FCC Test Report

FCC ID	:	**Q9DAPEX017**
Equipment	:	**Wireless Access Point**
Brand Name	:	**aruba、Hewlett Packard Enterprise**
Model Name	:	**APEX017**
Applicant	:	**Hewlett Packard Enterprise Company 3333 Scott Blvd Santa Clara, CA. 94089**
Manufacturer	:	**Hewlett Packard Enterprise Company 3333 Scott Blvd Santa Clara, CA. 94089**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on May 27, 2019, and testing was started from May 29, 2019 and completed on Jun. 17, 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
FR952258AC	01	Initial issue of report	Jul. 24, 2019
FR952258AC	02	1. Update address of Applicant and Manufacturer 2. Update Antenna Information	Aug. 05, 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: 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]
2400-2483.5	n (HT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX

Note:
- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- BWch is the nominal channel bandwidth.
- TX is the abbreviation of Transmits.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	HPE	ANT-17	Dipole Antenna	I-PEX
2	HPE	ANT-17	Dipole Antenna	I-PEX
3	HPE	ANT-17	Dipole Antenna	I-PEX
4	HPE	ANT-17	Dipole Antenna	I-PEX

Ant.	Port	Gain (dBi)				
		2.4G		5G		BT
		Vertical polarized	Horizontal polarized	Vertical polarized	Horizontal polarized	
1	1	-	1.8	-	3.5	-
2	2	1.8	-	-	-	-
3	3	-	-	3.5	-	-
4	4	-	-	-	-	2.7

Ant.	Port	Elevation angle above 30 degrees Gain (dBi)	
		5G	
		Vertical polarized	Horizontal polarized
1	1	-	0.9
2	2	-	-
3	3	0.9	-
4	4	-	-

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.

Cross-polarized antenna combination is Ant.1 with Ant.2.

For 5GHz function:

For IEEE 802.11 a/n/ac mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 3 (port 3) could transmit/receive simultaneously.

Cross-polarized antenna combination is Ant.1 with Ant.3.

For BT function:

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

Ant. 4 (port 4) could transmit/receive simultaneously.

1.1.3 EUT Information

Identify EUT				
Software version	R6201.1.0.3.009			
Operational Condition				
EUT Power Type	From PoE			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
Beamforming Function	☒	With beamforming	☐	Without beamforming
Note: Beamforming Function refer as "Letter of Beamforming Declaration"				

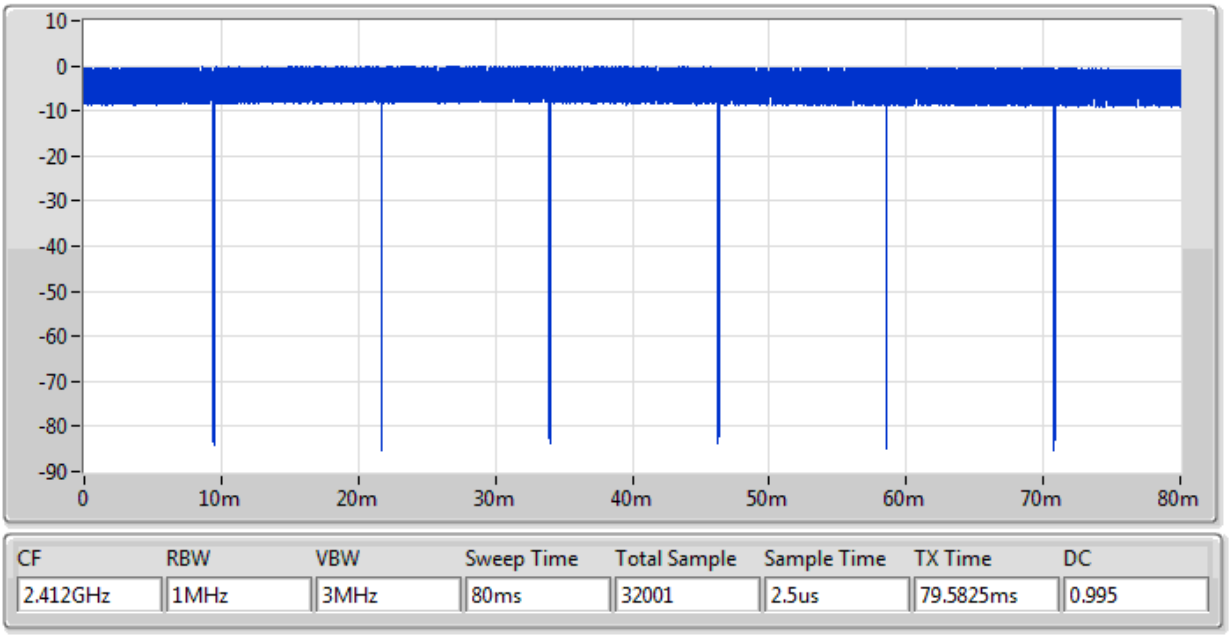
Type of EUT		
☒	Stand-alone	
☐	Combined (EUT where the radio part is fully integrated within another device)	
	Combined Equipment - Brand Name / Model No.:	…
☐	Plug-in radio (EUT intended for a variety of host systems)	
	Host System - Brand Name / Model No.:	…
☐	Other:	

1.1.4 Mode Test Duty Cycle

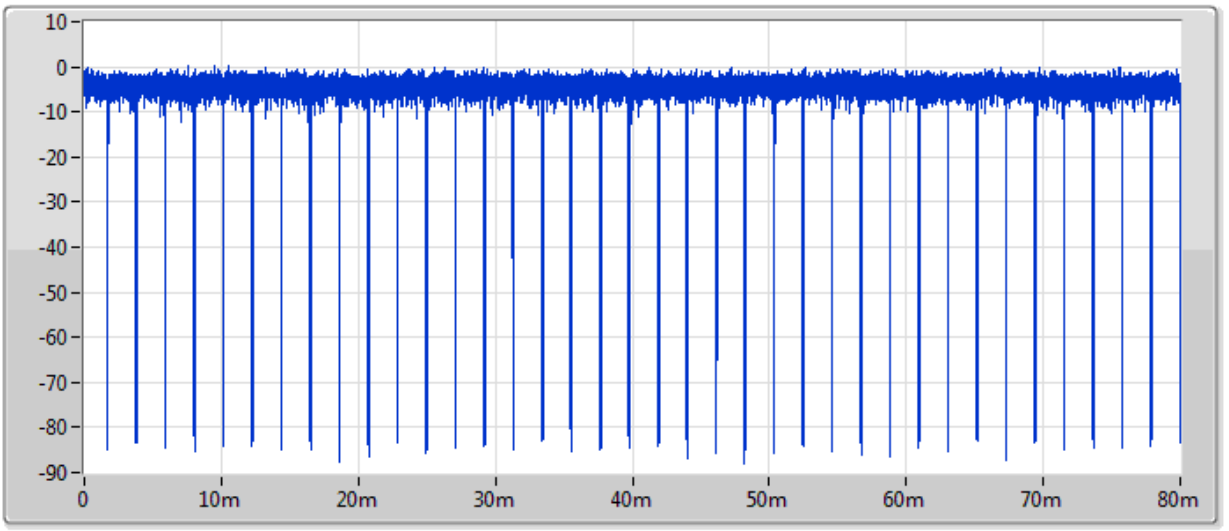
Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.995	0.02	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.96	0.18	2.033m	1k
802.11n HT20	0.984	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT40	0.965	0.15	2.413m	1k

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

802.11b

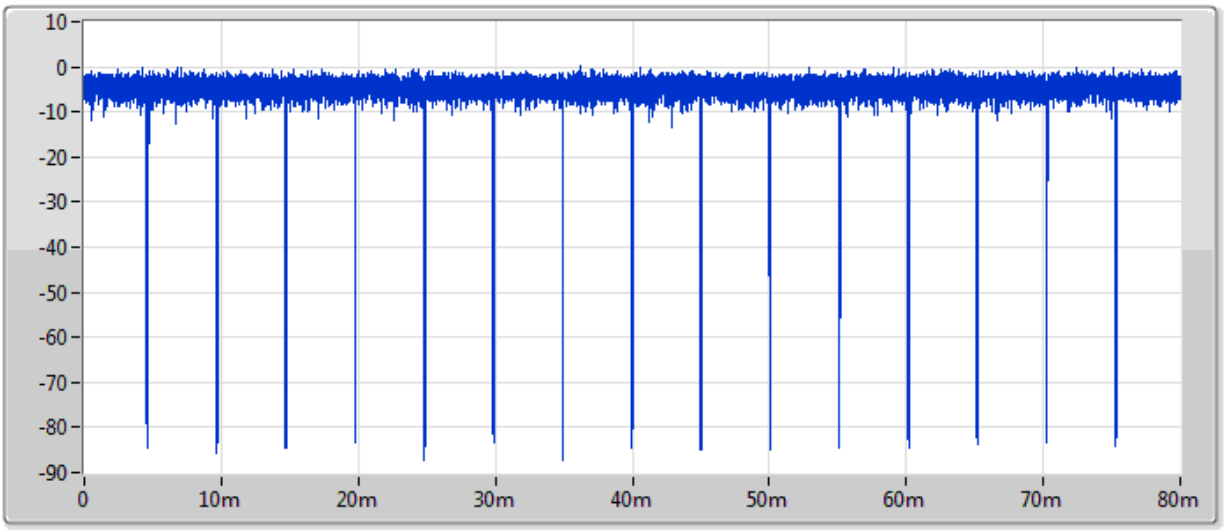


802.11g



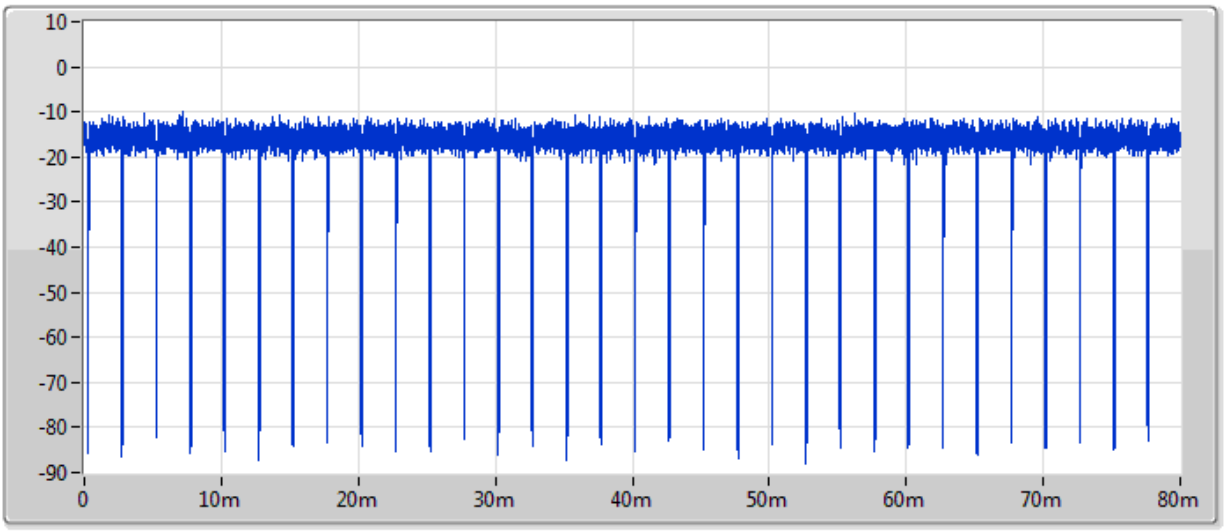
CF	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.437GHz	1MHz	3MHz	80ms	32001	2.5us	76.795ms	0.96

802.11n HT20



CF	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.437GHz	1MHz	3MHz	80ms	32001	2.5us	78.6925ms	0.984

802.11n HT40



CF	RBW	VBW	Sweep Time	Total Sample	Sample Time	TX Time	DC
2.437GHz	1MHz	3MHz	80ms	32001	2.5us	77.2025ms	0.965

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 v05r02
- KDB 662911 D01 v02r01

1.3 Testing Location Information

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

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO01-HY	Edward	22.5~26°C / 58.3~63.1%	01/Jun/2019
RF Conducted	TH01-HY	Andy	20.3~22°C / 59~63%	31/May/2019~13/Jun/2019
Radiated	03CH03-HY	Andy	23.2~24.1°C / 51.2~62.4%	29/May/2019~17/Jun/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	120V

2.2 Test Channel Mode

Test Software Version	QRCT V4.0 00123

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	21.5
2437MHz	16.5
2462MHz	20
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	18.5
2417MHz	20.5
2437MHz	22
2457MHz	20.5
2462MHz	19.5
802.11n HT20_Nss1,(MCS0)_2TX	-
2412MHz	17.5
2417MHz	20
2437MHz	22
2457MHz	21
2462MHz	19
802.11n HT40_Nss1,(MCS0)_2TX	-
2422MHz	15.5
2427MHz	16
2437MHz	18.5
2447MHz	17
2452MHz	17

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	Continuous Transmits
1	PoE 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	Continuous Transmits		
1	PoE mode		
Operating Mode > 1GHz	Continuous Transmits		
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
Test Condition	Radiated measurement
Operating Mode	Normal link
1	Bluetooth+WLAN 2.4GHz+WLAN 5GHz
Refer to Sporton Test Report No.: Appendix G for Radiated Emission Co-location	
Operating Mode	Continuous Transmits
2	Bluetooth+WLAN 2.4GHz+WLAN 5GHz
Refer to Sporton Test Report No.: FA952258 for Co-location RF Exposure Evaluation.	

2.4 Support Equipment

Support Equipment – AC Conduction				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	PoE	PowerDsine	PD-3501G/AC	N/A

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

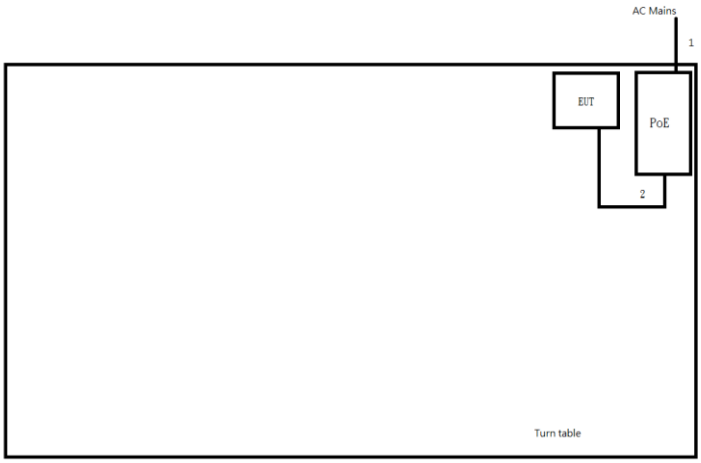
Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	DoC
2	Adapter for Notebook	DELL	HA65NM130	DoC
3	AC Power Source	GW	APS-9102	N/A

Support Equipment – Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	PoE	PowerDsine	PD-3501G/AC	N/A

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

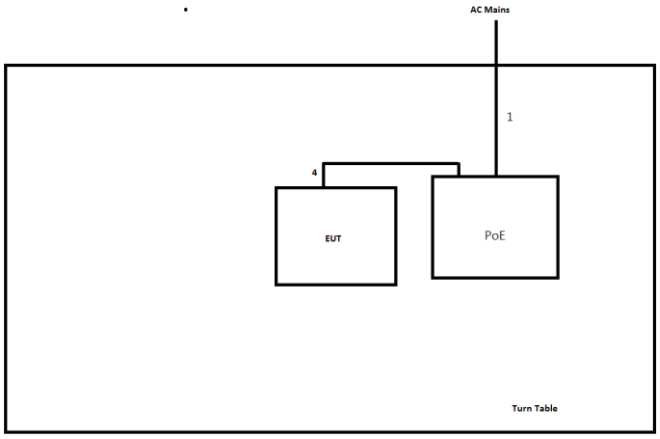
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	AC Power line	No	1.5m
2	Lan Cable	No	1.0m

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	AC Power line	No	1.5m
2	Lan Cable	No	1.0m

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

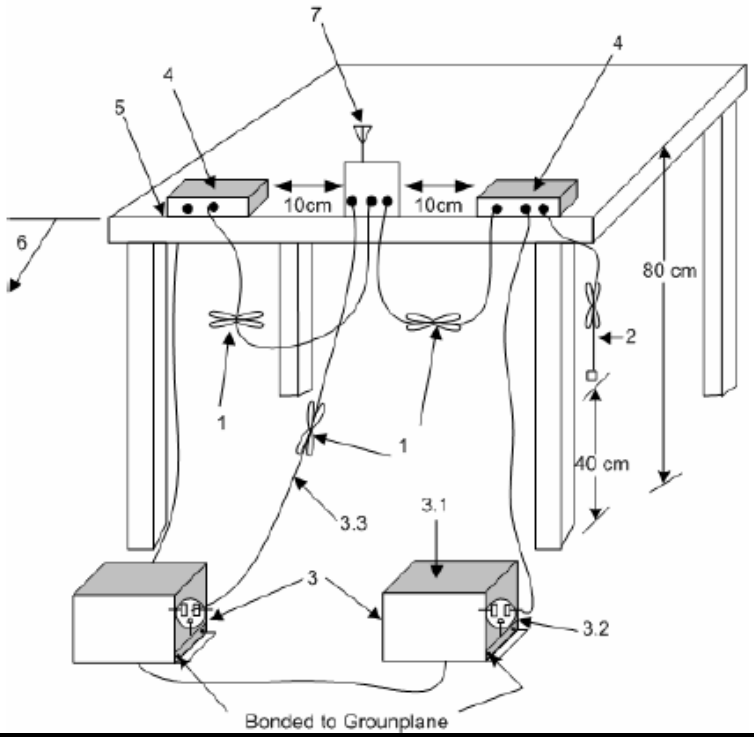
Refer a test equipment and calibration data table in this test report.

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.

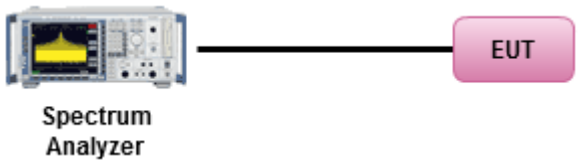
3.2.2 Measuring Instruments

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

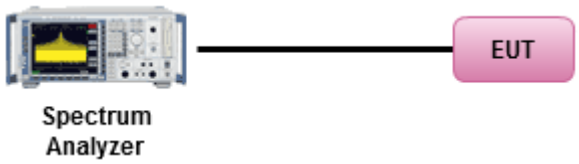
3.4.2 Measuring Instruments

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 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

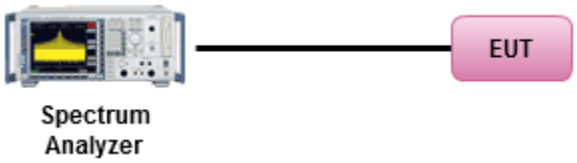
Refer a test equipment and calibration data table in this test report.

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

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.

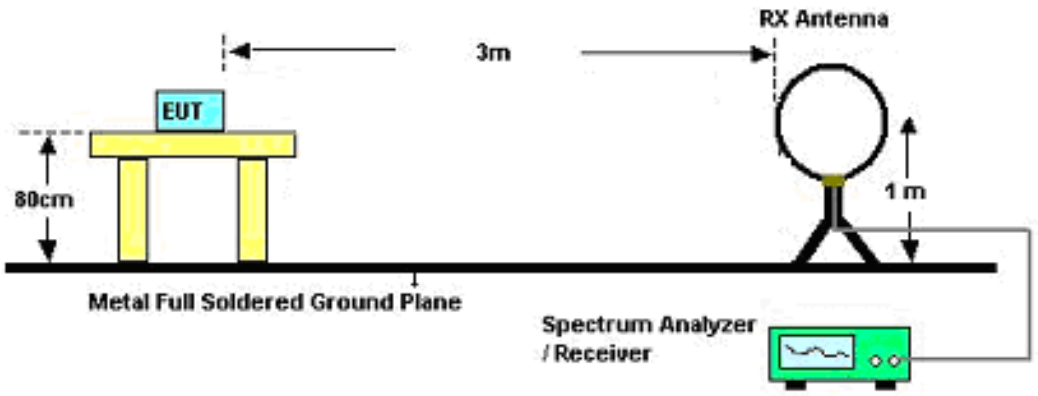
3.6.2 Measuring Instruments

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

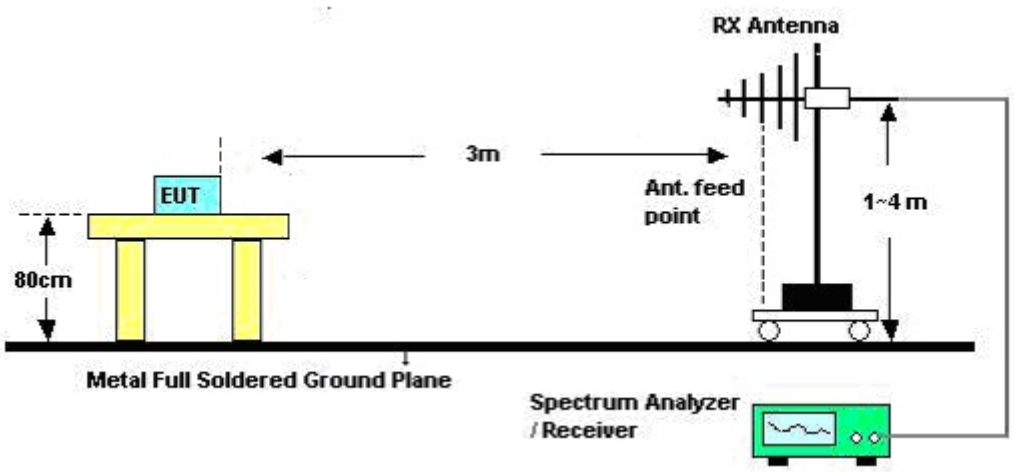
3.6.3 Test Procedures

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.
▪ 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.

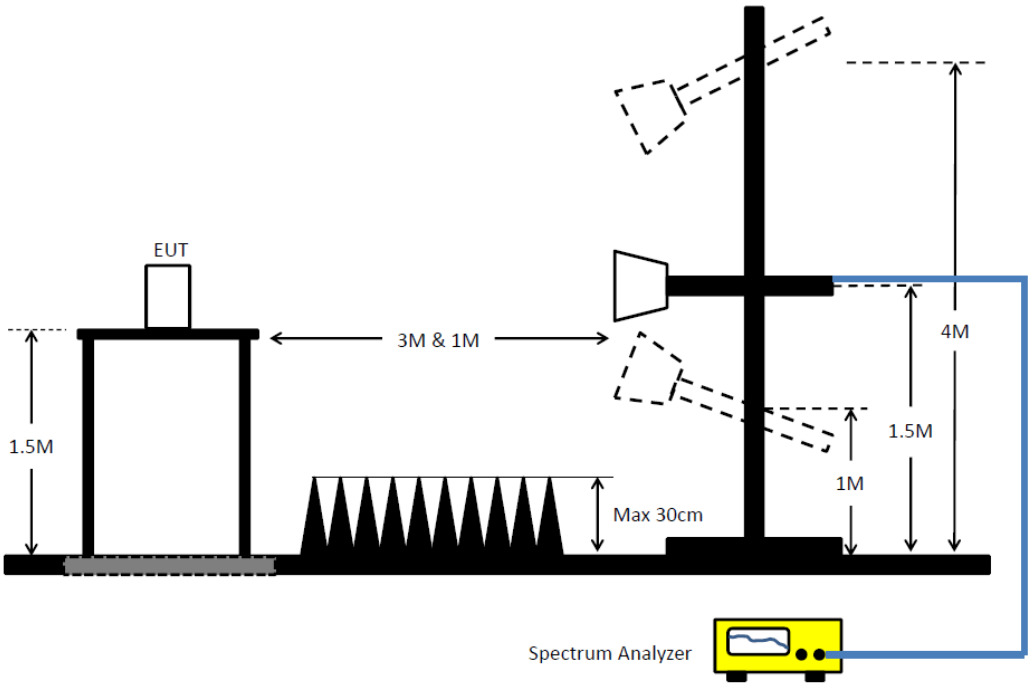
3.6.4 Test Setup

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	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV 216	101274	9kHz ~ 30MHz	12/Jun/2018	11/Jun/2019
RF Cable-CON	MTJ	RG142	CB001-CO	9kHz ~ 30MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11003G	F308010045	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561F	9495	9kHz ~ 30MHz	11/Oct/2018	10/Oct/2019

NCR : Non-Calibration Require

Instrument for Radiated Test

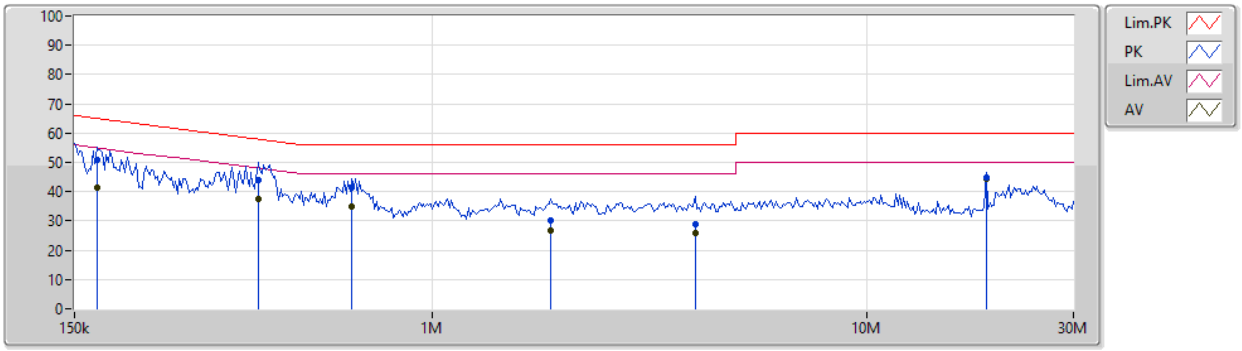
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	30/Oct/2018	29/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	30/Oct/2018	29/Oct/2019
Amplifier	IFI	SCCXL150	03CH03-HY	10KHz ~ 100MHz	14/Sep/2017	13/Sep/2019
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	22/Apr/2019	21/Apr/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
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	22/Mar/2019	21/Mar/2020
RF CABLE 6m	HUBER+SUHNER	SUOFLEX 104	SN 805801/4	1GHz ~ 40GHz	21/Mar/2019	20/Mar/2020
RF CABLE 7m	HUBER+SUHNER	SUOFLEX 104	SN 805805/4	1GHz ~ 40GHz	01/May/2019	30/Apr/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar/2019	21/Mar/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	09/Mar/ 2019	08/Mar/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	15/Mar/2019	14/Mar/2020

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz ~18G	21/Mar/2019	20/Mar/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz ~18G	21/Mar/2019	20/Mar/2020
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz ~18G	21/Mar/2019	20/Mar/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

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

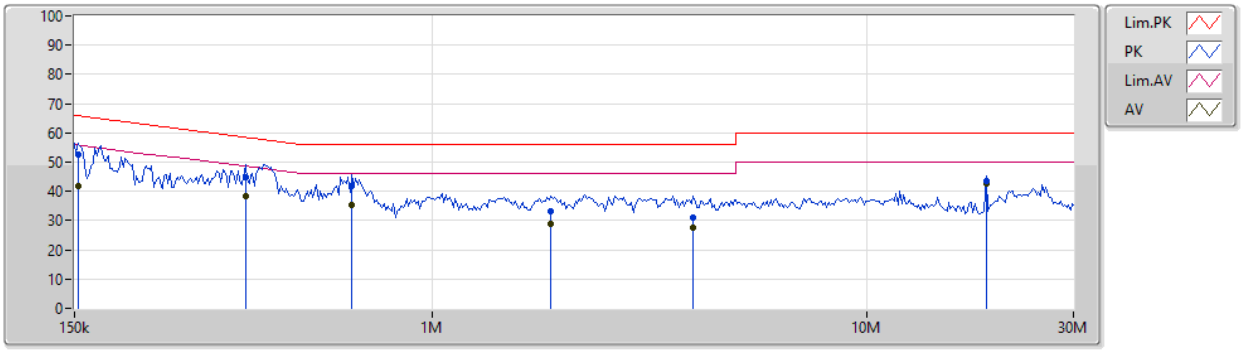
01/06/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	169.024k	51.04	65.01	-13.97	19.52	Neutral	-	31.52	9.65	0.01	9.86
AV	169.024k	41.22	55.01	-13.79	19.52	Neutral	-	21.70	9.65	0.01	9.86
QP	397.728k	43.91	57.89	-13.98	19.51	Neutral	-	24.40	9.64	0.01	9.86
AV	397.728k	37.48	47.89	-10.41	19.51	Neutral	-	17.97	9.64	0.01	9.86
QP	654.116k	41.45	56.00	-14.55	19.51	Neutral	-	21.94	9.64	0.01	9.86
AV	654.116k	34.83	46.00	-11.17	19.51	Neutral	-	15.32	9.64	0.01	9.86
QP	1.878M	30.25	56.00	-25.75	19.55	Neutral	-	10.70	9.65	0.03	9.87
AV	1.878M	26.73	46.00	-19.27	19.55	Neutral	-	7.18	9.65	0.03	9.87
QP	4.041M	28.90	56.00	-27.10	19.59	Neutral	-	9.31	9.66	0.05	9.88
AV	4.041M	25.97	46.00	-20.03	19.59	Neutral	-	6.38	9.66	0.05	9.88
QP	18.892M	44.77	60.00	-15.23	19.77	Neutral	-	25.00	9.71	0.11	9.95
AV	18.892M	44.53	50.00	-5.47	19.77	Neutral	"Worst"	24.76	9.71	0.11	9.95

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

01/06/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	153.015k	52.45	65.83	-13.38	19.48	Line	-	32.97	9.61	0.01	9.86
AV	153.015k	41.71	55.83	-14.12	19.48	Line	-	22.23	9.61	0.01	9.86
QP	370.968k	44.81	58.49	-13.68	19.48	Line	-	25.33	9.61	0.01	9.86
AV	370.968k	38.16	48.49	-10.33	19.48	Line	-	18.68	9.61	0.01	9.86
QP	654.116k	41.60	56.00	-14.40	19.48	Line	-	22.12	9.61	0.01	9.86
AV	654.116k	35.27	46.00	-10.73	19.48	Line	-	15.79	9.61	0.01	9.86
QP	1.878M	32.99	56.00	-23.01	19.52	Line	-	13.47	9.62	0.03	9.87
AV	1.878M	29.02	46.00	-16.98	19.52	Line	-	9.50	9.62	0.03	9.87
QP	4.001M	31.08	56.00	-24.92	19.56	Line	-	11.52	9.63	0.05	9.88
AV	4.001M	27.69	46.00	-18.31	19.56	Line	-	8.13	9.63	0.05	9.88
QP	18.892M	43.67	60.00	-16.33	19.69	Line	-	23.98	9.63	0.11	9.95
AV	18.892M	42.71	50.00	-7.29	19.69	Line	"Worst"	23.02	9.63	0.11	9.95

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	8.55M	12.969M	13M0G1D	7.55M	12.719M
802.11g_Nss1,(6Mbps)_2TX	16.35M	16.567M	16M6D1D	16.325M	16.392M
802.11n HT20_Nss1,(MCS0)_2TX	17.6M	17.716M	17M7D1D	17.525M	17.591M
802.11n HT40_Nss1,(MCS0)_2TX	35.45M	35.982M	36M0D1D	33.4M	35.832M

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	7.55M	12.969M	8.55M	12.844M
2437MHz	Pass	500k	8.525M	12.744M	8.025M	12.719M
2462MHz	Pass	500k	8.5M	12.794M	8.05M	12.844M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.392M	16.325M	16.392M
2437MHz	Pass	500k	16.325M	16.567M	16.325M	16.517M
2462MHz	Pass	500k	16.325M	16.442M	16.35M	16.467M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.575M	17.591M	17.525M	17.616M
2437MHz	Pass	500k	17.55M	17.716M	17.55M	17.716M
2462MHz	Pass	500k	17.55M	17.616M	17.6M	17.616M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.1M	35.832M	35.1M	35.882M
2437MHz	Pass	500k	35M	35.932M	33.4M	35.882M
2452MHz	Pass	500k	33.65M	35.982M	35.45M	35.982M

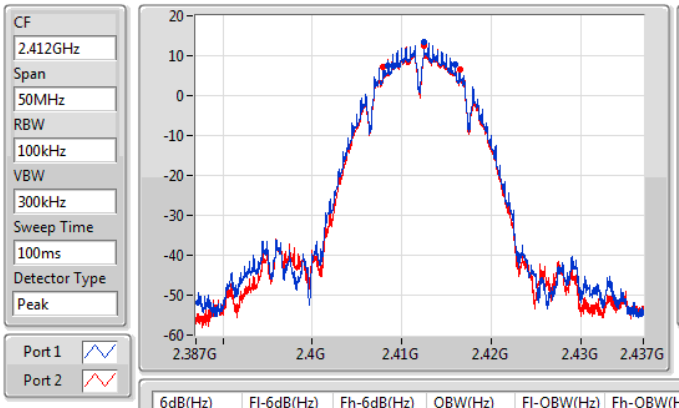
Port X-N dB = Port **X** 6dB down bandwidth; **Port X-OBW** = Port **X** 99% occupied bandwidth;

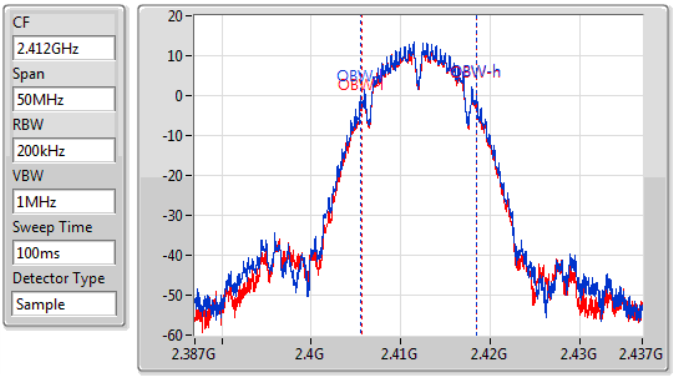
802.11b_Nss1,(1Mbps)_2TX

EBW

2412MHz

11/06/2019





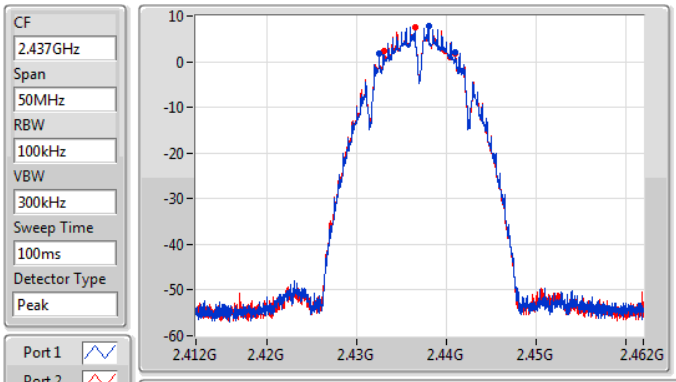
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.55M	2.40845G	2.416G	12.969M	2.405528G	2.418497G	500k	1
8.55M	2.40795G	2.4165G	12.844M	2.405628G	2.418472G	500k	2

