



FCC Test Report

FCC ID : UIDTG3452P2
Equipment : Wireless Voice Gateway
Brand Name : ARRIS
Model Name : TG3452
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.)

Table of Contents

HISTORY OF THIS TEST REPORT	3
SUMMARY OF TEST RESULT	4
1 GENERAL DESCRIPTION	5
1.1 Information.....	5
1.2 Testing Applied Standards	8
1.3 Testing Location Information	8
1.4 Measurement Uncertainty	8
2 TEST CONFIGURATION OF EUT.....	9
2.1 Test Condition	9
2.2 Test Channel Mode	9
2.3 The Worst Case Measurement Configuration.....	10
2.4 Accessories and Support Equipment	11
2.5 Test Setup Diagram	12
3 TRANSMITTER TEST RESULT	13
3.1 AC Power-line Conducted Emissions	13
3.2 DTS Bandwidth.....	14
3.3 Maximum Conducted Output Power	15
3.4 Power Spectral Density	17
3.5 Emissions in Non-restricted Frequency Bands	18
3.6 Emissions in Restricted Frequency Bands.....	19
4 TEST EQUIPMENT AND CALIBRATION DATA	22
APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS	
APPENDIX B. TEST RESULTS OF DTS BANDWIDTH	
APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER	
APPENDIX D. TEST RESULTS OF POWER SPECTRAL DENSITY	
APPENDIX E. TEST RESULTS OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS	
APPENDIX F. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS	
APPENDIX G. TEST PHOTOS	
PHOTOGRAPHS OF EUT V02	

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	TG3452	PIFA	N/A
2	ARRIS	TG3452	PIFA	N/A
3	ARRIS	TG3452	PIFA	N/A
4	ARRIS	TG3452	PIFA	N/A
5	ARRIS	TG3452	PIFA	N/A
6	ARRIS	TG3452	PIFA	N/A
7	ARRIS	TG3452	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	0.888	0.516	8.419m	300
802.11g	0.644	1.911	1.399m	1k
802.11n HT20	0.655	1.838	1.311m	1k
802.11n HT40	0.747	1.267	649.688u	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	TG3452	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 v05r01
- ♦ 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	TH01-HY	Clara	23.3~23.9°C / 63~65%	11/Feb/2019~ 15/Feb/2019
Radiated	03CH02-HY	Daniel	21.3~23.1°C / 52.1~54.1%	02/Feb/2019~ 15/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	0,0,21,0
2437MHz	0,0,33,0
2462MHz	0,0,23,0
802.11g_Nss1,(6Mbps)_3TX	-
2412MHz	17,17,18,0
2437MHz	29,29,30,0
2462MHz	14,13,14,0
802.11n HT20_Nss3,(MCS16)_3TX	-
2412MHz	14,14,15,0
2437MHz	28,28,29,0
2462MHz	15,14,15,0
802.11n HT40_Nss3,(MCS16)_3TX	-
2422MHz	11,11,12,0
2437MHz	17,17,18,0
2452MHz	7,6,7,0

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.: FA911906 for Co-location RF Exposure Evaluation.	

2.4 Accessories and Support Equipment

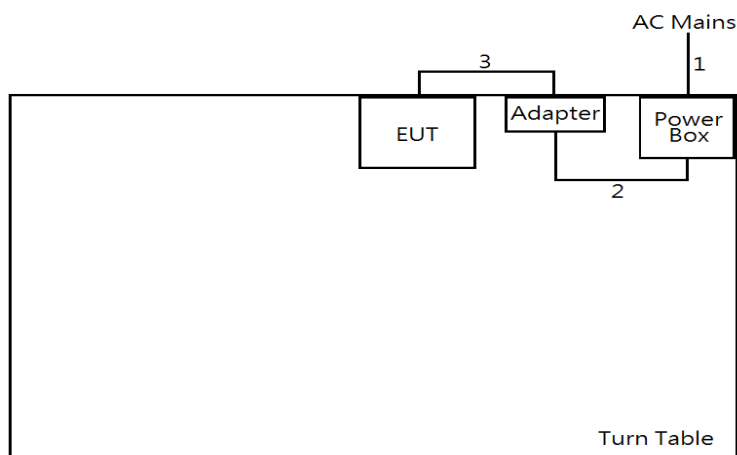
Accessories				
AC Adapter (US Plug)	Brand Name	ADP	Model Name	DA-50C12
	Power Rating	I/P: 100- 240Vac, 1.5A, O/P: 12Vdc, 4.17A		
	AC Power Cord	0.95 meter, non-shielded cable, w/o ferrite core		
	DC Power Cord	0.95 meter, non-shielded cable, w/o ferrite core		

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

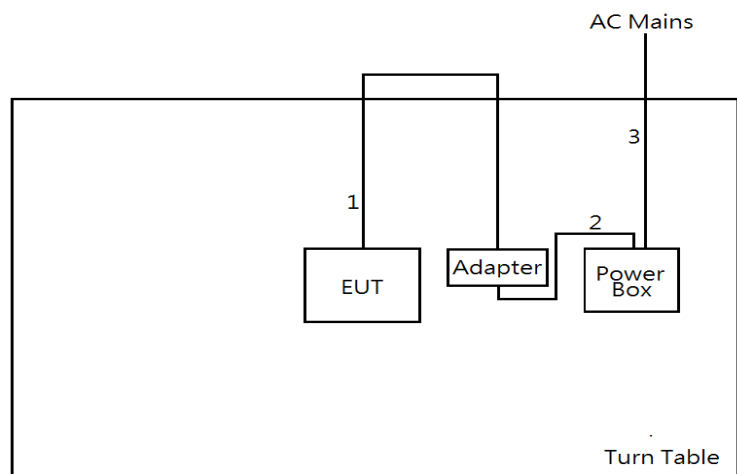
2.5 Test Setup Diagram

Test Setup Diagram - AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	AC Power line	No	1.5 m
2	AC Power line	No	0.95 m
3	DC Power line	No	0.95 m

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	DC Power line	No	0.95 m
2	AC Power line	No	0.95 m
3	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.

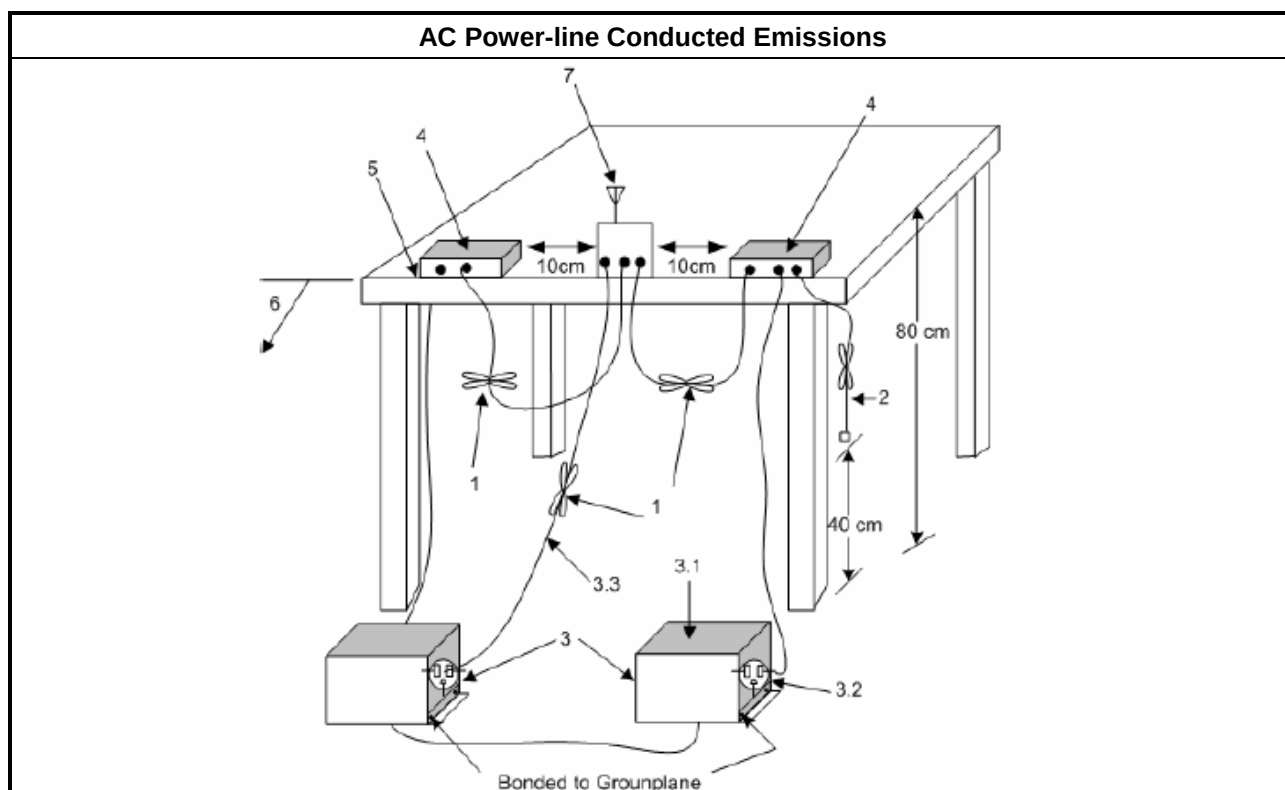
3.1.2 Measuring Instruments

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.

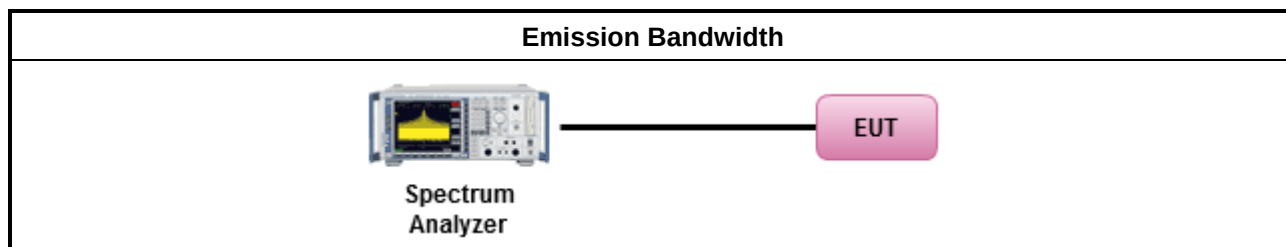
3.2.2 Measuring Instruments

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.		

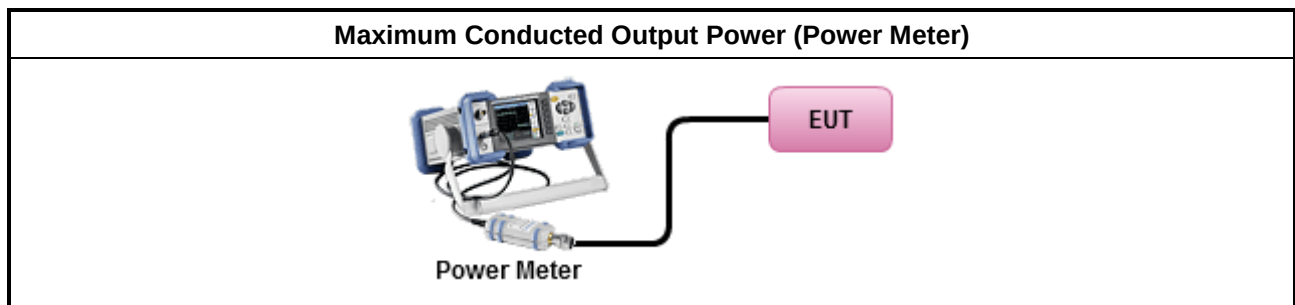
3.3.2 Measuring Instruments

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) $\leq$ 8 dBm/3kHz

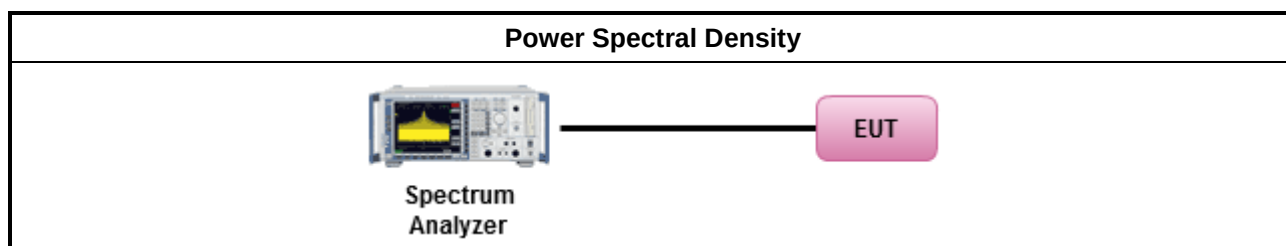
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒	Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) 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.	

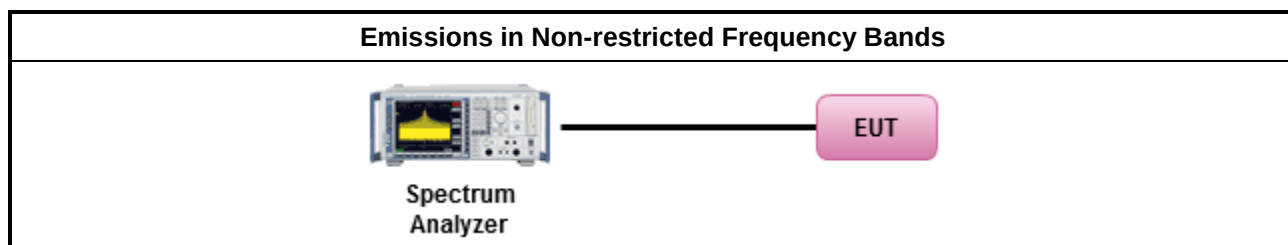
3.5.2 Measuring Instruments

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.

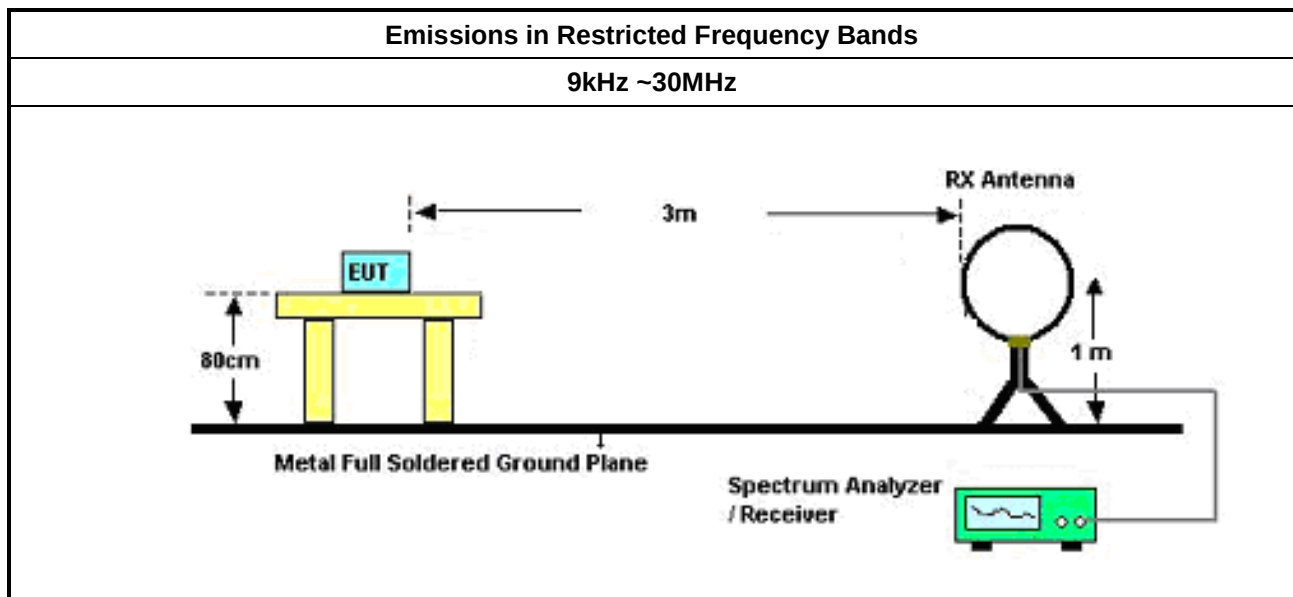
3.6.2 Measuring Instruments

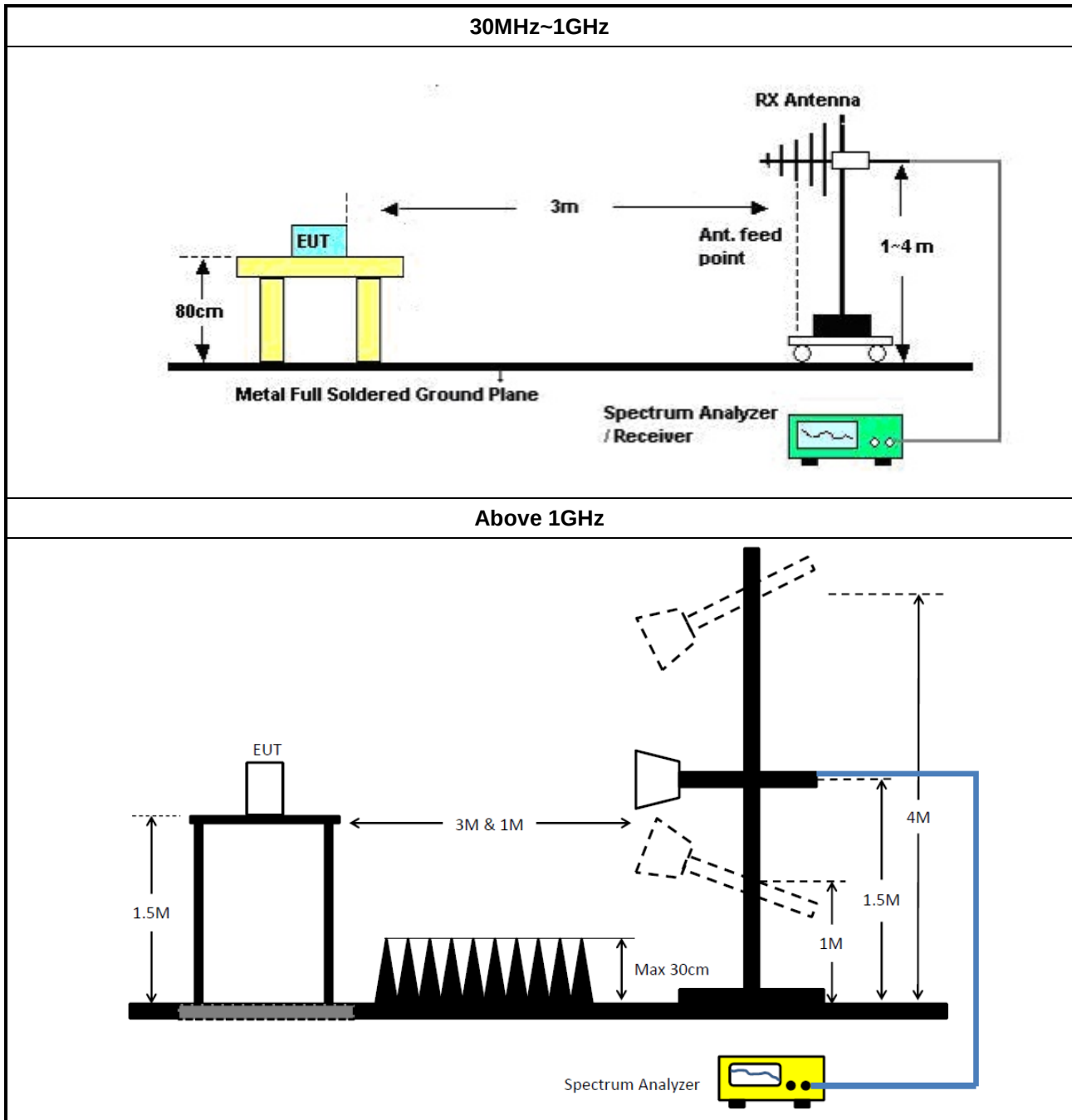
Refer a test equipment and calibration data table in this test report.

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

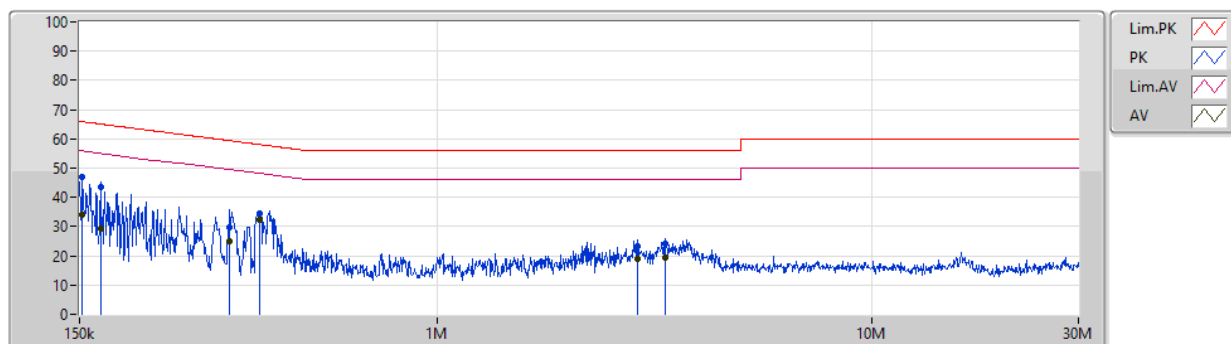
Instrument for Radiated Test

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

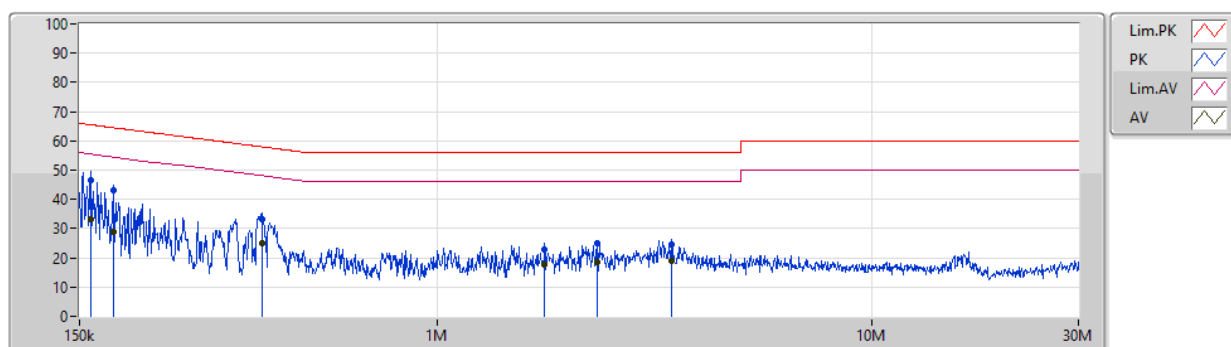


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	152.414k	46.94	65.87	-18.93	19.48	Neutral	-	27.46	9.60	0.01	9.87			
AV	152.414k	33.94	55.87	-21.93	19.48	Neutral	-	14.46	9.60	0.01	9.87			
QP	167.739k	43.38	65.06	-21.68	19.48	Neutral	-	23.90	9.60	0.01	9.87			
AV	167.739k	29.29	55.06	-25.77	19.48	Neutral	-	9.81	9.60	0.01	9.87			
QP	333.299k	29.69	59.37	-29.68	19.48	Neutral	-	10.21	9.59	0.01	9.88			
AV	333.299k	25.16	49.37	-24.21	19.48	Neutral	-	5.68	9.59	0.01	9.88			
QP	389.447k	34.69	58.08	-23.39	19.48	Neutral	-	15.21	9.59	0.01	9.88			
AV	389.447k	32.14	48.08	-15.94	19.48	Neutral	"Worst"	12.66	9.59	0.01	9.88			
QP	2.901M	23.49	56.00	-32.51	19.54	Neutral	-	3.95	9.61	0.04	9.89			
AV	2.901M	19.00	46.00	-27.00	19.54	Neutral	-	-0.54	9.61	0.04	9.89			
QP	3.362M	23.99	56.00	-32.01	19.54	Neutral	-	4.45	9.61	0.04	9.89			
AV	3.362M	19.25	46.00	-26.75	19.54	Neutral	-	-0.29	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	159.256k	46.75	65.50	-18.75	19.48	Line	"Worst"	27.27	9.60	0.01	9.87			
AV	159.256k	33.33	55.50	-22.17	19.48	Line	-	13.85	9.60	0.01	9.87			
QP	180.236k	43.29	64.47	-21.18	19.48	Line	-	23.81	9.60	0.01	9.87			
AV	180.236k	29.00	54.47	-25.47	19.48	Line	-	9.52	9.60	0.01	9.87			
QP	394.139k	33.36	57.97	-24.61	19.48	Line	-	13.88	9.59	0.01	9.88			
AV	394.139k	25.02	47.97	-22.95	19.48	Line	-	5.54	9.59	0.01	9.88			
QP	1.768M	22.71	56.00	-33.29	19.54	Line	-	3.17	9.62	0.03	9.89			
AV	1.768M	17.54	46.00	-28.46	19.54	Line	-	-2.00	9.62	0.03	9.89			
QP	2.338M	24.87	56.00	-31.13	19.55	Line	-	5.32	9.62	0.04	9.89			
AV	2.338M	18.59	46.00	-27.41	19.55	Line	-	-0.96	9.62	0.04	9.89			
QP	3.458M	24.68	56.00	-31.32	19.56	Line	-	5.12	9.63	0.04	9.89			
AV	3.458M	19.00	46.00	-27.00	19.56	Line	-	-0.56	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)	13.525M	16.442M	16M4G1D	13.05M	16.367M
802.11g_Nss1,(6Mbps)_3TX	16.35M	16.567M	16M6D1D	16.25M	16.442M
802.11n HT20_Nss3,(MCS16)_3TX	17.525M	17.666M	17M7D1D	16.075M	17.566M
802.11n HT40_Nss3,(MCS16)_3TX	36.3M	36.182M	36M2D1D	35.75M	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;

