

FCC Test Report

FCC ID : LDKIG21
Equipment : Cisco Industrial Gateway
Brand Name : Cisco
Model Name : IG21-VZ-B-K9, IG21-NA-B-K9
Applicant : Cisco Systems, Inc.
125 West Tasman Drive, San Jose,
California, United States, 95134-1706
Manufacturer : Cisco Systems, Inc.
125 West Tasman Dr. Bldg. P San Jose
CA 95134 United States Of America
Standard : 47 CFR FCC Part 15.247

The product was received on Jun. 23, 2020, and testing was started from Jun. 23, 2020 and completed on Aug. 28, 2020. 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 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
FR082548AC	01	Initial issue of report	Oct. 06, 2020
FR082548AC	02	Modified Antenna Information (This report is the latest version replacing for the report issued on Oct. 06, 2020)	Oct. 14, 2020
FR082548AC	03	Revise Manufacturer address (This report is the latest version replacing for the report issued on Oct. 14, 2020)	Nov. 11, 2020

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

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:

The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all test items are evaluated in the report. The beamforming mode only evaluates the output power.

Reviewed by: Sam Tsai

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)	2412-2462	1-11 [11]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT20-BF	20	2TX

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g and 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	Cisco	IG21	Dipole	I-PEX/ U.FL	3.74
2	2	Cisco	IG21	PIFA	I-PEX/ U.FL	3.19

Note 1: The EUT has two internal antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n mode (2TX/2RX)

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

1.1.3 EUT Information

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

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b_Nss1,(1Mbps)_2TX	0.994	0.03	12.213m	10
802.11g_Nss1,(6Mbps)_2TX	0.961	0.17	2.034m	1k
802.11n HT20_Nss1,(MCS0)_2TX	0.983	0.07	4.966m	10
802.11n HT20-BF_Nss1,(MCS0)_2TX	0.983	0.07	4.966m	10

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

1.1.5 Table for Multiple Listing

Model Name	Description
IG21-VZ-B-K9	All the models are identical, only contains difference WWAN module for served as a marketing strategy.
IG21-NA-B-K9	

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

The following reference test guidance is not within the scope of accreditation of TAF:

- ♦ KDB 558074 D01 v05r02
- ♦ KDB 662911 D01 v02r01
- ♦ KDB 414788 D01 v01r01

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.				
☒	Wen Shan	ADD : No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)		
		TEL : 886-3-318-0787	FAX : 886-3-318-0287	
Test site Designation No. TW1097 with FCC.				

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conducted emission	CO04-HY	Edward Wang	24.5~24.8°C / 55 ~ 59%	25/Jun/2020
RF Conducted	TH06-HY	Alan Chien	20.1~26.9°C / 50~60%	24/Jun/2020
Radiated (Below 1G)	03CH09-HY	Daniel Hsu	21.9~24.6°C / 50~57%	28/Aug/2020
Radiated (Above 1G)	03CH09-HY	Daniel Hsu	22.6~25.6°C / 53~60%	23/Jun/2020~ 24/Jun/2020

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)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	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	QRCT V3.0.265.01.6
-----------------------	--------------------

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	18
2437MHz	18
2462MHz	18
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	17.5
2417MHz	18
2437MHz	18
2457MHz	18
2462MHz	16
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	17.5
2417MHz	18
2437MHz	18
2457MHz	18
2462MHz	16

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	

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4GHz+3G
2	WLAN 2.4GHz+LTE
Refer to Sporton Test Report No.: FA082548 for Co-location RF Exposure Evaluation.	

2.4 Support Equipment

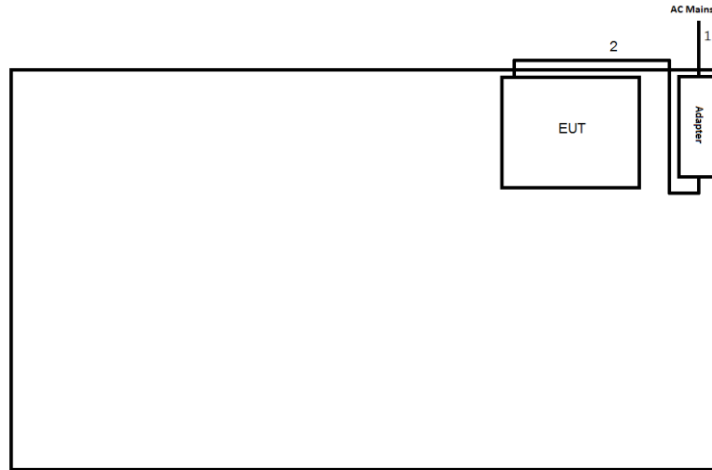
Support Equipment – AC Conducted emission					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	AC adapter	DELTA ELECTRONICS,INC.	ADP-18KR B	-	-

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	AC adapter	DELTA ELECTRONICS,INC.	ADP-18KR B	-	-

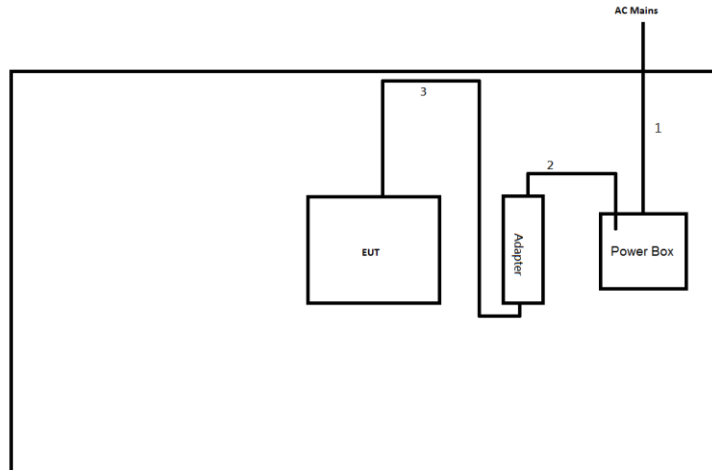
2.5 Test Setup Diagram

Test Setup Diagram - AC Conducted emission Test



Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.4
2	DC Power cable	No	1.0

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	AC Power cable	No	1.4
3	DC Power cable	No	1.0

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

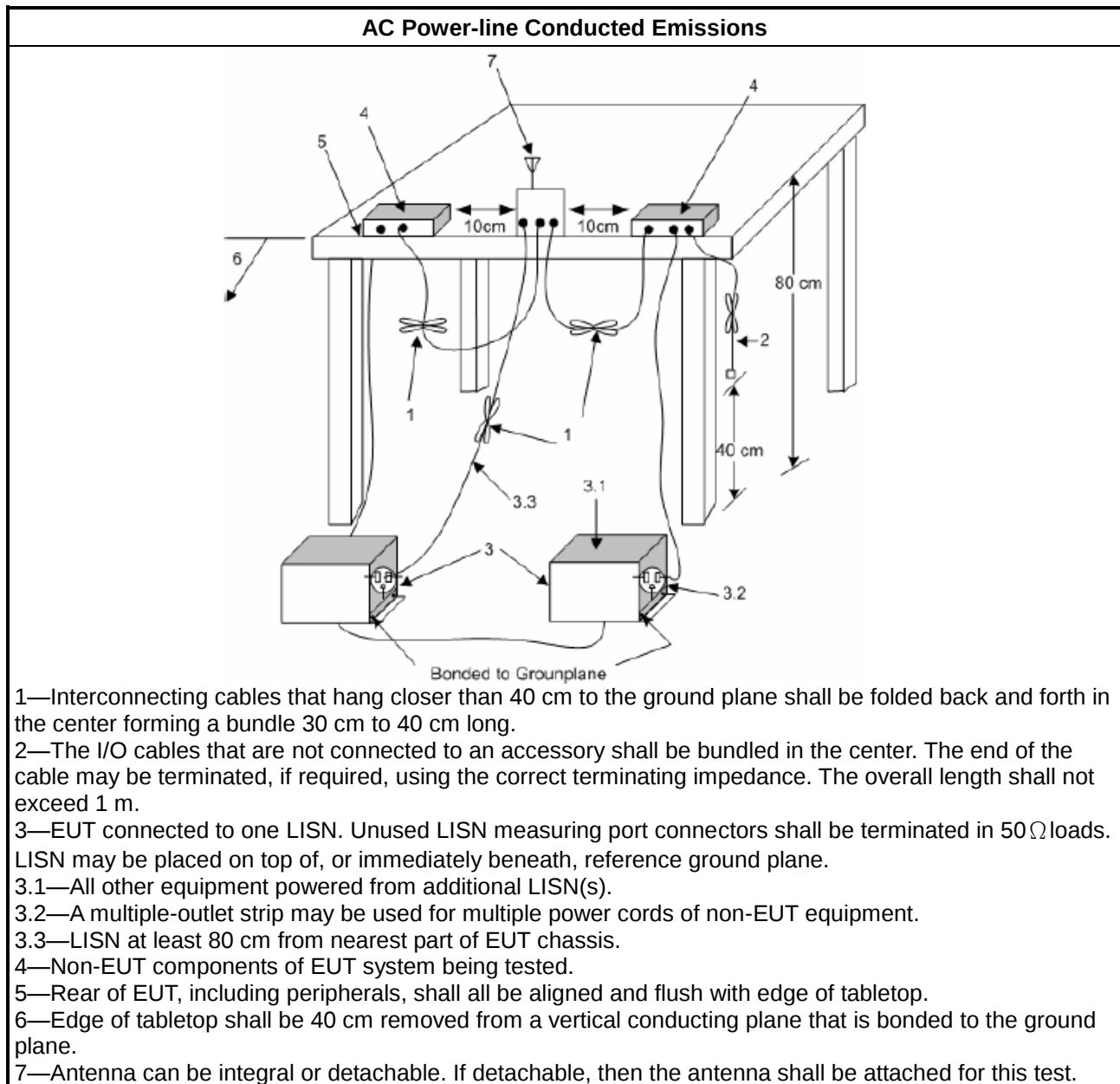
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

3.1.5 Test Setup



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

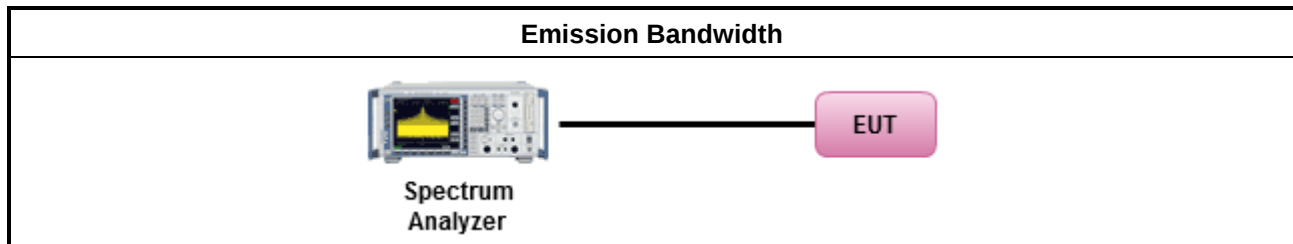
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	▪	If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	▪	Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	▪	Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	▪	Smart antenna system (SAS):
	-	Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	-	Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	-	Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
e.i.r.p. Power Limit:		
	▪	2400-2483.5 MHz Band
	▪	Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	▪	Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	▪	Smart antenna system (SAS)
	-	Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	-	Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	-	Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.		

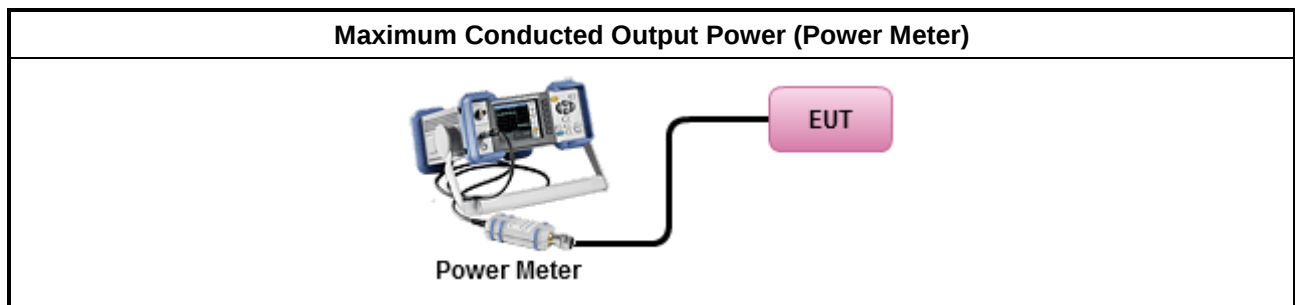
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
☐	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
☐	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
Maximum Average Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
☒	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.	
If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit	
▪	Power Spectral Density (PSD) $\leq$ 8 dBm/3kHz

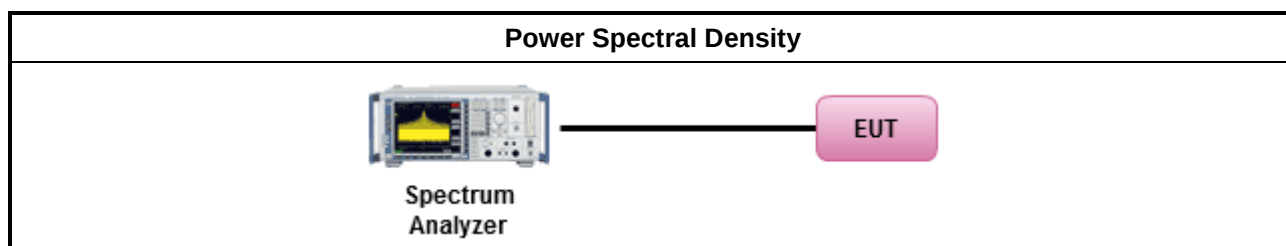
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒	Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.
▪	For conducted measurement.
▪	If The EUT supports multiple transmit chains using options given below:
▪	Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

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

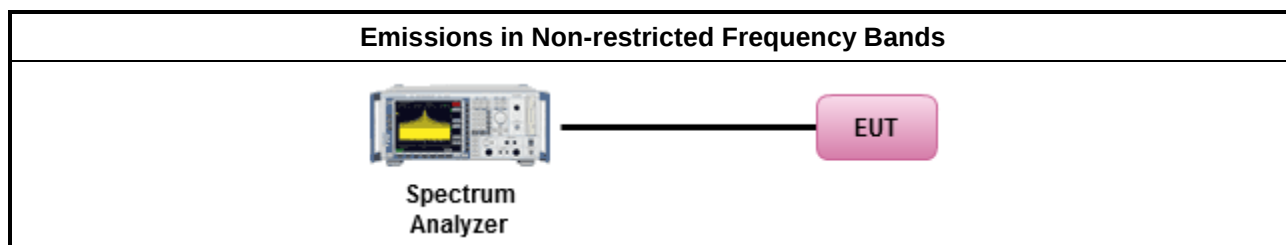
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

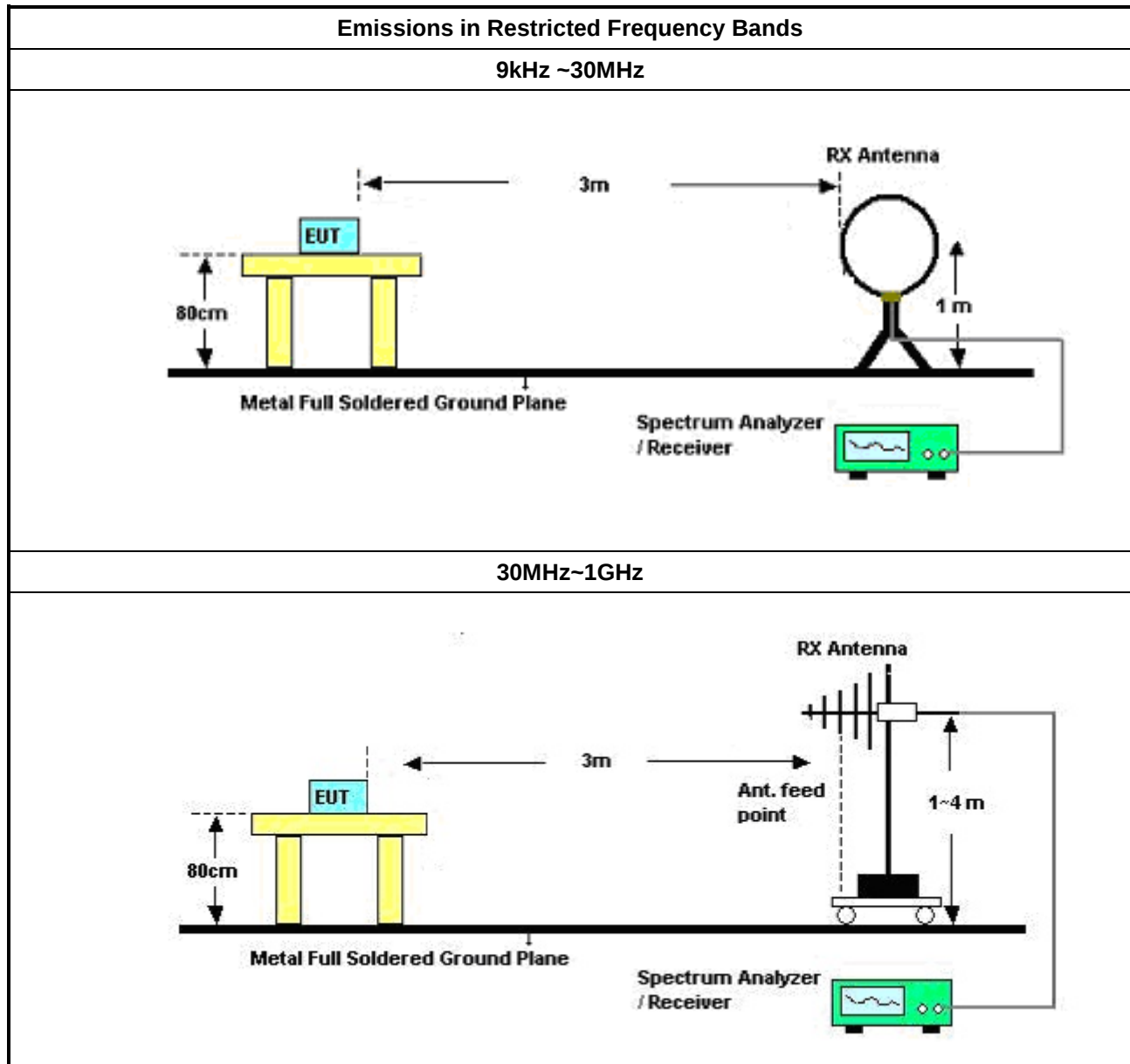
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted 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.
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

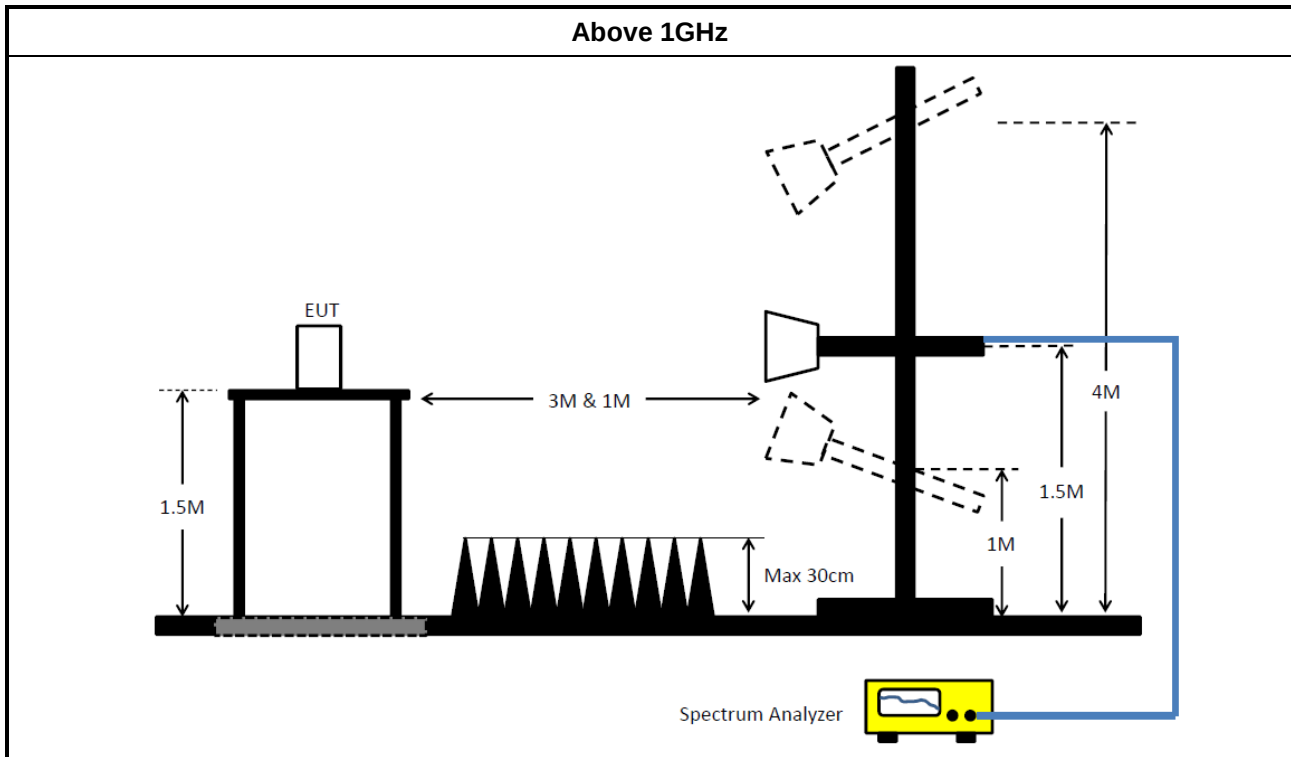
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

3.6.5 Test Setup





3.6.6 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.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conducted emission

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	05/Nov/2019	04/Nov/2020
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	23/Sep/2019	22/Sep/2020
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	24/Sep/2019	23/Sep/2020

NCR: Non-Calibration Require

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10KHz ~ 40GHz	01/Oct/2019	30/Sep/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	11/Nov/2020
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	18/Mar/2020	17/Mar/2021
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	18/Mar/2020	17/Mar/2021

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 3m	27/Mar/2020	26/Mar/2021
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	19/Mar/2020	18/Mar/2021
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	07/Aug/2019	06/Aug/2020
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	17/Aug/2020	16/Aug/2021
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	14/Apr/2020	13/Apr/2021
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	04/Sep/2019	03/Sep/2020
Microwave Preamplifier	Agilent	8449B	3008A02326	1GHz~26.5GHz	24/Jun/2020	23/Jun/2021
Bilog Antenna & 5dB Attenuator	TESEQ / MTJ	CBL6111D / MTJ6102-05	35418 / 3	30MHz~1GHz	11/Oct/2019	10/Oct/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	28/May/2020	27/May/2021
RF Cable-low	Jye Bao	RG142	CB031+324530/4	30MHz~1GHz	12/Feb/2020	11/Feb/2021
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX104	324530/4+17173/4	1GHz~40GHz	12/Feb/2020	11/Feb/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2020	15/Mar/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	29/May/2020	28/May/2021



AC Conducted emission

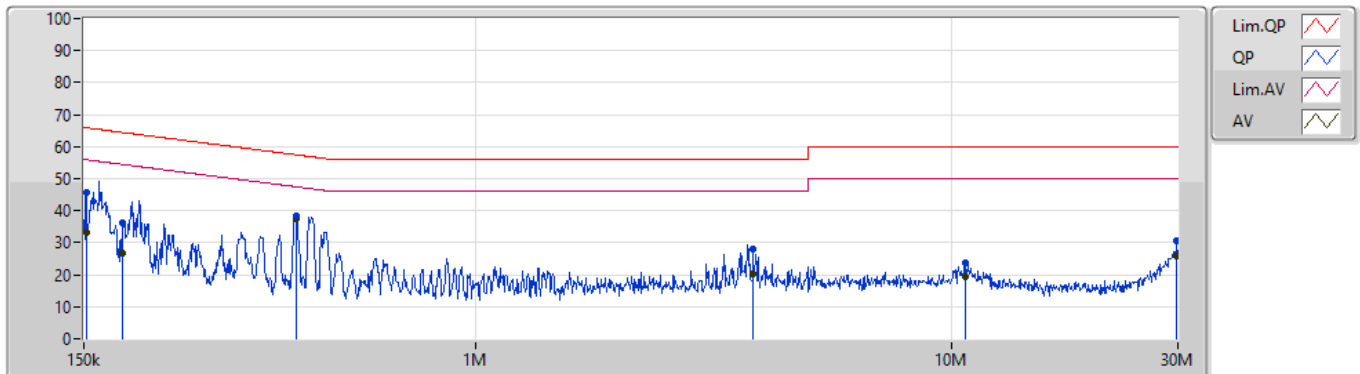
Appendix A

Summary

Mode	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition
Mode 1	AV	420.661k	38.62	47.43	-8.81	19.63	Neutral

