




# FCC RADIO TEST REPORT

**FCC ID** : 2AEUPBHAGC001  
**Equipment** : Video Doorbell Wired  
**Brand Name** : Ring  
**Model Name** : 5AT3T5  
**Applicant** : Ring LLC  
1523 26th St Santa Monica, CA 90404 USA  
**Manufacturer** : Ring LLC  
1523 26th St Santa Monica, CA 90404 USA  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Sep. 09, 2020, and testing was started from Sep. 16, 2020 and completed on Oct. 15, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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Approved by: Sam Chen

**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**  
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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**Photographs of EUT v02**





### Summary of Test Result

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

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Sam Chen**

**Report Producer: Cindy Peng**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	1TX
2.4-2.4835GHz	802.11g	20	1TX
2.4-2.4835GHz	802.11n HT20	20	1TX

**Note:**

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

### 1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Type	Connector	Gain (dBi)
1	1	PSA	RFMTA300400NNAB001	metal IFA	N/A	0.7

Note: The above information was declared by manufacturer.



### 1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.961	0.17	9.793m	300
802.11g	0.922	0.35	1.894m	1k
802.11n HT20	0.91	0.41	1.766m	1k

Note:

- ◆ DC is Duty Cycle.
- ◆ DCF is Duty Cycle Factor.

### 1.1.4 EUT Operational Condition

<b>EUT Power Type</b>	From power adapter			
<b>Beamforming Function</b>	<input type="checkbox"/>	With beamforming	<input checked="" type="checkbox"/>	Without beamforming
<b>Function</b>	<input checked="" type="checkbox"/>	Point-to-multipoint	<input type="checkbox"/>	Point-to-point
<b>Test Software Version</b>	CC31XX/CC32XX Radio Tool v1.0.3.15			

Note: The above information was declared by manufacturer.

### 1.1.5 Table for Multiple Listing

There are two EUTs and the difference as below.

EUT	Description
1	With the rating 10-24Vac.
2	With the rating 8-24Vac.

Note: The above information was declared by manufacturer.



### 1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013

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

- ♦ FCC KDB 558074 D01 v05r02
- ♦ FCC KDB 414788 D01 v01r01

### 1.3 Testing Location Information

Testing Location		
<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH03-CB	Lance Wu	22.9~23.7°C / 65~67%	Sep. 16, 2020~Oct. 15, 2020
Radiated Below 1GHz	03CH05-CB	JN Du	23.6~23.7°C / 54~60%	Sep. 18, 2020~Oct. 15, 2020
Radiated Above 1GHz	03CH03-CB	JN Du	22.3~23.4°C / 55-57%	Sep. 18, 2020~Oct. 15, 2020
AC Conduction	CO01-CB	Peter Wu	22~23°C / 61~62%	Sep. 25, 2020

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.



## 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)	2.0 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.6 dB	Confidence levels of 95%
Conducted Emission	2.8 dB	Confidence levels of 95%
Output Power Measurement	1.4 dB	Confidence levels of 95%
Power Density Measurement	2.8 dB	Confidence levels of 95%
Bandwidth Measurement	0.39%	Confidence levels of 95%





## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	0
2437MHz	0
2462MHz	0
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	0
2417MHz	0
2437MHz	0
2457MHz	0
2462MHz	0
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	0
2417MHz	0
2437MHz	0
2457MHz	0
2462MHz	0



## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	AC power-line conducted emissions
<b>Condition</b>	AC power-line conducted measurement for line and neutral
<b>Operating Mode</b>	CTX
1	EUT 1 + adapter 1
2	EUT 1 + adapter 2
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT 2 + adapter 1
For operating mode 1 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
<b>Test Condition</b>	Conducted measurement at transmit chains
<b>Operating Mode</b>	
1	EUT 1



The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Emissions in Restricted Frequency Bands
<b>Test Condition</b>	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.
<b>Operating Mode &lt; 1GHz</b>	CTX
The EUT was performed at X axis and Y axis position for Emissions in Restricted Frequency Bands test, and the worst case was found at X axis for Emissions in Restricted Frequency Bands Above 1GHz test. So the measurement will follow this same test configuration.	
1	EUT 1 X axis + adapter 1
2	EUT 1 X axis + adapter 2
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.	
3	EUT 2 X axis + adapter 1
For operating mode 1 is the worst case and it was record in this test report.	
<b>Operating Mode &gt; 1GHz</b>	CTX
The EUT was performed at X axis and Y axis position for Emissions in Restricted Frequency Bands test, and the worst case was found at X axis. So the measurement will follow this same test configuration.	
1	EUT 1 X axis

Note: The adapter is for measurement only, would not be marketed.

Equipment	Brand Name	Model Name	FCC ID
Adapter 1 (With the core)	DVE	DSA-12PF16-24 240050	N/A
Adapter 2 (Without the core)	DVE	DSA-12PF16-24 240050	N/A

### 2.3 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

### 2.4 Accessories

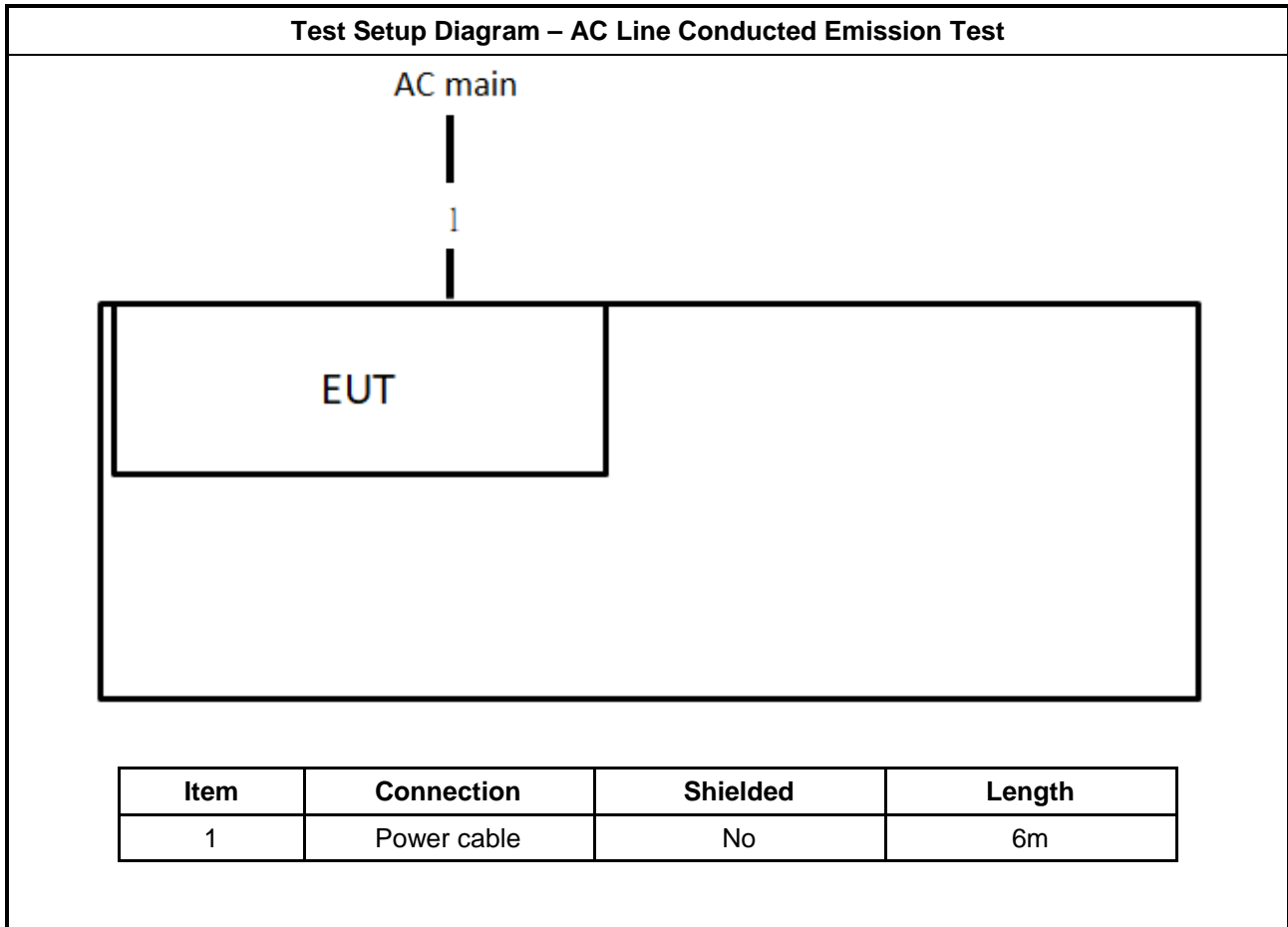
N/A

### 2.5 Support Equipment

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Adapter 1 (With the core)	DVE	DSA-12PF16-24 240050	N/A

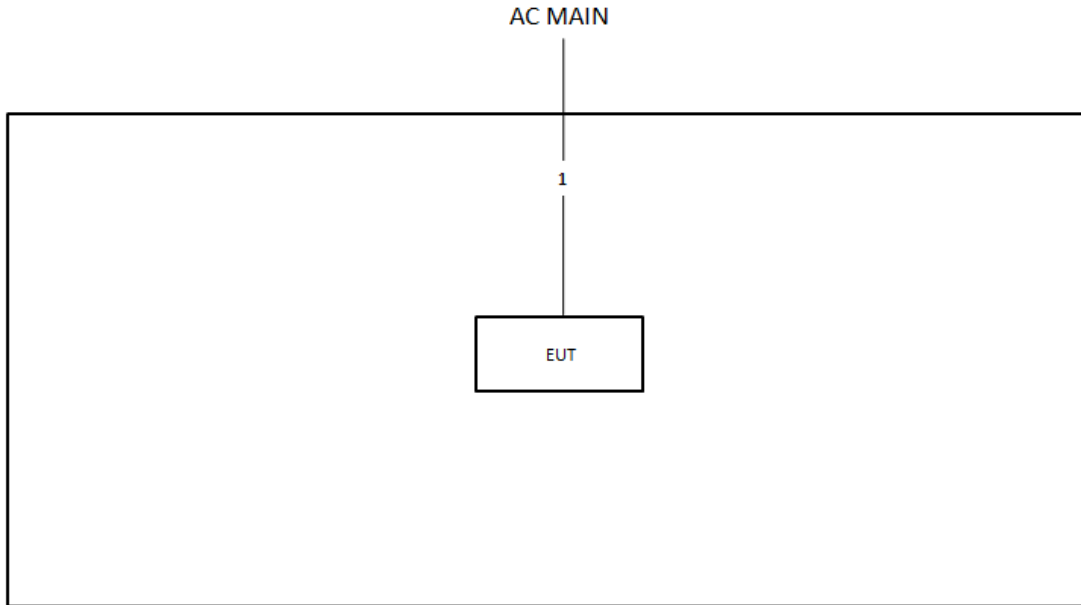


## 2.6 Test Setup Diagram





Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	Power cable	No	6m



### 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.

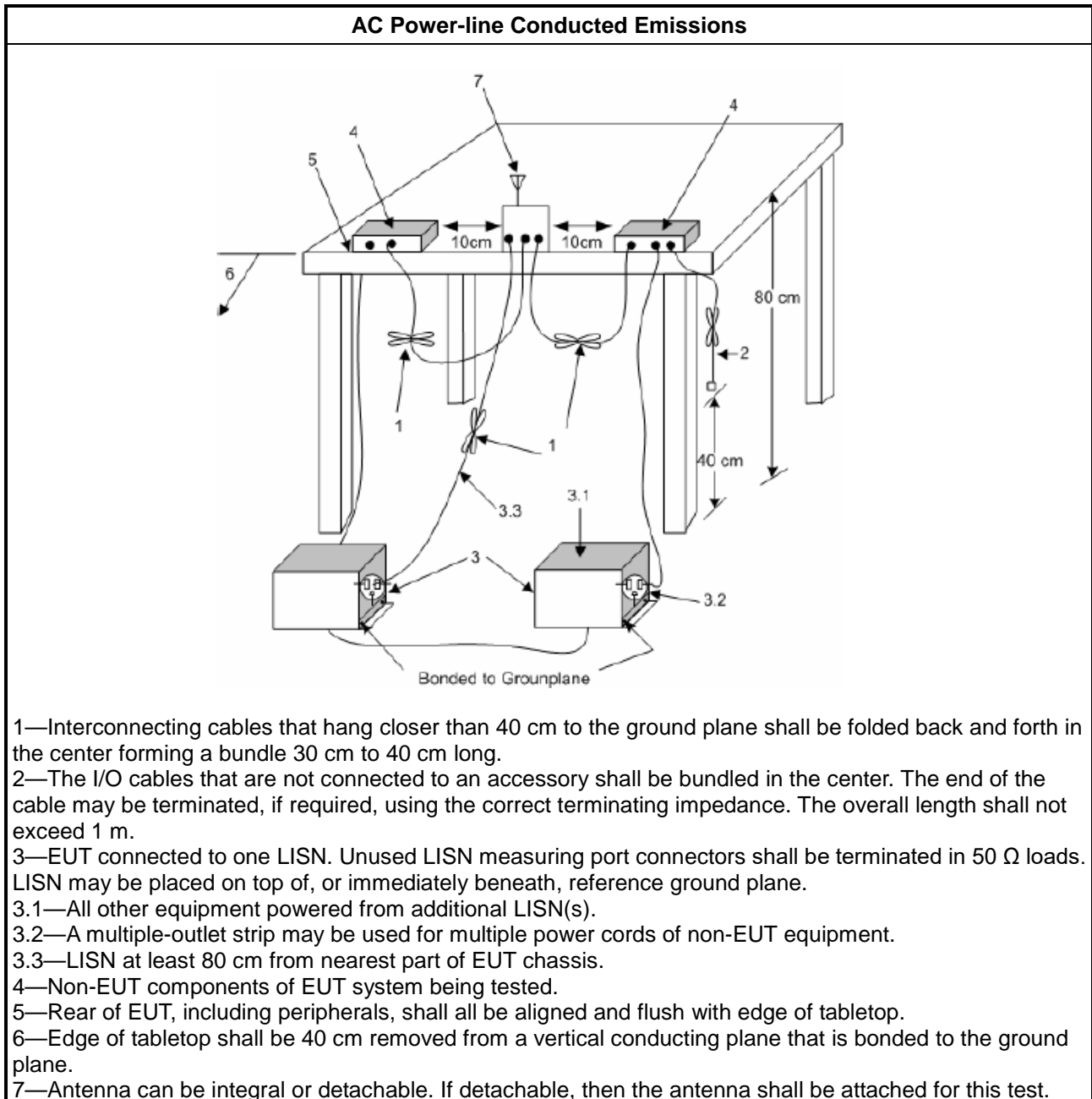
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

### 3.1.4 Test Setup



### 3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- b. Margin = -Limit + Level

### 3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

### 3.2 DTS Bandwidth

#### 3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
<b>Systems using digital modulation techniques:</b>
<ul style="list-style-type: none"> <li>▪ 6 dB bandwidth <math>\geq</math> 500 kHz.</li> </ul>

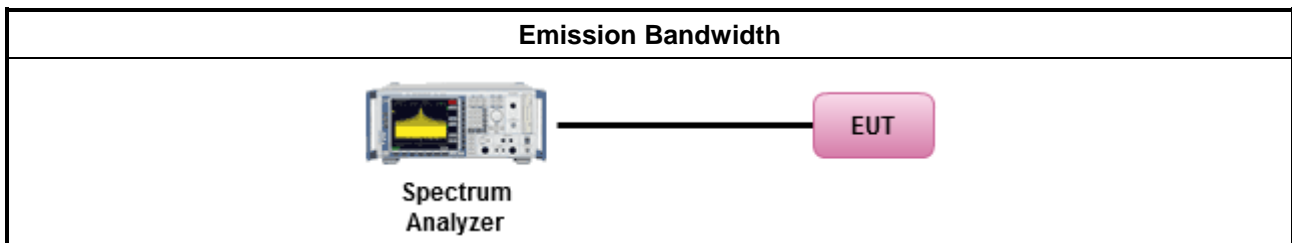
#### 3.2.2 Measuring Instruments

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

#### 3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>▪ For the emission bandwidth shall be measured using one of the options below:</li> </ul>
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 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	
	<ul style="list-style-type: none"> <li>▪ If <math>G_{TX} \leq 6</math> dBi, then <math>P_{Out} \leq 30</math> dBm (1 W)</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-point systems (P2P): If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Smart antenna system (SAS):</li> </ul>
	<ul style="list-style-type: none"> <li>- Single beam: If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>- Overlap beam: If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3</math> dBm</li> </ul>
	<ul style="list-style-type: none"> <li>- Aggregate power on all beams: If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)/3 + 8</math> dB dBm</li> </ul>
$P_{Out}$ = 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

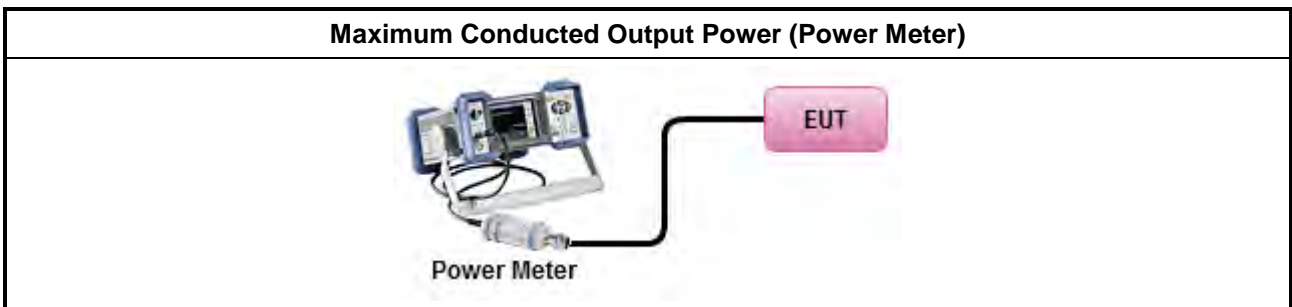
Refer a test equipment and calibration data table in this test report.

#### 3.3.3 Test Procedures

Test Method	
	<ul style="list-style-type: none"> <li>▪ Maximum Peak Conducted Output Power</li> </ul>
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW $\geq$ EBW method).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
	<ul style="list-style-type: none"> <li>▪ Maximum Conducted Output Power</li> </ul>
	[duty cycle $\geq$ 98% or external video / power trigger]
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
	duty cycle < 98% and average over on/off periods with duty factor
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
	Measurement using a power meter (PM)
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).

<ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>	
	<ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below: Refer as FCC 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.</li> </ul>
	<ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:  <math>P_{total} = P_1 + P_2 + \dots + P_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = P_{total} + DG</math> </li> </ul>

**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
<ul style="list-style-type: none"> <li>Power Spectral Density (PSD) <math>\leq</math> 8 dBm/3kHz</li> </ul>

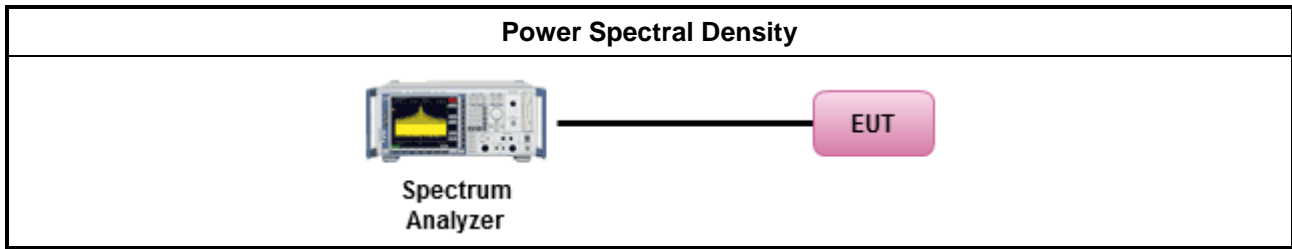
#### 3.4.2 Measuring Instruments

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

#### 3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>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).</li> </ul>
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD.
<ul style="list-style-type: none"> <li>For conducted measurement.             <ul style="list-style-type: none"> <li>If The EUT supports multiple transmit chains using options given below:                 <ul style="list-style-type: none"> <li><input type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC 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.</li> <li><input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,</li> <li><input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.</li> </ul> </li> </ul> </li> </ul>

### 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 (dBc)
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.

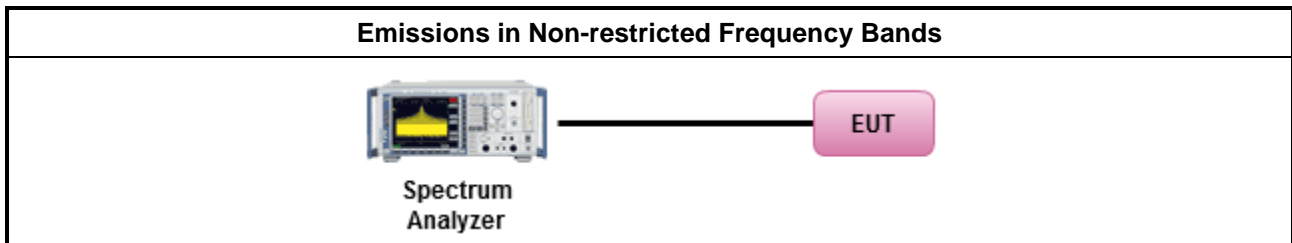
#### 3.5.2 Measuring Instruments

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

#### 3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.</li> </ul>

#### 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

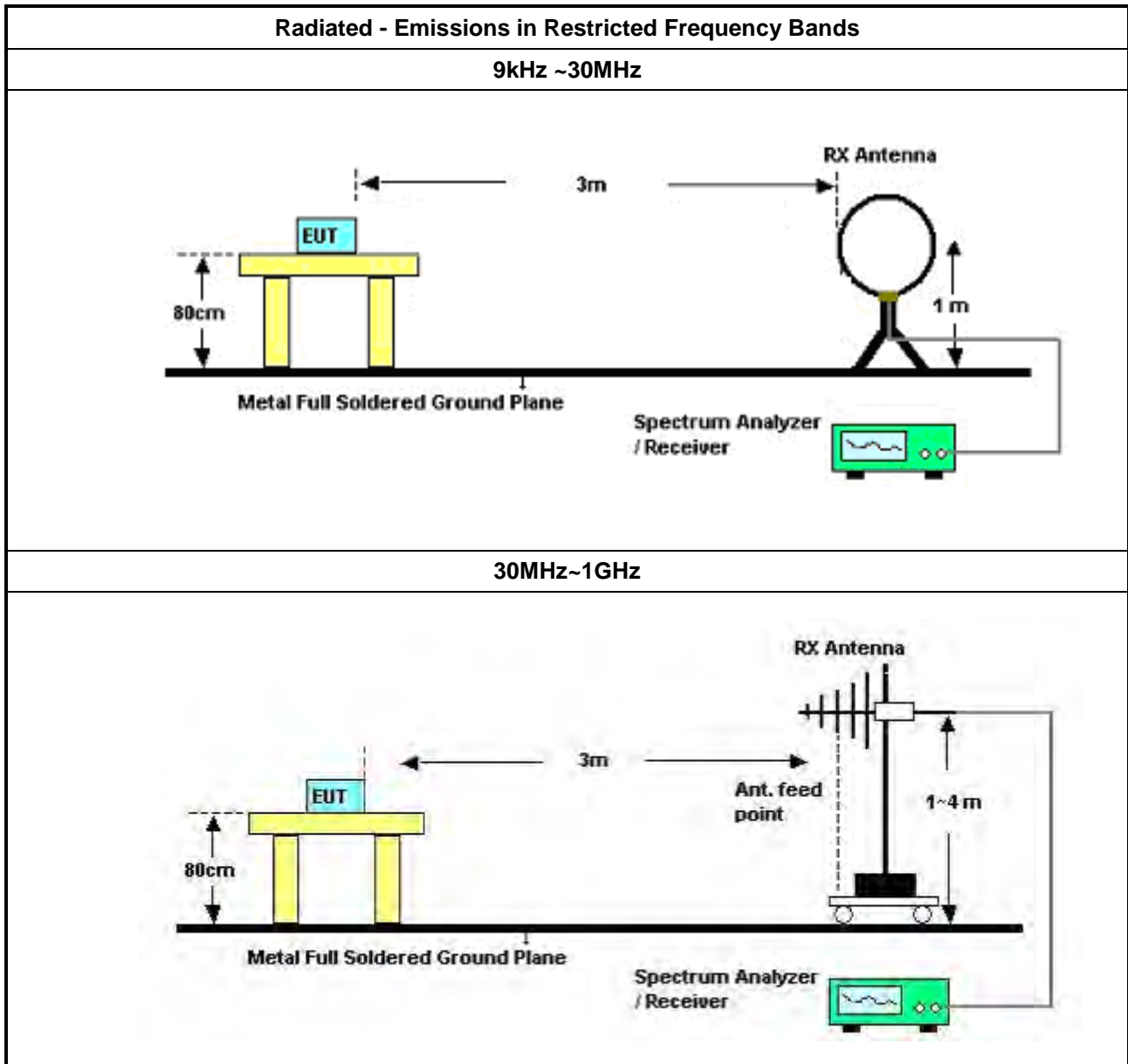
Refer a test equipment and calibration data table in this test report.



