



# FCC RADIO TEST REPORT

**FCC ID** : UIDW11  
**Equipment** : Wi-Fi Extender  
**Brand Name** : ARRIS  
**Model Name** : W11  
**Applicant** : ARRIS  
3871 Lakefield Drive Suite 300, Suwanee, Georgia,  
30024 United States  
**Manufacturer** : ARRIS  
3871 Lakefield Drive Suite 300, Suwanee, Georgia,  
30024 United States  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Jun. 11, 2020, and testing was started from Jun. 11, 2020 and completed on Jul. 29, 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.

  
Approved by: Cliff Chang

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



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**Photographs of EUT v01**



### History of this test report

Report No.	Version	Description	Issued Date
FR071418AA	01	Initial issue of report	Sep. 10, 2020



### 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: **Viola Huang**



# 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), VHT20, ax (HEW20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), VHT40, ax (HEW40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	11b	20	3
2.4-2.4835GHz	11g	20	3
2.4-2.4835GHz	n (HT20)	20	3
2.4-2.4835GHz	VHT20	20	3
2.4-2.4835GHz	ax (HEW20)	20	3
2.4-2.4835GHz	n (HT40)	40	3
2.4-2.4835GHz	VHT40	40	3
2.4-2.4835GHz	ax (HEW40)	40	3

**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.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- HEW20, HEW40 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	WANSHIH	UC6WFI0168A	PCB Antenna	I-PEX	Note 1
2	2	WANSHIH	UC6WFI0169A	PCB Antenna	I-PEX	
3	1	WANSHIH	UC6WFI0163A	PCB Antenna	I-PEX	
4	2	WANSHIH	UC6WFI0164A	PCB Antenna	I-PEX	
5	3	WANSHIH	UC6WFI0165A	PCB Antenna	I-PEX	
6	4	WANSHIH	UC6WFI0166A	PCB Antenna	I-PEX	
7	1	WANSHIH	UC6WFI0167A	PCB Antenna	I-PEX	
8	2	WANSHIH	UC6WFI0169A	PCB Antenna	I-PEX	

Note 1:

Ant.	Uncorrelated Antenna (dBi)		
	2.4GHz	5GHz Band 1	5GHz Band 4
1	4.06	-	-
2	4.04	-	-
3	-	-	3.76
4	-	-	4.45
5	-	-	5.26
6	-	-	5.20
7	-	4.94	-
8	-	4.65	-
<b>Correlated Antenna (dBi)</b>	4.58	6	7.88

Note 2: The above information was declared by manufacturer.

**For 2.4GHz function:**

For IEEE 802.11b/g/n/VHT/ax mode (2TX/2RX)

Ant.1 and Ant. 2 can be used as transmitting/receiving antenna.

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

**For 5GHz Band 1 function:**

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

Ant. 7 and Ant. 8 can be used as transmitting/receiving antenna.

Ant. 7 and Ant. 8 could transmit/receive simultaneously.

**For 5GHz Band 4 function:**

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

Ant. 3, Ant. 4, Ant. 5 and Ant. 6 can be used as transmitting/receiving antenna.

Ant. 3, Ant. 4, Ant. 5 and Ant. 6 could transmit/receive simultaneously.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.957	0.19	12.42m	100
802.11g	0.951	0.22	2.07m	1k
802.11ax HEW20	0.978	0.1	1.489m	1k
802.11ax HEW40	0.961	0.17	781.25u	3k

Note:

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

1.1.4 EUT Operational Condition

<b>EUT Power Type</b>	From host system			
<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>	Mtool_3.2.0.0			

Note: The above information was declared by manufacturer.

1.1.5 Table for Radio function

Radio	2.4GHz	5GHz Band 1	5GHz Band 4
1	V	V	-
2	-	-	V



### 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 662911 D01 v02r01
- ◆ 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	Benson Su	28.8-31.2°C / 35-37%	Jun. 22, 2020 ~ Jul. 20, 2020
Radiated below 1GHz	03CH03-CB	Mason Chen	26-26.3°C / 57-61%	Jul. 24, 2020
Radiated above 1GHz	03CH02-CB	Mason Chen	25.1-26.6°C / 53-56%	Jun. 11, 2020
	03CH03-CB	Mason Chen	25.5-26.4°C / 55-58%	Jun. 11, 2020
	03CH04-CB	Mason Chen	25.5-26.7°C / 53-58%	Jun. 11, 2020
AC Conduction	CO01-CB	GN Hou	22-24°C / 62-65%	Jul. 29, 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)	4.3 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	5.1 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)_2TX	-
2412MHz	85
2437MHz	92
2462MHz	86
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	76
2417MHz	82
2437MHz	91
2457MHz	75
2462MHz	68
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	72
2417MHz	80
2437MHz	88
2457MHz	76
2462MHz	61
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	65
2437MHz	74
2452MHz	68

Note:

- ♦ VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.



## 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_2.4GHz
2	EUT_5GHz Band 1
3	EUT_5GHz Band 4
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

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, Y axis and Z axis position for Emissions in Restricted Frequency Bands below 1GHz test for 2.4GHz, and the worst case was found at X axis. So the measurement will follow this same test configuration. The EUT was performed at X axis, Y axis and Z axis position for Unwanted Emissions below 1GHz test for 5GHz, and the worst case was found at Y axis. So the measurement will follow this same test configuration.	
	1	EUT in X axis_2.4GHz
	2	EUT in Y axis_5GHz Band 1
3	EUT in Y axis_5GHz Band 4	
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, Y axis and Z axis position, and the worst case was found at X axis. So the measurement will follow this same test configuration.	
1	EUT in X axis	



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz Band 1 + WLAN 5GHz Band 4
Refer to Sporton Test Report No.: FA071418 for Co-location RF Exposure Evaluation.	

### 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

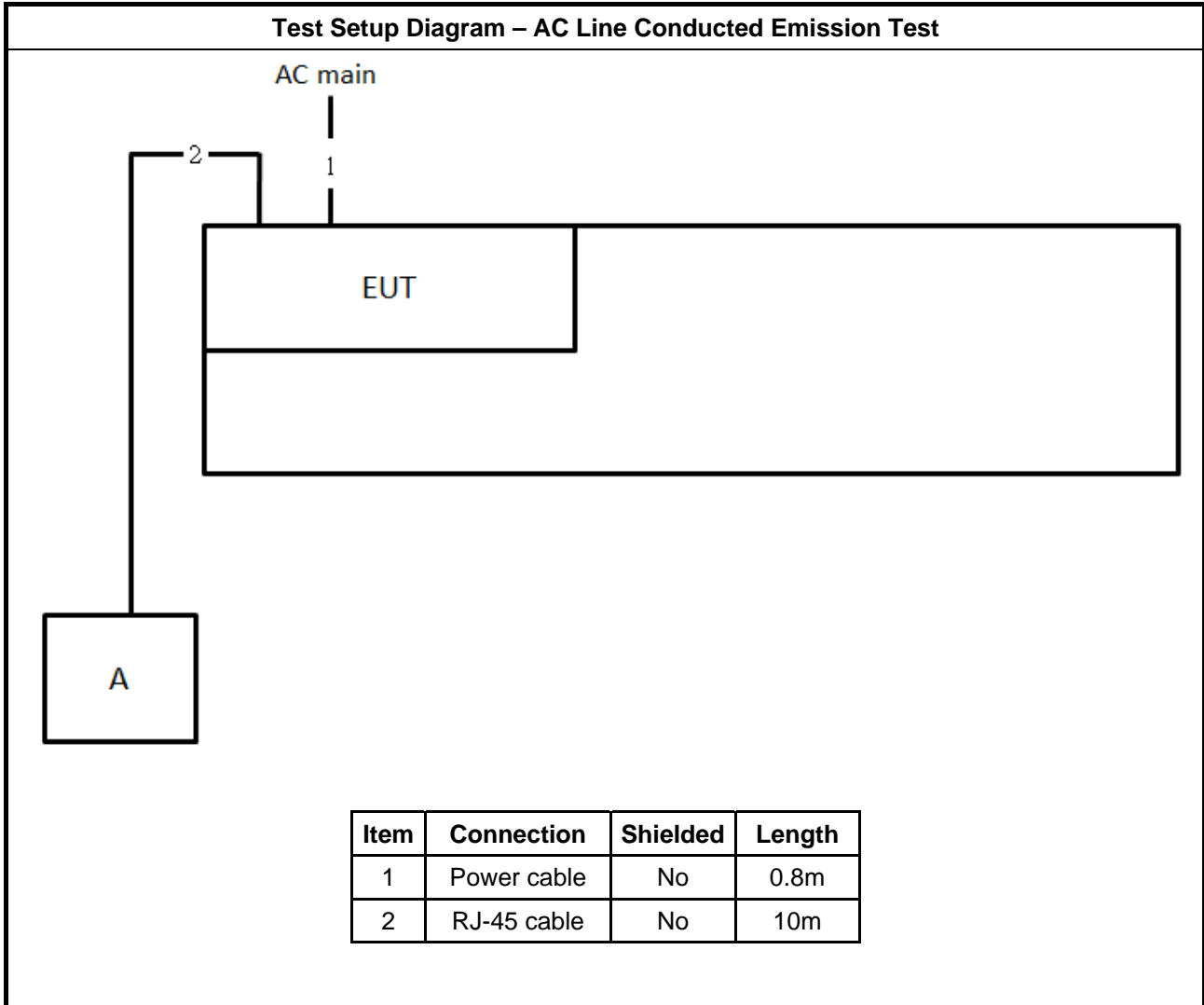
For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN NB	DELL	E6430	N/A

For Radiated and RF Conducted:

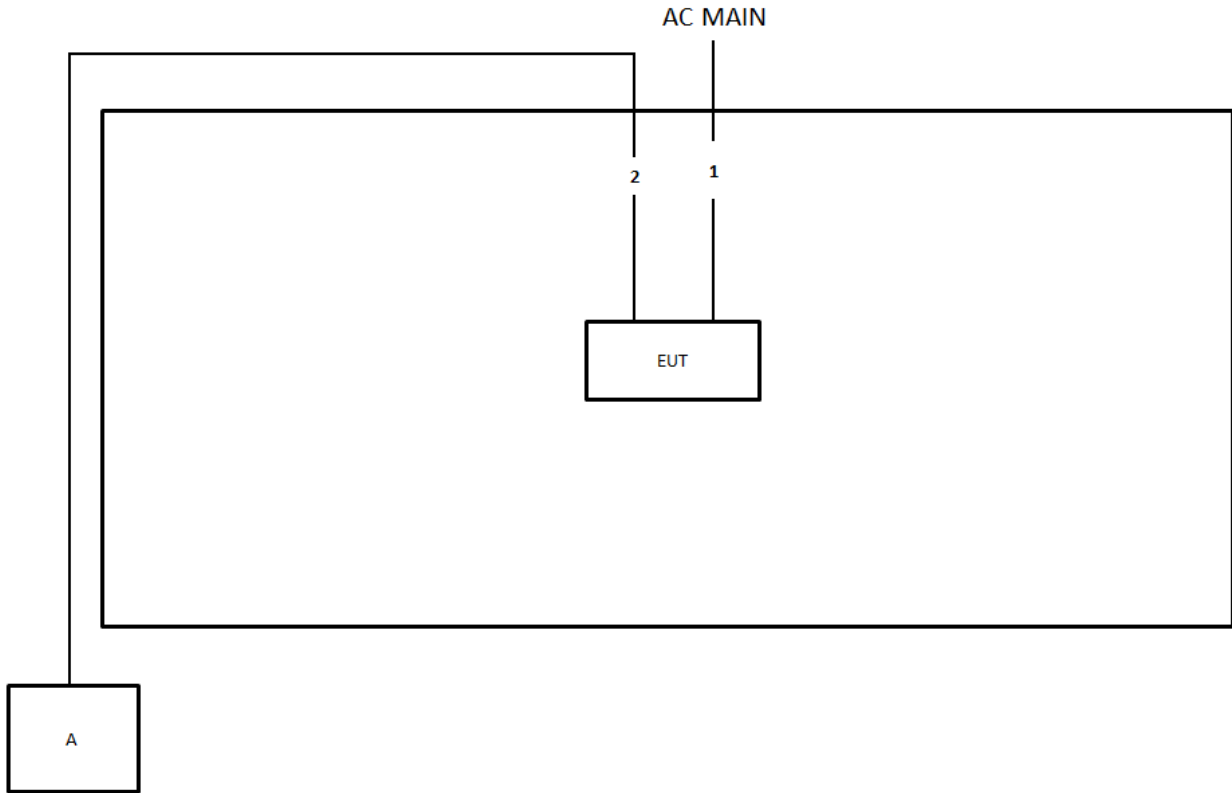
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN NB	DELL	E4300	N/A

## 2.6 Test Setup Diagram





Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length
1	Power cable	No	0.8m
2	RJ-45 cable	No	10m



### 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.

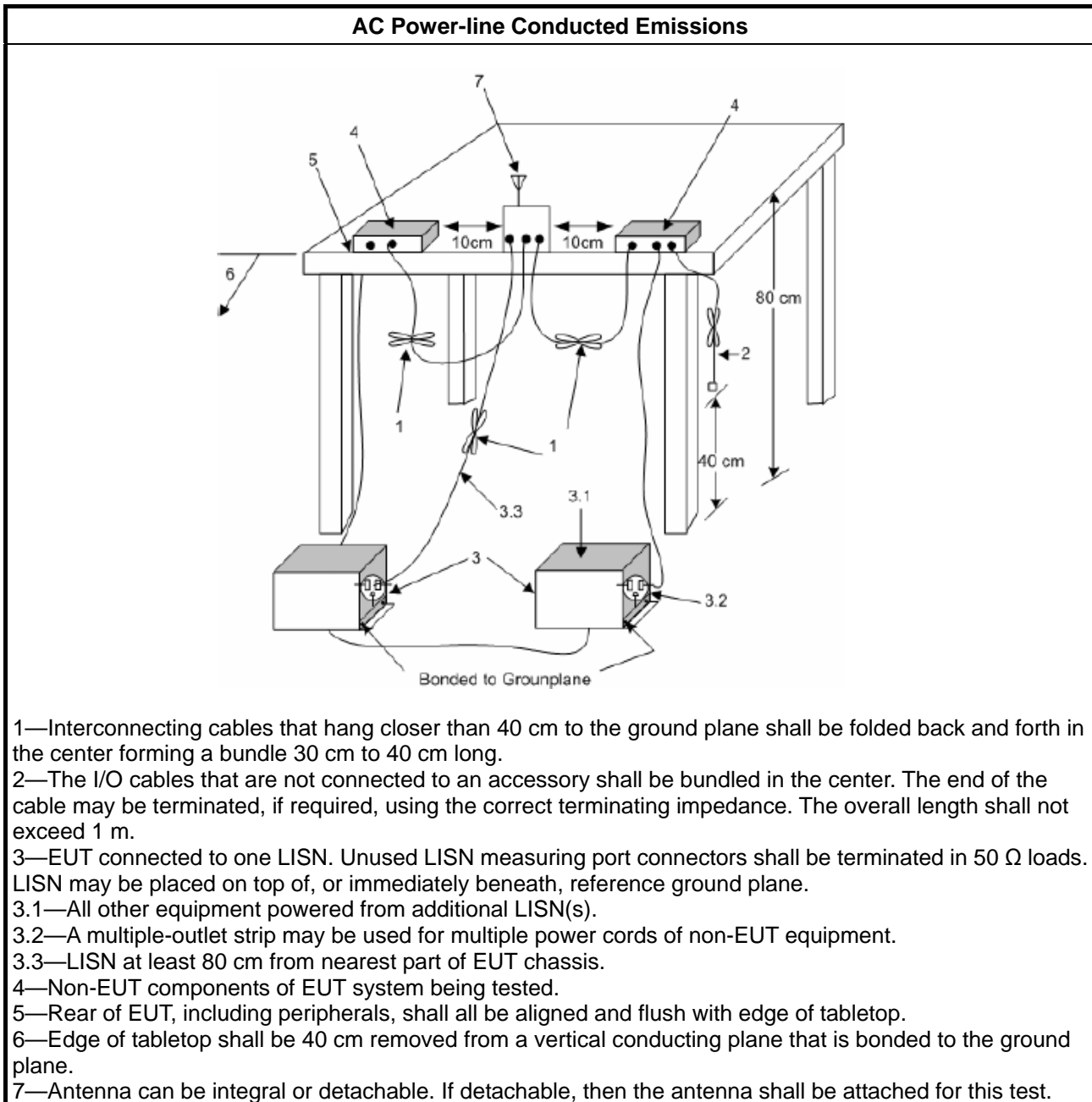
##### 3.1.2 Measuring Instruments

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>

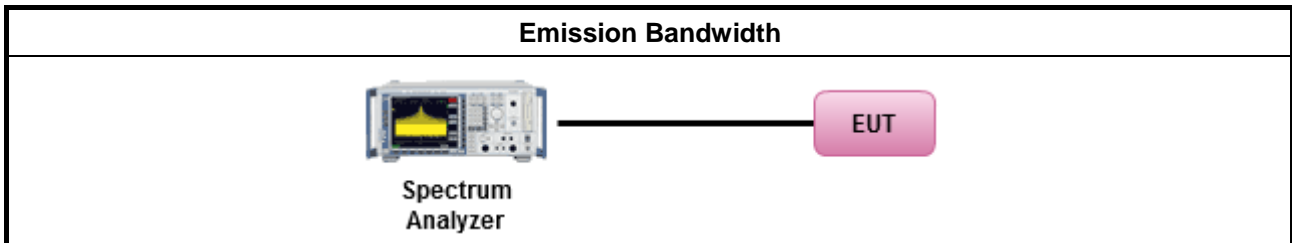
#### 3.2.2 Measuring Instruments

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><math>P_{Out}</math> = maximum peak conducted output power or maximum conducted output power in dBm,  <math>G_{TX}</math> = the maximum transmitting antenna directional gain in dBi.</p>	

#### 3.3.2 Measuring Instruments

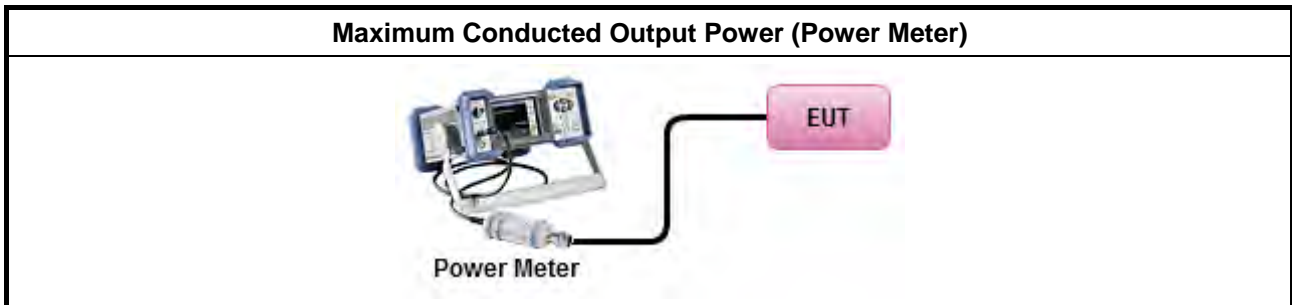
Refer a test equipment and calibration data table in this test report.



**3.3.3 Test Procedures**

<b>Test Method</b>	
<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 ≥ 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 ≥ 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 display="block">P_{total} = P_1 + P_2 + \dots + P_n</math>                     (calculated in linear unit [mW] and transfer to log unit [dBm])  <math display="block">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>

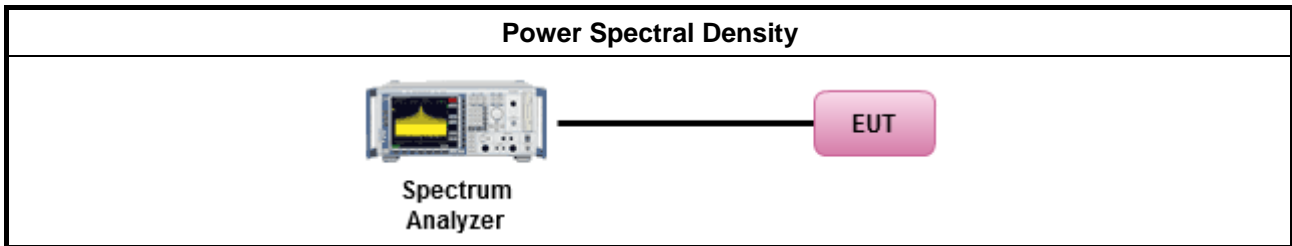
#### 3.4.2 Measuring Instruments

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:                 <table border="1"> <tbody> <tr> <td> <input checked="" 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.                 </td> </tr> <tr> <td> <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,                 </td> </tr> <tr> <td> <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.                 </td> </tr> </tbody> </table> </li> </ul> </li> </ul>	<input checked="" 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.	<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,	<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.
<input checked="" 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.			
<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,			
<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.			

### 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.

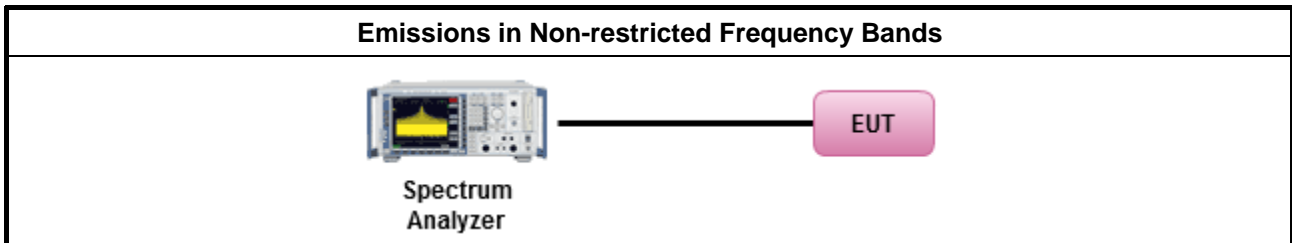
#### 3.5.2 Measuring Instruments

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 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor (if applicable) = Level.

#### 3.5.6 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E



### 3.6 Emissions in Restricted Frequency Bands

#### 3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

#### 3.6.2 Measuring Instruments

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

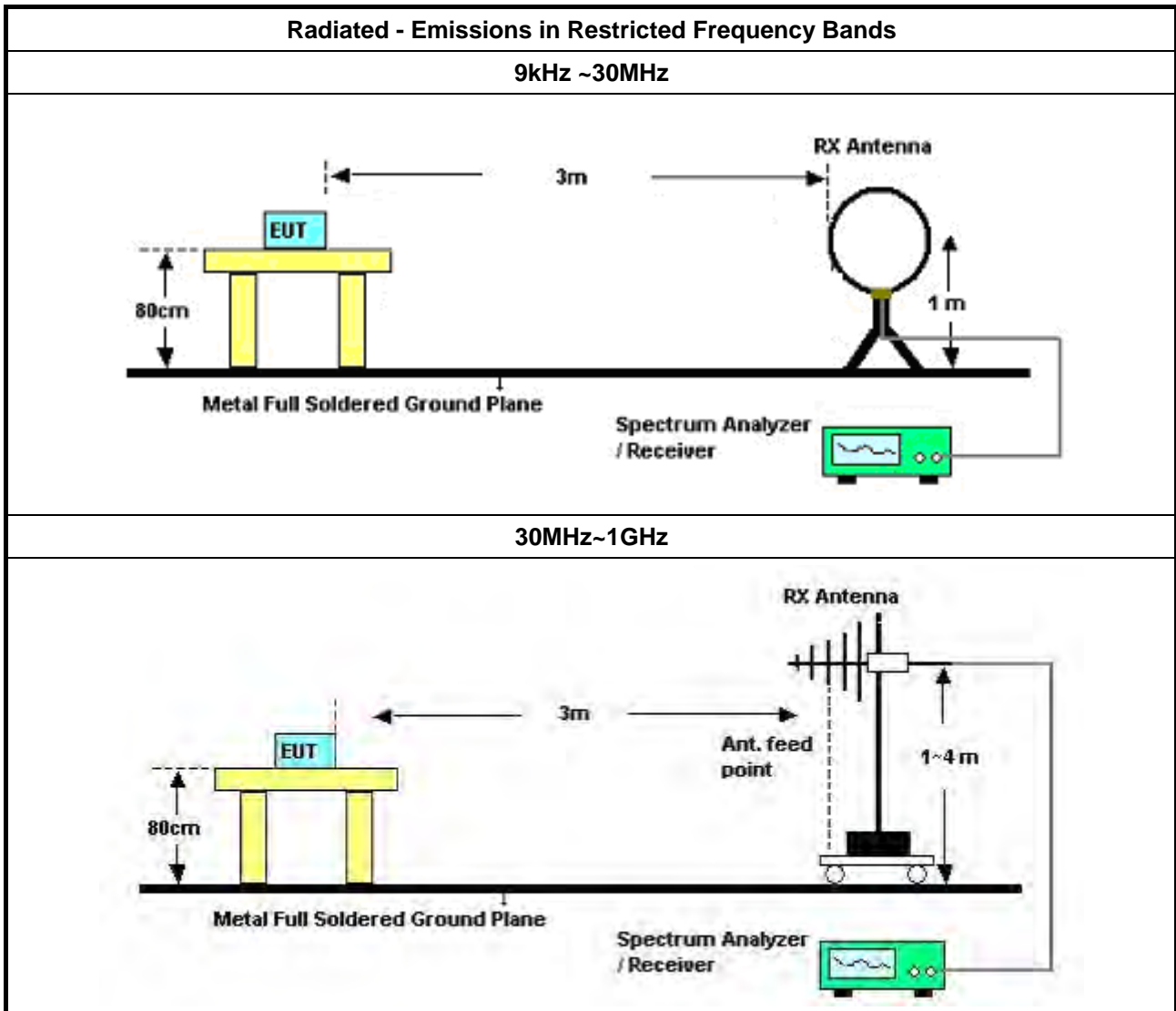


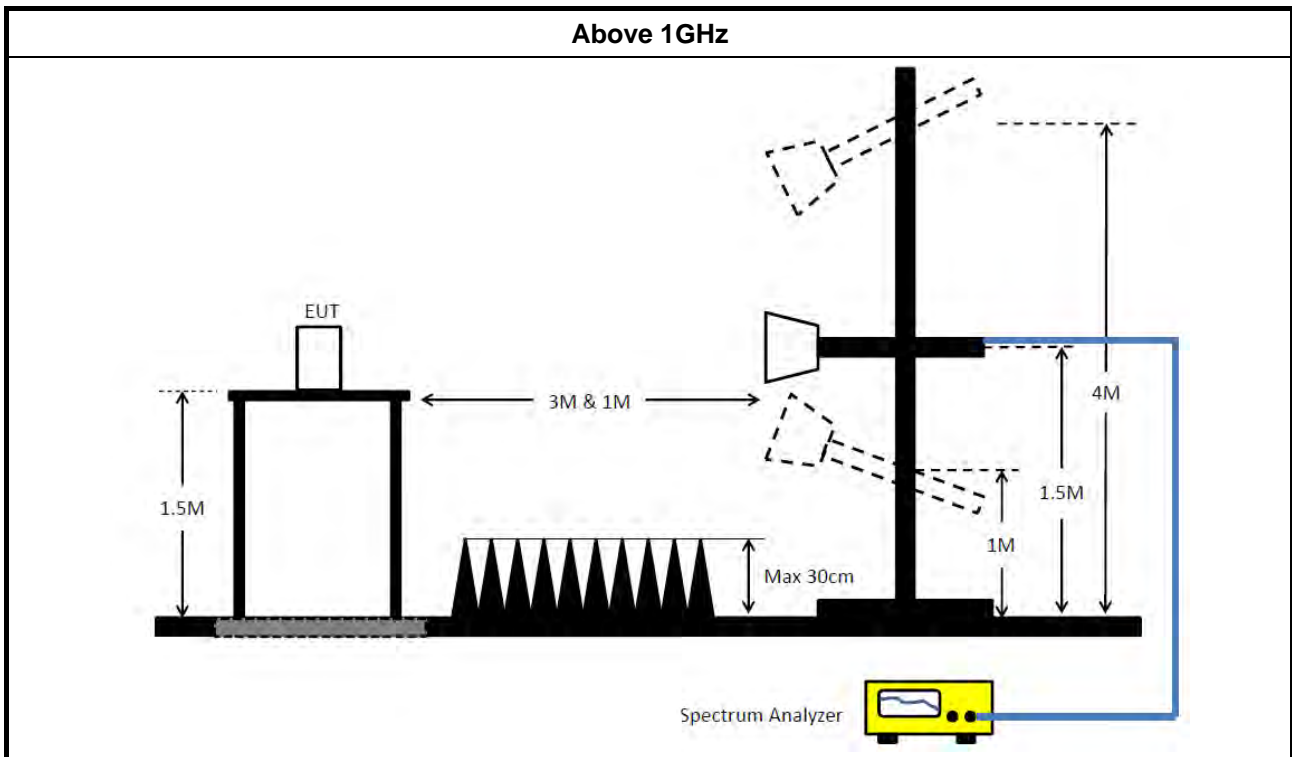
3.6.3 Test Procedures

Test Method	
<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 ~ 8.45GHz	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 (03CH03-CB)
Bilog Antenna with 6 dB attenuator	Schaffner	CBL6112B & N-6-06	2928 & AT-N0607	20MHz ~ 2GHz	Feb. 28, 2020	Feb. 27, 2021	Radiation (03CH03-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	Jun. 27, 2019	Jun. 26, 2020	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8447D	2944A10259	9kHz ~ 1.3GHz	Jan. 15, 2020	Jan. 14, 2021	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Dec. 19, 2019	Dec.18, 2020	Radiation (03CH03-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 09, 2020	Jun. 08, 2021	Radiation (03CH03-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 13, 2020	May 12, 2021	Radiation (03CH03-CB)
RF Cable-low	Woken	RG402	Low Cable-02+27 (spare)	25MHz ~ 1GHz	Jul. 03, 2020	Jul. 02, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+27	1GHz ~ 18GHz	Feb. 01, 2020	Jan. 31, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-27	1GHz ~ 18GHz	Feb. 01, 2020	Jan. 31, 2021	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	Apr. 21, 2020	Apr. 20, 2021	Radiation (03CH02-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Aug. 21, 2019	Aug. 20, 2020	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Aug. 21, 2019	Aug. 20, 2020	Radiation (03CH02-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH02-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Aug. 15, 2019	Aug. 14, 2020	Radiation (03CH02-CB)
High Cable	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH02-CB)
High Cable	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
Horn Antenna	ETS · Lindgren	3115	00143147	750MHz~18GHz	Oct. 22, 2019	Oct. 21, 2020	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jun. 27, 2019	Jun. 26, 2020	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz~26.5GHz	Mar. 11, 2020	Mar. 10, 2021	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz~26.5GHz	Mar. 11, 2020	Mar. 10, 2021	Radiation (03CH04-CB)
Pre-Amplifier	MITEQ	TTA1840-35-H G	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Dec. 18, 2019	Dec. 17, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+22	1GHz - 18GHz	Feb. 01, 2020	Jan. 31, 2021	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-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. 13, 2019	Aug. 12, 2020	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 13, 2019	Aug. 12, 2020	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)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
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)

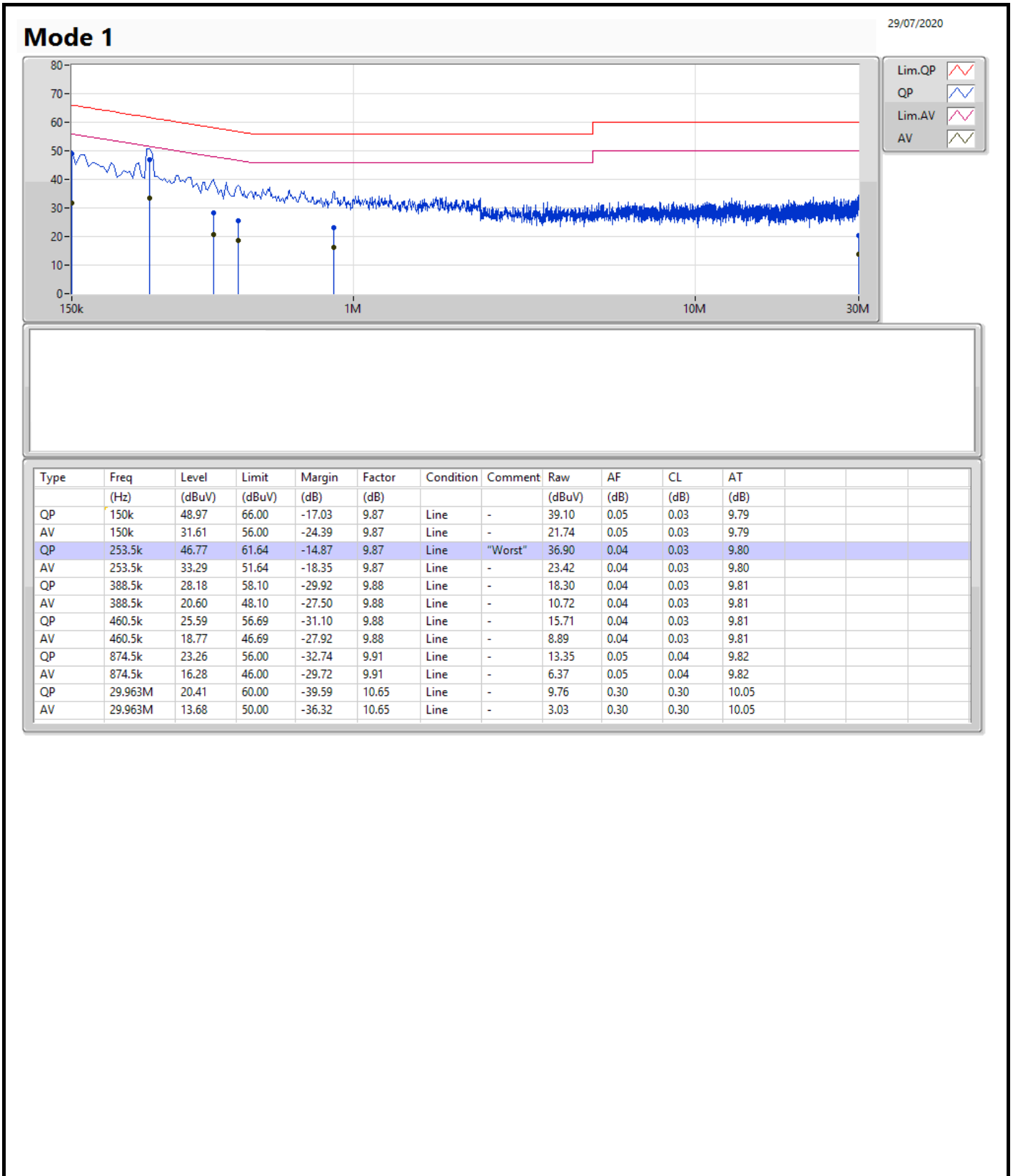
Note: Calibration Interval of instruments listed above is one year.

