

# FCC RADIO TEST REPORT

**FCC ID** : 2AHKM-CGNV5  
**Equipment** : 24X8 P6 DBCC WiFi eMTA  
**Brand Name** : hitron  
**Model Name** : CGNV5  
**Applicant** : Hitron Technologies Inc.  
No. 1-8, Li-Hsin 1st Rd. Hsinchu Science Park,  
Hsinchu 30078, Taiwan  
**Manufacturer** : Hitron Technologies Inc.  
No. 1-8, Li-Hsin 1st Rd. Hsinchu Science Park,  
Hsinchu 30078, Taiwan  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Oct. 18, 2019, and testing was started from Oct. 28, 2019 and completed on Nov. 01, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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

  
Approved by: Sam Chen

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



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### Summary of Test Result

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

**Declaration of Conformity:**

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

**Comments and Explanations:**

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

Reviewed by: **Sam Chen**  
Report Producer: **Cindy Peng**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

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

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	1TX
2.4-2.4835GHz	802.11g	20	3TX
2.4-2.4835GHz	802.11n HT20	20	3TX
2.4-2.4835GHz	802.11n HT40	40	3TX

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ Nss-Min is the minimum number of spatial streams.
- ♦ Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.



1.1.2 Antenna Information

Ant.	Port		Brand	Model Name	Type	Connector	Gain (dBi)	
	2.4GHz	5GHz					2.4GHz	5GHz
1	1	2	LYNWAVE	ALX19P-221AA1-00	Dipole	I-PEX	2.5	3.4
2	2	3	LYNWAVE	ALX19P-221AA2-00	Dipole	I-PEX	2.5	3.4
3	3	-	LYNWAVE	ALX19P-221AA3-00	Dipole	I-PEX	2.5	-
4	-	1	LYNWAVE	ALX19P-221AA0-00	Dipole	I-PEX	-	3.4

Note 1: The above information was declared by manufacturer.

Note 2: The EUT has four antennas.

<For 2.4GHz Band>

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

Only Port 1 can be used as transmitting/receiving.

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

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

<For 5GHz Band>

For IEEE 802.11a/n/ac mode (3TX/3RX)

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

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.998	0.01	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11g	0.983	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT20	0.983	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11n HT40	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter		
Beamforming Function	<input type="checkbox"/> With beamforming	<input checked="" type="checkbox"/>	Without beamforming
Function	<input checked="" type="checkbox"/> Point-to-multipoint	<input type="checkbox"/>	Point-to-point
Test Software Version	Lantiq DUT、Telnet		

Note: The above information was declared by manufacturer.



## 1.2 Applicable Standards

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

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013
- ◆ 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	TH02-CB	Ekko Hsieh	24.2~24.6°C / 58~62%	Oct. 31, 2019~Nov. 01, 2019
Radiated below 1GHz	03CH05-CB	Bruce Yang	23.6~25.1°C / 60~64%	Oct. 28, 2019
Radiated above 1GHz	03CH06-CB	Stim Sung	23.7~25.9°C / 59~61%	Oct. 30, 2019~Oct. 31, 2019
AC Conduction	CO01-CB	Ryo Fan	24~26°C / 67~60%	Nov. 01, 2019

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)	4.3 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	2.4 dB	Confidence levels of 95%
Output Power Measurement	1.5 dB	Confidence levels of 95%
Power Density Measurement	2.4 dB	Confidence levels of 95%
Bandwidth Measurement	2%	Confidence levels of 95%



## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	18.5
2437MHz	17
2462MHz	15.5
802.11g_Nss1,(6Mbps)_3TX	-
2412MHz	18.5
2417MHz	19.5
2437MHz	22
2457MHz	20
2462MHz	18.5
802.11n HT20_Nss1,(MCS0)_3TX	-
2412MHz	18.5
2417MHz	20.5
2437MHz	22.5
2457MHz	20.5
2462MHz	19
802.11n HT40_Nss1,(MCS0)_3TX	-
2422MHz	17.5
2427MHz	19
2437MHz	21
2447MHz	19.5
2452MHz	19





## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	Normal Link
1	EUT + Adapter 1
2	EUT + Adapter 2
For operating mode 2 is the worst case and it was record in this test report.	

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1	EUT + Adapter 1
2	EUT + Adapter 2
For operating mode 1 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WLAN 2.4GHz + WLAN 5GHz
Refer to Appendix G for Radiated Emission Co-location.	



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
Refer to Sporton Test Report No.: FA9O1614 for Co-location RF Exposure Evaluation.	

Note: The EUT can only be used at Y axis position.

### 2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

### 2.4 Accessories

Accessories				
No.	Equipment Name	Brand Name	Model Name	Rating
1	Adapter 1	APD	WA-30P12FU	Input: 100-240V~50-60Hz, 0.9A Max. Output: 12V, 2.5A
2	Adapter 2	MOSO	MSS-V2500WR120-030E0-US	Input: 100-240V~50/60Hz, 1.0A max. Output: 12.0V, 2.5A
No.	Other			
3	RJ-45 cable*1: Non-shielded, 1.5m			



## 2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	LAN NB	DELL	E6430	N/A
B	Phone	SAMPO	HT-B 907WL	N/A
C	Terminal System	CASA-Systems	C2200	N/A
D	Terminal System NB	HP	EliteBook 840	N/A
E	Phone	SAMPO	HT-B 907WL	N/A
F	Flash disk3.0	Apacer	AH223	N/A
G	2.4G NB	DELL	E6430	N/A
H	5G NB	DELL	E6430	N/A

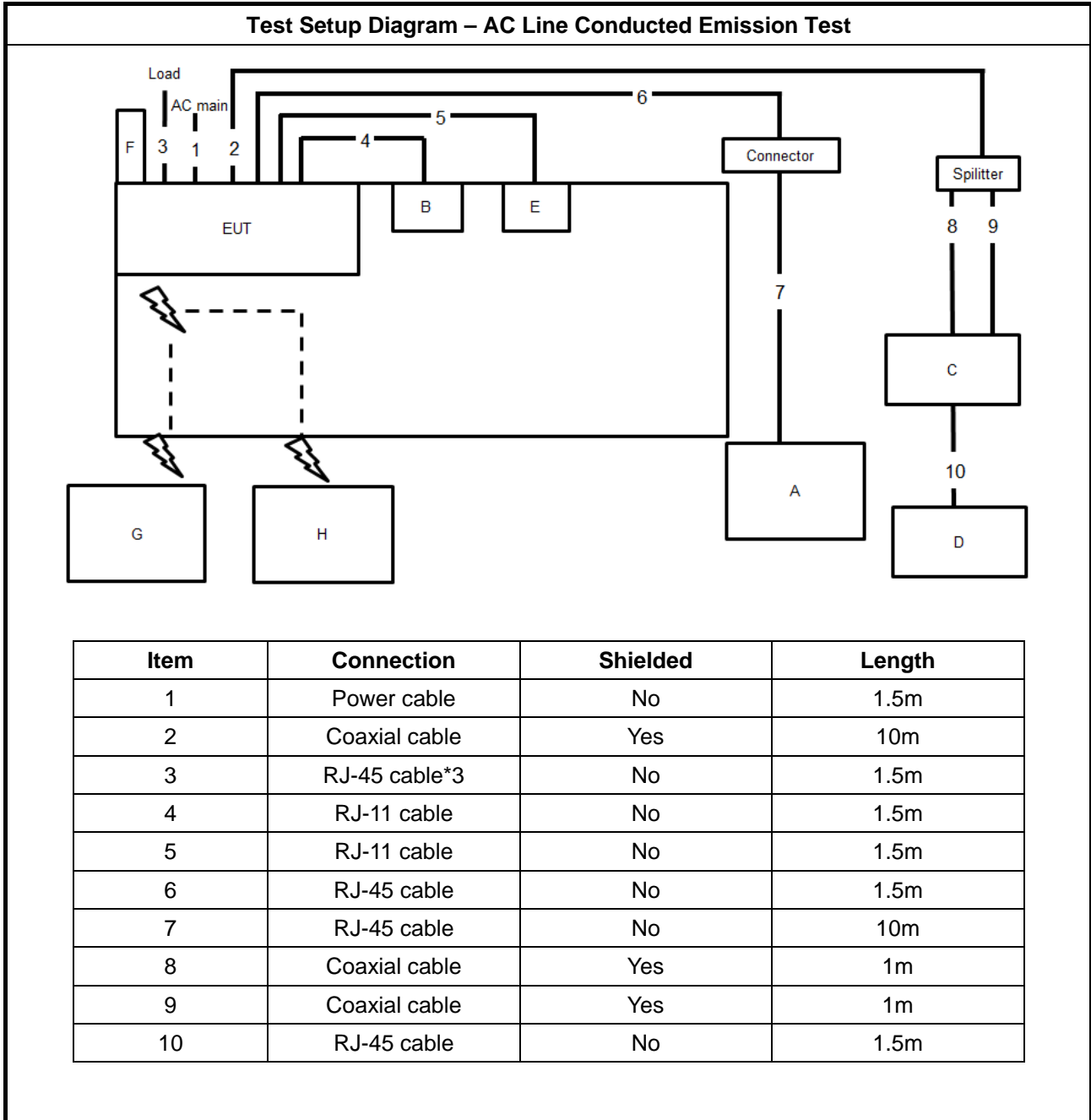
For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	Notebook	DELL	E4300	N/A
D	Notebook	Lenovo	TP00093A	N/A
E	Terminal System	CASA-Systems	C2200	N/A
F	Phone	SAMPO	HT-B 907WL	N/A
G	Phone	SAMPO	HT-B 907WL	N/A
H	USB dongle	Apacer	AH223	N/A
I	Notebook	Lenovo	TP00075A	N/A
J	Earphone	e-Power	S90W	N/A
K	Mouse	Logitech	M-U0026	N/A

For Radiated (above 1GHz) and RF Conducted:

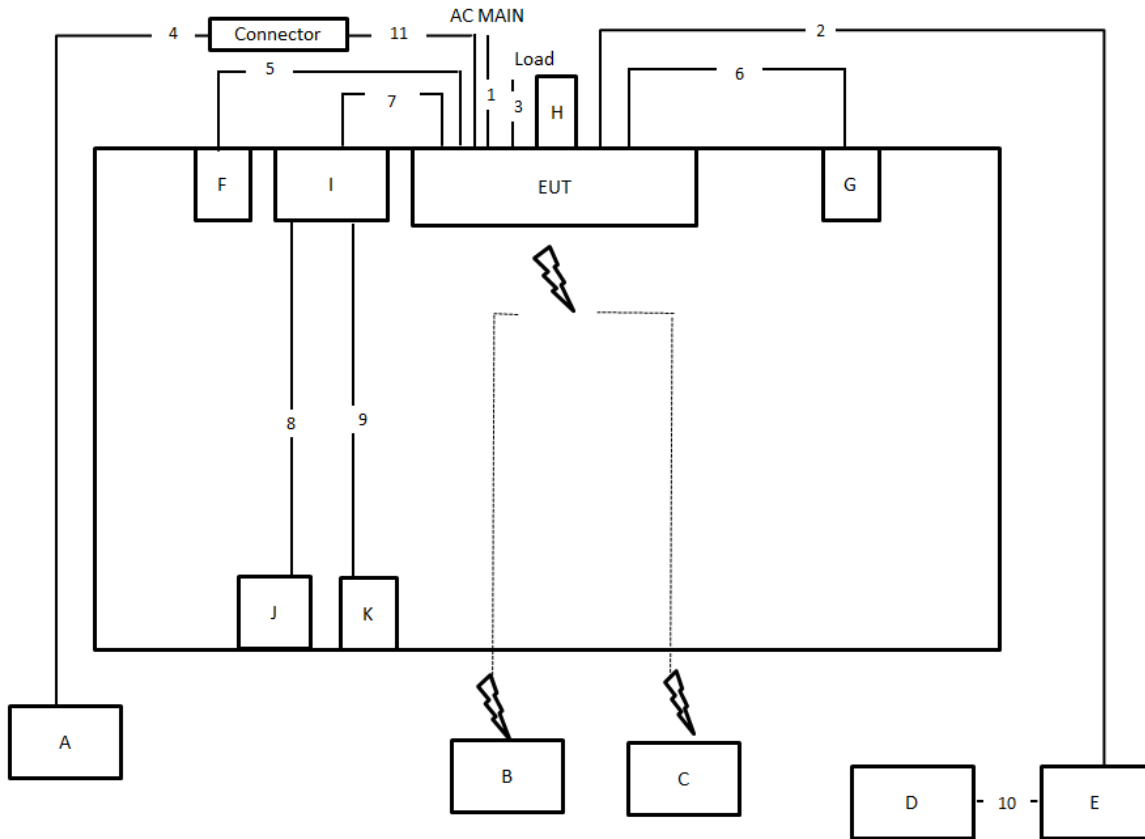
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A

## 2.6 Test Setup Diagram





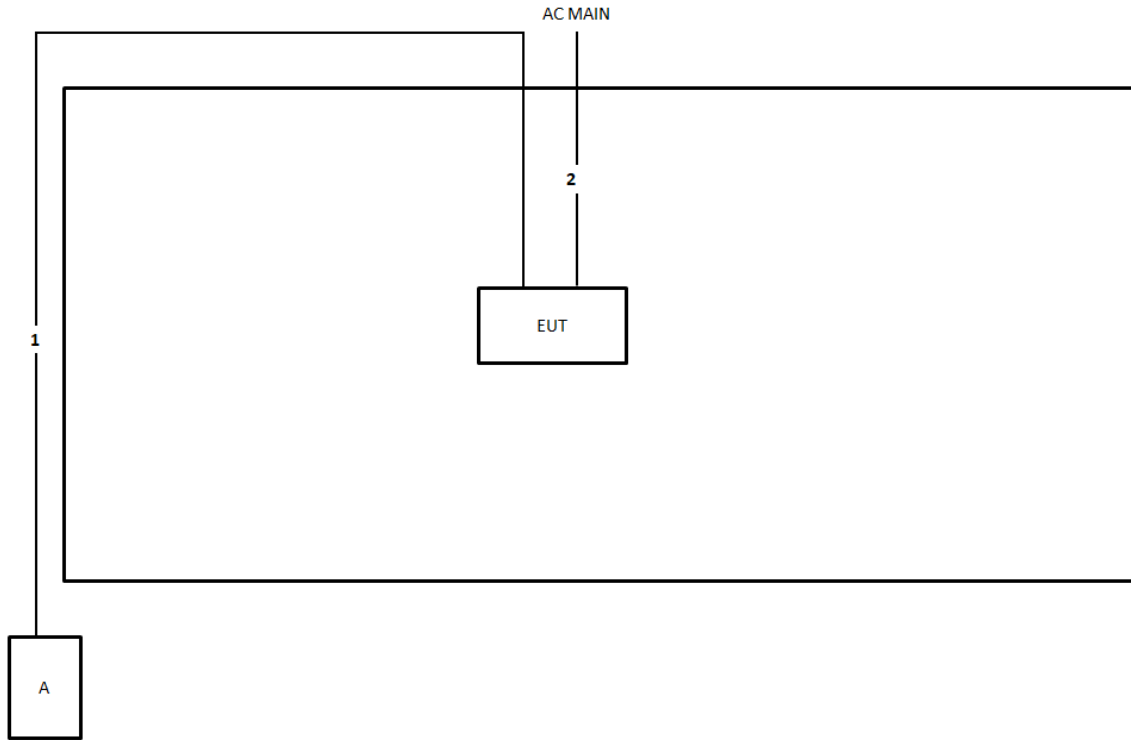
Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	Coaxial cable	Yes	10m
3	RJ-45 cable*3	No	1.5m
4	RJ-45 cable	No	10m
5	RJ-11 cable	No	1.5m
6	RJ-11 cable	No	1.5m
7	Console cable	No	1.5m
8	USB cable	Yes	1.5m
9	Audio cable	No	1.5m
10	RJ-45 cable	No	1.5m
11	RJ-45 cable	No	1.5m



Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	1.5m



### 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.

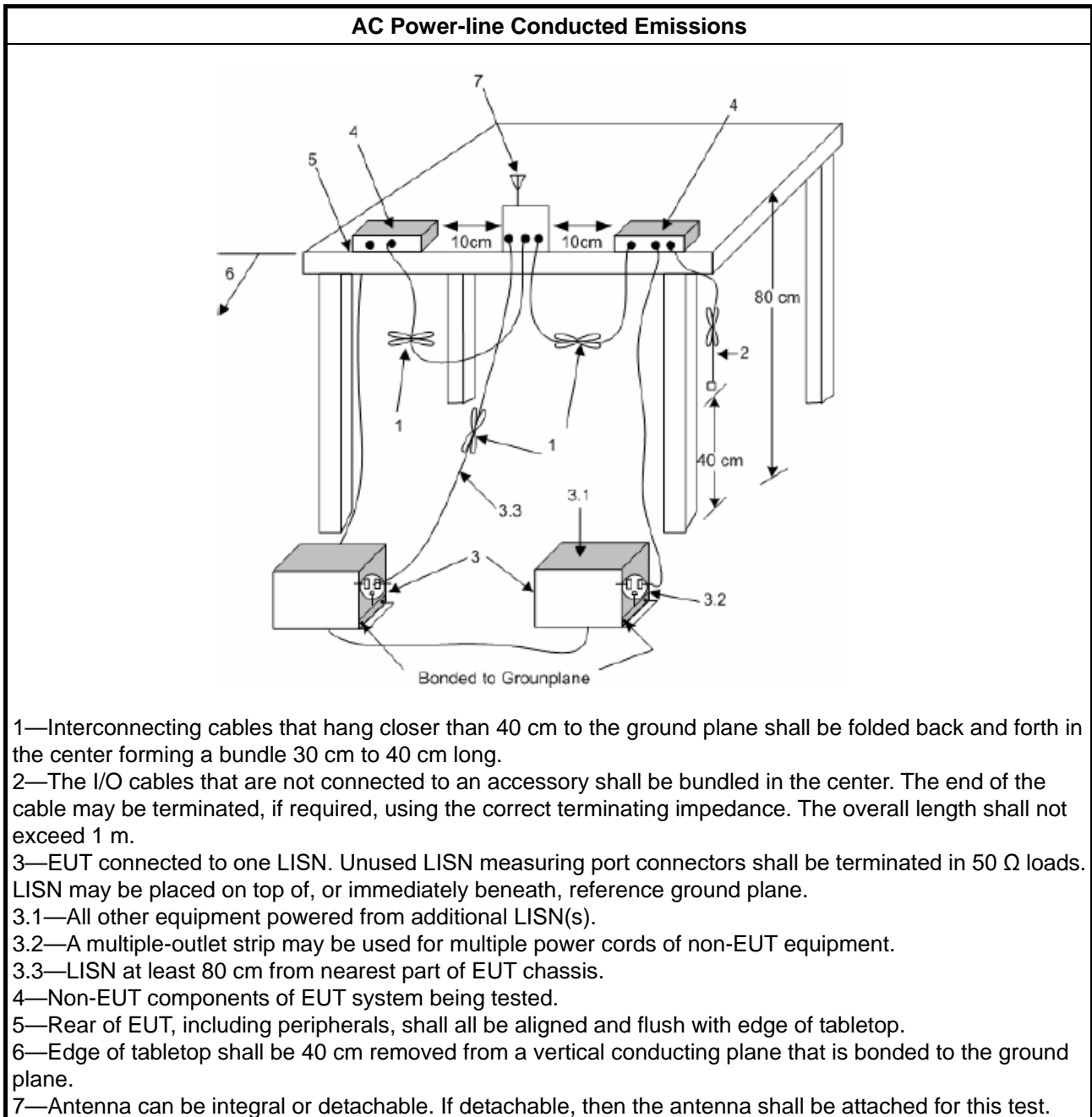
##### 3.1.2 Measuring Instruments

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 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>

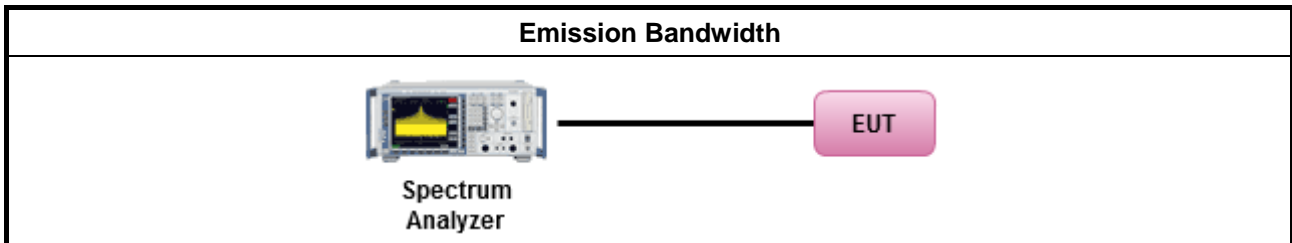
#### 3.2.2 Measuring Instruments

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

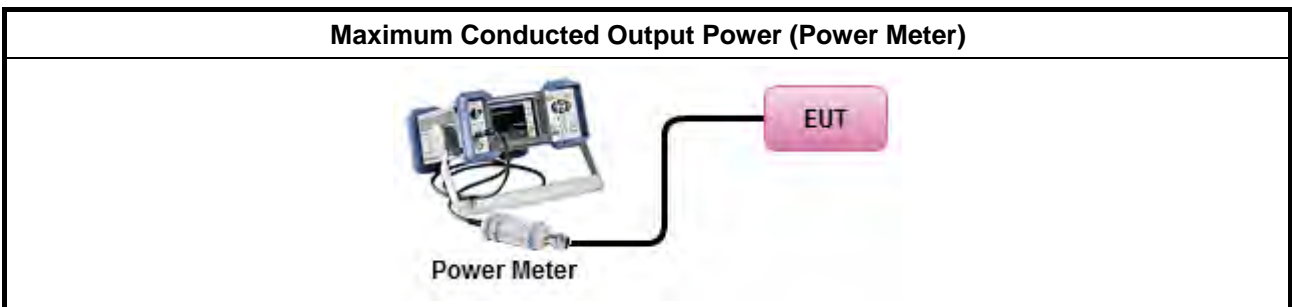
Test Method	
	<ul style="list-style-type: none"> <li>▪ Maximum Peak Conducted Output Power</li> </ul>
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW $\geq$ EBW method).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3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

- For conducted measurement.
  - 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.
  - If multiple transmit chains, EIRP calculation could be following as methods:  

$$P_{total} = P_1 + P_2 + \dots + P_n$$
 (calculated in linear unit [mW] and transfer to log unit [dBm])  

$$EIRP_{total} = P_{total} + DG$$

**3.3.4 Test Setup**



**3.3.5 Test Result of Maximum Conducted Output Power**

Refer as Appendix C



### 3.4 Power Spectral Density

#### 3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
<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.

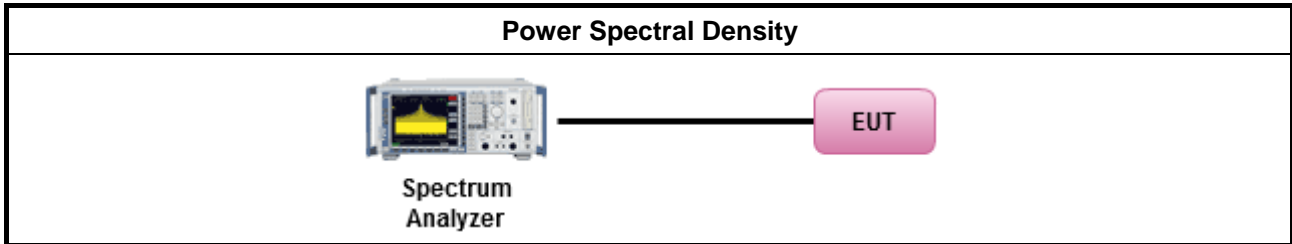
#### 3.4.3 Test Procedures

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 11.10.2 Method PKPSD. [duty cycle $\geq$ 98% or external video / power trigger]
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.3 Method AVGPSD-1.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.5 Method AVGPSD-2.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.7 Method AVGPSD-3.
duty cycle $<$ 98% and average over on/off periods with duty factor
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.4 Method AVGPSD-1A. (alternative).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.6 Method AVGPSD-2A. (alternative)
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10.8 Method AVGPSD-3A. (alternative)
<ul style="list-style-type: none"> <li>For conducted measurement.               <ul style="list-style-type: none"> <li>If The EUT supports multiple transmit chains using options given below:                   <ul style="list-style-type: none"> <li> <input 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.                   </li> <li> <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,                   </li> </ul> </li> </ul> </li> </ul>



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.

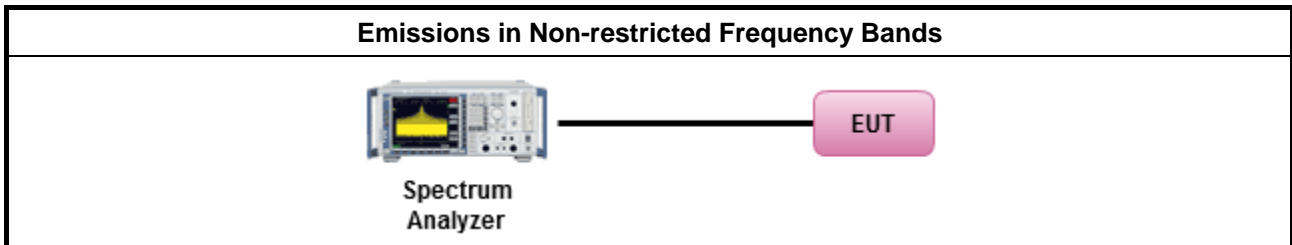
#### 3.5.2 Measuring Instruments

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 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E



### 3.6 Emissions in Restricted Frequency Bands

#### 3.6.1 Emissions in Restricted Frequency Bands Limit

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

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

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

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

#### 3.6.2 Measuring Instruments

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

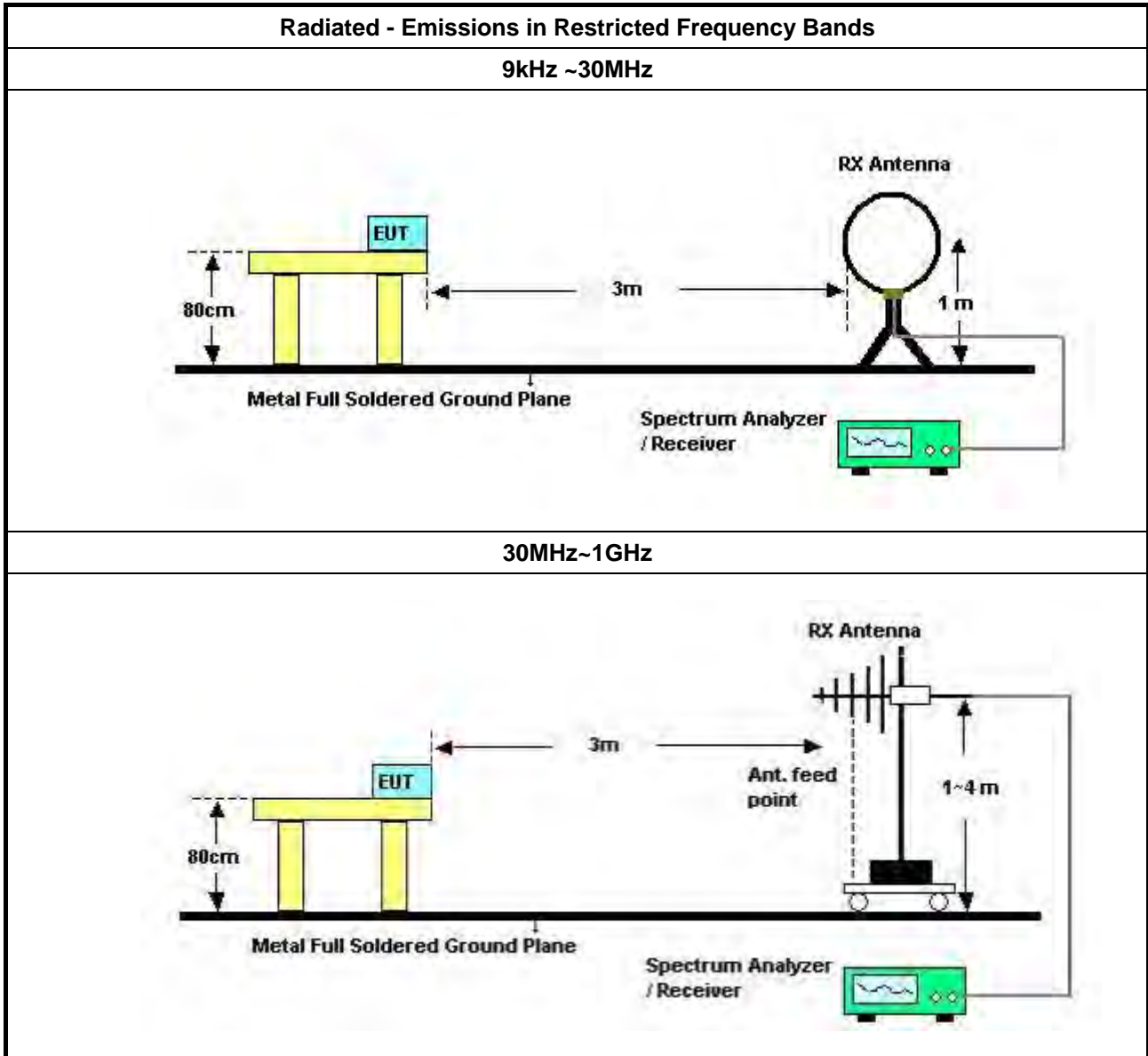


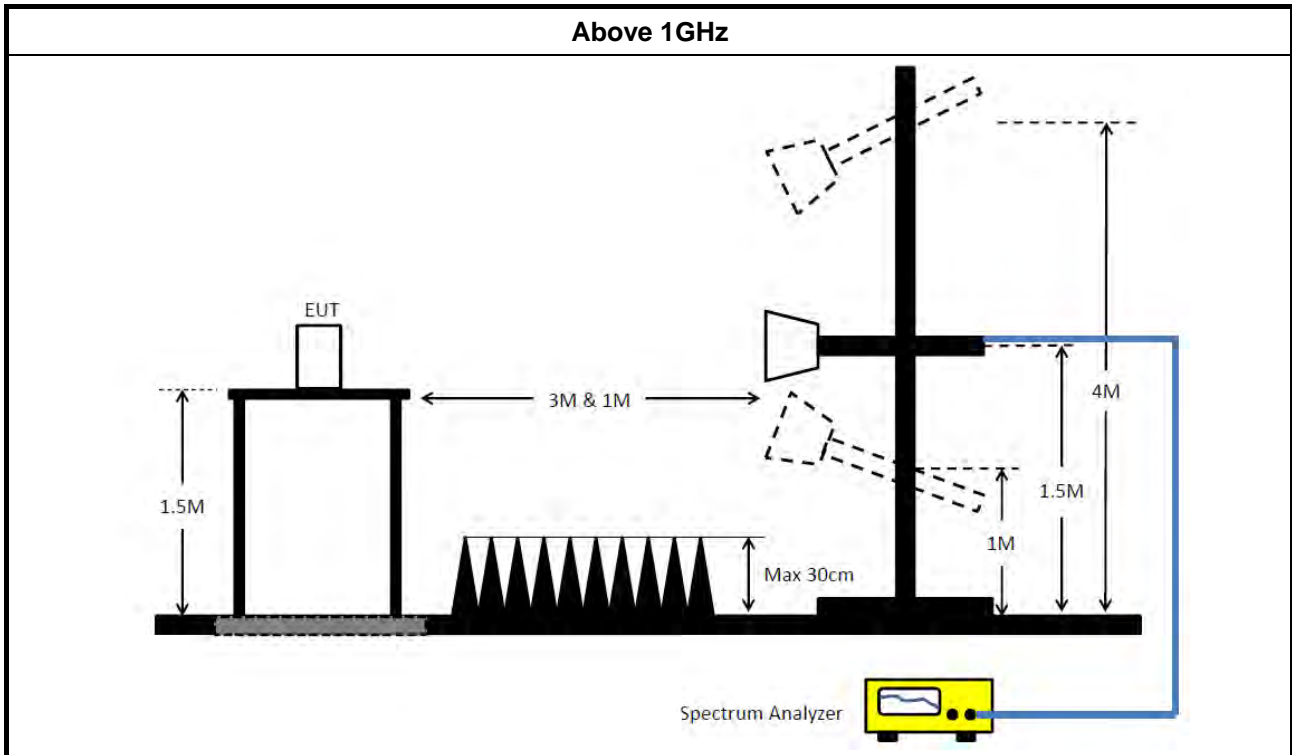
**3.6.3 Test Procedures**

<b>Test Method</b>	
<ul style="list-style-type: none"> <li>▪ The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 or duty factor].</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ For the transmitter unwanted emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.</li> </ul>
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle $\geq$ 98%).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW $\geq$ 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> <li>▪ For the transmitter band-edge emissions shall be measured using following options below:</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074 clause 8.7 &amp; C63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).</li> </ul>
	<ul style="list-style-type: none"> <li>▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below:                (1) Measure and sum the spectra across the outputs or                (2) Measure and add 10 log(N) dB             </li> </ul>
	<ul style="list-style-type: none"> <li>▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.</li> </ul>



3.6.4 Test Setup





### 3.6.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = 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 10 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	Jan. 28, 2019	Jan. 29, 2020	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 24, 2018	Dec. 23, 2019	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Jan. 11, 2019	Jan. 10, 2020	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 21, 2019	May 20, 2020	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 29, 2019	Mar. 28, 2020	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESE & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 28, 2019	Mar. 27, 2020	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	May 02, 2019	May 01, 2020	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Aug. 15, 2019	Aug. 14, 2020	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	May 15, 2019	May 14, 2020	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	LOW Cable-04+23	30MHz~1GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH05-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1292	1GHz~18GHz	Jul. 17, 2019	Jul. 16, 2020	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 12, 2019	Jun. 11, 2020	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz ~ 26.5GHz	May 08, 2019	May 07, 2020	Radiation (03CH06-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 03, 2019	Jul. 02, 2020	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 21, 2019	Oct. 20, 2020	Radiation (03CH06-CB)
RF Cable-high	HUBER+SUHNER	RG402	High Cable-05	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	HUBER+SUHNER	RG402	High Cable-05+24	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 24, 2019	Jul. 23, 2020	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 02, 2019	Jul. 01, 2020	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-3	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 26.5 GHz	Oct. 07, 2019	Oct. 06, 2020	Conducted (TH02-CB)

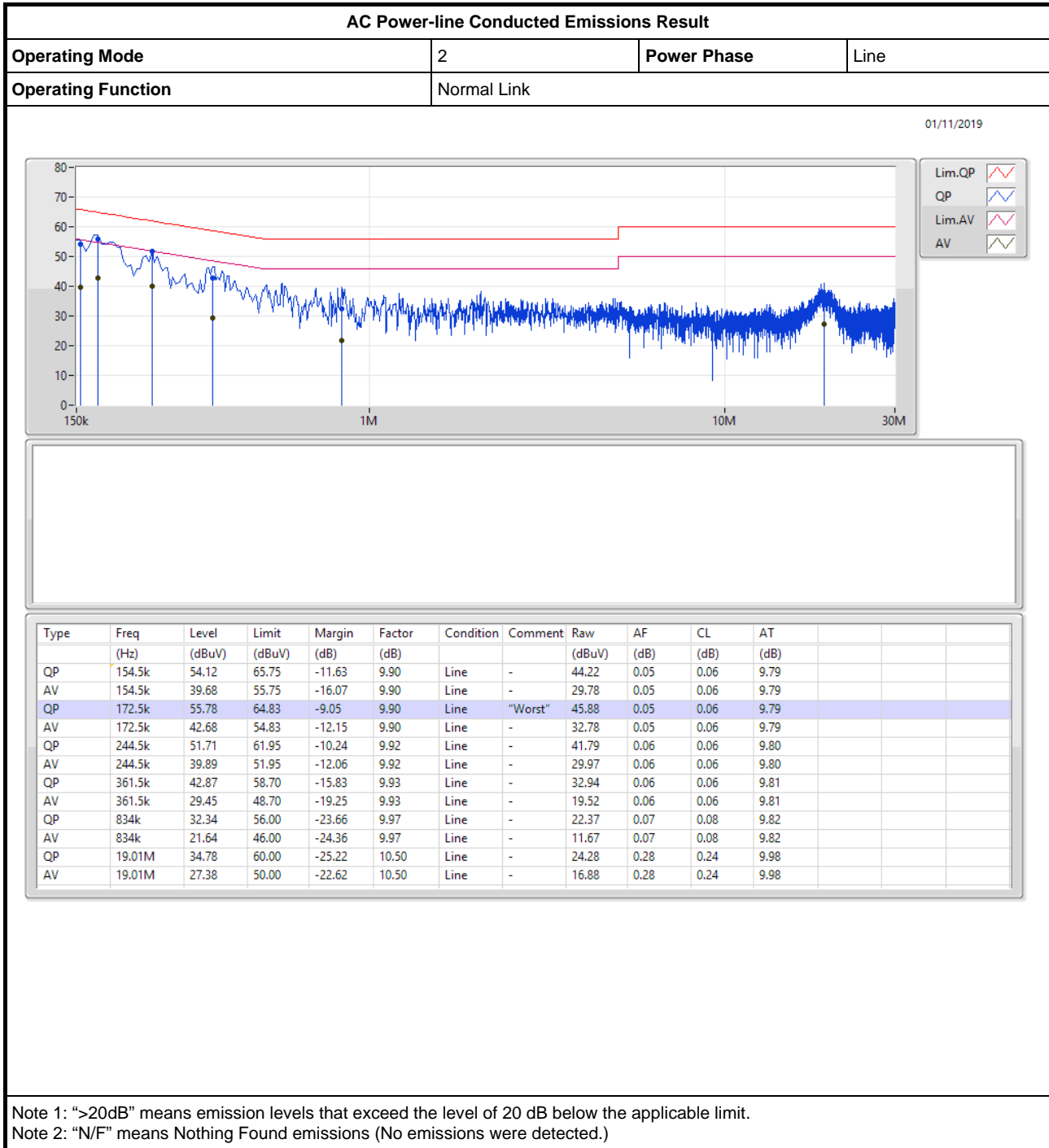
Note: Calibration Interval of instruments listed above is one year.