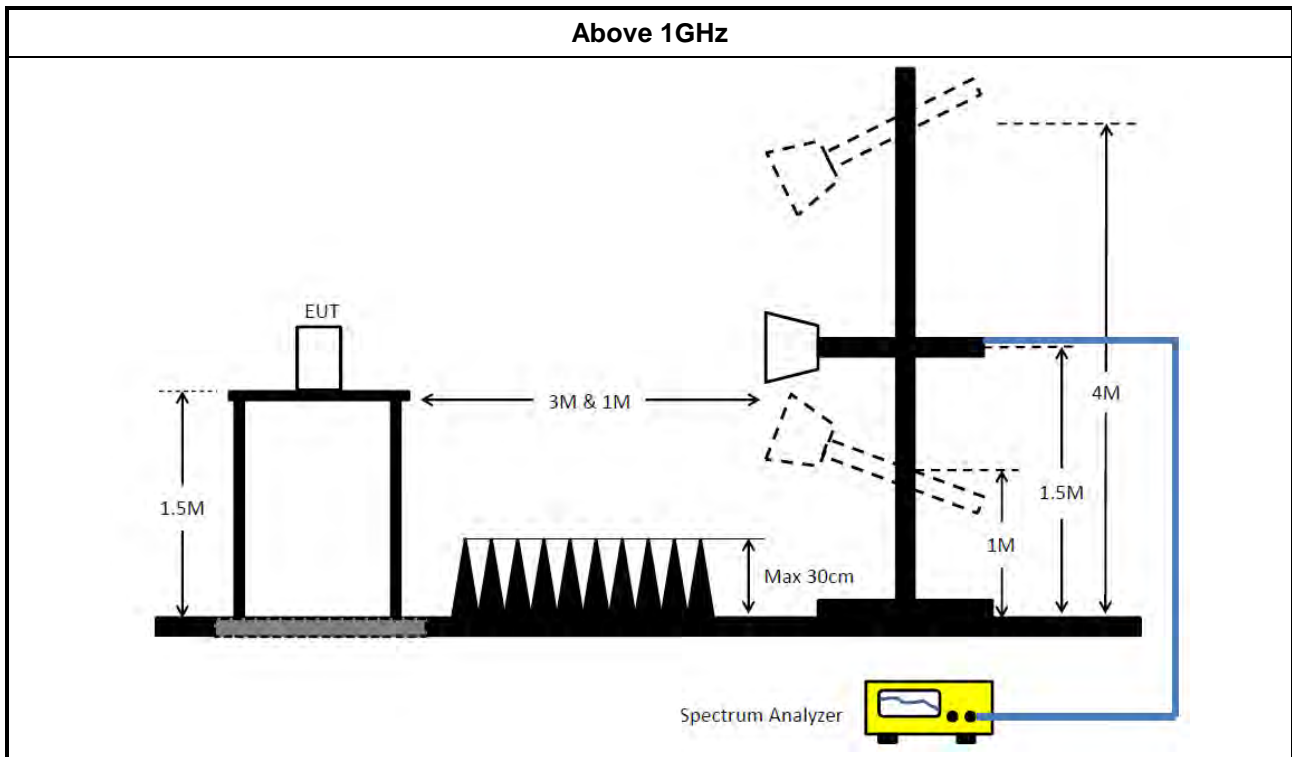
**3.6.3 Test Procedures**

<b>Test Method</b>	
<ul style="list-style-type: none"> <li>▪ The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 or duty factor].</li> </ul>	
<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ For the transmitter unwanted emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.</li> </ul>
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle $\geq$ 98%).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW $\geq$ 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> <li>▪ For the transmitter band-edge emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074 clause 8.7 &amp; C63.10 clause 11.13.1, 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.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).</li> </ul>
	<ul style="list-style-type: none"> <li>▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below:                (1) Measure and sum the spectra across the outputs or                (2) Measure and add 10 log(N) dB             </li> </ul>
	<ul style="list-style-type: none"> <li>▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.</li> </ul>

### 3.6.4 Test Setup







### 3.6.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

### 3.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

### 3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



## 4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 26, 2020	Feb. 25, 2021	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 25, 2019	Dec. 24, 2020	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Feb. 25, 2020	Feb. 24, 2021	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Jan. 31, 2020	Jan. 30, 2021	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 20, 2020	May 19, 2021	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 13, 2020	Apr. 12, 2021	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 27, 2020	Mar. 26, 2021	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 28, 2020	Apr. 27, 2021	Radiation (03CH05-CB)
Signal Analyzer	R&S	FSV40	101904	9kHz ~ 40GHz	May 12, 2020	May 11, 2021	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 13, 2020	May 12, 2021	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	LOW Cable-04+23	30MHz~1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
Horn Antenna	ETS · Lindgren	3115	6821	750MHz~18GHz	Jan. 20, 2020	Jan. 19, 2021	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 03, 2020	Jun. 02, 2021	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 09, 2020	Jun. 08, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Jul. 28, 2020	Jul. 27, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Jul. 28, 2020	Jul. 27, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH03-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Nov. 01, 2019	Oct. 31, 2020	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 17, 2020	Aug. 16, 2021	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 17, 2020	Aug. 16, 2021	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-15	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

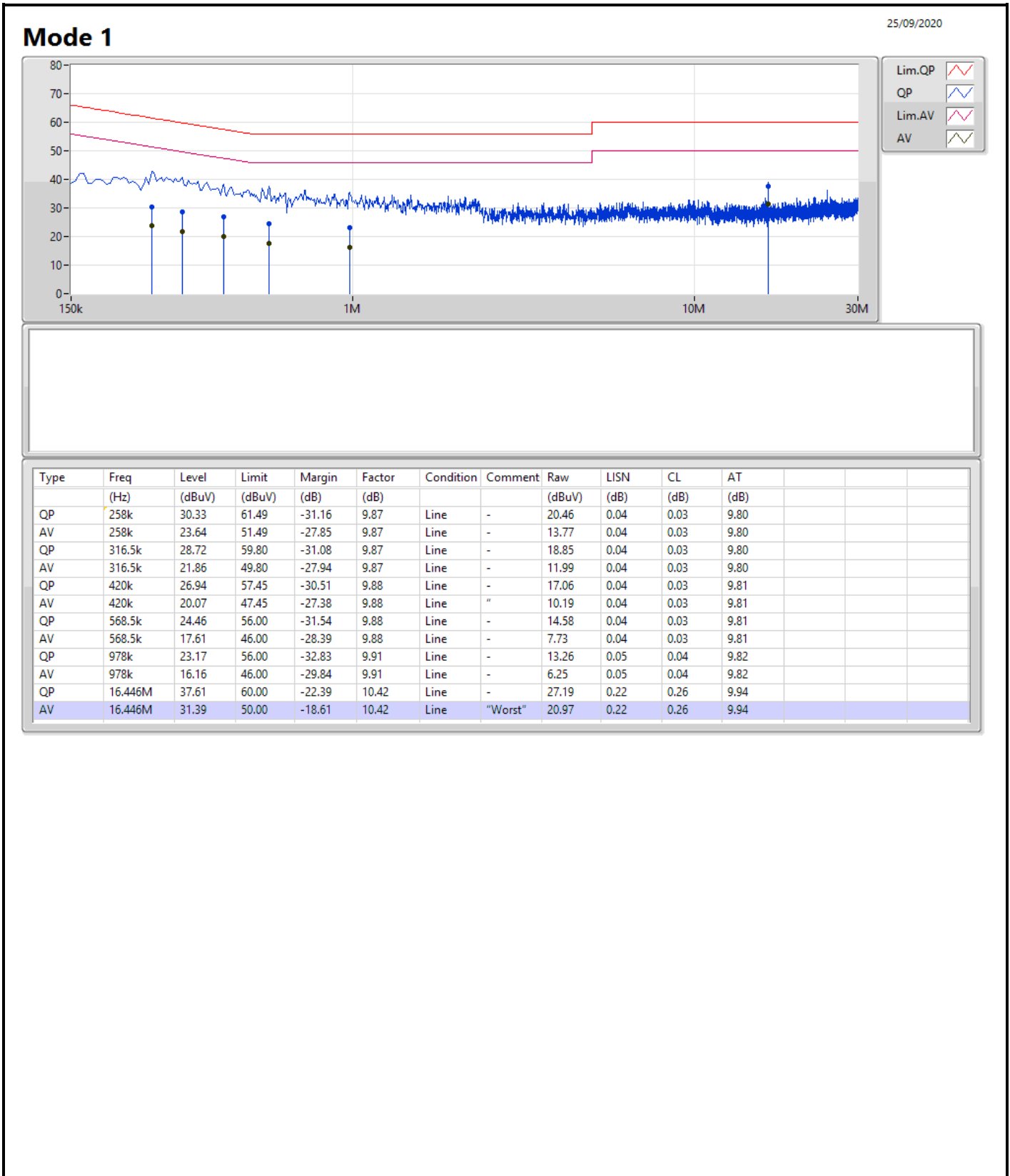
Note: Calibration Interval of instruments listed above is one year.

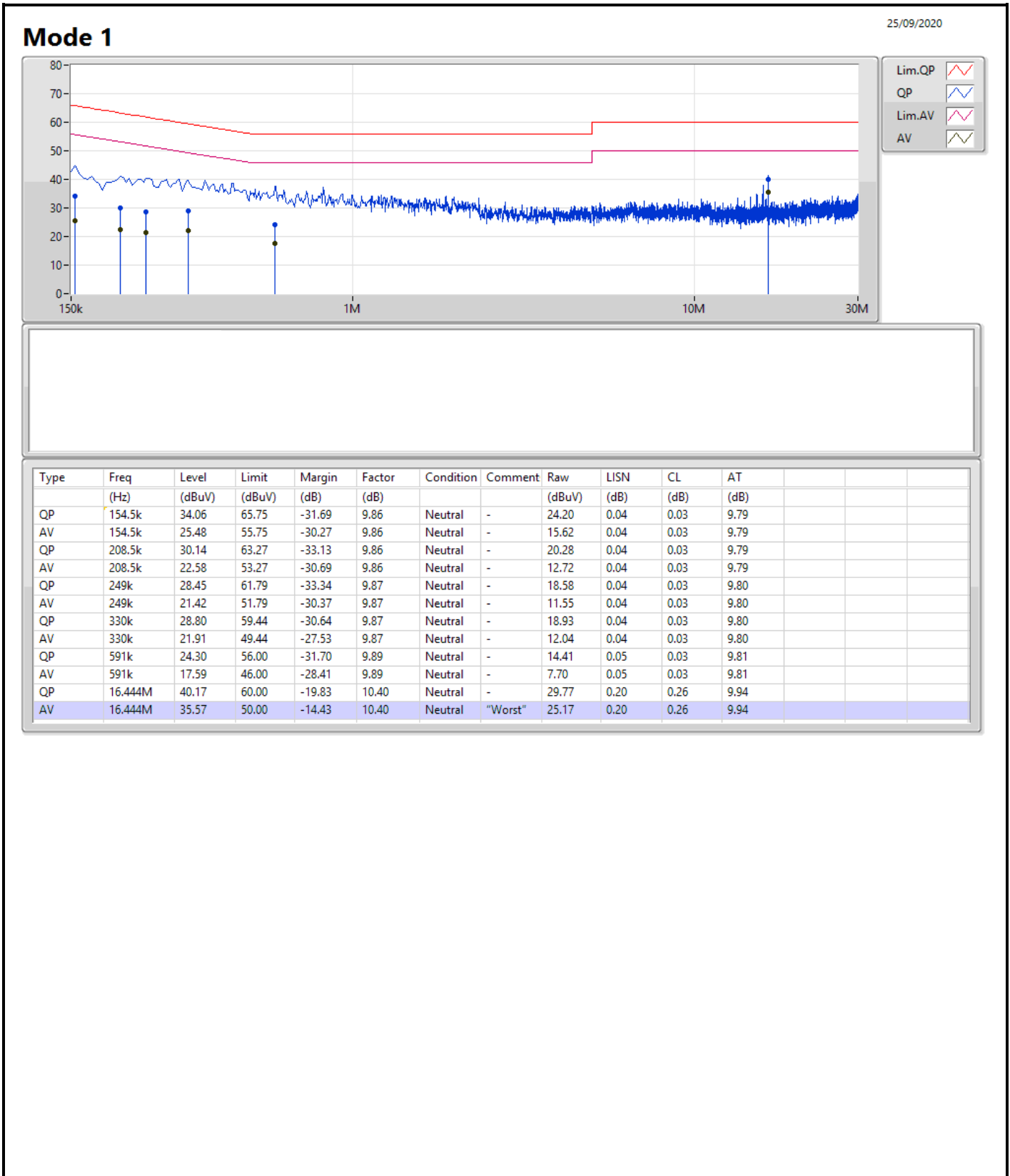
N.C.R. means Non-Calibration required.



**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	16.444M	35.57	50.00	-14.43	Neutral







**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	9.1M	14.118M	14M1G1D	9.1M	13.993M
802.11g_Nss1,(6Mbps)_1TX	15.075M	17.516M	17M5D1D	14.4M	16.392M
802.11n HT20_Nss1,(MCS0)_1TX	15.125M	17.766M	17M8D1D	13.825M	17.466M

**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)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	9.1M	14.118M
2437MHz	Pass	500k	9.1M	13.993M
2462MHz	Pass	500k	9.1M	14.018M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.05M	16.417M
2437MHz	Pass	500k	14.4M	17.516M
2462MHz	Pass	500k	15.075M	16.392M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	15.125M	17.491M
2437MHz	Pass	500k	13.825M	17.766M
2462MHz	Pass	500k	15M	17.466M

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

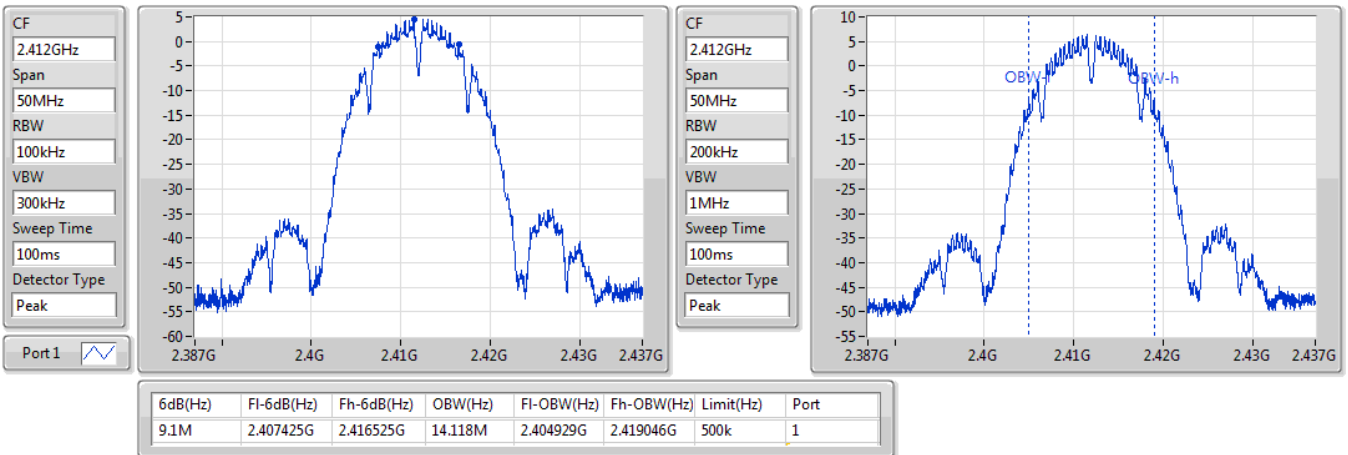


**802.11b\_Nss1,(1Mbps)\_1TX**

**EBW**

**2412MHz**

22/09/2020

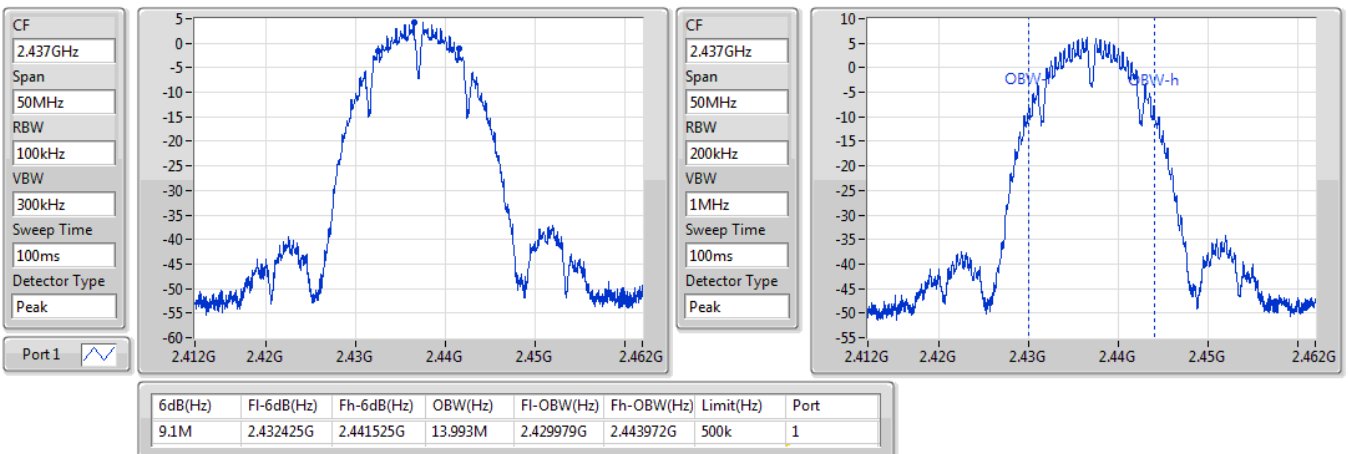


**802.11b\_Nss1,(1Mbps)\_1TX**

**EBW**

**2437MHz**

22/09/2020



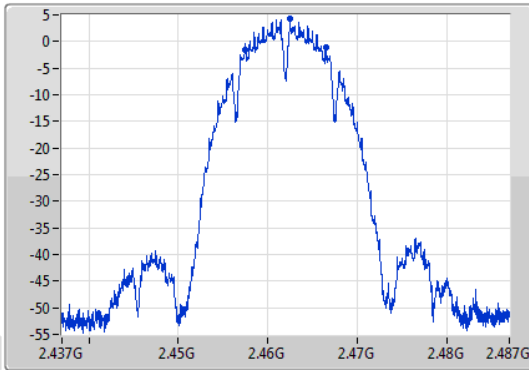
**802.11b\_Nss1,(1Mbps)\_1TX**

**EBW**

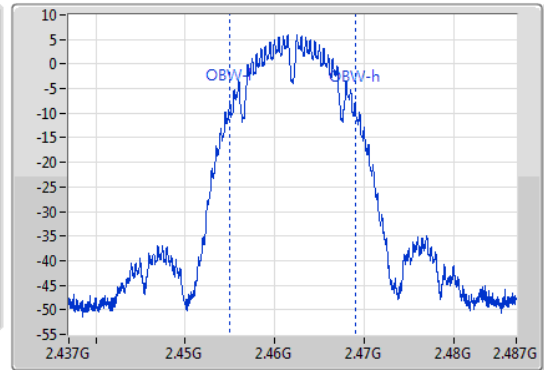
**2462MHz**

22/09/2020

CF  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1



CF  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.1M	2.457425G	2.466525G	14.018M	2.454979G	2.468997G	500k	1

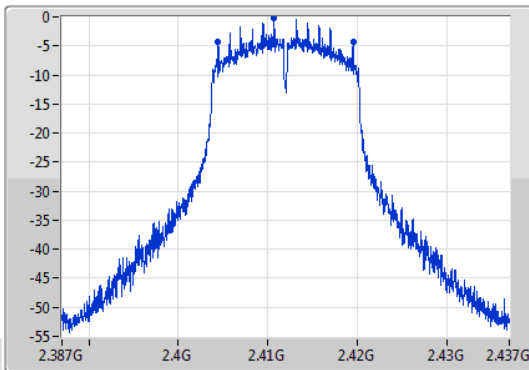
**802.11g\_Nss1,(6Mbps)\_1TX**

**EBW**

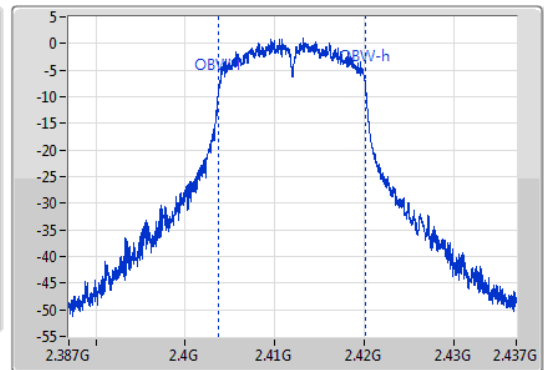
**2412MHz**

22/09/2020

CF  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1



CF  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



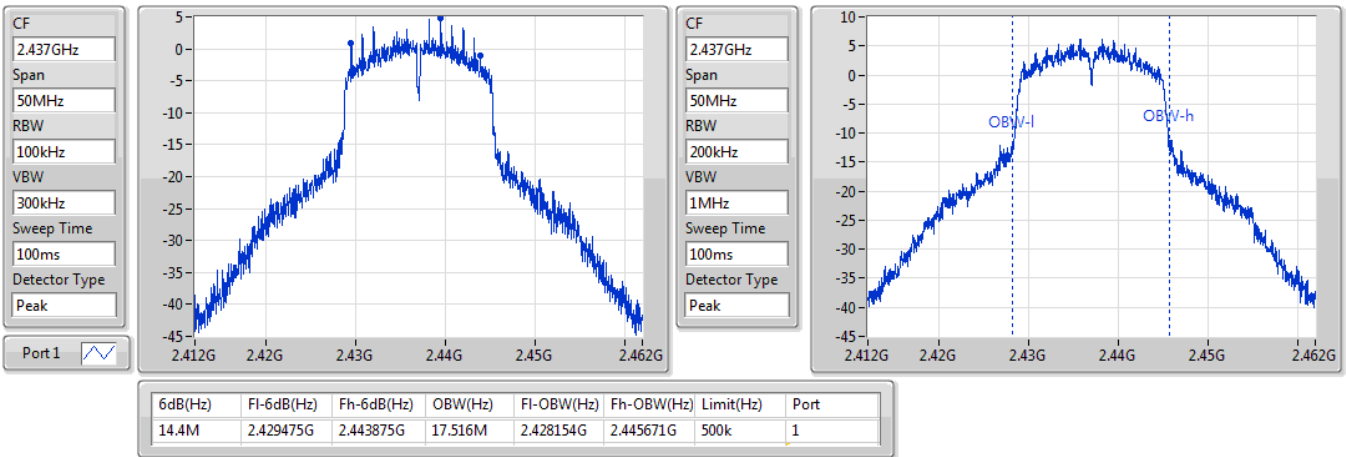
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.05M	2.404475G	2.419525G	16.417M	2.403729G	2.420146G	500k	1

