

FCC Test Report

FCC ID : 2AF82-TD0350H
Equipment : Panel PC
Brand Name : Qbic
Model Name : TD-035XXX, (where X can be 0-9, A-Z or blank)
Applicant / Manufacturer : Qbic technology Co., Ltd
26F. -12, No.99, Sec.1, Xintai 5th Rd., Xizhi
Dist., New Taipei City 221, Taiwan(R.O.C)
Standard : 47 CFR FCC Part 15.247

The product was received on Jun. 22, 2018, and testing was started from Jul. 10, 2018 and completed on Jul. 12, 2018. . 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
FR843031AC	01	Initial issue of report	Jul. 27, 2018

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

Reviewed by: Sam Chen

Report Producer: Ann Hou

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), ac (VHT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), ac (VHT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	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.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	-	-	FPC	fixed on board	2

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter		
EUT Function	<input checked="" type="checkbox"/> Point-to-multipoint	<input type="checkbox"/> Point-to-point	
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/> Without beamforming	
Type of EUT			
<input checked="" type="checkbox"/>	Stand-alone		
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.: ...		
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.: ...		
<input type="checkbox"/>	Other:		

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.996	0.017	n/a (DC \geq 0.98)	n/a (DC \geq 0.98)
802.11g	0.973	0.119	1.4m	1k
802.11n HT20	0.97	0.132	1.313m	1k

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 v04

1.3 Testing Location Information

Testing Location			
<input checked="" type="checkbox"/>	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.			
<input type="checkbox"/>	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	Jeremy Lin	22.8°C / 60%	12/Jul/2018
RF Conducted	TH01-HY	Andy Lee	23.5°C / 65%	10/Jul/2018
Radiated	03CH09-HY	Andy Hsu	22.8°C / 59%	10/Jul/2018

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)	3.6 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.0 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

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

2.2 Test Channel Mode




Test Software Version	Ampak RFTestTool VER:5.4
-----------------------	--------------------------

Mode	PowerSetting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	default
2437MHz	default
2462MHz	default
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	default
2437MHz	default
2462MHz	default
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	default
2437MHz	default
2462MHz	default

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	Adapter 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	Adapter mode		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT			V

2.4 Accessories

Accessories				
AC Adapter 1	Brand Name	SOY	Model Name	SOY-0500200-090
	Power Rating	I/P: 100 - 240Vac, 0.5A, O/P: 5Vdc, 2 A		
AC Adapter 2	Brand Name	PHIHONE	Model Name	PSAF10R-050Q
	Power Rating	I/P: 100 - 240Vac, 0.3A, O/P: 5Vdc, 2.0 A		
USB Cable	Brand Name	NA	Model Name	389G175GZAAFAMOOHF
	Signal Line	3 meter, non-shielded cable, without ferrite core		

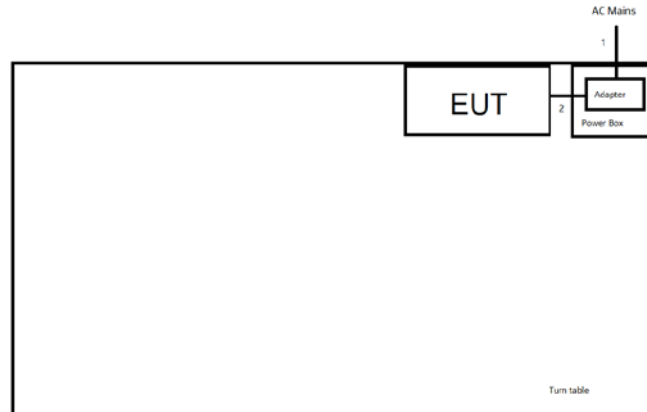
Reminder: Regarding to more detail and other information, please refer to user manual.

2.5 Support Equipment

Support Equipment - RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	AC Power Source	G.W	APS-9102	-

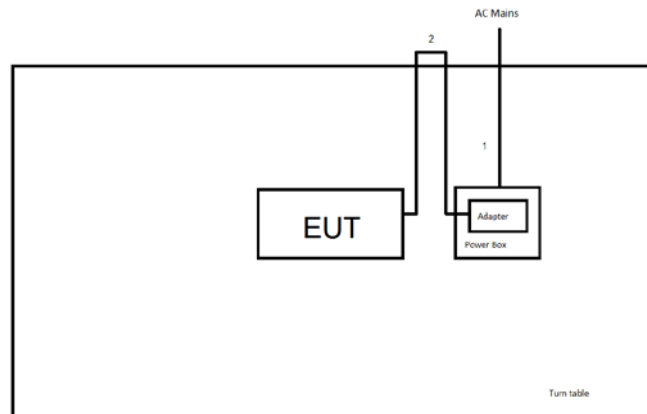
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	AC Power line	No	1.8m
2	USB cable	No	3m

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	AC Power line	No	1.8m
2	USB cable	No	3m

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.

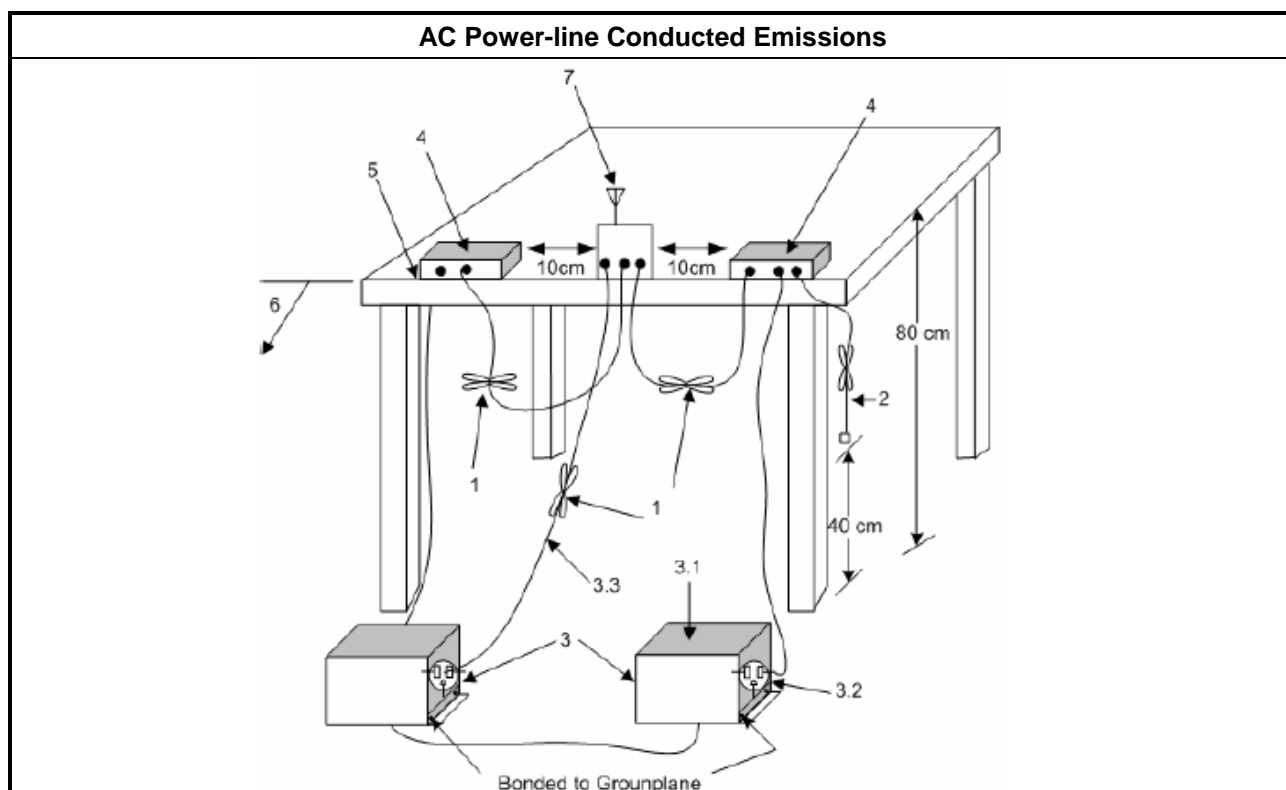
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> 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:
<ul style="list-style-type: none"> 6 dB bandwidth \geq 500 kHz.

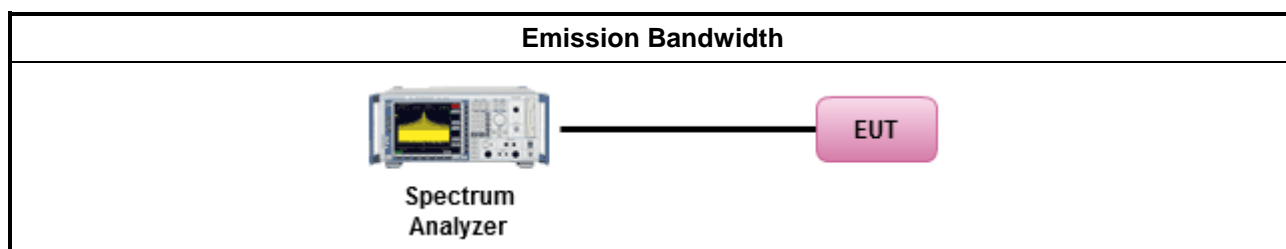
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
<input type="checkbox"/> 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.		

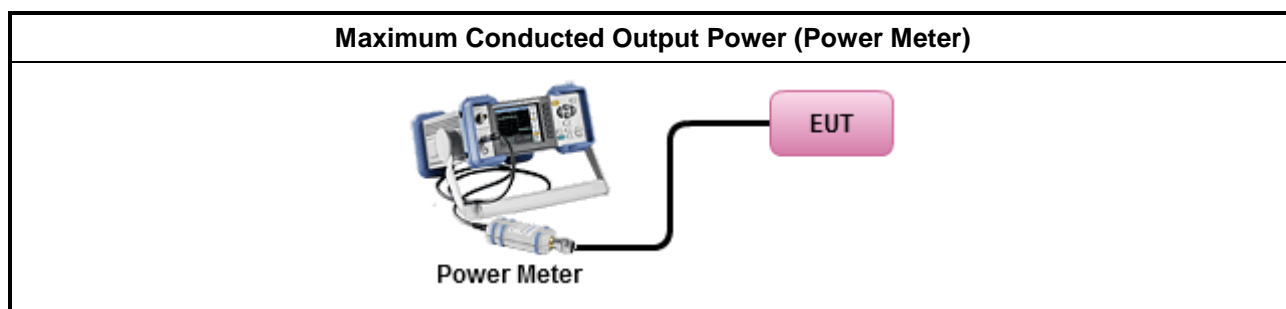
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> Maximum Peak Conducted Output Power 	
<input type="checkbox"/>	Refer as KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
<input type="checkbox"/>	Refer as KDB 558074, clause 9.1.2 Option 2 (integrated band power method)
<input type="checkbox"/>	Refer as KDB 558074, clause 9.1.3 Option 3 (peak power meter for VBW ≥ DTS BW)
<ul style="list-style-type: none"> Maximum Average Conducted Output Power 	
Duty cycle ≥ 98%	
<input type="checkbox"/>	Refer as KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging).
Duty cycle < 98%	
<input type="checkbox"/>	Refer as KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed)
RF power meter and average over on/off periods with duty factor or gated trigger	
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 9.2.3.1 Method AVGPM (using an RF average power meter).
<ul style="list-style-type: none"> For conducted measurement. 	
<ul style="list-style-type: none"> 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. 	
<ul style="list-style-type: none"> 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

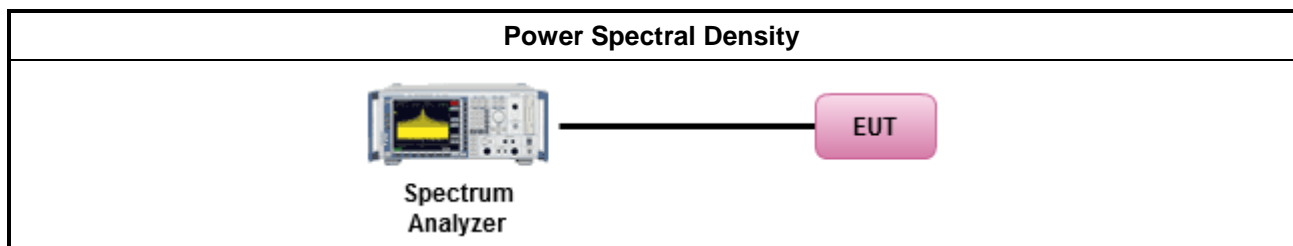
3.4.2 Measuring Instruments

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).
<input checked="" type="checkbox"/>	Refer as KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak).
▪	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
<p>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.</p> <p>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.</p>	

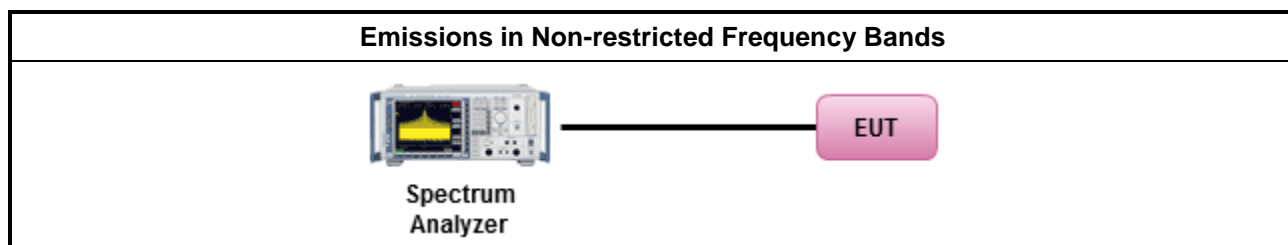
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as KDB 558074, clause 11 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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.

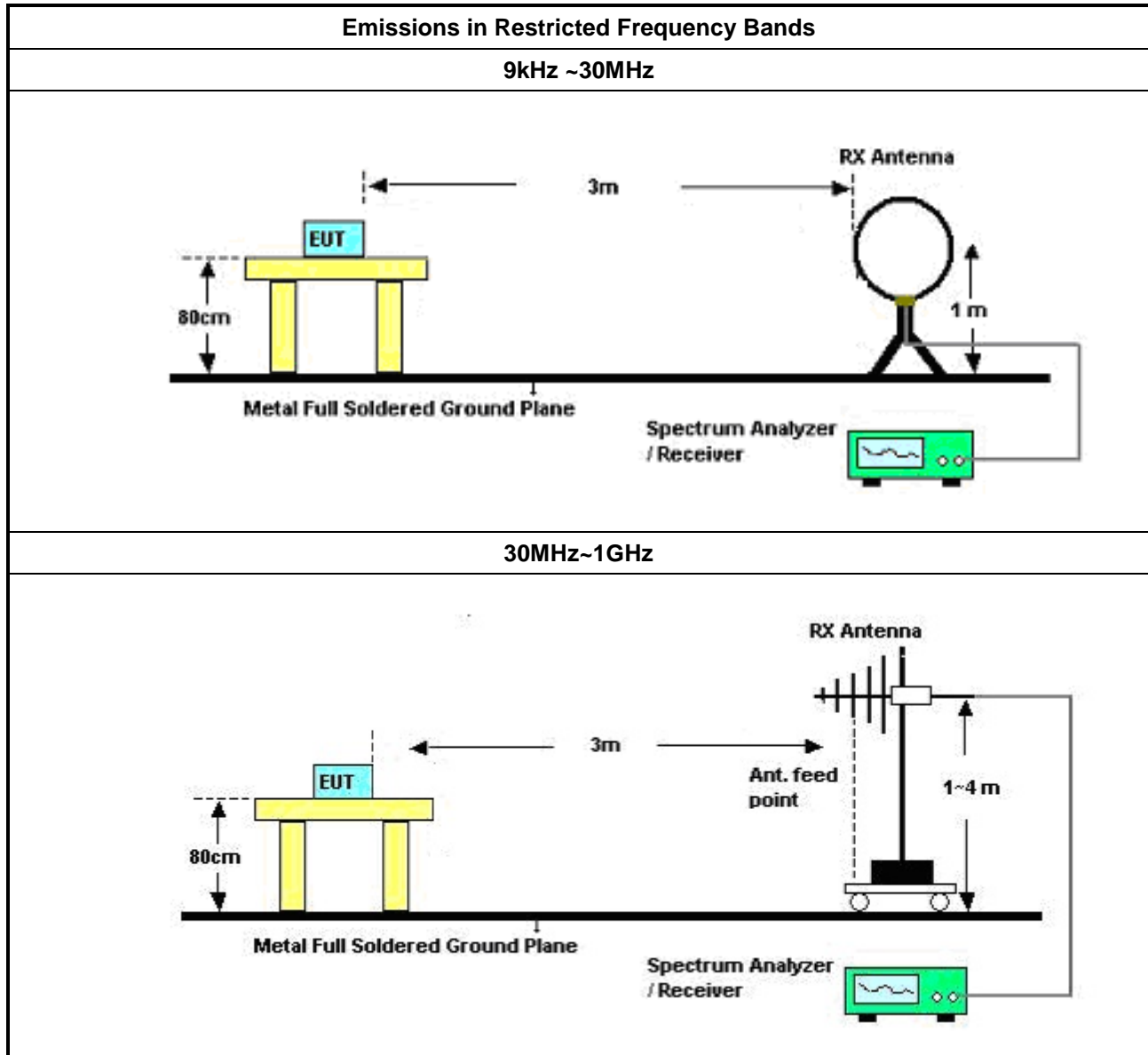
3.6.2 Measuring Instruments

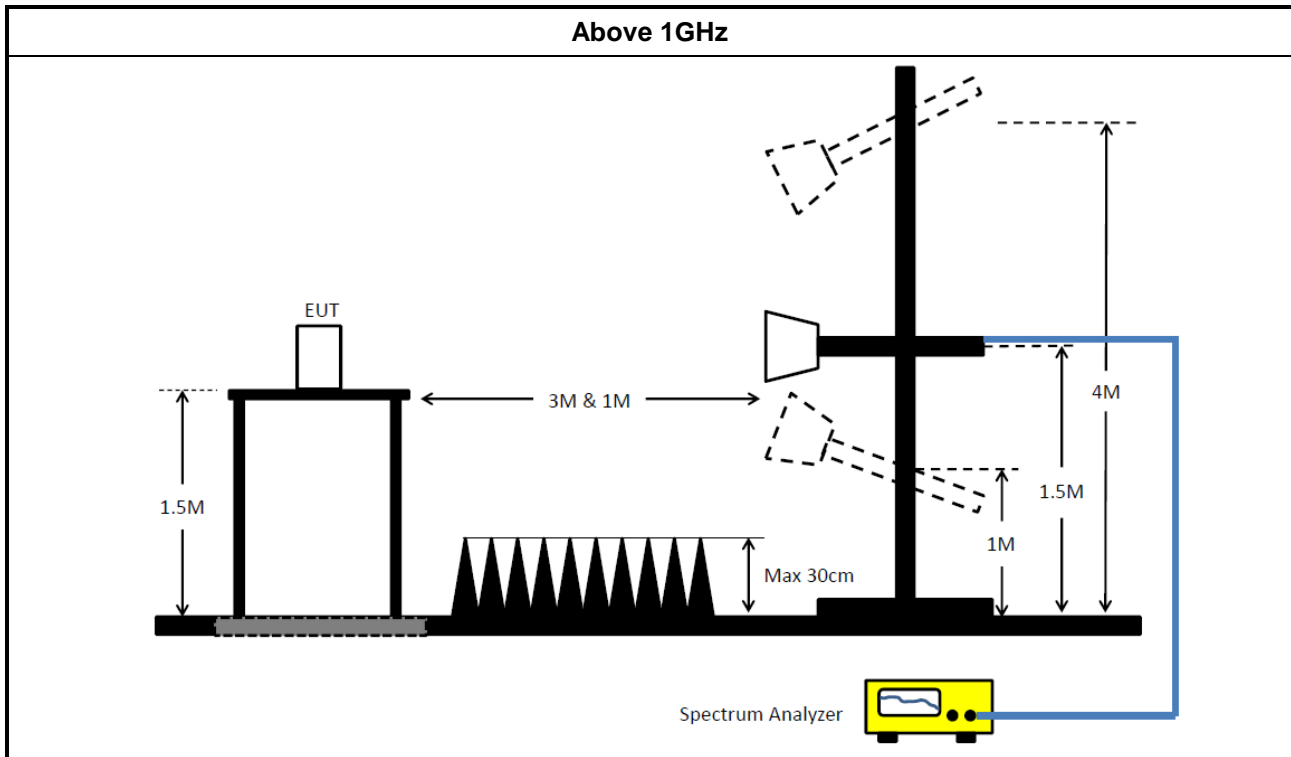
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor]. 	
<ul style="list-style-type: none"> 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. 	
<ul style="list-style-type: none"> For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> Refer as KDB 558074, clause 12 for unwanted emissions into restricted bands.
	<input checked="" type="checkbox"/> Refer as KDB 558074, clause 12.2.5.3 (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW $\geq 1/T$.
	<input checked="" type="checkbox"/> Refer as KDB 558074, clause 12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> Refer as KDB 558074 clause 13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	<ul style="list-style-type: none"> Refer as KDB 558074, clause 13.2 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> Refer as KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
<ul style="list-style-type: none"> For conducted and cabinet radiation measurement, refer as KDB 558074, clause 12.2.2. 	
	<ul style="list-style-type: none"> For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	<ul style="list-style-type: none"> For KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.6.4 Test Setup





