FCC Test Report

FCC ID	:	**PPQ-WCBN3516A**
Equipment	:	**802.11 a/b/g/n 1x1 + BT5.0 + Zigbee(15.4) IoT Module**
Brand Name	:	**LITE-ON**
Model Name	:	**WCBN3516A**
Applicant	:	**LITE-ON Technology Corp. Bldg. C, 90, Chien 1 Road, Chung Ho, New Taipei City 23585, Taiwan, R.O.C**
Manufacturer	:	**LITE-ON TECHNOLOGY (Changzhou) CO., LTD A9 Building,No.88 Yanghu Road, Wujin Hi-Tech Industrial Development Zone ,Changzhou City,Jiangsu Province 213100 China**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Jan. 31, 2019, and testing was started from Feb. 21, 2019 and completed on Mar. 05, 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.

Allen Lin

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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PHOTOGRAPHS OF EUT V01

History of this test report

Report No.	Version	Description	Issued Date
FR912411AC	01	Initial issue of report	Mar. 29, 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)	2412-2462	1-11 [11]

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	LITE-ON	-	Printed Antenna	N/A
2	LITE-ON	-	Printed Antenna	N/A

Ant.	Port	Gain (dBi)			
		2.4G	5G	Zigbee	BT
1	1	4.6	4.3	-	-
2	2	-	-	4.7	4.7

For 2.4GHz function:

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

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

For 5GHz function:

For IEEE 802.11 a/n mode (1TX/1RX)

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

For Zigbee function:

For IEEE 802.11 Zigbee mode (1TX/1RX)

Ant. 2 (port 2) could transmit/receive simultaneously.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Only Ant. 2 (port 2) could transmit/receive simultaneously.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From Host system			
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) ≥ 1/T
802.11b	0.997	0.013	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.973	0.119	2.027m	1k
802.11n HT20	0.971	0.128	1.89m	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

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
RF Conducted	TH01-HY	Barry	24.1~24.9°C / 61~69%	25/Feb/2019
Radiated	03CH03-HY	Terry	23.1~25.7°C / 55.9~57.8%	21/Feb/2019~24/Feb/2019
AC Conduction	CO04-HY	Lego	22.6~23.4°C / 56~60%	05/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 ℃	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	5V

2.2 Test Channel Mode

Test Software Version	QSPR 5.0-00163

Mode	PowerSetting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	20
2437MHz	18.5
2462MHz	18
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	16
2417MHz	20
2437MHz	23.5
2457MHz	19.5
2462MHz	16.5
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	17
2417MHz	20
2437MHz	23.5
2457MHz	19.5
2462MHz	16.5

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	USB 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	CTX		
1	USB mode		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
Worst Planes of EUT		V	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	Bluetooth+WLAN 2.4GHz
2	Bluetooth+WLAN 5GHz
3	Zigbee+WLAN 2.4GHz
4	Zigbee +WLAN 5GHz
Refer to Sporton Test Report No.: FA912411 for Co-location RF Exposure Evaluation.	

2.4 Support Equipment

Support Equipment – AC Conduction				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	-
2	Adapter	DELL	LA90PS0-00	-
3	Test Fixture	-	-	-

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

Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	-
2	Adapter	DELL	LA90PS0-00	-
3	Test Fixture	-	-	-

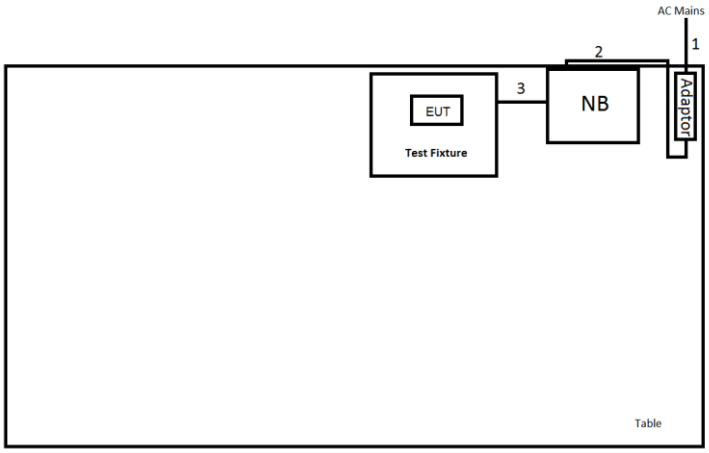
Note.Support equipment No.3 was provided by customer.

Support Equipment – Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	-
2	Adapter	DELL	LA90PS0-00	-
3	Test Fixture	-	-	-

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

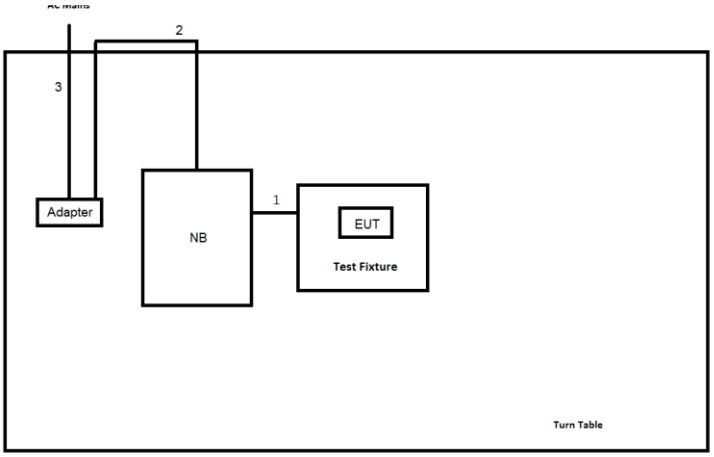
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.8	-
2	DC Power line	No	1.5	-
3	USB cable	No	0.2	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	USB cable	No	0.2	-
2	DC Power line	No	1.5	-
3	AC Power line	No	1.8	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

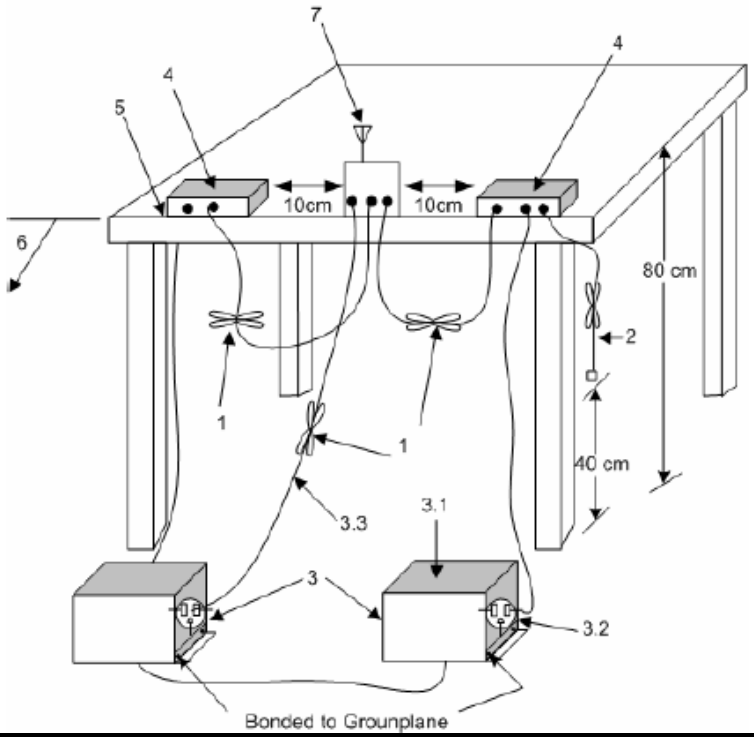
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

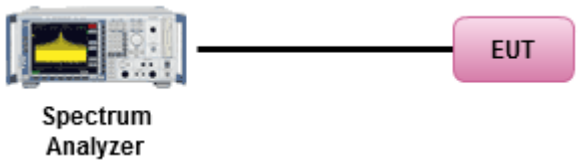
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as KDB 558074. clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
	☐ Refer as RSS-Gen, clause 6.7 for for occupied bandwidth testing.
	☐ Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)	
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)$ dBm	
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm	
	▪ Smart antenna system (SAS):	
		- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3 + 8$dB dBm
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): $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX}])$ dBm	
	▪ Smart antenna system (SAS)	
		- Single beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm
		- Overlap beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm
		- Aggregate power on all beams: $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX} + 8])$ 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: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)

3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

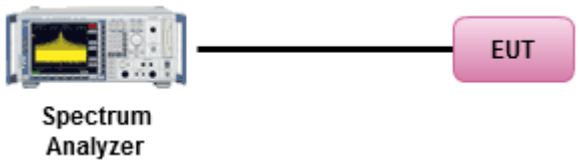
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).		
	☒ Refer as 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

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (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

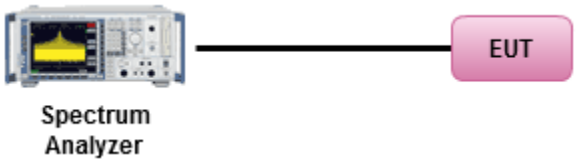
Refer a test equipment and calibration data table in this test report.

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

Emissions in Non-restricted Frequency Bands



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

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

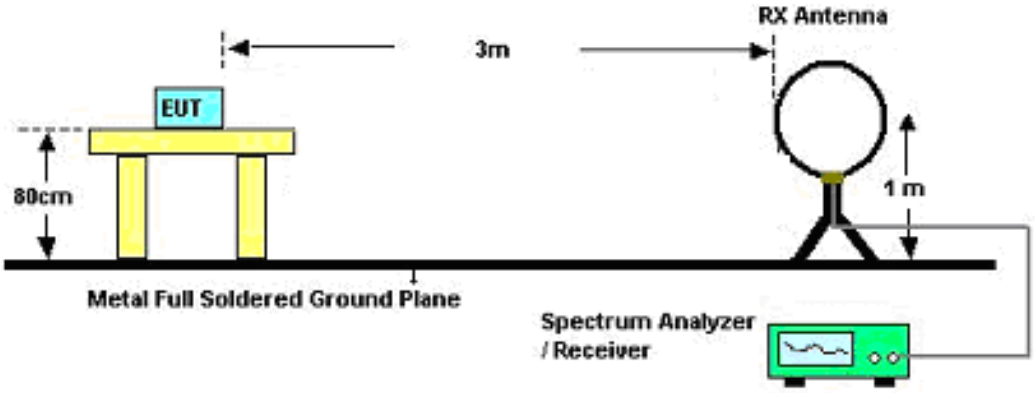
3.6.3 Test Procedures

Test Method	
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as 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 ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.

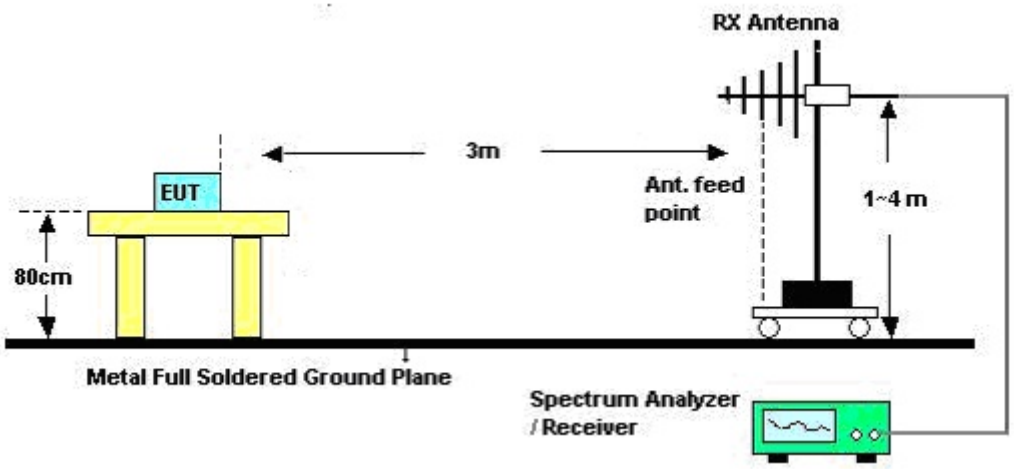
3.6.4 Test Setup

Emissions in Restricted Frequency Bands

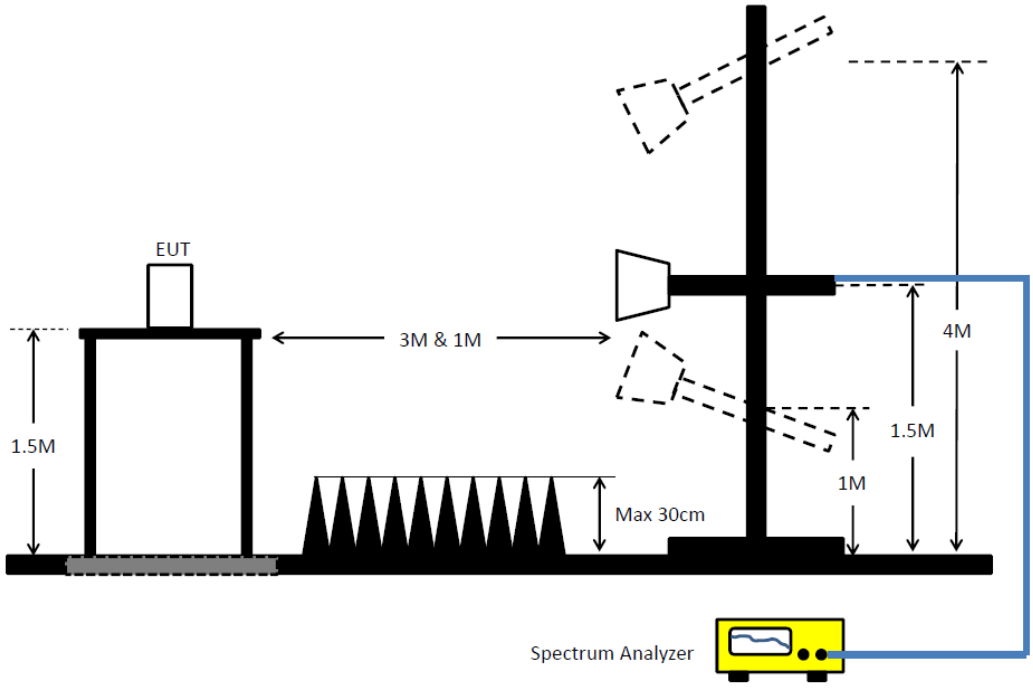
9kHz ~30MHz



30MHz~1GHz



Above 1GHz



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	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	SCHWARZBEC K	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2018	11/Oct/2019

NCR : Non-Calibration Require

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	30/Oct/2018	29/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	30/Oct/2018	29/Oct/2019
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	23/Apr/2018	19/Apr/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	10/Apr/2018	09/Apr/2019
Bilog Antenna with 5dB Pad	ETS	3142B & MTJ6102-05	00022055	26 MHz - 3 GHz	19/Nov/2018	18/Nov/2019
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	05/Sep/2018	04/Sep/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	28/Jan/2019	27/Jan/2020
RF Cable-high	SUHNER	SUCOFLEX 106	CB222	1GHz ~ 40GHz	28/Jan/2019	27/Jan/2020
Broadband Horn Antenna	SCHWARZBEC K	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	12/Mar/2018	11/Mar/2019
Double Ridged Guide Horn Antenna	SCHWARZBEC K	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	18/Apr/ 2018	17/Apr/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	28/Mar/2018	27/Mar/2019

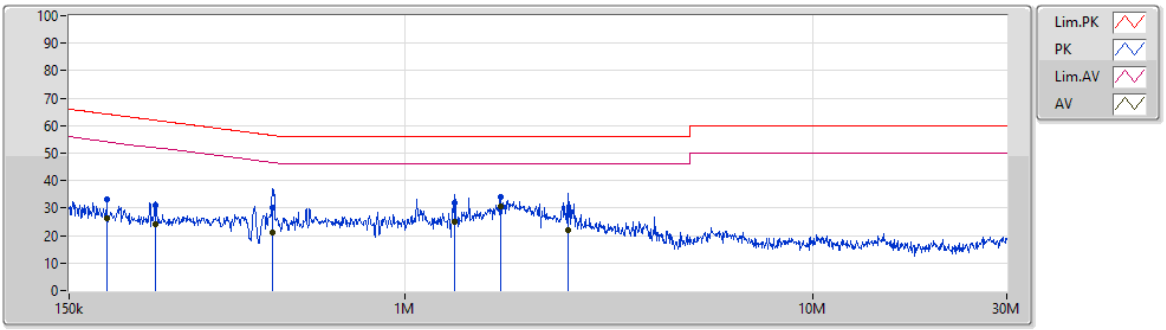
Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101029	10Hz~40GHz	11/Sep/2018	10/Sep/2019
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	19/Feb/2019	18/Feb/2020
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	19/Feb/2019	18/Feb/2020
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~1G	11/Jan/2019	10/Jan/2020
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	1G~18G	11/Jan/2019	10/Jan/2020
Cable 0.5m	HUBER	MY10714/4	RF Cable – 05	30MHz~1G	11/Jan/2019	10/Jan/2020

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	USB Mode		

AC Conduction_Mode 1

05/03/2019

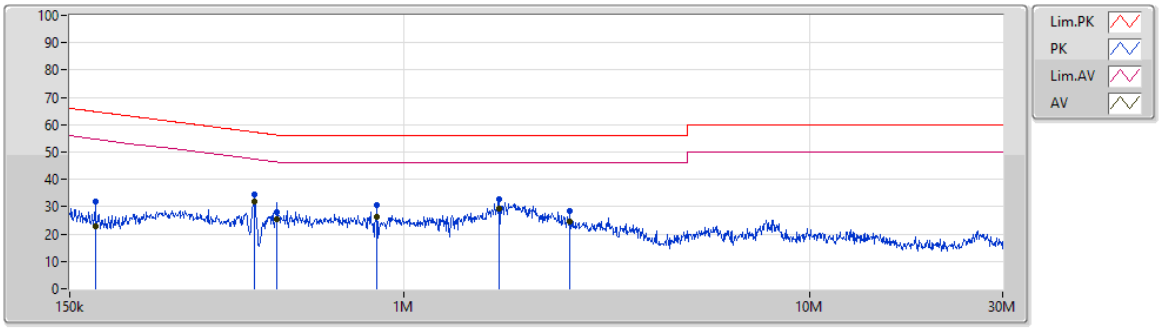


Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	185.344k	33.08	64.24	-31.16	19.47	Neutral	-	13.61	9.59	0.01	9.87
AV	185.344k	26.15	54.24	-28.09	19.47	Neutral	-	6.68	9.59	0.01	9.87
QP	245.097k	30.97	61.93	-30.96	19.47	Neutral	-	11.50	9.59	0.01	9.87
AV	245.097k	24.35	51.93	-27.58	19.47	Neutral	-	4.88	9.59	0.01	9.87
QP	473.588k	30.09	56.46	-26.37	19.48	Neutral	-	10.61	9.59	0.01	9.88
AV	473.588k	21.32	46.46	-25.14	19.48	Neutral	-	1.84	9.59	0.01	9.88
QP	1.326M	31.85	56.00	-24.15	19.51	Neutral	-	12.34	9.60	0.03	9.88
AV	1.326M	25.01	46.00	-20.99	19.51	Neutral	-	5.50	9.60	0.03	9.88
QP	1.713M	33.95	56.00	-22.05	19.53	Neutral	-	14.42	9.61	0.03	9.89
AV	1.713M	30.64	46.00	-15.36	19.53	Neutral	"Worst"	11.11	9.61	0.03	9.89
QP	2.522M	27.75	56.00	-28.25	19.54	Neutral	-	8.21	9.61	0.04	9.89
AV	2.522M	21.97	46.00	-24.03	19.54	Neutral	-	2.43	9.61	0.04	9.89

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

AC Conduction_Mode 1

05/03/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	173.183k	32.11	64.80	-32.69	19.48	Line	-	12.63	9.60	0.01	9.87
AV	173.183k	22.83	54.80	-31.97	19.48	Line	-	3.35	9.60	0.01	9.87
QP	426.898k	34.48	57.32	-22.84	19.48	Line	-	15.00	9.59	0.01	9.88
AV	426.898k	31.80	47.32	-15.52	19.48	Line	"Worst"	12.32	9.59	0.01	9.88
QP	487.008k	27.94	56.21	-28.27	19.48	Line	-	8.46	9.59	0.01	9.88
AV	487.008k	25.22	46.21	-20.99	19.48	Line	-	5.74	9.59	0.01	9.88
QP	855.047k	30.60	56.00	-25.40	19.50	Line	-	11.10	9.60	0.02	9.88
AV	855.047k	26.15	46.00	-19.85	19.50	Line	-	6.65	9.60	0.02	9.88
QP	1.719M	32.77	56.00	-23.23	19.54	Line	-	13.23	9.62	0.03	9.89
AV	1.719M	29.29	46.00	-16.71	19.54	Line	-	9.75	9.62	0.03	9.89
QP	2.573M	28.62	56.00	-27.38	19.55	Line	-	9.07	9.62	0.04	9.89
AV	2.573M	24.76	46.00	-21.24	19.55	Line	-	5.21	9.62	0.04	9.89

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	10.075M	14.318M	14M3G1D	10.075M	13.968M
802.11g_Nss1,(6Mbps)_1TX	16.325M	24.063M	24M1D1D	16.275M	16.517M
802.11n HT20_Nss1,(MCS0)_1TX	17.525M	25.112M	25M1D1D	17.25M	17.691M

