

FCC Test Report

FCC ID : UIDTG1682-3
Equipment : Telephony Gateway
Brand Name : ARRIS
Model Name : TG1682G
Applicant : ARRIS
387Lakefield Drive, #300 Suwanee, GA
30024
Manufacturer : Sernet Corporation (Sercomm)
Number 8, Tangzhuang Road Suzhou
Industrial Park Suzhou, Jiangsu PRC
215021
Standard : 47 CFR FCC Part 15.247

The product was received on Oct. 12, 2018, and testing was started from Oct. 17, 2018 and completed on Nov. 23, 2018. 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 variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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



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History of this test report

Report No.	Version	Description	Issued Date
FR892626AC	01	Initial issue of report	Feb. 11, 2019

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	FCC 15.203
3.1	15.207	AC Power-line Conducted Emissions	Not Required	FCC 15.207
3.1	15.247(a)	DTS Bandwidth	PASS	≥500kHz
3.2	15.247(b)	Maximum Conducted Output Power	PASS	Power [dBm]: 30
3.3	15.247(e)	Power Spectral Density	PASS	PSD [dBm/3kHz]: 8
3.4	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	Non-Restricted Bands: > 30 dBc
3.5	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: Debby Hung

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	3TX
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	Gain (dBi)
1	ARRIS	TG1682	PIFA antenna	I-PEX	1.9
2	ARRIS	TG1682	PIFA antenna	I-PEX	1.9
3	ARRIS	TG1682	PIFA antenna	I-PEX	1.9

For 2.4GHz function:

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

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

1.1.3 EUT Information

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

**1.1.4 Mode Test Duty Cycle**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11n HT20	0.94	0.269	1.273m	1k

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

1.1.5 Table for Permissive Change

This product is an extension of original one reported ,Please refer original report

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
2.4G testing tool command was changed	11n20M was evaluated

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 v05
- ◆ 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
RF Conducted	TH01-HY	Barry	23.2°C / 63%	23/Nov/2018
Radiated	03CH09-HY	Kevin	21°C / 56.2%	23/Nov/2018

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	DoS
---------------	-----

Mode	PowerSetting
802.11n HT20_Nss1,(MCS0)_3TX	-
2412MHz	15
2417MHz	21
2422MHz	22
2427MHz	23
2437MHz	23
2452MHz	23
2457MHz	21
2462MHz	18

2.3 The Worst Case Measurement Configuration

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	Switching Power Supply mode
Orthogonal Planes of EUT	Y Plane
	
Worst Planes of EUT	V

2.4 Accessories and Support Equipment

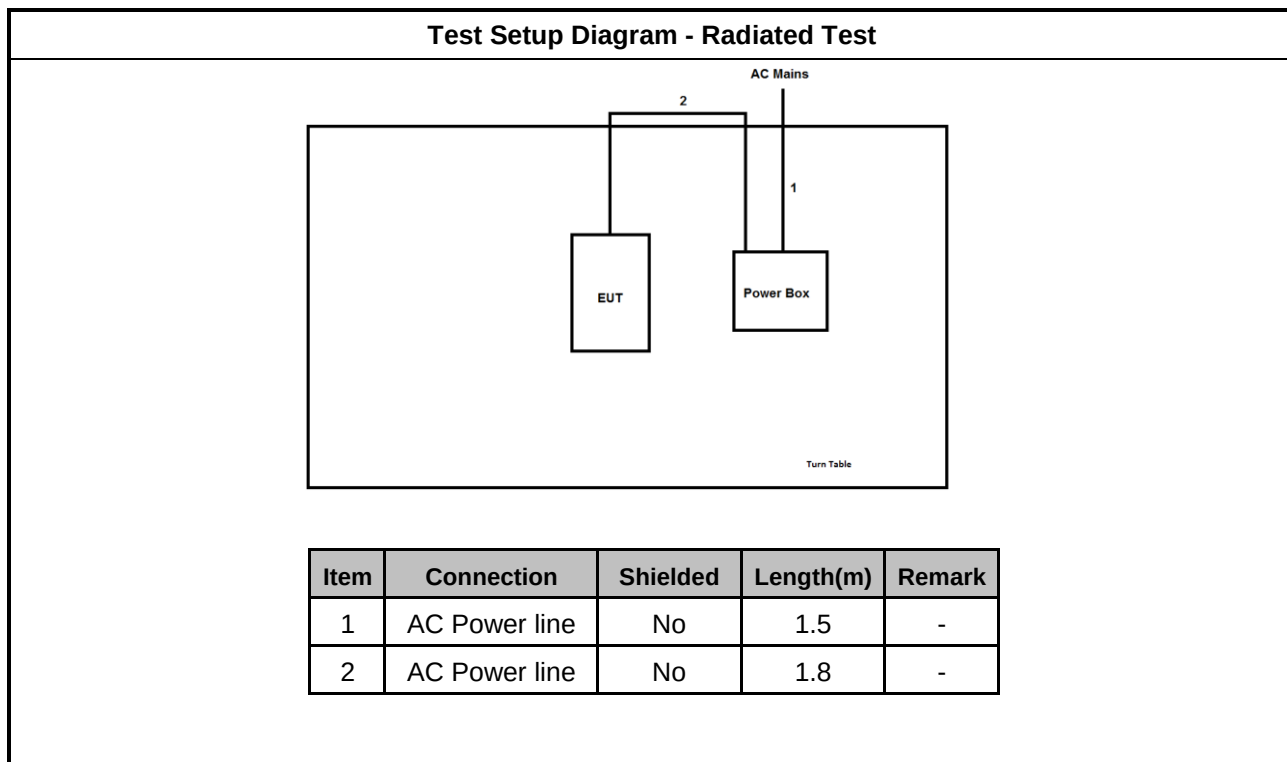
Accessories		
power cord	Power Cord	<u>1.8</u> meter, non-shielded cable

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	Lenovo	T420	R33002 / DOC
2	Adapter for NB	Lenovo	ADLX90NDT2A	R35737 / DOC
3	Fixture	-	-	-

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

2.5 Test Setup Diagram



3 Transmitter Test Result

3.1 DTS Bandwidth

3.1.1 6dB Bandwidth Limit

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

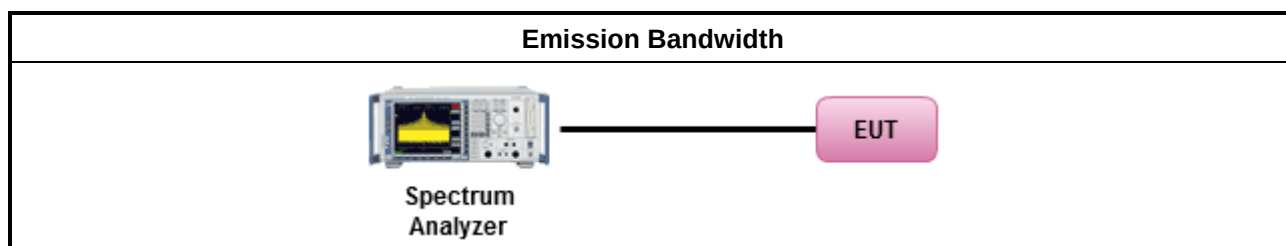
3.1.2 Measuring Instruments

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

3.1.3 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.

3.1.4 Test Setup



3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

3.2 Maximum Conducted Output Power

3.2.1 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.		

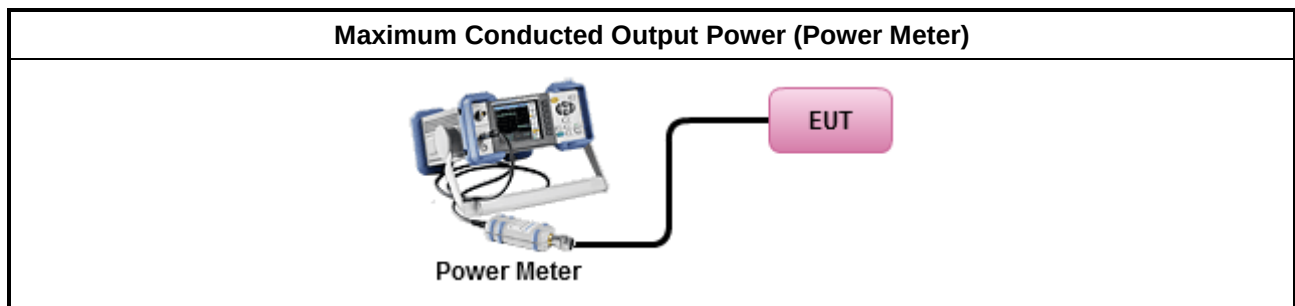
3.2.2 Measuring Instruments

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

3.2.3 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]) $EIRP_{total} = P_{total} + DG$	

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

3.3 Power Spectral Density

3.3.1 Power Spectral Density Limit

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

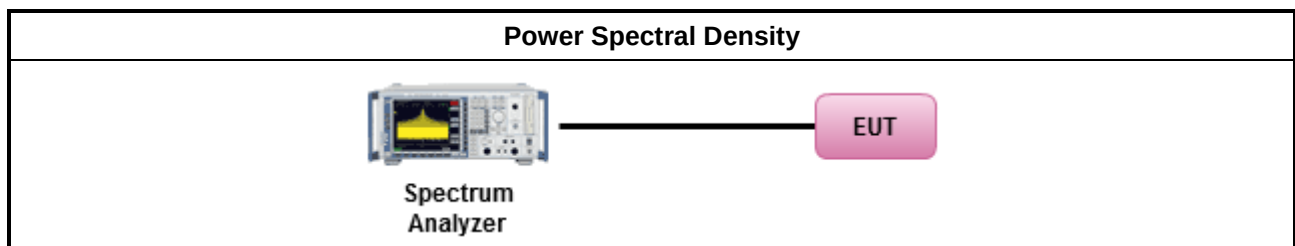
3.3.2 Measuring Instruments

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

3.3.3 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.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Refer as Appendix C

3.4 Emissions in Non-restricted Frequency Bands

3.4.1 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.	

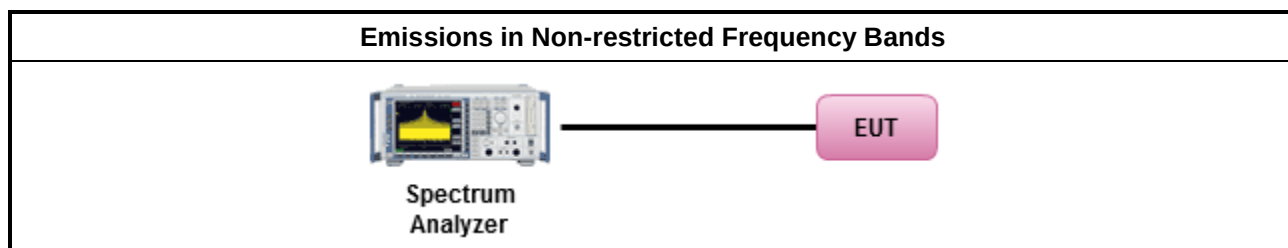
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

3.4.4 Test Setup



3.4.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix D

3.5 Emissions in Restricted Frequency Bands

3.5.1 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.

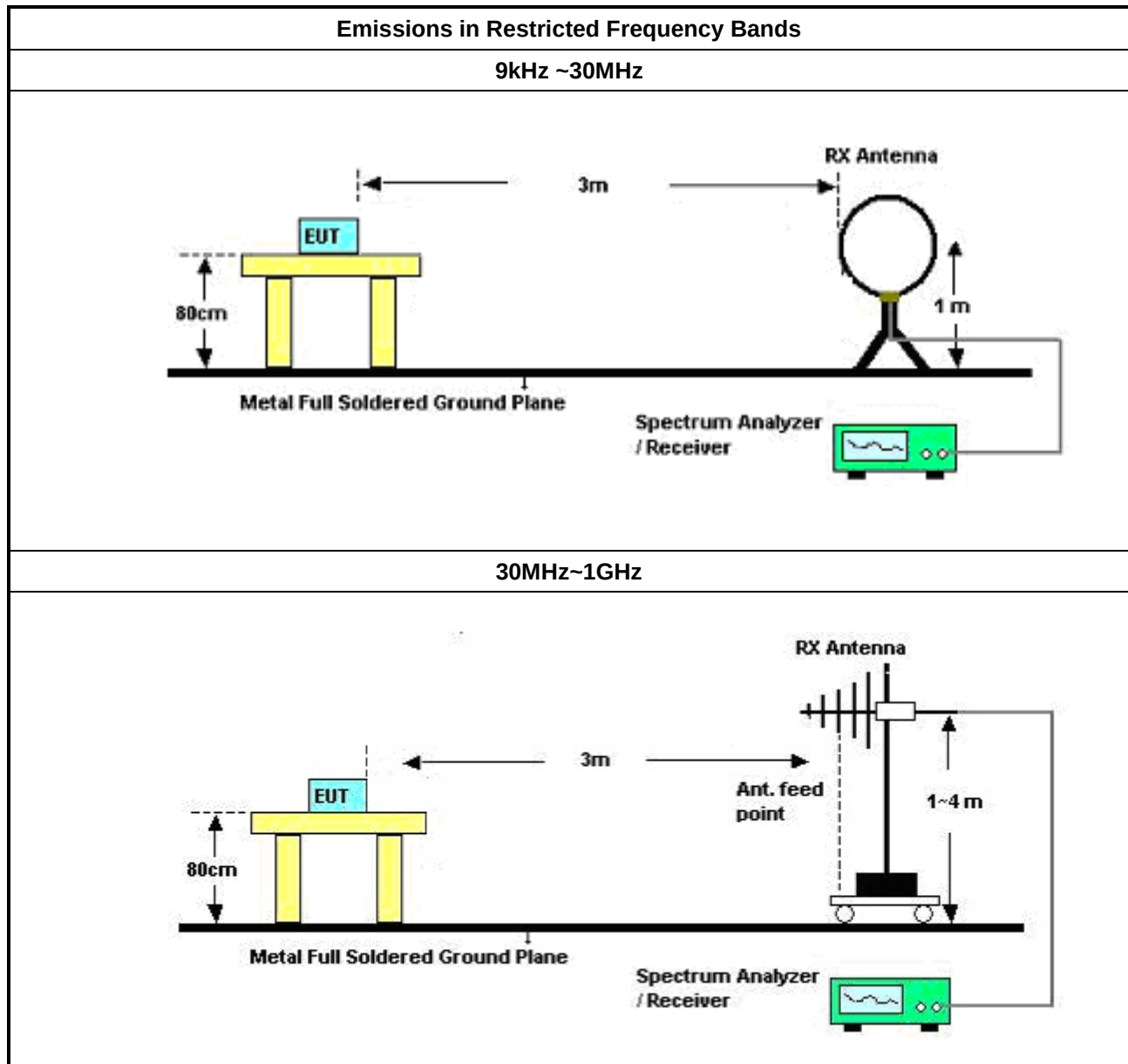
3.5.2 Measuring Instruments

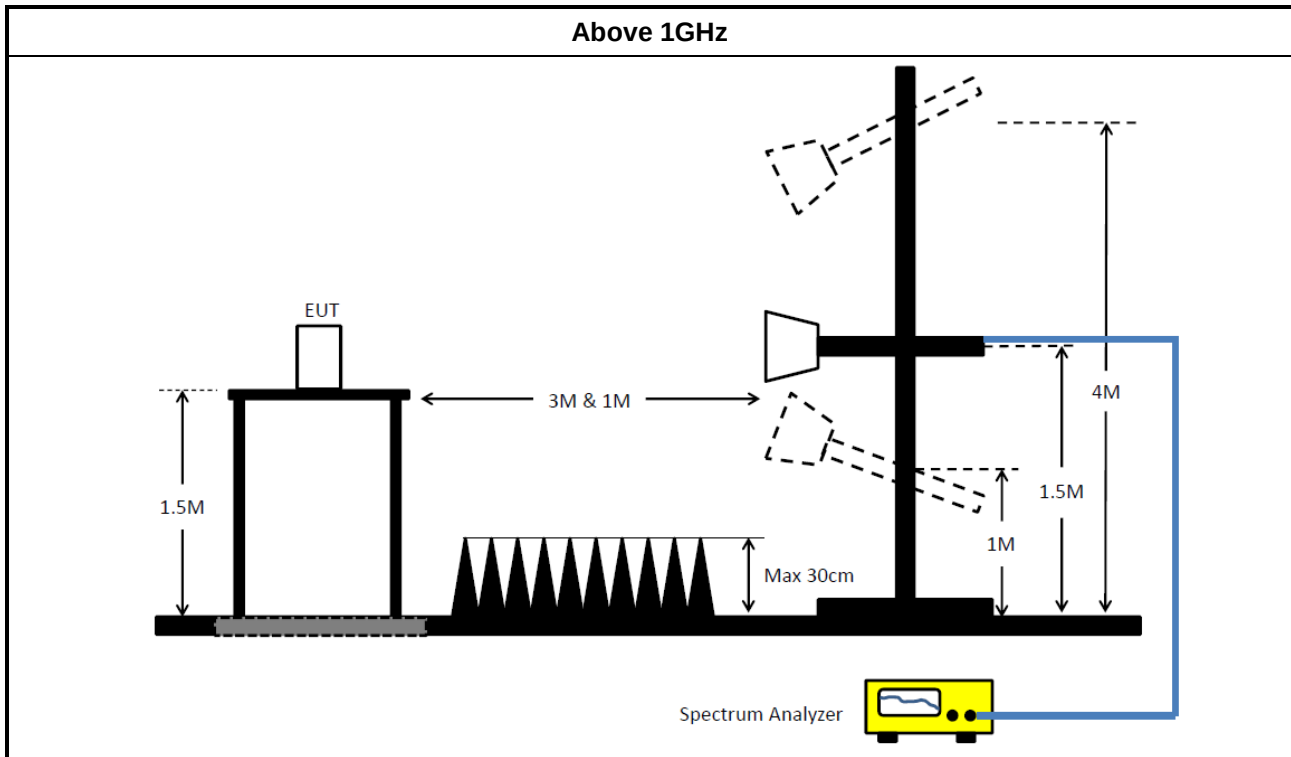
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (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.

3.5.4 Test Setup





3.5.5 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.

