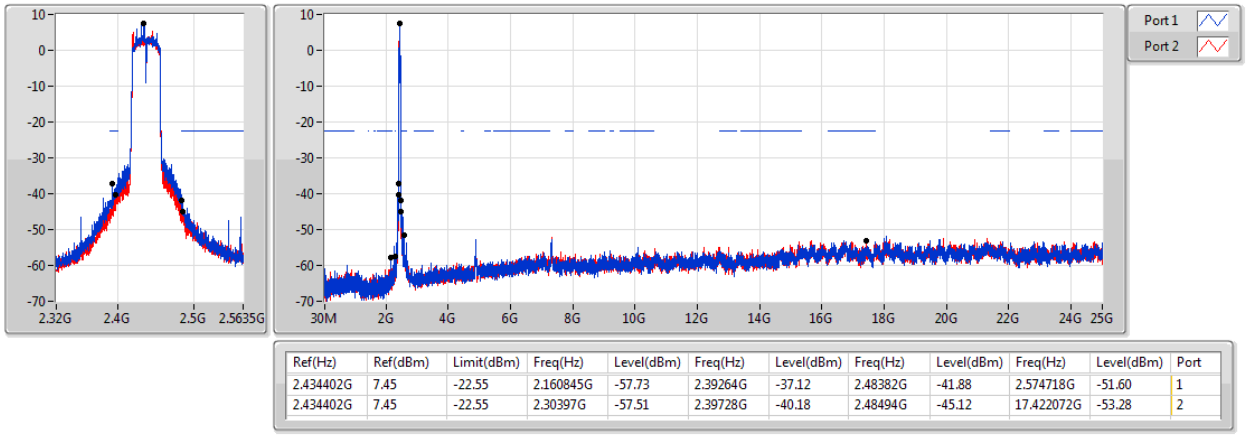
2422MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.434402G	7.45	-22.55	2.160845G	-58.15	2.39856G	-37.90	2.55998G	-46.93	15.2878G	-53.16	1
2.434402G	7.45	-22.55	2.30626G	-59.60	2.39888G	-39.58	2.49598G	-51.61	24.873795G	-52.26	2

802.11ac VHT40_Nss1,(MCS0)_2TX **CSE NdB**

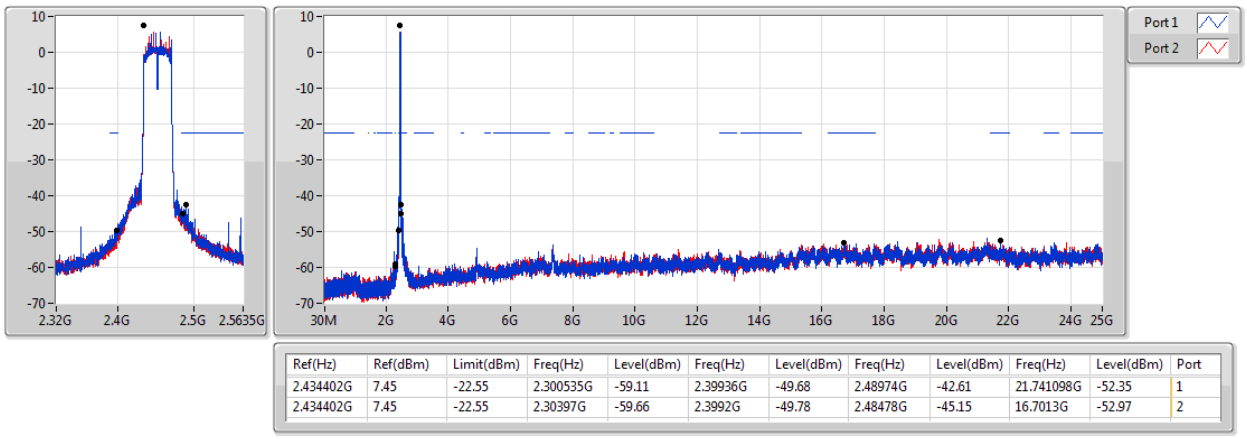
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.434402G	7.45	-22.55	2.160845G	-57.73	2.39264G	-37.12	2.48382G	-41.88	2.574718G	-51.60	1
2.434402G	7.45	-22.55	2.30397G	-57.51	2.39728G	-40.18	2.48494G	-45.12	17.422072G	-53.28	2

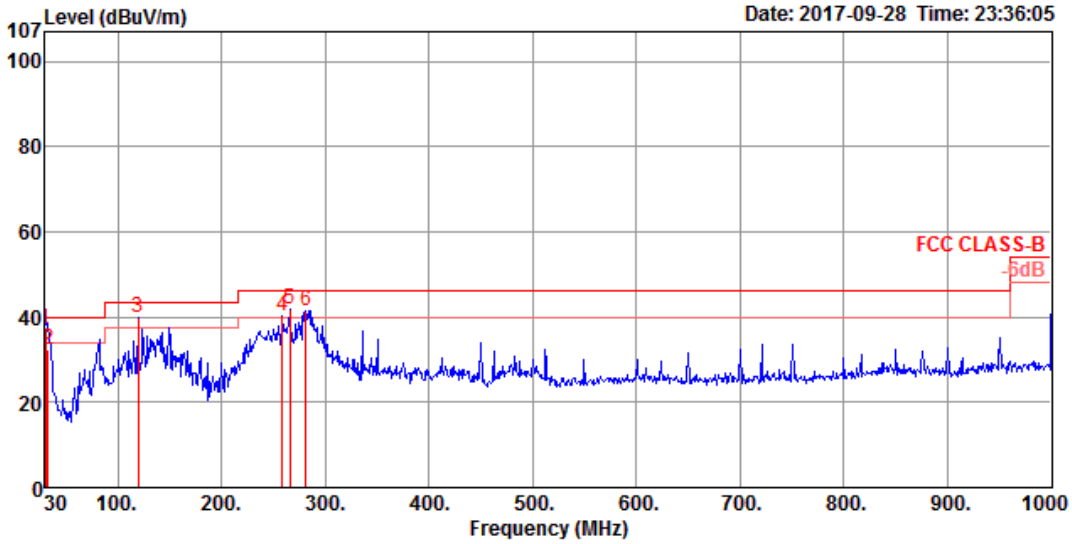
802.11ac VHT40_Nss1,(MCS0)_2TX **CSE NdB**

2452MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.434402G	7.45	-22.55	2.300535G	-59.11	2.39936G	-49.68	2.48974G	-42.61	21.741098G	-52.35	1
2.434402G	7.45	-22.55	2.30397G	-59.66	2.3992G	-49.78	2.48478G	-45.15	16.7013G	-52.97	2

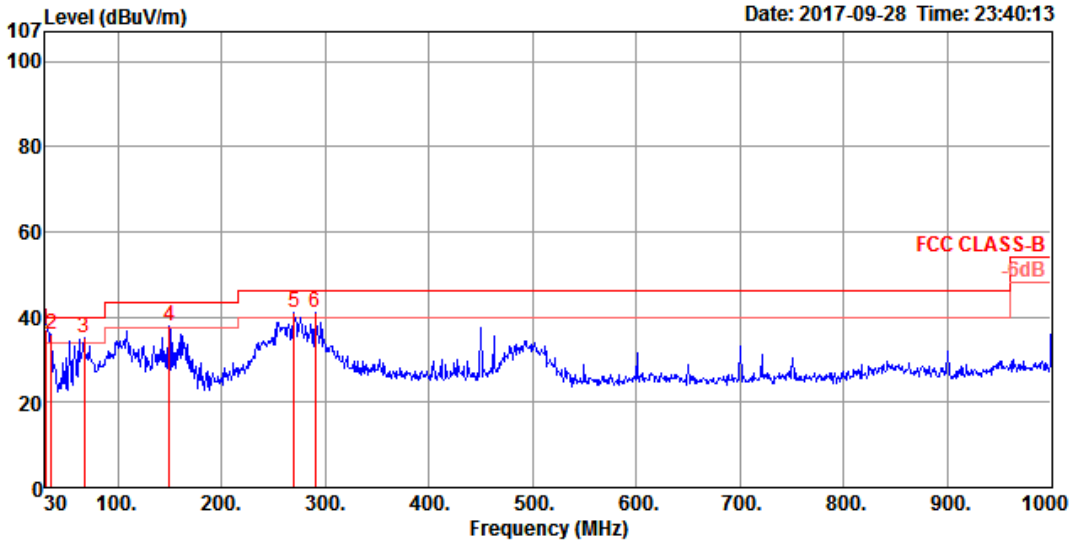
RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	Normal Link - AP mode: EUT in Y axis		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	30.00	36.92	40.00	-3.08	43.40	0.53	24.45	31.46	150	357	QP	HORIZONTAL
2	32.91	32.33	40.00	-7.67	40.70	0.53	22.62	31.52	200	197	QP	HORIZONTAL
3	119.24	40.06	43.50	-3.44	52.75	0.87	18.29	31.85	300	248	Peak	HORIZONTAL
4	258.92	40.38	46.00	-5.62	51.77	1.27	19.30	31.96	125	237	Peak	HORIZONTAL
5	265.71	41.69	46.00	-4.31	53.19	1.29	19.20	31.99	150	305	Peak	HORIZONTAL
6	281.23	41.64	46.00	-4.36	53.55	1.33	18.76	32.00	125	181	Peak	HORIZONTAL

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

RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Vertical
Operating Function	Normal Link - AP mode: EUT in Y axis		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	30.00	36.99	40.00	-3.01	43.34	0.66	24.45	31.46	150	104	QP	VERTICAL
2	35.82	36.11	40.00	-3.89	46.18	0.67	20.84	31.58	300	159	Peak	VERTICAL
3	67.83	35.16	40.00	-4.84	53.63	1.03	12.32	31.82	100	207	Peak	VERTICAL
4	149.31	37.88	43.50	-5.62	51.87	1.50	16.40	31.89	100	207	Peak	VERTICAL
5	269.59	41.10	46.00	-4.90	52.00	2.03	19.08	32.01	200	266	Peak	VERTICAL
6	289.96	40.89	46.00	-5.11	51.92	2.08	18.90	32.01	200	266	Peak	VERTICAL

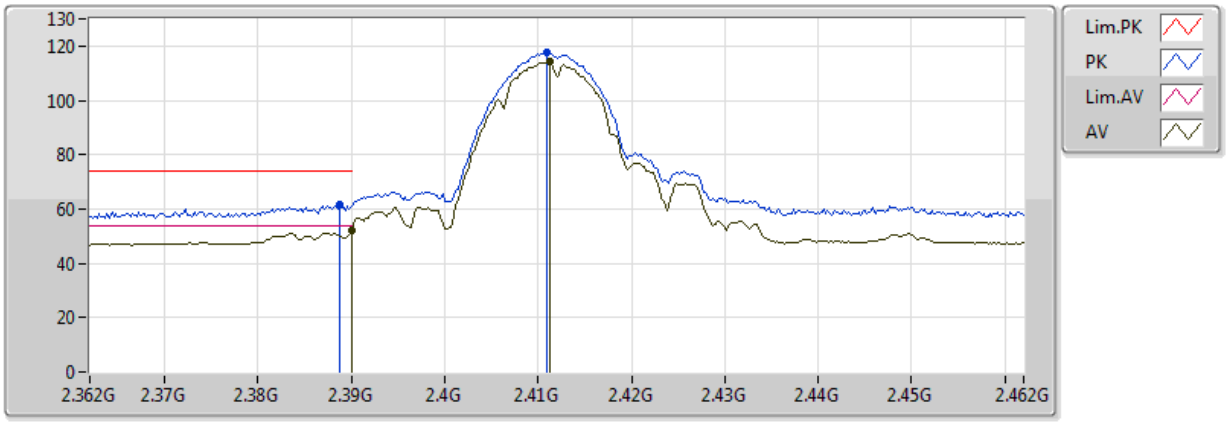
Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11g_Nss1,(6Mbps)_2TX	Pass	AV	2.4836G	52.94	54.00	-1.06	32.40	3	Vertical	179	2.42	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