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

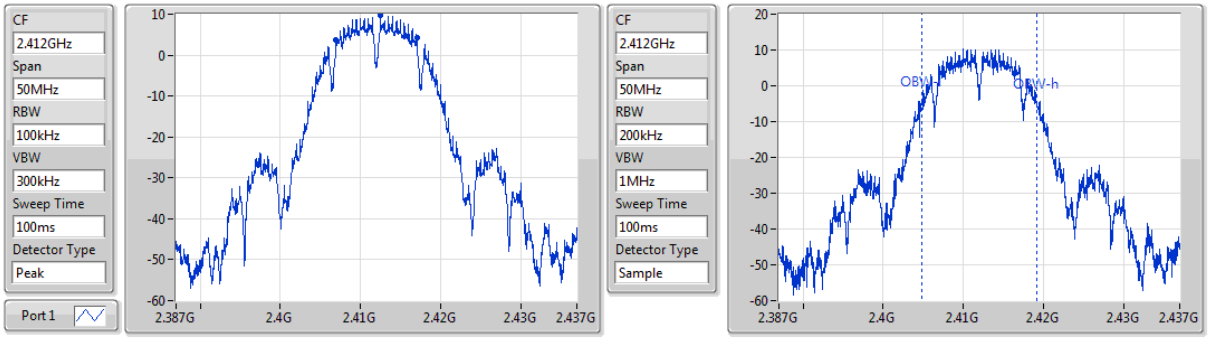
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	10.075M	14.318M
2437MHz	Pass	500k	10.075M	14.068M
2462MHz	Pass	500k	10.075M	13.968M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.325M	16.542M
2437MHz	Pass	500k	16.325M	24.063M
2462MHz	Pass	500k	16.275M	16.517M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.25M	17.716M
2437MHz	Pass	500k	17.525M	25.112M
2462MHz	Pass	500k	17.275M	17.691M

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

802.11b_Nss1,(1Mbps)_1TX — EBW

2412MHz

25/02/2019

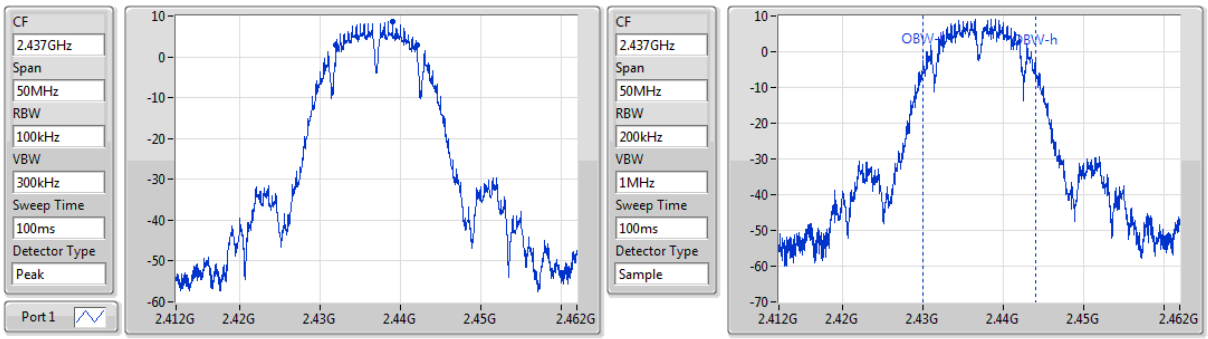


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
10.075M	2.40695G	2.417025G	14.318M	2.404829G	2.419146G	500k	1

802.11b_Nss1,(1Mbps)_1TX — EBW

2437MHz

25/02/2019

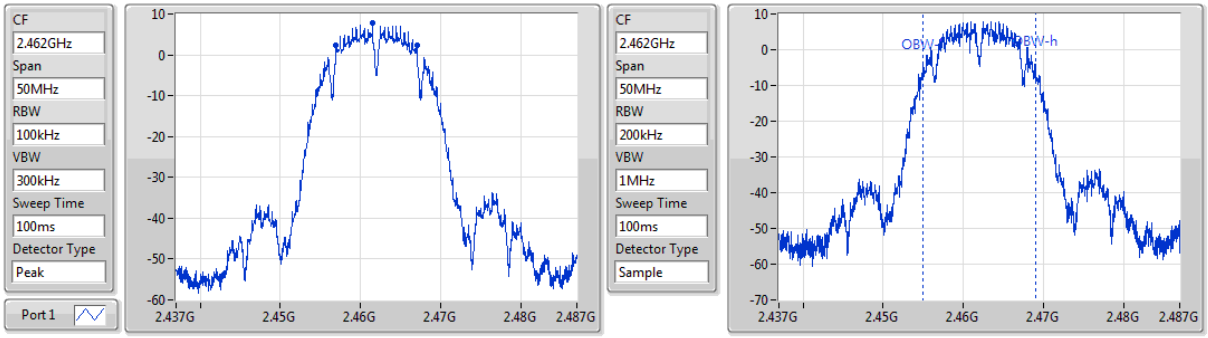


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
10.075M	2.43195G	2.442025G	14.068M	2.429954G	2.444021G	500k	1

802.11b_Nss1,(1Mbps)_1TX — EBW

2462MHz

25/02/2019

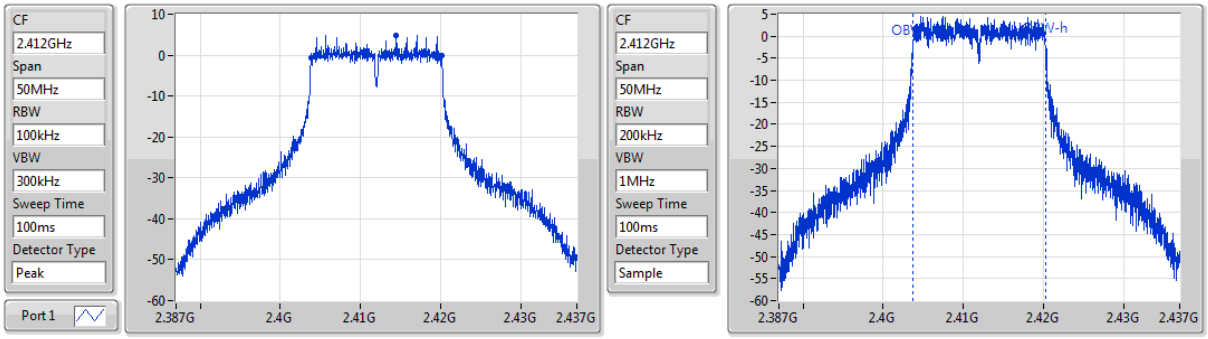


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
10.075M	2.45695G	2.467025G	13.968M	2.455003G	2.468972G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

25/02/2019

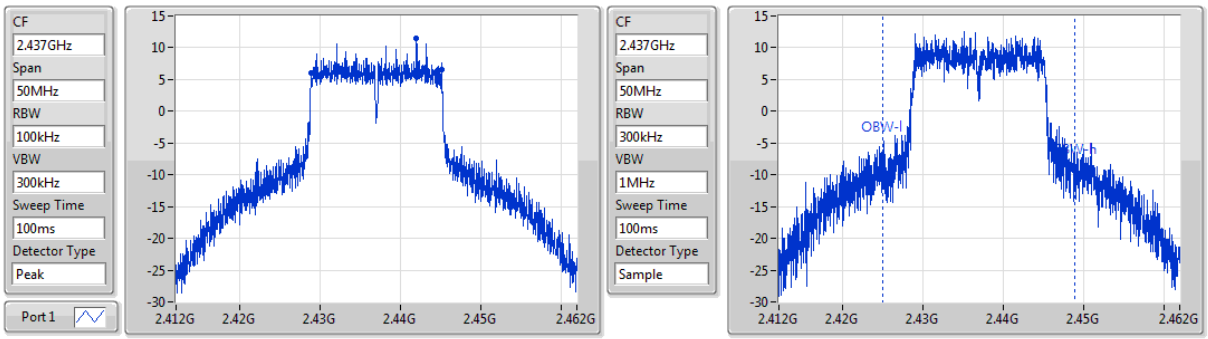


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.542M	2.403704G	2.420246G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2437MHz

25/02/2019

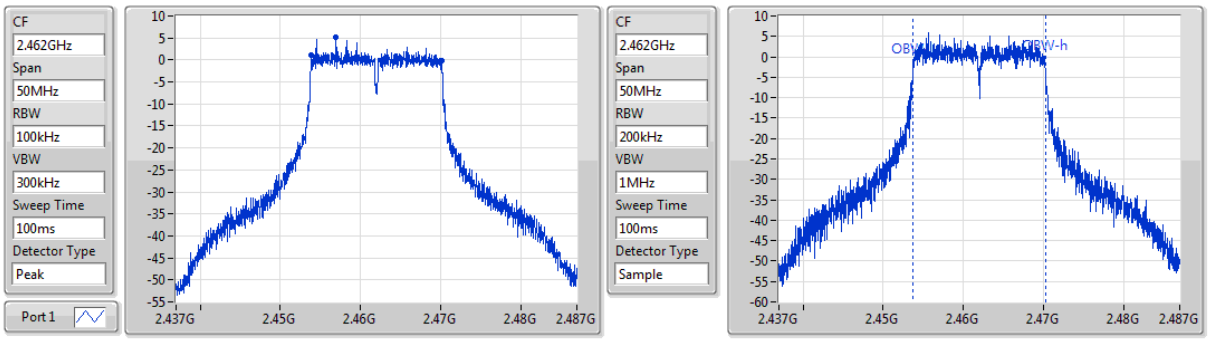


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	24.063M	2.424906G	2.448969G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2462MHz

25/02/2019

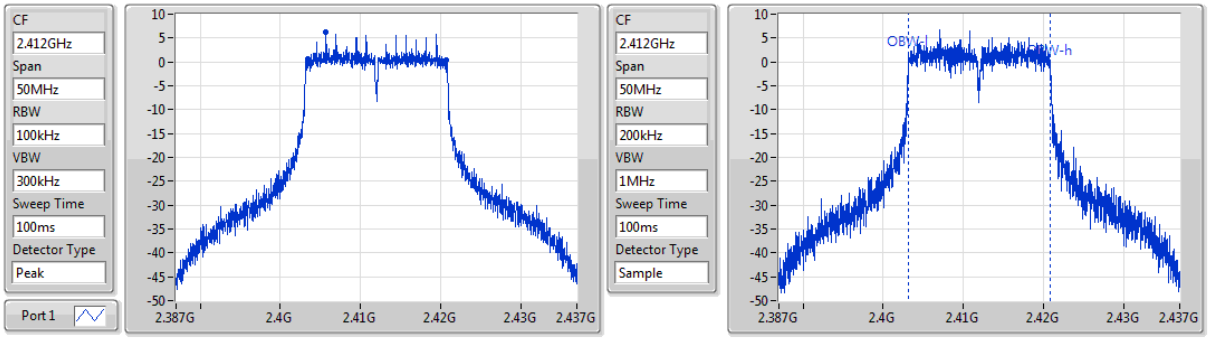


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	2.45385G	2.470125G	16.517M	2.453704G	2.470221G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX — EBW

2412MHz

25/02/2019

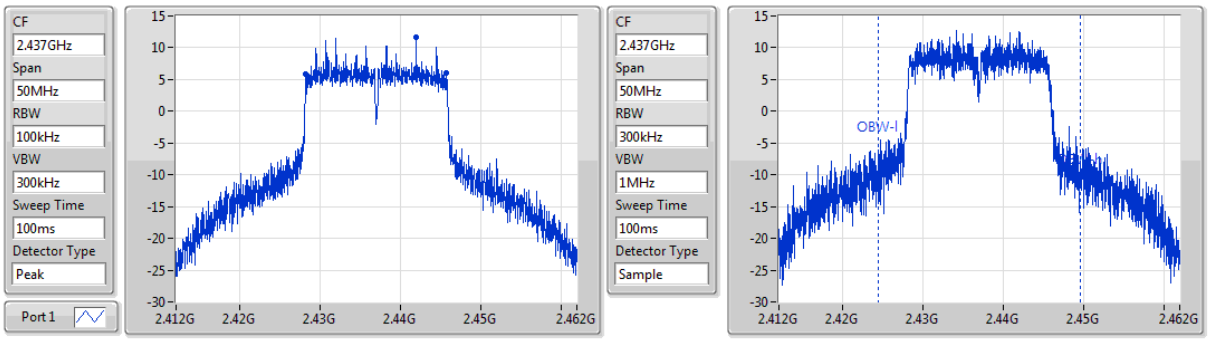


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.25M	2.4035G	2.42075G	17.716M	2.403154G	2.420871G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX — EBW

2437MHz

25/02/2019

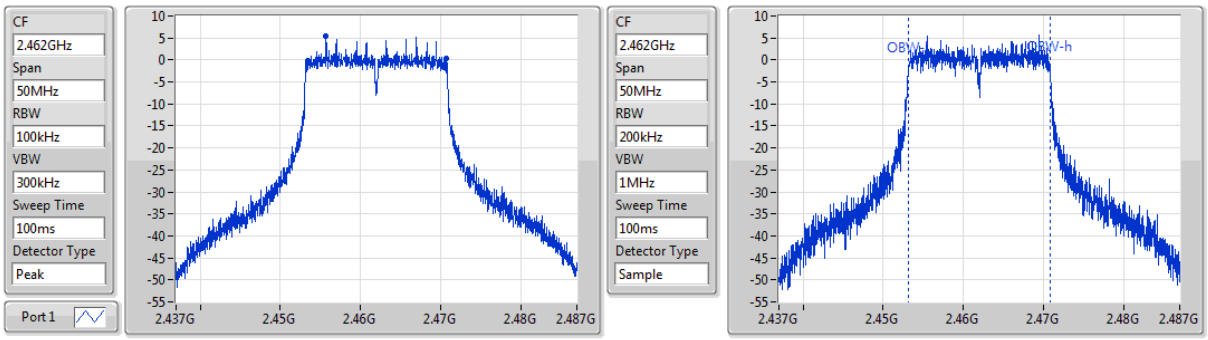


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.4282G	2.445725G	25.112M	2.424456G	2.449569G	500k	1

802.11n HT20_Nss1,(MCS0)_1TX — EBW

2462MHz

25/02/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.275M	2.453475G	2.47075G	17.691M	2.453129G	2.470821G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	19.39	0.08690
802.11g_Nss1,(6Mbps)_1TX	21.94	0.15631
802.11n HT20_Nss1,(MCS0)_1TX	21.79	0.15101

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.60	19.39	19.39	30.00
2437MHz	Pass	4.60	18.48	18.48	30.00
2462MHz	Pass	4.60	17.40	17.40	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.60	16.20	16.20	30.00
2417MHz	Pass	4.60	19.24	19.24	30.00
2437MHz	Pass	4.60	21.94	21.94	30.00
2457MHz	Pass	4.60	18.54	18.54	30.00
2462MHz	Pass	4.60	16.12	16.12	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	4.60	16.93	16.93	30.00
2417MHz	Pass	4.60	19.15	19.15	30.00
2437MHz	Pass	4.60	21.79	21.79	30.00
2457MHz	Pass	4.60	18.50	18.50	30.00
2462MHz	Pass	4.60	16.07	16.07	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	-5.24
802.11g_Nss1,(6Mbps)_1TX	-4.73
802.11n HT20_Nss1,(MCS0)_1TX	-3.70

RBW=3kHz.

Result

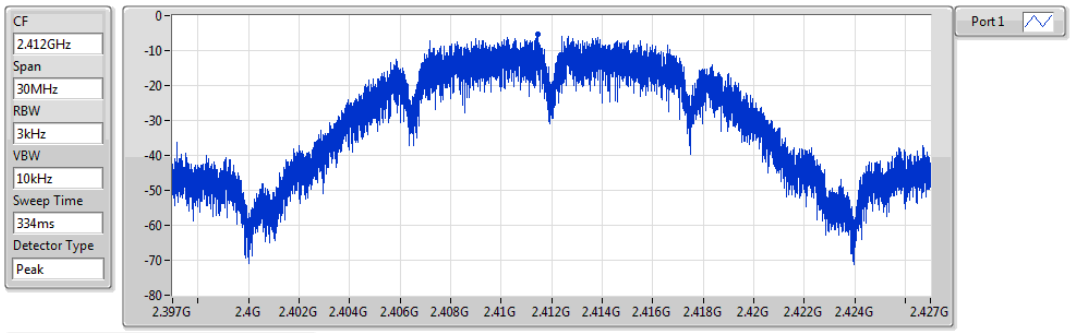
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.60	-5.24	-5.24	8.00
2437MHz	Pass	4.60	-6.06	-6.06	8.00
2462MHz	Pass	4.60	-7.09	-7.09	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.60	-9.32	-9.32	8.00
2437MHz	Pass	4.60	-4.73	-4.73	8.00
2462MHz	Pass	4.60	-9.45	-9.45	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	4.60	-9.49	-9.49	8.00
2437MHz	Pass	4.60	-3.70	-3.70	8.00
2462MHz	Pass	4.60	-9.32	-9.32	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