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 AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102051	9KHz ~ 3.6GHz	03/May/2018	02/May/2019
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	17/Nov/2017	16/Nov/2018
RF Cable-CON	HUBER+SUHNER	RG213/U	07611832020001	9kHz ~ 30MHz	06/Oct/2017	05/Oct/2018
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2017	11/Oct/2018

NCR : Non-Calibration Require

Instrument for Conducted Test

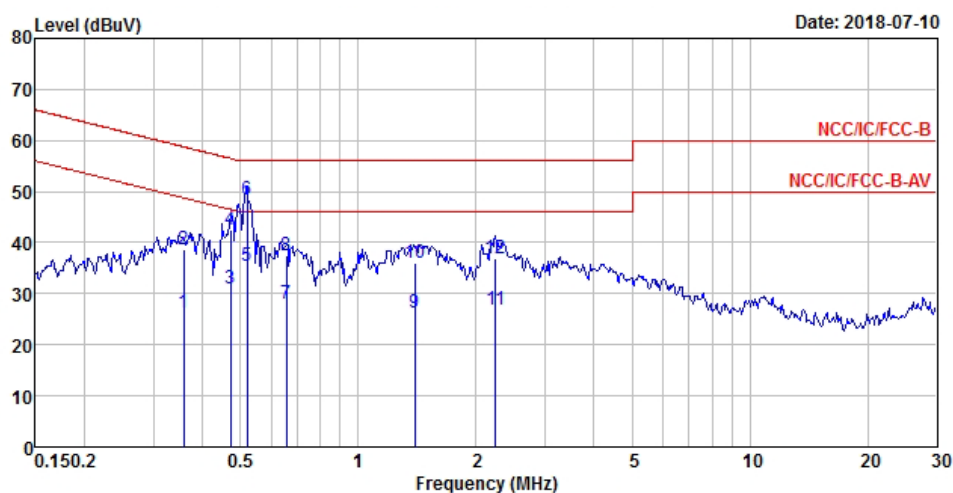
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	05/Feb/2018	04/Feb/2019
Loop Antenna	TESEQ	HLA 6120	31244	9 kHz~30 MHz	29/Mar/2018	28/May/2019
Temp. and Humidity Chamber	Giant Force	GTH-225-20-SP-SD	MAA1112-007	-20 ~ 100℃	22/May/2018	21/May/2019

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
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	20/Jul/2017	19/Jul/2018
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	09/Sep/2017	08/Sep/2018
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	30/Apr/2018	29/Apr/2019
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170614	18GHz~40GHz	09/Feb/2018	08/Feb/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	24/Aug/2017	23/Aug/2018
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	29/Mar/2018	28/Mar/2019
RF Cable-R03m	Jye Bao	RG142	CB031	9kHz ~ 1GHz	1/Feb/2018	31/Jan/2019
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz ~ 40GHz	14/Mar/2018	13/Mar/2019

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode		



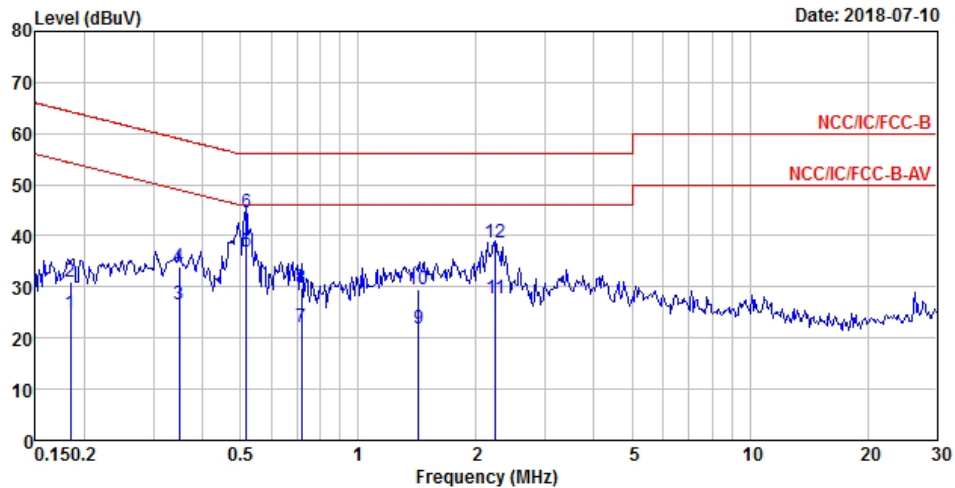
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.36	26.20	-22.57	48.77	16.51	9.61	0.08	Average
2	0.36	38.74	-20.03	58.77	29.05	9.61	0.08	QP
3	0.47	30.89	-15.60	46.49	21.20	9.61	0.08	Average
4	0.47	42.56	-13.93	56.49	32.87	9.61	0.08	QP
5	0.52	35.35	-10.65	46.00	25.67	9.61	0.07	Average
6 MAX	0.52	48.42	-7.58	56.00	38.74	9.61	0.07	QP
7	0.66	28.04	-17.96	46.00	18.37	9.62	0.05	Average
8	0.66	37.45	-18.55	56.00	27.78	9.62	0.05	QP
9	1.39	26.14	-19.86	46.00	16.52	9.62	0.00	Average
10	1.39	36.12	-19.88	56.00	26.50	9.62	0.00	QP
11	2.24	26.83	-19.17	46.00	17.19	9.63	0.01	Average
12	2.24	36.84	-19.16	56.00	27.20	9.63	0.01	QP

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter mode		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.18	24.74	-29.55	54.29	15.11	9.62	0.01	Average
2	0.18	31.06	-33.23	64.29	21.43	9.62	0.01	QP
3	0.35	26.53	-22.46	48.99	16.84	9.61	0.08	Average
4	0.35	33.99	-25.00	58.99	24.30	9.61	0.08	QP
5 MAX	0.52	36.81	-9.19	46.00	27.13	9.61	0.07	Average
6	0.52	44.59	-11.41	56.00	34.91	9.61	0.07	QP
7	0.72	22.09	-23.91	46.00	12.44	9.61	0.04	Average
8	0.72	29.74	-26.26	56.00	20.09	9.61	0.04	QP
9	1.43	21.72	-24.28	46.00	12.10	9.62	0.00	Average
10	1.43	29.42	-26.58	56.00	19.80	9.62	0.00	QP
11	2.24	27.78	-18.22	46.00	18.15	9.62	0.01	Average
12	2.24	38.66	-17.34	56.00	29.03	9.62	0.01	QP

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

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	9.05M	14.243M	14M2G1D	8.05M	14.118M
802.11g_Nss1,(6Mbps)_1TX	15.075M	16.392M	16M4D1D	14.05M	16.317M
802.11n HT20_Nss1,(MCS0)_1TX	15.075M	17.541M	17M5D1D	14.2M	17.516M

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;

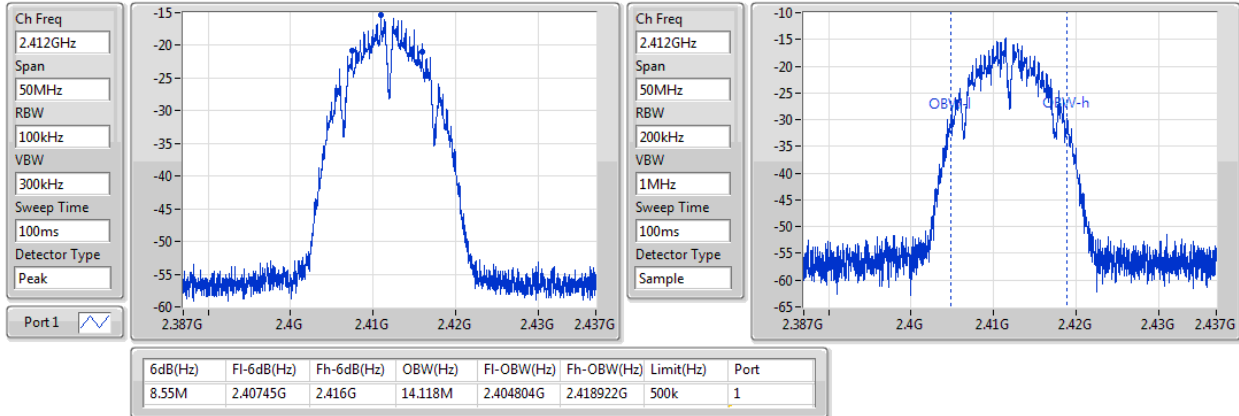
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	8.55M	14.118M
2437MHz_TnomVnom	Pass	500k	8.05M	14.193M
2462MHz_TnomVnom	Pass	500k	9.05M	14.243M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	14.05M	16.317M
2437MHz_TnomVnom	Pass	500k	15.075M	16.392M
2462MHz_TnomVnom	Pass	500k	14.95M	16.317M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	14.2M	17.516M
2437MHz_TnomVnom	Pass	500k	15.075M	17.541M
2462MHz_TnomVnom	Pass	500k	14.9M	17.541M

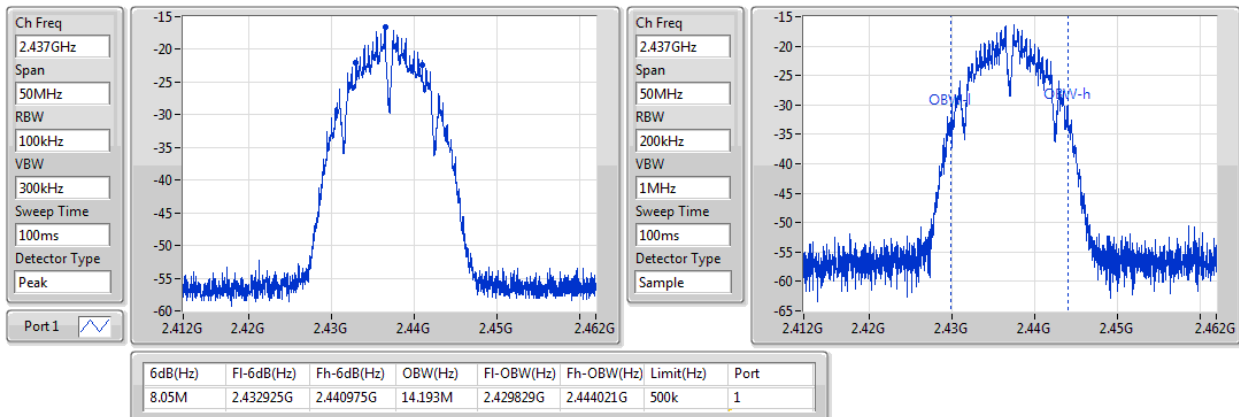
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_1TX
EBW
2412MHz

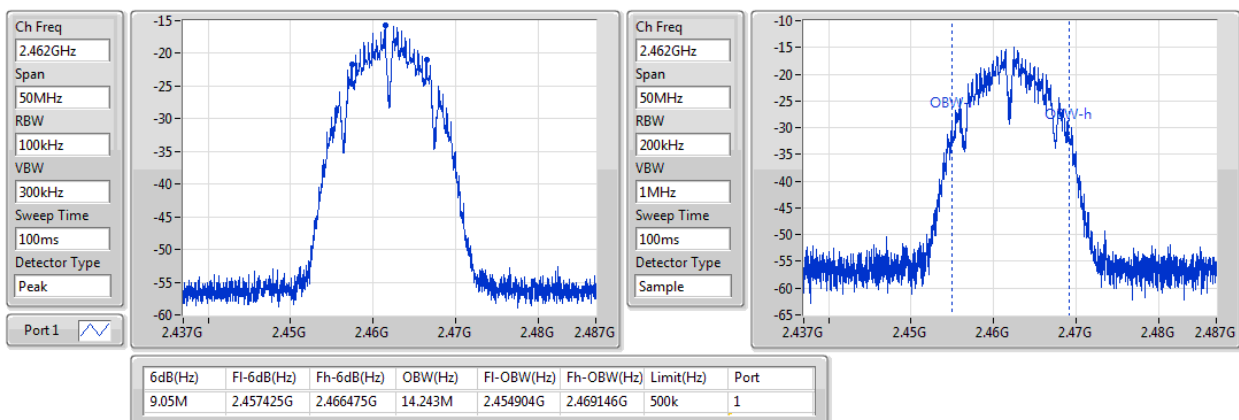
10/07/2018


802.11b_Nss1,(1Mbps)_1TX
EBW
2437MHz

10/07/2018

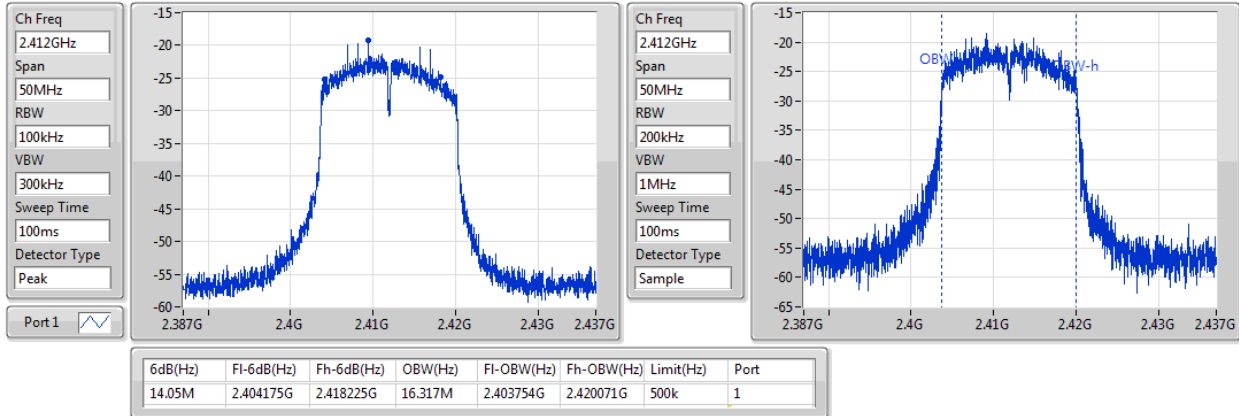

802.11b_Nss1,(1Mbps)_1TX
EBW
2462MHz

10/07/2018

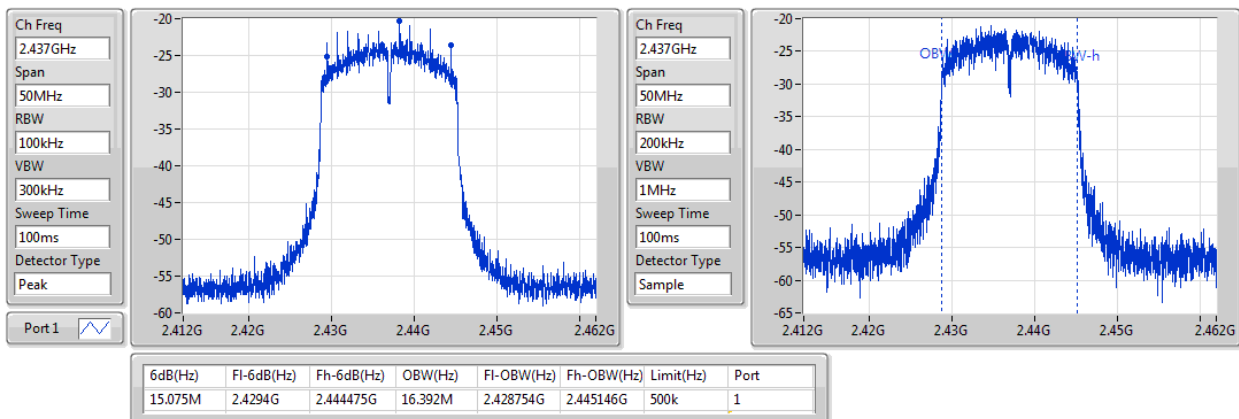


802.11g_Nss1,(6Mbps)_1TX
EBW
2412MHz

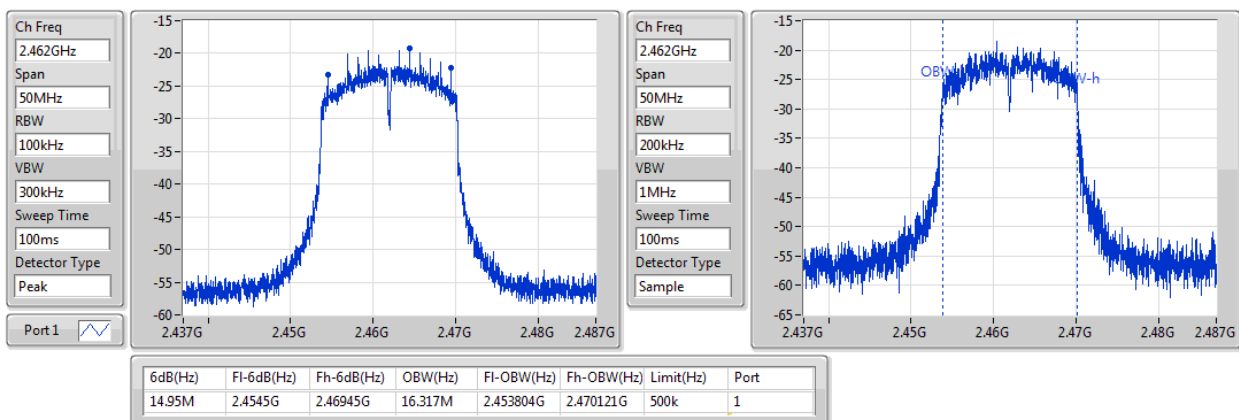
10/07/2018


802.11g_Nss1,(6Mbps)_1TX
EBW
2437MHz

10/07/2018


802.11g_Nss1,(6Mbps)_1TX
EBW
2462MHz

10/07/2018



802.11n HT20_Nss1,(MCS0)_1TX
EBW
2412MHz

10/07/2018

Ch Freq
2.412GHz


Span
50MHz

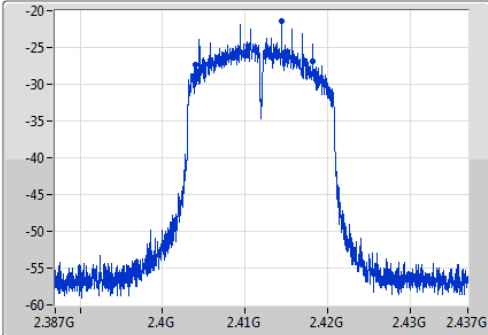
RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port1 



Ch Freq
2.412GHz

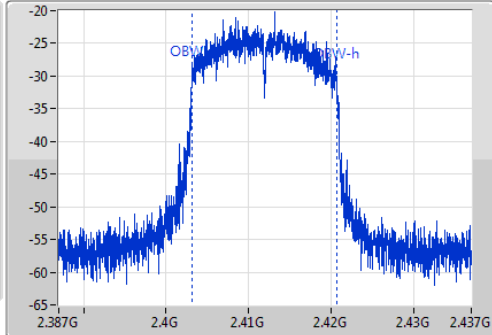
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
14.2M	2.40405G	2.41825G	17.516M	2.403129G	2.420646G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX
EBW
2437MHz