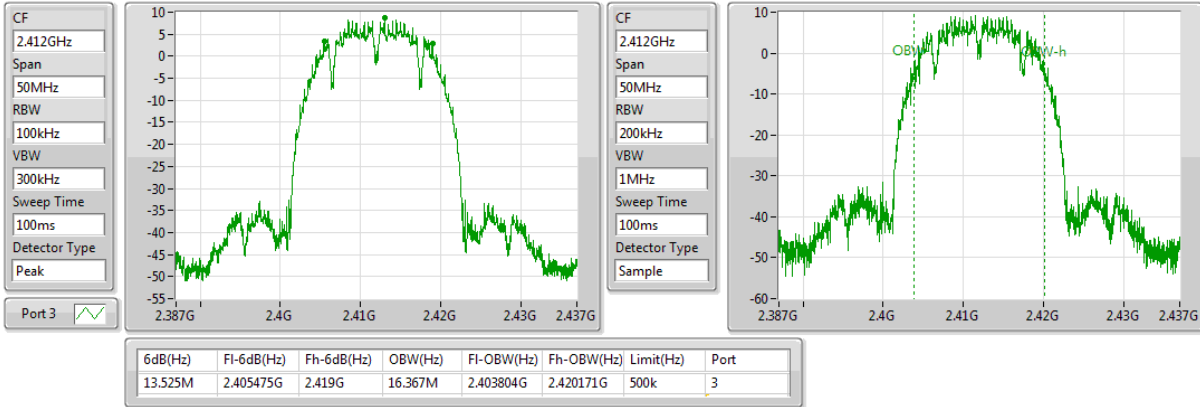
Result

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					13.525M	16.367M
2437MHz	Pass	500k					13.05M	16.442M
2462MHz	Pass	500k					13.525M	16.392M
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.492M	16.3M	16.492M	16.35M	16.467M
2437MHz	Pass	500k	16.325M	16.542M	16.25M	16.542M	16.325M	16.567M
2462MHz	Pass	500k	16.325M	16.467M	16.3M	16.442M	16.275M	16.442M
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.566M	16.25M	17.591M	16.775M	17.566M
2437MHz	Pass	500k	16.525M	17.616M	16.525M	17.666M	16.075M	17.641M
2462MHz	Pass	500k	16.9M	17.566M	16.875M	17.566M	17.525M	17.566M
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36.3M	36.132M	36.3M	36.182M	36.3M	36.132M
2437MHz	Pass	500k	36M	36.132M	35.75M	36.082M	36M	36.182M
2452MHz	Pass	500k	36.3M	36.082M	35.8M	36.132M	36.3M	36.082M

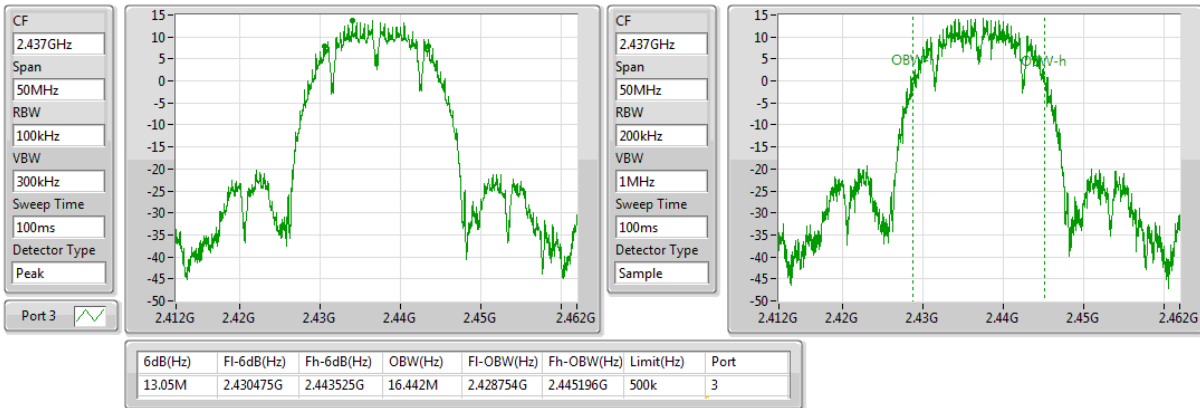
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

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

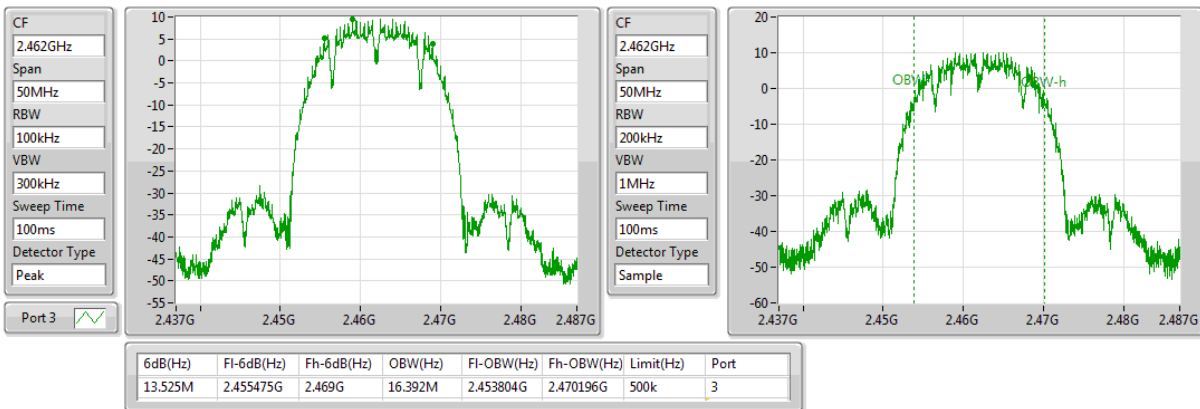
11/02/2019


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

11/02/2019

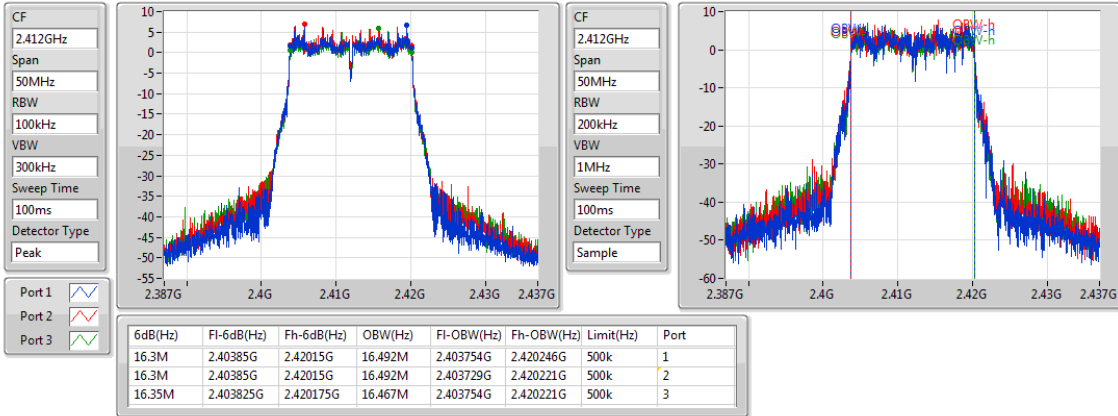

802.11b_Nss1,(1Mbps)_1TX(Port3)
EBW
2462MHz

11/02/2019

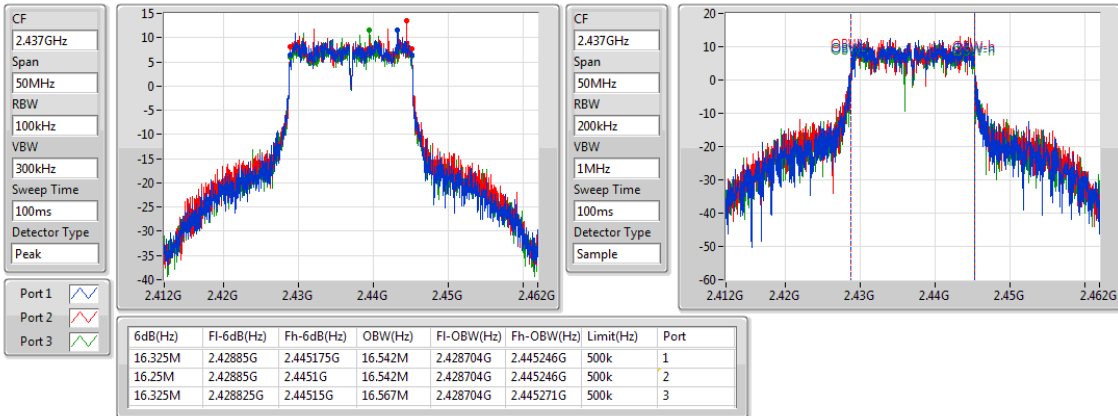


802.11g_Nss1,(6Mbps)_3TX
EBW
2412MHz

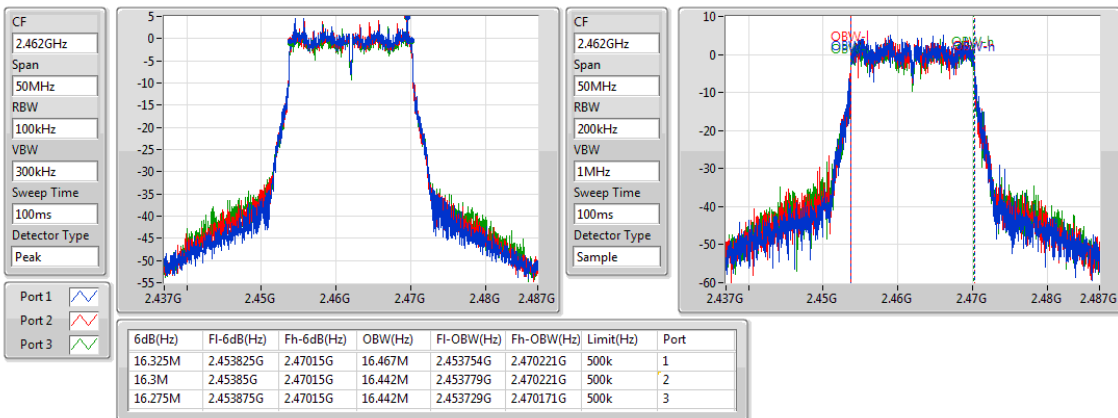
11/02/2019


802.11g_Nss1,(6Mbps)_3TX
EBW
2437MHz

11/02/2019

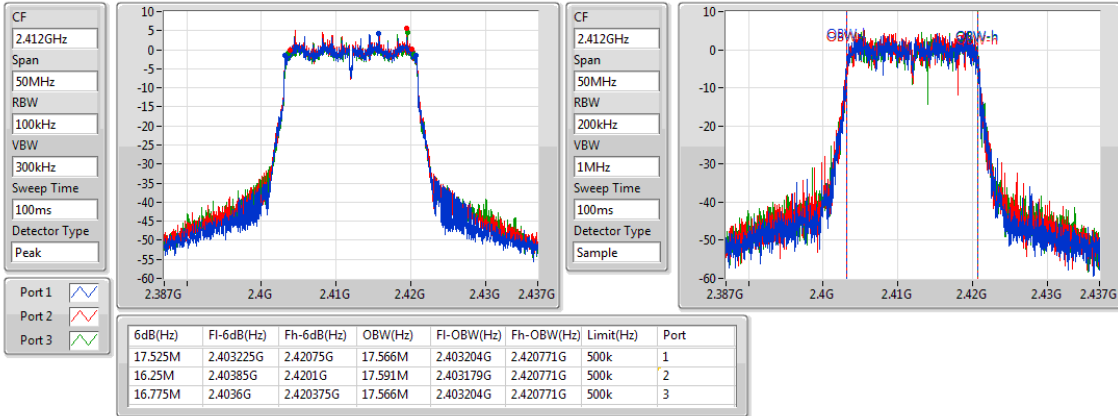

802.11g_Nss1,(6Mbps)_3TX
EBW
2462MHz

11/02/2019

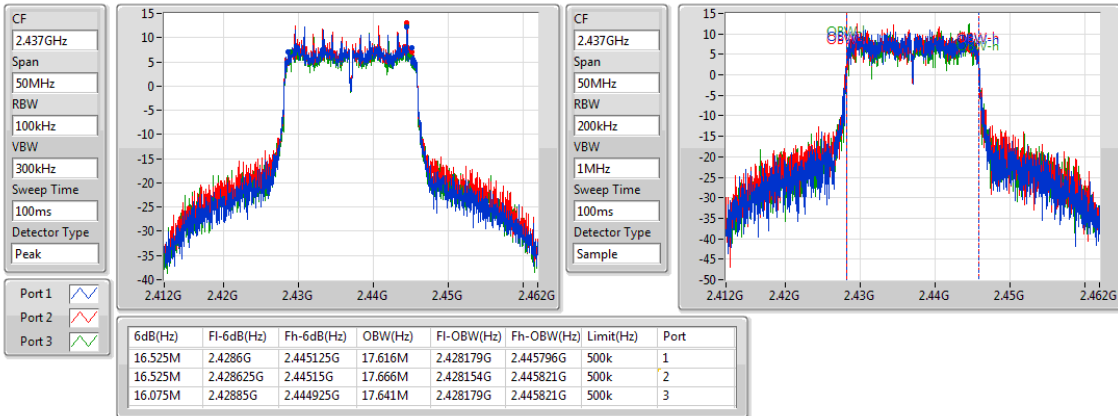


802.11n HT20_Nss3,(MCS16)_3TX
EBW
2412MHz

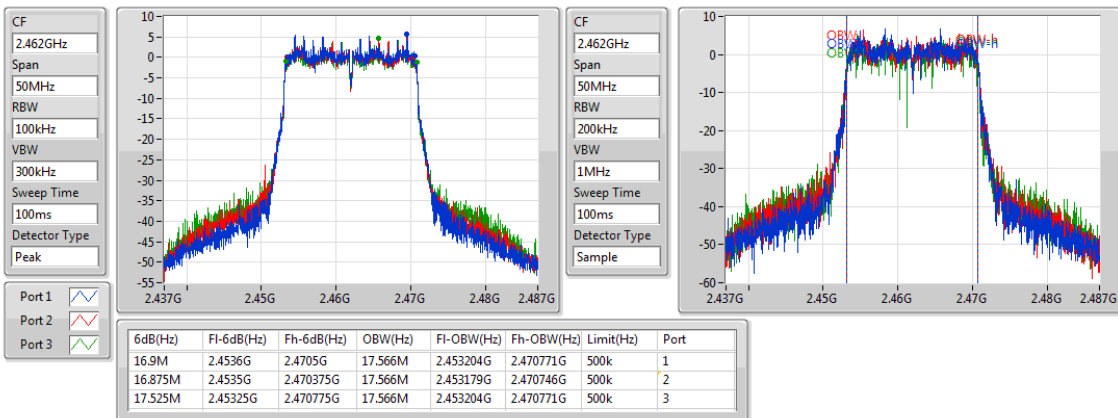
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802.11n HT20_Nss3,(MCS16)_3TX
EBW
2437MHz

11/02/2019

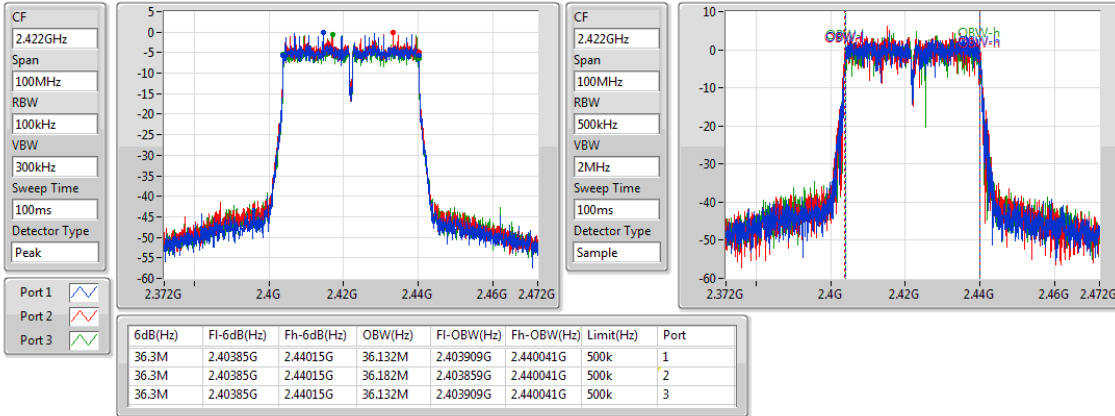

802.11n HT20_Nss3,(MCS16)_3TX
EBW
2462MHz

11/02/2019

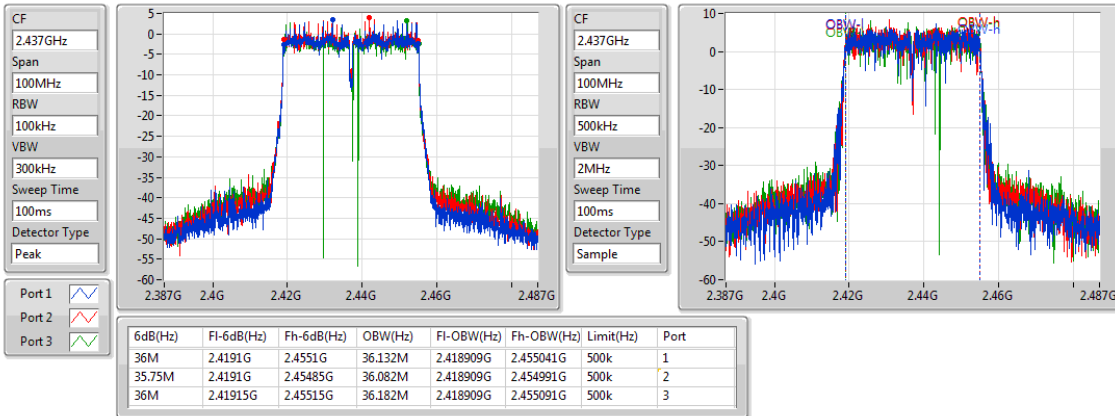


802.11n HT40_Nss3,(MCS16)_3TX
EBW
2422MHz

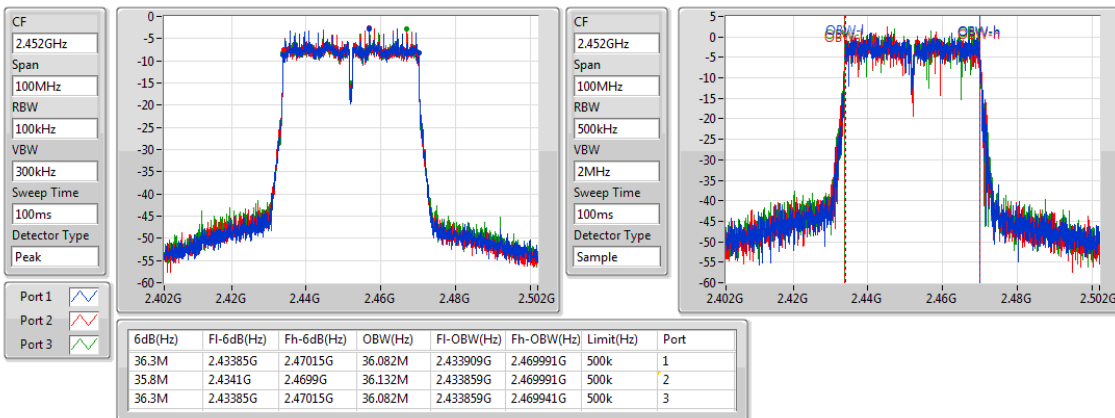
11/02/2019


802.11n HT40_Nss3,(MCS16)_3TX
EBW
2437MHz

11/02/2019


802.11n HT40_Nss3,(MCS16)_3TX
EBW
2452MHz

15/02/2019



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX(Port3)	24.17	0.26122
802.11g_Nss1,(6Mbps)_3TX	28.20	0.66069
802.11n HT20_Nss3,(MCS16)_3TX	27.59	0.57412
802.11n HT40_Nss3,(MCS16)_3TX	22.36	0.17219

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			19.45	19.45	30.00
2437MHz	Pass	4.00			24.17	24.17	30.00
2462MHz	Pass	4.20			20.29	20.29	30.00
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.00	17.94	18.29	17.54	22.71	30.00
2437MHz	Pass	4.00	23.51	23.81	22.92	28.20	30.00
2462MHz	Pass	4.20	16	15.84	15.42	20.53	30.00
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.00	16.01	16.47	15.87	20.90	30.00
2437MHz	Pass	4.00	22.85	23.15	22.41	27.59	30.00
2462MHz	Pass	4.20	16.84	16.61	16.22	21.34	30.00
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	4.00	14.33	14.93	14.08	19.23	30.00
2437MHz	Pass	4.00	17.56	17.9	17.29	22.36	30.00
2452MHz	Pass	4.20	12.06	12.20	11.91	16.83	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)	-1.45
802.11g_Nss1,(6Mbps)_3TX	1.08
802.11n HT20_Nss3,(MCS16)_3TX	-0.28
802.11n HT40_Nss3,(MCS16)_3TX	-8.67

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			-5.76	-5.76	8.00
2437MHz	Pass	4.00			-1.45	-1.45	8.00
2462MHz	Pass	4.20			-4.71	-4.71	8.00
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.00	-7.98	-7.22	-7.14	-5.36	8.00
2437MHz	Pass	4.00	-1.96	-0.91	-2.15	1.08	8.00
2462MHz	Pass	4.20	-9.53	-8.89	-9.11	-6.92	8.00
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.00	-9.5	-8.19	-9.71	-5.96	8.00
2437MHz	Pass	4.00	-2.5	-2.42	-2.33	-0.28	8.00
2462MHz	Pass	4.20	-9.27	-9.49	-9.75	-6.41	8.00
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	4.00	-13.51	-12.91	-14.68	-11.34	8.00
2437MHz	Pass	4.00	-11.74	-10.41	-10.63	-8.67	8.00
2452MHz	Pass	4.20	-15.99	-16.19	-16.90	-13.23	8.00

DG = Directional Gain; RBW=3kHz;

