FCC RADIO TEST REPORT

FCC ID	:	2ADZRHA020WB
Equipment	:	Nokia Wi-Fi Beacon
Brand Name	:	Nokia
Model Name	:	HA-020W-B
Applicant	:	Nokia Shanghai Bell Co. Ltd. No. 388, Ningqiao Rd. Pilot Free Trade Zone Shanghai , China 201206
Manufacturer	:	Nokia Shanghai Bell Co. Ltd. No. 388, Ningqiao Rd. Pilot Free Trade Zone Shanghai , China 201206
Standard	:	47 CFR FCC Part 15.247

The product was received on Jan. 31, 2019, and testing was started from Jan. 31, 2019 and completed on Feb. 28, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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

Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR921805AA	01	Initial issue of report	Mar. 18, 2019
FR921805AA	02	Revising the Multiple Listing, Please refer to Chapter 1.1.5.	Mar. 21, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Declaration of Conformity:

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

Comments and Explanations:

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen
Report Producer: Sandy Chuang

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)	2412-2462	1-11 [11]
2400-2483.5	n (HT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	1TX(Port 1)
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT40	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.
- 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

<Main Source Antenna>

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	
						2.4GHz	5GHz
1	1	Airgain	M5X30CT-G45U	Copper tube Ant.	I-PEX	-	3
2	2	Airgain	M5X30CT-B80U	Copper tube Ant.	I-PEX	-	3
3	1	Airgain	N01NSAAA-T7-PK1-B130	PCB Ant.	N/A	3	-
4	2	Airgain	N01NSAAA-T7-PK1-G85	PCB Ant.	N/A	3	-

<Second Source Antenna>

Ant.	Port	Brand Holder	Model Name	Antenna Type	Connector	Gain (dBi)	
						2.4GHz	5GHz
1	1	ShangHai Signal Plus Technology Co.,Ltd.	6011F000118	Copper tube Ant.	I-PEX	-	3
2	2	ShangHai Signal Plus Technology Co.,Ltd.	6011F000119	Copper tube Ant.	I-PEX	-	3
3	1	ShangHai Signal Plus Technology Co.,Ltd.	6011F000116	PCB Ant.	N/A	3	-
4	2	ShangHai Signal Plus Technology Co.,Ltd.	6011F000117	PCB Ant.	N/A	3	-

Note 1: The above information was declared by manufacturer.

Note 2: The EUT was only tested for Main Source Antenna.

Note 3:

<For 2.4GHz Band>

For IEEE 802.11b mode<1TX/1RX>:

Only Port 1 can be used as transmitting/receiving antenna.

For IEEE 802.11g/n mode<2TX/2RX>:

Port 1 and Port 2 will transmit/receive the same signal simultaneously.

Port 1 and Port 2 can be used as transmitting/receiving antennas.

<For 5GHz Band>

For IEEE 802.11a/n/ac mode <2TX/2RX>:

Port 1 and Port 2 will transmit/receive the same signal simultaneously.

Port 1 and Port 2 can be used as transmitting/receiving antennas.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.952	0.214	12.425m	100
802.11g	0.953	0.209	2.068m	1k
802.11n HT20	0.955	0.2	1.93m	1k
802.11n HT40	0.904	0.438	947.5u	3k

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	Note: The product has beamforming function for 802.11n/ac in 5GHz			
Function	☒	Point-to-multipoint	☐	Point-to-point
Test Software Version	MTool : 3.1.0.1			

Note: The above information was declared by manufacturer.

1.1.5 Table for Multiple Listing

The EUT has two market sale set which are identical to each other in all aspects except for the following table:

Brand Name	Model Name	Unit	Part Number	Adapter	RJ-45 cable
Nokia	HA-020W-B	KIT_HA-020W-B	3FE 47855 AA	V	V
		EMA_HA-020W-B	3FE 47856 AA	-	-

From the above table, model: HA-020W-B for unit: KIT_HA-020W-B 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 v05r01
- FCC KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location			
☐	HWA YA	ADD :	No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)
		TEL :	886-3-327-3456 FAX : 886-3-327-0973
☒	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	Owen Hsu	19~21 ℃ / 52~54%	Jan. 31, 2019~Feb. 15, 2019
Radiated (Below 1GHz)	03CH01-CB	KJ Huang	22~23.4°C / 54~59%	Feb. 28, 2019
Radiated (Above 1GHz)	03CH01-CB	Eason Chen	21~23°C / 53~55%%	Feb. 01, 2019~Feb. 12, 2019
AC Conduction	CO01-CB	GN Hou	23.2~23.8°C / 51~53%	Feb. 01, 2019

Test site Designation No. TW0006 with FCC.
Test site registered number IC 4086B 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)	2.0 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	PowerSetting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	92
2437MHz	96
2462MHz	90
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	69
2417MHz	77
2437MHz	95
2457MHz	77
2462MHz	72
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	68
2417MHz	75
2437MHz	91
2457MHz	79
2462MHz	73
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	48
2427MHz	54
2437MHz	68
2447MHz	59
2452MHz	51

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	EUT with Main Source Antenna and adapter 1 (Router Mode)
2	EUT with Main Source Antenna and adapter 2 (Router Mode)
For operating mode 1 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	EUT with Main Source Antenna and adapter 1 (Router Mode)
2	EUT with Main Source Antenna and adapter 2 (Router Mode)
For operating mode 2 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
1	EUT with Main Source Antenna and adapter 1 (Router Mode)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Sporton Test Report No.: FA921805 for Co-location RF Exposure Evaluation.	

Note 1: The EUT can only be used in Y axis position.
Note 2: The EUT supports router mode and mesh mode. Only the router mode was tested and recorded in this test report that is designated by the manufacturer.

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

Accessories			
Equipment Name	**Brand Holder**	**Model Name**	**Rating**
Adapter 1	SHENZHEN RUIDE ELECTRONICAL INDUSTRIAL CO., LTD	RD1201000-C55-26MG	Input: 100-240V~50/60Hz, 0.6A MAX Output: 12V, 1A
Adapter 2	DONGGUAN SHILONG FUHUA ELECTRONIC CO., LTD	UES12LU-120100SPA	Input: 100-240V~50/60Hz, 0.5A Output: 12.0V, 1.0A
Other			
RJ-45 Cable*1: Non-Shielded, 1m			

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	LAN NB	DELL	E6430	N/A
B	2.4G NB	DELL	E6430	N/A
C	5G NB	DELL	E6430	N/A
D	WAN NB	DELL	E6430	N/A

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

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	LAN NB	DELL	E4300	N/A
B	2.4G NB	DELL	E4300	N/A
C	5G NB	DELL	E4300	N/A
D	WAN NB	DELL	E4300	N/A

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

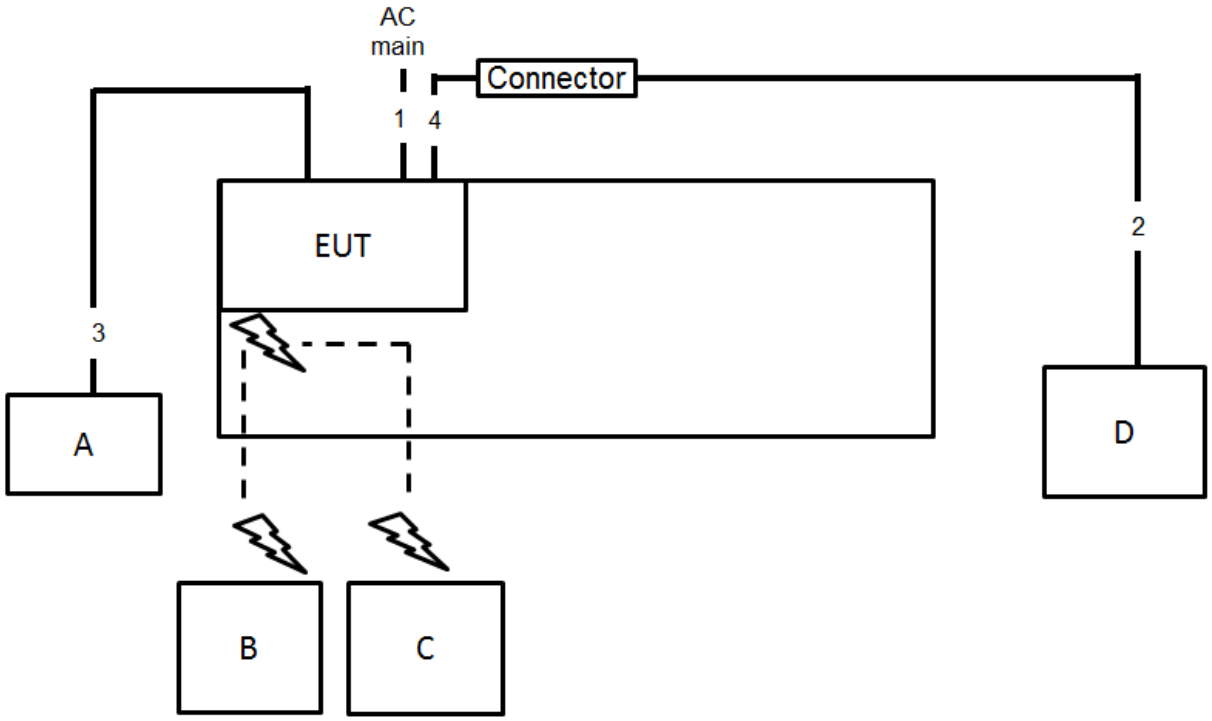
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

For Test Site No: TH01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
A	NB	DELL	E4300	N/A

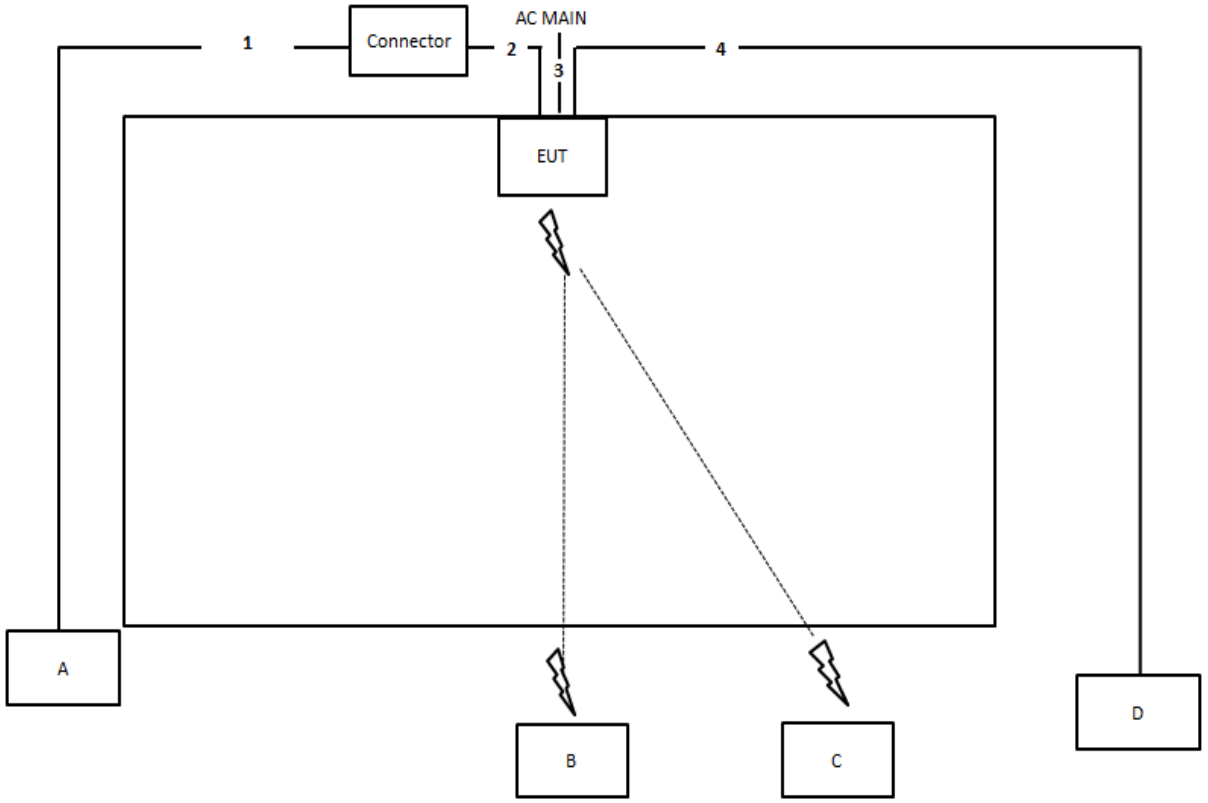
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



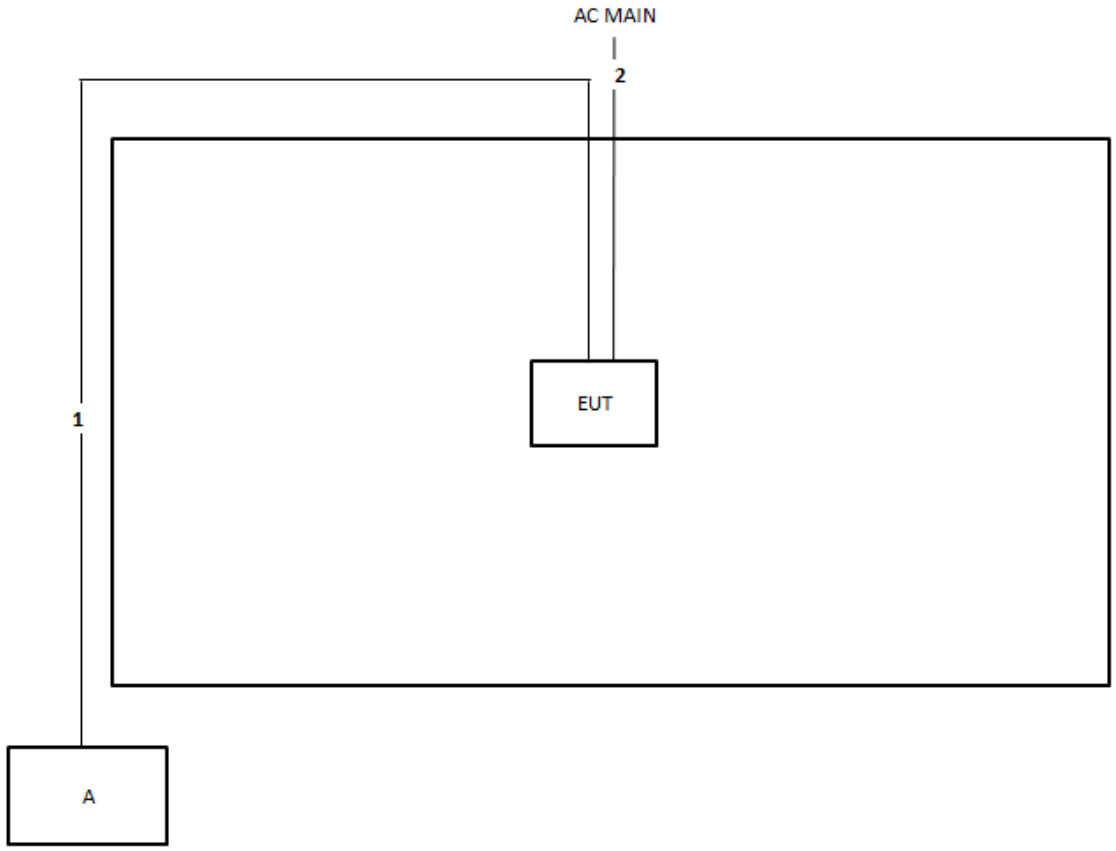
Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	10m
4	RJ-45 cable	No	1m

Test Setup Diagram - Radiated Test < 1GHz



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

Test Setup Diagram - Radiated Test > 1GHz



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

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

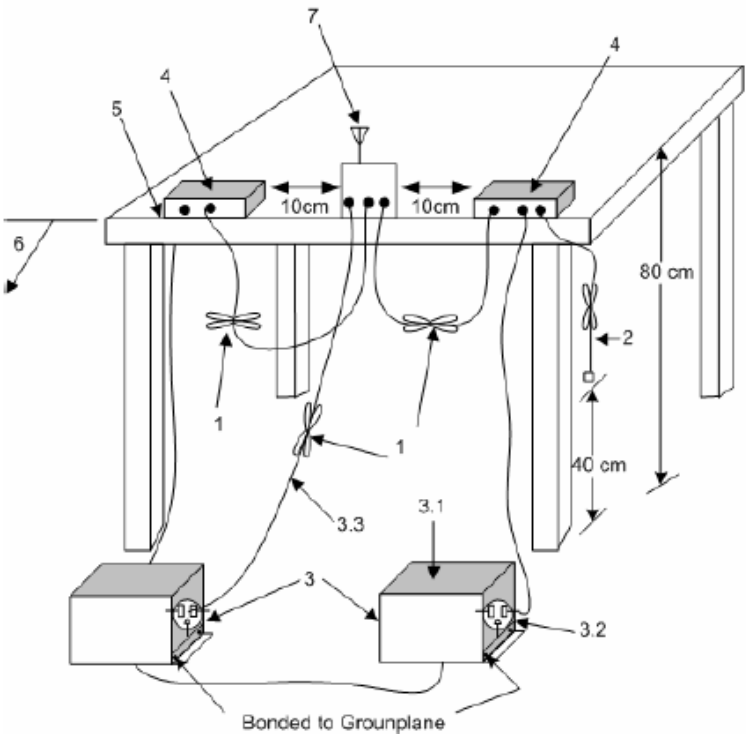
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

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.

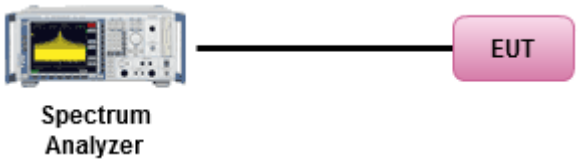
3.2.2 Measuring Instruments

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 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
	☐ Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 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.		

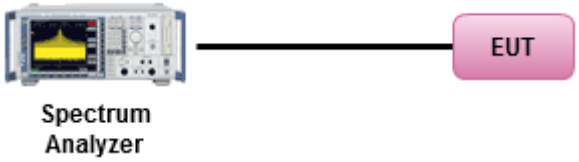
3.3.2 Measuring Instruments

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 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
	☐ Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
▪ Maximum Conducted Output Power	
	[duty cycle ≥ 98% or external video / power trigger]
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
	duty cycle < 98% and average over on/off periods with duty factor
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	☐ Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
	Measurement using a power meter (PM)
	☒ Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
	☐ Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (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 (Spectrum Analyzer)


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.

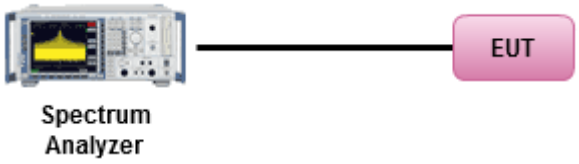
3.4.3 Test Procedures

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 8.4 & C63.10 clause 11.10.2 Method PKPSD.
	[duty cycle ≥ 98% or external video / power trigger]
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.3 Method AVGPSD-1.
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.5 Method AVGPSD-2.
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.7 Method AVGPSD-3.
	duty cycle < 98% and average over on/off periods with duty factor
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.4 Method AVGPSD-1A. (alternative).
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.6 Method AVGPSD-2A. (alternative)
	☐ Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.8 Method AVGPSD-3A. (alternative)
▪ 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 (dBc)**
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.	

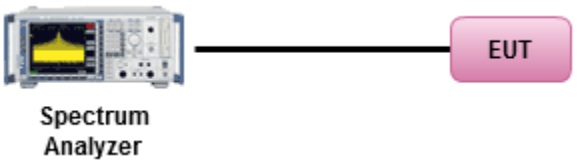
3.5.2 Measuring Instruments

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 8.5 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.

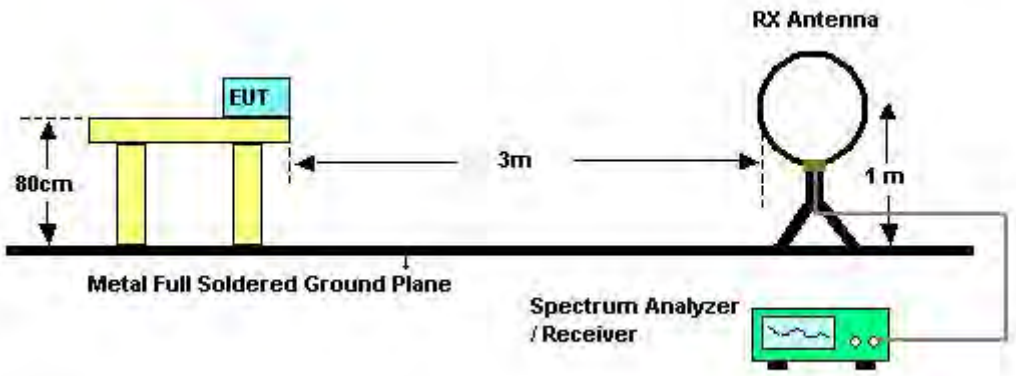
3.6.3 Test Procedures

Test Method		
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].		
▪ Refer as ANSI C63.10, clause 6.10.3 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 8.6 for unwanted emissions into restricted bands.	
		☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle ≥98%).
		☐ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
		☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW≥1/T).
		☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
		☒ Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:		
	▪ Refer as FCC KDB 558074 clause 8.7 & C63.10 clause 11.13.1, 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 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.	
	▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).	
	▪ 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.	

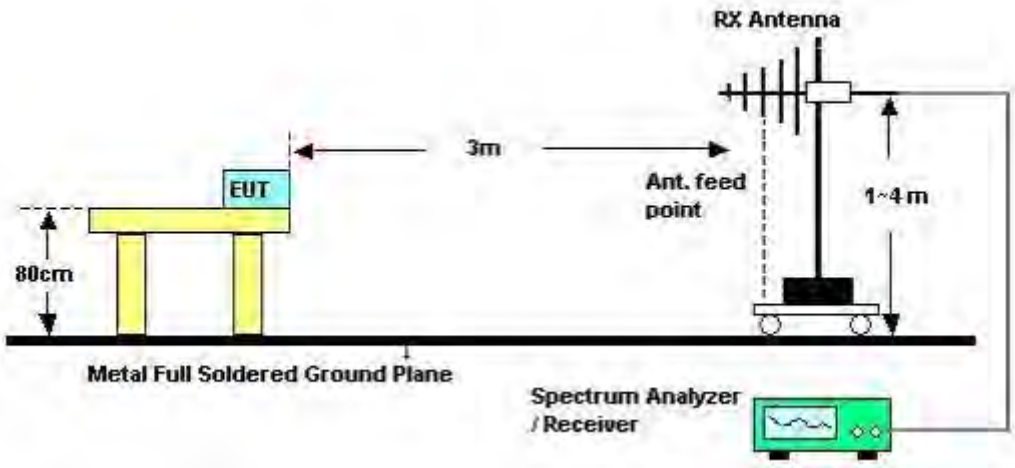
3.6.4 Test Setup

Radiated - Emissions in Restricted Frequency Bands

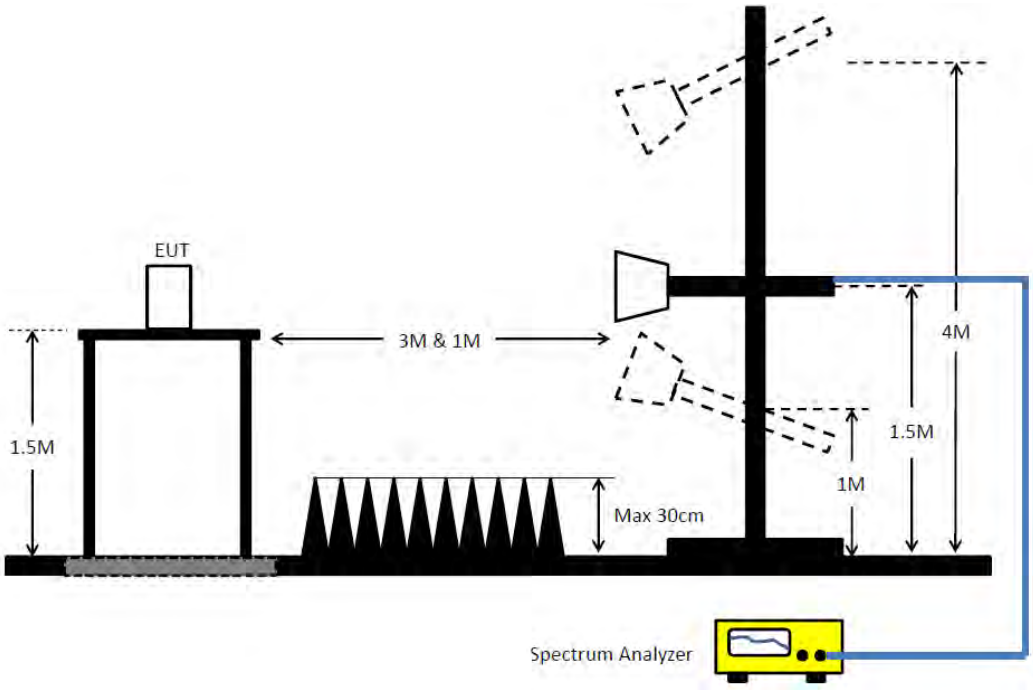
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.6.5 Emissions in Restricted Frequency Bands (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.
The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

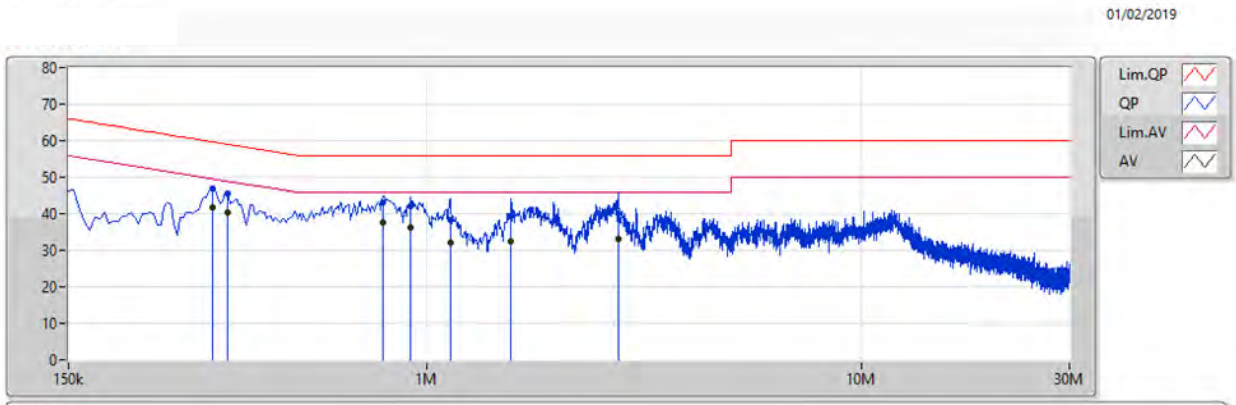
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 28, 2019	Jan. 29, 2020	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 24, 2018	Dec. 23, 2019	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Jan. 11, 2019	Jan. 10, 2020	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	150kHz ~ 30MHz	May 22, 2018	May 21, 2019	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. 27, 2018	Aug. 26, 2019	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2018	Mar. 15, 2019	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 13, 2018	Nov. 12, 2019	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 28, 2018	Jun. 27, 2019	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2018	May 01, 2019	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 08, 2019	Jan. 07, 2020	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 04, 2018	Jul. 03, 2019	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Jan. 31, 2019	Jan. 30, 2020	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESCS	100359	9kHz ~ 2.75GHz	Jul. 03, 2018	Jul. 02, 2019	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 08, 2018	Oct. 07, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Jul. 27, 2018	Jul. 26, 2019	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jun. 22, 2018	Jun. 21, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-06	1 GHz – 26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-07	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-08	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-09	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 08, 2018	Oct. 07, 2019	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-28	1 GHz –26.5 GHz	Nov. 19, 2018	Nov. 18, 2019	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 05, 2018	Nov. 04, 2019	Conducted (TH01-CB)

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

NCR means Non-Calibration required.

