

FCC Test Report

FCC ID : COFHOOKREV3
Equipment : 802.11b/g/n + BT 5.0 IOT Module
Brand Name : USI
Model Name : HOOK-REV3.0
Applicant : Universal Global Scientific Industrial Co., Ltd
141, Lane 351, Sec. 1, Taiping Road.,
Tsaotuen, Nantou 54261, Taiwan
Manufacturer : Universal Global Scientific Industrial Co., Ltd
141, Lane 351, Sec. 1, Taiping Road.,
Tsaotuen, Nantou 54261, Taiwan
Standard : 47 CFR FCC Part 15.247

The product was received on Nov. 15, 2018, and testing was started from Jan. 24, 2019 and completed on Mar. 11, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FR8N1407AC	01	Initial issue of report	Mar. 29, 2019
FR8N1407AC	02	1. AC Conduction and channel 11 were evaluated 2. KDB 594280 D01 v02r01 was added	Apr. 02, 2019

Summary of Test Result

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

Declaration of Conformity:

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

Comments and explanations:

None

Reviewed by: Sam Tsai

Report Producer: Debby Hung

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)	2412-2472	1-13 [13]

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

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	Linx	ANT-2.4-CW-RAH	Monopole Antenna	Reversed-SMA

Ant.	Port	Gain (dBi)	
		2.4G	BT
1	1	-2.4	-2.4

For 2.4 GHz function:

For IEEE 802.11b/g/n mode (1TX/1RX)

Ant. 1 (port 1) could transmit/receive simultaneously.

For Bluetooth function:

For Bluetooth mode (1TX/1RX)

Ant. 1 (port 1) could transmit/receive simultaneously.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	DC Power Source			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
Beamforming Function	☐	With beamforming	☒	Without beamforming
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.:		...	
☐	Other:			

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.992	0.035	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11g	0.954	0.205	2.067m	1k
802.11n HT20	0.95	0.223	1.923m	1k

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

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
- ◆ KDB 558074 D01 v05r01
- ◆ KDB 594280 D01 v02r01

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Lego	23°C / 54%	25/Jan/2019
RF Conducted	TH01-HY	Clara	22.5~22.9°C / 65~69%	24/Jan/2019~11/Mar/2019
Radiated	03CH09-HY	Kevin	21.4~23.5°C / 50.1~53.2%	24/Jan/2019~08/Mar/2019

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)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

Condition Item	Abbreviation/Remark	Remark
RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	3.8V

2.2 Test Channel Mode

Test Software	cmd
---------------	-----

Mode	PowerSetting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	20
2437MHz	20
2462MHz	20
2467MHz	19
2472MHz	18
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	19
2417MHz	20
2437MHz	20
2457MHz	20
2462MHz	19
2467MHz	14
2472MHz	7
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	18
2417MHz	20
2437MHz	20
2457MHz	20
2462MHz	18
2467MHz	15
2472MHz	6

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
Operating Mode	CTX
1	DC mode

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	CTX
1	DC mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	Z Plane
	
Worst Planes of EUT	V

2.4 Support Equipment

Support Equipment – AC Conduction				
No.	Equipment	Brand Name	Model Name	FCC ID
1	DC power supply	GW	GPS-3030DD	-
2	Test Fixture	-	-	-
3	Antenna	-	-	-

Note.Support equipment No.3 was provided by customer.

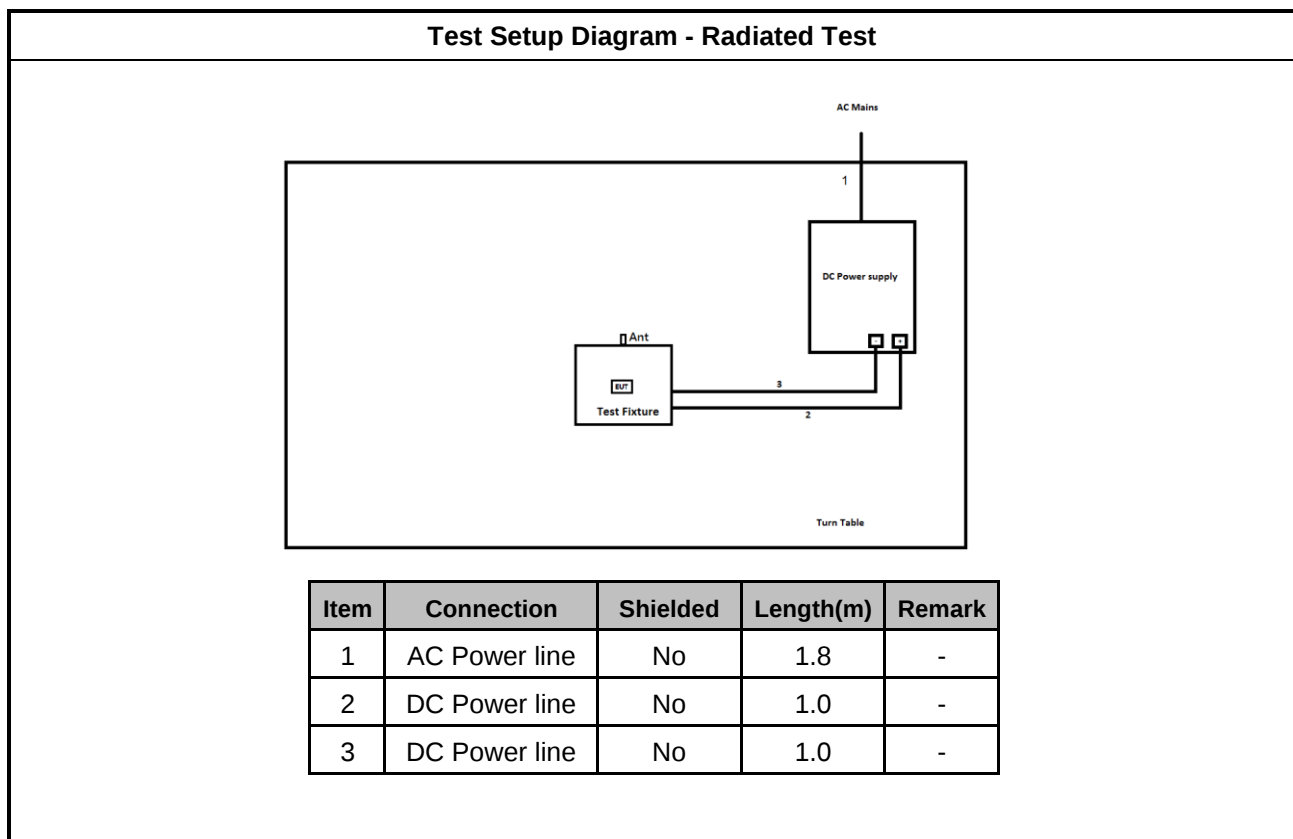
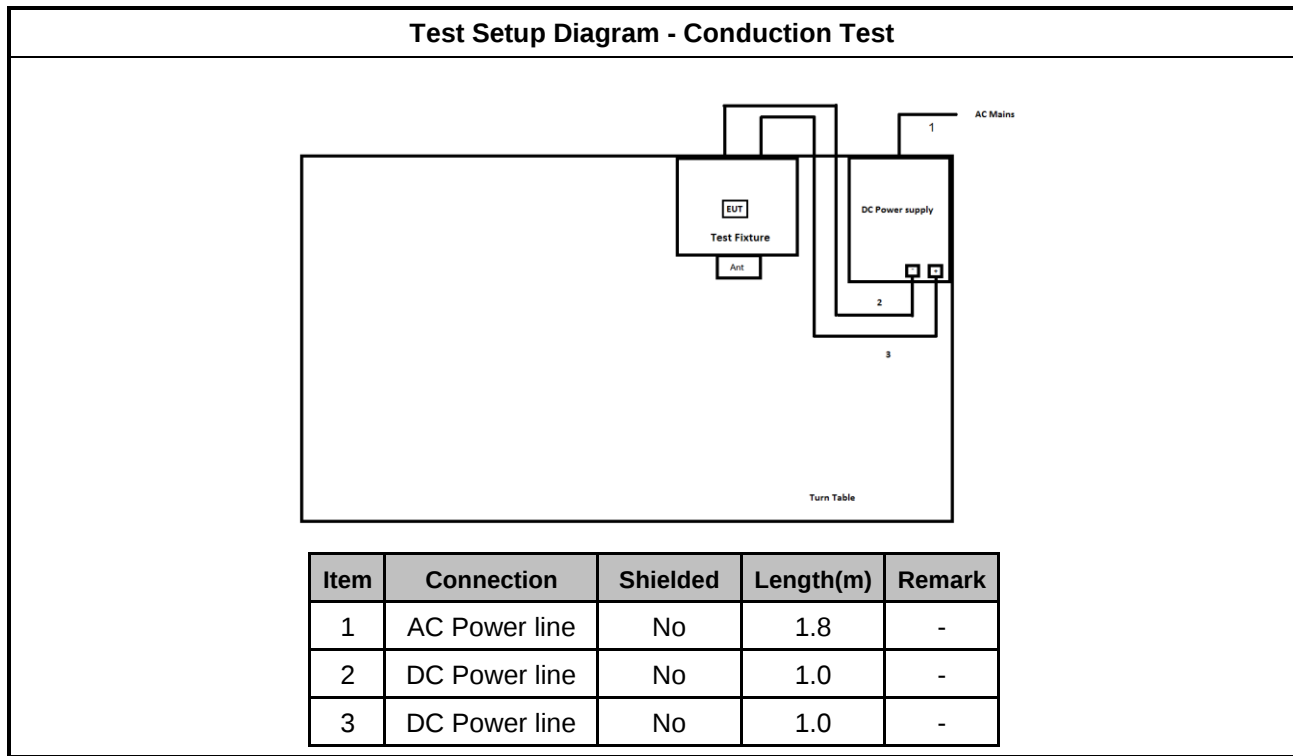
Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PC	ASUS	D302MT	-
2	Monitor	DELL	VCDTS21553-3P	R35737 / DOC
3	DC Power Supply	GW	GPS-3030DD	-
4	Test Fixture	-	-	-

Note.Support equipment No.1 was provided by customer.

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	DC Power Supply	GW	GPS-3030DD	-
2	Test Fixture	-	-	-
3	Antenna	-	-	-

Note.Support equipment No.3 was provided by customer.

2.5 Test Setup Diagram



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.

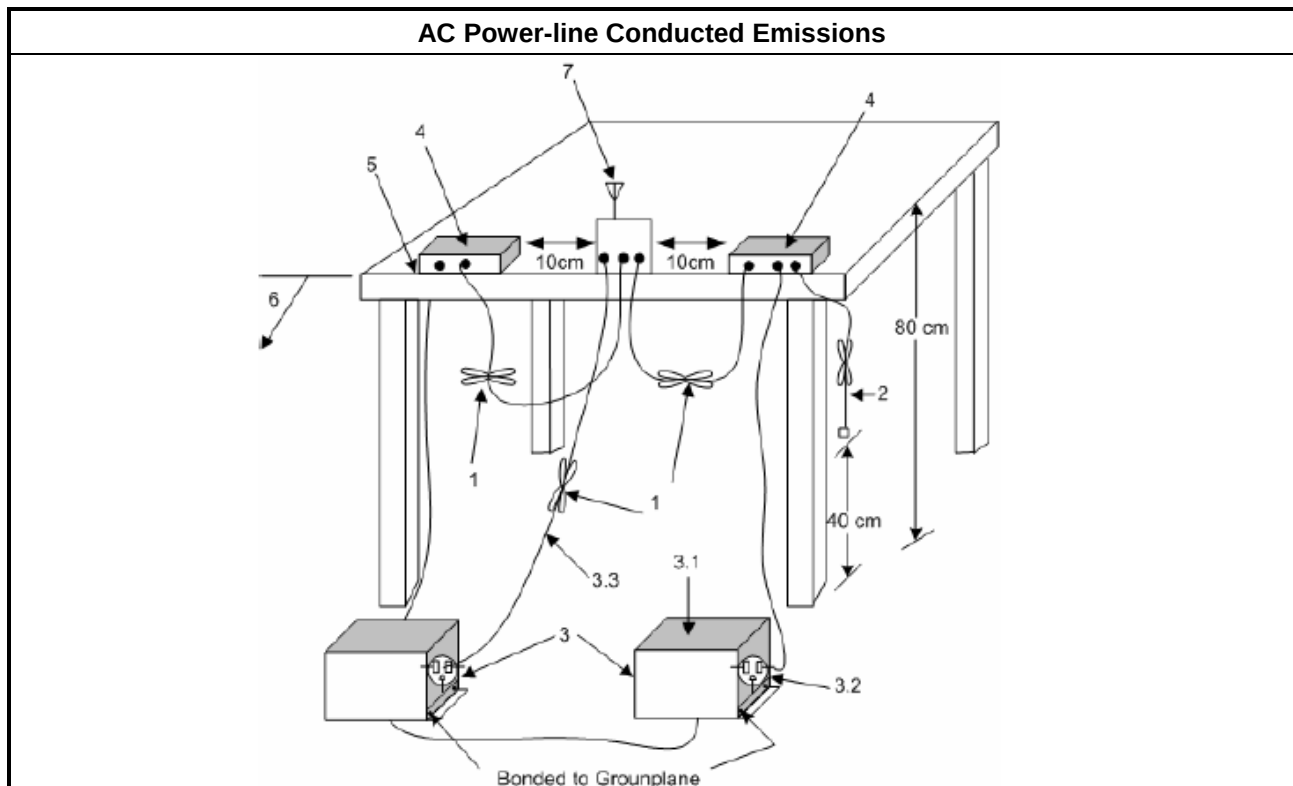
3.1.2 Measuring Instruments

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.

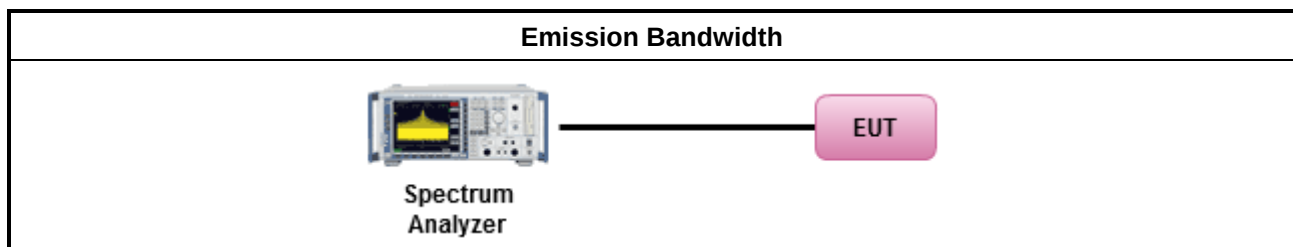
3.2.2 Measuring Instruments

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 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
☐	Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
☐	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 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
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.		

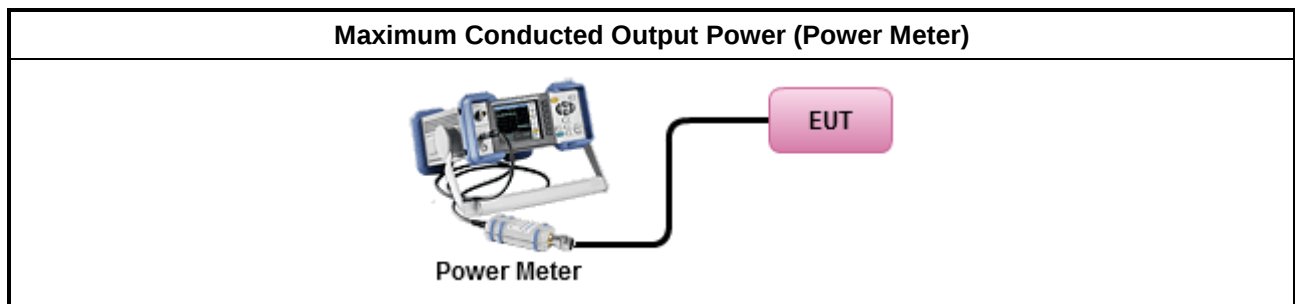
3.3.2 Measuring Instruments

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 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
☐	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
☐	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
Maximum Average Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
☒	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a 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) $\leq$ 8 dBm/3kHz

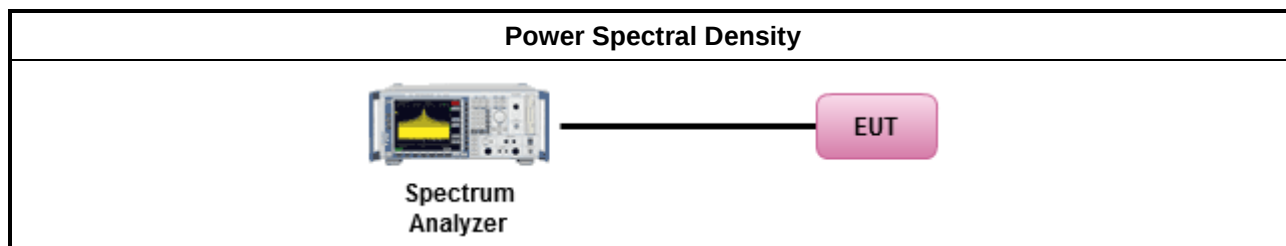
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒	Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Method PKPSD.
▪	For conducted measurement.
▪	If The EUT supports multiple transmit chains using options given below:
▪	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 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.

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.	

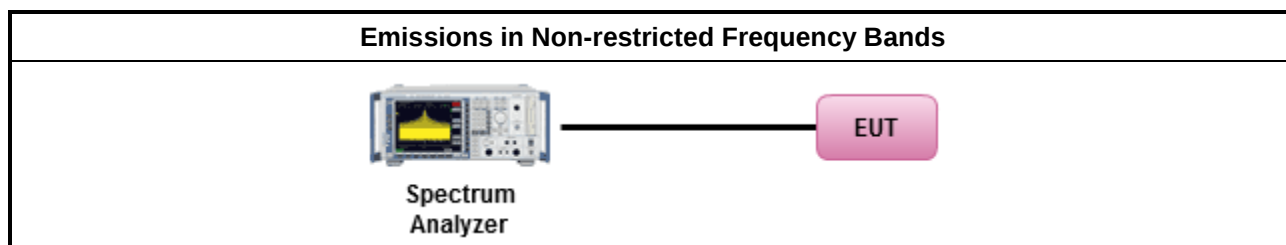
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency 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.

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

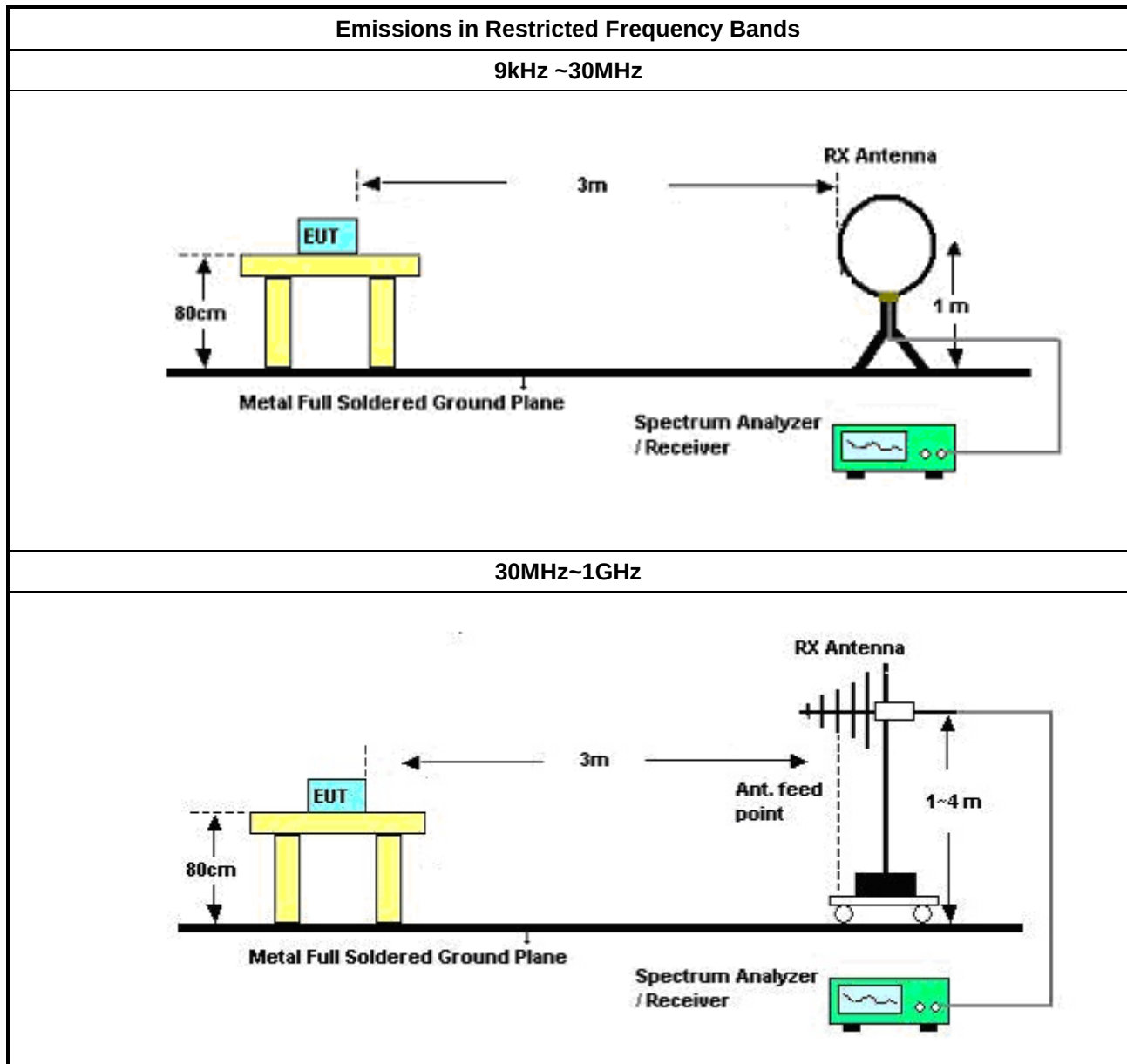
3.6.2 Measuring Instruments

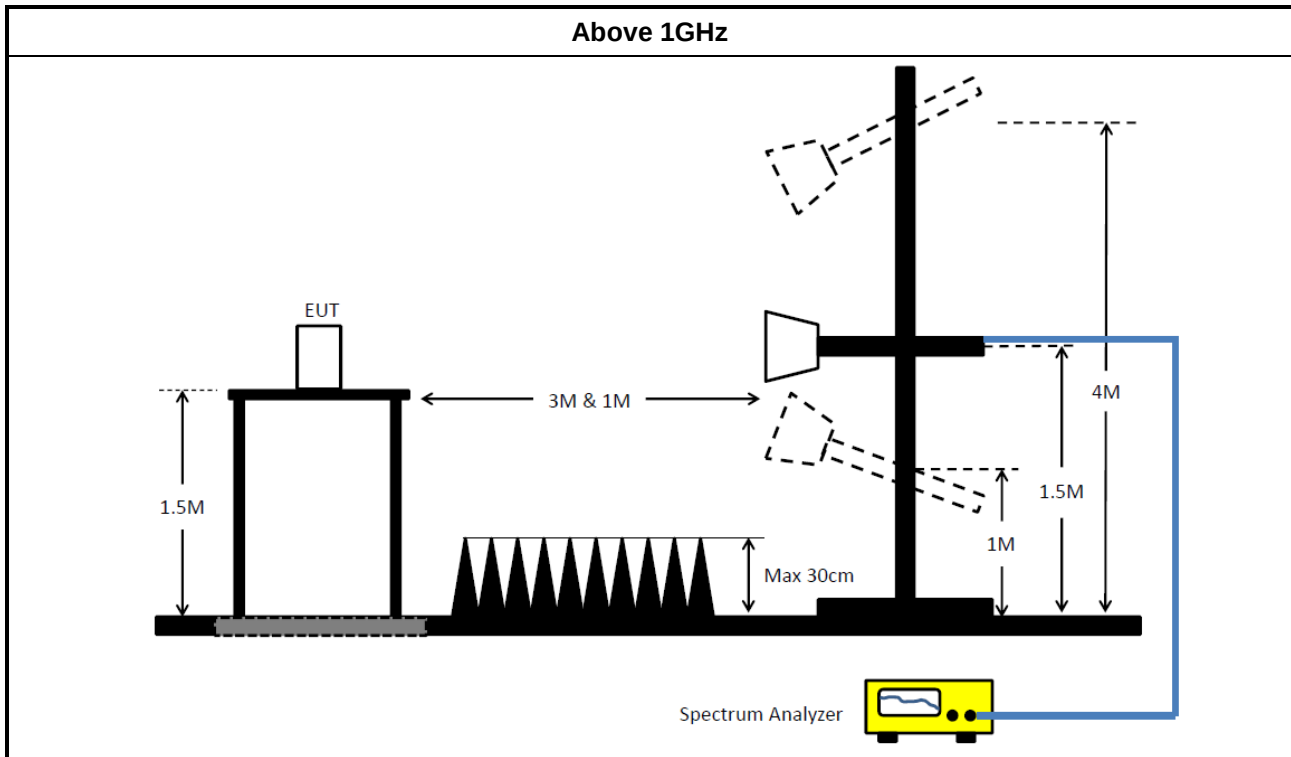
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as KDB 558074 clause 8.7.1, 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 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.

3.6.4 Test Setup





3.6.5 Test Result of 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.

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	23/Apr/2018	22/Apr/2019
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	14/Jun/2018	13/Jun/2019
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	10/May/2018	09/May/2019
Amplifier	EMC	EMC9135	980232	9KHz~1GHz	27/Apr/2018	26/Apr/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	10/Apr/2018	09/Apr/2019
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	31/Jul/2018	30/Jul/2019
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	02/Oct/2018	03/Oct/2019
Double Ridged Guide Horn Antenna	SCHWARZBEC K	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	30/Apr/2018	29/Apr/2019
Broadband Horn Antenna	SCHWARZBEC K	BBHA 9170	BBHA9170614	18GHz~40GHz	09/Feb/2018	08/Feb/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	29/Mar/2018	28/Mar/2019
RF Cable-R03m	Jye Bao	RG142	CB031	9kHz ~ 1GHz	01/Feb/2018	31/Jan/2019
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz ~ 40GHz	14/Mar/2018	13/Mar/2019
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	02/Feb/2018	01/Feb/2019

**Instrument for Conducted Test**

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY12585/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10710/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	26/Jan/2018	25/Jan/2019
Signal Generator	R&S	SMB100A	175727	100kHz~40GHz	26/Oct/2018	25/Oct/2019

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Puls e Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2018	11/Oct/2019

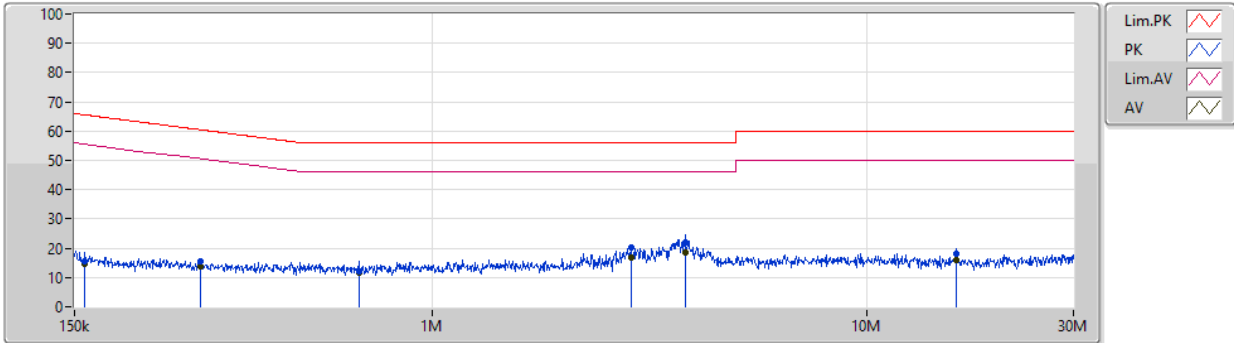
NCR : Non-Calibration Require

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	DC mode_TX		

DC Conduction_Mode 1

25/01/2019



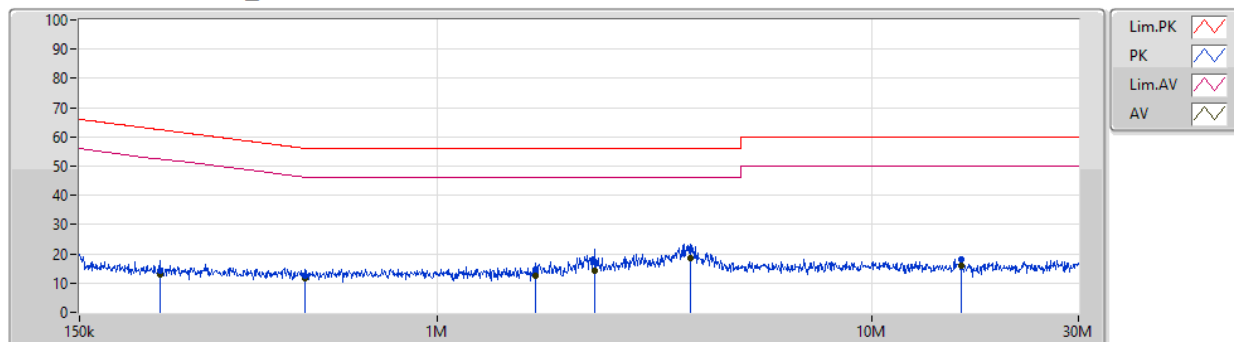
Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	158.622k	15.38	65.54	-50.16	19.48	Neutral	-	-4.10	9.60	0.01	9.87			
AV	158.622k	14.48	55.54	-41.06	19.48	Neutral	-	-5.00	9.60	0.01	9.87			
QP	292.16k	15.42	60.46	-45.04	19.48	Neutral	-	-4.06	9.59	0.01	9.88			
AV	292.16k	13.66	50.46	-36.80	19.48	Neutral	-	-5.82	9.59	0.01	9.88			
QP	678.32k	12.20	56.00	-43.80	19.48	Neutral	-	-7.28	9.59	0.01	9.88			
AV	678.32k	11.52	46.00	-34.48	19.48	Neutral	-	-7.96	9.59	0.01	9.88			
QP	2.866M	20.13	56.00	-35.87	19.54	Neutral	-	0.59	9.61	0.04	9.89			
AV	2.866M	16.90	46.00	-29.10	19.54	Neutral	-	-2.64	9.61	0.04	9.89			
QP	3.821M	22.15	56.00	-33.85	19.54	Neutral	-	2.61	9.61	0.04	9.89			
AV	3.821M	18.67	46.00	-27.33	19.54	Neutral	"Worst"	-0.87	9.61	0.04	9.89			
QP	16.144M	18.00	60.00	-42.00	19.68	Neutral	-	-1.68	9.68	0.10	9.90			
AV	16.144M	15.90	50.00	-34.10	19.68	Neutral	-	-3.78	9.68	0.10	9.90			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	DC mode_TX		