10/07/2018

Ch Freq
2.437GHz

Span
50MHz

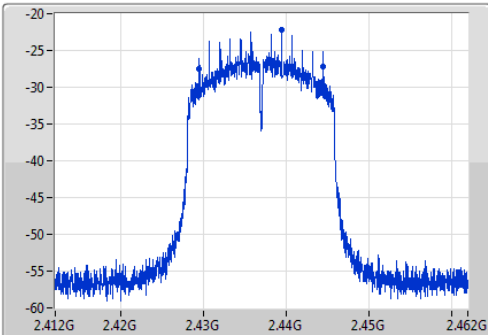
RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port1 



Ch Freq
2.437GHz

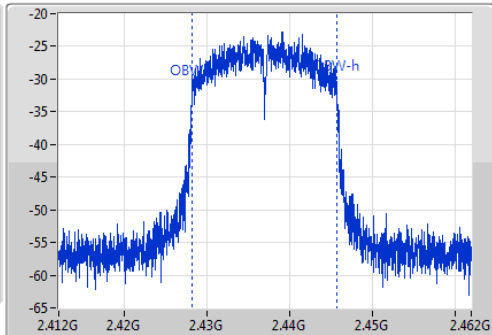
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.075M	2.4294G	2.444475G	17.541M	2.428154G	2.445696G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX
EBW
2462MHz

10/07/2018

Ch Freq
2.462GHz


Span
50MHz

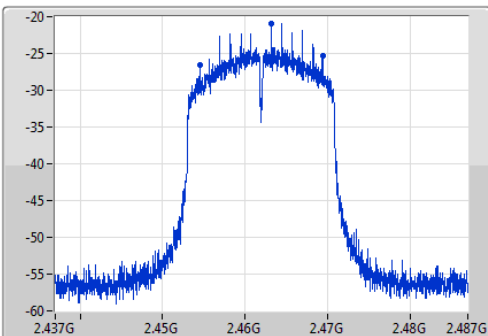
RBW
100kHz

VBW
300kHz

Sweep Time
100ms

Detector Type
Peak

Port1 



Ch Freq
2.462GHz

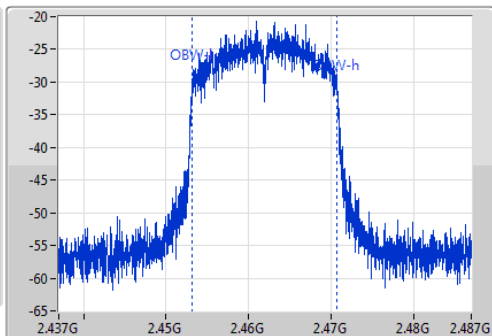
Span
50MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
14.9M	2.4545G	2.4694G	17.541M	2.453179G	2.470721G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	11.50	0.01413
802.11g_Nss1,(6Mbps)_1TX	12.39	0.01734
802.11n HT20_Nss1,(MCS0)_1TX	11.47	0.01403

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.00	11.46	11.46	30.00
2437MHz_TnomVnom	Pass	2.00	11.49	11.49	30.00
2462MHz_TnomVnom	Pass	2.00	11.50	11.50	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.00	12.39	12.39	30.00
2437MHz_TnomVnom	Pass	2.00	11.48	11.48	30.00
2462MHz_TnomVnom	Pass	2.00	11.49	11.49	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.00	11.47	11.47	30.00
2437MHz_TnomVnom	Pass	2.00	11.47	11.47	30.00
2462MHz_TnomVnom	Pass	2.00	11.47	11.47	30.00

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

Note : Conducted average output power is for reference only

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-29.75
802.11g_Nss1,(6Mbps)_1TX	-32.51
802.11n HT20_Nss1,(MCS0)_1TX	-34.59

RBW=3kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.00	-30.32	-30.32	8.00
2437MHz_TnomVnom	Pass	2.00	-31.86	-31.86	8.00
2462MHz_TnomVnom	Pass	2.00	-29.75	-29.75	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.00	-33.70	-33.70	8.00
2437MHz_TnomVnom	Pass	2.00	-33.60	-33.60	8.00
2462MHz_TnomVnom	Pass	2.00	-32.51	-32.51	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.00	-34.59	-34.59	8.00
2437MHz_TnomVnom	Pass	2.00	-36.72	-36.72	8.00
2462MHz_TnomVnom	Pass	2.00	-36.26	-36.26	8.00

DG = Directional Gain; RBW=3kHz;

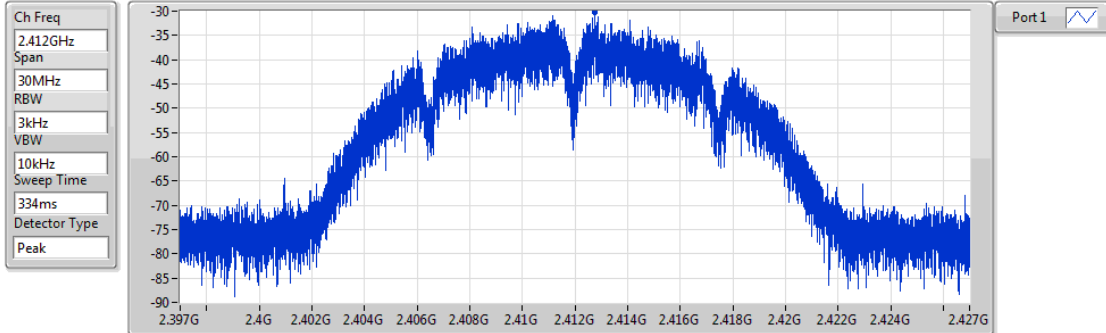
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11b_Nss1,(1Mbps)_1TX

PSD

2412MHz

10/07/2018



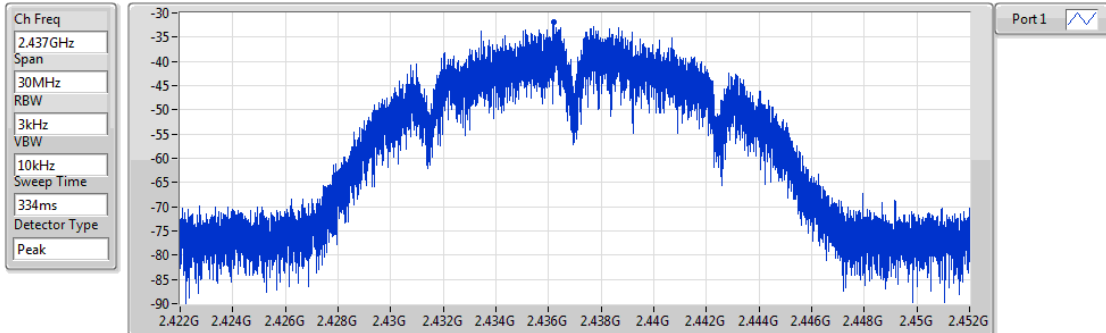
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-30.32	-30.32	-30.32

802.11b_Nss1,(1Mbps)_1TX

PSD

2437MHz

10/07/2018



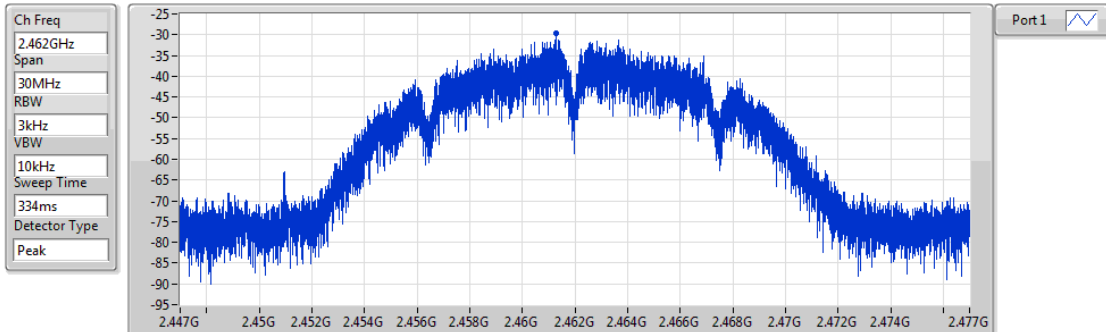
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-31.86	-31.86	-31.86

802.11b_Nss1,(1Mbps)_1TX

PSD

2462MHz

10/07/2018



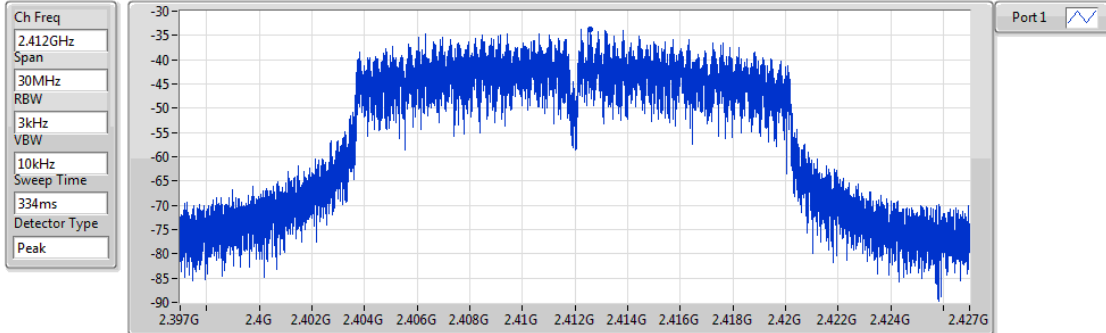
Sum	PD	Port 1
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-29.75	-29.75	-29.75

802.11g_Nss1,(6Mbps)_1TX

PSD

2412MHz

10/07/2018



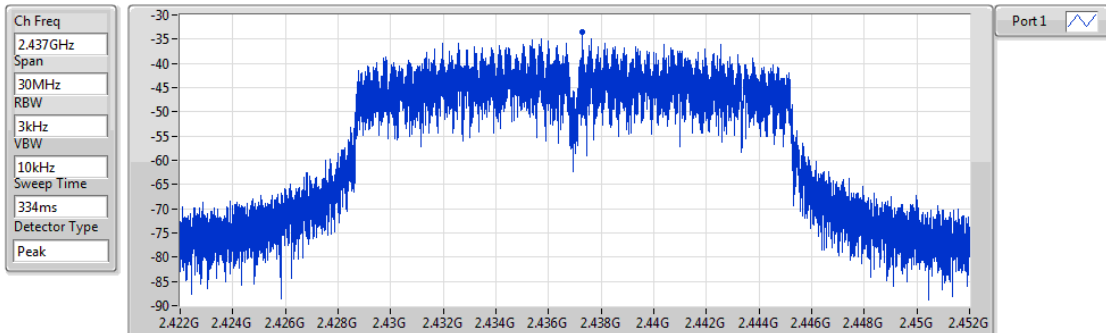
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-33.70	-33.70	-33.70

802.11g_Nss1,(6Mbps)_1TX

PSD

2437MHz

10/07/2018



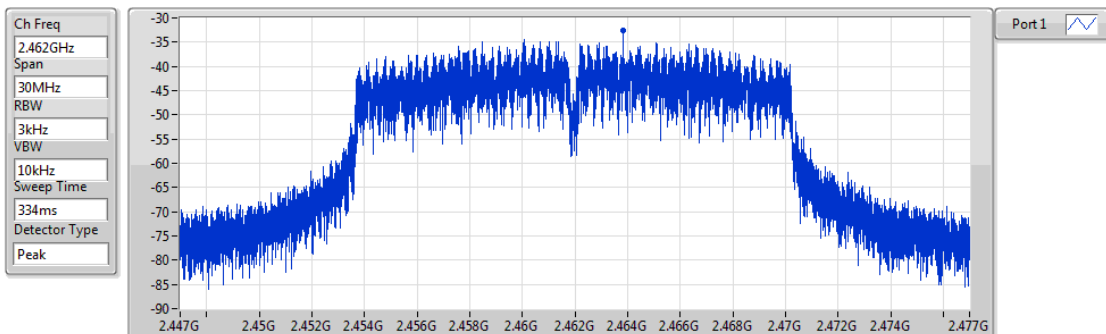
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-33.60	-33.60	-33.60

802.11g_Nss1,(6Mbps)_1TX

PSD

2462MHz

10/07/2018



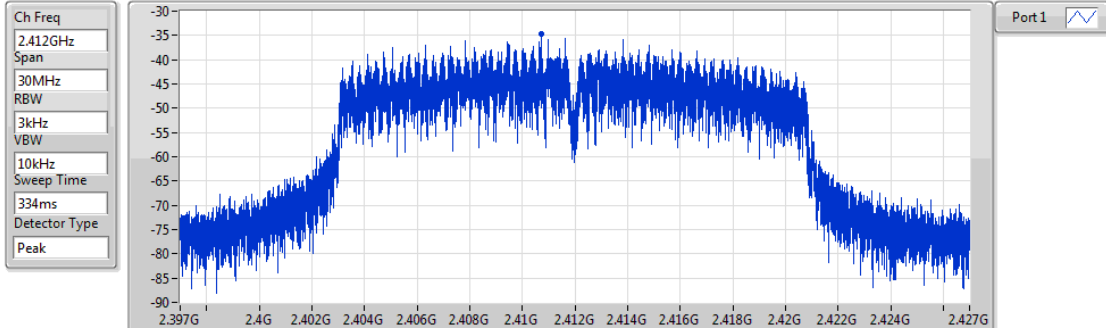
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-32.51	-32.51	-32.51

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2412MHz

10/07/2018



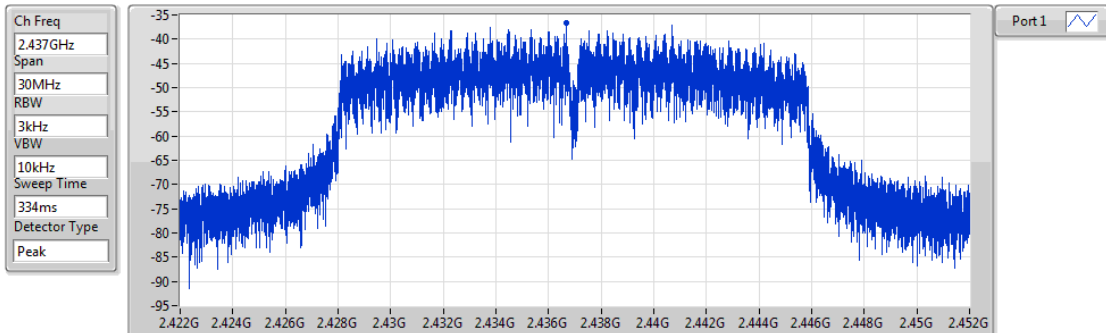
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-34.59	-34.59	-34.59

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2437MHz

10/07/2018



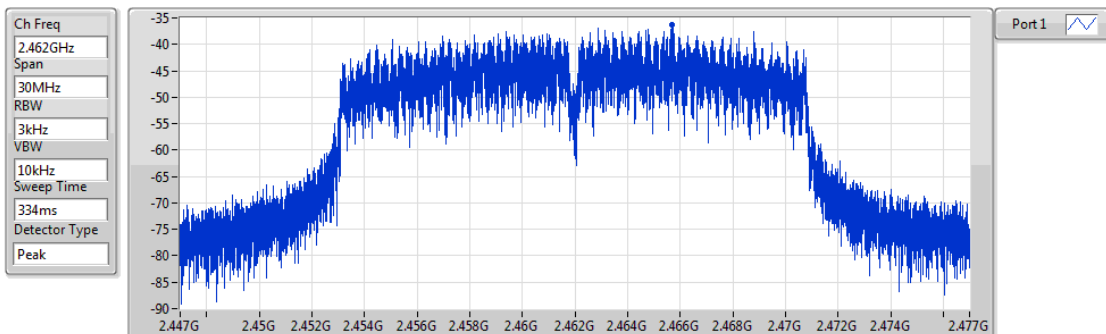
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-36.72	-36.72	-36.72

802.11n HT20_Nss1,(MCS0)_1TX

PSD

2462MHz

10/07/2018



Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-36.26	-36.26	-36.26

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	2.462458G	6.47	-23.53	2.309905G	-61.35	2.39952G	-38.52	2.48902G	-59.69	16.234165G	-54.30	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.414362G	2.76	-27.24	2.307575G	-63.24	2.39952G	-32.06	2.48966G	-60.03	17.436658G	-54.08	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.413193G	0.97	-29.03	1.9639G	-63.80	2.39984G	-34.30	2.4871G	-60.69	16.217308G	-53.33	1

Result

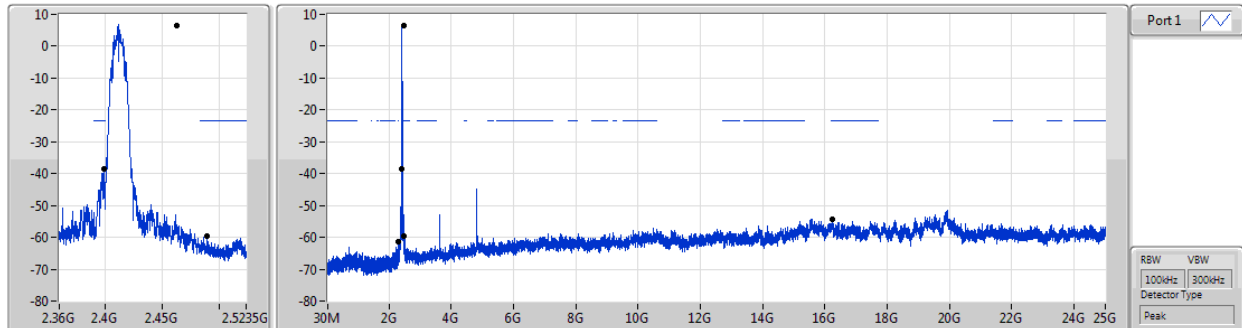
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.462458G	6.47	-23.53	2.309905G	-61.35	2.39952G	-38.52	2.48902G	-59.69	16.234165G	-54.30	1
2437MHz	Pass	2.462458G	6.47	-23.53	1.972055G	-64.53	2.392G	-53.50	2.48798G	-56.57	15.189008G	-53.85	1
2462MHz	Pass	2.462458G	6.47	-23.53	2.30641G	-63.35	2.39536G	-58.52	2.49094G	-50.49	17.543421G	-53.93	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.414362G	2.76	-27.24	2.307575G	-63.24	2.39952G	-32.06	2.48966G	-60.03	17.436658G	-54.08	1
2437MHz	Pass	2.414362G	2.76	-27.24	808.22M	-63.38	2.3992G	-51.97	2.48462G	-54.47	15.250818G	-54.30	1
2462MHz	Pass	2.414362G	2.76	-27.24	2.309905G	-63.89	2.39944G	-56.53	2.48438G	-45.75	15.186198G	-53.25	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.413193G	0.97	-29.03	1.9639G	-63.80	2.39984G	-34.30	2.4871G	-60.69	16.217308G	-53.33	1
2437MHz	Pass	2.413193G	0.97	-29.03	867.635M	-63.95	2.39704G	-53.65	2.48462G	-55.97	17.48723G	-54.44	1
2462MHz	Pass	2.413193G	0.97	-29.03	667.255M	-63.53	2.39968G	-59.06	2.4851G	-47.71	17.453515G	-54.36	1

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2412MHz

10/07/2018



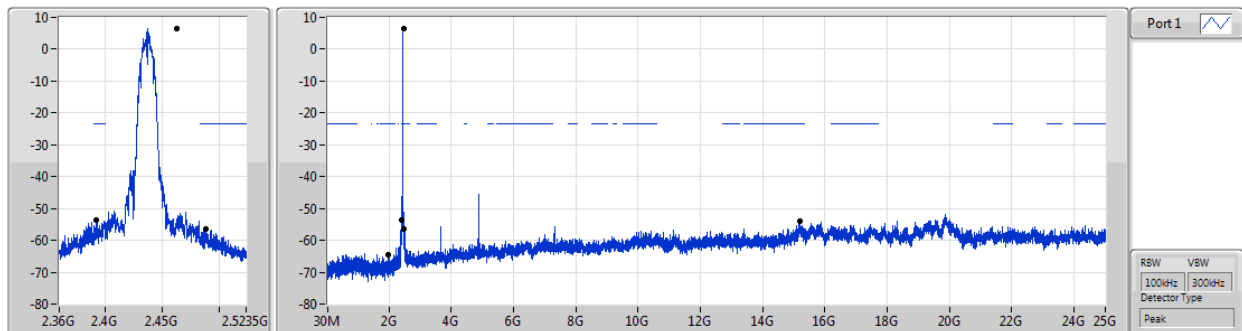
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.462458G	6.47	-23.53	2.309905G	-61.35	2.39952G	-38.52	2.48902G	-59.69	16.234165G	-54.30	1