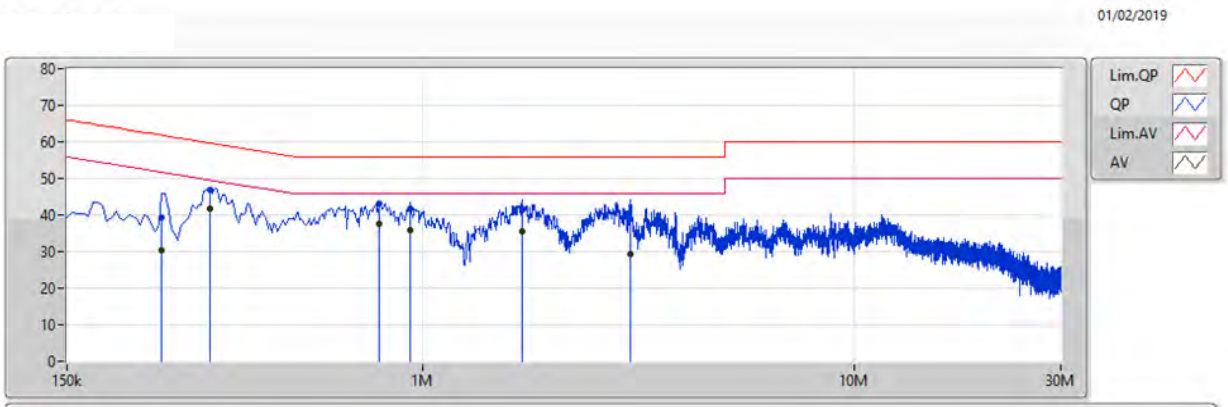
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Normal Link		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	AF	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	321k	46.79	59.67	-12.88	10.06	Line	-	36.73	0.06	0.13	9.87
AV	321k	41.61	49.67	-8.06	10.06	Line	"Worst"	31.55	0.06	0.13	9.87
QP	348k	45.46	59.00	-13.54	10.05	Line	-	35.41	0.06	0.12	9.87
AV	348k	40.43	49.00	-8.57	10.05	Line	-	30.38	0.06	0.12	9.87
QP	793.5k	43.02	56.00	-12.98	10.12	Line	-	32.90	0.07	0.18	9.87
AV	793.5k	37.62	46.00	-8.38	10.12	Line	-	27.50	0.07	0.18	9.87
QP	919.5k	42.16	56.00	-13.84	10.13	Line	-	32.03	0.07	0.19	9.87
AV	919.5k	36.36	46.00	-9.64	10.13	Line	-	26.23	0.07	0.19	9.87
QP	1.131M	38.28	56.00	-17.72	10.14	Line	-	28.14	0.07	0.20	9.87
AV	1.131M	32.22	46.00	-13.78	10.14	Line	-	22.08	0.07	0.20	9.87
QP	1.559M	39.30	56.00	-16.70	10.18	Line	-	29.12	0.08	0.22	9.88
AV	1.559M	32.50	46.00	-13.50	10.18	Line	-	22.32	0.08	0.22	9.88
QP	2.756M	40.16	56.00	-15.84	10.16	Line	-	30.00	0.10	0.18	9.88
AV	2.756M	33.23	46.00	-12.77	10.16	Line	-	23.07	0.10	0.18	9.88

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	1	**Power Phase**	Neutral
Operating Function	Normal Link		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	AF	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	249k	39.45	61.79	-22.34	10.04	Neutral	-	29.41	0.04	0.13	9.87
AV	249k	30.49	51.79	-21.30	10.04	Neutral	-	20.45	0.04	0.13	9.87
QP	321k	46.96	59.67	-12.71	10.04	Neutral	-	36.92	0.04	0.13	9.87
AV	321k	41.76	49.67	-7.91	10.04	Neutral	"Worst"	31.72	0.04	0.13	9.87
QP	793.5k	42.94	56.00	-13.06	10.10	Neutral	-	32.84	0.05	0.18	9.87
AV	793.5k	37.44	46.00	-8.56	10.10	Neutral	-	27.34	0.05	0.18	9.87
QP	937.5k	41.70	56.00	-14.30	10.12	Neutral	-	31.58	0.06	0.19	9.87
AV	937.5k	35.96	46.00	-10.04	10.12	Neutral	-	25.84	0.06	0.19	9.87
QP	1.694M	41.64	56.00	-14.36	10.17	Neutral	-	31.47	0.07	0.22	9.88
AV	1.694M	35.35	46.00	-10.65	10.17	Neutral	-	25.18	0.07	0.22	9.88
QP	3.021M	38.84	56.00	-17.16	10.14	Neutral	-	28.70	0.09	0.17	9.88
AV	3.021M	29.30	46.00	-16.70	10.14	Neutral	-	19.16	0.09	0.17	9.88

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)_1TX	8.55M	10.22M	10M2G1D	8.075M	10.07M
802.11g_Nss1,(6Mbps)_2TX	16.375M	16.667M	16M7D1D	16.3M	16.517M
802.11n HT20_Nss1,(MCS0)_2TX	17.575M	17.691M	17M7D1D	17.55M	17.666M
802.11n HT40_Nss1,(MCS0)_2TX	35.3M	36.132M	36M1D1D	35M	35.982M

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;

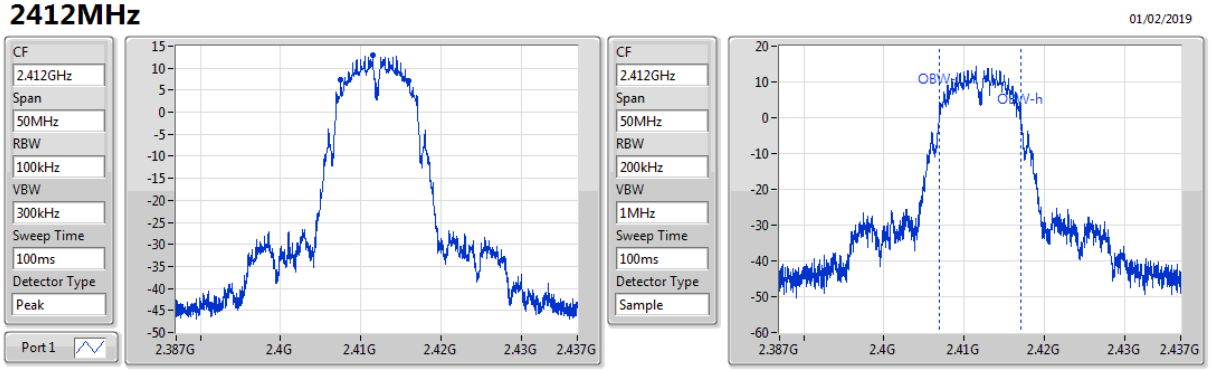
Result

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)_1TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.525M	10.07M		
2437MHz	Pass	500k	8.55M	10.22M		
2462MHz	Pass	500k	8.075M	10.07M		
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.517M	16.325M	16.542M
2437MHz	Pass	500k	16.35M	16.667M	16.3M	16.667M
2462MHz	Pass	500k	16.325M	16.542M	16.375M	16.542M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.691M	17.55M	17.666M
2437MHz	Pass	500k	17.55M	17.691M	17.575M	17.691M
2462MHz	Pass	500k	17.55M	17.666M	17.575M	17.666M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.3M	35.982M	35M	36.082M
2437MHz	Pass	500k	35.3M	36.082M	35.1M	36.032M
2452MHz	Pass	500k	35.25M	36.132M	35.25M	36.082M

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

802.11b_Nss1,(1Mbps)_1TX EBW

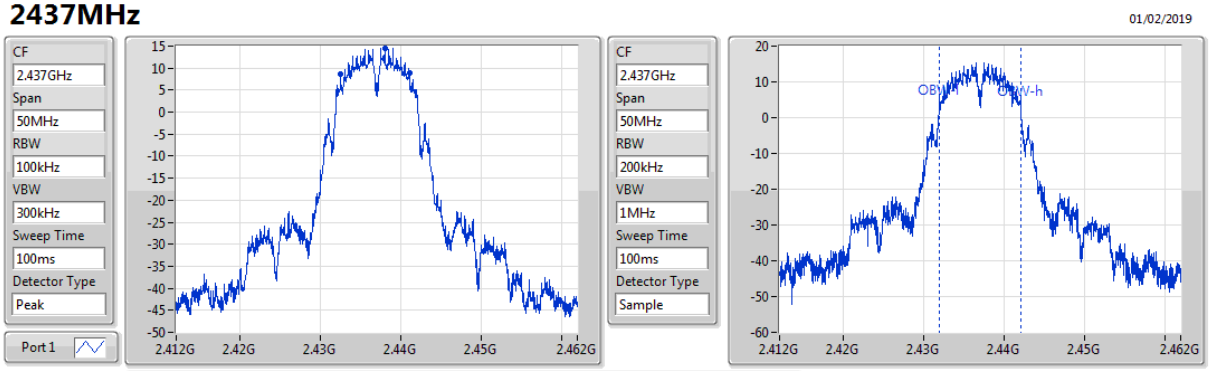
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.525M	2.4075G	2.416025G	10.07M	2.406953G	2.417022G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

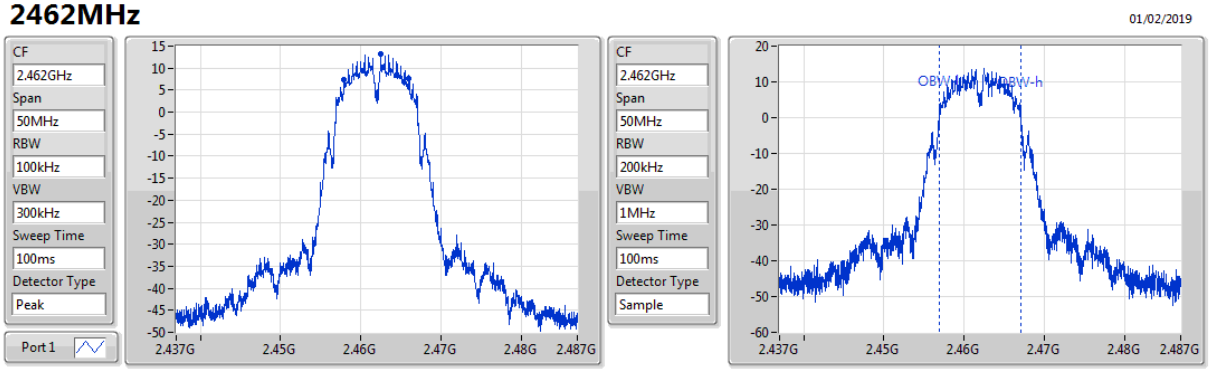
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.55M	2.4325G	2.44105G	10.22M	2.431853G	2.442072G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz



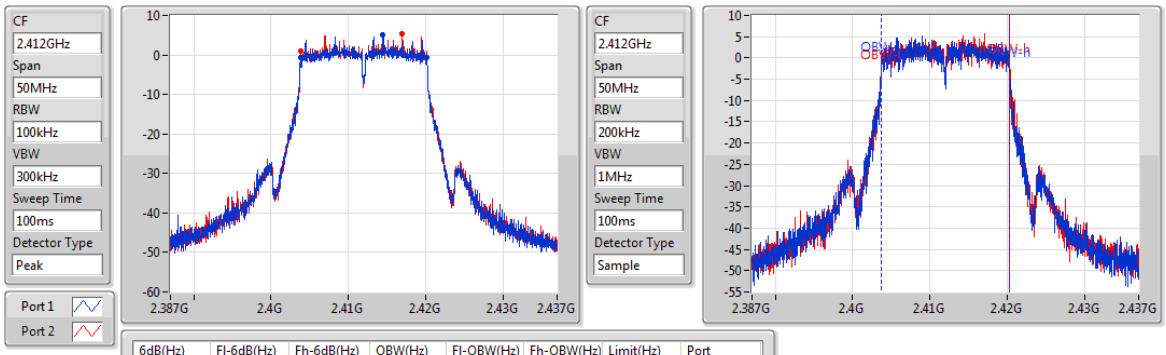
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.075M	2.45795G	2.466025G	10.07M	2.456953G	2.467022G	500k	1

802.11g_Nss1,(6Mbps)_2TX

EBW

2412MHz

01/02/2019



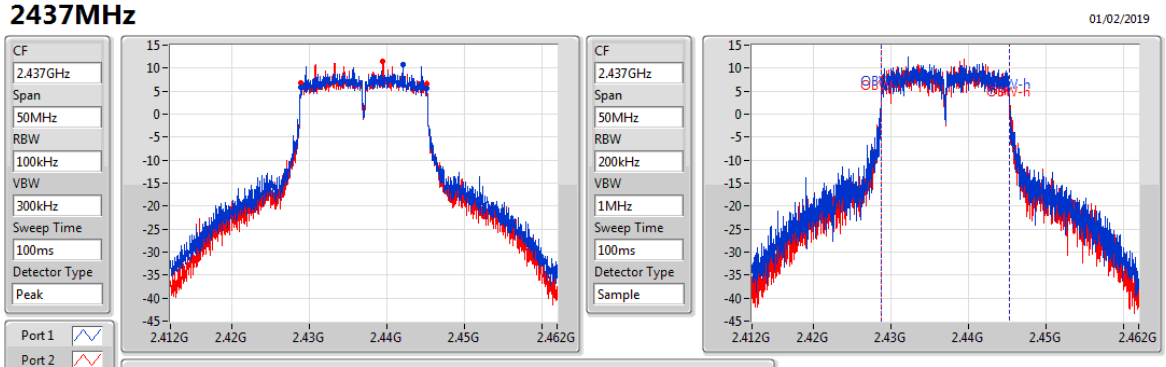
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.40385G	2.42015G	16.517M	2.403729G	2.420246G	500k	1
16.325M	2.40385G	2.420175G	16.542M	2.403704G	2.420246G	500k	2

802.11g_Nss1,(6Mbps)_2TX

EBW

2437MHz

01/02/2019



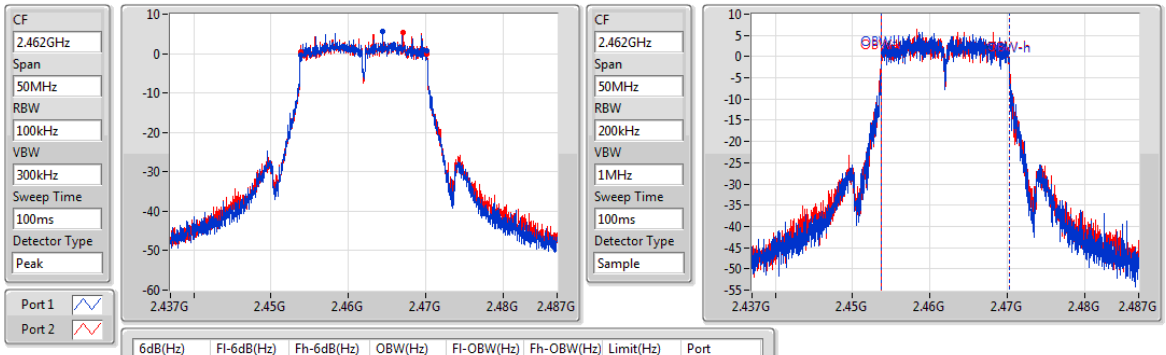
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.428825G	2.445175G	16.667M	2.428654G	2.445321G	500k	1
16.3M	2.42885G	2.44515G	16.667M	2.428679G	2.445346G	500k	2

802.11g_Nss1,(6Mbps)_2TX

EBW

2462MHz

01/02/2019



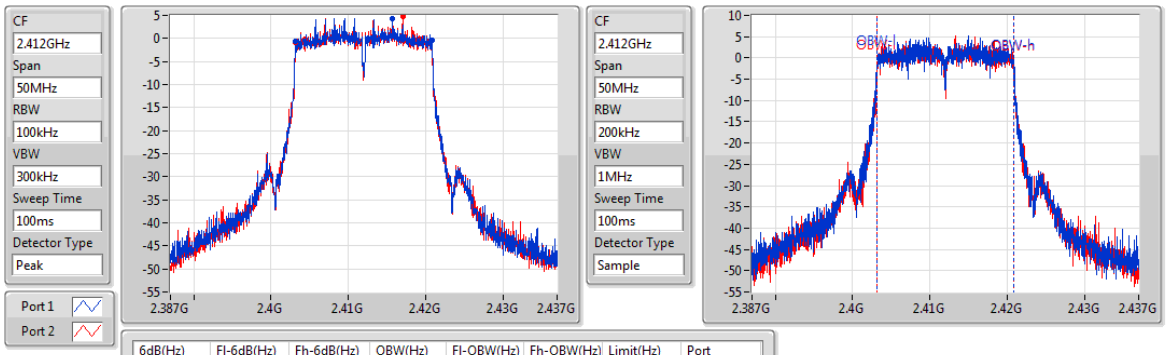
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.542M	2.453704G	2.470246G	500k	1
16.375M	2.453825G	2.4702G	16.542M	2.453729G	2.470271G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX

EBW

2412MHz

01/02/2019



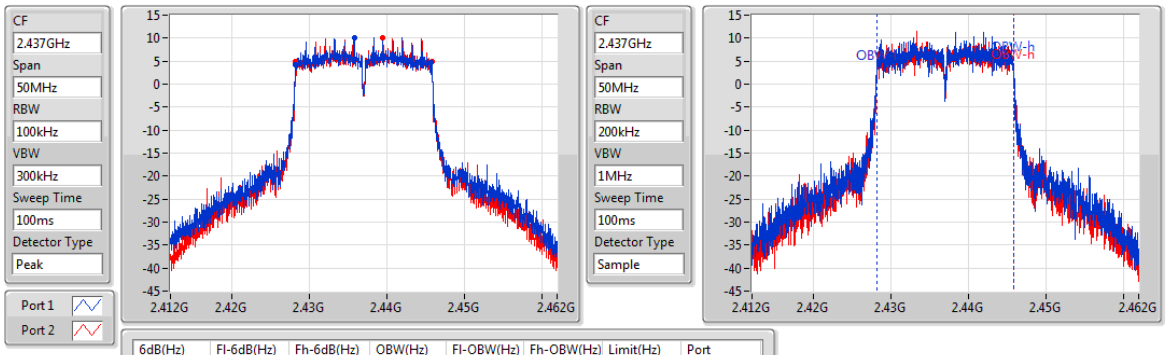
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.403225G	2.420775G	17.691M	2.403154G	2.420846G	500k	1
17.55M	2.403225G	2.420775G	17.666M	2.403154G	2.420821G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX

EBW

2437MHz

01/02/2019



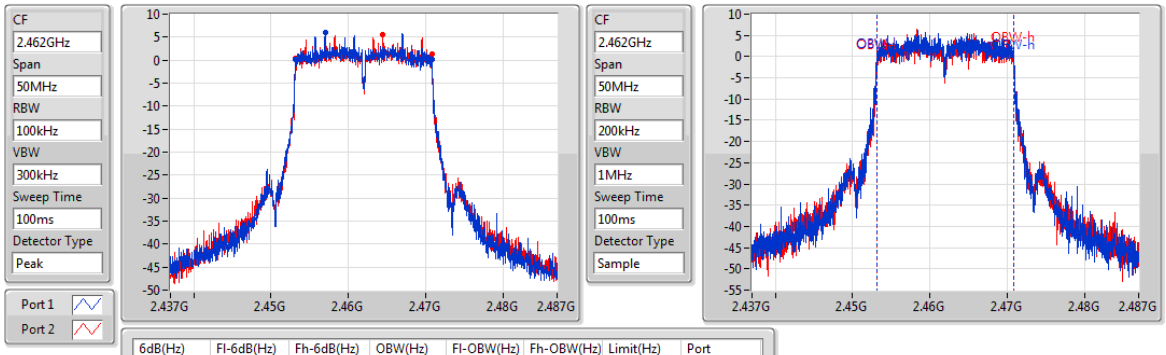
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.4282G	2.44575G	17.691M	2.428129G	2.445821G	500k	1
17.575M	2.428225G	2.4458G	17.691M	2.428154G	2.445846G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX

EBW

2462MHz

01/02/2019



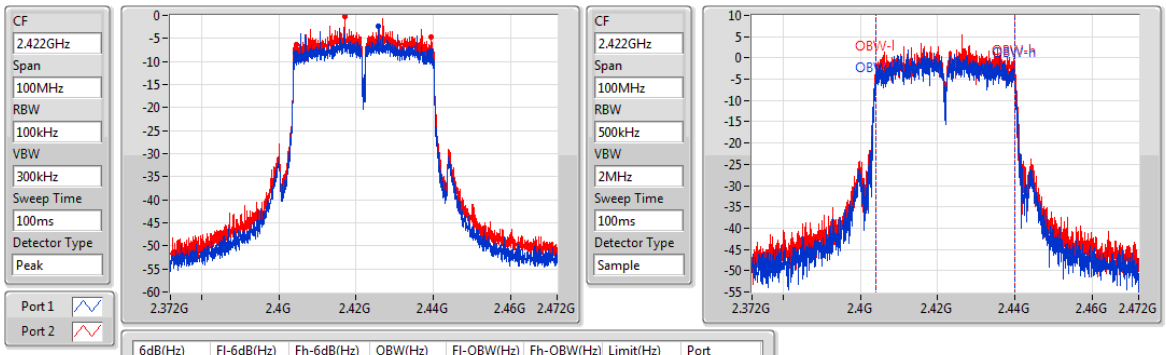
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.453225G	2.470775G	17.666M	2.453154G	2.470821G	500k	1
17.575M	2.4532G	2.470775G	17.666M	2.453154G	2.470821G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX

EBW

2422MHz

01/02/2019



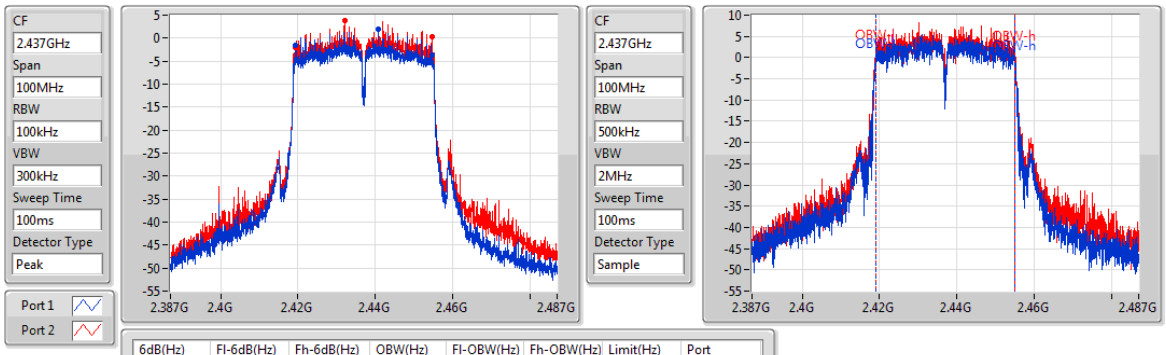
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.3M	2.4042G	2.4395G	35.982M	2.403959G	2.439941G	500k	1
35M	2.4045G	2.4395G	36.082M	2.403959G	2.440041G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX

EBW

2437MHz

01/02/2019



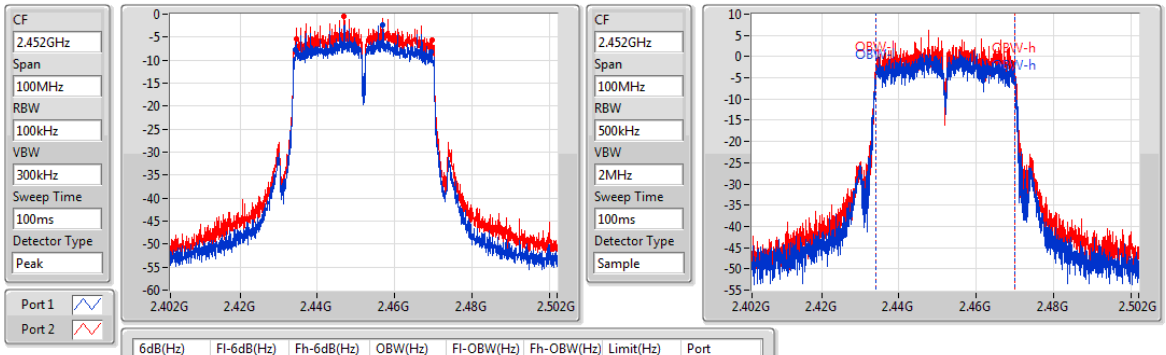
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.3M	2.41945G	2.45475G	36.082M	2.418909G	2.454991G	500k	1
35.1M	2.41945G	2.45455G	36.032M	2.418959G	2.454991G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX

EBW

2452MHz

01/02/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.25M	2.43425G	2.4695G	36.132M	2.433909G	2.470041G	500k	1
35.25M	2.4345G	2.46975G	36.082M	2.433959G	2.470041G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	23.42	0.21979
802.11g_Nss1,(6Mbps)_2TX	26.45	0.44157
802.11n HT20_Nss1,(MCS0)_2TX	25.47	0.35237
802.11n HT40_Nss1,(MCS0)_2TX	20.02	0.10046

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-
2412MHz	Pass	3.00	22.28		22.28	30.00
2437MHz	Pass	3.00	23.42		23.42	30.00
2462MHz	Pass	3.00	21.84		21.84	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.00	16.39	16.70	19.56	30.00
2417MHz	Pass	3.00	18.68	18.13	21.42	30.00
2437MHz	Pass	3.00	23.56	23.31	26.45	30.00
2457MHz	Pass	3.00	18.50	18.39	21.46	30.00
2462MHz	Pass	3.00	17.29	17.28	20.30	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.00	16.46	16.22	19.35	30.00
2417MHz	Pass	3.00	18.00	17.73	20.88	30.00
2437MHz	Pass	3.00	22.66	22.24	25.47	30.00
2457MHz	Pass	3.00	18.83	18.60	21.73	30.00
2462MHz	Pass	3.00	17.71	17.19	20.47	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.00	11.70	13.15	15.50	30.00
2427MHz	Pass	3.00	12.56	14.25	16.50	30.00
2437MHz	Pass	3.00	16.48	17.49	20.02	30.00
2447MHz	Pass	3.00	13.99	15.54	17.84	30.00
2452MHz	Pass	3.00	11.65	13.56	15.72	30.00

DG = Directional Gain; **Port X** = Port X output power
Note : Conducted average output power is for reference only

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	1.26
802.11g_Nss1,(6Mbps)_2TX	-0.38
802.11n HT20_Nss1,(MCS0)_2TX	-1.80
802.11n HT40_Nss1,(MCS0)_2TX	-9.52

RBW=3kHz.