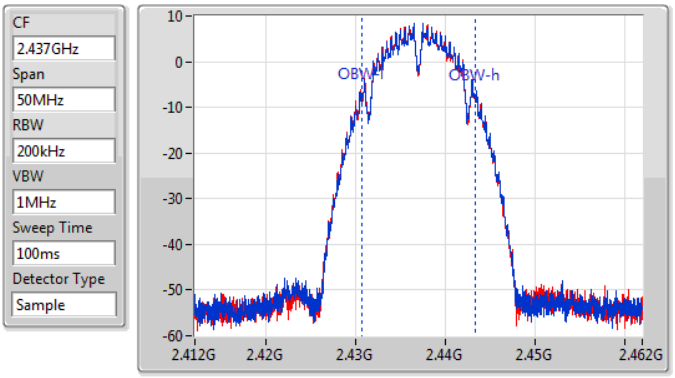
802.11b_Nss1,(1Mbps)_2TX

EBW

2437MHz

30/05/2019





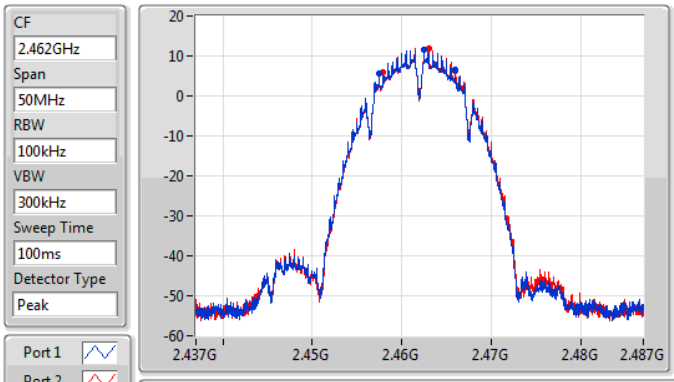
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.525M	2.432475G	2.441G	12.744M	2.430628G	2.443372G	500k	1
8.025M	2.432975G	2.441G	12.719M	2.430603G	2.443322G	500k	2

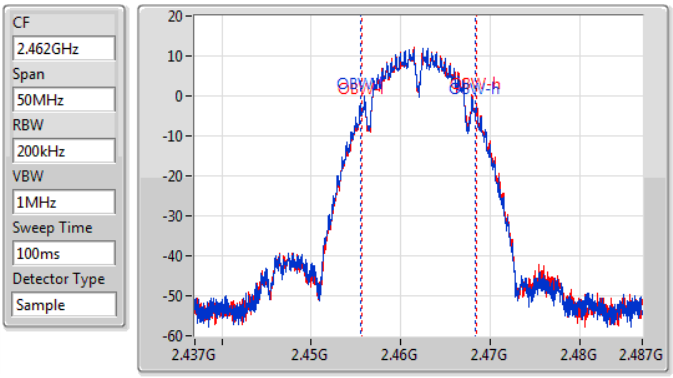
802.11b_Nss1,(1Mbps)_2TX

EBW

2462MHz

30/05/2019





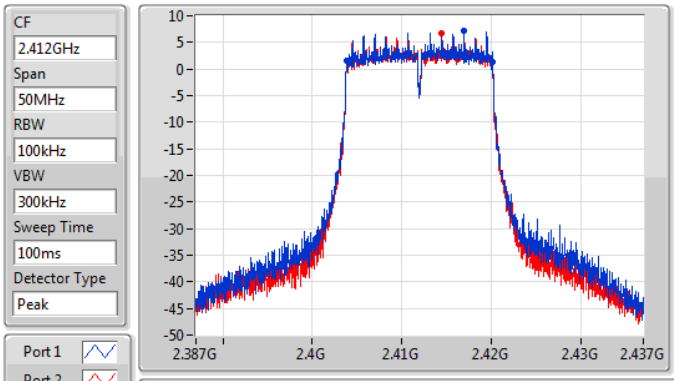
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.5M	2.457475G	2.465975G	12.794M	2.455528G	2.468322G	500k	1
8.05M	2.45795G	2.466G	12.844M	2.455603G	2.468447G	500k	2

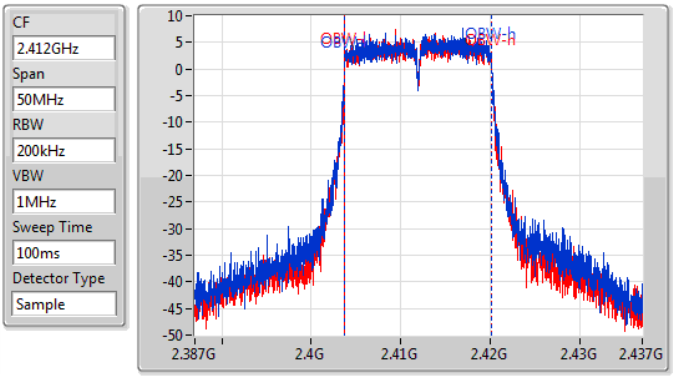
802.11g_Nss1,(6Mbps)_2TX

EBW

2412MHz

30/05/2019





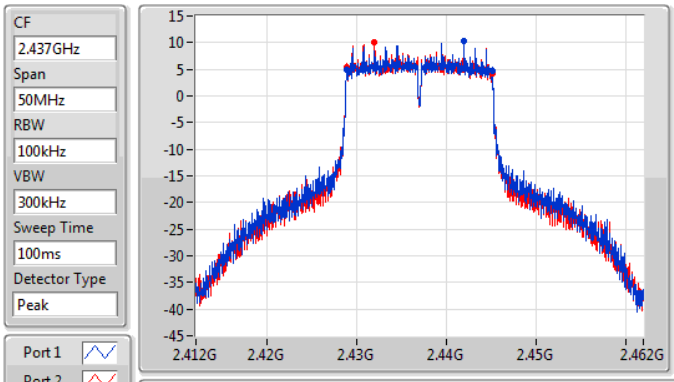
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.392M	2.403779G	2.420171G	500k	1
16.325M	2.403825G	2.42015G	16.392M	2.403779G	2.420171G	500k	2

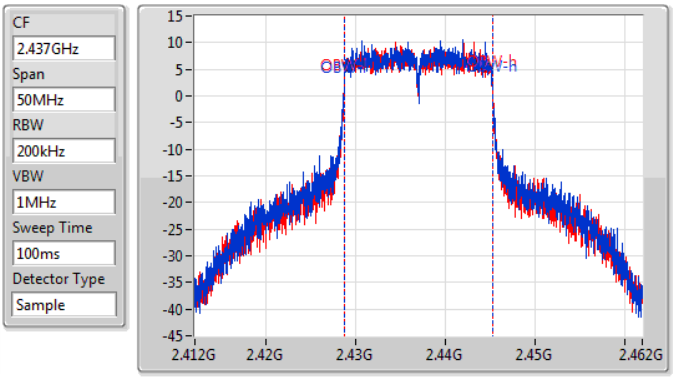
802.11g_Nss1,(6Mbps)_2TX

EBW

2437MHz

11/06/2019





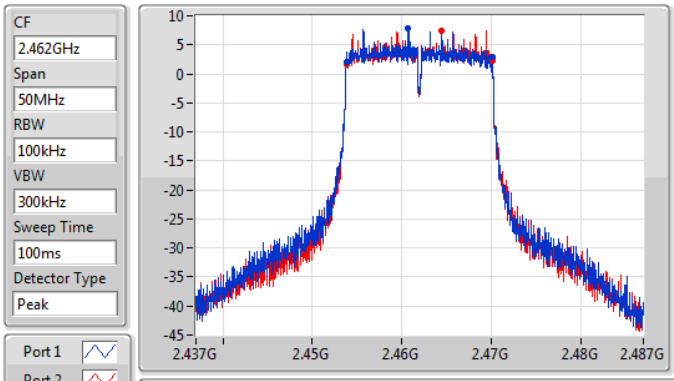
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.567M	2.428679G	2.445246G	500k	1
16.325M	2.428825G	2.44515G	16.517M	2.428704G	2.445221G	500k	2

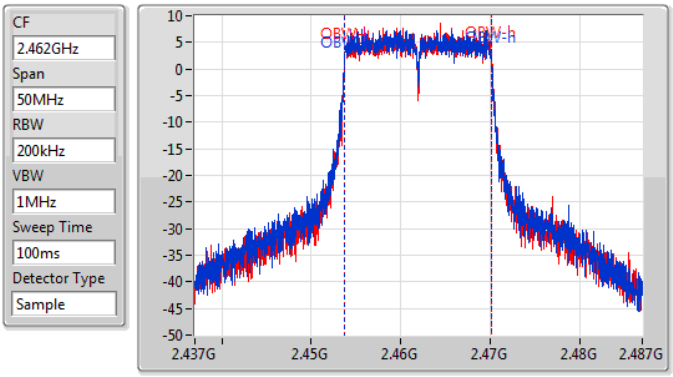
802.11g_Nss1,(6Mbps)_2TX

EBW

2462MHz

30/05/2019



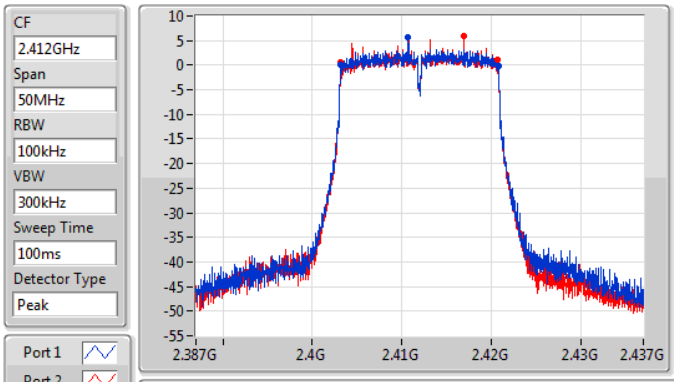


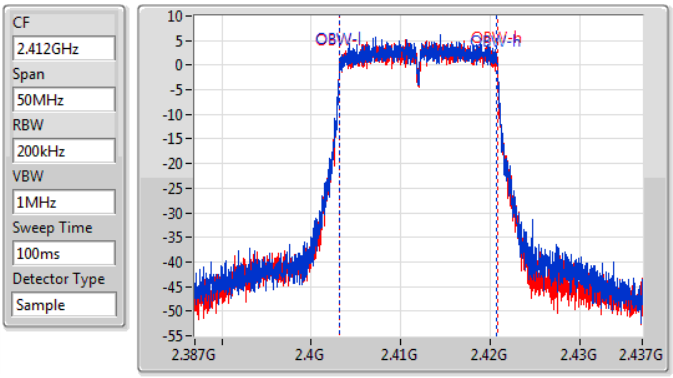
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.4538G	2.470125G	16.442M	2.453729G	2.470171G	500k	1
16.35M	2.4538G	2.47015G	16.467M	2.453729G	2.470196G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

2412MHz

30/05/2019



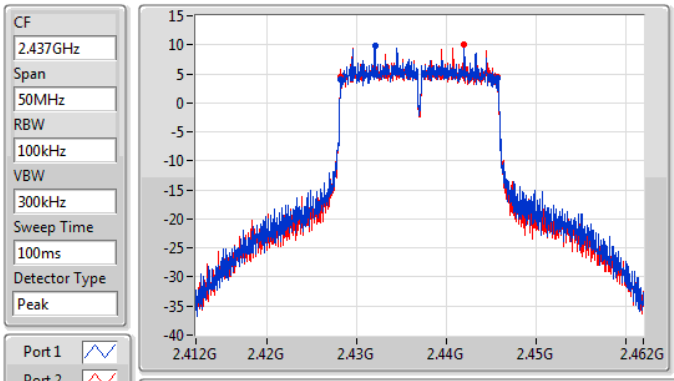


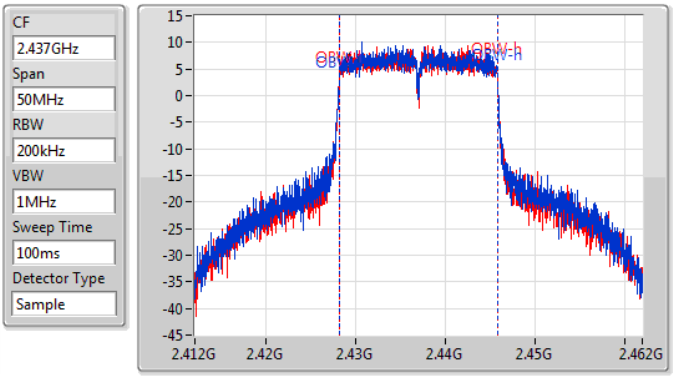
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4032G	2.420775G	17.591M	2.403179G	2.420771G	500k	1
17.525M	2.403225G	2.42075G	17.616M	2.403179G	2.420796G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

2437MHz

11/06/2019



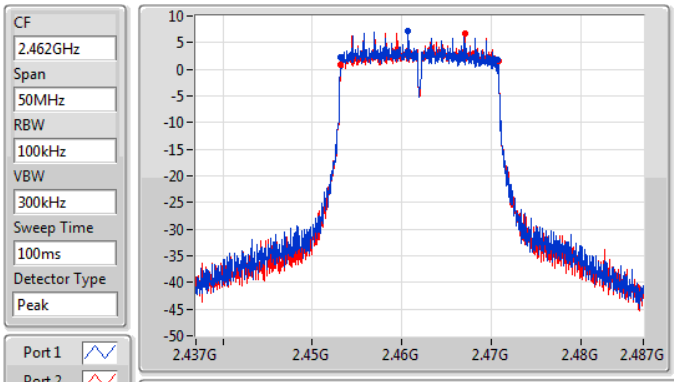


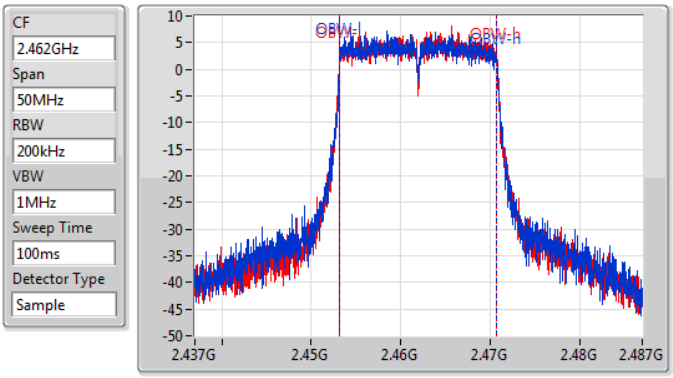
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.4282G	2.44575G	17.716M	2.428104G	2.445821G	500k	1
17.55M	2.4282G	2.44575G	17.716M	2.428104G	2.445821G	500k	2

802.11n HT20_Nss1,(MCS0)_2TX EBW

2462MHz

30/05/2019



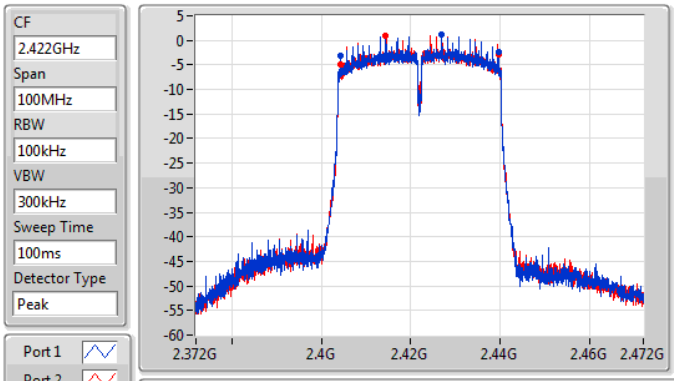


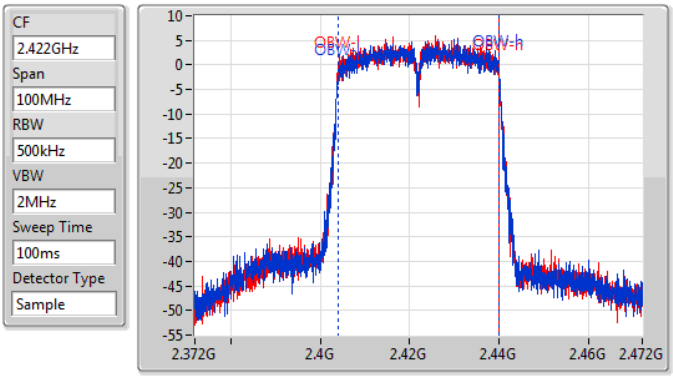
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.4532G	2.47075G	17.616M	2.453154G	2.470771G	500k	1
17.6M	2.453175G	2.470775G	17.616M	2.453154G	2.470771G	500k	2

802.11n HT40_Nss1,(MCS0)_2TX EBW

2422MHz

30/05/2019





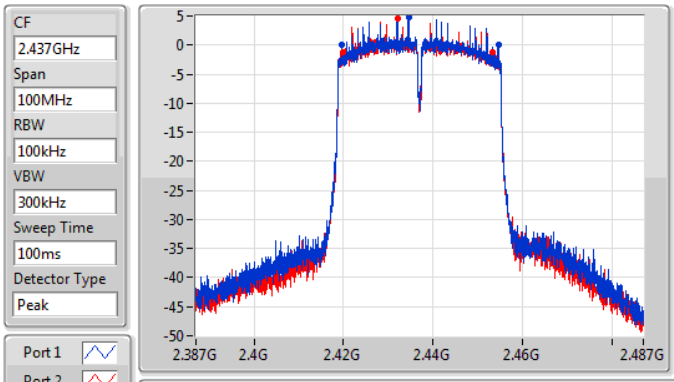
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.1M	2.40445G	2.43955G	35.832M	2.404059G	2.439891G	500k	1
35.1M	2.40445G	2.43955G	35.882M	2.404009G	2.439891G	500k	2

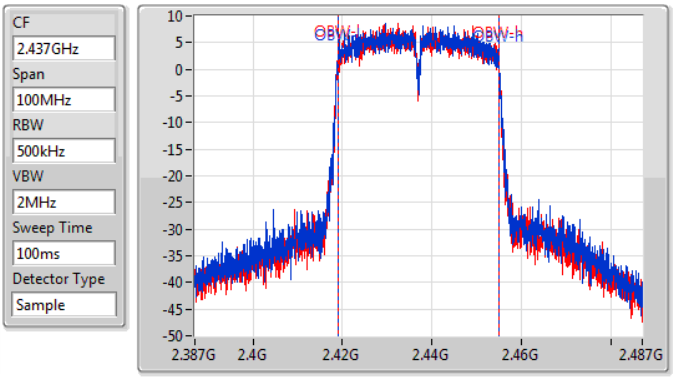
802.11n HT40_Nss1,(MCS0)_2TX

EBW

2437MHz

30/05/2019





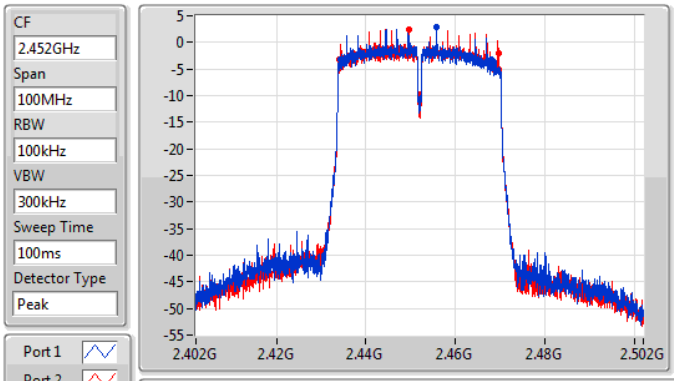
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35M	2.41955G	2.45455G	35.932M	2.418959G	2.454891G	500k	1
33.4M	2.41985G	2.45325G	35.882M	2.419009G	2.454891G	500k	2

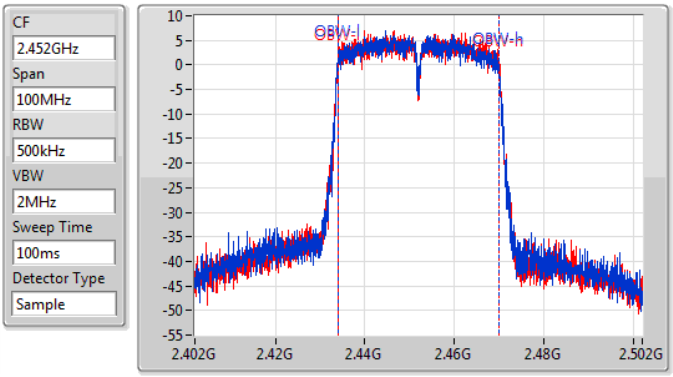
802.11n HT40_Nss1,(MCS0)_2TX

EBW

2452MHz

30/05/2019





6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.65M	2.43445G	2.4681G	35.982M	2.433909G	2.469891G	500k	1
35.45M	2.4341G	2.46955G	35.982M	2.433959G	2.469941G	500k	2

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	24.52	0.28314
802.11g_Nss1,(6Mbps)_2TX	24.67	0.29309
802.11n HT20_Nss1,(MCS0)_2TX	24.63	0.29040
802.11n HT40_Nss1,(MCS0)_2TX	21.34	0.13614

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.80	21.75	21.25	24.52	30.00
2437MHz	Pass	1.80	16.17	16.24	19.22	30.00
2462MHz	Pass	1.80	19.77	19.99	22.89	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.80	18.40	18.11	21.27	30.00
2417MHz	Pass	1.80	20.31	20.10	23.22	30.00
2437MHz	Pass	1.80	21.70	21.62	24.67	30.00
2457MHz	Pass	1.80	20.20	20.26	23.24	30.00
2462MHz	Pass	1.80	19.25	19.23	22.25	30.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	1.80	17.17	16.97	20.08	30.00
2417MHz	Pass	1.80	19.42	19.57	22.51	30.00
2437MHz	Pass	1.80	21.71	21.53	24.63	30.00
2457MHz	Pass	1.80	20.66	20.47	23.58	30.00
2462MHz	Pass	1.80	18.70	18.66	21.69	30.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	1.80	15.09	15.25	18.18	30.00
2427MHz	Pass	1.80	15.59	15.77	18.69	30.00
2437MHz	Pass	1.80	18.45	18.20	21.34	30.00
2447MHz	Pass	1.80	16.75	16.68	19.73	30.00
2452MHz	Pass	1.80	16.72	16.70	19.72	30.00

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

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	-0.26
802.11g_Nss1,(6Mbps)_2TX	-2.99
802.11n HT20_Nss1,(MCS0)_2TX	-3.29
802.11n HT40_Nss1,(MCS0)_2TX	-8.61

RBW=3 kHz.

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	4.81	-0.90	-2.82	-0.26	8.00
2437MHz	Pass	4.81	-5.95	-6.61	-4.95	8.00
2462MHz	Pass	4.81	-3.30	-2.53	-1.62	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.81	-8.03	-8.56	-6.10	8.00
2437MHz	Pass	4.81	-4.85	-3.69	-2.99	8.00
2462MHz	Pass	4.81	-7.27	-7.12	-5.10	8.00
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.81	-9.00	-9.00	-7.11	8.00
2437MHz	Pass	4.81	-4.93	-4.95	-3.29	8.00
2462MHz	Pass	4.81	-6.97	-7.31	-6.06	8.00
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.81	-13.77	-13.42	-11.46	8.00
2437MHz	Pass	4.81	-9.66	-9.18	-8.61	8.00
2452MHz	Pass	4.81	-11.99	-11.86	-10.40	8.00

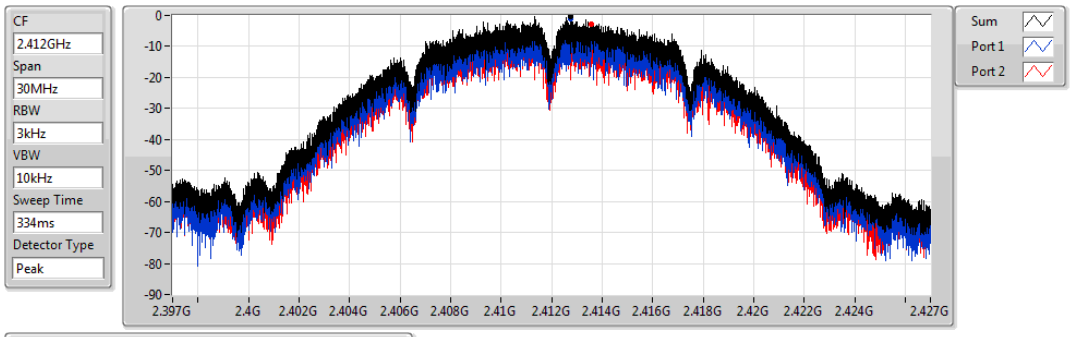
DG = Directional Gain; RBW=3 kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_2TX

PSD

2412MHz

11/06/2019



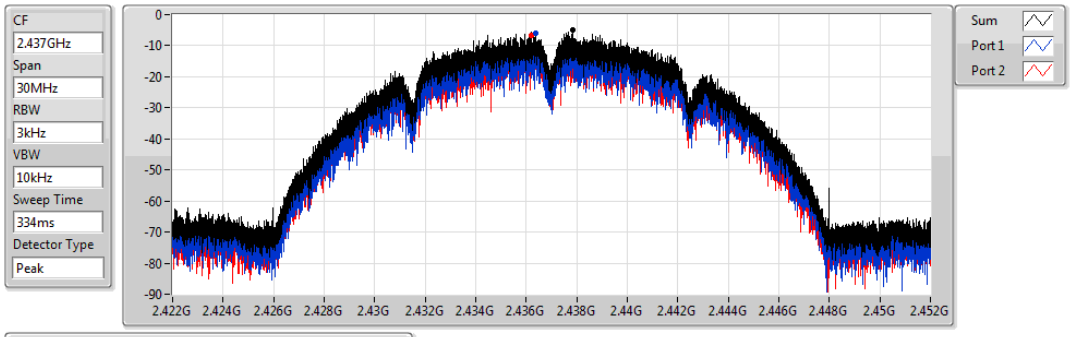
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.26	-0.26	-0.90	-2.82

802.11b_Nss1,(1Mbps)_2TX

PSD

2437MHz

30/05/2019



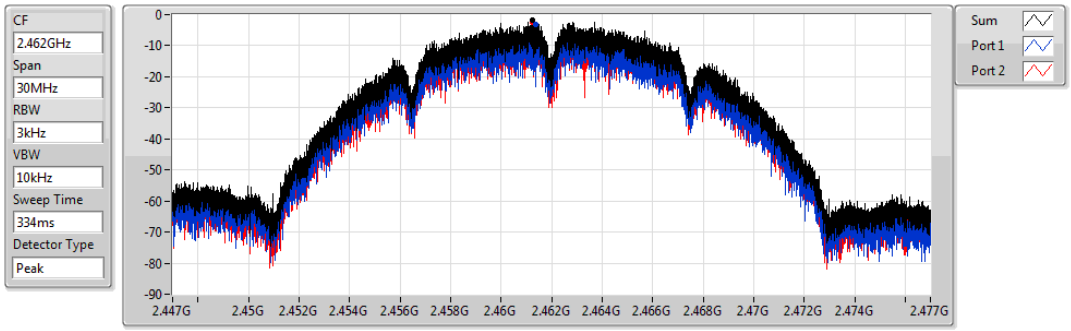
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.95	-4.95	-5.95	-6.61

802.11b_Nss1,(1Mbps)_2TX

PSD

2462MHz

30/05/2019



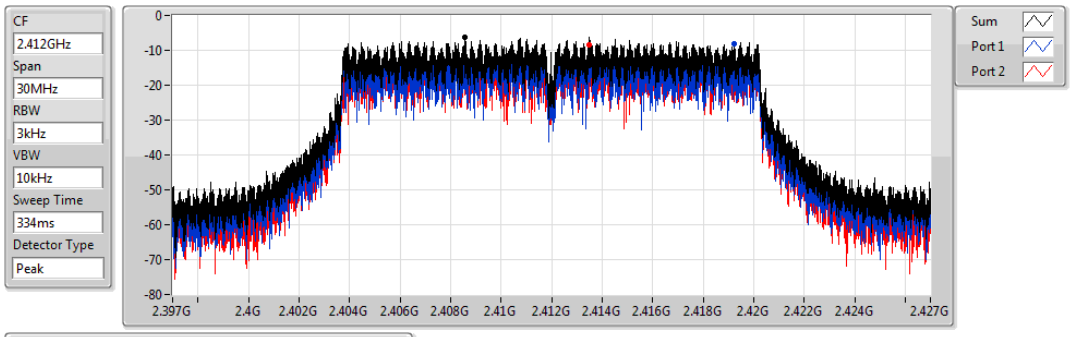
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.62	-1.62	-3.30	-2.53

802.11g_Nss1,(6Mbps)_2TX

PSD

2412MHz

30/05/2019



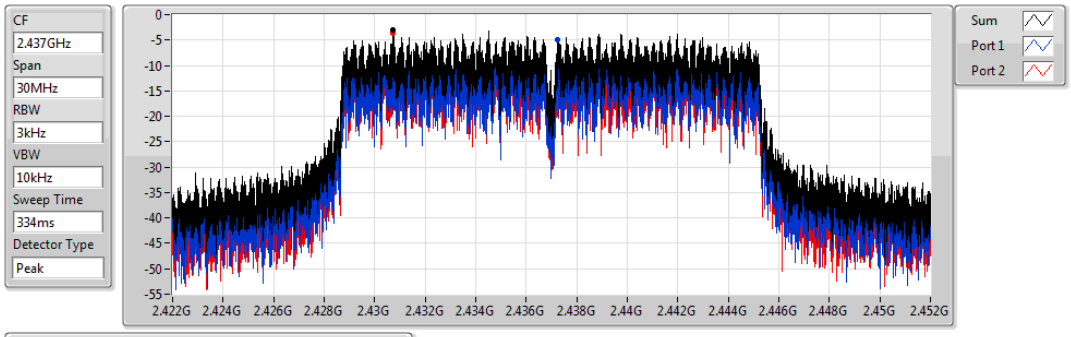
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.10	-6.10	-8.03	-8.56

802.11g_Nss1,(6Mbps)_2TX

PSD

2437MHz

11/06/2019



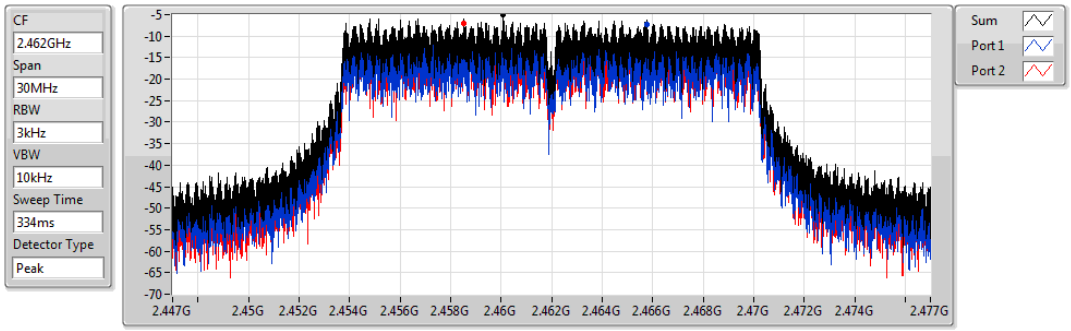
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.99	-2.99	-4.85	-3.69

