

FCC Test Report

Equipment : 802.11abgn Bluetooth Mini PCIe module
Brand Name : Fukuda Denshi
Model No. : WPEA-251N(BT)
FCC ID : RFH-DS101WIFI
Standard : 47 CFR FCC Part 15.247
RF Specification : Wi-Fi
Frequency : 2400 MHz – 2483.5 MHz
FCC Classification : DTS
Applicant : IEI Integration Corp.
No. 29, Chung-Hsing Rd., Sijhih City,
New Taipei City 221, Taiwan (R.O.C.)
Manufacturer : SparkLAN Communications, Inc.
8F., No. 257, Sec. 2, Tiding Blvd., Neihu District,
Taipei 11493, Taiwan

The product sample received on Jan. 06, 2017 and completely tested on Jan. 21, 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.

Reviewed by:


Phoenix Chen / Assistant Manager

Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Testing Applied Standards	6
1.3	Testing Location Information	7
1.4	Measurement Uncertainty	7
2	TEST CONFIGURATION OF EUT.....	8
2.1	Test Condition	8
2.2	Test Channel Mode	8
2.3	The Worst Case Measurement Configuration.....	9
2.4	Support Equipment.....	10
2.5	Test Setup Diagram	11
3	TRANSMITTER TEST RESULT	12
3.1	AC Power-line Conducted Emissions	12
3.2	DTS Bandwidth.....	13
3.3	Fundamental Emission Output Power.....	14
3.4	Power Spectral Density	16
3.5	Emissions in Non-restricted Frequency Bands	18
3.6	Emissions in Restricted Frequency Bands.....	19
4	TEST EQUIPMENT AND CALIBRATION DATA	23
APPENDIX A. TEST RESULT OF AC POWER-LINE CONDUCTED EMISSIONS		
APPENDIX B. TEST RESULT OF EMISSION BANDWIDTH		
APPENDIX C. TEST RESULT OF MAXIMUM CONDUCTED OUTPUT POWER		
APPENDIX D. TEST RESULT OF POWER SPECTRAL DENSITY		
APPENDIX E. TEST RESULT OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS		
APPENDIX F. TEST RESULT OF EMISSIONS IN RESTRICTED FREQUENCY BANDS		
APPENDIX G. TEST PHOTOS		
PHOTOGRAPHS OF EUT v01		

Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
1.1.3	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)	Fundamental Emission 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: > 20 dBc	Complied
3.6	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied



SPORTON INTERNATIONAL INC.
TEL : 886-3-327-3456
FAX : 886-3-327-0973

1 General Description

1.1 Information

1.1.1 Product Details

The difference between the report no. : N/A	
The Difference	N/A

Evaluated Test Items	N/A
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1.1.2 RF General Information

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.

1.1.3 Antenna Information

Antenna Category	
☒	Integral antenna (antenna permanently attached)
☒	Temporary RF connector provided
☐	No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path.
☐	External antenna (dedicated antennas)
☐	Single power level with corresponding antenna(s).
☐	Multiple power level and corresponding antenna(s).

Antenna General Information			
No.	Ant. Cat.	Ant. Type	Gain (dBi)
1	Integral	PIFA	2
2	Integral	PIFA	2

1.1.4 Type of EUT

Identify EUT	
EUT Serial Number	N/A
HW Version	v1.0
SW Version	v1.0
Presentation of Equipment	☐ Production ; ☒ Pre-Production ; ☐ Prototype
Type of EUT	
☐	Stand-alone
☐	Combined (EUT where the radio part is fully integrated within another device) Combined Equipment - Brand Name / Model No.: ...
☒	Plug-in radio (EUT intended for a variety of host systems) Host System - Brand Name / Model No.: Fukuda Denshi / DS-101
☐	Other:

1.1.5 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	1	0	n/a (DC≥0.98)	n/a (DC≥0.98)
802.11g	0.99	0.044	n/a (DC≥0.98)	n/a (DC≥0.98)
802.11n HT20	0.99	0.044	n/a (DC≥0.98)	n/a (DC≥0.98)
802.11n HT40	0.98	0.088	n/a (DC≥0.98)	n/a (DC≥0.98)

1.1.6 EUT Operational Condition

Supply Voltage	☒ AC mains	☐ DC	
Type of DC Source	☒ External AC Adapter	☐ From Host System	☐ Battery

1.1.7 EUT Operate Information

Items	Description			
Beamforming Function	☐	With beamforming	☒	Without beamforming
Operate Condition	☒	Point-to-multipoint (P2M)	☐	Point-to-point (P2P)

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
- ♦ ANSI C63.4-2014
- ♦ KDB 558074 D01 v04
- ♦ KDB 662911 D01 v02r01

1.3 Testing Location Information

Testing Location				
☒	HWA YA	ADD :	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.	
		TEL :	886-3-327-3456	FAX : 886-3-327-6973
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Ryan	22.2°C / 51.8%	20/Jan/2017
RF Conducted	TH06-HY	Lisa	23.8°C / 64.5%	19/Jan/2017
Radiated	03CH09-HY	Terry	22.2°C / 51.8%	21/Jan/2017

Test site registered number [553509] with FCC.

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))

Measurement Uncertainty		
Test Item		Uncertainty
AC power-line conducted emissions		±2.3 dB
Emission bandwidth, 6dB bandwidth		±0.6 %
RF output power, conducted		±0.1 dB
Power density, conducted		±0.6 dB
Unwanted emissions, conducted	9 – 150 kHz	±0.4 dB
	0.15 – 30 MHz	±0.4 dB
	30 – 1000 MHz	±0.6 dB
	1 – 18 GHz	±0.5 dB
	18 – 40 GHz	±0.5 dB
	40 – 200 GHz	N/A
All emissions, radiated	9 – 150 kHz	±2.5 dB
	0.15 – 30 MHz	±2.3 dB
	30 – 1000 MHz	±2.6 dB
	1 – 18 GHz	±3.6 dB
	18 – 40 GHz	±3.8 dB
	40 – 200 GHz	N/A
Temperature		±0.8 °C
Humidity		±5 %
DC and low frequency voltages		±0.9%
Time		±1.4 %
Duty Cycle		±0.6 %

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Test Software Version	ART-GUI 2.3
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Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	17
2437MHz	17
2462MHz	16
802.11g_(6Mbps)_2TX	-
2412MHz	12
2437MHz	22.5
2462MHz	13
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	12
2437MHz	21.5
2462MHz	12.5
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	8.5
2437MHz	12
2452MHz	10.5

2.3 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 Test Voltage: 120Vac / 60Hz
Operating Mode	Operating Mode Description
1	Adapter Mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth, Fundamental Emission 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.		
User Position	☐ EUT will be placed in fixed position.		
	☒ EUT will be placed in mobile position and operating multiple positions.		
	☐ EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions.		
Operating Mode < 1GHz	☒ 1. Adapter Mode		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V	

2.4 Support Equipment

Support Equipment - RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Patient Monitor	IEI	DS-101	-
2	AC adapter for Patient Monitor	-	EM10683G	-

Note: Support equipment No.1 and No.2 were provided by customer.

Support Equipment - AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Patient Monitor	IEI	DS-101	-
2	AC adapter for Patient Monitor	-	EM10683G	-
3	Mouse	Microsoft	1004	R33057
4	iPod	APPLE	A1051	DoC
5	Wireless AP (Remote)	BUFFALO	WHR-HP-G54	DoC
6	BLUETOOTH HEADSET (Remote)	Sony Ericsson	Z354 (HBH-PV702)	PY7DDA-2006

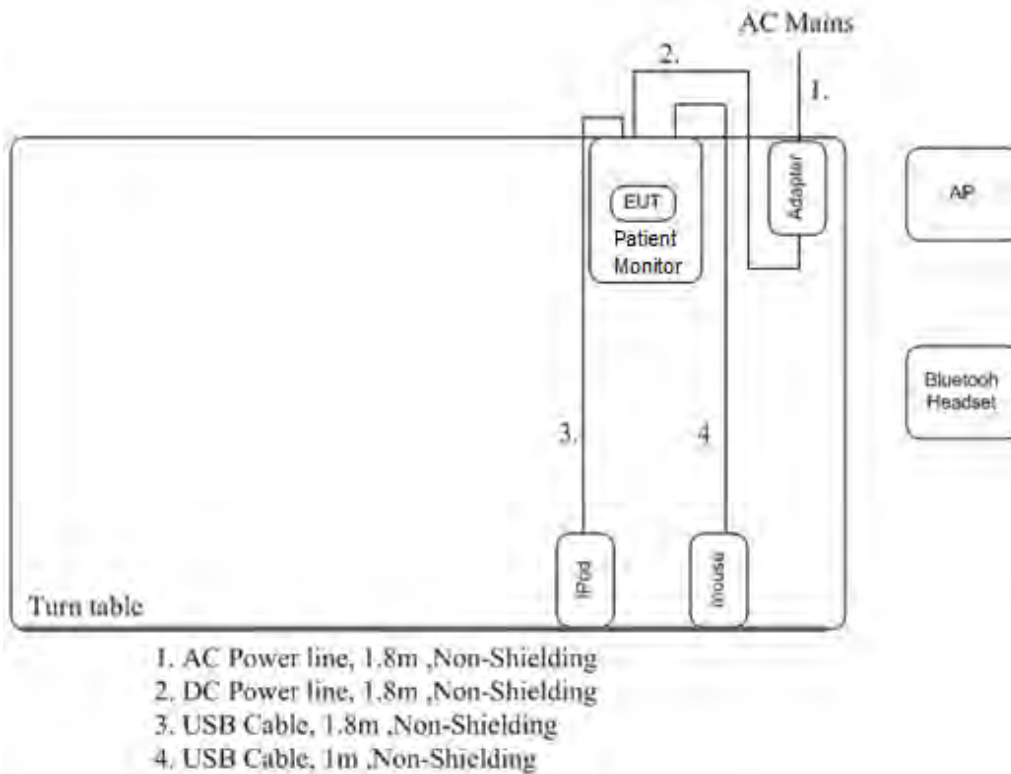
Note: Support equipment No.1 and No.2 were provided by customer.

Support Equipment - Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Patient Monitor	IEI	DS-101	-
2	AC adapter for Patient Monitor	-	EM10683G	-

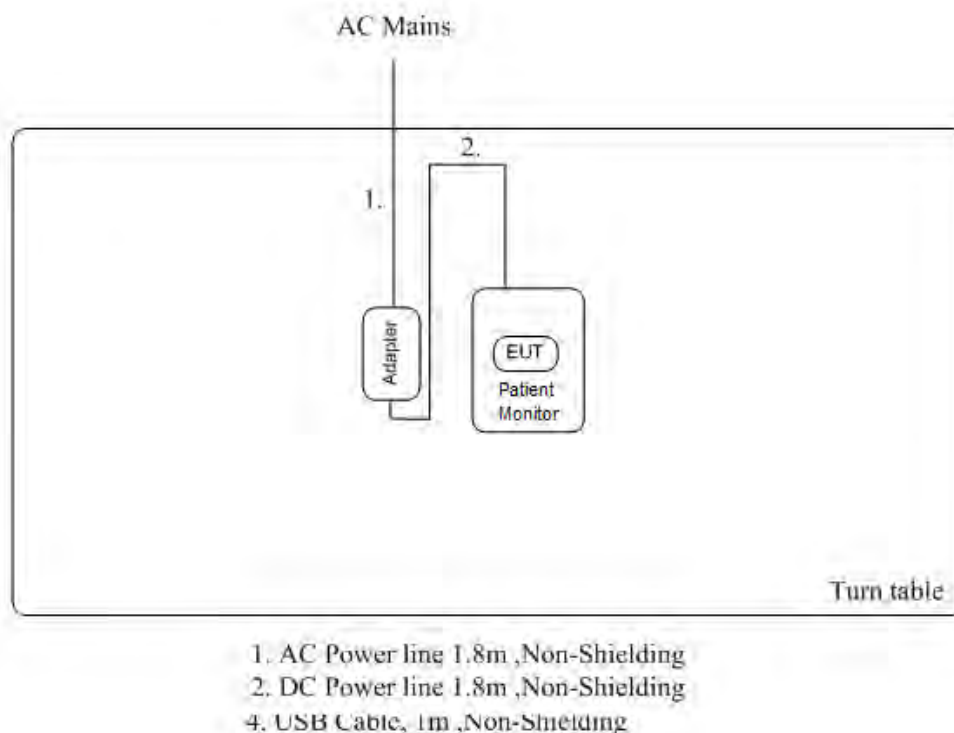
Note: Support equipment No.1 and No.2 were provided by customer.

2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Test Setup Diagram - Radiated Test



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

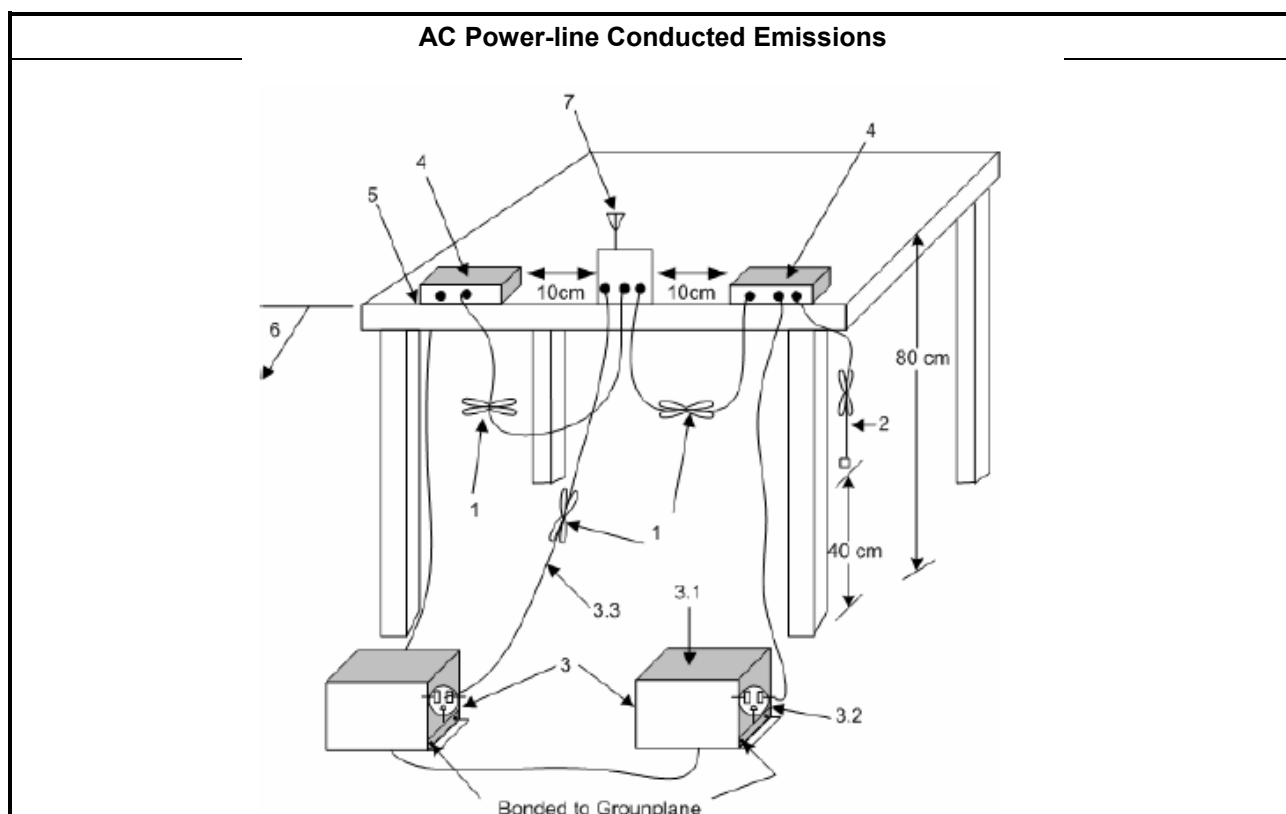
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

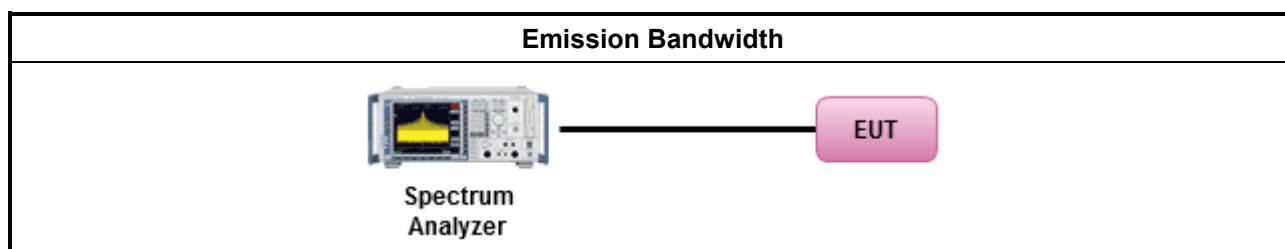
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪	For the emission bandwidth shall be measured using one of the options below:
☒	Refer as KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
☐	Refer as KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Fundamental Emission Output Power

3.3.1 Fundamental Emission Output Power Limit

Maximum Peak Conducted Output Power or Maximum Conducted Output Power Limit		
2400-2483.5 MHz Band:		
	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
e.i.r.p. Power Limit:		
2400-2483.5 MHz Band		
	Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)	
	Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm	
	Smart antenna system (SAS)	
	-	Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	-	Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	-	Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi. P_{eirp} = e.i.r.p. Power in dBm.		

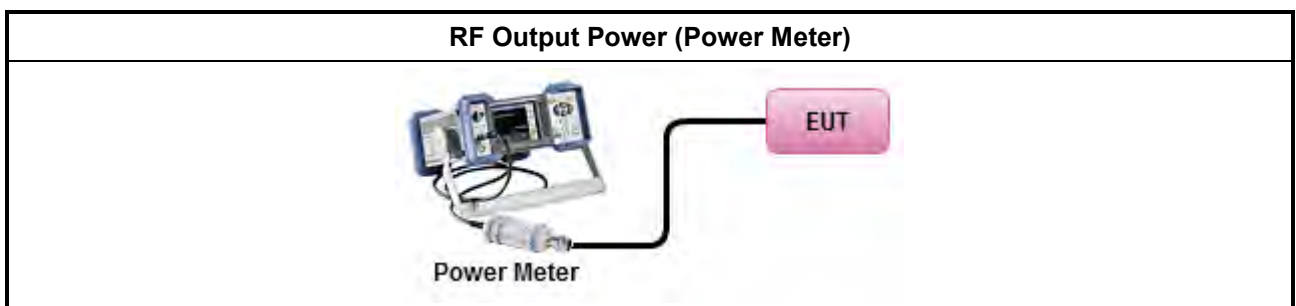
3.3.2 Measuring Instruments

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 KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
☐	Refer as KDB 558074, clause 9.1.2 Option 2 (integrated band power method)
☒	Refer as KDB 558074, clause 9.1.3 Option 3 (peak power meter for VBW ≥ DTS BW)
Maximum Average Conducted Output Power	
Duty cycle ≥ 98%	
☐	Refer as KDB 558074, clause 9.2.2.4 Method AVGSA-2. (spectral trace averaging)
Duty cycle < 98%	
☐	Refer as 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 KDB 558074, clause 9.2.3 Method AVGPM. (using an RF average power meter)
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.	
If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

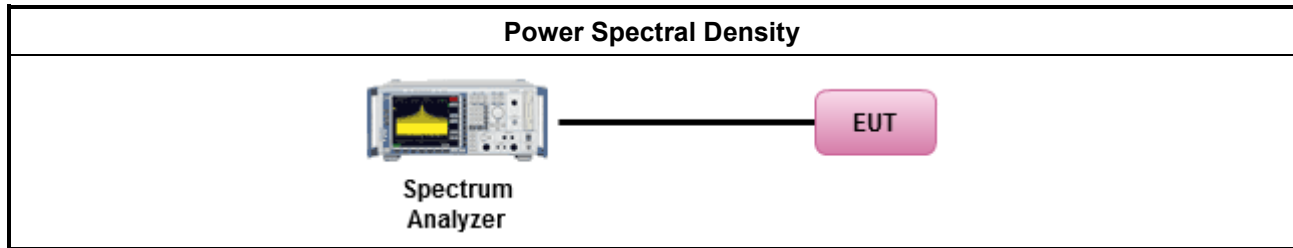
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒	Refer as KDB 558074, clause 10.2 Method PKPSD. (RBW=3-100kHz; Detector=peak)
	Duty cycle $\geq 98\%$
☐	Refer as KDB 558074, clause 10.5 Method AVGPS-2. (spectral trace averaging)
	Duty cycle $< 98\%$ and average over on/off periods with duty factor
☐	Refer as KDB 558074, clause 10.6 Method AVGPS-2 Alt. (slow sweep speed)
▪	For conducted measurement.
▪	If The EUT supports multiple transmit chains using options given below:
☒	Option 1: Measure and sum the spectra across the outputs. Refer as 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 N_{TX} 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 KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with $10 \log(N)$. Or each transmit chains shall be add $10 \log(N)$ to compared with the limit.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

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

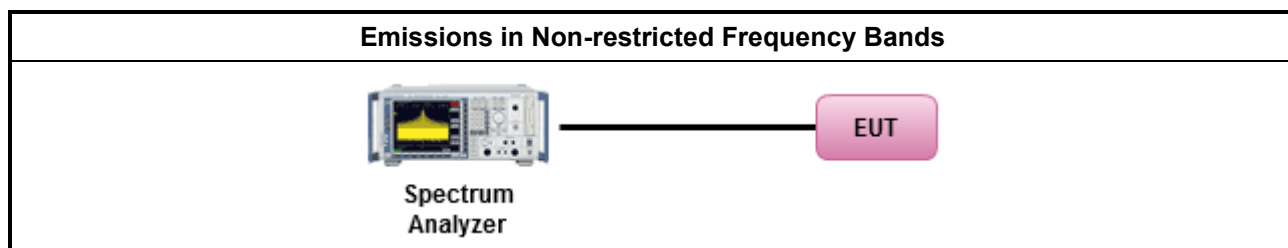
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

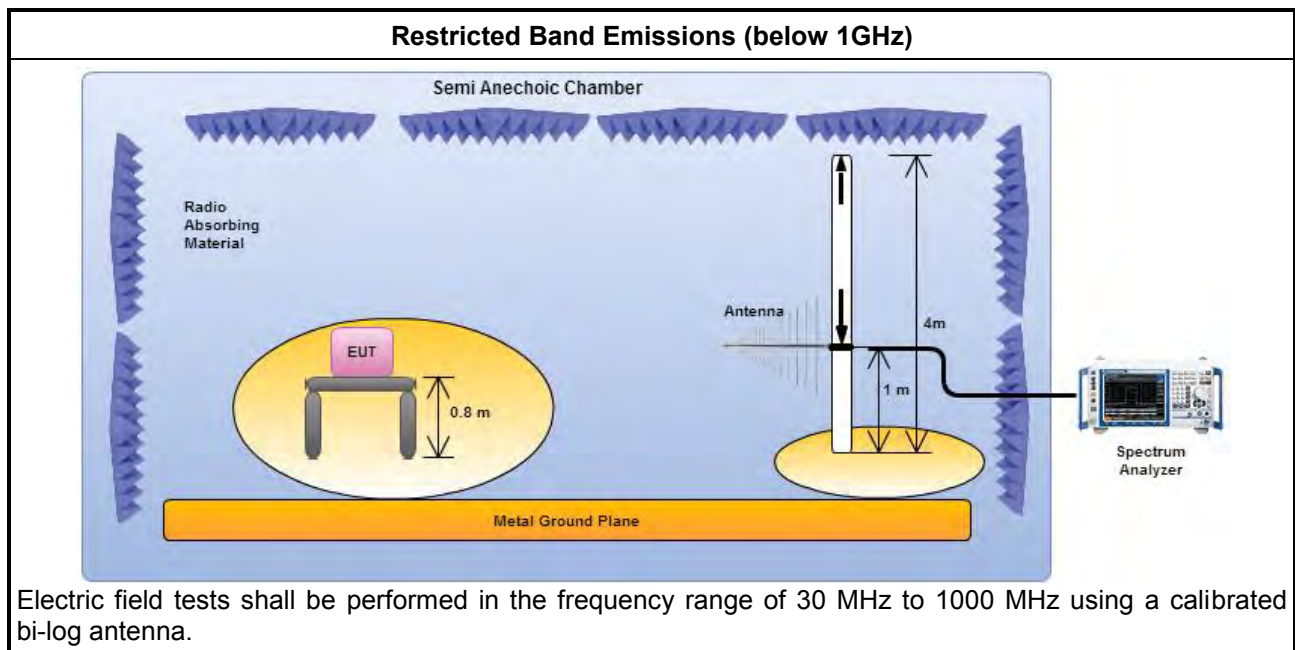
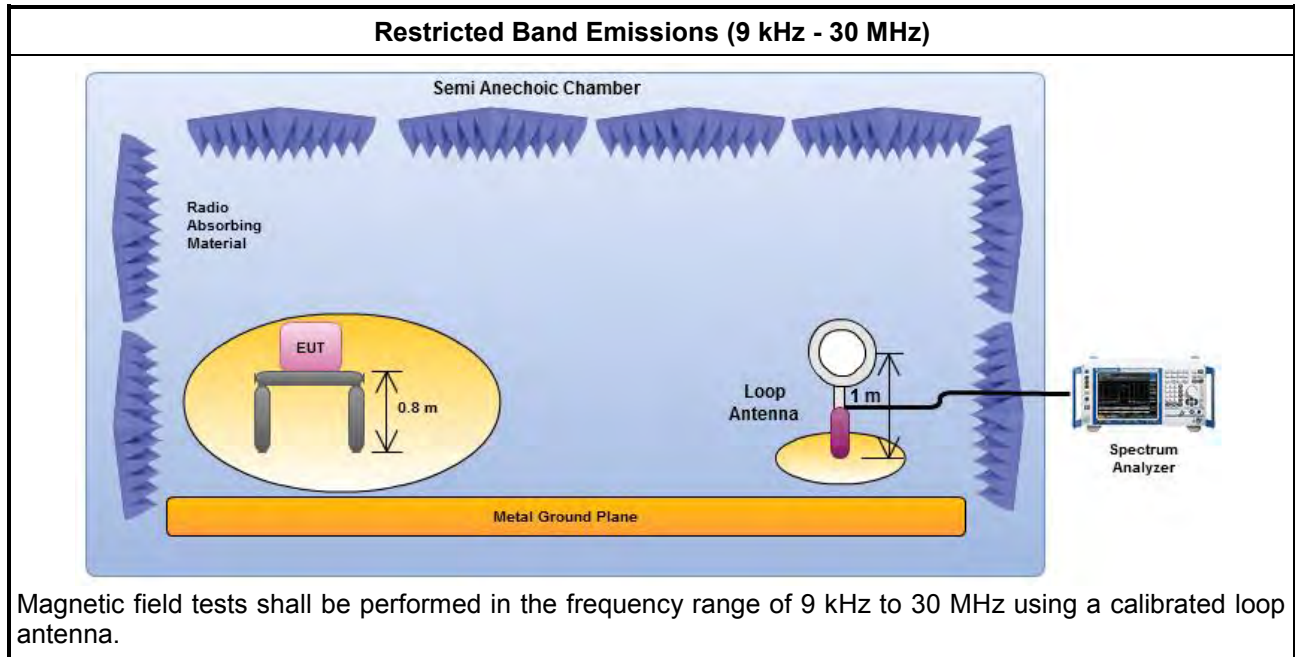
3.6.2 Measuring Instruments