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



# AC Power-line Conducted Emissions Result

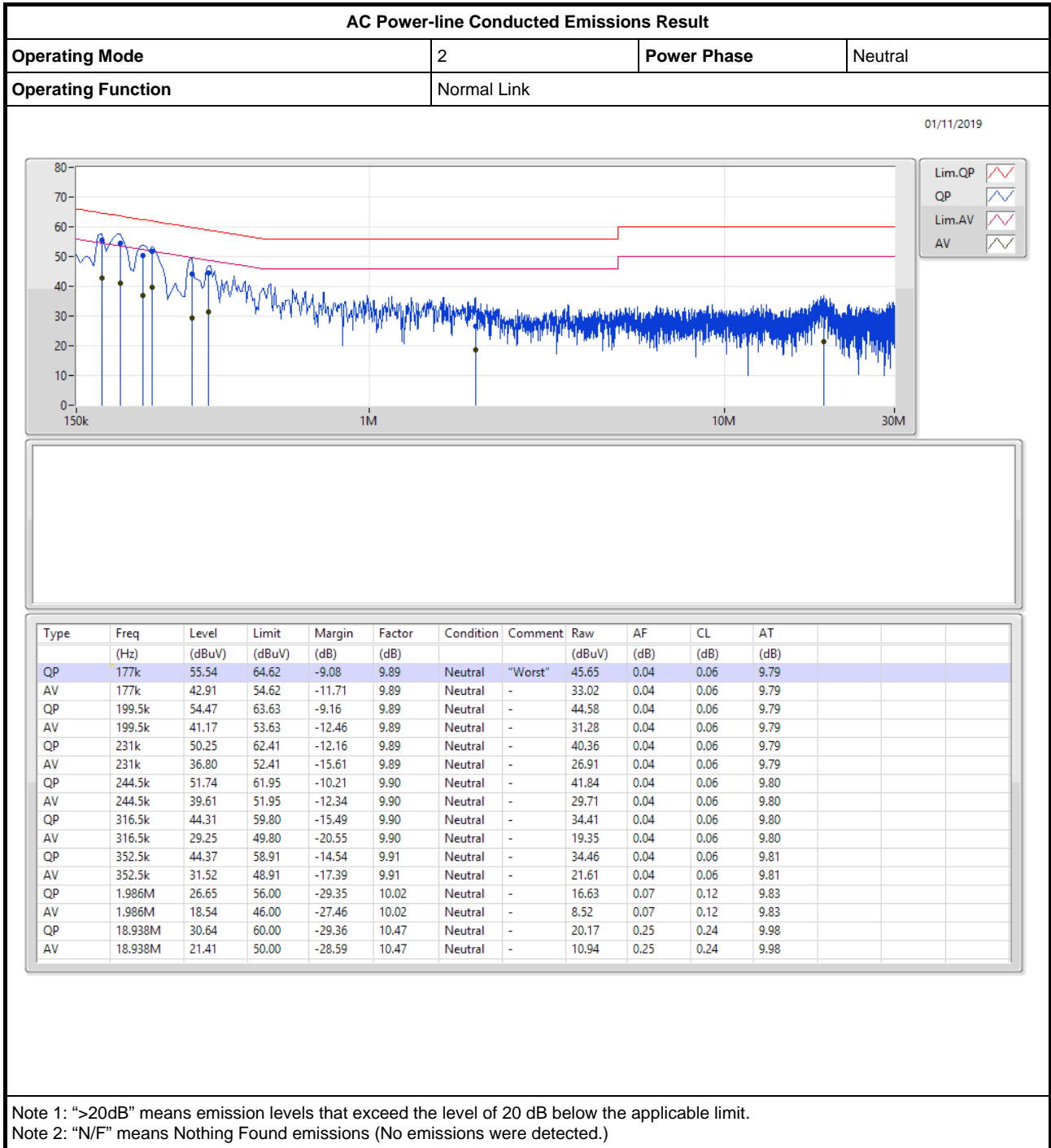
Appendix A





# AC Power-line Conducted Emissions Result

Appendix A





**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	7.55M	10.27M	10M3G1D	7.075M	10.22M
802.11g_Nss1,(6Mbps)_3TX	16.525M	16.542M	16M5D1D	16.4M	16.442M
802.11n HT20_Nss1,(MCS0)_3TX	17.775M	17.766M	17M8D1D	17.625M	17.666M
802.11n HT40_Nss1,(MCS0)_3TX	36.45M	36.332M	36M3D1D	36.35M	36.182M

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

**Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	7.075M	10.22M				
2437MHz	Pass	500k	7.55M	10.245M				
2462MHz	Pass	500k	7.075M	10.27M				
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.45M	16.442M	16.525M	16.542M	16.45M	16.467M
2417MHz								
2437MHz	Pass	500k	16.425M	16.492M	16.525M	16.492M	16.4M	16.517M
2457MHz								
2462MHz	Pass	500k	16.5M	16.517M	16.425M	16.492M	16.475M	16.517M
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.775M	17.716M	17.625M	17.691M	17.65M	17.691M
2417MHz								
2437MHz	Pass	500k	17.75M	17.766M	17.65M	17.691M	17.625M	17.666M
2457MHz								
2462MHz	Pass	500k	17.775M	17.716M	17.625M	17.666M	17.675M	17.666M
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	36.4M	36.232M	36.4M	36.232M	36.35M	36.332M
2427MHz								
2437MHz	Pass	500k	36.45M	36.232M	36.4M	36.232M	36.35M	36.182M
2447MHz								
2452MHz	Pass	500k	36.45M	36.232M	36.35M	36.232M	36.4M	36.282M

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

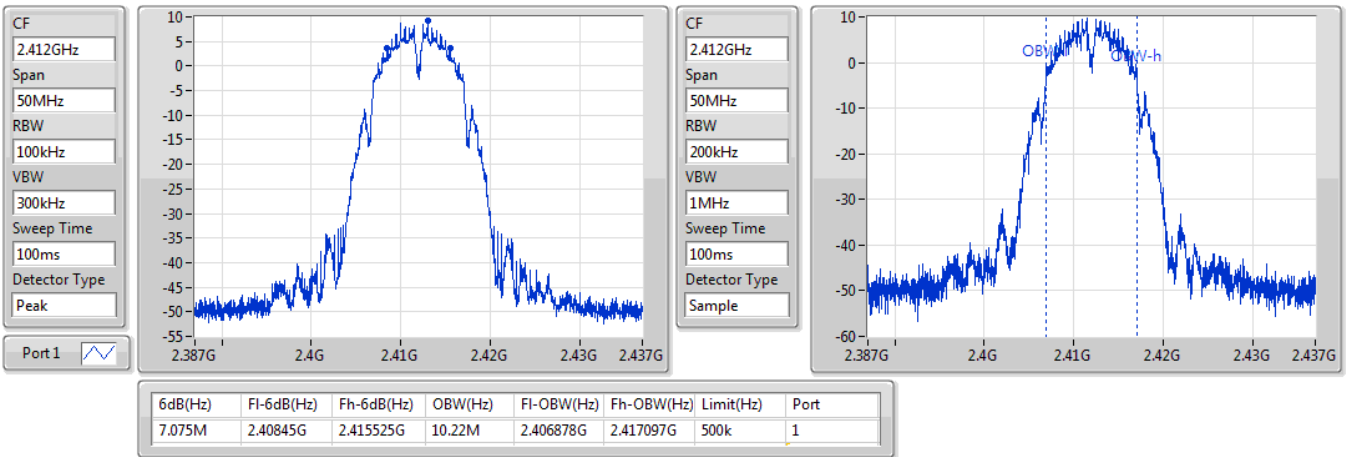


802.11b\_Nss1,(1Mbps)\_1TX

EBW

2412MHz

31/10/2019

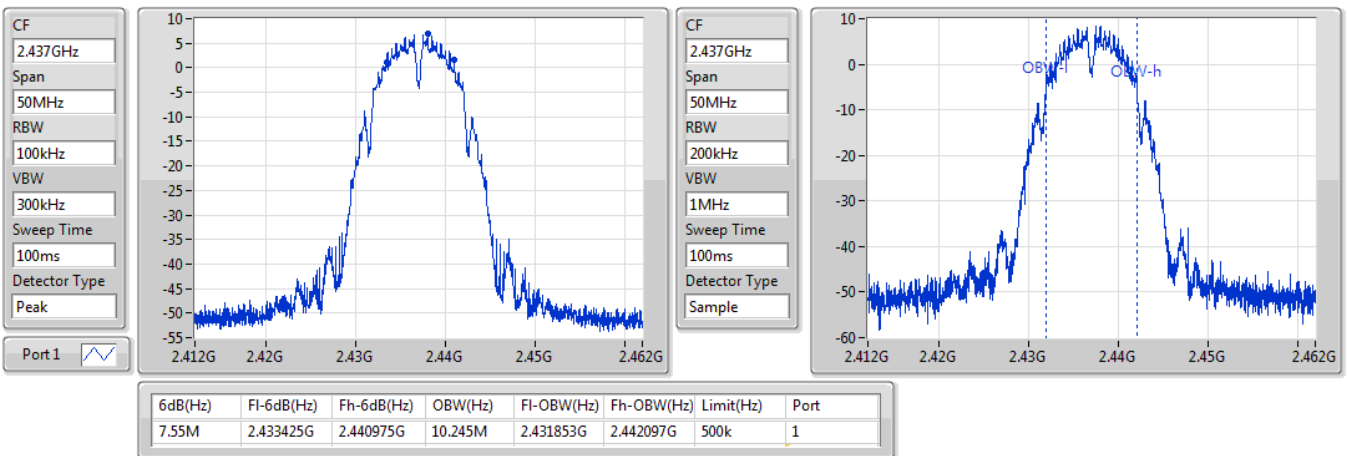


802.11b\_Nss1,(1Mbps)\_1TX

EBW

2437MHz

31/10/2019

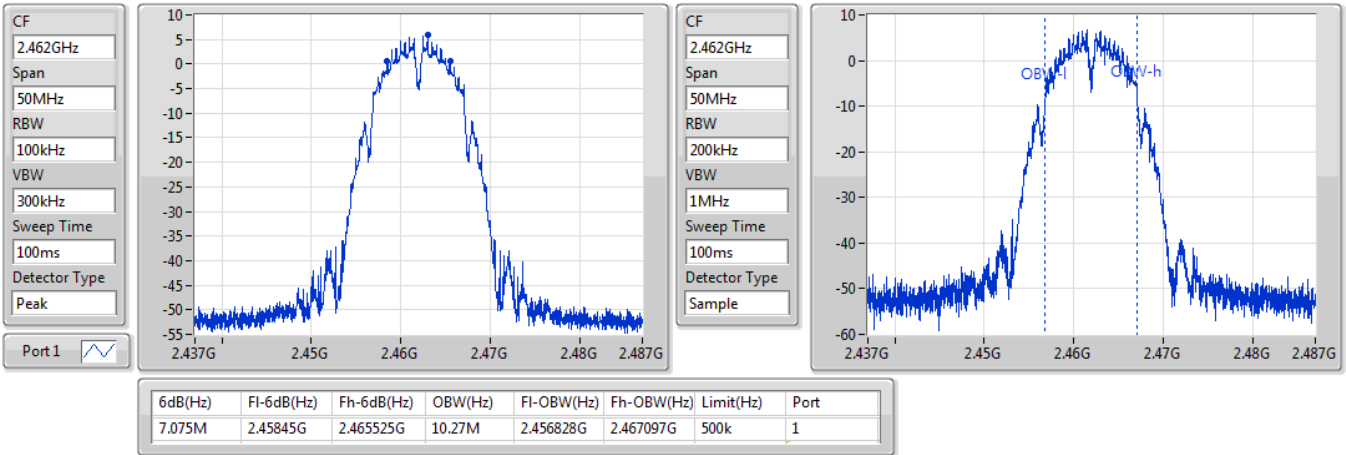


### 802.11b\_Nss1,(1Mbps)\_1TX

EBW

2462MHz

31/10/2019

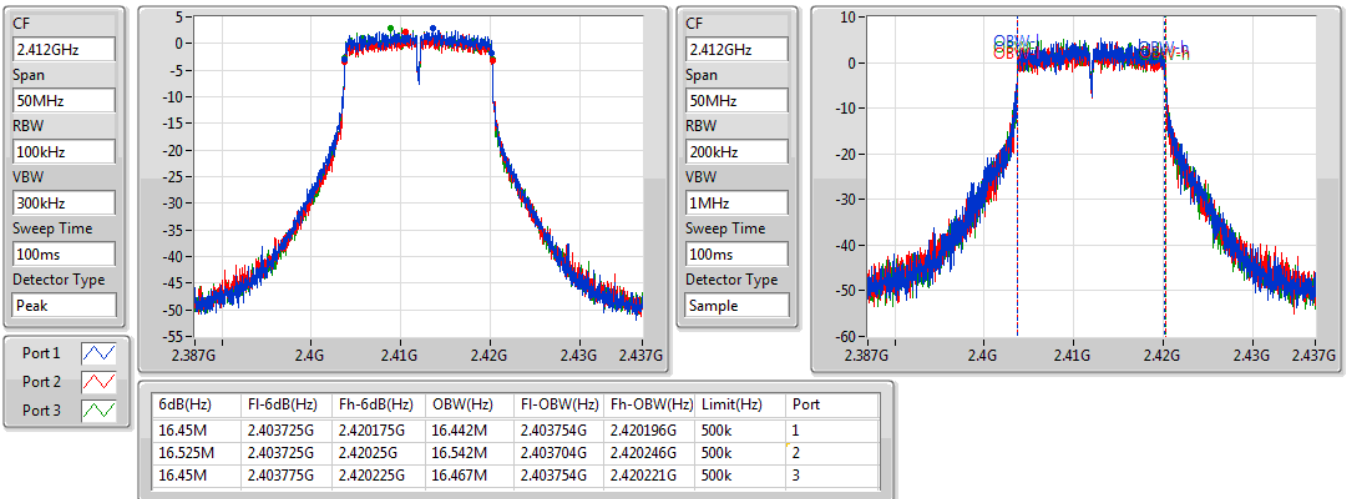


### 802.11g\_Nss1,(6Mbps)\_3TX

EBW

2412MHz

31/10/2019



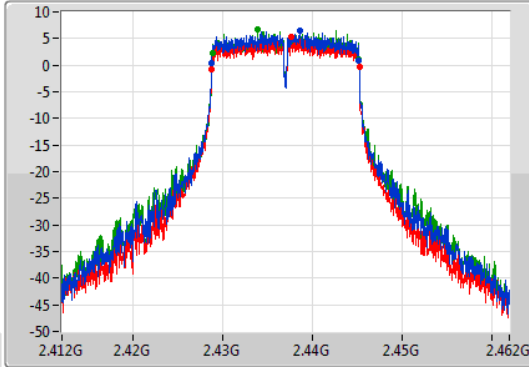
802.11g\_Nss1,(6Mbps)\_3TX

EBW

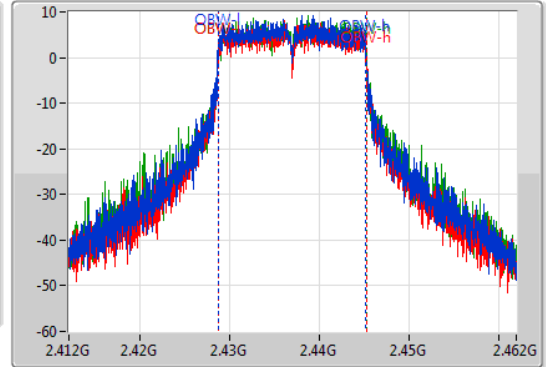
2437MHz

31/10/2019

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  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.425M	2.42875G	2.445175G	16.492M	2.428704G	2.445196G	500k	1
16.525M	2.428725G	2.44525G	16.492M	2.428729G	2.445221G	500k	2
16.4M	2.4288G	2.4452G	16.517M	2.428729G	2.445246G	500k	3

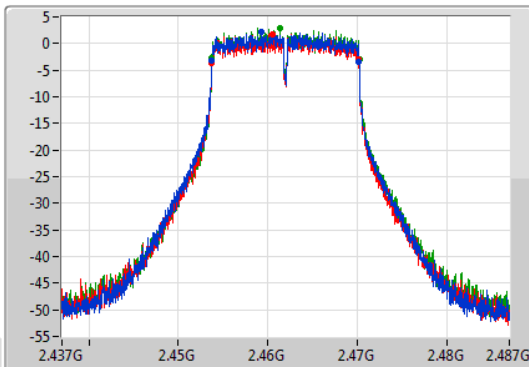
802.11g\_Nss1,(6Mbps)\_3TX

EBW

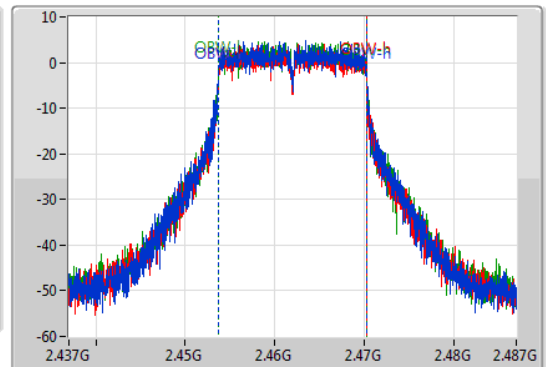
2462MHz

31/10/2019

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  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.5M	2.4537G	2.4702G	16.517M	2.453704G	2.470221G	500k	1
16.425M	2.45375G	2.470175G	16.492M	2.453729G	2.470221G	500k	2
16.475M	2.453775G	2.47025G	16.517M	2.453704G	2.470221G	500k	3

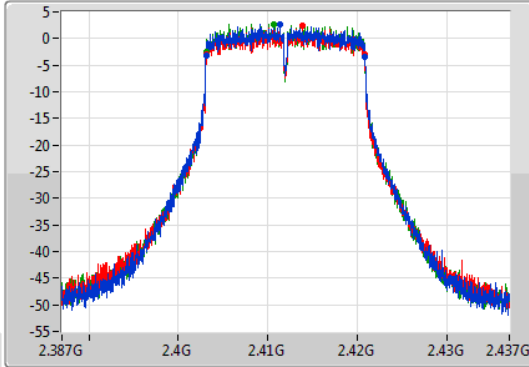
802.11n HT20\_Nss1,(MCS0)\_3TX

EBW

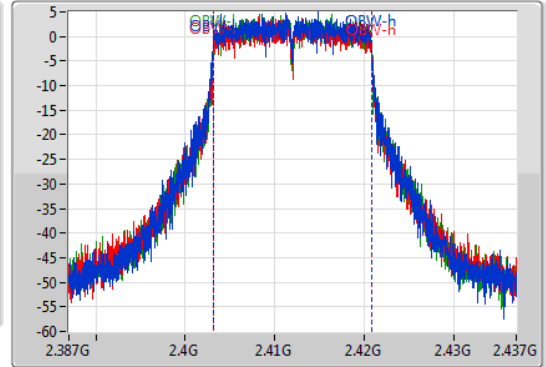
2412MHz

31/10/2019

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  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.775M	2.4031G	2.420875G	17.716M	2.403104G	2.420821G	500k	1
17.625M	2.403175G	2.4208G	17.691M	2.403129G	2.420821G	500k	2
17.65M	2.403175G	2.420825G	17.691M	2.403129G	2.420821G	500k	3

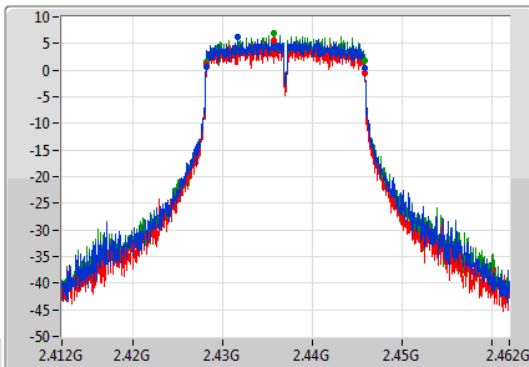
802.11n HT20\_Nss1,(MCS0)\_3TX

EBW

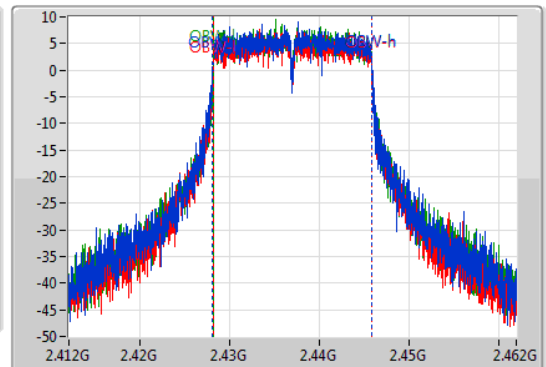
2437MHz

31/10/2019

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  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.75M	2.428125G	2.445875G	17.766M	2.428054G	2.445821G	500k	1
17.65M	2.428175G	2.445825G	17.691M	2.428104G	2.445796G	500k	2
17.625M	2.428175G	2.4458G	17.666M	2.428154G	2.445821G	500k	3

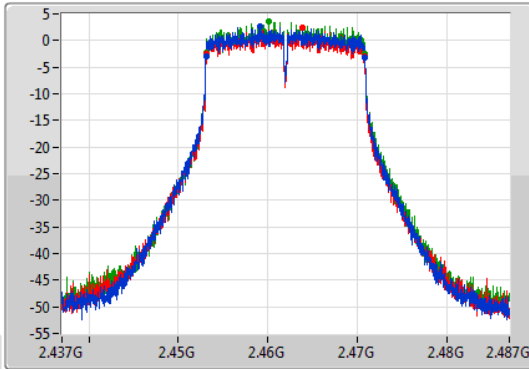
802.11n HT20\_Nss1,(MCS0)\_3TX

EBW

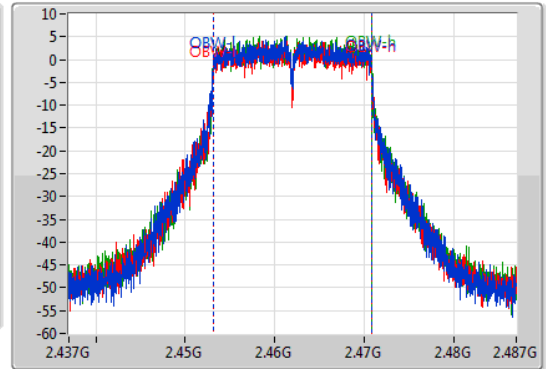
2462MHz

31/10/2019

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  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.775M	2.4531G	2.470875G	17.716M	2.453104G	2.470821G	500k	1
17.625M	2.453175G	2.4708G	17.666M	2.453129G	2.470796G	500k	2
17.675M	2.45315G	2.470825G	17.666M	2.453129G	2.470796G	500k	3

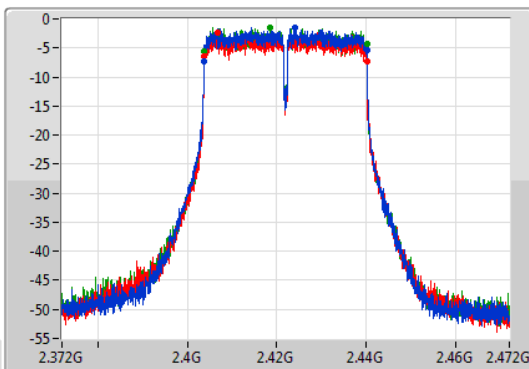
802.11n HT40\_Nss1,(MCS0)\_3TX

EBW

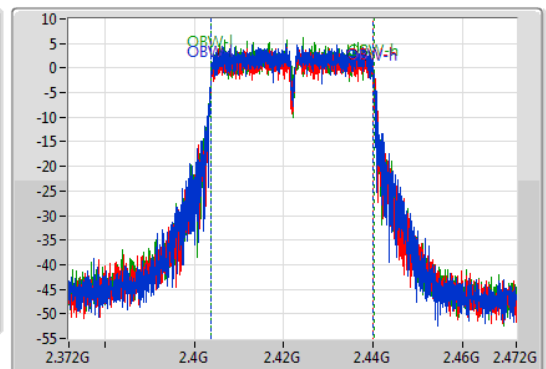
2422MHz

31/10/2019

CF  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
2.422GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



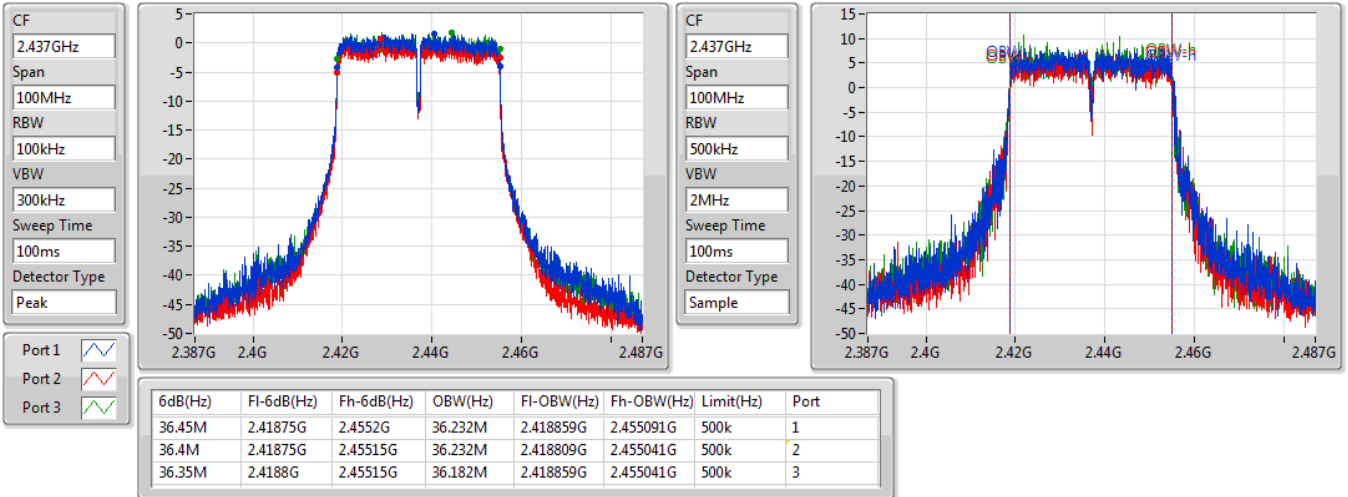
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.4M	2.40375G	2.44015G	36.232M	2.403859G	2.440091G	500k	1
36.4M	2.4038G	2.4402G	36.232M	2.403859G	2.440091G	500k	2
36.35M	2.4038G	2.44015G	36.332M	2.403859G	2.440191G	500k	3

802.11n HT40\_Nss1,(MCS0)\_3TX

EBW

2437MHz

31/10/2019

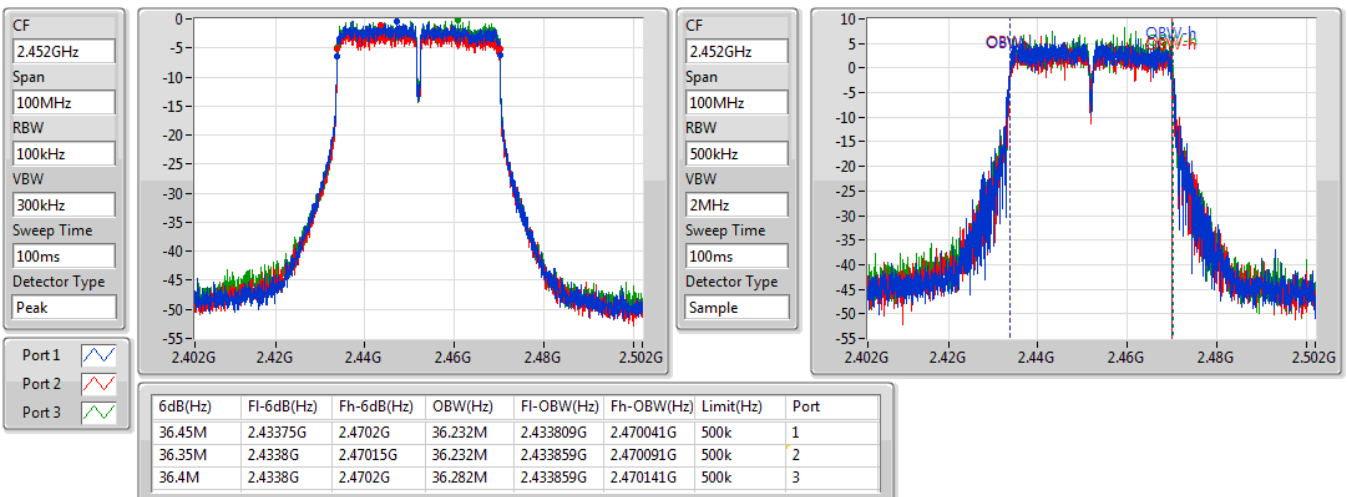


802.11n HT40\_Nss1,(MCS0)\_3TX

EBW

2452MHz

31/10/2019





**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	17.77	0.05984
802.11g_Nss1,(6Mbps)_3TX	24.73	0.29717
802.11n HT20_Nss1,(MCS0)_3TX	25.06	0.32063
802.11n HT40_Nss1,(MCS0)_3TX	23.57	0.22751



## Average Power Result

### Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.50	17.77			17.77	30.00
2437MHz	Pass	2.50	16.27			16.27	30.00
2462MHz	Pass	2.50	14.59			14.59	30.00
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	2.50	16.97	16.28	16.68	21.42	30.00
2417MHz	Pass	2.50	17.91	17.01	17.61	22.30	30.00
2437MHz	Pass	2.50	20.33	19.33	20.15	24.73	30.00
2457MHz	Pass	2.50	17.98	17.09	18.17	22.54	30.00
2462MHz	Pass	2.50	16.44	15.82	16.70	21.11	30.00
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	2.50	16.80	16.17	16.69	21.33	30.00
2417MHz	Pass	2.50	18.73	17.91	18.61	23.20	30.00
2437MHz	Pass	2.50	20.55	19.76	20.50	25.06	30.00
2457MHz	Pass	2.50	18.32	17.56	18.67	22.98	30.00
2462MHz	Pass	2.50	16.74	16.22	17.15	21.49	30.00
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	2.50	16.07	15.16	15.83	20.47	30.00
2427MHz	Pass	2.50	17.37	16.45	17.09	21.76	30.00
2437MHz	Pass	2.50	19.21	18.08	19.03	23.57	30.00
2447MHz	Pass	2.50	17.69	16.78	17.67	22.17	30.00
2452MHz	Pass	2.50	17.12	16.24	17.16	21.63	30.00

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





**Summary**

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-6.04
802.11g_Nss1,(6Mbps)_3TX	-4.31
802.11n HT20_Nss1,(MCS0)_3TX	-3.41
802.11n HT40_Nss1,(MCS0)_3TX	-6.85

RBW=3 kHz.