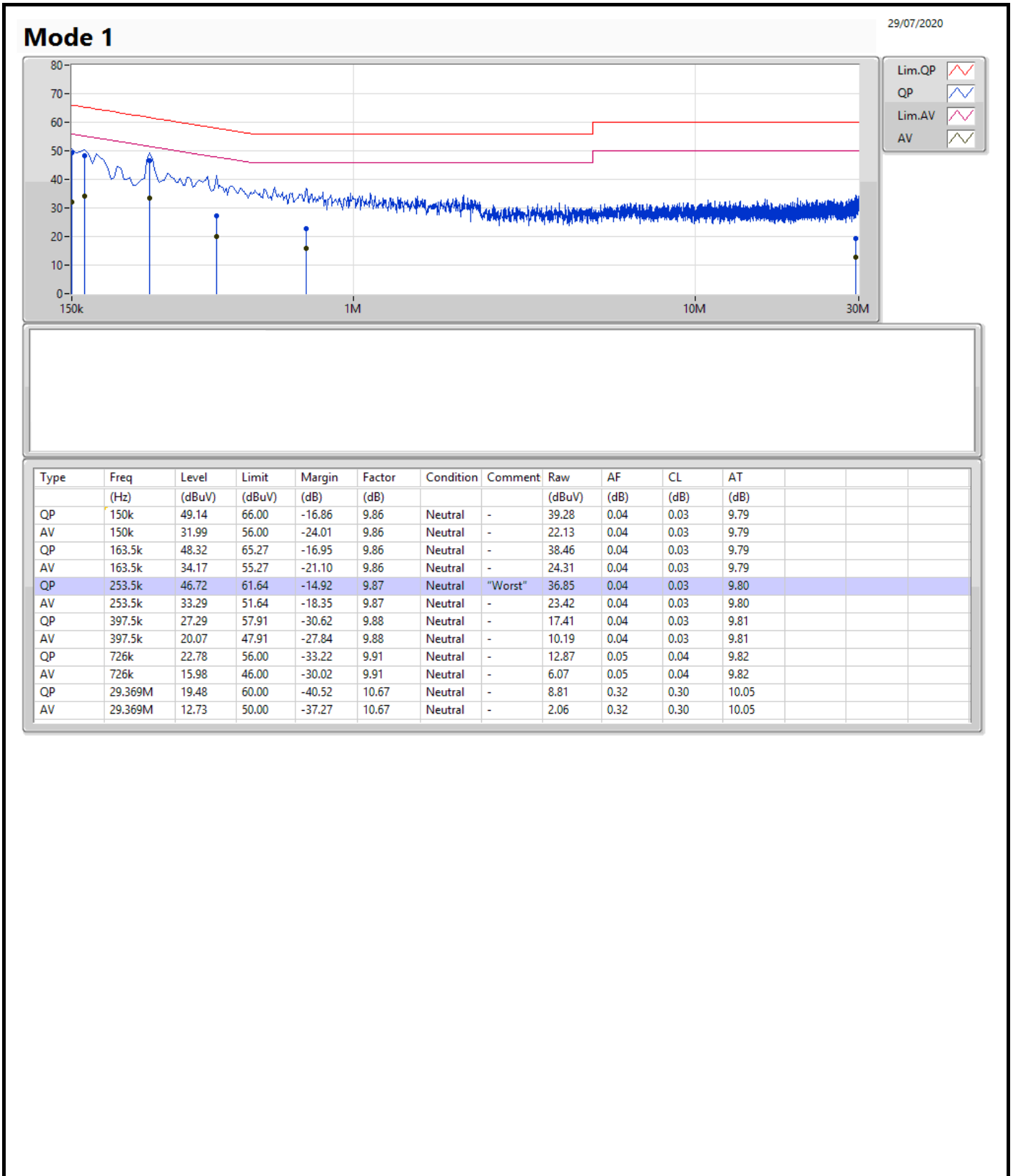
N.C.R. means Non-Calibration required.



**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	253.5k	46.77	61.64	-14.87	Line









Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	7.075M	12.794M	12M8G1D	7.025M	10.245M
802.11g_Nss1,(6Mbps)_2TX	16.35M	17.766M	17M8D1D	16.3M	16.692M
802.11ax HEW20_Nss1,(MCS0)_2TX	19M	19.24M	19M2D1D	18.9M	19.015M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.55M	37.581M	37M6D1D	36.25M	37.481M

**Max-N dB** = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;  
**Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

**Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	7.025M	10.495M	7.025M	10.345M
2437MHz	Pass	500k	7.05M	12.794M	7.025M	12.219M
2462MHz	Pass	500k	7.075M	10.895M	7.05M	10.245M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.767M	16.35M	16.692M
2437MHz	Pass	500k	16.325M	17.766M	16.3M	17.341M
2462MHz	Pass	500k	16.35M	16.742M	16.35M	16.692M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.95M	19.04M	18.95M	19.09M
2437MHz	Pass	500k	18.95M	19.24M	18.9M	19.215M
2462MHz	Pass	500k	18.975M	19.015M	19M	19.065M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.4M	37.531M	36.25M	37.481M
2437MHz	Pass	500k	37.4M	37.531M	37.05M	37.531M
2452MHz	Pass	500k	37.4M	37.581M	37.55M	37.531M

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

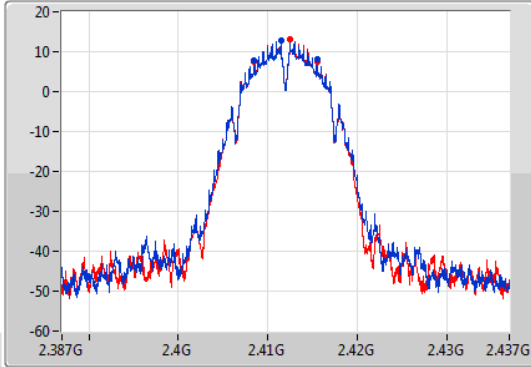
### 802.11b\_Nss1,(1Mbps)\_2TX

EBW

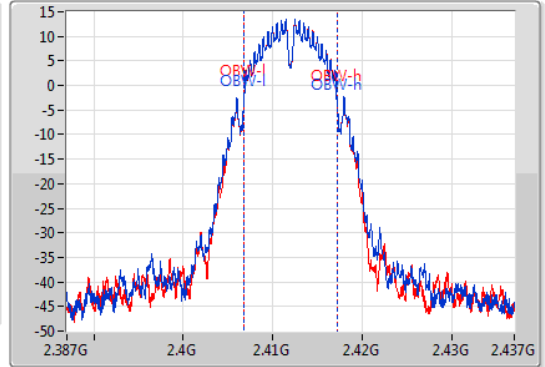
2412MHz

22/06/2020

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



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
7.025M	2.408475G	2.4155G	10.495M	2.406753G	2.417247G	500k	1
7.025M	2.408475G	2.4155G	10.345M	2.406828G	2.417172G	500k	2

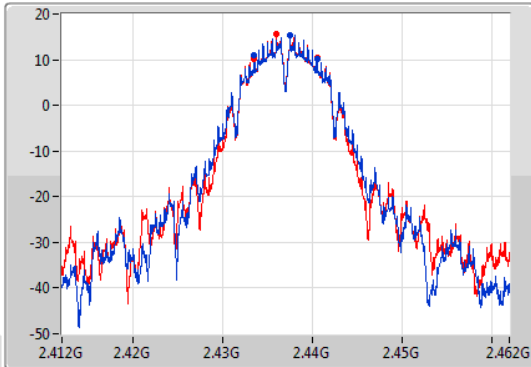
### 802.11b\_Nss1,(1Mbps)\_2TX

EBW

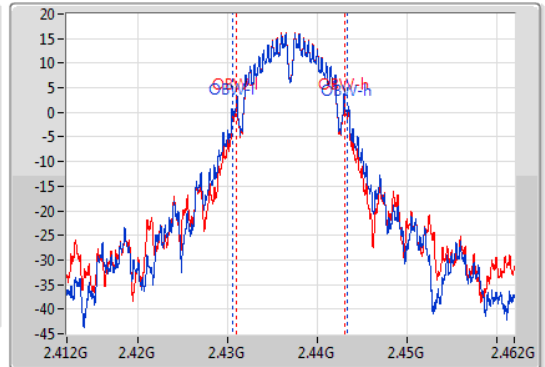
2437MHz

22/06/2020

CF  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.437GHz  
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
7.05M	2.433475G	2.440525G	12.794M	2.430578G	2.443372G	500k	1
7.025M	2.433475G	2.4405G	12.219M	2.430878G	2.443097G	500k	2

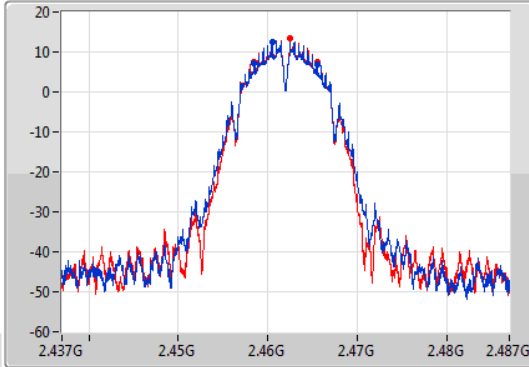
### 802.11b\_Nss1,(1Mbps)\_2TX

EBW

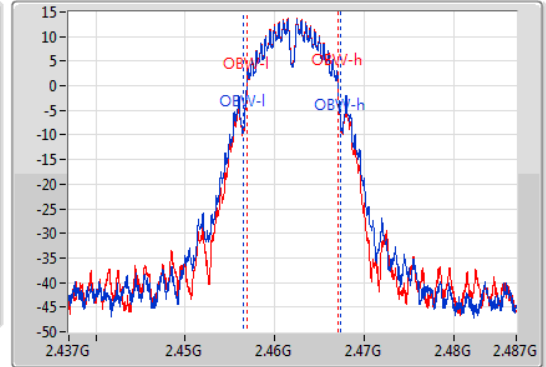
2462MHz

22/06/2020

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



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
7.075M	2.45845G	2.465525G	10.895M	2.456503G	2.467397G	500k	1
7.05M	2.45845G	2.4655G	10.245M	2.456853G	2.467097G	500k	2

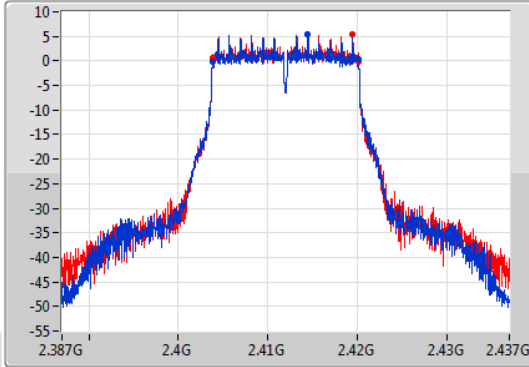
### 802.11g\_Nss1,(6Mbps)\_2TX

EBW

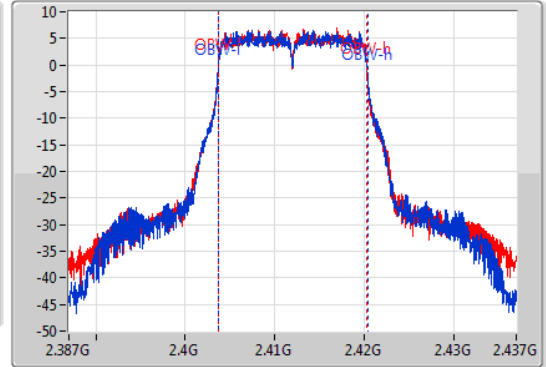
2412MHz

22/06/2020

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



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
16.325M	2.403825G	2.42015G	16.767M	2.403654G	2.420421G	500k	1
16.35M	2.403825G	2.420175G	16.692M	2.403654G	2.420346G	500k	2

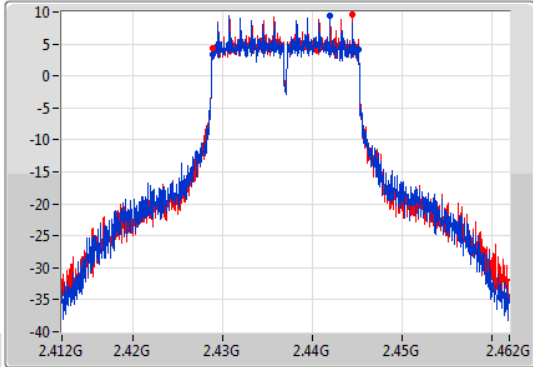
### 802.11g\_Nss1,(6Mbps)\_2TX

EBW

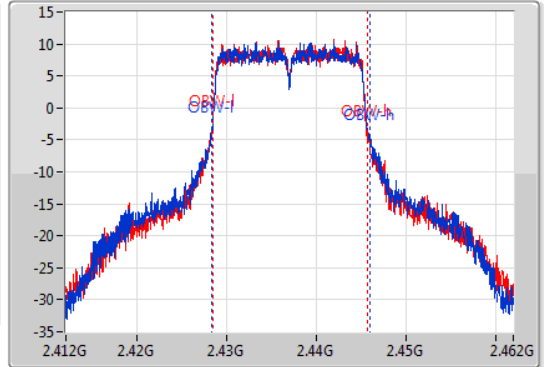
2437MHz

20/07/2020

CF  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.437GHz  
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
16.325M	2.4288G	2.445125G	17.766M	2.428229G	2.445996G	500k	1
16.3M	2.428825G	2.445125G	17.341M	2.428404G	2.445746G	500k	2

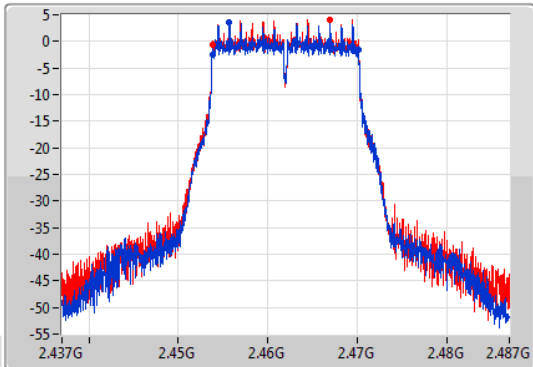
### 802.11g\_Nss1,(6Mbps)\_2TX

EBW

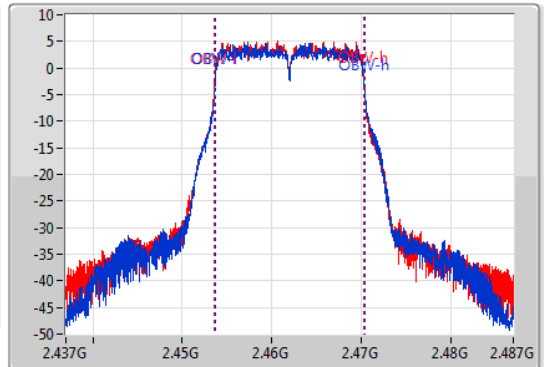
2462MHz

22/06/2020

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



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
16.35M	2.4538G	2.47015G	16.742M	2.453654G	2.470396G	500k	1
16.35M	2.453825G	2.470175G	16.692M	2.453629G	2.470321G	500k	2

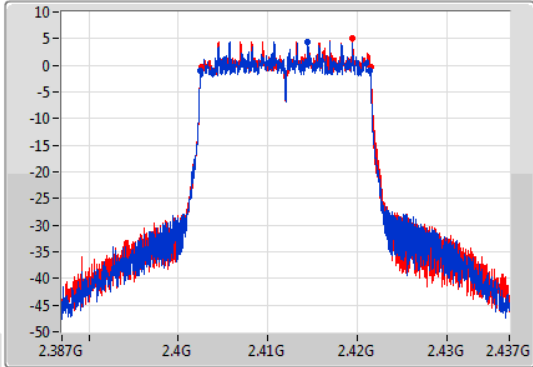
### 802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

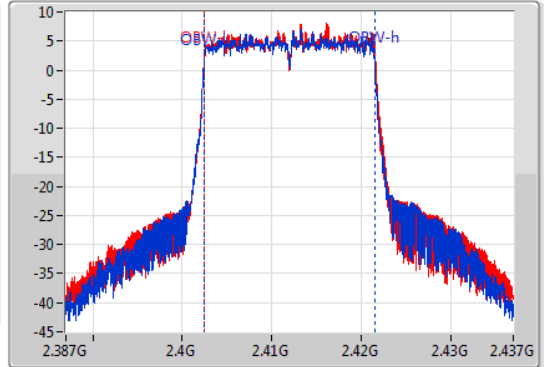
2412MHz

22/06/2020

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



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
18.95M	2.4025G	2.42145G	19.04M	2.402455G	2.421495G	500k	1
18.95M	2.40255G	2.4215G	19.09M	2.40248G	2.42157G	500k	2

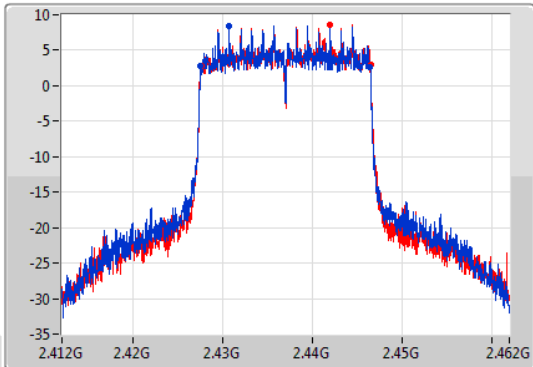
### 802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

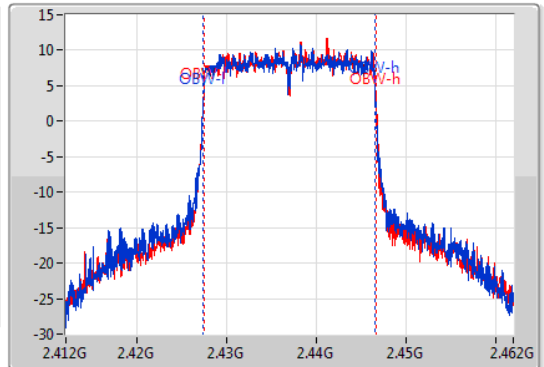
2437MHz

20/07/2020

CF  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



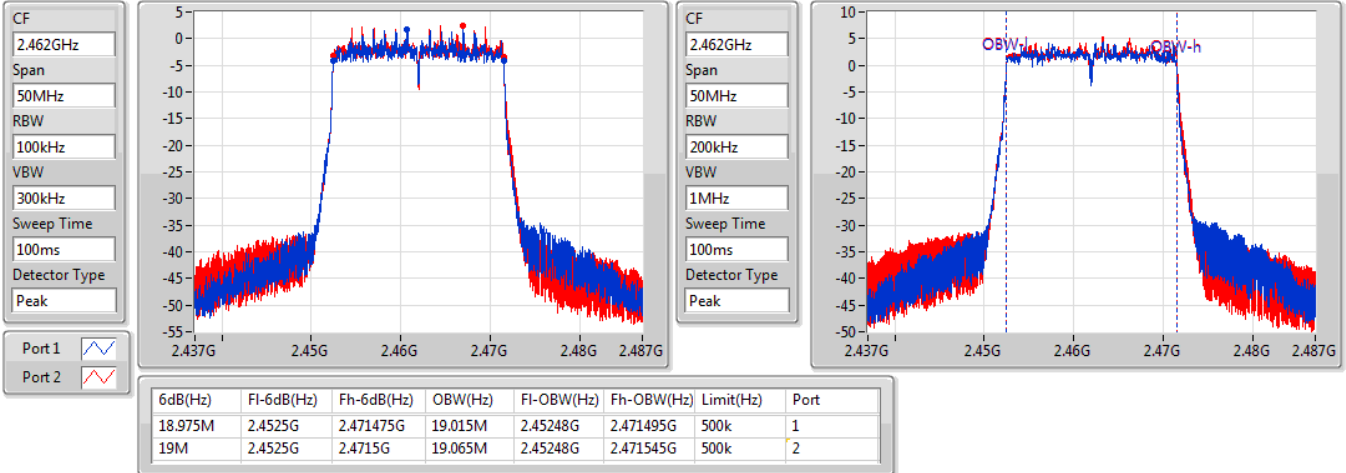
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.4275G	2.44645G	19.24M	2.427355G	2.446595G	500k	1
18.9M	2.427575G	2.446475G	19.215M	2.427405G	2.44662G	500k	2

### 802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

2462MHz

22/06/2020

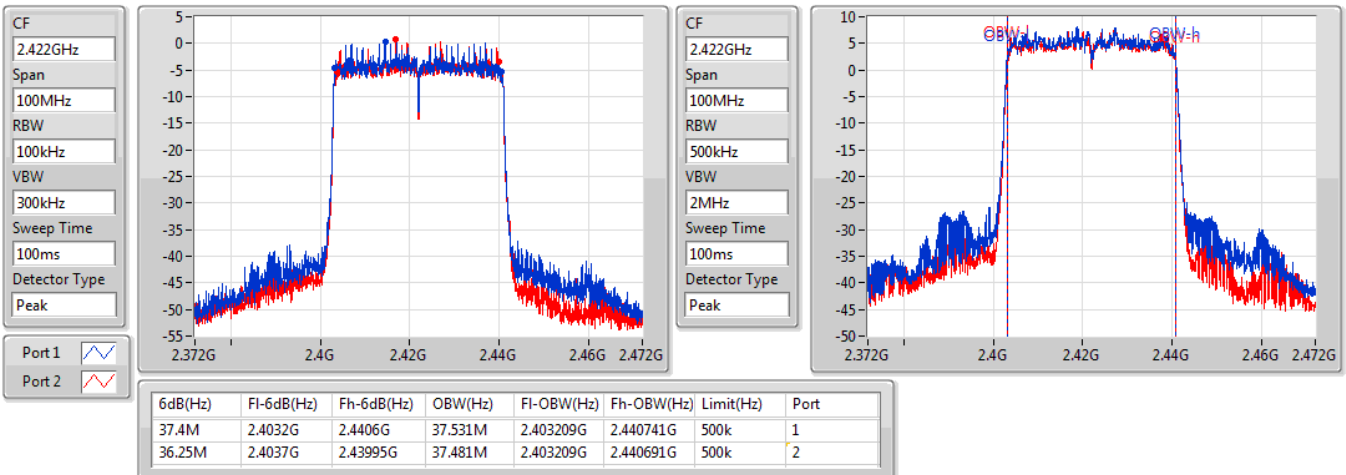


### 802.11ax HEW40\_Nss1,(MCS0)\_2TX

EBW

2422MHz

22/06/2020

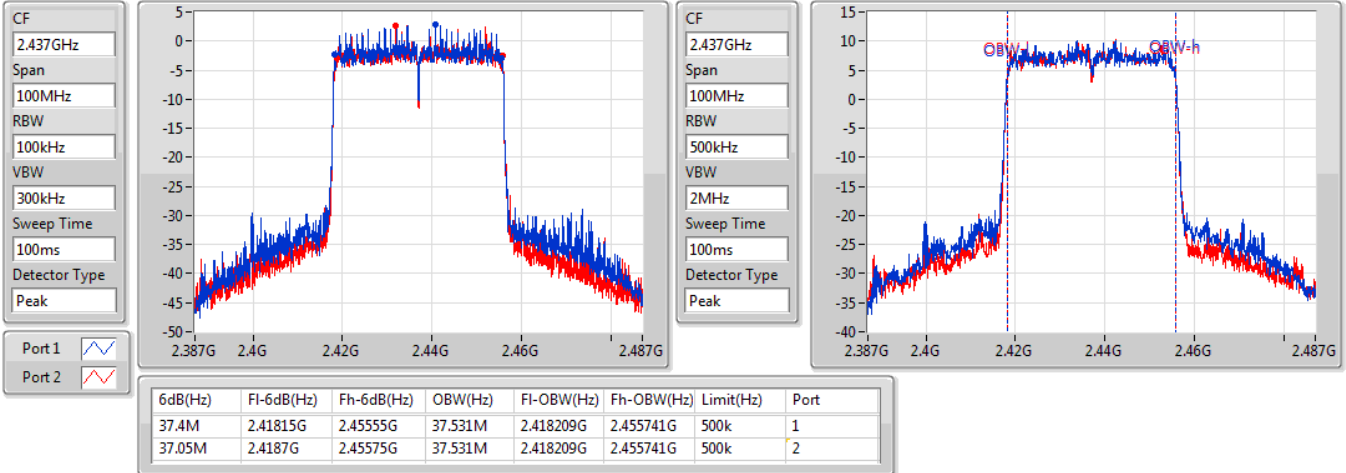


802.11ax HEW40\_Nss1,(MCS0)\_2TX

EBW

2437MHz

20/07/2020

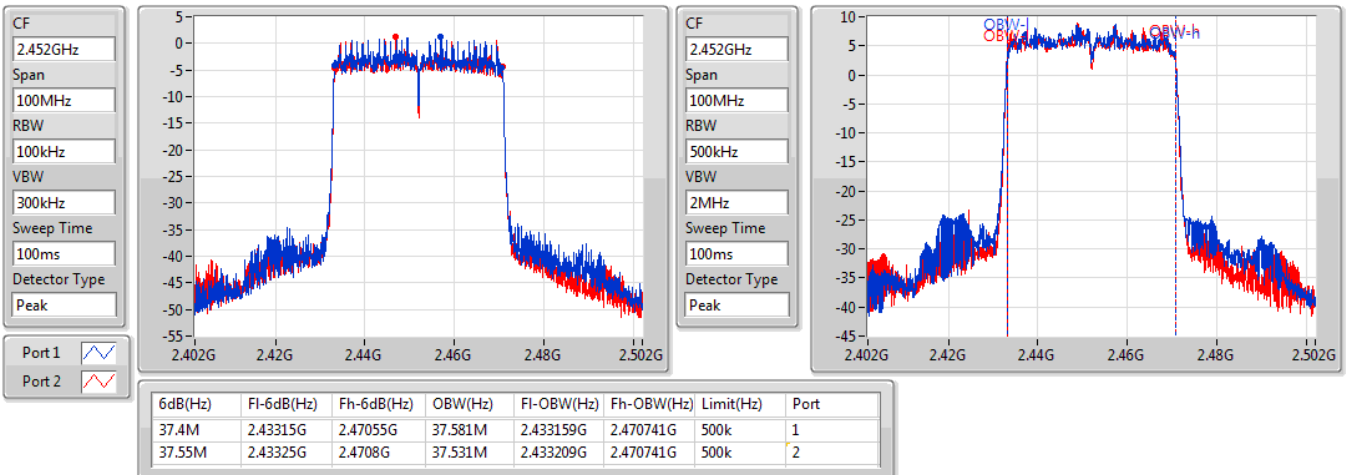


802.11ax HEW40\_Nss1,(MCS0)\_2TX

EBW

2452MHz

22/06/2020







**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_2TX	27.09	0.51168
802.11g_Nss1,(6Mbps)_2TX	23.98	0.25003
802.11ax HEW20_Nss1,(MCS0)_2TX	23.43	0.22029
802.11ax HEW40_Nss1,(MCS0)_2TX	20.45	0.11092



**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.06	21.09	21.31	24.21	30.00
2437MHz	Pass	4.06	24.07	24.08	27.09	30.00
2462MHz	Pass	4.06	21.43	21.70	24.58	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.06	17.38	17.73	20.57	30.00
2417MHz	Pass	4.06	18.69	18.80	21.76	30.00
2437MHz	Pass	4.06	20.84	21.10	23.98	30.00
2457MHz	Pass	4.06	16.76	17.41	20.11	30.00
2462MHz	Pass	4.06	15.73	16.29	19.03	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.06	16.92	17.21	20.08	30.00
2417MHz	Pass	4.06	18.47	18.64	21.57	30.00
2437MHz	Pass	4.06	20.29	20.54	23.43	30.00
2457MHz	Pass	4.06	17.38	17.90	20.66	30.00
2462MHz	Pass	4.06	14.48	14.88	17.69	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.06	15.53	15.16	18.36	30.00
2437MHz	Pass	4.06	17.48	17.39	20.45	30.00
2452MHz	Pass	4.06	16.18	16.03	19.12	30.00

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



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_2TX	2.99
802.11g_Nss1,(6Mbps)_2TX	-2.12
802.11ax HEW20_Nss1,(MCS0)_2TX	-3.61
802.11ax HEW40_Nss1,(MCS0)_2TX	-9.43