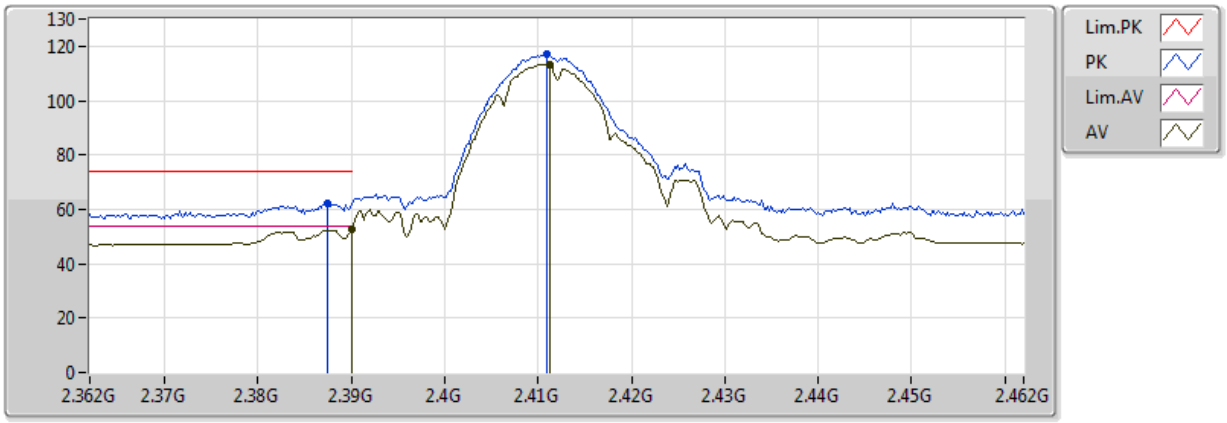


20170928
EUT Z_2TX
Setting 25.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.39G	51.89	54.00	-2.11	32.13	3	Vertical	125	1.24
AV	2.4112G	114.08	Inf	-Inf	32.19	3	Vertical	125	1.24
PK	2.3888G	61.74	74.00	-12.26	32.13	3	Vertical	125	1.24
PK	2.411G	117.68	Inf	-Inf	32.19	3	Vertical	125	1.24

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX



20170928
EUT Z_2TX
Setting 25.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.39G	52.75	54.00	-1.25	32.13	3	Horizontal	115	1.59
AV	2.4112G	113.38	Inf	-Inf	32.19	3	Horizontal	115	1.59
PK	2.3874G	61.95	74.00	-12.05	32.12	3	Horizontal	115	1.59
PK	2.411G	117.05	Inf	-Inf	32.19	3	Horizontal	115	1.59

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

20170928
EUT Z_2TX
Setting 25.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.82394G	48.03	54.00	-5.97	8.85	3	Vertical	94	2.79
PK	4.82406G	52.56	74.00	-21.44	8.85	3	Vertical	94	2.79

802.11b_Nss1,(1Mbps)_2TX

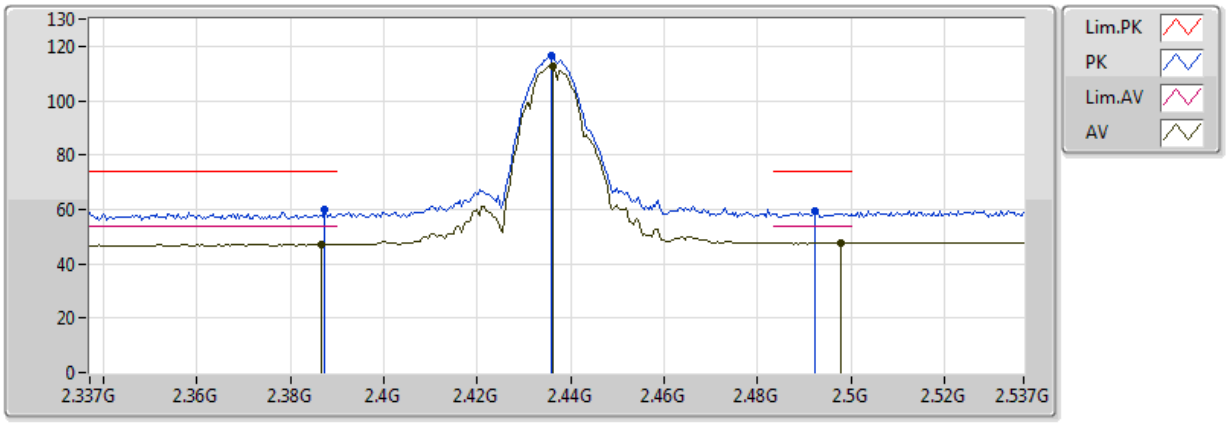
2412MHz_TX

20170928
EUT Z_2TX
Setting 25.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.824G	38.71	54.00	-15.29	8.85	3	Horizontal	226	1.50
PK	4.82402G	48.29	74.00	-25.71	8.85	3	Horizontal	226	1.50

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

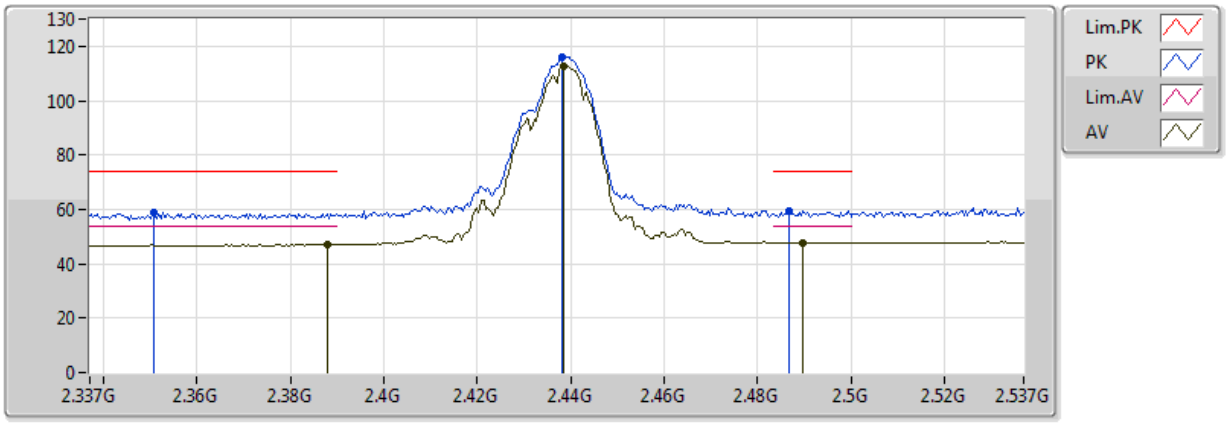


20170928
EUT Z_2TX
Setting 24.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.3866G	47.19	54.00	-6.81	32.12	3	Vertical	60	2.02
AV	2.4362G	112.58	Inf	-Inf	32.26	3	Vertical	60	2.02
AV	2.4978G	47.72	54.00	-6.28	32.44	3	Vertical	60	2.02
PK	2.3874G	59.93	74.00	-14.07	32.12	3	Vertical	60	2.02
PK	2.4358G	116.41	Inf	-Inf	32.26	3	Vertical	60	2.02
PK	2.4922G	59.13	74.00	-14.87	32.43	3	Vertical	60	2.02

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX



20170928
EUT Z_2TX
Setting 24.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.3878G	47.18	54.00	-6.82	32.12	3	Horizontal	255	2.72
AV	2.4386G	112.69	Inf	-Inf	32.27	3	Horizontal	255	2.72
AV	2.4898G	47.86	54.00	-6.14	32.42	3	Horizontal	255	2.72
PK	2.3506G	58.69	74.00	-15.31	32.01	3	Horizontal	255	2.72
PK	2.4382G	116.11	Inf	-Inf	32.27	3	Horizontal	255	2.72
PK	2.4866G	59.57	74.00	-14.43	32.41	3	Horizontal	255	2.72

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

20170928
EUT Z_2TX
Setting 24.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	7.3117G	50.66	54.00	-3.34	12.91	3	Vertical	80	2.70
PK	7.3118G	57.52	74.00	-16.48	12.91	3	Vertical	80	2.70

802.11b_Nss1,(1Mbps)_2TX

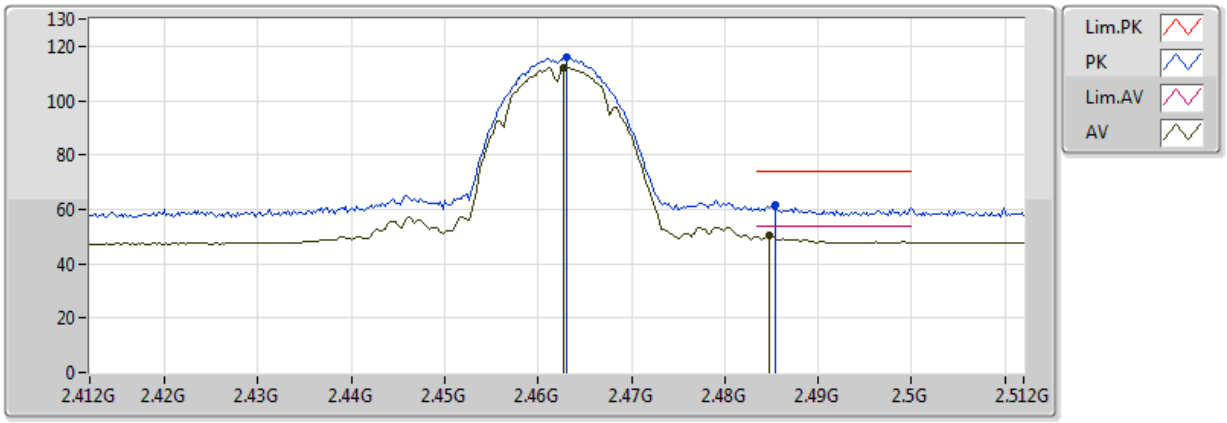
2437MHz_TX

20170928
EUT Z_2TX
Setting 24.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	7.31192G	50.98	54.00	-3.02	12.91	3	Horizontal	190	2.79
PK	7.31176G	57.01	74.00	-16.99	12.91	3	Horizontal	190	2.79

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

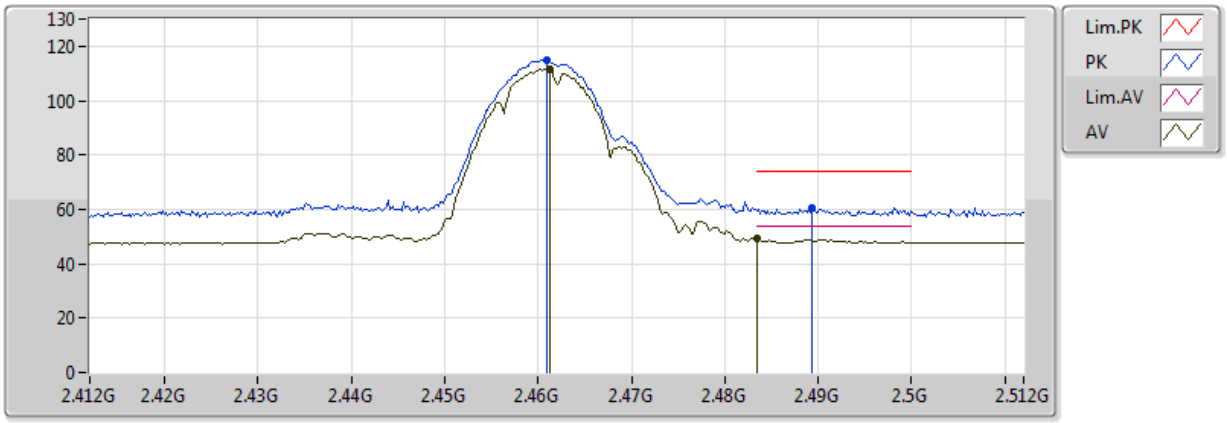


20170928
EUT Z_2TX
Setting 24 (开1 Over)
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.4628G	112.11	Inf	-Inf	32.34	3	Vertical	132	1.02
AV	2.4848G	50.70	54.00	-3.30	32.41	3	Vertical	132	1.02
PK	2.463G	115.91	Inf	-Inf	32.34	3	Vertical	132	1.02
PK	2.4854G	61.81	74.00	-12.19	32.41	3	Vertical	132	1.02