25/02/2019

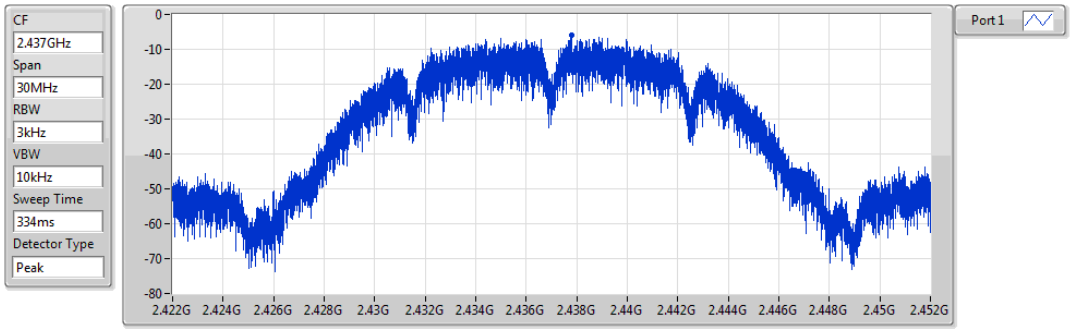


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.24	-5.24	-5.24

802.11b_Nss1,(1Mbps)_1TX PSD

2437MHz

25/02/2019

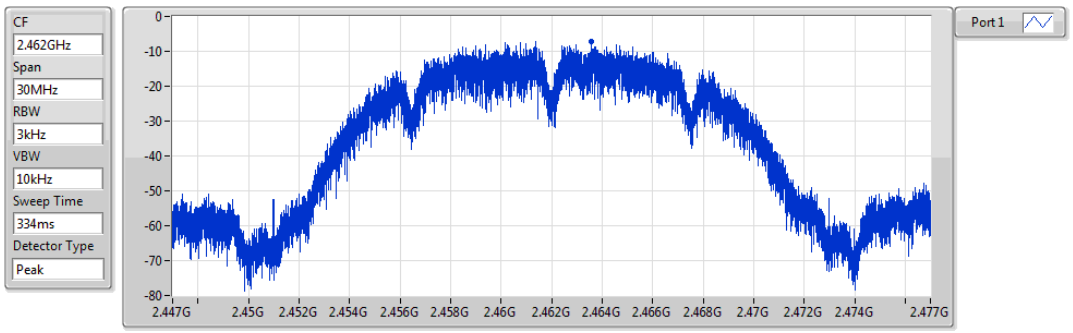


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.06	-6.06	-6.06

802.11b_Nss1,(1Mbps)_1TX PSD

2462MHz

25/02/2019

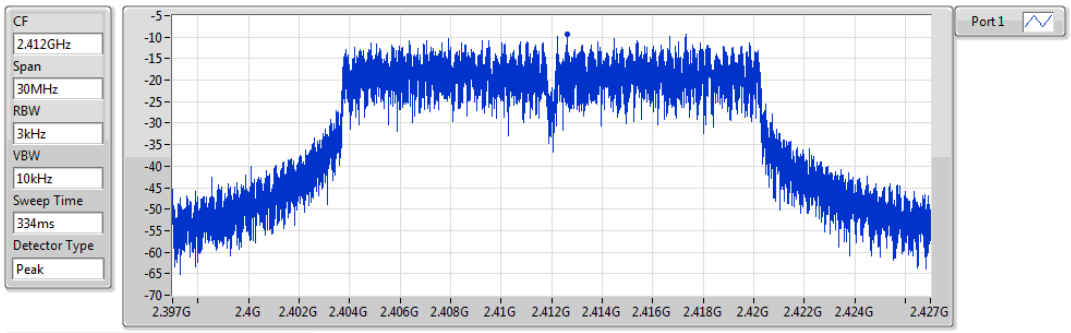


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.09	-7.09	-7.09

802.11g_Nss1,(6Mbps)_1TX PSD

2412MHz

25/02/2019

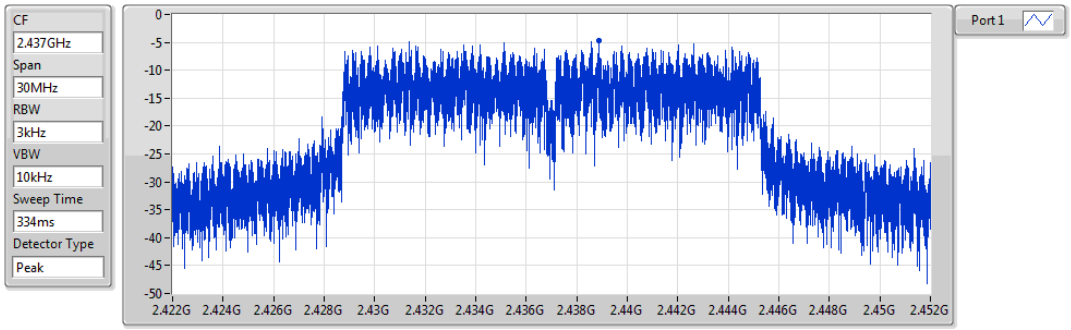


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.32	-9.32	-9.32

802.11g_Nss1,(6Mbps)_1TX PSD

2437MHz

25/02/2019

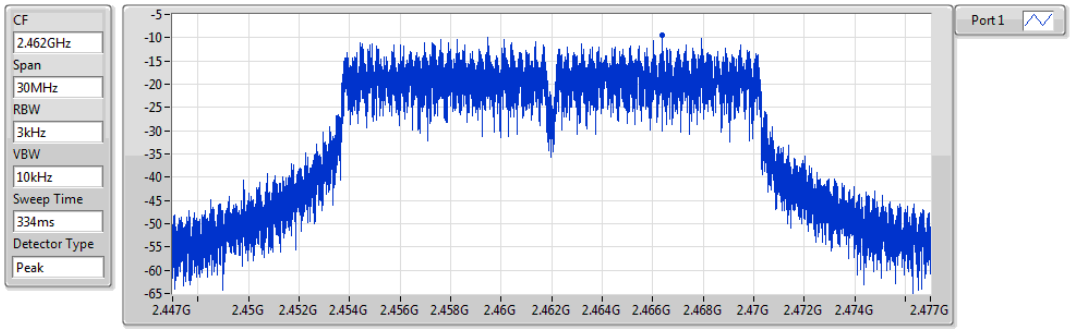


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.73	-4.73	-4.73

802.11g_Nss1,(6Mbps)_1TX PSD

2462MHz

25/02/2019

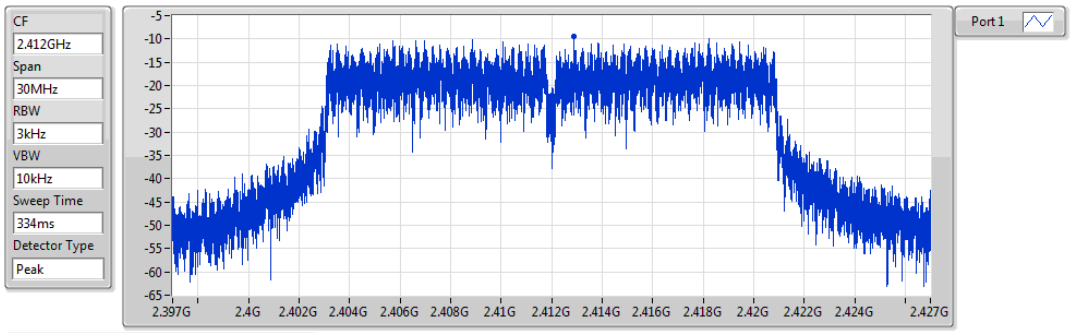


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.45	-9.45	-9.45

802.11n HT20_Nss1,(MCS0)_1TX PSD

2412MHz

25/02/2019

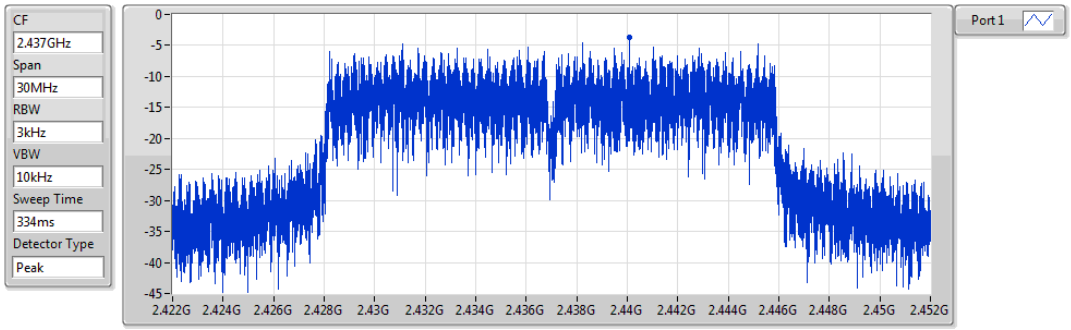


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.49	-9.49	-9.49

802.11n HT20_Nss1,(MCS0)_1TX PSD

2437MHz

25/02/2019

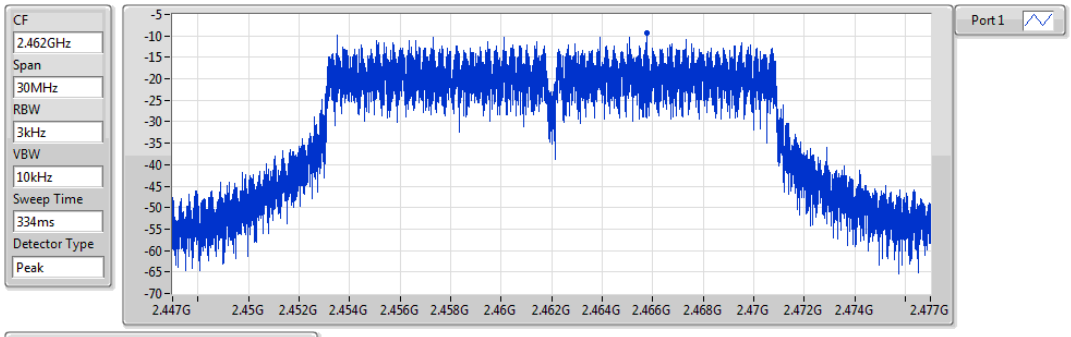


Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.70	-3.70	-3.70

802.11n HT20_Nss1,(MCS0)_1TX PSD

2462MHz

25/02/2019



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.32	-9.32	-9.32

Summary

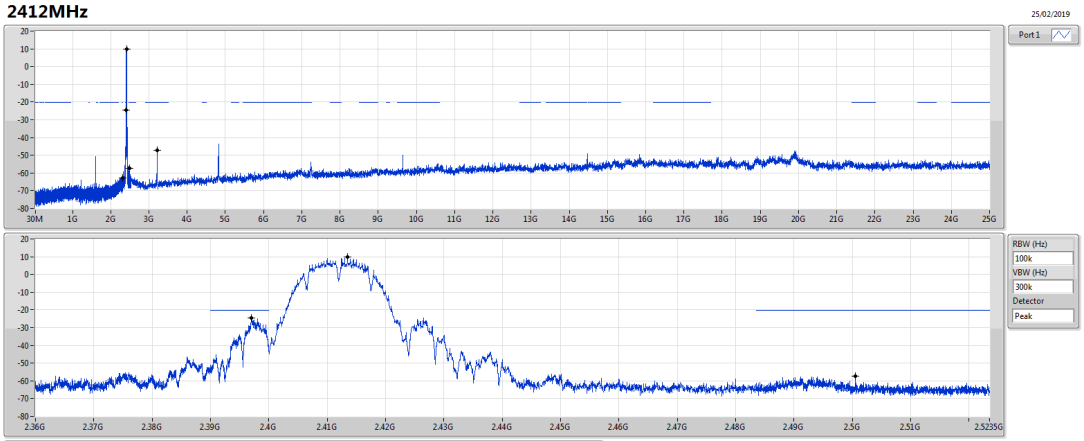
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.41349G	9.86	-20.14	2.30816G	-62.73	2.39696G	-24.34	2.5005G	-57.45	3.21465G	-47.09	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.43206G	8.83	-21.17	2.30758G	-62.43	2.39954G	-27.57	2.49948G	-59.09	3.21465G	-44.72	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.43202G	10.66	-19.34	2.30408G	-63.39	2.39982G	-24.17	2.48874G	-59.11	3.21465G	-45.01	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	2.41349G	9.86	-20.14	2.30816G	-62.73	2.39696G	-24.34	2.5005G	-57.45	3.21465G	-47.09	1
2437MHz	Pass	2.41349G	9.86	-20.14	1.62459G	-51.37	2.3999G	-56.20	2.51954G	-57.65	9.74689G	-47.45	1
2462MHz	Pass	2.41349G	9.86	-20.14	1.64149G	-53.20	2.39442G	-60.24	2.48798G	-48.31	3.28208G	-49.77	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43206G	8.83	-21.17	2.30758G	-62.43	2.39954G	-27.57	2.49948G	-59.09	3.21465G	-44.72	1
2437MHz	Pass	2.43206G	8.83	-21.17	1.61935G	-62.49	2.39972G	-34.00	2.48358G	-38.63	16.52917G	-50.85	1
2462MHz	Pass	2.43206G	8.83	-21.17	2.30059G	-63.51	2.39414G	-60.18	2.48356G	-41.76	3.28208G	-48.59	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43202G	10.66	-19.34	2.30408G	-63.39	2.39982G	-24.17	2.48874G	-59.11	3.21465G	-45.01	1
2437MHz	Pass	2.43202G	10.66	-19.34	2.30991G	-62.30	2.3998G	-31.63	2.48392G	-40.02	17.47599G	-51.69	1
2462MHz	Pass	2.43202G	10.66	-19.34	2.30728G	-63.85	2.39522G	-59.09	2.48384G	-38.81	3.28208G	-48.48	1

802.11b_Nss1,(1Mbps)_1TX **CSE NdB**

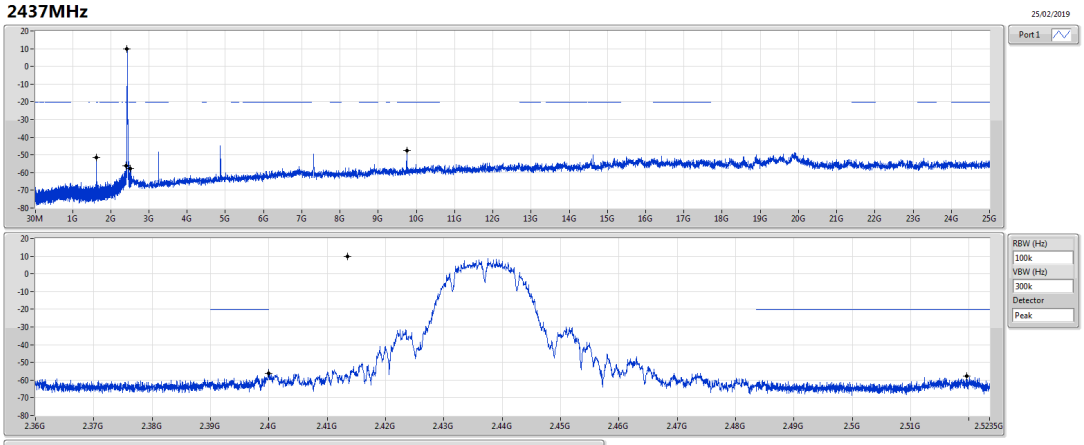
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41349G	9.86	-20.14	2.30816G	-62.73	2.39696G	-24.34	2.5005G	-57.45	3.21465G	-47.09	1

802.11b_Nss1,(1Mbps)_1TX **CSE NdB**

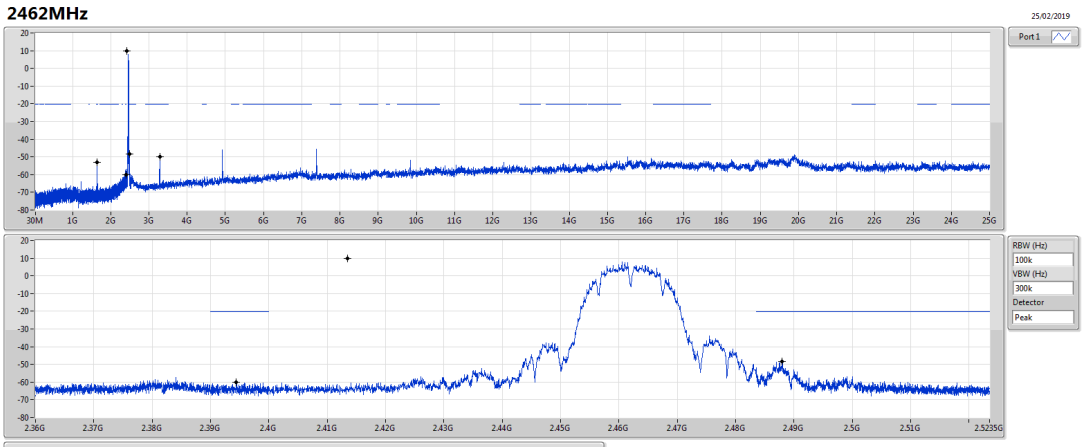
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41349G	9.86	-20.14	1.62459G	-51.37	2.3999G	-56.20	2.51954G	-57.65	9.74689G	-47.45	1

802.11b_Nss1,(1Mbps)_1TX **CSE NdB**

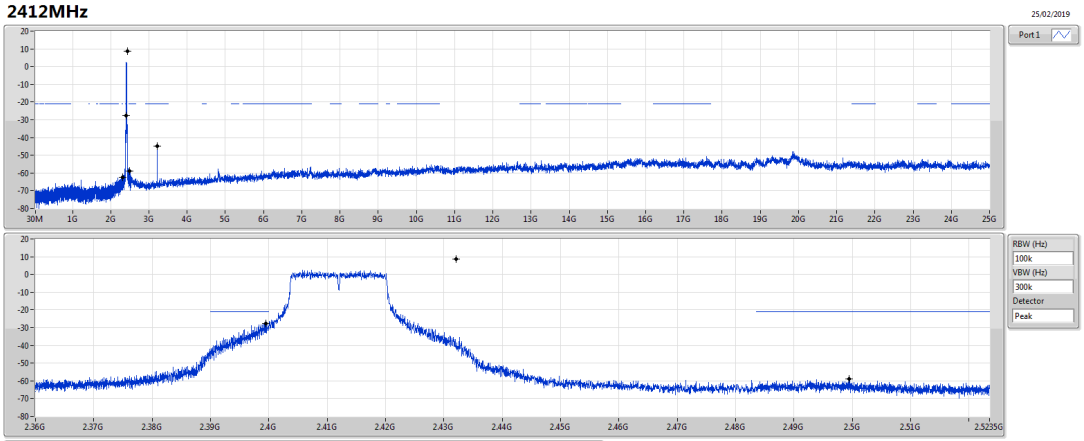
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41349G	9.86	-20.14	1.64149G	-53.20	2.39442G	-60.24	2.48798G	-48.31	3.28208G	-49.77	1

802.11g_Nss1,(6Mbps)_1TX **CSE NdB**

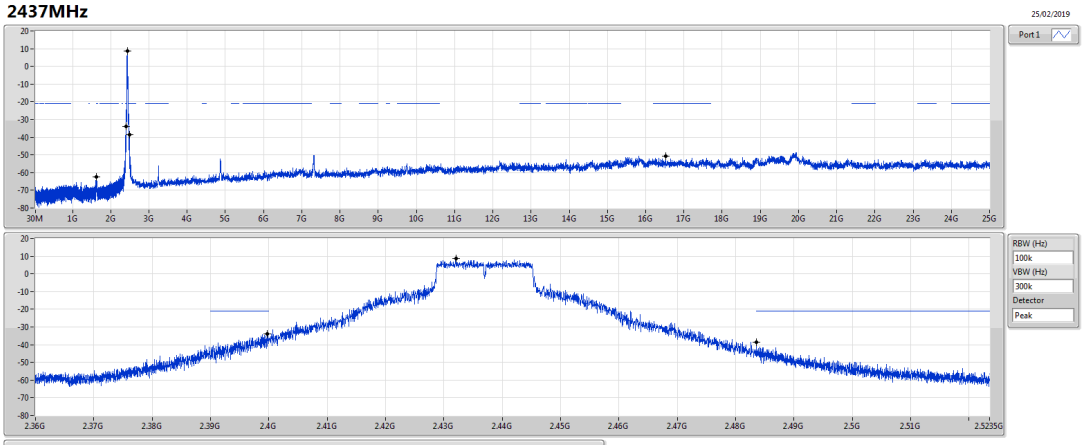
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43206G	8.83	-21.17	2.30758G	-62.43	2.39954G	-27.57	2.49948G	-59.09	3.21465G	-44.72	1

802.11g_Nss1,(6Mbps)_1TX **CSE NdB**

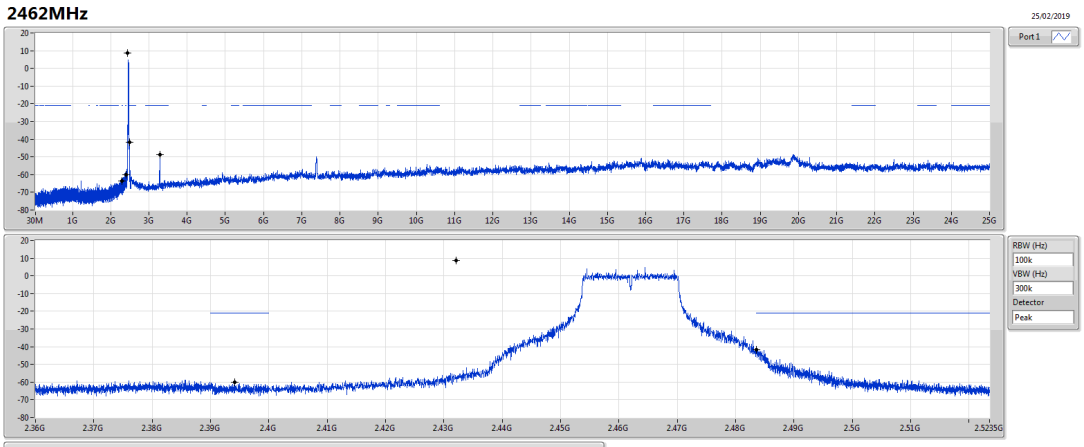
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43206G	8.83	-21.17	1.61935G	-62.49	2.39972G	-34.00	2.48358G	-38.63	16.52917G	-50.85	1

802.11g_Nss1,(6Mbps)_1TX **CSE NdB**

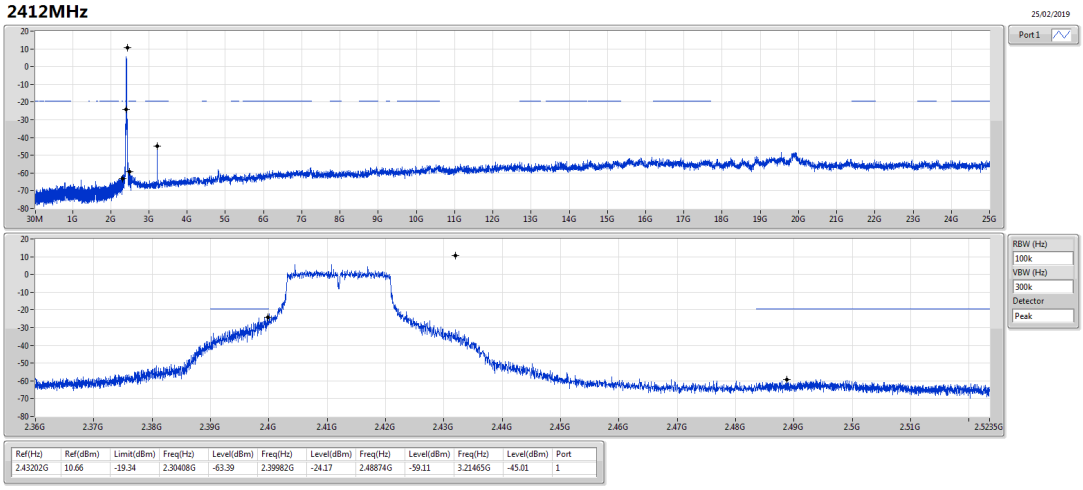
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43206G	8.83	-21.17	2.30059G	-63.51	2.39414G	-60.18	2.48356G	-41.76	3.28208G	-48.59	1

802.11n HT20_Nss1,(MCS0)_1TX **CSE NdB**

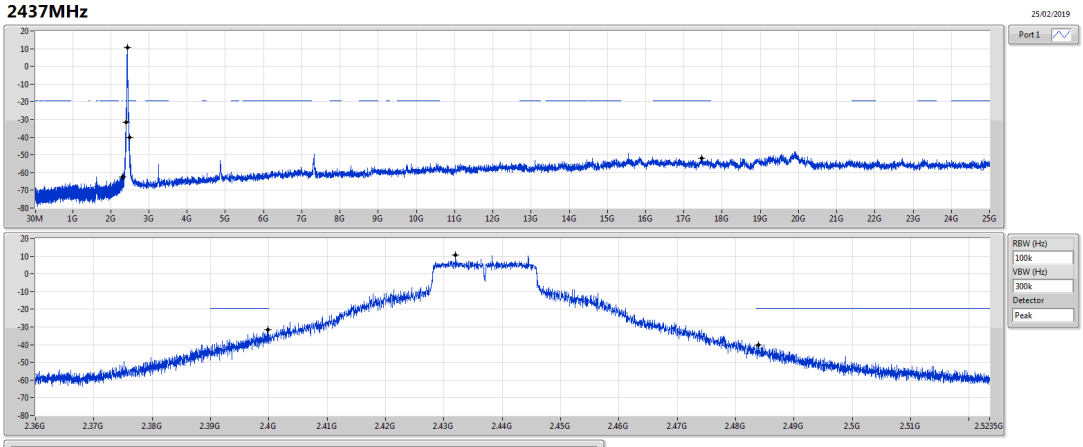
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43202G	10.66	-19.34	2.30408G	-63.39	2.39982G	-24.17	2.48874G	-59.11	3.21465G	-45.01	1

802.11n HT20_Nss1,(MCS0)_1TX **CSE NdB**

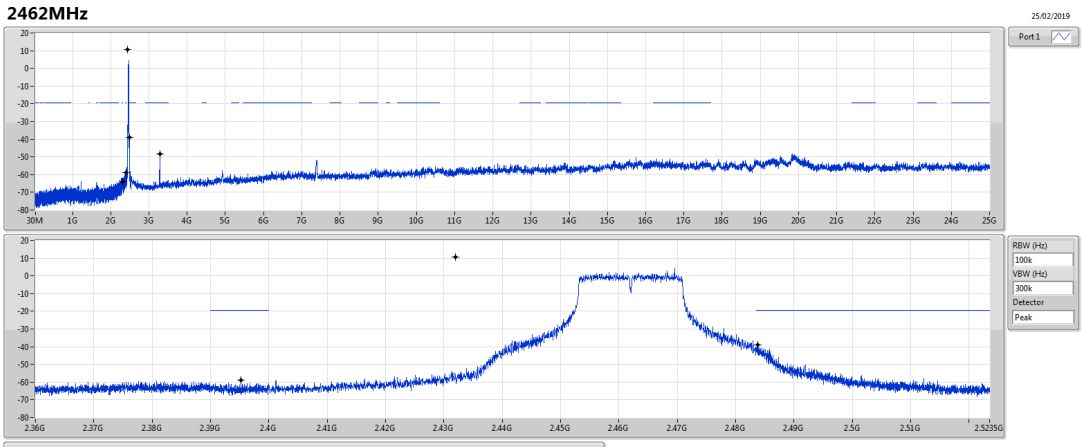
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43202G	10.66	-19.34	2.30991G	-62.30	2.3998G	-31.63	2.48392G	-40.02	17.47599G	-51.69	1