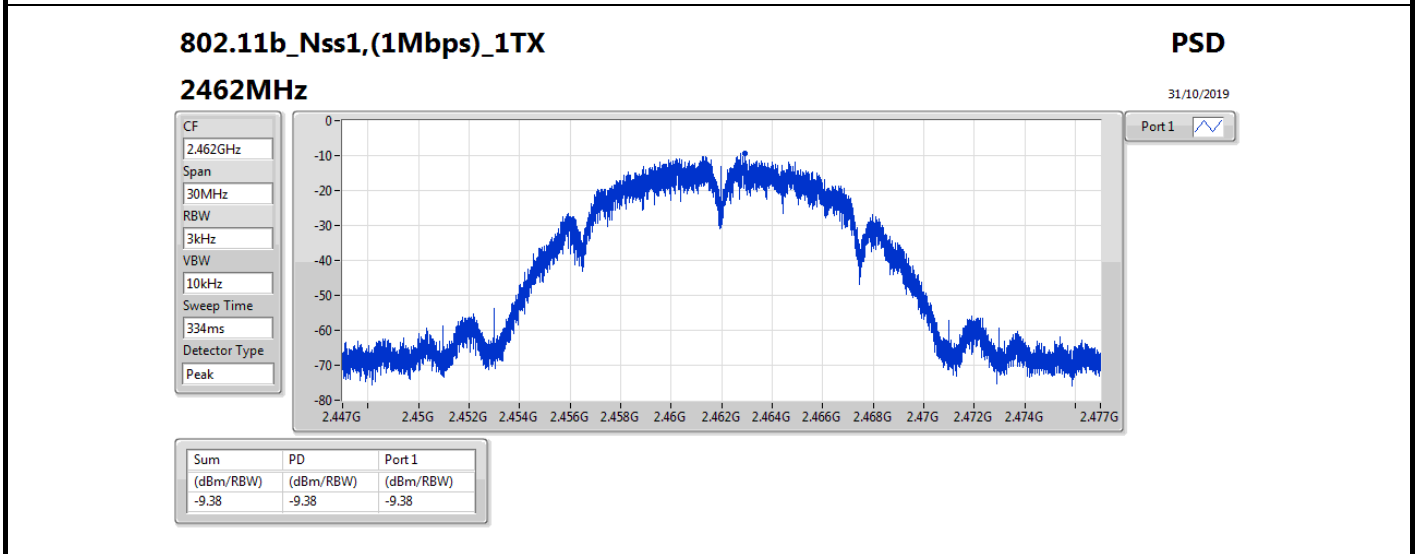
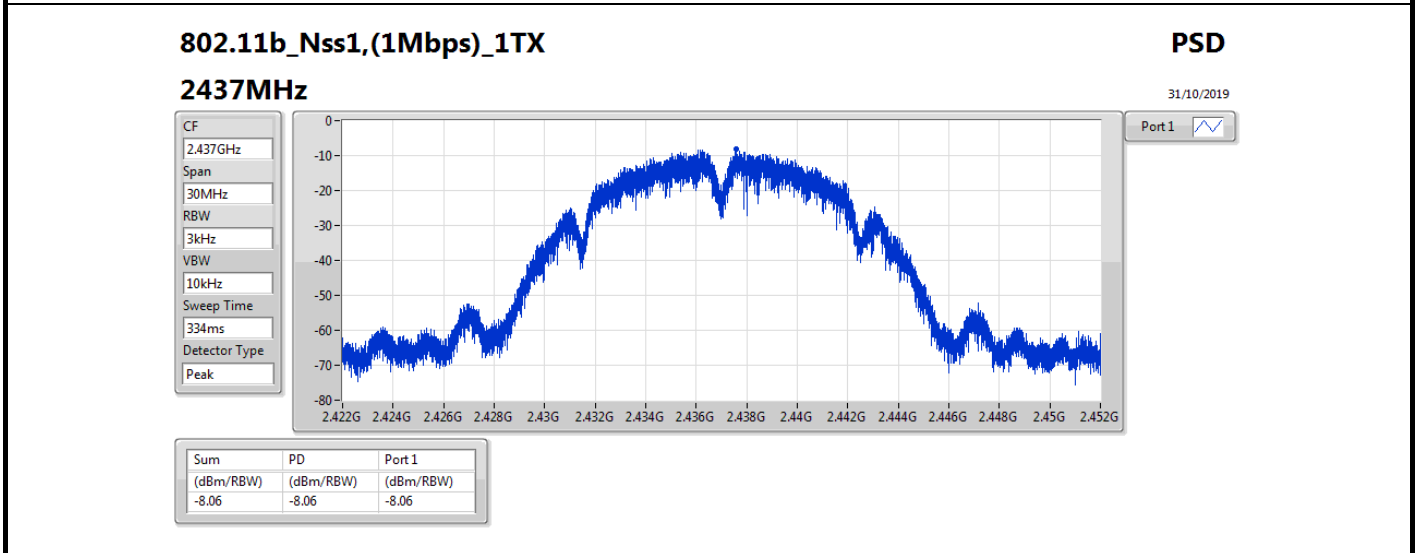
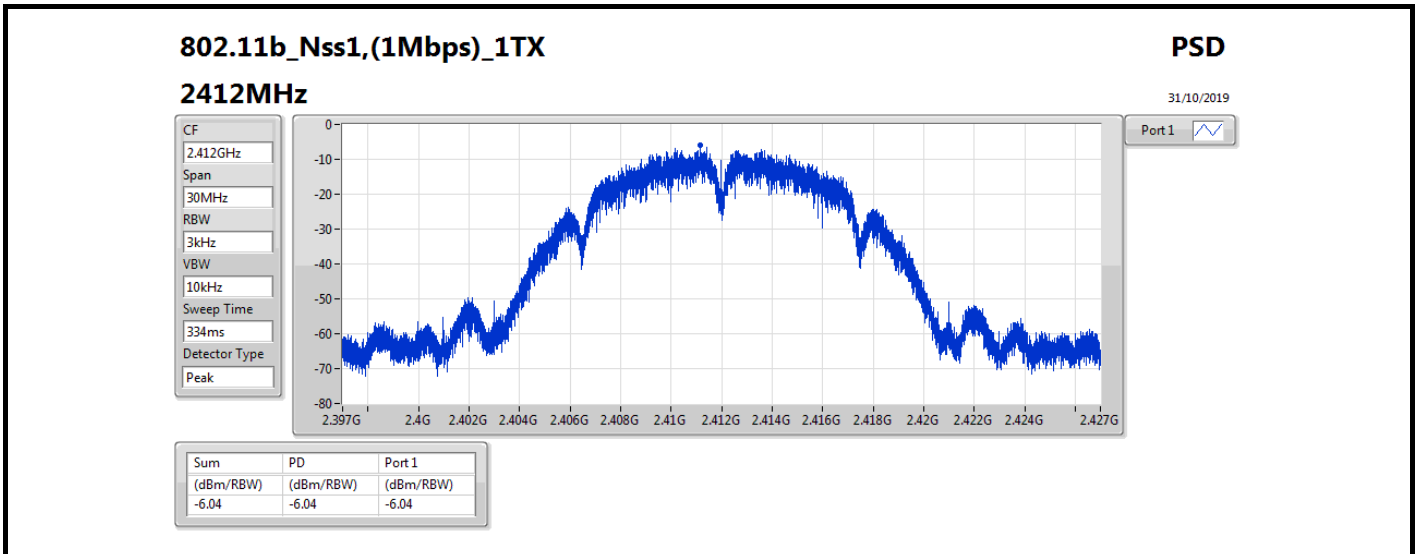


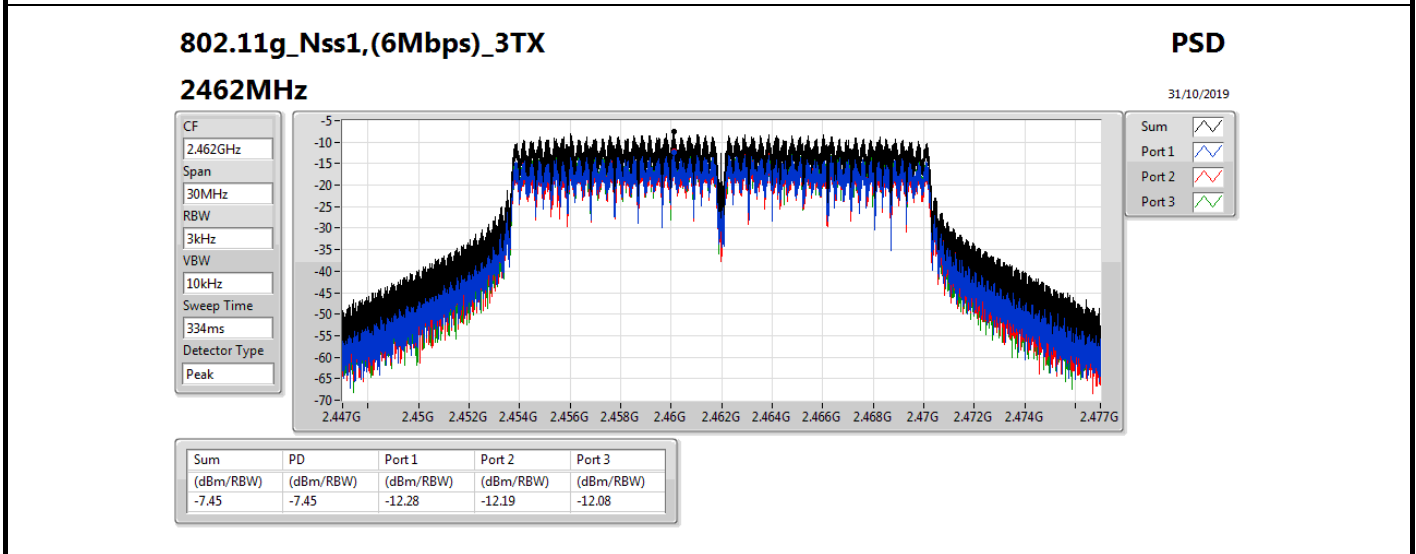
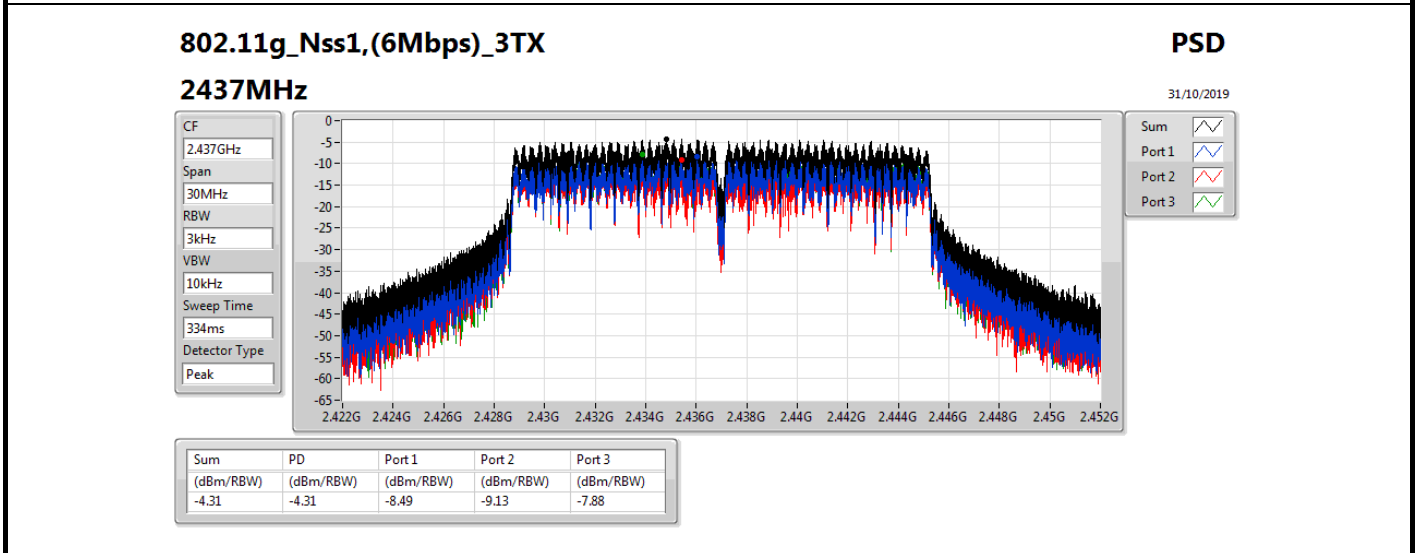
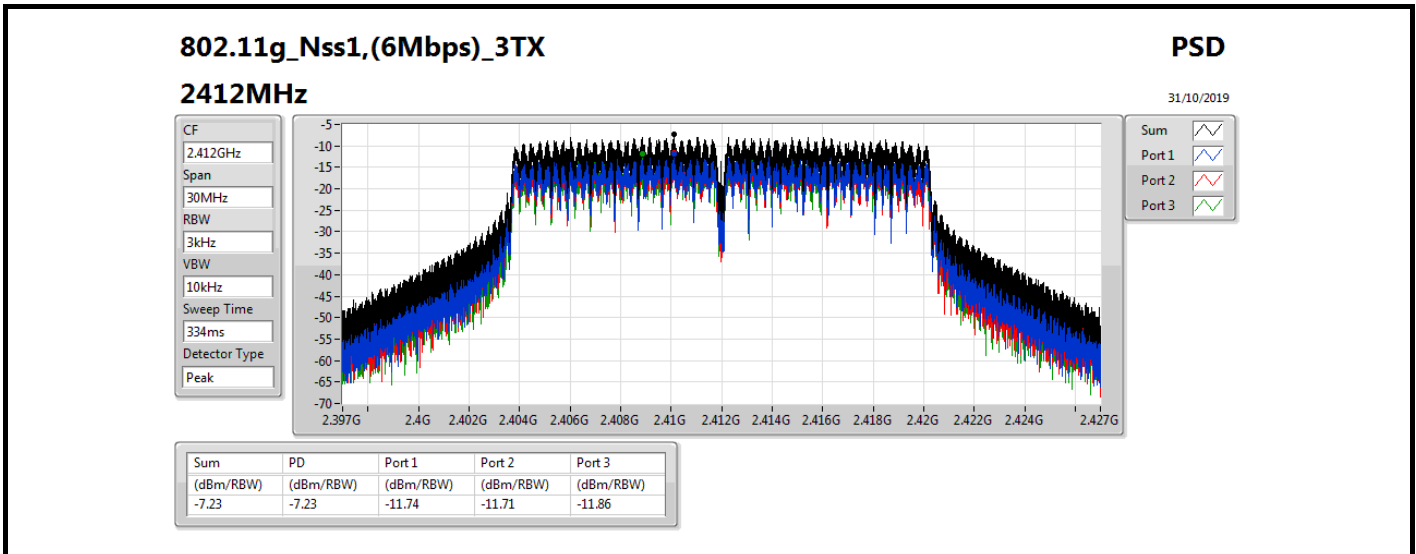
Result

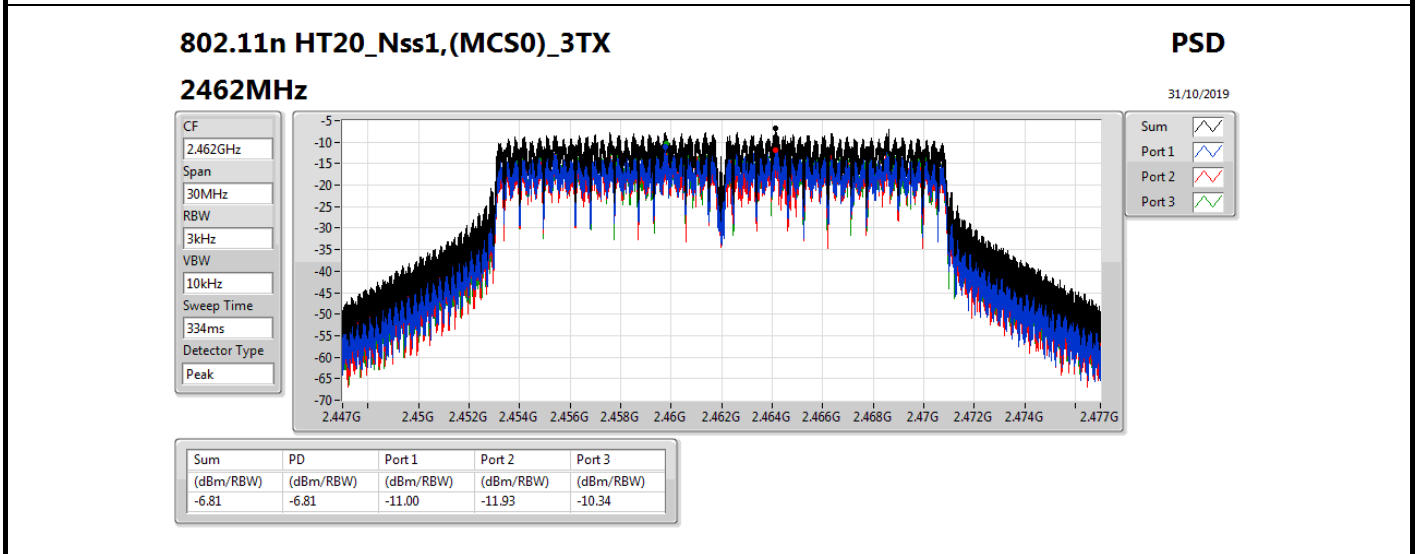
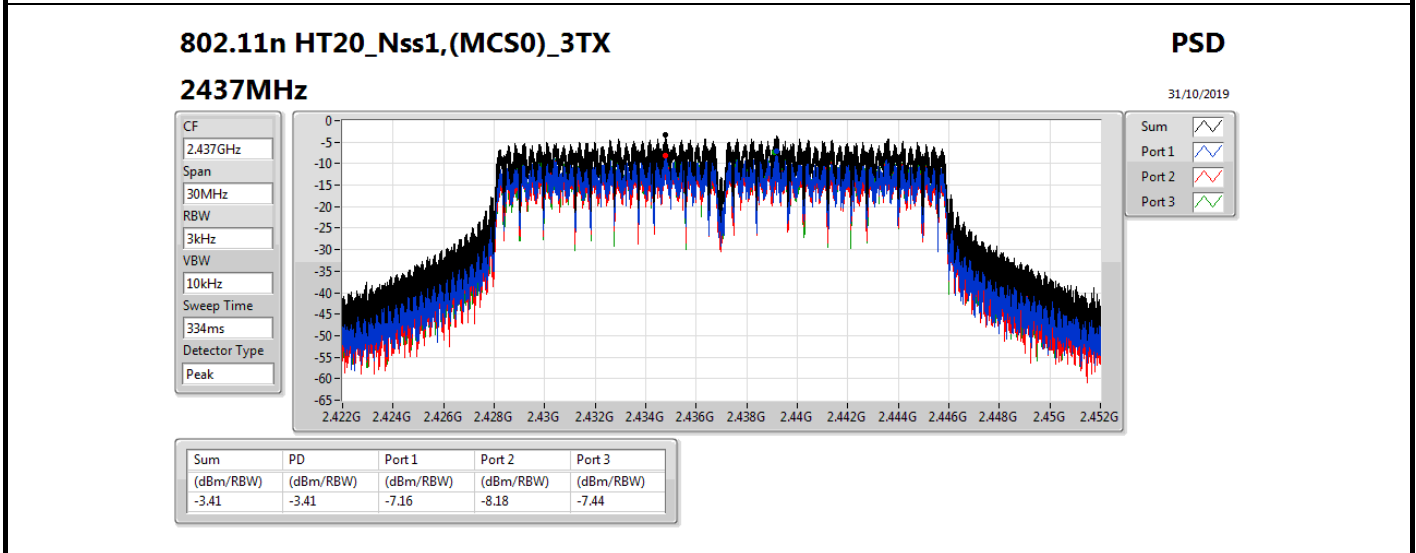
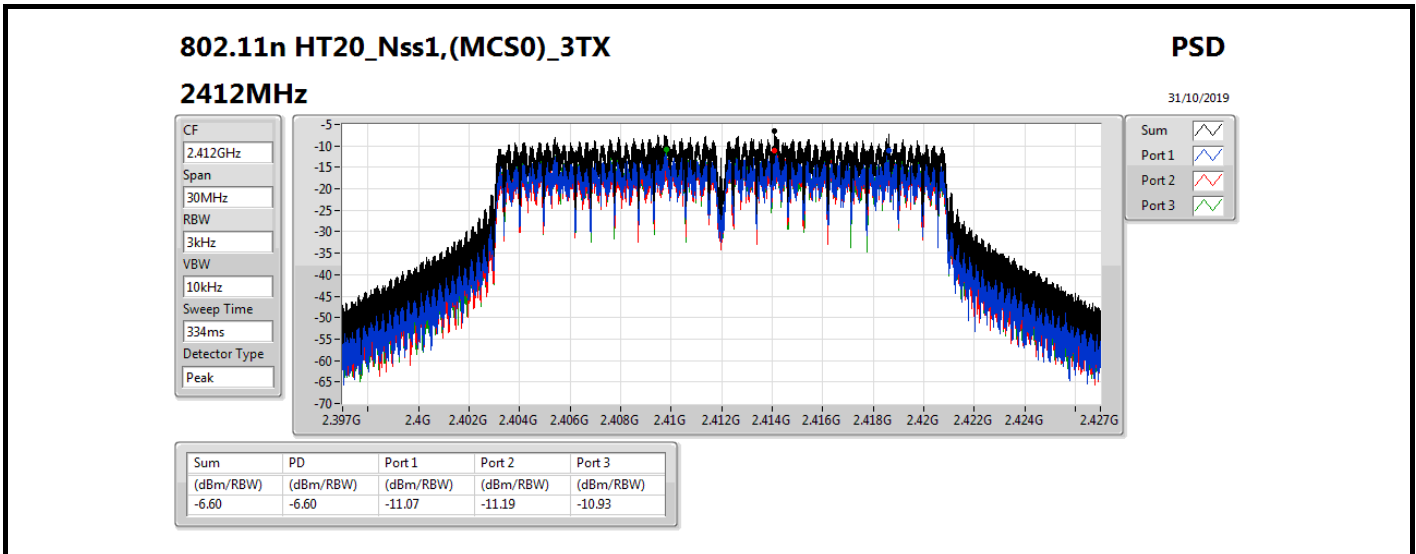
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-
2412MHz	Pass	2.50	-6.04			-6.04	8.00
2437MHz	Pass	2.50	-8.06			-8.06	8.00
2462MHz	Pass	2.50	-9.38			-9.38	8.00
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	7.27	-11.74	-11.71	-11.86	-7.23	6.73
2417MHz							
2437MHz	Pass	7.27	-8.49	-9.13	-7.88	-4.31	6.73
2457MHz							
2462MHz	Pass	7.27	-12.28	-12.19	-12.08	-7.45	6.73
802.11n HT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	7.27	-11.07	-11.19	-10.93	-6.60	6.73
2417MHz							
2437MHz	Pass	7.27	-7.16	-8.18	-7.44	-3.41	6.73
2457MHz							
2462MHz	Pass	7.27	-11.00	-11.93	-10.34	-6.81	6.73
802.11n HT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	7.27	-14.28	-14.71	-14.34	-10.87	6.73
2427MHz							
2437MHz	Pass	7.27	-10.70	-11.79	-10.83	-6.85	6.73
2447MHz							
2452MHz	Pass	7.27	-12.86	-14.13	-12.39	-8.87	6.73

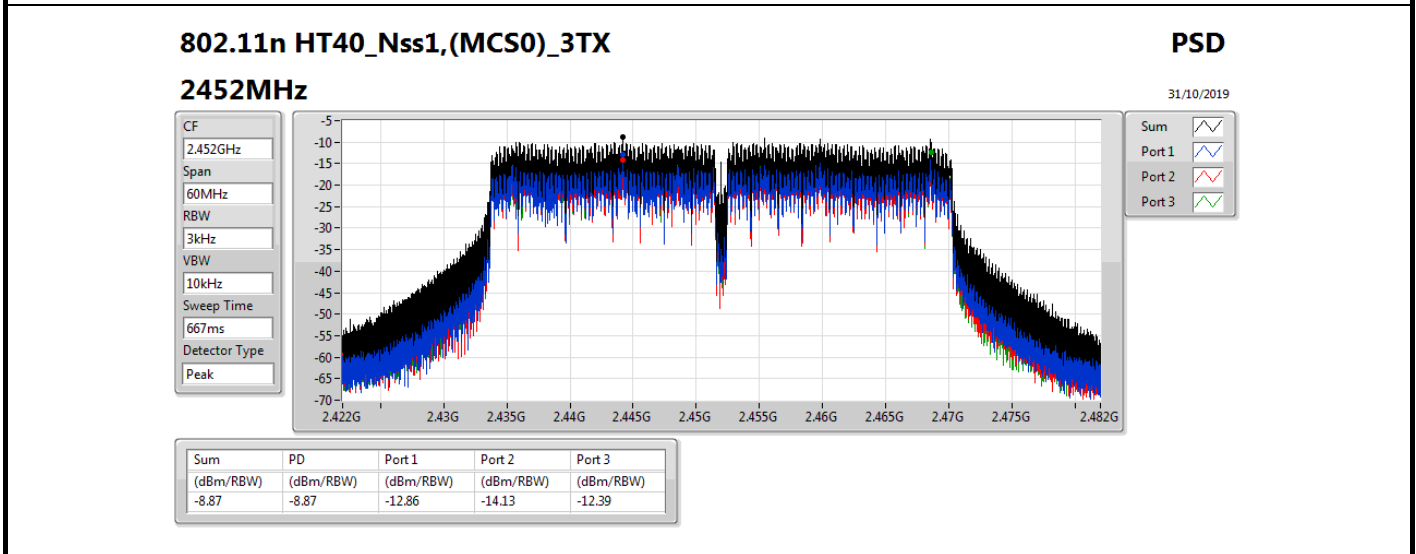
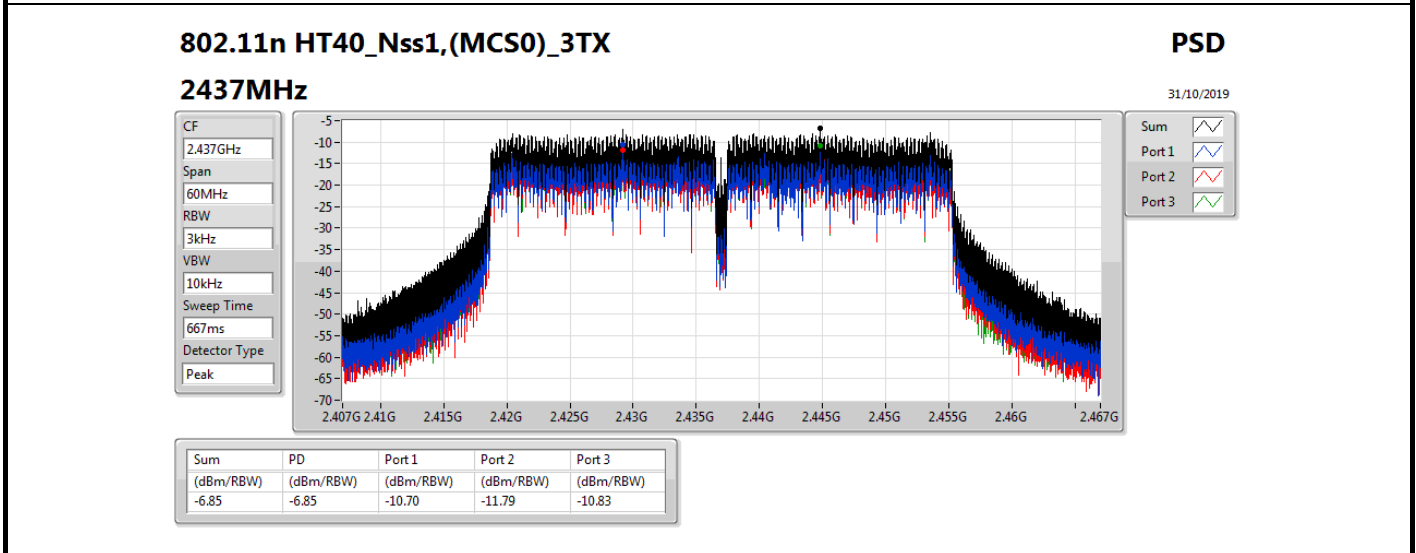
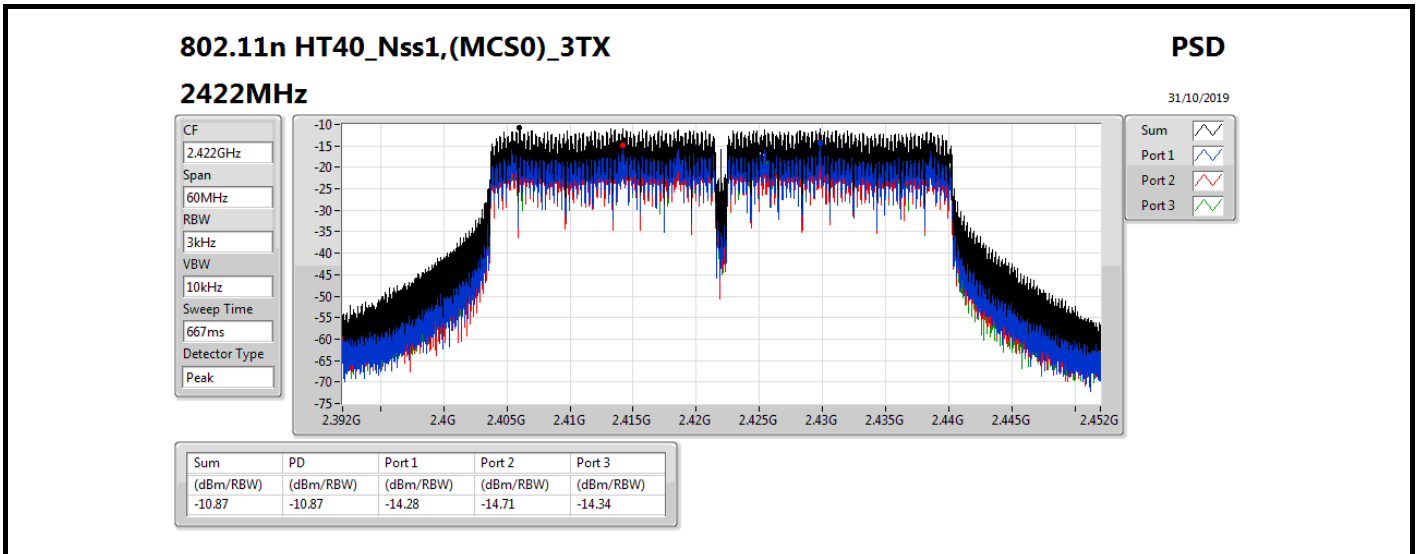
DG = Directional Gain; RBW=3 kHz;

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)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.41294G	9.58	-20.42	2.3035G	-48.78	2.3985G	-40.44	2.51138G	-46.08	16.49826G	-41.05	1
802.11g_Nss1,(6Mbps)_3TX	Pass	2.43386G	6.79	-23.21	2.30466G	-48.78	2.39962G	-27.17	2.48548G	-47.07	16.56007G	-42.21	1
802.11n HT20_Nss1,(MCS0)_3TX	Pass	2.43511G	6.92	-23.08	2.30554G	-51.43	2.39982G	-26.20	2.52338G	-46.58	17.62209G	-41.93	2
802.11n HT40_Nss1,(MCS0)_3TX	Pass	2.44572G	1.95	-28.05	2.30941G	-50.43	2.39984G	-29.69	2.51482G	-47.54	17.62681G	-42.20	3



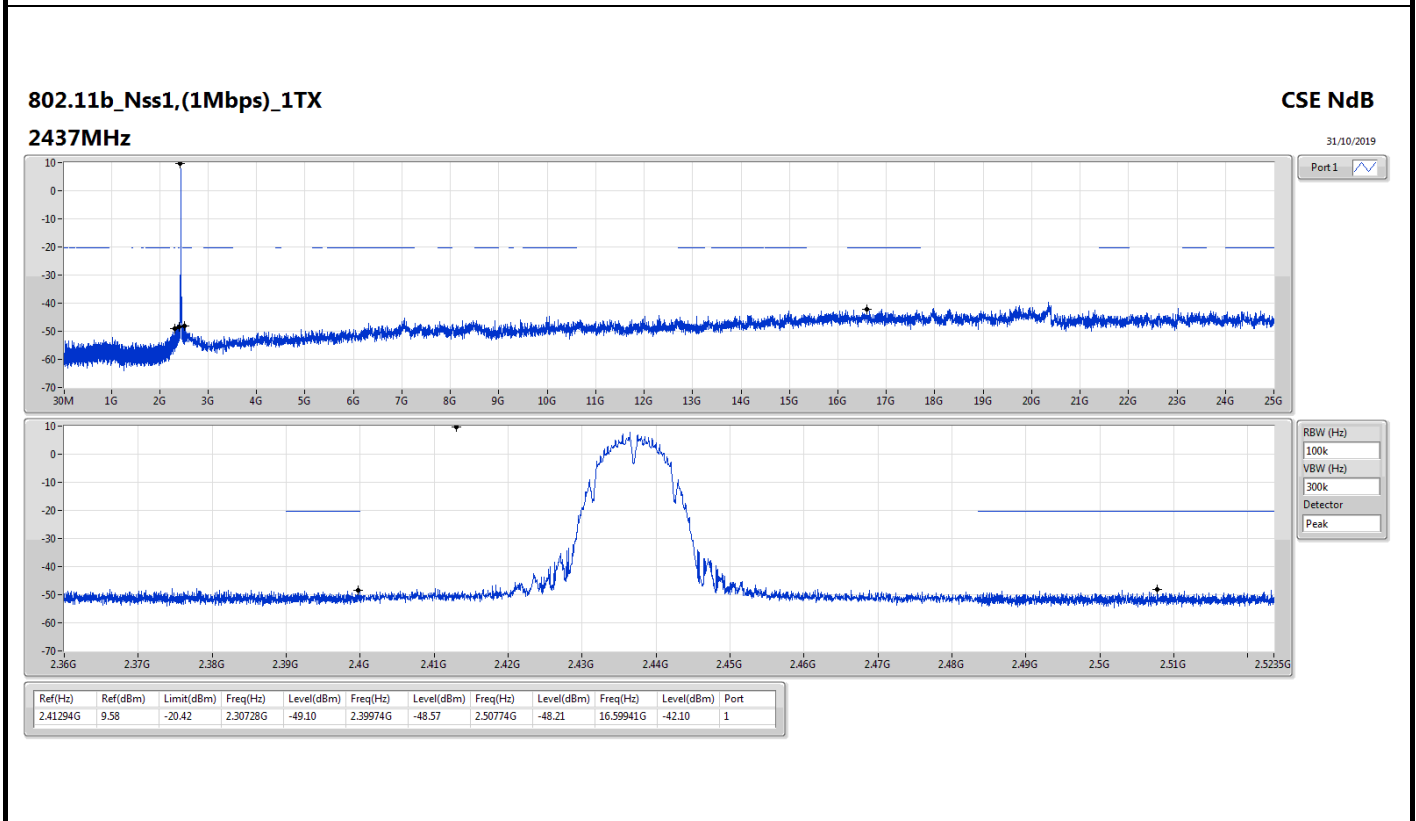
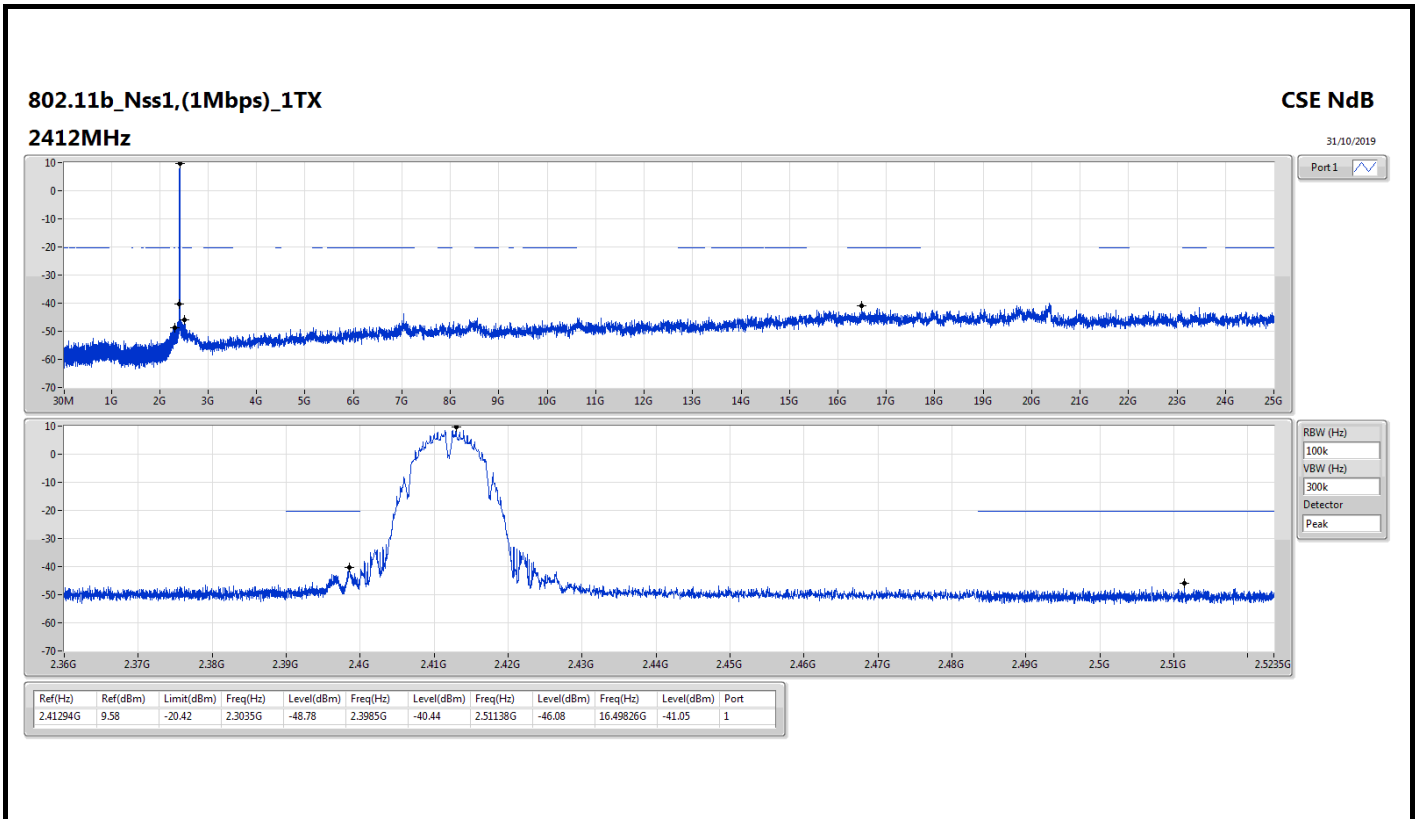
**CSE(Non-restricted Band) Result**

