

FCC Test Report

FCC ID : UIDDG3450P2
Equipment : Data Gateway
Brand Name : ARRIS
Model Name : DG3450
Applicant : ARRIS
3871 Lakefield Drive, #300 Suwanee, GA 30024
Manufacturer : ARRIS
3871 Lakefield Drive, #300 Suwanee, GA 30024
Standard : 47 CFR FCC Part 15.247

The product was received on Jan. 21, 2019, and testing was started from Feb. 02, 2019 and completed on Feb. 15, 2019. . We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

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History of this test report

[illegible]

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: Jackson 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	1TX(Port 3)
2.4-2.4835GHz	802.11g	20	3TX
2.4-2.4835GHz	802.11n HT20	20	3TX
2.4-2.4835GHz	802.11n HT40	40	3TX

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.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	ARRIS	DG3450	PIFA	N/A
2	ARRIS	DG3450	PIFA	N/A
3	ARRIS	DG3450	PIFA	N/A
4	ARRIS	DG3450	PIFA	N/A
5	ARRIS	DG3450	PIFA	N/A
6	ARRIS	DG3450	PIFA	N/A
7	ARRIS	DG3450	PIFA	N/A

Ant.	Port	2.4G		U-NII-1		U-NII-3	
		Channel(MHz)	Gain (dBi)	Channel(MHz)	Gain (dBi)	Channel(MHz)	Gain (dBi)
1~3	1~3	2412	4	-	-	-	-
		2437	4	-	-	-	-
		2462	4.2	-	-	-	-
		2422	4	-	-	-	-
		2437	4	-	-	-	-
		2452	4.2	-	-	-	-
4~7	1~4	-	-	5180	4.1	5745	4.6
		-	-	5220	4.2	5785	4.4
		-	-	5240	4.3	5825	4
		-	-	5190	4.1	5755	4.6
		-	-	5230	4.2	5795	4.4
		-	-	5210	4.1	5775	4.5

Note 1: The EUT has seven antennas.

For 2.4GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 3 (port 3) and it was record in this test report.

For IEEE 802.11 g/n mode (3TX/3RX)

Ant. 1 (port 1), Ant. 2 (port 2) and Ant. 3 (port 3) could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11 a/n/ac mode (4TX/4RX)

Ant. 4 (port 1), Ant. 5 (port 2), Ant. 6 (port 3) and Ant. 7 (port 4) could transmit/receive simultaneously.

1.1.3 EUT Information

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

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.937	0.28	8.422m	300
802.11g	0.672	1.73	1.403m	1k
802.11n HT20	0.928	0.32	1.316m	1k
802.11n HT40	0.5	3.01	653.125u	3k

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

1.1.5 Table for Multiple Listing

The brand/model names in the following table are all refer to the identical product.

Brand Name	Model Name	Description
ARRIS	DG3450	There are two enclosures for EUT. All samples are identical, only the color and enclosures are different.

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	CO04-HY	Lego	22.6~23.4°C / 54~56%	12/Feb/2019
RF Conducted	TH07-HY	Andy	23.2~23.9°C / 62~65%	11/Feb/2019~ 15/Feb/2019
Radiated	03CH02-HY	Daniel	21.8~22.7°C / 52.6~54.3%	02/Feb/2019~ 06/Feb/2019

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

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

2.2 Test Channel Mode

Test Software Version	DoS
-----------------------	-----

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX(Port3)	-
2412MHz	0,0,34,0
2437MHz	0,0,49,0
2462MHz	0,0,34,0
802.11g_Nss1,(6Mbps)_3TX	-
2412MHz	19.17.22.0
2437MHz	36.34.38.0
2462MHz	18.17.21.0
802.11n HT20_Nss1,(MCS0)_3TX	-
2412MHz	19.17.22.0
2437MHz	37.35.39.0
2462MHz	17.16.20.0
802.11n HT40_Nss1,(MCS0)_3TX	-
2422MHz	13.11.16.0
2437MHz	22.20.24.0
2452MHz	13.12.16.0

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	Adapter mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	Adapter mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	Y Plane
	
Worst Planes of EUT	V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4GHz +WLAN 5GHz
Refer to Sporton Test Report No.: FA911904 for Co-location RF Exposure Evaluation.	

2.4 Accessories and Support Equipment

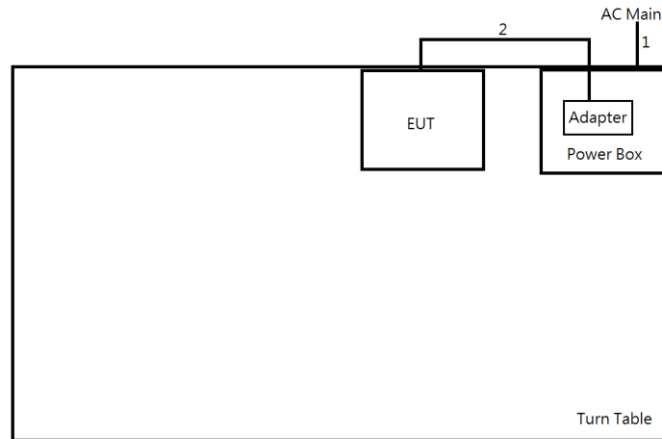
Accessories				
AC Adapter (US Plug)	Brand Name	ARRIS	Model Name	NBS36H120300VU
	Power Rating	I/P: 100- 240Vac, 0.8A, O/P: 12Vdc, 3A		
	Power Cord	1.8 meter, non-shielded cable, w/o ferrite core		
RJ45	Power Cord	1.0 meter, non-shielded cable, w/o ferrite core		

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

Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for Notebook	DELL	HA65NM130	DoC

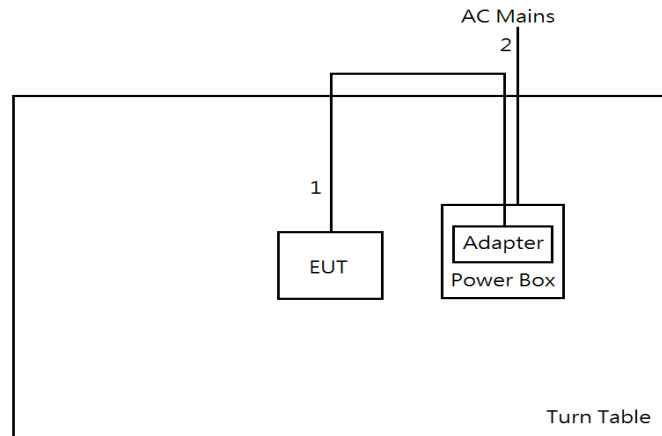
2.5 Test Setup Diagram

Test Setup Diagram - AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	AC Power line	No	1.5 m
2	DC Power line	No	1.8 m

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	DC Power line	No	1.8 m
2	AC Power line	No	1.8 m

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

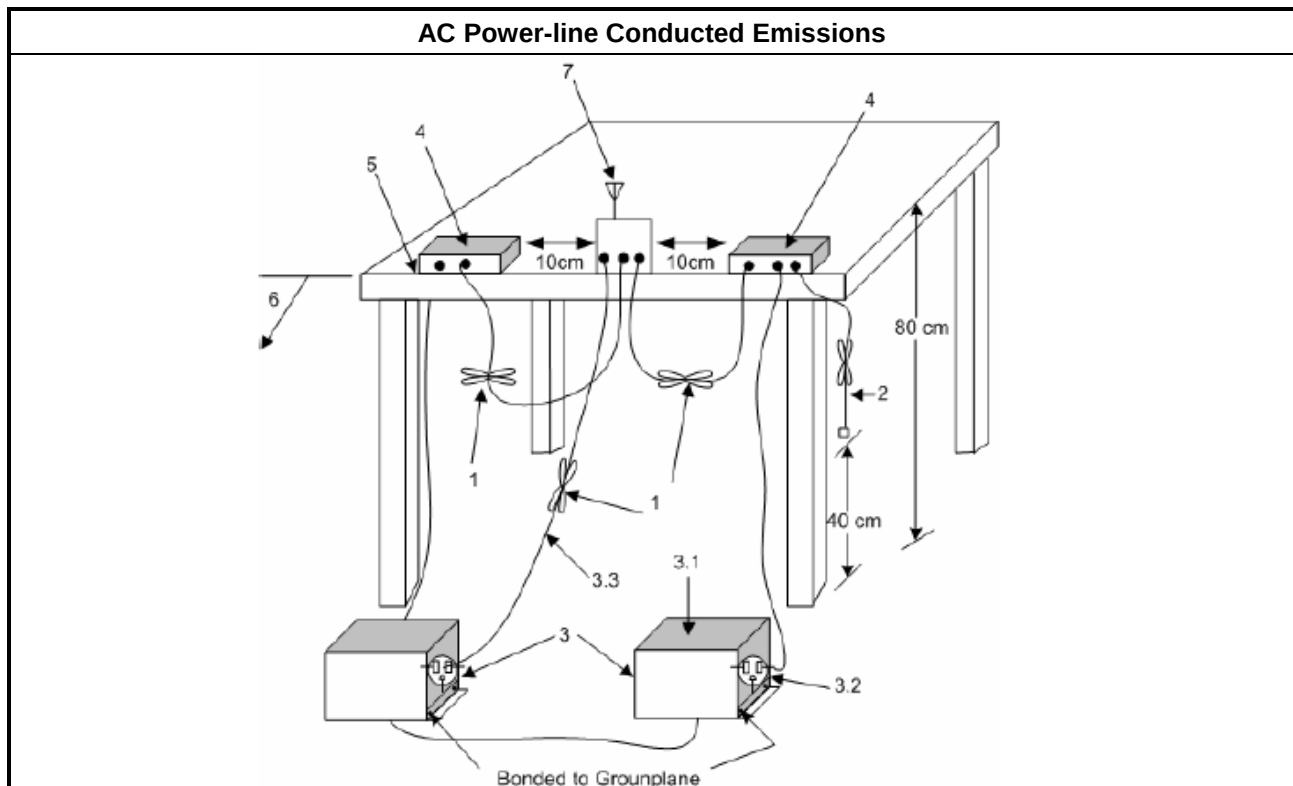
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

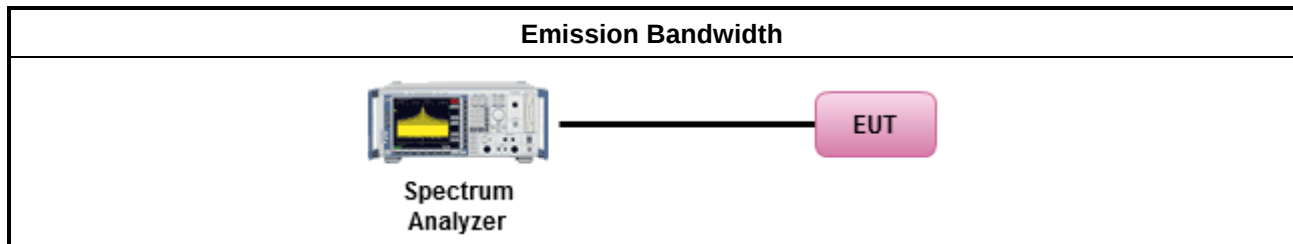
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

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

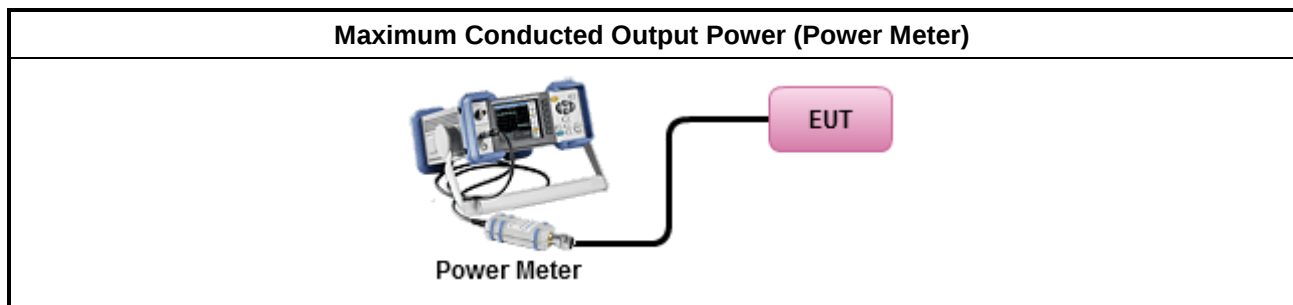
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

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

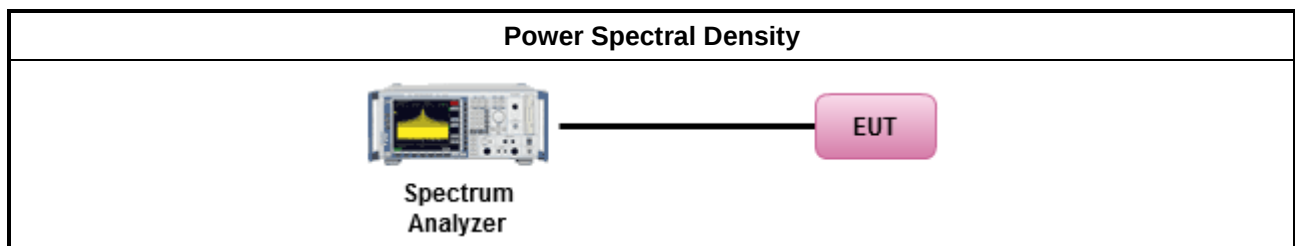
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

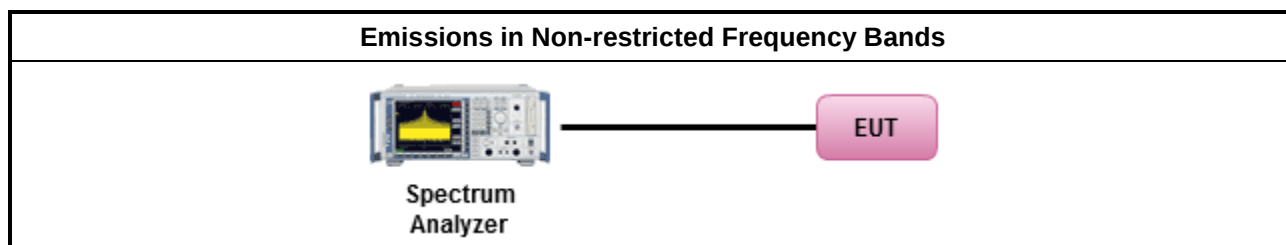
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

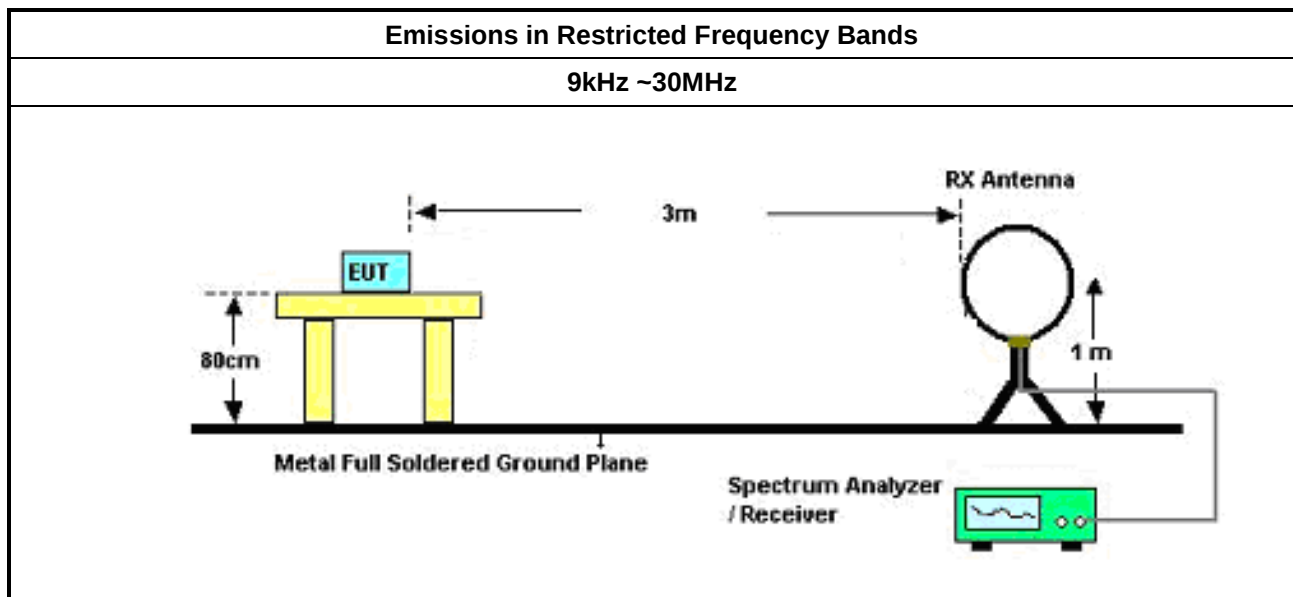
3.6.2 Measuring Instruments

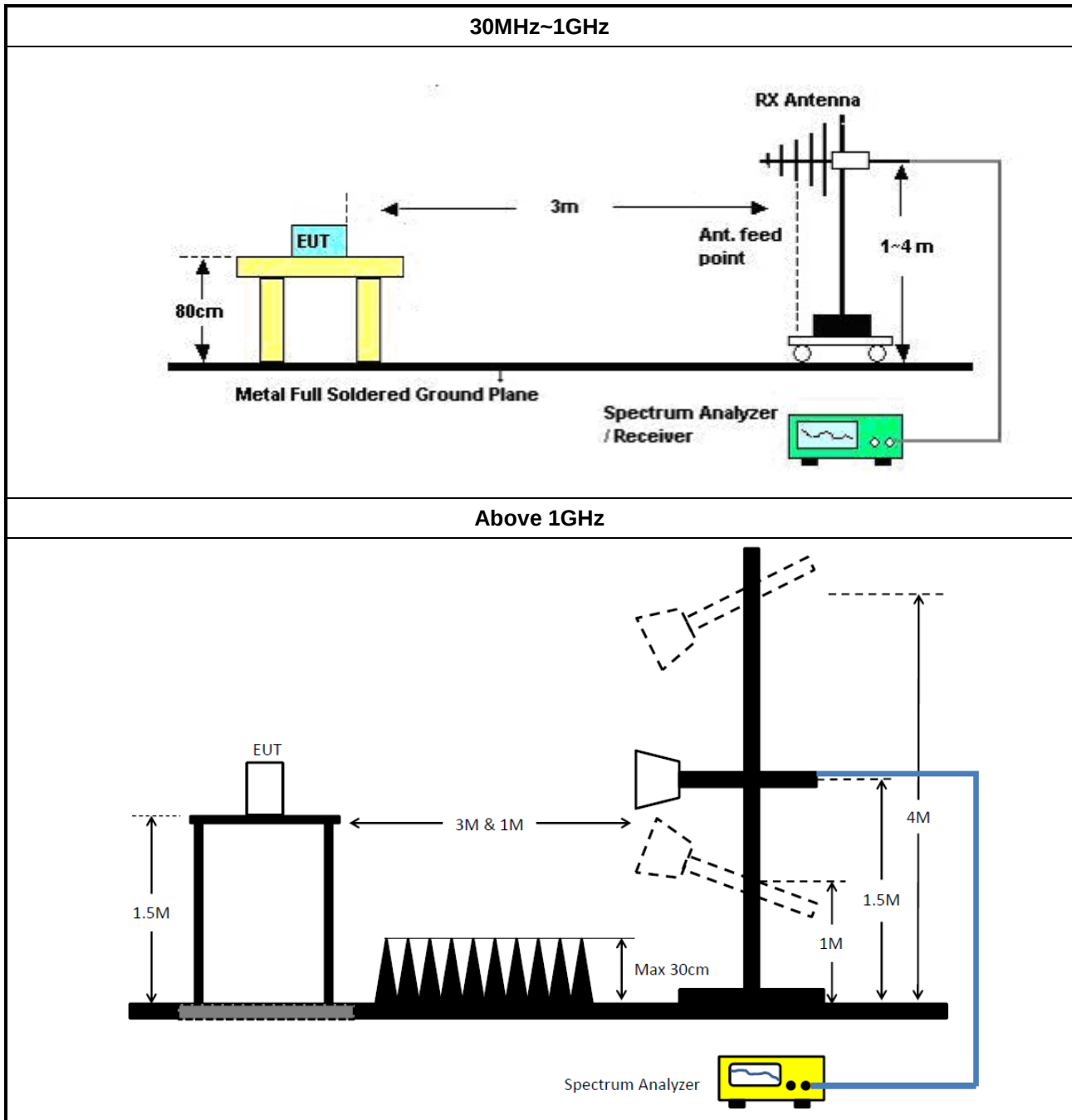
Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

Test Method	
The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.

3.6.4 Test Setup





3.6.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

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

NCR : Non-Calibration Require

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101500	10Hz~40GHz	18/Jul/2018	17/Jul/2019
Power Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
Power Meter	Anritsu	ML2495A	1124009	300MHz ~ 40GHz	27/Feb/2018	26/Feb/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz ~18G	10/Jan/2019	09/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz ~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz ~18G	10/Jan/2019	09/Jan/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

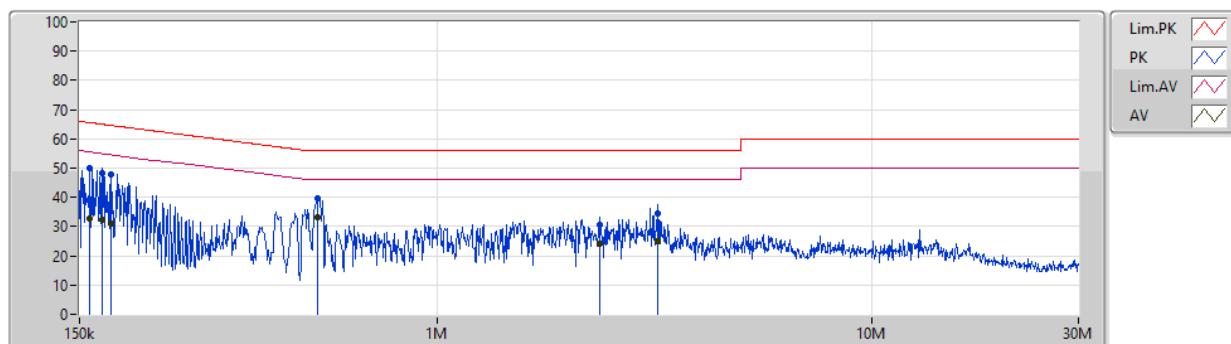
Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	25/Oct/2018	24/Oct/2019
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	25/Oct/2018	24/Oct/2019
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	27Jul/2018	02/Jul/2019
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	23/Oct/2018	22/Oct/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	10/Apr/2018	09/Apr/2019
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	18/Jan/2019	17/Jan/2020
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	18/Jan/2019	17/Jan/2020
Bilog Antenna	SCHAFFNER	CBL 6112B	2723	30MHz ~ 1GHz	13/Oct/2018	12/Oct/2019
Loop Antenna	TESEQ	HLA 6120	31244	9k ~ 30MHz	29/Mar/2018	28/Mar/2019
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	12/Mar/2018	11/Mar/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 01543	1GHz ~ 18GHz	11/May/2018	10/May/2019