Conducted Emissions at Powerline_Mode 1

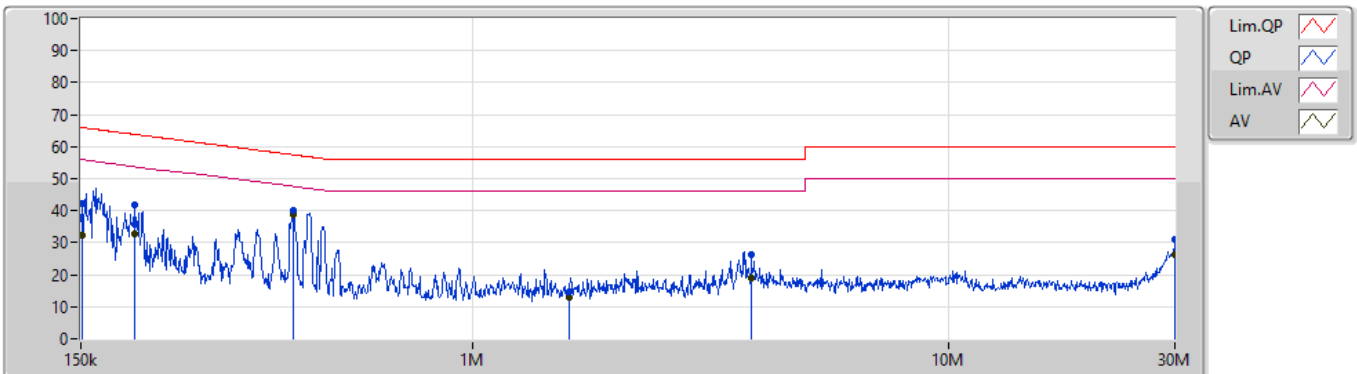
25/06/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	152.012k	45.84	65.89	-20.05	19.64	Line	-	26.20	9.66	0.11	9.87			
AV	152.012k	32.99	55.89	-22.90	19.64	Line	-	13.35	9.66	0.11	9.87			
QP	180.58k	36.36	64.45	-28.09	19.63	Line	-	16.73	9.65	0.11	9.87			
AV	180.58k	26.81	54.45	-27.64	19.63	Line	-	7.18	9.65	0.11	9.87			
QP	419.335k	38.51	57.45	-18.94	19.64	Line	-	18.87	9.64	0.13	9.87			
AV	419.335k	37.31	47.45	-10.14	19.64	Line	"Worst"	17.67	9.64	0.13	9.87			
QP	3.834M	28.19	56.00	-27.81	19.73	Line	-	8.46	9.66	0.19	9.88			
AV	3.834M	20.45	46.00	-25.55	19.73	Line	-	0.72	9.66	0.19	9.88			
QP	10.726M	23.82	60.00	-36.18	19.85	Line	-	3.97	9.69	0.28	9.88			
AV	10.726M	19.47	50.00	-30.53	19.85	Line	-	-0.38	9.69	0.28	9.88			
QP	29.865M	30.53	60.00	-29.47	19.83	Line	-	10.70	9.50	0.45	9.88			
AV	29.865M	25.82	50.00	-24.18	19.83	Line	-	5.99	9.50	0.45	9.88			

Conducted Emissions at Powerline_Mode 1

25/06/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	150.967k	42.28	65.94	-23.66	19.63	Neutral	-	22.65	9.65	0.11	9.87			
AV	150.967k	32.20	55.94	-23.74	19.63	Neutral	-	12.57	9.65	0.11	9.87			
QP	194.083k	41.92	63.86	-21.94	19.62	Neutral	-	22.30	9.64	0.11	9.87			
AV	194.083k	32.87	53.86	-20.99	19.62	Neutral	-	13.25	9.64	0.11	9.87			
QP	420.661k	40.02	57.43	-17.41	19.63	Neutral	-	20.39	9.63	0.13	9.87			
AV	420.661k	38.62	47.43	-8.81	19.63	Neutral	"Worst"	18.99	9.63	0.13	9.87			
QP	1.599M	14.59	56.00	-41.41	19.65	Neutral	-	-5.06	9.64	0.14	9.87			
AV	1.599M	12.93	46.00	-33.07	19.65	Neutral	-	-6.72	9.64	0.14	9.87			
QP	3.857M	26.48	56.00	-29.52	19.73	Neutral	-	6.75	9.66	0.19	9.88			
AV	3.857M	18.97	46.00	-27.03	19.73	Neutral	-	-0.76	9.66	0.19	9.88			
QP	29.921M	31.12	60.00	-28.88	19.99	Neutral	-	11.13	9.66	0.45	9.88			
AV	29.921M	26.30	50.00	-23.70	19.99	Neutral	-	6.31	9.66	0.45	9.88			

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)_2TX	8.05M	12.934M	12M9G1D	7.975M	12.534M
802.11g_Nss1,(6Mbps)_2TX	16.325M	16.572M	16M6D1D	15.925M	16.352M
802.11n HT20_Nss1,(MCS0)_2TX	17.575M	17.711M	17M7D1D	16.95M	17.551M

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

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

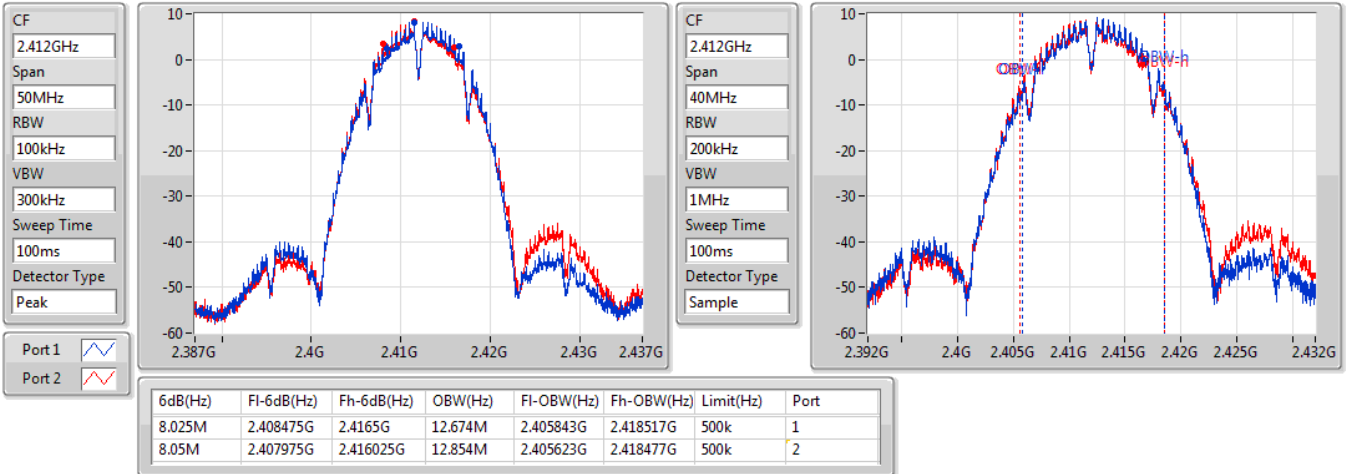
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.025M	12.674M	8.05M	12.854M
2437MHz	Pass	500k	8.05M	12.934M	8.025M	12.534M
2462MHz	Pass	500k	7.975M	12.574M	8.05M	12.574M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.275M	16.412M	15.925M	16.432M
2437MHz	Pass	500k	16.325M	16.572M	16.275M	16.392M
2462MHz	Pass	500k	16.275M	16.352M	16.3M	16.392M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.611M	16.95M	17.611M
2437MHz	Pass	500k	17.55M	17.711M	17.175M	17.591M
2462MHz	Pass	500k	17.475M	17.551M	17.575M	17.591M

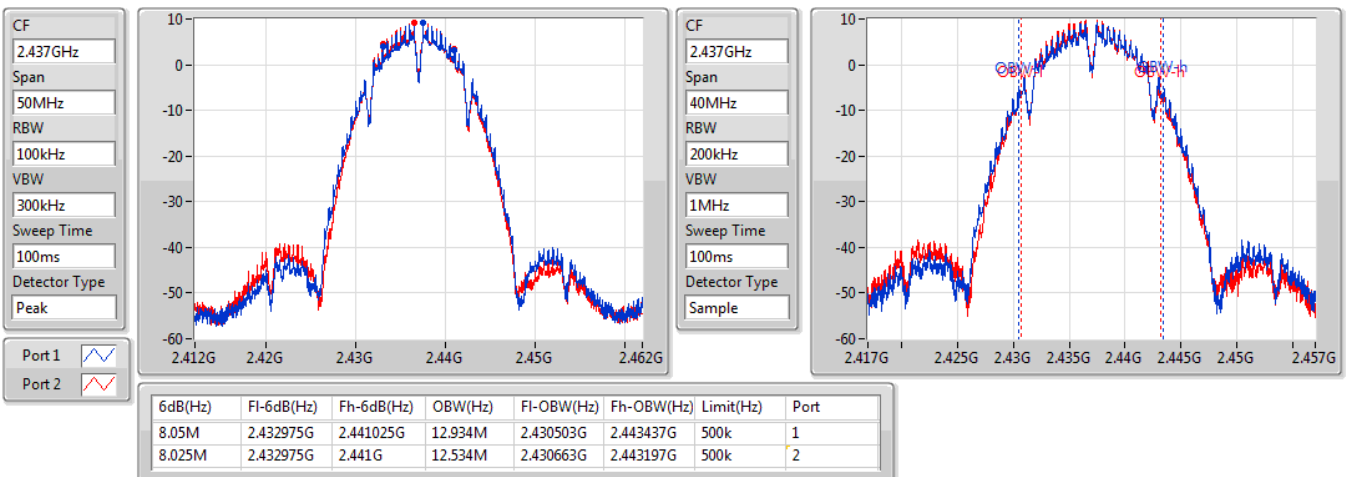
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_2TX
EBW
2412MHz

24/06/2020

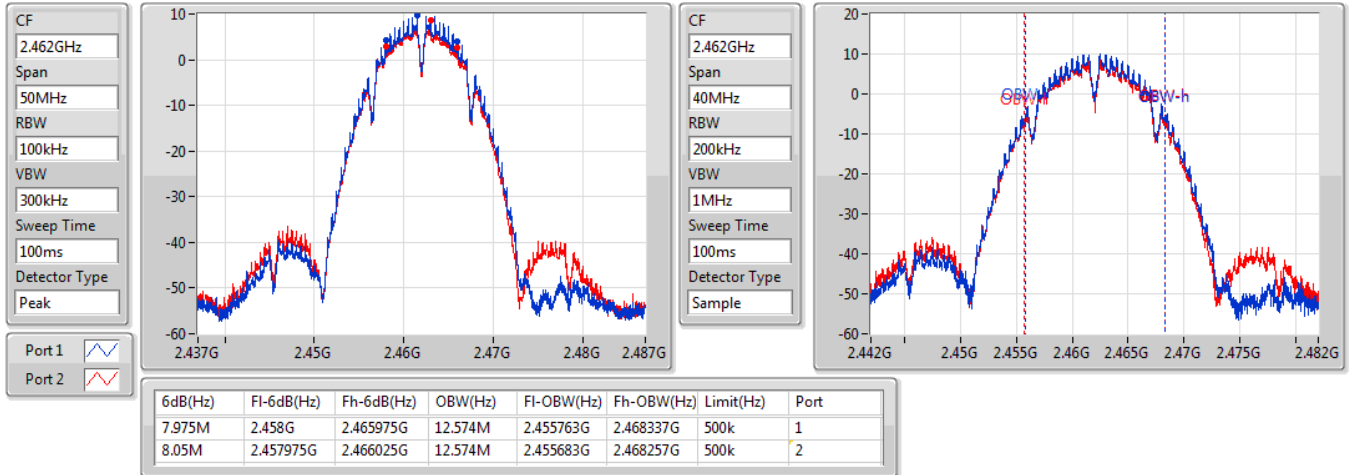

802.11b_Nss1,(1Mbps)_2TX
EBW
2437MHz

24/06/2020

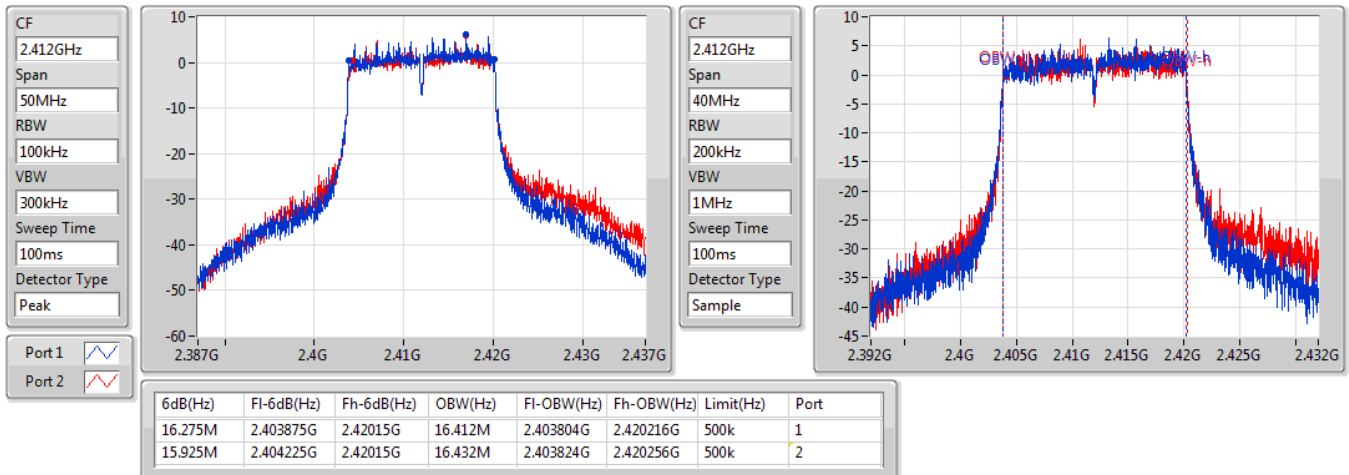


802.11b_Nss1,(1Mbps)_2TX
EBW
2462MHz

24/06/2020

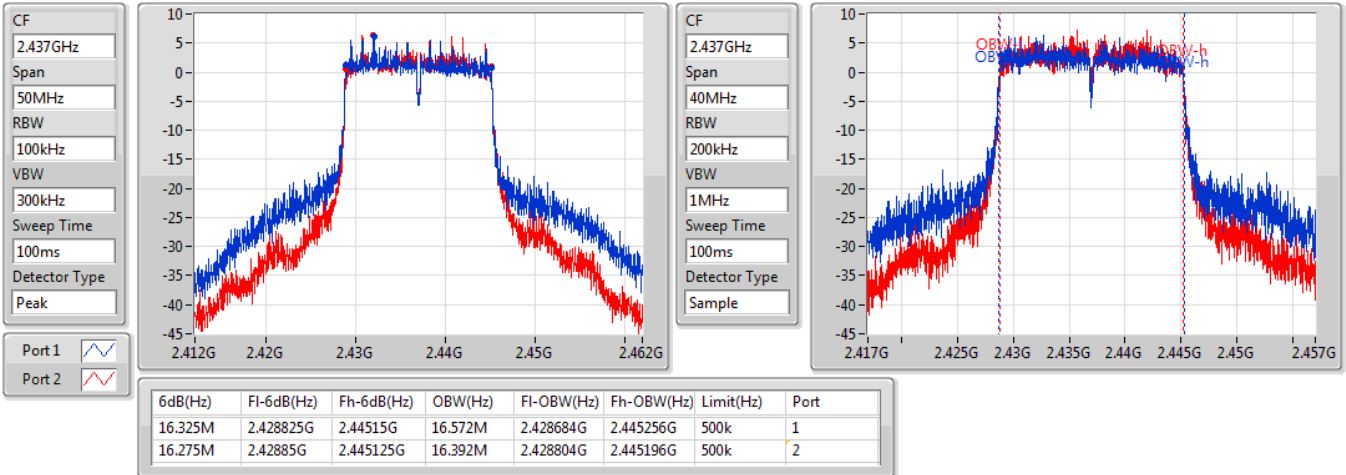

802.11g_Nss1,(6Mbps)_2TX
EBW
2412MHz

24/06/2020

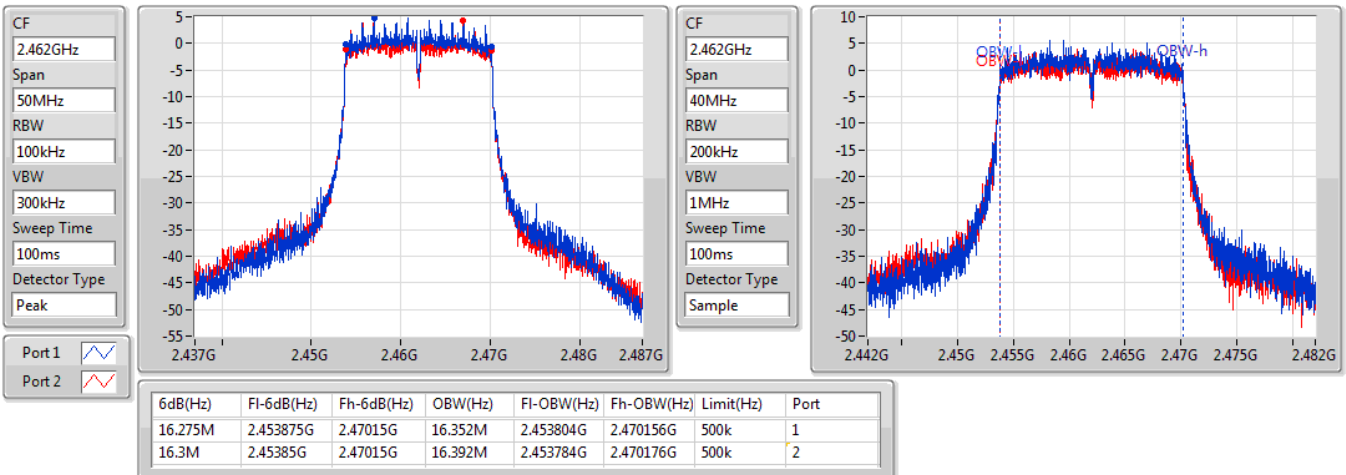


802.11g_Nss1,(6Mbps)_2TX
2437MHz

24/06/2020

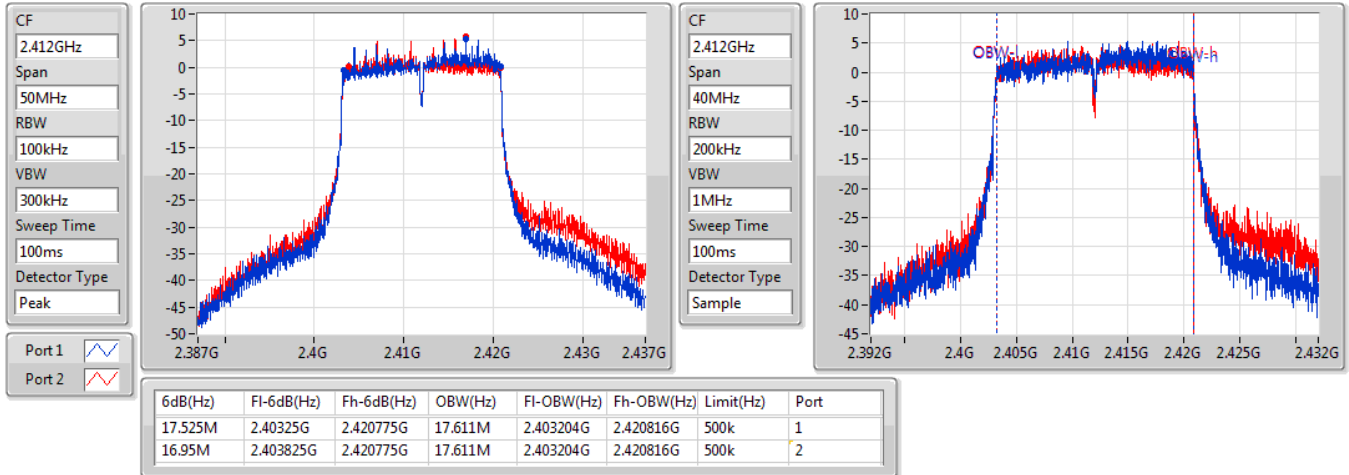

802.11g_Nss1,(6Mbps)_2TX
2462MHz

24/06/2020

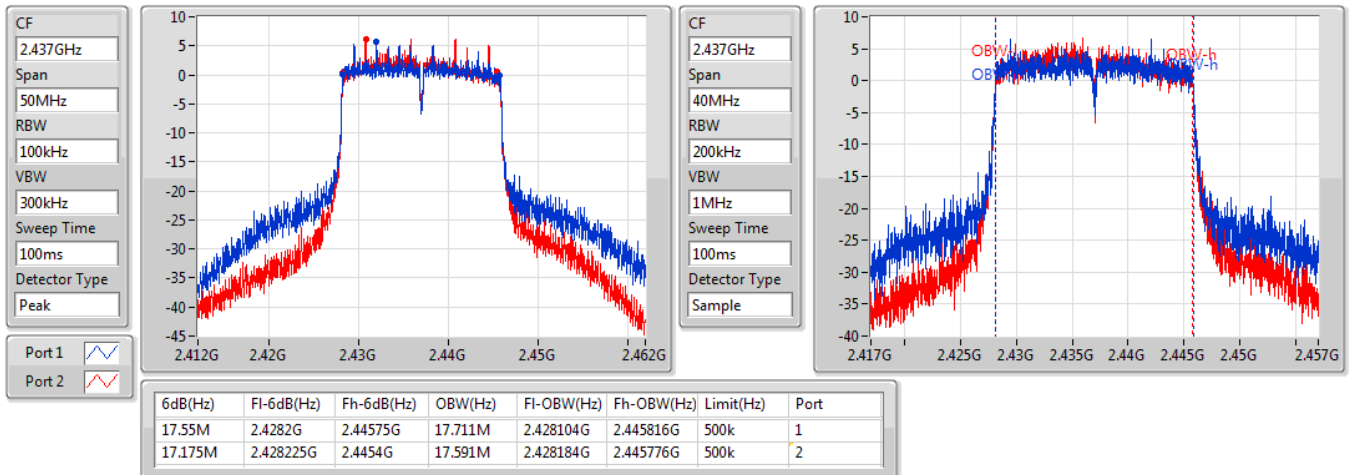


802.11n HT20_Nss1,(MCS0)_2TX
EBW
2412MHz

24/06/2020


802.11n HT20_Nss1,(MCS0)_2TX
EBW
2437MHz

24/06/2020

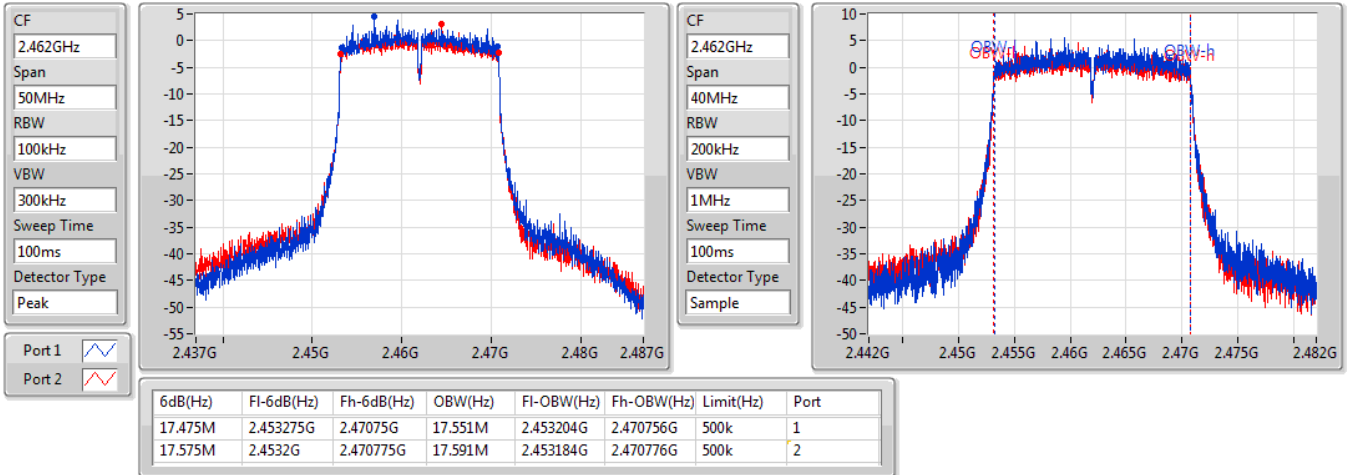


802.11n HT20_Nss1,(MCS0)_2TX

EBW

2462MHz

24/06/2020





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	20.67	0.11668
802.11g_Nss1,(6Mbps)_2TX	20.42	0.11015
802.11n HT20_Nss1,(MCS0)_2TX	20.37	0.10889

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.74	17.06	17.05	20.07	30.00
2437MHz	Pass	3.74	17.21	17.73	20.49	30.00
2462MHz	Pass	3.74	18.12	17.14	20.67	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.74	16.89	16.64	19.78	30.00
2417MHz	Pass	3.74	17.34	17.12	20.24	30.00
2437MHz	Pass	3.74	17.13	17.52	20.34	30.00
2457MHz	Pass	3.74	17.84	16.93	20.42	30.00
2462MHz	Pass	3.74	16.00	15.35	18.70	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.74	16.93	16.59	19.77	30.00
2417MHz	Pass	3.74	17.20	17.11	20.17	30.00
2437MHz	Pass	3.74	17.15	17.44	20.31	30.00
2457MHz	Pass	3.74	17.75	16.94	20.37	30.00
2462MHz	Pass	3.74	16.03	15.29	18.69	30.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11n HT20-BF_Nss1,(MCS0)_2TX	17.36	0.05445