802.11g\_Nss1,(6Mbps)\_1TX

EBW

2437MHz

22/09/2020

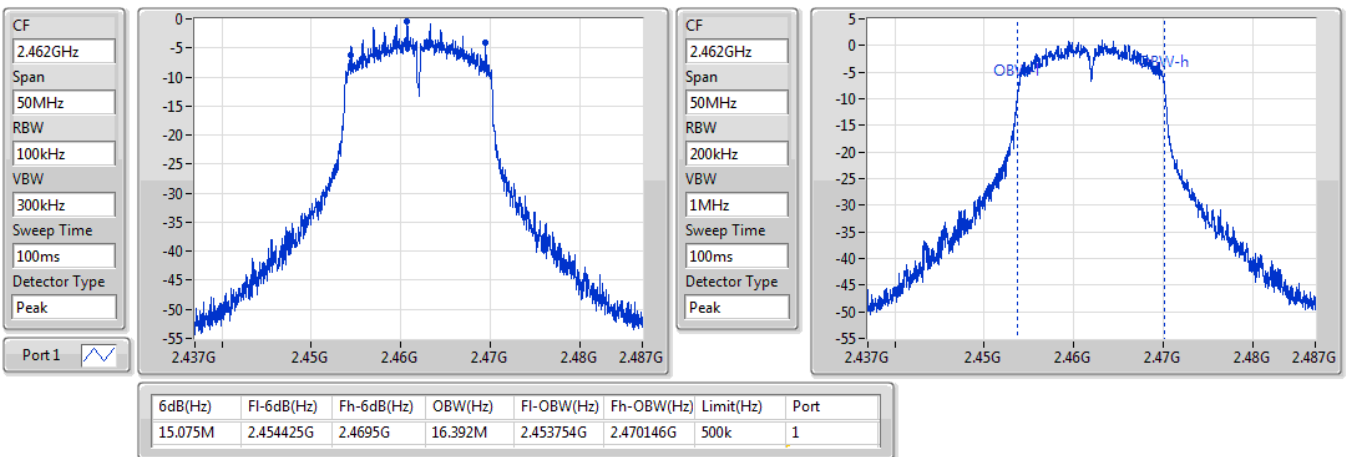


802.11g\_Nss1,(6Mbps)\_1TX

EBW

2462MHz

22/09/2020

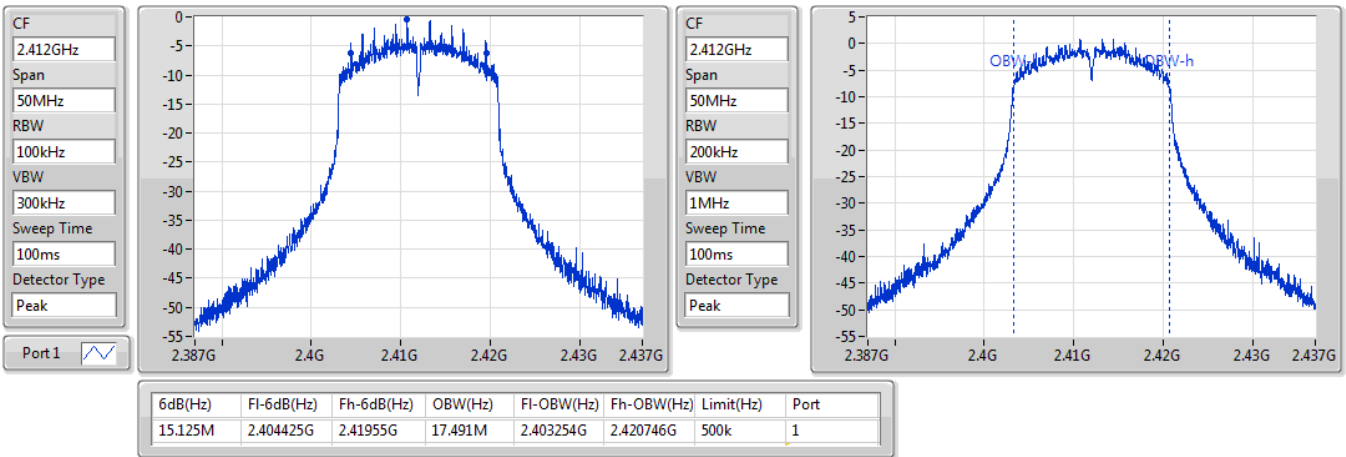


**802.11n HT20\_Nss1,(MCS0)\_1TX**

**EBW**

**2412MHz**

22/09/2020

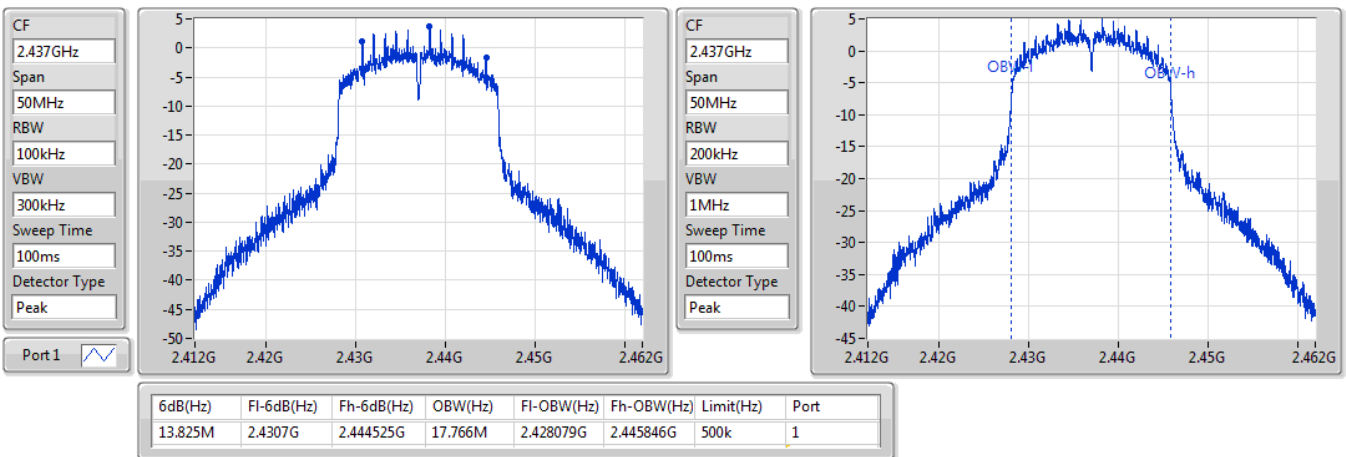


**802.11n HT20\_Nss1,(MCS0)\_1TX**

**EBW**

**2437MHz**

22/09/2020

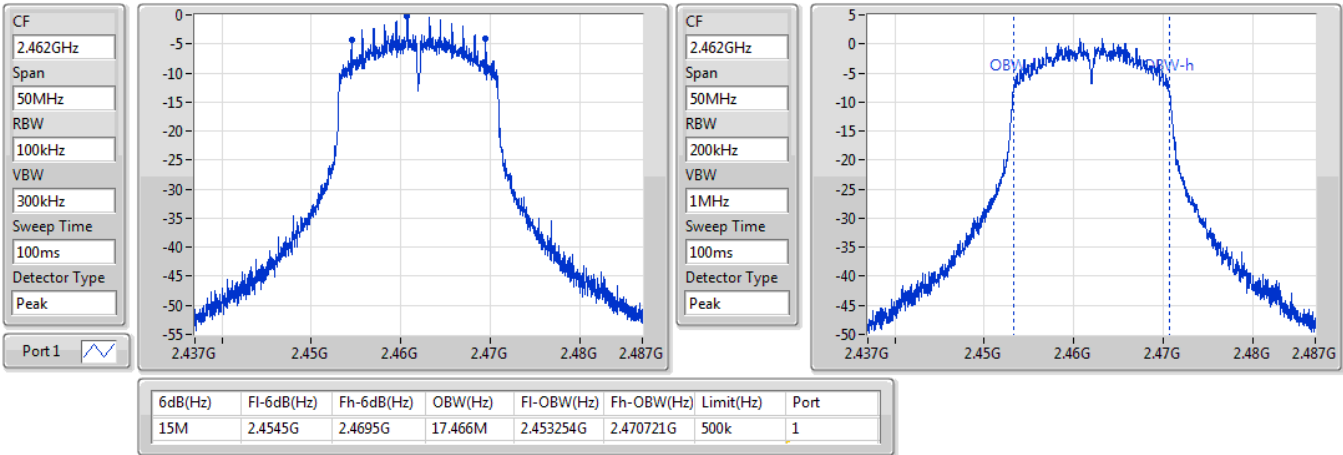


**802.11n HT20\_Nss1,(MCS0)\_1TX**

**EBW**

**2462MHz**

22/09/2020





## Average Power Result

Appendix C

### Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	15.57	0.03606
802.11g_Nss1,(6Mbps)_1TX	15.10	0.03236
802.11n HT20_Nss1,(MCS0)_1TX	14.01	0.02518



## Average Power Result

## Appendix C

### Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	0.70	14.56	14.56	30.00
2437MHz	Pass	0.70	15.48	15.48	30.00
2462MHz	Pass	0.70	15.57	15.57	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	0.70	10.61	10.61	30.00
2417MHz	Pass	0.70	15.06	15.06	30.00
2437MHz	Pass	0.70	15.10	15.10	30.00
2457MHz	Pass	0.70	13.78	13.78	30.00
2462MHz	Pass	0.70	10.74	10.74	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	0.70	10.37	10.37	30.00
2417MHz	Pass	0.70	13.83	13.83	30.00
2437MHz	Pass	0.70	14.01	14.01	30.00
2457MHz	Pass	0.70	13.99	13.99	30.00
2462MHz	Pass	0.70	10.48	10.48	30.00

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



**Summary**

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-14.05
802.11g_Nss1,(6Mbps)_1TX	-12.92
802.11n HT20_Nss1,(MCS0)_1TX	-13.62

RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;



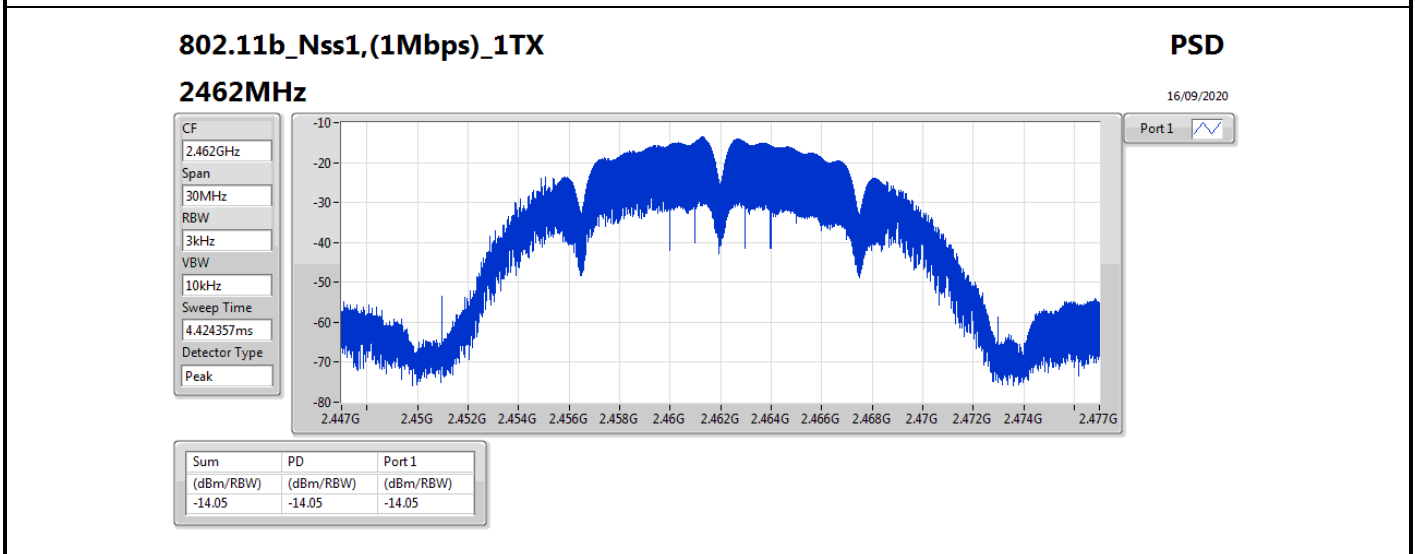
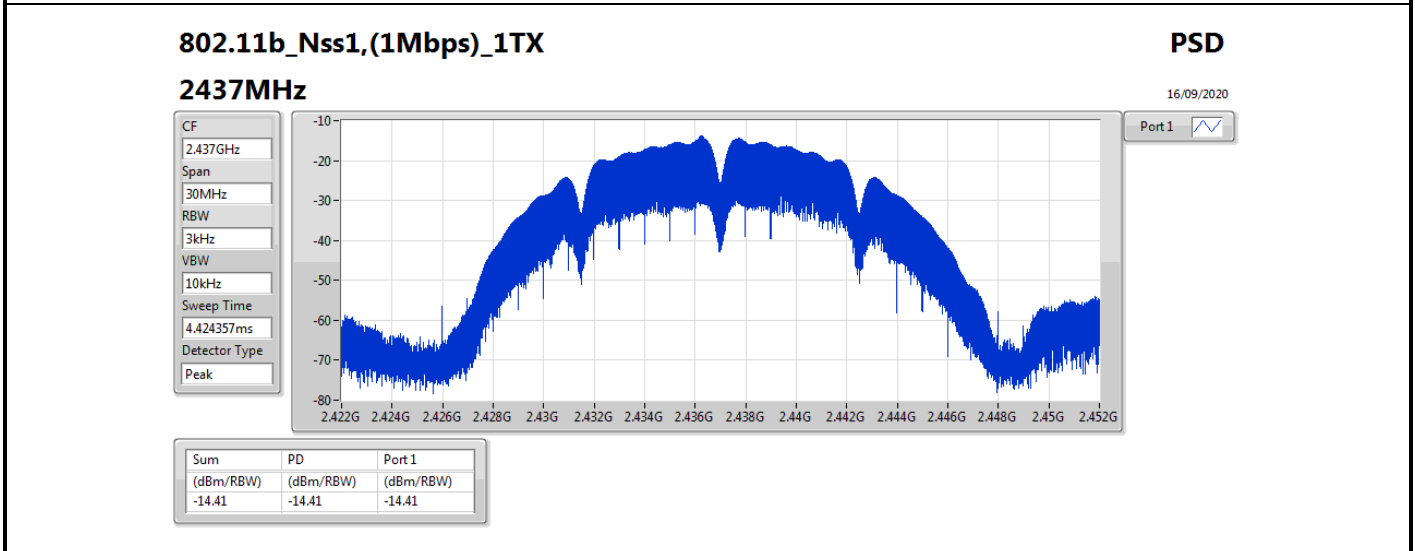
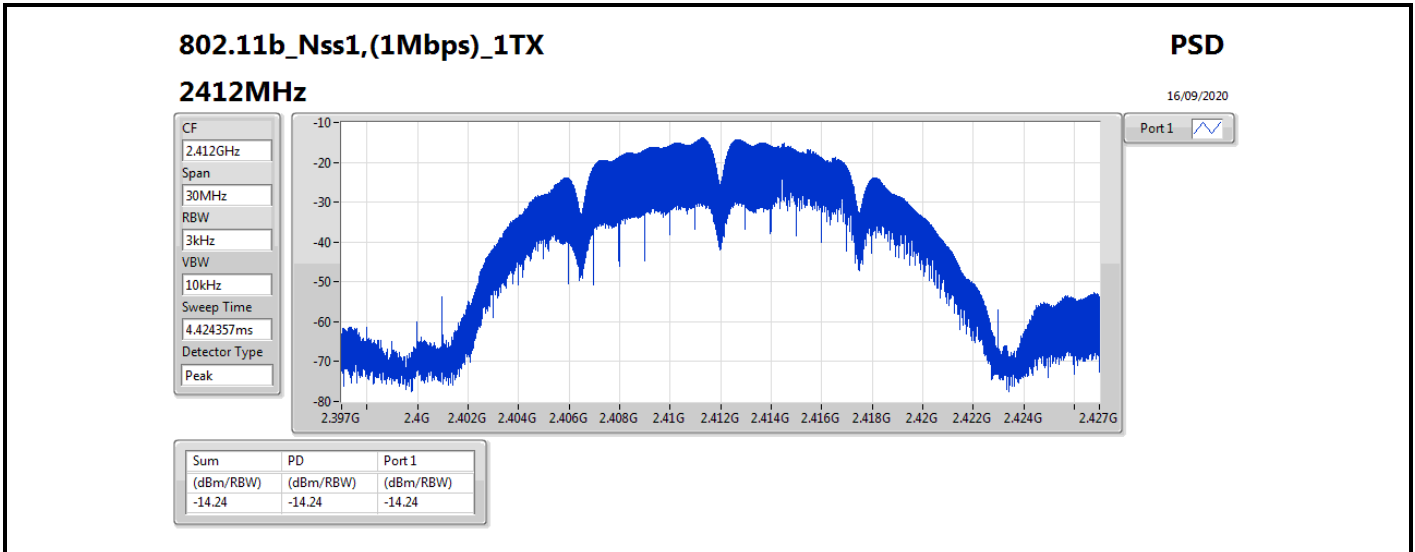


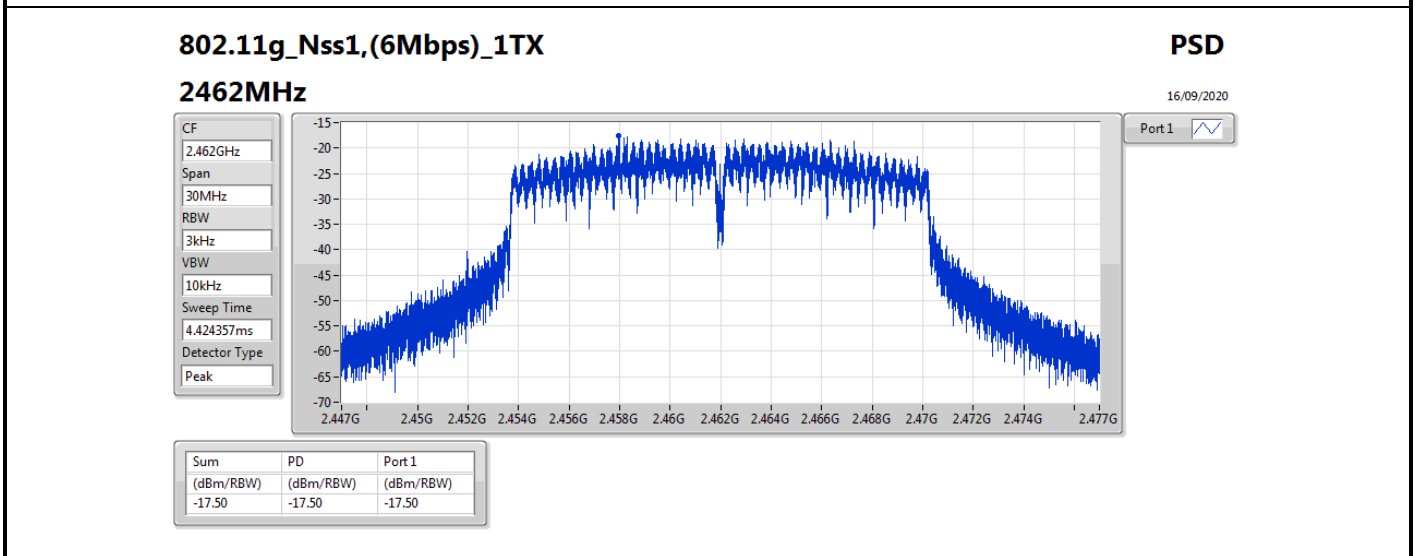
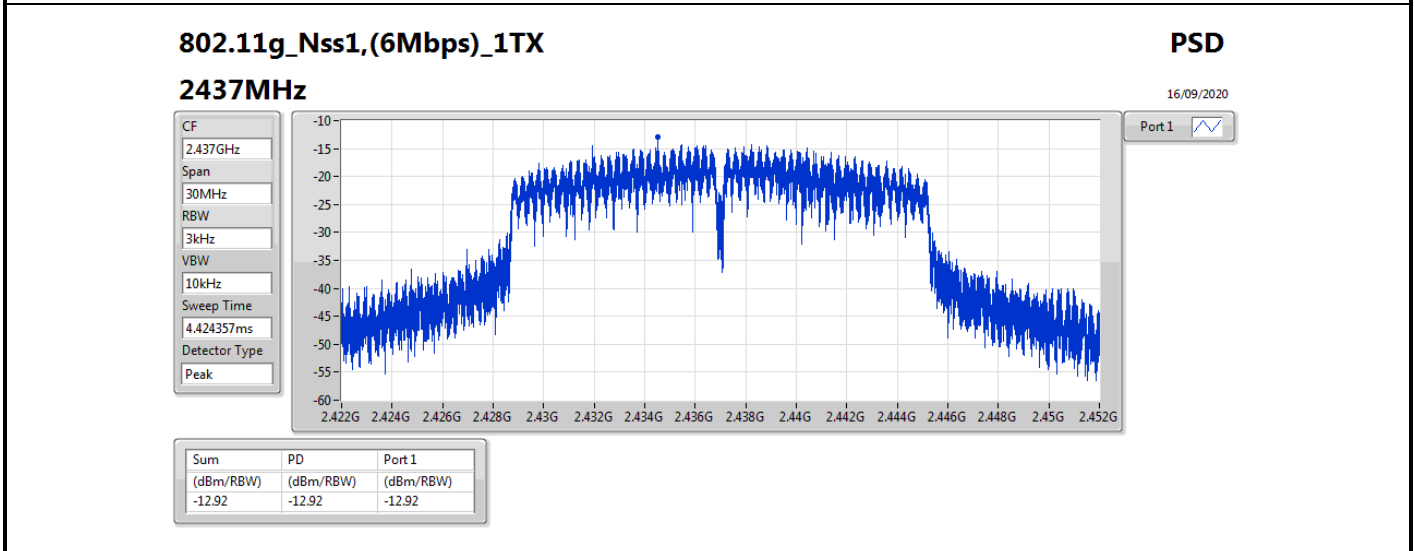
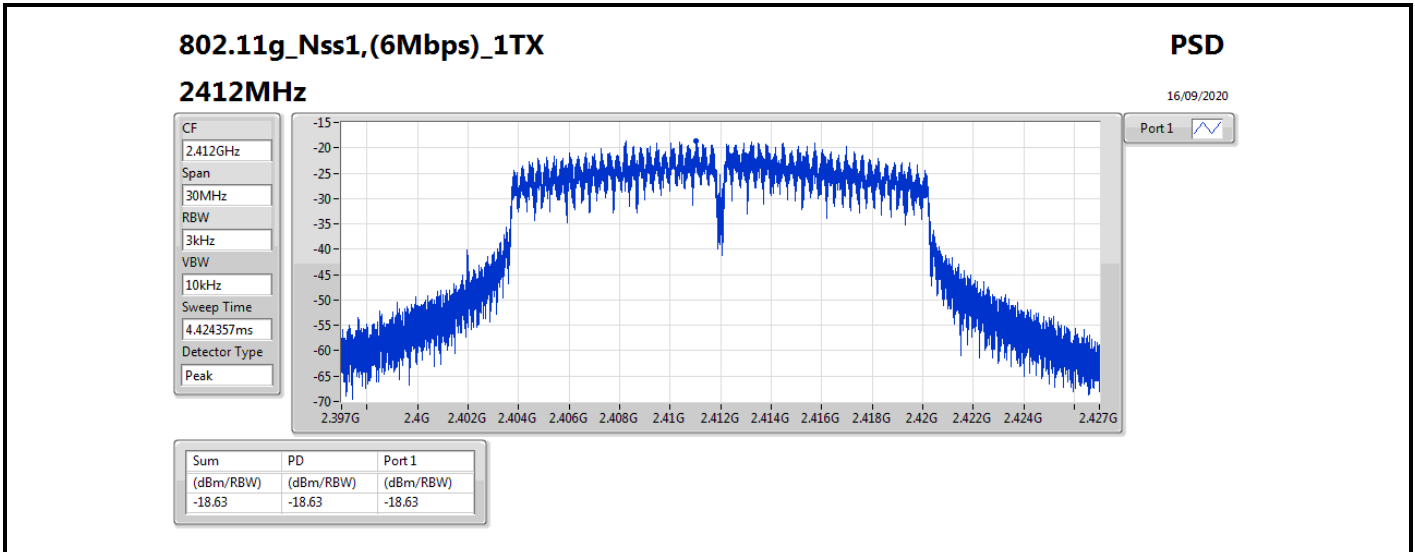
**Result**

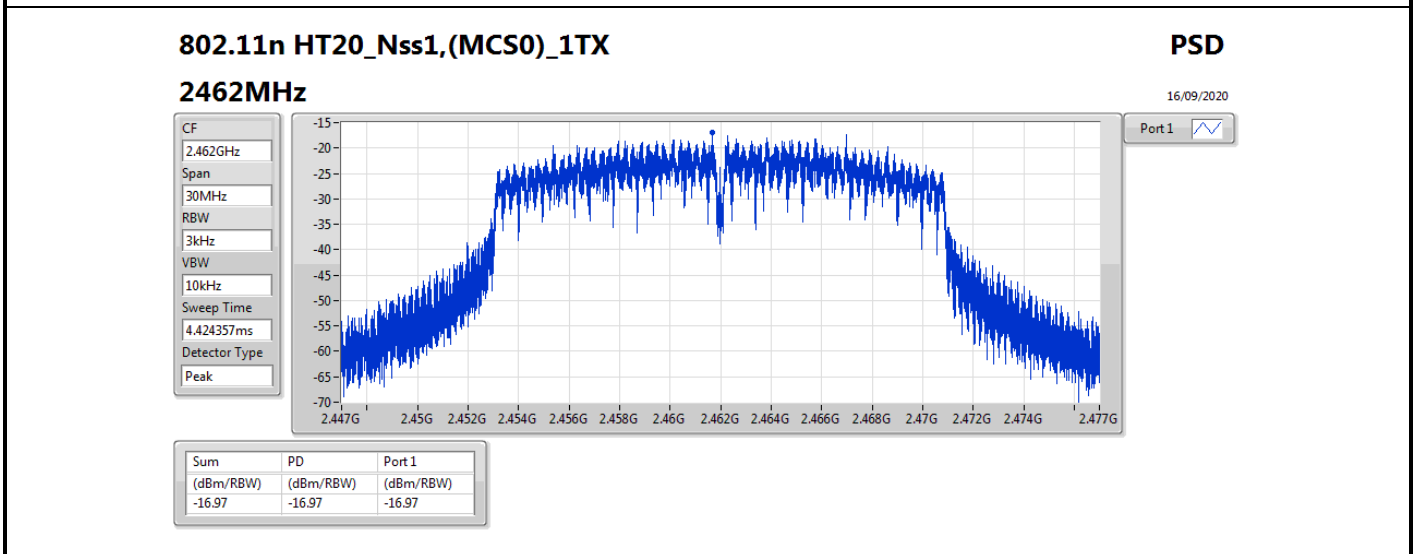
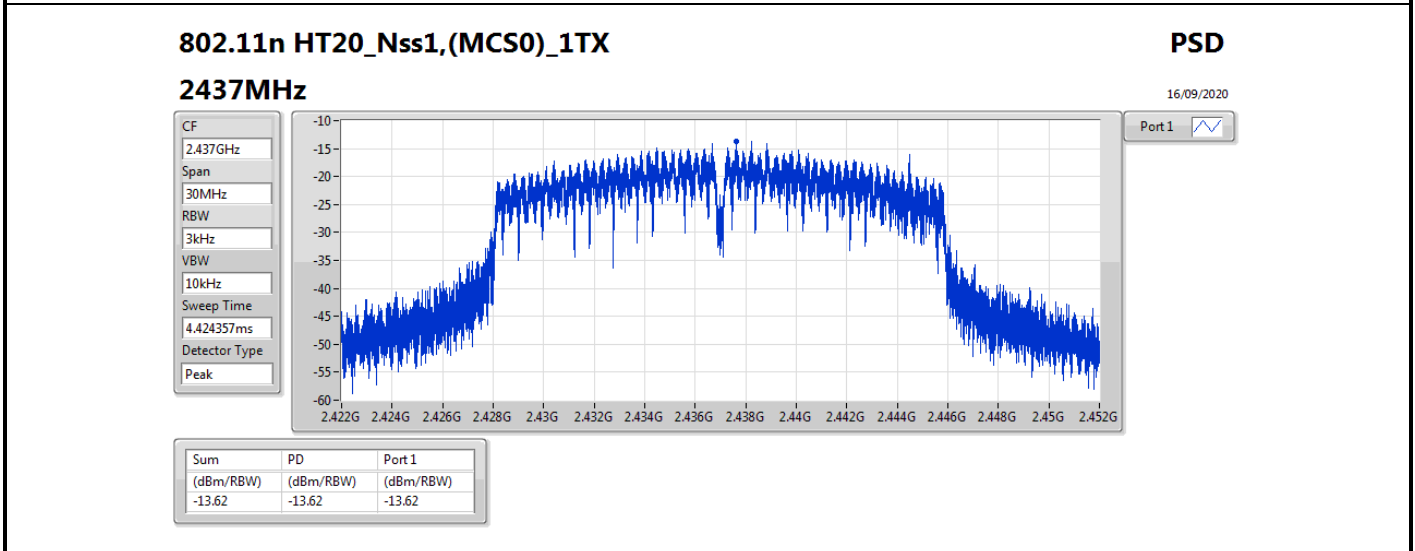
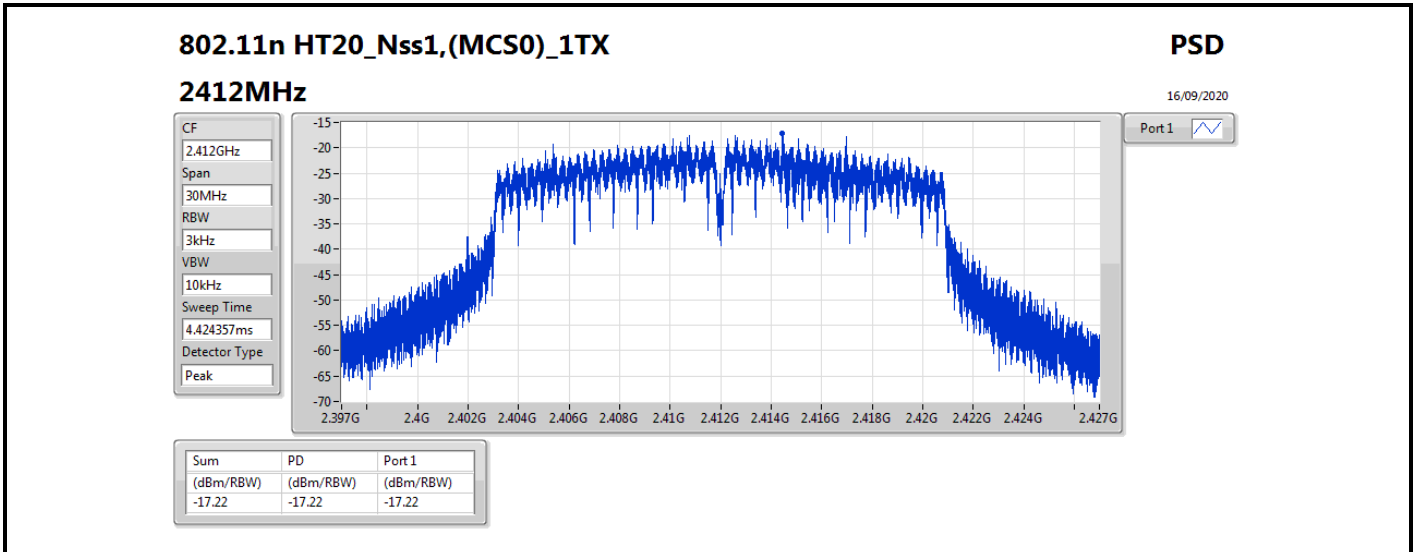
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	0.70	-14.24	-14.24	8.00
2437MHz	Pass	0.70	-14.41	-14.41	8.00
2462MHz	Pass	0.70	-14.05	-14.05	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	0.70	-18.63	-18.63	8.00
2437MHz	Pass	0.70	-12.92	-12.92	8.00
2462MHz	Pass	0.70	-17.50	-17.50	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	0.70	-17.22	-17.22	8.00
2437MHz	Pass	0.70	-13.62	-13.62	8.00
2462MHz	Pass	0.70	-16.97	-16.97	8.00