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode		

12/02/2019

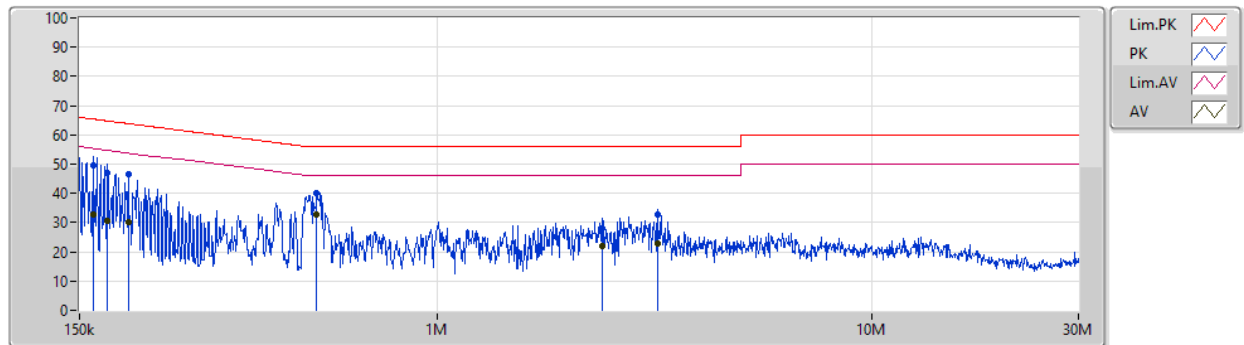


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	158.622k	49.83	65.54	-15.71	19.48	Neutral	-	30.35	9.60	0.01	9.87			
AV	158.622k	32.92	55.54	-22.62	19.48	Neutral	-	13.44	9.60	0.01	9.87			
QP	169.084k	48.26	65.01	-16.75	19.48	Neutral	-	28.78	9.60	0.01	9.87			
AV	169.084k	32.21	55.01	-22.80	19.48	Neutral	-	12.73	9.60	0.01	9.87			
QP	177.381k	47.97	64.60	-16.63	19.47	Neutral	-	28.50	9.59	0.01	9.87			
AV	177.381k	30.95	54.60	-23.65	19.47	Neutral	-	11.48	9.59	0.01	9.87			
QP	529.596k	39.86	56.00	-16.14	19.48	Neutral	-	20.38	9.59	0.01	9.88			
AV	529.596k	32.98	46.00	-13.02	19.48	Neutral	"Worst"	13.50	9.59	0.01	9.88			
QP	2.366M	30.76	56.00	-25.24	19.54	Neutral	-	11.22	9.61	0.04	9.89			
AV	2.366M	24.28	46.00	-21.72	19.54	Neutral	-	4.74	9.61	0.04	9.89			
QP	3.231M	34.31	56.00	-21.69	19.54	Neutral	-	14.77	9.61	0.04	9.89			
AV	3.231M	24.97	46.00	-21.03	19.54	Neutral	-	5.43	9.61	0.04	9.89			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter mode		

12/02/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	161.175k	49.77	65.41	-15.64	19.48	Line	-	30.29	9.60	0.01	9.87			
AV	161.175k	32.70	55.41	-22.71	19.48	Line	-	13.22	9.60	0.01	9.87			
QP	173.876k	46.78	64.78	-18.00	19.48	Line	-	27.30	9.60	0.01	9.87			
AV	173.876k	30.75	54.78	-24.03	19.48	Line	-	11.27	9.60	0.01	9.87			
QP	194.439k	46.52	63.84	-17.32	19.48	Line	-	27.04	9.60	0.01	9.87			
AV	194.439k	29.98	53.84	-23.86	19.48	Line	-	10.50	9.60	0.01	9.87			
QP	527.486k	39.89	56.00	-16.11	19.48	Line	-	20.41	9.59	0.01	9.88			
AV	527.486k	32.91	46.00	-13.09	19.48	Line	"Worst"	13.43	9.59	0.01	9.88			
QP	2.395M	28.19	56.00	-27.81	19.55	Line	-	8.64	9.62	0.04	9.89			
AV	2.395M	21.83	46.00	-24.17	19.55	Line	-	2.28	9.62	0.04	9.89			
QP	3.218M	32.71	56.00	-23.29	19.56	Line	-	13.15	9.63	0.04	9.89			
AV	3.218M	22.68	46.00	-23.32	19.56	Line	-	3.12	9.63	0.04	9.89			

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX(Port3)	14M	16.967M	17M0G1D	12.55M	16.392M
802.11g_Nss1,(6Mbps)_3TX	16.35M	17.516M	17M5D1D	16.275M	16.467M
802.11n HT20_Nss3,(MCS16)_3TX	17.5M	19.39M	19M4D1D	16.275M	17.566M
802.11n HT40_Nss3,(MCS16)_3TX	36.3M	36.282M	36M3D1D	35.5M	36.082M

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;

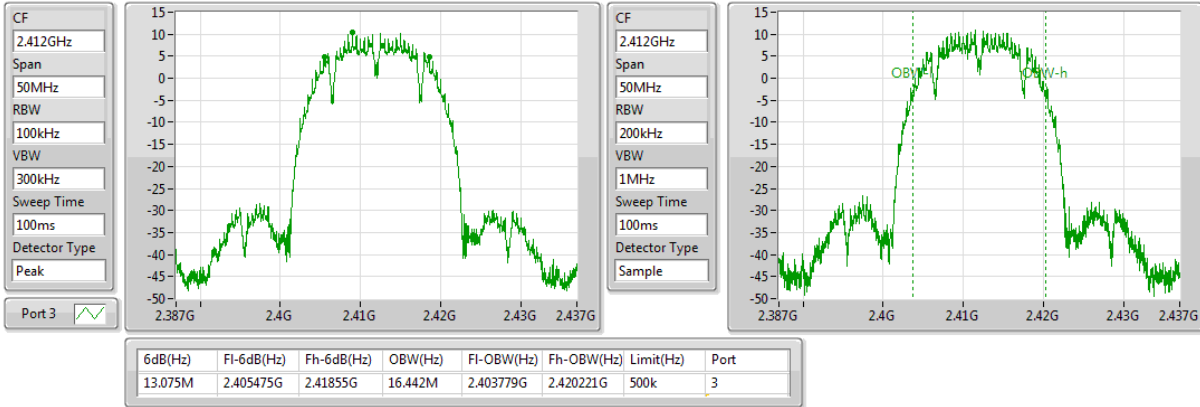
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX(Port3)	-	-	-	-	-	-	-	-
2412MHz	Pass	500k					13.075M	16.442M
2437MHz	Pass	500k					12.55M	16.967M
2462MHz	Pass	500k					14M	16.392M
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.467M	16.275M	16.492M	16.3M	16.492M
2437MHz	Pass	500k	16.3M	16.917M	16.3M	17.241M	16.325M	17.516M
2462MHz	Pass	500k	16.3M	16.492M	16.35M	16.492M	16.35M	16.517M
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17M	17.566M	17.05M	17.591M	17.5M	17.566M
2437MHz	Pass	500k	16.775M	18.216M	16.275M	18.266M	16.3M	19.39M
2462MHz	Pass	500k	16.775M	17.591M	16.9M	17.566M	17.275M	17.566M
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36.3M	36.132M	35.75M	36.132M	35.5M	36.132M
2437MHz	Pass	500k	36.05M	36.132M	36.1M	36.182M	36.05M	36.282M
2452MHz	Pass	500k	35.7M	36.082M	36.05M	36.182M	36.25M	36.232M

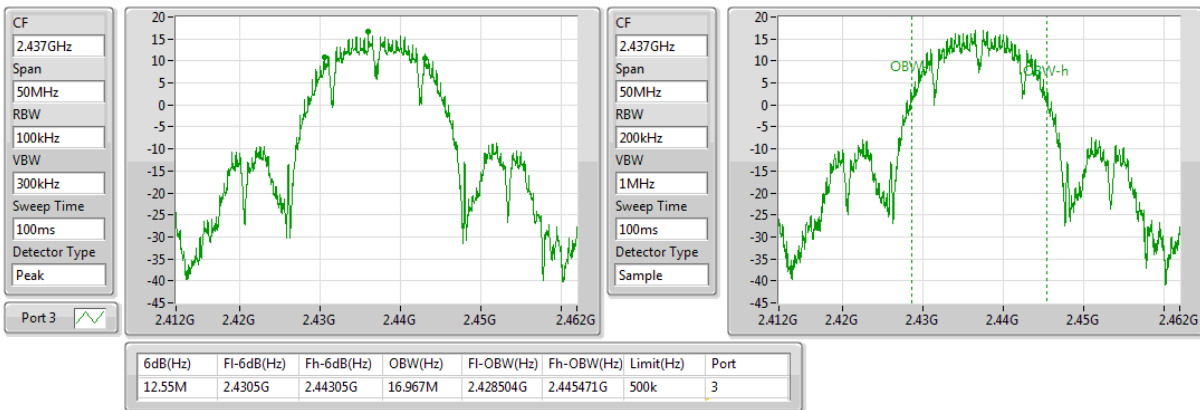
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_1TX(Port3)
EBW
2412MHz

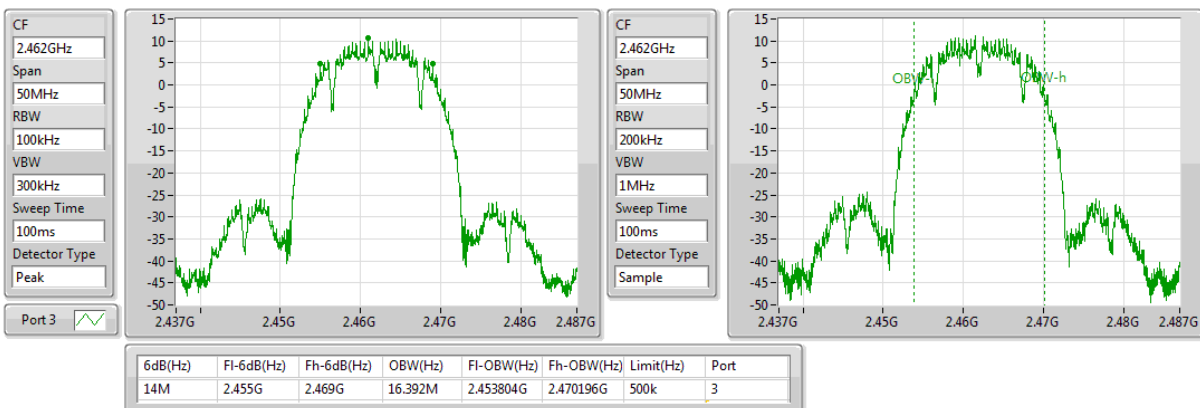
11/02/2019


802.11b_Nss1,(1Mbps)_1TX(Port3)
EBW
2437MHz

11/02/2019

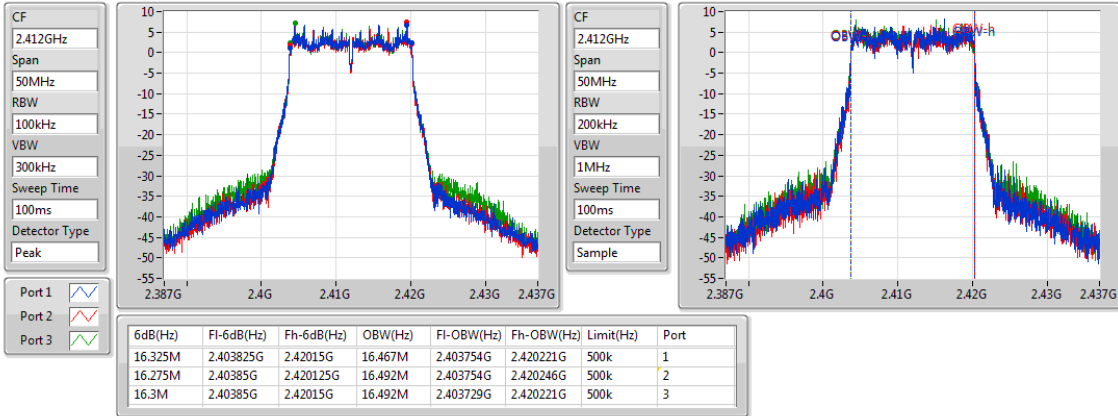

802.11b_Nss1,(1Mbps)_1TX(Port3)
EBW
2462MHz

11/02/2019

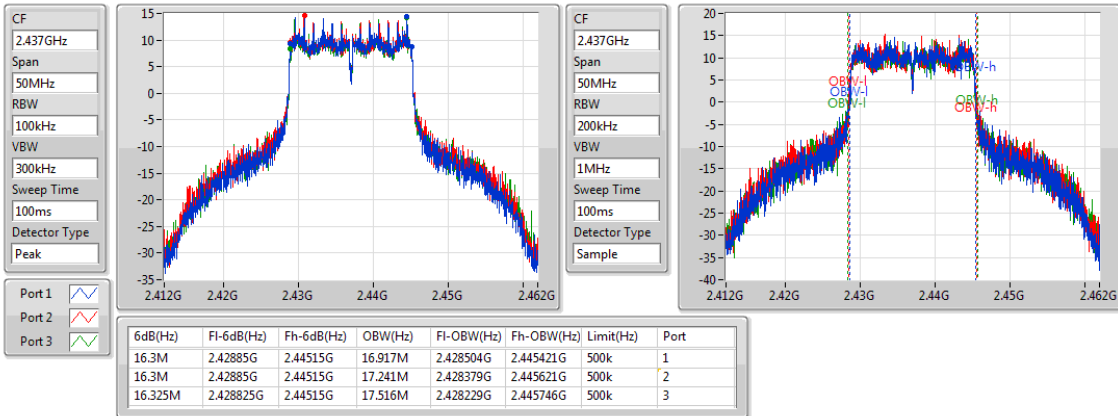


802.11g_Nss1,(6Mbps)_3TX
EBW
2412MHz

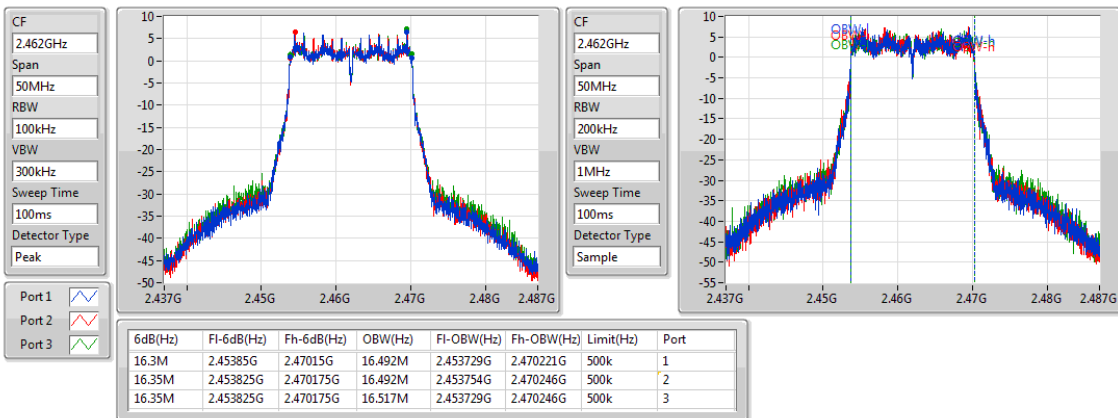
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802.11g_Nss1,(6Mbps)_3TX
EBW
2437MHz

11/02/2019

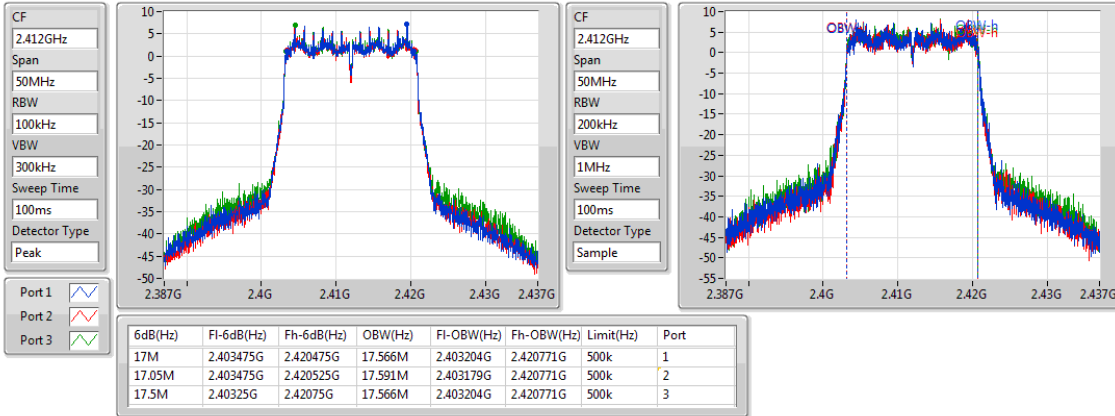

802.11g_Nss1,(6Mbps)_3TX
EBW
2462MHz

11/02/2019

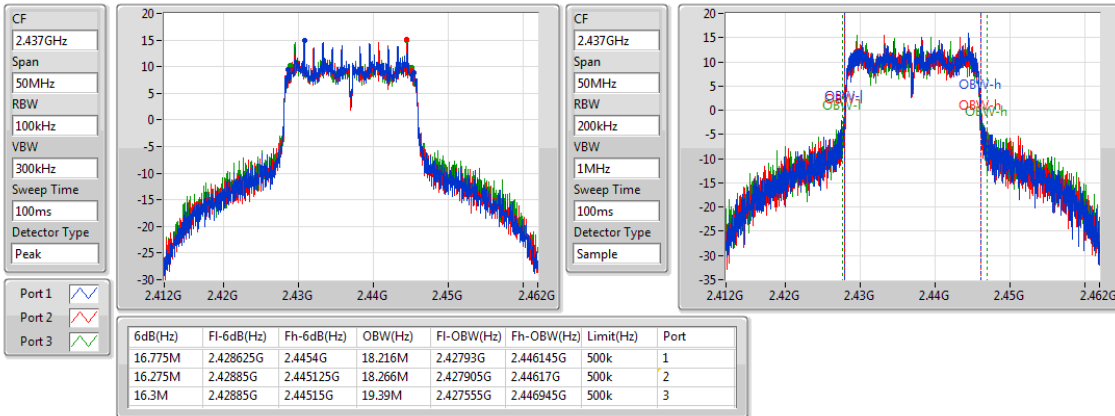


802.11n HT20_Nss3,(MCS16)_3TX
EBW
2412MHz

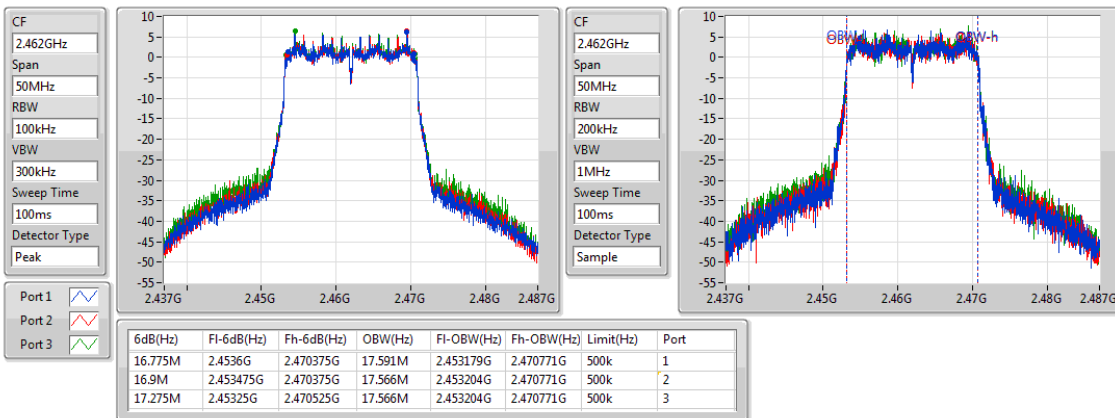
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802.11n HT20_Nss3,(MCS16)_3TX
EBW
2437MHz

11/02/2019

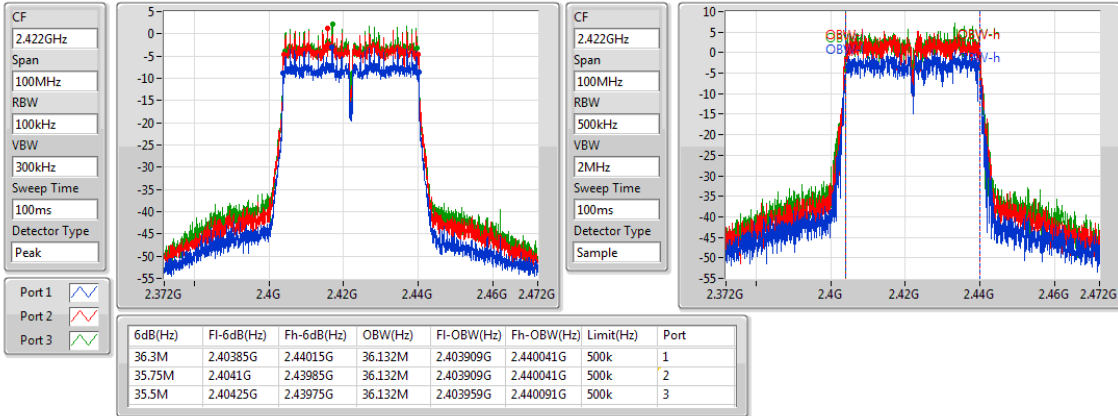

802.11n HT20_Nss3,(MCS16)_3TX
EBW
2462MHz

11/02/2019

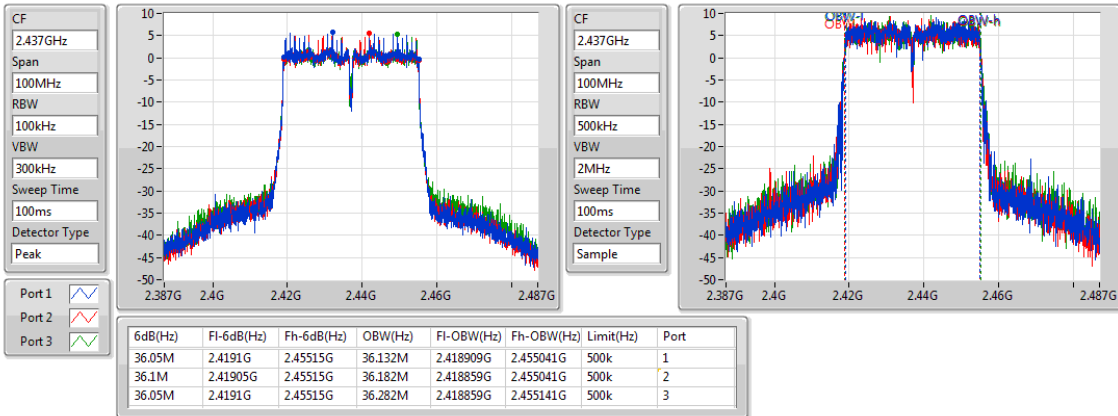


802.11n HT40_Nss3,(MCS16)_3TX
EBW
2422MHz

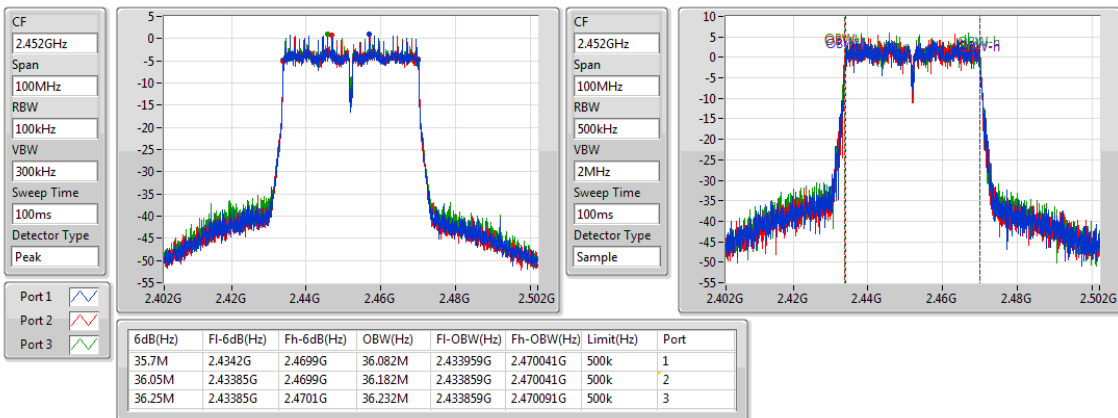
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802.11n HT40_Nss3,(MCS16)_3TX
EBW
2437MHz

11/02/2019


802.11n HT40_Nss3,(MCS16)_3TX
EBW
2452MHz

11/02/2019



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX(Port3)	26.40	0.43652
802.11g_Nss1,(6Mbps)_3TX	29.69	0.93111
802.11n HT20_Nss3,(MCS16)_3TX	29.96	0.99083
802.11n HT40_Nss3,(MCS16)_3TX	24.35	0.27227

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX(Port3)	-	-	-	-	-	-	-
2412MHz	Pass	4.00			20.53	20.53	30.00
2437MHz	Pass	4.00			26.40	26.40	30.00
2462MHz	Pass	4.20			20.44	20.44	30.00
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.00	18.33	18.14	18.26	23.02	30.00
2437MHz	Pass	4.00	24.91	25.03	24.82	29.69	30.00
2462MHz	Pass	4.20	17.84	17.42	17.49	22.36	30.00
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.00	18.13	18.01	18.27	22.91	30.00
2437MHz	Pass	4.00	25.31	25.09	25.15	29.96	30.00
2462MHz	Pass	4.20	17.42	17.51	17.79	22.35	30.00
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	4.00	14.95	14.86	15.40	19.85	30.00
2437MHz	Pass	4.00	19.75	19.55	19.43	24.35	30.00
2452MHz	Pass	4.20	15.52	15.64	15.78	20.42	30.00