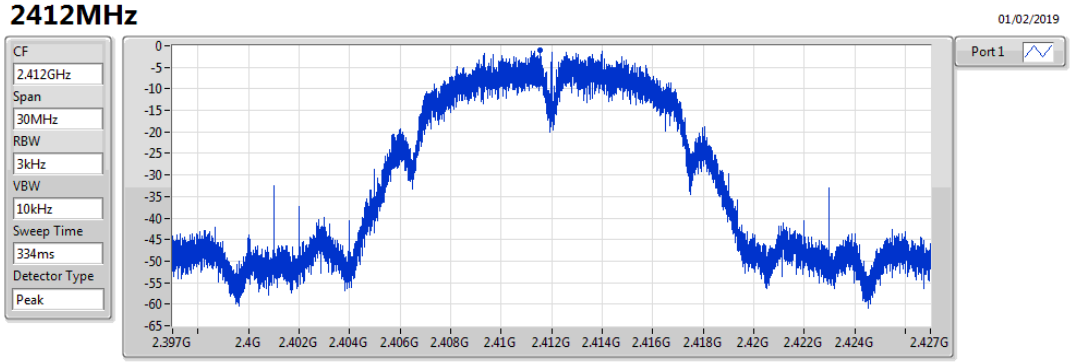
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-
2412MHz	Pass	3.00	-1.12		-1.12	8.00
2437MHz	Pass	3.00	1.26		1.26	8.00
2462MHz	Pass	3.00	-1.25		-1.25	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.01	-9.22	-8.84	-6.67	7.99
2437MHz	Pass	6.01	-1.98	-2.42	-0.38	7.99
2462MHz	Pass	6.01	-8.45	-7.76	-6.38	7.99
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.01	-9.73	-9.39	-7.56	7.99
2437MHz	Pass	6.01	-4.00	-3.72	-1.80	7.99
2462MHz	Pass	6.01	-7.81	-7.57	-4.95	7.99
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	6.01	-17.15	-15.11	-13.61	7.99
2437MHz	Pass	6.01	-11.52	-11.07	-9.52	7.99
2452MHz	Pass	6.01	-15.27	-14.21	-13.04	7.99

DG = Directional Gain; RBW=3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11b_Nss1,(1Mbps)_1TX **PSD**

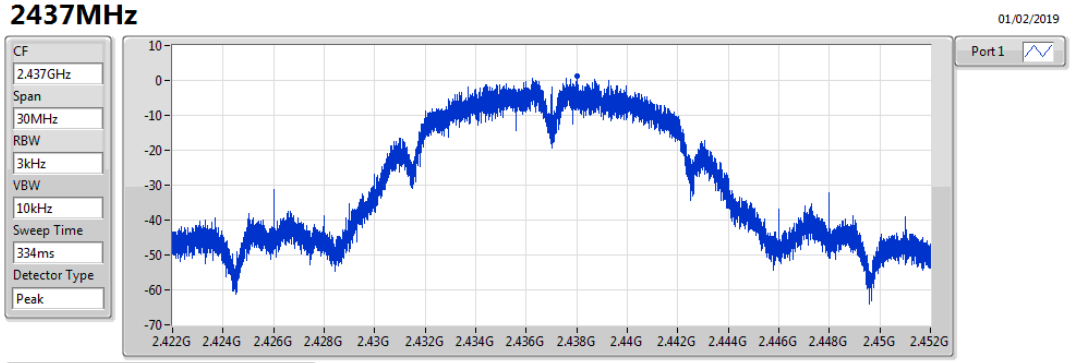
2412MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.12	-1.12	-1.12

802.11b_Nss1,(1Mbps)_1TX **PSD**

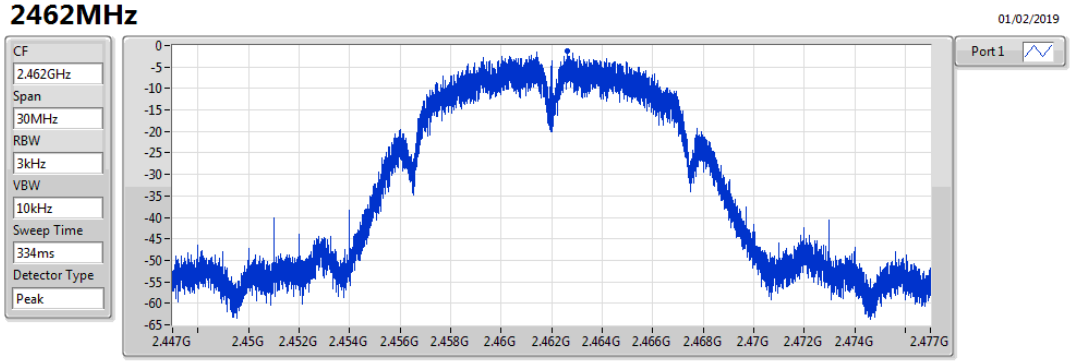
2437MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.26	1.26	1.26

802.11b_Nss1,(1Mbps)_1TX **PSD**

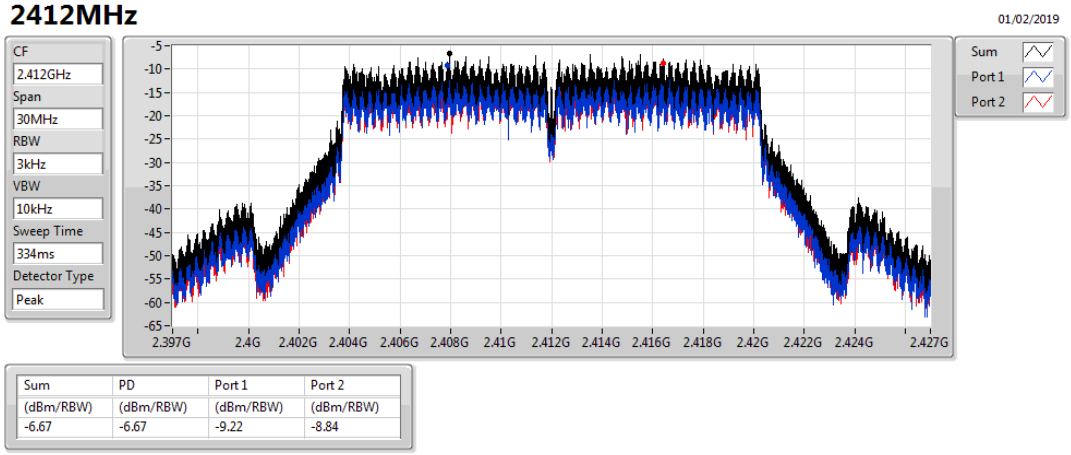
2462MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.25	-1.25	-1.25

802.11g_Nss1,(6Mbps)_2TX **PSD**

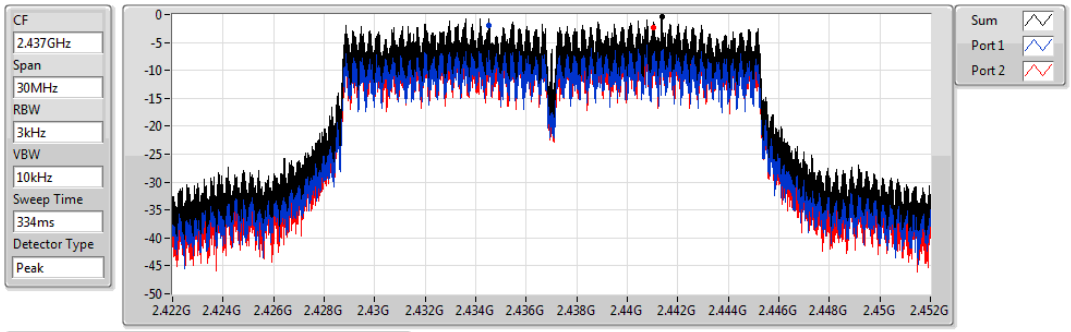
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.67	-6.67	-9.22	-8.84

802.11g_Nss1,(6Mbps)_2TX **PSD**

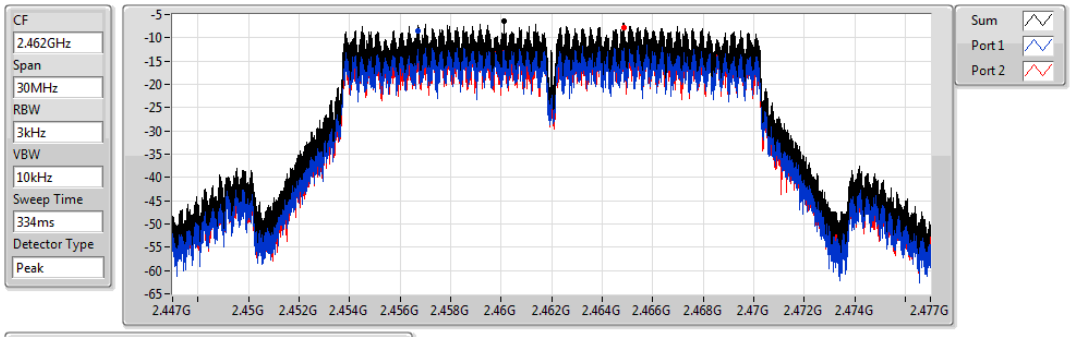
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.38	-0.38	-1.98	-2.42

802.11g_Nss1,(6Mbps)_2TX **PSD**

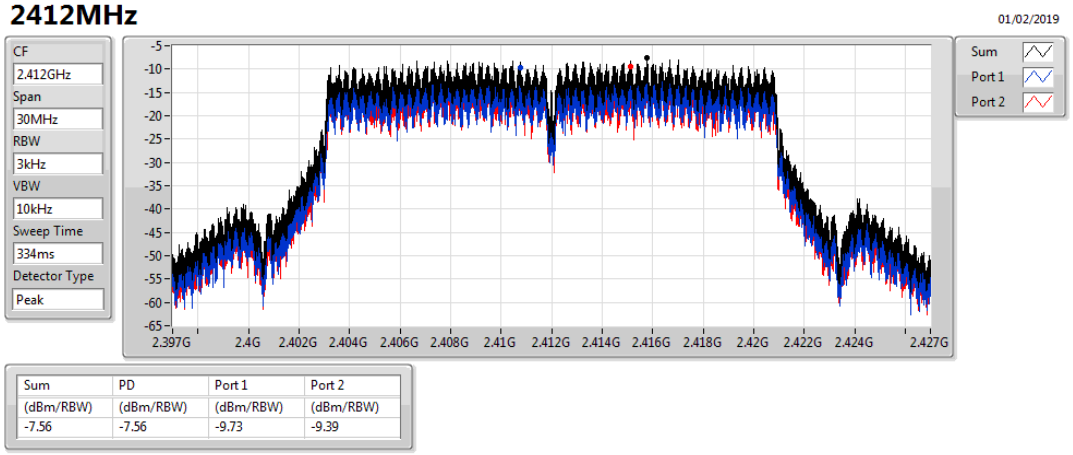
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.38	-6.38	-8.45	-7.76

802.11n HT20_Nss1,(MCS0)_2TX PSD

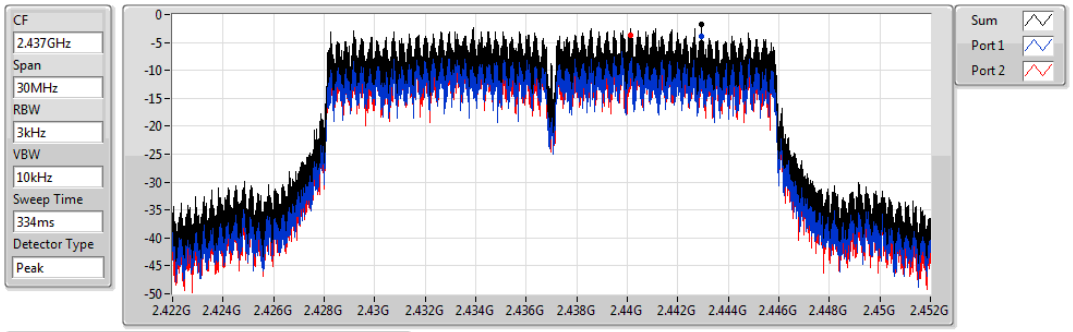
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.56	-7.56	-9.73	-9.39

802.11n HT20_Nss1,(MCS0)_2TX PSD

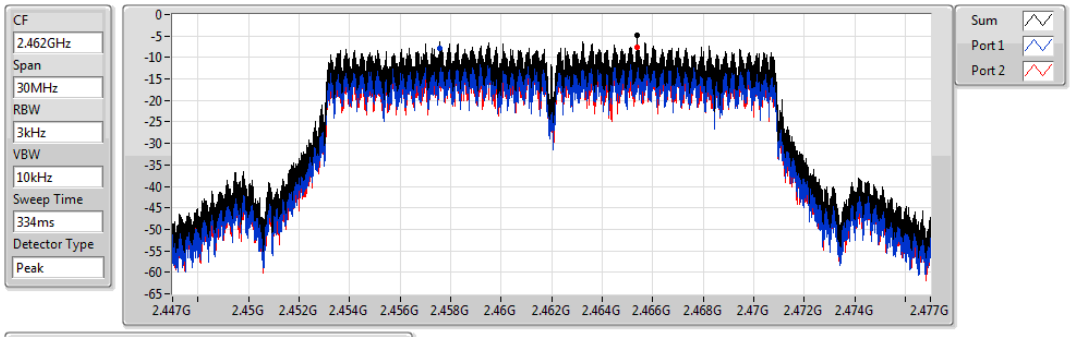
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.80	-1.80	-4.00	-3.72

802.11n HT20_Nss1,(MCS0)_2TX PSD

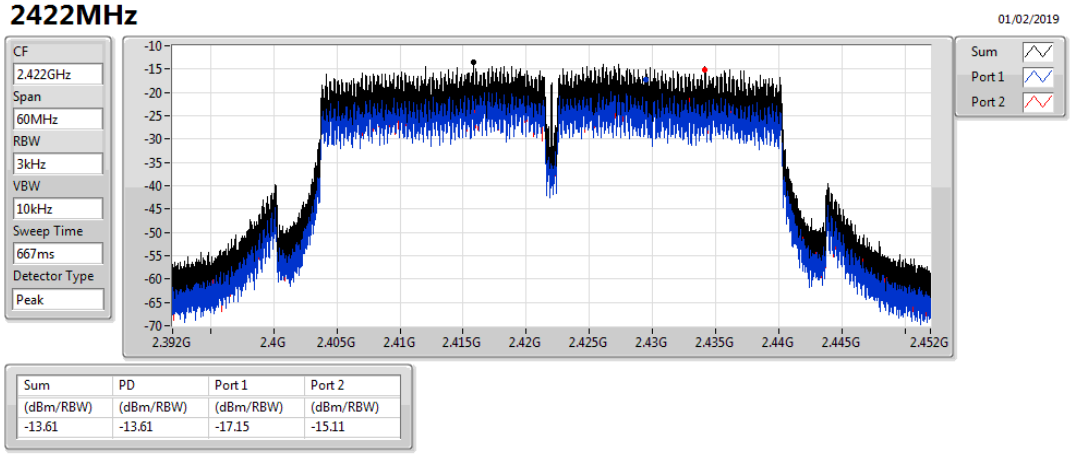
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.95	-4.95	-7.81	-7.57

802.11n HT40_Nss1,(MCS0)_2TX PSD

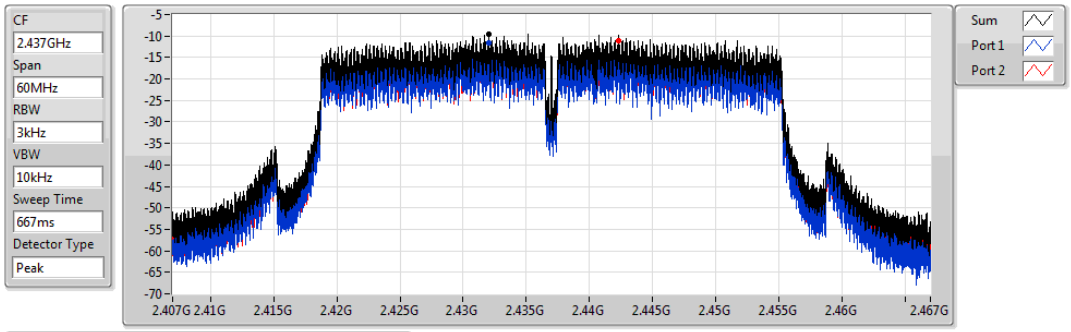
2422MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.61	-13.61	-17.15	-15.11

802.11n HT40_Nss1,(MCS0)_2TX PSD

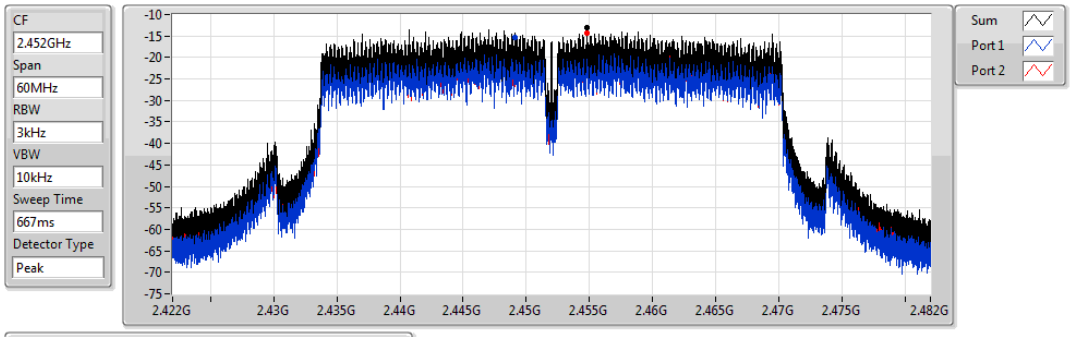
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.52	-9.52	-11.52	-11.07

802.11n HT40_Nss1,(MCS0)_2TX PSD

2452MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.04	-13.04	-15.27	-14.21

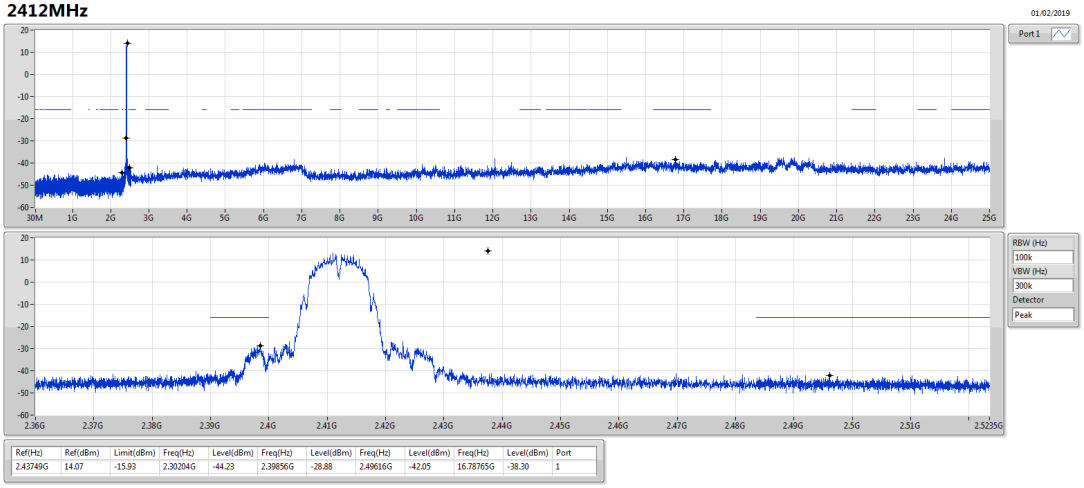
Summary

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)_1TX	Pass	2.43749G	14.07	-15.93	2.30204G	-44.23	2.39856G	-28.88	2.49616G	-42.05	16.78765G	-38.30	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.44079G	9.79	-20.21	1.98254G	-45.03	2.39948G	-25.36	2.52306G	-43.36	16.44488G	-38.88	1
802.11n HT20_Nss1,(MCS0)_2TX	Pass	2.442G	10.65	-19.35	593.57M	-44.80	2.39948G	-25.10	2.51998G	-42.42	21.77181G	-38.39	2
802.11n HT40_Nss1,(MCS0)_2TX	Pass	2.44321G	1.65	-28.35	2.08012G	-44.17	2.39988G	-30.20	2.49998G	-43.99	16.46852G	-37.61	2

Result

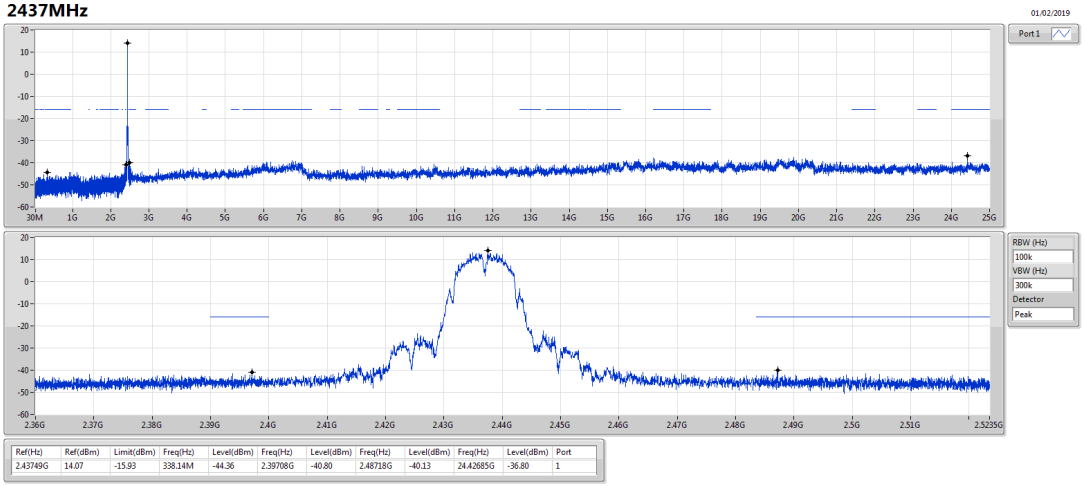
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43749G	14.07	-15.93	2.30204G	-44.23	2.39856G	-28.88	2.49616G	-42.05	16.78765G	-38.30	1
2437MHz	Pass	2.43749G	14.07	-15.93	338.14M	-44.36	2.39708G	-40.80	2.48718G	-40.13	24.42685G	-36.80	1
2462MHz	Pass	2.43749G	14.07	-15.93	454.35M	-44.51	2.39738G	-42.15	2.48506G	-41.96	16.41679G	-38.36	1
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44079G	9.79	-20.21	1.98254G	-45.03	2.39948G	-25.36	2.52306G	-43.36	16.44488G	-38.88	1
2412MHz	Pass	2.44079G	9.79	-20.21	1.85468G	-44.31	2.39952G	-27.50	2.48362G	-42.61	16.42241G	-37.47	2
2437MHz	Pass	2.44079G	9.79	-20.21	1.94876G	-44.99	2.39444G	-37.99	2.48448G	-41.19	17.45352G	-38.82	1
2437MHz	Pass	2.44079G	9.79	-20.21	895.89M	-45.23	2.39528G	-41.09	2.49444G	-40.66	17.40575G	-38.34	2
2462MHz	Pass	2.44079G	9.79	-20.21	905.79M	-44.60	2.39532G	-43.65	2.48528G	-41.92	16.48141G	-38.19	1
2462MHz	Pass	2.44079G	9.79	-20.21	891.52M	-43.97	2.39552G	-42.93	2.48476G	-40.62	16.51231G	-38.64	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	10.65	-19.35	2.06351G	-44.77	2.39988G	-27.42	2.50014G	-44.14	16.86351G	-38.26	1
2412MHz	Pass	2.442G	10.65	-19.35	593.57M	-44.80	2.39948G	-25.10	2.51998G	-42.42	21.77181G	-38.39	2
2437MHz	Pass	2.442G	10.65	-19.35	390.28M	-44.82	2.3998G	-38.67	2.51346G	-42.03	6.72099G	-38.13	1
2437MHz	Pass	2.442G	10.65	-19.35	2.00351G	-44.23	2.39566G	-41.27	2.50754G	-40.69	15.14405G	-37.03	2
2462MHz	Pass	2.442G	10.65	-19.35	2.02652G	-44.75	2.3931G	-42.63	2.48432G	-41.82	6.99632G	-37.89	1
2462MHz	Pass	2.442G	10.65	-19.35	2.12729G	-45.21	2.39116G	-43.23	2.48448G	-39.01	15.21991G	-38.80	2
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44321G	1.65	-28.35	824.92M	-44.78	2.39952G	-31.54	2.50506G	-44.16	15.14757G	-37.57	1
2422MHz	Pass	2.44321G	1.65	-28.35	2.08012G	-44.17	2.39988G	-30.20	2.49998G	-43.99	16.46852G	-37.61	2
2437MHz	Pass	2.44321G	1.65	-28.35	715.28M	-45.17	2.39992G	-39.33	2.49658G	-44.14	16.9453G	-38.05	1
2437MHz	Pass	2.44321G	1.65	-28.35	956.02M	-44.46	2.39892G	-37.31	2.49998G	-41.88	16.27501G	-38.22	2
2452MHz	Pass	2.44321G	1.65	-28.35	1.783G	-44.44	2.39604G	-45.59	2.4843G	-42.77	16.42926G	-38.25	1
2452MHz	Pass	2.44321G	1.65	-28.35	387.81M	-44.35	2.39896G	-44.57	2.48566G	-42.92	23.13497G	-38.13	2