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

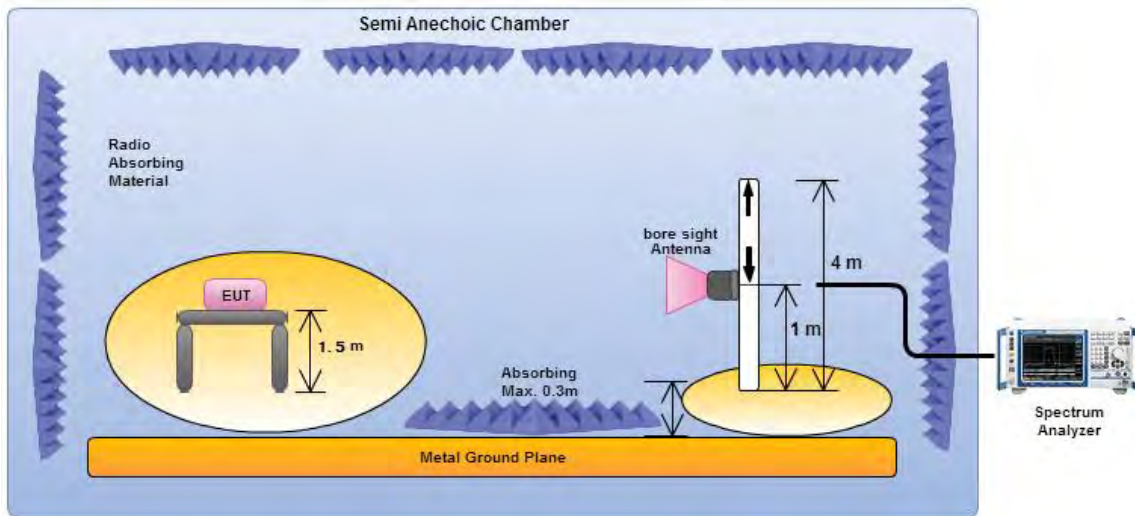
3.6.3 Test Procedures

Test Method	
The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 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 KDB 558074, clause 12 for unwanted emissions into restricted bands.
	☐ Refer as KDB 558074, clause 12.2.5.1 Option 1 (trace averaging for duty cycle $\geq 98\%$)
	☐ Refer as KDB 558074, clause 12.2.5.2 Option 2 (trace averaging + duty factor).
	☒ Refer as KDB 558074, clause 12.2.5.3 Option 3 (Reduced VBW $\geq 1/T$).
	☐ Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW). VBW $\geq 1/T$, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions.
	☒ Refer as KDB 558074, clause 11.3 and 12.2.4 measurement procedure peak limit.
	☒ Refer as KDB 558074, clause 12.2.3 measurement procedure Quasi-Peak limit.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as 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 KDB 558074, clause 13.2 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	Refer as 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 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 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



Restricted Band Emissions (above 1GHz)



Electric field tests shall be performed in the frequency range of 1 GHz to 10th harmonic of highest fundamental frequency or 40 GHz using a calibrated horn antenna.

3.6.5 Emissions in Restricted Frequency Bands (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported. Any spurious which has more than 20 dB of margin compared to the applicable limit is not necessarily reported.

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR-3	102051	9kHz~3.6GHz	19/Apr/2016	18/Apr/2017
LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	8127-477	9kHz~30MHz	26/Jan/2016	25/Jan/2017
LISN (Support Unit)	R&S	ENV216	101295	9kHz~30MHz	NCR	NCR
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz~30MHz	24/Oct/2016	23/Oct/2017
EMI Filter	LINDGREN	LRE-2030	2651	< 450Hz	NCR	NCR

NCR : Non-Calibration Require

Conducted

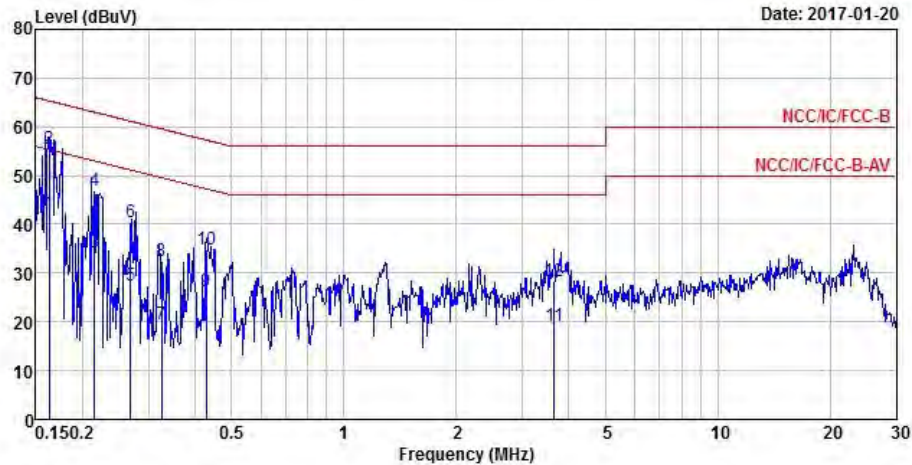
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	16/Feb/2016	15/Feb/2017
Power Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	22/Feb/2016	21/Feb/2017
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	22/Feb/2016	21/Feb/2017
Signal Generator	R&S	SMR40	100116	10MHz~40GHz	21/Jul/2016	20/Jul/2017
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY677/3	30MHz~26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY678/3	30MHz~26.5GHz	02/Oct/2016	01/Oct/2017
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10717/4	30MHz~26.5GHz	02/Oct/2016	01/Oct/2017

Radiated

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz	28/Nov/2016	27/Nov/2017
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz~18GHz	16/Dec/2016	15/Dec/2017
Amplifier	HP	8447D	2944A08033	10kHz~1.3GHz	10/May/2016	09/May/2017
Amplifier	KEYSIGHT	83017A	MY53270197	1GHz~26.5GHz	29/Aug/2016	28/Aug/2017
Spectrum	R&S	FSV40	101513	9kHz~40GHz	16/Feb/2016	15/Feb/2017
Bilog Antenna	SCHAFFNER	CBL 6112D	2723	30MHz~1GHz	01/Oct/2016	30/Sep/2017
Horn Antenna	SCHWARZBECK	BBHA 9120D	BBHA 9120D 1531	1GHz~18GHz	22/Apr/2016	21/Apr/2017
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170154	18GHz~40GHz	29/Jan/2016	28/Jan/2017
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	02/Feb/2015	01/Feb/2017
RF-Cable-high	SUHNER	SUHNER	CB222	1GHz~40GHz	28/Oct/2016	27/Oct/2017
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz~1GHz	27/Oct/2016	26/Oct/2017

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter Mode		

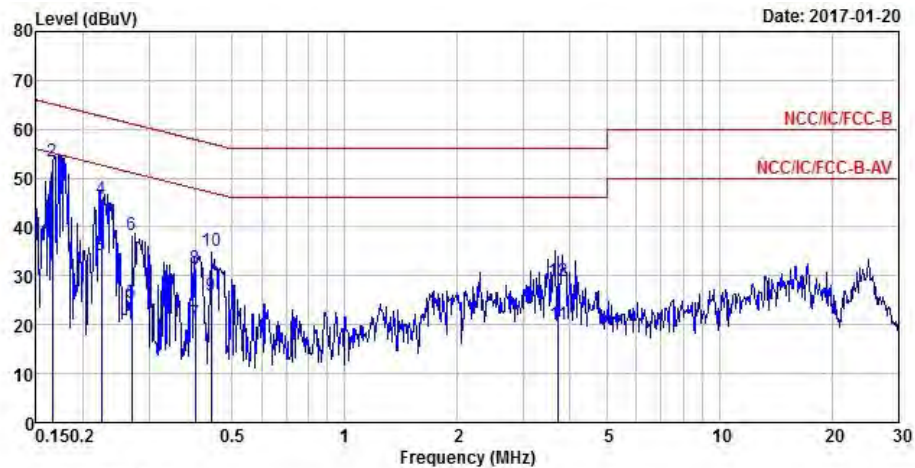


	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	42.11	-13.23	55.34	41.77	0.10	0.24	Average
2 MAX	0.16	55.47	-9.87	65.34	55.13	0.10	0.24	QP
3	0.22	34.23	-18.77	53.00	33.84	0.11	0.28	Average
4	0.22	46.91	-16.09	63.00	46.52	0.11	0.28	QP
5	0.27	27.44	-23.73	51.17	27.12	0.11	0.21	Average
6	0.27	40.31	-20.86	61.17	39.99	0.11	0.21	QP
7	0.33	19.39	-30.18	49.57	19.11	0.12	0.16	Average
8	0.33	32.58	-26.99	59.57	32.30	0.12	0.16	QP
9	0.43	26.13	-21.16	47.29	25.91	0.12	0.10	Average
10	0.43	34.90	-22.39	57.29	34.68	0.12	0.10	QP
11	3.66	19.32	-26.68	46.00	19.01	0.18	0.13	Average
12	3.66	28.33	-27.67	56.00	28.02	0.18	0.13	QP

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	Line
Operating Function	Adapter Mode		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17	40.12	-15.07	55.19	39.76	0.11	0.25	Average
2 MAX	0.17	53.39	-11.80	65.19	53.03	0.11	0.25	QP
3	0.22	34.31	-18.34	52.65	33.93	0.11	0.27	Average
4	0.22	45.86	-16.79	62.65	45.48	0.11	0.27	QP
5	0.27	24.43	-26.68	51.11	24.11	0.11	0.21	Average
6	0.27	38.39	-22.72	61.11	38.07	0.11	0.21	QP
7	0.40	20.48	-27.41	47.89	20.26	0.12	0.10	Average
8	0.40	31.62	-26.27	57.89	31.40	0.12	0.10	QP
9	0.44	26.09	-20.98	47.07	25.87	0.12	0.10	Average
10	0.44	35.02	-22.05	57.07	34.80	0.12	0.10	QP
11	3.72	19.93	-26.07	46.00	19.64	0.17	0.12	Average
12	3.72	29.00	-27.00	56.00	28.71	0.17	0.12	QP

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	14.043M	14M0G1D	9.975M	13.943M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	18.291M	18M3D1D	16.275M	16.517M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.6M	18.316M	18M3D1D	17.125M	17.691M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	36.35M	36.532M	36M5D1D	36.3M	36.332M

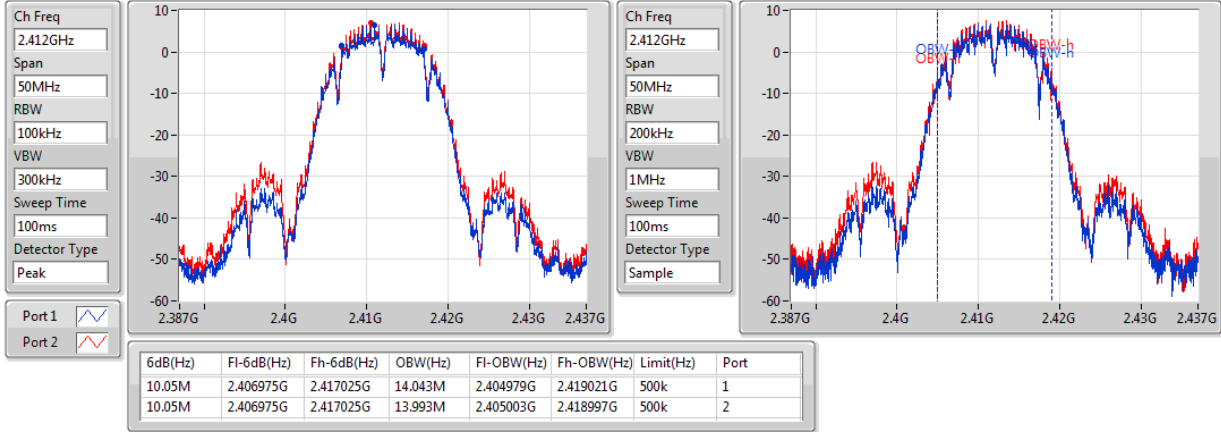
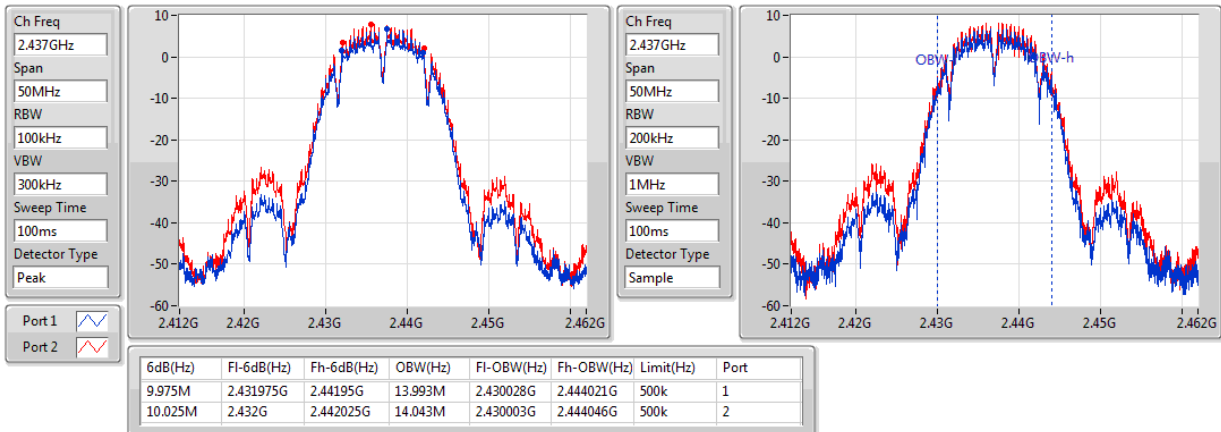
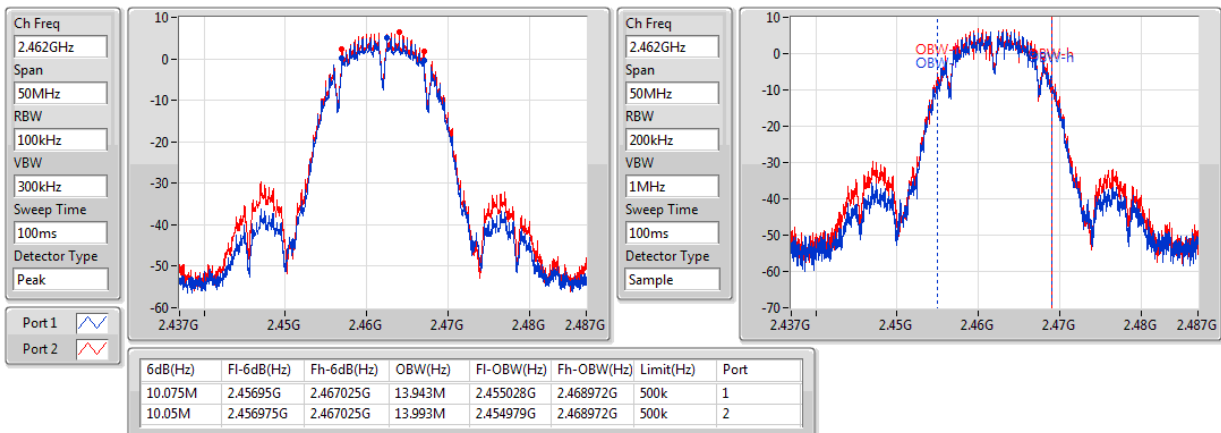
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

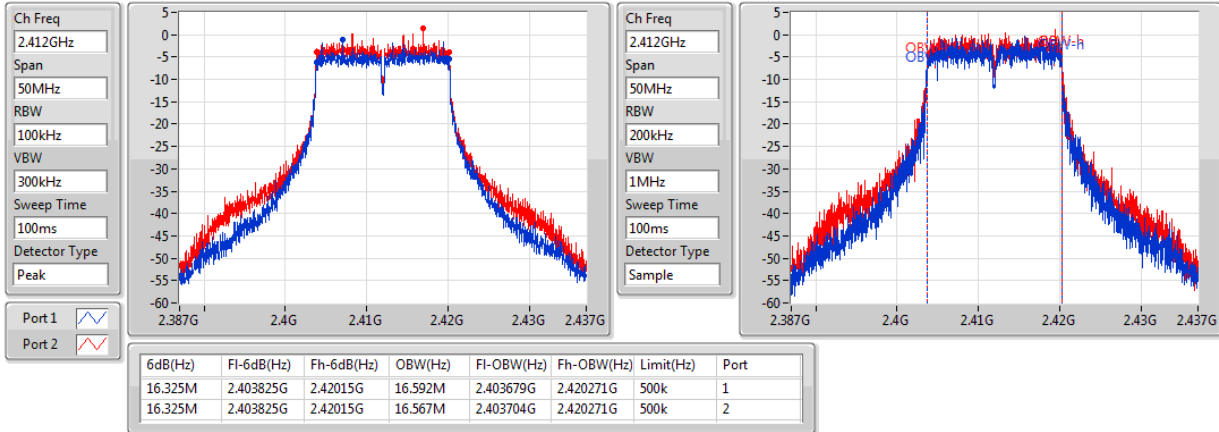
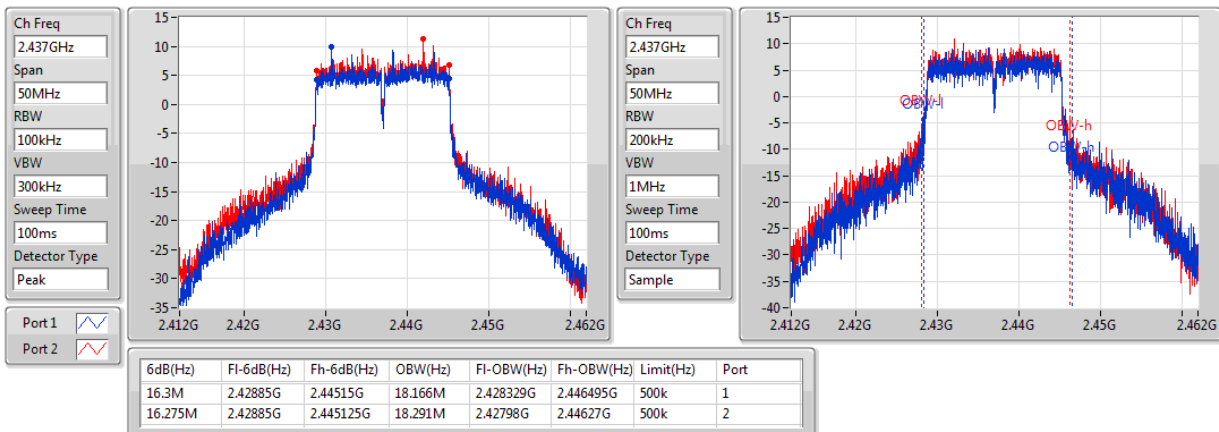
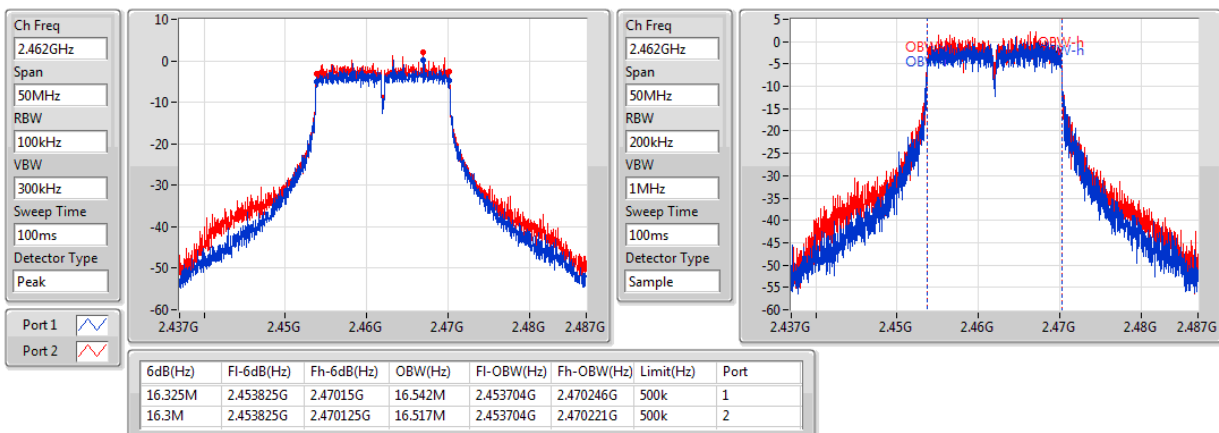
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

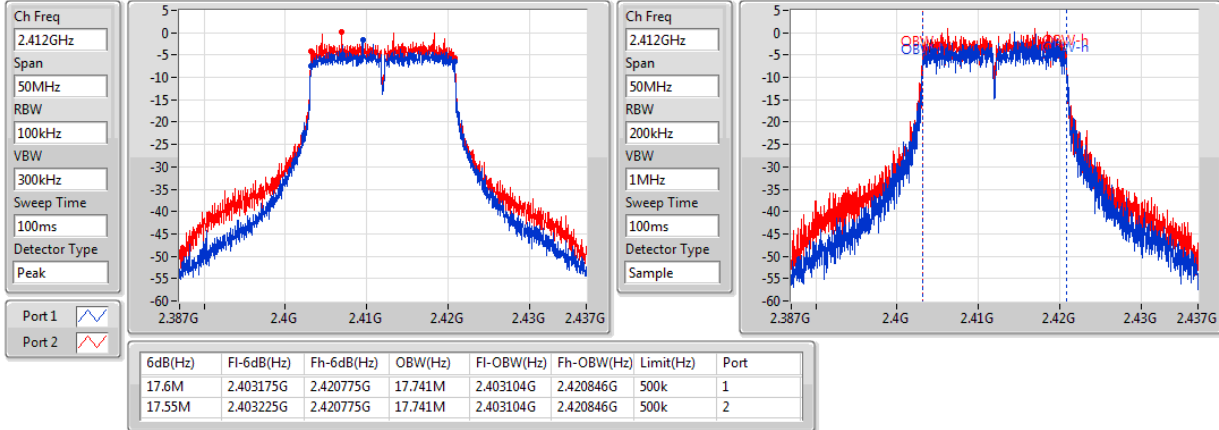
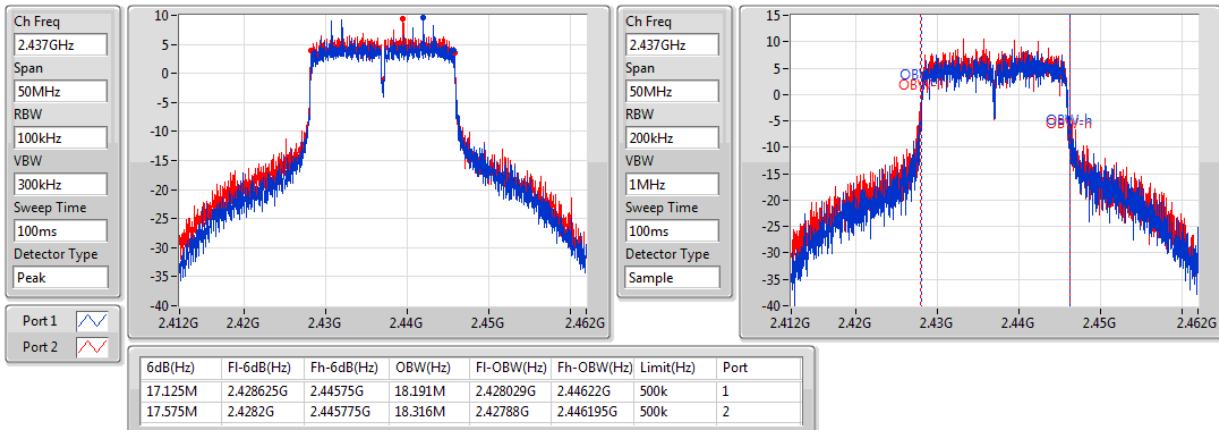
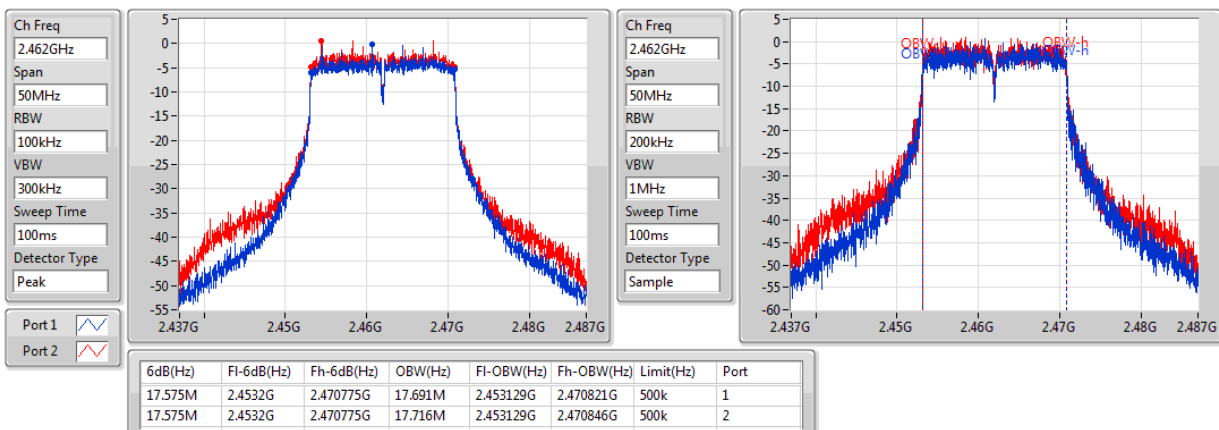
Result