802.11n HT20_Nss1,(MCS0)_1TX **CSE NdB**

2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43202G	10.66	-19.34	2.30728G	-63.85	2.39522G	-59.09	2.48384G	-38.81	3.28208G	-48.48	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	183.26M	38.80	43.50	-4.70	-10.45	3	Horizontal	360	2.00	-

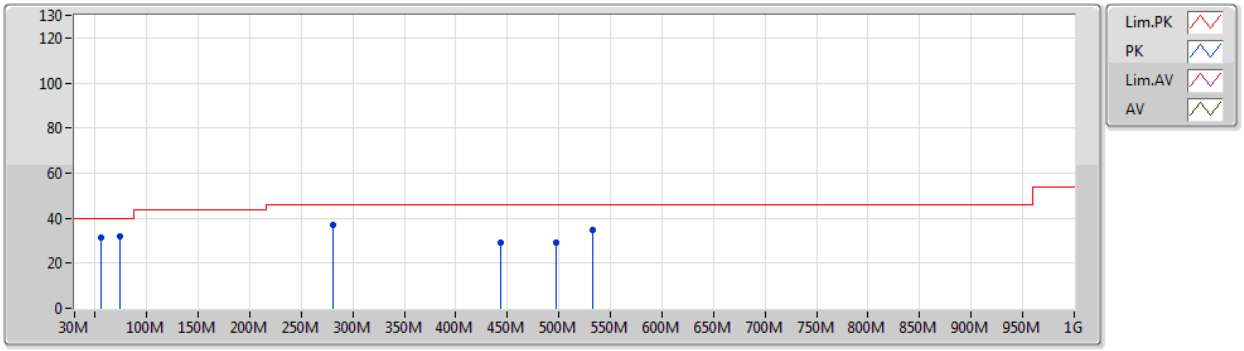
Result

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	55.22M	31.45	40.00	-8.55	-13.97	3	Vertical	0	1.00	-
2437MHz	Pass	PK	74.62M	32.00	40.00	-8.00	-14.28	3	Vertical	0	1.00	-
2437MHz	Pass	PK	280.26M	36.74	46.00	-9.26	-6.00	3	Vertical	0	1.00	-
2437MHz	Pass	PK	443.22M	29.13	46.00	-16.87	-2.31	3	Vertical	0	1.00	-
2437MHz	Pass	PK	497.54M	29.10	46.00	-16.90	-1.57	3	Vertical	0	1.00	-
2437MHz	Pass	PK	532.46M	34.69	46.00	-11.31	-1.33	3	Vertical	0	1.00	-
2437MHz	Pass	PK	183.26M	38.80	43.50	-4.70	-10.45	3	Horizontal	360	2.00	-
2437MHz	Pass	PK	268.62M	40.99	46.00	-5.01	-6.16	3	Horizontal	360	2.00	-
2437MHz	Pass	PK	433.52M	33.05	46.00	-12.95	-2.34	3	Horizontal	360	2.00	-
2437MHz	Pass	PK	530.52M	36.14	46.00	-9.86	-1.51	3	Horizontal	360	2.00	-
2437MHz	Pass	PK	714.82M	31.18	46.00	-14.82	0.58	3	Horizontal	360	2.00	-
2437MHz	Pass	QP	154.16M	37.47	43.50	-6.03	NaN	3	Horizontal	0	2.00	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_USB

24/02/2019

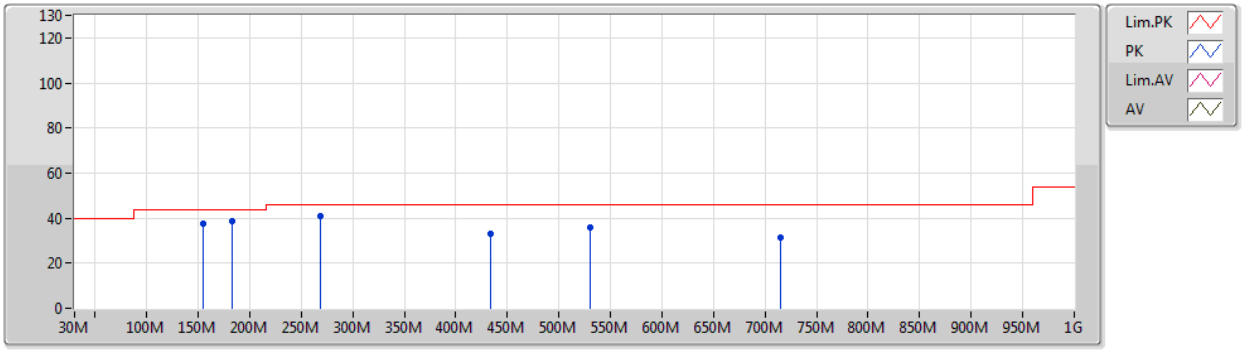


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	55.22M	31.45	40.00	-8.55	-13.97	3	Vertical	0	1.00	-
PK	74.62M	32.00	40.00	-8.00	-14.28	3	Vertical	0	1.00	-
PK	280.26M	36.74	46.00	-9.26	-6.00	3	Vertical	0	1.00	-
PK	443.22M	29.13	46.00	-16.87	-2.31	3	Vertical	0	1.00	-
PK	497.54M	29.10	46.00	-16.90	-1.57	3	Vertical	0	1.00	-
PK	532.46M	34.69	46.00	-11.31	-1.33	3	Vertical	0	1.00	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_USB

24/02/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	183.26M	38.80	43.50	-4.70	-10.45	3	Horizontal	360	2.00	-
PK	268.62M	40.99	46.00	-5.01	-6.16	3	Horizontal	360	2.00	-
PK	433.52M	33.05	46.00	-12.95	-2.34	3	Horizontal	360	2.00	-
PK	530.52M	36.14	46.00	-9.86	-1.51	3	Horizontal	360	2.00	-
PK	714.82M	31.18	46.00	-14.82	0.58	3	Horizontal	360	2.00	-
QP	154.16M	37.47	43.50	-6.03	NaN	3	Horizontal	0	2.00	-

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	4.82395G	51.94	54.00	-2.06	6.53	3	Horizontal	41	1.08	-
802.11g_Nss1,(6Mbps)_1TX	Pass	AV	2.4835G	51.71	54.00	-2.29	30.97	3	Vertical	94	1.50	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	AV	2.4835G	51.88	54.00	-2.12	30.97	3	Vertical	97	1.33	-

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	2.3862G	49.10	54.00	-4.90	30.68	3	Vertical	269	1.13	-
2412MHz	Pass	AV	2.4102G	101.37	Inf	-Inf	30.75	3	Vertical	269	1.13	-
2412MHz	Pass	PK	2.3862G	59.76	74.00	-14.24	30.68	3	Vertical	269	1.13	-
2412MHz	Pass	PK	2.4092G	103.36	Inf	-Inf	30.75	3	Vertical	269	1.13	-
2412MHz	Pass	AV	2.39G	46.59	54.00	-7.41	30.69	3	Horizontal	193	2.18	-
2412MHz	Pass	AV	2.4102G	94.91	Inf	-Inf	30.75	3	Horizontal	193	2.18	-
2412MHz	Pass	PK	2.3668G	57.87	74.00	-16.13	30.62	3	Horizontal	193	2.18	-
2412MHz	Pass	PK	2.4092G	97.00	Inf	-Inf	30.75	3	Horizontal	193	2.18	-
2412MHz	Pass	AV	4.82397G	50.20	54.00	-3.80	6.53	3	Vertical	78	1.00	-
2412MHz	Pass	PK	4.82396G	53.21	74.00	-20.79	6.53	3	Vertical	78	1.00	-
2412MHz	Pass	AV	4.82395G	51.94	54.00	-2.06	6.53	3	Horizontal	41	1.08	-
2412MHz	Pass	PK	4.82404G	54.48	74.00	-19.52	6.53	3	Horizontal	41	1.08	-
2437MHz	Pass	AV	2.3526G	46.20	54.00	-7.80	30.58	3	Vertical	271	1.29	-
2437MHz	Pass	AV	2.4378G	99.62	Inf	-Inf	30.83	3	Vertical	271	1.29	-
2437MHz	Pass	AV	2.4994G	47.09	54.00	-6.91	31.01	3	Vertical	271	1.29	-
2437MHz	Pass	PK	2.3614G	58.33	74.00	-15.67	30.60	3	Vertical	271	1.29	-
2437MHz	Pass	PK	2.4362G	101.67	Inf	-Inf	30.83	3	Vertical	271	1.29	-
2437MHz	Pass	PK	2.4858G	58.82	74.00	-15.18	30.98	3	Vertical	271	1.29	-
2437MHz	Pass	AV	2.389G	46.01	54.00	-7.99	30.68	3	Horizontal	195	1.08	-
2437MHz	Pass	AV	2.4354G	93.64	Inf	-Inf	30.82	3	Horizontal	195	1.08	-
2437MHz	Pass	AV	2.499G	47.09	54.00	-6.91	31.01	3	Horizontal	195	1.08	-
2437MHz	Pass	PK	2.339G	57.75	74.00	-16.25	30.53	3	Horizontal	195	1.08	-
2437MHz	Pass	PK	2.4362G	95.72	Inf	-Inf	30.83	3	Horizontal	195	1.08	-
2437MHz	Pass	PK	2.4926G	59.11	74.00	-14.89	30.99	3	Horizontal	195	1.08	-
2437MHz	Pass	AV	4.87398G	48.35	54.00	-5.65	6.65	3	Vertical	82	1.05	-
2437MHz	Pass	PK	4.87407G	52.12	74.00	-21.88	6.65	3	Vertical	82	1.05	-
2437MHz	Pass	AV	4.87401G	51.89	54.00	-2.11	6.65	3	Horizontal	134	1.08	-
2437MHz	Pass	PK	4.87393G	54.18	74.00	-19.82	6.65	3	Horizontal	134	1.08	-
2462MHz	Pass	AV	2.4602G	98.38	Inf	-Inf	30.89	3	Vertical	278	1.35	-
2462MHz	Pass	AV	2.4866G	47.34	54.00	-6.66	30.98	3	Vertical	278	1.35	-
2462MHz	Pass	PK	2.461G	100.40	Inf	-Inf	30.90	3	Vertical	278	1.35	-
2462MHz	Pass	PK	2.498G	59.13	74.00	-14.87	31.01	3	Vertical	278	1.35	-
2462MHz	Pass	AV	2.4602G	92.07	Inf	-Inf	30.89	3	Horizontal	195	2.71	-
2462MHz	Pass	AV	2.4984G	47.09	54.00	-6.91	31.01	3	Horizontal	195	2.71	-
2462MHz	Pass	PK	2.461G	94.22	Inf	-Inf	30.90	3	Horizontal	195	2.71	-
2462MHz	Pass	PK	2.4934G	58.61	74.00	-15.39	30.99	3	Horizontal	195	2.71	-
2462MHz	Pass	AV	4.92395G	45.63	54.00	-8.37	6.77	3	Vertical	100	1.92	-
2462MHz	Pass	PK	4.92367G	50.36	74.00	-23.64	6.77	3	Vertical	100	1.92	-
2462MHz	Pass	AV	4.92397G	50.51	54.00	-3.49	6.77	3	Horizontal	44	1.04	-
2462MHz	Pass	PK	4.92394G	53.52	74.00	-20.48	6.77	3	Horizontal	44	1.04	-
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	51.24	54.00	-2.76	30.69	3	Vertical	251	1.12	-
2412MHz	Pass	AV	2.4058G	95.18	Inf	-Inf	30.73	3	Vertical	251	1.12	-
2412MHz	Pass	PK	2.3898G	60.96	74.00	-13.04	30.69	3	Vertical	251	1.12	-
2412MHz	Pass	PK	2.4152G	103.93	Inf	-Inf	30.77	3	Vertical	251	1.12	-
2412MHz	Pass	AV	2.3896G	47.31	54.00	-6.69	30.69	3	Horizontal	198	1.49	-
2412MHz	Pass	AV	2.4066G	88.16	Inf	-Inf	30.74	3	Horizontal	198	1.49	-

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	2.3888G	58.78	74.00	-15.22	30.68	3	Horizontal	198	1.49	-
2412MHz	Pass	PK	2.407G	96.93	Inf	-Inf	30.74	3	Horizontal	198	1.49	-
2412MHz	Pass	AV	4.82322G	35.14	54.00	-18.86	6.53	3	Vertical	76	1.01	-
2412MHz	Pass	PK	4.82172G	46.96	74.00	-27.04	6.53	3	Vertical	76	1.01	-
2412MHz	Pass	AV	4.82238G	36.04	54.00	-17.96	6.53	3	Horizontal	50	1.03	-
2412MHz	Pass	PK	4.818G	48.33	74.00	-25.67	6.53	3	Horizontal	50	1.03	-
2417MHz	Pass	AV	2.3898G	51.34	54.00	-2.66	30.69	3	Vertical	97	1.54	-
2417MHz	Pass	AV	2.4114G	97.05	Inf	-Inf	30.76	3	Vertical	97	1.54	-
2417MHz	Pass	AV	2.4986G	47.54	54.00	-6.46	31.01	3	Vertical	97	1.54	-
2417MHz	Pass	PK	2.3882G	62.93	74.00	-11.07	30.68	3	Vertical	97	1.54	-
2417MHz	Pass	PK	2.4202G	106.13	Inf	-Inf	30.78	3	Vertical	97	1.54	-
2417MHz	Pass	PK	2.4962G	58.80	74.00	-15.20	31.00	3	Vertical	97	1.54	-
2417MHz	Pass	AV	2.3898G	47.97	54.00	-6.03	30.69	3	Horizontal	22	1.65	-
2417MHz	Pass	AV	2.4114G	92.41	Inf	-Inf	30.76	3	Horizontal	22	1.65	-
2417MHz	Pass	AV	2.4886G	47.51	54.00	-6.49	30.98	3	Horizontal	22	1.65	-
2417MHz	Pass	PK	2.3878G	59.50	74.00	-14.50	30.68	3	Horizontal	22	1.65	-
2417MHz	Pass	PK	2.4102G	101.57	Inf	-Inf	30.75	3	Horizontal	22	1.65	-
2417MHz	Pass	PK	2.485G	58.77	74.00	-15.23	30.97	3	Horizontal	22	1.65	-
2437MHz	Pass	AV	2.3898G	51.70	54.00	-2.30	30.69	3	Vertical	248	1.22	-
2437MHz	Pass	AV	2.431G	101.61	Inf	-Inf	30.81	3	Vertical	248	1.22	-
2437MHz	Pass	AV	2.4838G	49.48	54.00	-4.52	30.97	3	Vertical	248	1.22	-
2437MHz	Pass	PK	2.3898G	66.05	74.00	-7.95	30.69	3	Vertical	248	1.22	-
2437MHz	Pass	PK	2.4358G	110.07	Inf	-Inf	30.83	3	Vertical	248	1.22	-
2437MHz	Pass	PK	2.4842G	60.77	74.00	-13.23	30.97	3	Vertical	248	1.22	-
2437MHz	Pass	AV	2.3898G	47.79	54.00	-6.21	30.69	3	Horizontal	197	1.70	-
2437MHz	Pass	AV	2.4314G	94.88	Inf	-Inf	30.82	3	Horizontal	197	1.70	-
2437MHz	Pass	AV	2.493G	47.57	54.00	-6.43	30.99	3	Horizontal	197	1.70	-
2437MHz	Pass	PK	2.3886G	59.90	74.00	-14.10	30.68	3	Horizontal	197	1.70	-
2437MHz	Pass	PK	2.439G	103.69	Inf	-Inf	30.83	3	Horizontal	197	1.70	-
2437MHz	Pass	PK	2.4862G	59.57	74.00	-14.43	30.98	3	Horizontal	197	1.70	-
2437MHz	Pass	AV	4.87436G	51.15	54.00	-2.85	6.65	3	Vertical	77	1.01	-
2437MHz	Pass	PK	4.87766G	64.39	74.00	-9.61	6.67	3	Vertical	77	1.01	-
2437MHz	Pass	AV	4.87424G	51.38	54.00	-2.62	6.65	3	Horizontal	125	1.01	-
2437MHz	Pass	PK	4.87796G	63.57	74.00	-10.43	6.67	3	Horizontal	125	1.01	-
2457MHz	Pass	AV	2.3758G	46.64	54.00	-7.36	30.64	3	Vertical	94	1.50	-
2457MHz	Pass	AV	2.451G	96.25	Inf	-Inf	30.87	3	Vertical	94	1.50	-
2457MHz	Pass	AV	2.4835G	51.71	54.00	-2.29	30.97	3	Vertical	94	1.50	-
2457MHz	Pass	PK	2.3622G	57.74	74.00	-16.26	30.60	3	Vertical	94	1.50	-
2457MHz	Pass	PK	2.461G	105.24	Inf	-Inf	30.90	3	Vertical	94	1.50	-
2457MHz	Pass	PK	2.4835G	64.13	74.00	-9.87	30.97	3	Vertical	94	1.50	-
2457MHz	Pass	AV	2.383G	46.40	54.00	-7.60	30.67	3	Horizontal	23	1.49	-
2457MHz	Pass	AV	2.4606G	91.04	Inf	-Inf	30.90	3	Horizontal	23	1.49	-
2457MHz	Pass	AV	2.4835G	48.27	54.00	-5.73	30.97	3	Horizontal	23	1.49	-
2457MHz	Pass	PK	2.3762G	57.57	74.00	-16.43	30.64	3	Horizontal	23	1.49	-
2457MHz	Pass	PK	2.4546G	99.95	Inf	-Inf	30.88	3	Horizontal	23	1.49	-
2457MHz	Pass	PK	2.4874G	58.92	74.00	-15.08	30.98	3	Horizontal	23	1.49	-
2462MHz	Pass	AV	2.4564G	94.55	Inf	-Inf	30.89	3	Vertical	249	1.34	-
2462MHz	Pass	AV	2.4835G	51.24	54.00	-2.76	30.97	3	Vertical	249	1.34	-
2462MHz	Pass	PK	2.4654G	104.01	Inf	-Inf	30.92	3	Vertical	249	1.34	-