3.5.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix E

4 Test Equipment and Calibration Data

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	14/Jun/2018	13/Jun/2019
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	10/May/2018	09/May/2019
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	31/Jul/2018	30/Jul/2019
Double Ridged Guide Horn Antenna	SCHWARZBEC K	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	30/Apr/2018	29/Apr/2019
Broadband Horn Antenna	SCHWARZBEC K	BBHA 9170	BBHA9170614	18GHz~40GHz	09/Feb/2018	08/Feb/2019
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz ~ 40GHz	14/Mar/2018	13/Mar/2019

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	29/Dec/2017	28/Dec/2018
Signal Generator	Anritsu	MG3694C	163401	10MHz~40GHz	15/Jan/2018	14/Jan/2019
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	05/Feb/2018	04/Feb/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~1G	11/Jan/2018	10/Jan/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	1G~18G	11/Jan/2018	10/Jan/2019
Cable 0.5m	HUBER	MY10715/4	RF Cable - 06	30MHz~1G	11/Jan/2018	10/Jan/2019

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_3TX	17.55M	18.241M	18M2D1D	16.025M	17.591M

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;

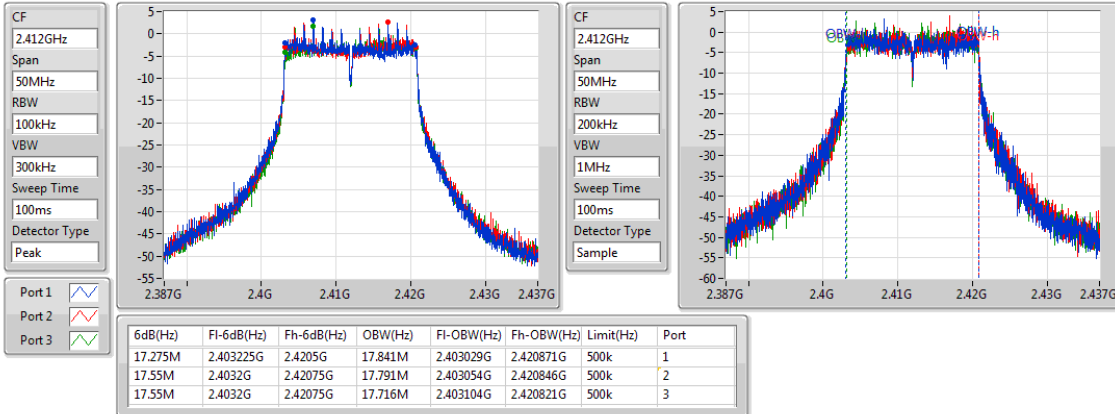
Result

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)
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.275M	17.841M	17.55M	17.791M	17.55M	17.716M
2437MHz	Pass	500k	16.65M	18.241M	16.35M	18.091M	16.95M	18.141M
2462MHz	Pass	500k	16.025M	17.591M	16.95M	17.791M	17.55M	17.716M

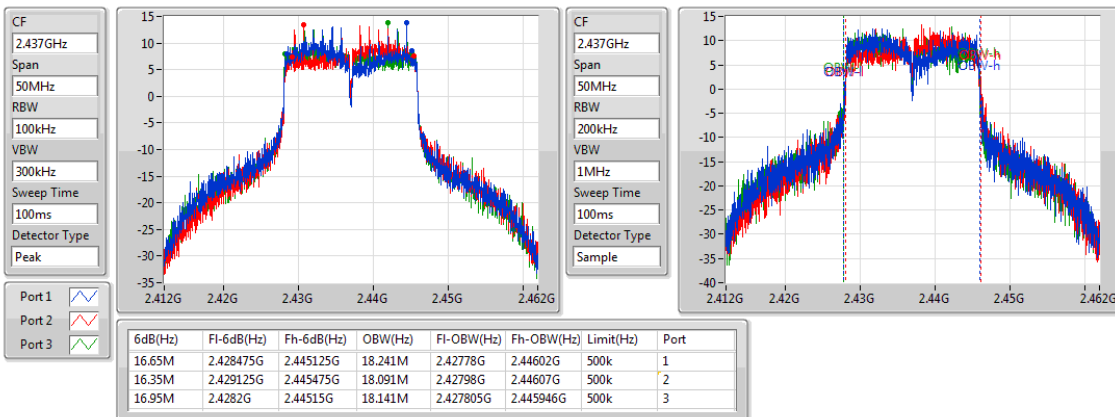
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11n HT20_Nss1,(MCS0)_3TX
EBW
2412MHz

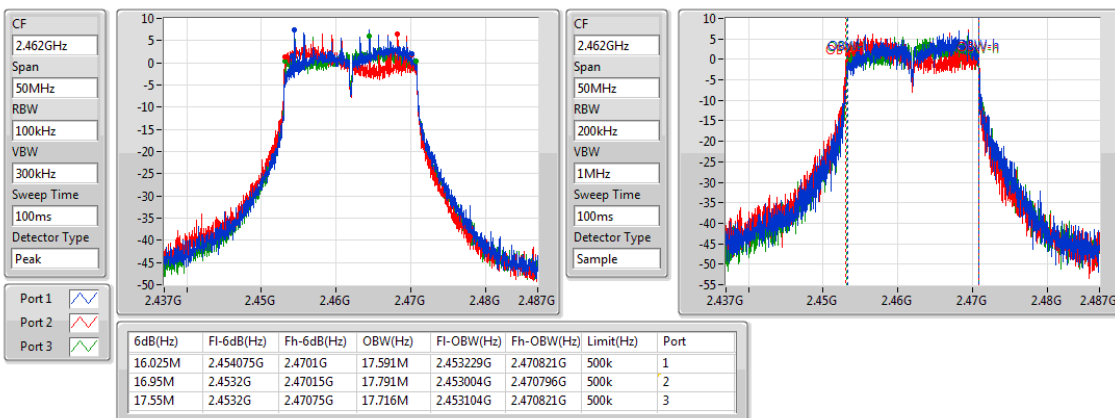
19/10/2018


802.11n HT20_Nss1,(MCS0)_3TX
EBW
2437MHz

19/10/2018


802.11n HT20_Nss1,(MCS0)_3TX
EBW
2462MHz

19/10/2018



**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11n HT20_Nss1,(MCS0)_3TX	26.36	0.43251

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	1.90	12.83	13.11	13.01	17.76	30.00
2417MHz	Pass	1.90	19.68	19.76	19.78	24.51	30.00
2422MHz	Pass	1.90	20.74	21.60	21.45	26.05	30.00
2427MHz	Pass	1.90	21.13	21.55	21.44	26.15	30.00
2437MHz	Pass	1.90	21.03	21.99	21.69	26.36	30.00
2452MHz	Pass	1.90	21.20	21.42	21.83	26.26	30.00
2457MHz	Pass	1.90	20.15	20.80	20.75	25.35	30.00
2462MHz	Pass	1.90	17.43	16.54	16.91	21.75	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	-
802.11n HT20_Nss1,(MCS0)_3TX	-1.69

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)
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.67	-12.32	-11.34	-11.50	-9.95	7.33
2437MHz	Pass	6.67	-4.32	-4.90	-3.91	-1.69	7.33
2462MHz	Pass	6.67	-8.24	-8.92	-7.91	-6.36	7.33

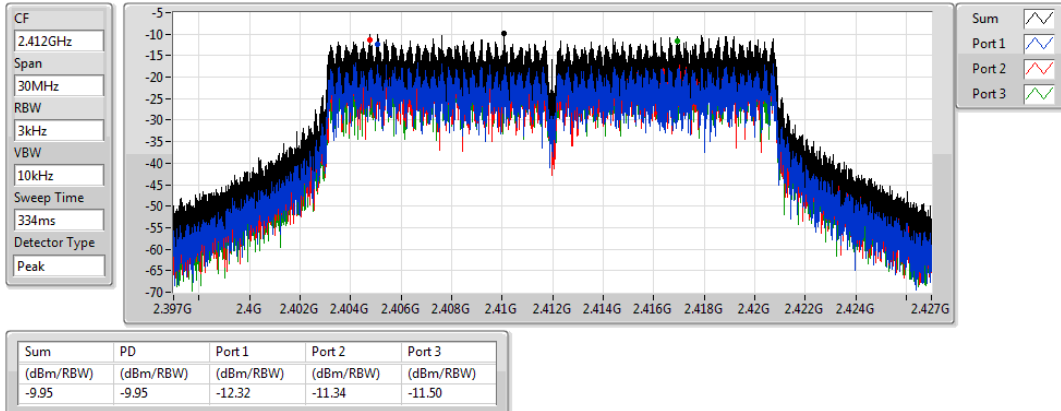
DG = Directional Gain; RBW=3kHz;**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11n HT20_Nss1,(MCS0)_3TX

PSD

2412MHz

19/10/2018

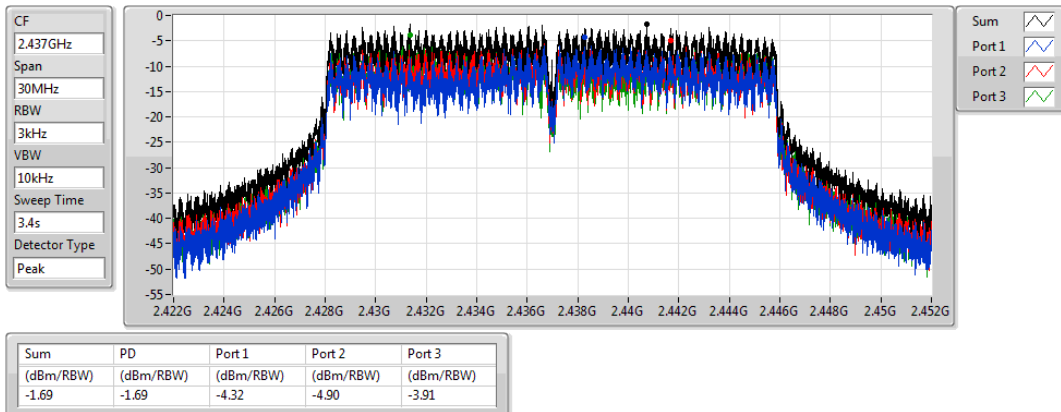


802.11n HT20_Nss1,(MCS0)_3TX

PSD

2437MHz

23/11/2018

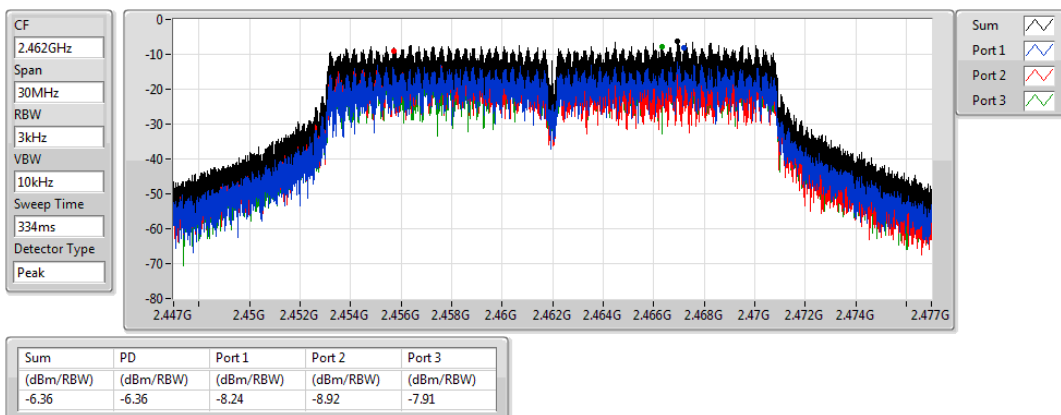


802.11n HT20_Nss1,(MCS0)_3TX

PSD

2462MHz

19/10/2018



Summary

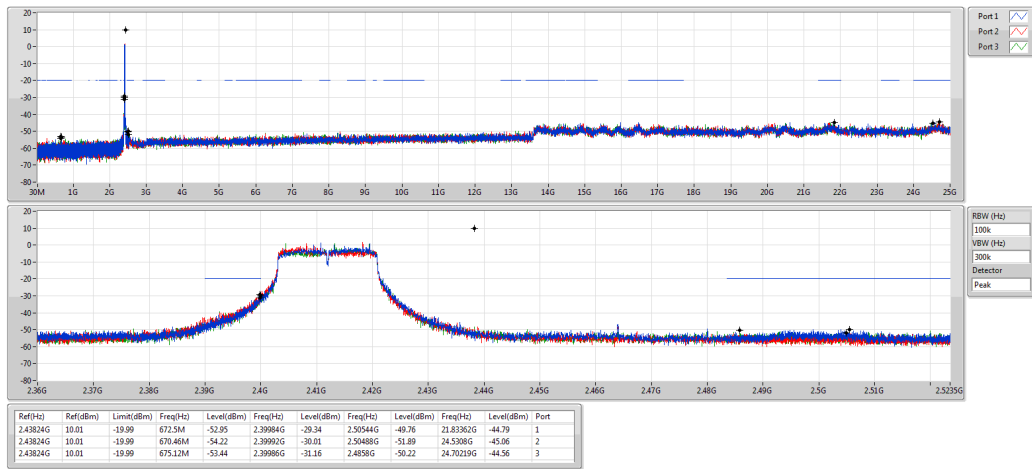
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_3TX	Pass	2.43824G	10.01	-19.99	672.5M	-52.95	2.39984G	-29.34	2.50544G	-49.76	21.83362G	-44.79	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43824G	10.01	-19.99	672.5M	-52.95	2.39984G	-29.34	2.50544G	-49.76	21.83362G	-44.79	1
2412MHz	Pass	2.43824G	10.01	-19.99	670.46M	-54.22	2.39992G	-30.01	2.50488G	-51.89	24.5308G	-45.06	2
2412MHz	Pass	2.43824G	10.01	-19.99	675.12M	-53.44	2.39986G	-31.16	2.4858G	-50.22	24.70219G	-44.56	3
2437MHz	Pass	2.43824G	10.01	-19.99	700.17M	-38.46	2.39864G	-43.96	2.51998G	-46.32	24.66847G	-43.80	1
2437MHz	Pass	2.43824G	10.01	-19.99	698.13M	-38.63	2.39766G	-44.23	2.48436G	-47.47	21.65943G	-44.40	2
2437MHz	Pass	2.43824G	10.01	-19.99	698.42M	-37.54	2.397G	-42.07	2.48954G	-46.16	21.74653G	-44.79	3
2462MHz	Pass	2.43824G	10.01	-19.99	718.81M	-47.86	2.39786G	-48.90	2.48416G	-43.67	21.76057G	-44.78	1
2462MHz	Pass	2.43824G	10.01	-19.99	722.59M	-48.07	2.39678G	-49.08	2.4836G	-43.04	24.52237G	-44.55	2
2462MHz	Pass	2.43824G	10.01	-19.99	724.34M	-48.34	2.3989G	-48.18	2.48388G	-45.12	14.25623G	-45.40	3

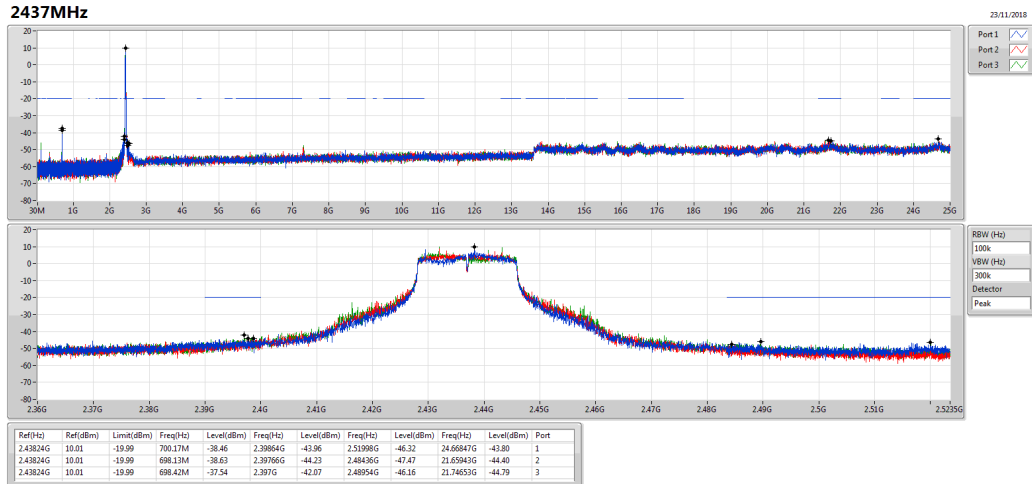
802.11n HT20_Nss1,(MCS0)_3TX 2412MHz

CSE NdB



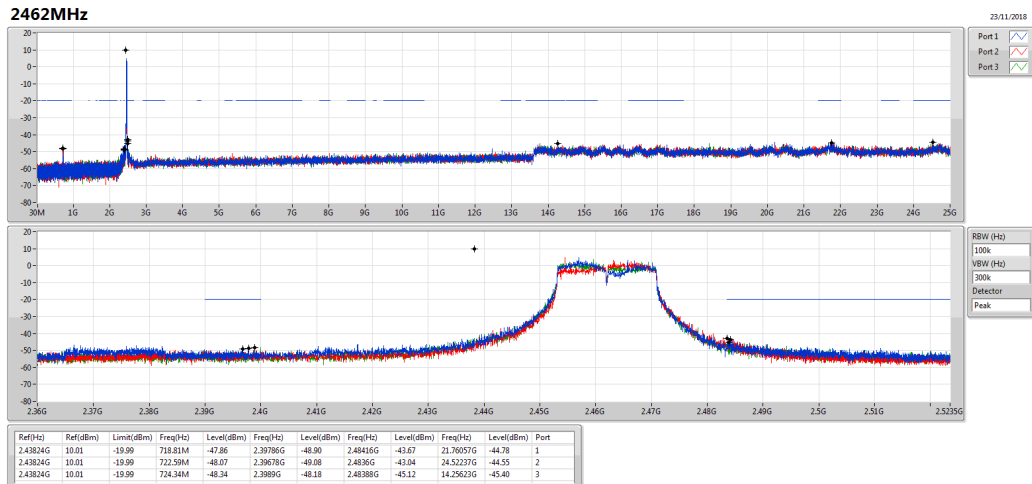
802.11n HT20_Nss1,(MCS0)_3TX 2437MHz

CSE NdB



802.11n HT20_Nss1,(MCS0)_3TX 2462MHz

CSE NdB





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_3TX	Pass	AV	2.3898G	53.88	54.00	-0.12	30.77	3	Vertical	162	1.49	-