802.11g_Nss1,(6Mbps)_2TX

PSD

2462MHz

30/05/2019

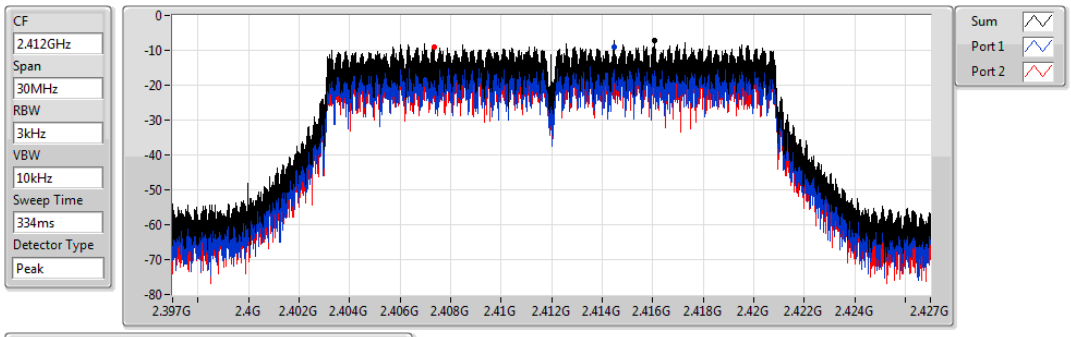


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.10	-5.10	-7.27	-7.12

802.11n HT20_Nss1,(MCS0)_2TX PSD

2412MHz

30/05/2019

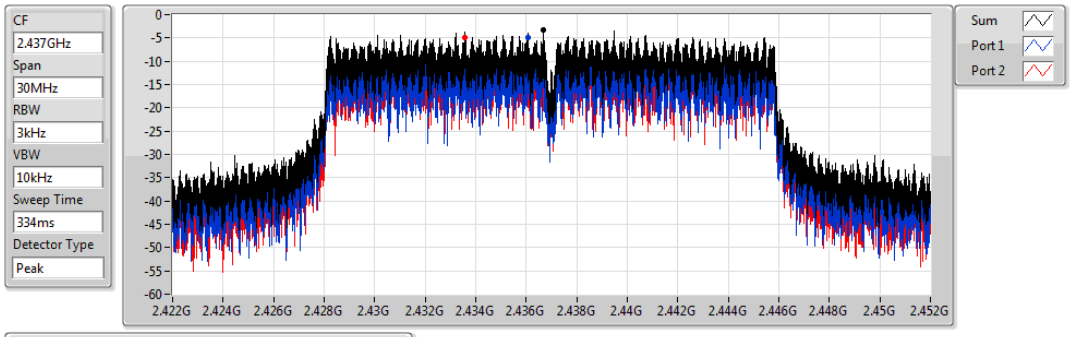


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.11	-7.11	-9.00	-9.00

802.11n HT20_Nss1,(MCS0)_2TX PSD

2437MHz

11/06/2019

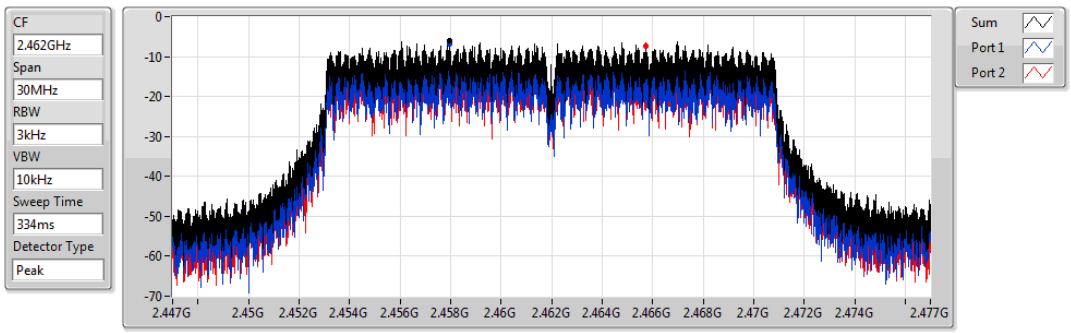


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.29	-3.29	-4.93	-4.95

802.11n HT20_Nss1,(MCS0)_2TX PSD

2462MHz

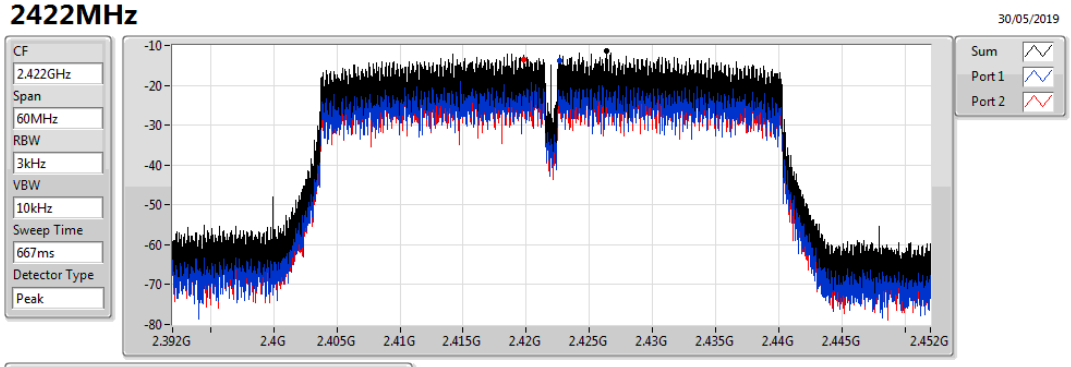
30/05/2019



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.06	-6.06	-6.97	-7.31

802.11n HT40_Nss1,(MCS0)_2TX PSD

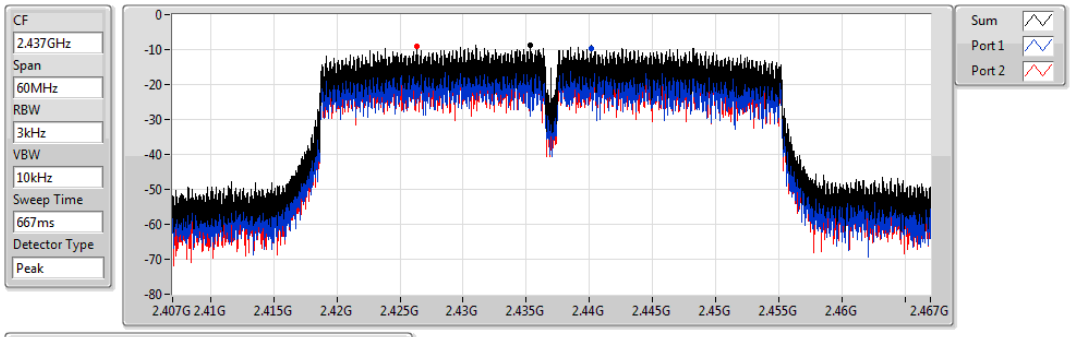
2422MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.46	-11.46	-13.77	-13.42

802.11n HT40_Nss1,(MCS0)_2TX PSD

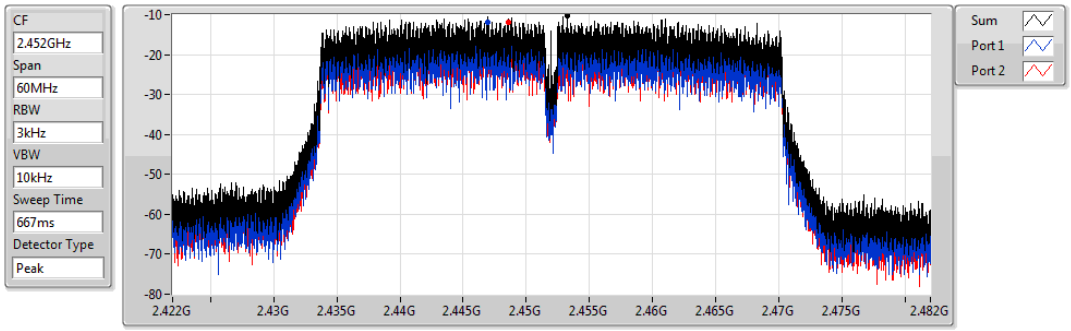
2437MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.61	-8.61	-9.66	-9.18

802.11n HT40_Nss1,(MCS0)_2TX PSD

2452MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.40	-10.40	-11.99	-11.86

Summary

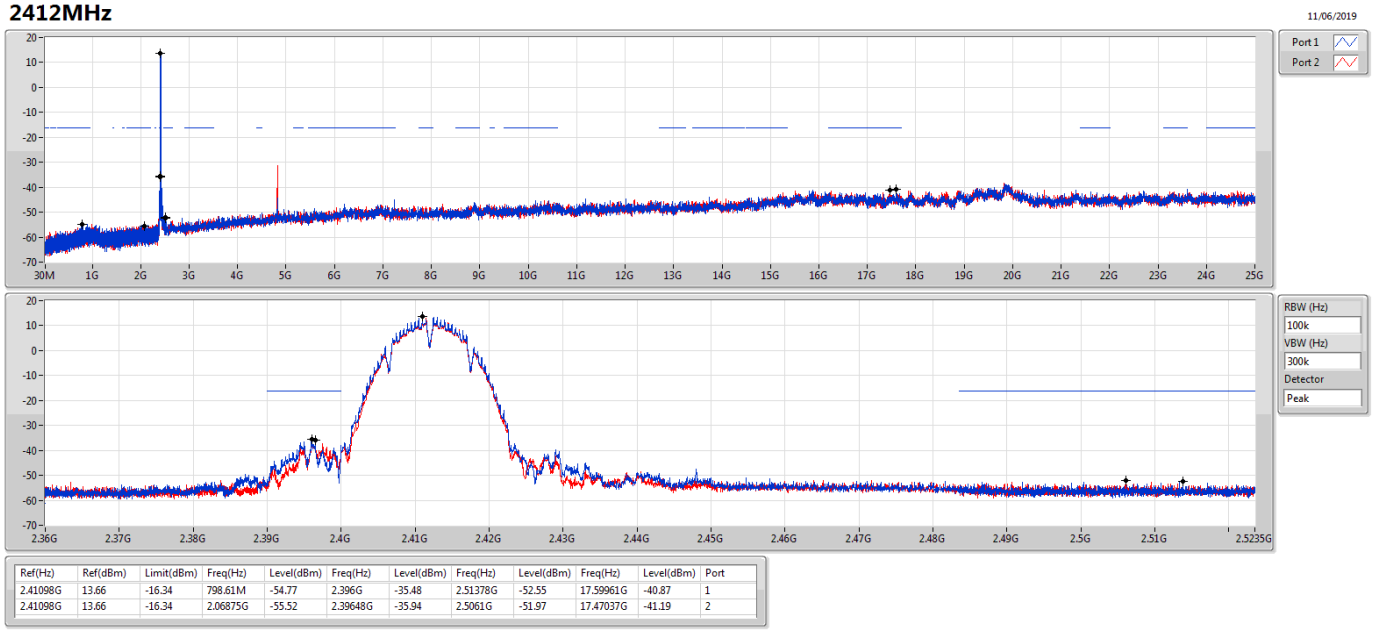
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.41098G	13.66	-16.34	798.61M	-54.77	2.396G	-35.48	2.51378G	-52.55	17.59961G	-40.87	1
802.11g_Nss1,(6Mbps)_2TX	Pass	2.43198G	10.64	-19.36	1.8308G	-55.06	2.39954G	-30.74	2.51998G	-52.33	15.22834G	-41.68	1
802.11n HT20_Nss1,(MCS0)_2TX	Pass	2.43574G	10.18	-19.82	2.0472G	-54.65	2.39862G	-51.51	2.48482G	-35.47	16.58255G	-41.98	2
802.11n HT40_Nss1,(MCS0)_2TX	Pass	2.44071G	4.66	-25.34	2.17058G	-54.25	2.39976G	-36.41	2.4857G	-41.78	24.48957G	-39.66	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)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.41098G	13.66	-16.34	798.61M	-54.77	2.396G	-35.48	2.51378G	-52.55	17.59961G	-40.87	1
2412MHz	Pass	2.41098G	13.66	-16.34	2.06875G	-55.52	2.39648G	-35.94	2.5061G	-51.97	17.47037G	-41.19	2
2437MHz	Pass	2.41098G	13.66	-16.34	1.9773G	-55.29	2.39996G	-50.44	2.51248G	-52.38	23.27212G	-41.44	1
2437MHz	Pass	2.41098G	13.66	-16.34	2.14768G	-54.75	2.39948G	-53.49	2.48508G	-52.64	24.94662G	-40.55	2
2462MHz	Pass	2.41098G	13.66	-16.34	956.18M	-54.97	2.39998G	-51.04	2.4885G	-50.15	24.79771G	-40.17	1
2462MHz	Pass	2.41098G	13.66	-16.34	1.83721G	-55.51	2.39324G	-52.93	2.48628G	-50.79	23.31707G	-40.42	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43198G	10.64	-19.36	1.8308G	-55.06	2.39954G	-30.74	2.51998G	-52.33	15.22834G	-41.68	1
2412MHz	Pass	2.43198G	10.64	-19.36	834.43M	-55.84	2.3992G	-32.96	2.51546G	-52.49	17.60523G	-41.63	2
2437MHz	Pass	2.43198G	10.64	-19.36	2.07458G	-54.89	2.39974G	-41.08	2.4846G	-49.23	24.62352G	-40.62	1
2437MHz	Pass	2.43198G	10.64	-19.36	1.85934G	-54.29	2.39726G	-41.65	2.48568G	-48.56	17.43666G	-40.34	2
2462MHz	Pass	2.43198G	10.64	-19.36	886.28M	-54.30	2.39998G	-47.47	2.4838G	-35.78	24.09251G	-40.97	1
2462MHz	Pass	2.43198G	10.64	-19.36	732.2M	-54.99	2.3995G	-52.39	2.48384G	-35.49	16.62188G	-40.55	2
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	10.18	-19.82	752.3M	-54.24	2.39926G	-36.22	2.48404G	-52.77	23.33955G	-40.93	1
2412MHz	Pass	2.43574G	10.18	-19.82	2.04254G	-55.68	2.39882G	-37.47	2.50732G	-52.49	23.59522G	-40.34	2
2437MHz	Pass	2.43574G	10.18	-19.82	1.94817G	-55.50	2.39972G	-40.32	2.4847G	-47.23	24.646G	-41.14	1
2437MHz	Pass	2.43574G	10.18	-19.82	1.74808G	-54.98	2.39948G	-40.03	2.48452G	-48.04	24.24423G	-41.26	2
2462MHz	Pass	2.43574G	10.18	-19.82	2.07079G	-54.82	2.39996G	-47.42	2.48574G	-37.07	24.63757G	-40.89	1
2462MHz	Pass	2.43574G	10.18	-19.82	2.0472G	-54.65	2.39862G	-51.51	2.48482G	-35.47	16.58255G	-41.98	2
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44071G	4.66	-25.34	2.07697G	-54.96	2.39448G	-39.88	2.48658G	-51.17	23.35372G	-40.26	1
2422MHz	Pass	2.44071G	4.66	-25.34	2.16342G	-54.54	2.39452G	-39.96	2.48774G	-51.19	23.50236G	-39.46	2
2437MHz	Pass	2.44071G	4.66	-25.34	2.17058G	-54.25	2.39976G	-36.41	2.4857G	-41.78	24.48957G	-39.66	1
2437MHz	Pass	2.44071G	4.66	-25.34	1.94816G	-53.34	2.39572G	-38.15	2.48358G	-43.49	15.12794G	-39.95	2
2452MHz	Pass	2.44071G	4.66	-25.34	2.08842G	-55.30	2.39916G	-45.85	2.48446G	-42.90	23.19106G	-40.15	1
2452MHz	Pass	2.44071G	4.66	-25.34	2.30025G	-54.55	2.39732G	-46.23	2.48698G	-43.12	24.44189G	-40.22	2

802.11b_Nss1,(1Mbps)_2TX **CSE NdB**

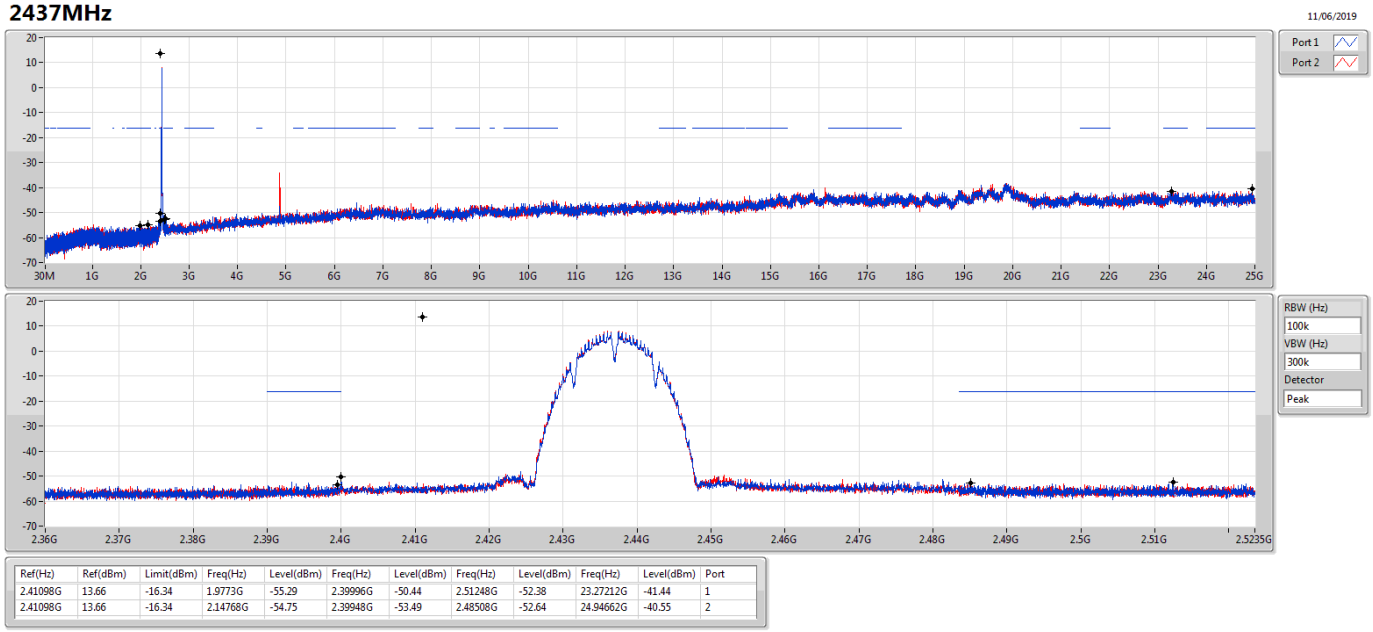
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41098G	13.66	-16.34	798.61M	-54.77	2.396G	-35.48	2.51378G	-52.55	17.59961G	-40.87	1
2.41098G	13.66	-16.34	2.06875G	-55.52	2.39648G	-35.94	2.5061G	-51.97	17.47037G	-41.19	2

802.11b_Nss1,(1Mbps)_2TX **CSE NdB**

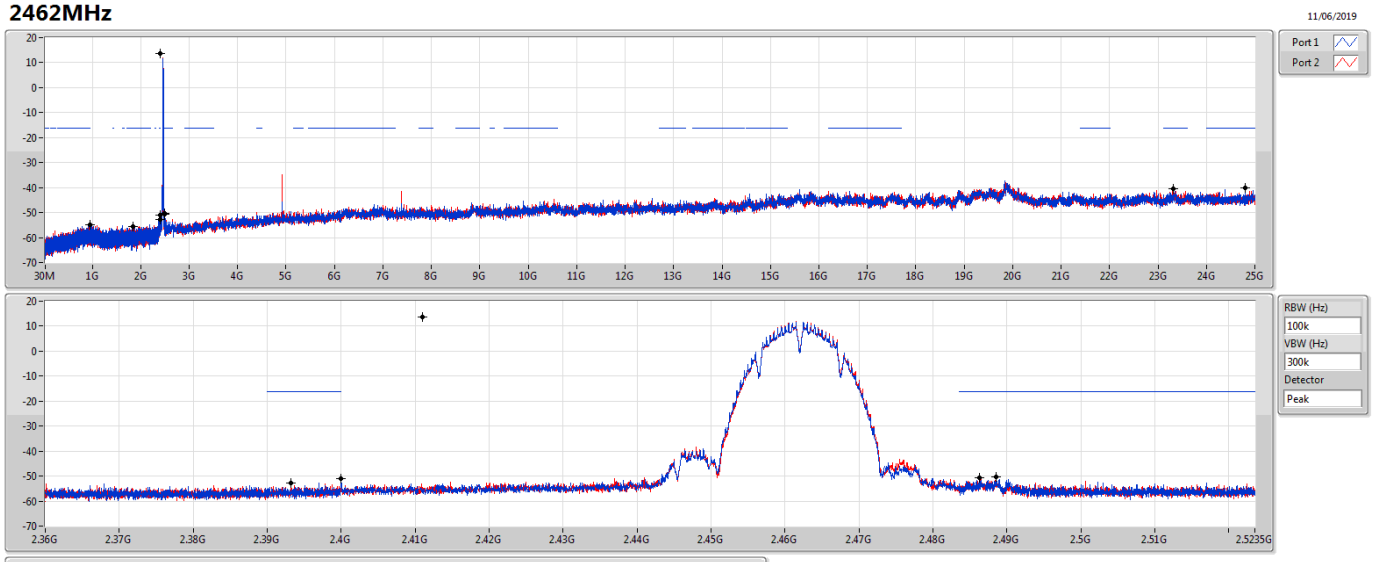
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41098G	13.66	-16.34	1.9773G	-55.29	2.39996G	-50.44	2.51248G	-52.38	23.27212G	-41.44	1
2.41098G	13.66	-16.34	2.14768G	-54.75	2.39948G	-53.49	2.48508G	-52.64	24.94662G	-40.55	2

802.11b_Nss1,(1Mbps)_2TX **CSE NdB**

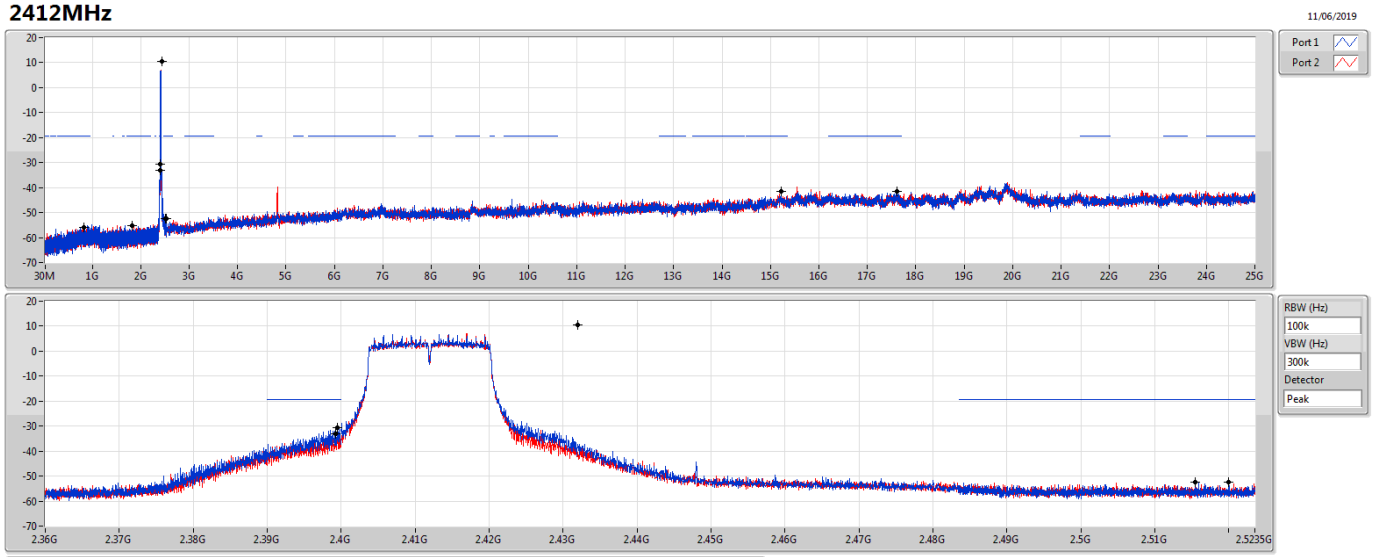
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.41098G	13.66	-16.34	956.18M	-54.97	2.39998G	-51.04	2.4885G	-50.15	24.79771G	-40.17	1
2.41098G	13.66	-16.34	1.83721G	-55.51	2.39324G	-52.93	2.48628G	-50.79	23.31707G	-40.42	2

802.11g_Nss1,(6Mbps)_2TX **CSE NdB**

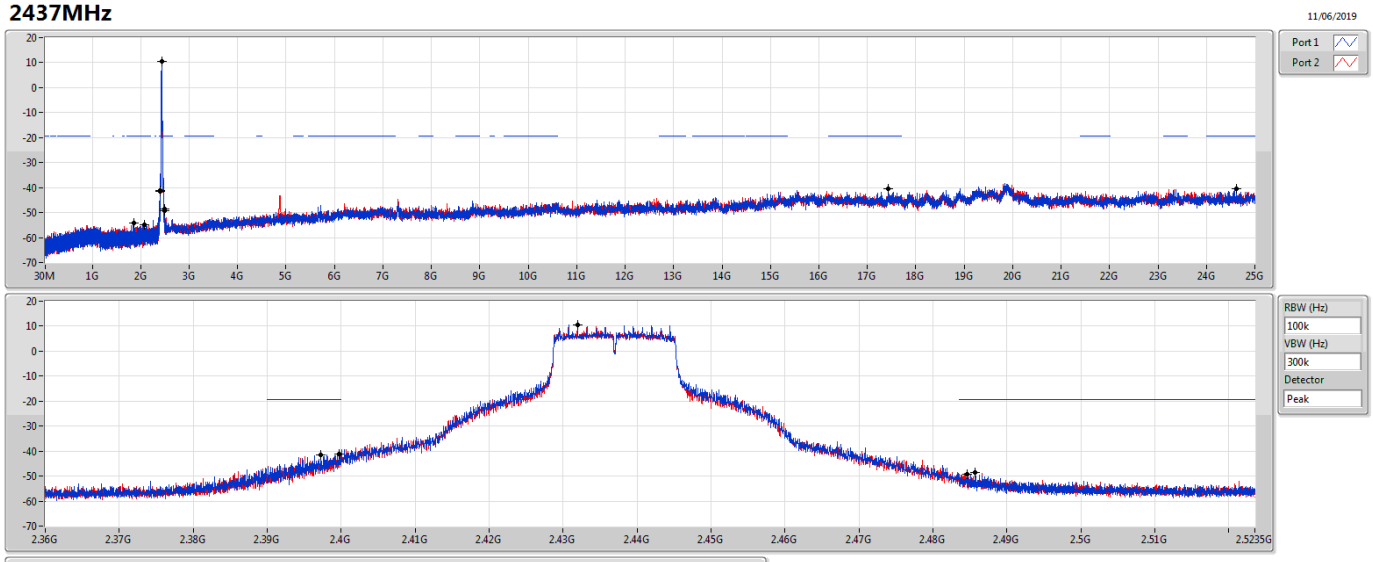
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	10.64	-19.36	1.8308G	-55.06	2.39954G	-30.74	2.51998G	-52.33	15.22834G	-41.68	1
2.43198G	10.64	-19.36	834.43M	-55.84	2.3992G	-32.96	2.51546G	-52.49	17.60523G	-41.63	2

802.11g_Nss1,(6Mbps)_2TX **CSE NdB**

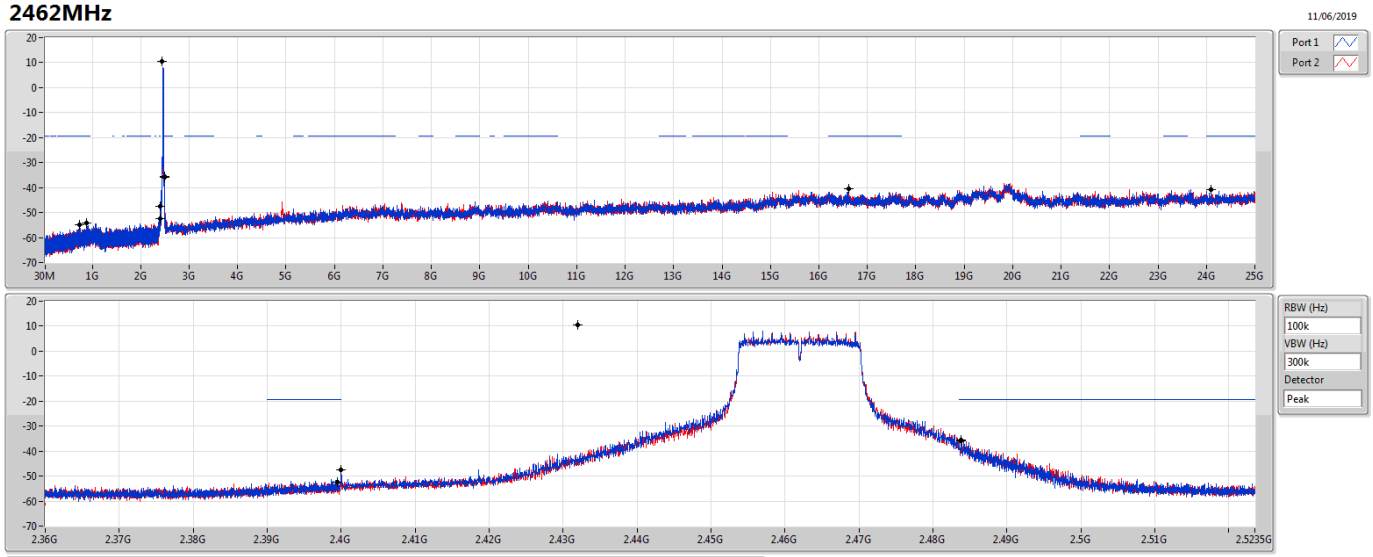
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	10.64	-19.36	2.07458G	-54.89	2.39974G	-41.08	2.4846G	-49.23	24.62352G	-40.62	1
2.43198G	10.64	-19.36	1.85934G	-54.29	2.39726G	-41.65	2.48568G	-48.56	17.43666G	-40.34	2

802.11g_Nss1,(6Mbps)_2TX **CSE NdB**

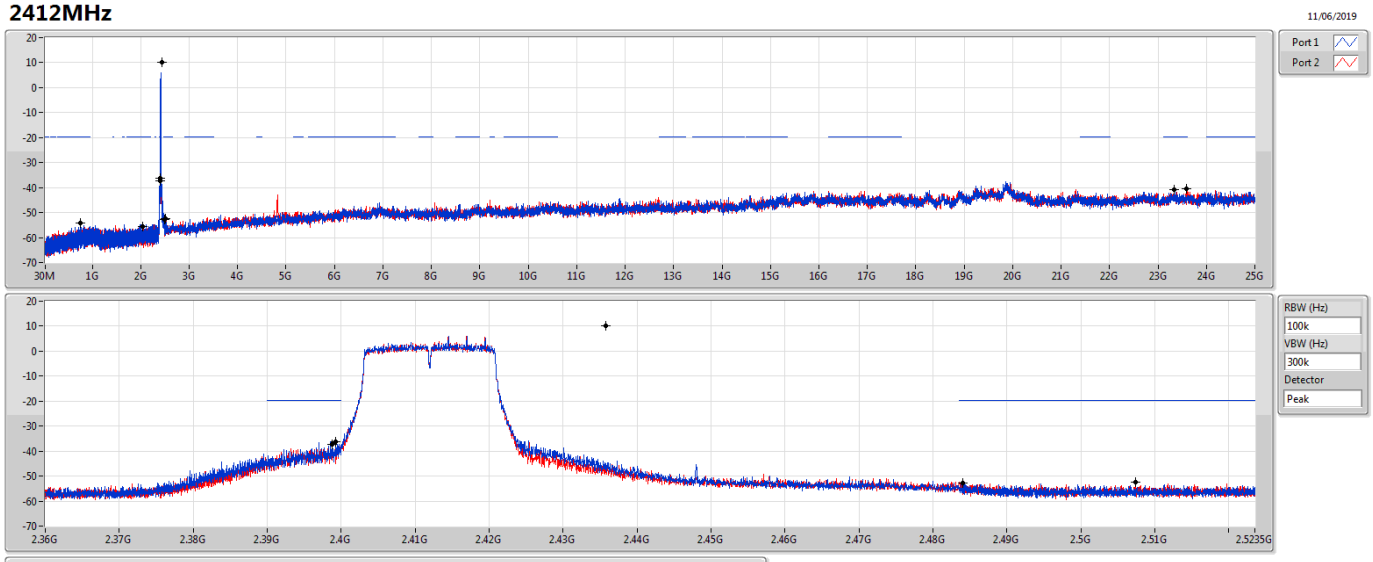
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	10.64	-19.36	886.28M	-54.30	2.39998G	-47.47	2.4838G	-35.78	24.09251G	-40.97	1
2.43198G	10.64	-19.36	732.2M	-54.99	2.3995G	-52.39	2.48384G	-35.49	16.62188G	-40.55	2

802.11n HT20_Nss1,(MCS0)_2TX **CSE NdB**

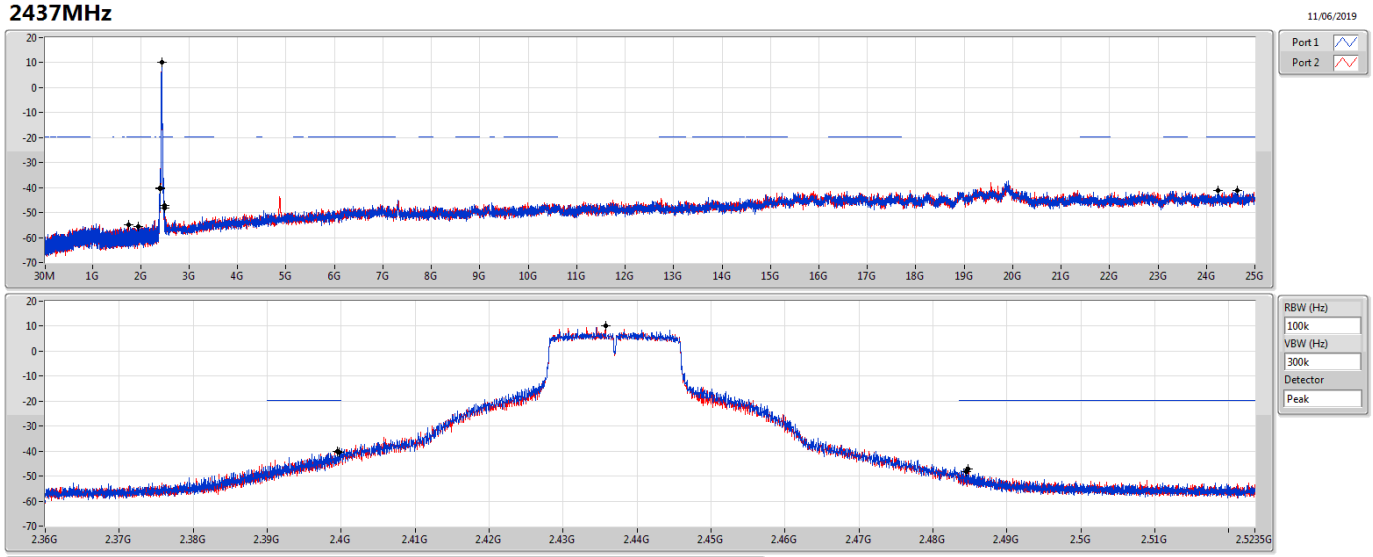
2412MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43574G	10.18	-19.82	752.3M	-54.24	2.39926G	-36.22	2.48404G	-52.77	23.33955G	-40.93	1
2.43574G	10.18	-19.82	2.04254G	-55.68	2.39882G	-37.47	2.50732G	-52.49	23.59522G	-40.34	2

802.11n HT20_Nss1,(MCS0)_2TX **CSE NdB**

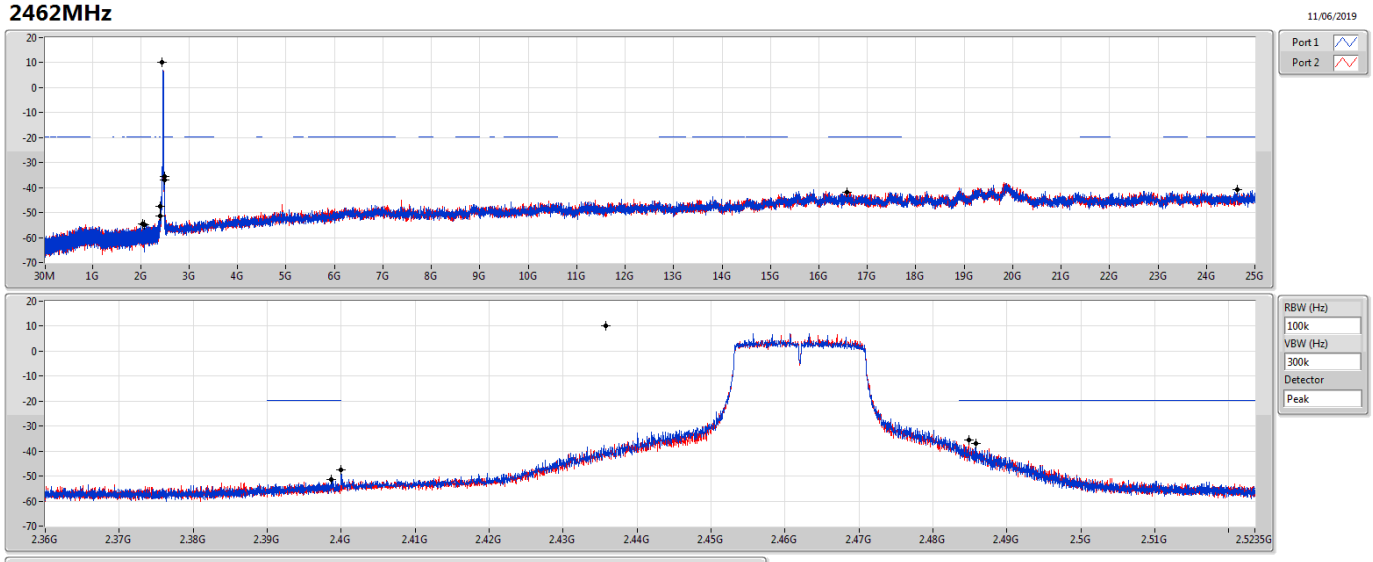
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43574G	10.18	-19.82	1.94817G	-55.50	2.39972G	-40.32	2.4847G	-47.23	24.646G	-41.14	1
2.43574G	10.18	-19.82	1.74808G	-54.98	2.39948G	-40.03	2.48452G	-48.04	24.24423G	-41.26	2

