FCC Test Report

Equipment	:	2x2 802.11n PCIe module
Brand Name	:	WNC
Model No.	:	DNXA-116
FCC ID	:	NKR-DNXA116
Standard	:	47 CFR FCC Part 15.247
Operating Band	:	2400 MHz – 2483.5 MHz
Function	:	☒ Point-to-multipoint; ☐ Point-to-point
Applicant	:	Wistron NeWeb Corporation 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308,Taiwan,R.O.C.
Manufacturer	:	Wistron NeWeb Corporation 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308,Taiwan,R.O.C.

The product sample received on May 15, 2017 and completely tested on Jun. 12, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Cliff Chang
SPORTON INTERNATIONAL INC.

Testing Laboratory
1190

Table of Contents

Summary of Test Result

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

Revision History

Report No.	Version	Description	Issued Date
FR290357-14AA	Rev. 01	Initial issue of report	Jul. 13, 2017

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	2TX
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

Ant.	Brand	Model Name	Antenna Type	Connector	Color Of Cable	Gain (dBi)	
						2.4GHz	5GHz
1	VSO	MS-9A38	PIFA Antenna	I-PEX	Gray	2.6	1.8
2	VSO	MS-9A38	PIFA Antenna	I-PEX	Black	2.2	2.5

Note: The EUT has two antennas (2TX/2RX).

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

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.996	0.017	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.965	0.155	1.365m	1k
802.11n HT20	0.962	0.168	1.275m	1k
802.11n HT40	0.947	0.237	635u	3k

1.1.4 EUT Operational Condition

EUT Power Type	From host system			
Beamforming Function	☐	With beamforming	☒	Without beamforming

1.1.5 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR290357AA.

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Changing the antenna to "Model No.: MS-9A38" from "Model No.: 1000615-A".	All test items.

1.2 Testing Applied Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 558074 D01 v04
- FCC KDB 662911 D01 v02r01
- FCC KDB 412172 D01 v01r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Serway Li	25°C / 60%	May 29, 2017
Radiated	03CH01-CB	Brian Sun	22°C / 54%	May 24, 2017~May 29, 2017
AC Conduction	CO01-CB	Rick Yeh	25°C / 60%	Jun. 12, 2017

Test site Designation No. TW0006 with FCC.
Test site registered number IC 4086D with Industry Canada.

1.4 Measurement Uncertainty

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

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

2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	9
2437MHz	9.5
2462MHz	11.5
802.11g_(6Mbps)_2TX	-
2412MHz	15
2437MHz	17.5
2462MHz	14
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	16
2437MHz	18
2462MHz	13
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	15.5
2437MHz	13
2452MHz	9.5

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	Normal Link - 2.4GHz WLAN function
2	Normal Link - 5GHz WLAN function
For operating mode 2 is the worst case and it was record in this test report.	

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	Normal Link - EUT Z axis + 2.4GHz WLAN function
2	Normal Link - EUT Z axis + 5GHz WLAN function
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at X axis, Y axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found at X axis. So the measurement will follow this same test configuration.	
1	CTX - EUT X axis
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	Simultaneous Transmission Analysis - RF Exposure Evaluation
Operating Mode	
1	2.4GHz WLAN function
2	5GHz WLAN function
Refer to Sporton Test Report No.: FA290357-14 for RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

N/A

2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	AP Router	Planex	GW-AP54SGX	KA220030603014-1
2	NB	DELL	E6430	DoC
3	Test fixture	WNC	48DNXE07.S1A	N/A
4	Earphone	SHYARO CHI	MIC-04	N/A
5	Mouse	HP	FM100	DoC

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

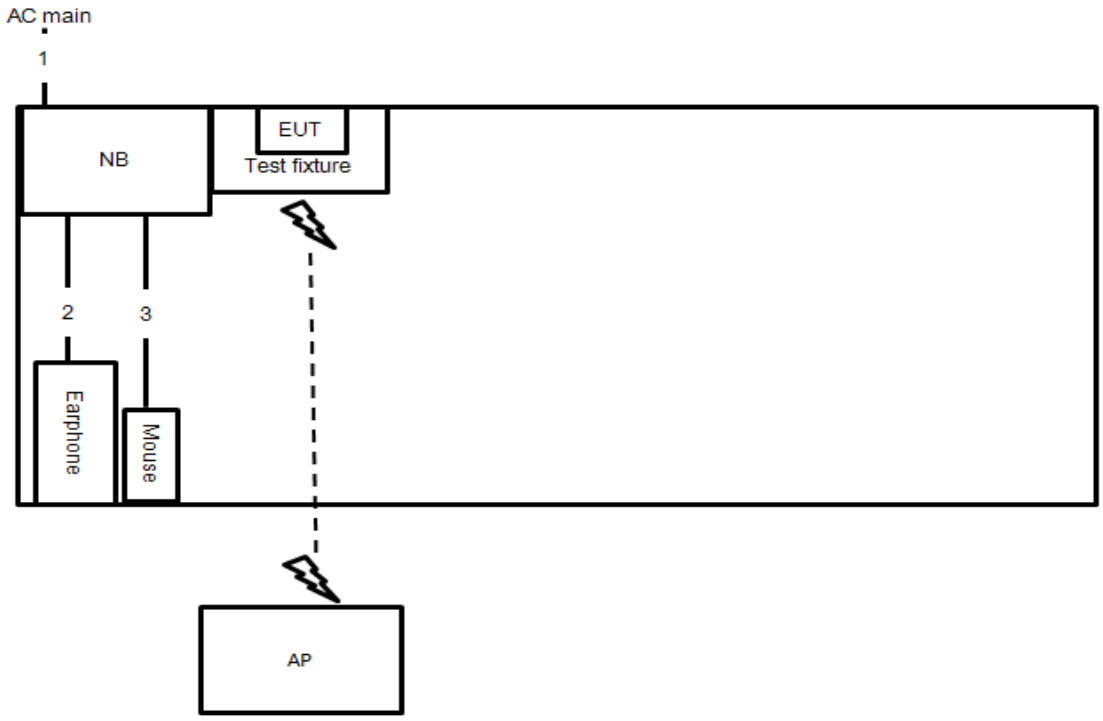
Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	AP Router	ENTGEAR	EX6200	N/A
2	NB	DELL	E4300	DoC
3	Test fixture	WNC	48DNXE07.S1A	N/A
4	Earphone	SHYARO CHI	MIC-04	N/A
5	Mouse	Logitech	M1126	DoC

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

Support Equipment				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	NB	DELL	E4300	DoC
2	Test fixture	WNC	48DNXE07.S1A	N/A

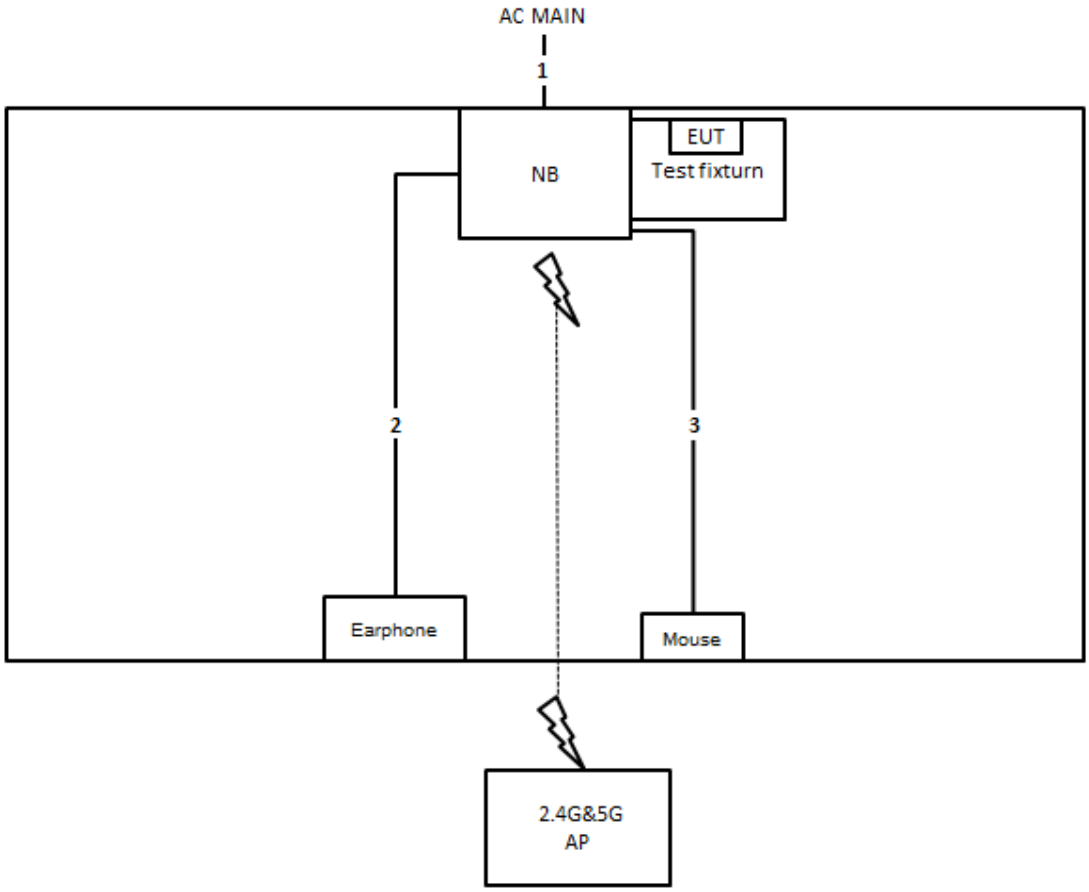
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



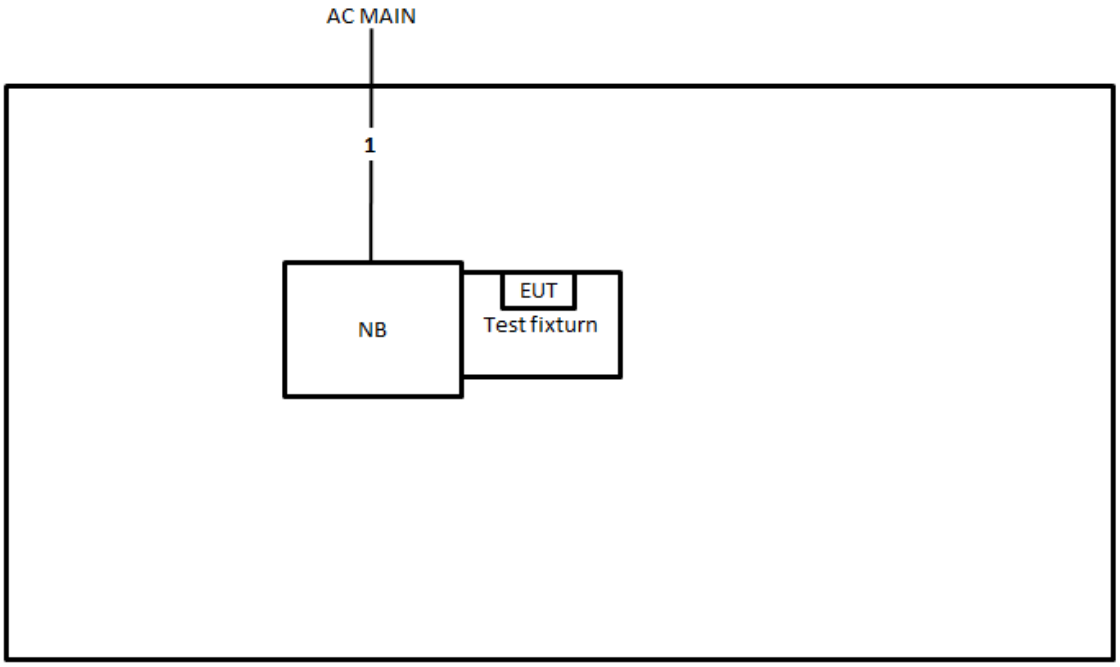
Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	Audio cable	No	1.8m
3	USB cable	Yes	1.8m

Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	Audio cable	No	1.1m
3	USB cable	Yes	1.8m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	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

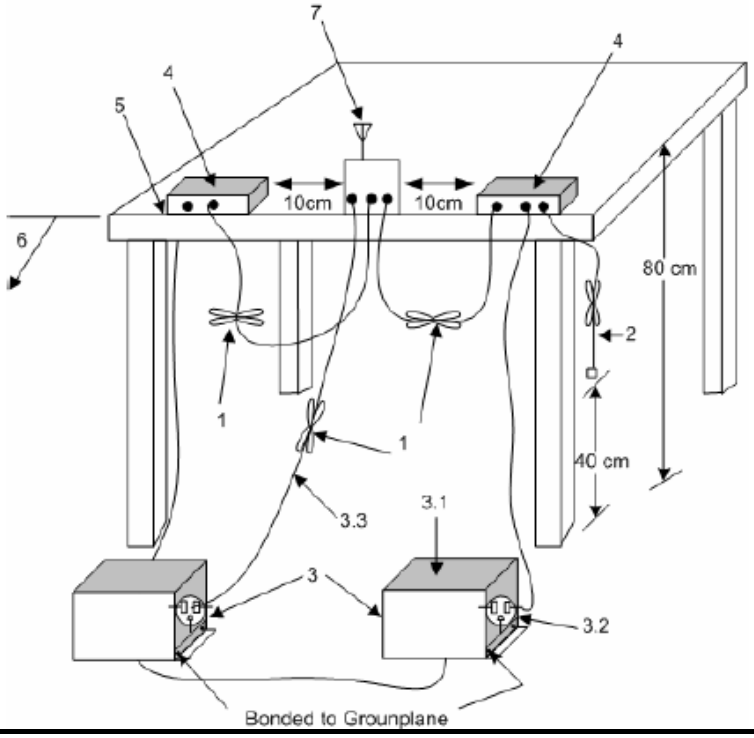
Refer a test equipment and calibration data table in this test report.

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



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

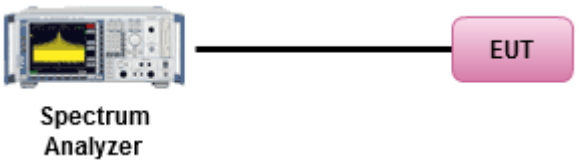
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
	☐ Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
	☐ Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
▪	If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
▪	Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)$ dBm
▪	Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
▪	Smart antenna system (SAS):
-	Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
-	Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
-	Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3 + 8$dB dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.	

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
▪	Maximum Peak Conducted Output Power
☐	Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
☐	Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW ≥ DTS BW)
▪	Maximum Conducted Output Power
[duty cycle ≥ 98% or external video / power trigger]	
☐	Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging).
☐	Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
☐	Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
☐	Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
RF power meter and average over on/off periods with duty factor or gated trigger	
☒	Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM-G (using an RF average power meter).
☐	Refer as FCC KDB 558074, clause 9.1.2 PKPM1 Peak power meter method.
▪	For conducted measurement.
▪	If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
▪	If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + … + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

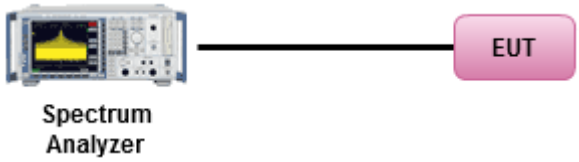
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).		
	☒ Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak).	
	[duty cycle ≥ 98% or external video / power trigger]	
	☐ Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging).	
	☐ Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-2 (slow sweep speed)	
	duty cycle < 98% and average over on/off periods with duty factor	
	☐ Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-1 Alt (spectral trace averaging).	
	☐ Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)	
▪ For conducted measurement.		
	▪ If The EUT supports multiple transmit chains using options given below:	
		☒ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
		☐ Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
		☐ Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup

Power Spectral Density
 Spectrum Analyzer

3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

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

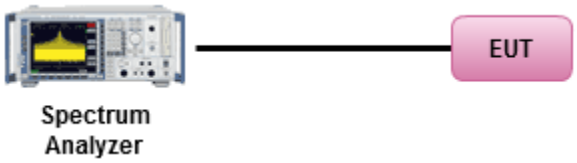
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands


3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

3.6.2 Measuring Instruments

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

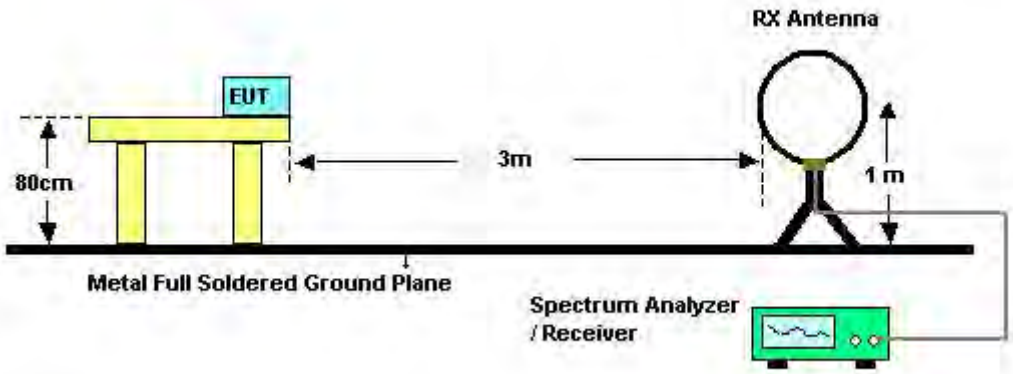
3.6.3 Test Procedures

Test Method		
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].		
▪ Refer as ANSI C63.10, clause 6.9.2.2 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.		
▪ For the transmitter unwanted emissions shall be measured using following options below:		
	▪ Refer as FCC KDB 558074, clause 12 for unwanted emissions into restricted bands.	
		☐ Refer as FCC KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle ≥98%)
		☐ Refer as FCC KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
		☒ Refer as FCC KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW≥1/T).
		☐ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.
		☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
		☒ Refer as FCC KDB 558074, clause 12.2.4 measurement procedure peak limit.
▪ For the transmitter band-edge emissions shall be measured using following options below:		
	▪ Refer as FCC KDB 558074 clause 13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.	
	▪ Refer as FCC KDB 558074, clause 13.2 (ANSI C63.10, clause 6.9.3) for marker-delta method for band-edge measurements.	
	▪ Refer as FCC KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).	
▪ For conducted and cabinet radiation measurement, refer as FCC KDB 558074, clause 12.2.2.		
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB	
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.	

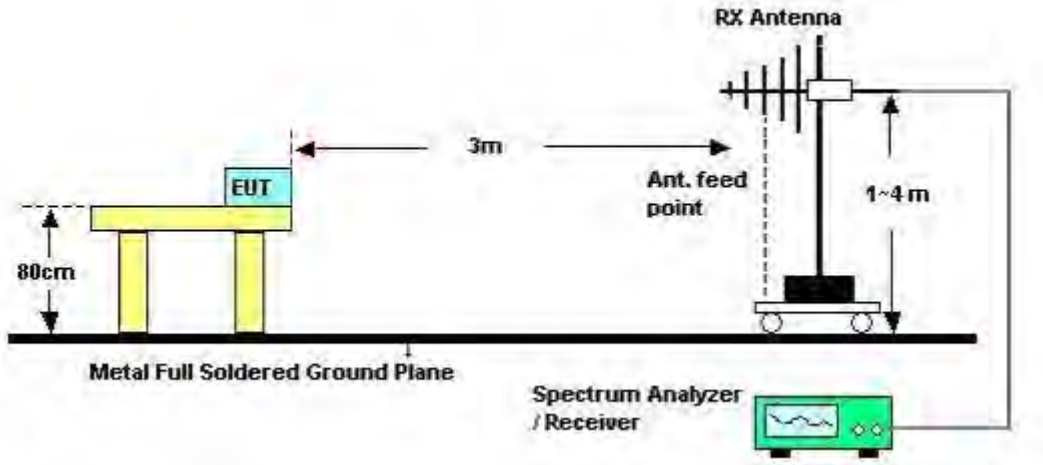
3.6.4 Test Setup

Transmitter Radiated Emissions

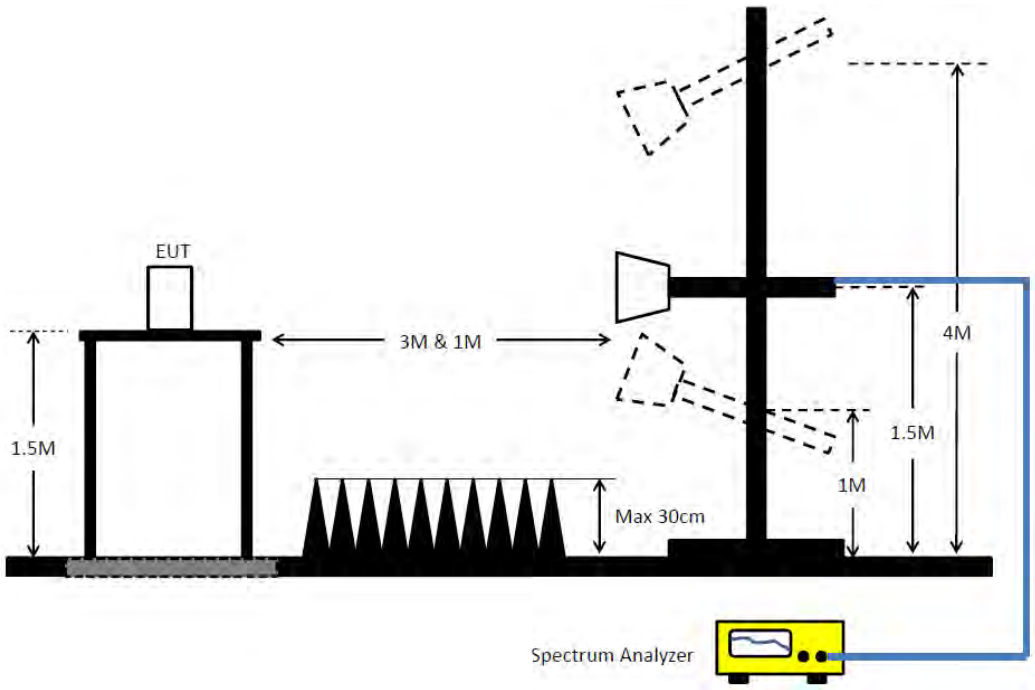
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



3.6.5 Transmitter Radiated Unwanted Emissions (Below 30MHz)

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

3.6.6 Test Result of Transmitter Radiated Unwanted Emissions

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 23, 2017	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 14, 2016	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 21, 2016	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 23, 2017	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2016	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Nov. 10, 2016	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 25, 2016	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2017	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 16, 2017	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jun. 28, 2016	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 22, 2016	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100355	9kHz ~ 2.75GHz	May 06, 2017	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16+17	N/A	1 GHz ~ 18 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#1	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G#2	N/A	18GHz ~ 40 GHz	Oct. 24, 2016	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2016*	Radiation (03CH01-CB)

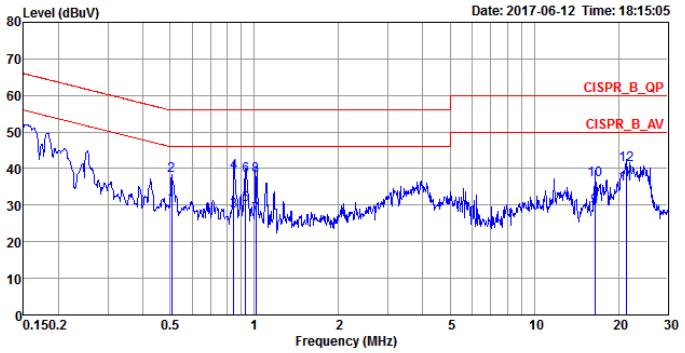
Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Test Software	Audix	E3	6.2009-l0-7	N/A	N/A	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 26, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz –26.5 GHz	Oct. 24, 2016	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 22, 2016	Conducted (TH01-CB)

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

"*" Calibration Interval of instruments listed above is two years.