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2437MHz

10/07/2018



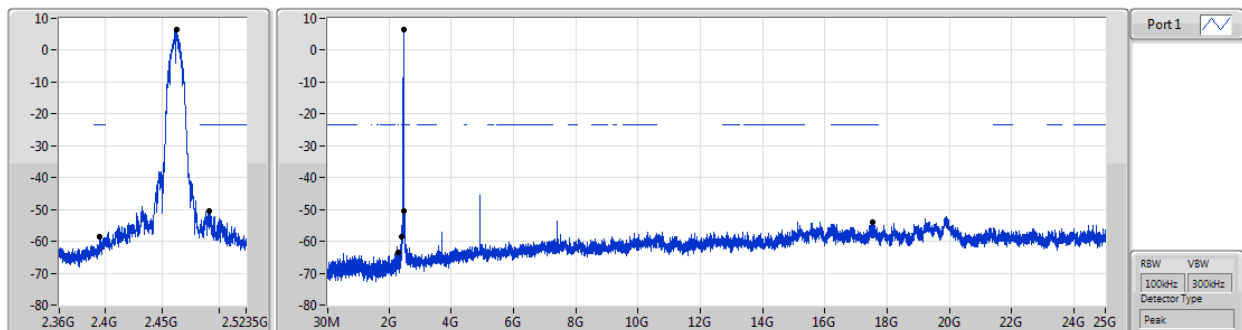
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.462458G	6.47	-23.53	1.972055G	-64.53	2.392G	-53.50	2.48798G	-56.57	15.189008G	-53.85	1

802.11b_Nss1,(1Mbps)_1TX

CSE NdB

2462MHz

10/07/2018



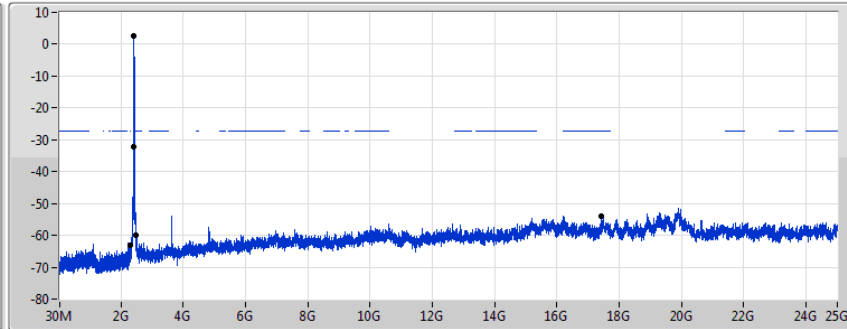
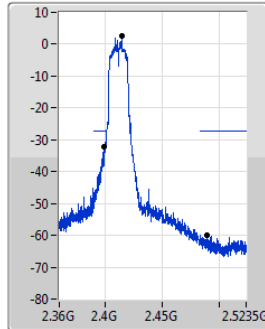
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.462458G	6.47	-23.53	2.30641G	-63.35	2.39536G	-58.52	2.49094G	-50.49	17.543421G	-53.93	1

802.11g_Nss1,(6Mbps)_1TX

CSE NdB

2412MHz

10/07/2018



Port1 

RBW VSW
100kHz 300kHz
Detector Type
Peak

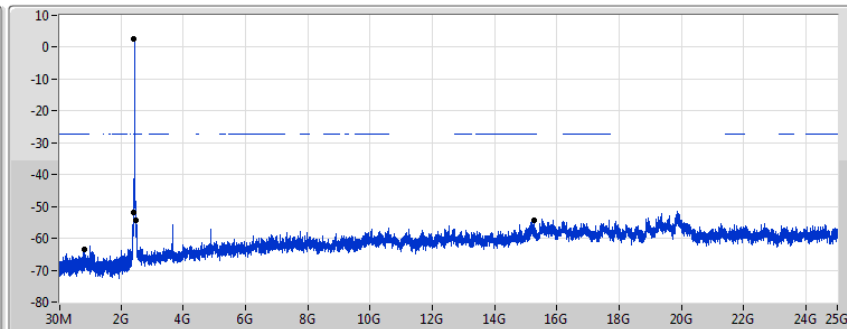
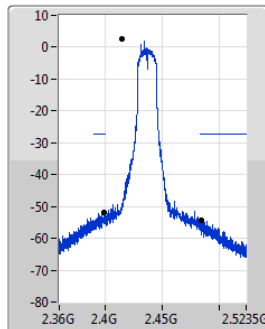
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.414362G	2.76	-27.24	2.307575G	-63.24	2.39952G	-32.06	2.48966G	-60.03	17.436658G	-54.08	1

802.11g_Nss1,(6Mbps)_1TX

CSE NdB

2437MHz

10/07/2018



Port1 

RBW VSW
100kHz 300kHz
Detector Type
Peak

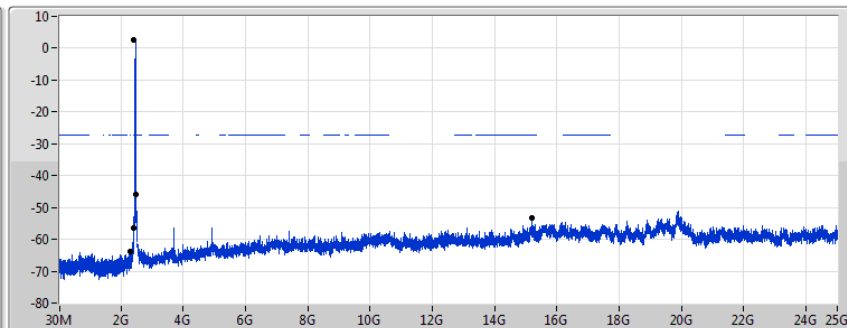
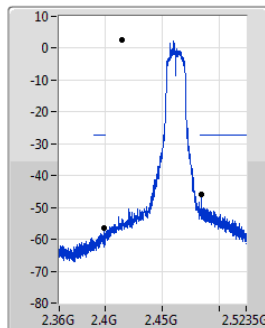
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.414362G	2.76	-27.24	808.22M	-63.38	2.3992G	-51.97	2.48462G	-54.47	15.250818G	-54.30	1

802.11g_Nss1,(6Mbps)_1TX

CSE NdB

2462MHz

10/07/2018



Port1 

RBW VSW
100kHz 300kHz
Detector Type
Peak

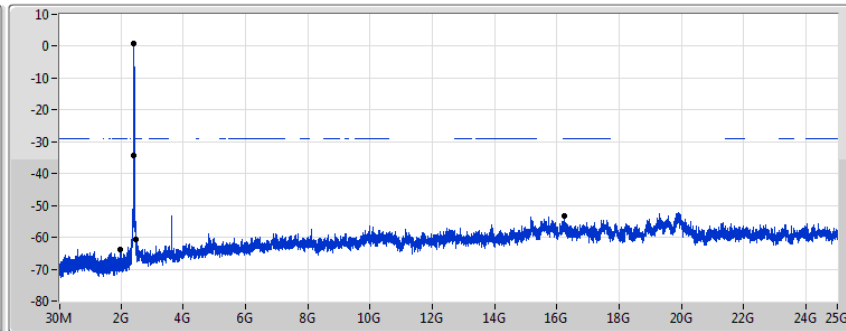
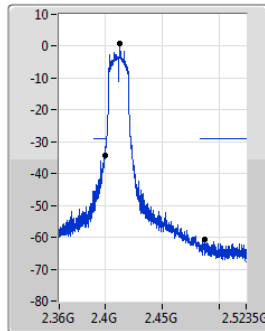
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.414362G	2.76	-27.24	2.309905G	-63.89	2.39944G	-56.53	2.48438G	-45.75	15.186198G	-53.25	1


802.11n HT20_Nss1,(MCS0)_1TX

CSE NdB

2412MHz

10/07/2018



Port1 

RBW VSW
100kHz 300kHz
Detector Type
Peak

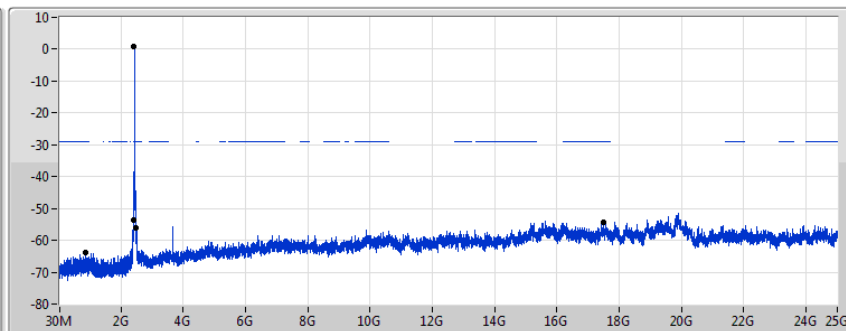
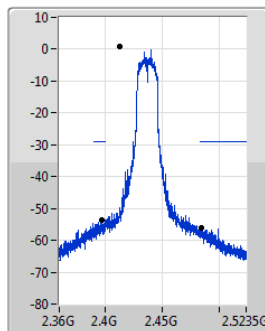
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.413193G	0.97	-29.03	1.9639G	-63.80	2.39984G	-34.30	2.4871G	-60.69	16.217308G	-53.33	1

802.11n HT20_Nss1,(MCS0)_1TX

CSE NdB

2437MHz

10/07/2018



Port1 

RBW VSW
100kHz 300kHz
Detector Type
Peak

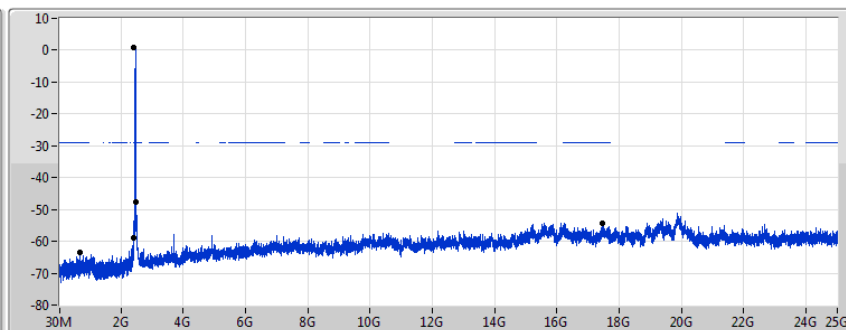
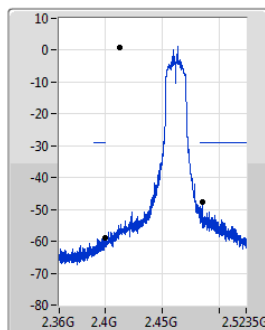
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.413193G	0.97	-29.03	867.635M	-63.95	2.39704G	-53.65	2.48462G	-55.97	17.48723G	-54.44	1

802.11n HT20_Nss1,(MCS0)_1TX

CSE NdB

2462MHz

10/07/2018



Port1 

RBW VSW
100kHz 300kHz
Detector Type
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.413193G	0.97	-29.03	667.255M	-63.53	2.39968G	-59.06	2.4851G	-47.71	17.453515G	-54.36	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	815.7M	40.05	46.00	-5.95	-8.01	3	Horizontal	360	1.00	-

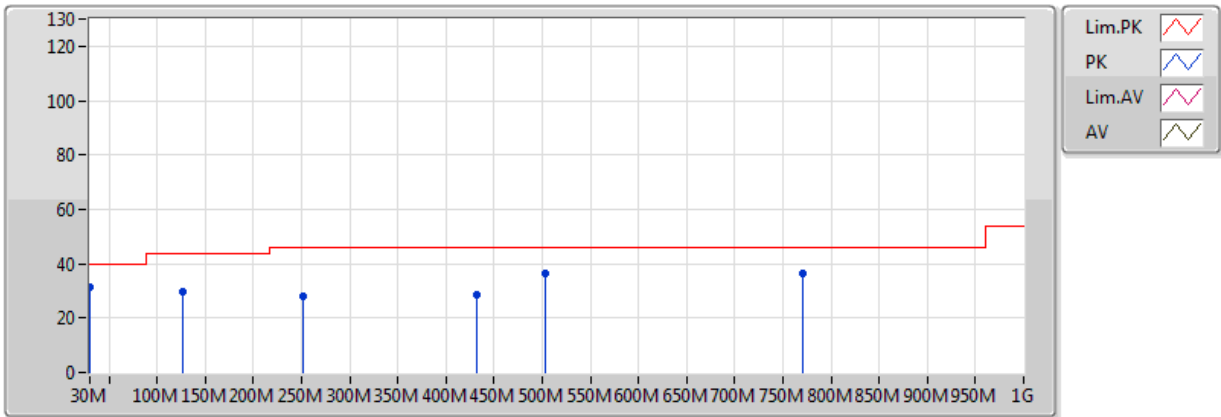
Result

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	31.35	40.00	-8.65	-13.40	3	Vertical	0	1.00	-
2437MHz	Pass	PK	127M	29.52	43.50	-13.98	-19.20	3	Vertical	0	1.00	-
2437MHz	Pass	PK	251.16M	27.79	46.00	-18.21	-16.97	3	Vertical	0	1.00	-
2437MHz	Pass	PK	431.58M	28.52	46.00	-17.48	-13.11	3	Vertical	0	1.00	-
2437MHz	Pass	PK	503.36M	36.57	46.00	-9.43	-12.10	3	Vertical	0	1.00	-
2437MHz	Pass	PK	771.08M	36.19	46.00	-9.81	-8.18	3	Vertical	0	1.00	-
2437MHz	Pass	PK	103.72M	32.67	43.50	-10.83	-20.67	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	130.88M	33.19	43.50	-10.31	-19.17	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	274.44M	28.81	46.00	-17.19	-16.68	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	503.36M	33.65	46.00	-12.35	-12.10	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	648.86M	34.53	46.00	-11.47	-9.94	3	Horizontal	360	1.00	-
2437MHz	Pass	PK	815.7M	40.05	46.00	-5.95	-8.01	3	Horizontal	360	1.00	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_Adapter

10/07/2018

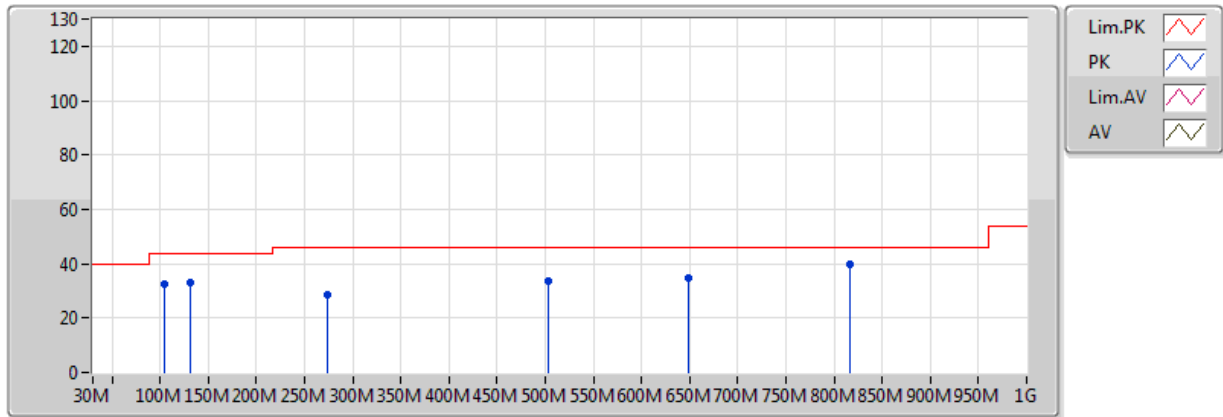


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	30M	31.35	40.00	-8.65	-13.40	3	Vertical	0	1.00	-
PK	127M	29.52	43.50	-13.98	-19.20	3	Vertical	0	1.00	-
PK	251.16M	27.79	46.00	-18.21	-16.97	3	Vertical	0	1.00	-
PK	431.58M	28.52	46.00	-17.48	-13.11	3	Vertical	0	1.00	-
PK	503.36M	36.57	46.00	-9.43	-12.10	3	Vertical	0	1.00	-
PK	771.08M	36.19	46.00	-9.81	-8.18	3	Vertical	0	1.00	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_Adapter

10/07/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	103.72M	32.67	43.50	-10.83	-20.67	3	Horizontal	360	1.00	-
PK	130.88M	33.19	43.50	-10.31	-19.17	3	Horizontal	360	1.00	-
PK	274.44M	28.81	46.00	-17.19	-16.68	3	Horizontal	360	1.00	-
PK	503.36M	33.65	46.00	-12.35	-12.10	3	Horizontal	360	1.00	-
PK	648.86M	34.53	46.00	-11.47	-9.94	3	Horizontal	360	1.00	-
PK	815.7M	40.05	46.00	-5.95	-8.01	3	Horizontal	360	1.00	-

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	2.4926G	46.80	54.00	-7.20	31.14	3	Horizontal	128	1.16	-
802.11g_Nss1,(6Mbps)_1TX	Pass	PK	2.4838G	72.43	74.00	-1.57	31.11	3	Horizontal	126	1.17	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	PK	2.4836G	70.72	74.00	-3.28	31.11	3	Horizontal	128	1.14	-

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	2.3836G	43.78	54.00	-10.22	30.75	3	Vertical	172	1.38	-
2412MHz	Pass	AV	2.4128G	96.47	Inf	-Inf	30.86	3	Vertical	172	1.38	-
2412MHz	Pass	PK	2.38G	56.16	74.00	-17.84	30.74	3	Vertical	172	1.38	-
2412MHz	Pass	PK	2.4128G	98.58	Inf	-Inf	30.86	3	Vertical	172	1.38	-
2412MHz	Pass	AV	2.3838G	44.04	54.00	-9.96	30.75	3	Horizontal	120	1.00	-
2412MHz	Pass	AV	2.4112G	97.06	Inf	-Inf	30.85	3	Horizontal	120	1.00	-
2412MHz	Pass	PK	2.377G	57.38	74.00	-16.62	30.73	3	Horizontal	120	1.00	-
2412MHz	Pass	PK	2.4128G	99.37	Inf	-Inf	30.86	3	Horizontal	120	1.00	-
2412MHz	Pass	AV	4.82399G	33.84	54.00	-20.16	2.13	3	Vertical	54	1.03	-
2412MHz	Pass	PK	4.82366G	43.95	74.00	-30.05	2.13	3	Vertical	54	1.03	-
2412MHz	Pass	AV	4.82391G	31.81	54.00	-22.19	2.13	3	Horizontal	166	1.38	-
2412MHz	Pass	PK	4.82398G	43.50	74.00	-30.50	2.13	3	Horizontal	166	1.38	-
2437MHz	Pass	AV	2.3822G	43.26	54.00	-10.74	30.75	3	Vertical	169	1.32	-
2437MHz	Pass	AV	2.4362G	96.63	Inf	-Inf	30.94	3	Vertical	169	1.32	-
2437MHz	Pass	AV	2.4922G	43.86	54.00	-10.14	31.14	3	Vertical	169	1.32	-
2437MHz	Pass	PK	2.3546G	56.63	74.00	-17.37	30.65	3	Vertical	169	1.32	-
2437MHz	Pass	PK	2.4378G	98.56	Inf	-Inf	30.95	3	Vertical	169	1.32	-
2437MHz	Pass	PK	2.4838G	57.51	74.00	-16.49	31.11	3	Vertical	169	1.32	-
2437MHz	Pass	AV	2.3818G	43.35	54.00	-10.65	30.75	3	Horizontal	125	1.03	-
2437MHz	Pass	AV	2.4362G	97.62	Inf	-Inf	30.94	3	Horizontal	125	1.03	-
2437MHz	Pass	AV	2.4922G	44.52	54.00	-9.48	31.14	3	Horizontal	125	1.03	-
2437MHz	Pass	PK	2.381G	56.12	74.00	-17.88	30.75	3	Horizontal	125	1.03	-
2437MHz	Pass	PK	2.4378G	99.74	Inf	-Inf	30.95	3	Horizontal	125	1.03	-
2437MHz	Pass	PK	2.4962G	56.52	74.00	-17.48	31.16	3	Horizontal	125	1.03	-
2437MHz	Pass	AV	4.87389G	34.31	54.00	-19.69	2.25	3	Vertical	54	3.05	-
2437MHz	Pass	PK	4.87402G	44.44	74.00	-29.56	2.26	3	Vertical	54	3.05	-
2437MHz	Pass	AV	4.8739G	30.80	54.00	-23.20	2.25	3	Horizontal	86	1.03	-
2437MHz	Pass	PK	4.87377G	42.83	74.00	-31.17	2.25	3	Horizontal	86	1.03	-
2462MHz	Pass	AV	2.4612G	96.33	Inf	-Inf	31.03	3	Vertical	172	1.45	-
2462MHz	Pass	AV	2.4928G	45.03	54.00	-8.97	31.14	3	Vertical	172	1.45	-
2462MHz	Pass	PK	2.461G	98.46	Inf	-Inf	31.03	3	Vertical	172	1.45	-
2462MHz	Pass	PK	2.4916G	57.62	74.00	-16.38	31.14	3	Vertical	172	1.45	-
2462MHz	Pass	AV	2.4612G	98.60	Inf	-Inf	31.03	3	Horizontal	128	1.16	-
2462MHz	Pass	AV	2.4926G	46.80	54.00	-7.20	31.14	3	Horizontal	128	1.16	-
2462MHz	Pass	PK	2.4612G	100.73	Inf	-Inf	31.03	3	Horizontal	128	1.16	-
2462MHz	Pass	PK	2.4904G	58.26	74.00	-15.74	31.13	3	Horizontal	128	1.16	-
2462MHz	Pass	AV	4.92394G	35.90	54.00	-18.10	2.38	3	Vertical	42	3.13	-
2462MHz	Pass	PK	4.9239G	44.81	74.00	-29.19	2.38	3	Vertical	42	3.13	-
2462MHz	Pass	AV	4.92393G	32.75	54.00	-21.25	2.38	3	Horizontal	83	1.10	-
2462MHz	Pass	PK	4.92388G	43.64	74.00	-30.36	2.38	3	Horizontal	83	1.10	-
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.389998G	45.94	54.00	-8.06	30.77	3	Vertical	173	1.54	-
2412MHz	Pass	AV	2.413G	90.01	Inf	-Inf	30.86	3	Vertical	173	1.54	-
2412MHz	Pass	PK	2.3898G	68.78	74.00	-5.22	30.77	3	Vertical	173	1.54	-
2412MHz	Pass	PK	2.4138G	100.90	Inf	-Inf	30.86	3	Vertical	173	1.54	-
2412MHz	Pass	AV	2.3898G	46.60	54.00	-7.40	30.77	3	Horizontal	122	1.01	-
2412MHz	Pass	AV	2.4128G	92.04	Inf	-Inf	30.86	3	Horizontal	122	1.01	-