802.11b_Nss1,(1Mbps)_1TX
2412MHz
CSE NdB



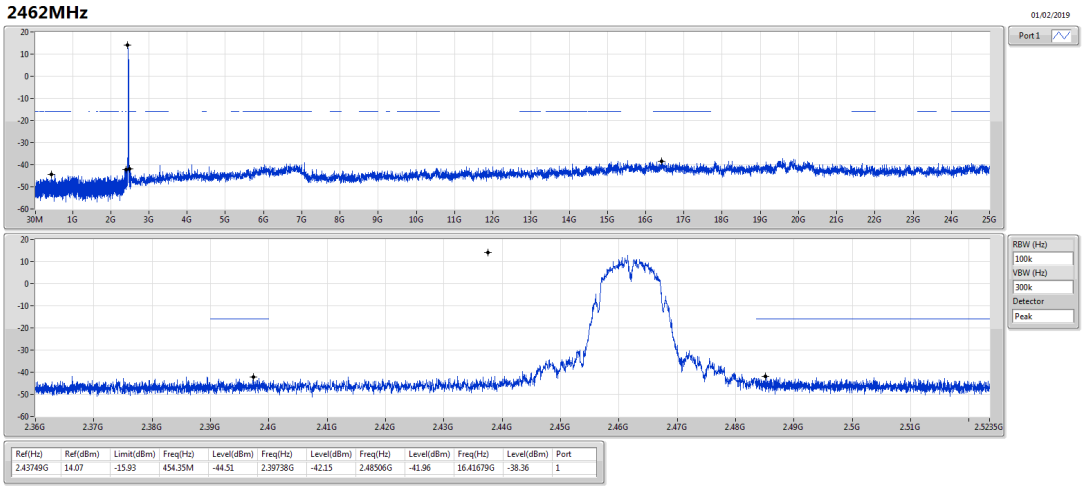
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	14.07	-15.93	2.30204G	-44.23	2.39856G	-28.88	2.49616G	-42.05	16.78765G	-38.30	1

802.11b_Nss1,(1Mbps)_1TX
2437MHz
CSE NdB



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	14.07	-15.93	338.14M	-44.36	2.39708G	-40.80	2.48718G	-40.13	24.42685G	-36.80	1

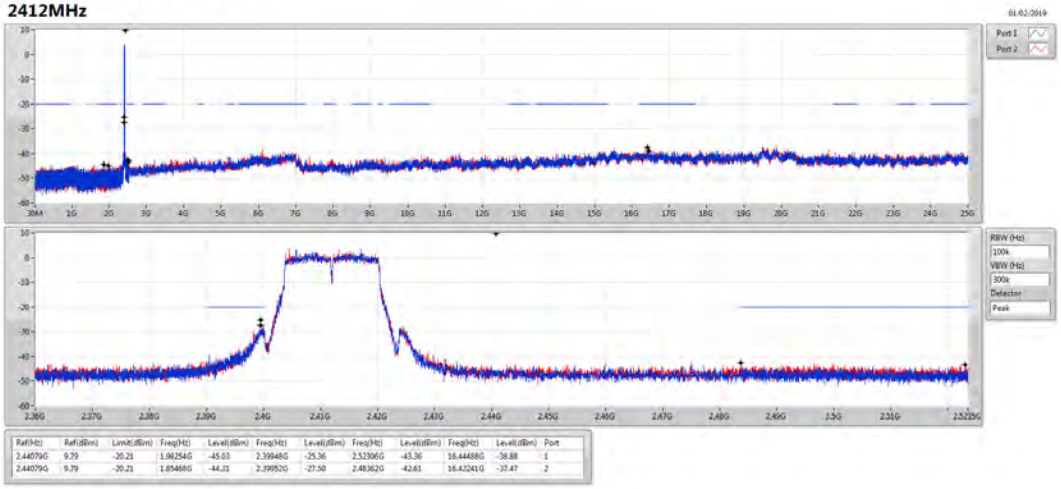
802.11b_Nss1,(1Mbps)_1TX
2462MHz
CSE NdB



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	14.07	-15.93	454.35M	-44.51	2.39738G	-42.15	2.48506G	-41.96	16.41679G	-38.36	1

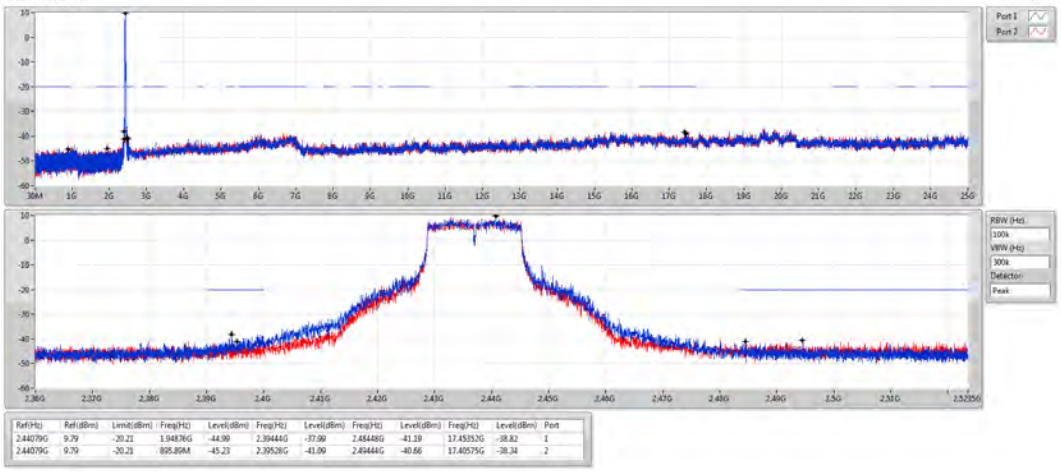
802.11g_Nss1,(6Mbps)_2TX CSE NdB

2412MHz



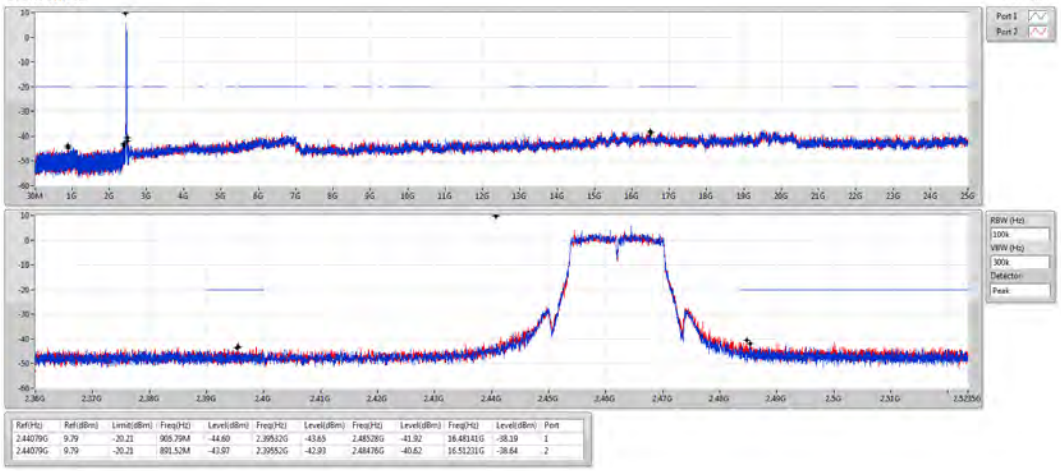
802.11g_Nss1,(6Mbps)_2TX CSE NdB

2437MHz



802.11g_Nss1,(6Mbps)_2TX CSE NdB

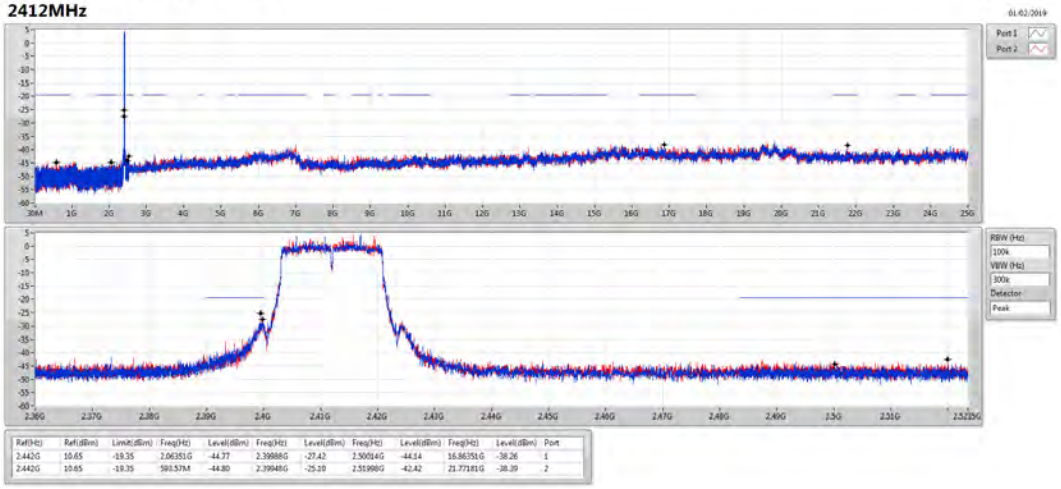
2462MHz



802.11n HT20_Nss1,(MCS0)_2TX

CSE NdB

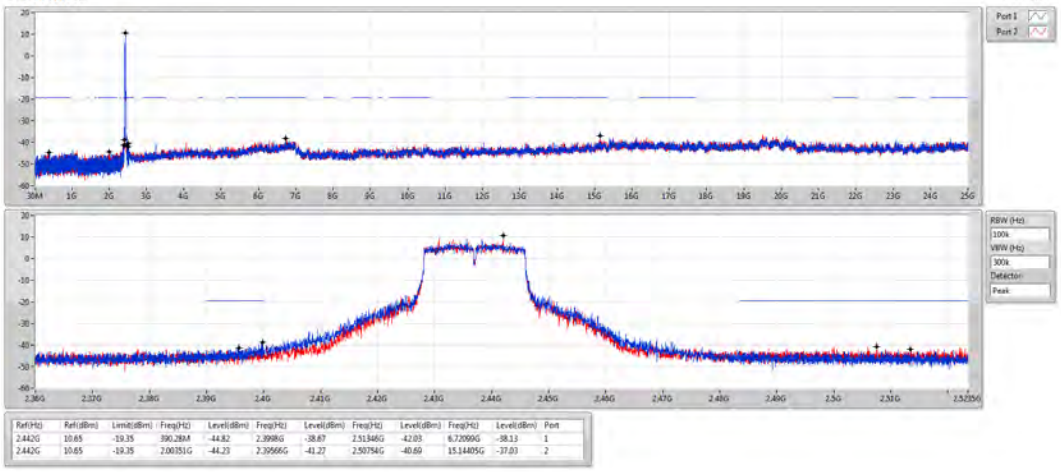
2412MHz



802.11n HT20_Nss1,(MCS0)_2TX

CSE NdB

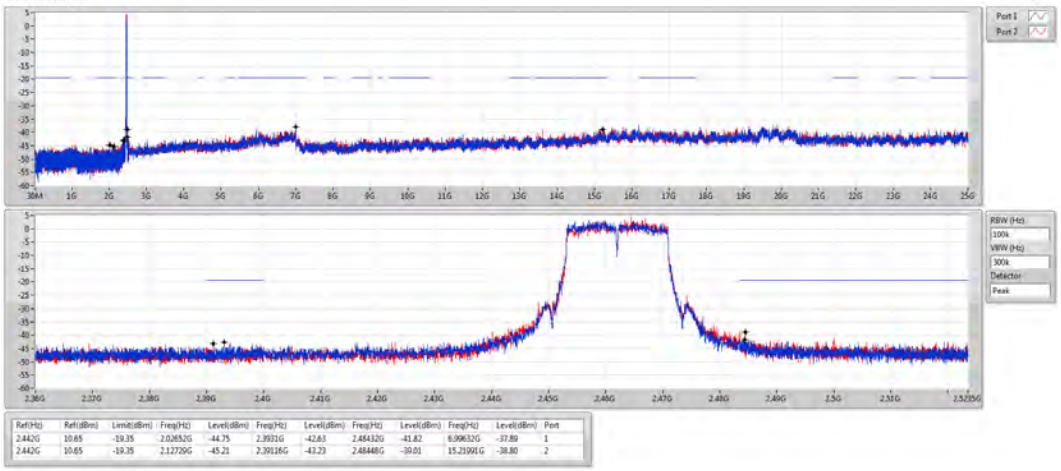
2437MHz



802.11n HT20_Nss1,(MCS0)_2TX

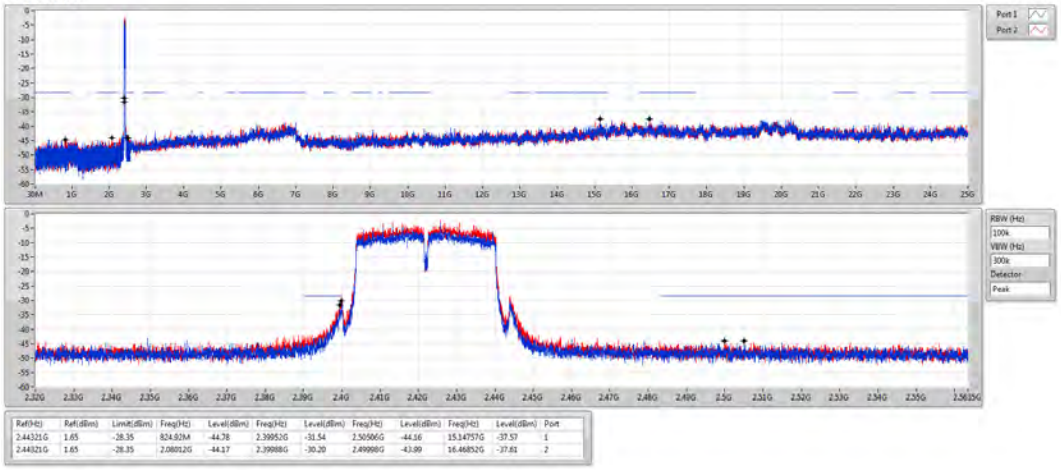
CSE NdB

2462MHz



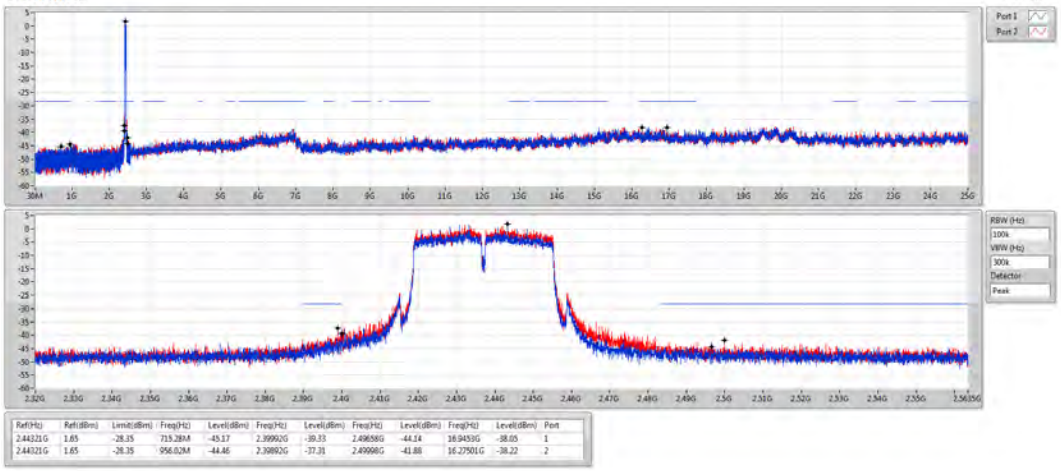
802.11n HT40_Nss1,(MCS0)_2TX CSE NdB

2422MHz



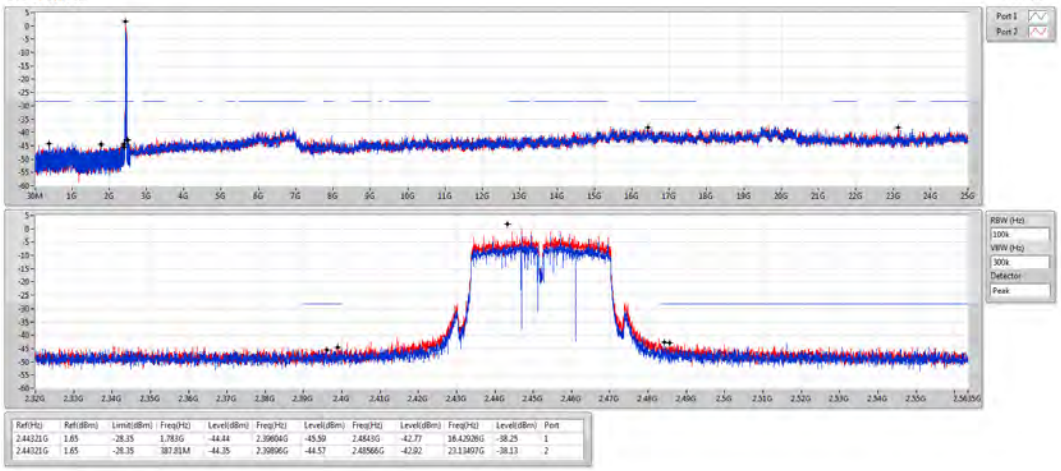
802.11n HT40_Nss1,(MCS0)_2TX CSE NdB

2437MHz



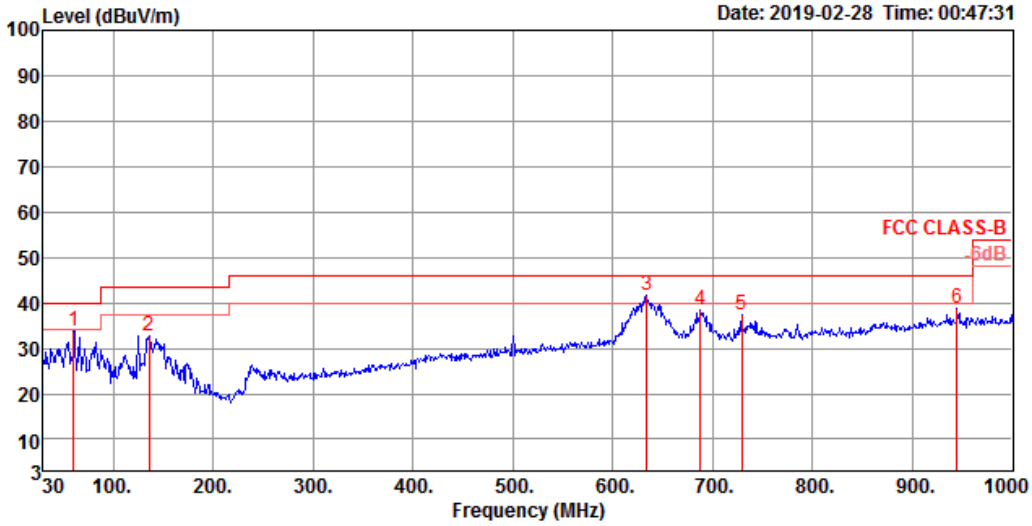
802.11n HT40_Nss1,(MCS0)_2TX CSE NdB

2452MHz



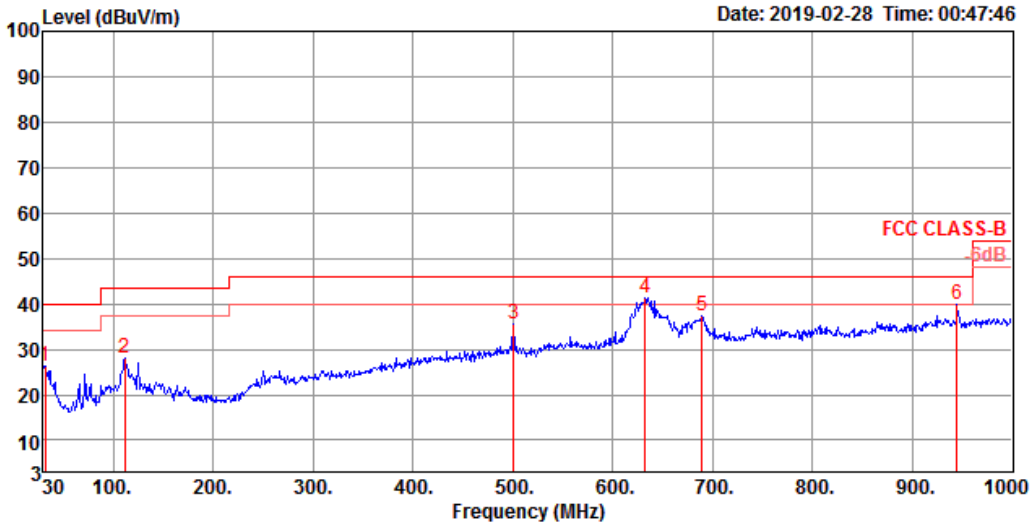
Test Mode	Mode 2	Frequency Range	30 MHz to 1,000 MHz

Vertical 30 MHz to 1,000 MHz



	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	60.07	33.72	40.00	-6.28	53.02	1.12	12.16	32.58	100	188	Peak	VERTICAL
2	135.73	32.67	43.50	-10.83	45.91	1.85	17.43	32.52	100	214	Peak	VERTICAL
3	634.31	41.52	46.00	-4.48	44.52	4.90	24.62	32.52	125	85	Peak	VERTICAL
4	687.66	38.30	46.00	-7.70	40.85	5.21	24.74	32.50	100	136	Peak	VERTICAL
5	729.37	37.53	46.00	-8.47	39.60	5.30	25.09	32.46	125	124	Peak	VERTICAL
6	944.71	38.91	46.00	-7.09	37.61	6.29	26.41	31.40	100	55	Peak	VERTICAL

Horizontal 30MHz to 1,000 MHz



	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	31.94	26.38	40.00	-13.62	35.22	0.67	23.09	32.60	100	273	Peak	HORIZONTAL
2	111.48	27.92	43.50	-15.58	41.21	1.62	17.63	32.54	100	106	Peak	HORIZONTAL
3	500.45	35.46	46.00	-10.54	40.60	4.11	23.19	32.44	100	294	Peak	HORIZONTAL
4	632.37	41.43	46.00	-4.57	44.46	4.88	24.61	32.52	100	192	Peak	HORIZONTAL
5	689.60	37.21	46.00	-8.79	39.75	5.22	24.74	32.50	200	177	Peak	HORIZONTAL
6	944.71	39.82	46.00	-6.18	38.52	6.29	26.41	31.40	200	2	Peak	HORIZONTAL

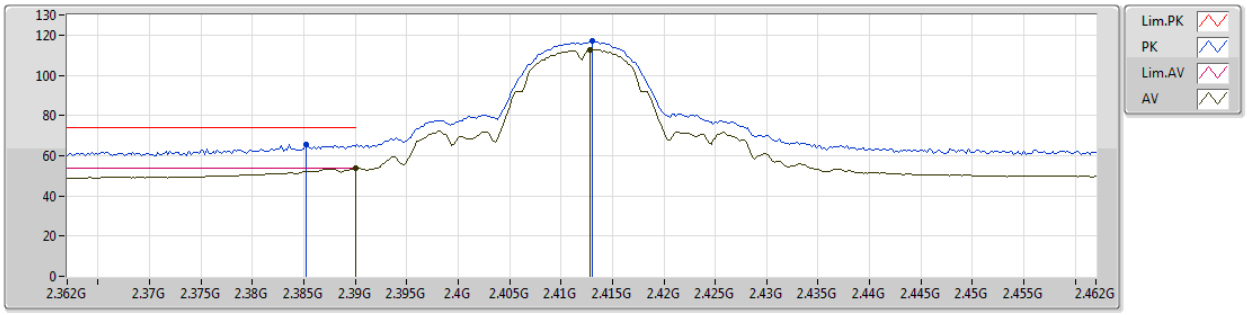
Summary

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	-	-	-	-	-	-	-	-	-	-	-	-
802.11n HT40_Nss1,(MCS0)_2TX	Pass	AV	2.4838G	53.97	54.00	-0.03	31.59	3	Vertical	261	1.89	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