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

Note : Conducted average output power is for reference only

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX(Port3)	2.37
802.11g_Nss1,(6Mbps)_3TX	1.90
802.11n HT20_Nss3,(MCS16)_3TX	2.35
802.11n HT40_Nss3,(MCS16)_3TX	-5.38

RBW=3kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX(Port3)	-	-	-	-	-	-	-
2412MHz	Pass	4.00			-4.20	-4.20	8.00
2437MHz	Pass	4.00			2.37	2.37	8.00
2462MHz	Pass	4.20			-4.19	-4.19	8.00
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.00	-7.33	-7.58	-6.39	-3.76	8.00
2437MHz	Pass	4.00	-0.33	0.27	-0.06	1.90	8.00
2462MHz	Pass	4.20	-7.73	-8.85	-7.89	-4.84	8.00
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.00	-6.98	-8.03	-7.76	-4.56	8.00
2437MHz	Pass	4.00	-0.37	-1.40	-0.21	2.35	8.00
2462MHz	Pass	4.20	-7.83	-9.03	-8.07	-5.77	8.00
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	4.00	-13.37	-14.37	-12.65	-10.05	8.00
2437MHz	Pass	4.00	-7.71	-8.78	-10.15	-5.38	8.00
2452MHz	Pass	4.20	-13.35	-13.75	-12.63	-10.43	8.00

DG = Directional Gain; RBW=3kHz;

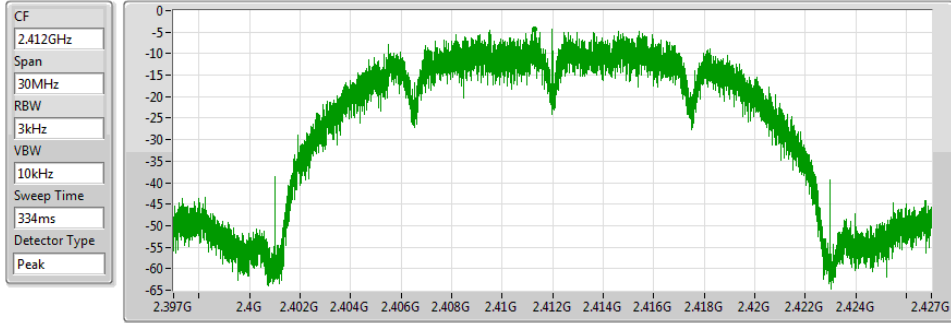
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11b_Nss1,(1Mbps)_1TX(Port3)

PSD

2412MHz

11/02/2019



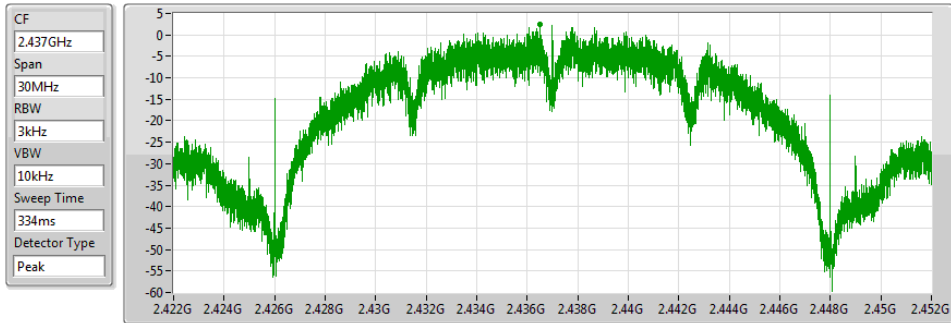
Sum	PD	Port 1	Port 2	Port 3
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-4.20	-4.20			-4.20

802.11b_Nss1,(1Mbps)_1TX(Port3)

PSD

2437MHz

11/02/2019



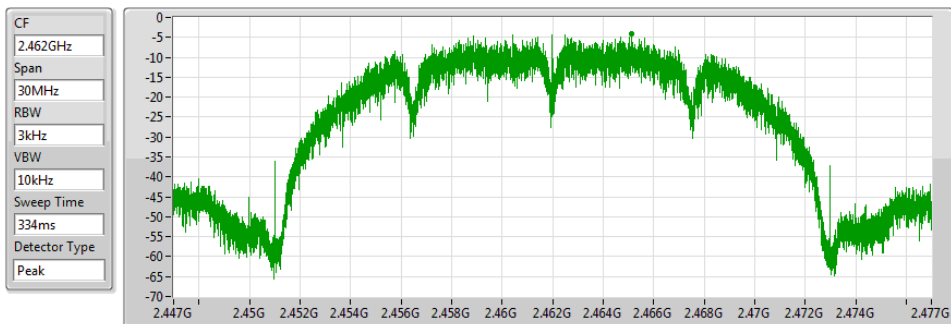
Sum	PD	Port 1	Port 2	Port 3
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
2.37	2.37			2.37

802.11b_Nss1,(1Mbps)_1TX(Port3)

PSD

2462MHz

11/02/2019



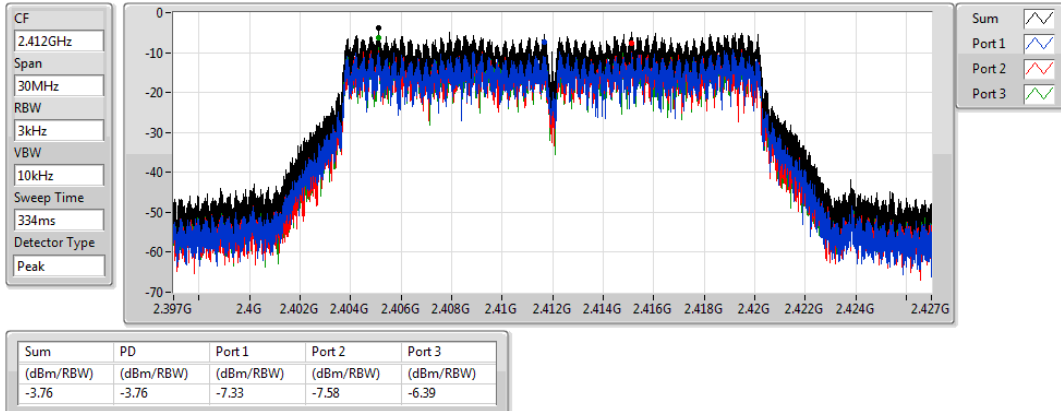
Sum	PD	Port 1	Port 2	Port 3
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-4.19	-4.19			-4.19

802.11g_Nss1,(6Mbps)_3TX

PSD

2412MHz

11/02/2019

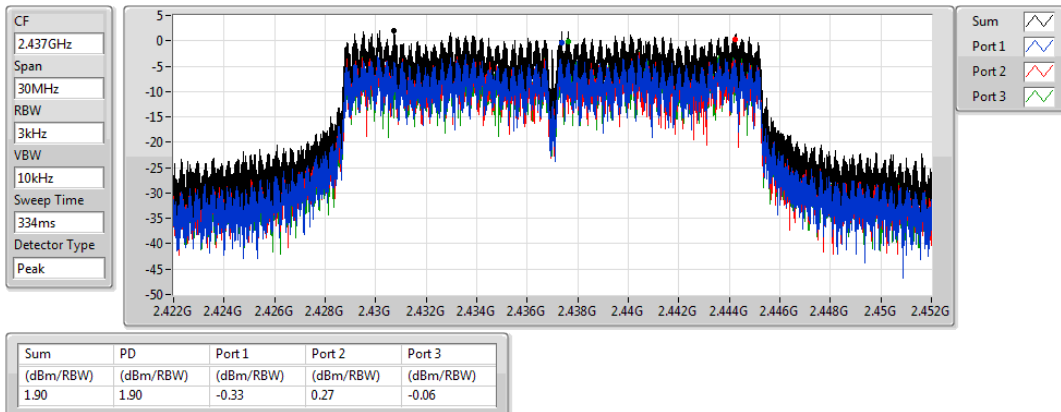


802.11g_Nss1,(6Mbps)_3TX

PSD

2437MHz

11/02/2019

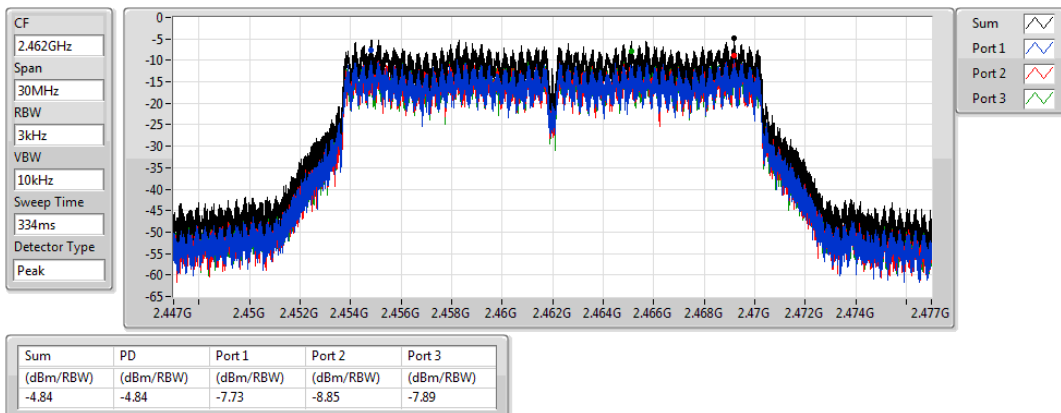


802.11g_Nss1,(6Mbps)_3TX

PSD

2462MHz

11/02/2019

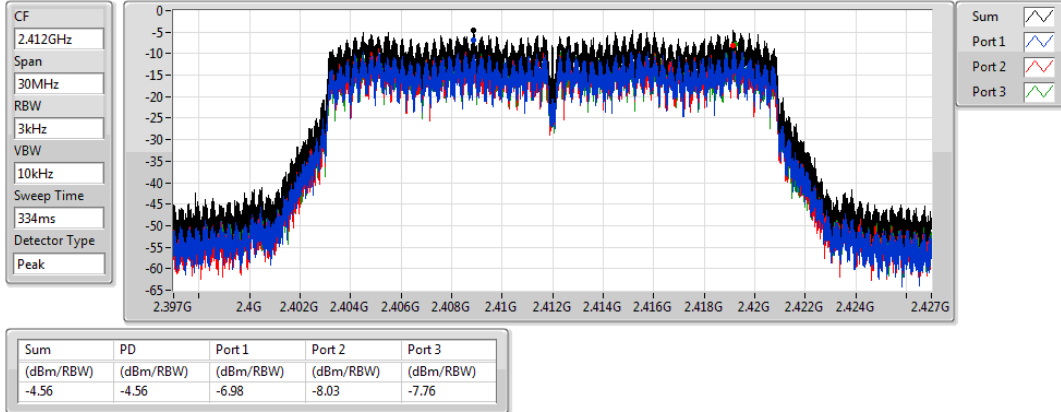


802.11n HT20_Nss3,(MCS16)_3TX

PSD

2412MHz

11/02/2019

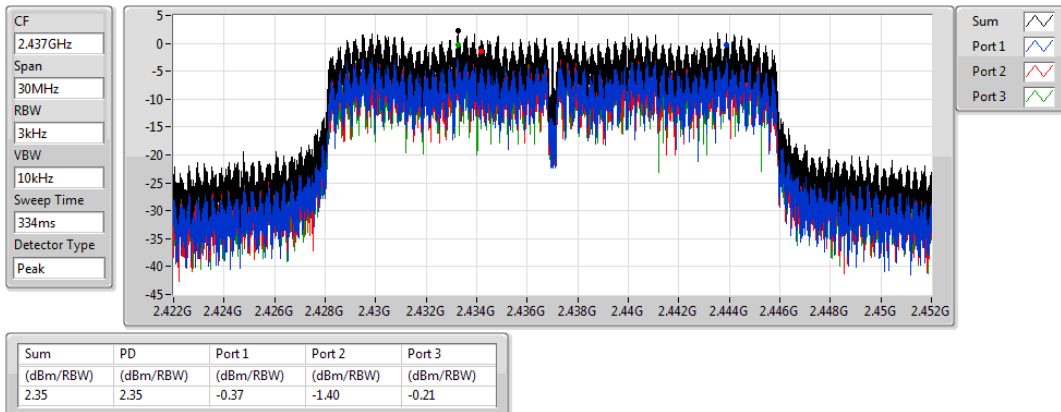


802.11n HT20_Nss3,(MCS16)_3TX

PSD

2437MHz

11/02/2019

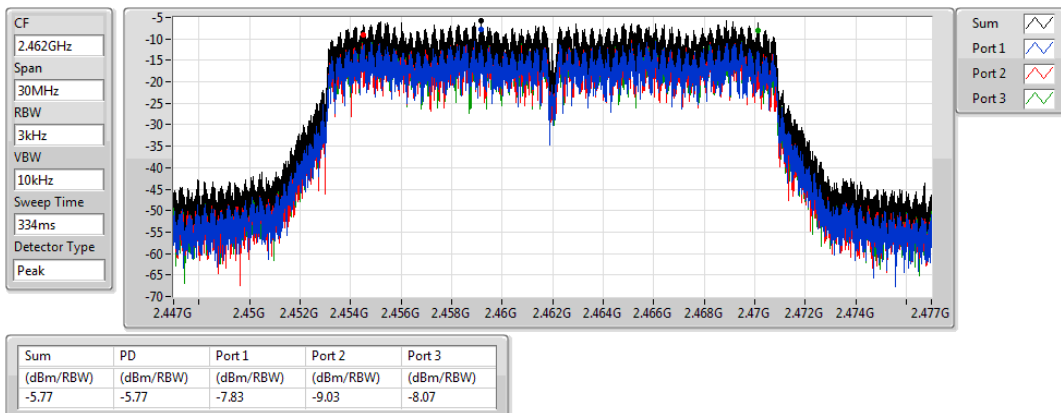


802.11n HT20_Nss3,(MCS16)_3TX

PSD

2462MHz

11/02/2019

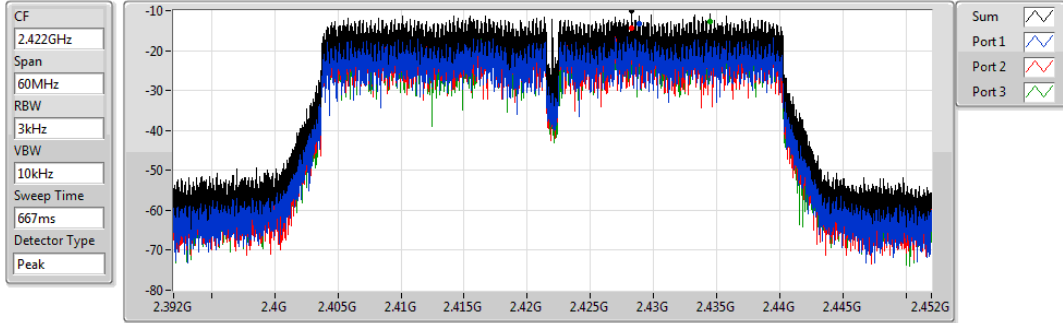


802.11n HT40_Nss3,(MCS16)_3TX

PSD

2422MHz

11/02/2019



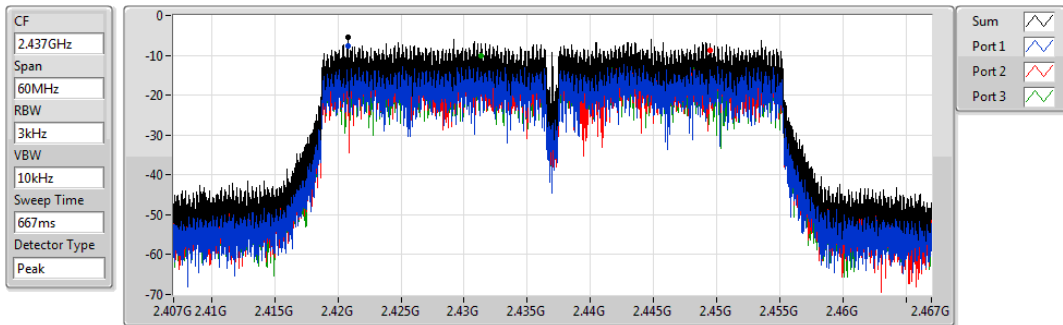
Sum	PD	Port 1	Port 2	Port 3
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-10.05	-10.05	-13.37	-14.37	-12.65

802.11n HT40_Nss3,(MCS16)_3TX

PSD

2437MHz

11/02/2019



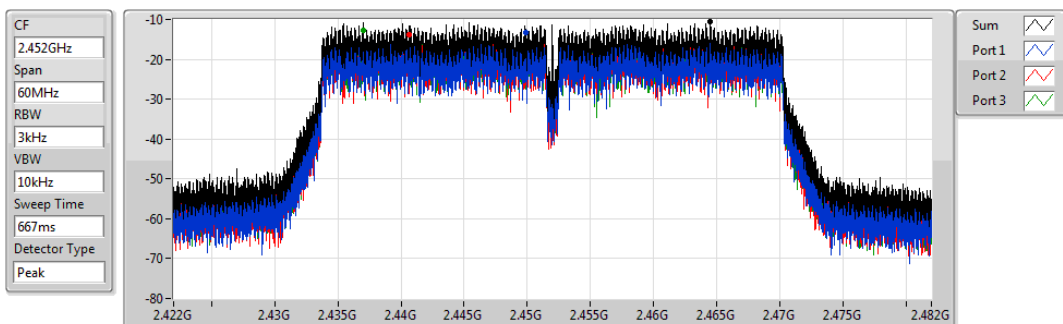
Sum	PD	Port 1	Port 2	Port 3
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-5.38	-5.38	-7.71	-8.78	-10.15

802.11n HT40_Nss3,(MCS16)_3TX

PSD

2452MHz

11/02/2019



Sum	PD	Port 1	Port 2	Port 3
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-10.43	-10.43	-13.35	-13.75	-12.63

Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX(Port3)	Pass	2.43749G	15.93	-14.07	2.30117G	-43.28	2.39796G	-28.69	2.49482G	-40.75	24.10094G	-28.06	3
802.11g_Nss1,(6Mbps)_3TX	Pass	2.44451G	15.21	-14.79	1.94322G	-43.80	2.39458G	-43.14	2.48418G	-39.22	24.01665G	-28.11	2
802.11n HT20_Nss3,(MCS16)_3TX	Pass	2.44451G	15.28	-14.72	2.00497G	-43.78	2.39954G	-31.22	2.48558G	-41.77	24.42966G	-27.41	2
802.11n HT40_Nss3,(MCS16)_3TX	Pass	2.43073G	5.44	-24.56	2.18489G	-44.35	2.3996G	-32.64	2.48758G	-38.77	24.37739G	-27.80	3

Result

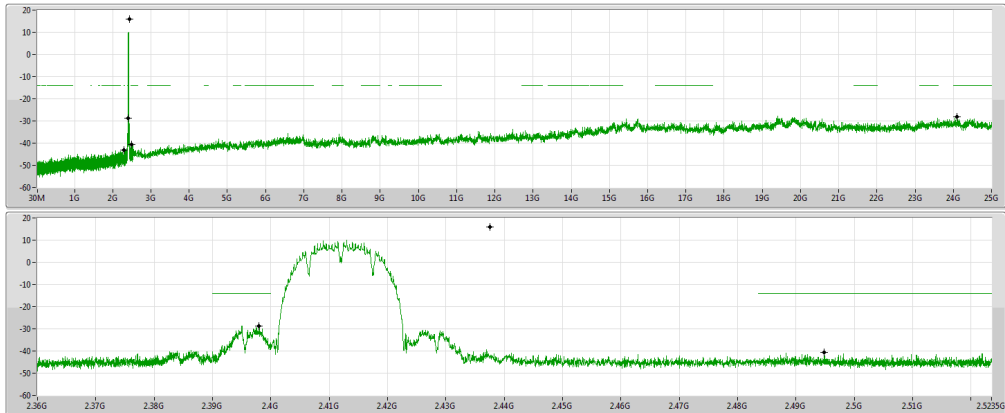
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX(Port3)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.43749G	15.93	-14.07	2.30117G	-43.28	2.39796G	-28.69	2.49482G	-40.75	24.10094G	-28.06	3
2437MHz_TnomVnom	Pass	2.43749G	15.93	-14.07	2.12438G	-43.06	2.39796G	-31.29	2.48398G	-39.46	24.54204G	-28.41	3
2462MHz_TnomVnom	Pass	2.43749G	15.93	-14.07	2.15583G	-42.90	2.39174G	-42.88	2.48734G	-39.90	24.99157G	-29.05	3
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.44451G	15.21	-14.79	2.30554G	-43.83	2.39826G	-32.59	2.48588G	-41.84	24.41561G	-28.87	1
2412MHz_TnomVnom	Pass	2.44451G	15.21	-14.79	2.19632G	-43.79	2.39986G	-31.90	2.48468G	-41.58	24.01946G	-29.14	2
2412MHz_TnomVnom	Pass	2.44451G	15.21	-14.79	1.85556G	-43.21	2.39968G	-29.75	2.48984G	-41.12	24.45775G	-28.17	3
2437MHz_TnomVnom	Pass	2.44451G	15.21	-14.79	2.30932G	-42.72	2.39822G	-35.13	2.48384G	-39.43	24.4409G	-29.05	1
2437MHz_TnomVnom	Pass	2.44451G	15.21	-14.79	2.30204G	-43.49	2.3964G	-35.73	2.48388G	-39.47	24.35661G	-28.34	2
2437MHz_TnomVnom	Pass	2.44451G	15.21	-14.79	2.14855G	-43.75	2.39666G	-35.56	2.48792G	-38.41	23.52779G	-29.28	3
2462MHz_TnomVnom	Pass	2.44451G	15.21	-14.79	2.30466G	-43.91	2.39106G	-42.61	2.48412G	-39.54	24.4409G	-28.60	1
2462MHz_TnomVnom	Pass	2.44451G	15.21	-14.79	1.94322G	-43.80	2.39458G	-43.14	2.48418G	-39.22	24.01665G	-28.11	2
2462MHz_TnomVnom	Pass	2.44451G	15.21	-14.79	2.30495G	-43.40	2.39338G	-42.80	2.48412G	-39.10	24.37909G	-29.37	3
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	2.44451G	15.28	-14.72	2.02914G	-44.46	2.39822G	-33.05	2.48538G	-41.78	24.39875G	-28.25	1
2412MHz_TnomVnom	Pass	2.44451G	15.28	-14.72	2.00497G	-43.78	2.39954G	-31.22	2.48558G	-41.77	24.42966G	-27.41	2
2412MHz_TnomVnom	Pass	2.44451G	15.28	-14.72	1.9607G	-44.23	2.39914G	-30.74	2.49992G	-41.95	24.14308G	-27.98	3
2437MHz_TnomVnom	Pass	2.44451G	15.28	-14.72	2.30991G	-43.49	2.39856G	-32.81	2.48386G	-38.59	24.42685G	-29.21	1
2437MHz_TnomVnom	Pass	2.44451G	15.28	-14.72	2.09729G	-43.47	2.39886G	-34.62	2.4874G	-38.51	24.40999G	-29.15	2
2437MHz_TnomVnom	Pass	2.44451G	15.28	-14.72	1.98604G	-43.50	2.39764G	-33.62	2.48386G	-36.89	24.13746G	-27.69	3
2462MHz_TnomVnom	Pass	2.44451G	15.28	-14.72	2.09467G	-44.27	2.39972G	-43.11	2.48388G	-38.42	15.32668G	-28.28	1
2462MHz_TnomVnom	Pass	2.44451G	15.28	-14.72	1.98283G	-44.25	2.3956G	-42.99	2.48388G	-38.85	23.45474G	-28.17	2
2462MHz_TnomVnom	Pass	2.44451G	15.28	-14.72	2.10487G	-42.70	2.3945G	-41.81	2.4836G	-37.22	24.45494G	-29.05	3
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	2.43073G	5.44	-24.56	2.17745G	-43.70	2.39824G	-36.00	2.51138G	-42.11	24.383G	-29.09	1
2422MHz_TnomVnom	Pass	2.43073G	5.44	-24.56	2.30769G	-43.54	2.39576G	-37.87	2.48726G	-42.17	23.47432G	-28.43	2
2422MHz_TnomVnom	Pass	2.43073G	5.44	-24.56	2.16228G	-43.14	2.39452G	-36.44	2.51658G	-42.09	24.5681G	-28.84	3
2437MHz_TnomVnom	Pass	2.43073G	5.44	-24.56	2.30197G	-42.78	2.39948G	-35.48	2.48442G	-38.31	24.04925G	-28.46	1
2437MHz_TnomVnom	Pass	2.43073G	5.44	-24.56	2.30912G	-43.78	2.39972G	-34.36	2.51446G	-40.11	24.43348G	-29.18	2
2437MHz_TnomVnom	Pass	2.43073G	5.44	-24.56	2.18489G	-44.35	2.3996G	-32.64	2.48758G	-38.77	24.37739G	-27.80	3
2452MHz_TnomVnom	Pass	2.43073G	5.44	-24.56	2.00198G	-43.74	2.39796G	-43.13	2.48438G	-39.34	24.44189G	-28.70	1
2452MHz_TnomVnom	Pass	2.43073G	5.44	-24.56	2.10245G	-44.14	2.39552G	-43.49	2.48946G	-39.15	24.53164G	-28.78	2
2452MHz_TnomVnom	Pass	2.43073G	5.44	-24.56	2.1305G	-44.43	2.39692G	-42.70	2.48486G	-36.33	24.4475G	-28.35	3