Result

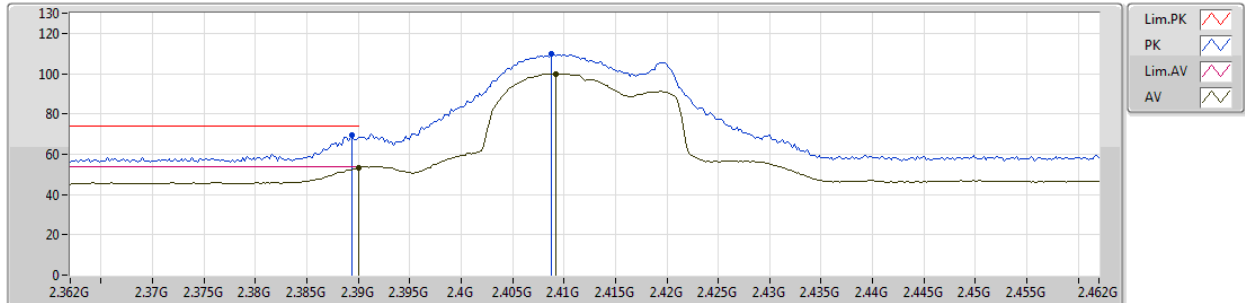
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	53.08	54.00	-0.92	30.77	3	Vertical	194	2.99	-
2412MHz	Pass	AV	2.4092G	100.01	Inf	-Inf	30.85	3	Vertical	194	2.99	-
2412MHz	Pass	PK	2.3894G	69.25	74.00	-4.75	30.77	3	Vertical	194	2.99	-
2412MHz	Pass	PK	2.4088G	109.60	Inf	-Inf	30.84	3	Vertical	194	2.99	-
2412MHz	Pass	AV	2.3898G	48.37	54.00	-5.63	30.77	3	Horizontal	335	1.70	-
2412MHz	Pass	AV	2.4174G	100.59	Inf	-Inf	30.87	3	Horizontal	335	1.70	-
2412MHz	Pass	PK	2.3882G	63.25	74.00	-10.75	30.77	3	Horizontal	335	1.70	-
2412MHz	Pass	PK	2.4168G	109.56	Inf	-Inf	30.87	3	Horizontal	335	1.70	-
2412MHz	Pass	AV	4.82022G	28.92	54.00	-25.08	2.12	3	Vertical	78	1.65	-
2412MHz	Pass	PK	4.827G	42.54	74.00	-31.46	2.14	3	Vertical	78	1.65	-
2412MHz	Pass	AV	4.82794G	29.03	54.00	-24.97	2.14	3	Horizontal	10	1.64	-
2412MHz	Pass	PK	4.82348G	41.96	74.00	-32.04	2.13	3	Horizontal	10	1.64	-
2417MHz	Pass	AV	2.3874G	53.81	54.00	-0.19	30.76	3	Vertical	159	1.31	-
2417MHz	Pass	AV	2.4242G	104.97	Inf	-Inf	30.90	3	Vertical	159	1.31	-
2417MHz	Pass	PK	2.3868G	70.23	74.00	-3.77	30.76	3	Vertical	159	1.31	-
2417MHz	Pass	PK	2.4232G	113.88	Inf	-Inf	30.89	3	Vertical	159	1.31	-
2417MHz	Pass	AV	2.39G	53.02	54.00	-0.98	30.77	3	Horizontal	307	1.48	-
2417MHz	Pass	AV	2.4134G	106.58	Inf	-Inf	30.86	3	Horizontal	307	1.48	-
2417MHz	Pass	PK	2.3894G	70.08	74.00	-3.92	30.77	3	Horizontal	307	1.48	-
2417MHz	Pass	PK	2.4134G	115.92	Inf	-Inf	30.86	3	Horizontal	307	1.48	-
2422MHz	Pass	AV	2.3898G	53.88	54.00	-0.12	30.77	3	Vertical	162	1.49	-
2422MHz	Pass	AV	2.4292G	106.01	Inf	-Inf	30.91	3	Vertical	162	1.49	-
2422MHz	Pass	PK	2.3898G	70.11	74.00	-3.89	30.77	3	Vertical	162	1.49	-
2422MHz	Pass	PK	2.4296G	115.35	Inf	-Inf	30.91	3	Vertical	162	1.49	-
2422MHz	Pass	AV	2.3794G	51.79	54.00	-2.21	30.74	3	Horizontal	313	1.50	-
2422MHz	Pass	AV	2.4166G	107.21	Inf	-Inf	30.87	3	Horizontal	313	1.50	-
2422MHz	Pass	PK	2.3786G	68.70	74.00	-5.30	30.74	3	Horizontal	313	1.50	-
2422MHz	Pass	PK	2.4184G	116.57	Inf	-Inf	30.87	3	Horizontal	313	1.50	-
2427MHz	Pass	AV	2.3898G	52.71	54.00	-1.29	30.69	3	Vertical	187	2.34	-
2427MHz	Pass	AV	2.4294G	106.94	Inf	-Inf	30.81	3	Vertical	187	2.34	-
2427MHz	Pass	AV	2.4835G	49.28	54.00	-4.72	30.97	3	Vertical	187	2.34	-
2427MHz	Pass	PK	2.389G	65.58	74.00	-8.42	30.68	3	Vertical	187	2.34	-
2427MHz	Pass	PK	2.4286G	115.46	Inf	-Inf	30.81	3	Vertical	187	2.34	-
2427MHz	Pass	PK	2.4906G	59.99	74.00	-14.01	30.99	3	Vertical	187	2.34	-
2427MHz	Pass	AV	2.389G	51.85	54.00	-2.15	30.68	3	Horizontal	320	1.90	-
2427MHz	Pass	AV	2.4202G	106.91	Inf	-Inf	30.78	3	Horizontal	320	1.90	-
2427MHz	Pass	AV	2.4874G	48.84	54.00	-5.16	30.98	3	Horizontal	320	1.90	-
2427MHz	Pass	PK	2.3894G	63.58	74.00	-10.42	30.68	3	Horizontal	320	1.90	-
2427MHz	Pass	PK	2.4202G	114.84	Inf	-Inf	30.78	3	Horizontal	320	1.90	-
2427MHz	Pass	PK	2.4922G	61.41	74.00	-12.59	30.99	3	Horizontal	320	1.90	-
2437MHz	Pass	AV	2.3898G	51.72	54.00	-2.28	30.69	3	Vertical	194	2.81	-
2437MHz	Pass	AV	2.439G	106.75	Inf	-Inf	30.83	3	Vertical	194	2.81	-
2437MHz	Pass	AV	2.4835G	50.90	54.00	-3.10	30.97	3	Vertical	194	2.81	-
2437MHz	Pass	PK	2.3886G	64.50	74.00	-9.50	30.68	3	Vertical	194	2.81	-
2437MHz	Pass	PK	2.4398G	115.02	Inf	-Inf	30.84	3	Vertical	194	2.81	-
2437MHz	Pass	PK	2.4862G	61.56	74.00	-12.44	30.98	3	Vertical	194	2.81	-
2437MHz	Pass	AV	2.3898G	50.77	54.00	-3.23	30.69	3	Horizontal	325	1.31	-

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	2.4338G	107.40	Inf	-Inf	30.82	3	Horizontal	325	1.31	-
2437MHz	Pass	AV	2.4866G	49.52	54.00	-4.48	30.98	3	Horizontal	325	1.31	-
2437MHz	Pass	PK	2.3762G	61.58	74.00	-12.42	30.64	3	Horizontal	325	1.31	-
2437MHz	Pass	PK	2.4322G	115.28	Inf	-Inf	30.82	3	Horizontal	325	1.31	-
2437MHz	Pass	PK	2.4958G	60.99	74.00	-13.01	31.00	3	Horizontal	325	1.31	-
2437MHz	Pass	AV	4.87634G	34.28	54.00	-19.72	6.66	3	Vertical	107	2.07	-
2437MHz	Pass	PK	4.87662G	46.43	74.00	-27.57	6.67	3	Vertical	107	2.07	-
2437MHz	Pass	AV	4.88246G	33.90	54.00	-20.10	6.68	3	Horizontal	139	1.35	-
2437MHz	Pass	PK	4.86128G	45.52	74.00	-28.48	6.63	3	Horizontal	139	1.35	-
2452MHz	Pass	AV	2.3704G	50.31	54.00	-3.69	30.63	3	Vertical	2	2.58	-
2452MHz	Pass	AV	2.4504G	106.54	Inf	-Inf	30.87	3	Vertical	2	2.58	-
2452MHz	Pass	AV	2.4912G	51.11	54.00	-2.89	30.99	3	Vertical	2	2.58	-
2452MHz	Pass	PK	2.3716G	61.30	74.00	-12.70	30.63	3	Vertical	2	2.58	-
2452MHz	Pass	PK	2.4504G	116.02	Inf	-Inf	30.87	3	Vertical	2	2.58	-
2452MHz	Pass	PK	2.488G	65.71	74.00	-8.29	30.98	3	Vertical	2	2.58	-
2452MHz	Pass	AV	2.37G	50.82	54.00	-3.18	30.63	3	Horizontal	337	1.50	-
2452MHz	Pass	AV	2.4476G	108.47	Inf	-Inf	30.86	3	Horizontal	337	1.50	-
2452MHz	Pass	AV	2.4848G	53.45	54.00	-0.55	30.97	3	Horizontal	337	1.50	-
2452MHz	Pass	PK	2.3708G	62.52	74.00	-11.48	30.63	3	Horizontal	337	1.50	-
2452MHz	Pass	PK	2.4468G	116.55	Inf	-Inf	30.86	3	Horizontal	337	1.50	-
2452MHz	Pass	PK	2.486G	66.59	74.00	-7.41	30.98	3	Horizontal	337	1.50	-
2457MHz	Pass	AV	2.4544G	106.18	Inf	-Inf	31.00	3	Vertical	171	2.03	-
2457MHz	Pass	AV	2.493G	50.49	54.00	-3.51	31.14	3	Vertical	171	2.03	-
2457MHz	Pass	PK	2.4534G	116.15	Inf	-Inf	31.00	3	Vertical	171	2.03	-
2457MHz	Pass	PK	2.4868G	65.92	74.00	-8.08	31.12	3	Vertical	171	2.03	-
2457MHz	Pass	AV	2.4612G	106.57	Inf	-Inf	31.03	3	Horizontal	341	1.45	-
2457MHz	Pass	AV	2.4835G	53.85	54.00	-0.15	31.11	3	Horizontal	341	1.45	-
2457MHz	Pass	PK	2.461G	116.71	Inf	-Inf	31.03	3	Horizontal	341	1.45	-
2457MHz	Pass	PK	2.4835G	69.89	74.00	-4.11	31.11	3	Horizontal	341	1.45	-
2462MHz	Pass	AV	2.4594G	102.75	Inf	-Inf	31.03	3	Vertical	189	2.99	-
2462MHz	Pass	AV	2.4835G	51.38	54.00	-2.62	31.11	3	Vertical	189	2.99	-
2462MHz	Pass	PK	2.4608G	112.19	Inf	-Inf	31.03	3	Vertical	189	2.99	-
2462MHz	Pass	PK	2.4836G	66.04	74.00	-7.96	31.11	3	Vertical	189	2.99	-
2462MHz	Pass	AV	2.4652G	103.79	Inf	-Inf	31.04	3	Horizontal	345	1.42	-
2462MHz	Pass	AV	2.4842G	53.21	54.00	-0.79	31.12	3	Horizontal	345	1.42	-
2462MHz	Pass	PK	2.4664G	113.80	Inf	-Inf	31.05	3	Horizontal	345	1.42	-
2462MHz	Pass	PK	2.4878G	66.86	74.00	-7.14	31.13	3	Horizontal	345	1.42	-
2462MHz	Pass	AV	4.92538G	29.15	54.00	-24.85	2.39	3	Vertical	274	1.83	-
2462MHz	Pass	PK	4.92514G	41.63	74.00	-32.37	2.39	3	Vertical	274	1.83	-
2462MHz	Pass	AV	4.92576G	29.20	54.00	-24.80	2.39	3	Horizontal	196	2.25	-
2462MHz	Pass	PK	4.92372G	41.80	74.00	-32.20	2.38	3	Horizontal	196	2.25	-

802.11n HT20_Nss1,(MCS0)_3TX

17/10/2018

2412MHz_TX

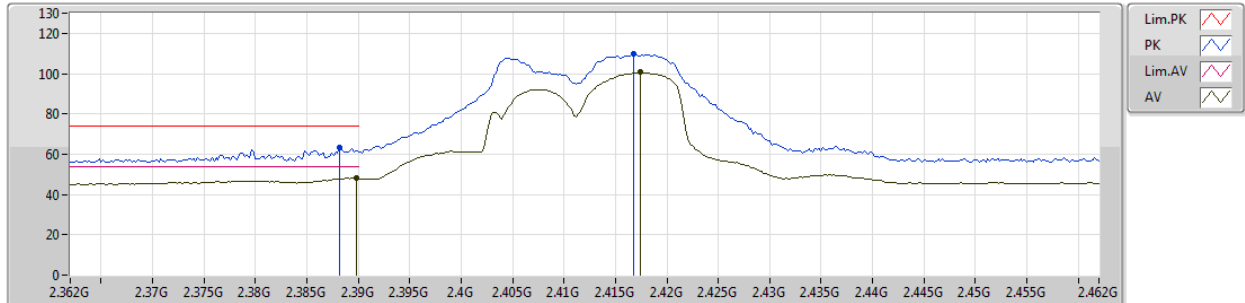


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	53.08	54.00	-0.92	30.77	3	Vertical	194	2.99	-
AV	2.4092G	100.01	Inf	-Inf	30.85	3	Vertical	194	2.99	-
PK	2.3894G	69.25	74.00	-4.75	30.77	3	Vertical	194	2.99	-
PK	2.4088G	109.60	Inf	-Inf	30.84	3	Vertical	194	2.99	-

802.11n HT20_Nss1,(MCS0)_3TX

17/10/2018

2412MHz_TX

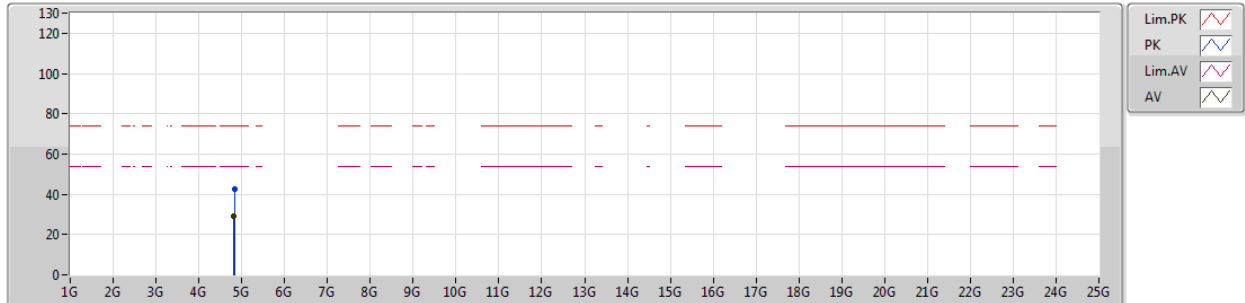


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	48.37	54.00	-5.63	30.77	3	Horizontal	335	1.70	-
AV	2.4174G	100.59	Inf	-Inf	30.87	3	Horizontal	335	1.70	-
PK	2.3882G	63.25	74.00	-10.75	30.77	3	Horizontal	335	1.70	-
PK	2.4168G	109.56	Inf	-Inf	30.87	3	Horizontal	335	1.70	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2412MHz_TX

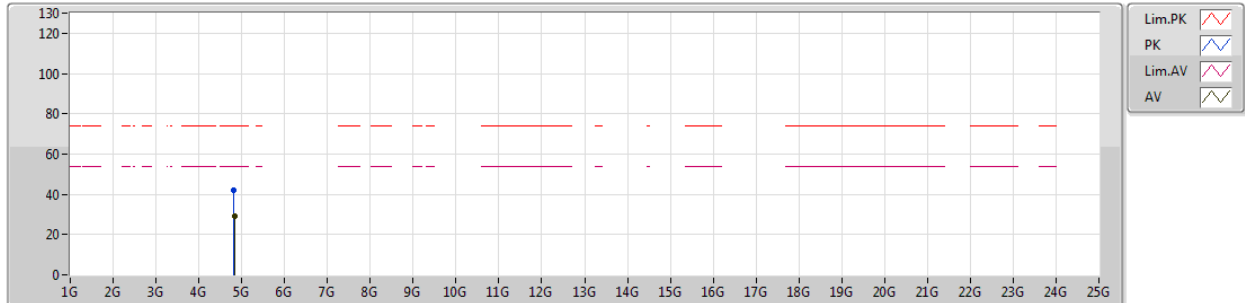


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82022G	28.92	54.00	-25.08	2.12	3	Vertical	78	1.65	-
PK	4.827G	42.54	74.00	-31.46	2.14	3	Vertical	78	1.65	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2412MHz_TX

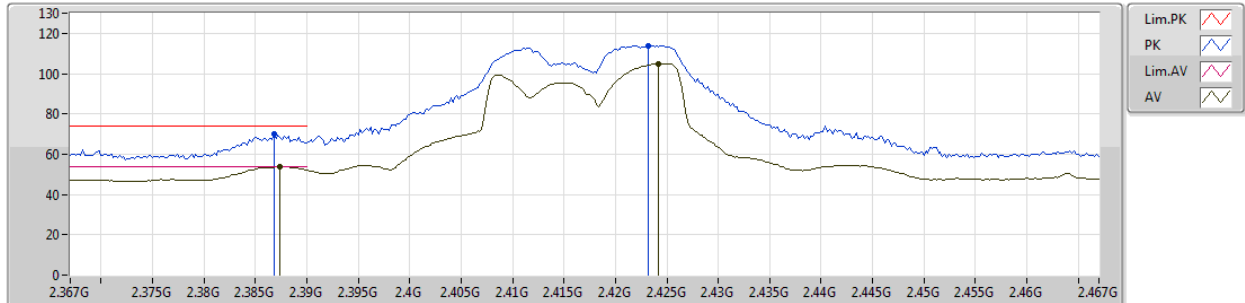


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments								
AV	4.82794G	29.03	54.00	-24.97	2.14	3	Horizontal	10	1.64	-								
PK	4.82348G	41.96	74.00	-32.04	2.13	3	Horizontal	10	1.64	-								