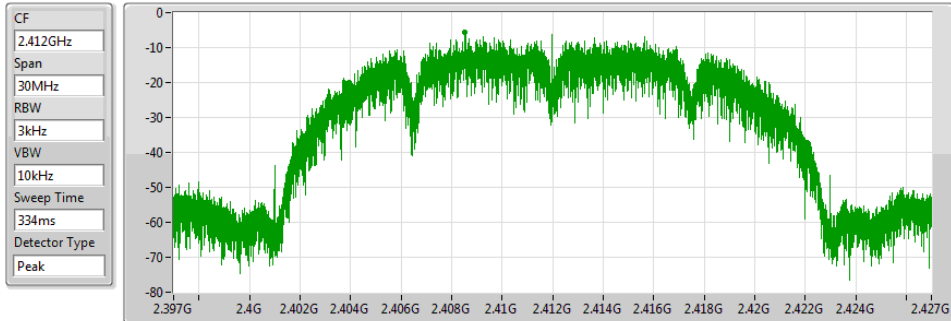
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11b_Nss1,(1Mbps)_1TX(Port3)

PSD

2412MHz

11/02/2019



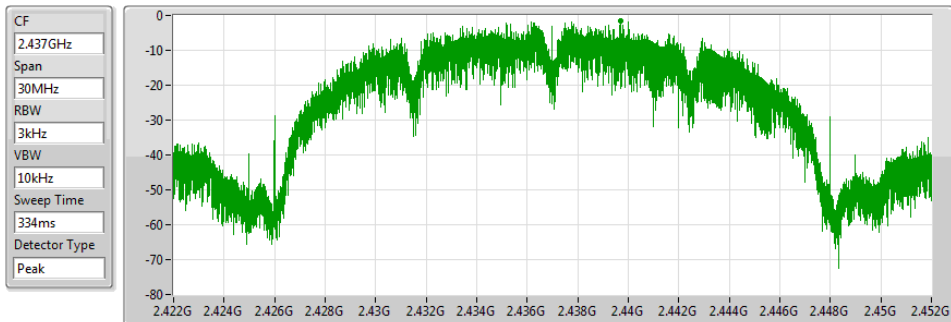
Sum	PD	Port 1	Port 2	Port 3
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-5.76	-5.76			-5.76

802.11b_Nss1,(1Mbps)_1TX(Port3)

PSD

2437MHz

11/02/2019



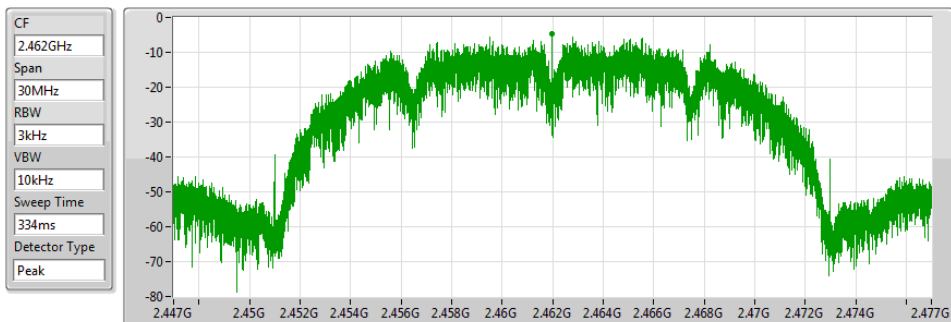
Sum	PD	Port 1	Port 2	Port 3
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-1.45	-1.45			-1.45

802.11b_Nss1,(1Mbps)_1TX(Port3)

PSD

2462MHz

11/02/2019



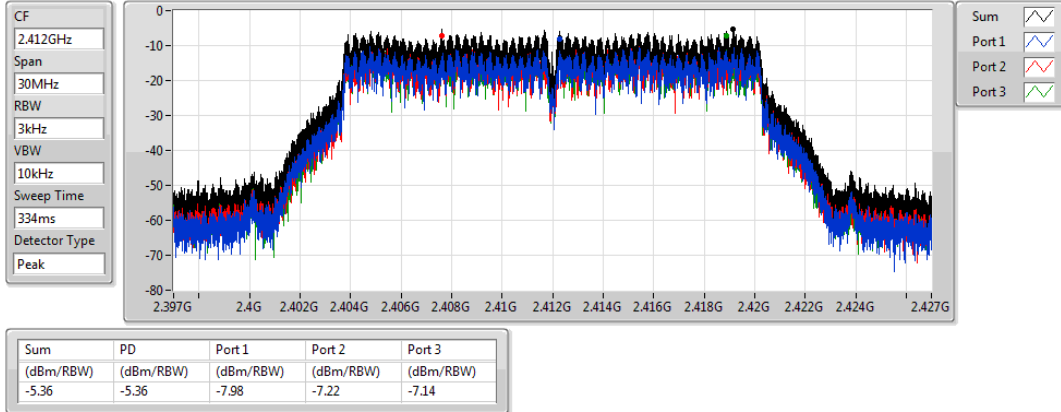
Sum	PD	Port 1	Port 2	Port 3
(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)	(dBm/100kHz)
-4.71	-4.71			-4.71

802.11g_Nss1,(6Mbps)_3TX

PSD

2412MHz

11/02/2019

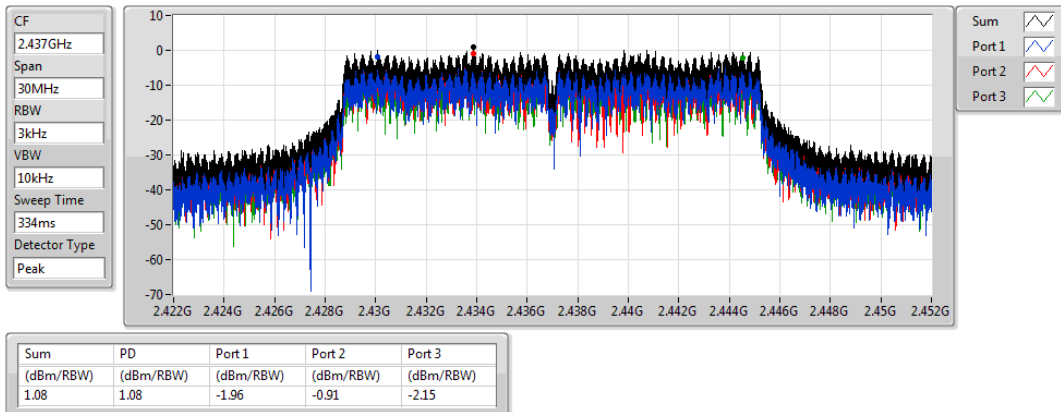


802.11g_Nss1,(6Mbps)_3TX

PSD

2437MHz

11/02/2019

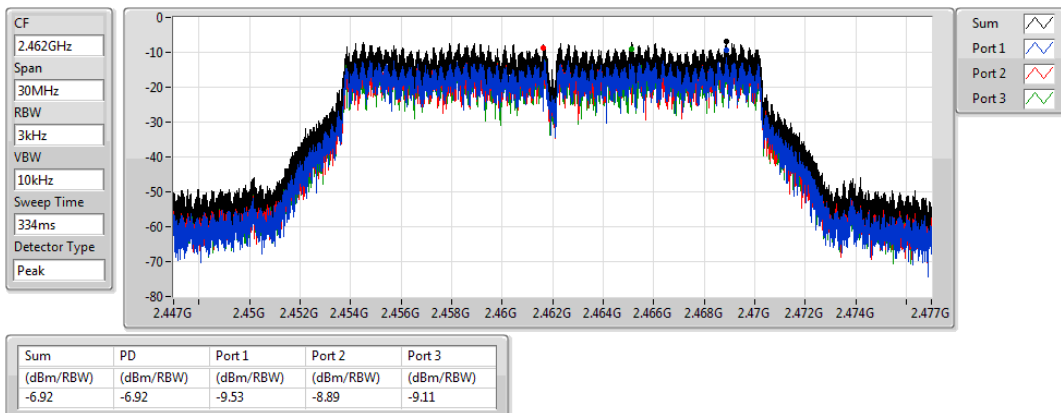


802.11g_Nss1,(6Mbps)_3TX

PSD

2462MHz

11/02/2019

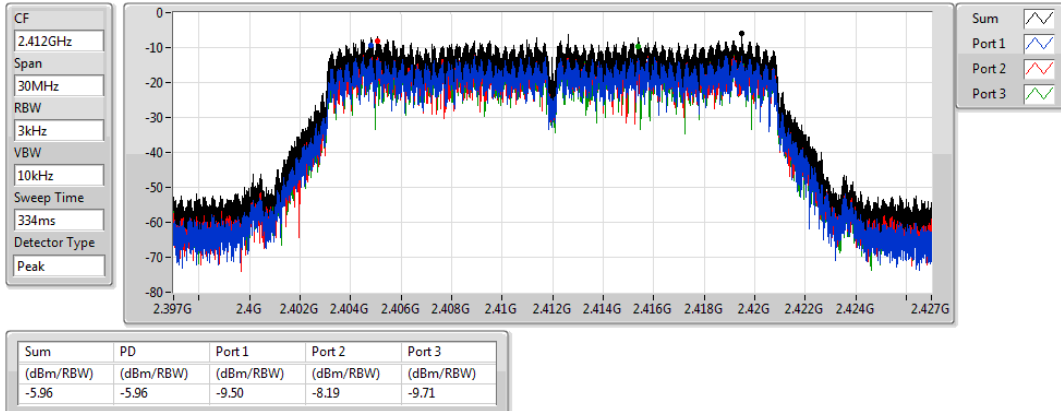


802.11n HT20_Nss3,(MCS16)_3TX

PSD

2412MHz

11/02/2019

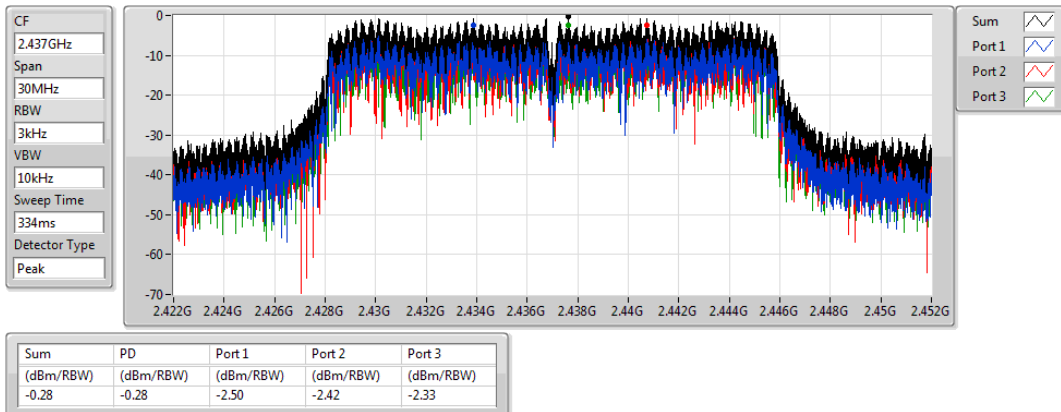


802.11n HT20_Nss3,(MCS16)_3TX

PSD

2437MHz

11/02/2019

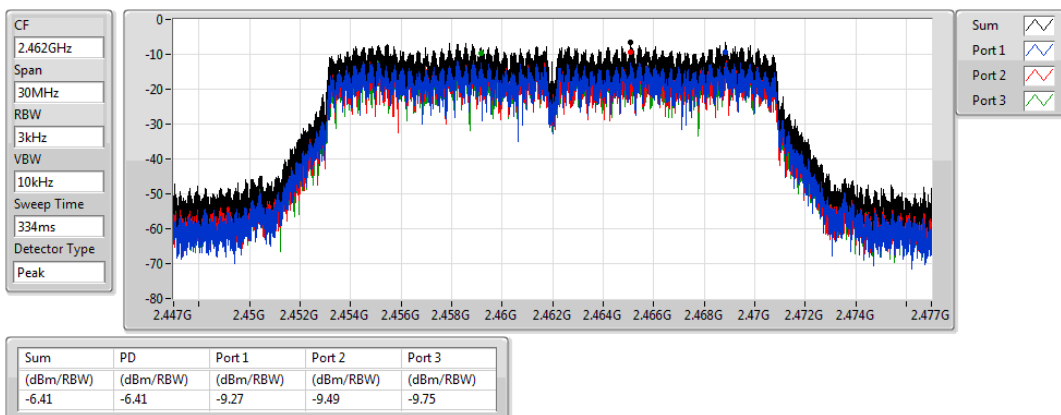


802.11n HT20_Nss3,(MCS16)_3TX

PSD

2462MHz

11/02/2019

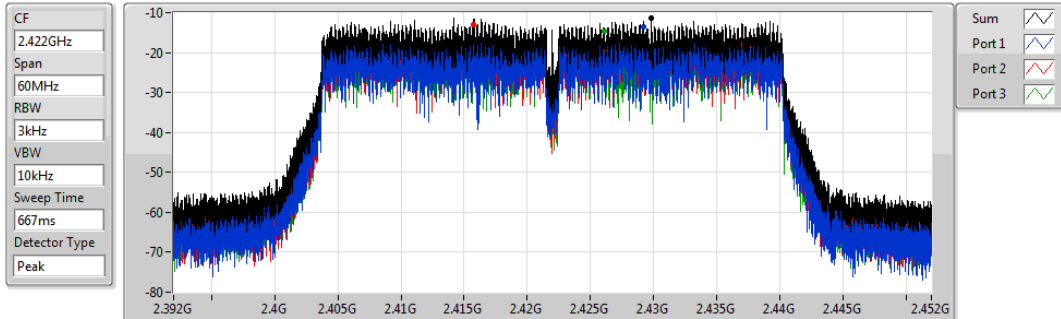


802.11n HT40_Nss3,(MCS16)_3TX

PSD

2422MHz

11/02/2019



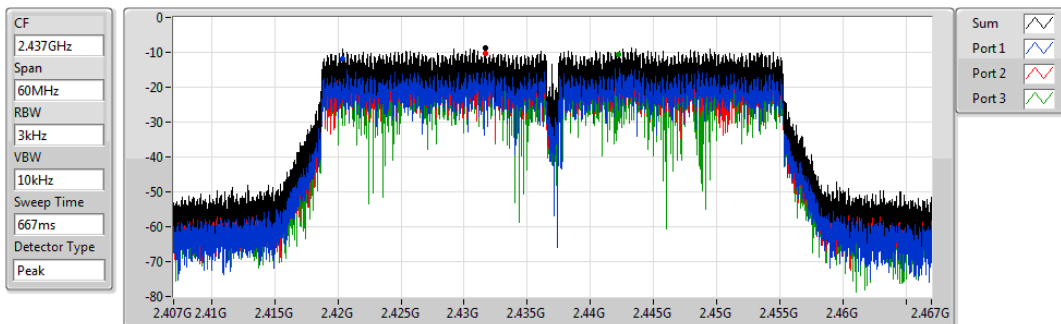
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.34	-11.34	-13.51	-12.91	-14.68

802.11n HT40_Nss3,(MCS16)_3TX

PSD

2437MHz

11/02/2019



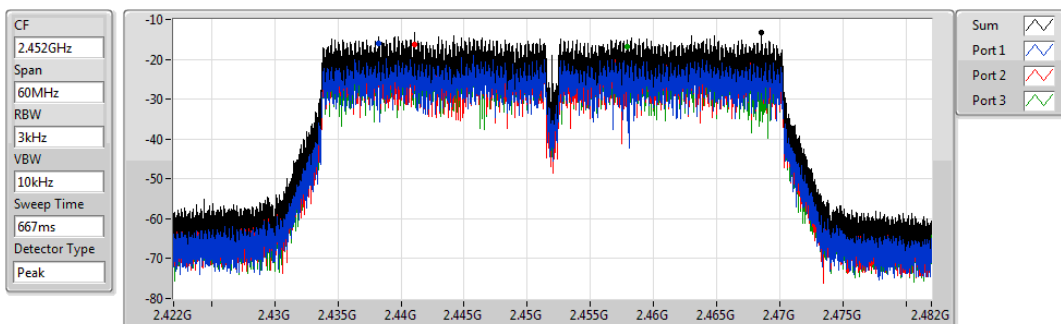
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.67	-8.67	-11.74	-10.41	-10.63

802.11n HT40_Nss3,(MCS16)_3TX

PSD

2452MHz

15/02/2019



Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-13.23	-13.23	-15.99	-16.19	-16.90

Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX(Port3)	Pass	2.43749G	12.45	-17.55	2.30466G	-54.42	2.397G	-36.60	2.492G	-49.47	7.23795G	-50.95	3
802.11g_Nss1,(6Mbps)_3TX	Pass	2.44451G	12.69	-17.31	2.30932G	-54.57	2.3999G	-31.47	2.4845G	-51.65	15.34353G	-50.91	2
802.11n HT20_Nss3,(MCS16)_3TX	Pass	2.4395G	12.91	-17.09	2.30583G	-56.99	2.3996G	-32.97	2.4845G	-52.04	15.31263G	-50.73	2
802.11n HT40_Nss3,(MCS16)_3TX	Pass	2.43198G	4.26	-25.74	2.30225G	-57.16	2.39984G	-37.20	2.48482G	-52.45	15.33267G	-50.43	3

Result

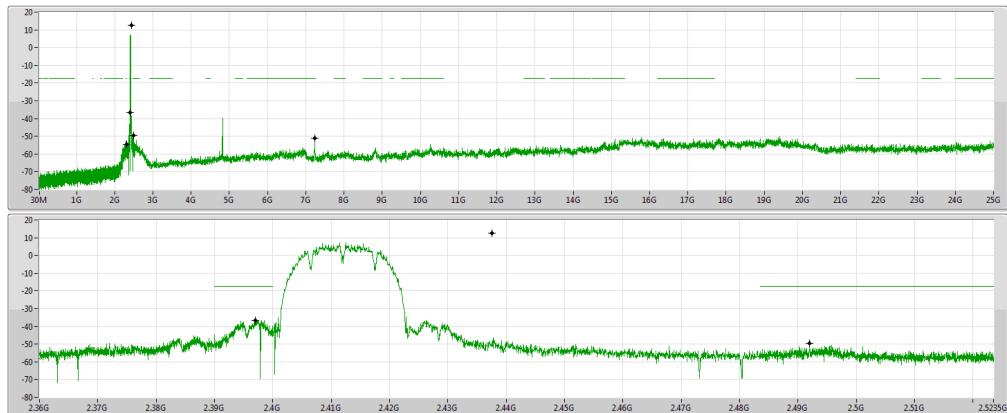
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq
802.11b_Nss1,(1Mbps)_1TX(Port3)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43749G	12.45	-17.55	2.30466G	-54.42	2.397G	-36.60	2.492G	-49.47	7.23795G	-50.95	3
2437MHz	Pass	2.43749G	12.45	-17.55	2.30787G	-50.76	2.398G	-39.00	2.48368G	-45.13	2.55441G	-48.59	3
2462MHz	Pass	2.43749G	12.45	-17.55	2.30204G	-51.12	2.39108G	-51.88	2.48446G	-44.36	15.30701G	-51.42	3
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44451G	12.69	-17.31	2.30029G	-55.63	2.39706G	-33.82	2.48848G	-50.40	7.22952G	-50.35	1
2412MHz	Pass	2.44451G	12.69	-17.31	2.30932G	-54.57	2.3999G	-31.47	2.4845G	-51.65	15.34353G	-50.91	2
2412MHz	Pass	2.44451G	12.69	-17.31	2.30728G	-56.10	2.39894G	-32.18	2.48884G	-50.42	15.31544G	-49.85	3
2437MHz	Pass	2.44451G	12.69	-17.31	2.3035G	-50.85	2.39726G	-40.53	2.50952G	-44.79	2.59655G	-49.88	1
2437MHz	Pass	2.44451G	12.69	-17.31	2.30641G	-50.71	2.39962G	-39.95	2.48358G	-42.77	15.26206G	-50.29	2
2437MHz	Pass	2.44451G	12.69	-17.31	2.30758G	-51.58	2.39702G	-42.25	2.48426G	-44.24	16.42241G	-50.35	3
2462MHz	Pass	2.44451G	12.69	-17.31	2.30088G	-54.67	2.3961G	-55.39	2.48418G	-47.42	16.40555G	-51.06	1
2462MHz	Pass	2.44451G	12.69	-17.31	2.30146G	-55.65	2.39738G	-55.77	2.48418G	-46.81	16.3606G	-51.10	2
2462MHz	Pass	2.44451G	12.69	-17.31	2.30204G	-56.18	2.39684G	-56.13	2.48386G	-45.46	15.27329G	-50.68	3
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4395G	12.91	-17.09	2.30961G	-57.87	2.39996G	-35.79	2.48448G	-50.30	16.7736G	-50.83	1
2412MHz	Pass	2.4395G	12.91	-17.09	2.30583G	-56.99	2.3996G	-32.97	2.4845G	-52.04	15.31263G	-50.73	2
2412MHz	Pass	2.4395G	12.91	-17.09	2.30175G	-58.22	2.39984G	-33.32	2.48456G	-52.21	16.33531G	-50.26	3
2437MHz	Pass	2.4395G	12.91	-17.09	2.3067G	-50.42	2.39888G	-37.69	2.48498G	-43.12	2.59655G	-48.46	1
2437MHz	Pass	2.4395G	12.91	-17.09	2.30991G	-50.81	2.39912G	-35.92	2.48766G	-40.63	2.5235G	-49.62	2
2437MHz	Pass	2.4395G	12.91	-17.09	2.30204G	-51.30	2.3999G	-37.62	2.48354G	-40.32	15.34634G	-49.45	3
2462MHz	Pass	2.4395G	12.91	-17.09	2.30758G	-55.79	2.39008G	-52.61	2.48362G	-45.79	15.34634G	-51.03	1
2462MHz	Pass	2.4395G	12.91	-17.09	2.3G	-56.12	2.3901G	-54.06	2.4836G	-44.20	15.23396G	-50.87	2
2462MHz	Pass	2.4395G	12.91	-17.09	2.30903G	-56.47	2.39016G	-54.24	2.48418G	-42.05	15.23396G	-51.09	3
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	4.26	-25.74	2.30712G	-56.27	2.39956G	-41.82	2.50198G	-51.28	15.32426G	-49.77	1
2422MHz	Pass	2.43198G	4.26	-25.74	2.30483G	-55.41	2.39912G	-40.40	2.48878G	-51.90	15.12233G	-50.02	2
2422MHz	Pass	2.43198G	4.26	-25.74	2.30225G	-57.16	2.39984G	-37.20	2.48482G	-52.45	15.33267G	-50.43	3
2437MHz	Pass	2.43198G	4.26	-25.74	2.30912G	-54.27	2.39956G	-37.25	2.48438G	-46.90	16.80226G	-49.66	1
2437MHz	Pass	2.43198G	4.26	-25.74	2.30855G	-54.17	2.39976G	-39.62	2.4837G	-46.30	15.08307G	-49.58	2
2437MHz	Pass	2.43198G	4.26	-25.74	2.30826G	-55.79	2.397G	-39.27	2.48358G	-44.32	16.84153G	-50.75	3
2452MHz	Pass	2.43198G	4.26	-25.74	2.30197G	-59.06	2.39924G	-52.62	2.49194G	-46.26	15.33828G	-50.51	1
2452MHz	Pass	2.43198G	4.26	-25.74	2.3097G	-58.52	2.39892G	-53.12	2.4845G	-48.20	15.09989G	-49.38	2
2452MHz	Pass	2.43198G	4.26	-25.74	2.30283G	-59.06	2.39224G	-53.62	2.48406G	-46.05	15.07746G	-50.38	3

802.11b_Nss1,(1Mbps)_1TX(Port3)