**DG** = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

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









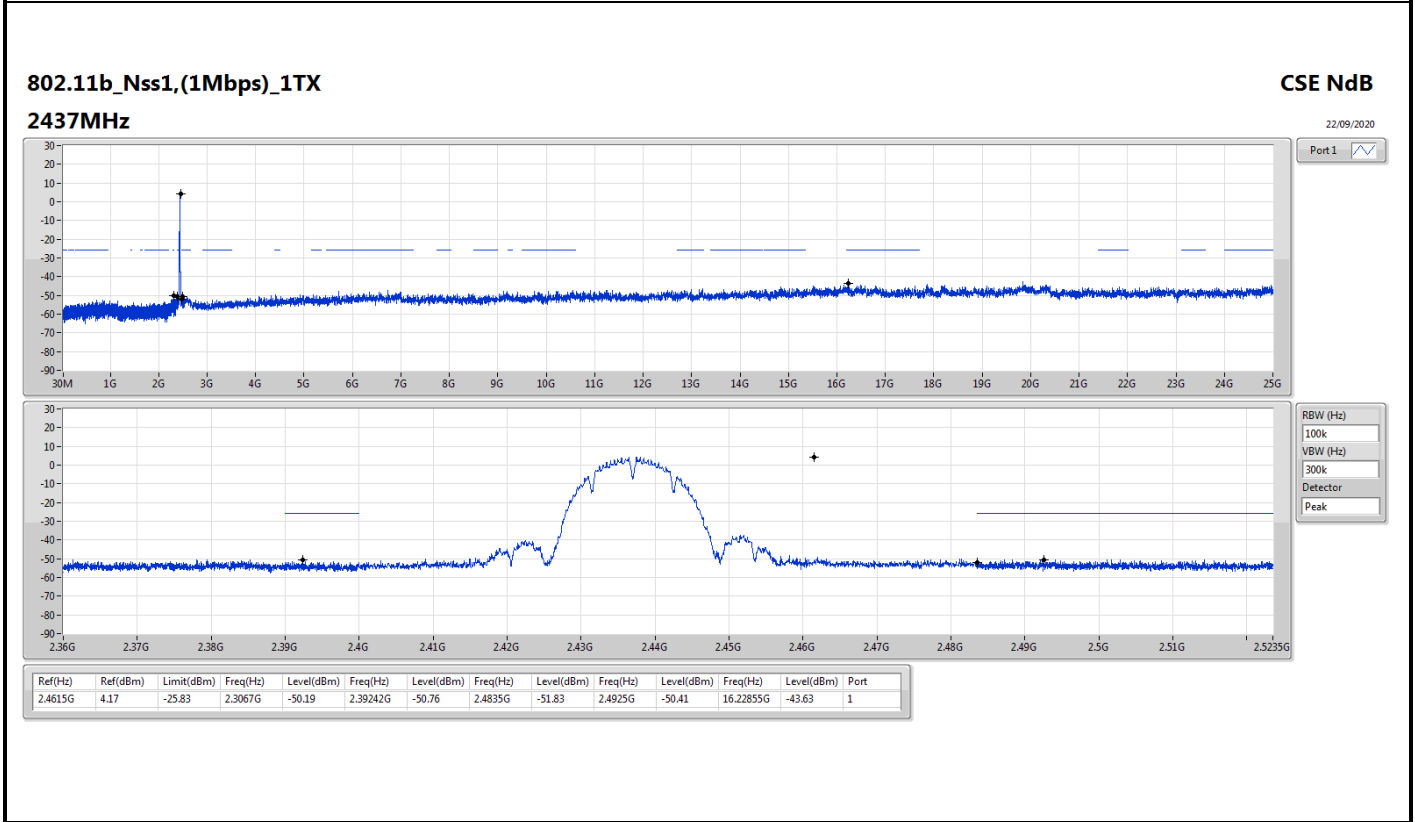
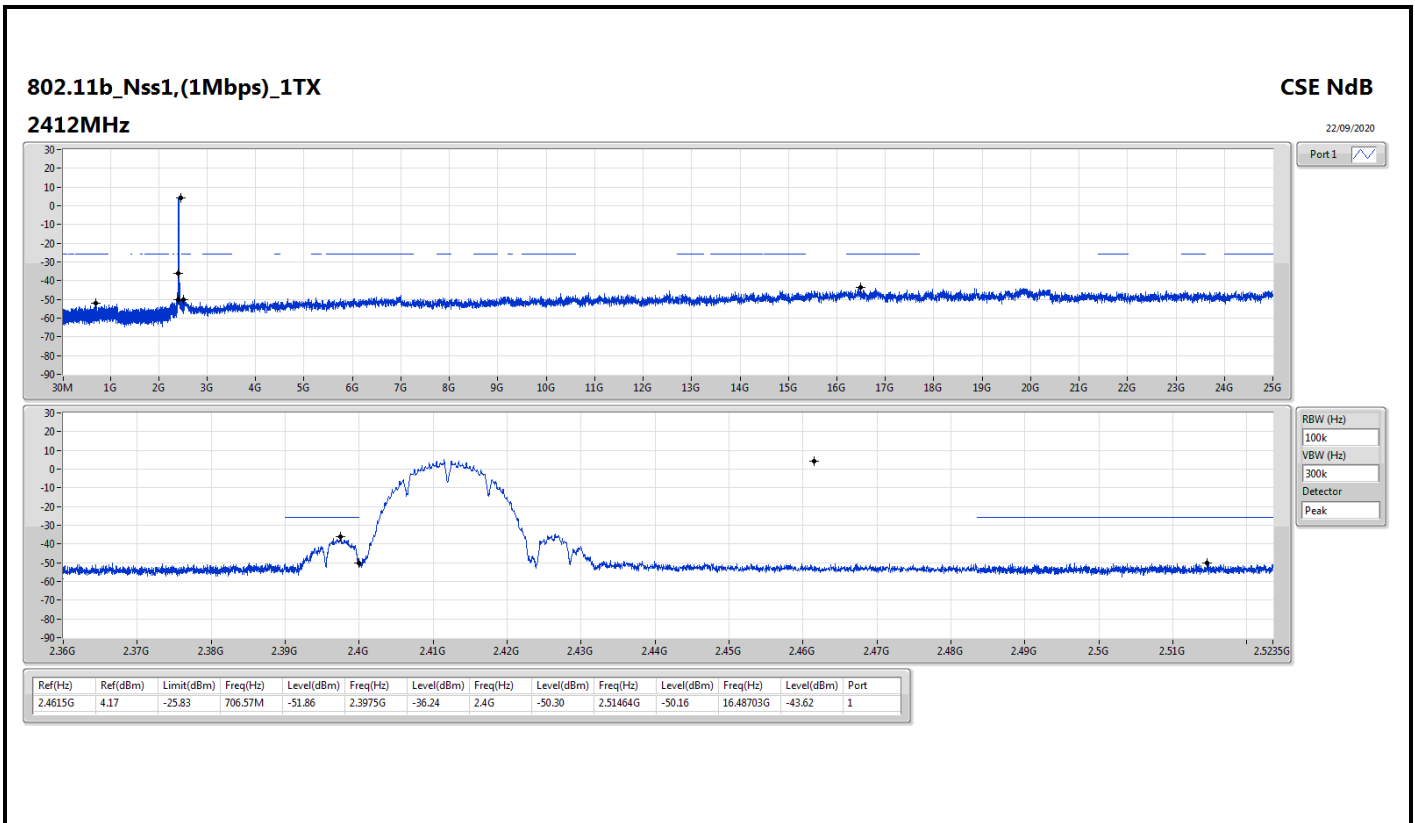
**Summary**

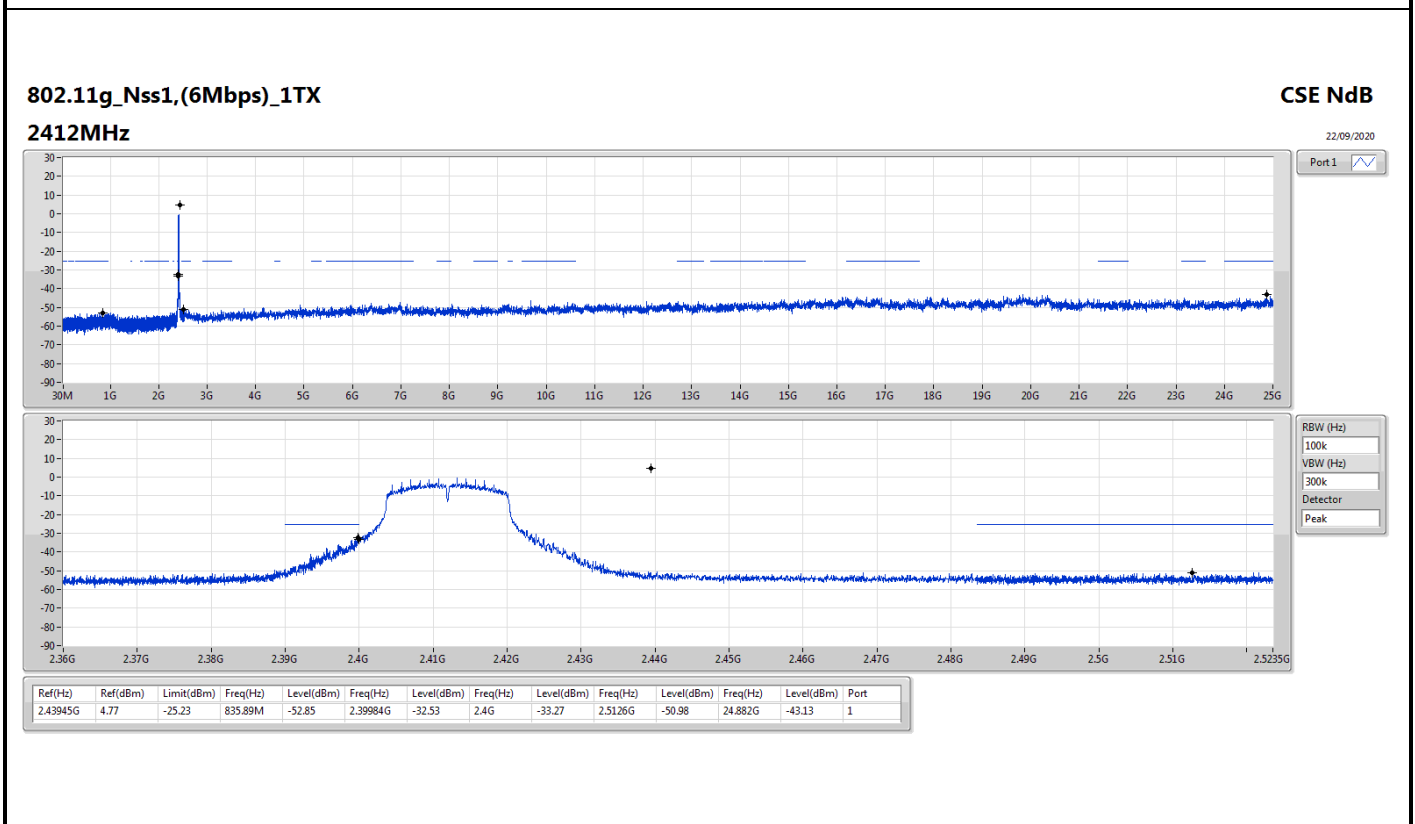
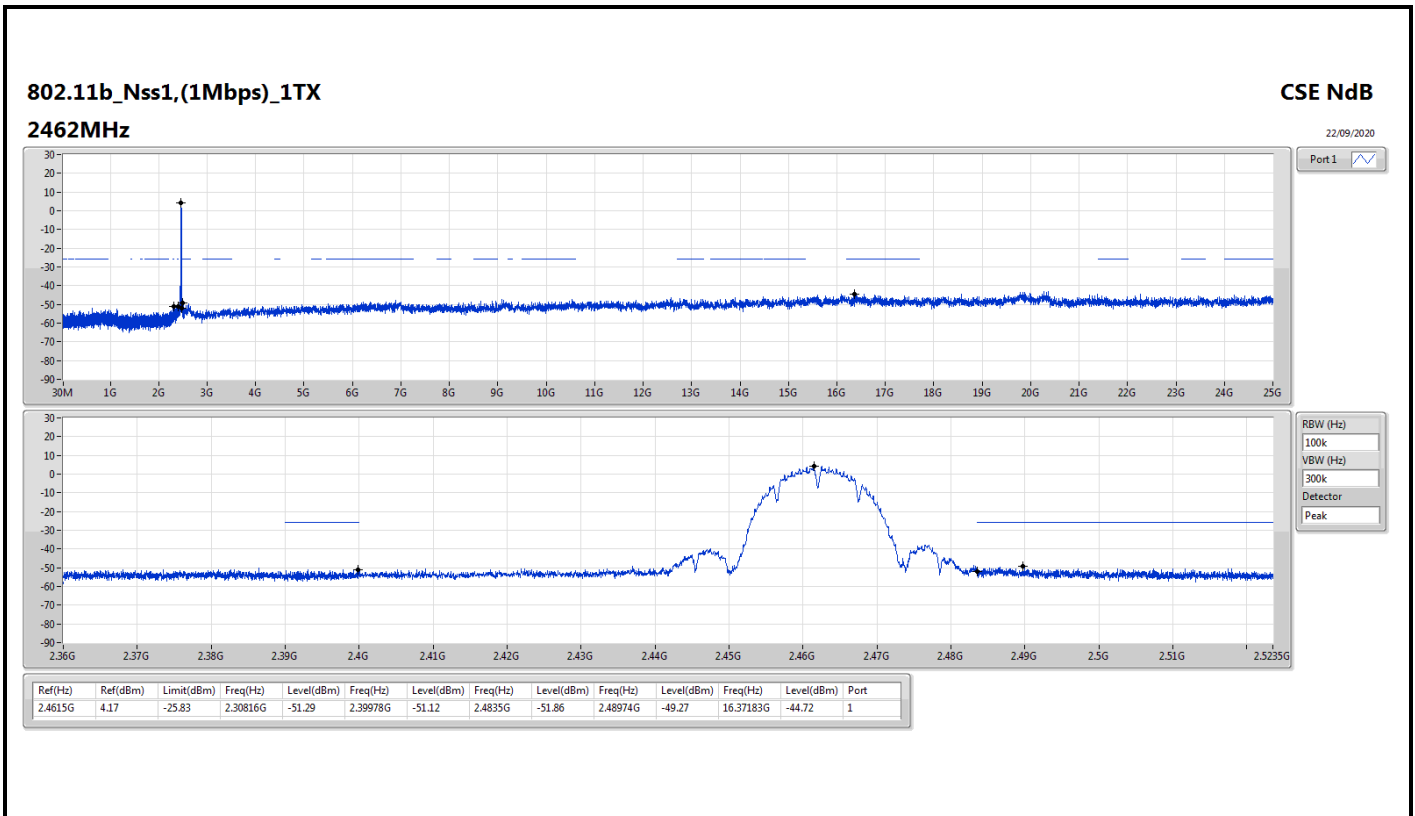
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.4615G	4.17	-25.83	706.57M	-51.86	2.3975G	-36.24	2.4G	-50.30	2.51464G	-50.16	16.48703G	-43.62	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.43945G	4.77	-25.23	835.89M	-52.85	2.39984G	-32.53	2.4G	-33.27	2.5126G	-50.98	24.882G	-43.13	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.43824G	3.37	-26.63	2.3067G	-52.50	2.3999G	-33.96	2.4G	-34.19	2.5171G	-50.69	16.53198G	-43.84	1



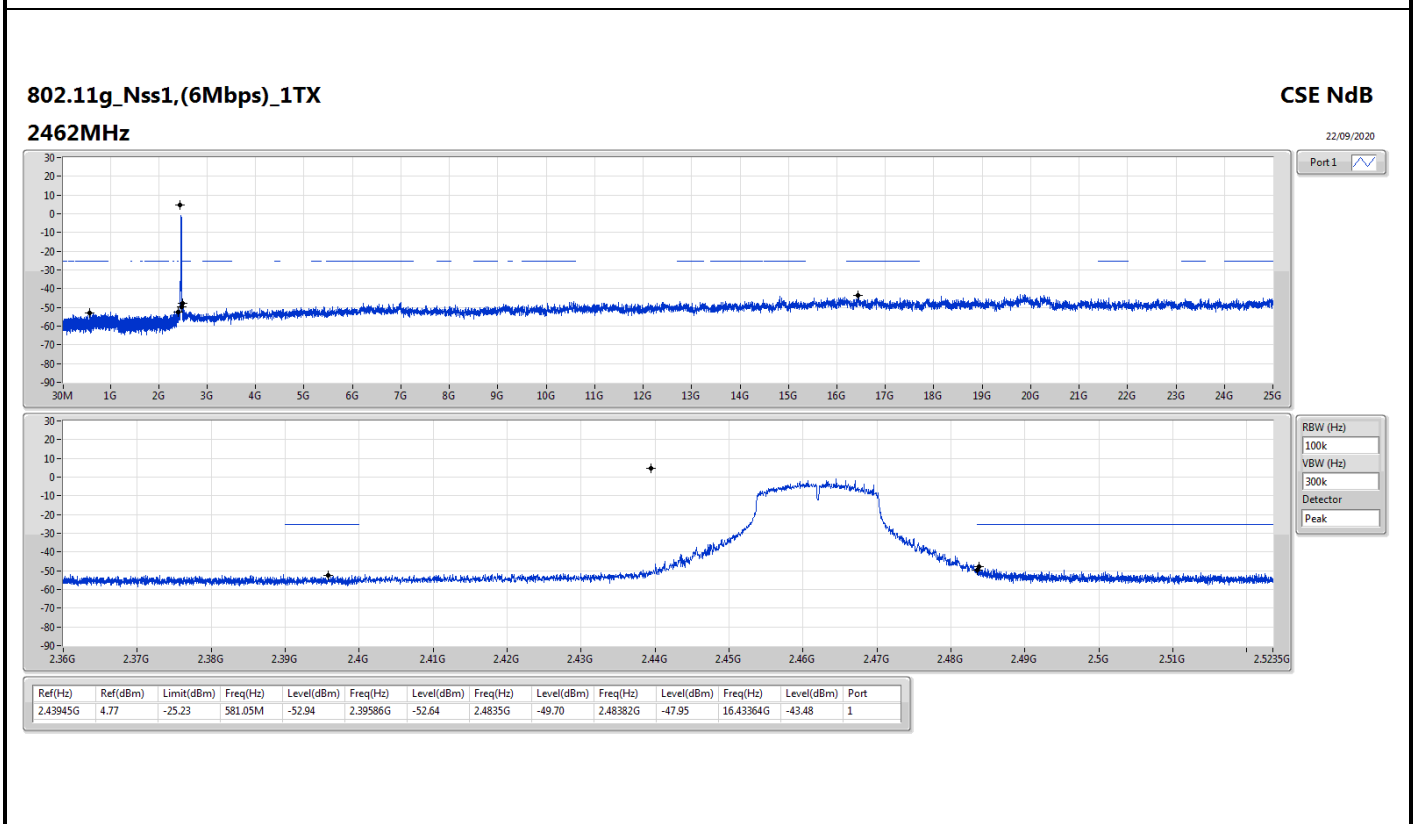
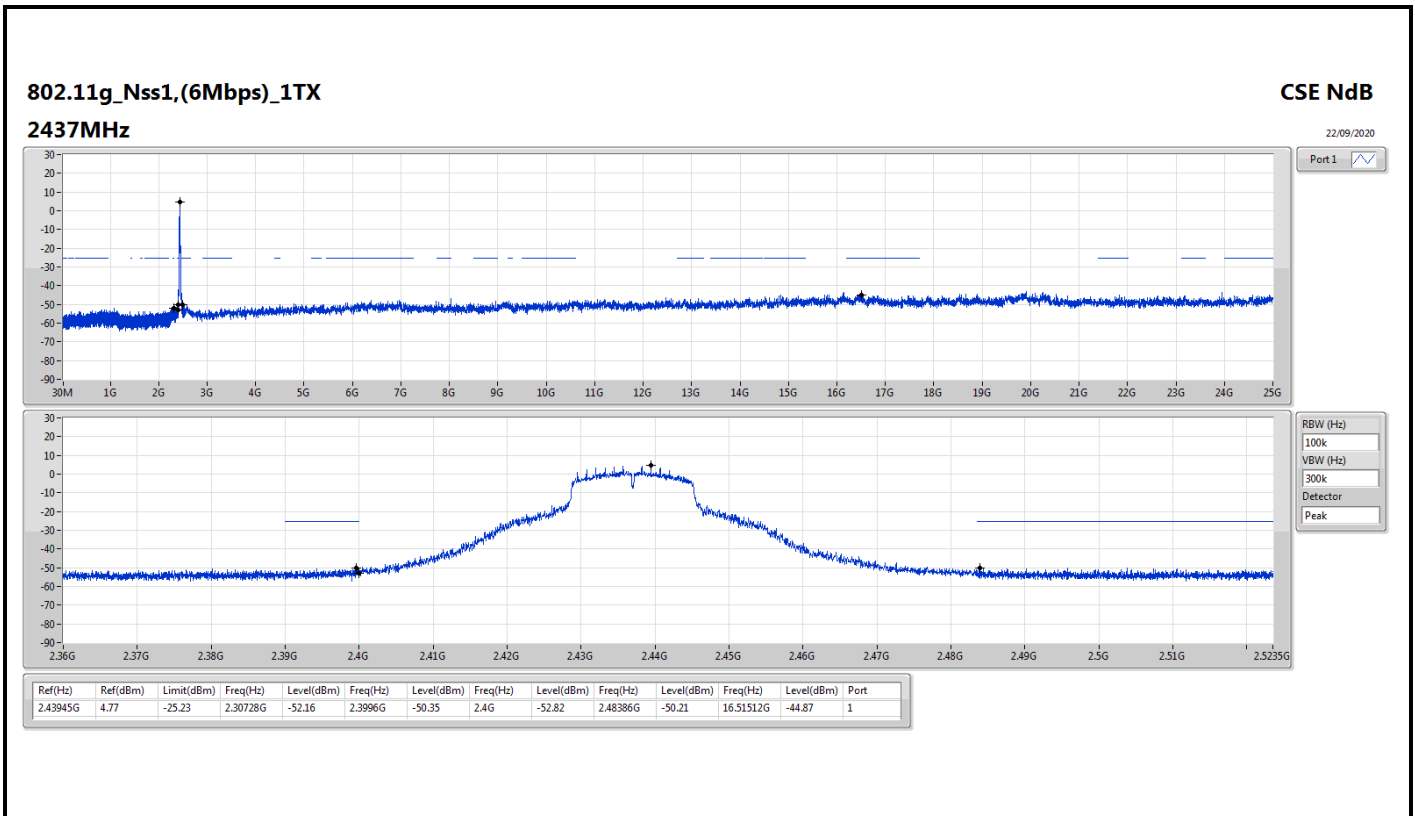
**Result**