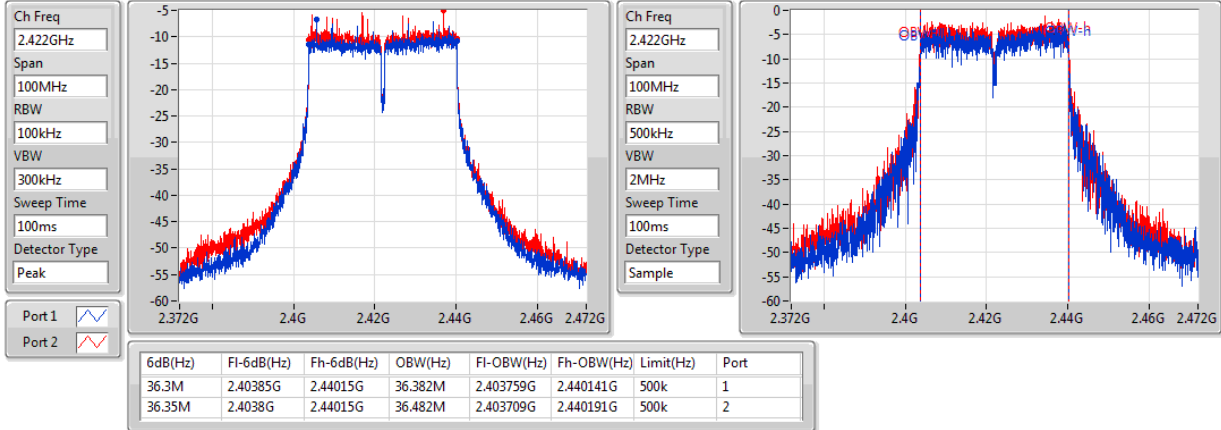
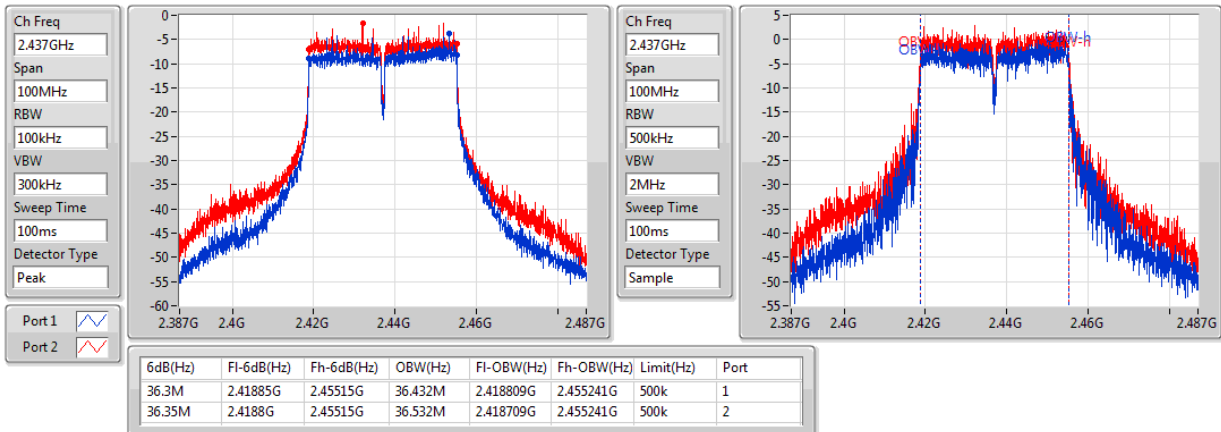
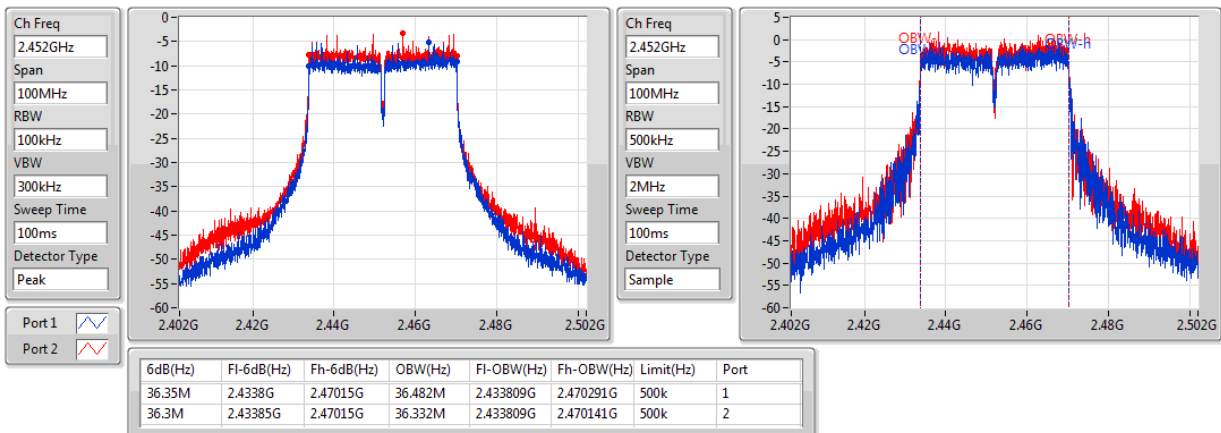
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	10.05M	14.043M	10.05M	13.993M
2437MHz	Pass	500k	9.975M	13.993M	10.025M	14.043M
2462MHz	Pass	500k	10.075M	13.943M	10.05M	13.993M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.592M	16.325M	16.567M
2437MHz	Pass	500k	16.3M	18.166M	16.275M	18.291M
2462MHz	Pass	500k	16.325M	16.542M	16.3M	16.517M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.6M	17.741M	17.55M	17.741M
2437MHz	Pass	500k	17.125M	18.191M	17.575M	18.316M
2462MHz	Pass	500k	17.575M	17.691M	17.575M	17.716M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	36.3M	36.382M	36.35M	36.482M
2437MHz	Pass	500k	36.3M	36.432M	36.35M	36.532M
2452MHz	Pass	500k	36.35M	36.482M	36.3M	36.332M

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

802.11b_(1Mbps)_2TX
EBW
2412MHz

802.11b_(1Mbps)_2TX
EBW
2437MHz

802.11b_(1Mbps)_2TX
EBW
2462MHz


802.11g_(6Mbps)_2TX
EBW
2412MHz

802.11g_(6Mbps)_2TX
EBW
2437MHz

802.11g_(6Mbps)_2TX
EBW
2462MHz


802.11n HT20_Nss1,(MCS0)_2TX
EBW
2412MHz

802.11n HT20_Nss1,(MCS0)_2TX
EBW
2437MHz

802.11n HT20_Nss1,(MCS0)_2TX
EBW
2462MHz


802.11n HT40_Nss1,(MCS0)_2TX
EBW
2422MHz

802.11n HT40_Nss1,(MCS0)_2TX
EBW
2437MHz

802.11n HT40_Nss1,(MCS0)_2TX
EBW
2452MHz


Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	21.32	0.13552
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	27.91	0.61802
802.11n HT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	27.81	0.60395
802.11n HT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	23.95	0.24831

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	17.51	18.41	20.99	30.00
2437MHz	Pass	2.00	17.67	18.86	21.32	30.00
2462MHz	Pass	2.00	16.78	17.70	20.28	30.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	20.12	21.35	23.79	30.00
2437MHz	Pass	2.00	24.82	24.99	27.91	30.00
2462MHz	Pass	2.00	21.66	22.49	25.11	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	19.95	21.43	23.77	30.00
2437MHz	Pass	2.00	24.72	24.87	27.81	30.00
2462MHz	Pass	2.00	20.87	21.96	24.46	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	2.00	17.38	18.49	20.98	30.00
2437MHz	Pass	2.00	20.34	21.46	23.95	30.00
2452MHz	Pass	2.00	19.33	20.71	23.09	30.00

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

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	19.21	0.08337
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	23.25	0.21135
802.11n HT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	22.56	0.18030
802.11n HT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	14.85	0.03055

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	15.32	16.21	18.80	30.00
2437MHz	Pass	2.00	15.52	16.79	19.21	30.00
2462MHz	Pass	2.00	14.60	15.55	18.11	30.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	10.53	11.99	14.33	30.00
2437MHz	Pass	2.00	19.81	20.63	23.25	30.00
2462MHz	Pass	2.00	12.24	13.18	15.75	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.00	10.40	11.98	14.28	30.00
2437MHz	Pass	2.00	19.10	19.96	22.56	30.00
2462MHz	Pass	2.00	11.40	12.55	15.02	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	2.00	7.42	8.56	11.04	30.00
2437MHz	Pass	2.00	10.77	12.69	14.85	30.00
2452MHz	Pass	2.00	9.50	11.08	13.37	30.00

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

Summary

Mode	PD (dBm/RBW)
802.11b_(1Mbps)_2TX	-
2.4-2.4835GHz	-5.59
802.11g_(6Mbps)_2TX	-
2.4-2.4835GHz	-2.43
802.11n HT20_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-3.92
802.11n HT40_Nss1,(MCS0)_2TX	-
2.4-2.4835GHz	-15.46

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	5.01	-8.47	-6.94	-5.59	8.00
2437MHz	Pass	5.01	-7.57	-6.77	-5.86	8.00
2462MHz	Pass	5.01	-8.44	-6.23	-5.85	8.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.01	-15.17	-11.62	-11.02	8.00
2437MHz	Pass	5.01	-4.83	-3.20	-2.43	8.00
2462MHz	Pass	5.01	-12.31	-12.60	-10.30	8.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.01	-15.45	-13.94	-13.60	8.00
2437MHz	Pass	5.01	-5.88	-5.99	-3.92	8.00
2462MHz	Pass	5.01	-14.02	-12.91	-11.94	8.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.01	-21.54	-18.88	-18.63	8.00
2437MHz	Pass	5.01	-17.52	-16.00	-15.46	8.00
2452MHz	Pass	5.01	-18.55	-17.23	-16.14	8.00

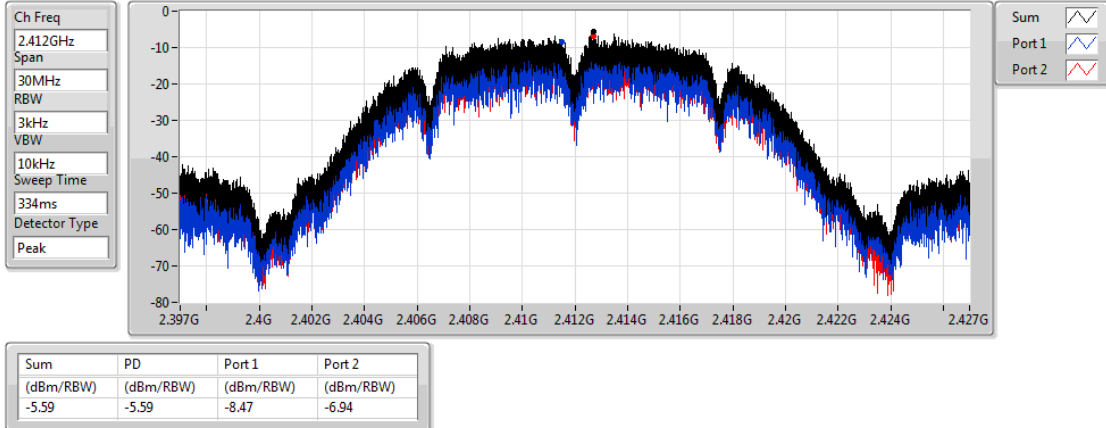
DG = Directional Gain; RBW=3kHz;

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

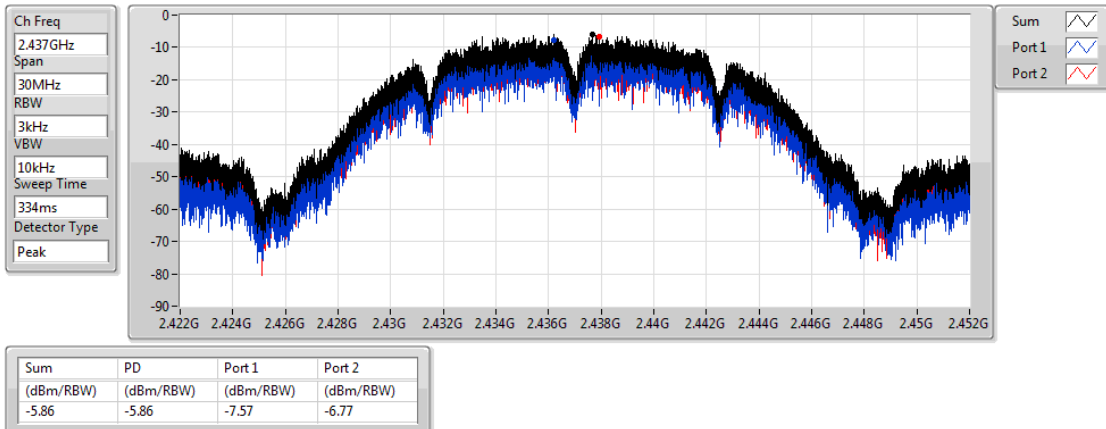
2412MHz



802.11b_(1Mbps)_2TX

PSD

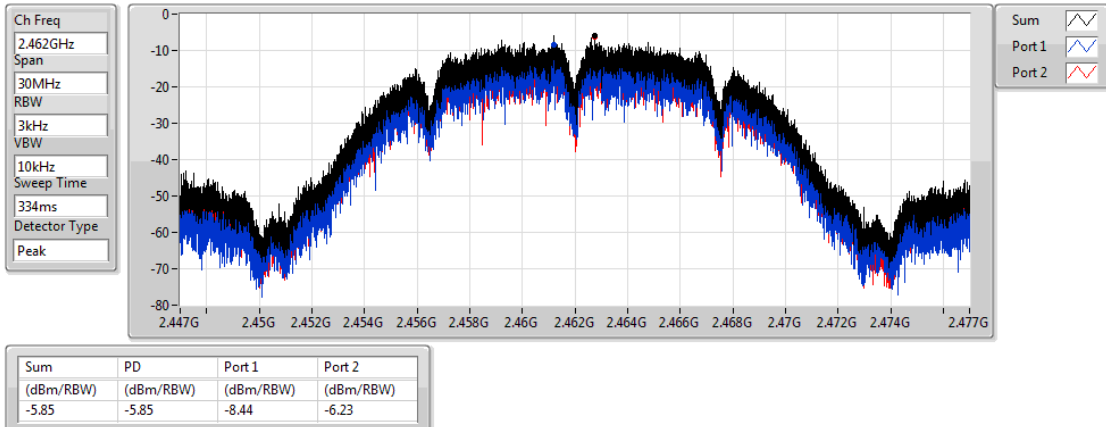
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802.11b_(1Mbps)_2TX

PSD

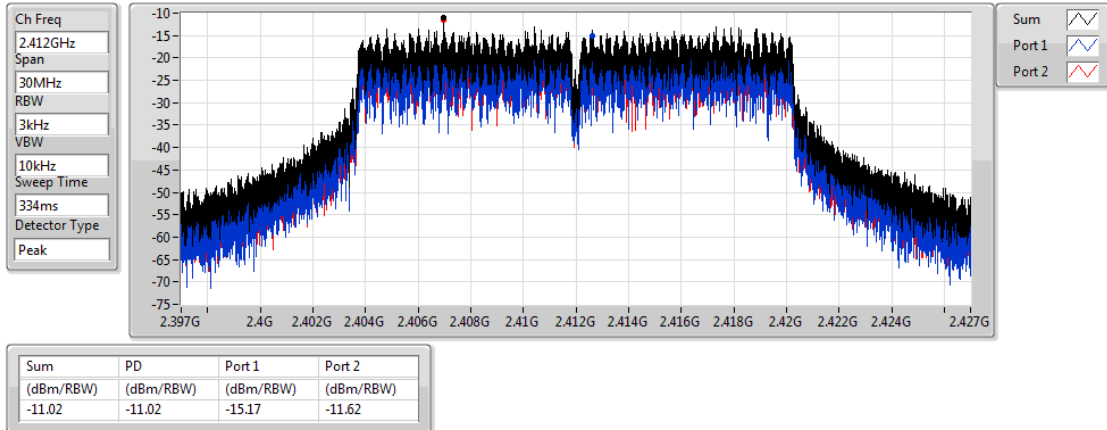
2462MHz



802.11g_(6Mbps)_2TX

PSD

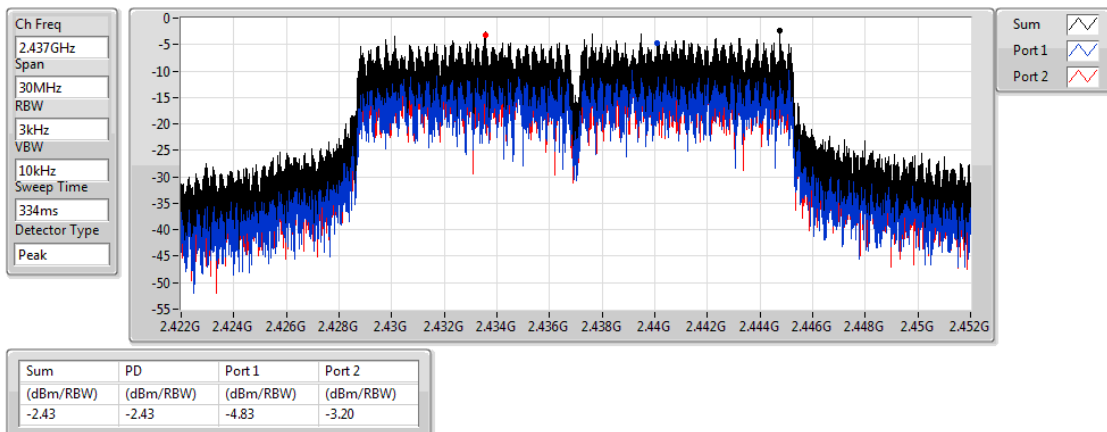
2412MHz



802.11g_(6Mbps)_2TX

PSD

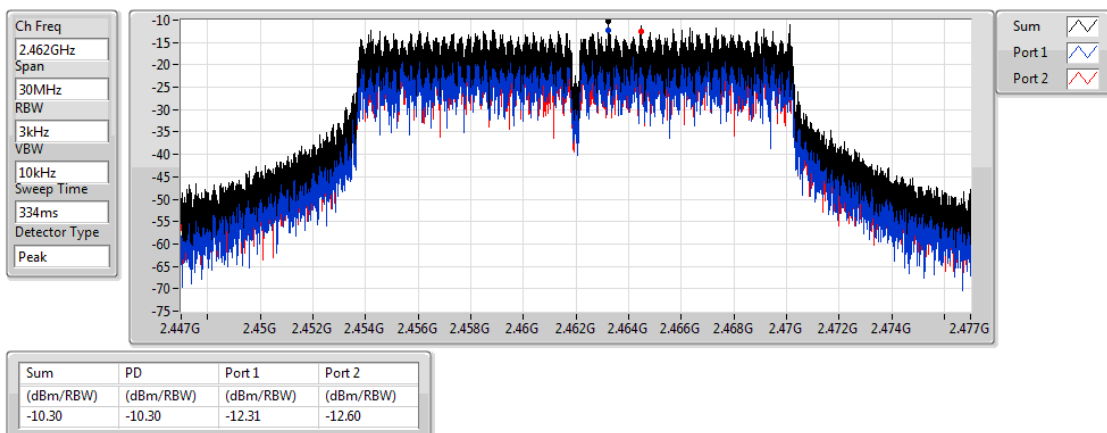
2437MHz



802.11g_(6Mbps)_2TX

PSD

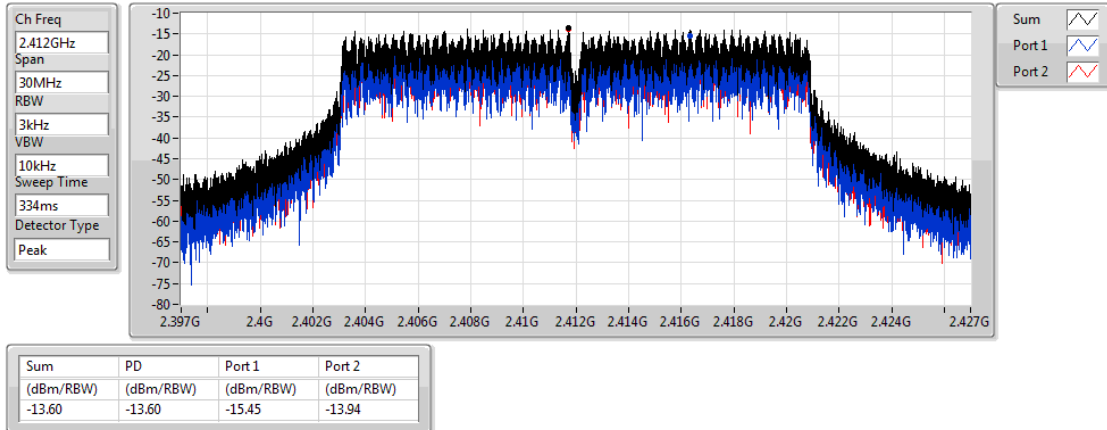
2462MHz



802.11n HT20_Nss1,(MCS0)_2TX

PSD

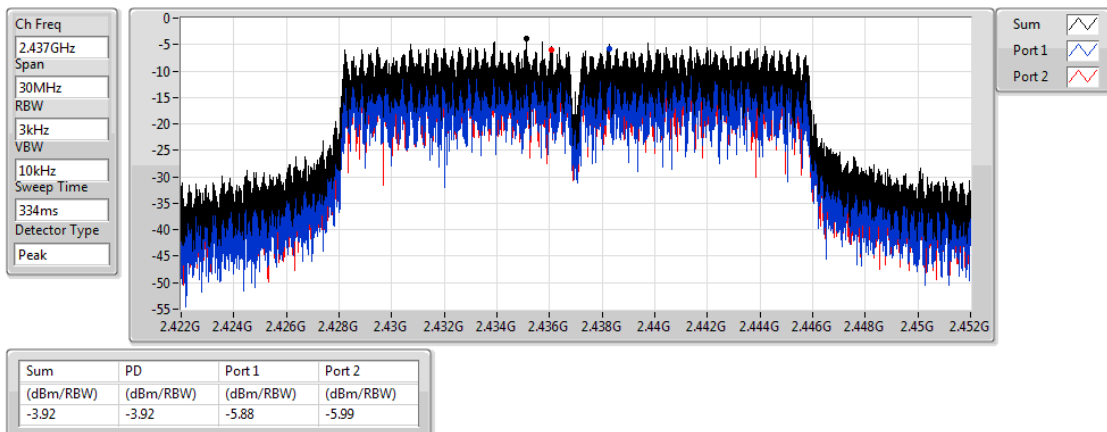
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802.11n HT20_Nss1,(MCS0)_2TX

PSD

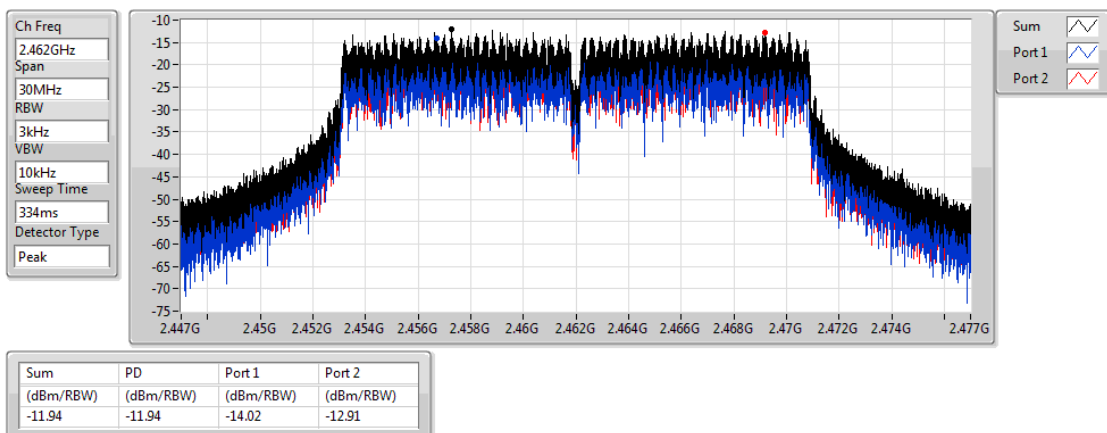
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802.11n HT20_Nss1,(MCS0)_2TX

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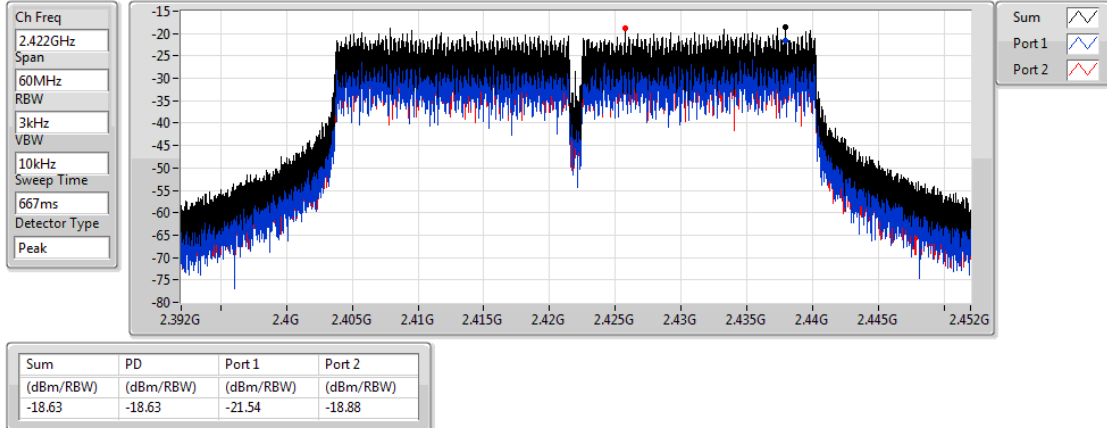
2462MHz