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

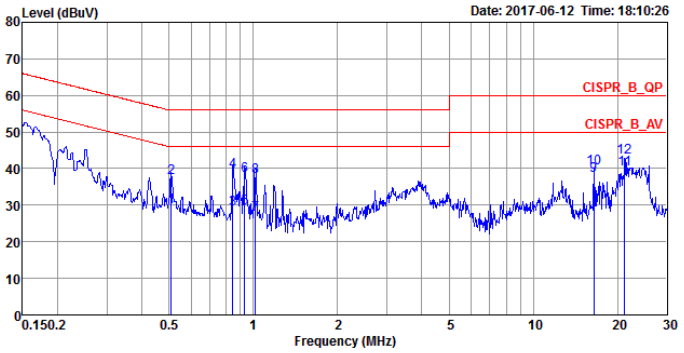
AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Neutral
Operating Function	Normal Link		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.5074	29.88	-16.12	46.00	19.60	10.22	0.06	Average	NEUTRAL
2	0.5074	37.95	-18.05	56.00	27.67	10.22	0.06	QP	NEUTRAL
3	0.8433	28.36	-17.64	46.00	18.10	10.10	0.16	Average	NEUTRAL
4	0.8433	39.00	-17.00	56.00	28.74	10.10	0.16	QP	NEUTRAL
5	0.9331	30.17	-15.83	46.00	19.92	10.07	0.18	Average	NEUTRAL
6	0.9331	38.22	-17.78	56.00	27.97	10.07	0.18	QP	NEUTRAL
7	1.0128	27.18	-18.82	46.00	16.94	10.05	0.19	Average	NEUTRAL
8	1.0128	38.10	-17.90	56.00	27.86	10.05	0.19	QP	NEUTRAL
9	16.4856	29.41	-20.59	50.00	18.93	10.29	0.19	Average	NEUTRAL
10	16.4856	36.93	-23.07	60.00	26.45	10.29	0.19	QP	NEUTRAL
11	21.2596	35.60	-14.40	50.00	25.02	10.37	0.21	Average	NEUTRAL
12	21.2596	41.14	-18.86	60.00	30.56	10.37	0.21	QP	NEUTRAL

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

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



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.5084	29.57	-16.43	46.00	19.56	9.95	0.06	Average	LINE
2	0.5084	37.44	-18.56	56.00	27.43	9.95	0.06	QP	LINE
3	0.8457	28.78	-17.22	46.00	18.66	9.96	0.16	Average	LINE
4	0.8457	39.25	-16.75	56.00	29.13	9.96	0.16	QP	LINE
5	0.9303	29.20	-16.80	46.00	19.06	9.96	0.18	Average	LINE
6	0.9303	38.16	-17.84	56.00	28.02	9.96	0.18	QP	LINE
7	1.0157	27.44	-18.56	46.00	17.29	9.96	0.19	Average	LINE
8	1.0157	37.66	-18.34	56.00	27.51	9.96	0.19	QP	LINE
9	16.4632	37.94	-12.06	50.00	27.48	10.27	0.19	Average	LINE
10	16.4632	40.16	-19.84	60.00	29.70	10.27	0.19	QP	LINE
11	21.1678	39.74	-10.26	50.00	29.17	10.36	0.21	Average	LINE
12	21.1678	43.12	-16.88	60.00	32.55	10.36	0.21	QP	LINE

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

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	10.075M	13.943M	13M9G1D	10.025M	13.843M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.667M	16M7D1D	16.3M	16.567M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.575M	17.841M	17M8D1D	17.025M	17.716M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	36.35M	36.682M	36M7D1D	36.05M	36.532M

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

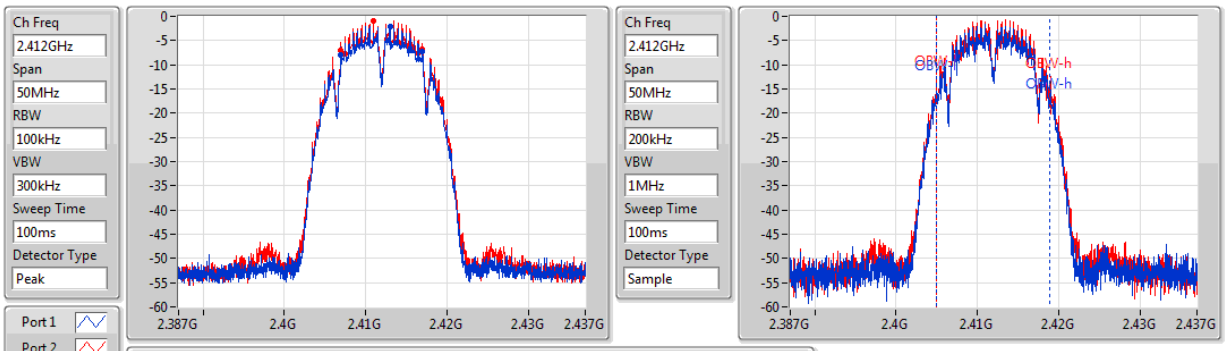
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	10.075M	13.893M	10.05M	13.918M
2437MHz	Pass	500k	10.025M	13.843M	10.075M	13.943M
2462MHz	Pass	500k	10.05M	13.918M	10.05M	13.943M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.642M	16.325M	16.667M
2437MHz	Pass	500k	16.3M	16.667M	16.325M	16.617M
2462MHz	Pass	500k	16.3M	16.567M	16.3M	16.567M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.791M	17.55M	17.816M
2437MHz	Pass	500k	17.55M	17.766M	17.05M	17.841M
2462MHz	Pass	500k	17.575M	17.716M	17.025M	17.766M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	36.35M	36.682M	36.3M	36.632M
2437MHz	Pass	500k	36.05M	36.532M	36.3M	36.582M
2452MHz	Pass	500k	36.05M	36.532M	36.3M	36.532M

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

802.11b_(1Mbps)_2TX EBW

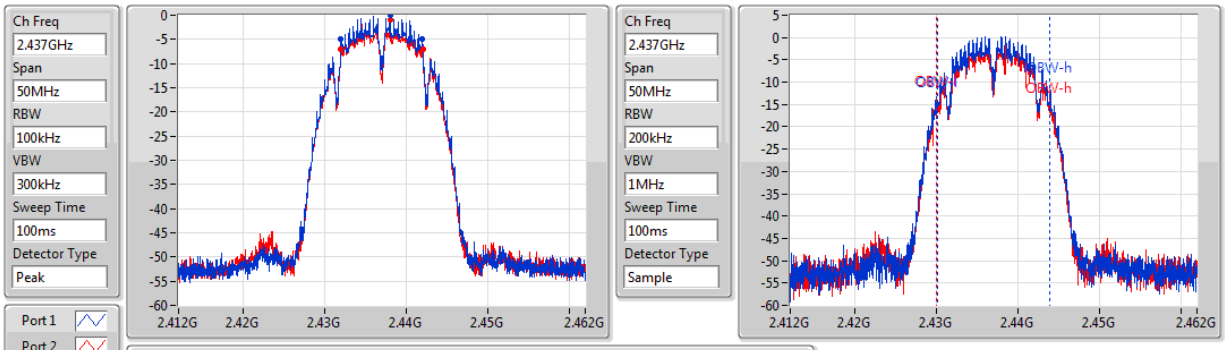
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
10.075M	2.406925G	2.417G	13.893M	2.405003G	2.418897G	500k	1
10.05M	2.40695G	2.417G	13.918M	2.405028G	2.418947G	500k	2

802.11b_(1Mbps)_2TX EBW

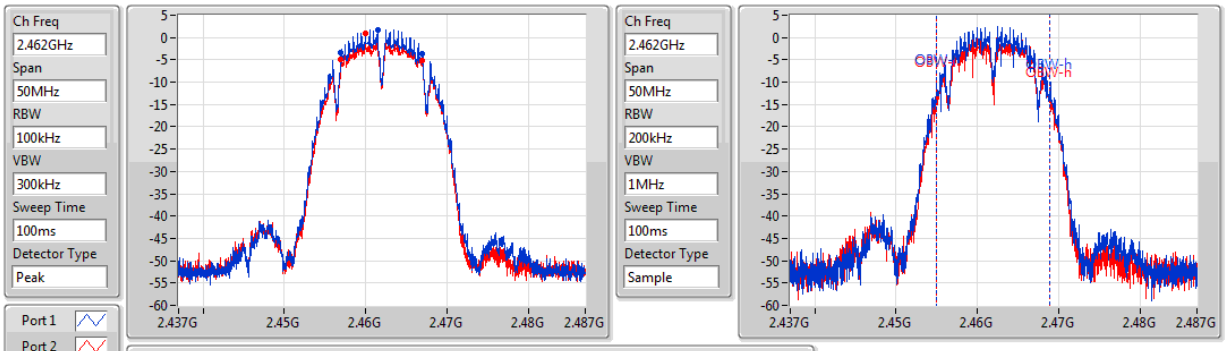
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
10.025M	2.431975G	2.442G	13.843M	2.430103G	2.443947G	500k	1
10.075M	2.43195G	2.442025G	13.943M	2.430003G	2.443947G	500k	2

802.11b_(1Mbps)_2TX EBW

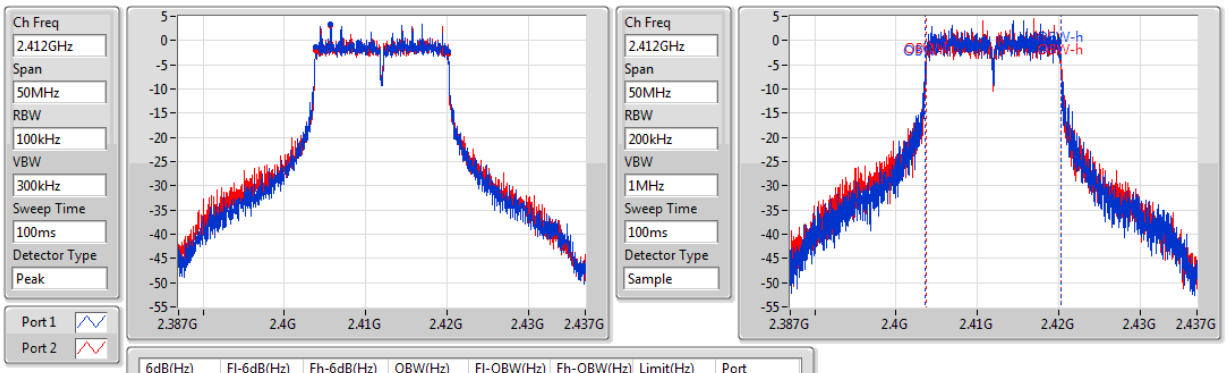
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
10.05M	2.45695G	2.467G	13.918M	2.455003G	2.468922G	500k	1
10.05M	2.45695G	2.467G	13.943M	2.454979G	2.468922G	500k	2

802.11g_(6Mbps)_2TX EBW

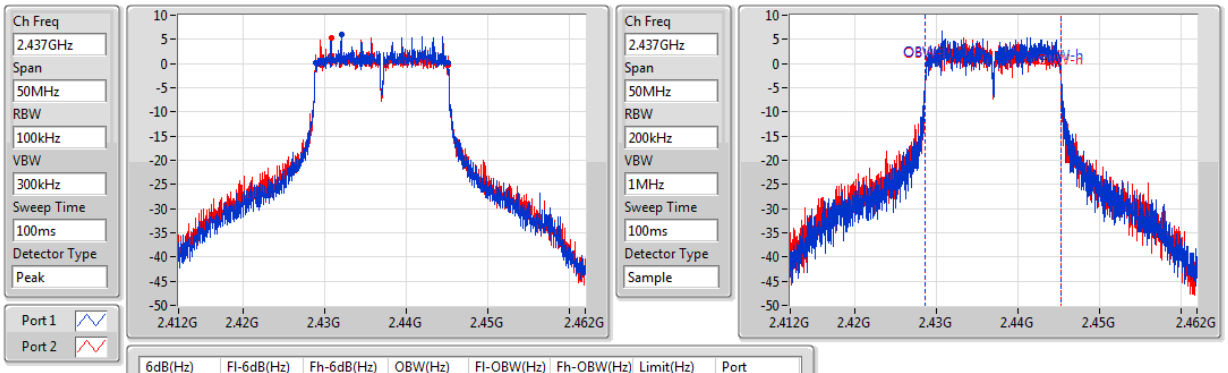
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.642M	2.403629G	2.420271G	500k	1
16.325M	2.403825G	2.42015G	16.667M	2.403654G	2.420321G	500k	2

802.11g_(6Mbps)_2TX EBW

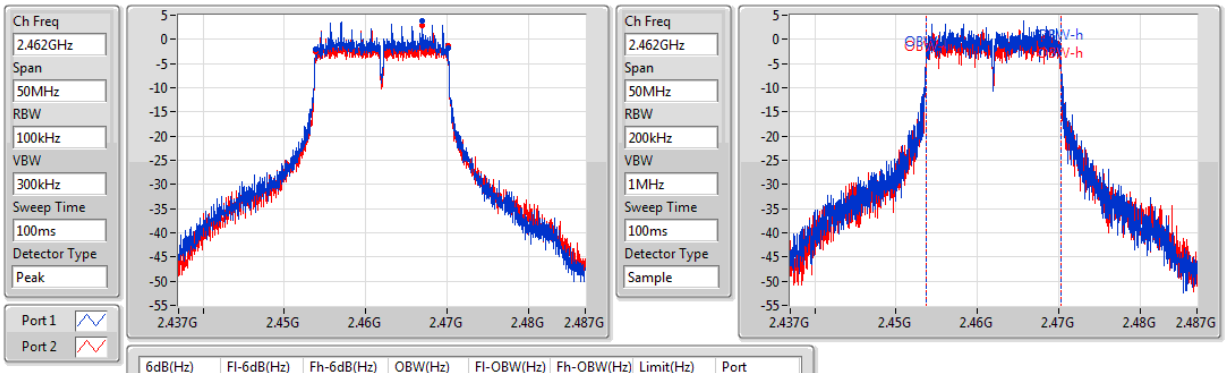
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.42885G	2.44515G	16.667M	2.428629G	2.445296G	500k	1
16.325M	2.428825G	2.44515G	16.617M	2.428629G	2.445246G	500k	2

802.11g_(6Mbps)_2TX EBW

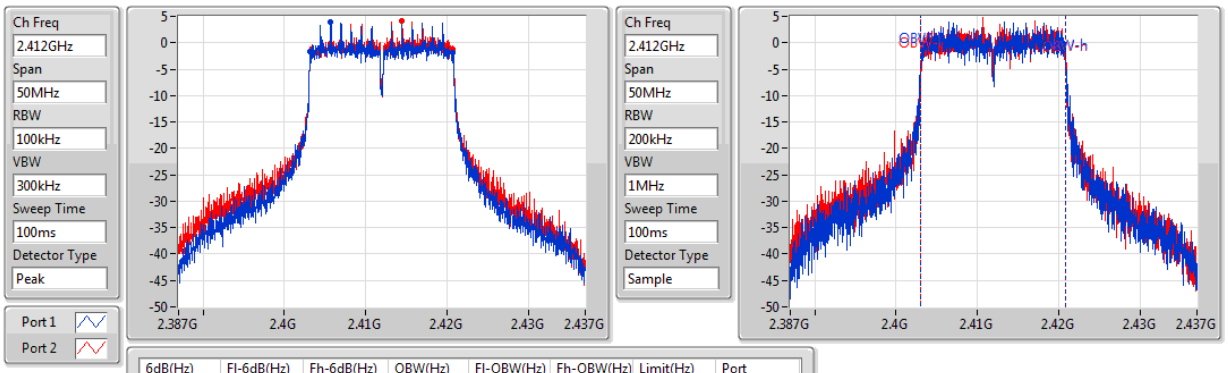
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.453825G	2.470125G	16.567M	2.453679G	2.470246G	500k	1
16.3M	2.453825G	2.470125G	16.567M	2.453679G	2.470246G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

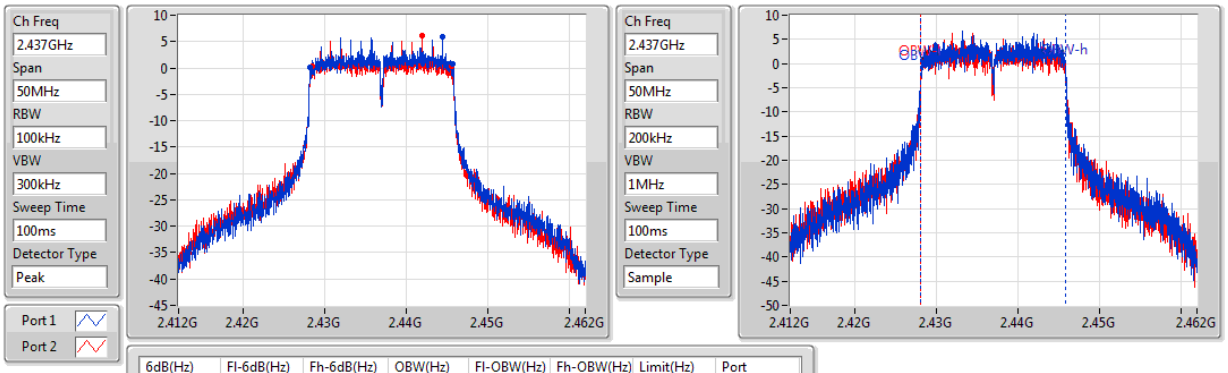
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.403225G	2.42075G	17.791M	2.403079G	2.420871G	500k	1
17.55M	2.4032G	2.42075G	17.816M	2.403054G	2.420871G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

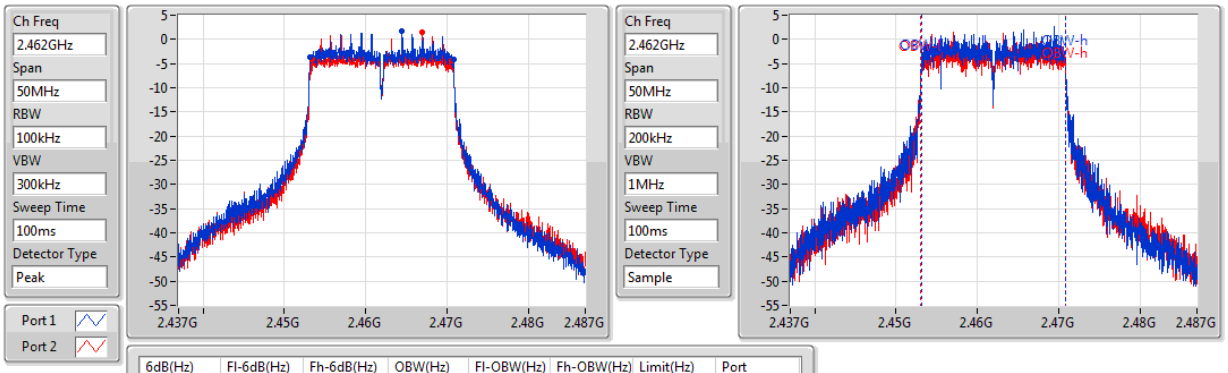
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.4282G	2.44575G	17.766M	2.428079G	2.445846G	500k	1
17.05M	2.42845G	2.4455G	17.841M	2.428054G	2.445896G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

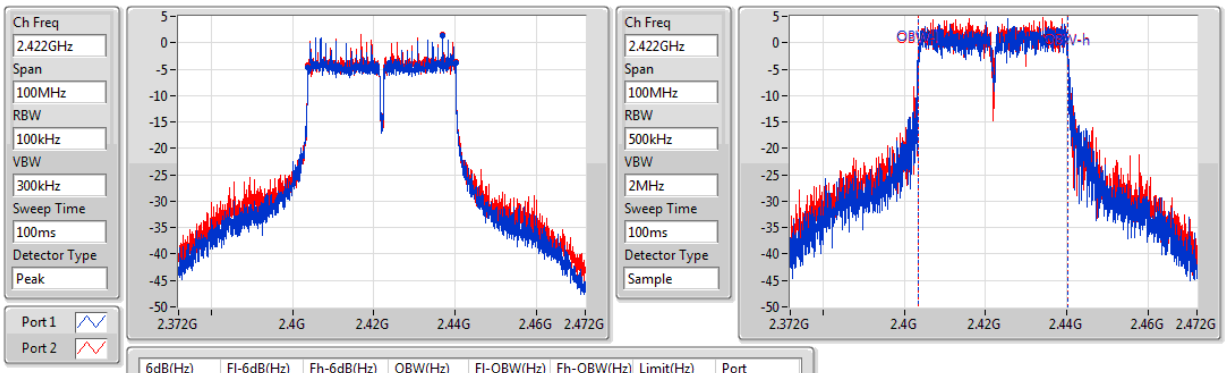
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.716M	2.453104G	2.470821G	500k	1
17.025M	2.453475G	2.4705G	17.766M	2.453079G	2.470846G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

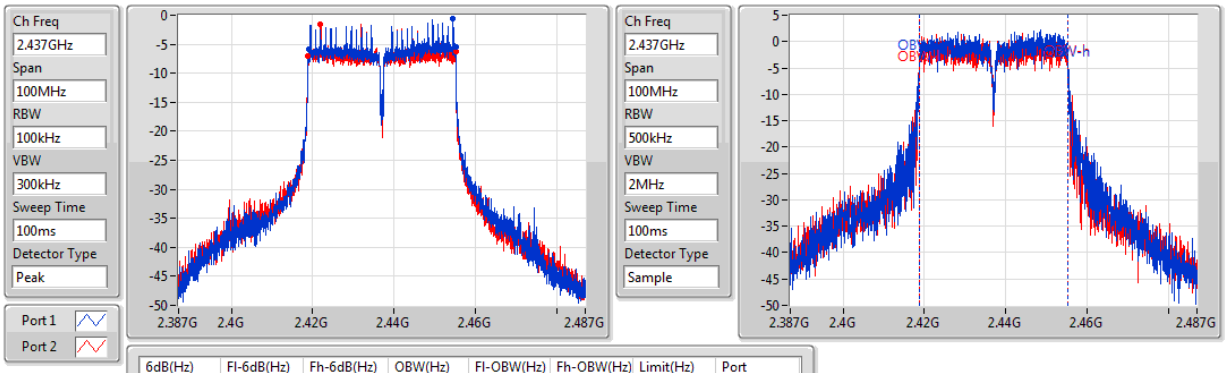
2422MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.4038G	2.44015G	36.682M	2.403609G	2.440291G	500k	1
36.3M	2.40385G	2.44015G	36.632M	2.403609G	2.440241G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

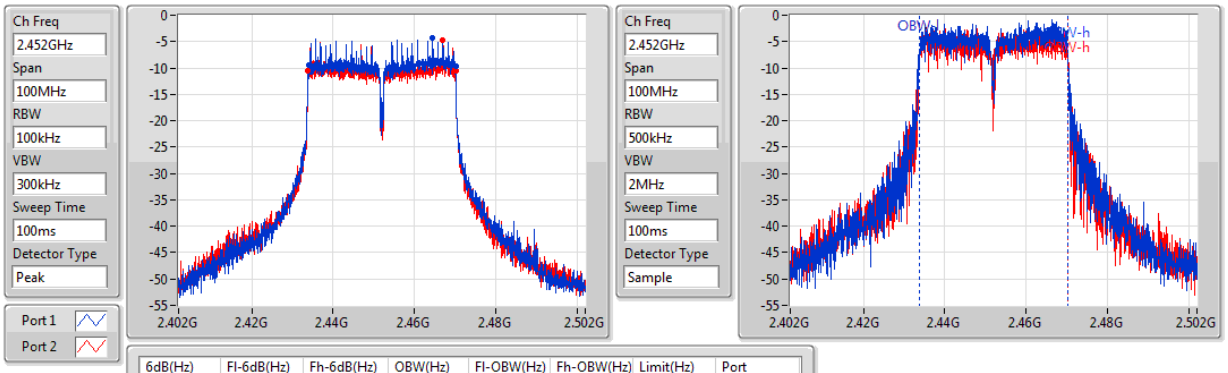
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.05M	2.4191G	2.45515G	36.532M	2.418759G	2.455291G	500k	1
36.3M	2.41885G	2.45515G	36.582M	2.418659G	2.455241G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

2452MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.05M	2.4341G	2.47015G	36.532M	2.433709G	2.470241G	500k	1
36.3M	2.43385G	2.47015G	36.532M	2.433759G	2.470291G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	13.85	0.02427
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	19.87	0.09705
802.11n HT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	20.30	0.10715
802.11n HT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	18.16	0.06546

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.60	8.43	8.52	11.49	30.00
2437MHz	Pass	2.60	9.09	8.36	11.75	30.00
2462MHz	Pass	2.60	11.06	10.61	13.85	30.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.60	14.39	14.83	17.63	30.00
2437MHz	Pass	2.60	17.06	16.65	19.87	30.00
2462MHz	Pass	2.60	14.22	13.91	17.08	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.60	15.38	15.47	18.44	30.00
2437MHz	Pass	2.60	17.64	16.91	20.30	30.00
2462MHz	Pass	2.60	13.11	13.06	16.10	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	2.60	15.05	15.24	18.16	30.00
2437MHz	Pass	2.60	13.17	13.12	16.16	30.00
2452MHz	Pass	2.60	9.48	8.97	12.24	30.00

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

Summary

Mode	PD (dBm/RBW)
802.11b_(1Mbps)_2TX	-
2.4-2.4835GHz	-11.23
802.11g_(6Mbps)_2TX	-
2.4-2.4835GHz	-6.09
802.11n HT20_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-6.69
802.11n HT40_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-11.10

RBW=3kHz.