802.11b_Nss1,(1Mbps)_1TX(Port3)

2412MHz

CSE NdB

11/02/2019

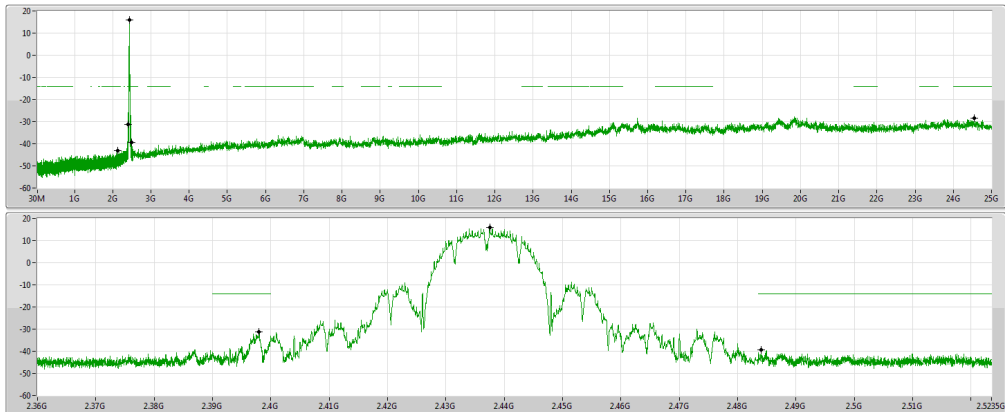


802.11b_Nss1,(1Mbps)_1TX(Port3)

2437MHz

CSE NdB

11/02/2019

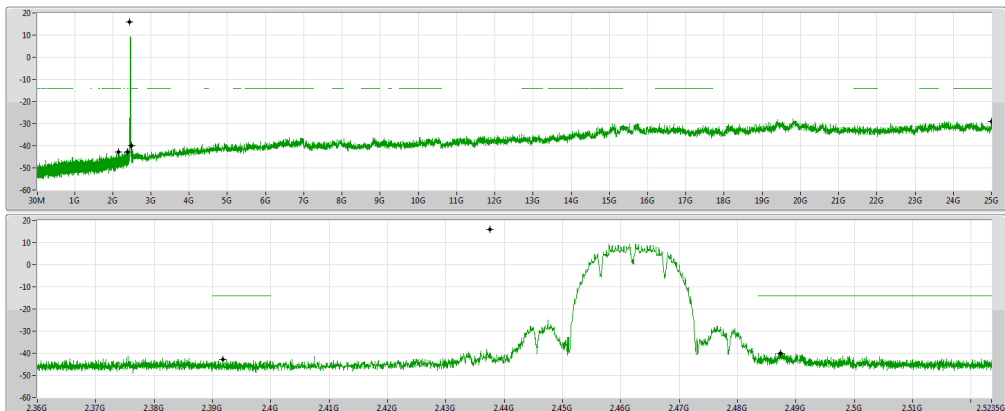


802.11b_Nss1,(1Mbps)_1TX(Port3)

2462MHz

CSE NdB

11/02/2019

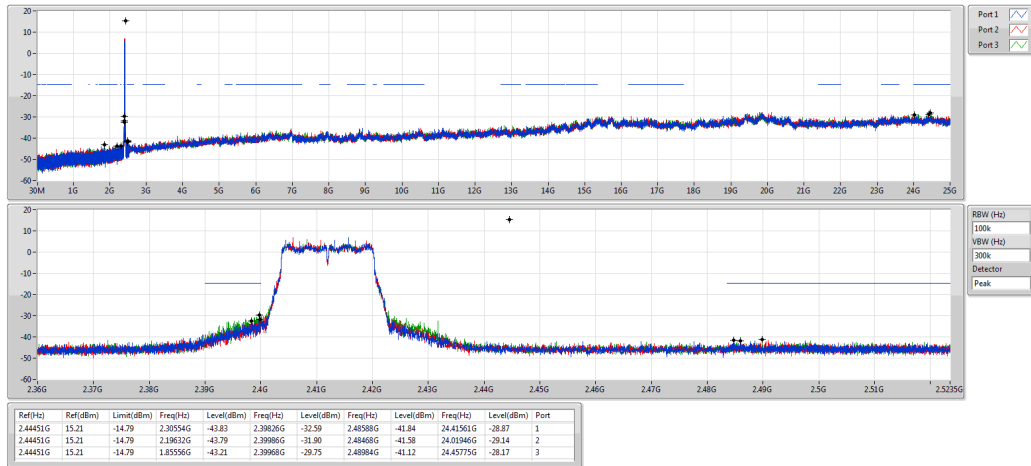


802.11g_Nss1,(6Mbps)_3TX

2412MHz

CSE NdB

11/02/2019

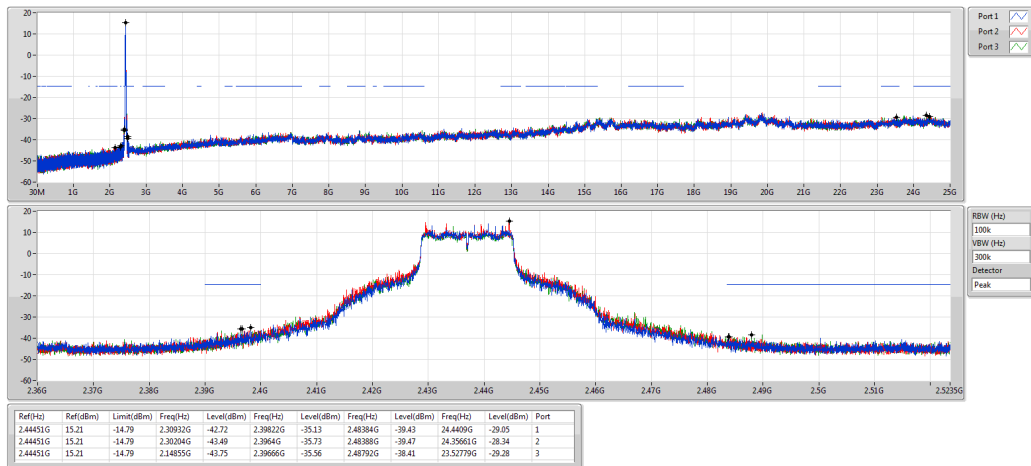


802.11g_Nss1,(6Mbps)_3TX

2437MHz

CSE NdB

11/02/2019

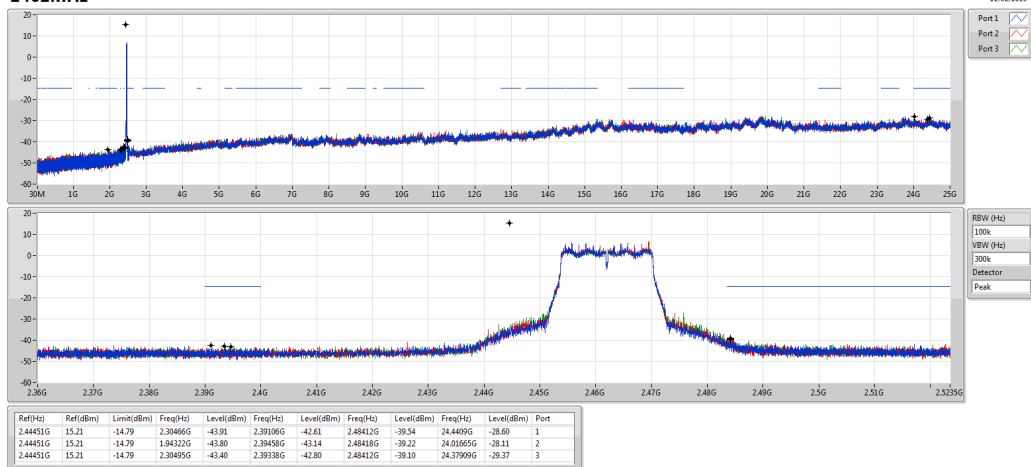


802.11g_Nss1,(6Mbps)_3TX

2462MHz

CSE NdB

11/02/2019

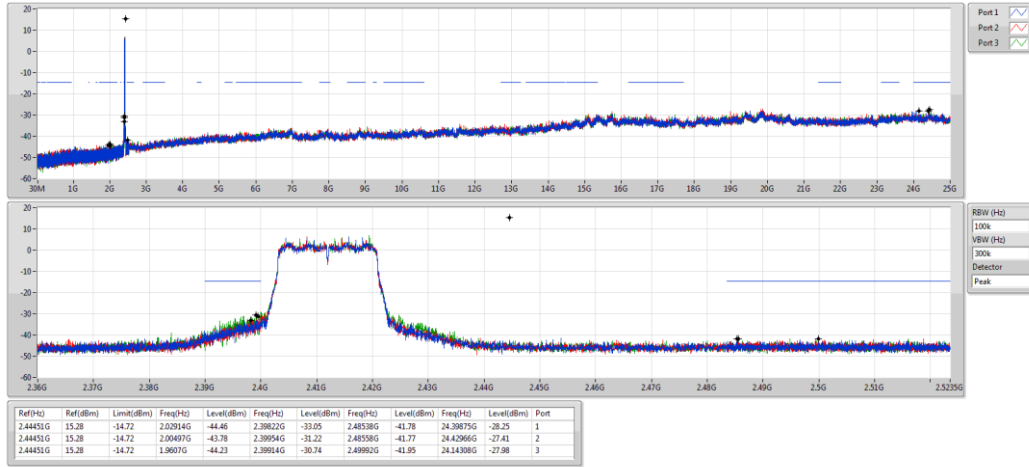


802.11n HT20_Nss3,(MCS16)_3TX

2412MHz

CSE NdB

11/02/2019

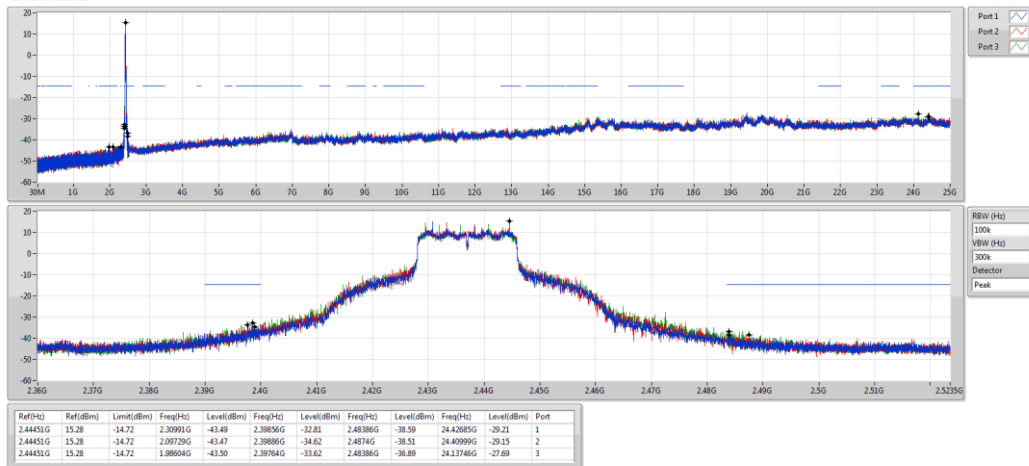


802.11n HT20_Nss3,(MCS16)_3TX

2437MHz

CSE NdB

11/02/2019

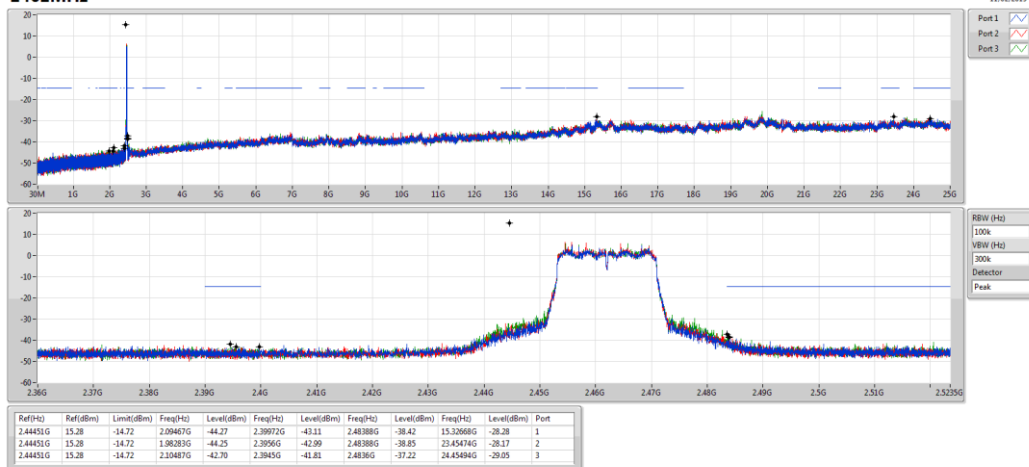


802.11n HT20_Nss3,(MCS16)_3TX

2462MHz

CSE NdB

11/02/2019

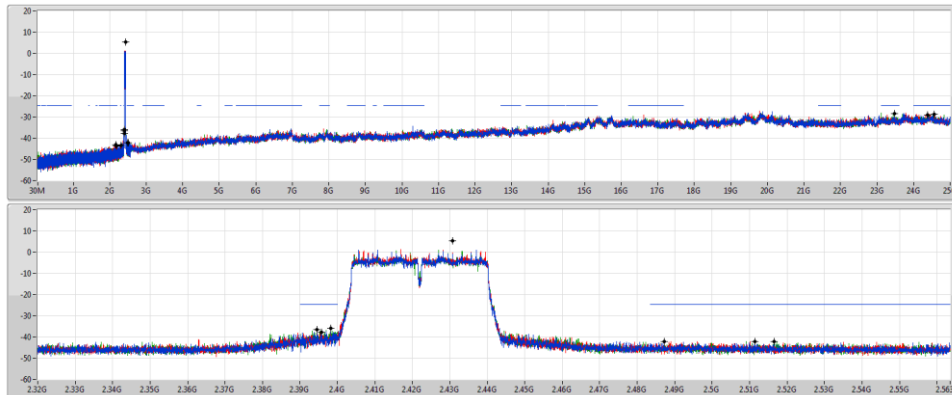


802.11n HT40_Nss3,(MCS16)_3TX 2422MHz

CSE NdB

11/02/2019

Port 1
Port 2
Port 3



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

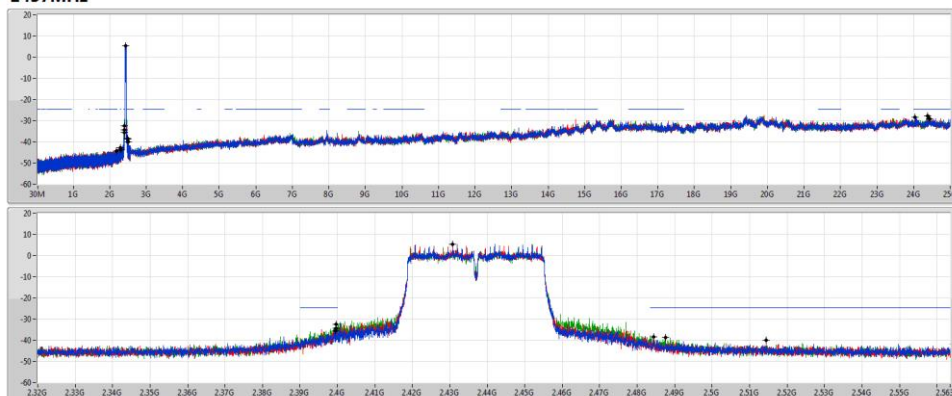
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43073G	5.44	-24.56	2.17749G	-43.70	2.38624G	-36.00	2.51138G	-42.11	24.383G	-29.09	1
2.43073G	5.44	-24.56	2.30769G	-43.54	2.39576G	-37.87	2.48726G	-42.17	23.47432G	-28.43	2
2.43073G	5.44	-24.56	2.16228G	-43.14	2.39452G	-36.44	2.51658G	-42.09	24.5681G	-28.84	3

802.11n HT40_Nss3,(MCS16)_3TX 2437MHz

CSE NdB

11/02/2019

Port 1
Port 2
Port 3



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

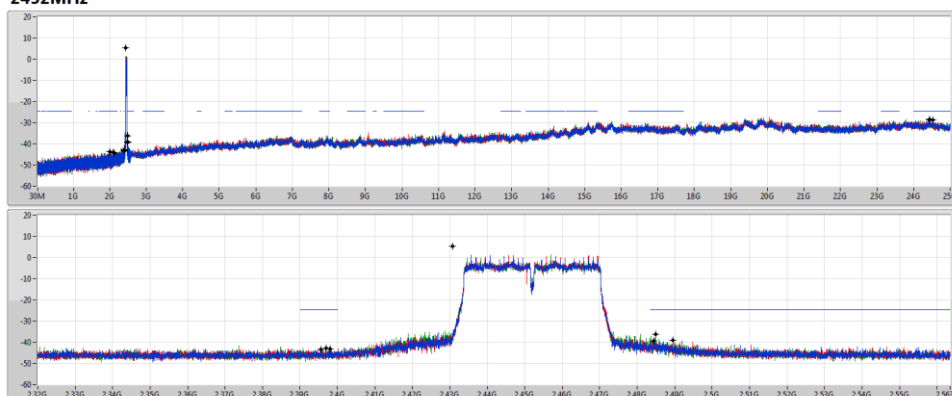
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43073G	5.44	-24.56	2.30397G	-42.78	2.39648G	-35.46	2.48442G	-38.31	24.04025G	-28.46	1
2.43073G	5.44	-24.56	2.30312G	-43.78	2.39972G	-34.36	2.51446G	-40.11	24.43348G	-29.18	2
2.43073G	5.44	-24.56	2.15489G	-44.35	2.3996G	-32.64	2.48758G	-38.77	24.3779G	-27.80	3

802.11n HT40_Nss3,(MCS16)_3TX 2452MHz

CSE NdB

11/02/2019

Port 1
Port 2
Port 3



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

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43073G	5.44	-24.56	2.00198G	-43.74	2.39796G	-43.13	2.48438G	-39.34	24.44189G	-28.70	1
2.43073G	5.44	-24.56	2.10245G	-44.14	2.39532G	-43.49	2.48946G	-39.15	24.53164G	-28.78	2
2.43073G	5.44	-24.56	2.1395G	-44.43	2.39652G	-42.70	2.48488G	-38.33	24.4475G	-28.35	3



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_Nss3,(MCS16)_3TX	Pass	PK	485.9M	41.99	46.00	-4.01	-2.35	3	Vertical	360	1.00	-

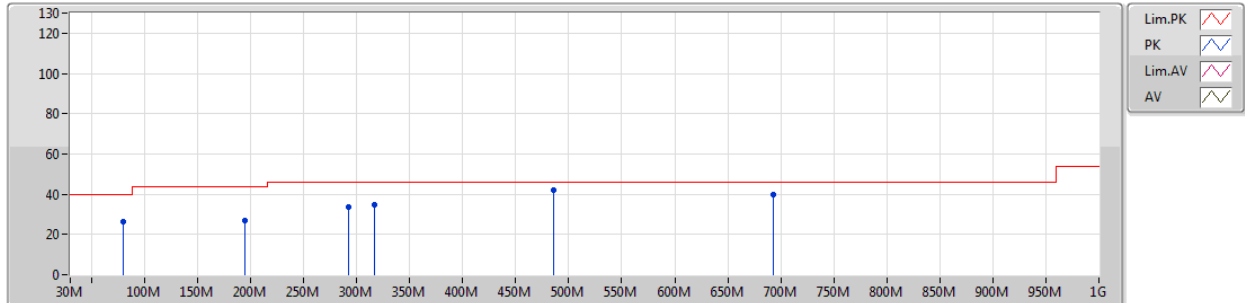
Result

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_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	80.44M	26.14	40.00	-13.86	-14.64	3	Vertical	360	1.00	-
2437MHz	Pass	PK	194.9M	27.02	43.50	-16.48	-10.85	3	Vertical	360	1.00	-
2437MHz	Pass	PK	291.9M	33.35	46.00	-12.65	-6.02	3	Vertical	360	1.00	-
2437MHz	Pass	PK	317.12M	34.99	46.00	-11.01	-5.56	3	Vertical	360	1.00	-
2437MHz	Pass	PK	485.9M	41.99	46.00	-4.01	-2.35	3	Vertical	360	1.00	-
2437MHz	Pass	PK	693.48M	39.66	46.00	-6.34	-0.21	3	Vertical	360	1.00	-
2437MHz	Pass	PK	90.14M	29.36	43.50	-14.14	-12.55	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	194.9M	33.92	43.50	-9.58	-10.85	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	289.96M	35.65	46.00	-10.35	-6.07	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	301.6M	37.10	46.00	-8.90	-5.82	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	480.08M	39.26	46.00	-6.74	-2.34	3	Horizontal	0	1.00	-
2437MHz	Pass	PK	559.62M	41.08	46.00	-4.92	-0.91	3	Horizontal	0	1.00	-

802.11n HT40_Nss3,(MCS16)_3TX

06/02/2019

2437MHz_Adapter

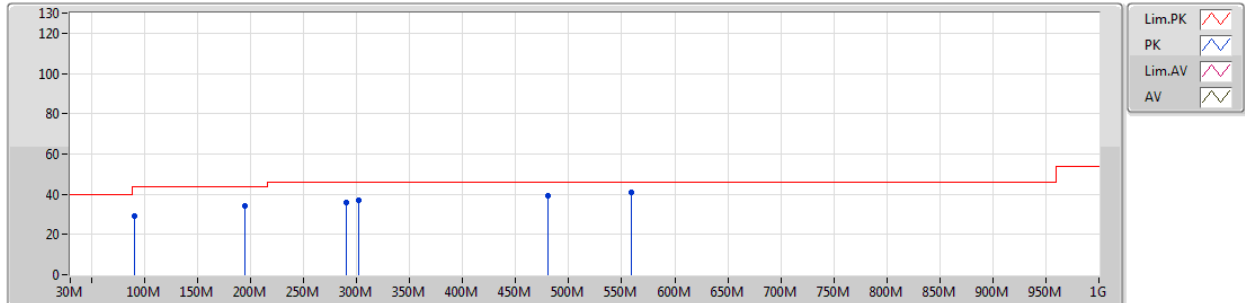


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	80.44M	26.14	40.00	-13.86	-14.64	3	Vertical	360	1.00	-
PK	194.9M	27.02	43.50	-16.48	-10.85	3	Vertical	360	1.00	-
PK	291.9M	33.35	46.00	-12.65	-6.02	3	Vertical	360	1.00	-
PK	317.12M	34.99	46.00	-11.01	-5.56	3	Vertical	360	1.00	-
PK	485.9M	41.99	46.00	-4.01	-2.35	3	Vertical	360	1.00	-
PK	693.48M	39.66	46.00	-6.34	-0.21	3	Vertical	360	1.00	-