DC Conduction_Mode 1

25/01/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	229.932k	14.38	62.44	-48.06	19.48	Line	-	-5.10	9.60	0.01	9.87			
AV	229.932k	12.97	52.44	-39.47	19.48	Line	-	-6.51	9.60	0.01	9.87			
QP	496.827k	12.39	56.06	-43.67	19.48	Line	-	-7.09	9.59	0.01	9.88			
AV	496.827k	11.59	46.06	-34.47	19.48	Line	-	-7.89	9.59	0.01	9.88			
QP	1.685M	14.61	56.00	-41.39	19.54	Line	-	-4.93	9.62	0.03	9.89			
AV	1.685M	12.69	46.00	-33.31	19.54	Line	-	-6.85	9.62	0.03	9.89			
QP	2.301M	17.08	56.00	-38.92	19.55	Line	-	-2.47	9.62	0.04	9.89			
AV	2.301M	14.32	46.00	-31.68	19.55	Line	-	-5.23	9.62	0.04	9.89			
QP	3.821M	21.75	56.00	-34.25	19.56	Line	-	2.19	9.63	0.04	9.89			
AV	3.821M	18.63	46.00	-27.37	19.56	Line	"Worst"	-0.93	9.63	0.04	9.89			
QP	16.144M	17.96	60.00	-42.04	19.64	Line	-	-1.68	9.64	0.10	9.90			
AV	16.144M	15.91	50.00	-34.09	19.64	Line	-	-3.73	9.64	0.10	9.90			

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	7.55M	12.744M	12M7G1D	6.975M	11.969M
802.11g_Nss1,(6Mbps)_1TX	15.1M	16.567M	16M6D1D	15.05M	16.317M
802.11n HT20_Nss1,(MCS0)_1TX	15.1M	17.641M	17M6D1D	15.05M	17.491M

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

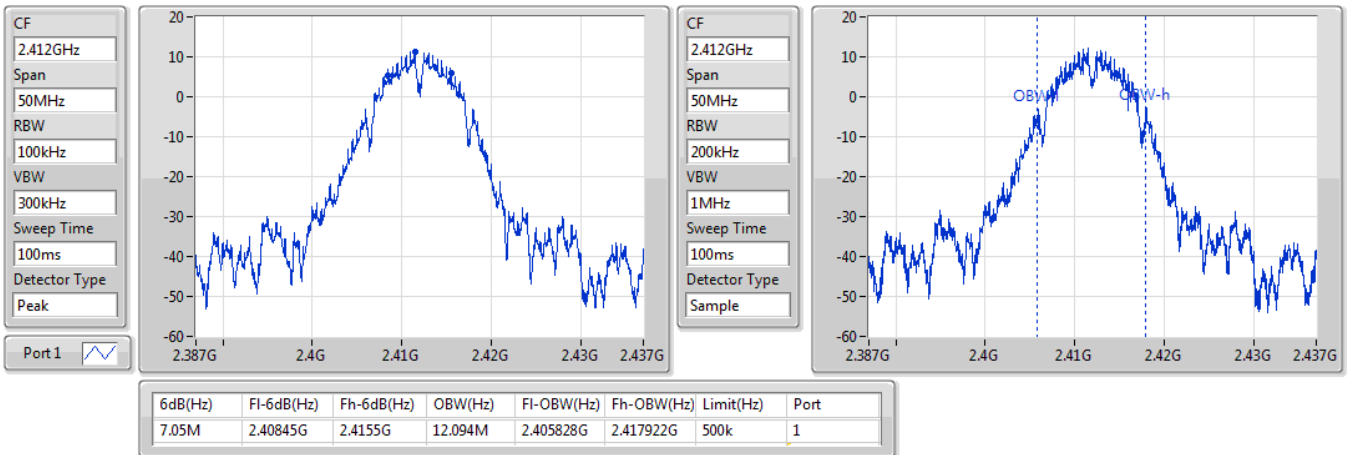
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.05M	12.094M
2437MHz	Pass	500k	7.55M	12.744M
2462MHz	Pass	500k	7.025M	12.694M
2472MHz	Pass	500k	6.975M	11.969M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.075M	16.392M
2437MHz	Pass	500k	15.1M	16.567M
2462MHz	Pass	500k	15.1M	16.392M
2472MHz	Pass	500k	15.05M	16.317M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	15.05M	17.516M
2437MHz	Pass	500k	15.1M	17.641M
2462MHz	Pass	500k	15.075M	17.491M
2472MHz	Pass	500k	15.075M	17.491M

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

802.11b_Nss1,(1Mbps)_1TX

EBW
2412MHz

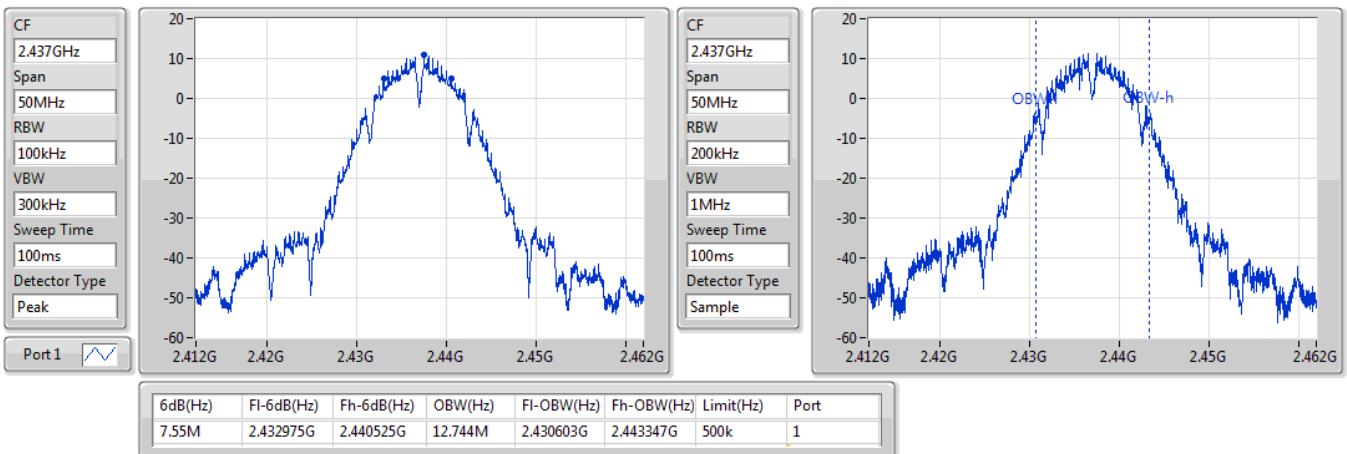
23/11/2018



802.11b_Nss1,(1Mbps)_1TX

EBW
2437MHz

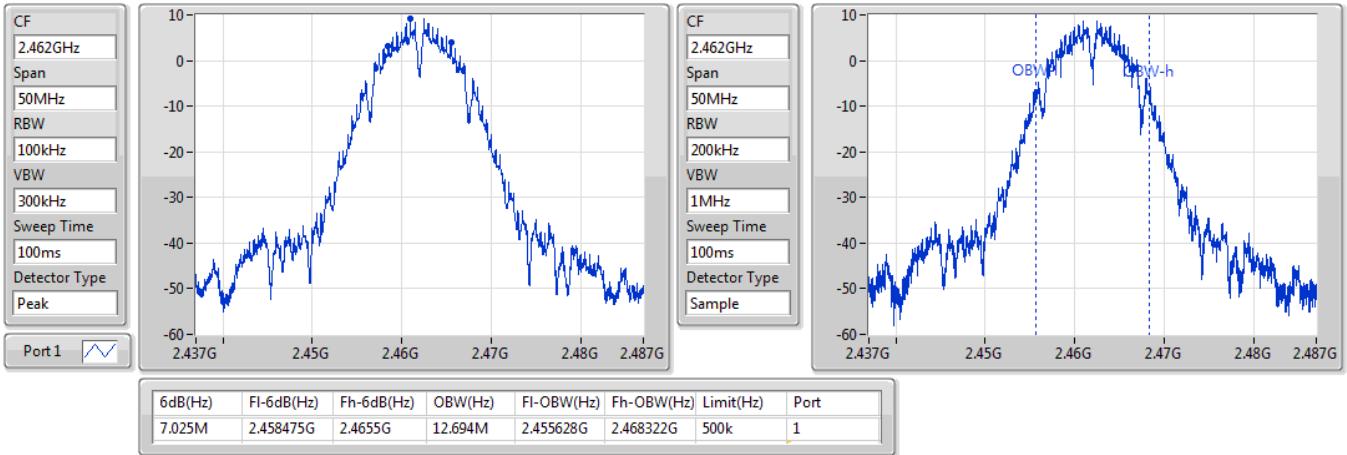
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802.11b_Nss1,(1Mbps)_1TX

EBW
2462MHz

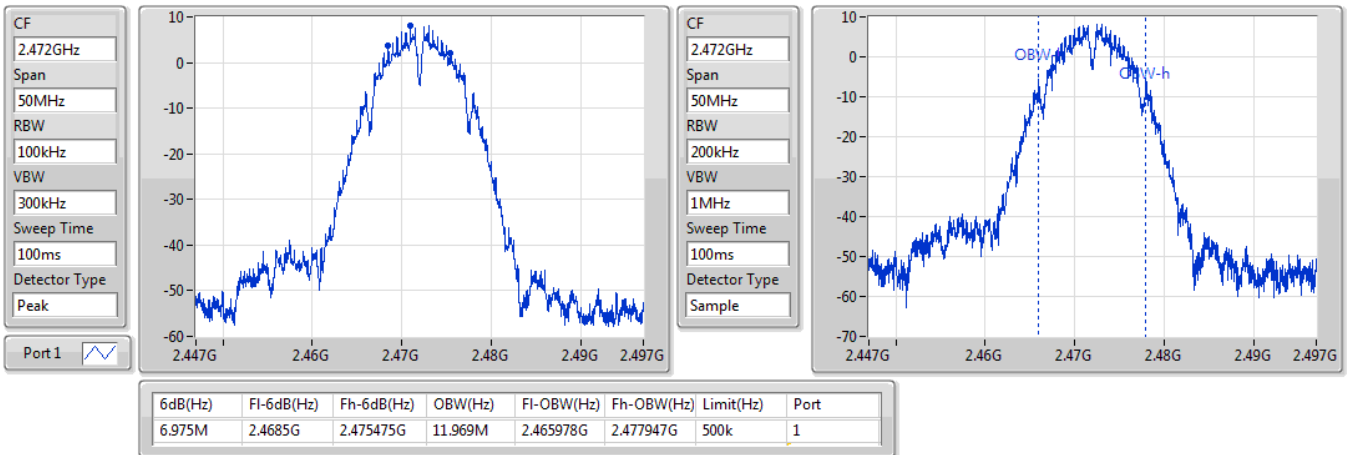
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802.11b_Nss1,(1Mbps)_1TX

EBW
2472MHz

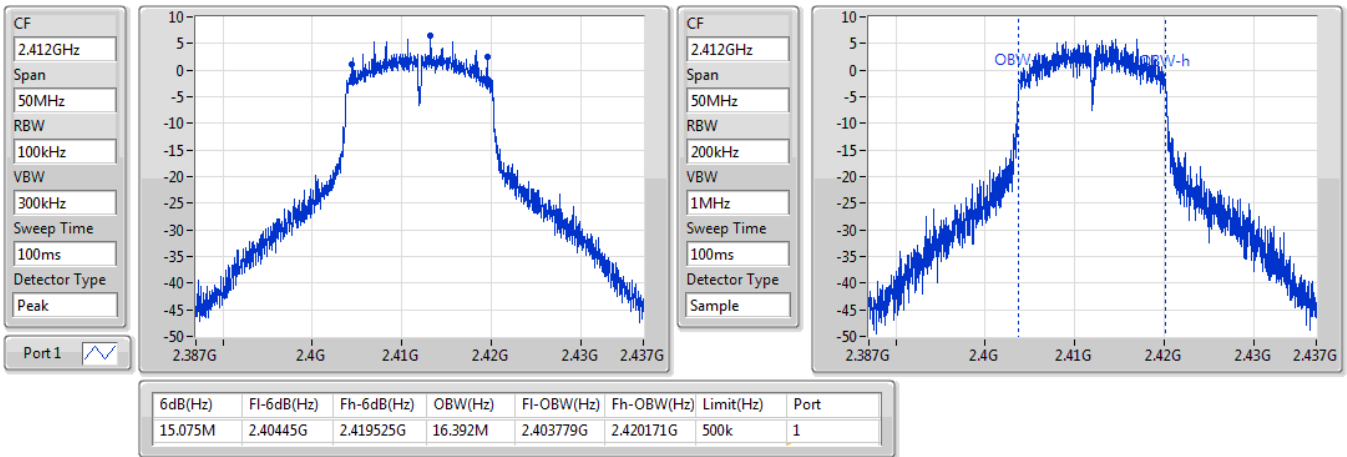
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802.11g_Nss1,(6Mbps)_1TX

EBW
2412MHz

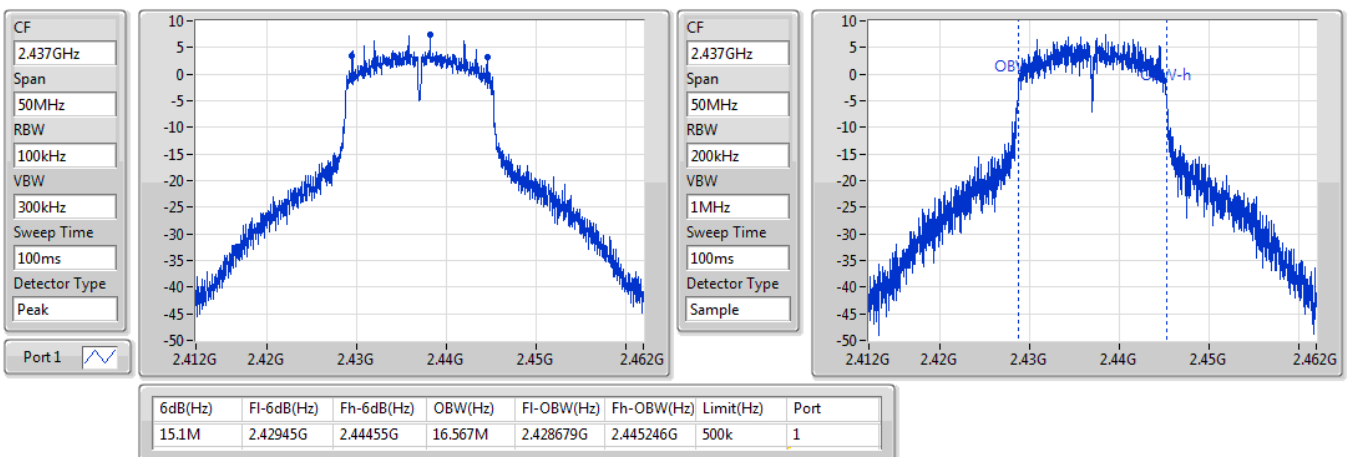
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802.11g_Nss1,(6Mbps)_1TX

EBW
2437MHz

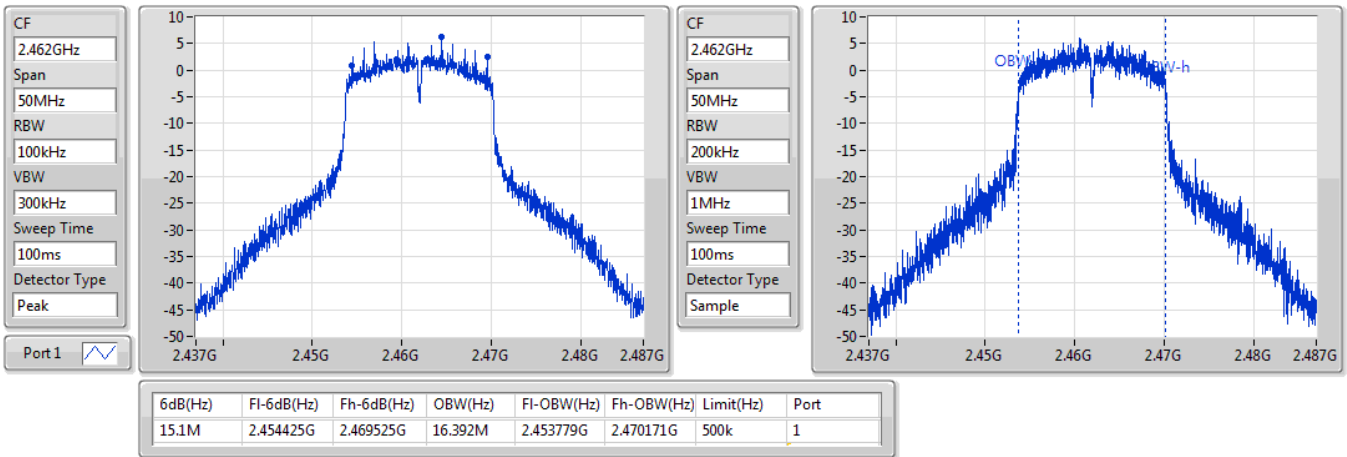
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802.11g_Nss1,(6Mbps)_1TX

EBW
2462MHz

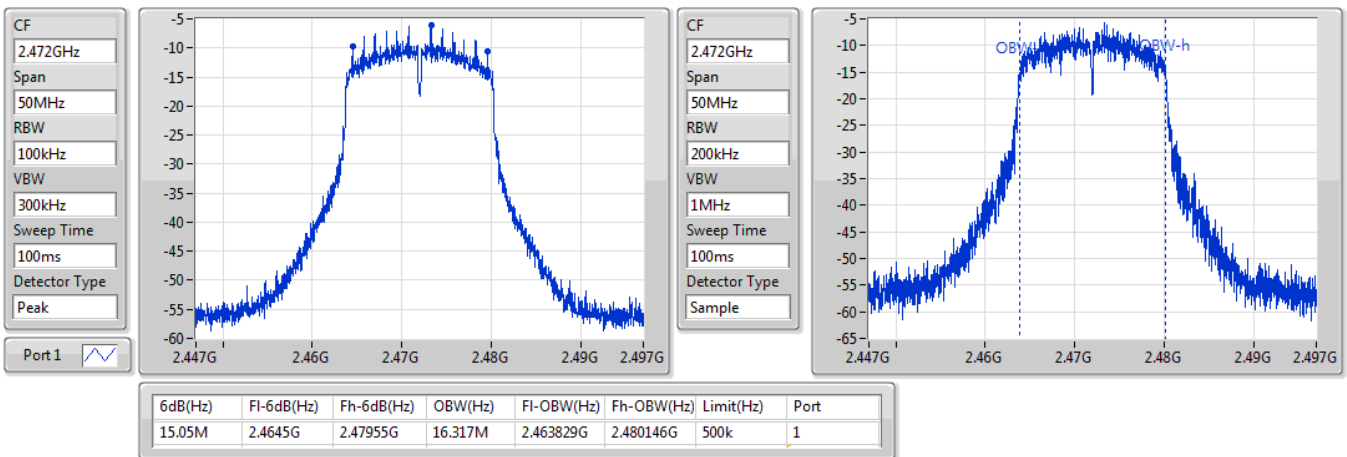
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802.11g_Nss1,(6Mbps)_1TX

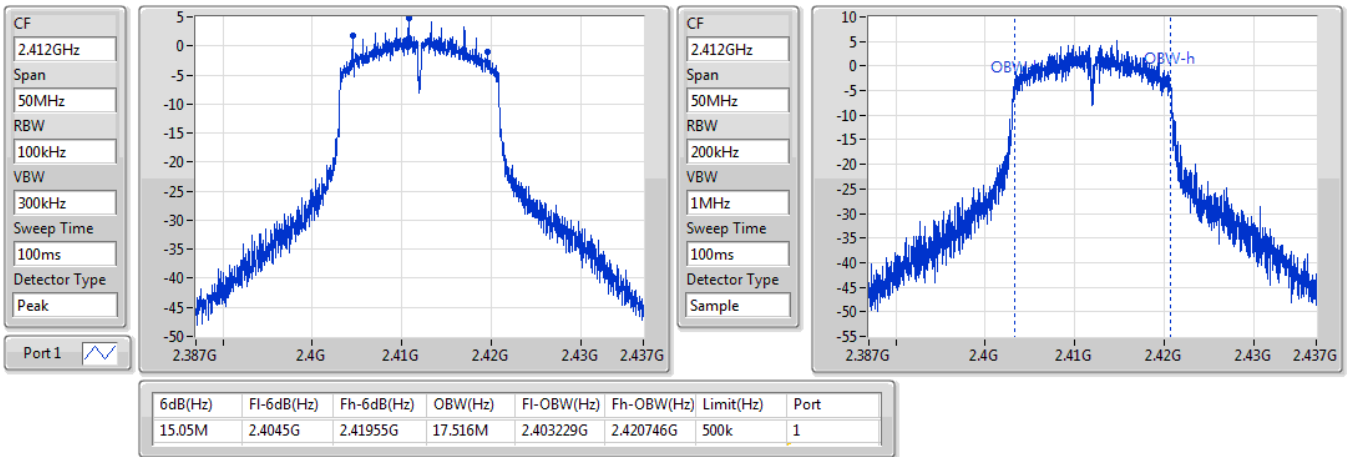
EBW
2472MHz

11/03/2019

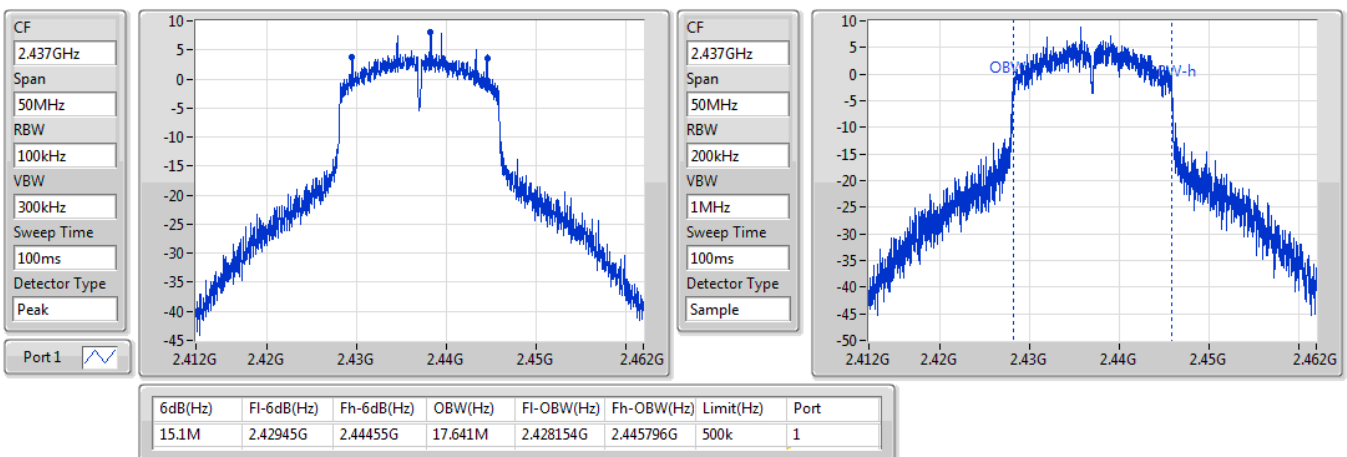


802.11n HT20_Nss1,(MCS0)_1TX
EBW
2412MHz

24/01/2019

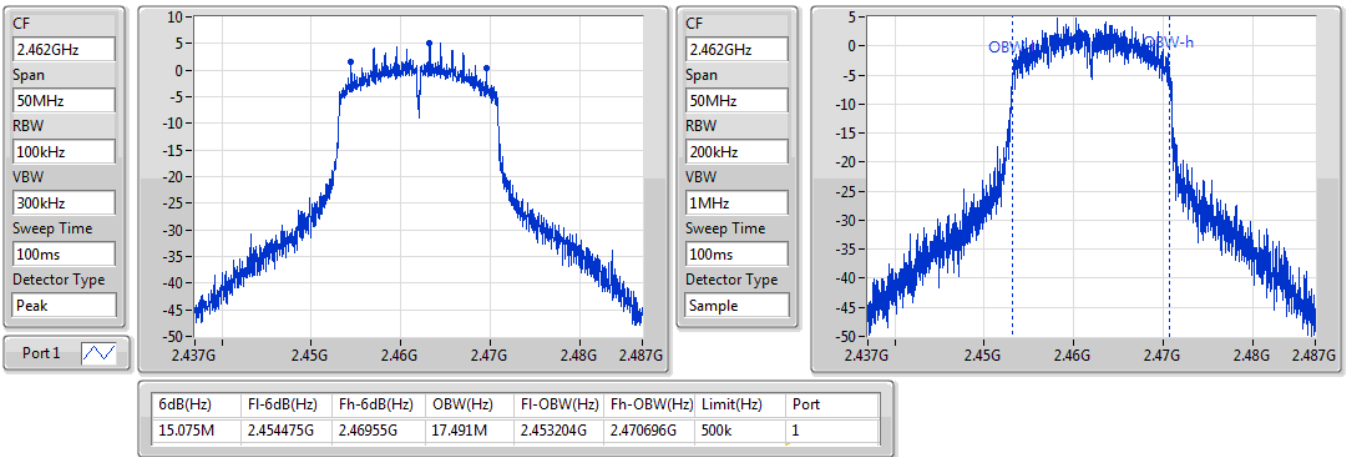

802.11n HT20_Nss1,(MCS0)_1TX
EBW
2437MHz

23/11/2018

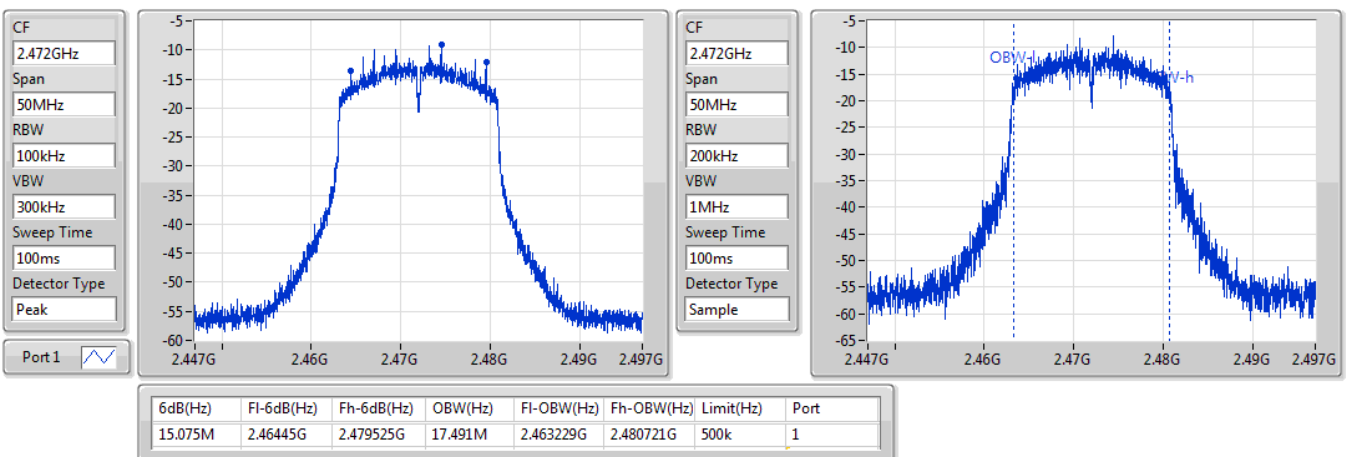


802.11n HT20_Nss1,(MCS0)_1TX
EBW
2462MHz

24/01/2019


802.11n HT20_Nss1,(MCS0)_1TX
EBW
2472MHz

11/03/2019





Average Power

Appendix C

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	20.29	0.10691
802.11g_Nss1,(6Mbps)_1TX	19.08	0.08091
802.11n HT20_Nss1,(MCS0)_1TX	18.83	0.07638

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	-2.40	20.29	20.29	30.00
2437MHz	Pass	-2.40	19.90	19.90	30.00
2462MHz	Pass	-2.40	19.67	19.67	30.00
2467MHz	Pass	-2.40	18.83	18.83	30.00
2472MHz	Pass	-2.40	17.03	17.03	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	-2.40	17.75	17.75	30.00
2417MHz	Pass	-2.40	19.08	19.08	30.00
2437MHz	Pass	-2.40	18.89	18.89	30.00
2457MHz	Pass	-2.40	18.94	18.94	30.00
2462MHz	Pass	-2.40	17.59	17.59	30.00
2467MHz	Pass	-2.40	13.00	13.00	30.00
2472MHz	Pass	-2.40	5.42	5.42	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	-2.40	16.57	16.57	30.00
2417MHz	Pass	-2.40	18.76	18.76	30.00
2437MHz	Pass	-2.40	18.83	18.83	30.00
2457MHz	Pass	-2.40	18.72	18.72	30.00
2462MHz	Pass	-2.40	16.44	16.44	30.00
2467MHz	Pass	-2.40	13.55	13.55	30.00
2472MHz	Pass	-2.40	2.55	2.55	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	4.34
802.11g_Nss1,(6Mbps)_1TX	-1.12
802.11n HT20_Nss1,(MCS0)_1TX	-1.47

RBW=3 kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	-2.40	4.34	4.34	8.00
2437MHz	Pass	-2.40	3.42	3.42	8.00
2462MHz	Pass	-2.40	0.89	0.89	8.00
2472MHz	Pass	-2.40	0.15	0.15	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	-2.40	-2.25	-2.25	8.00
2437MHz	Pass	-2.40	-1.12	-1.12	8.00
2462MHz	Pass	-2.40	-2.65	-2.65	8.00
2472MHz	Pass	-2.40	-14.58	-14.58	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	-2.40	-3.70	-3.70	8.00
2437MHz	Pass	-2.40	-1.47	-1.47	8.00
2462MHz	Pass	-2.40	-4.14	-4.14	8.00
2472MHz	Pass	-2.40	-17.59	-17.59	8.00

DG = Directional Gain; RBW=3 kHz;

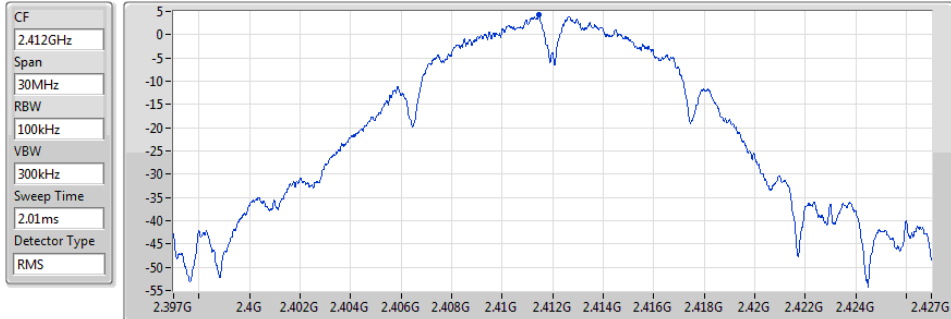
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_1TX

PSD

2412MHz

23/11/2018



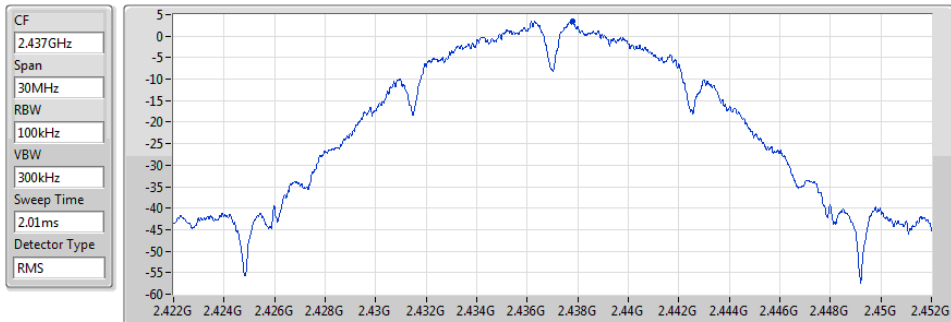
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.34	4.34	4.34