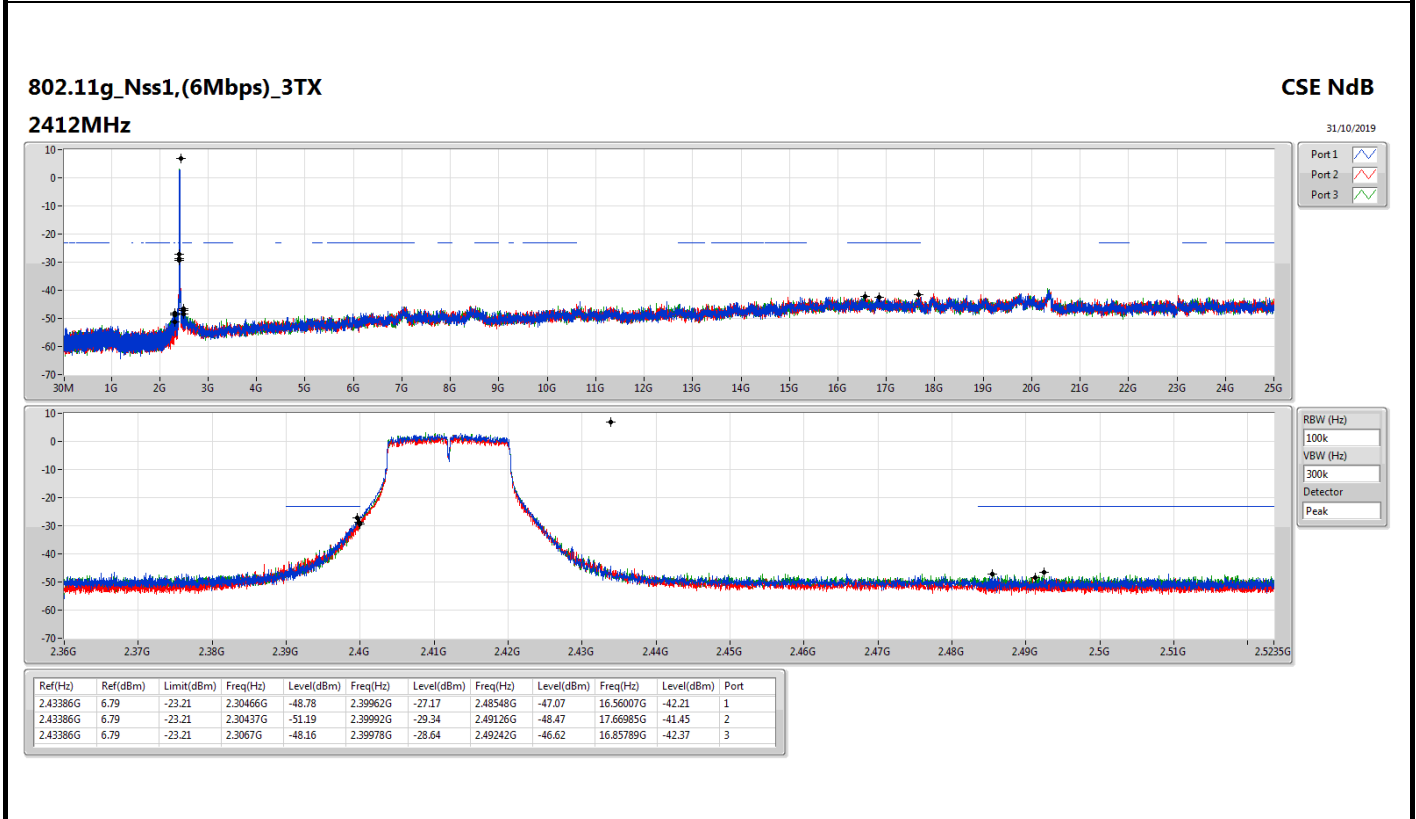
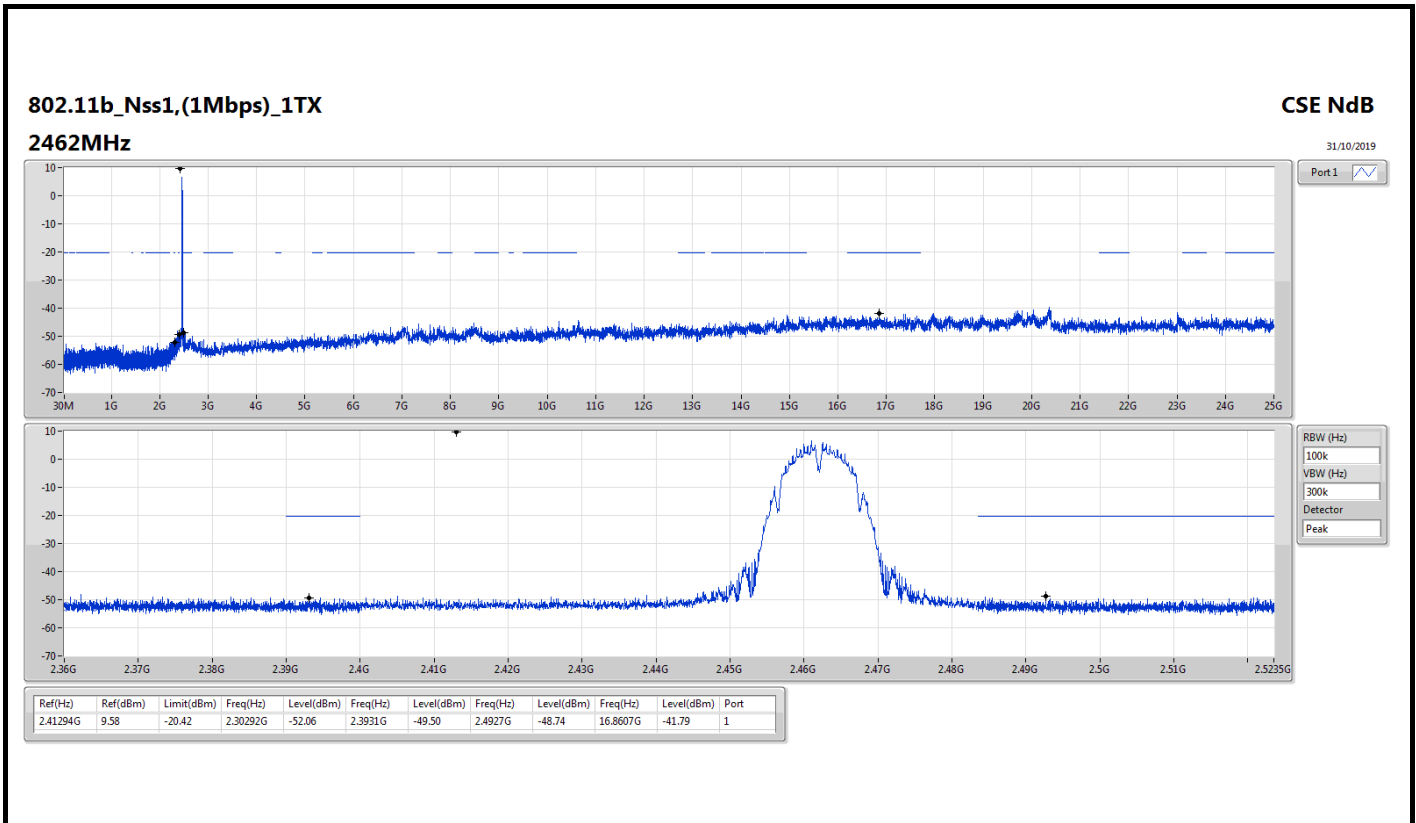
Appendix E

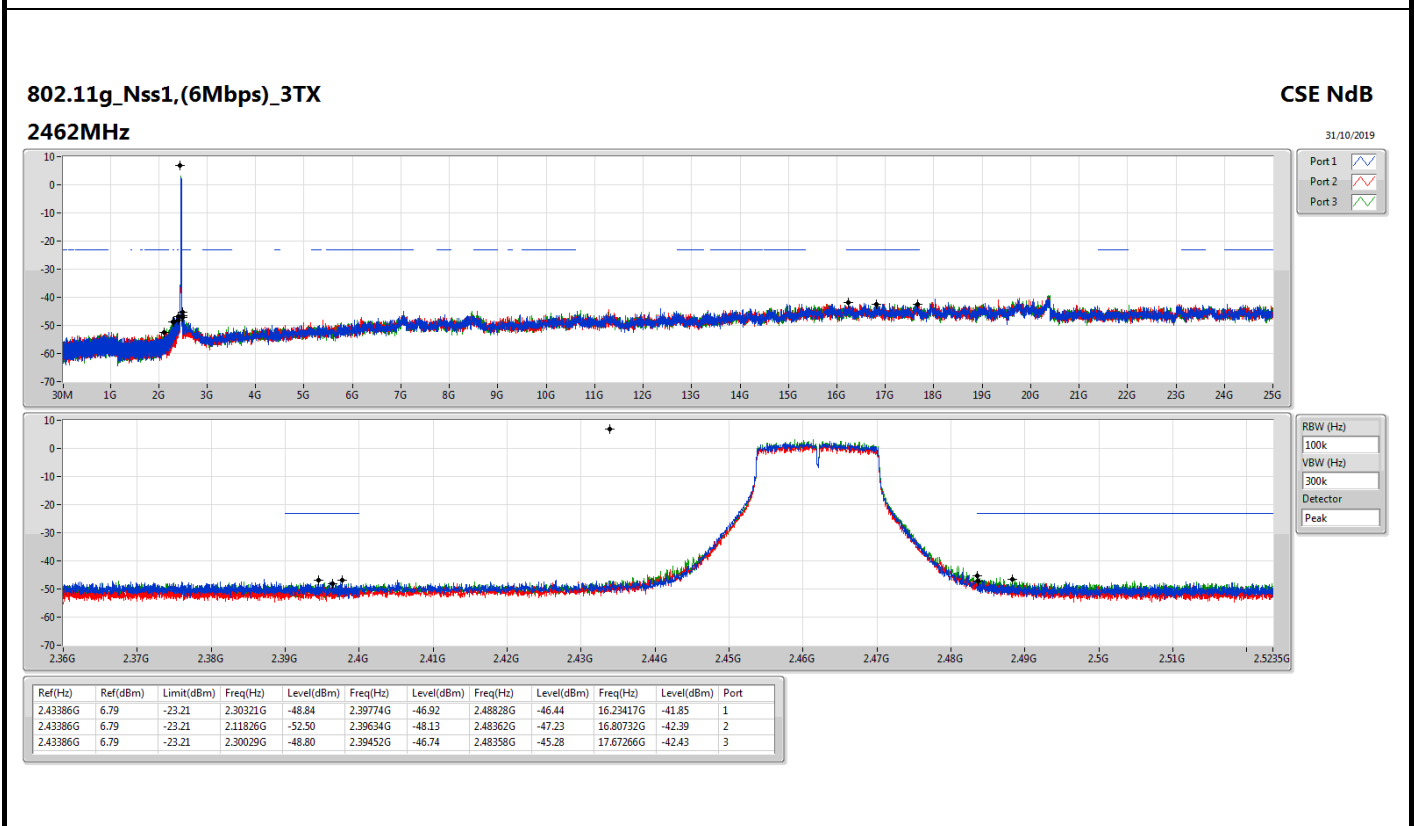
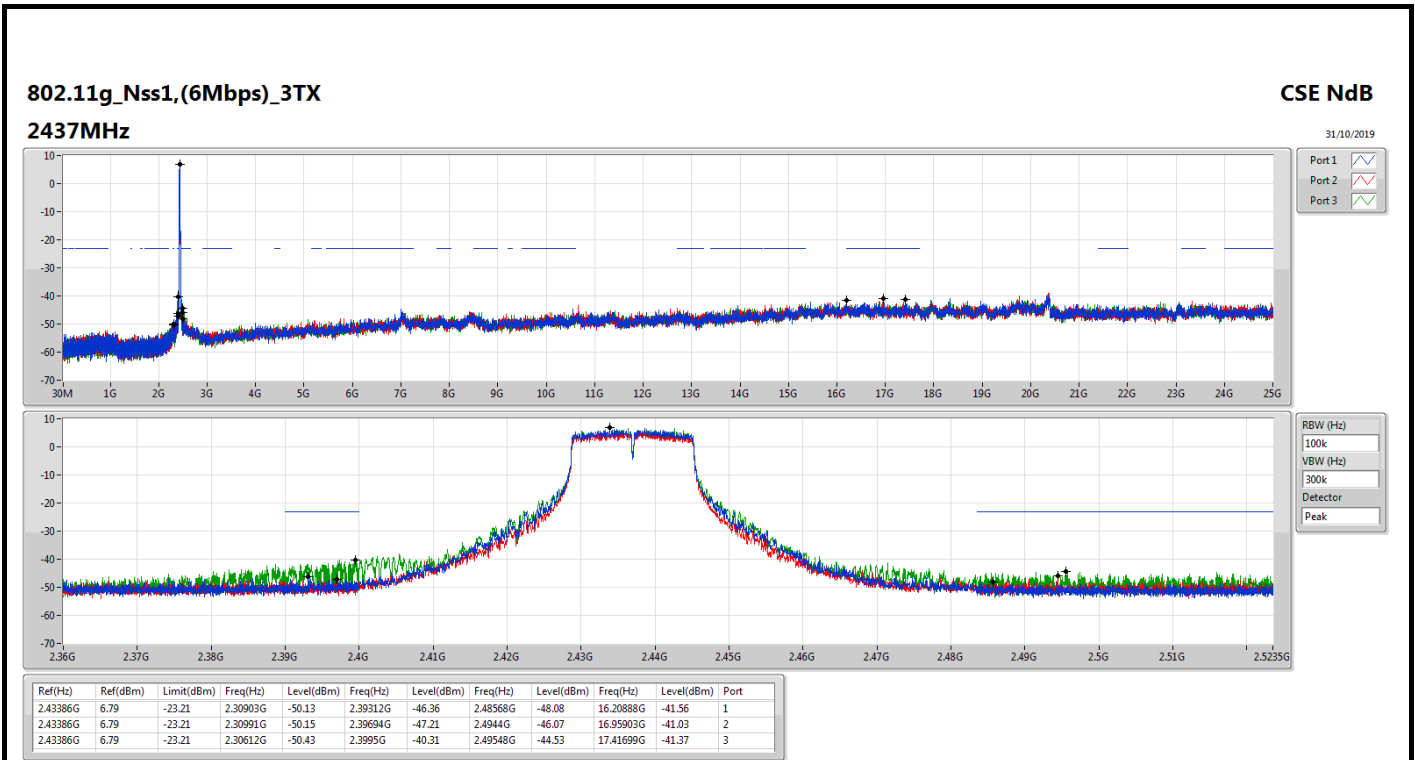
**Result**

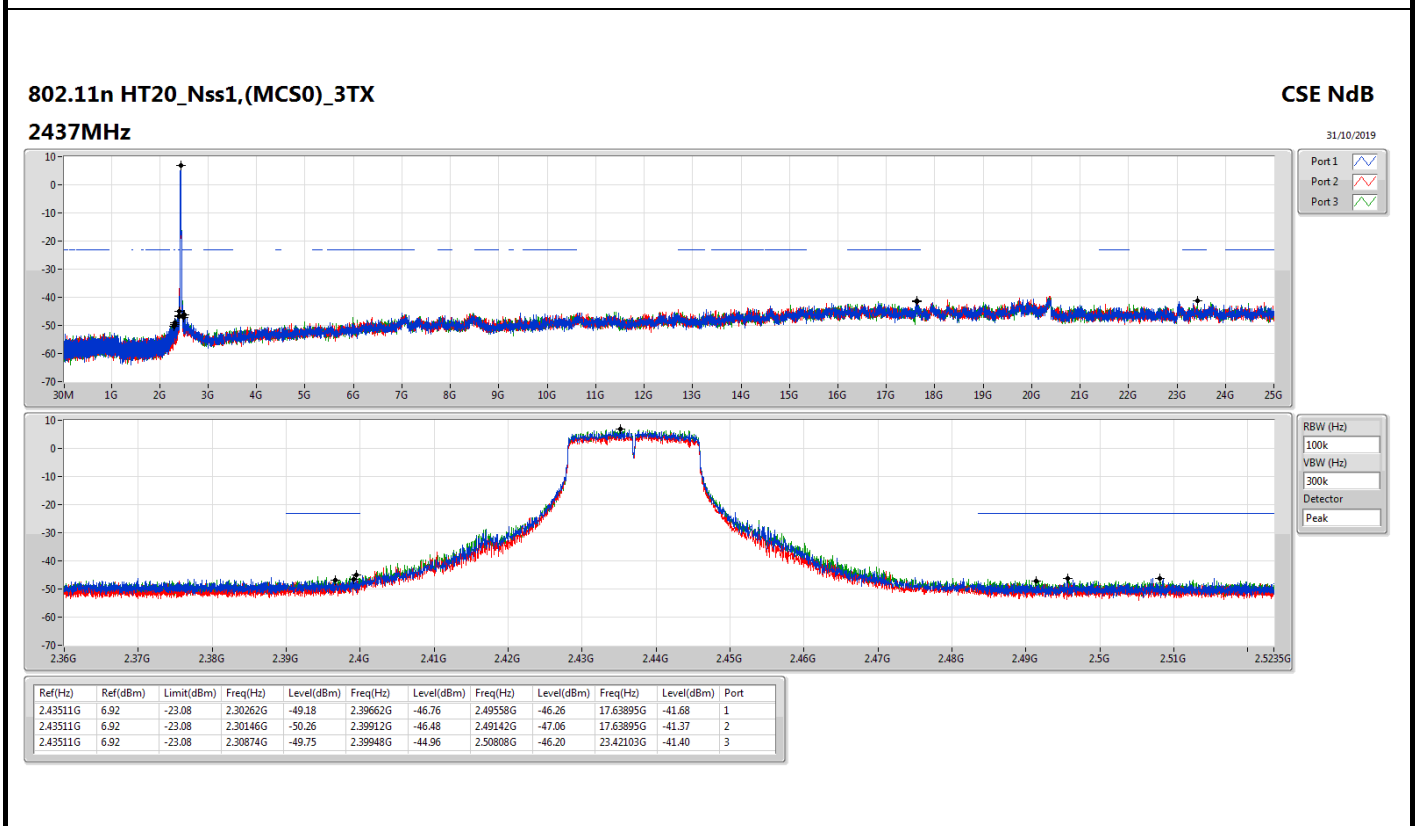
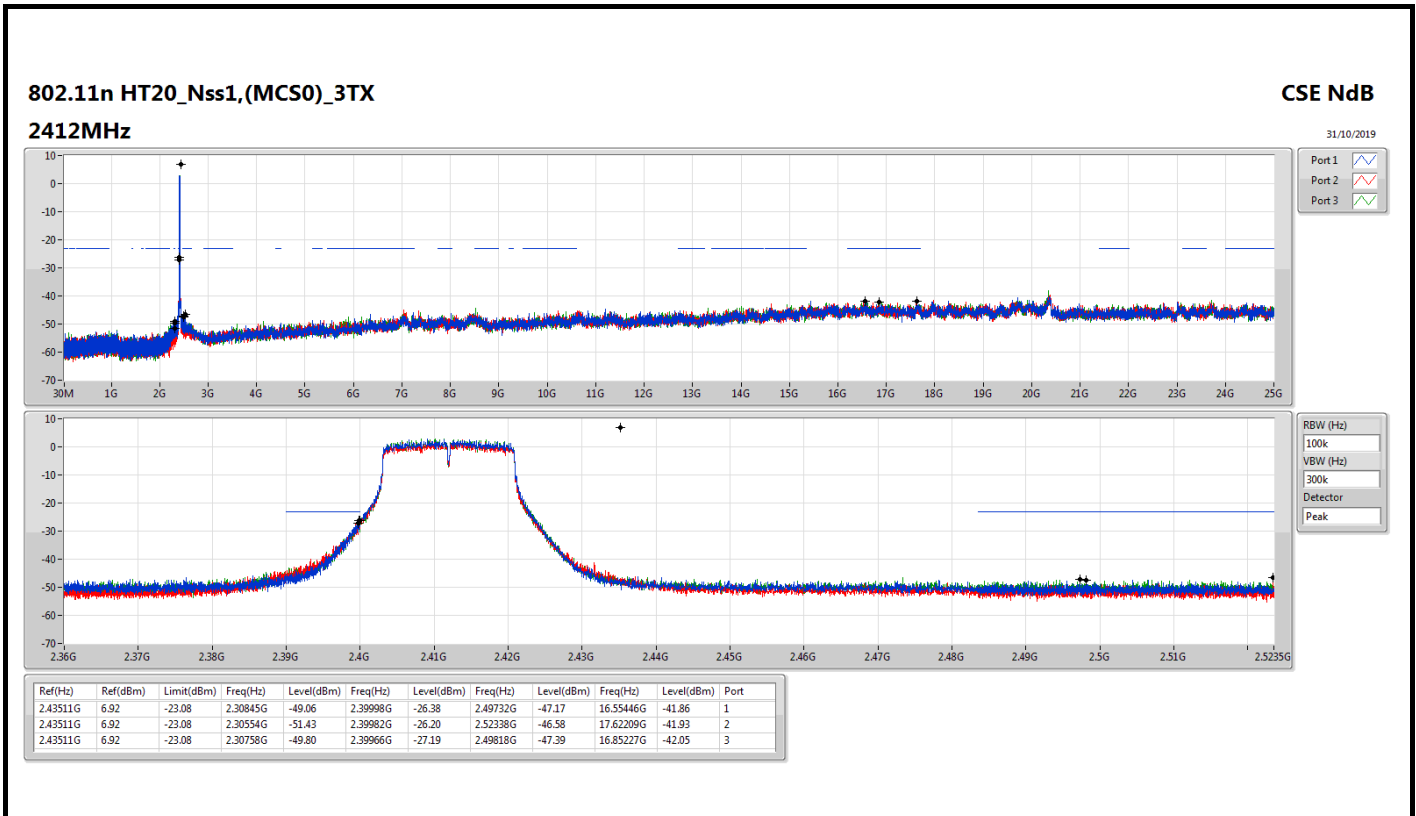
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.41294G	9.58	-20.42	2.3035G	-48.78	2.3985G	-40.44	2.51138G	-46.08	16.49826G	-41.05	1
2437MHz	Pass	2.41294G	9.58	-20.42	2.30728G	-49.10	2.39974G	-48.57	2.50774G	-48.21	16.59941G	-42.10	1
2462MHz	Pass	2.41294G	9.58	-20.42	2.30292G	-52.06	2.3931G	-49.50	2.4927G	-48.74	16.8607G	-41.79	1
802.11g_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43386G	6.79	-23.21	2.30466G	-48.78	2.39962G	-27.17	2.48548G	-47.07	16.56007G	-42.21	1
2412MHz	Pass	2.43386G	6.79	-23.21	2.30437G	-51.19	2.39992G	-29.34	2.49126G	-48.47	17.66985G	-41.45	2
2412MHz	Pass	2.43386G	6.79	-23.21	2.3067G	-48.16	2.39978G	-28.64	2.49242G	-46.62	16.85789G	-42.37	3
2437MHz	Pass	2.43386G	6.79	-23.21	2.30903G	-50.13	2.39312G	-46.36	2.48568G	-48.08	16.20888G	-41.56	1
2437MHz	Pass	2.43386G	6.79	-23.21	2.30991G	-50.15	2.39694G	-47.21	2.4944G	-46.07	16.95903G	-41.03	2
2437MHz	Pass	2.43386G	6.79	-23.21	2.30612G	-50.43	2.3995G	-40.31	2.49548G	-44.53	17.41699G	-41.37	3
2462MHz	Pass	2.43386G	6.79	-23.21	2.30321G	-48.84	2.39774G	-46.92	2.48828G	-46.44	16.23417G	-41.85	1
2462MHz	Pass	2.43386G	6.79	-23.21	2.11826G	-52.50	2.39634G	-48.13	2.48362G	-47.23	16.80732G	-42.39	2
2462MHz	Pass	2.43386G	6.79	-23.21	2.30029G	-48.80	2.39452G	-46.74	2.48358G	-45.28	17.67266G	-42.43	3
802.11n HT20_Nss1 (MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43511G	6.92	-23.08	2.30845G	-49.06	2.39998G	-26.38	2.49732G	-47.17	16.55446G	-41.86	1
2412MHz	Pass	2.43511G	6.92	-23.08	2.30554G	-51.43	2.39982G	-26.20	2.52338G	-46.58	17.62209G	-41.93	2
2412MHz	Pass	2.43511G	6.92	-23.08	2.30758G	-49.80	2.39966G	-27.19	2.49818G	-47.39	16.85227G	-42.05	3
2437MHz	Pass	2.43511G	6.92	-23.08	2.30262G	-49.18	2.39662G	-46.76	2.49558G	-46.26	17.63895G	-41.68	1
2437MHz	Pass	2.43511G	6.92	-23.08	2.30146G	-50.26	2.39912G	-46.48	2.49142G	-47.06	17.63895G	-41.37	2
2437MHz	Pass	2.43511G	6.92	-23.08	2.30874G	-49.75	2.39948G	-44.96	2.50808G	-46.20	23.42103G	-41.40	3
2462MHz	Pass	2.43511G	6.92	-23.08	2.30583G	-49.80	2.39742G	-47.60	2.48492G	-46.77	23.46317G	-42.10	1
2462MHz	Pass	2.43511G	6.92	-23.08	2.30728G	-52.83	2.3923G	-47.72	2.48352G	-46.43	16.57131G	-41.76	2
2462MHz	Pass	2.43511G	6.92	-23.08	2.30903G	-49.68	2.3968G	-46.88	2.48486G	-44.65	23.35079G	-41.48	3
802.11n HT40_Nss1 (MCS0)_3TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44572G	1.95	-28.05	2.3097G	-49.51	2.39992G	-30.03	2.50078G	-47.81	16.84714G	-41.07	1
2422MHz	Pass	2.44572G	1.95	-28.05	2.30683G	-51.50	2.39964G	-31.41	2.50022G	-48.53	17.63802G	-41.58	2
2422MHz	Pass	2.44572G	1.95	-28.05	2.30941G	-50.43	2.39984G	-29.69	2.51482G	-47.54	17.62681G	-42.20	3
2437MHz	Pass	2.44572G	1.95	-28.05	2.30769G	-49.41	2.39824G	-37.49	2.48358G	-42.32	16.48254G	-41.35	1
2437MHz	Pass	2.44572G	1.95	-28.05	2.30855G	-48.56	2.39952G	-41.23	2.48938G	-43.95	17.64363G	-41.37	2
2437MHz	Pass	2.44572G	1.95	-28.05	2.30283G	-50.61	2.3982G	-37.95	2.48458G	-43.59	17.68009G	-41.83	3
2452MHz	Pass	2.44572G	1.95	-28.05	2.30884G	-50.56	2.395G	-45.73	2.48514G	-44.94	24.71113G	-41.70	1
2452MHz	Pass	2.44572G	1.95	-28.05	2.30941G	-51.82	2.3986G	-46.48	2.48414G	-45.97	16.49657G	-41.99	2
2452MHz	Pass	2.44572G	1.95	-28.05	2.30139G	-49.36	2.3988G	-45.98	2.48386G	-44.03	16.87799G	-40.34	3

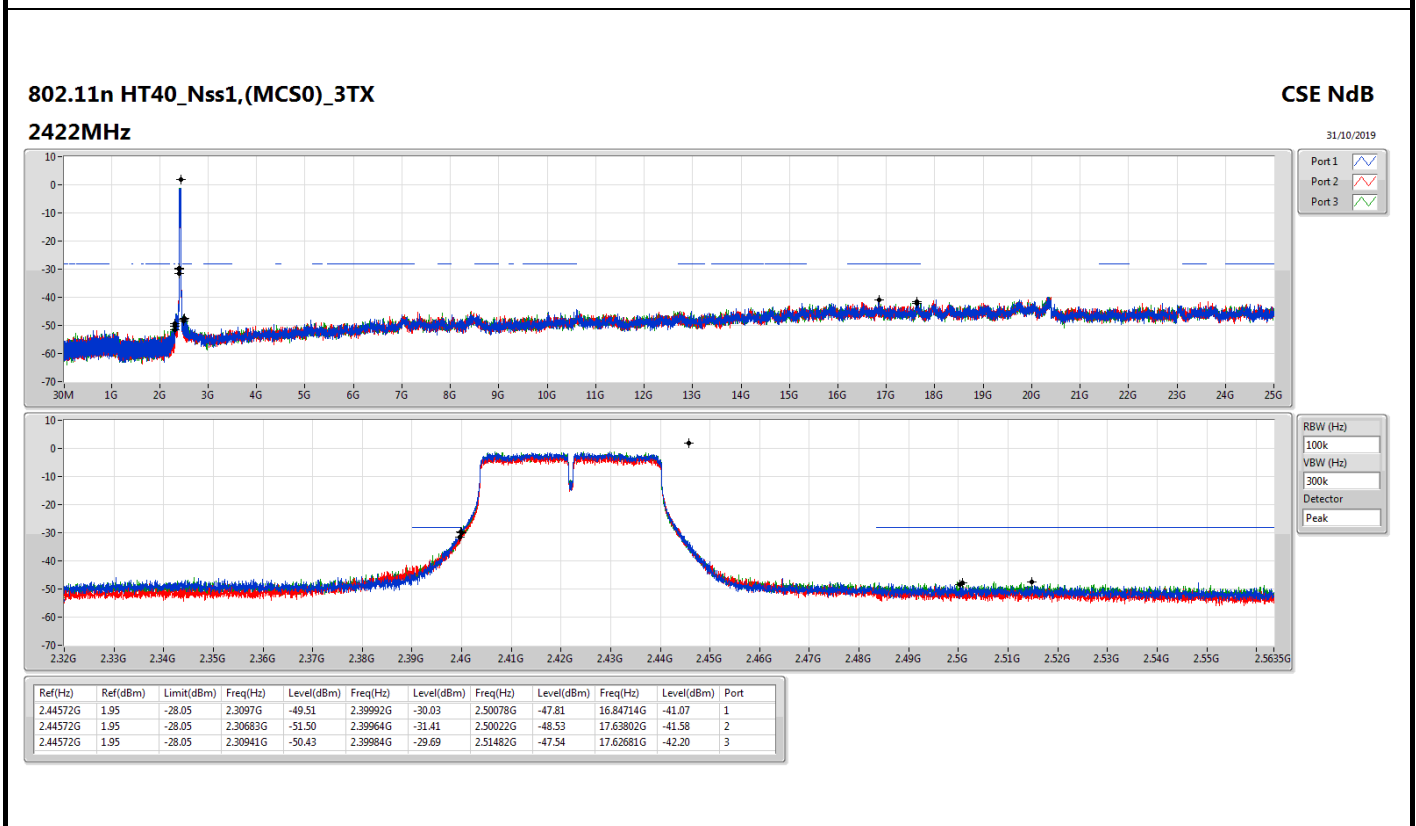
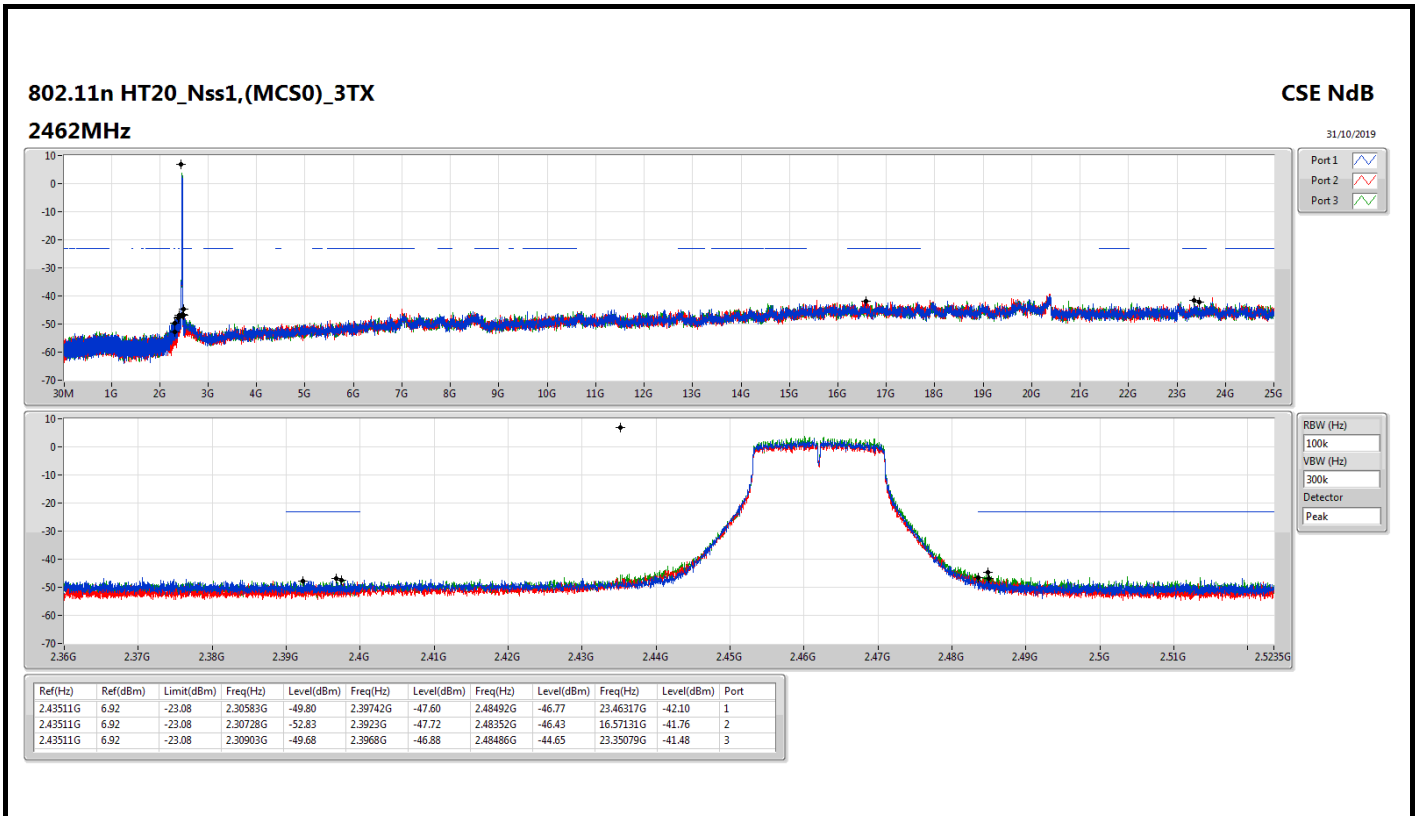