802.11n HT40_Nss3,(MCS16)_3TX

06/02/2019

2437MHz_Adapter



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	90.14M	29.36	43.50	-14.14	-12.55	3	Horizontal	0	1.00	-
PK	194.9M	33.92	43.50	-9.58	-10.85	3	Horizontal	0	1.00	-
PK	289.96M	35.65	46.00	-10.35	-6.07	3	Horizontal	0	1.00	-
PK	301.6M	37.10	46.00	-8.90	-5.82	3	Horizontal	0	1.00	-
PK	480.08M	39.26	46.00	-6.74	-2.34	3	Horizontal	0	1.00	-
PK	559.62M	41.08	46.00	-4.92	-0.91	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)_1TX(Port3)	Pass	AV	2.3866G	53.89	54.00	-0.11	32.00	3	Horizontal	238	1.97	-
802.11g_Nss1,(6Mbps)_3TX	Pass	AV	2.3898G	53.86	54.00	-0.14	32.01	3	Horizontal	287	1.86	-
802.11n HT20_Nss3,(MCS16)_3TX	Pass	AV	2.389G	53.54	54.00	-0.46	32.00	3	Horizontal	295	1.50	-
802.11n HT40_Nss3,(MCS16)_3TX	Pass	AV	2.4852G	53.68	54.00	-0.32	32.29	3	Horizontal	61	1.97	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11b_Nss1,(1Mbps)_1TX(Pori3)	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3866G	48.54	54.00	-5.46	32.00	3	Vertical	198	1.19	-
2412MHz	Pass	AV	2.4148G	100.40	Inf	-Inf	32.09	3	Vertical	198	1.19	-
2412MHz	Pass	PK	2.387G	59.07	74.00	-14.93	32.00	3	Vertical	198	1.19	-
2412MHz	Pass	PK	2.412G	106.71	Inf	-Inf	32.08	3	Vertical	198	1.19	-
2412MHz	Pass	AV	2.3866G	53.89	54.00	-0.11	32.00	3	Horizontal	238	1.97	-
2412MHz	Pass	AV	2.4112G	106.65	Inf	-Inf	32.08	3	Horizontal	238	1.97	-
2412MHz	Pass	PK	2.3862G	64.62	74.00	-9.38	32.00	3	Horizontal	238	1.97	-
2412MHz	Pass	PK	2.4126G	114.33	Inf	-Inf	32.08	3	Horizontal	238	1.97	-
2412MHz	Pass	AV	4.82398G	31.65	54.00	-22.35	3.49	3	Vertical	98	1.50	-
2412MHz	Pass	PK	4.82624G	45.09	74.00	-28.91	3.50	3	Vertical	98	1.50	-
2412MHz	Pass	AV	4.82426G	31.30	54.00	-22.70	3.49	3	Horizontal	19	1.39	-
2412MHz	Pass	PK	4.82094G	45.36	74.00	-28.64	3.49	3	Horizontal	19	1.39	-
2437MHz	Pass	AV	2.3866G	48.09	54.00	-5.91	32.00	3	Vertical	252	1.50	-
2437MHz	Pass	AV	2.4362G	103.06	Inf	-Inf	32.15	3	Vertical	252	1.50	-
2437MHz	Pass	AV	2.4846G	47.95	54.00	-6.05	32.29	3	Vertical	252	1.50	-
2437MHz	Pass	PK	2.3838G	58.22	74.00	-15.78	31.98	3	Vertical	252	1.50	-
2437MHz	Pass	PK	2.4366G	110.23	Inf	-Inf	32.15	3	Vertical	252	1.50	-
2437MHz	Pass	PK	2.4842G	58.78	74.00	-15.22	32.29	3	Vertical	252	1.50	-
2437MHz	Pass	AV	2.3866G	53.33	54.00	-0.67	32.00	3	Horizontal	285	1.48	-
2437MHz	Pass	AV	2.4362G	109.23	Inf	-Inf	32.15	3	Horizontal	285	1.48	-
2437MHz	Pass	AV	2.485G	52.11	54.00	-1.89	32.29	3	Horizontal	285	1.48	-
2437MHz	Pass	PK	2.3898G	62.52	74.00	-11.48	32.01	3	Horizontal	285	1.48	-
2437MHz	Pass	PK	2.4366G	117.49	Inf	-Inf	32.15	3	Horizontal	285	1.48	-
2437MHz	Pass	PK	2.4842G	61.65	74.00	-12.35	32.29	3	Horizontal	285	1.48	-
2437MHz	Pass	AV	4.87406G	32.33	54.00	-21.67	3.61	3	Vertical	98	1.50	-
2437MHz	Pass	PK	4.87354G	45.19	74.00	-28.81	3.61	3	Vertical	98	1.50	-
2437MHz	Pass	AV	4.87396G	32.80	54.00	-21.20	3.61	3	Horizontal	140	1.50	-
2437MHz	Pass	PK	4.86996G	46.23	74.00	-27.77	3.61	3	Horizontal	140	1.50	-
2462MHz	Pass	AV	2.4628G	99.65	Inf	-Inf	32.23	3	Vertical	164	1.50	-
2462MHz	Pass	AV	2.4874G	46.96	54.00	-7.04	32.30	3	Vertical	164	1.50	-
2462MHz	Pass	PK	2.4618G	107.84	Inf	-Inf	32.23	3	Vertical	164	1.50	-
2462MHz	Pass	PK	2.4838G	58.28	74.00	-15.72	32.29	3	Vertical	164	1.50	-
2462MHz	Pass	AV	2.4612G	106.17	Inf	-Inf	32.23	3	Horizontal	235	1.90	-
2462MHz	Pass	AV	2.4876G	53.68	54.00	-0.32	32.30	3	Horizontal	235	1.90	-
2462MHz	Pass	PK	2.4622G	114.35	Inf	-Inf	32.23	3	Horizontal	235	1.90	-
2462MHz	Pass	PK	2.4878G	64.30	74.00	-9.70	32.30	3	Horizontal	235	1.90	-
2462MHz	Pass	AV	4.92788G	32.27	54.00	-21.73	3.75	3	Vertical	336	1.70	-
2462MHz	Pass	PK	4.92694G	46.47	74.00	-27.53	3.75	3	Vertical	336	1.70	-
2462MHz	Pass	AV	4.92386G	32.40	54.00	-21.60	3.74	3	Horizontal	169	1.50	-
2462MHz	Pass	PK	4.9236G	46.87	74.00	-27.13	3.74	3	Horizontal	169	1.50	-
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	50.98	54.00	-3.02	32.01	3	Vertical	7	1.98	-
2412MHz	Pass	AV	2.4192G	101.73	Inf	-Inf	32.10	3	Vertical	7	1.98	-
2412MHz	Pass	PK	2.3892G	65.23	74.00	-8.77	32.00	3	Vertical	7	1.98	-
2412MHz	Pass	PK	2.419G	111.49	Inf	-Inf	32.10	3	Vertical	7	1.98	-
2412MHz	Pass	AV	2.39G	53.47	54.00	-0.53	32.01	3	Horizontal	61	1.99	-
2412MHz	Pass	AV	2.4194G	103.20	Inf	-Inf	32.10	3	Horizontal	61	1.99	-

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	2.3898G	69.32	74.00	-4.68	32.01	3	Horizontal	61	1.99	-
2412MHz	Pass	PK	2.419G	112.22	Inf	-Inf	32.10	3	Horizontal	61	1.99	-
2412MHz	Pass	AV	4.83444G	32.11	54.00	-21.89	3.51	3	Vertical	187	1.09	-
2412MHz	Pass	PK	4.81116G	45.61	74.00	-28.39	3.45	3	Vertical	187	1.09	-
2412MHz	Pass	AV	4.80972G	32.05	54.00	-21.95	3.45	3	Horizontal	246	1.21	-
2412MHz	Pass	PK	4.80978G	45.45	74.00	-28.55	3.45	3	Horizontal	246	1.21	-
2437MHz	Pass	AV	2.3894G	51.31	54.00	-2.69	32.00	3	Vertical	13	1.97	-
2437MHz	Pass	AV	2.433G	107.37	Inf	-Inf	32.14	3	Vertical	13	1.97	-
2437MHz	Pass	AV	2.4835G	51.12	54.00	-2.88	32.29	3	Vertical	13	1.97	-
2437MHz	Pass	PK	2.3894G	67.13	74.00	-6.87	32.00	3	Vertical	13	1.97	-
2437MHz	Pass	PK	2.4338G	117.24	Inf	-Inf	32.14	3	Vertical	13	1.97	-
2437MHz	Pass	PK	2.493G	66.22	74.00	-7.78	32.32	3	Vertical	13	1.97	-
2437MHz	Pass	AV	2.3898G	53.86	54.00	-0.14	32.01	3	Horizontal	287	1.86	-
2437MHz	Pass	AV	2.4374G	109.18	Inf	-Inf	32.15	3	Horizontal	287	1.86	-
2437MHz	Pass	AV	2.4835G	53.66	54.00	-0.34	32.29	3	Horizontal	287	1.86	-
2437MHz	Pass	PK	2.389G	68.40	74.00	-5.60	32.00	3	Horizontal	287	1.86	-
2437MHz	Pass	PK	2.4426G	119.01	Inf	-Inf	32.17	3	Horizontal	287	1.86	-
2437MHz	Pass	PK	2.485G	70.81	74.00	-3.19	32.29	3	Horizontal	287	1.86	-
2437MHz	Pass	AV	4.87178G	32.53	54.00	-21.47	3.61	3	Vertical	104	1.08	-
2437MHz	Pass	PK	4.8851G	45.86	74.00	-28.14	3.64	3	Vertical	104	1.08	-
2437MHz	Pass	AV	4.87916G	32.51	54.00	-21.49	3.62	3	Horizontal	261	1.14	-
2437MHz	Pass	PK	4.87016G	45.98	74.00	-28.02	3.61	3	Horizontal	261	1.14	-
2462MHz	Pass	AV	2.4694G	101.58	Inf	-Inf	32.25	3	Vertical	0	2.97	-
2462MHz	Pass	AV	2.4836G	52.78	54.00	-1.22	32.29	3	Vertical	0	2.97	-
2462MHz	Pass	PK	2.4686G	111.11	Inf	-Inf	32.24	3	Vertical	0	2.97	-
2462MHz	Pass	PK	2.4835G	67.06	74.00	-6.94	32.29	3	Vertical	0	2.97	-
2462MHz	Pass	AV	2.4548G	101.86	Inf	-Inf	32.20	3	Horizontal	59	1.50	-
2462MHz	Pass	AV	2.4836G	53.61	54.00	-0.39	32.29	3	Horizontal	59	1.50	-
2462MHz	Pass	PK	2.4586G	111.76	Inf	-Inf	32.22	3	Horizontal	59	1.50	-
2462MHz	Pass	PK	2.4836G	66.52	74.00	-7.48	32.29	3	Horizontal	59	1.50	-
2462MHz	Pass	AV	4.93582G	32.90	54.00	-21.10	3.76	3	Vertical	215	1.39	-
2462MHz	Pass	PK	4.93348G	46.36	74.00	-27.64	3.76	3	Vertical	215	1.39	-
2462MHz	Pass	AV	4.9375G	32.85	54.00	-21.15	3.77	3	Horizontal	339	1.62	-
2462MHz	Pass	PK	4.91896G	47.21	74.00	-26.79	3.73	3	Horizontal	339	1.62	-
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	49.99	54.00	-4.01	32.01	3	Vertical	87	1.50	-
2412MHz	Pass	AV	2.419G	99.65	Inf	-Inf	32.10	3	Vertical	87	1.50	-
2412MHz	Pass	PK	2.3896G	64.38	74.00	-9.62	32.01	3	Vertical	87	1.50	-
2412MHz	Pass	PK	2.4152G	108.89	Inf	-Inf	32.09	3	Vertical	87	1.50	-
2412MHz	Pass	AV	2.39G	53.20	54.00	-0.80	32.01	3	Horizontal	51	1.50	-
2412MHz	Pass	AV	2.4192G	101.06	Inf	-Inf	32.10	3	Horizontal	51	1.50	-
2412MHz	Pass	PK	2.3892G	67.66	74.00	-6.34	32.00	3	Horizontal	51	1.50	-
2412MHz	Pass	PK	2.419G	110.46	Inf	-Inf	32.10	3	Horizontal	51	1.50	-
2412MHz	Pass	AV	4.81068G	31.84	54.00	-22.16	3.45	3	Vertical	292	1.43	-
2412MHz	Pass	PK	4.81068G	44.99	74.00	-29.01	3.45	3	Vertical	292	1.43	-
2412MHz	Pass	AV	4.8189G	31.80	54.00	-22.20	3.48	3	Horizontal	134	1.50	-
2412MHz	Pass	PK	4.83504G	45.32	74.00	-28.68	3.51	3	Horizontal	134	1.50	-
2437MHz	Pass	AV	2.3898G	52.35	54.00	-1.65	32.01	3	Vertical	356	2.99	-
2437MHz	Pass	AV	2.4298G	108.90	Inf	-Inf	32.13	3	Vertical	356	2.99	-

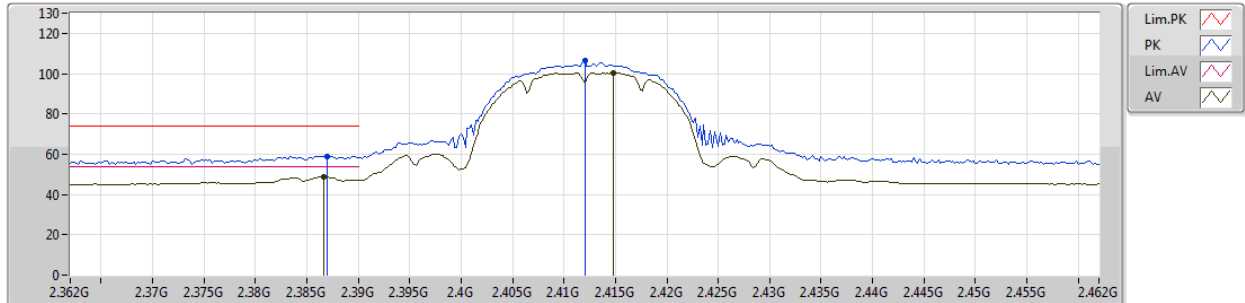
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2437MHz	Pass	AV	2.4842G	53.20	54.00	-0.80	32.29	3	Vertical	356	2.99	-
2437MHz	Pass	PK	2.3886G	68.22	74.00	-5.78	32.00	3	Vertical	356	2.99	-
2437MHz	Pass	PK	2.4306G	118.76	Inf	-Inf	32.13	3	Vertical	356	2.99	-
2437MHz	Pass	PK	2.4846G	70.41	74.00	-3.59	32.29	3	Vertical	356	2.99	-
2437MHz	Pass	AV	2.389G	53.54	54.00	-0.46	32.00	3	Horizontal	295	1.50	-
2437MHz	Pass	AV	2.4302G	109.62	Inf	-Inf	32.13	3	Horizontal	295	1.50	-
2437MHz	Pass	AV	2.4838G	53.37	54.00	-0.63	32.29	3	Horizontal	295	1.50	-
2437MHz	Pass	PK	2.3886G	69.78	74.00	-4.22	32.00	3	Horizontal	295	1.50	-
2437MHz	Pass	PK	2.4334G	119.21	Inf	-Inf	32.14	3	Horizontal	295	1.50	-
2437MHz	Pass	PK	2.4894G	70.57	74.00	-3.43	32.30	3	Horizontal	295	1.50	-
2437MHz	Pass	AV	4.87508G	32.35	54.00	-21.65	3.62	3	Vertical	203	1.50	-
2437MHz	Pass	PK	4.88276G	45.57	74.00	-28.43	3.63	3	Vertical	203	1.50	-
2437MHz	Pass	AV	4.87454G	32.33	54.00	-21.67	3.61	3	Horizontal	112	1.79	-
2437MHz	Pass	PK	4.86404G	45.53	74.00	-28.47	3.60	3	Horizontal	112	1.79	-
2462MHz	Pass	AV	2.3892G	45.68	54.00	-8.32	32.00	3	Vertical	22	2.99	-
2462MHz	Pass	AV	2.4584G	99.95	Inf	-Inf	32.22	3	Vertical	22	2.99	-
2462MHz	Pass	AV	2.4835G	53.02	54.00	-0.98	32.29	3	Vertical	22	2.99	-
2462MHz	Pass	PK	2.3632G	56.93	74.00	-17.07	31.91	3	Vertical	22	2.99	-
2462MHz	Pass	PK	2.4548G	109.66	Inf	-Inf	32.20	3	Vertical	22	2.99	-
2462MHz	Pass	PK	2.4835G	69.17	74.00	-4.83	32.29	3	Vertical	22	2.99	-
2462MHz	Pass	AV	2.3896G	46.11	54.00	-7.89	32.01	3	Horizontal	295	1.99	-
2462MHz	Pass	AV	2.4692G	101.02	Inf	-Inf	32.25	3	Horizontal	295	1.99	-
2462MHz	Pass	AV	2.4835G	53.39	54.00	-0.61	32.29	3	Horizontal	295	1.99	-
2462MHz	Pass	PK	2.386G	57.69	74.00	-16.31	32.00	3	Horizontal	295	1.99	-
2462MHz	Pass	PK	2.4652G	111.11	Inf	-Inf	32.24	3	Horizontal	295	1.99	-
2462MHz	Pass	PK	2.4835G	69.06	74.00	-4.94	32.29	3	Horizontal	295	1.99	-
2462MHz	Pass	AV	4.93474G	32.65	54.00	-21.35	3.76	3	Vertical	348	1.58	-
2462MHz	Pass	PK	4.93G	45.60	74.00	-28.40	3.75	3	Vertical	348	1.58	-
2462MHz	Pass	AV	4.92496G	32.60	54.00	-21.40	3.74	3	Horizontal	346	1.60	-
2462MHz	Pass	PK	4.91908G	46.16	74.00	-27.84	3.73	3	Horizontal	346	1.60	-
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	AV	2.3868G	50.41	54.00	-3.59	32.00	3	Vertical	3	1.95	-
2422MHz	Pass	AV	2.4232G	94.03	Inf	-Inf	32.11	3	Vertical	3	1.95	-
2422MHz	Pass	AV	2.49G	45.85	54.00	-8.15	32.31	3	Vertical	3	1.95	-
2422MHz	Pass	PK	2.3884G	63.82	74.00	-10.18	32.00	3	Vertical	3	1.95	-
2422MHz	Pass	PK	2.428G	104.31	Inf	-Inf	32.13	3	Vertical	3	1.95	-
2422MHz	Pass	PK	2.4964G	56.76	74.00	-17.24	32.33	3	Vertical	3	1.95	-
2422MHz	Pass	AV	2.3856G	53.64	54.00	-0.36	32.00	3	Horizontal	284	1.98	-
2422MHz	Pass	AV	2.4164G	96.20	Inf	-Inf	32.09	3	Horizontal	284	1.98	-
2422MHz	Pass	AV	2.4844G	46.03	54.00	-7.97	32.29	3	Horizontal	284	1.98	-
2422MHz	Pass	PK	2.3848G	66.24	74.00	-7.76	31.98	3	Horizontal	284	1.98	-
2422MHz	Pass	PK	2.4108G	106.65	Inf	-Inf	32.08	3	Horizontal	284	1.98	-
2422MHz	Pass	PK	2.4852G	56.98	74.00	-17.02	32.29	3	Horizontal	284	1.98	-
2422MHz	Pass	AV	4.85606G	32.11	54.00	-21.89	3.57	3	Vertical	319	2.14	-
2422MHz	Pass	PK	4.85702G	45.86	74.00	-28.14	3.57	3	Vertical	319	2.14	-
2422MHz	Pass	AV	4.85042G	32.16	54.00	-21.84	3.56	3	Horizontal	254	1.46	-
2422MHz	Pass	PK	4.85846G	45.46	74.00	-28.54	3.58	3	Horizontal	254	1.46	-
2437MHz	Pass	AV	2.3894G	51.30	54.00	-2.70	32.00	3	Vertical	0	1.99	-
2437MHz	Pass	AV	2.4262G	97.52	Inf	-Inf	32.12	3	Vertical	0	1.99	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2437MHz	Pass	AV	2.4835G	50.18	54.00	-3.82	32.29	3	Vertical	0	1.99	-
2437MHz	Pass	PK	2.3898G	62.97	74.00	-11.03	32.01	3	Vertical	0	1.99	-
2437MHz	Pass	PK	2.4306G	107.79	Inf	-Inf	32.13	3	Vertical	0	1.99	-
2437MHz	Pass	PK	2.4866G	65.14	74.00	-8.86	32.30	3	Vertical	0	1.99	-
2437MHz	Pass	AV	2.3898G	53.66	54.00	-0.34	32.01	3	Horizontal	46	1.51	-
2437MHz	Pass	AV	2.4258G	99.07	Inf	-Inf	32.12	3	Horizontal	46	1.51	-
2437MHz	Pass	AV	2.4835G	52.59	54.00	-1.41	32.29	3	Horizontal	46	1.51	-
2437MHz	Pass	PK	2.3862G	65.15	74.00	-8.85	32.00	3	Horizontal	46	1.51	-
2437MHz	Pass	PK	2.431G	109.42	Inf	-Inf	32.13	3	Horizontal	46	1.51	-
2437MHz	Pass	PK	2.4835G	65.57	74.00	-8.43	32.29	3	Horizontal	46	1.51	-
2437MHz	Pass	AV	4.88522G	32.55	54.00	-21.45	3.64	3	Vertical	120	1.50	-
2437MHz	Pass	PK	4.88894G	46.06	74.00	-27.94	3.66	3	Vertical	120	1.50	-
2437MHz	Pass	AV	4.87928G	32.48	54.00	-21.52	3.62	3	Horizontal	247	1.05	-
2437MHz	Pass	PK	4.88144G	45.80	74.00	-28.20	3.63	3	Horizontal	247	1.05	-
2452MHz	Pass	AV	2.3852G	45.59	54.00	-8.41	31.99	3	Vertical	9	1.98	-
2452MHz	Pass	AV	2.4684G	95.12	Inf	-Inf	32.24	3	Vertical	9	1.98	-
2452MHz	Pass	AV	2.4835G	51.91	54.00	-2.09	32.29	3	Vertical	9	1.98	-
2452MHz	Pass	PK	2.3752G	57.24	74.00	-16.76	31.96	3	Vertical	9	1.98	-
2452MHz	Pass	PK	2.4576G	105.51	Inf	-Inf	32.21	3	Vertical	9	1.98	-
2452MHz	Pass	PK	2.49G	64.01	74.00	-9.99	32.31	3	Vertical	9	1.98	-
2452MHz	Pass	AV	2.39G	46.47	54.00	-7.53	32.01	3	Horizontal	61	1.97	-
2452MHz	Pass	AV	2.446G	96.41	Inf	-Inf	32.18	3	Horizontal	61	1.97	-
2452MHz	Pass	AV	2.4852G	53.68	54.00	-0.32	32.29	3	Horizontal	61	1.97	-
2452MHz	Pass	PK	2.3868G	57.39	74.00	-16.61	32.00	3	Horizontal	61	1.97	-
2452MHz	Pass	PK	2.4464G	106.30	Inf	-Inf	32.18	3	Horizontal	61	1.97	-
2452MHz	Pass	PK	2.4848G	66.44	74.00	-7.56	32.29	3	Horizontal	61	1.97	-
2452MHz	Pass	AV	4.89272G	32.67	54.00	-21.33	3.67	3	Vertical	201	1.11	-
2452MHz	Pass	PK	4.91522G	46.77	74.00	-27.23	3.72	3	Vertical	201	1.11	-
2452MHz	Pass	AV	4.8947G	32.81	54.00	-21.19	3.67	3	Horizontal	276	1.20	-
2452MHz	Pass	PK	4.90922G	46.36	74.00	-27.64	3.70	3	Horizontal	276	1.20	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2412MHz_TX

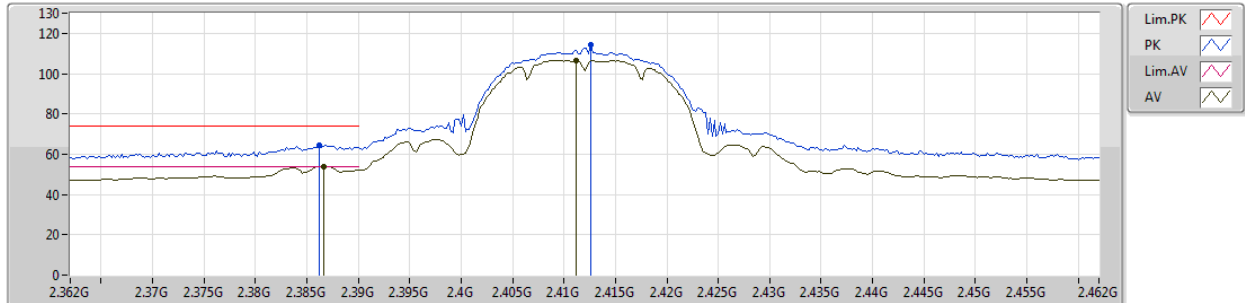


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3866G	48.54	54.00	-5.46	32.00	3	Vertical	198	1.19	-
AV	2.4148G	100.40	Inf	-Inf	32.09	3	Vertical	198	1.19	-
PK	2.387G	59.07	74.00	-14.93	32.00	3	Vertical	198	1.19	-
PK	2.412G	106.71	Inf	-Inf	32.08	3	Vertical	198	1.19	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2412MHz_TX