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11n HT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.75	13.92	13.58	16.76	29.25
2417MHz	Pass	6.75	14.19	14.10	17.16	29.25
2437MHz	Pass	6.75	14.14	14.43	17.30	29.25
2457MHz	Pass	6.75	14.74	13.93	17.36	29.25
2462MHz	Pass	6.75	13.02	12.28	15.68	29.25

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	-2.93
802.11g_Nss1,(6Mbps)_2TX	-5.70
802.11n HT20_Nss1,(MCS0)_2TX	-6.36

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.75	-5.33	-5.75	-3.94	7.25
2437MHz	Pass	6.75	-4.36	-3.72	-2.93	7.25
2462MHz	Pass	6.75	-5.70	-4.78	-3.48	7.25
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.75	-6.43	-6.43	-5.80	7.25
2437MHz	Pass	6.75	-6.77	-7.70	-5.70	7.25
2462MHz	Pass	6.75	-9.81	-10.67	-7.86	7.25
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	6.75	-9.46	-9.61	-7.84	7.25
2437MHz	Pass	6.75	-8.58	-7.93	-6.36	7.25
2462MHz	Pass	6.75	-8.98	-10.38	-8.26	7.25

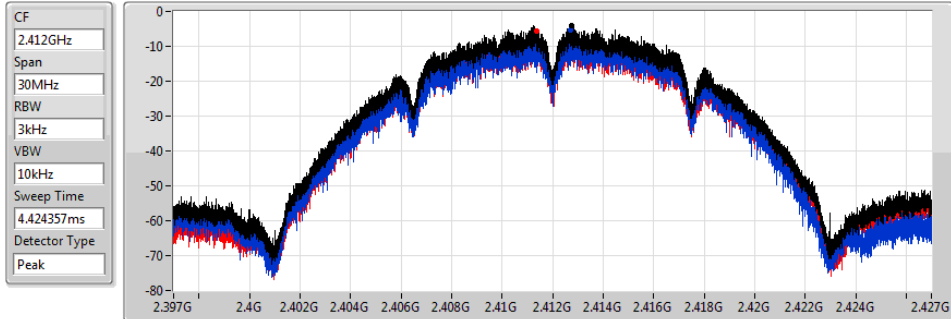
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_2TX

PSD

2412MHz

24/06/2020



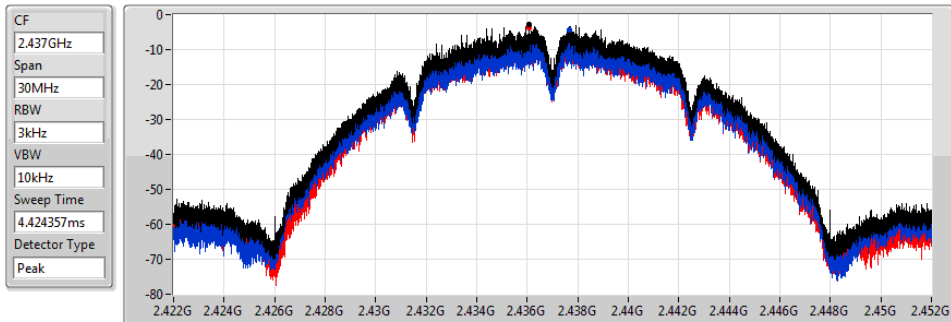
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.94	-3.94	-5.33	-5.75

802.11b_Nss1,(1Mbps)_2TX

PSD

2437MHz

24/06/2020



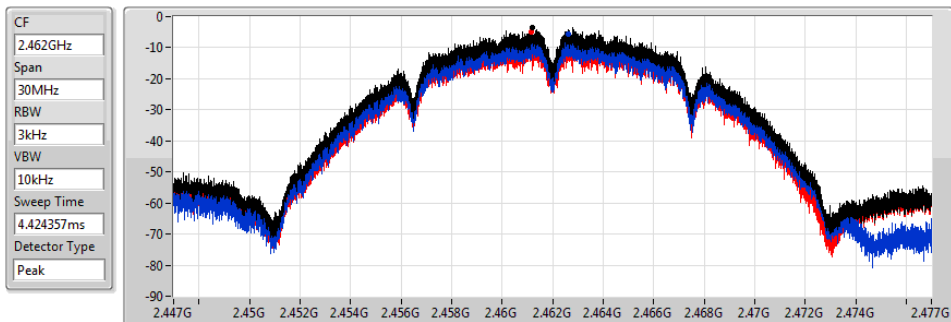
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.93	-2.93	-4.36	-3.72

802.11b_Nss1,(1Mbps)_2TX

PSD

2462MHz

24/06/2020



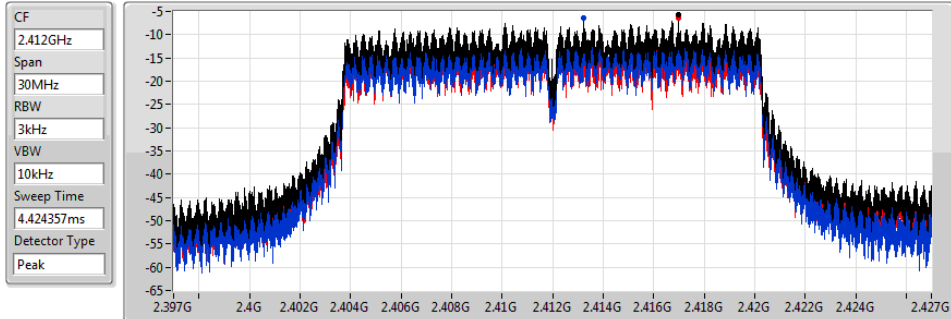
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.48	-3.48	-5.70	-4.78

802.11g_Nss1,(6Mbps)_2TX

PSD

2412MHz

24/06/2020



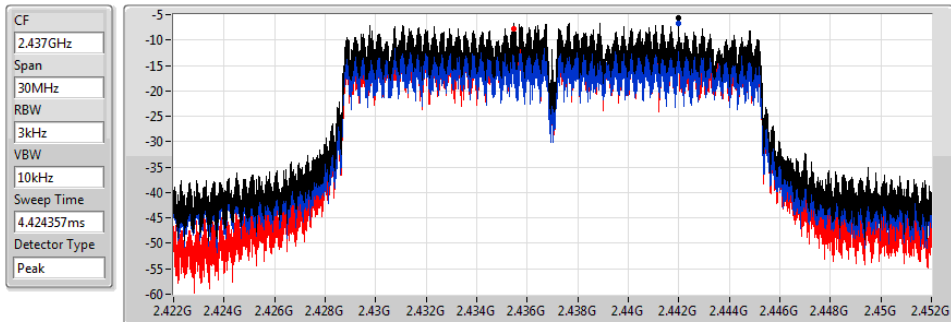
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-5.80	-5.80	-6.43	-6.43

802.11g_Nss1,(6Mbps)_2TX

PSD

2437MHz

24/06/2020



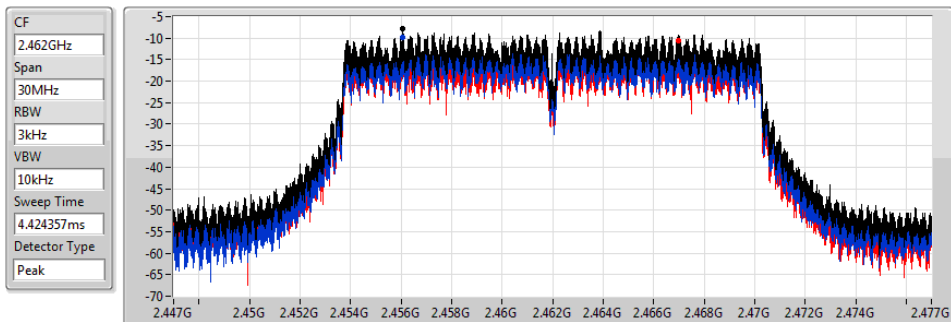
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-5.70	-5.70	-6.77	-7.70

802.11g_Nss1,(6Mbps)_2TX

PSD

2462MHz

24/06/2020



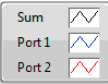
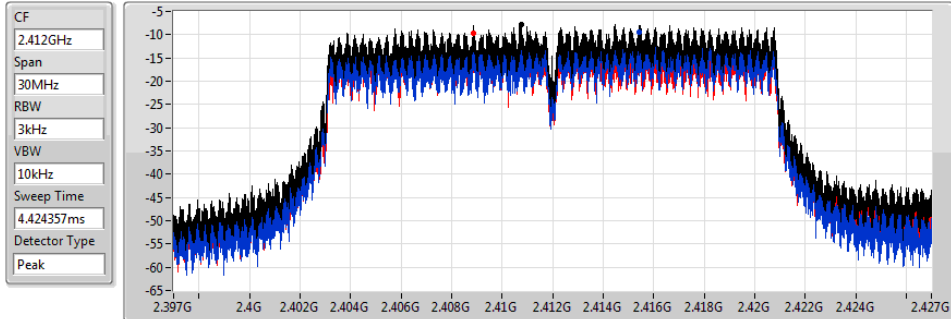
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-7.86	-7.86	-9.81	-10.67

802.11n HT20_Nss1,(MCS0)_2TX

PSD

2412MHz

24/06/2020



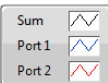
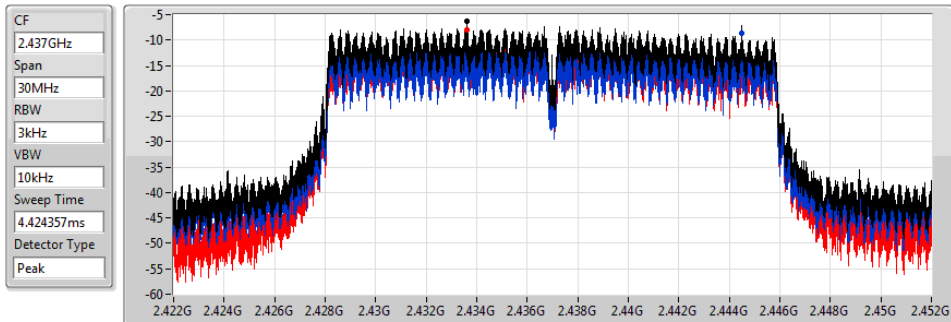
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.84	-7.84	-9.46	-9.61

802.11n HT20_Nss1,(MCS0)_2TX

PSD

2437MHz

24/06/2020



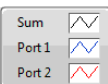
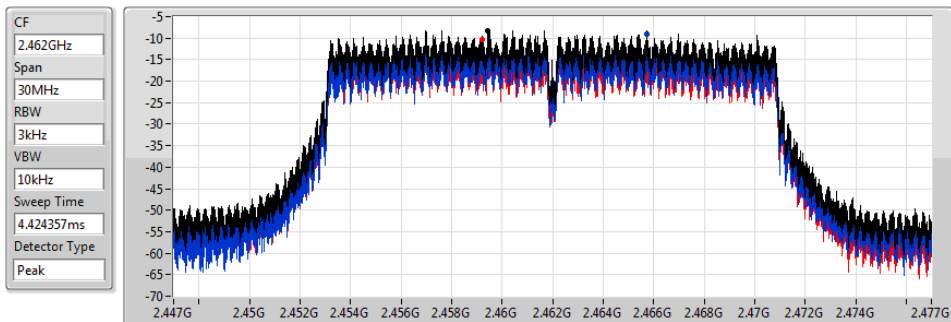
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.36	-6.36	-8.58	-7.93

802.11n HT20_Nss1,(MCS0)_2TX

PSD

2462MHz

24/06/2020



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.26	-8.26	-8.98	-10.38

**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)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43653G	9.41	-20.59	1.89167G	-54.42	2.398G	-39.78	2.4G	-44.03	2.50736G	-52.84	23.53622G	-41.83	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.43198G	6.51	-23.49	2.19282G	-54.10	2.39986G	-26.70	2.4G	-30.43	2.4854G	-52.31	23.57555G	-40.99	2
802.11n HT20_Nss1,(MCS0)_2TX	Pass	2.44075G	6.39	-23.61	1.77808G	-54.84	2.3989G	-28.01	2.4G	-31.06	2.486G	-52.33	17.49847G	-41.06	2

Result

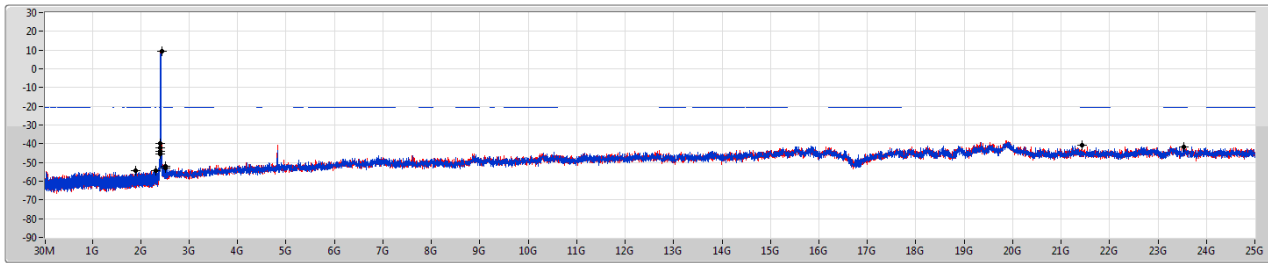
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43653G	9.41	-20.59	1.89167G	-54.42	2.398G	-39.78	2.4G	-44.03	2.50736G	-52.84	23.53622G	-41.83	1
2412MHz	Pass	2.43653G	9.41	-20.59	2.30932G	-54.57	2.39752G	-42.03	2.4G	-45.66	2.51444G	-51.99	21.42624G	-40.96	2
2437MHz	Pass	2.43653G	9.41	-20.59	849.58M	-54.66	2.3968G	-52.77	2.4G	-53.83	2.48838G	-51.69	21.70438G	-41.27	1
2437MHz	Pass	2.43653G	9.41	-20.59	2.30612G	-54.01	2.4G	-52.44	2.4G	-54.01	2.5144G	-53.05	23.55588G	-41.43	2
2462MHz	Pass	2.43653G	9.41	-20.59	49.81M	-54.16	2.39262G	-53.16	2.4835G	-52.77	2.4942G	-52.05	23.30021G	-41.00	1
2462MHz	Pass	2.43653G	9.41	-20.59	2.10166G	-54.90	2.39996G	-53.17	2.4G	-53.08	2.48748G	-50.95	21.43467G	-41.74	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43198G	6.51	-23.49	687.06M	-55.00	2.39972G	-29.42	2.4G	-33.11	2.48688G	-51.89	24.98314G	-40.85	1
2412MHz	Pass	2.43198G	6.51	-23.49	2.19282G	-54.10	2.39986G	-26.70	2.4G	-30.43	2.4854G	-52.31	23.57555G	-40.99	2
2437MHz	Pass	2.43198G	6.51	-23.49	49.81M	-54.19	2.39978G	-46.03	2.4G	-49.84	2.48392G	-49.89	23.2946G	-39.22	1
2437MHz	Pass	2.43198G	6.51	-23.49	49.81M	-54.57	2.4G	-49.18	2.4G	-50.99	2.48844G	-52.24	24.91009G	-41.30	2
2462MHz	Pass	2.43198G	6.51	-23.49	1.92196G	-54.22	2.3931G	-51.87	2.4835G	-44.68	2.48352G	-40.75	17.4788G	-41.08	1
2462MHz	Pass	2.43198G	6.51	-23.49	874.04M	-54.49	2.4G	-49.53	2.4835G	-43.32	2.4842G	-42.49	23.46598G	-40.94	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44075G	6.39	-23.61	2.14418G	-53.68	2.39956G	-29.24	2.4G	-32.36	2.48518G	-51.49	24.95224G	-41.61	1
2412MHz	Pass	2.44075G	6.39	-23.61	1.77808G	-54.84	2.3989G	-28.01	2.4G	-31.06	2.486G	-52.33	17.49847G	-41.06	2
2437MHz	Pass	2.44075G	6.39	-23.61	2.02943G	-54.25	2.39982G	-46.94	2.4G	-48.31	2.48392G	-51.00	23.55308G	-40.80	1
2437MHz	Pass	2.44075G	6.39	-23.61	1.9473G	-54.19	2.4G	-48.12	2.4G	-48.99	2.48938G	-52.01	23.35079G	-41.26	2
2462MHz	Pass	2.44075G	6.39	-23.61	2.12118G	-53.53	2.3994G	-51.49	2.4835G	-42.28	2.48422G	-42.53	23.57274G	-41.69	1
2462MHz	Pass	2.44075G	6.39	-23.61	2.14273G	-54.93	2.39998G	-50.50	2.4835G	-43.09	2.48386G	-41.76	23.27774G	-41.14	2

802.11b_Nss1,(1Mbps)_2TX

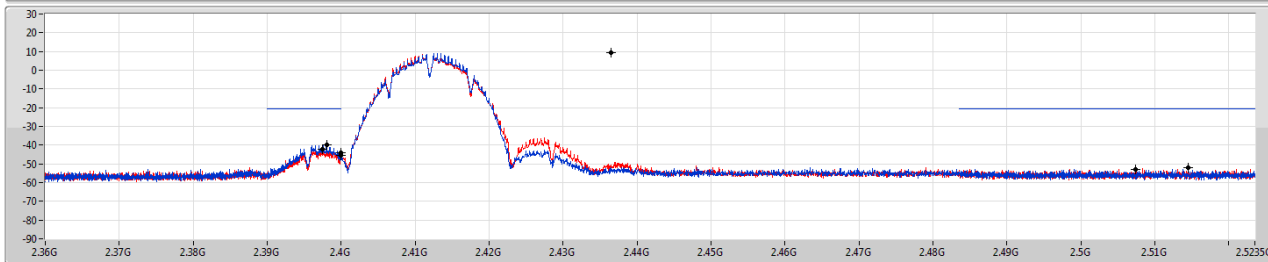
2412MHz

CSENdB

24.06/2020



Port 1
Port 2



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

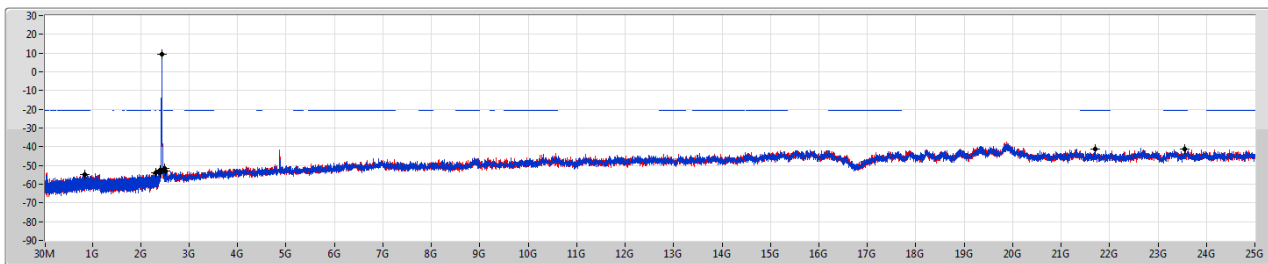
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43653G	9.41	-20.59	1.89167G	-54.42	2.398G	-39.78	2.4G	-44.03	2.50736G	-52.84	23.53622G	-41.83	1
2.43653G	9.41	-20.59	2.30932G	-54.57	2.39752G	-42.03	2.4G	-45.66	2.51444G	-51.99	21.42624G	-40.96	2

802.11b_Nss1,(1Mbps)_2TX

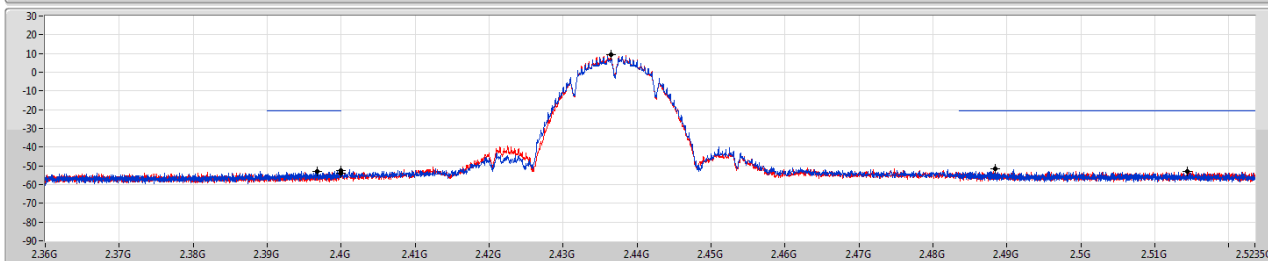
2437MHz

CSENdB

24.06/2020



Port 1
Port 2



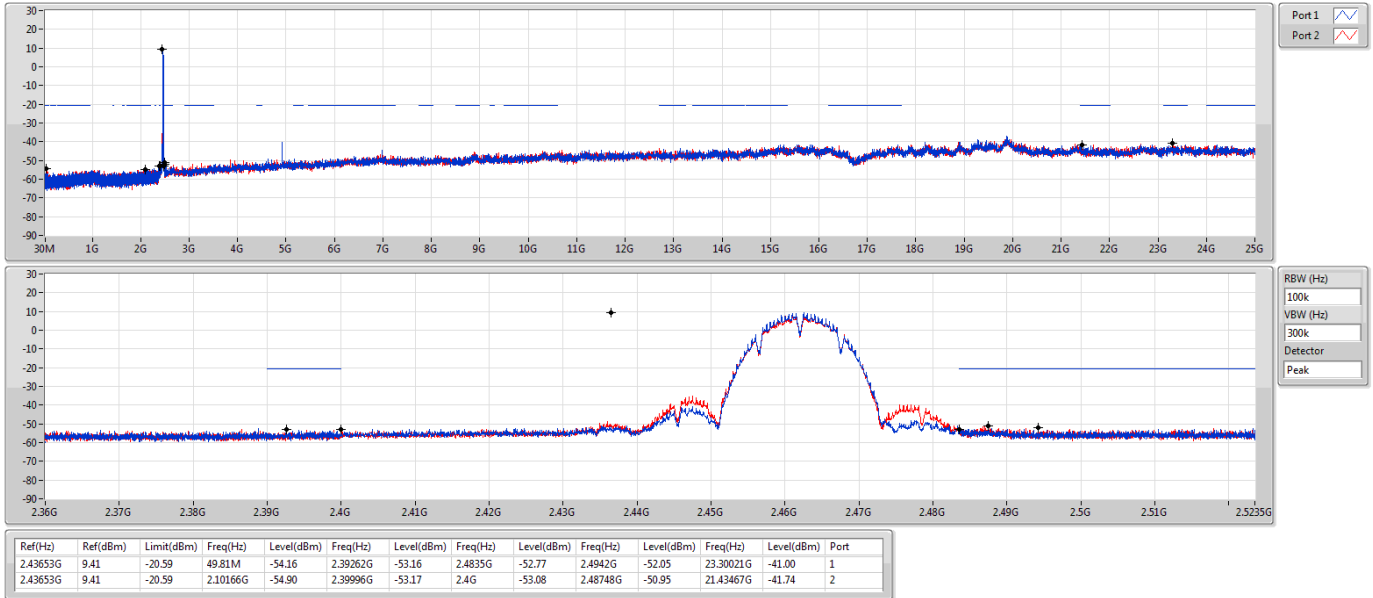
RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43653G	9.41	-20.59	849.58M	-54.66	2.3968G	-52.77	2.4G	-53.83	2.48838G	-51.69	21.70438G	-41.27	1
2.43653G	9.41	-20.59	2.30612G	-54.01	2.4G	-52.44	2.4G	-54.01	2.5144G	-53.05	23.55588G	-41.43	2