802.11n HT40_Nss1,(MCS0)_2TX

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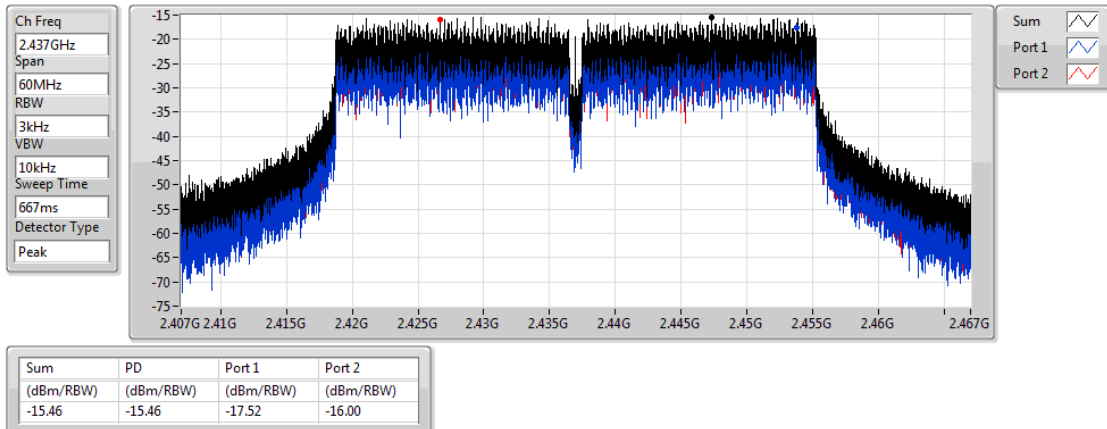
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802.11n HT40_Nss1,(MCS0)_2TX

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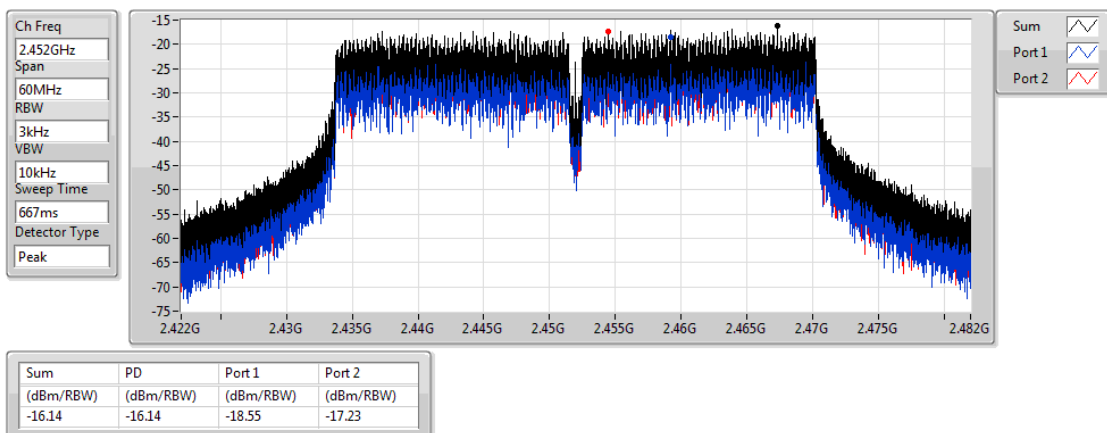
2437MHz



802.11n HT40_Nss1,(MCS0)_2TX

PSD

2452MHz



Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11g_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	2.416867G	-1.66	-21.66	2.302915G	-57.14	2.39816G	-32.73	2.48398G	-54.71	3.214652G	-49.87	2

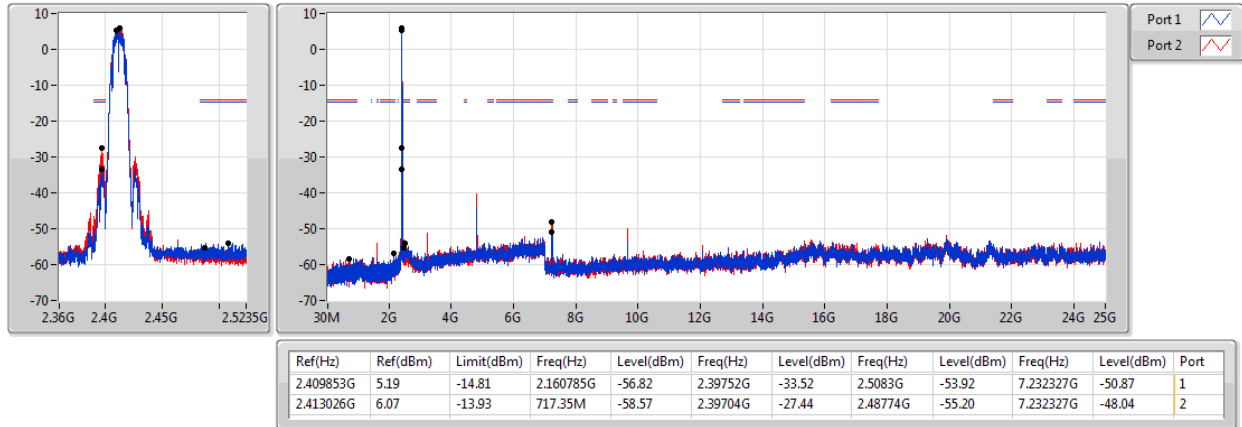
Result

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	2.409853G	5.19	-14.81	2.160785G	-56.82	2.39752G	-33.52	2.5083G	-53.92	7.232327G	-50.87	1
2412MHz	Pass	2.413026G	6.07	-13.93	717.35M	-58.57	2.39704G	-27.44	2.48774G	-55.20	7.232327G	-48.04	2
2437MHz	Pass	2.435404G	5.95	-14.05	2.16195G	-57.84	2.39136G	-55.44	2.48414G	-54.27	6.386648G	-52.51	1
2437MHz	Pass	2.439579G	7.13	-12.87	1.624885G	-53.94	2.39784G	-53.49	2.50046G	-55.21	9.746885G	-46.88	2
2462MHz	Pass	2.462959G	5.75	-14.25	2.12467G	-58.44	2.39616G	-55.95	2.48358G	-52.68	21.426237G	-52.94	1
2462MHz	Pass	2.461456G	5.94	-14.06	1.641195G	-55.47	2.39128G	-55.73	2.48742G	-48.79	9.848029G	-47.48	2
802.11g_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.410688G	-3.78	-23.78	2.15962G	-57.82	2.39832G	-35.70	2.51814G	-54.38	6.31079G	-52.92	1
2412MHz	Pass	2.416867G	-1.66	-21.66	2.302915G	-57.14	2.39816G	-32.73	2.48398G	-54.71	3.214652G	-49.87	2
2437MHz	Pass	2.443253G	6.84	-13.16	2.14098G	-56.99	2.39792G	-40.63	2.48854G	-44.73	6.406315G	-51.71	1
2437MHz	Pass	2.432064G	10.79	-9.21	1.624885G	-54.41	2.39768G	-35.57	2.4847G	-41.11	3.248367G	-50.27	2
2462MHz	Pass	2.464963G	-1.62	-21.62	779.095M	-58.14	2.39488G	-56.37	2.48358G	-45.02	6.344505G	-52.10	1
2462MHz	Pass	2.467134G	1.98	-18.02	1.641195G	-55.71	2.3956G	-54.81	2.48414G	-42.58	3.282082G	-49.92	2
802.11n HT20_Nss1(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.409185G	-4.35	-24.35	2.305245G	-57.97	2.39832G	-35.59	2.51926G	-54.88	6.201217G	-52.58	1
2412MHz	Pass	2.409352G	-0.55	-20.55	2.111855G	-56.23	2.398G	-33.29	2.48934G	-54.99	3.214652G	-50.71	2
2437MHz	Pass	2.439412G	9.19	-10.81	697.545M	-58.80	2.39832G	-41.44	2.48382G	-42.43	6.951371G	-51.78	1
2437MHz	Pass	2.443253G	8.87	-11.13	1.624885G	-55.58	2.3964G	-37.40	2.48414G	-41.36	3.248367G	-51.28	2
2462MHz	Pass	2.456947G	0.76	-19.24	2.170105G	-57.65	2.39496G	-56.27	2.48414G	-45.96	6.906418G	-53.41	1
2462MHz	Pass	2.465798G	1.21	-18.79	1.641195G	-56.06	2.39344G	-55.95	2.48382G	-41.37	3.282082G	-50.71	2
802.11n HT40_Nss1(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.425718G	-7.25	-27.25	576.165M	-57.66	2.39408G	-43.88	2.48654G	-54.51	6.848872G	-52.68	1
2422MHz	Pass	2.407014G	-6.23	-26.23	2.01543G	-58.10	2.39664G	-39.47	2.53406G	-55.46	3.228181G	-51.99	2
2437MHz	Pass	2.449432G	-2.75	-22.75	868.14M	-57.82	2.39648G	-45.00	2.4867G	-52.30	6.904963G	-52.27	1
2437MHz	Pass	2.422044G	-1.98	-21.98	1.624985G	-55.88	2.39392G	-39.43	2.48414G	-45.80	3.247813G	-51.09	2
2452MHz	Pass	2.463293G	-4.30	-24.30	679.215M	-57.45	2.39376G	-55.39	2.48654G	-45.80	6.226259G	-52.44	1
2452MHz	Pass	2.444422G	-3.03	-23.03	1.63529G	-56.85	2.39008G	-53.68	2.48398G	-39.19	3.267445G	-51.29	2