12/02/2019



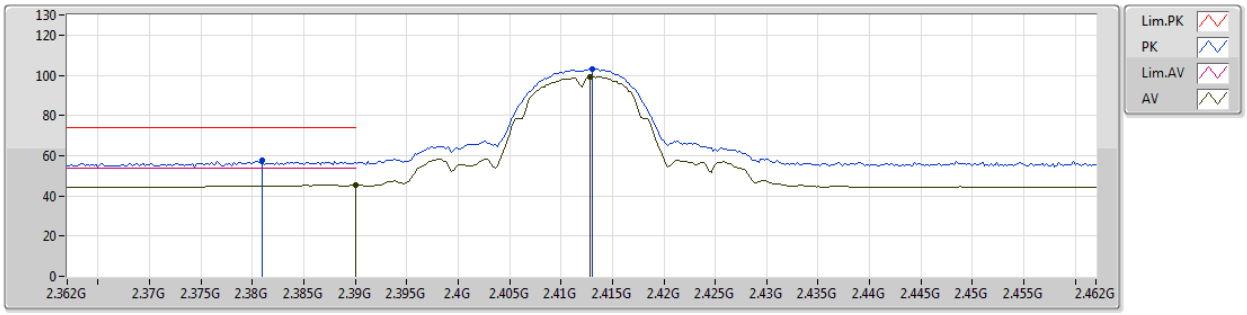
EUT Y_1TX
Setting 92
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3852G	65.45	74.00	-8.55	31.37	3	Vertical	76	2.40	-
AV	2.39G	53.63	54.00	-0.37	31.38	3	Vertical	76	2.40	-
PK	2.413G	116.84	Inf	-Inf	31.44	3	Vertical	76	2.40	-
AV	2.4128G	112.61	Inf	-Inf	31.44	3	Vertical	76	2.40	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

12/02/2019



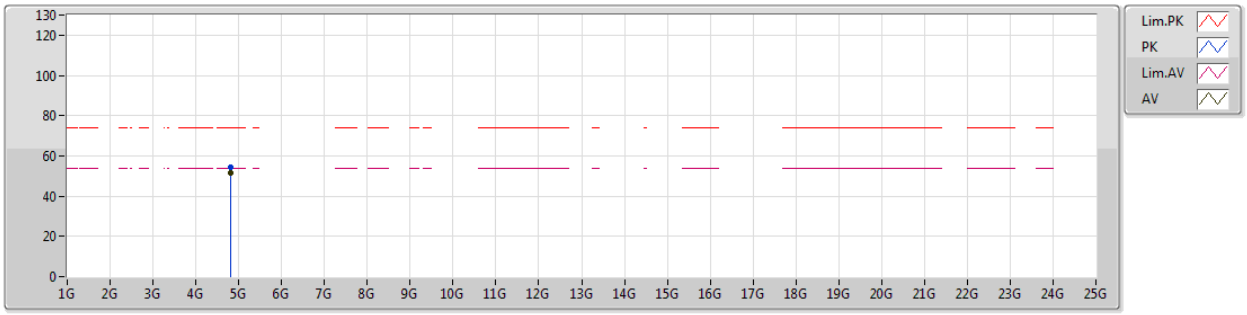
EUT Y_1TX
Setting 92
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.381G	57.74	74.00	-16.26	31.36	3	Horizontal	50	1.15	-
AV	2.39G	45.38	54.00	-8.62	31.38	3	Horizontal	50	1.15	-
PK	2.413G	103.37	Inf	-Inf	31.44	3	Horizontal	50	1.15	-
AV	2.4128G	99.23	Inf	-Inf	31.44	3	Horizontal	50	1.15	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

12/02/2019



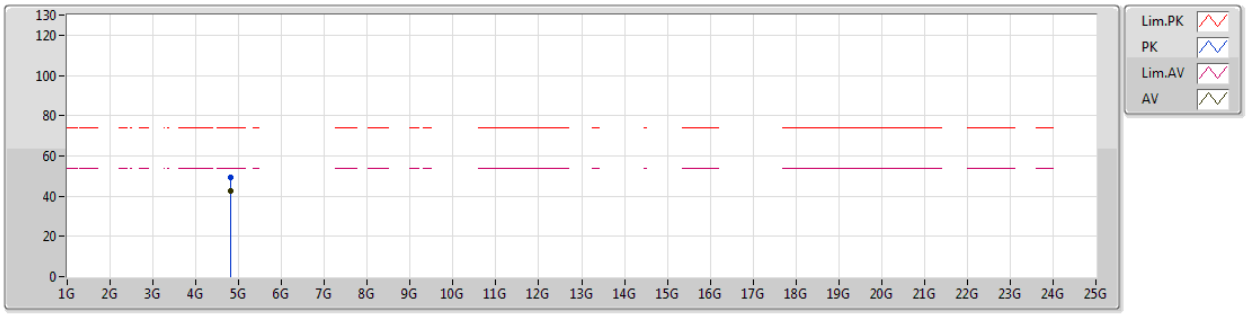
EUT Y_1TX
Setting 92
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8239G	54.27	74.00	-19.73	7.30	3	Vertical	167	1.12	-
AV	4.824G	51.42	54.00	-2.58	7.30	3	Vertical	167	1.12	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

12/02/2019



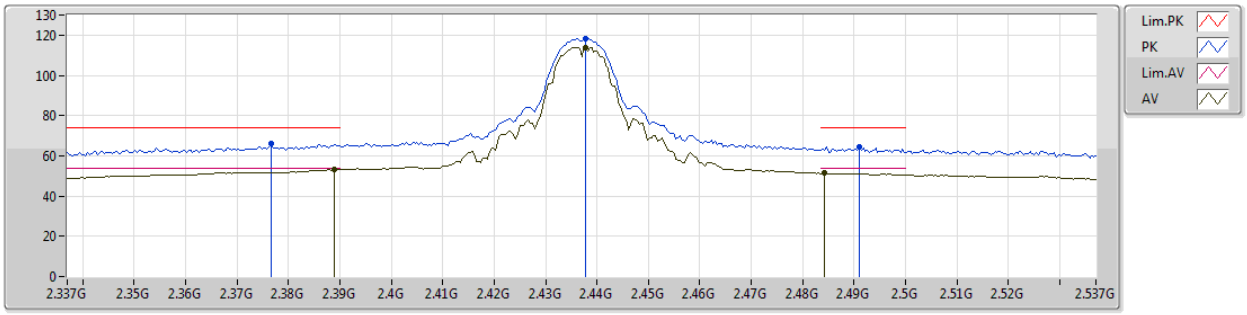
EUT Y_1TX
Setting 92
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82403G	49.35	74.00	-24.65	7.30	3	Horizontal	316	1.03	-
AV	4.82398G	42.50	54.00	-11.50	7.30	3	Horizontal	316	1.03	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

12/02/2019



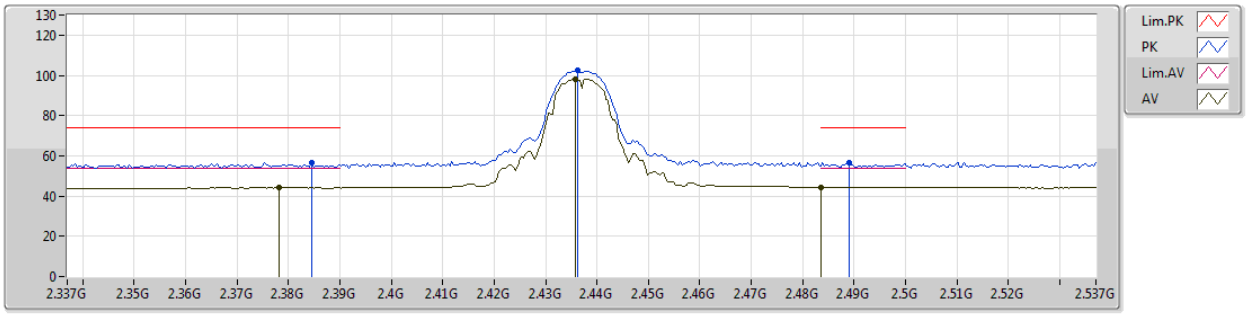
EUT Y_1TX
Setting 96
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3766G	66.27	74.00	-7.73	31.34	3	Vertical	95	1.01	-
AV	2.389G	53.06	54.00	-0.94	31.38	3	Vertical	95	1.01	-
PK	2.4378G	118.03	Inf	-Inf	31.50	3	Vertical	95	1.01	-
AV	2.4378G	113.87	Inf	-Inf	31.50	3	Vertical	95	1.01	-
PK	2.491G	64.55	74.00	-9.45	31.61	3	Vertical	95	1.01	-
AV	2.4842G	51.29	54.00	-2.71	31.59	3	Vertical	95	1.01	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

12/02/2019



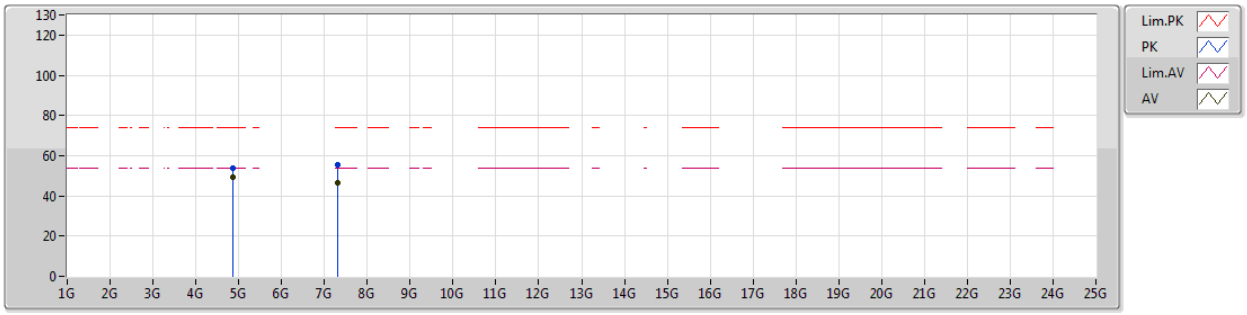
EUT Y_1TX
Setting 96
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3846G	56.51	74.00	-17.49	31.37	3	Horizontal	133	1.48	-
AV	2.3782G	44.16	54.00	-9.84	31.35	3	Horizontal	133	1.48	-
PK	2.4362G	102.47	Inf	-Inf	31.49	3	Horizontal	133	1.48	-
AV	2.4358G	98.26	Inf	-Inf	31.48	3	Horizontal	133	1.48	-
PK	2.489G	56.78	74.00	-17.22	31.61	3	Horizontal	133	1.48	-
AV	2.4835G	44.32	54.00	-9.68	31.59	3	Horizontal	133	1.48	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

12/02/2019



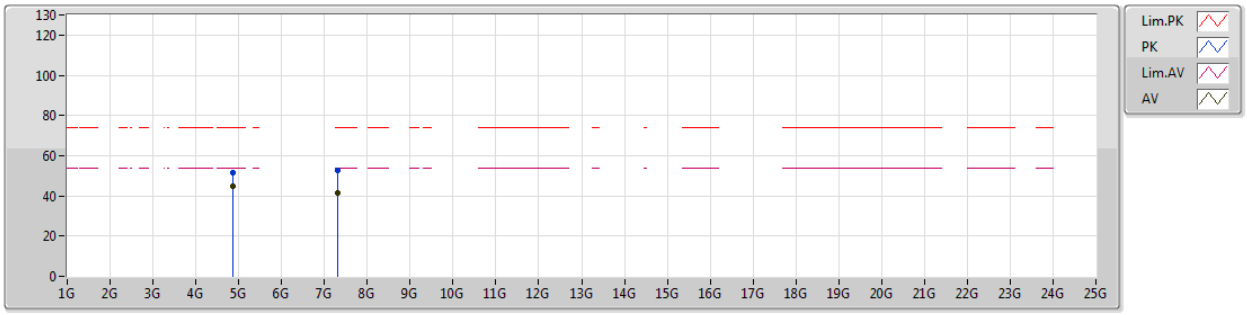
EUT Y_1TX
Setting 96
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87404G	54.04	74.00	-19.96	7.41	3	Vertical	343	1.03	-
AV	4.874G	49.50	54.00	-4.50	7.41	3	Vertical	343	1.03	-
PK	7.311G	55.42	74.00	-19.58	10.54	3	Vertical	175	1.64	-
AV	7.31022G	46.26	54.00	-8.74	10.54	3	Vertical	175	1.64	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

12/02/2019



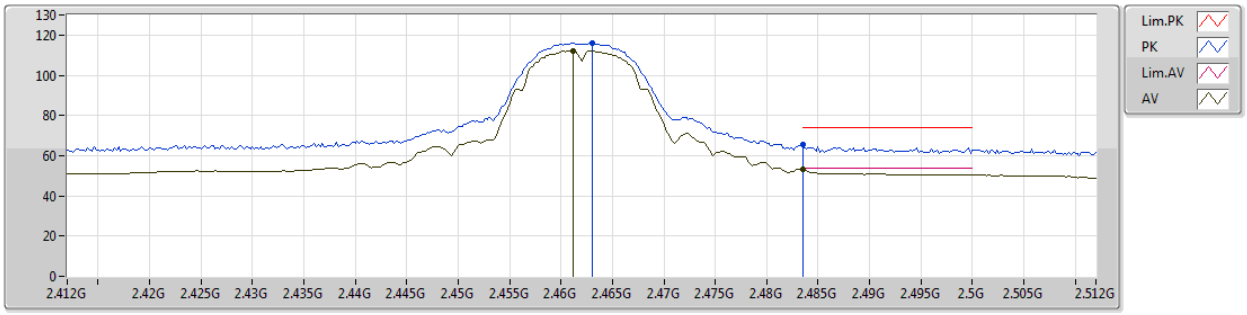
EUT Y_1TX
Setting 96
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87408G	51.49	74.00	-22.51	7.41	3	Horizontal	27	1.04	-
AV	4.874G	44.81	54.00	-9.19	7.41	3	Horizontal	27	1.04	-
PK	7.3106G	52.94	74.00	-21.06	10.54	3	Horizontal	103	2.06	-
AV	7.3102G	41.73	54.00	-12.27	10.54	3	Horizontal	103	2.06	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

12/02/2019



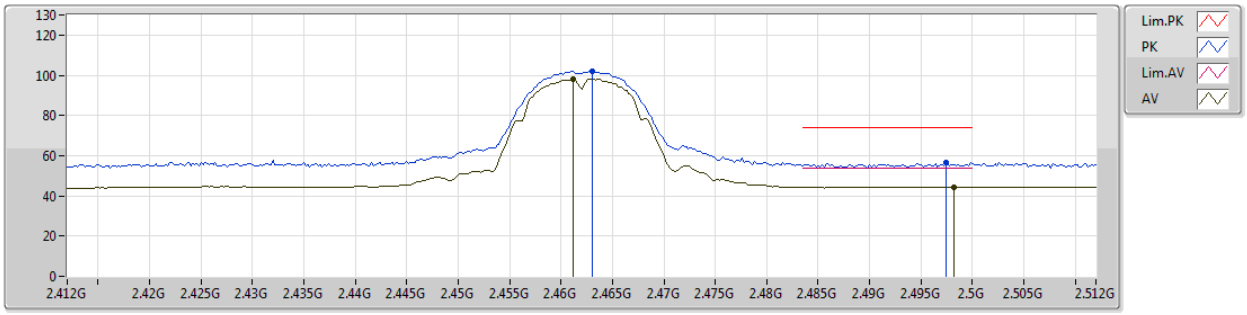
EUT Y_1TX
Setting 90
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.463G	116.17	Inf	-Inf	31.55	3	Vertical	95	1.21	-
AV	2.4612G	112.13	Inf	-Inf	31.54	3	Vertical	95	1.21	-
PK	2.4835G	65.31	74.00	-8.69	31.59	3	Vertical	95	1.21	-
AV	2.4835G	53.31	54.00	-0.69	31.59	3	Vertical	95	1.21	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

12/02/2019



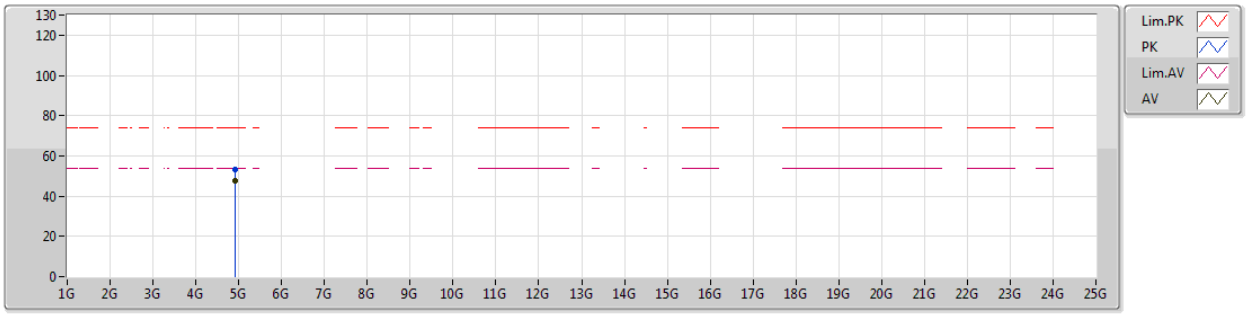
EUT Y_1TX
Setting 90
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.463G	102.03	Inf	-Inf	31.55	3	Horizontal	65	1.42	-
AV	2.4612G	97.94	Inf	-Inf	31.54	3	Horizontal	65	1.42	-
PK	2.4974G	56.76	74.00	-17.24	31.63	3	Horizontal	65	1.42	-
AV	2.4982G	44.37	54.00	-9.63	31.63	3	Horizontal	65	1.42	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

12/02/2019



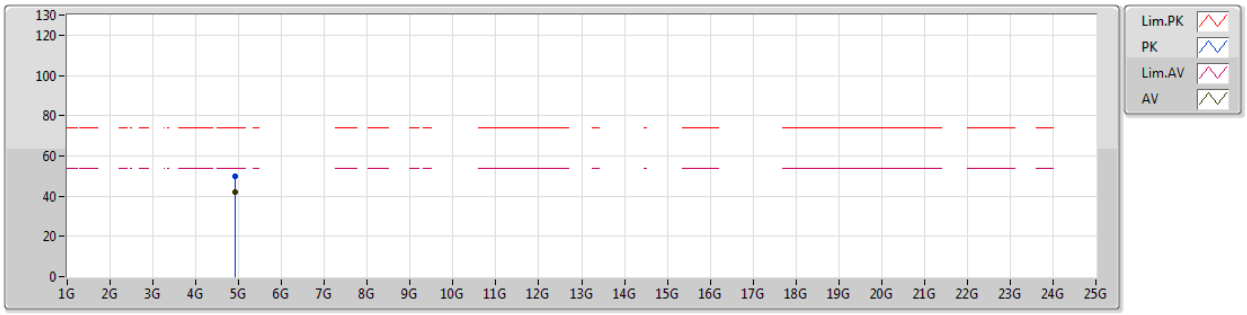
EUT Y_1TX
Setting 90
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.92402G	53.23	74.00	-20.77	7.51	3	Vertical	184	1.07	-
AV	4.92397G	47.74	54.00	-6.26	7.51	3	Vertical	184	1.07	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

12/02/2019



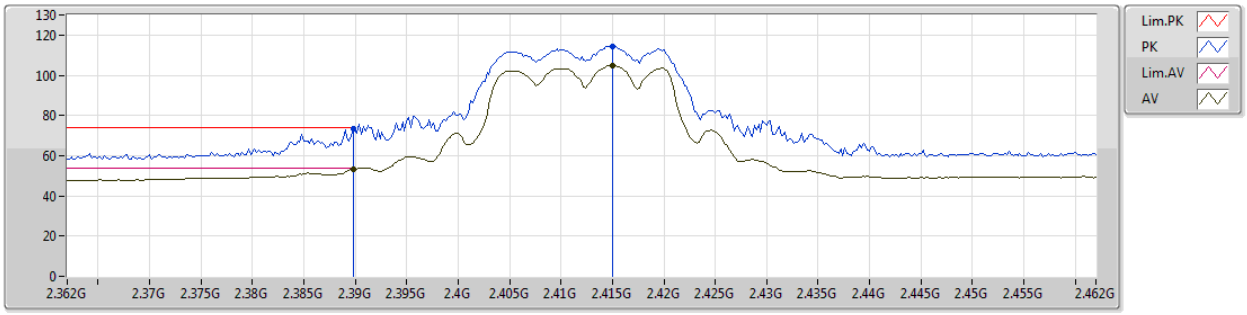
EUT Y_1TX
Setting 90
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.92401G	49.83	74.00	-24.17	7.51	3	Horizontal	208	1.21	-
AV	4.92397G	41.98	54.00	-12.02	7.51	3	Horizontal	208	1.21	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

12/02/2019



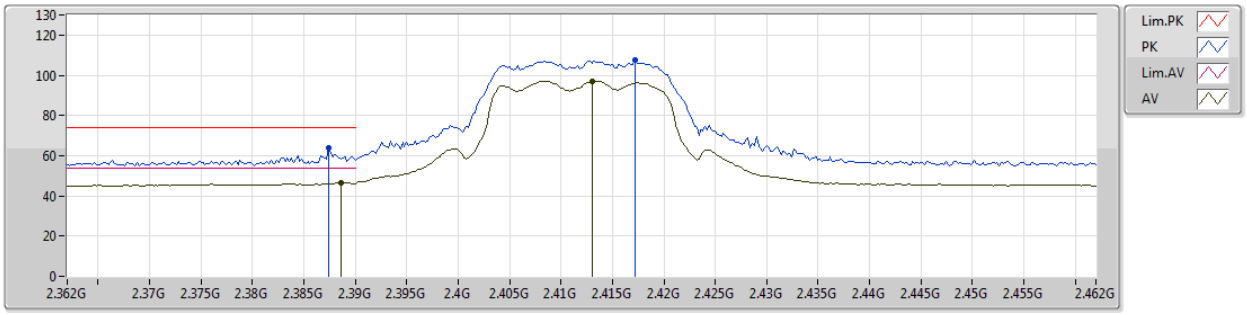
EUT Y_2TX
Setting 69
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3898G	73.26	74.00	-0.74	31.38	3	Vertical	359	1.41	-
AV	2.3898G	53.47	54.00	-0.53	31.38	3	Vertical	359	1.41	-
PK	2.415G	114.49	Inf	-Inf	31.45	3	Vertical	359	1.41	-
AV	2.415G	104.80	Inf	-Inf	31.45	3	Vertical	359	1.41	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

12/02/2019



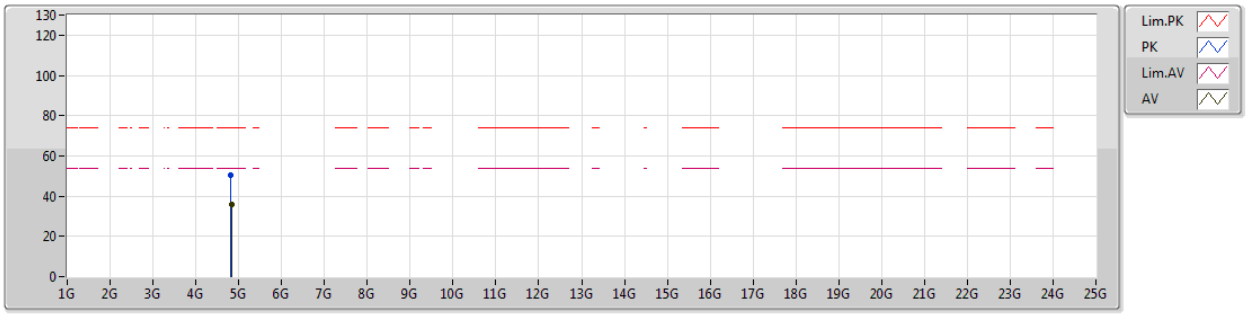
EUT Y_2TX
Setting 69
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3874G	63.72	74.00	-10.28	31.37	3	Horizontal	135	2.28	-
AV	2.3886G	46.32	54.00	-7.68	31.38	3	Horizontal	135	2.28	-
PK	2.4172G	107.44	Inf	-Inf	31.45	3	Horizontal	135	2.28	-
AV	2.413G	97.03	Inf	-Inf	31.44	3	Horizontal	135	2.28	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

12/02/2019



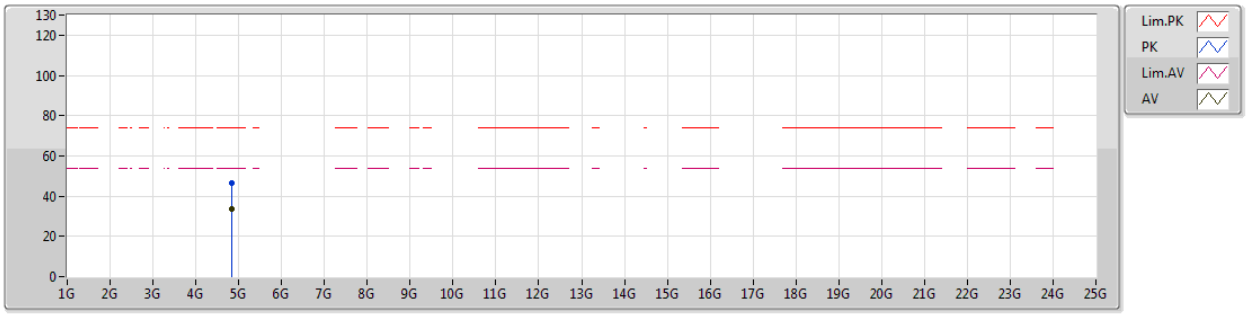
EUT Y_2TX
Setting 69
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8193G	50.27	74.00	-23.73	7.29	3	Vertical	165	1.83	-
AV	4.82692G	36.09	54.00	-17.91	7.32	3	Vertical	165	1.83	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