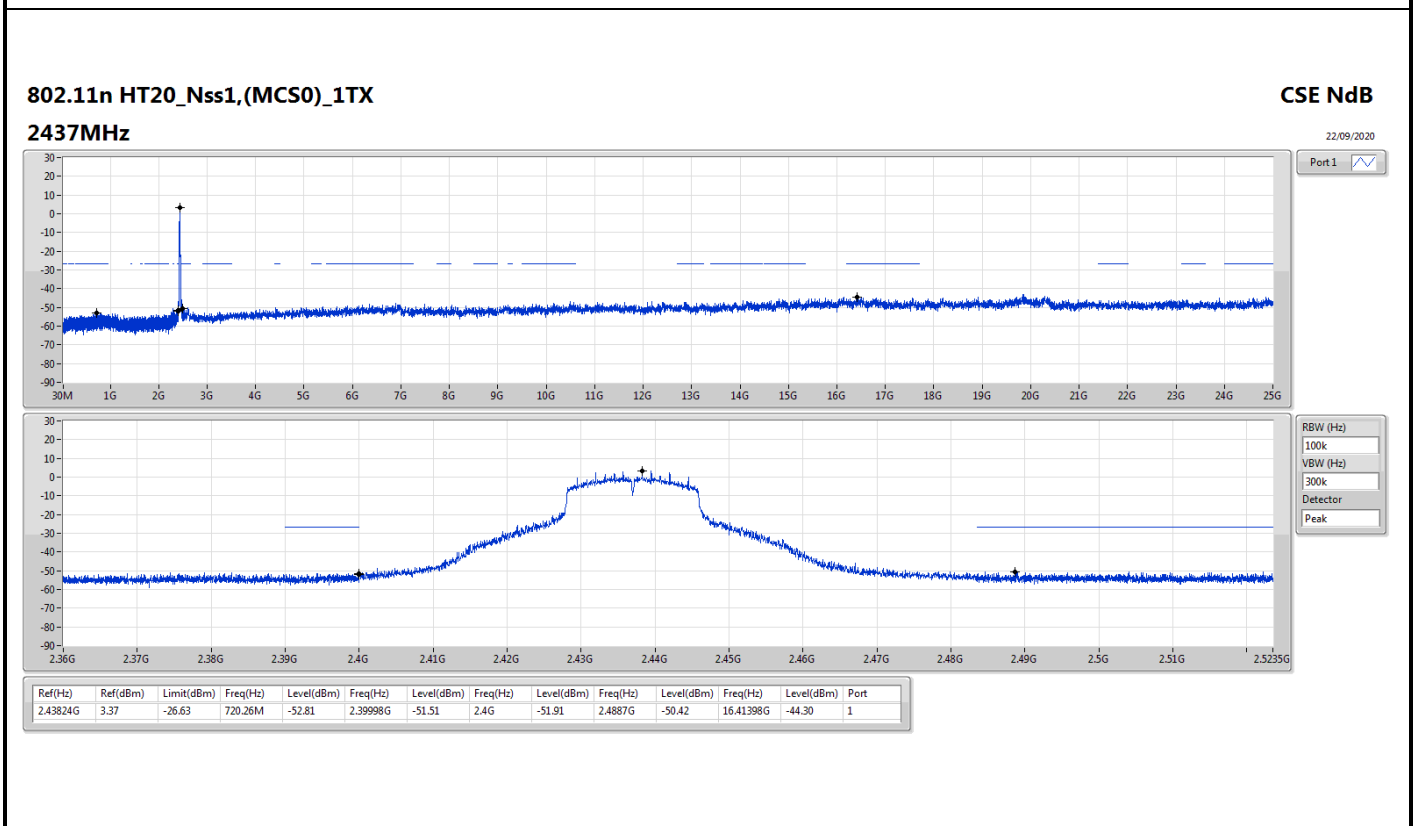
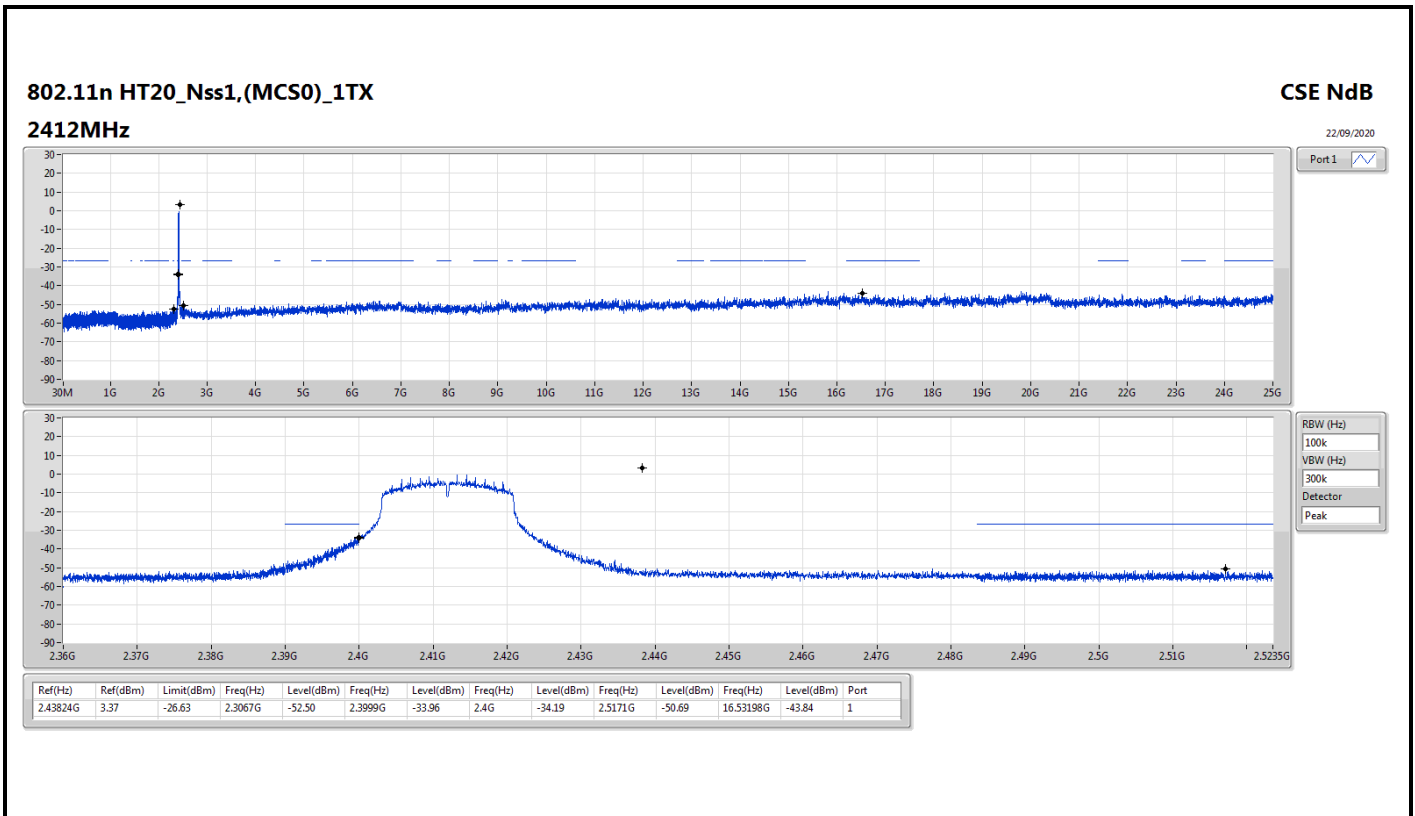
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4615G	4.17	-25.83	706.57M	-51.86	2.3975G	-36.24	2.4G	-50.30	2.51464G	-50.16	16.48703G	-43.62	1
2437MHz	Pass	2.4615G	4.17	-25.83	2.3067G	-50.19	2.39242G	-50.76	2.4835G	-51.83	2.4925G	-50.41	16.22855G	-43.63	1
2462MHz	Pass	2.4615G	4.17	-25.83	2.30816G	-51.29	2.39978G	-51.12	2.4835G	-51.86	2.48974G	-49.27	16.37183G	-44.72	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43945G	4.77	-25.23	835.89M	-52.85	2.39984G	-32.53	2.4G	-33.27	2.5126G	-50.98	24.882G	-43.13	1
2437MHz	Pass	2.43945G	4.77	-25.23	2.30728G	-52.16	2.3996G	-50.35	2.4G	-52.82	2.48386G	-50.21	16.51512G	-44.87	1
2462MHz	Pass	2.43945G	4.77	-25.23	581.05M	-52.94	2.39586G	-52.64	2.4835G	-49.70	2.48382G	-47.95	16.43364G	-43.48	1
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43824G	3.37	-26.63	2.3067G	-52.50	2.3999G	-33.96	2.4G	-34.19	2.5171G	-50.69	16.53198G	-43.84	1
2437MHz	Pass	2.43824G	3.37	-26.63	720.26M	-52.81	2.39998G	-51.51	2.4G	-51.91	2.4887G	-50.42	16.41398G	-44.30	1
2462MHz	Pass	2.43824G	3.37	-26.63	856.86M	-52.87	2.39324G	-52.21	2.4835G	-48.42	2.48386G	-47.14	24.89886G	-44.48	1

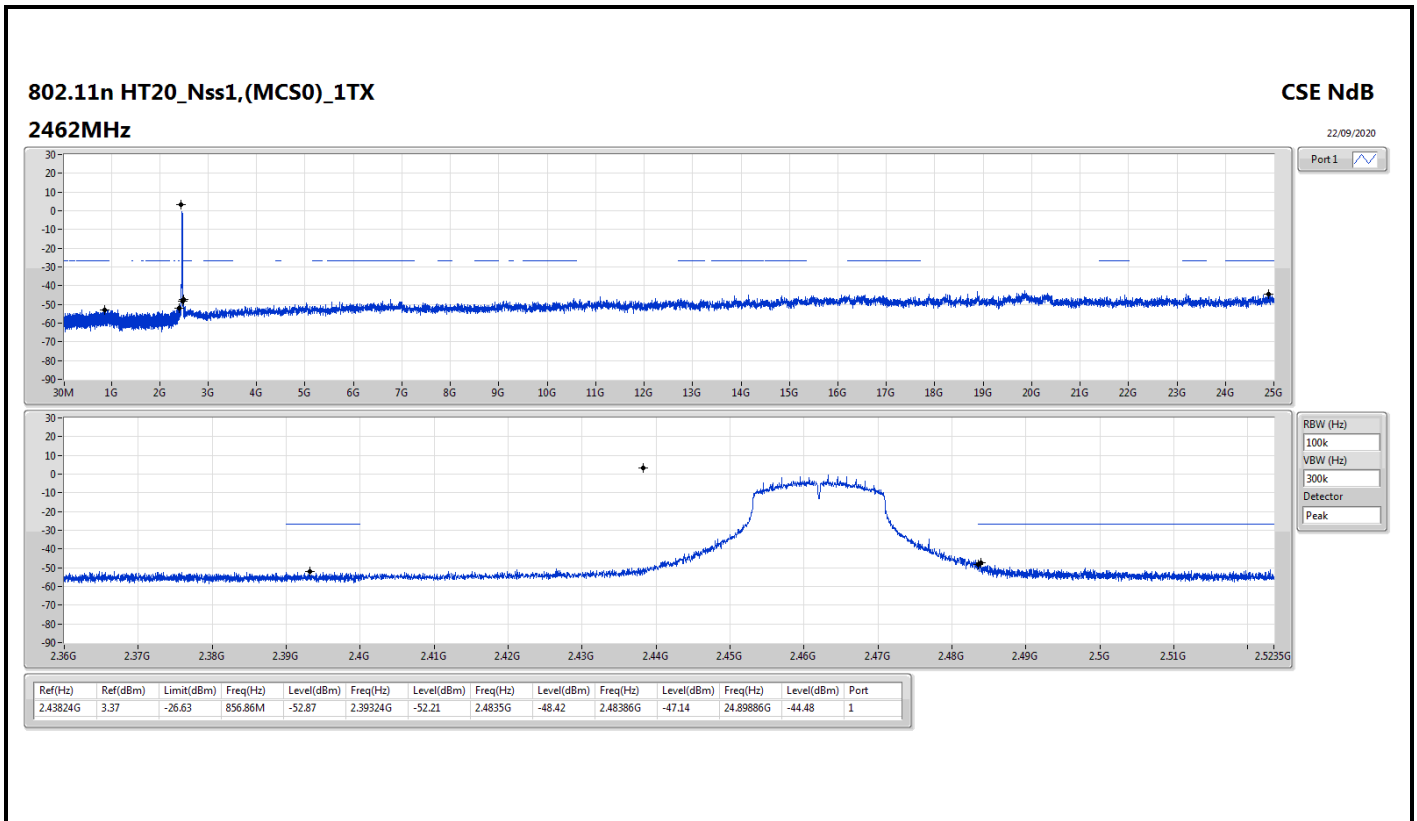












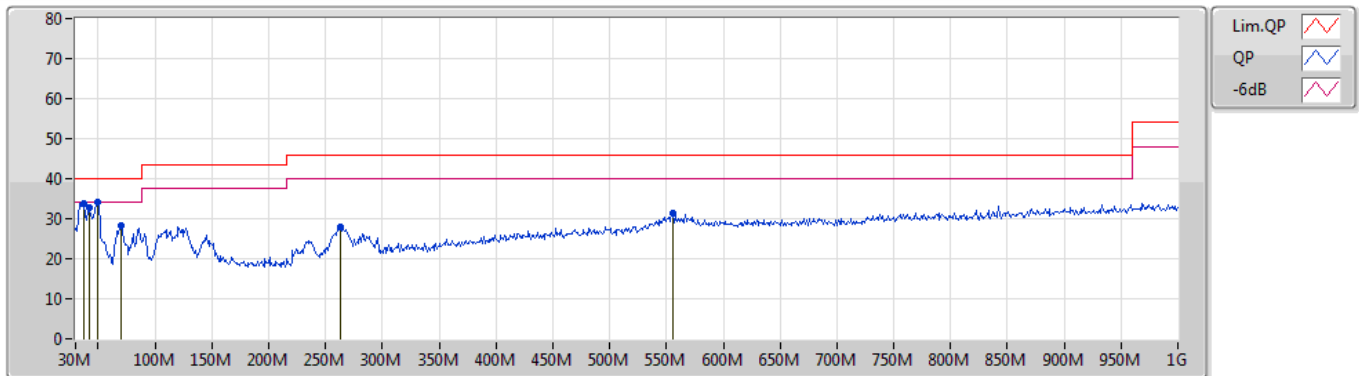


**Summary**

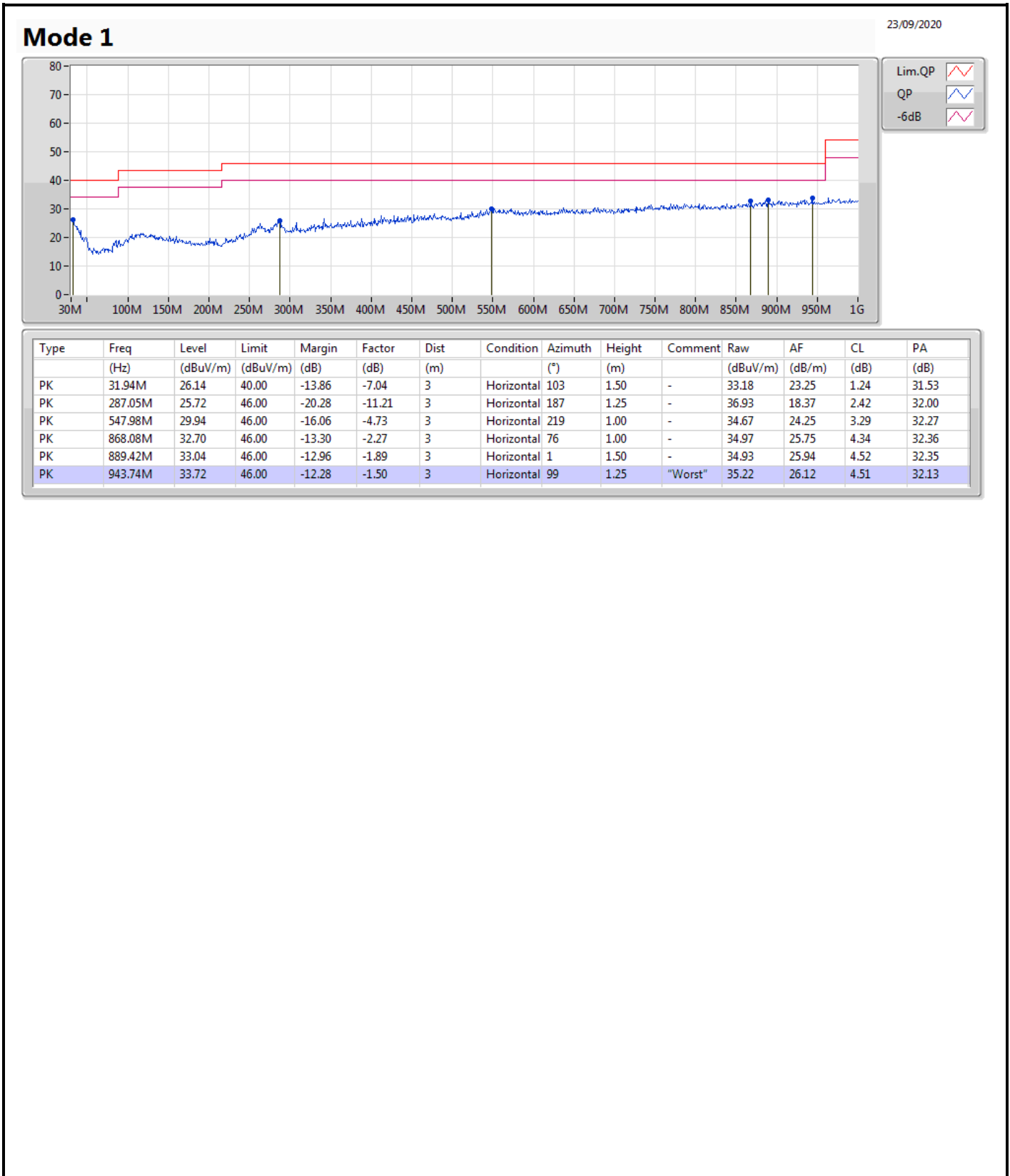
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	49.4M	34.07	40.00	-5.93	Vertical

Mode 1

23/09/2020



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	36.79M	33.80	40.00	-6.20	-9.31	3	Vertical	32	1.00	-	43.11	20.81	1.34	31.46
PK	41.64M	32.92	40.00	-7.08	-11.86	3	Vertical	294	1.50	-	44.78	18.25	1.33	31.44
PK	49.4M	34.07	40.00	-5.93	-15.69	3	Vertical	123	1.00	"Worst"	49.76	14.70	1.20	31.59
PK	69.77M	28.24	40.00	-11.76	-17.97	3	Vertical	261	1.50	-	46.21	12.51	1.30	31.78
PK	262.8M	27.76	46.00	-18.24	-10.81	3	Vertical	175	2.00	-	38.57	18.88	2.28	31.97
PK	555.74M	31.34	46.00	-14.66	-4.62	3	Vertical	159	1.00	-	35.96	24.33	3.32	32.27





**Summary**

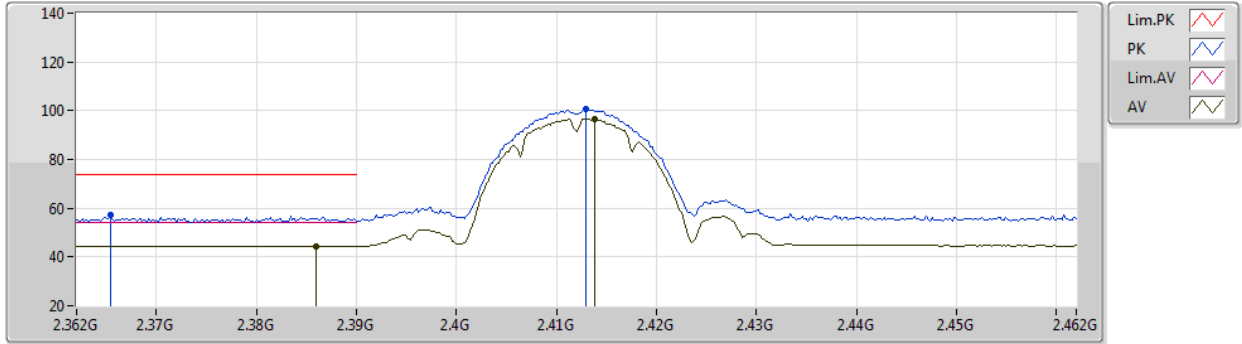
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	AV	2.4886G	49.09	54.00	-4.91	3	Horizontal	312	1.00	-



802.11b\_Nss1,(1Mbps)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3654G	57.02	74.00	-16.98	24.94	3	Vertical	28	2.61	-	28.10	3.98	-
AV	2.386G	44.43	54.00	-9.57	12.34	3	Vertical	28	2.61	-	28.10	3.99	-
PK	2.413G	100.56	Inf	-Inf	68.41	3	Vertical	28	2.61	-	28.13	4.02	-
AV	2.4138G	96.47	Inf	-Inf	64.32	3	Vertical	28	2.61	-	28.13	4.02	-

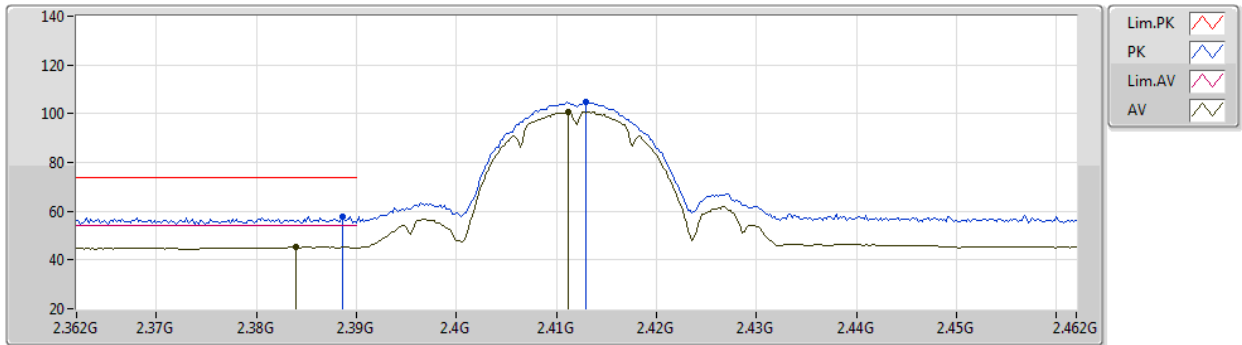




802.11b\_Nss1,(1Mbps)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

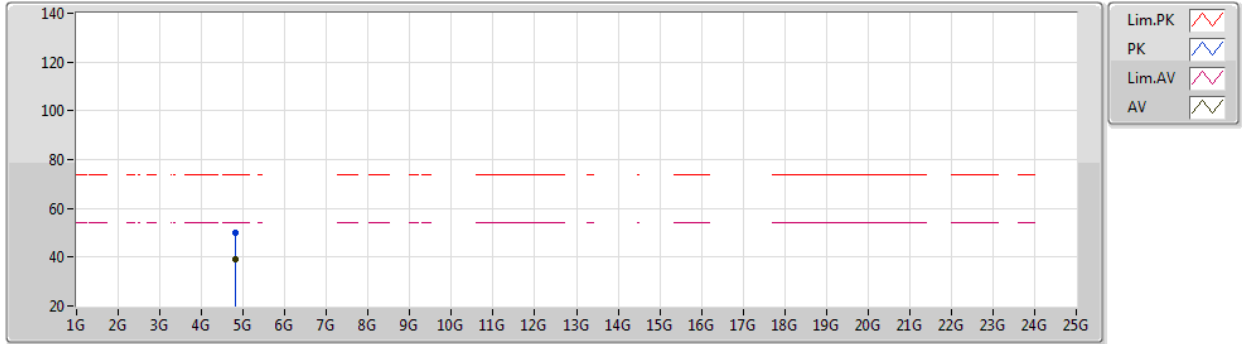
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3886G	57.79	74.00	-16.21	25.70	3	Horizontal	317	1.08	-	28.10	3.99	-
AV	2.384G	45.31	54.00	-8.69	13.22	3	Horizontal	317	1.08	-	28.10	3.99	-
PK	2.413G	104.73	Inf	-Inf	72.58	3	Horizontal	317	1.08	-	28.13	4.02	-
AV	2.4112G	100.81	Inf	-Inf	68.67	3	Horizontal	317	1.08	-	28.12	4.02	-