2412MHz

CSE NdB

11/02/2019



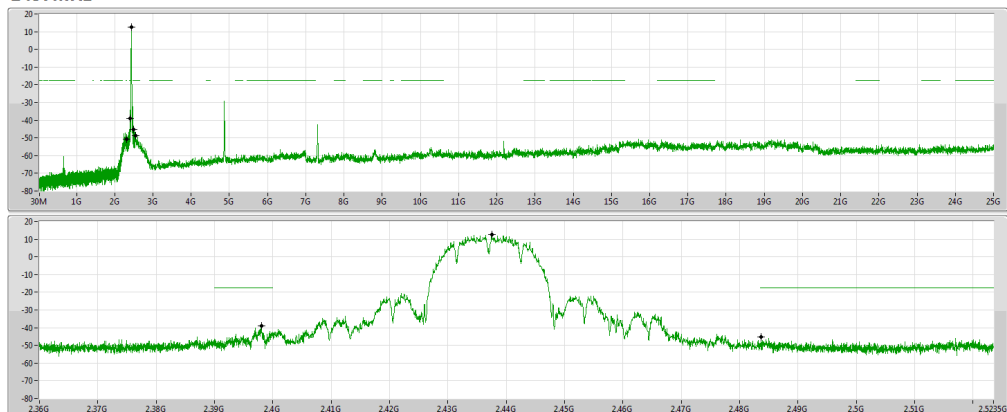
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	12.45	-17.55	2.30466G	-54.42	2.397G	-36.60	2.492G	-49.47	7.23795G	-50.95	3

802.11b_Nss1,(1Mbps)_1TX(Port3)

2437MHz

CSE NdB

11/02/2019



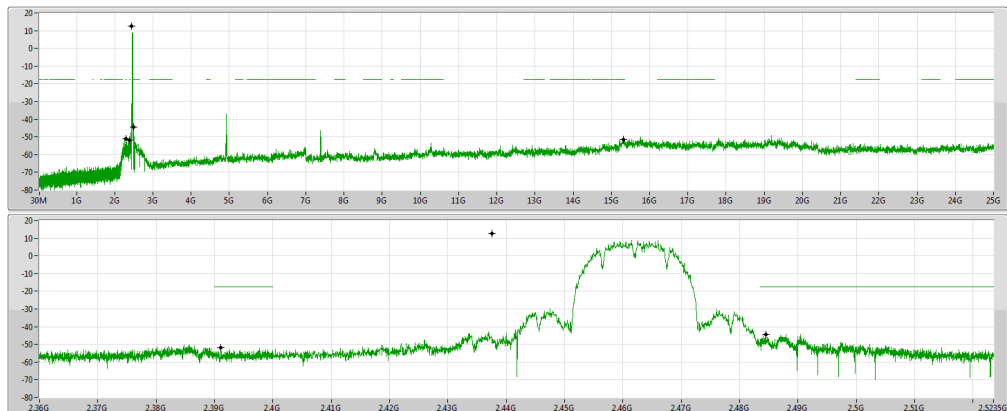
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	12.45	-17.55	2.30787G	-50.76	2.398G	-39.00	2.48368G	-45.13	2.55441G	-48.59	3

802.11b_Nss1,(1Mbps)_1TX(Port3)

2462MHz

CSE NdB

11/02/2019



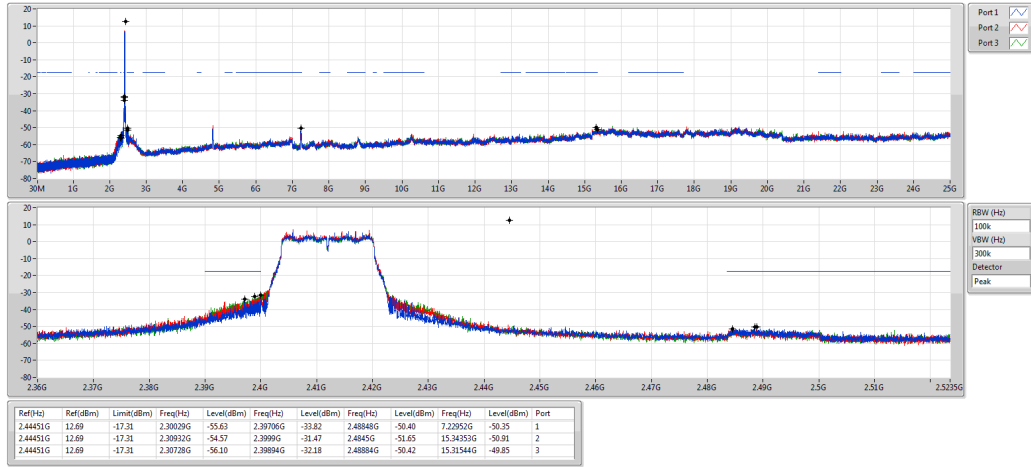
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	12.45	-17.55	2.30204G	-51.12	2.39108G	-51.88	2.48446G	-44.36	15.30701G	-51.42	3

802.11g_Nss1,(6Mbps)_3TX

2412MHz

CSE NdB

11/02/2019

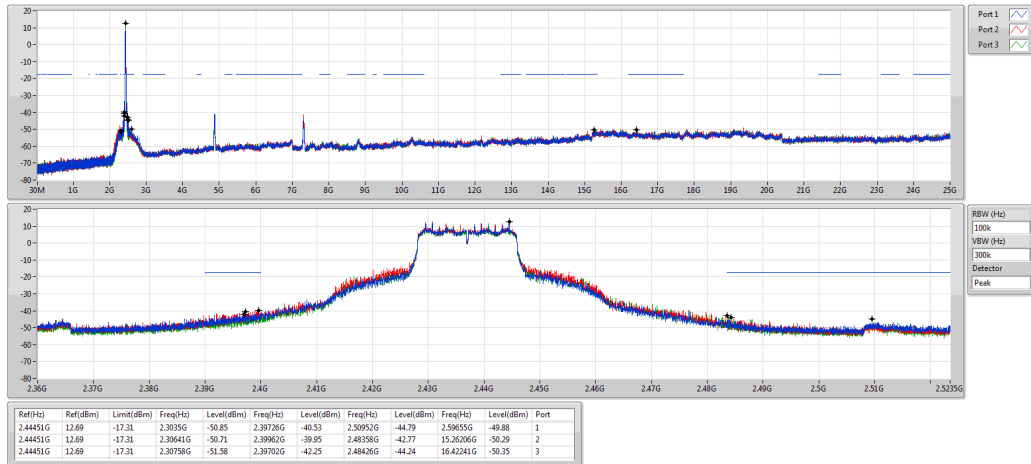


802.11g_Nss1,(6Mbps)_3TX

2437MHz

CSE NdB

11/02/2019

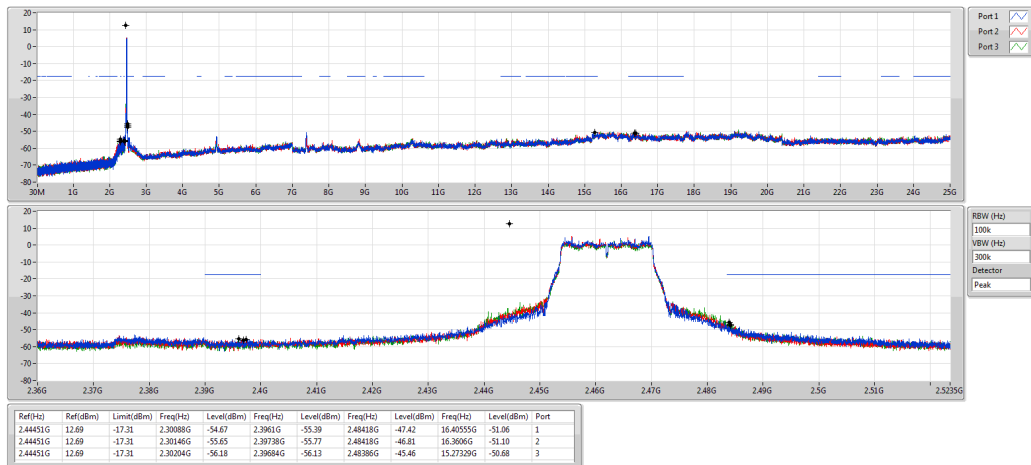


802.11g_Nss1,(6Mbps)_3TX

2462MHz

CSE NdB

11/02/2019



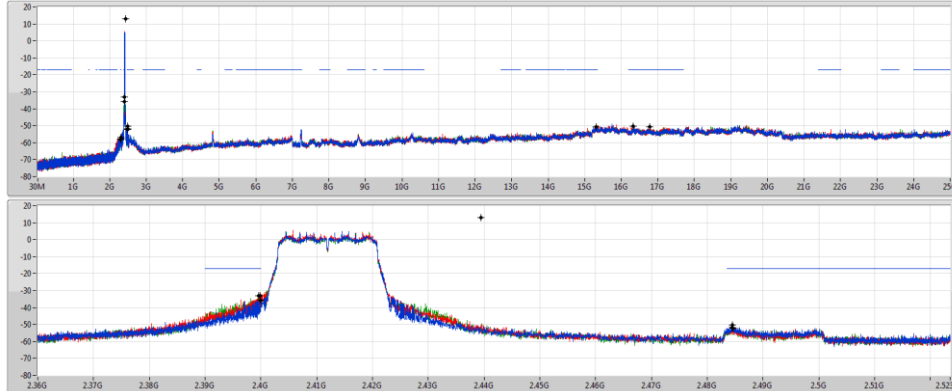
802.11n HT20_Nss3,(MCS16)_3TX

2412MHz

CSE NdB

11/02/2019

Port 1
Port 2
Port 3



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
243950	12.91	-17.09	2.30610	-57.87	2.39960	-35.79	2.48440	-50.39	16.77360	-50.83	1
243950	12.91	-17.09	2.305830	-56.99	2.39960	-32.97	2.48450	-52.04	15.312630	-50.73	2
243950	12.91	-17.09	2.301750	-58.22	2.399840	-33.32	2.48450	-52.21	16.335310	-50.26	3

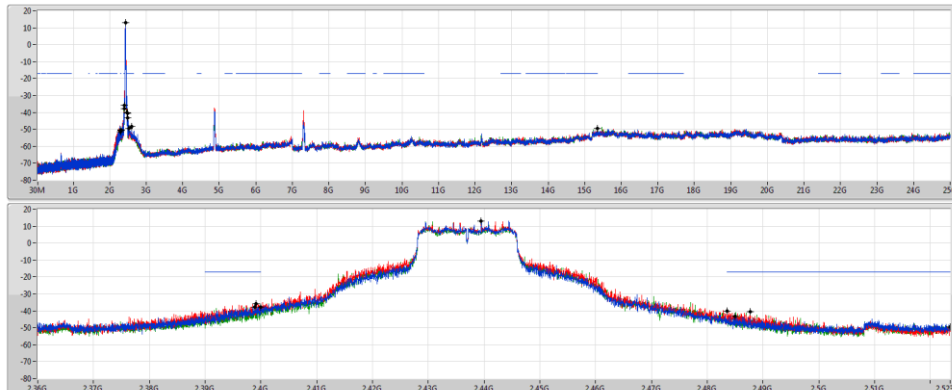
802.11n HT20_Nss3,(MCS16)_3TX

2437MHz

CSE NdB

11/02/2019

Port 1
Port 2
Port 3



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
243950	12.91	-17.09	2.30670	-50.42	2.39880	-37.89	2.48480	-43.12	2.586550	-48.46	1
243950	12.91	-17.09	2.309910	-50.81	2.398120	-35.90	2.487660	-40.63	2.52350	-49.62	2
243950	12.91	-17.09	2.302040	-51.30	2.39990	-37.62	2.483540	-40.32	15.346340	-49.45	3

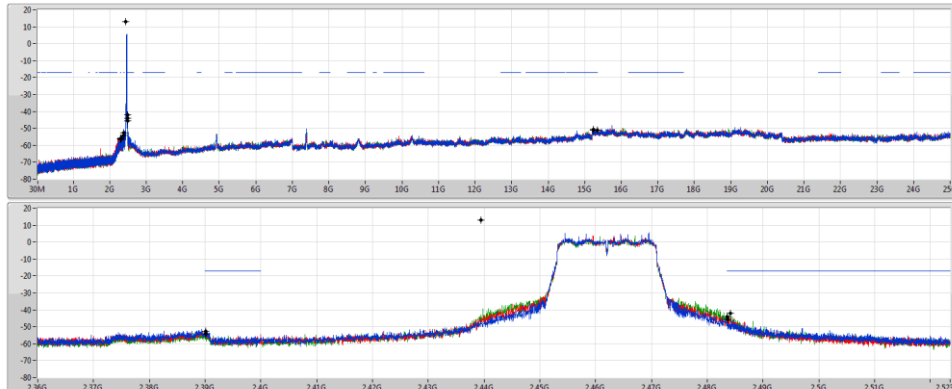
802.11n HT20_Nss3,(MCS16)_3TX

2462MHz

CSE NdB

11/02/2019

Port 1
Port 2
Port 3



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
243950	12.91	-17.09	2.307580	-55.79	2.390080	-52.61	2.483620	-45.79	15.346340	-51.03	1
243950	12.91	-17.09	2.30	-56.12	2.39010	-54.06	2.48360	-44.20	15.233860	-50.87	2
243950	12.91	-17.09	2.308030	-56.47	2.390160	-54.24	2.484180	-42.05	15.233860	-51.09	3

802.11n HT40_Nss3,(MCS16)_3TX 2422MHz

CSE NdB

15/02/2019

Port 1
Port 2
Port 3



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

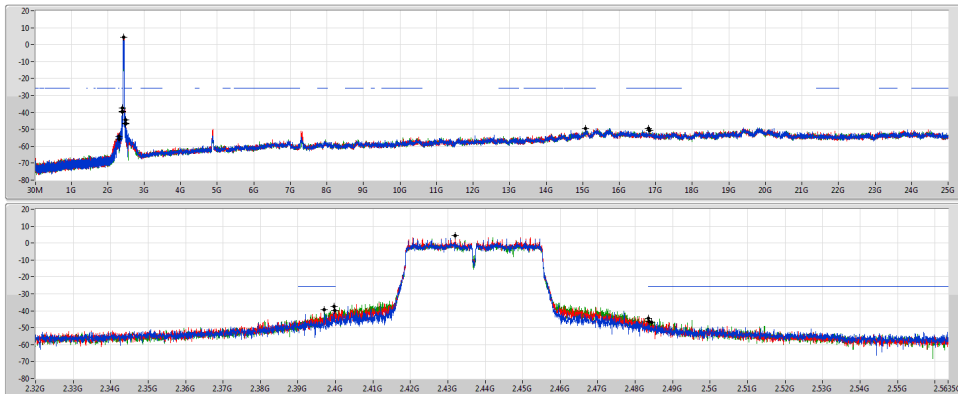
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	4.26	-25.74	2.30712G	-56.27	2.39956G	-41.82	2.50196G	-51.26	15.32426G	-49.77	1
2.43198G	4.26	-25.74	2.30483G	-55.41	2.39912G	-40.40	2.48878G	-51.80	15.12233G	-50.02	2
2.43198G	4.26	-25.74	2.30225G	-57.16	2.39984G	-37.20	2.48482G	-52.45	15.33267G	-50.43	3

802.11n HT40_Nss3,(MCS16)_3TX 2437MHz

CSE NdB

15/02/2019

Port 1
Port 2
Port 3



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

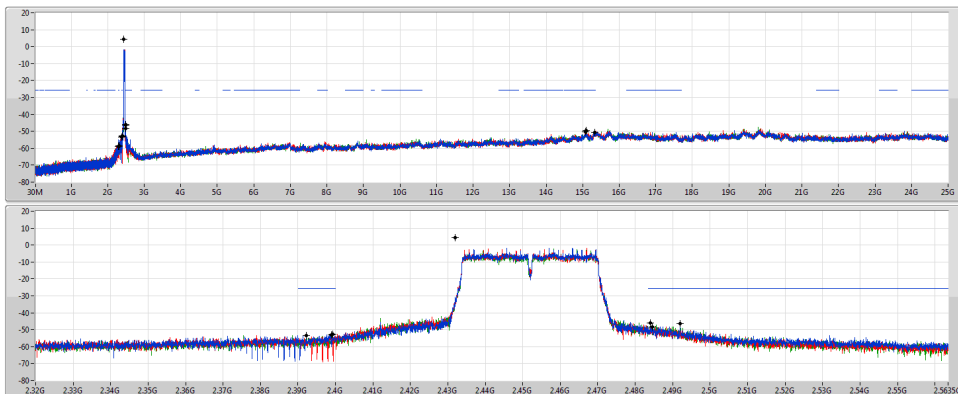
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43198G	4.26	-25.74	2.30912G	-54.27	2.39956G	-37.25	2.48438G	-46.90	16.80226G	-49.66	1
2.43198G	4.26	-25.74	2.30855G	-54.17	2.39976G	-39.62	2.48370G	-46.30	15.08307G	-49.58	2
2.43198G	4.26	-25.74	2.30826G	-55.79	2.397G	-39.27	2.48358G	-44.32	16.84153G	-50.75	3

802.11n HT40_Nss3,(MCS16)_3TX 2452MHz

CSE NdB

15/02/2019

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
2.43198G	4.26	-25.74	2.30197G	-59.06	2.39924G	-52.65	2.49194G	-46.26	15.33828G	-50.51	1
2.43198G	4.26	-25.74	2.3007G	-58.52	2.39892G	-53.12	2.4845G	-48.20	15.09889G	-49.38	2
2.43198G	4.26	-25.74	2.30383G	-59.06	2.39224G	-53.62	2.48406G	-46.05	15.07746G	-50.38	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	582.9M	41.10	46.00	-4.90	-1.38	3	Vertical	360	1.00	-

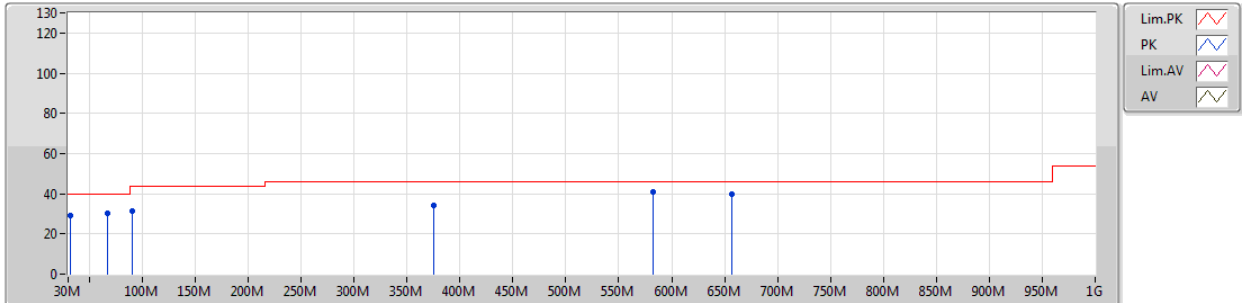
Result

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_Adapter	Pass	PK	31.94M	28.94	40.00	-11.06	-5.66	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	66.86M	30.14	40.00	-9.86	-15.49	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	90.14M	31.55	43.50	-11.95	-12.55	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	375.32M	33.93	46.00	-12.07	-4.48	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	582.9M	41.10	46.00	-4.90	-1.38	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	656.62M	39.65	46.00	-6.35	-0.30	3	Vertical	360	1.00	-
2437MHz_Adapter	Pass	PK	35.82M	26.28	40.00	-13.72	-7.68	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	66.86M	25.62	40.00	-14.38	-15.49	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	198.78M	31.64	43.50	-11.86	-10.65	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	270.56M	34.46	46.00	-11.54	-6.09	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	375.32M	36.54	46.00	-9.46	-4.48	3	Horizontal	0	1.00	-
2437MHz_Adapter	Pass	PK	662.44M	39.76	46.00	-6.24	-0.29	3	Horizontal	0	1.00	-

802.11n HT40_Nss3,(MCS16)_3TX

06/02/2019

2437MHz_Adapter

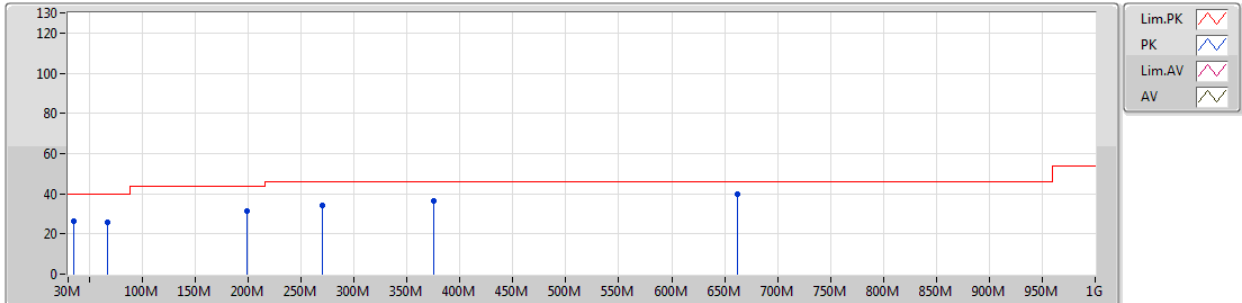


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
PK	31.94M	28.94	40.00	-11.06	-5.66	3	Vertical	360	1.00	-
PK	66.86M	30.14	40.00	-9.86	-15.49	3	Vertical	360	1.00	-
PK	90.14M	31.55	43.50	-11.95	-12.55	3	Vertical	360	1.00	-
PK	375.32M	33.93	46.00	-12.07	-4.48	3	Vertical	360	1.00	-
PK	582.9M	41.10	46.00	-4.90	-1.38	3	Vertical	360	1.00	-
PK	656.62M	39.65	46.00	-6.35	-0.30	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	35.82M	26.28	40.00	-13.72	-7.68	3	Horizontal	0	1.00	-
PK	66.86M	25.62	40.00	-14.38	-15.49	3	Horizontal	0	1.00	-
PK	198.78M	31.64	43.50	-11.86	-10.65	3	Horizontal	0	1.00	-
PK	270.56M	34.46	46.00	-11.54	-6.09	3	Horizontal	0	1.00	-
PK	375.32M	36.54	46.00	-9.46	-4.48	3	Horizontal	0	1.00	-
PK	662.44M	39.76	46.00	-6.24	-0.29	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	2.4838G	53.31	54.00	-0.69	30.69	3	Horizontal	237	1.55	-
802.11g_Nss1,(6Mbps)_3TX	Pass	AV	2.3638G	53.87	54.00	-0.13	30.29	3	Horizontal	38	1.50	-
802.11n HT20_Nss3,(MCS16)_3TX	Pass	AV	2.4835G	53.50	54.00	-0.50	30.69	3	Horizontal	326	1.13	-
802.11n HT40_Nss3,(MCS16)_3TX	Pass	AV	2.3892G	53.89	54.00	-0.11	30.37	3	Vertical	185	1.93	-