802.11b_Nss1,(1Mbps)_2TX

2462MHz

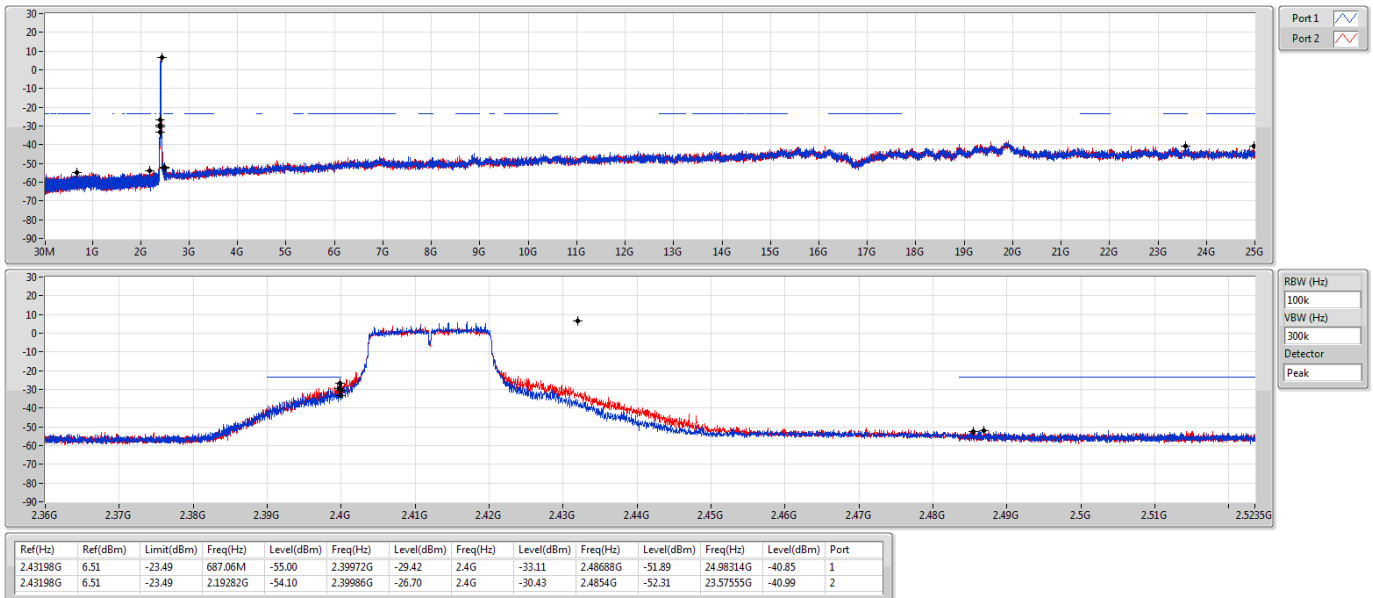
CSEndB



802.11g_Nss1,(6Mbps)_2TX

2412MHz

CSEndB

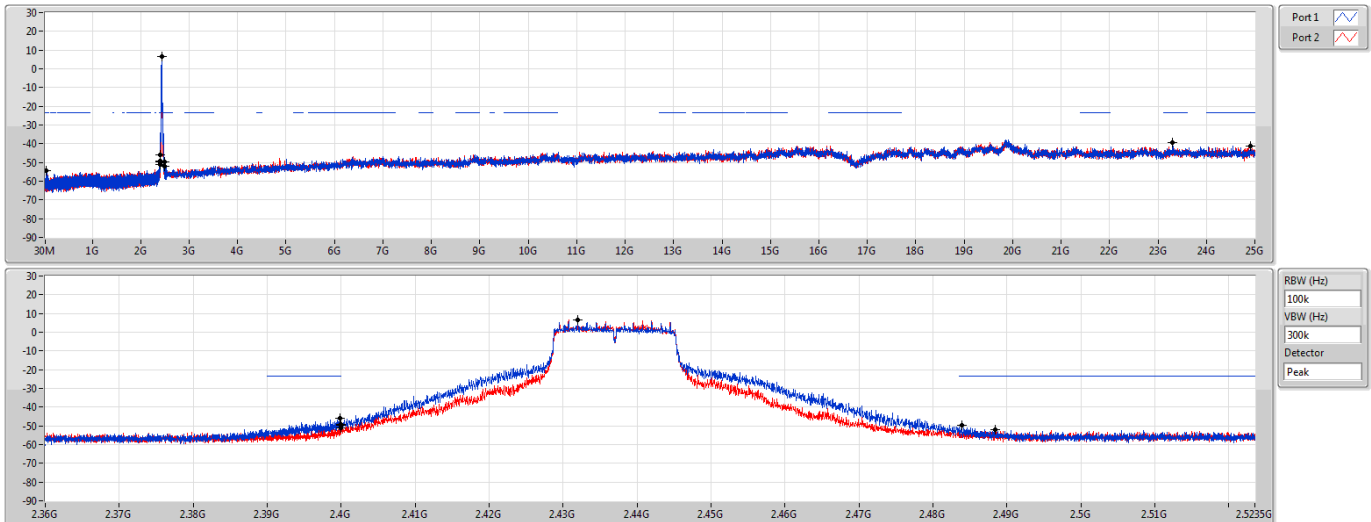


802.11g_Nss1,(6Mbps)_2TX

2437MHz

CSENdB

24/06/2020



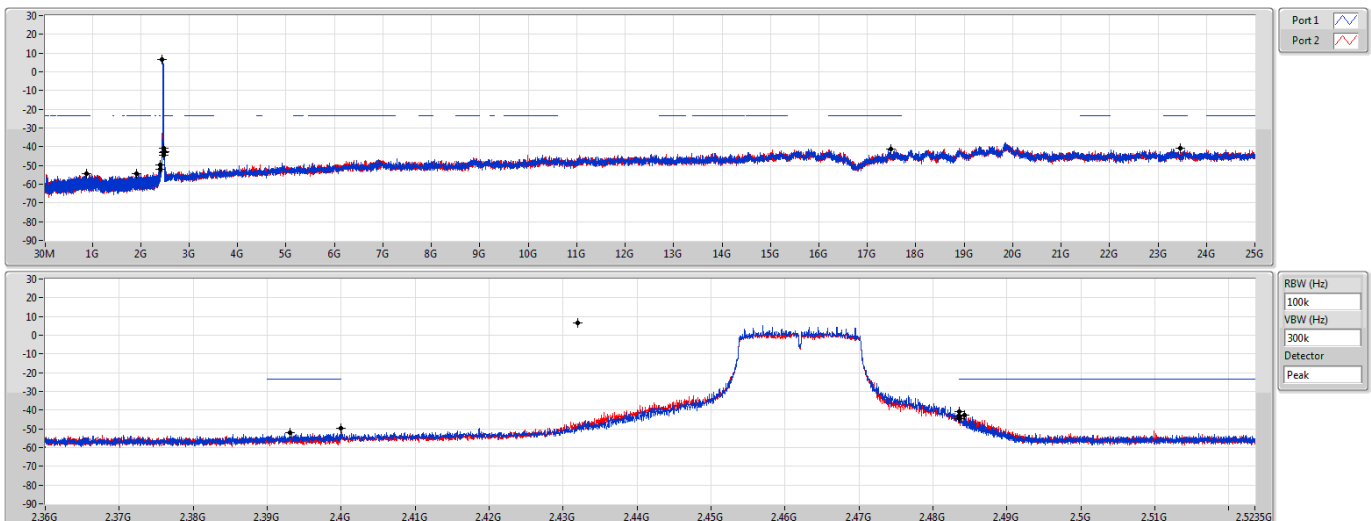
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	6.51	-23.49	49.81M	-54.19	2.39978G	-46.03	2.4G	-49.84	2.48392G	-49.89	23.2946G	-39.22	1
2.43198G	6.51	-23.49	49.81M	-54.57	2.4G	-49.18	2.4G	-50.99	2.48844G	-52.24	24.91009G	-41.30	2

802.11g_Nss1,(6Mbps)_2TX

2462MHz

CSENdB

24/06/2020

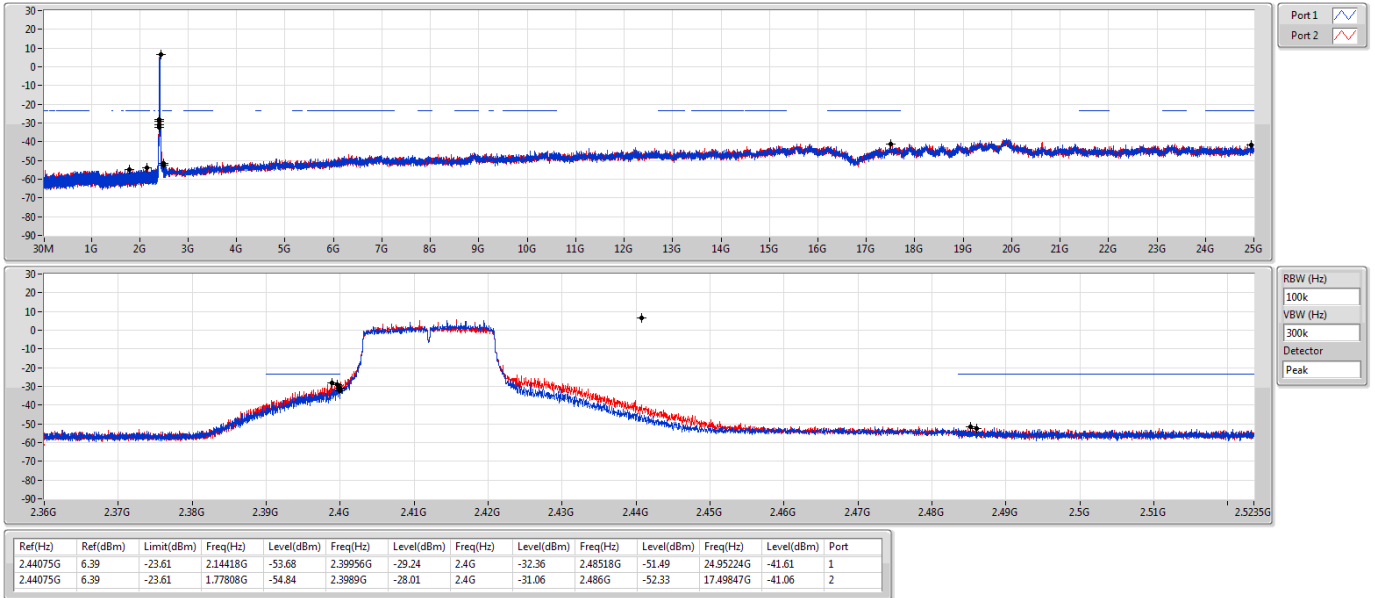


Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	6.51	-23.49	1.92196G	-54.22	2.3931G	-51.87	2.4835G	-44.68	2.48352G	-40.75	17.4788G	-41.08	1
2.43198G	6.51	-23.49	874.04M	-54.49	2.4G	-49.53	2.4835G	-43.32	2.4842G	-42.49	23.46598G	-40.94	2

802.11n HT20_Nss1,(MCS0)_2TX

CSENdB

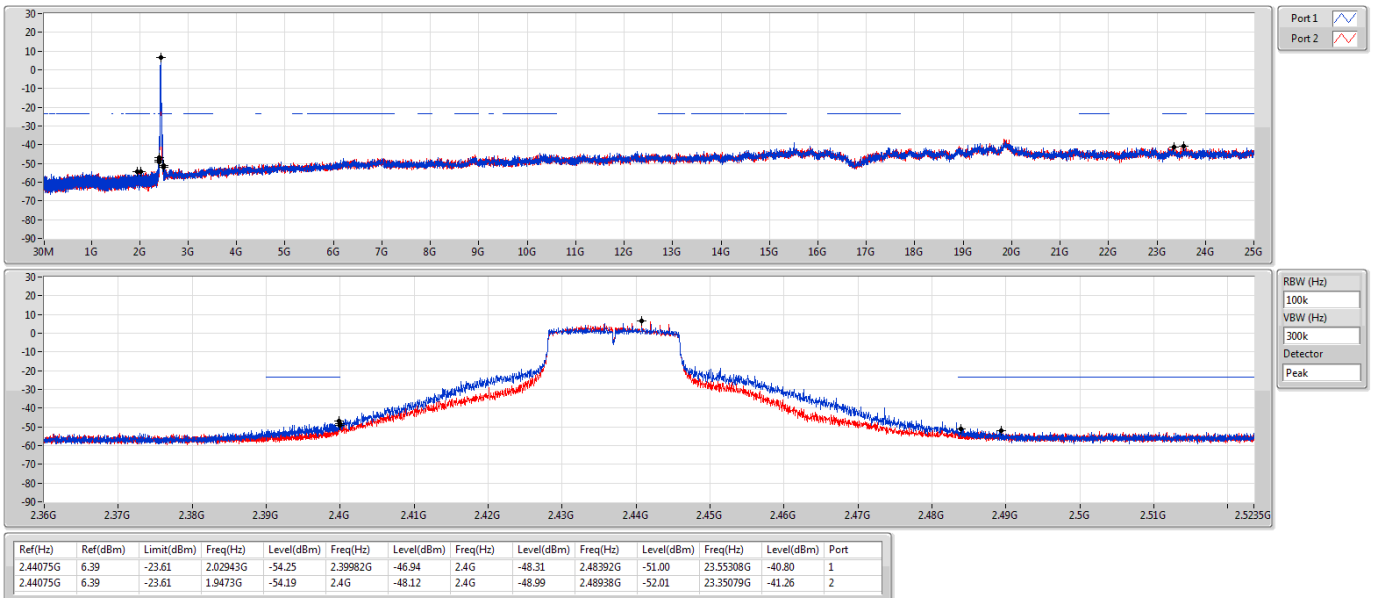
2412MHz



802.11n HT20_Nss1,(MCS0)_2TX

CSENdB

2437MHz

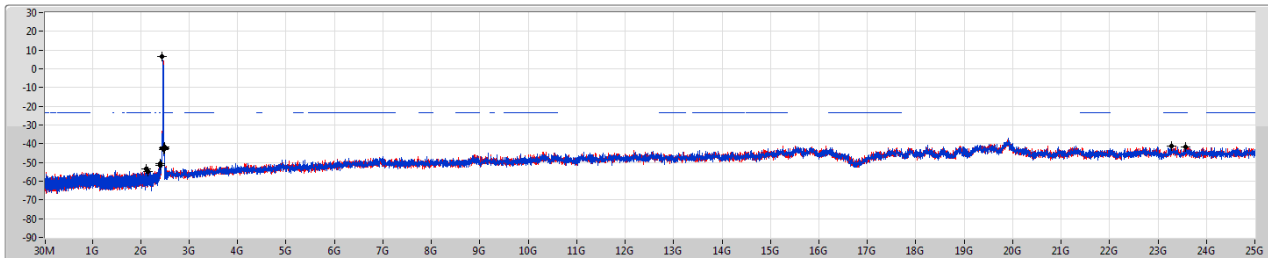
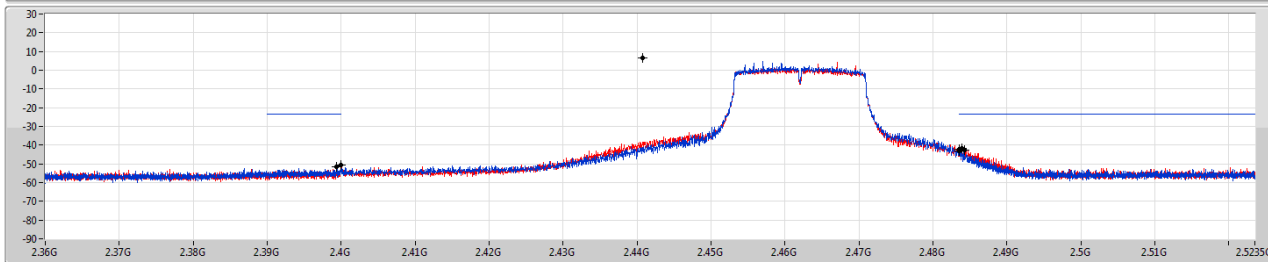


802.11n HT20_Nss1,(MCS0)_2TX

CSEndB

2462MHz

24/06/2020

Port 1
Port 2RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44075G	6.39	-23.61	2.12118G	-53.53	2.3994G	-51.49	2.4835G	-42.28	2.48422G	-42.53	23.57274G	-41.69	1
2.44075G	6.39	-23.61	2.14273G	-54.93	2.39998G	-50.50	2.4835G	-43.09	2.48386G	-41.76	23.27774G	-41.14	2



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_2TX	Pass	PK	291.9M	39.96	46.00	-6.04	3	Vertical	360	1.00	-



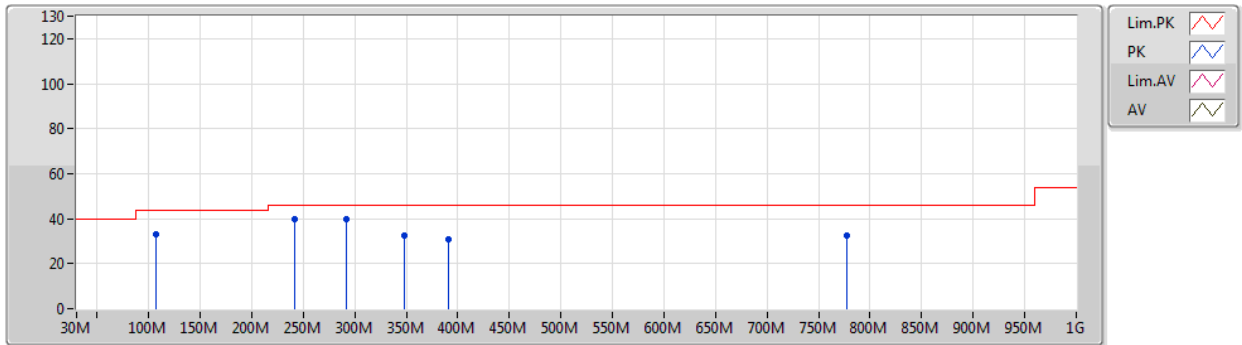
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-
2437MHz_Adapter	Pass	PK	107.6M	33.09	43.50	-10.41	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	241.46M	39.59	46.00	-6.41	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	291.9M	39.96	46.00	-6.04	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	348.16M	32.36	46.00	-13.64	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	390.84M	30.95	46.00	-15.05	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	776.9M	32.62	46.00	-13.38	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	105.66M	28.63	43.50	-14.87	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	136.7M	29.41	43.50	-14.09	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	295.78M	37.00	46.00	-9.00	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	322.94M	30.68	46.00	-15.32	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	433.52M	30.15	46.00	-15.85	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	897.18M	39.79	46.00	-6.21	3	Horizontal	0	1.00	-

802.11n HT20_Nss1,(MCS0)_2TX

28/08/2020

2437MHz_Adapter

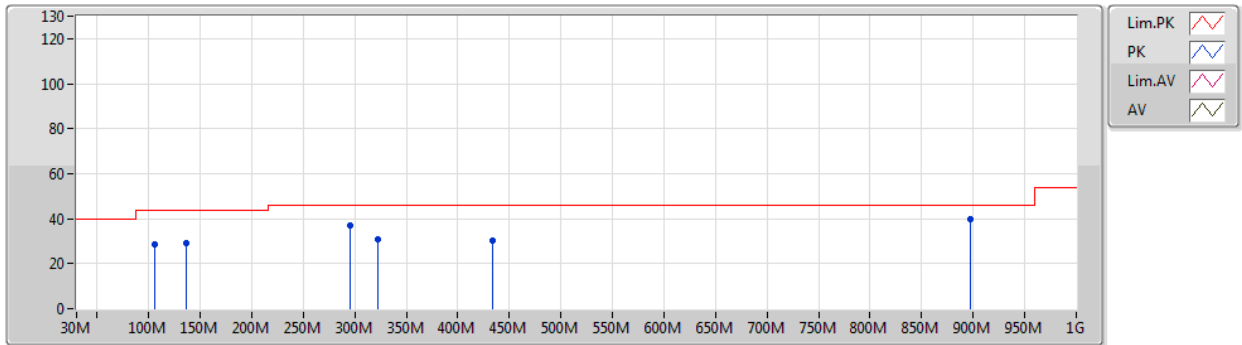


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	107.6M	33.09	43.50	-10.41	-20.07	3	Vertical	360	1.00	-	53.16	15.66	0.80	36.53
PK	241.46M	39.59	46.00	-6.41	-18.61	3	Vertical	360	1.00	-	58.20	16.51	1.27	36.39
PK	291.9M	39.96	46.00	-6.04	-16.80	3	Vertical	360	1.00	-	56.76	18.18	1.38	36.36
PK	348.16M	32.36	46.00	-13.64	-15.63	3	Vertical	360	1.00	-	47.99	19.36	1.50	36.49
PK	390.84M	30.95	46.00	-15.05	-14.25	3	Vertical	360	1.00	-	45.20	20.52	1.66	36.43
PK	776.9M	32.62	46.00	-13.38	-7.63	3	Vertical	360	1.00	-	40.25	27.19	2.55	37.37

802.11n HT20_Nss1,(MCS0)_2TX

28/08/2020

2437MHz_Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
PK	105.66M	28.63	43.50	-14.87	-20.10	3	Horizontal	0	1.00	-	48.73	15.64	0.80	36.54
PK	136.7M	29.41	43.50	-14.09	-18.79	3	Horizontal	0	1.00	-	48.20	16.70	0.88	36.37
PK	295.78M	37.00	46.00	-9.00	-16.75	3	Horizontal	0	1.00	-	53.75	18.22	1.39	36.36
PK	322.94M	30.68	46.00	-15.32	-16.41	3	Horizontal	0	1.00	-	47.09	18.56	1.45	36.42
PK	433.52M	30.15	46.00	-15.85	-12.92	3	Horizontal	0	1.00	-	43.07	21.86	1.77	36.55
PK	897.18M	39.79	46.00	-6.21	-6.93	3	Horizontal	0	1.00	-	46.72	27.82	2.79	37.54