802.11b_Nss1,(1Mbps)_1TX

PSD

2437MHz

23/11/2018



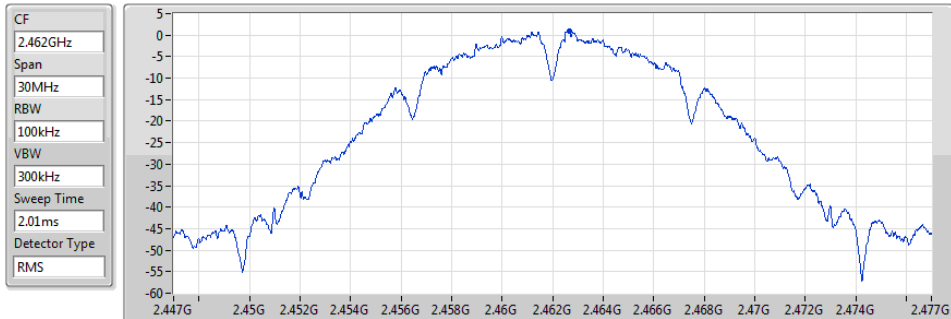
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.42	3.42	3.42

802.11b_Nss1,(1Mbps)_1TX

PSD

2462MHz

24/01/2019



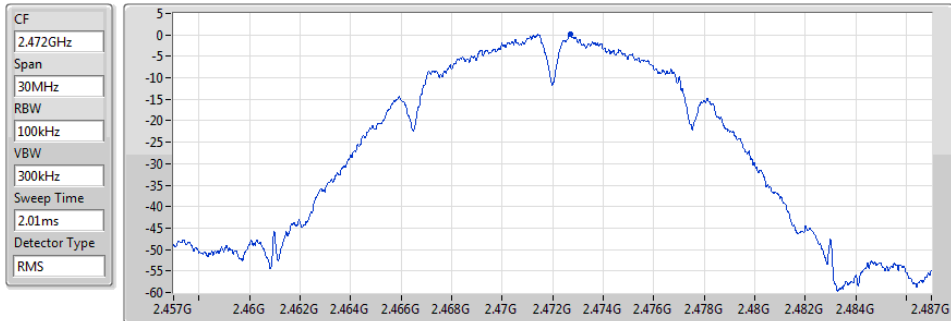
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.89	0.89	0.89

802.11b_Nss1,(1Mbps)_1TX

PSD

2472MHz

11/03/2019

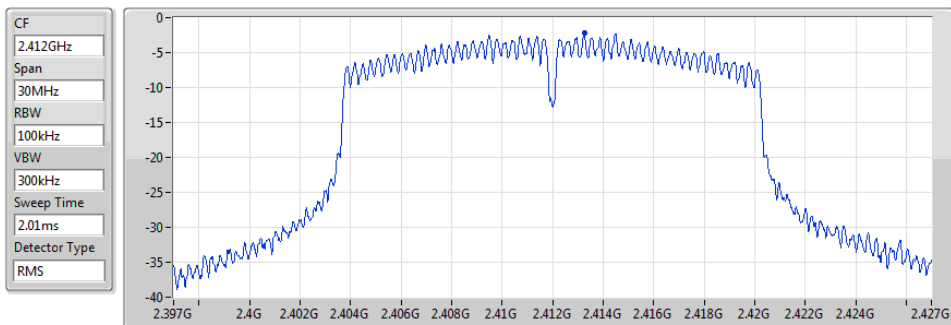


802.11g_Nss1,(6Mbps)_1TX

PSD

2412MHz

24/01/2019

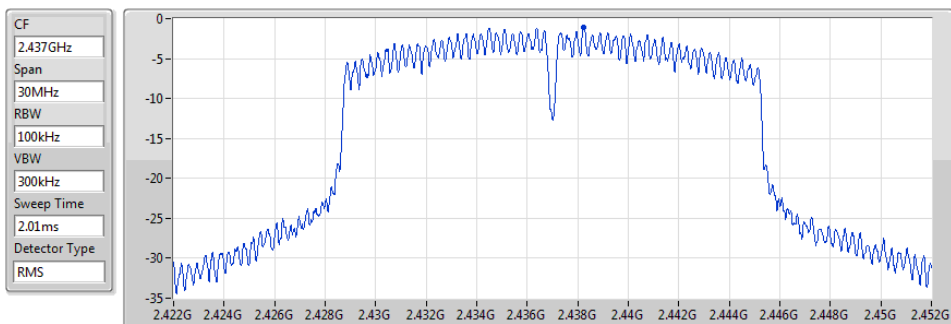


802.11g_Nss1,(6Mbps)_1TX

PSD

2437MHz

23/11/2018

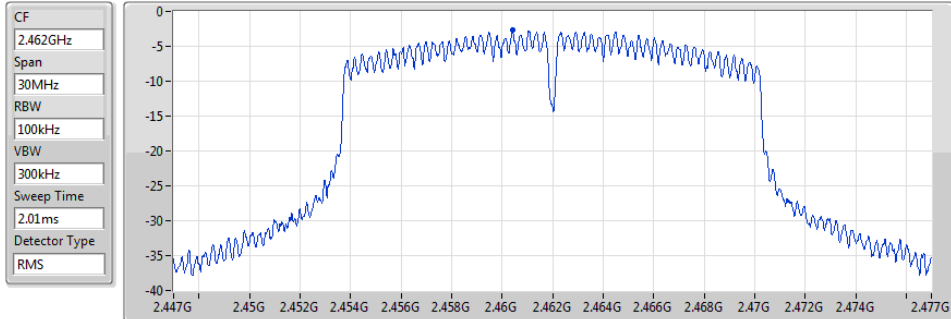


802.11g_Nss1,(6Mbps)_1TX

PSD

2462MHz

24/01/2019

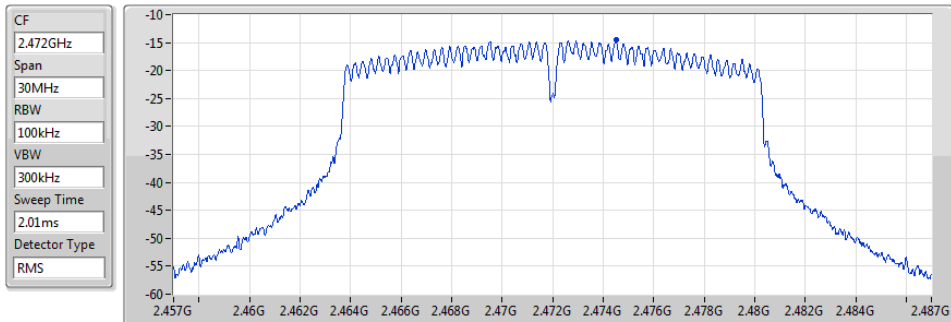


802.11g_Nss1,(6Mbps)_1TX

PSD

2472MHz

11/03/2019

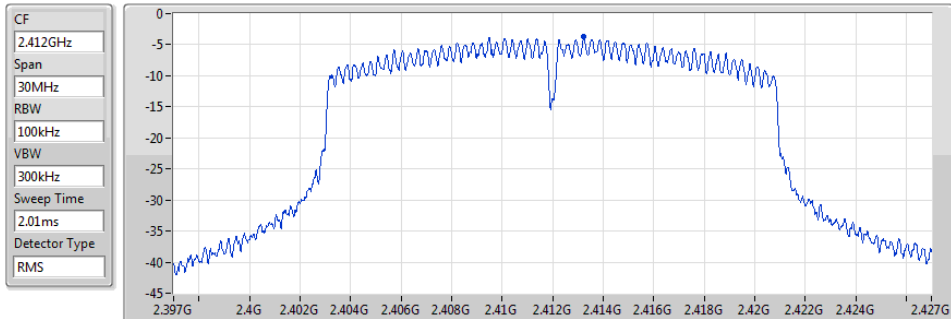


802.11n HT20_Nss1,(MCS0)_1TX

PSD

2412MHz

24/01/2019

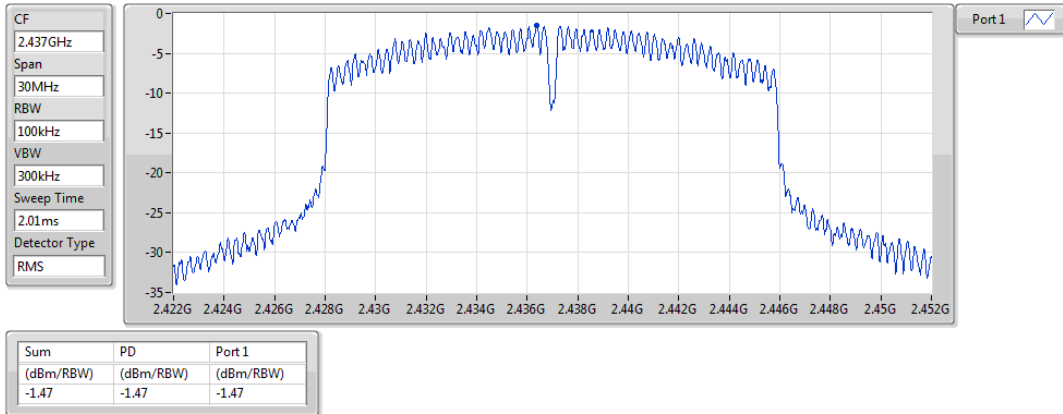


802.11n HT20_Nss1,(MCS0)_1TX

PSD

2437MHz

23/11/2018

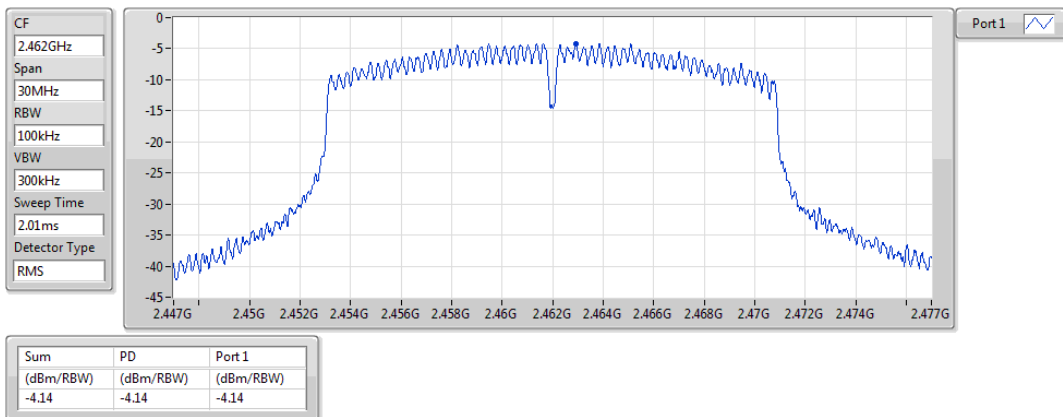


802.11n HT20_Nss1,(MCS0)_1TX

PSD

2462MHz

24/01/2019

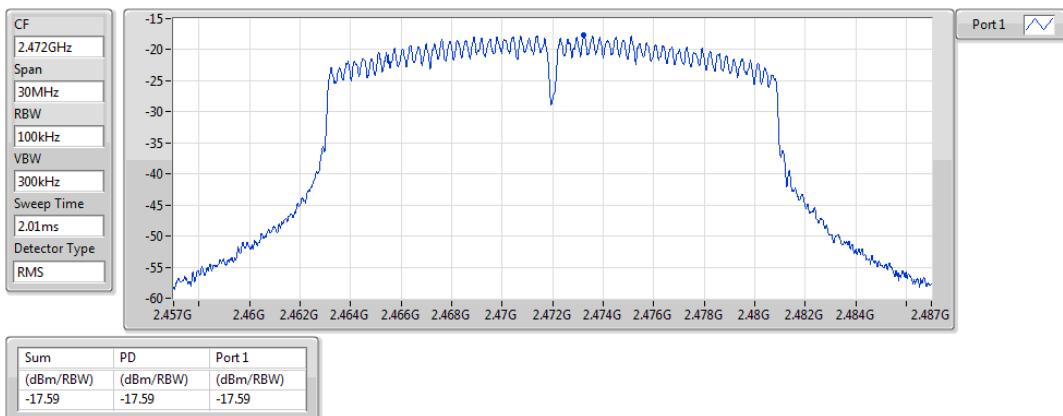


802.11n HT20_Nss1,(MCS0)_1TX

PSD

2472MHz

11/03/2019



Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.41248G	10.45	-19.55	2.30612G	-62.85	2.39952G	-32.08	2.48596G	-59.53	7.23514G	-48.02	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.4382G	7.40	-22.60	2.30146G	-65.38	2.3999G	-23.21	2.48576G	-60.80	16.20326G	-53.64	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.43954G	6.02	-23.98	2.15583G	-65.56	2.39926G	-24.05	2.48386G	-60.68	16.88036G	-53.64	1

Result

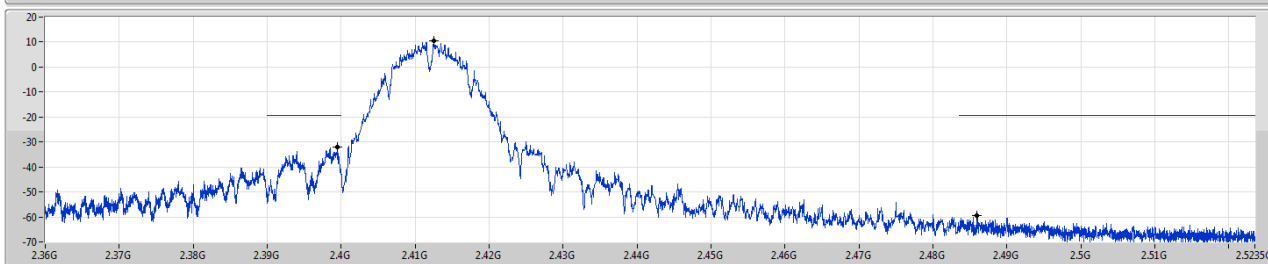
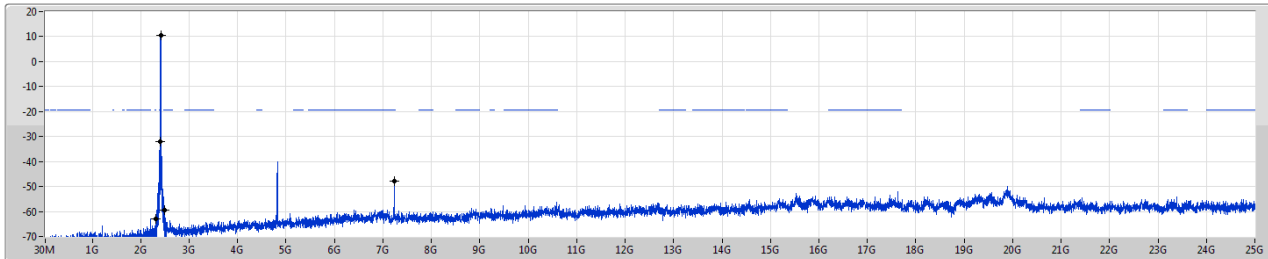
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.41248G	10.45	-19.55	2.30612G	-62.85	2.39952G	-32.08	2.48596G	-59.53	7.23514G	-48.02	1
2437MHz	Pass	2.41248G	10.45	-19.55	2.3G	-66.08	2.39696G	-47.39	2.48448G	-54.95	16.27069G	-53.20	1
2462MHz	Pass	2.41144G	10.16	-19.84	2.30292G	-65.84	2.39208G	-59.62	2.48494G	-45.05	15.20867G	-53.42	1
2472MHz	Pass	2.41248G	10.45	-19.55	1.83313G	-66.88	2.39722G	-62.46	2.49398G	-43.36	16.22293G	-53.59	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4382G	7.40	-22.60	2.30146G	-65.38	2.3999G	-23.21	2.48576G	-60.80	16.20326G	-53.64	1
2437MHz	Pass	2.4382G	7.40	-22.60	2.3035G	-65.50	2.39764G	-40.55	2.4876G	-49.46	16.22012G	-54.19	1
2462MHz	Pass	2.43319G	6.61	-23.39	49.81M	-65.38	2.39936G	-57.20	2.48418G	-36.24	16.70055G	-54.09	1
2472MHz	Pass	2.4382G	7.40	-22.60	2.30728G	-66.94	2.39592G	-64.93	2.48376G	-41.10	16.63312G	-53.11	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43954G	6.02	-23.98	2.15583G	-65.56	2.39926G	-24.05	2.48386G	-60.68	16.88036G	-53.64	1
2437MHz	Pass	2.43954G	6.02	-23.98	1.97206G	-65.60	2.39672G	-45.45	2.48608G	-51.36	17.45352G	-54.08	1
2462MHz	Pass	2.43073G	6.15	-23.85	49.81M	-65.81	2.39902G	-58.20	2.48356G	-38.31	16.71179G	-53.66	1
2472MHz	Pass	2.43954G	6.02	-23.98	2.1937G	-66.38	2.399G	-64.06	2.48362G	-42.97	15.16091G	-53.79	1

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2412MHz

11/03/2019



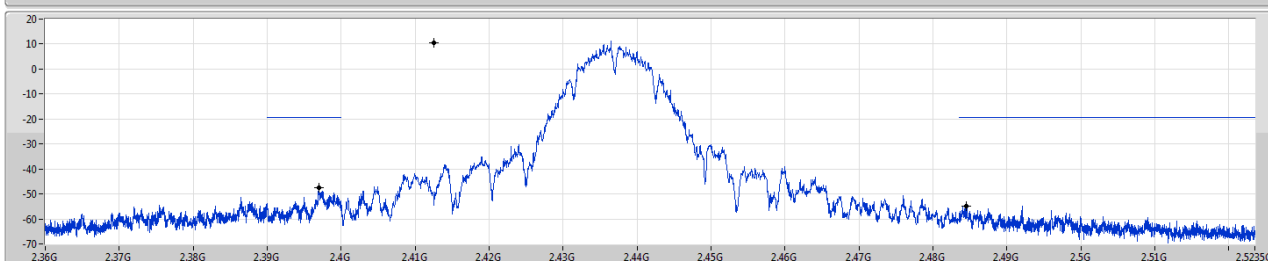
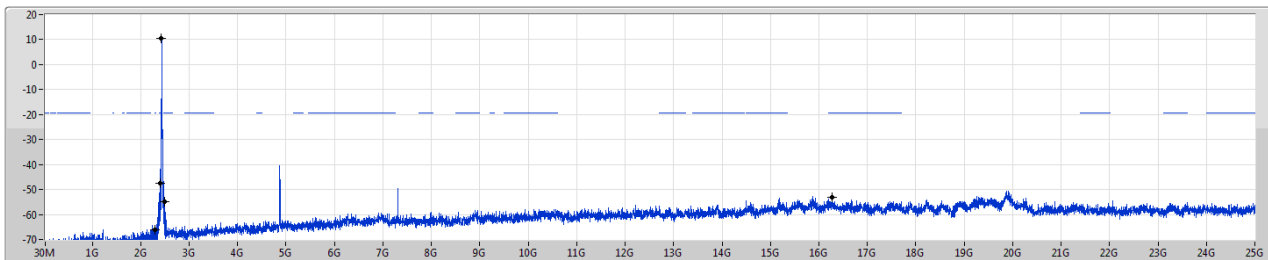
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41248G	10.45	-19.55	2.30612G	-62.85	2.39952G	-32.08	2.48596G	-59.53	7.23514G	-48.02	1

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2437MHz

11/03/2019



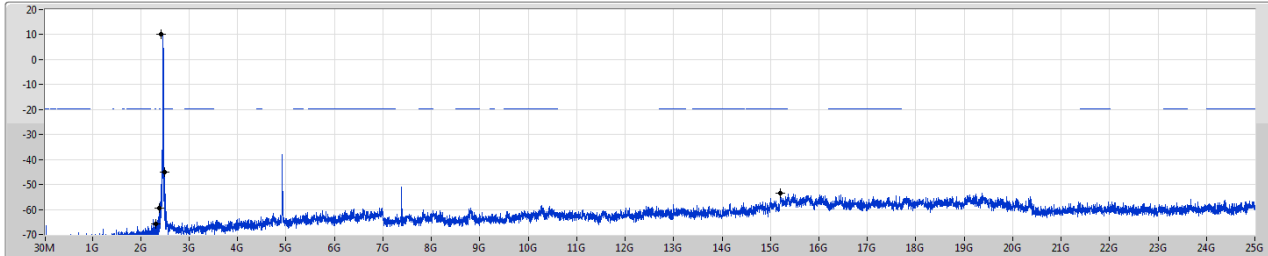
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2.41248G	10.45	-19.55	2.3G	-66.08	2.30696G	-47.39	2.48448G	-54.95	16.27069G	-53.20	1

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2462MHz

24/01/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

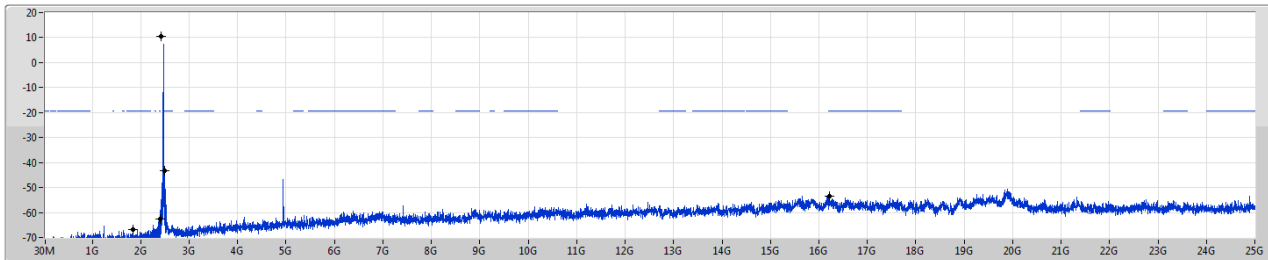
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41144G	10.16	-19.84	2.30292G	-65.84	2.39208G	-59.62	2.48494G	-45.05	15.20867G	-53.42	1

802.11b_Nss1,(1Mbps)_1TX

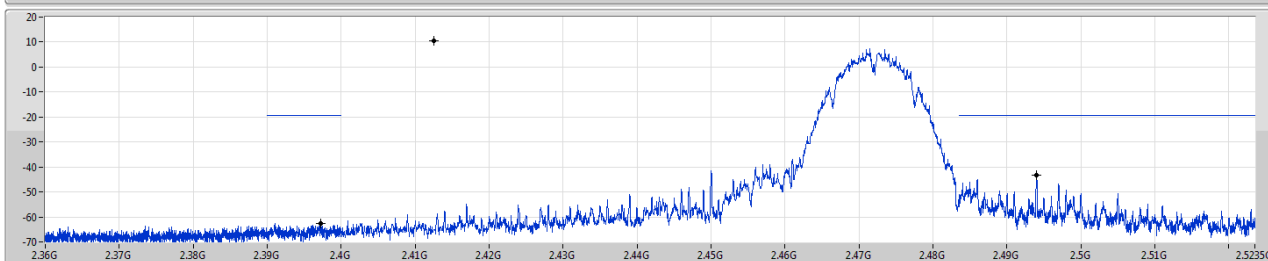
CSE NdB

2472MHz

11/03/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

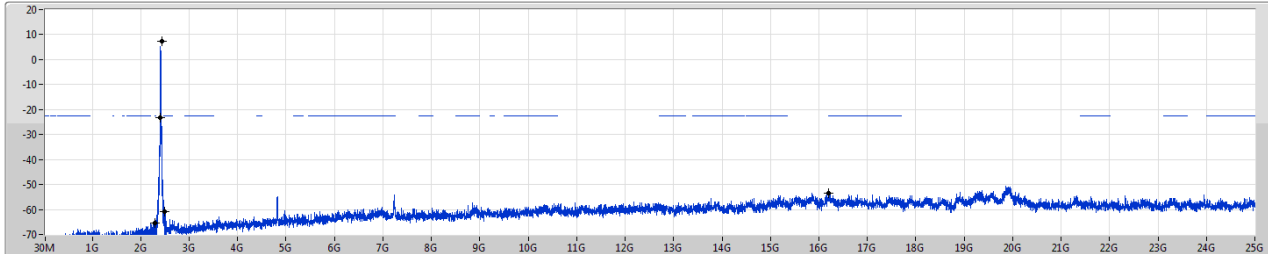
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41248G	10.45	-19.55	1.83313G	-66.88	2.39722G	-62.46	2.49398G	-43.36	16.22293G	-53.59	1

802.11g_Nss1,(6Mbps)_1TX

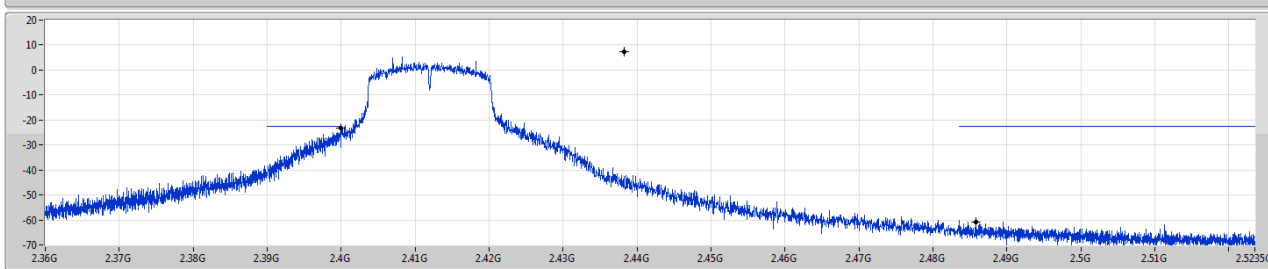
CSE NdB

2412MHz

11/03/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

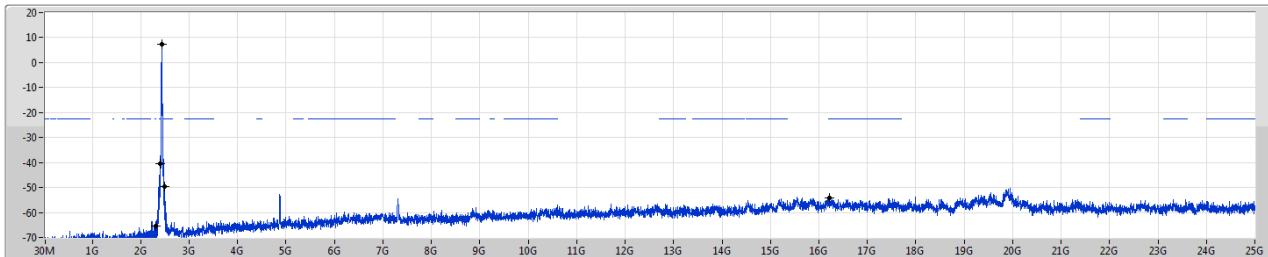
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4382G	7.40	-22.60	2.30146G	-65.38	2.3999G	-23.21	2.48576G	-60.80	16.20326G	-53.64	1

802.11g_Nss1,(6Mbps)_1TX

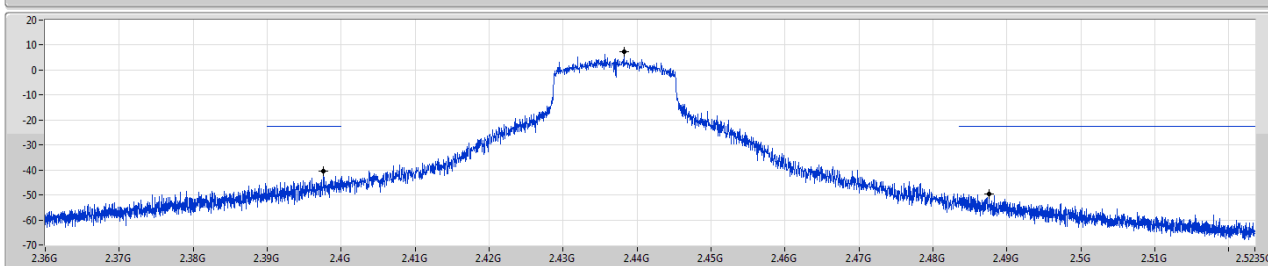
CSE NdB

2437MHz

11/03/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

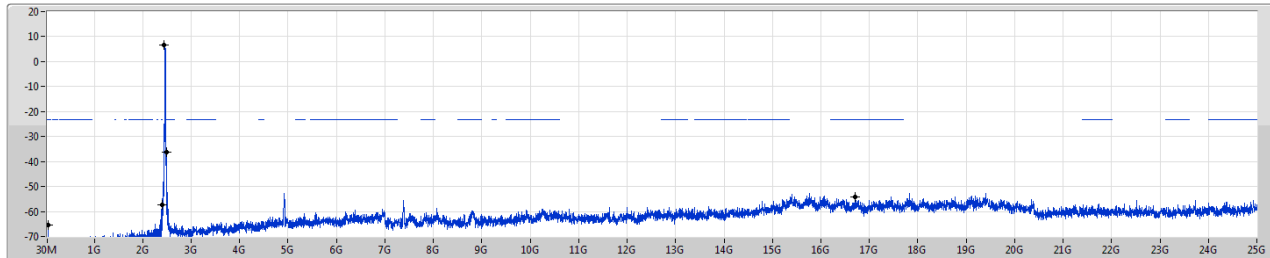
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4382G	7.40	-22.60	2.3035G	-65.50	2.39764G	-40.55	2.4876G	-49.46	16.22012G	-54.19	1

802.11g_Nss1,(6Mbps)_1TX

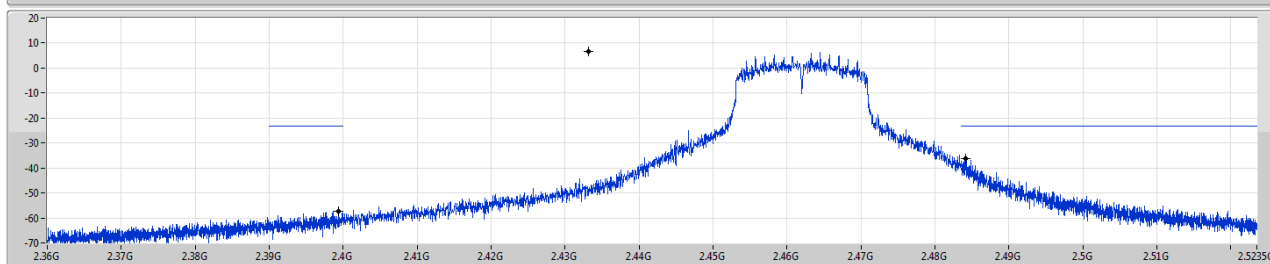
CSE NdB

2462MHz

24/01/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

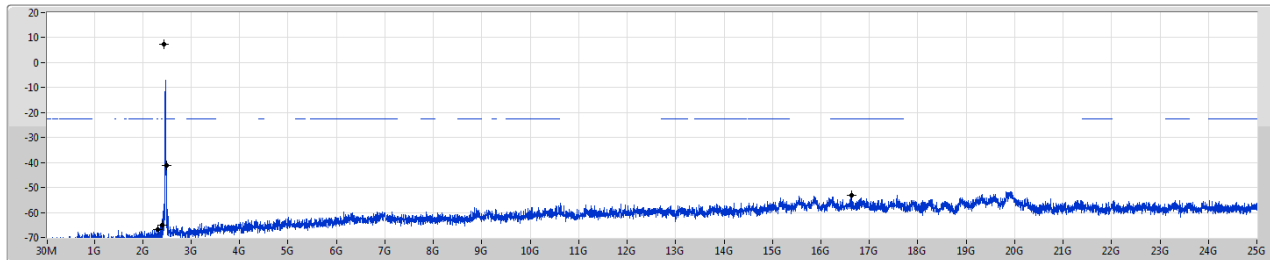
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4319G	6.61	-23.39	49.81M	-65.38	2.39936G	-57.20	2.48418G	-36.24	16.70055G	-54.09	1