12/02/2019



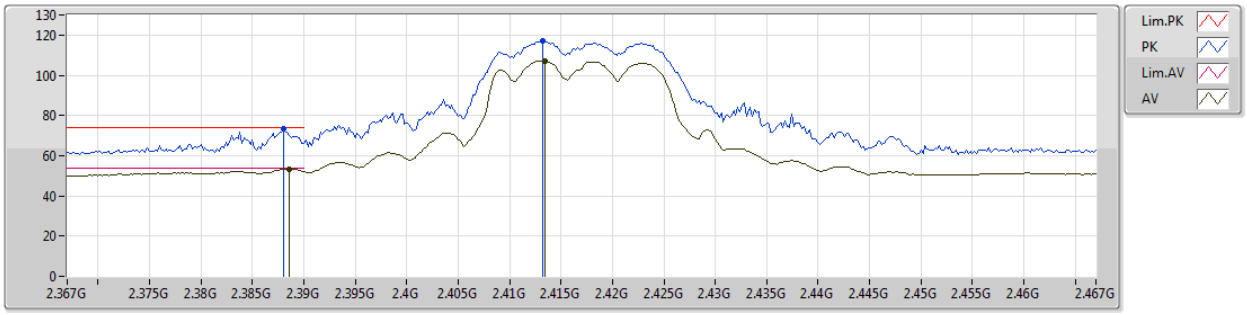
EUT Y_2TX
Setting 69
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82648G	46.72	74.00	-27.28	7.32	3	Horizontal	360	1.13	-
AV	4.8266G	33.47	54.00	-20.53	7.32	3	Horizontal	360	1.13	-

802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX

12/02/2019



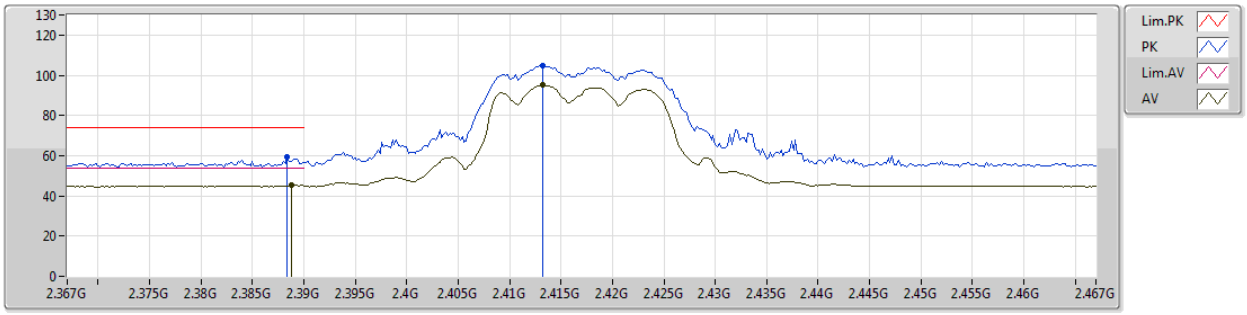
EUT Y_2TX
Setting 77
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.388G	73.64	74.00	-0.36	31.38	3	Vertical	186	1.49	-
AV	2.3886G	53.40	54.00	-0.60	31.38	3	Vertical	186	1.49	-
PK	2.4132G	116.96	Inf	-Inf	31.44	3	Vertical	186	1.49	-
AV	2.4134G	107.18	Inf	-Inf	31.44	3	Vertical	186	1.49	-

802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX

12/02/2019



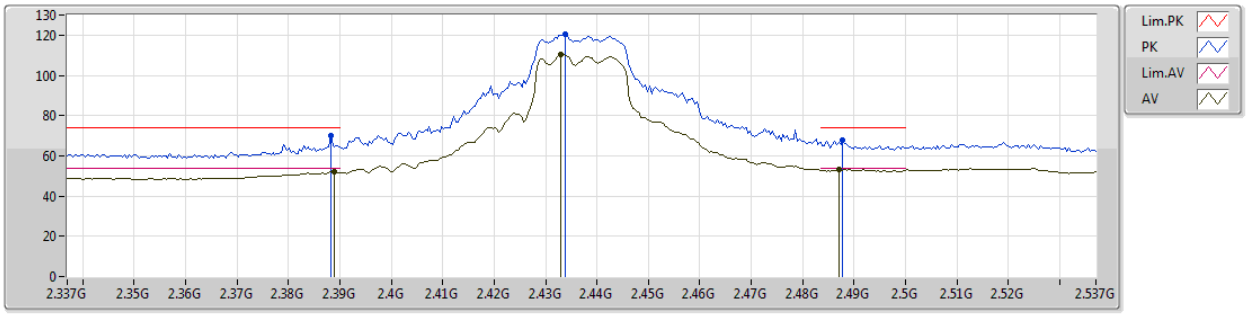
EUT Y_2TX
Setting 77
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3884G	59.67	74.00	-14.33	31.38	3	Horizontal	217	1.54	-
AV	2.3888G	45.34	54.00	-8.66	31.38	3	Horizontal	217	1.54	-
PK	2.4132G	104.86	Inf	-Inf	31.44	3	Horizontal	217	1.54	-
AV	2.4132G	95.00	Inf	-Inf	31.44	3	Horizontal	217	1.54	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

12/02/2019



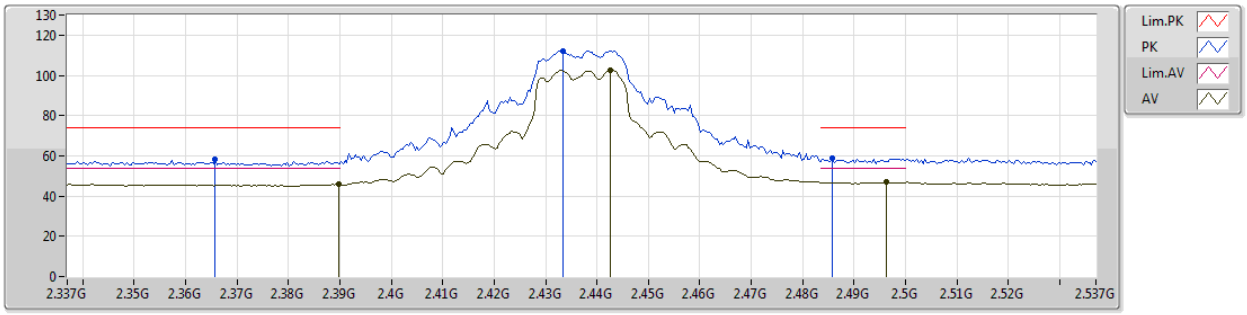
EUT Y_2TX
Setting 95
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3882G	70.15	74.00	-3.85	31.38	3	Vertical	281	1.55	-
AV	2.389G	51.88	54.00	-2.12	31.38	3	Vertical	281	1.55	-
PK	2.4338G	120.34	Inf	-Inf	31.48	3	Vertical	281	1.55	-
AV	2.433G	110.37	Inf	-Inf	31.48	3	Vertical	281	1.55	-
PK	2.4878G	68.03	74.00	-5.97	31.61	3	Vertical	281	1.55	-
AV	2.487G	53.10	54.00	-0.90	31.60	3	Vertical	281	1.55	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

12/02/2019



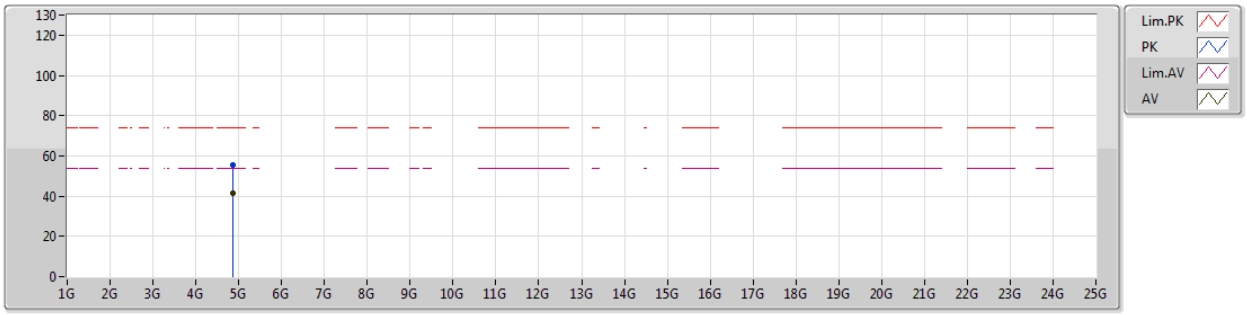
EUT Y_2TX
Setting 95
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3658G	58.17	74.00	-15.83	31.32	3	Horizontal	141	2.23	-
AV	2.3898G	45.79	54.00	-8.21	31.38	3	Horizontal	141	2.23	-
PK	2.4334G	112.30	Inf	-Inf	31.48	3	Horizontal	141	2.23	-
AV	2.4426G	102.39	Inf	-Inf	31.51	3	Horizontal	141	2.23	-
PK	2.4858G	58.94	74.00	-15.06	31.59	3	Horizontal	141	2.23	-
AV	2.4962G	46.80	54.00	-7.20	31.62	3	Horizontal	141	2.23	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

12/02/2019



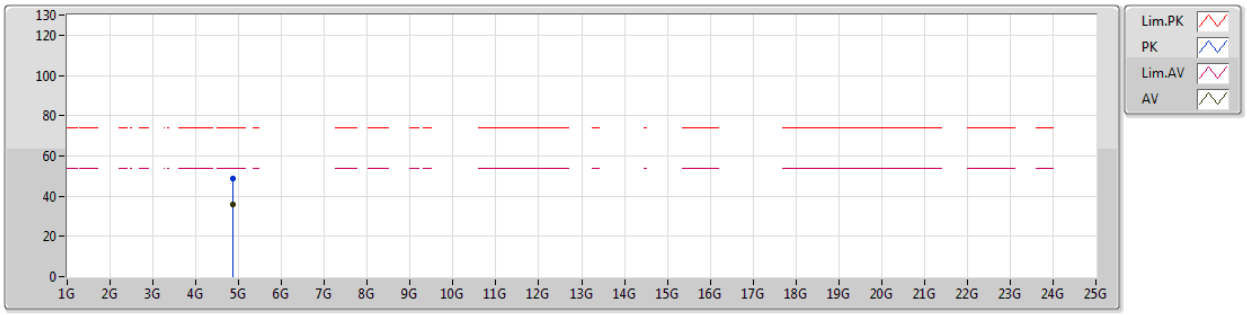
EUT Y_2TX
Setting 95
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87532G	55.62	74.00	-18.38	7.42	3	Vertical	147	2.10	-
AV	4.87592G	41.54	54.00	-12.46	7.42	3	Vertical	147	2.10	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

12/02/2019



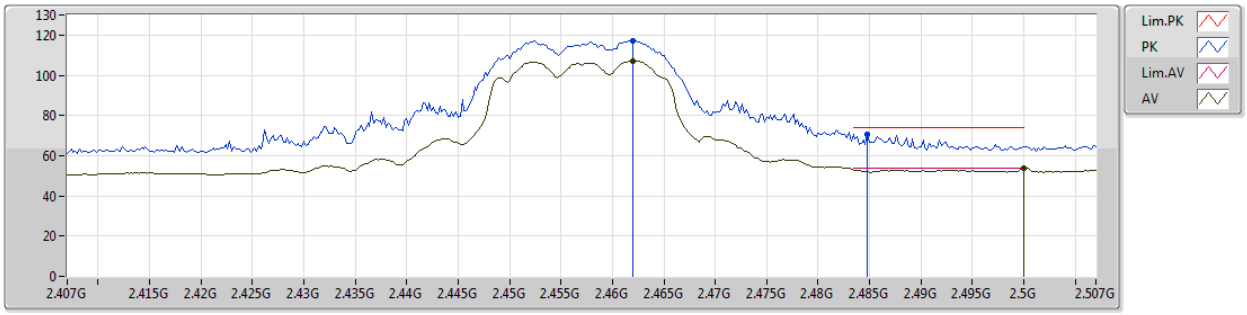
EUT Y_2TX
Setting 95
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87308G	48.73	74.00	-25.27	7.40	3	Horizontal	196	1.57	-
AV	4.87676G	35.66	54.00	-18.34	7.42	3	Horizontal	196	1.57	-

802.11g_Nss1,(6Mbps)_2TX

2457MHz_TX

12/02/2019



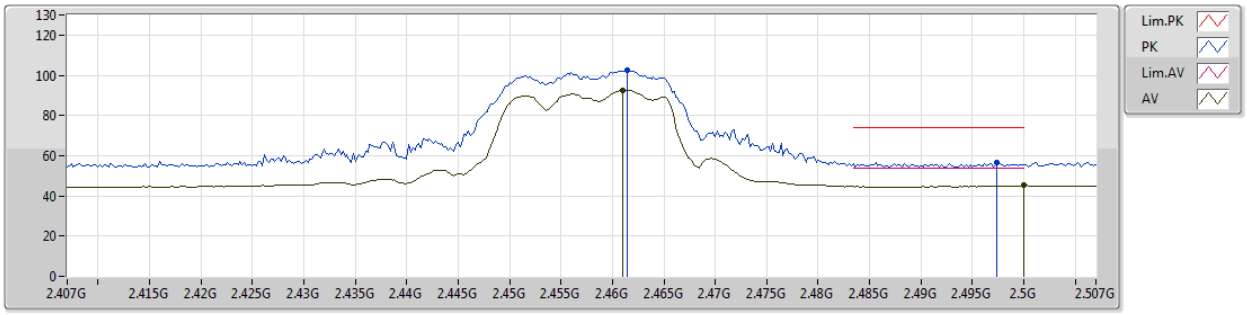
EUT Y_2TX
Setting 77
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.462G	117.39	Inf	-Inf	31.54	3	Vertical	194	1.52	-
AV	2.462G	107.26	Inf	-Inf	31.54	3	Vertical	194	1.52	-
PK	2.4848G	70.57	74.00	-3.43	31.59	3	Vertical	194	1.52	-
AV	2.5G	53.95	54.00	-0.05	31.63	3	Vertical	194	1.52	-

802.11g_Nss1,(6Mbps)_2TX

2457MHz_TX

12/02/2019



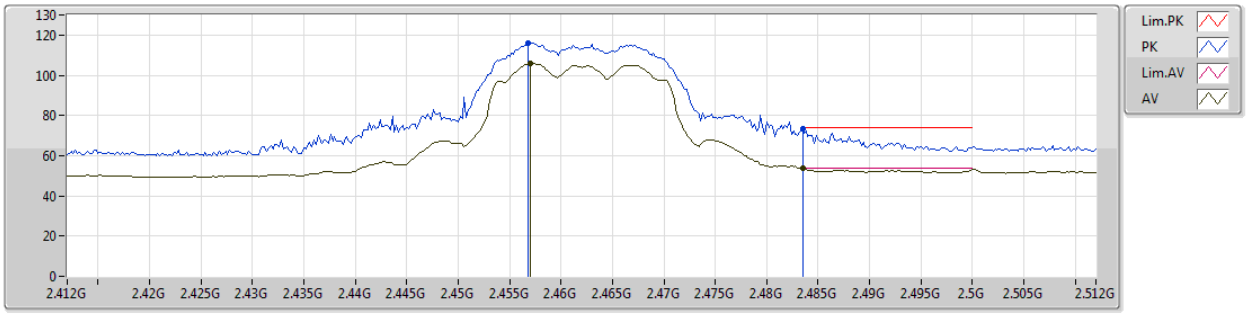
EUT Y_2TX
Setting 77
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4614G	102.51	Inf	-Inf	31.54	3	Horizontal	213	1.38	-
AV	2.461G	92.62	Inf	-Inf	31.54	3	Horizontal	213	1.38	-
PK	2.4974G	56.75	74.00	-17.25	31.63	3	Horizontal	213	1.38	-
AV	2.5G	45.14	54.00	-8.86	31.63	3	Horizontal	213	1.38	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

12/02/2019



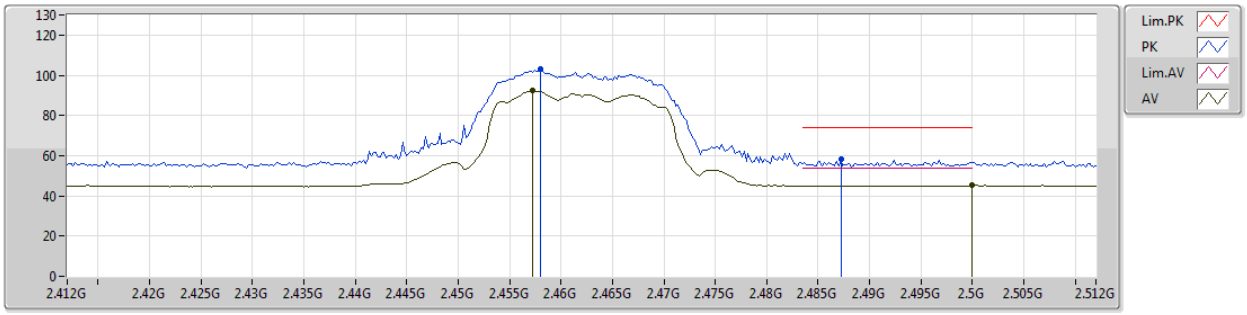
EUT Y_2TX
Setting 72
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4568G	116.02	Inf	-Inf	31.53	3	Vertical	191	1.55	-
AV	2.457G	105.81	Inf	-Inf	31.53	3	Vertical	191	1.55	-
PK	2.4835G	73.38	74.00	-0.62	31.59	3	Vertical	191	1.55	-
AV	2.4835G	53.62	54.00	-0.38	31.59	3	Vertical	191	1.55	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

12/02/2019



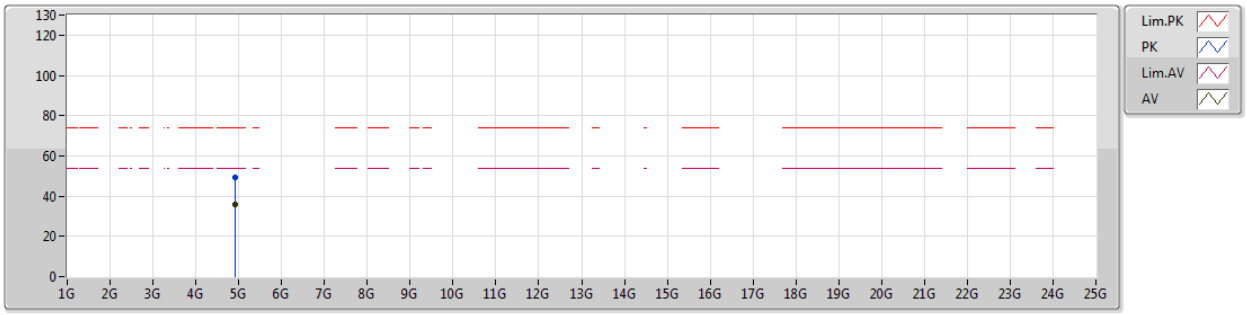
EUT Y_2TX
Setting 72
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.458G	102.94	Inf	-Inf	31.53	3	Horizontal	212	1.52	-
AV	2.4572G	92.24	Inf	-Inf	31.53	3	Horizontal	212	1.52	-
PK	2.4872G	58.08	74.00	-15.92	31.60	3	Horizontal	212	1.52	-
AV	2.5G	45.31	54.00	-8.69	31.63	3	Horizontal	212	1.52	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

12/02/2019



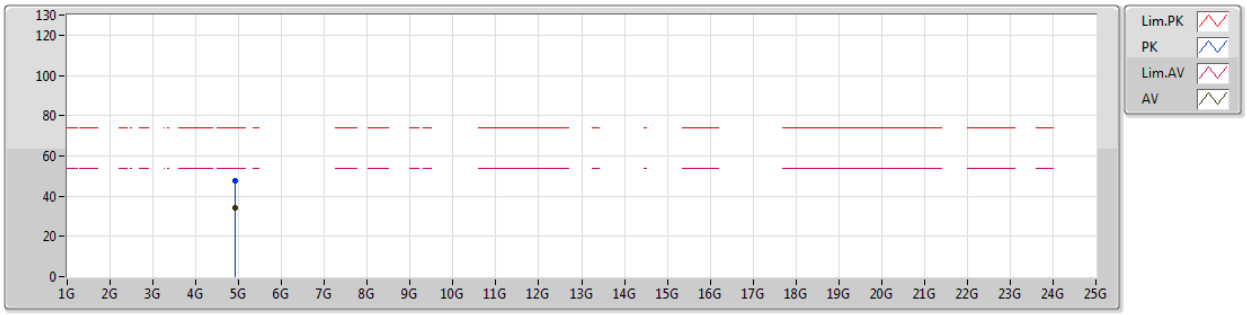
EUT Y_2TX
Setting 72
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.92408G	49.45	74.00	-24.55	7.51	3	Vertical	182	1.88	-
AV	4.92526G	36.13	54.00	-17.87	7.53	3	Vertical	182	1.88	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

12/02/2019



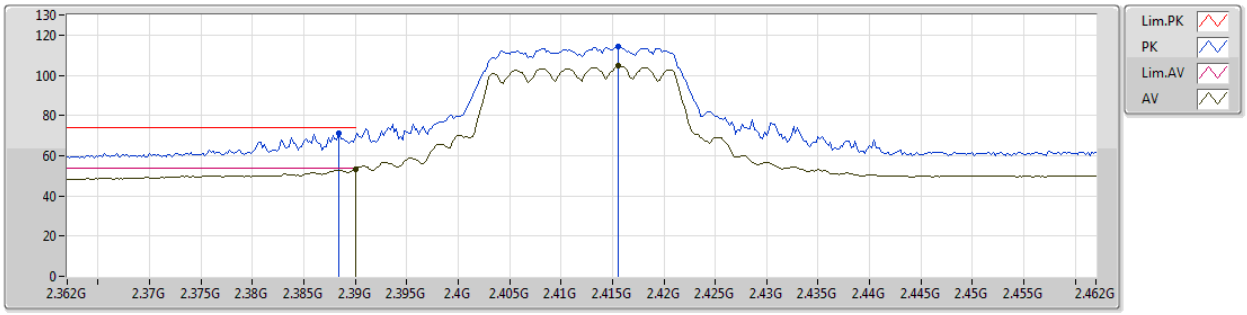
EUT Y_2TX
Setting 72
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.92806G	47.36	74.00	-26.64	7.54	3	Horizontal	16	1.34	-
AV	4.92062G	33.98	54.00	-20.02	7.51	3	Horizontal	16	1.34	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

12/02/2019



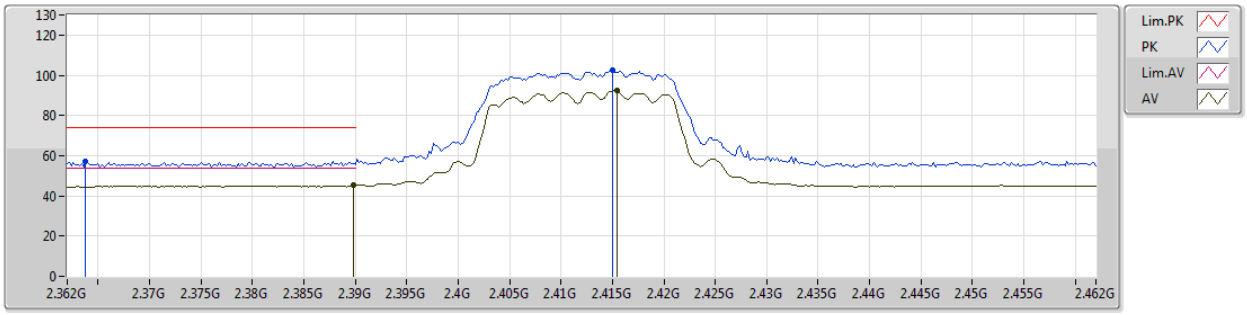
EUT Y_2TX
Setting 68
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3884G	70.99	74.00	-3.01	31.38	3	Vertical	341	1.40	-
AV	2.39G	53.47	54.00	-0.53	31.38	3	Vertical	341	1.40	-
PK	2.4156G	114.12	Inf	-Inf	31.45	3	Vertical	341	1.40	-
AV	2.4156G	104.57	Inf	-Inf	31.45	3	Vertical	341	1.40	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

12/02/2019



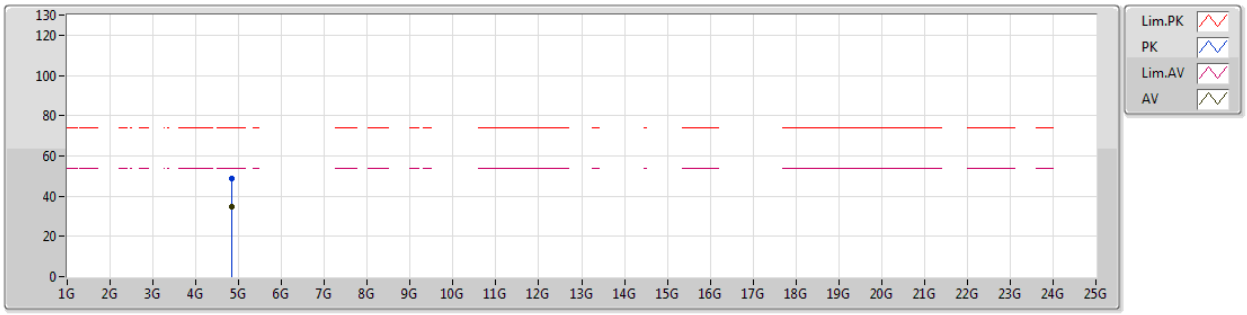
EUT Y_2TX
Setting 68
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3638G	56.90	74.00	-17.10	31.31	3	Horizontal	213	1.54	-
AV	2.3898G	45.19	54.00	-8.81	31.38	3	Horizontal	213	1.54	-
PK	2.415G	102.47	Inf	-Inf	31.45	3	Horizontal	213	1.54	-
AV	2.4154G	92.32	Inf	-Inf	31.45	3	Horizontal	213	1.54	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