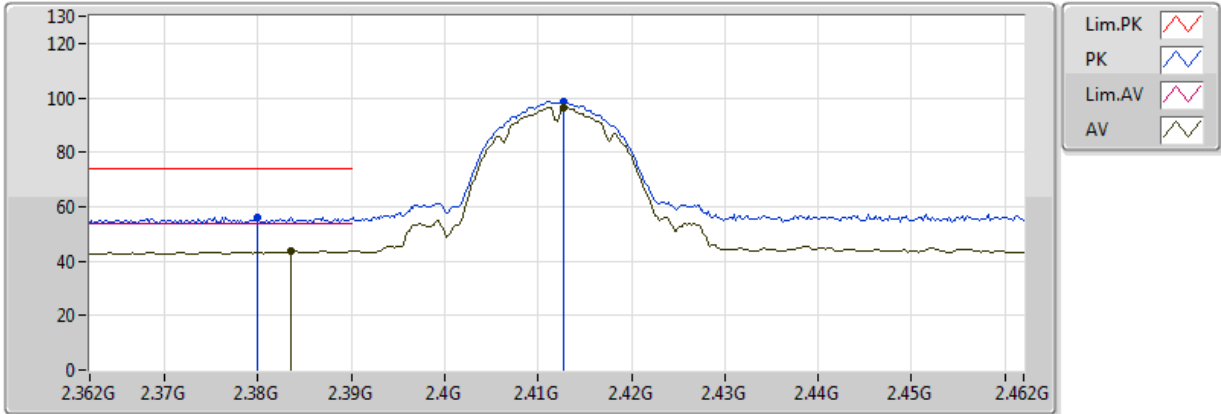
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2412MHz	Pass	PK	2.3894G	70.09	74.00	-3.91	30.77	3	Horizontal	122	1.01	-
2412MHz	Pass	PK	2.412G	102.93	Inf	-Inf	30.85	3	Horizontal	122	1.01	-
2412MHz	Pass	AV	4.82221G	28.98	54.00	-25.02	2.13	3	Vertical	333	1.79	-
2412MHz	Pass	PK	4.82344G	41.69	74.00	-32.31	2.13	3	Vertical	333	1.79	-
2412MHz	Pass	AV	4.82254G	28.95	54.00	-25.05	2.13	3	Horizontal	200	2.27	-
2412MHz	Pass	PK	4.82377G	42.19	74.00	-31.81	2.13	3	Horizontal	200	2.27	-
2437MHz	Pass	AV	2.3886G	43.54	54.00	-10.46	30.77	3	Vertical	170	1.29	-
2437MHz	Pass	AV	2.4378G	90.36	Inf	-Inf	30.95	3	Vertical	170	1.29	-
2437MHz	Pass	AV	2.4862G	44.34	54.00	-9.66	31.12	3	Vertical	170	1.29	-
2437MHz	Pass	PK	2.3886G	57.94	74.00	-16.06	30.77	3	Vertical	170	1.29	-
2437MHz	Pass	PK	2.4366G	100.45	Inf	-Inf	30.94	3	Vertical	170	1.29	-
2437MHz	Pass	PK	2.4878G	57.69	74.00	-16.31	31.13	3	Vertical	170	1.29	-
2437MHz	Pass	AV	2.3878G	43.81	54.00	-10.19	30.77	3	Horizontal	125	1.26	-
2437MHz	Pass	AV	2.4382G	91.88	Inf	-Inf	30.95	3	Horizontal	125	1.26	-
2437MHz	Pass	AV	2.4878G	44.71	54.00	-9.29	31.13	3	Horizontal	125	1.26	-
2437MHz	Pass	PK	2.3878G	57.32	74.00	-16.68	30.77	3	Horizontal	125	1.26	-
2437MHz	Pass	PK	2.4346G	102.14	Inf	-Inf	30.93	3	Horizontal	125	1.26	-
2437MHz	Pass	PK	2.4954G	58.45	74.00	-15.55	31.16	3	Horizontal	125	1.26	-
2437MHz	Pass	AV	4.87224G	28.61	54.00	-25.39	2.25	3	Vertical	276	1.15	-
2437MHz	Pass	PK	4.87425G	42.00	74.00	-32.00	2.26	3	Vertical	276	1.15	-
2437MHz	Pass	AV	4.87437G	28.69	54.00	-25.31	2.26	3	Horizontal	250	1.63	-
2437MHz	Pass	PK	4.87246G	41.63	74.00	-32.37	2.25	3	Horizontal	250	1.63	-
2462MHz	Pass	AV	2.46G	90.65	Inf	-Inf	31.03	3	Vertical	170	1.43	-
2462MHz	Pass	AV	2.483502G	47.55	54.00	-6.45	31.11	3	Vertical	170	1.43	-
2462MHz	Pass	PK	2.4598G	100.76	Inf	-Inf	31.03	3	Vertical	170	1.43	-
2462MHz	Pass	PK	2.483502G	68.68	74.00	-5.32	31.11	3	Vertical	170	1.43	-
2462MHz	Pass	AV	2.461G	93.46	Inf	-Inf	31.03	3	Horizontal	126	1.17	-
2462MHz	Pass	AV	2.483502G	49.65	54.00	-4.35	31.11	3	Horizontal	126	1.17	-
2462MHz	Pass	PK	2.4598G	103.84	Inf	-Inf	31.03	3	Horizontal	126	1.17	-
2462MHz	Pass	PK	2.4838G	72.43	74.00	-1.57	31.11	3	Horizontal	126	1.17	-
2462MHz	Pass	AV	4.925G	28.85	54.00	-25.15	2.38	3	Vertical	293	1.19	-
2462MHz	Pass	PK	4.92384G	41.61	74.00	-32.39	2.38	3	Vertical	293	1.19	-
2462MHz	Pass	AV	4.92646G	29.08	54.00	-24.92	2.39	3	Horizontal	244	2.43	-
2462MHz	Pass	PK	4.92257G	41.56	74.00	-32.44	2.38	3	Horizontal	244	2.43	-
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.389998G	44.76	54.00	-9.24	30.77	3	Vertical	172	1.38	-
2412MHz	Pass	AV	2.4132G	87.94	Inf	-Inf	30.86	3	Vertical	172	1.38	-
2412MHz	Pass	PK	2.389998G	65.62	74.00	-8.38	30.77	3	Vertical	172	1.38	-
2412MHz	Pass	PK	2.4142G	98.52	Inf	-Inf	30.86	3	Vertical	172	1.38	-
2412MHz	Pass	AV	2.3898G	45.08	54.00	-8.92	30.77	3	Horizontal	125	1.00	-
2412MHz	Pass	AV	2.4138G	89.15	Inf	-Inf	30.86	3	Horizontal	125	1.00	-
2412MHz	Pass	PK	2.3898G	67.68	74.00	-6.32	30.77	3	Horizontal	125	1.00	-
2412MHz	Pass	PK	2.414G	99.52	Inf	-Inf	30.86	3	Horizontal	125	1.00	-
2412MHz	Pass	AV	4.82332G	28.78	54.00	-25.22	2.13	3	Vertical	294	1.87	-
2412MHz	Pass	PK	4.82561G	41.68	74.00	-32.32	2.13	3	Vertical	294	1.87	-
2412MHz	Pass	AV	4.82219G	28.79	54.00	-25.21	2.13	3	Horizontal	110	1.07	-
2412MHz	Pass	PK	4.82318G	41.57	74.00	-32.43	2.13	3	Horizontal	110	1.07	-
2437MHz	Pass	AV	2.389G	43.51	54.00	-10.49	30.77	3	Vertical	172	1.28	-
2437MHz	Pass	AV	2.4386G	87.49	Inf	-Inf	30.95	3	Vertical	172	1.28	-

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	2.4898G	44.26	54.00	-9.74	31.13	3	Vertical	172	1.28	-
2437MHz	Pass	PK	2.3738G	56.28	74.00	-17.72	30.72	3	Vertical	172	1.28	-
2437MHz	Pass	PK	2.4394G	97.38	Inf	-Inf	30.95	3	Vertical	172	1.28	-
2437MHz	Pass	PK	2.4954G	56.67	74.00	-17.33	31.16	3	Vertical	172	1.28	-
2437MHz	Pass	AV	2.3878G	43.37	54.00	-10.63	30.77	3	Horizontal	128	1.05	-
2437MHz	Pass	AV	2.4358G	88.91	Inf	-Inf	30.94	3	Horizontal	128	1.05	-
2437MHz	Pass	AV	2.4838G	44.33	54.00	-9.67	31.11	3	Horizontal	128	1.05	-
2437MHz	Pass	PK	2.3898G	58.71	74.00	-15.29	30.77	3	Horizontal	128	1.05	-
2437MHz	Pass	PK	2.439G	99.11	Inf	-Inf	30.95	3	Horizontal	128	1.05	-
2437MHz	Pass	PK	2.485G	58.80	74.00	-15.20	31.12	3	Horizontal	128	1.05	-
2437MHz	Pass	AV	4.87214G	28.57	54.00	-25.43	2.25	3	Vertical	199	2.02	-
2437MHz	Pass	PK	4.8731G	41.73	74.00	-32.27	2.25	3	Vertical	199	2.02	-
2437MHz	Pass	AV	4.87232G	28.45	54.00	-25.55	2.25	3	Horizontal	193	2.43	-
2437MHz	Pass	PK	4.87152G	41.19	74.00	-32.81	2.25	3	Horizontal	193	2.43	-
2462MHz	Pass	AV	2.4608G	87.89	Inf	-Inf	31.03	3	Vertical	172	1.45	-
2462MHz	Pass	AV	2.4836G	46.09	54.00	-7.91	31.11	3	Vertical	172	1.45	-
2462MHz	Pass	PK	2.4642G	98.72	Inf	-Inf	31.04	3	Vertical	172	1.45	-
2462MHz	Pass	PK	2.4872G	66.11	74.00	-7.89	31.12	3	Vertical	172	1.45	-
2462MHz	Pass	AV	2.46G	90.13	Inf	-Inf	31.03	3	Horizontal	128	1.14	-
2462MHz	Pass	AV	2.4838G	48.14	54.00	-5.86	31.11	3	Horizontal	128	1.14	-
2462MHz	Pass	PK	2.4598G	101.34	Inf	-Inf	31.03	3	Horizontal	128	1.14	-
2462MHz	Pass	PK	2.4836G	70.72	74.00	-3.28	31.11	3	Horizontal	128	1.14	-
2462MHz	Pass	AV	4.92389G	28.48	54.00	-25.52	2.38	3	Vertical	162	1.92	-
2462MHz	Pass	PK	4.92602G	41.83	74.00	-32.17	2.39	3	Vertical	162	1.92	-
2462MHz	Pass	AV	4.92597G	28.39	54.00	-25.61	2.38	3	Horizontal	226	1.45	-
2462MHz	Pass	PK	4.92405G	41.42	74.00	-32.58	2.38	3	Horizontal	226	1.45	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

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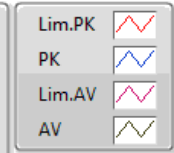
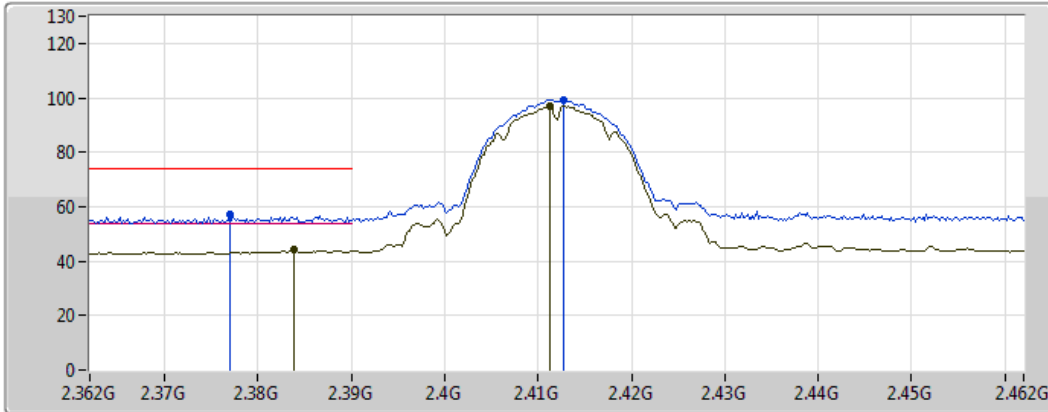


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3836G	43.78	54.00	-10.22	30.75	3	Vertical	172	1.38	-
AV	2.4128G	96.47	Inf	-Inf	30.86	3	Vertical	172	1.38	-
PK	2.38G	56.16	74.00	-17.84	30.74	3	Vertical	172	1.38	-
PK	2.4128G	98.58	Inf	-Inf	30.86	3	Vertical	172	1.38	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

09/07/2018

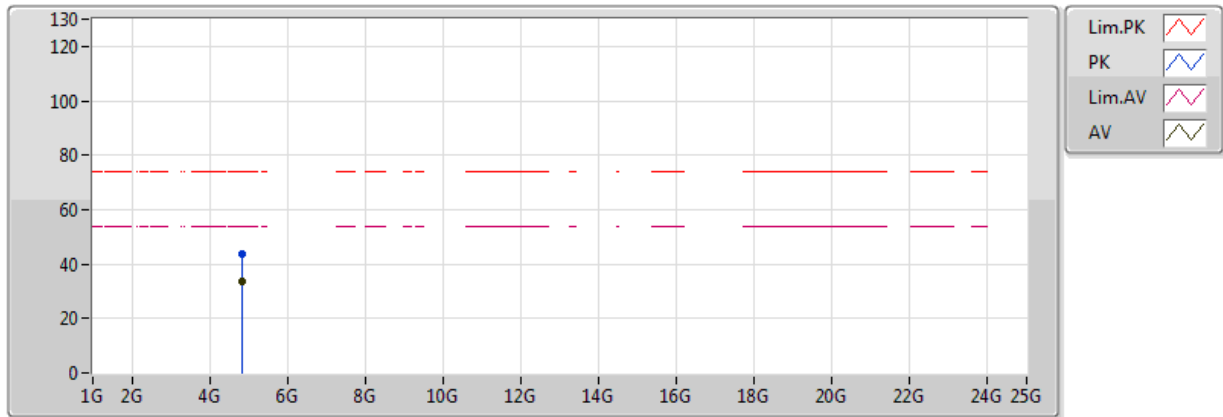


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3838G	44.04	54.00	-9.96	30.75	3	Horizontal	120	1.00	-
AV	2.4112G	97.06	Inf	-Inf	30.85	3	Horizontal	120	1.00	-
PK	2.377G	57.38	74.00	-16.62	30.73	3	Horizontal	120	1.00	-
PK	2.4128G	99.37	Inf	-Inf	30.86	3	Horizontal	120	1.00	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

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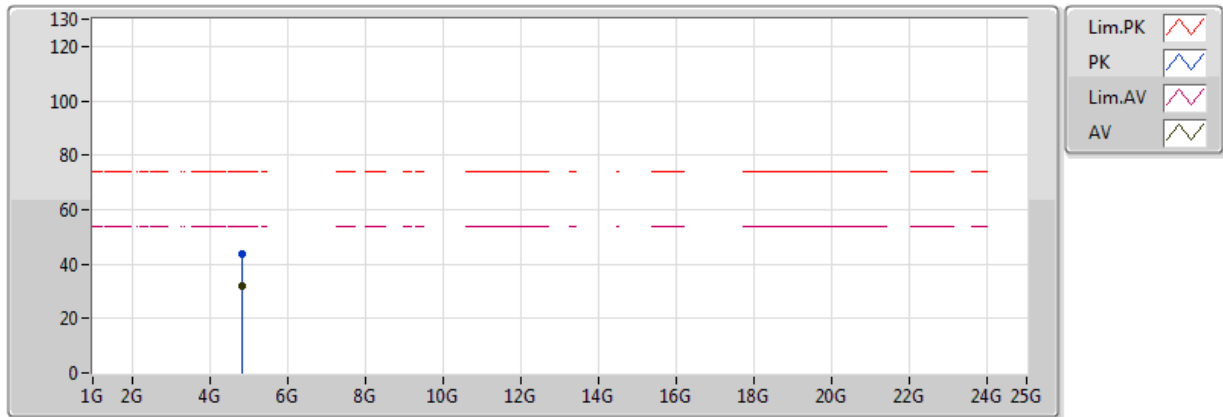


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82399G	33.84	54.00	-20.16	2.13	3	Vertical	54	1.03	-
PK	4.82366G	43.95	74.00	-30.05	2.13	3	Vertical	54	1.03	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

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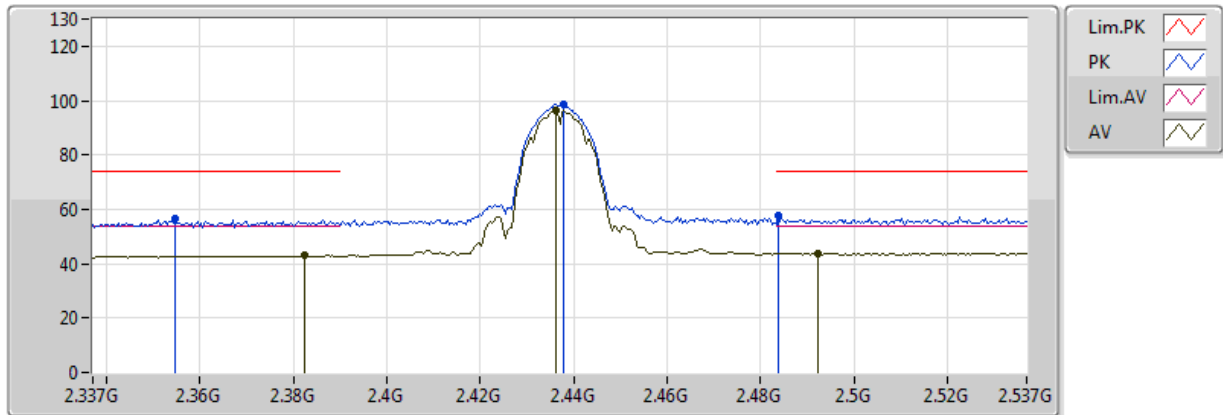