802.11b\_Nss1,(1Mbps)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-A-J-7

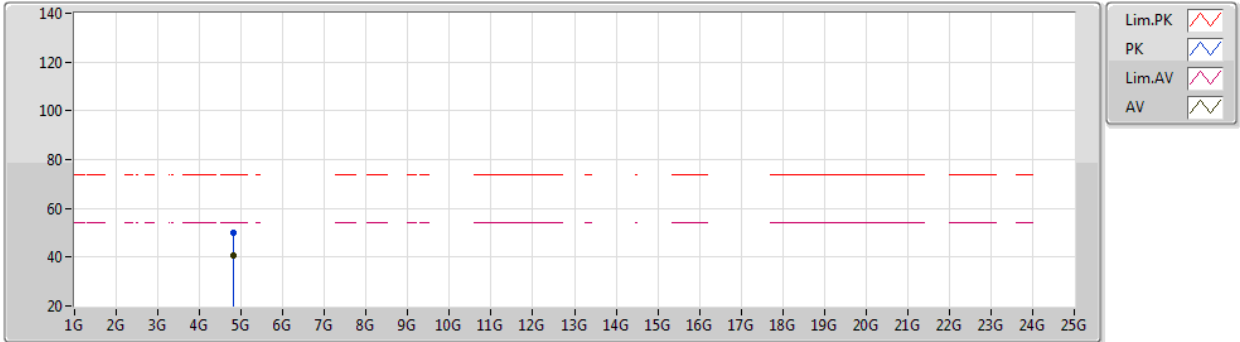
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PK	4.82391G	49.97	74.00	-24.03	45.46	3	Vertical	14	2.81	-	33.30	6.51	35.30
AV	4.82394G	39.16	54.00	-14.84	34.65	3	Vertical	14	2.81	-	33.30	6.51	35.30



802.11b\_Nss1,(1Mbps)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-A-J-7

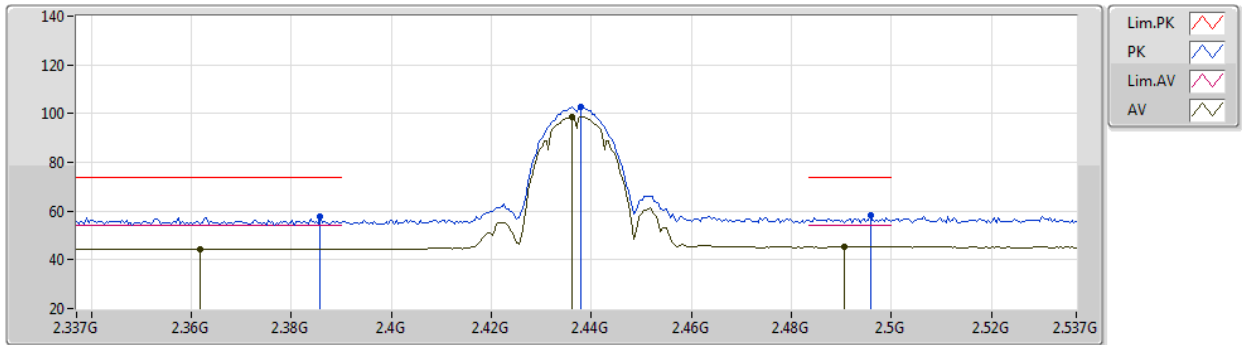
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PK	4.82362G	50.21	74.00	-23.79	45.71	3	Horizontal	44	2.56	-	33.29	6.51	35.30
AV	4.82397G	40.70	54.00	-13.30	36.19	3	Horizontal	44	2.56	-	33.30	6.51	35.30



802.11b\_Nss1,(1Mbps)\_1TX

18/09/2020

2437MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

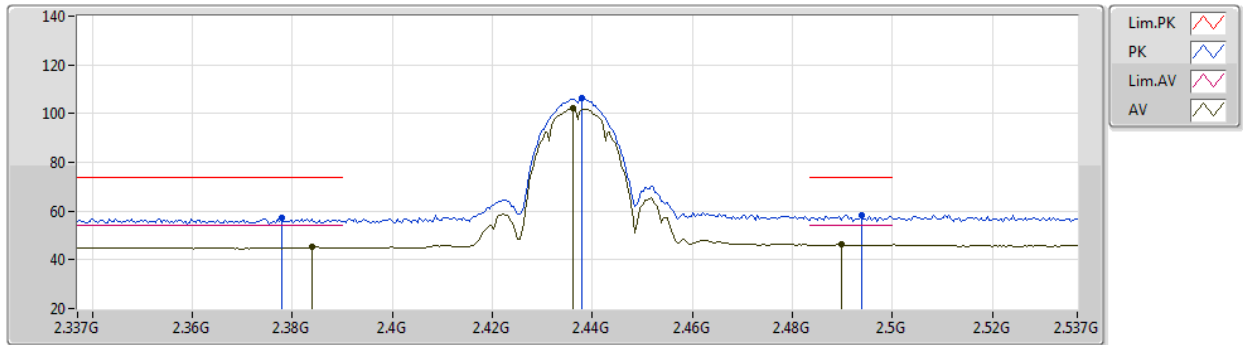
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3858G	57.58	74.00	-16.42	25.49	3	Vertical	44	1.18	-	28.10	3.99	-
AV	2.3618G	44.56	54.00	-9.44	12.48	3	Vertical	44	1.18	-	28.10	3.98	-
PK	2.4378G	102.60	Inf	-Inf	70.36	3	Vertical	44	1.18	-	28.18	4.06	-
AV	2.4362G	98.69	Inf	-Inf	66.47	3	Vertical	44	1.18	-	28.17	4.05	-
PK	2.4958G	58.24	74.00	-15.76	25.63	3	Vertical	44	1.18	-	28.47	4.14	-
AV	2.4906G	45.32	54.00	-8.68	12.74	3	Vertical	44	1.18	-	28.44	4.14	-



802.11b\_Nss1,(1Mbps)\_1TX

18/09/2020

2437MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

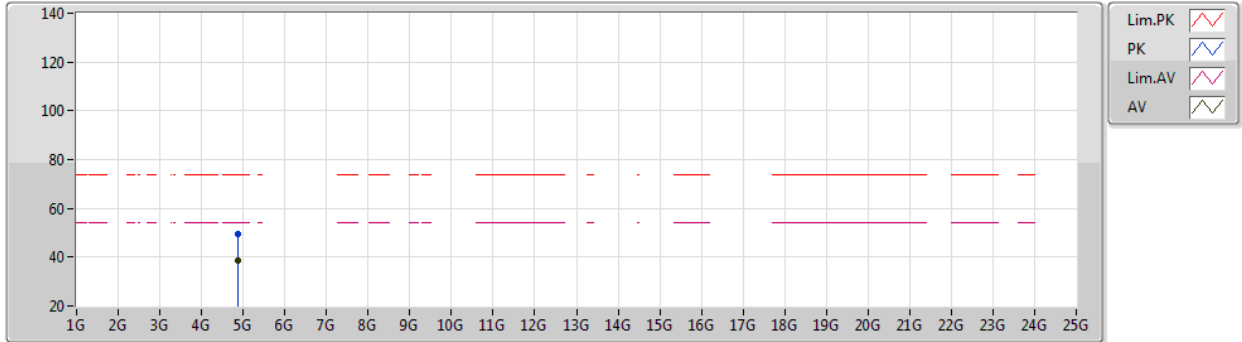
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3778G	57.16	74.00	-16.84	25.07	3	Horizontal	315	1.00	-	28.10	3.99	-
AV	2.3838G	45.17	54.00	-8.83	13.08	3	Horizontal	315	1.00	-	28.10	3.99	-
PK	2.4378G	106.13	Inf	-Inf	73.89	3	Horizontal	315	1.00	-	28.18	4.06	-
AV	2.4362G	102.22	Inf	-Inf	70.00	3	Horizontal	315	1.00	-	28.17	4.05	-
PK	2.4938G	58.12	74.00	-15.88	25.52	3	Horizontal	315	1.00	-	28.46	4.14	-
AV	2.4898G	46.22	54.00	-7.78	13.65	3	Horizontal	315	1.00	-	28.44	4.13	-



802.11b\_Nss1,(1Mbps)\_1TX

18/09/2020

2437MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

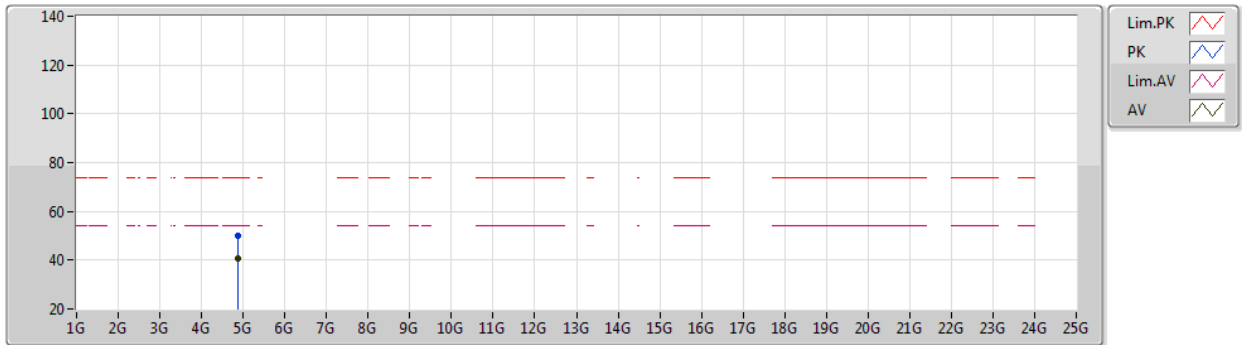
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PK	4.874111G	49.25	74.00	-24.75	44.57	3	Vertical	27	1.00	-	33.50	6.54	35.36
AV	4.87396G	38.87	54.00	-15.13	34.19	3	Vertical	27	1.00	-	33.50	6.54	35.36



802.11b\_Nss1,(1Mbps)\_1TX

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2437MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

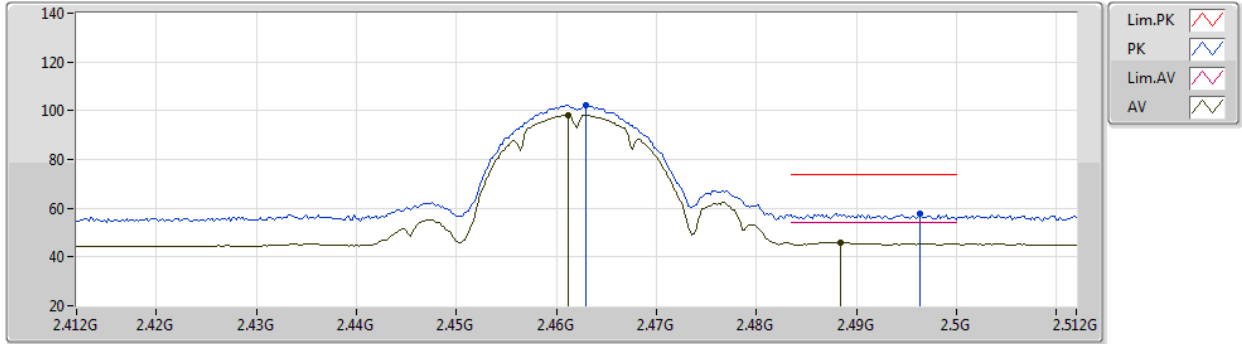
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PK	4.87368G	49.81	74.00	-24.19	45.14	3	Horizontal	51	2.50	-	33.49	6.54	35.36
AV	4.87396G	40.87	54.00	-13.13	36.19	3	Horizontal	51	2.50	-	33.50	6.54	35.36



802.11b\_Nss1,(1Mbps)\_1TX

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2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.463G	102.14	Inf	-Inf	69.77	3	Vertical	21	2.23	-	28.28	4.09	-
AV	2.4612G	98.30	Inf	-Inf	65.94	3	Vertical	21	2.23	-	28.27	4.09	-
PK	2.4964G	57.54	74.00	-16.46	24.92	3	Vertical	21	2.23	-	28.48	4.14	-
AV	2.4884G	46.02	54.00	-7.98	13.46	3	Vertical	21	2.23	-	28.43	4.13	-

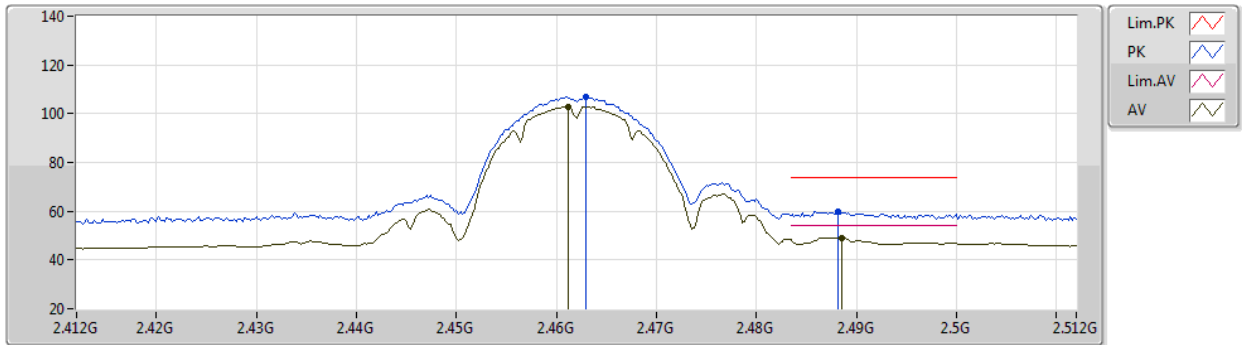




802.11b\_Nss1,(1Mbps)\_1TX

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2462MHz\_TX



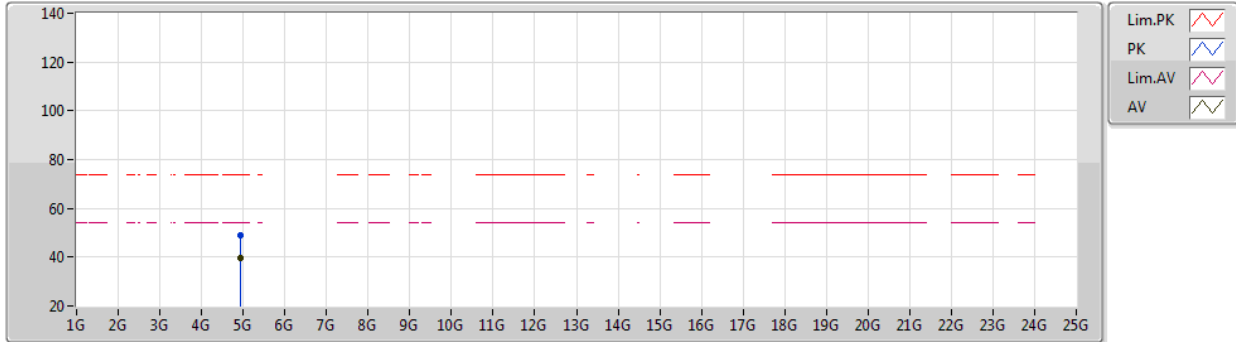
EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.463G	106.79	Inf	-Inf	74.42	3	Horizontal	312	1.00	-	28.28	4.09	-
AV	2.4612G	102.95	Inf	-Inf	70.59	3	Horizontal	312	1.00	-	28.27	4.09	-
PK	2.4882G	59.81	74.00	-14.19	27.25	3	Horizontal	312	1.00	-	28.43	4.13	-
AV	2.4886G	49.09	54.00	-4.91	16.53	3	Horizontal	312	1.00	-	28.43	4.13	-

802.11b\_Nss1,(1Mbps)\_1TX

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2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

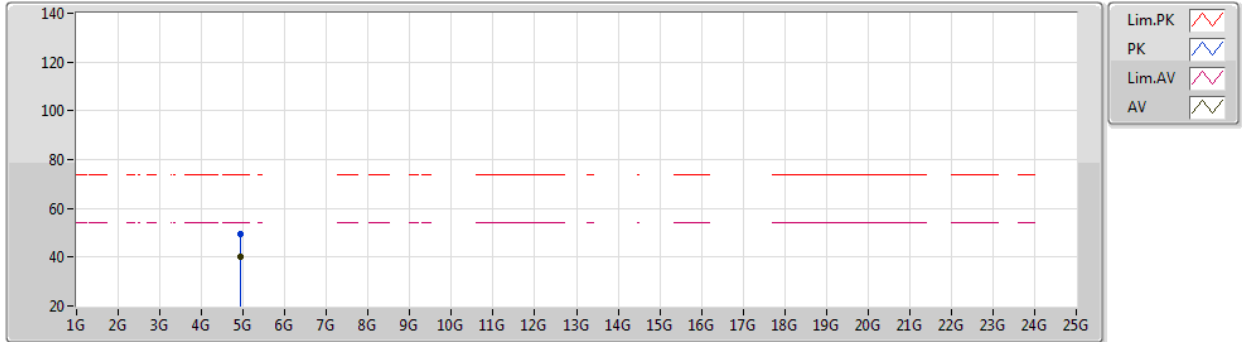
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PK	4.9243G	49.12	74.00	-24.88	44.47	3	Vertical	24	2.41	-	33.50	6.56	35.41
AV	4.92397G	39.45	54.00	-14.55	34.80	3	Vertical	24	2.41	-	33.50	6.56	35.41



802.11b\_Nss1,(1Mbps)\_1TX

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2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

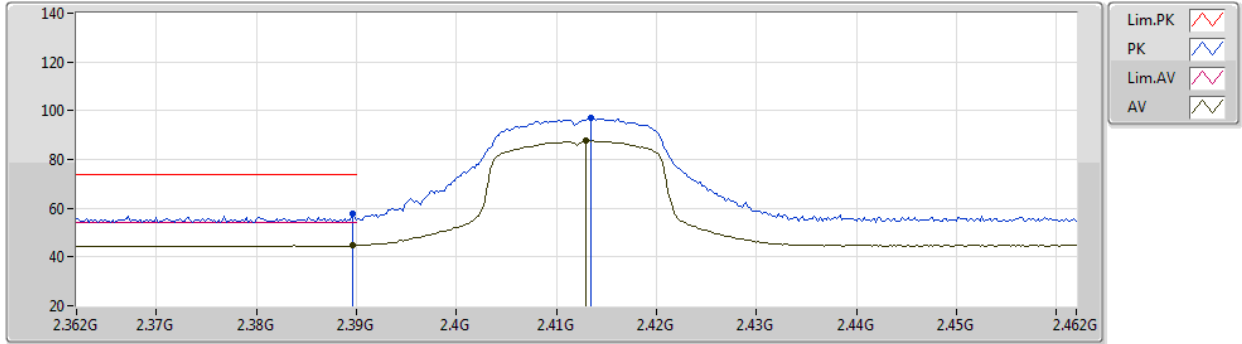
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PK	4.92395G	49.74	74.00	-24.26	45.09	3	Horizontal	54	1.51	-	33.50	6.56	35.41
AV	4.92395G	40.38	54.00	-13.62	35.73	3	Horizontal	54	1.51	-	33.50	6.56	35.41



802.11g\_Nss1,(6Mbps)\_1TX

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2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

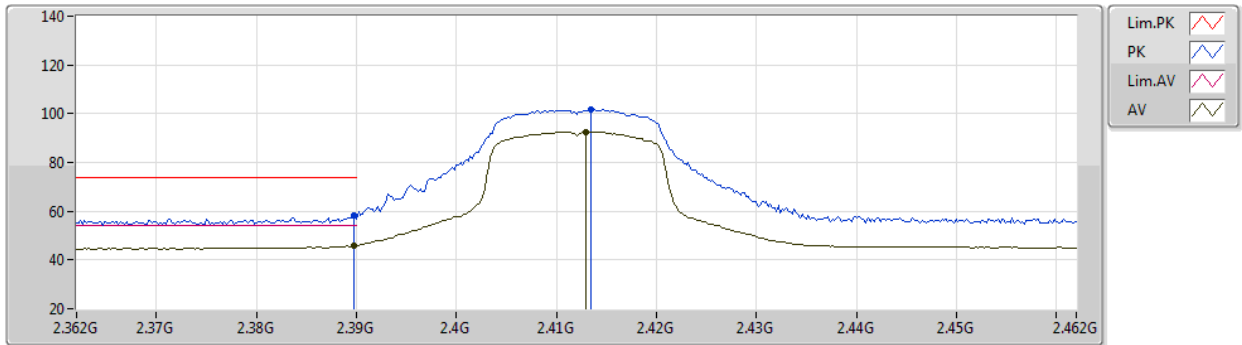
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	57.54	74.00	-16.46	25.45	3	Vertical	25	2.61	-	28.10	3.99	-
AV	2.3896G	45.00	54.00	-9.00	12.91	3	Vertical	25	2.61	-	28.10	3.99	-
PK	2.4134G	96.97	Inf	-Inf	64.82	3	Vertical	25	2.61	-	28.13	4.02	-
AV	2.413G	87.65	Inf	-Inf	55.50	3	Vertical	25	2.61	-	28.13	4.02	-



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

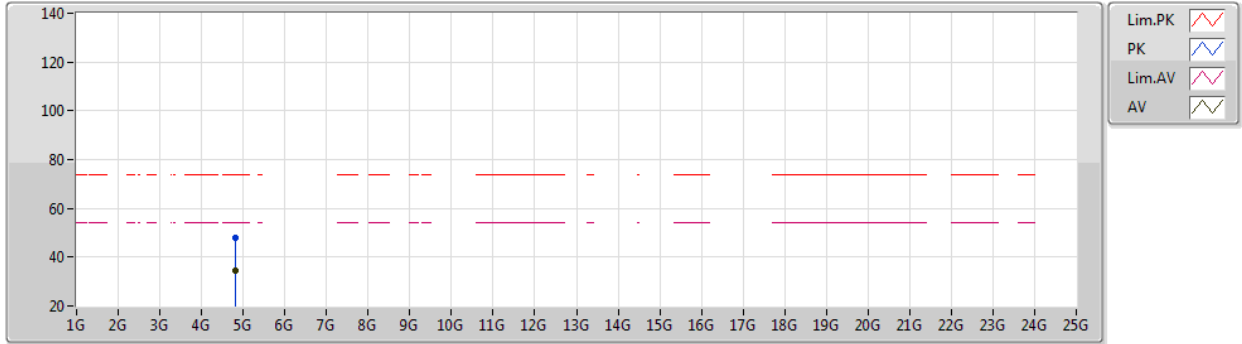
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	58.07	74.00	-15.93	25.98	3	Horizontal	316	1.08	-	28.10	3.99	-
AV	2.3898G	45.88	54.00	-8.12	13.79	3	Horizontal	316	1.08	-	28.10	3.99	-
PK	2.4134G	101.92	Inf	-Inf	69.77	3	Horizontal	316	1.08	-	28.13	4.02	-
AV	2.413G	92.54	Inf	-Inf	60.39	3	Horizontal	316	1.08	-	28.13	4.02	-



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

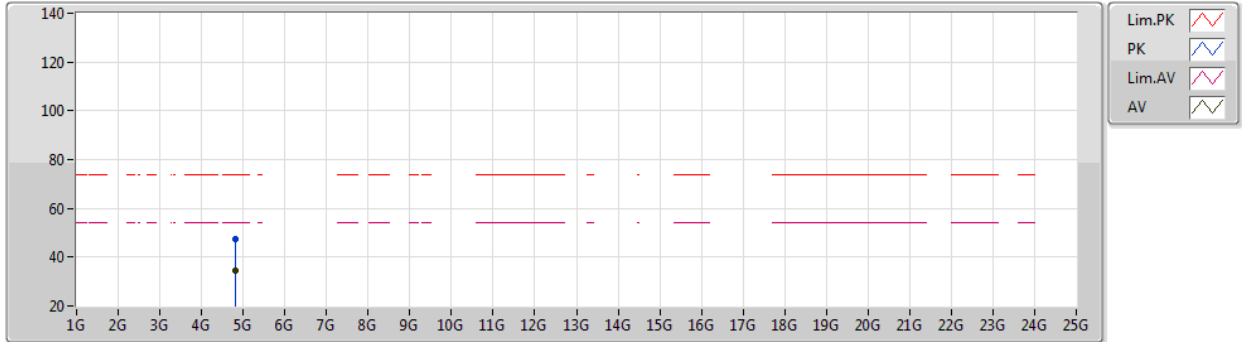
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82471G	47.86	74.00	-26.14	43.35	3	Vertical	39	1.62	-	33.30	6.51	35.30
AV	4.82362G	34.45	54.00	-19.55	29.95	3	Vertical	39	1.62	-	33.29	6.51	35.30



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

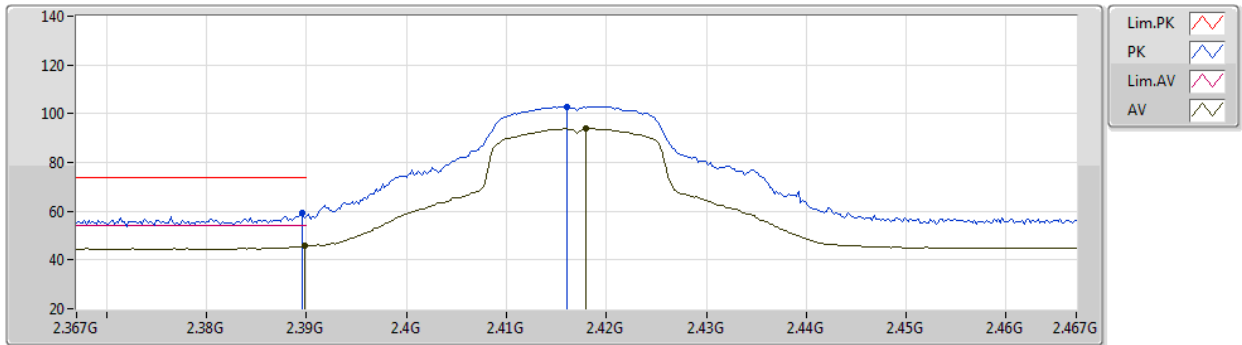
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.824G	47.67	74.00	-26.33	43.16	3	Horizontal	305	2.96	-	33.30	6.51	35.30
AV	4.8248G	34.62	54.00	-19.38	30.11	3	Horizontal	305	2.96	-	33.30	6.51	35.30