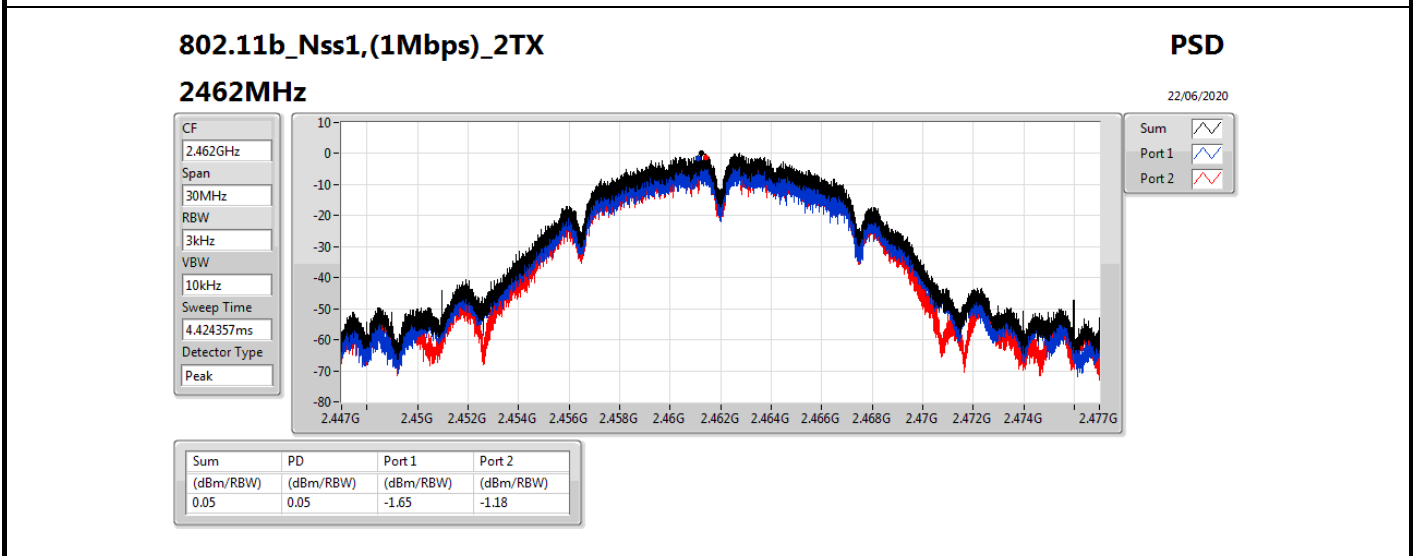
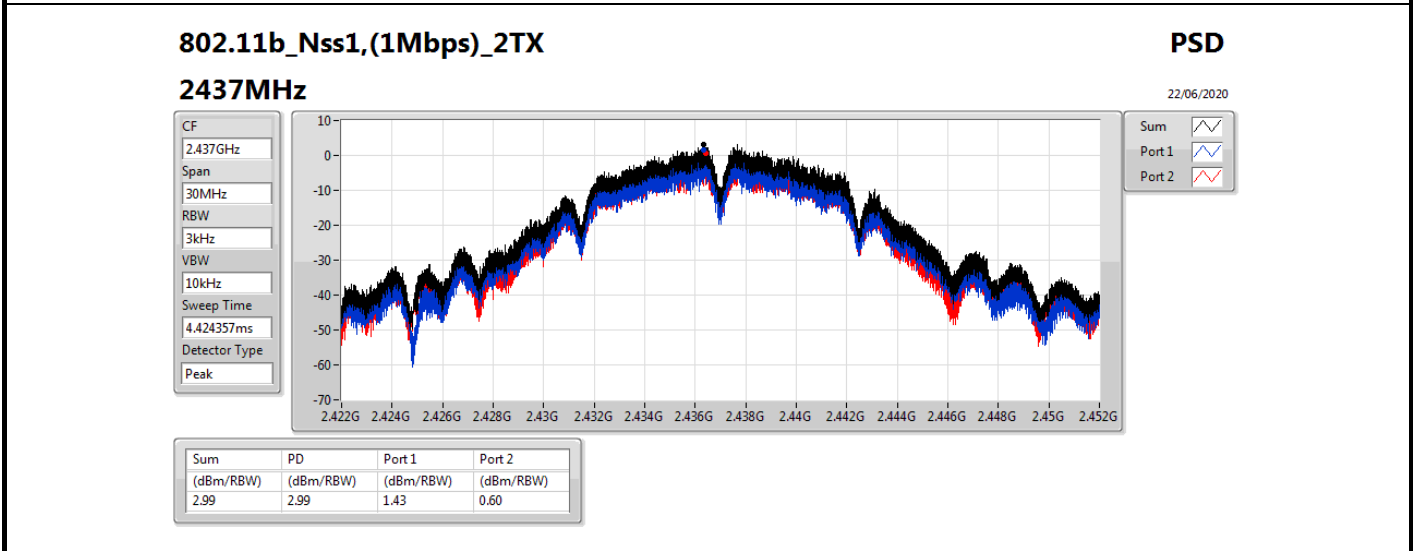
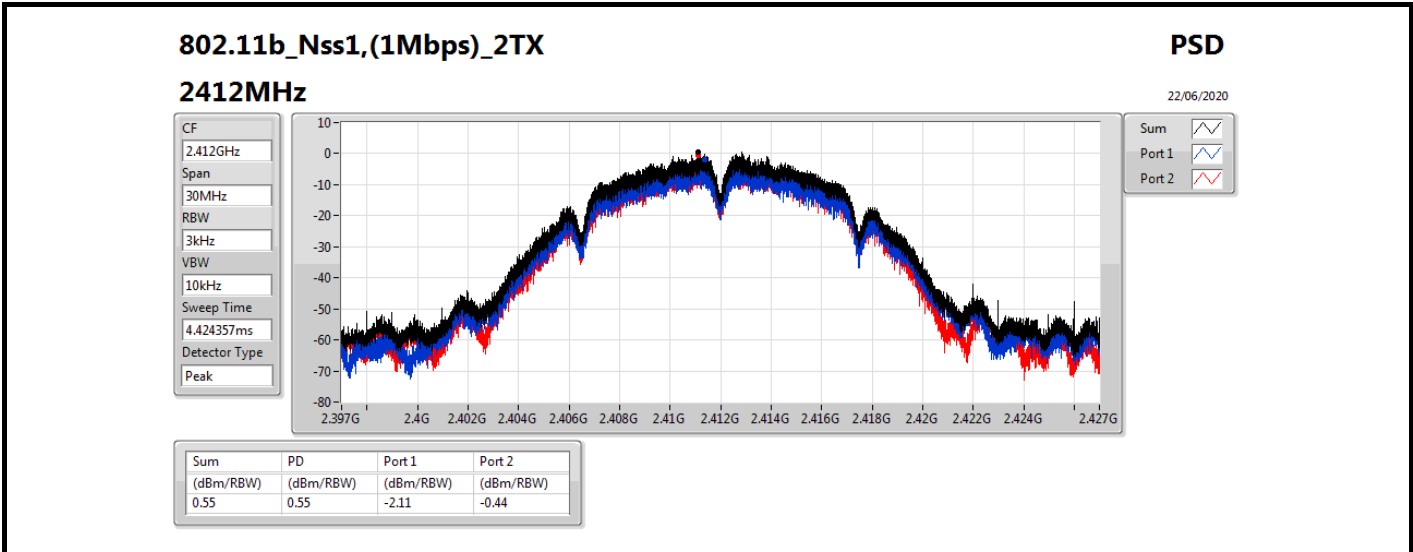
RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

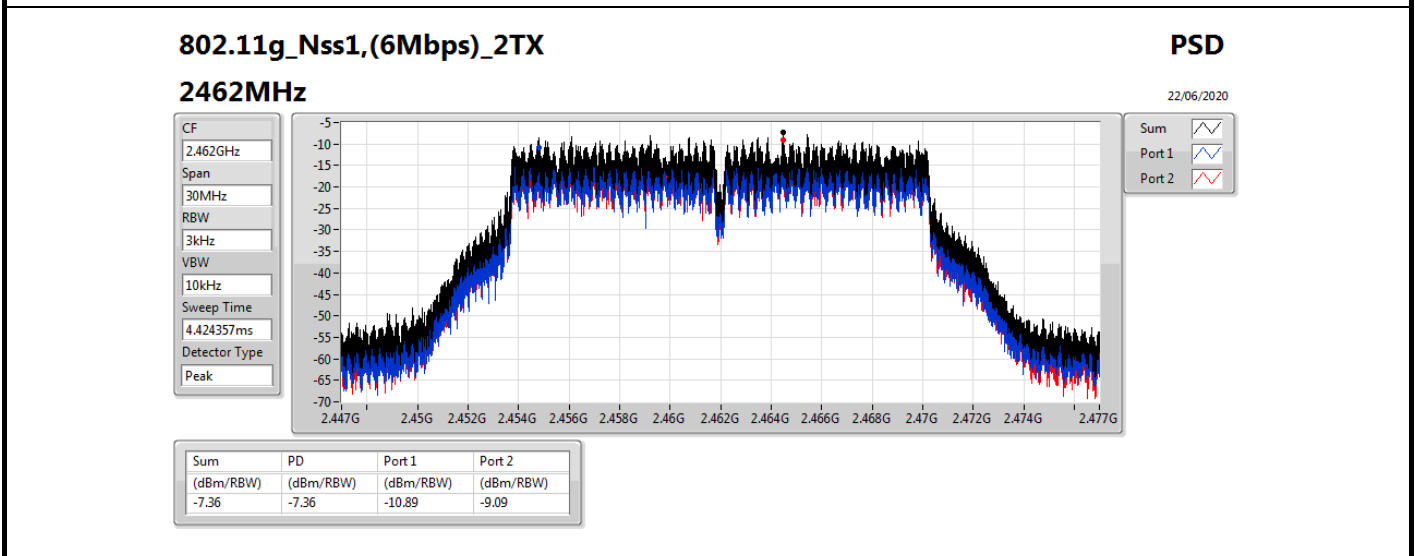
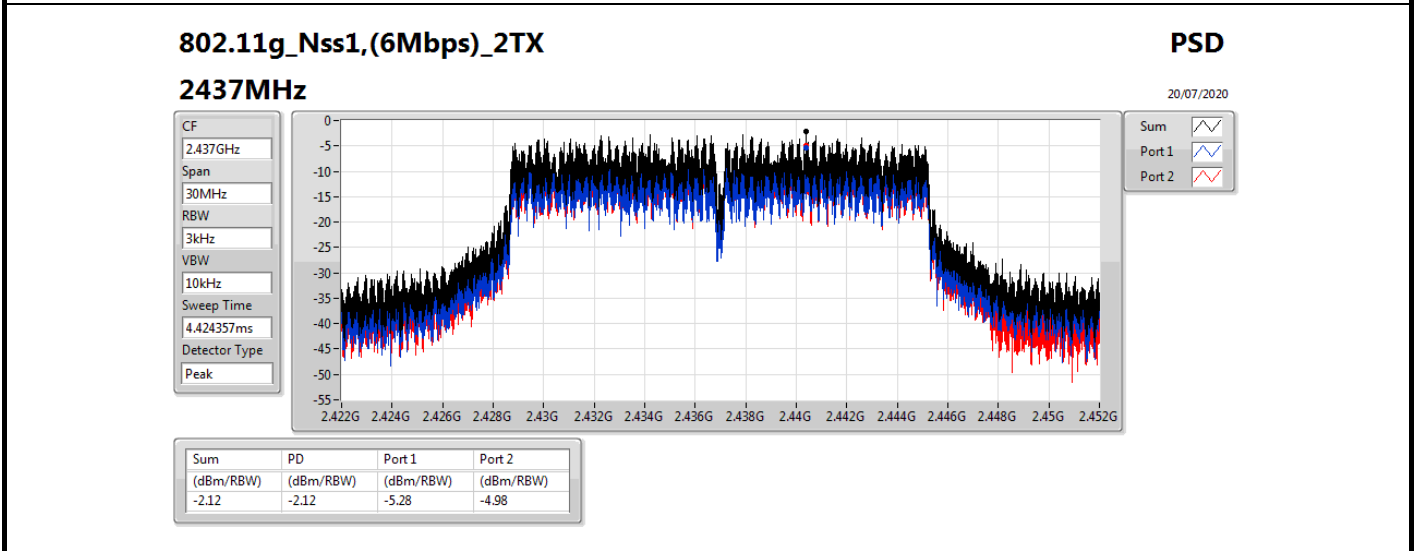
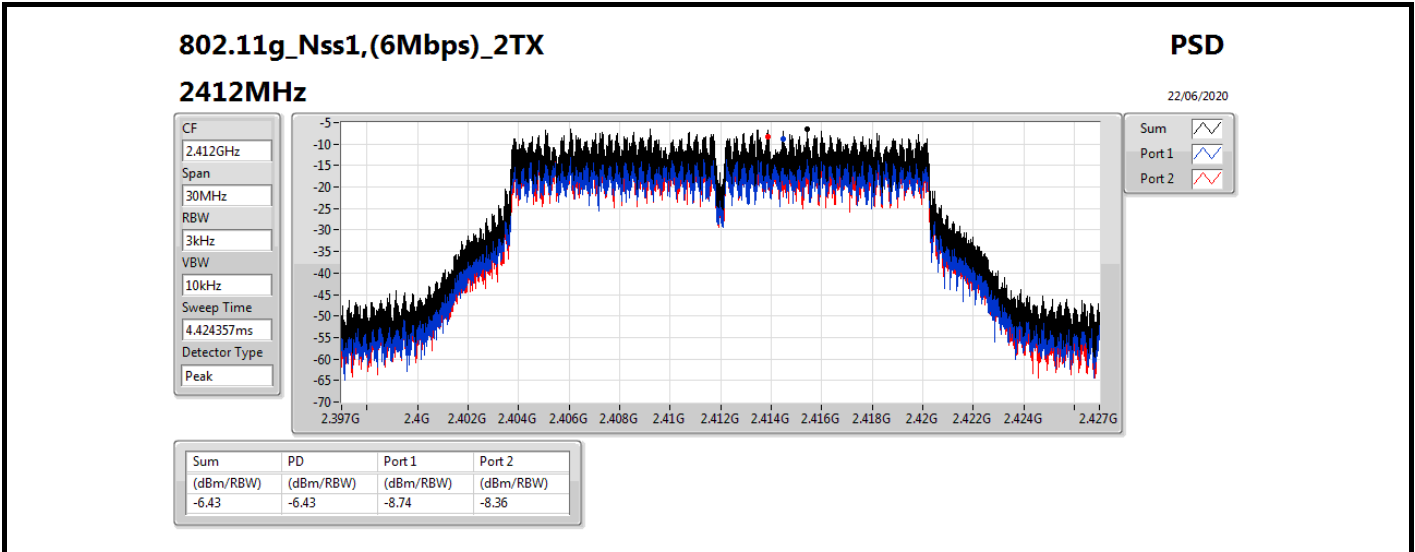
**Result**

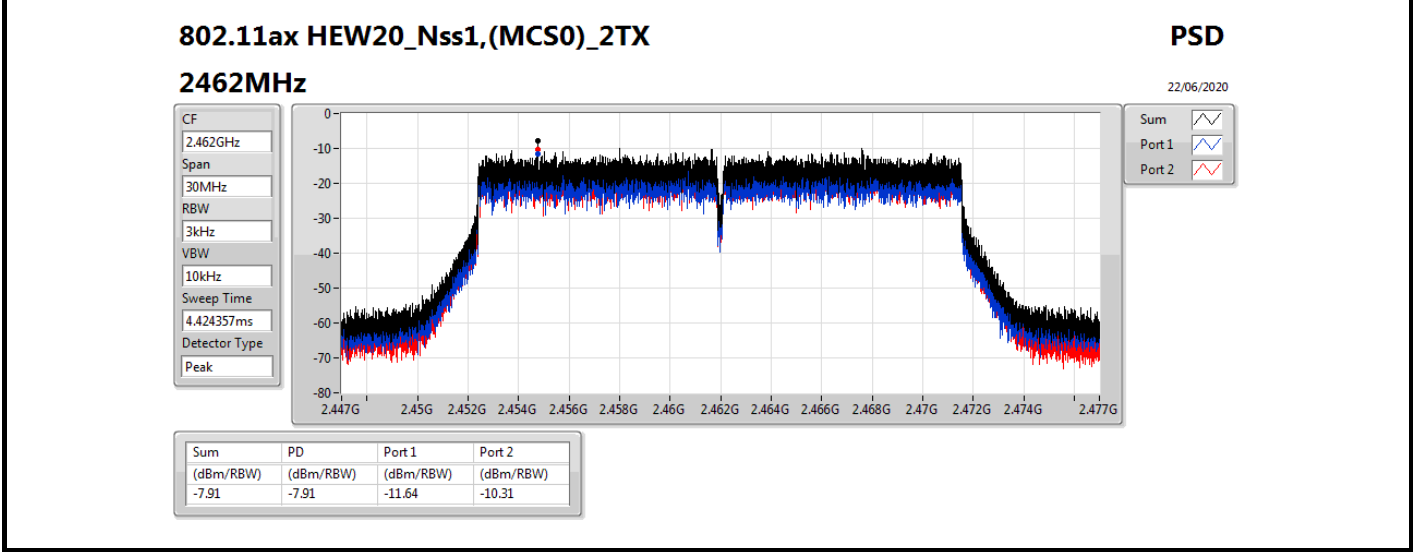
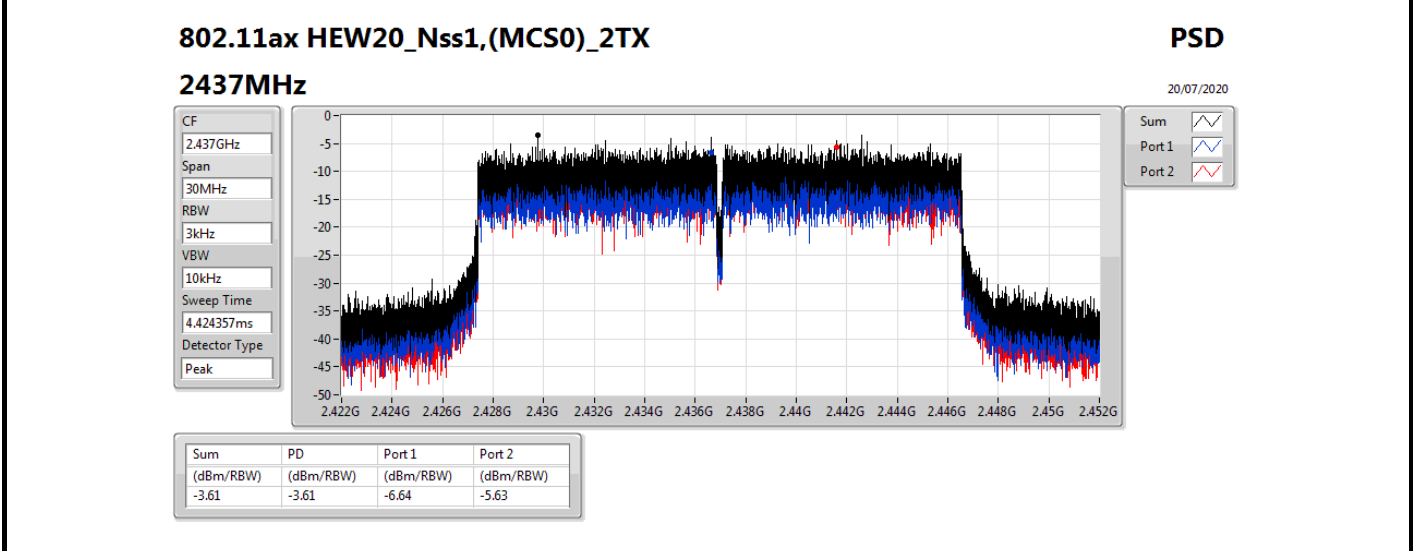
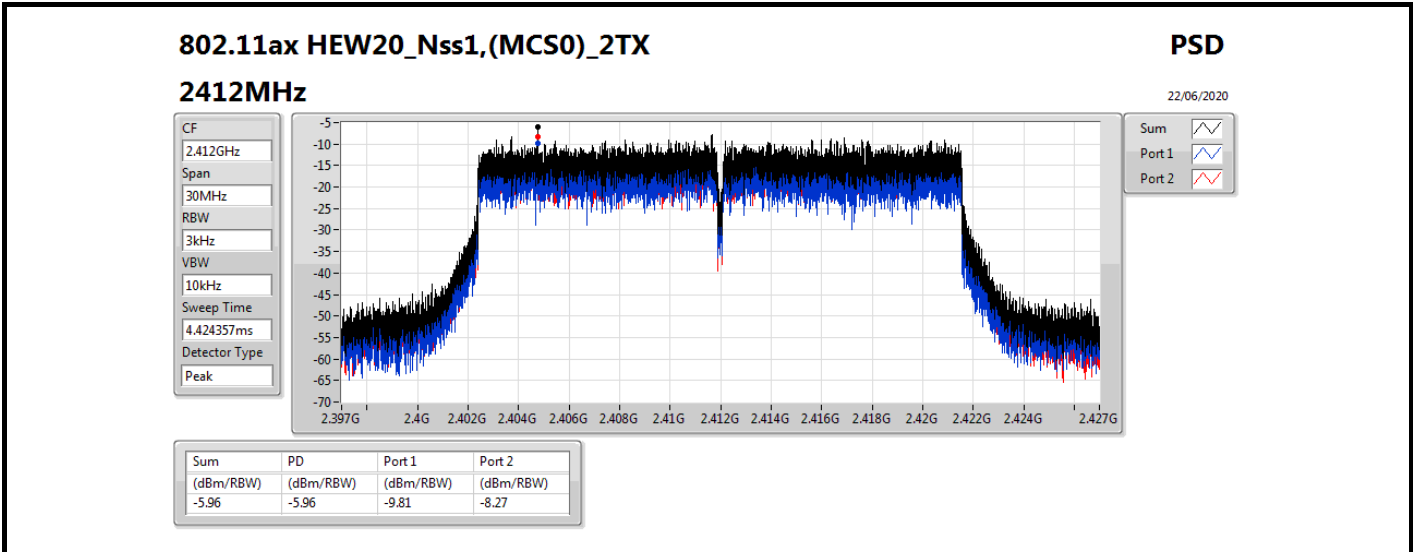
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.58	-2.11	-0.44	0.55	8.00
2437MHz	Pass	4.58	1.43	0.60	2.99	8.00
2462MHz	Pass	4.58	-1.65	-1.18	0.05	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.58	-8.74	-8.36	-6.43	8.00
2437MHz	Pass	4.58	-5.28	-4.98	-2.12	8.00
2462MHz	Pass	4.58	-10.89	-9.09	-7.36	8.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.58	-9.81	-8.27	-5.96	8.00
2437MHz	Pass	4.58	-6.64	-5.63	-3.61	8.00
2462MHz	Pass	4.58	-11.64	-10.31	-7.91	8.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.58	-14.10	-14.08	-11.25	8.00
2437MHz	Pass	4.58	-12.02	-11.67	-9.43	8.00
2452MHz	Pass	4.58	-13.65	-13.45	-10.71	8.00

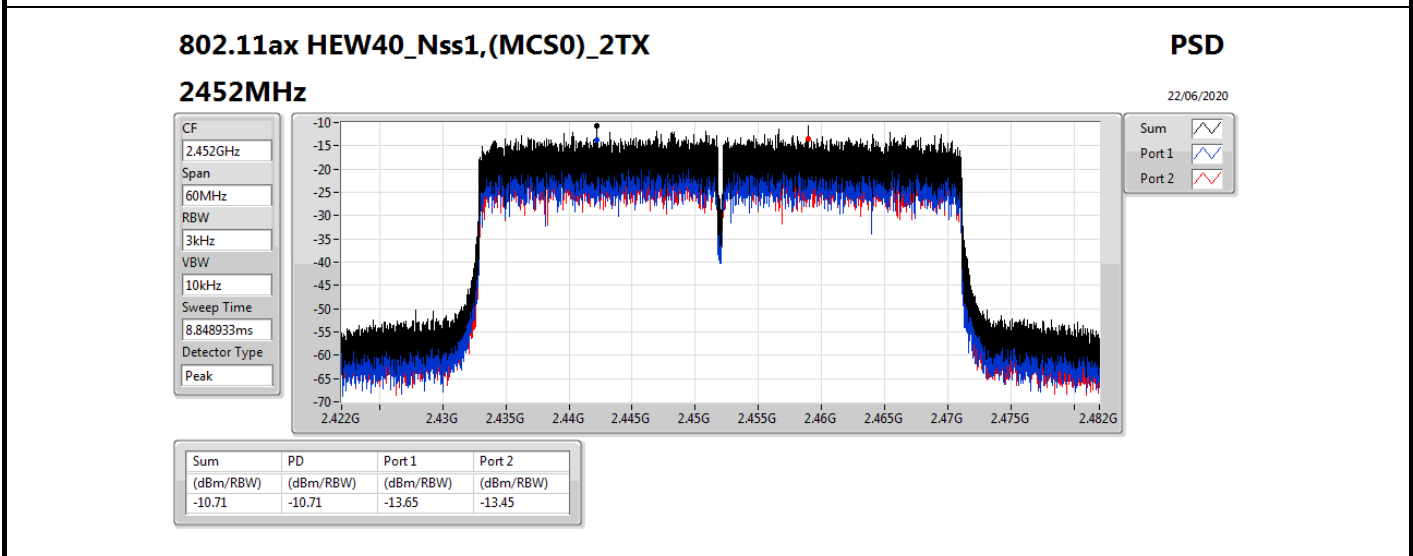
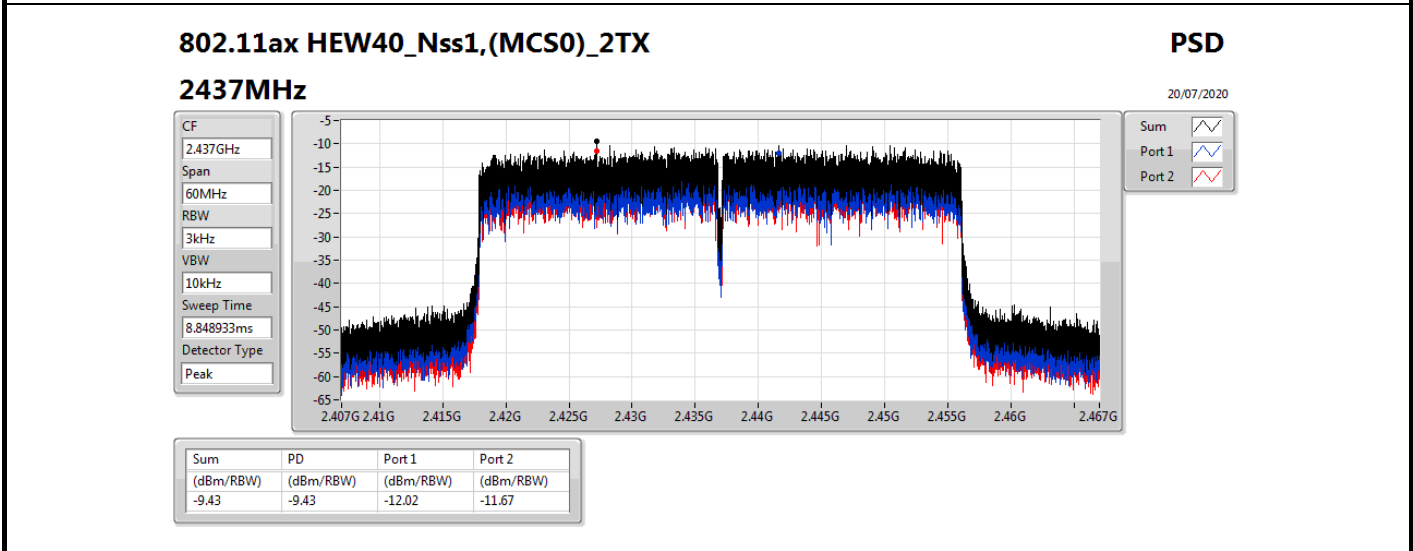
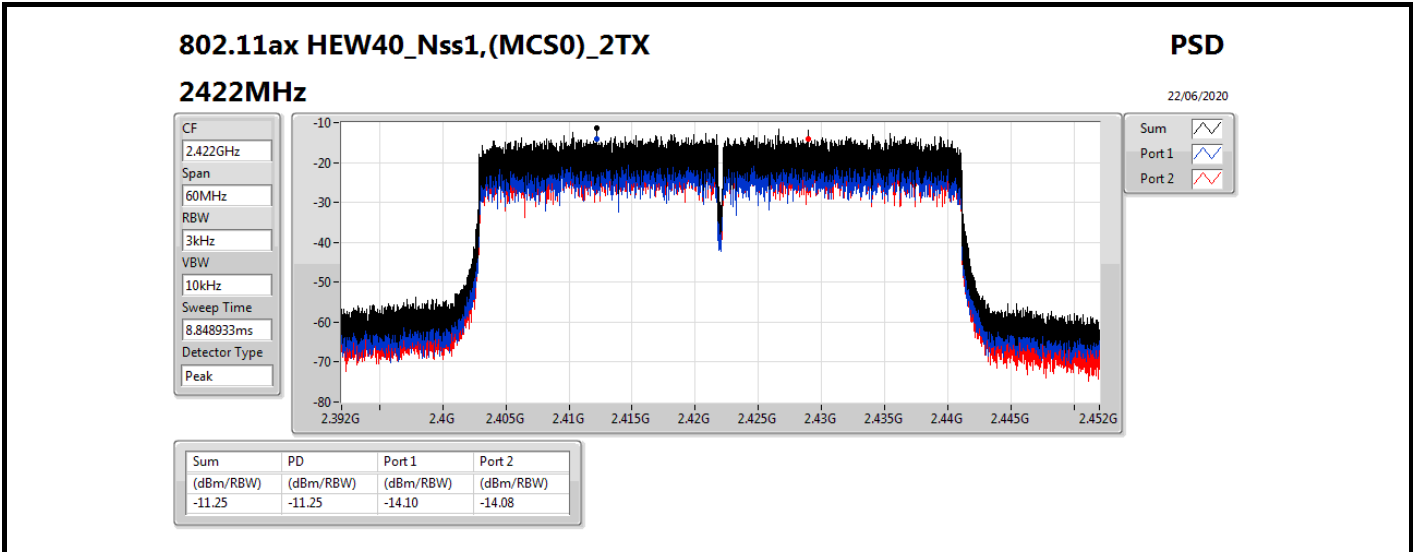
**DG** = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

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













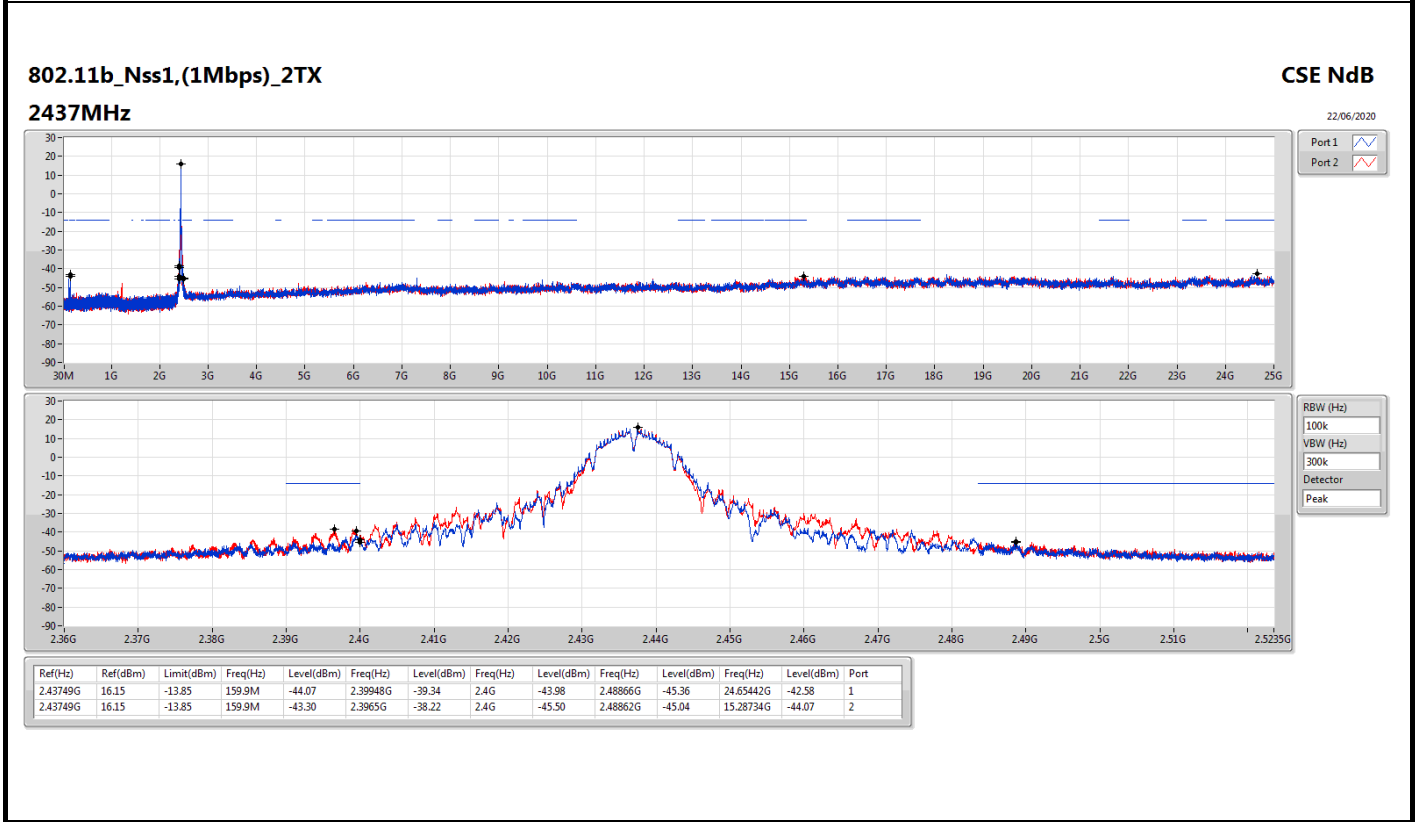
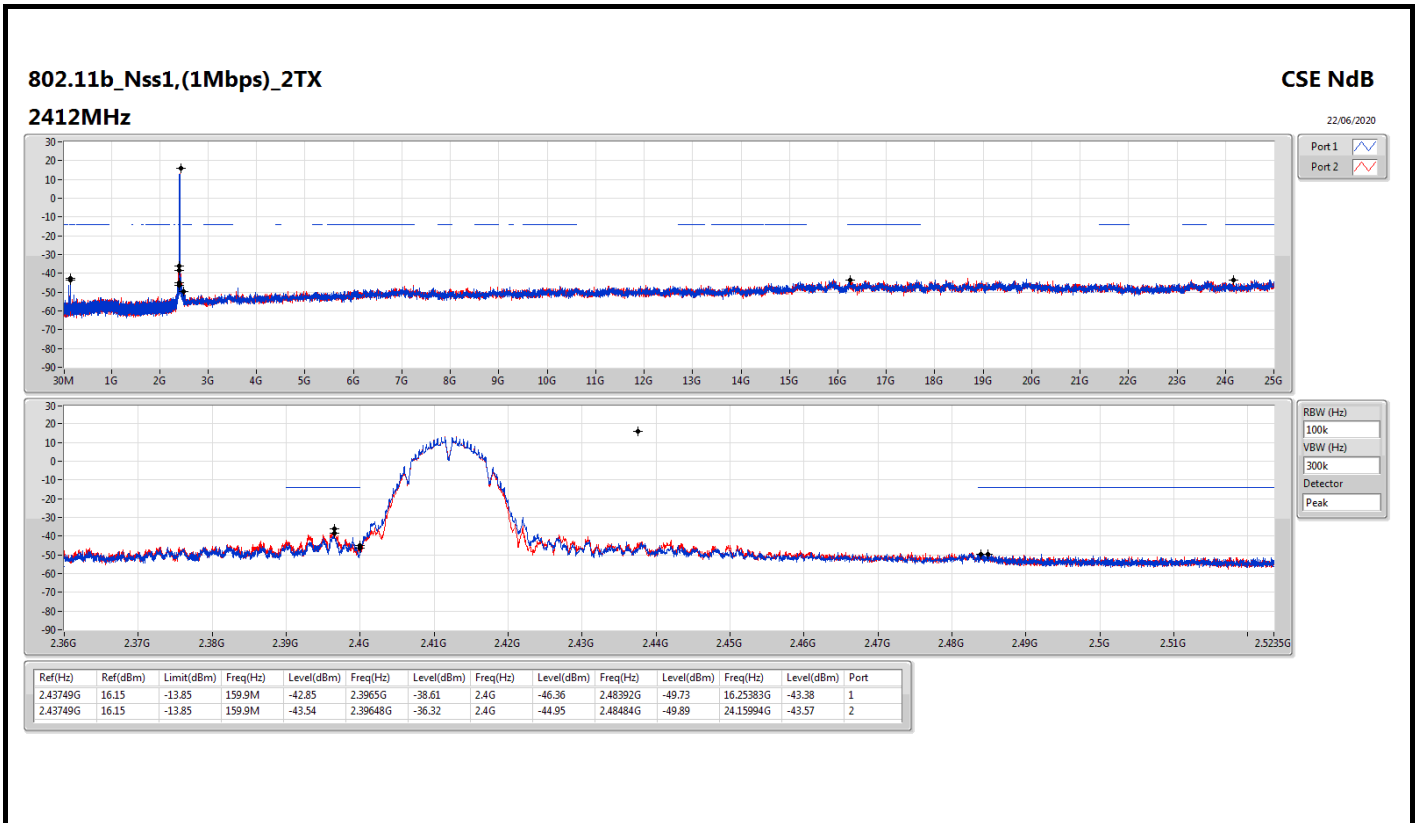
Summary