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX



20170928
EUT Z_2TX
Setting 24
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.4612G	111.46	Inf	-Inf	32.34	3	Horizontal	250	1.20
AV	2.483502G	49.42	54.00	-4.58	32.40	3	Horizontal	250	1.20
PK	2.461G	115.07	Inf	-Inf	32.34	3	Horizontal	250	1.20
PK	2.4894G	60.41	74.00	-13.59	32.42	3	Horizontal	250	1.20

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

20170928
EUT Z_2TX
Setting 24
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	7.38464G	44.26	54.00	-9.74	13.07	3	Vertical	76	2.73
PK	7.38428G	53.81	74.00	-20.19	13.07	3	Vertical	76	2.73

802.11b_Nss1,(1Mbps)_2TX

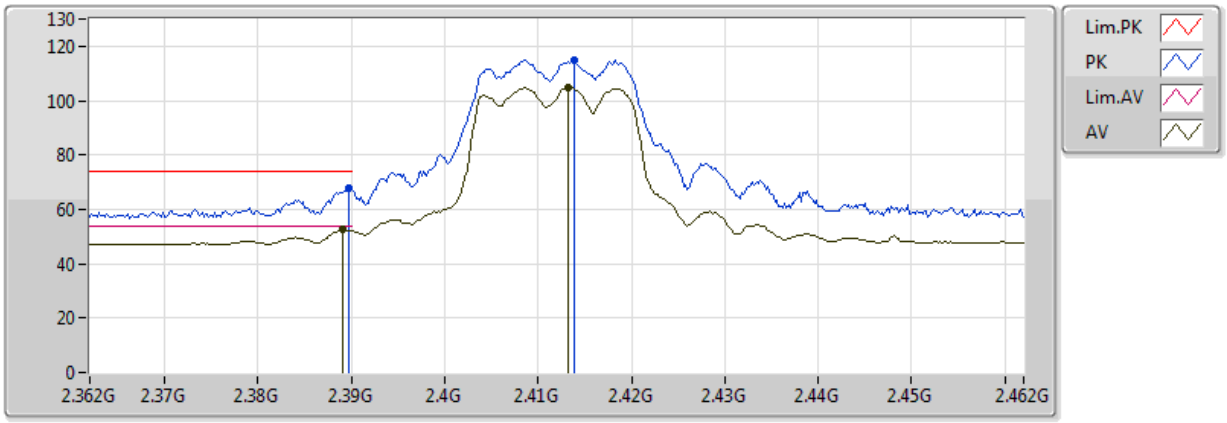
2462MHz_TX

20170928
EUT Z_2TX
Setting 24
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	7.38416G	45.16	54.00	-8.84	13.07	3	Horizontal	330	2.76
PK	7.38432G	54.33	74.00	-19.67	13.07	3	Horizontal	330	2.76

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

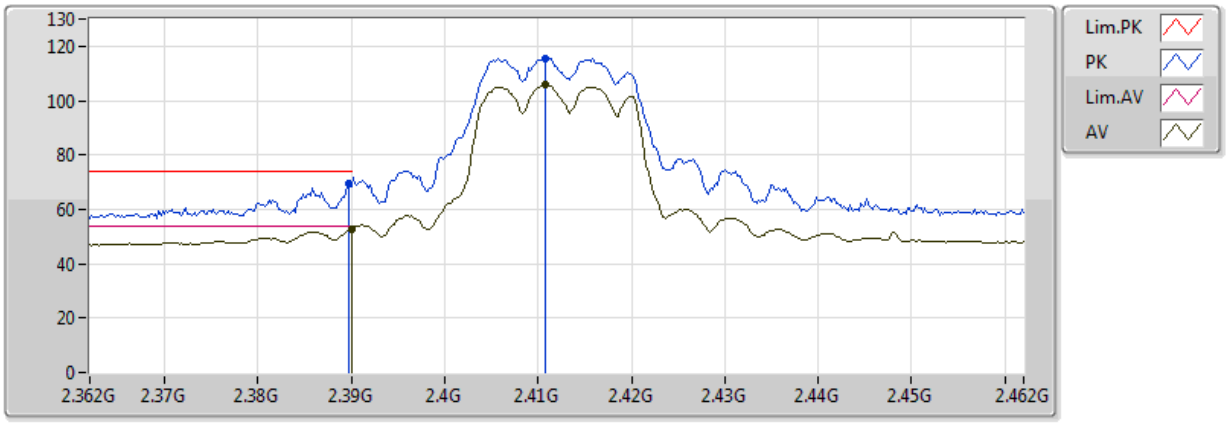


20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.389G	52.47	54.00	-1.53	32.13	3	Vertical	200	2.79
AV	2.4132G	104.89	Inf	-Inf	32.20	3	Vertical	200	2.79
PK	2.3898G	68.00	74.00	-6.00	32.13	3	Vertical	200	2.79
PK	2.4138G	114.91	Inf	-Inf	32.20	3	Vertical	200	2.79

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX



20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.39G	52.83	54.00	-1.17	32.13	3	Horizontal	88	1.37
AV	2.4108G	105.94	Inf	-Inf	32.19	3	Horizontal	88	1.37
PK	2.3898G	69.72	74.00	-4.28	32.13	3	Horizontal	88	1.37
PK	2.4108G	115.42	Inf	-Inf	32.19	3	Horizontal	88	1.37

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.82192G	38.07	54.00	-15.93	8.85	3	Vertical	325	2.73
PK	4.82192G	51.18	74.00	-22.82	8.85	3	Vertical	325	2.73

802.11g_Nss1,(6Mbps)_2TX

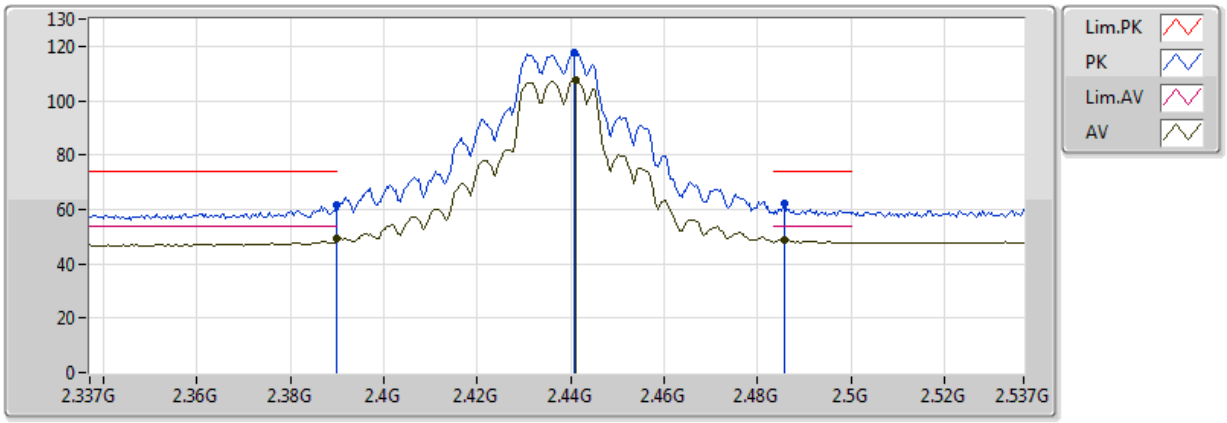
2412MHz_TX

20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.82188G	38.17	54.00	-15.83	8.85	3	Horizontal	38	2.26
PK	4.82204G	51.60	74.00	-22.40	8.85	3	Horizontal	38	2.26

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

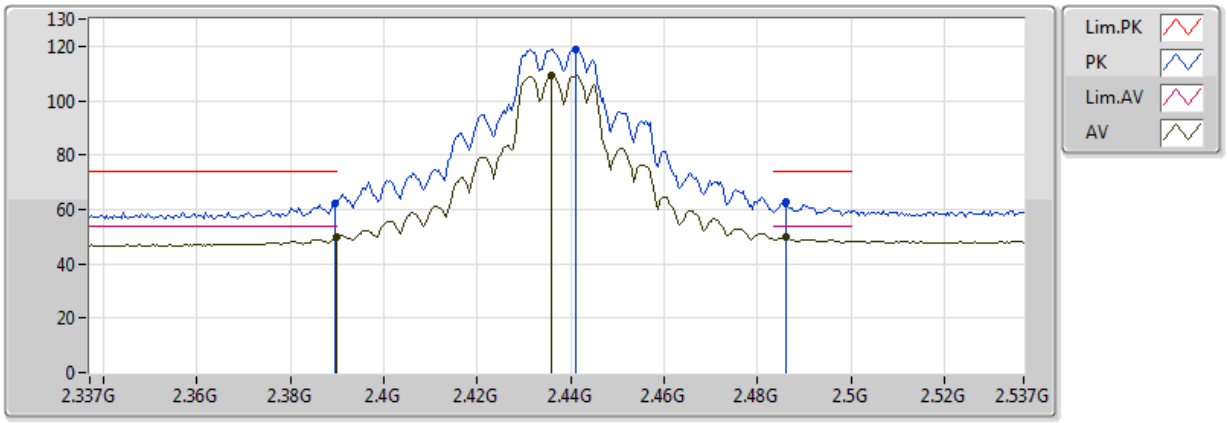


20170928
EUT Z_2TX
Setting 26.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.389998G	49.04	54.00	-4.96	32.13	3	Vertical	185	2.08
AV	2.441G	107.86	Inf	-Inf	32.28	3	Vertical	185	2.08
AV	2.4858G	48.66	54.00	-5.34	32.41	3	Vertical	185	2.08
PK	2.389998G	61.86	74.00	-12.14	32.13	3	Vertical	185	2.08
PK	2.4406G	117.59	Inf	-Inf	32.28	3	Vertical	185	2.08
PK	2.4858G	61.97	74.00	-12.03	32.41	3	Vertical	185	2.08

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX



20170928
EUT Z_2TX
Setting 26.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.389998G	49.83	54.00	-4.17	32.13	3	Horizontal	83	1.18
AV	2.4358G	109.31	Inf	-Inf	32.26	3	Horizontal	83	1.18
AV	2.4862G	49.89	54.00	-4.11	32.41	3	Horizontal	83	1.18
PK	2.3894G	62.44	74.00	-11.56	32.13	3	Horizontal	83	1.18
PK	2.441G	118.86	Inf	-Inf	32.28	3	Horizontal	83	1.18
PK	2.4862G	62.56	74.00	-11.44	32.41	3	Horizontal	83	1.18

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

20170928
EUT Z_2TX
Setting 26.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	7.30932G	43.74	54.00	-10.26	12.90	3	Vertical	207	2.33
PK	7.3142G	56.67	74.00	-17.33	12.91	3	Vertical	207	2.33

802.11g_Nss1,(6Mbps)_2TX

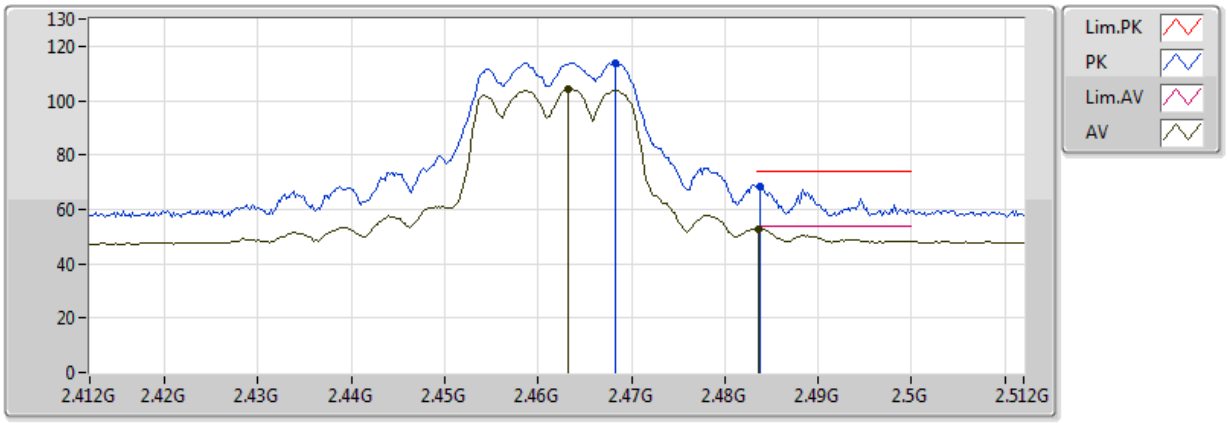
2437MHz_TX

20170928
EUT Z_2TX
Setting 26.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	7.30948G	42.11	54.00	-11.89	12.90	3	Horizontal	75	2.48
PK	7.30984G	54.73	74.00	-19.27	12.90	3	Horizontal	75	2.48