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	2.4835G	63.54	74.00	-10.46	30.97	3	Vertical	249	1.34	-
2462MHz	Pass	AV	2.4582G	87.00	Inf	-Inf	30.89	3	Horizontal	196	1.17	-
2462MHz	Pass	AV	2.4835G	47.81	54.00	-6.19	30.97	3	Horizontal	196	1.17	-
2462MHz	Pass	PK	2.457G	95.88	Inf	-Inf	30.89	3	Horizontal	196	1.17	-
2462MHz	Pass	PK	2.4835G	58.67	74.00	-15.33	30.97	3	Horizontal	196	1.17	-
2462MHz	Pass	AV	4.92424G	37.65	54.00	-16.35	6.77	3	Vertical	70	1.10	-
2462MHz	Pass	PK	4.92526G	50.43	74.00	-23.57	6.78	3	Vertical	70	1.10	-
2462MHz	Pass	AV	4.92292G	40.16	54.00	-13.84	6.76	3	Horizontal	46	1.01	-
2462MHz	Pass	PK	4.92442G	52.43	74.00	-21.57	6.77	3	Horizontal	46	1.01	-
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3898G	51.49	54.00	-2.51	30.69	3	Vertical	249	1.01	-
2412MHz	Pass	AV	2.4048G	94.37	Inf	-Inf	30.73	3	Vertical	249	1.01	-
2412MHz	Pass	PK	2.3892G	62.98	74.00	-11.02	30.68	3	Vertical	249	1.01	-
2412MHz	Pass	PK	2.4054G	103.05	Inf	-Inf	30.73	3	Vertical	249	1.01	-
2412MHz	Pass	AV	2.39G	48.63	54.00	-5.37	30.69	3	Horizontal	189	1.28	-
2412MHz	Pass	AV	2.4064G	88.50	Inf	-Inf	30.74	3	Horizontal	189	1.28	-
2412MHz	Pass	PK	2.3898G	59.53	74.00	-14.47	30.69	3	Horizontal	189	1.28	-
2412MHz	Pass	PK	2.4074G	97.11	Inf	-Inf	30.74	3	Horizontal	189	1.28	-
2412MHz	Pass	AV	4.82298G	35.81	54.00	-18.19	6.53	3	Vertical	73	1.14	-
2412MHz	Pass	PK	4.82382G	47.69	74.00	-26.31	6.53	3	Vertical	73	1.14	-
2412MHz	Pass	AV	4.82448G	38.04	54.00	-15.96	6.53	3	Horizontal	48	1.03	-
2412MHz	Pass	PK	4.82226G	49.79	74.00	-24.21	6.53	3	Horizontal	48	1.03	-
2417MHz	Pass	AV	2.3898G	51.64	54.00	-2.36	30.69	3	Vertical	88	1.13	-
2417MHz	Pass	AV	2.4094G	97.31	Inf	-Inf	30.75	3	Vertical	88	1.13	-
2417MHz	Pass	AV	2.4982G	47.54	54.00	-6.46	31.01	3	Vertical	88	1.13	-
2417MHz	Pass	PK	2.3898G	63.63	74.00	-10.37	30.69	3	Vertical	88	1.13	-
2417MHz	Pass	PK	2.4122G	106.28	Inf	-Inf	30.76	3	Vertical	88	1.13	-
2417MHz	Pass	PK	2.4874G	58.71	74.00	-15.29	30.98	3	Vertical	88	1.13	-
2417MHz	Pass	AV	2.3898G	47.74	54.00	-6.26	30.69	3	Horizontal	22	1.65	-
2417MHz	Pass	AV	2.411G	91.85	Inf	-Inf	30.76	3	Horizontal	22	1.65	-
2417MHz	Pass	AV	2.4998G	47.27	54.00	-6.73	31.01	3	Horizontal	22	1.65	-
2417MHz	Pass	PK	2.3898G	60.09	74.00	-13.91	30.69	3	Horizontal	22	1.65	-
2417MHz	Pass	PK	2.4138G	100.29	Inf	-Inf	30.76	3	Horizontal	22	1.65	-
2417MHz	Pass	PK	2.4938G	58.80	74.00	-15.20	31.00	3	Horizontal	22	1.65	-
2437MHz	Pass	AV	2.3894G	49.43	54.00	-4.57	30.68	3	Vertical	249	1.29	-
2437MHz	Pass	AV	2.4302G	99.45	Inf	-Inf	30.81	3	Vertical	249	1.29	-
2437MHz	Pass	AV	2.4835G	48.75	54.00	-5.25	30.97	3	Vertical	249	1.29	-
2437MHz	Pass	PK	2.3898G	62.40	74.00	-11.60	30.69	3	Vertical	249	1.29	-
2437MHz	Pass	PK	2.4382G	108.42	Inf	-Inf	30.83	3	Vertical	249	1.29	-
2437MHz	Pass	PK	2.4846G	60.07	74.00	-13.93	30.97	3	Vertical	249	1.29	-
2437MHz	Pass	AV	2.3874G	46.97	54.00	-7.03	30.68	3	Horizontal	196	3.05	-
2437MHz	Pass	AV	2.4322G	94.25	Inf	-Inf	30.82	3	Horizontal	196	3.05	-
2437MHz	Pass	AV	2.4835G	47.76	54.00	-6.24	30.97	3	Horizontal	196	3.05	-
2437MHz	Pass	PK	2.3826G	57.53	74.00	-16.47	30.67	3	Horizontal	196	3.05	-
2437MHz	Pass	PK	2.4386G	103.29	Inf	-Inf	30.83	3	Horizontal	196	3.05	-
2437MHz	Pass	PK	2.499G	58.38	74.00	-15.62	31.01	3	Horizontal	196	3.05	-
2437MHz	Pass	AV	4.8737G	48.52	54.00	-5.48	6.65	3	Vertical	83	1.02	-
2437MHz	Pass	PK	4.87454G	61.71	74.00	-12.29	6.65	3	Vertical	83	1.02	-
2437MHz	Pass	AV	4.87328G	51.55	54.00	-2.45	6.65	3	Horizontal	43	1.03	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2437MHz	Pass	PK	4.87244G	64.43	74.00	-9.57	6.65	3	Horizontal	43	1.03	-
2457MHz	Pass	AV	2.3714G	46.63	54.00	-7.37	30.63	3	Vertical	97	1.33	-
2457MHz	Pass	AV	2.4514G	95.62	Inf	-Inf	30.87	3	Vertical	97	1.33	-
2457MHz	Pass	AV	2.4835G	51.88	54.00	-2.12	30.97	3	Vertical	97	1.33	-
2457MHz	Pass	PK	2.365G	58.17	74.00	-15.83	30.62	3	Vertical	97	1.33	-
2457MHz	Pass	PK	2.4546G	104.81	Inf	-Inf	30.88	3	Vertical	97	1.33	-
2457MHz	Pass	PK	2.4835G	64.13	74.00	-9.87	30.97	3	Vertical	97	1.33	-
2457MHz	Pass	AV	2.3818G	46.40	54.00	-7.60	30.67	3	Horizontal	22	1.31	-
2457MHz	Pass	AV	2.451G	90.70	Inf	-Inf	30.87	3	Horizontal	22	1.31	-
2457MHz	Pass	AV	2.4835G	48.52	54.00	-5.48	30.97	3	Horizontal	22	1.31	-
2457MHz	Pass	PK	2.3866G	57.71	74.00	-16.29	30.68	3	Horizontal	22	1.31	-
2457MHz	Pass	PK	2.4538G	98.77	Inf	-Inf	30.88	3	Horizontal	22	1.31	-
2457MHz	Pass	PK	2.4922G	59.27	74.00	-14.73	30.99	3	Horizontal	22	1.31	-
2462MHz	Pass	AV	2.4564G	93.58	Inf	-Inf	30.89	3	Vertical	275	1.08	-
2462MHz	Pass	AV	2.4835G	51.71	54.00	-2.29	30.97	3	Vertical	275	1.08	-
2462MHz	Pass	PK	2.4598G	102.84	Inf	-Inf	30.89	3	Vertical	275	1.08	-
2462MHz	Pass	PK	2.4838G	63.49	74.00	-10.51	30.97	3	Vertical	275	1.08	-
2462MHz	Pass	AV	2.4578G	87.23	Inf	-Inf	30.89	3	Horizontal	195	2.70	-
2462MHz	Pass	AV	2.4835G	48.75	54.00	-5.25	30.97	3	Horizontal	195	2.70	-
2462MHz	Pass	PK	2.4562G	96.21	Inf	-Inf	30.88	3	Horizontal	195	2.70	-
2462MHz	Pass	PK	2.4848G	59.04	74.00	-14.96	30.97	3	Horizontal	195	2.70	-
2462MHz	Pass	AV	4.92232G	38.06	54.00	-15.94	6.76	3	Vertical	90	1.06	-
2462MHz	Pass	PK	4.92076G	50.18	74.00	-23.82	6.76	3	Vertical	90	1.06	-
2462MHz	Pass	AV	4.92406G	40.29	54.00	-13.71	6.77	3	Horizontal	42	1.01	-
2462MHz	Pass	PK	4.92604G	52.80	74.00	-21.20	6.78	3	Horizontal	42	1.01	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

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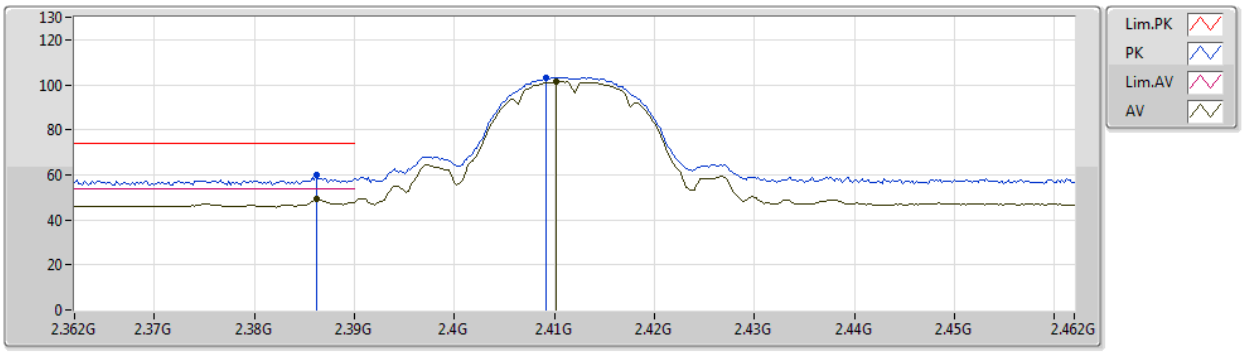

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3862G	49.10	54.00	-4.90	30.68	3	Vertical	269	1.13	-
AV	2.4102G	101.37	Inf	-Inf	30.75	3	Vertical	269	1.13	-
PK	2.3862G	59.76	74.00	-14.24	30.68	3	Vertical	269	1.13	-
PK	2.4092G	103.36	Inf	-Inf	30.75	3	Vertical	269	1.13	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

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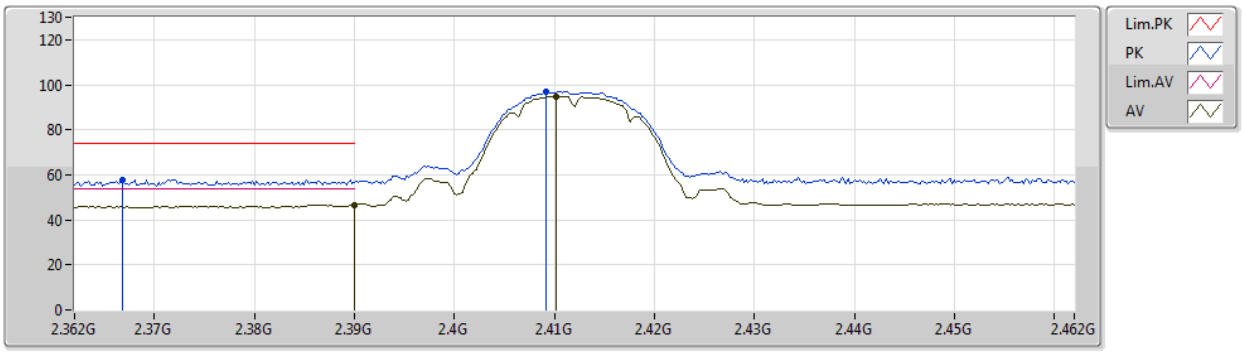
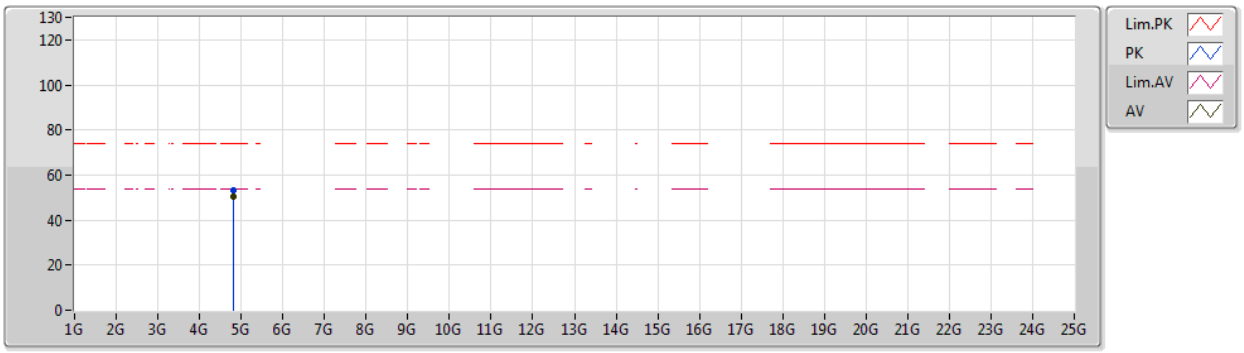


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	46.59	54.00	-7.41	30.69	3	Horizontal	193	2.18	-
AV	2.4102G	94.91	Inf	-Inf	30.75	3	Horizontal	193	2.18	-
PK	2.3668G	57.87	74.00	-16.13	30.62	3	Horizontal	193	2.18	-
PK	2.4092G	97.00	Inf	-Inf	30.75	3	Horizontal	193	2.18	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

21/02/2019

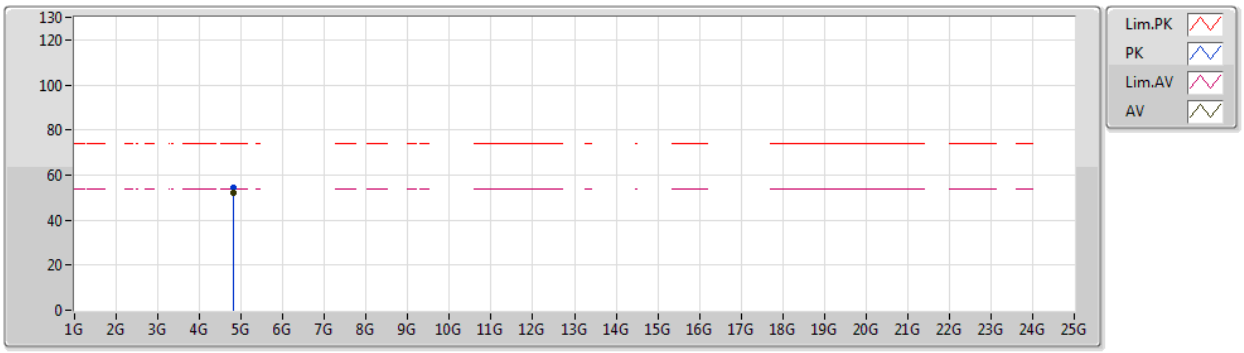


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82397G	50.20	54.00	-3.80	6.53	3	Vertical	78	1.00	-
PK	4.82396G	53.21	74.00	-20.79	6.53	3	Vertical	78	1.00	-

802.11b_Nss1,(1Mbps)_1TX

2412MHz_TX

21/02/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82395G	51.94	54.00	-2.06	6.53	3	Horizontal	41	1.08	-
PK	4.82404G	54.48	74.00	-19.52	6.53	3	Horizontal	41	1.08	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

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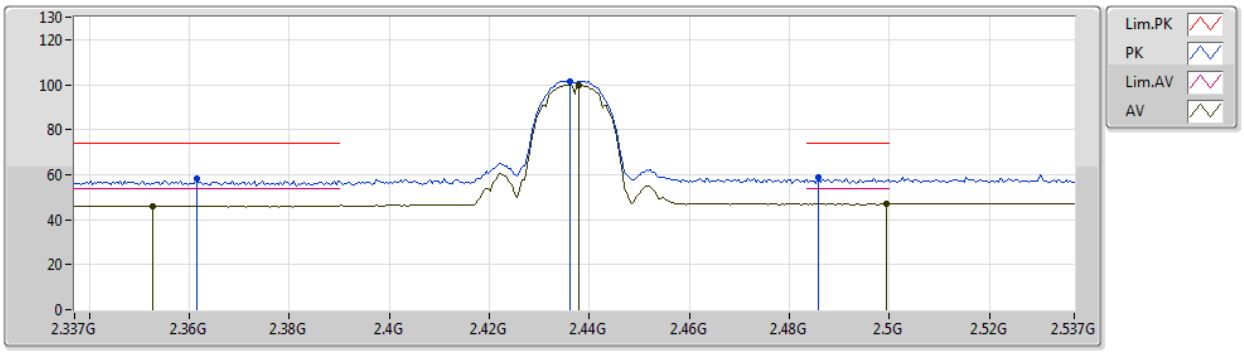

Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3526G	46.20	54.00	-7.80	30.58	3	Vertical	271	1.29	-
AV	2.4378G	99.62	Inf	-Inf	30.83	3	Vertical	271	1.29	-
AV	2.4994G	47.09	54.00	-6.91	31.01	3	Vertical	271	1.29	-
PK	2.3614G	58.33	74.00	-15.67	30.60	3	Vertical	271	1.29	-
PK	2.4362G	101.67	Inf	-Inf	30.83	3	Vertical	271	1.29	-
PK	2.4858G	58.82	74.00	-15.18	30.98	3	Vertical	271	1.29	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

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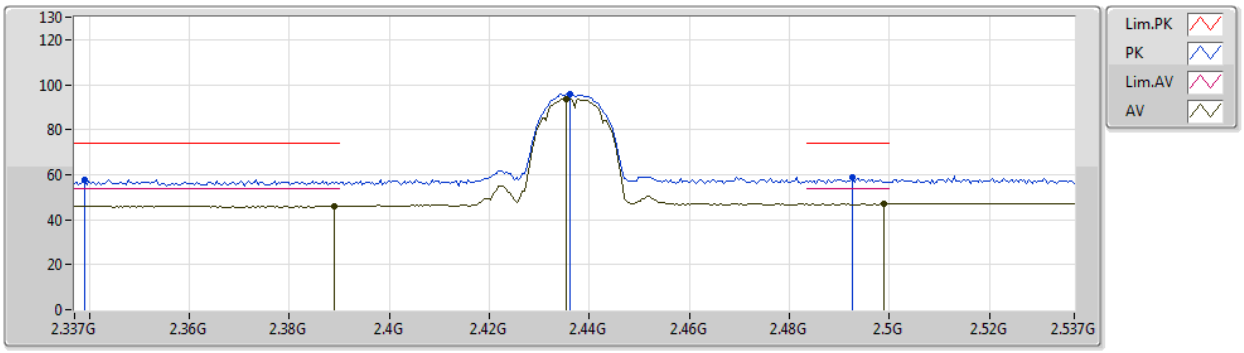
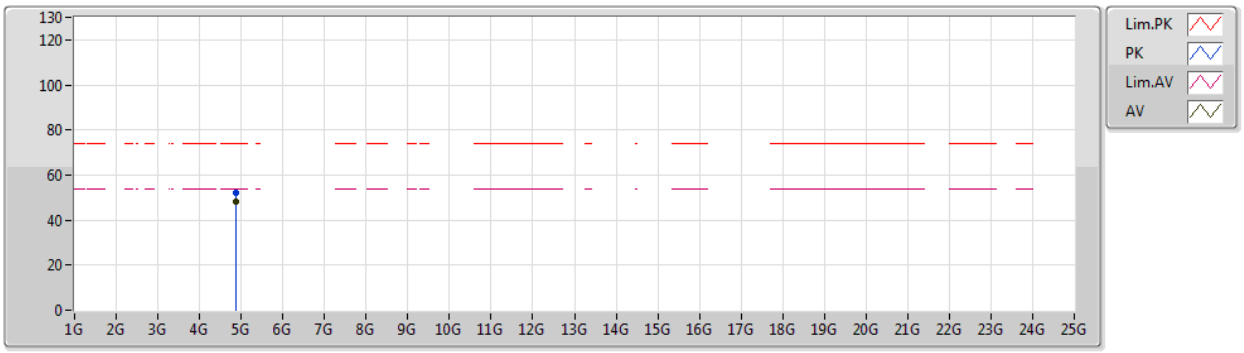


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.389G	46.01	54.00	-7.99	30.68	3	Horizontal	195	1.08	-
AV	2.4354G	93.64	Inf	-Inf	30.82	3	Horizontal	195	1.08	-
AV	2.499G	47.09	54.00	-6.91	31.01	3	Horizontal	195	1.08	-
PK	2.339G	57.75	74.00	-16.25	30.53	3	Horizontal	195	1.08	-
PK	2.4362G	95.72	Inf	-Inf	30.83	3	Horizontal	195	1.08	-
PK	2.4926G	59.11	74.00	-14.89	30.99	3	Horizontal	195	1.08	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

21/02/2019

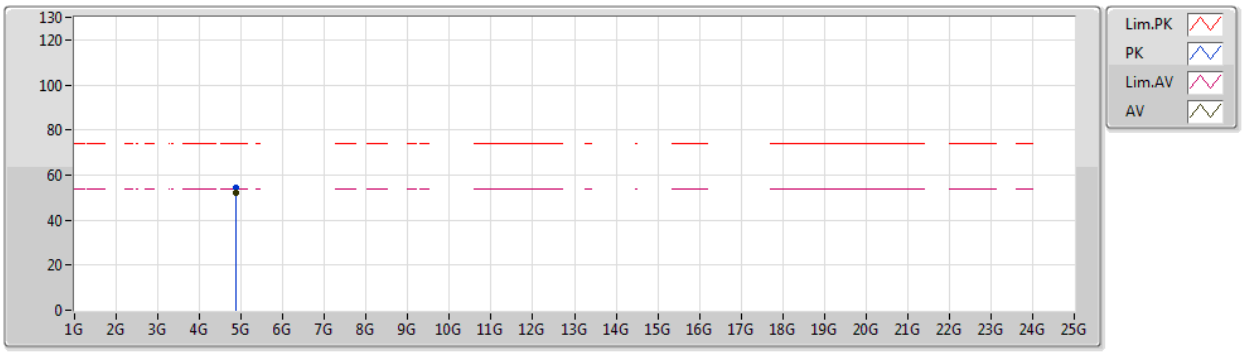


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87398G	48.35	54.00	-5.65	6.65	3	Vertical	82	1.05	-
PK	4.87407G	52.12	74.00	-21.88	6.65	3	Vertical	82	1.05	-

802.11b_Nss1,(1Mbps)_1TX

2437MHz_TX

21/02/2019

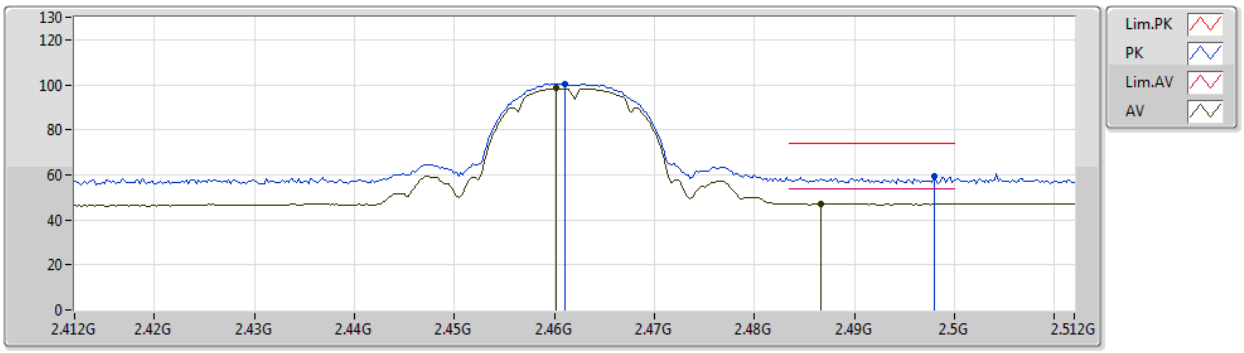


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87401G	51.89	54.00	-2.11	6.65	3	Horizontal	134	1.08	-
PK	4.87393G	54.18	74.00	-19.82	6.65	3	Horizontal	134	1.08	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