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2417MHz_TX

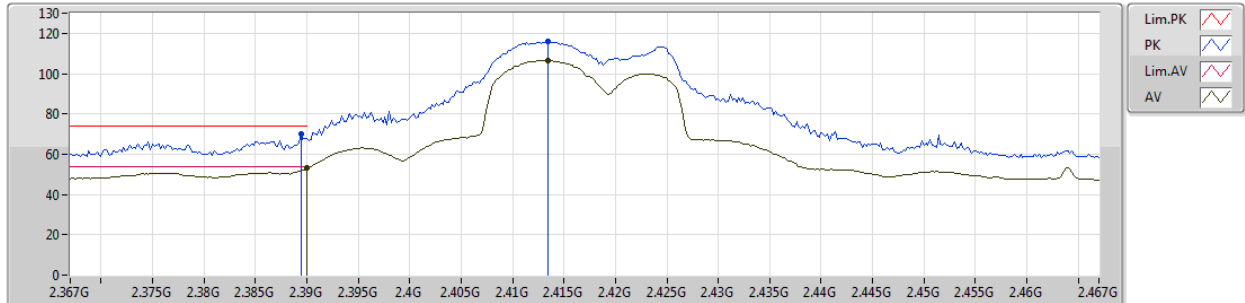


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3874G	53.81	54.00	-0.19	30.76	3	Vertical	159	1.31	-
AV	2.4242G	104.97	Inf	-Inf	30.90	3	Vertical	159	1.31	-
PK	2.3868G	70.23	74.00	-3.77	30.76	3	Vertical	159	1.31	-
PK	2.4232G	113.88	Inf	-Inf	30.89	3	Vertical	159	1.31	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2417MHz_TX

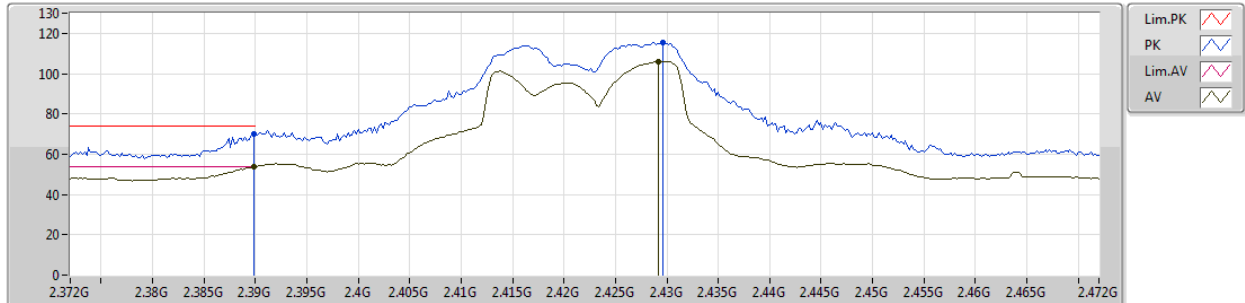


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	53.02	54.00	-0.98	30.77	3	Horizontal	307	1.48	-
AV	2.4134G	106.58	Inf	-Inf	30.86	3	Horizontal	307	1.48	-
PK	2.3894G	70.08	74.00	-3.92	30.77	3	Horizontal	307	1.48	-
PK	2.4134G	115.92	Inf	-Inf	30.86	3	Horizontal	307	1.48	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2422MHz_TX

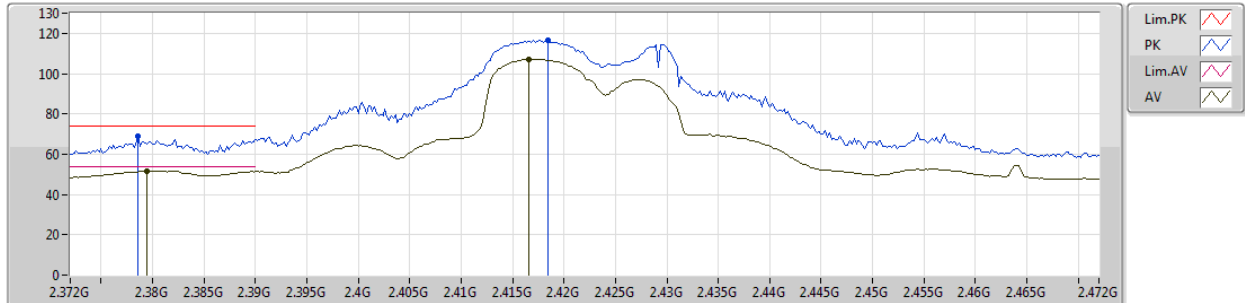


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	53.88	54.00	-0.12	30.77	3	Vertical	162	1.49	-
AV	2.4292G	106.01	Inf	-Inf	30.91	3	Vertical	162	1.49	-
PK	2.3898G	70.11	74.00	-3.89	30.77	3	Vertical	162	1.49	-
PK	2.4296G	115.35	Inf	-Inf	30.91	3	Vertical	162	1.49	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2422MHz_TX

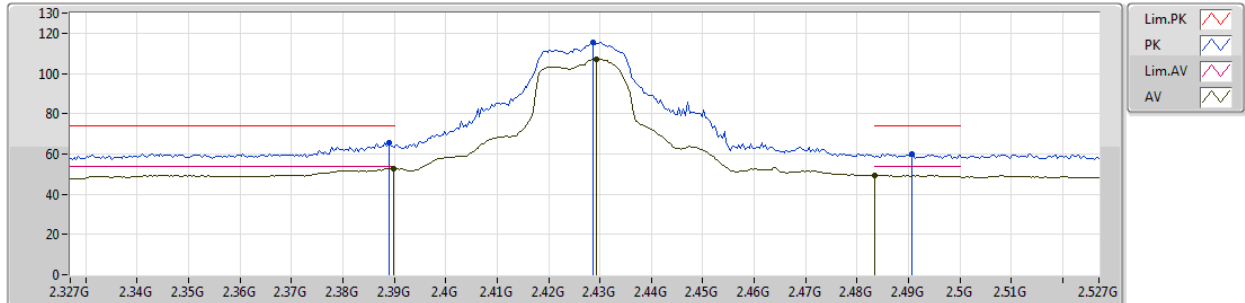


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3794G	51.79	54.00	-2.21	30.74	3	Horizontal	313	1.50	-
AV	2.4166G	107.21	Inf	-Inf	30.87	3	Horizontal	313	1.50	-
PK	2.3786G	68.70	74.00	-5.30	30.74	3	Horizontal	313	1.50	-
PK	2.4184G	116.57	Inf	-Inf	30.87	3	Horizontal	313	1.50	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

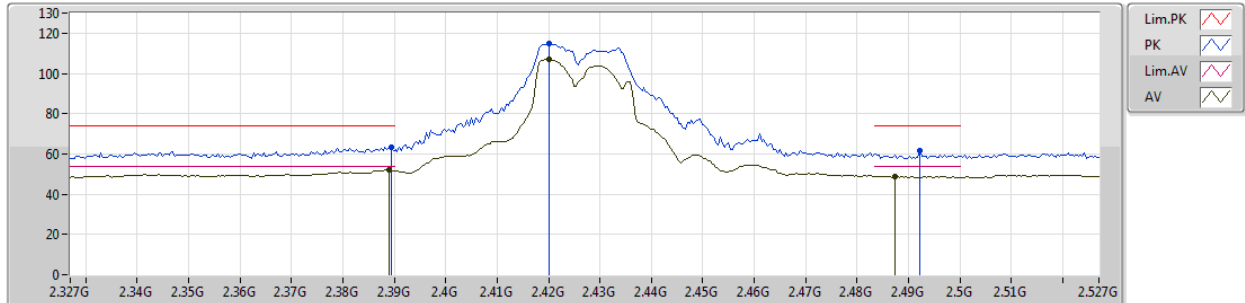
2427MHz_TX



802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2427MHz_TX

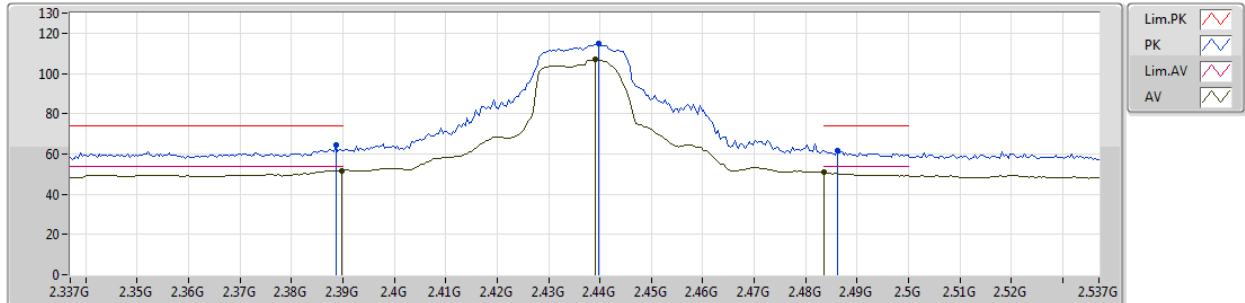


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389G	51.85	54.00	-2.15	30.68	3	Horizontal	320	1.90	-
AV	2.4202G	106.91	Inf	-Inf	30.78	3	Horizontal	320	1.90	-
AV	2.4874G	48.84	54.00	-5.16	30.98	3	Horizontal	320	1.90	-
PK	2.3894G	63.58	74.00	-10.42	30.68	3	Horizontal	320	1.90	-
PK	2.4202G	114.84	Inf	-Inf	30.78	3	Horizontal	320	1.90	-
PK	2.4922G	61.41	74.00	-12.59	30.99	3	Horizontal	320	1.90	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2437MHz_TX

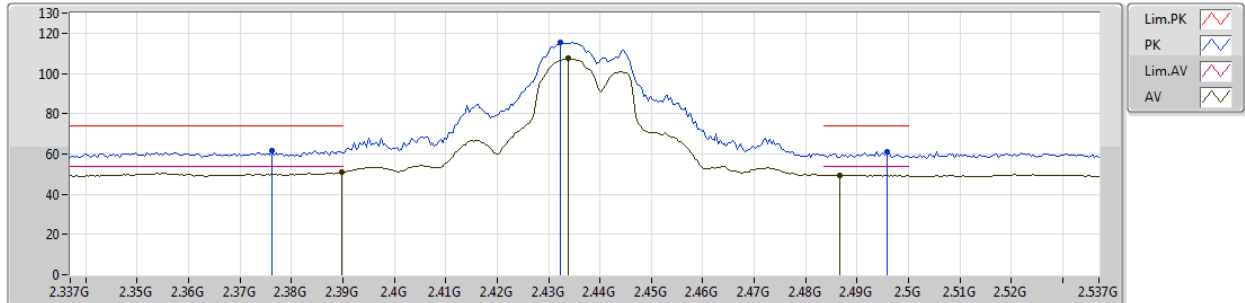


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	51.72	54.00	-2.28	30.69	3	Vertical	194	2.81	-
AV	2.439G	106.75	Inf	-Inf	30.83	3	Vertical	194	2.81	-
AV	2.4835G	50.90	54.00	-3.10	30.97	3	Vertical	194	2.81	-
PK	2.3886G	64.50	74.00	-9.50	30.68	3	Vertical	194	2.81	-
PK	2.4398G	115.02	Inf	-Inf	30.84	3	Vertical	194	2.81	-
PK	2.4862G	61.56	74.00	-12.44	30.98	3	Vertical	194	2.81	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2437MHz_TX

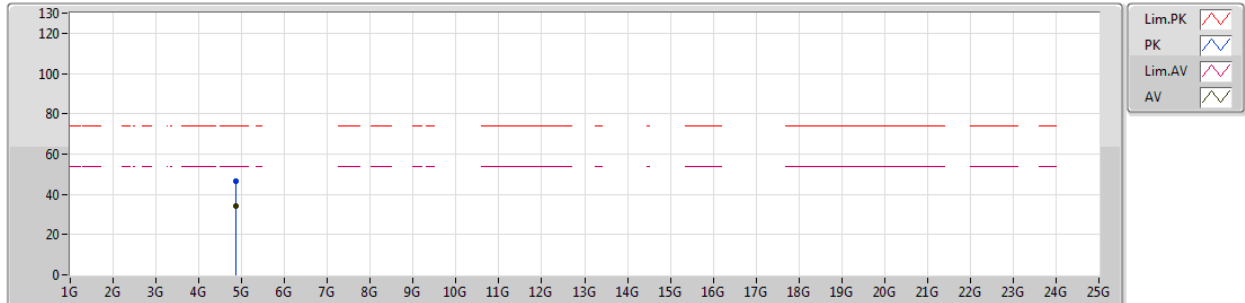


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	50.77	54.00	-3.23	30.69	3	Horizontal	325	1.31	-
AV	2.4338G	107.40	Inf	-Inf	30.82	3	Horizontal	325	1.31	-
AV	2.4866G	49.52	54.00	-4.48	30.98	3	Horizontal	325	1.31	-
PK	2.3762G	61.58	74.00	-12.42	30.64	3	Horizontal	325	1.31	-
PK	2.4322G	115.28	Inf	-Inf	30.82	3	Horizontal	325	1.31	-
PK	2.4958G	60.99	74.00	-13.01	31.00	3	Horizontal	325	1.31	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2437MHz_TX

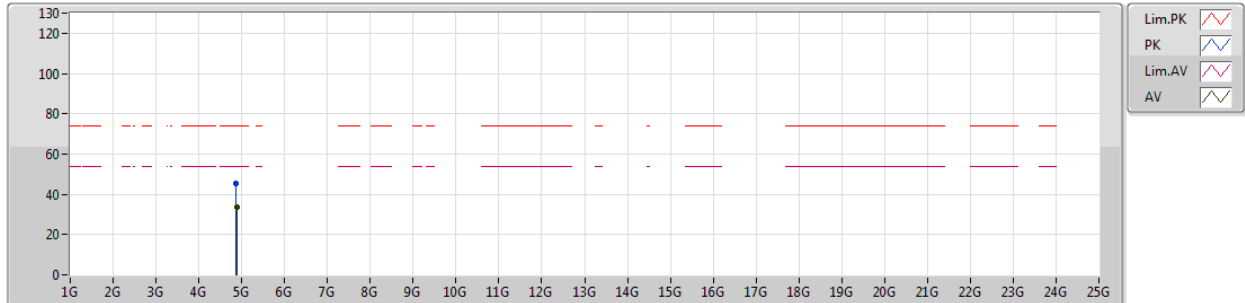


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87634G	34.28	54.00	-19.72	6.66	3	Vertical	107	2.07	-
PK	4.87662G	46.43	74.00	-27.57	6.67	3	Vertical	107	2.07	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2437MHz_TX

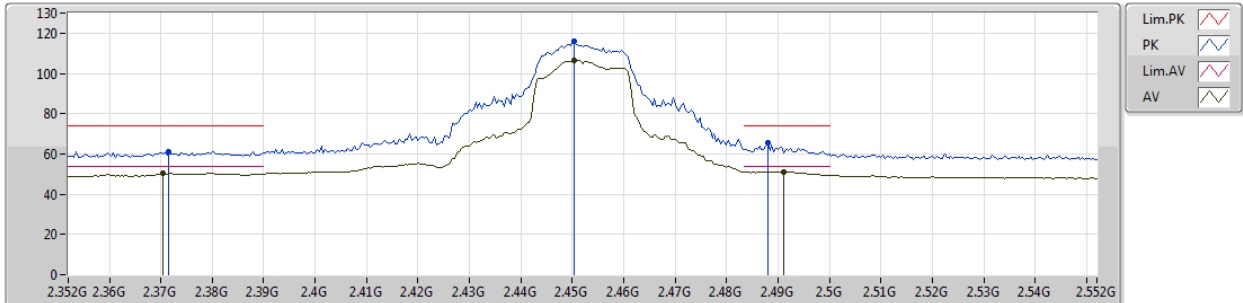


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.88246G	33.90	54.00	-20.10	6.68	3	Horizontal	139	1.35	-
PK	4.86128G	45.52	74.00	-28.48	6.63	3	Horizontal	139	1.35	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2452MHz_TX

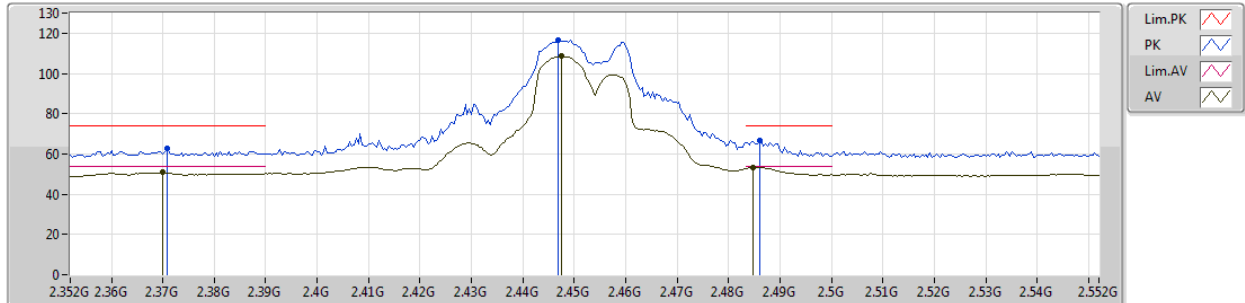


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3704G	50.31	54.00	-3.69	30.63	3	Vertical	2	2.58	-
AV	2.4504G	106.54	Inf	-Inf	30.87	3	Vertical	2	2.58	-
AV	2.4912G	51.11	54.00	-2.89	30.99	3	Vertical	2	2.58	-
PK	2.3716G	61.30	74.00	-12.70	30.63	3	Vertical	2	2.58	-
PK	2.4504G	116.02	Inf	-Inf	30.87	3	Vertical	2	2.58	-
PK	2.488G	65.71	74.00	-8.29	30.98	3	Vertical	2	2.58	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2452MHz_TX