802.11b_(1Mbps)_2TX

CSE NdB

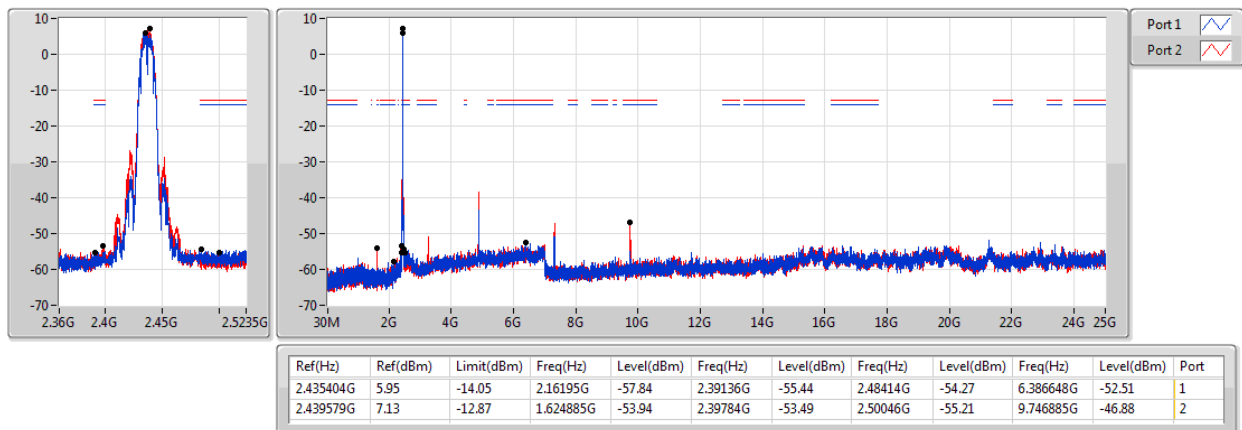
2412MHz



802.11b_(1Mbps)_2TX

CSE NdB

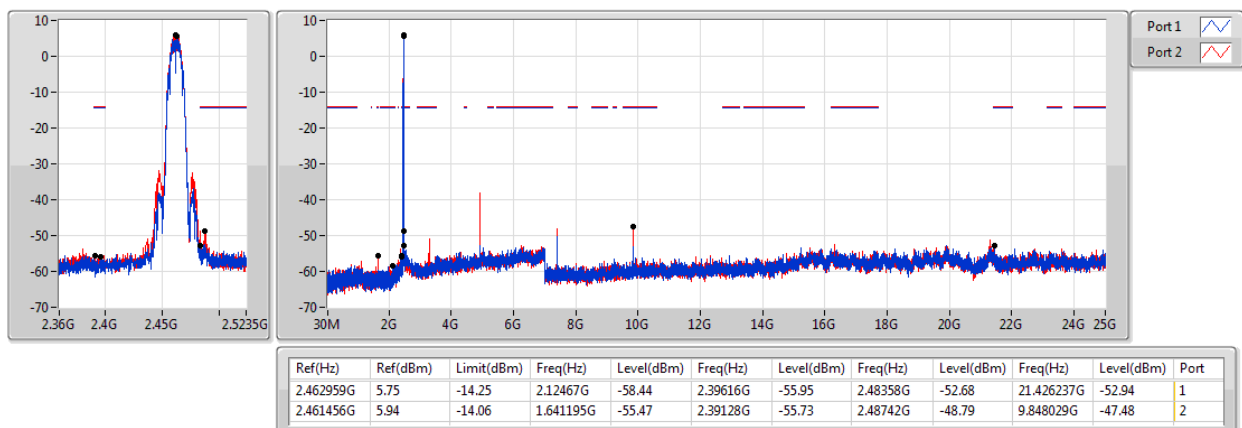
2437MHz



802.11b_(1Mbps)_2TX

CSE NdB

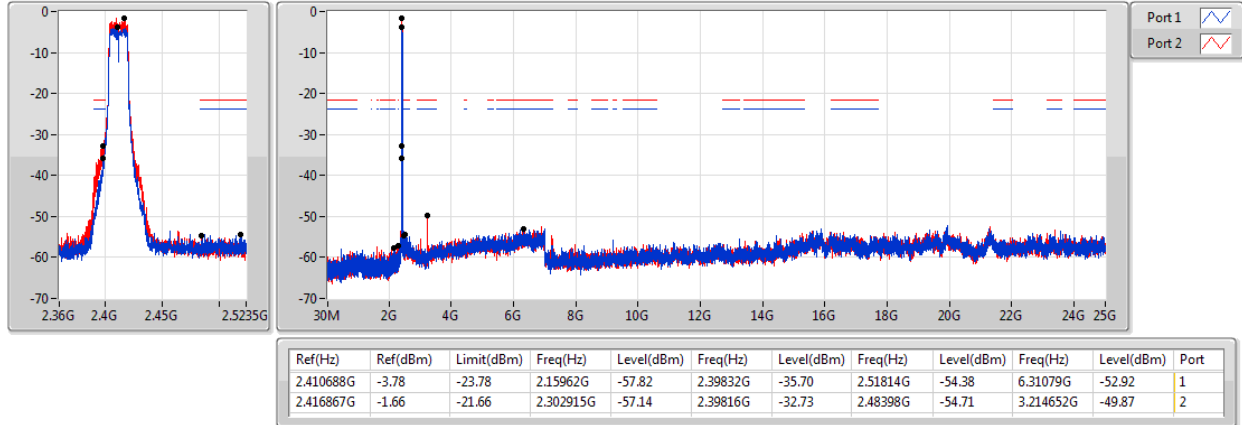
2462MHz



802.11g_(6Mbps)_2TX

CSE NdB

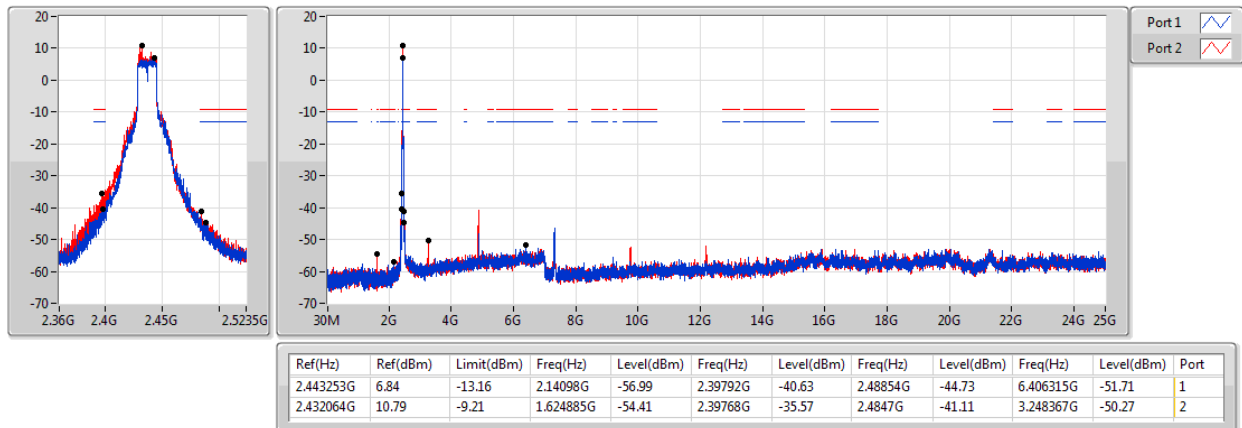
2412MHz



802.11g_(6Mbps)_2TX

CSE NdB

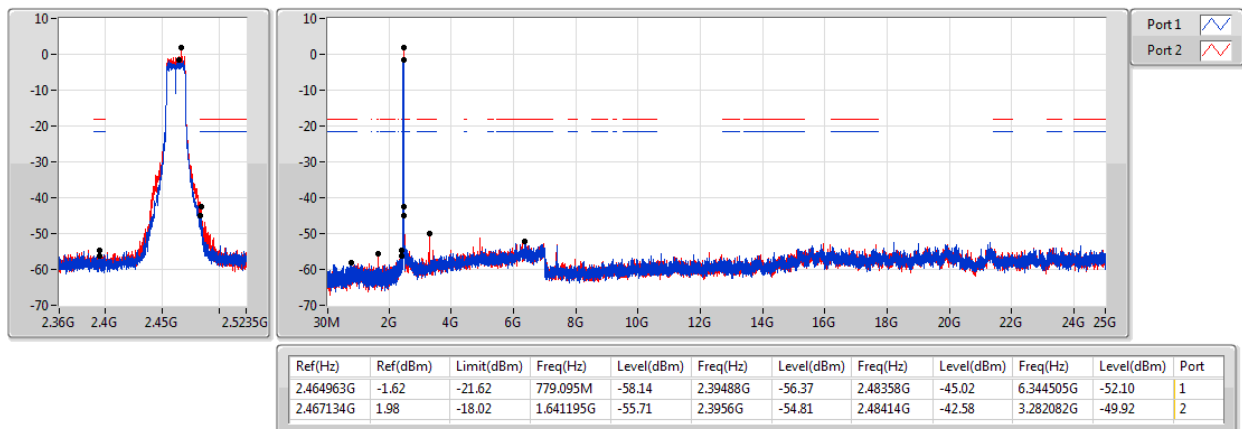
2437MHz



802.11g_(6Mbps)_2TX

CSE NdB

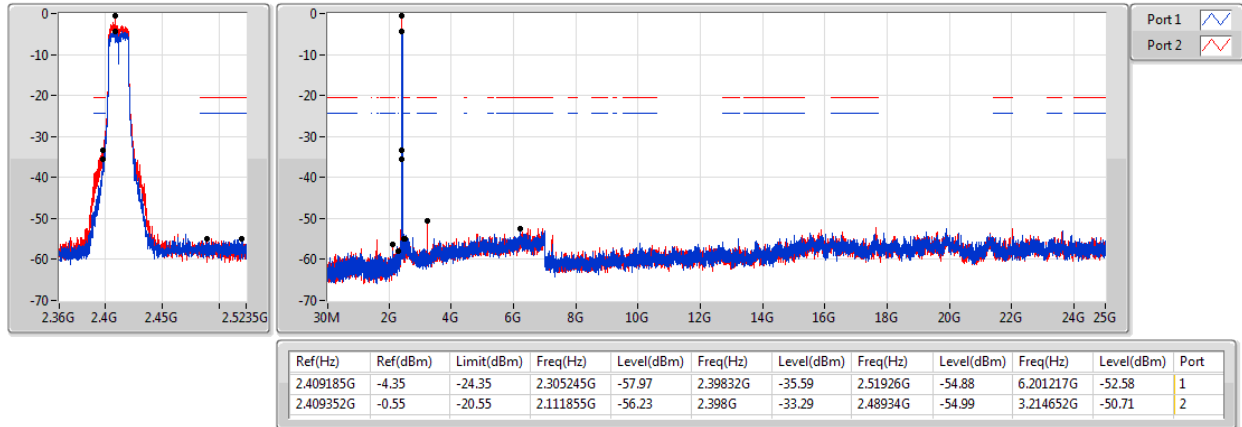
2462MHz



802.11n HT20_Nss1,(MCS0)_2TX

CSE NdB

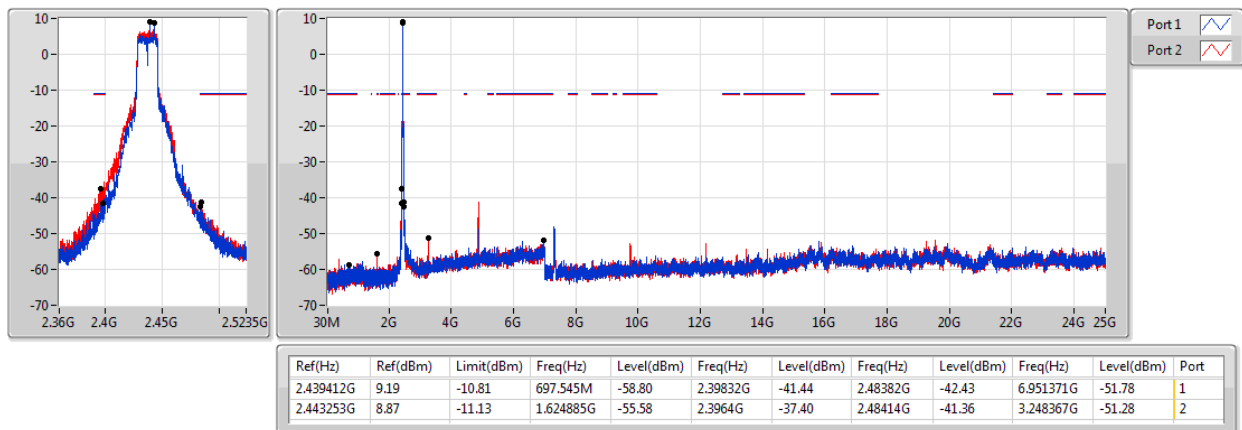
2412MHz



802.11n HT20_Nss1,(MCS0)_2TX

CSE NdB

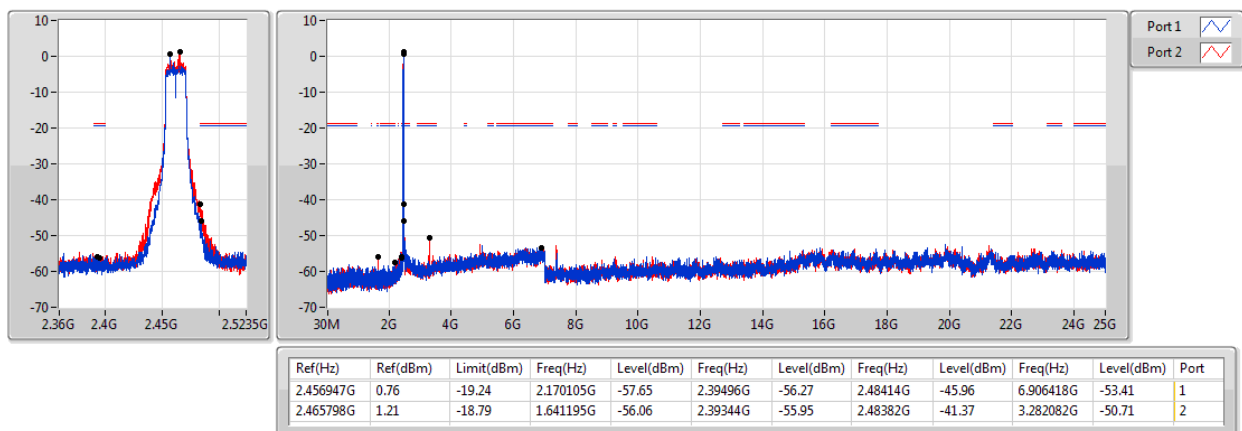
2437MHz



802.11n HT20_Nss1,(MCS0)_2TX

CSE NdB

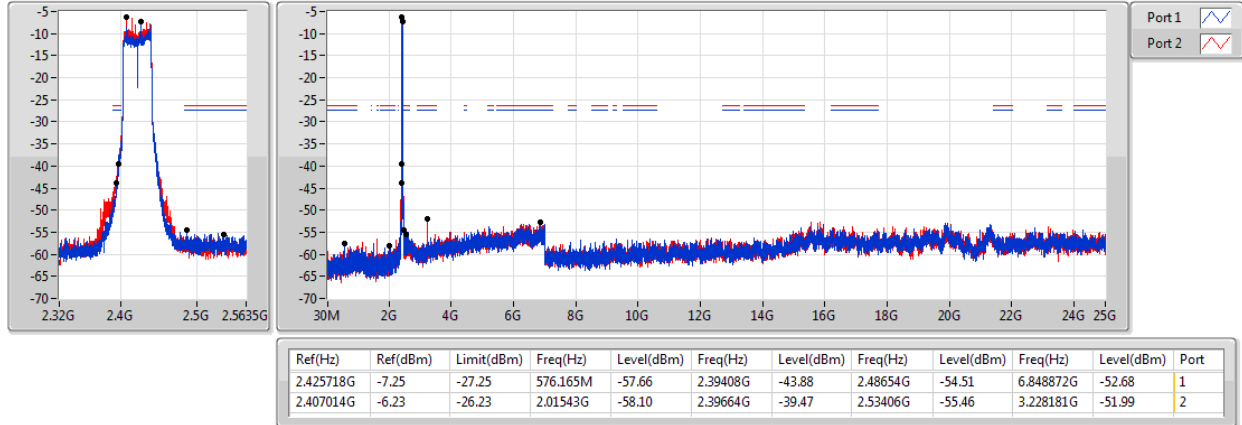
2462MHz



802.11n HT40_Nss1,(MCS0)_2TX

CSE NdB

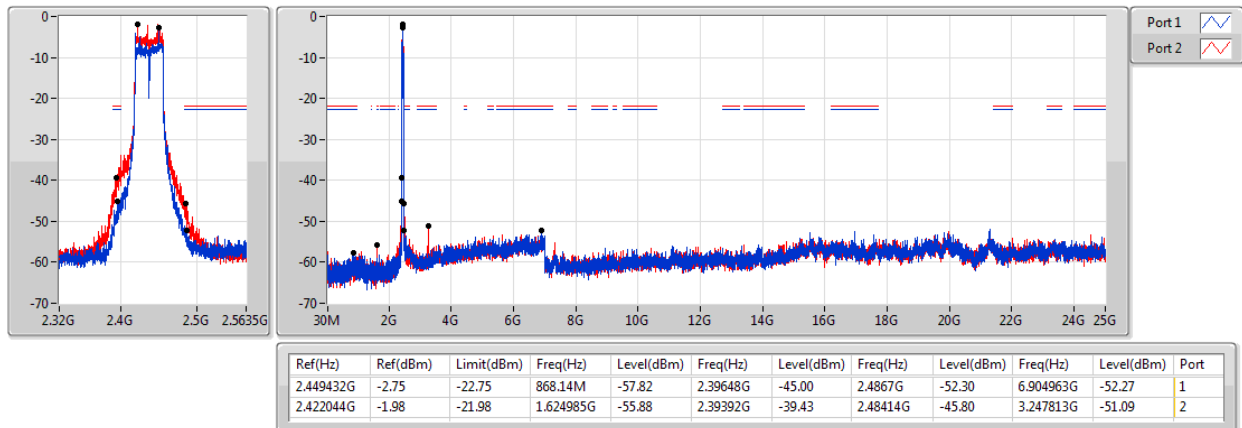
2422MHz



802.11n HT40_Nss1,(MCS0)_2TX

CSE NdB

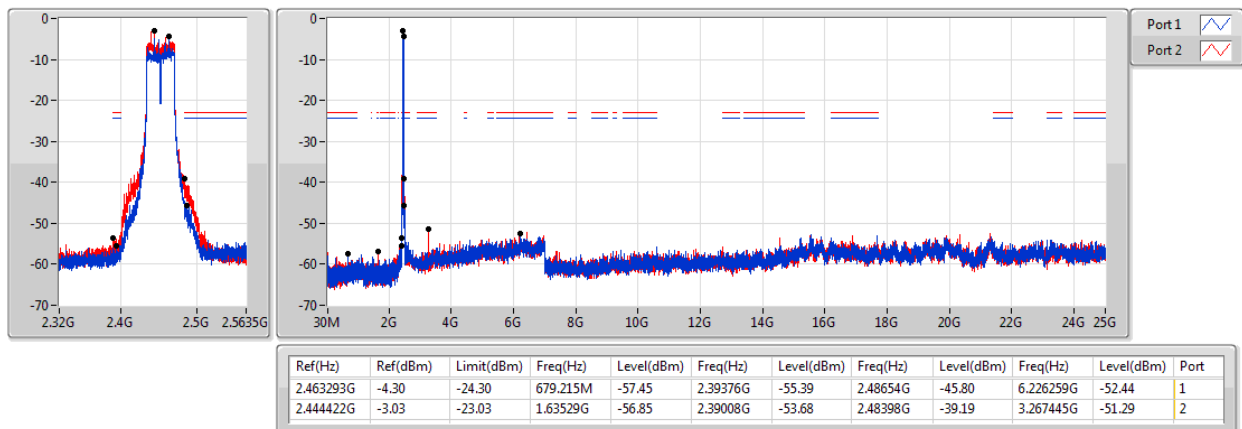
2437MHz



802.11n HT40_Nss1,(MCS0)_2TX

CSE NdB

2452MHz



**Summary**

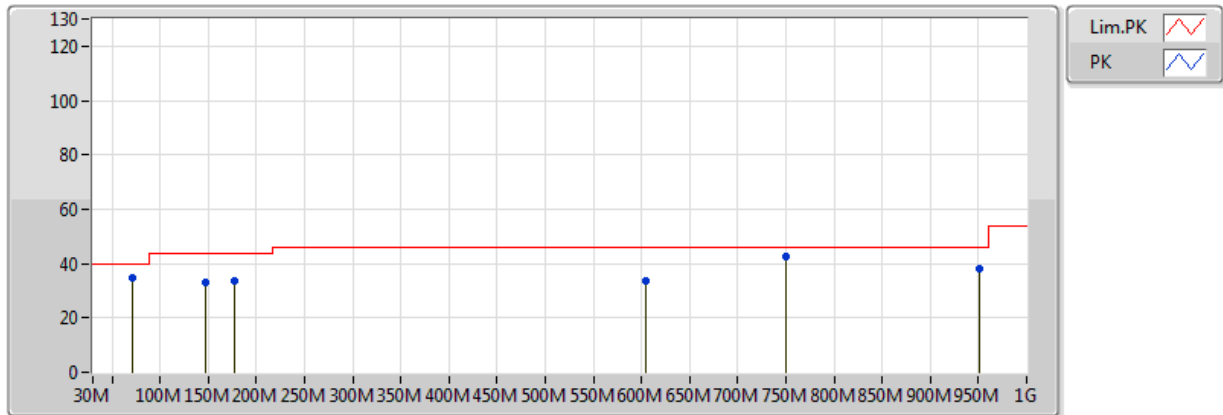
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	PK	749.74M	42.40	46.00	-3.60	-6.28	3	V	0	1.00	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	35.82M	16.77	40.00	-23.23	-16.20	3	H	360	1.00	-
2437MHz	Pass	PK	125.06M	15.09	43.50	-28.41	-18.33	3	H	360	1.00	-
2437MHz	Pass	PK	215.99M	17.24	43.50	-26.26	-19.88	3	H	360	1.00	-
2437MHz	Pass	PK	749.74M	37.90	46.00	-8.10	-6.28	3	H	360	1.00	-
2437MHz	Pass	PK	774.96M	41.47	46.00	-4.53	-5.90	3	H	360	1.00	-
2437MHz	Pass	PK	833.16M	33.25	46.00	-12.75	-5.10	3	H	360	1.00	-
2437MHz	Pass	PK	70.74M	34.96	40.00	-5.04	-24.31	3	V	0	1.00	-
2437MHz	Pass	PK	146.4M	33.11	43.50	-10.39	-18.44	3	V	0	1.00	-
2437MHz	Pass	PK	177.44M	33.41	43.50	-10.09	-20.20	3	V	0	1.00	-
2437MHz	Pass	PK	604.24M	33.68	46.00	-12.32	-8.57	3	V	0	1.00	-
2437MHz	Pass	PK	749.74M	42.40	46.00	-3.60	-6.28	3	V	0	1.00	-
2437MHz	Pass	PK	951.5M	38.02	46.00	-7.98	-2.54	3	V	0	1.00	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_Adapter

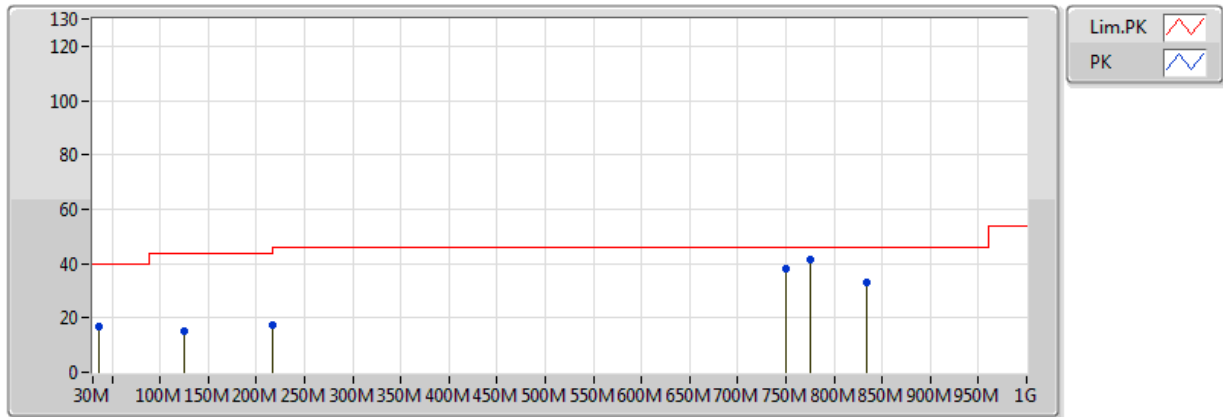


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	70.74M	34.96	40.00	-5.04	-24.31	3	V	0	1.00	-
PK	146.4M	33.11	43.50	-10.39	-18.44	3	V	0	1.00	-
PK	177.44M	33.41	43.50	-10.09	-20.20	3	V	0	1.00	-
PK	951.5M	38.02	46.00	-7.98	-2.54	3	V	0	1.00	-
PK	749.74M	42.40	46.00	-3.60	-6.28	3	V	0	1.00	-
PK	604.24M	33.68	46.00	-12.32	-8.57	3	V	0	1.00	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_Adapter



Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
PK	35.82M	16.77	40.00	-23.23	-16.20	3	H	360	1.00	-
PK	215.99M	17.24	43.50	-26.26	-19.88	3	H	360	1.00	-
PK	125.06M	15.09	43.50	-28.41	-18.33	3	H	360	1.00	-
PK	749.74M	37.90	46.00	-8.10	-6.28	3	H	360	1.00	-
PK	833.16M	33.25	46.00	-12.75	-5.10	3	H	360	1.00	-
PK	774.96M	41.47	46.00	-4.53	-5.90	3	H	360	1.00	-

**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
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2.4-2.4835GHz	Pass	AV	2.389992G	52.99	54.00	-1.01	31.28	3	V	NaN	NaN	-



Result

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	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.387056G	52.01	54.00	-1.99	31.27	3	H	NaN	NaN	-
2412MHz	Pass	AV	2.413936G	107.96	Inf	-Inf	31.37	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.386608G	61.48	74.00	-12.52	31.27	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.413488G	110.66	Inf	-Inf	31.36	3	H	NaN	NaN	-
2412MHz	Pass	AV	2.38616G	50.21	54.00	-3.79	31.27	3	V	NaN	NaN	-
2412MHz	Pass	AV	2.410128G	103.84	Inf	-Inf	31.35	3	V	NaN	NaN	-
2412MHz	Pass	PK	2.38728G	59.35	74.00	-14.65	31.27	3	V	NaN	NaN	-
2412MHz	Pass	PK	2.410576G	106.56	Inf	-Inf	31.35	3	V	NaN	NaN	-
2412MHz	Pass	AV	4.824G	48.66	54.00	-5.34	2.10	3	H	NaN	NaN	-
2412MHz	Pass	PK	4.824G	53.08	74.00	-20.92	2.10	3	H	NaN	NaN	-
2412MHz	Pass	AV	4.824G	47.45	54.00	-6.55	2.10	3	V	NaN	NaN	-
2412MHz	Pass	PK	4.824G	51.91	74.00	-22.09	2.10	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.35484G	47.43	54.00	-6.57	31.16	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.43578G	105.82	Inf	-Inf	31.44	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.4962G	47.52	54.00	-6.48	31.64	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.38182G	58.82	74.00	-15.18	31.25	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.4354G	108.58	Inf	-Inf	31.44	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.48746G	58.56	74.00	-15.44	31.61	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.35484G	47.17	54.00	-6.83	31.16	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.43578G	104.47	Inf	-Inf	31.44	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.49924G	47.48	54.00	-6.52	31.65	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.36358G	57.96	74.00	-16.04	31.19	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.43616G	107.22	Inf	-Inf	31.44	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.49848G	58.12	74.00	-15.88	31.64	3	V	NaN	NaN	-
2437MHz	Pass	AV	4.874G	51.47	54.00	-2.53	2.21	3	H	NaN	NaN	-
2437MHz	Pass	PK	4.874G	54.49	74.00	-19.51	2.21	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	51.57	54.00	-2.43	2.21	3	V	NaN	NaN	-
2437MHz	Pass	PK	4.874G	54.54	74.00	-19.46	2.21	3	V	NaN	NaN	-
2462MHz	Pass	AV	2.4634G	106.17	Inf	-Inf	31.53	3	H	NaN	NaN	-
2462MHz	Pass	AV	2.4878G	52.92	54.00	-1.08	31.61	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4636G	109.41	Inf	-Inf	31.53	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4874G	62.60	74.00	-11.40	31.61	3	H	NaN	NaN	-
2462MHz	Pass	AV	2.4638G	103.65	Inf	-Inf	31.53	3	V	NaN	NaN	-
2462MHz	Pass	AV	2.4876G	51.70	54.00	-2.30	31.61	3	V	NaN	NaN	-
2462MHz	Pass	PK	2.4636G	106.40	Inf	-Inf	31.53	3	V	NaN	NaN	-
2462MHz	Pass	PK	2.4882G	60.88	74.00	-13.12	31.61	3	V	NaN	NaN	-
2462MHz	Pass	AV	4.924G	50.75	54.00	-3.25	2.31	3	H	NaN	NaN	-
2462MHz	Pass	PK	4.924G	52.74	74.00	-20.26	2.31	3	H	NaN	NaN	-
2462MHz	Pass	AV	4.924G	53.77	54.00	-1.23	2.31	3	V	NaN	NaN	-
2462MHz	Pass	PK	4.924G	52.43	74.00	-21.57	2.31	3	V	NaN	NaN	-
802.11g_(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.389968G	52.08	54.00	-1.92	31.28	3	H	NaN	NaN	-
2412MHz	Pass	AV	2.40856G	98.33	Inf	-Inf	31.35	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.38952G	67.85	74.00	-6.15	31.28	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.417968G	105.74	Inf	-Inf	31.38	3	H	NaN	NaN	-
2412MHz	Pass	AV	2.389744G	48.89	54.00	-5.11	31.28	3	V	NaN	NaN	-
2412MHz	Pass	AV	2.406992G	96.49	Inf	-Inf	31.34	3	V	NaN	NaN	-
2412MHz	Pass	PK	2.388624G	62.29	74.00	-11.71	31.28	3	V	NaN	NaN	-



RSE TX above 1GHz Result

Appendix F.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2412MHz	Pass	PK	2.40744G	104.15	Inf	-Inf	31.34	3	V	NaN	NaN	-
2412MHz	Pass	AV	4.824G	33.91	54.00	-20.09	2.10	3	H	NaN	NaN	-
2412MHz	Pass	PK	4.824G	46.40	74.00	-27.60	2.10	3	H	NaN	NaN	-
2412MHz	Pass	AV	4.824G	34.72	54.00	-19.28	2.10	3	V	NaN	NaN	-
2412MHz	Pass	PK	4.824G	46.72	74.00	-27.28	2.10	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.3898G	52.89	54.00	-1.11	31.19	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.43426G	107.26	Inf	-Inf	31.35	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.48442G	52.34	54.00	-1.66	31.53	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.38942G	68.20	74.00	-5.80	31.19	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.43464G	115.50	Inf	-Inf	31.35	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.48556G	66.96	74.00	-7.04	31.54	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.3898G	49.19	54.00	-4.81	31.19	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.43008G	105.98	Inf	-Inf	31.34	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.48556G	50.23	54.00	-3.77	31.54	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.38638G	60.29	74.00	-13.71	31.18	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.43046G	113.58	Inf	-Inf	31.34	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.48632G	62.02	74.00	-11.98	31.54	3	V	NaN	NaN	-
2437MHz	Pass	AV	4.874G	44.71	54.00	-9.29	2.21	3	H	NaN	NaN	-
2437MHz	Pass	PK	4.874G	56.16	74.00	-17.84	2.21	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	45.73	54.00	-8.27	2.21	3	V	NaN	NaN	-
2437MHz	Pass	PK	4.874G	56.71	74.00	-17.29	2.21	3	V	NaN	NaN	-
2462MHz	Pass	AV	2.4562G	98.54	Inf	-Inf	31.51	3	H	NaN	NaN	-
2462MHz	Pass	AV	2.486G	50.57	54.00	-3.43	31.60	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4662G	106.23	Inf	-Inf	31.54	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4864G	64.76	74.00	-9.24	31.61	3	H	NaN	NaN	-
2462MHz	Pass	AV	2.4586G	97.30	Inf	-Inf	31.51	3	V	NaN	NaN	-
2462MHz	Pass	AV	2.484G	52.60	54.00	-1.40	31.60	3	V	NaN	NaN	-
2462MHz	Pass	PK	2.465G	105.00	Inf	-Inf	31.53	3	V	NaN	NaN	-
2462MHz	Pass	PK	2.4836G	68.16	74.00	-5.84	31.60	3	V	NaN	NaN	-
2462MHz	Pass	AV	4.924G	36.56	54.00	-17.44	2.31	3	H	NaN	NaN	-
2462MHz	Pass	PK	4.924G	48.67	74.00	-25.33	2.31	3	H	NaN	NaN	-
2462MHz	Pass	AV	4.924G	37.79	54.00	-16.21	2.31	3	V	NaN	NaN	-
2462MHz	Pass	PK	4.924G	50.72	74.00	-23.28	2.31	3	V	NaN	NaN	-
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.389968G	52.67	54.00	-1.33	31.28	3	H	NaN	NaN	-
2412MHz	Pass	AV	2.407888G	98.23	Inf	-Inf	31.35	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.389744G	65.16	74.00	-8.84	31.28	3	H	NaN	NaN	-
2412MHz	Pass	PK	2.406544G	107.62	Inf	-Inf	31.34	3	H	NaN	NaN	-
2412MHz	Pass	AV	2.389968G	52.30	54.00	-1.70	31.28	3	V	NaN	NaN	-
2412MHz	Pass	AV	2.406544G	96.97	Inf	-Inf	31.34	3	V	NaN	NaN	-
2412MHz	Pass	PK	2.389968G	67.70	74.00	-6.30	31.28	3	V	NaN	NaN	-
2412MHz	Pass	PK	2.406544G	106.19	Inf	-Inf	31.34	3	V	NaN	NaN	-
2412MHz	Pass	AV	4.824G	33.10	54.00	-20.90	37.26	3	H	NaN	NaN	-
2412MHz	Pass	PK	4.824G	46.96	74.00	-27.04	37.26	3	H	NaN	NaN	-
2412MHz	Pass	AV	4.824G	33.85	54.00	-20.15	2.10	3	V	NaN	NaN	-
2412MHz	Pass	PK	4.824G	46.02	74.00	-27.98	2.10	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.38828G	50.60	54.00	-3.40	31.28	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.44262G	106.41	Inf	-Inf	31.46	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.48366G	52.56	54.00	-1.44	31.60	3	H	NaN	NaN	-



RSE TX above 1GHz Result

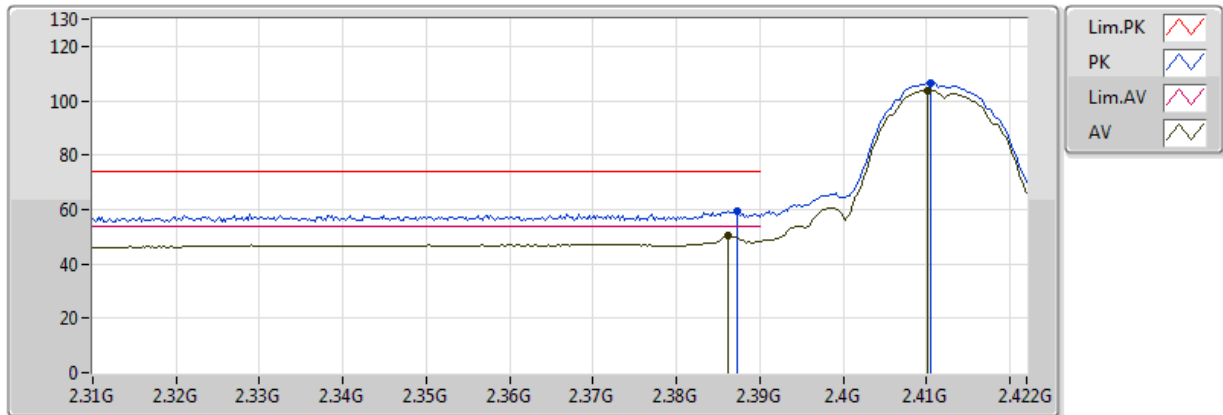
Appendix F.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2437MHz	Pass	PK	2.38714G	66.27	74.00	-7.73	31.27	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.44072G	114.07	Inf	-Inf	31.45	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.48442G	65.84	74.00	-8.16	31.60	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.3898G	49.90	54.00	-4.10	31.28	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.43236G	105.80	Inf	-Inf	31.43	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.49126G	48.07	54.00	-5.93	31.62	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.3898G	62.49	74.00	-11.51	31.28	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.4316G	113.87	Inf	-Inf	31.42	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.48936G	58.68	74.00	-15.32	31.61	3	V	NaN	NaN	-
2437MHz	Pass	AV	4.874G	43.74	54.00	-10.26	2.21	3	H	NaN	NaN	-
2437MHz	Pass	PK	4.874G	55.41	74.00	-18.59	2.20	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	42.21	54.00	-11.79	2.21	3	V	NaN	NaN	-
2437MHz	Pass	PK	4.874G	54.79	74.00	-19.21	2.21	3	V	NaN	NaN	-
2462MHz	Pass	AV	2.4578G	97.43	Inf	-Inf	31.51	3	H	NaN	NaN	-
2462MHz	Pass	AV	2.4836G	52.62	54.00	-1.38	31.60	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4578G	105.77	Inf	-Inf	31.51	3	H	NaN	NaN	-
2462MHz	Pass	PK	2.4836G	66.10	74.00	-7.90	31.60	3	H	NaN	NaN	-
2462MHz	Pass	AV	2.4652G	95.94	Inf	-Inf	31.54	3	V	NaN	NaN	-
2462MHz	Pass	AV	2.4836G	52.36	54.00	-1.64	31.60	3	V	NaN	NaN	-
2462MHz	Pass	PK	2.4652G	103.79	Inf	-Inf	31.54	3	V	NaN	NaN	-
2462MHz	Pass	PK	2.4844G	65.67	74.00	-8.33	31.60	3	V	NaN	NaN	-
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	AV	2.389464G	52.90	54.00	-1.10	31.28	3	H	NaN	NaN	-
2422MHz	Pass	AV	2.404776G	93.58	Inf	-Inf	31.34	3	H	NaN	NaN	-
2422MHz	Pass	PK	2.383128G	70.81	74.00	-3.19	31.26	3	H	NaN	NaN	-
2422MHz	Pass	PK	2.406096G	101.71	Inf	-Inf	31.34	3	H	NaN	NaN	-
2422MHz	Pass	AV	2.389992G	52.99	54.00	-1.01	31.28	3	V	NaN	NaN	-
2422MHz	Pass	AV	2.406888G	92.26	Inf	-Inf	31.34	3	V	NaN	NaN	-
2422MHz	Pass	PK	2.388936G	70.96	74.00	-3.04	31.28	3	V	NaN	NaN	-
2422MHz	Pass	PK	2.407152G	100.88	Inf	-Inf	31.34	3	V	NaN	NaN	-
2422MHz	Pass	AV	4.844G	32.99	54.00	-21.01	2.14	3	H	NaN	NaN	-
2422MHz	Pass	PK	4.844G	45.06	74.00	-28.94	2.15	3	H	NaN	NaN	-
2422MHz	Pass	AV	4.844G	32.70	54.00	-21.30	2.12	3	V	NaN	NaN	-
2422MHz	Pass	PK	4.844G	44.77	74.00	-29.23	2.15	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.3898G	52.35	54.00	-1.65	31.28	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.42438G	95.84	Inf	-Inf	31.40	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.48366G	50.32	54.00	-3.68	31.60	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.38904G	68.53	74.00	-5.47	31.28	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.42438G	104.20	Inf	-Inf	31.40	3	H	NaN	NaN	-
2437MHz	Pass	PK	2.48442G	64.34	74.00	-9.66	31.60	3	H	NaN	NaN	-
2437MHz	Pass	AV	2.3898G	52.14	54.00	-1.86	31.28	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.42666G	93.77	Inf	-Inf	31.41	3	V	NaN	NaN	-
2437MHz	Pass	AV	2.48556G	49.59	54.00	-4.41	31.60	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.3898G	67.71	74.00	-6.29	31.28	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.4259G	102.64	Inf	-Inf	31.41	3	V	NaN	NaN	-
2437MHz	Pass	PK	2.4867G	61.75	74.00	-12.25	31.61	3	V	NaN	NaN	-
2437MHz	Pass	AV	4.874G	33.36	54.00	-20.64	2.24	3	H	NaN	NaN	-
2437MHz	Pass	AV	4.874G	33.06	54.00	-20.94	2.23	3	H	NaN	NaN	-
2437MHz	Pass	PK	4.874G	44.73	74.00	-29.27	2.24	3	H	NaN	NaN	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Pol. (H/V)	Azimuth (°)	Height (m)	Comments
2437MHz	Pass	PK	4.874G	44.75	74.00	-29.25	2.24	3	H	NaN	NaN	-
2452MHz	Pass	AV	2.43584G	94.08	Inf	-Inf	31.44	3	H	NaN	NaN	-
2452MHz	Pass	AV	2.4836G	52.49	54.00	-1.51	31.60	3	H	NaN	NaN	-
2452MHz	Pass	PK	2.4368G	102.79	Inf	-Inf	31.44	3	H	NaN	NaN	-
2452MHz	Pass	PK	2.48384G	66.43	74.00	-7.57	31.60	3	H	NaN	NaN	-
2452MHz	Pass	AV	2.43488G	91.97	Inf	-Inf	31.44	3	V	NaN	NaN	-
2452MHz	Pass	AV	2.49128G	50.91	54.00	-3.09	31.62	3	V	NaN	NaN	-
2452MHz	Pass	PK	2.43656G	100.01	Inf	-Inf	31.44	3	V	NaN	NaN	-
2452MHz	Pass	PK	2.4836G	64.12	74.00	-9.88	31.60	3	V	NaN	NaN	-
2452MHz	Pass	AV	4.904G	32.65	54.00	-21.35	2.24	3	H	NaN	NaN	-
2452MHz	Pass	PK	4.904G	44.31	74.00	-29.69	2.16	3	H	NaN	NaN	-
2452MHz	Pass	AV	4.904G	32.70	54.00	-21.30	2.25	3	V	NaN	NaN	-
2452MHz	Pass	PK	4.904G	45.01	74.00	-28.99	2.23	3	V	NaN	NaN	-