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_TX	Pass	AV	2.3866G	49.03	54.00	-4.97	30.37	3	Vertical	152	2.51	-
2412MHz_TX	Pass	AV	2.4112G	102.85	Inf	-Inf	30.45	3	Vertical	152	2.51	-
2412MHz_TX	Pass	PK	2.3864G	60.45	74.00	-13.55	30.37	3	Vertical	152	2.51	-
2412MHz_TX	Pass	PK	2.412G	111.11	Inf	-Inf	30.45	3	Vertical	152	2.51	-
2412MHz_TX	Pass	AV	2.3866G	53.11	54.00	-0.89	30.37	3	Horizontal	241	2.76	-
2412MHz_TX	Pass	AV	2.4128G	107.67	Inf	-Inf	30.45	3	Horizontal	241	2.76	-
2412MHz_TX	Pass	PK	2.389G	64.10	74.00	-9.90	30.37	3	Horizontal	241	2.76	-
2412MHz_TX	Pass	PK	2.4122G	115.76	Inf	-Inf	30.45	3	Horizontal	241	2.76	-
2412MHz_TX	Pass	AV	4.82523G	29.81	54.00	-24.19	5.90	3	Vertical	110	1.22	-
2412MHz_TX	Pass	PK	4.82331G	41.72	74.00	-32.28	5.89	3	Vertical	110	1.22	-
2412MHz_TX	Pass	AV	4.8217G	29.69	54.00	-24.31	5.89	3	Horizontal	182	2.27	-
2412MHz_TX	Pass	PK	4.82184G	42.48	74.00	-31.52	5.89	3	Horizontal	182	2.27	-
2437MHz_TX	Pass	AV	2.3898G	48.88	54.00	-5.12	30.38	3	Vertical	227	1.94	-
2437MHz_TX	Pass	AV	2.4362G	107.94	Inf	-Inf	30.54	3	Vertical	227	1.94	-
2437MHz_TX	Pass	AV	2.487G	49.33	54.00	-4.67	30.71	3	Vertical	227	1.94	-
2437MHz_TX	Pass	PK	2.3746G	60.04	74.00	-13.96	30.33	3	Vertical	227	1.94	-
2437MHz_TX	Pass	PK	2.437G	116.05	Inf	-Inf	30.54	3	Vertical	227	1.94	-
2437MHz_TX	Pass	PK	2.4842G	60.66	74.00	-13.34	30.69	3	Vertical	227	1.94	-
2437MHz_TX	Pass	AV	2.3898G	52.79	54.00	-1.21	30.38	3	Horizontal	237	1.55	-
2437MHz_TX	Pass	AV	2.4362G	113.07	Inf	-Inf	30.54	3	Horizontal	237	1.55	-
2437MHz_TX	Pass	AV	2.4838G	53.31	54.00	-0.69	30.69	3	Horizontal	237	1.55	-
2437MHz_TX	Pass	PK	2.3894G	63.60	74.00	-10.40	30.37	3	Horizontal	237	1.55	-
2437MHz_TX	Pass	PK	2.4366G	120.61	Inf	-Inf	30.54	3	Horizontal	237	1.55	-
2437MHz_TX	Pass	PK	2.4874G	64.72	74.00	-9.28	30.71	3	Horizontal	237	1.55	-
2437MHz_TX	Pass	AV	4.87394G	32.39	54.00	-21.61	6.00	3	Vertical	94	1.50	-
2437MHz_TX	Pass	PK	4.87394G	43.26	74.00	-30.74	6.00	3	Vertical	94	1.50	-
2437MHz_TX	Pass	AV	4.87394G	32.51	54.00	-21.49	6.00	3	Horizontal	337	1.43	-
2437MHz_TX	Pass	PK	4.87454G	42.70	74.00	-31.30	6.00	3	Horizontal	337	1.43	-
2462MHz_TX	Pass	AV	2.4612G	103.60	Inf	-Inf	30.62	3	Vertical	179	1.71	-
2462MHz_TX	Pass	AV	2.4872G	49.54	54.00	-4.46	30.71	3	Vertical	179	1.71	-
2462MHz_TX	Pass	PK	2.462G	111.96	Inf	-Inf	30.62	3	Vertical	179	1.71	-
2462MHz_TX	Pass	PK	2.4838G	61.69	74.00	-12.31	30.69	3	Vertical	179	1.71	-
2462MHz_TX	Pass	AV	2.4612G	108.16	Inf	-Inf	30.62	3	Horizontal	235	1.52	-
2462MHz_TX	Pass	AV	2.4844G	53.18	54.00	-0.82	30.69	3	Horizontal	235	1.52	-
2462MHz_TX	Pass	PK	2.462G	116.52	Inf	-Inf	30.62	3	Horizontal	235	1.52	-
2462MHz_TX	Pass	PK	2.4838G	64.70	74.00	-9.30	30.69	3	Horizontal	235	1.52	-
2462MHz_TX	Pass	AV	4.92166G	29.77	54.00	-24.23	6.09	3	Vertical	162	1.29	-
2462MHz_TX	Pass	PK	4.92186G	41.70	74.00	-32.30	6.09	3	Vertical	162	1.29	-
2462MHz_TX	Pass	AV	4.9216G	29.87	54.00	-24.13	6.09	3	Horizontal	166	1.60	-
2462MHz_TX	Pass	PK	4.92376G	41.72	74.00	-32.28	6.09	3	Horizontal	166	1.60	-
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz_TX	Pass	AV	2.39G	51.34	54.00	-2.66	30.38	3	Vertical	99	1.84	-
2412MHz_TX	Pass	AV	2.419G	105.48	Inf	-Inf	30.48	3	Vertical	99	1.84	-
2412MHz_TX	Pass	PK	2.3882G	69.04	74.00	-4.96	30.37	3	Vertical	99	1.84	-
2412MHz_TX	Pass	PK	2.4186G	113.69	Inf	-Inf	30.47	3	Vertical	99	1.84	-
2412MHz_TX	Pass	AV	2.3892G	53.32	54.00	-0.68	30.37	3	Horizontal	280	1.70	-
2412MHz_TX	Pass	AV	2.405G	106.36	Inf	-Inf	30.42	3	Horizontal	280	1.70	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2412MHz_TX	Pass	PK	2.3888G	72.61	74.00	-1.39	30.37	3	Horizontal	280	1.70	-
2412MHz_TX	Pass	PK	2.4046G	114.84	Inf	-Inf	30.42	3	Horizontal	280	1.70	-
2412MHz_TX	Pass	AV	4.91218G	31.29	54.00	-22.71	6.08	3	Vertical	278	1.13	-
2412MHz_TX	Pass	PK	4.91014G	42.83	74.00	-31.17	6.07	3	Vertical	278	1.13	-
2412MHz_TX	Pass	AV	4.91272G	31.16	54.00	-22.84	6.08	3	Horizontal	26	1.72	-
2412MHz_TX	Pass	PK	4.91338G	42.89	74.00	-31.11	6.08	3	Horizontal	26	1.72	-
2437MHz_TX	Pass	AV	2.3642G	51.63	54.00	-2.37	30.29	3	Vertical	176	1.50	-
2437MHz_TX	Pass	AV	2.4438G	109.19	Inf	-Inf	30.56	3	Vertical	176	1.50	-
2437MHz_TX	Pass	AV	2.4842G	51.26	54.00	-2.74	30.69	3	Vertical	176	1.50	-
2437MHz_TX	Pass	PK	2.389G	69.01	74.00	-4.99	30.37	3	Vertical	176	1.50	-
2437MHz_TX	Pass	PK	2.4302G	117.20	Inf	-Inf	30.51	3	Vertical	176	1.50	-
2437MHz_TX	Pass	PK	2.4842G	67.47	74.00	-6.53	30.69	3	Vertical	176	1.50	-
2437MHz_TX	Pass	AV	2.3638G	53.87	54.00	-0.13	30.29	3	Horizontal	38	1.50	-
2437MHz_TX	Pass	AV	2.4338G	112.49	Inf	-Inf	30.52	3	Horizontal	38	1.50	-
2437MHz_TX	Pass	AV	2.4835G	52.67	54.00	-1.33	30.69	3	Horizontal	38	1.50	-
2437MHz_TX	Pass	PK	2.3894G	67.97	74.00	-6.03	30.37	3	Horizontal	38	1.50	-
2437MHz_TX	Pass	PK	2.4338G	120.90	Inf	-Inf	30.52	3	Horizontal	38	1.50	-
2437MHz_TX	Pass	PK	2.4835G	68.84	74.00	-5.16	30.69	3	Horizontal	38	1.50	-
2437MHz_TX	Pass	AV	4.88762G	31.42	54.00	-22.58	6.02	3	Vertical	337	1.50	-
2437MHz_TX	Pass	PK	4.88462G	43.28	74.00	-30.72	6.02	3	Vertical	337	1.50	-
2437MHz_TX	Pass	AV	4.88876G	31.56	54.00	-22.44	6.02	3	Horizontal	25	1.48	-
2437MHz_TX	Pass	PK	4.886G	43.47	74.00	-30.53	6.02	3	Horizontal	25	1.48	-
2462MHz_TX	Pass	AV	2.455G	103.01	Inf	-Inf	30.60	3	Vertical	173	1.58	-
2462MHz_TX	Pass	AV	2.4835G	50.91	54.00	-3.09	30.69	3	Vertical	173	1.58	-
2462MHz_TX	Pass	PK	2.459G	111.55	Inf	-Inf	30.61	3	Vertical	173	1.58	-
2462MHz_TX	Pass	PK	2.484G	65.15	74.00	-8.85	30.69	3	Vertical	173	1.58	-
2462MHz_TX	Pass	AV	2.4548G	104.85	Inf	-Inf	30.59	3	Horizontal	43	1.40	-
2462MHz_TX	Pass	AV	2.4835G	53.10	54.00	-0.90	30.69	3	Horizontal	43	1.40	-
2462MHz_TX	Pass	PK	2.455G	112.60	Inf	-Inf	30.60	3	Horizontal	43	1.40	-
2462MHz_TX	Pass	PK	2.4838G	66.90	74.00	-7.10	30.69	3	Horizontal	43	1.40	-
2462MHz_TX	Pass	AV	4.91206G	31.15	54.00	-22.85	6.08	3	Vertical	302	1.32	-
2462MHz_TX	Pass	PK	4.91944G	43.02	74.00	-30.98	6.09	3	Vertical	302	1.32	-
2462MHz_TX	Pass	AV	4.91056G	31.25	54.00	-22.75	6.07	3	Horizontal	281	1.42	-
2462MHz_TX	Pass	PK	4.90972G	42.71	74.00	-31.29	6.06	3	Horizontal	281	1.42	-
802.11n HT20_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz_TX	Pass	AV	2.39G	52.05	54.00	-1.95	30.38	3	Vertical	253	2.24	-
2412MHz_TX	Pass	AV	2.4048G	103.18	Inf	-Inf	30.42	3	Vertical	253	2.24	-
2412MHz_TX	Pass	PK	2.39G	65.83	74.00	-8.17	30.38	3	Vertical	253	2.24	-
2412MHz_TX	Pass	PK	2.405G	111.13	Inf	-Inf	30.42	3	Vertical	253	2.24	-
2412MHz_TX	Pass	AV	2.39G	53.45	54.00	-0.55	30.38	3	Horizontal	63	1.92	-
2412MHz_TX	Pass	AV	2.4044G	105.60	Inf	-Inf	30.42	3	Horizontal	63	1.92	-
2412MHz_TX	Pass	PK	2.3894G	69.27	74.00	-4.73	30.37	3	Horizontal	63	1.92	-
2412MHz_TX	Pass	PK	2.405G	113.17	Inf	-Inf	30.42	3	Horizontal	63	1.92	-
2412MHz_TX	Pass	AV	4.82598G	30.61	54.00	-23.39	5.90	3	Vertical	40	1.03	-
2412MHz_TX	Pass	PK	4.82124G	42.43	74.00	-31.57	5.89	3	Vertical	40	1.03	-
2412MHz_TX	Pass	AV	4.82112G	30.53	54.00	-23.47	5.89	3	Horizontal	119	2.08	-
2412MHz_TX	Pass	PK	4.82988G	42.32	74.00	-31.68	5.90	3	Horizontal	119	2.08	-
2437MHz_TX	Pass	AV	2.365G	51.64	54.00	-2.36	30.30	3	Vertical	107	2.05	-
2437MHz_TX	Pass	AV	2.4442G	110.99	Inf	-Inf	30.56	3	Vertical	107	2.05	-

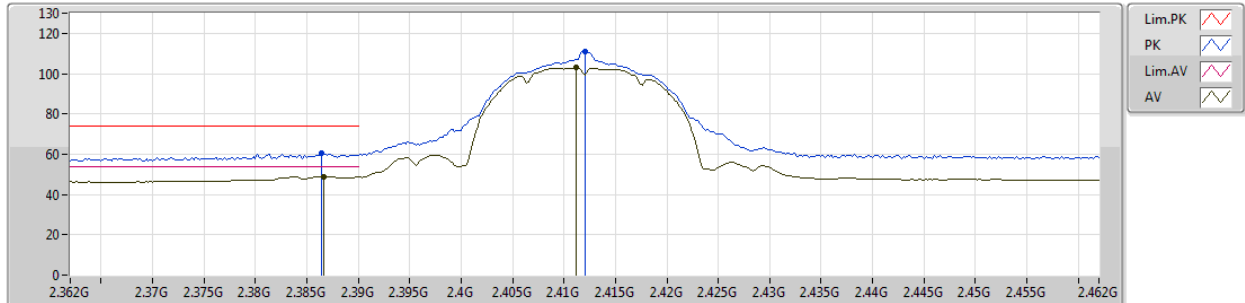
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2437MHz_TX	Pass	AV	2.4835G	51.43	54.00	-2.57	30.69	3	Vertical	107	2.05	-
2437MHz_TX	Pass	PK	2.3882G	66.86	74.00	-7.14	30.37	3	Vertical	107	2.05	-
2437MHz_TX	Pass	PK	2.4438G	118.42	Inf	-Inf	30.56	3	Vertical	107	2.05	-
2437MHz_TX	Pass	PK	2.489G	67.03	74.00	-6.97	30.71	3	Vertical	107	2.05	-
2437MHz_TX	Pass	AV	2.3642G	53.19	54.00	-0.81	30.29	3	Horizontal	34	1.49	-
2437MHz_TX	Pass	AV	2.4338G	111.77	Inf	-Inf	30.52	3	Horizontal	34	1.49	-
2437MHz_TX	Pass	AV	2.4835G	52.67	54.00	-1.33	30.69	3	Horizontal	34	1.49	-
2437MHz_TX	Pass	PK	2.389G	68.31	74.00	-5.69	30.37	3	Horizontal	34	1.49	-
2437MHz_TX	Pass	PK	2.4338G	119.29	Inf	-Inf	30.52	3	Horizontal	34	1.49	-
2437MHz_TX	Pass	PK	2.4838G	69.87	74.00	-4.13	30.69	3	Horizontal	34	1.49	-
2437MHz_TX	Pass	AV	4.88612G	31.67	54.00	-22.33	6.02	3	Vertical	115	1.07	-
2437MHz_TX	Pass	PK	4.88558G	43.75	74.00	-30.25	6.02	3	Vertical	115	1.07	-
2437MHz_TX	Pass	AV	4.8881G	31.68	54.00	-22.32	6.02	3	Horizontal	53	2.20	-
2437MHz_TX	Pass	PK	4.88672G	43.54	74.00	-30.46	6.02	3	Horizontal	53	2.20	-
2462MHz_TX	Pass	AV	2.4692G	103.95	Inf	-Inf	30.65	3	Vertical	99	1.72	-
2462MHz_TX	Pass	AV	2.4835G	52.67	54.00	-1.33	30.69	3	Vertical	99	1.72	-
2462MHz_TX	Pass	PK	2.4692G	111.72	Inf	-Inf	30.65	3	Vertical	99	1.72	-
2462MHz_TX	Pass	PK	2.4842G	66.79	74.00	-7.21	30.69	3	Vertical	99	1.72	-
2462MHz_TX	Pass	AV	2.4552G	104.85	Inf	-Inf	30.60	3	Horizontal	326	1.13	-
2462MHz_TX	Pass	AV	2.4835G	53.50	54.00	-0.50	30.69	3	Horizontal	326	1.13	-
2462MHz_TX	Pass	PK	2.4692G	113.14	Inf	-Inf	30.65	3	Horizontal	326	1.13	-
2462MHz_TX	Pass	PK	2.4835G	67.34	74.00	-6.66	30.69	3	Horizontal	326	1.13	-
2462MHz_TX	Pass	AV	4.91032G	31.39	54.00	-22.61	6.07	3	Vertical	165	2.09	-
2462MHz_TX	Pass	PK	4.91482G	43.08	74.00	-30.92	6.08	3	Vertical	165	2.09	-
2462MHz_TX	Pass	AV	4.91128G	31.28	54.00	-22.72	6.08	3	Horizontal	134	1.72	-
2462MHz_TX	Pass	PK	4.91158G	43.33	74.00	-30.67	6.08	3	Horizontal	134	1.72	-
802.11n HT40_Nss3,(MCS16)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz_TX	Pass	AV	2.3892G	53.89	54.00	-0.11	30.37	3	Vertical	185	1.93	-
2422MHz_TX	Pass	AV	2.4164G	98.50	Inf	-Inf	30.47	3	Vertical	185	1.93	-
2422MHz_TX	Pass	AV	2.4856G	48.95	54.00	-5.05	30.71	3	Vertical	185	1.93	-
2422MHz_TX	Pass	PK	2.3896G	63.91	74.00	-10.09	30.38	3	Vertical	185	1.93	-
2422MHz_TX	Pass	PK	2.416G	107.42	Inf	-Inf	30.47	3	Vertical	185	1.93	-
2422MHz_TX	Pass	PK	2.4856G	59.88	74.00	-14.12	30.71	3	Vertical	185	1.93	-
2422MHz_TX	Pass	AV	2.39G	53.79	54.00	-0.21	30.38	3	Horizontal	38	1.03	-
2422MHz_TX	Pass	AV	2.4164G	100.84	Inf	-Inf	30.47	3	Horizontal	38	1.03	-
2422MHz_TX	Pass	AV	2.492G	49.61	54.00	-4.39	30.72	3	Horizontal	38	1.03	-
2422MHz_TX	Pass	PK	2.386G	66.89	74.00	-7.11	30.37	3	Horizontal	38	1.03	-
2422MHz_TX	Pass	PK	2.4344G	107.95	Inf	-Inf	30.52	3	Horizontal	38	1.03	-
2422MHz_TX	Pass	PK	2.486G	59.63	74.00	-14.37	30.71	3	Horizontal	38	1.03	-
2422MHz_TX	Pass	AV	4.84376G	34.46	54.00	-19.54	5.93	3	Vertical	83	1.49	-
2422MHz_TX	Pass	PK	4.85444G	45.28	74.00	-28.72	5.97	3	Vertical	83	1.49	-
2422MHz_TX	Pass	AV	4.84346G	34.64	54.00	-19.36	5.93	3	Horizontal	66	1.35	-
2422MHz_TX	Pass	PK	4.85186G	45.36	74.00	-28.64	5.96	3	Horizontal	66	1.35	-
2437MHz_TX	Pass	AV	2.389G	52.17	54.00	-1.83	30.37	3	Vertical	107	2.06	-
2437MHz_TX	Pass	AV	2.4426G	102.47	Inf	-Inf	30.55	3	Vertical	107	2.06	-
2437MHz_TX	Pass	AV	2.4835G	52.07	54.00	-1.93	30.69	3	Vertical	107	2.06	-
2437MHz_TX	Pass	PK	2.3862G	64.87	74.00	-9.13	30.37	3	Vertical	107	2.06	-
2437MHz_TX	Pass	PK	2.443G	109.84	Inf	-Inf	30.55	3	Vertical	107	2.06	-
2437MHz_TX	Pass	PK	2.485G	64.85	74.00	-9.15	30.69	3	Vertical	107	2.06	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2437MHz_TX	Pass	AV	2.3898G	53.45	54.00	-0.55	30.38	3	Horizontal	39	1.50	-
2437MHz_TX	Pass	AV	2.4318G	103.74	Inf	-Inf	30.52	3	Horizontal	39	1.50	-
2437MHz_TX	Pass	AV	2.4835G	53.09	54.00	-0.91	30.69	3	Horizontal	39	1.50	-
2437MHz_TX	Pass	PK	2.3898G	66.12	74.00	-7.88	30.38	3	Horizontal	39	1.50	-
2437MHz_TX	Pass	PK	2.443G	111.19	Inf	-Inf	30.55	3	Horizontal	39	1.50	-
2437MHz_TX	Pass	PK	2.4835G	66.71	74.00	-7.29	30.69	3	Horizontal	39	1.50	-
2437MHz_TX	Pass	AV	4.8701G	34.30	54.00	-19.70	6.00	3	Vertical	88	2.08	-
2437MHz_TX	Pass	PK	4.88834G	45.21	74.00	-28.79	6.02	3	Vertical	88	2.08	-
2437MHz_TX	Pass	AV	4.8704G	34.20	54.00	-19.80	6.00	3	Horizontal	72	1.59	-
2437MHz_TX	Pass	PK	4.86728G	45.68	74.00	-28.32	5.98	3	Horizontal	72	1.59	-
2452MHz_TX	Pass	AV	2.3808G	47.56	54.00	-6.44	30.34	3	Vertical	97	1.50	-
2452MHz_TX	Pass	AV	2.4468G	96.64	Inf	-Inf	30.57	3	Vertical	97	1.50	-
2452MHz_TX	Pass	AV	2.492G	51.79	54.00	-2.21	30.72	3	Vertical	97	1.50	-
2452MHz_TX	Pass	PK	2.3608G	58.41	74.00	-15.59	30.28	3	Vertical	97	1.50	-
2452MHz_TX	Pass	PK	2.4572G	104.11	Inf	-Inf	30.61	3	Vertical	97	1.50	-
2452MHz_TX	Pass	PK	2.488G	62.51	74.00	-11.49	30.71	3	Vertical	97	1.50	-
2452MHz_TX	Pass	AV	2.3892G	48.09	54.00	-5.91	30.37	3	Horizontal	226	1.45	-
2452MHz_TX	Pass	AV	2.4576G	98.67	Inf	-Inf	30.61	3	Horizontal	226	1.45	-
2452MHz_TX	Pass	AV	2.492G	53.53	54.00	-0.47	30.72	3	Horizontal	226	1.45	-
2452MHz_TX	Pass	PK	2.3892G	58.30	74.00	-15.70	30.37	3	Horizontal	226	1.45	-
2452MHz_TX	Pass	PK	2.4464G	106.16	Inf	-Inf	30.57	3	Horizontal	226	1.45	-
2452MHz_TX	Pass	PK	2.4896G	64.22	74.00	-9.78	30.72	3	Horizontal	226	1.45	-
2452MHz_TX	Pass	AV	4.91498G	34.32	54.00	-19.68	6.08	3	Vertical	12	2.48	-
2452MHz_TX	Pass	PK	4.88936G	45.58	74.00	-28.42	6.03	3	Vertical	12	2.48	-
2452MHz_TX	Pass	AV	4.8962G	34.37	54.00	-19.63	6.04	3	Horizontal	98	1.17	-
2452MHz_TX	Pass	PK	4.89284G	45.46	74.00	-28.54	6.04	3	Horizontal	98	1.17	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2412MHz_TX

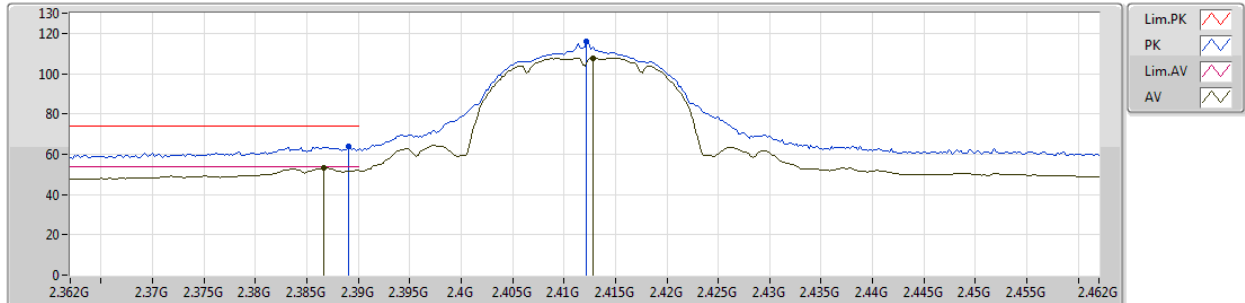


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments							
AV	2.3866G	49.03	54.00	-4.97	30.37	3	Vertical	152	2.51	-							
AV	2.4112G	102.85	Inf	-Inf	30.45	3	Vertical	152	2.51	-							
PK	2.3864G	60.45	74.00	-13.55	30.37	3	Vertical	152	2.51	-							
PK	2.412G	111.11	Inf	-Inf	30.45	3	Vertical	152	2.51	-							