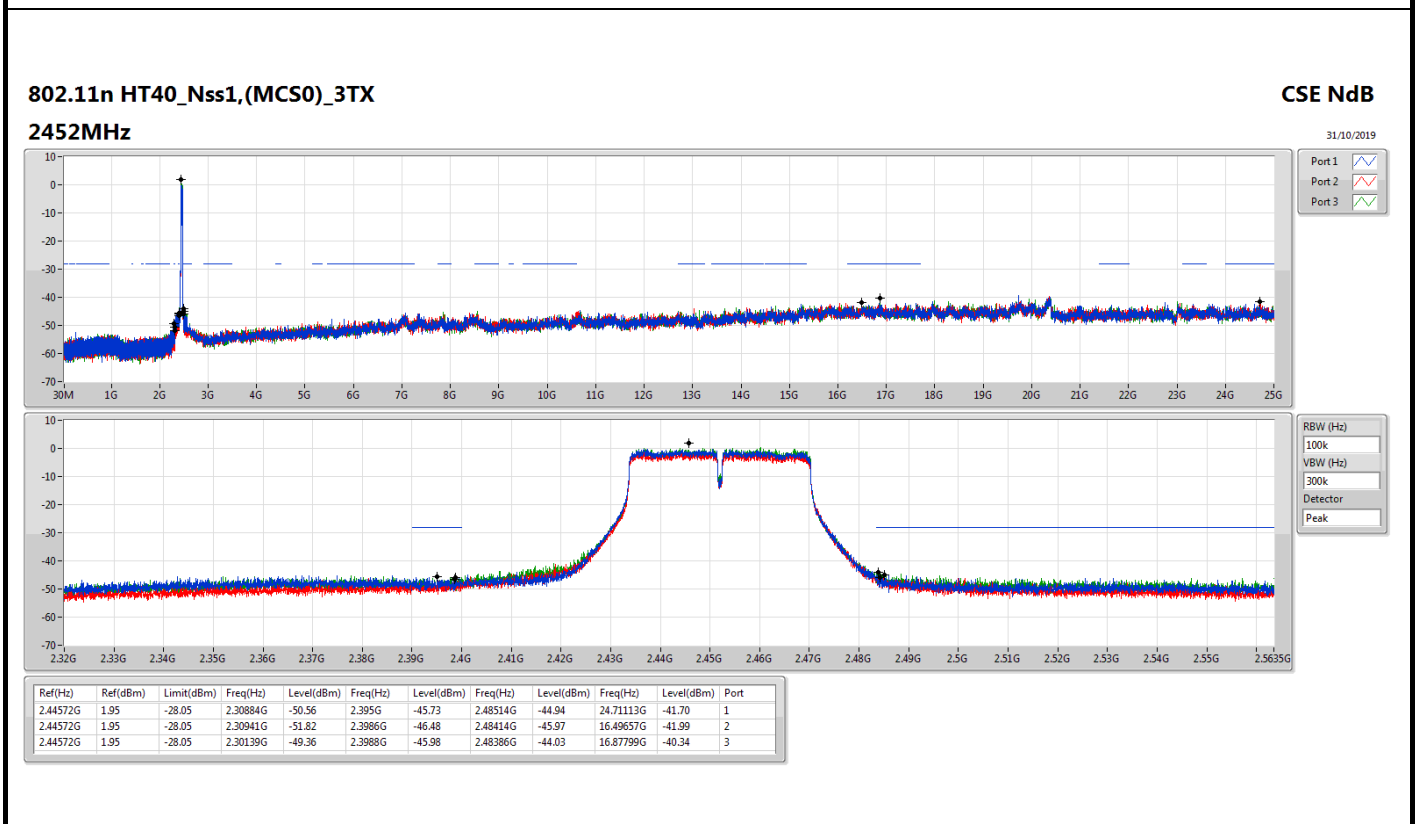
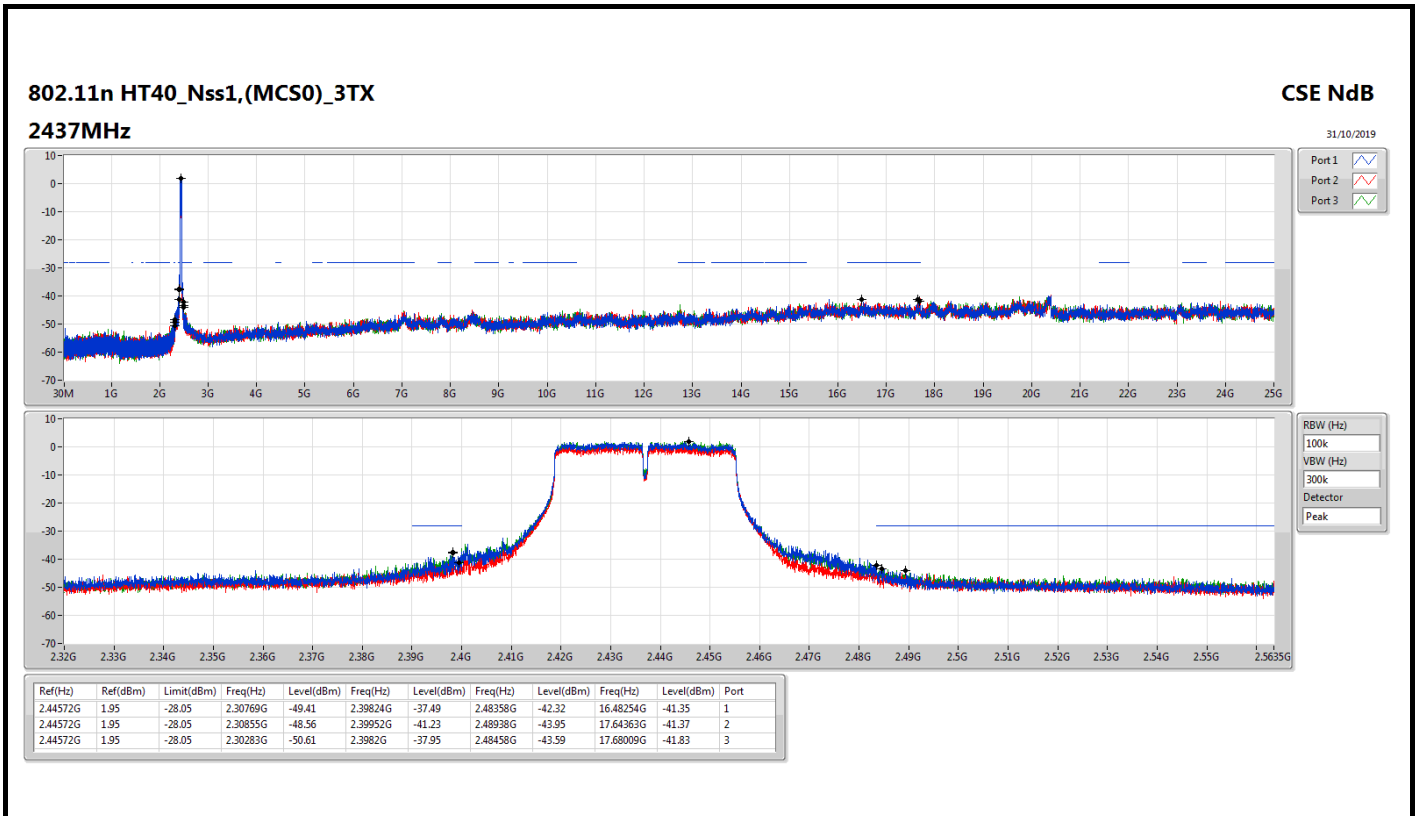














RSE below 1GHz Result																																																																																																									
Operating Mode	1	Polarization	Vertical																																																																																																						
Operating Function	Normal Link																																																																																																								
<p style="text-align: right; font-size: small;">Date: 2019-10-28 Time: 16:38:29</p>																																																																																																									
<table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th></th> <th>Freq</th> <th>Level</th> <th>Limit</th> <th>Over</th> <th>Read</th> <th>CableAntenna</th> <th>Preamp</th> <th>A/Pos</th> <th>T/Pos</th> <th>Remark</th> <th>Pol/Phase</th> </tr> <tr> <th></th> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th>dB/m</th> <th>dB</th> <th>cm</th> <th>deg</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>41.64</td> <td>36.10</td> <td>40.00</td> <td>-3.90</td> <td>50.28</td> <td>0.63</td> <td>17.41</td> <td>32.22</td> <td>100</td> <td>336</td> <td>Peak</td> <td>VERTICAL</td> </tr> <tr> <td>2</td> <td>52.31</td> <td>35.84</td> <td>40.00</td> <td>-4.16</td> <td>54.20</td> <td>0.74</td> <td>13.08</td> <td>32.18</td> <td>100</td> <td>359</td> <td>QP</td> <td>VERTICAL</td> </tr> <tr> <td>3</td> <td>71.71</td> <td>39.38</td> <td>40.00</td> <td>-0.62</td> <td>58.60</td> <td>0.86</td> <td>12.06</td> <td>32.14</td> <td>100</td> <td>97</td> <td>QP</td> <td>VERTICAL</td> </tr> <tr> <td>4</td> <td>82.38</td> <td>36.68</td> <td>40.00</td> <td>-3.32</td> <td>54.80</td> <td>0.92</td> <td>13.07</td> <td>32.11</td> <td>125</td> <td>252</td> <td>QP</td> <td>VERTICAL</td> </tr> <tr> <td>5</td> <td>624.61</td> <td>40.28</td> <td>46.00</td> <td>-5.72</td> <td>44.47</td> <td>2.66</td> <td>25.21</td> <td>32.06</td> <td>100</td> <td>259</td> <td>Peak</td> <td>VERTICAL</td> </tr> <tr> <td>6</td> <td>759.44</td> <td>42.48</td> <td>46.00</td> <td>-3.52</td> <td>45.87</td> <td>2.95</td> <td>25.66</td> <td>32.00</td> <td>100</td> <td>326</td> <td>Peak</td> <td>VERTICAL</td> </tr> </tbody> </table>					Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		1	41.64	36.10	40.00	-3.90	50.28	0.63	17.41	32.22	100	336	Peak	VERTICAL	2	52.31	35.84	40.00	-4.16	54.20	0.74	13.08	32.18	100	359	QP	VERTICAL	3	71.71	39.38	40.00	-0.62	58.60	0.86	12.06	32.14	100	97	QP	VERTICAL	4	82.38	36.68	40.00	-3.32	54.80	0.92	13.07	32.11	125	252	QP	VERTICAL	5	624.61	40.28	46.00	-5.72	44.47	2.66	25.21	32.06	100	259	Peak	VERTICAL	6	759.44	42.48	46.00	-3.52	45.87	2.95	25.66	32.00	100	326	Peak	VERTICAL
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase																																																																																														
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg																																																																																															
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<p>Note 1: "&gt;20dB" means emission levels that exceed the level of 20 dB below the applicable limit.            Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)</p>																																																																																																									



RSE below 1GHz Result												
Operating Mode	1	Polarization	Horizontal									
Operating Function	Normal Link											
<p>The graph displays the measured emission levels in dBuV/m across a frequency range from 30 MHz to 1000 MHz. A red step-like line represents the FCC CLASS-B limit, which is 40 dBuV/m from 30 MHz to 150 MHz, 43.5 dBuV/m from 150 MHz to 300 MHz, 46 dBuV/m from 300 MHz to 600 MHz, and 49.5 dBuV/m from 600 MHz to 1000 MHz. A blue line shows the measured spectrum with six peaks labeled 1 through 6. Peak 1 is at 71.71 MHz, peak 2 at 156.10 MHz, peak 3 at 579.02 MHz, peak 4 at 624.61 MHz, peak 5 at 759.44 MHz, and peak 6 at 886.51 MHz. All peaks are below the applicable limit line.</p>												
	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	71.71	36.74	40.00	-3.26	55.96	0.86	12.06	32.14	300	278	Peak	HORIZONTAL
2	156.10	32.95	43.50	-10.55	47.67	1.28	16.13	32.13	200	164	Peak	HORIZONTAL
3	579.02	37.23	46.00	-8.77	42.56	2.55	24.13	32.01	150	179	Peak	HORIZONTAL
4	624.61	42.89	46.00	-3.11	47.08	2.66	25.21	32.06	150	144	Peak	HORIZONTAL
5	759.44	42.06	46.00	-3.94	45.45	2.95	25.66	32.00	125	49	Peak	HORIZONTAL
6	886.51	39.68	46.00	-6.32	41.52	3.09	26.40	31.33	100	176	Peak	HORIZONTAL

Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.  
 Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)





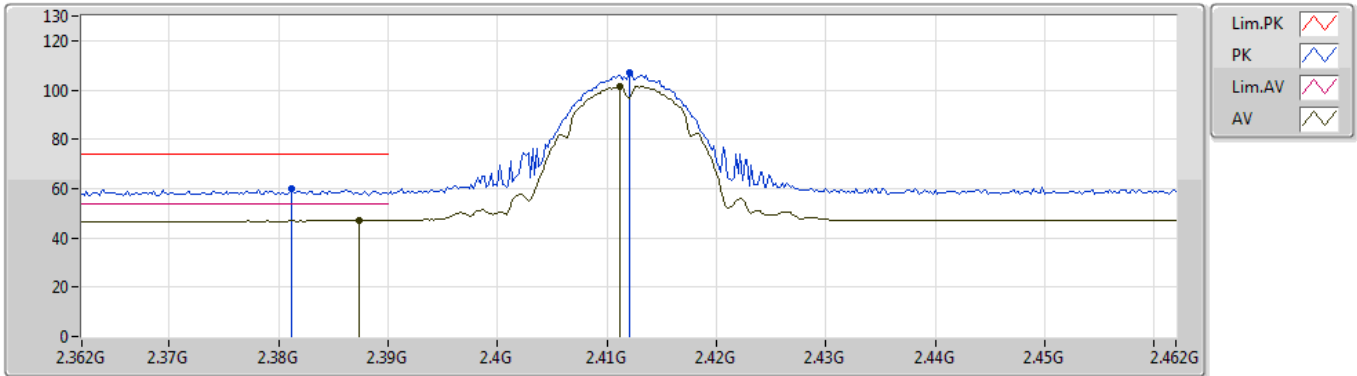
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11n HT40_Nss1,(MCS0)_3TX	Pass	AV	2.3898G	53.97	54.00	-0.03	31.20	3	Vertical	8	2.31	-

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

30/10/2019

### 2412MHz\_TX



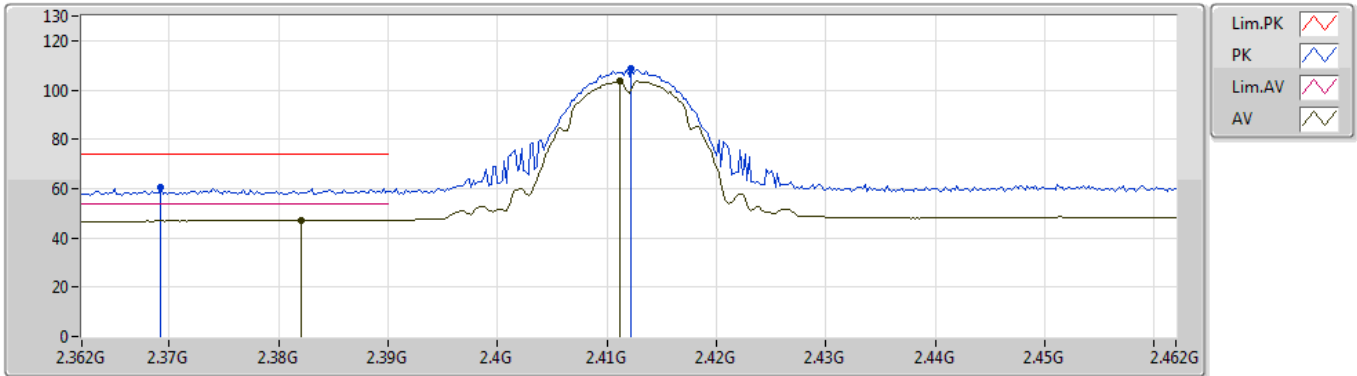
EUT Y\_1TX  
Setting 18.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3812G	59.85	74.00	-14.15	31.19	3	Vertical	0	2.91	-	28.66
AV	2.3874G	47.00	54.00	-7.00	31.20	3	Vertical	0	2.91	-	15.80
PK	2.412G	107.06	Inf	-Inf	31.25	3	Vertical	0	2.91	-	75.81
AV	2.4112G	101.42	Inf	-Inf	31.25	3	Vertical	0	2.91	-	70.17

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

30/10/2019

### 2412MHz\_TX



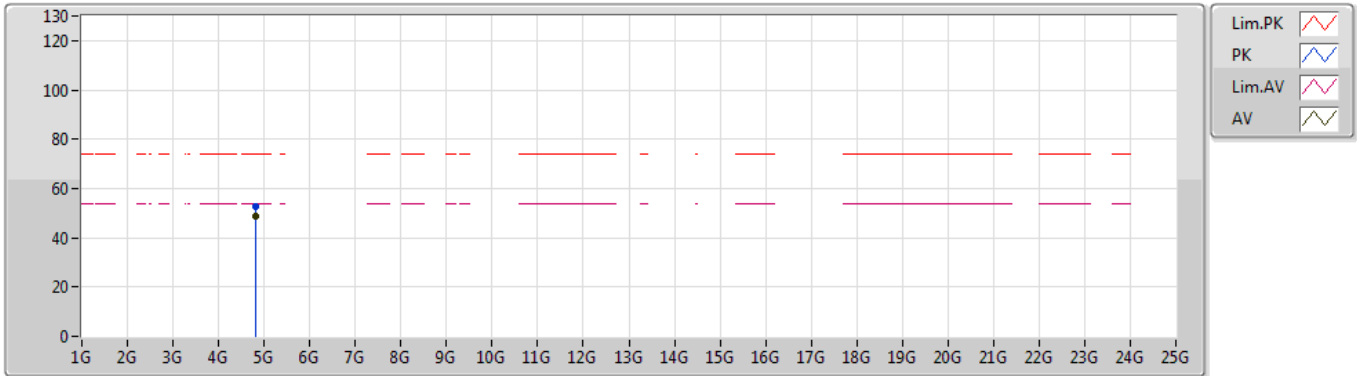
EUT Y\_1TX  
Setting 18.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3692G	60.27	74.00	-13.73	31.15	3	Horizontal	304	1.88	-	29.12
AV	2.382G	47.14	54.00	-6.86	31.19	3	Horizontal	304	1.88	-	15.95
PK	2.4122G	108.84	Inf	-Inf	31.25	3	Horizontal	304	1.88	-	77.59
AV	2.4112G	103.46	Inf	-Inf	31.25	3	Horizontal	304	1.88	-	72.21

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

30/10/2019

### 2412MHz\_TX



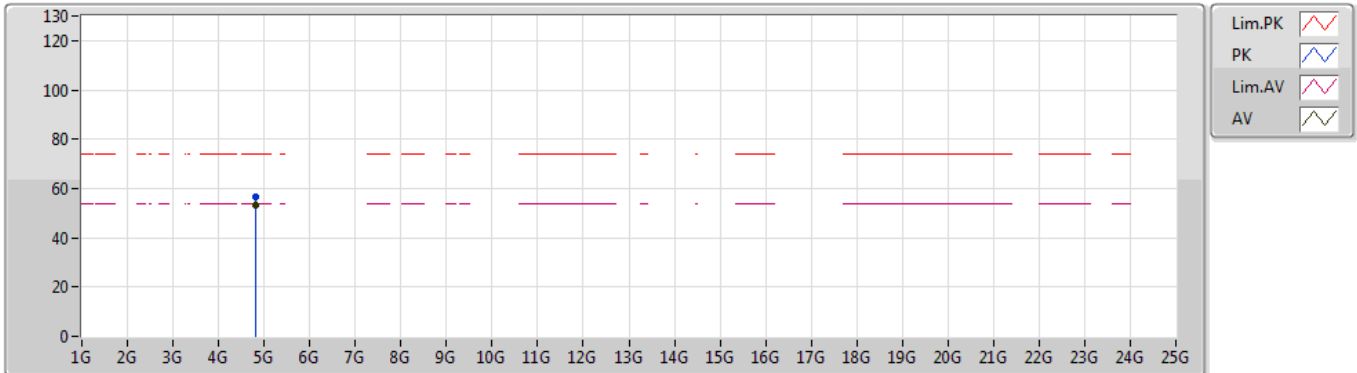
EUT Y\_1TX  
Setting 18.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.82398G	52.61	74.00	-21.39	7.17	3	Vertical	118	1.61	-	45.44
AV	4.82398G	48.58	54.00	-5.42	7.17	3	Vertical	118	1.61	-	41.41

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

30/10/2019

### 2412MHz\_TX



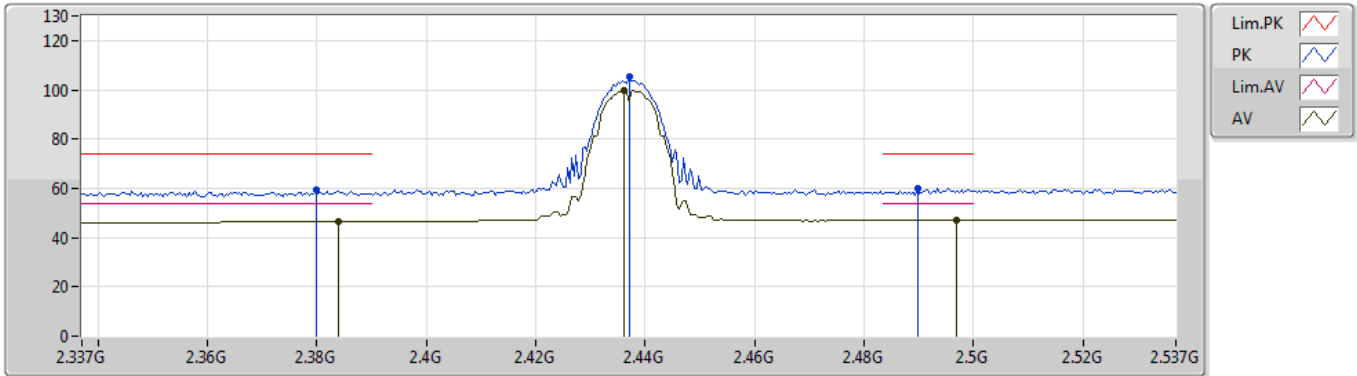
EUT Y\_1TX  
 Setting 18.5  
 02-G-3  
 FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.82384G	56.77	74.00	-17.23	7.17	3	Horizontal	221	1.45	-	49.60
AV	4.82396G	53.45	54.00	-0.55	7.17	3	Horizontal	221	1.45	-	46.28

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

30/10/2019

### 2437MHz\_TX



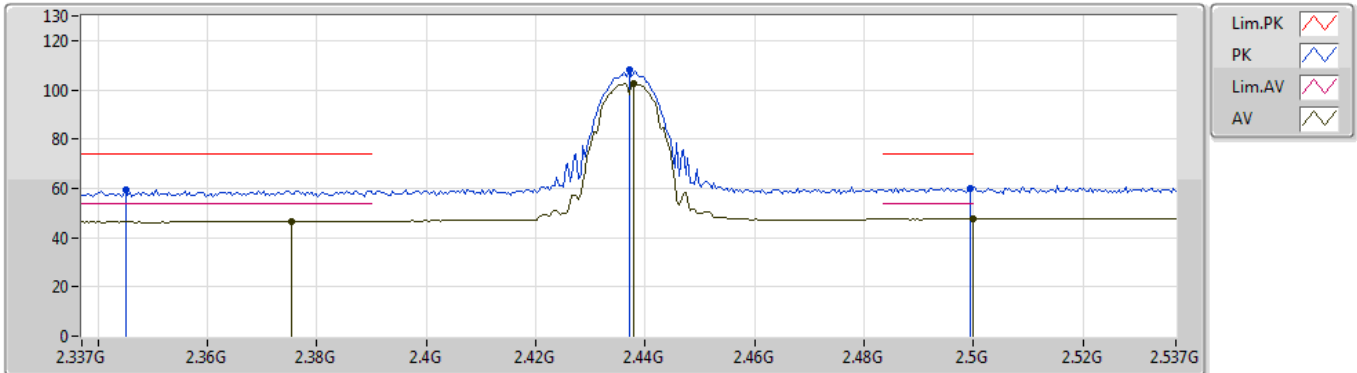
EUT Y\_1TX  
Setting 17  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3798G	59.58	74.00	-14.42	31.18	3	Vertical	7	2.95	-	28.40
AV	2.3838G	46.64	54.00	-7.36	31.19	3	Vertical	7	2.95	-	15.45
PK	2.437G	105.24	Inf	-Inf	31.30	3	Vertical	7	2.95	-	73.94
AV	2.4362G	99.66	Inf	-Inf	31.30	3	Vertical	7	2.95	-	68.36
PK	2.4898G	60.21	74.00	-13.79	31.41	3	Vertical	7	2.95	-	28.80
AV	2.497G	47.29	54.00	-6.71	31.43	3	Vertical	7	2.95	-	15.86

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

30/10/2019

### 2437MHz\_TX



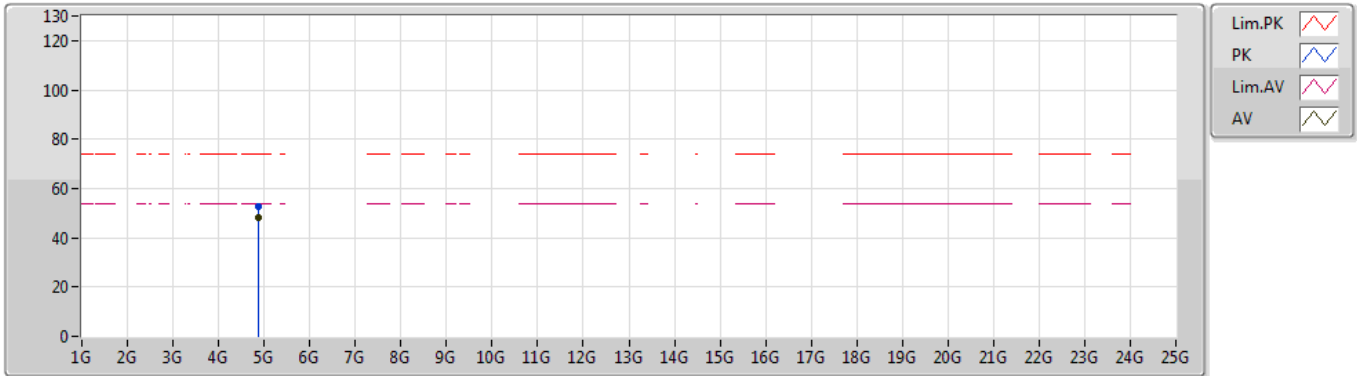
EUT Y\_1TX  
Setting 17  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.345G	59.48	74.00	-14.52	31.09	3	Horizontal	301	1.66	-	28.39
AV	2.3754G	46.66	54.00	-7.34	31.17	3	Horizontal	301	1.66	-	15.49
PK	2.437G	107.95	Inf	-Inf	31.30	3	Horizontal	301	1.66	-	76.65
AV	2.4378G	102.49	Inf	-Inf	31.31	3	Horizontal	301	1.66	-	71.18
PK	2.4994G	60.19	74.00	-13.81	31.43	3	Horizontal	301	1.66	-	28.76
AV	2.4998G	47.61	54.00	-6.39	31.43	3	Horizontal	301	1.66	-	16.18

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

30/10/2019

### 2437MHz\_TX



EUT Y\_1TX  
Setting 17  
02-G-3  
FSU(100015)

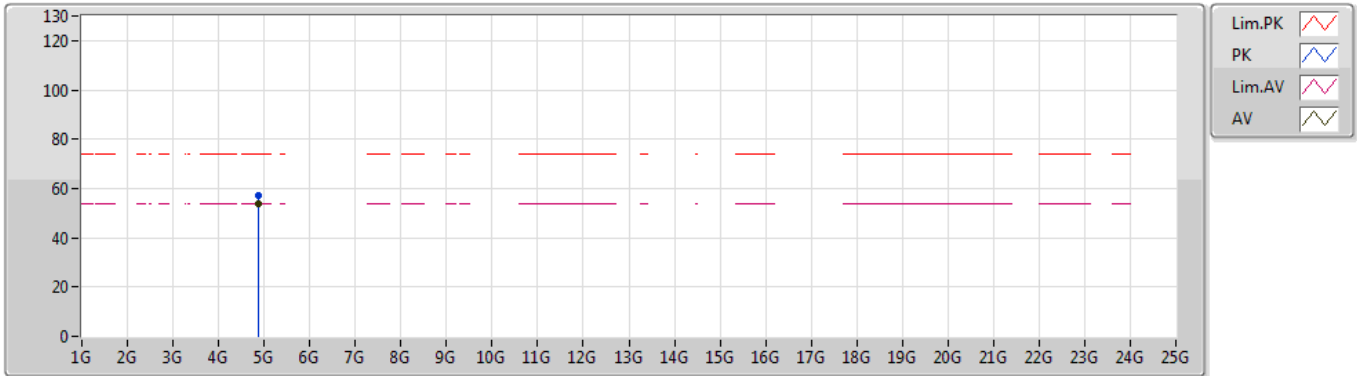
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.87402G	52.49	74.00	-21.51	7.28	3	Vertical	127	1.79	-	45.21
AV	4.87396G	48.42	54.00	-5.58	7.28	3	Vertical	127	1.79	-	41.14



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

30/10/2019

### 2437MHz\_TX



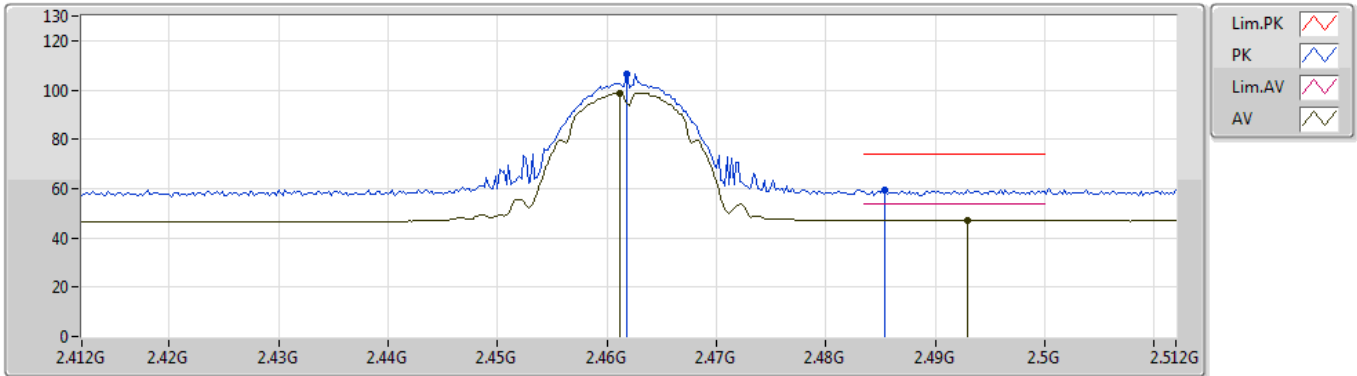
EUT Y\_1TX  
Setting 17  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.87396G	57.25	74.00	-16.75	7.28	3	Horizontal	219	1.65	-	49.97
AV	4.87398G	53.96	54.00	-0.04	7.28	3	Horizontal	219	1.65	-	46.68

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

30/10/2019

### 2462MHz\_TX



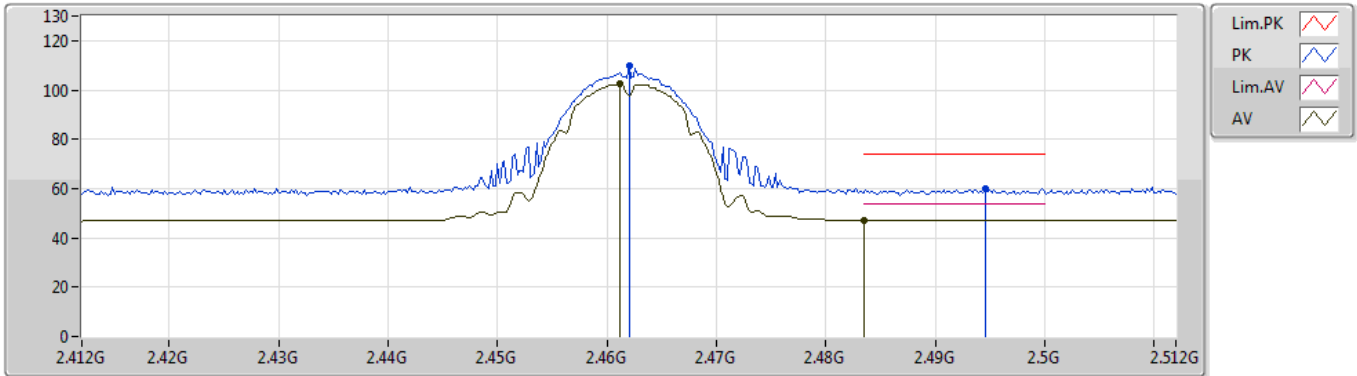
EUT Y\_1TX  
Setting 15.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.4618G	106.71	Inf	-Inf	31.35	3	Vertical	360	2.99	-	75.36
AV	2.4612G	98.87	Inf	-Inf	31.35	3	Vertical	360	2.99	-	67.52
PK	2.4854G	59.61	74.00	-14.39	31.40	3	Vertical	360	2.99	-	28.21
AV	2.493G	47.02	54.00	-6.98	31.42	3	Vertical	360	2.99	-	15.60

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

30/10/2019

### 2462MHz\_TX



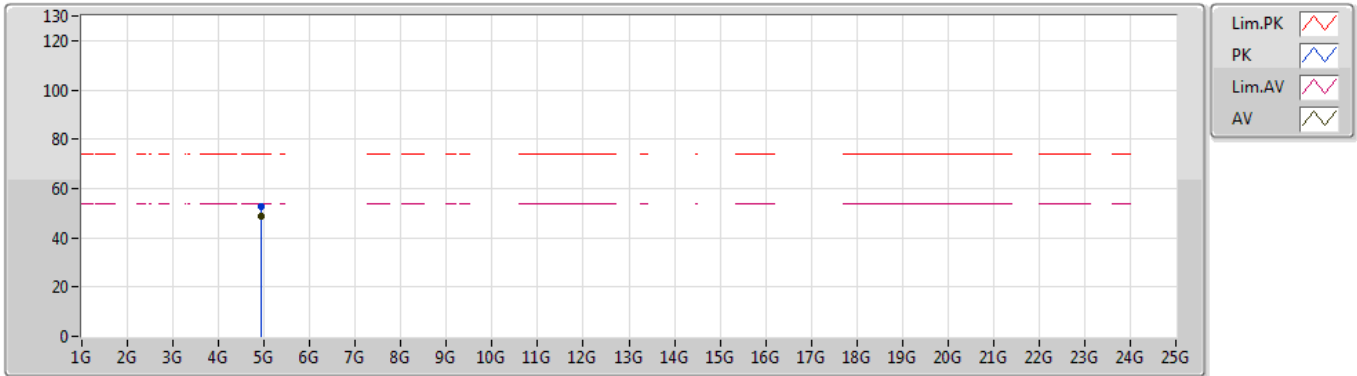
EUT Y\_1TX  
Setting 15.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.462G	110.01	Inf	-Inf	31.35	3	Horizontal	304	2.10	-	78.66
AV	2.4612G	102.48	Inf	-Inf	31.35	3	Horizontal	304	2.10	-	71.13
PK	2.4946G	59.80	74.00	-14.20	31.42	3	Horizontal	304	2.10	-	28.38
AV	2.4835G	47.23	54.00	-6.77	31.39	3	Horizontal	304	2.10	-	15.84

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

30/10/2019

### 2462MHz\_TX



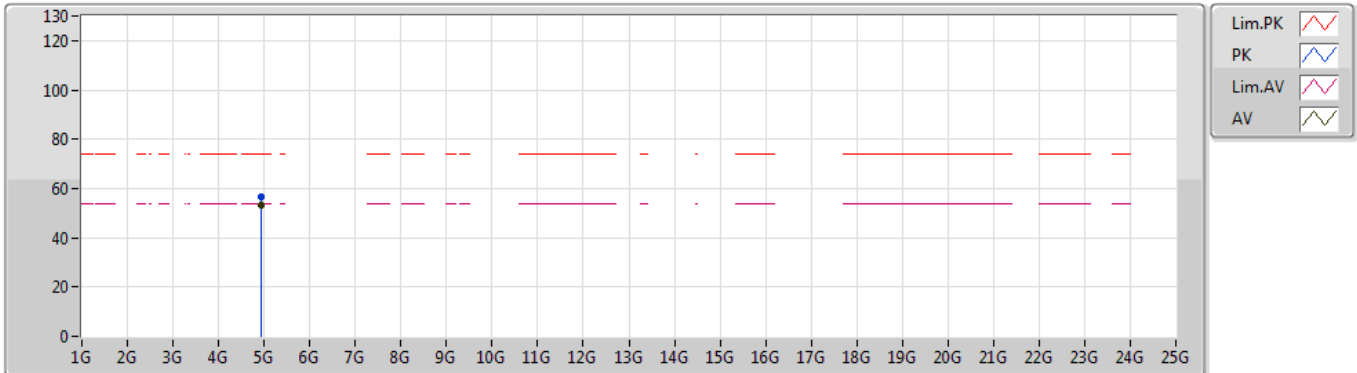
EUT Y\_1TX  
Setting 15.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.92406G	52.55	74.00	-21.45	7.40	3	Vertical	119	1.32	-	45.15
AV	4.92396G	48.72	54.00	-5.28	7.40	3	Vertical	119	1.32	-	41.32