802.11n HT20_Nss1,(MCS0)_2TX **CSE NdB**

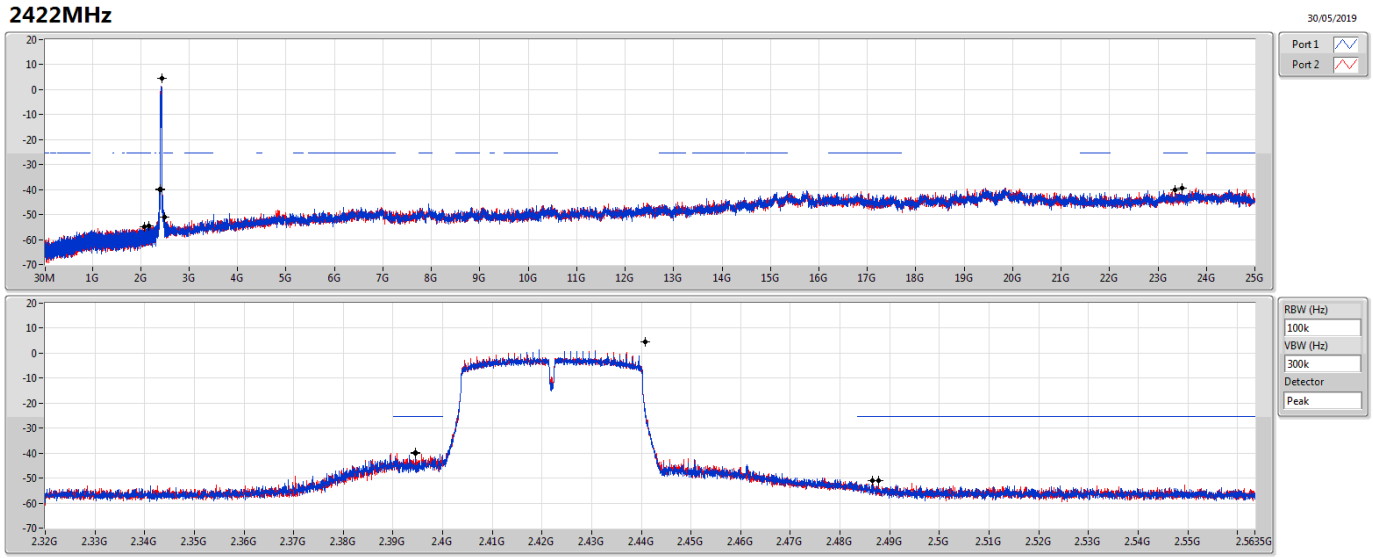
2462MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43574G	10.18	-19.82	2.07079G	-54.82	2.39996G	-47.42	2.48574G	-37.07	24.63757G	-40.89	1
2.43574G	10.18	-19.82	2.0472G	-54.65	2.39862G	-51.51	2.48482G	-35.47	16.58255G	-41.98	2

802.11n HT40_Nss1,(MCS0)_2TX **CSE NdB**

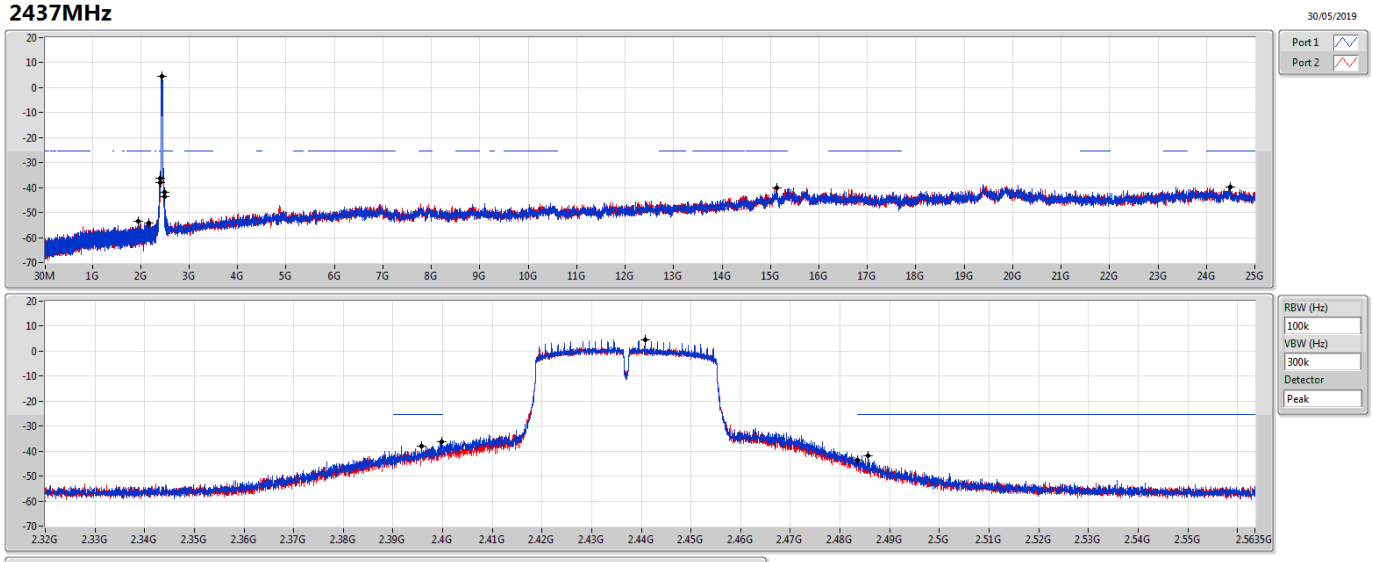
2422MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44071G	4.66	-25.34	2.07697G	-54.96	2.39448G	-39.88	2.48658G	-51.17	23.35372G	-40.26	1
2.44071G	4.66	-25.34	2.16342G	-54.54	2.39452G	-39.96	2.48774G	-51.19	23.50236G	-39.46	2

802.11n HT40_Nss1,(MCS0)_2TX **CSE NdB**

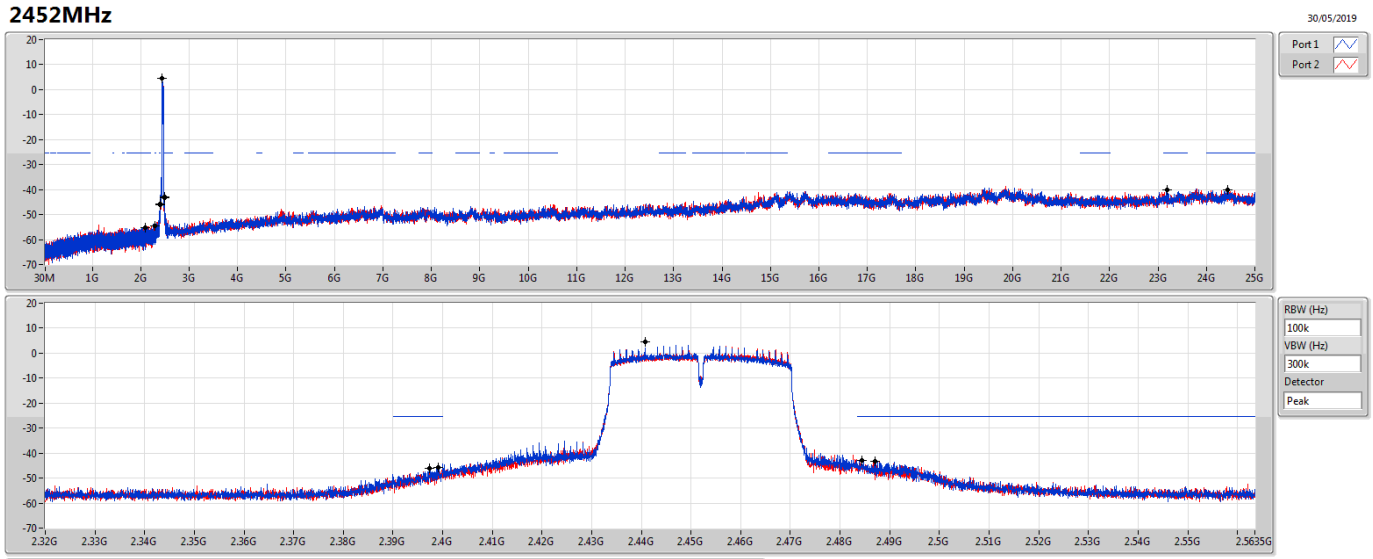
2437MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44071G	4.66	-25.34	2.17058G	-54.25	2.39976G	-36.41	2.4857G	-41.78	24.48957G	-39.66	1
2.44071G	4.66	-25.34	1.94816G	-53.34	2.39572G	-38.15	2.48358G	-43.49	15.12794G	-39.95	2

802.11n HT40_Nss1,(MCS0)_2TX **CSE NdB**

2452MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44071G	4.66	-25.34	2.08842G	-55.30	2.39916G	-45.85	2.48446G	-42.90	23.19106G	-40.15	1
2.44071G	4.66	-25.34	2.30025G	-54.55	2.39732G	-46.23	2.48698G	-43.12	24.44189G	-40.22	2

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 HT40_Nss1,(MCS0)_2TX	Pass	PK	31.94M	31.32	40.00	-8.68	-14.19	3	Vertical	360	1.00	-

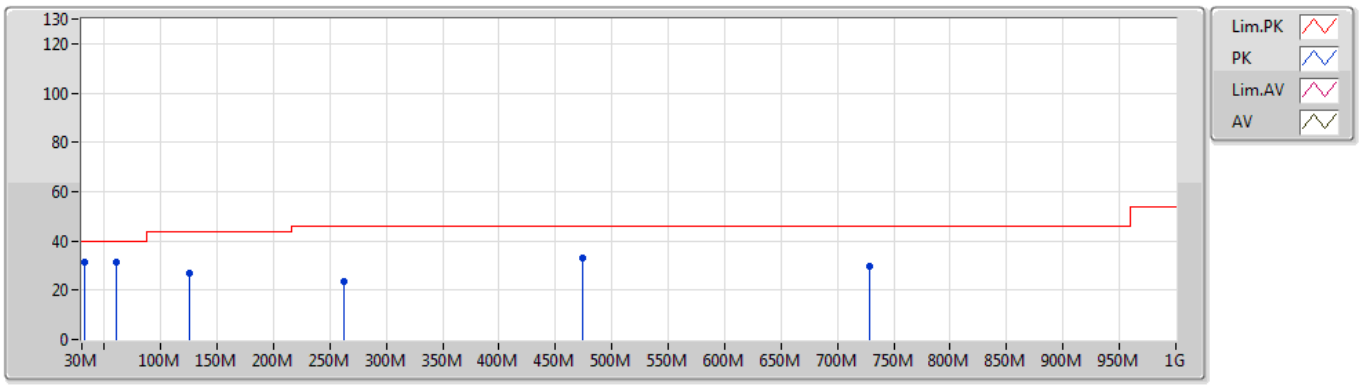
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	31.94M	31.32	40.00	-8.68	-14.19	3	Vertical	360	1.00	-
2437MHz	Pass	PK	61.04M	31.20	40.00	-8.80	-25.47	3	Vertical	360	1.00	-
2437MHz	Pass	PK	125.06M	27.17	43.50	-16.33	-19.00	3	Vertical	360	1.00	-
2437MHz	Pass	PK	262.8M	23.49	46.00	-22.51	-15.81	3	Vertical	360	1.00	-
2437MHz	Pass	PK	474.26M	33.05	46.00	-12.95	-12.19	3	Vertical	360	1.00	-
2437MHz	Pass	PK	728.4M	29.78	46.00	-16.22	-8.49	3	Vertical	360	1.00	-
2437MHz	Pass	PK	61.04M	24.18	40.00	-15.82	-25.47	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	121.18M	23.92	43.50	-19.58	-19.06	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	189.08M	22.71	43.50	-20.79	-21.29	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	264.74M	23.41	46.00	-22.59	-15.95	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	474.26M	26.81	46.00	-19.19	-12.19	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	728.4M	29.87	46.00	-16.13	-8.49	3	Horizontal	0	1.00	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_PoE

31/05/2019

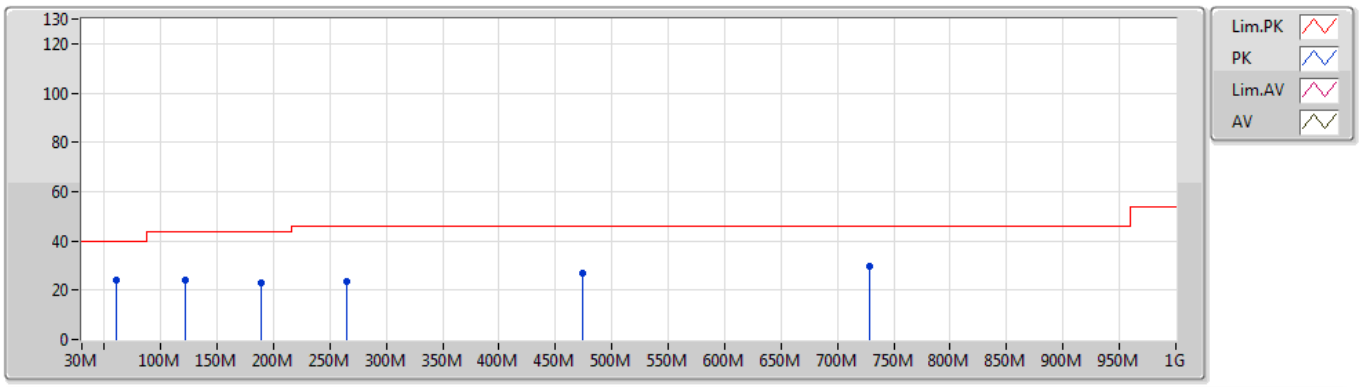


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	31.94M	31.32	40.00	-8.68	-14.19	3	Vertical	360	1.00	-
PK	61.04M	31.20	40.00	-8.80	-25.47	3	Vertical	360	1.00	-
PK	125.06M	27.17	43.50	-16.33	-19.00	3	Vertical	360	1.00	-
PK	262.8M	23.49	46.00	-22.51	-15.81	3	Vertical	360	1.00	-
PK	474.26M	33.05	46.00	-12.95	-12.19	3	Vertical	360	1.00	-
PK	728.4M	29.78	46.00	-16.22	-8.49	3	Vertical	360	1.00	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_PoE

31/05/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	61.04M	24.18	40.00	-15.82	-25.47	3	Horizontal	0	1.00	-
PK	121.18M	23.92	43.50	-19.58	-19.06	3	Horizontal	0	1.00	-
PK	189.08M	22.71	43.50	-20.79	-21.29	3	Horizontal	0	1.00	-
PK	264.74M	23.41	46.00	-22.59	-15.95	3	Horizontal	0	1.00	-
PK	474.26M	26.81	46.00	-19.19	-12.19	3	Horizontal	0	1.00	-
PK	728.4M	29.87	46.00	-16.13	-8.49	3	Horizontal	0	1.00	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	AV	4.874G	53.21	54.00	-0.79	3.64	3	Horizontal	190	2.98	-
802.11g_Nss1,(6Mbps)_2TX	Pass	AV	2.4835G	53.11	54.00	-0.89	32.28	3	Vertical	179	1.87	-
802.11n HT20_Nss1,(MCS0)_2TX	Pass	AV	2.4835G	53.23	54.00	-0.77	32.28	3	Horizontal	43	2.06	-
802.11n HT40_Nss1,(MCS0)_2TX	Pass	AV	2.4856G	53.22	54.00	-0.78	32.29	3	Horizontal	68	1.88	-

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)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3872G	51.17	54.00	-2.83	31.90	3	Vertical	120	2.00	-
2412MHz	Pass	AV	2.4112G	107.23	Inf	-Inf	31.99	3	Vertical	120	2.00	-
2412MHz	Pass	PK	2.387G	59.55	74.00	-14.45	31.89	3	Vertical	120	2.00	-
2412MHz	Pass	PK	2.413G	110.94	Inf	-Inf	32.01	3	Vertical	120	2.00	-
2412MHz	Pass	AV	2.387G	47.85	54.00	-6.15	31.89	3	Horizontal	70	2.19	-
2412MHz	Pass	AV	2.4112G	109.24	Inf	-Inf	31.99	3	Horizontal	70	2.19	-
2412MHz	Pass	PK	2.3872G	58.29	74.00	-15.71	31.90	3	Horizontal	70	2.19	-
2412MHz	Pass	PK	2.411G	113.11	Inf	-Inf	31.99	3	Horizontal	70	2.19	-
2412MHz	Pass	AV	4.82398G	49.06	54.00	-4.94	3.53	3	Vertical	344	1.77	-
2412MHz	Pass	PK	4.82398G	52.33	74.00	-21.67	3.53	3	Vertical	344	1.77	-
2412MHz	Pass	AV	4.82398G	53.20	54.00	-0.80	3.53	3	Horizontal	80	1.78	-
2412MHz	Pass	PK	4.82406G	55.41	74.00	-18.59	3.53	3	Horizontal	80	1.78	-
2437MHz	Pass	AV	2.3878G	44.92	54.00	-9.08	31.91	3	Vertical	183	1.77	-
2437MHz	Pass	AV	2.4362G	100.91	Inf	-Inf	32.09	3	Vertical	183	1.77	-
2437MHz	Pass	AV	2.4866G	45.42	54.00	-8.58	32.29	3	Vertical	183	1.77	-
2437MHz	Pass	PK	2.3586G	56.33	74.00	-17.67	31.78	3	Vertical	183	1.77	-
2437MHz	Pass	PK	2.4362G	104.69	Inf	-Inf	32.09	3	Vertical	183	1.77	-
2437MHz	Pass	PK	2.4974G	56.31	74.00	-17.69	32.33	3	Vertical	183	1.77	-
2437MHz	Pass	AV	2.389G	44.92	54.00	-9.08	31.91	3	Horizontal	63	1.30	-
2437MHz	Pass	AV	2.4362G	104.08	Inf	-Inf	32.09	3	Horizontal	63	1.30	-
2437MHz	Pass	AV	2.4835G	45.44	54.00	-8.56	32.28	3	Horizontal	63	1.30	-
2437MHz	Pass	PK	2.3414G	56.01	74.00	-17.99	31.72	3	Horizontal	63	1.30	-
2437MHz	Pass	PK	2.4362G	107.79	Inf	-Inf	32.09	3	Horizontal	63	1.30	-
2437MHz	Pass	PK	2.4894G	56.98	74.00	-17.02	32.30	3	Horizontal	63	1.30	-
2437MHz	Pass	AV	4.874G	47.16	54.00	-6.84	3.64	3	Vertical	360	2.64	-
2437MHz	Pass	PK	4.87388G	50.40	74.00	-23.60	3.64	3	Vertical	360	2.64	-
2437MHz	Pass	AV	4.874G	53.21	54.00	-0.79	3.64	3	Horizontal	190	2.98	-
2437MHz	Pass	PK	4.874G	55.40	74.00	-18.60	3.64	3	Horizontal	190	2.98	-
2462MHz	Pass	AV	2.4632G	102.16	Inf	-Inf	32.20	3	Vertical	176	1.74	-
2462MHz	Pass	AV	2.4835G	46.61	54.00	-7.39	32.28	3	Vertical	176	1.74	-
2462MHz	Pass	PK	2.463G	106.21	Inf	-Inf	32.20	3	Vertical	176	1.74	-
2462MHz	Pass	PK	2.4838G	56.92	74.00	-17.08	32.28	3	Vertical	176	1.74	-
2462MHz	Pass	AV	2.4628G	107.24	Inf	-Inf	32.20	3	Horizontal	281	1.06	-
2462MHz	Pass	AV	2.4846G	46.49	54.00	-7.51	32.29	3	Horizontal	281	1.06	-
2462MHz	Pass	PK	2.463G	111.19	Inf	-Inf	32.20	3	Horizontal	281	1.06	-
2462MHz	Pass	PK	2.4852G	57.41	74.00	-16.59	32.29	3	Horizontal	281	1.06	-
2462MHz	Pass	AV	4.924G	46.14	54.00	-7.86	3.75	3	Vertical	34	1.79	-
2462MHz	Pass	PK	4.92396G	49.88	74.00	-24.12	3.75	3	Vertical	34	1.79	-
2462MHz	Pass	AV	4.924G	52.77	54.00	-1.23	3.75	3	Horizontal	92	2.03	-
2462MHz	Pass	PK	4.92404G	54.85	74.00	-19.15	3.75	3	Horizontal	92	2.03	-
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	53.05	54.00	-0.95	31.91	3	Vertical	109	2.06	-
2412MHz	Pass	AV	2.4062G	99.11	Inf	-Inf	31.98	3	Vertical	109	2.06	-
2412MHz	Pass	PK	2.389G	67.93	74.00	-6.07	31.91	3	Vertical	109	2.06	-
2412MHz	Pass	PK	2.406G	108.97	Inf	-Inf	31.98	3	Vertical	109	2.06	-
2412MHz	Pass	AV	2.39G	51.83	54.00	-2.17	31.91	3	Horizontal	54	1.94	-
2412MHz	Pass	AV	2.416G	100.93	Inf	-Inf	32.01	3	Horizontal	54	1.94	-

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	2.3866G	68.07	74.00	-5.93	31.89	3	Horizontal	54	1.94	-
2412MHz	Pass	PK	2.416G	111.81	Inf	-Inf	32.01	3	Horizontal	54	1.94	-
2412MHz	Pass	AV	4.82514G	35.43	54.00	-18.57	3.53	3	Vertical	0	2.56	-
2412MHz	Pass	PK	4.81974G	47.93	74.00	-26.07	3.52	3	Vertical	0	2.56	-
2412MHz	Pass	AV	4.82472G	41.59	54.00	-12.41	3.53	3	Horizontal	90	1.97	-
2412MHz	Pass	PK	4.82946G	54.93	74.00	-19.07	3.54	3	Horizontal	90	1.97	-
2417MHz	Pass	AV	2.3892G	53.03	54.00	-0.97	31.91	3	Vertical	122	2.00	-
2417MHz	Pass	AV	2.4216G	100.75	Inf	-Inf	32.04	3	Vertical	122	2.00	-
2417MHz	Pass	PK	2.389G	68.87	74.00	-5.13	31.91	3	Vertical	122	2.00	-
2417MHz	Pass	PK	2.421G	111.34	Inf	-Inf	32.03	3	Vertical	122	2.00	-
2417MHz	Pass	AV	2.39G	51.46	54.00	-2.54	31.91	3	Horizontal	66	2.10	-
2417MHz	Pass	AV	2.4214G	103.30	Inf	-Inf	32.04	3	Horizontal	66	2.10	-
2417MHz	Pass	PK	2.3868G	67.88	74.00	-6.12	31.89	3	Horizontal	66	2.10	-
2417MHz	Pass	PK	2.4112G	113.77	Inf	-Inf	31.99	3	Horizontal	66	2.10	-
2437MHz	Pass	AV	2.3898G	48.88	54.00	-5.12	31.91	3	Vertical	182	1.59	-
2437MHz	Pass	AV	2.4414G	102.36	Inf	-Inf	32.12	3	Vertical	182	1.59	-
2437MHz	Pass	AV	2.4835G	48.44	54.00	-5.56	32.28	3	Vertical	182	1.59	-
2437MHz	Pass	PK	2.3882G	65.04	74.00	-8.96	31.91	3	Vertical	182	1.59	-
2437MHz	Pass	PK	2.4358G	112.72	Inf	-Inf	32.09	3	Vertical	182	1.59	-
2437MHz	Pass	PK	2.4878G	62.14	74.00	-11.86	32.30	3	Vertical	182	1.59	-
2437MHz	Pass	AV	2.3898G	51.73	54.00	-2.27	31.91	3	Horizontal	300	1.49	-
2437MHz	Pass	AV	2.4354G	106.51	Inf	-Inf	32.09	3	Horizontal	300	1.49	-
2437MHz	Pass	AV	2.4846G	49.29	54.00	-4.71	32.29	3	Horizontal	300	1.49	-
2437MHz	Pass	PK	2.3862G	68.03	74.00	-5.97	31.89	3	Horizontal	300	1.49	-
2437MHz	Pass	PK	2.4354G	117.04	Inf	-Inf	32.09	3	Horizontal	300	1.49	-
2437MHz	Pass	PK	2.4854G	63.48	74.00	-10.52	32.29	3	Horizontal	300	1.49	-
2437MHz	Pass	AV	4.87172G	42.84	54.00	-11.16	3.63	3	Vertical	0	2.67	-
2437MHz	Pass	PK	4.87166G	56.28	74.00	-17.72	3.63	3	Vertical	0	2.67	-
2437MHz	Pass	AV	4.87166G	50.22	54.00	-3.78	3.63	3	Horizontal	96	2.29	-
2437MHz	Pass	PK	4.86776G	63.84	74.00	-10.16	3.62	3	Horizontal	96	2.29	-
2457MHz	Pass	AV	2.456G	99.91	Inf	-Inf	32.18	3	Vertical	182	1.87	-
2457MHz	Pass	AV	2.4835G	50.41	54.00	-3.59	32.28	3	Vertical	182	1.87	-
2457MHz	Pass	PK	2.4614G	110.08	Inf	-Inf	32.19	3	Vertical	182	1.87	-
2457MHz	Pass	PK	2.4835G	64.91	74.00	-9.09	32.28	3	Vertical	182	1.87	-
2457MHz	Pass	AV	2.456G	103.71	Inf	-Inf	32.18	3	Horizontal	67	2.09	-
2457MHz	Pass	AV	2.485G	52.84	54.00	-1.16	32.29	3	Horizontal	67	2.09	-
2457MHz	Pass	PK	2.4514G	113.78	Inf	-Inf	32.15	3	Horizontal	67	2.09	-
2457MHz	Pass	PK	2.4854G	69.04	74.00	-4.96	32.29	3	Horizontal	67	2.09	-
2462MHz	Pass	AV	2.456G	98.50	Inf	-Inf	32.18	3	Vertical	179	1.87	-
2462MHz	Pass	AV	2.4835G	53.11	54.00	-0.89	32.28	3	Vertical	179	1.87	-
2462MHz	Pass	PK	2.466G	108.47	Inf	-Inf	32.21	3	Vertical	179	1.87	-
2462MHz	Pass	PK	2.4835G	67.66	74.00	-6.34	32.28	3	Vertical	179	1.87	-
2462MHz	Pass	AV	2.466G	101.09	Inf	-Inf	32.21	3	Horizontal	45	2.02	-
2462MHz	Pass	AV	2.4856G	52.68	54.00	-1.32	32.29	3	Horizontal	45	2.02	-
2462MHz	Pass	PK	2.4658G	111.82	Inf	-Inf	32.21	3	Horizontal	45	2.02	-
2462MHz	Pass	PK	2.4856G	67.78	74.00	-6.22	32.29	3	Horizontal	45	2.02	-
2462MHz	Pass	AV	4.92424G	33.65	54.00	-20.35	3.75	3	Vertical	37	1.95	-
2462MHz	Pass	PK	4.92268G	46.33	74.00	-27.67	3.75	3	Vertical	37	1.95	-
2462MHz	Pass	AV	4.9219G	37.76	54.00	-16.24	3.75	3	Horizontal	196	2.94	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2462MHz	Pass	PK	4.92058G	51.30	74.00	-22.70	3.74	3	Horizontal	196	2.94	-
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	52.89	54.00	-1.11	31.91	3	Vertical	109	2.02	-
2412MHz	Pass	AV	2.4066G	97.09	Inf	-Inf	31.98	3	Vertical	109	2.02	-
2412MHz	Pass	PK	2.3884G	69.38	74.00	-4.62	31.91	3	Vertical	109	2.02	-
2412MHz	Pass	PK	2.4078G	108.33	Inf	-Inf	31.98	3	Vertical	109	2.02	-
2412MHz	Pass	AV	2.39G	51.33	54.00	-2.67	31.91	3	Horizontal	70	2.19	-
2412MHz	Pass	AV	2.4104G	99.45	Inf	-Inf	31.99	3	Horizontal	70	2.19	-
2412MHz	Pass	PK	2.3888G	67.73	74.00	-6.27	31.91	3	Horizontal	70	2.19	-
2412MHz	Pass	PK	2.4108G	110.51	Inf	-Inf	31.99	3	Horizontal	70	2.19	-
2412MHz	Pass	AV	4.82718G	33.46	54.00	-20.54	3.53	3	Vertical	28	1.77	-
2412MHz	Pass	PK	4.827G	47.57	74.00	-26.43	3.53	3	Vertical	28	1.77	-
2412MHz	Pass	AV	4.82718G	39.88	54.00	-14.12	3.53	3	Horizontal	83	1.97	-
2412MHz	Pass	PK	4.83036G	53.52	74.00	-20.48	3.54	3	Horizontal	83	1.97	-
2417MHz	Pass	AV	2.3896G	53.17	54.00	-0.83	31.91	3	Vertical	359	1.22	-
2417MHz	Pass	AV	2.413G	98.20	Inf	-Inf	32.01	3	Vertical	359	1.22	-
2417MHz	Pass	PK	2.3898G	69.12	74.00	-4.88	31.91	3	Vertical	359	1.22	-
2417MHz	Pass	PK	2.4126G	108.81	Inf	-Inf	32.00	3	Vertical	359	1.22	-
2417MHz	Pass	AV	2.39G	52.26	54.00	-1.74	31.91	3	Horizontal	64	2.12	-
2417MHz	Pass	AV	2.4146G	102.62	Inf	-Inf	32.01	3	Horizontal	64	2.12	-
2417MHz	Pass	PK	2.3898G	66.95	74.00	-7.05	31.91	3	Horizontal	64	2.12	-
2417MHz	Pass	PK	2.4148G	113.83	Inf	-Inf	32.01	3	Horizontal	64	2.12	-
2437MHz	Pass	AV	2.3898G	50.31	54.00	-3.69	31.91	3	Vertical	92	1.56	-
2437MHz	Pass	AV	2.4314G	101.60	Inf	-Inf	32.08	3	Vertical	92	1.56	-
2437MHz	Pass	AV	2.4838G	47.17	54.00	-6.83	32.28	3	Vertical	92	1.56	-
2437MHz	Pass	PK	2.3894G	66.48	74.00	-7.52	31.91	3	Vertical	92	1.56	-
2437MHz	Pass	PK	2.4326G	112.34	Inf	-Inf	32.08	3	Vertical	92	1.56	-
2437MHz	Pass	PK	2.4866G	59.22	74.00	-14.78	32.29	3	Vertical	92	1.56	-
2437MHz	Pass	AV	2.3898G	51.23	54.00	-2.77	31.91	3	Horizontal	63	1.89	-
2437MHz	Pass	AV	2.4354G	106.46	Inf	-Inf	32.09	3	Horizontal	63	1.89	-
2437MHz	Pass	AV	2.4835G	49.27	54.00	-4.73	32.28	3	Horizontal	63	1.89	-
2437MHz	Pass	PK	2.3898G	66.38	74.00	-7.62	31.91	3	Horizontal	63	1.89	-
2437MHz	Pass	PK	2.435G	117.21	Inf	-Inf	32.09	3	Horizontal	63	1.89	-
2437MHz	Pass	PK	2.4986G	62.52	74.00	-11.48	32.35	3	Horizontal	63	1.89	-
2437MHz	Pass	AV	4.8691G	43.38	54.00	-10.62	3.63	3	Vertical	36	1.98	-
2437MHz	Pass	PK	4.8687G	59.05	74.00	-14.95	3.62	3	Vertical	36	1.98	-
2437MHz	Pass	AV	4.869G	50.15	54.00	-3.85	3.63	3	Horizontal	96	2.73	-
2437MHz	Pass	PK	4.8685G	64.77	74.00	-9.23	3.62	3	Horizontal	96	2.73	-
2457MHz	Pass	AV	2.4546G	100.06	Inf	-Inf	32.16	3	Vertical	183	1.86	-
2457MHz	Pass	AV	2.4835G	50.11	54.00	-3.89	32.28	3	Vertical	183	1.86	-
2457MHz	Pass	PK	2.4538G	111.39	Inf	-Inf	32.16	3	Vertical	183	1.86	-
2457MHz	Pass	PK	2.4872G	63.45	74.00	-10.55	32.29	3	Vertical	183	1.86	-
2457MHz	Pass	AV	2.4536G	103.45	Inf	-Inf	32.16	3	Horizontal	71	1.91	-
2457MHz	Pass	AV	2.488G	52.55	54.00	-1.45	32.30	3	Horizontal	71	1.91	-
2457MHz	Pass	PK	2.4534G	114.56	Inf	-Inf	32.16	3	Horizontal	71	1.91	-
2457MHz	Pass	PK	2.4874G	67.91	74.00	-6.09	32.29	3	Horizontal	71	1.91	-
2462MHz	Pass	AV	2.457G	97.44	Inf	-Inf	32.18	3	Vertical	178	1.86	-
2462MHz	Pass	AV	2.4835G	52.41	54.00	-1.59	32.28	3	Vertical	178	1.86	-
2462MHz	Pass	PK	2.4586G	107.98	Inf	-Inf	32.18	3	Vertical	178	1.86	-