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	AV	4.92401G	53.12	54.00	-0.88	3	Horizontal	336	2.23	-
802.11g_Nss1,(6Mbps)_2TX	Pass	AV	2.39G	53.69	54.00	-0.31	3	Horizontal	259	2.73	-
802.11n HT20_Nss1,(MCS0)_2TX	Pass	AV	2.39G	53.23	54.00	-0.77	3	Vertical	329	1.56	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.386G	44.14	54.00	-9.86	3	Vertical	332	1.66	-
2412MHz	Pass	AV	2.4138G	104.19	Inf	-Inf	3	Vertical	332	1.66	-
2412MHz	Pass	PK	2.3706G	57.67	74.00	-16.33	3	Vertical	332	1.66	-
2412MHz	Pass	PK	2.4128G	106.62	Inf	-Inf	3	Vertical	332	1.66	-
2412MHz	Pass	AV	2.3872G	44.11	54.00	-9.89	3	Horizontal	201	1.01	-
2412MHz	Pass	AV	2.4112G	102.55	Inf	-Inf	3	Horizontal	201	1.01	-
2412MHz	Pass	PK	2.3624G	57.93	74.00	-16.07	3	Horizontal	201	1.01	-
2412MHz	Pass	PK	2.4112G	105.10	Inf	-Inf	3	Horizontal	201	1.01	-
2412MHz	Pass	AV	4.82403G	48.06	54.00	-5.94	3	Vertical	343	2.05	-
2412MHz	Pass	PK	4.82405G	52.33	74.00	-21.67	3	Vertical	343	2.05	-
2412MHz	Pass	AV	4.82401G	49.81	54.00	-4.19	3	Horizontal	339	2.10	-
2412MHz	Pass	PK	4.8241G	53.37	74.00	-20.63	3	Horizontal	339	2.10	-
2437MHz	Pass	AV	2.3562G	44.02	54.00	-9.98	3	Vertical	16	1.15	-
2437MHz	Pass	AV	2.4362G	104.12	Inf	-Inf	3	Vertical	16	1.15	-
2437MHz	Pass	AV	2.4854G	44.49	54.00	-9.51	3	Vertical	16	1.15	-
2437MHz	Pass	PK	2.3822G	57.71	74.00	-16.29	3	Vertical	16	1.15	-
2437MHz	Pass	PK	2.4362G	106.68	Inf	-Inf	3	Vertical	16	1.15	-
2437MHz	Pass	PK	2.4854G	58.24	74.00	-15.76	3	Vertical	16	1.15	-
2437MHz	Pass	AV	2.349G	44.02	54.00	-9.98	3	Horizontal	257	3.00	-
2437MHz	Pass	AV	2.4378G	106.87	Inf	-Inf	3	Horizontal	257	3.00	-
2437MHz	Pass	AV	2.4835G	44.59	54.00	-9.41	3	Horizontal	257	3.00	-
2437MHz	Pass	PK	2.3638G	58.55	74.00	-15.45	3	Horizontal	257	3.00	-
2437MHz	Pass	PK	2.4378G	109.57	Inf	-Inf	3	Horizontal	257	3.00	-
2437MHz	Pass	PK	2.4898G	58.12	74.00	-15.88	3	Horizontal	257	3.00	-
2437MHz	Pass	AV	4.874G	47.96	54.00	-6.04	3	Vertical	262	1.10	-
2437MHz	Pass	AV	7.31014G	38.39	54.00	-15.61	3	Vertical	323	1.48	-
2437MHz	Pass	PK	4.87396G	52.27	74.00	-21.73	3	Vertical	262	1.10	-
2437MHz	Pass	PK	7.31109G	51.60	74.00	-22.40	3	Vertical	323	1.48	-
2437MHz	Pass	AV	4.87403G	51.72	54.00	-2.28	3	Horizontal	349	2.17	-
2437MHz	Pass	AV	7.31114G	37.93	54.00	-16.07	3	Horizontal	360	2.18	-
2437MHz	Pass	PK	4.87406G	55.33	74.00	-18.67	3	Horizontal	349	2.17	-
2437MHz	Pass	PK	7.31016G	51.22	74.00	-22.78	3	Horizontal	360	2.18	-
2462MHz	Pass	AV	2.4638G	106.35	Inf	-Inf	3	Vertical	325	1.57	-
2462MHz	Pass	AV	2.4835G	45.17	54.00	-8.83	3	Vertical	325	1.57	-
2462MHz	Pass	PK	2.4628G	109.07	Inf	-Inf	3	Vertical	325	1.57	-
2462MHz	Pass	PK	2.4835G	58.59	74.00	-15.41	3	Vertical	325	1.57	-
2462MHz	Pass	AV	2.4628G	107.70	Inf	-Inf	3	Horizontal	348	2.80	-
2462MHz	Pass	AV	2.4835G	45.42	54.00	-8.58	3	Horizontal	348	2.80	-
2462MHz	Pass	PK	2.4612G	110.58	Inf	-Inf	3	Horizontal	348	2.80	-
2462MHz	Pass	PK	2.489G	58.45	74.00	-15.55	3	Horizontal	348	2.80	-
2462MHz	Pass	AV	4.92402G	52.39	54.00	-1.61	3	Vertical	342	2.15	-
2462MHz	Pass	AV	7.38692G	39.81	54.00	-14.19	3	Vertical	320	1.01	-
2462MHz	Pass	PK	4.92392G	55.40	74.00	-18.60	3	Vertical	342	2.15	-
2462MHz	Pass	PK	7.3882G	52.99	74.00	-21.01	3	Vertical	320	1.01	-
2462MHz	Pass	AV	4.92401G	53.12	54.00	-0.88	3	Horizontal	336	2.23	-
2462MHz	Pass	AV	7.38678G	39.15	54.00	-14.85	3	Horizontal	260	2.22	-
2462MHz	Pass	PK	4.924G	55.83	74.00	-18.17	3	Horizontal	336	2.23	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2462MHz	Pass	PK	7.3854G	51.69	74.00	-22.31	3	Horizontal	260	2.22	-
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	51.71	54.00	-2.29	3	Vertical	331	1.39	-
2412MHz	Pass	AV	2.4162G	100.53	Inf	-Inf	3	Vertical	331	1.39	-
2412MHz	Pass	PK	2.39G	64.98	74.00	-9.02	3	Vertical	331	1.39	-
2412MHz	Pass	PK	2.416G	111.05	Inf	-Inf	3	Vertical	331	1.39	-
2412MHz	Pass	AV	2.39G	53.69	54.00	-0.31	3	Horizontal	259	2.73	-
2412MHz	Pass	AV	2.4182G	101.63	Inf	-Inf	3	Horizontal	259	2.73	-
2412MHz	Pass	PK	2.3898G	68.29	74.00	-5.71	3	Horizontal	259	2.73	-
2412MHz	Pass	PK	2.4184G	112.01	Inf	-Inf	3	Horizontal	259	2.73	-
2412MHz	Pass	AV	4.8248G	36.80	54.00	-17.20	3	Vertical	340	1.97	-
2412MHz	Pass	PK	4.82412G	50.51	74.00	-23.49	3	Vertical	340	1.97	-
2412MHz	Pass	AV	4.82424G	38.85	54.00	-15.15	3	Horizontal	329	2.03	-
2412MHz	Pass	PK	4.82622G	52.73	74.00	-21.27	3	Horizontal	329	2.03	-
2417MHz	Pass	AV	2.3888G	48.55	54.00	-5.45	3	Vertical	70	1.02	-
2417MHz	Pass	AV	2.4132G	99.77	Inf	-Inf	3	Vertical	70	1.02	-
2417MHz	Pass	PK	2.3896G	64.52	74.00	-9.48	3	Vertical	70	1.02	-
2417MHz	Pass	PK	2.4132G	109.78	Inf	-Inf	3	Vertical	70	1.02	-
2417MHz	Pass	AV	2.39G	50.38	54.00	-3.62	3	Horizontal	258	2.75	-
2417MHz	Pass	AV	2.4186G	102.76	Inf	-Inf	3	Horizontal	258	2.75	-
2417MHz	Pass	PK	2.39G	67.60	74.00	-6.40	3	Horizontal	258	2.75	-
2417MHz	Pass	PK	2.4232G	113.10	Inf	-Inf	3	Horizontal	258	2.75	-
2437MHz	Pass	AV	2.3438G	45.20	54.00	-8.80	3	Vertical	332	1.30	-
2437MHz	Pass	AV	2.4398G	101.93	Inf	-Inf	3	Vertical	332	1.30	-
2437MHz	Pass	AV	2.4838G	45.90	54.00	-8.10	3	Vertical	332	1.30	-
2437MHz	Pass	PK	2.3886G	58.18	74.00	-15.82	3	Vertical	332	1.30	-
2437MHz	Pass	PK	2.4406G	112.19	Inf	-Inf	3	Vertical	332	1.30	-
2437MHz	Pass	PK	2.497G	57.83	74.00	-16.17	3	Vertical	332	1.30	-
2437MHz	Pass	AV	2.3494G	45.18	54.00	-8.82	3	Horizontal	347	2.30	-
2437MHz	Pass	AV	2.435G	102.39	Inf	-Inf	3	Horizontal	347	2.30	-
2437MHz	Pass	AV	2.4842G	45.78	54.00	-8.22	3	Horizontal	347	2.30	-
2437MHz	Pass	PK	2.3782G	57.76	74.00	-16.24	3	Horizontal	347	2.30	-
2437MHz	Pass	PK	2.435G	112.47	Inf	-Inf	3	Horizontal	347	2.30	-
2437MHz	Pass	PK	2.4854G	58.26	74.00	-15.74	3	Horizontal	347	2.30	-
2437MHz	Pass	AV	4.87328G	36.88	54.00	-17.12	3	Vertical	251	1.04	-
2437MHz	Pass	AV	7.31468G	38.91	54.00	-15.09	3	Vertical	318	1.00	-
2437MHz	Pass	PK	4.87324G	49.77	74.00	-24.23	3	Vertical	251	1.04	-
2437MHz	Pass	PK	7.31454G	51.23	74.00	-22.77	3	Vertical	318	1.00	-
2437MHz	Pass	AV	4.87488G	39.57	54.00	-14.43	3	Horizontal	349	2.15	-
2437MHz	Pass	AV	7.30744G	38.68	54.00	-15.32	3	Horizontal	348	1.44	-
2437MHz	Pass	PK	4.87446G	53.59	74.00	-20.41	3	Horizontal	349	2.15	-
2437MHz	Pass	PK	7.31226G	51.87	74.00	-22.13	3	Horizontal	348	1.44	-
2457MHz	Pass	AV	2.4552G	101.33	Inf	-Inf	3	Vertical	322	1.57	-
2457MHz	Pass	AV	2.4838G	53.45	54.00	-0.55	3	Vertical	322	1.57	-
2457MHz	Pass	PK	2.4554G	112.04	Inf	-Inf	3	Vertical	322	1.57	-
2457MHz	Pass	PK	2.4846G	72.06	74.00	-1.94	3	Vertical	322	1.57	-
2457MHz	Pass	AV	2.4526G	102.77	Inf	-Inf	3	Horizontal	248	3.00	-
2457MHz	Pass	AV	2.4835G	52.02	54.00	-1.98	3	Horizontal	248	3.00	-
2457MHz	Pass	PK	2.4628G	112.34	Inf	-Inf	3	Horizontal	248	3.00	-

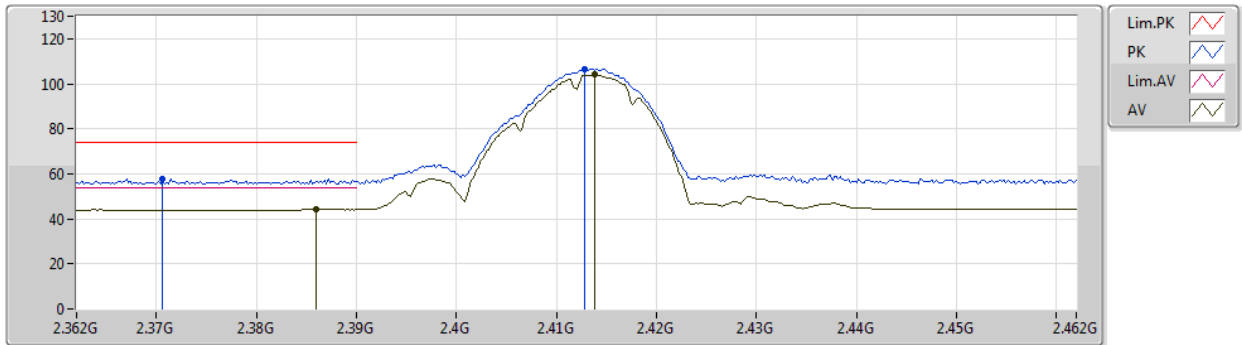
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2457MHz	Pass	PK	2.4864G	67.74	74.00	-6.26	3	Horizontal	248	3.00	-
2462MHz	Pass	AV	2.4656G	99.68	Inf	-Inf	3	Vertical	318	1.59	-
2462MHz	Pass	AV	2.4842G	50.81	54.00	-3.19	3	Vertical	318	1.59	-
2462MHz	Pass	PK	2.4652G	110.25	Inf	-Inf	3	Vertical	318	1.59	-
2462MHz	Pass	PK	2.4835G	69.14	74.00	-4.86	3	Vertical	318	1.59	-
2462MHz	Pass	AV	2.4626G	102.05	Inf	-Inf	3	Horizontal	241	3.00	-
2462MHz	Pass	AV	2.4835G	53.32	54.00	-0.68	3	Horizontal	241	3.00	-
2462MHz	Pass	PK	2.4572G	111.80	Inf	-Inf	3	Horizontal	241	3.00	-
2462MHz	Pass	PK	2.4835G	66.98	74.00	-7.02	3	Horizontal	241	3.00	-
2462MHz	Pass	AV	4.923G	37.88	54.00	-16.12	3	Vertical	343	2.34	-
2462MHz	Pass	AV	7.38457G	38.77	54.00	-15.23	3	Vertical	320	1.01	-
2462MHz	Pass	PK	4.9229G	51.27	74.00	-22.73	3	Vertical	343	2.34	-
2462MHz	Pass	PK	7.38452G	51.35	74.00	-22.65	3	Vertical	320	1.01	-
2462MHz	Pass	AV	4.9242G	38.72	54.00	-15.28	3	Horizontal	334	2.09	-
2462MHz	Pass	AV	7.38437G	38.64	54.00	-15.36	3	Horizontal	241	2.32	-
2462MHz	Pass	PK	4.92428G	52.26	74.00	-21.74	3	Horizontal	334	2.09	-
2462MHz	Pass	PK	7.38705G	51.00	74.00	-23.00	3	Horizontal	241	2.32	-
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	53.23	54.00	-0.77	3	Vertical	329	1.56	-
2412MHz	Pass	AV	2.4092G	98.92	Inf	-Inf	3	Vertical	329	1.56	-
2412MHz	Pass	PK	2.3894G	69.39	74.00	-4.61	3	Vertical	329	1.56	-
2412MHz	Pass	PK	2.4082G	111.68	Inf	-Inf	3	Vertical	329	1.56	-
2412MHz	Pass	AV	2.39G	47.78	54.00	-6.22	3	Horizontal	70	1.00	-
2412MHz	Pass	AV	2.4168G	98.45	Inf	-Inf	3	Horizontal	70	1.00	-
2412MHz	Pass	PK	2.3898G	62.66	74.00	-11.34	3	Horizontal	70	1.00	-
2412MHz	Pass	PK	2.4164G	110.70	Inf	-Inf	3	Horizontal	70	1.00	-
2412MHz	Pass	AV	4.82508G	35.88	54.00	-18.12	3	Vertical	340	1.97	-
2412MHz	Pass	PK	4.82582G	51.42	74.00	-22.58	3	Vertical	340	1.97	-
2412MHz	Pass	AV	4.82252G	37.42	54.00	-16.58	3	Horizontal	328	2.25	-
2412MHz	Pass	PK	4.8236G	52.34	74.00	-21.66	3	Horizontal	328	2.25	-
2417MHz	Pass	AV	2.39G	48.29	54.00	-5.71	3	Vertical	325	1.59	-
2417MHz	Pass	AV	2.4144G	98.94	Inf	-Inf	3	Vertical	325	1.59	-
2417MHz	Pass	PK	2.39G	63.11	74.00	-10.89	3	Vertical	325	1.59	-
2417MHz	Pass	PK	2.4148G	112.36	Inf	-Inf	3	Vertical	325	1.59	-
2417MHz	Pass	AV	2.39G	49.07	54.00	-4.93	3	Horizontal	256	2.76	-
2417MHz	Pass	AV	2.4218G	100.63	Inf	-Inf	3	Horizontal	256	2.76	-
2417MHz	Pass	PK	2.3888G	64.40	74.00	-9.60	3	Horizontal	256	2.76	-
2417MHz	Pass	PK	2.423G	112.69	Inf	-Inf	3	Horizontal	256	2.76	-
2437MHz	Pass	AV	2.3898G	44.60	54.00	-9.40	3	Vertical	323	1.41	-
2437MHz	Pass	AV	2.431G	99.81	Inf	-Inf	3	Vertical	323	1.41	-
2437MHz	Pass	AV	2.4835G	45.23	54.00	-8.77	3	Vertical	323	1.41	-
2437MHz	Pass	PK	2.381G	57.60	74.00	-16.40	3	Vertical	323	1.41	-
2437MHz	Pass	PK	2.433G	112.43	Inf	-Inf	3	Vertical	323	1.41	-
2437MHz	Pass	PK	2.4874G	57.91	74.00	-16.09	3	Vertical	323	1.41	-
2437MHz	Pass	AV	2.3894G	44.43	54.00	-9.57	3	Horizontal	243	2.15	-
2437MHz	Pass	AV	2.4398G	99.53	Inf	-Inf	3	Horizontal	243	2.15	-
2437MHz	Pass	AV	2.4835G	45.21	54.00	-8.79	3	Horizontal	243	2.15	-
2437MHz	Pass	PK	2.3406G	58.06	74.00	-15.94	3	Horizontal	243	2.15	-
2437MHz	Pass	PK	2.4414G	111.05	Inf	-Inf	3	Horizontal	243	2.15	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2437MHz	Pass	PK	2.497G	57.98	74.00	-16.02	3	Horizontal	243	2.15	-
2437MHz	Pass	AV	4.8738G	36.05	54.00	-17.95	3	Vertical	255	1.04	-
2437MHz	Pass	AV	7.30682G	37.77	54.00	-16.23	3	Vertical	313	1.76	-
2437MHz	Pass	PK	4.87426G	51.19	74.00	-22.81	3	Vertical	255	1.04	-
2437MHz	Pass	PK	7.31128G	51.86	74.00	-22.14	3	Vertical	313	1.76	-
2437MHz	Pass	AV	4.87556G	38.09	54.00	-15.91	3	Horizontal	346	2.17	-
2437MHz	Pass	AV	7.3074G	37.65	54.00	-16.35	3	Horizontal	339	1.50	-
2437MHz	Pass	PK	4.87594G	52.88	74.00	-21.12	3	Horizontal	346	2.17	-
2437MHz	Pass	PK	7.31586G	51.45	74.00	-22.55	3	Horizontal	339	1.50	-
2457MHz	Pass	AV	2.4518G	99.65	Inf	-Inf	3	Vertical	319	1.56	-
2457MHz	Pass	AV	2.4836G	52.50	54.00	-1.50	3	Vertical	319	1.56	-
2457MHz	Pass	PK	2.4526G	112.21	Inf	-Inf	3	Vertical	319	1.56	-
2457MHz	Pass	PK	2.484G	71.50	74.00	-2.50	3	Vertical	319	1.56	-
2457MHz	Pass	AV	2.4584G	101.18	Inf	-Inf	3	Horizontal	258	3.00	-
2457MHz	Pass	AV	2.4835G	51.51	54.00	-2.49	3	Horizontal	258	3.00	-
2457MHz	Pass	PK	2.4608G	113.06	Inf	-Inf	3	Horizontal	258	3.00	-
2457MHz	Pass	PK	2.484G	66.45	74.00	-7.55	3	Horizontal	258	3.00	-
2462MHz	Pass	AV	2.4562G	97.62	Inf	-Inf	3	Vertical	319	1.55	-
2462MHz	Pass	AV	2.4835G	48.00	54.00	-6.00	3	Vertical	319	1.55	-
2462MHz	Pass	PK	2.4564G	110.25	Inf	-Inf	3	Vertical	319	1.55	-
2462MHz	Pass	PK	2.4835G	65.11	74.00	-8.89	3	Vertical	319	1.55	-
2462MHz	Pass	AV	2.4636G	100.57	Inf	-Inf	3	Horizontal	243	3.00	-
2462MHz	Pass	AV	2.4835G	53.20	54.00	-0.80	3	Horizontal	243	3.00	-
2462MHz	Pass	PK	2.4638G	112.17	Inf	-Inf	3	Horizontal	243	3.00	-
2462MHz	Pass	PK	2.4838G	70.96	74.00	-3.04	3	Horizontal	243	3.00	-
2462MHz	Pass	AV	4.92228G	36.69	54.00	-17.31	3	Vertical	339	2.33	-
2462MHz	Pass	AV	7.38176G	37.26	54.00	-16.74	3	Vertical	316	1.50	-
2462MHz	Pass	PK	4.92066G	51.94	74.00	-22.06	3	Vertical	339	2.33	-
2462MHz	Pass	PK	7.38628G	51.05	74.00	-22.95	3	Vertical	280	1.50	-
2462MHz	Pass	AV	4.92428G	37.32	54.00	-16.68	3	Horizontal	338	2.09	-
2462MHz	Pass	AV	7.38184G	37.23	54.00	-16.77	3	Horizontal	132	1.57	-
2462MHz	Pass	PK	4.92174G	52.82	74.00	-21.18	3	Horizontal	338	2.09	-
2462MHz	Pass	PK	7.38678G	50.96	74.00	-23.04	3	Horizontal	132	1.57	-

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2412MHz_TX

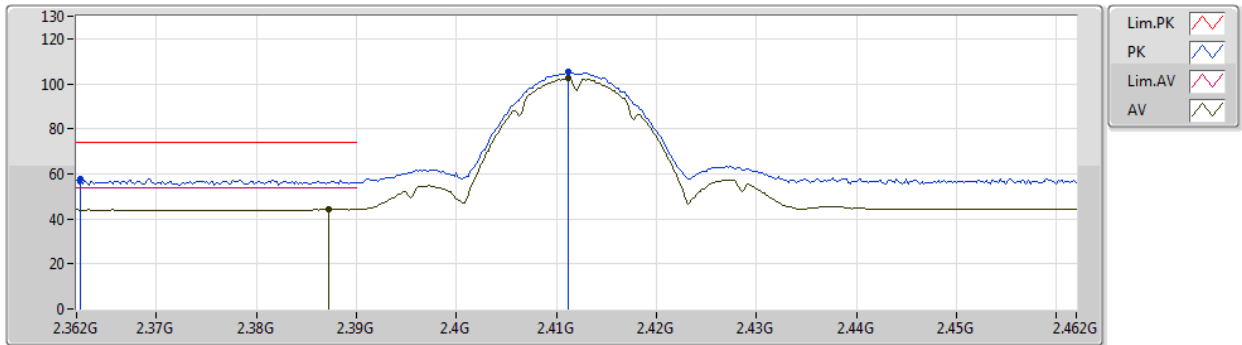


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.386G	44.14	54.00	-9.86	32.73	3	Vertical	332	1.66	-	11.41	27.66	5.07	-
AV	2.4138G	104.19	Inf	-Inf	32.72	3	Vertical	332	1.66	-	71.47	27.60	5.12	-
PK	2.3706G	57.67	74.00	-16.33	32.76	3	Vertical	332	1.66	-	24.91	27.72	5.04	-
PK	2.4128G	106.62	Inf	-Inf	32.72	3	Vertical	332	1.66	-	73.90	27.60	5.12	-

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2412MHz_TX

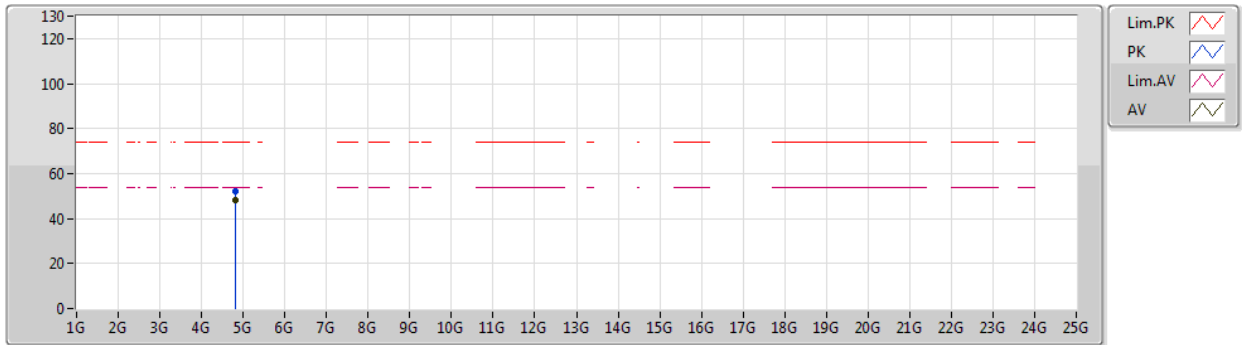


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3872G	44.11	54.00	-9.89	32.72	3	Horizontal	201	1.01	-	11.39	27.65	5.07	-
AV	2.4112G	102.55	Inf	-Inf	32.72	3	Horizontal	201	1.01	-	69.83	27.60	5.12	-
PK	2.3624G	57.93	74.00	-16.07	32.77	3	Horizontal	201	1.01	-	25.16	27.75	5.02	-
PK	2.4112G	105.10	Inf	-Inf	32.72	3	Horizontal	201	1.01	-	72.38	27.60	5.12	-

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2412MHz_TX

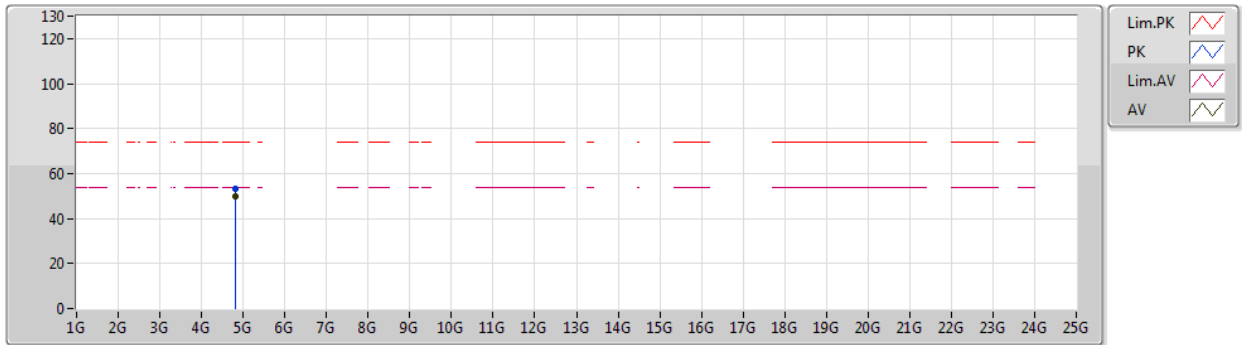


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82403G	48.06	54.00	-5.94	4.23	3	Vertical	343	2.05	-	43.83	31.20	7.32	34.29
PK	4.82405G	52.33	74.00	-21.67	4.23	3	Vertical	343	2.05	-	48.10	31.20	7.32	34.29

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2412MHz_TX

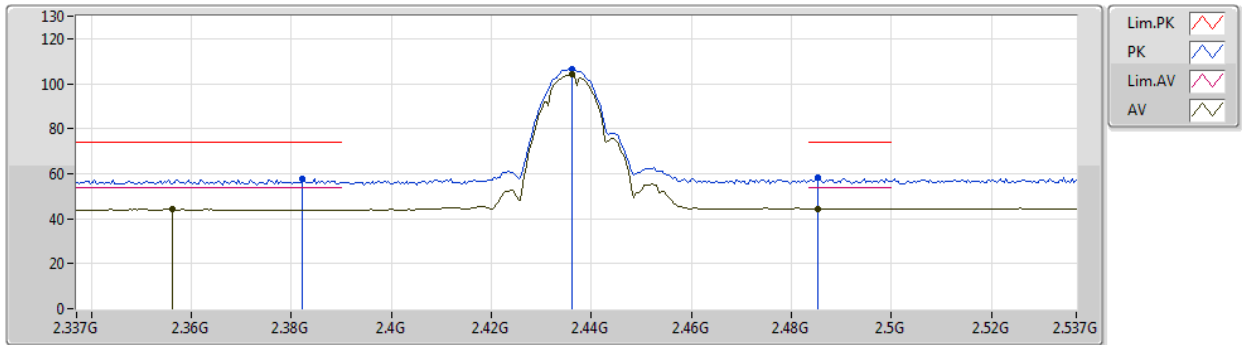


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82401G	49.81	54.00	-4.19	4.23	3	Horizontal	339	2.10	-	45.58	31.20	7.32	34.29
PK	4.8241G	53.37	74.00	-20.63	4.23	3	Horizontal	339	2.10	-	49.14	31.20	7.32	34.29

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2437MHz_TX

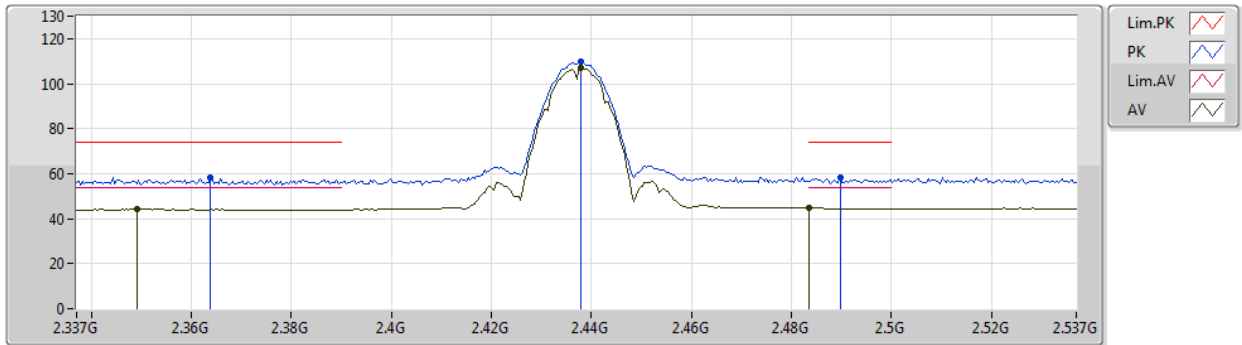


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3562G	44.02	54.00	-9.98	32.79	3	Vertical	16	1.15	-	11.23	27.78	5.01	-
AV	2.4362G	104.12	Inf	-Inf	32.75	3	Vertical	16	1.15	-	71.37	27.60	5.15	-
AV	2.4854G	44.49	54.00	-9.51	32.83	3	Vertical	16	1.15	-	11.66	27.60	5.23	-
PK	2.3822G	57.71	74.00	-16.29	32.73	3	Vertical	16	1.15	-	24.98	27.67	5.06	-
PK	2.4362G	106.68	Inf	-Inf	32.75	3	Vertical	16	1.15	-	73.93	27.60	5.15	-
PK	2.4854G	58.24	74.00	-15.76	32.83	3	Vertical	16	1.15	-	25.41	27.60	5.23	-