802.11b_(1Mbps)_2TX

2412MHz_Adapter

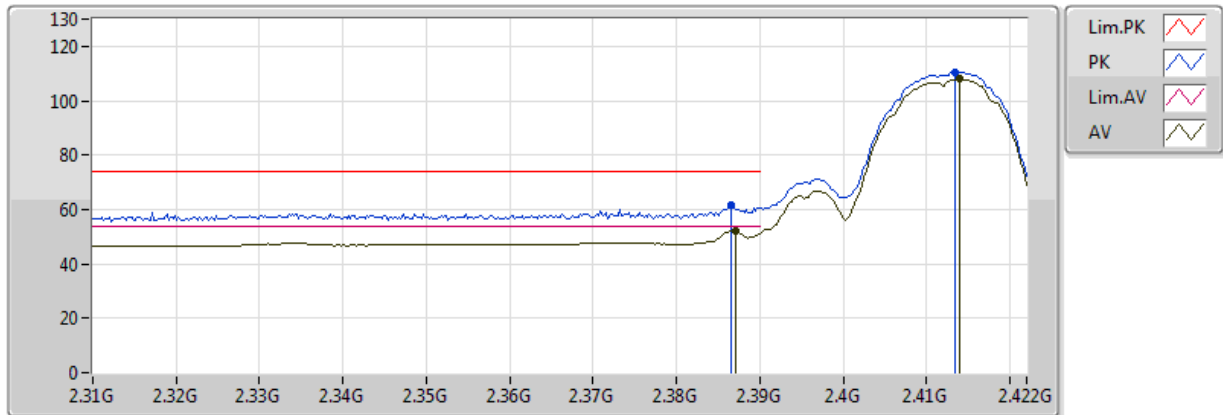


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.38616G	50.21	54.00	-3.79	31.27	3	V	NaN	NaN	-
AV	2.410128G	103.84	Inf	-Inf	31.35	3	V	NaN	NaN	-
PK	2.38728G	59.35	74.00	-14.65	31.27	3	V	NaN	NaN	-
PK	2.410576G	106.56	Inf	-Inf	31.35	3	V	NaN	NaN	-

802.11b_(1Mbps)_2TX

2412MHz_Adapter



Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.387056G	52.01	54.00	-1.99	31.27	3	H	NaN	NaN	-
AV	2.413936G	107.96	Inf	-Inf	31.37	3	H	NaN	NaN	-
PK	2.386608G	61.48	74.00	-12.52	31.27	3	H	NaN	NaN	-
PK	2.413488G	110.66	Inf	-Inf	31.36	3	H	NaN	NaN	-

802.11b_(1Mbps)_2TX

2412MHz_Adapter



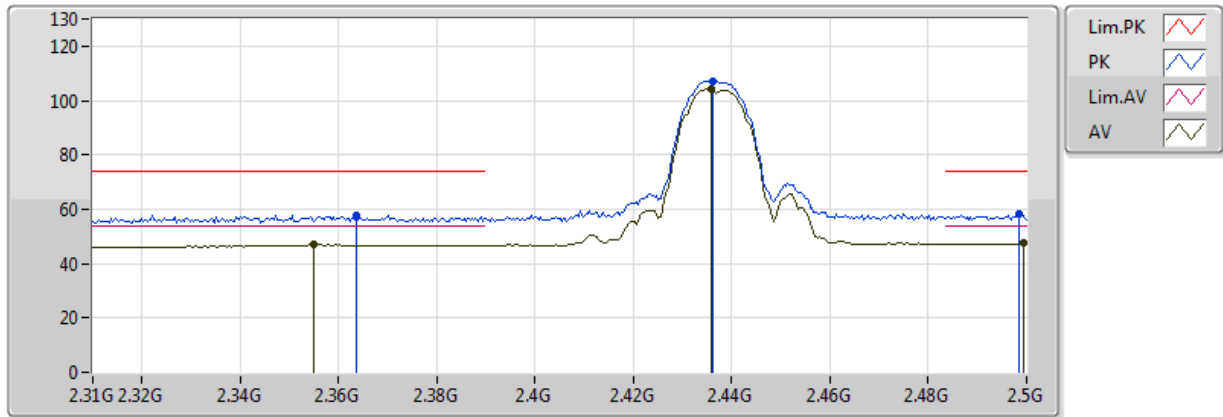
802.11b_(1Mbps)_2TX

2412MHz_Adapter



802.11b_(1Mbps)_2TX

2437MHz_Adapter

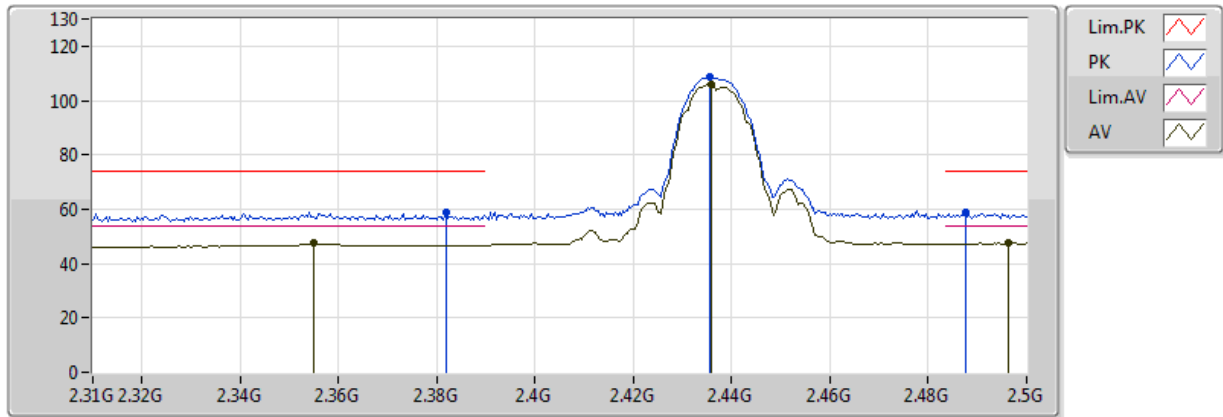


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.35484G	47.17	54.00	-6.83	31.16	3	V	NaN	NaN	-
AV	2.43578G	104.47	Inf	-Inf	31.44	3	V	NaN	NaN	-
AV	2.49924G	47.48	54.00	-6.52	31.65	3	V	NaN	NaN	-
PK	2.36358G	57.96	74.00	-16.04	31.19	3	V	NaN	NaN	-
PK	2.43616G	107.22	Inf	-Inf	31.44	3	V	NaN	NaN	-
PK	2.49848G	58.12	74.00	-15.88	31.64	3	V	NaN	NaN	-

802.11b_(1Mbps)_2TX

2437MHz_Adapter

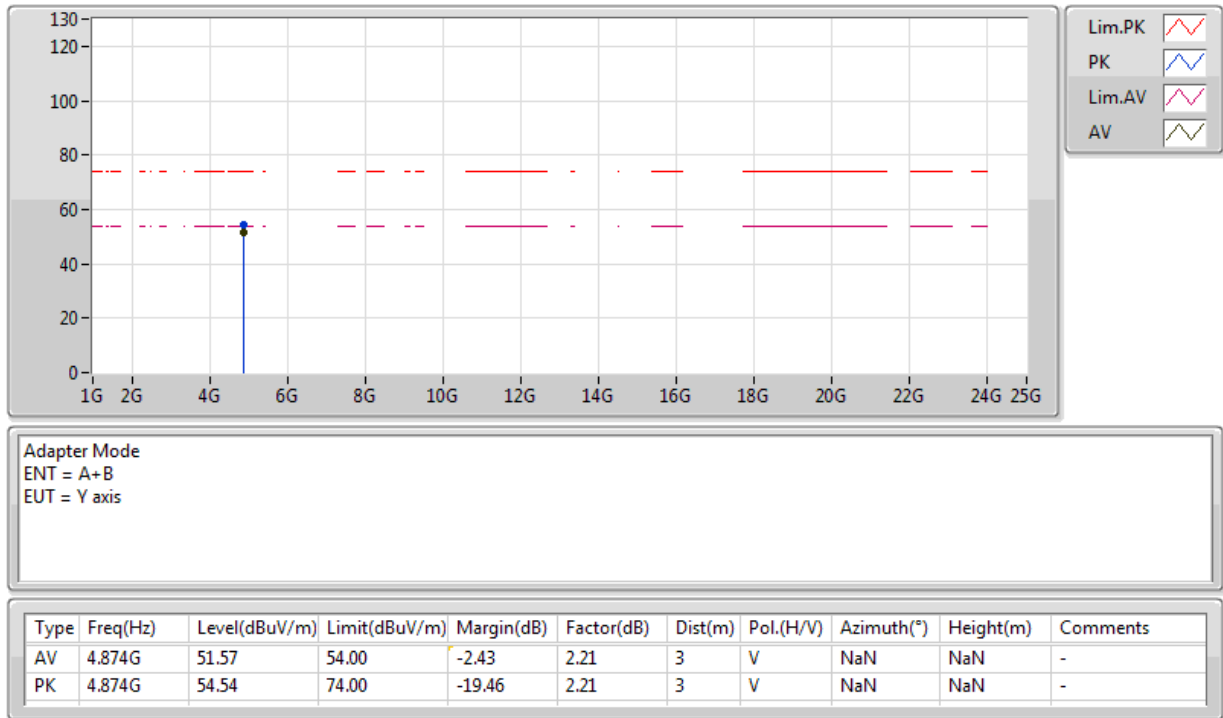


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.35484G	47.43	54.00	-6.57	31.16	3	H	NaN	NaN	-
AV	2.43578G	105.82	Inf	-Inf	31.44	3	H	NaN	NaN	-
AV	2.4962G	47.52	54.00	-6.48	31.64	3	H	NaN	NaN	-
PK	2.38182G	58.82	74.00	-15.18	31.25	3	H	NaN	NaN	-
PK	2.4354G	108.58	Inf	-Inf	31.44	3	H	NaN	NaN	-
PK	2.48746G	58.56	74.00	-15.44	31.61	3	H	NaN	NaN	-

802.11b_(1Mbps)_2TX

2437MHz_Adapter



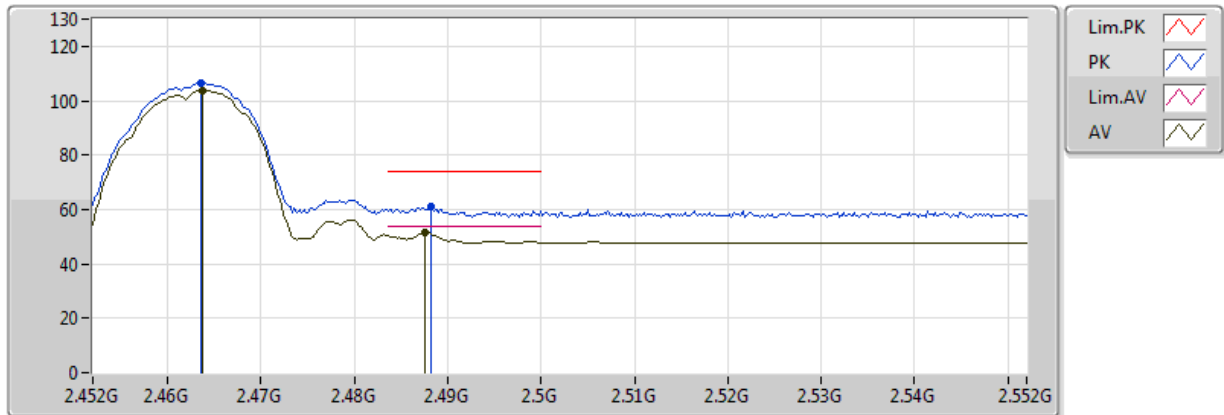
802.11b_(1Mbps)_2TX

2437MHz_Adapter



802.11b_(1Mbps)_2TX

2462MHz_Adapter

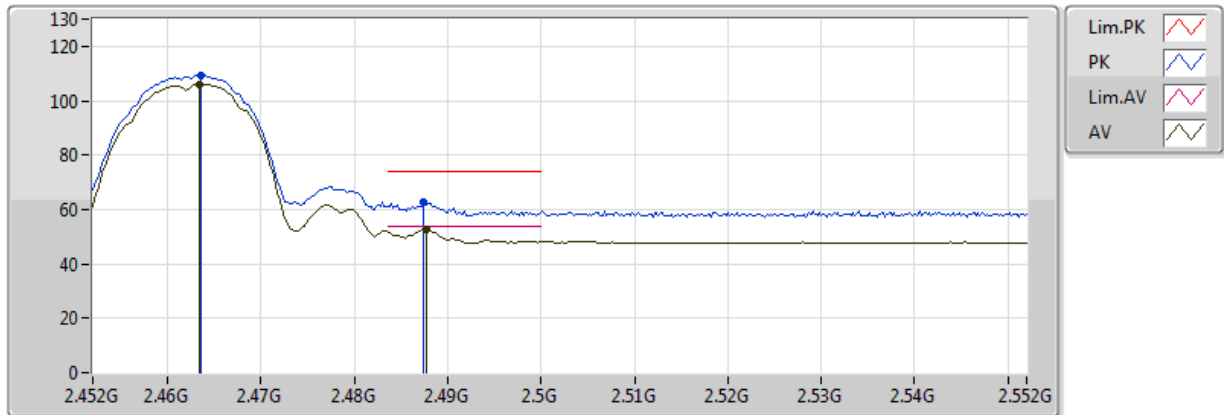


Adapter Mode
ENT = A+B
EUT = Y axis

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	103.65	Inf	-Inf	31.53	3	V	NaN	NaN	-
AV	2.4876G	51.70	54.00	-2.30	31.61	3	V	NaN	NaN	-
PK	2.4636G	106.40	Inf	-Inf	31.53	3	V	NaN	NaN	-
PK	2.4882G	60.88	74.00	-13.12	31.61	3	V	NaN	NaN	-

802.11b_(1Mbps)_2TX

2462MHz_Adapter

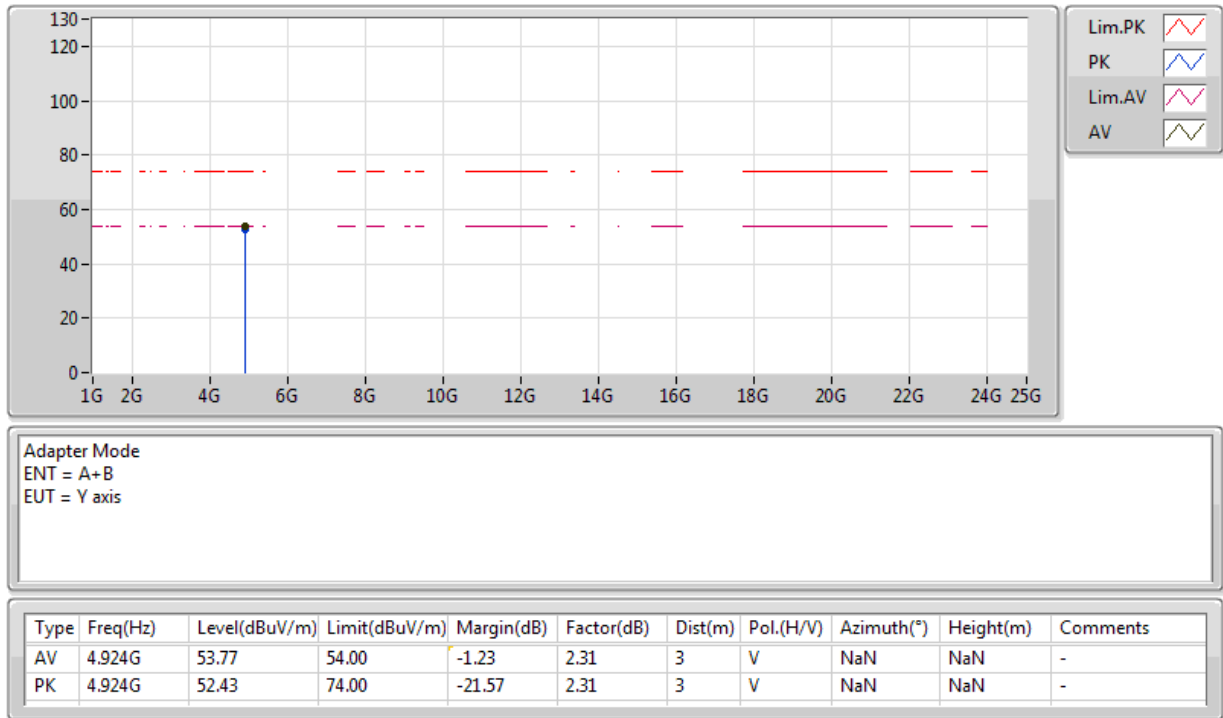


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4878G	52.92	54.00	-1.08	31.61	3	H	NaN	NaN	-
AV	2.4634G	106.17	Inf	-Inf	31.53	3	H	NaN	NaN	-
PK	2.4636G	109.41	Inf	-Inf	31.53	3	H	NaN	NaN	-
PK	2.4874G	62.60	74.00	-11.40	31.61	3	H	NaN	NaN	-

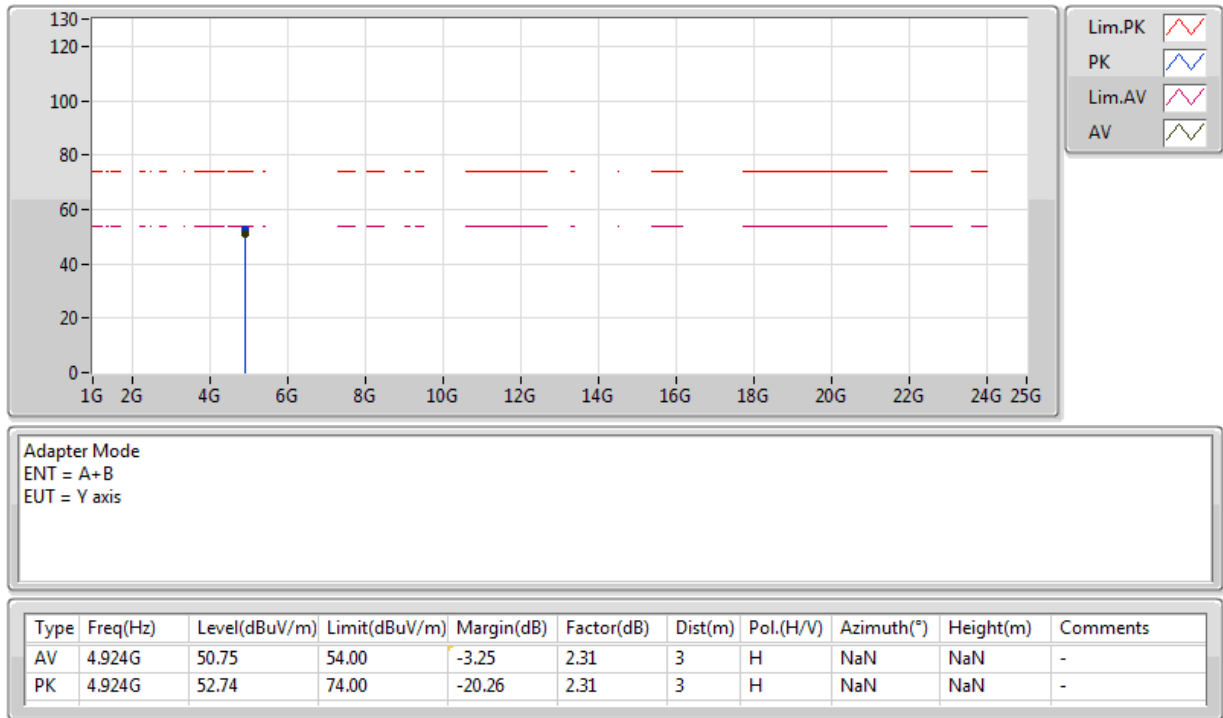
802.11b_(1Mbps)_2TX

2462MHz_Adapter



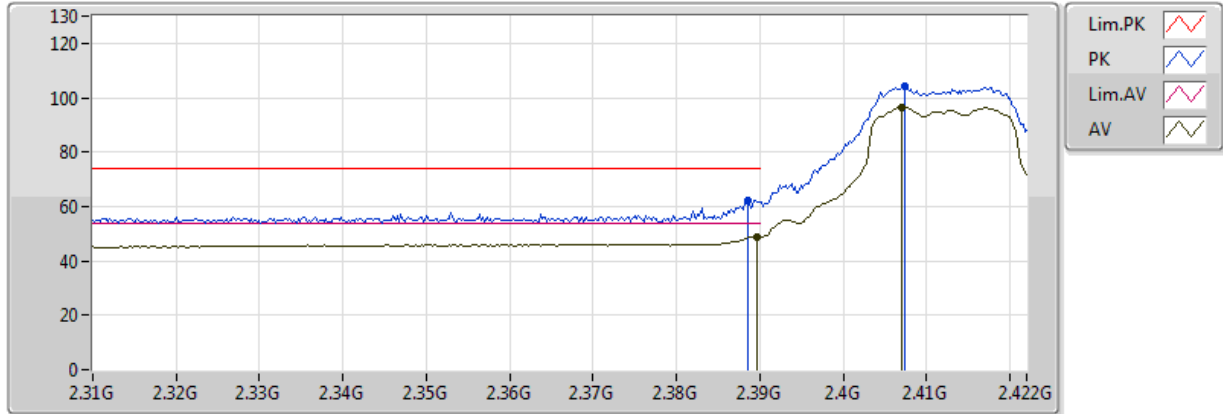
802.11b_(1Mbps)_2TX

2462MHz_Adapter



802.11g_(6Mbps)_2TX

2412MHz_Adapter

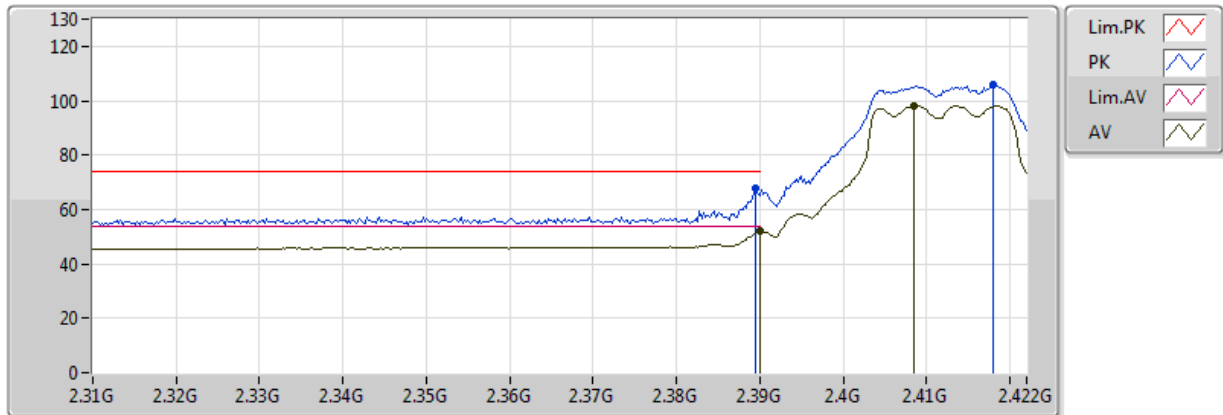


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389744G	48.89	54.00	-5.11	31.28	3	V	NaN	NaN	-
AV	2.406992G	96.49	Inf	-Inf	31.34	3	V	NaN	NaN	-
PK	2.388624G	62.29	74.00	-11.71	31.28	3	V	NaN	NaN	-
PK	2.40744G	104.15	Inf	-Inf	31.34	3	V	NaN	NaN	-

802.11g_(6Mbps)_2TX

2412MHz_Adapter



Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389968G	52.08	54.00	-1.92	31.28	3	H	NaN	NaN	-
AV	2.40856G	98.33	Inf	-Inf	31.35	3	H	NaN	NaN	-
PK	2.38952G	67.85	74.00	-6.15	31.28	3	H	NaN	NaN	-
PK	2.417968G	105.74	Inf	-Inf	31.38	3	H	NaN	NaN	-

802.11g_(6Mbps)_2TX

2412MHz_Adapter



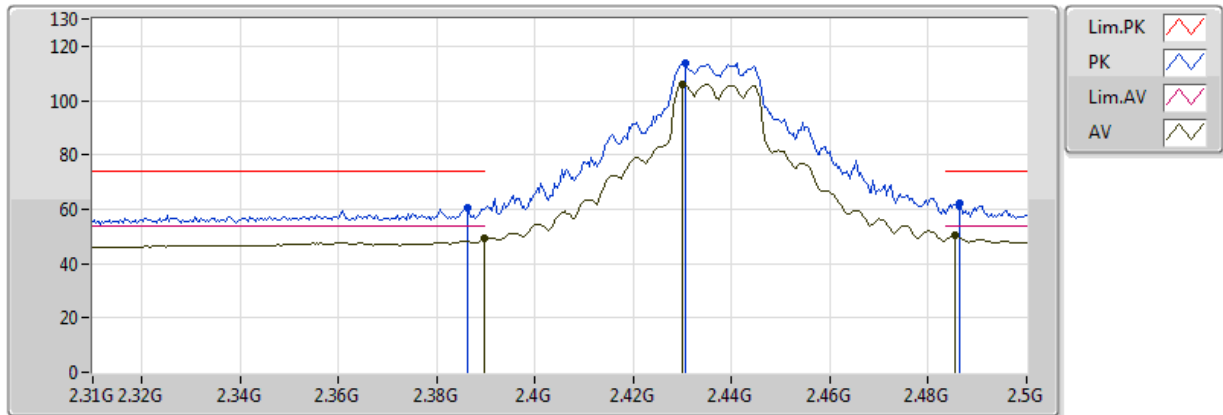
802.11g_(6Mbps)_2TX

2412MHz_Adapter



802.11g_(6Mbps)_2TX

2437MHz_Adapter

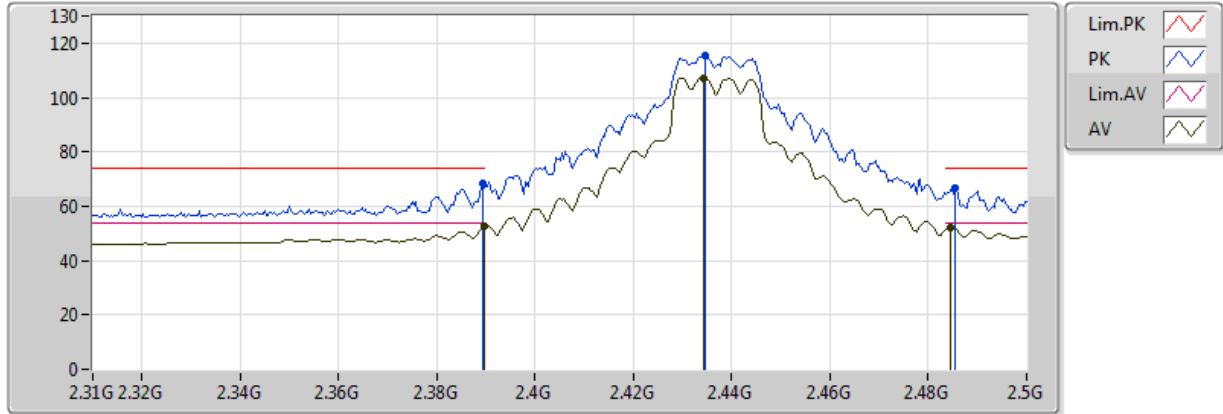


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	49.19	54.00	-4.81	31.19	3	V	NaN	NaN	-
AV	2.43008G	105.98	Inf	-Inf	31.34	3	V	NaN	NaN	-
AV	2.48556G	50.23	54.00	-3.77	31.54	3	V	NaN	NaN	-
PK	2.38638G	60.29	74.00	-13.71	31.18	3	V	NaN	NaN	-
PK	2.43046G	113.58	Inf	-Inf	31.34	3	V	NaN	NaN	-
PK	2.48632G	62.02	74.00	-11.98	31.54	3	V	NaN	NaN	-