21/02/2019

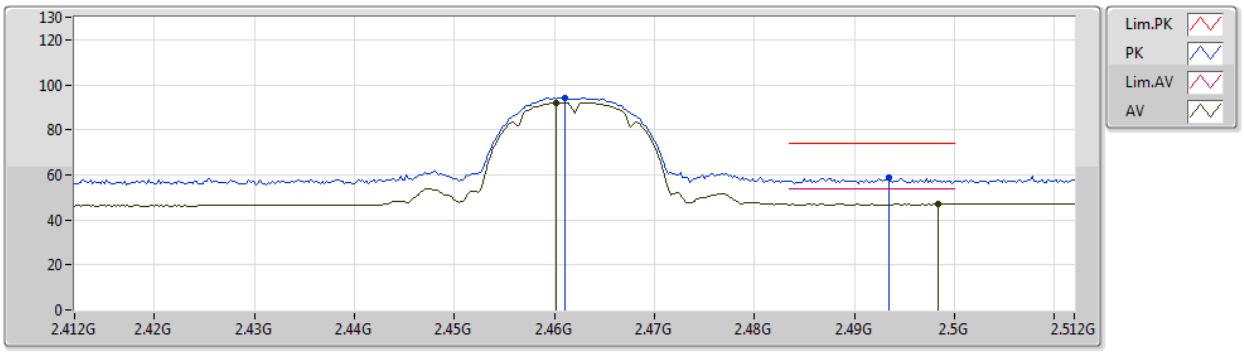


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4602G	98.38	Inf	-Inf	30.89	3	Vertical	278	1.35	-
AV	2.4866G	47.34	54.00	-6.66	30.98	3	Vertical	278	1.35	-
PK	2.461G	100.40	Inf	-Inf	30.90	3	Vertical	278	1.35	-
PK	2.498G	59.13	74.00	-14.87	31.01	3	Vertical	278	1.35	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

21/02/2019

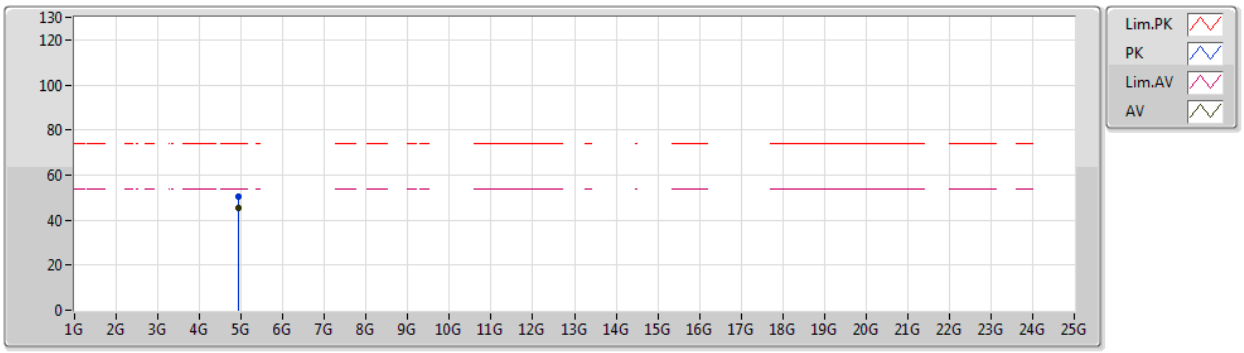


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4602G	92.07	Inf	-Inf	30.89	3	Horizontal	195	2.71	-
AV	2.4984G	47.09	54.00	-6.91	31.01	3	Horizontal	195	2.71	-
PK	2.461G	94.22	Inf	-Inf	30.90	3	Horizontal	195	2.71	-
PK	2.4934G	58.61	74.00	-15.39	30.99	3	Horizontal	195	2.71	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

21/02/2019

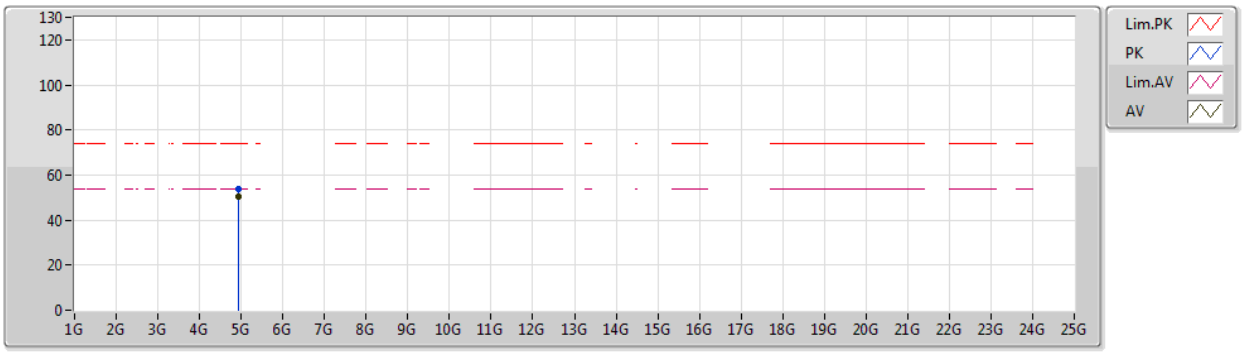


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.92395G	45.63	54.00	-8.37	6.77	3	Vertical	100	1.92	-
PK	4.92367G	50.36	74.00	-23.64	6.77	3	Vertical	100	1.92	-

802.11b_Nss1,(1Mbps)_1TX

2462MHz_TX

21/02/2019

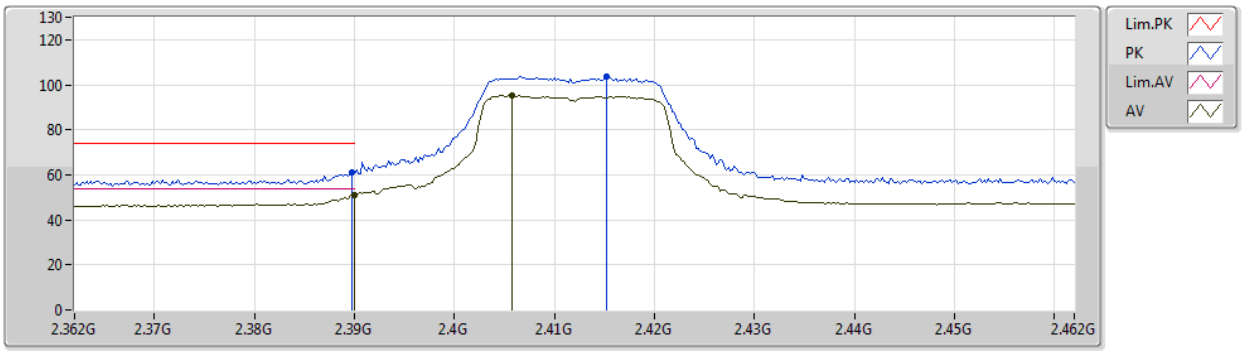


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.92397G	50.51	54.00	-3.49	6.77	3	Horizontal	44	1.04	-
PK	4.92394G	53.52	74.00	-20.48	6.77	3	Horizontal	44	1.04	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

22/02/2019

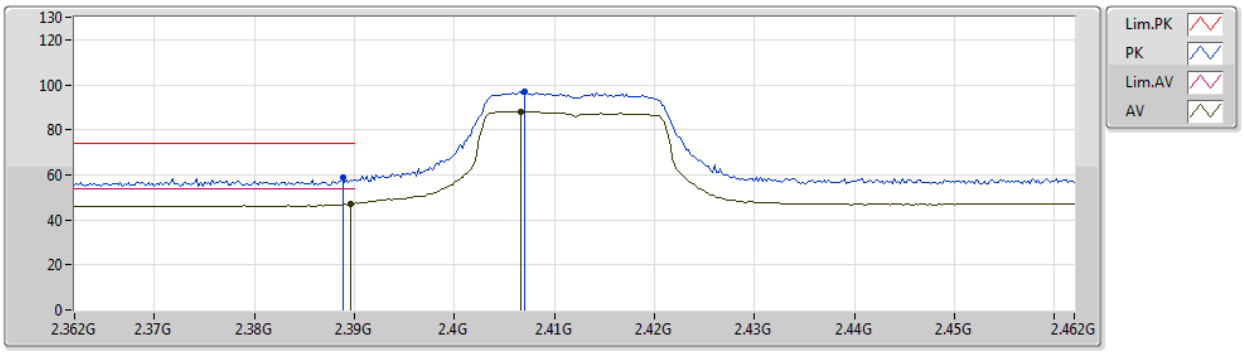


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	51.24	54.00	-2.76	30.69	3	Vertical	251	1.12	-
AV	2.4058G	95.18	Inf	-Inf	30.73	3	Vertical	251	1.12	-
PK	2.3898G	60.96	74.00	-13.04	30.69	3	Vertical	251	1.12	-
PK	2.4152G	103.93	Inf	-Inf	30.77	3	Vertical	251	1.12	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

22/02/2019

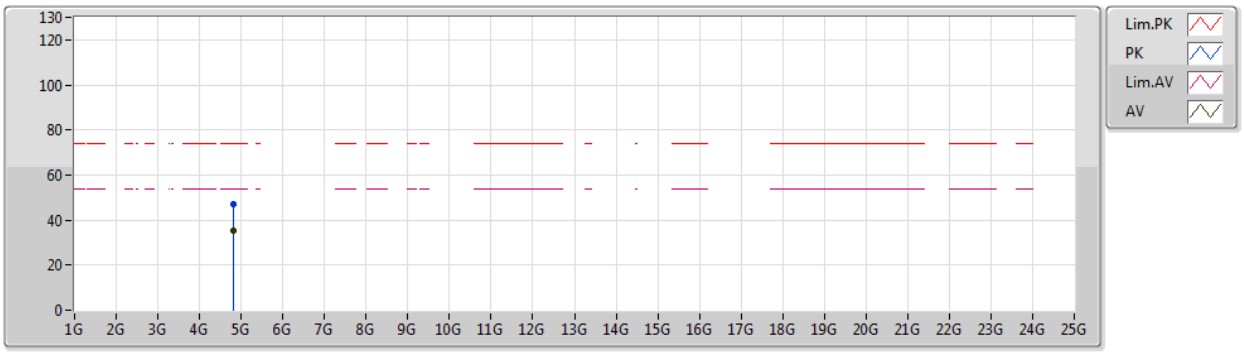


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3896G	47.31	54.00	-6.69	30.69	3	Horizontal	198	1.49	-
AV	2.4066G	88.16	Inf	-Inf	30.74	3	Horizontal	198	1.49	-
PK	2.3888G	58.78	74.00	-15.22	30.68	3	Horizontal	198	1.49	-
PK	2.407G	96.93	Inf	-Inf	30.74	3	Horizontal	198	1.49	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

22/02/2019

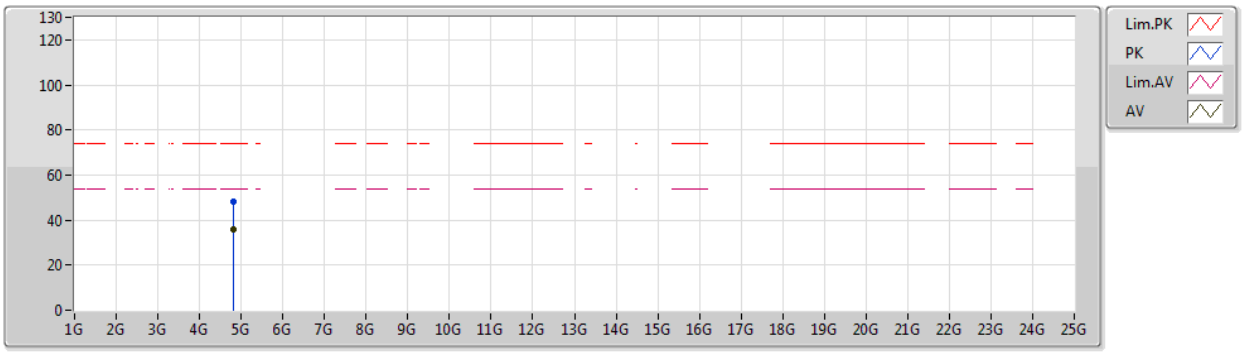


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82322G	35.14	54.00	-18.86	6.53	3	Vertical	76	1.01	-
PK	4.82172G	46.96	74.00	-27.04	6.53	3	Vertical	76	1.01	-

802.11g_Nss1,(6Mbps)_1TX

2412MHz_TX

22/02/2019

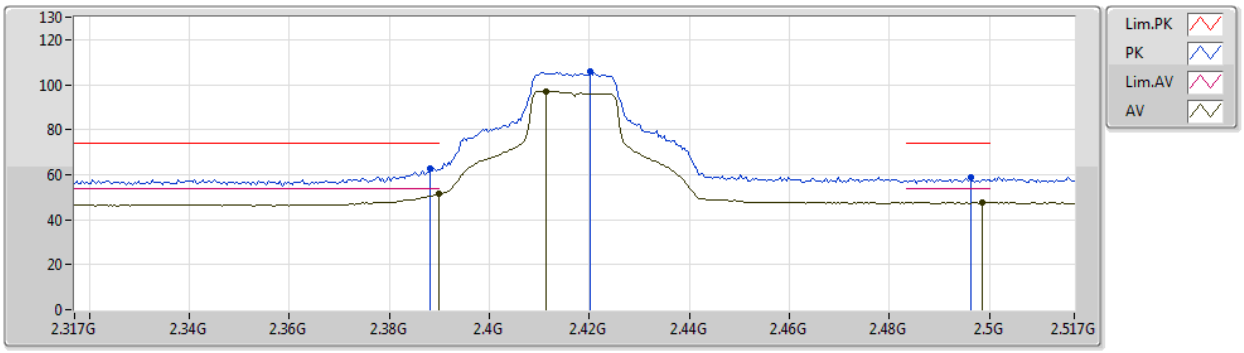


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82238G	36.04	54.00	-17.96	6.53	3	Horizontal	50	1.03	-
PK	4.818G	48.33	74.00	-25.67	6.53	3	Horizontal	50	1.03	-

802.11g_Nss1,(6Mbps)_1TX

2417MHz_TX

23/02/2019

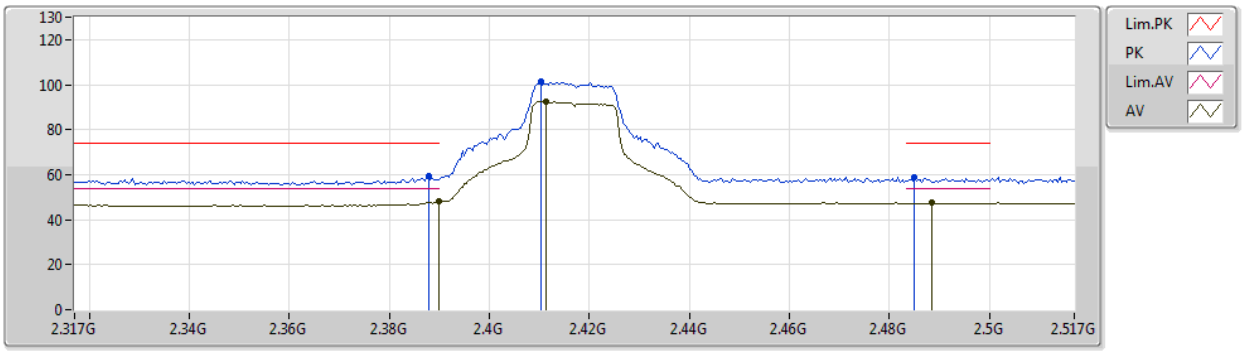


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	51.34	54.00	-2.66	30.69	3	Vertical	97	1.54	-
AV	2.4114G	97.05	Inf	-Inf	30.76	3	Vertical	97	1.54	-
AV	2.4986G	47.54	54.00	-6.46	31.01	3	Vertical	97	1.54	-
PK	2.3882G	62.93	74.00	-11.07	30.68	3	Vertical	97	1.54	-
PK	2.4202G	106.13	Inf	-Inf	30.78	3	Vertical	97	1.54	-
PK	2.4962G	58.80	74.00	-15.20	31.00	3	Vertical	97	1.54	-

802.11g_Nss1,(6Mbps)_1TX

2417MHz_TX

23/02/2019

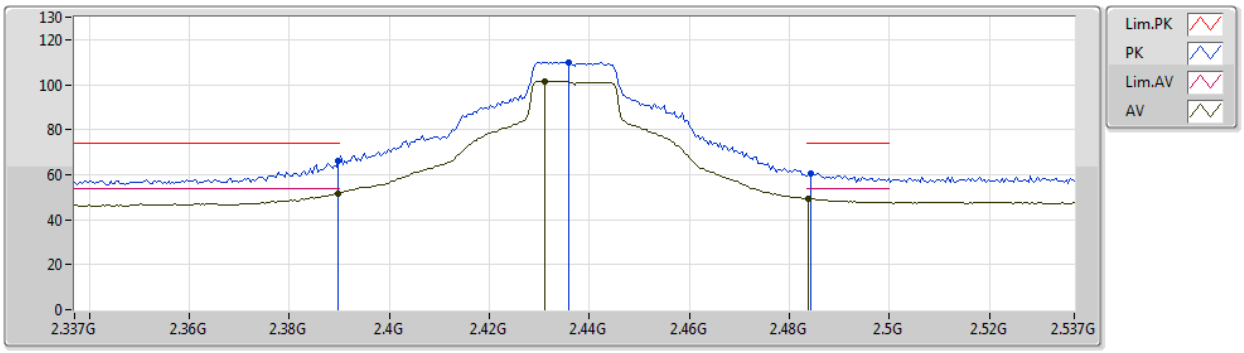


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	47.97	54.00	-6.03	30.69	3	Horizontal	22	1.65	-
AV	2.4114G	92.41	Inf	-Inf	30.76	3	Horizontal	22	1.65	-
AV	2.4886G	47.51	54.00	-6.49	30.98	3	Horizontal	22	1.65	-
PK	2.3878G	59.50	74.00	-14.50	30.68	3	Horizontal	22	1.65	-
PK	2.4102G	101.57	Inf	-Inf	30.75	3	Horizontal	22	1.65	-
PK	2.485G	58.77	74.00	-15.23	30.97	3	Horizontal	22	1.65	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

22/02/2019

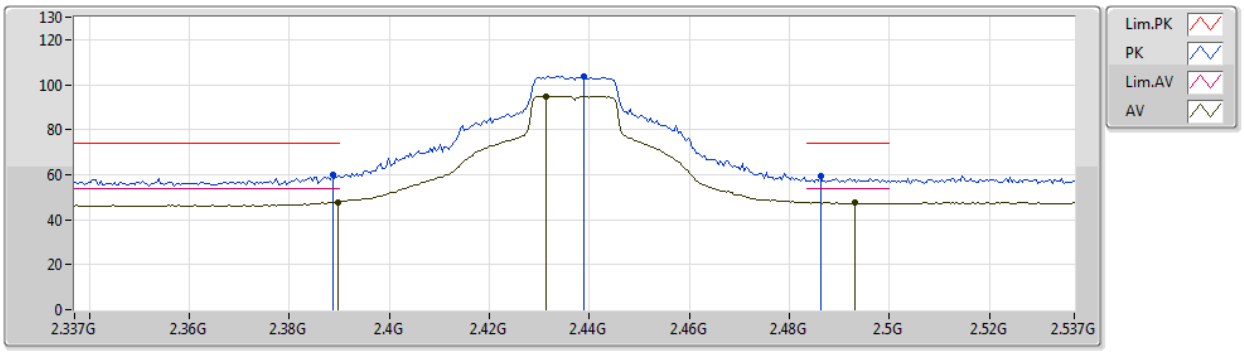


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	51.70	54.00	-2.30	30.69	3	Vertical	248	1.22	-
AV	2.431G	101.61	Inf	-Inf	30.81	3	Vertical	248	1.22	-
AV	2.4838G	49.48	54.00	-4.52	30.97	3	Vertical	248	1.22	-
PK	2.3898G	66.05	74.00	-7.95	30.69	3	Vertical	248	1.22	-
PK	2.4358G	110.07	Inf	-Inf	30.83	3	Vertical	248	1.22	-
PK	2.4842G	60.77	74.00	-13.23	30.97	3	Vertical	248	1.22	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

22/02/2019

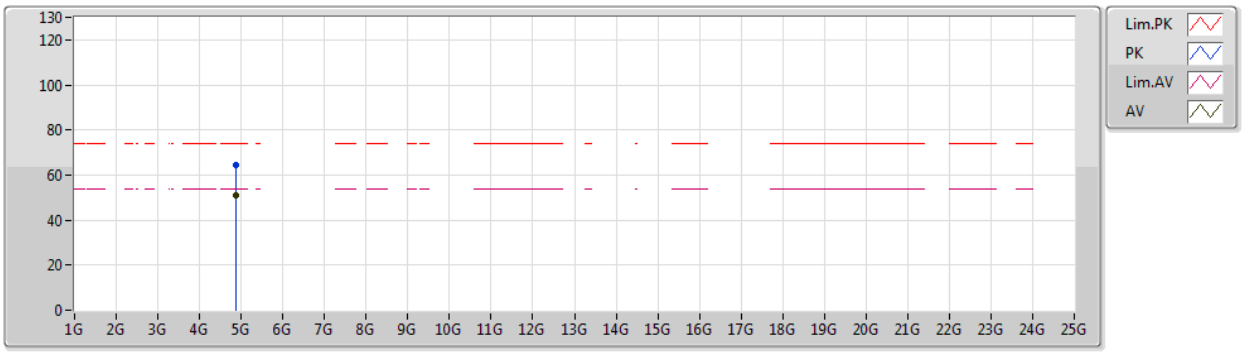


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	47.79	54.00	-6.21	30.69	3	Horizontal	197	1.70	-
AV	2.4314G	94.88	Inf	-Inf	30.82	3	Horizontal	197	1.70	-
AV	2.493G	47.57	54.00	-6.43	30.99	3	Horizontal	197	1.70	-
PK	2.3886G	59.90	74.00	-14.10	30.68	3	Horizontal	197	1.70	-
PK	2.439G	103.69	Inf	-Inf	30.83	3	Horizontal	197	1.70	-
PK	2.4862G	59.57	74.00	-14.43	30.98	3	Horizontal	197	1.70	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