802.11g_Nss1,(6Mbps)_1TX

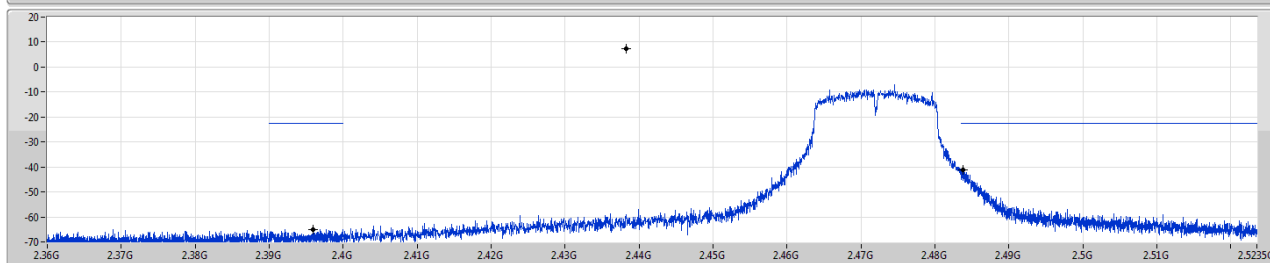
CSE NdB

2472MHz

11/03/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

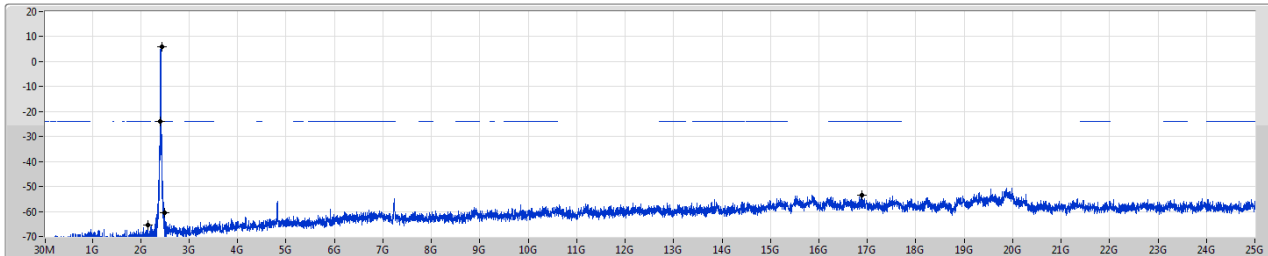
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4382G	7.40	-22.60	2.30728G	-66.94	2.39992G	-64.93	2.48376G	-41.10	16.63312G	-53.11	1

802.11n HT20_Nss1,(MCS0)_1TX

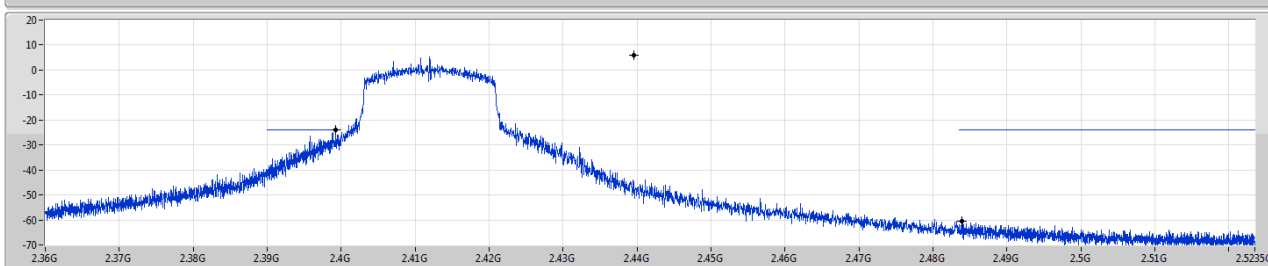
CSE NdB

2412MHz

11/03/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

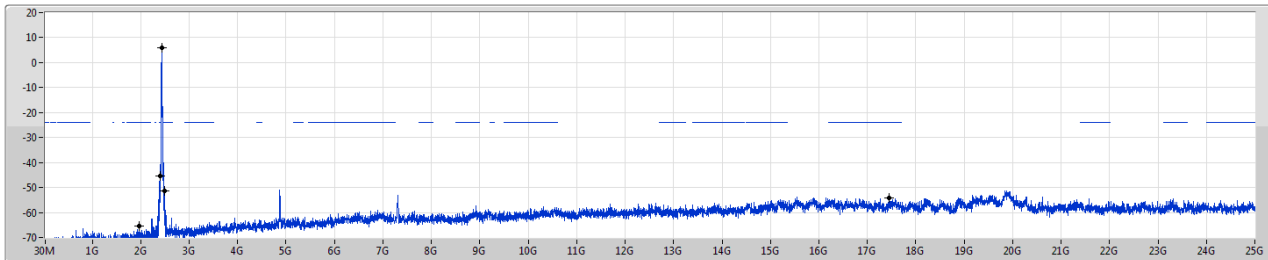
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43954G	6.02	-23.98	2.15583G	-65.56	2.39926G	-24.05	2.48386G	-60.68	16.88036G	-53.64	1

802.11n HT20_Nss1,(MCS0)_1TX

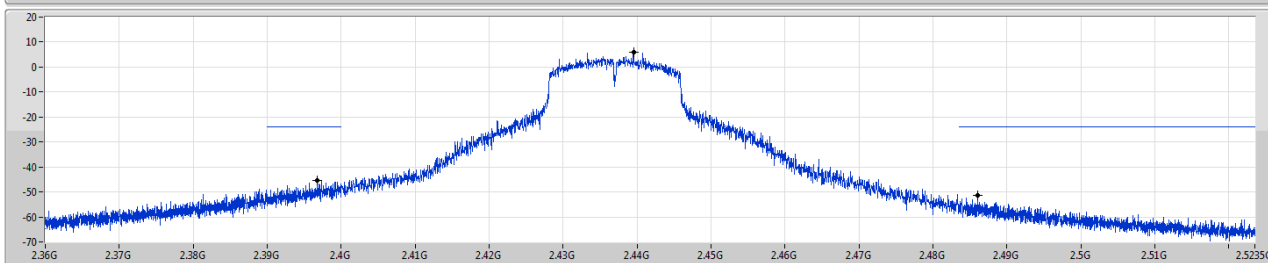
CSE NdB

2437MHz

11/03/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

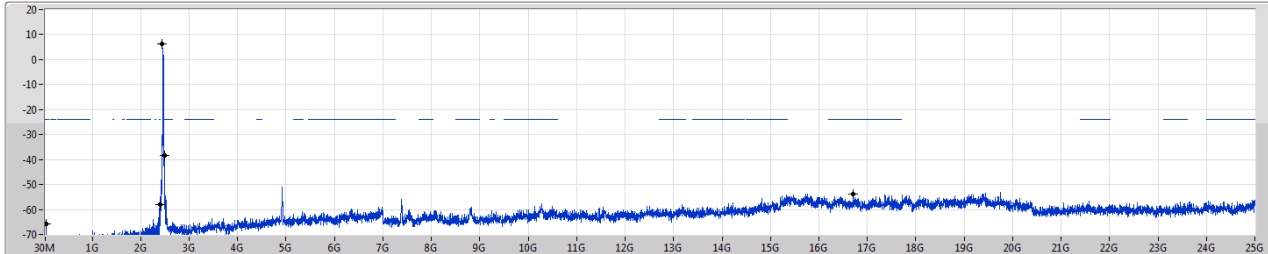
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43954G	6.02	-23.98	1.97206G	-65.60	2.39672G	-45.45	2.48608G	-51.36	17.45352G	-54.08	1

802.11n HT20_Nss1,(MCS0)_1TX

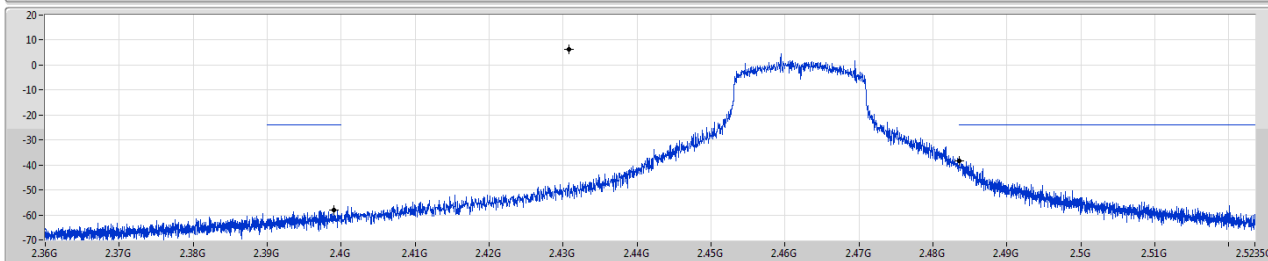
CSE NdB

2462MHz

24/01/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

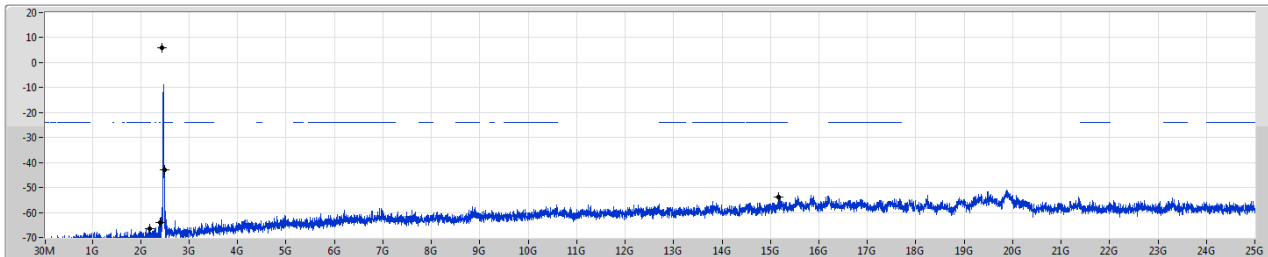
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43073G	6.15	-23.85	49.81M	-65.81	2.39902G	-58.20	2.48356G	-38.31	16.71179G	-53.66	1

802.11n HT20_Nss1,(MCS0)_1TX

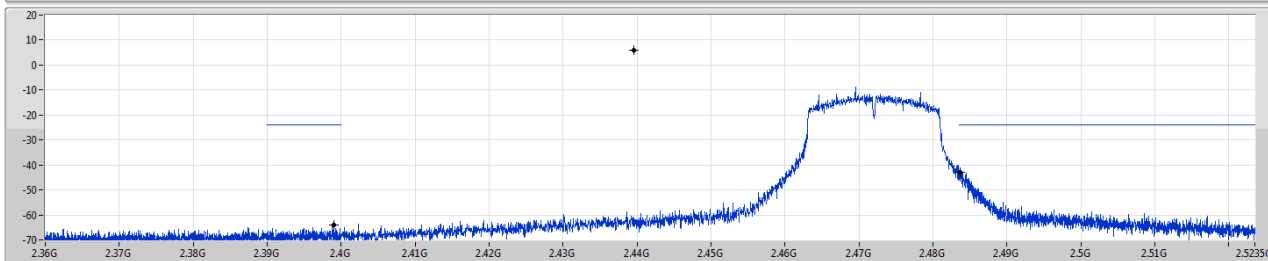
CSE NdB

2472MHz

11/03/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43954G	6.02	-23.98	2.1937G	-66.38	2.399G	-64.06	2.48362G	-42.97	15.16091G	-53.79	1



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	PK	30M	21.30	40.00	-18.70	-13.40	3	Vertical	0	3.00	-

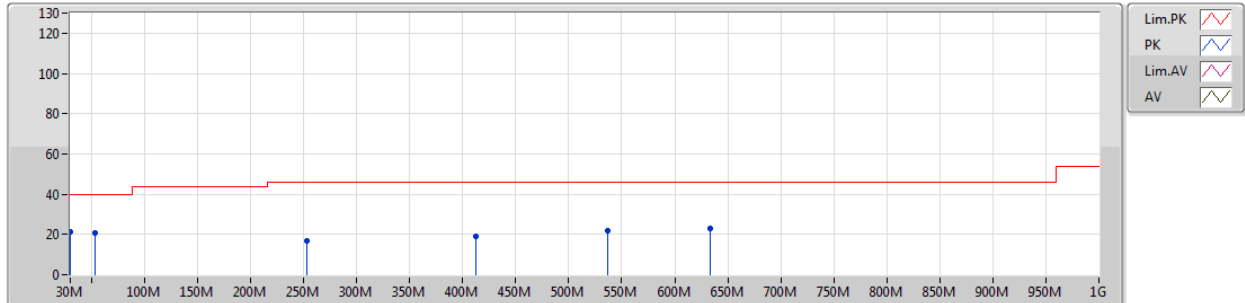
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	30M	21.30	40.00	-18.70	-13.40	3	Vertical	0	3.00	-
2437MHz	Pass	PK	53.28M	20.92	40.00	-19.08	-24.56	3	Vertical	0	3.00	-
2437MHz	Pass	PK	253.1M	16.56	46.00	-29.44	-16.67	3	Vertical	0	3.00	-
2437MHz	Pass	PK	412.18M	19.01	46.00	-26.99	-13.54	3	Vertical	0	3.00	-
2437MHz	Pass	PK	536.34M	22.01	46.00	-23.99	-12.06	3	Vertical	0	3.00	-
2437MHz	Pass	PK	633.34M	23.12	46.00	-22.88	-10.02	3	Vertical	0	3.00	-
2437MHz	Pass	PK	30M	19.07	40.00	-20.93	-13.40	3	Horizontal	360	3.00	-
2437MHz	Pass	PK	123.12M	14.12	43.50	-29.38	-19.24	3	Horizontal	360	3.00	-
2437MHz	Pass	PK	249.22M	16.24	46.00	-29.76	-17.26	3	Horizontal	360	3.00	-
2437MHz	Pass	PK	406.36M	19.72	46.00	-26.28	-13.77	3	Horizontal	360	3.00	-
2437MHz	Pass	PK	536.34M	21.22	46.00	-24.78	-12.06	3	Horizontal	360	3.00	-
2437MHz	Pass	PK	569.32M	23.43	46.00	-22.57	-10.62	3	Horizontal	360	3.00	-

802.11n HT20_Nss1,(MCS0)_1TX

23/01/2019

2437MHz_DC Power Supply

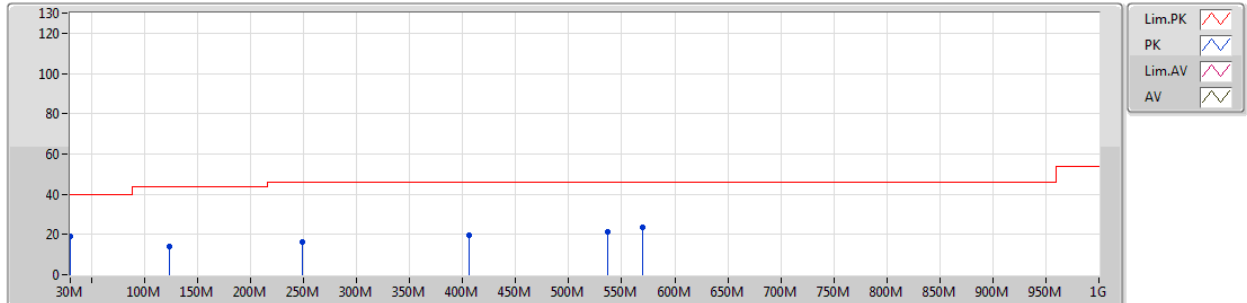


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	30M	21.30	40.00	-18.70	-13.40	3	Vertical	0	3.00	-
PK	53.28M	20.92	40.00	-19.08	-24.56	3	Vertical	0	3.00	-
PK	253.1M	16.56	46.00	-29.44	-16.67	3	Vertical	0	3.00	-
PK	412.18M	19.01	46.00	-26.99	-13.54	3	Vertical	0	3.00	-
PK	536.34M	22.01	46.00	-23.99	-12.06	3	Vertical	0	3.00	-
PK	633.34M	23.12	46.00	-22.88	-10.02	3	Vertical	0	3.00	-

802.11n HT20_Nss1,(MCS0)_1TX

23/01/2019

2437MHz_DC Power Supply



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	30M	19.07	40.00	-20.93	-13.40	3	Horizontal	360	3.00	-
PK	123.12M	14.12	43.50	-29.38	-19.24	3	Horizontal	360	3.00	-
PK	249.22M	16.24	46.00	-29.76	-17.26	3	Horizontal	360	3.00	-
PK	406.36M	19.72	46.00	-26.28	-13.77	3	Horizontal	360	3.00	-
PK	536.34M	21.22	46.00	-24.78	-12.06	3	Horizontal	360	3.00	-
PK	569.32M	23.43	46.00	-22.57	-10.62	3	Horizontal	360	3.00	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	AV	2.4844G	51.64	54.00	-2.36	32.39	3	Vertical	76	1.06	-
802.11g_Nss1,(6Mbps)_1TX	Pass	PK	2.4835G	72.65	74.00	-1.35	32.38	3	Vertical	76	1.11	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	2.4838G	52.90	54.00	-1.10	31.11	3	Vertical	220	2.42	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3892G	49.36	54.00	-4.64	30.77	3	Vertical	282	1.19	-
2412MHz	Pass	AV	2.4112G	101.98	Inf	-Inf	30.85	3	Vertical	282	1.19	-
2412MHz	Pass	PK	2.389G	59.26	74.00	-14.74	30.77	3	Vertical	282	1.19	-
2412MHz	Pass	PK	2.4112G	104.41	Inf	-Inf	30.85	3	Vertical	282	1.19	-
2412MHz	Pass	AV	2.389G	44.70	54.00	-9.30	30.77	3	Horizontal	137	1.19	-
2412MHz	Pass	AV	2.4112G	96.56	Inf	-Inf	30.85	3	Horizontal	137	1.19	-
2412MHz	Pass	PK	2.3894G	57.30	74.00	-16.70	30.77	3	Horizontal	137	1.19	-
2412MHz	Pass	PK	2.4112G	98.95	Inf	-Inf	30.85	3	Horizontal	137	1.19	-
2412MHz	Pass	AV	4.824G	38.79	54.00	-15.21	2.13	3	Vertical	144	2.64	-
2412MHz	Pass	PK	4.82394G	46.64	74.00	-27.36	2.13	3	Vertical	144	2.64	-
2412MHz	Pass	AV	4.824G	32.72	54.00	-21.28	2.13	3	Horizontal	102	2.97	-
2412MHz	Pass	PK	4.82778G	44.78	74.00	-29.22	2.14	3	Horizontal	102	2.97	-
2437MHz	Pass	AV	2.3882G	42.50	54.00	-11.50	30.77	3	Vertical	286	1.40	-
2437MHz	Pass	AV	2.4362G	100.81	Inf	-Inf	30.94	3	Vertical	286	1.40	-
2437MHz	Pass	AV	2.487G	43.00	54.00	-11.00	31.12	3	Vertical	286	1.40	-
2437MHz	Pass	PK	2.3474G	55.41	74.00	-18.59	30.62	3	Vertical	286	1.40	-
2437MHz	Pass	PK	2.4362G	103.33	Inf	-Inf	30.94	3	Vertical	286	1.40	-
2437MHz	Pass	PK	2.4862G	56.08	74.00	-17.92	31.12	3	Vertical	286	1.40	-
2437MHz	Pass	AV	2.3878G	42.17	54.00	-11.83	30.77	3	Horizontal	136	1.27	-
2437MHz	Pass	AV	2.4378G	96.49	Inf	-Inf	30.95	3	Horizontal	136	1.27	-
2437MHz	Pass	AV	2.499G	42.90	54.00	-11.10	31.17	3	Horizontal	136	1.27	-
2437MHz	Pass	PK	2.3878G	55.10	74.00	-18.90	30.77	3	Horizontal	136	1.27	-
2437MHz	Pass	PK	2.4378G	99.04	Inf	-Inf	30.95	3	Horizontal	136	1.27	-
2437MHz	Pass	PK	2.4902G	55.94	74.00	-18.06	31.13	3	Horizontal	136	1.27	-
2437MHz	Pass	AV	4.874G	39.08	54.00	-14.92	2.25	3	Vertical	137	2.74	-
2437MHz	Pass	PK	4.87388G	45.80	74.00	-28.20	2.25	3	Vertical	137	2.74	-
2437MHz	Pass	AV	4.874G	31.59	54.00	-22.41	2.25	3	Horizontal	344	1.23	-
2437MHz	Pass	PK	4.87418G	43.18	74.00	-30.82	2.25	3	Horizontal	344	1.23	-
2457MHz	Pass	AV	2.4578G	107.08	Inf	-Inf	31.02	3	Vertical	53	1.78	-
2457MHz	Pass	AV	2.4838G	47.54	54.00	-6.46	31.11	3	Vertical	53	1.78	-
2457MHz	Pass	PK	2.4578G	109.72	Inf	-Inf	31.02	3	Vertical	53	1.78	-
2457MHz	Pass	PK	2.4848G	58.42	74.00	-15.58	31.12	3	Vertical	53	1.78	-
2457MHz	Pass	AV	2.4562G	106.42	Inf	-Inf	31.01	3	Horizontal	19	2.23	-
2457MHz	Pass	AV	2.4836G	47.41	54.00	-6.59	31.11	3	Horizontal	19	2.23	-
2457MHz	Pass	PK	2.456G	109.05	Inf	-Inf	31.01	3	Horizontal	19	2.23	-
2457MHz	Pass	PK	2.4838G	58.60	74.00	-15.40	31.11	3	Horizontal	19	2.23	-
2462MHz	Pass	AV	2.4612G	100.76	Inf	-Inf	31.03	3	Vertical	277	1.14	-
2462MHz	Pass	AV	2.4848G	46.30	54.00	-7.70	31.12	3	Vertical	277	1.14	-
2462MHz	Pass	PK	2.4628G	103.29	Inf	-Inf	31.04	3	Vertical	277	1.14	-
2462MHz	Pass	PK	2.4894G	57.32	74.00	-16.68	31.13	3	Vertical	277	1.14	-
2462MHz	Pass	AV	2.4612G	97.55	Inf	-Inf	31.03	3	Horizontal	176	1.32	-
2462MHz	Pass	AV	2.4848G	44.92	54.00	-9.08	31.12	3	Horizontal	176	1.32	-
2462MHz	Pass	PK	2.4628G	100.07	Inf	-Inf	31.04	3	Horizontal	176	1.32	-
2462MHz	Pass	PK	2.485G	57.10	74.00	-16.90	31.12	3	Horizontal	176	1.32	-
2462MHz	Pass	AV	4.92394G	36.73	54.00	-17.27	2.38	3	Vertical	128	1.04	-
2462MHz	Pass	PK	4.92382G	45.04	74.00	-28.96	2.38	3	Vertical	128	1.04	-
2462MHz	Pass	AV	4.92394G	31.18	54.00	-22.82	2.38	3	Horizontal	6	1.16	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2462MHz	Pass	PK	4.93018G	43.64	74.00	-30.36	2.40	3	Horizontal	6	1.16	-
2467MHz	Pass	AV	2.4662G	105.85	Inf	-Inf	32.33	3	Vertical	76	1.06	-
2467MHz	Pass	AV	2.4844G	51.64	54.00	-2.36	32.39	3	Vertical	76	1.06	-
2467MHz	Pass	PK	2.468G	109.53	Inf	-Inf	32.33	3	Vertical	76	1.06	-
2467MHz	Pass	PK	2.487G	61.05	74.00	-12.95	32.39	3	Vertical	76	1.06	-
2467MHz	Pass	AV	2.4662G	106.01	Inf	-Inf	32.33	3	Horizontal	83	1.28	-
2467MHz	Pass	AV	2.4842G	51.25	54.00	-2.75	32.39	3	Horizontal	83	1.28	-
2467MHz	Pass	PK	2.468G	109.82	Inf	-Inf	32.33	3	Horizontal	83	1.28	-
2467MHz	Pass	PK	2.4854G	59.73	74.00	-14.27	32.39	3	Horizontal	83	1.28	-
2472MHz	Pass	AV	2.4712G	104.52	Inf	-Inf	32.34	3	Vertical	77	1.11	-
2472MHz	Pass	AV	2.486G	51.24	54.00	-2.76	32.39	3	Vertical	77	1.11	-
2472MHz	Pass	PK	2.473G	108.06	Inf	-Inf	32.34	3	Vertical	77	1.11	-
2472MHz	Pass	PK	2.4848G	60.18	74.00	-13.82	32.39	3	Vertical	77	1.11	-
2472MHz	Pass	AV	2.4712G	103.08	Inf	-Inf	32.34	3	Horizontal	83	1.28	-
2472MHz	Pass	AV	2.4835G	48.92	54.00	-5.08	32.38	3	Horizontal	83	1.28	-
2472MHz	Pass	PK	2.471G	106.61	Inf	-Inf	32.34	3	Horizontal	83	1.28	-
2472MHz	Pass	PK	2.4835G	58.81	74.00	-15.19	32.38	3	Horizontal	83	1.28	-
2472MHz	Pass	AV	4.94404G	34.85	54.00	-19.15	3.80	3	Vertical	306	1.18	-
2472MHz	Pass	PK	4.94635G	47.36	74.00	-26.64	3.80	3	Vertical	306	1.18	-
2472MHz	Pass	AV	4.95048G	32.89	54.00	-21.11	3.82	3	Horizontal	350	2.01	-
2472MHz	Pass	PK	4.9341G	47.29	74.00	-26.71	3.77	3	Horizontal	350	2.01	-
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	51.61	54.00	-2.39	30.77	3	Vertical	281	1.20	-
2412MHz	Pass	AV	2.4136G	95.40	Inf	-Inf	30.86	3	Vertical	281	1.20	-
2412MHz	Pass	PK	2.3896G	68.07	74.00	-5.93	30.77	3	Vertical	281	1.20	-
2412MHz	Pass	PK	2.411G	105.42	Inf	-Inf	30.85	3	Vertical	281	1.20	-
2412MHz	Pass	AV	2.39G	46.64	54.00	-7.36	30.77	3	Horizontal	134	1.04	-
2412MHz	Pass	AV	2.4128G	89.35	Inf	-Inf	30.86	3	Horizontal	134	1.04	-
2412MHz	Pass	PK	2.3898G	61.69	74.00	-12.31	30.77	3	Horizontal	134	1.04	-
2412MHz	Pass	PK	2.4142G	99.34	Inf	-Inf	30.86	3	Horizontal	134	1.04	-
2412MHz	Pass	AV	4.8096G	30.52	54.00	-23.48	2.10	3	Vertical	160	1.35	-
2412MHz	Pass	PK	4.83234G	44.40	74.00	-29.60	2.15	3	Vertical	160	1.35	-
2412MHz	Pass	AV	4.80918G	31.11	54.00	-22.89	2.09	3	Horizontal	173	1.50	-
2412MHz	Pass	PK	4.81008G	49.64	74.00	-24.36	2.10	3	Horizontal	173	1.50	-
2417MHz	Pass	AV	2.39G	51.80	54.00	-2.20	30.77	3	Vertical	219	2.22	-
2417MHz	Pass	AV	2.4158G	99.00	Inf	-Inf	30.86	3	Vertical	219	2.22	-
2417MHz	Pass	PK	2.3892G	66.27	74.00	-7.73	30.77	3	Vertical	219	2.22	-
2417MHz	Pass	PK	2.4182G	108.35	Inf	-Inf	30.87	3	Vertical	219	2.22	-
2417MHz	Pass	AV	2.3898G	47.79	54.00	-6.21	30.77	3	Horizontal	202	1.75	-
2417MHz	Pass	AV	2.416G	92.99	Inf	-Inf	30.86	3	Horizontal	202	1.75	-
2417MHz	Pass	PK	2.3882G	61.34	74.00	-12.66	30.77	3	Horizontal	202	1.75	-
2417MHz	Pass	PK	2.4148G	103.60	Inf	-Inf	30.86	3	Horizontal	202	1.75	-
2437MHz	Pass	AV	2.3862G	43.69	54.00	-10.31	30.76	3	Vertical	280	1.10	-
2437MHz	Pass	AV	2.4382G	95.71	Inf	-Inf	30.95	3	Vertical	280	1.10	-
2437MHz	Pass	AV	2.4866G	44.03	54.00	-9.97	31.12	3	Vertical	280	1.10	-
2437MHz	Pass	PK	2.3894G	55.71	74.00	-18.29	30.77	3	Vertical	280	1.10	-
2437MHz	Pass	PK	2.4346G	105.97	Inf	-Inf	30.94	3	Vertical	280	1.10	-
2437MHz	Pass	PK	2.4886G	56.21	74.00	-17.79	31.13	3	Vertical	280	1.10	-
2437MHz	Pass	AV	2.3874G	43.15	54.00	-10.85	30.76	3	Horizontal	133	1.22	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2437MHz	Pass	AV	2.4378G	91.18	Inf	-Inf	30.95	3	Horizontal	133	1.22	-
2437MHz	Pass	AV	2.495G	43.92	54.00	-10.08	31.16	3	Horizontal	133	1.22	-
2437MHz	Pass	PK	2.349G	55.42	74.00	-18.58	30.63	3	Horizontal	133	1.22	-
2437MHz	Pass	PK	2.4362G	100.80	Inf	-Inf	30.94	3	Horizontal	133	1.22	-
2437MHz	Pass	PK	2.4838G	56.26	74.00	-17.74	31.11	3	Horizontal	133	1.22	-
2437MHz	Pass	AV	4.87562G	31.58	54.00	-22.42	2.26	3	Vertical	138	2.97	-
2437MHz	Pass	PK	4.87634G	44.31	74.00	-29.69	2.26	3	Vertical	138	2.97	-
2437MHz	Pass	AV	4.88792G	30.58	54.00	-23.42	2.29	3	Horizontal	168	2.73	-
2437MHz	Pass	PK	4.87868G	43.32	74.00	-30.68	2.27	3	Horizontal	168	2.73	-
2457MHz	Pass	AV	2.456G	97.98	Inf	-Inf	31.01	3	Vertical	199	2.42	-
2457MHz	Pass	AV	2.4835G	51.03	54.00	-2.97	31.11	3	Vertical	199	2.42	-
2457MHz	Pass	PK	2.4556G	108.06	Inf	-Inf	31.01	3	Vertical	199	2.42	-
2457MHz	Pass	PK	2.4835G	69.60	74.00	-4.40	31.11	3	Vertical	199	2.42	-
2457MHz	Pass	AV	2.4562G	92.42	Inf	-Inf	31.01	3	Horizontal	201	2.24	-
2457MHz	Pass	AV	2.4835G	46.06	54.00	-7.94	31.11	3	Horizontal	201	2.24	-
2457MHz	Pass	PK	2.4546G	101.97	Inf	-Inf	31.00	3	Horizontal	201	2.24	-
2457MHz	Pass	PK	2.4848G	62.83	74.00	-11.17	31.12	3	Horizontal	201	2.24	-
2462MHz	Pass	AV	2.4602G	93.67	Inf	-Inf	31.03	3	Vertical	274	1.16	-
2462MHz	Pass	AV	2.4835G	52.04	54.00	-1.96	31.11	3	Vertical	274	1.16	-
2462MHz	Pass	PK	2.462G	104.10	Inf	-Inf	31.03	3	Vertical	274	1.16	-
2462MHz	Pass	PK	2.4835G	69.03	74.00	-4.97	31.11	3	Vertical	274	1.16	-
2462MHz	Pass	AV	2.4644G	90.85	Inf	-Inf	31.04	3	Horizontal	174	1.33	-
2462MHz	Pass	AV	2.4838G	49.32	54.00	-4.68	31.11	3	Horizontal	174	1.33	-
2462MHz	Pass	PK	2.4622G	101.01	Inf	-Inf	31.03	3	Horizontal	174	1.33	-
2462MHz	Pass	PK	2.4835G	64.98	74.00	-9.02	31.11	3	Horizontal	174	1.33	-
2462MHz	Pass	AV	4.92412G	31.16	54.00	-22.84	2.38	3	Vertical	154	2.66	-
2462MHz	Pass	PK	4.9255G	44.17	74.00	-29.83	2.39	3	Vertical	154	2.66	-
2462MHz	Pass	AV	4.93228G	30.88	54.00	-23.12	2.40	3	Horizontal	17	1.50	-
2462MHz	Pass	PK	4.93588G	43.76	74.00	-30.24	2.42	3	Horizontal	17	1.50	-
2467MHz	Pass	AV	2.4692G	95.62	Inf	-Inf	32.33	3	Vertical	76	1.03	-
2467MHz	Pass	AV	2.4835G	51.91	54.00	-2.09	32.38	3	Vertical	76	1.03	-
2467MHz	Pass	PK	2.4668G	106.88	Inf	-Inf	32.33	3	Vertical	76	1.03	-
2467MHz	Pass	PK	2.4835G	70.59	74.00	-3.41	32.38	3	Vertical	76	1.03	-
2467MHz	Pass	AV	2.4678G	95.15	Inf	-Inf	32.33	3	Horizontal	84	1.02	-
2467MHz	Pass	AV	2.4835G	50.55	54.00	-3.45	32.38	3	Horizontal	84	1.02	-
2467MHz	Pass	PK	2.4688G	105.14	Inf	-Inf	32.33	3	Horizontal	84	1.02	-
2467MHz	Pass	PK	2.4848G	68.75	74.00	-5.25	32.39	3	Horizontal	84	1.02	-
2472MHz	Pass	AV	2.4728G	87.38	Inf	-Inf	32.34	3	Vertical	76	1.11	-
2472MHz	Pass	AV	2.4835G	51.69	54.00	-2.31	32.38	3	Vertical	76	1.11	-
2472MHz	Pass	PK	2.4734G	98.00	Inf	-Inf	32.35	3	Vertical	76	1.11	-
2472MHz	Pass	PK	2.4835G	72.65	74.00	-1.35	32.38	3	Vertical	76	1.11	-
2472MHz	Pass	AV	2.471G	86.81	Inf	-Inf	32.34	3	Horizontal	86	1.01	-
2472MHz	Pass	AV	2.4835G	51.13	54.00	-2.87	32.38	3	Horizontal	86	1.01	-
2472MHz	Pass	PK	2.4752G	97.21	Inf	-Inf	32.36	3	Horizontal	86	1.01	-
2472MHz	Pass	PK	2.4835G	71.87	74.00	-2.13	32.38	3	Horizontal	86	1.01	-
2472MHz	Pass	AV	4.95816G	33.30	54.00	-20.70	3.83	3	Vertical	151	2.37	-
2472MHz	Pass	PK	4.95714G	46.66	74.00	-27.34	3.83	3	Vertical	151	2.37	-
2472MHz	Pass	AV	4.94856G	33.38	54.00	-20.62	3.81	3	Horizontal	281	1.55	-
2472MHz	Pass	PK	4.9572G	47.04	74.00	-26.96	3.83	3	Horizontal	281	1.55	-