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2417MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	59.08	74.00	-14.92	27.49	3	Vertical	276	2.65	-	28.10	3.49	-
AV	2.3898G	45.63	54.00	-8.37	14.04	3	Vertical	276	2.65	-	28.10	3.49	-
PK	2.416G	102.94	Inf	-Inf	71.29	3	Vertical	276	2.65	-	28.13	3.52	-
AV	2.418G	93.81	Inf	-Inf	62.15	3	Vertical	276	2.65	-	28.14	3.52	-

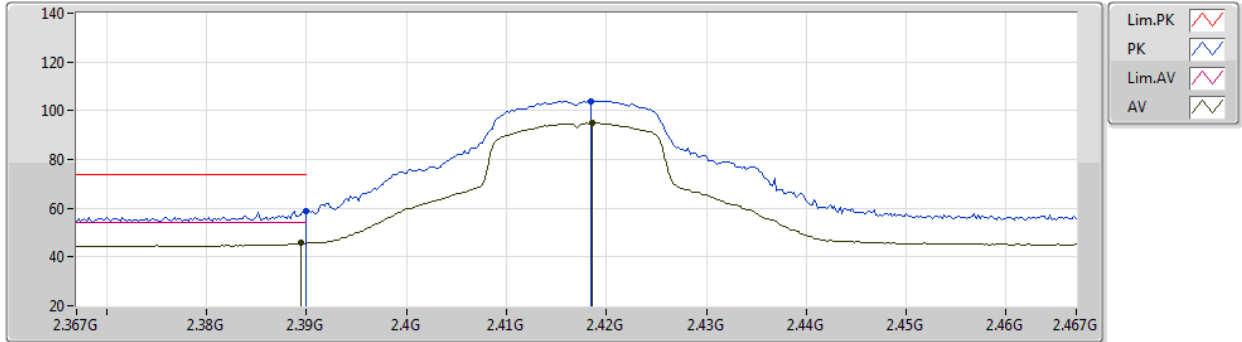




802.11g\_Nss1,(6Mbps)\_1TX

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2417MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

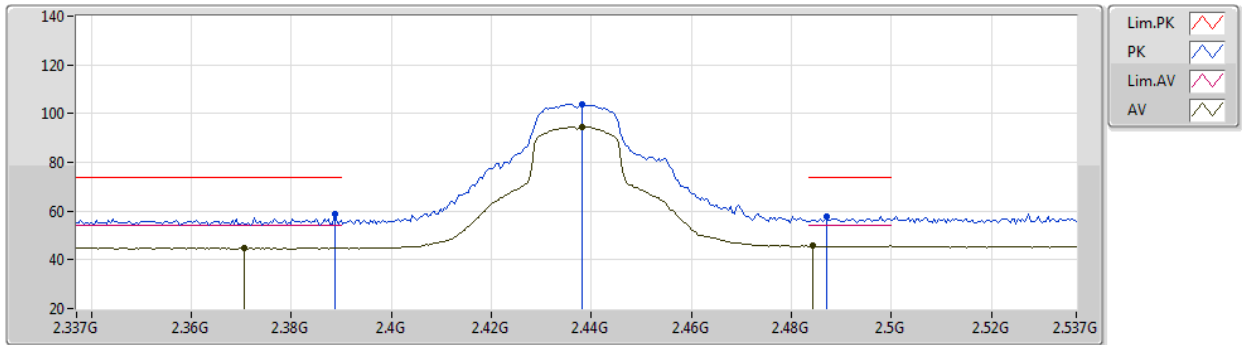
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	58.86	74.00	-15.14	27.27	3	Horizontal	49	1.80	-	28.10	3.49	-
AV	2.3894G	45.72	54.00	-8.28	14.13	3	Horizontal	49	1.80	-	28.10	3.49	-
PK	2.4184G	103.96	Inf	-Inf	72.30	3	Horizontal	49	1.80	-	28.14	3.52	-
AV	2.4186G	94.92	Inf	-Inf	63.26	3	Horizontal	49	1.80	-	28.14	3.52	-



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2437MHz\_TX



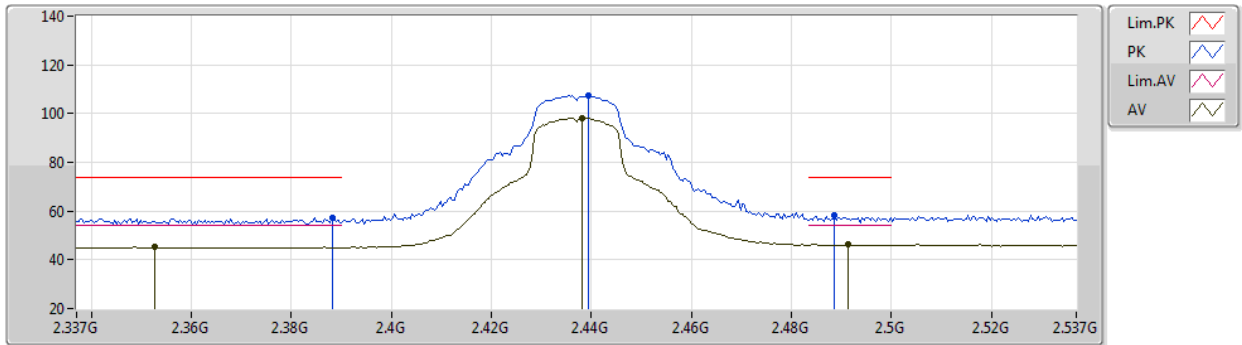
EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3886G	58.76	74.00	-15.24	26.67	3	Vertical	85	1.02	-	28.10	3.99	-
AV	2.3706G	44.88	54.00	-9.12	12.79	3	Vertical	85	1.02	-	28.10	3.99	-
PK	2.4382G	103.81	Inf	-Inf	71.57	3	Vertical	85	1.02	-	28.18	4.06	-
AV	2.4382G	94.71	Inf	-Inf	62.47	3	Vertical	85	1.02	-	28.18	4.06	-
PK	2.487G	57.75	74.00	-16.25	25.20	3	Vertical	85	1.02	-	28.42	4.13	-
AV	2.4842G	45.70	54.00	-8.30	13.16	3	Vertical	85	1.02	-	28.41	4.13	-

802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2437MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

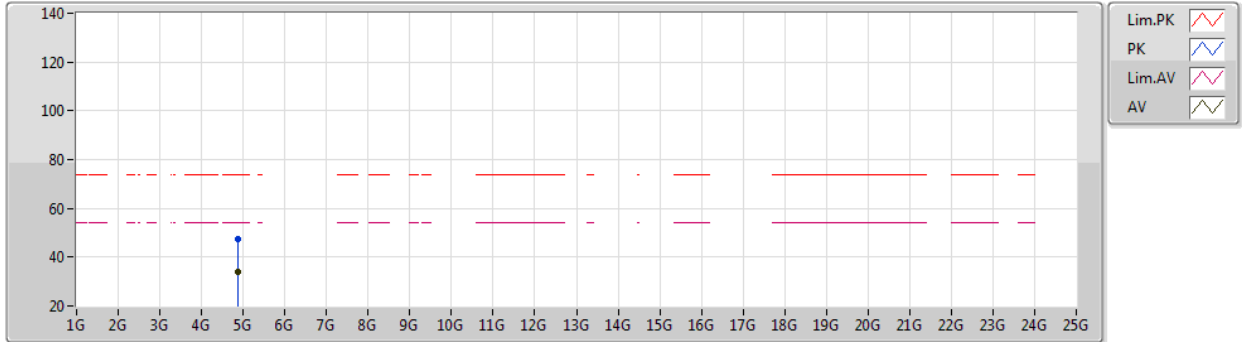
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3882G	57.46	74.00	-16.54	25.37	3	Horizontal	315	1.00	-	28.10	3.99	-
AV	2.3526G	45.15	54.00	-8.85	13.07	3	Horizontal	315	1.00	-	28.10	3.98	-
PK	2.4394G	107.35	Inf	-Inf	75.11	3	Horizontal	315	1.00	-	28.18	4.06	-
AV	2.4382G	98.22	Inf	-Inf	65.98	3	Horizontal	315	1.00	-	28.18	4.06	-
PK	2.4886G	58.02	74.00	-15.98	25.46	3	Horizontal	315	1.00	-	28.43	4.13	-
AV	2.4914G	46.27	54.00	-7.73	13.68	3	Horizontal	315	1.00	-	28.45	4.14	-



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2437MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

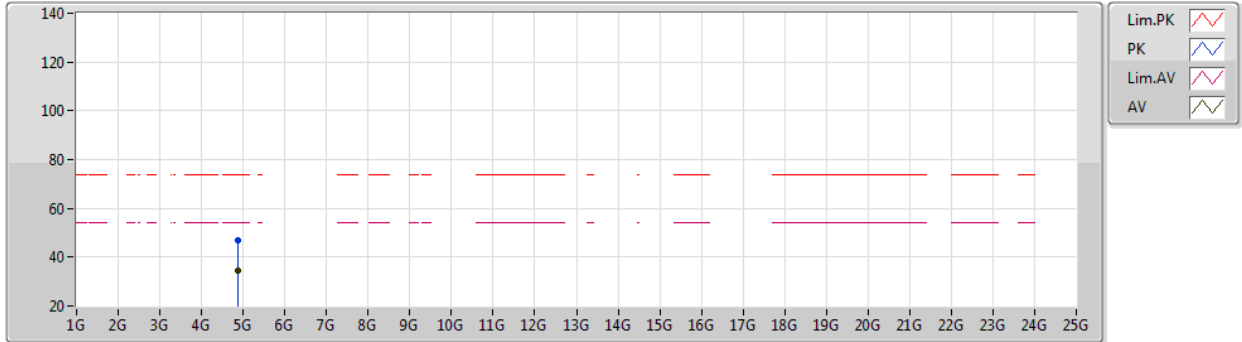
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8745G	47.23	74.00	-26.77	42.55	3	Vertical	252	2.65	-	33.50	6.54	35.36
AV	4.87453G	34.01	54.00	-19.99	29.33	3	Vertical	252	2.65	-	33.50	6.54	35.36



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2437MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

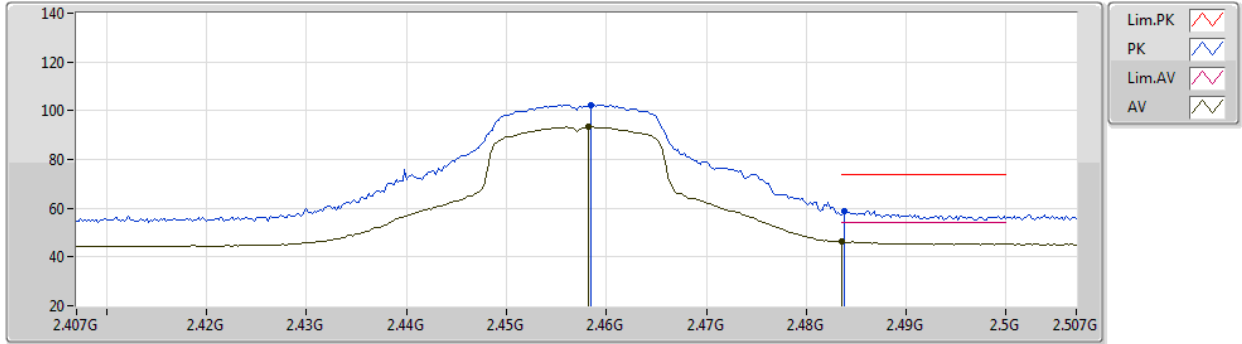
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8738G	46.93	74.00	-27.07	42.25	3	Horizontal	318	2.69	-	33.50	6.54	35.36
AV	4.87371G	34.29	54.00	-19.71	29.62	3	Horizontal	318	2.69	-	33.49	6.54	35.36



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2457MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

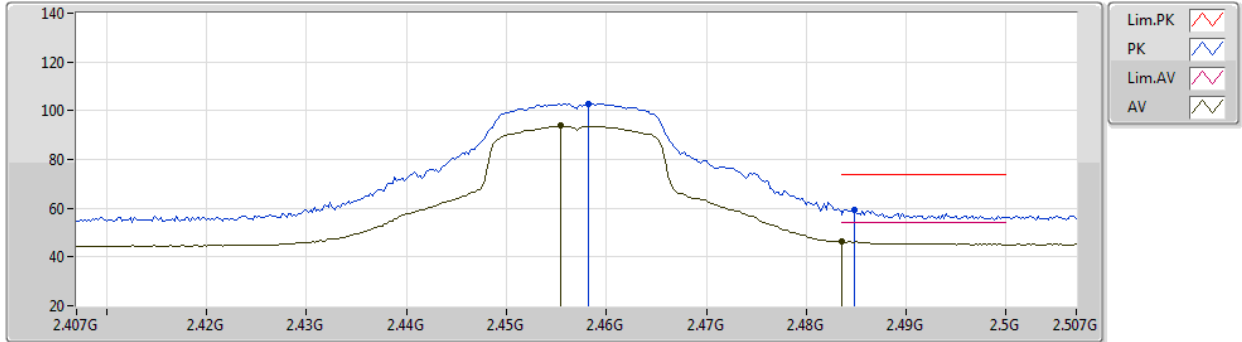
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4584G	102.46	Inf	-Inf	70.65	3	Vertical	292	1.22	-	28.25	3.56	-
AV	2.4582G	93.26	Inf	-Inf	61.45	3	Vertical	292	1.22	-	28.25	3.56	-
PK	2.4838G	59.01	74.00	-14.99	27.03	3	Vertical	292	1.22	-	28.40	3.58	-
AV	2.4835G	46.29	54.00	-7.71	14.31	3	Vertical	292	1.22	-	28.40	3.58	-



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2457MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

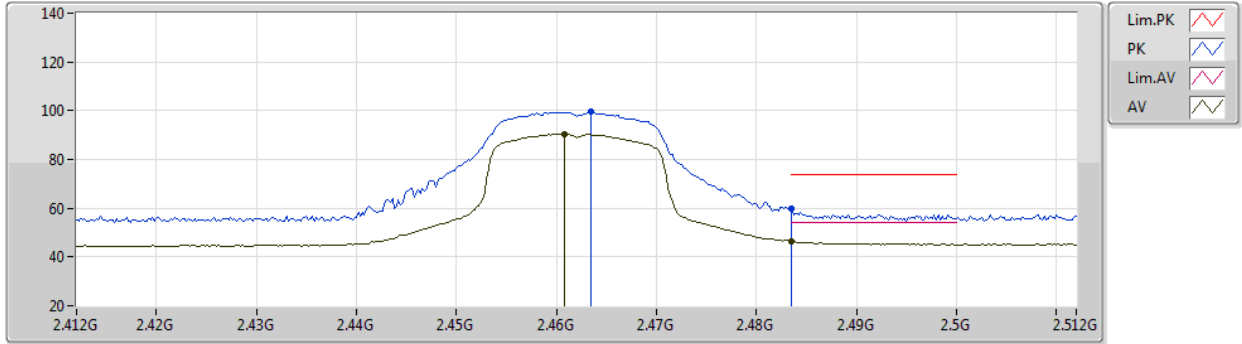
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4582G	102.97	Inf	-Inf	71.16	3	Horizontal	29	1.81	-	28.25	3.56	-
AV	2.4554G	93.71	Inf	-Inf	61.92	3	Horizontal	29	1.81	-	28.23	3.56	-
PK	2.4848G	59.44	74.00	-14.56	27.45	3	Horizontal	29	1.81	-	28.41	3.58	-
AV	2.4835G	46.25	54.00	-7.75	14.27	3	Horizontal	29	1.81	-	28.40	3.58	-



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

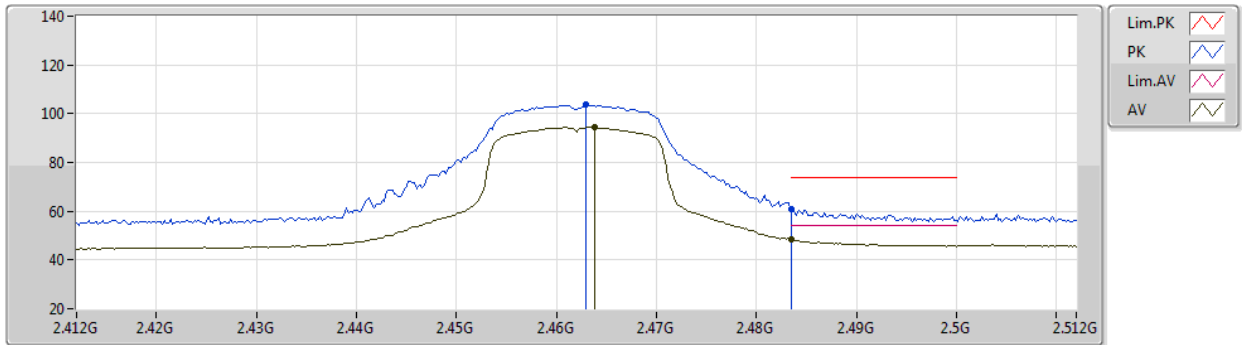
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4634G	99.45	Inf	-Inf	67.07	3	Vertical	34	1.42	-	28.28	4.10	-
AV	2.4608G	90.49	Inf	-Inf	58.14	3	Vertical	34	1.42	-	28.26	4.09	-
PK	2.4835G	59.71	74.00	-14.29	27.18	3	Vertical	34	1.42	-	28.40	4.13	-
AV	2.4835G	46.44	54.00	-7.56	13.91	3	Vertical	34	1.42	-	28.40	4.13	-



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

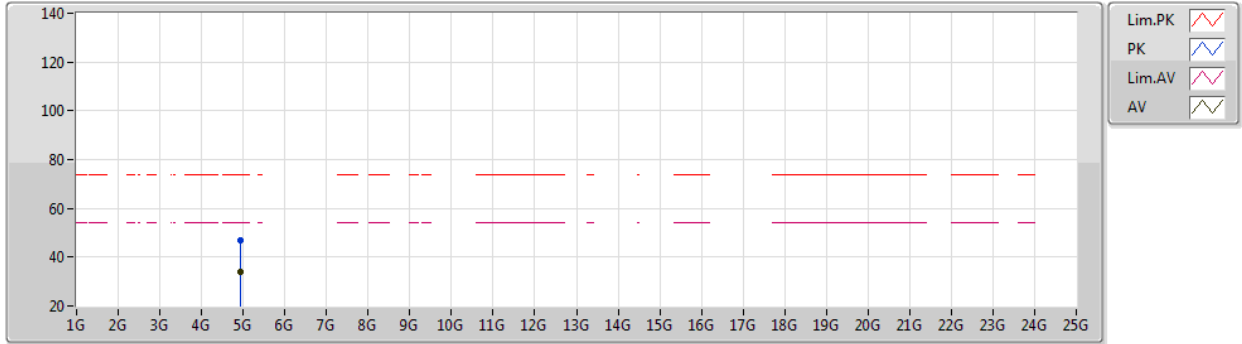
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.463G	103.67	Inf	-Inf	71.30	3	Horizontal	312	1.01	-	28.28	4.09	-
AV	2.4638G	94.56	Inf	-Inf	62.18	3	Horizontal	312	1.01	-	28.28	4.10	-
PK	2.4835G	61.01	74.00	-12.99	28.48	3	Horizontal	312	1.01	-	28.40	4.13	-
AV	2.4835G	48.32	54.00	-5.68	15.79	3	Horizontal	312	1.01	-	28.40	4.13	-



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

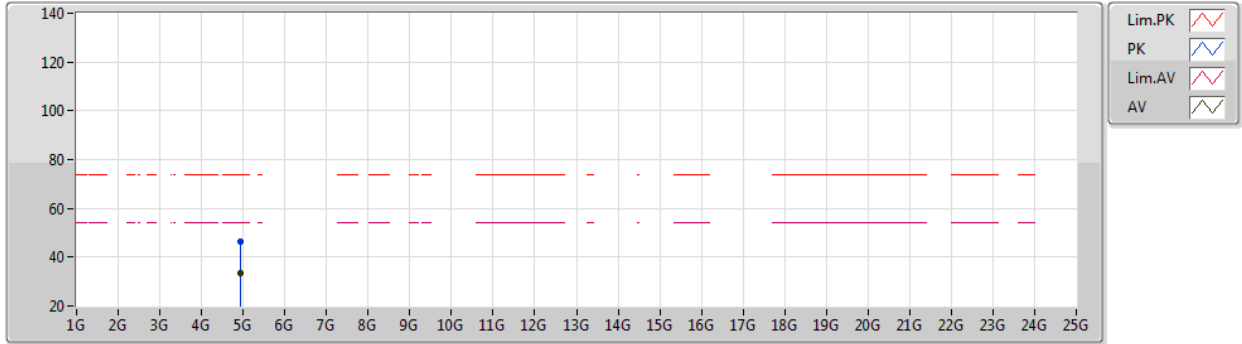
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92357G	46.98	74.00	-27.02	42.32	3	Vertical	166	1.74	-	33.51	6.56	35.41
AV	4.9232G	33.72	54.00	-20.28	29.06	3	Vertical	166	1.74	-	33.51	6.56	35.41



802.11g\_Nss1,(6Mbps)\_1TX

18/09/2020

2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

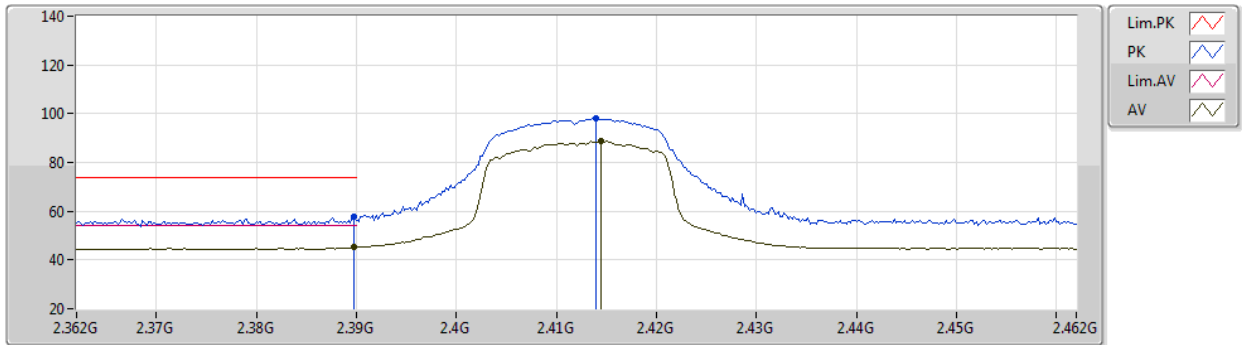
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92331G	46.48	74.00	-27.52	41.82	3	Horizontal	149	1.00	-	33.51	6.56	35.41
AV	4.9234G	33.62	54.00	-20.38	28.96	3	Horizontal	149	1.00	-	33.51	6.56	35.41



802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

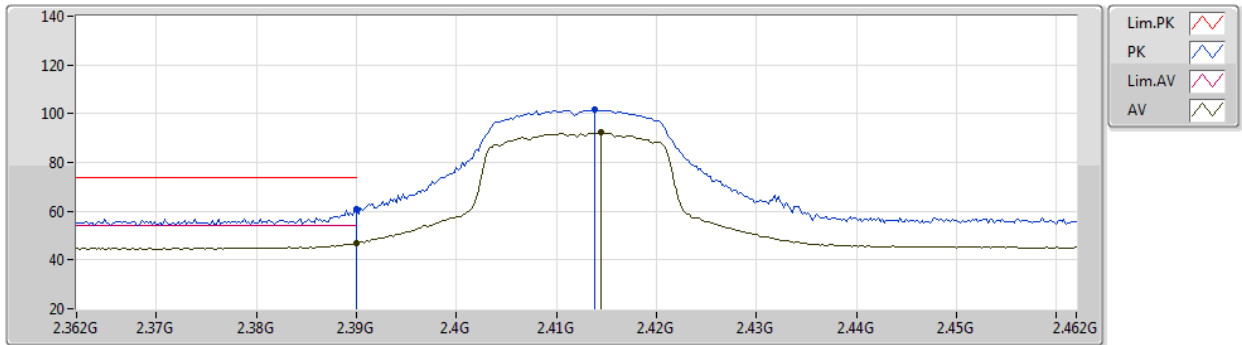
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	57.52	74.00	-16.48	25.43	3	Vertical	33	1.56	-	28.10	3.99	-
AV	2.3898G	45.18	54.00	-8.82	13.09	3	Vertical	33	1.56	-	28.10	3.99	-
PK	2.414G	98.00	Inf	-Inf	65.85	3	Vertical	33	1.56	-	28.13	4.02	-
AV	2.4144G	88.64	Inf	-Inf	56.49	3	Vertical	33	1.56	-	28.13	4.02	-



802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

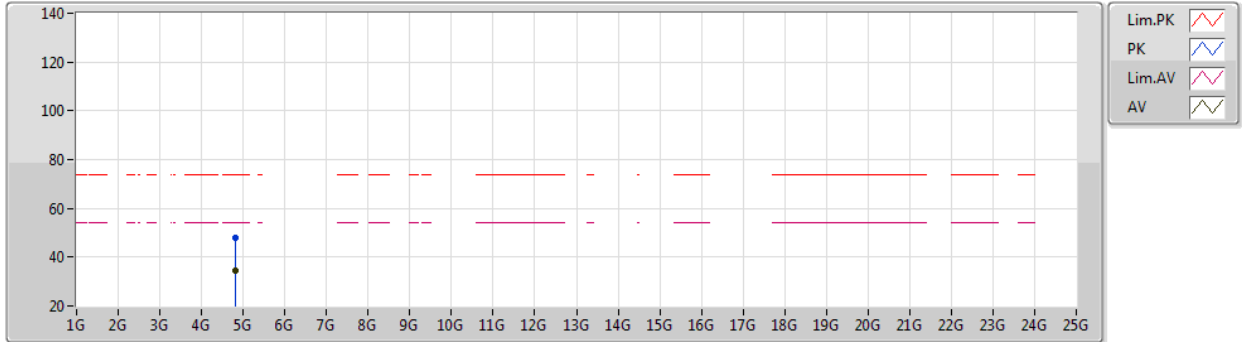
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	60.72	74.00	-13.28	28.62	3	Horizontal	320	1.00	-	28.10	4.00	-
AV	2.39G	46.88	54.00	-7.12	14.78	3	Horizontal	320	1.00	-	28.10	4.00	-
PK	2.4138G	101.62	Inf	-Inf	69.47	3	Horizontal	320	1.00	-	28.13	4.02	-
AV	2.4144G	92.21	Inf	-Inf	60.06	3	Horizontal	320	1.00	-	28.13	4.02	-