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82391G	31.81	54.00	-22.19	2.13	3	Horizontal	166	1.38	-
PK	4.82398G	43.50	74.00	-30.50	2.13	3	Horizontal	166	1.38	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

09/07/2018

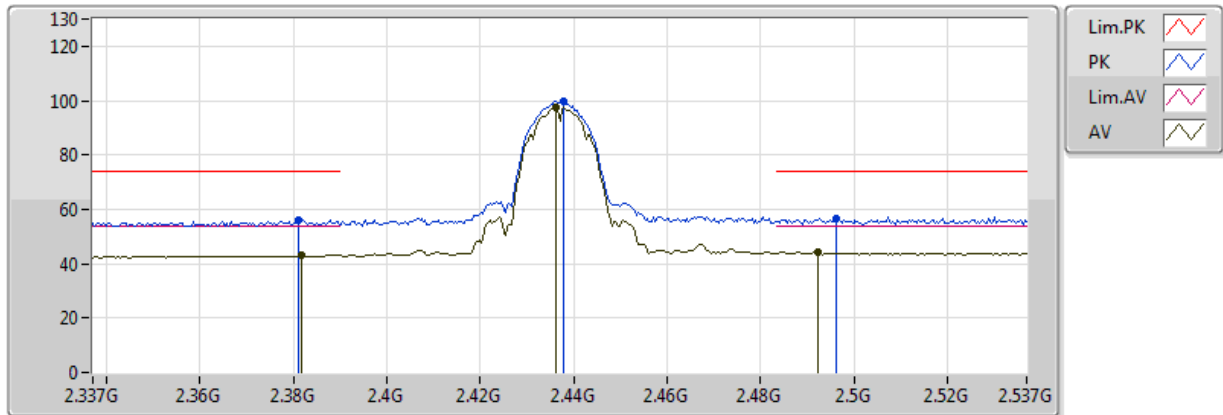


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3822G	43.26	54.00	-10.74	30.75	3	Vertical	169	1.32	-
AV	2.4362G	96.63	Inf	-Inf	30.94	3	Vertical	169	1.32	-
AV	2.4922G	43.86	54.00	-10.14	31.14	3	Vertical	169	1.32	-
PK	2.3546G	56.63	74.00	-17.37	30.65	3	Vertical	169	1.32	-
PK	2.4378G	98.56	Inf	-Inf	30.95	3	Vertical	169	1.32	-
PK	2.4838G	57.51	74.00	-16.49	31.11	3	Vertical	169	1.32	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

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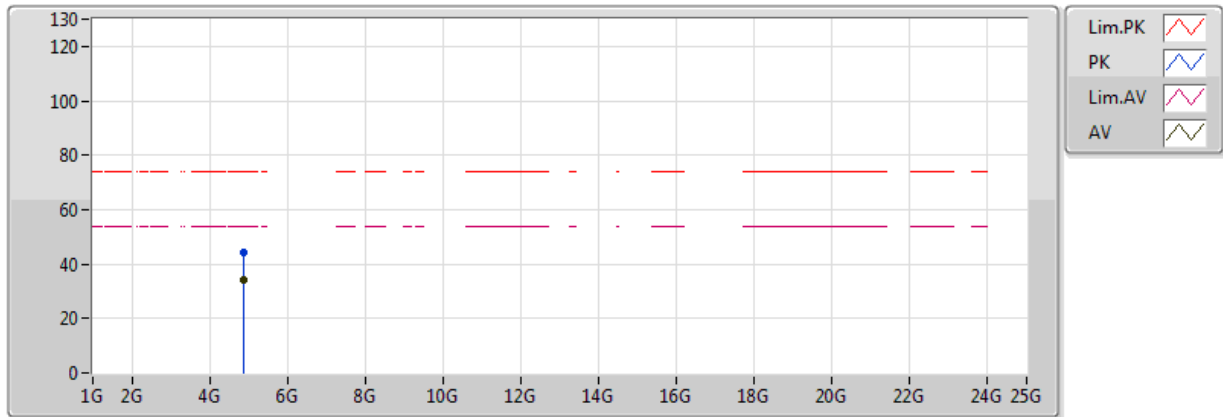


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3818G	43.35	54.00	-10.65	30.75	3	Horizontal	125	1.03	-
AV	2.4362G	97.62	Inf	-Inf	30.94	3	Horizontal	125	1.03	-
AV	2.4922G	44.52	54.00	-9.48	31.14	3	Horizontal	125	1.03	-
PK	2.381G	56.12	74.00	-17.88	30.75	3	Horizontal	125	1.03	-
PK	2.4378G	99.74	Inf	-Inf	30.95	3	Horizontal	125	1.03	-
PK	2.4962G	56.52	74.00	-17.48	31.16	3	Horizontal	125	1.03	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

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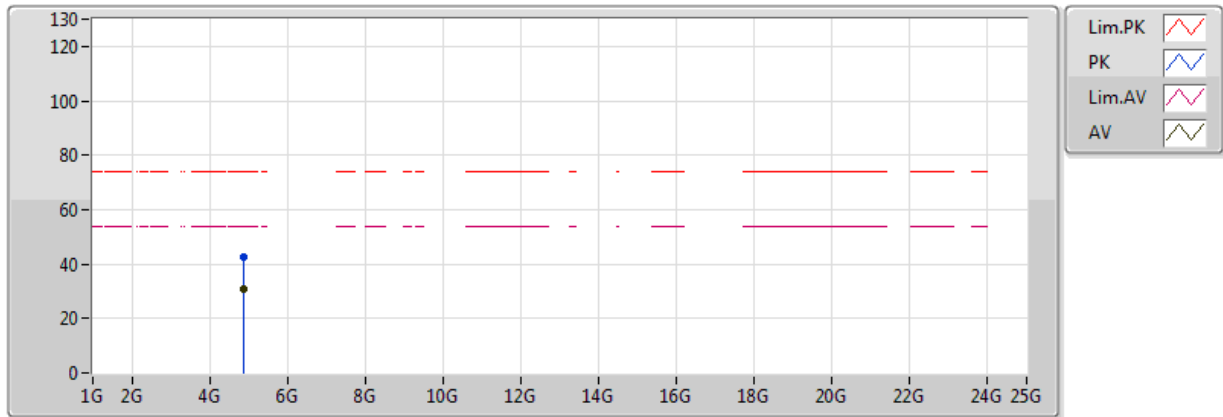


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87389G	34.31	54.00	-19.69	2.25	3	Vertical	54	3.05	-
PK	4.87402G	44.44	74.00	-29.56	2.26	3	Vertical	54	3.05	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

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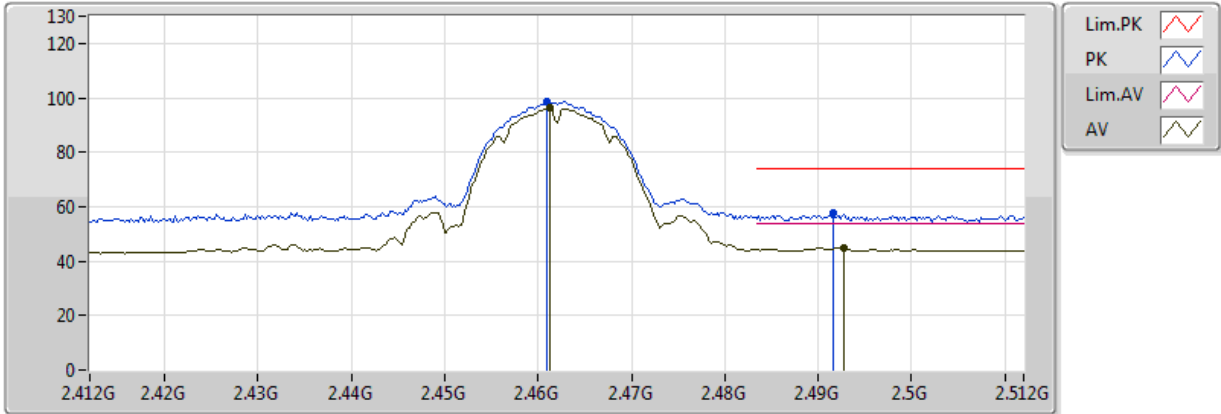


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8739G	30.80	54.00	-23.20	2.25	3	Horizontal	86	1.03	-
PK	4.87377G	42.83	74.00	-31.17	2.25	3	Horizontal	86	1.03	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

09/07/2018

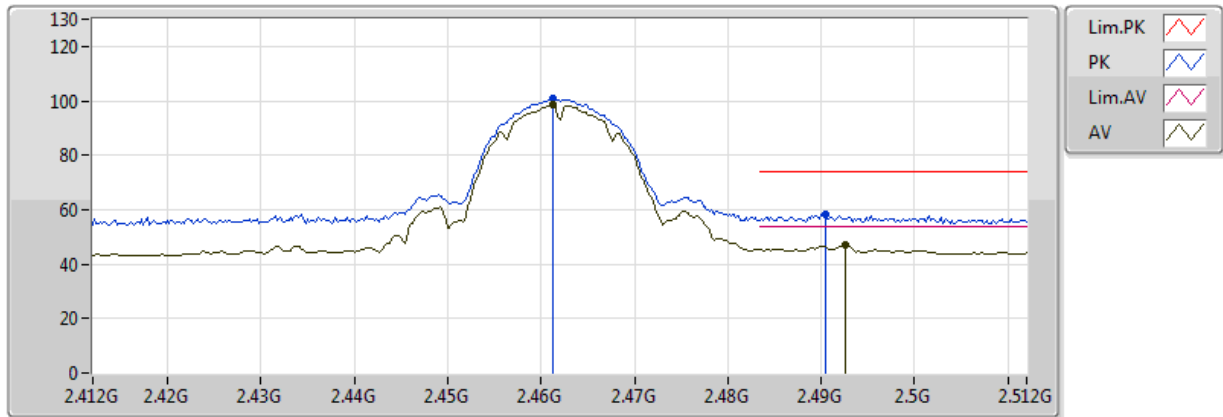


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	96.33	Inf	-Inf	31.03	3	Vertical	172	1.45	-
AV	2.4928G	45.03	54.00	-8.97	31.14	3	Vertical	172	1.45	-
PK	2.461G	98.46	Inf	-Inf	31.03	3	Vertical	172	1.45	-
PK	2.4916G	57.62	74.00	-16.38	31.14	3	Vertical	172	1.45	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

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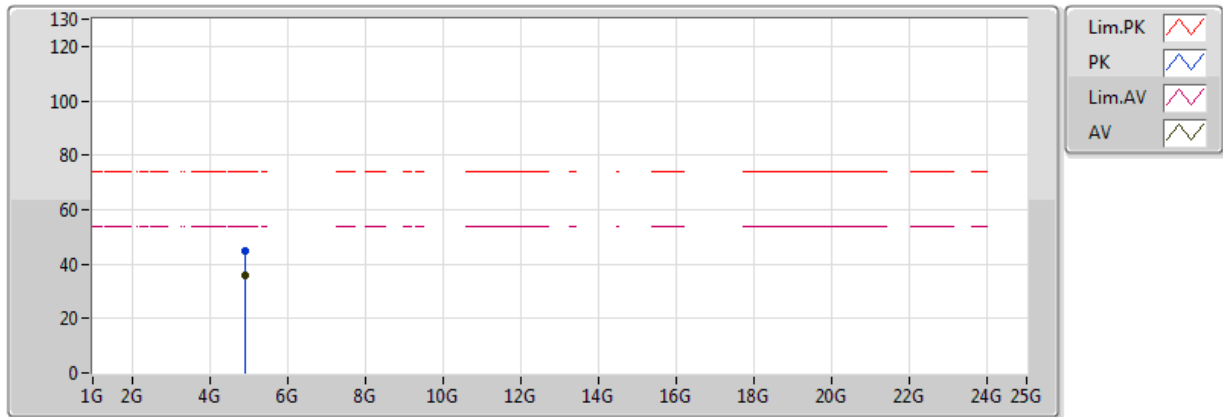


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	98.60	Inf	-Inf	31.03	3	Horizontal	128	1.16	-
AV	2.4926G	46.80	54.00	-7.20	31.14	3	Horizontal	128	1.16	-
PK	2.4612G	100.73	Inf	-Inf	31.03	3	Horizontal	128	1.16	-
PK	2.4904G	58.26	74.00	-15.74	31.13	3	Horizontal	128	1.16	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

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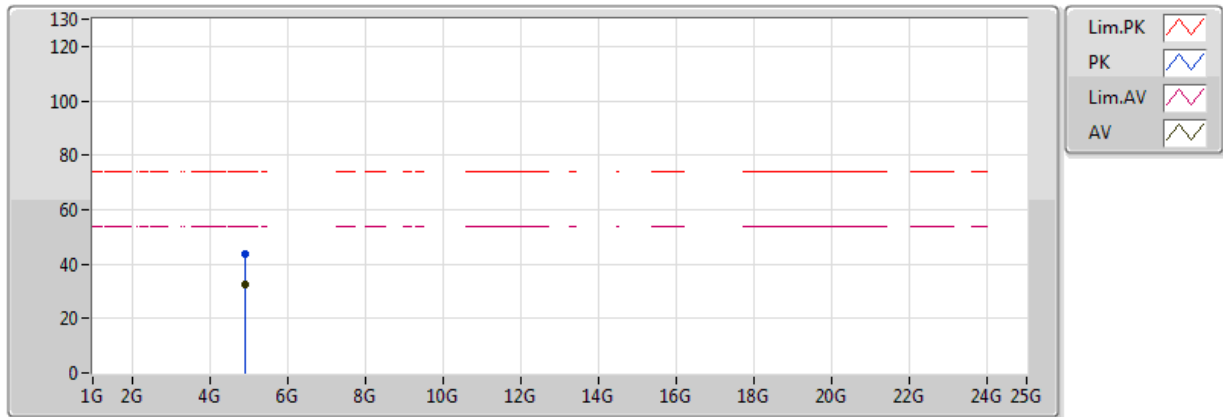


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92394G	35.90	54.00	-18.10	2.38	3	Vertical	42	3.13	-
PK	4.9239G	44.81	74.00	-29.19	2.38	3	Vertical	42	3.13	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

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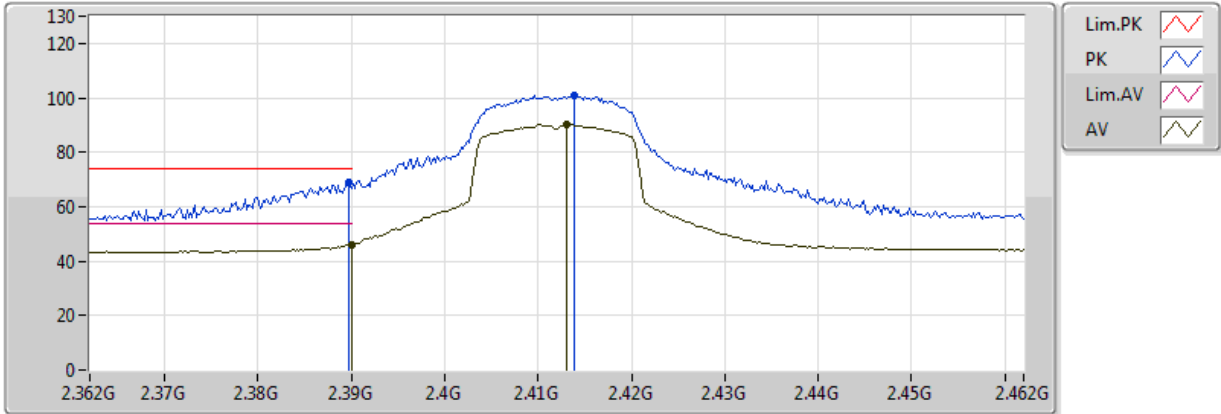


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92393G	32.75	54.00	-21.25	2.38	3	Horizontal	83	1.10	-
PK	4.92388G	43.64	74.00	-30.36	2.38	3	Horizontal	83	1.10	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

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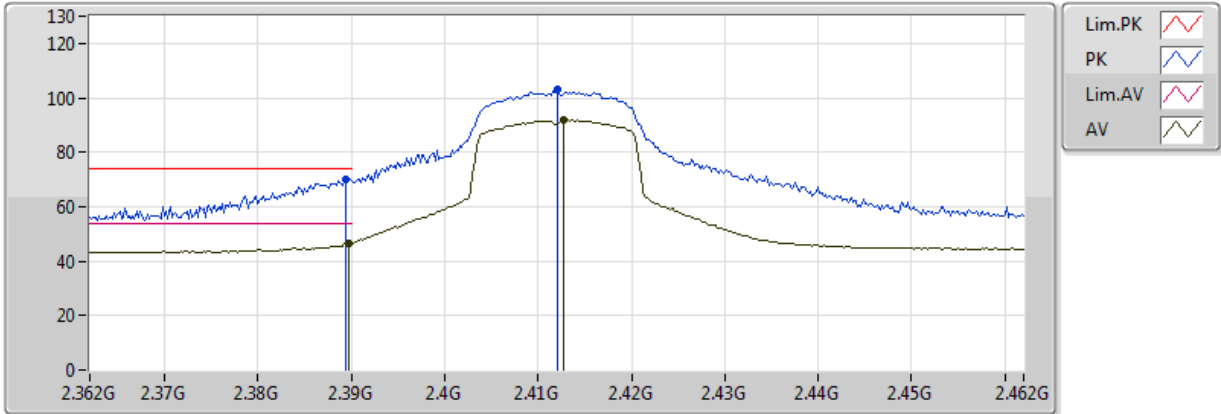


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389998G	45.94	54.00	-8.06	30.77	3	Vertical	173	1.54	-
AV	2.413G	90.01	Inf	-Inf	30.86	3	Vertical	173	1.54	-
PK	2.3898G	68.78	74.00	-5.22	30.77	3	Vertical	173	1.54	-
PK	2.4138G	100.90	Inf	-Inf	30.86	3	Vertical	173	1.54	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

09/07/2018

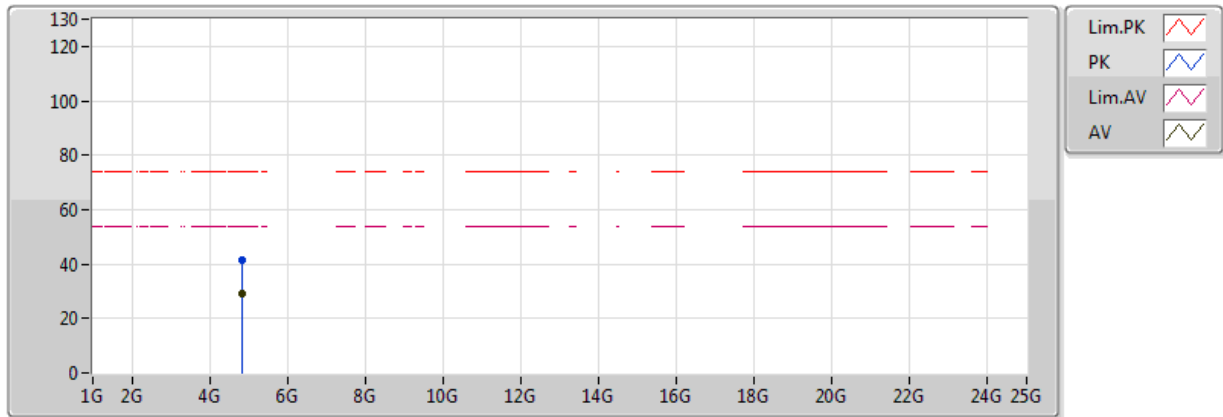


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	46.60	54.00	-7.40	30.77	3	Horizontal	122	1.01	-
AV	2.4128G	92.04	Inf	-Inf	30.86	3	Horizontal	122	1.01	-
PK	2.3894G	70.09	74.00	-3.91	30.77	3	Horizontal	122	1.01	-
PK	2.412G	102.93	Inf	-Inf	30.85	3	Horizontal	122	1.01	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