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2412MHz_TX

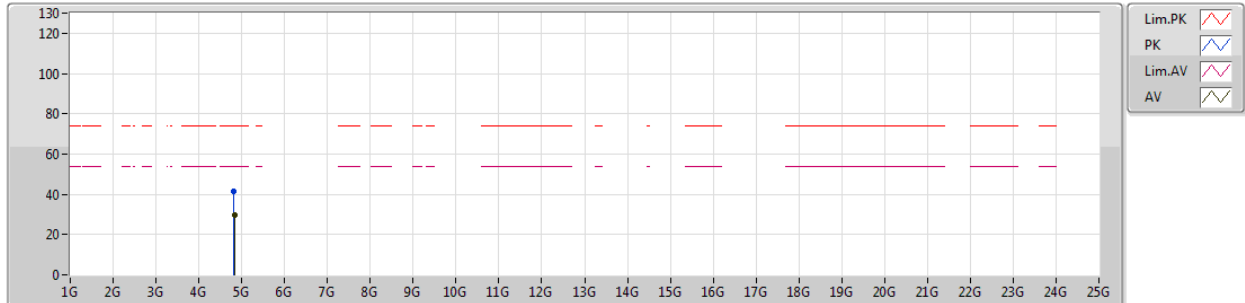


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3866G	53.11	54.00	-0.89	30.37	3	Horizontal	241	2.76	-
AV	2.4128G	107.67	Inf	-Inf	30.45	3	Horizontal	241	2.76	-
PK	2.389G	64.10	74.00	-9.90	30.37	3	Horizontal	241	2.76	-
PK	2.4122G	115.76	Inf	-Inf	30.45	3	Horizontal	241	2.76	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2412MHz_TX

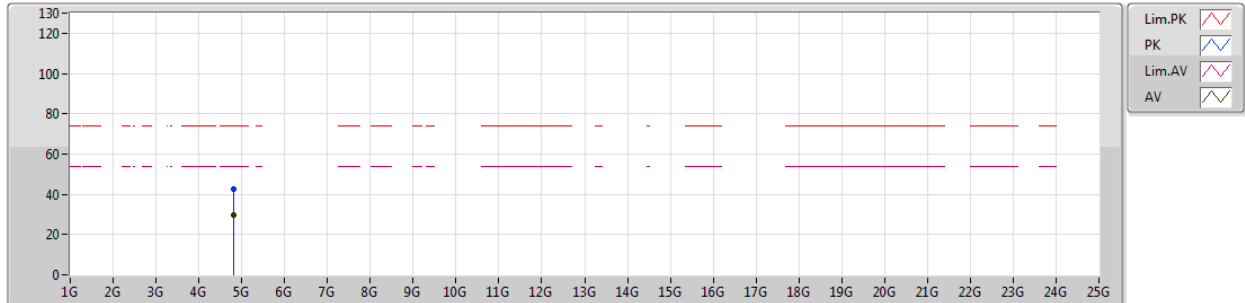


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82523G	29.81	54.00	-24.19	5.90	3	Vertical	110	1.22	-
PK	4.82331G	41.72	74.00	-32.28	5.89	3	Vertical	110	1.22	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2412MHz_TX

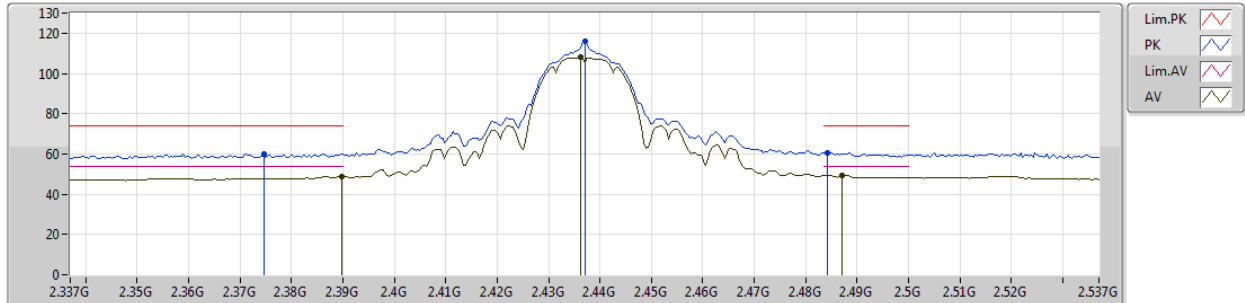


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8217G	29.69	54.00	-24.31	5.89	3	Horizontal	182	2.27	-
PK	4.82184G	42.48	74.00	-31.52	5.89	3	Horizontal	182	2.27	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2437MHz_TX

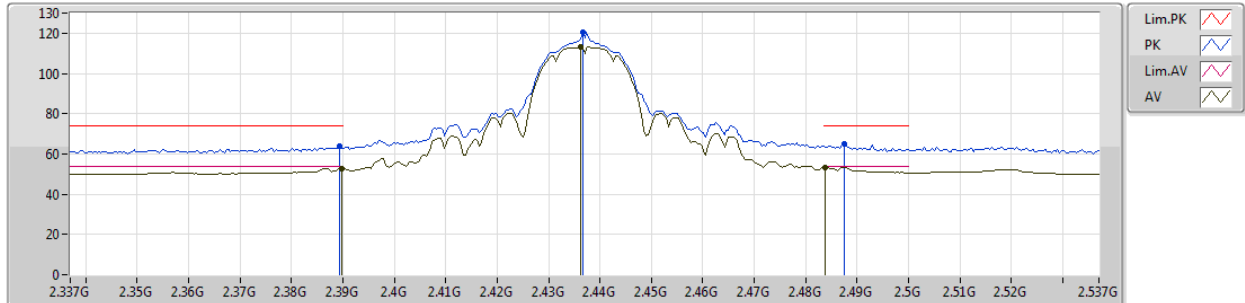


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	48.88	54.00	-5.12	30.38	3	Vertical	227	1.94	-
AV	2.4362G	107.94	Inf	-Inf	30.54	3	Vertical	227	1.94	-
AV	2.487G	49.33	54.00	-4.67	30.71	3	Vertical	227	1.94	-
PK	2.3746G	60.04	74.00	-13.96	30.33	3	Vertical	227	1.94	-
PK	2.437G	116.05	Inf	-Inf	30.54	3	Vertical	227	1.94	-
PK	2.4842G	60.66	74.00	-13.34	30.69	3	Vertical	227	1.94	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2437MHz_TX

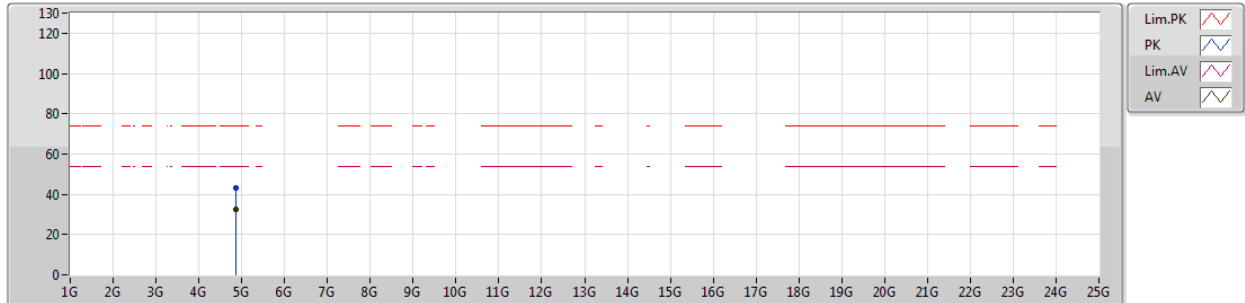


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	52.79	54.00	-1.21	30.38	3	Horizontal	237	1.55	-
AV	2.4362G	113.07	Inf	-Inf	30.54	3	Horizontal	237	1.55	-
AV	2.4838G	53.31	54.00	-0.69	30.69	3	Horizontal	237	1.55	-
PK	2.3894G	63.60	74.00	-10.40	30.37	3	Horizontal	237	1.55	-
PK	2.4366G	120.61	Inf	-Inf	30.54	3	Horizontal	237	1.55	-
PK	2.4874G	64.72	74.00	-9.28	30.71	3	Horizontal	237	1.55	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2437MHz_TX

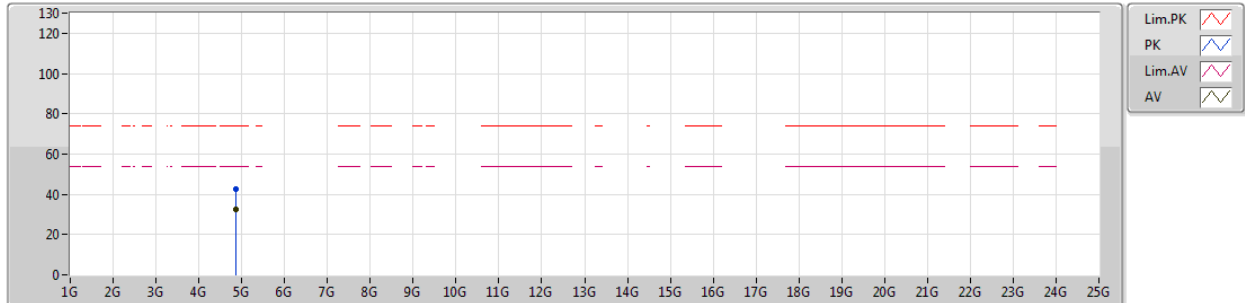


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87394 G	32.39	54.00	-21.61	6.00	3	Vertical	94	1.50	-
PK	4.87394 G	43.26	74.00	-30.74	6.00	3	Vertical	94	1.50	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2437MHz_TX

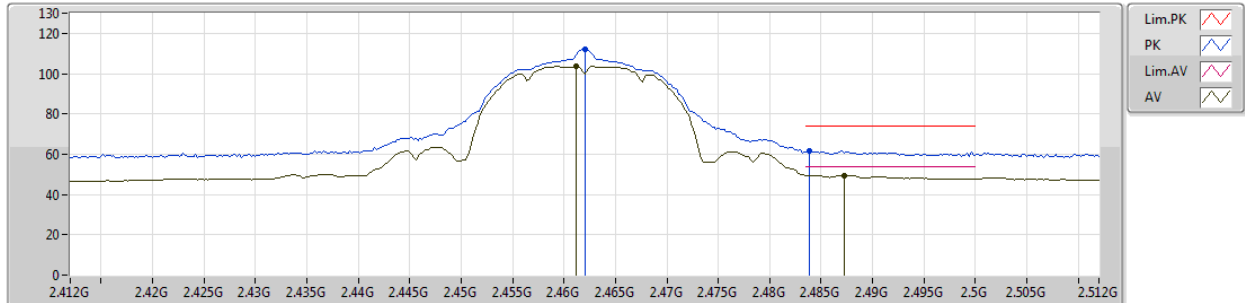


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87394G	32.51	54.00	-21.49	6.00	3	Horizontal	337	1.43	-
PK	4.87454G	42.70	74.00	-31.30	6.00	3	Horizontal	337	1.43	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2462MHz_TX

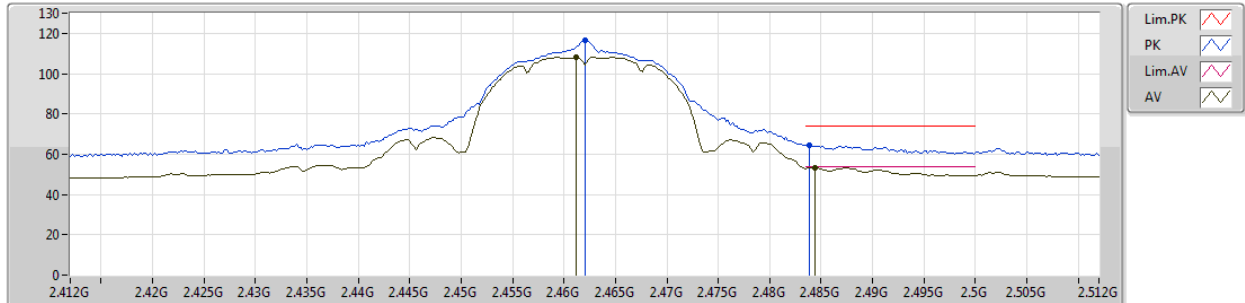


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	103.60	Inf	-Inf	30.62	3	Vertical	179	1.71	-
AV	2.4872G	49.54	54.00	-4.46	30.71	3	Vertical	179	1.71	-
PK	2.462G	111.96	Inf	-Inf	30.62	3	Vertical	179	1.71	-
PK	2.4838G	61.69	74.00	-12.31	30.69	3	Vertical	179	1.71	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2462MHz_TX

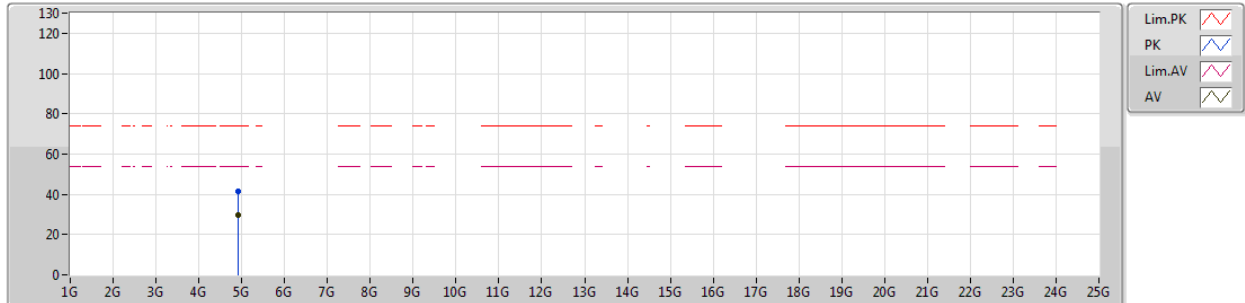


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	108.16	Inf	-Inf	30.62	3	Horizontal	235	1.52	-
AV	2.4844G	53.18	54.00	-0.82	30.69	3	Horizontal	235	1.52	-
PK	2.462G	116.52	Inf	-Inf	30.62	3	Horizontal	235	1.52	-
PK	2.4838G	64.70	74.00	-9.30	30.69	3	Horizontal	235	1.52	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2462MHz_TX

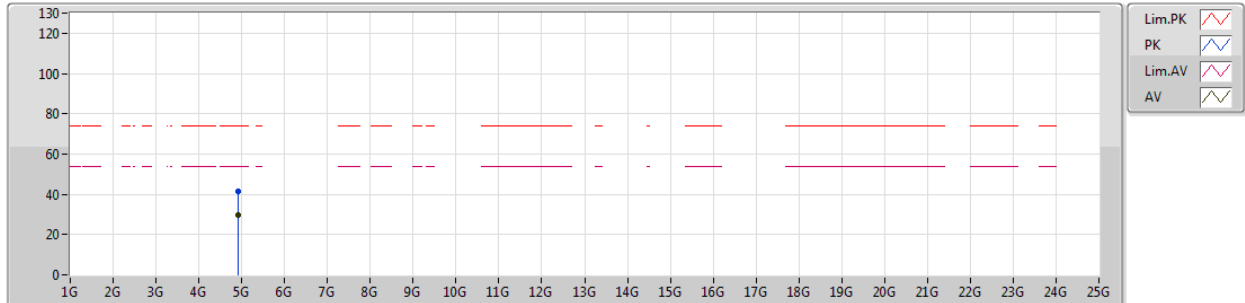


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92166G	29.77	54.00	-24.23	6.09	3	Vertical	162	1.29	-
PK	4.92186G	41.70	74.00	-32.30	6.09	3	Vertical	162	1.29	-

802.11b_Nss1,(1Mbps)_1TX(Port3)

02/02/2019

2462MHz_TX

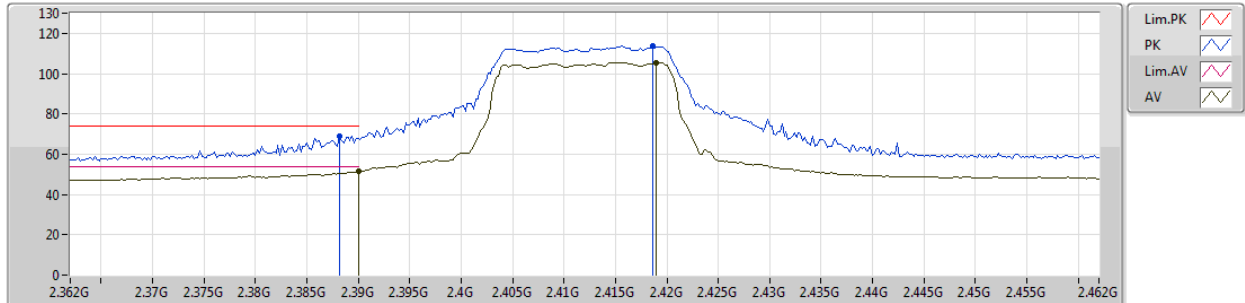


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.9216G	29.87	54.00	-24.13	6.09	3	Horizontal	166	1.60	-
PK	4.92376G	41.72	74.00	-32.28	6.09	3	Horizontal	166	1.60	-

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2412MHz_TX

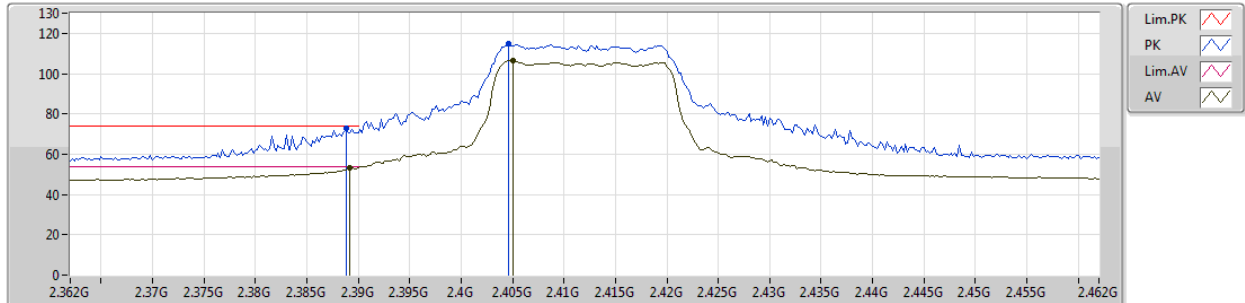


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments								
AV	2.39G	51.34	54.00	-2.66	30.38	3	Vertical	99	1.84	-								
AV	2.419G	105.48	Inf	-Inf	30.48	3	Vertical	99	1.84	-								
PK	2.3882G	69.04	74.00	-4.96	30.37	3	Vertical	99	1.84	-								
PK	2.4186G	113.69	Inf	-Inf	30.47	3	Vertical	99	1.84	-								

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2412MHz_TX

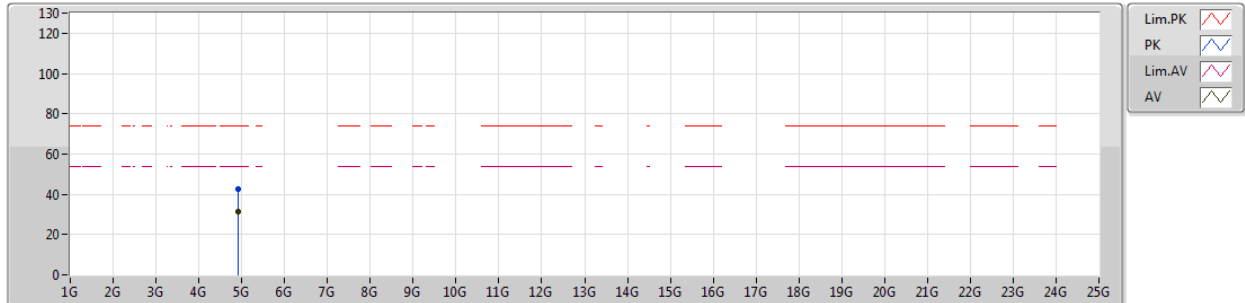


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3892G	53.32	54.00	-0.68	30.37	3	Horizontal	280	1.70	-
AV	2.405G	106.36	Inf	-Inf	30.42	3	Horizontal	280	1.70	-
PK	2.3888G	72.61	74.00	-1.39	30.37	3	Horizontal	280	1.70	-
PK	2.4046G	114.84	Inf	-Inf	30.42	3	Horizontal	280	1.70	-

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2412MHz_TX

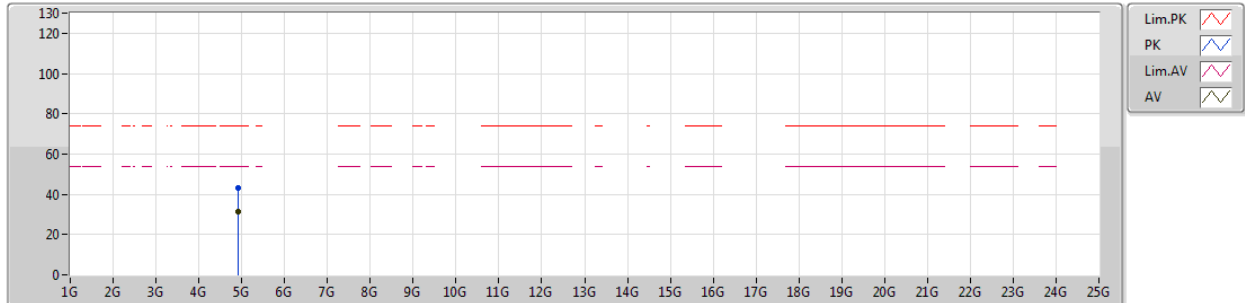


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments							
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)								
AV	4.91218G	31.29	54.00	-22.71	6.08	3	Vertical	278	1.13	-							
PK	4.91014G	42.83	74.00	-31.17	6.07	3	Vertical	278	1.13	-							

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2412MHz_TX

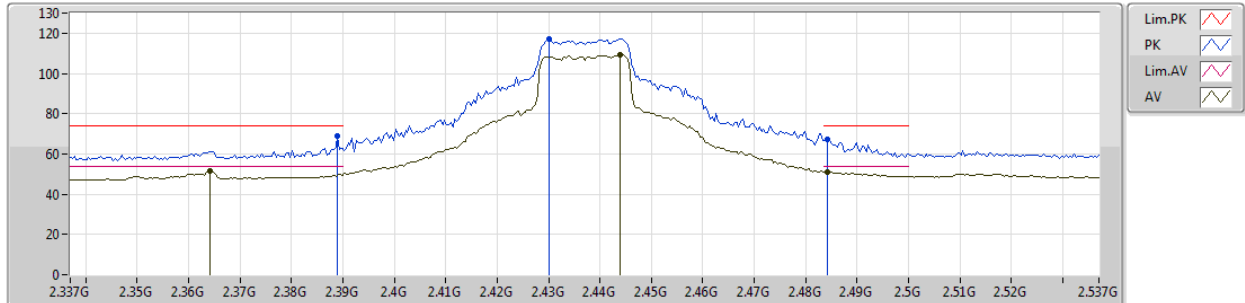


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments								
AV	4.91272G	31.16	54.00	-22.84	6.08	3	Horizontal	26	1.72	-								
PK	4.91338G	42.89	74.00	-31.11	6.08	3	Horizontal	26	1.72	-								

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2437MHz_TX

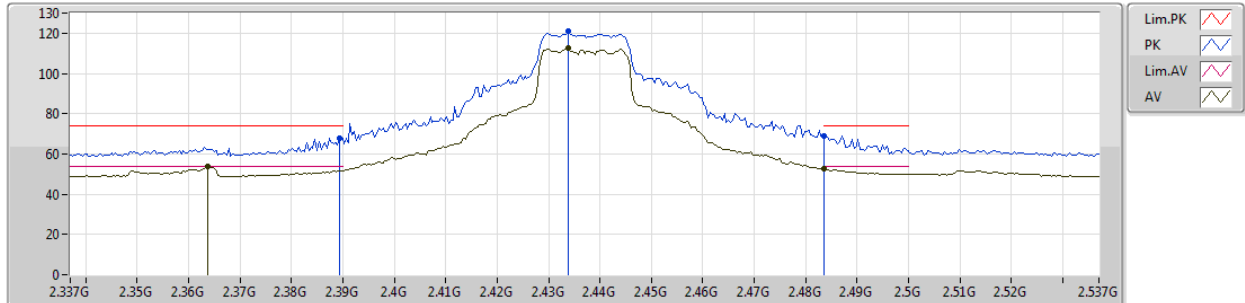


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3642G	51.63	54.00	-2.37	30.29	3	Vertical	176	1.50	-
AV	2.4438G	109.19	Inf	-Inf	30.56	3	Vertical	176	1.50	-
AV	2.4842G	51.26	54.00	-2.74	30.69	3	Vertical	176	1.50	-
PK	2.389G	69.01	74.00	-4.99	30.37	3	Vertical	176	1.50	-
PK	2.4302G	117.20	Inf	-Inf	30.51	3	Vertical	176	1.50	-
PK	2.4842G	67.47	74.00	-6.53	30.69	3	Vertical	176	1.50	-