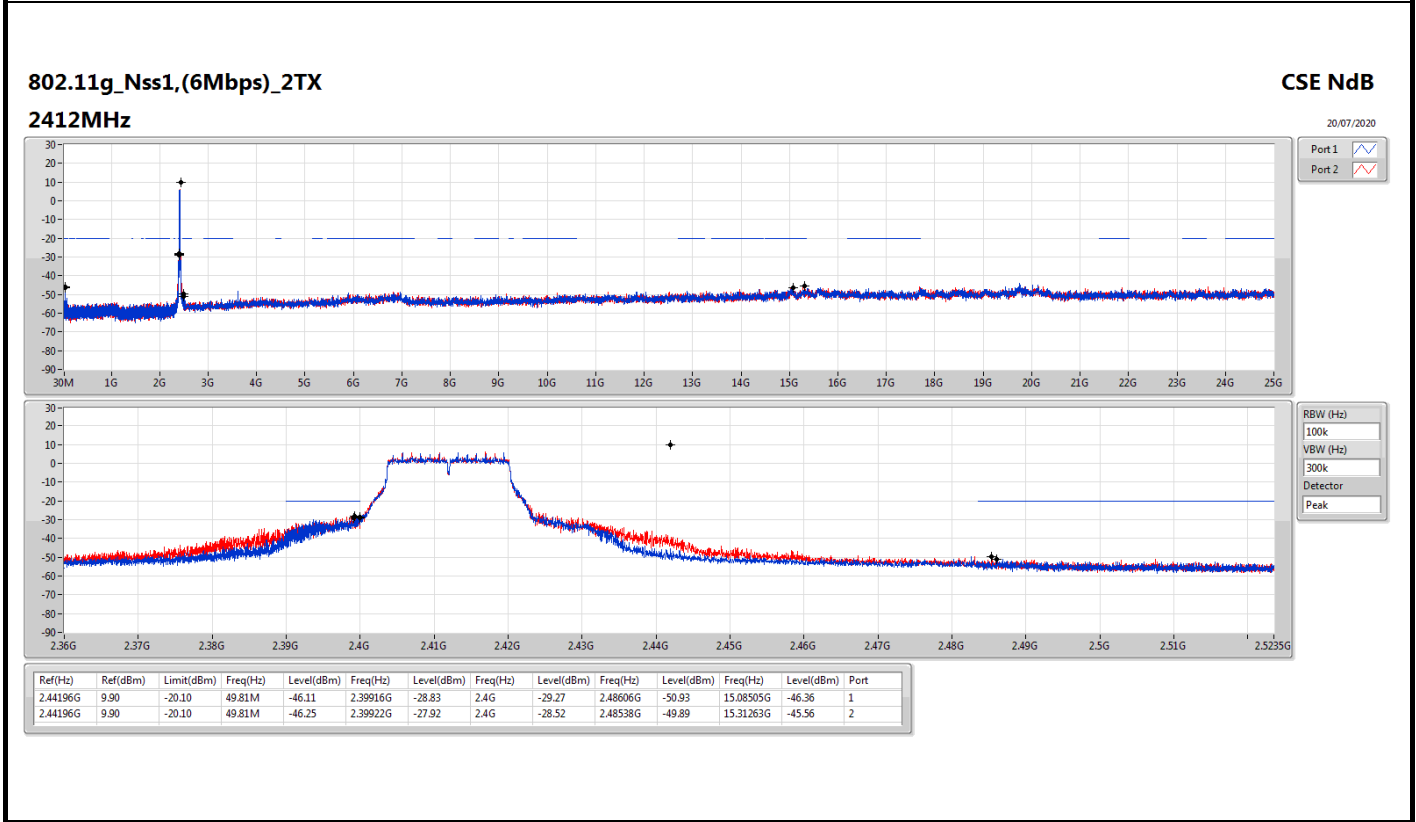
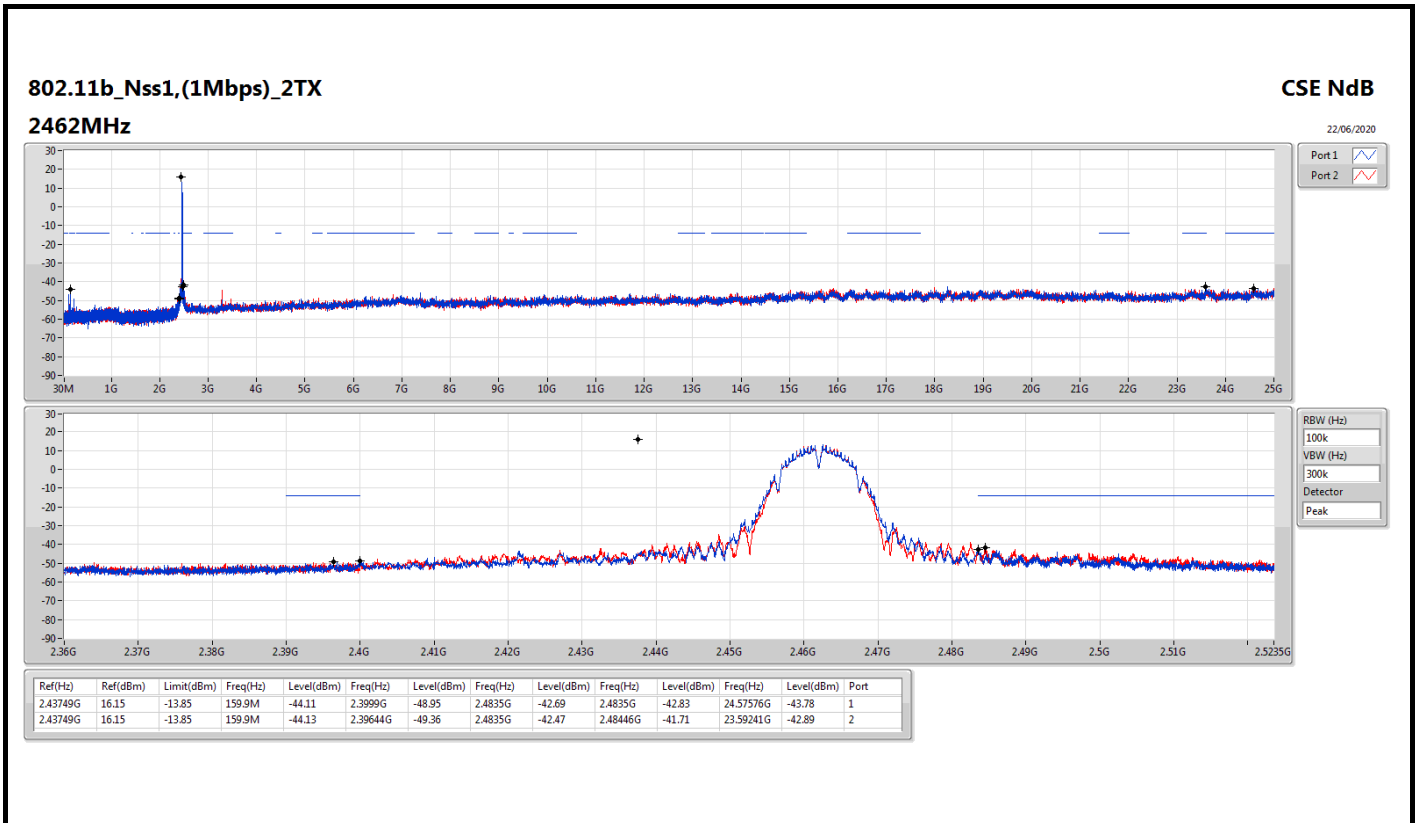
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43749G	16.15	-13.85	159.9M	-43.54	2.39648G	-36.32	2.4G	-44.95	2.48484G	-49.89	24.15994G	-43.57	2
802.11g_Nss1,(6Mbps)_2TX	Pass	2.44196G	9.90	-20.10	49.81M	-46.25	2.39922G	-27.92	2.4G	-28.52	2.48538G	-49.89	15.31263G	-45.56	2
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.43945G	8.66	-21.34	49.81M	-46.76	2.3999G	-26.86	2.4G	-26.16	2.49082G	-50.50	23.52498G	-46.50	2
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.44196G	2.87	-27.13	49.75M	-46.71	2.39976G	-29.74	2.4G	-33.32	2.4839G	-40.87	15.03258G	-46.09	1

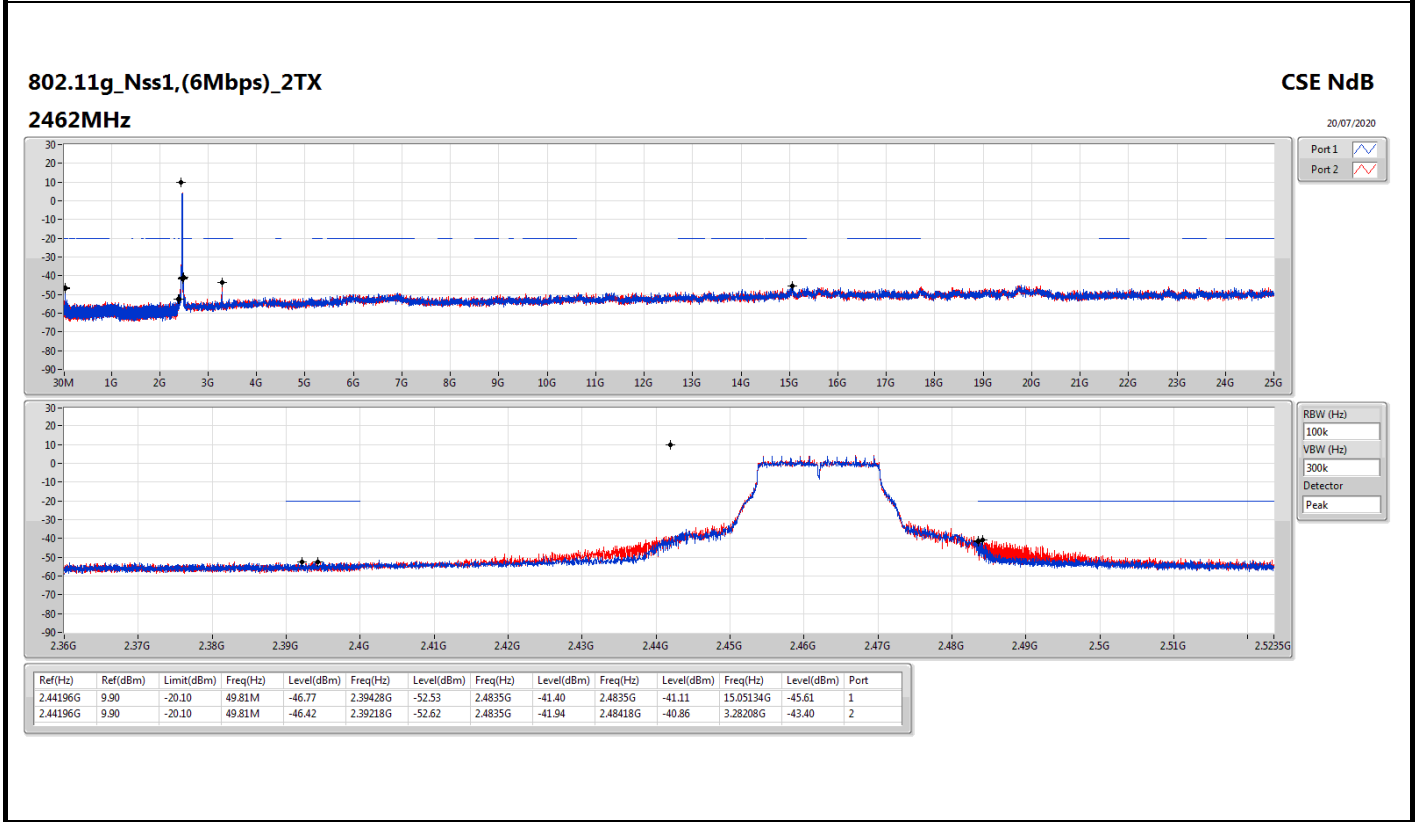
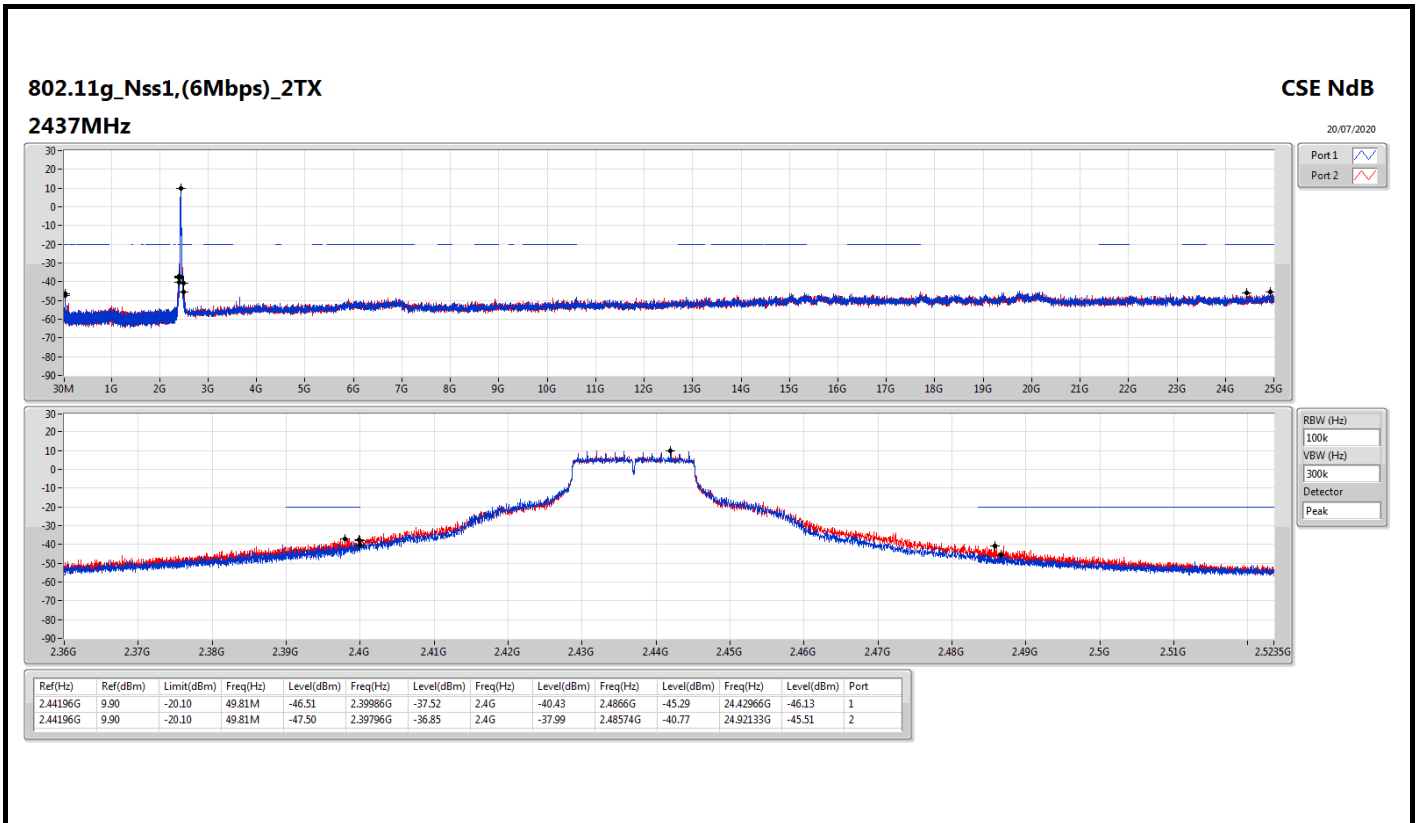


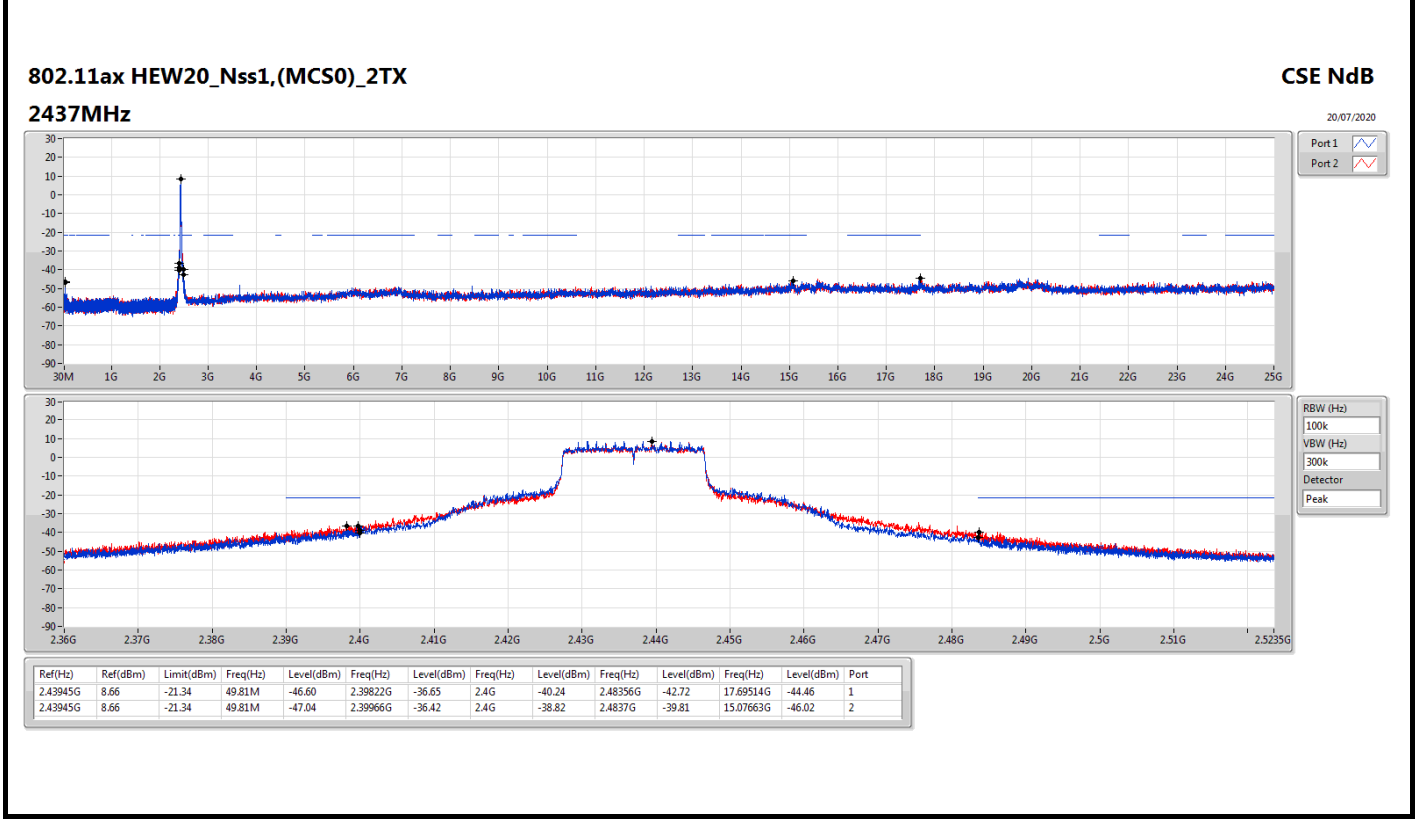
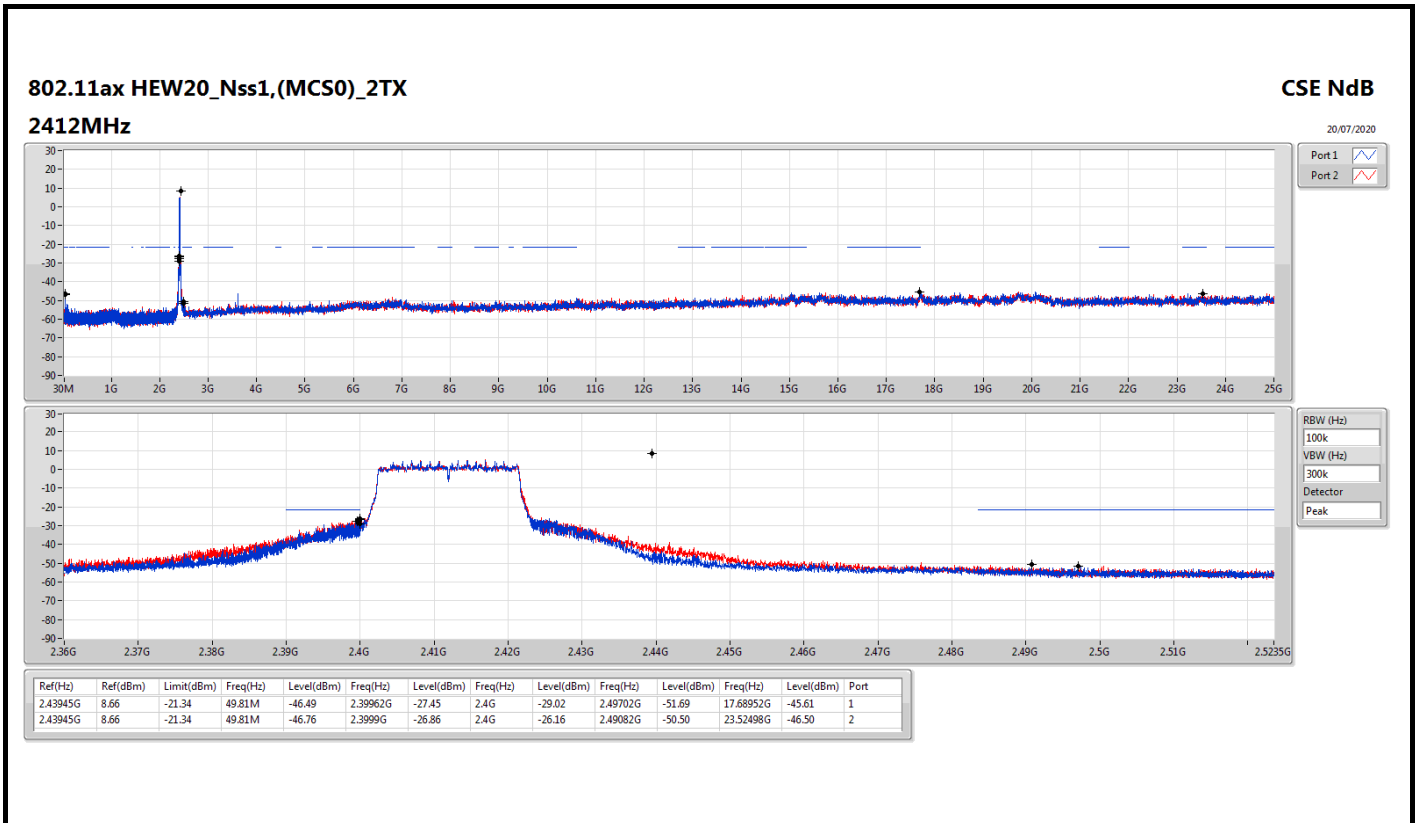
Result

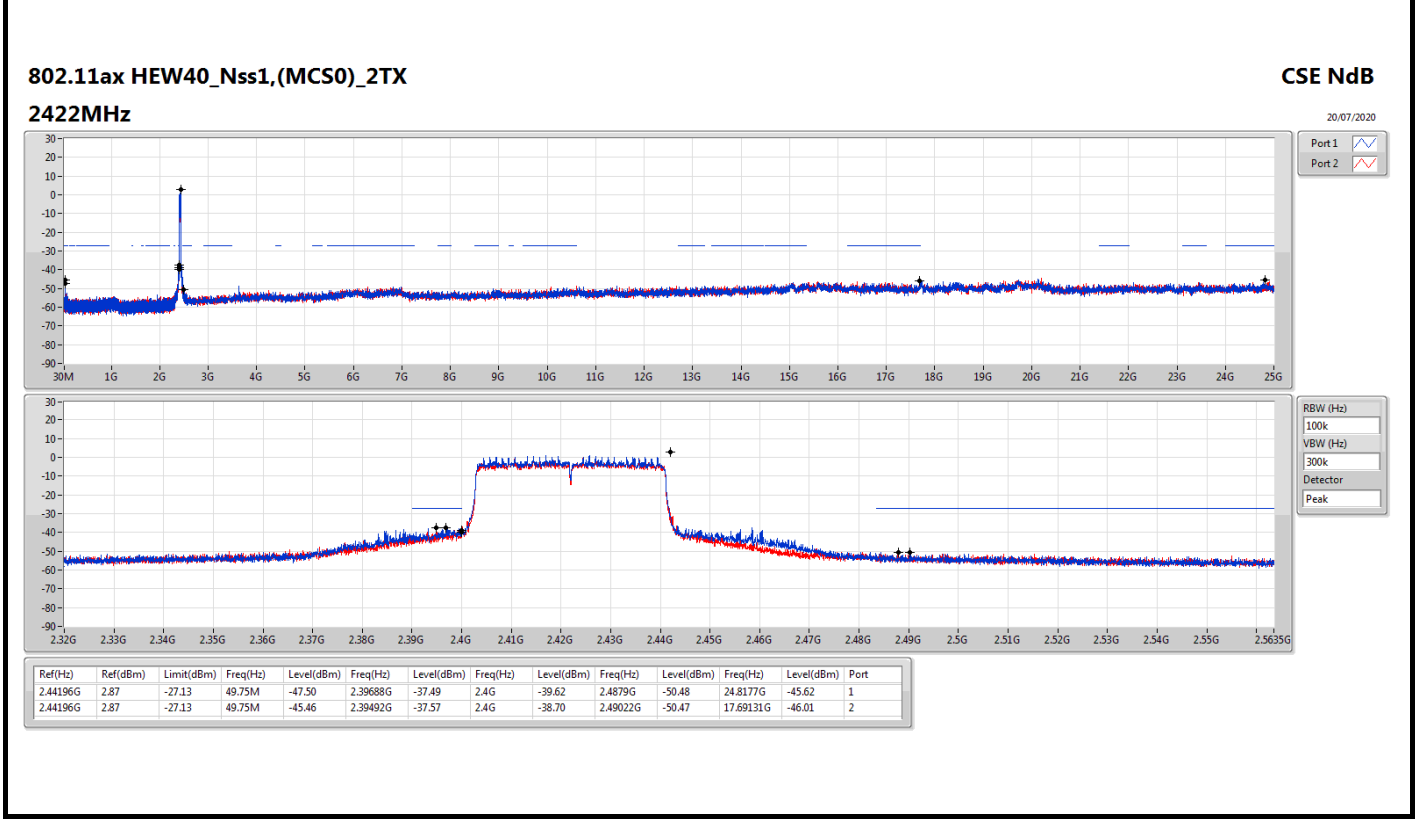
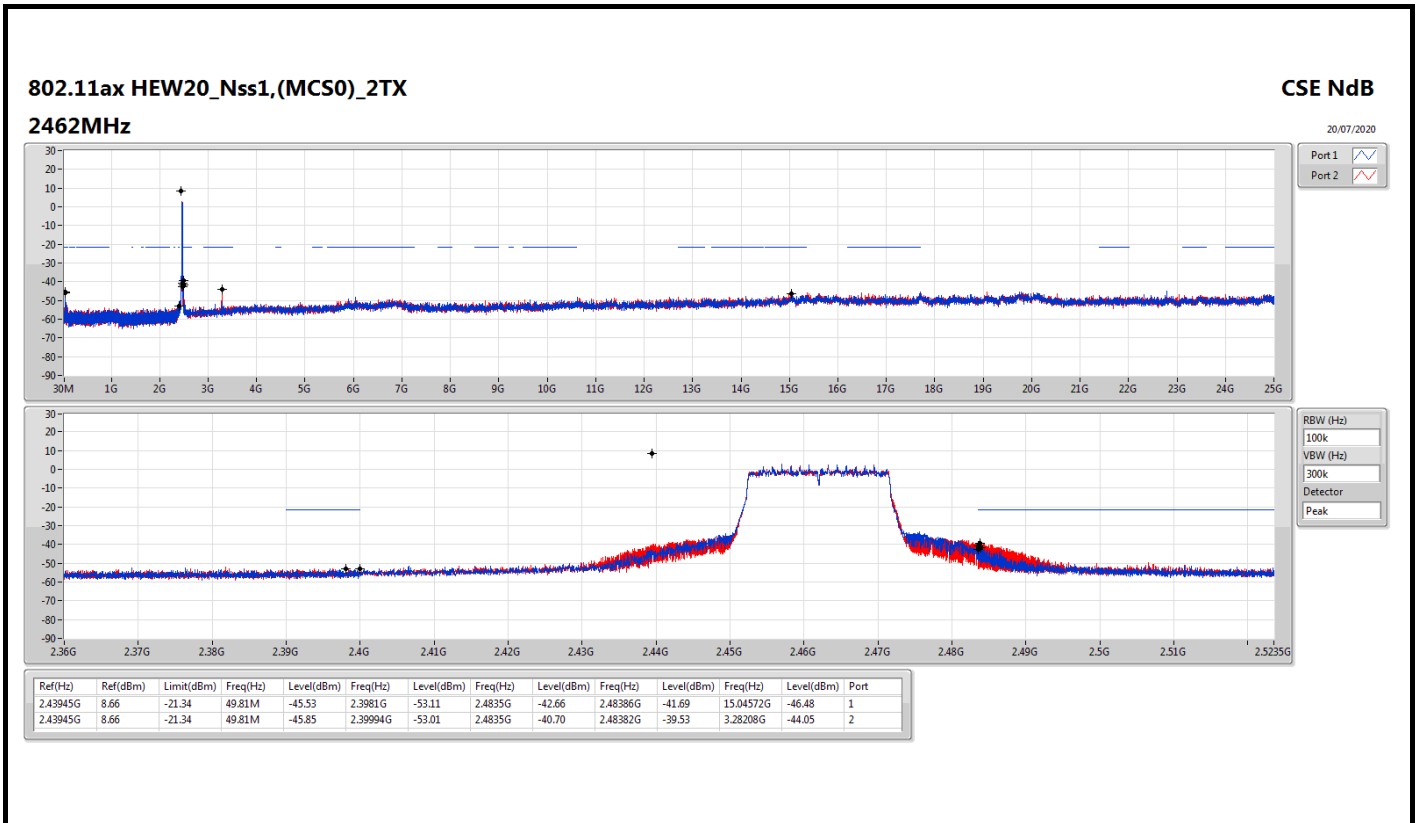
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43749G	16.15	-13.85	159.9M	-42.85	2.3965G	-38.61	2.4G	-46.36	2.48392G	-49.73	16.25383G	-43.38	1
2412MHz	Pass	2.43749G	16.15	-13.85	159.9M	-43.54	2.39648G	-36.32	2.4G	-44.95	2.48484G	-49.89	24.15994G	-43.57	2
2437MHz	Pass	2.43749G	16.15	-13.85	159.9M	-44.07	2.39948G	-39.34	2.4G	-43.98	2.48866G	-45.36	24.65442G	-42.58	1
2437MHz	Pass	2.43749G	16.15	-13.85	159.9M	-43.30	2.3965G	-38.22	2.4G	-45.50	2.48862G	-45.04	15.28734G	-44.07	2
2462MHz	Pass	2.43749G	16.15	-13.85	159.9M	-44.11	2.3999G	-48.95	2.4835G	-42.69	2.4835G	-42.83	24.57576G	-43.78	1
2462MHz	Pass	2.43749G	16.15	-13.85	159.9M	-44.13	2.39644G	-49.36	2.4835G	-42.47	2.48446G	-41.71	23.59241G	-42.89	2
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44196G	9.90	-20.10	49.81M	-46.11	2.39916G	-28.83	2.4G	-29.27	2.48606G	-50.93	15.08505G	-46.36	1
2412MHz	Pass	2.44196G	9.90	-20.10	49.81M	-46.25	2.39922G	-27.92	2.4G	-28.52	2.48538G	-49.89	15.31263G	-45.56	2
2437MHz	Pass	2.44196G	9.90	-20.10	49.81M	-46.51	2.39986G	-37.52	2.4G	-40.43	2.4866G	-45.29	24.42966G	-46.13	1
2437MHz	Pass	2.44196G	9.90	-20.10	49.81M	-47.50	2.39796G	-36.85	2.4G	-37.99	2.48574G	-40.77	24.92133G	-45.51	2
2462MHz	Pass	2.44196G	9.90	-20.10	49.81M	-46.77	2.39428G	-52.53	2.4835G	-41.40	2.4835G	-41.11	15.05134G	-45.61	1
2462MHz	Pass	2.44196G	9.90	-20.10	49.81M	-46.42	2.39218G	-52.62	2.4835G	-41.94	2.48418G	-40.86	3.28208G	-43.40	2
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43945G	8.66	-21.34	49.81M	-46.49	2.39962G	-27.45	2.4G	-29.02	2.49702G	-51.69	17.68952G	-45.61	1
2412MHz	Pass	2.43945G	8.66	-21.34	49.81M	-46.76	2.3999G	-26.86	2.4G	-26.16	2.49082G	-50.50	23.52498G	-46.50	2
2437MHz	Pass	2.43945G	8.66	-21.34	49.81M	-46.60	2.39822G	-36.65	2.4G	-40.24	2.48356G	-42.72	17.69514G	-44.46	1
2437MHz	Pass	2.43945G	8.66	-21.34	49.81M	-47.04	2.39966G	-36.42	2.4G	-38.82	2.4837G	-39.81	15.07663G	-46.02	2
2462MHz	Pass	2.43945G	8.66	-21.34	49.81M	-45.53	2.3981G	-53.11	2.4835G	-42.66	2.48386G	-41.69	15.04572G	-46.48	1
2462MHz	Pass	2.43945G	8.66	-21.34	49.81M	-45.85	2.39994G	-53.01	2.4835G	-40.70	2.48382G	-39.53	3.28208G	-44.05	2
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44196G	2.87	-27.13	49.75M	-47.50	2.39688G	-37.49	2.4G	-39.62	2.4879G	-50.48	24.8177G	-45.62	1
2422MHz	Pass	2.44196G	2.87	-27.13	49.75M	-45.46	2.39492G	-37.57	2.4G	-38.70	2.49022G	-50.47	17.69131G	-46.01	2
2437MHz	Pass	2.44196G	2.87	-27.13	49.75M	-46.71	2.39976G	-29.74	2.4G	-33.32	2.4839G	-40.87	15.03258G	-46.09	1
2437MHz	Pass	2.44196G	2.87	-27.13	49.75M	-46.81	2.39948G	-30.77	2.4G	-35.99	2.48386G	-38.48	16.24416G	-46.75	2
2452MHz	Pass	2.44196G	2.87	-27.13	49.75M	-46.47	2.39028G	-49.05	2.4835G	-41.84	2.48846G	-34.78	17.69692G	-45.98	1
2452MHz	Pass	2.44196G	2.87	-27.13	49.75M	-45.86	2.3968G	-45.49	2.4835G	-41.07	2.48722G	-35.19	3.26745G	-43.88	2