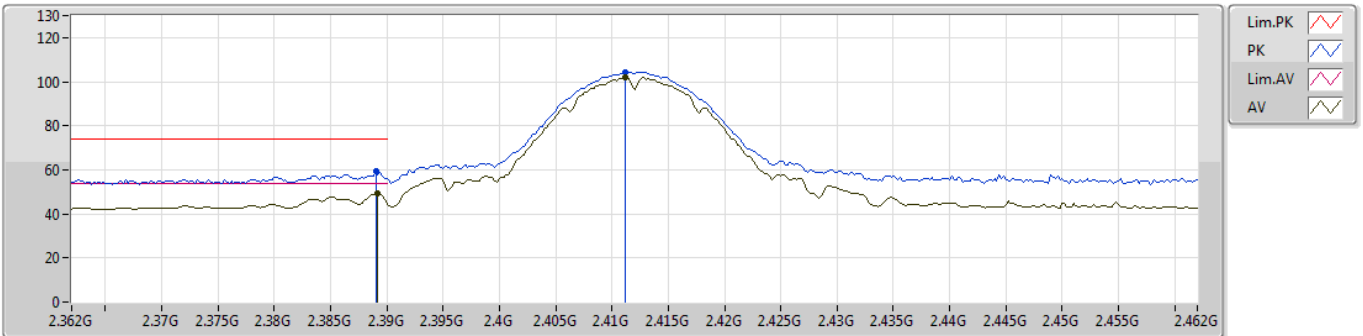
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	51.84	54.00	-2.16	30.77	3	Vertical	220	2.24	-
2412MHz	Pass	AV	2.4126G	96.74	Inf	-Inf	30.86	3	Vertical	220	2.24	-
2412MHz	Pass	PK	2.3898G	67.27	74.00	-6.73	30.77	3	Vertical	220	2.24	-
2412MHz	Pass	PK	2.413G	107.02	Inf	-Inf	30.86	3	Vertical	220	2.24	-
2412MHz	Pass	AV	2.39G	47.31	54.00	-6.69	30.77	3	Horizontal	204	1.76	-
2412MHz	Pass	AV	2.4112G	90.75	Inf	-Inf	30.85	3	Horizontal	204	1.76	-
2412MHz	Pass	PK	2.39G	61.98	74.00	-12.02	30.77	3	Horizontal	204	1.76	-
2412MHz	Pass	PK	2.4102G	100.35	Inf	-Inf	30.85	3	Horizontal	204	1.76	-
2412MHz	Pass	AV	4.80936G	30.59	54.00	-23.41	2.09	3	Vertical	189	1.19	-
2412MHz	Pass	PK	4.80918G	44.86	74.00	-29.14	2.09	3	Vertical	189	1.19	-
2412MHz	Pass	AV	4.81002G	31.10	54.00	-22.90	2.10	3	Horizontal	212	2.62	-
2412MHz	Pass	PK	4.81176G	48.97	74.00	-25.03	2.10	3	Horizontal	212	2.62	-
2417MHz	Pass	AV	2.3896G	51.14	54.00	-2.86	30.77	3	Vertical	218	2.22	-
2417MHz	Pass	AV	2.4158G	99.13	Inf	-Inf	30.86	3	Vertical	218	2.22	-
2417MHz	Pass	PK	2.389G	66.58	74.00	-7.42	30.77	3	Vertical	218	2.22	-
2417MHz	Pass	PK	2.4154G	108.55	Inf	-Inf	30.86	3	Vertical	218	2.22	-
2417MHz	Pass	AV	2.39G	47.56	54.00	-6.44	30.77	3	Horizontal	202	1.73	-
2417MHz	Pass	AV	2.415G	92.98	Inf	-Inf	30.86	3	Horizontal	202	1.73	-
2417MHz	Pass	PK	2.3884G	62.74	74.00	-11.26	30.77	3	Horizontal	202	1.73	-
2417MHz	Pass	PK	2.4194G	103.09	Inf	-Inf	30.88	3	Horizontal	202	1.73	-
2437MHz	Pass	AV	2.3898G	44.24	54.00	-9.76	30.77	3	Vertical	220	2.17	-
2437MHz	Pass	AV	2.4358G	98.56	Inf	-Inf	30.94	3	Vertical	220	2.17	-
2437MHz	Pass	AV	2.4858G	44.17	54.00	-9.83	31.12	3	Vertical	220	2.17	-
2437MHz	Pass	PK	2.3886G	56.04	74.00	-17.96	30.77	3	Vertical	220	2.17	-
2437MHz	Pass	PK	2.4338G	108.23	Inf	-Inf	30.93	3	Vertical	220	2.17	-
2437MHz	Pass	PK	2.4862G	56.43	74.00	-17.57	31.12	3	Vertical	220	2.17	-
2437MHz	Pass	AV	2.3834G	43.12	54.00	-10.88	30.75	3	Horizontal	217	2.25	-
2437MHz	Pass	AV	2.4362G	93.39	Inf	-Inf	30.94	3	Horizontal	217	2.25	-
2437MHz	Pass	AV	2.493G	43.81	54.00	-10.19	31.14	3	Horizontal	217	2.25	-
2437MHz	Pass	PK	2.3566G	56.02	74.00	-17.98	30.66	3	Horizontal	217	2.25	-
2437MHz	Pass	PK	2.4354G	102.95	Inf	-Inf	30.94	3	Horizontal	217	2.25	-
2437MHz	Pass	PK	2.495G	56.18	74.00	-17.82	31.16	3	Horizontal	217	2.25	-
2437MHz	Pass	AV	4.88684G	30.74	54.00	-23.26	2.29	3	Vertical	34	1.05	-
2437MHz	Pass	PK	4.86872G	43.17	74.00	-30.83	2.24	3	Vertical	34	1.05	-
2437MHz	Pass	AV	4.88864G	30.80	54.00	-23.20	2.29	3	Horizontal	192	1.50	-
2437MHz	Pass	PK	4.88732G	43.89	74.00	-30.11	2.29	3	Horizontal	192	1.50	-
2457MHz	Pass	AV	2.4582G	97.78	Inf	-Inf	31.02	3	Vertical	203	2.43	-
2457MHz	Pass	AV	2.4835G	51.60	54.00	-2.40	31.11	3	Vertical	203	2.43	-
2457MHz	Pass	PK	2.4584G	107.65	Inf	-Inf	31.02	3	Vertical	203	2.43	-
2457MHz	Pass	PK	2.4844G	66.84	74.00	-7.16	31.12	3	Vertical	203	2.43	-
2457MHz	Pass	AV	2.456G	92.00	Inf	-Inf	31.01	3	Horizontal	203	2.24	-
2457MHz	Pass	AV	2.4835G	45.74	54.00	-8.26	31.11	3	Horizontal	203	2.24	-
2457MHz	Pass	PK	2.457G	101.37	Inf	-Inf	31.02	3	Horizontal	203	2.24	-
2457MHz	Pass	PK	2.4836G	60.24	74.00	-13.76	31.11	3	Horizontal	203	2.24	-
2462MHz	Pass	AV	2.4612G	96.71	Inf	-Inf	31.03	3	Vertical	220	2.42	-
2462MHz	Pass	AV	2.4838G	52.90	54.00	-1.10	31.11	3	Vertical	220	2.42	-
2462MHz	Pass	PK	2.4602G	105.83	Inf	-Inf	31.03	3	Vertical	220	2.42	-
2462MHz	Pass	PK	2.4836G	70.32	74.00	-3.68	31.11	3	Vertical	220	2.42	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2462MHz	Pass	AV	2.461G	89.77	Inf	-Inf	31.03	3	Horizontal	199	1.01	-
2462MHz	Pass	AV	2.4835G	49.09	54.00	-4.91	31.11	3	Horizontal	199	1.01	-
2462MHz	Pass	PK	2.464G	99.24	Inf	-Inf	31.04	3	Horizontal	199	1.01	-
2462MHz	Pass	PK	2.484G	65.70	74.00	-8.30	31.12	3	Horizontal	199	1.01	-
2462MHz	Pass	AV	4.9297G	31.48	54.00	-22.52	2.40	3	Vertical	147	2.97	-
2462MHz	Pass	PK	4.92424G	43.95	74.00	-30.05	2.38	3	Vertical	147	2.97	-
2462MHz	Pass	AV	4.93204G	31.33	54.00	-22.67	2.40	3	Horizontal	40	2.98	-
2462MHz	Pass	PK	4.90936G	43.64	74.00	-30.36	2.34	3	Horizontal	40	2.98	-
2467MHz	Pass	AV	2.4682G	95.13	Inf	-Inf	32.33	3	Vertical	76	1.01	-
2467MHz	Pass	AV	2.4835G	52.79	54.00	-1.21	32.38	3	Vertical	76	1.01	-
2467MHz	Pass	PK	2.4708G	105.35	Inf	-Inf	32.34	3	Vertical	76	1.01	-
2467MHz	Pass	PK	2.4838G	71.55	74.00	-2.45	32.38	3	Vertical	76	1.01	-
2467MHz	Pass	AV	2.4658G	95.36	Inf	-Inf	32.32	3	Horizontal	85	1.01	-
2467MHz	Pass	AV	2.4835G	52.34	54.00	-1.66	32.38	3	Horizontal	85	1.01	-
2467MHz	Pass	PK	2.4694G	105.59	Inf	-Inf	32.33	3	Horizontal	85	1.01	-
2467MHz	Pass	PK	2.4838G	72.66	74.00	-1.34	32.38	3	Horizontal	85	1.01	-
2472MHz	Pass	AV	2.4698G	85.92	Inf	-Inf	32.34	3	Vertical	76	1.06	-
2472MHz	Pass	AV	2.4835G	50.75	54.00	-3.25	32.38	3	Vertical	76	1.06	-
2472MHz	Pass	PK	2.474G	95.69	Inf	-Inf	32.35	3	Vertical	76	1.06	-
2472MHz	Pass	PK	2.4835G	72.21	74.00	-1.79	32.38	3	Vertical	76	1.06	-
2472MHz	Pass	AV	2.4704G	85.02	Inf	-Inf	32.34	3	Horizontal	84	1.01	-
2472MHz	Pass	AV	2.4835G	50.09	54.00	-3.91	32.38	3	Horizontal	84	1.01	-
2472MHz	Pass	PK	2.4746G	95.32	Inf	-Inf	32.35	3	Horizontal	84	1.01	-
2472MHz	Pass	PK	2.4835G	70.80	74.00	-3.20	32.38	3	Horizontal	84	1.01	-
2472MHz	Pass	AV	4.95726G	33.39	54.00	-20.61	3.83	3	Vertical	135	2.09	-
2472MHz	Pass	PK	4.93332G	46.35	74.00	-27.65	3.77	3	Vertical	135	2.09	-
2472MHz	Pass	AV	4.94904G	33.36	54.00	-20.64	3.81	3	Horizontal	289	1.77	-
2472MHz	Pass	PK	4.94202G	47.14	74.00	-26.86	3.80	3	Horizontal	289	1.77	-

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21/01/2019

2412MHz_TX

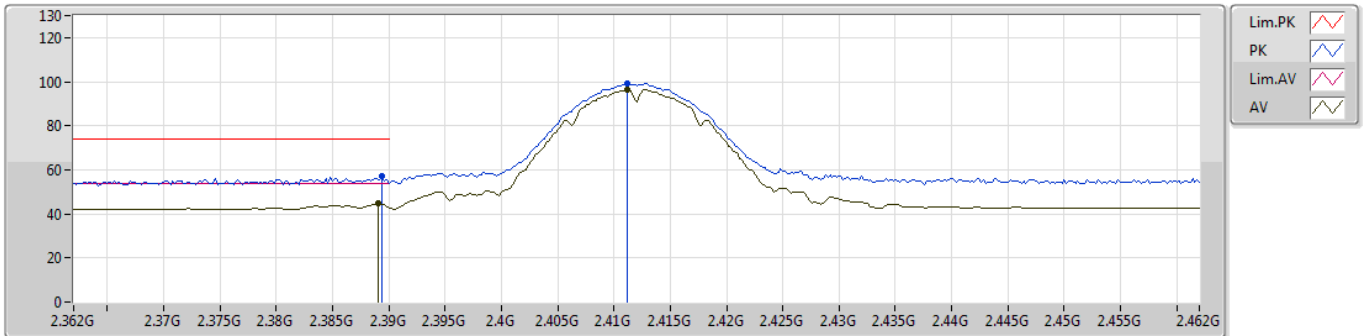


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3892G	49.36	54.00	-4.64	30.77	3	Vertical	282	1.19	-
AV	2.4112G	101.98	Inf	-Inf	30.85	3	Vertical	282	1.19	-
PK	2.389G	59.26	74.00	-14.74	30.77	3	Vertical	282	1.19	-
PK	2.4112G	104.41	Inf	-Inf	30.85	3	Vertical	282	1.19	-

802.11b_Nss1,(1Mbps)_1TX

21/01/2019

2412MHz_TX

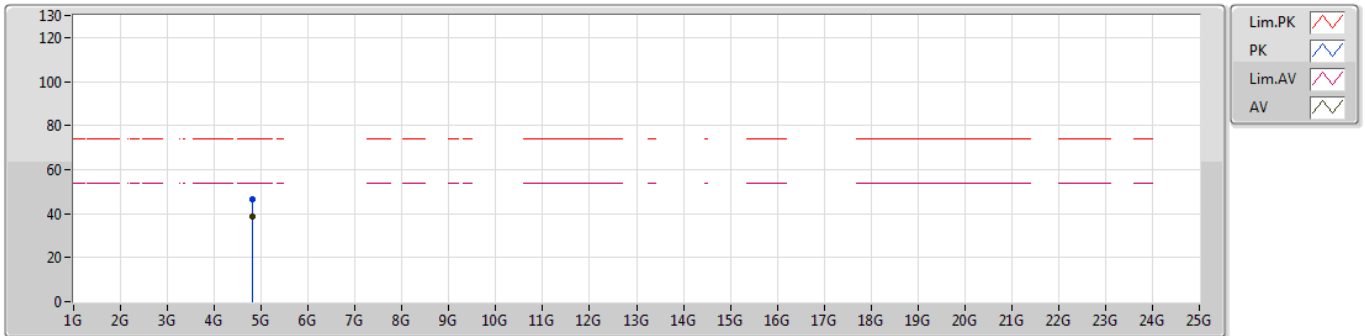


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389G	44.70	54.00	-9.30	30.77	3	Horizontal	137	1.19	-
AV	2.4112G	96.56	Inf	-Inf	30.85	3	Horizontal	137	1.19	-
PK	2.3894G	57.30	74.00	-16.70	30.77	3	Horizontal	137	1.19	-
PK	2.4112G	98.95	Inf	-Inf	30.85	3	Horizontal	137	1.19	-

802.11b_Nss1,(1Mbps)_1TX

21/01/2019

2412MHz_TX

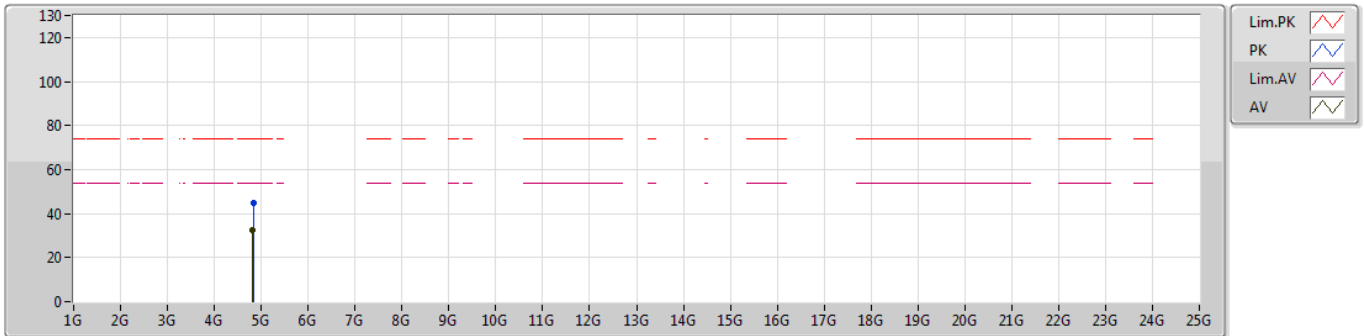


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.824G	38.79	54.00	-15.21	2.13	3	Vertical	144	2.64	-
PK	4.82394G	46.64	74.00	-27.36	2.13	3	Vertical	144	2.64	-

802.11b_Nss1,(1Mbps)_1TX

21/01/2019

2412MHz_TX

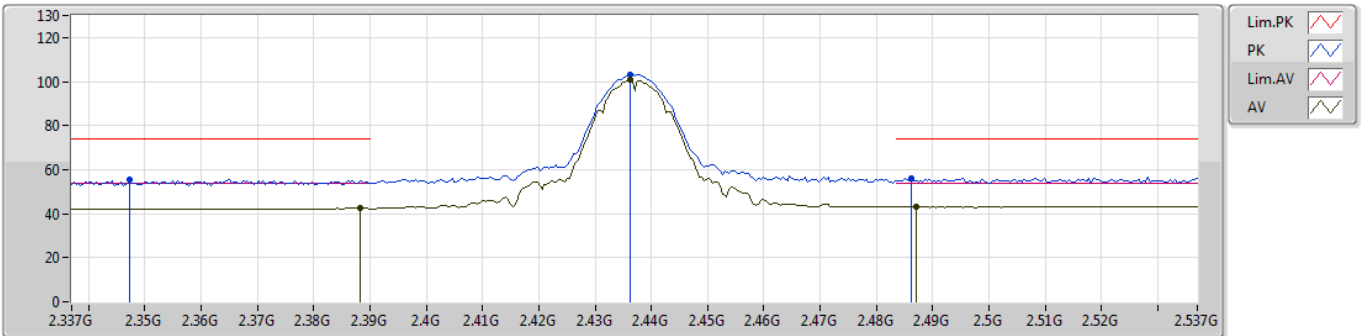


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.824G	32.72	54.00	-21.28	2.13	3	Horizontal	102	2.97	-
PK	4.82778G	44.78	74.00	-29.22	2.14	3	Horizontal	102	2.97	-

802.11b_Nss1,(1Mbps)_1TX

22/01/2019

2437MHz_TX

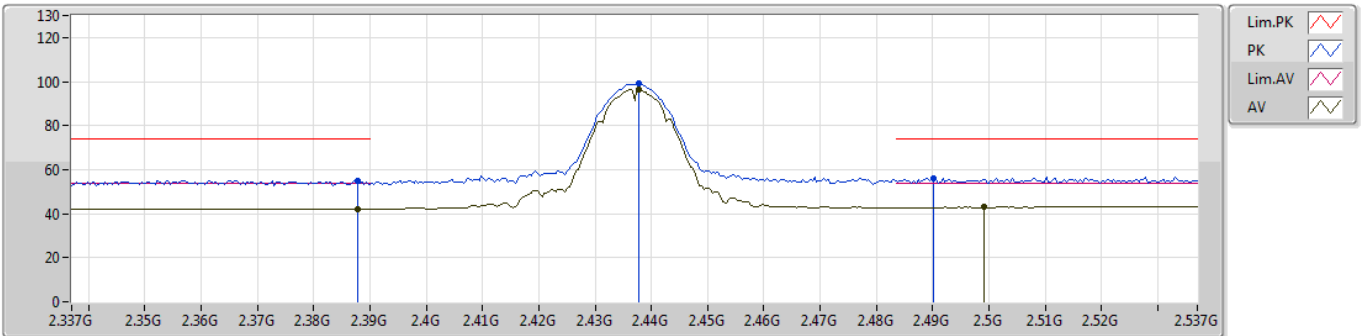


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3882G	42.50	54.00	-11.50	30.77	3	Vertical	286	1.40	-
AV	2.4362G	100.81	Inf	-Inf	30.94	3	Vertical	286	1.40	-
AV	2.487G	43.00	54.00	-11.00	31.12	3	Vertical	286	1.40	-
PK	2.3474G	55.41	74.00	-18.59	30.62	3	Vertical	286	1.40	-
PK	2.4362G	103.33	Inf	-Inf	30.94	3	Vertical	286	1.40	-
PK	2.4862G	56.08	74.00	-17.92	31.12	3	Vertical	286	1.40	-

802.11b_Nss1,(1Mbps)_1TX

22/01/2019

2437MHz_TX

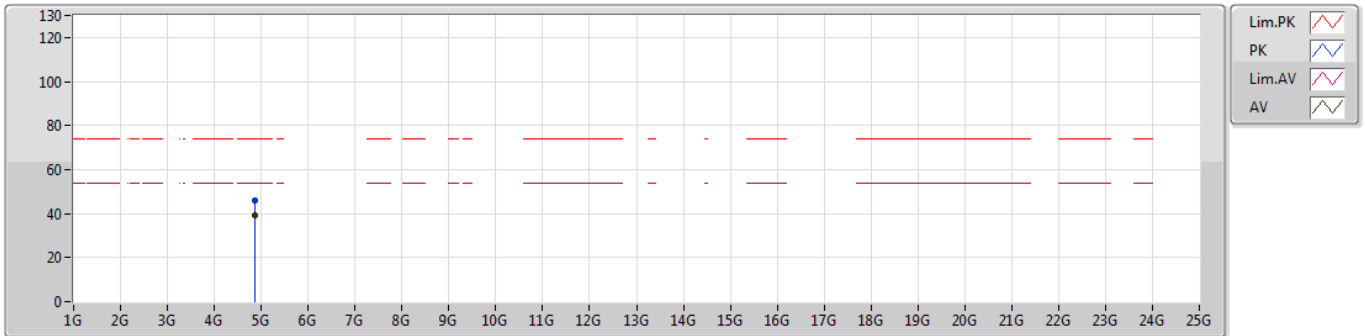


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3878G	42.17	54.00	-11.83	30.77	3	Horizontal	136	1.27	-
AV	2.4378G	96.49	Inf	-Inf	30.95	3	Horizontal	136	1.27	-
AV	2.499G	42.90	54.00	-11.10	31.17	3	Horizontal	136	1.27	-
PK	2.3878G	55.10	74.00	-18.90	30.77	3	Horizontal	136	1.27	-
PK	2.4378G	99.04	Inf	-Inf	30.95	3	Horizontal	136	1.27	-
PK	2.4902G	55.94	74.00	-18.06	31.13	3	Horizontal	136	1.27	-

802.11b_Nss1,(1Mbps)_1TX

22/01/2019

2437MHz_TX

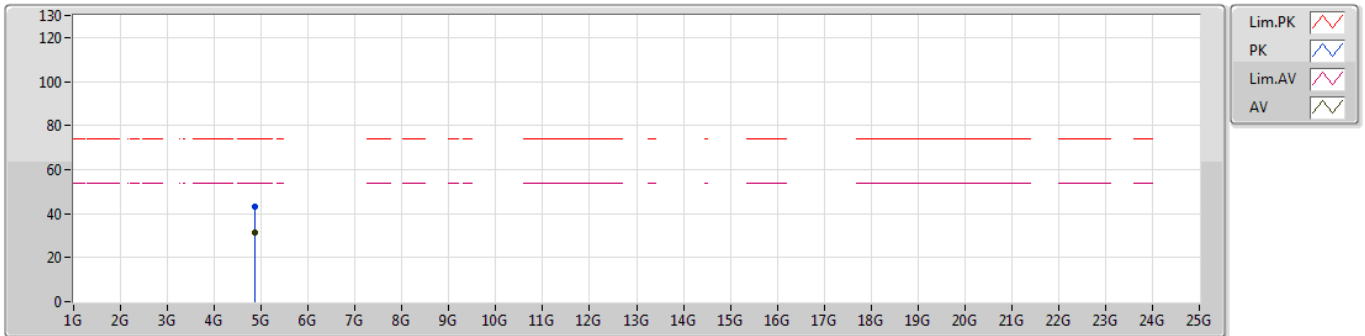


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.874G	39.08	54.00	-14.92	2.25	3	Vertical	137	2.74	-
PK	4.87388G	45.80	74.00	-28.20	2.25	3	Vertical	137	2.74	-

802.11b_Nss1,(1Mbps)_1TX

22/01/2019

2437MHz_TX

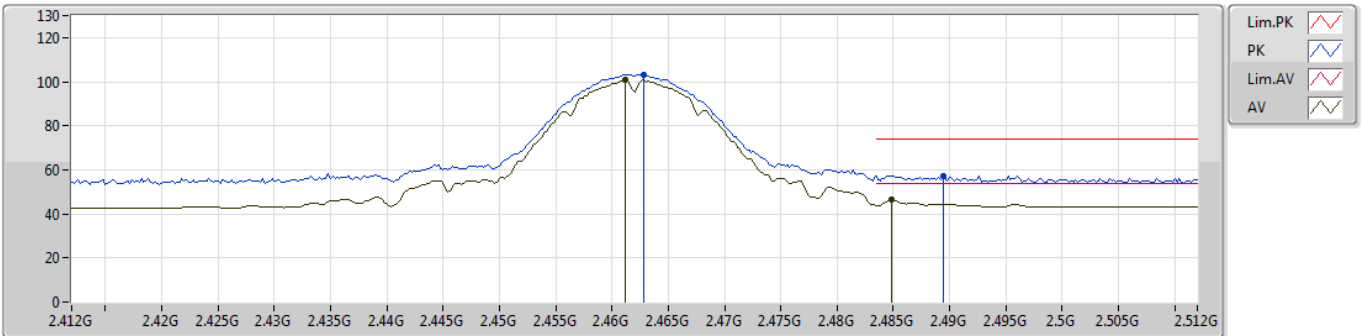


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.874G	31.59	54.00	-22.41	2.25	3	Horizontal	344	1.23	-
PK	4.87418G	43.18	74.00	-30.82	2.25	3	Horizontal	344	1.23	-

802.11b_Nss1,(1Mbps)_1TX

22/01/2019

2462MHz_TX

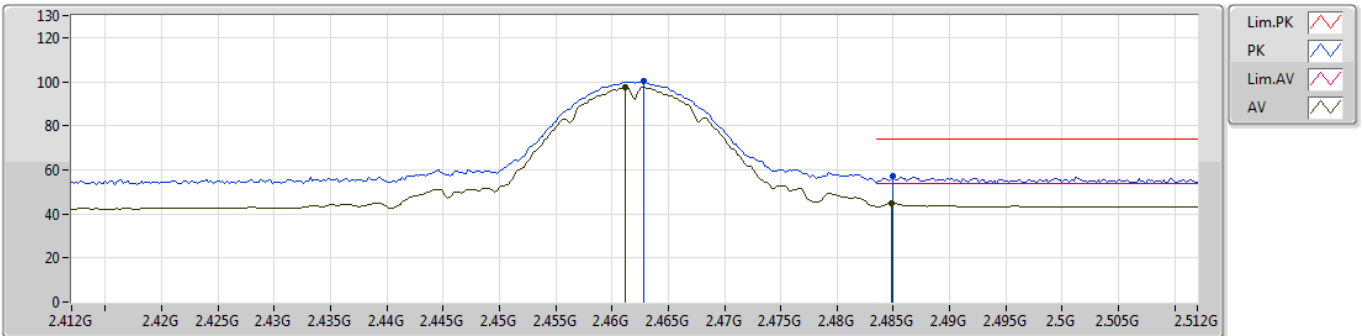


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	100.76	Inf	-Inf	31.03	3	Vertical	277	1.14	-
AV	2.4848G	46.30	54.00	-7.70	31.12	3	Vertical	277	1.14	-
PK	2.4628G	103.29	Inf	-Inf	31.04	3	Vertical	277	1.14	-
PK	2.4894G	57.32	74.00	-16.68	31.13	3	Vertical	277	1.14	-