12/02/2019



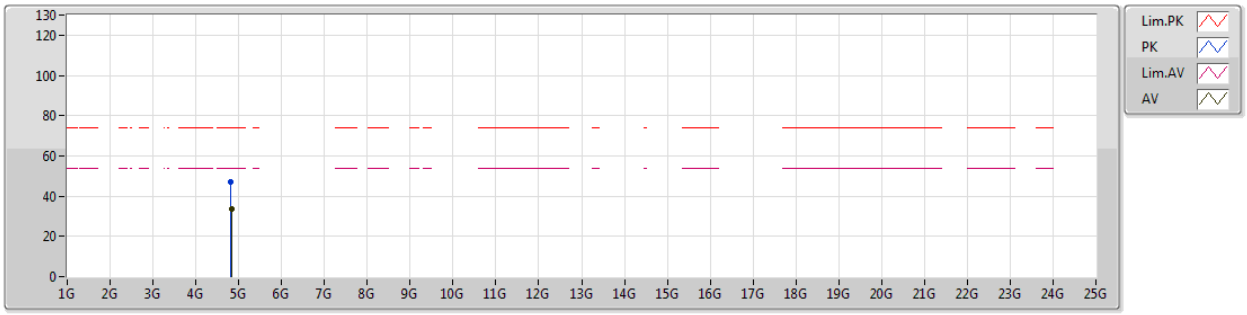
EUT Y_2TX
Setting 68
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82494G	48.88	74.00	-25.12	7.30	3	Vertical	161	1.92	-
AV	4.82726G	34.90	54.00	-19.10	7.32	3	Vertical	161	1.92	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

12/02/2019



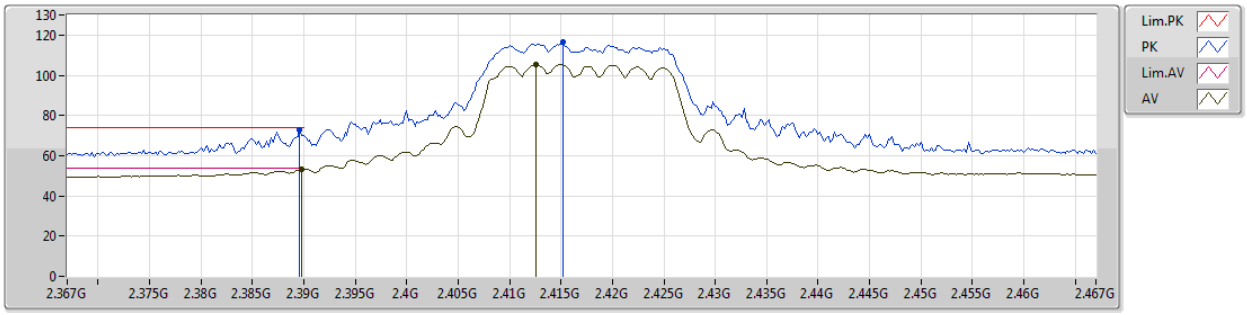
EUT Y_2TX
Setting 68
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.82264G	46.81	74.00	-27.19	7.30	3	Horizontal	115	1.33	-
AV	4.82558G	33.68	54.00	-20.32	7.31	3	Horizontal	115	1.33	-

802.11n HT20_Nss1,(MCS0)_2TX

2417MHz_TX

12/02/2019



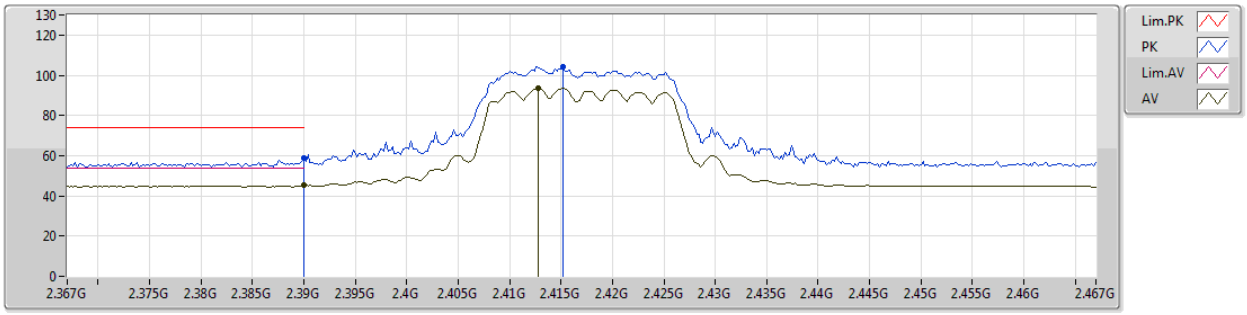
EUT Y_2TX
Setting 75
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3896G	72.85	74.00	-1.15	31.38	3	Vertical	189	1.58	-
AV	2.3898G	53.19	54.00	-0.81	31.38	3	Vertical	189	1.58	-
PK	2.4152G	116.39	Inf	-Inf	31.45	3	Vertical	189	1.58	-
AV	2.4126G	105.62	Inf	-Inf	31.44	3	Vertical	189	1.58	-

802.11n HT20_Nss1,(MCS0)_2TX

2417MHz_TX

12/02/2019



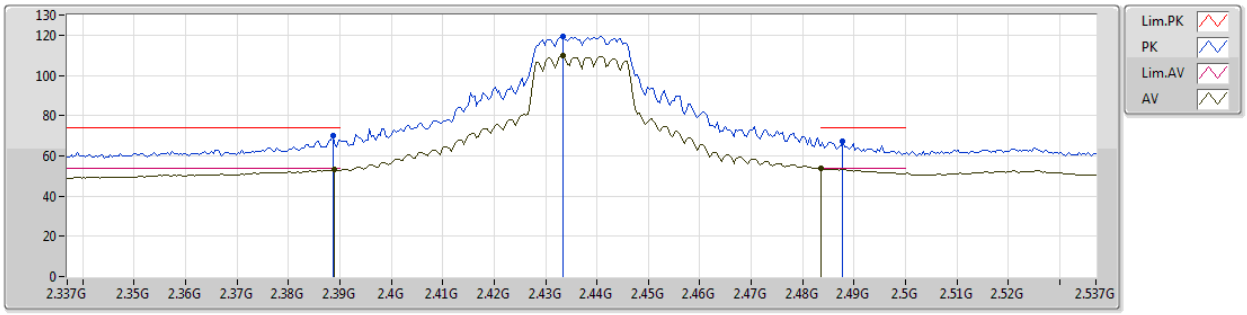
EUT Y_2TX
Setting 75
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.39G	58.76	74.00	-15.24	31.38	3	Horizontal	215	1.53	-
AV	2.39G	45.13	54.00	-8.87	31.38	3	Horizontal	215	1.53	-
PK	2.4152G	104.23	Inf	-Inf	31.45	3	Horizontal	215	1.53	-
AV	2.4128G	93.57	Inf	-Inf	31.44	3	Horizontal	215	1.53	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

12/02/2019



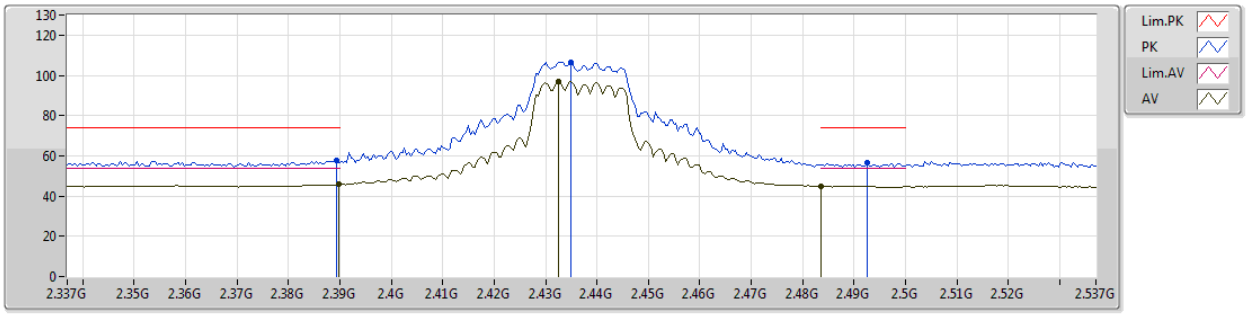
EUT Y_2TX
Setting 91
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3886G	69.78	74.00	-4.22	31.38	3	Vertical	159	1.42	-
AV	2.389G	53.02	54.00	-0.98	31.38	3	Vertical	159	1.42	-
PK	2.4334G	119.44	Inf	-Inf	31.48	3	Vertical	159	1.42	-
AV	2.4334G	109.69	Inf	-Inf	31.48	3	Vertical	159	1.42	-
PK	2.4878G	67.31	74.00	-6.69	31.61	3	Vertical	159	1.42	-
AV	2.4835G	53.71	54.00	-0.29	31.59	3	Vertical	159	1.42	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

12/02/2019



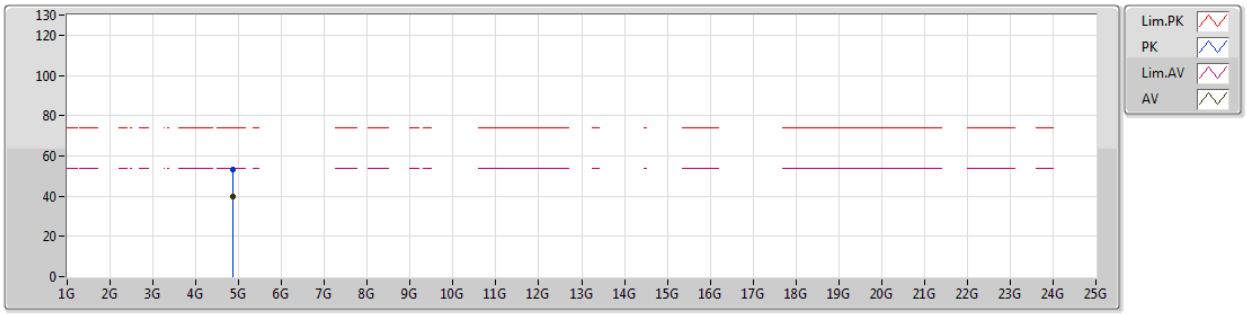
EUT Y_2TX
Setting 91
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3894G	57.68	74.00	-16.32	31.38	3	Horizontal	218	1.08	-
AV	2.3898G	45.67	54.00	-8.33	31.38	3	Horizontal	218	1.08	-
PK	2.435G	106.73	Inf	-Inf	31.48	3	Horizontal	218	1.08	-
AV	2.4326G	97.06	Inf	-Inf	31.48	3	Horizontal	218	1.08	-
PK	2.4926G	56.83	74.00	-17.17	31.62	3	Horizontal	218	1.08	-
AV	2.4835G	44.89	54.00	-9.11	31.59	3	Horizontal	218	1.08	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

12/02/2019



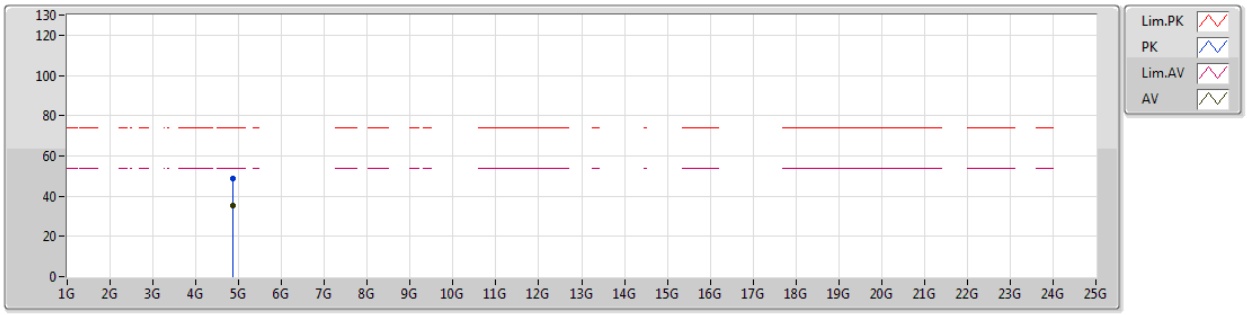
EUT Y_2TX
Setting 91
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87526G	53.38	74.00	-20.62	7.42	3	Vertical	156	1.14	-
AV	4.87452G	39.63	54.00	-14.37	7.41	3	Vertical	156	1.14	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

12/02/2019



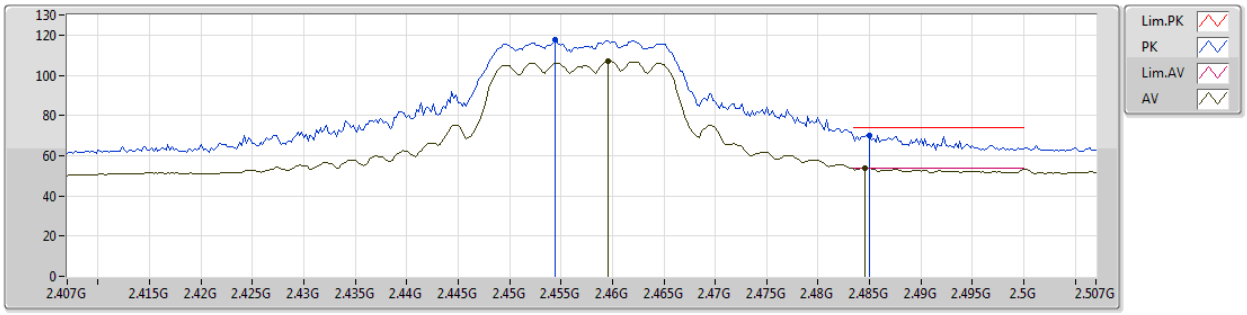
EUT Y_2TX
Setting 91
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.875G	48.63	74.00	-25.37	7.42	3	Horizontal	214	1.36	-
AV	4.87528G	35.04	54.00	-18.96	7.42	3	Horizontal	214	1.36	-

802.11n HT20_Nss1,(MCS0)_2TX

2457MHz_TX

12/02/2019



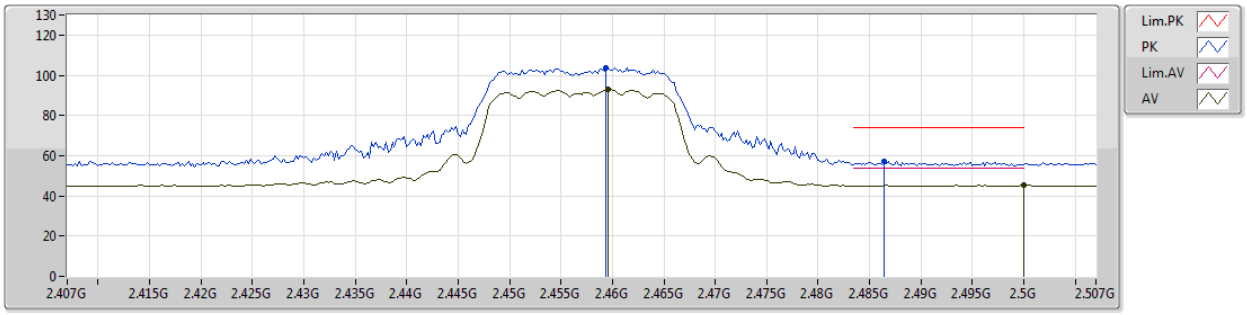
EUT Y_2TX
Setting 79
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4544G	117.46	Inf	-Inf	31.53	3	Vertical	192	1.55	-
AV	2.4596G	106.99	Inf	-Inf	31.54	3	Vertical	192	1.55	-
PK	2.485G	70.18	74.00	-3.82	31.59	3	Vertical	192	1.55	-
AV	2.4846G	53.95	54.00	-0.05	31.59	3	Vertical	192	1.55	-

802.11n HT20_Nss1,(MCS0)_2TX

2457MHz_TX

12/02/2019



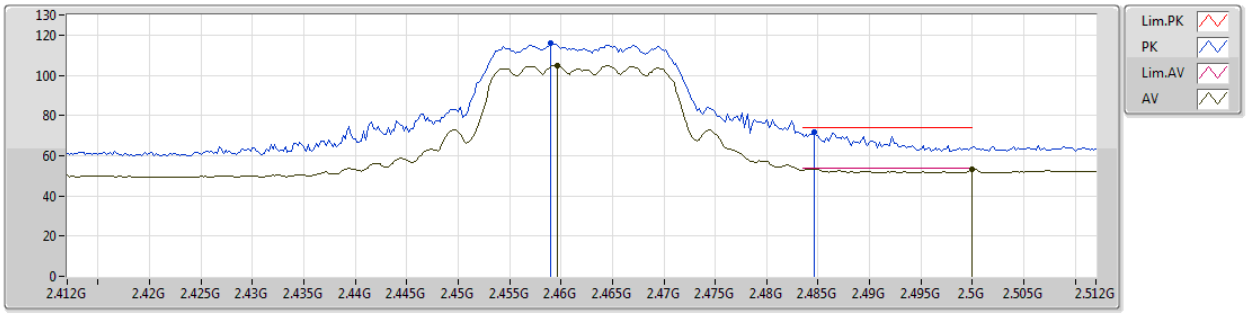
EUT Y_2TX
Setting 79
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4594G	103.54	Inf	-Inf	31.54	3	Horizontal	207	1.51	-
AV	2.4596G	92.97	Inf	-Inf	31.54	3	Horizontal	207	1.51	-
PK	2.4864G	57.19	74.00	-16.81	31.60	3	Horizontal	207	1.51	-
AV	2.5G	45.43	54.00	-8.57	31.63	3	Horizontal	207	1.51	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

12/02/2019



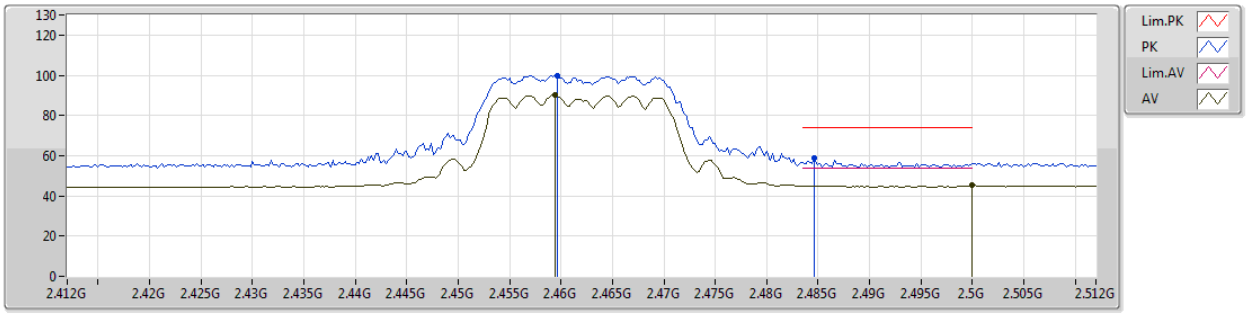
EUT Y_2TX
Setting 73
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.459G	115.94	Inf	-Inf	31.54	3	Vertical	192	1.48	-
AV	2.4596G	105.05	Inf	-Inf	31.54	3	Vertical	192	1.48	-
PK	2.4846G	71.82	74.00	-2.18	31.59	3	Vertical	192	1.48	-
AV	2.5G	53.43	54.00	-0.57	31.63	3	Vertical	192	1.48	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

12/02/2019



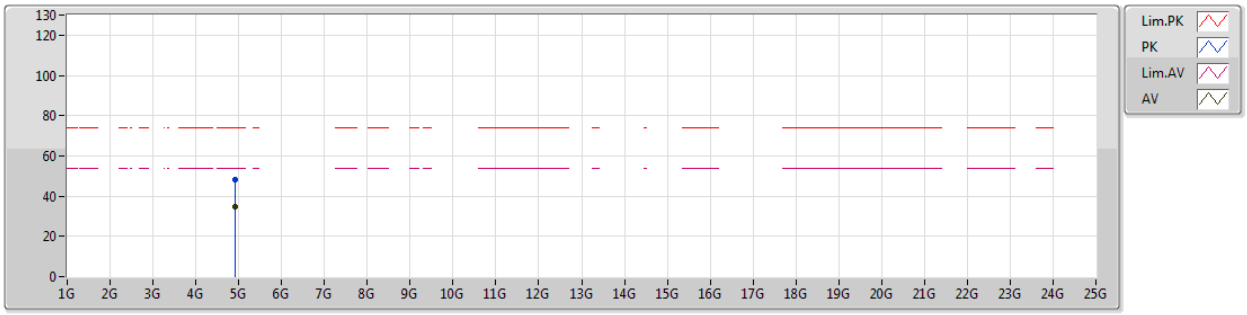
EUT Y_2TX
Setting 73
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.4596G	100.02	Inf	-Inf	31.54	3	Horizontal	184	1.50	-
AV	2.4594G	90.18	Inf	-Inf	31.54	3	Horizontal	184	1.50	-
PK	2.4846G	58.88	74.00	-15.12	31.59	3	Horizontal	184	1.50	-
AV	2.5G	45.24	54.00	-8.76	31.63	3	Horizontal	184	1.50	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

12/02/2019



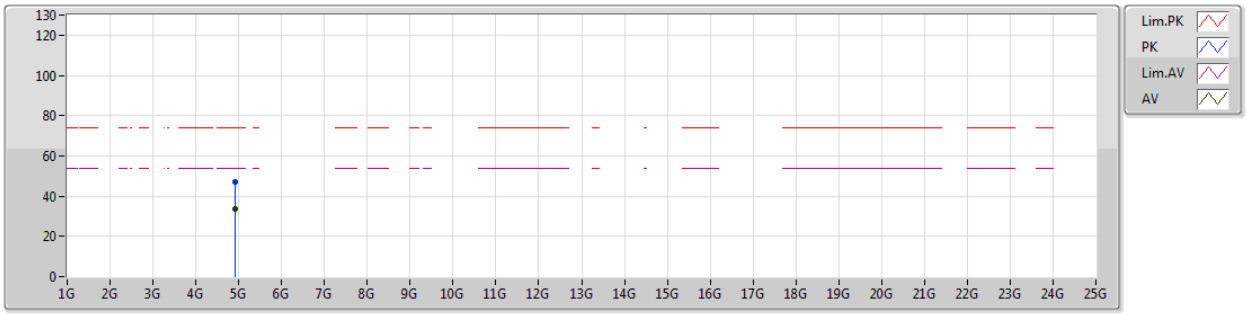
EUT Y_2TX
Setting 73
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.9208G	48.22	74.00	-25.78	7.51	3	Vertical	142	1.50	-
AV	4.91978G	34.79	54.00	-19.21	7.50	3	Vertical	142	1.50	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

12/02/2019



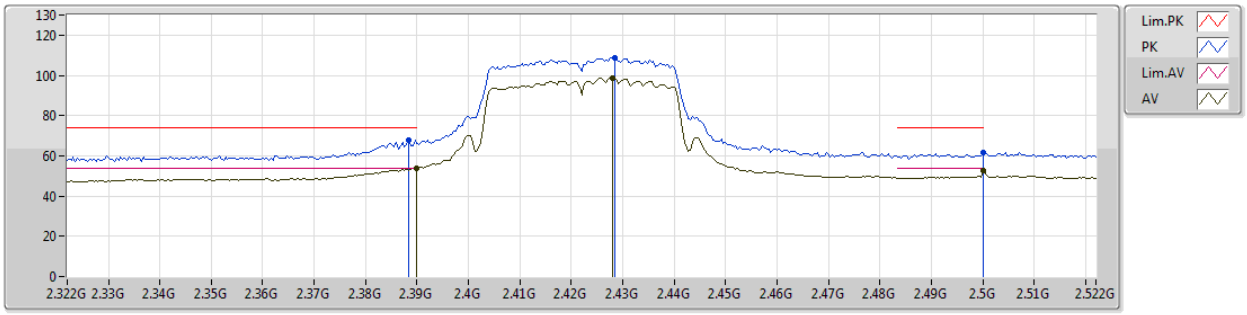
EUT Y_2TX
Setting 73
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.91962G	47.10	74.00	-26.90	7.50	3	Horizontal	263	1.92	-
AV	4.92512G	33.83	54.00	-20.17	7.53	3	Horizontal	263	1.92	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

12/02/2019



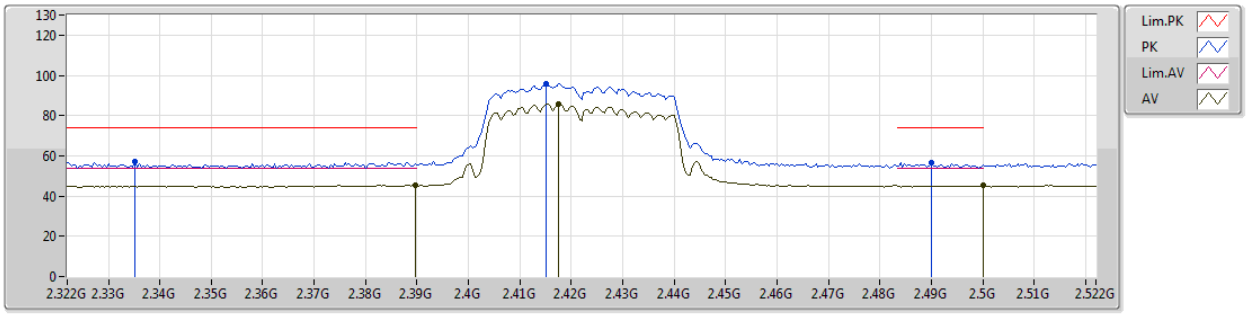
EUT Y_2TX
Setting 48
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3884G	67.92	74.00	-6.08	31.38	3	Vertical	272	1.60	-
AV	2.39G	53.86	54.00	-0.14	31.38	3	Vertical	272	1.60	-
PK	2.4284G	108.80	Inf	-Inf	31.47	3	Vertical	272	1.60	-
AV	2.428G	98.63	Inf	-Inf	31.47	3	Vertical	272	1.60	-
PK	2.5G	61.50	74.00	-12.50	31.63	3	Vertical	272	1.60	-
AV	2.5G	52.80	54.00	-1.20	31.63	3	Vertical	272	1.60	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