802.11g_(6Mbps)_2TX

2437MHz_Adapter

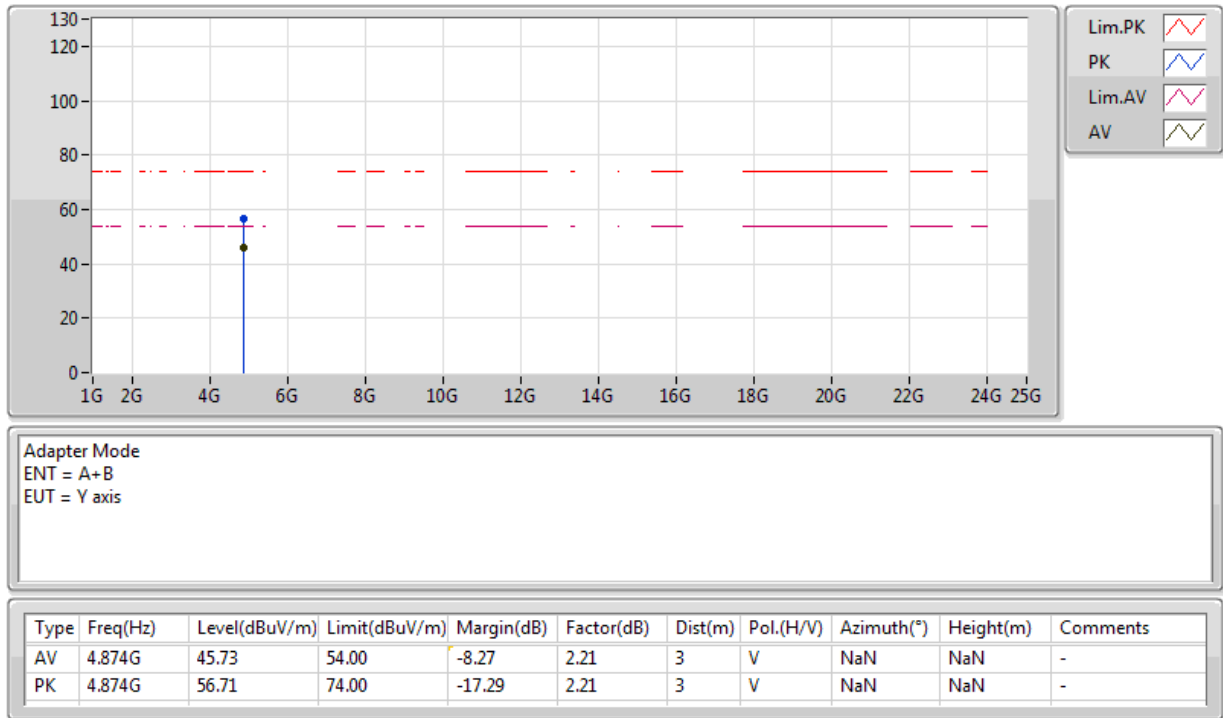


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	52.89	54.00	-1.11	31.19	3	H	NaN	NaN	-
AV	2.43426G	107.26	Inf	-Inf	31.35	3	H	NaN	NaN	-
AV	2.48442G	52.34	54.00	-1.66	31.53	3	H	NaN	NaN	-
PK	2.38942G	68.20	74.00	-5.80	31.19	3	H	NaN	NaN	-
PK	2.43464G	115.50	Inf	-Inf	31.35	3	H	NaN	NaN	-
PK	2.48556G	66.96	74.00	-7.04	31.54	3	H	NaN	NaN	-

802.11g_(6Mbps)_2TX

2437MHz_Adapter



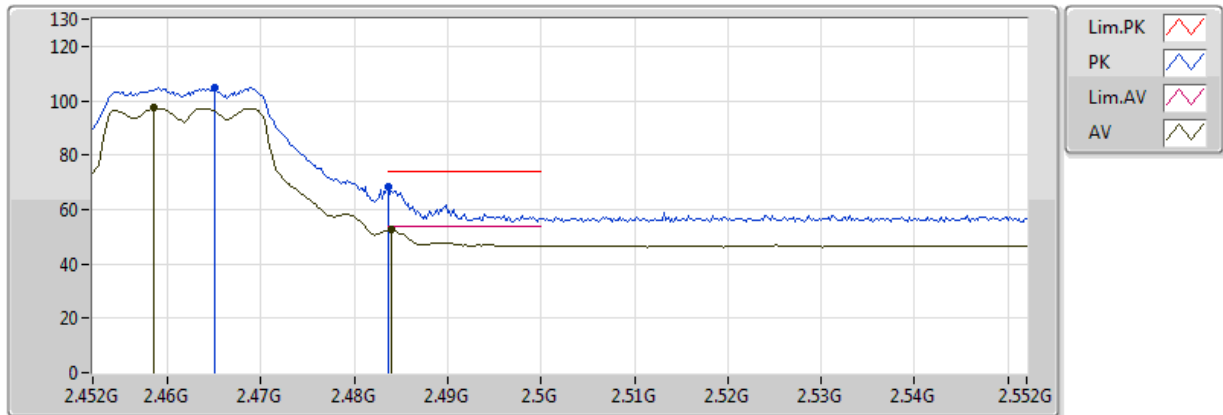
802.11g_(6Mbps)_2TX

2437MHz_Adapter



802.11g_(6Mbps)_2TX

2462MHz_Adapter

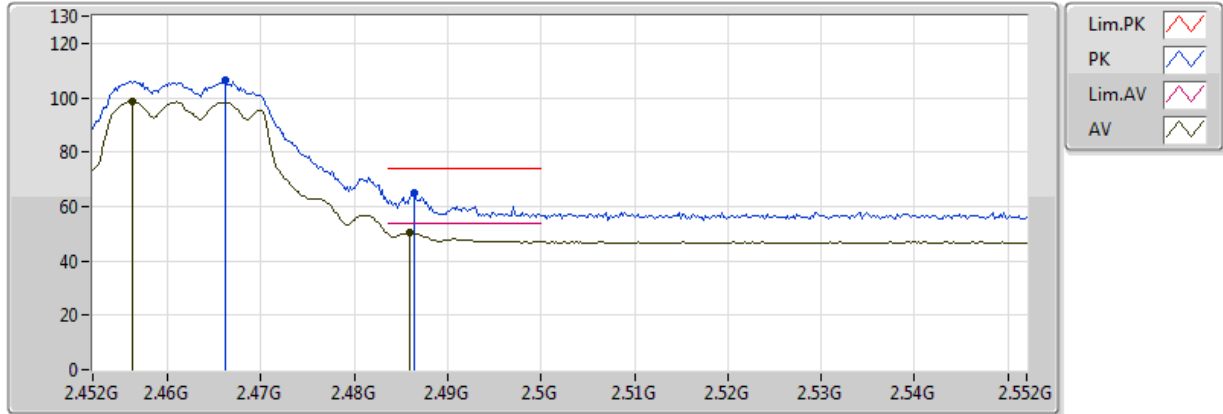


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4586G	97.30	Inf	-Inf	31.51	3	V	NaN	NaN	-
AV	2.484G	52.60	54.00	-1.40	31.60	3	V	NaN	NaN	-
PK	2.465G	105.00	Inf	-Inf	31.53	3	V	NaN	NaN	-
PK	2.4836G	68.16	74.00	-5.84	31.60	3	V	NaN	NaN	-

802.11g_(6Mbps)_2TX

2462MHz_Adapter

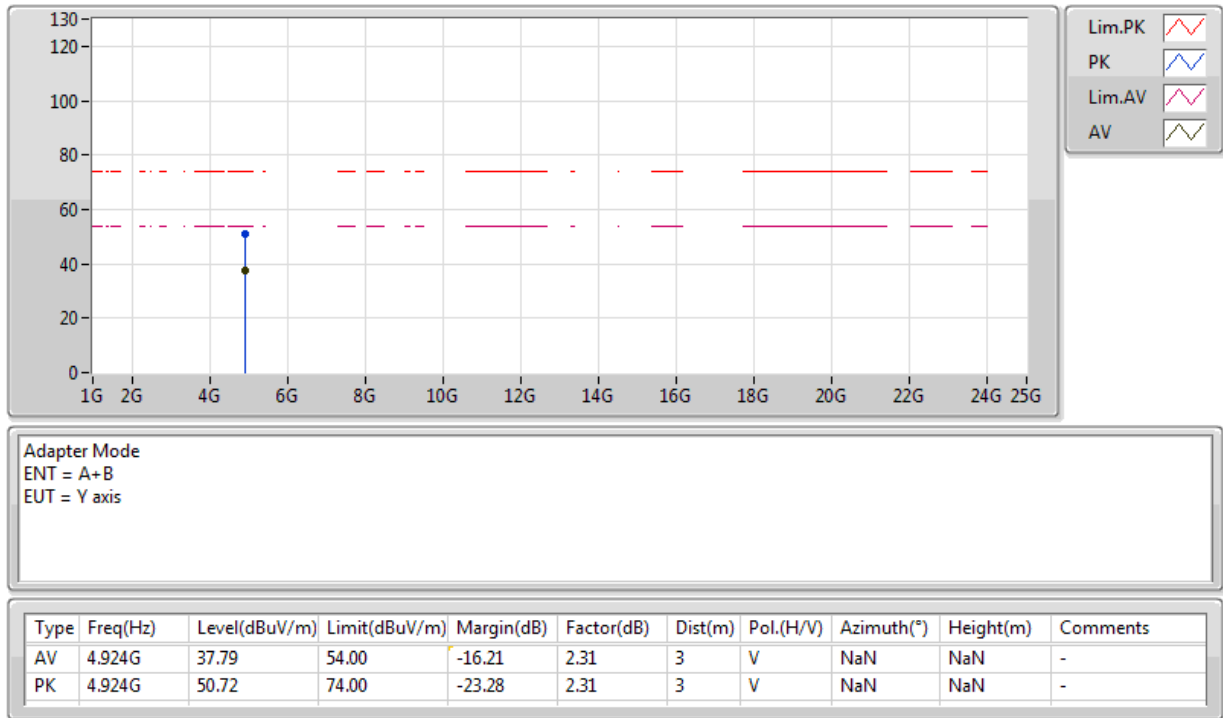


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4562G	98.54	Inf	-Inf	31.51	3	H	NaN	NaN	-
AV	2.486G	50.57	54.00	-3.43	31.60	3	H	NaN	NaN	-
PK	2.4662G	106.23	Inf	-Inf	31.54	3	H	NaN	NaN	-
PK	2.4864G	64.76	74.00	-9.24	31.61	3	H	NaN	NaN	-

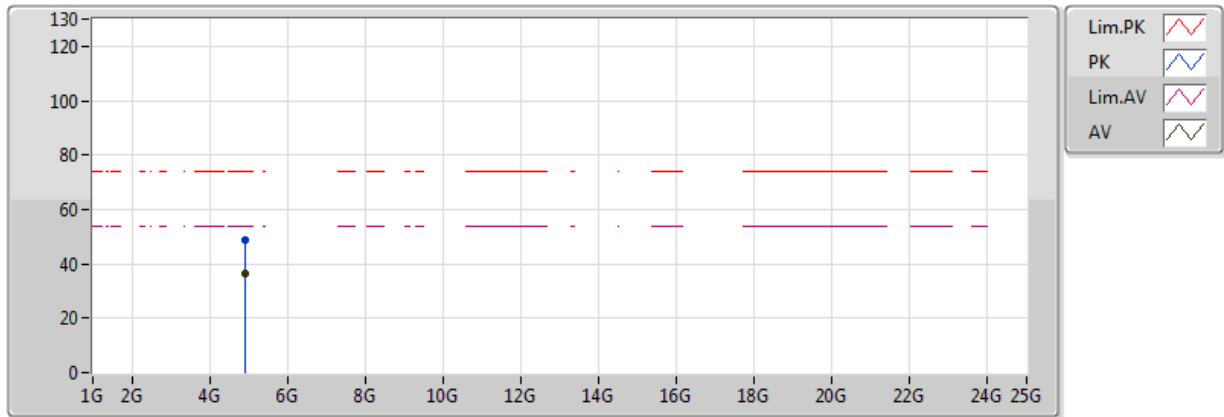
802.11g_(6Mbps)_2TX

2462MHz_Adapter



802.11g_(6Mbps)_2TX

2462MHz_Adapter

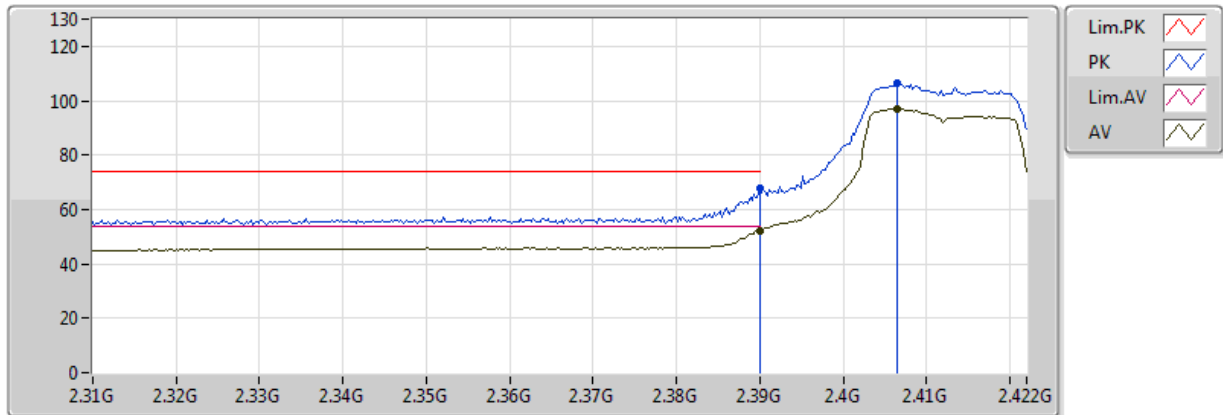


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.924G	36.56	54.00	-17.44	2.31	3	H	NaN	NaN	-
PK	4.924G	48.67	74.00	-25.33	2.31	3	H	NaN	NaN	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_Adapter

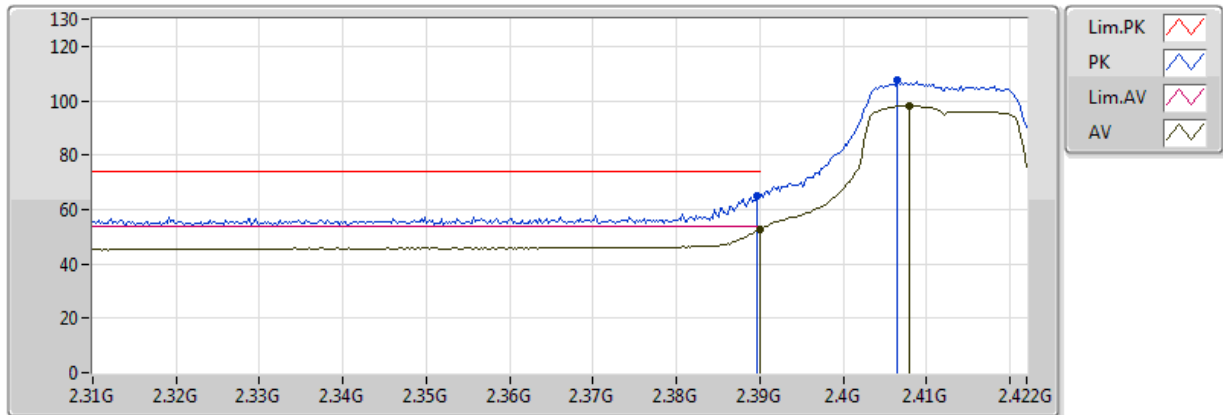


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389968G	52.30	54.00	-1.70	31.28	3	V	NaN	NaN	-
AV	2.406544G	96.97	Inf	-Inf	31.34	3	V	NaN	NaN	-
PK	2.389968G	67.70	74.00	-6.30	31.28	3	V	NaN	NaN	-
PK	2.406544G	106.19	Inf	-Inf	31.34	3	V	NaN	NaN	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_Adapter



Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389968G	52.67	54.00	-1.33	31.28	3	H	NaN	NaN	-
AV	2.407888G	98.23	Inf	-Inf	31.35	3	H	NaN	NaN	-
PK	2.389744G	65.16	74.00	-8.84	31.28	3	H	NaN	NaN	-
PK	2.406544G	107.62	Inf	-Inf	31.34	3	H	NaN	NaN	-

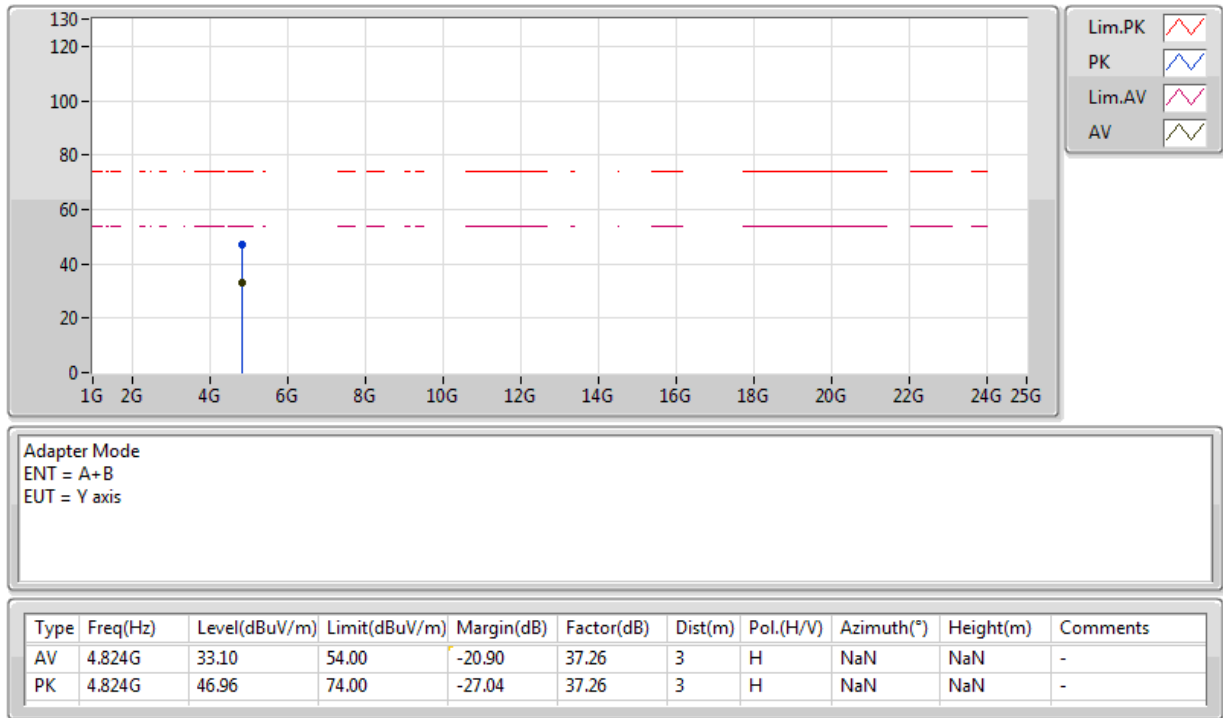
802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_Adapter



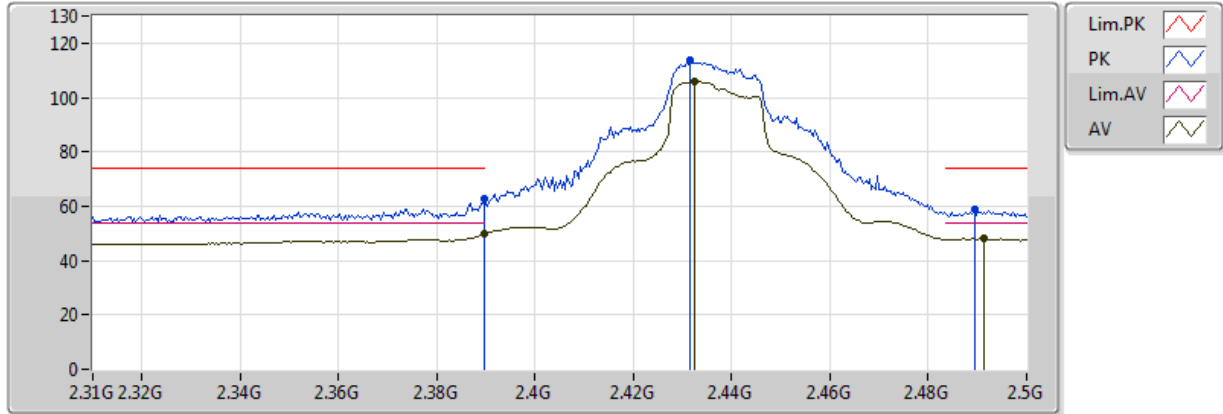
802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_Adapter



802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_Adapter

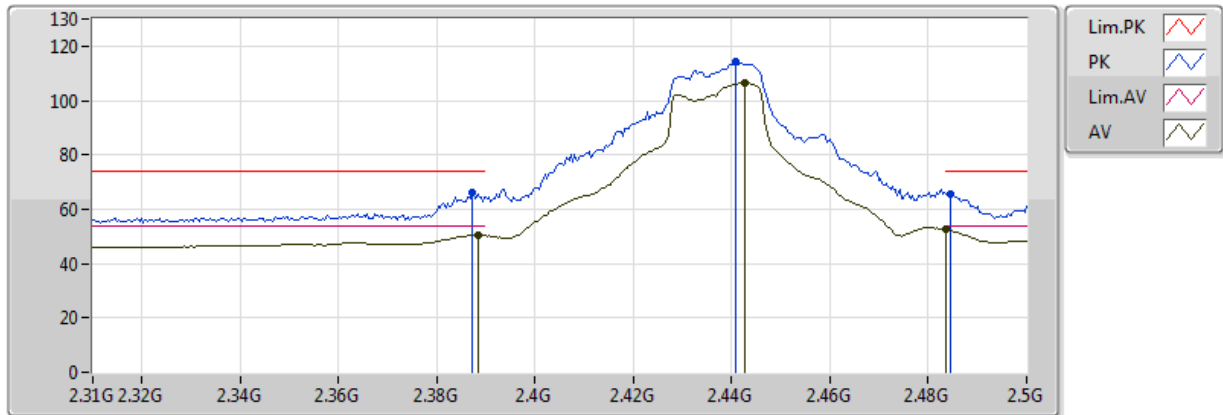


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	49.90	54.00	-4.10	31.28	3	V	NaN	NaN	-
AV	2.43236G	105.80	Inf	-Inf	31.43	3	V	NaN	NaN	-
AV	2.49126G	48.07	54.00	-5.93	31.62	3	V	NaN	NaN	-
PK	2.3898G	62.49	74.00	-11.51	31.28	3	V	NaN	NaN	-
PK	2.4316G	113.87	Inf	-Inf	31.42	3	V	NaN	NaN	-
PK	2.48936G	58.68	74.00	-15.32	31.61	3	V	NaN	NaN	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_Adapter



Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.44262G	106.41	Inf	-Inf	31.46	3	H	NaN	NaN	-
AV	2.38828G	50.60	54.00	-3.40	31.28	3	H	NaN	NaN	-
AV	2.48366G	52.56	54.00	-1.44	31.60	3	H	NaN	NaN	-
PK	2.44072G	114.07	Inf	-Inf	31.45	3	H	NaN	NaN	-
PK	2.38714G	66.27	74.00	-7.73	31.27	3	H	NaN	NaN	-
PK	2.48442G	65.84	74.00	-8.16	31.60	3	H	NaN	NaN	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_Adapter



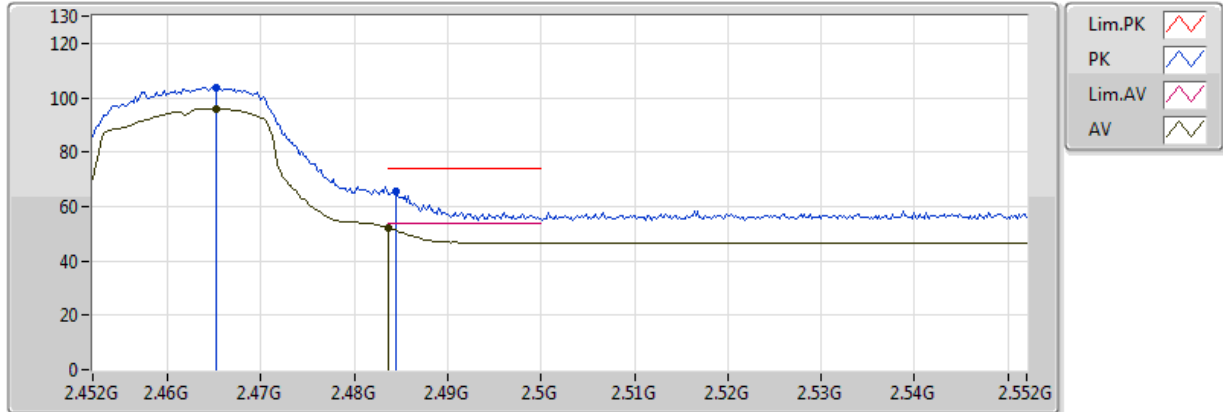
802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_Adapter