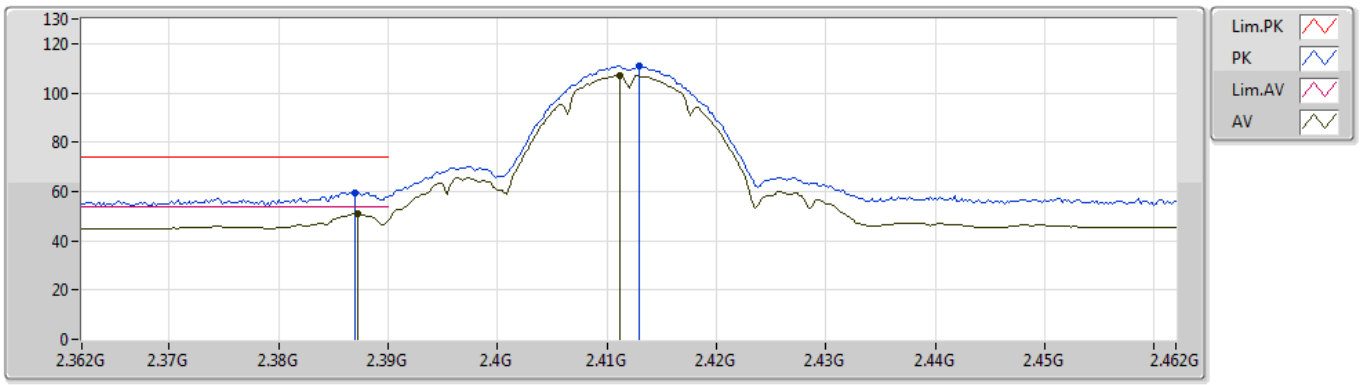
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2462MHz	Pass	PK	2.4835G	69.07	74.00	-4.93	32.28	3	Vertical	178	1.86	-
2462MHz	Pass	AV	2.4588G	99.75	Inf	-Inf	32.18	3	Horizontal	43	2.06	-
2462MHz	Pass	AV	2.4835G	53.23	54.00	-0.77	32.28	3	Horizontal	43	2.06	-
2462MHz	Pass	PK	2.4582G	111.35	Inf	-Inf	32.18	3	Horizontal	43	2.06	-
2462MHz	Pass	PK	2.4838G	68.53	74.00	-5.47	32.28	3	Horizontal	43	2.06	-
2462MHz	Pass	AV	4.92352G	33.55	54.00	-20.45	3.75	3	Vertical	35	1.92	-
2462MHz	Pass	PK	4.92358G	47.93	74.00	-26.07	3.75	3	Vertical	35	1.92	-
2462MHz	Pass	AV	4.92418G	36.77	54.00	-17.23	3.75	3	Horizontal	99	2.60	-
2462MHz	Pass	PK	4.92514G	50.99	74.00	-23.01	3.75	3	Horizontal	99	2.60	-
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	AV	2.39G	53.16	54.00	-0.84	31.91	3	Vertical	119	1.95	-
2422MHz	Pass	AV	2.4192G	93.59	Inf	-Inf	32.02	3	Vertical	119	1.95	-
2422MHz	Pass	AV	2.4984G	45.80	54.00	-8.20	32.35	3	Vertical	119	1.95	-
2422MHz	Pass	PK	2.388G	65.78	74.00	-8.22	31.91	3	Vertical	119	1.95	-
2422MHz	Pass	PK	2.4192G	103.41	Inf	-Inf	32.02	3	Vertical	119	1.95	-
2422MHz	Pass	PK	2.4932G	56.62	74.00	-17.38	32.32	3	Vertical	119	1.95	-
2422MHz	Pass	AV	2.382G	50.95	54.00	-3.05	31.88	3	Horizontal	63	2.13	-
2422MHz	Pass	AV	2.4196G	95.74	Inf	-Inf	32.02	3	Horizontal	63	2.13	-
2422MHz	Pass	AV	2.4852G	45.86	54.00	-8.14	32.29	3	Horizontal	63	2.13	-
2422MHz	Pass	PK	2.3824G	65.10	74.00	-8.90	31.88	3	Horizontal	63	2.13	-
2422MHz	Pass	PK	2.4204G	105.63	Inf	-Inf	32.03	3	Horizontal	63	2.13	-
2422MHz	Pass	PK	2.5G	57.51	74.00	-16.49	32.35	3	Horizontal	63	2.13	-
2422MHz	Pass	AV	4.84832G	32.57	54.00	-21.43	3.58	3	Vertical	357	2.78	-
2422MHz	Pass	PK	4.84712G	45.87	74.00	-28.13	3.58	3	Vertical	357	2.78	-
2422MHz	Pass	AV	4.84874G	37.48	54.00	-16.52	3.58	3	Horizontal	92	2.19	-
2422MHz	Pass	PK	4.84646G	50.92	74.00	-23.08	3.57	3	Horizontal	92	2.19	-
2427MHz	Pass	AV	2.3894G	52.71	54.00	-1.29	31.91	3	Vertical	120	1.96	-
2427MHz	Pass	AV	2.4222G	93.80	Inf	-Inf	32.04	3	Vertical	120	1.96	-
2427MHz	Pass	AV	2.487G	45.85	54.00	-8.15	32.29	3	Vertical	120	1.96	-
2427MHz	Pass	PK	2.3898G	66.28	74.00	-7.72	31.91	3	Vertical	120	1.96	-
2427MHz	Pass	PK	2.423G	103.93	Inf	-Inf	32.04	3	Vertical	120	1.96	-
2427MHz	Pass	PK	2.4878G	56.73	74.00	-17.27	32.30	3	Vertical	120	1.96	-
2427MHz	Pass	AV	2.3874G	52.76	54.00	-1.24	31.90	3	Horizontal	58	1.94	-
2427MHz	Pass	AV	2.4246G	96.25	Inf	-Inf	32.05	3	Horizontal	58	1.94	-
2427MHz	Pass	AV	2.485G	46.50	54.00	-7.50	32.29	3	Horizontal	58	1.94	-
2427MHz	Pass	PK	2.3894G	66.77	74.00	-7.23	31.91	3	Horizontal	58	1.94	-
2427MHz	Pass	PK	2.4246G	106.22	Inf	-Inf	32.05	3	Horizontal	58	1.94	-
2427MHz	Pass	PK	2.4836G	58.07	74.00	-15.93	32.28	3	Horizontal	58	1.94	-
2437MHz	Pass	AV	2.389G	52.40	54.00	-1.60	31.91	3	Vertical	91	1.58	-
2437MHz	Pass	AV	2.431G	94.91	Inf	-Inf	32.08	3	Vertical	91	1.58	-
2437MHz	Pass	AV	2.4835G	47.88	54.00	-6.12	32.28	3	Vertical	91	1.58	-
2437MHz	Pass	PK	2.3898G	66.58	74.00	-7.42	31.91	3	Vertical	91	1.58	-
2437MHz	Pass	PK	2.4306G	105.21	Inf	-Inf	32.08	3	Vertical	91	1.58	-
2437MHz	Pass	PK	2.4842G	59.90	74.00	-14.10	32.29	3	Vertical	91	1.58	-
2437MHz	Pass	AV	2.3898G	52.77	54.00	-1.23	31.91	3	Horizontal	61	1.94	-
2437MHz	Pass	AV	2.4354G	98.97	Inf	-Inf	32.09	3	Horizontal	61	1.94	-
2437MHz	Pass	AV	2.487G	49.27	54.00	-4.73	32.29	3	Horizontal	61	1.94	-
2437MHz	Pass	PK	2.3894G	65.38	74.00	-8.62	31.91	3	Horizontal	61	1.94	-
2437MHz	Pass	PK	2.4346G	108.47	Inf	-Inf	32.09	3	Horizontal	61	1.94	-

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	2.487G	63.09	74.00	-10.91	32.29	3	Horizontal	61	1.94	-
2437MHz	Pass	AV	4.87724G	33.02	54.00	-20.98	3.64	3	Vertical	34	1.86	-
2437MHz	Pass	PK	4.87628G	46.34	74.00	-27.66	3.64	3	Vertical	34	1.86	-
2437MHz	Pass	AV	4.87736G	38.16	54.00	-15.84	3.64	3	Horizontal	88	1.92	-
2437MHz	Pass	PK	4.87376G	51.37	74.00	-22.63	3.64	3	Horizontal	88	1.92	-
2447MHz	Pass	AV	2.3898G	46.37	54.00	-7.63	31.91	3	Vertical	183	1.57	-
2447MHz	Pass	AV	2.445G	93.49	Inf	-Inf	32.13	3	Vertical	183	1.57	-
2447MHz	Pass	AV	2.4835G	49.41	54.00	-4.59	32.28	3	Vertical	183	1.57	-
2447MHz	Pass	PK	2.3894G	58.38	74.00	-15.62	31.91	3	Vertical	183	1.57	-
2447MHz	Pass	PK	2.443G	103.85	Inf	-Inf	32.12	3	Vertical	183	1.57	-
2447MHz	Pass	PK	2.4835G	62.79	74.00	-11.21	32.28	3	Vertical	183	1.57	-
2447MHz	Pass	AV	2.3882G	47.31	54.00	-6.69	31.91	3	Horizontal	60	1.89	-
2447MHz	Pass	AV	2.4442G	97.66	Inf	-Inf	32.12	3	Horizontal	60	1.89	-
2447MHz	Pass	AV	2.4838G	52.21	54.00	-1.79	32.28	3	Horizontal	60	1.89	-
2447MHz	Pass	PK	2.3854G	60.61	74.00	-13.39	31.89	3	Horizontal	60	1.89	-
2447MHz	Pass	PK	2.443G	107.94	Inf	-Inf	32.12	3	Horizontal	60	1.89	-
2447MHz	Pass	PK	2.4838G	68.28	74.00	-5.72	32.28	3	Horizontal	60	1.89	-
2452MHz	Pass	AV	2.39G	46.70	54.00	-7.30	31.91	3	Vertical	183	1.94	-
2452MHz	Pass	AV	2.4464G	94.53	Inf	-Inf	32.13	3	Vertical	183	1.94	-
2452MHz	Pass	AV	2.4835G	50.33	54.00	-3.67	32.28	3	Vertical	183	1.94	-
2452MHz	Pass	PK	2.3884G	58.50	74.00	-15.50	31.91	3	Vertical	183	1.94	-
2452MHz	Pass	PK	2.4484G	104.41	Inf	-Inf	32.15	3	Vertical	183	1.94	-
2452MHz	Pass	PK	2.4888G	63.13	74.00	-10.87	32.30	3	Vertical	183	1.94	-
2452MHz	Pass	AV	2.39G	47.67	54.00	-6.33	31.91	3	Horizontal	68	1.88	-
2452MHz	Pass	AV	2.4472G	97.78	Inf	-Inf	32.14	3	Horizontal	68	1.88	-
2452MHz	Pass	AV	2.4856G	53.22	54.00	-0.78	32.29	3	Horizontal	68	1.88	-
2452MHz	Pass	PK	2.3888G	61.23	74.00	-12.77	31.91	3	Horizontal	68	1.88	-
2452MHz	Pass	PK	2.448G	108.08	Inf	-Inf	32.14	3	Horizontal	68	1.88	-
2452MHz	Pass	PK	2.4872G	68.49	74.00	-5.51	32.29	3	Horizontal	68	1.88	-
2452MHz	Pass	AV	4.90424G	32.27	54.00	-21.73	3.71	3	Vertical	34	1.73	-
2452MHz	Pass	PK	4.90514G	45.25	74.00	-28.75	3.71	3	Vertical	34	1.73	-
2452MHz	Pass	AV	4.90382G	36.54	54.00	-17.46	3.71	3	Horizontal	91	2.16	-
2452MHz	Pass	PK	4.9037G	49.32	74.00	-24.68	3.71	3	Horizontal	91	2.16	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

30/05/2019

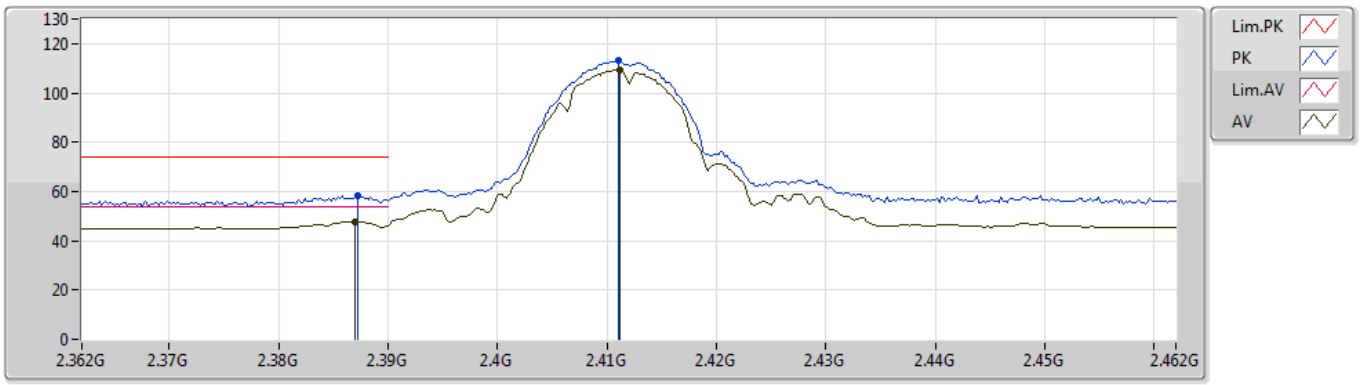


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3872G	51.17	54.00	-2.83	31.90	3	Vertical	120	2.00	-
AV	2.4112G	107.23	Inf	-Inf	31.99	3	Vertical	120	2.00	-
PK	2.387G	59.55	74.00	-14.45	31.89	3	Vertical	120	2.00	-
PK	2.413G	110.94	Inf	-Inf	32.01	3	Vertical	120	2.00	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

30/05/2019

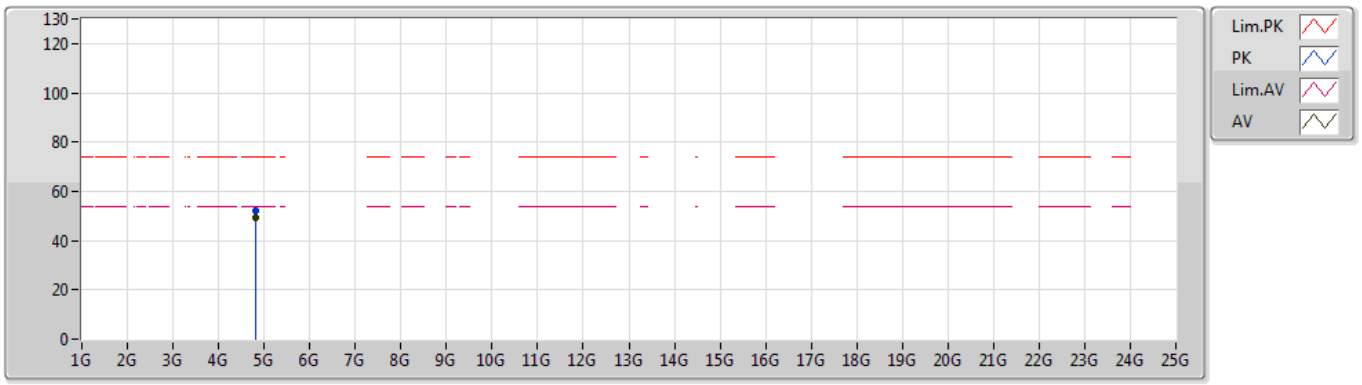


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.387G	47.85	54.00	-6.15	31.89	3	Horizontal	70	2.19	-
AV	2.4112G	109.24	Inf	-Inf	31.99	3	Horizontal	70	2.19	-
PK	2.3872G	58.29	74.00	-15.71	31.90	3	Horizontal	70	2.19	-
PK	2.411G	113.11	Inf	-Inf	31.99	3	Horizontal	70	2.19	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

30/05/2019

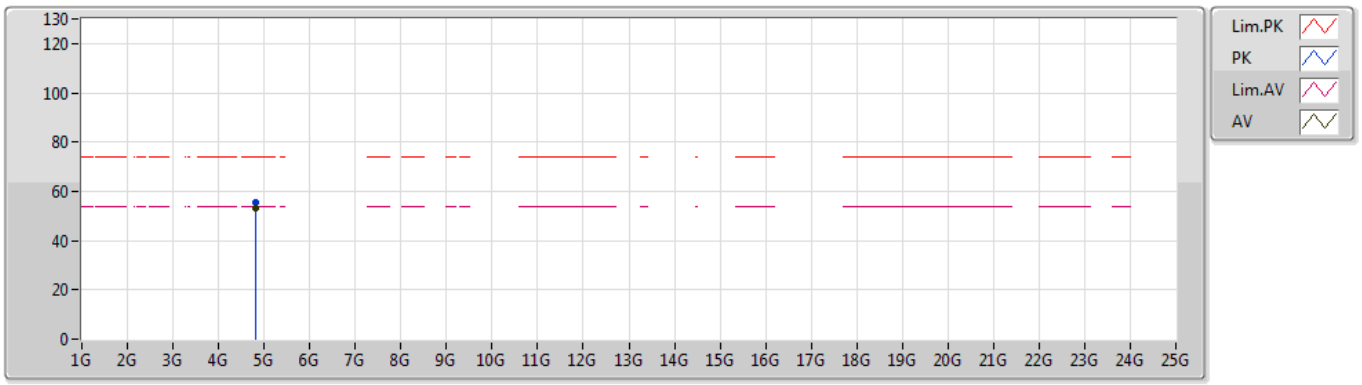


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82398G	49.06	54.00	-4.94	3.53	3	Vertical	344	1.77	-
PK	4.82398G	52.33	74.00	-21.67	3.53	3	Vertical	344	1.77	-

802.11b_Nss1,(1Mbps)_2TX

2412MHz_TX

30/05/2019

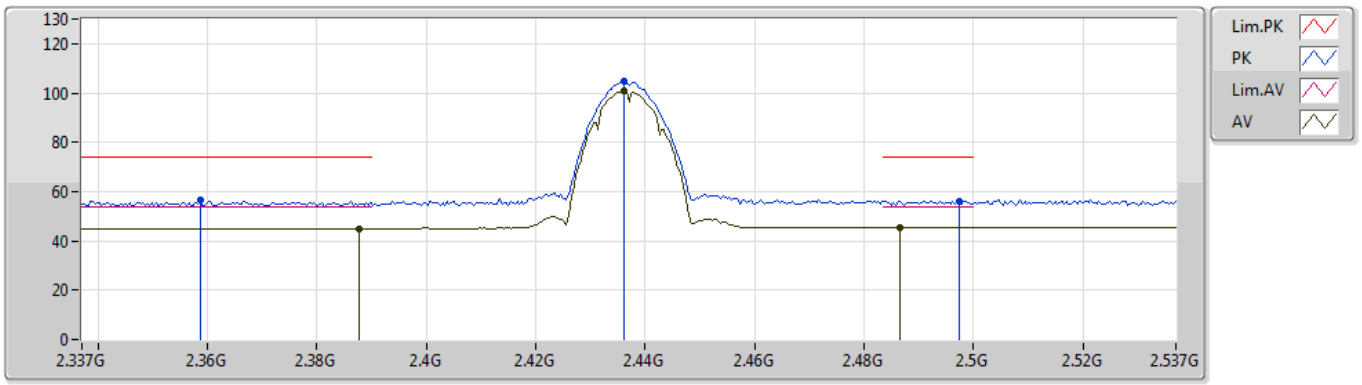


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82398G	53.20	54.00	-0.80	3.53	3	Horizontal	80	1.78	-
PK	4.82406G	55.41	74.00	-18.59	3.53	3	Horizontal	80	1.78	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

30/05/2019

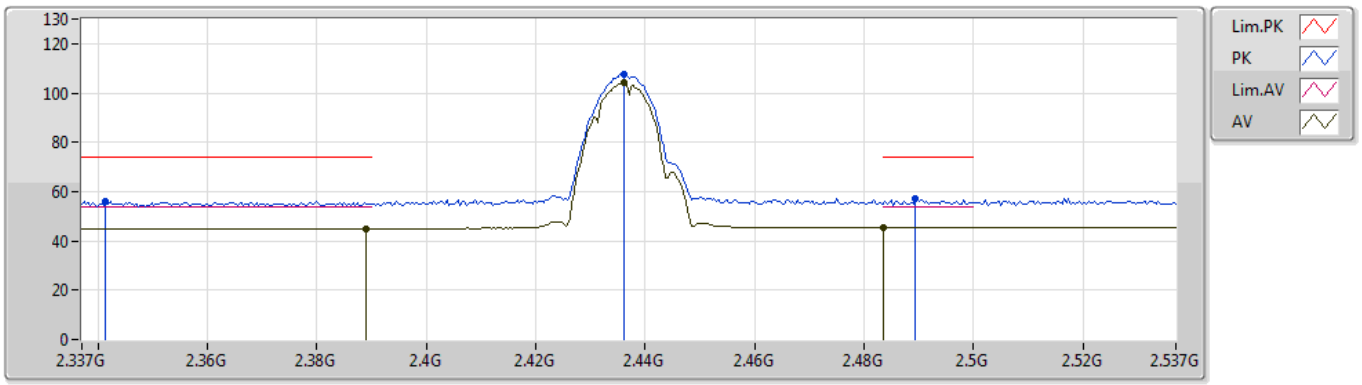


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3878G	44.92	54.00	-9.08	31.91	3	Vertical	183	1.77	-
AV	2.4362G	100.91	Inf	-Inf	32.09	3	Vertical	183	1.77	-
AV	2.4866G	45.42	54.00	-8.58	32.29	3	Vertical	183	1.77	-
PK	2.3586G	56.33	74.00	-17.67	31.78	3	Vertical	183	1.77	-
PK	2.4362G	104.69	Inf	-Inf	32.09	3	Vertical	183	1.77	-
PK	2.4974G	56.31	74.00	-17.69	32.33	3	Vertical	183	1.77	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

30/05/2019

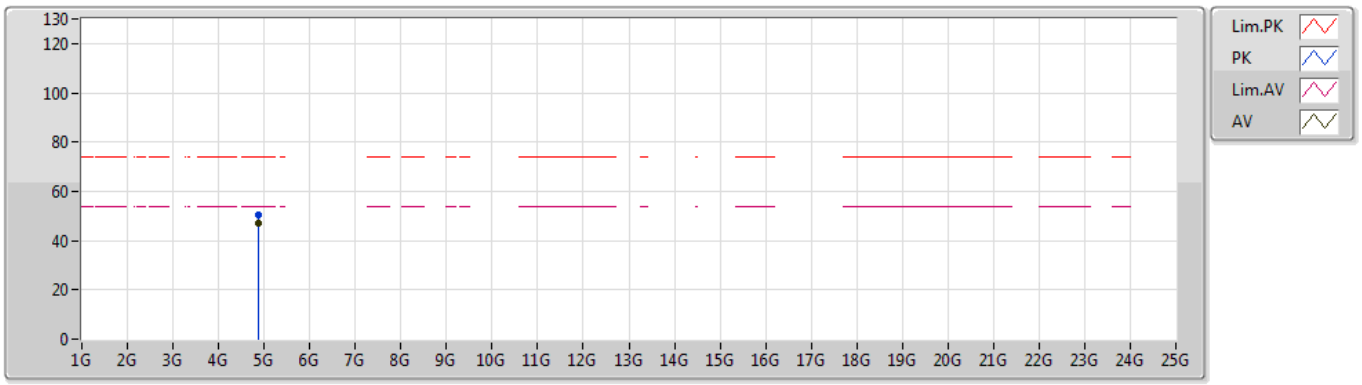


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.389G	44.92	54.00	-9.08	31.91	3	Horizontal	63	1.30	-
AV	2.4362G	104.08	Inf	-Inf	32.09	3	Horizontal	63	1.30	-
AV	2.4835G	45.44	54.00	-8.56	32.28	3	Horizontal	63	1.30	-
PK	2.3414G	56.01	74.00	-17.99	31.72	3	Horizontal	63	1.30	-
PK	2.4362G	107.79	Inf	-Inf	32.09	3	Horizontal	63	1.30	-
PK	2.4894G	56.98	74.00	-17.02	32.30	3	Horizontal	63	1.30	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

30/05/2019

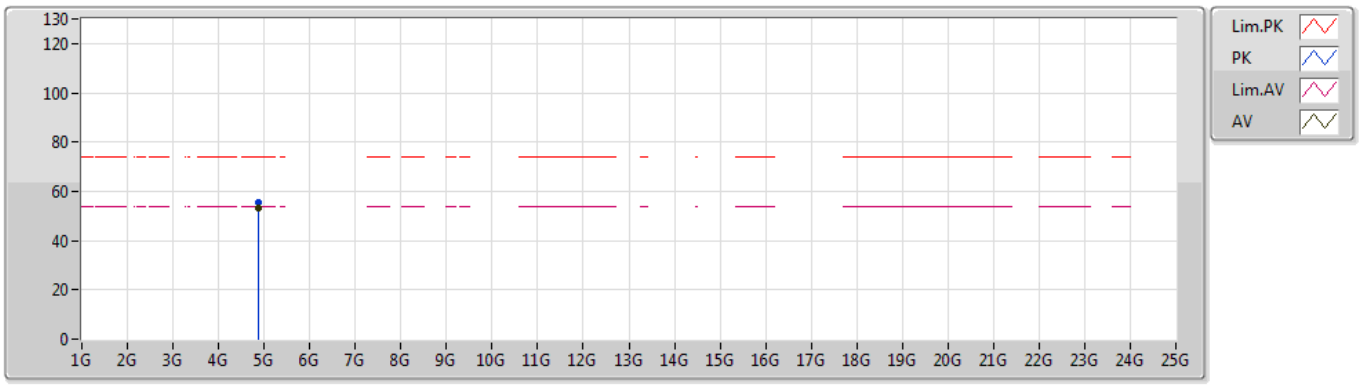


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.874G	47.16	54.00	-6.84	3.64	3	Vertical	360	2.64	-
PK	4.87388G	50.40	74.00	-23.60	3.64	3	Vertical	360	2.64	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

30/05/2019

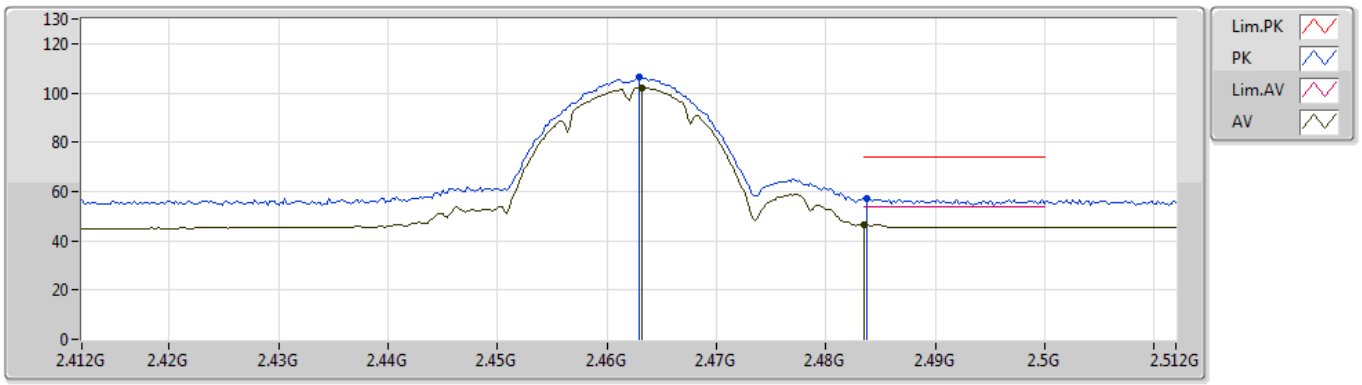


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.874G	53.21	54.00	-0.79	3.64	3	Horizontal	190	2.98	-
PK	4.874G	55.40	74.00	-18.60	3.64	3	Horizontal	190	2.98	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

30/05/2019

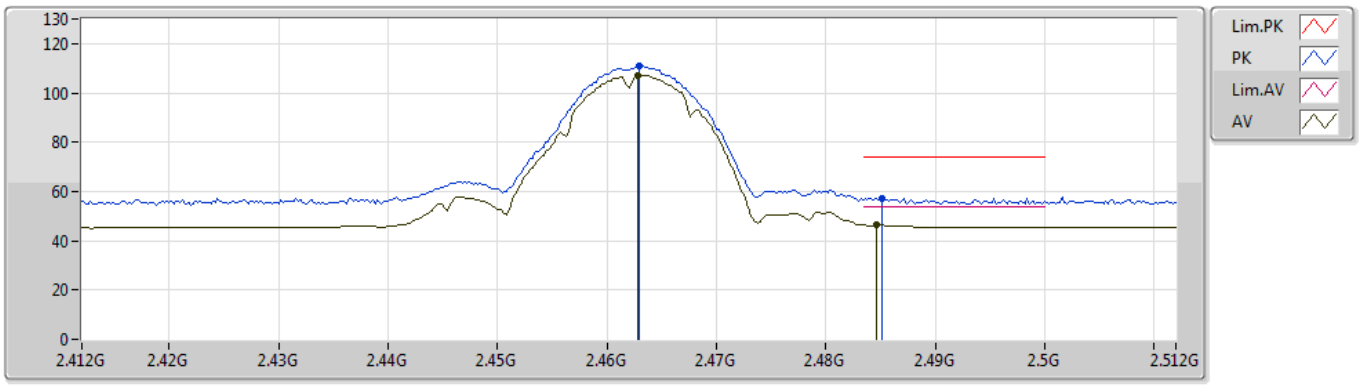


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4632G	102.16	Inf	-Inf	32.20	3	Vertical	176	1.74	-
AV	2.4835G	46.61	54.00	-7.39	32.28	3	Vertical	176	1.74	-
PK	2.463G	106.21	Inf	-Inf	32.20	3	Vertical	176	1.74	-
PK	2.4838G	56.92	74.00	-17.08	32.28	3	Vertical	176	1.74	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

30/05/2019

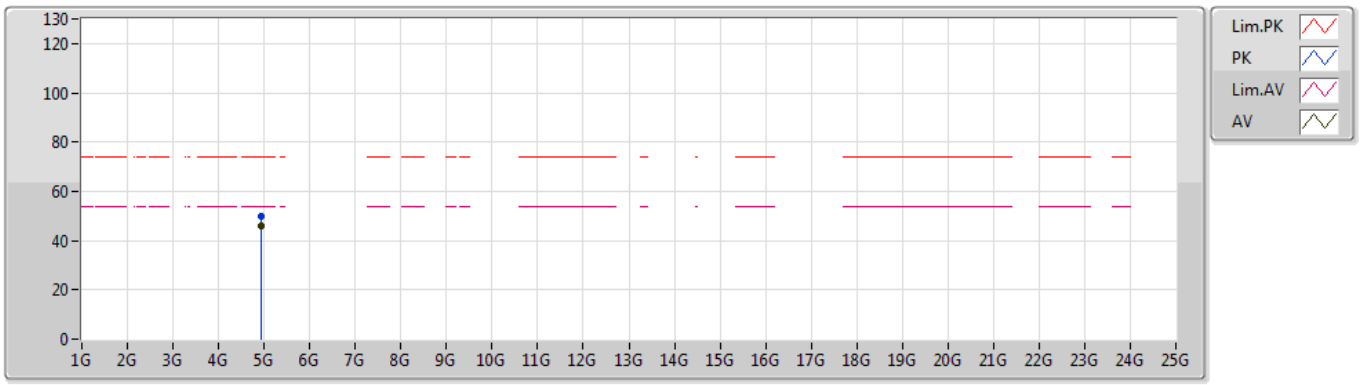


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4628G	107.24	Inf	-Inf	32.20	3	Horizontal	281	1.06	-
AV	2.4846G	46.49	54.00	-7.51	32.29	3	Horizontal	281	1.06	-
PK	2.463G	111.19	Inf	-Inf	32.20	3	Horizontal	281	1.06	-
PK	2.4852G	57.41	74.00	-16.59	32.29	3	Horizontal	281	1.06	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

30/05/2019

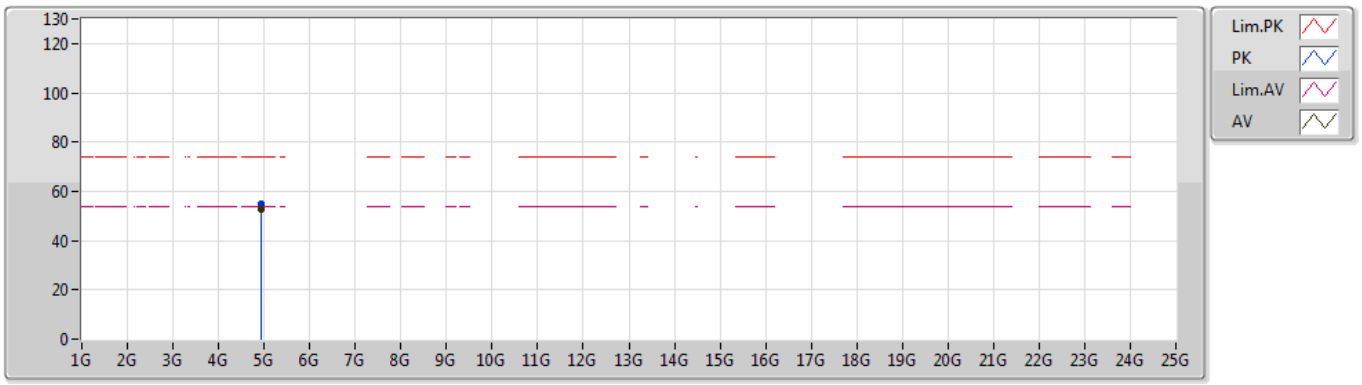


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.924G	46.14	54.00	-7.86	3.75	3	Vertical	34	1.79	-
PK	4.92396G	49.88	74.00	-24.12	3.75	3	Vertical	34	1.79	-

802.11b_Nss1,(1Mbps)_2TX

2462MHz_TX

30/05/2019

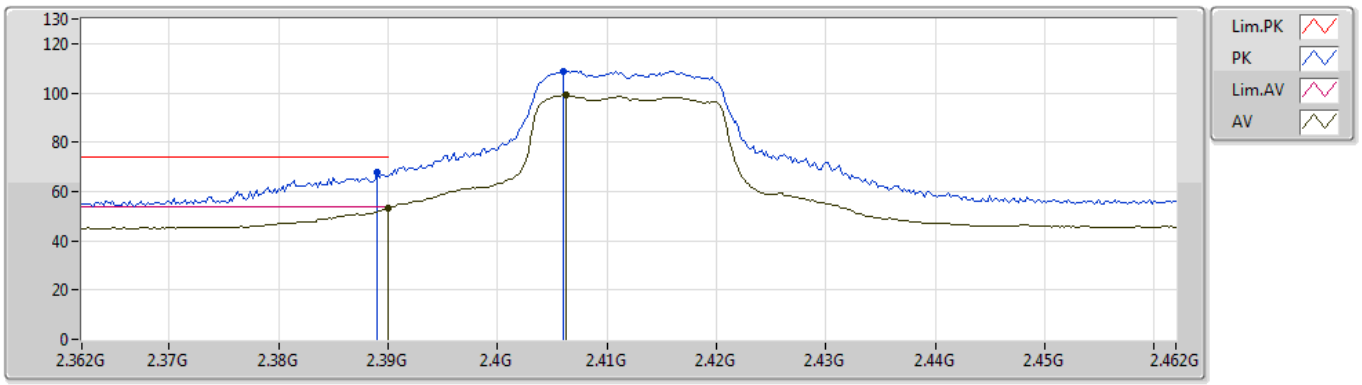


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.924G	52.77	54.00	-1.23	3.75	3	Horizontal	92	2.03	-
PK	4.92404G	54.85	74.00	-19.15	3.75	3	Horizontal	92	2.03	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