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2437MHz_TX

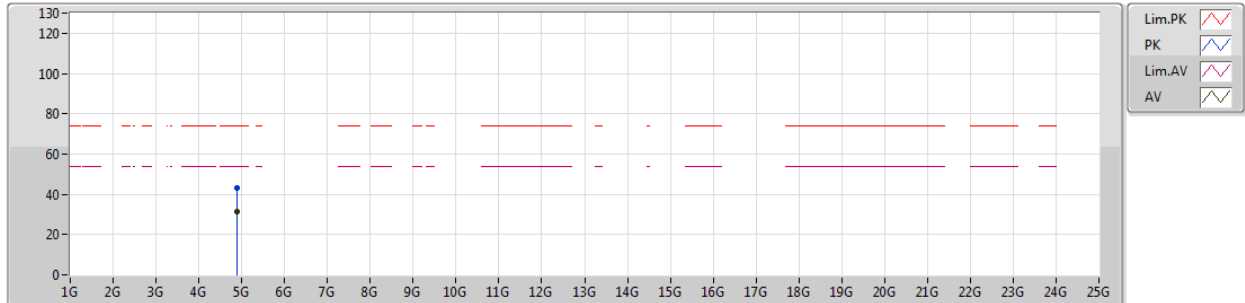


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3638G	53.87	54.00	-0.13	30.29	3	Horizontal	38	1.50	-
AV	2.4338G	112.49	Inf	-Inf	30.52	3	Horizontal	38	1.50	-
AV	2.4835G	52.67	54.00	-1.33	30.69	3	Horizontal	38	1.50	-
PK	2.3894G	67.97	74.00	-6.03	30.37	3	Horizontal	38	1.50	-
PK	2.4338G	120.90	Inf	-Inf	30.52	3	Horizontal	38	1.50	-
PK	2.4835G	68.84	74.00	-5.16	30.69	3	Horizontal	38	1.50	-

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2437MHz_TX

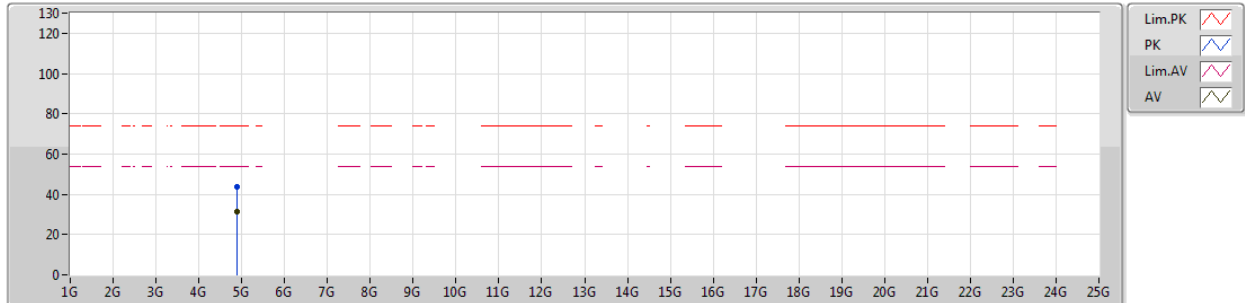


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments								
AV	4.88762G	31.42	54.00	-22.58	6.02	3	Vertical	337	1.50	-								
PK	4.88462G	43.28	74.00	-30.72	6.02	3	Vertical	337	1.50	-								

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2437MHz_TX

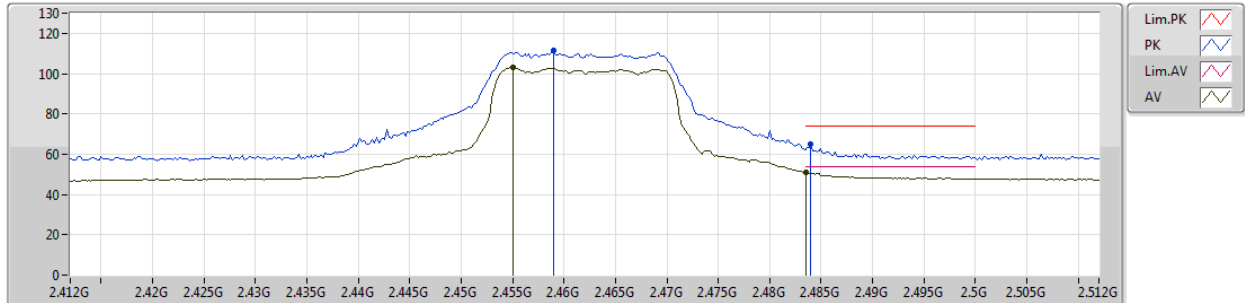


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments							
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)								
AV	4.88876G	31.56	54.00	-22.44	6.02	3	Horizontal	25	1.48	-							
PK	4.886G	43.47	74.00	-30.53	6.02	3	Horizontal	25	1.48	-							

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2462MHz_TX

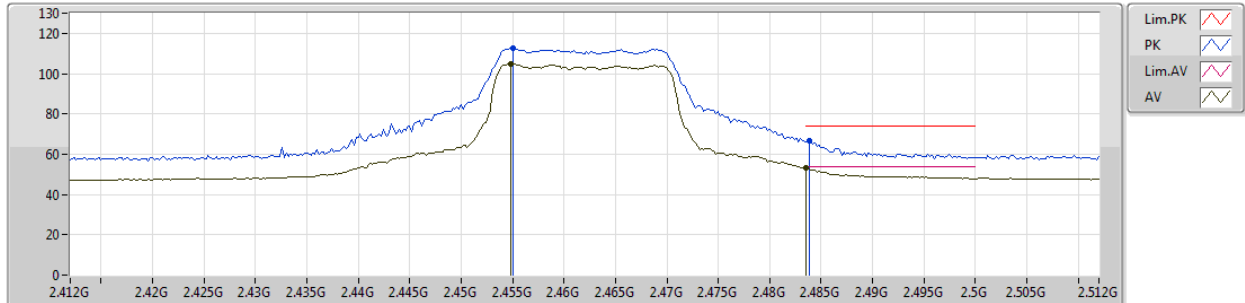


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.455G	103.01	Inf	-Inf	30.60	3	Vertical	173	1.58	-
AV	2.4835G	50.91	54.00	-3.09	30.69	3	Vertical	173	1.58	-
PK	2.459G	111.55	Inf	-Inf	30.61	3	Vertical	173	1.58	-
PK	2.484G	65.15	74.00	-8.85	30.69	3	Vertical	173	1.58	-

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2462MHz_TX

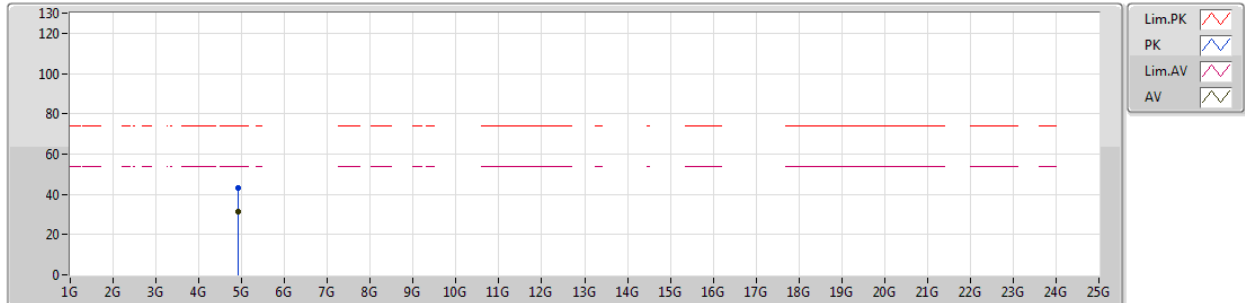


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4548G	104.85	Inf	-Inf	30.59	3	Horizontal	43	1.40	-
AV	2.4835G	53.10	54.00	-0.90	30.69	3	Horizontal	43	1.40	-
PK	2.455G	112.60	Inf	-Inf	30.60	3	Horizontal	43	1.40	-
PK	2.4838G	66.90	74.00	-7.10	30.69	3	Horizontal	43	1.40	-

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2462MHz_TX

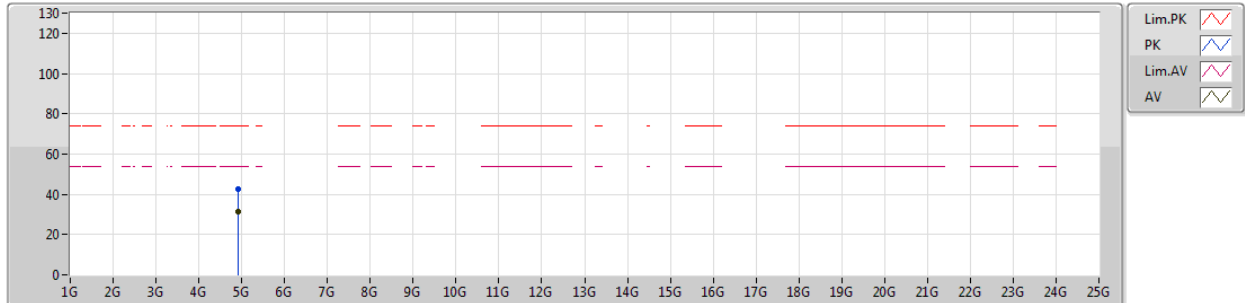


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments							
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)								
AV	4.91206G	31.15	54.00	-22.85	6.08	3	Vertical	302	1.32	-							
PK	4.91944G	43.02	74.00	-30.98	6.09	3	Vertical	302	1.32	-							

802.11g_Nss1,(6Mbps)_3TX

05/02/2019

2462MHz_TX

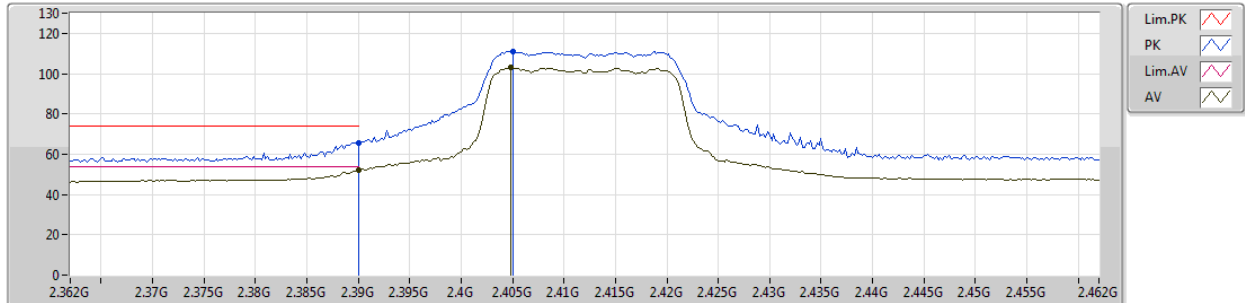


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments								
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)		(m)		(°)	(m)									
AV	4.91056G	31.25	54.00	-22.75	6.07	3	Horizontal	281	1.42	-								
PK	4.90972G	42.71	74.00	-31.29	6.06	3	Horizontal	281	1.42	-								

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2412MHz_TX

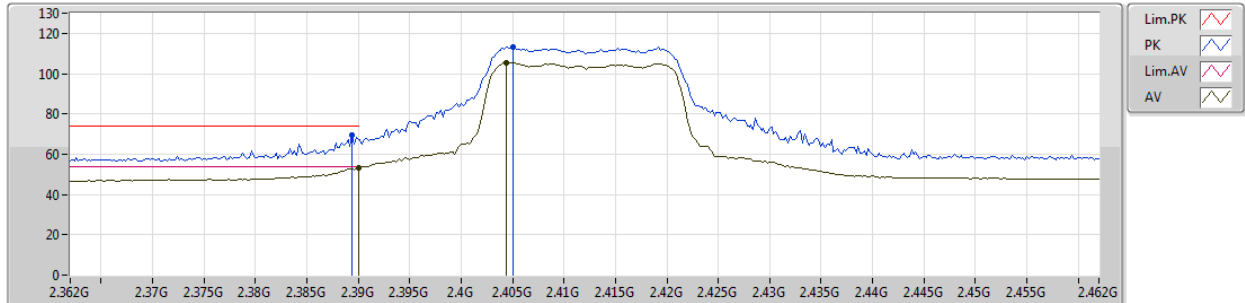


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	52.05	54.00	-1.95	30.38	3	Vertical	253	2.24	-
AV	2.4048G	103.18	Inf	-Inf	30.42	3	Vertical	253	2.24	-
PK	2.39G	65.83	74.00	-8.17	30.38	3	Vertical	253	2.24	-
PK	2.405G	111.13	Inf	-Inf	30.42	3	Vertical	253	2.24	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2412MHz_TX

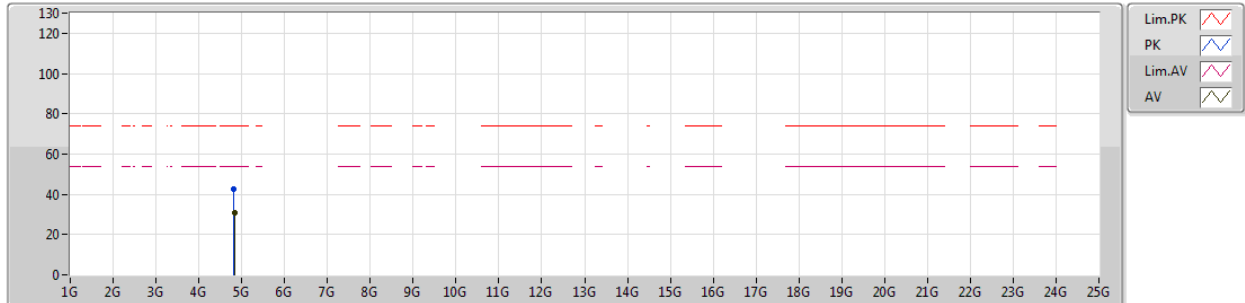


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	53.45	54.00	-0.55	30.38	3	Horizontal	63	1.92	-
AV	2.4044G	105.60	Inf	-Inf	30.42	3	Horizontal	63	1.92	-
PK	2.3894G	69.27	74.00	-4.73	30.37	3	Horizontal	63	1.92	-
PK	2.405G	113.17	Inf	-Inf	30.42	3	Horizontal	63	1.92	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2412MHz_TX

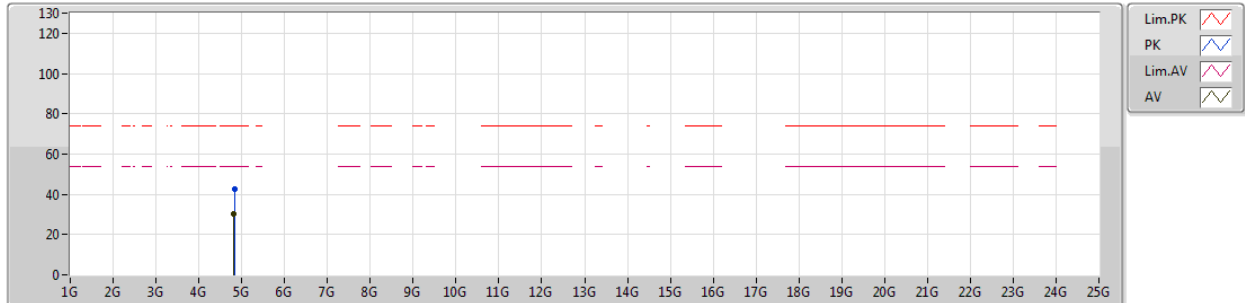


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82598G	30.61	54.00	-23.39	5.90	3	Vertical	40	1.03	-
PK	4.82124G	42.43	74.00	-31.57	5.89	3	Vertical	40	1.03	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2412MHz_TX

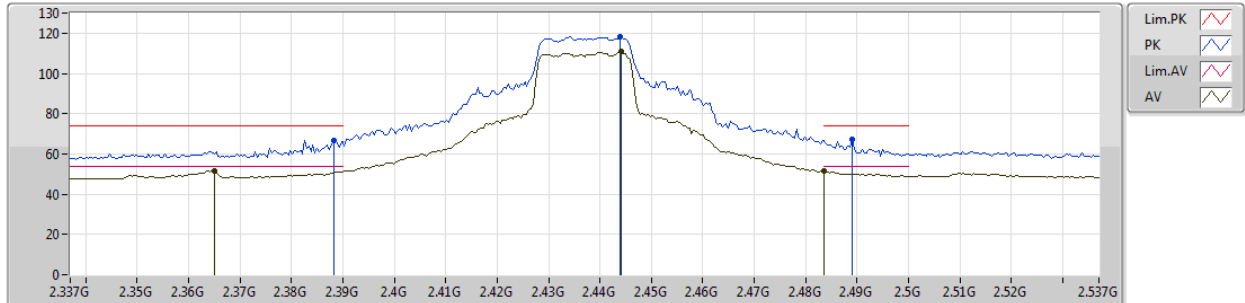


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82112G	30.53	54.00	-23.47	5.89	3	Horizontal	119	2.08	-
PK	4.82988G	42.32	74.00	-31.68	5.90	3	Horizontal	119	2.08	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2437MHz_TX

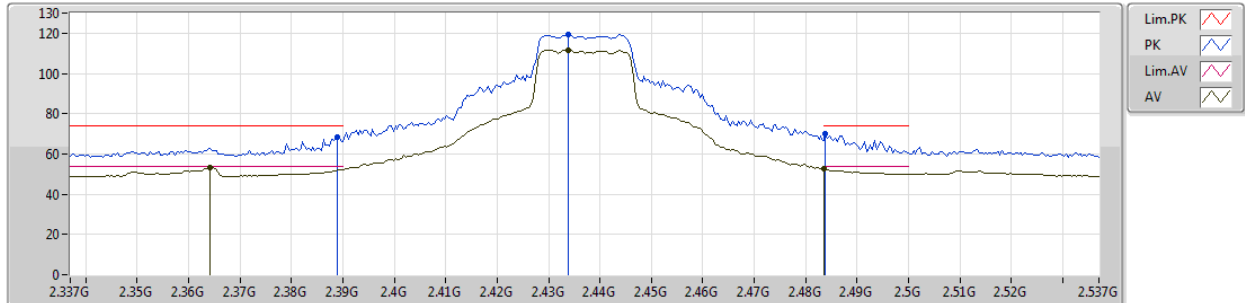


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.365G	51.64	54.00	-2.36	30.30	3	Vertical	107	2.05	-
AV	2.4442G	110.99	Inf	-Inf	30.56	3	Vertical	107	2.05	-
AV	2.4835G	51.43	54.00	-2.57	30.69	3	Vertical	107	2.05	-
PK	2.3882G	66.86	74.00	-7.14	30.37	3	Vertical	107	2.05	-
PK	2.4438G	118.42	Inf	-Inf	30.56	3	Vertical	107	2.05	-
PK	2.489G	67.03	74.00	-6.97	30.71	3	Vertical	107	2.05	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2437MHz_TX

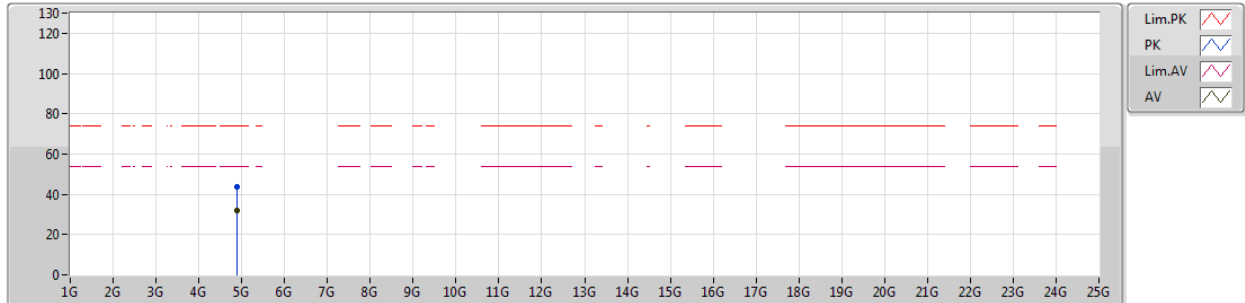


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3642G	53.19	54.00	-0.81	30.29	3	Horizontal	34	1.49	-
AV	2.4338G	111.77	Inf	-Inf	30.52	3	Horizontal	34	1.49	-
AV	2.4835G	52.67	54.00	-1.33	30.69	3	Horizontal	34	1.49	-
PK	2.389G	68.31	74.00	-5.69	30.37	3	Horizontal	34	1.49	-
PK	2.4338G	119.29	Inf	-Inf	30.52	3	Horizontal	34	1.49	-
PK	2.4838G	69.87	74.00	-4.13	30.69	3	Horizontal	34	1.49	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2437MHz_TX

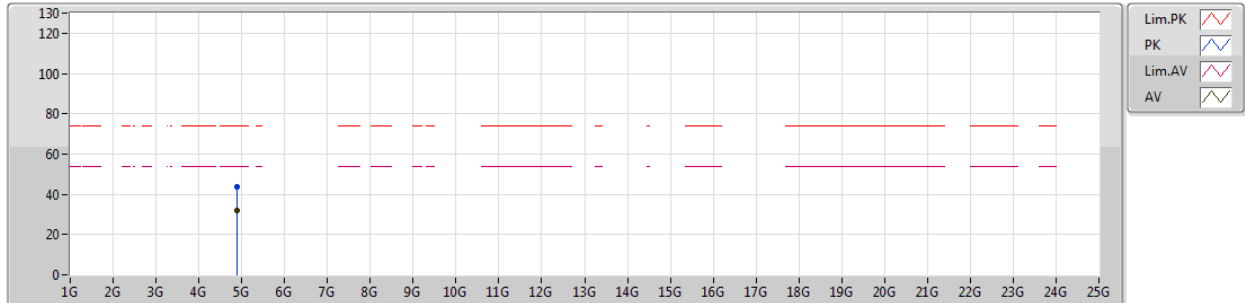


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comments								
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)									
AV	4.88612G	31.67	54.00	-22.33	6.02	3	Vertical	115	1.07	-								
PK	4.88558G	43.75	74.00	-30.25	6.02	3	Vertical	115	1.07	-								

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2437MHz_TX

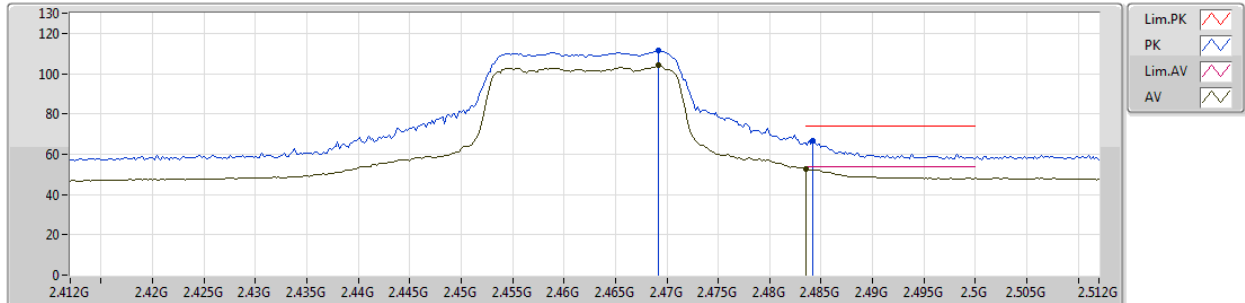


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8881G	31.68	54.00	-22.32	6.02	3	Horizontal	53	2.20	-
PK	4.88672G	43.54	74.00	-30.46	6.02	3	Horizontal	53	2.20	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2462MHz_TX