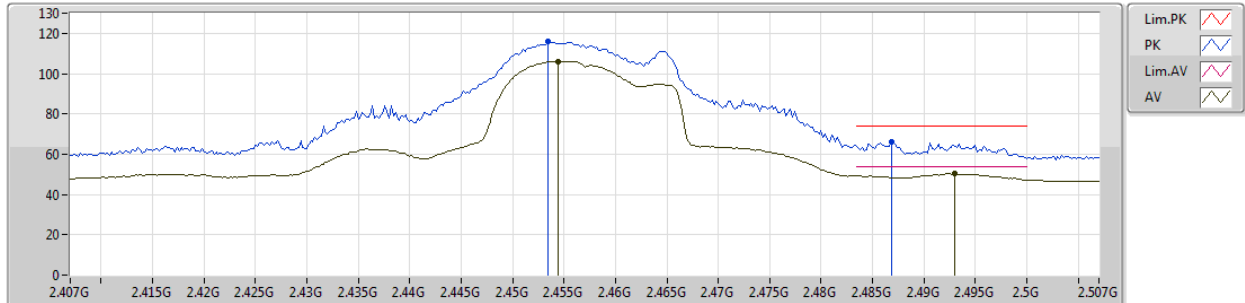


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.37G	50.82	54.00	-3.18	30.63	3	Horizontal	337	1.50	-
AV	2.4476G	108.47	Inf	-Inf	30.86	3	Horizontal	337	1.50	-
AV	2.4848G	53.45	54.00	-0.55	30.97	3	Horizontal	337	1.50	-
PK	2.3708G	62.52	74.00	-11.48	30.63	3	Horizontal	337	1.50	-
PK	2.4468G	116.55	Inf	-Inf	30.86	3	Horizontal	337	1.50	-
PK	2.486G	66.59	74.00	-7.41	30.98	3	Horizontal	337	1.50	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2457MHz_TX

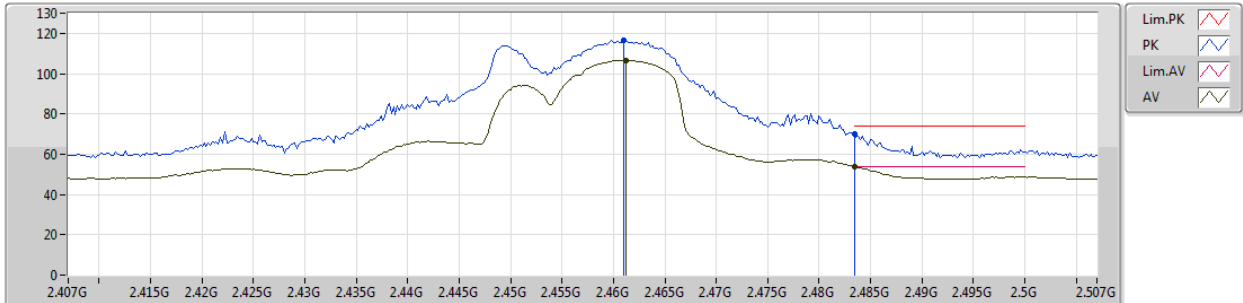


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4544G	106.18	Inf	-Inf	31.00	3	Vertical	171	2.03	-
AV	2.493G	50.49	54.00	-3.51	31.14	3	Vertical	171	2.03	-
PK	2.4534G	116.15	Inf	-Inf	31.00	3	Vertical	171	2.03	-
PK	2.4868G	65.92	74.00	-8.08	31.12	3	Vertical	171	2.03	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2457MHz_TX

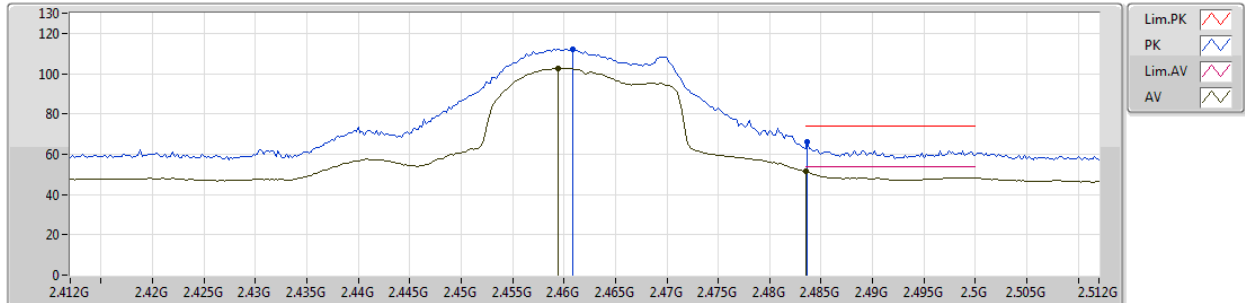


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	106.57	Inf	-Inf	31.03	3	Horizontal	341	1.45	-
AV	2.4835G	53.85	54.00	-0.15	31.11	3	Horizontal	341	1.45	-
PK	2.461G	116.71	Inf	-Inf	31.03	3	Horizontal	341	1.45	-
PK	2.4835G	69.89	74.00	-4.11	31.11	3	Horizontal	341	1.45	-

802.11n HT20_Nss1,(MCS0)_3TX

17/10/2018

2462MHz_TX

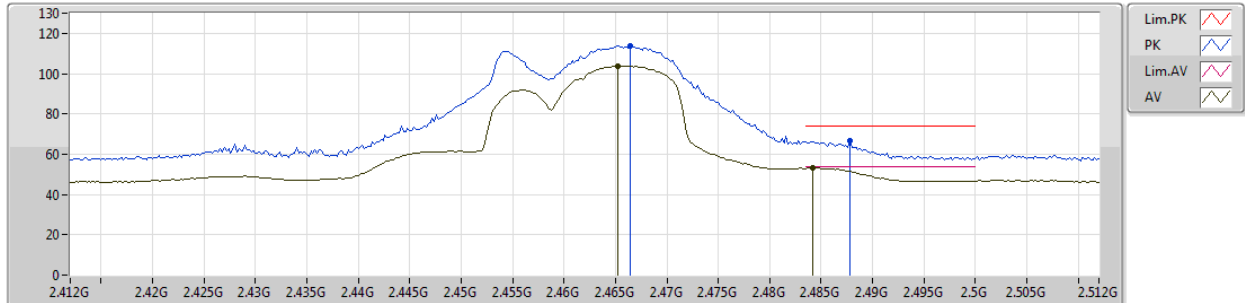


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4594G	102.75	Inf	-Inf	31.03	3	Vertical	189	2.99	-
AV	2.4835G	51.38	54.00	-2.62	31.11	3	Vertical	189	2.99	-
PK	2.4608G	112.19	Inf	-Inf	31.03	3	Vertical	189	2.99	-
PK	2.4836G	66.04	74.00	-7.96	31.11	3	Vertical	189	2.99	-

802.11n HT20_Nss1,(MCS0)_3TX

17/10/2018

2462MHz_TX

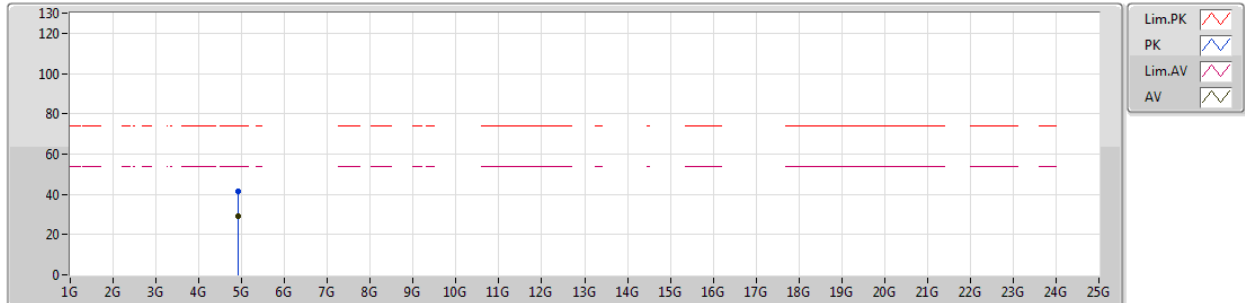


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4652G	103.79	Inf	-Inf	31.04	3	Horizontal	345	1.42	-
AV	2.4842G	53.21	54.00	-0.79	31.12	3	Horizontal	345	1.42	-
PK	2.4664G	113.80	Inf	-Inf	31.05	3	Horizontal	345	1.42	-
PK	2.4878G	66.86	74.00	-7.14	31.13	3	Horizontal	345	1.42	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2462MHz_TX

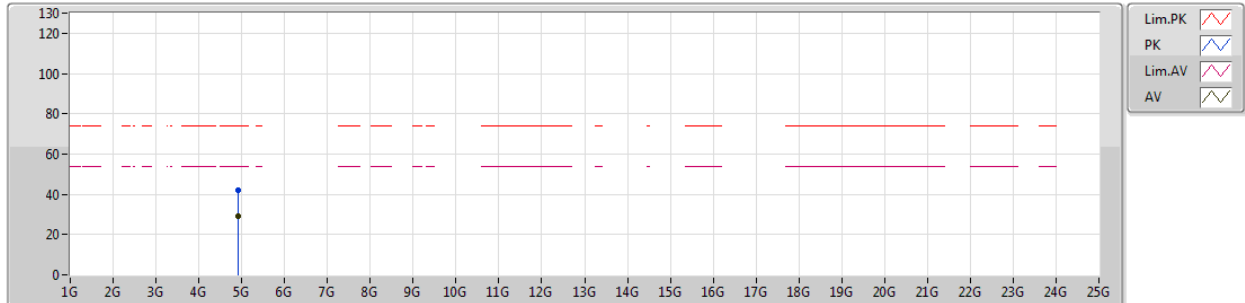


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92538G	29.15	54.00	-24.85	2.39	3	Vertical	274	1.83	-
PK	4.92514G	41.63	74.00	-32.37	2.39	3	Vertical	274	1.83	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92576G	29.20	54.00	-24.80	2.39	3	Horizontal	196	2.25	-
PK	4.92372G	41.80	74.00	-32.20	2.38	3	Horizontal	196	2.25	-

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_3TX	17.55M	18.241M	18M2D1D	16.025M	17.591M

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;

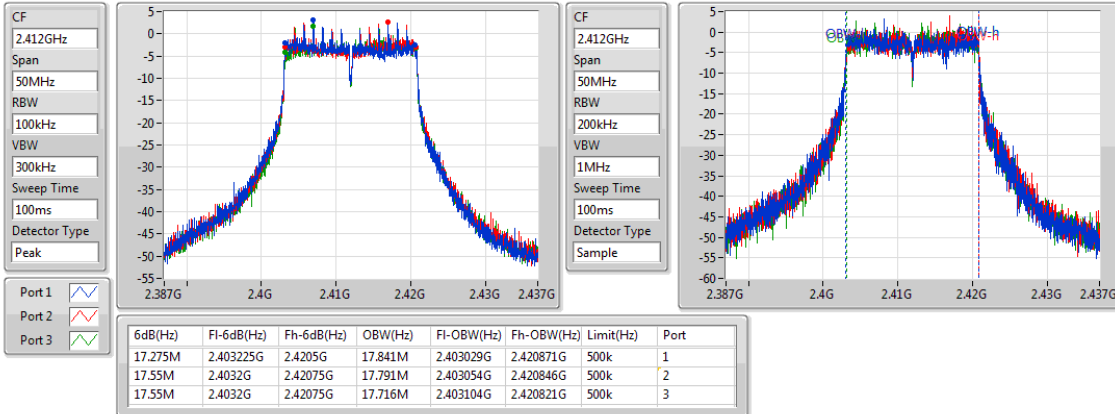
Result

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)
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.275M	17.841M	17.55M	17.791M	17.55M	17.716M
2437MHz	Pass	500k	16.65M	18.241M	16.35M	18.091M	16.95M	18.141M
2462MHz	Pass	500k	16.025M	17.591M	16.95M	17.791M	17.55M	17.716M

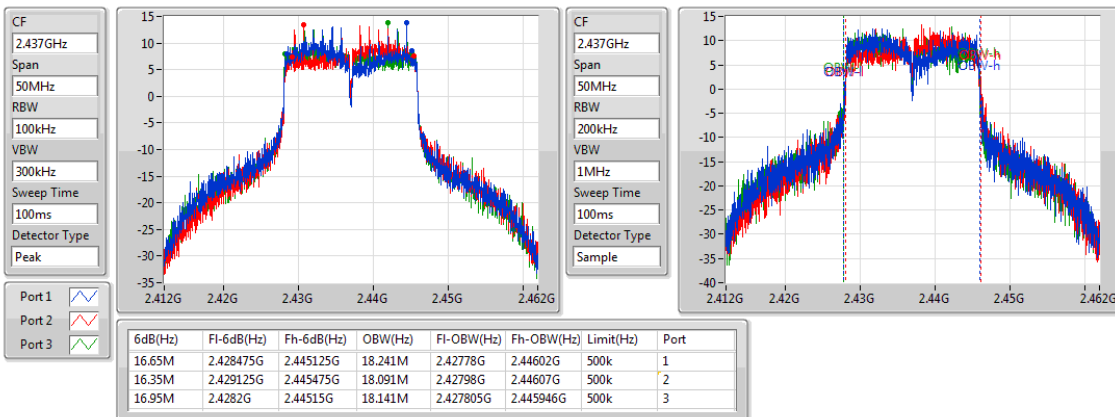
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11n HT20_Nss1,(MCS0)_3TX
EBW
2412MHz

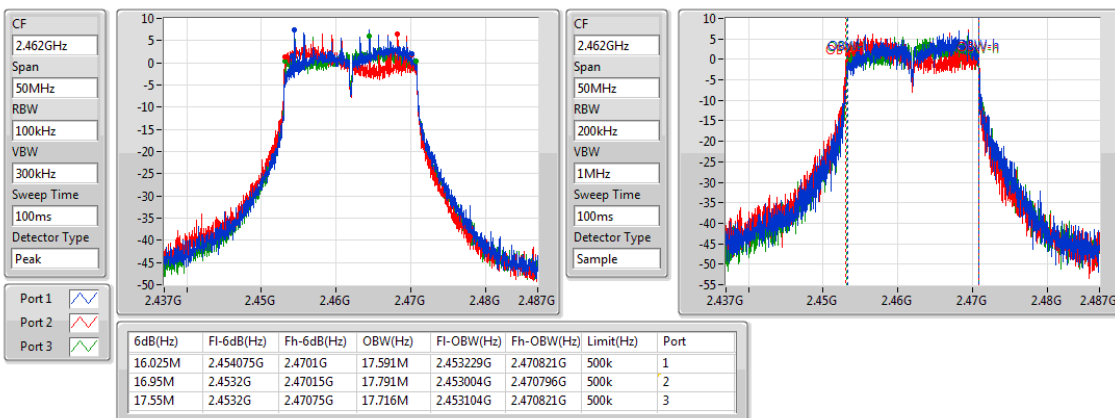
19/10/2018


802.11n HT20_Nss1,(MCS0)_3TX
EBW
2437MHz

19/10/2018


802.11n HT20_Nss1,(MCS0)_3TX
EBW
2462MHz

19/10/2018



**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11n HT20_Nss1,(MCS0)_3TX	26.36	0.43251

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	1.90	12.83	13.11	13.01	17.76	30.00
2417MHz	Pass	1.90	19.68	19.76	19.78	24.51	30.00
2422MHz	Pass	1.90	20.74	21.60	21.45	26.05	30.00
2427MHz	Pass	1.90	21.13	21.55	21.44	26.15	30.00
2437MHz	Pass	1.90	21.03	21.99	21.69	26.36	30.00
2452MHz	Pass	1.90	21.20	21.42	21.83	26.26	30.00
2457MHz	Pass	1.90	20.15	20.80	20.75	25.35	30.00
2462MHz	Pass	1.90	17.43	16.54	16.91	21.75	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	-
802.11n HT20_Nss1,(MCS0)_3TX	-1.69

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)
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	6.67	-12.32	-11.34	-11.50	-9.95	7.33
2437MHz	Pass	6.67	-4.32	-4.90	-3.91	-1.69	7.33
2462MHz	Pass	6.67	-8.24	-8.92	-7.91	-6.36	7.33

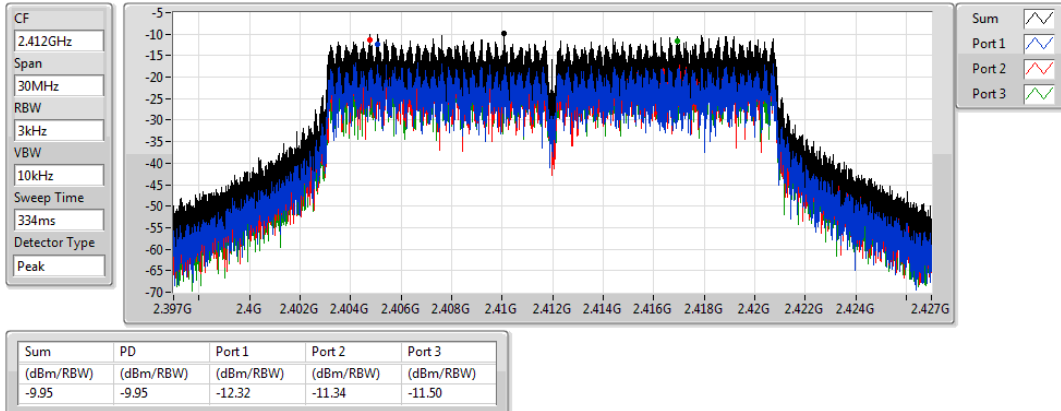
DG = Directional Gain; RBW=3kHz;**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