09/07/2018

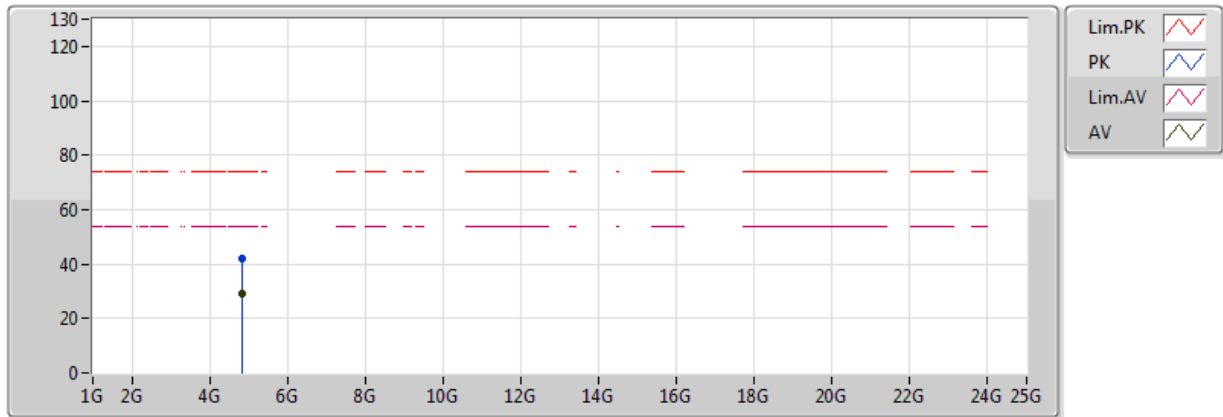


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82221G	28.98	54.00	-25.02	2.13	3	Vertical	333	1.79	-
PK	4.82344G	41.69	74.00	-32.31	2.13	3	Vertical	333	1.79	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

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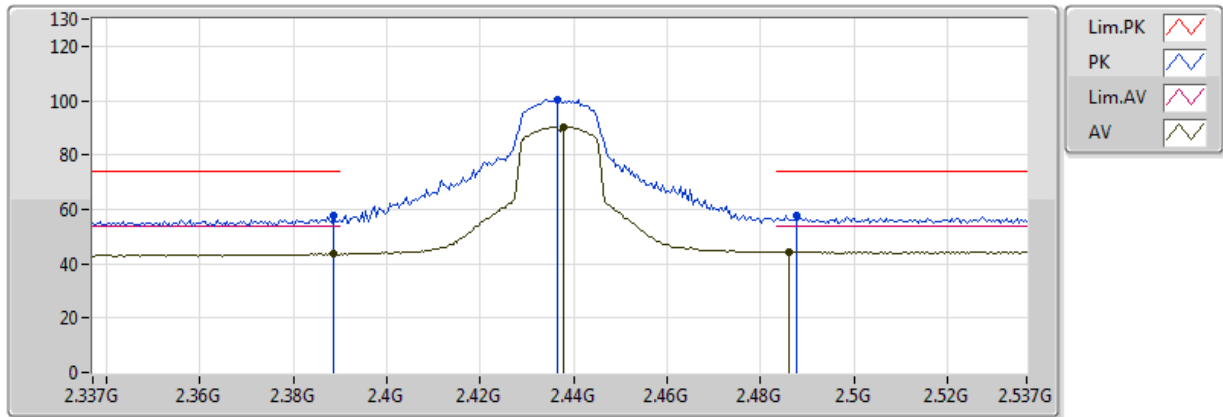


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82254G	28.95	54.00	-25.05	2.13	3	Horizontal	200	2.27	-
PK	4.82377G	42.19	74.00	-31.81	2.13	3	Horizontal	200	2.27	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

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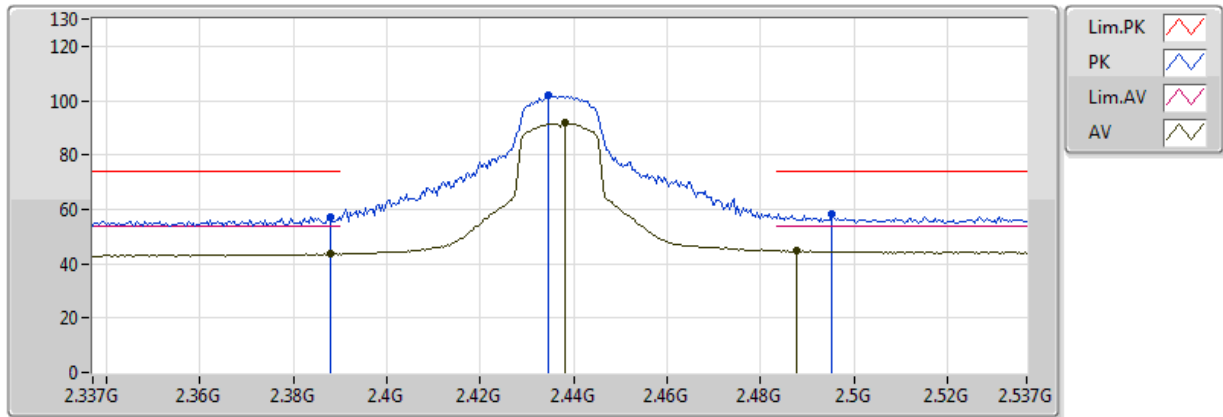


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3886G	43.54	54.00	-10.46	30.77	3	Vertical	170	1.29	-
AV	2.4378G	90.36	Inf	-Inf	30.95	3	Vertical	170	1.29	-
AV	2.4862G	44.34	54.00	-9.66	31.12	3	Vertical	170	1.29	-
PK	2.3886G	57.94	74.00	-16.06	30.77	3	Vertical	170	1.29	-
PK	2.4366G	100.45	Inf	-Inf	30.94	3	Vertical	170	1.29	-
PK	2.4878G	57.69	74.00	-16.31	31.13	3	Vertical	170	1.29	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

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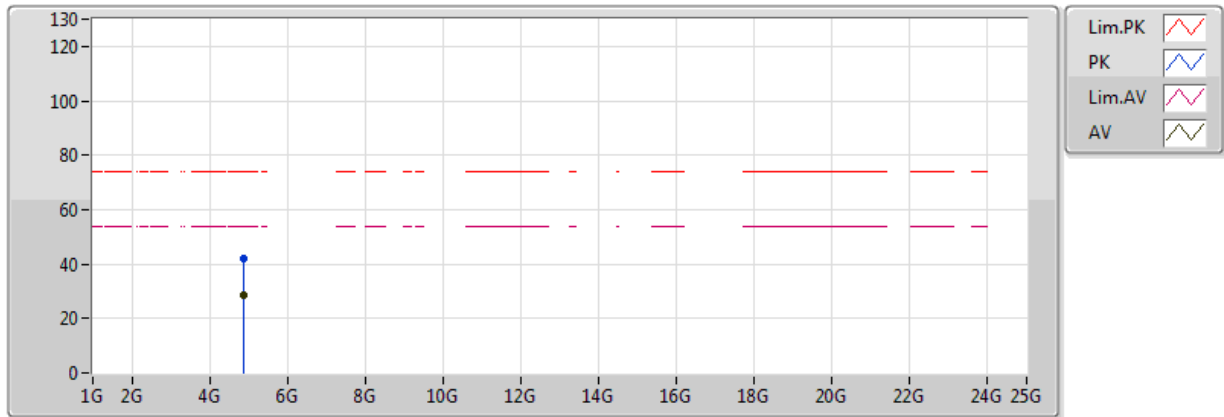


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3878G	43.81	54.00	-10.19	30.77	3	Horizontal	125	1.26	-
AV	2.4382G	91.88	Inf	-Inf	30.95	3	Horizontal	125	1.26	-
AV	2.4878G	44.71	54.00	-9.29	31.13	3	Horizontal	125	1.26	-
PK	2.3878G	57.32	74.00	-16.68	30.77	3	Horizontal	125	1.26	-
PK	2.4346G	102.14	Inf	-Inf	30.93	3	Horizontal	125	1.26	-
PK	2.4954G	58.45	74.00	-15.55	31.16	3	Horizontal	125	1.26	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

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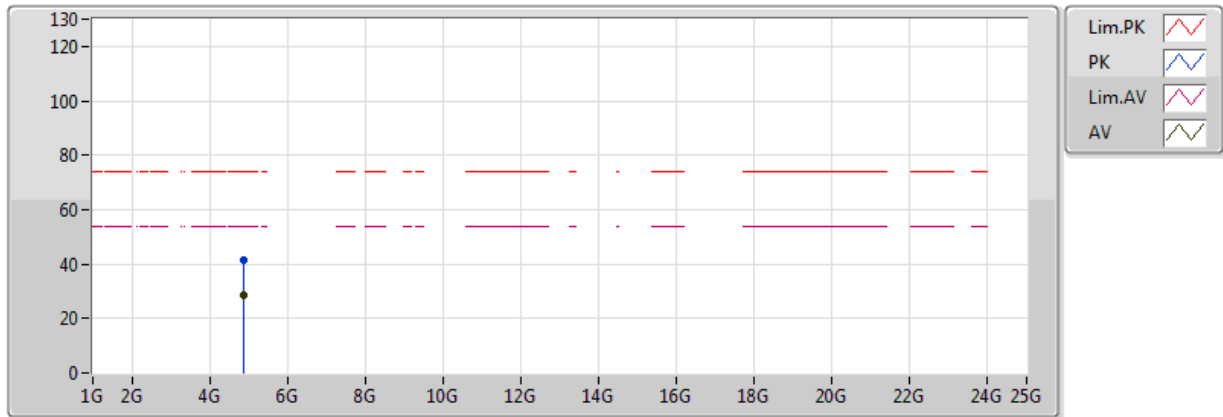


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87224G	28.61	54.00	-25.39	2.25	3	Vertical	276	1.15	-
PK	4.87425G	42.00	74.00	-32.00	2.26	3	Vertical	276	1.15	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

10/07/2018

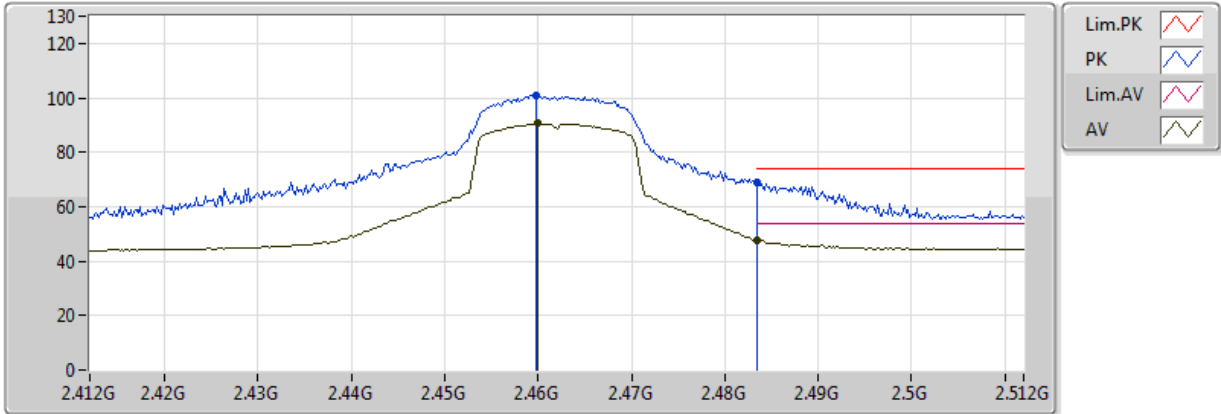


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87437G	28.69	54.00	-25.31	2.26	3	Horizontal	250	1.63	-
PK	4.87246G	41.63	74.00	-32.37	2.25	3	Horizontal	250	1.63	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

10/07/2018

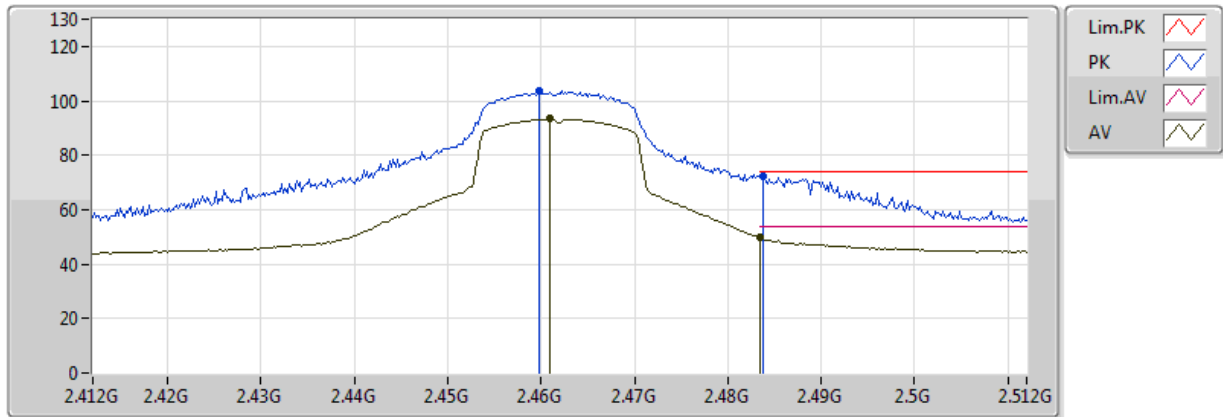


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.46G	90.65	Inf	-Inf	31.03	3	Vertical	170	1.43	-
AV	2.483502G	47.55	54.00	-6.45	31.11	3	Vertical	170	1.43	-
PK	2.4598G	100.76	Inf	-Inf	31.03	3	Vertical	170	1.43	-
PK	2.483502G	68.68	74.00	-5.32	31.11	3	Vertical	170	1.43	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

10/07/2018

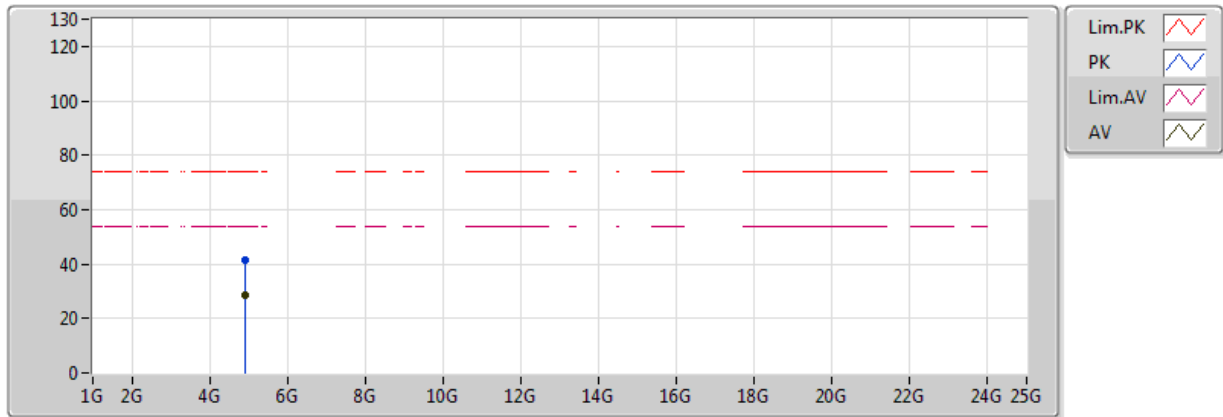


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.461G	93.46	Inf	-Inf	31.03	3	Horizontal	126	1.17	-
AV	2.483502G	49.65	54.00	-4.35	31.11	3	Horizontal	126	1.17	-
PK	2.4598G	103.84	Inf	-Inf	31.03	3	Horizontal	126	1.17	-
PK	2.4838G	72.43	74.00	-1.57	31.11	3	Horizontal	126	1.17	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

10/07/2018

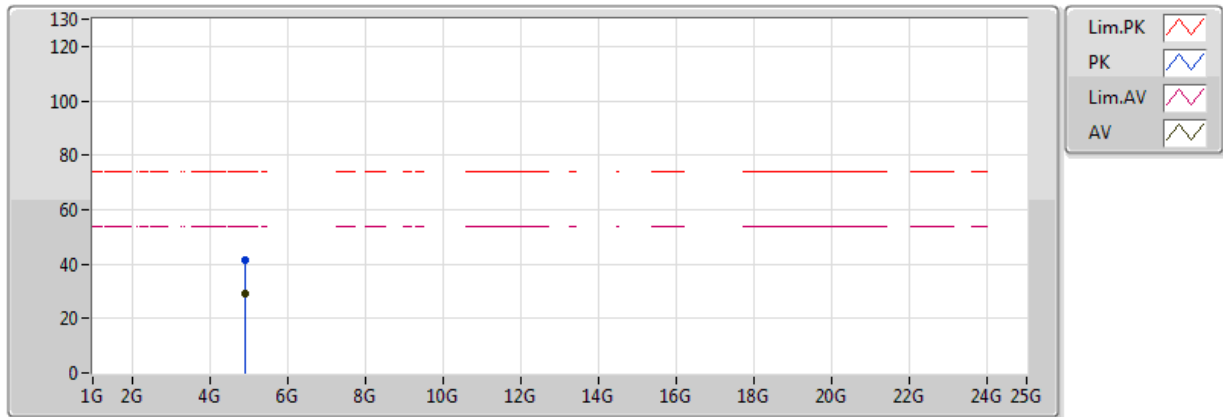


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.925G	28.85	54.00	-25.15	2.38	3	Vertical	293	1.19	-
PK	4.92384G	41.61	74.00	-32.39	2.38	3	Vertical	293	1.19	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

10/07/2018

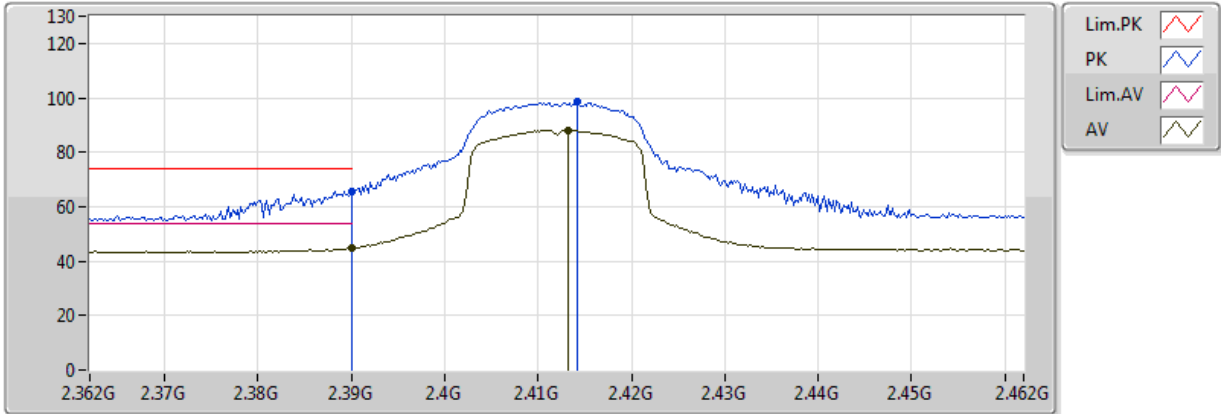


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92646G	29.08	54.00	-24.92	2.39	3	Horizontal	244	2.43	-
PK	4.92257G	41.56	74.00	-32.44	2.38	3	Horizontal	244	2.43	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