12/02/2019



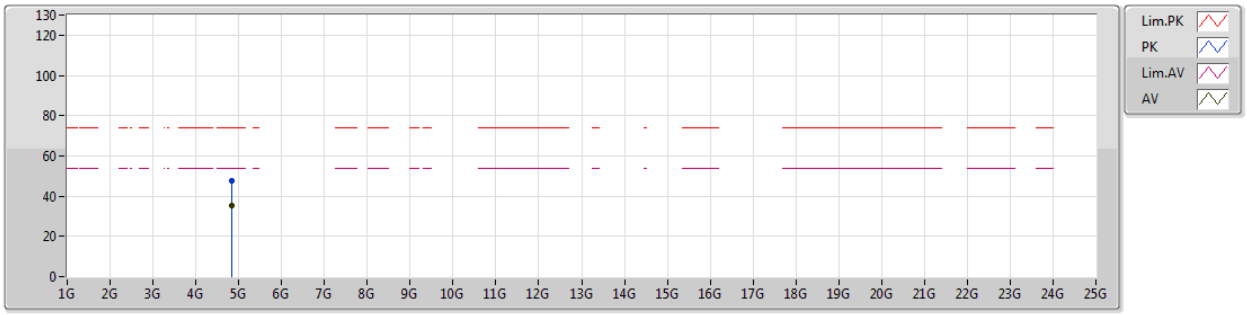
EUT Y_2TX
Setting 48
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3352G	56.96	74.00	-17.04	31.23	3	Horizontal	215	1.55	-
AV	2.3896G	45.47	54.00	-8.53	31.38	3	Horizontal	215	1.55	-
PK	2.4152G	95.87	Inf	-Inf	31.45	3	Horizontal	215	1.55	-
AV	2.4176G	85.87	Inf	-Inf	31.45	3	Horizontal	215	1.55	-
PK	2.49G	56.72	74.00	-17.28	31.61	3	Horizontal	215	1.55	-
AV	2.5G	45.14	54.00	-8.86	31.63	3	Horizontal	215	1.55	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

12/02/2019



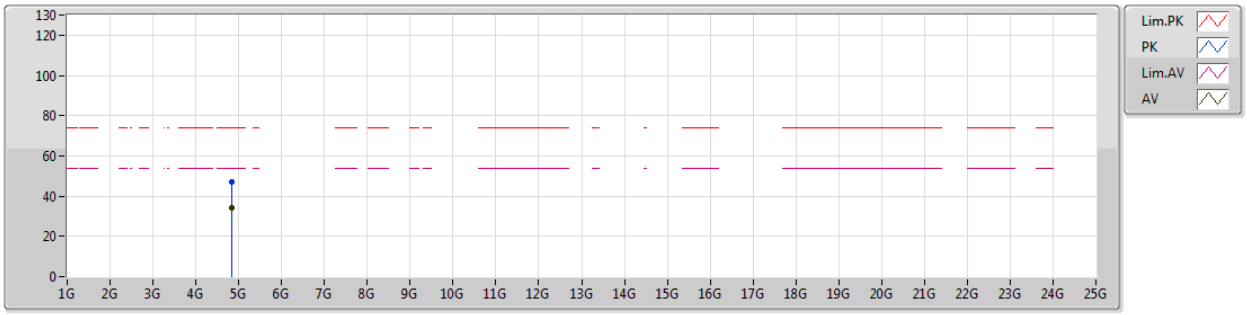
EUT Y_2TX
Setting 48
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.84594G	47.62	74.00	-26.38	7.35	3	Vertical	147	1.95	-
AV	4.84524G	35.09	54.00	-18.91	7.35	3	Vertical	147	1.95	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

12/02/2019



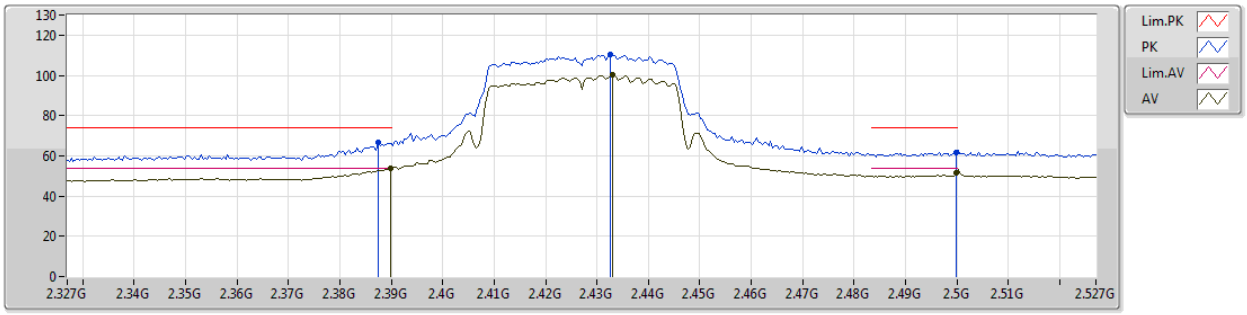
EUT Y_2TX
Setting 48
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.84674G	46.93	74.00	-27.07	7.35	3	Horizontal	174	1.59	-
AV	4.84274G	34.15	54.00	-19.85	7.34	3	Horizontal	174	1.59	-

802.11n HT40_Nss1,(MCS0)_2TX

2427MHz_TX

12/02/2019



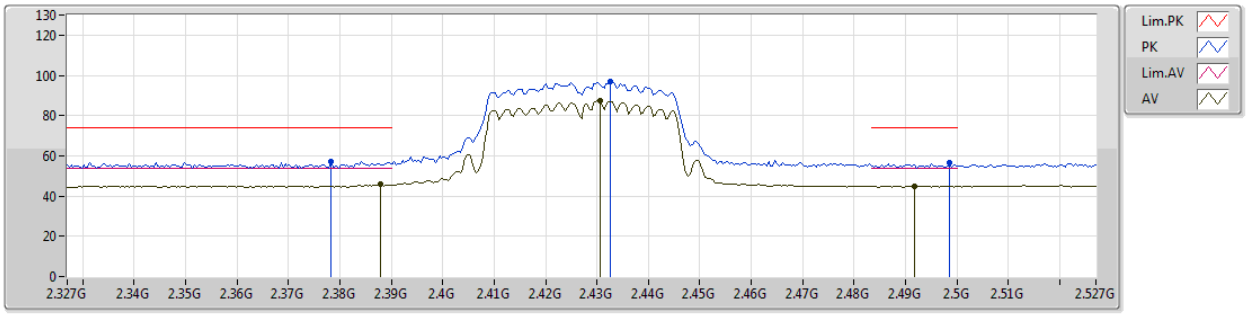
EUT Y_2TX
Setting 54
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3874G	66.48	74.00	-7.52	31.37	3	Vertical	275	1.21	-
AV	2.3898G	53.79	54.00	-0.21	31.38	3	Vertical	275	1.21	-
PK	2.4326G	110.34	Inf	-Inf	31.48	3	Vertical	275	1.21	-
AV	2.433G	100.46	Inf	-Inf	31.48	3	Vertical	275	1.21	-
PK	2.4998G	61.46	74.00	-12.54	31.63	3	Vertical	275	1.21	-
AV	2.4998G	51.55	54.00	-2.45	31.63	3	Vertical	275	1.21	-

802.11n HT40_Nss1,(MCS0)_2TX

2427MHz_TX

12/02/2019



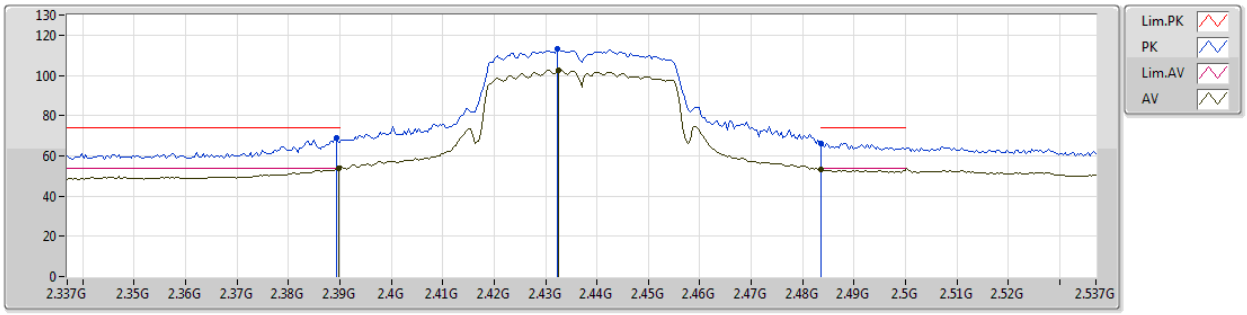
EUT Y_2TX
Setting 54
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3782G	57.31	74.00	-16.69	31.35	3	Horizontal	213	1.07	-
AV	2.3878G	45.71	54.00	-8.29	31.38	3	Horizontal	213	1.07	-
PK	2.4326G	96.92	Inf	-Inf	31.48	3	Horizontal	213	1.07	-
AV	2.4306G	87.25	Inf	-Inf	31.48	3	Horizontal	213	1.07	-
PK	2.4986G	56.37	74.00	-17.63	31.63	3	Horizontal	213	1.07	-
AV	2.4918G	44.87	54.00	-9.13	31.62	3	Horizontal	213	1.07	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

12/02/2019



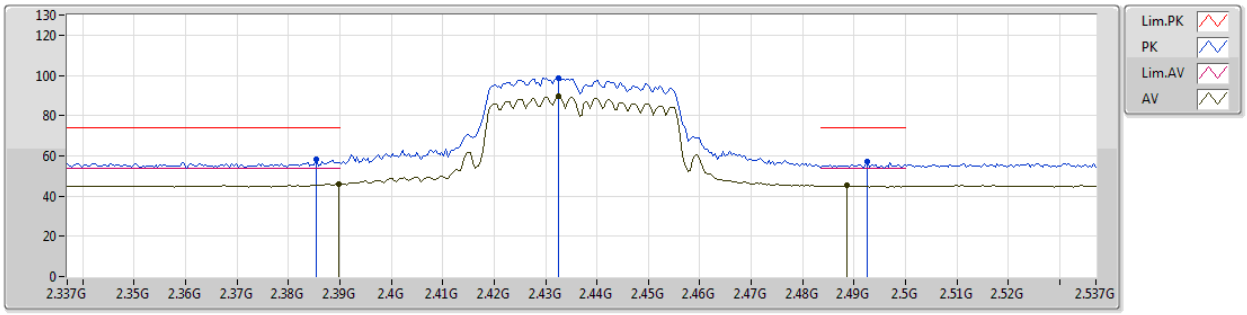
EUT Y_2TX
Setting 68
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3894G	68.84	74.00	-5.16	31.38	3	Vertical	272	1.56	-
AV	2.3898G	53.73	54.00	-0.27	31.38	3	Vertical	272	1.56	-
PK	2.4322G	112.91	Inf	-Inf	31.48	3	Vertical	272	1.56	-
AV	2.4326G	102.50	Inf	-Inf	31.48	3	Vertical	272	1.56	-
PK	2.4835G	66.32	74.00	-7.68	31.59	3	Vertical	272	1.56	-
AV	2.4835G	53.09	54.00	-0.91	31.59	3	Vertical	272	1.56	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

12/02/2019



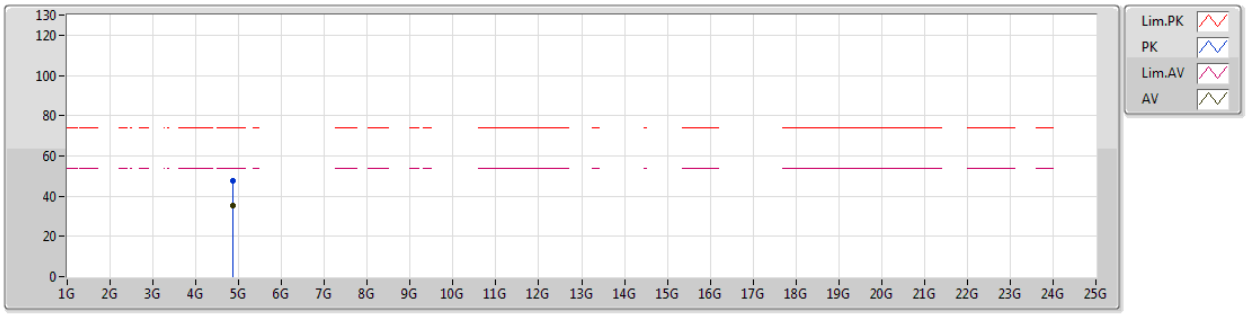
EUT Y_2TX
Setting 68
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3854G	58.52	74.00	-15.48	31.37	3	Horizontal	215	1.09	-
AV	2.3898G	46.07	54.00	-7.93	31.38	3	Horizontal	215	1.09	-
PK	2.4326G	98.89	Inf	-Inf	31.48	3	Horizontal	215	1.09	-
AV	2.4326G	89.89	Inf	-Inf	31.48	3	Horizontal	215	1.09	-
PK	2.4926G	57.18	74.00	-16.82	31.62	3	Horizontal	215	1.09	-
AV	2.4886G	45.20	54.00	-8.80	31.61	3	Horizontal	215	1.09	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

12/02/2019



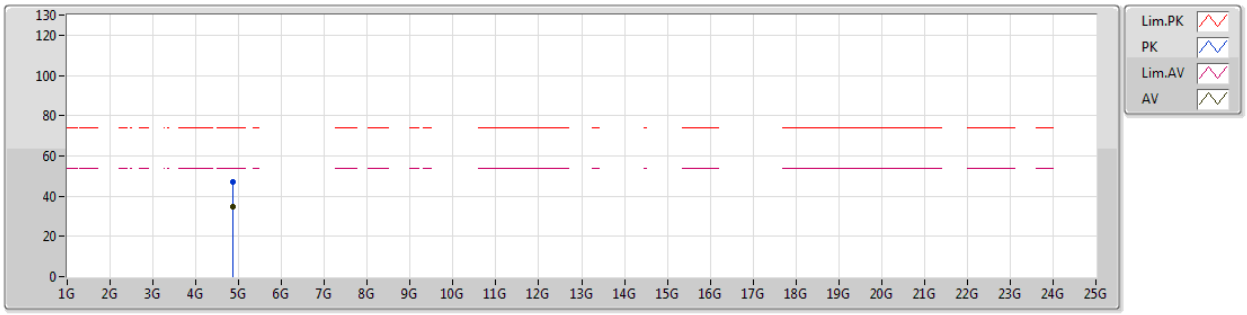
EUT Y_2TX
Setting 68
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87018G	47.71	74.00	-26.29	7.40	3	Vertical	93	1.76	-
AV	4.87114G	35.55	54.00	-18.45	7.40	3	Vertical	93	1.76	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

12/02/2019



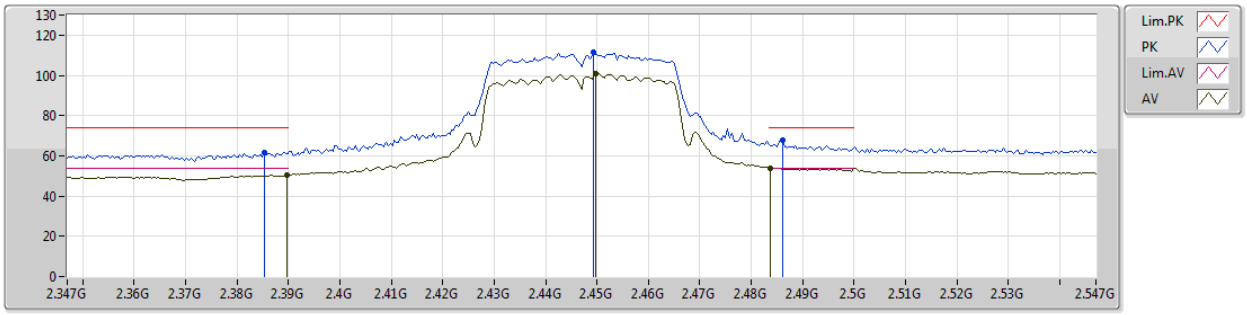
EUT Y_2TX
Setting 68
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.87314G	47.17	74.00	-26.83	7.40	3	Horizontal	166	1.68	-
AV	4.87606G	34.62	54.00	-19.38	7.42	3	Horizontal	166	1.68	-

802.11n HT40_Nss1,(MCS0)_2TX

2447MHz_TX

12/02/2019



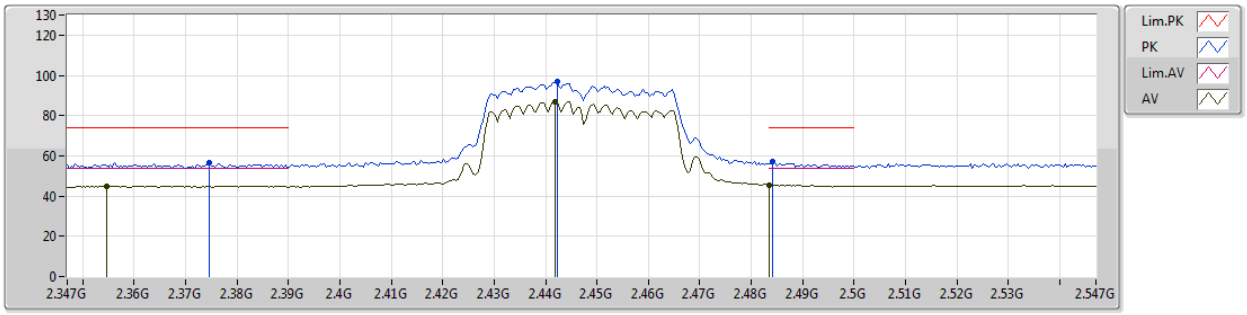
EUT Y_2TX
Setting 59
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3854G	61.64	74.00	-12.36	31.37	3	Vertical	261	1.89	-
AV	2.3898G	50.49	54.00	-3.51	31.38	3	Vertical	261	1.89	-
PK	2.4494G	111.57	Inf	-Inf	31.52	3	Vertical	261	1.89	-
AV	2.4498G	100.93	Inf	-Inf	31.52	3	Vertical	261	1.89	-
PK	2.4862G	67.72	74.00	-6.28	31.60	3	Vertical	261	1.89	-
AV	2.4838G	53.97	54.00	-0.03	31.59	3	Vertical	261	1.89	-

802.11n HT40_Nss1,(MCS0)_2TX

2447MHz_TX

12/02/2019



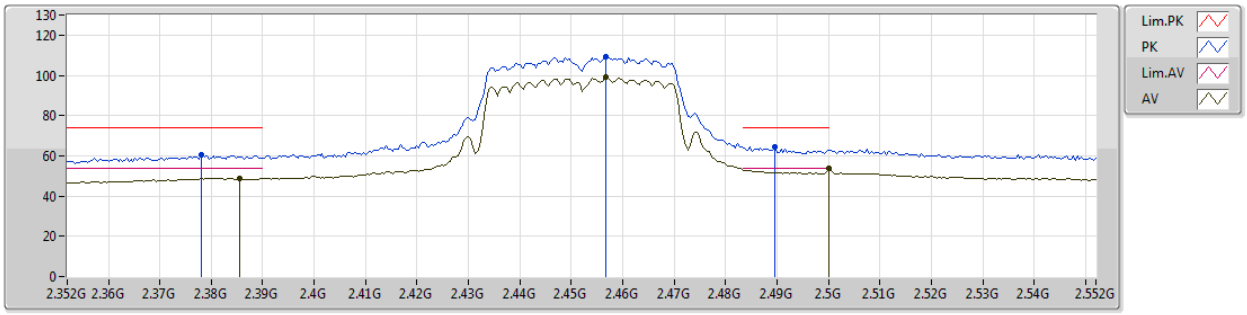
EUT Y_2TX
Setting 59
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3746G	56.84	74.00	-17.16	31.34	3	Horizontal	166	1.72	-
AV	2.3546G	45.05	54.00	-8.95	31.29	3	Horizontal	166	1.72	-
PK	2.4422G	97.09	Inf	-Inf	31.51	3	Horizontal	166	1.72	-
AV	2.4418G	87.09	Inf	-Inf	31.51	3	Horizontal	166	1.72	-
PK	2.4842G	57.03	74.00	-16.97	31.59	3	Horizontal	166	1.72	-
AV	2.4835G	45.60	54.00	-8.40	31.59	3	Horizontal	166	1.72	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

12/02/2019



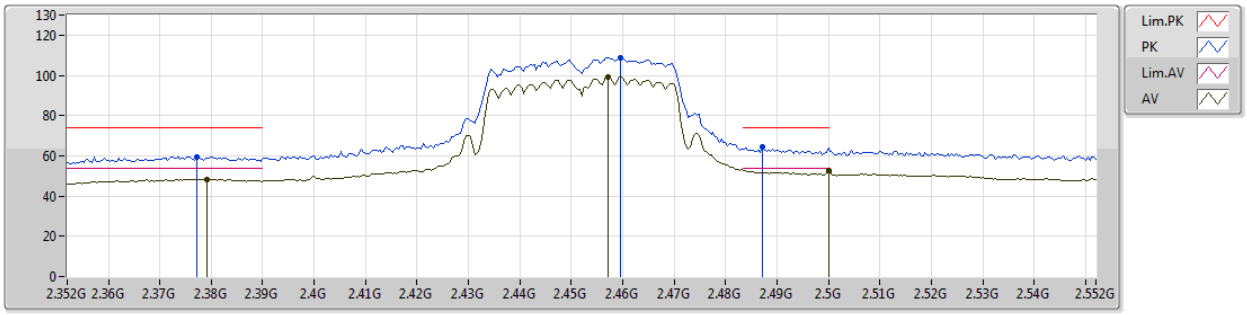
EUT Y_2TX
Setting 51
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.378G	60.31	74.00	-13.69	31.35	3	Vertical	202	1.42	-
AV	2.3856G	48.78	54.00	-5.22	31.37	3	Vertical	202	1.42	-
PK	2.4568G	109.03	Inf	-Inf	31.53	3	Vertical	202	1.42	-
AV	2.4568G	99.02	Inf	-Inf	31.53	3	Vertical	202	1.42	-
PK	2.4896G	64.66	74.00	-9.34	31.61	3	Vertical	202	1.42	-
AV	2.5G	53.82	54.00	-0.18	31.63	3	Vertical	202	1.42	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

12/02/2019



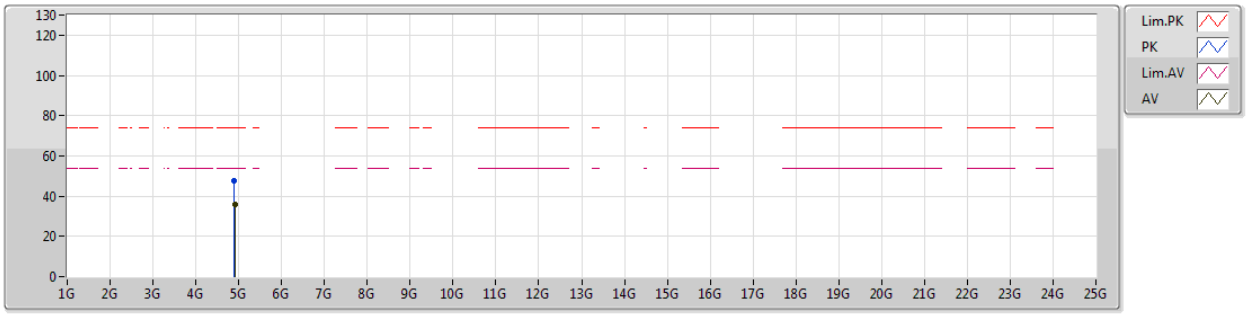
EUT Y_2TX
Setting 51
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	2.3772G	59.29	74.00	-14.71	31.34	3	Horizontal	194	1.51	-
AV	2.3792G	48.26	54.00	-5.74	31.36	3	Horizontal	194	1.51	-
PK	2.4596G	108.65	Inf	-Inf	31.54	3	Horizontal	194	1.51	-
AV	2.4572G	99.08	Inf	-Inf	31.53	3	Horizontal	194	1.51	-
PK	2.4872G	64.61	74.00	-9.39	31.60	3	Horizontal	194	1.51	-
AV	2.5G	52.83	54.00	-1.17	31.63	3	Horizontal	194	1.51	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

12/02/2019



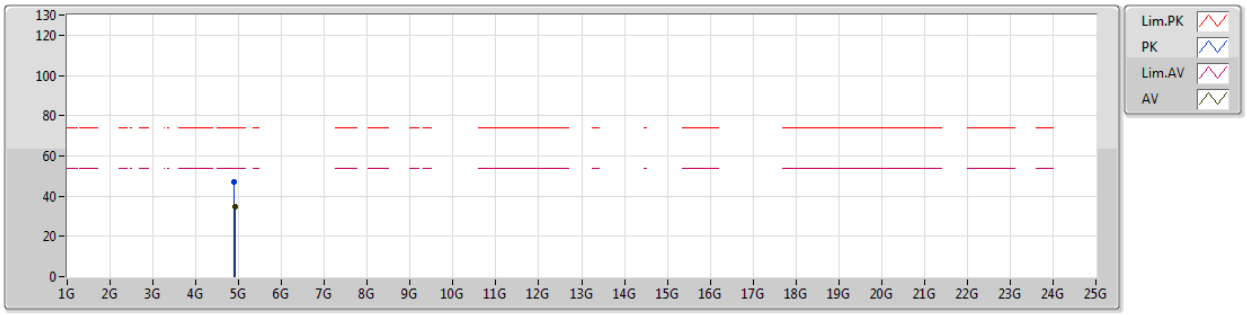
EUT Y_2TX
Setting 51
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.9G	47.64	74.00	-26.36	7.47	3	Vertical	113	1.60	-
AV	4.90822G	35.59	54.00	-18.41	7.48	3	Vertical	113	1.60	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

12/02/2019



EUT Y_2TX
Setting 51
02-L-3
FSP

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	4.8997G	47.00	74.00	-27.00	7.47	3	Horizontal	58	1.54	-
AV	4.90824G	34.60	54.00	-19.40	7.48	3	Horizontal	58	1.54	-