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

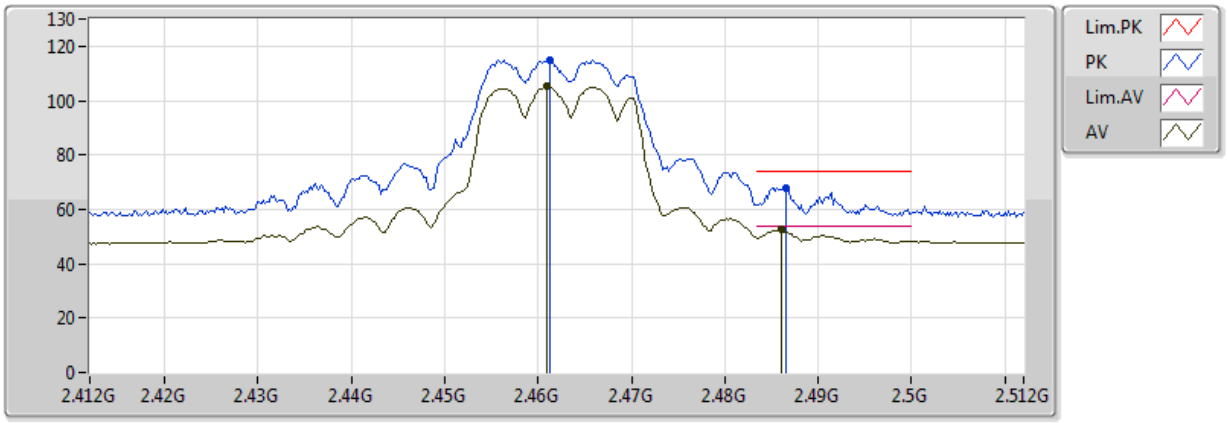


20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.4632G	104.12	Inf	-Inf	32.34	3	Vertical	179	2.42
AV	2.4836G	52.94	54.00	-1.06	32.40	3	Vertical	179	2.42
PK	2.4682G	113.92	Inf	-Inf	32.36	3	Vertical	179	2.42
PK	2.4838G	68.11	74.00	-5.89	32.40	3	Vertical	179	2.42

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

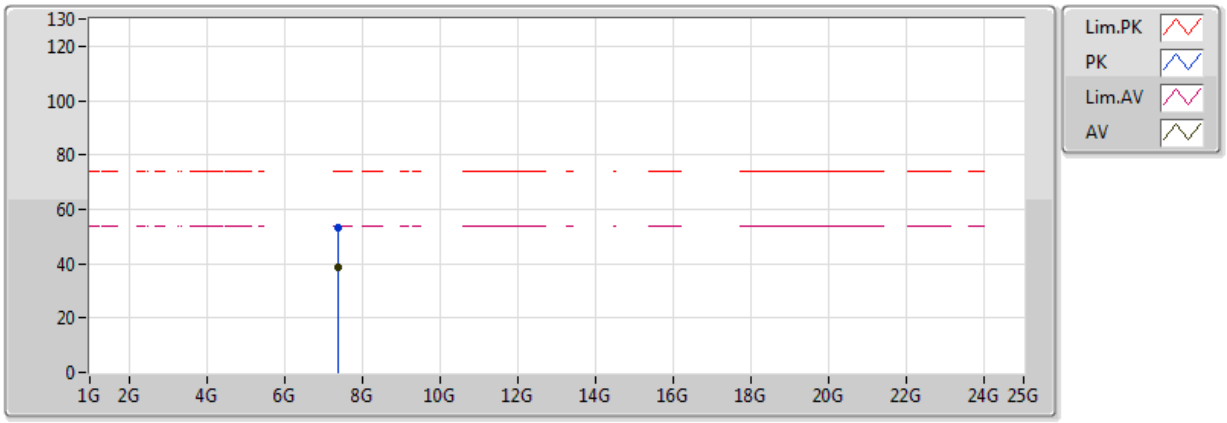


20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.461G	105.30	Inf	-Inf	32.34	3	Horizontal	77	2.71
AV	2.486G	52.69	54.00	-1.31	32.41	3	Horizontal	77	2.71
PK	2.4612G	114.88	Inf	-Inf	32.34	3	Horizontal	77	2.71
PK	2.4866G	68.05	74.00	-5.95	32.41	3	Horizontal	77	2.71

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX



20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	7.39104G	38.93	54.00	-15.07	13.08	3	Vertical	230	1.03
PK	7.39408G	52.96	74.00	-21.04	13.09	3	Vertical	230	1.03

802.11g_Nss1,(6Mbps)_2TX

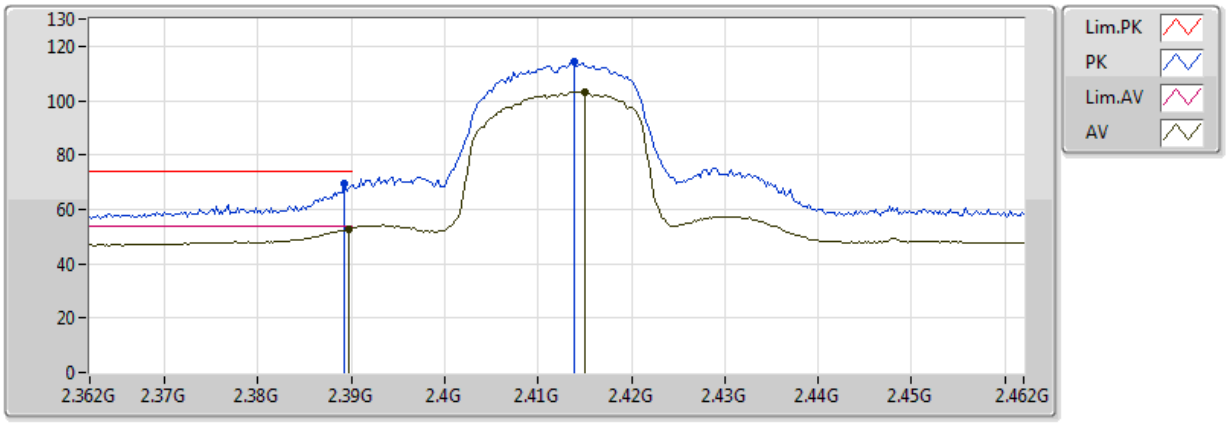
2462MHz_TX

20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	7.3902G	38.96	54.00	-15.04	13.08	3	Horizontal	9	1.96
PK	7.38488G	52.63	74.00	-21.37	13.07	3	Horizontal	9	1.96

802.11ac VHT20_Nss1,(MCS0)_2TX

2412MHz_TX

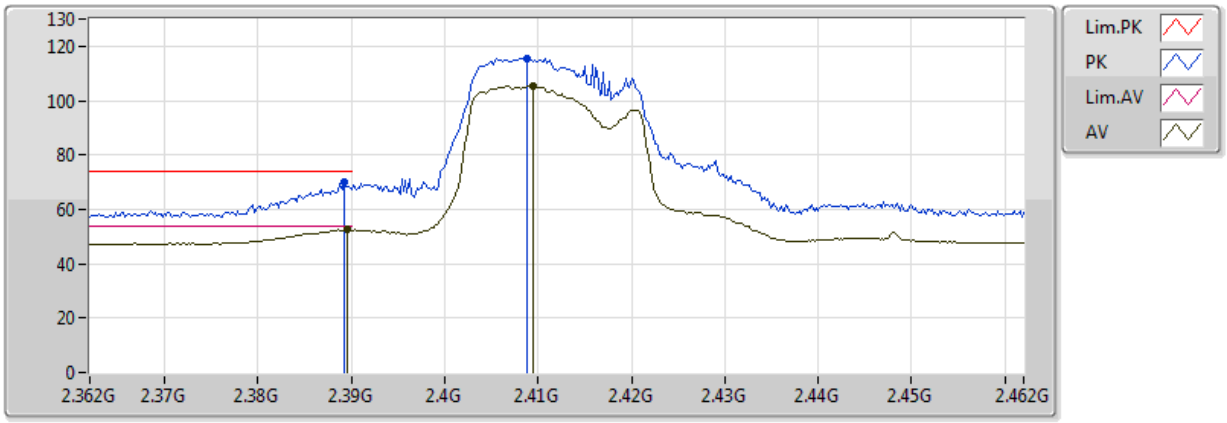


20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.3898G	52.91	54.00	-1.09	32.13	3	Vertical	102	1.06
AV	2.415G	103.16	Inf	-Inf	32.20	3	Vertical	102	1.06
PK	2.3892G	69.52	74.00	-4.48	32.13	3	Vertical	102	1.06
PK	2.4138G	114.30	Inf	-Inf	32.20	3	Vertical	102	1.06

802.11ac VHT20_Nss1,(MCS0)_2TX

2412MHz_TX

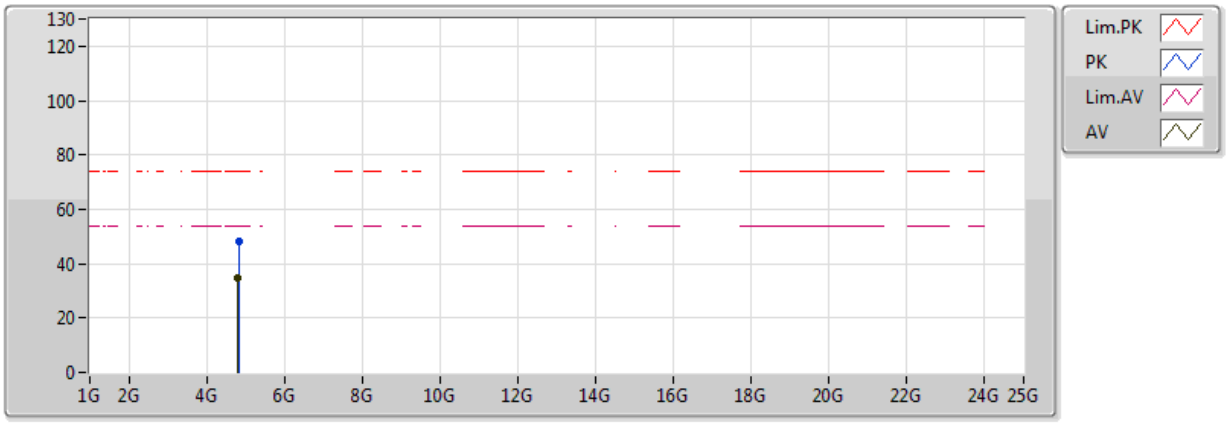


20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.3896G	52.55	54.00	-1.45	32.13	3	Horizontal	68	1.38
AV	2.4094G	105.37	Inf	-Inf	32.19	3	Horizontal	68	1.38
PK	2.3892G	69.82	74.00	-4.18	32.13	3	Horizontal	68	1.38
PK	2.4088G	115.66	Inf	-Inf	32.19	3	Horizontal	68	1.38