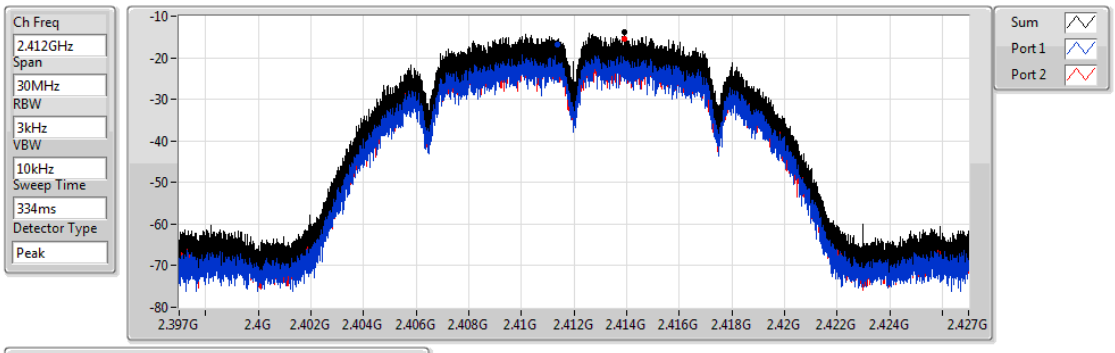
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.41	-16.80	-15.43	-13.92	8.00
2437MHz	Pass	5.41	-14.85	-15.14	-13.29	8.00
2462MHz	Pass	5.41	-12.97	-13.49	-11.23	8.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.41	-10.83	-10.79	-8.44	8.00
2437MHz	Pass	5.41	-8.28	-7.87	-6.09	8.00
2462MHz	Pass	5.41	-11.12	-11.84	-9.61	8.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.41	-9.87	-9.97	-8.27	8.00
2437MHz	Pass	5.41	-7.94	-8.74	-6.69	8.00
2462MHz	Pass	5.41	-12.54	-13.85	-11.44	8.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.41	-13.10	-12.52	-11.10	8.00
2437MHz	Pass	5.41	-15.56	-16.14	-13.81	8.00
2452MHz	Pass	5.41	-18.67	-19.89	-17.07	8.00

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

802.11b_(1Mbps)_2TX PSD

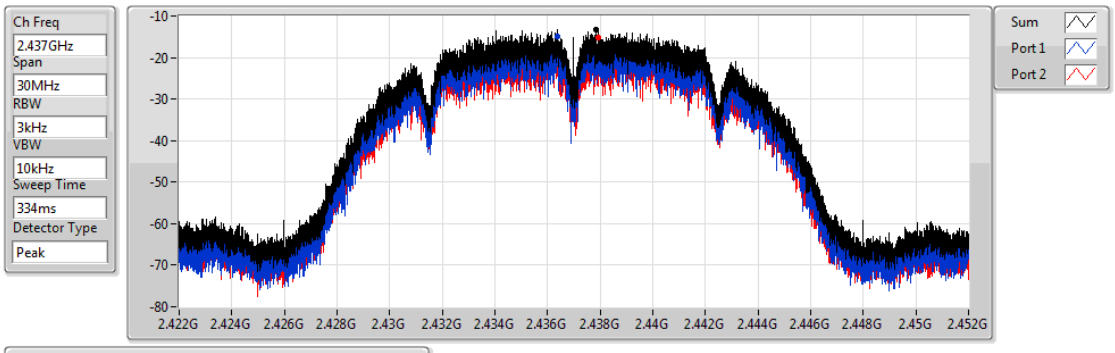
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.92	-13.92	-16.80	-15.43

802.11b_(1Mbps)_2TX PSD

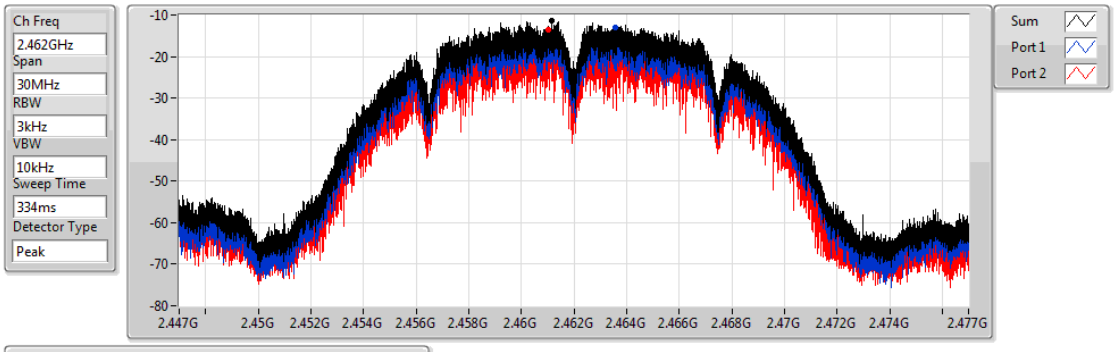
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.29	-13.29	-14.85	-15.14

802.11b_(1Mbps)_2TX PSD

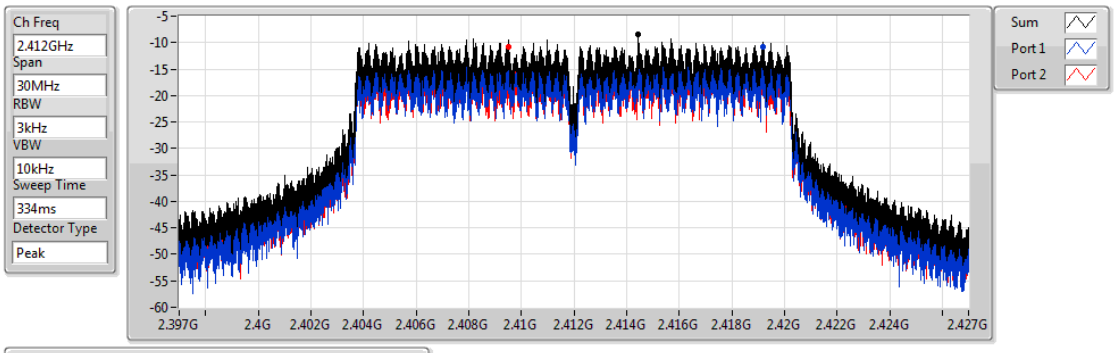
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.23	-11.23	-12.97	-13.49

802.11g_(6Mbps)_2TX PSD

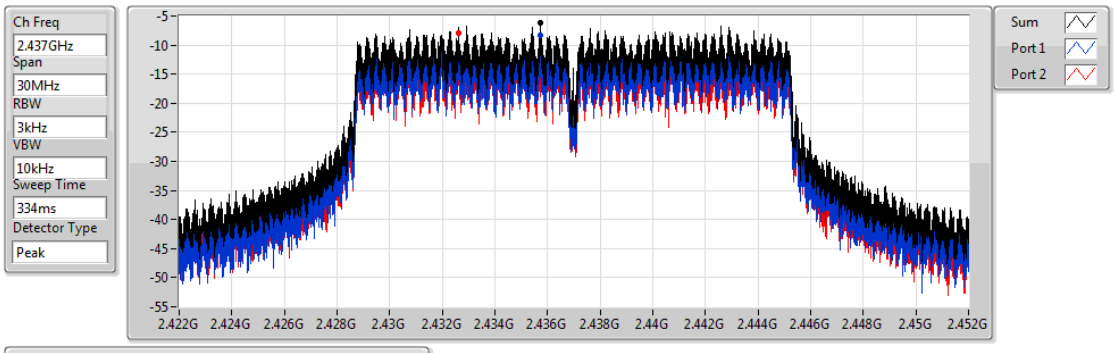
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.44	-8.44	-10.83	-10.79

802.11g_(6Mbps)_2TX PSD

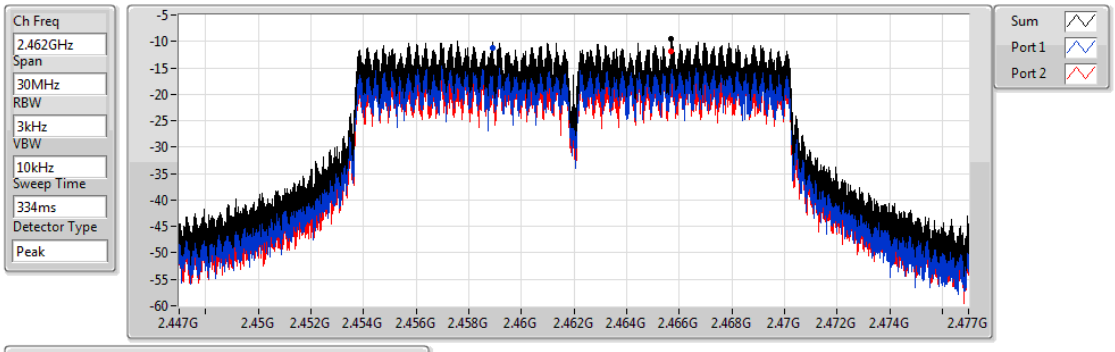
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.09	-6.09	-8.28	-7.87

802.11g_(6Mbps)_2TX PSD

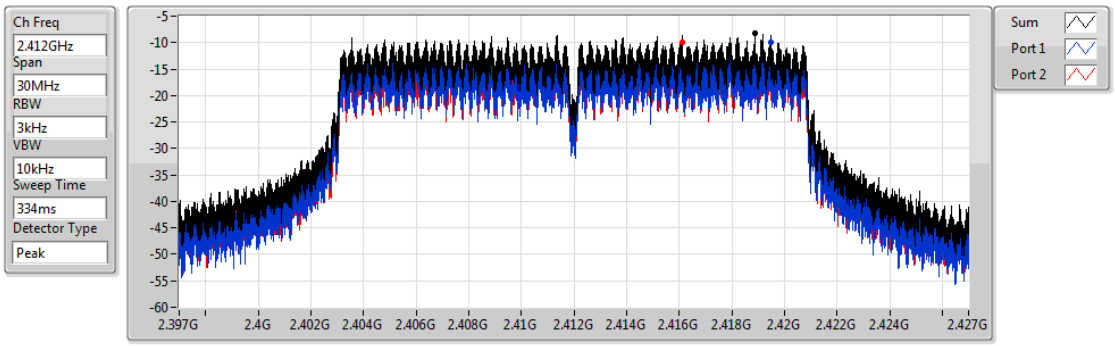
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.61	-9.61	-11.12	-11.84

802.11n HT20_Nss1,(MCS0)_2TX **PSD**

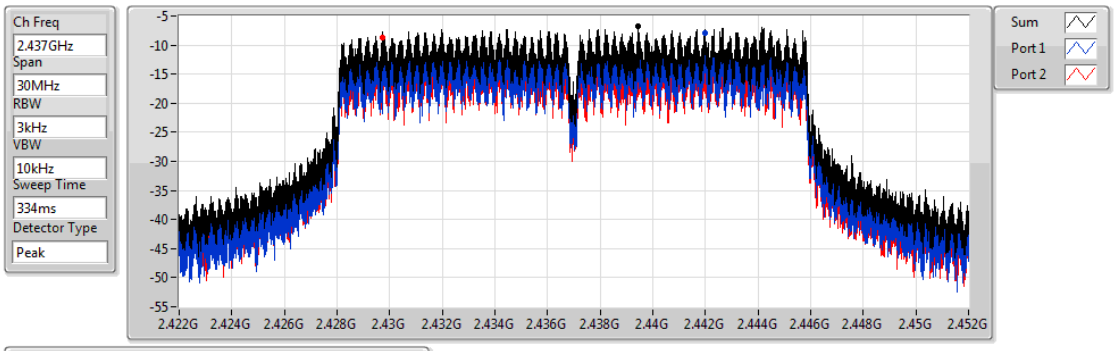
2412MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.27	-8.27	-9.87	-9.97

802.11n HT20_Nss1,(MCS0)_2TX **PSD**

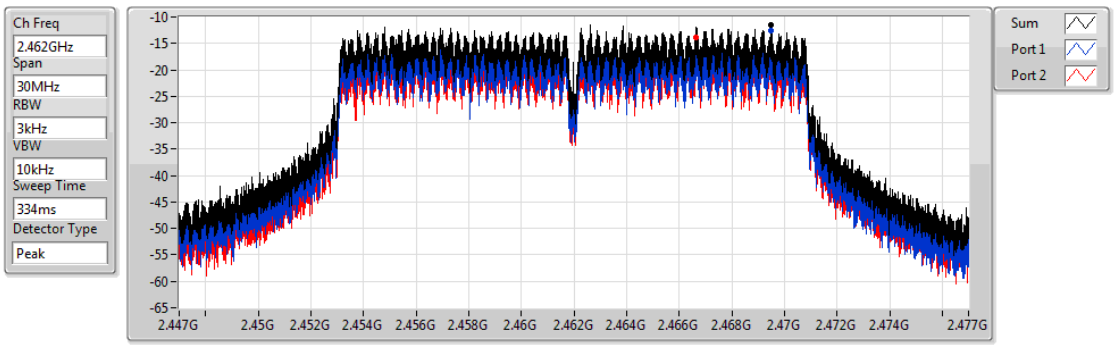
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.69	-6.69	-7.94	-8.74

802.11n HT20_Nss1,(MCS0)_2TX **PSD**

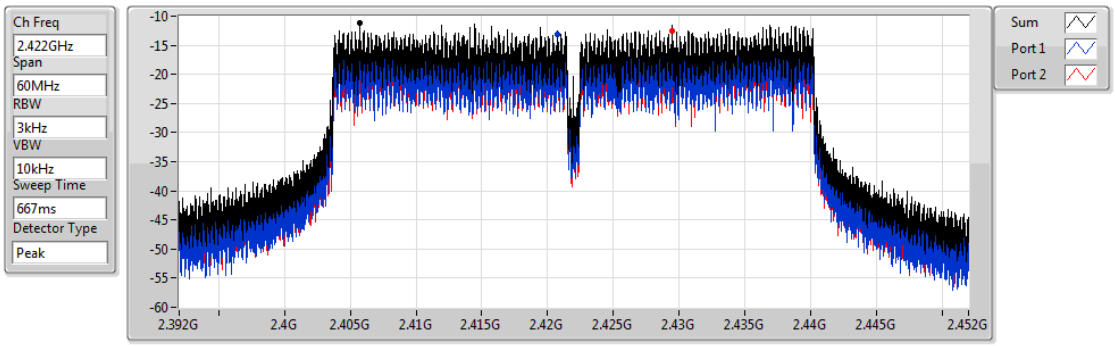
2462MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.44	-11.44	-12.54	-13.85

802.11n HT40_Nss1,(MCS0)_2TX PSD

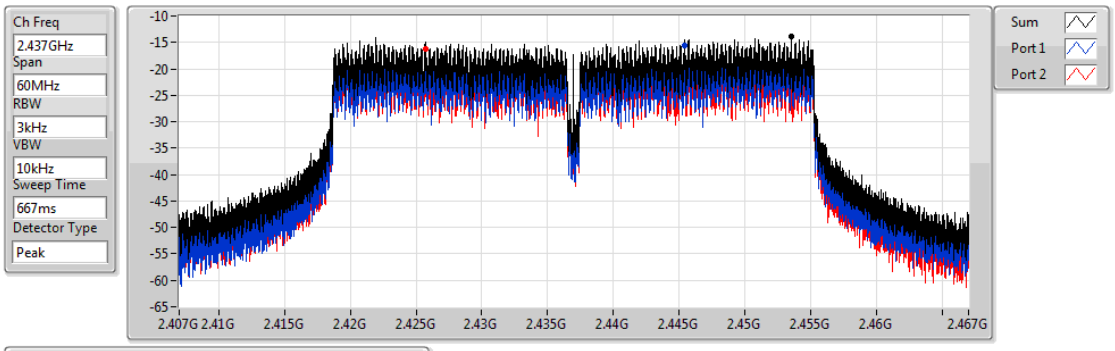
2422MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.10	-11.10	-13.10	-12.52

802.11n HT40_Nss1,(MCS0)_2TX PSD

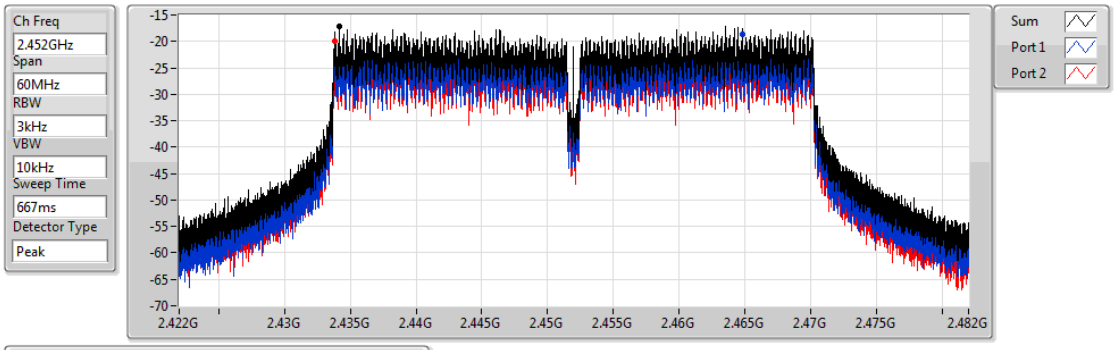
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.81	-13.81	-15.56	-16.14

802.11n HT40_Nss1,(MCS0)_2TX PSD

2452MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-17.07	-17.07	-18.67	-19.89

Summary

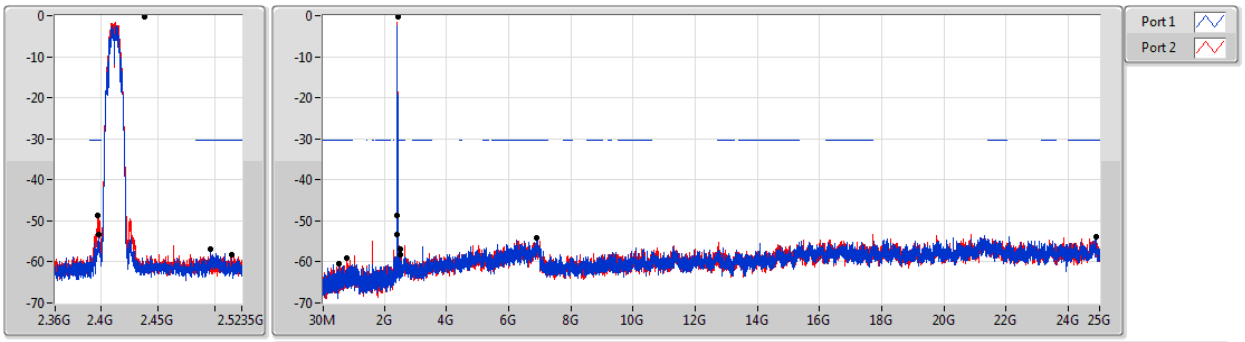
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	2.430728G	5.46	-24.54	805.89M	-52.09	2.39984G	-24.66	2.52102G	-55.95	3.214652G	-53.21	2

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_(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43841G	-0.38	-30.38	527.455M	-60.49	2.39856G	-53.33	2.49654G	-56.90	24.893237G	-53.95	1
2412MHz	Pass	2.43841G	-0.38	-30.38	801.23M	-59.01	2.39704G	-48.64	2.5143G	-58.32	6.875512G	-54.17	2
2437MHz	Pass	2.43841G	-0.38	-30.38	527.455M	-57.74	2.39448G	-58.09	2.51998G	-55.20	3.248367G	-52.39	1
2437MHz	Pass	2.43841G	-0.38	-30.38	1.624885G	-55.34	2.39728G	-57.50	2.48806G	-56.89	21.53019G	-53.37	2
2462MHz	Pass	2.43841G	-0.38	-30.38	821.035M	-55.93	2.39072G	-57.72	2.4983G	-56.77	3.282082G	-52.48	1
2462MHz	Pass	2.43841G	-0.38	-30.38	823.365M	-52.39	2.39488G	-58.57	2.48518G	-57.01	3.282082G	-54.02	2
802.11g_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.441917G	5.21	-24.79	797.735M	-57.54	2.39952G	-25.98	2.50558G	-55.04	3.214652G	-50.86	1
2412MHz	Pass	2.441917G	5.21	-24.79	798.9M	-49.24	2.39992G	-25.26	2.48502G	-55.29	3.214652G	-52.48	2
2437MHz	Pass	2.441917G	5.21	-24.79	814.045M	-56.09	2.39936G	-47.34	2.48382G	-49.75	3.248367G	-50.44	1
2437MHz	Pass	2.441917G	5.21	-24.79	816.375M	-50.12	2.39976G	-47.86	2.48462G	-53.17	3.248367G	-51.49	2
2462MHz	Pass	2.441917G	5.21	-24.79	815.21M	-54.58	2.39928G	-57.24	2.48358G	-38.63	3.282082G	-49.60	1
2462MHz	Pass	2.441917G	5.21	-24.79	816.375M	-51.19	2.39696G	-57.16	2.48446G	-40.03	3.282082G	-53.31	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.430728G	5.46	-24.54	798.9M	-54.05	2.39976G	-26.97	2.49518G	-55.55	3.214652G	-50.92	1
2412MHz	Pass	2.430728G	5.46	-24.54	805.89M	-52.09	2.39984G	-24.66	2.52102G	-55.95	3.214652G	-53.21	2
2437MHz	Pass	2.430728G	5.46	-24.54	807.055M	-56.44	2.39952G	-44.93	2.48438G	-50.85	3.248367G	-49.89	1
2437MHz	Pass	2.430728G	5.46	-24.54	811.715M	-50.36	2.39984G	-44.34	2.48494G	-54.10	3.248367G	-51.16	2
2462MHz	Pass	2.430728G	5.46	-24.54	829.19M	-57.97	2.39864G	-57.90	2.48358G	-41.54	3.282082G	-49.75	1
2462MHz	Pass	2.430728G	5.46	-24.54	824.53M	-50.98	2.39072G	-57.95	2.48438G	-39.76	3.282082G	-52.63	2
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.448263G	-0.79	-30.79	824.63M	-57.74	2.39952G	-32.21	2.51998G	-55.65	3.228181G	-51.97	1
2422MHz	Pass	2.448263G	-0.79	-30.79	792.57M	-57.34	2.39936G	-31.94	2.4875G	-54.25	14.645555G	-54.07	2
2437MHz	Pass	2.448263G	-0.79	-30.79	879.59M	-58.54	2.39952G	-32.88	2.48382G	-44.87	3.247813G	-51.26	1
2437MHz	Pass	2.448263G	-0.79	-30.79	825.775M	-52.88	2.39968G	-31.91	2.48478G	-43.99	24.820508G	-53.29	2
2452MHz	Pass	2.448263G	-0.79	-30.79	879.59M	-58.94	2.39952G	-54.85	2.48782G	-43.34	3.267445G	-50.94	1
2452MHz	Pass	2.448263G	-0.79	-30.79	1.63529G	-54.13	2.39984G	-54.18	2.48462G	-42.51	21.449424G	-53.23	2

802.11b_(1Mbps)_2TX **CSE NdB**

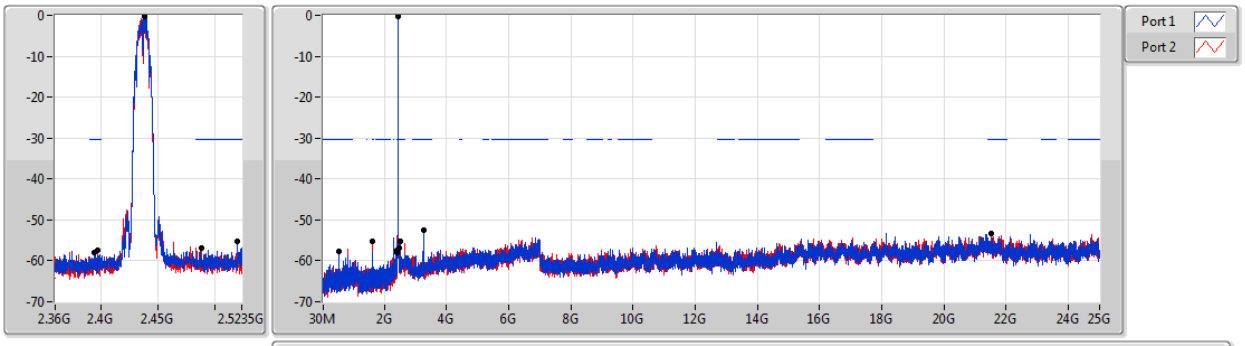
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43841G	-0.38	-30.38	527.455M	-60.49	2.39856G	-53.33	2.49654G	-56.90	24.893237G	-53.95	1
2.43841G	-0.38	-30.38	801.23M	-59.01	2.39704G	-48.64	2.5143G	-58.32	6.875512G	-54.17	2