22/02/2019

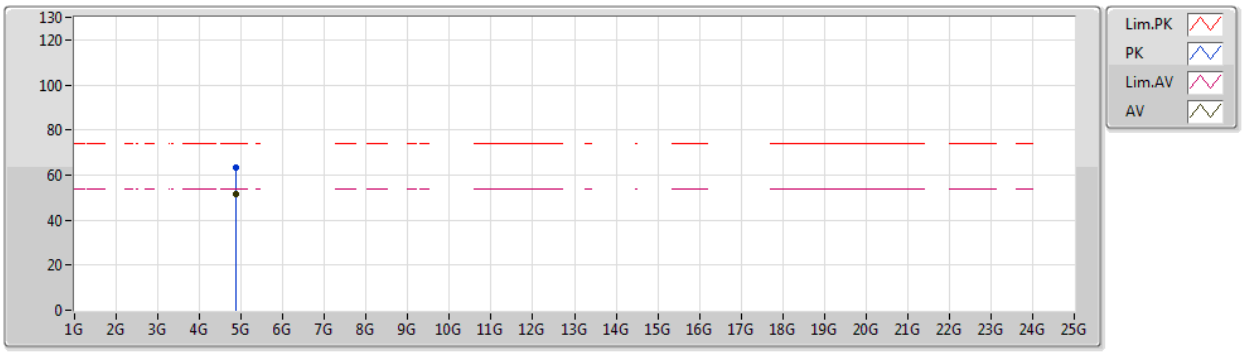


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87436G	51.15	54.00	-2.85	6.65	3	Vertical	77	1.01	-
PK	4.87766G	64.39	74.00	-9.61	6.67	3	Vertical	77	1.01	-

802.11g_Nss1,(6Mbps)_1TX

2437MHz_TX

22/02/2019

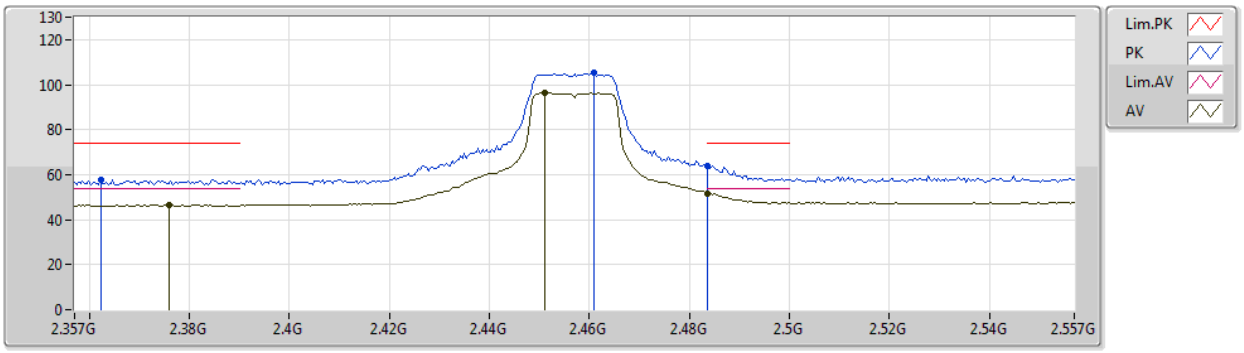


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87424G	51.38	54.00	-2.62	6.65	3	Horizontal	125	1.01	-
PK	4.87796G	63.57	74.00	-10.43	6.67	3	Horizontal	125	1.01	-

802.11g_Nss1,(6Mbps)_1TX

2457MHz_TX

24/02/2019

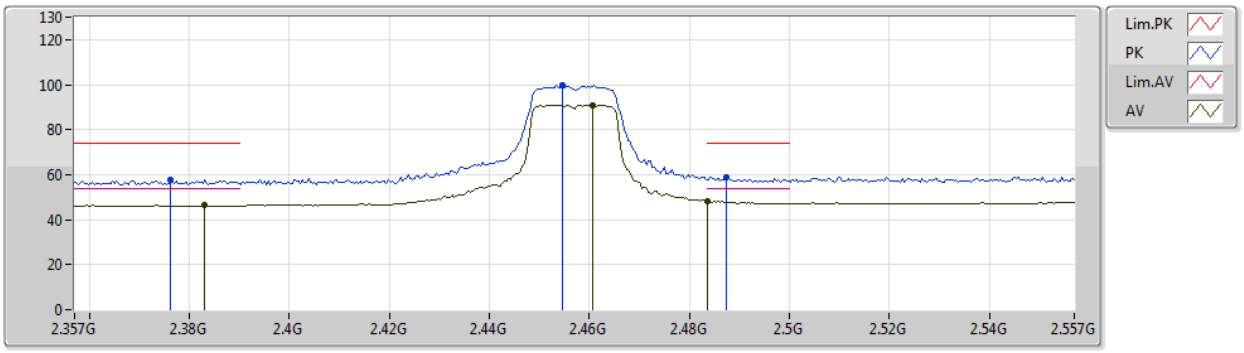


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3758G	46.64	54.00	-7.36	30.64	3	Vertical	94	1.50	-
AV	2.451G	96.25	Inf	-Inf	30.87	3	Vertical	94	1.50	-
AV	2.4835G	51.71	54.00	-2.29	30.97	3	Vertical	94	1.50	-
PK	2.3622G	57.74	74.00	-16.26	30.60	3	Vertical	94	1.50	-
PK	2.461G	105.24	Inf	-Inf	30.90	3	Vertical	94	1.50	-
PK	2.4835G	64.13	74.00	-9.87	30.97	3	Vertical	94	1.50	-

802.11g_Nss1,(6Mbps)_1TX

2457MHz_TX

24/02/2019

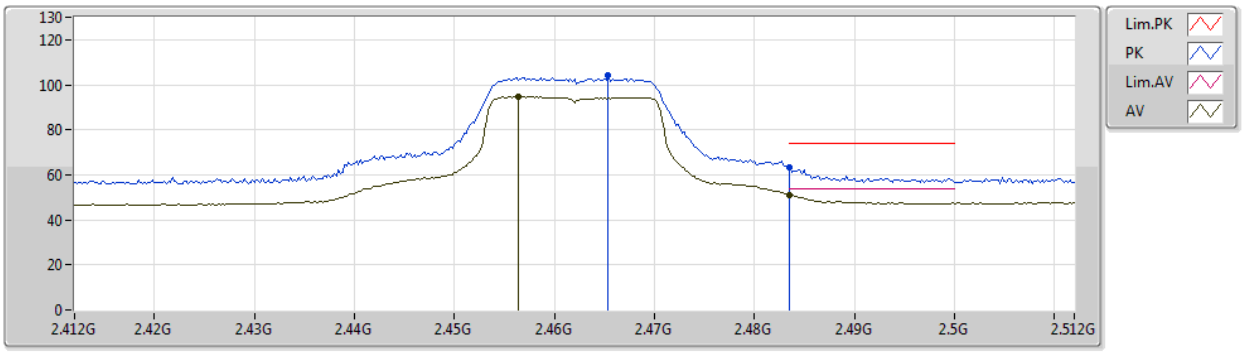


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.383G	46.40	54.00	-7.60	30.67	3	Horizontal	23	1.49	-
AV	2.4606G	91.04	Inf	-Inf	30.90	3	Horizontal	23	1.49	-
AV	2.4835G	48.27	54.00	-5.73	30.97	3	Horizontal	23	1.49	-
PK	2.3762G	57.57	74.00	-16.43	30.64	3	Horizontal	23	1.49	-
PK	2.4546G	99.95	Inf	-Inf	30.88	3	Horizontal	23	1.49	-
PK	2.4874G	58.92	74.00	-15.08	30.98	3	Horizontal	23	1.49	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

22/02/2019

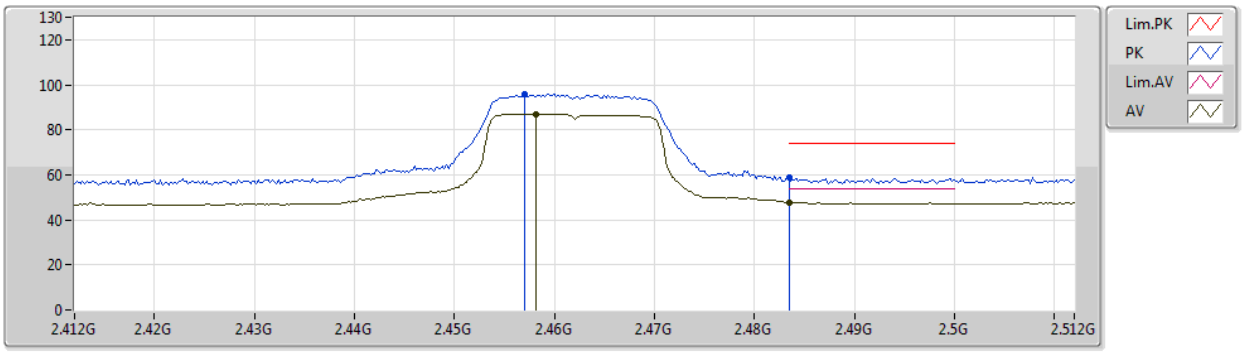


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4564G	94.55	Inf	-Inf	30.89	3	Vertical	249	1.34	-
AV	2.4835G	51.24	54.00	-2.76	30.97	3	Vertical	249	1.34	-
PK	2.4654G	104.01	Inf	-Inf	30.92	3	Vertical	249	1.34	-
PK	2.4835G	63.54	74.00	-10.46	30.97	3	Vertical	249	1.34	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

22/02/2019

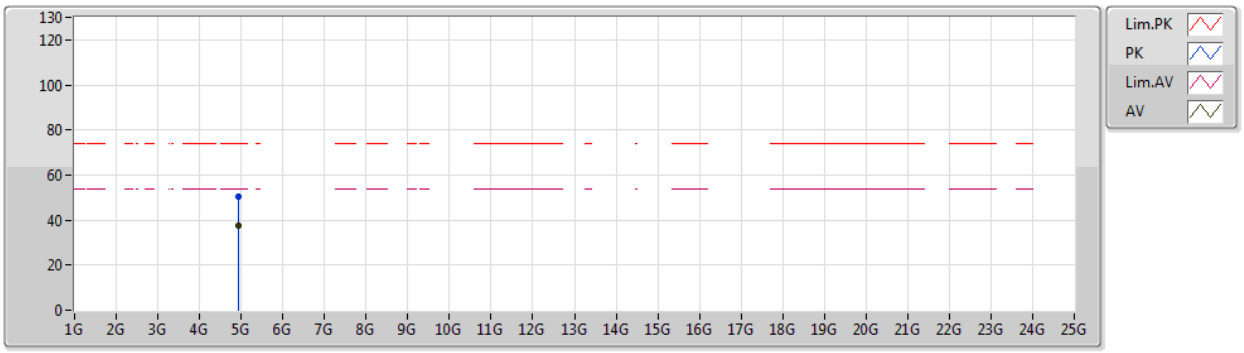


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4582G	87.00	Inf	-Inf	30.89	3	Horizontal	196	1.17	-
AV	2.4835G	47.81	54.00	-6.19	30.97	3	Horizontal	196	1.17	-
PK	2.457G	95.88	Inf	-Inf	30.89	3	Horizontal	196	1.17	-
PK	2.4835G	58.67	74.00	-15.33	30.97	3	Horizontal	196	1.17	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

22/02/2019

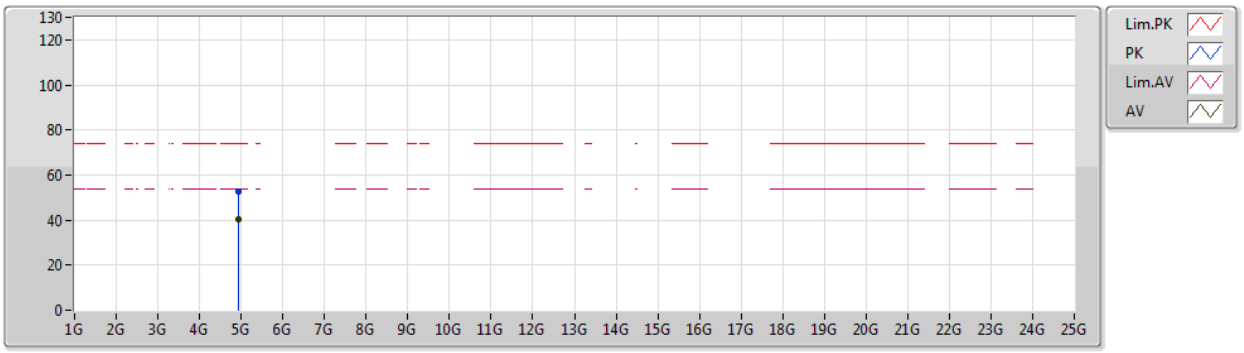


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.92424G	37.65	54.00	-16.35	6.77	3	Vertical	70	1.10	-
PK	4.92526G	50.43	74.00	-23.57	6.78	3	Vertical	70	1.10	-

802.11g_Nss1,(6Mbps)_1TX

2462MHz_TX

22/02/2019

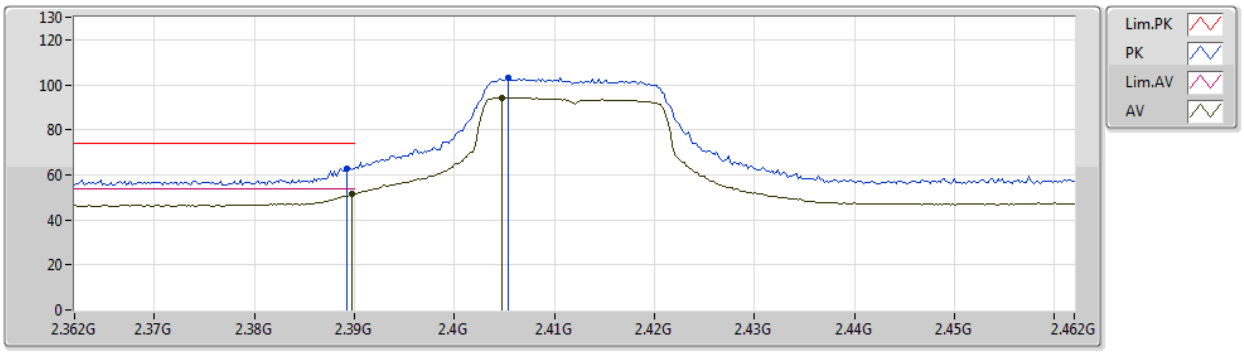


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.92292G	40.16	54.00	-13.84	6.76	3	Horizontal	46	1.01	-
PK	4.92442G	52.43	74.00	-21.57	6.77	3	Horizontal	46	1.01	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

22/02/2019

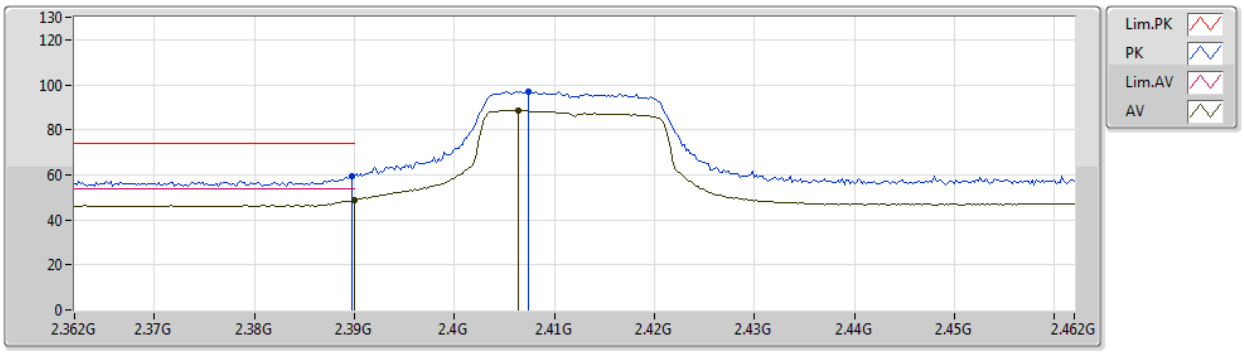


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	51.49	54.00	-2.51	30.69	3	Vertical	249	1.01	-
AV	2.4048G	94.37	Inf	-Inf	30.73	3	Vertical	249	1.01	-
PK	2.3892G	62.98	74.00	-11.02	30.68	3	Vertical	249	1.01	-
PK	2.4054G	103.05	Inf	-Inf	30.73	3	Vertical	249	1.01	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

22/02/2019

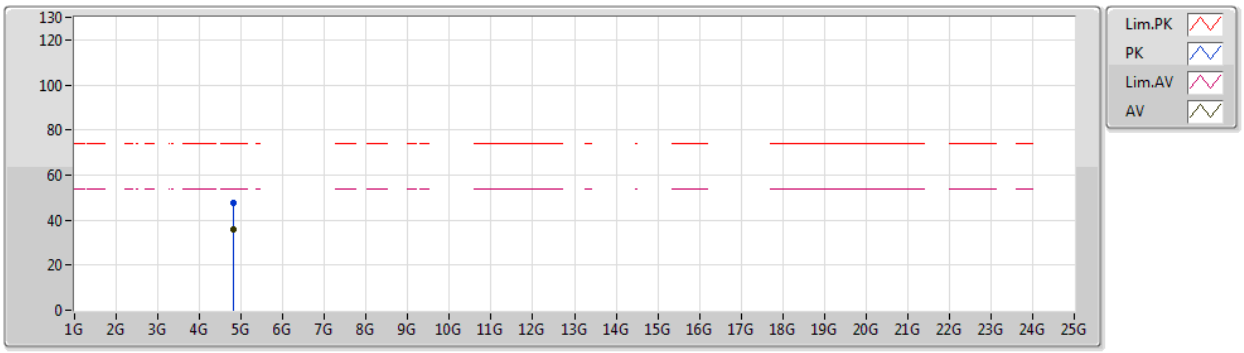


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	48.63	54.00	-5.37	30.69	3	Horizontal	189	1.28	-
AV	2.4064G	88.50	Inf	-Inf	30.74	3	Horizontal	189	1.28	-
PK	2.3898G	59.53	74.00	-14.47	30.69	3	Horizontal	189	1.28	-
PK	2.4074G	97.11	Inf	-Inf	30.74	3	Horizontal	189	1.28	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

22/02/2019

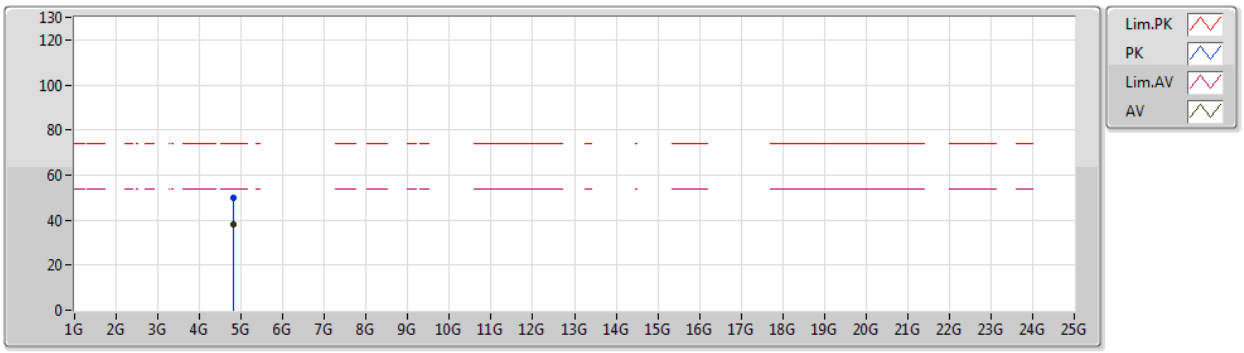


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82298G	35.81	54.00	-18.19	6.53	3	Vertical	73	1.14	-
PK	4.82382G	47.69	74.00	-26.31	6.53	3	Vertical	73	1.14	-

802.11n HT20_Nss1,(MCS0)_1TX

2412MHz_TX

22/02/2019

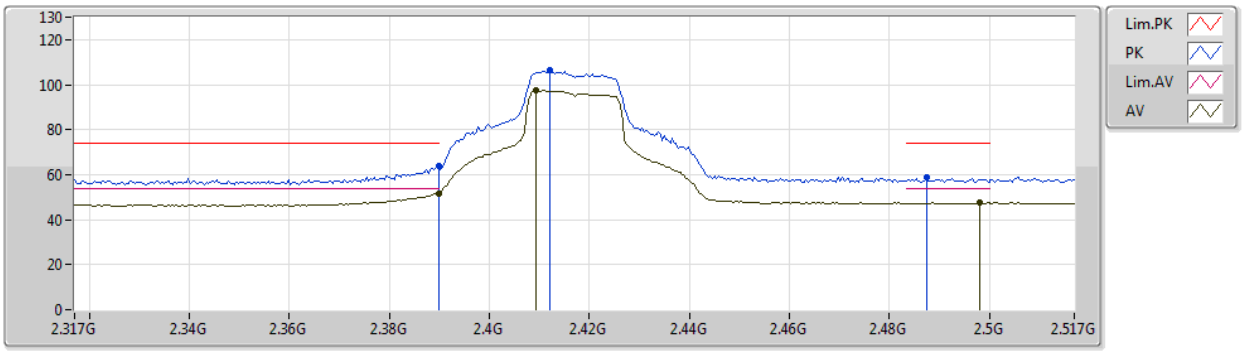


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82448G	38.04	54.00	-15.96	6.53	3	Horizontal	48	1.03	-
PK	4.82226G	49.79	74.00	-24.21	6.53	3	Horizontal	48	1.03	-