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

30/10/2019

### 2462MHz\_TX



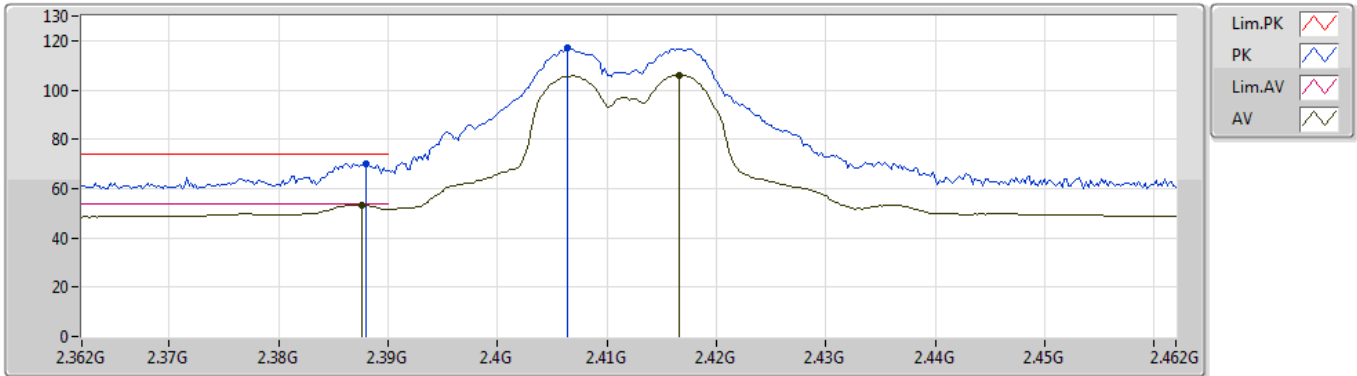
EUT Y\_1TX  
Setting 15.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.92408G	56.82	74.00	-17.18	7.40	3	Horizontal	229	1.53	-	49.42
AV	4.92398G	53.41	54.00	-0.59	7.40	3	Horizontal	229	1.53	-	46.01

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2412MHz\_TX



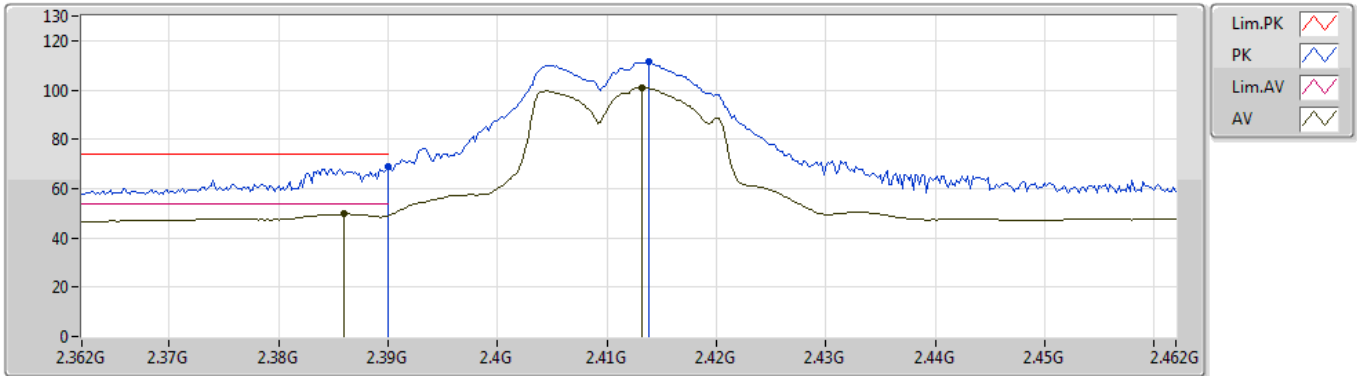
EUT Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.388G	70.17	74.00	-3.83	31.20	3	Vertical	351	2.58	-	38.97
AV	2.3876G	53.43	54.00	-0.57	31.20	3	Vertical	351	2.58	-	22.23
PK	2.4064G	117.13	Inf	-Inf	31.24	3	Vertical	351	2.58	-	85.89
AV	2.4166G	106.13	Inf	-Inf	31.27	3	Vertical	351	2.58	-	74.86

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2412MHz\_TX



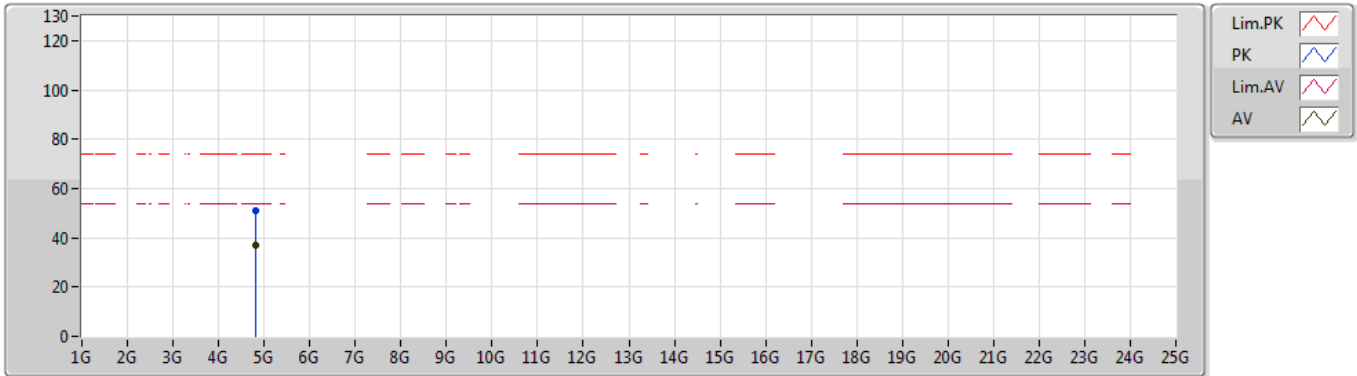
EUT Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.39G	69.12	74.00	-4.88	31.20	3	Horizontal	319	2.85	-	37.92
AV	2.386G	49.74	54.00	-4.26	31.19	3	Horizontal	319	2.85	-	18.55
PK	2.4138G	111.45	Inf	-Inf	31.26	3	Horizontal	319	2.85	-	80.19
AV	2.4132G	101.03	Inf	-Inf	31.26	3	Horizontal	319	2.85	-	69.77

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2412MHz\_TX



EUT Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

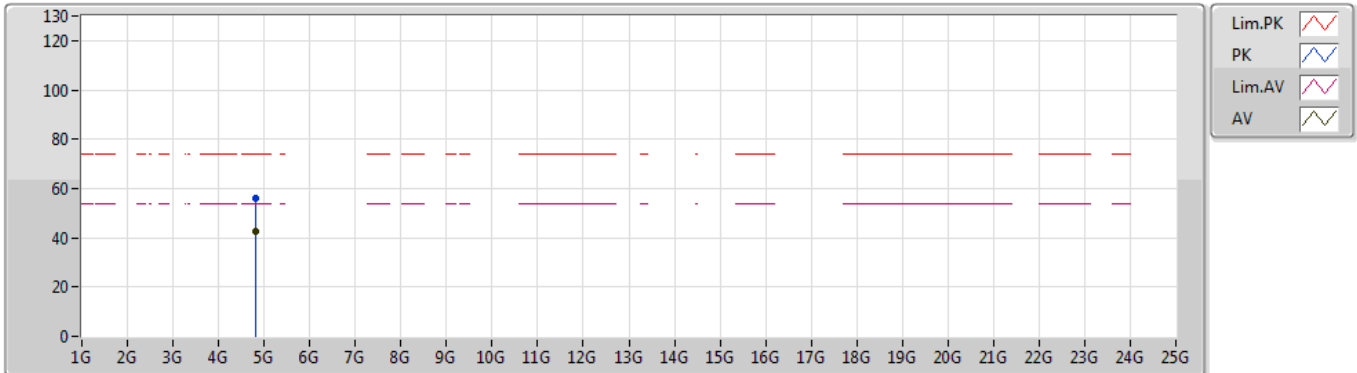
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.8204G	50.96	74.00	-23.04	7.16	3	Vertical	98	1.59	-	43.80
AV	4.82166G	36.93	54.00	-17.07	7.16	3	Vertical	98	1.59	-	29.77



### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2412MHz\_TX



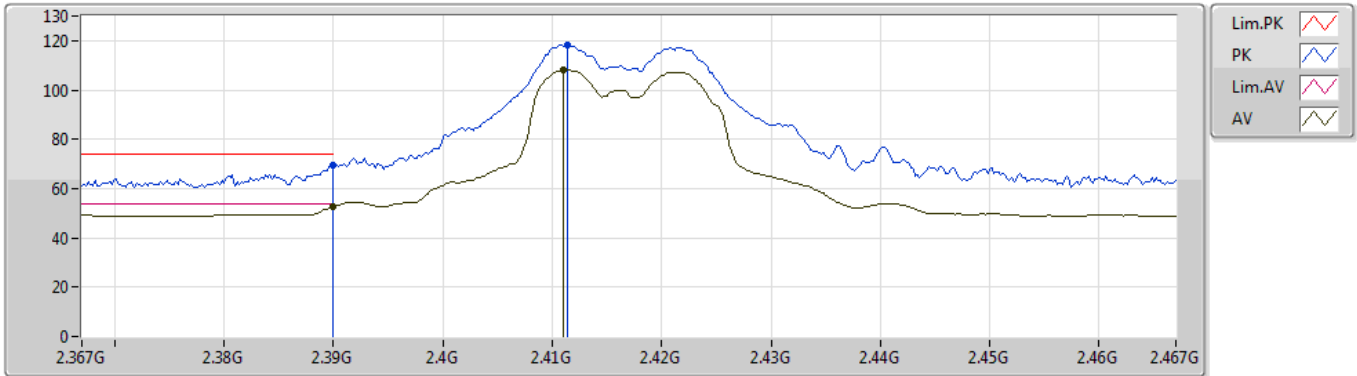
EUT Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.82016G	56.18	74.00	-17.82	7.16	3	Horizontal	219	1.49	-	49.02
AV	4.82142G	42.46	54.00	-11.54	7.16	3	Horizontal	219	1.49	-	35.30

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2417MHz\_TX



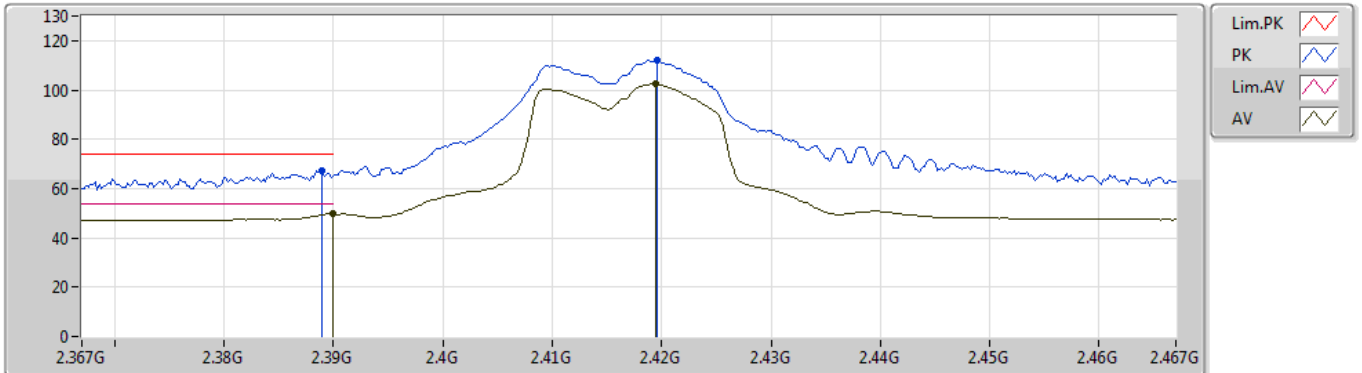
EUT Y\_3TX  
Setting 19.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.39G	69.32	74.00	-4.68	31.20	3	Vertical	7	2.32	-	38.12
AV	2.39G	52.44	54.00	-1.56	31.20	3	Vertical	7	2.32	-	21.24
PK	2.4114G	118.45	Inf	-Inf	31.25	3	Vertical	7	2.32	-	87.20
AV	2.411G	108.18	Inf	-Inf	31.25	3	Vertical	7	2.32	-	76.93

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2417MHz\_TX



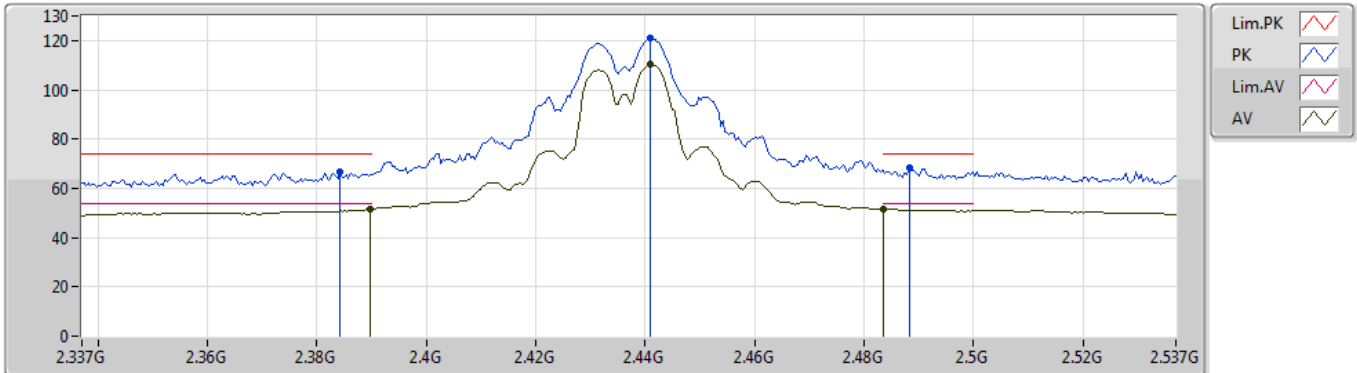
EUT Y\_3TX  
Setting 19.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.389G	67.29	74.00	-6.71	31.20	3	Horizontal	304	1.03	-	36.09
AV	2.39G	49.72	54.00	-4.28	31.20	3	Horizontal	304	1.03	-	18.52
PK	2.4196G	112.22	Inf	-Inf	31.27	3	Horizontal	304	1.03	-	80.95
AV	2.4194G	102.35	Inf	-Inf	31.27	3	Horizontal	304	1.03	-	71.08

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2437MHz\_TX



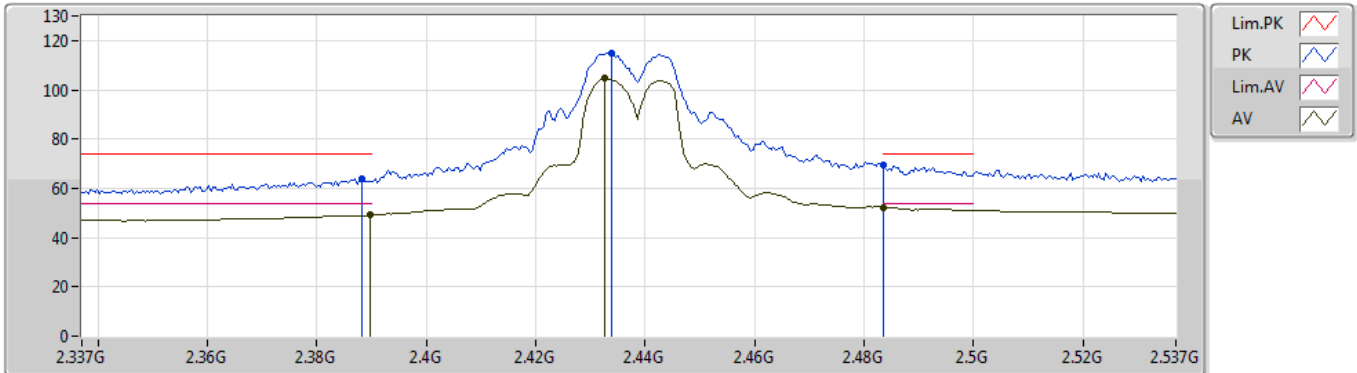
EUT\_Y\_3TX  
Setting 22  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3842G	66.86	74.00	-7.14	31.19	3	Vertical	311	2.22	-	35.67
AV	2.3898G	51.73	54.00	-2.27	31.20	3	Vertical	311	2.22	-	20.53
PK	2.441G	121.00	Inf	-Inf	31.32	3	Vertical	311	2.22	-	89.68
AV	2.441G	110.11	Inf	-Inf	31.32	3	Vertical	311	2.22	-	78.79
PK	2.4882G	68.28	74.00	-5.72	31.41	3	Vertical	311	2.22	-	36.87
AV	2.4835G	51.46	54.00	-2.54	31.39	3	Vertical	311	2.22	-	20.07

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2437MHz\_TX



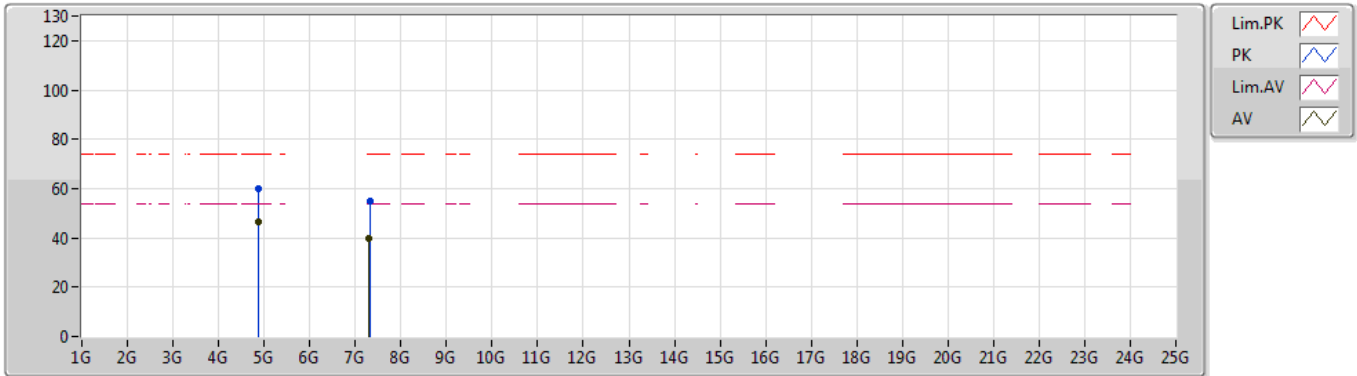
EUT\_Y\_3TX  
Setting 22  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3882G	63.85	74.00	-10.15	31.20	3	Horizontal	31	1.88	-	32.65
AV	2.3898G	49.14	54.00	-4.86	31.20	3	Horizontal	31	1.88	-	17.94
PK	2.4338G	115.04	Inf	-Inf	31.29	3	Horizontal	31	1.88	-	83.75
AV	2.4326G	104.51	Inf	-Inf	31.29	3	Horizontal	31	1.88	-	73.22
PK	2.4835G	69.75	74.00	-4.25	31.39	3	Horizontal	31	1.88	-	38.36
AV	2.4835G	52.36	54.00	-1.64	31.39	3	Horizontal	31	1.88	-	20.97

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2437MHz\_TX



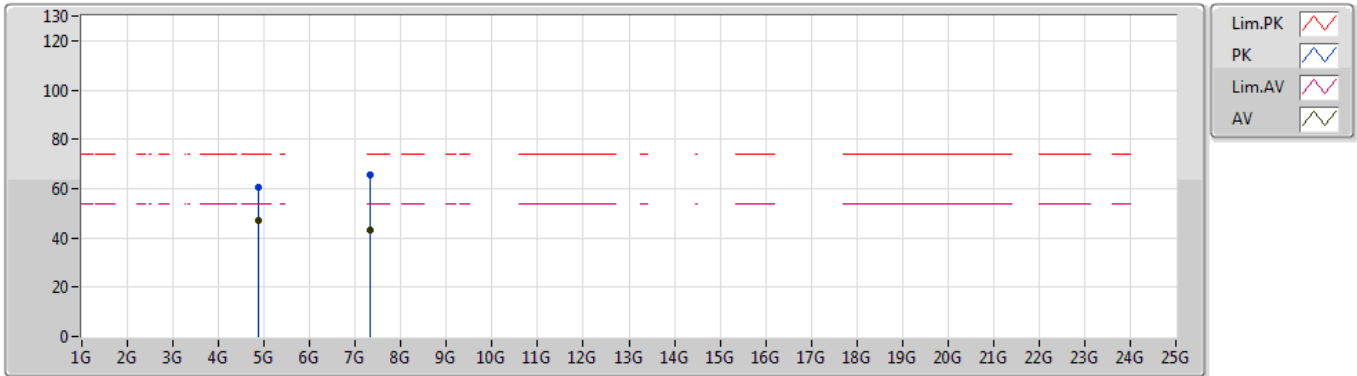
EUT Y\_3TX  
Setting 22  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.87682G	59.88	74.00	-14.12	7.30	3	Vertical	219	1.02	-	52.58
AV	4.8767G	46.53	54.00	-7.47	7.30	3	Vertical	219	1.02	-	39.23
PK	7.31538G	55.13	74.00	-18.87	10.56	3	Vertical	228	1.70	-	44.57
AV	7.30662G	39.80	54.00	-14.20	10.54	3	Vertical	228	1.70	-	29.26

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2437MHz\_TX



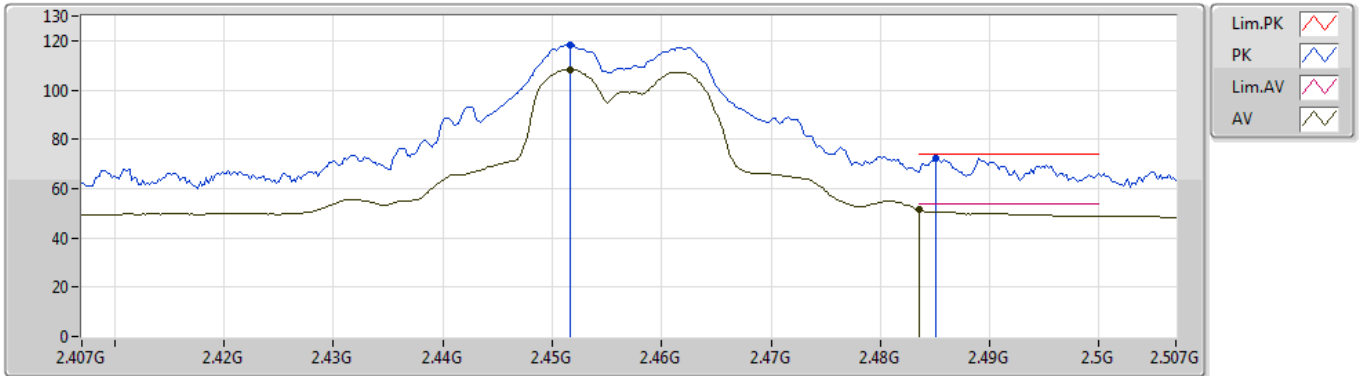
EUT Y\_3TX  
Setting 22  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.87154G	60.30	74.00	-13.70	7.28	3	Horizontal	218	1.52	-	53.02
AV	4.8713G	46.81	54.00	-7.19	7.28	3	Horizontal	218	1.52	-	39.53
PK	7.31742G	65.44	74.00	-8.56	10.57	3	Horizontal	190	1.60	-	54.87
AV	7.3113G	43.37	54.00	-10.63	10.54	3	Horizontal	190	1.60	-	32.83

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2457MHz\_TX



EUT Y\_3TX  
Setting 20  
02-G-3  
FSU(100015)

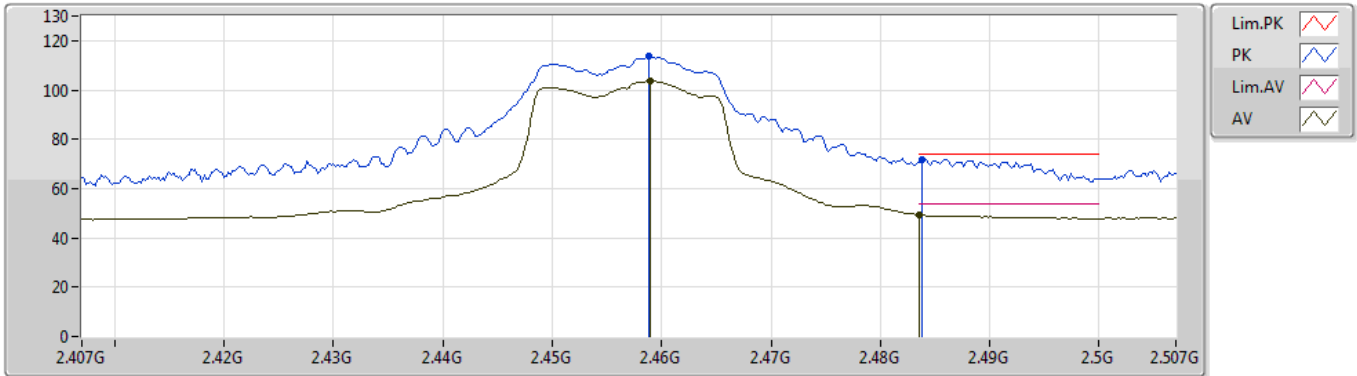
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.4516G	118.47	Inf	-Inf	31.33	3	Vertical	14	2.52	-	87.14
AV	2.4516G	108.27	Inf	-Inf	31.33	3	Vertical	14	2.52	-	76.94
PK	2.485G	72.42	74.00	-1.58	31.40	3	Vertical	14	2.52	-	41.02
AV	2.4835G	51.32	54.00	-2.68	31.39	3	Vertical	14	2.52	-	19.93



### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2457MHz\_TX



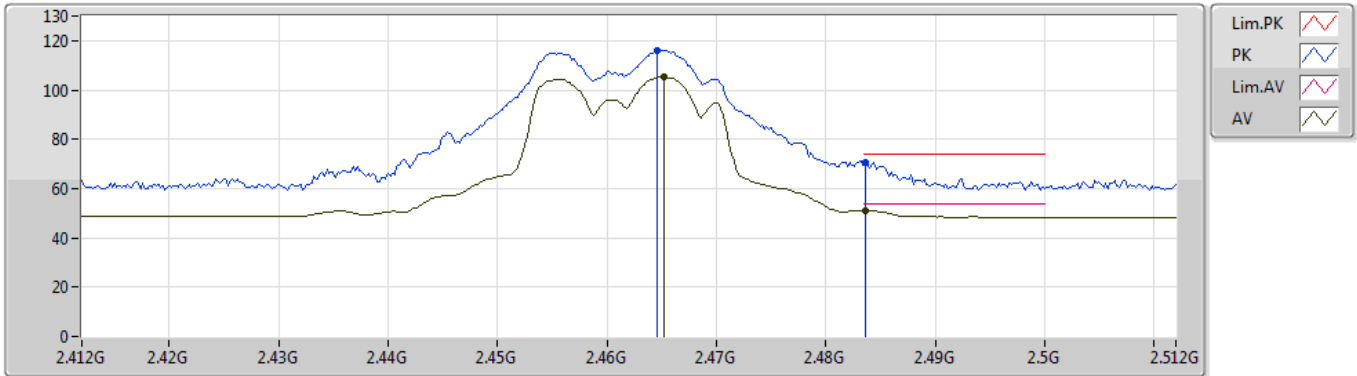
EUT Y\_3TX  
Setting 20  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.4588G	113.50	Inf	-Inf	31.34	3	Horizontal	304	2.09	-	82.16
AV	2.459G	103.50	Inf	-Inf	31.34	3	Horizontal	304	2.09	-	72.16
PK	2.4838G	71.77	74.00	-2.23	31.39	3	Horizontal	304	2.09	-	40.38
AV	2.4835G	49.33	54.00	-4.67	31.39	3	Horizontal	304	2.09	-	17.94

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2462MHz\_TX



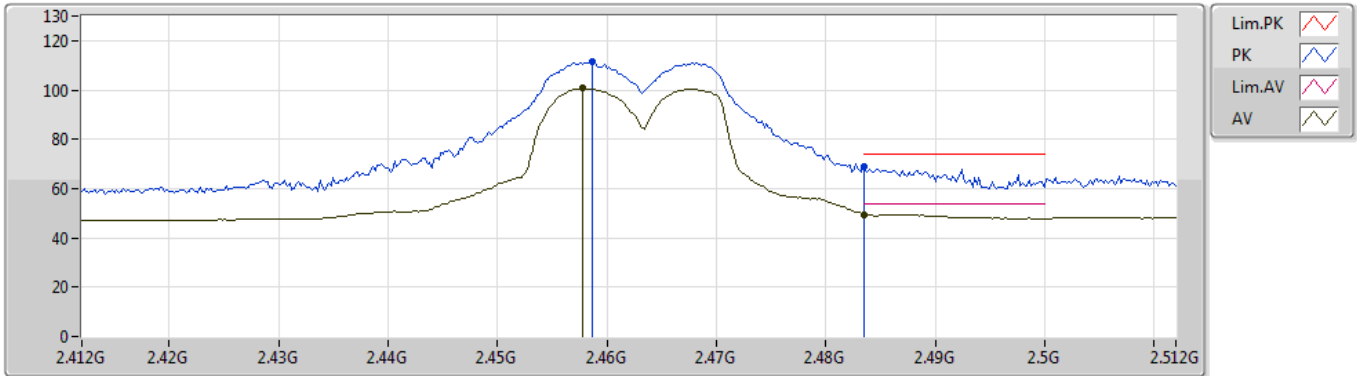
EUT Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.4646G	116.26	Inf	-Inf	31.36	3	Vertical	1	1.75	-	84.90
AV	2.4652G	105.35	Inf	-Inf	31.36	3	Vertical	1	1.75	-	73.99
PK	2.4836G	70.35	74.00	-3.65	31.39	3	Vertical	1	1.75	-	38.96
AV	2.4836G	51.11	54.00	-2.89	31.39	3	Vertical	1	1.75	-	19.72

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2462MHz\_TX



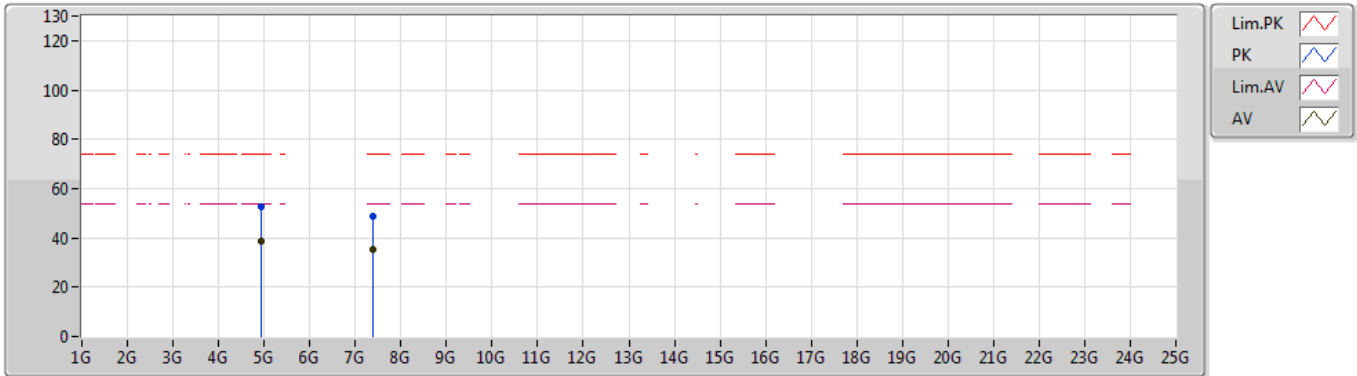
EUT Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.4586G	111.27	Inf	-Inf	31.34	3	Horizontal	41	2.04	-	79.93
AV	2.4578G	100.62	Inf	-Inf	31.34	3	Horizontal	41	2.04	-	69.28
PK	2.4835G	69.05	74.00	-4.95	31.39	3	Horizontal	41	2.04	-	37.66
AV	2.4835G	49.56	54.00	-4.44	31.39	3	Horizontal	41	2.04	-	18.17

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2462MHz\_TX



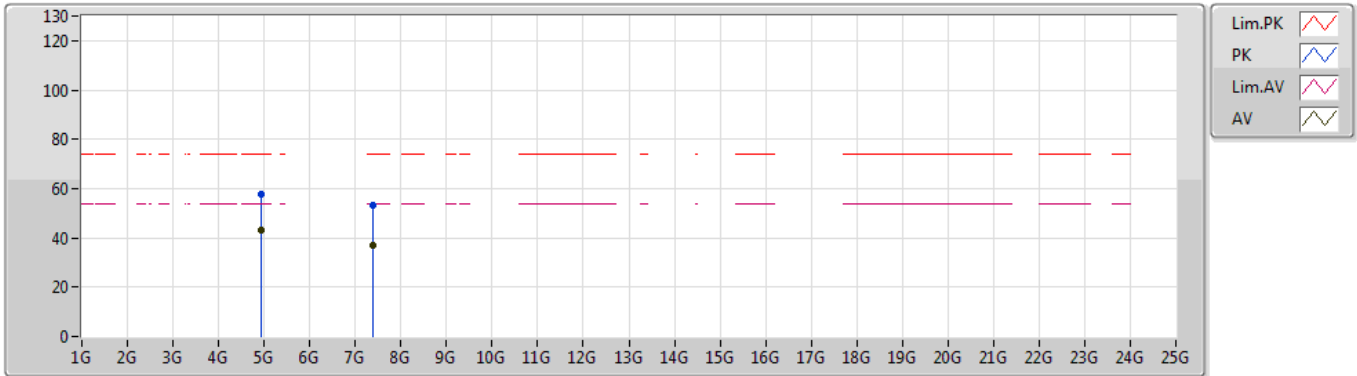
EUT\_Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.92028G	52.84	74.00	-21.16	7.39	3	Vertical	114	1.94	-	45.45
AV	4.9216G	38.43	54.00	-15.57	7.39	3	Vertical	114	1.94	-	31.04
PK	7.39608G	49.03	74.00	-24.97	10.79	3	Vertical	296	1.40	-	38.24
AV	7.38018G	35.51	54.00	-18.49	10.75	3	Vertical	296	1.40	-	24.76