802.11ac VHT20_Nss1,(MCS0)_2TX

2412MHz_TX

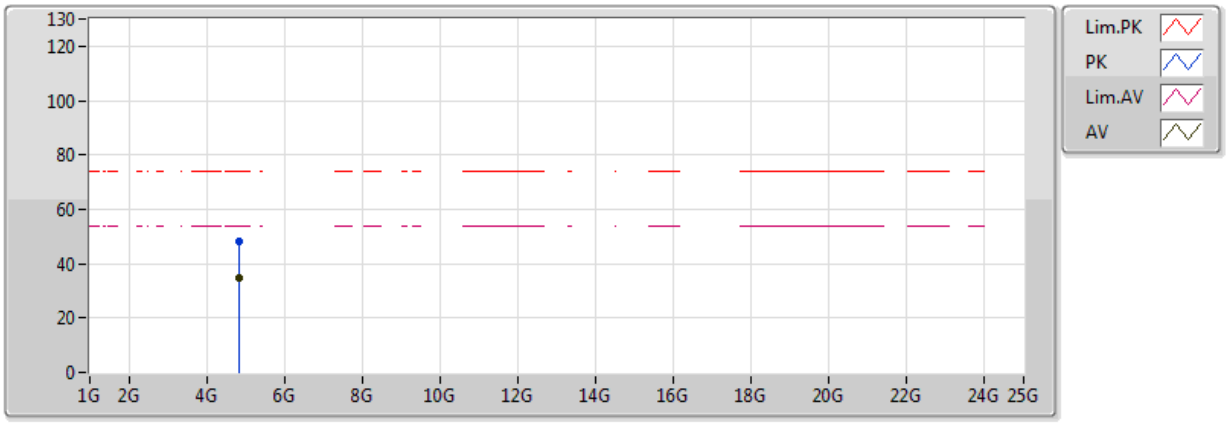


20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.81664G	34.69	54.00	-19.31	8.83	3	Vertical	33	1.95
PK	4.81864G	48.07	74.00	-25.93	8.84	3	Vertical	33	1.95

802.11ac VHT20_Nss1,(MCS0)_2TX

2412MHz_TX

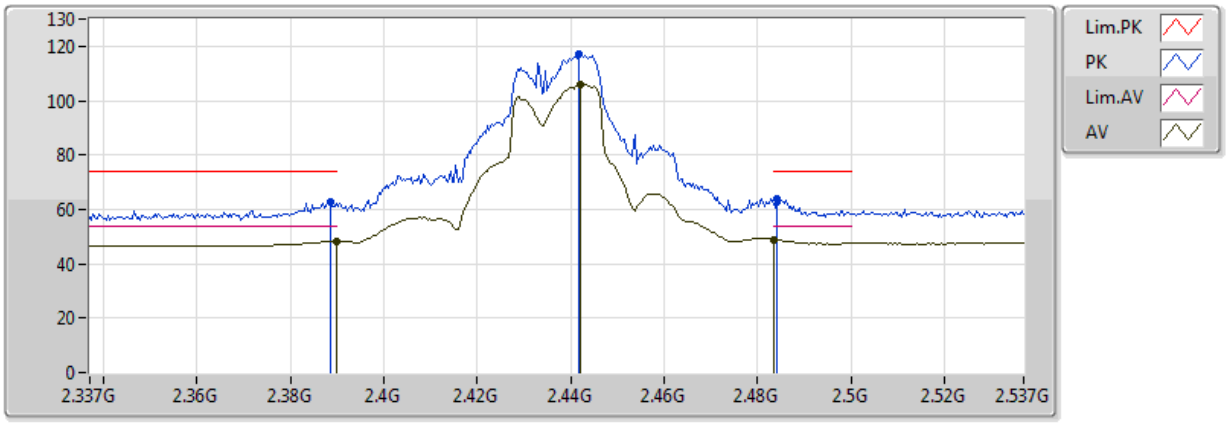


20170928
EUT Z_2TX
Setting 20.5
02-Z-1
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.83128G	34.91	54.00	-19.09	8.88	3	Horizontal	251	1.82
PK	4.82068G	48.09	74.00	-25.91	8.84	3	Horizontal	251	1.82

802.11ac VHT20_Nss1,(MCS0)_2TX

2437MHz_TX

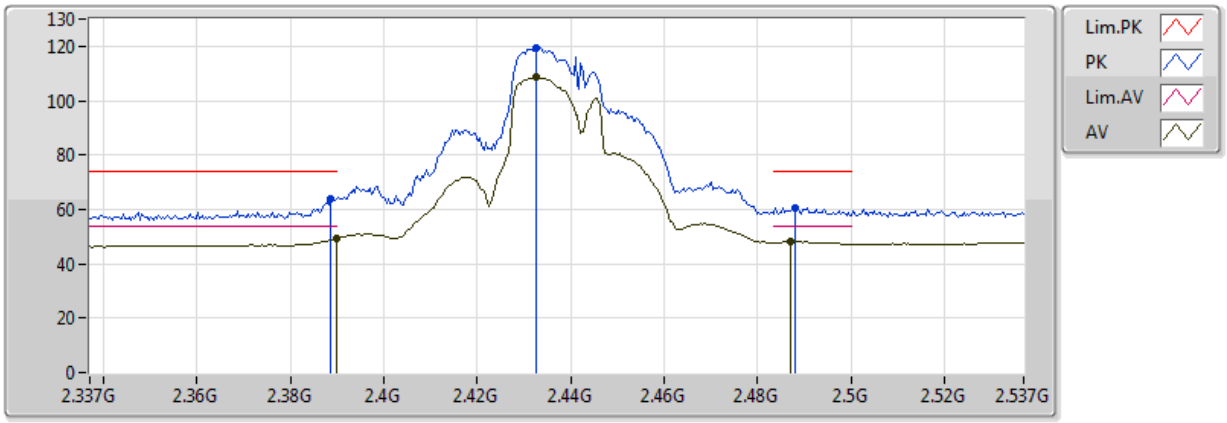


20170928
EUT Z_2TX
Setting 26.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.389998G	48.14	54.00	-5.86	32.13	3	Vertical	343	1.50
AV	2.4422G	105.90	Inf	-Inf	32.28	3	Vertical	343	1.50
AV	2.483502G	48.90	54.00	-5.10	32.40	3	Vertical	343	1.50
PK	2.3886G	62.59	74.00	-11.41	32.12	3	Vertical	343	1.50
PK	2.4418G	117.05	Inf	-Inf	32.28	3	Vertical	343	1.50
PK	2.4842G	64.01	74.00	-9.99	32.40	3	Vertical	343	1.50

802.11ac VHT20_Nss1,(MCS0)_2TX

2437MHz_TX

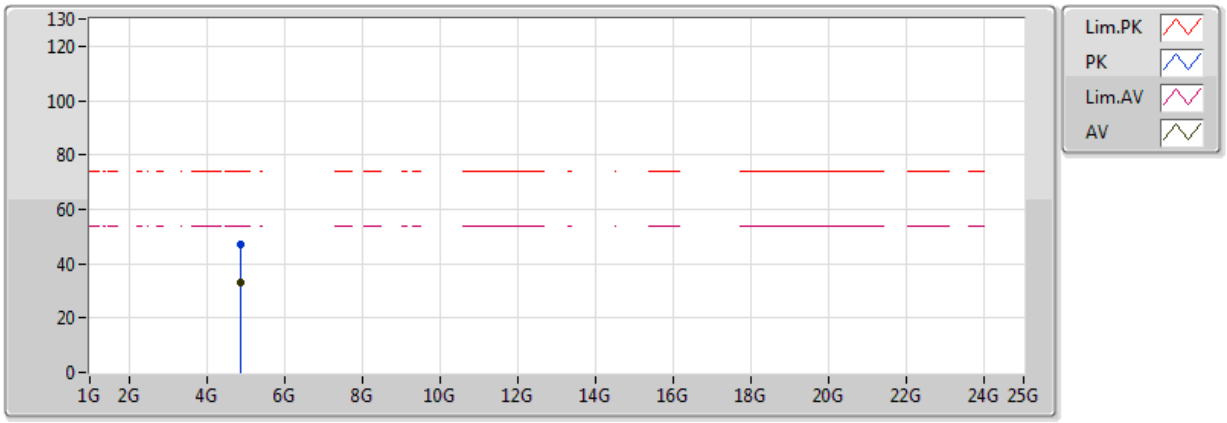


20170928
EUT Z_2TX
Setting 26.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.389998G	49.31	54.00	-4.69	32.13	3	Horizontal	211	2.76
AV	2.4326G	108.48	Inf	-Inf	32.25	3	Horizontal	211	2.76
AV	2.487G	48.09	54.00	-5.91	32.41	3	Horizontal	211	2.76
PK	2.3886G	64.12	74.00	-9.88	32.12	3	Horizontal	211	2.76
PK	2.4326G	119.29	Inf	-Inf	32.25	3	Horizontal	211	2.76
PK	2.4882G	60.58	74.00	-13.42	32.42	3	Horizontal	211	2.76

802.11ac VHT20_Nss1,(MCS0)_2TX

2437MHz_TX

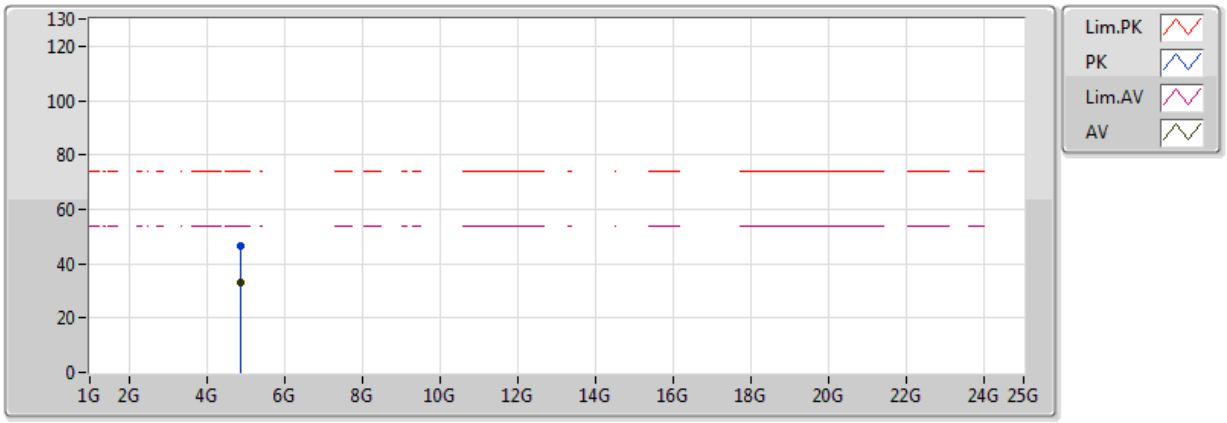


20170928
EUT Z_2TX
Setting 26.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.87468G	33.16	54.00	-20.84	9.01	3	Vertical	45	1.89
PK	4.883G	47.03	74.00	-26.97	9.04	3	Vertical	45	1.89

802.11ac VHT20_Nss1,(MCS0)_2TX

2437MHz_TX

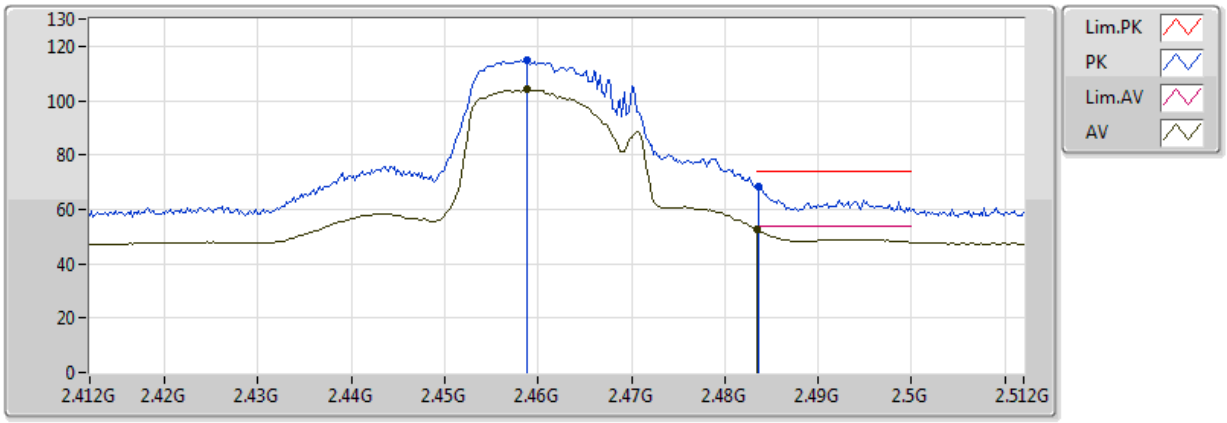


20170928
EUT Z_2TX
Setting 26.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.87284G	33.15	54.00	-20.85	9.01	3	Horizontal	163	1.73
PK	4.87144G	46.64	74.00	-27.36	9.00	3	Horizontal	163	1.73