30/05/2019

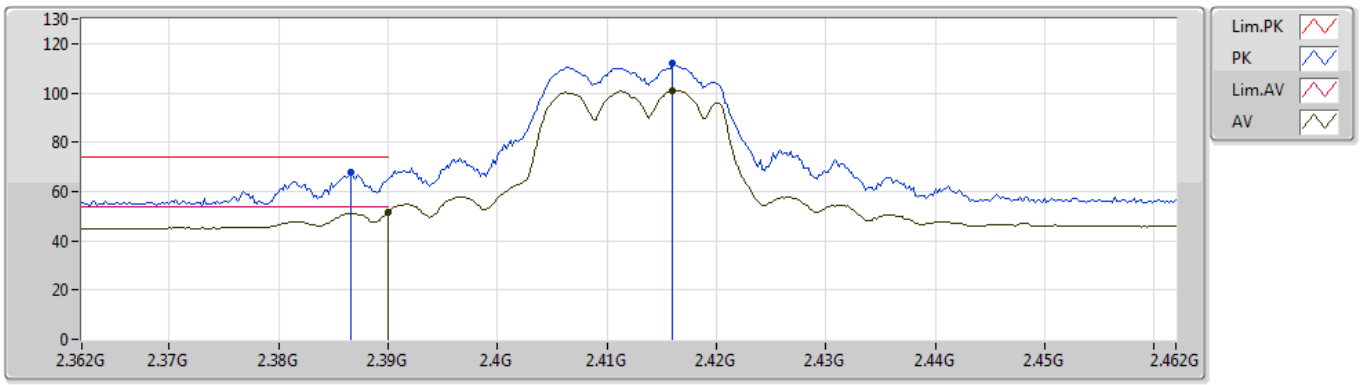


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	53.05	54.00	-0.95	31.91	3	Vertical	109	2.06	-
AV	2.4062G	99.11	Inf	-Inf	31.98	3	Vertical	109	2.06	-
PK	2.389G	67.93	74.00	-6.07	31.91	3	Vertical	109	2.06	-
PK	2.406G	108.97	Inf	-Inf	31.98	3	Vertical	109	2.06	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

30/05/2019

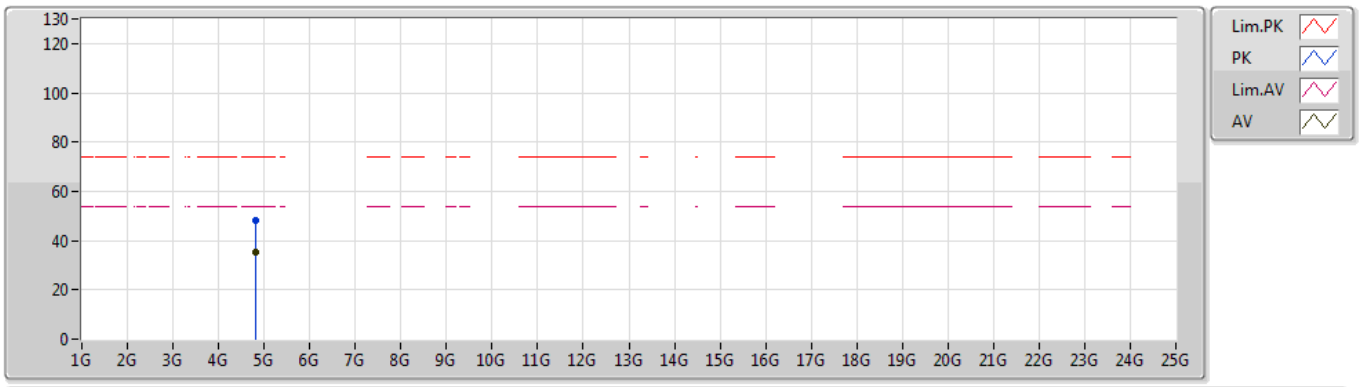


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	51.83	54.00	-2.17	31.91	3	Horizontal	54	1.94	-
AV	2.416G	100.93	Inf	-Inf	32.01	3	Horizontal	54	1.94	-
PK	2.3866G	68.07	74.00	-5.93	31.89	3	Horizontal	54	1.94	-
PK	2.416G	111.81	Inf	-Inf	32.01	3	Horizontal	54	1.94	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

30/05/2019

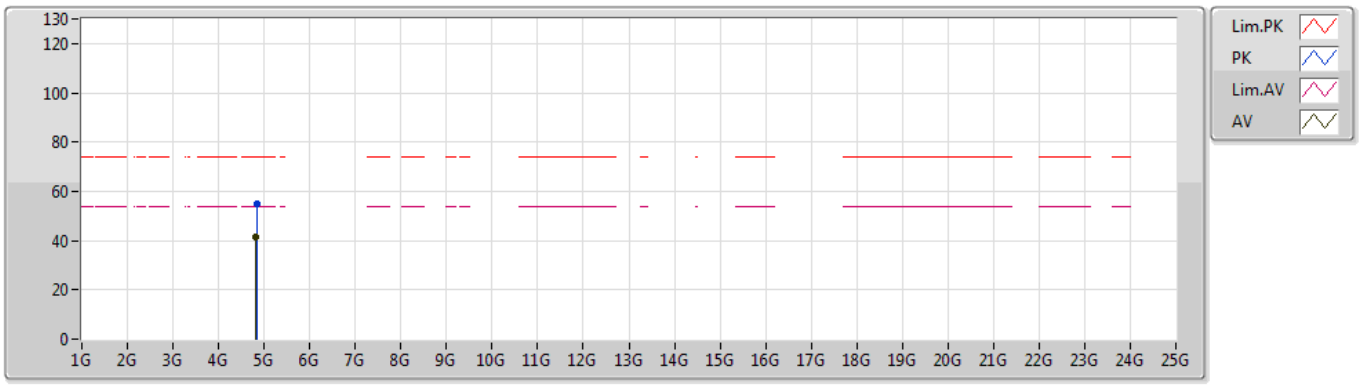


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82514G	35.43	54.00	-18.57	3.53	3	Vertical	0	2.56	-
PK	4.81974G	47.93	74.00	-26.07	3.52	3	Vertical	0	2.56	-

802.11g_Nss1,(6Mbps)_2TX

2412MHz_TX

30/05/2019

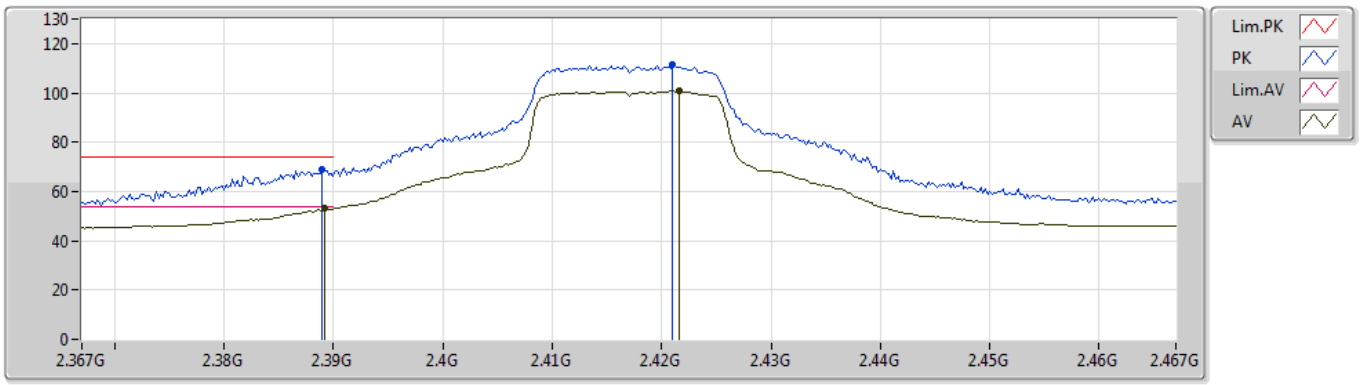


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82472G	41.59	54.00	-12.41	3.53	3	Horizontal	90	1.97	-
PK	4.82946G	54.93	74.00	-19.07	3.54	3	Horizontal	90	1.97	-

802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX

29/05/2019

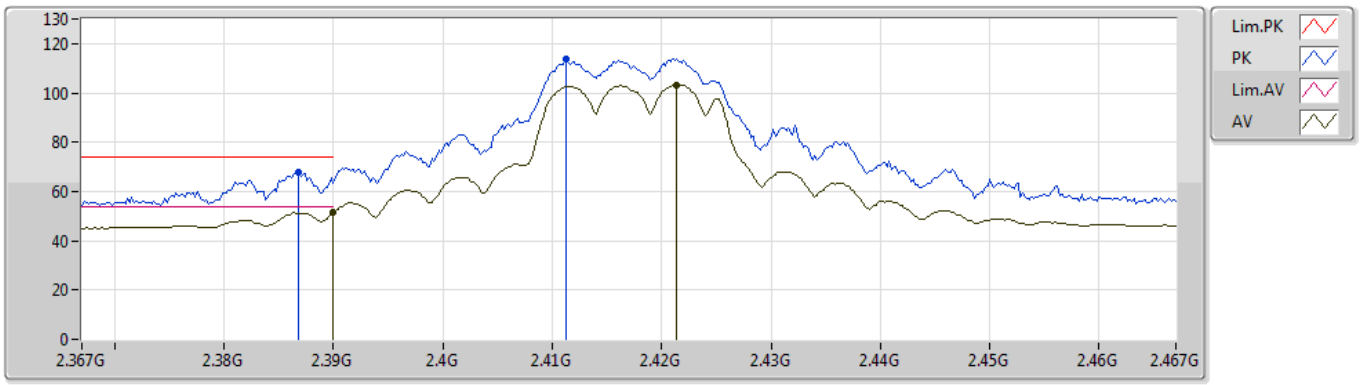


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3892G	53.03	54.00	-0.97	31.91	3	Vertical	122	2.00	-
AV	2.4216G	100.75	Inf	-Inf	32.04	3	Vertical	122	2.00	-
PK	2.389G	68.87	74.00	-5.13	31.91	3	Vertical	122	2.00	-
PK	2.421G	111.34	Inf	-Inf	32.03	3	Vertical	122	2.00	-

802.11g_Nss1,(6Mbps)_2TX

2417MHz_TX

29/05/2019

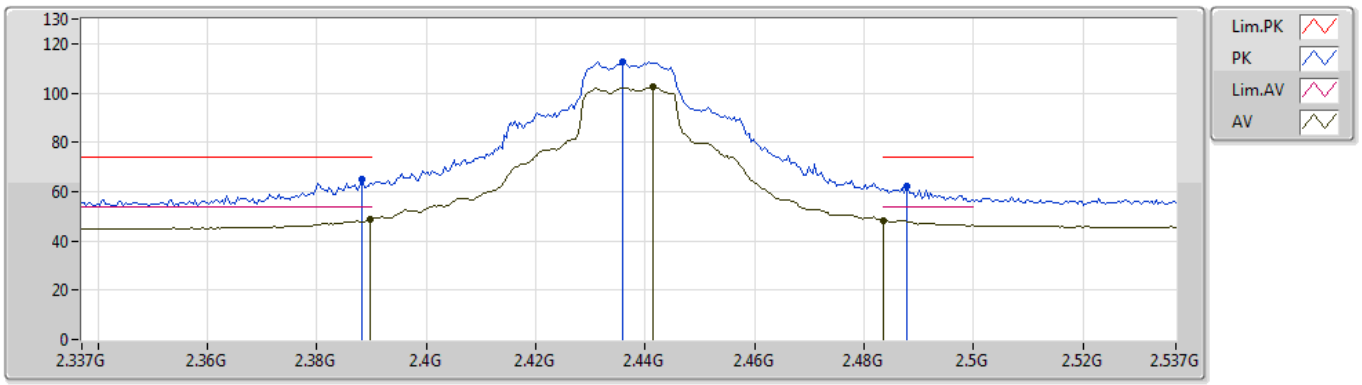


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	51.46	54.00	-2.54	31.91	3	Horizontal	66	2.10	-
AV	2.4214G	103.30	Inf	-Inf	32.04	3	Horizontal	66	2.10	-
PK	2.3868G	67.88	74.00	-6.12	31.89	3	Horizontal	66	2.10	-
PK	2.4112G	113.77	Inf	-Inf	31.99	3	Horizontal	66	2.10	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

30/05/2019

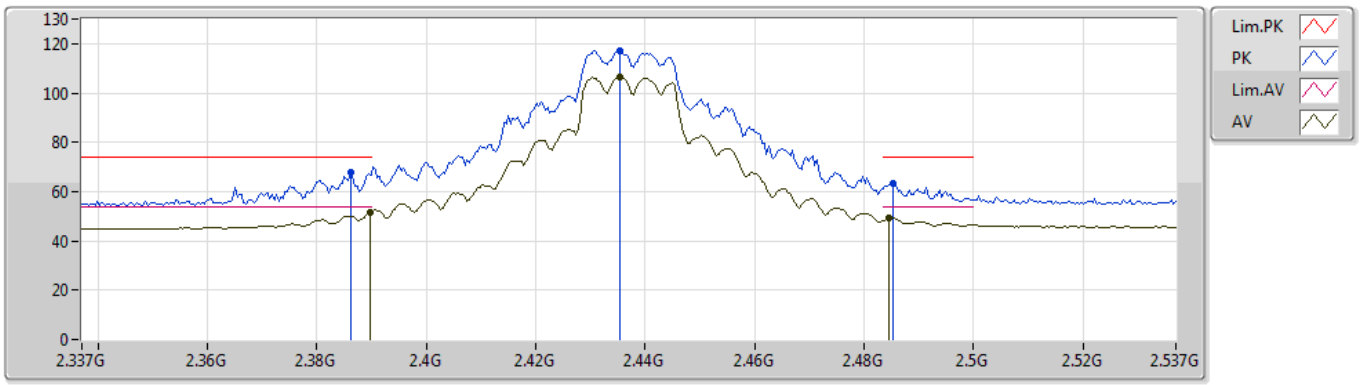


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	48.88	54.00	-5.12	31.91	3	Vertical	182	1.59	-
AV	2.4414G	102.36	Inf	-Inf	32.12	3	Vertical	182	1.59	-
AV	2.4835G	48.44	54.00	-5.56	32.28	3	Vertical	182	1.59	-
PK	2.3882G	65.04	74.00	-8.96	31.91	3	Vertical	182	1.59	-
PK	2.4358G	112.72	Inf	-Inf	32.09	3	Vertical	182	1.59	-
PK	2.4878G	62.14	74.00	-11.86	32.30	3	Vertical	182	1.59	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

30/05/2019

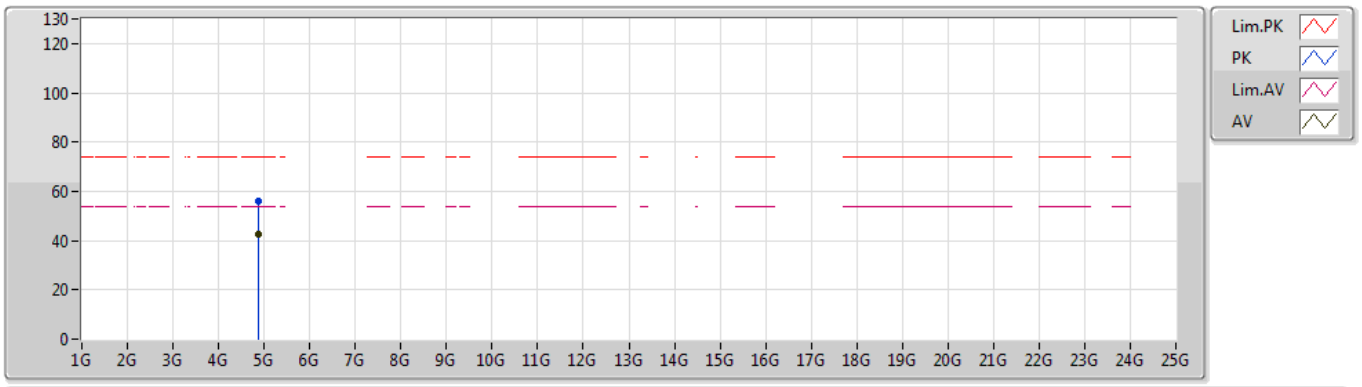


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	51.73	54.00	-2.27	31.91	3	Horizontal	300	1.49	-
AV	2.4354G	106.51	Inf	-Inf	32.09	3	Horizontal	300	1.49	-
AV	2.4846G	49.29	54.00	-4.71	32.29	3	Horizontal	300	1.49	-
PK	2.3862G	68.03	74.00	-5.97	31.89	3	Horizontal	300	1.49	-
PK	2.4354G	117.04	Inf	-Inf	32.09	3	Horizontal	300	1.49	-
PK	2.4854G	63.48	74.00	-10.52	32.29	3	Horizontal	300	1.49	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

30/05/2019

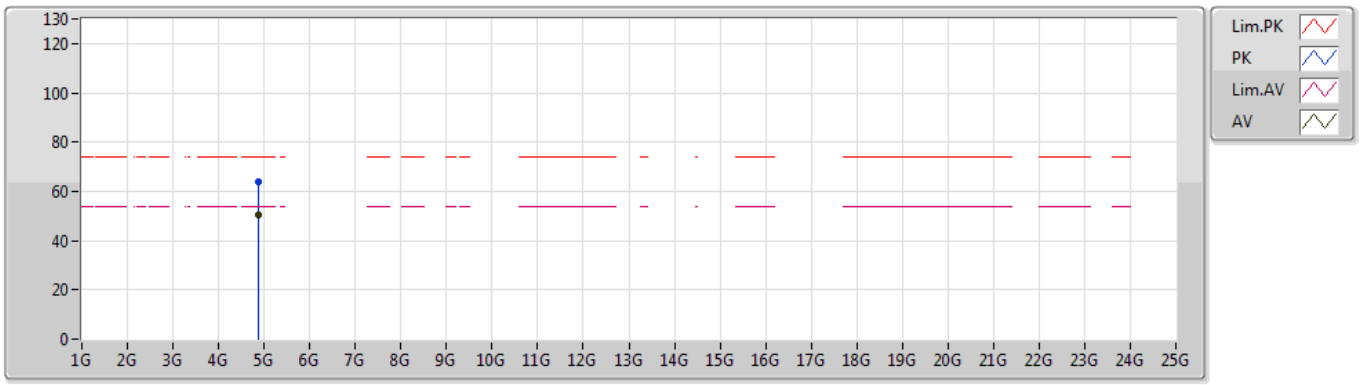


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87172G	42.84	54.00	-11.16	3.63	3	Vertical	0	2.67	-
PK	4.87166G	56.28	74.00	-17.72	3.63	3	Vertical	0	2.67	-

802.11g_Nss1,(6Mbps)_2TX

2437MHz_TX

30/05/2019

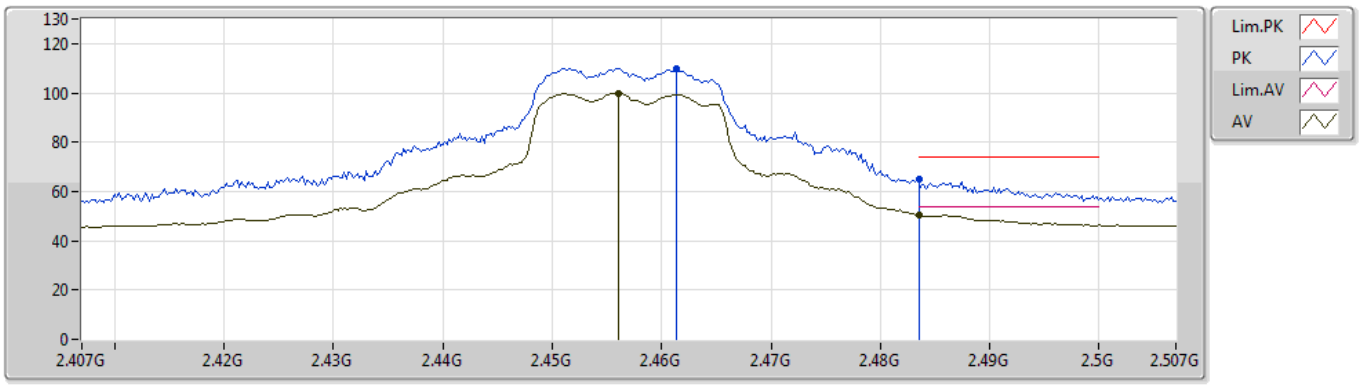


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87166G	50.22	54.00	-3.78	3.63	3	Horizontal	96	2.29	-
PK	4.86776G	63.84	74.00	-10.16	3.62	3	Horizontal	96	2.29	-

802.11g_Nss1,(6Mbps)_2TX

2457MHz_TX

30/05/2019

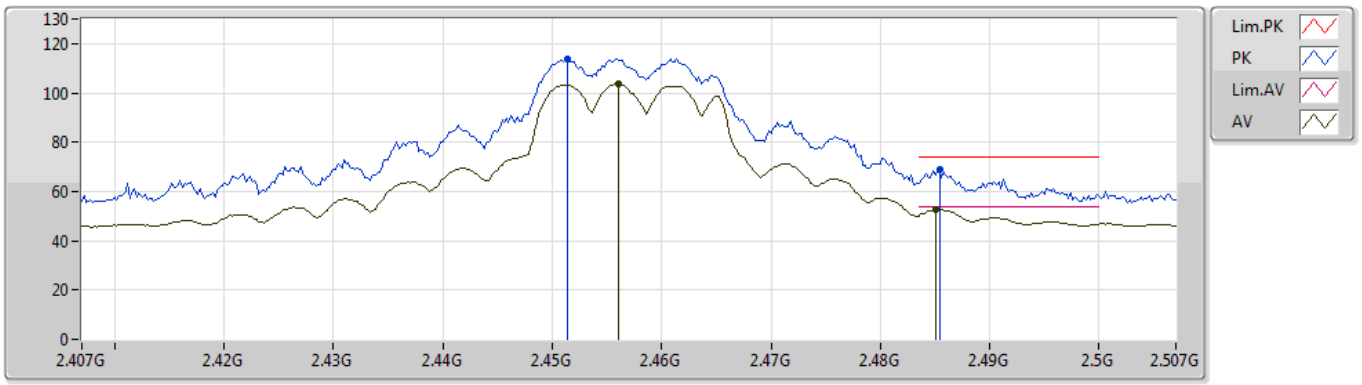


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.456G	99.91	Inf	-Inf	32.18	3	Vertical	182	1.87	-
AV	2.4835G	50.41	54.00	-3.59	32.28	3	Vertical	182	1.87	-
PK	2.4614G	110.08	Inf	-Inf	32.19	3	Vertical	182	1.87	-
PK	2.4835G	64.91	74.00	-9.09	32.28	3	Vertical	182	1.87	-

802.11g_Nss1,(6Mbps)_2TX

2457MHz_TX

30/05/2019

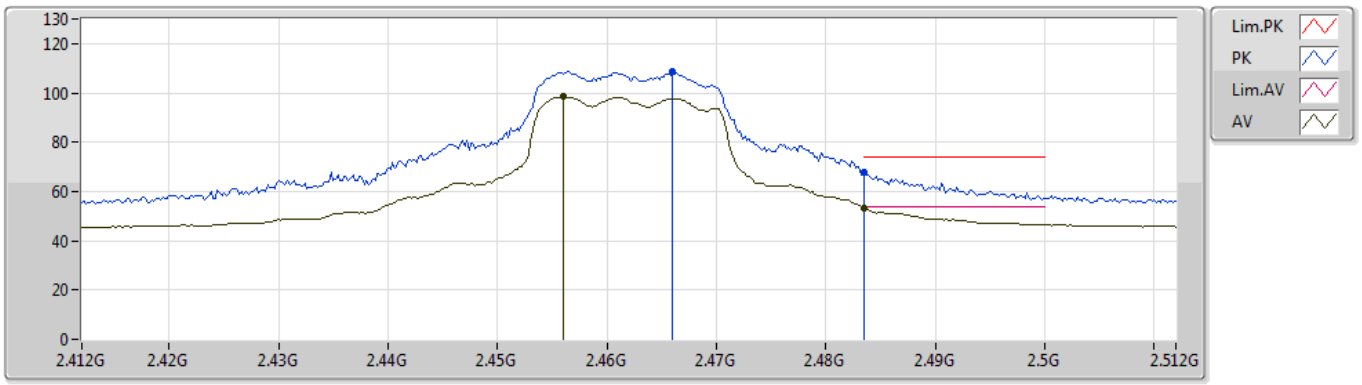


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.456G	103.71	Inf	-Inf	32.18	3	Horizontal	67	2.09	-
AV	2.485G	52.84	54.00	-1.16	32.29	3	Horizontal	67	2.09	-
PK	2.4514G	113.78	Inf	-Inf	32.15	3	Horizontal	67	2.09	-
PK	2.4854G	69.04	74.00	-4.96	32.29	3	Horizontal	67	2.09	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

30/05/2019

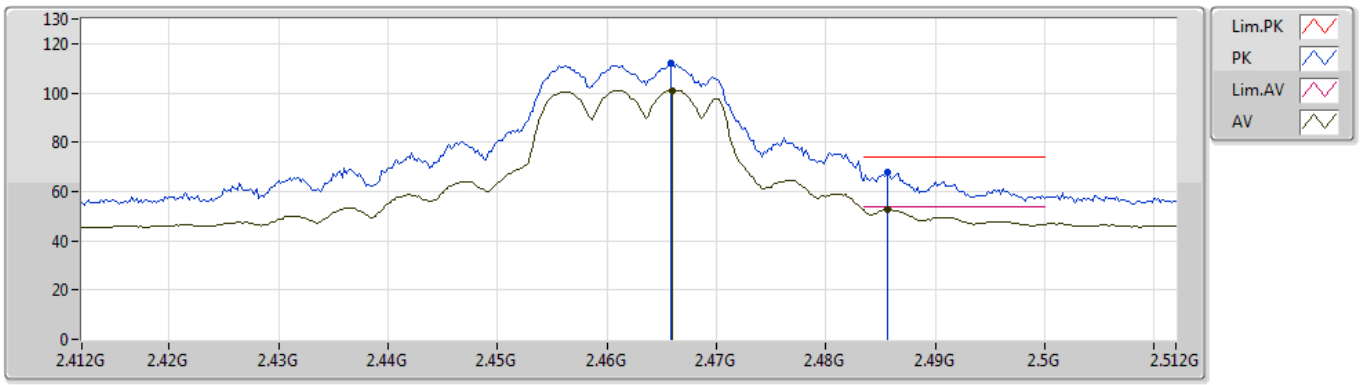


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.456G	98.50	Inf	-Inf	32.18	3	Vertical	179	1.87	-
AV	2.4835G	53.11	54.00	-0.89	32.28	3	Vertical	179	1.87	-
PK	2.466G	108.47	Inf	-Inf	32.21	3	Vertical	179	1.87	-
PK	2.4835G	67.66	74.00	-6.34	32.28	3	Vertical	179	1.87	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

30/05/2019

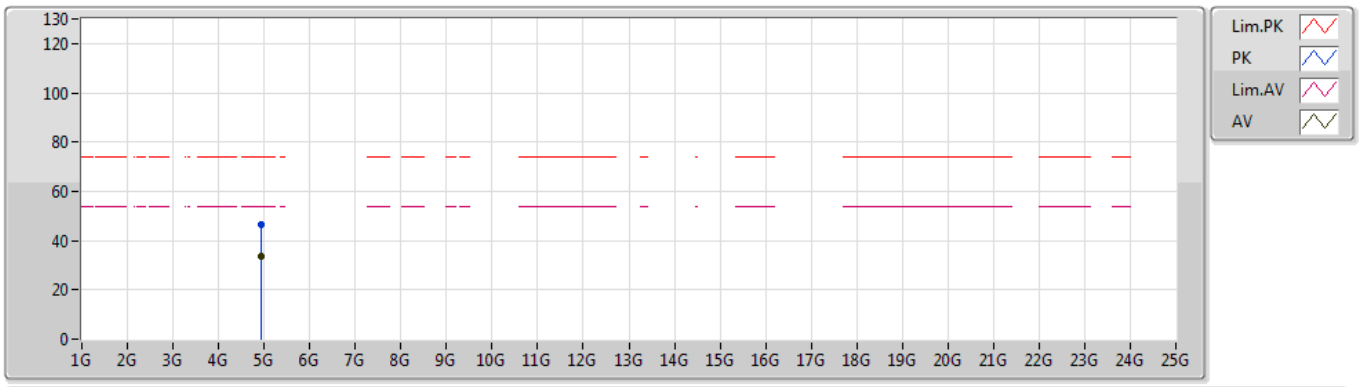


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.466G	101.09	Inf	-Inf	32.21	3	Horizontal	45	2.02	-
AV	2.4856G	52.68	54.00	-1.32	32.29	3	Horizontal	45	2.02	-
PK	2.4658G	111.82	Inf	-Inf	32.21	3	Horizontal	45	2.02	-
PK	2.4856G	67.78	74.00	-6.22	32.29	3	Horizontal	45	2.02	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

30/05/2019

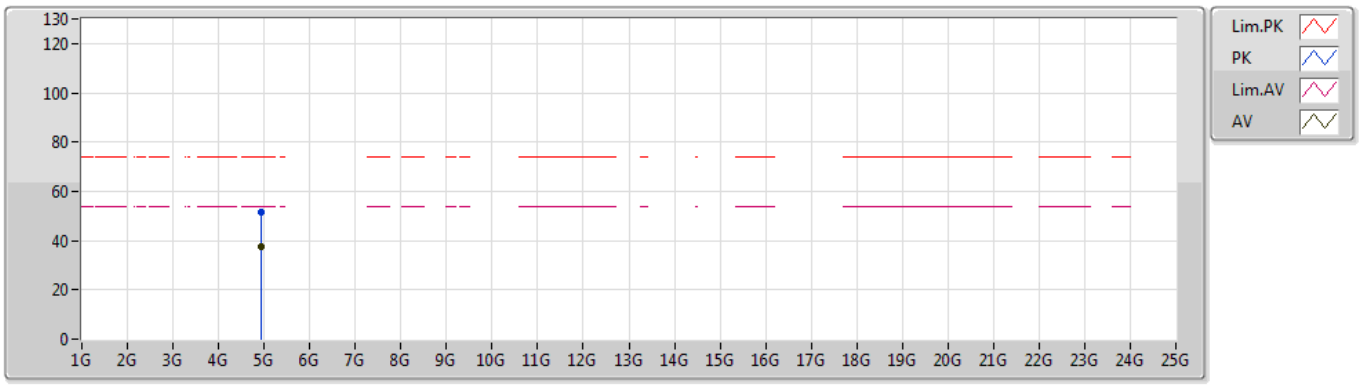


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.92424G	33.65	54.00	-20.35	3.75	3	Vertical	37	1.95	-
PK	4.92268G	46.33	74.00	-27.67	3.75	3	Vertical	37	1.95	-

802.11g_Nss1,(6Mbps)_2TX

2462MHz_TX

30/05/2019

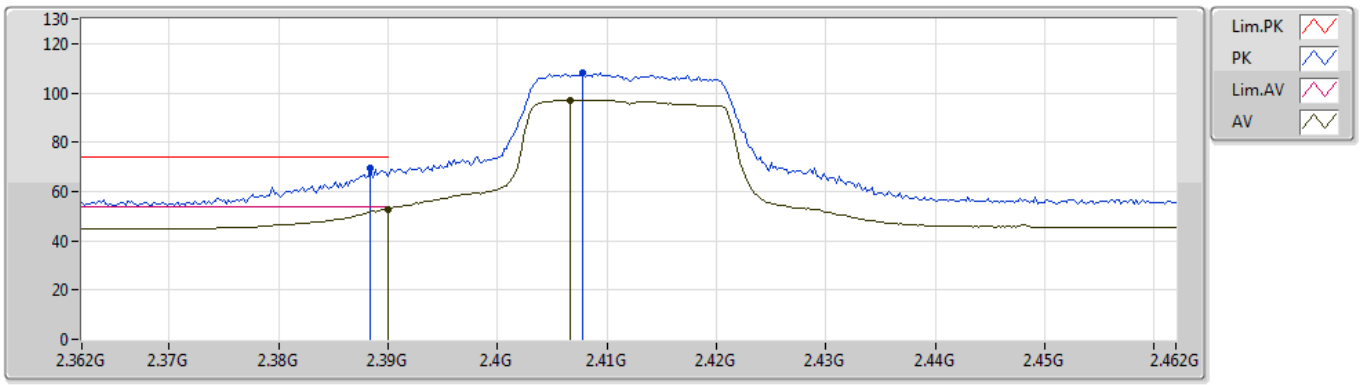


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.9219G	37.76	54.00	-16.24	3.75	3	Horizontal	196	2.94	-
PK	4.92058G	51.30	74.00	-22.70	3.74	3	Horizontal	196	2.94	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

30/05/2019

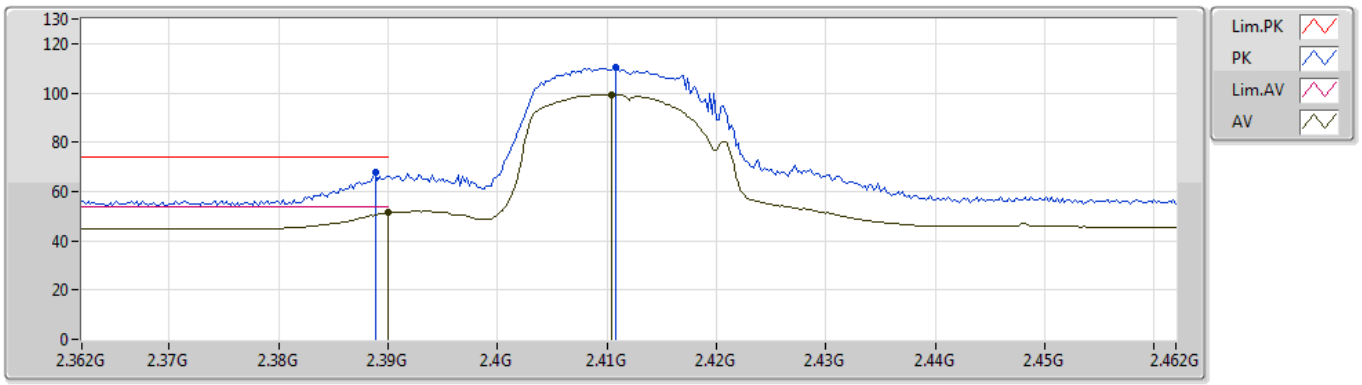


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	52.89	54.00	-1.11	31.91	3	Vertical	109	2.02	-
AV	2.4066G	97.09	Inf	-Inf	31.98	3	Vertical	109	2.02	-
PK	2.3884G	69.38	74.00	-4.62	31.91	3	Vertical	109	2.02	-
PK	2.4078G	108.33	Inf	-Inf	31.98	3	Vertical	109	2.02	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