### 802.11g\_Nss1,(6Mbps)\_3TX

30/10/2019

### 2462MHz\_TX



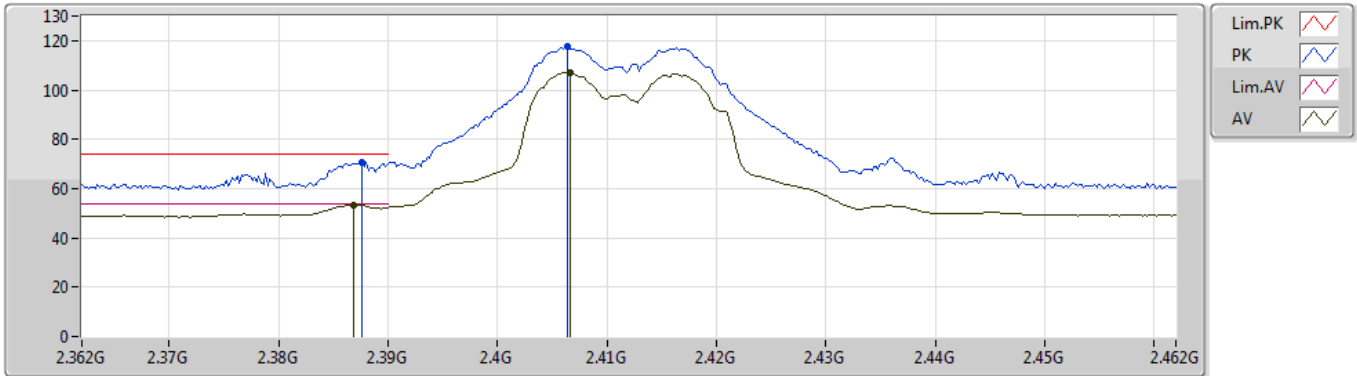
EUT\_Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.92028G	57.76	74.00	-16.24	7.39	3	Horizontal	225	1.54	-	50.37
AV	4.9216G	43.37	54.00	-10.63	7.39	3	Horizontal	225	1.54	-	35.98
PK	7.37694G	52.97	74.00	-21.03	10.73	3	Horizontal	80	1.50	-	42.24
AV	7.38612G	37.23	54.00	-16.77	10.76	3	Horizontal	80	1.50	-	26.47

802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2412MHz\_TX



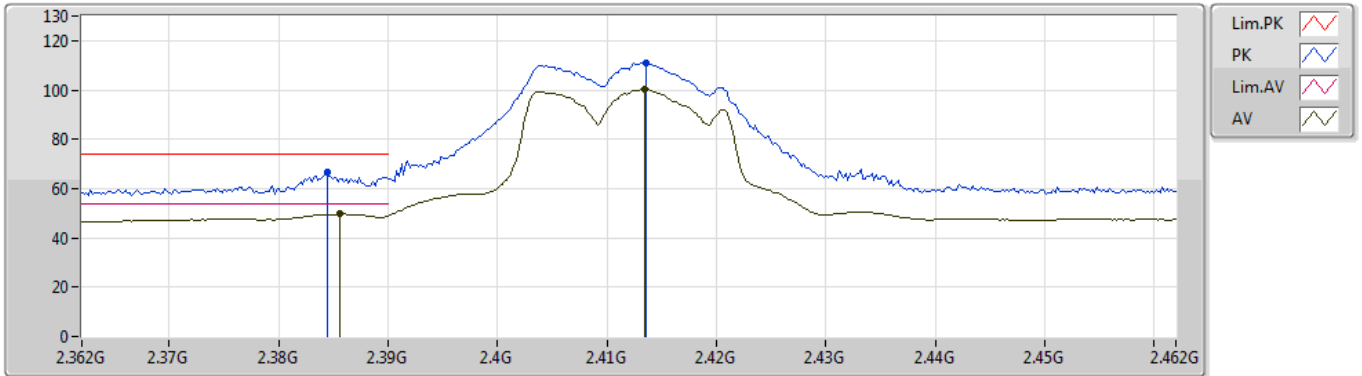
EUT Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3876G	70.55	74.00	-3.45	31.20	3	Vertical	337	2.31	-	39.35
AV	2.3868G	53.12	54.00	-0.88	31.20	3	Vertical	337	2.31	-	21.92
PK	2.4064G	117.48	Inf	-Inf	31.24	3	Vertical	337	2.31	-	86.24
AV	2.4066G	106.91	Inf	-Inf	31.24	3	Vertical	337	2.31	-	75.67

802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2412MHz\_TX



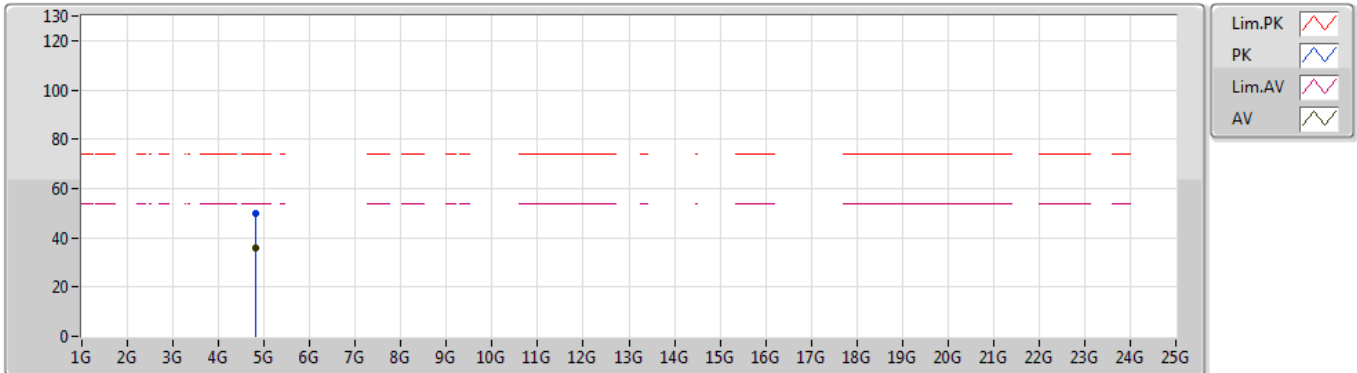
EUT Y\_3TX  
Setting 18.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3844G	66.63	74.00	-7.37	31.19	3	Horizontal	319	2.84	-	35.44
AV	2.3856G	49.67	54.00	-4.33	31.19	3	Horizontal	319	2.84	-	18.48
PK	2.4136G	111.19	Inf	-Inf	31.26	3	Horizontal	319	2.84	-	79.93
AV	2.4134G	100.37	Inf	-Inf	31.26	3	Horizontal	319	2.84	-	69.11

### 802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

### 2412MHz\_TX



EUT Y\_3TX  
Setting 18.5  
02-G-3  
FSU(100015)

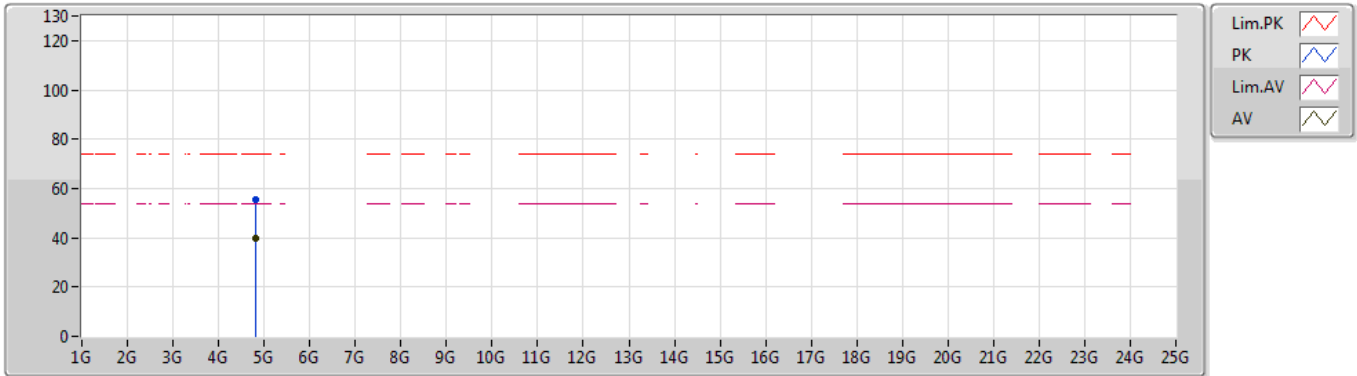
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.8219G	50.11	74.00	-23.89	7.16	3	Vertical	110	1.50	-	42.95
AV	4.82124G	36.12	54.00	-17.88	7.16	3	Vertical	110	1.50	-	28.96



802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2412MHz\_TX



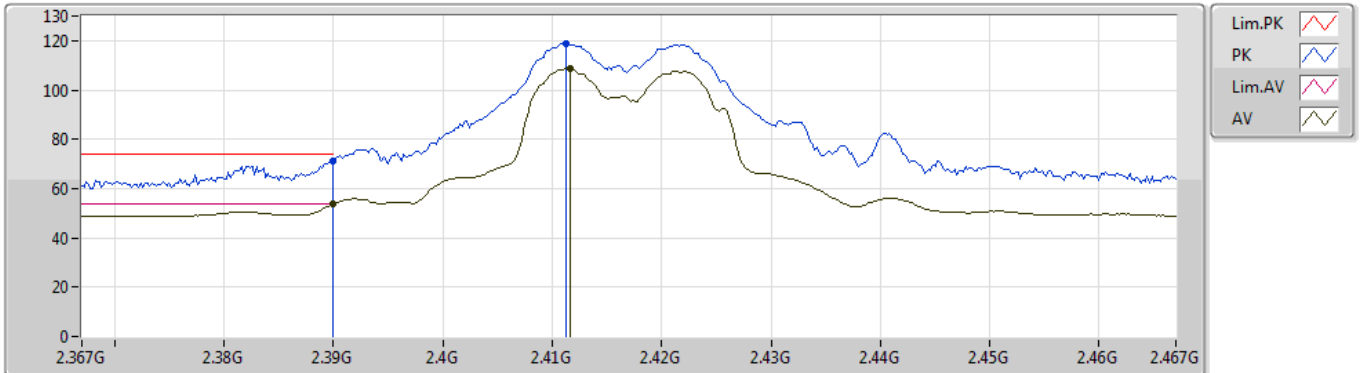
EUT Y\_3TX  
 Setting 18.5  
 02-G-3  
 FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.8222G	55.25	74.00	-18.75	7.16	3	Horizontal	217	1.50	-	48.09
AV	4.82154G	39.89	54.00	-14.11	7.16	3	Horizontal	217	1.50	-	32.73

802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2417MHz\_TX



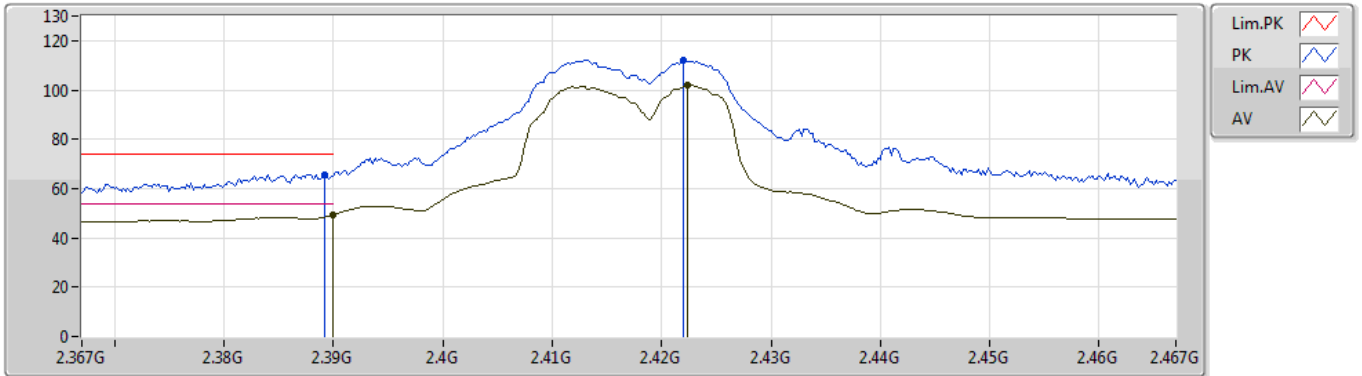
EUT Y\_3TX  
Setting 20.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.39G	71.09	74.00	-2.91	31.20	3	Vertical	342	2.32	-	39.89
AV	2.39G	53.86	54.00	-0.14	31.20	3	Vertical	342	2.32	-	22.66
PK	2.4112G	119.01	Inf	-Inf	31.25	3	Vertical	342	2.32	-	87.76
AV	2.4116G	108.53	Inf	-Inf	31.25	3	Vertical	342	2.32	-	77.28

802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2417MHz\_TX



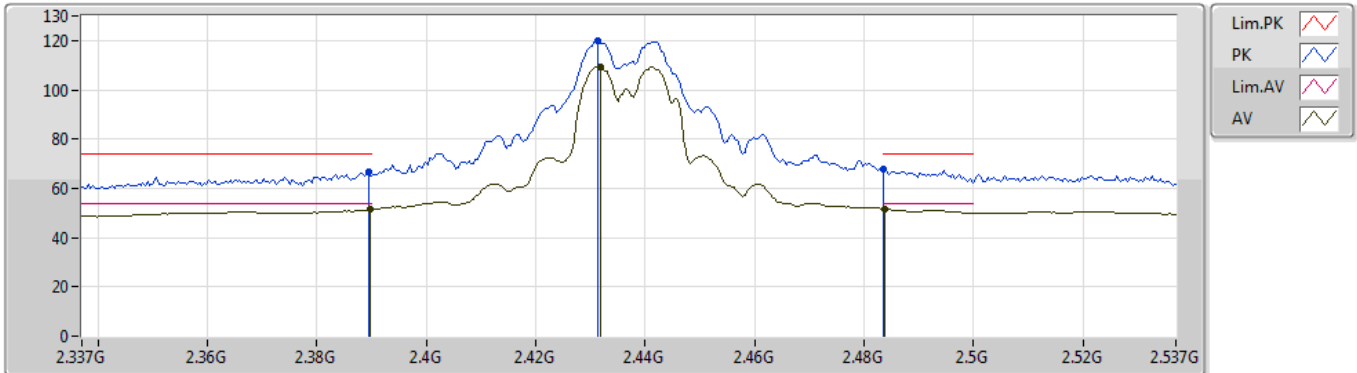
EUT Y\_3TX  
Setting 20.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3892G	65.82	74.00	-8.18	31.20	3	Horizontal	42	2.31	-	34.62
AV	2.39G	49.45	54.00	-4.55	31.20	3	Horizontal	42	2.31	-	18.25
PK	2.422G	111.84	Inf	-Inf	31.28	3	Horizontal	42	2.31	-	80.56
AV	2.4224G	101.83	Inf	-Inf	31.28	3	Horizontal	42	2.31	-	70.55

802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2437MHz\_TX



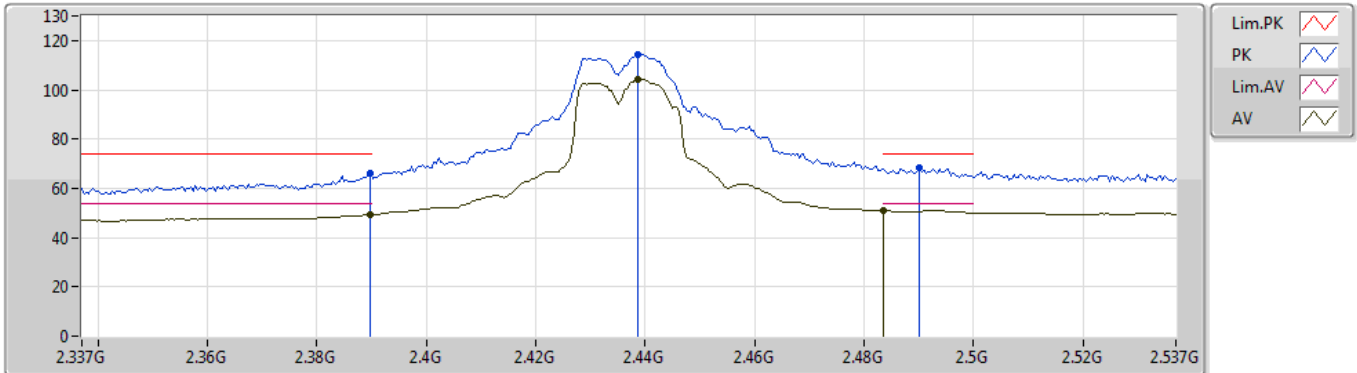
EUT Y\_3TX  
Setting 22.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3894G	66.92	74.00	-7.08	31.20	3	Vertical	357	2.36	-	35.72
AV	2.3898G	51.35	54.00	-2.65	31.20	3	Vertical	357	2.36	-	20.15
PK	2.4314G	119.81	Inf	-Inf	31.29	3	Vertical	357	2.36	-	88.52
AV	2.4318G	109.52	Inf	-Inf	31.29	3	Vertical	357	2.36	-	78.23
PK	2.4835G	68.01	74.00	-5.99	31.39	3	Vertical	357	2.36	-	36.62
AV	2.4838G	51.62	54.00	-2.38	31.39	3	Vertical	357	2.36	-	20.23

802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2437MHz\_TX



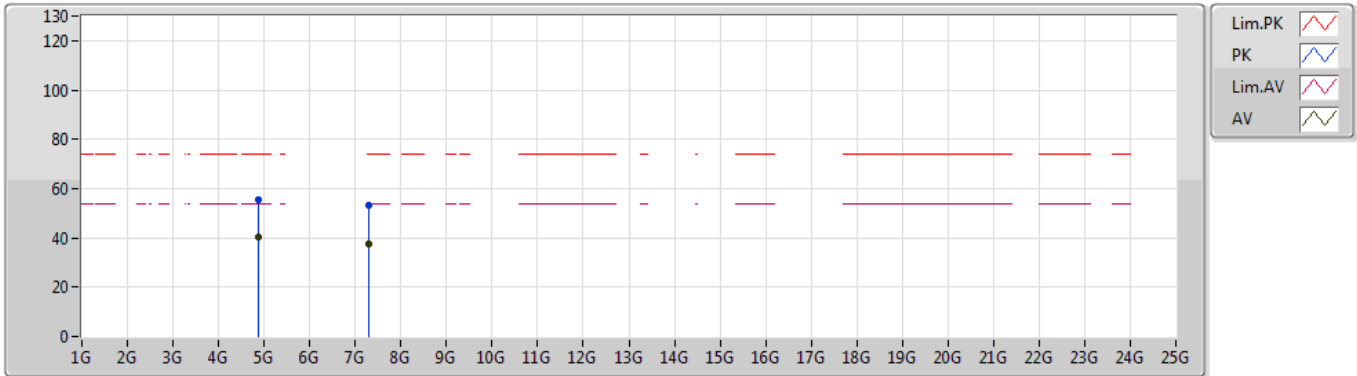
EUT\_Y\_3TX  
Setting 22.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3898G	66.07	74.00	-7.93	31.20	3	Horizontal	310	2.77	-	34.87
AV	2.3898G	49.30	54.00	-4.70	31.20	3	Horizontal	310	2.77	-	18.10
PK	2.4386G	114.30	Inf	-Inf	31.31	3	Horizontal	310	2.77	-	82.99
AV	2.4386G	104.24	Inf	-Inf	31.31	3	Horizontal	310	2.77	-	72.93
PK	2.4902G	68.17	74.00	-5.83	31.41	3	Horizontal	310	2.77	-	36.76
AV	2.4835G	50.91	54.00	-3.09	31.39	3	Horizontal	310	2.77	-	19.52

### 802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

### 2437MHz\_TX



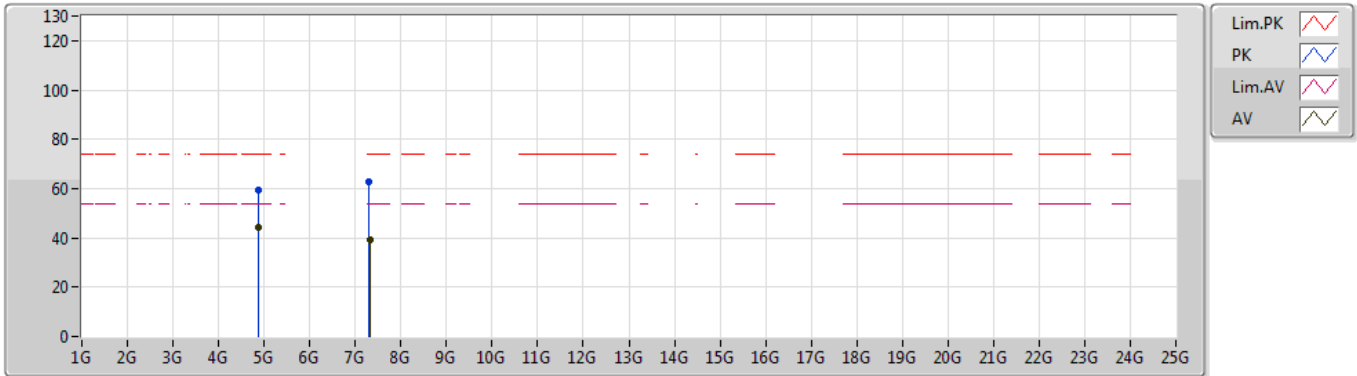
EUT Y\_3TX  
Setting 22.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.8719G	55.30	74.00	-18.70	7.28	3	Vertical	105	1.29	-	48.02
AV	4.87136G	40.44	54.00	-13.56	7.28	3	Vertical	105	1.29	-	33.16
PK	7.30698G	53.40	74.00	-20.60	10.55	3	Vertical	247	1.68	-	42.85
AV	7.3059G	37.34	54.00	-16.66	10.54	3	Vertical	247	1.68	-	26.80

### 802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

### 2437MHz\_TX



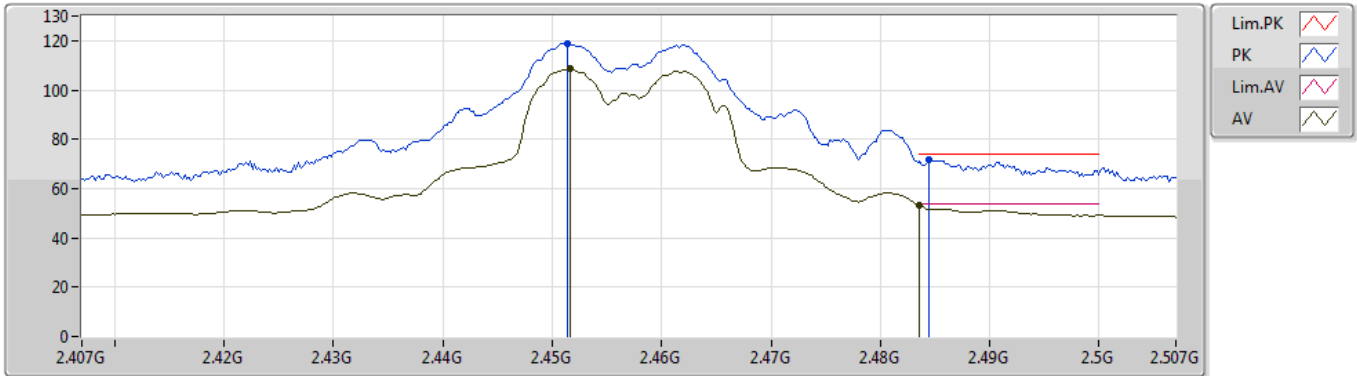
EUT Y\_3TX  
Setting 22.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.87214G	59.49	74.00	-14.51	7.28	3	Horizontal	210	1.57	-	52.21
AV	4.8713G	44.54	54.00	-9.46	7.28	3	Horizontal	210	1.57	-	37.26
PK	7.30878G	62.60	74.00	-11.40	10.54	3	Horizontal	183	1.50	-	52.06
AV	7.31154G	39.47	54.00	-14.53	10.55	3	Horizontal	183	1.50	-	28.92

802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2457MHz\_TX



EUT Y\_3TX  
Setting 20.5  
02-G-3  
FSU(100015)

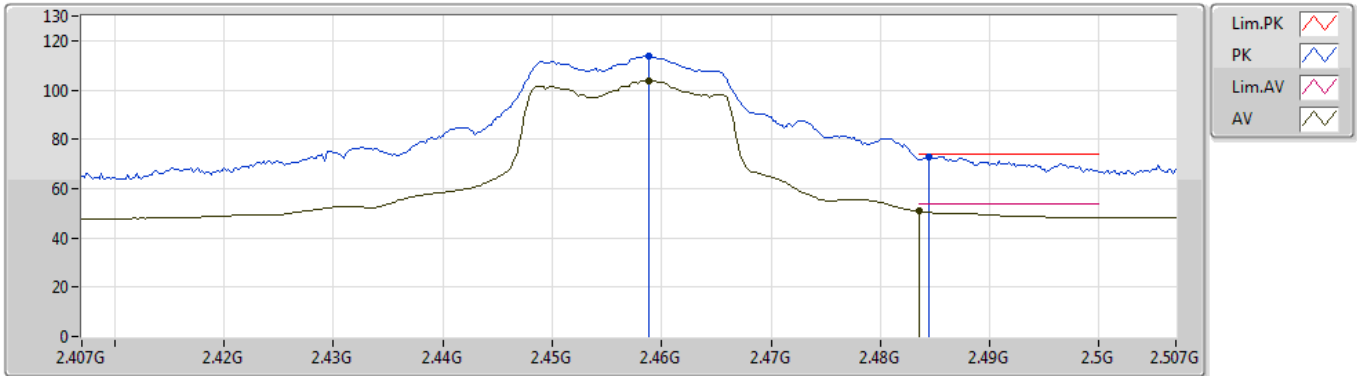
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.4514G	118.86	Inf	-Inf	31.33	3	Vertical	354	2.51	-	87.53
AV	2.4516G	108.48	Inf	-Inf	31.33	3	Vertical	354	2.51	-	77.15
PK	2.4844G	71.46	74.00	-2.54	31.40	3	Vertical	354	2.51	-	40.06
AV	2.4835G	53.31	54.00	-0.69	31.39	3	Vertical	354	2.51	-	21.92



802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2457MHz\_TX



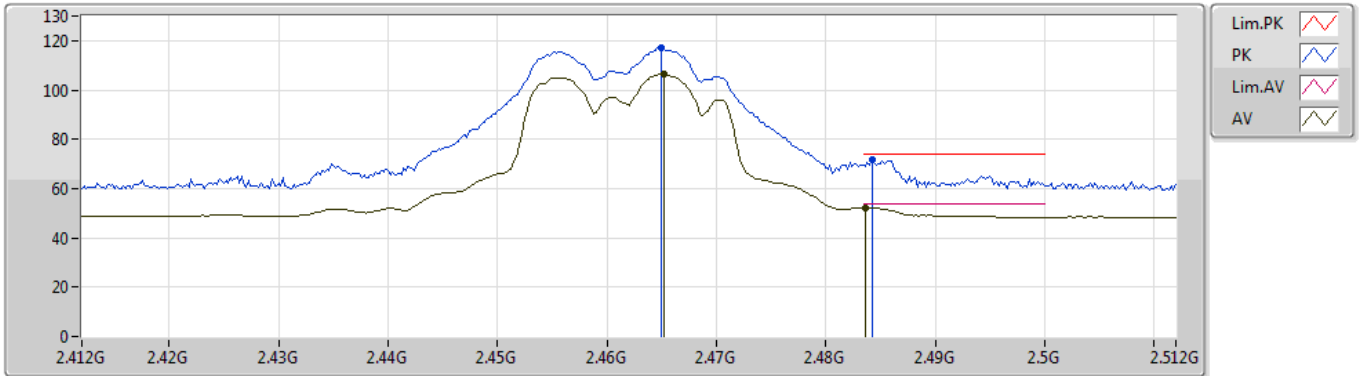
EUT Y\_3TX  
 Setting 20.5  
 02-G-3  
 FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.4588G	113.84	Inf	-Inf	31.34	3	Horizontal	311	2.09	-	82.50
AV	2.4588G	103.89	Inf	-Inf	31.34	3	Horizontal	311	2.09	-	72.55
PK	2.4844G	73.06	74.00	-0.94	31.40	3	Horizontal	311	2.09	-	41.66
AV	2.4835G	50.76	54.00	-3.24	31.39	3	Horizontal	311	2.09	-	19.37

802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

2462MHz\_TX



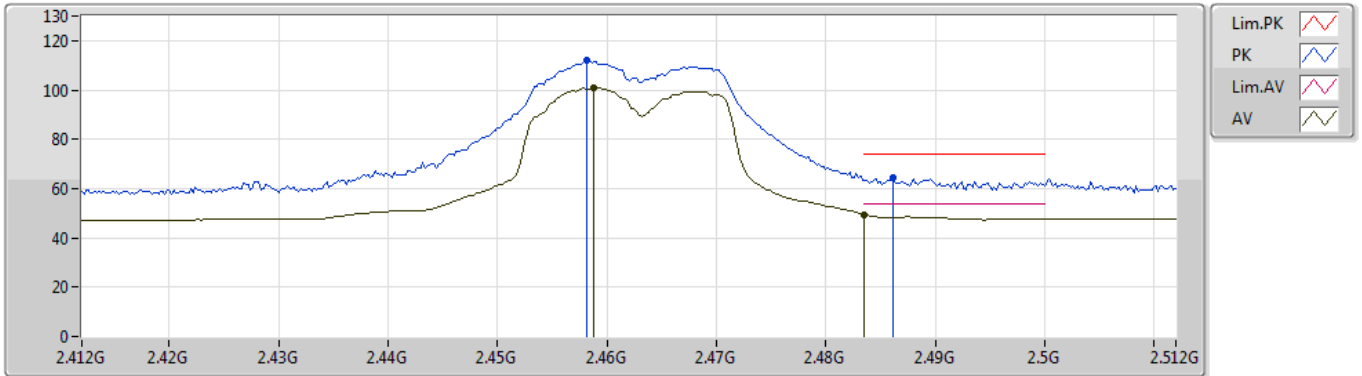
EUT Y\_3TX  
Setting 19  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.465G	116.92	Inf	-Inf	31.36	3	Vertical	9	1.75	-	85.56
AV	2.4652G	106.52	Inf	-Inf	31.36	3	Vertical	9	1.75	-	75.16
PK	2.4842G	71.84	74.00	-2.16	31.39	3	Vertical	9	1.75	-	40.45
AV	2.4836G	52.20	54.00	-1.80	31.39	3	Vertical	9	1.75	-	20.81

### 802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

### 2462MHz\_TX



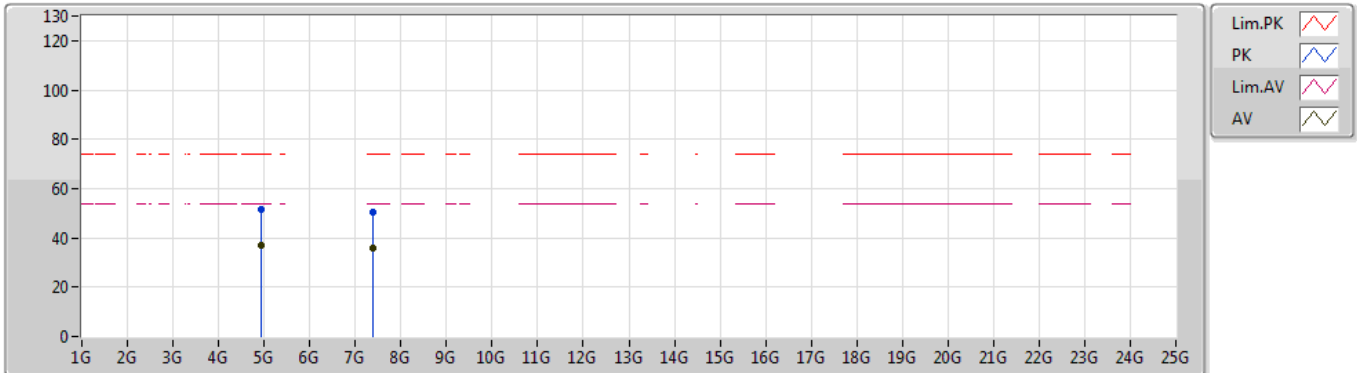
EUT Y\_3TX  
Setting 19  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.4582G	112.00	Inf	-Inf	31.34	3	Horizontal	31	2.50	-	80.66
AV	2.4588G	100.95	Inf	-Inf	31.34	3	Horizontal	31	2.50	-	69.61
PK	2.4862G	64.67	74.00	-9.33	31.40	3	Horizontal	31	2.50	-	33.27
AV	2.4835G	49.51	54.00	-4.49	31.39	3	Horizontal	31	2.50	-	18.12

### 802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

### 2462MHz\_TX



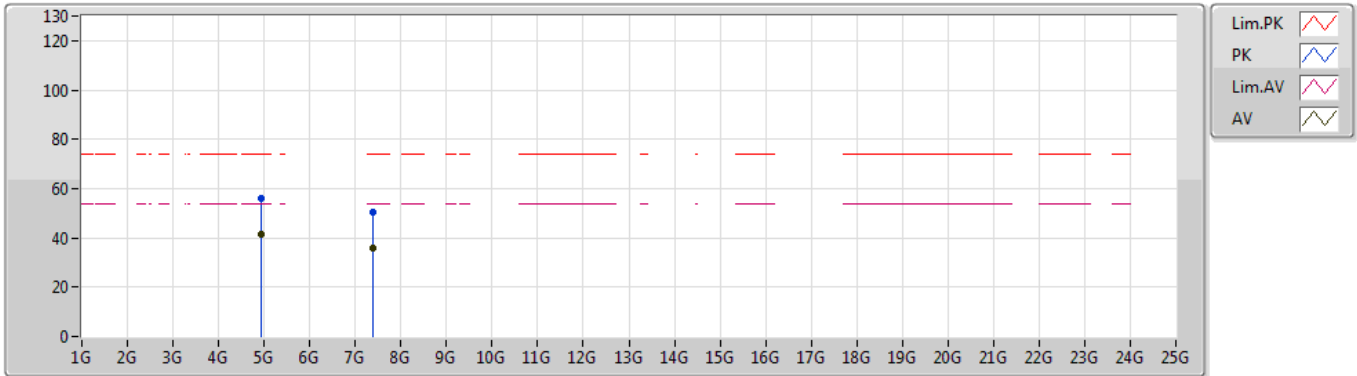
EUT Y\_3TX  
Setting 19  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.92652G	51.36	74.00	-22.64	7.42	3	Vertical	246	2.15	-	43.94
AV	4.92118G	36.85	54.00	-17.15	7.39	3	Vertical	246	2.15	-	29.46
PK	7.37616G	50.58	74.00	-23.42	10.73	3	Vertical	137	1.28	-	39.85
AV	7.38078G	35.86	54.00	-18.14	10.75	3	Vertical	137	1.28	-	25.11

### 802.11n HT20\_Nss1,(MCS0)\_3TX

30/10/2019

### 2462MHz\_TX



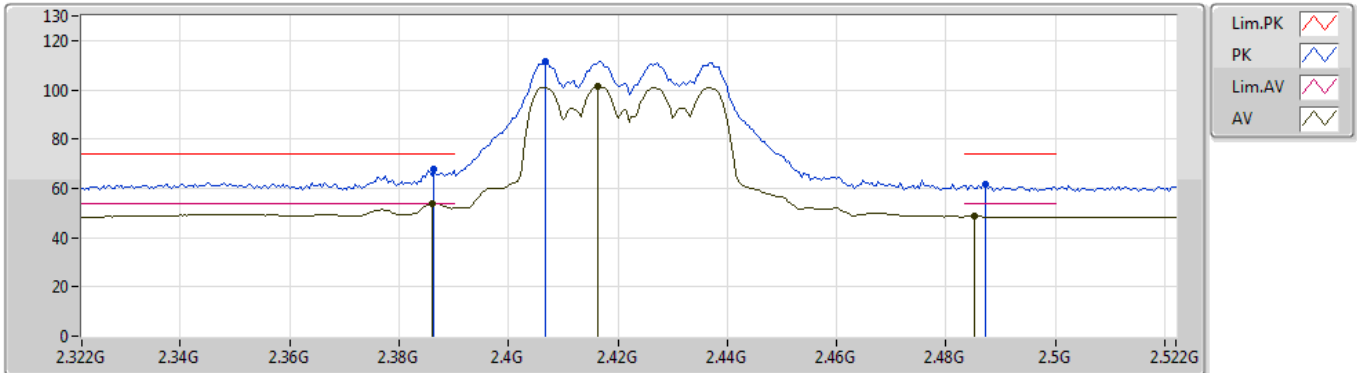
EUT Y\_3TX  
Setting 19  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.92202G	55.99	74.00	-18.01	7.39	3	Horizontal	66	1.52	-	48.60
AV	4.9213G	41.24	54.00	-12.76	7.39	3	Horizontal	66	1.52	-	33.85
PK	7.3737G	50.67	74.00	-23.33	10.73	3	Horizontal	70	1.71	-	39.94
AV	7.37598G	35.79	54.00	-18.21	10.73	3	Horizontal	70	1.71	-	25.06