802.11b_(1Mbps)_2TX **CSE NdB**

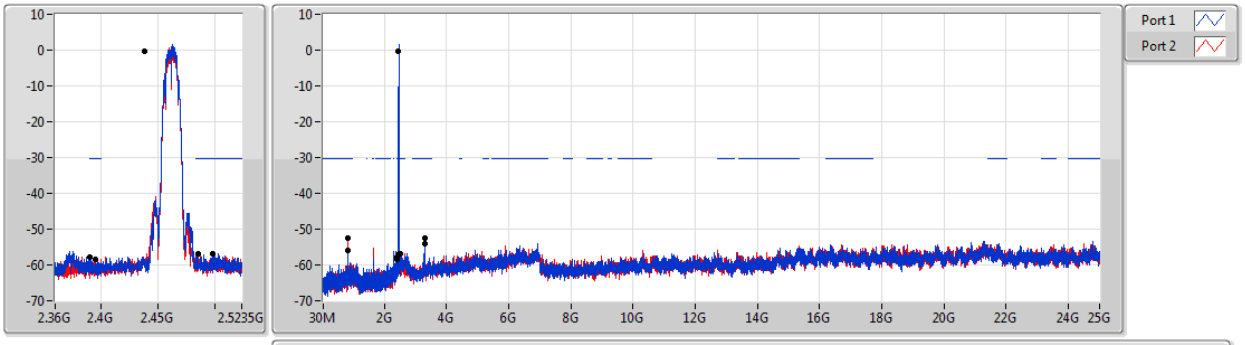
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43841G	-0.38	-30.38	527.455M	-57.74	2.39448G	-58.09	2.51998G	-55.20	3.248367G	-52.39	1
2.43841G	-0.38	-30.38	1.624885G	-55.34	2.39728G	-57.50	2.48806G	-56.89	21.53019G	-53.37	2

802.11b_(1Mbps)_2TX **CSE NdB**

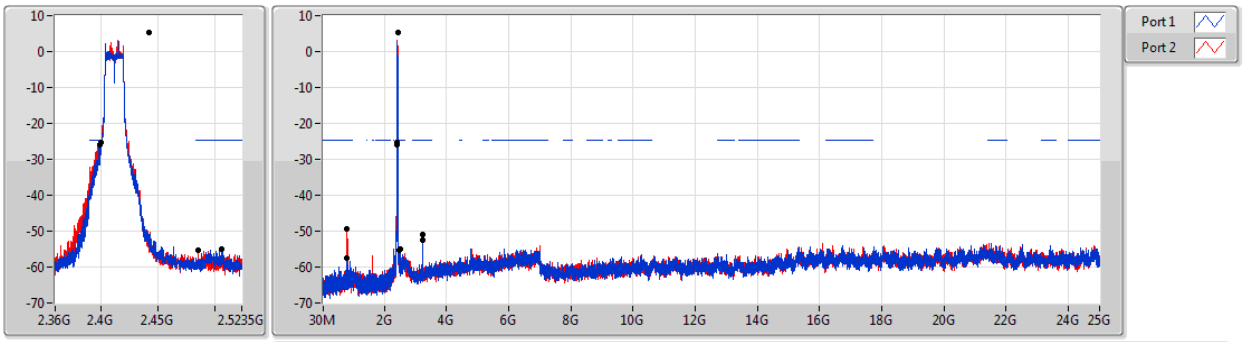
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43841G	-0.38	-30.38	821.035M	-55.93	2.39072G	-57.72	2.4983G	-56.77	3.282082G	-52.48	1
2.43841G	-0.38	-30.38	823.365M	-52.39	2.39488G	-58.57	2.48518G	-57.01	3.282082G	-54.02	2

802.11g_(6Mbps)_2TX **CSE NdB**

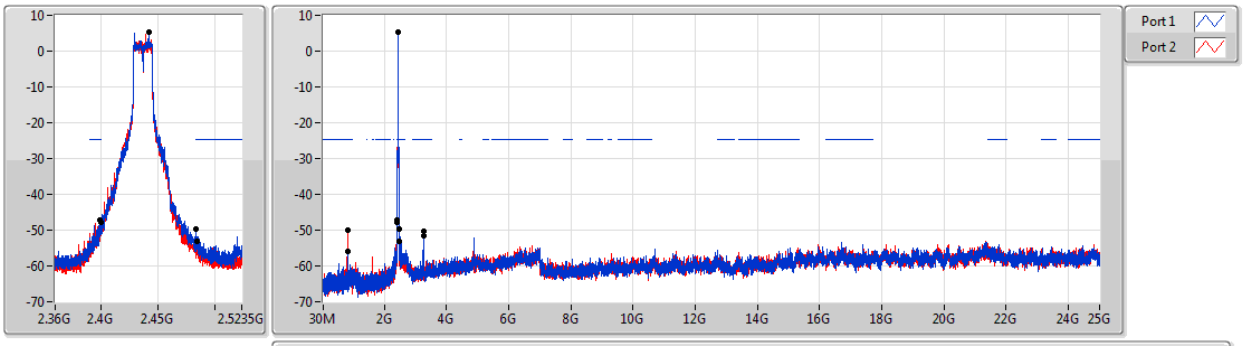
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441917G	5.21	-24.79	797.735M	-57.54	2.39952G	-25.98	2.50558G	-55.04	3.214652G	-50.86	1
2.441917G	5.21	-24.79	798.9M	-49.24	2.39992G	-25.26	2.48502G	-55.29	3.214652G	-52.48	2

802.11g_(6Mbps)_2TX **CSE NdB**

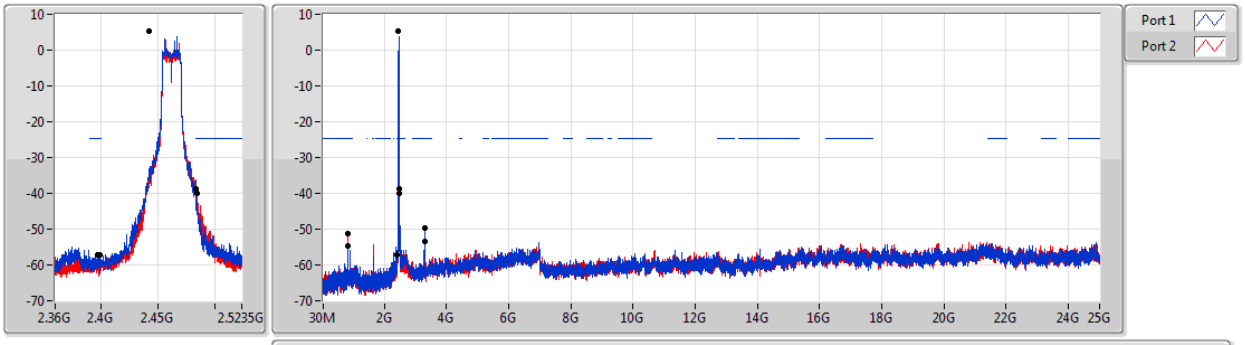
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441917G	5.21	-24.79	814.045M	-56.09	2.39936G	-47.34	2.48382G	-49.75	3.248367G	-50.44	1
2.441917G	5.21	-24.79	816.375M	-50.12	2.39976G	-47.86	2.48462G	-53.17	3.248367G	-51.49	2

802.11g_(6Mbps)_2TX **CSE NdB**

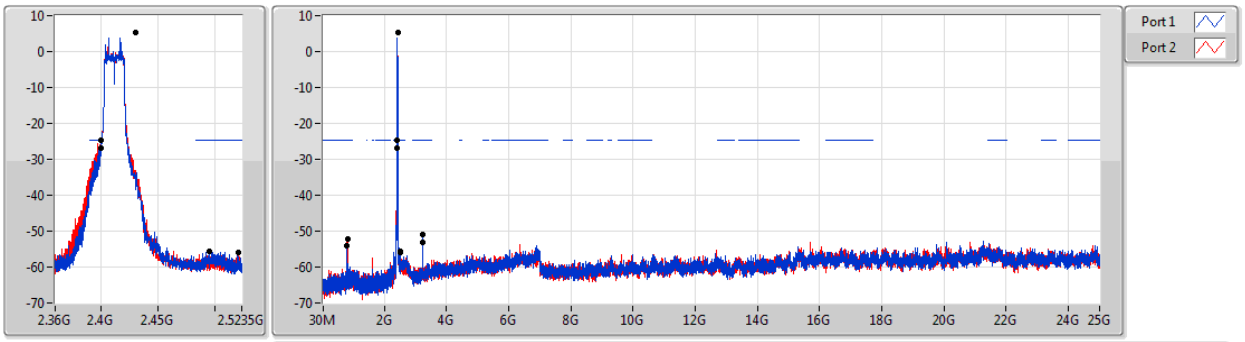
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.441917G	5.21	-24.79	815.21M	-54.58	2.39928G	-57.24	2.48358G	-38.63	3.282082G	-49.60	1
2.441917G	5.21	-24.79	816.375M	-51.19	2.39696G	-57.16	2.48446G	-40.03	3.282082G	-53.31	2

802.11n HT20_Nss1,(MCS0)_2TX **CSE NdB**

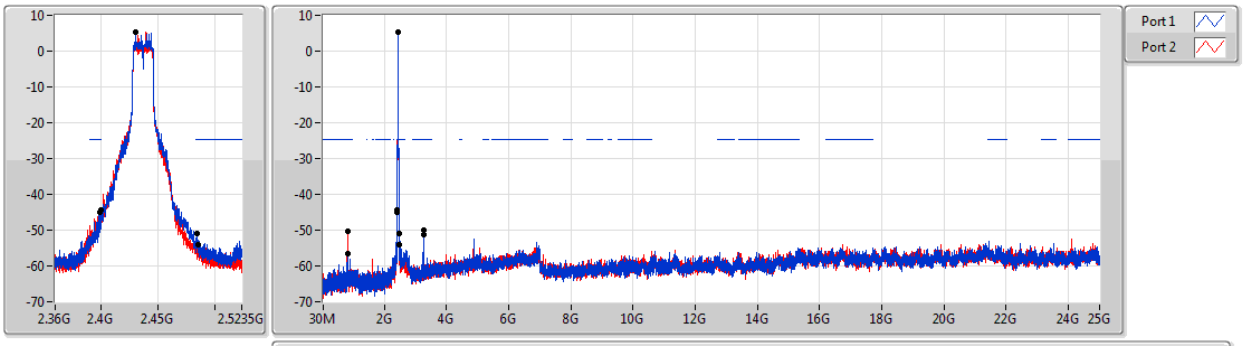
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.430728G	5.46	-24.54	798.9M	-54.05	2.39976G	-26.97	2.49518G	-55.55	3.214652G	-50.92	1
2.430728G	5.46	-24.54	805.89M	-52.09	2.39984G	-24.66	2.52102G	-55.95	3.214652G	-53.21	2

802.11n HT20_Nss1,(MCS0)_2TX **CSE NdB**

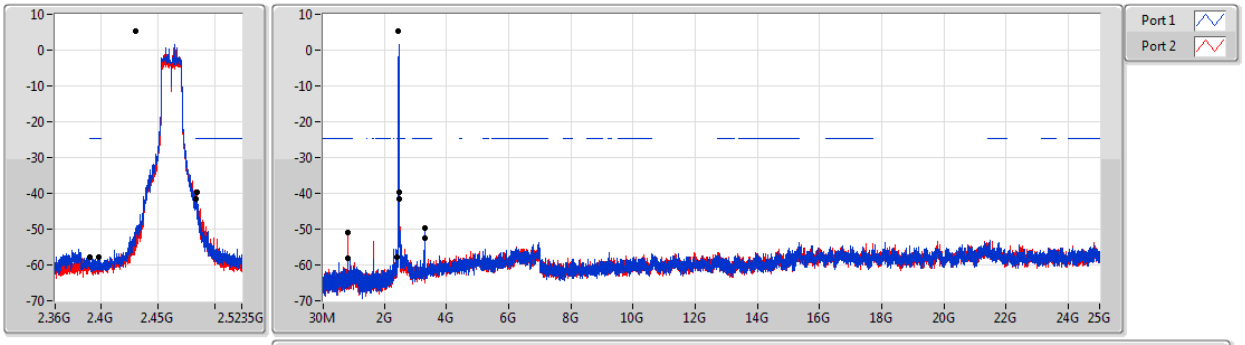
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.430728G	5.46	-24.54	807.055M	-56.44	2.39952G	-44.93	2.48438G	-50.85	3.248367G	-49.89	1
2.430728G	5.46	-24.54	811.715M	-50.36	2.39984G	-44.34	2.48494G	-54.10	3.248367G	-51.16	2

802.11n HT20_Nss1,(MCS0)_2TX **CSE NdB**

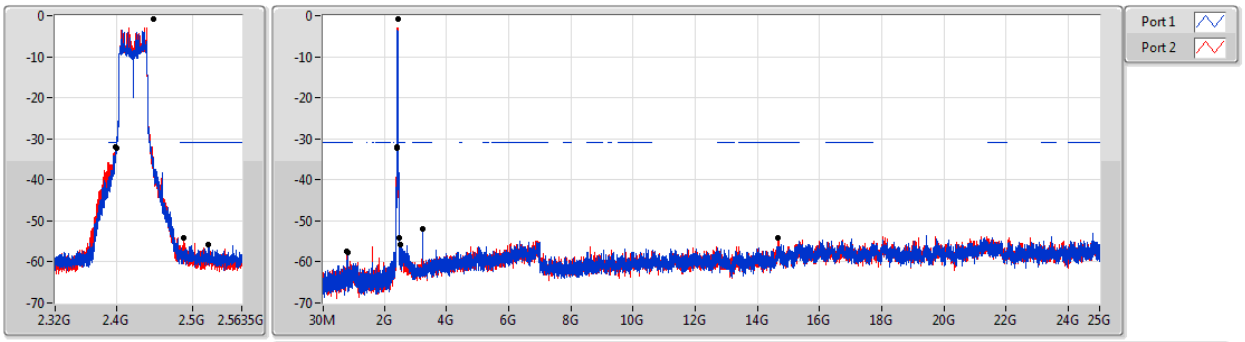
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.430728G	5.46	-24.54	829.19M	-57.97	2.39864G	-57.90	2.48358G	-41.54	3.282082G	-49.75	1
2.430728G	5.46	-24.54	824.53M	-50.98	2.39072G	-57.95	2.48438G	-39.76	3.282082G	-52.63	2

802.11n HT40_Nss1,(MCS0)_2TX **CSE NdB**

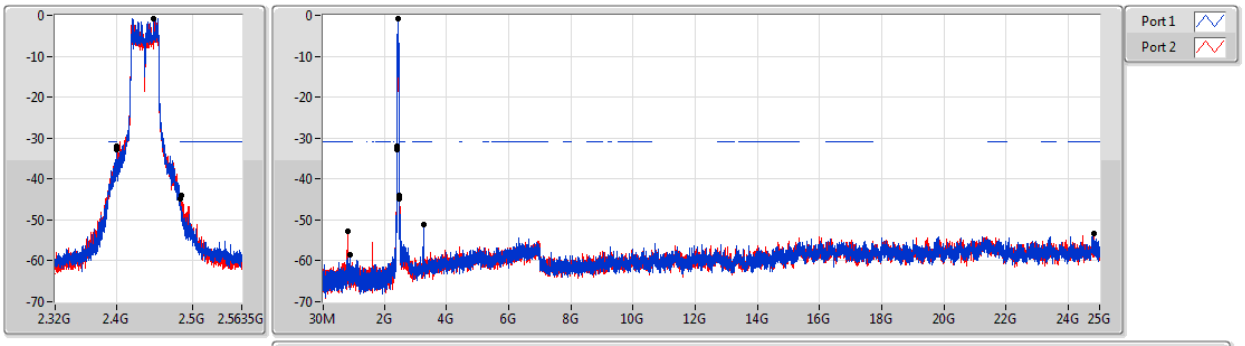
2422MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.448263G	-0.79	-30.79	824.63M	-57.74	2.39952G	-32.21	2.51998G	-55.65	3.228181G	-51.97	1
2.448263G	-0.79	-30.79	792.57M	-57.34	2.39936G	-31.94	2.4875G	-54.25	14.645555G	-54.07	2

802.11n HT40_Nss1,(MCS0)_2TX **CSE NdB**

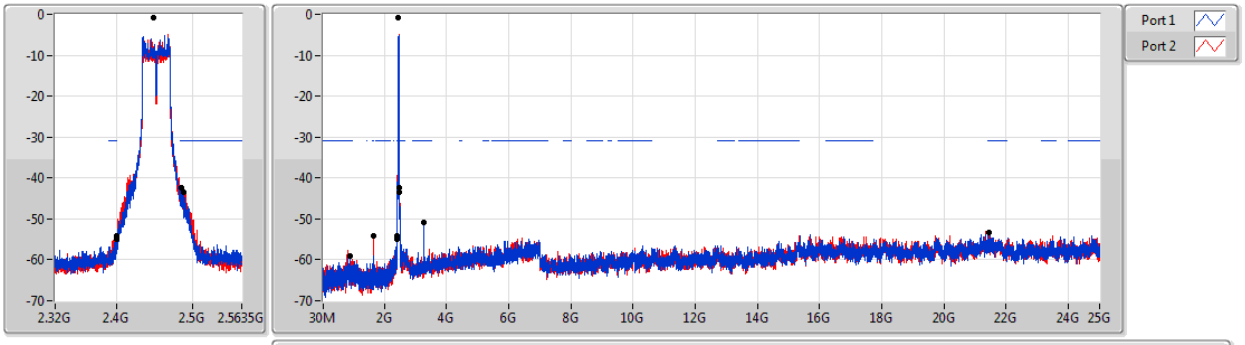
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.448263G	-0.79	-30.79	879.59M	-58.54	2.39952G	-32.88	2.48382G	-44.87	3.247813G	-51.26	1
2.448263G	-0.79	-30.79	825.775M	-52.88	2.39968G	-31.91	2.48478G	-43.99	24.820508G	-53.29	2

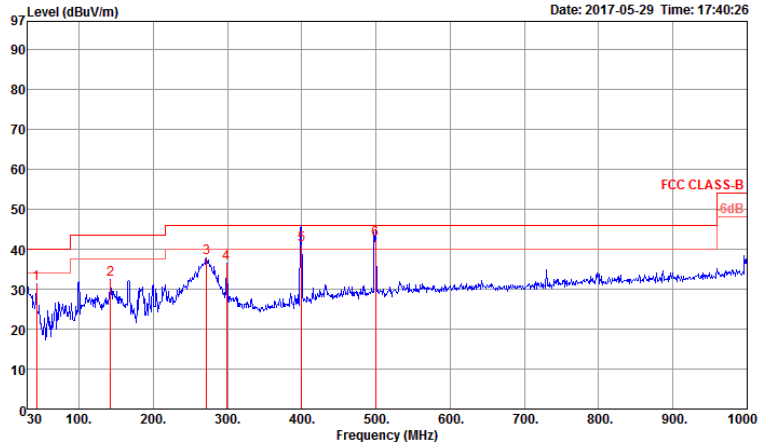
802.11n HT40_Nss1,(MCS0)_2TX **CSE NdB**

2452MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.448263G	-0.79	-30.79	879.59M	-58.94	2.39952G	-54.85	2.48782G	-43.34	3.267445G	-50.94	1
2.448263G	-0.79	-30.79	1.63529G	-54.13	2.39984G	-54.18	2.48462G	-42.51	21.449424G	-53.23	2

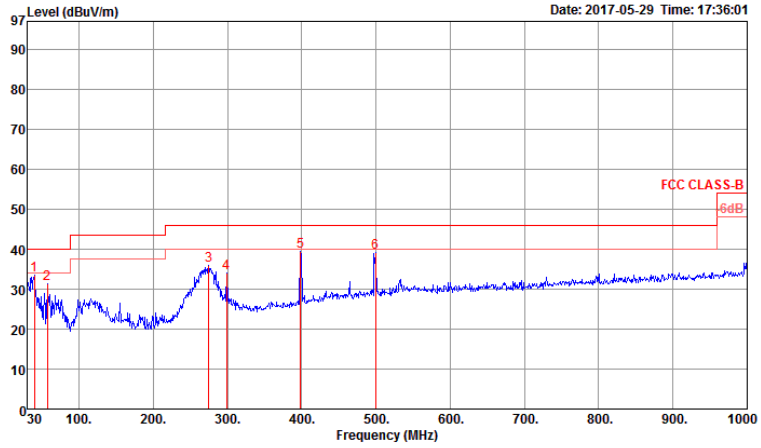
RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Horizontal
Operating Function	Normal Link		



	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	42.61	31.33	40.00	-8.67	39.59	2.13	18.18	28.57	100	0	Peak	HORIZONTAL
2	142.52	32.54	43.50	-10.96	41.57	2.31	16.90	28.24	100	0	Peak	HORIZONTAL
3	271.53	37.81	46.00	-8.19	44.01	2.67	19.00	27.87	100	0	Peak	HORIZONTAL
4	298.69	36.56	46.00	-9.44	42.60	2.76	19.01	27.81	100	0	Peak	HORIZONTAL
5	399.57	41.05	46.00	-4.95	45.10	3.10	21.57	28.72	76	100	QP	HORIZONTAL
6	499.48	42.52	46.00	-3.48	44.90	3.45	23.45	29.28	208	231	QP	HORIZONTAL

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

RSE below 1GHz Result			
Operating Mode	1	**Polarization**	Vertical
Operating Function	Normal Link		



	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	39.70	33.58	40.00	-6.42	40.11	2.11	19.94	28.58	400	0	Peak	VERTICAL
2	57.16	31.33	40.00	-8.67	45.24	2.18	12.45	28.54	400	0	Peak	VERTICAL
3	274.44	36.07	46.00	-9.93	42.39	2.68	18.87	27.87	400	0	Peak	VERTICAL
4	298.69	34.16	46.00	-11.84	40.20	2.76	19.01	27.81	400	0	Peak	VERTICAL
5	398.60	39.50	46.00	-6.50	43.55	3.10	21.57	28.72	400	0	Peak	VERTICAL
6	499.48	39.06	46.00	-6.94	41.44	3.45	23.45	29.28	400	0	Peak	VERTICAL

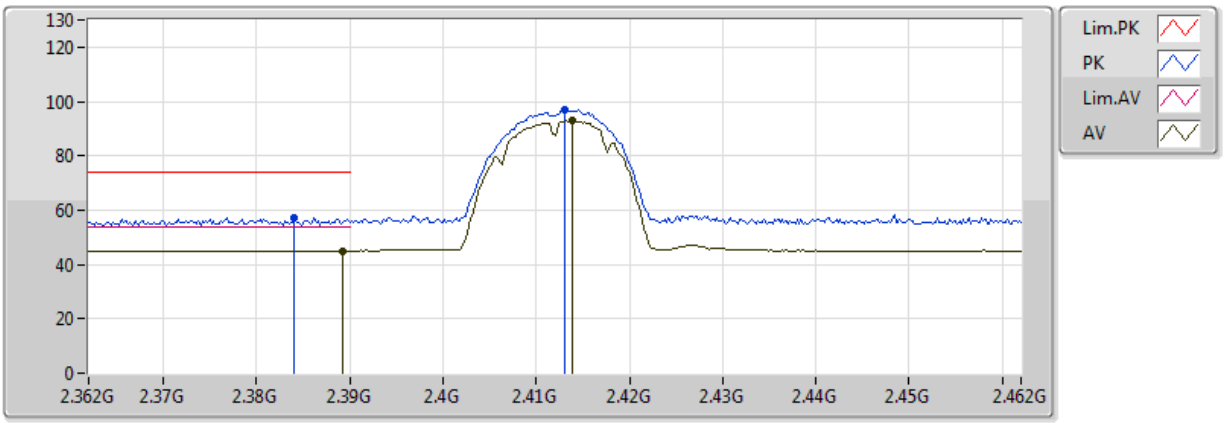
Note 1: “>20dB” means emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found emissions (No emissions were detected.)