30/05/2019

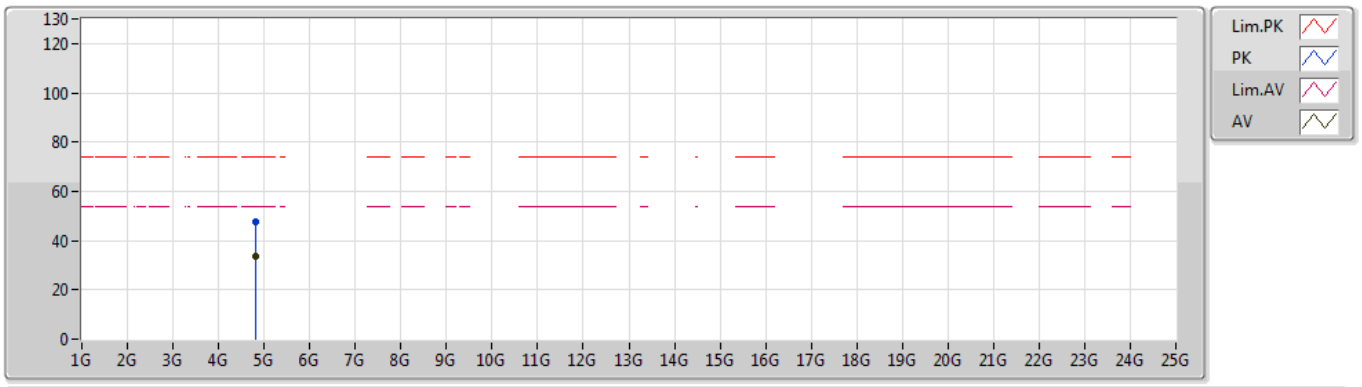


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	51.33	54.00	-2.67	31.91	3	Horizontal	70	2.19	-
AV	2.4104G	99.45	Inf	-Inf	31.99	3	Horizontal	70	2.19	-
PK	2.3888G	67.73	74.00	-6.27	31.91	3	Horizontal	70	2.19	-
PK	2.4108G	110.51	Inf	-Inf	31.99	3	Horizontal	70	2.19	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

30/05/2019

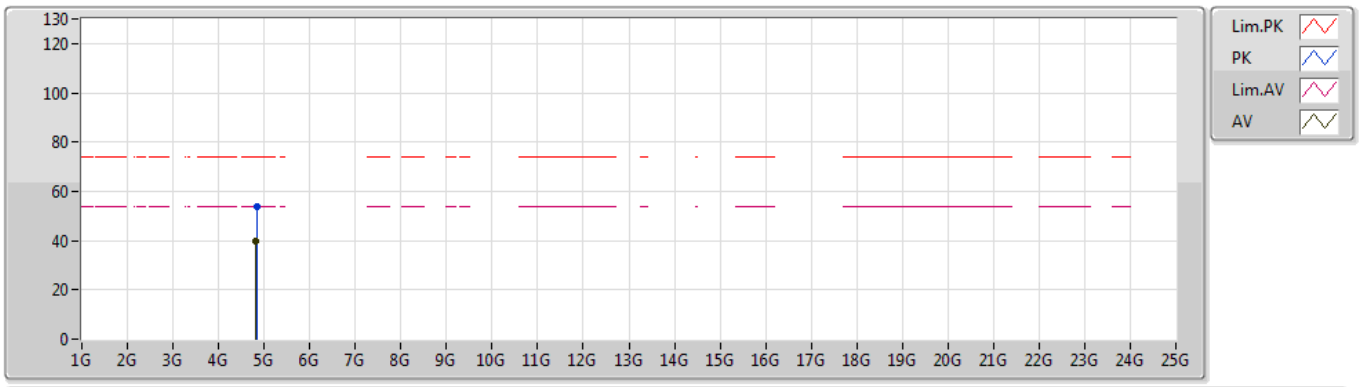


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82718G	33.46	54.00	-20.54	3.53	3	Vertical	28	1.77	-
PK	4.827G	47.57	74.00	-26.43	3.53	3	Vertical	28	1.77	-

802.11n HT20_Nss1,(MCS0)_2TX

2412MHz_TX

30/05/2019

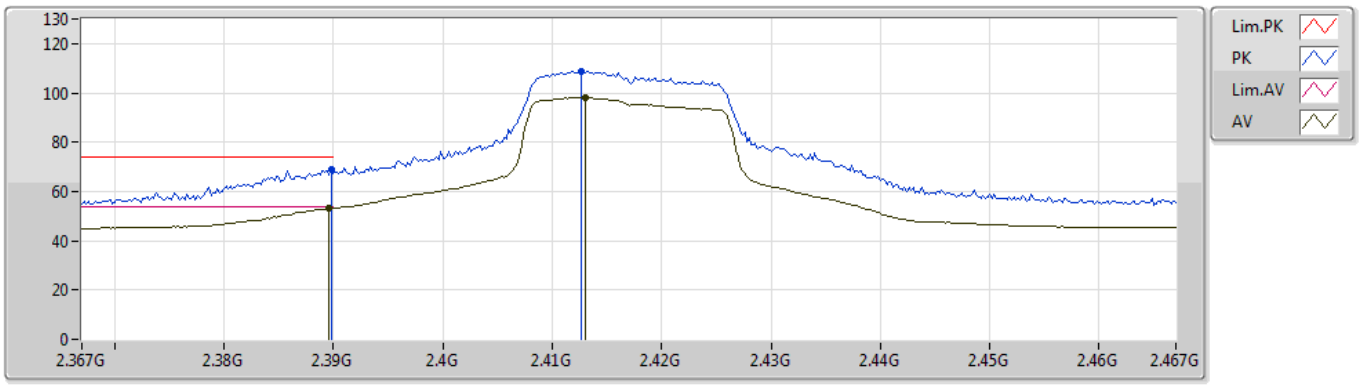


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.82718G	39.88	54.00	-14.12	3.53	3	Horizontal	83	1.97	-
PK	4.83036G	53.52	74.00	-20.48	3.54	3	Horizontal	83	1.97	-

802.11n HT20_Nss1,(MCS0)_2TX

2417MHz_TX

29/05/2019

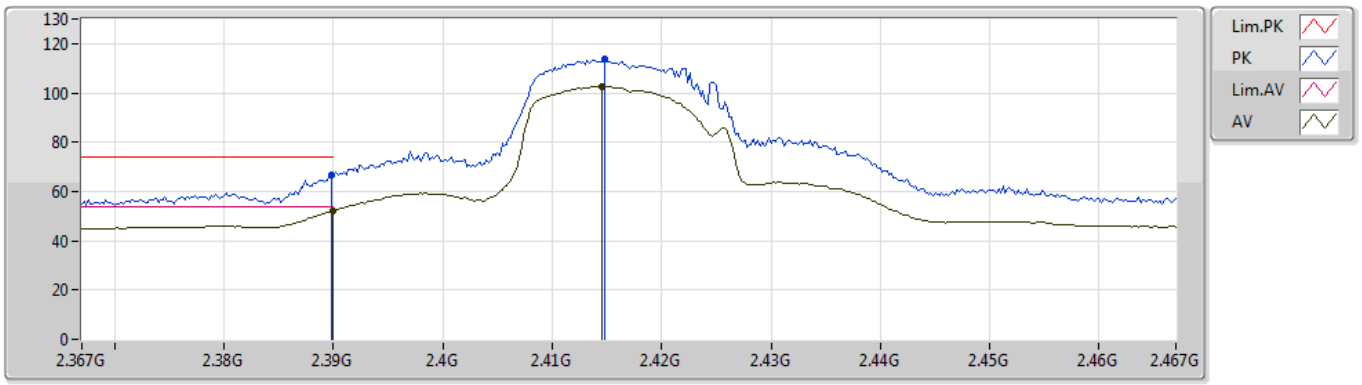


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3896G	53.17	54.00	-0.83	31.91	3	Vertical	359	1.22	-
AV	2.413G	98.20	Inf	-Inf	32.01	3	Vertical	359	1.22	-
PK	2.3898G	69.12	74.00	-4.88	31.91	3	Vertical	359	1.22	-
PK	2.4126G	108.81	Inf	-Inf	32.00	3	Vertical	359	1.22	-

802.11n HT20_Nss1,(MCS0)_2TX

2417MHz_TX

29/05/2019

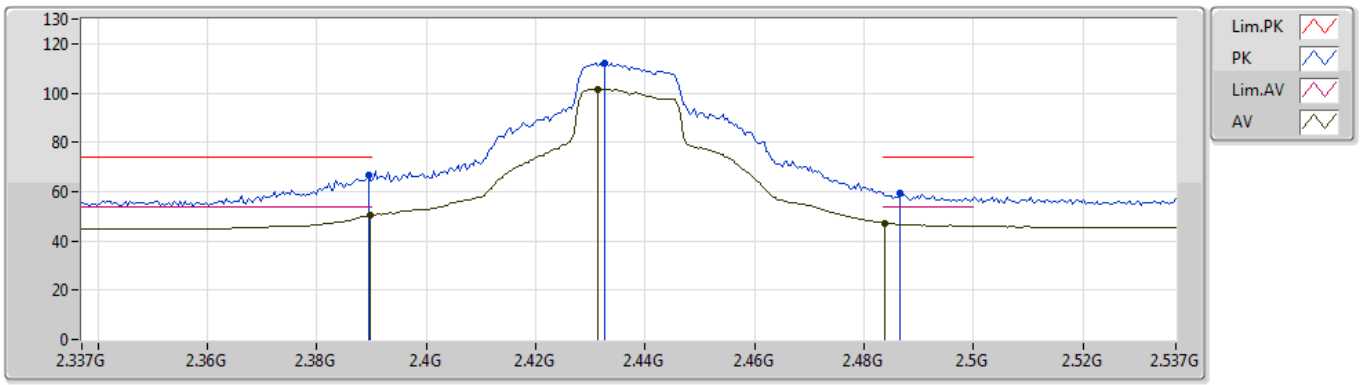


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	52.26	54.00	-1.74	31.91	3	Horizontal	64	2.12	-
AV	2.4146G	102.62	Inf	-Inf	32.01	3	Horizontal	64	2.12	-
PK	2.3898G	66.95	74.00	-7.05	31.91	3	Horizontal	64	2.12	-
PK	2.4148G	113.83	Inf	-Inf	32.01	3	Horizontal	64	2.12	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

30/05/2019

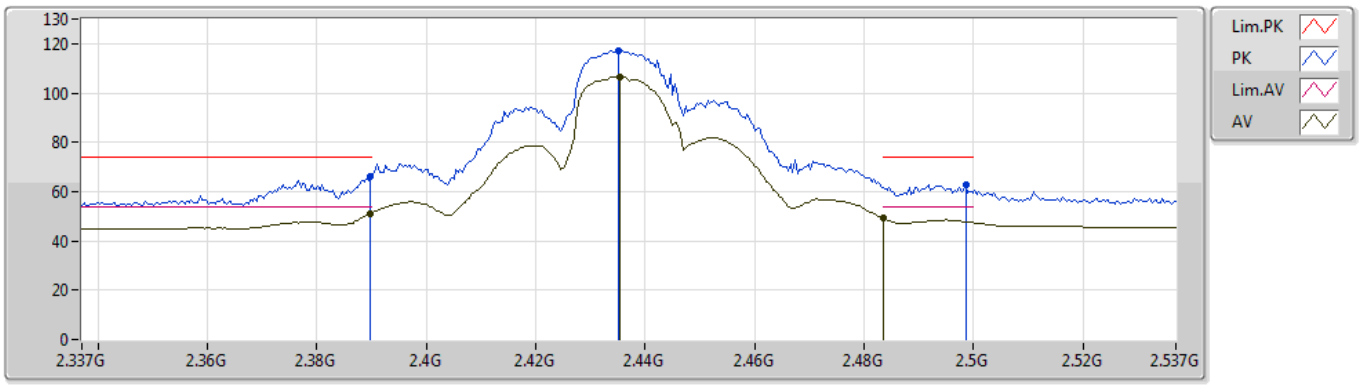


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	50.31	54.00	-3.69	31.91	3	Vertical	92	1.56	-
AV	2.4314G	101.60	Inf	-Inf	32.08	3	Vertical	92	1.56	-
AV	2.4838G	47.17	54.00	-6.83	32.28	3	Vertical	92	1.56	-
PK	2.3894G	66.48	74.00	-7.52	31.91	3	Vertical	92	1.56	-
PK	2.4326G	112.34	Inf	-Inf	32.08	3	Vertical	92	1.56	-
PK	2.4866G	59.22	74.00	-14.78	32.29	3	Vertical	92	1.56	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

30/05/2019

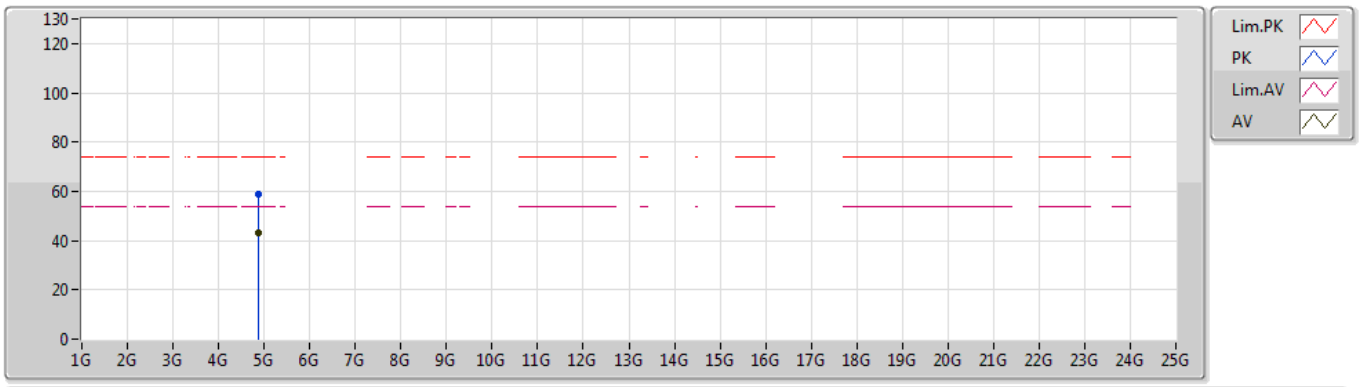


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	51.23	54.00	-2.77	31.91	3	Horizontal	63	1.89	-
AV	2.4354G	106.46	Inf	-Inf	32.09	3	Horizontal	63	1.89	-
AV	2.4835G	49.27	54.00	-4.73	32.28	3	Horizontal	63	1.89	-
PK	2.3898G	66.38	74.00	-7.62	31.91	3	Horizontal	63	1.89	-
PK	2.435G	117.21	Inf	-Inf	32.09	3	Horizontal	63	1.89	-
PK	2.4986G	62.52	74.00	-11.48	32.35	3	Horizontal	63	1.89	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

30/05/2019

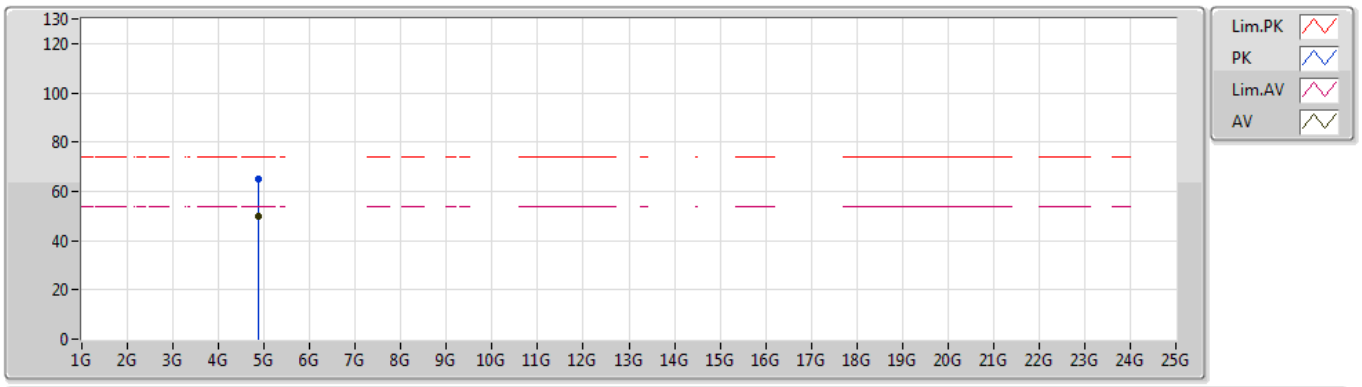


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.8691G	43.38	54.00	-10.62	3.63	3	Vertical	36	1.98	-
PK	4.8687G	59.05	74.00	-14.95	3.62	3	Vertical	36	1.98	-

802.11n HT20_Nss1,(MCS0)_2TX

2437MHz_TX

30/05/2019

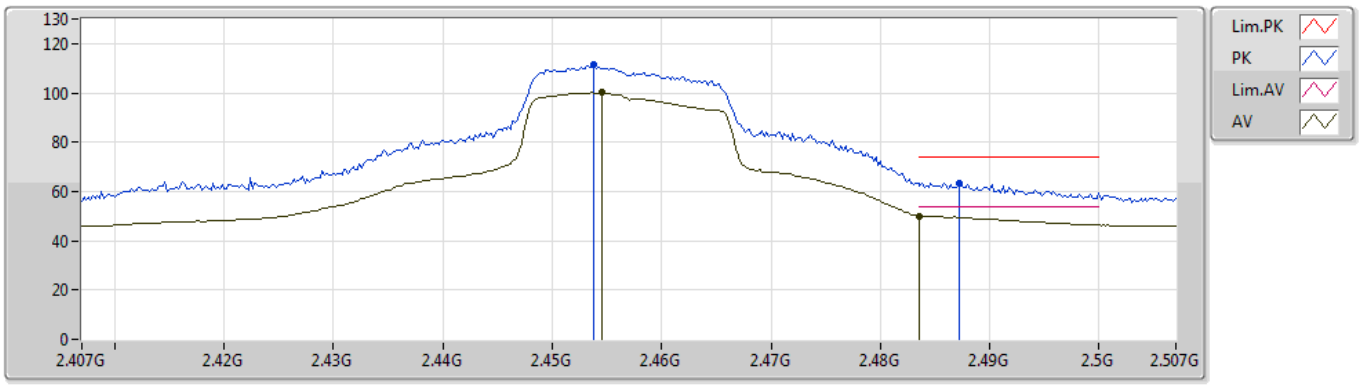


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.869G	50.15	54.00	-3.85	3.63	3	Horizontal	96	2.73	-
PK	4.8685G	64.77	74.00	-9.23	3.62	3	Horizontal	96	2.73	-

802.11n HT20_Nss1,(MCS0)_2TX

2457MHz_TX

29/05/2019

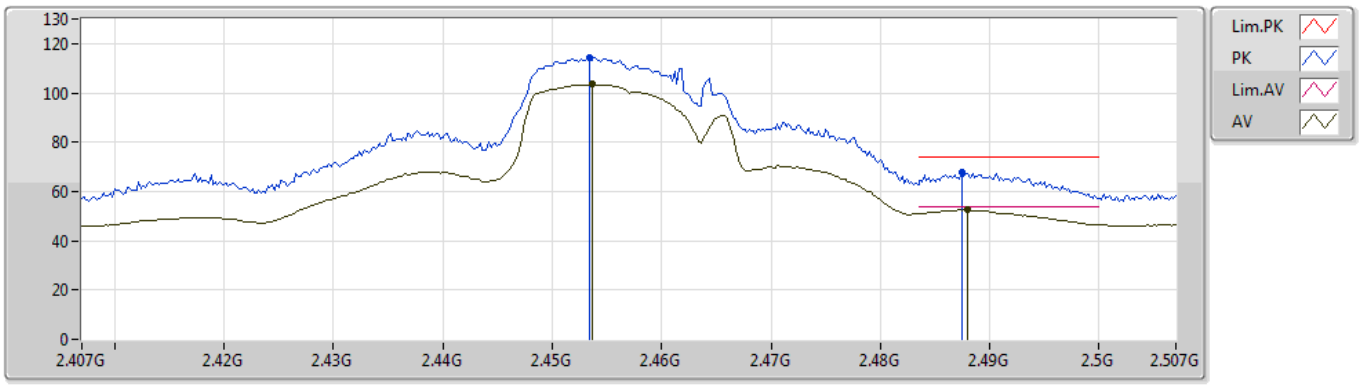


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4546G	100.06	Inf	-Inf	32.16	3	Vertical	183	1.86	-
AV	2.4835G	50.11	54.00	-3.89	32.28	3	Vertical	183	1.86	-
PK	2.4538G	111.39	Inf	-Inf	32.16	3	Vertical	183	1.86	-
PK	2.4872G	63.45	74.00	-10.55	32.29	3	Vertical	183	1.86	-

802.11n HT20_Nss1,(MCS0)_2TX

2457MHz_TX

29/05/2019

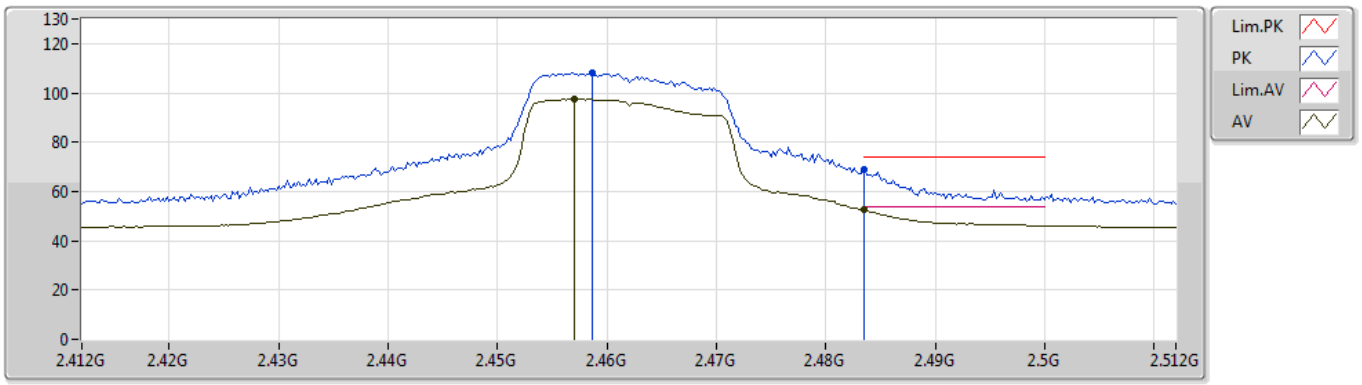


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4536G	103.45	Inf	-Inf	32.16	3	Horizontal	71	1.91	-
AV	2.488G	52.55	54.00	-1.45	32.30	3	Horizontal	71	1.91	-
PK	2.4534G	114.56	Inf	-Inf	32.16	3	Horizontal	71	1.91	-
PK	2.4874G	67.91	74.00	-6.09	32.29	3	Horizontal	71	1.91	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

30/05/2019

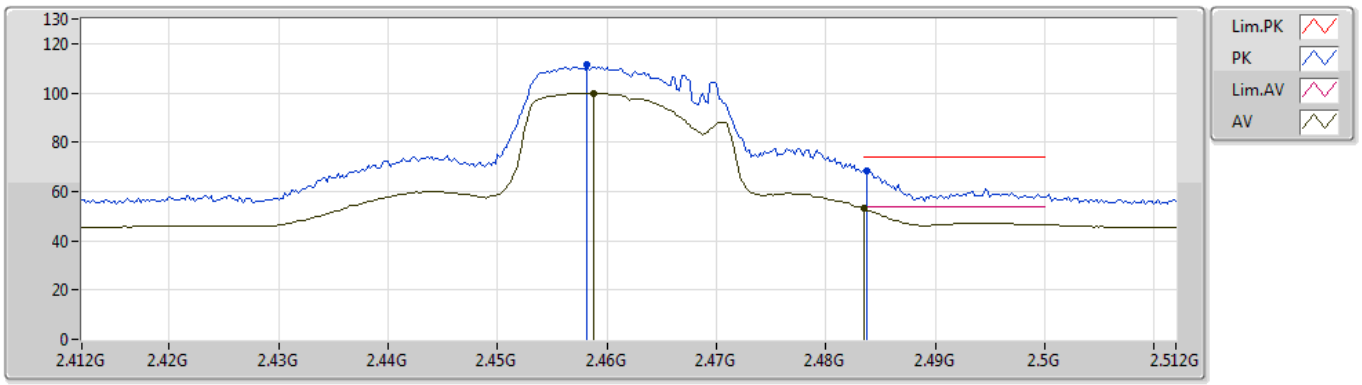


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.457G	97.44	Inf	-Inf	32.18	3	Vertical	178	1.86	-
AV	2.4835G	52.41	54.00	-1.59	32.28	3	Vertical	178	1.86	-
PK	2.4586G	107.98	Inf	-Inf	32.18	3	Vertical	178	1.86	-
PK	2.4835G	69.07	74.00	-4.93	32.28	3	Vertical	178	1.86	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

30/05/2019

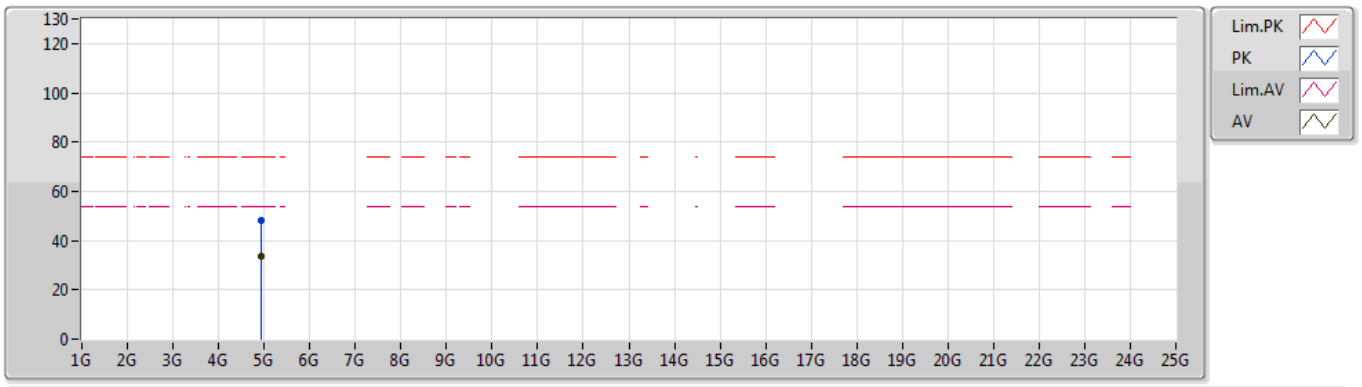


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4588G	99.75	Inf	-Inf	32.18	3	Horizontal	43	2.06	-
AV	2.4835G	53.23	54.00	-0.77	32.28	3	Horizontal	43	2.06	-
PK	2.4582G	111.35	Inf	-Inf	32.18	3	Horizontal	43	2.06	-
PK	2.4838G	68.53	74.00	-5.47	32.28	3	Horizontal	43	2.06	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

30/05/2019

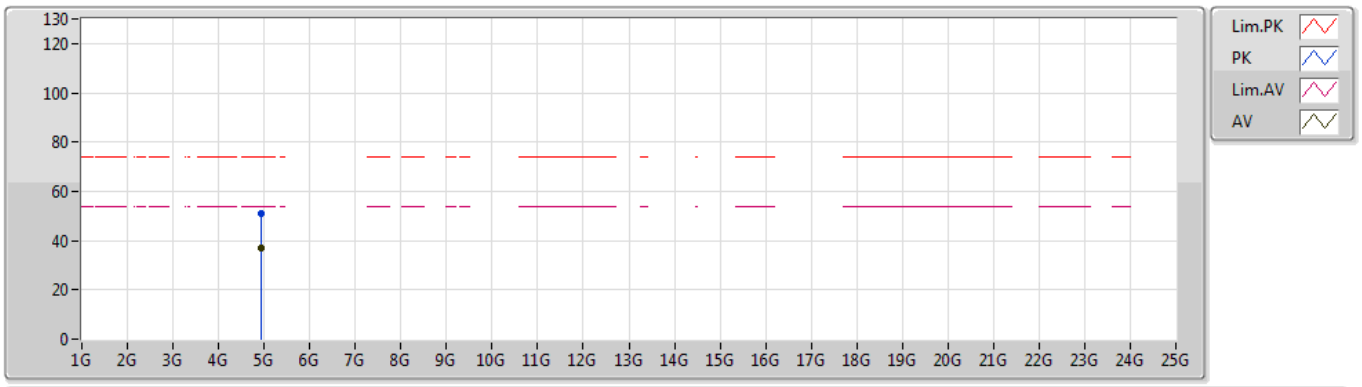


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.92352G	33.55	54.00	-20.45	3.75	3	Vertical	35	1.92	-
PK	4.92358G	47.93	74.00	-26.07	3.75	3	Vertical	35	1.92	-

802.11n HT20_Nss1,(MCS0)_2TX

2462MHz_TX

30/05/2019

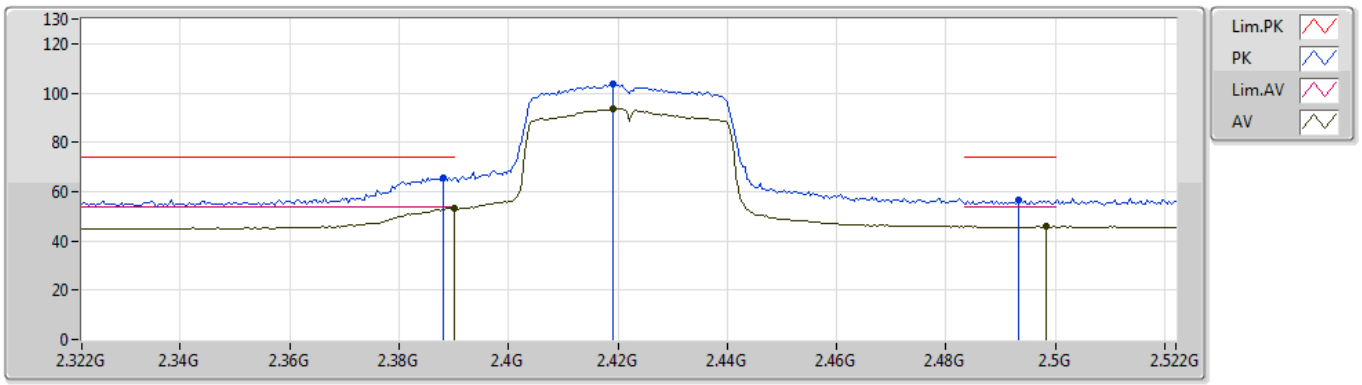


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.92418G	36.77	54.00	-17.23	3.75	3	Horizontal	99	2.60	-
PK	4.92514G	50.99	74.00	-23.01	3.75	3	Horizontal	99	2.60	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

30/05/2019

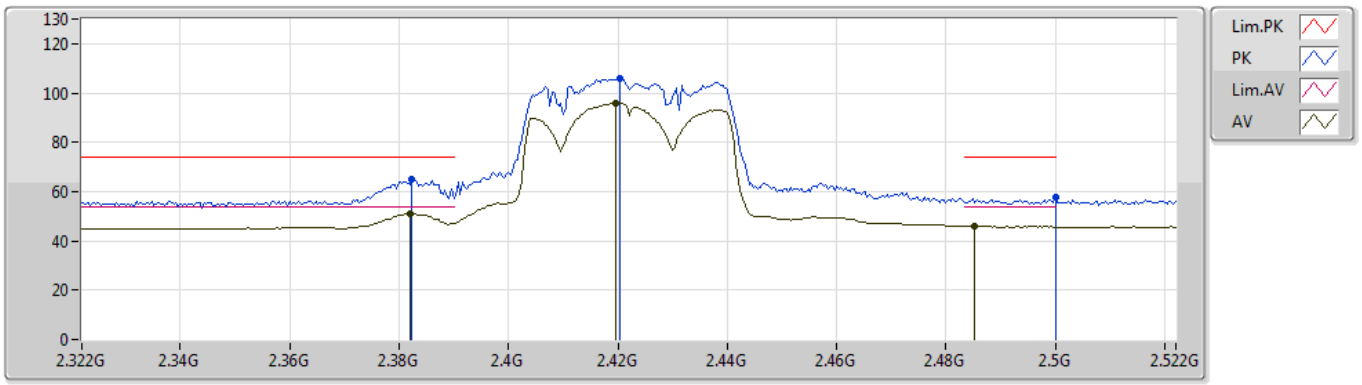


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	53.16	54.00	-0.84	31.91	3	Vertical	119	1.95	-
AV	2.4192G	93.59	Inf	-Inf	32.02	3	Vertical	119	1.95	-
AV	2.4984G	45.80	54.00	-8.20	32.35	3	Vertical	119	1.95	-
PK	2.388G	65.78	74.00	-8.22	31.91	3	Vertical	119	1.95	-
PK	2.4192G	103.41	Inf	-Inf	32.02	3	Vertical	119	1.95	-
PK	2.4932G	56.62	74.00	-17.38	32.32	3	Vertical	119	1.95	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

30/05/2019

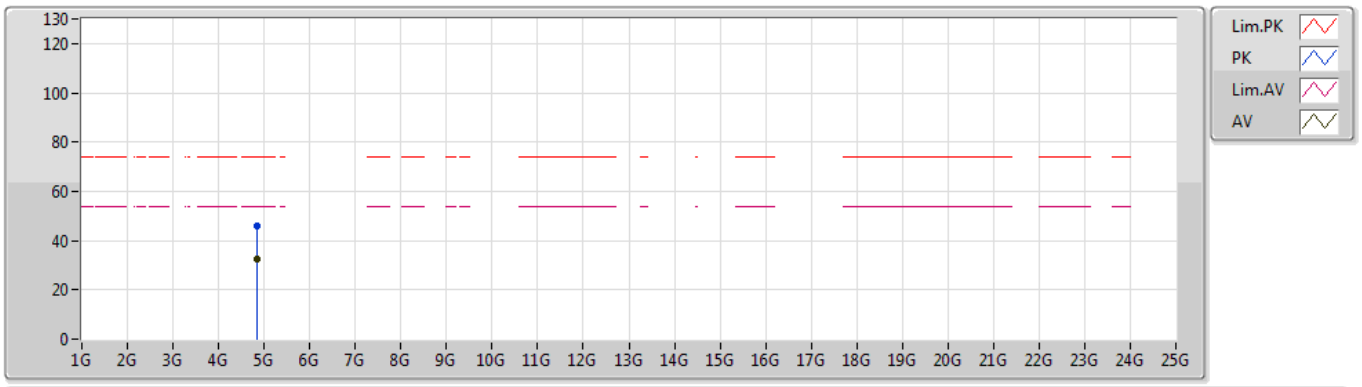


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.382G	50.95	54.00	-3.05	31.88	3	Horizontal	63	2.13	-
AV	2.4196G	95.74	Inf	-Inf	32.02	3	Horizontal	63	2.13	-
AV	2.4852G	45.86	54.00	-8.14	32.29	3	Horizontal	63	2.13	-
PK	2.3824G	65.10	74.00	-8.90	31.88	3	Horizontal	63	2.13	-
PK	2.4204G	105.63	Inf	-Inf	32.03	3	Horizontal	63	2.13	-
PK	2.5G	57.51	74.00	-16.49	32.35	3	Horizontal	63	2.13	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