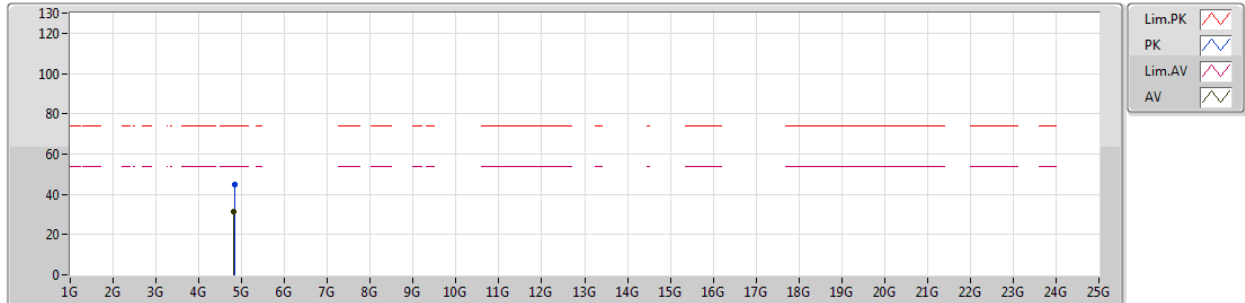


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments							
AV	2.3866G	53.89	54.00	-0.11	32.00	3	Horizontal	238	1.97	-							
AV	2.4112G	106.65	Inf	-Inf	32.08	3	Horizontal	238	1.97	-							
PK	2.3862G	64.62	74.00	-9.38	32.00	3	Horizontal	238	1.97	-							
PK	2.4126G	114.33	Inf	-Inf	32.08	3	Horizontal	238	1.97	-							

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2412MHz_TX

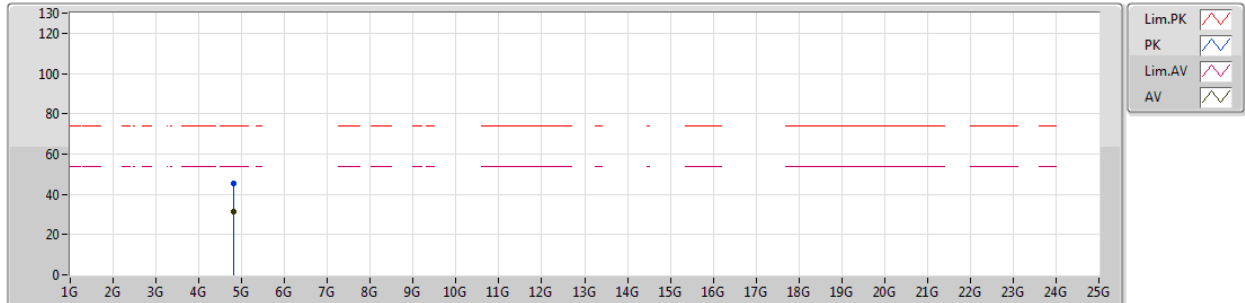


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82398G	31.65	54.00	-22.35	3.49	3	Vertical	98	1.50	-
PK	4.82624G	45.09	74.00	-28.91	3.50	3	Vertical	98	1.50	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2412MHz_TX

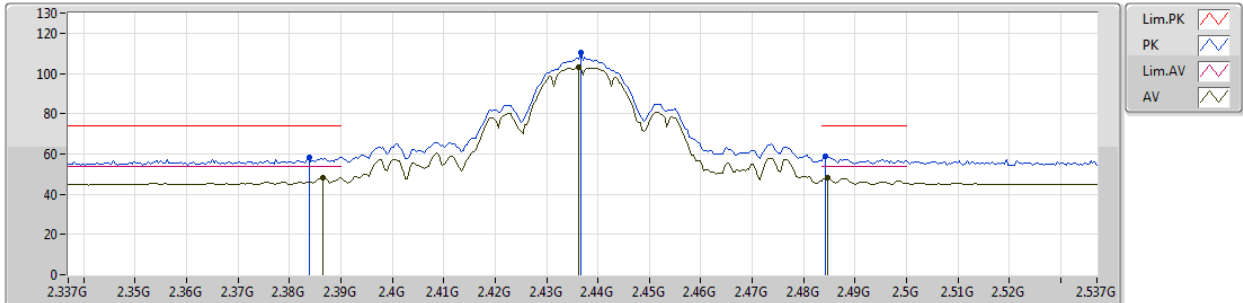


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments								
AV	4.82426G	31.30	54.00	-22.70	3.49	3	Horizontal	19	1.39	-								
PK	4.82094G	45.36	74.00	-28.64	3.49	3	Horizontal	19	1.39	-								

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2437MHz_TX

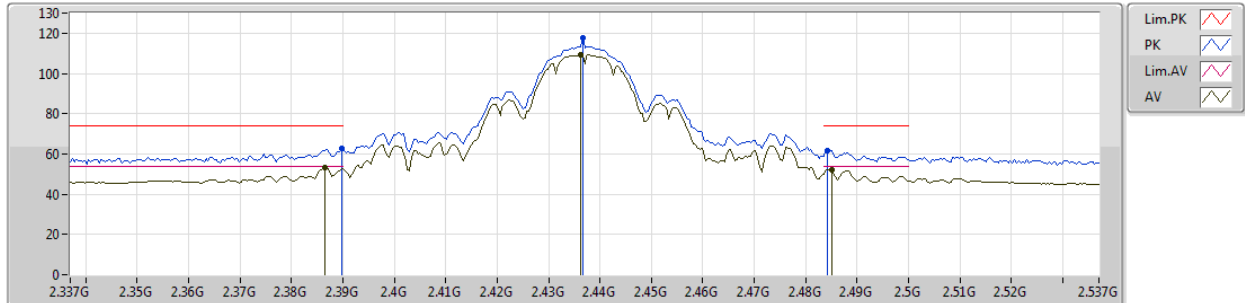


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3866G	48.09	54.00	-5.91	32.00	3	Vertical	252	1.50	-
AV	2.4362G	103.06	Inf	-Inf	32.15	3	Vertical	252	1.50	-
AV	2.4846G	47.95	54.00	-6.05	32.29	3	Vertical	252	1.50	-
PK	2.3838G	58.22	74.00	-15.78	31.98	3	Vertical	252	1.50	-
PK	2.4366G	110.23	Inf	-Inf	32.15	3	Vertical	252	1.50	-
PK	2.4842G	58.78	74.00	-15.22	32.29	3	Vertical	252	1.50	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2437MHz_TX

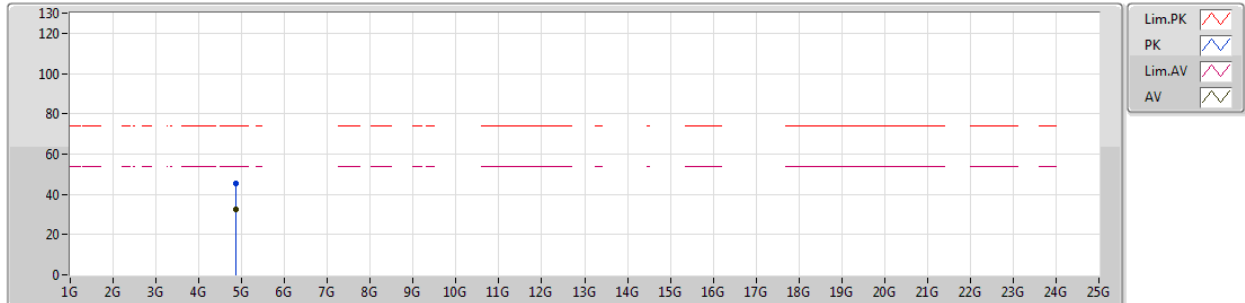


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3866G	53.33	54.00	-0.67	32.00	3	Horizontal	285	1.48	-
AV	2.4362G	109.23	Inf	-Inf	32.15	3	Horizontal	285	1.48	-
AV	2.485G	52.11	54.00	-1.89	32.29	3	Horizontal	285	1.48	-
PK	2.3898G	62.52	74.00	-11.48	32.01	3	Horizontal	285	1.48	-
PK	2.4366G	117.49	Inf	-Inf	32.15	3	Horizontal	285	1.48	-
PK	2.4842G	61.65	74.00	-12.35	32.29	3	Horizontal	285	1.48	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2437MHz_TX

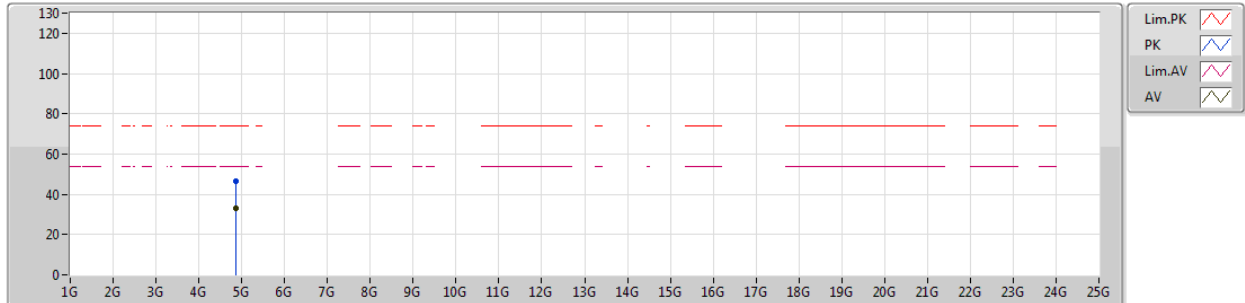


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87406G	32.33	54.00	-21.67	3.61	3	Vertical	98	1.50	-
PK	4.87354G	45.19	74.00	-28.81	3.61	3	Vertical	98	1.50	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2437MHz_TX

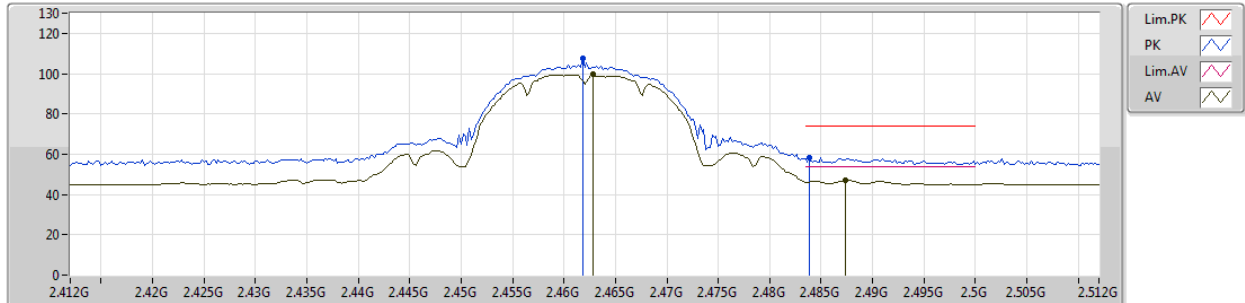


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87396G	32.80	54.00	-21.20	3.61	3	Horizontal	140	1.50	-
PK	4.86996G	46.23	74.00	-27.77	3.61	3	Horizontal	140	1.50	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2462MHz_TX

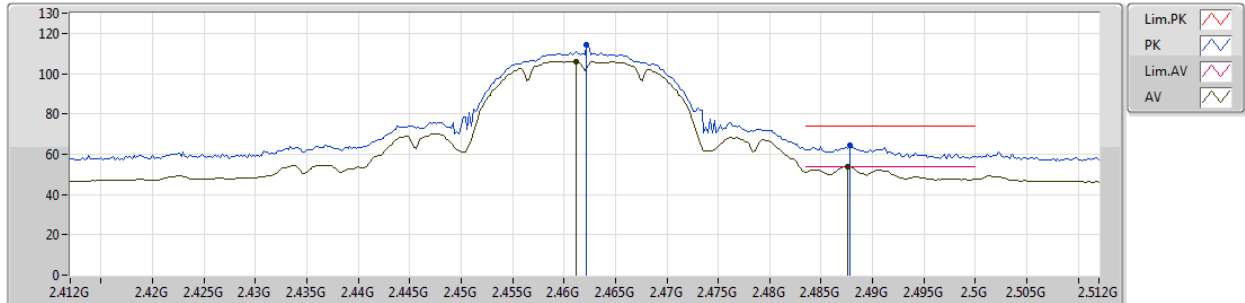


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4628G	99.65	Inf	-Inf	32.23	3	Vertical	164	1.50	-
AV	2.4874G	46.96	54.00	-7.04	32.30	3	Vertical	164	1.50	-
PK	2.4618G	107.84	Inf	-Inf	32.23	3	Vertical	164	1.50	-
PK	2.4838G	58.28	74.00	-15.72	32.29	3	Vertical	164	1.50	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2462MHz_TX

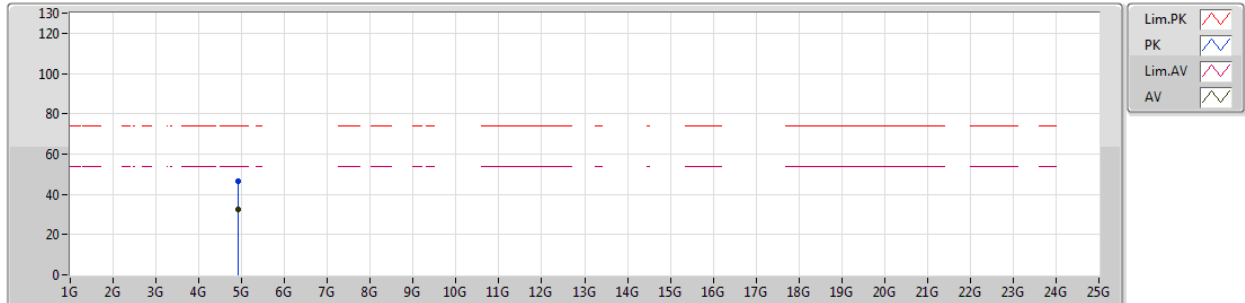


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	106.17	Inf	-Inf	32.23	3	Horizontal	235	1.90	-
AV	2.4876G	53.68	54.00	-0.32	32.30	3	Horizontal	235	1.90	-
PK	2.4622G	114.35	Inf	-Inf	32.23	3	Horizontal	235	1.90	-
PK	2.4878G	64.30	74.00	-9.70	32.30	3	Horizontal	235	1.90	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2462MHz_TX

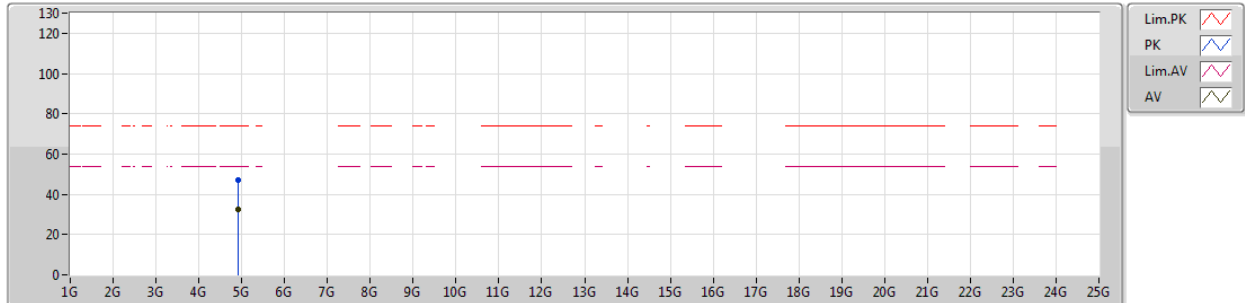


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92788G	32.27	54.00	-21.73	3.75	3	Vertical	336	1.70	-
PK	4.92694G	46.47	74.00	-27.53	3.75	3	Vertical	336	1.70	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2462MHz_TX

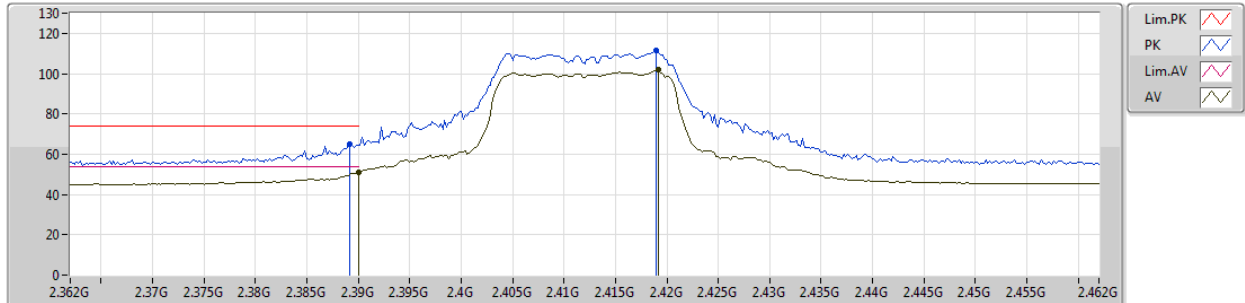


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92386G	32.40	54.00	-21.60	3.74	3	Horizontal	169	1.50	-
PK	4.9236G	46.87	74.00	-27.13	3.74	3	Horizontal	169	1.50	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2412MHz_TX

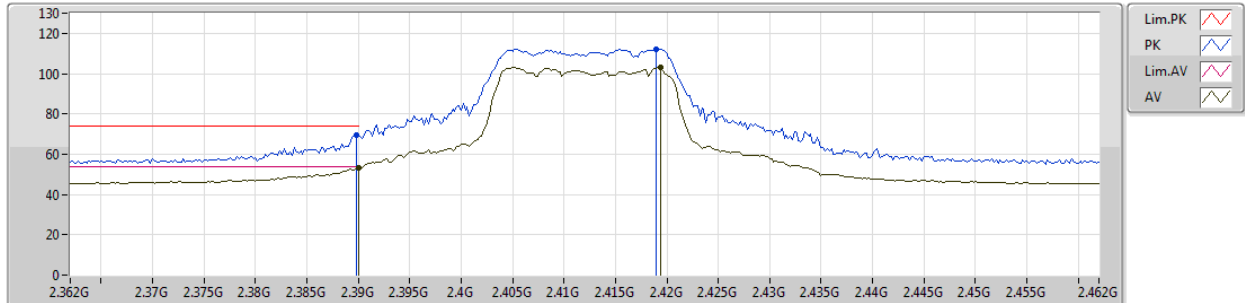


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments							
AV	2.39G	50.98	54.00	-3.02	32.01	3	Vertical	7	1.98	-							
AV	2.4192G	101.73	Inf	-Inf	32.10	3	Vertical	7	1.98	-							
PK	2.3892G	65.23	74.00	-8.77	32.00	3	Vertical	7	1.98	-							
PK	2.419G	111.49	Inf	-Inf	32.10	3	Vertical	7	1.98	-							

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2412MHz_TX

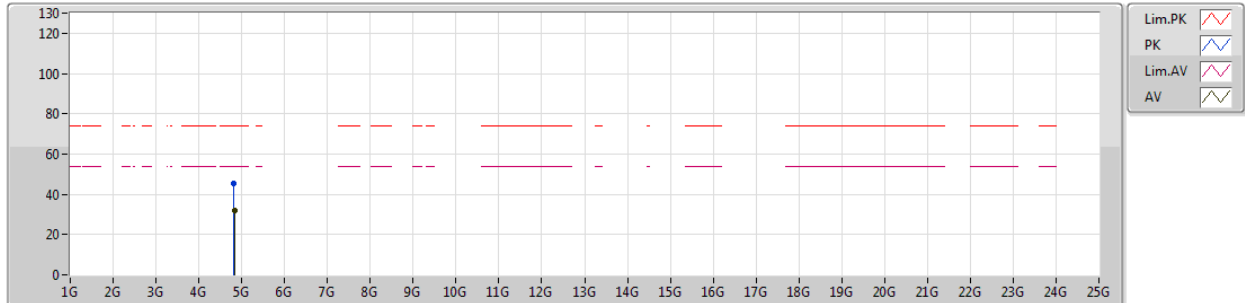


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	53.47	54.00	-0.53	32.01	3	Horizontal	61	1.99	-
AV	2.4194G	103.20	Inf	-Inf	32.10	3	Horizontal	61	1.99	-
PK	2.3898G	69.32	74.00	-4.68	32.01	3	Horizontal	61	1.99	-
PK	2.419G	112.22	Inf	-Inf	32.10	3	Horizontal	61	1.99	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2412MHz_TX

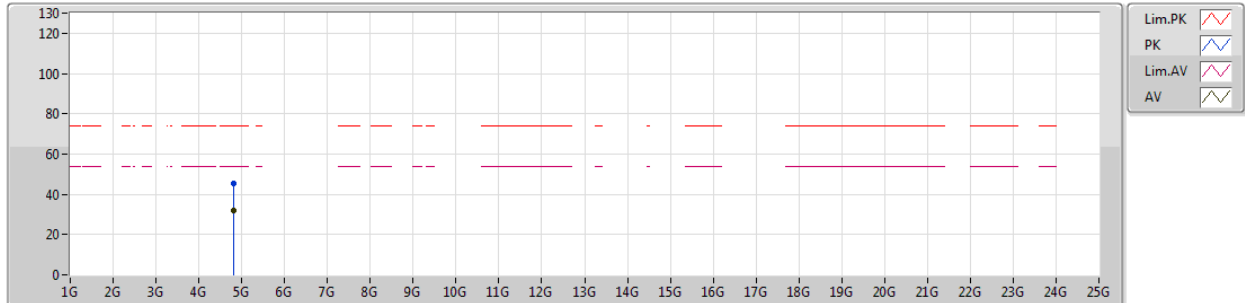


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.83444G	32.11	54.00	-21.89	3.51	3	Vertical	187	1.09	-
PK	4.81116G	45.61	74.00	-28.39	3.45	3	Vertical	187	1.09	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2412MHz_TX

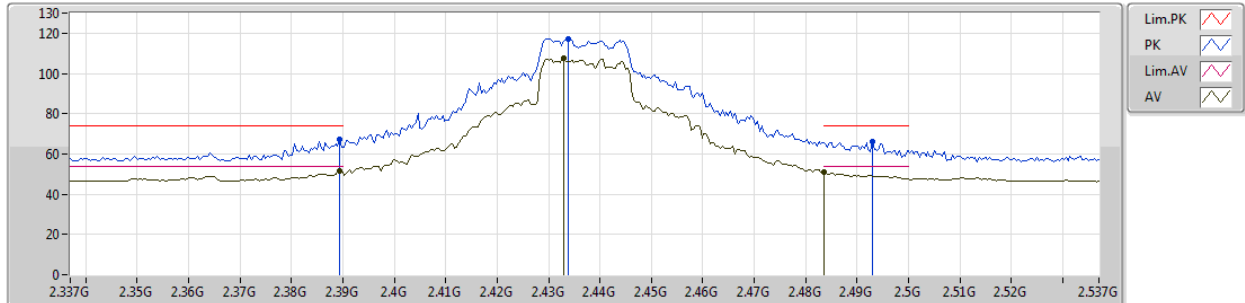


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.80972G	32.05	54.00	-21.95	3.45	3	Horizontal	246	1.21	-
PK	4.80978G	45.45	74.00	-28.55	3.45	3	Horizontal	246	1.21	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2437MHz_TX

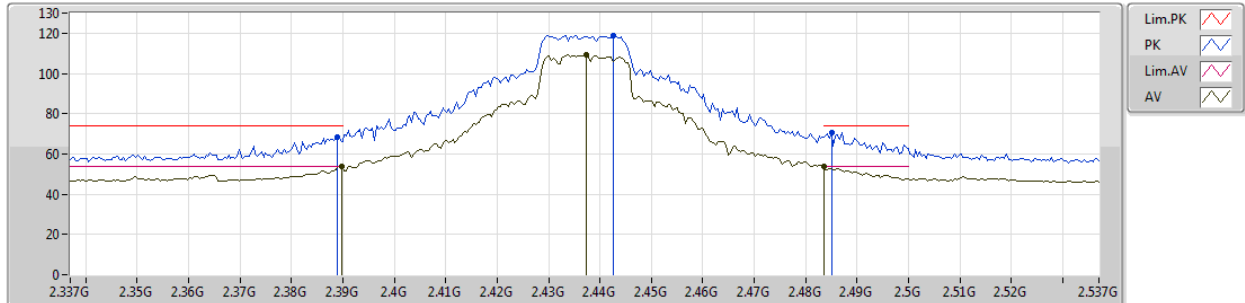


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3894G	51.31	54.00	-2.69	32.00	3	Vertical	13	1.97	-
AV	2.433G	107.37	Inf	-Inf	32.14	3	Vertical	13	1.97	-
AV	2.4835G	51.12	54.00	-2.88	32.29	3	Vertical	13	1.97	-
PK	2.3894G	67.13	74.00	-6.87	32.00	3	Vertical	13	1.97	-
PK	2.4338G	117.24	Inf	-Inf	32.14	3	Vertical	13	1.97	-
PK	2.493G	66.22	74.00	-7.78	32.32	3	Vertical	13	1.97	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2437MHz_TX