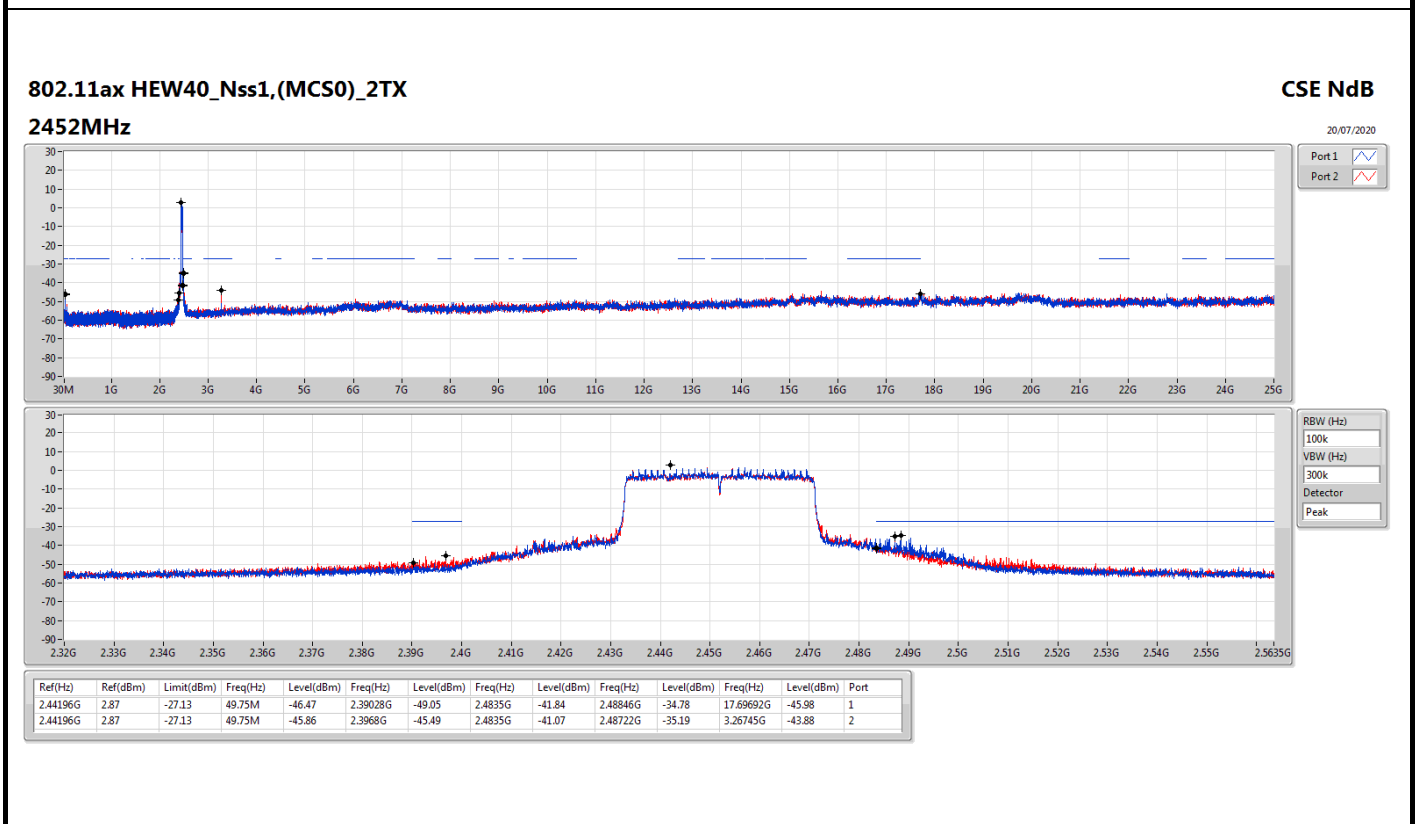
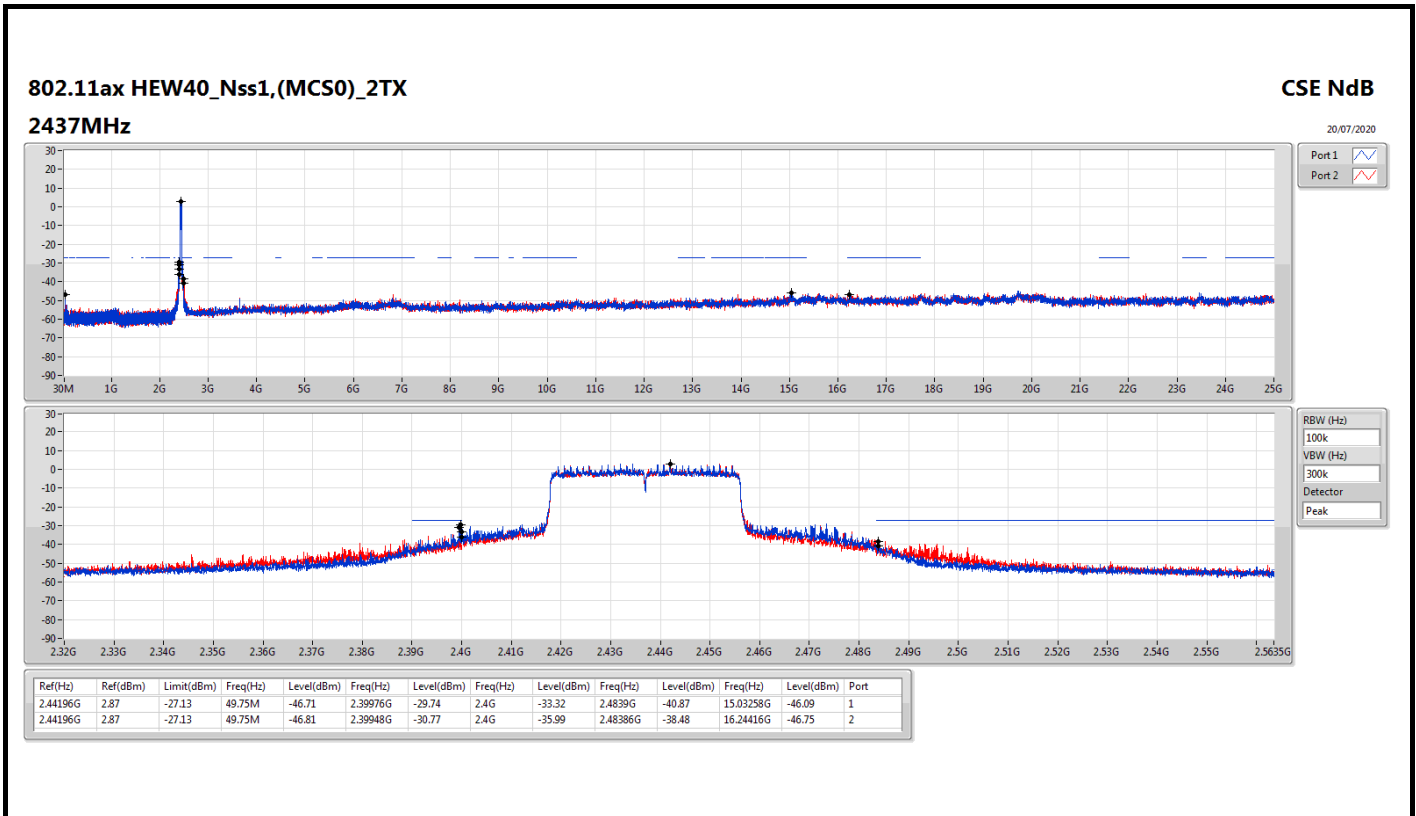










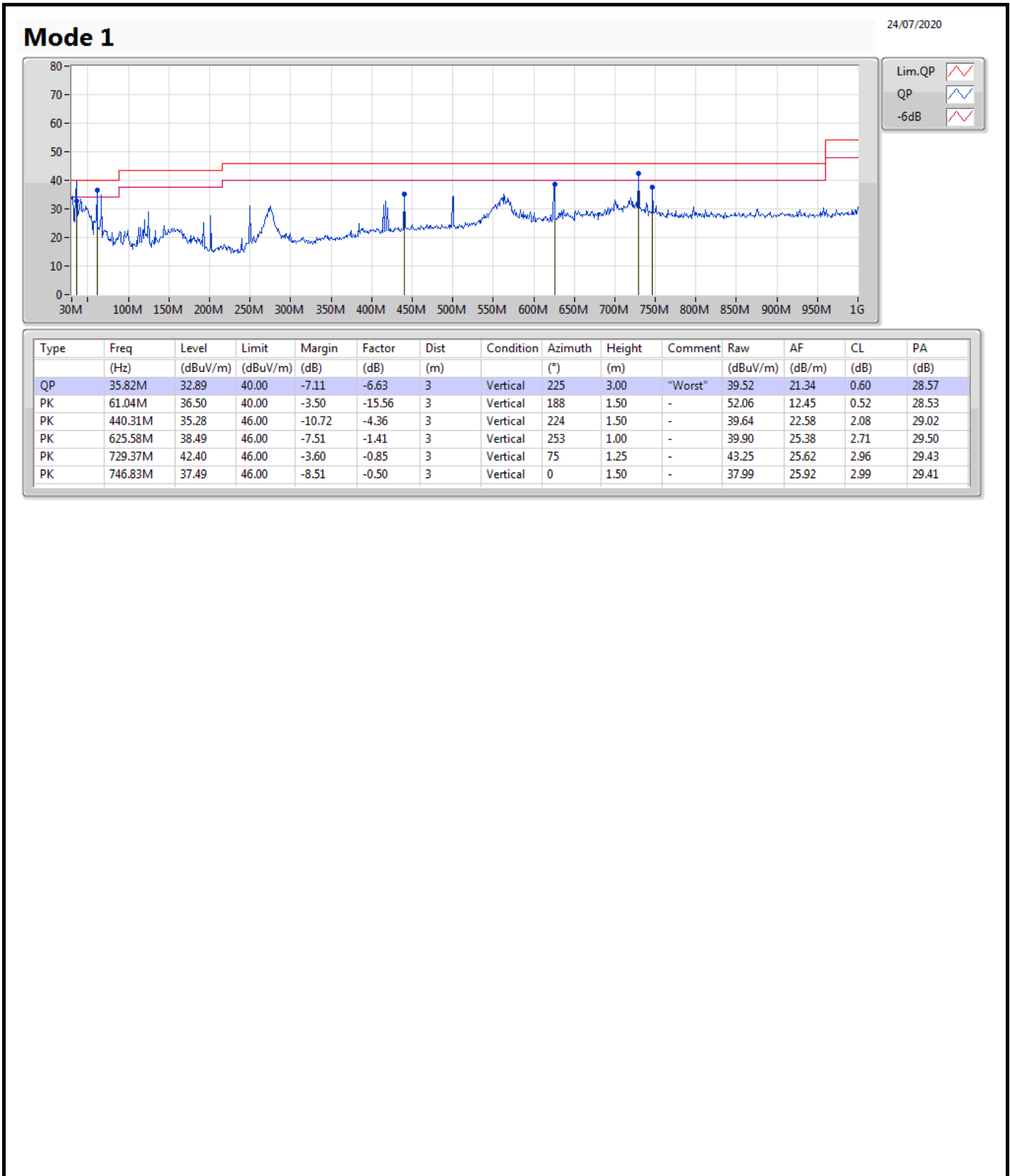


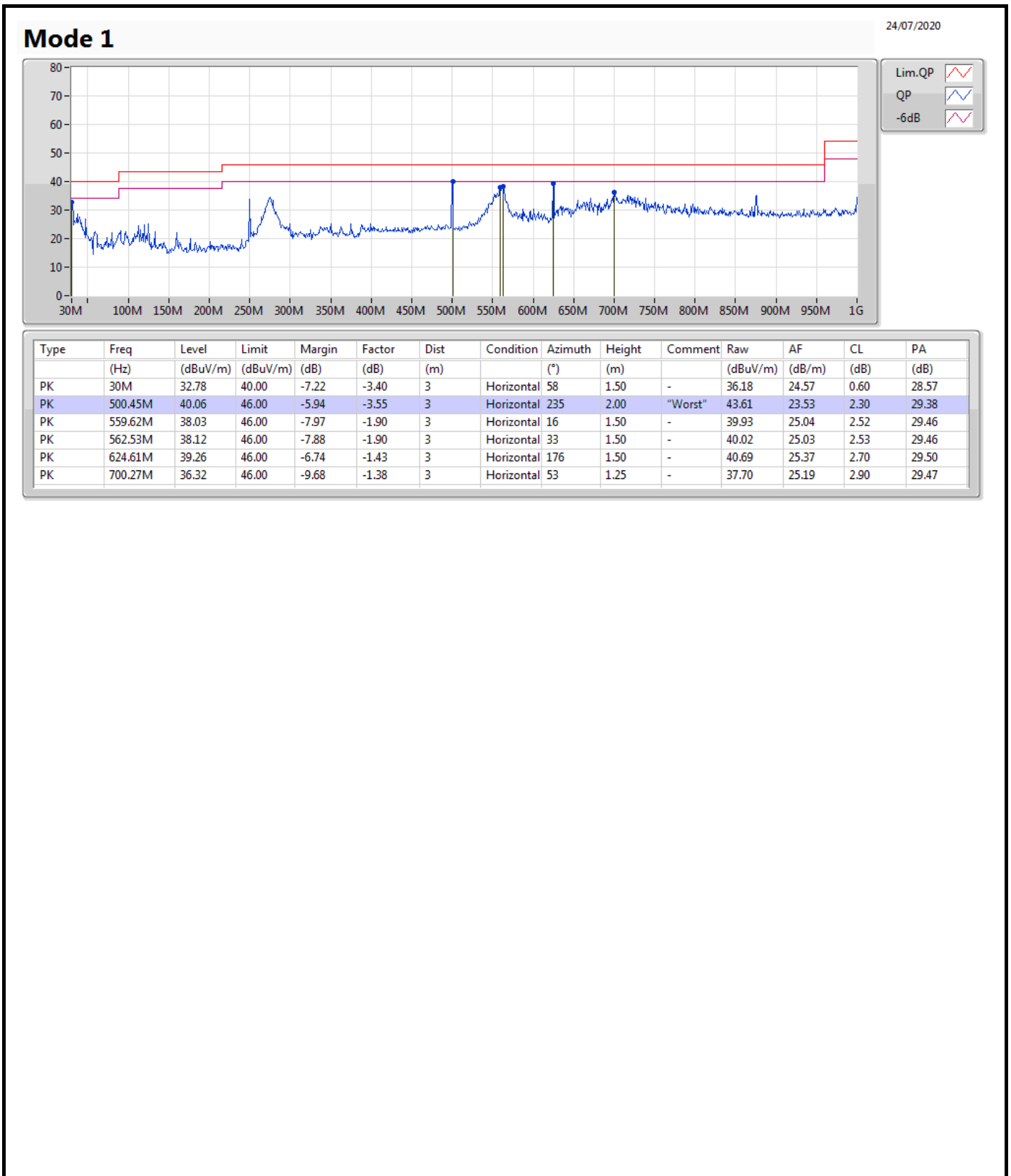




**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	61.04M	36.50	40.00	-3.50	Vertical







Summary

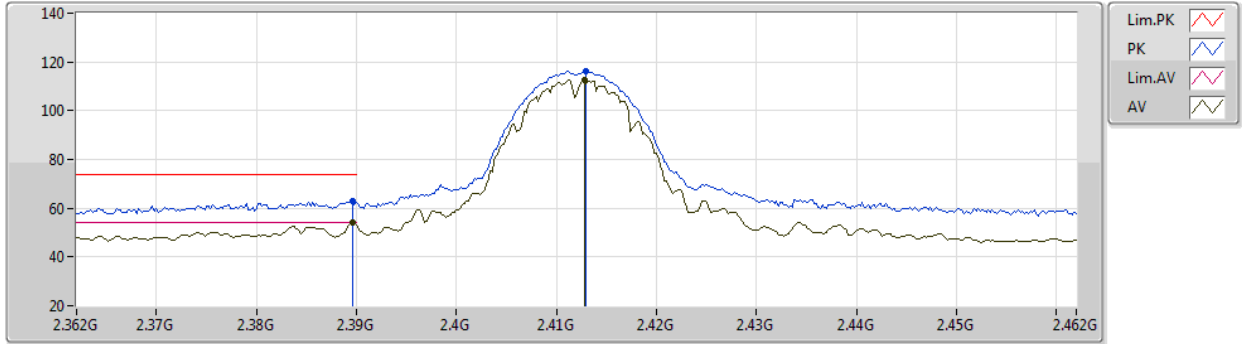
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
802.11g_Nss1,(6Mbps)_2TX	Pass	PK	2.4862G	73.94	74.00	-0.06	3	Vertical	198	2.31	-



802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2412MHz\_TX



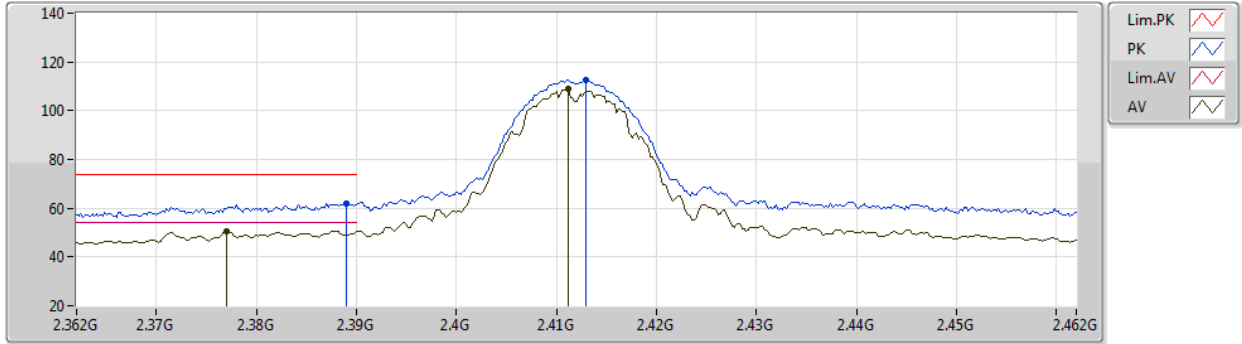
EUT X\_2TX  
Setting 85  
03-A-J-7

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	62.97	74.00	-11.03	30.96	3	Vertical	360	1.20	-	28.28	3.73	-
AV	2.3896G	53.90	54.00	-0.10	21.89	3	Vertical	360	1.20	-	28.28	3.73	-
PK	2.413G	116.44	Inf	-Inf	84.35	3	Vertical	360	1.20	-	28.34	3.75	-
AV	2.4128G	112.49	Inf	-Inf	80.40	3	Vertical	360	1.20	-	28.34	3.75	-

802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2412MHz\_TX



EUT X\_2TX  
Setting 85  
03-A-J-7

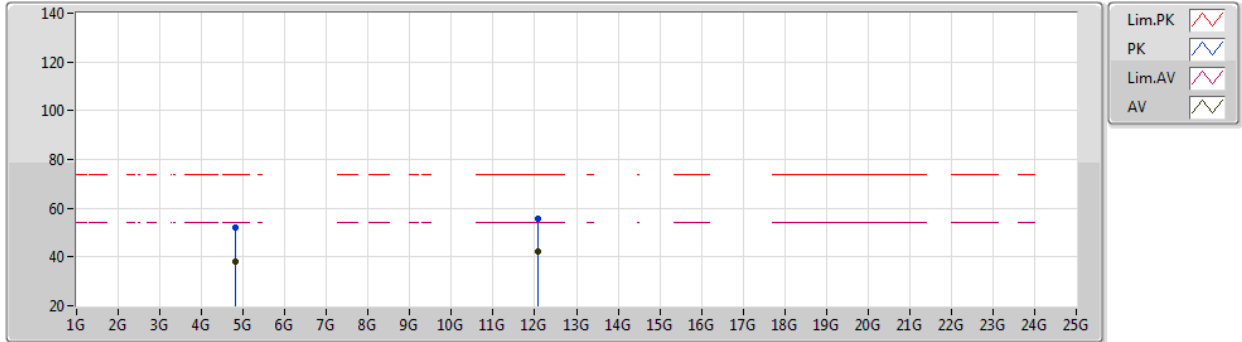
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.389G	62.00	74.00	-12.00	29.99	3	Horizontal	96	1.11	-	28.28	3.73	-
AV	2.377G	50.69	54.00	-3.31	18.71	3	Horizontal	96	1.11	-	28.25	3.73	-
PK	2.413G	112.64	Inf	-Inf	80.55	3	Horizontal	96	1.11	-	28.34	3.75	-
AV	2.4112G	108.86	Inf	-Inf	76.78	3	Horizontal	96	1.11	-	28.33	3.75	-



802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2412MHz\_TX



EUT X\_2TX  
Setting 85  
03-A-J-7

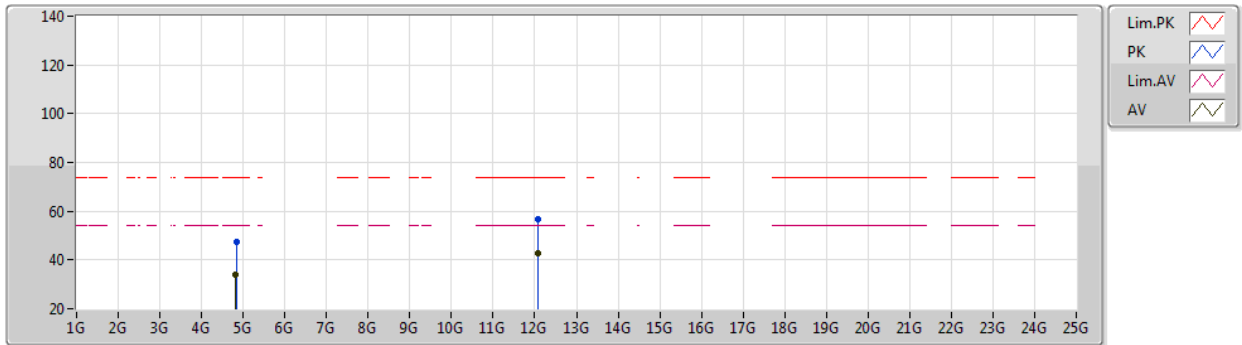
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82397G	52.16	74.00	-21.84	46.86	3	Vertical	317	1.00	-	33.55	6.57	34.82
AV	4.82406G	37.93	54.00	-16.07	32.63	3	Vertical	317	1.00	-	33.55	6.57	34.82
PK	12.06334G	55.77	74.00	-18.23	41.00	3	Vertical	324	2.28	-	39.21	10.25	34.69
AV	12.06226G	42.31	54.00	-11.69	27.54	3	Vertical	324	2.28	-	39.21	10.25	34.69



802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2412MHz\_TX



EUT X\_2TX  
Setting 85  
03-A-J-7

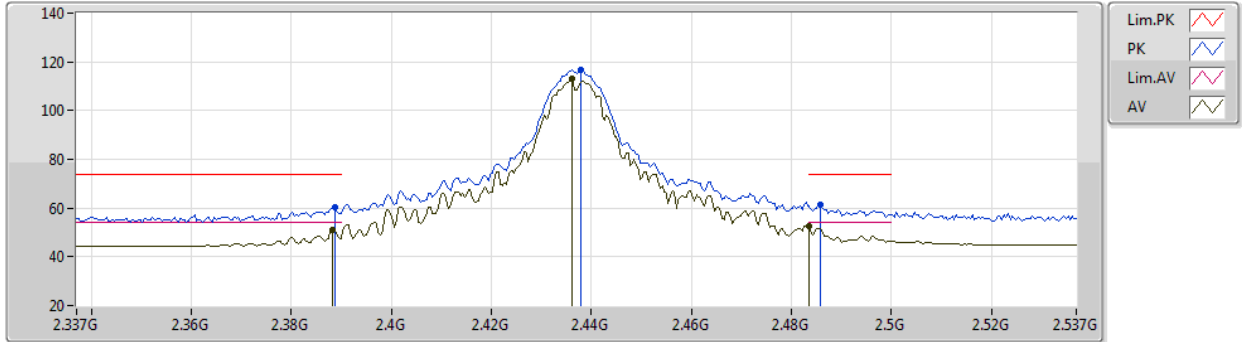
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.82886G	47.64	74.00	-26.36	42.33	3	Horizontal	215	2.10	-	33.56	6.57	34.82
AV	4.82384G	33.79	54.00	-20.21	28.49	3	Horizontal	215	2.10	-	33.55	6.57	34.82
PK	12.06314G	56.91	74.00	-17.09	42.14	3	Horizontal	253	1.20	-	39.21	10.25	34.69
AV	12.06352G	42.65	54.00	-11.35	27.88	3	Horizontal	253	1.20	-	39.21	10.25	34.69



802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2437MHz\_TX



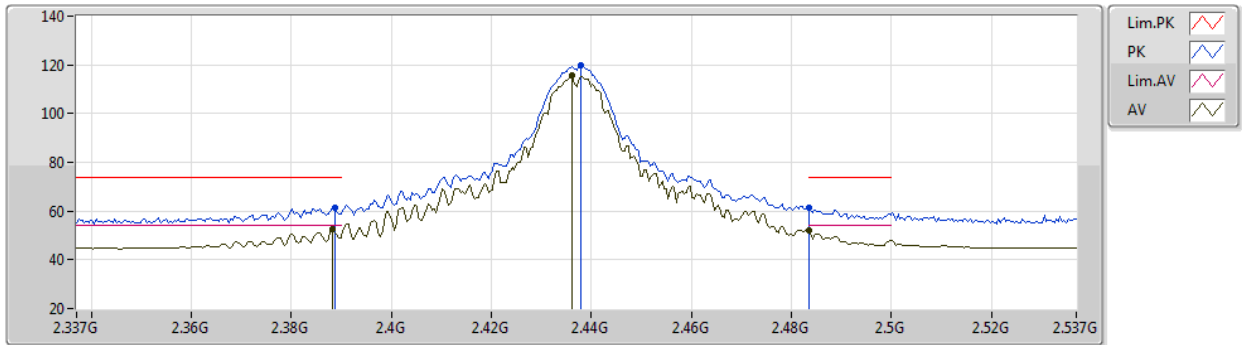
EUT X\_2TX  
Setting 92  
02-C-N-2

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	60.31	74.00	-13.69	28.54	3	Vertical	211	2.54	-	28.27	3.50	-
AV	2.3882G	51.09	54.00	-2.91	19.33	3	Vertical	211	2.54	-	28.26	3.50	-
PK	2.4378G	116.68	Inf	-Inf	84.73	3	Vertical	211	2.54	-	28.41	3.54	-
AV	2.4362G	112.86	Inf	-Inf	80.91	3	Vertical	211	2.54	-	28.41	3.54	-
PK	2.4858G	61.31	74.00	-12.69	29.16	3	Vertical	211	2.54	-	28.56	3.59	-
AV	2.4835G	52.70	54.00	-1.30	20.57	3	Vertical	211	2.54	-	28.55	3.58	-

802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2437MHz\_TX



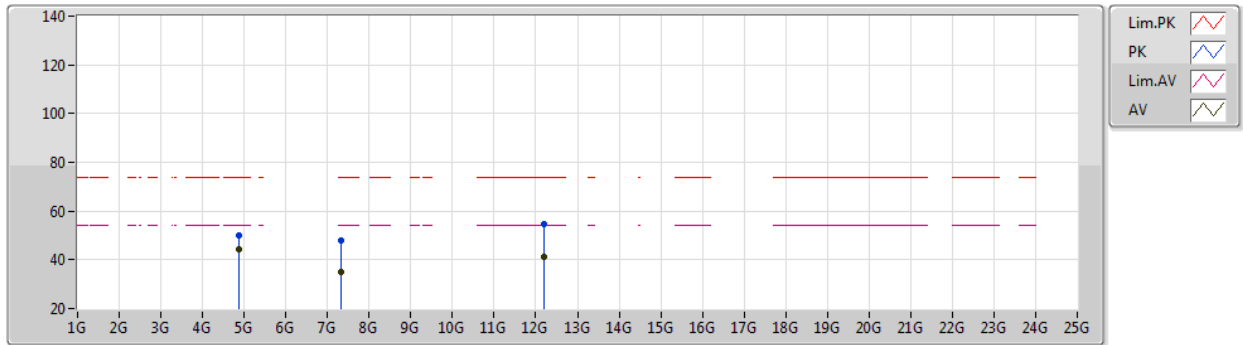
EUT X\_2TX  
Setting 92  
02-C-N-2

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	61.58	74.00	-12.42	29.81	3	Horizontal	155	1.20	-	28.27	3.50	-
AV	2.3882G	52.49	54.00	-1.51	20.73	3	Horizontal	155	1.20	-	28.26	3.50	-
PK	2.4378G	119.70	Inf	-Inf	87.75	3	Horizontal	155	1.20	-	28.41	3.54	-
AV	2.4362G	115.44	Inf	-Inf	83.49	3	Horizontal	155	1.20	-	28.41	3.54	-
PK	2.4835G	61.13	74.00	-12.87	29.00	3	Horizontal	155	1.20	-	28.55	3.58	-
AV	2.4835G	52.29	54.00	-1.71	20.16	3	Horizontal	155	1.20	-	28.55	3.58	-

802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2437MHz\_TX



EUT X\_2TX  
Setting 92  
02-C-N-2

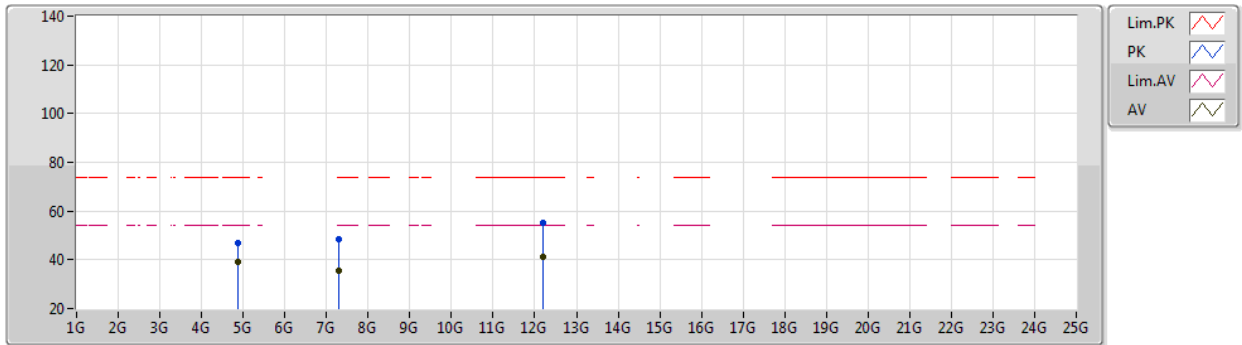
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.874G	49.75	74.00	-24.25	44.30	3	Vertical	222	2.39	-	33.65	6.58	34.78
AV	4.87396G	44.23	54.00	-9.77	38.78	3	Vertical	222	2.39	-	33.65	6.58	34.78
PK	7.31142G	48.17	74.00	-25.83	38.55	3	Vertical	181	1.79	-	36.81	7.87	35.06
AV	7.31172G	34.75	54.00	-19.25	25.13	3	Vertical	181	1.79	-	36.81	7.87	35.06
PK	12.19394G	54.78	74.00	-19.22	39.76	3	Vertical	30	1.80	-	39.24	10.31	34.53
AV	12.19286G	41.32	54.00	-12.68	26.30	3	Vertical	30	1.80	-	39.24	10.31	34.53