802.11b_Nss1,(1Mbps)_1TX

22/01/2019

2462MHz_TX

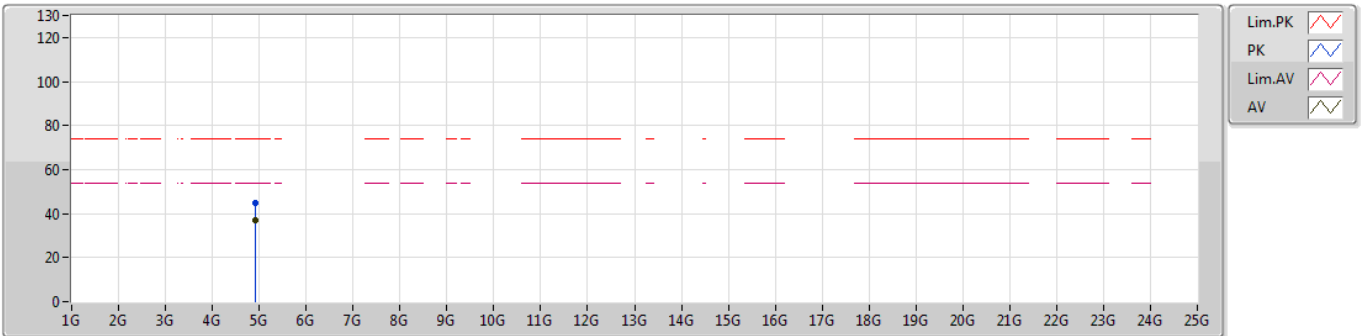


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	97.55	Inf	-Inf	31.03	3	Horizontal	176	1.32	-
AV	2.4848G	44.92	54.00	-9.08	31.12	3	Horizontal	176	1.32	-
PK	2.4628G	100.07	Inf	-Inf	31.04	3	Horizontal	176	1.32	-
PK	2.485G	57.10	74.00	-16.90	31.12	3	Horizontal	176	1.32	-

802.11b_Nss1,(1Mbps)_1TX

22/01/2019

2462MHz_TX

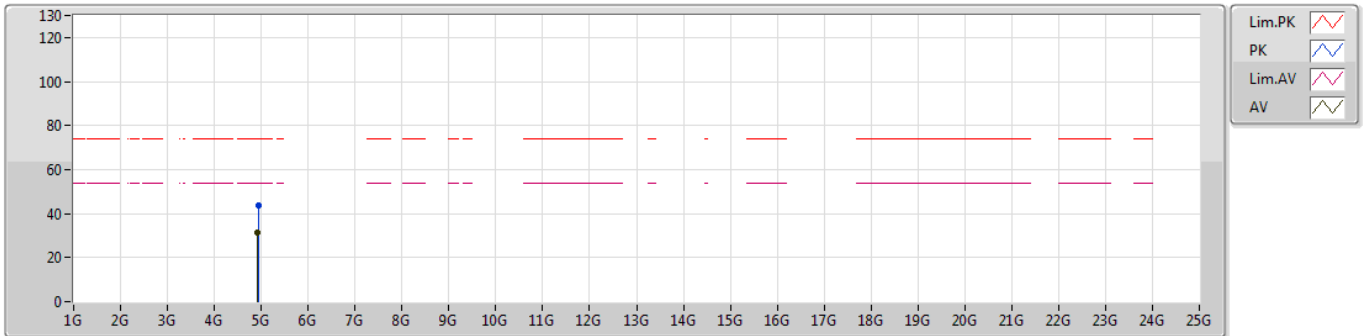


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92394G	36.73	54.00	-17.27	2.38	3	Vertical	128	1.04	-
PK	4.92382G	45.04	74.00	-28.96	2.38	3	Vertical	128	1.04	-

802.11b_Nss1,(1Mbps)_1TX

22/01/2019

2462MHz_TX

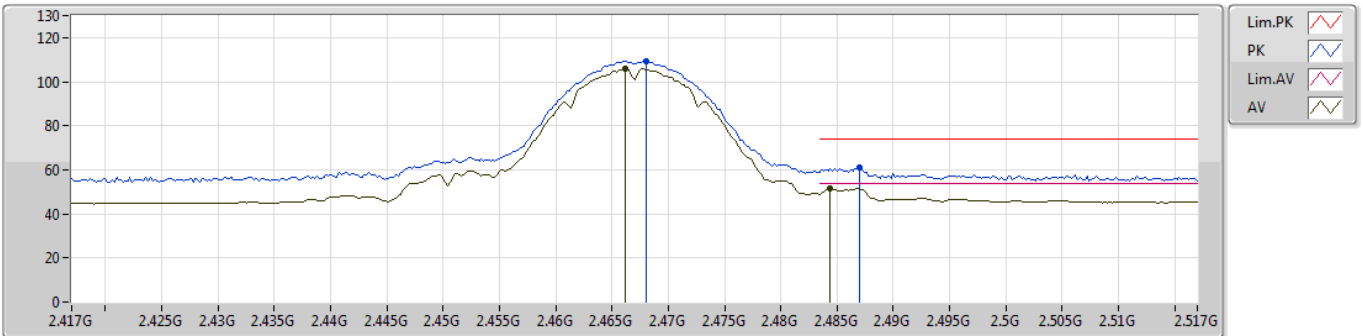


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92394G	31.18	54.00	-22.82	2.38	3	Horizontal	6	1.16	-
PK	4.93018G	43.64	74.00	-30.36	2.40	3	Horizontal	6	1.16	-

802.11b_Nss1,(1Mbps)_1TX

08/03/2019

2467MHz_TX

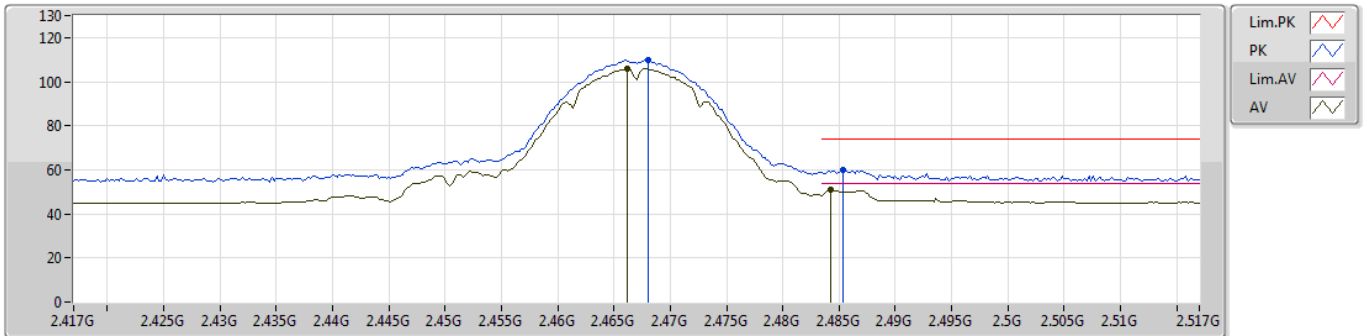


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4662G	105.85	Inf	-Inf	32.33	3	Vertical	76	1.06	-
AV	2.4844G	51.64	54.00	-2.36	32.39	3	Vertical	76	1.06	-
PK	2.468G	109.53	Inf	-Inf	32.33	3	Vertical	76	1.06	-
PK	2.487G	61.05	74.00	-12.95	32.39	3	Vertical	76	1.06	-

802.11b_Nss1,(1Mbps)_1TX

08/03/2019

2467MHz_TX

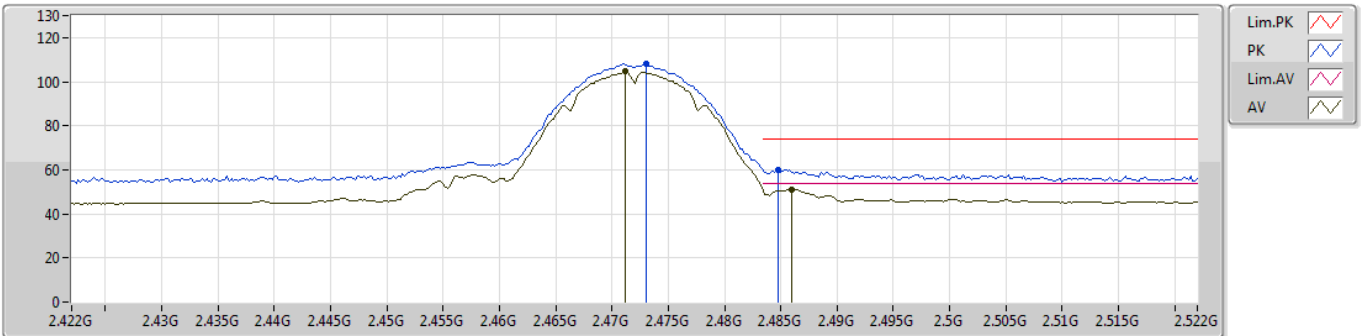


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4662G	106.01	Inf	-Inf	32.33	3	Horizontal	83	1.28	-
AV	2.4842G	51.25	54.00	-2.75	32.39	3	Horizontal	83	1.28	-
PK	2.468G	109.82	Inf	-Inf	32.33	3	Horizontal	83	1.28	-
PK	2.4854G	59.73	74.00	-14.27	32.39	3	Horizontal	83	1.28	-

802.11b_Nss1,(1Mbps)_1TX

08/03/2019

2472MHz_TX

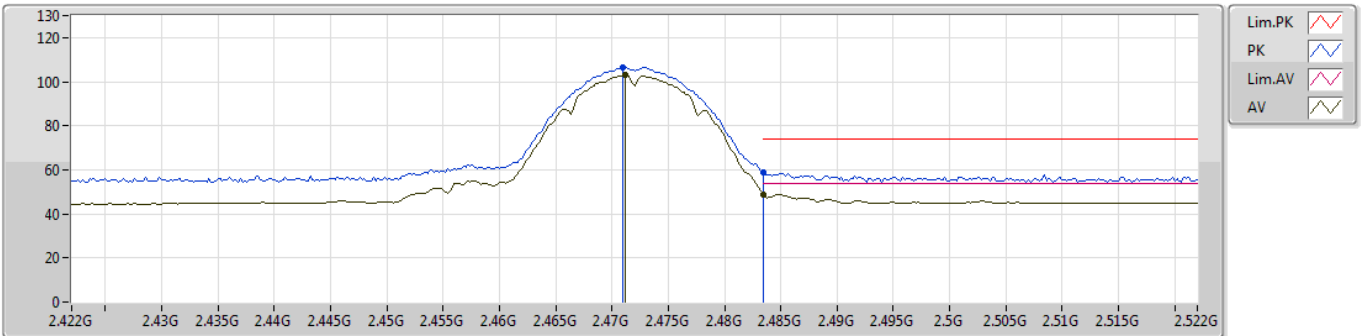


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4712G	104.52	Inf	-Inf	32.34	3	Vertical	77	1.11	-
AV	2.486G	51.24	54.00	-2.76	32.39	3	Vertical	77	1.11	-
PK	2.473G	108.06	Inf	-Inf	32.34	3	Vertical	77	1.11	-
PK	2.4848G	60.18	74.00	-13.82	32.39	3	Vertical	77	1.11	-

802.11b_Nss1,(1Mbps)_1TX

08/03/2019

2472MHz_TX

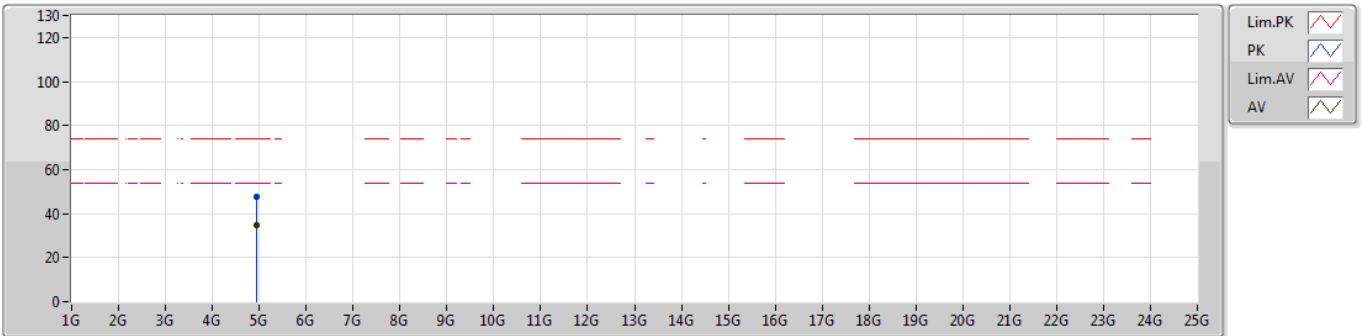


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4712G	103.08	Inf	-Inf	32.34	3	Horizontal	83	1.28	-
AV	2.4835G	48.92	54.00	-5.08	32.38	3	Horizontal	83	1.28	-
PK	2.471G	106.61	Inf	-Inf	32.34	3	Horizontal	83	1.28	-
PK	2.4835G	58.81	74.00	-15.19	32.38	3	Horizontal	83	1.28	-

802.11b_Nss1,(1Mbps)_1TX

08/03/2019

2472MHz_TX

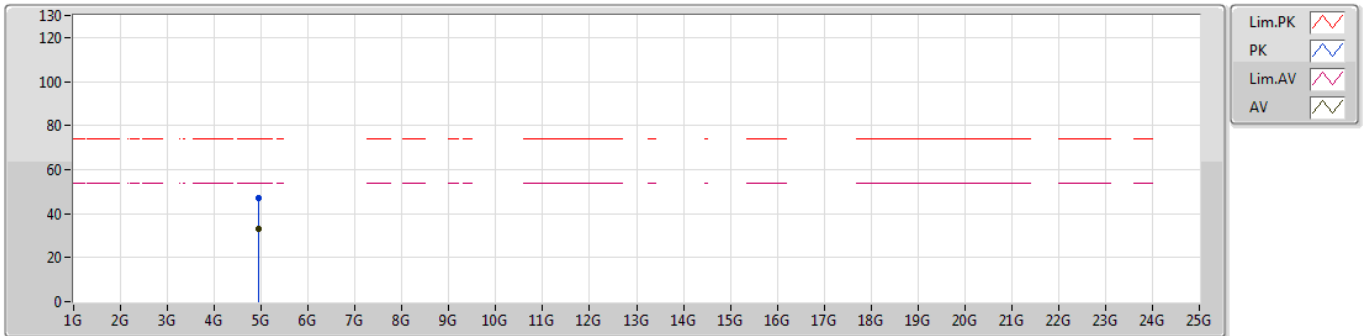


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.94404G	34.85	54.00	-19.15	3.80	3	Vertical	306	1.18	-
PK	4.94635G	47.36	74.00	-26.64	3.80	3	Vertical	306	1.18	-

802.11b_Nss1,(1Mbps)_1TX

08/03/2019

2472MHz_TX

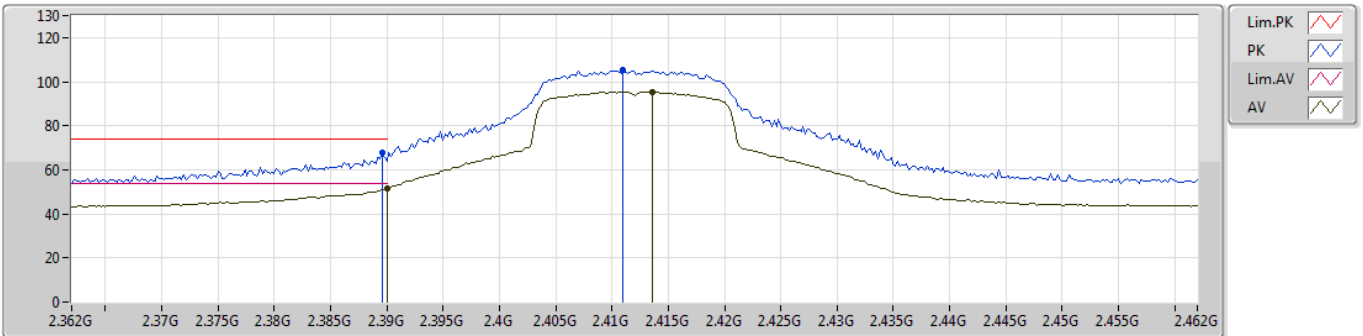


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.95048G	32.89	54.00	-21.11	3.82	3	Horizontal	350	2.01	-
PK	4.9341G	47.29	74.00	-26.71	3.77	3	Horizontal	350	2.01	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2412MHz_TX

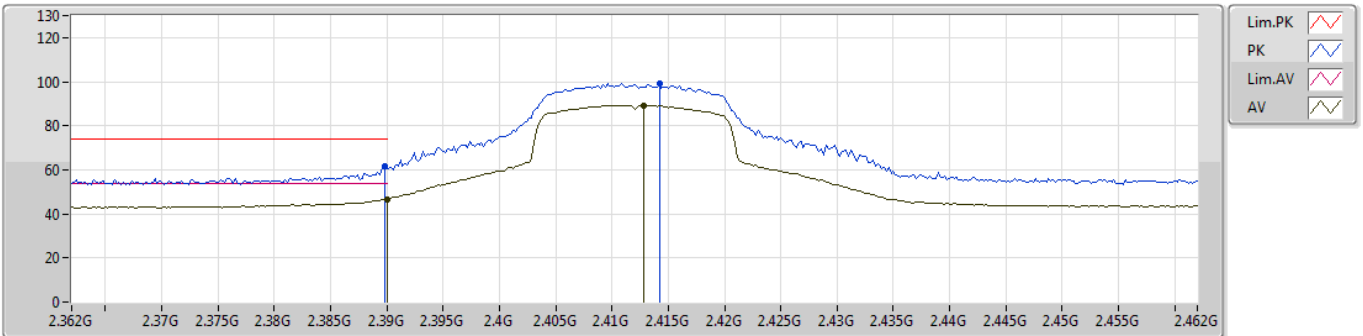


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	51.61	54.00	-2.39	30.77	3	Vertical	281	1.20	-
AV	2.4136G	95.40	Inf	-Inf	30.86	3	Vertical	281	1.20	-
PK	2.3896G	68.07	74.00	-5.93	30.77	3	Vertical	281	1.20	-
PK	2.411G	105.42	Inf	-Inf	30.85	3	Vertical	281	1.20	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2412MHz_TX

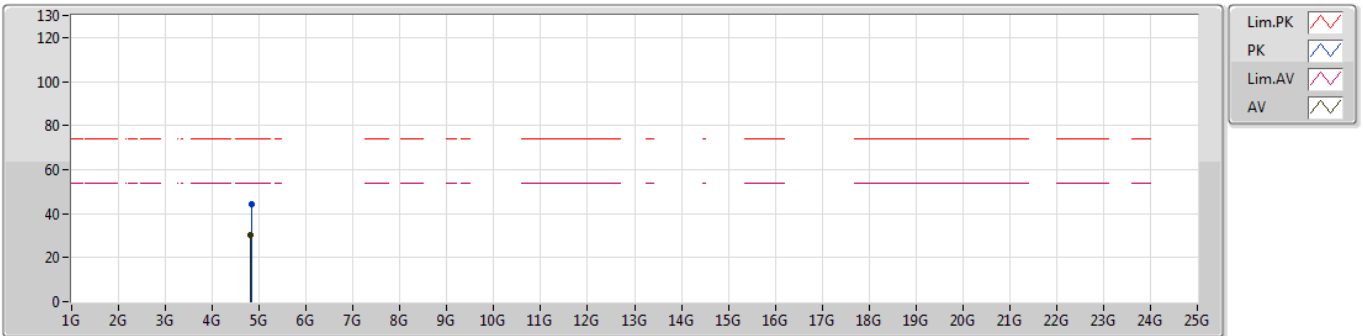


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	46.64	54.00	-7.36	30.77	3	Horizontal	134	1.04	-
AV	2.4128G	89.35	Inf	-Inf	30.86	3	Horizontal	134	1.04	-
PK	2.3898G	61.69	74.00	-12.31	30.77	3	Horizontal	134	1.04	-
PK	2.4142G	99.34	Inf	-Inf	30.86	3	Horizontal	134	1.04	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2412MHz_TX

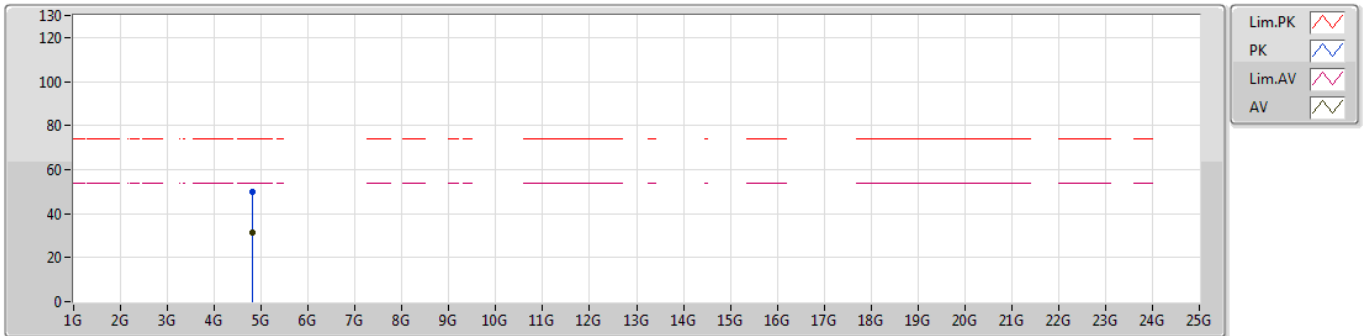


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8096G	30.52	54.00	-23.48	2.10	3	Vertical	160	1.35	-
PK	4.83234G	44.40	74.00	-29.60	2.15	3	Vertical	160	1.35	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2412MHz_TX

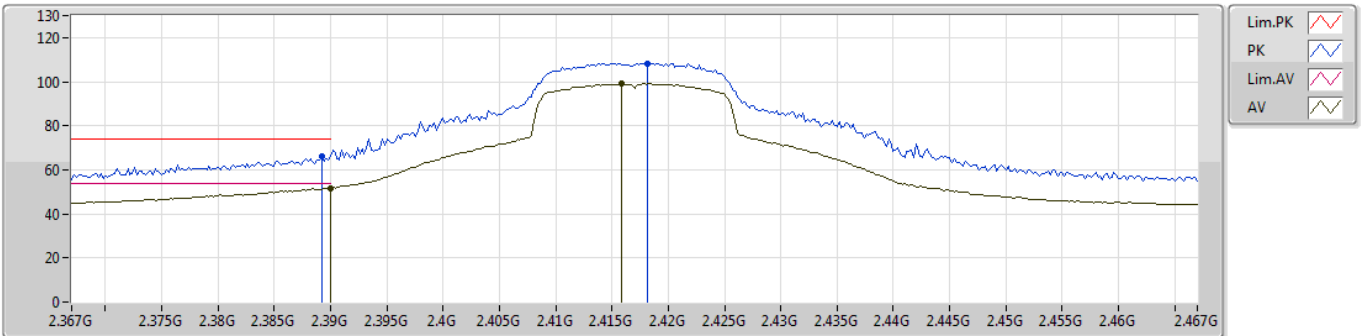


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.80918G	31.11	54.00	-22.89	2.09	3	Horizontal	173	1.50	-
PK	4.81008G	49.64	74.00	-24.36	2.10	3	Horizontal	173	1.50	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

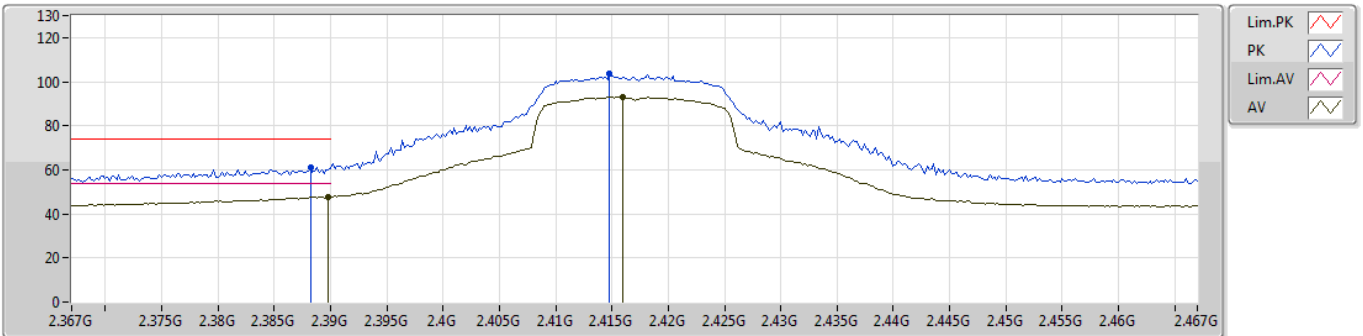
2417MHz_TX



802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2417MHz_TX

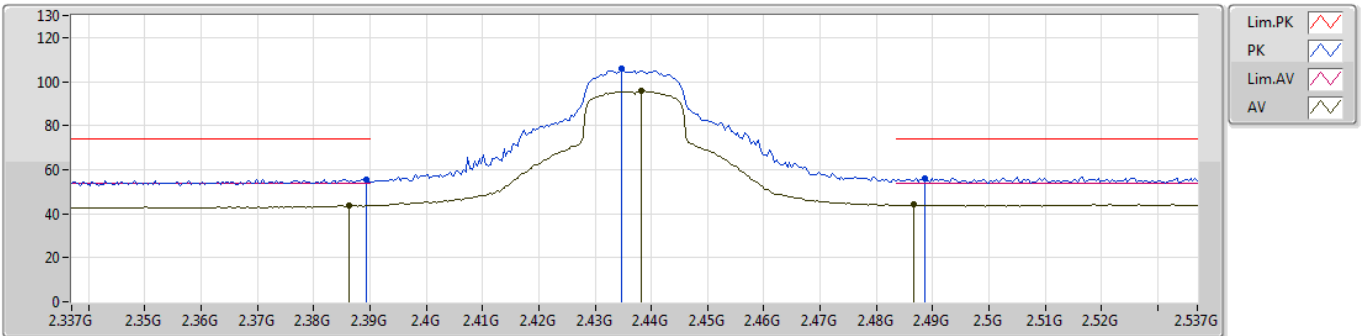


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	47.79	54.00	-6.21	30.77	3	Horizontal	202	1.75	-
AV	2.416G	92.99	Inf	-Inf	30.86	3	Horizontal	202	1.75	-
PK	2.3882G	61.34	74.00	-12.66	30.77	3	Horizontal	202	1.75	-
PK	2.4148G	103.60	Inf	-Inf	30.86	3	Horizontal	202	1.75	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2437MHz_TX

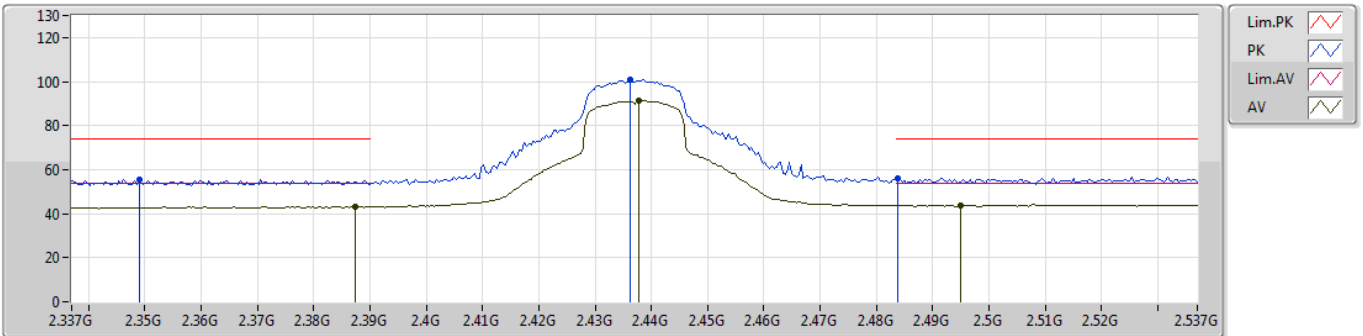


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3862G	43.69	54.00	-10.31	30.76	3	Vertical	280	1.10	-
AV	2.4382G	95.71	Inf	-Inf	30.95	3	Vertical	280	1.10	-
AV	2.4866G	44.03	54.00	-9.97	31.12	3	Vertical	280	1.10	-
PK	2.3894G	55.71	74.00	-18.29	30.77	3	Vertical	280	1.10	-
PK	2.4346G	105.97	Inf	-Inf	30.94	3	Vertical	280	1.10	-
PK	2.4886G	56.21	74.00	-17.79	31.13	3	Vertical	280	1.10	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2437MHz_TX

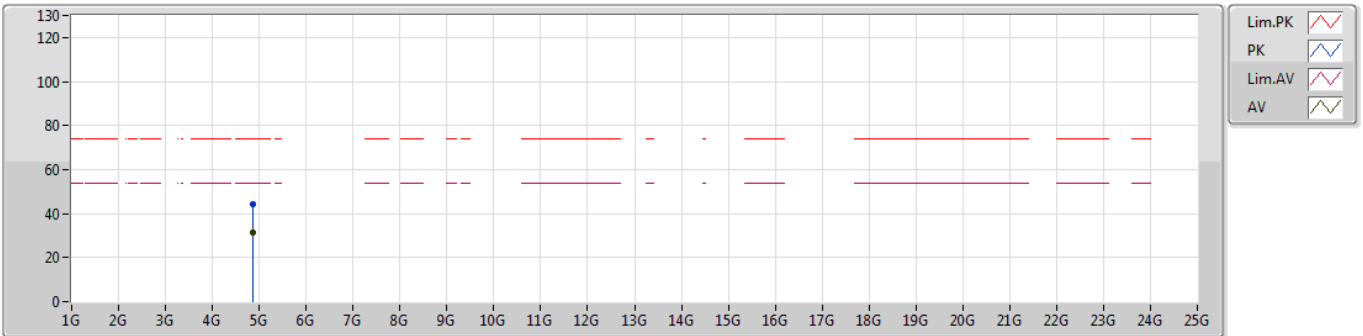


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3874G	43.15	54.00	-10.85	30.76	3	Horizontal	133	1.22	-
AV	2.4378G	91.18	Inf	-Inf	30.95	3	Horizontal	133	1.22	-
AV	2.495G	43.92	54.00	-10.08	31.16	3	Horizontal	133	1.22	-
PK	2.349G	55.42	74.00	-18.58	30.63	3	Horizontal	133	1.22	-
PK	2.4362G	100.80	Inf	-Inf	30.94	3	Horizontal	133	1.22	-
PK	2.4838G	56.26	74.00	-17.74	31.11	3	Horizontal	133	1.22	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2437MHz_TX