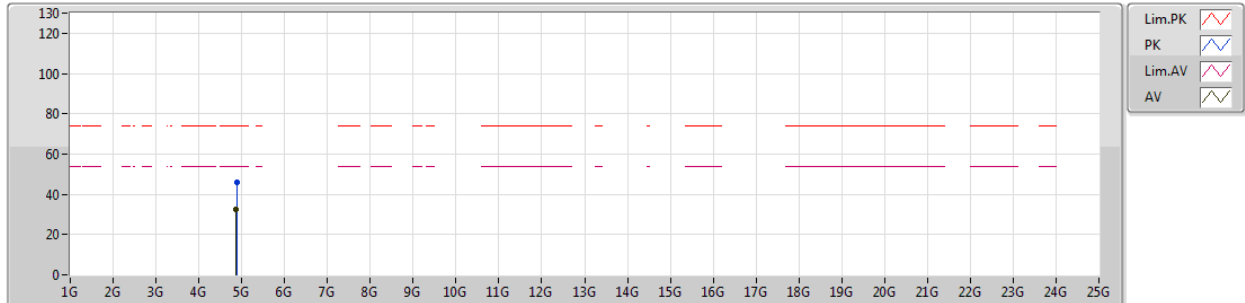


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	53.86	54.00	-0.14	32.01	3	Horizontal	287	1.86	-
AV	2.4374G	109.18	Inf	-Inf	32.15	3	Horizontal	287	1.86	-
AV	2.4835G	53.66	54.00	-0.34	32.29	3	Horizontal	287	1.86	-
PK	2.389G	68.40	74.00	-5.60	32.00	3	Horizontal	287	1.86	-
PK	2.4426G	119.01	Inf	-Inf	32.17	3	Horizontal	287	1.86	-
PK	2.485G	70.81	74.00	-3.19	32.29	3	Horizontal	287	1.86	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2437MHz_TX

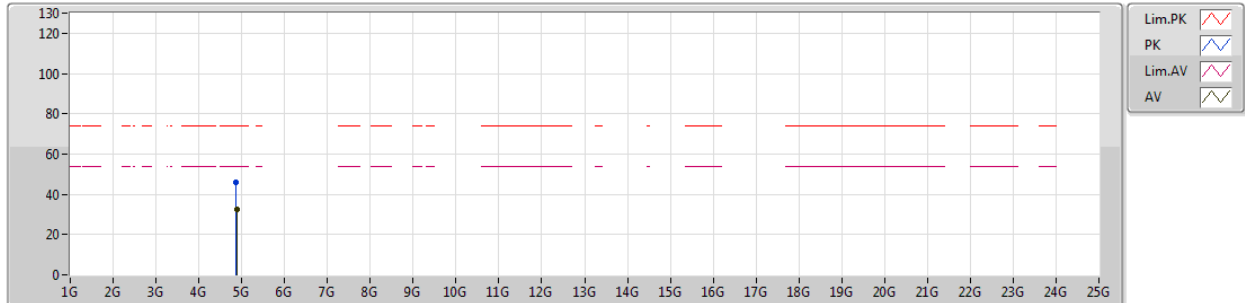


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87178G	32.53	54.00	-21.47	3.61	3	Vertical	104	1.08	-
PK	4.8851G	45.86	74.00	-28.14	3.64	3	Vertical	104	1.08	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2437MHz_TX

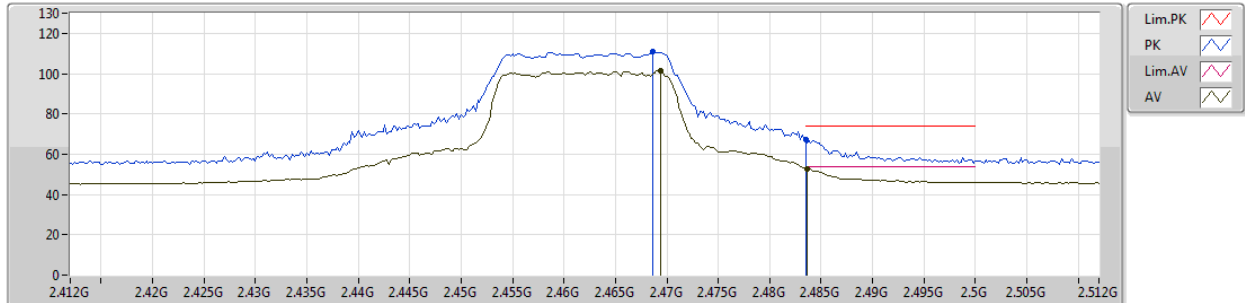


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87916G	32.51	54.00	-21.49	3.62	3	Horizontal	261	1.14	-
PK	4.87016G	45.98	74.00	-28.02	3.61	3	Horizontal	261	1.14	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2462MHz_TX

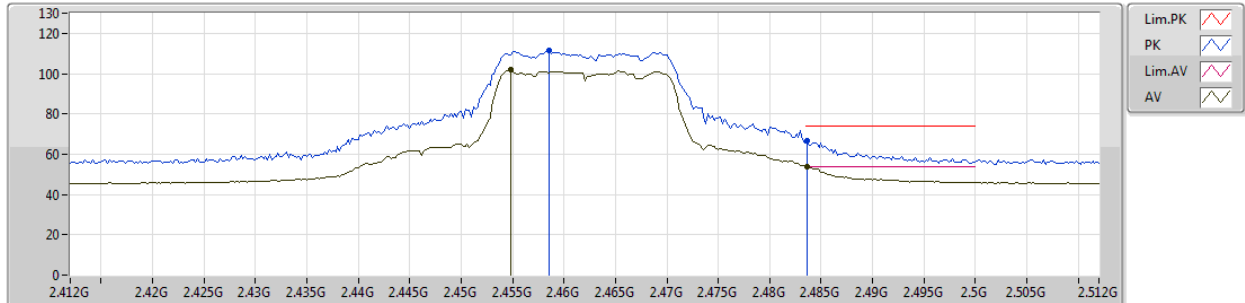


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4694G	101.58	Inf	-Inf	32.25	3	Vertical	0	2.97	-
AV	2.4836G	52.78	54.00	-1.22	32.29	3	Vertical	0	2.97	-
PK	2.4686G	111.11	Inf	-Inf	32.24	3	Vertical	0	2.97	-
PK	2.4835G	67.06	74.00	-6.94	32.29	3	Vertical	0	2.97	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2462MHz_TX

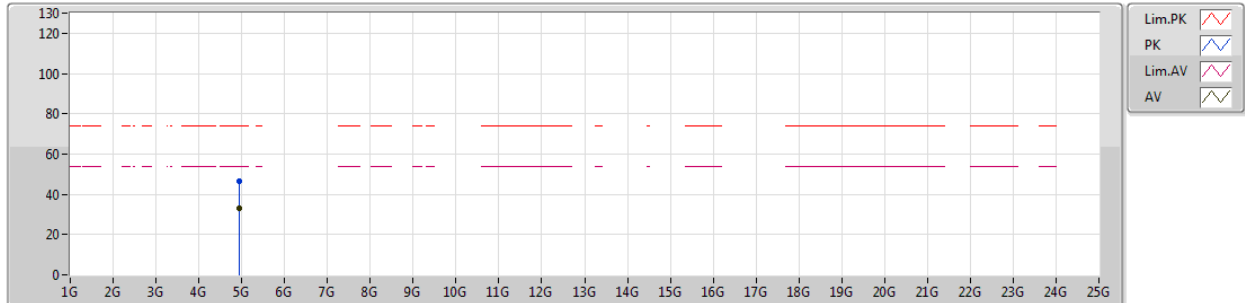


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4548G	101.86	Inf	-Inf	32.20	3	Horizontal	59	1.50	-
AV	2.4836G	53.61	54.00	-0.39	32.29	3	Horizontal	59	1.50	-
PK	2.4586G	111.76	Inf	-Inf	32.22	3	Horizontal	59	1.50	-
PK	2.4836G	66.52	74.00	-7.48	32.29	3	Horizontal	59	1.50	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2462MHz_TX

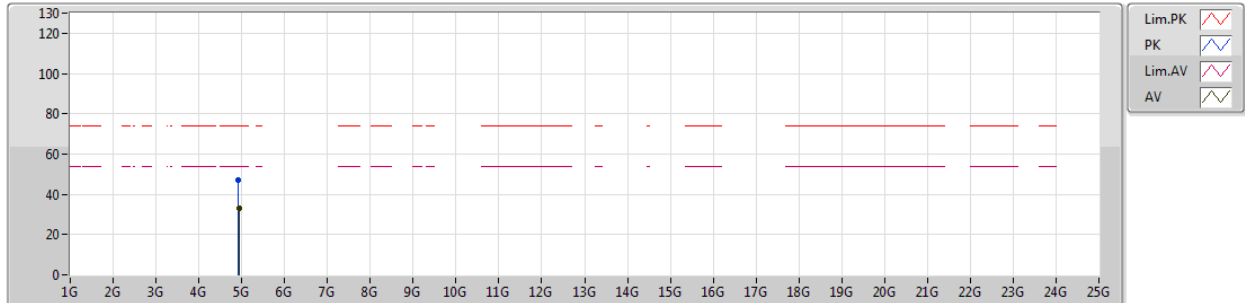


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.93582G	32.90	54.00	-21.10	3.76	3	Vertical	215	1.39	-
PK	4.93348G	46.36	74.00	-27.64	3.76	3	Vertical	215	1.39	-

802.11g_Nss1,(6Mbps)_3TX

02/02/2019

2462MHz_TX

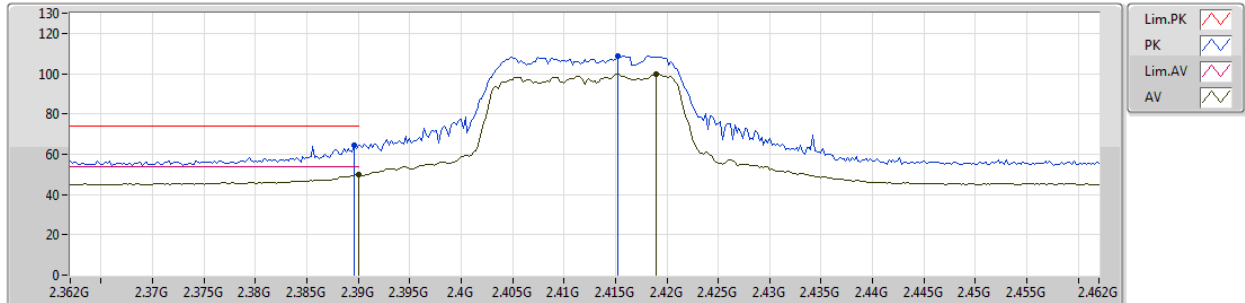


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments								
	(Hz)	(dBuV/m)	(dBuV/m)		(dB)	(m)		(°)	(m)									
AV	4.9375G	32.85	54.00	-21.15	3.77	3	Horizontal	339	1.62	-								
PK	4.91896G	47.21	74.00	-26.79	3.73	3	Horizontal	339	1.62	-								

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

2412MHz_TX

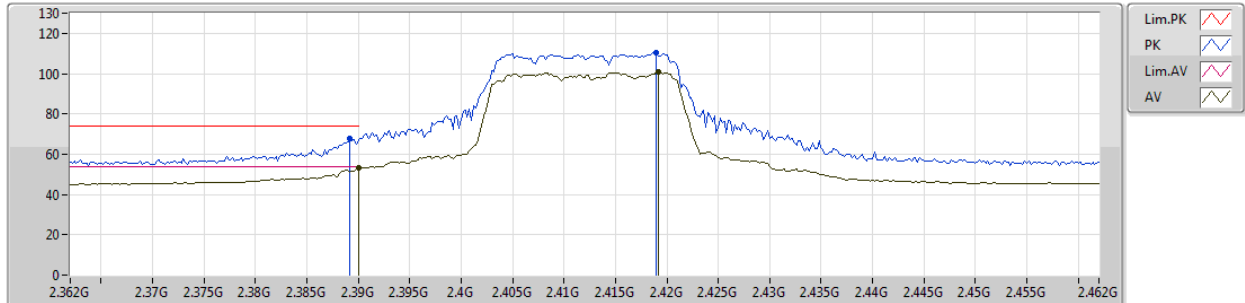


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	49.99	54.00	-4.01	32.01	3	Vertical	87	1.50	-
AV	2.419G	99.65	Inf	-Inf	32.10	3	Vertical	87	1.50	-
PK	2.3896G	64.38	74.00	-9.62	32.01	3	Vertical	87	1.50	-
PK	2.4152G	108.89	Inf	-Inf	32.09	3	Vertical	87	1.50	-

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

2412MHz_TX

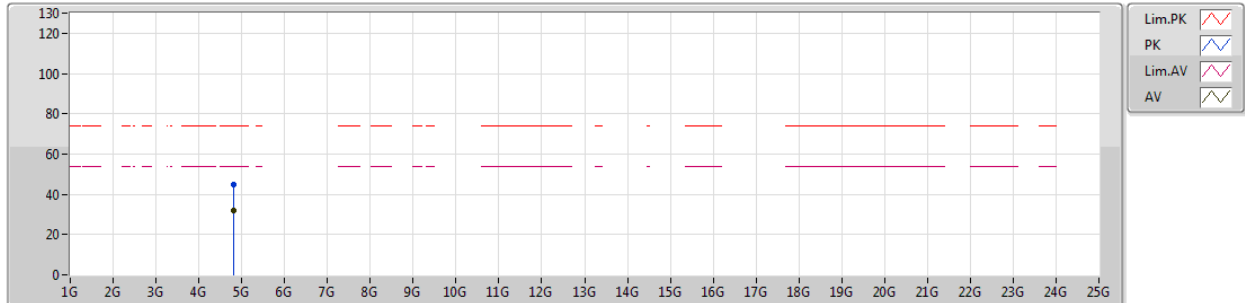


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	53.20	54.00	-0.80	32.01	3	Horizontal	51	1.50	-
AV	2.4192G	101.06	Inf	-Inf	32.10	3	Horizontal	51	1.50	-
PK	2.3892G	67.66	74.00	-6.34	32.00	3	Horizontal	51	1.50	-
PK	2.419G	110.46	Inf	-Inf	32.10	3	Horizontal	51	1.50	-

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

2412MHz_TX

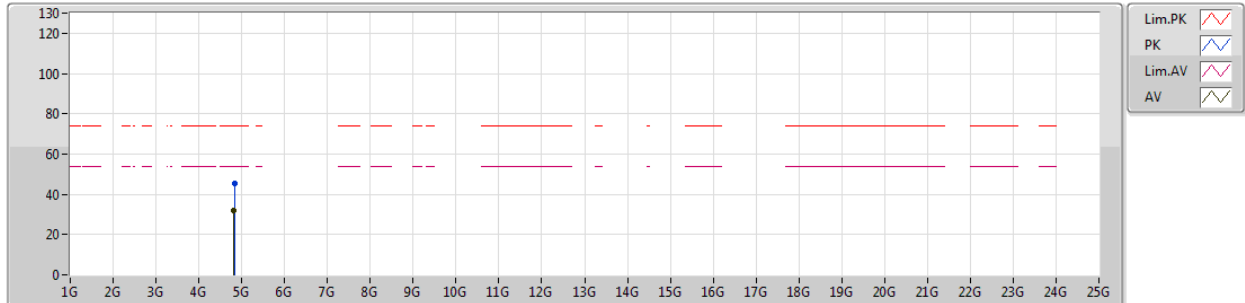


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.81068G	31.84	54.00	-22.16	3.45	3	Vertical	292	1.43	-
PK	4.81068G	44.99	74.00	-29.01	3.45	3	Vertical	292	1.43	-

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

2412MHz_TX

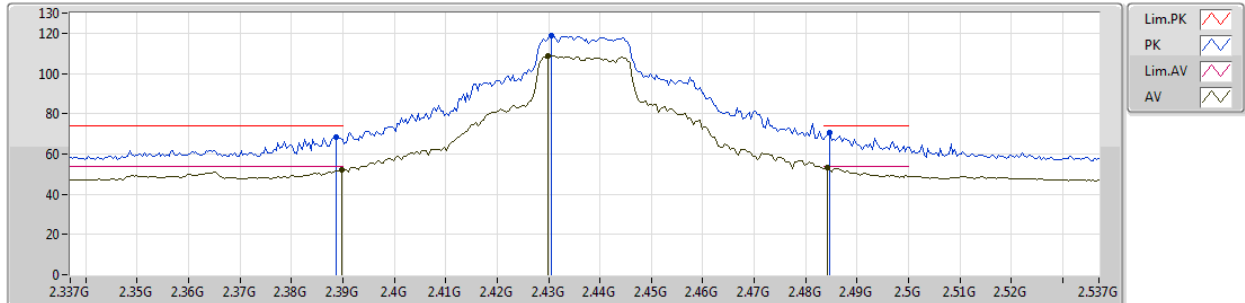


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8189G	31.80	54.00	-22.20	3.48	3	Horizontal	134	1.50	-
PK	4.83504G	45.32	74.00	-28.68	3.51	3	Horizontal	134	1.50	-

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

2437MHz_TX

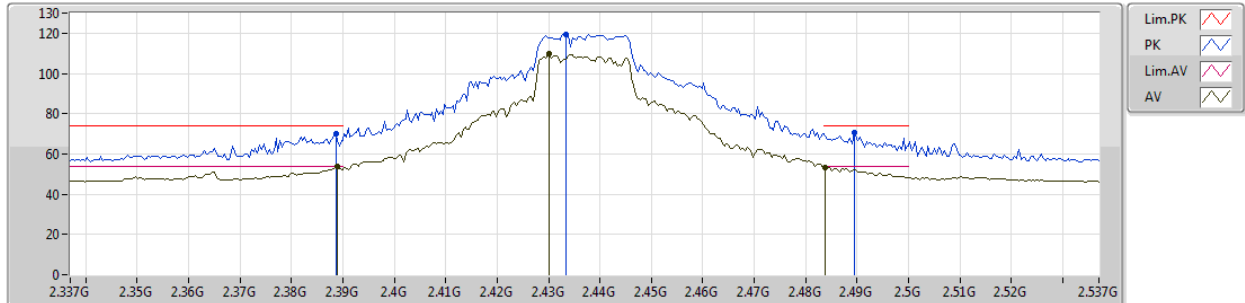


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	52.35	54.00	-1.65	32.01	3	Vertical	356	2.99	-
AV	2.4298G	108.90	Inf	-Inf	32.13	3	Vertical	356	2.99	-
AV	2.4842G	53.20	54.00	-0.80	32.29	3	Vertical	356	2.99	-
PK	2.3886G	68.22	74.00	-5.78	32.00	3	Vertical	356	2.99	-
PK	2.4306G	118.76	Inf	-Inf	32.13	3	Vertical	356	2.99	-
PK	2.4846G	70.41	74.00	-3.59	32.29	3	Vertical	356	2.99	-

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

2437MHz_TX

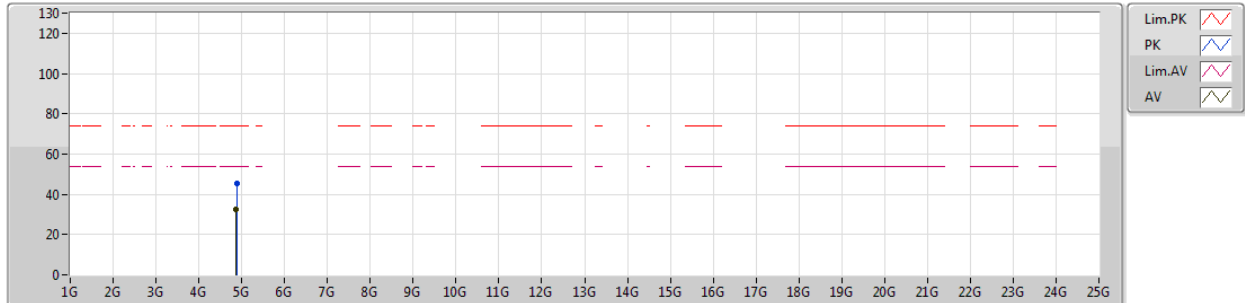


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389G	53.54	54.00	-0.46	32.00	3	Horizontal	295	1.50	-
AV	2.4302G	109.62	Inf	-Inf	32.13	3	Horizontal	295	1.50	-
AV	2.4838G	53.37	54.00	-0.63	32.29	3	Horizontal	295	1.50	-
PK	2.3886G	69.78	74.00	-4.22	32.00	3	Horizontal	295	1.50	-
PK	2.4334G	119.21	Inf	-Inf	32.14	3	Horizontal	295	1.50	-
PK	2.4894G	70.57	74.00	-3.43	32.30	3	Horizontal	295	1.50	-

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

2437MHz_TX

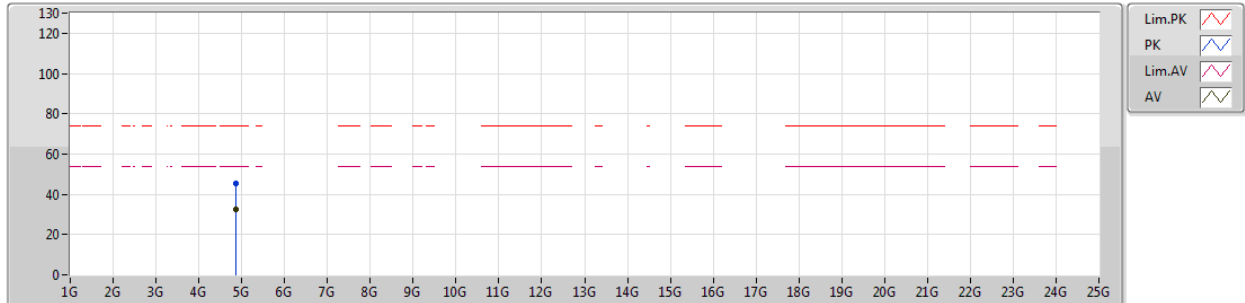


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87508G	32.35	54.00	-21.65	3.62	3	Vertical	203	1.50	-
PK	4.88276G	45.57	74.00	-28.43	3.63	3	Vertical	203	1.50	-

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

2437MHz_TX

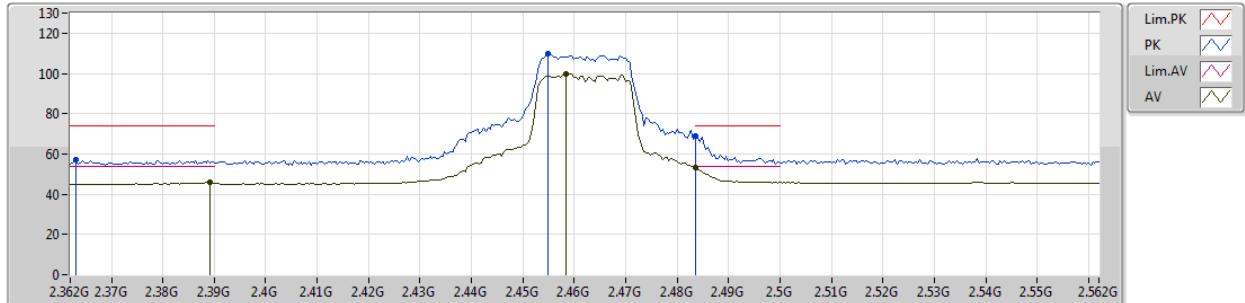


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87454G	32.33	54.00	-21.67	3.61	3	Horizontal	112	1.79	-
PK	4.86404G	45.53	74.00	-28.47	3.60	3	Horizontal	112	1.79	-