802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_Adapter

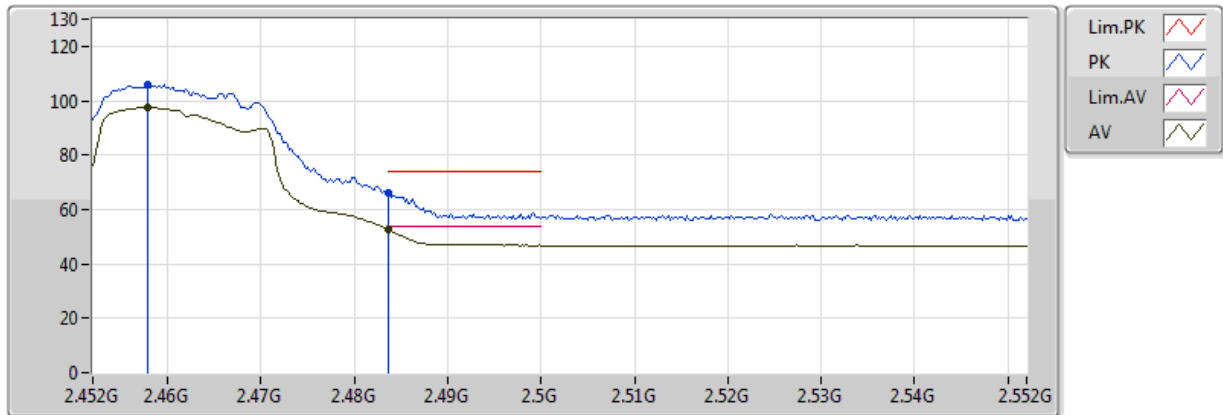


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4652G	95.94	Inf	-Inf	31.54	3	V	NaN	NaN	-
AV	2.4836G	52.36	54.00	-1.64	31.60	3	V	NaN	NaN	-
PK	2.4652G	103.79	Inf	-Inf	31.54	3	V	NaN	NaN	-
PK	2.4844G	65.67	74.00	-8.33	31.60	3	V	NaN	NaN	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_Adapter



Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.4578G	97.43	Inf	-Inf	31.51	3	H	NaN	NaN	-
AV	2.4836G	52.62	54.00	-1.38	31.60	3	H	NaN	NaN	-
PK	2.4578G	105.77	Inf	-Inf	31.51	3	H	NaN	NaN	-
PK	2.4836G	66.10	74.00	-7.90	31.60	3	H	NaN	NaN	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_Adapter



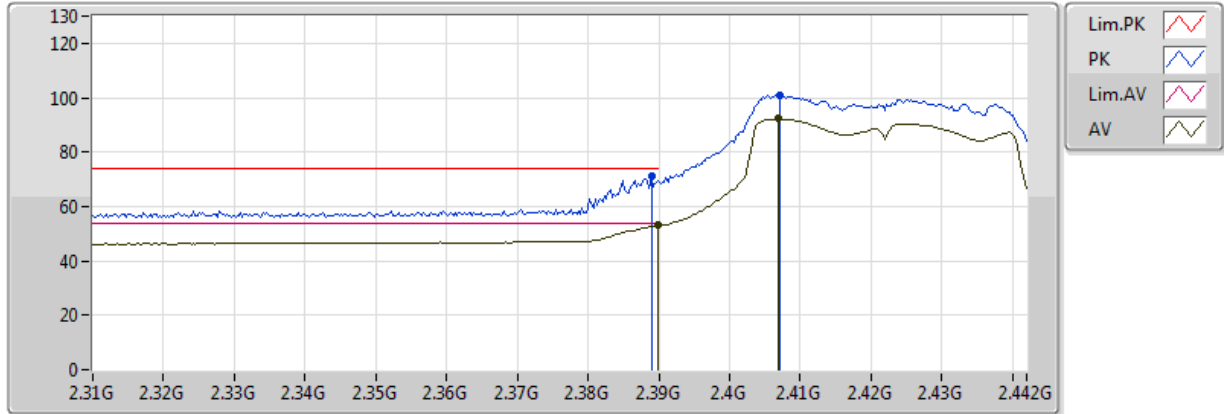
802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_Adapter



802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_Adapter

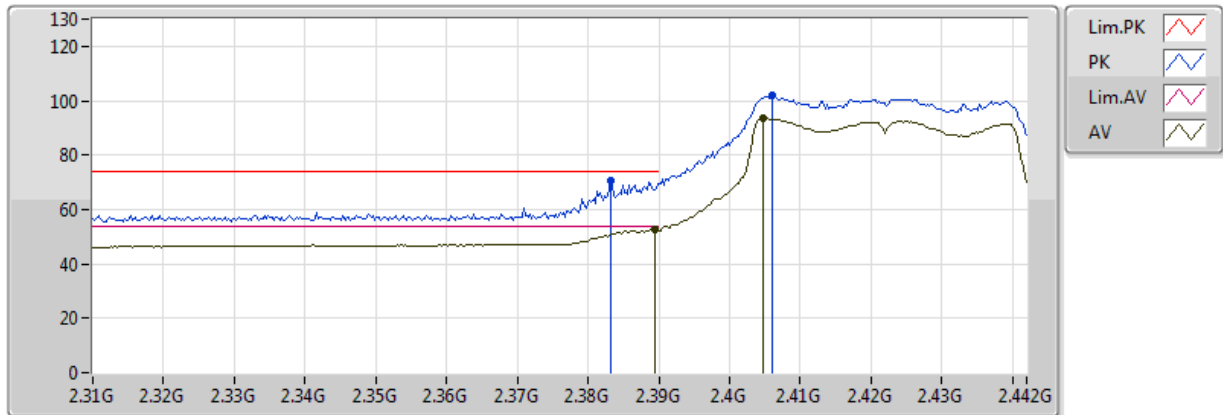


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389992G	52.99	54.00	-1.01	31.28	3	V	NaN	NaN	-
AV	2.406888G	92.26	Inf	-Inf	31.34	3	V	NaN	NaN	-
PK	2.388936G	70.96	74.00	-3.04	31.28	3	V	NaN	NaN	-
PK	2.407152G	100.88	Inf	-Inf	31.34	3	V	NaN	NaN	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_Adapter



Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.389464G	52.90	54.00	-1.10	31.28	3	H	NaN	NaN	-
AV	2.404776G	93.58	Inf	-Inf	31.34	3	H	NaN	NaN	-
PK	2.383128G	70.81	74.00	-3.19	31.26	3	H	NaN	NaN	-
PK	2.406096G	101.71	Inf	-Inf	31.34	3	H	NaN	NaN	-

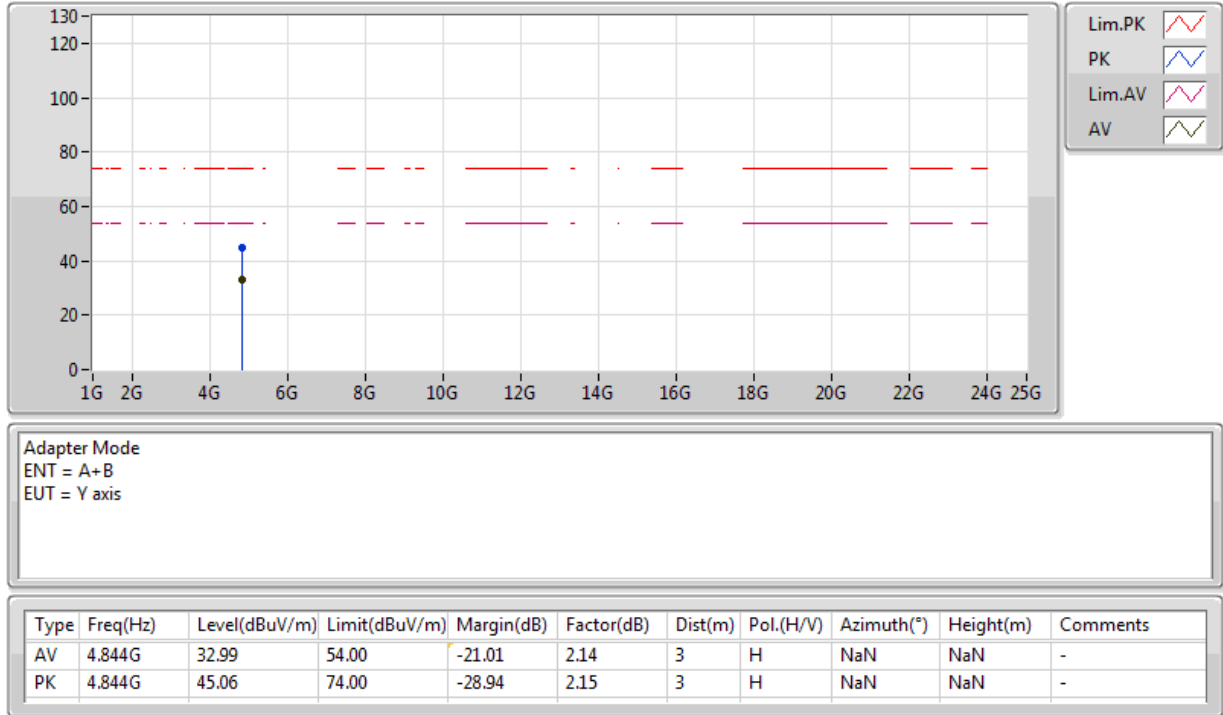
802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_Adapter



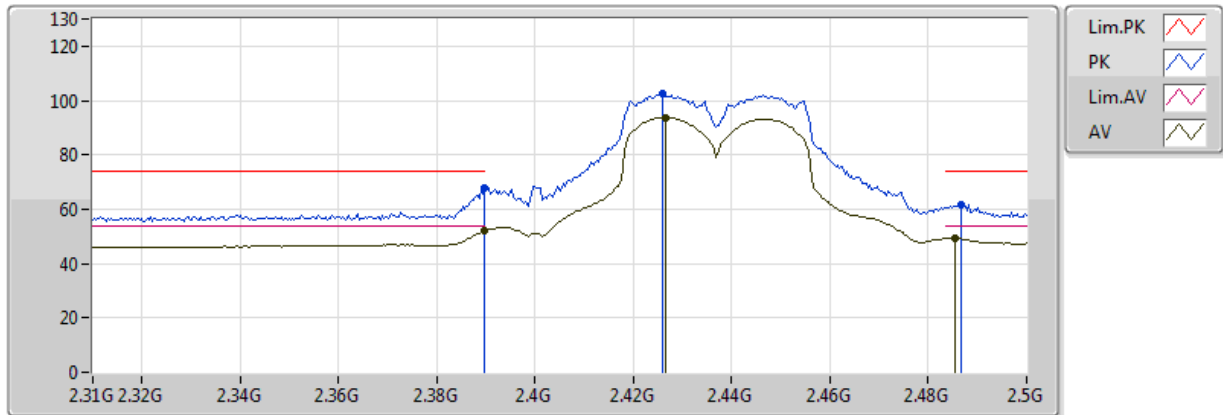
802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_Adapter



802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_Adapter

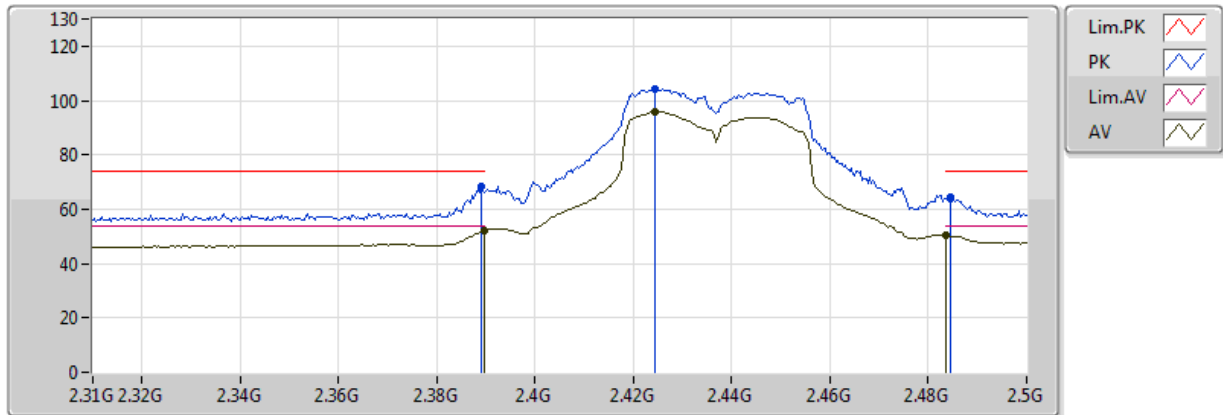


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	52.14	54.00	-1.86	31.28	3	V	NaN	NaN	-
AV	2.42666G	93.77	Inf	-Inf	31.41	3	V	NaN	NaN	-
AV	2.48556G	49.59	54.00	-4.41	31.60	3	V	NaN	NaN	-
PK	2.3898G	67.71	74.00	-6.29	31.28	3	V	NaN	NaN	-
PK	2.4259G	102.64	Inf	-Inf	31.41	3	V	NaN	NaN	-
PK	2.4867G	61.75	74.00	-12.25	31.61	3	V	NaN	NaN	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_Adapter

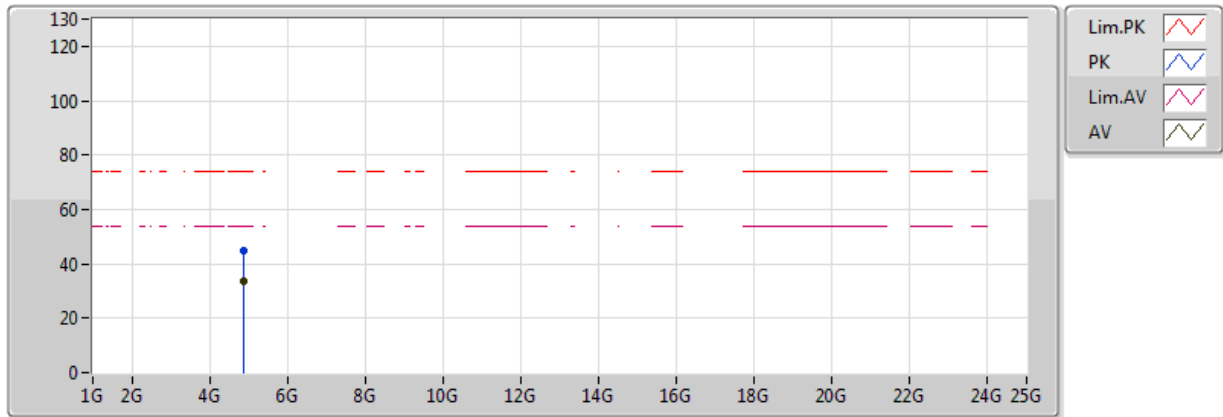


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.3898G	52.35	54.00	-1.65	31.28	3	H	NaN	NaN	-
AV	2.42438G	95.84	Inf	-Inf	31.40	3	H	NaN	NaN	-
AV	2.48366G	50.32	54.00	-3.68	31.60	3	H	NaN	NaN	-
PK	2.38904G	68.53	74.00	-5.47	31.28	3	H	NaN	NaN	-
PK	2.42438G	104.20	Inf	-Inf	31.40	3	H	NaN	NaN	-
PK	2.48442G	64.34	74.00	-9.66	31.60	3	H	NaN	NaN	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_Adapter

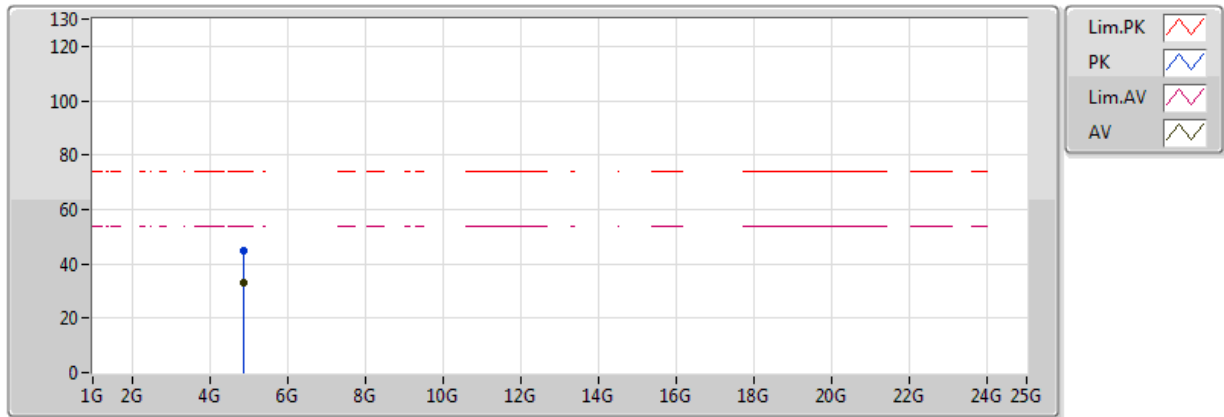


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.874G	33.36	54.00	-20.64	2.24	3	H	NaN	NaN	-
PK	4.874G	44.73	74.00	-29.27	2.24	3	H	NaN	NaN	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_Adapter

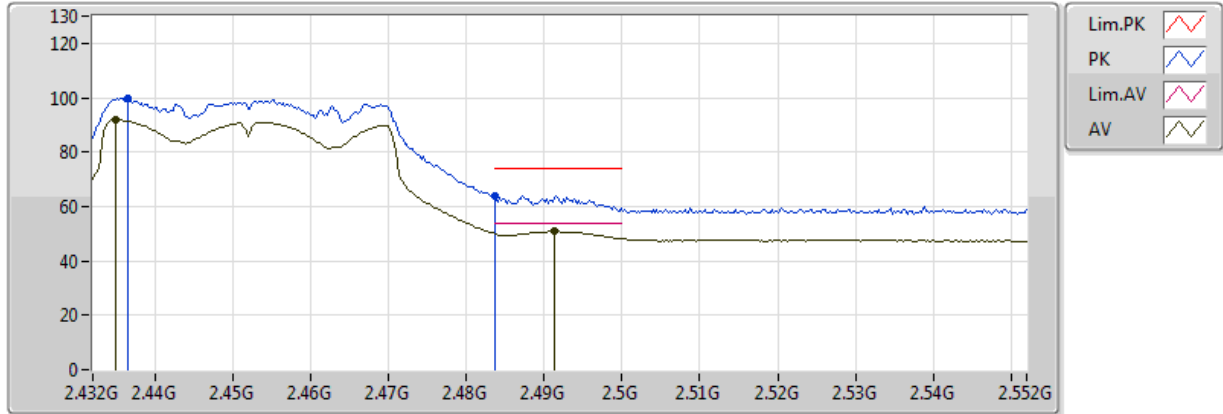


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.874G	33.06	54.00	-20.94	2.23	3	H	NaN	NaN	-
PK	4.874G	44.75	74.00	-29.25	2.24	3	H	NaN	NaN	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_Adapter

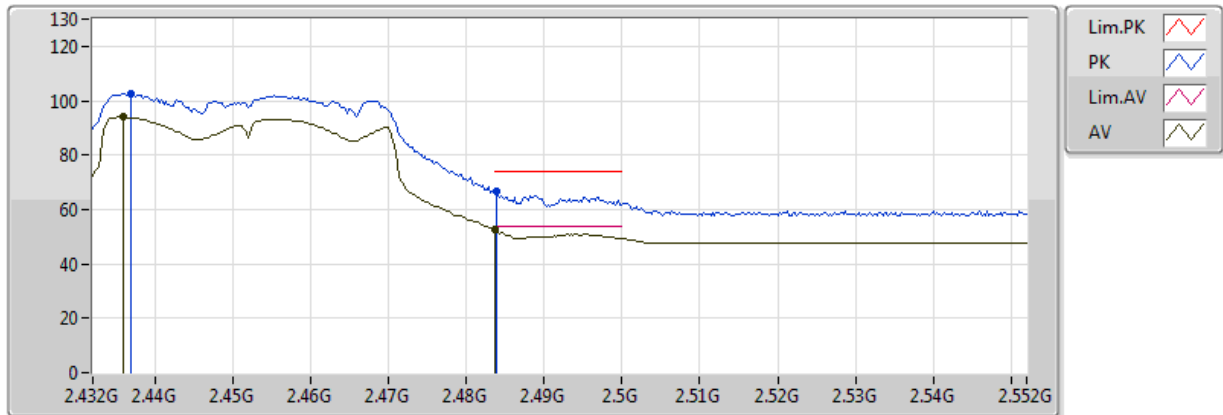


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.43488G	91.97	Inf	-Inf	31.44	3	V	NaN	NaN	-
AV	2.49128G	50.91	54.00	-3.09	31.62	3	V	NaN	NaN	-
PK	2.43656G	100.01	Inf	-Inf	31.44	3	V	NaN	NaN	-
PK	2.4836G	64.12	74.00	-9.88	31.60	3	V	NaN	NaN	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_Adapter

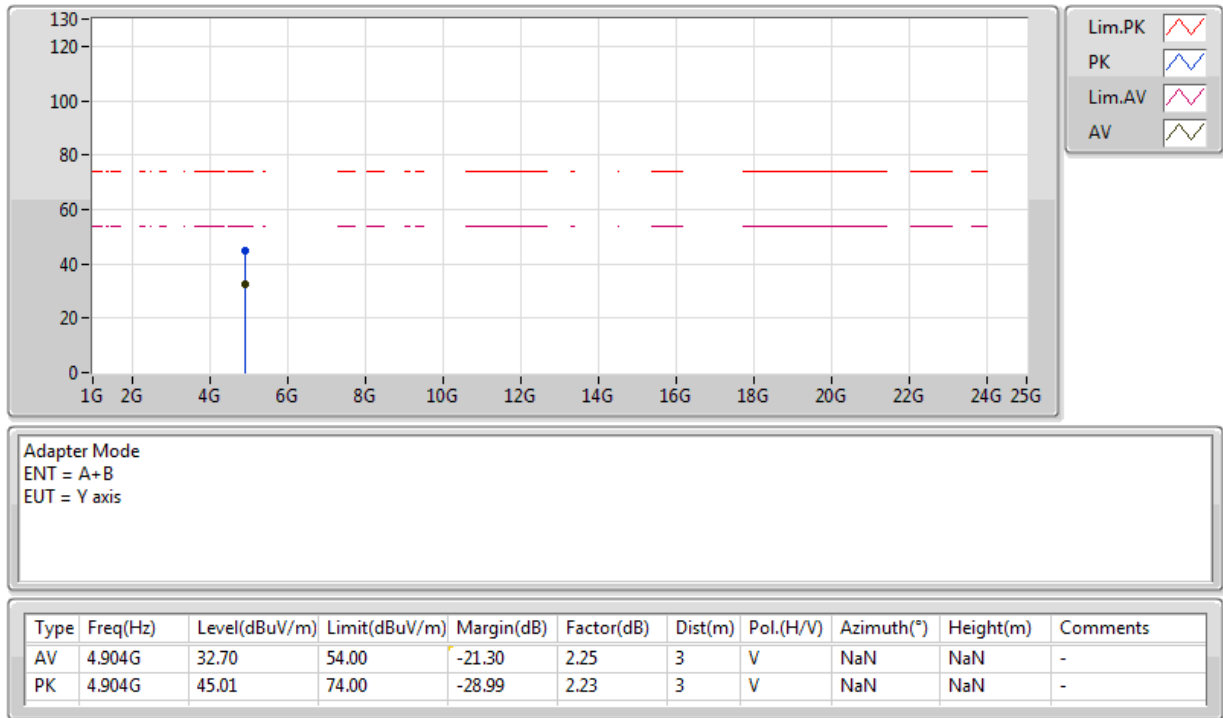


Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	2.43584G	94.08	Inf	-Inf	31.44	3	H	NaN	NaN	-
AV	2.4836G	52.49	54.00	-1.51	31.60	3	H	NaN	NaN	-
PK	2.4368G	102.79	Inf	-Inf	31.44	3	H	NaN	NaN	-
PK	2.48384G	66.43	74.00	-7.57	31.60	3	H	NaN	NaN	-

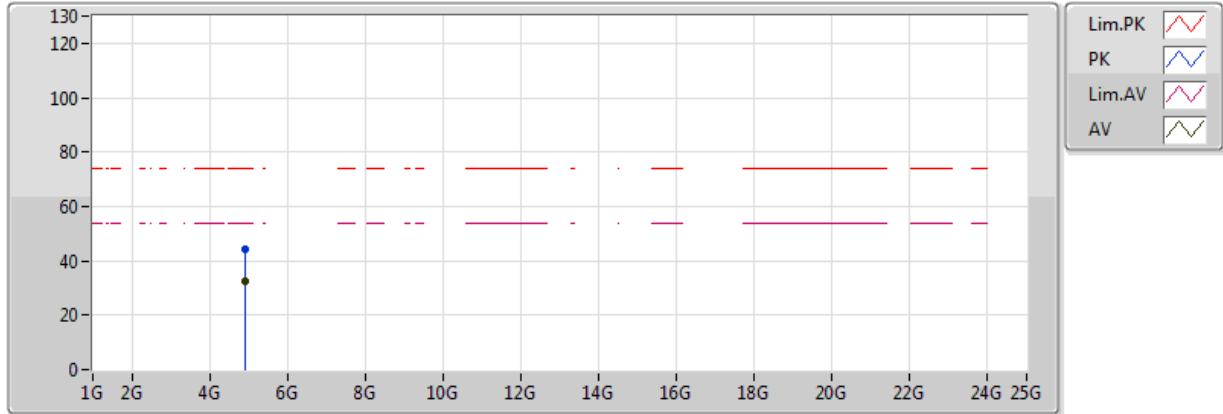
802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_Adapter



802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_Adapter



Adapter Mode
ENT = A+B
EUT = Y axis

Type	Freq(Hz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Factor(dB)	Dist(m)	Pol.(H/V)	Azimuth(°)	Height(m)	Comments
AV	4.904G	32.65	54.00	-21.35	2.24	3	H	NaN	NaN	-
PK	4.904G	44.31	74.00	-29.69	2.16	3	H	NaN	NaN	-