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11b_(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	AV	4.87396G	53.99	54.00	-0.01	3.84	3	V	359	1.38	-

802.11b_(1Mbps)_2TX

2412MHz_TX

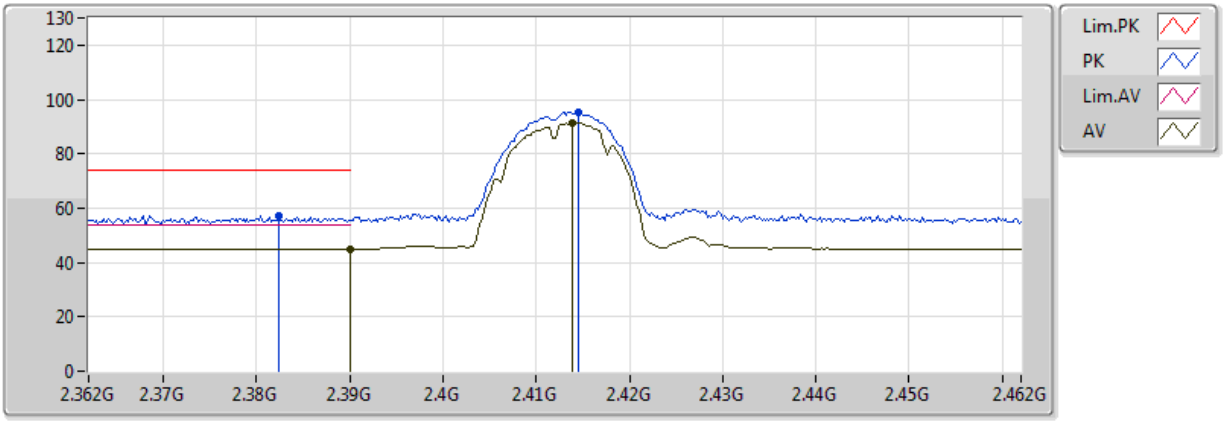


20170525
EUT X_2TX
Setting 9
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3892G	45.03	54.00	-8.97	32.67	3	V	344	1.15	-
AV	2.4138G	93.12	Inf	-Inf	32.69	3	V	344	1.15	-
PK	2.384G	57.00	74.00	-17.00	32.67	3	V	344	1.15	-
PK	2.413G	96.74	Inf	-Inf	32.69	3	V	344	1.15	-

802.11b_(1Mbps)_2TX

2412MHz_TX

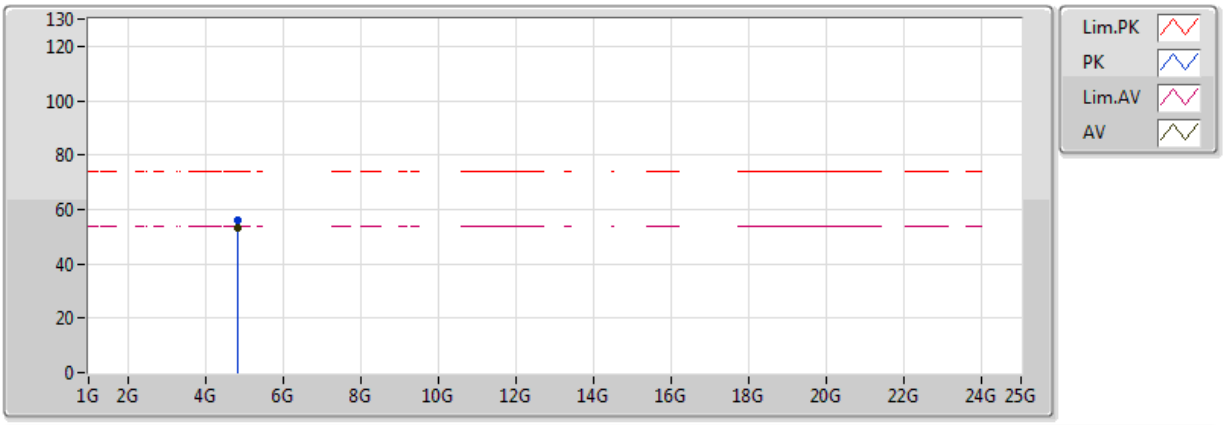


20170525
EUT X_2TX
Setting 9
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	45.02	54.00	-8.98	32.67	3	H	135	1.90	-
AV	2.4138G	91.55	Inf	-Inf	32.69	3	H	135	1.90	-
PK	2.3824G	57.32	74.00	-16.68	32.66	3	H	135	1.90	-
PK	2.4146G	95.16	Inf	-Inf	32.69	3	H	135	1.90	-

802.11b_(1Mbps)_2TX

2412MHz_TX

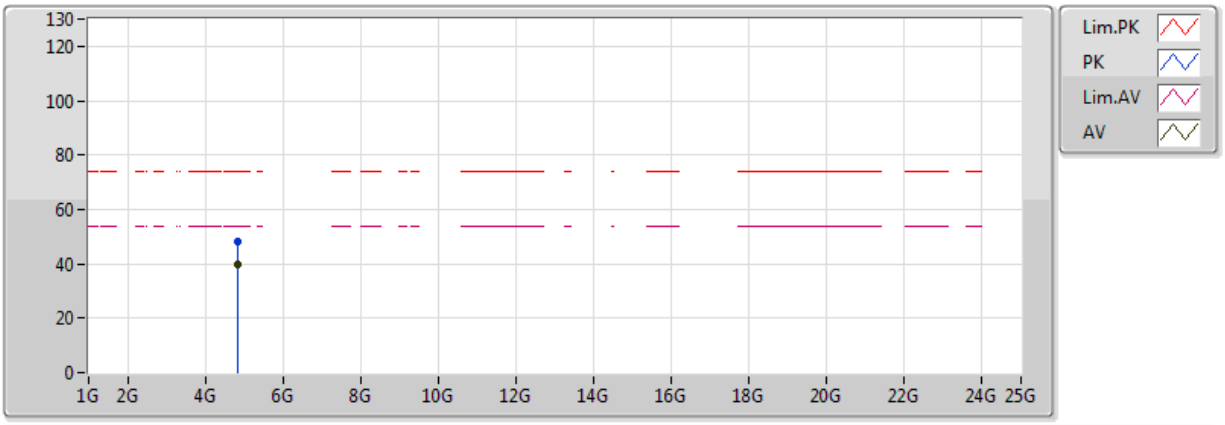


20170525
EUT X_2TX
Setting 9
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.824G	53.51	54.00	-0.49	3.70	3	V	359	1.50	-
PK	4.82392G	55.91	74.00	-18.09	3.70	3	V	359	1.50	-

802.11b_(1Mbps)_2TX

2412MHz_TX

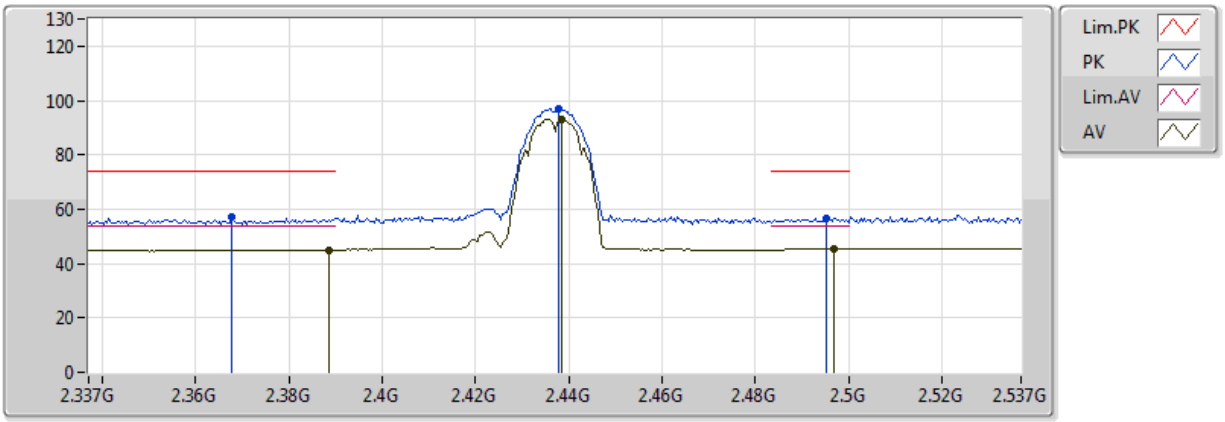


20170525
EUT X_2TX
Setting 9
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82396G	39.72	54.00	-14.28	3.70	3	H	51	1.50	-
PK	4.824G	48.16	74.00	-25.84	3.70	3	H	51	1.50	-

802.11b_(1Mbps)_2TX

2437MHz_TX

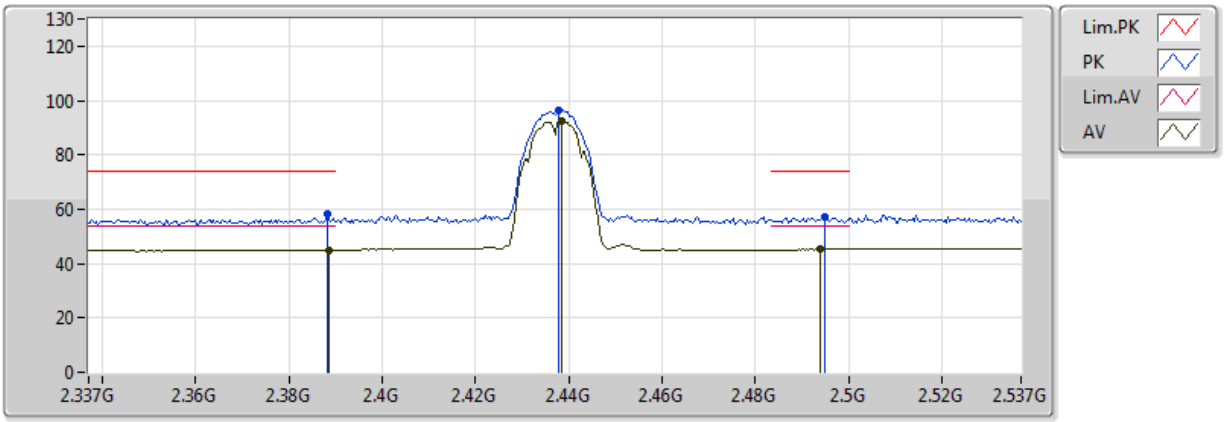


20170525
EUT X_2TX
Setting 9.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3886G	45.03	54.00	-8.97	32.67	3	V	15	1.55	-
AV	2.4386G	92.90	Inf	-Inf	32.72	3	V	15	1.55	-
AV	2.497G	45.29	54.00	-8.71	32.80	3	V	15	1.55	-
PK	2.3678G	57.20	74.00	-16.80	32.66	3	V	15	1.55	-
PK	2.4378G	96.86	Inf	-Inf	32.72	3	V	15	1.55	-
PK	2.4954G	56.82	74.00	-17.18	32.79	3	V	15	1.55	-

802.11b_(1Mbps)_2TX

2437MHz_TX

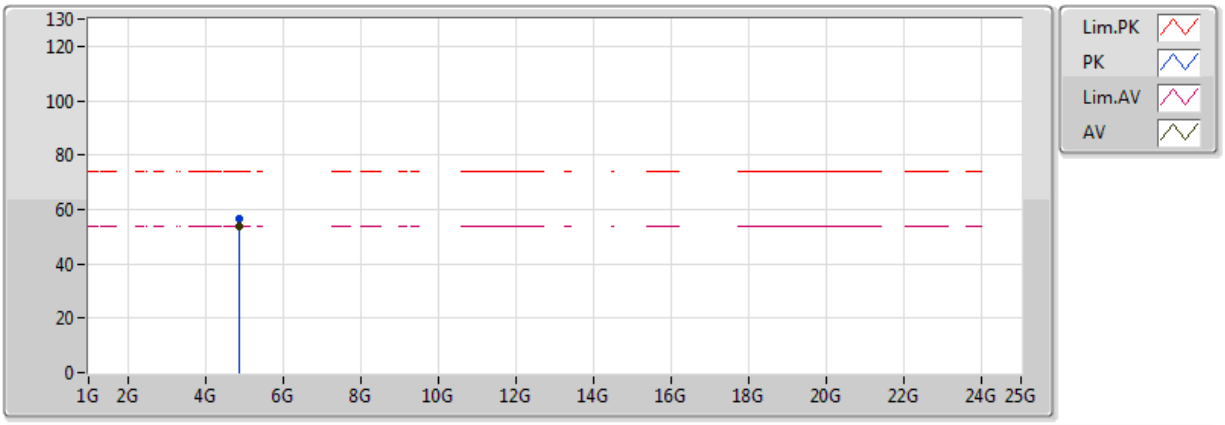


20170525
EUT X_2TX
Setting 9.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3886G	45.03	54.00	-8.97	32.67	3	H	244	1.51	-
AV	2.4386G	92.48	Inf	-Inf	32.72	3	H	244	1.51	-
AV	2.4938G	45.23	54.00	-8.77	32.79	3	H	244	1.51	-
PK	2.3882G	58.26	74.00	-15.74	32.67	3	H	244	1.51	-
PK	2.4378G	96.38	Inf	-Inf	32.72	3	H	244	1.51	-
PK	2.495G	57.10	74.00	-16.90	32.79	3	H	244	1.51	-

802.11b_(1Mbps)_2TX

2437MHz_TX

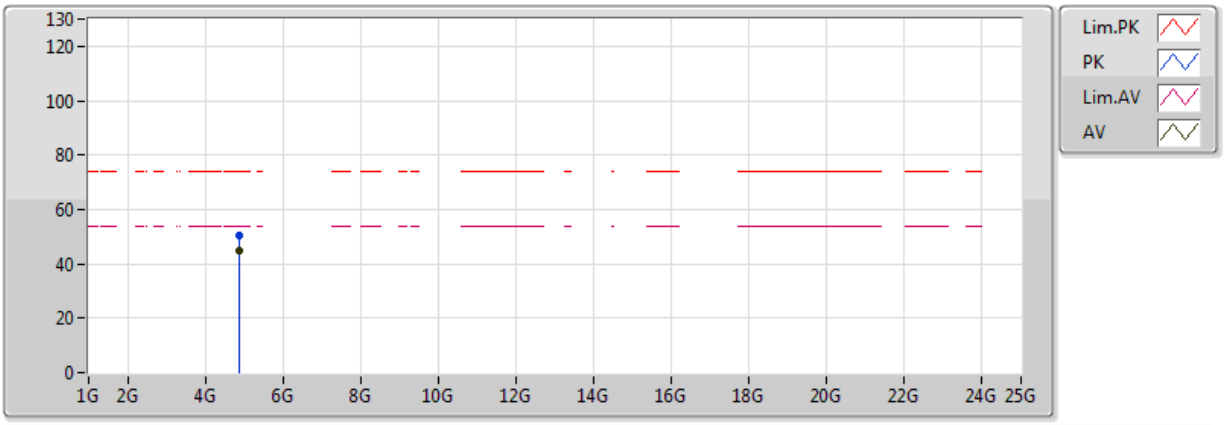


20170525
EUT X_2TX
Setting 9.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87396G	53.99	54.00	-0.01	3.84	3	V	359	1.38	-
PK	4.8739G	56.78	74.00	-17.22	3.84	3	V	359	1.38	-

802.11b_(1Mbps)_2TX

2437MHz_TX

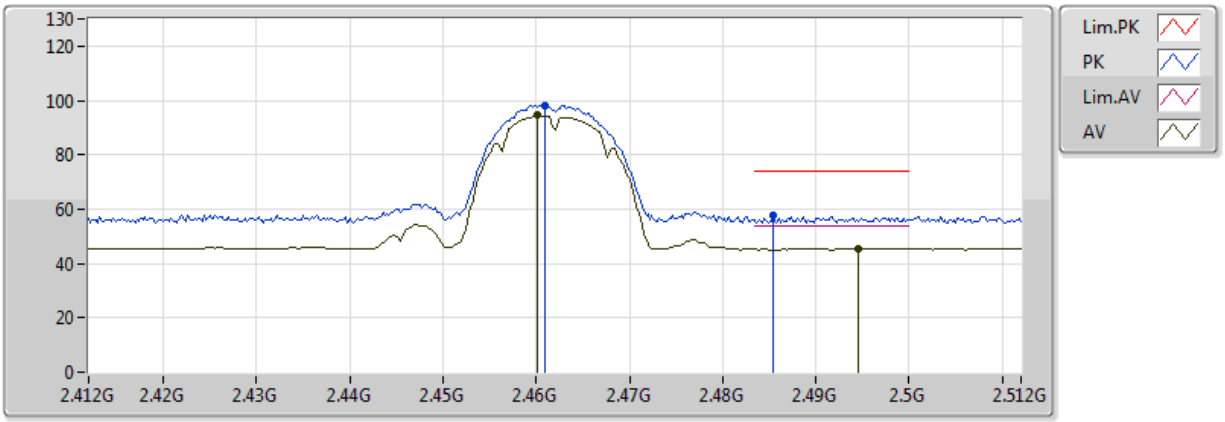


20170525
EUT X_2TX
Setting 9.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87392G	44.55	54.00	-9.45	3.84	3	H	52	1.48	-
PK	4.87408G	50.55	74.00	-23.45	3.84	3	H	52	1.48	-

802.11b_(1Mbps)_2TX

2462MHz_TX

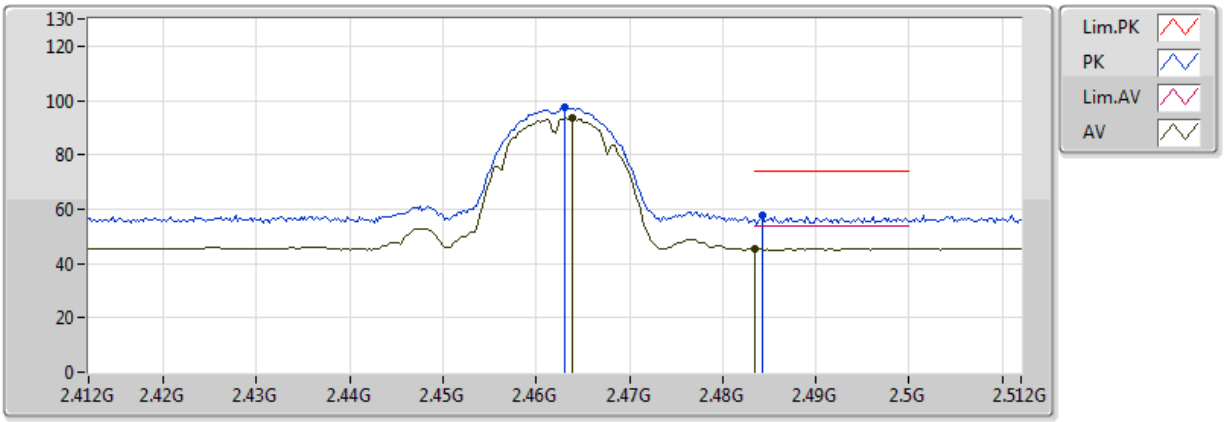


20170525
EUT X_2TX
Setting 11.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4602G	94.55	Inf	-Inf	32.75	3	V	353	1.67	-
AV	2.4946G	45.40	54.00	-8.60	32.79	3	V	353	1.67	-
PK	2.461G	98.29	Inf	-Inf	32.75	3	V	353	1.67	-
PK	2.4854G	57.91	74.00	-16.09	32.78	3	V	353	1.67	-

802.11b_(1Mbps)_2TX

2462MHz_TX

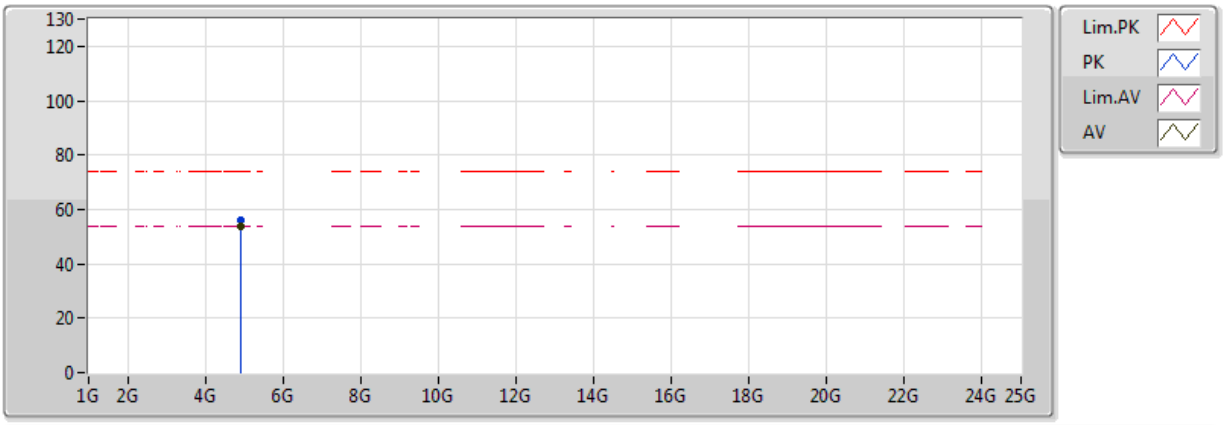


20170525
EUT X_2TX
Setting 11.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4638G	93.47	Inf	-Inf	32.75	3	H	132	1.63	-
AV	2.483502G	45.29	54.00	-8.71	32.78	3	H	132	1.63	-
PK	2.463G	97.33	Inf	-Inf	32.75	3	H	132	1.63	-
PK	2.4842G	57.48	74.00	-16.52	32.78	3	H	132	1.63	-

802.11b_(1Mbps)_2TX

2462MHz_TX

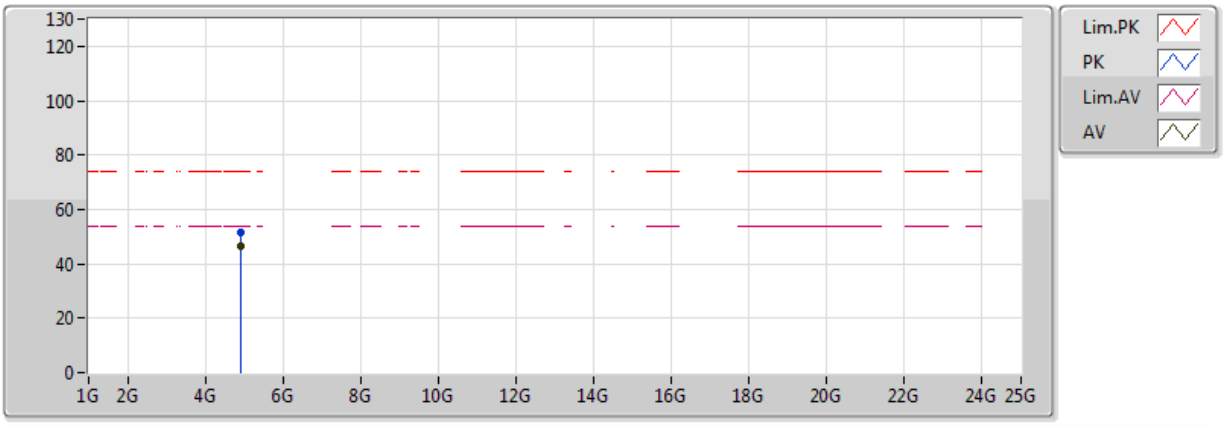


20170525
EUT X_2TX
Setting 11.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92394G	53.62	54.00	-0.38	3.98	3	V	10	2.74	-
PK	4.92392G	56.25	74.00	-17.75	3.98	3	V	10	2.74	-

802.11b_(1Mbps)_2TX

2462MHz_TX

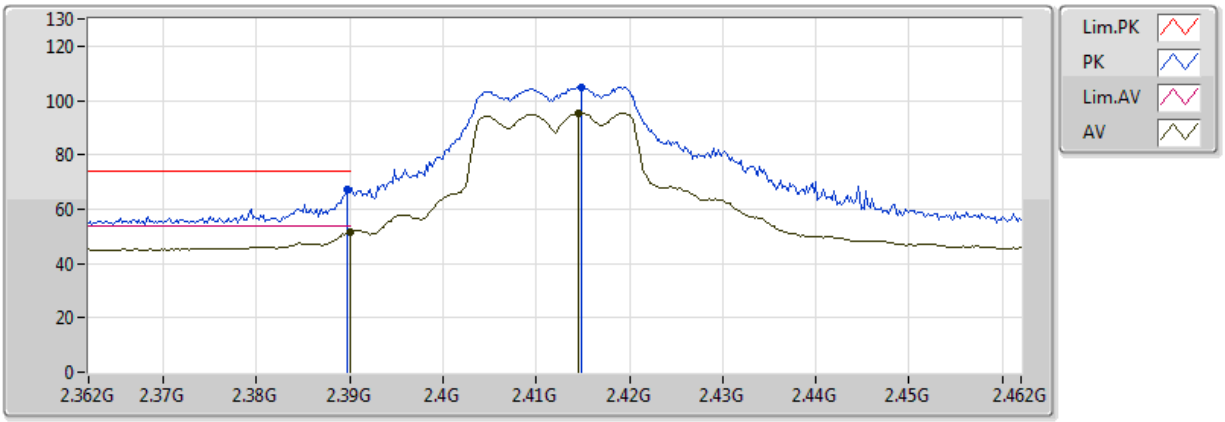


20170525
EUT X_2TX
Setting 11.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92386G	46.78	54.00	-7.22	3.98	3	H	50	2.14	-
PK	4.92398G	51.61	74.00	-22.39	3.98	3	H	50	2.14	-