802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

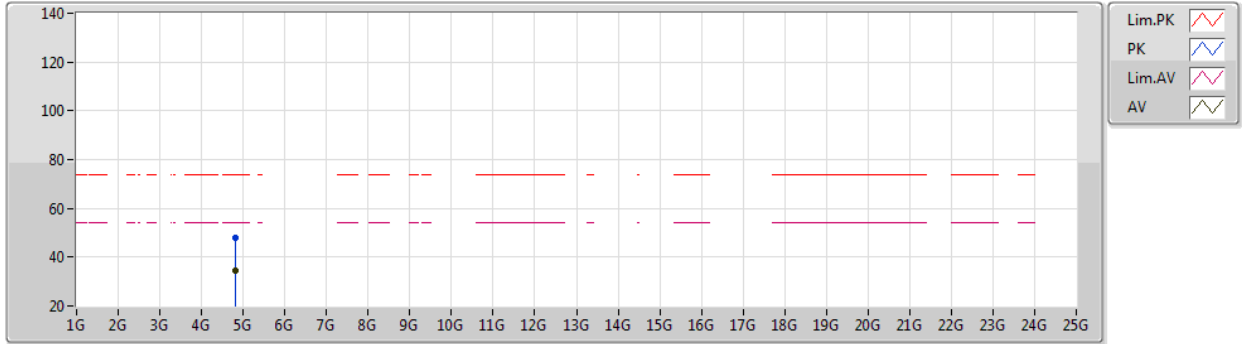
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82439G	47.71	74.00	-26.29	43.20	3	Vertical	328	2.00	-	33.30	6.51	35.30
AV	4.82482G	34.44	54.00	-19.56	29.93	3	Vertical	328	2.00	-	33.30	6.51	35.30



802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2412MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

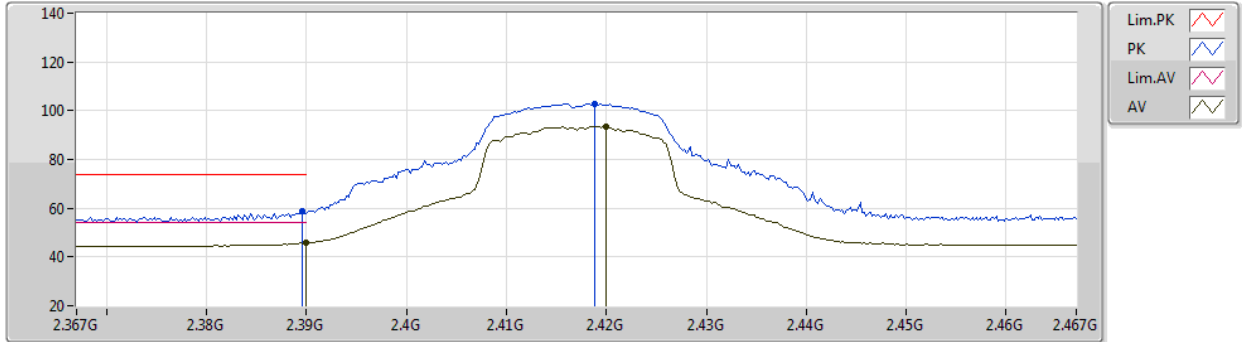
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82458G	48.05	74.00	-25.95	43.54	3	Horizontal	126	1.12	-	33.30	6.51	35.30
AV	4.82445G	34.64	54.00	-19.36	30.13	3	Horizontal	126	1.12	-	33.30	6.51	35.30



802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2417MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	58.60	74.00	-15.40	27.01	3	Vertical	80	1.26	-	28.10	3.49	-
AV	2.39G	45.81	54.00	-8.19	14.22	3	Vertical	80	1.26	-	28.10	3.49	-
PK	2.4188G	102.89	Inf	-Inf	71.23	3	Vertical	80	1.26	-	28.14	3.52	-
AV	2.42G	93.49	Inf	-Inf	61.83	3	Vertical	80	1.26	-	28.14	3.52	-

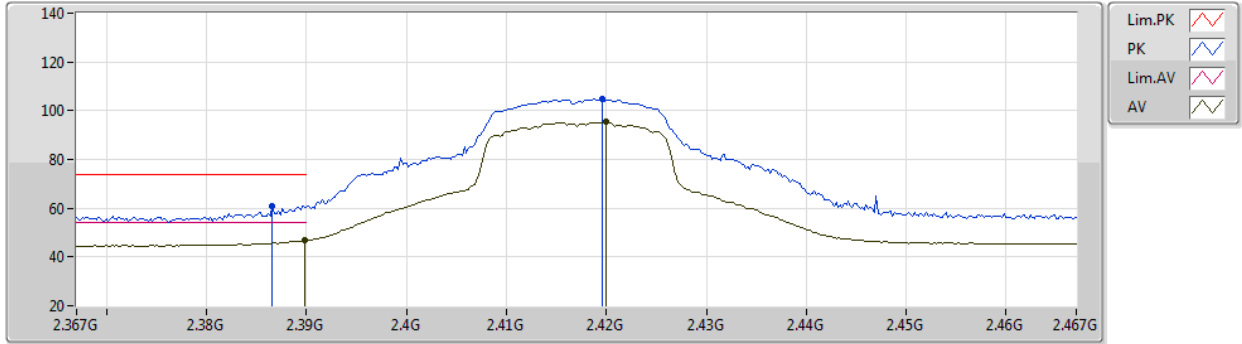




802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2417MHz\_TX



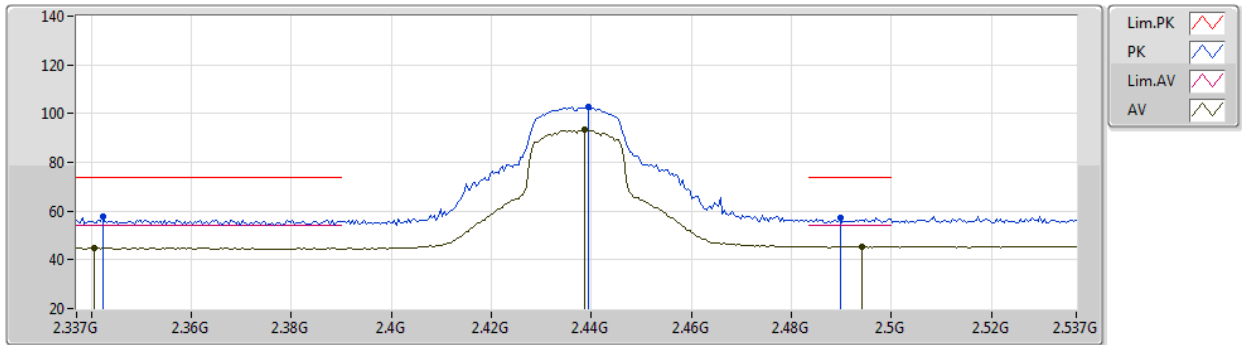
EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3866G	60.99	74.00	-13.01	29.40	3	Horizontal	312	1.00	-	28.10	3.49	-
AV	2.3898G	46.69	54.00	-7.31	15.10	3	Horizontal	312	1.00	-	28.10	3.49	-
PK	2.4196G	104.63	Inf	-Inf	72.97	3	Horizontal	312	1.00	-	28.14	3.52	-
AV	2.42G	95.32	Inf	-Inf	63.66	3	Horizontal	312	1.00	-	28.14	3.52	-

802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2437MHz\_TX



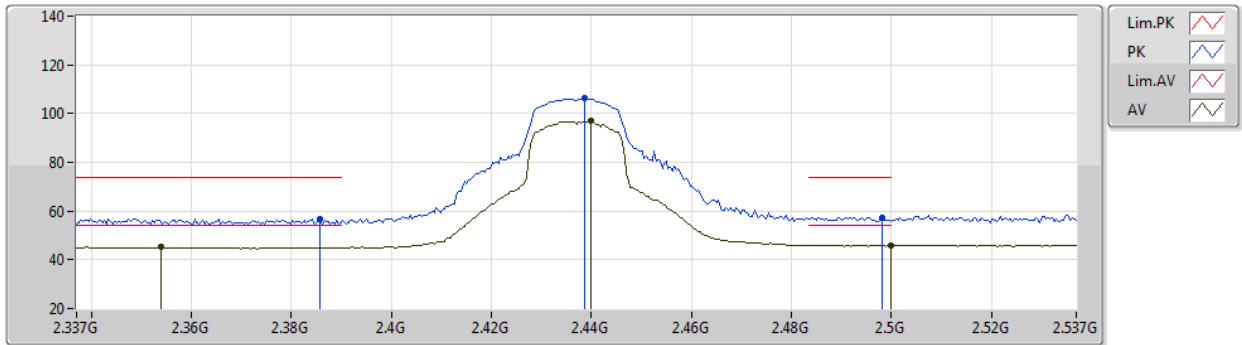
EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3422G	57.55	74.00	-16.45	25.51	3	Vertical	74	1.04	-	28.07	3.97	-
AV	2.3406G	44.80	54.00	-9.20	12.77	3	Vertical	74	1.04	-	28.06	3.97	-
PK	2.4394G	102.73	Inf	-Inf	70.49	3	Vertical	74	1.04	-	28.18	4.06	-
AV	2.4386G	93.22	Inf	-Inf	60.98	3	Vertical	74	1.04	-	28.18	4.06	-
PK	2.4898G	57.36	74.00	-16.64	24.79	3	Vertical	74	1.04	-	28.44	4.13	-
AV	2.4942G	45.43	54.00	-8.57	12.82	3	Vertical	74	1.04	-	28.47	4.14	-

802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2437MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

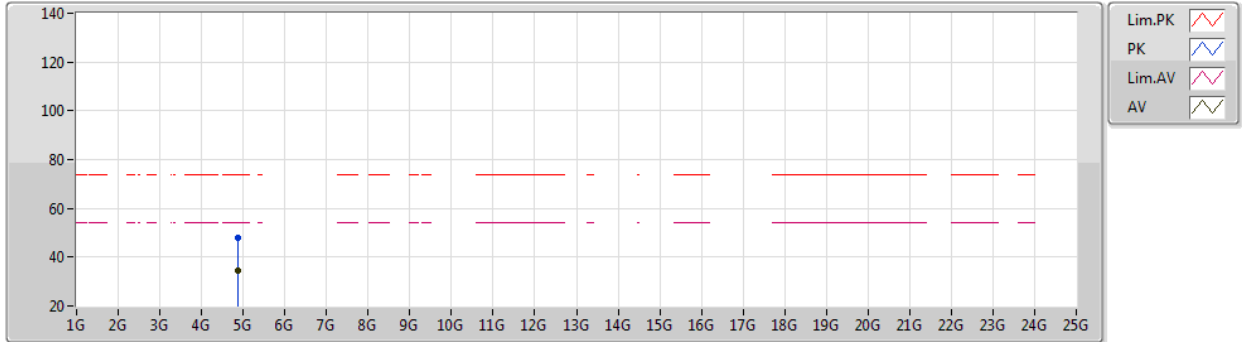
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3858G	56.78	74.00	-17.22	24.69	3	Horizontal	316	1.00	-	28.10	3.99	-
AV	2.3538G	45.17	54.00	-8.83	13.09	3	Horizontal	316	1.00	-	28.10	3.98	-
PK	2.4386G	106.34	Inf	-Inf	74.10	3	Horizontal	316	1.00	-	28.18	4.06	-
AV	2.4398G	96.84	Inf	-Inf	64.60	3	Horizontal	316	1.00	-	28.18	4.06	-
PK	2.4982G	57.46	74.00	-16.54	24.82	3	Horizontal	316	1.00	-	28.49	4.15	-
AV	2.4998G	45.94	54.00	-8.06	13.29	3	Horizontal	316	1.00	-	28.50	4.15	-



802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2437MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

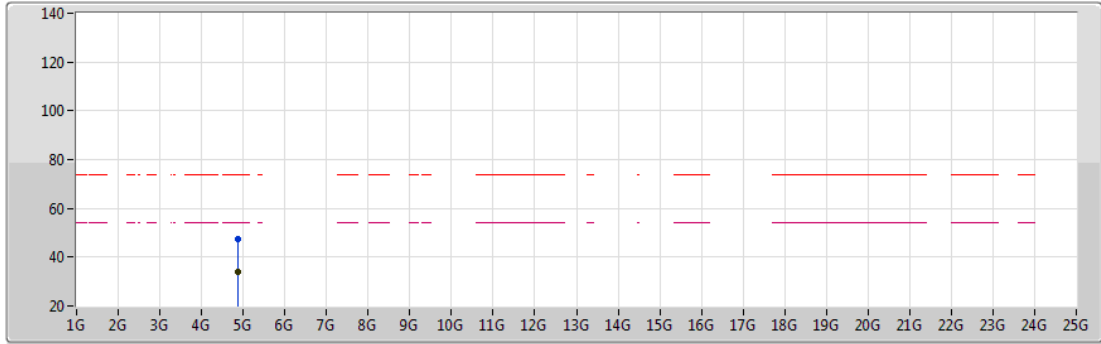
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8738G	47.70	74.00	-26.30	43.02	3	Vertical	118	2.83	-	33.50	6.54	35.36
AV	4.87472G	34.29	54.00	-19.71	29.61	3	Vertical	118	2.83	-	33.50	6.54	35.36



802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2437MHz\_TX



Lim.PK   
 PK   
 Lim.AV   
 AV

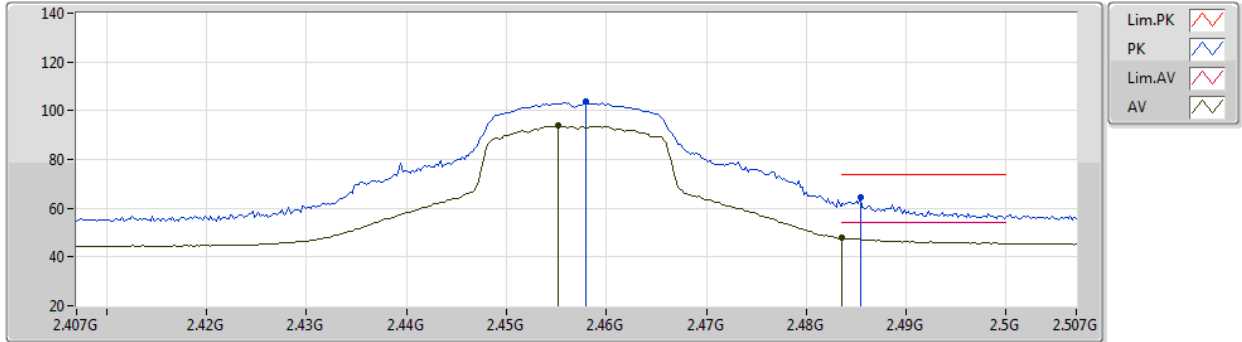
EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87338G	47.44	74.00	-26.56	42.77	3	Horizontal	169	1.91	-	33.49	6.54	35.36
AV	4.87365G	34.07	54.00	-19.93	29.40	3	Horizontal	169	1.91	-	33.49	6.54	35.36

802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2457MHz\_TX



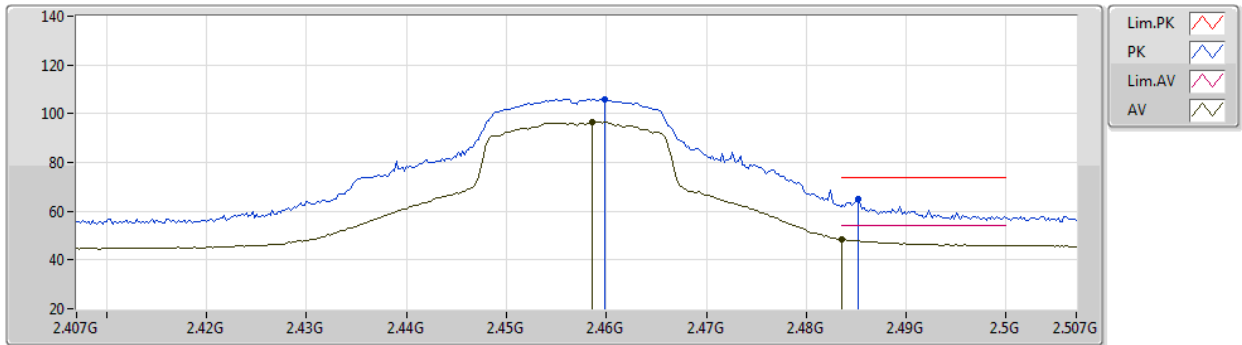
EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.458G	103.64	Inf	-Inf	71.83	3	Vertical	77	1.00	-	28.25	3.56	-
AV	2.4552G	93.72	Inf	-Inf	61.93	3	Vertical	77	1.00	-	28.23	3.56	-
PK	2.4854G	64.34	74.00	-9.66	32.34	3	Vertical	77	1.00	-	28.41	3.59	-
AV	2.4836G	47.73	54.00	-6.27	15.75	3	Vertical	77	1.00	-	28.40	3.58	-

802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2457MHz\_TX



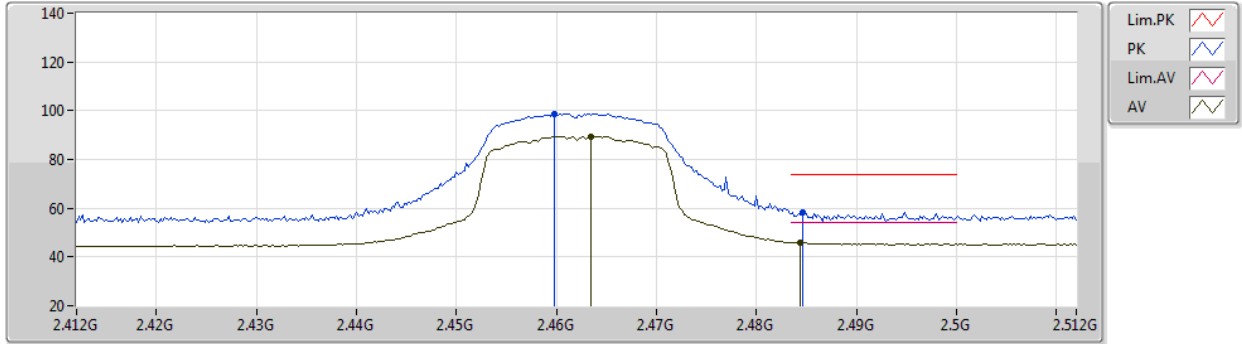
EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4598G	105.95	Inf	-Inf	74.13	3	Horizontal	311	1.00	-	28.26	3.56	-
AV	2.4586G	96.46	Inf	-Inf	64.65	3	Horizontal	311	1.00	-	28.25	3.56	-
PK	2.4852G	65.17	74.00	-8.83	33.17	3	Horizontal	311	1.00	-	28.41	3.59	-
AV	2.4836G	48.51	54.00	-5.49	16.53	3	Horizontal	311	1.00	-	28.40	3.58	-

802.11n HT20\_Nss1,(MCS0)\_1TX

18/09/2020

2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4598G	98.80	Inf	-Inf	66.45	3	Vertical	21	2.23	-	28.26	4.09	-
AV	2.4634G	89.47	Inf	-Inf	57.09	3	Vertical	21	2.23	-	28.28	4.10	-
PK	2.4846G	58.43	74.00	-15.57	25.89	3	Vertical	21	2.23	-	28.41	4.13	-
AV	2.4844G	45.96	54.00	-8.04	13.42	3	Vertical	21	2.23	-	28.41	4.13	-

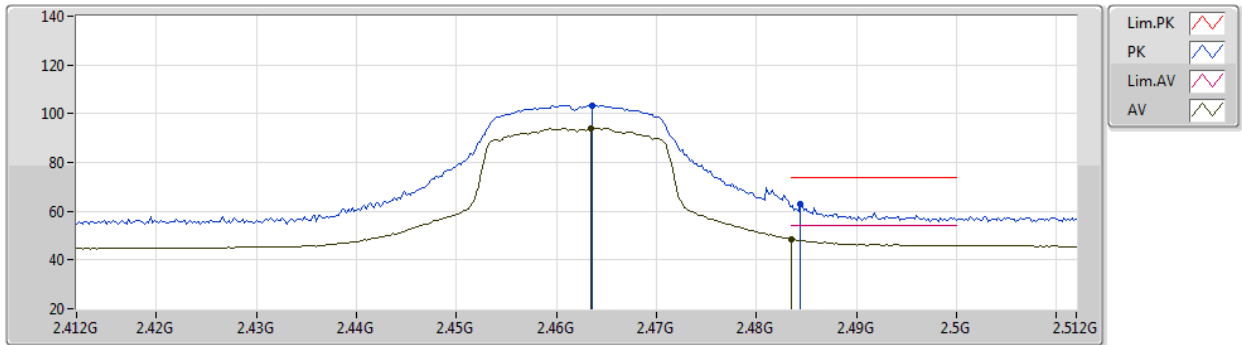




802.11n HT20\_Nss1,(MCS0)\_1TX

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2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

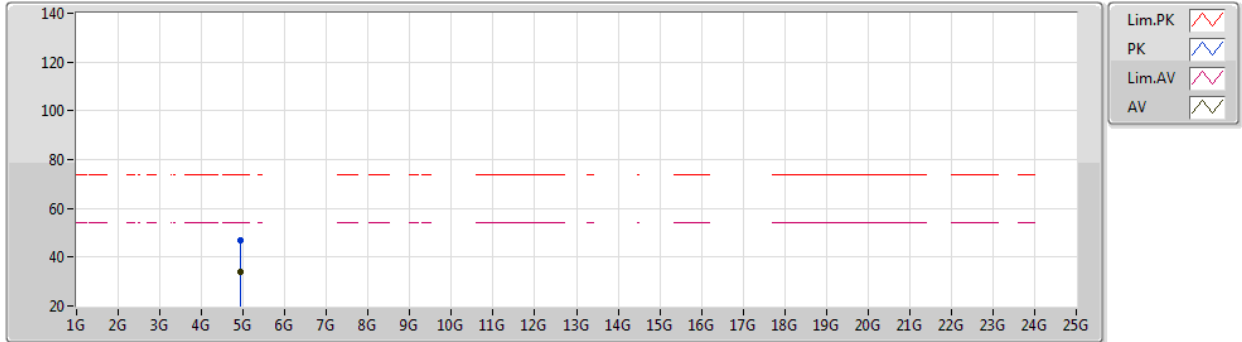
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4636G	103.37	Inf	-Inf	70.99	3	Horizontal	313	1.05	-	28.28	4.10	-
AV	2.4634G	93.92	Inf	-Inf	61.54	3	Horizontal	313	1.05	-	28.28	4.10	-
PK	2.4844G	63.16	74.00	-10.84	30.62	3	Horizontal	313	1.05	-	28.41	4.13	-
AV	2.4835G	48.42	54.00	-5.58	15.89	3	Horizontal	313	1.05	-	28.40	4.13	-



802.11n HT20\_Nss1,(MCS0)\_1TX

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2462MHz\_TX



EUT X\_1TX  
Setting 0  
03-C-J-7

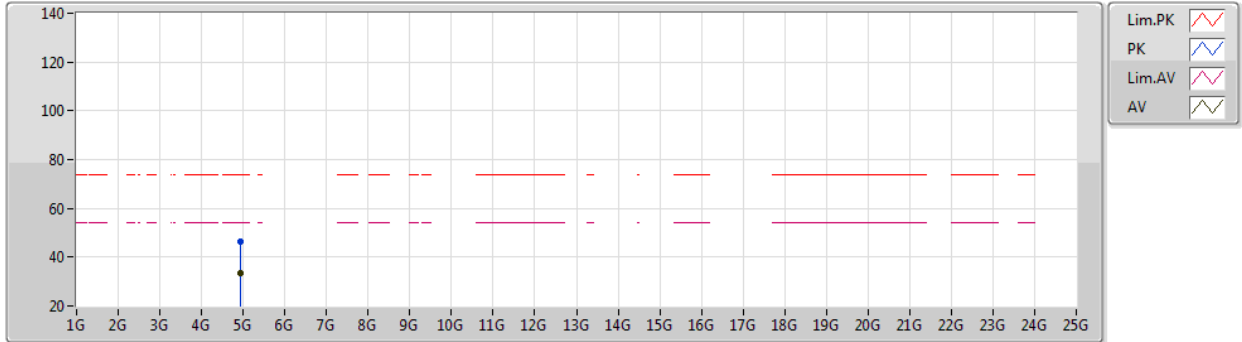
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92403G	46.85	74.00	-27.15	42.20	3	Vertical	117	2.70	-	33.50	6.56	35.41
AV	4.92345G	33.99	54.00	-20.01	29.33	3	Vertical	117	2.70	-	33.51	6.56	35.41



802.11n HT20\_Nss1,(MCS0)\_1TX

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EUT X\_1TX  
Setting 0  
03-C-J-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92396G	46.36	74.00	-27.64	41.71	3	Horizontal	330	1.76	-	33.50	6.56	35.41
AV	4.92351G	33.69	54.00	-20.31	29.03	3	Horizontal	330	1.76	-	33.51	6.56	35.41