802.11ac VHT20_Nss1,(MCS0)_2TX

2462MHz_TX

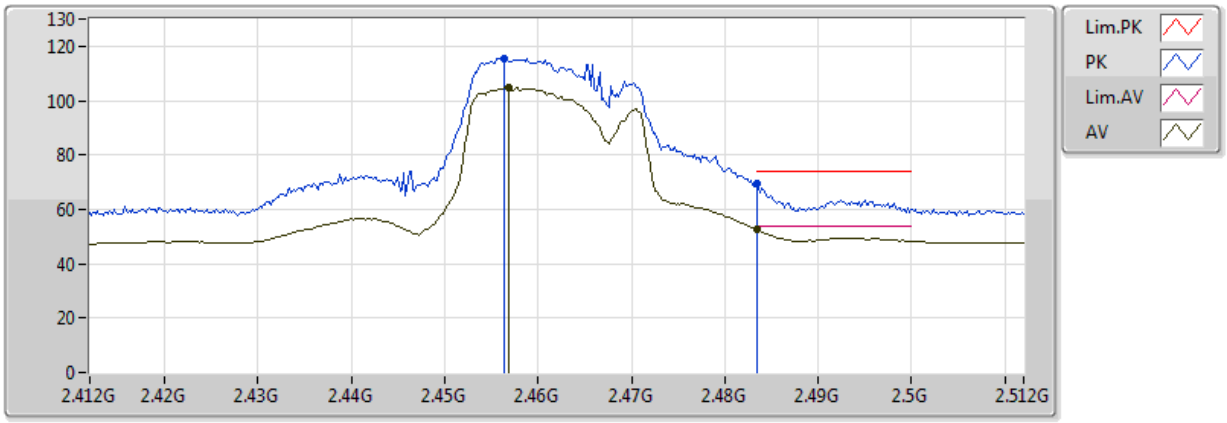


20170928
EUT Z_2TX
Setting 21
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.4588G	104.01	Inf	-Inf	32.33	3	Vertical	298	2.76
AV	2.483502G	52.70	54.00	-1.30	32.40	3	Vertical	298	2.76
PK	2.4588G	114.94	Inf	-Inf	32.33	3	Vertical	298	2.76
PK	2.4836G	68.53	74.00	-5.47	32.40	3	Vertical	298	2.76

802.11ac VHT20_Nss1,(MCS0)_2TX

2462MHz_TX

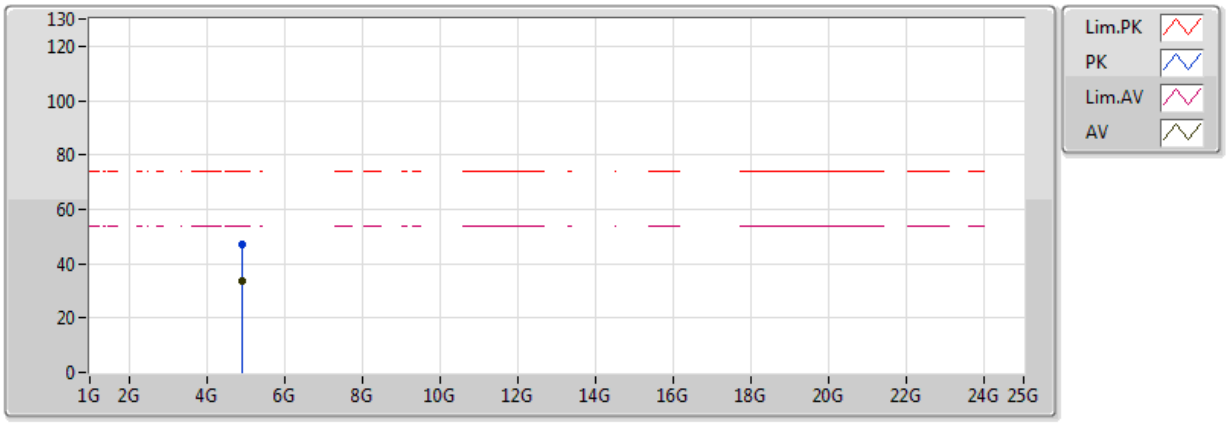


20170928
EUT Z_2TX
Setting 21
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.4568G	104.65	Inf	-Inf	32.32	3	Horizontal	343	1.01
AV	2.483502G	52.44	54.00	-1.56	32.40	3	Horizontal	343	1.01
PK	2.4564G	115.43	Inf	-Inf	32.32	3	Horizontal	343	1.01
PK	2.483502G	69.71	74.00	-4.29	32.40	3	Horizontal	343	1.01

802.11ac VHT20_Nss1,(MCS0)_2TX

2462MHz_TX

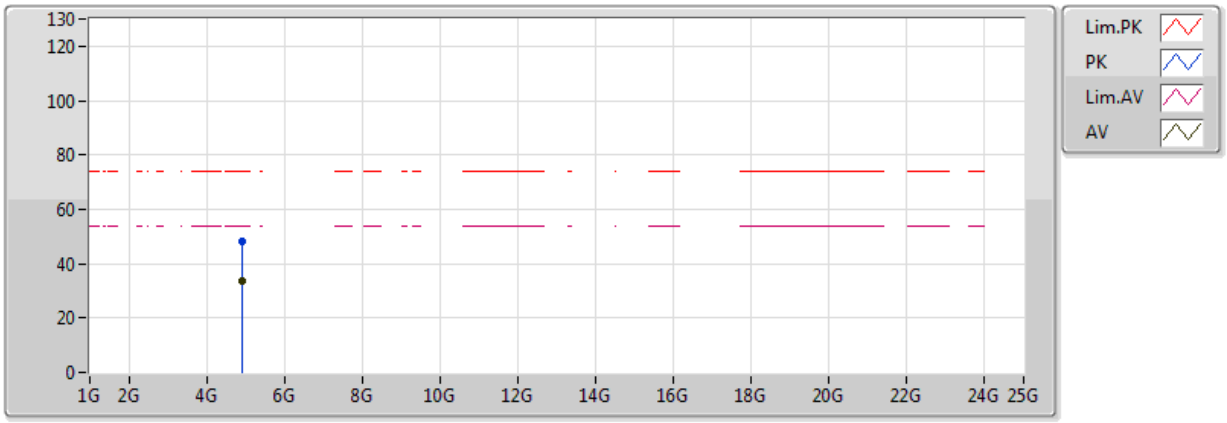


20170928
EUT Z_2TX
Setting 21
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.93208G	33.59	54.00	-20.41	9.19	3	Vertical	226	1.79
PK	4.93132G	47.29	74.00	-26.71	9.18	3	Vertical	226	1.79

802.11ac VHT20_Nss1,(MCS0)_2TX

2462MHz_TX

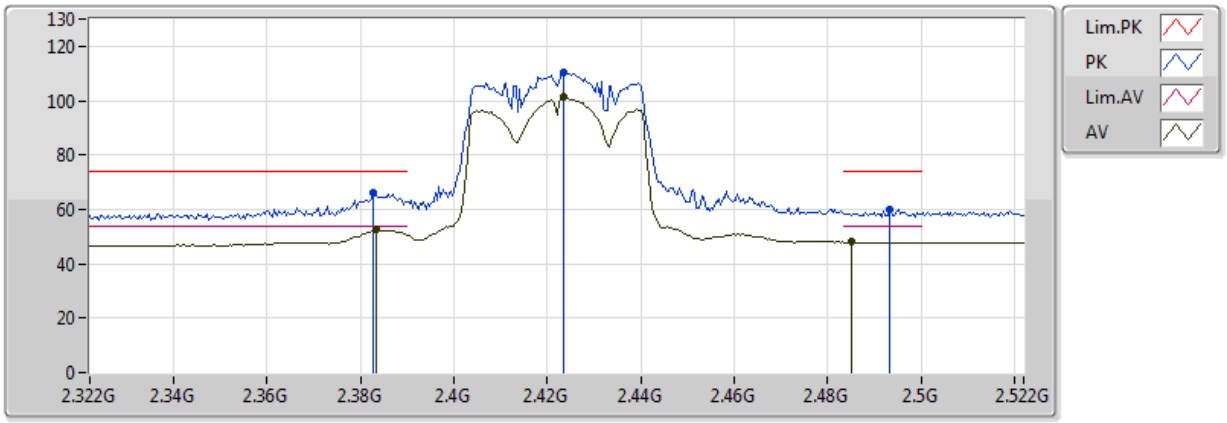


20170928
EUT Z_2TX
Setting 21
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.92968G	33.64	54.00	-20.36	9.18	3	Horizontal	322	2.14
PK	4.91464G	48.24	74.00	-25.76	9.13	3	Horizontal	322	2.14

802.11ac VHT40_Nss1,(MCS0)_2TX

2422MHz_TX

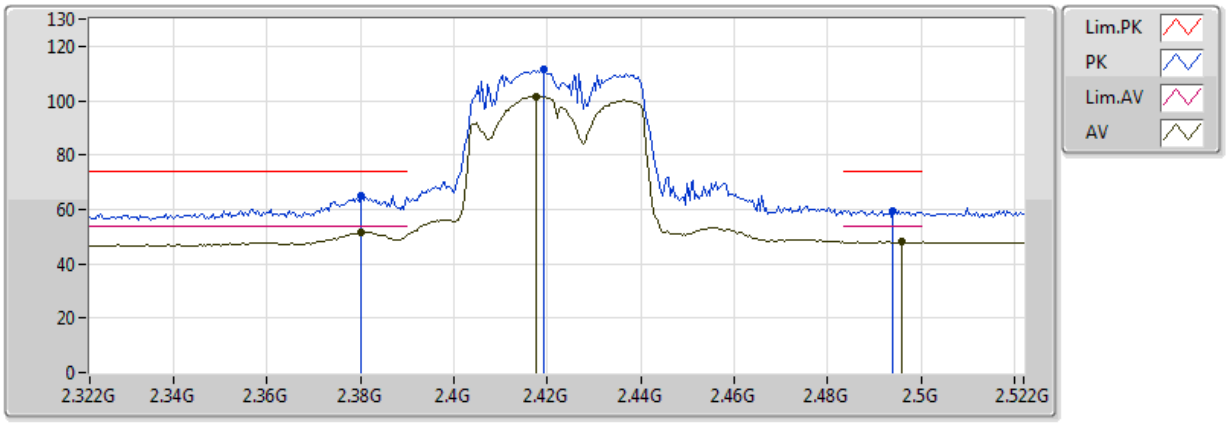


20170928
EUT Z_2TX
Setting 19
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.3832G	52.52	54.00	-1.48	32.11	3	Vertical	72	1.09
AV	2.4236G	101.21	Inf	-Inf	32.23	3	Vertical	72	1.09
AV	2.4852G	47.97	54.00	-6.03	32.41	3	Vertical	72	1.09
PK	2.3828G	66.15	74.00	-7.85	32.11	3	Vertical	72	1.09
PK	2.4236G	110.47	Inf	-Inf	32.23	3	Vertical	72	1.09
PK	2.4932G	60.22	74.00	-13.78	32.43	3	Vertical	72	1.09

802.11ac VHT40_Nss1,(MCS0)_2TX

2422MHz_TX

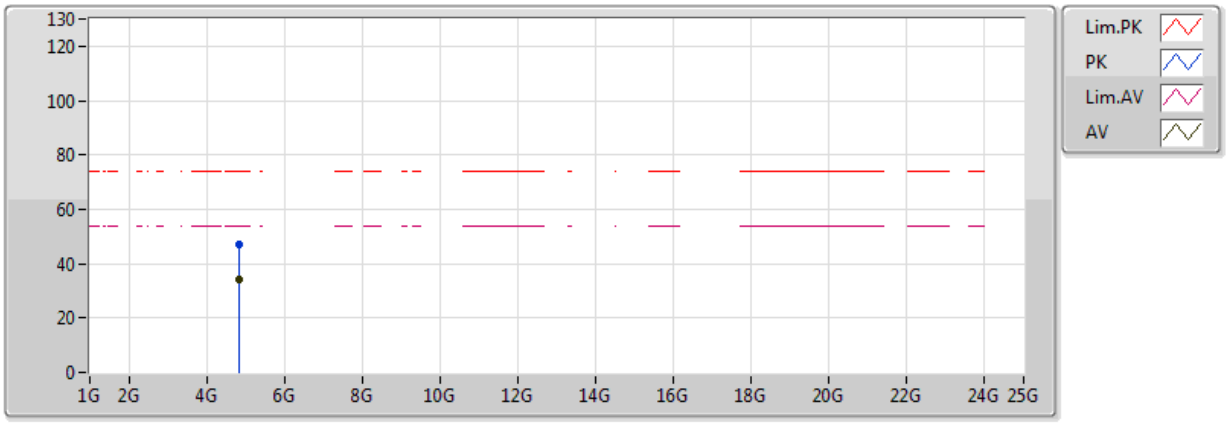


20170928
EUT Z_2TX
Setting 19
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.38G	51.55	54.00	-2.45	32.10	3	Horizontal	339	1.22
AV	2.4176G	101.56	Inf	-Inf	32.21	3	Horizontal	339	1.22
AV	2.496G	48.35	54.00	-5.65	32.44	3	Horizontal	339	1.22
PK	2.38G	64.99	74.00	-9.01	32.10	3	Horizontal	339	1.22
PK	2.4192G	111.30	Inf	-Inf	32.22	3	Horizontal	339	1.22
PK	2.494G	59.46	74.00	-14.54	32.43	3	Horizontal	339	1.22