802.11g_(6Mbps)_2TX

2412MHz_TX

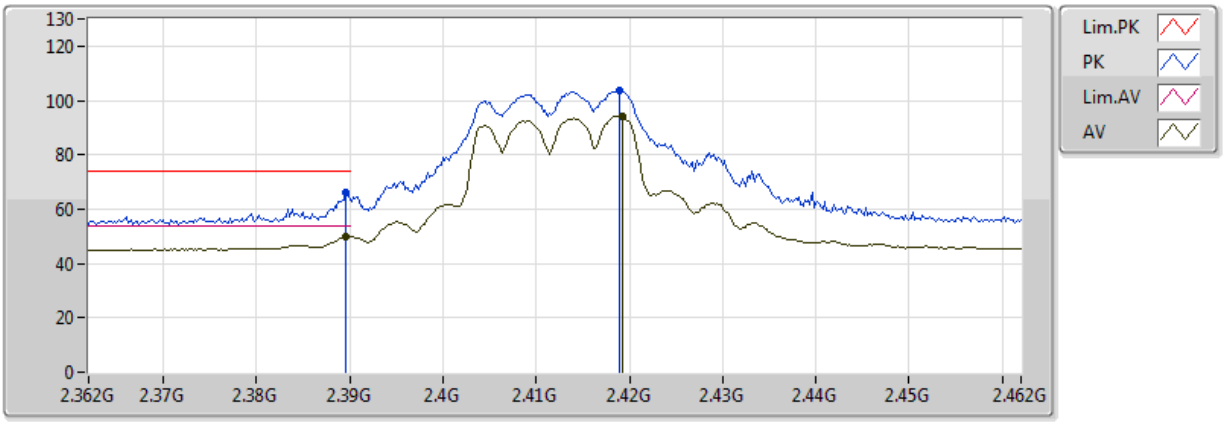


20170525
EUT X_2TX
Setting 15
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	51.56	54.00	-2.44	32.67	3	V	355	1.54	-
AV	2.4146G	95.51	Inf	-Inf	32.69	3	V	355	1.54	-
PK	2.3898G	67.23	74.00	-6.77	32.67	3	V	355	1.54	-
PK	2.4148G	104.99	Inf	-Inf	32.69	3	V	355	1.54	-

802.11g_(6Mbps)_2TX

2412MHz_TX

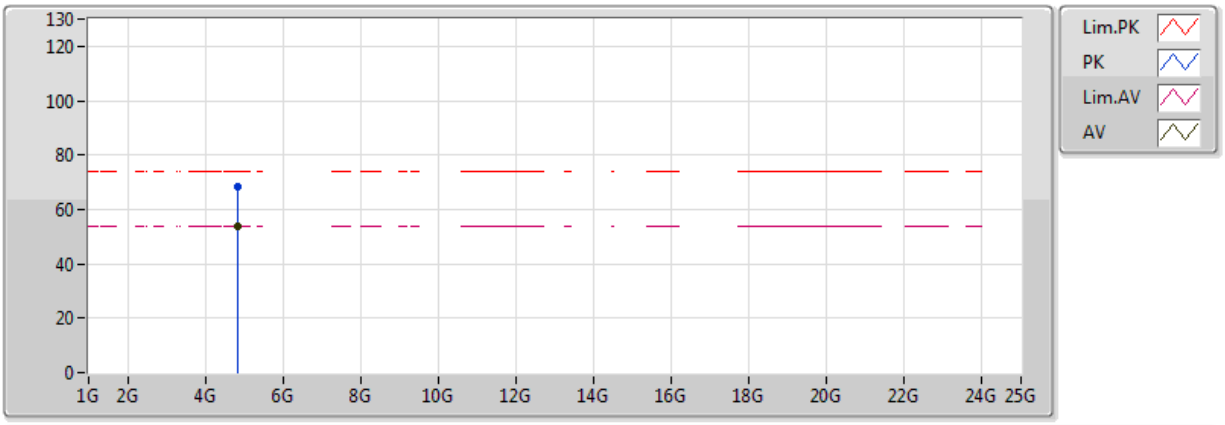


20170525
EUT X_2TX
Setting 15
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	49.78	54.00	-4.22	32.67	3	H	137	1.89	-
AV	2.4192G	94.28	Inf	-Inf	32.69	3	H	137	1.89	-
PK	2.3896G	65.86	74.00	-8.14	32.67	3	H	137	1.89	-
PK	2.419G	103.80	Inf	-Inf	32.69	3	H	137	1.89	-

802.11g_(6Mbps)_2TX

2412MHz_TX

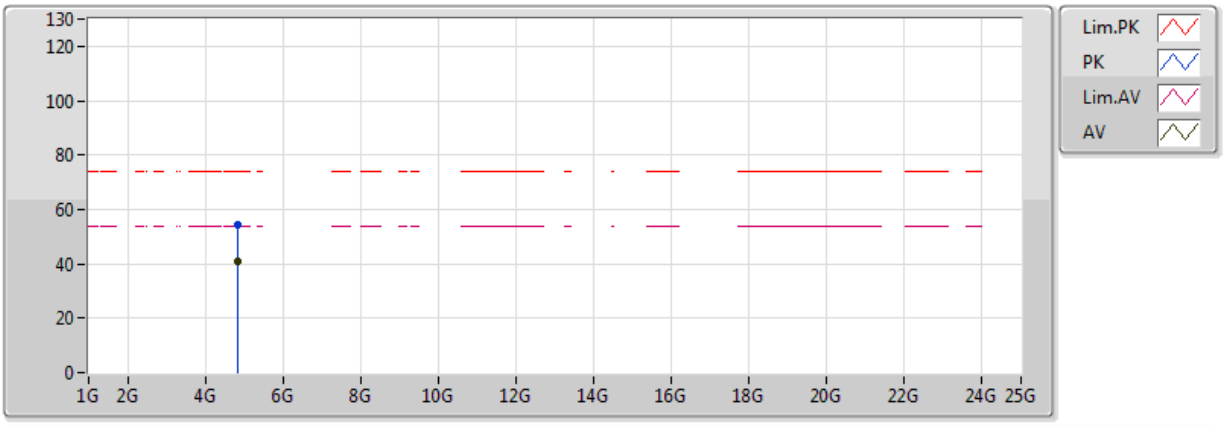


20170525
EUT X_2TX
Setting 15
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82368G	53.59	54.00	-0.41	3.70	3	V	360	1.34	-
PK	4.82348G	68.29	74.00	-5.71	3.70	3	V	360	1.34	-

802.11g_(6Mbps)_2TX

2412MHz_TX

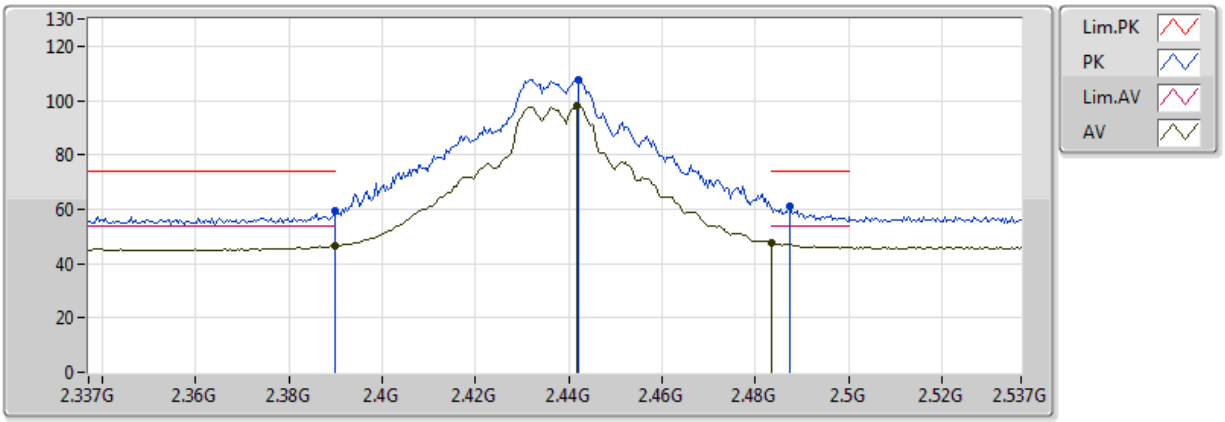


20170525
EUT X_2TX
Setting 15
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82376G	41.10	54.00	-12.90	3.70	3	H	52	1.85	-
PK	4.82424G	54.32	74.00	-19.68	3.70	3	H	52	1.85	-

802.11g_(6Mbps)_2TX

2437MHz_TX

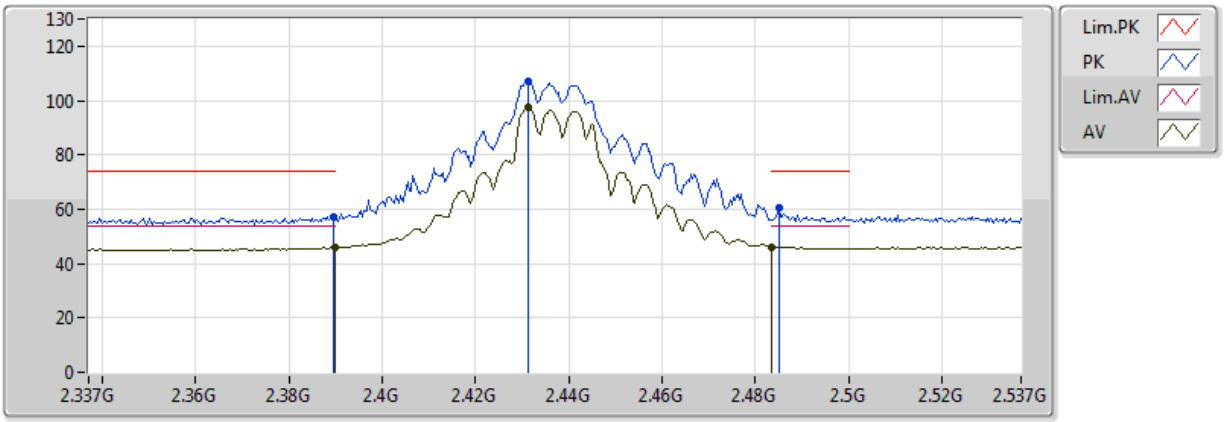


20170525
EUT X_2TX
Setting 17.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	46.58	54.00	-7.42	32.67	3	V	354	1.50	-
AV	2.4418G	97.86	Inf	-Inf	32.72	3	V	354	1.50	-
AV	2.483502G	47.49	54.00	-6.51	32.78	3	V	354	1.50	-
PK	2.389998G	59.43	74.00	-14.57	32.67	3	V	354	1.50	-
PK	2.4422G	107.80	Inf	-Inf	32.72	3	V	354	1.50	-
PK	2.4874G	60.92	74.00	-13.08	32.78	3	V	354	1.50	-

802.11g_(6Mbps)_2TX

2437MHz_TX

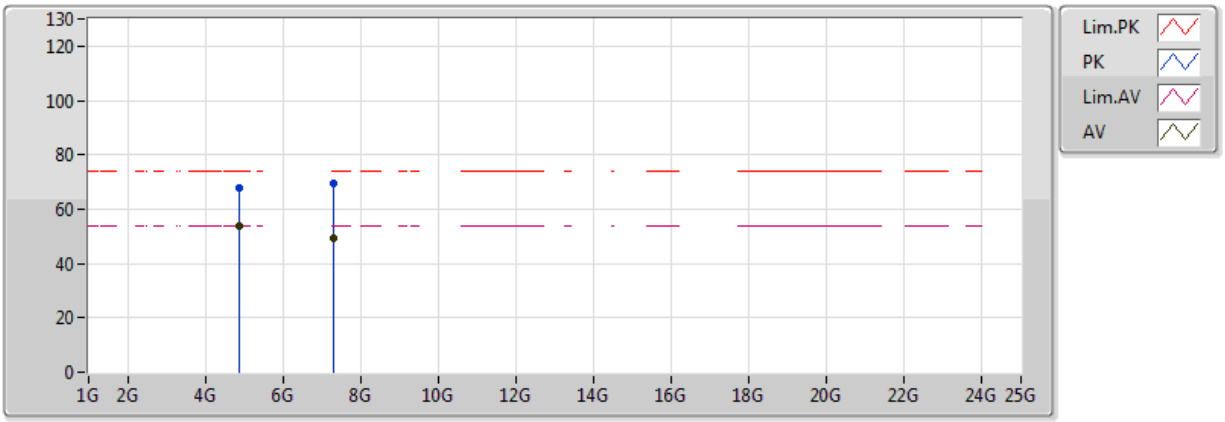


20170525
EUT X_2TX
Setting 17.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	46.00	54.00	-8.00	32.67	3	H	133	1.79	-
AV	2.4314G	97.26	Inf	-Inf	32.71	3	H	133	1.79	-
AV	2.483502G	46.10	54.00	-7.90	32.78	3	H	133	1.79	-
PK	2.3894G	57.17	74.00	-16.83	32.67	3	H	133	1.79	-
PK	2.4314G	107.02	Inf	-Inf	32.71	3	H	133	1.79	-
PK	2.485G	60.24	74.00	-13.76	32.78	3	H	133	1.79	-

802.11g_(6Mbps)_2TX

2437MHz_TX

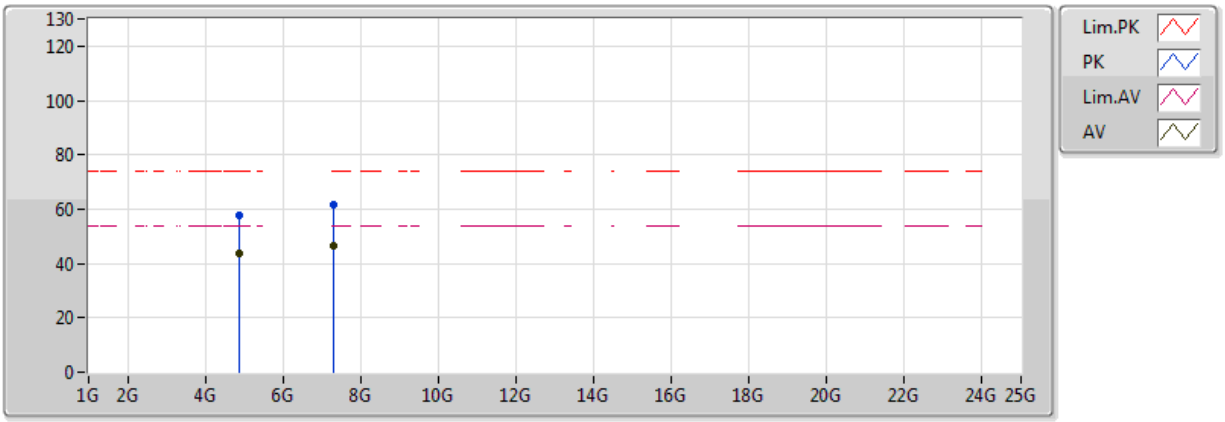


20170525
EUT X_2TX
Setting 17.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87376G	53.78	54.00	-0.22	3.84	3	V	355	1.16	-
AV	7.30504G	49.45	54.00	-4.55	10.33	3	V	78	1.33	-
PK	4.87368G	68.06	74.00	-5.94	3.84	3	V	355	1.16	-
PK	7.30468G	69.52	74.00	-4.48	10.33	3	V	78	1.33	-

802.11g_(6Mbps)_2TX

2437MHz_TX

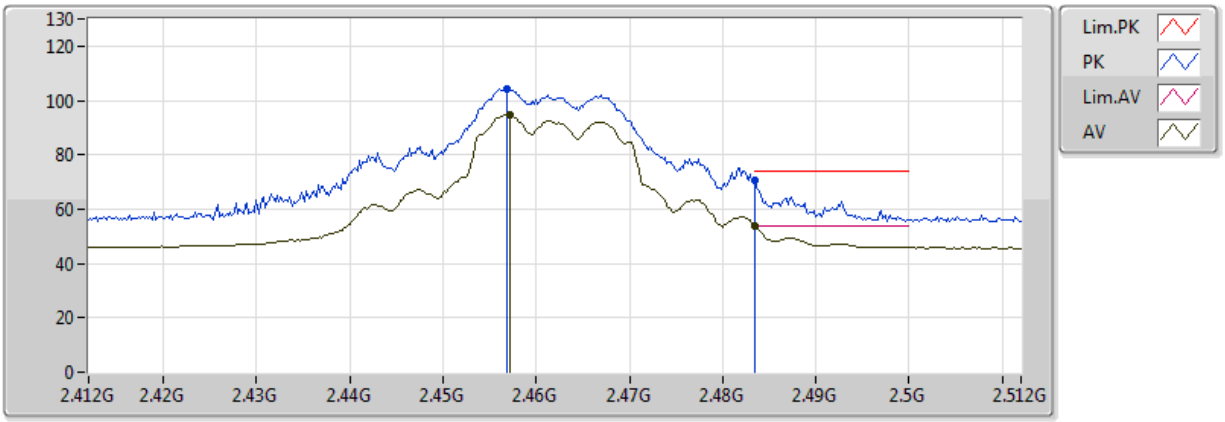


20170525
EUT X_2TX
Setting 17.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87404G	43.92	54.00	-10.08	3.84	3	H	51	1.90	-
AV	7.31084G	46.71	54.00	-7.29	10.34	3	H	62	1.23	-
PK	4.87424G	57.93	74.00	-16.07	3.84	3	H	51	1.90	-
PK	7.30456G	61.45	74.00	-12.55	10.33	3	H	62	1.23	-

802.11g_(6Mbps)_2TX

2462MHz_TX

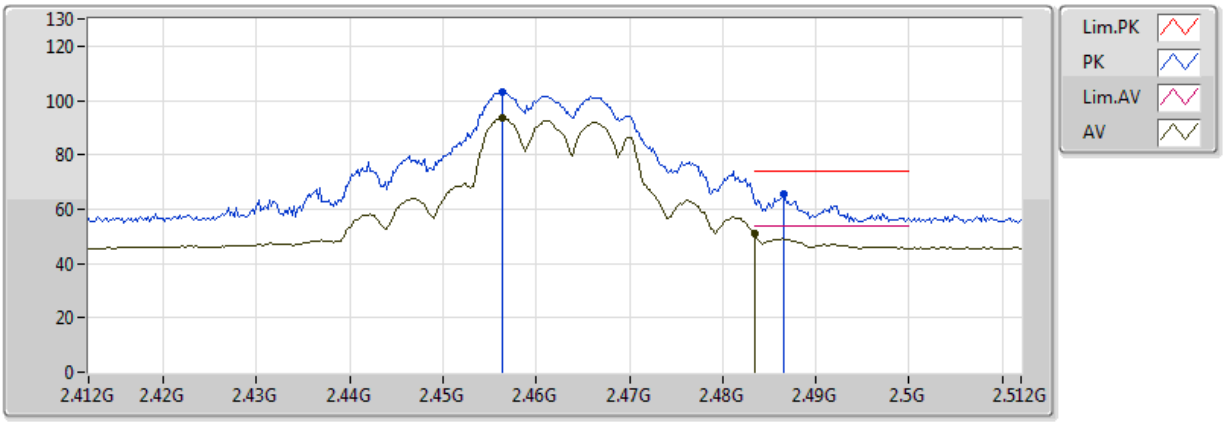


20170525
EUT X_2TX
Setting 14
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4572G	94.77	Inf	-Inf	32.74	3	V	353	1.66	-
AV	2.483502G	53.97	54.00	-0.03	32.78	3	V	353	1.66	-
PK	2.4568G	104.20	Inf	-Inf	32.74	3	V	353	1.66	-
PK	2.483502G	70.34	74.00	-3.66	32.78	3	V	353	1.66	-

802.11g_(6Mbps)_2TX

2462MHz_TX

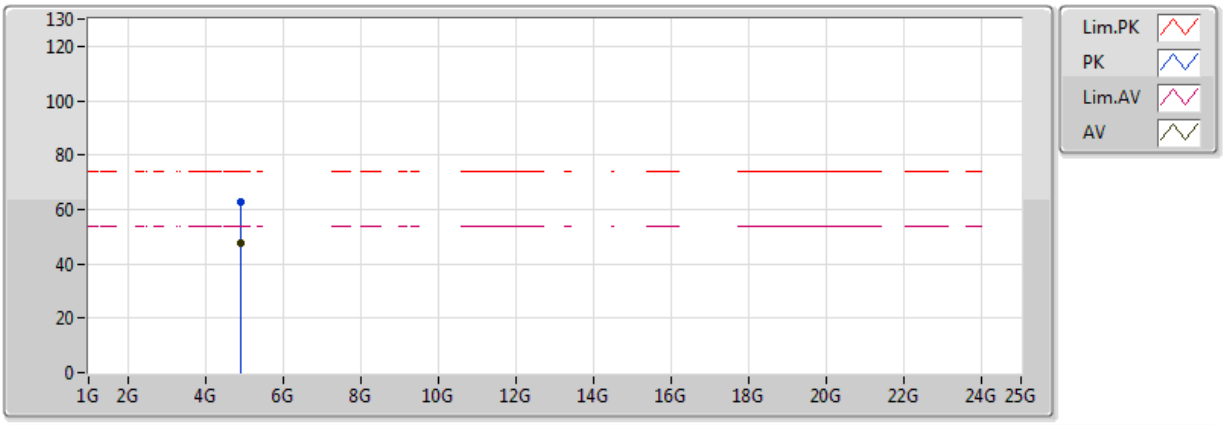


20170525
EUT X_2TX
Setting 14
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4564G	93.38	Inf	-Inf	32.74	3	H	132	1.63	-
AV	2.483502G	51.04	54.00	-2.96	32.78	3	H	132	1.63	-
PK	2.4564G	102.98	Inf	-Inf	32.74	3	H	132	1.63	-
PK	2.4866G	65.59	74.00	-8.41	32.78	3	H	132	1.63	-

802.11g_(6Mbps)_2TX

2462MHz_TX

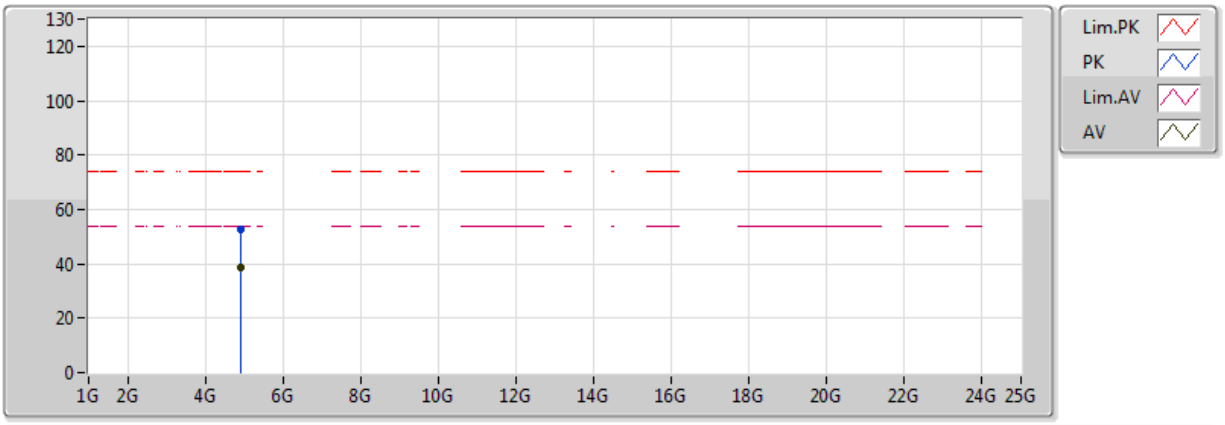


20170525
EUT X_2TX
Setting 14
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92388G	47.58	54.00	-6.42	3.98	3	V	11	2.49	-
PK	4.92358G	62.77	74.00	-11.23	3.98	3	V	11	2.49	-

802.11g_(6Mbps)_2TX

2462MHz_TX

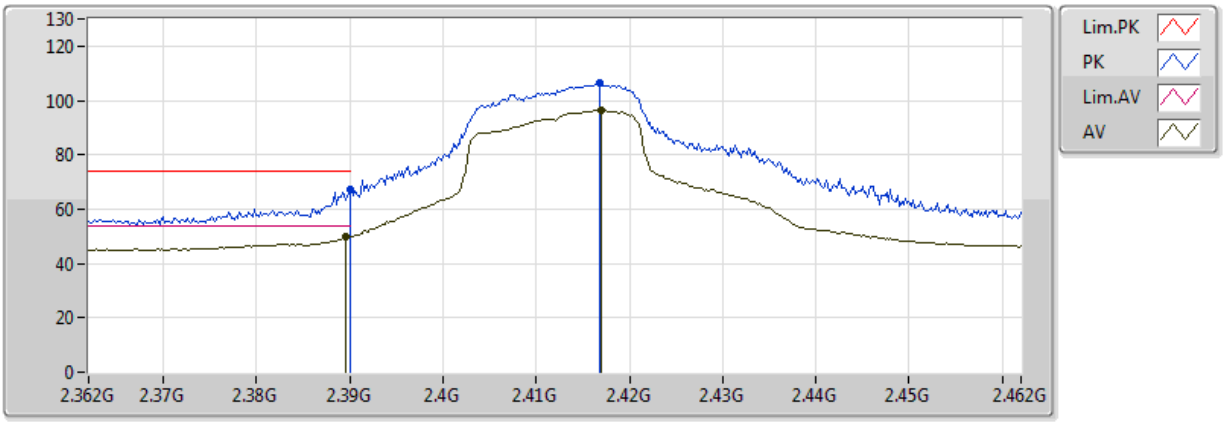


20170525
EUT X_2TX
Setting 14
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.9244G	38.86	54.00	-15.14	3.98	3	H	51	1.54	-
PK	4.91982G	52.61	74.00	-21.39	3.97	3	H	51	1.54	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