802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

2422MHz\_TX



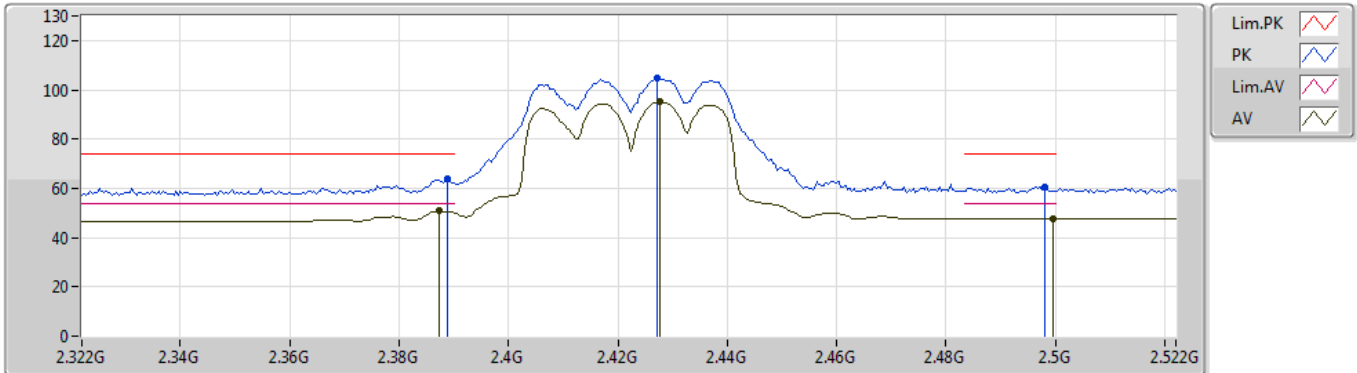
EUT Y\_3TX  
Setting 17.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3864G	67.71	74.00	-6.29	31.20	3	Vertical	335	2.56	-	36.51
AV	2.386G	53.92	54.00	-0.08	31.19	3	Vertical	335	2.56	-	22.73
PK	2.4068G	111.45	Inf	-Inf	31.24	3	Vertical	335	2.56	-	80.21
AV	2.4164G	101.66	Inf	-Inf	31.27	3	Vertical	335	2.56	-	70.39
PK	2.4872G	61.51	74.00	-12.49	31.40	3	Vertical	335	2.56	-	30.11
AV	2.4852G	48.63	54.00	-5.37	31.40	3	Vertical	335	2.56	-	17.23

802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

2422MHz\_TX



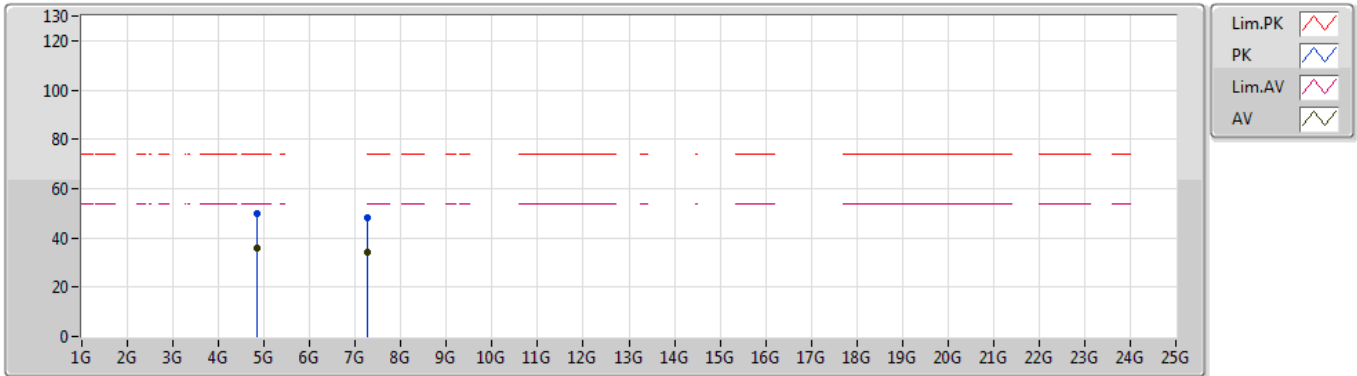
EUT\_Y\_3TX  
Setting 17.5  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3888G	63.66	74.00	-10.34	31.20	3	Horizontal	22	1.50	-	32.46
AV	2.3872G	50.86	54.00	-3.14	31.20	3	Horizontal	22	1.50	-	19.66
PK	2.4272G	104.58	Inf	-Inf	31.28	3	Horizontal	22	1.50	-	73.30
AV	2.4276G	95.14	Inf	-Inf	31.28	3	Horizontal	22	1.50	-	63.86
PK	2.498G	60.64	74.00	-13.36	31.43	3	Horizontal	22	1.50	-	29.21
AV	2.4996G	47.67	54.00	-6.33	31.43	3	Horizontal	22	1.50	-	16.24

### 802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

### 2422MHz\_TX



EUT Y\_3TX  
Setting 17.5  
02-G-3  
FSU(100015)

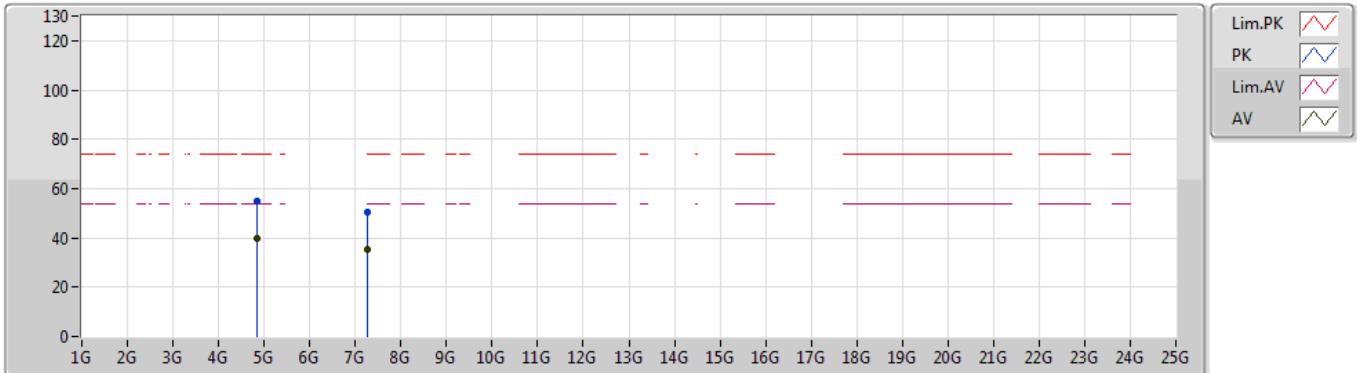
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.84166G	50.08	74.00	-23.92	7.21	3	Vertical	153	1.17	-	42.87
AV	4.84124G	35.66	54.00	-18.34	7.21	3	Vertical	153	1.17	-	28.45
PK	7.2705G	48.13	74.00	-25.87	10.42	3	Vertical	258	1.33	-	37.71
AV	7.26894G	34.13	54.00	-19.87	10.42	3	Vertical	258	1.33	-	23.71



### 802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

### 2422MHz\_TX



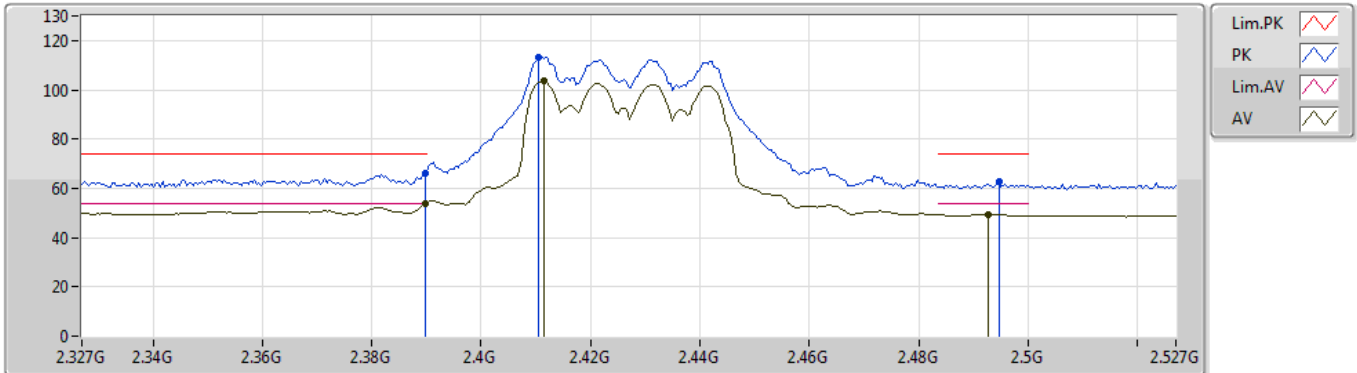
EUT Y\_3TX  
Setting 17.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.84322G	54.83	74.00	-19.17	7.21	3	Horizontal	128	2.10	-	47.62
AV	4.84124G	39.70	54.00	-14.30	7.21	3	Horizontal	128	2.10	-	32.49
PK	7.27692G	50.23	74.00	-23.77	10.45	3	Horizontal	301	2.26	-	39.78
AV	7.2666G	35.18	54.00	-18.82	10.40	3	Horizontal	301	2.26	-	24.78

802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

2427MHz\_TX



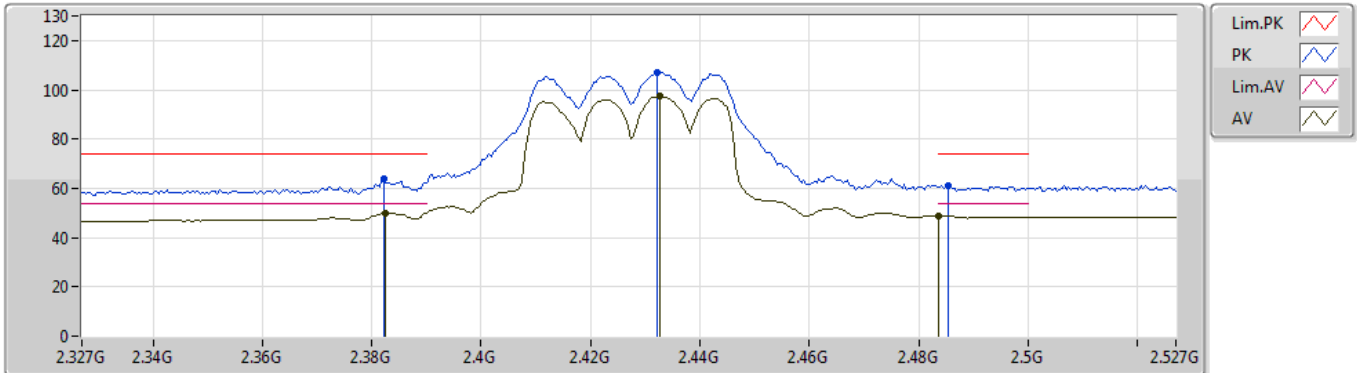
EUT Y\_3TX  
Setting 19  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3898G	66.31	74.00	-7.69	31.20	3	Vertical	8	2.31	-	35.11
AV	2.3898G	53.97	54.00	-0.03	31.20	3	Vertical	8	2.31	-	22.77
PK	2.4106G	113.44	Inf	-Inf	31.25	3	Vertical	8	2.31	-	82.19
AV	2.4114G	103.41	Inf	-Inf	31.25	3	Vertical	8	2.31	-	72.16
PK	2.4946G	62.70	74.00	-11.30	31.42	3	Vertical	8	2.31	-	31.28
AV	2.4926G	49.27	54.00	-4.73	31.42	3	Vertical	8	2.31	-	17.85

### 802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

### 2427MHz\_TX



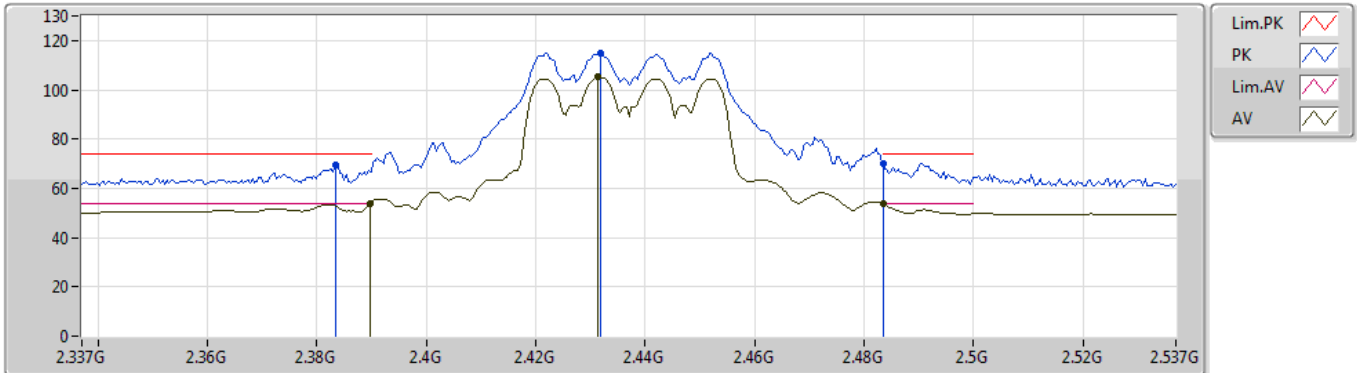
EUT\_Y\_3TX  
Setting 19  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3822G	63.72	74.00	-10.28	31.19	3	Horizontal	31	1.89	-	32.53
AV	2.3826G	49.80	54.00	-4.20	31.19	3	Horizontal	31	1.89	-	18.61
PK	2.4322G	106.95	Inf	-Inf	31.29	3	Horizontal	31	1.89	-	75.66
AV	2.4326G	97.43	Inf	-Inf	31.29	3	Horizontal	31	1.89	-	66.14
PK	2.4854G	61.12	74.00	-12.88	31.40	3	Horizontal	31	1.89	-	29.72
AV	2.4835G	48.81	54.00	-5.19	31.39	3	Horizontal	31	1.89	-	17.42

802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

2437MHz\_TX



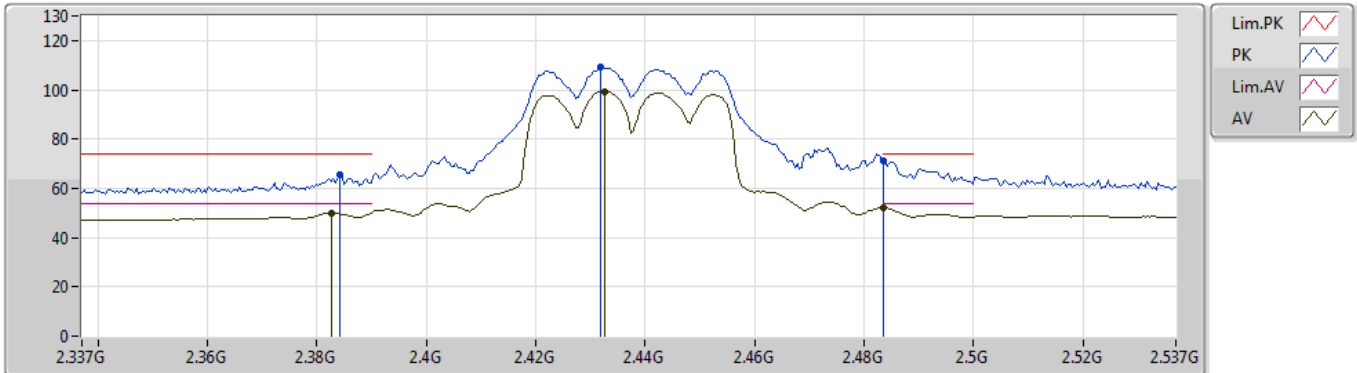
EUT\_Y\_3TX  
Setting 21  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3834G	69.46	74.00	-4.54	31.19	3	Vertical	323	2.53	-	38.27
AV	2.3898G	53.81	54.00	-0.19	31.20	3	Vertical	323	2.53	-	22.61
PK	2.4318G	115.10	Inf	-Inf	31.29	3	Vertical	323	2.53	-	83.81
AV	2.4314G	105.29	Inf	-Inf	31.29	3	Vertical	323	2.53	-	74.00
PK	2.4835G	70.16	74.00	-3.84	31.39	3	Vertical	323	2.53	-	38.77
AV	2.4835G	53.71	54.00	-0.29	31.39	3	Vertical	323	2.53	-	22.32

802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

2437MHz\_TX



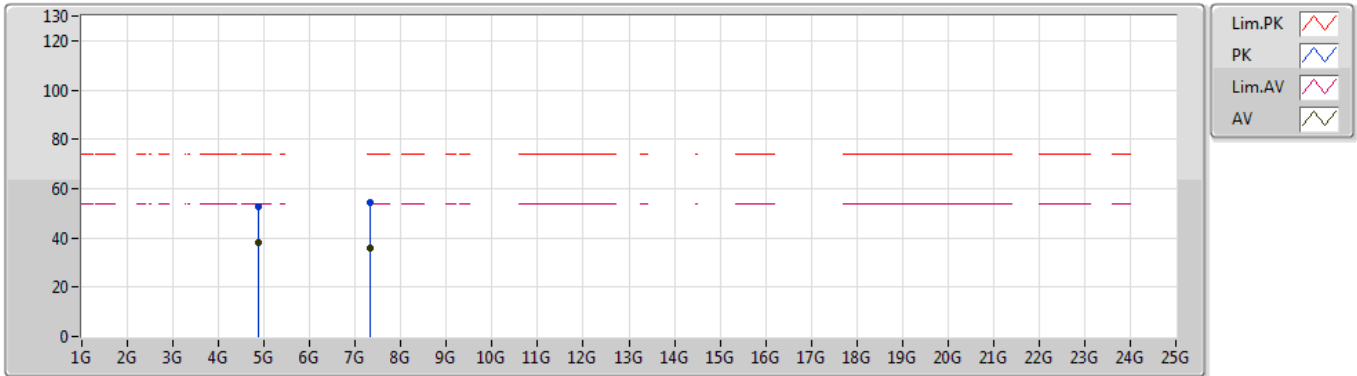
EUT Y\_3TX  
Setting 21  
02-E-2  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3842G	65.76	74.00	-8.24	31.19	3	Horizontal	28	1.89	-	34.57
AV	2.3826G	50.11	54.00	-3.89	31.19	3	Horizontal	28	1.89	-	18.92
PK	2.4318G	109.04	Inf	-Inf	31.29	3	Horizontal	28	1.89	-	77.75
AV	2.4326G	99.45	Inf	-Inf	31.29	3	Horizontal	28	1.89	-	68.16
PK	2.4835G	71.21	74.00	-2.79	31.39	3	Horizontal	28	1.89	-	39.82
AV	2.4835G	52.15	54.00	-1.85	31.39	3	Horizontal	28	1.89	-	20.76

### 802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

### 2437MHz\_TX



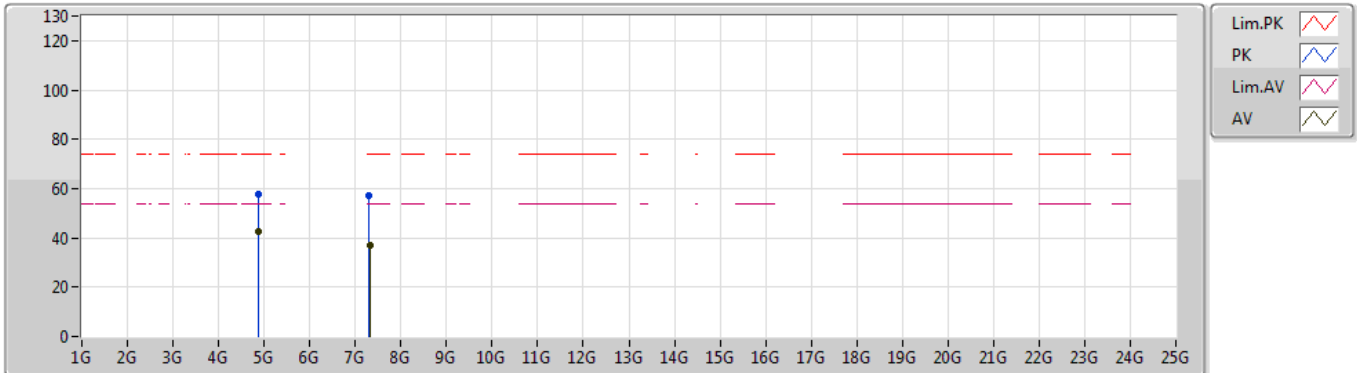
EUT Y\_3TX  
Setting 21  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.87052G	52.44	74.00	-21.56	7.27	3	Vertical	355	2.40	-	45.17
AV	4.87118G	38.33	54.00	-15.67	7.28	3	Vertical	355	2.40	-	31.05
PK	7.31496G	54.24	74.00	-19.76	10.56	3	Vertical	157	2.79	-	43.68
AV	7.3158G	35.81	54.00	-18.19	10.56	3	Vertical	157	2.79	-	25.25

### 802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

### 2437MHz\_TX



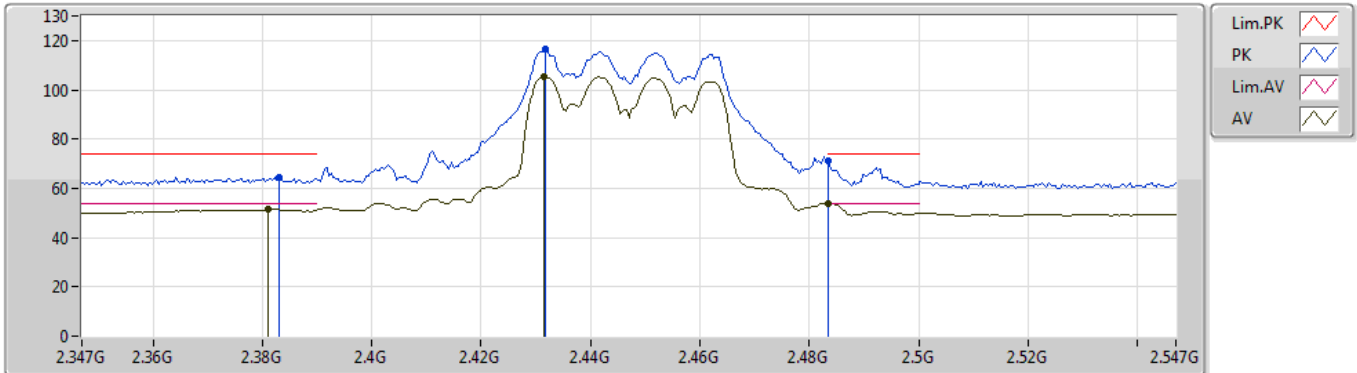
EUT Y\_3TX  
Setting 21  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.8731G	57.71	74.00	-16.29	7.28	3	Horizontal	307	2.20	-	50.43
AV	4.87124G	42.83	54.00	-11.17	7.28	3	Horizontal	307	2.20	-	35.55
PK	7.30884G	57.11	74.00	-16.89	10.54	3	Horizontal	187	1.53	-	46.57
AV	7.31154G	36.90	54.00	-17.10	10.55	3	Horizontal	187	1.53	-	26.35

802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

2447MHz\_TX



EUT Y\_3TX  
Setting 19.5  
02-G-3  
FSU(100015)

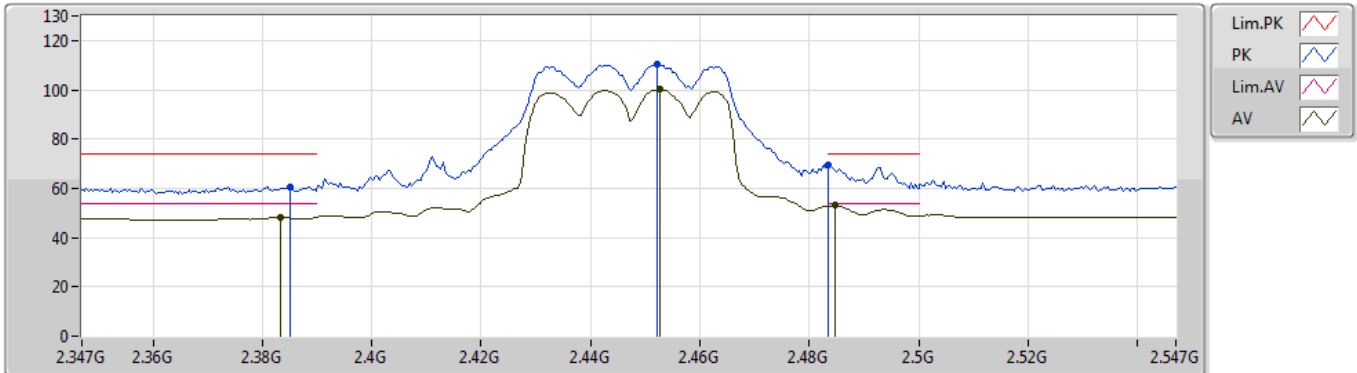
Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.383G	64.42	74.00	-9.58	31.19	3	Vertical	349	2.57	-	33.23
AV	2.381G	51.44	54.00	-2.56	31.19	3	Vertical	349	2.57	-	20.25
PK	2.4318G	116.32	Inf	-Inf	31.29	3	Vertical	349	2.57	-	85.03
AV	2.4314G	105.45	Inf	-Inf	31.29	3	Vertical	349	2.57	-	74.16
PK	2.4835G	71.30	74.00	-2.70	31.39	3	Vertical	349	2.57	-	39.91
AV	2.4835G	53.89	54.00	-0.11	31.39	3	Vertical	349	2.57	-	22.50



802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

2447MHz\_TX



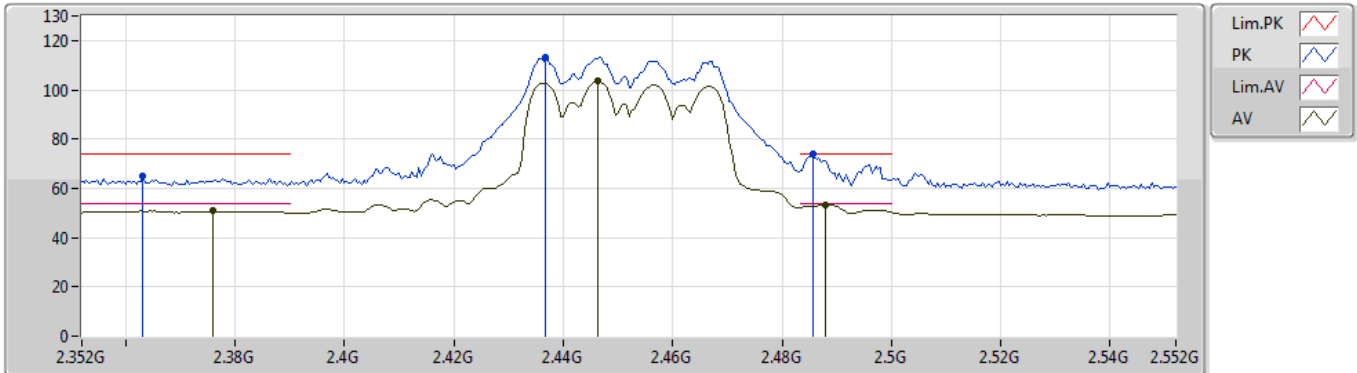
EUT Y\_3TX  
Setting 19.5  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.385G	60.61	74.00	-13.39	31.19	3	Horizontal	29	2.27	-	29.42
AV	2.3834G	48.11	54.00	-5.89	31.19	3	Horizontal	29	2.27	-	16.92
PK	2.4522G	110.41	Inf	-Inf	31.33	3	Horizontal	29	2.27	-	79.08
AV	2.4526G	100.23	Inf	-Inf	31.33	3	Horizontal	29	2.27	-	68.90
PK	2.4835G	69.50	74.00	-4.50	31.39	3	Horizontal	29	2.27	-	38.11
AV	2.4846G	53.04	54.00	-0.96	31.40	3	Horizontal	29	2.27	-	21.64

802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

2452MHz\_TX



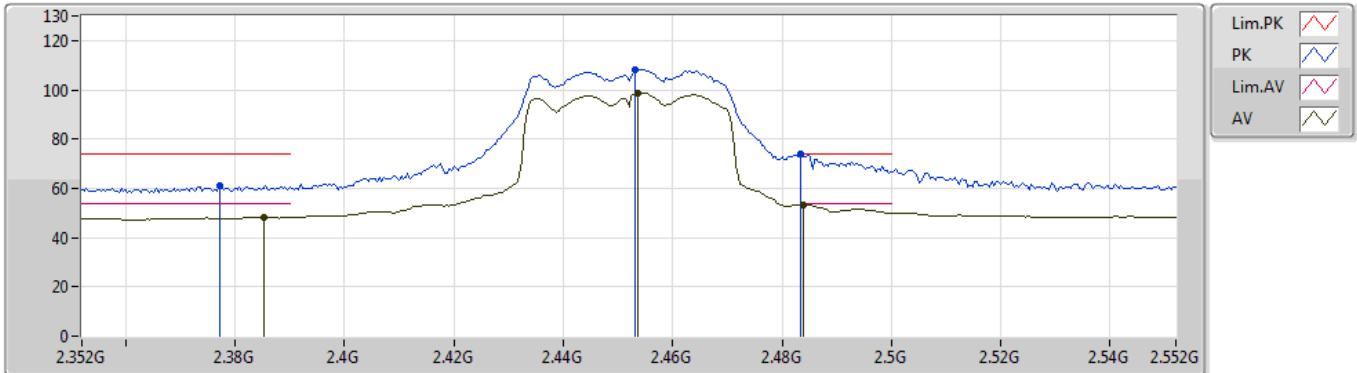
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Setting 19  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3632G	64.84	74.00	-9.16	31.13	3	Vertical	12	2.47	-	33.71
AV	2.376G	50.80	54.00	-3.20	31.17	3	Vertical	12	2.47	-	19.63
PK	2.4368G	112.95	Inf	-Inf	31.30	3	Vertical	12	2.47	-	81.65
AV	2.4464G	103.39	Inf	-Inf	31.32	3	Vertical	12	2.47	-	72.07
PK	2.4856G	73.84	74.00	-0.16	31.40	3	Vertical	12	2.47	-	42.44
AV	2.488G	53.51	54.00	-0.49	31.41	3	Vertical	12	2.47	-	22.10

### 802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

### 2452MHz\_TX



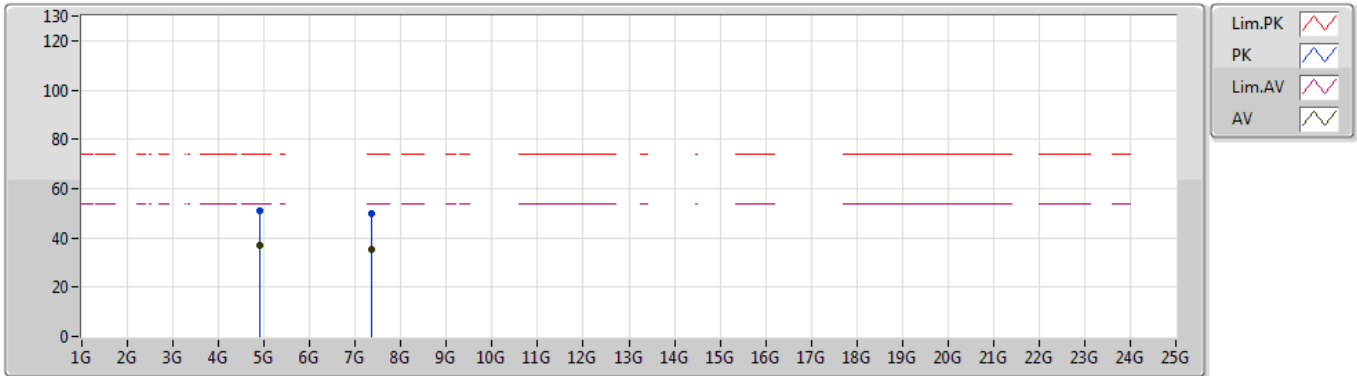
EUT\_Y\_3TX  
Setting 19  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	2.3772G	61.01	74.00	-12.99	31.17	3	Horizontal	295	1.88	-	29.84
AV	2.3852G	48.29	54.00	-5.71	31.19	3	Horizontal	295	1.88	-	17.10
PK	2.4532G	108.18	Inf	-Inf	31.34	3	Horizontal	295	1.88	-	76.84
AV	2.4536G	98.85	Inf	-Inf	31.34	3	Horizontal	295	1.88	-	67.51
PK	2.4835G	73.87	74.00	-0.13	31.39	3	Horizontal	295	1.88	-	42.48
AV	2.484G	53.28	54.00	-0.72	31.39	3	Horizontal	295	1.88	-	21.89

### 802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

### 2452MHz\_TX



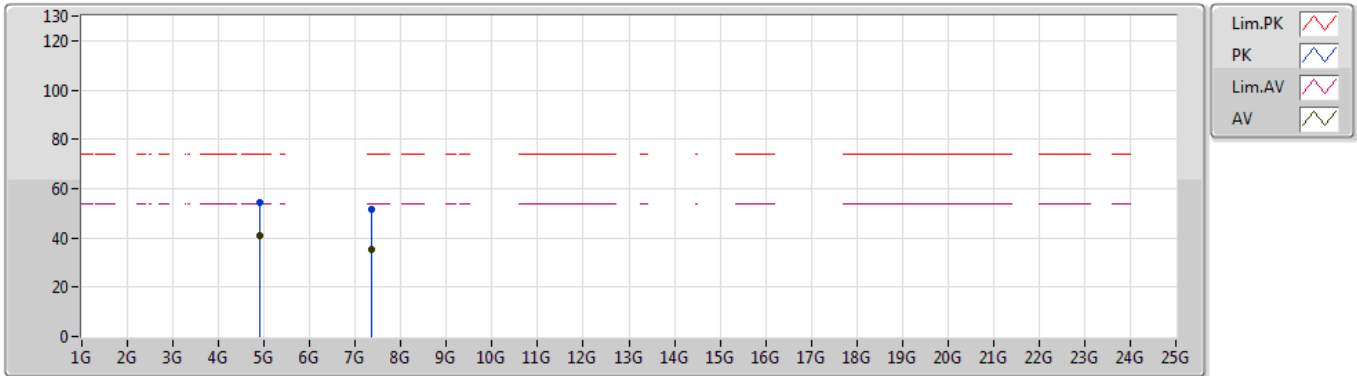
EUT Y\_3TX  
Setting 19  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.90076G	50.88	74.00	-23.12	7.35	3	Vertical	203	2.54	-	43.53
AV	4.90106G	37.05	54.00	-16.95	7.35	3	Vertical	203	2.54	-	29.70
PK	7.35132G	50.12	74.00	-23.88	10.66	3	Vertical	284	2.76	-	39.46
AV	7.36068G	35.11	54.00	-18.89	10.68	3	Vertical	284	2.76	-	24.43

### 802.11n HT40\_Nss1,(MCS0)\_3TX

30/10/2019

### 2452MHz\_TX



EUT Y\_3TX  
Setting 19  
02-G-3  
FSU(100015)

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)
PK	4.9031G	54.40	74.00	-19.60	7.36	3	Horizontal	111	2.91	-	47.04
AV	4.90094G	40.75	54.00	-13.25	7.35	3	Horizontal	111	2.91	-	33.40
PK	7.3584G	51.42	74.00	-22.58	10.68	3	Horizontal	32	2.08	-	40.74
AV	7.35726G	35.50	54.00	-18.50	10.69	3	Horizontal	32	2.08	-	24.81