802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2437MHz\_TX



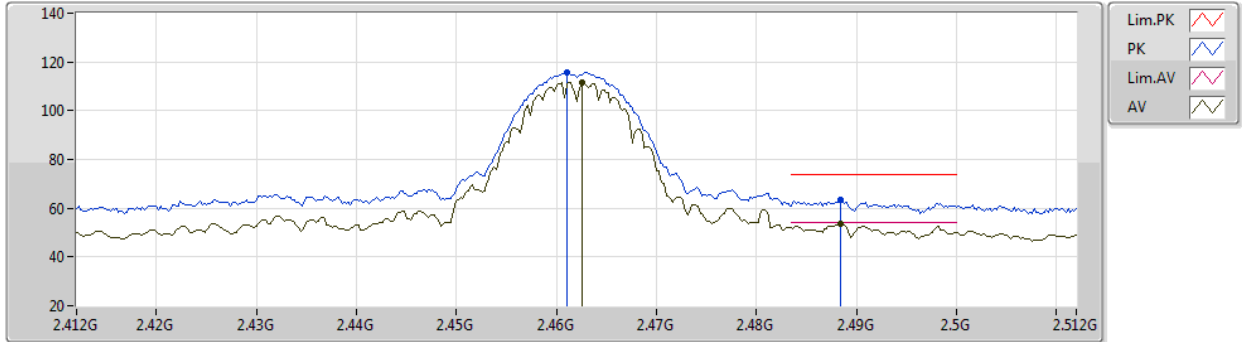
EUT X\_2TX  
Setting 92  
02-C-N-2

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	4.87412G	46.64	74.00	-27.36	41.19	3	Horizontal	147	2.17	-	33.65	6.58	34.78
AV	4.87394G	39.22	54.00	-14.78	33.77	3	Horizontal	147	2.17	-	33.65	6.58	34.78
PK	7.30752G	48.27	74.00	-25.73	38.65	3	Horizontal	200	2.13	-	36.81	7.87	35.06
AV	7.3101G	35.72	54.00	-18.28	26.10	3	Horizontal	200	2.13	-	36.81	7.87	35.06
PK	12.1937G	55.43	74.00	-18.57	40.41	3	Horizontal	215	1.80	-	39.24	10.31	34.53
AV	12.19304G	41.31	54.00	-12.69	26.29	3	Horizontal	215	1.80	-	39.24	10.31	34.53

802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2462MHz\_TX



EUT X\_2TX  
Setting 86  
03-A-J-7

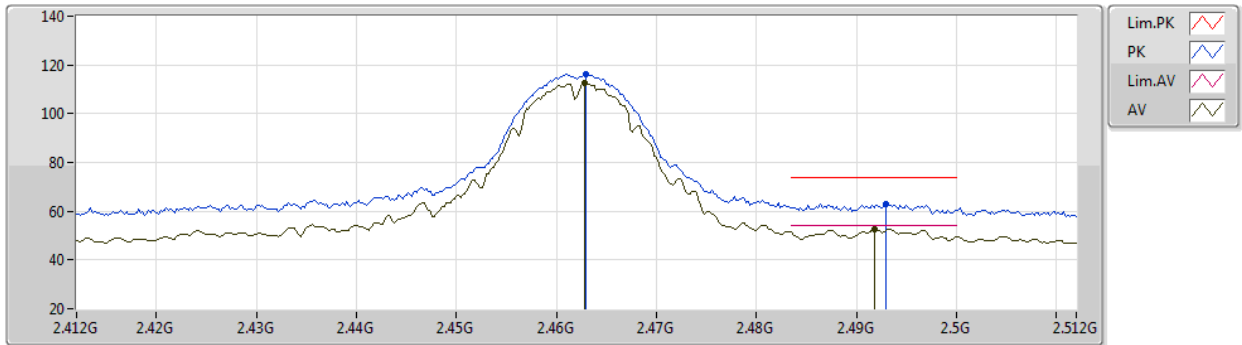
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.461G	115.66	Inf	-Inf	83.40	3	Vertical	21	1.46	-	28.48	3.78	-
AV	2.4626G	111.67	Inf	-Inf	79.40	3	Vertical	21	1.46	-	28.49	3.78	-
PK	2.4884G	63.30	74.00	-10.70	30.94	3	Vertical	21	1.46	-	28.57	3.79	-
AV	2.4884G	53.47	54.00	-0.53	21.11	3	Vertical	21	1.46	-	28.57	3.79	-



802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2462MHz\_TX



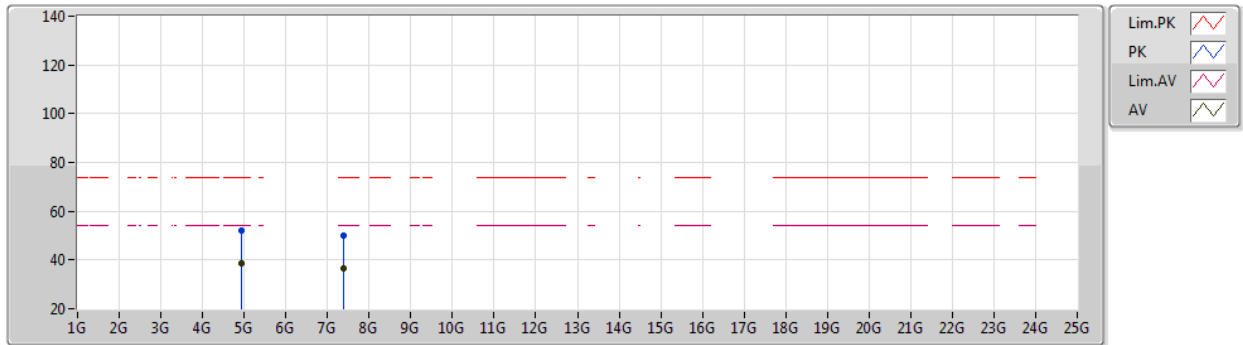
EUT X\_2TX  
Setting 86  
03-A-J-7

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	116.37	Inf	-Inf	84.10	3	Horizontal	101	1.17	-	28.49	3.78	-
AV	2.4628G	112.35	Inf	-Inf	80.08	3	Horizontal	101	1.17	-	28.49	3.78	-
PK	2.493G	63.03	74.00	-10.97	30.65	3	Horizontal	101	1.17	-	28.58	3.80	-
AV	2.4918G	52.72	54.00	-1.28	20.34	3	Horizontal	101	1.17	-	28.58	3.80	-

802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2462MHz\_TX



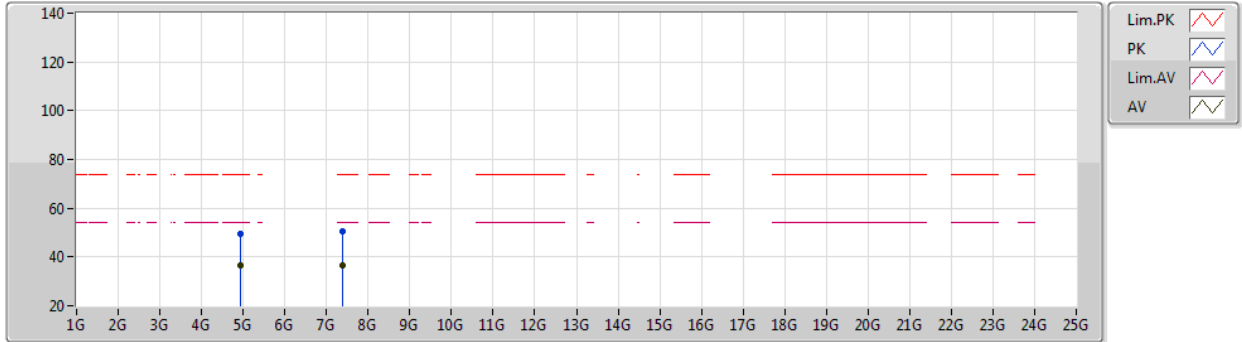
EUT X\_2TX  
Setting 86  
03-A-J-7

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	4.92414G	52.23	74.00	-21.77	46.62	3	Vertical	314	2.47	-	33.75	6.60	34.74
AV	4.924G	38.61	54.00	-15.39	33.00	3	Vertical	314	2.47	-	33.75	6.60	34.74
PK	7.386G	49.95	74.00	-24.05	40.22	3	Vertical	224	2.40	-	36.89	7.89	35.05
AV	7.386G	36.70	54.00	-17.30	26.97	3	Vertical	224	2.40	-	36.89	7.89	35.05

802.11b\_Nss1,(1Mbps)\_2TX

11/06/2020

2462MHz\_TX



EUT\_X\_2TX  
Setting 86  
03-A-J-7

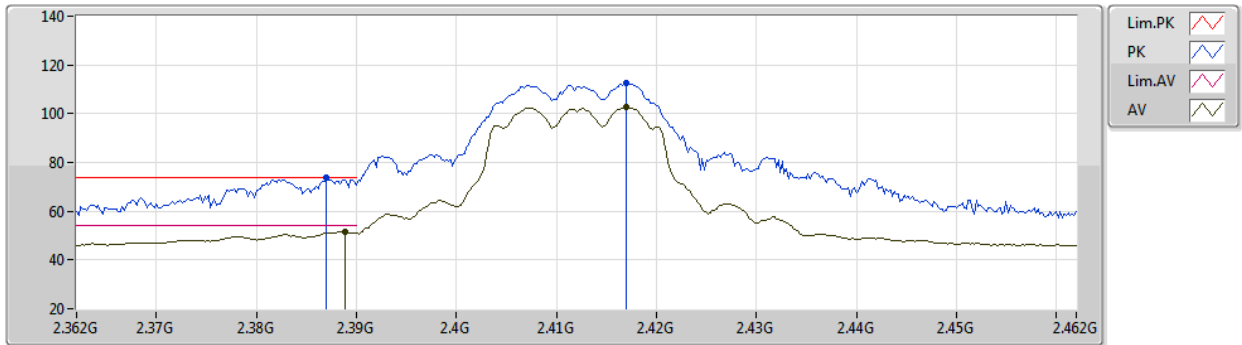
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92385G	49.31	74.00	-24.69	43.70	3	Horizontal	289	1.99	-	33.75	6.60	34.74
AV	4.92407G	36.54	54.00	-17.46	30.93	3	Horizontal	289	1.99	-	33.75	6.60	34.74
PK	7.38618G	50.73	74.00	-23.27	41.00	3	Horizontal	42	1.43	-	36.89	7.89	35.05
AV	7.38682G	36.71	54.00	-17.29	26.98	3	Horizontal	42	1.43	-	36.89	7.89	35.05



802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2412MHz\_TX



EUT X\_2TX  
Setting 76  
03-A-J-7

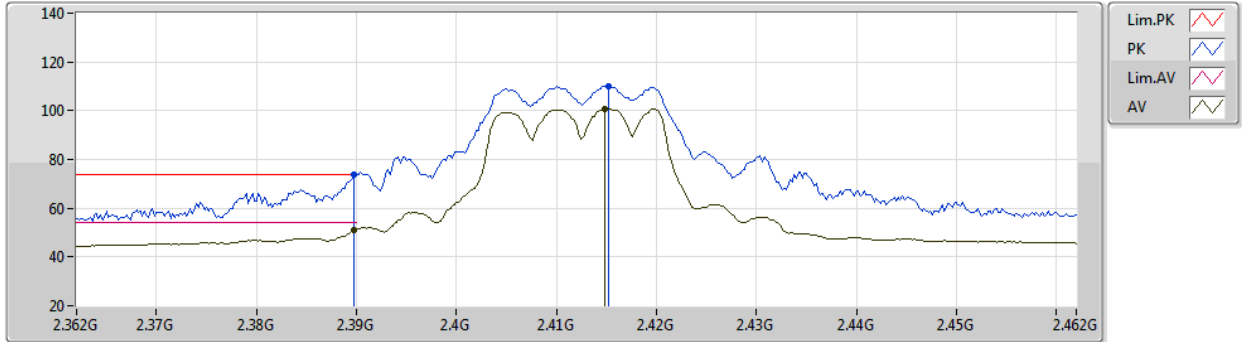
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.387G	73.73	74.00	-0.27	41.73	3	Vertical	360	1.20	-	28.27	3.73	-
AV	2.3888G	51.55	54.00	-2.45	19.54	3	Vertical	360	1.20	-	28.28	3.73	-
PK	2.417G	112.44	Inf	-Inf	80.34	3	Vertical	360	1.20	-	28.35	3.75	-
AV	2.417G	102.64	Inf	-Inf	70.54	3	Vertical	360	1.20	-	28.35	3.75	-



802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2412MHz\_TX



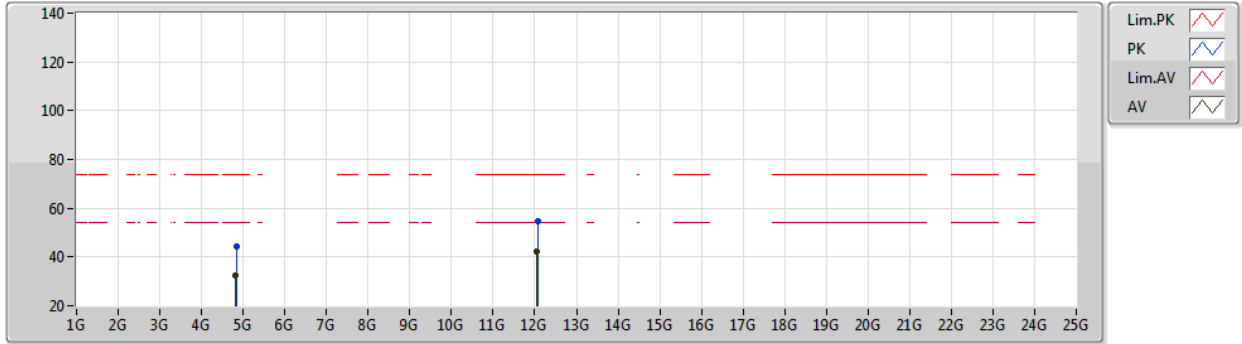
EUT X\_2TX  
Setting 76  
03-A-J-7

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	73.66	74.00	-0.34	41.65	3	Horizontal	184	1.51	-	28.28	3.73	-
AV	2.3898G	51.26	54.00	-2.74	19.25	3	Horizontal	184	1.51	-	28.28	3.73	-
PK	2.4152G	110.11	Inf	-Inf	78.01	3	Horizontal	184	1.51	-	28.35	3.75	-
AV	2.4148G	100.83	Inf	-Inf	68.74	3	Horizontal	184	1.51	-	28.34	3.75	-

802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2412MHz\_TX



EUT X\_2TX  
Setting 76  
03-E-N-2

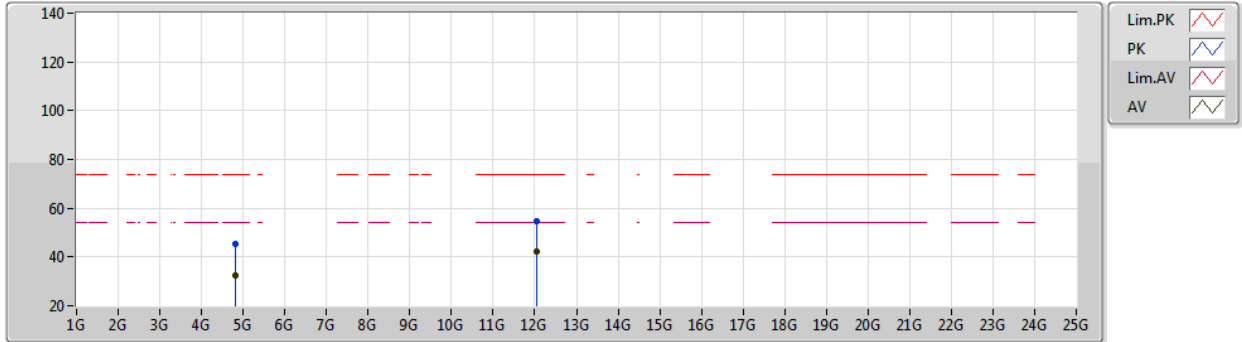
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.83522G	44.56	74.00	-29.44	39.86	3	Vertical	267	1.21	-	32.64	4.94	32.88
AV	4.81104G	32.31	54.00	-21.69	27.72	3	Vertical	267	1.21	-	32.54	4.93	32.88
PK	12.0723G	54.64	74.00	-19.36	41.52	3	Vertical	239	1.18	-	38.96	8.52	34.36
AV	12.04854G	42.11	54.00	-11.89	29.02	3	Vertical	239	1.18	-	38.94	8.51	34.36



802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2412MHz\_TX



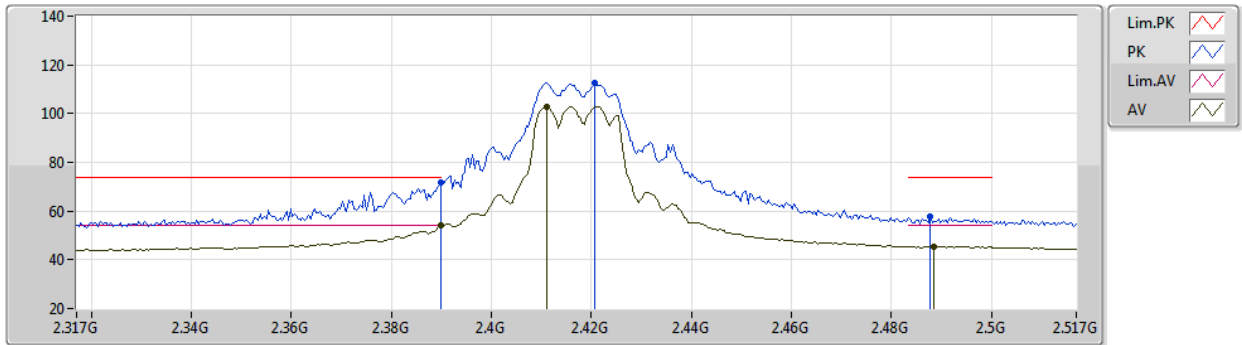
EUT X\_2TX  
Setting 76  
03-E-N-2

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	4.81926G	45.19	74.00	-28.81	40.56	3	Horizontal	43	2.17	-	32.58	4.93	32.88
AV	4.8138G	32.22	54.00	-21.78	27.61	3	Horizontal	43	2.17	-	32.56	4.93	32.88
PK	12.0612G	54.79	74.00	-19.21	41.69	3	Horizontal	162	2.25	-	38.95	8.51	34.36
AV	12.04908G	42.36	54.00	-11.64	29.27	3	Horizontal	162	2.25	-	38.94	8.51	34.36

802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2417MHz\_TX



EUT X\_2TX  
Setting 82  
04-E-P-2

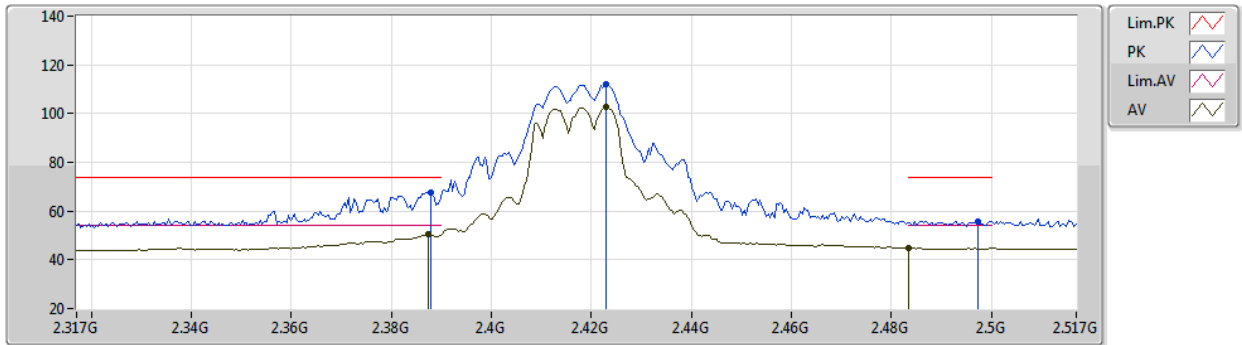
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	71.74	74.00	-2.26	41.38	3	Vertical	218	2.34	-	27.51	2.85	-
AV	2.3898G	53.88	54.00	-0.12	23.52	3	Vertical	218	2.34	-	27.51	2.85	-
PK	2.4206G	112.59	Inf	-Inf	82.14	3	Vertical	218	2.34	-	27.58	2.87	-
AV	2.411G	102.98	Inf	-Inf	72.57	3	Vertical	218	2.34	-	27.54	2.87	-
PK	2.4878G	57.52	74.00	-16.48	26.76	3	Vertical	218	2.34	-	27.85	2.91	-
AV	2.4886G	45.50	54.00	-8.50	14.74	3	Vertical	218	2.34	-	27.85	2.91	-



802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2417MHz\_TX



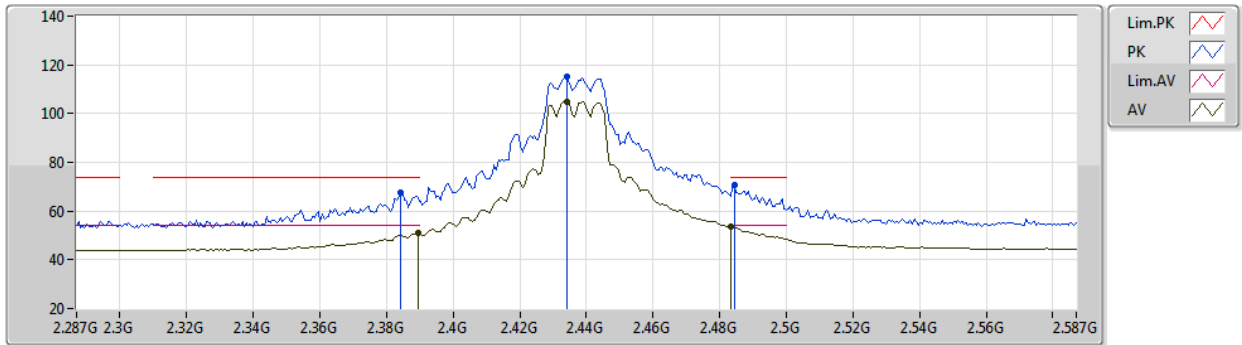
EUT X\_2TX  
Setting 82  
04-E-P-2

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	2.3878G	67.58	74.00	-6.42	37.22	3	Horizontal	97	2.20	-	27.51	2.85	-
AV	2.3874G	50.29	54.00	-3.71	19.93	3	Horizontal	97	2.20	-	27.51	2.85	-
PK	2.423G	111.95	Inf	-Inf	81.49	3	Horizontal	97	2.20	-	27.59	2.87	-
AV	2.423G	102.67	Inf	-Inf	72.21	3	Horizontal	97	2.20	-	27.59	2.87	-
PK	2.4974G	55.94	74.00	-18.06	25.13	3	Horizontal	97	2.20	-	27.89	2.92	-
AV	2.4835G	44.79	54.00	-9.21	14.05	3	Horizontal	97	2.20	-	27.83	2.91	-

802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2437MHz\_TX



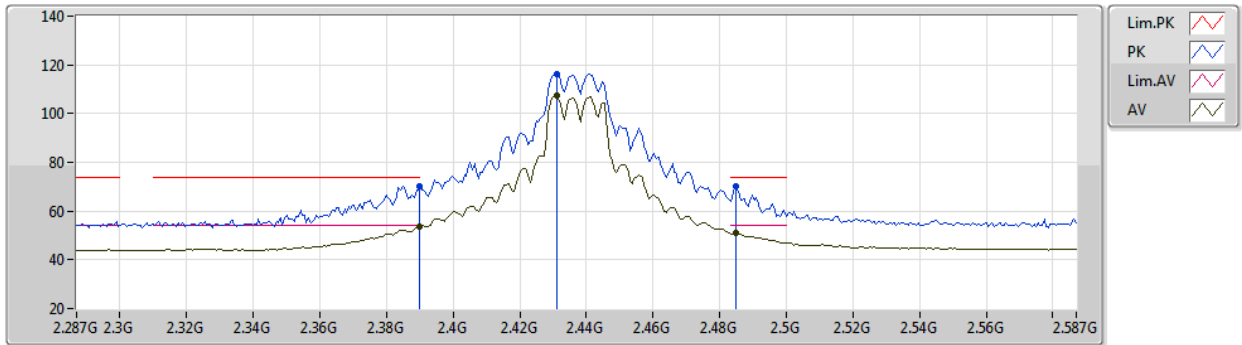
EUT X\_2TX  
Setting 91  
04-E-P-2

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	2.3842G	67.63	74.00	-6.37	37.26	3	Vertical	231	2.93	-	27.52	2.85	-
AV	2.3896G	51.25	54.00	-2.75	20.89	3	Vertical	231	2.93	-	27.51	2.85	-
PK	2.434G	115.07	Inf	-Inf	84.55	3	Vertical	231	2.93	-	27.64	2.88	-
AV	2.434G	104.89	Inf	-Inf	74.37	3	Vertical	231	2.93	-	27.64	2.88	-
PK	2.4844G	70.64	74.00	-3.36	39.89	3	Vertical	231	2.93	-	27.84	2.91	-
AV	2.4835G	53.62	54.00	-0.38	22.88	3	Vertical	231	2.93	-	27.83	2.91	-

802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2437MHz\_TX



EUT\_X\_2TX  
Setting 91  
04-E-P-2

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	70.27	74.00	-3.73	39.91	3	Horizontal	14	1.10	-	27.51	2.85	-
AV	2.39G	53.85	54.00	-0.15	23.49	3	Horizontal	14	1.10	-	27.51	2.85	-
PK	2.431G	116.41	Inf	-Inf	85.91	3	Horizontal	14	1.10	-	27.62	2.88	-
AV	2.431G	107.25	Inf	-Inf	76.75	3	Horizontal	14	1.10	-	27.62	2.88	-
PK	2.485G	70.39	74.00	-3.61	39.64	3	Horizontal	14	1.10	-	27.84	2.91	-
AV	2.485G	50.95	54.00	-3.05	20.20	3	Horizontal	14	1.10	-	27.84	2.91	-

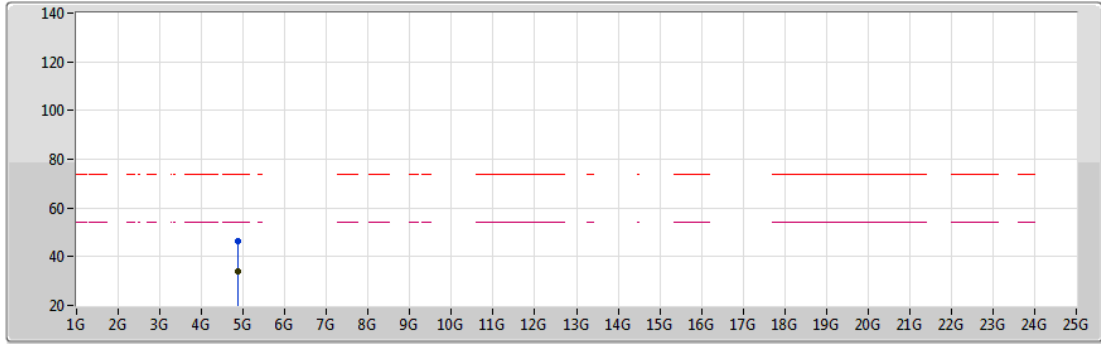




802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2437MHz\_TX



Lim.PK   
 PK   
 Lim.AV   
 AV

EUT X\_2TX  
Setting 91  
04-E-N-2

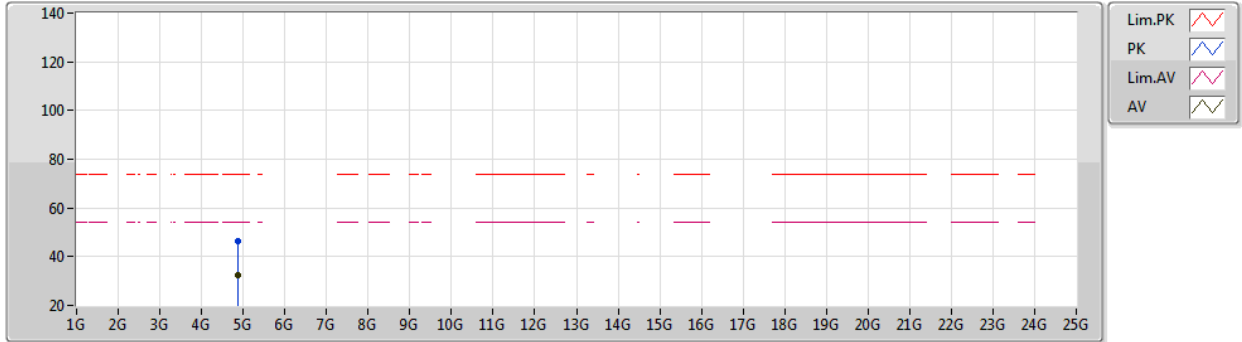
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87862G	46.35	74.00	-27.65	41.45	3	Vertical	173	1.00	-	32.81	4.96	32.87
AV	4.87454G	34.21	54.00	-19.79	29.32	3	Vertical	173	1.00	-	32.80	4.96	32.87



802.11g\_Nss1,(6Mbps)\_2TX

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2437MHz\_TX



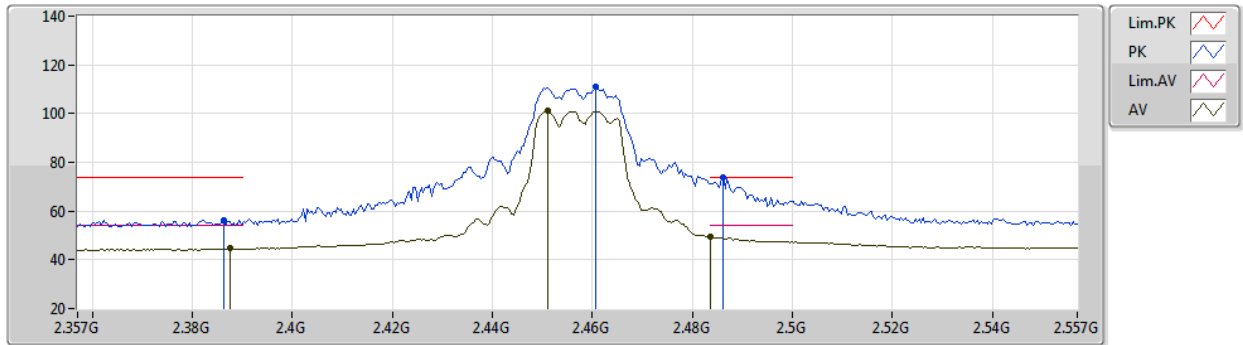
EUT X\_2TX  
Setting 91  
04-E-N-2

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	4.85978G	46.44	74.00	-27.56	41.62	3	Horizontal	254	2.30	-	32.74	4.95	32.87
AV	4.87346G	32.52	54.00	-21.48	27.64	3	Horizontal	254	2.30	-	32.79	4.96	32.87

### 802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

### 2457MHz\_TX



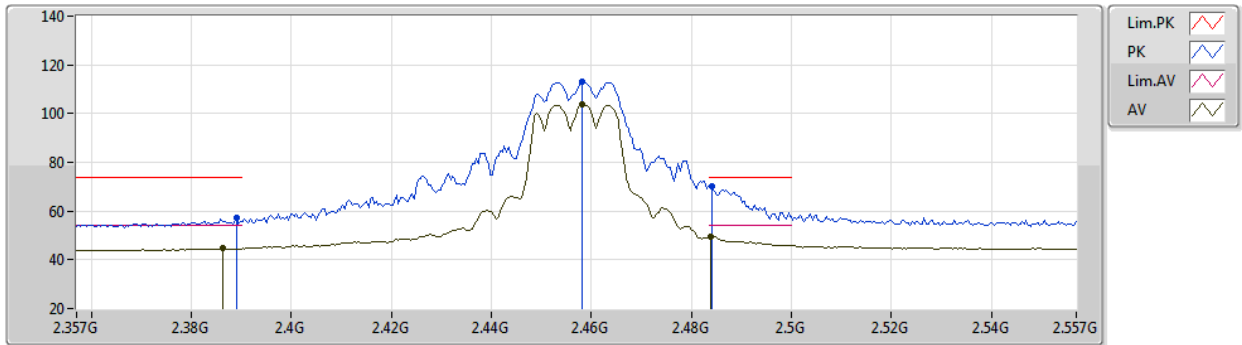
EUT X\_2TX  
Setting 75  
04-E-P-2

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	2.3862G	56.36	74.00	-17.64	26.00	3	Vertical	198	2.31	-	27.51	2.85	-
AV	2.3874G	44.69	54.00	-9.31	14.33	3	Vertical	198	2.31	-	27.51	2.85	-
PK	2.4606G	110.82	Inf	-Inf	80.18	3	Vertical	198	2.31	-	27.74	2.90	-
AV	2.451G	101.13	Inf	-Inf	70.54	3	Vertical	198	2.31	-	27.70	2.89	-
PK	2.4862G	73.94	74.00	-0.06	43.19	3	Vertical	198	2.31	-	27.84	2.91	-
AV	2.4835G	49.42	54.00	-4.58	18.68	3	Vertical	198	2.31	-	27.83	2.91	-