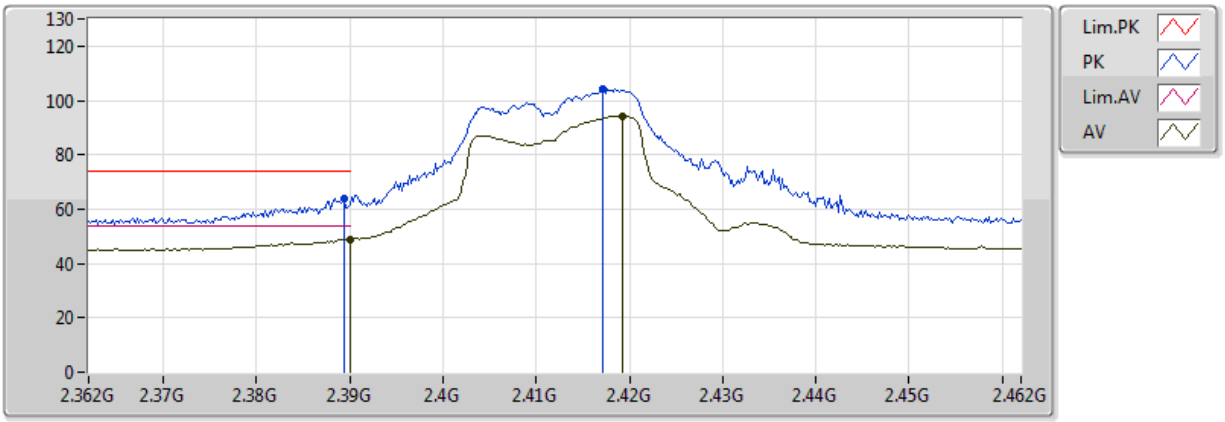


20170525
EUT X_2TX
Setting 16
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	49.66	54.00	-4.34	32.67	3	V	355	1.18	-
AV	2.417G	96.22	Inf	-Inf	32.69	3	V	355	1.18	-
PK	2.39G	67.04	74.00	-6.96	32.67	3	V	355	1.18	-
PK	2.4168G	106.29	Inf	-Inf	32.69	3	V	355	1.18	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

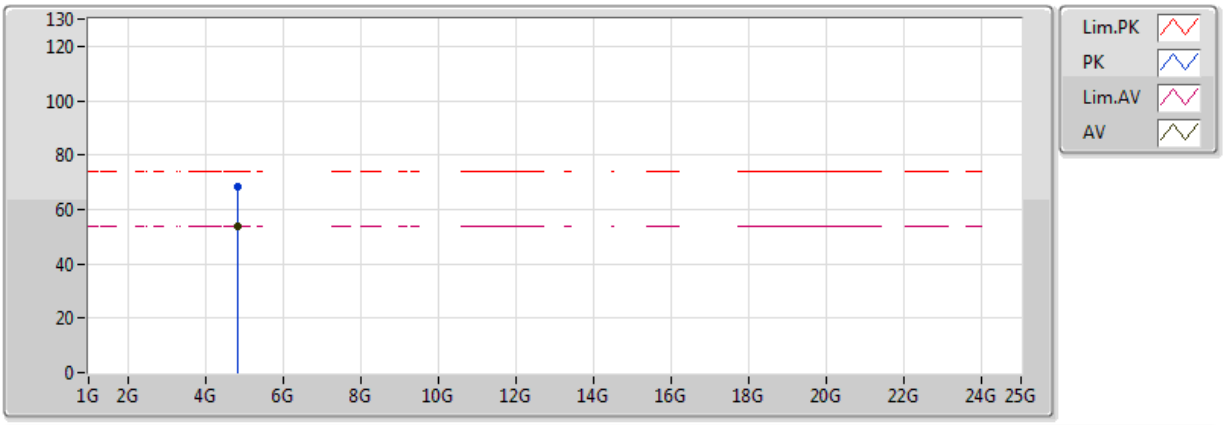


20170525
EUT X_2TX
Setting 16
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.39G	48.91	54.00	-5.09	32.67	3	H	283	1.42	-
AV	2.4192G	94.08	Inf	-Inf	32.69	3	H	283	1.42	-
PK	2.3894G	64.04	74.00	-9.96	32.67	3	H	283	1.42	-
PK	2.4172G	104.10	Inf	-Inf	32.69	3	H	283	1.42	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

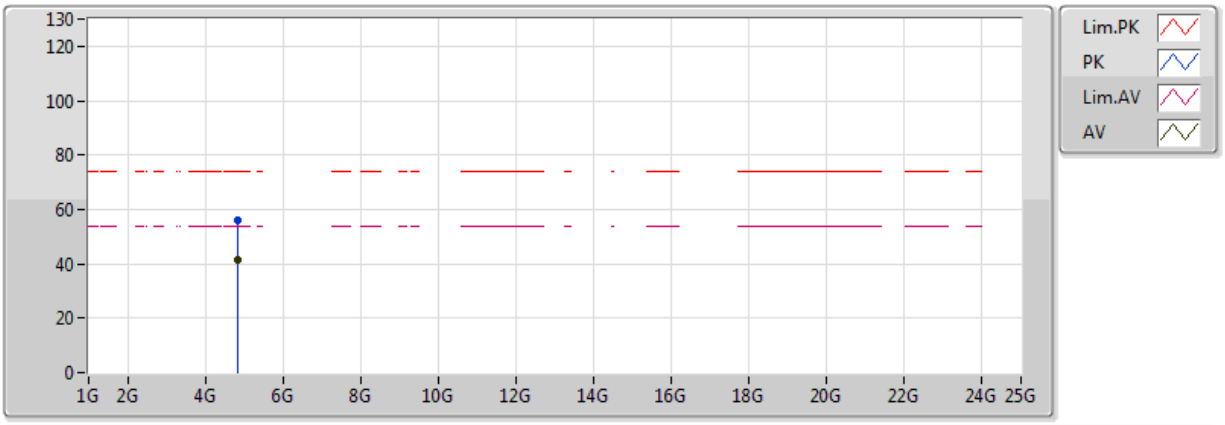


20170525
EUT X_2TX
Setting 16
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.82358G	53.98	54.00	-0.02	3.70	3	V	359	1.33	-
PK	4.82234G	68.19	74.00	-5.81	3.69	3	V	359	1.33	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

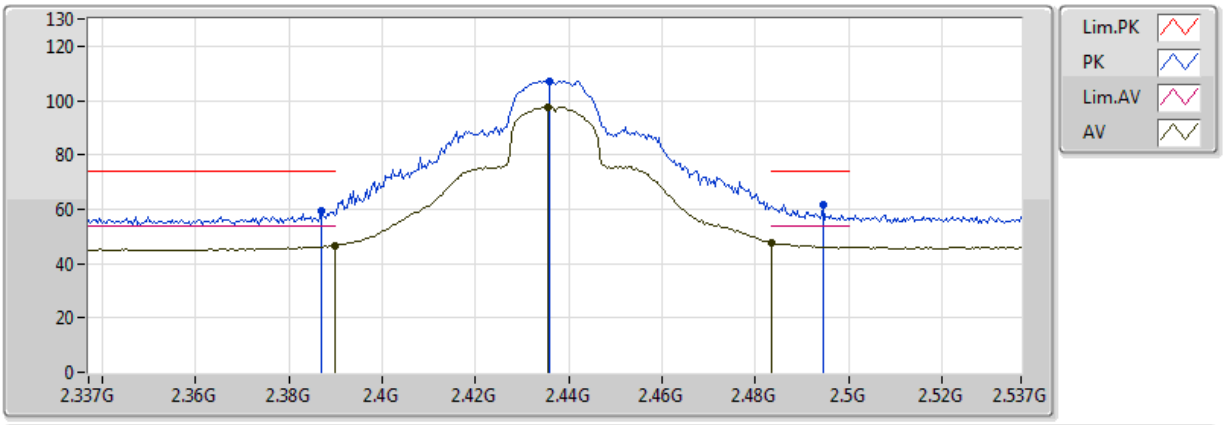


20170525
EUT X_2TX
Setting 16
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8245G	41.69	54.00	-12.31	3.70	3	H	54	1.77	-
PK	4.82406G	56.30	74.00	-17.70	3.70	3	H	54	1.77	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

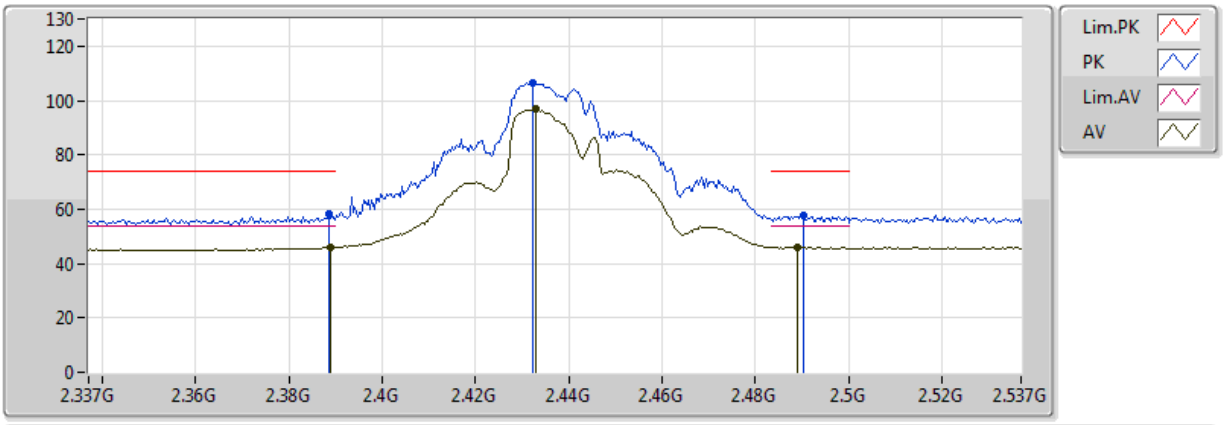


20170525
EUT X_2TX
Setting 18
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	46.62	54.00	-7.38	32.67	3	V	353	1.50	-
AV	2.4354G	97.68	Inf	-Inf	32.72	3	V	353	1.50	-
AV	2.483502G	47.59	54.00	-6.41	32.78	3	V	353	1.50	-
PK	2.387G	59.43	74.00	-14.57	32.67	3	V	353	1.50	-
PK	2.4358G	107.25	Inf	-Inf	32.72	3	V	353	1.50	-
PK	2.4946G	61.90	74.00	-12.10	32.79	3	V	353	1.50	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

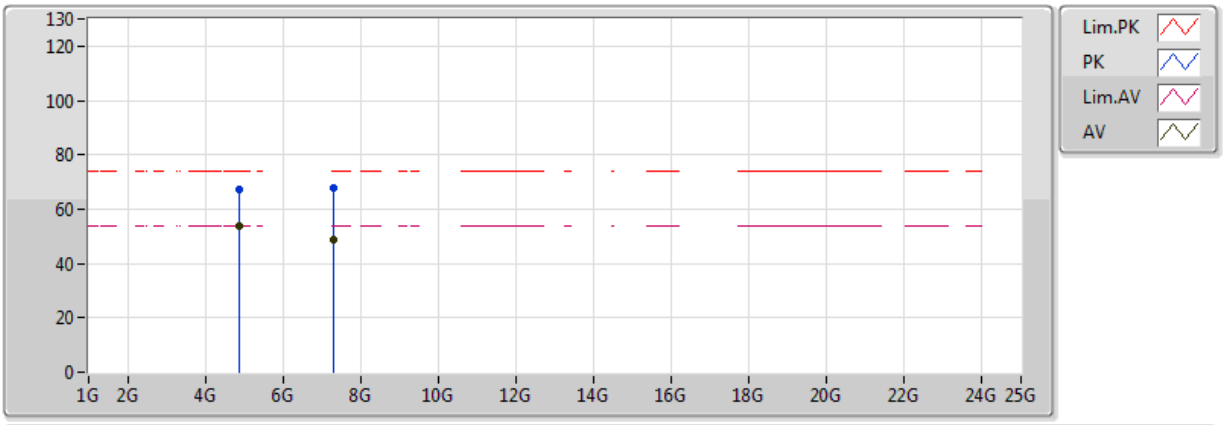


20170525
EUT X_2TX
Setting 18
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389G	45.85	54.00	-8.15	32.67	3	H	133	1.55	-
AV	2.433G	96.67	Inf	-Inf	32.71	3	H	133	1.55	-
AV	2.489G	45.92	54.00	-8.08	32.79	3	H	133	1.55	-
PK	2.3886G	58.49	74.00	-15.51	32.67	3	H	133	1.55	-
PK	2.4322G	106.69	Inf	-Inf	32.71	3	H	133	1.55	-
PK	2.4902G	57.57	74.00	-16.43	32.79	3	H	133	1.55	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

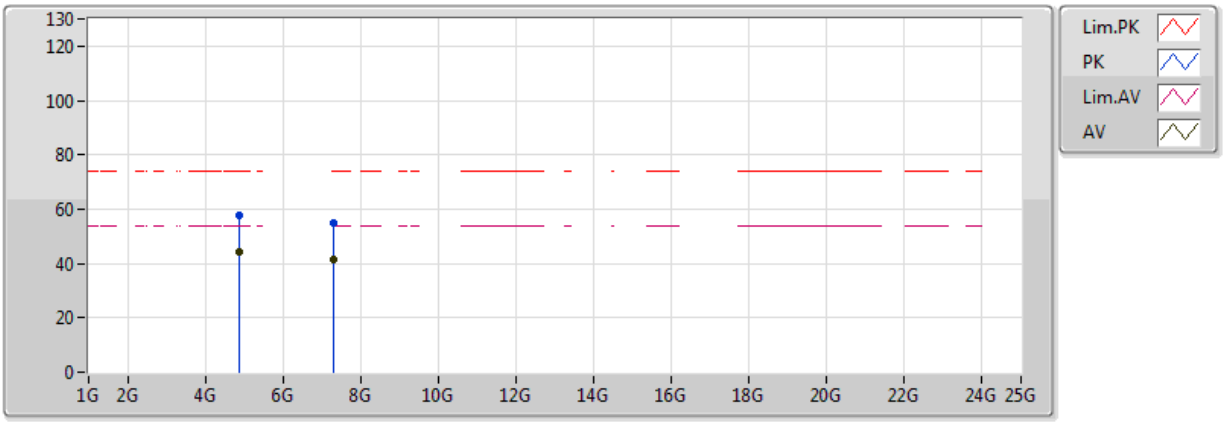


20170525
EUT X_2TX
Setting 18
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87438G	53.71	54.00	-0.29	3.84	3	V	353	1.20	-
AV	7.31018G	48.70	54.00	-5.30	10.33	3	V	72	1.46	-
PK	4.87386G	67.42	74.00	-6.58	3.84	3	V	353	1.20	-
PK	7.30752G	67.70	74.00	-6.30	10.33	3	V	72	1.46	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

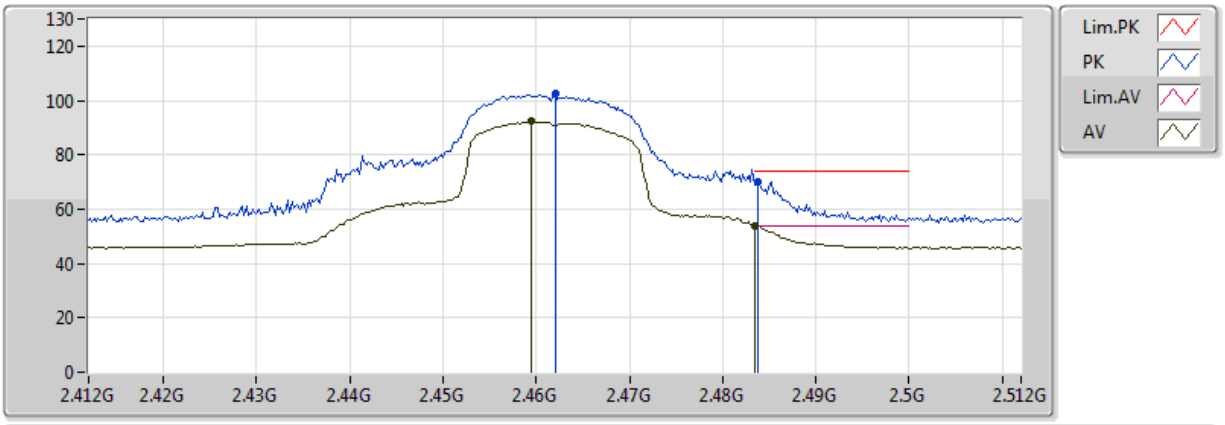


20170525
EUT X_2TX
Setting 18
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.87188G	44.42	54.00	-9.58	3.83	3	H	16	1.05	-
AV	7.30824G	41.60	54.00	-12.40	10.33	3	H	301	2.02	-
PK	4.87436G	57.99	74.00	-16.01	3.84	3	H	16	1.05	-
PK	7.3065G	54.98	74.00	-19.02	10.33	3	H	301	2.02	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

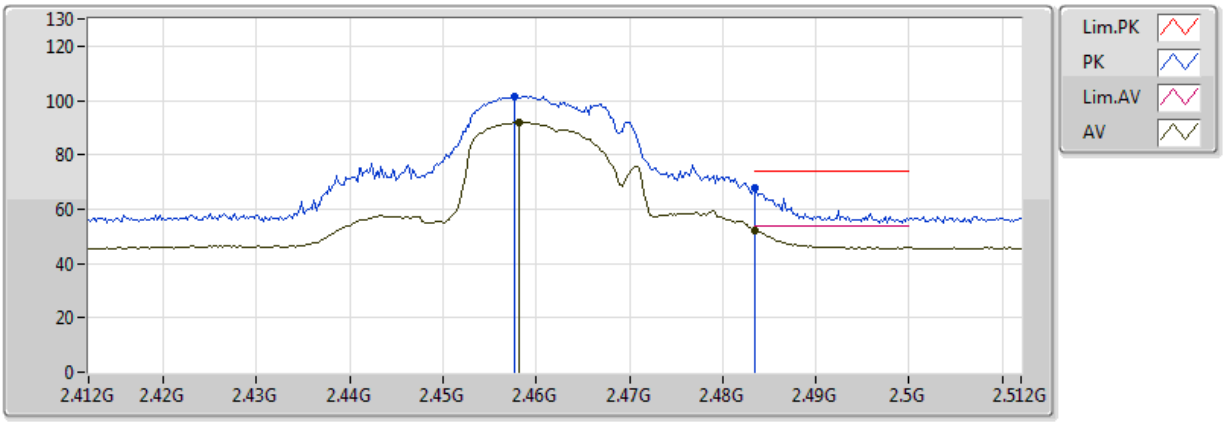


20170525
EUT X_2TX
Setting 13
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4594G	92.28	Inf	-Inf	32.75	3	V	355	1.39	-
AV	2.483502G	53.97	54.00	-0.03	32.78	3	V	355	1.39	-
PK	2.462G	102.35	Inf	-Inf	32.75	3	V	355	1.39	-
PK	2.4838G	70.32	74.00	-3.68	32.78	3	V	355	1.39	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

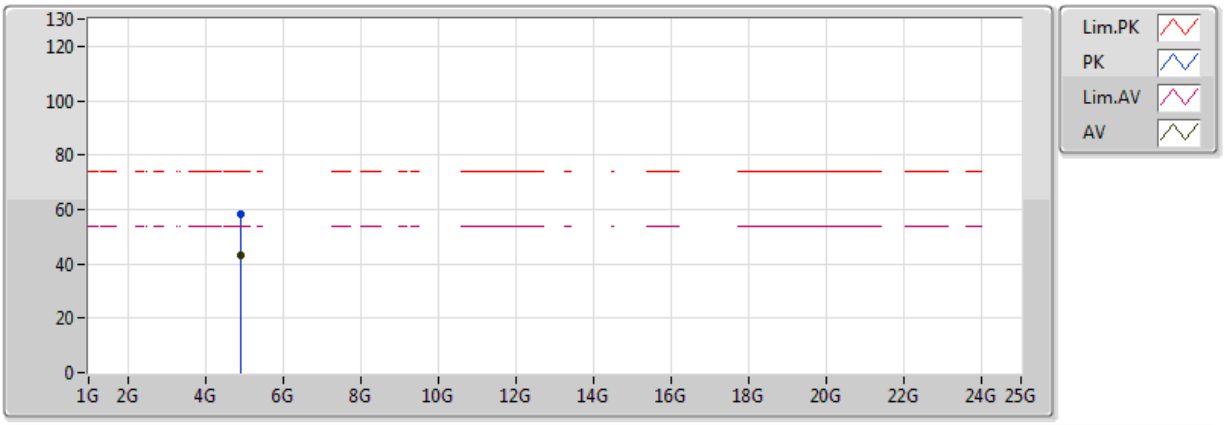


20170525
EUT X_2TX
Setting 13
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4582G	91.88	Inf	-Inf	32.75	3	H	131	1.63	-
AV	2.483502G	52.05	54.00	-1.95	32.78	3	H	131	1.63	-
PK	2.4576G	101.60	Inf	-Inf	32.74	3	H	131	1.63	-
PK	2.483502G	67.53	74.00	-6.47	32.78	3	H	131	1.63	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

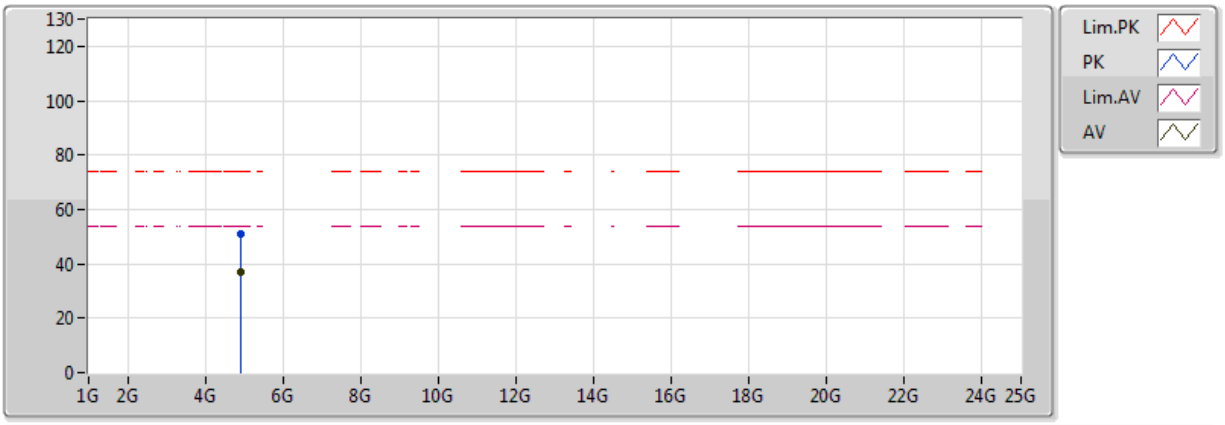


20170525
EUT X_2TX
Setting 13
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.92266G	43.32	54.00	-10.68	3.98	3	V	10	1.37	-
PK	4.92378G	58.44	74.00	-15.56	3.98	3	V	10	1.37	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