802.11n HT20_Nss1,(MCS0)_3TX

PSD

2412MHz

19/10/2018

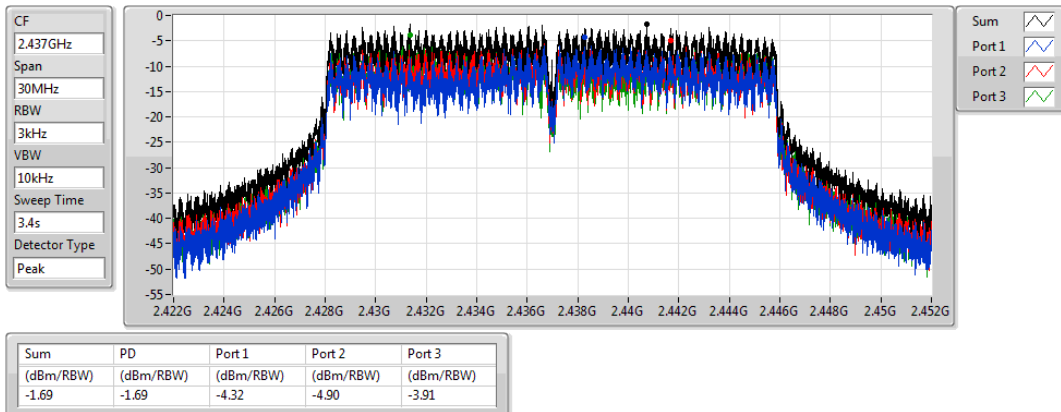


802.11n HT20_Nss1,(MCS0)_3TX

PSD

2437MHz

23/11/2018

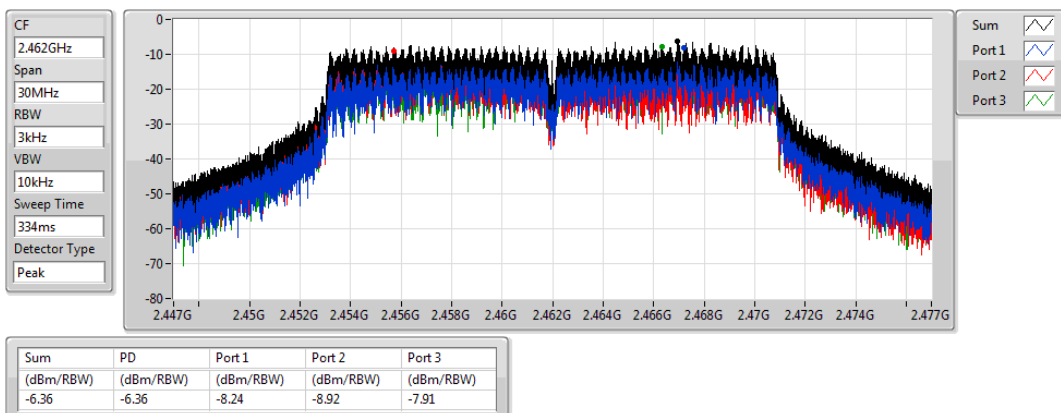


802.11n HT20_Nss1,(MCS0)_3TX

PSD

2462MHz

19/10/2018



**Summary**

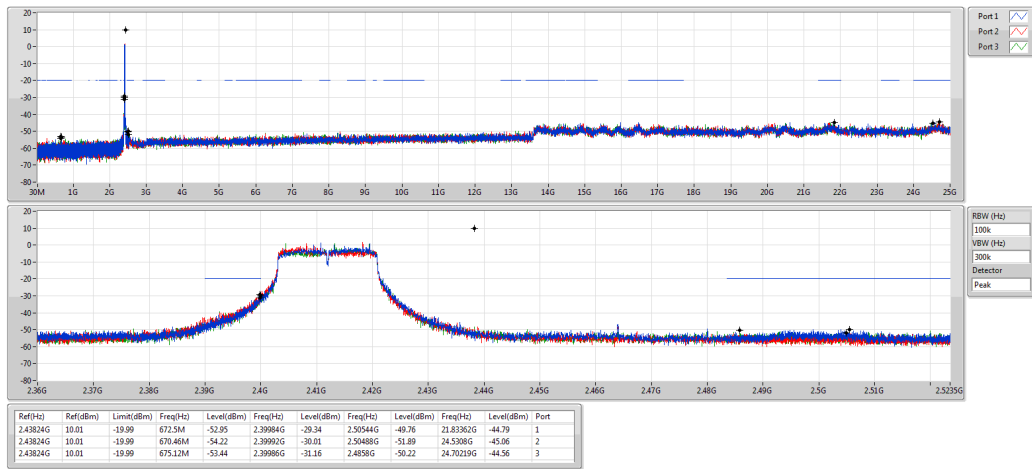
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_3TX	Pass	2.43824G	10.01	-19.99	672.5M	-52.95	2.39984G	-29.34	2.50544G	-49.76	21.83362G	-44.79	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43824G	10.01	-19.99	672.5M	-52.95	2.39984G	-29.34	2.50544G	-49.76	21.83362G	-44.79	1
2412MHz	Pass	2.43824G	10.01	-19.99	670.46M	-54.22	2.39992G	-30.01	2.50488G	-51.89	24.5308G	-45.06	2
2412MHz	Pass	2.43824G	10.01	-19.99	675.12M	-53.44	2.39986G	-31.16	2.4858G	-50.22	24.70219G	-44.56	3
2437MHz	Pass	2.43824G	10.01	-19.99	700.17M	-38.46	2.39864G	-43.96	2.51998G	-46.32	24.66847G	-43.80	1
2437MHz	Pass	2.43824G	10.01	-19.99	698.13M	-38.63	2.39766G	-44.23	2.48436G	-47.47	21.65943G	-44.40	2
2437MHz	Pass	2.43824G	10.01	-19.99	698.42M	-37.54	2.397G	-42.07	2.48954G	-46.16	21.74653G	-44.79	3
2462MHz	Pass	2.43824G	10.01	-19.99	718.81M	-47.86	2.39786G	-48.90	2.48416G	-43.67	21.76057G	-44.78	1
2462MHz	Pass	2.43824G	10.01	-19.99	722.59M	-48.07	2.39678G	-49.08	2.4836G	-43.04	24.52237G	-44.55	2
2462MHz	Pass	2.43824G	10.01	-19.99	724.34M	-48.34	2.3989G	-48.18	2.48388G	-45.12	14.25623G	-45.40	3

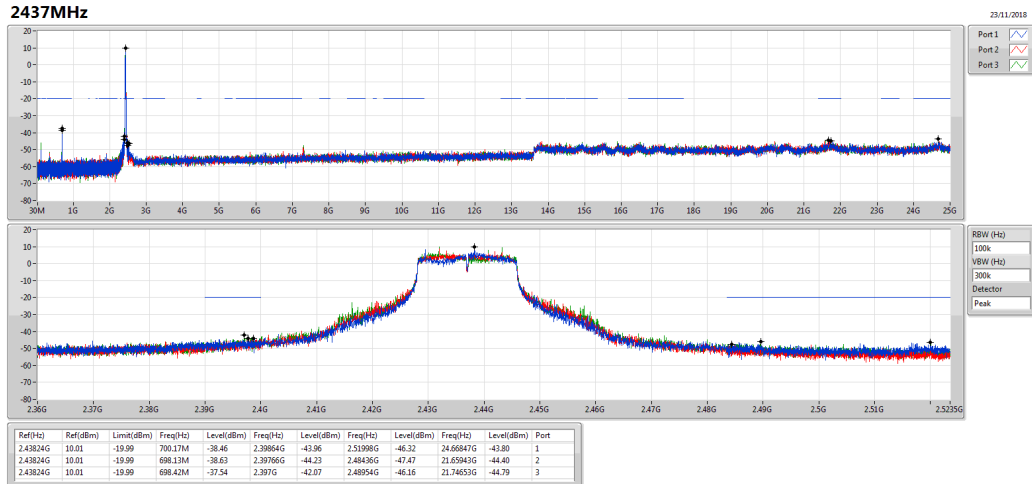
802.11n HT20_Nss1,(MCS0)_3TX 2412MHz

CSE NdB



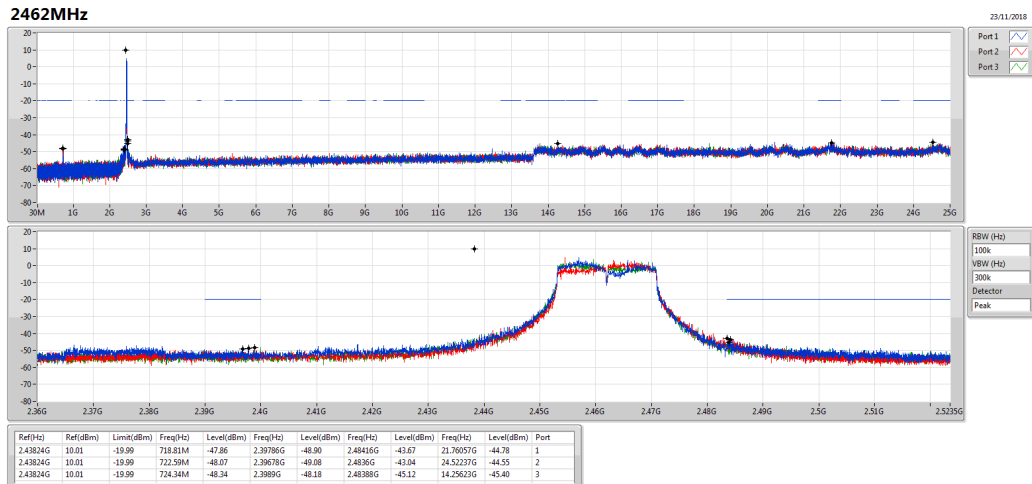
802.11n HT20_Nss1,(MCS0)_3TX 2437MHz

CSE NdB



802.11n HT20_Nss1,(MCS0)_3TX 2462MHz

CSE NdB





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_3TX	Pass	AV	2.3898G	53.88	54.00	-0.12	30.77	3	Vertical	162	1.49	-

**Result**

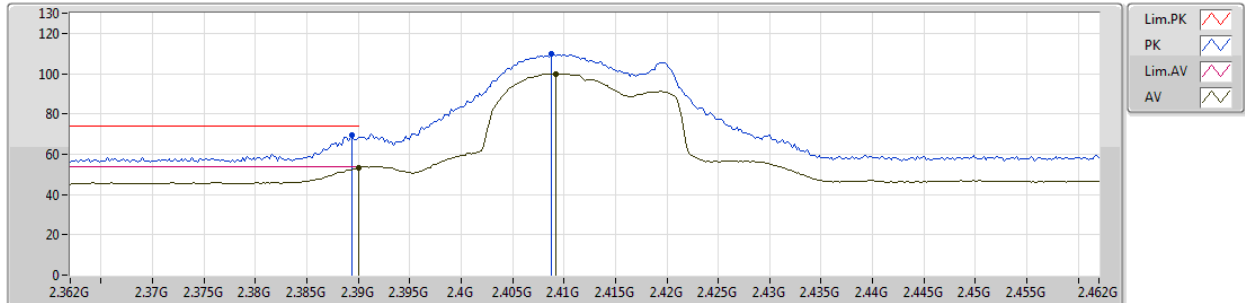
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11n HT20_Nss1 ₁ (MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	53.08	54.00	-0.92	30.77	3	Vertical	194	2.99	-
2412MHz	Pass	AV	2.4092G	100.01	Inf	-Inf	30.85	3	Vertical	194	2.99	-
2412MHz	Pass	PK	2.3894G	69.25	74.00	-4.75	30.77	3	Vertical	194	2.99	-
2412MHz	Pass	PK	2.4088G	109.60	Inf	-Inf	30.84	3	Vertical	194	2.99	-
2412MHz	Pass	AV	2.3898G	48.37	54.00	-5.63	30.77	3	Horizontal	335	1.70	-
2412MHz	Pass	AV	2.4174G	100.59	Inf	-Inf	30.87	3	Horizontal	335	1.70	-
2412MHz	Pass	PK	2.3882G	63.25	74.00	-10.75	30.77	3	Horizontal	335	1.70	-
2412MHz	Pass	PK	2.4168G	109.56	Inf	-Inf	30.87	3	Horizontal	335	1.70	-
2412MHz	Pass	AV	4.82022G	28.92	54.00	-25.08	2.12	3	Vertical	78	1.65	-
2412MHz	Pass	PK	4.827G	42.54	74.00	-31.46	2.14	3	Vertical	78	1.65	-
2412MHz	Pass	AV	4.82794G	29.03	54.00	-24.97	2.14	3	Horizontal	10	1.64	-
2412MHz	Pass	PK	4.82348G	41.96	74.00	-32.04	2.13	3	Horizontal	10	1.64	-
2417MHz	Pass	AV	2.3874G	53.81	54.00	-0.19	30.76	3	Vertical	159	1.31	-
2417MHz	Pass	AV	2.4242G	104.97	Inf	-Inf	30.90	3	Vertical	159	1.31	-
2417MHz	Pass	PK	2.3868G	70.23	74.00	-3.77	30.76	3	Vertical	159	1.31	-
2417MHz	Pass	PK	2.4232G	113.88	Inf	-Inf	30.89	3	Vertical	159	1.31	-
2417MHz	Pass	AV	2.39G	53.02	54.00	-0.98	30.77	3	Horizontal	307	1.48	-
2417MHz	Pass	AV	2.4134G	106.58	Inf	-Inf	30.86	3	Horizontal	307	1.48	-
2417MHz	Pass	PK	2.3894G	70.08	74.00	-3.92	30.77	3	Horizontal	307	1.48	-
2417MHz	Pass	PK	2.4134G	115.92	Inf	-Inf	30.86	3	Horizontal	307	1.48	-
2422MHz	Pass	AV	2.3898G	53.88	54.00	-0.12	30.77	3	Vertical	162	1.49	-
2422MHz	Pass	AV	2.4292G	106.01	Inf	-Inf	30.91	3	Vertical	162	1.49	-
2422MHz	Pass	PK	2.3898G	70.11	74.00	-3.89	30.77	3	Vertical	162	1.49	-
2422MHz	Pass	PK	2.4296G	115.35	Inf	-Inf	30.91	3	Vertical	162	1.49	-
2422MHz	Pass	AV	2.3794G	51.79	54.00	-2.21	30.74	3	Horizontal	313	1.50	-
2422MHz	Pass	AV	2.4166G	107.21	Inf	-Inf	30.87	3	Horizontal	313	1.50	-
2422MHz	Pass	PK	2.3786G	68.70	74.00	-5.30	30.74	3	Horizontal	313	1.50	-
2422MHz	Pass	PK	2.4184G	116.57	Inf	-Inf	30.87	3	Horizontal	313	1.50	-
2427MHz	Pass	AV	2.3898G	52.71	54.00	-1.29	30.69	3	Vertical	187	2.34	-
2427MHz	Pass	AV	2.4294G	106.94	Inf	-Inf	30.81	3	Vertical	187	2.34	-
2427MHz	Pass	AV	2.4835G	49.28	54.00	-4.72	30.97	3	Vertical	187	2.34	-
2427MHz	Pass	PK	2.389G	65.58	74.00	-8.42	30.68	3	Vertical	187	2.34	-
2427MHz	Pass	PK	2.4286G	115.46	Inf	-Inf	30.81	3	Vertical	187	2.34	-
2427MHz	Pass	PK	2.4906G	59.99	74.00	-14.01	30.99	3	Vertical	187	2.34	-
2427MHz	Pass	AV	2.389G	51.85	54.00	-2.15	30.68	3	Horizontal	320	1.90	-
2427MHz	Pass	AV	2.4202G	106.91	Inf	-Inf	30.78	3	Horizontal	320	1.90	-
2427MHz	Pass	AV	2.4874G	48.84	54.00	-5.16	30.98	3	Horizontal	320	1.90	-
2427MHz	Pass	PK	2.3894G	63.58	74.00	-10.42	30.68	3	Horizontal	320	1.90	-
2427MHz	Pass	PK	2.4202G	114.84	Inf	-Inf	30.78	3	Horizontal	320	1.90	-
2427MHz	Pass	PK	2.4922G	61.41	74.00	-12.59	30.99	3	Horizontal	320	1.90	-
2437MHz	Pass	AV	2.3898G	51.72	54.00	-2.28	30.69	3	Vertical	194	2.81	-
2437MHz	Pass	AV	2.439G	106.75	Inf	-Inf	30.83	3	Vertical	194	2.81	-
2437MHz	Pass	AV	2.4835G	50.90	54.00	-3.10	30.97	3	Vertical	194	2.81	-
2437MHz	Pass	PK	2.3886G	64.50	74.00	-9.50	30.68	3	Vertical	194	2.81	-
2437MHz	Pass	PK	2.4398G	115.02	Inf	-Inf	30.84	3	Vertical	194	2.81	-
2437MHz	Pass	PK	2.4862G	61.56	74.00	-12.44	30.98	3	Vertical	194	2.81	-
2437MHz	Pass	AV	2.3898G	50.77	54.00	-3.23	30.69	3	Horizontal	325	1.31	-

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	2.4338G	107.40	Inf	-Inf	30.82	3	Horizontal	325	1.31	-
2437MHz	Pass	AV	2.4866G	49.52	54.00	-4.48	30.98	3	Horizontal	325	1.31	-
2437MHz	Pass	PK	2.3762G	61.58	74.00	-12.42	30.64	3	Horizontal	325	1.31	-
2437MHz	Pass	PK	2.4322G	115.28	Inf	-Inf	30.82	3	Horizontal	325	1.31	-
2437MHz	Pass	PK	2.4958G	60.99	74.00	-13.01	31.00	3	Horizontal	325	1.31	-
2437MHz	Pass	AV	4.87634G	34.28	54.00	-19.72	6.66	3	Vertical	107	2.07	-
2437MHz	Pass	PK	4.87662G	46.43	74.00	-27.57	6.67	3	Vertical	107	2.07	-
2437MHz	Pass	AV	4.88246G	33.90	54.00	-20.10	6.68	3	Horizontal	139	1.35	-
2437MHz	Pass	PK	4.86128G	45.52	74.00	-28.48	6.63	3	Horizontal	139	1.35	-
2452MHz	Pass	AV	2.3704G	50.31	54.00	-3.69	30.63	3	Vertical	2	2.58	-
2452MHz	Pass	AV	2.4504G	106.54	Inf	-Inf	30.87	3	Vertical	2	2.58	-
2452MHz	Pass	AV	2.4912G	51.11	54.00	-2.89	30.99	3	Vertical	2	2.58	-
2452MHz	Pass	PK	2.3716G	61.30	74.00	-12.70	30.63	3	Vertical	2	2.58	-
2452MHz	Pass	PK	2.4504G	116.02	Inf	-Inf	30.87	3	Vertical	2	2.58	-
2452MHz	Pass	PK	2.488G	65.71	74.00	-8.29	30.98	3	Vertical	2	2.58	-
2452MHz	Pass	AV	2.37G	50.82	54.00	-3.18	30.63	3	Horizontal	337	1.50	-
2452MHz	Pass	AV	2.4476G	108.47	Inf	-Inf	30.86	3	Horizontal	337	1.50	-
2452MHz	Pass	AV	2.4848G	53.45	54.00	-0.55	30.97	3	Horizontal	337	1.50	-
2452MHz	Pass	PK	2.3708G	62.52	74.00	-11.48	30.63	3	Horizontal	337	1.50	-
2452MHz	Pass	PK	2.4468G	116.55	Inf	-Inf	30.86	3	Horizontal	337	1.50	-
2452MHz	Pass	PK	2.486G	66.59	74.00	-7.41	30.98	3	Horizontal	337	1.50	-
2457MHz	Pass	AV	2.4544G	106.18	Inf	-Inf	31.00	3	Vertical	171	2.03	-
2457MHz	Pass	AV	2.493G	50.49	54.00	-3.51	31.14	3	Vertical	171	2.03	-
2457MHz	Pass	PK	2.4534G	116.15	Inf	-Inf	31.00	3	Vertical	171	2.03	-
2457MHz	Pass	PK	2.4868G	65.92	74.00	-8.08	31.12	3	Vertical	171	2.03	-
2457MHz	Pass	AV	2.4612G	106.57	Inf	-Inf	31.03	3	Horizontal	341	1.45	-
2457MHz	Pass	AV	2.4835G	53.85	54.00	-0.15	31.11	3	Horizontal	341	1.45	-
2457MHz	Pass	PK	2.461G	116.71	Inf	-Inf	31.03	3	Horizontal	341	1.45	-
2457MHz	Pass	PK	2.4835G	69.89	74.00	-4.11	31.11	3	Horizontal	341	1.45	-
2462MHz	Pass	AV	2.4594G	102.75	Inf	-Inf	31.03	3	Vertical	189	2.99	-
2462MHz	Pass	AV	2.4835G	51.38	54.00	-2.62	31.11	3	Vertical	189	2.99	-
2462MHz	Pass	PK	2.4608G	112.19	Inf	-Inf	31.03	3	Vertical	189	2.99	-
2462MHz	Pass	PK	2.4836G	66.04	74.00	-7.96	31.11	3	Vertical	189	2.99	-
2462MHz	Pass	AV	2.4652G	103.79	Inf	-Inf	31.04	3	Horizontal	345	1.42	-
2462MHz	Pass	AV	2.4842G	53.21	54.00	-0.79	31.12	3	Horizontal	345	1.42	-
2462MHz	Pass	PK	2.4664G	113.80	Inf	-Inf	31.05	3	Horizontal	345	1.42	-
2462MHz	Pass	PK	2.4878G	66.86	74.00	-7.14	31.13	3	Horizontal	345	1.42	-
2462MHz	Pass	AV	4.92538G	29.15	54.00	-24.85	2.39	3	Vertical	274	1.83	-
2462MHz	Pass	PK	4.92514G	41.63	74.00	-32.37	2.39	3	Vertical	274	1.83	-
2462MHz	Pass	AV	4.92576G	29.20	54.00	-24.80	2.39	3	Horizontal	196	2.25	-
2462MHz	Pass	PK	4.92372G	41.80	74.00	-32.20	2.38	3	Horizontal	196	2.25	-