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2437MHz_TX

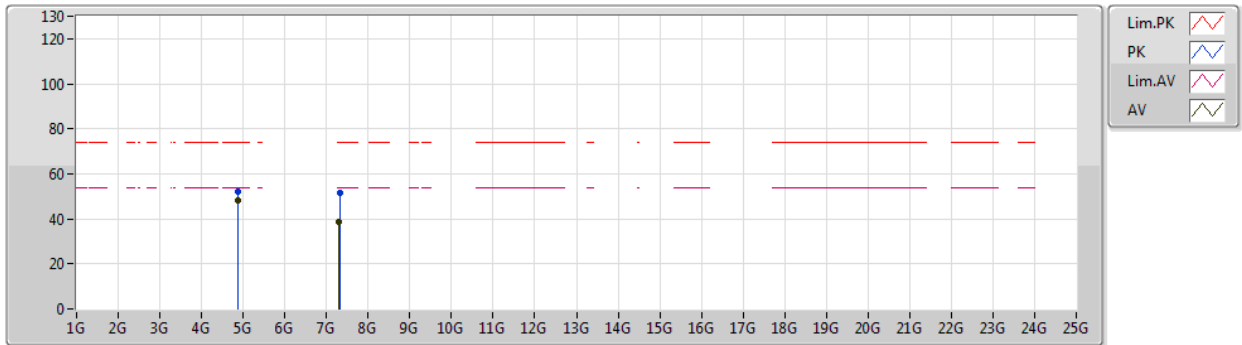


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.349G	44.02	54.00	-9.98	32.80	3	Horizontal	257	3.00	-	11.22	27.80	5.00	-
AV	2.4378G	106.87	Inf	-Inf	32.76	3	Horizontal	257	3.00	-	74.11	27.60	5.16	-
AV	2.4835G	44.59	54.00	-9.41	32.83	3	Horizontal	257	3.00	-	11.76	27.60	5.23	-
PK	2.3638G	58.55	74.00	-15.45	32.77	3	Horizontal	257	3.00	-	25.78	27.74	5.03	-
PK	2.4378G	109.57	Inf	-Inf	32.76	3	Horizontal	257	3.00	-	76.81	27.60	5.16	-
PK	2.4898G	58.12	74.00	-15.88	32.83	3	Horizontal	257	3.00	-	25.29	27.60	5.23	-

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2437MHz_TX

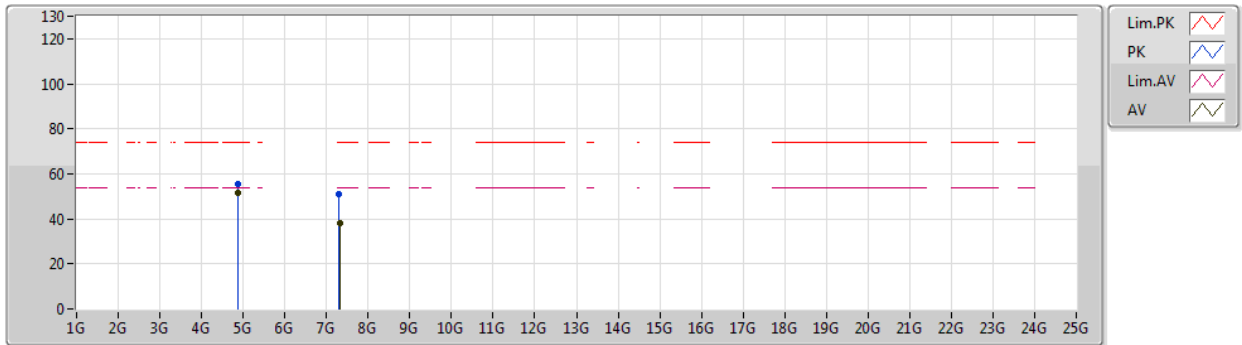


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.874G	47.96	54.00	-6.04	4.34	3	Vertical	262	1.10	-	43.62	31.25	7.37	34.28
AV	7.31014G	38.39	54.00	-15.61	10.59	3	Vertical	323	1.48	-	27.80	36.58	8.60	34.59
PK	4.87396G	52.27	74.00	-21.73	4.34	3	Vertical	262	1.10	-	47.93	31.25	7.37	34.28
PK	7.31109G	51.60	74.00	-22.40	10.59	3	Vertical	323	1.48	-	41.01	36.58	8.60	34.59

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2437MHz_TX

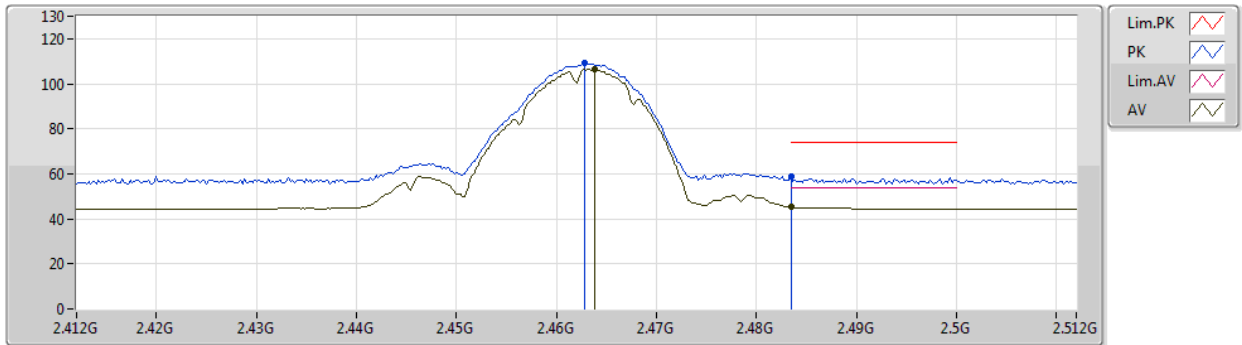


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87403G	51.72	54.00	-2.28	4.34	3	Horizontal	349	2.17	-	47.38	31.25	7.37	34.28
AV	7.31114G	37.93	54.00	-16.07	10.59	3	Horizontal	360	2.18	-	27.34	36.58	8.60	34.59
PK	4.87406G	55.33	74.00	-18.67	4.34	3	Horizontal	349	2.17	-	50.99	31.25	7.37	34.28
PK	7.31016G	51.22	74.00	-22.78	10.59	3	Horizontal	360	2.18	-	40.63	36.58	8.60	34.59

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2462MHz_TX

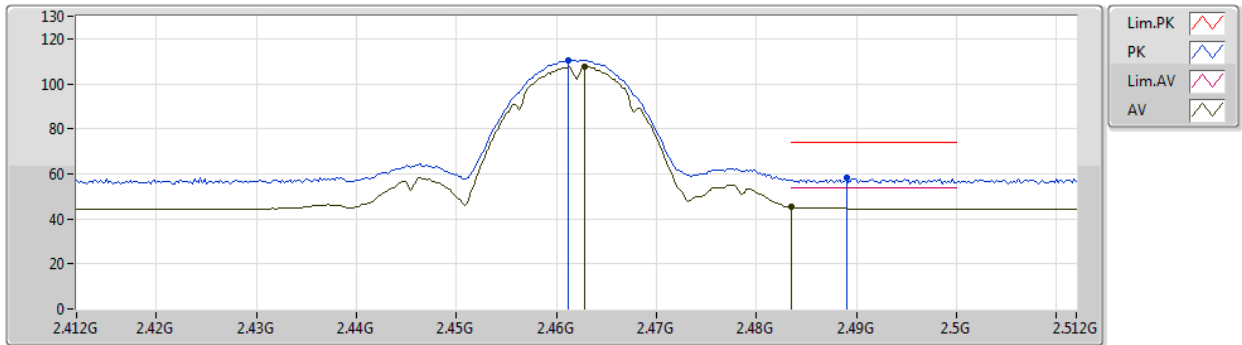


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4638G	106.35	Inf	-Inf	32.80	3	Vertical	325	1.57	-	73.55	27.60	5.20	-
AV	2.4835G	45.17	54.00	-8.83	32.83	3	Vertical	325	1.57	-	12.34	27.60	5.23	-
PK	2.4628G	109.07	Inf	-Inf	32.79	3	Vertical	325	1.57	-	76.28	27.60	5.19	-
PK	2.4835G	58.59	74.00	-15.41	32.83	3	Vertical	325	1.57	-	25.76	27.60	5.23	-

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2462MHz_TX

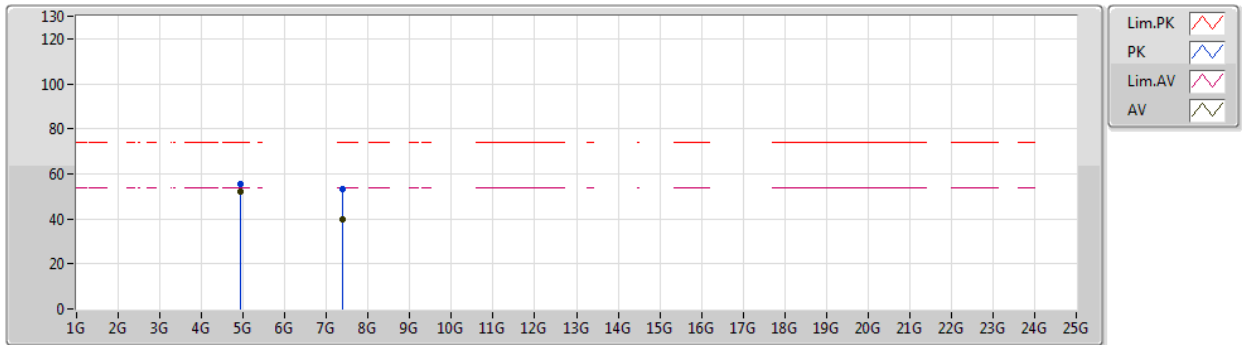


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4628G	107.70	Inf	-Inf	32.79	3	Horizontal	348	2.80	-	74.91	27.60	5.19	-
AV	2.4835G	45.42	54.00	-8.58	32.83	3	Horizontal	348	2.80	-	12.59	27.60	5.23	-
PK	2.4612G	110.58	Inf	-Inf	32.79	3	Horizontal	348	2.80	-	77.79	27.60	5.19	-
PK	2.489G	58.45	74.00	-15.55	32.83	3	Horizontal	348	2.80	-	25.62	27.60	5.23	-

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2462MHz_TX

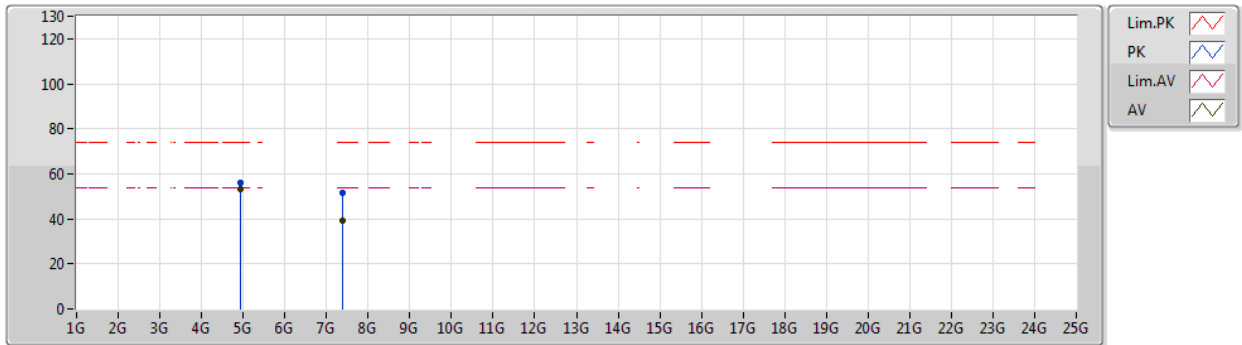


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92402G	52.39	54.00	-1.61	4.50	3	Vertical	342	2.15	-	47.89	31.30	7.42	34.22
AV	7.38692G	39.81	54.00	-14.19	10.44	3	Vertical	320	1.01	-	29.37	36.43	8.60	34.59
PK	4.92392G	55.40	74.00	-18.60	4.50	3	Vertical	342	2.15	-	50.90	31.30	7.42	34.22
PK	7.3882G	52.99	74.00	-21.01	10.43	3	Vertical	320	1.01	-	42.56	36.42	8.60	34.59

802.11b_Nss1,(1Mbps)_2TX

23/06/2020

2462MHz_TX

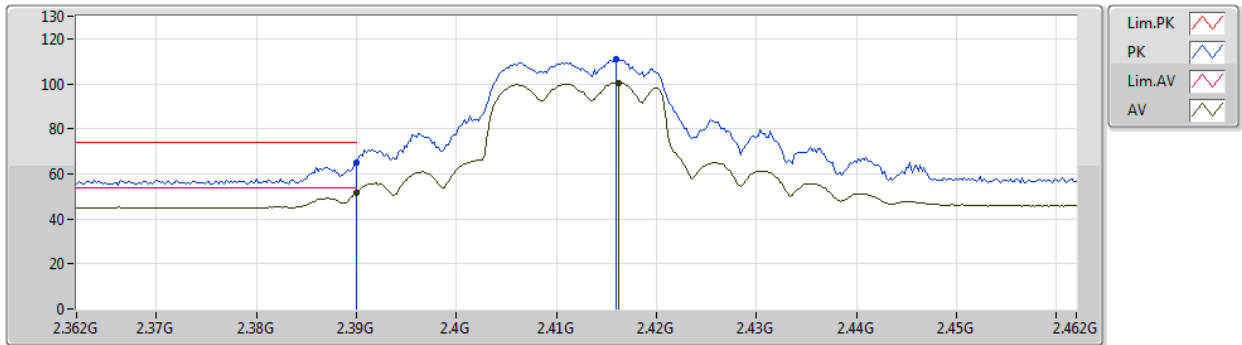


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92401G	53.12	54.00	-0.88	4.50	3	Horizontal	336	2.23	-	48.62	31.30	7.42	34.22
AV	7.38678G	39.15	54.00	-14.85	10.44	3	Horizontal	260	2.22	-	28.71	36.43	8.60	34.59
PK	4.924G	55.83	74.00	-18.17	4.50	3	Horizontal	336	2.23	-	51.33	31.30	7.42	34.22
PK	7.3854G	51.69	74.00	-22.31	10.44	3	Horizontal	260	2.22	-	41.25	36.43	8.60	34.59

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2412MHz_TX

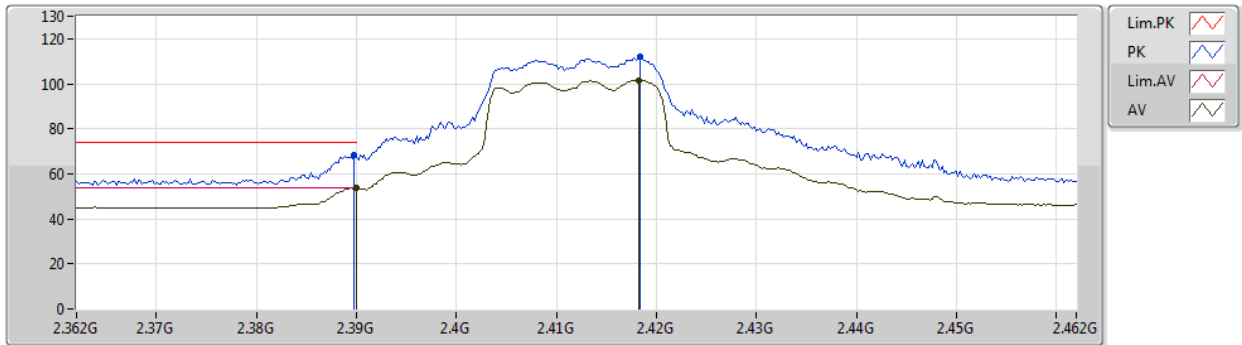


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	51.71	54.00	-2.29	32.72	3	Vertical	331	1.39	-	18.99	27.64	5.08	-
AV	2.4162G	100.53	Inf	-Inf	32.72	3	Vertical	331	1.39	-	67.81	27.60	5.12	-
PK	2.39G	64.98	74.00	-9.02	32.72	3	Vertical	331	1.39	-	32.26	27.64	5.08	-
PK	2.416G	111.05	Inf	-Inf	32.72	3	Vertical	331	1.39	-	78.33	27.60	5.12	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2412MHz_TX

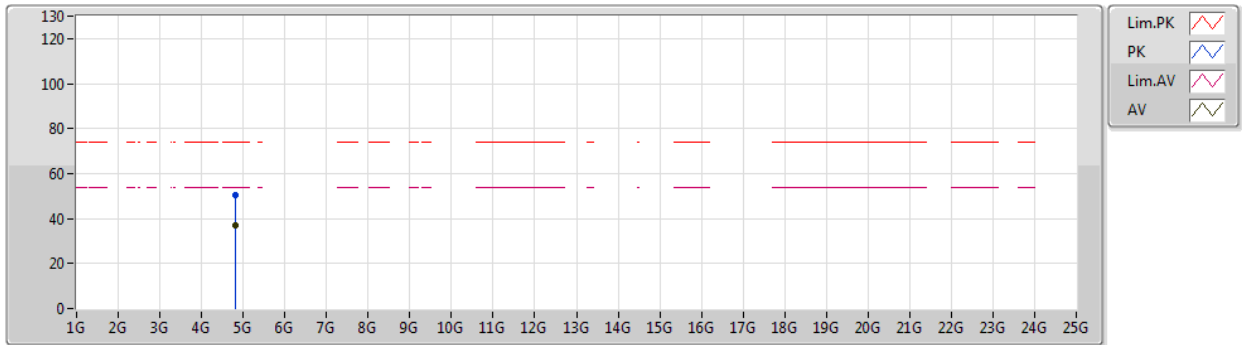


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	53.69	54.00	-0.31	32.72	3	Horizontal	259	2.73	-	20.97	27.64	5.08	-
AV	2.4182G	101.63	Inf	-Inf	32.73	3	Horizontal	259	2.73	-	68.90	27.60	5.13	-
PK	2.3898G	68.29	74.00	-5.71	32.72	3	Horizontal	259	2.73	-	35.57	27.64	5.08	-
PK	2.4184G	112.01	Inf	-Inf	32.73	3	Horizontal	259	2.73	-	79.28	27.60	5.13	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2412MHz_TX

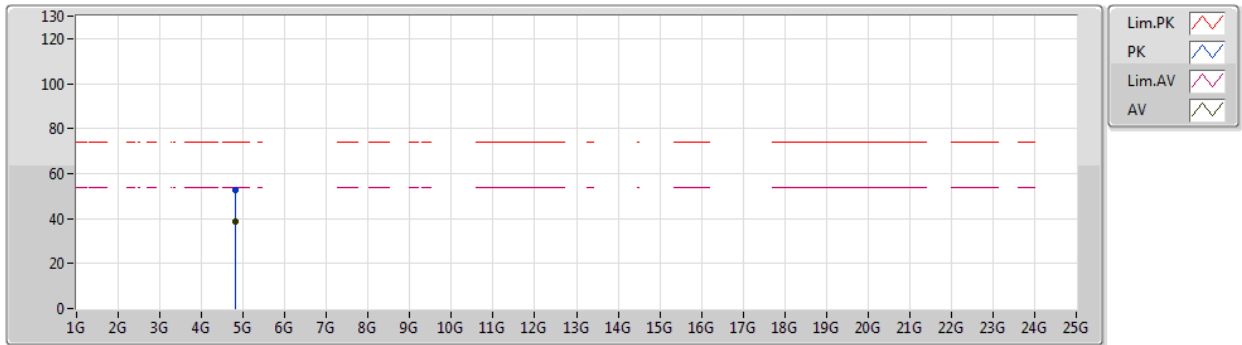


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8248G	36.80	54.00	-17.20	4.23	3	Vertical	340	1.97	-	32.57	31.20	7.32	34.29
PK	4.82412G	50.51	74.00	-23.49	4.23	3	Vertical	340	1.97	-	46.28	31.20	7.32	34.29

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2412MHz_TX

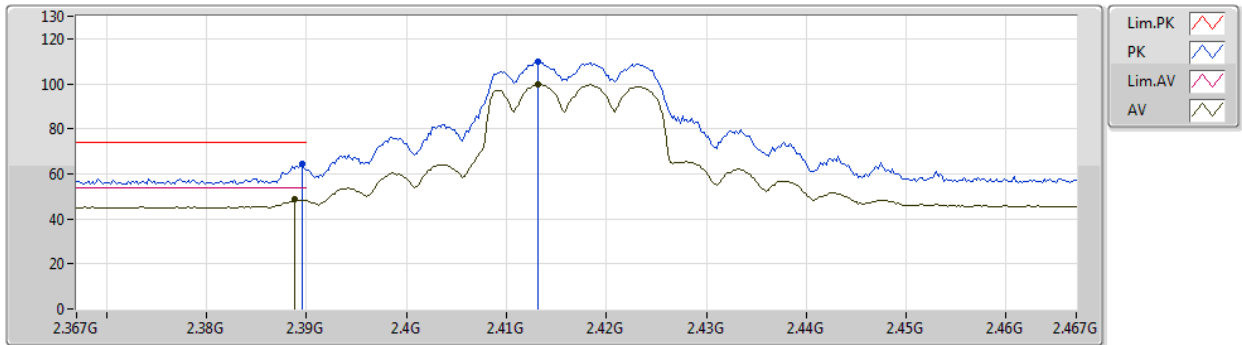


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82424G	38.85	54.00	-15.15	4.23	3	Horizontal	329	2.03	-	34.62	31.20	7.32	34.29
PK	4.82622G	52.73	74.00	-21.27	4.24	3	Horizontal	329	2.03	-	48.49	31.20	7.33	34.29

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2417MHz_TX

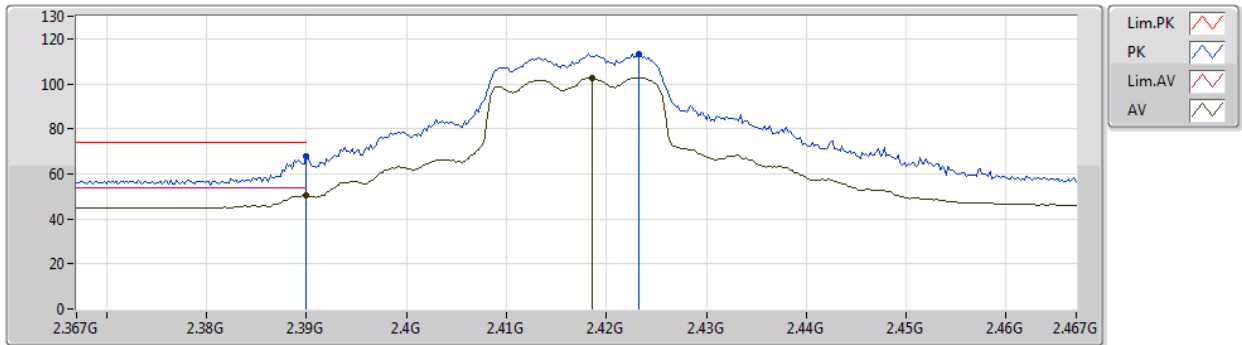


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3888G	48.55	54.00	-5.45	32.72	3	Vertical	70	1.02	-	15.83	27.64	5.08	-
AV	2.4132G	99.77	Inf	-Inf	32.72	3	Vertical	70	1.02	-	67.05	27.60	5.12	-
PK	2.3896G	64.52	74.00	-9.48	32.72	3	Vertical	70	1.02	-	31.80	27.64	5.08	-
PK	2.4132G	109.78	Inf	-Inf	32.72	3	Vertical	70	1.02	-	77.06	27.60	5.12	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2417MHz_TX

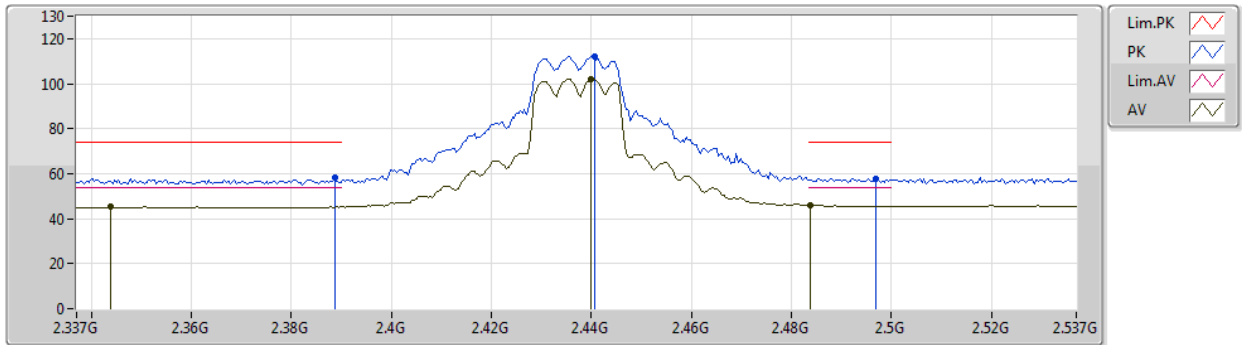


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	50.38	54.00	-3.62	32.72	3	Horizontal	258	2.75	-	17.66	27.64	5.08	-
AV	2.4186G	102.76	Inf	-Inf	32.73	3	Horizontal	258	2.75	-	70.03	27.60	5.13	-
PK	2.39G	67.60	74.00	-6.40	32.72	3	Horizontal	258	2.75	-	34.88	27.64	5.08	-
PK	2.4232G	113.10	Inf	-Inf	32.73	3	Horizontal	258	2.75	-	80.37	27.60	5.13	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2437MHz_TX