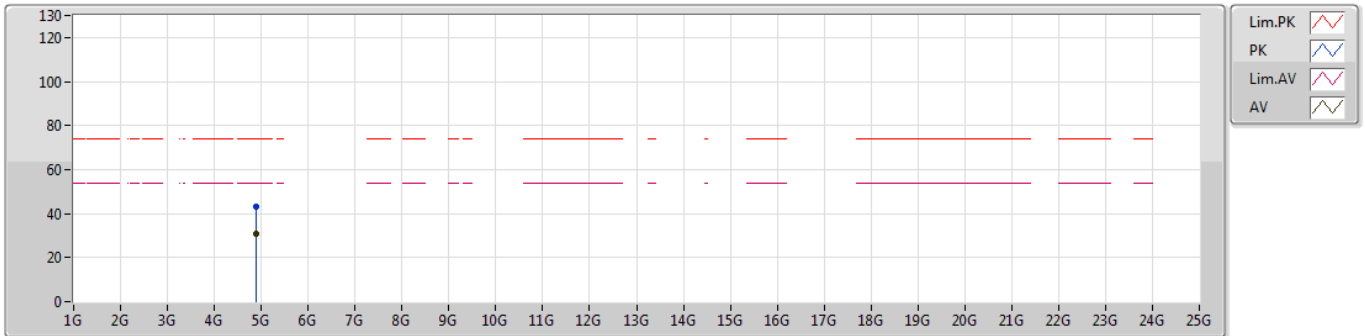


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87562G	31.58	54.00	-22.42	2.26	3	Vertical	138	2.97	-
PK	4.87634G	44.31	74.00	-29.69	2.26	3	Vertical	138	2.97	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2437MHz_TX

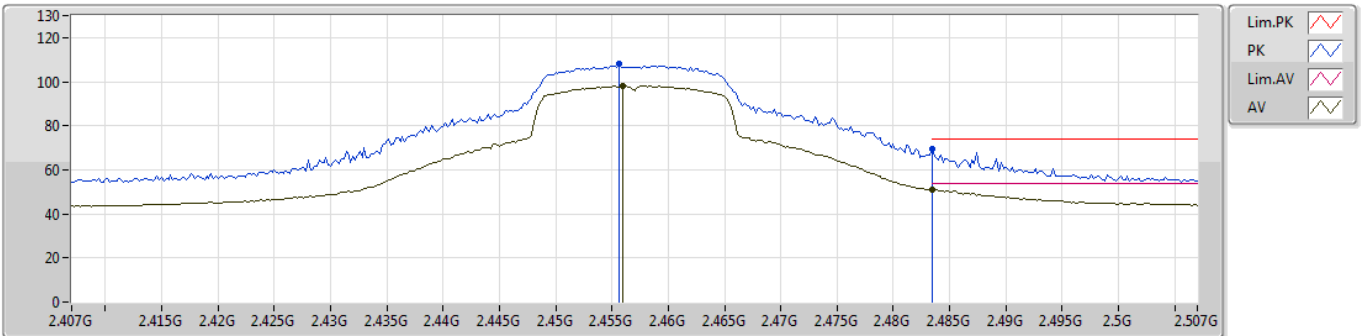


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.88792G	30.58	54.00	-23.42	2.29	3	Horizontal	168	2.73	-
PK	4.87868G	43.32	74.00	-30.68	2.27	3	Horizontal	168	2.73	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2457MHz_TX

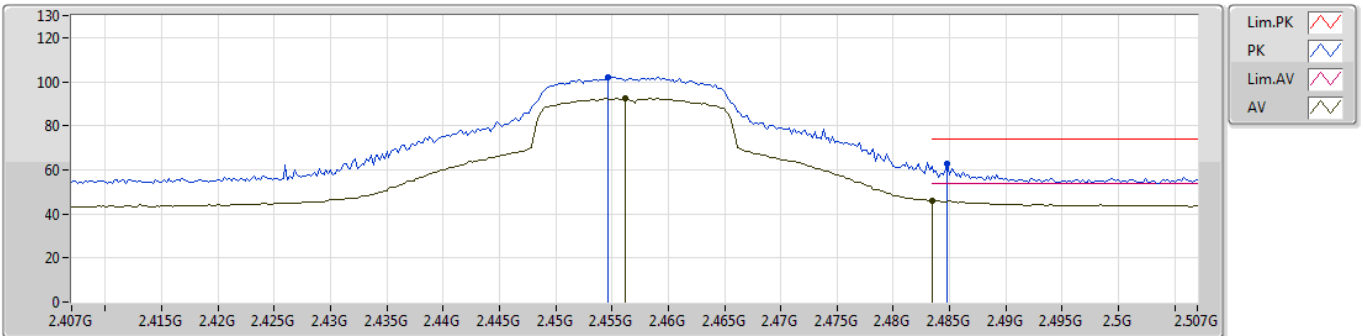


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.456G	97.98	Inf	-Inf	31.01	3	Vertical	199	2.42	-
AV	2.4835G	51.03	54.00	-2.97	31.11	3	Vertical	199	2.42	-
PK	2.4556G	108.06	Inf	-Inf	31.01	3	Vertical	199	2.42	-
PK	2.4835G	69.60	74.00	-4.40	31.11	3	Vertical	199	2.42	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2457MHz_TX

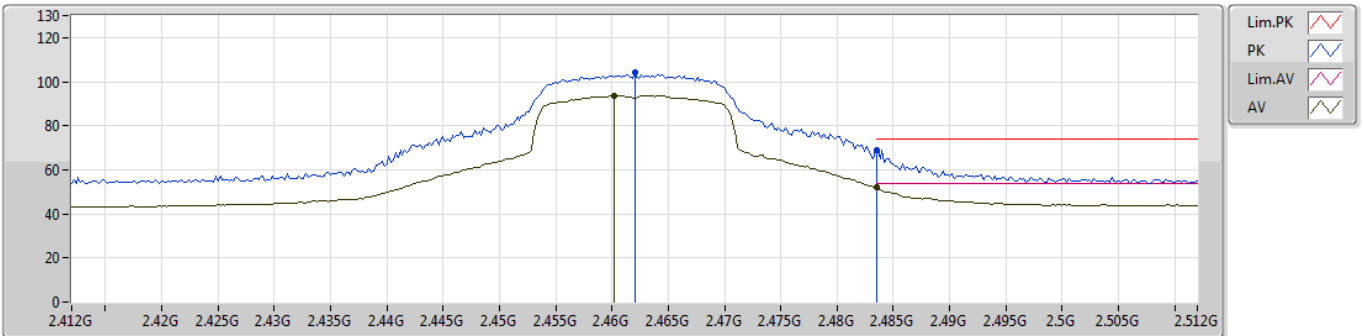


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4562G	92.42	Inf	-Inf	31.01	3	Horizontal	201	2.24	-
AV	2.4835G	46.06	54.00	-7.94	31.11	3	Horizontal	201	2.24	-
PK	2.4546G	101.97	Inf	-Inf	31.00	3	Horizontal	201	2.24	-
PK	2.4848G	62.83	74.00	-11.17	31.12	3	Horizontal	201	2.24	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2462MHz_TX

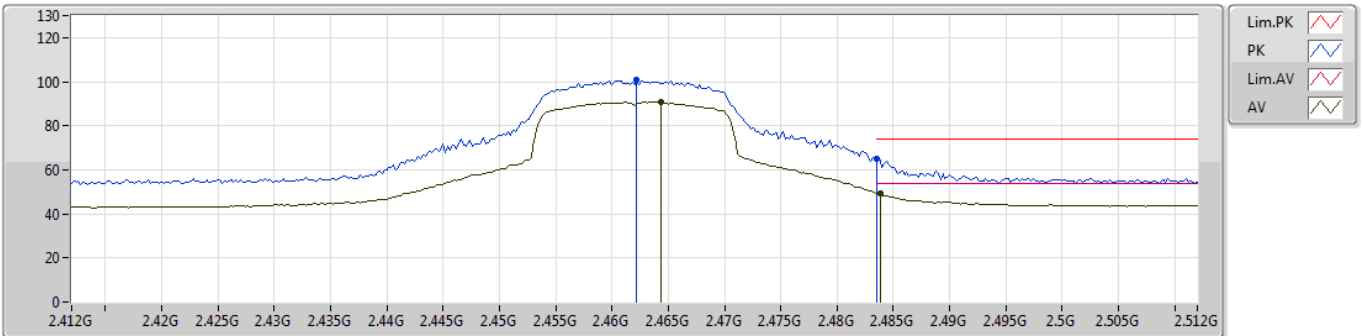


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4602G	93.67	Inf	-Inf	31.03	3	Vertical	274	1.16	-
AV	2.4835G	52.04	54.00	-1.96	31.11	3	Vertical	274	1.16	-
PK	2.462G	104.10	Inf	-Inf	31.03	3	Vertical	274	1.16	-
PK	2.4835G	69.03	74.00	-4.97	31.11	3	Vertical	274	1.16	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2462MHz_TX

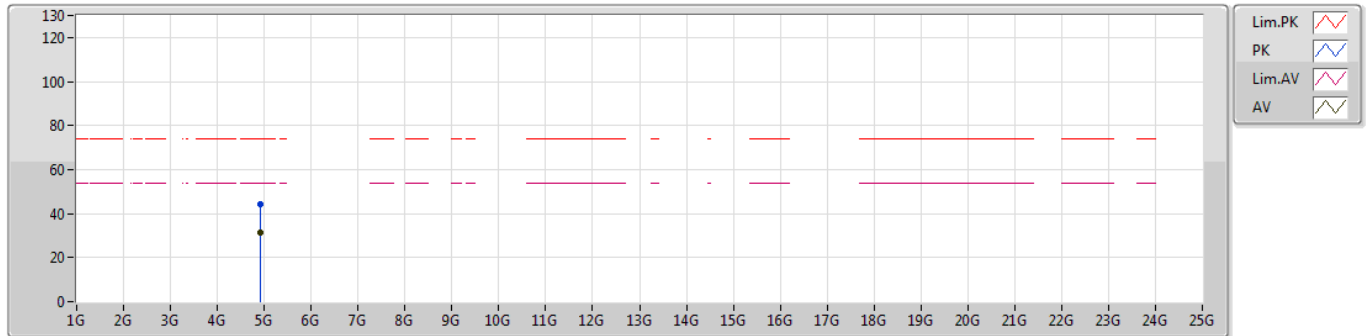


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4644G	90.85	Inf	-Inf	31.04	3	Horizontal	174	1.33	-
AV	2.4838G	49.32	54.00	-4.68	31.11	3	Horizontal	174	1.33	-
PK	2.4622G	101.01	Inf	-Inf	31.03	3	Horizontal	174	1.33	-
PK	2.4835G	64.98	74.00	-9.02	31.11	3	Horizontal	174	1.33	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2462MHz_TX

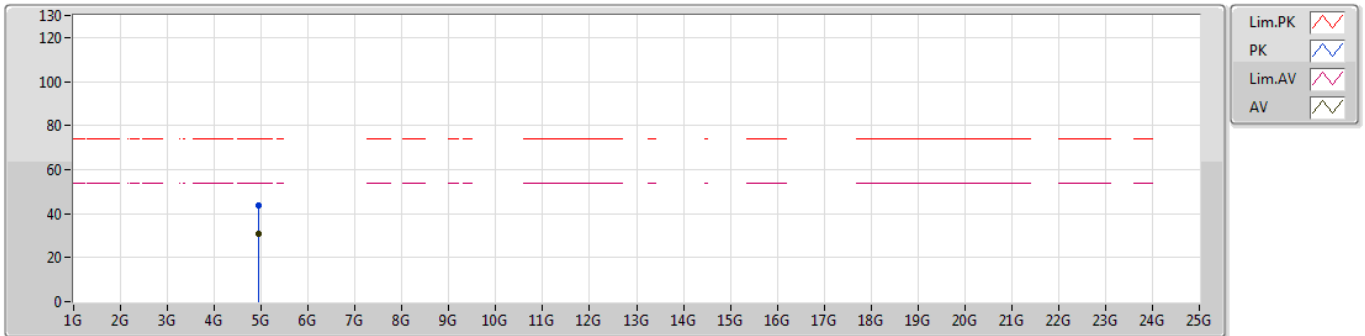


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92412G	31.16	54.00	-22.84	2.38	3	Vertical	154	2.66	-
PK	4.9255G	44.17	74.00	-29.83	2.39	3	Vertical	154	2.66	-

802.11g_Nss1,(6Mbps)_1TX

22/01/2019

2462MHz_TX

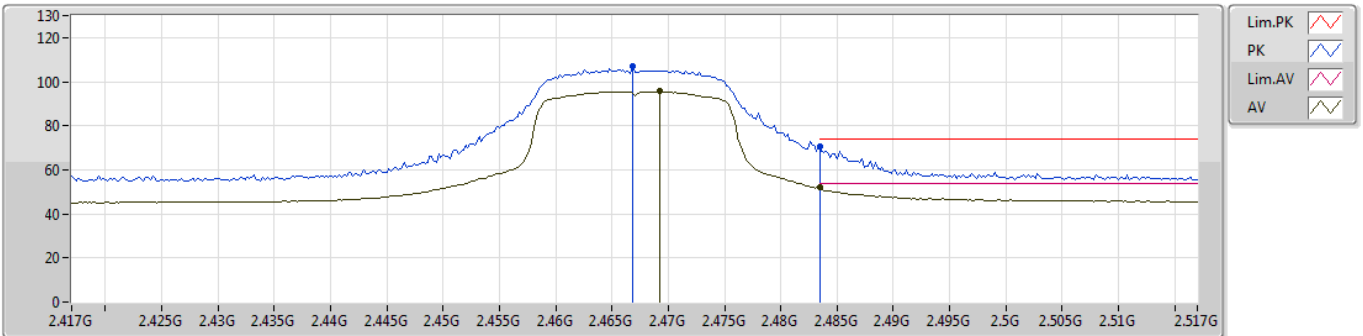


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.93228G	30.88	54.00	-23.12	2.40	3	Horizontal	17	1.50	-
PK	4.93588G	43.76	74.00	-30.24	2.42	3	Horizontal	17	1.50	-

802.11g_Nss1,(6Mbps)_1TX

08/03/2019

2467MHz_TX

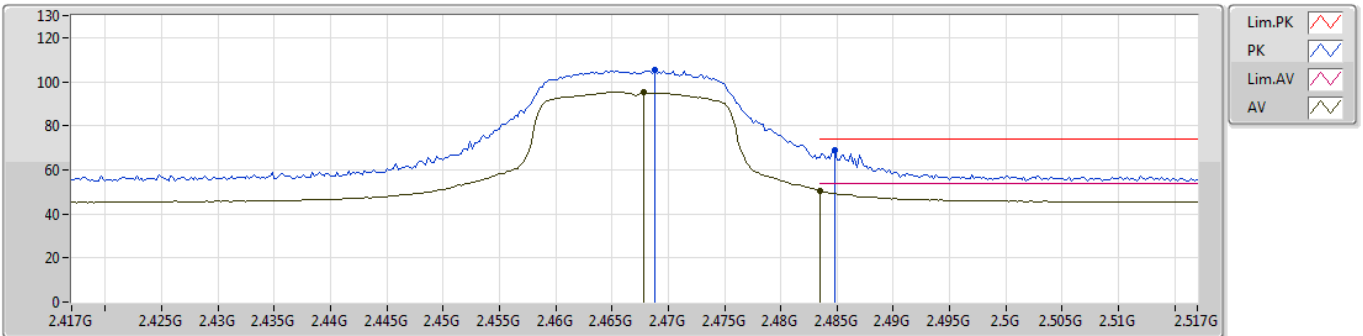


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4692G	95.62	Inf	-Inf	32.33	3	Vertical	76	1.03	-
AV	2.4835G	51.91	54.00	-2.09	32.38	3	Vertical	76	1.03	-
PK	2.4668G	106.88	Inf	-Inf	32.33	3	Vertical	76	1.03	-
PK	2.4835G	70.59	74.00	-3.41	32.38	3	Vertical	76	1.03	-

802.11g_Nss1,(6Mbps)_1TX

08/03/2019

2467MHz_TX

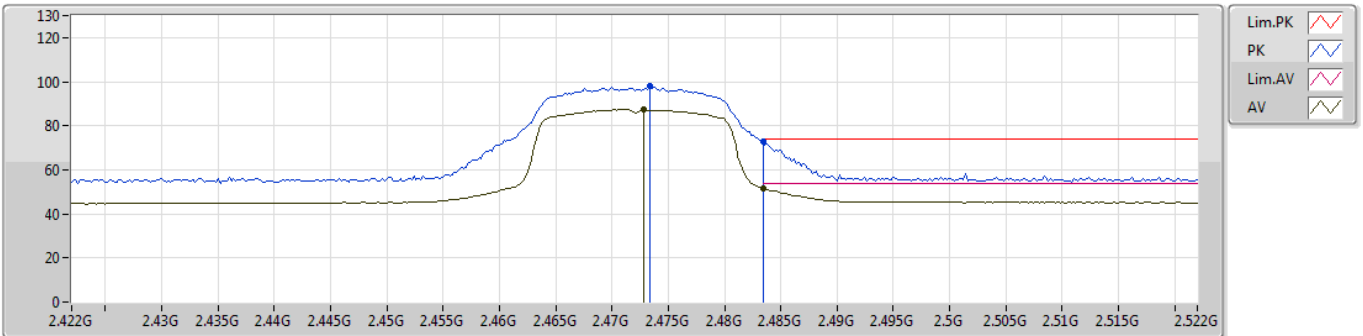


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4678G	95.15	Inf	-Inf	32.33	3	Horizontal	84	1.02	-
AV	2.4835G	50.55	54.00	-3.45	32.38	3	Horizontal	84	1.02	-
PK	2.4688G	105.14	Inf	-Inf	32.33	3	Horizontal	84	1.02	-
PK	2.4848G	68.75	74.00	-5.25	32.39	3	Horizontal	84	1.02	-

802.11g_Nss1,(6Mbps)_1TX

08/03/2019

2472MHz_TX

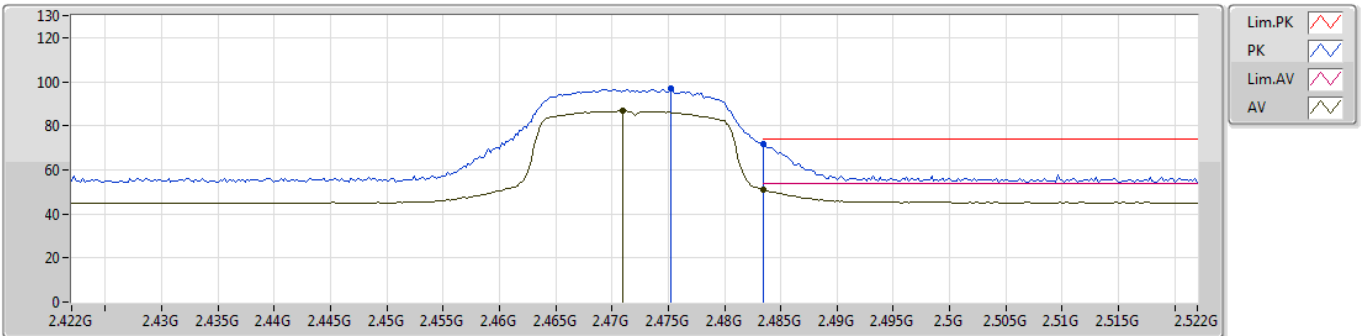


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4728G	87.38	Inf	-Inf	32.34	3	Vertical	76	1.11	-
AV	2.4835G	51.69	54.00	-2.31	32.38	3	Vertical	76	1.11	-
PK	2.4734G	98.00	Inf	-Inf	32.35	3	Vertical	76	1.11	-
PK	2.4835G	72.65	74.00	-1.35	32.38	3	Vertical	76	1.11	-

802.11g_Nss1,(6Mbps)_1TX

08/03/2019

2472MHz_TX

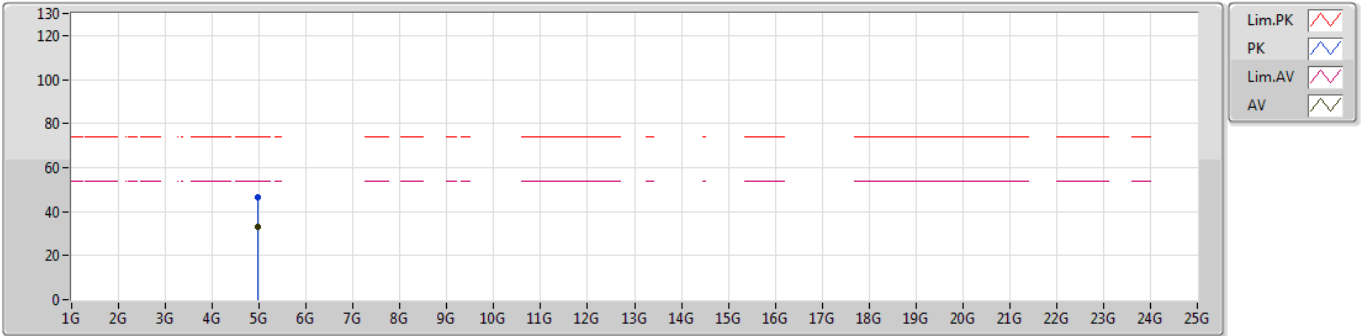


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.471G	86.81	Inf	-Inf	32.34	3	Horizontal	86	1.01	-
AV	2.4835G	51.13	54.00	-2.87	32.38	3	Horizontal	86	1.01	-
PK	2.4752G	97.21	Inf	-Inf	32.36	3	Horizontal	86	1.01	-
PK	2.4835G	71.87	74.00	-2.13	32.38	3	Horizontal	86	1.01	-

802.11g_Nss1,(6Mbps)_1TX

08/03/2019

2472MHz_TX

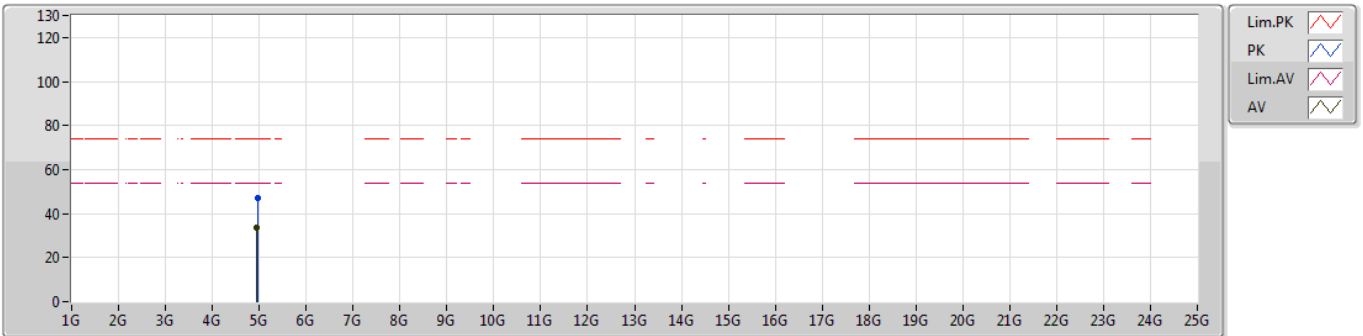


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.95816G	33.30	54.00	-20.70	3.83	3	Vertical	151	2.37	-
PK	4.95714G	46.66	74.00	-27.34	3.83	3	Vertical	151	2.37	-

802.11g_Nss1,(6Mbps)_1TX

08/03/2019

2472MHz_TX

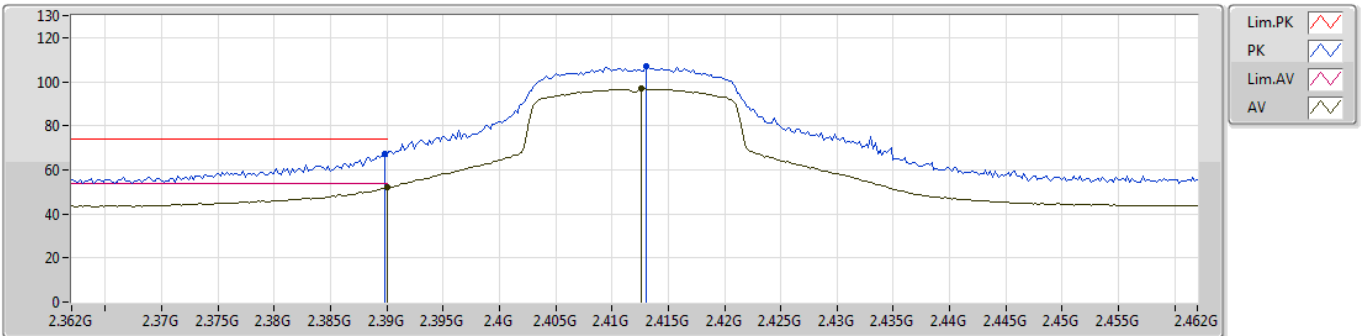


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.94856G	33.38	54.00	-20.62	3.81	3	Horizontal	281	1.55	-
PK	4.9572G	47.04	74.00	-26.96	3.83	3	Horizontal	281	1.55	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2412MHz_TX

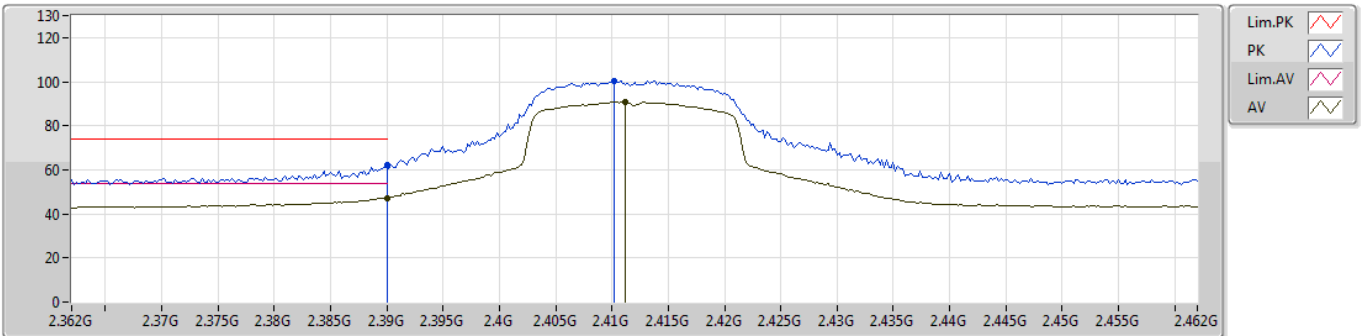


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	51.84	54.00	-2.16	30.77	3	Vertical	220	2.24	-
AV	2.4126G	96.74	Inf	-Inf	30.86	3	Vertical	220	2.24	-
PK	2.3898G	67.27	74.00	-6.73	30.77	3	Vertical	220	2.24	-
PK	2.413G	107.02	Inf	-Inf	30.86	3	Vertical	220	2.24	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2412MHz_TX

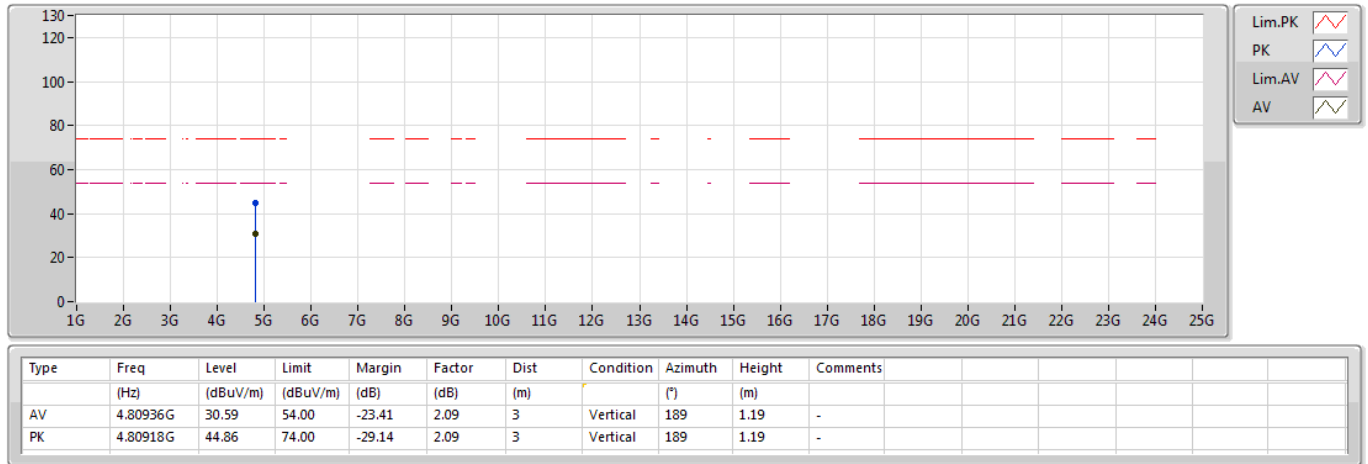


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	47.31	54.00	-6.69	30.77	3	Horizontal	204	1.76	-
AV	2.4112G	90.75	Inf	-Inf	30.85	3	Horizontal	204	1.76	-
PK	2.39G	61.98	74.00	-12.02	30.77	3	Horizontal	204	1.76	-
PK	2.4102G	100.35	Inf	-Inf	30.85	3	Horizontal	204	1.76	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

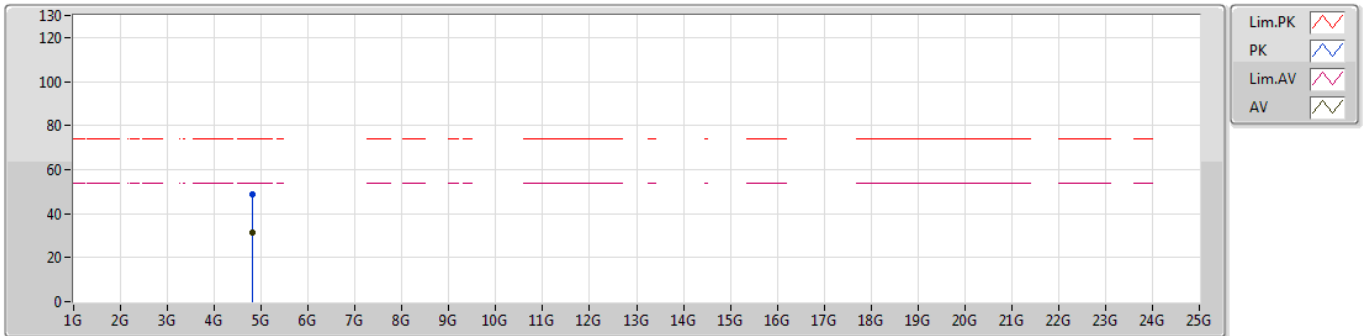
2412MHz_TX



802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2412MHz_TX

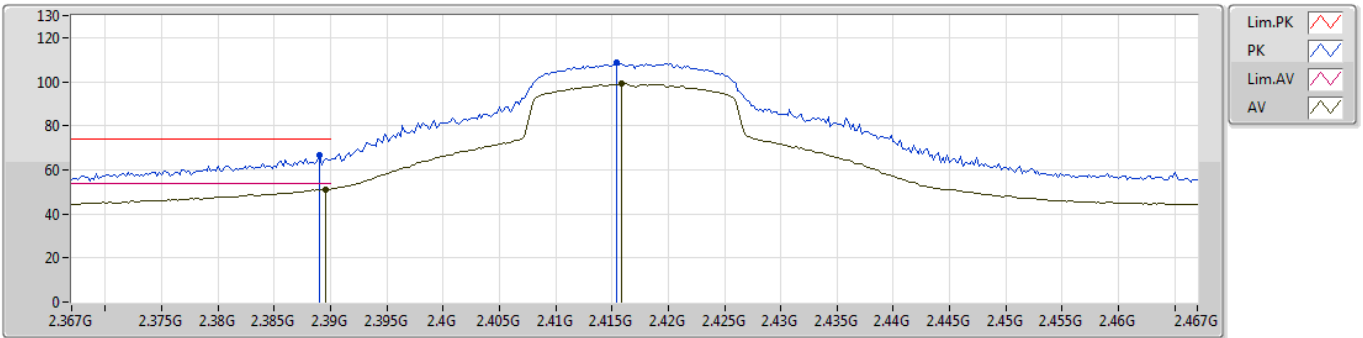


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.81002G	31.10	54.00	-22.90	2.10	3	Horizontal	212	2.62	-
PK	4.81176G	48.97	74.00	-25.03	2.10	3	Horizontal	212	2.62	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2417MHz_TX