802.11n HT20_Nss1,(MCS0)_1TX

2417MHz_TX

23/02/2019

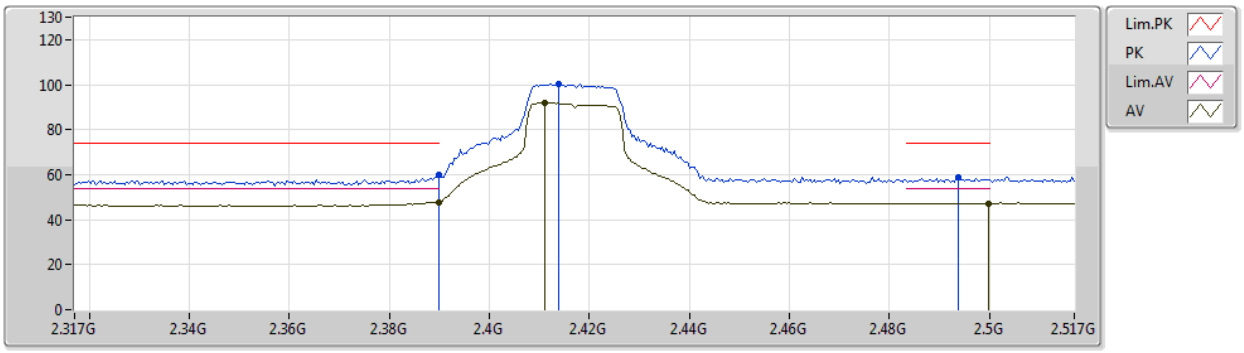


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	51.64	54.00	-2.36	30.69	3	Vertical	88	1.13	-
AV	2.4094G	97.31	Inf	-Inf	30.75	3	Vertical	88	1.13	-
AV	2.4982G	47.54	54.00	-6.46	31.01	3	Vertical	88	1.13	-
PK	2.3898G	63.63	74.00	-10.37	30.69	3	Vertical	88	1.13	-
PK	2.4122G	106.28	Inf	-Inf	30.76	3	Vertical	88	1.13	-
PK	2.4874G	58.71	74.00	-15.29	30.98	3	Vertical	88	1.13	-

802.11n HT20_Nss1,(MCS0)_1TX

2417MHz_TX

23/02/2019

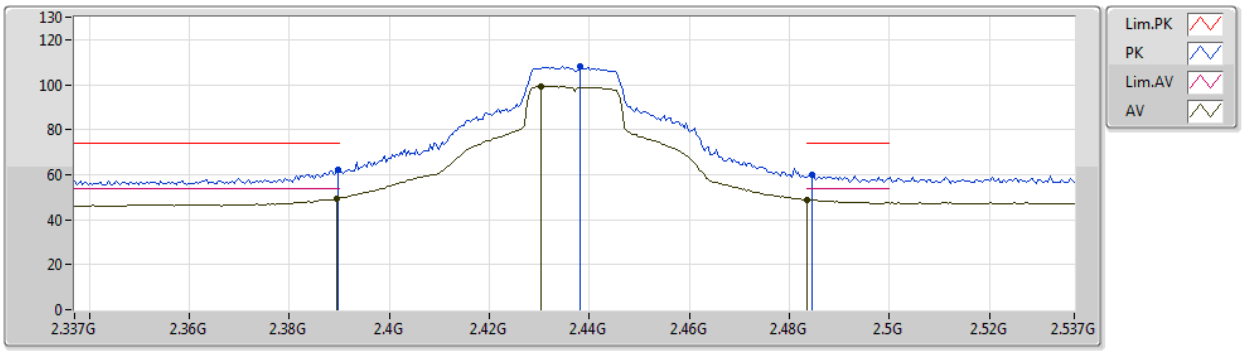


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	47.74	54.00	-6.26	30.69	3	Horizontal	22	1.65	-
AV	2.411G	91.85	Inf	-Inf	30.76	3	Horizontal	22	1.65	-
AV	2.4998G	47.27	54.00	-6.73	31.01	3	Horizontal	22	1.65	-
PK	2.3898G	60.09	74.00	-13.91	30.69	3	Horizontal	22	1.65	-
PK	2.4138G	100.29	Inf	-Inf	30.76	3	Horizontal	22	1.65	-
PK	2.4938G	58.80	74.00	-15.20	31.00	3	Horizontal	22	1.65	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

22/02/2019

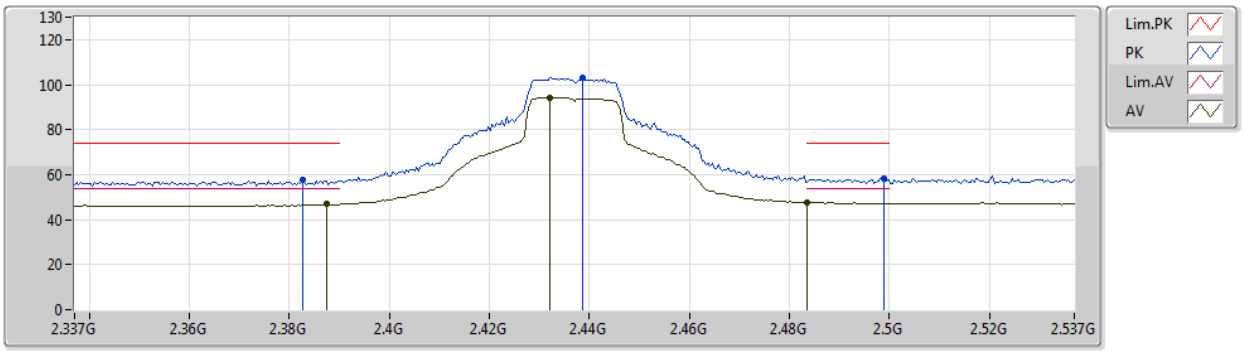


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3894G	49.43	54.00	-4.57	30.68	3	Vertical	249	1.29	-
AV	2.4302G	99.45	Inf	-Inf	30.81	3	Vertical	249	1.29	-
AV	2.4835G	48.75	54.00	-5.25	30.97	3	Vertical	249	1.29	-
PK	2.3898G	62.40	74.00	-11.60	30.69	3	Vertical	249	1.29	-
PK	2.4382G	108.42	Inf	-Inf	30.83	3	Vertical	249	1.29	-
PK	2.4846G	60.07	74.00	-13.93	30.97	3	Vertical	249	1.29	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

22/02/2019

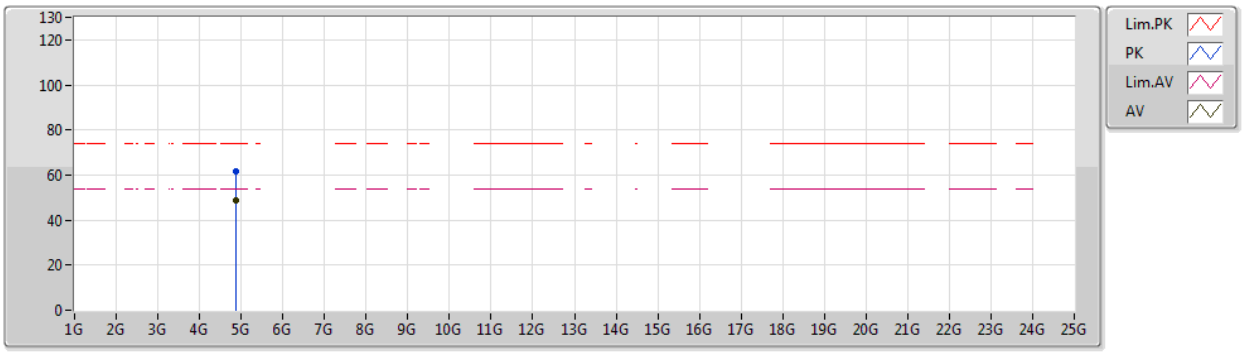


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3874G	46.97	54.00	-7.03	30.68	3	Horizontal	196	3.05	-
AV	2.4322G	94.25	Inf	-Inf	30.82	3	Horizontal	196	3.05	-
AV	2.4835G	47.76	54.00	-6.24	30.97	3	Horizontal	196	3.05	-
PK	2.3826G	57.53	74.00	-16.47	30.67	3	Horizontal	196	3.05	-
PK	2.4386G	103.29	Inf	-Inf	30.83	3	Horizontal	196	3.05	-
PK	2.499G	58.38	74.00	-15.62	31.01	3	Horizontal	196	3.05	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

22/02/2019

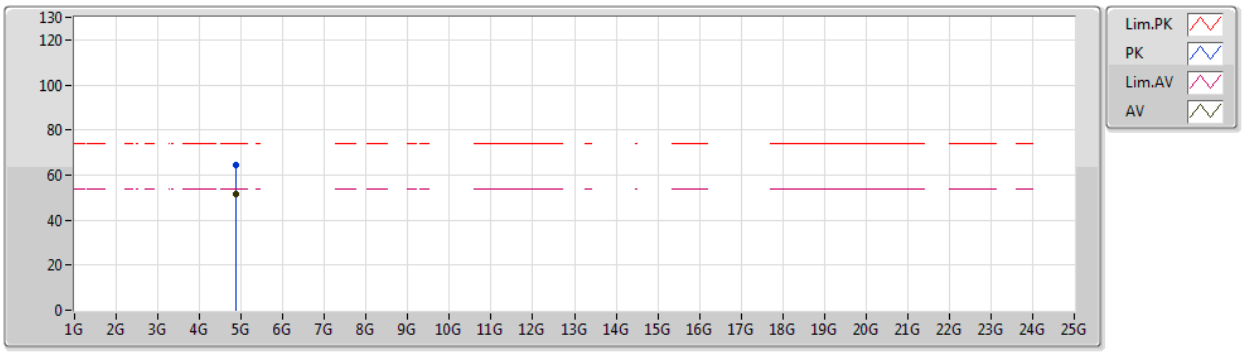


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.8737G	48.52	54.00	-5.48	6.65	3	Vertical	83	1.02	-
PK	4.87454G	61.71	74.00	-12.29	6.65	3	Vertical	83	1.02	-

802.11n HT20_Nss1,(MCS0)_1TX

2437MHz_TX

22/02/2019

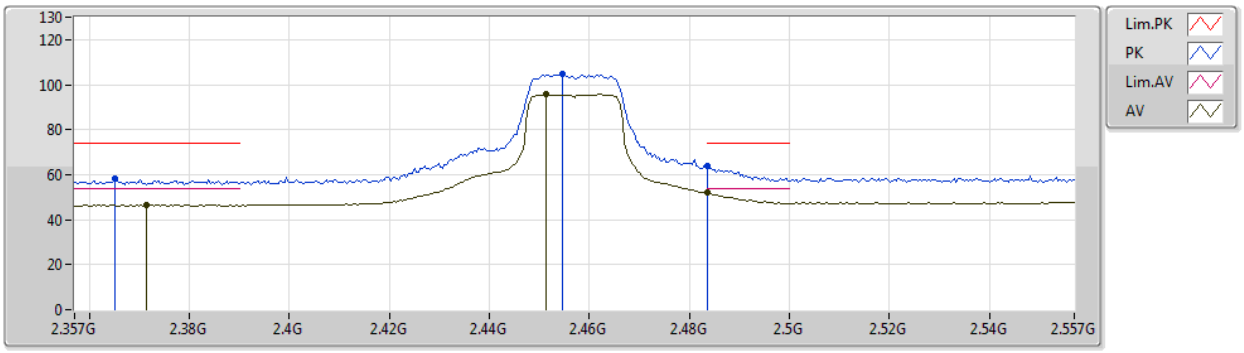


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87328G	51.55	54.00	-2.45	6.65	3	Horizontal	43	1.03	-
PK	4.87244G	64.43	74.00	-9.57	6.65	3	Horizontal	43	1.03	-

802.11n HT20_Nss1,(MCS0)_1TX

2457MHz_TX

24/02/2019

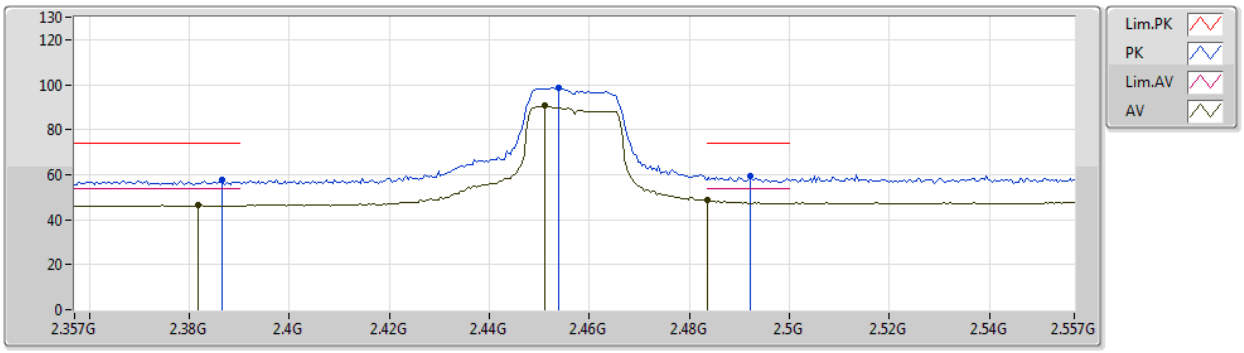


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3714G	46.63	54.00	-7.37	30.63	3	Vertical	97	1.33	-
AV	2.4514G	95.62	Inf	-Inf	30.87	3	Vertical	97	1.33	-
AV	2.4835G	51.88	54.00	-2.12	30.97	3	Vertical	97	1.33	-
PK	2.365G	58.17	74.00	-15.83	30.62	3	Vertical	97	1.33	-
PK	2.4546G	104.81	Inf	-Inf	30.88	3	Vertical	97	1.33	-
PK	2.4835G	64.13	74.00	-9.87	30.97	3	Vertical	97	1.33	-

802.11n HT20_Nss1,(MCS0)_1TX

2457MHz_TX

24/02/2019

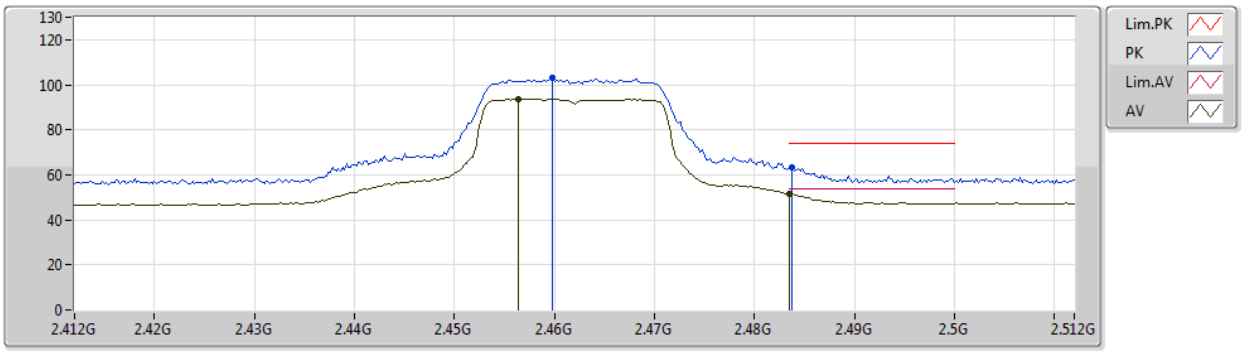


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3818G	46.40	54.00	-7.60	30.67	3	Horizontal	22	1.31	-
AV	2.451G	90.70	Inf	-Inf	30.87	3	Horizontal	22	1.31	-
AV	2.4835G	48.52	54.00	-5.48	30.97	3	Horizontal	22	1.31	-
PK	2.3866G	57.71	74.00	-16.29	30.68	3	Horizontal	22	1.31	-
PK	2.4538G	98.77	Inf	-Inf	30.88	3	Horizontal	22	1.31	-
PK	2.4922G	59.27	74.00	-14.73	30.99	3	Horizontal	22	1.31	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

22/02/2019

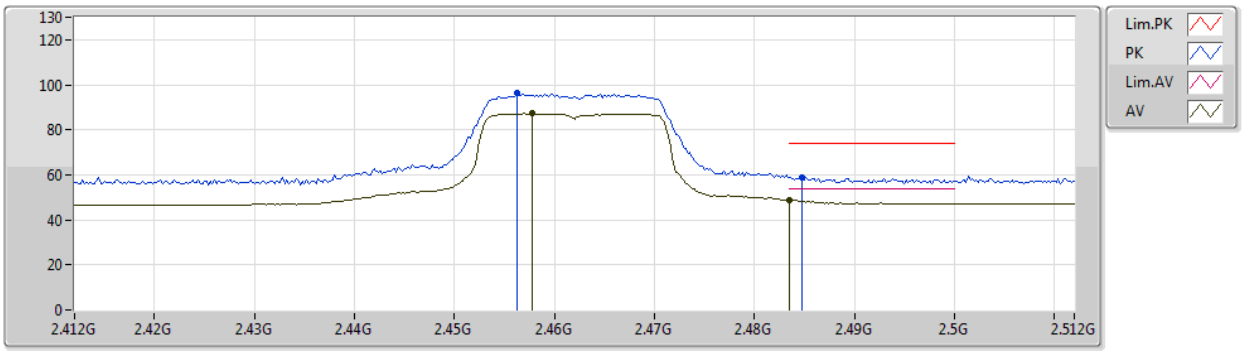


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4564G	93.58	Inf	-Inf	30.89	3	Vertical	275	1.08	-
AV	2.4835G	51.71	54.00	-2.29	30.97	3	Vertical	275	1.08	-
PK	2.4598G	102.84	Inf	-Inf	30.89	3	Vertical	275	1.08	-
PK	2.4838G	63.49	74.00	-10.51	30.97	3	Vertical	275	1.08	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

22/02/2019

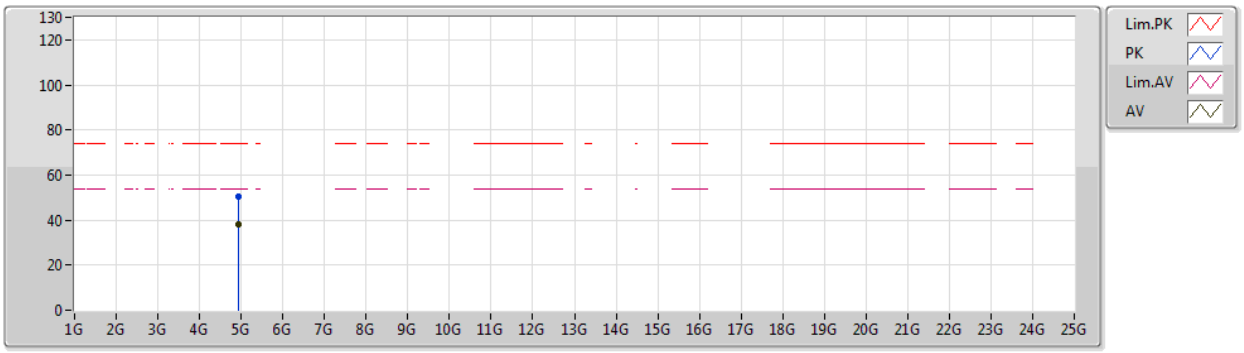


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4578G	87.23	Inf	-Inf	30.89	3	Horizontal	195	2.70	-
AV	2.4835G	48.75	54.00	-5.25	30.97	3	Horizontal	195	2.70	-
PK	2.4562G	96.21	Inf	-Inf	30.88	3	Horizontal	195	2.70	-
PK	2.4848G	59.04	74.00	-14.96	30.97	3	Horizontal	195	2.70	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

22/02/2019

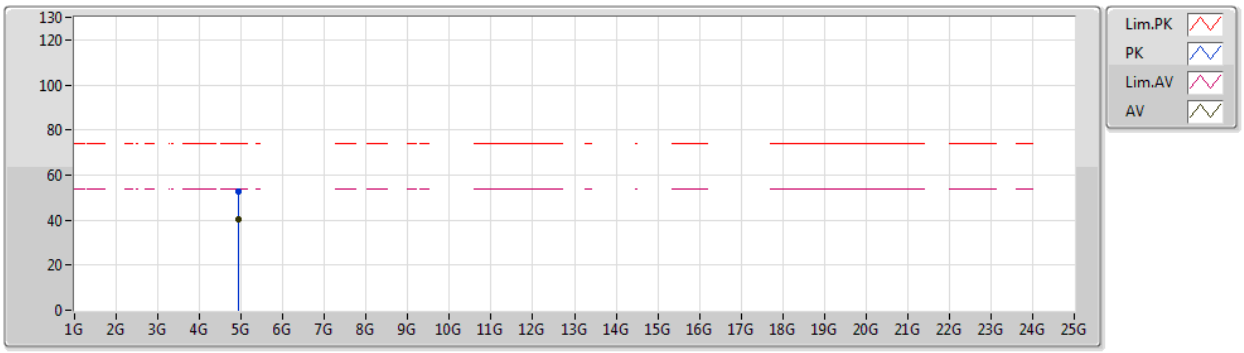


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.92232G	38.06	54.00	-15.94	6.76	3	Vertical	90	1.06	-
PK	4.92076G	50.18	74.00	-23.82	6.76	3	Vertical	90	1.06	-

802.11n HT20_Nss1,(MCS0)_1TX

2462MHz_TX

22/02/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.92406G	40.29	54.00	-13.71	6.77	3	Horizontal	42	1.01	-
PK	4.92604G	52.80	74.00	-21.20	6.78	3	Horizontal	42	1.01	-