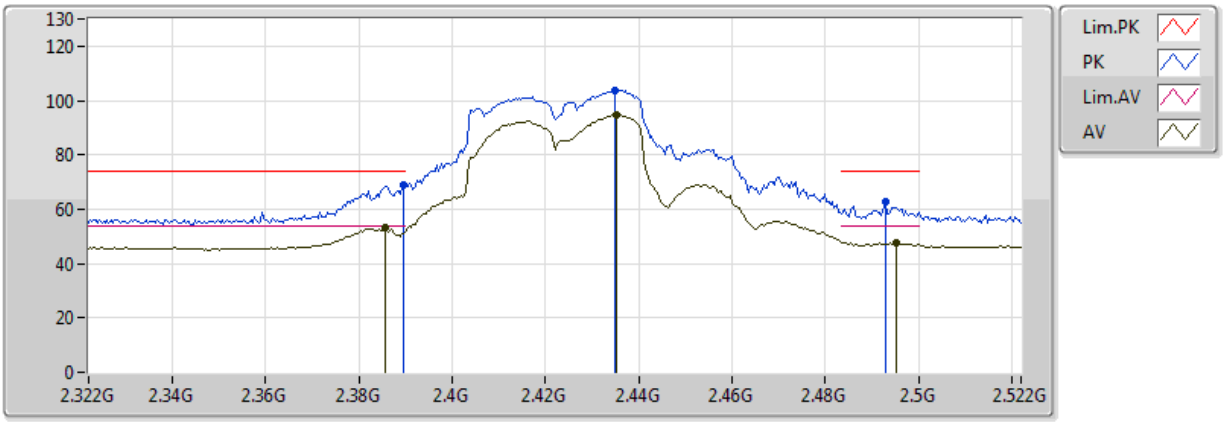


20170525
EUT X_2TX
Setting 13
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.9231G	37.04	54.00	-16.96	3.98	3	H	157	2.22	-
PK	4.92342G	50.82	74.00	-23.18	3.98	3	H	157	2.22	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

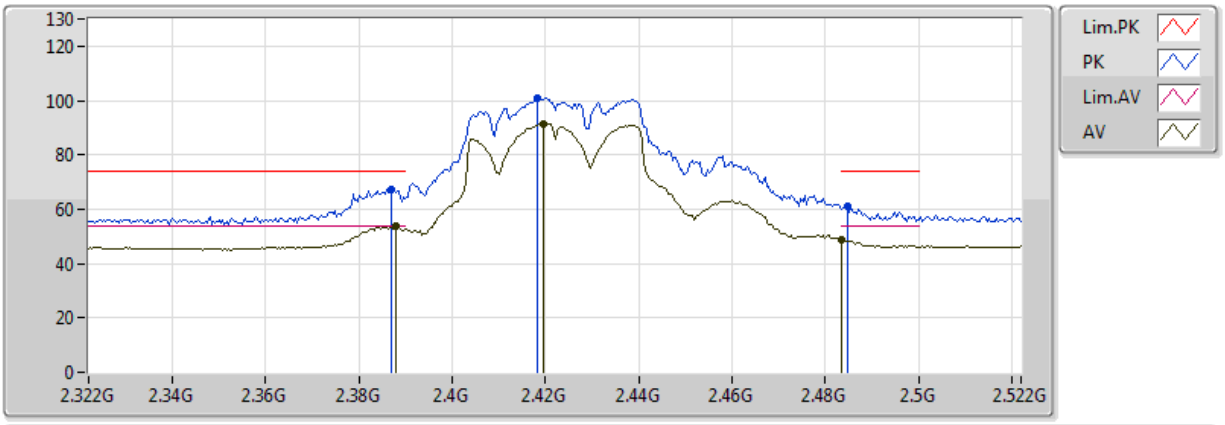


20170525
EUT X_2TX
Setting 15.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3856G	52.99	54.00	-1.01	32.67	3	V	221	1.76	-
AV	2.4352G	94.68	Inf	-Inf	32.72	3	V	221	1.76	-
AV	2.4952G	47.74	54.00	-6.26	32.79	3	V	221	1.76	-
PK	2.3896G	68.88	74.00	-5.12	32.67	3	V	221	1.76	-
PK	2.4348G	103.91	Inf	-Inf	32.72	3	V	221	1.76	-
PK	2.4928G	63.01	74.00	-10.99	32.79	3	V	221	1.76	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

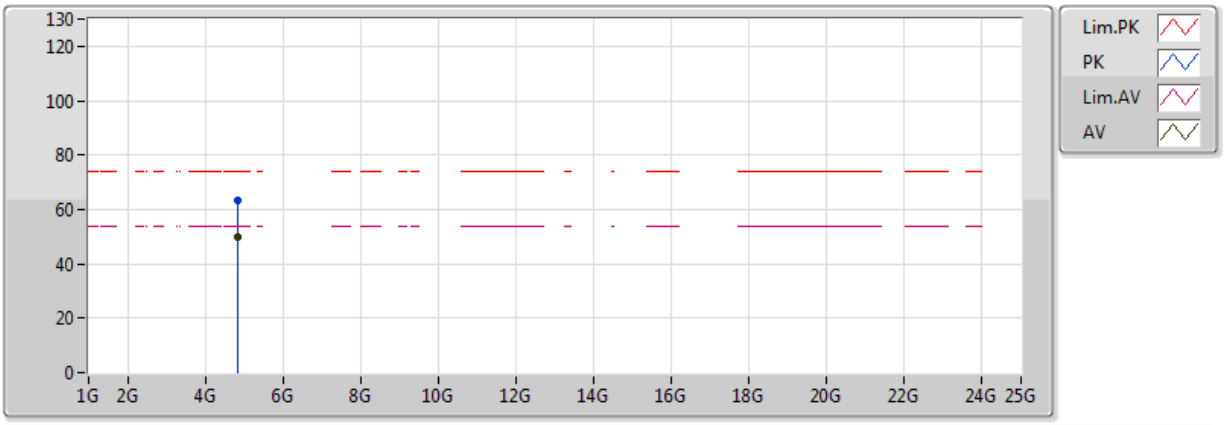


20170525
EUT X_2TX
Setting 15.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.388G	53.78	54.00	-0.22	32.67	3	H	221	1.41	-
AV	2.4196G	91.35	Inf	-Inf	32.70	3	H	221	1.41	-
AV	2.4836G	48.49	54.00	-5.51	32.78	3	H	221	1.41	-
PK	2.3868G	67.51	74.00	-6.49	32.67	3	H	221	1.41	-
PK	2.4184G	101.03	Inf	-Inf	32.69	3	H	221	1.41	-
PK	2.4848G	61.02	74.00	-12.98	32.78	3	H	221	1.41	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

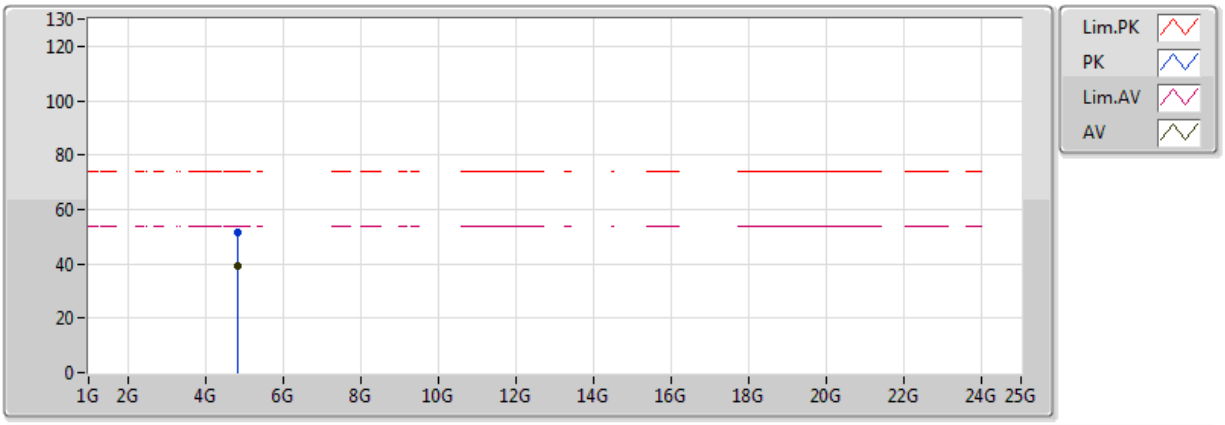


20170525
EUT X_2TX
Setting 15.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.84296G	50.09	54.00	-3.91	3.75	3	V	357	1.00	-
PK	4.8429G	63.58	74.00	-10.42	3.75	3	V	357	1.00	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

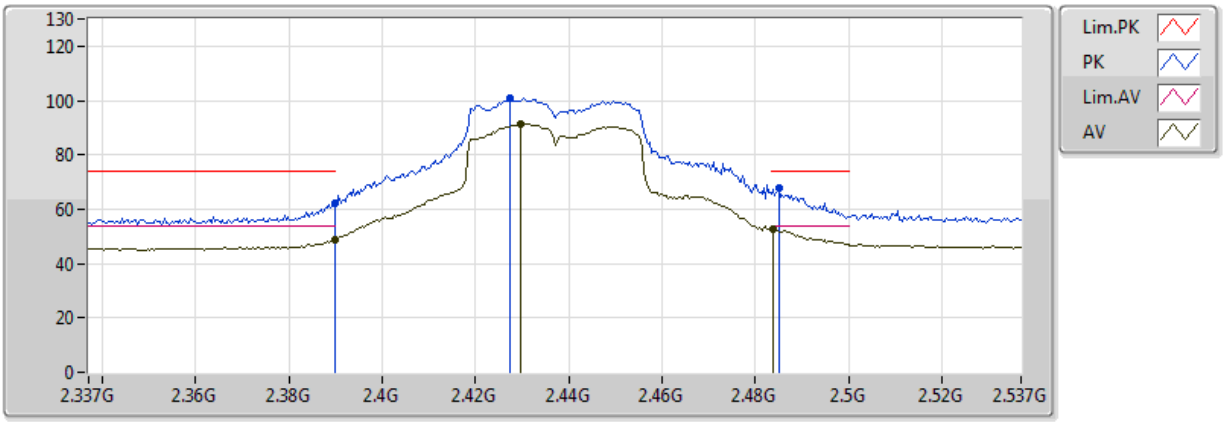


20170525
EUT X_2TX
Setting 15.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8443G	39.08	54.00	-14.92	3.75	3	H	6	1.40	-
PK	4.84374G	51.80	74.00	-22.20	3.75	3	H	6	1.40	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

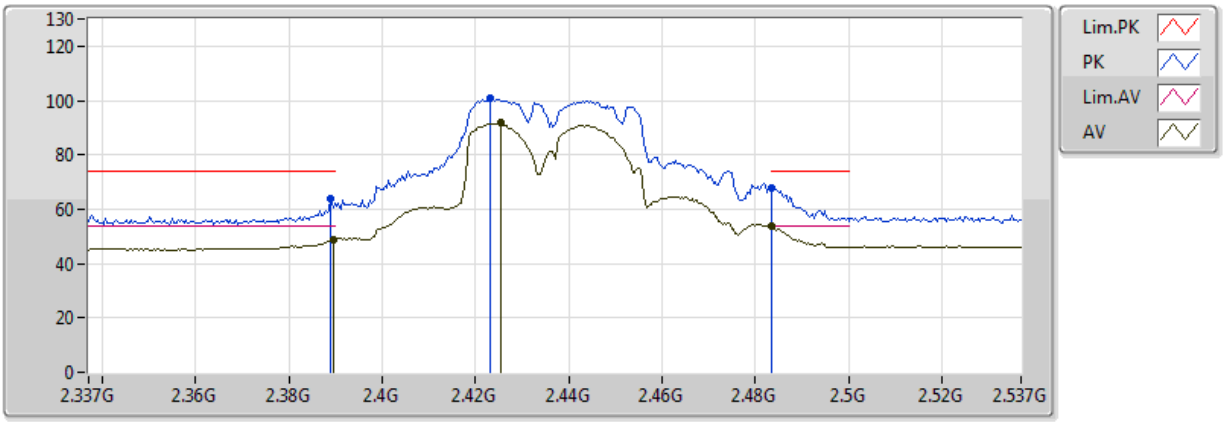


20170525
EUT X_2TX
Setting 13
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389998G	49.03	54.00	-4.97	32.67	3	V	354	1.14	-
AV	2.4298G	91.39	Inf	-Inf	32.71	3	V	354	1.14	-
AV	2.4838G	52.48	54.00	-1.52	32.78	3	V	354	1.14	-
PK	2.389998G	62.33	74.00	-11.67	32.67	3	V	354	1.14	-
PK	2.4274G	100.98	Inf	-Inf	32.71	3	V	354	1.14	-
PK	2.485G	67.56	74.00	-6.44	32.78	3	V	354	1.14	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

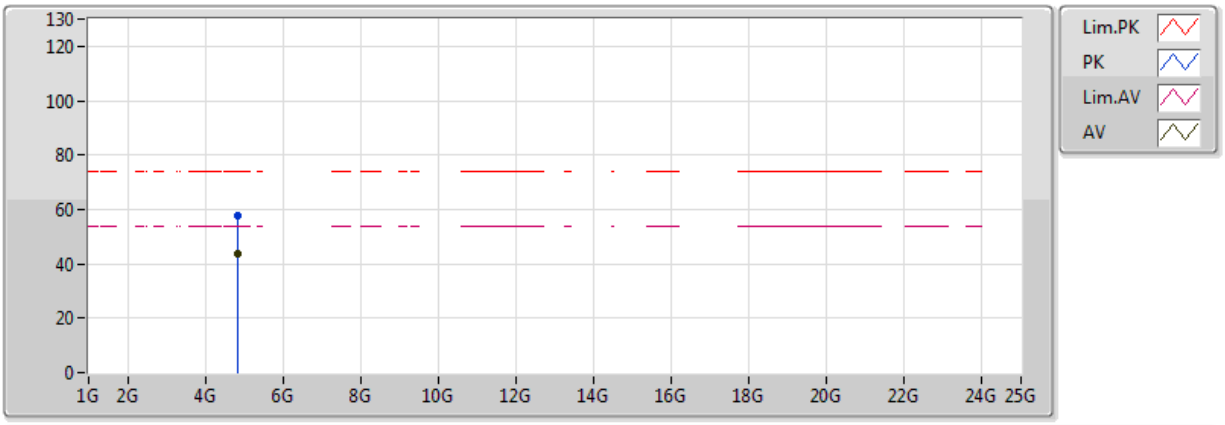


20170525
EUT X_2TX
Setting 13
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3894G	48.59	54.00	-5.41	32.67	3	H	131	1.74	-
AV	2.4254G	91.64	Inf	-Inf	32.70	3	H	131	1.74	-
AV	2.483502G	53.67	54.00	-0.33	32.78	3	H	131	1.74	-
PK	2.389G	63.90	74.00	-10.10	32.67	3	H	131	1.74	-
PK	2.423G	100.82	Inf	-Inf	32.70	3	H	131	1.74	-
PK	2.483502G	68.00	74.00	-6.00	32.78	3	H	131	1.74	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

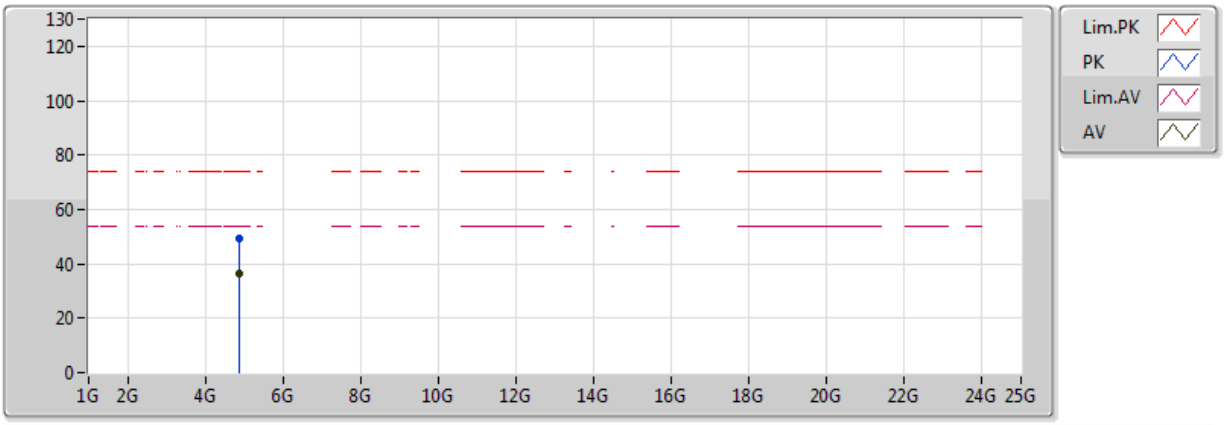


20170525
EUT X_2TX
Setting 13
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.85492G	43.93	54.00	-10.07	3.78	3	V	0	1.12	-
PK	4.85508G	57.71	74.00	-16.29	3.78	3	V	0	1.12	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

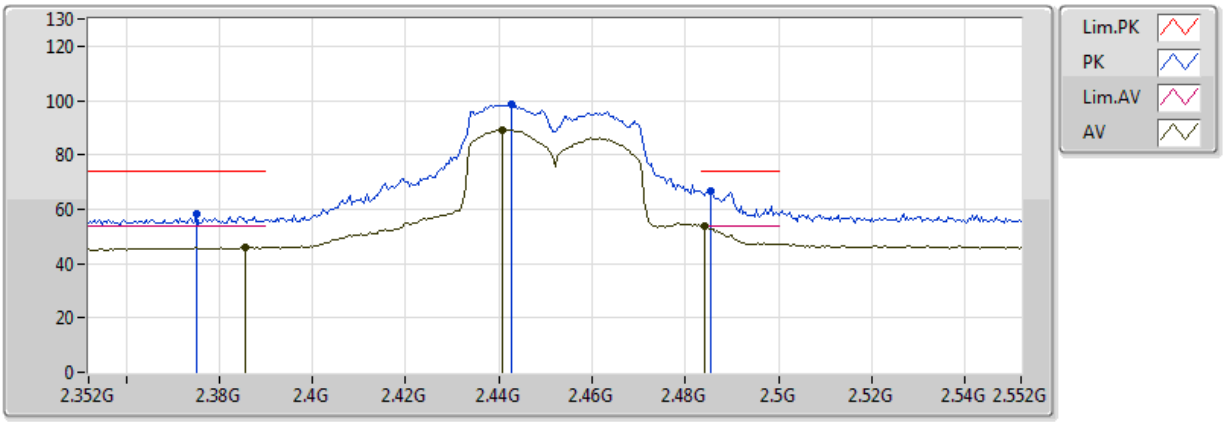


20170525
EUT X_2TX
Setting 13
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.8728G	36.26	54.00	-17.74	3.83	3	H	15	2.02	-
PK	4.8744G	49.19	74.00	-24.81	3.84	3	H	15	2.02	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

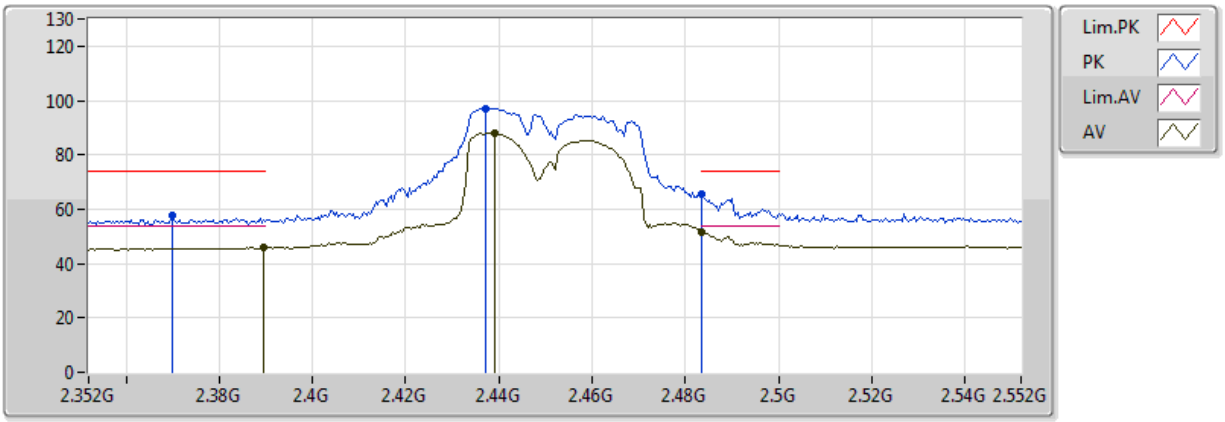


20170525
EUT X_2TX
Setting 9.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3856G	46.13	54.00	-7.87	32.67	3	V	354	1.50	-
AV	2.4408G	89.23	Inf	-Inf	32.72	3	V	354	1.50	-
AV	2.484G	53.74	54.00	-0.26	32.78	3	V	354	1.50	-
PK	2.3752G	58.04	74.00	-15.96	32.66	3	V	354	1.50	-
PK	2.4428G	98.40	Inf	-Inf	32.73	3	V	354	1.50	-
PK	2.4856G	66.48	74.00	-7.52	32.78	3	V	354	1.50	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

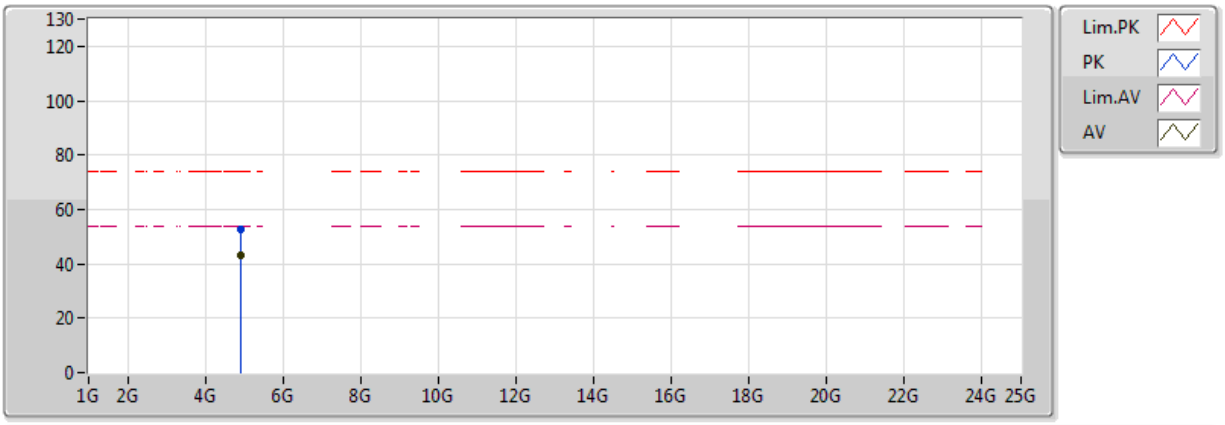


20170525
EUT X_2TX
Setting 9.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3896G	45.78	54.00	-8.22	32.67	3	H	133	1.71	-
AV	2.4392G	88.06	Inf	-Inf	32.72	3	H	133	1.71	-
AV	2.4836G	51.68	54.00	-2.32	32.78	3	H	133	1.71	-
PK	2.37G	57.66	74.00	-16.34	32.66	3	H	133	1.71	-
PK	2.4372G	97.21	Inf	-Inf	32.72	3	H	133	1.71	-
PK	2.4836G	65.62	74.00	-8.38	32.78	3	H	133	1.71	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

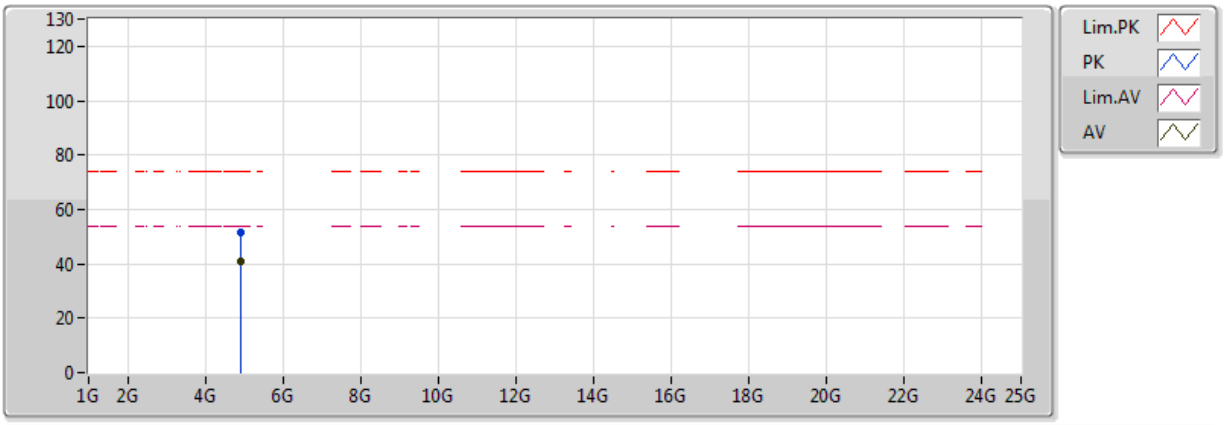


20170525
EUT X_2TX
Setting 9.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.90216G	42.96	54.00	-11.04	3.92	3	V	173	1.76	-
PK	4.90344G	52.49	74.00	-21.51	3.92	3	V	173	1.76	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX



20170525
EUT X_2TX
Setting 9.5
04-J-6
FSP(100142)

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.90516G	41.07	54.00	-12.93	3.92	3	H	173	2.46	-
PK	4.9048G	51.43	74.00	-22.57	3.92	3	H	173	2.46	-