30/05/2019

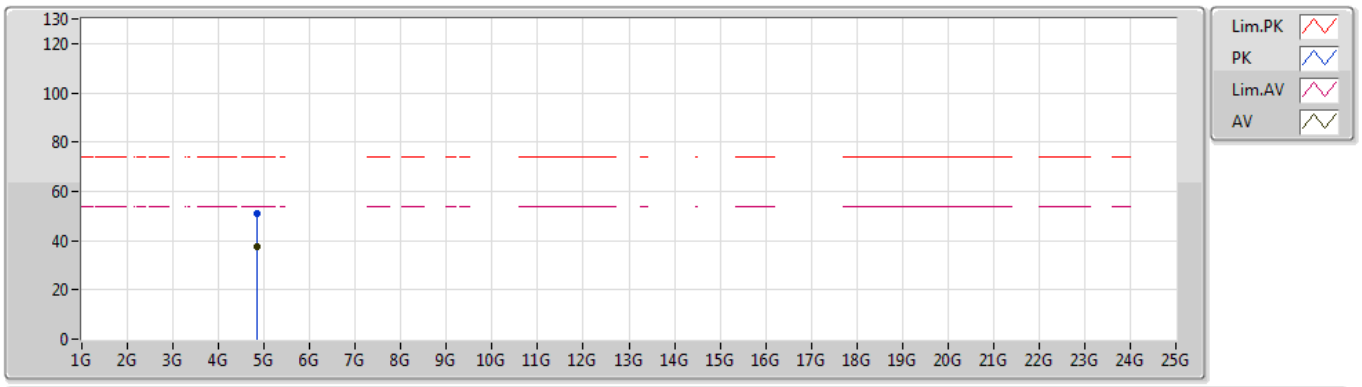


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.84832G	32.57	54.00	-21.43	3.58	3	Vertical	357	2.78	-
PK	4.84712G	45.87	74.00	-28.13	3.58	3	Vertical	357	2.78	-

802.11n HT40_Nss1,(MCS0)_2TX

2422MHz_TX

30/05/2019

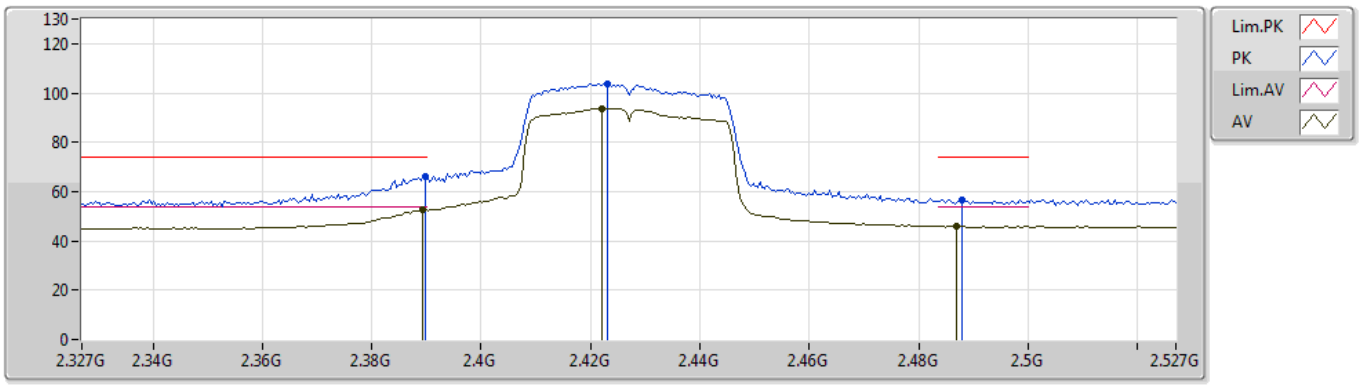


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.84874G	37.48	54.00	-16.52	3.58	3	Horizontal	92	2.19	-
PK	4.84646G	50.92	74.00	-23.08	3.57	3	Horizontal	92	2.19	-

802.11n HT40_Nss1,(MCS0)_2TX

2427MHz_TX

29/05/2019

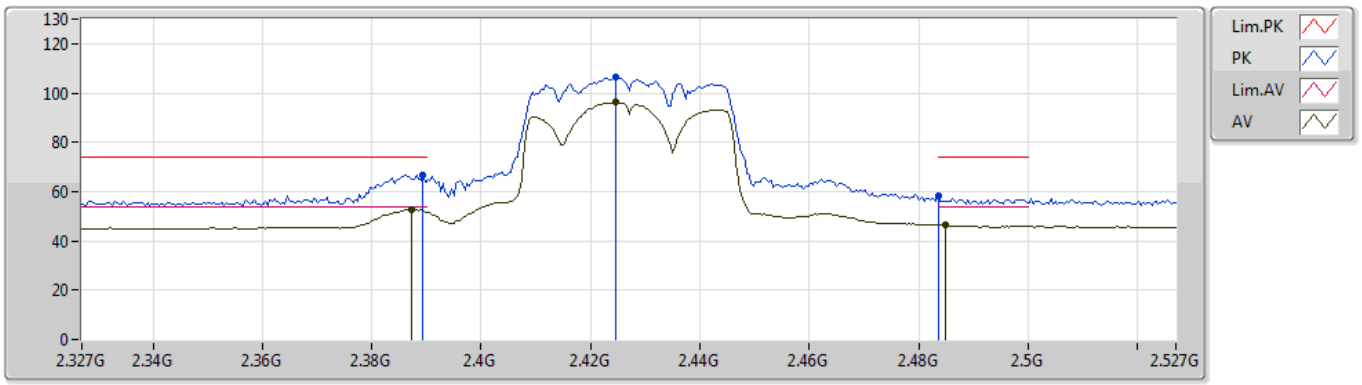


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3894G	52.71	54.00	-1.29	31.91	3	Vertical	120	1.96	-
AV	2.4222G	93.80	Inf	-Inf	32.04	3	Vertical	120	1.96	-
AV	2.487G	45.85	54.00	-8.15	32.29	3	Vertical	120	1.96	-
PK	2.3898G	66.28	74.00	-7.72	31.91	3	Vertical	120	1.96	-
PK	2.423G	103.93	Inf	-Inf	32.04	3	Vertical	120	1.96	-
PK	2.4878G	56.73	74.00	-17.27	32.30	3	Vertical	120	1.96	-

802.11n HT40_Nss1,(MCS0)_2TX

2427MHz_TX

29/05/2019

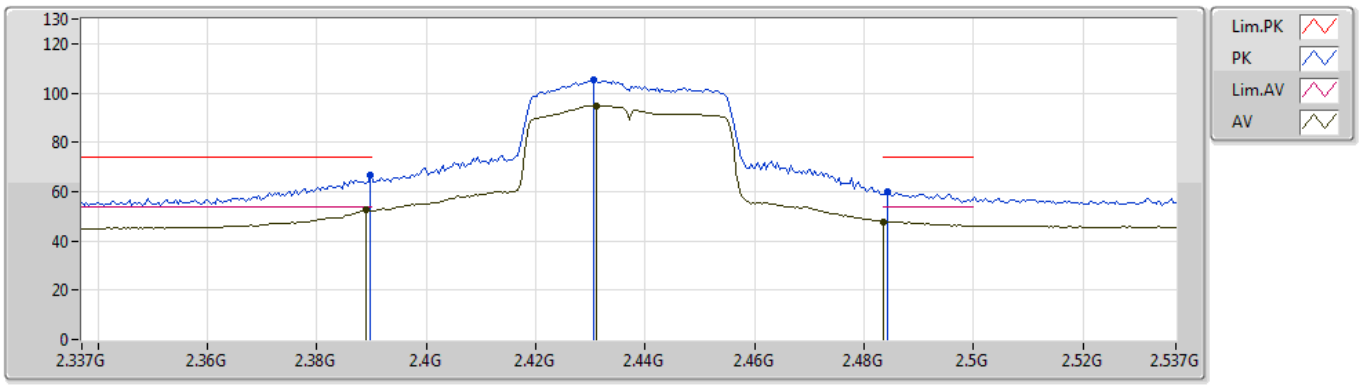


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3874G	52.76	54.00	-1.24	31.90	3	Horizontal	58	1.94	-
AV	2.4246G	96.25	Inf	-Inf	32.05	3	Horizontal	58	1.94	-
AV	2.485G	46.50	54.00	-7.50	32.29	3	Horizontal	58	1.94	-
PK	2.3894G	66.77	74.00	-7.23	31.91	3	Horizontal	58	1.94	-
PK	2.4246G	106.22	Inf	-Inf	32.05	3	Horizontal	58	1.94	-
PK	2.4836G	58.07	74.00	-15.93	32.28	3	Horizontal	58	1.94	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

30/05/2019

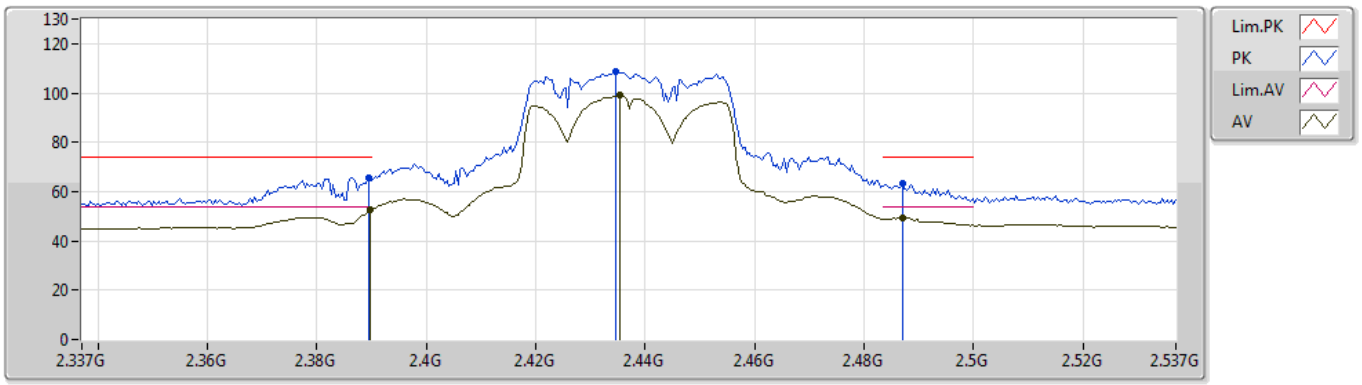


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.389G	52.40	54.00	-1.60	31.91	3	Vertical	91	1.58	-
AV	2.431G	94.91	Inf	-Inf	32.08	3	Vertical	91	1.58	-
AV	2.4835G	47.88	54.00	-6.12	32.28	3	Vertical	91	1.58	-
PK	2.3898G	66.58	74.00	-7.42	31.91	3	Vertical	91	1.58	-
PK	2.4306G	105.21	Inf	-Inf	32.08	3	Vertical	91	1.58	-
PK	2.4842G	59.90	74.00	-14.10	32.29	3	Vertical	91	1.58	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

30/05/2019

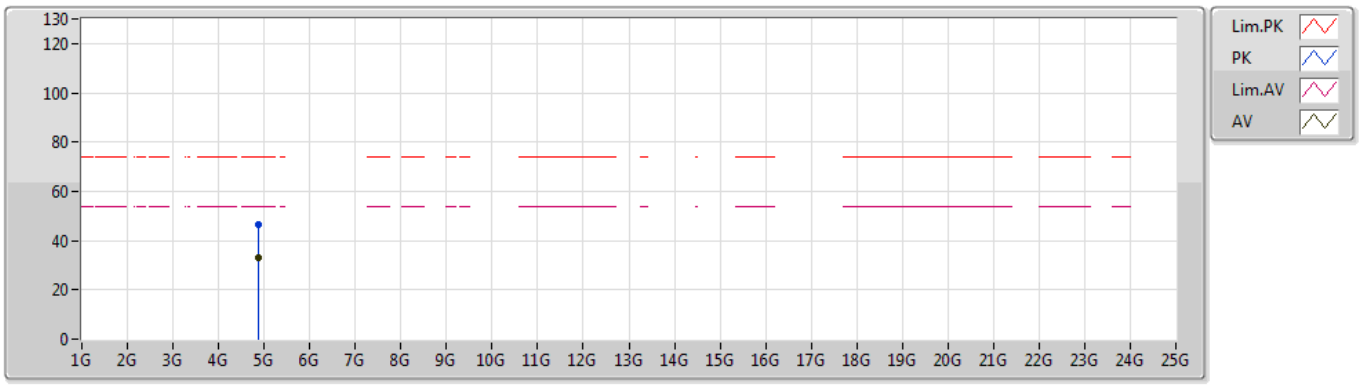


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	52.77	54.00	-1.23	31.91	3	Horizontal	61	1.94	-
AV	2.4354G	98.97	Inf	-Inf	32.09	3	Horizontal	61	1.94	-
AV	2.487G	49.27	54.00	-4.73	32.29	3	Horizontal	61	1.94	-
PK	2.3894G	65.38	74.00	-8.62	31.91	3	Horizontal	61	1.94	-
PK	2.4346G	108.47	Inf	-Inf	32.09	3	Horizontal	61	1.94	-
PK	2.487G	63.09	74.00	-10.91	32.29	3	Horizontal	61	1.94	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

30/05/2019

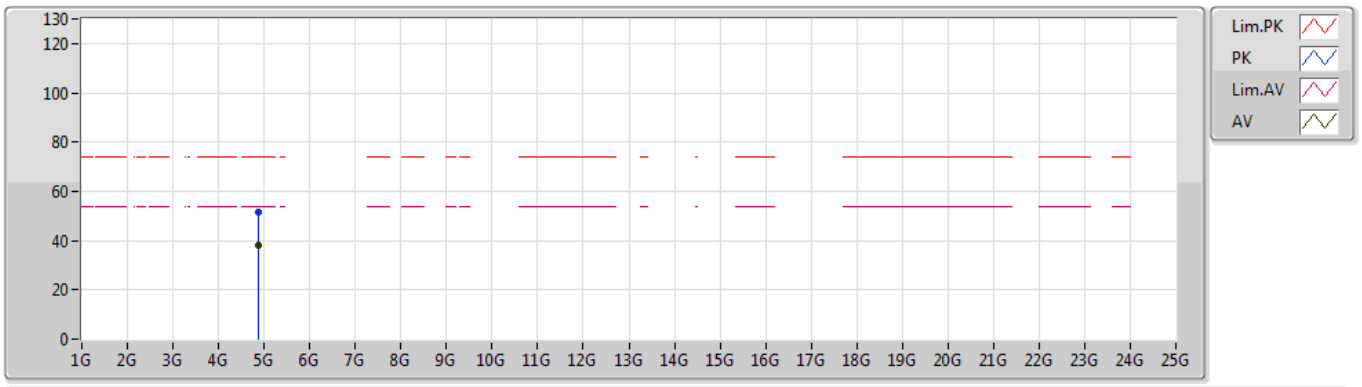


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87724G	33.02	54.00	-20.98	3.64	3	Vertical	34	1.86	-
PK	4.87628G	46.34	74.00	-27.66	3.64	3	Vertical	34	1.86	-

802.11n HT40_Nss1,(MCS0)_2TX

2437MHz_TX

30/05/2019

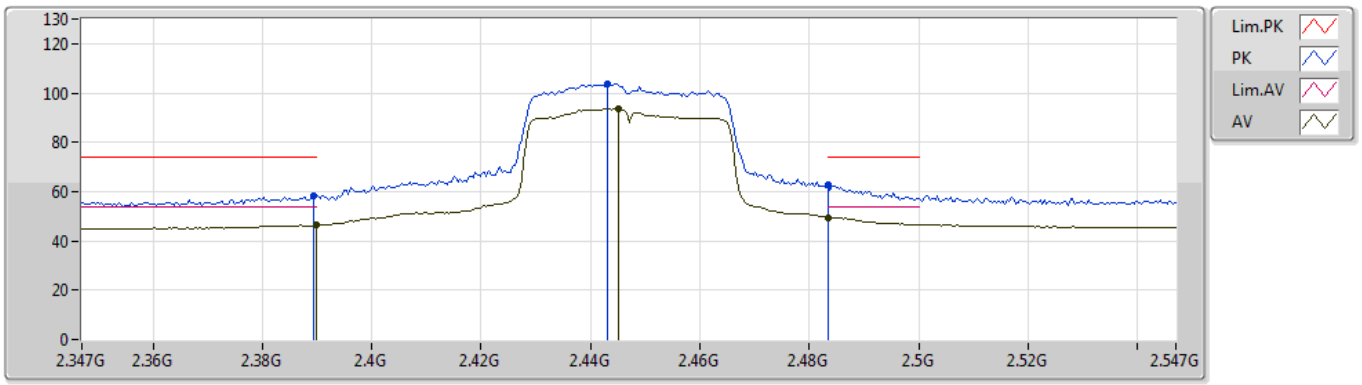


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87736G	38.16	54.00	-15.84	3.64	3	Horizontal	88	1.92	-
PK	4.87376G	51.37	74.00	-22.63	3.64	3	Horizontal	88	1.92	-

802.11n HT40_Nss1,(MCS0)_2TX

2447MHz_TX

29/05/2019

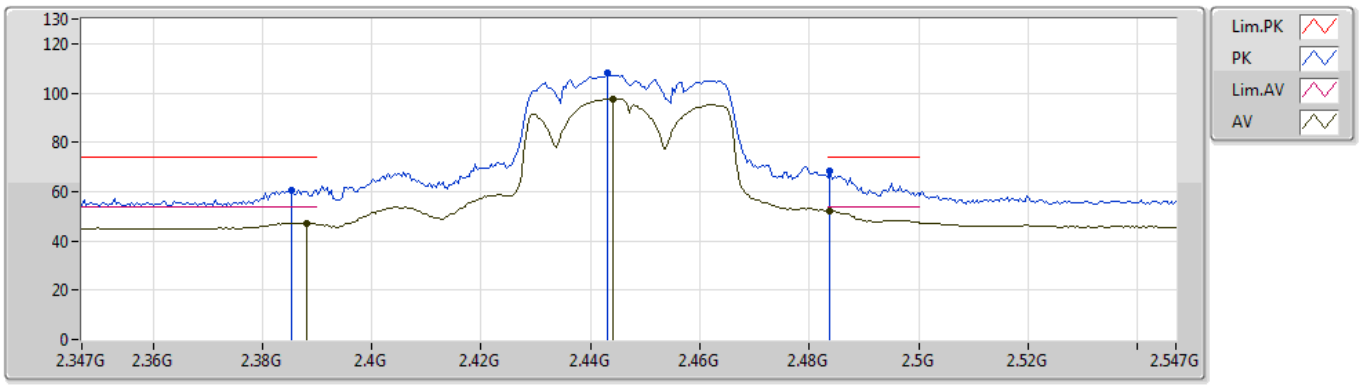


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3898G	46.37	54.00	-7.63	31.91	3	Vertical	183	1.57	-
AV	2.445G	93.49	Inf	-Inf	32.13	3	Vertical	183	1.57	-
AV	2.4835G	49.41	54.00	-4.59	32.28	3	Vertical	183	1.57	-
PK	2.3894G	58.38	74.00	-15.62	31.91	3	Vertical	183	1.57	-
PK	2.443G	103.85	Inf	-Inf	32.12	3	Vertical	183	1.57	-
PK	2.4835G	62.79	74.00	-11.21	32.28	3	Vertical	183	1.57	-

802.11n HT40_Nss1,(MCS0)_2TX

2447MHz_TX

29/05/2019

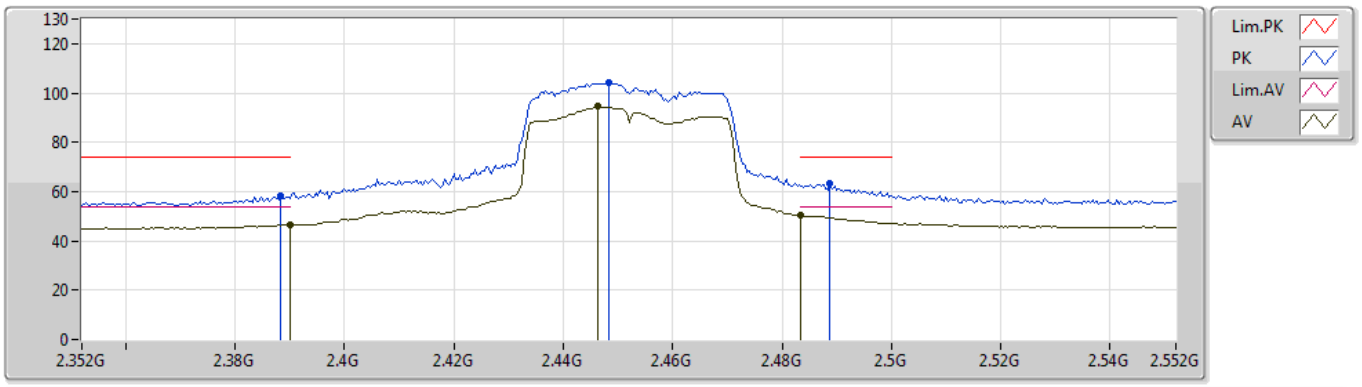


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3882G	47.31	54.00	-6.69	31.91	3	Horizontal	60	1.89	-
AV	2.4442G	97.66	Inf	-Inf	32.12	3	Horizontal	60	1.89	-
AV	2.4838G	52.21	54.00	-1.79	32.28	3	Horizontal	60	1.89	-
PK	2.3854G	60.61	74.00	-13.39	31.89	3	Horizontal	60	1.89	-
PK	2.443G	107.94	Inf	-Inf	32.12	3	Horizontal	60	1.89	-
PK	2.4838G	68.28	74.00	-5.72	32.28	3	Horizontal	60	1.89	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

30/05/2019

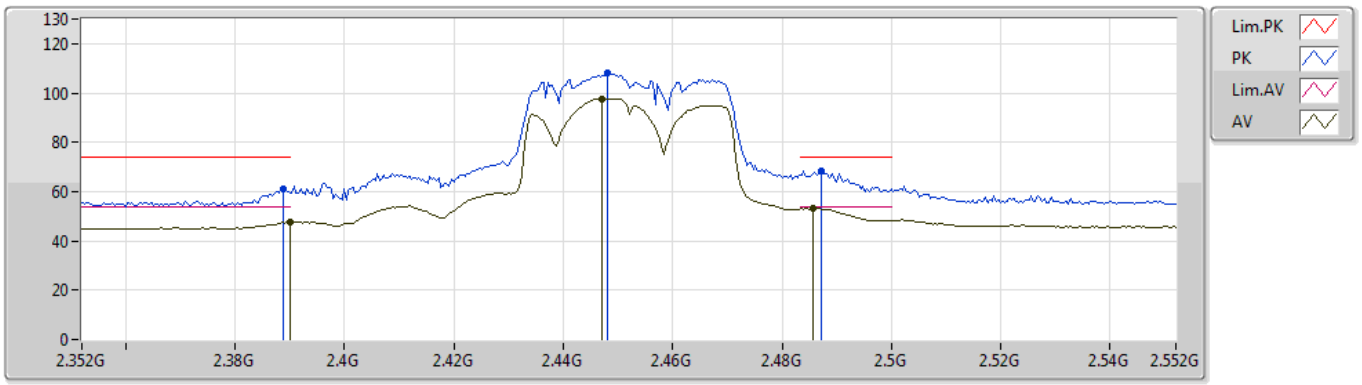


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	46.70	54.00	-7.30	31.91	3	Vertical	183	1.94	-
AV	2.4464G	94.53	Inf	-Inf	32.13	3	Vertical	183	1.94	-
AV	2.4835G	50.33	54.00	-3.67	32.28	3	Vertical	183	1.94	-
PK	2.3884G	58.50	74.00	-15.50	31.91	3	Vertical	183	1.94	-
PK	2.4484G	104.41	Inf	-Inf	32.15	3	Vertical	183	1.94	-
PK	2.4888G	63.13	74.00	-10.87	32.30	3	Vertical	183	1.94	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

30/05/2019

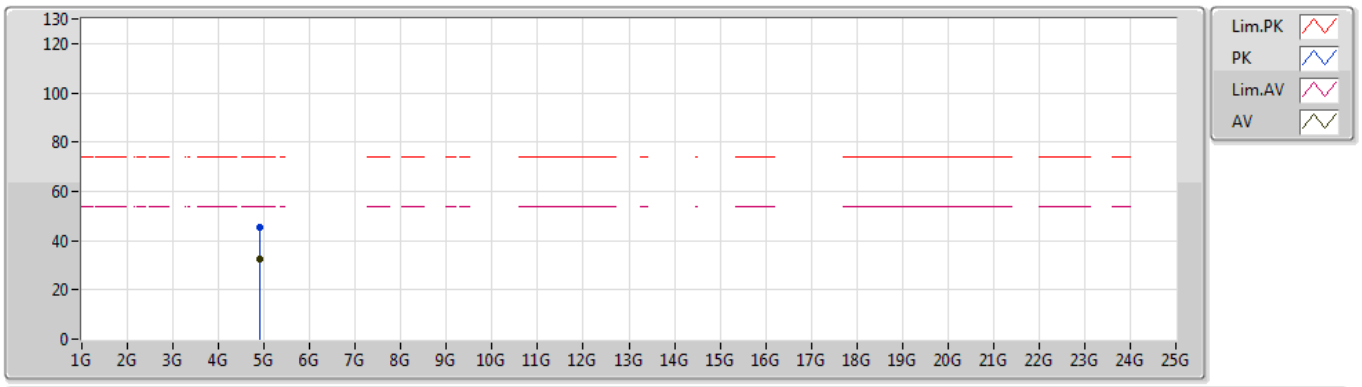


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.39G	47.67	54.00	-6.33	31.91	3	Horizontal	68	1.88	-
AV	2.4472G	97.78	Inf	-Inf	32.14	3	Horizontal	68	1.88	-
AV	2.4856G	53.22	54.00	-0.78	32.29	3	Horizontal	68	1.88	-
PK	2.3888G	61.23	74.00	-12.77	31.91	3	Horizontal	68	1.88	-
PK	2.448G	108.08	Inf	-Inf	32.14	3	Horizontal	68	1.88	-
PK	2.4872G	68.49	74.00	-5.51	32.29	3	Horizontal	68	1.88	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

30/05/2019

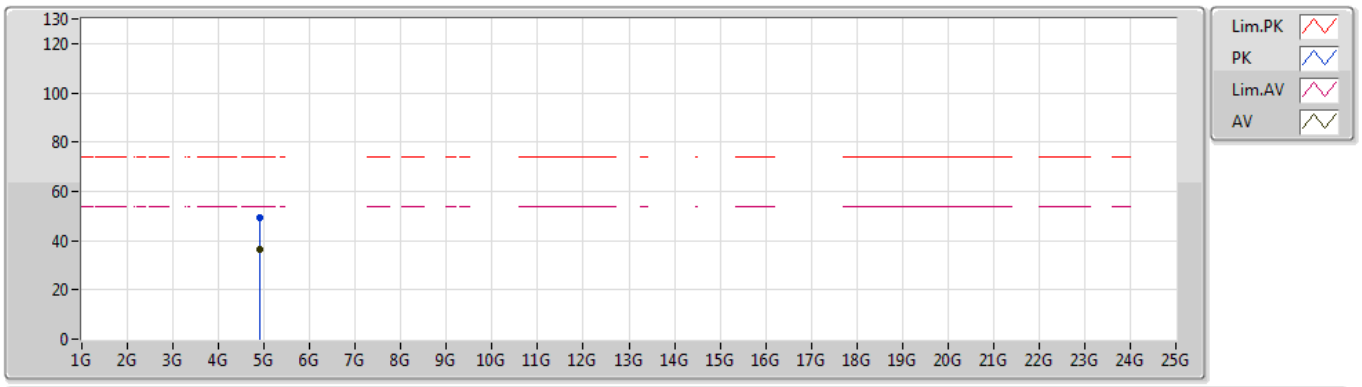


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.90424G	32.27	54.00	-21.73	3.71	3	Vertical	34	1.73	-
PK	4.90514G	45.25	74.00	-28.75	3.71	3	Vertical	34	1.73	-

802.11n HT40_Nss1,(MCS0)_2TX

2452MHz_TX

30/05/2019



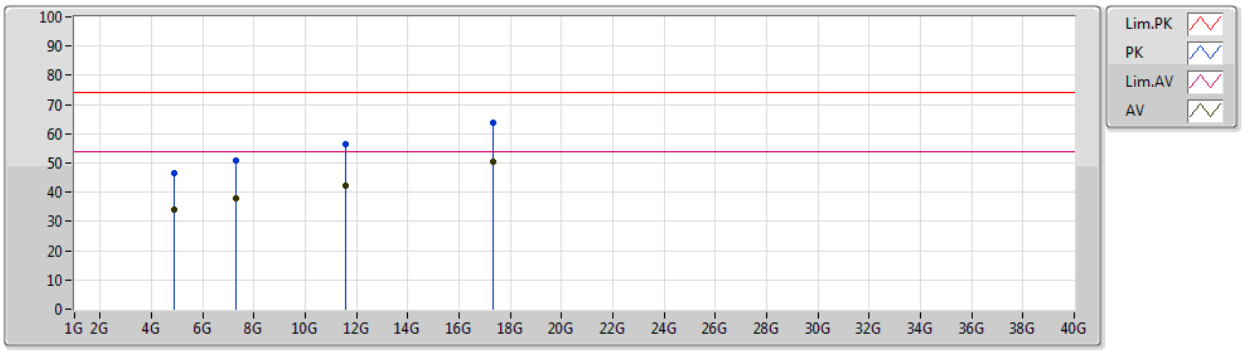
Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.90382G	36.54	54.00	-17.46	3.71	3	Horizontal	91	2.16	-
PK	4.9037G	49.32	74.00	-24.68	3.71	3	Horizontal	91	2.16	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Condition
Mode 1	Pass	AV	17.325G	50.82	54.00	-3.18	20.02	Horizontal

Radiation-above 1GHz_Mode 1

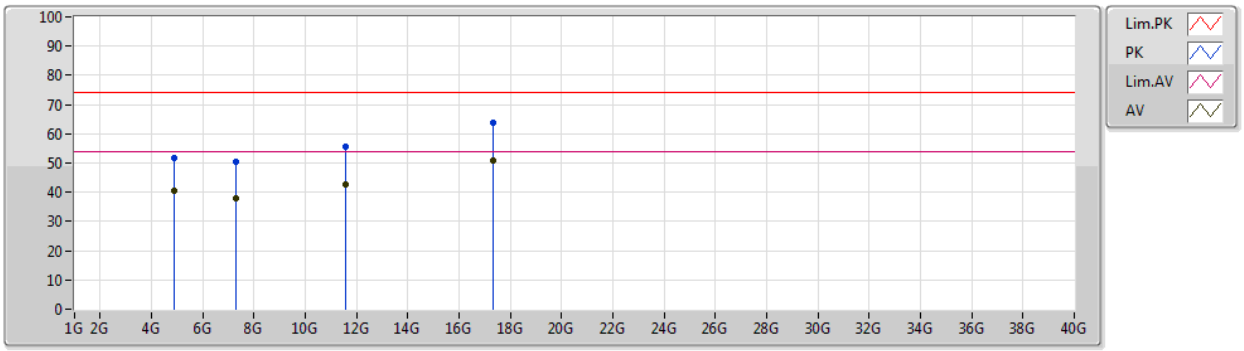
19/07/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.874G	34.10	54.00	-19.90	1.79	3	Vertical	5	1.48	-	32.31	31.27	5.36	34.84
AV	7.311G	37.83	54.00	-16.17	8.01	3	Vertical	336	1.50	-	29.82	36.49	6.61	35.09
AV	11.55001G	42.34	54.00	-11.66	13.17	3	Vertical	317	1.50	-	29.17	39.58	8.36	34.77
AV	17.32499G	50.23	54.00	-3.77	20.01	3	Vertical	138	1.50	-	30.22	43.57	10.68	34.24
PK	4.87559G	46.47	74.00	-27.53	1.81	3	Vertical	5	1.48	-	44.66	31.28	5.36	34.83
PK	7.311G	51.07	74.00	-22.93	8.01	3	Vertical	336	1.50	-	43.06	36.49	6.61	35.09
PK	11.55001G	56.32	74.00	-17.68	13.17	3	Vertical	317	1.50	-	43.15	39.58	8.36	34.77
PK	17.32501G	63.87	74.00	-10.13	20.02	3	Vertical	138	1.50	-	43.85	43.58	10.68	34.24

Radiation-above 1GHz_Mode 1

19/07/2019



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment	Raw	AF	CL	PA
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)		(dBuV)	(dB)	(dB)	(dB)
AV	4.87391G	40.54	54.00	-13.46	1.79	3	Horizontal	47	1.74	-	38.75	31.27	5.36	34.84
AV	7.31128G	37.77	54.00	-16.23	8.01	3	Horizontal	297	2.71	-	29.76	36.49	6.61	35.09
AV	11.55G	42.87	54.00	-11.13	13.17	3	Horizontal	354	1.21	-	29.70	39.58	8.36	34.77
AV	17.325G	50.82	54.00	-3.18	20.02	3	Horizontal	6	2.98	-	30.80	43.58	10.68	34.24
PK	4.87391G	51.63	74.00	-22.37	1.79	3	Horizontal	47	1.74	-	49.84	31.27	5.36	34.84
PK	7.31146G	50.52	74.00	-23.48	8.01	3	Horizontal	297	2.71	-	42.51	36.49	6.61	35.09
PK	11.55G	55.76	74.00	-18.24	13.18	3	Horizontal	354	1.21	-	42.58	39.59	8.36	34.77
PK	17.32501G	63.89	74.00	-10.11	20.02	3	Horizontal	6	2.98	-	43.87	43.58	10.68	34.24

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Enterprise

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
   - For CDD transmissions, directional gain is calculated as follows, NANT = 2, NSS = 1.
   - If all antennas have the same gain, GANT, Directional gain = GANT + Array Gain, where Array Gain is as follows.
   - For power spectral density (PSD) measurements on all devices,
     Array Gain = 10 log (NANT/ NSS) dB = 3.01;
   - For power measurements on IEEE 802.11 devices, Array Gain = 0 dB for NANT ≤ 4;

2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n/ac, not include 802.11a/b/g. Directional gain = GANT + BF Gain, BF Gain is declared by the manufacture.

3. ArubaOS algorithm will reduce the Tx Power by a factor of 10Log(N) when BF Mode is active.

Sincerely,

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