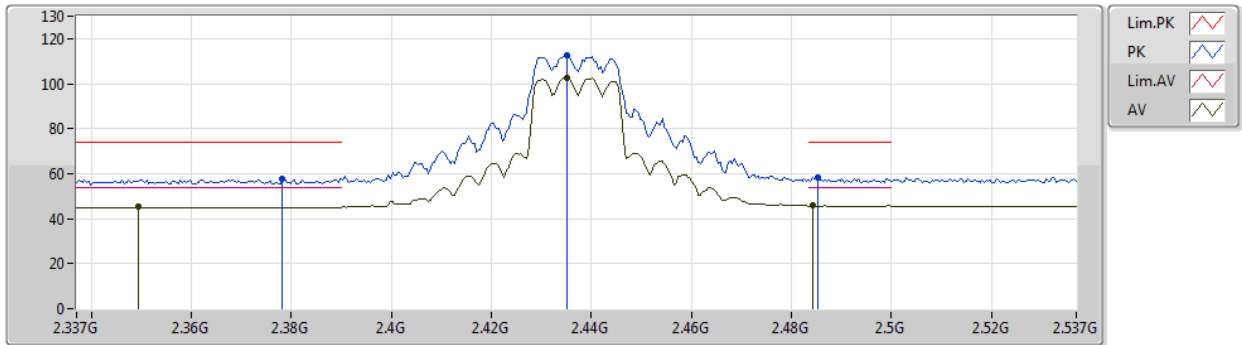


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3438G	45.20	54.00	-8.80	32.80	3	Vertical	332	1.30	-	12.40	27.81	4.99	-
AV	2.4398G	101.93	Inf	-Inf	32.76	3	Vertical	332	1.30	-	69.17	27.60	5.16	-
AV	2.4838G	45.90	54.00	-8.10	32.83	3	Vertical	332	1.30	-	13.07	27.60	5.23	-
PK	2.3886G	58.18	74.00	-15.82	32.73	3	Vertical	332	1.30	-	25.45	27.65	5.08	-
PK	2.4406G	112.19	Inf	-Inf	32.76	3	Vertical	332	1.30	-	79.43	27.60	5.16	-
PK	2.497G	57.83	74.00	-16.17	32.85	3	Vertical	332	1.30	-	24.98	27.60	5.25	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2437MHz_TX

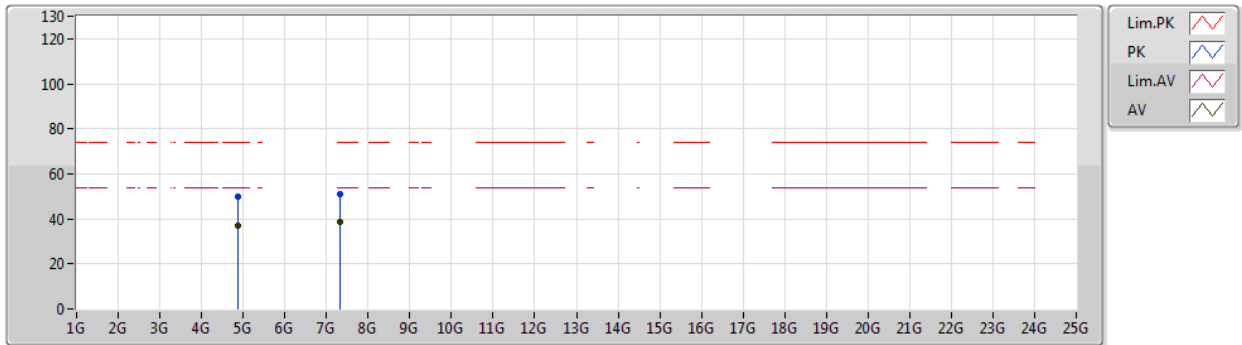


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3494G	45.18	54.00	-8.82	32.80	3	Horizontal	347	2.30	-	12.38	27.80	5.00	-
AV	2.435G	102.39	Inf	-Inf	32.75	3	Horizontal	347	2.30	-	69.64	27.60	5.15	-
AV	2.4842G	45.78	54.00	-8.22	32.83	3	Horizontal	347	2.30	-	12.95	27.60	5.23	-
PK	2.3782G	57.76	74.00	-16.24	32.75	3	Horizontal	347	2.30	-	25.01	27.69	5.06	-
PK	2.435G	112.47	Inf	-Inf	32.75	3	Horizontal	347	2.30	-	79.72	27.60	5.15	-
PK	2.4854G	58.26	74.00	-15.74	32.83	3	Horizontal	347	2.30	-	25.43	27.60	5.23	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2437MHz_TX

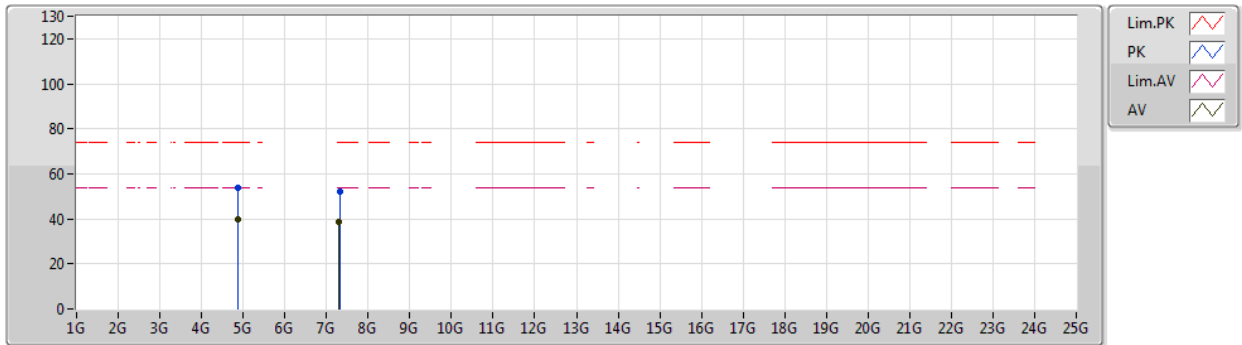


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87328G	36.88	54.00	-17.12	4.34	3	Vertical	251	1.04	-	32.54	31.25	7.37	34.28
AV	7.31468G	38.91	54.00	-15.09	10.58	3	Vertical	318	1.00	-	28.33	36.57	8.60	34.59
PK	4.87324G	49.77	74.00	-24.23	4.34	3	Vertical	251	1.04	-	45.43	31.25	7.37	34.28
PK	7.31454G	51.23	74.00	-22.77	10.58	3	Vertical	318	1.00	-	40.65	36.57	8.60	34.59

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2437MHz_TX

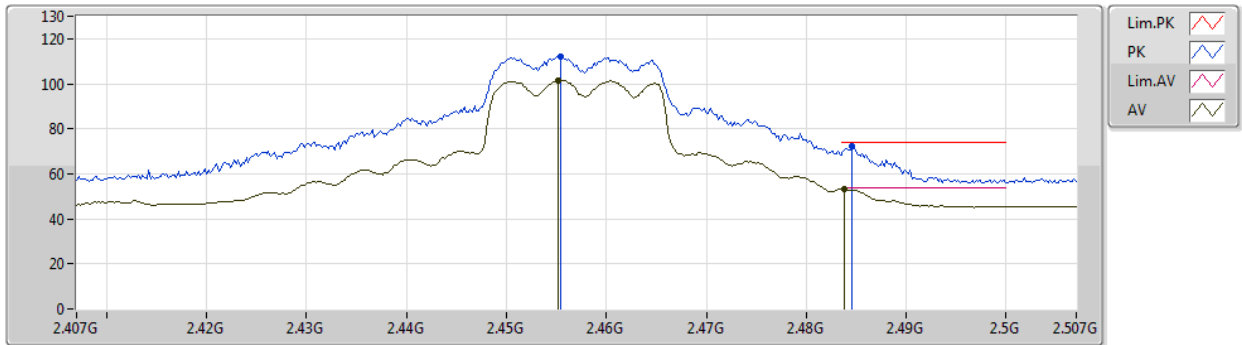


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87488G	39.57	54.00	-14.43	4.34	3	Horizontal	349	2.15	-	35.23	31.25	7.37	34.28
AV	7.30744G	38.68	54.00	-15.32	10.60	3	Horizontal	348	1.44	-	28.08	36.59	8.60	34.59
PK	4.87446G	53.59	74.00	-20.41	4.34	3	Horizontal	349	2.15	-	49.25	31.25	7.37	34.28
PK	7.31226G	51.87	74.00	-22.13	10.59	3	Horizontal	348	1.44	-	41.28	36.58	8.60	34.59

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2457MHz_TX

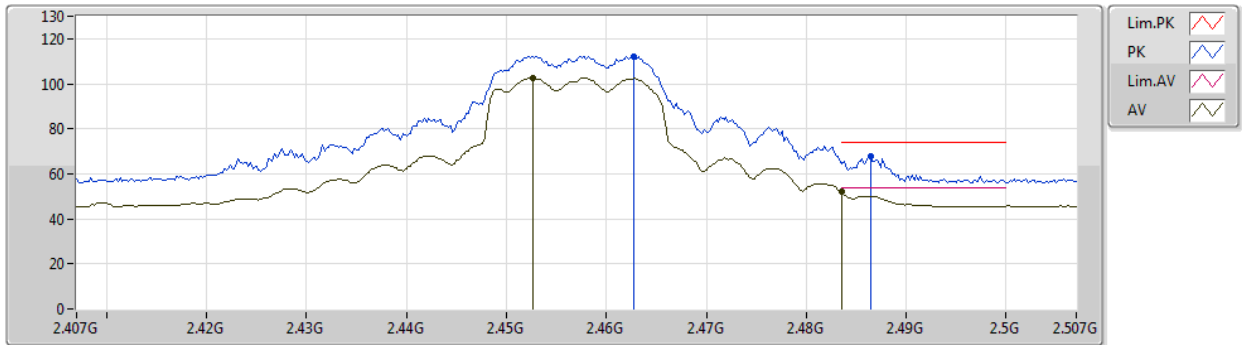


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4552G	101.33	Inf	-Inf	32.78	3	Vertical	322	1.57	-	68.55	27.60	5.18	-
AV	2.4838G	53.45	54.00	-0.55	32.83	3	Vertical	322	1.57	-	20.62	27.60	5.23	-
PK	2.4554G	112.04	Inf	-Inf	32.78	3	Vertical	322	1.57	-	79.26	27.60	5.18	-
PK	2.4846G	72.06	74.00	-1.94	32.83	3	Vertical	322	1.57	-	39.23	27.60	5.23	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2457MHz_TX

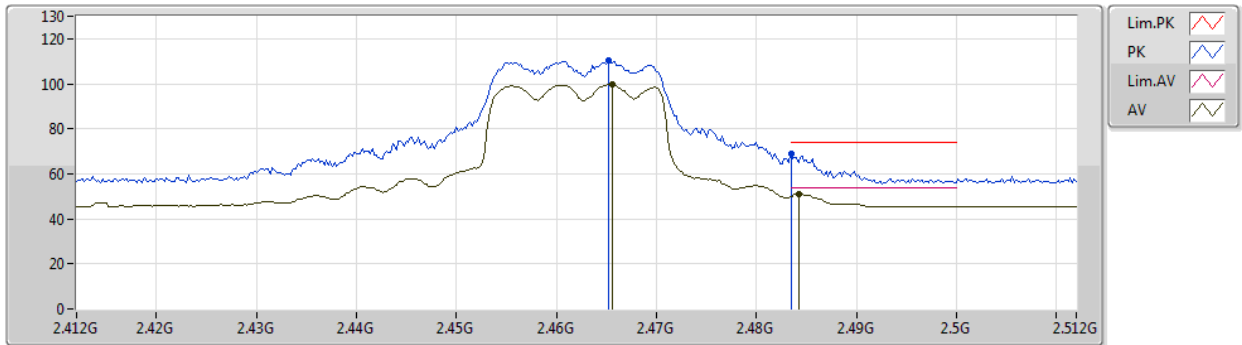


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4526G	102.77	Inf	-Inf	32.78	3	Horizontal	248	3.00	-	69.99	27.60	5.18	-
AV	2.4835G	52.02	54.00	-1.98	32.83	3	Horizontal	248	3.00	-	19.19	27.60	5.23	-
PK	2.4628G	112.34	Inf	-Inf	32.79	3	Horizontal	248	3.00	-	79.55	27.60	5.19	-
PK	2.4864G	67.74	74.00	-6.26	32.83	3	Horizontal	248	3.00	-	34.91	27.60	5.23	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2462MHz_TX

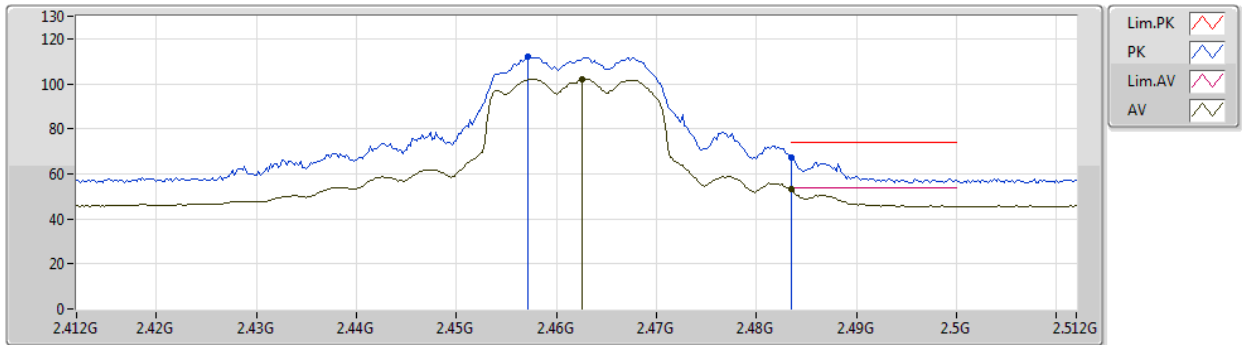


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4656G	99.68	Inf	-Inf	32.80	3	Vertical	318	1.59	-	66.88	27.60	5.20	-
AV	2.4842G	50.81	54.00	-3.19	32.83	3	Vertical	318	1.59	-	17.98	27.60	5.23	-
PK	2.4652G	110.25	Inf	-Inf	32.80	3	Vertical	318	1.59	-	77.45	27.60	5.20	-
PK	2.4835G	69.14	74.00	-4.86	32.83	3	Vertical	318	1.59	-	36.31	27.60	5.23	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2462MHz_TX

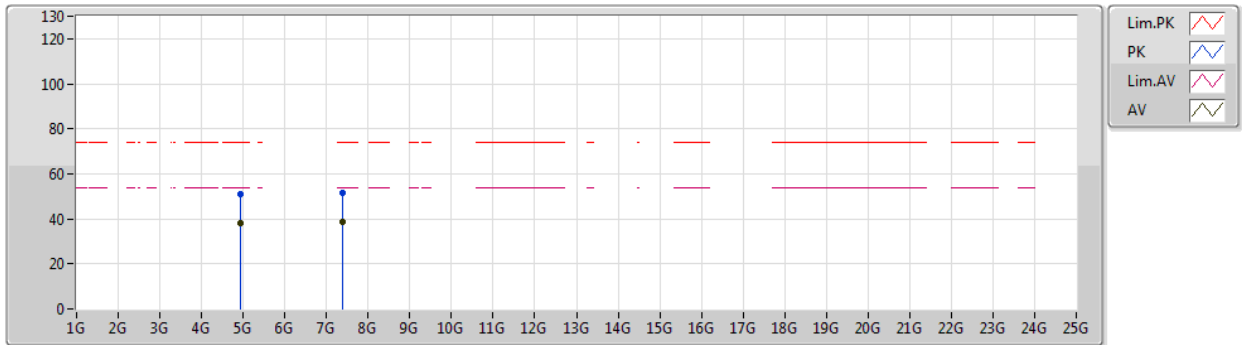


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4626G	102.05	Inf	-Inf	32.79	3	Horizontal	241	3.00	-	69.26	27.60	5.19	-
AV	2.4835G	53.32	54.00	-0.68	32.83	3	Horizontal	241	3.00	-	20.49	27.60	5.23	-
PK	2.4572G	111.80	Inf	-Inf	32.79	3	Horizontal	241	3.00	-	79.01	27.60	5.19	-
PK	2.4835G	66.98	74.00	-7.02	32.83	3	Horizontal	241	3.00	-	34.15	27.60	5.23	-

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2462MHz_TX

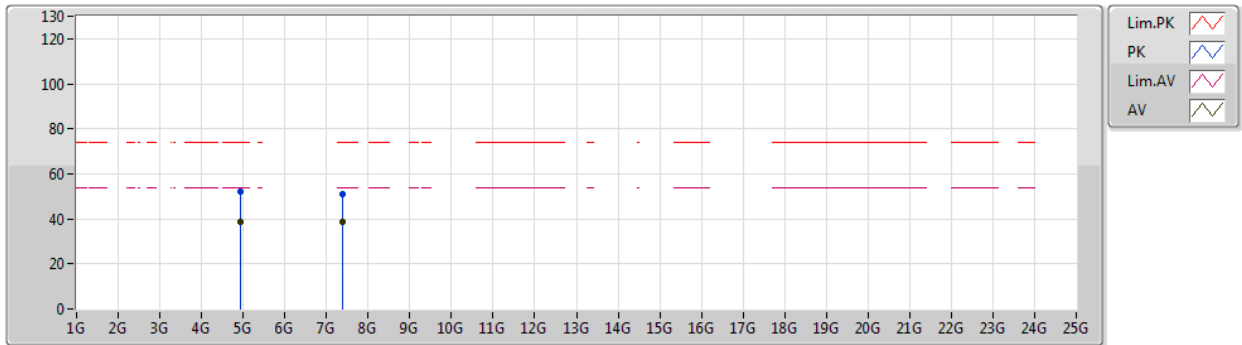


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.923G	37.88	54.00	-16.12	4.48	3	Vertical	343	2.34	-	33.40	31.29	7.42	34.23
AV	7.38457G	38.77	54.00	-15.23	10.44	3	Vertical	320	1.01	-	28.33	36.43	8.60	34.59
PK	4.9229G	51.27	74.00	-22.73	4.48	3	Vertical	343	2.34	-	46.79	31.29	7.42	34.23
PK	7.38452G	51.35	74.00	-22.65	10.44	3	Vertical	320	1.01	-	40.91	36.43	8.60	34.59

802.11g_Nss1,(6Mbps)_2TX

24/06/2020

2462MHz_TX

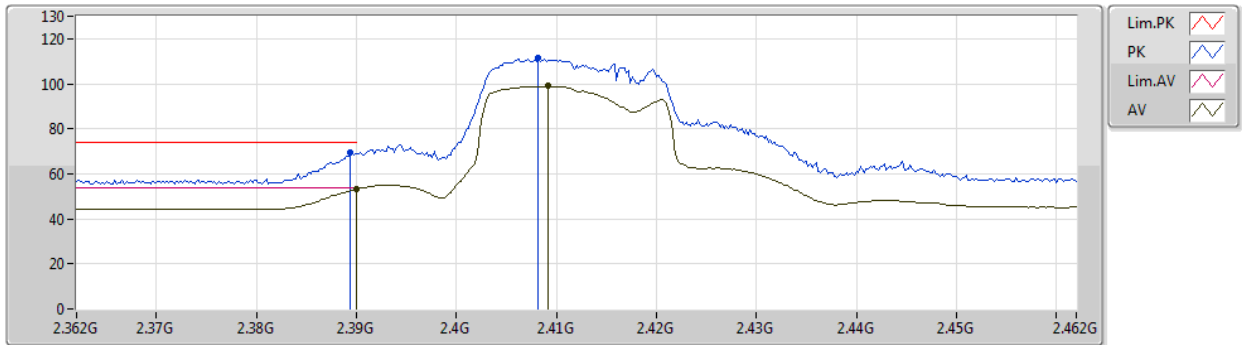


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.9242G	38.72	54.00	-15.28	4.50	3	Horizontal	334	2.09	-	34.22	31.30	7.42	34.22
AV	7.38437G	38.64	54.00	-15.36	10.44	3	Horizontal	241	2.32	-	28.20	36.43	8.60	34.59
PK	4.92428G	52.26	74.00	-21.74	4.50	3	Horizontal	334	2.09	-	47.76	31.30	7.42	34.22
PK	7.38705G	51.00	74.00	-23.00	10.44	3	Horizontal	241	2.32	-	40.56	36.43	8.60	34.59

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2412MHz_TX

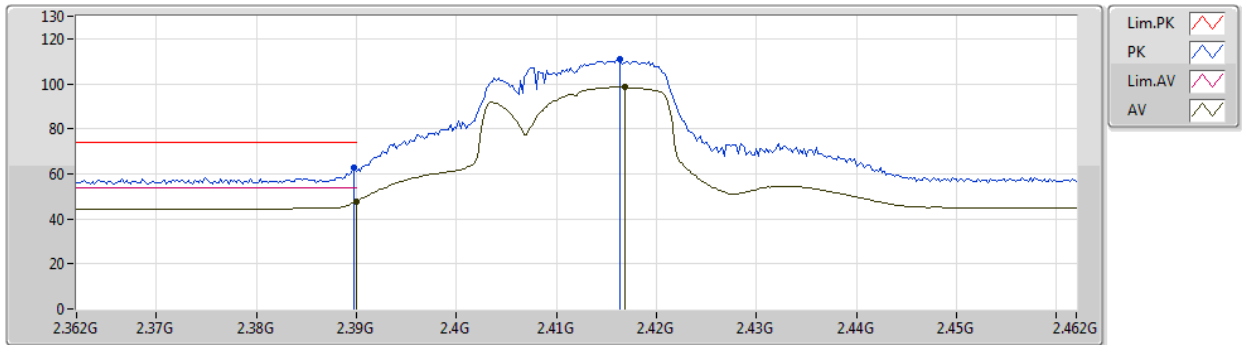


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	53.23	54.00	-0.77	32.72	3	Vertical	329	1.56	-	20.51	27.64	5.08	-
AV	2.4092G	98.92	Inf	-Inf	32.71	3	Vertical	329	1.56	-	66.21	27.60	5.11	-
PK	2.3894G	69.39	74.00	-4.61	32.72	3	Vertical	329	1.56	-	36.67	27.64	5.08	-
PK	2.4082G	111.68	Inf	-Inf	32.71	3	Vertical	329	1.56	-	78.97	27.60	5.11	-

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2412MHz_TX

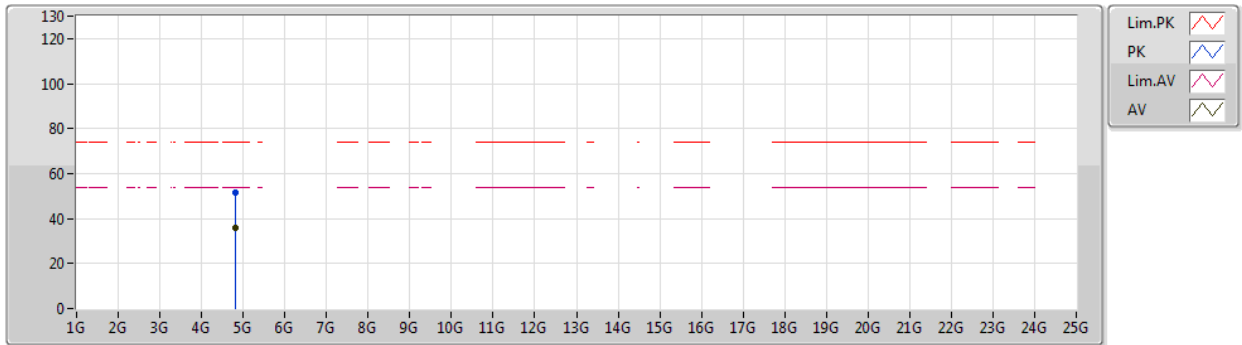


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	47.78	54.00	-6.22	32.72	3	Horizontal	70	1.00	-	15.06	27.64	5.08	-
AV	2.4168G	98.45	Inf	-Inf	32.73	3	Horizontal	70	1.00	-	65.72	27.60	5.13	-
PK	2.3898G	62.66	74.00	-11.34	32.72	3	Horizontal	70	1.00	-	29.94	27.64	5.08	-
PK	2.4164G	110.70	Inf	-Inf	32.72	3	Horizontal	70	1.00	-	77.98	27.60	5.12	-