802.11n HT20_Nss1,(MCS0)_3TX

17/10/2018

2412MHz_TX

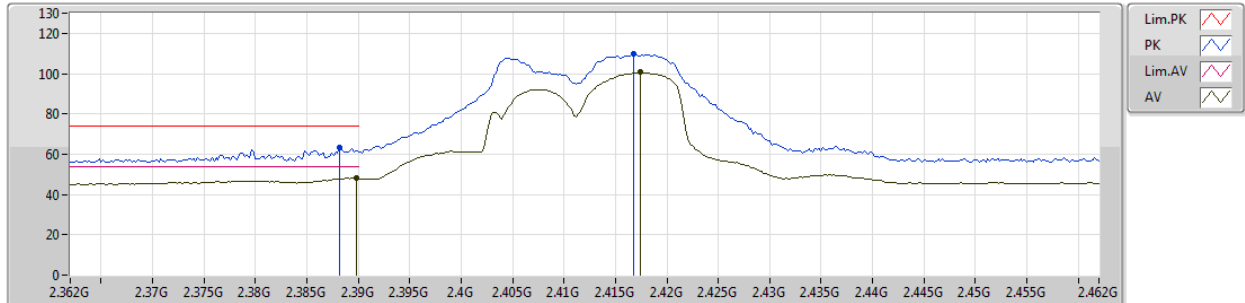


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	53.08	54.00	-0.92	30.77	3	Vertical	194	2.99	-
AV	2.4092G	100.01	Inf	-Inf	30.85	3	Vertical	194	2.99	-
PK	2.3894G	69.25	74.00	-4.75	30.77	3	Vertical	194	2.99	-
PK	2.4088G	109.60	Inf	-Inf	30.84	3	Vertical	194	2.99	-

802.11n HT20_Nss1,(MCS0)_3TX

17/10/2018

2412MHz_TX

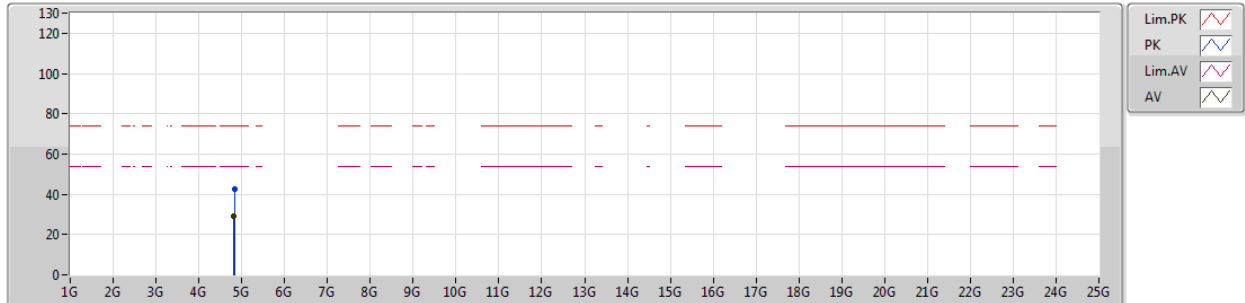


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	48.37	54.00	-5.63	30.77	3	Horizontal	335	1.70	-
AV	2.4174G	100.59	Inf	-Inf	30.87	3	Horizontal	335	1.70	-
PK	2.3882G	63.25	74.00	-10.75	30.77	3	Horizontal	335	1.70	-
PK	2.4168G	109.56	Inf	-Inf	30.87	3	Horizontal	335	1.70	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2412MHz_TX

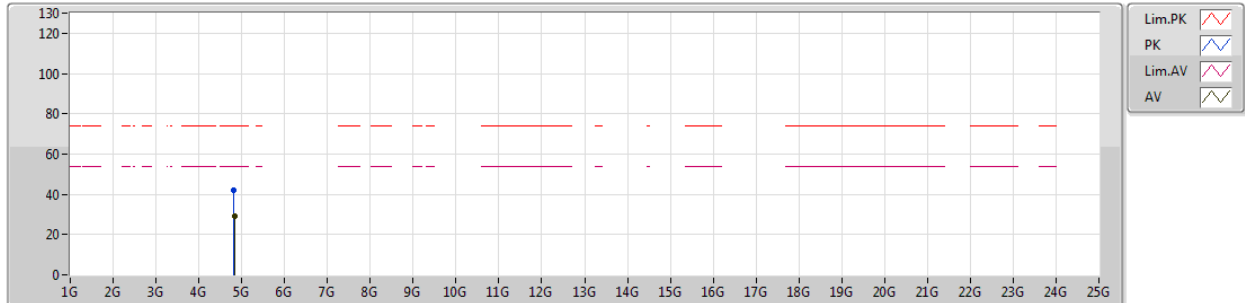


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82022G	28.92	54.00	-25.08	2.12	3	Vertical	78	1.65	-
PK	4.827G	42.54	74.00	-31.46	2.14	3	Vertical	78	1.65	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2412MHz_TX

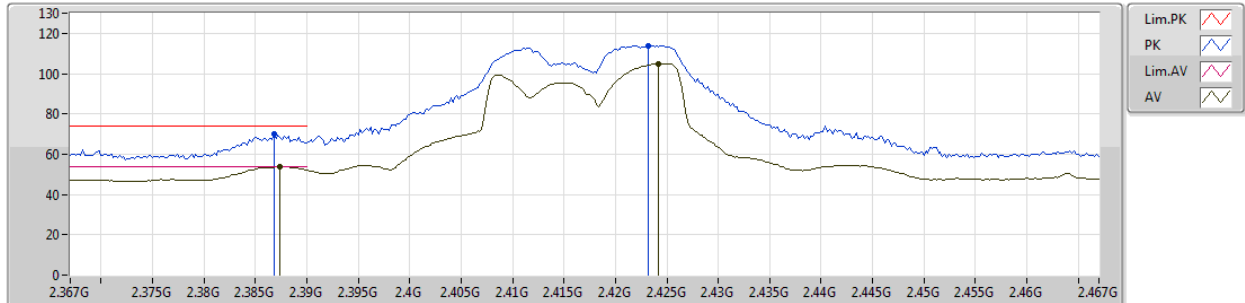


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.82794G	29.03	54.00	-24.97	2.14	3	Horizontal	10	1.64	-
PK	4.82348G	41.96	74.00	-32.04	2.13	3	Horizontal	10	1.64	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2417MHz_TX

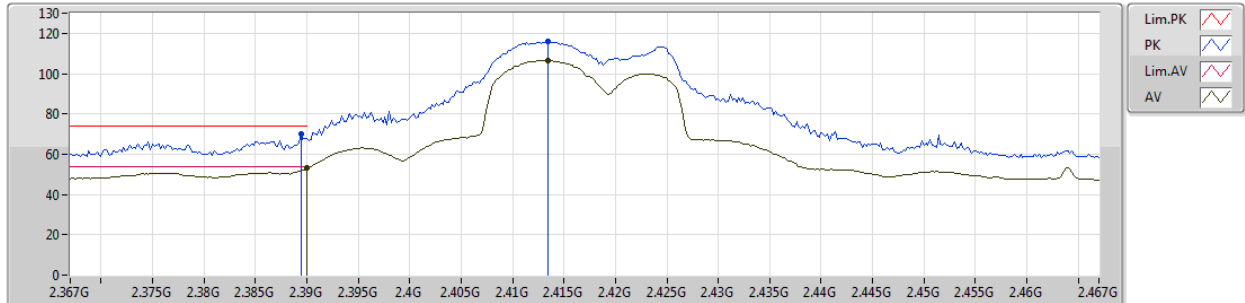


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3874G	53.81	54.00	-0.19	30.76	3	Vertical	159	1.31	-
AV	2.4242G	104.97	Inf	-Inf	30.90	3	Vertical	159	1.31	-
PK	2.3868G	70.23	74.00	-3.77	30.76	3	Vertical	159	1.31	-
PK	2.4232G	113.88	Inf	-Inf	30.89	3	Vertical	159	1.31	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2417MHz_TX

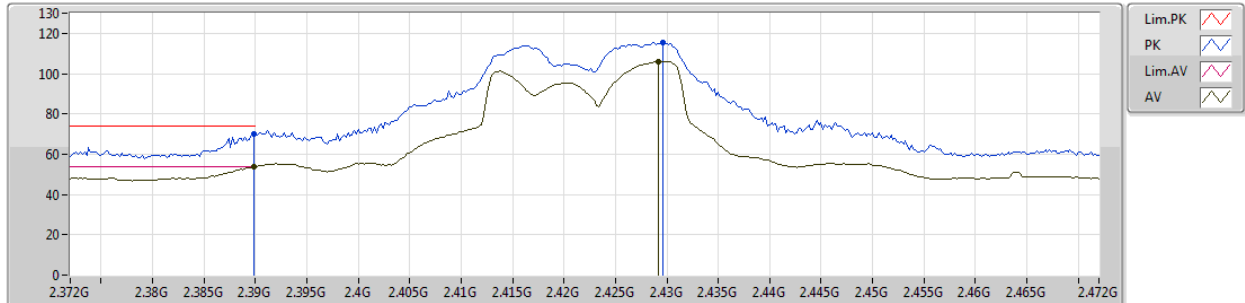


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.39G	53.02	54.00	-0.98	30.77	3	Horizontal	307	1.48	-
AV	2.4134G	106.58	Inf	-Inf	30.86	3	Horizontal	307	1.48	-
PK	2.3894G	70.08	74.00	-3.92	30.77	3	Horizontal	307	1.48	-
PK	2.4134G	115.92	Inf	-Inf	30.86	3	Horizontal	307	1.48	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2422MHz_TX

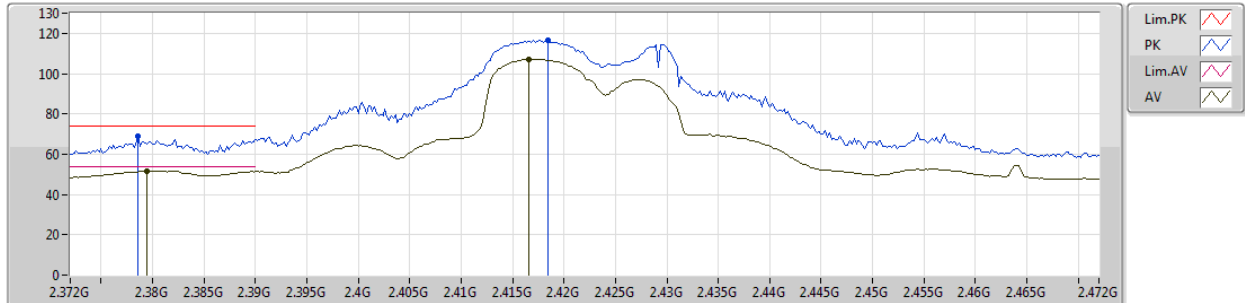


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	53.88	54.00	-0.12	30.77	3	Vertical	162	1.49	-
AV	2.4292G	106.01	Inf	-Inf	30.91	3	Vertical	162	1.49	-
PK	2.3898G	70.11	74.00	-3.89	30.77	3	Vertical	162	1.49	-
PK	2.4296G	115.35	Inf	-Inf	30.91	3	Vertical	162	1.49	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2422MHz_TX

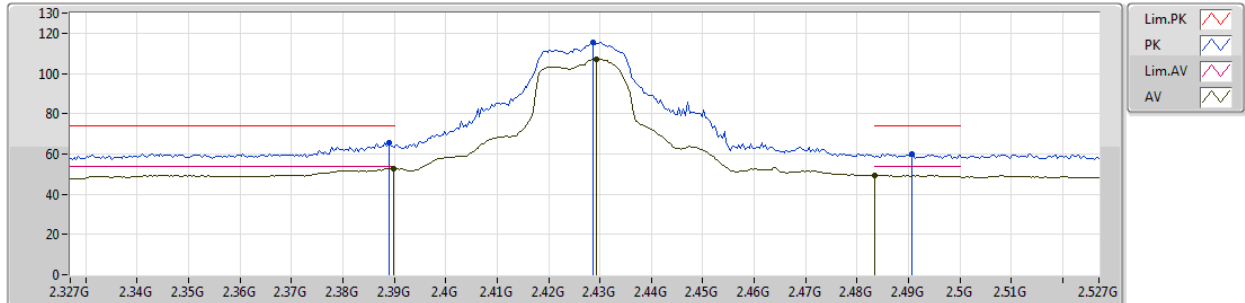


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3794G	51.79	54.00	-2.21	30.74	3	Horizontal	313	1.50	-
AV	2.4166G	107.21	Inf	-Inf	30.87	3	Horizontal	313	1.50	-
PK	2.3786G	68.70	74.00	-5.30	30.74	3	Horizontal	313	1.50	-
PK	2.4184G	116.57	Inf	-Inf	30.87	3	Horizontal	313	1.50	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2427MHz_TX

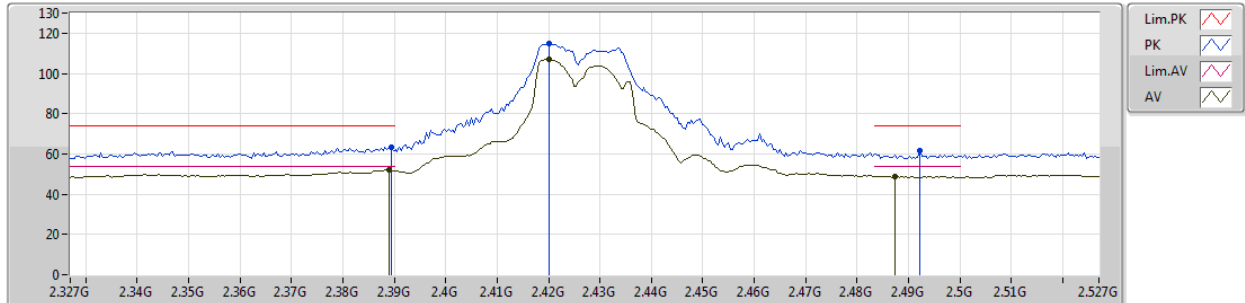


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	52.71	54.00	-1.29	30.69	3	Vertical	187	2.34	-
AV	2.4294G	106.94	Inf	-Inf	30.81	3	Vertical	187	2.34	-
AV	2.4835G	49.28	54.00	-4.72	30.97	3	Vertical	187	2.34	-
PK	2.389G	65.58	74.00	-8.42	30.68	3	Vertical	187	2.34	-
PK	2.4286G	115.46	Inf	-Inf	30.81	3	Vertical	187	2.34	-
PK	2.4906G	59.99	74.00	-14.01	30.99	3	Vertical	187	2.34	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2427MHz_TX

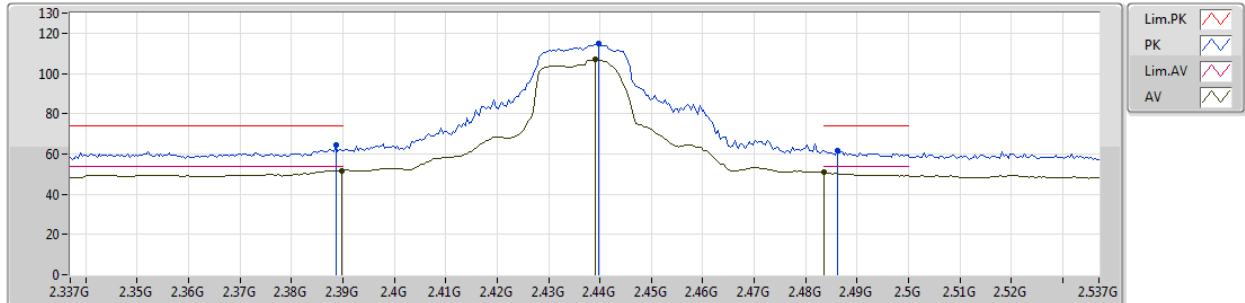


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.389G	51.85	54.00	-2.15	30.68	3	Horizontal	320	1.90	-
AV	2.4202G	106.91	Inf	-Inf	30.78	3	Horizontal	320	1.90	-
AV	2.4874G	48.84	54.00	-5.16	30.98	3	Horizontal	320	1.90	-
PK	2.3894G	63.58	74.00	-10.42	30.68	3	Horizontal	320	1.90	-
PK	2.4202G	114.84	Inf	-Inf	30.78	3	Horizontal	320	1.90	-
PK	2.4922G	61.41	74.00	-12.59	30.99	3	Horizontal	320	1.90	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2437MHz_TX