802.11ac VHT40_Nss1,(MCS0)_2TX

2422MHz_TX

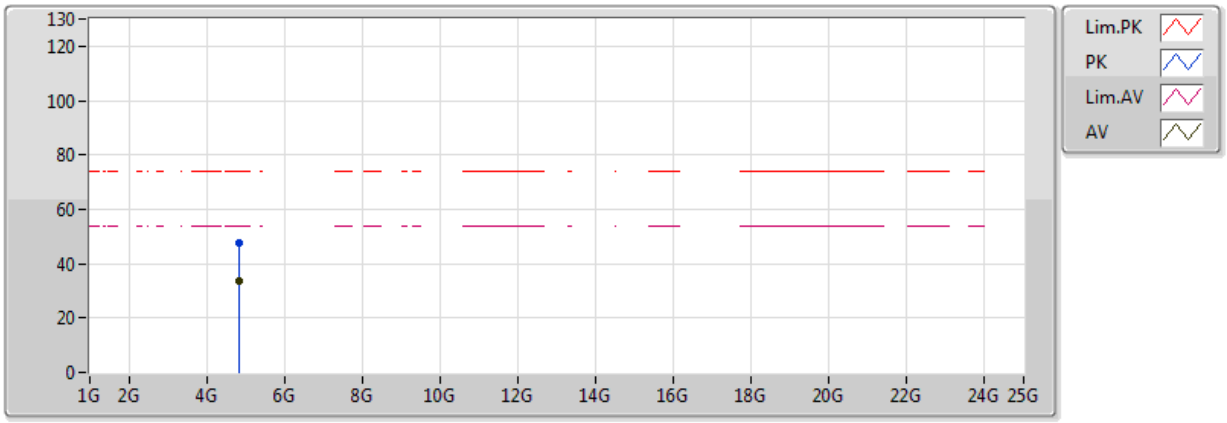


20170928
EUT Z_2TX
Setting 19
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.83672G	33.93	54.00	-20.07	8.89	3	Vertical	350	1.74
PK	4.839G	47.33	74.00	-26.67	8.90	3	Vertical	350	1.74

802.11ac VHT40_Nss1,(MCS0)_2TX

2422MHz_TX

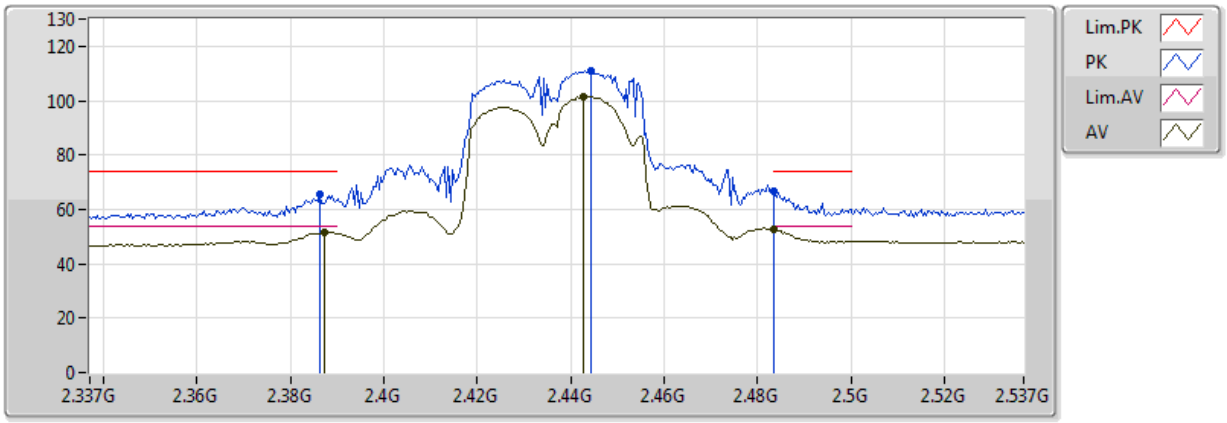


20170928
EUT Z_2TX
Setting 19
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.83648G	33.84	54.00	-20.16	8.89	3	Horizontal	164	2.12
PK	4.8352G	47.80	74.00	-26.20	8.89	3	Horizontal	164	2.12

802.11ac VHT40_Nss1,(MCS0)_2TX

2437MHz_TX

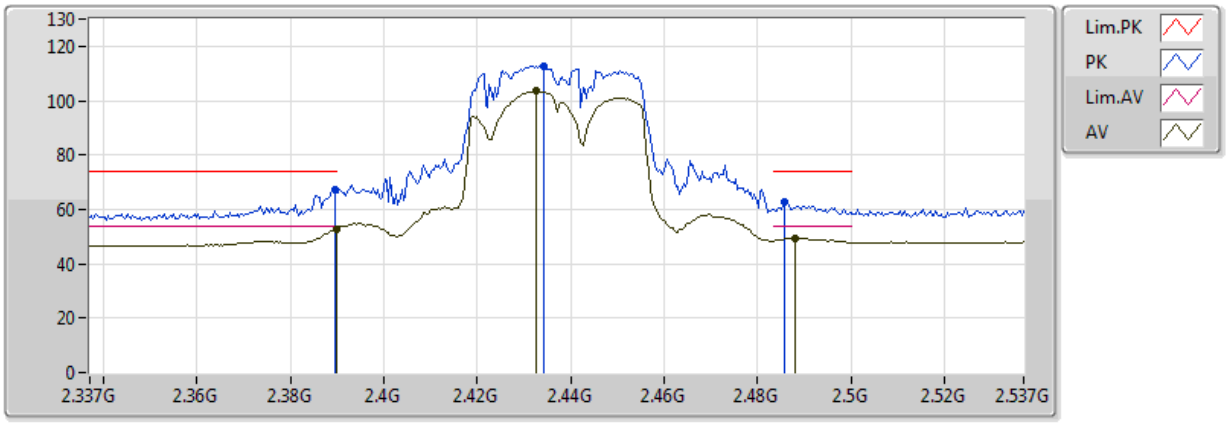


20170928
EUT Z_2TX
Setting 20.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.3874G	51.67	54.00	-2.33	32.12	3	Vertical	162	1.50
AV	2.4426G	101.50	Inf	-Inf	32.28	3	Vertical	162	1.50
AV	2.483502G	52.51	54.00	-1.49	32.40	3	Vertical	162	1.50
PK	2.3862G	65.83	74.00	-8.17	32.12	3	Vertical	162	1.50
PK	2.4442G	110.99	Inf	-Inf	32.29	3	Vertical	162	1.50
PK	2.483502G	66.95	74.00	-7.05	32.40	3	Vertical	162	1.50

802.11ac VHT40_Nss1,(MCS0)_2TX

2437MHz_TX

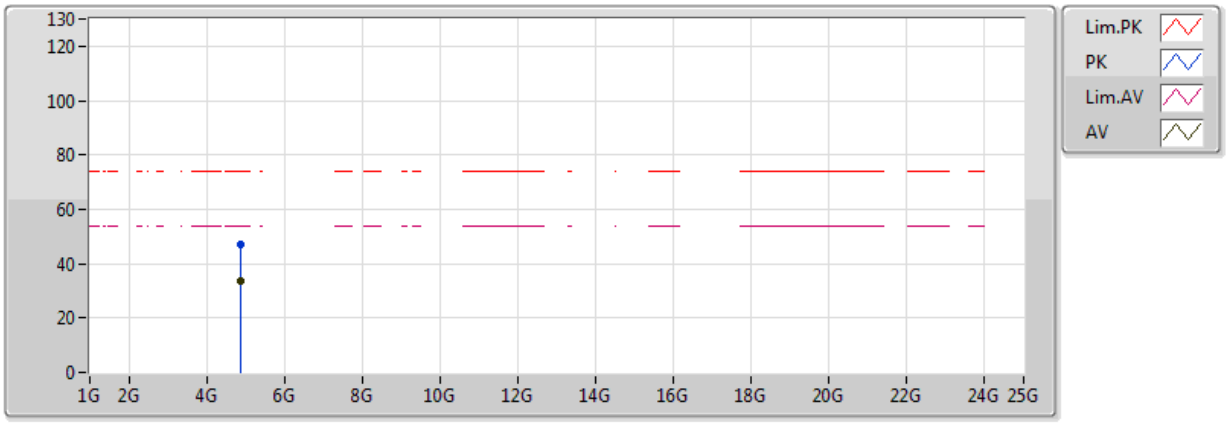


20170928
EUT Z_2TX
Setting 20.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.389998G	52.70	54.00	-1.30	32.13	3	Horizontal	336	2.76
AV	2.4326G	103.46	Inf	-Inf	32.25	3	Horizontal	336	2.76
AV	2.4882G	49.53	54.00	-4.47	32.42	3	Horizontal	336	2.76
PK	2.3894G	67.46	74.00	-6.54	32.13	3	Horizontal	336	2.76
PK	2.4342G	112.78	Inf	-Inf	32.26	3	Horizontal	336	2.76
PK	2.4858G	63.01	74.00	-10.99	32.41	3	Horizontal	336	2.76

802.11ac VHT40_Nss1,(MCS0)_2TX

2437MHz_TX



20170928
EUT Z_2TX
Setting 20.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.88232G	33.84	54.00	-20.16	9.04	3	Vertical	320	1.83
PK	4.86988G	47.20	74.00	-26.80	9.00	3	Vertical	320	1.83

802.11ac VHT40_Nss1,(MCS0)_2TX

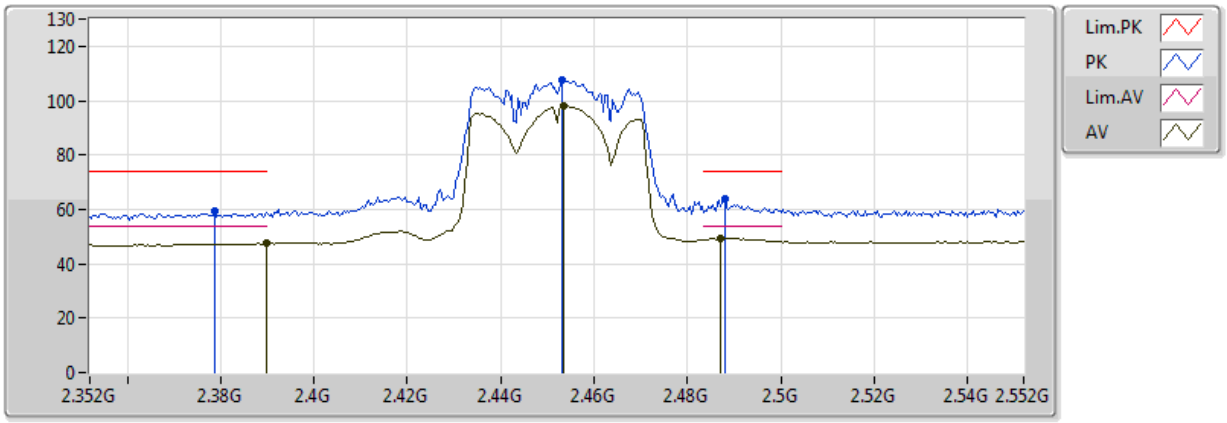
2437MHz_TX

20170928
EUT Z_2TX
Setting 20.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.86564G	33.77	54.00	-20.23	8.98	3	Horizontal	132	2.07
PK	4.86872G	46.50	74.00	-27.50	8.99	3	Horizontal	132	2.07