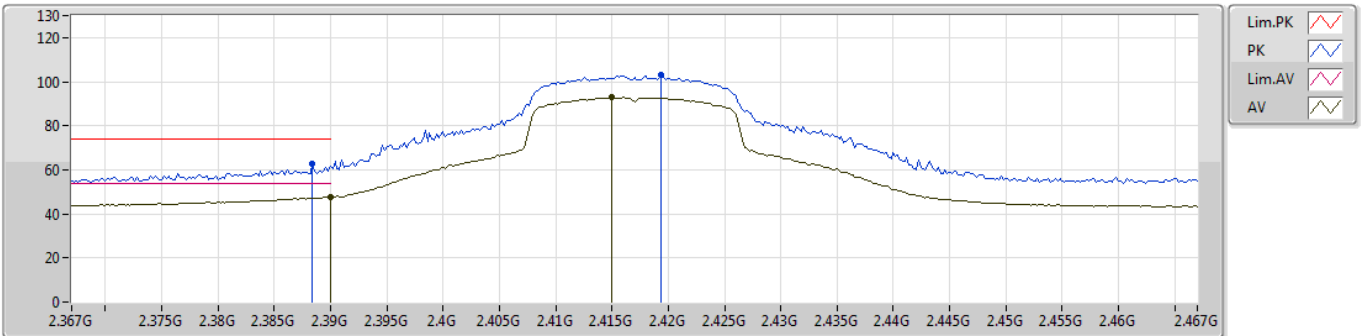


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3896G	51.14	54.00	-2.86	30.77	3	Vertical	218	2.22	-
AV	2.4158G	99.13	Inf	-Inf	30.86	3	Vertical	218	2.22	-
PK	2.389G	66.58	74.00	-7.42	30.77	3	Vertical	218	2.22	-
PK	2.4154G	108.55	Inf	-Inf	30.86	3	Vertical	218	2.22	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

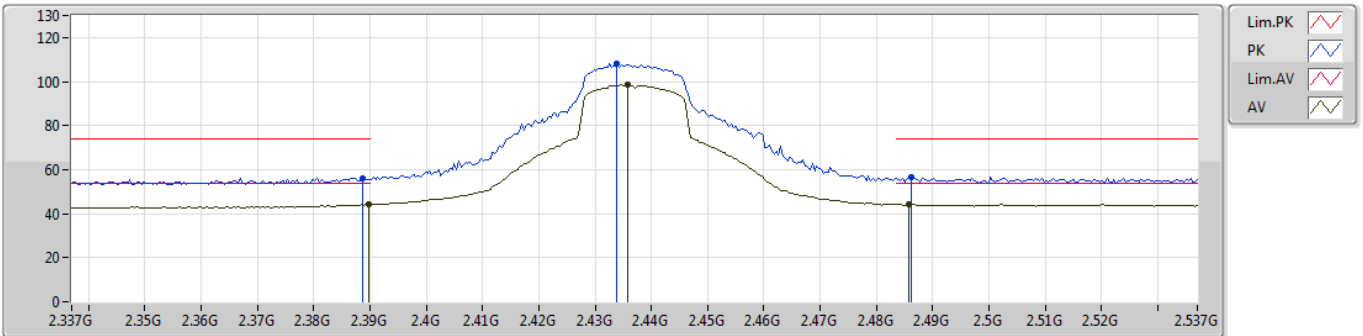
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802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2437MHz_TX

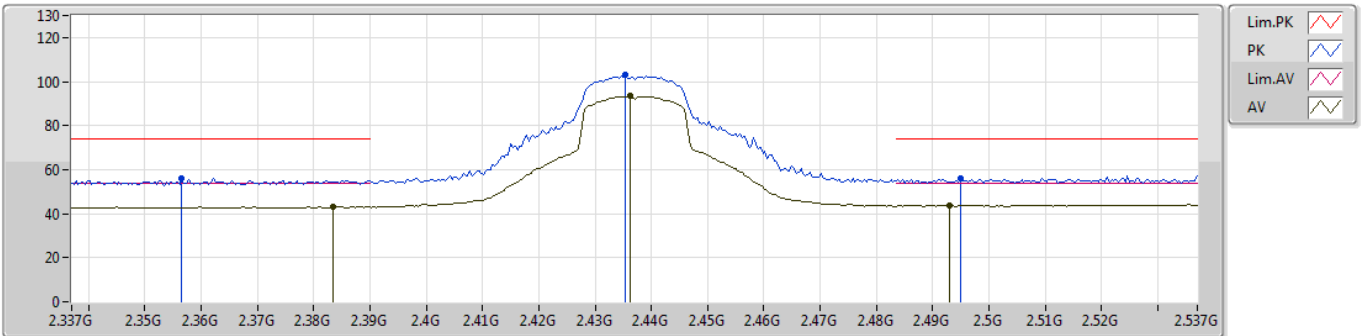


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	44.24	54.00	-9.76	30.77	3	Vertical	220	2.17	-
AV	2.4358G	98.56	Inf	-Inf	30.94	3	Vertical	220	2.17	-
AV	2.4858G	44.17	54.00	-9.83	31.12	3	Vertical	220	2.17	-
PK	2.3886G	56.04	74.00	-17.96	30.77	3	Vertical	220	2.17	-
PK	2.4338G	108.23	Inf	-Inf	30.93	3	Vertical	220	2.17	-
PK	2.4862G	56.43	74.00	-17.57	31.12	3	Vertical	220	2.17	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2437MHz_TX

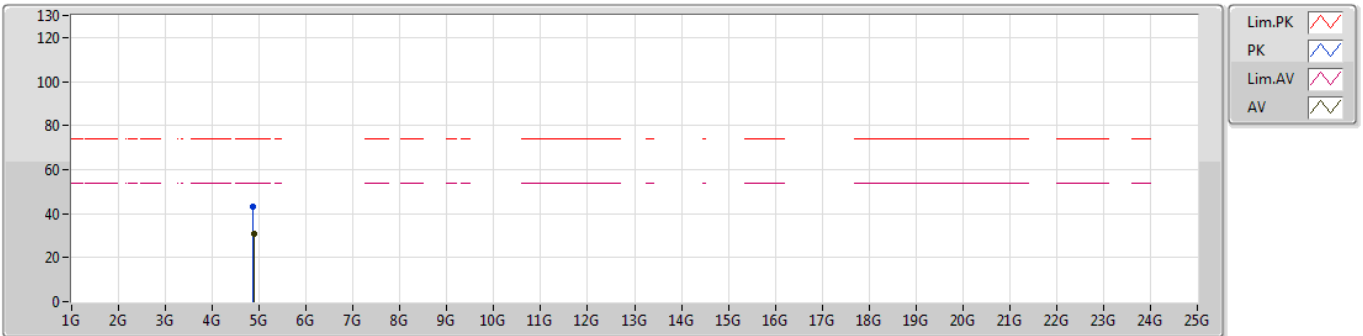


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3834G	43.12	54.00	-10.88	30.75	3	Horizontal	217	2.25	-
AV	2.4362G	93.39	Inf	-Inf	30.94	3	Horizontal	217	2.25	-
AV	2.493G	43.81	54.00	-10.19	31.14	3	Horizontal	217	2.25	-
PK	2.3566G	56.02	74.00	-17.98	30.66	3	Horizontal	217	2.25	-
PK	2.4354G	102.95	Inf	-Inf	30.94	3	Horizontal	217	2.25	-
PK	2.495G	56.18	74.00	-17.82	31.16	3	Horizontal	217	2.25	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2437MHz_TX

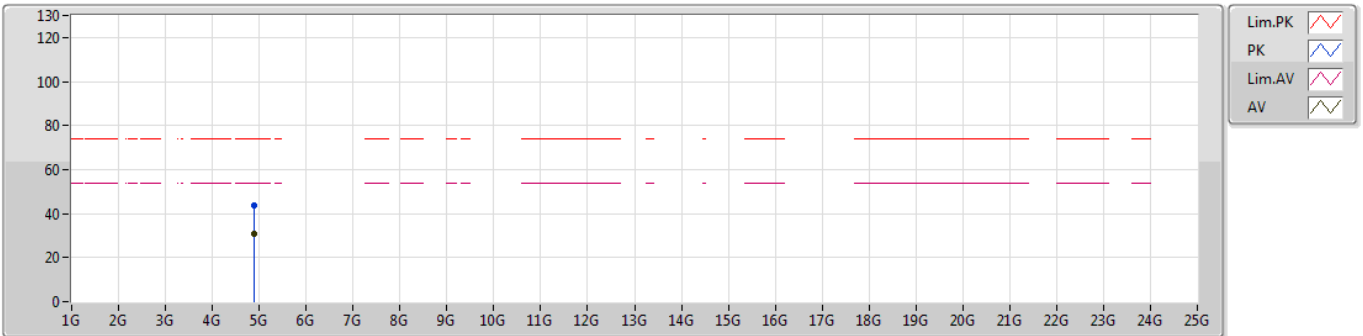


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8684G	30.74	54.00	-23.26	2.29	3	Vertical	34	1.05	-
PK	4.86872G	43.17	74.00	-30.83	2.24	3	Vertical	34	1.05	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2437MHz_TX

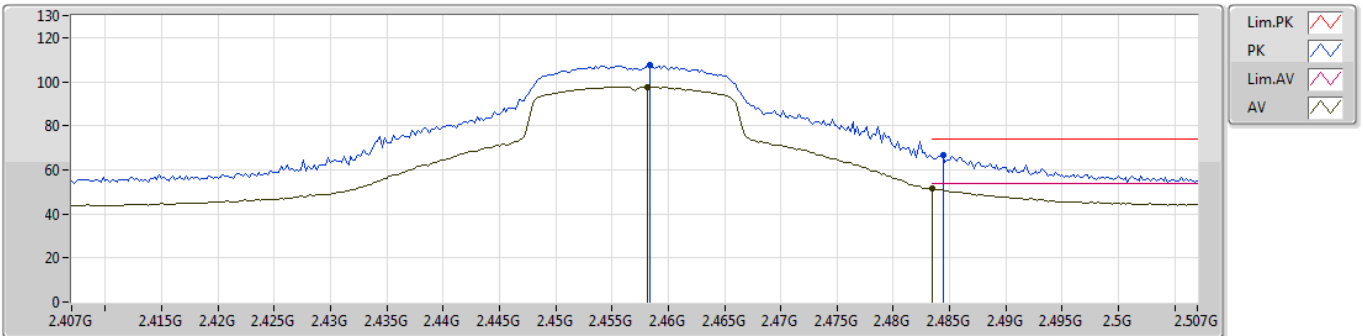


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.88864G	30.80	54.00	-23.20	2.29	3	Horizontal	192	1.50	-
PK	4.88732G	43.89	74.00	-30.11	2.29	3	Horizontal	192	1.50	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2457MHz_TX

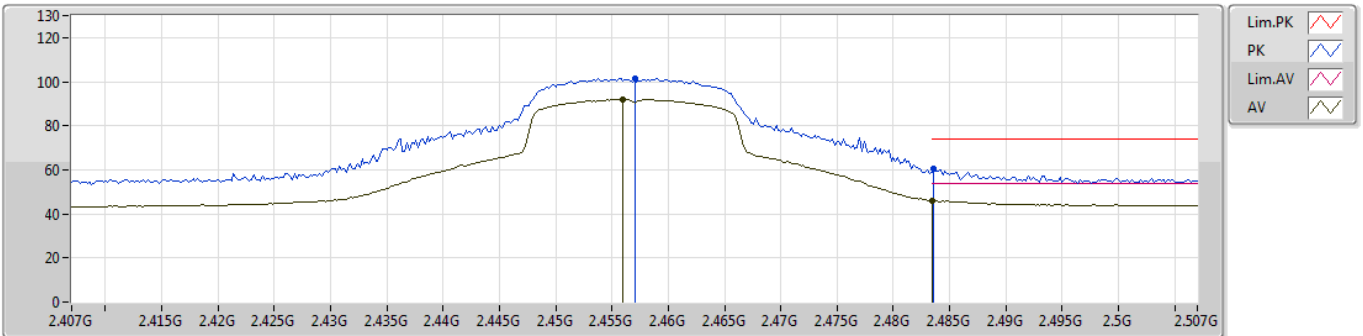


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4582G	97.78	Inf	-Inf	31.02	3	Vertical	203	2.43	-
AV	2.4835G	51.60	54.00	-2.40	31.11	3	Vertical	203	2.43	-
PK	2.4584G	107.65	Inf	-Inf	31.02	3	Vertical	203	2.43	-
PK	2.4844G	66.84	74.00	-7.16	31.12	3	Vertical	203	2.43	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2457MHz_TX

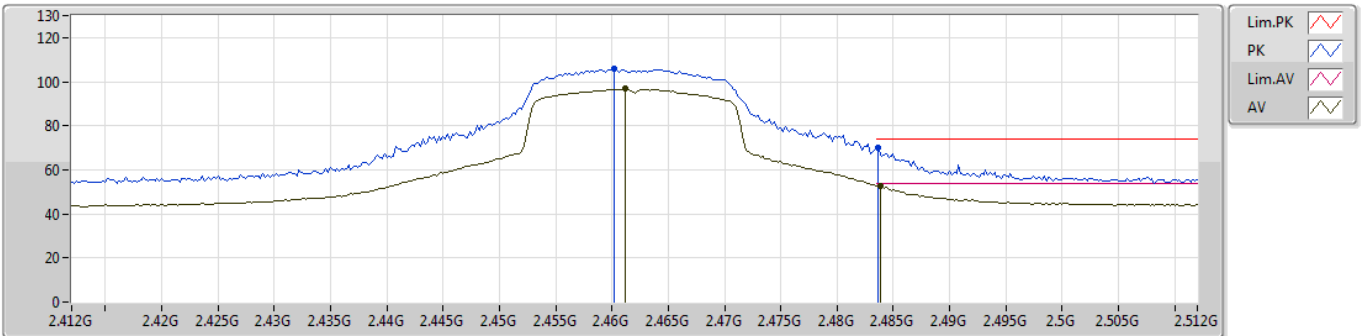


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.456G	92.00	Inf	-Inf	31.01	3	Horizontal	203	2.24	-
AV	2.4835G	45.74	54.00	-8.26	31.11	3	Horizontal	203	2.24	-
PK	2.457G	101.37	Inf	-Inf	31.02	3	Horizontal	203	2.24	-
PK	2.4836G	60.24	74.00	-13.76	31.11	3	Horizontal	203	2.24	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2462MHz_TX

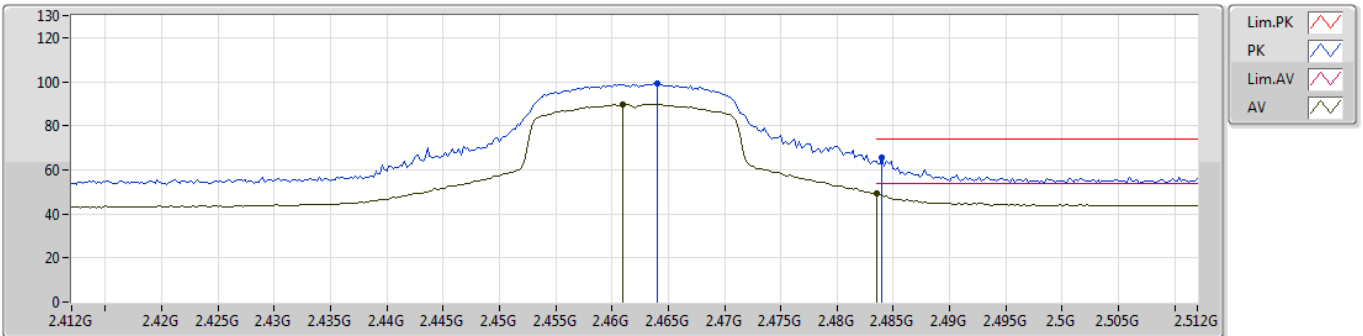


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	96.71	Inf	-Inf	31.03	3	Vertical	220	2.42	-
AV	2.4838G	52.90	54.00	-1.10	31.11	3	Vertical	220	2.42	-
PK	2.4602G	105.83	Inf	-Inf	31.03	3	Vertical	220	2.42	-
PK	2.4836G	70.32	74.00	-3.68	31.11	3	Vertical	220	2.42	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2462MHz_TX

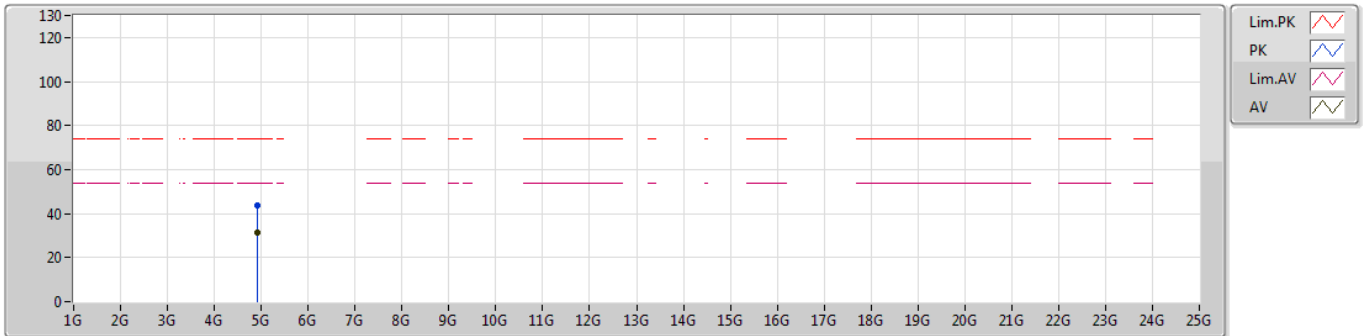


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.461G	89.77	Inf	-Inf	31.03	3	Horizontal	199	1.01	-
AV	2.4835G	49.09	54.00	-4.91	31.11	3	Horizontal	199	1.01	-
PK	2.464G	99.24	Inf	-Inf	31.04	3	Horizontal	199	1.01	-
PK	2.484G	65.70	74.00	-8.30	31.12	3	Horizontal	199	1.01	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

2462MHz_TX

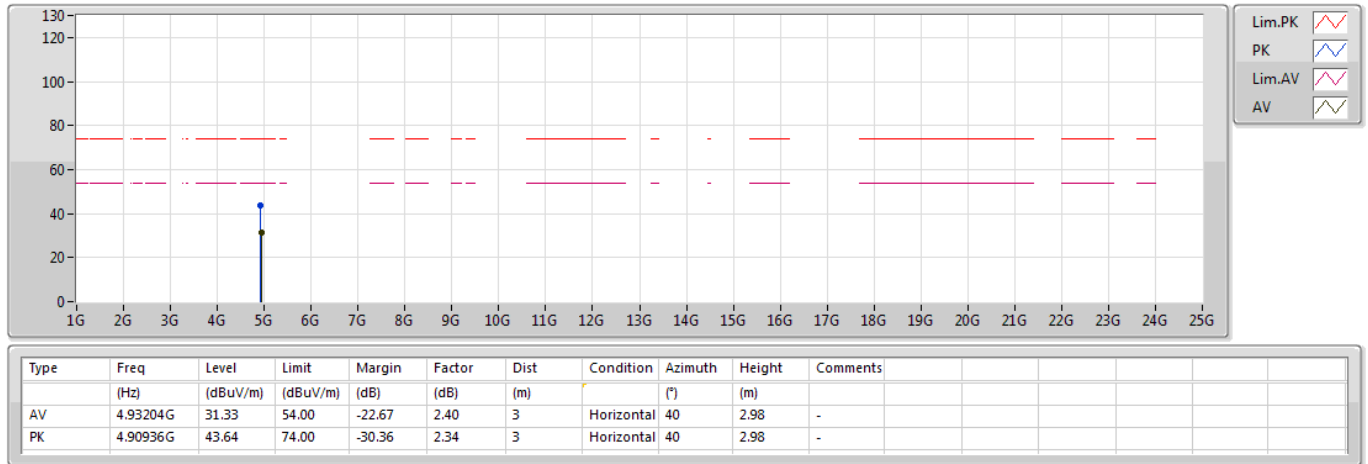


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.9297G	31.48	54.00	-22.52	2.40	3	Vertical	147	2.97	-
PK	4.92424G	43.95	74.00	-30.05	2.38	3	Vertical	147	2.97	-

802.11n HT20_Nss1,(MCS0)_1TX

22/01/2019

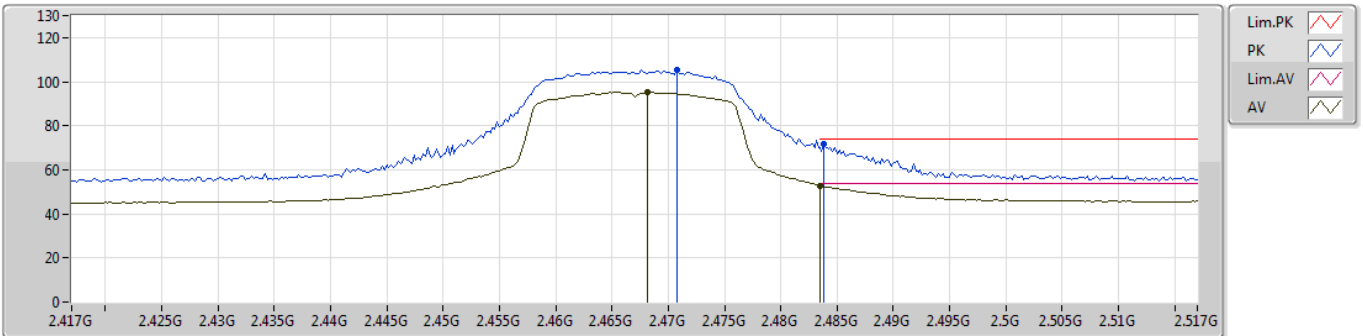
2462MHz_TX



802.11n HT20_Nss1,(MCS0)_1TX

08/03/2019

2467MHz_TX

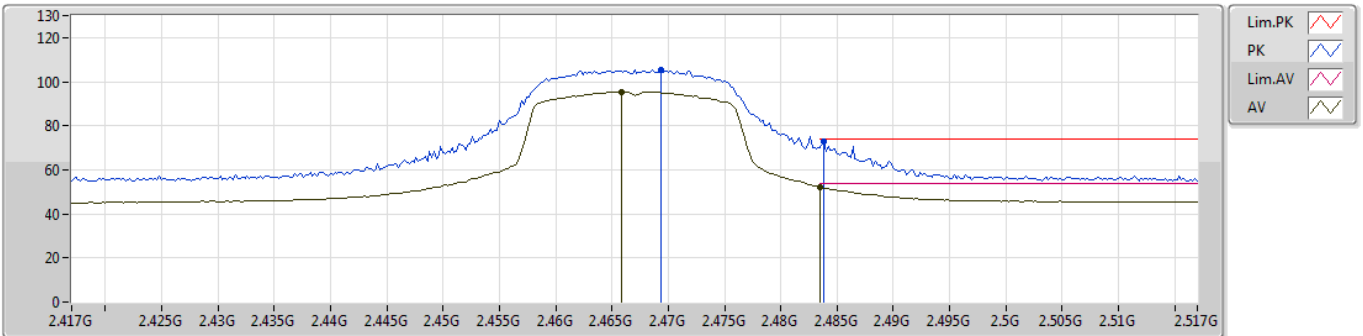


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4682G	95.13	Inf	-Inf	32.33	3	Vertical	76	1.01	-
AV	2.4835G	52.79	54.00	-1.21	32.38	3	Vertical	76	1.01	-
PK	2.4708G	105.35	Inf	-Inf	32.34	3	Vertical	76	1.01	-
PK	2.4838G	71.55	74.00	-2.45	32.38	3	Vertical	76	1.01	-

802.11n HT20_Nss1,(MCS0)_1TX

08/03/2019

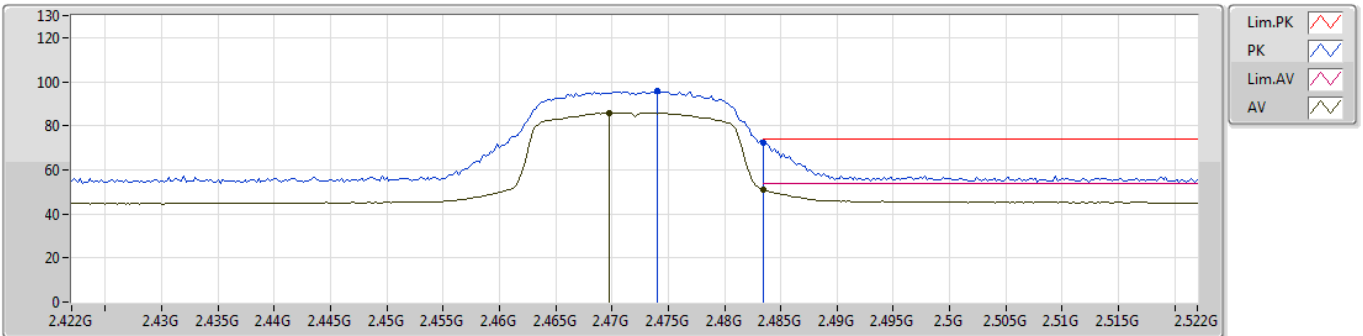
2467MHz_TX



802.11n HT20_Nss1,(MCS0)_1TX

08/03/2019

2472MHz_TX

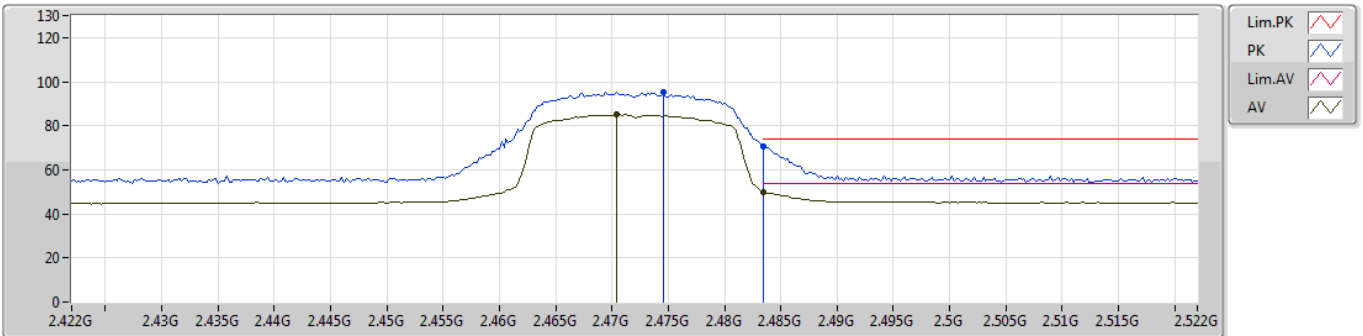


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4698G	85.92	Inf	-Inf	32.34	3	Vertical	76	1.06	-
AV	2.4835G	50.75	54.00	-3.25	32.38	3	Vertical	76	1.06	-
PK	2.474G	95.69	Inf	-Inf	32.35	3	Vertical	76	1.06	-
PK	2.4835G	72.21	74.00	-1.79	32.38	3	Vertical	76	1.06	-

802.11n HT20_Nss1,(MCS0)_1TX

08/03/2019

2472MHz_TX

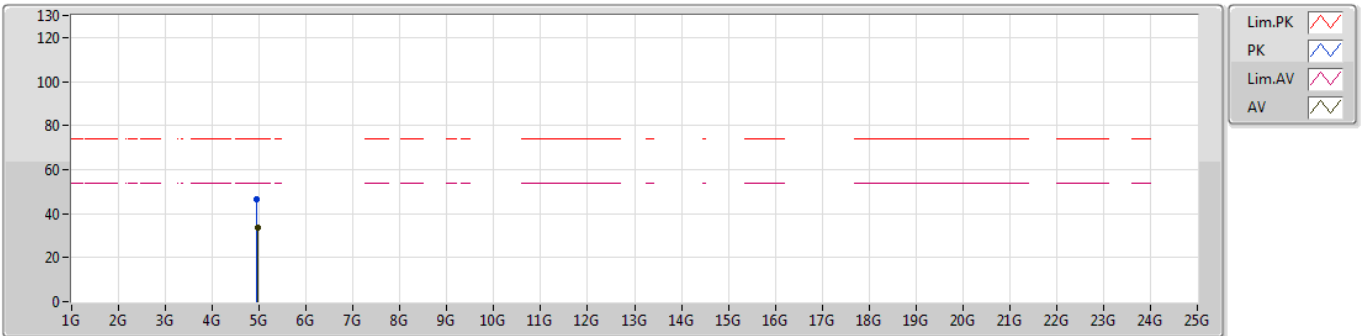


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4704G	85.02	Inf	-Inf	32.34	3	Horizontal	84	1.01	-
AV	2.4835G	50.09	54.00	-3.91	32.38	3	Horizontal	84	1.01	-
PK	2.4746G	95.32	Inf	-Inf	32.35	3	Horizontal	84	1.01	-
PK	2.4835G	70.80	74.00	-3.20	32.38	3	Horizontal	84	1.01	-

802.11n HT20_Nss1,(MCS0)_1TX

08/03/2019

2472MHz_TX

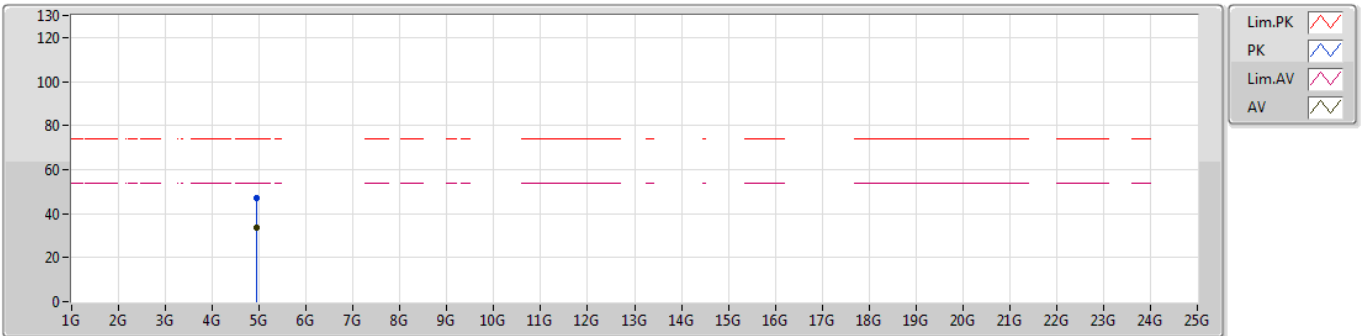


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.95726G	33.39	54.00	-20.61	3.83	3	Vertical	135	2.09	-
PK	4.93332G	46.35	74.00	-27.65	3.77	3	Vertical	135	2.09	-

802.11n HT20_Nss1,(MCS0)_1TX

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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.94904G	33.36	54.00	-20.64	3.81	3	Horizontal	289	1.77	-
PK	4.94202G	47.14	74.00	-26.86	3.80	3	Horizontal	289	1.77	-