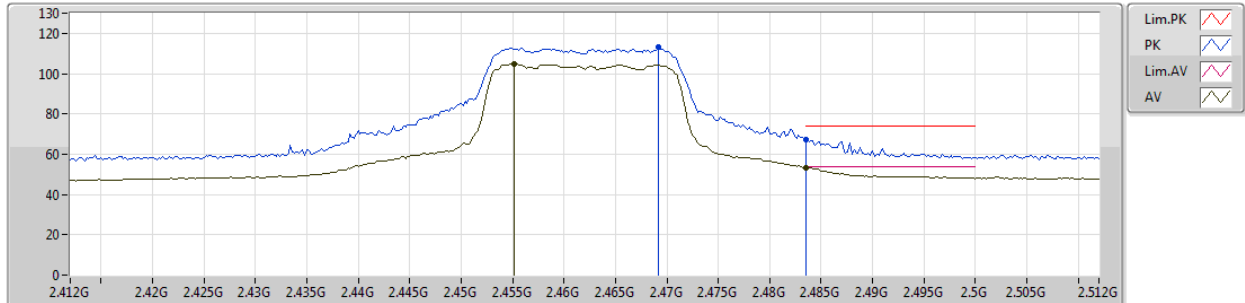


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4692G	103.95	Inf	-Inf	30.65	3	Vertical	99	1.72	-
AV	2.4835G	52.67	54.00	-1.33	30.69	3	Vertical	99	1.72	-
PK	2.4692G	111.72	Inf	-Inf	30.65	3	Vertical	99	1.72	-
PK	2.4842G	66.79	74.00	-7.21	30.69	3	Vertical	99	1.72	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2462MHz_TX

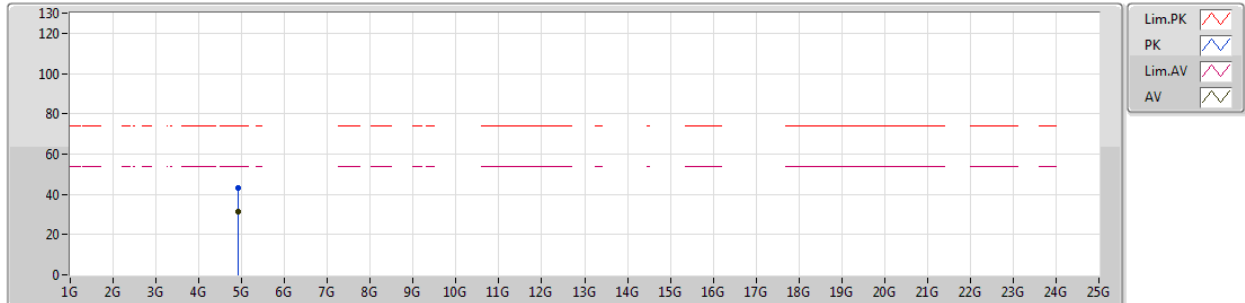


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4552G	104.85	Inf	-Inf	30.60	3	Horizontal	326	1.13	-
AV	2.4835G	53.50	54.00	-0.50	30.69	3	Horizontal	326	1.13	-
PK	2.4692G	113.14	Inf	-Inf	30.65	3	Horizontal	326	1.13	-
PK	2.4835G	67.34	74.00	-6.66	30.69	3	Horizontal	326	1.13	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2462MHz_TX

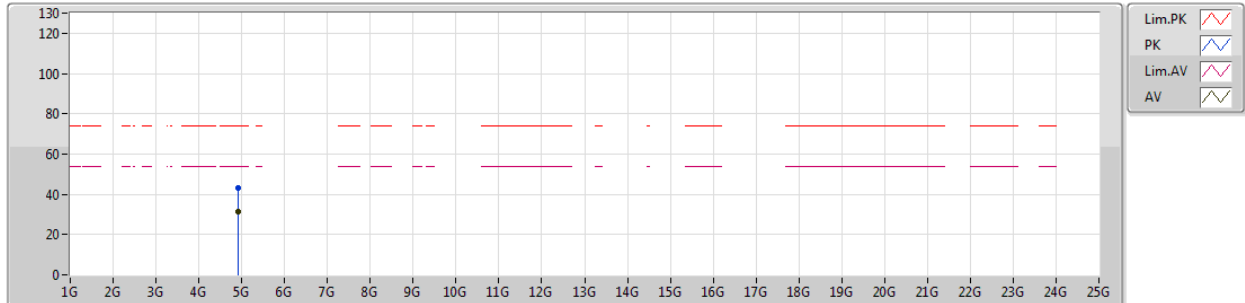


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.91032G	31.39	54.00	-22.61	6.07	3	Vertical	165	2.09	-
PK	4.91482G	43.08	74.00	-30.92	6.08	3	Vertical	165	2.09	-

802.11n HT20_Nss3,(MCS16)_3TX

05/02/2019

2462MHz_TX

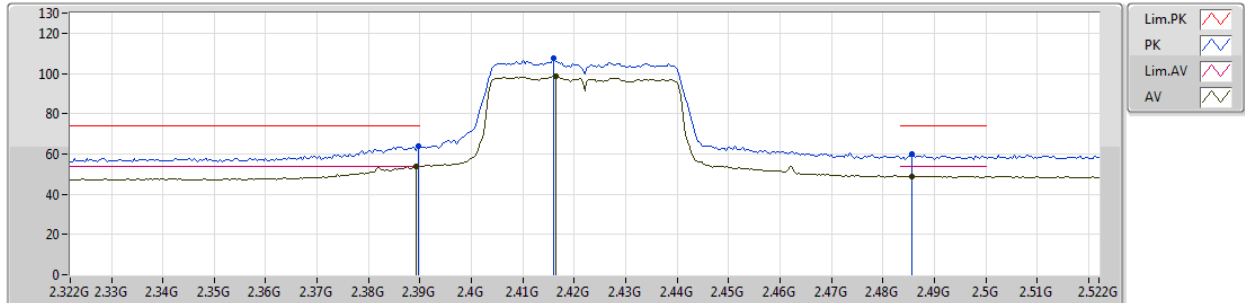


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.91128G	31.28	54.00	-22.72	6.08	3	Horizontal	134	1.72	-
PK	4.91158G	43.33	74.00	-30.67	6.08	3	Horizontal	134	1.72	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2422MHz_TX

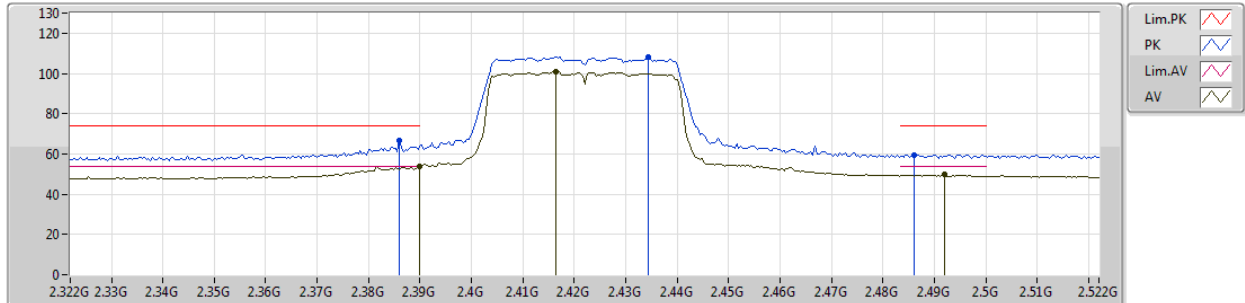


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3892G	53.89	54.00	-0.11	30.37	3	Vertical	185	1.93	-
AV	2.4164G	98.50	Inf	-Inf	30.47	3	Vertical	185	1.93	-
AV	2.4856G	48.95	54.00	-5.05	30.71	3	Vertical	185	1.93	-
PK	2.3896G	63.91	74.00	-10.09	30.38	3	Vertical	185	1.93	-
PK	2.416G	107.42	Inf	-Inf	30.47	3	Vertical	185	1.93	-
PK	2.4856G	59.88	74.00	-14.12	30.71	3	Vertical	185	1.93	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2422MHz_TX

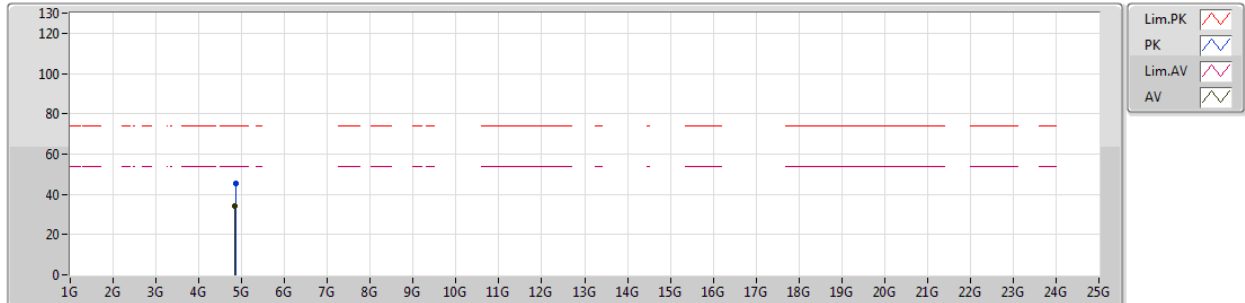


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	53.79	54.00	-0.21	30.38	3	Horizontal	38	1.03	-
AV	2.4164G	100.84	Inf	-Inf	30.47	3	Horizontal	38	1.03	-
AV	2.492G	49.61	54.00	-4.39	30.72	3	Horizontal	38	1.03	-
PK	2.386G	66.89	74.00	-7.11	30.37	3	Horizontal	38	1.03	-
PK	2.4344G	107.95	Inf	-Inf	30.52	3	Horizontal	38	1.03	-
PK	2.486G	59.63	74.00	-14.37	30.71	3	Horizontal	38	1.03	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2422MHz_TX

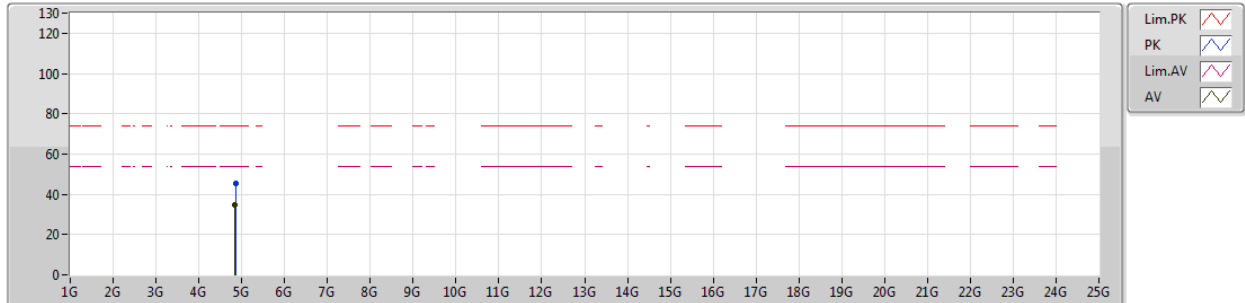


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.84376G	34.46	54.00	-19.54	5.93	3	Vertical	83	1.49	-
PK	4.85444G	45.28	74.00	-28.72	5.97	3	Vertical	83	1.49	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2422MHz_TX

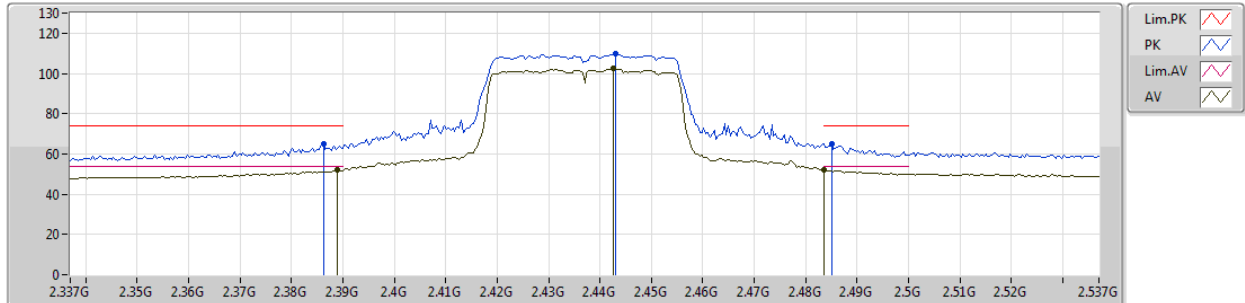


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.84346G	34.64	54.00	-19.36	5.93	3	Horizontal	66	1.35	-
PK	4.85186G	45.36	74.00	-28.64	5.96	3	Horizontal	66	1.35	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2437MHz_TX

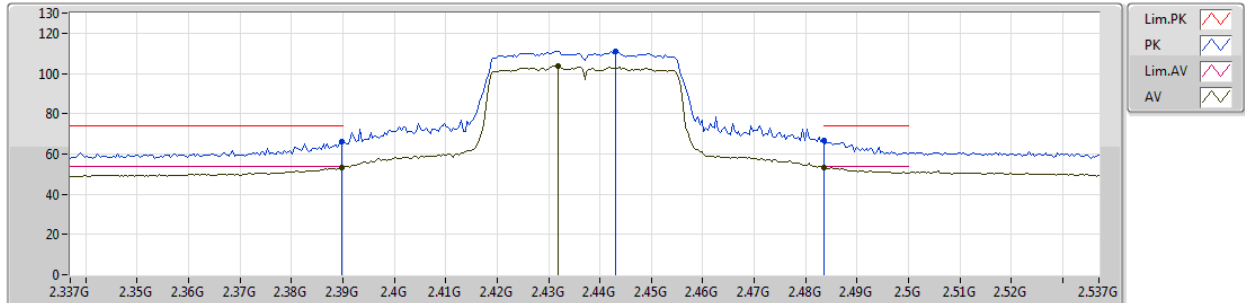


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389G	52.17	54.00	-1.83	30.37	3	Vertical	107	2.06	-
AV	2.4426G	102.47	Inf	-Inf	30.55	3	Vertical	107	2.06	-
AV	2.4835G	52.07	54.00	-1.93	30.69	3	Vertical	107	2.06	-
PK	2.3862G	64.87	74.00	-9.13	30.37	3	Vertical	107	2.06	-
PK	2.443G	109.84	Inf	-Inf	30.55	3	Vertical	107	2.06	-
PK	2.485G	64.85	74.00	-9.15	30.69	3	Vertical	107	2.06	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2437MHz_TX

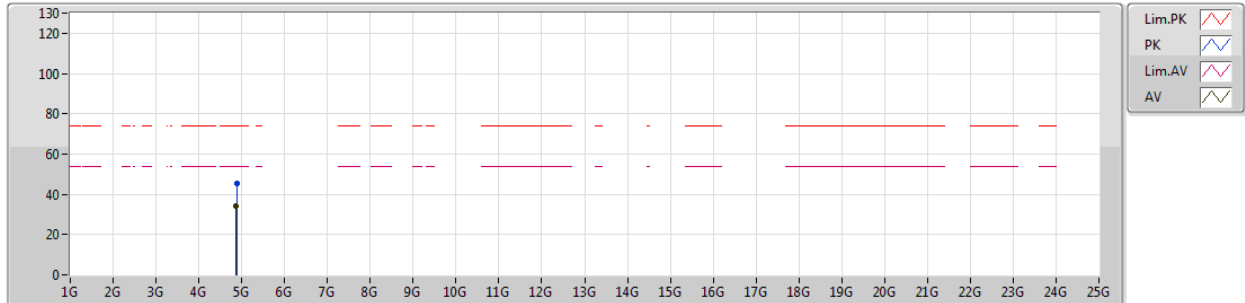


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	53.45	54.00	-0.55	30.38	3	Horizontal	39	1.50	-
AV	2.4318G	103.74	Inf	-Inf	30.52	3	Horizontal	39	1.50	-
AV	2.4835G	53.09	54.00	-0.91	30.69	3	Horizontal	39	1.50	-
PK	2.3898G	66.12	74.00	-7.88	30.38	3	Horizontal	39	1.50	-
PK	2.443G	111.19	Inf	-Inf	30.55	3	Horizontal	39	1.50	-
PK	2.4835G	66.71	74.00	-7.29	30.69	3	Horizontal	39	1.50	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2437MHz_TX

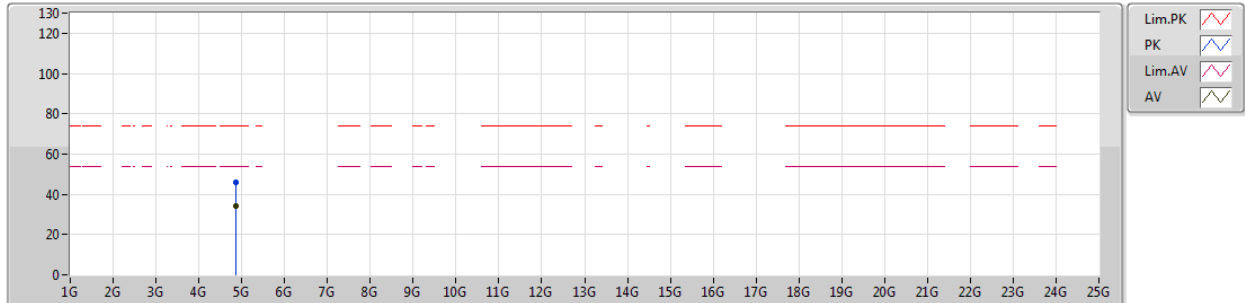


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8701G	34.30	54.00	-19.70	6.00	3	Vertical	88	2.08	-
PK	4.88834G	45.21	74.00	-28.79	6.02	3	Vertical	88	2.08	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2437MHz_TX

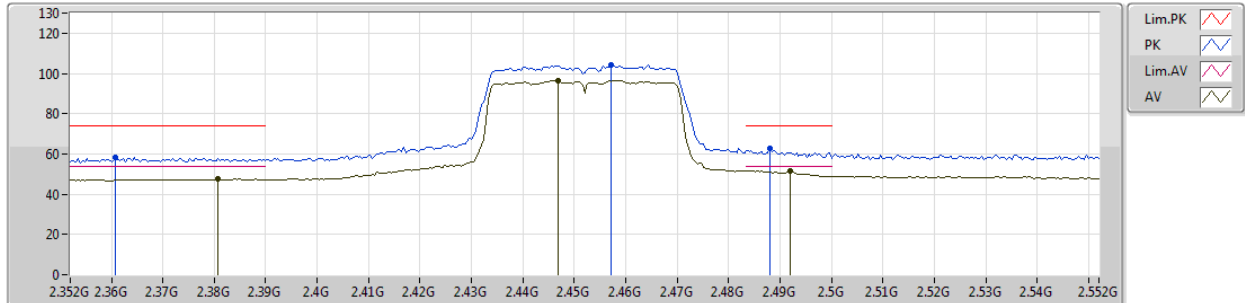


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8704G	34.20	54.00	-19.80	6.00	3	Horizontal	72	1.59	-
PK	4.86728G	45.68	74.00	-28.32	5.98	3	Horizontal	72	1.59	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2452MHz_TX

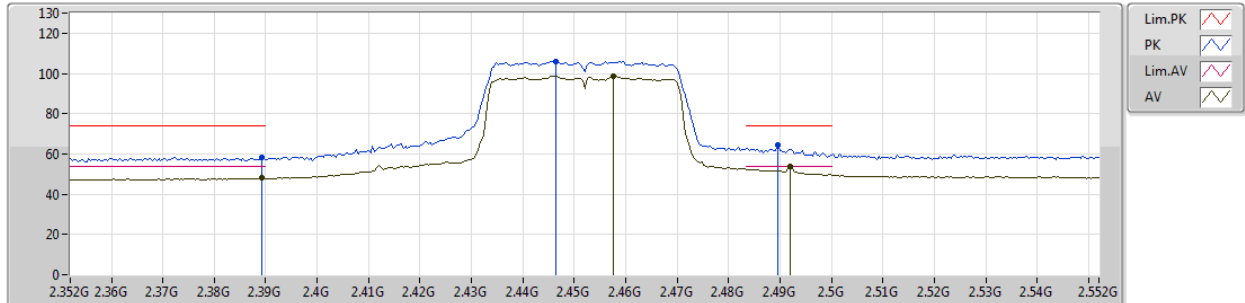


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3808G	47.56	54.00	-6.44	30.34	3	Vertical	97	1.50	-
AV	2.4468G	96.64	Inf	-Inf	30.57	3	Vertical	97	1.50	-
AV	2.492G	51.79	54.00	-2.21	30.72	3	Vertical	97	1.50	-
PK	2.3608G	58.41	74.00	-15.59	30.28	3	Vertical	97	1.50	-
PK	2.4572G	104.11	Inf	-Inf	30.61	3	Vertical	97	1.50	-
PK	2.488G	62.51	74.00	-11.49	30.71	3	Vertical	97	1.50	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2452MHz_TX

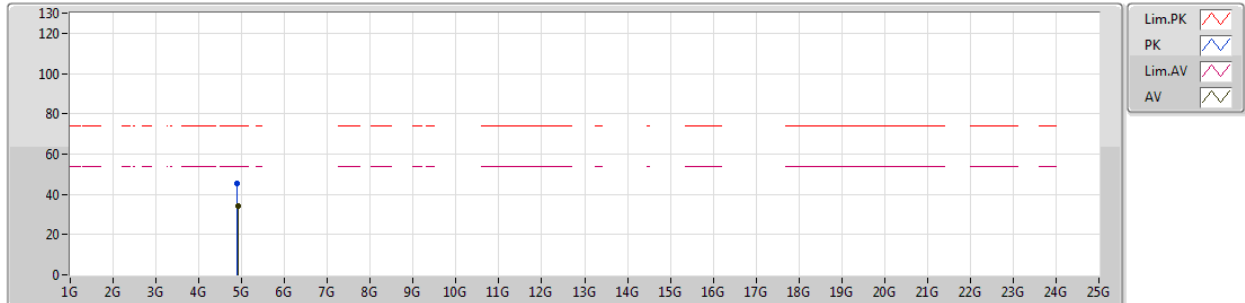


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3892G	48.09	54.00	-5.91	30.37	3	Horizontal	226	1.45	-
AV	2.4576G	98.67	Inf	-Inf	30.61	3	Horizontal	226	1.45	-
AV	2.492G	53.53	54.00	-0.47	30.72	3	Horizontal	226	1.45	-
PK	2.3892G	58.30	74.00	-15.70	30.37	3	Horizontal	226	1.45	-
PK	2.4464G	106.16	Inf	-Inf	30.57	3	Horizontal	226	1.45	-
PK	2.4896G	64.22	74.00	-9.78	30.72	3	Horizontal	226	1.45	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2452MHz_TX

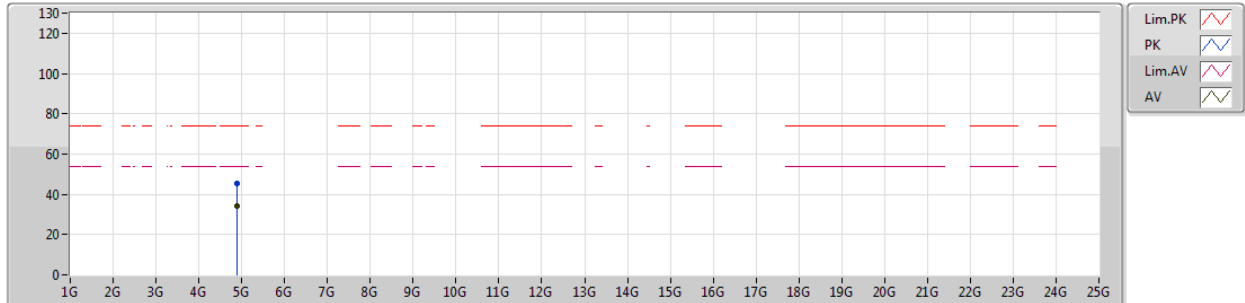


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.91498G	34.32	54.00	-19.68	6.08	3	Vertical	12	2.48	-
PK	4.88936G	45.58	74.00	-28.42	6.03	3	Vertical	12	2.48	-

802.11n HT40_Nss3,(MCS16)_3TX

05/02/2019

2452MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.8962G	34.37	54.00	-19.63	6.04	3	Horizontal	98	1.17	-
PK	4.89284G	45.46	74.00	-28.54	6.04	3	Horizontal	98	1.17	-