802.11ac VHT40_Nss1,(MCS0)_2TX

2452MHz_TX

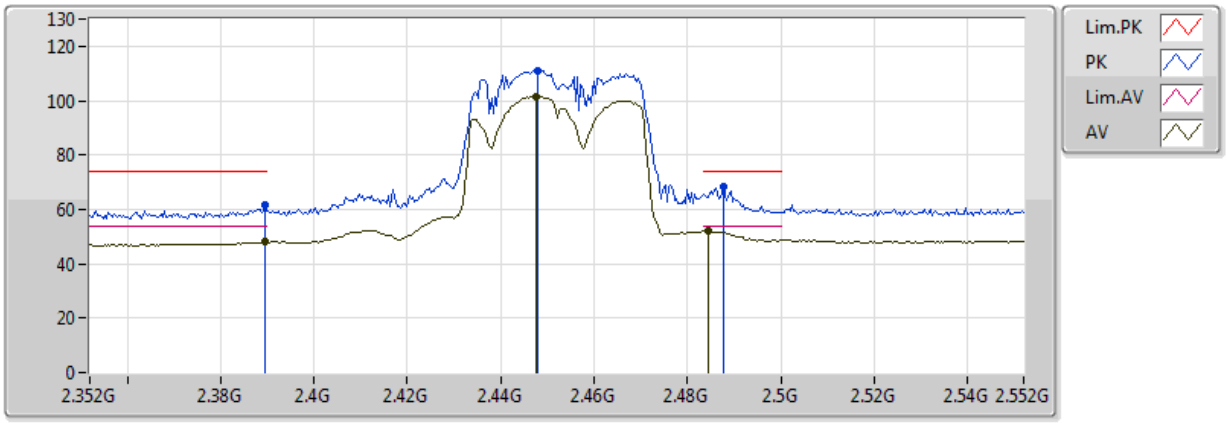


20170928
EUT Z_2TX
Setting 18.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.39G	47.61	54.00	-6.39	32.13	3	Vertical	81	1.49
AV	2.4536G	98.30	Inf	-Inf	32.32	3	Vertical	81	1.49
AV	2.4872G	49.45	54.00	-4.55	32.41	3	Vertical	81	1.49
PK	2.3788G	59.19	74.00	-14.81	32.09	3	Vertical	81	1.49
PK	2.4532G	107.39	Inf	-Inf	32.31	3	Vertical	81	1.49
PK	2.488G	63.67	74.00	-10.33	32.42	3	Vertical	81	1.49

802.11ac VHT40_Nss1,(MCS0)_2TX

2452MHz_TX

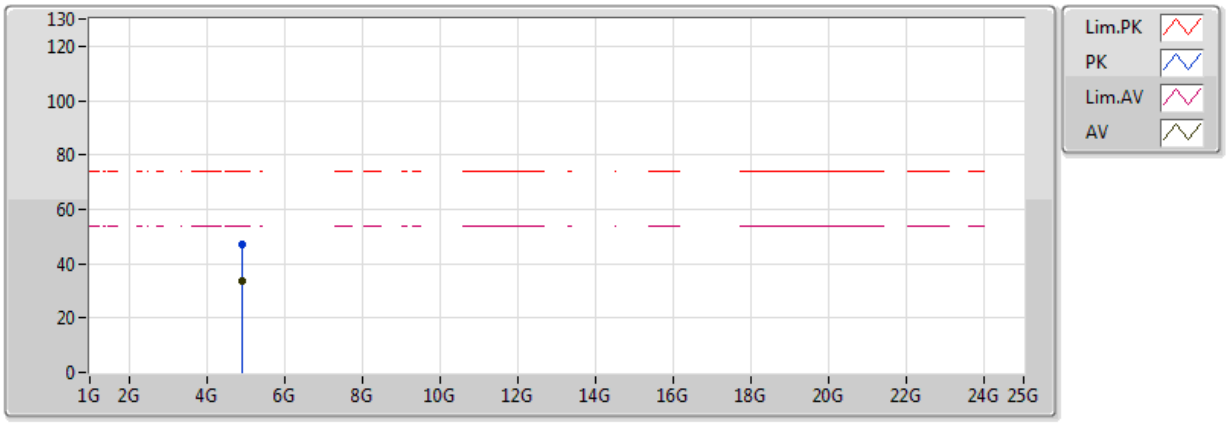


20170928
EUT Z_2TX
Setting 18.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	2.3896G	48.01	54.00	-5.99	32.13	3	Horizontal	334	1.18
AV	2.4476G	101.69	Inf	-Inf	32.30	3	Horizontal	334	1.18
AV	2.4844G	52.23	54.00	-1.77	32.40	3	Horizontal	334	1.18
PK	2.3896G	61.56	74.00	-12.44	32.13	3	Horizontal	334	1.18
PK	2.448G	110.97	Inf	-Inf	32.30	3	Horizontal	334	1.18
PK	2.4876G	68.14	74.00	-5.86	32.41	3	Horizontal	334	1.18

802.11ac VHT40_Nss1,(MCS0)_2TX

2452MHz_TX

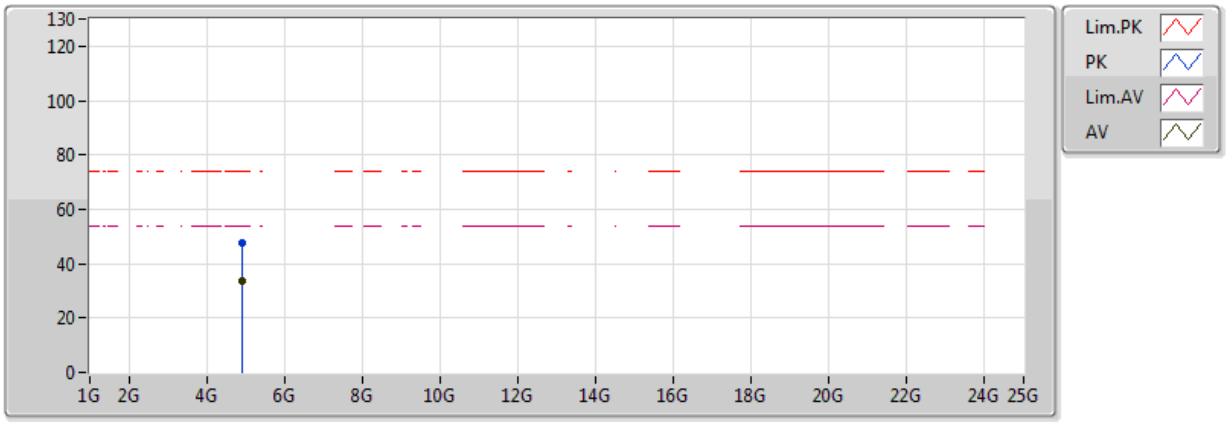


20170928
EUT Z_2TX
Setting 18.5
02-J-6
FSU

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.90344G	33.90	54.00	-20.10	9.10	3	Vertical	19	2.44
PK	4.91384G	47.02	74.00	-26.98	9.13	3	Vertical	19	2.44

802.11ac VHT40_Nss1,(MCS0)_2TX

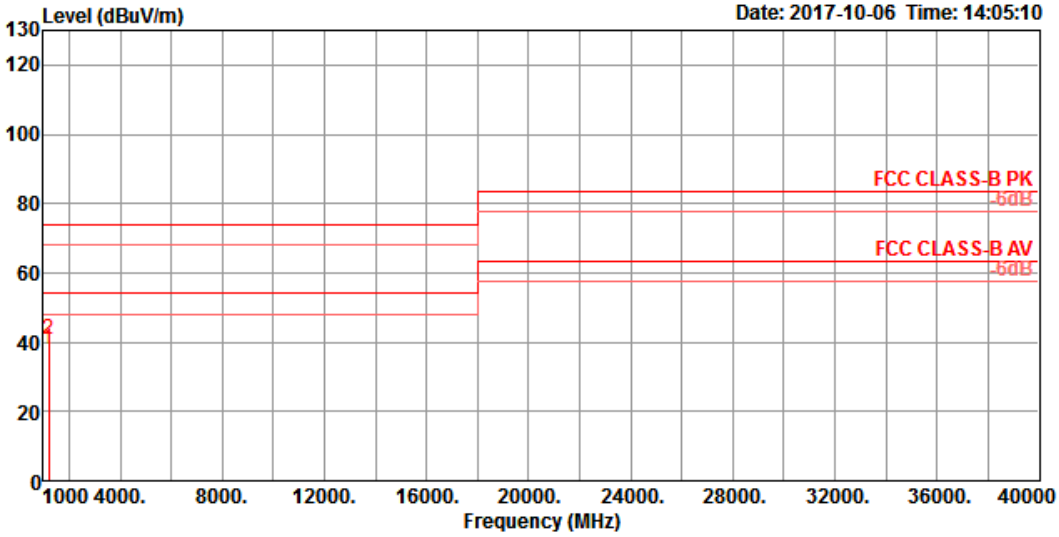
2452MHz_TX



20170928
EUT Z_2TX
Setting 18.5
02-J-6
FSU

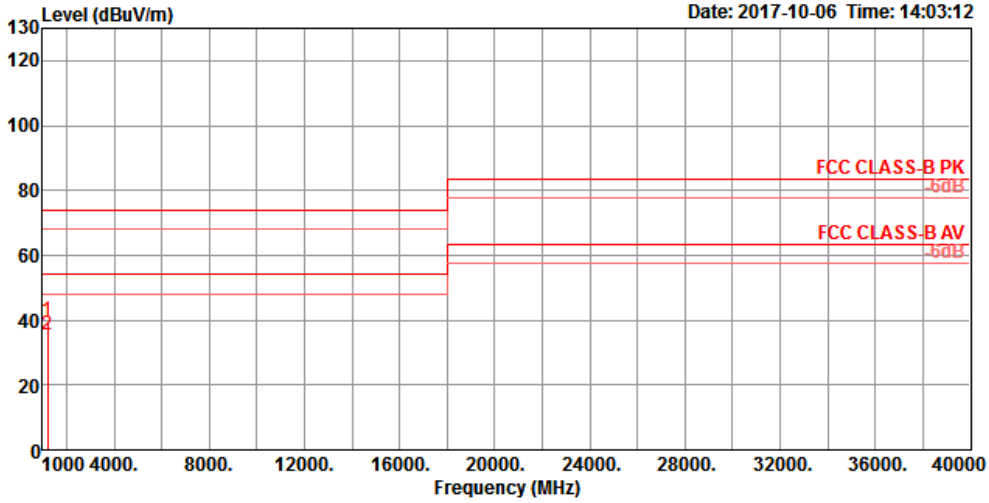
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)
AV	4.90872G	33.80	54.00	-20.20	9.12	3	Horizontal	145	2.33
PK	4.9094G	47.74	74.00	-26.26	9.12	3	Horizontal	145	2.33

RSE Co-location Result			
Operating Mode	3	**Polarization**	Horizontal
Operating Function	Normal Link - EUT in Z axis - R1 (2.4G / Station mode) + R3 (5G B1~B2 / AP mode) + R2 (5G B3~B4 / AP mode) + R4 (BT / AP mode)		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1200.01	37.67	54.00	-16.33	46.83	3.69	24.55	37.40	195	197	Average	HORIZONTAL
2	1200.09	40.85	74.00	-33.15	50.01	3.69	24.55	37.40	195	197	Peak	HORIZONTAL

RSE Co-location Result			
Operating Mode	3	**Polarization**	Vertical
Operating Function	Normal Link - EUT in Z axis - R1 (2.4G / Station mode) + R3 (5G B1~B2 / AP mode) + R2 (5G B3~B4 / AP mode) + R4 (BT / AP mode)		



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1197.94	39.95	74.00	-34.05	49.12	3.69	24.54	37.40	166	294	Peak	VERTICAL
2	1200.01	35.26	54.00	-18.74	44.42	3.69	24.55	37.40	166	294	Average	VERTICAL