802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2457MHz\_TX



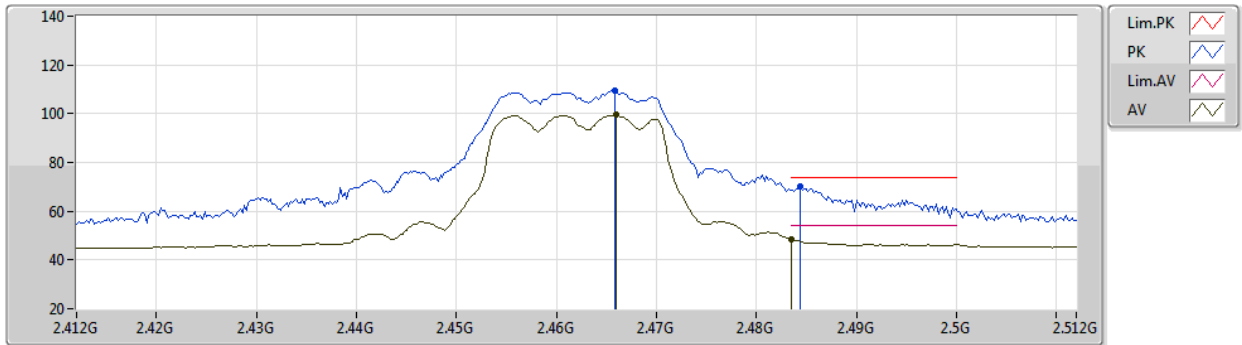
EUT X\_2TX  
Setting 75  
04-E-P-2

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	2.389G	57.12	74.00	-16.88	26.76	3	Horizontal	15	1.06	-	27.51	2.85	-
AV	2.3862G	44.63	54.00	-9.37	14.27	3	Horizontal	15	1.06	-	27.51	2.85	-
PK	2.4582G	113.10	Inf	-Inf	82.48	3	Horizontal	15	1.06	-	27.73	2.89	-
AV	2.4582G	103.64	Inf	-Inf	73.02	3	Horizontal	15	1.06	-	27.73	2.89	-
PK	2.4842G	70.39	74.00	-3.61	39.64	3	Horizontal	15	1.06	-	27.84	2.91	-
AV	2.4838G	49.30	54.00	-4.70	18.55	3	Horizontal	15	1.06	-	27.84	2.91	-

802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2462MHz\_TX



EUT X\_2TX  
Setting 68  
03-A-J-7

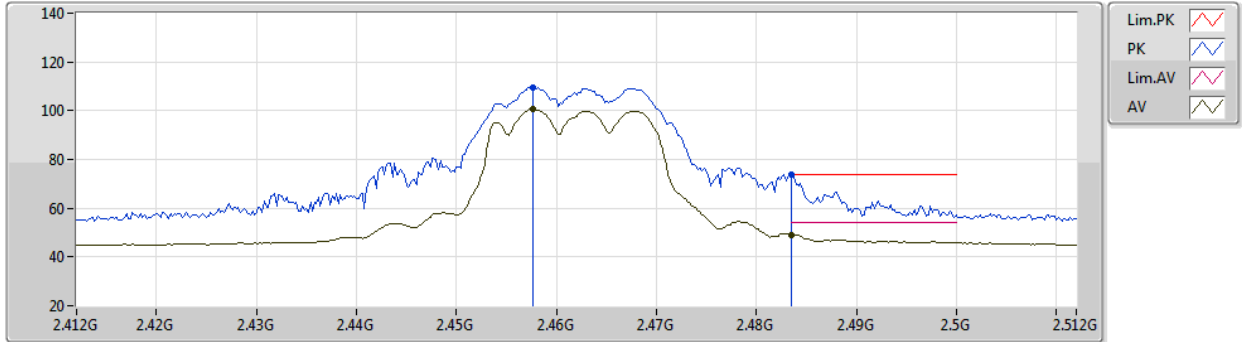
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4658G	109.44	Inf	-Inf	77.16	3	Vertical	39	1.09	-	28.50	3.78	-
AV	2.466G	99.87	Inf	-Inf	67.59	3	Vertical	39	1.09	-	28.50	3.78	-
PK	2.4844G	70.06	74.00	-3.94	37.72	3	Vertical	39	1.09	-	28.55	3.79	-
AV	2.4835G	48.60	54.00	-5.40	16.26	3	Vertical	39	1.09	-	28.55	3.79	-



802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2462MHz\_TX



EUT X\_2TX  
Setting 68  
03-A-J-7

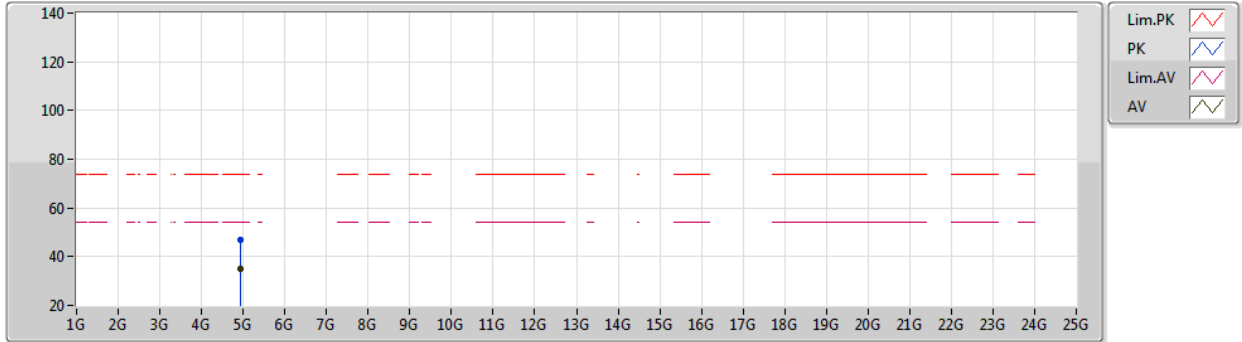
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4576G	109.70	Inf	-Inf	77.46	3	Horizontal	188	1.04	-	28.47	3.77	-
AV	2.4576G	100.56	Inf	-Inf	68.32	3	Horizontal	188	1.04	-	28.47	3.77	-
PK	2.4835G	73.88	74.00	-0.12	41.54	3	Horizontal	188	1.04	-	28.55	3.79	-
AV	2.4835G	49.21	54.00	-4.79	16.87	3	Horizontal	188	1.04	-	28.55	3.79	-



802.11g\_Nss1,(6Mbps)\_2TX

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2462MHz\_TX



EUT X\_2TX  
Setting 68  
03-E-N-2

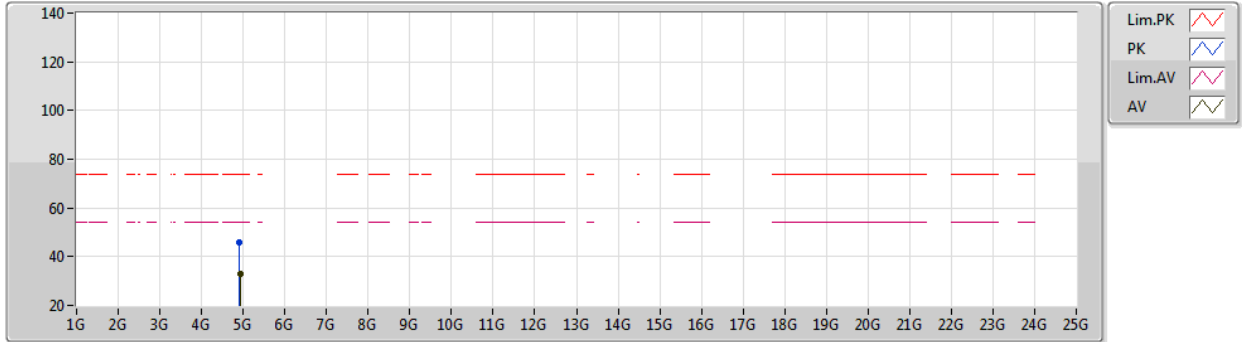
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9246G	47.03	74.00	-26.97	41.97	3	Vertical	355	1.05	-	32.95	4.98	32.87
AV	4.9243G	34.88	54.00	-19.12	29.82	3	Vertical	355	1.05	-	32.95	4.98	32.87



802.11g\_Nss1,(6Mbps)\_2TX

11/06/2020

2462MHz\_TX



EUT X\_2TX  
Setting 68  
03-E-N-2

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	4.91248G	45.72	74.00	-28.28	40.69	3	Horizontal	278	1.00	-	32.92	4.98	32.87
AV	4.92274G	32.90	54.00	-21.10	27.84	3	Horizontal	278	1.00	-	32.95	4.98	32.87

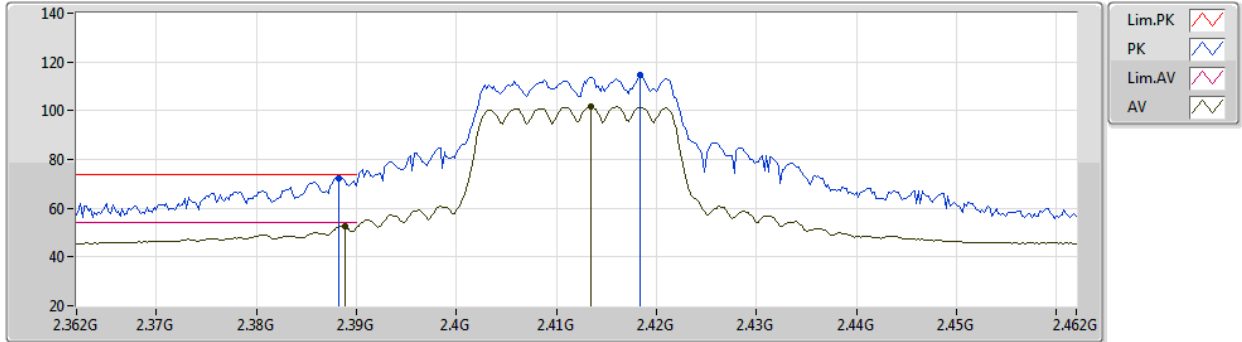




802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2412MHz\_TX



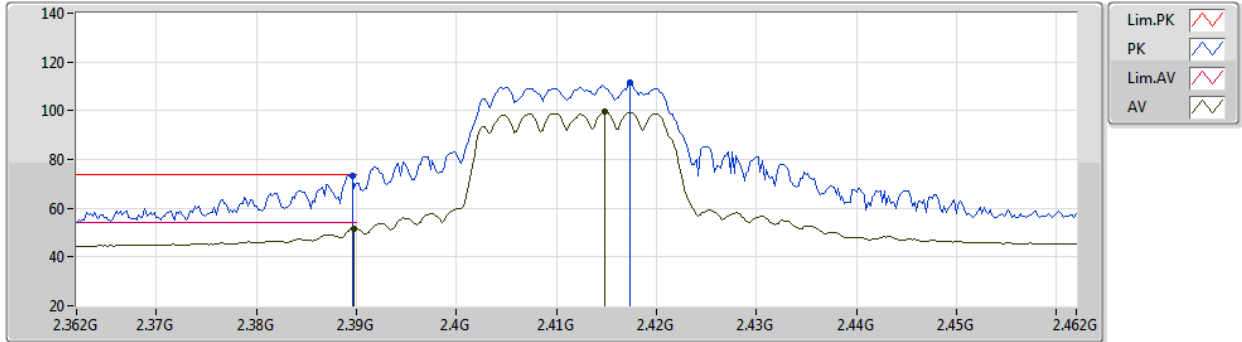
EUT X\_2TX  
Setting 72  
03-A-J-7

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	72.45	74.00	-1.55	40.44	3	Vertical	9	1.21	-	28.28	3.73	-
AV	2.3888G	52.37	54.00	-1.63	20.36	3	Vertical	9	1.21	-	28.28	3.73	-
PK	2.4184G	114.88	Inf	-Inf	82.77	3	Vertical	9	1.21	-	28.36	3.75	-
AV	2.4134G	101.55	Inf	-Inf	69.46	3	Vertical	9	1.21	-	28.34	3.75	-

802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2412MHz\_TX



EUT X\_2TX  
Setting 72  
03-A-J-7

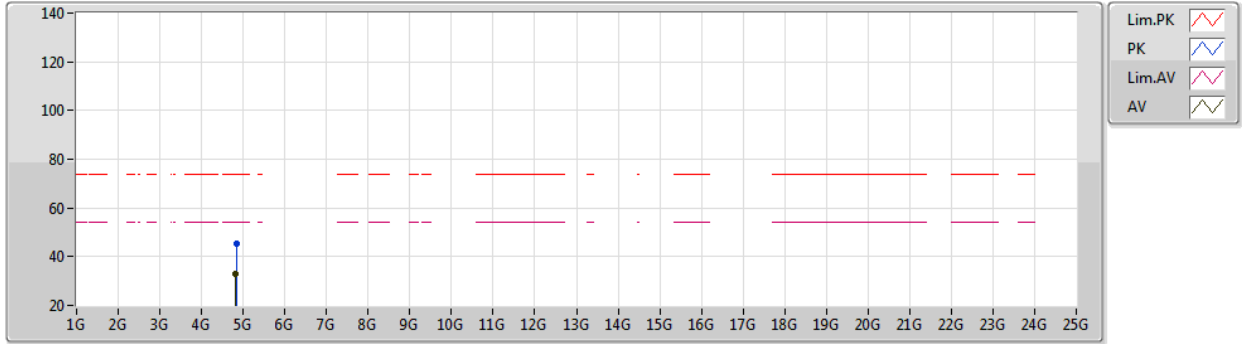
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3896G	73.52	74.00	-0.48	41.51	3	Horizontal	182	1.48	-	28.28	3.73	-
AV	2.3898G	51.50	54.00	-2.50	19.49	3	Horizontal	182	1.48	-	28.28	3.73	-
PK	2.4174G	111.65	Inf	-Inf	79.55	3	Horizontal	182	1.48	-	28.35	3.75	-
AV	2.4148G	99.54	Inf	-Inf	67.45	3	Horizontal	182	1.48	-	28.34	3.75	-



802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2412MHz\_TX



EUT X\_2TX  
Setting 72  
03-E-N-2

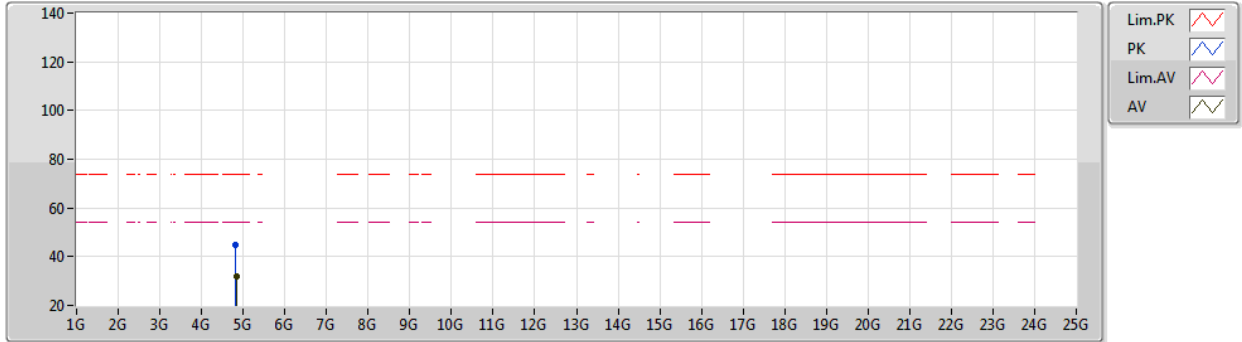
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8342G	45.27	74.00	-28.73	40.57	3	Vertical	238	2.76	-	32.64	4.94	32.88
AV	4.82418G	32.90	54.00	-21.10	28.25	3	Vertical	238	2.76	-	32.60	4.93	32.88



802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2412MHz\_TX

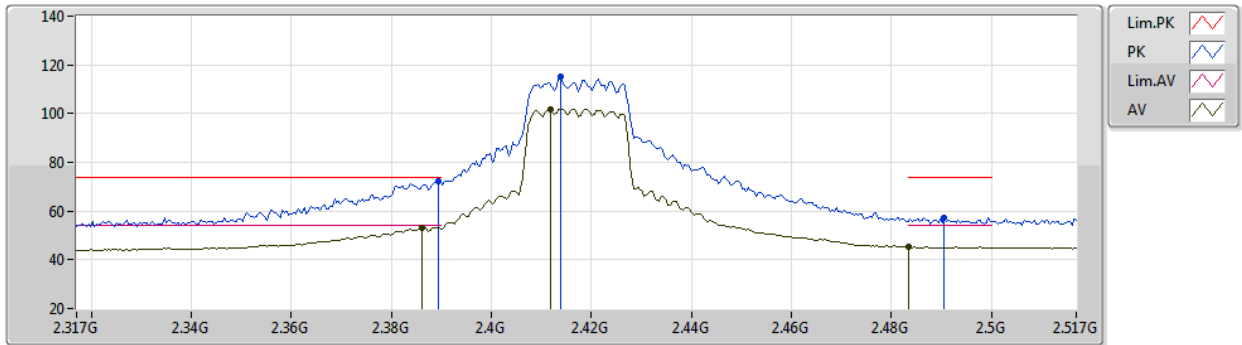


EUT X\_2TX  
Setting 72  
03-E-N-2

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	4.82172G	45.04	74.00	-28.96	40.40	3	Horizontal	73	1.17	-	32.59	4.93	32.88
AV	4.8297G	31.77	54.00	-22.23	27.10	3	Horizontal	73	1.17	-	32.62	4.93	32.88

802.11ax HEW20\_Nss1,(MCS0)\_2TX  
2417MHz\_TX

11/06/2020



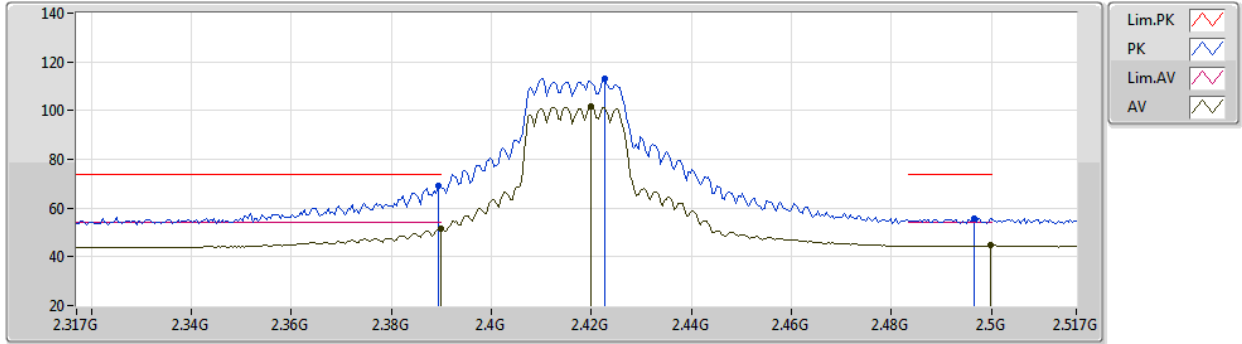
EUT X\_2TX  
Setting 80  
04-E-P-2

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	2.3894G	72.28	74.00	-1.72	41.92	3	Vertical	235	1.92	-	27.51	2.85	-
AV	2.3862G	53.23	54.00	-0.77	22.87	3	Vertical	235	1.92	-	27.51	2.85	-
PK	2.4138G	115.40	Inf	-Inf	84.97	3	Vertical	235	1.92	-	27.56	2.87	-
AV	2.4118G	101.87	Inf	-Inf	71.45	3	Vertical	235	1.92	-	27.55	2.87	-
PK	2.4906G	57.41	74.00	-16.59	26.64	3	Vertical	235	1.92	-	27.86	2.91	-
AV	2.4835G	45.33	54.00	-8.67	14.59	3	Vertical	235	1.92	-	27.83	2.91	-

802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2417MHz\_TX



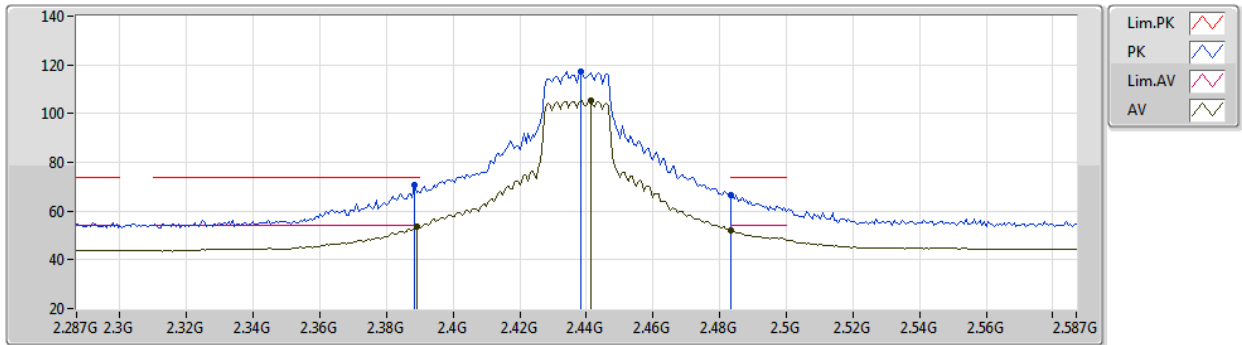
EUT X\_2TX  
Setting 80  
04-E-P-2

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	2.3894G	69.13	74.00	-4.87	38.77	3	Horizontal	91	2.30	-	27.51	2.85	-
AV	2.3898G	51.65	54.00	-2.35	21.29	3	Horizontal	91	2.30	-	27.51	2.85	-
PK	2.4226G	113.34	Inf	-Inf	82.88	3	Horizontal	91	2.30	-	27.59	2.87	-
AV	2.4198G	101.51	Inf	-Inf	71.06	3	Horizontal	91	2.30	-	27.58	2.87	-
PK	2.4966G	55.87	74.00	-18.13	25.06	3	Horizontal	91	2.30	-	27.89	2.92	-
AV	2.4998G	44.82	54.00	-9.18	14.00	3	Horizontal	91	2.30	-	27.90	2.92	-

802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2437MHz\_TX

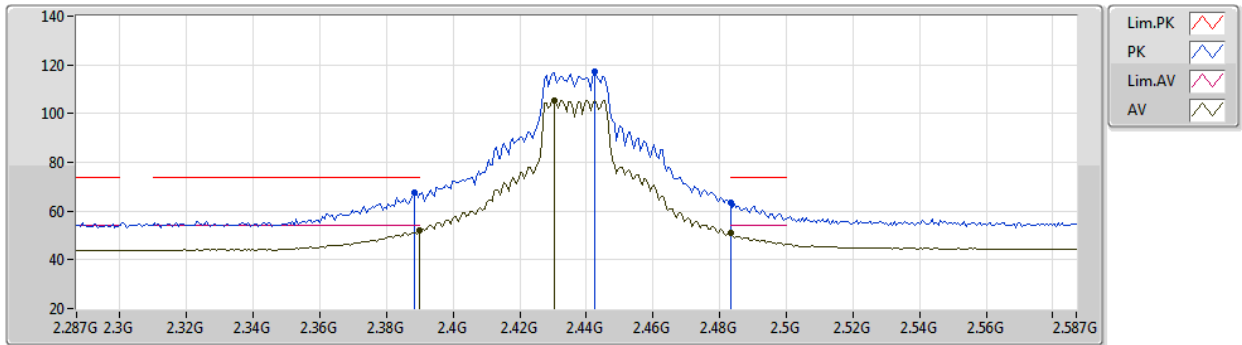


EUT X\_2TX  
Setting 88  
04-E-P-2

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	2.3884G	70.64	74.00	-3.36	40.28	3	Vertical	262	1.07	-	27.51	2.85	-
AV	2.389G	53.51	54.00	-0.49	23.15	3	Vertical	262	1.07	-	27.51	2.85	-
PK	2.4382G	117.30	Inf	-Inf	86.77	3	Vertical	262	1.07	-	27.65	2.88	-
AV	2.4412G	105.51	Inf	-Inf	74.97	3	Vertical	262	1.07	-	27.66	2.88	-
PK	2.4835G	66.74	74.00	-7.26	36.00	3	Vertical	262	1.07	-	27.83	2.91	-
AV	2.4835G	52.18	54.00	-1.82	21.44	3	Vertical	262	1.07	-	27.83	2.91	-

802.11ax HEW20\_Nss1,(MCS0)\_2TX  
2437MHz\_TX

11/06/2020



EUT X\_2TX  
Setting 88  
04-E-P-2

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	2.3884G	67.77	74.00	-6.23	37.41	3	Horizontal	15	1.11	-	27.51	2.85	-
AV	2.39G	52.09	54.00	-1.91	21.73	3	Horizontal	15	1.11	-	27.51	2.85	-
PK	2.4424G	117.31	Inf	-Inf	86.75	3	Horizontal	15	1.11	-	27.67	2.89	-
AV	2.4304G	105.56	Inf	-Inf	75.06	3	Horizontal	15	1.11	-	27.62	2.88	-
PK	2.4835G	63.53	74.00	-10.47	32.79	3	Horizontal	15	1.11	-	27.83	2.91	-
AV	2.4835G	50.82	54.00	-3.18	20.08	3	Horizontal	15	1.11	-	27.83	2.91	-

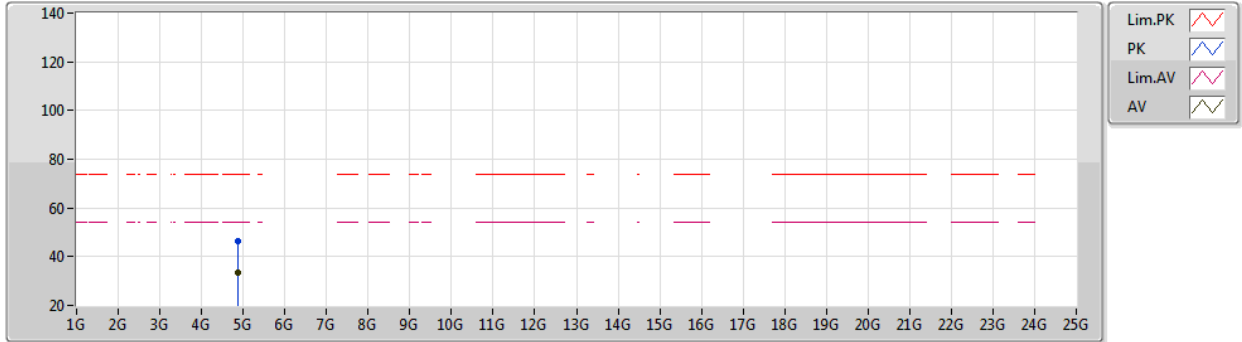




802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2437MHz\_TX



EUT X\_2TX  
Setting 88  
04-E-N-2

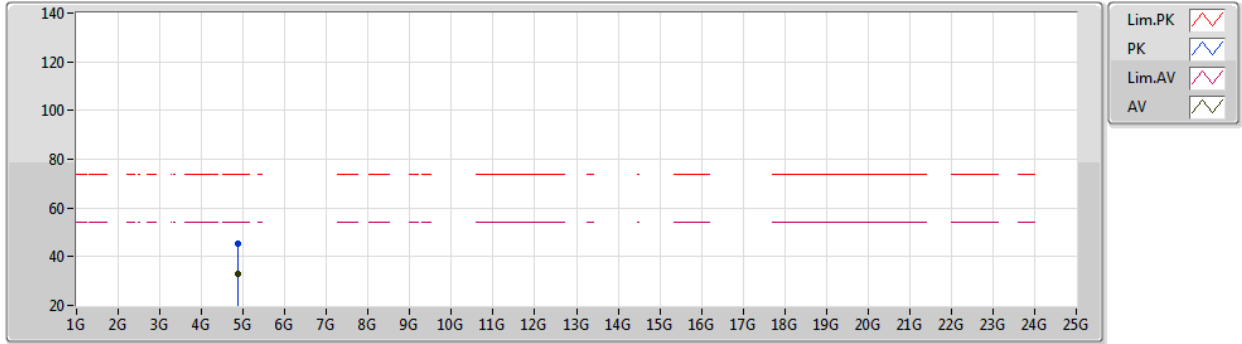
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87094G	46.43	74.00	-27.57	41.56	3	Vertical	171	1.00	-	32.78	4.96	32.87
AV	4.8737G	33.70	54.00	-20.30	28.82	3	Vertical	171	1.00	-	32.79	4.96	32.87



802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2437MHz\_TX



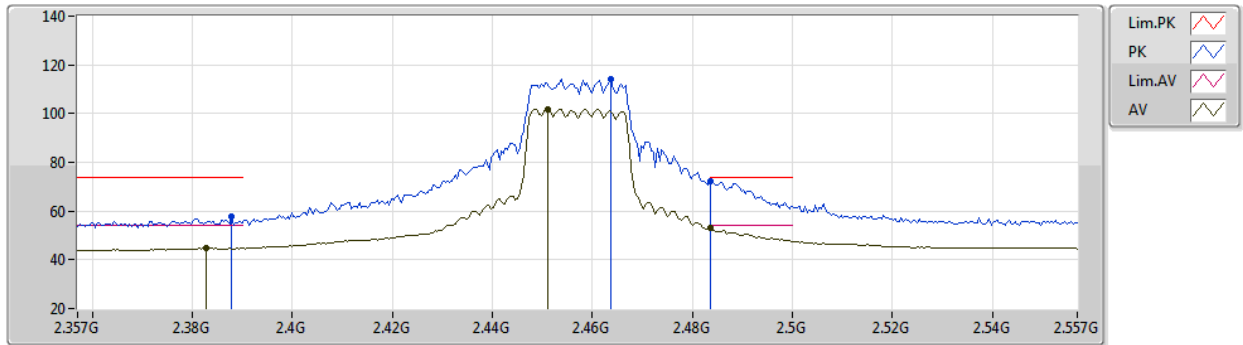
EUT X\_2TX  
Setting 88  
04-E-N-2

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	4.86218G	45.60	74.00	-28.40	40.77	3	Horizontal	289	2.45	-	32.75	4.95	32.87
AV	4.874G	33.09	54.00	-20.91	28.20	3	Horizontal	289	2.45	-	32.80	4.96	32.87

802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2457MHz\_TX



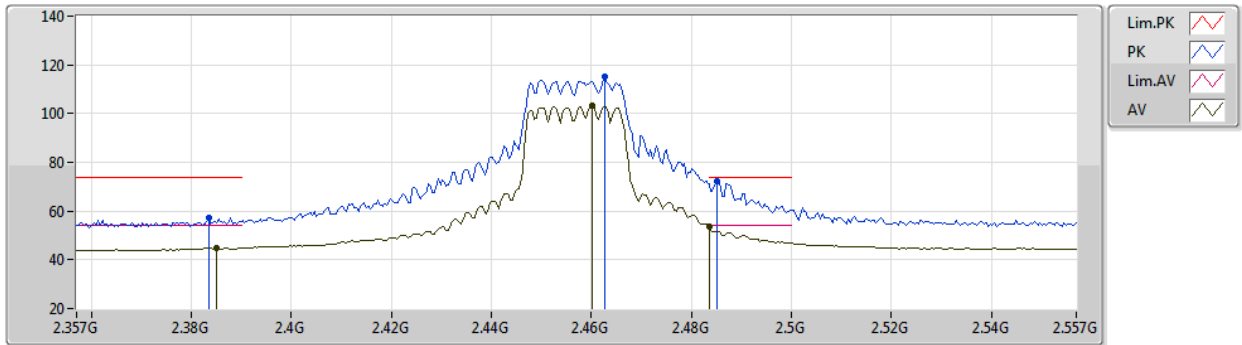
EUT X\_2TX  
Setting 76  
04-E-P-2

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	2.3878G	57.69	74.00	-16.31	27.33	3	Vertical	249	1.00	-	27.51	2.85	-
AV	2.3826G	44.71	54.00	-9.29	14.34	3	Vertical	249	1.00	-	27.52	2.85	-
PK	2.4638G	114.03	Inf	-Inf	83.37	3	Vertical	249	1.00	-	27.76	2.90	-
AV	2.451G	101.82	Inf	-Inf	71.23	3	Vertical	249	1.00	-	27.70	2.89	-
PK	2.4835G	72.25	74.00	-1.75	41.51	3	Vertical	249	1.00	-	27.83	2.91	-
AV	2.4835G	53.00	54.00	-1.00	22.26	3	Vertical	249	1.00	-	27.83	2.91	-