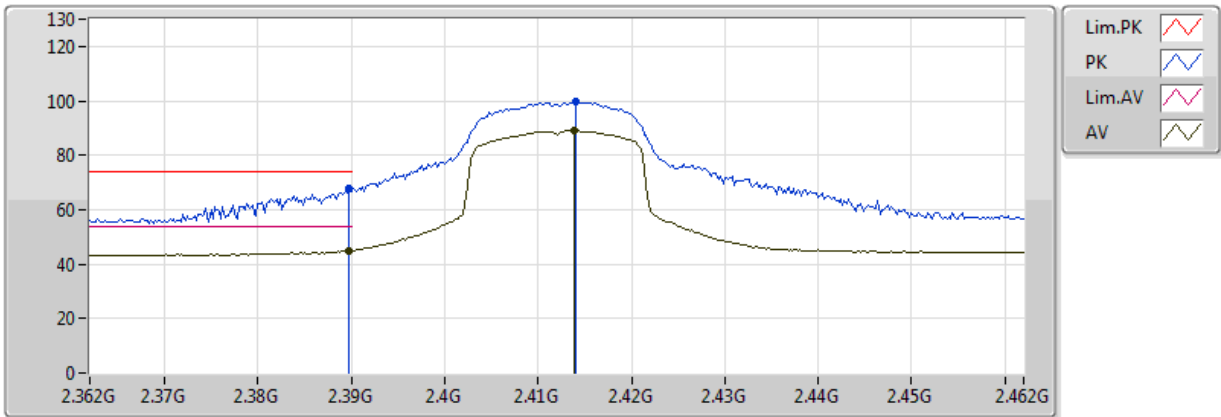
10/07/2018



802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

10/07/2018

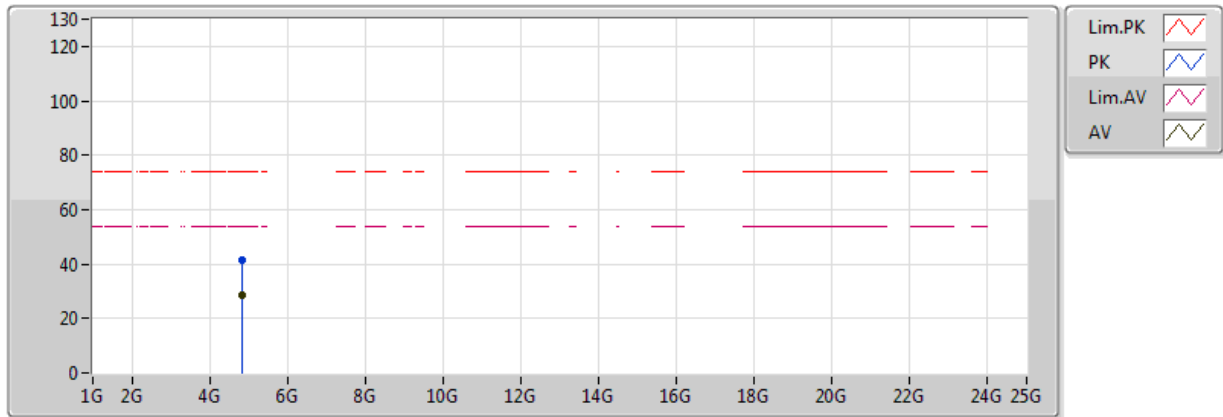


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	45.08	54.00	-8.92	30.77	3	Horizontal	125	1.00	-
AV	2.4138G	89.15	Inf	-Inf	30.86	3	Horizontal	125	1.00	-
PK	2.3898G	67.68	74.00	-6.32	30.77	3	Horizontal	125	1.00	-
PK	2.414G	99.52	Inf	-Inf	30.86	3	Horizontal	125	1.00	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

10/07/2018

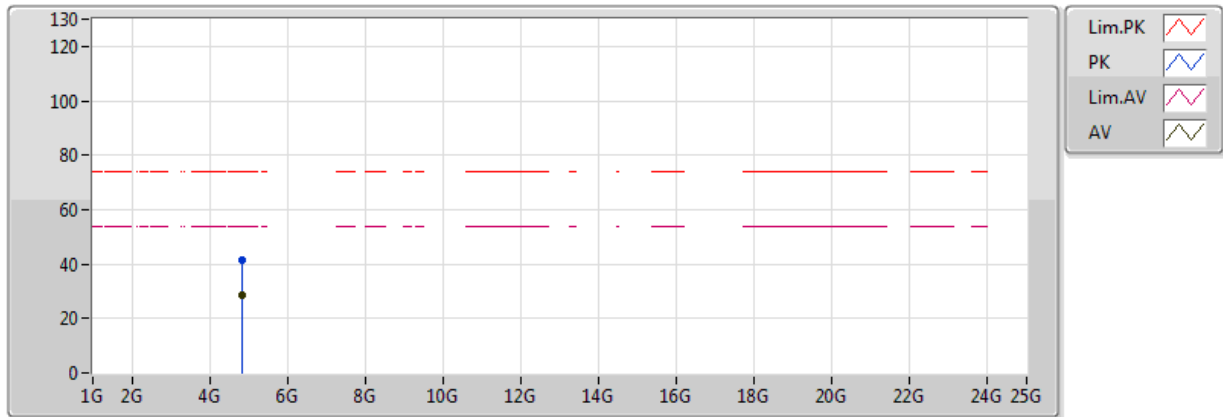


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82332G	28.78	54.00	-25.22	2.13	3	Vertical	294	1.87	-
PK	4.82561G	41.68	74.00	-32.32	2.13	3	Vertical	294	1.87	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

10/07/2018

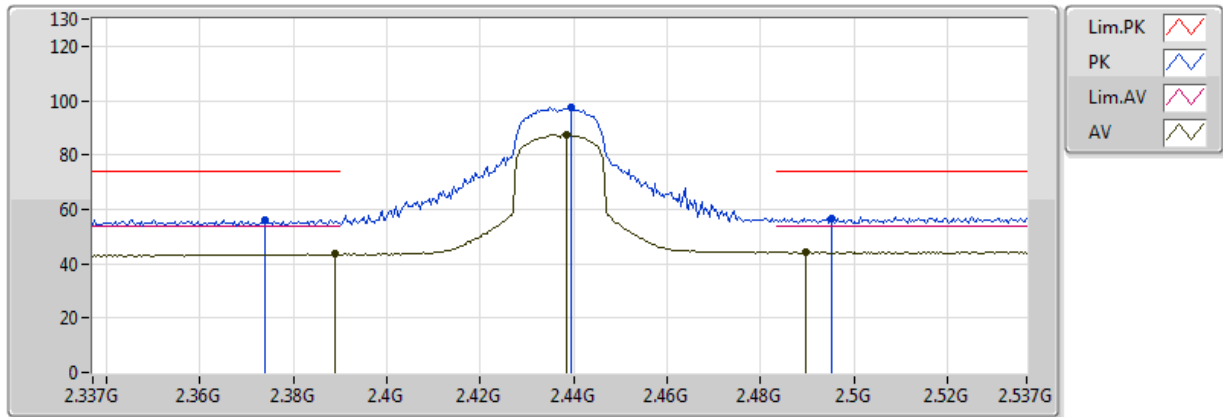


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82219G	28.79	54.00	-25.21	2.13	3	Horizontal	110	1.07	-
PK	4.82318G	41.57	74.00	-32.43	2.13	3	Horizontal	110	1.07	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

10/07/2018

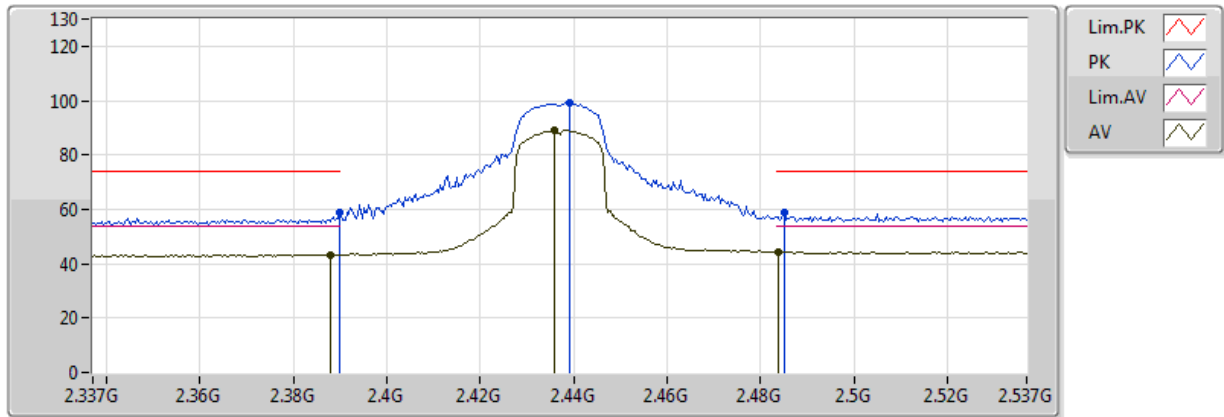


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389G	43.51	54.00	-10.49	30.77	3	Vertical	172	1.28	-
AV	2.4386G	87.49	Inf	-Inf	30.95	3	Vertical	172	1.28	-
AV	2.4898G	44.26	54.00	-9.74	31.13	3	Vertical	172	1.28	-
PK	2.3738G	56.28	74.00	-17.72	30.72	3	Vertical	172	1.28	-
PK	2.4394G	97.38	Inf	-Inf	30.95	3	Vertical	172	1.28	-
PK	2.4954G	56.67	74.00	-17.33	31.16	3	Vertical	172	1.28	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

10/07/2018

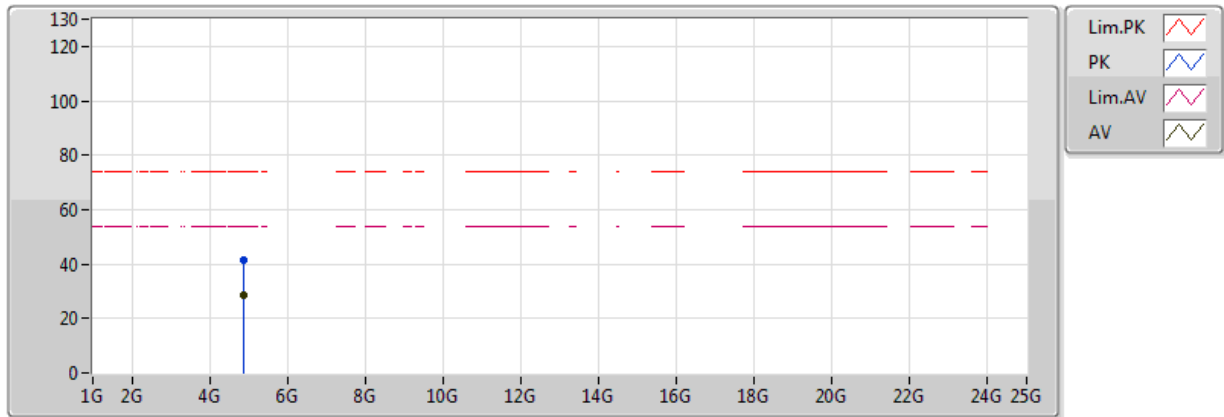


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3878G	43.37	54.00	-10.63	30.77	3	Horizontal	128	1.05	-
AV	2.4358G	88.91	Inf	-Inf	30.94	3	Horizontal	128	1.05	-
AV	2.4838G	44.33	54.00	-9.67	31.11	3	Horizontal	128	1.05	-
PK	2.3898G	58.71	74.00	-15.29	30.77	3	Horizontal	128	1.05	-
PK	2.439G	99.11	Inf	-Inf	30.95	3	Horizontal	128	1.05	-
PK	2.485G	58.80	74.00	-15.20	31.12	3	Horizontal	128	1.05	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

10/07/2018

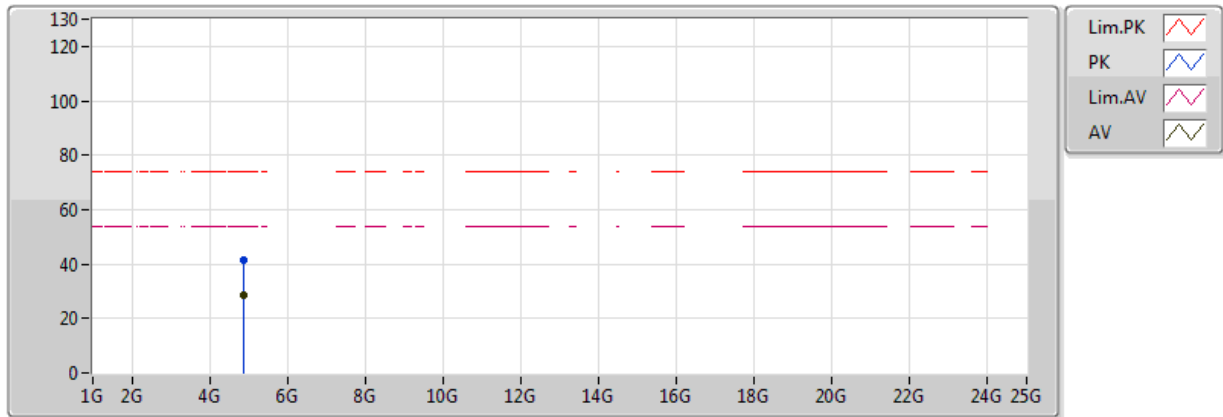


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87214G	28.57	54.00	-25.43	2.25	3	Vertical	199	2.02	-
PK	4.8731G	41.73	74.00	-32.27	2.25	3	Vertical	199	2.02	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

10/07/2018

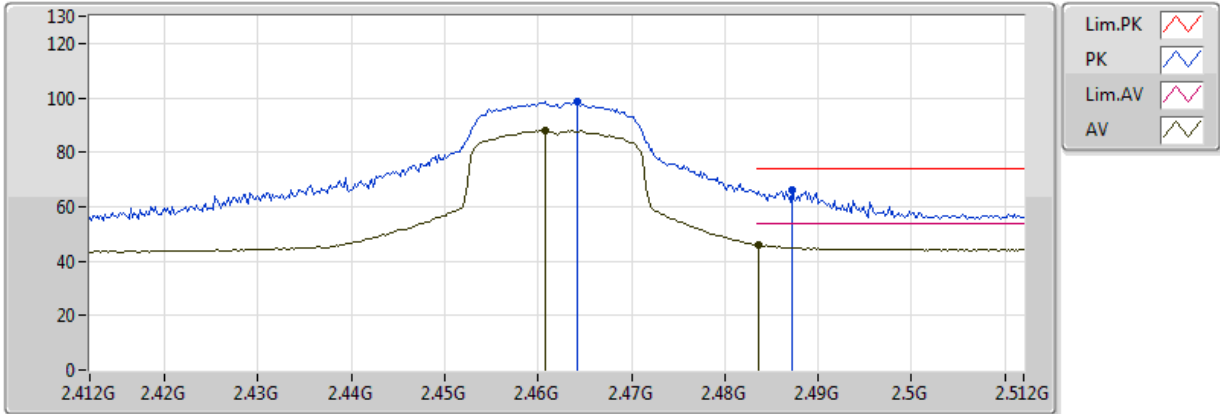


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87232G	28.45	54.00	-25.55	2.25	3	Horizontal	193	2.43	-
PK	4.87152G	41.19	74.00	-32.81	2.25	3	Horizontal	193	2.43	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

10/07/2018

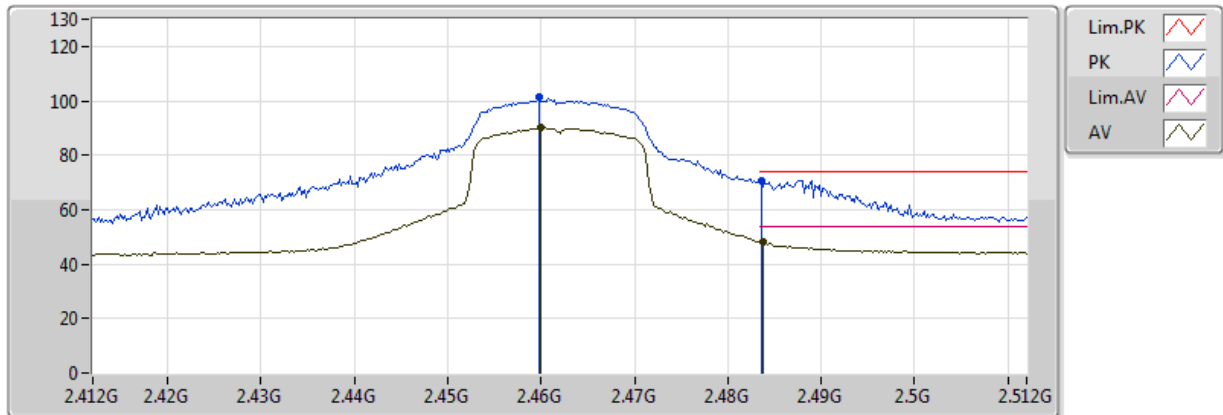


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4608G	87.89	Inf	-Inf	31.03	3	Vertical	172	1.45	-
AV	2.4836G	46.09	54.00	-7.91	31.11	3	Vertical	172	1.45	-
PK	2.4642G	98.72	Inf	-Inf	31.04	3	Vertical	172	1.45	-
PK	2.4872G	66.11	74.00	-7.89	31.12	3	Vertical	172	1.45	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

10/07/2018

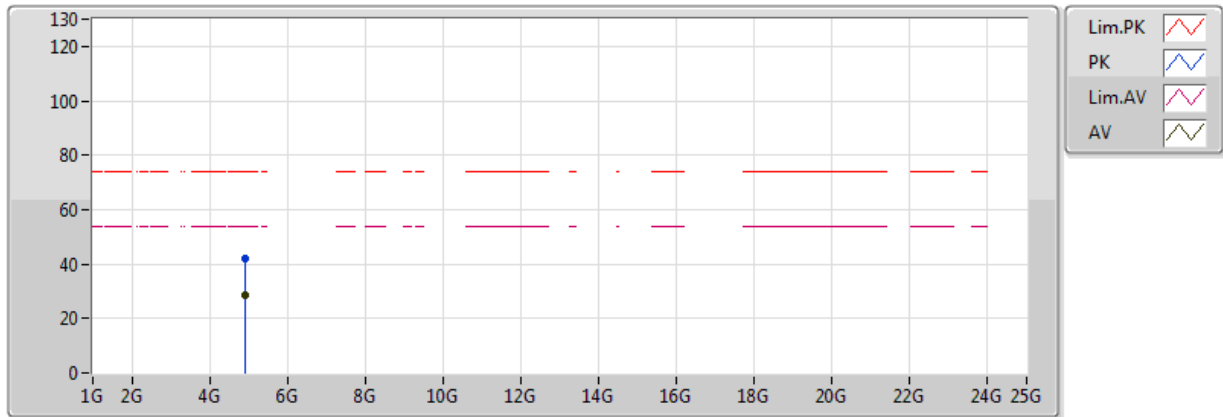


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.46G	90.13	Inf	-Inf	31.03	3	Horizontal	128	1.14	-
AV	2.4838G	48.14	54.00	-5.86	31.11	3	Horizontal	128	1.14	-
PK	2.4598G	101.34	Inf	-Inf	31.03	3	Horizontal	128	1.14	-
PK	2.4836G	70.72	74.00	-3.28	31.11	3	Horizontal	128	1.14	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

10/07/2018

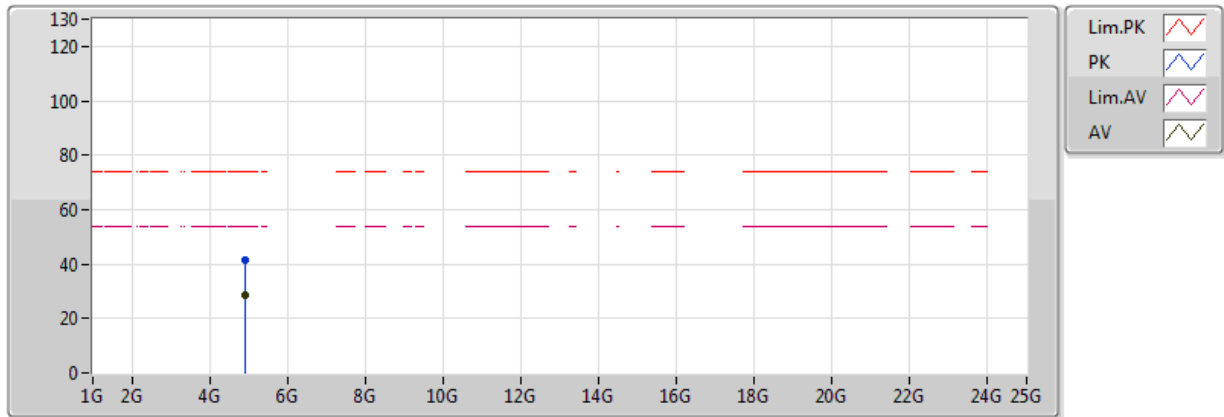


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92389G	28.48	54.00	-25.52	2.38	3	Vertical	162	1.92	-
PK	4.92602G	41.83	74.00	-32.17	2.39	3	Vertical	162	1.92	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

10/07/2018



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92597G	28.39	54.00	-25.61	2.38	3	Horizontal	226	1.45	-
PK	4.92405G	41.42	74.00	-32.58	2.38	3	Horizontal	226	1.45	-