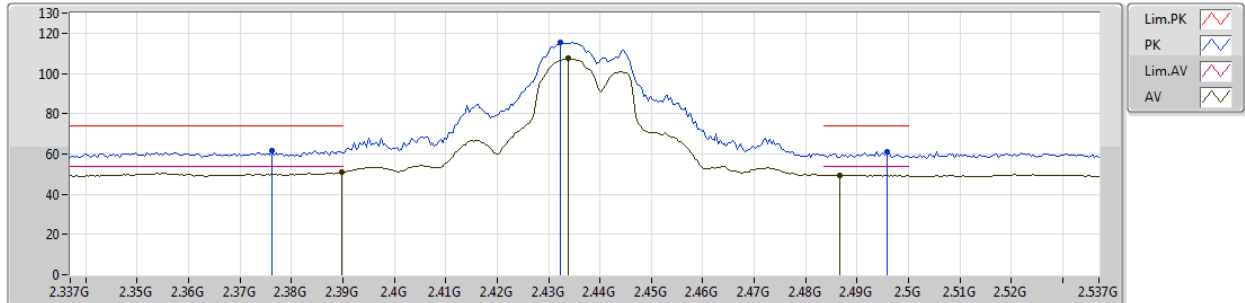


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	51.72	54.00	-2.28	30.69	3	Vertical	194	2.81	-
AV	2.439G	106.75	Inf	-Inf	30.83	3	Vertical	194	2.81	-
AV	2.4835G	50.90	54.00	-3.10	30.97	3	Vertical	194	2.81	-
PK	2.3886G	64.50	74.00	-9.50	30.68	3	Vertical	194	2.81	-
PK	2.4398G	115.02	Inf	-Inf	30.84	3	Vertical	194	2.81	-
PK	2.4862G	61.56	74.00	-12.44	30.98	3	Vertical	194	2.81	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2437MHz_TX

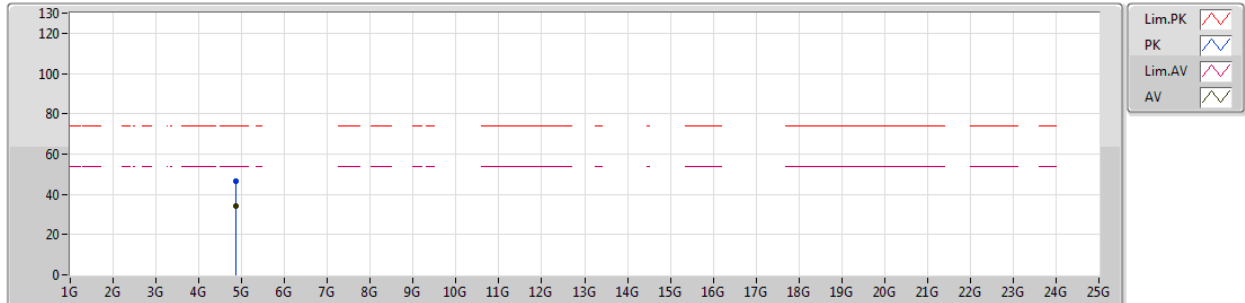


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3898G	50.77	54.00	-3.23	30.69	3	Horizontal	325	1.31	-
AV	2.4338G	107.40	Inf	-Inf	30.82	3	Horizontal	325	1.31	-
AV	2.4866G	49.52	54.00	-4.48	30.98	3	Horizontal	325	1.31	-
PK	2.3762G	61.58	74.00	-12.42	30.64	3	Horizontal	325	1.31	-
PK	2.4322G	115.28	Inf	-Inf	30.82	3	Horizontal	325	1.31	-
PK	2.4958G	60.99	74.00	-13.01	31.00	3	Horizontal	325	1.31	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2437MHz_TX

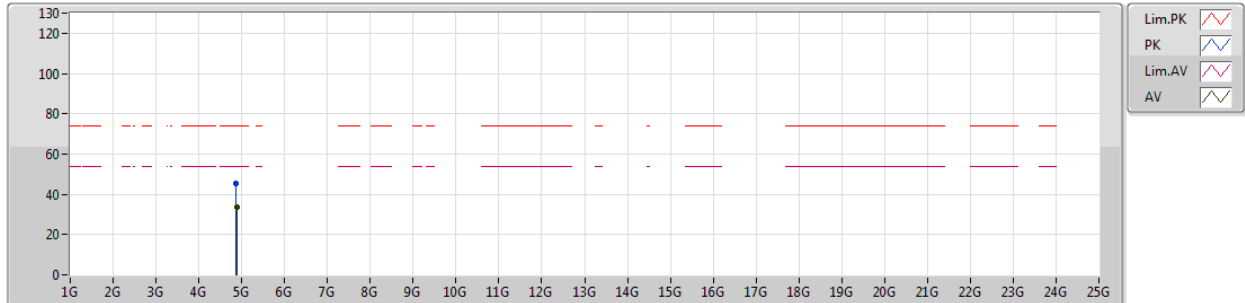


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.87634G	34.28	54.00	-19.72	6.66	3	Vertical	107	2.07	-
PK	4.87662G	46.43	74.00	-27.57	6.67	3	Vertical	107	2.07	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2437MHz_TX

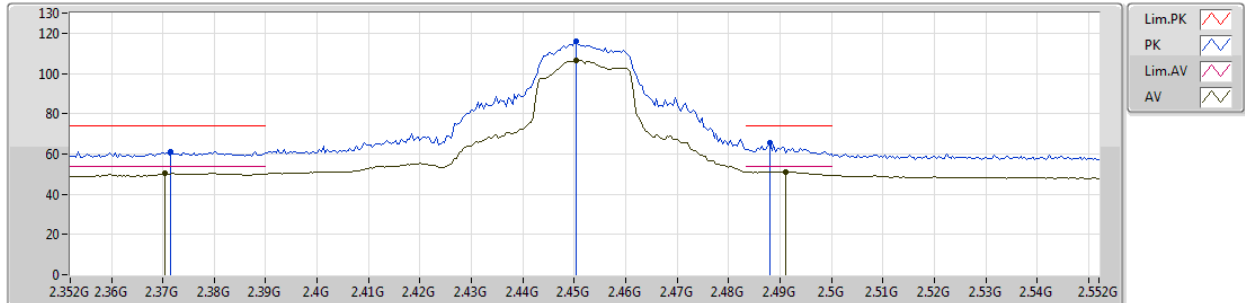


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.88246G	33.90	54.00	-20.10	6.68	3	Horizontal	139	1.35	-
PK	4.86128G	45.52	74.00	-28.48	6.63	3	Horizontal	139	1.35	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2452MHz_TX

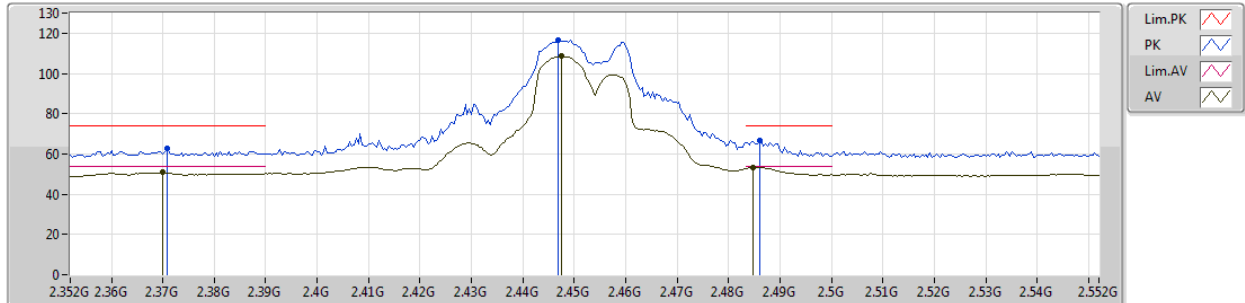


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.3704G	50.31	54.00	-3.69	30.63	3	Vertical	2	2.58	-
AV	2.4504G	106.54	Inf	-Inf	30.87	3	Vertical	2	2.58	-
AV	2.4912G	51.11	54.00	-2.89	30.99	3	Vertical	2	2.58	-
PK	2.3716G	61.30	74.00	-12.70	30.63	3	Vertical	2	2.58	-
PK	2.4504G	116.02	Inf	-Inf	30.87	3	Vertical	2	2.58	-
PK	2.488G	65.71	74.00	-8.29	30.98	3	Vertical	2	2.58	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2452MHz_TX

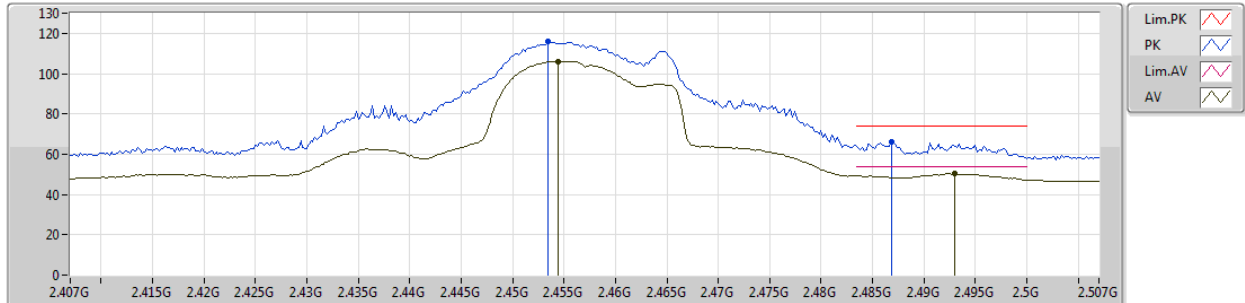


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.37G	50.82	54.00	-3.18	30.63	3	Horizontal	337	1.50	-
AV	2.4476G	108.47	Inf	-Inf	30.86	3	Horizontal	337	1.50	-
AV	2.4848G	53.45	54.00	-0.55	30.97	3	Horizontal	337	1.50	-
PK	2.3708G	62.52	74.00	-11.48	30.63	3	Horizontal	337	1.50	-
PK	2.4468G	116.55	Inf	-Inf	30.86	3	Horizontal	337	1.50	-
PK	2.486G	66.59	74.00	-7.41	30.98	3	Horizontal	337	1.50	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2457MHz_TX

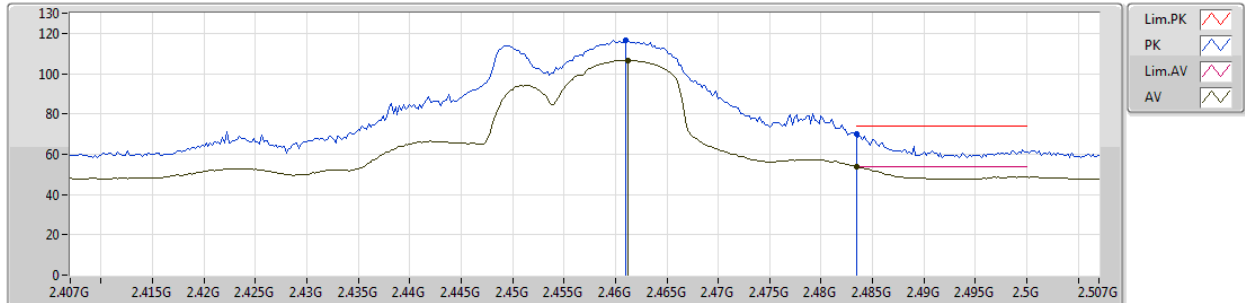


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4544G	106.18	Inf	-Inf	31.00	3	Vertical	171	2.03	-
AV	2.493G	50.49	54.00	-3.51	31.14	3	Vertical	171	2.03	-
PK	2.4534G	116.15	Inf	-Inf	31.00	3	Vertical	171	2.03	-
PK	2.4868G	65.92	74.00	-8.08	31.12	3	Vertical	171	2.03	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2457MHz_TX

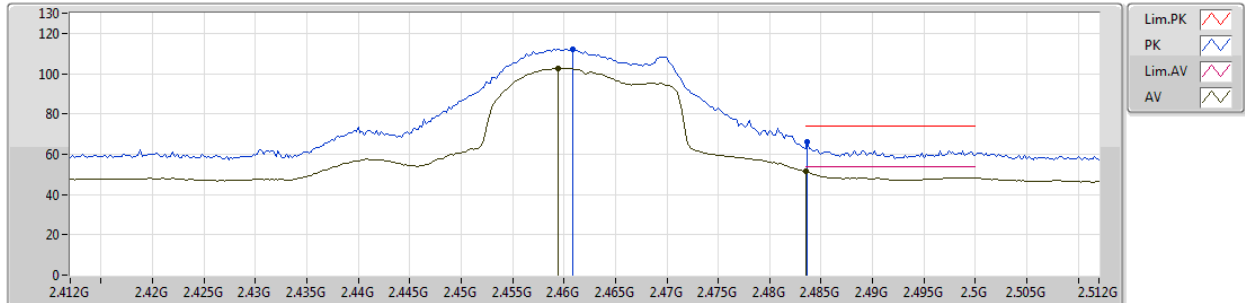


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4612G	106.57	Inf	-Inf	31.03	3	Horizontal	341	1.45	-
AV	2.4835G	53.85	54.00	-0.15	31.11	3	Horizontal	341	1.45	-
PK	2.461G	116.71	Inf	-Inf	31.03	3	Horizontal	341	1.45	-
PK	2.4835G	69.89	74.00	-4.11	31.11	3	Horizontal	341	1.45	-

802.11n HT20_Nss1,(MCS0)_3TX

17/10/2018

2462MHz_TX

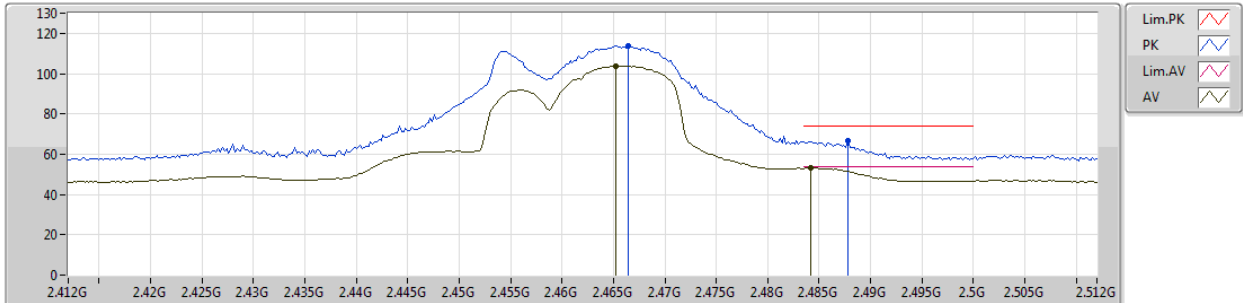


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4594G	102.75	Inf	-Inf	31.03	3	Vertical	189	2.99	-
AV	2.4835G	51.38	54.00	-2.62	31.11	3	Vertical	189	2.99	-
PK	2.4608G	112.19	Inf	-Inf	31.03	3	Vertical	189	2.99	-
PK	2.4836G	66.04	74.00	-7.96	31.11	3	Vertical	189	2.99	-

802.11n HT20_Nss1,(MCS0)_3TX

17/10/2018

2462MHz_TX

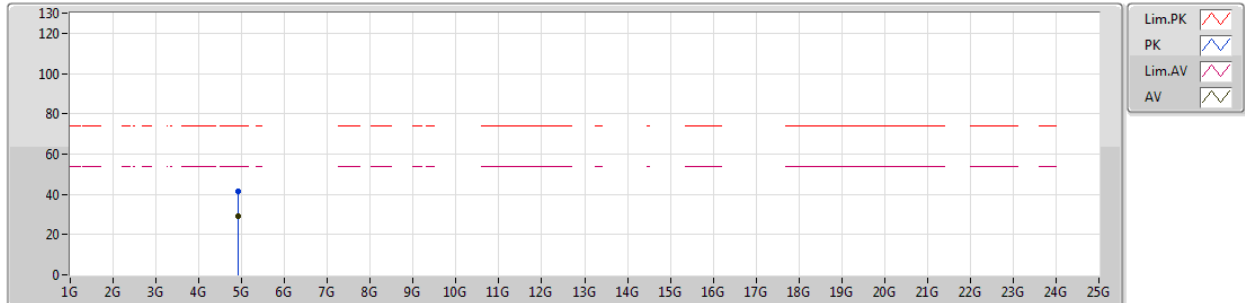


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	2.4652G	103.79	Inf	-Inf	31.04	3	Horizontal	345	1.42	-
AV	2.4842G	53.21	54.00	-0.79	31.12	3	Horizontal	345	1.42	-
PK	2.4664G	113.80	Inf	-Inf	31.05	3	Horizontal	345	1.42	-
PK	2.4878G	66.86	74.00	-7.14	31.13	3	Horizontal	345	1.42	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2462MHz_TX

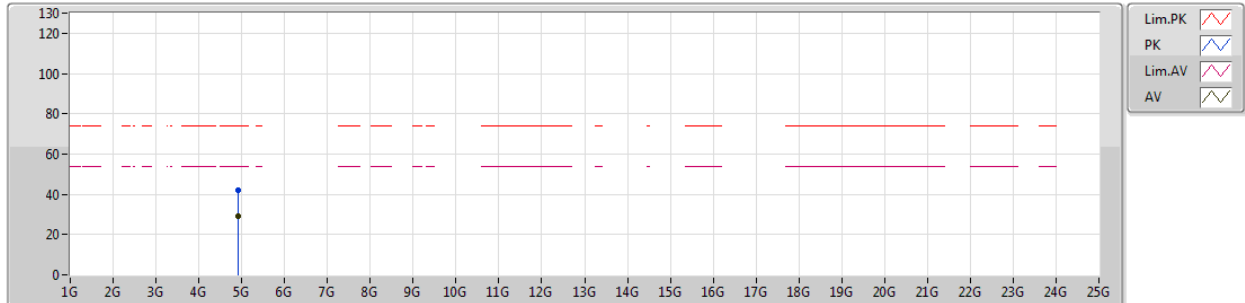


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92538G	29.15	54.00	-24.85	2.39	3	Vertical	274	1.83	-
PK	4.92514G	41.63	74.00	-32.37	2.39	3	Vertical	274	1.83	-

802.11n HT20_Nss1,(MCS0)_3TX

18/10/2018

2462MHz_TX



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
AV	4.92576G	29.20	54.00	-24.80	2.39	3	Horizontal	196	2.25	-
PK	4.92372G	41.80	74.00	-32.20	2.38	3	Horizontal	196	2.25	-