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

2462MHz_TX

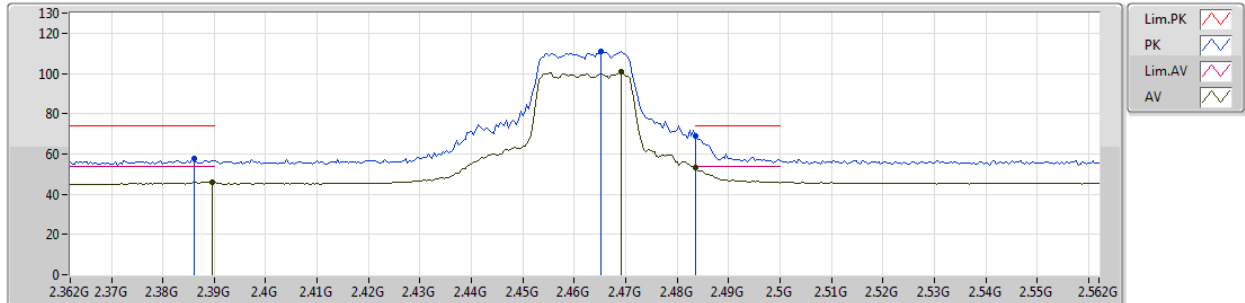


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3892G	45.68	54.00	-8.32	32.00	3	Vertical	22	2.99	-
AV	2.4584G	99.95	Inf	-Inf	32.22	3	Vertical	22	2.99	-
AV	2.4835G	53.02	54.00	-0.98	32.29	3	Vertical	22	2.99	-
PK	2.3632G	56.93	74.00	-17.07	31.91	3	Vertical	22	2.99	-
PK	2.4548G	109.66	Inf	-Inf	32.20	3	Vertical	22	2.99	-
PK	2.4835G	69.17	74.00	-4.83	32.29	3	Vertical	22	2.99	-

802.11n HT20_Nss3,(MCS16)_3TX

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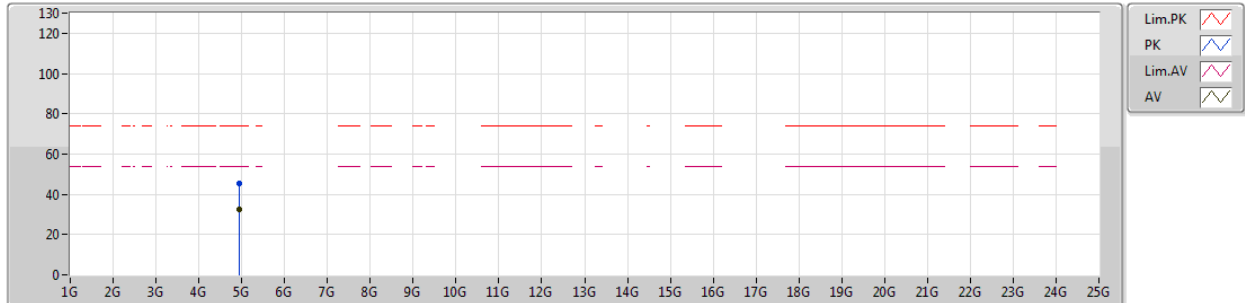


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3896G	46.11	54.00	-7.89	32.01	3	Horizontal	295	1.99	-
AV	2.4692G	101.02	Inf	-Inf	32.25	3	Horizontal	295	1.99	-
AV	2.4835G	53.39	54.00	-0.61	32.29	3	Horizontal	295	1.99	-
PK	2.386G	57.69	74.00	-16.31	32.00	3	Horizontal	295	1.99	-
PK	2.4652G	111.11	Inf	-Inf	32.24	3	Horizontal	295	1.99	-
PK	2.4835G	69.06	74.00	-4.94	32.29	3	Horizontal	295	1.99	-

802.11n HT20_Nss3,(MCS16)_3TX

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2462MHz_TX

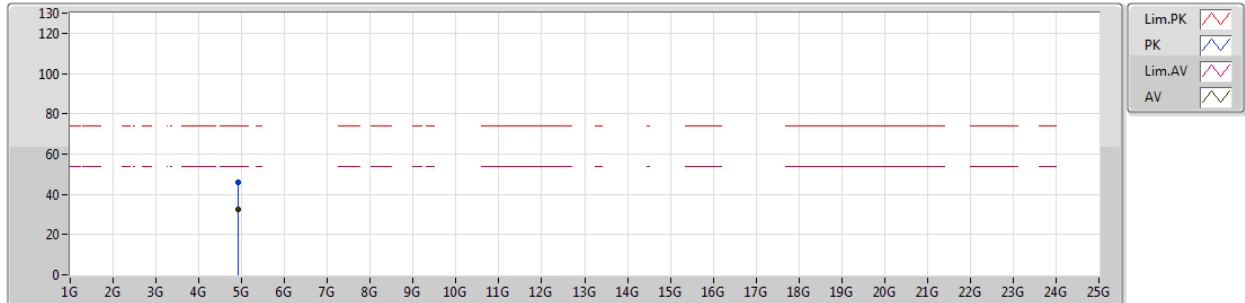


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.93474G	32.65	54.00	-21.35	3.76	3	Vertical	348	1.58	-
PK	4.93G	45.60	74.00	-28.40	3.75	3	Vertical	348	1.58	-

802.11n HT20_Nss3,(MCS16)_3TX

02/02/2019

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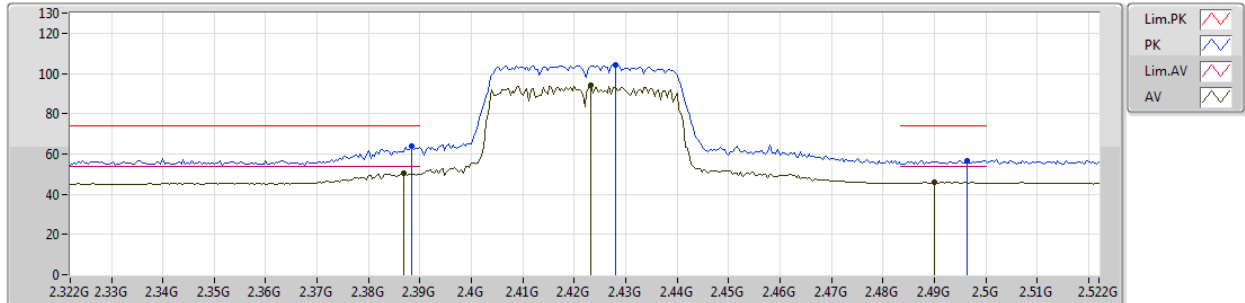


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92496G	32.60	54.00	-21.40	3.74	3	Horizontal	346	1.60	-
PK	4.91908G	46.16	74.00	-27.84	3.73	3	Horizontal	346	1.60	-

802.11n HT40_Nss3,(MCS16)_3TX

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2422MHz_TX

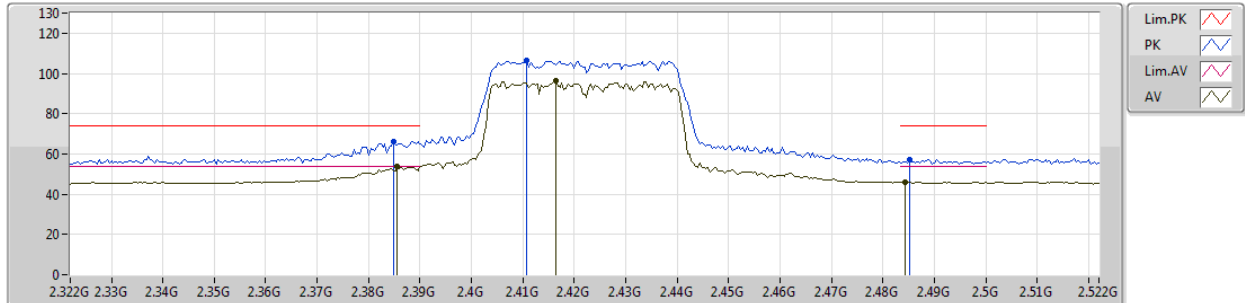


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3868G	50.41	54.00	-3.59	32.00	3	Vertical	3	1.95	-
AV	2.4232G	94.03	Inf	-Inf	32.11	3	Vertical	3	1.95	-
AV	2.49G	45.85	54.00	-8.15	32.31	3	Vertical	3	1.95	-
PK	2.3884G	63.82	74.00	-10.18	32.00	3	Vertical	3	1.95	-
PK	2.428G	104.31	Inf	-Inf	32.13	3	Vertical	3	1.95	-
PK	2.4964G	56.76	74.00	-17.24	32.33	3	Vertical	3	1.95	-

802.11n HT40_Nss3,(MCS16)_3TX

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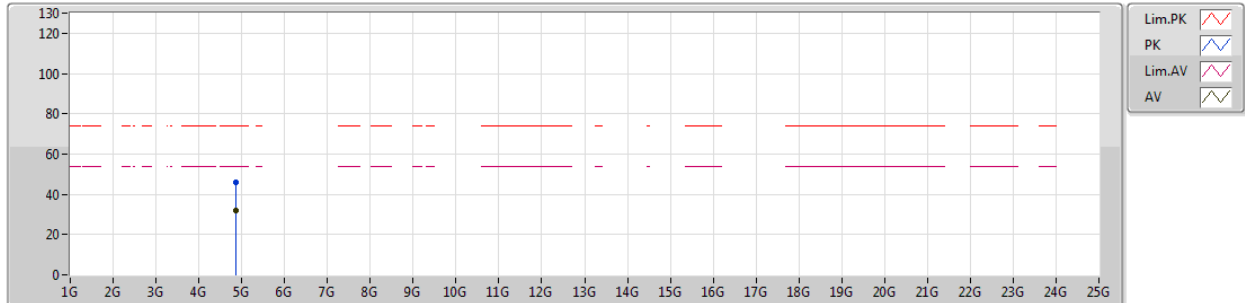


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3856G	53.64	54.00	-0.36	32.00	3	Horizontal	284	1.98	-
AV	2.4164G	96.20	Inf	-Inf	32.09	3	Horizontal	284	1.98	-
AV	2.4844G	46.03	54.00	-7.97	32.29	3	Horizontal	284	1.98	-
PK	2.3848G	66.24	74.00	-7.76	31.98	3	Horizontal	284	1.98	-
PK	2.4108G	106.65	Inf	-Inf	32.08	3	Horizontal	284	1.98	-
PK	2.4852G	56.98	74.00	-17.02	32.29	3	Horizontal	284	1.98	-

802.11n HT40_Nss3,(MCS16)_3TX

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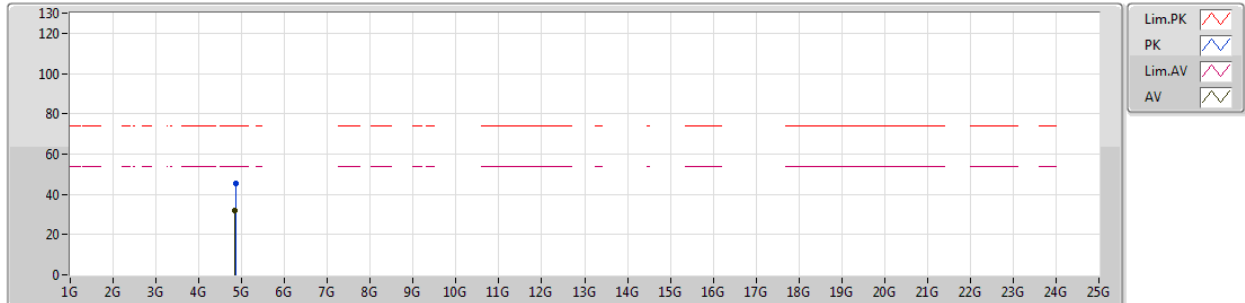


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.85606G	32.11	54.00	-21.89	3.57	3	Vertical	319	2.14	-
PK	4.85702G	45.86	74.00	-28.14	3.57	3	Vertical	319	2.14	-

802.11n HT40_Nss3,(MCS16)_3TX

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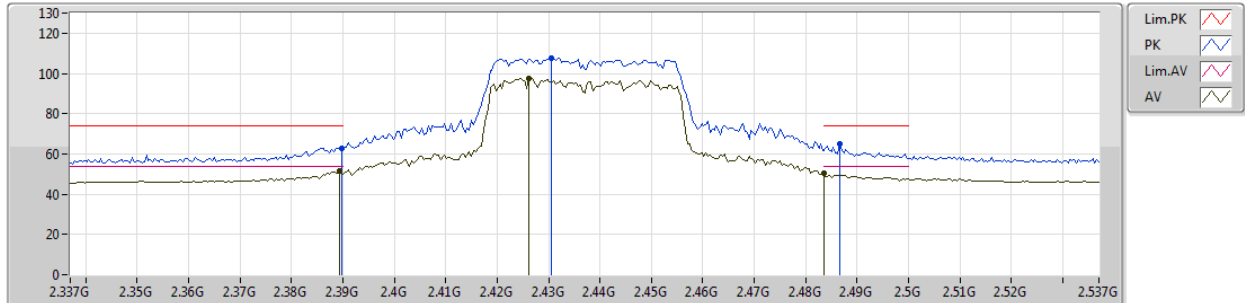


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.85042G	32.16	54.00	-21.84	3.56	3	Horizontal	254	1.46	-
PK	4.85846G	45.46	74.00	-28.54	3.58	3	Horizontal	254	1.46	-

802.11n HT40_Nss3,(MCS16)_3TX

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2437MHz_TX

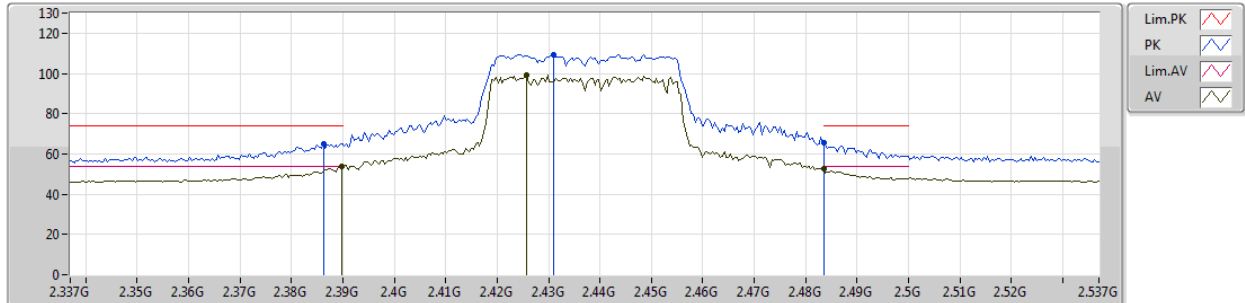


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3894G	51.30	54.00	-2.70	32.00	3	Vertical	0	1.99	-
AV	2.4262G	97.52	Inf	-Inf	32.12	3	Vertical	0	1.99	-
AV	2.4835G	50.18	54.00	-3.82	32.29	3	Vertical	0	1.99	-
PK	2.3898G	62.97	74.00	-11.03	32.01	3	Vertical	0	1.99	-
PK	2.4306G	107.79	Inf	-Inf	32.13	3	Vertical	0	1.99	-
PK	2.4866G	65.14	74.00	-8.86	32.30	3	Vertical	0	1.99	-

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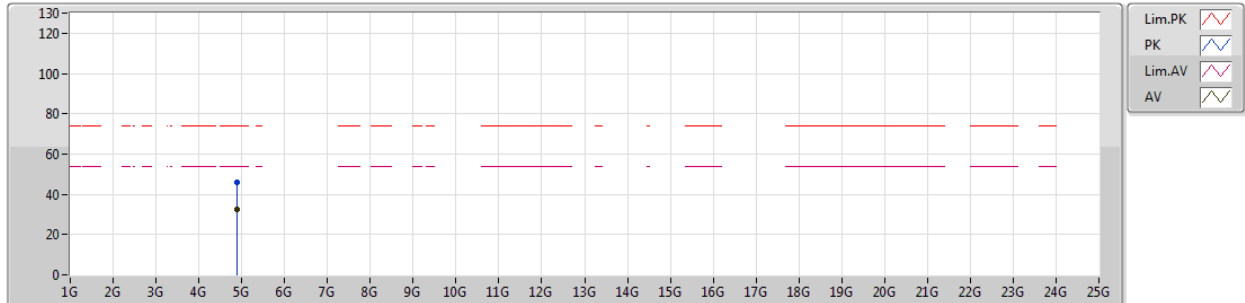


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	53.66	54.00	-0.34	32.01	3	Horizontal	46	1.51	-
AV	2.4258G	99.07	Inf	-Inf	32.12	3	Horizontal	46	1.51	-
AV	2.4835G	52.59	54.00	-1.41	32.29	3	Horizontal	46	1.51	-
PK	2.3862G	65.15	74.00	-8.85	32.00	3	Horizontal	46	1.51	-
PK	2.431G	109.42	Inf	-Inf	32.13	3	Horizontal	46	1.51	-
PK	2.4835G	65.57	74.00	-8.43	32.29	3	Horizontal	46	1.51	-

802.11n HT40_Nss3,(MCS16)_3TX

02/02/2019

2437MHz_TX

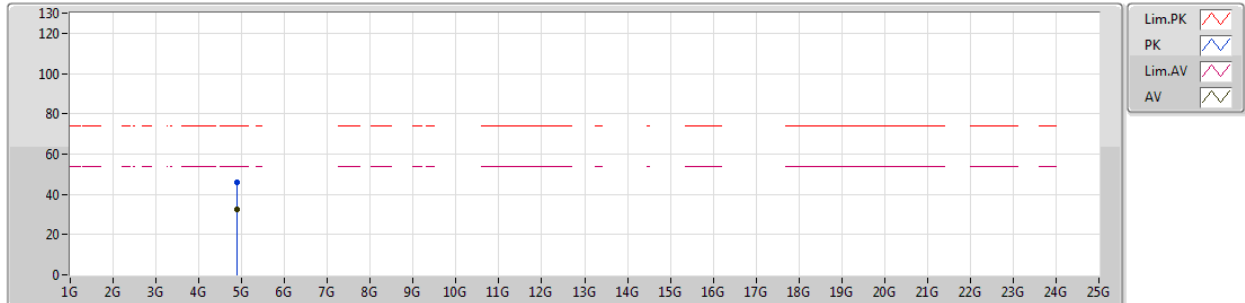


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.88522G	32.55	54.00	-21.45	3.64	3	Vertical	120	1.50	-
PK	4.88894G	46.06	74.00	-27.94	3.66	3	Vertical	120	1.50	-

802.11n HT40_Nss3,(MCS16)_3TX

02/02/2019

2437MHz_TX

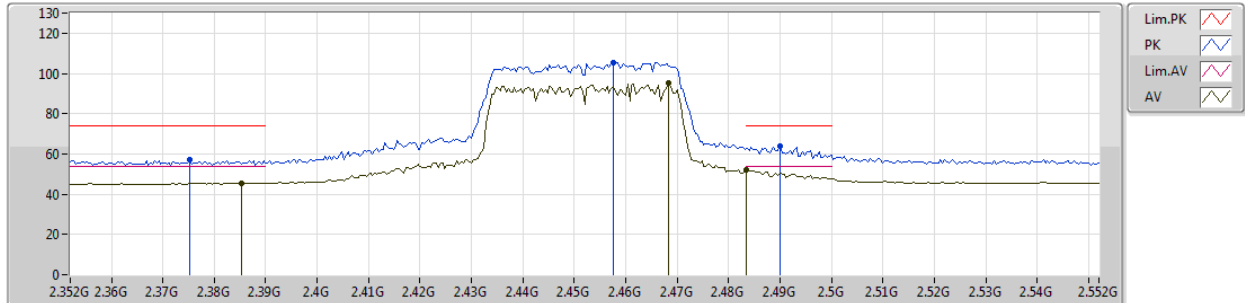


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87928G	32.48	54.00	-21.52	3.62	3	Horizontal	247	1.05	-
PK	4.88144G	45.80	74.00	-28.20	3.63	3	Horizontal	247	1.05	-

802.11n HT40_Nss3,(MCS16)_3TX

02/02/2019

2452MHz_TX

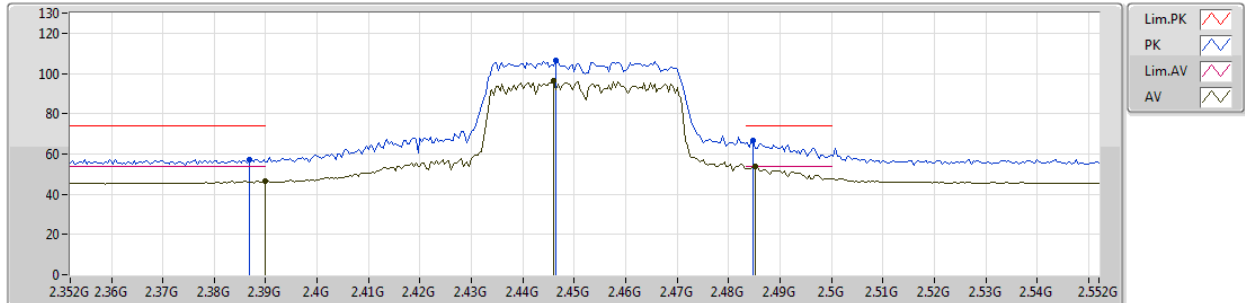


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3852G	45.59	54.00	-8.41	31.99	3	Vertical	9	1.98	-
AV	2.4684G	95.12	Inf	-Inf	32.24	3	Vertical	9	1.98	-
AV	2.4835G	51.91	54.00	-2.09	32.29	3	Vertical	9	1.98	-
PK	2.3752G	57.24	74.00	-16.76	31.96	3	Vertical	9	1.98	-
PK	2.4576G	105.51	Inf	-Inf	32.21	3	Vertical	9	1.98	-
PK	2.49G	64.01	74.00	-9.99	32.31	3	Vertical	9	1.98	-

802.11n HT40_Nss3,(MCS16)_3TX

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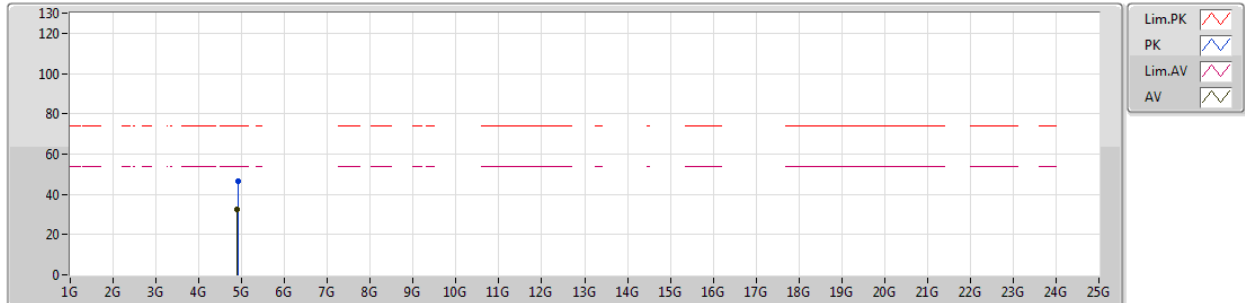


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	46.47	54.00	-7.53	32.01	3	Horizontal	61	1.97	-
AV	2.446G	96.41	Inf	-Inf	32.18	3	Horizontal	61	1.97	-
AV	2.4852G	53.68	54.00	-0.32	32.29	3	Horizontal	61	1.97	-
PK	2.3868G	57.39	74.00	-16.61	32.00	3	Horizontal	61	1.97	-
PK	2.4464G	106.30	Inf	-Inf	32.18	3	Horizontal	61	1.97	-
PK	2.4848G	66.44	74.00	-7.56	32.29	3	Horizontal	61	1.97	-

802.11n HT40_Nss3,(MCS16)_3TX

02/02/2019

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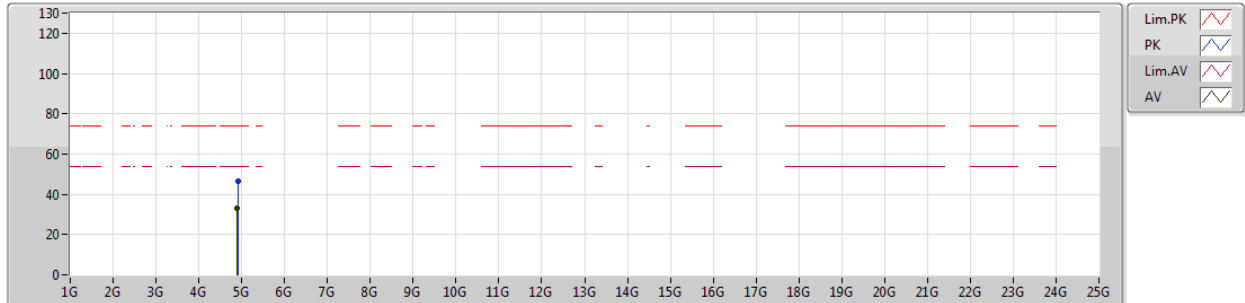


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.89272G	32.67	54.00	-21.33	3.67	3	Vertical	201	1.11	-
PK	4.91522G	46.77	74.00	-27.23	3.72	3	Vertical	201	1.11	-

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Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8947G	32.81	54.00	-21.19	3.67	3	Horizontal	276	1.20	-
PK	4.90922G	46.36	74.00	-27.64	3.70	3	Horizontal	276	1.20	-