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2412MHz_TX

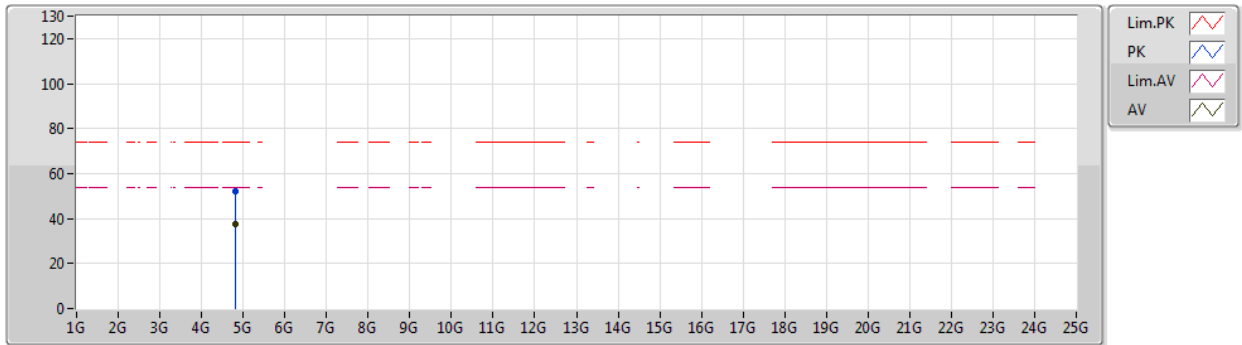


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82508G	35.88	54.00	-18.12	4.24	3	Vertical	340	1.97	-	31.64	31.20	7.33	34.29
PK	4.82582G	51.42	74.00	-22.58	4.24	3	Vertical	340	1.97	-	47.18	31.20	7.33	34.29

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2412MHz_TX

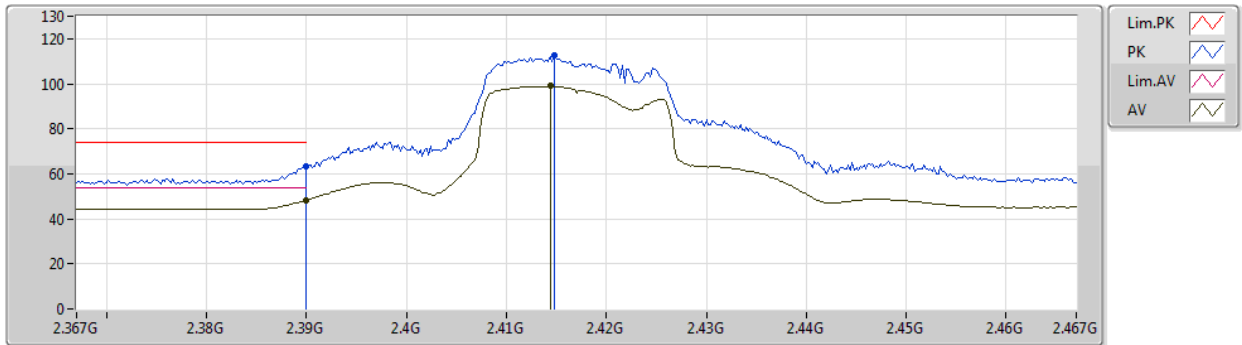


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.82252G	37.42	54.00	-16.58	4.22	3	Horizontal	328	2.25	-	33.20	31.19	7.32	34.29
PK	4.8236G	52.34	74.00	-21.66	4.22	3	Horizontal	328	2.25	-	48.12	31.19	7.32	34.29

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2417MHz_TX

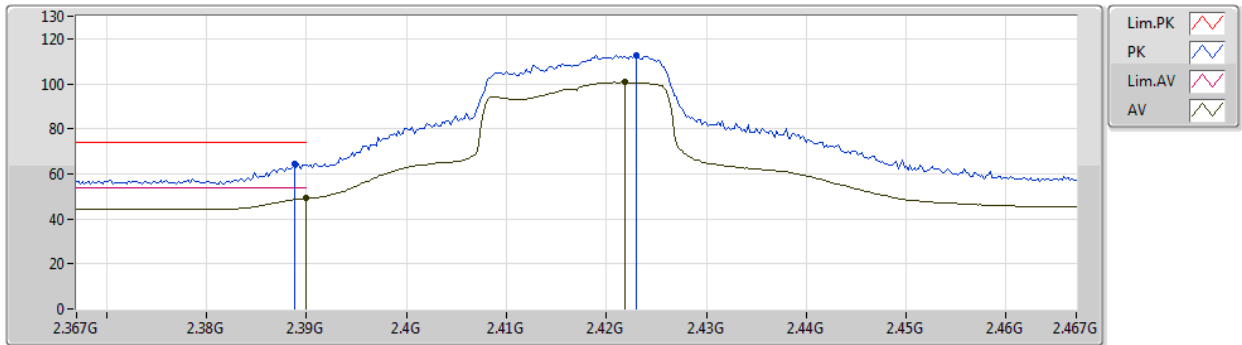


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	48.29	54.00	-5.71	32.72	3	Vertical	325	1.59	-	15.57	27.64	5.08	-
AV	2.4144G	98.94	Inf	-Inf	32.72	3	Vertical	325	1.59	-	66.22	27.60	5.12	-
PK	2.39G	63.11	74.00	-10.89	32.72	3	Vertical	325	1.59	-	30.39	27.64	5.08	-
PK	2.4148G	112.36	Inf	-Inf	32.72	3	Vertical	325	1.59	-	79.64	27.60	5.12	-

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2417MHz_TX

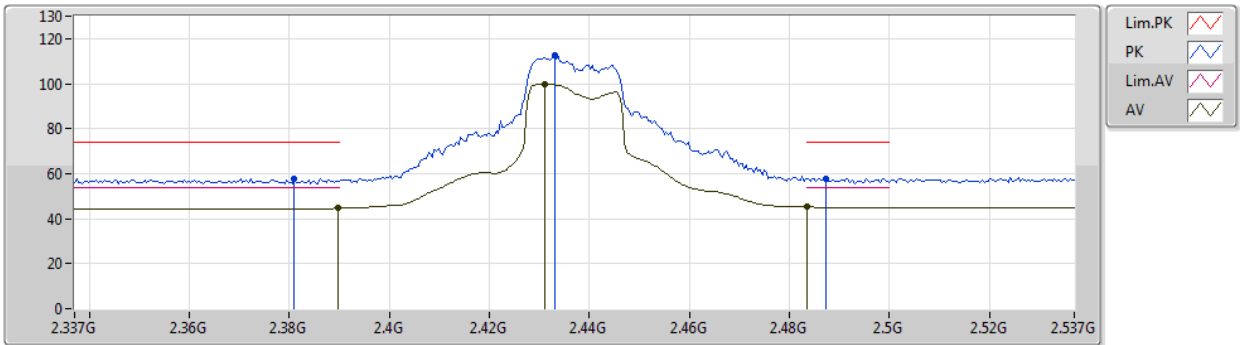


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.39G	49.07	54.00	-4.93	32.72	3	Horizontal	256	2.76	-	16.35	27.64	5.08	-
AV	2.4218G	100.63	Inf	-Inf	32.73	3	Horizontal	256	2.76	-	67.90	27.60	5.13	-
PK	2.3888G	64.40	74.00	-9.60	32.72	3	Horizontal	256	2.76	-	31.68	27.64	5.08	-
PK	2.423G	112.69	Inf	-Inf	32.73	3	Horizontal	256	2.76	-	79.96	27.60	5.13	-

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2437MHz_TX

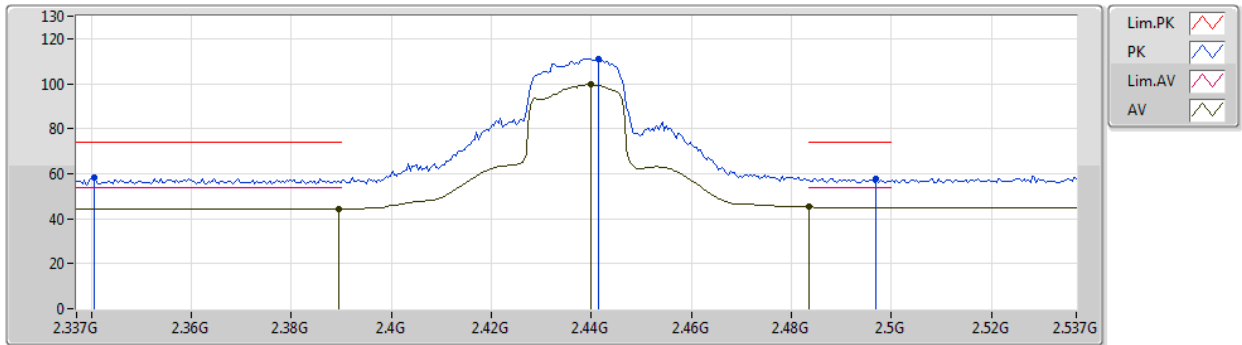


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3898G	44.60	54.00	-9.40	32.72	3	Vertical	323	1.41	-	11.88	27.64	5.08	-
AV	2.431G	99.81	Inf	-Inf	32.75	3	Vertical	323	1.41	-	67.06	27.60	5.15	-
AV	2.4835G	45.23	54.00	-8.77	32.83	3	Vertical	323	1.41	-	12.40	27.60	5.23	-
PK	2.381G	57.60	74.00	-16.40	32.74	3	Vertical	323	1.41	-	24.86	27.68	5.06	-
PK	2.433G	112.43	Inf	-Inf	32.75	3	Vertical	323	1.41	-	79.68	27.60	5.15	-
PK	2.4874G	57.91	74.00	-16.09	32.83	3	Vertical	323	1.41	-	25.08	27.60	5.23	-

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

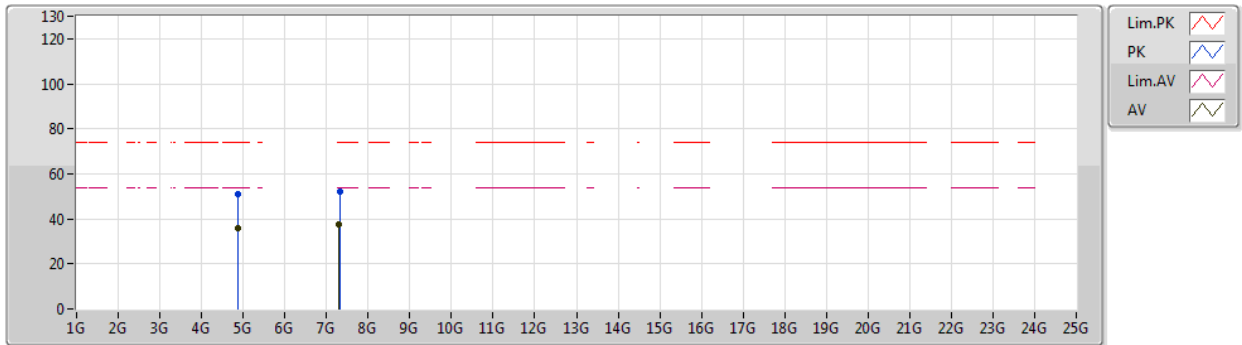
2437MHz_TX



802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

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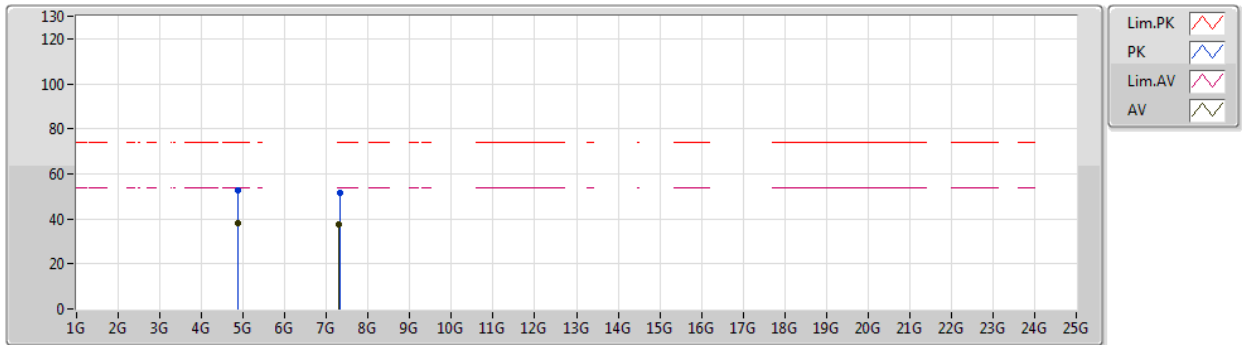


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.8738G	36.05	54.00	-17.95	4.34	3	Vertical	255	1.04	-	31.71	31.25	7.37	34.28
AV	7.30682G	37.77	54.00	-16.23	10.60	3	Vertical	313	1.76	-	27.17	36.59	8.60	34.59
PK	4.87426G	51.19	74.00	-22.81	4.34	3	Vertical	255	1.04	-	46.85	31.25	7.37	34.28
PK	7.31128G	51.86	74.00	-22.14	10.59	3	Vertical	313	1.76	-	41.27	36.58	8.60	34.59

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2437MHz_TX

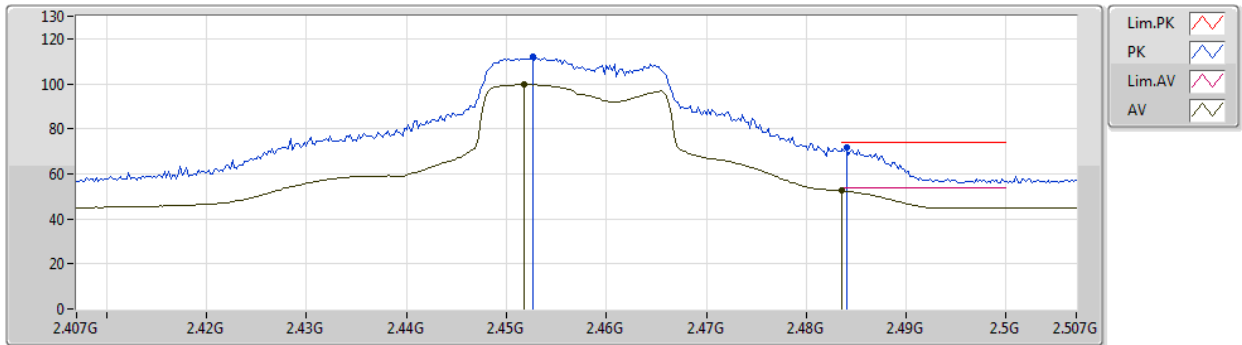


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87556G	38.09	54.00	-15.91	4.35	3	Horizontal	346	2.17	-	33.74	31.25	7.38	34.28
AV	7.3074G	37.65	54.00	-16.35	10.60	3	Horizontal	339	1.50	-	27.05	36.59	8.60	34.59
PK	4.87594G	52.88	74.00	-21.12	4.35	3	Horizontal	346	2.17	-	48.53	31.25	7.38	34.28
PK	7.31586G	51.45	74.00	-22.55	10.58	3	Horizontal	339	1.50	-	40.87	36.57	8.60	34.59

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2457MHz_TX

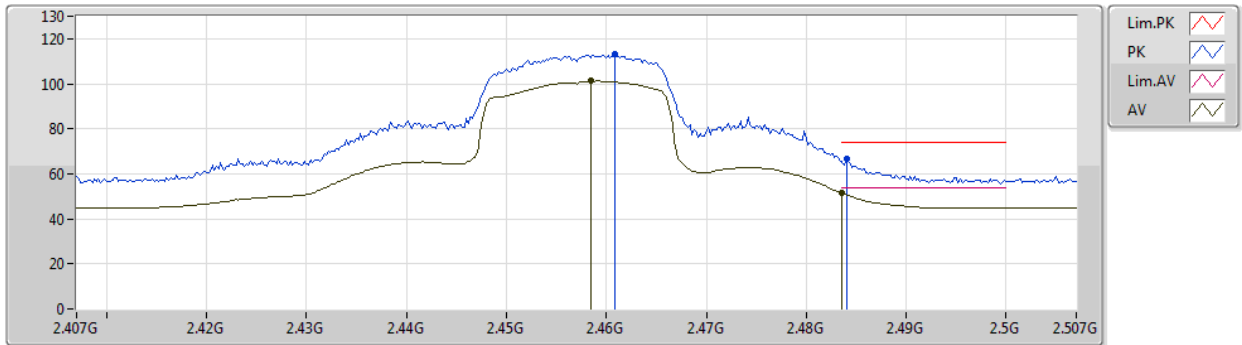


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4518G	99.65	Inf	-Inf	32.78	3	Vertical	319	1.56	-	66.87	27.60	5.18	-
AV	2.4836G	52.50	54.00	-1.50	32.83	3	Vertical	319	1.56	-	19.67	27.60	5.23	-
PK	2.4526G	112.21	Inf	-Inf	32.78	3	Vertical	319	1.56	-	79.43	27.60	5.18	-
PK	2.484G	71.50	74.00	-2.50	32.83	3	Vertical	319	1.56	-	38.67	27.60	5.23	-

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2457MHz_TX

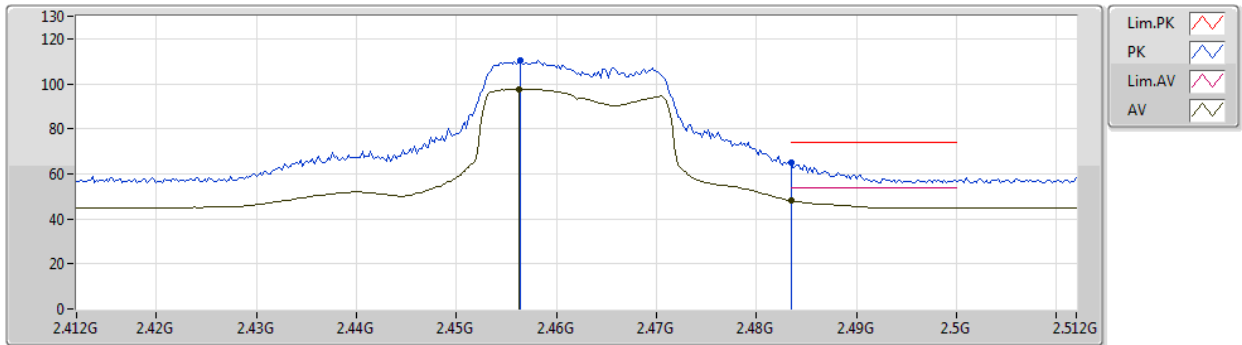


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4584G	101.18	Inf	-Inf	32.79	3	Horizontal	258	3.00	-	68.39	27.60	5.19	-
AV	2.4835G	51.51	54.00	-2.49	32.83	3	Horizontal	258	3.00	-	18.68	27.60	5.23	-
PK	2.4608G	113.06	Inf	-Inf	32.79	3	Horizontal	258	3.00	-	80.27	27.60	5.19	-
PK	2.484G	66.45	74.00	-7.55	32.83	3	Horizontal	258	3.00	-	33.62	27.60	5.23	-

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2462MHz_TX

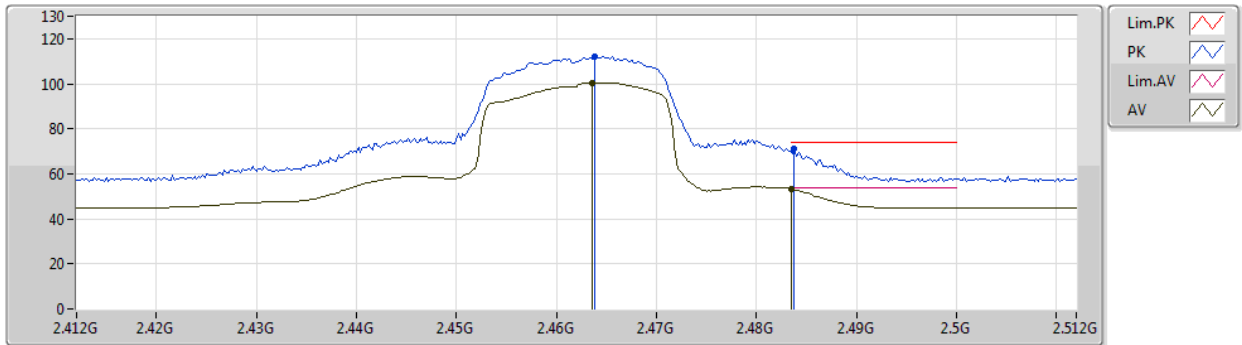


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4562G	97.62	Inf	-Inf	32.78	3	Vertical	319	1.55	-	64.84	27.60	5.18	-
AV	2.4835G	48.00	54.00	-6.00	32.83	3	Vertical	319	1.55	-	15.17	27.60	5.23	-
PK	2.4564G	110.25	Inf	-Inf	32.78	3	Vertical	319	1.55	-	77.47	27.60	5.18	-
PK	2.4835G	65.11	74.00	-8.89	32.83	3	Vertical	319	1.55	-	32.28	27.60	5.23	-

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2462MHz_TX

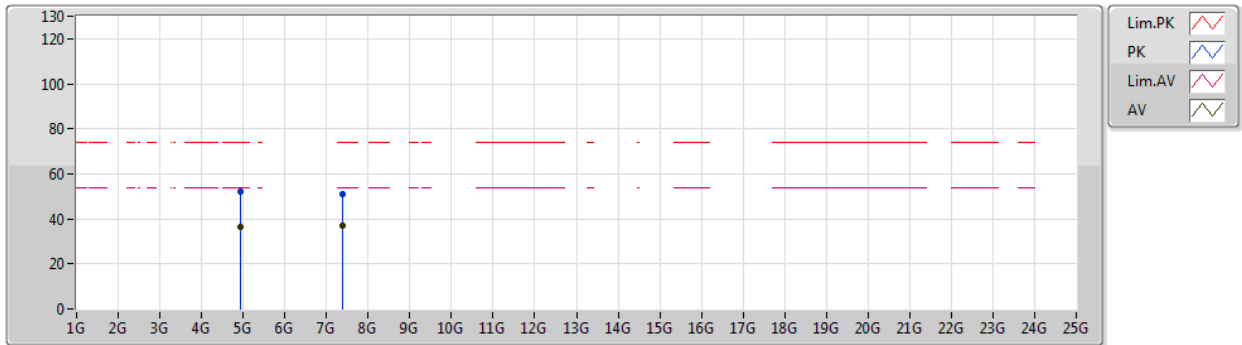


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.4636G	100.57	Inf	-Inf	32.80	3	Horizontal	243	3.00	-	67.77	27.60	5.20	-
AV	2.4835G	53.20	54.00	-0.80	32.83	3	Horizontal	243	3.00	-	20.37	27.60	5.23	-
PK	2.4638G	112.17	Inf	-Inf	32.80	3	Horizontal	243	3.00	-	79.37	27.60	5.20	-
PK	2.4838G	70.96	74.00	-3.04	32.83	3	Horizontal	243	3.00	-	38.13	27.60	5.23	-

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2462MHz_TX

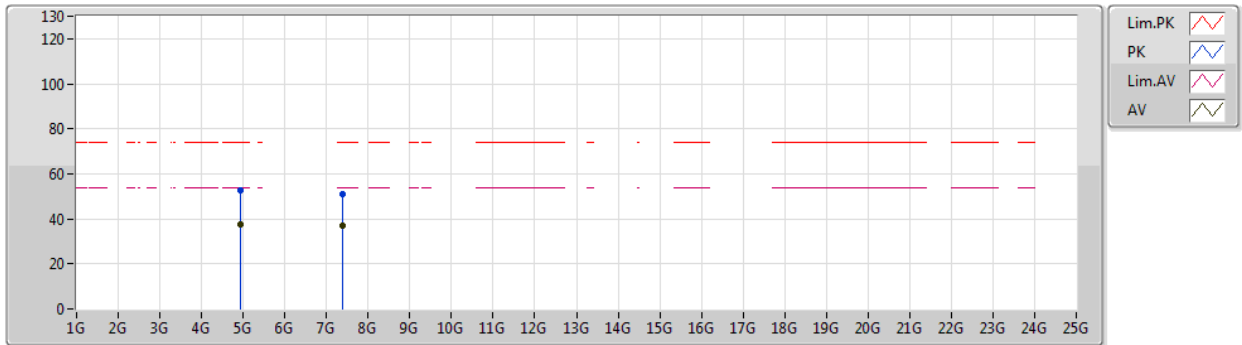


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92228G	36.69	54.00	-17.31	4.48	3	Vertical	339	2.33	-	32.21	31.29	7.42	34.23
AV	7.38176G	37.26	54.00	-16.74	10.45	3	Vertical	316	1.50	-	26.81	36.44	8.60	34.59
PK	4.92066G	51.94	74.00	-22.06	4.47	3	Vertical	339	2.33	-	47.47	31.28	7.42	34.23
PK	7.38628G	51.05	74.00	-22.95	10.44	3	Vertical	280	1.50	-	40.61	36.43	8.60	34.59

802.11n HT20_Nss1,(MCS0)_2TX

24/06/2020

2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.92428G	37.32	54.00	-16.68	4.50	3	Horizontal	338	2.09	-	32.82	31.30	7.42	34.22
AV	7.38184G	37.23	54.00	-16.77	10.45	3	Horizontal	132	1.57	-	26.78	36.44	8.60	34.59
PK	4.92174G	52.82	74.00	-21.18	4.48	3	Horizontal	338	2.09	-	48.34	31.29	7.42	34.23
PK	7.38678G	50.96	74.00	-23.04	10.44	3	Horizontal	132	1.57	-	40.52	36.43	8.60	34.59