802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2457MHz\_TX



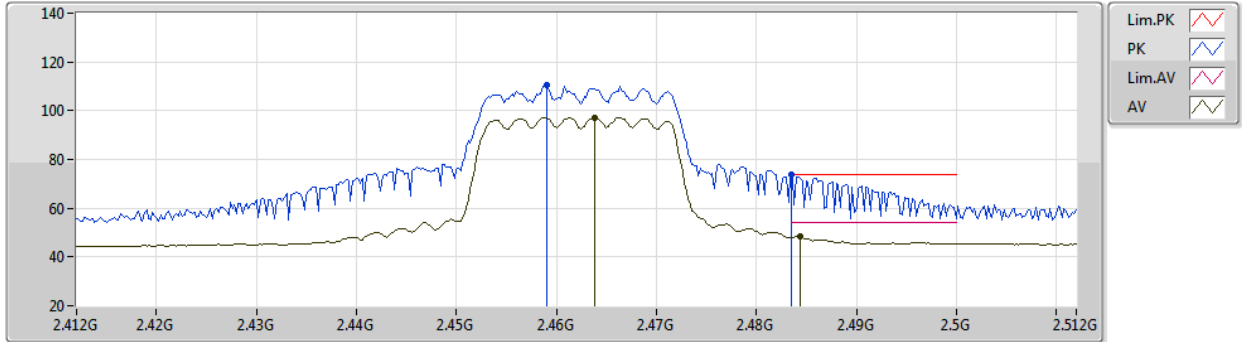
EUT X\_2TX  
Setting 76  
04-E-P-2

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	2.3834G	57.09	74.00	-16.91	26.72	3	Horizontal	17	1.04	-	27.52	2.85	-
AV	2.385G	44.84	54.00	-9.16	14.47	3	Horizontal	17	1.04	-	27.52	2.85	-
PK	2.4626G	115.19	Inf	-Inf	84.54	3	Horizontal	17	1.04	-	27.75	2.90	-
AV	2.4602G	103.35	Inf	-Inf	72.71	3	Horizontal	17	1.04	-	27.74	2.90	-
PK	2.485G	72.15	74.00	-1.85	41.40	3	Horizontal	17	1.04	-	27.84	2.91	-
AV	2.4835G	53.69	54.00	-0.31	22.95	3	Horizontal	17	1.04	-	27.83	2.91	-

802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2462MHz\_TX



EUT X\_2TX  
Setting 61  
03-A-J-7

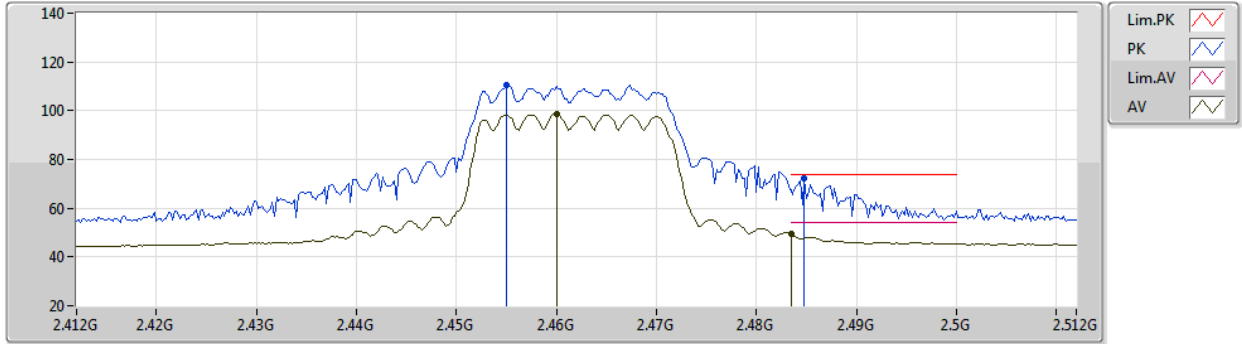
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.459G	110.32	Inf	-Inf	78.06	3	Vertical	286	1.10	-	28.48	3.78	-
AV	2.4638G	97.24	Inf	-Inf	64.97	3	Vertical	286	1.10	-	28.49	3.78	-
PK	2.4835G	73.56	74.00	-0.44	41.22	3	Vertical	286	1.10	-	28.55	3.79	-
AV	2.4844G	48.24	54.00	-5.76	15.90	3	Vertical	286	1.10	-	28.55	3.79	-



802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2462MHz\_TX



EUT X\_2TX  
Setting 61  
03-A-J-7

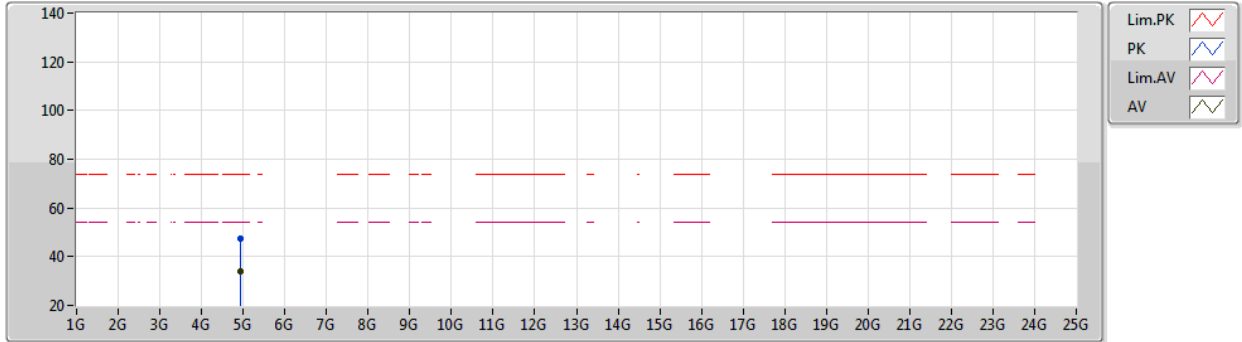
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.455G	110.76	Inf	-Inf	78.53	3	Horizontal	184	1.22	-	28.46	3.77	-
AV	2.46G	98.47	Inf	-Inf	66.21	3	Horizontal	184	1.22	-	28.48	3.78	-
PK	2.4848G	72.17	74.00	-1.83	39.83	3	Horizontal	184	1.22	-	28.55	3.79	-
AV	2.4835G	49.40	54.00	-4.60	17.06	3	Horizontal	184	1.22	-	28.55	3.79	-



802.11ax HEW20\_Nss1,(MCS0)\_2TX

11/06/2020

2462MHz\_TX



EUT X\_2TX  
Setting 61  
03-E-N-2

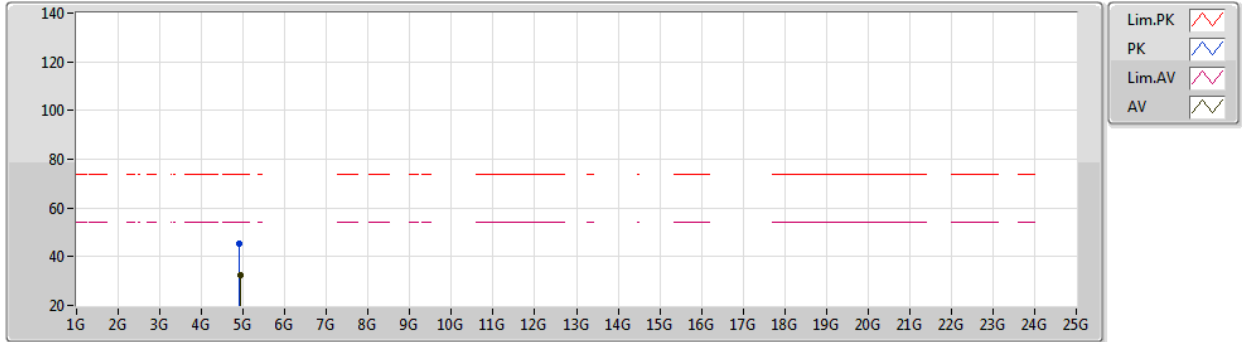
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.92634G	47.67	74.00	-26.33	42.60	3	Vertical	323	1.00	-	32.95	4.98	32.86
AV	4.92586G	34.17	54.00	-19.83	29.10	3	Vertical	323	1.00	-	32.95	4.98	32.86



802.11ax HEW20\_Nss1,(MCS0)\_2TX

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2462MHz\_TX



EUT X\_2TX  
Setting 61  
03-E-N-2

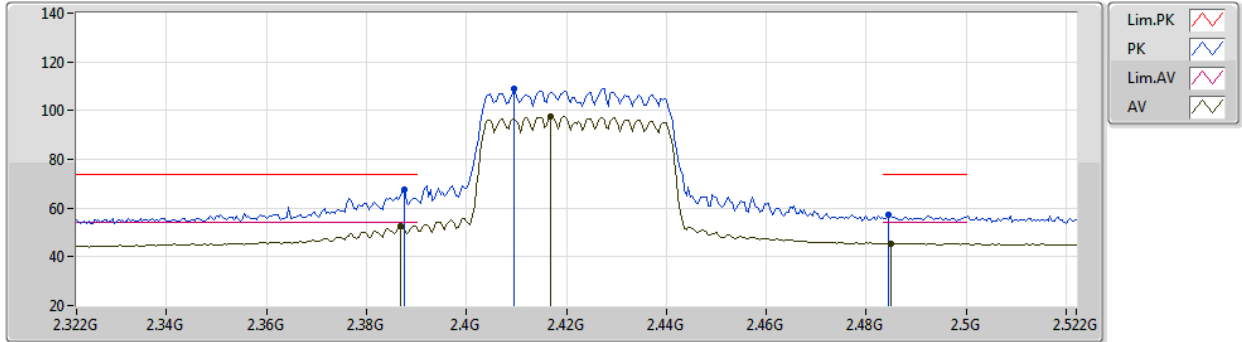
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.91566G	45.41	74.00	-28.59	40.37	3	Horizontal	97	2.21	-	32.93	4.98	32.87
AV	4.92124G	32.35	54.00	-21.65	27.30	3	Horizontal	97	2.21	-	32.94	4.98	32.87



802.11ax HEW40\_Nss1,(MCS0)\_2TX

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2422MHz\_TX



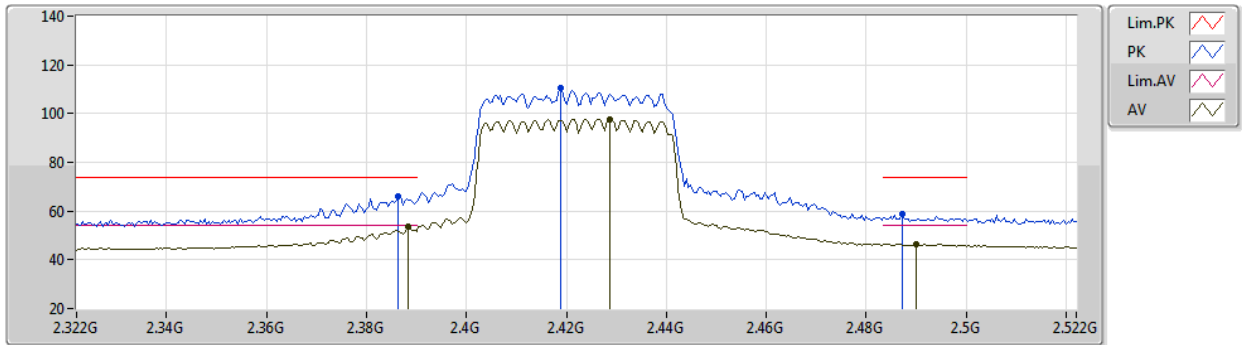
EUT X\_2TX  
Setting 65  
03-A-J-7

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	2.3876G	67.79	74.00	-6.21	35.78	3	Vertical	1	1.23	-	28.28	3.73	-
AV	2.3868G	52.52	54.00	-1.48	20.52	3	Vertical	1	1.23	-	28.27	3.73	-
PK	2.4096G	109.13	Inf	-Inf	77.05	3	Vertical	1	1.23	-	28.33	3.75	-
AV	2.4168G	97.79	Inf	-Inf	65.69	3	Vertical	1	1.23	-	28.35	3.75	-
PK	2.4844G	57.49	74.00	-16.51	25.15	3	Vertical	1	1.23	-	28.55	3.79	-
AV	2.4848G	45.52	54.00	-8.48	13.18	3	Vertical	1	1.23	-	28.55	3.79	-

802.11ax HEW40\_Nss1,(MCS0)\_2TX

11/06/2020

2422MHz\_TX



EUT X\_2TX  
Setting 65  
03-A-J-7

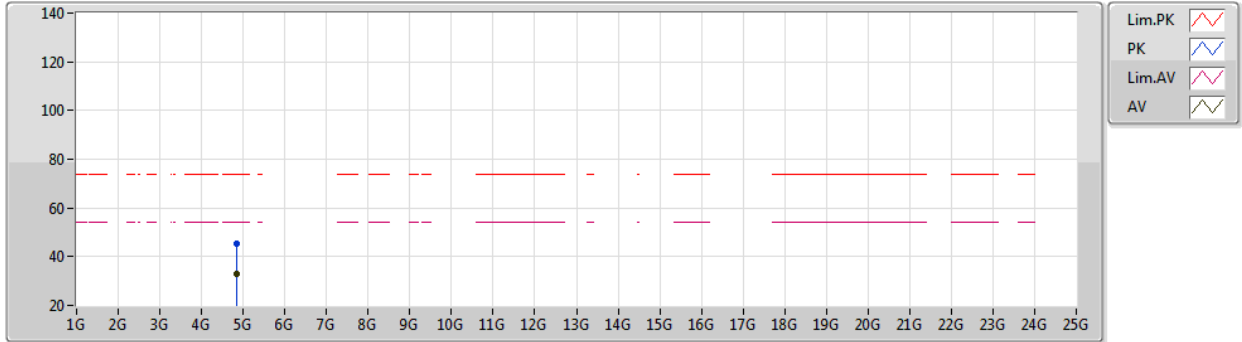
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3864G	66.29	74.00	-7.71	34.29	3	Horizontal	97	1.00	-	28.27	3.73	-
AV	2.3884G	53.71	54.00	-0.29	21.70	3	Horizontal	97	1.00	-	28.28	3.73	-
PK	2.4188G	110.44	Inf	-Inf	78.33	3	Horizontal	97	1.00	-	28.36	3.75	-
AV	2.4288G	97.67	Inf	-Inf	65.52	3	Horizontal	97	1.00	-	28.39	3.76	-
PK	2.4872G	58.88	74.00	-15.12	26.53	3	Horizontal	97	1.00	-	28.56	3.79	-
AV	2.49G	46.53	54.00	-7.47	14.17	3	Horizontal	97	1.00	-	28.57	3.79	-



802.11ax HEW40\_Nss1,(MCS0)\_2TX

11/06/2020

2422MHz\_TX



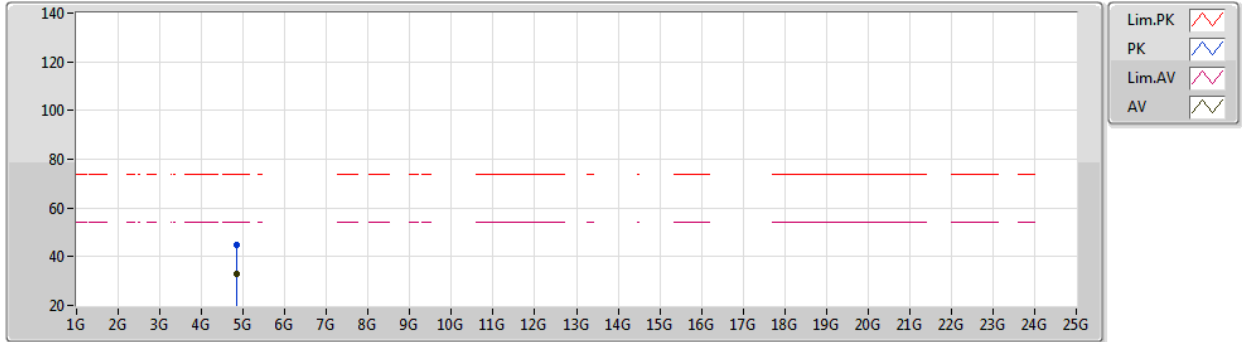
EUT X\_2TX  
Setting 65  
03-E-N-2

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	4.84328G	45.44	74.00	-28.56	40.71	3	Vertical	78	1.84	-	32.67	4.94	32.88
AV	4.8416G	33.01	54.00	-20.99	28.28	3	Vertical	78	1.84	-	32.67	4.94	32.88

802.11ax HEW40\_Nss1,(MCS0)\_2TX

11/06/2020

2422MHz\_TX

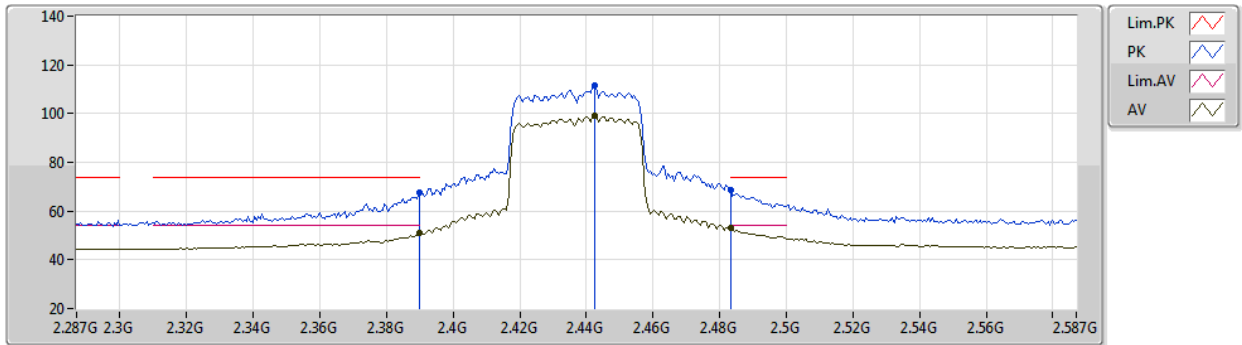


EUT X\_2TX  
Setting 65  
03-E-N-2

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	4.85426G	44.58	74.00	-29.42	39.78	3	Horizontal	149	2.06	-	32.72	4.95	32.87
AV	4.85372G	32.68	54.00	-21.32	27.89	3	Horizontal	149	2.06	-	32.71	4.95	32.87

802.11ax HEW40\_Nss1,(MCS0)\_2TX  
2437MHz\_TX

11/06/2020

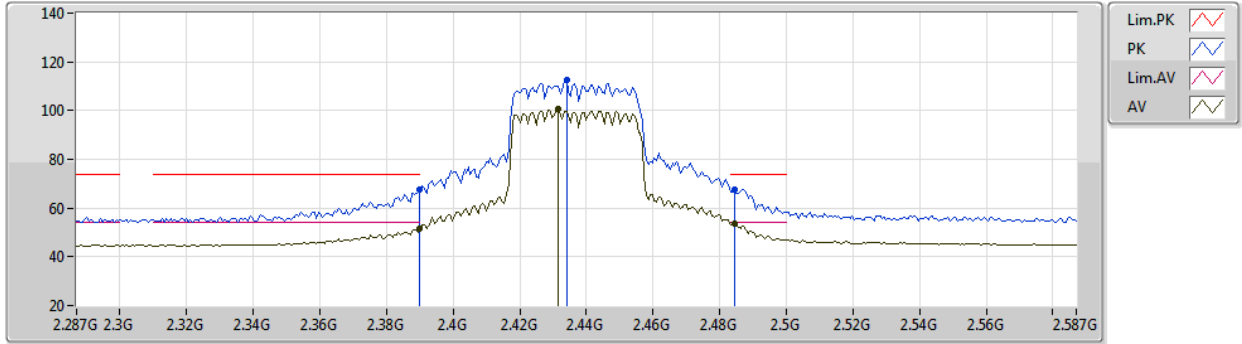


EUT X\_2TX  
Setting 74  
04-E-P-2

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	67.52	74.00	-6.48	37.16	3	Vertical	246	1.65	-	27.51	2.85	-
AV	2.39G	51.09	54.00	-2.91	20.73	3	Vertical	246	1.65	-	27.51	2.85	-
PK	2.4424G	111.71	Inf	-Inf	81.15	3	Vertical	246	1.65	-	27.67	2.89	-
AV	2.4424G	99.21	Inf	-Inf	68.65	3	Vertical	246	1.65	-	27.67	2.89	-
PK	2.4835G	68.87	74.00	-5.13	38.13	3	Vertical	246	1.65	-	27.83	2.91	-
AV	2.4835G	52.87	54.00	-1.13	22.13	3	Vertical	246	1.65	-	27.83	2.91	-

802.11ax HEW40\_Nss1,(MCS0)\_2TX  
2437MHz\_TX

11/06/2020



EUT X\_2TX  
Setting 74  
04-E-P-2

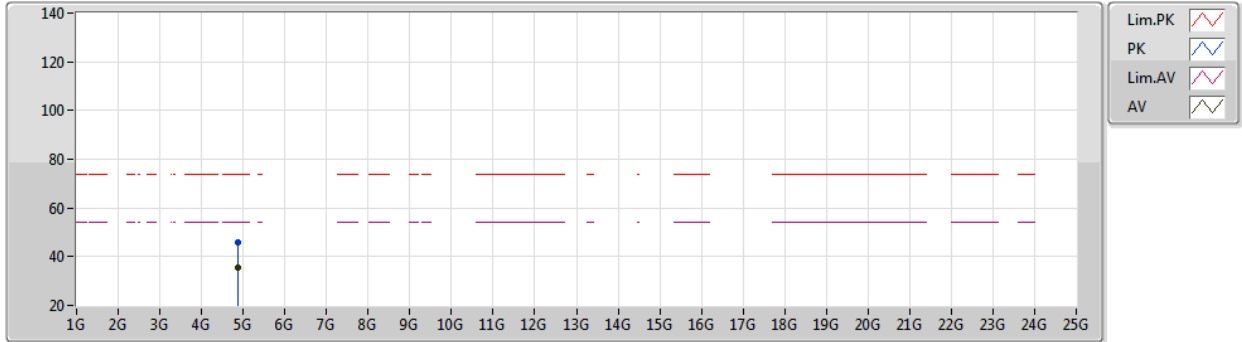
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	67.63	74.00	-6.37	37.27	3	Horizontal	14	1.12	-	27.51	2.85	-
AV	2.39G	51.52	54.00	-2.48	21.16	3	Horizontal	14	1.12	-	27.51	2.85	-
PK	2.434G	112.84	Inf	-Inf	82.32	3	Horizontal	14	1.12	-	27.64	2.88	-
AV	2.4316G	100.49	Inf	-Inf	69.98	3	Horizontal	14	1.12	-	27.63	2.88	-
PK	2.4844G	67.56	74.00	-6.44	36.81	3	Horizontal	14	1.12	-	27.84	2.91	-
AV	2.4844G	53.74	54.00	-0.26	22.99	3	Horizontal	14	1.12	-	27.84	2.91	-



802.11ax HEW40\_Nss1,(MCS0)\_2TX

11/06/2020

2437MHz\_TX



EUT X\_2TX  
Setting 74  
04-E-N-2

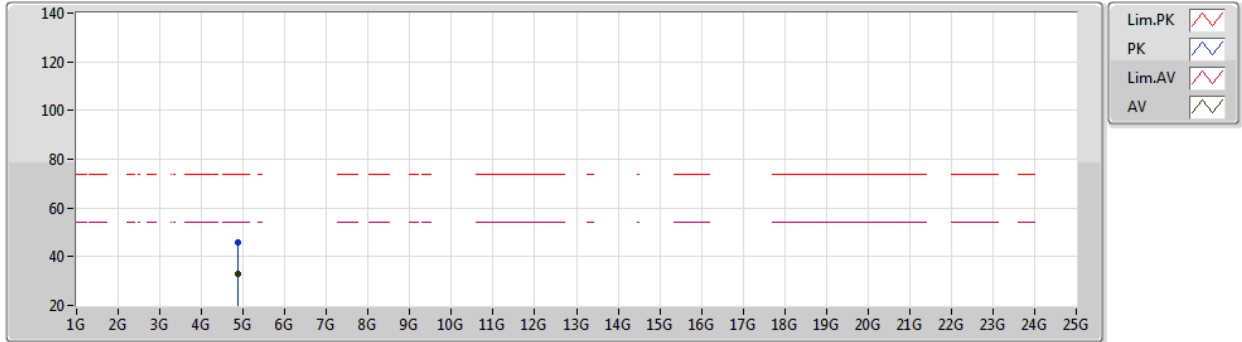
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.88096G	45.89	74.00	-28.11	40.98	3	Vertical	237	2.98	-	32.82	4.96	32.87
AV	4.87352G	35.37	54.00	-18.63	30.49	3	Vertical	237	2.98	-	32.79	4.96	32.87



802.11ax HEW40\_Nss1,(MCS0)\_2TX

11/06/2020

2437MHz\_TX



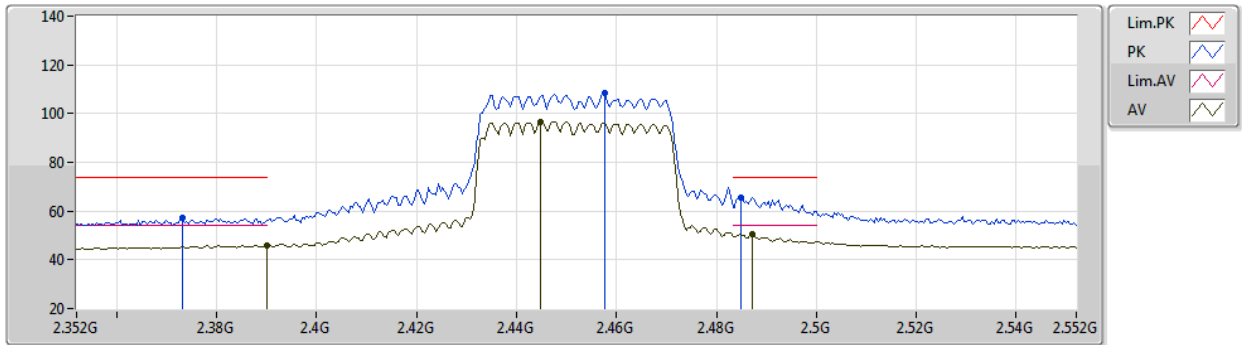
EUT X\_2TX  
Setting 74  
04-E-N-2

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	4.87874G	45.63	74.00	-28.37	40.73	3	Horizontal	140	2.22	-	32.81	4.96	32.87
AV	4.88798G	33.10	54.00	-20.90	28.16	3	Horizontal	140	2.22	-	32.85	4.96	32.87



802.11ax HEW40\_Nss1,(MCS0)\_2TX  
2452MHz\_TX

11/06/2020



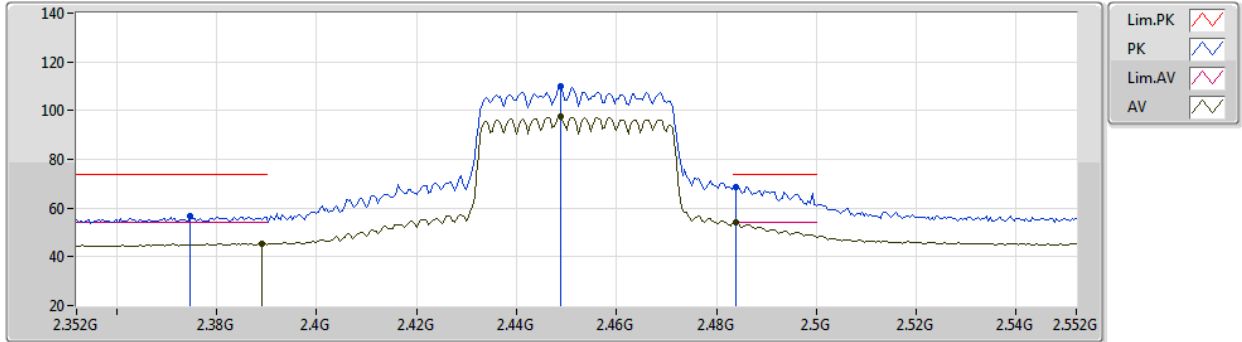
EUT X\_2TX  
Setting 68  
03-A-J-7

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	2.3732G	57.03	74.00	-16.97	25.06	3	Vertical	31	1.07	-	28.25	3.72	-
AV	2.39G	45.84	54.00	-8.16	13.83	3	Vertical	31	1.07	-	28.28	3.73	-
PK	2.4576G	108.67	Inf	-Inf	76.43	3	Vertical	31	1.07	-	28.47	3.77	-
AV	2.4448G	96.81	Inf	-Inf	64.61	3	Vertical	31	1.07	-	28.43	3.77	-
PK	2.4848G	65.58	74.00	-8.42	33.24	3	Vertical	31	1.07	-	28.55	3.79	-
AV	2.4872G	50.40	54.00	-3.60	18.05	3	Vertical	31	1.07	-	28.56	3.79	-

802.11ax HEW40\_Nss1,(MCS0)\_2TX

11/06/2020

2452MHz\_TX



EUT X\_2TX  
Setting 68  
03-A-J-7

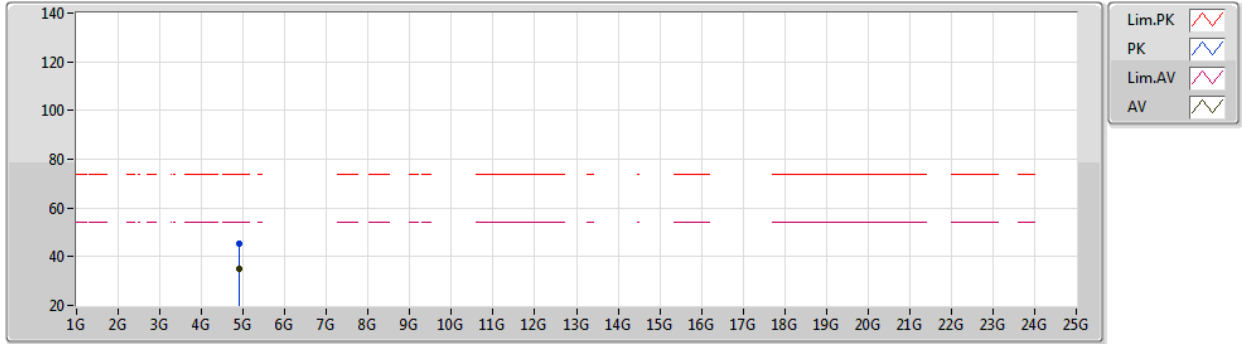
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3748G	56.74	74.00	-17.26	24.77	3	Horizontal	187	1.50	-	28.25	3.72	-
AV	2.3892G	45.51	54.00	-8.49	13.50	3	Horizontal	187	1.50	-	28.28	3.73	-
PK	2.4488G	110.21	Inf	-Inf	77.99	3	Horizontal	187	1.50	-	28.45	3.77	-
AV	2.4488G	97.38	Inf	-Inf	65.16	3	Horizontal	187	1.50	-	28.45	3.77	-
PK	2.484G	68.70	74.00	-5.30	36.36	3	Horizontal	187	1.50	-	28.55	3.79	-
AV	2.484G	53.94	54.00	-0.06	21.60	3	Horizontal	187	1.50	-	28.55	3.79	-



802.11ax HEW40\_Nss1,(MCS0)\_2TX

11/06/2020

2452MHz\_TX



EUT X\_2TX  
Setting 68  
03-E-N-2

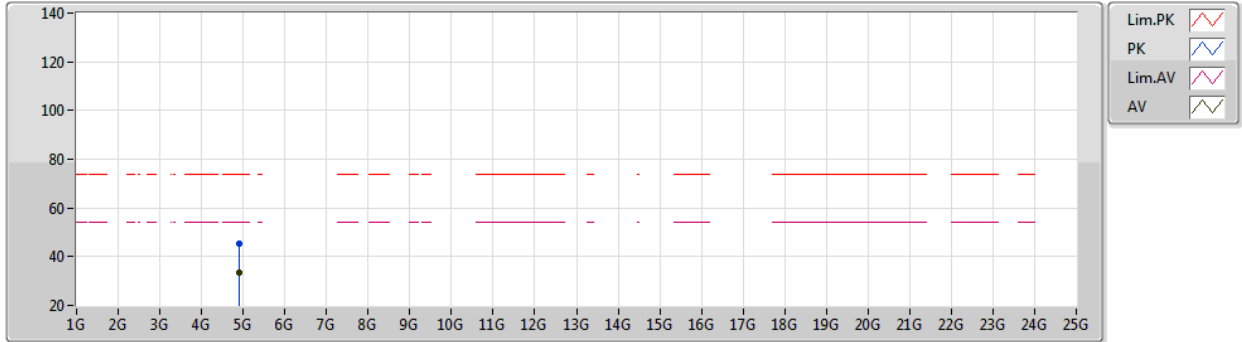
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.90142G	45.53	74.00	-28.47	40.53	3	Vertical	165	1.16	-	32.90	4.97	32.87
AV	4.90346G	35.01	54.00	-18.99	30.00	3	Vertical	165	1.16	-	32.91	4.97	32.87



802.11ax HEW40\_Nss1,(MCS0)\_2TX

11/06/2020

2452MHz\_TX



EUT X\_2TX  
Setting 68  
03-E-N-2

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	4.89038G	45.43	74.00	-28.57	40.47	3	Horizontal	227	1.80	-	32.86	4.97	32.87
AV	4.90472G	33.23	54.00	-20.77	28.22	3	Horizontal	227	1.80	-	32.91	4.97	32.87